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

X Mail receipts

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II. Image Quality (Pages follow / No. of pages ____)

___ Resolution / Contrast

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

Cooler #: 100

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: IL0520
PROJECT NAME: F05-8909-034 /Case # 13329/
SAMPLERS: (Signature) Karen M Spangler

Supervisor 6825

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1L amber Extractable	40ml Vial VOA					REMARKS Tag	Low Conc Matrix
90FD05598	12/14/89	1120		✓	RW1	6	3	3					5-129137-42	H_2O
90FD06598	12/14/89	1120		✓	DUP	6	3	3					5-129145-50	H_2O
90FD06501	12/14/89	1115		✓	~~RW2~~ KMS RW3	6	3	3					5-072674-79	H_2O
~~90FD06502~~	~~12/ /89~~			✓	~~RW4~~	~~6~~	~~3~~	~~3~~	~~KMS~~	~~12/14/89~~			~~072682-87~~	~~H_2O~~

Lot #: IL: H9241073

40ml: ~~B9243123~~ KMS 12/14/89
B9269033

CRL TRACKING FORM IN COOLER #: E-E-V-13

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Karen M Spangler	12/14/89 1415	William Sanger Jr			
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) William Sanger Jr	Date / Time 12/15/89 4:22pm	Remarks Shipped Fed. Ex to: USEPA CRL Airbill: 1060851116 Custody Seals: 12573, 12574	

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

5-08464

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

Cooler #: E:E V-13

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: ILO520
PROJECT NAME: F05-8909-034 / Case # 13329 /
SAMPLERS: (Signature) Karen M Spangler

Supp'd 6825

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1L Amber Extractable	40 ml Vial VOA						REMARKS Tag	Low Conc Matrix
90FD059A	12/14/89	1100		✓	RW2 + MSD	16	8	8						5-089433-48	H_2O
90FD01RL0	12/14/89	1145		✓	Blank	6	3	3						5-072690-95	H_2O

Lot #:
1L: H9205303 RW2+MSD
H9241073 BLK

40ml: ~~C9243113~~ KMS 12/14/89
B9269033

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Karen M Spangler	12/14/89 1415	William Sangster			
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) William Sangster	Date / Time 12/15/89 4:22pm	Remarks: Shipped Fed Ex to: USEPA CRL Airbill: 1060851116 Custody Seals: 12575, 12576	

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

5-08465

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

Cooler #: E&E-V
240

CHAIN OF CUSTODY RECORD

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

PROJ. NO.: IL0520
PROJECT NAME: F05-8909-034 / Case # 13329
SAMPLERS: (Signature) Karen M Spangler

Supervisor 6825

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1L amber Extractable	40 ml vial VOA					REMARKS TAG	Low Conc Matrix
90FD06502	12/14/89	1230		✓	RW4	6	3	3					5-072682-87	WATER
90FD06503	12/14/89	1200		✓	RW5	6	3	3					5-072698, 699, 700	WATER
													5-144499, 500; 5-115699	
													LOT #:	
													1L: H9205303	
													40ml: B9269033	
													~~40ml: B9243123~~ RMS 12/14/89	
					CRL TRACKING FORM W/ COOLER #:								E&E V-13	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Karen M Spangler	12/14/89 1415	William Sanger Jr.			
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) William Sanger Jr.	Date / Time 12/15/89 4:22pm	Remarks Shipped FedEx to: USEPA CRL Airbill: 1060851116 Custody Seals: 12579, 12580	

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

5-09217

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

TFA302

DIVISION/BRANCH Superfund FIT SAMPLE DATE 12/14/89 LAB ARRIVAL DATE 12/15/89 DUE DATE 1/5/90

DU NUMBER TFA [redacted] DATA SET NUMBER 6825 STUDY Duke Grant Drum Site 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
90FD05S98	RW1 5-129140-2	X	X		
90FD05S99	MSD/RW2 5-089441-8	X	X		
90FD06S01	RW3 5-072677-9	X	X		
↓ 02	RW4 5-072685-7	X	X		
90FD06S03	RW5 5-115699 5-114499-500	X	X		
90FD05D98	DUPLICATE 5-129148-150	X	X		
90FD01R60	BLANK 5-072693-95	X	X		
90FD05S98	RW1 5-129137		X		
90FD05D98	DUPLICATE 5-129145		X		
90FD05S99	RW2/MSD 5-089433-35		X		
90FD06S01	RW3 5-072674		X		
90FD06S02	RW4 5-072682		X		
90FD06S03	RW5 5-072698		X		
90FD01R60	BLANK 5-072690		X		

SUPERFUND FIT

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

TFA302

DIVISION/BRANCH FIT SAMPLE DATE 12/14/89 LAB ARRIVAL DATE 12/15/89 DUE DATE 1/5/90

DU NUMBER TFA[redacted] DATA SET NUMBER 6825 STUDY Duke Ernest Drum Site 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
90FD05 S98	RW1 5-129138-9		X	X		
90FD05 S99	MSD/RW2 5-089436-40		X	X		
90FD06 S01	RW3 5-072675-6		X	X		
02	RW4 5-072683-4		X	X		
90FD06 S03	RW5 5-072699 5-072700		X	X		
90FD05 D98	DUPLICATE 5-129146-147		X	X		
90FD01 R60	BLANK 5-072691-692		X	X		

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: JAN 10 1990

SUBJECT: Review of Region 5 data for Duke Forest Dump Site

FROM: Curtis Ross, Director
Region 5 Central Regional Laboratory

To: Data User:

Attached are the results for:

CRL Data Set Numbers: SF6825
Sample Numbers: 90FD05598-9, 90FD06501-3, D98, 90FD01R60(7)
Parameter(s): ABN/WATER
Laboratory: CRL/WESTON KSAT

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,~~ David A. 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)

TRANSMITTED BY
JAN 10 1990
U.S. EPA CENTRAL REGIONAL LAB

RECEIVED BY/DATE: _____

Comments:

DATA SET	SITE	OU/ACT.
SF6825	Duke Forest Drum Site	TFA302

SAMPLES	PARAMETER(S)
*	ABN/WATER

SAMPLED	RECEIVED	DUE	LAB
12/14/89	12/15/89	1/5/90	CRL/WESTON ESAT

SHIPPED	DATA RECEIVED	CONTRACT

TEAM LEADER	SECTION CHIEF	QC COORD.	DATA COORD.
[illegible]			

* 90F005598-9, 90F006501-3, 90F001R60, 098

Comments By Reviewer:

THE DATA ARE ACCEPTABLE FOR USE.

DATA MANAGEMENT COORDINATOR

RECEIVED	TRANSMITTED	
(✓) REVIEWED	( ) UNREVIEWED	TEAM LEADER/DATE [illegible] 1/4/90
( ) REVIEWED	( ) UNREVIEWED	SECTION CHIEF/DATE
( ) REVIEWED	( ) UNREVIEWED	QC COORDINATOR/DATE

CLERICAL SUPPORT

RECEIVED	COMPLETED

REVIEWED BY CONTRACT COORDINATOR/DATE

RECEIVED	TRANSMITTED	DATA MANAGEMENT COORDINATOR
1-10-90	1-10-90	[illegible]

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

METH BLNK

Lab Name:5SCRL US EPA 312/353-9065 Contract:ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: METH BLNK

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK415

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted:12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/29/89

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q	
108-95-2	Phenol	2.	U	
111-44-4	bis(2-Chloroethyl)Ether	2.	U	
95-57-8	2-Chlorophenol	2.	U	
541-73-1	1,3-Dichlorobenzene	2.	U	
106-46-7	1,4-Dichlorobenzene	2.	U	
100-51-6	Benzyl alcohol	2.	U	
95-50-1	1,2-Dichlorobenzene	3.	U	
95-48-7	2-Methylphenol	1.	U	
39638-32-9	bis(2-chloroisopropyl)ether	3.	U	
106-44-5	4-Methylphenol	1.	U	
621-64-7	N-Nitroso-Di-n-propylamine	2.	U	X
67-72-1	Hexachloroethane	2.	U	
98-95-3	Nitrobenzene	3.	U	
78-59-1	Isophorone	3.	U	
88-75-5	2-Nitrophenol	2.	U	
105-67-9	2,4-Dimethylphenol	2.	U	
65-85-0	Benzoic acid	30.	U	
111-91-1	bis(2-Chloroethoxy)methane	3.	U	
120-83-2	2,4-Dichlorophenol	2.	U	
120-82-1	1,2,4-Trichlorobenzene	2.	U	
91-20-3	Naphthalene	2.	U	
106-47-8	4-Chloroaniline	2.	U	
87-68-3	Hexachlorobutadiene	2.	U	
59-50-7	4-Chloro-3-methylphenol	2.	U	
91-57-6	2-Methylnaphthalene	2.	U	
77-47-4	Hexachlorocyclopentadiene	2.	U	
88-06-2	2,4,6-Trichlorophenol	2.	U	
95-95-4	2,4,5-Trichlorophenol	2.	U	
91-58-7	2-Chloronaphthalene	2.	U	
88-74-4	2-Nitroaniline	3.	U	
131-11-3	Dimethylphthalate	2.	U	
208-96-8	Acenaphthylene	2.	U	
606-20-2	2,6-Dinitrotoluene	1.	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

METH BLNK

Lab Name:5SCRL US EPA 312/353-9065 Contract:ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: METH BLNK

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK415

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted:12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/29/89

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1.	U
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[/] NO[ ]

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

METH BLNK

Lab Name: 5SCRL US EPA 312/353-9065 Contract: ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: METH BLNK

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK415

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted: 12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/29/89

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	7.29	41.	
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD05S98

Lab Name: 5SCRL US EPA 312/353-9065 Contract: ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S98

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK416

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted: 12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q	
108-95-2	Phenol	2.	U	
111-44-4	bis(2-Chloroethyl)Ether	2.	U	
95-57-8	2-Chlorophenol	2.	U	
541-73-1	1,3-Dichlorobenzene	2.	U	
106-46-7	1,4-Dichlorobenzene	2.	U	
100-51-6	Benzyl alcohol	2.	U	
95-50-1	1,2-Dichlorobenzene	3.	U	
95-48-7	2-Methylphenol	1.	U	
39638-32-9	bis(2-chloroisopropyl)ether	3.	U	
106-44-5	4-Methylphenol	1.	U	
621-64-7	N-Nitroso-Di-n-propylamine	2.	U	X
67-72-1	Hexachloroethane	2.	U	
98-95-3	Nitrobenzene	3.	U	
78-59-1	Isophorone	3.	U	
88-75-5	2-Nitrophenol	2.	U	
105-67-9	2,4-Dimethylphenol	2.	U	
65-85-0	Benzoic acid	30.	U	
111-91-1	bis(2-Chloroethoxy)methane	3.	U	
120-83-2	2,4-Dichlorophenol	2.	U	
120-82-1	1,2,4-Trichlorobenzene	2.	U	
91-20-3	Naphthalene	2.	U	
106-47-8	4-Chloroaniline	2.	U	
87-68-3	Hexachlorobutadiene	2.	U	
59-50-7	4-Chloro-3-methylphenol	2.	U	
91-57-6	2-Methylnaphthalene	2.	U	
77-47-4	Hexachlorocyclopentadiene	2.	U	
88-06-2	2,4,6-Trichlorophenol	2.	U	
95-95-4	2,4,5-Trichlorophenol	2.	U	
91-58-7	2-Chloronaphthalene	2.	U	
88-74-4	2-Nitroaniline	3.	U	
131-11-3	Dimethylphthalate	2.	U	
208-96-8	Acenaphthylene	2.	U	
606-20-2	2,6-Dinitrotoluene	1.	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD05S98

Lab Name:5SCRL US EPA 312/353-9065 Contract:ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S98

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK416

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted:12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1.	U
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[X]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD05D98

Lab Name: SCRL US EPA 312/353-9065 Contract: ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FD05D98

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK417

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted: 12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	U
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	2.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	30.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	2.	U
59-50-7	4-Chloro-3-methylphenol	2.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	U
95-95-4	2,4,5-Trichlorophenol	2.	U
91-58-7	2-Chloronaphthalene	2.	U
88-74-4	2-Nitroaniline	2.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	2.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD05D98

Lab Name: RSCRL US EPA 312/353-9065 Contract: ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FD05D98

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK417

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted: 12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1.	U
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[X]

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD05S99

Lab Name: SCRL US EPA 312/353-9065 Contract: ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S99

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK418

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted: 12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-95-2	Phenol	2.	U	
111-44-4	bis(2-Chloroethyl)Ether	2.	U	
95-57-8	2-Chlorophenol	2.	U	
541-73-1	1,3-Dichlorobenzene	2.	U	
106-46-7	1,4-Dichlorobenzene	2.	U	
100-51-6	Benzyl alcohol	2.	U	
95-50-1	1,2-Dichlorobenzene	3.	U	
95-48-7	2-Methylphenol	1.	U	
39638-32-9	bis(2-chloroisopropyl)ether	3.	U	
106-44-5	4-Methylphenol	1.	U	
621-64-7	N-Nitroso-Di-n-propylamine	2.	U	X
67-72-1	Hexachloroethane	2.	U	
98-95-3	Nitrobenzene	3.	U	
78-59-1	Isophorone	3.	U	X
88-75-5	2-Nitrophenol	2.	U	
105-67-9	2,4-Dimethylphenol	2.	U	
65-85-0	Benzoic acid	30.	U	
111-91-1	bis(2-Chloroethoxy)methane	3.	U	
120-83-2	2,4-Dichlorophenol	2.	U	
120-82-1	1,2,4-Trichlorobenzene	2.	U	
91-20-3	Naphthalene	2.	U	
106-47-8	4-Chloroaniline	2.	U	
87-68-3	Hexachlorobutadiene	2.	U	
59-50-7	4-Chloro-3-methylphenol	2.	U	
91-57-6	2-Methylnaphthalene	2.	U	
77-47-4	Hexachlorocyclopentadiene	2.	U	
88-06-2	2,4,6-Trichlorophenol	2.	U	
95-95-4	2,4,5-Trichlorophenol	2.	U	
91-58-7	2-Chloronaphthalene	2.	U	
88-74-4	2-Nitroaniline	3.	U	
131-11-3	Dimethylphthalate	2.	U	
208-96-8	Acenaphthylene	2.	U	
606-20-2	2,6-Dinitrotoluene	1.	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD05S99

Lab Name: 5SCRL US EPA 312/353-9065 Contract: ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S99

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK418

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted: 12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1.	U
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[✓]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD06S01

Lab Name:5SCRL US EPA 312/353-9065 Contract:ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S01

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK421

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted:12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q	
108-95-2	Phenol	2.	IU	
111-44-4	bis(2-Chloroethyl)Ether	2.	IU	
95-57-8	2-Chlorophenol	2.	IU	
541-73-1	1,3-Dichlorobenzene	2.	IU	
106-46-7	1,4-Dichlorobenzene	2.	IU	
100-51-6	Benzyl alcohol	2.	IU	
95-50-1	1,2-Dichlorobenzene	3.	IU	
95-48-7	2-Methylphenol	1.	IU	
39638-32-9	bis(2-chloroisopropyl)ether	3.	IU	
106-44-5	4-Methylphenol	1.	IU	
621-64-7	N-Nitroso-Di-n-propylamine	2.	IU	X
67-72-1	Hexachloroethane	2.	IU	
98-95-3	Nitrobenzene	3.	IU	
78-59-1	Isophorone	3.	IU	
88-75-5	2-Nitrophenol	2.	IU	
105-67-9	2,4-Dimethylphenol	2.	IU	
65-85-0	Benzoic acid	30.	IU	
111-91-1	bis(2-Chloroethoxy)methane	3.	IU	
120-83-2	2,4-Dichlorophenol	2.	IU	
120-82-1	1,2,4-Trichlorobenzene	2.	IU	
91-20-3	Naphthalene	2.	IU	
106-47-8	4-Chloroaniline	2.	IU	
87-68-3	Hexachlorobutadiene	2.	IU	
59-50-7	4-Chloro-3-methylphenol	2.	IU	
91-57-6	2-Methylnaphthalene	2.	IU	
77-47-4	Hexachlorocyclopentadiene	2.	IU	
88-06-2	2,4,6-Trichlorophenol	2.	IU	
95-95-4	2,4,5-Trichlorophenol	2.	IU	
91-58-7	2-Chloronaphthalene	2.	IU	
88-74-4	2-Nitroaniline	3.	IU	
131-11-3	Dimethylphthalate	2.	IU	
208-96-8	Acenaphthylene	2.	IU	
606-20-2	2,6-Dinitrotoluene	1.	IU	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD06S01

Lab Name: SCRL US EPA 312/353-9065 Contract: ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S01

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK421

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted: 12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1.	U
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[X]

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD06S02

Lab Name:5SCRL US EPA 312/353-9065 Contract:ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S02

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK422

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted:12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	U
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	2.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	30.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	2.	U
59-50-7	4-Chloro-3-methylphenol	2.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	U
95-95-4	2,4,5-Trichlorophenol	2.	U
91-58-7	2-Chloronaphthalene	2.	U
88-74-4	2-Nitroaniline	3.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD06S02

Lab Name: SCRL US EPA 312/353-9065 Contract: ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S02

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK422

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted: 12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U X
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1.	U
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[X]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD06S03

Lab Name:5SCRL US EPA 312/353-9065 Contract:ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S03

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK423

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted:12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-95-2	Phenol	2.	U	
111-44-4	bis(2-Chloroethyl)Ether	2.	U	
95-57-8	2-Chlorophenol	2.	U	
541-73-1	1,3-Dichlorobenzene	2.	U	
106-46-7	1,4-Dichlorobenzene	2.	U	
100-51-6	Benzyl alcohol	2.	U	
95-50-1	1,2-Dichlorobenzene	3.	U	
95-48-7	2-Methylphenol	1.	U	
39638-32-9	bis(2-chloroisopropyl)ether	3.	U	
106-44-5	4-Methylphenol	1.	U	
621-64-7	N-Nitroso-Di-n-propylamine	2.	U	X
67-72-1	Hexachloroethane	2.	U	
98-95-3	Nitrobenzene	3.	U	
78-59-1	Isophorone	3.	U	
88-75-5	2-Nitrophenol	2.	U	
105-67-9	2,4-Dimethylphenol	2.	U	
65-85-0	Benzoic acid	30.	U	
111-91-1	bis(2-Chloroethoxy)methane	3.	U	
120-83-2	2,4-Dichlorophenol	2.	U	
120-82-1	1,2,4-Trichlorobenzene	2.	U	
91-20-3	Naphthalene	2.	U	
106-47-8	4-Chloroaniline	2.	U	
87-68-3	Hexachlorobutadiene	2.	U	
59-50-7	4-Chloro-3-methylphenol	2.	U	
91-57-6	2-Methylnaphthalene	2.	U	
77-47-4	Hexachlorocyclopentadiene	2.	U	
88-06-2	2,4,6-Trichlorophenol	2.	U	
95-95-4	2,4,5-Trichlorophenol	2.	U	
91-58-7	2-Chloronaphthalene	2.	U	
88-74-4	2-Nitroaniline	3.	U	
131-11-3	Dimethylphthalate	2.	U	
208-96-8	Acenaphthylene	2.	U	
606-20-2	2,6-Dinitrotoluene	1.	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD06S03

Lab Name:5SCRL US EPA 312/353-9065 Contract:ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S03

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK423

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted:12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1.	U
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[✓]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD01R60

Lab Name: 5SCRL US EPA 312/353-9065 Contract: ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FD01R60

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK424

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted: 12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-95-2	Phenol	2.	U	
111-44-4	bis(2-Chloroethyl)Ether	2.	U	
95-57-8	2-Chlorophenol	2.	U	
541-73-1	1,3-Dichlorobenzene	2.	U	
106-46-7	1,4-Dichlorobenzene	2.	U	
100-51-6	Benzyl alcohol	2.	U	
95-50-1	1,2-Dichlorobenzene	3.	U	
95-48-7	2-Methylphenol	1.	U	
39638-32-9	bis(2-chloroisopropyl)ether	3.	U	
106-44-5	4-Methylphenol	1.	U	
621-64-7	N-Nitroso-Di-n-propylamine	2.	U	X
67-72-1	Hexachloroethane	2.	U	
98-95-3	Nitrobenzene	3.	U	
78-59-1	Isophorone	3.	U	
88-75-5	2-Nitrophenol	2.	U	
105-67-9	2,4-Dimethylphenol	2.	U	
65-85-0	Benzoic acid	30.	U	
111-91-1	bis(2-Chloroethoxy)methane	3.	U	
120-83-2	2,4-Dichlorophenol	2.	U	
120-82-1	1,2,4-Trichlorobenzene	2.	U	
91-20-3	Naphthalene	2.	U	
106-47-8	4-Chloroaniline	2.	U	
87-68-3	Hexachlorobutadiene	2.	U	
59-50-7	4-Chloro-3-methylphenol	2.	U	
91-57-6	2-Methylnaphthalene	2.	U	
77-47-4	Hexachlorocyclopentadiene	2.	U	
88-06-2	2,4,6-Trichlorophenol	2.	U	
95-95-4	2,4,5-Trichlorophenol	2.	U	
91-58-7	2-Chloronaphthalene	2.	U	
88-74-4	2-Nitroaniline	3.	U	
131-11-3	Dimethylphthalate	2.	U	
208-96-8	Acenaphthylene	2.	U	
606-20-2	2,6-Dinitrotoluene	1.	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD01R60

Lab Name:5SCRL US EPA 312/353-9065 Contract:ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FD01R60

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK424

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted:12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	IU
83-32-9	Acenaphthene	2.	IU
51-28-5	2,4-Dinitrophenol	15.	IU
100-02-7	4-Nitrophenol	2.	IU
132-64-9	Dibenzofuran	1.	IU
121-14-2	2,4-Dinitrotoluene	1.	IU
84-66-2	Diethylphthalate	1.	IU
7005-72-3	4-Chlorophenyl-phenylether	1.	IU
86-73-7	Fluorene	1.	IU
100-01-6	4-Nitroaniline	3.	IU
534-52-1	4,6-Dinitro-2-methylphenol	15.	IU
86-30-6	N-Nitrosodiphenylamine (1)	2.	IU
101-55-3	4-Bromophenyl-phenylether	2.	IU
118-74-1	Hexachlorobenzene	2.	IU
87-86-5	Pentachlorophenol	2.	IU
85-01-8	Phenanthrene	1.	IU
120-12-7	Anthracene	3.	IU
84-74-2	Di-n-butylphthalate	2.	IU
206-44-0	Fluoranthene	2.	IU
129-00-0	Pyrene	2.	IU
85-68-7	Butylbenzylphthalate	4.	IU
56-55-3	Benzo(a)anthracene	2.	IU
218-01-9	Chrysene	2.	IU
117-81-7	bis(2-Ethylhexyl)phthalate	1.	IU
117-84-0	Di-n-octylphthalate	2.	IU
205-99-2	Benzo(b)fluoranthene	2.	IU
207-08-9	Benzo(k)fluoranthene	2.	IU
50-32-8	Benzo(a)pyrene	2.	IU
193-39-5	Indeno(1,2,3-cd)pyrene	4.	IU
53-70-3	Dibenzo(a,h)anthracene	3.	IU
191-24-2	Benzo(g,h,i)perylene	4.	IU

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[X]

ESAT CONTRACT TID NO: 12-10
TASK NO: 2083

DATASET CUSTODY TRANSFER FORM

Analytical testing was completed on JAN 3, 1990 for:

DATASET NO: SF6825 SITE NAME: Duke Earnest Drum Site

PARAMETER : ABN

MATRIX : WATER SF DU/ACT NO: TFA302 Y____ /C____

SAMPLE NUMBERS: 90F00598-9, D98, 90F00601-3, 90F001R60

NUMBER OF SAMPLES: 7

ESAT APPROVALS:

(ANALYST 1/3/90 DATE)	(TEAM LEADER 1/3/90 DATE)
(QC COORDINATOR DATE)	(ESAT TEAM MANAGER 1/3/90 DATE)

COMMENTS:

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 1/3/90 DATE)	(RECEIVED BY 2:10 PM 1/3/90 DATE)

EPA APPROVALS:

(EPA TASK MONITOR 1/4/90 DATE)

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

COMMENTS: RATINGS: TECH. QUALITY: 3.0 ; COMPLIANCE & SCHEDULE: 3.0

(SECTION CHIEF DATE) [ ] Reviewed [ ] Unreviewed

(ESAT DPO DATE) (DATA COORD'R REC'D / / TRANSMTD)

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

Date: 1/3/90

To: Babu Paruchuri

From: Kelly Head

Kelly R. Head
1/3/90

Re: Dataset SF6825 Narrative

Seven (7) low level water samples (90FD05S98-S99, D98, 90FD06S01-S03 and 90FD01R60) from dataset SF6825 were submitted for acid base neutral (ABN) analysis by GC/MS utilizing EPA METHOD 625NS.

All samples were extracted within seven (7) days of sampling.

The tunes were acceptable with DFTPP meeting all QC requirements (FORM 5)

The initial calibration analyzed on 12/29/89 reported Two (2) compounds above 35%RSD (FORM 6): 4-nitroaniline (%RSD=44.2%, average RF=0.07), and 4,6-dinitro-2-methylphenol (%RSD=36.1%, average RF=0.08). Neither one of these compounds were present in any of the samples.

No continuing calibration was needed. All of the samples were analyzed immediately following an initial calibration.

The perylene-d12 IS area was outside QC limits for 90FD05S98, 90FD05D98, 90FD05S99MS, 90FD06S02, and 90FD01R60 (FORM 8B).

All surrogates for all samples were within QC criteria (FORM 2C).

Sample 90FD05S99 was used for the matrix spike and matrix spike duplicate (FORM 3C). The RPD for acenaphthene was outside QC limits. The matrix spike reported the 1,2,4-trichlorobenzene %REC. below QC criteria (34%). The matrix spike duplicate reported two low %REC. for 1,2,4-trichlorobenzene (31%), and acenaphthene (40%).

One method blank was extracted with the samples. No target compounds were detected in the method blank. One TIC was detected at a retention time of 7.29 minutes.

One field blank (90FD01R60) was associated with the samples. No target compounds or TICS were detected in the field blank.

Sample 90FD05S98 and its duplicate 90FD05D98 correlated very well. No target compounds or TICs were detected in either sample.

Samples 90FD05S98-S99, and 90FD06S01-S03 contained no target compounds or TICs.

level 1 review 1/4/90
2 Omin KDA
Level 2 review done 1/4/90 Gin

USEPA REGION V CRL 12/2
SF6825 1/4/90

WORKLIST : ARKH0032
TEST : ARWSO SF 6825

WL#	ID	REP	COMMENTS
1	LRB		
2	LF1		
3	LF2		
4	S9001495	01	90FD05S98
5	S9001496	01	90FD05D98
6	S9001497	01	90FD05S99
7	S9001498	01	90FD01R60
8	S9001499	01	90FD06S01
9	S9001500	01	90FD06S02
10	S9001501	01	90FD06S03

USEPA REGION V CRL 12/ /89 15:12:44
SF6825 1/4/90 PAGE 01

WORKLIST : ABKH0032
TEST : ABWSO SF6825

WL#	ID	REP	COMMENTS
1	LRB		
2	LF1		
3	LF2		
4	S9001495	01	90FD05S98
5	S9001496	01	90FD05D98
6	S9001497	01	90FD05S99
7	S9001498	01	90FD01R60
8	S9001499	01	90FD06S01
9	S9001500	01	90FD06S02
10	S9001501	01	90FD06S03

ROY F. WESTON, INC.
C/O ESAT Project
Room 962
536 South Clark Street
Chicago IL 60605
(312)-353-2895

RAW DATA ARCHIVING AND DATASET RECONSTRUCTION FORM

DISK OR TAPE NUMBERS: ABN 60

RUN DATE(S): 12/29/89
INST.NO.: 5987 HI
ANALYST(S): KDH

SAMPLE SUMMARY MATRIX

DATASET NUMBER:	SE6825				
TASK NUMBER:	2083				
DU/ACTIVITY NO:	TFA302				
PARAMETER:	ABN				
MATRIX:	WATER				
NUMBER SAMPLES:	7				
DATE RECEIVED:	12/27/89				
DATE EXTRACTED:	12/28/89				
NOTBK NO/PG NO:	1/3				
DATE ASSAYED:	1/3/89				

FILE IDENTIFICATION SUMMARY

TUNING FILE: 7HK405
BLANK FILE: 7HK415
RUN SEQUENCE FILE: 5-6823

PRIMARY COLUMN

INITIAL CALIBRATION FILE: 7HK406-8
CONTINUING CALIBRATION FILES: NA
STANDARDS FILES: NA
SAMPLE FILES: 7HK416-424

ID/METHOD FILES: IDKH87
TOXIC

CONFIRMATORY COLUMN

INITIAL CALIBRATION FILE:
CONTINUING CALIBRATION FILES:
STANDARDS FILES:
SAMPLE FILES: NA

ID/METHOD FILES:

DOC.NO.: ESAT-05-15-FORM
REVISION NO.: NEW
CENTRAL FILE NO.: 5.5.1

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

TFA302

DIVISION/BRANCH SUPERFUND FIT SAMPLE DATE 12/14/89 LAB ARRIVAL DATE 12/15/89 DUE DATE 1/5/90

DU NUMBER TFA DATA SET NUMBER 6825 STUDY Duke Forest Dump Site PRIORITY — CONTRACTOR —

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER VOLATILE ORGANICS SCAN UG/L TOX 17684	WATER ABN ORGANICS SCAN UG/L TOX 17674	SEDIMENTS SOLIDS VOLATILE ORGANICS SCAN MG/KG (DRY) TOX 215622	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
90FD05S98	RW1 5-129140-2	X	X		
90FD05S99	MSD/RW2 5-089441-8	X	X		
90FD06S01	RW3 5-072677-9	X	X		
↓ 02	RW4 5-072685-7	X	X		
90FD06S03	RW5 5-114499-500 5-115699	X	X		
90FD05D98	DUPLICATE 5-129148-150	X	X		
90FD01R60	BLANK 5-072693-95	X	X		
90FD05S98	RW1 5-129137		X		
90FD05D98	DUPLICATE 5-129145		X		
90FD05S99	RW2/MSD 5-089433-35		X		
90FD06S01	RW3 5-072674		X		
90FD06S02	RW4 5-072682		X		
90FD06S03	RW5 5-072698		X		
90FD01R60	BLANK 5-072690		X		
		Robert M. Head			
		1/3/90			

ROY F. WESTON, INC.
C/O ESAT Project
Room 671
536 South Clark Street
Chicago IL 60605
(312)-353-2895

Dataset No: SF6825

Task No: 2083

SEMIVOLATILE ORGANIC DELIVERABLES CHECK-OFF LIST

PRESENT	NOT REQD	
[✓]	[ ]	DATA USERS REPORT
[✓] (3 COPIES)	[ ]	DATASET CUSTODY TRANSFER FORM
[✓] (1 COPY)	[ ]	SAMPLE REPORT LOG
[✓]	[ ]	NARRATIVE
[✓]	[ ]	RUN SEQUENCE
[✓]	[ ]	ABN BENCH SHEET

AQC

PRESENT	NOT REQD	
[✓] (1 COPY)	[ ]	SURROGATE RECOVERY (FORM II)
[✓] (1 COPY)	[ ]	MATRIX SPIKE/DUP (FORM III)
[✓]	[ ]	MS/MSD RAW DATA
[✓]	[ ]	METHOD BLANK (FORM IV)
[✓]	[ ]	MASS CAL/TUNING (FORM V)
[✓]	[ ]	MASS CAL RAW DAT
[✓]	[ ]	MDL RESULTS

CALIBRATION DATA

PRESENT	NOT REQD	
[✓]	[ ]	INITIAL CAL RRF (FORM VI)
[✓]	[ ]	ICV RAW DATA
[ ]	[✓]	CONT CAL VERIFIC (FORM VII)
[ ]	[✓]	CCV RAW DATA
[✓] (1 COPY)	[ ]	INT STD AREA & RT (FORM VIII)

SAMPLE DATA

PRESENT	NOT REQD	
[✓]	[ ]	ID FILE (SHORT) (HP ONLY)
[✓]	[ ]	TCL RESULTS (FORM I)
[✓]	[ ]	TIC RESULTS (FORM I-TIC)
[✓]	[ ]	SAMPLE RAW DATA
[ ]	[✓]	SAMPLE TAGS
[✓] (2 COPIES)	[ ]	ARCHIVE REFERENCE
[✓]	[ ]	CONTROL CHART SUMMARY

Extraction Task# 2083
Site Name: Duke Earnest Drum Site
TID Number: 05-90-12-10

A/BN BENCH SHEET

DATA SET: SF 6825 SAMPLE TYPE: Water EXTRACTION METHOD: 624 NS

SAMPLE #	SAMPLE AMOUNT	FINAL VOL.	SOLVENT EXTRACT.	pH adjustments			EXTR VOL.
				Initial pH	Base Neutral pH	Acid pH	
method Blank SF 6825	1L	1ml		6.0	12.0	1.0	
90FD05898	1L	1ml		6.0	12.0	1.0	
90FD05D98	1L	1ml		6.0	12.0	1.0	
90FD05899	1L	1ml		6.0	12.0	1.0	
ABN-MS 90FD05899	1L	1ml		6.0	12.0	1.0	
ABN-MSD 90FD05899	1L	1ml		6.0	12.0	1.0	
90FD06801	1L	1ml		6.0	12.0	1.0	
90FD06802	1L	1ml		6.0	12.0	1.0	
90FD06803	1L	1ml		6.0	12.0	1.0	
90FD01R60	1L	1ml		6.0	12.0	1.0	

Witness signatures for:

- base pH adjustment: Jason Halliday 18 Dec 89 AK.
- acid pH adjustment: Jason Halliday 18 Dec 89 AK.
- Surrogate and standards added: Jason Halliday 18 Dec 89 A.K.
- ISTD added: Jason Halliday 19 Dec 89 A.K.

DATE EXTRACTED: 18 Dec 89 PREP. CHEM.: AK / SH
DATE CONCENTRATED: 19 Dec 89 PREP. CHEM.: AK / SH
DATE RECEIVED: 19 Dec 89 GC/MS CHEM.: KDH

REMARKS: 0.75ml of ABN (100µg/ml) surrogate solution was added to all of the ABN samples. 0.75ml of ABN (100µg/ml) matrix spike solution was added to the ABN-MS/MSD. 20µl of ISTD (50µg/ml) was added to each ABN sample upon completion before submitting to GC/MS for analysis

ESAT CONTRACT TID NO: 05-90-12-10

TASK NO: 2083

ENVIRONMENTAL SAMPLE EXTRACT CUSTODY TRANSFER FORM

Sample extraction was completed on 19 Dec, 1989 for:

DATASET NO: SF6825 SITE NAME: Duke Earnest Drum Site

PARAMETER : ABN

MATRIX : Water SF DU/ACT NO: TFA 308 Y____ /C_____

SAMPLE NUMBERS: 90FD05 \$98, D98, \$99, and 90FD06 \$01, 02, 03

90FD01R60 NUMBER OF SAMPLES: 7

ESAT APPROVALS:

Jason Holliday 19 Dec 89 (ANALYST DATE)

[illegible] 12/19/89 (TEAM LEADER DATE)

Nelva Wilson 12/19/89 (QC COORDINATOR DATE)

Nelva Wilson 12/19/89 (ESAT TEAM MANAGER DATE)

COMMENTS: _____

The subject sample extracts were transferred to the custody of the U.S. EPA Region V Central Regional Laboratory on the date indicated below.

Jason Holliday 19 Dec 89 (DELIVERED BY DATE)

[illegible] 12/19/89 (RECEIVED BY DATE)

EPA APPROVALS:

(EPA TASK MONITOR DATE)

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

COMMENTS: _____

(SECTION CHIEF DATE)

[ ] Reviewed [ ] Unreviewed

(ESAT DPO DATE)

(DATA COORD'R REC'D ___/___/___ TRANSMTD)

A:[bs]FORMS[bs]EXTTRANS.FRM WS
DOC.NO.: ESAT-05-0167-FORM
REVISION: NEW

FILE LOCATION NO: 5.6.

Sequence File: S_6823::D1

Tune File: MT5987

CR List: D1,C1,C2
CR Cut-off: 5500 blocks.

Number of samples: 32

Report Data Archive
Quant | | ID Archive
Sample Size | | | | Output Archive
Bottle | | | | | | |

```
Samp Data File     Sample Name                  | | | | | | |     Quant ID
 No. Method File   Misc Data                    | | | | | | |     Quant Output
---- ------------- ------------------------- ----------------  ------------
001) >HK406        TOX STD 100                01 3 Y S Y N Y     IDKH87::D1
     TOXIC1        IN#5987                       Dil=1.00000     ^HK406::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
002) >HK407        TOX STD 25                 02 3 Y S Y N Y     IDKH87::D1
     TOXIC1        IN#5987                       Dil=1.00000     ^HK407::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
003) >HK408        TOX STD 50                 03 3 Y S Y N Y     IDKH87::D1
     TOXIC1        IN#5987                       Dil=1.00000     ^HK408::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
004) >HK409        METHOD BLANK  SF6823       04 3 Y S Y N Y     IDKH87::D1
     TOXIC1        IN#5987;1L                    Dil=1.00000     ^HK409::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
005) >HK410        90FL06S11     SF6823       05 3 Y S Y N Y     IDKH87::D1
     TOXIC1        IN#5987;1L                    Dil=1.00000     ^HK410::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
006) >HK411        90FL06S11MS   SF6823       06 3 Y S Y N Y     IDKH87::D1
     TOXIC1        IN#5987;1L                    Dil=1.00000     ^HK411::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
007) >HK412        90FL06S11MSD  SF6823       07 3 Y S Y N Y     IDKH87::D1
     TOXIC1        IN#5987;1L                    Dil=1.00000     ^HK412::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
008) >HK413        90FL06D11     SF6823       08 3 Y S Y N Y     IDKH87::D1
     TOXIC1        IN#5987;1L                    Dil=1.00000     ^HK413::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
009) >HK414        90FL01R62     SF6823       09 3 Y S Y N Y     IDKH87::D1
     TOXIC1        IN#5987;1L                    Dil=1.00000     ^HK414::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
010) >HK415        METHOD BLANK  SF6825       10 3 Y S Y N Y     IDKH87::D1
     TOXIC1        IN#5987;1L                    Dil=1.00000     ^HK415::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
011) >HK416        90FD05S98     SF6825       11 3 Y S Y N Y     IDKH87::D1
     TOXIC1        IN#5987;1L                    Dil=1.00000     ^HK416::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
012) >HK417        90FD05D98     SF6825       12 3 Y S Y N Y     IDKH87::D1
     TOXIC1        IN#5987;1L                    Dil=1.00000     ^HK417::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
013) >HK418        90FD05S99     SF6825       13 3 Y S Y N Y     IDKH87::D1
     TOXIC1        IN#5987;1L                    Dil=1.00000     ^HK418::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
014) >HK419        90FD05S99MS   SF6825       14 3 Y S Y N Y     IDKH87::D1
     TOXIC1        IN#5987;1L                    Dil=1.00000     ^HK419::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
015) >HK420        90FD05S99MSD  SF6825       15 3 Y S Y N Y     IDKH87::D1
     TOXIC1        IN#5987;1L                    Dil=1.00000     ^HK420::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
016) >HK421        90FD06S01     SF6825       16 3 Y S Y N Y     IDKH87::D1
     TOXIC1        IN#5987;1L                    Dil=1.00000     ^HK421::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
017) >HK422        90FD06S02     SF6825       17 3 Y S Y N Y     IDKH87::D1
     TOXIC1        IN#5987;1L                    Dil=1.00000     ^HK422::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
```

```
018) >HK423        90FD06S03      SF6825      18 3 Y S Y N Y    IDKH87::D1
     TOXIC1        IN#5987;1L                     Dil=1.00000    ^HK423::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
019) >HK424        90FD01R60      SF6825      19 3 Y S Y N Y    IDKH87::D1
     TOXIC1        IN#5987;1L                     Dil=1.00000    ^HK424::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
020) >HK425        5 PPM STD                   20 3 Y S Y N Y    IDKH87::D1
     TOXIC1        IN#5987                        Dil=1.00000    ^HK425::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
021) >HK426        1 PPM STD                   21 3 Y S Y N Y    IDKH87::D1
     TOXIC1        IN#5987                        Dil=1.00000    ^HK426::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
022) >HK427        12.5 PPM STD                22 3 Y S Y N Y    IDKH87::D1
     TOXIC1        IN#5987                        Dil=1.00000    ^HK427::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
023) >HK428        MS SOLUTION                 23 3 Y S Y N Y    IDKH87::D1
     TOXIC1        IN#5987                        Dil=1.00000    ^HK428::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
024) >HK429        MS ACID #1                  24 3 Y S Y N Y    IDKH87::D1
     TOXIC1        IN#5987                        Dil=1.00000    ^HK429::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
025) >HK430        MS ACID #2                  24 3 Y S Y N Y    IDKH87::D1
     TOXIC1        IN#5987                        Dil=1.00000    ^HK430::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
026) >HK431        MS ACID #3                  24 3 Y S Y N Y    IDKH87::D1
     TOXIC1        IN#5987                        Dil=1.00000    ^HK431::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
027) >HK432        MS BASE #1                  25 3 Y S Y N Y    IDKH87::D1
     TOXIC1        IN#5987                        Dil=1.00000    ^HK432::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
028) >HK433        MS BASE #2                  25 3 Y S Y N Y    IDKH87::D1
     TOXIC1        IN#5987                        Dil=1.00000    ^HK433::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
029) >HK434        MS BASE #3                  25 3 Y S Y N Y    IDKH87::D1
     TOXIC1        IN#5987                        Dil=1.00000    ^HK434::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
030) >HK435        SS #1                       26 3 Y S Y N Y    IDKH87::D1
     TOXIC1        IN#5987                        Dil=1.00000    ^HK435::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
031) >HK436        SS #2                       26 3 Y S Y N Y    IDKH87::D1
     TOXIC1        IN#5987                        Dil=1.00000    ^HK436::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
032) >HK437        SS #3                       26 3 Y S Y N Y    IDKH87::D1
     TOXIC1        IN#5987                        Dil=1.00000    ^HK437::SK
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#

End of sequence file.
```

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name:5SCRL US EPA 312/353-9065 Contract:ESAT

Lab Code: CHICAGOILCase No.: SF6825 SAS No.: DUKE SDG No.: TFA302

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	METH BLNK	76	78	89	32	58	90		0
02	90FD05S98	65	56	59	34	51	84		0
03	90FD05D98	70	71	52	29	52	86		0
04	90FD05S99	72	73	94	33	56	89		0
05	90FD05S99M	71	72	62	29	46	85		0
06	90FD05S99D	72	70	96	32	51	90		0
07	90FD06S01	72	71	88	30	55	90		0
08	90FD06S02	76	74	69	32	48	84		0
09	90FD06S03	71	74	87	32	57	74		0
10	90FD01R60	73	73	51	35	58	89		0
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		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(35-114)
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)
S3 (TPH)	= Terphenyl-d14	(33-141)
S4 (PHL)	= Phenol-d5	(10-94)
S5 (2FP)	= 2-Fluorophenol	(21-100)
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

FORM II SV-1 1/87 Rev.

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:SSCRL US EPA 312/353-9065 Contract:ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix Spike - EPA Sample No.: 90FD05S99

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	81.00	0.00	20.00	24	12- 89
2-Chlorophenol	80.00	0.00	43.00	54	27-123
1,4-Dichlorobenzene	82.00	0.00	31.00	37	36- 97
N-Nitroso-di-n-prop.(1)	120.00	0.00	80.00	69	41-116
1,2,4-Trichlorobenzene	110.00	0.00	39.00	34 *	39- 98
4-Chloro-3-methylphenol	81.00	0.00	48.00	59	23- 97
Acenaphthene	78.00	0.00	50.00	63	46-118
4-Nitrophenol	73.00	0.00	23.00	31	10- 80
2,4-Dinitrotoluene	69.00	0.00	45.00	65	24- 96
Pentachlorophenol	94.00	0.00	58.00	61	9-103
Pyrene	90.00	0.00	52.00	57	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	81.00	19.00	24	0	42	12- 89
2-Chlorophenol	80.00	39.00	49	9	40	27-123
1,4-Dichlorobenzene	82.00	30.00	36	2	28	36- 97
N-Nitroso-di-n-prop.(1)	120.00	81.00	70	1	38	41-116
1,2,4-Trichlorobenzene	110.00	35.00	31 *	9	28	39- 98
4-Chloro-3-methylphenol	81.00	46.00	56	5	42	23- 97
Acenaphthene	78.00	31.00	40 *	44 *	31	46-118
4-Nitrophenol	73.00	25.00	34	9	50	10- 80
2,4-Dinitrotoluene	69.00	45.00	65	0	38	24- 96
Pentachlorophenol	94.00	49.00	51	17	50	9-103
Pyrene	90.00	54.00	59	3	31	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of qc limits

RPD: 1 out of 11 outside limits
Spike Recovery: 3 out of 22 outside limits

COMMENTS: _____

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name:5SCRL US EPA 312/353-9065 Contract:ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Lab File ID: >HK415 Lab Sample ID: METH BLNK

Date Extracted 12/18/89 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed: 12/29/89 Time Analyzed: 23:27

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

Instrument ID: 87 1

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	90FD05S98	90FD05S98	>HK416	12/30/89
02	90FD05D98	90FD05D98	>HK417	12/30/89
03	90FD05S99	90FD05S99	>HK418	12/30/89
04	90FD05S99M	90FD05S99M	>HK419	12/30/89
05	90FD05S99D	90FD05S99D	>HK420	12/30/89
06	90FD06S01	90FD05S01	>HK421	12/30/89
07	90FD06S02	90FD05S02	>HK422	12/30/89
08	90FD06S03	90FD05S03	>HK423	12/30/89
09	90FD01R60	90FD01R60	>HK424	12/30/89
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COMMENTS: _____

FORM IV SV 1/87 Rev.

5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name:5SCRL US EPA 312/353-9065 Contract:ESAT

Lab Code: CHICAGOIL Case No.: SF6823 SAS No.: KELLY'S SDG No.: TFA302

Lab File ID: >HK405 DFTPP Injection Date:12/29/89

Instrument ID: 87 1 DFTPP Injection Time: 11:57

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	45.3
68	Less than 2.0% of mass 69	0.0(0.0)1
69	Mass 69 relative abundance	65.
70	Less than 2.0% of mass 69	0.0(0.0)1
127	40.0 - 60.0% of mass 198	42.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.
199	5.0 - 9.0% of mass 198	8.0
275	10.0 - 30.0% of mass 198	19.0
365	Greater than 1.00% of mass 198	1.25
441	Present, but less than mass 443	10.6
442	Greater than 40.0% of mass 198	65.9
443	17.0 - 23.0% of mass 442	13.0(19.8)2

1-Value is % mass 69 2-Value is % mass 442

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	TOX STD100	TOX STD100	>HK406	12/29/89	14:49
02	TOX STD025	TOX STD025	>HK407	12/29/89	15:47
03	TOX STD050	TOX STD050	>HK408	12/29/89	16:44
04	METH BLNK	METH BLNK	>HK415	12/29/89	23:27
05	90FD05S98	90FD05S98	>HK416	12/30/89	0:25
06	90FD05D98	90FD05D98	>HK417	12/30/89	1:22
07	90FD05S99	90FD05S99	>HK418	12/30/89	2:20
08	90FD05S99M	90FD05S99M	>HK419	12/30/89	3:17
09	90FD05S99D	90FD05S99D	>HK420	12/30/89	4:15
10	90FD06S01	90FD05S01	>HK421	12/30/89	5:12
11	90FD06S02	90FD05S02	>HK422	12/30/89	6:10
12	90FD06S03	90FD05S03	>HK423	12/30/89	7:07
13	90FD01R60	90FD01R60	>HK424	12/30/89	8:05
14					
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SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name:5SCRL US EPA 312/353-9065 Contract:ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Instrument ID: 87 1 Calibration Date(s):12/28/89 12/28/89

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 35.0%

LAB FILE ID: RRF25 =>HK407 RRF50 =>HK408
RRF100 =>HK406

COMPOUND	RRF25	RRF50	RRF100			$\overline{RRF}$	% RSD
Phenol *	2.263	2.431	2.485	0.000	0.000	2.393	4.8*
bis(2-Chloroethyl)ether	1.773	1.863	1.934	0.000	0.000	1.857	4.4
2-Chlorophenol	1.326	1.424	1.555	0.000	0.000	1.435	8.0
1,3-Dichlorobenzene	1.426	1.425	1.547	0.000	0.000	1.466	4.8
1,4-Dichlorobenzene *	1.473	1.539	1.581	0.000	0.000	1.531	3.6*
Benzyl alcohol	.807	.972	.943	0.000	0.000	.907	9.7
1,2-Dichlorobenzene	1.356	1.358	1.469	0.000	0.000	1.395	4.6
2-Methylphenol	1.417	1.438	1.440	0.000	0.000	1.432	.9
bis(2-chloroisopropyl)ether	.400	.378	.391	0.000	0.000	.390	2.8
4-Methylphenol	1.391	1.689	1.605	0.000	0.000	1.562	9.8
N-Nitroso-di-n-propylamine #	1.190	1.054	1.257	0.000	0.000	1.167	8.9#
Hexachloroethane	.437	.409	.454	0.000	0.000	.433	5.2
Nitrobenzene	.821	.839	.883	0.000	0.000	.848	3.8
Isophorone	2.955	3.342	2.573	0.000	0.000	2.957	13.0
2-Nitrophenol *	.687	.728	.789	0.000	0.000	.735	7.0*
2,4-Dimethylphenol	.994	1.086	1.184	0.000	0.000	1.088	8.7
Benzoic acid	.735	.678	.791	0.000	0.000	.735	7.7
bis(2-Chloroethoxy)methane	2.059	2.095	2.104	0.000	0.000	2.086	1.1
2,4-Dichlorophenol *	1.024	1.027	1.021	0.000	0.000	1.024	.3*
1,2,4-Trichlorobenzene	1.135	1.099	1.094	0.000	0.000	1.109	2.0
Naphthalene	3.985	3.905	4.129	0.000	0.000	4.006	2.8
4-Chloroaniline	.412	.500	.452	0.000	0.000	.455	9.6
Hexachlorobutadiene *	.474	.547	.575	0.000	0.000	.532	9.8*
4-Chloro-3-methylphenol *	1.205	1.296	1.125	0.000	0.000	1.208	7.1*
2-Methylnaphthalene	2.244	2.347	2.232	0.000	0.000	2.274	2.8
Hexachlorocyclopentadiene #	.470	.560	.538	0.000	0.000	.523	9.1#
2,4,6-Trichlorophenol *	.583	.623	.494	0.000	0.000	.567	11.6*
2,4,5-Trichlorophenol	.540	.604	.508	0.000	0.000	.551	8.9
2-Chloronaphthalene	1.983	2.217	1.713	0.000	0.000	1.971	12.8
2-Nitroaniline	.640	.728	.540	0.000	0.000	.636	14.8
Dimethylphthalate	2.056	1.975	1.376	0.000	0.000	1.802	20.6
Acenaphthylene	1.504	1.788	1.593	0.000	0.000	1.628	8.9
2,6-Dinitrotoluene	.210	.277	.239	0.000	0.000	.242	14.0
3-Nitroaniline	.206	.245	.209	0.000	0.000	.220	9.8
Acenaphthene *	1.154	1.291	1.058	0.000	0.000	1.168	10.0*
2,4-Dinitrophenol #	.041	.070	.080	0.000	0.000	.063	31.8#
4-Nitrophenol #	.050	.072	.073	0.000	0.000	.065	19.7#

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name:5SCRL US EPA 312/353-9065 Contract:ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Instrument ID: 87 1 Calibration Date(s):12/28/89 12/28/89

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 35.0%

LAB FILE ID: RRF25 =>HK407 RRF50 =>HK408
RRF100 =>HK406

COMPOUND	RRF25	RRF50	RRF100			$\overline{RRF}$	% RSD
Dibenzofuran	1.358	1.509	1.283	0.000	0.000	1.384	8.3
2,4-Dinitrotoluene	.251	.292	.323	0.000	0.000	.289	12.5
Diethylphthalate	.840	.974	.958	0.000	0.000	.924	7.9
4-Chlorophenyl-phenylether	.475	.510	.413	0.000	0.000	.466	10.6
Fluorene	.969	1.079	.973	0.000	0.000	1.007	6.2
4-Nitroaniline	.068	.045	.110	0.000	0.000	.074	44.2
4,6-Dinitro-2-methylphenol	.058	.079	.119	0.000	0.000	.085	36.1
N-Nitrosodiphenylamine (1) *	.165	.172	.144	0.000	0.000	.160	9.3*
4-Bromophenyl-phenylether	.198	.227	.237	0.000	0.000	.221	9.2
Hexachlorobenzene	.305	.298	.309	0.000	0.000	.304	1.8
Pentachlorophenol *	.087	.100	.125	0.000	0.000	.104	18.8*
Phenanthrene	1.197	1.166	1.312	0.000	0.000	1.225	6.3
Anthracene	1.001	1.115	1.235	0.000	0.000	1.117	10.5
Di-n-butylphthalate	1.006	.949	1.299	0.000	0.000	1.085	17.3
Fluoranthene *	.875	.895	1.169	0.000	0.000	.980	16.7*
Pyrene	.889	.920	1.096	0.000	0.000	.969	11.5
Butylbenzylphthalate	.288	.409	.358	0.000	0.000	.351	17.2
Benzo(a)anthracene	.486	.925	.704	0.000	0.000	.705	31.1
Chrysene	.561	1.052	.747	0.000	0.000	.787	31.5
bis(2-Ethylhexyl)phthalate	.346	.620	.490	0.000	0.000	.485	28.3
Di-n-octylphthalate *	.975	1.187	1.684	0.000	0.000	1.282	28.4*
Benzo(b)fluoranthene	.820	1.024	1.233	0.000	0.000	1.026	20.1
Benzo(k)fluoranthene	.737	1.073	1.251	0.000	0.000	1.021	25.6
Benzo(a)pyrene *	.704	.835	1.039	0.000	0.000	.859	19.7*
Indeno(1,2,3-cd)pyrene	1.080	.677	.811	0.000	0.000	.856	24.0
Dibenzo(a,h)anthracene	.829	.535	.609	0.000	0.000	.658	23.3
Benzo(g,h,i)perylene	.922	.549	.628	0.000	0.000	.700	28.1
Nitrobenzene-d5	1.661	1.681	1.734	0.000	0.000	1.692	2.2
2-Fluorobiphenyl	2.483	2.604	2.128	0.000	0.000	2.405	10.3
Terphenyl-d14	.530	.554	.672	0.000	0.000	.586	13.0
Phenol-d5	1.892	2.028	2.095	0.000	0.000	2.005	5.2
2-Fluorophenol	1.336	1.442	1.491	0.000	0.000	1.423	5.6
2,4,6-Tribromophenol	.144	.161	.158	0.000	0.000	.155	6.0

(1) Cannot be separated from Diphenylamine

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name:5SCRL US EPA 312/353-9065 Contract:ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Lab File ID (Standard): >HK408 Date Analyzed:12/29/89

Instrument ID: 87 1 Time Analyzed: 16:44

		IS1(DCB) AREA #	RT	IS2(PHN) AREA #	RT	IS3(PRY) AREA #	RT
	12 HOUR STD	15630.	7.03	26889.	20.42	33364.	33.04
	UPPER LIMIT	31260.	7.53	53778.	21.92	66728.	33.54
	LOWER LIMIT	7815.	6.53	13444.	20.92	16682.	32.54
	EPA SAMPLE NO.						
01	METH BLNK	19416.	7.00	41608.	20.43	20355.	33.05
02	90FD05S98	22214.	7.02	22192.	20.42	9337.*	33.03
03	90FD05D98	24698.	7.02	52030.	20.43	10038.*	33.02
04	90FD05S99	20789.	7.02	42571.	20.45	25538.	33.09
05	90FD05S99M	13253.	7.02	24375.	20.45	5149.*	33.06
06	90FD05S99D	22332.	7.02	47484.	20.45	34124.	33.07
07	90FD06S01	21800.	7.02	45586.	20.45	28838.	33.06
08	90FD06S02	12955.	7.02	22428.	20.43	6634.*	33.03
09	90FD06S03	20178.	7.02	47794.	20.45	27776.	33.05
10	90FD01R60	21085.	7.00	42418.	20.45	7725.*	33.05
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (PHN) = d-10-Phenanthrene
IS3 (pry) = d12-perylene

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 SV-1 1/87 Rev.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD05S99M

Lab Name:5SCRL US EPA 312/353-9065 Contract:ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S99M

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK419

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted:12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q	
108-95-2	Phenol	20.		
111-44-4	bis(2-Chloroethyl)Ether	2.	U	
95-57-8	2-Chlorophenol	43.		
541-73-1	1,3-Dichlorobenzene	2.	U	X
106-46-7	1,4-Dichlorobenzene	31.		
100-51-6	Benzyl alcohol	2.	U	
95-50-1	1,2-Dichlorobenzene	3.	U	
95-48-7	2-Methylphenol	1.	U	
39638-32-9	bis(2-chloroisopropyl)ether	3.	U	
106-44-5	4-Methylphenol	1.	U	
621-64-7	N-Nitroso-Di-n-propylamine	80.		
67-72-1	Hexachloroethane	2.	U	
98-95-3	Nitrobenzene	3.	U	
78-59-1	Isophorone	3.	U	
88-75-5	2-Nitrophenol	2.	U	
105-67-9	2,4-Dimethylphenol	2.	U	
65-85-0	Benzoic acid	30.	U	
111-91-1	bis(2-Chloroethoxy)methane	3.	U	
120-83-2	2,4-Dichlorophenol	2.	U	
120-82-1	1,2,4-Trichlorobenzene	39.		
91-20-3	Naphthalene	2.	U	
106-47-8	4-Chloroaniline	2.	U	
87-68-3	Hexachlorobutadiene	2.	U	
59-50-7	4-Chloro-3-methylphenol	48.		
91-57-6	2-Methylnaphthalene	2.	U	
77-47-4	Hexachlorocyclopentadiene	2.	U	
88-06-2	2,4,6-Trichlorophenol	2.	U	
95-95-4	2,4,5-Trichlorophenol	2.	U	
91-58-7	2-Chloronaphthalene	2.	U	
88-74-4	2-Nitroaniline	3.	U	
131-11-3	Dimethylphthalate	2.	U	
208-96-8	Acenaphthylene	2.	U	X
606-20-2	2,6-Dinitrotoluene	1.	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD05S99M

Lab Name: 5SCRL US EPA 312/353-9065 Contract: ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S99M

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK419

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted: 12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q	
99-09-2	3-Nitroaniline	3.	U	
83-32-9	Acenaphthene	50.		
51-28-5	2,4-Dinitrophenol	15.	U	
100-02-7	4-Nitrophenol	23.		
132-64-9	Dibenzofuran	1.	U	
121-14-2	2,4-Dinitrotoluene	45.		
84-66-2	Diethylphthalate	1.	U	
7005-72-3	4-Chlorophenyl-phenylether	1.	U	
86-73-7	Fluorene	1.	U	
100-01-6	4-Nitroaniline	3.	U	
534-52-1	4,6-Dinitro-2-methylphenol	15.	U	
86-30-6	N-Nitrosodiphenylamine (1)	2.	U	
101-55-3	4-Bromophenyl-phenylether	2.	U	
118-74-1	Hexachlorobenzene	2.	U	
87-86-5	Pentachlorophenol	58.		
85-01-8	Phenanthrene	1.	U	
120-12-7	Anthracene	3.	U	
84-74-2	Di-n-butylphthalate	2.	U	
206-44-0	Fluoranthene	2.	U	X
129-00-0	Pyrene	52.		
85-68-7	Butylbenzylphthalate	4.	U	
56-55-3	Benzo(a)anthracene	2.	U	
218-01-9	Chrysene	2.	U	
117-81-7	bis(2-Ethylhexyl)phthalate	1.	U	
117-84-0	Di-n-octylphthalate	2.	U	
205-99-2	Benzo(b)fluoranthene	2.	U	
207-08-9	Benzo(k)fluoranthene	2.	U	
50-32-8	Benzo(a)pyrene	2.	U	
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U	
53-70-3	Dibenzo(a,h)anthracene	3.	U	
191-24-2	Benzo(g,h,i)perylene	4.	U	

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[X]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD05S99D

Lab Name: SCRL US EPA 312/353-9065 Contract: ESAT

Lab Code: CHICAGOIL Case No.: 3F6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S99D

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK420

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted: 12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q	
108-95-2	Phenol	19.		
111-44-4	bis(2-Chloroethyl)Ether	2.	U	
95-57-8	2-Chlorophenol	39.		
541-73-1	1,3-Dichlorobenzene	2.	U	X
106-46-7	1,4-Dichlorobenzene	30.		
100-51-6	Benzyl alcohol	2.	U	
95-50-1	1,2-Dichlorobenzene	3.	U	
95-48-7	2-Methylphenol	1.	U	
39638-32-9	bis(2-chloroisopropyl)ether	3.	U	
106-44-5	4-Methylphenol	1.	U	
621-64-7	N-Nitroso-Di-n-propylamine	81.		
67-72-1	Hexachloroethane	2.	U	
98-95-3	Nitrobenzene	3.	U	
78-59-1	Isophorone	3.	U	
88-75-5	2-Nitrophenol	2.	U	
105-67-9	2,4-Dimethylphenol	2.	U	
65-85-0	Benzoic acid	30.	U	
111-91-1	bis(2-Chloroethoxy)methane	3.	U	
120-83-2	2,4-Dichlorophenol	2.	U	
120-82-1	1,2,4-Trichlorobenzene	35.		
91-20-3	Naphthalene	2.	U	
106-47-8	4-Chloroaniline	2.	U	
87-68-3	Hexachlorobutadiene	2.	U	
59-50-7	4-Chloro-3-methylphenol	46.		
91-57-6	2-Methylnaphthalene	2.	U	
77-47-4	Hexachlorocyclopentadiene	2.	U	
88-06-2	2,4,6-Trichlorophenol	2.	U	
95-95-4	2,4,5-Trichlorophenol	2.	U	
91-58-7	2-Chloronaphthalene	2.	U	
88-74-4	2-Nitroaniline	3.	U	
131-11-3	Dimethylphthalate	2.	U	
208-96-8	Acenaphthylene	2.	U	X
606-20-2	2,6-Dinitrotoluene	1.	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD05S99D

Lab Name: 5SCRL US EPA 312/353-9065 Contract: ESAT

Lab Code: CHICAGOIL Case No.: SF6825 SAS No.: DUKE SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S99D

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >HK420

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec.____ dec. ____ Date Extracted: 12/18/89

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q	
99-09-2	3-Nitroaniline	3.	U	
83-32-9	Acenaphthene	31.		
51-28-5	2,4-Dinitrophenol	15.	U	
100-02-7	4-Nitrophenol	25.		
132-64-9	Dibenzofuran	1.	U	
121-14-2	2,4-Dinitrotoluene	45.		
84-66-2	Diethylphthalate	1.	U	
7005-72-3	4-Chlorophenyl-phenylether	1.	U	
86-73-7	Fluorene	1.	U	
100-01-6	4-Nitroaniline	3.	U	
534-52-1	4,6-Dinitro-2-methylphenol	15.	U	
86-30-6	N-Nitrosodiphenylamine (1)	2.	U	
101-55-3	4-Bromophenyl-phenylether	2.	U	
118-74-1	Hexachlorobenzene	2.	U	
87-86-5	Pentachlorophenol	49.		
85-01-8	Phenanthrene	1.	U	
120-12-7	Anthracene	3.	U	
84-74-2	Di-n-butylphthalate	2.	U	
206-44-0	Fluoranthene	2.	U	X
129-00-0	Pyrene	54.		
85-68-7	Butylbenzylphthalate	4.	U	
56-55-3	Benzo(a)anthracene	2.	U	
218-01-9	Chrysene	2.	U	
117-81-7	bis(2-Ethylhexyl)phthalate	1.	U	
117-84-0	Di-n-octylphthalate	2.	U	
205-99-2	Benzo(b)fluoranthene	2.	U	
207-08-9	Benzo(k)fluoranthene	2.	U	
50-32-8	Benzo(a)pyrene	2.	U	
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U	
53-70-3	Dibenzo(a,h)anthracene	3.	U	
191-24-2	Benzo(g,h,i)perylene	4.	U	

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[X]

Quant ID File: IDKH87::D1

Title: CRL SOP 625 NS HP-5987 KDH 06\28\89

Last EDIT Date: 891206 09:35 Last Calib Date: 900102 10:31

RT Window (+/- min): 1.00
Max Hits/Compound: 1
Minimum Area: 1000
Peak/Base Peak Ratio: 30.00 %
Slope Sensitivity: .200
Subtraction Method: 2
Ignore max check: NO
Auto Qdel Method: 5
Units of Conc: NG/UL

Number of Compounds: 76

Comp No.	Compound Name	(Type)	Retention Time Min.	(Rel)	R.F.	Conc.	
1)	*d4-1,4-Dichlorobenzene	(I)	7.05	(1.000)	1.00000	50.00	**
2)	2-Fluorophenol	(S)	4.62	(.655)	1.42304	50.00	
3)	Phenol-d5	(S)	6.49	(.921)	2.00488	50.00	
4)	Phenol	(M)	6.53	(.925)	2.39310	50.00	**
5)	bis(2-Chloroethyl)Ether	(T)	6.64	(.941)	1.85688	50.00	**
6)	2-Chlorophenol	(M)	6.65	(.943)	1.43496	50.00	**
7)	1,3-Dichlorobenzene	(T)	6.96	(.986)	1.46595	50.00	**
8)	1,4-Dichlorobenzene	(M)	7.09	(1.005)	1.53098	50.00	**
9)	Benzyl Alcohol	(T)	7.52	(1.067)	.90721	50.00	**
10)	1,2-Dichlorobenzene	(T)	7.52	(1.067)	1.39451	50.00	**
11)	2-Methylphenol	(T)	7.91	(1.122)	1.43180	50.00	**
12)	bis(2-Chloroisopropyl)ether	(T)	7.93	(1.124)	.38964	50.00	**
13)	4-Methylphenol	(T)	8.31	(1.178)	1.56147	50.00	**
14)	N-Nitroso-Di-n-propylamine	(M)	8.29	(1.175)	1.16710	50.00	**
15)	Hexachloroethane	(T)	8.28	(1.174)	.43329	50.00	**
16)	d8-Naphthalene	(T)	10.40	(1.474)	3.83394	50.00	**
17)	Nitrobenzene-d5	(S)	8.53	(1.209)	1.69211	50.00	
18)	Nitrobenzene	(T)	8.57	(1.215)	.84768	50.00	**
19)	Isophorone	(T)	9.21	(1.307)	2.95655	50.00	**
20)	2-Nitrophenol	(T)	9.43	(1.338)	.73466	50.00	**
21)	2,4-Dimethylphenol	(T)	9.72	(1.378)	1.08764	50.00	**
22)	Benzoic Acid	(T)	10.21	(1.448)	.73480	50.00	**
23)	bis(2-Chloroethoxy)Methane	(T)	9.98	(1.416)	2.08608	50.00	**
24)	2,4-Dichlorophenol	(T)	10.11	(1.433)	1.02398	50.00	**
25)	1,2,4-Trichlorobenzene	(M)	10.31	(1.462)	1.10946	50.00	**
26)	Naphthalene	(T)	10.45	(1.482)	4.00639	50.00	**
27)	4-Chloroaniline	(T)	10.79	(1.530)	.45466	50.00	**
28)	Hexachlorobutadiene	(T)	11.08	(1.572)	.53222	50.00	**
29)	4-Chloro-3-methylphenol	(M)	12.41	(1.760)	1.20853	50.00	**
30)	2-Methylnaphthalene	(T)	12.55	(1.779)	2.27440	50.00	**
31)	d10-Acenaphthene	(T)	15.81	(2.242)	1.41286	50.00	**
32)	Hexachlorocyclopentadiene	(T)	13.31	(1.887)	.52275	50.00	**
33)	2,4,6-Trichlorophenol	(T)	13.57	(1.924)	.56679	50.00	
34)	2,4,5-Trichlorophenol	(T)	13.66	(1.937)	.55059	50.00	**
35)	2-Chloronaphthalene	(T)	14.02	(1.987)	1.97092	50.00	**
36)	2-Fluorobiphenyl	(S)	13.84	(1.962)	2.40510	50.00	
37)	2-Nitroaniline	(T)	14.54	(2.062)	.63609	50.00	**
38)	Dimethylphthalate	(T)	15.36	(2.179)	1.80236	50.00	**
39)	*d-10-Phenanthrene	(I)	20.43	(1.000)	1.00000	50.00	**
40)	Acenaphthylene	(T)	15.28	(.748)	1.62848	50.00	**
41)	3-Nitroaniline	(T)	15.85	(.776)	.21973	50.00	**
42)	Acenaphthene	(M)	15.88	(.778)	1.16771	50.00	**
43)	2,4-Dinitrophenol	(T)	16.16	(.791)	.06337	50.00	**
		(M)	16.58	(.812)	.06526	50.00	**

45)	Dibenzofuran	(T)	16.40(	.803)	1.38576	50.00	**
46)	2,4-Dinitrotoluene	(M)	16.68(	.816)	.28885	50.00	**
47)	2,6-Dinitrotoluene	(T)	15.47(	.757)	.24188	50.00	**
48)	Diethylphthalate	(T)	17.64(	.864)	.92388	50.00	**
49)	4-Chlorophenyl-phenylether	(T)	17.65(	.864)	.46582	50.00	**
50)	Fluorene	(T)	17.50(	.857)	1.00686	50.00	**
51)	4-Nitroaniline	(T)	17.82(	.872)	.07434	50.00	**
52)	4,6-Dinitro-2-methylphenol	(T)	17.93(	.878)	.08528	50.00	**
53)	N-Nitrosodiphenylamine	(T)	18.07(	.884)	.16043	50.00	**
54)	2,4,6-Tribromophenol	(S)	18.32(	.897)	.15451	50.00	
55)	4-Bromophenyl-phenylether	(T)	19.16(	.938)	.22058	50.00	**
56)	Hexachlorobenzene	(T)	19.50(	.954)	.30383	50.00	**
57)	Pentachlorophenol	(M)	20.13(	.985)	.10400	50.00	**
58)	Phenanthrene	(T)	20.50(	1.004)	1.22514	50.00	**
59)	Anthracene	(T)	20.64(	1.010)	1.11720	50.00	**
60)	Di-n-Butylphthalate	(T)	22.90(	1.121)	1.08468	50.00	**
61)	Fluoranthene	(T)	24.30(	1.189)	.97974	50.00	**
62)	d12-Chrysene	(T)	28.88(	1.414)	.70447	50.00	**
63)	Pyrene	(M)	24.97(	1.222)	.96848	50.00	**
64)	Terphenyl-d14	(S)	25.74(	1.260)	.58566	50.00	
65)	Butylbenzylphthalate	(T)	27.60(	1.351)	.35148	50.00	**
66)	Benzo(a)Anthracene	(T)	28.84(	1.412)	.70487	50.00	**
67)	Bis(2-Ethylhexyl)Phthalate	(T)	29.63(	1.450)	.48544	50.00	**
68)	Chrysene	(T)	28.96(	1.418)	.78687	50.00	**
69)	*d12-Perylene	(I)	33.02(	1.000)	1.00000	50.00	**
70)	Di-n-octylphthalate	(T)	31.44(	.952)	1.28204	50.00	**
71)	Benzo(b)fluoranthene	(T)	32.02(	.970)	1.02551	50.00	**
72)	Benzo(k)Fluoranthene	(T)	32.09(	.972)	1.02064	50.00	**
73)	Benzo(a)Pyrene	(T)	32.87(	.995)	.85942	50.00	**
74)	Indeno(1,2,3-cd)Pyrene	(T)	35.70(	1.081)	.85588	50.00	**
75)	Dibenzo(a,h)Anthracene	(T)	35.78(	1.084)	.65761	50.00	**
76)	Benzo(g,h,i)Perylene	(T)	36.37(	1.102)	.69970	50.00	**

* Compound is ISTD
** Compound uses different Quant parameters

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

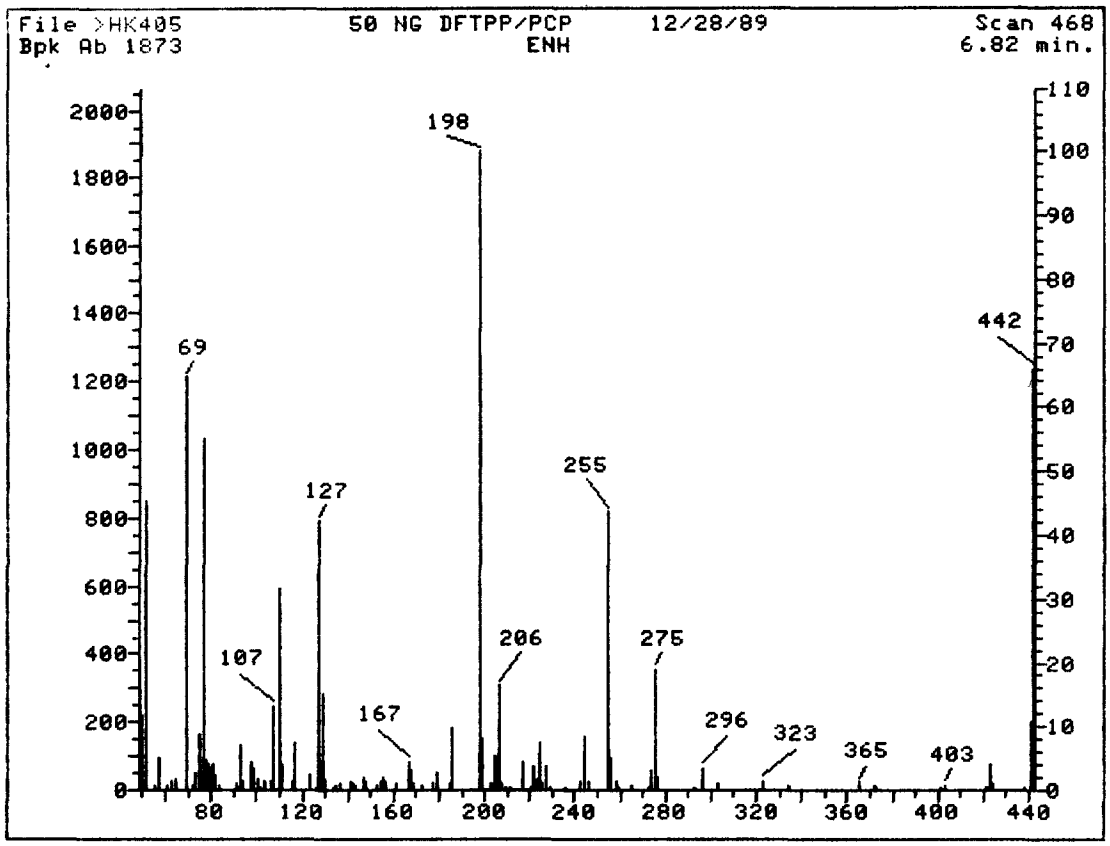
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	45.34	45.34	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	64.67	64.67	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	42.17	42.17	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	7.99	7.99	Ok
275	10-30% of mass 198	18.97	18.97	Ok
365	Greater than 1% of mass 198	1.25	1.25	Ok
441	0-100% of mass 443	10.64	81.69	Ok
442	Greater than 40% of mass 198	65.95	65.95	Ok
443	17-23% of mass 442	13.03	19.76	Ok

Injection Date: 12/29/89
Injection Time: 11:57
Data File: >HK405
Scan: 468

MS data file header from : >HK405

Sample: 50 NG DFTPP/PCP Operator: KELLY MS 12/29/89 11:57
Misc : 12/28/89 BTL# 1
Sys. #: 1 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: TOXIC1 Tuning file: MT5987 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 0 Transfer line temp. : 0

Chromatographic temperatures :	0.	0.	0.	0.	0.
Chromatographic times, min. :	0.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	0.0	0.0	0.0	0.0	0.0



MS data file header from : >HK405

Sample: 50 NG DFTPP/PCP Operator: KELLY MS 12/29/89 11:57
Misc : 12/28/89 BTL# 1
Sys. #: 1 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: TOXIC1 Tuning file: MT5987 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 0 Transfer line temp. : 0

Chromatographic temperatures :	0.	0.	0.	0.	0.
Chromatographic times, min. :	0.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	0.0	0.0	0.0	0.0	0.0

>HK405 50 NG DFTPP/PCP 12/28/89
468 ENH

File: >HK405 Scan #: 468 Retn. time: 6.82

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
48.15	17.67	92.15	6.67	141.05	25.33	205.00	102.67	275.05	355.33
48.50	9.33	93.00	131.67	141.95	17.33	206.15	306.00	276.20	37.67
48.90	12.00	94.00	24.00	142.95	14.67	207.00	18.00	276.70	15.67
49.15	11.00	98.00	80.33	147.05	38.67	209.15	9.33	292.80	7.00
49.90	217.67	99.00	66.00	147.45	9.00	210.90	4.67	296.05	65.33
51.00	849.00	100.50	30.33	147.80	19.00	217.00	85.00	303.05	18.67
54.90	13.00	100.90	9.67	148.20	25.67	220.25	6.67	323.20	28.67
55.65	10.67	102.00	8.67	153.05	16.00	221.15	68.67	333.80	10.67
57.15	97.67	103.90	28.33	154.55	25.67	223.15	32.00	334.20	9.00
61.15	11.00	106.00	23.33	155.05	38.33	224.00	137.33	365.00	23.33
63.00	27.33	107.00	248.33	156.20	27.33	225.00	21.33	371.75	10.00
65.00	34.67	110.00	589.00	161.05	18.67	227.15	71.67	372.15	15.67
69.00	1211.00	110.90	78.67	167.20	83.00	229.00	9.00	372.40	15.33
71.90	14.33	115.50	24.33	167.45	54.67	235.50	5.00	372.75	4.33
72.90	7.67	116.25	6.00	167.80	38.00	242.15	24.33	390.15	3.67
73.65	48.33	117.05	139.00	168.20	20.67	244.15	160.67	401.50	7.67
75.00	161.00	123.20	44.33	172.80	14.33	245.90	27.67	403.00	15.00
75.90	40.33	123.45	16.67	177.20	16.67	246.40	11.33	421.00	5.67
77.00	1028.67	125.95	5.33	179.05	48.33	255.15	816.67	422.00	4.67
78.00	90.00	127.05	789.67	184.30	7.33	256.00	94.00	422.90	73.33
79.00	76.00	128.05	81.67	185.20	19.67	258.15	23.33	423.75	19.33
79.90	59.67	129.20	286.33	186.05	180.67	259.25	6.33	438.45	7.00
80.75	74.33	130.05	34.67	198.15	1872.67	265.00	16.33	438.95	3.33
81.40	42.67	133.70	7.67	199.15	149.67	272.30	7.33	441.05	199.33
83.90	15.33	133.95	8.67	202.65	17.00	273.20	21.33	441.95	1235.00
91.00	17.00	135.05	15.00	203.00	19.67	273.80	55.33	442.95	244.00
91.90	5.67	136.80	16.67						

MS data file header from : >HK405

Sample: 50 NG DFTPP/PCP Operator: KELLY MS 12/29/89 11:57
Misc : 12/28/89 BTL# 1
Sys. #: 1 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: TOXIC1 Tuning file: MT5987 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 0 Transfer line temp. : 0

Chromatographic temperatures :	0.	0.	0.	0.	0.
Chromatographic times, min. :	0.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	0.0	0.0	0.0	0.0	0.0

Initial Calibration Data
HSL Compounds

Case No: Instrument ID: HP-5987

Contractor: 5SCRL-USEPACHICAGOIL Calibration Date: ~~01/02/90~~ 12/29/89 KOH 1/2/90

Contract No: (312) 353-9065

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 35.00%

Laboratory ID:	>HK407	>HK408	>HK406						
Compound	RF 25.00	RF 50.00	RF 100.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC	
2-Fluorophenol	1.33572	1.44223	1.49117	.655	1.42304	5.586			
Phenol-d5	1.89202	2.02789	2.09473	.921	2.00488	5.152			
Phenol	2.26322	2.43084	2.48523	.925	2.39310	4.836	*		
bis(2-Chloroethyl)Ether	1.77310	1.86308	1.93446	.941	1.85688	4.354			
2-Chlorophenol	1.32646	1.42393	1.55450	.943	1.43496	7.974			
1,3-Dichlorobenzene	1.42589	1.42514	1.54681	.986	1.46595	4.777			
1,4-Dichlorobenzene	1.47272	1.53935	1.58087	1.005	1.53098	3.563	*		
Benzyl Alcohol	.80662	.97204	.94296	1.067	.90721	9.735			
1,2-Dichlorobenzene	1.35633	1.35822	1.46898	1.067	1.39451	4.625			
2-Methylphenol	1.41677	1.43832	1.44031	1.122	1.43180	.912			
bis(2-Chloroisopropyl)ether	.39966	.37793	.39134	1.124	.38964	2.815			
4-Methylphenol	1.39069	1.68893	1.60478	1.178	1.56147	9.848			
N-Nitroso-Di-n-propylamine	1.19002	1.05419	1.25711	1.175	1.16710	8.858		**	
Hexachloroethane	.43683	.40921	.45383	1.174	.43329	5.197			
d8-Naphthalene	3.82541	3.86174	3.81467	1.474	3.83394	.643			(Conc=50.0,50.0,50.0)
Nitrobenzene-d5	1.66134	1.68055	1.73444	1.209	1.69211	2.240			
Nitrobenzene	.82120	.83871	.88313	1.215	.84768	3.766			
Isophorone	2.95513	3.34171	2.57280	1.307	2.95655	13.004			
2-Nitrophenol	.68700	.72790	.78909	1.338	.73466	6.994	*		
2,4-Dimethylphenol	.99383	1.08554	1.18355	1.378	1.08764	8.723			
Benzoic Acid	.73468	.67837	.79134	1.448	.73480	7.687			
bis(2-Chloroethoxy)Methane	2.05918	2.09501	2.10405	1.416	2.08608	1.138			
2,4-Dichlorophenol	1.02370	1.02719	1.02106	1.433	1.02398	.300	*		
1,2,4-Trichlorobenzene	1.13462	1.09942	1.09433	1.462	1.10946	1.978			
Naphthalene	3.98471	3.90537	4.12908	1.482	4.00639	2.831			
4-Chloroaniline	.41214	.49955	.45228	1.530	.45466	9.623			
Hexachlorobutadiene	.47399	.54741	.57527	1.572	.53222	9.831	*		
4-Chloro-3-methylphenol	1.20488	1.29578	1.12494	1.760	1.20853	7.073	*		
2-Methylnaphthalene	2.24443	2.34722	2.23156	1.779	2.27440	2.787			
d10-Acenaphthene	1.52026	1.59533	1.12299	2.242	1.41286	17.965			(Conc=50.0,50.0,50.0)

RF - Response Factor (Subscript is amount in NG/UL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

Case No: Instrument ID: HP-5987

Contractor: 5SCRL-USEPACHICAGOIL Calibration Date: ~~01/02/90~~ 12/29/89

Contract No: (312) 353-9065

KDW 1/2/90

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 35.00%

Laboratory ID:	>HK407 RF 25.00	>HK408 RF 50.00	>HK406 RF 100.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Hexachlorocyclopentadiene	.46964	.56040	.53822	1.887	.52275	9.051		**
2,4,6-Trichlorophenol	.58309	.62284	.49444	1.924	.56679	11.598	*	
2,4,5-Trichlorophenol	.54018	.60409	.50749	1.937	.55059	8.925		
2-Chloronaphthalene	1.98275	2.21740	1.71260	1.987	1.97092	12.817		
2-Fluorobiphenyl	2.48296	2.60435	2.12800	1.962	2.40510	10.292		
2-Nitroaniline	.64016	.72783	.54029	2.062	.63609	14.752		
Dimethylphthalate	2.05553	1.97505	1.37649	2.179	1.80236	20.584		
Acenaphthylene	1.50411	1.78798	1.59333	.748	1.62848	8.914		
3-Nitroaniline	.20601	.24452	.20865	.776	.21973	9.792		
Acenaphthene	1.15403	1.29105	1.05803	.778	1.16771	10.029	*	
2,4-Dinitrophenol	.04076	.06988	.07948	.791	.06337	31.821		**
4-Nitrophenol	.05044	.07233	.07302	.812	.06526	19.678		
Dibenzofuran	1.35844	1.50935	1.28348	.803	1.38376	8.314		
2,4-Dinitrotoluene	.25143	.29172	.32341	.816	.28885	12.490		
2,6-Dinitrotoluene	.20949	.27714	.23901	.757	.24188	14.022		
Diethylphthalate	.83977	.97348	.95839	.864	.92388	7.927		
4-Chlorophenyl-phenylether	.47457	.51010	.41279	.864	.46582	10.570		
Fluorene	.96907	1.07855	.97298	.857	1.00686	6.168		
4-Nitroaniline	.06820	.04496	.10986	.872	.07434	44.229		
4,6-Dinitro-2-methylphenol	.05838	.07862	.11885	.878	.08528	36.093		
N-Nitrosodiphenylamine	.16553	.17219	.14358	.884	.16043	9.331	*	
2,4,6-Tribromophenol	.14386	.16126	.15840	.897	.15451	6.038		
4-Bromophenyl-phenylether	.19771	.22738	.23666	.938	.22058	9.222		
Hexachlorobenzene	.30507	.29774	.30867	.954	.30383	1.832		
Pentachlorophenol	.08681	.09997	.12524	.985	.10400	18.780	*	
Phenanthrene	1.19730	1.16568	1.31244	1.004	1.22514	6.305		
Anthracene	1.00125	1.11507	1.23529	1.010	1.11720	10.476		
Di-n-Butylphthalate	1.00599	.94860	1.29945	1.121	1.08468	17.350		
Fluoranthene	.87495	.89542	1.16884	1.189	.97974	16.748	*	
d12-Chrysene	.48230	.98066	.65046	1.414	.70447	35.989		(Conc=50.0,50.0,50.0)

RF - Response Factor (Subscript is amount in NG/UL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

Case No:

Instrument ID: HP-5987

Contractor: 5SCRL-USEPACHICAGOIL

Calibration Date: ~~01/02/90~~ 12/29/89

KDH 1/2/90

Contract No: (312) 353-9065

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 35.00%

Laboratory ID:	>HK407	>HK408	>HK406					
	RF	RF	RF					
Compound	25.00	50.00	100.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Pyrene	.88909	.92008	1.09626	1.222	.96848	11.538		
Terphenyl-d14	.53024	.55439	.67234	1.260	.58566	12.983		
Butylbenzylphthalate	.28835	.40849	.35759	1.351	.35148	17.157		
Benzo(a)Anthracene	.48614	.92495	.70353	1.412	.70487	31.128		
Bis(2-Ethylhexyl)Phthalate	.34583	.62003	.49045	1.450	.48544	28.257		
Chrysene	.56103	1.05229	.74729	1.418	.78687	31.519		
Di-n-octylphthalate	.97518	1.18739	1.68357	.952	1.28204	28.358	*	
Benzo(b)fluoranthene	.81986	1.02404	1.23263	.970	1.02551	20.126		
Benzo(k)Fluoranthene	.73753	1.07310	1.25127	.972	1.02064	25.558		
Benzo(a)Pyrene	.70423	.83473	1.03930	.995	.85942	19.652	*	
Indeno(1,2,3-cd)Pyrene	1.08006	.67711	.81046	1.081	.85588	23.985		
Dibenzo(a,h)Anthracene	.82900	.53474	.60909	1.084	.65761	23.269		
Benzo(g,h,i)Perylene	.92198	.54871	.62840	1.102	.69970	28.096		

RF - Response Factor (Subscript is amount in NG/UL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

QUANT REPORT

Operator ID: KELLY Quant Rev: 6 Quant Time: 891229 15:40
Output File: ^HK406::SK Injected at: 891229 14:49
Data File: >HK406::D1 Dilution Factor: 1.00000
Name: TOX STD 100
Misc: IN#5987 BTL# 1

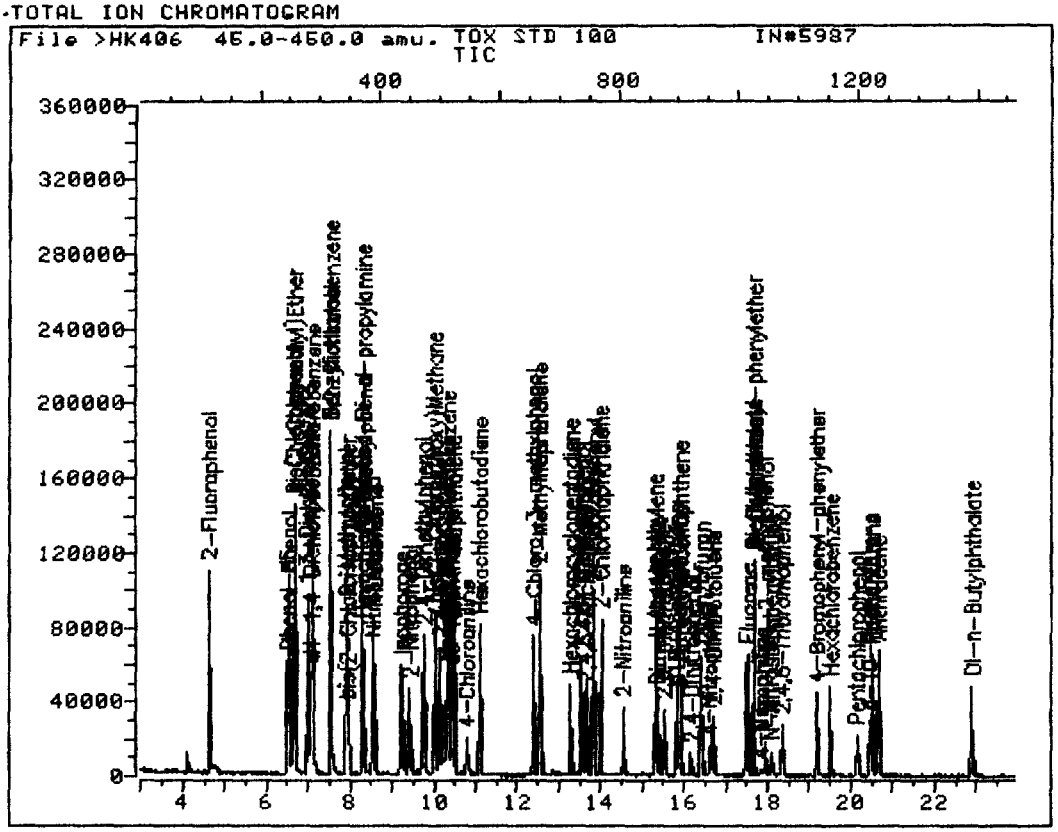
ID File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 891228 16:28

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.05	152.0	17164	50.00	NG/UL	91
2)	2-Fluorophenol	4.62	112.0	51189	89.19	NG/UL	97
3)	Phenol-d5	6.49	99.0	71908	104.10	NG/UL	83
4)	Phenol	6.52	94.0	85313M	115.10	NG/UL	
5)	bis(2-Chloroethyl)Ether	6.64	93.0	66406	102.59	NG/UL	97
6)	2-Chlorophenol	6.64	128.0	53363	108.43	NG/UL	97
7)	1,3-Dichlorobenzene	6.95	146.0	53099M	104.19	NG/UL	95
8)	1,4-Dichlorobenzene	7.08	146.0	54268	101.53	NG/UL	96
9)	Benzyl Alcohol	7.51	108.0	32370	110.73	NG/UL	76
10)	1,2-Dichlorobenzene	7.51	146.0	50427	101.50	NG/UL	96
11)	2-Methylphenol	7.88	108.0	49443	98.71	NG/UL	95
12)	bis(2-Chloroisopropyl)ether	7.91	121.0	13434	100.13	NG/UL	95
13)	4-Methylphenol	8.30	108.0	55089	114.39	NG/UL	93
14)	N-Nitroso-Di-n-propylamine	8.28	70.0	43154	125.43	NG/UL	90
15)	Hexachloroethane	8.26	201.0	15579	102.89	NG/UL	96
16)	d8-Naphthalene	10.39	136.0	65475	55.25	NG/UL	87
17)	Nitrobenzene-d5	8.51	82.0	59540	111.94	NG/UL	99
18)	Nitrobenzene	8.56	123.0	30316	113.99	NG/UL	99
19)	Isophorone	9.20	82.0	88319	106.00	NG/UL	90
20)	2-Nitrophenol	9.42	139.0	27088	114.16	NG/UL	88
21)	2,4-Dimethylphenol	9.73	122.0	40629	120.11	NG/UL	94
22)	Benzoic Acid	10.29	105.0	27165M	144.94	NG/UL	89
23)	bis(2-Chloroethoxy)Methane	9.99	93.0	72228	117.79	NG/UL	98
24)	2,4-Dichlorophenol	10.12	162.0	35051	110.10	NG/UL	95
25)	1,2,4-Trichlorobenzene	10.30	180.0	37566	112.62	NG/UL	96
26)	Naphthalene	10.45	128.0	141743	112.33	NG/UL	97
27)	4-Chloroaniline	10.78	127.0	15526	109.54	NG/UL	95
28)	Hexachlorobutadiene	11.08	225.0	19748	108.25	NG/UL	98
29)	4-Chloro-3-methylphenol	12.38	107.0	38617	121.75	NG/UL	86
30)	2-Methylnaphthalene	12.54	142.0	76605	116.27	NG/UL	88
31)	d10-Acenaphthene	15.79	164.0	19275	51.75	NG/UL	95
32)	Hexachlorocyclopentadiene	13.27	237.0	18476	115.57	NG/UL	90
33)	2,4,6-Trichlorophenol	13.54	196.0	16973M	108.60	NG/UL	95
34)	2,4,5-Trichlorophenol	13.63	196.0	17421M	115.68	NG/UL	
35)	2-Chloronaphthalene	13.99	162.0	58790	110.03	NG/UL	94
36)	2-Fluorobiphenyl	13.81	172.0	73050	109.69	NG/UL	95
37)	2-Nitroaniline	14.53	138.0	18547	114.03	NG/UL	91
38)	Dimethylphthalate	15.34	163.0	47252	106.11	NG/UL	95
39)	*d-10-Phenanthrene	20.43	188.0	25296	50.00	NG/UL	98
40)	Acenaphthylene	15.29	152.0	80610	88.56	NG/UL	91
41)	3-Nitroaniline	15.86	138.0	10556	84.67	NG/UL	84
42)	Acenaphthene	15.89	153.0	53528	83.96	NG/UL	94
43)	2,4-Dinitrophenol	16.16	184.0	4021	112.72	NG/UL	75

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	4-Nitrophenol	16.59	109.0	3694M	113.46	NG/UL	89
45)	Dibenzofuran	16.40	168.0	64934	85.57	NG/UL	93
46)	2,4-Dinitrotoluene	16.69	165.0	16362M	137.82	NG/UL	
47)	2,6-Dinitrotoluene	15.49	165.0	12092M	86.76	NG/UL	96
48)	Diethylphthalate	17.65	149.0	48487	105.39	NG/UL	95
49)	4-Chlorophenyl-phenylether	17.65	204.0	20884	81.75	NG/UL	88
50)	Fluorene	17.51	166.0	49225	92.65	NG/UL	89
51)	4-Nitroaniline	17.82	138.0	5558M	85.19	NG/UL	
52)	4,6-Dinitro-2-methylphenol	17.94	198.0	6013	151.25	NG/UL	81
53)	N-Nitrosodiphenylamine	18.07	169.0	7264	80.97	NG/UL	90
54)	2,4,6-Tribromophenol	18.32	330.0	8014	93.45	NG/UL	93
55)	4-Bromophenyl-phenylether	19.17	248.0	11973	104.82	NG/UL	93
56)	Hexachlorobenzene	19.50	284.0	15616	101.43	NG/UL	87
57)	Pentachlorophenol	20.13	265.8	6336	128.75	NG/UL	92
58)	Phenanthrene	20.50	178.0	66399	112.62	NG/UL	99
59)	Anthracene	20.64	178.0	62496M	110.73	NG/UL	99
60)	Di-n-Butylphthalate	22.90	149.0	65742	139.33	NG/UL	96
61)	Fluoranthene	24.30	202.0	59134	136.45	NG/UL	95
62)	d12-Chrysene	28.88	240.0	16454	48.12	NG/UL	90
63)	Pyrene	24.97	202.0	55462M	122.95	NG/UL	92
64)	Terphenyl-d14	25.75	244.0	34015	117.07	NG/UL	95
65)	Butylbenzylphthalate	27.59	149.0	18091M	103.29	NG/UL	
66)	Benzo(a)Anthracene	28.83	228.0	35593M	100.28	NG/UL	95
67)	Bis(2-Ethylhexyl)Phthalate	29.62	149.0	24813	100.44	NG/UL	96
68)	Chrysene	28.96	228.0	37807	100.60	NG/UL	92
69)	*d12-Perylene	33.02	264.0	14910	50.00	NG/UL	95
70)	Di-n-octylphthalate	31.45	149.0	50204	154.92	NG/UL	82
71)	Benzo(b)fluoranthene	32.04	252.0	36757M	126.45	NG/UL	93
72)	Benzo(k)Fluoranthene	32.11	252.0	37313	125.16	NG/UL	93
73)	Benzo(a)Pyrene	32.88	252.0	30992	127.72	NG/UL	96
74)	Indeno(1,2,3-cd)Pyrene	35.71	276.0	24168M	95.02	NG/UL	80
75)	Dibenzo(a,h)Anthracene	35.80	278.0	18163	85.52	NG/UL	81
76)	Benzo(g,h,i)Perylene	36.40	276.0	18739	81.57	NG/UL	82

* Compound is ISTD

TOTAL ION CHROMATOGRAM



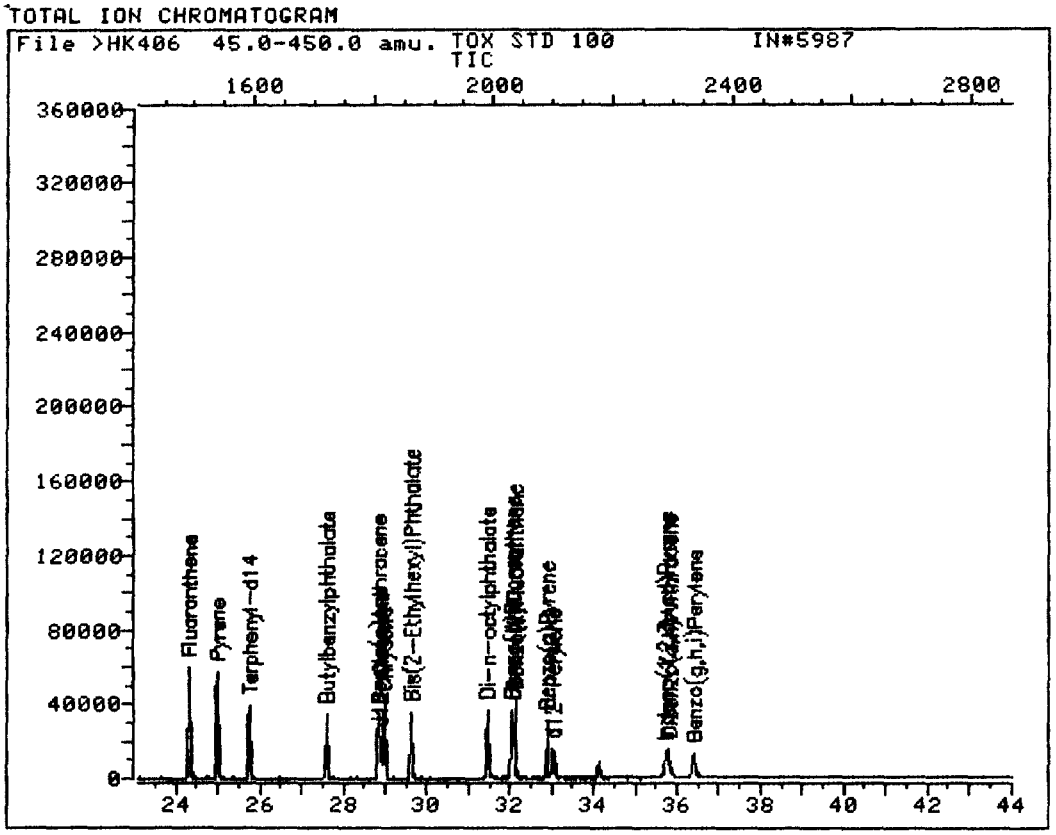
Data File: >HK406::D1 Quant Output File: ^HK406::SK
Name: TOX STD 100
Misc: IN#5987 BTL# 1

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 891228 16:28

Operator ID: KELLY
Quant Time: 891229 15:40
Injected at: 891229 14:49

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >HK406::D1 Quant Output File: ^HK406::SK
Name: TOX STD 100
Misc: IN#5987 BTL# 1

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 891228 16:28

Operator ID: KELLY
Quant Time: 891229 15:40
Injected at: 891229 14:49

TIC page 2 of 2

QUANT REPORT

Operator ID: KELLY Quant Rev: 6 Quant Time: 900102 09:55
Output File: ^HK407::SK Injected at: 891229 15:47
Data File: >HK407::D1 Dilution Factor: 1.00000
Name: TDX STD 25
Misc: IN#5987 BTL# 2

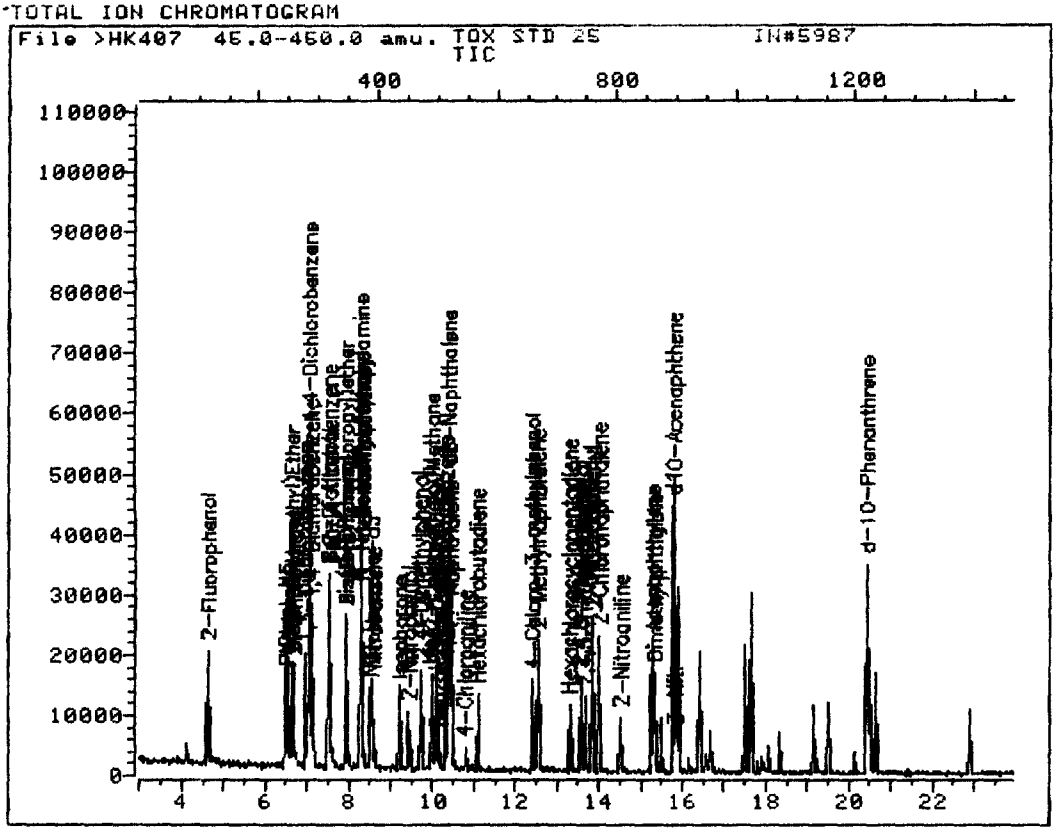
ID File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 09:55

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.03	152.0	14262	50.00	NG/UL	91
2)	2-Fluorophenol	4.61	112.0	9525	19.97	NG/UL	96
3)	Phenol-d5	6.47	99.0	13492	23.51	NG/UL	59
4)	Phenol	6.50	94.0	16139M	26.20	NG/UL	
5)	bis(2-Chloroethyl)Ether	6.62	93.0	12644	23.51	NG/UL	94
6)	2-Chlorophenol	6.64	128.0	9459	23.13	NG/UL	92
7)	1,3-Dichlorobenzene	6.93	146.0	10168M	24.01	NG/UL	98
8)	1,4-Dichlorobenzene	7.06	146.0	10502	23.65	NG/UL	99
9)	Benzyl Alcohol	7.50	108.0	5752	23.68	NG/UL	92
10)	1,2-Dichlorobenzene	7.50	146.0	9672	23.43	NG/UL	91
11)	2-Methylphenol	7.90	108.0	10103	24.27	NG/UL	92
12)	bis(2-Chloroisopropyl)ether	7.90	121.0	2850	25.56	NG/UL	92
13)	4-Methylphenol	8.28	108.0	9917	24.78	NG/UL	99
14)	N-Nitroso-Di-n-propylamine	8.26	70.0	8486	29.68	NG/UL	85
15)	Hexachloroethane	8.28	201.0	3115	24.76	NG/UL	86
16)	d8-Naphthalene	10.37	136.0	54558	55.40	NG/UL	88
17)	Nitrobenzene-d5	8.51	82.0	11847	26.81	NG/UL	98
18)	Nitrobenzene	8.55	123.0	5856	26.50	NG/UL	93
19)	Isophorone	9.19	82.0	21073	30.44	NG/UL	95
20)	2-Nitrophenol	9.41	139.0	4899	24.85	NG/UL	82
21)	2,4-Dimethylphenol	9.68	122.0	7087	25.21	NG/UL	86
22)	Benzoic Acid	10.11	105.0	5239M	33.64	NG/UL	95
23)	bis(2-Chloroethoxy)Methane	9.95	93.0	14684	28.82	NG/UL	96
24)	2,4-Dichlorophenol	10.07	162.0	7300	27.60	NG/UL	95
25)	1,2,4-Trichlorobenzene	10.28	180.0	8091	29.19	NG/UL	85
26)	Naphthalene	10.42	128.0	28415	27.10	NG/UL	98
27)	4-Chloroaniline	10.75	127.0	2939	24.95	NG/UL	81
28)	Hexachlorobutadiene	11.05	225.0	3380	22.30	NG/UL	81
29)	4-Chloro-3-methylphenol	12.39	107.0	8592	32.60	NG/UL	82
30)	2-Methylnaphthalene	12.51	142.0	16005	29.23	NG/UL	85
31)	d10-Acenaphthene	15.76	164.0	21682	70.05	NG/UL	90
32)	Hexachlorocyclopentadiene	13.29	237.0	3349	25.21	NG/UL	88
33)	2,4,6-Trichlorophenol	13.54	196.0	4158	32.02	NG/UL	95
34)	2,4,5-Trichlorophenol	13.63	196.0	3852M	30.78	NG/UL	95
35)	2-Chloronaphthalene	13.99	162.0	14139	31.85	NG/UL	90
36)	2-Fluorobiphenyl	13.80	172.0	17706	32.00	NG/UL	98
37)	2-Nitroaniline	14.50	138.0	4565	33.78	NG/UL	91
38)	Dimethylphthalate	15.32	163.0	14658	39.61	NG/UL	92
39)	*d-10-Phenanthrene	20.41	188.0	28708	50.00	NG/UL	90
40)	Acenaphthylene	15.26	152.0	21590	20.90	NG/UL	92
41)	3-Nitroaniline	15.82	138.0	2957	20.90	NG/UL	79
42)	Acenaphthene	15.86	153.0	16565	22.89	NG/UL	93
43)	2,4-Dinitrophenol	16.15	184.0	585	14.45	NG/UL	70

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	4-Nitrophenol	16.56	109.0	724	19.59	NG/UL	76
45)	Dibenzofuran	16.38	168.0	19499	22.64	NG/UL	84
46)	2,4-Dinitrotoluene	16.65	165.0	3609M	26.79	NG/UL	
47)	2,6-Dinitrotoluene	15.45	165.0	3007	19.01	NG/UL	72
48)	Diethylphthalate	17.62	149.0	12054	23.09	NG/UL	90
49)	4-Chlorophenyl-phenylether	17.62	204.0	6812	23.50	NG/UL	94
50)	Fluorene	17.48	166.0	13910	23.07	NG/UL	91
51)	4-Nitroaniline	17.79	138.0	979M	13.22	NG/UL	
52)	4,6-Dinitro-2-methylphenol	17.91	198.0	838	18.57	NG/UL	90
53)	N-Nitrosodiphenylamine	18.05	169.0	2376	23.34	NG/UL	94
54)	2,4,6-Tribromophenol	18.31	330.0	2065	21.22	NG/UL	90
55)	4-Bromophenyl-phenylether	19.14	248.0	2838	21.89	NG/UL	76
56)	Hexachlorobenzene	19.48	284.0	4379	25.06	NG/UL	86
57)	Pentachlorophenol	20.11	265.8	1246	22.31	NG/UL	84
58)	Phenanthrene	20.48	178.0	17186	25.68	NG/UL	98
59)	Anthracene	20.61	178.0	14372M	22.44	NG/UL	98
60)	Di-n-Butylphthalate	22.87	149.0	14440	26.97	NG/UL	97
61)	Fluoranthene	24.27	202.0	12559M	25.54	NG/UL	89
62)	d12-Chrysene	28.86	240.0	13846	35.68	NG/UL	88
63)	Pyrene	24.94	202.0	12762	24.93	NG/UL	86
64)	Terphenyl-d14	25.71	244.0	7611	23.08	NG/UL	96
65)	Butylbenzylphthalate	27.57	149.0	4139	20.82	NG/UL	78
66)	Benzo(a)Anthracene	28.80	228.0	6978M	17.32	NG/UL	95
67)	Bis(2-Ethylhexyl)Phthalate	29.60	149.0	4964	17.70	NG/UL	86
68)	Chrysene	28.93	228.0	8053	18.88	NG/UL	91
69)	*d12-Perylene	33.02	264.0	22521	50.00	NG/UL	94
70)	Di-n-octylphthalate	31.41	149.0	10981	22.43	NG/UL	82
71)	Benzo(b)fluoranthene	32.00	252.0	9232	21.03	NG/UL	91
72)	Benzo(k)Fluoranthene	32.06	252.0	8305M	18.44	NG/UL	91
73)	Benzo(a)Pyrene	32.84	252.0	7930	21.64	NG/UL	94
74)	Indeno(1,2,3-cd)Pyrene	35.68	276.0	12162M	31.66	NG/UL	76
75)	Dibenzo(a,h)Anthracene	35.76	278.0	9335	29.10	NG/UL	84
76)	Benzo(g,h,i)Perylene	36.35	276.0	10382	29.92	NG/UL	78

* Compound is ISTD

TOTAL ION CHROMATOGRAM



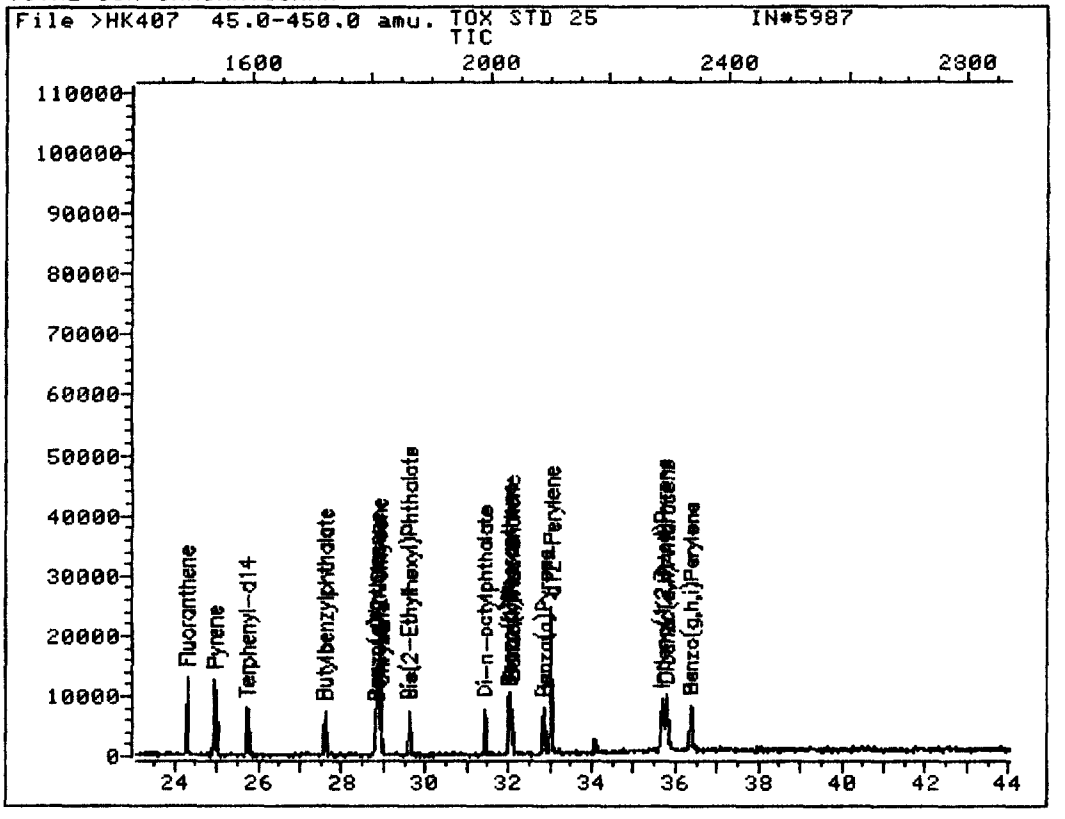
Data File: >HK407::D1 Quant Output File: ^HK407::SK
Name: TOX STD 25
Misc: IN#5987 BTL# 2

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 09:55

Operator ID: KELLY
Quant Time: 900102 09:55
Injected at: 891229 15:47

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >HK407::D1 Quant Output File: ^HK407::SK
Name: TOX STD 25
Misc: IN#5987 BTL# 2

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 09:55

Operator ID: KELLY
Quant Time: 900102 09:55
Injected at: 891229 15:47

TIC page 2 of 2

QUANT REPORT

Operator ID: KELLY Quant Rev: 6 Quant Time: 900102 10:01
Output File: ^HK408::SK Injected at: 891229 16:44
Data File: >HK408::D1 Dilution Factor: 1.00000
Name: TOX STD 50
Misc: IN#5987 BTL# 3

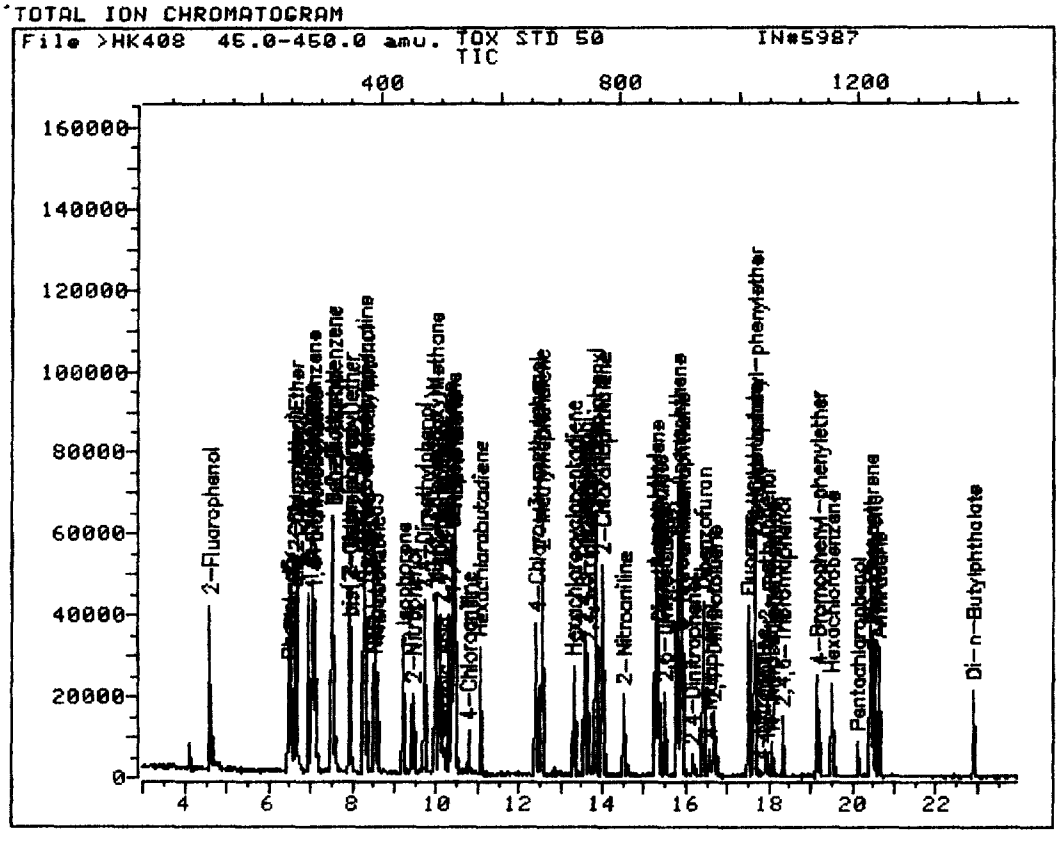
ID File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 09:55

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.03	152.0	15630	50.00	NG/UL	92
2)	2-Fluorophenol	4.60	112.0	22542	43.13	NG/UL	96
3)	Phenol-d5	6.47	99.0	31696	50.39	NG/UL	74
4)	Phenol	6.52	94.0	37994M	56.29	NG/UL	
5)	bis(2-Chloroethyl)Ether	6.62	93.0	29120	49.40	NG/UL	98
6)	2-Chlorophenol	6.63	128.0	22256	49.66	NG/UL	97
7)	1,3-Dichlorobenzene	6.95	146.0	22275M	48.00	NG/UL	95
8)	1,4-Dichlorobenzene	7.07	146.0	24060	49.43	NG/UL	95
9)	Benzyl Alcohol	7.50	108.0	15193	57.07	NG/UL	83
10)	1,2-Dichlorobenzene	7.50	146.0	21229	46.92	NG/UL	97
11)	2-Methylphenol	7.91	108.0	22481	49.29	NG/UL	95
12)	bis(2-Chloroisopropyl)ether	7.92	121.0	5907	48.35	NG/UL	97
13)	4-Methylphenol	8.29	108.0	26398	60.20	NG/UL	87
14)	N-Nitroso-Di-n-propylamine	8.26	70.0	16477	52.59	NG/UL	75
15)	Hexachloroethane	8.26	201.0	6396	46.39	NG/UL	89
16)	d8-Naphthalene	10.37	136.0	60359	55.93	NG/UL	86
17)	Nitrobenzene-d5	8.51	82.0	26267	54.23	NG/UL	99
18)	Nitrobenzene	8.55	123.0	13109	54.13	NG/UL	93
19)	Isophorone	9.19	82.0	52231	68.84	NG/UL	99
20)	2-Nitrophenol	9.42	139.0	11377	52.65	NG/UL	89
21)	2,4-Dimethylphenol	9.70	122.0	16967	55.08	NG/UL	97
22)	Benzoic Acid	10.17	105.0	10603	62.12	NG/UL	96
23)	bis(2-Chloroethoxy)Methane	9.95	93.0	32745	58.64	NG/UL	92
24)	2,4-Dichlorophenol	10.08	162.0	16055	55.38	NG/UL	92
25)	1,2,4-Trichlorobenzene	10.28	180.0	17184	56.57	NG/UL	98
26)	Naphthalene	10.43	128.0	61041	53.12	NG/UL	96
27)	4-Chloroaniline	10.77	127.0	7808	60.49	NG/UL	91
28)	Hexachlorobutadiene	11.06	225.0	8556	51.50	NG/UL	97
29)	4-Chloro-3-methylphenol	12.40	107.0	20253	70.12	NG/UL	89
30)	2-Methylnaphthalene	12.52	142.0	36687	61.15	NG/UL	86
31)	d10-Acenaphthene	15.78	164.0	24935	73.51	NG/UL	88
32)	Hexachlorocyclopentadiene	13.29	237.0	8759	60.16	NG/UL	93
33)	2,4,6-Trichlorophenol	13.55	196.0	9735	68.40	NG/UL	78
34)	2,4,5-Trichlorophenol	13.65	196.0	9442M	68.85	NG/UL	78
35)	2-Chloronaphthalene	13.99	162.0	34658	71.23	NG/UL	96
36)	2-Fluorobiphenyl	13.82	172.0	40706	67.12	NG/UL	93
37)	2-Nitroaniline	14.51	138.0	11376	76.81	NG/UL	88
38)	Dimethylphthalate	15.33	163.0	30870	76.12	NG/UL	81
39)	*d-10-Phenanthrene	20.41	188.0	26889	50.00	NG/UL	93
40)	Acenaphthylene	15.26	152.0	48077	49.69	NG/UL	96
41)	3-Nitroaniline	15.85	138.0	6575	49.62	NG/UL	90
42)	Acenaphthene	15.88	153.0	34715	51.22	NG/UL	95
43)	2,4-Dinitrophenol	16.14	184.0	1879	49.55	NG/UL	78

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	4-Nitrophenol	16.57	109.0	1945	56.20	NG/UL	75
45)	Dibenzofuran	16.39	168.0	40585	50.32	NG/UL	91
46)	2,4-Dinitrotoluene	16.67	165.0	7844	62.16	NG/UL	74
47)	2,6-Dinitrotoluene	15.46	165.0	7452	50.30	NG/UL	66
48)	Diethylphthalate	17.62	149.0	26176	53.53	NG/UL	95
49)	4-Chlorophenyl-phenylether	17.64	204.0	13716	50.51	NG/UL	95
50)	Fluorene	17.48	166.0	29001	51.35	NG/UL	96
51)	4-Nitroaniline	17.83	138.0	1209M	17.43	NG/UL	
52)	4,6-Dinitro-2-methylphenol	17.91	198.0	2114	50.03	NG/UL	72
53)	N-Nitrosodiphenylamine	18.05	169.0	4630	48.55	NG/UL	98
54)	2,4,6-Tribromophenol	18.31	330.0	4336	47.56	NG/UL	84
55)	4-Bromophenyl-phenylether	19.16	248.0	6114M	50.36	NG/UL	
56)	Hexachlorobenzene	19.48	284.0	8006	48.92	NG/UL	97
57)	Pentachlorophenol	20.11	265.8	2688	51.38	NG/UL	96
58)	Phenanthrene	20.49	178.0	31344	50.01	NG/UL	98
59)	Anthracene	20.63	178.0	29983M	49.98	NG/UL	98
60)	Di-n-Butylphthalate	22.89	149.0	25507	50.86	NG/UL	97
61)	Fluoranthene	24.29	202.0	24077M	52.27	NG/UL	90
62)	d12-Chrysene	28.88	240.0	26369	72.55	NG/UL	93
63)	Pyrene	24.96	202.0	24740	51.59	NG/UL	87
64)	Terphenyl-d14	25.73	244.0	14907	48.27	NG/UL	89
65)	Butylbenzylphthalate	27.59	149.0	10984	59.00	NG/UL	73
66)	Benzo(a)Anthracene	28.83	228.0	24871M	65.92	NG/UL	90
67)	Bis(2-Ethylhexyl)Phthalate	29.62	149.0	16672	63.49	NG/UL	94
68)	Chrysene	28.96	228.0	28295	70.83	NG/UL	91
69)	*d12-Perylene	33.04	264.0	33364	50.00	NG/UL	92
70)	Di-n-octylphthalate	31.45	149.0	39616	54.63	NG/UL	91
71)	Benzo(b)fluoranthene	32.03	252.0	34166M	52.52	NG/UL	90
72)	Benzo(k)Fluoranthene	32.11	252.0	35803	53.67	NG/UL	90
73)	Benzo(a)Pyrene	32.88	252.0	27850	51.29	NG/UL	92
74)	Indeno(1,2,3-cd)Pyrene	35.72	276.0	22591M	39.69	NG/UL	79
75)	Dibenzo(a,h)Anthracene	35.80	278.0	17841	37.54	NG/UL	90
76)	Benzo(g,h,i)Perylene	36.38	276.0	18307	35.61	NG/UL	82

* Compound is ISTD

^TOTAL ION CHROMATOGRAM



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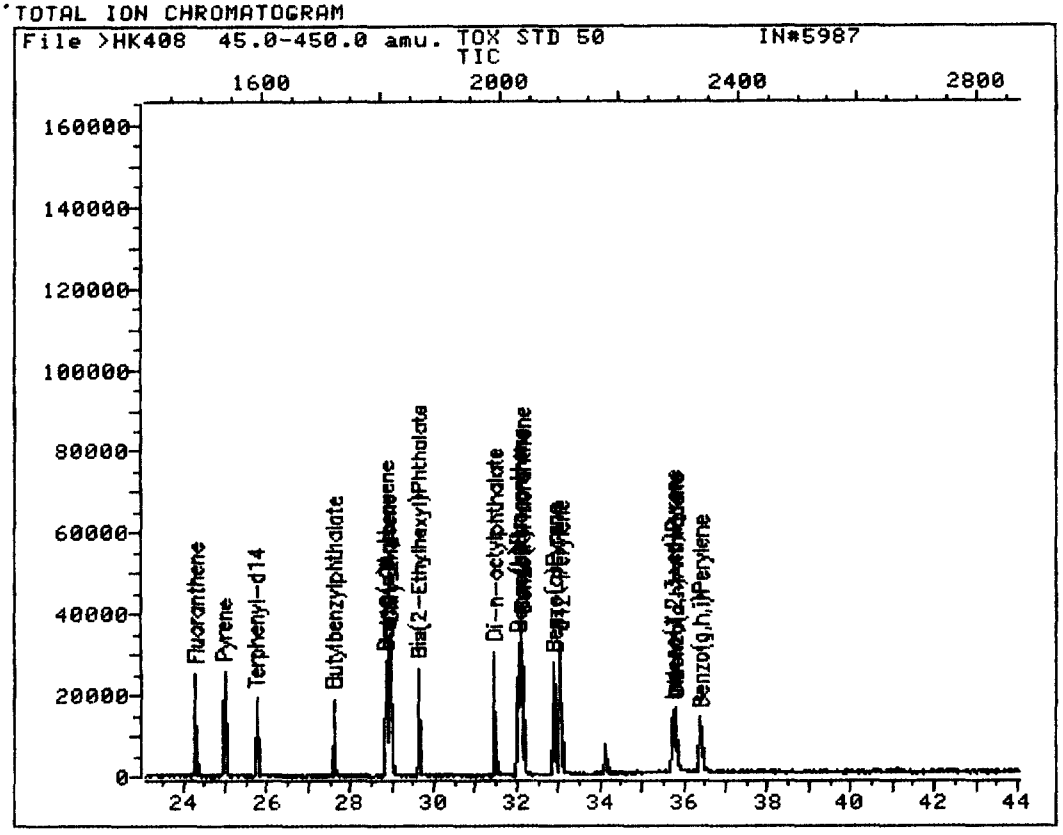
Name: TOX STD 50
Misc: IN#5987 BTL# 3

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 09:55

Operator ID: KELLY
Quant Time: 900102 10:01
Injected at: 891229 16:44

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >HK408::D1 Quant Output File: ^HK408::SK
Name: TOX STD 50
Misc: IN#5987 BTL# 3

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 09:55

Operator ID: KELLY
Quant Time: 900102 10:01
Injected at: 891229 16:44

TIC page 2 of 2

QUANT REPORT

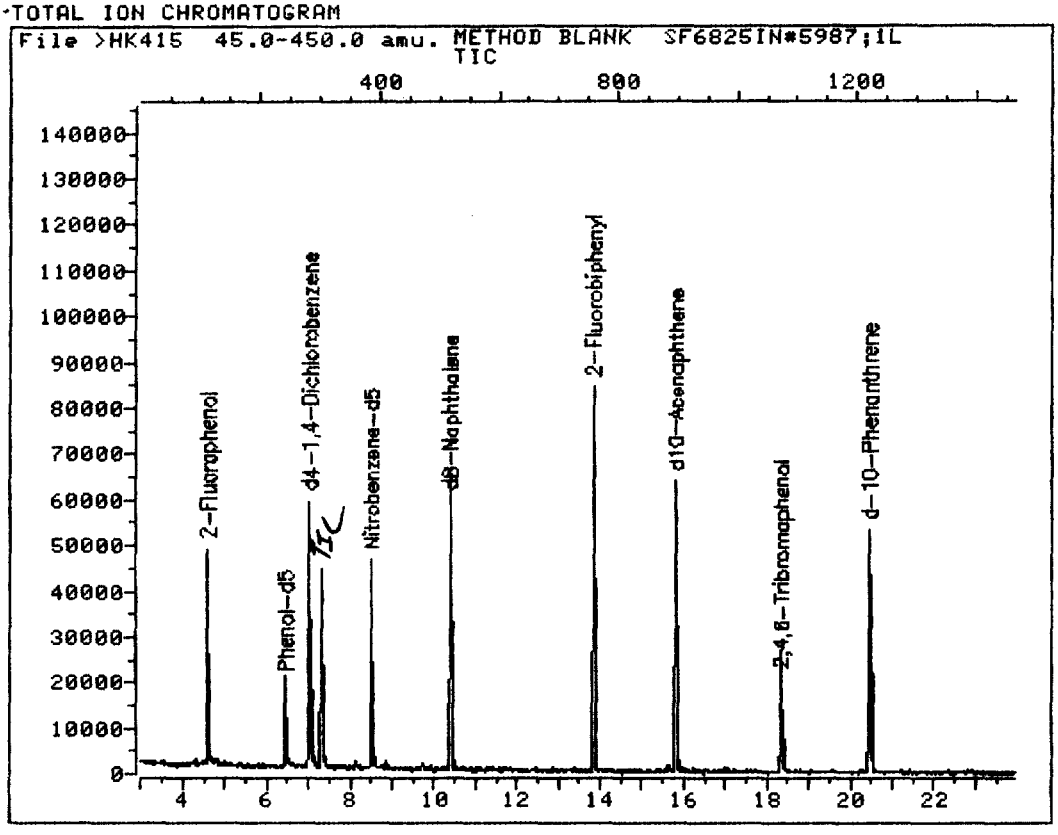
Operator ID: KELLY Quant Rev: 6 Quant Time: 900102 11:15
Output File: ^HK415::SK Injected at: 891229 23:27
Data File: >HK415::D1 Dilution Factor: 1.00000
Name: METHOD BLANK SF6825
Misc: IN#5987;1L BTL#10

ID File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.00	152.0	19416	50.00	NG/UL	92
2)	2-Fluorophenol	4.57	112.0	24225	43.84	NG/UL	99
3)	Phenol-d5	6.43	99.0	18958	24.35	NG/UL	70
16)	d8-Naphthalene	10.37	136.0	70826	47.57	NG/UL	87
17)	Nitrobenzene-d5	8.48	82.0	39638	60.32	NG/UL	98
31)	d10-Acenaphthene	15.79	164.0	27748	50.58	NG/UL	92
36)	2-Fluorobiphenyl	13.81	172.0	56887	60.91	NG/UL	95
39)	*d-10-Phenanthrene	20.43	188.0	41608	50.00	NG/UL	97
54)	2,4,6-Tribromophenol	18.32	330.0	7868	61.19	NG/UL	98
62)	d12-Chrysene	28.89	240.0	23253	39.66	NG/UL	92
64)	Terphenyl-d14	25.76	244.0	34474	70.74	NG/UL	99
69)	*d12-Perylene	33.05	264.0	20355	50.00	NG/UL	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



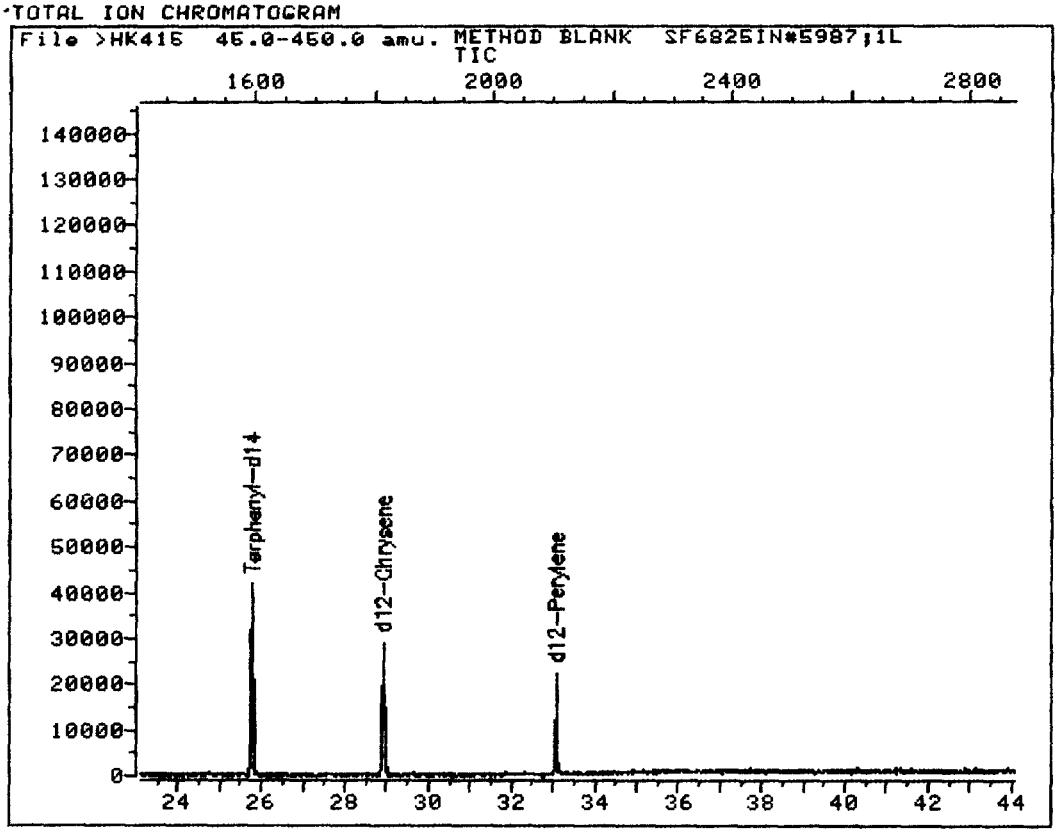
Data File: >HK415::D1 Quant Output File: ^HK415::SK
Name: METHOD BLANK SF6825
Misc: IN#5987;1L BTL#10

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

Operator ID: KELLY
Quant Time: 900102 11:15
Injected at: 891229 23:27

TIC page 1 of 2

'TOTAL ION CHROMATOGRAM



Data File: >HK415::D1 Quant Output File: ^HK415::SK
Name: METHOD BLANK SF6825
Misc: IN#5987;1L BTL#10

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

Operator ID: KELLY
Quant Time: 900102 11:15
Injected at: 891229 23:27

TIC page 2 of 2

MS data file header from : >HK415

Sample: METHOD BLANK SF6825 Operator: KELLY MS 12/29/89 23:27
Misc : IN#5987;1L BTL#10
Sys. #: 1 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: TOXIC1 Tuning file: MT5987 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 0 Transfer line temp. : 0

Chromatographic temperatures :	0.	0.	0.	0.	0.
Chromatographic times, min. :	0.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	0.0	0.0	0.0	0.0	0.0

>HK415 METHOD BLANK SF6825IN#5987;1L
45.0| 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 6724. Max Peaks: 1 Bunching: 1
Dnslope: 0.00 Results File IHK415 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	7.29	298	302	312	43704	112318	98050	100.00	100.000

Sum of corrected areas: 98050.

Summary of Unknowns PBM Library Search and Quantitation

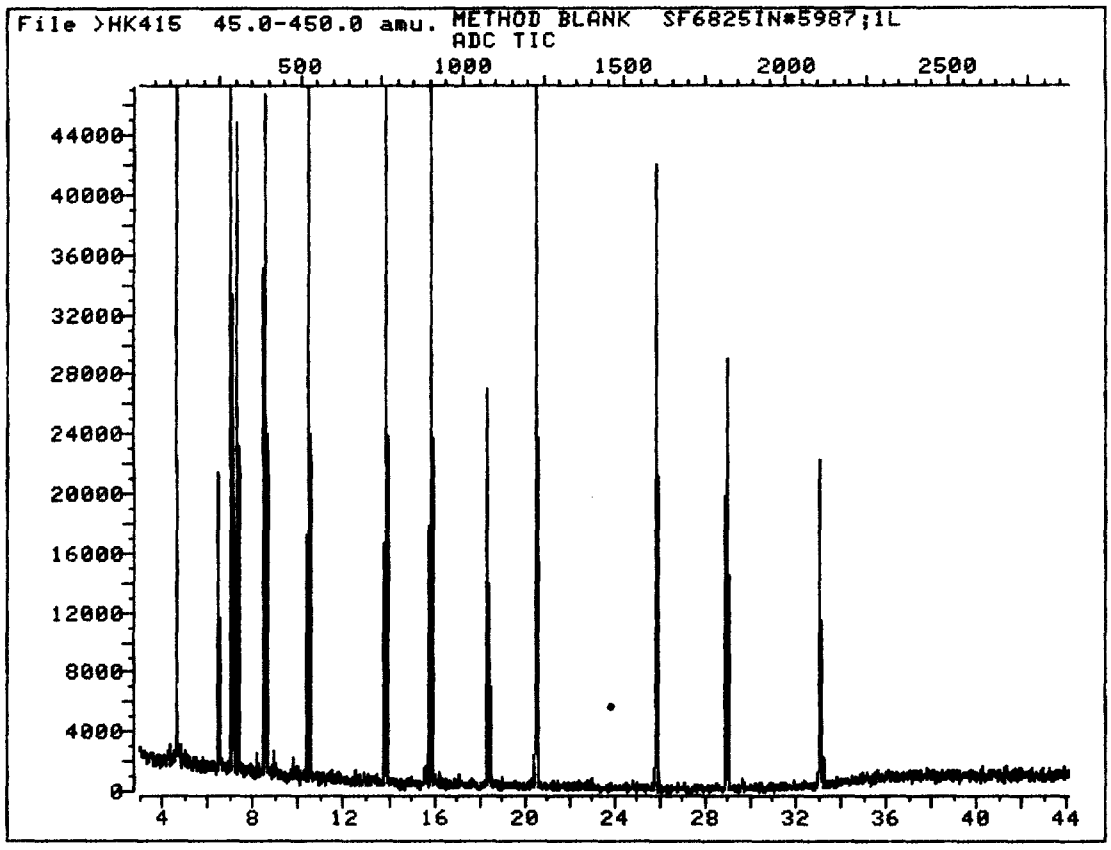
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	120423.	7.00	2.98 - 13.72
2	50.0	130815.	20.43	13.72 - 26.74
3	50.0	67242.	33.05	26.74 - 44.06

Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

Correction Factor = 1.00 = (AM / AU) / (DF * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

12:44 PM TUE., 2 JAN., 1990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ADC TIC
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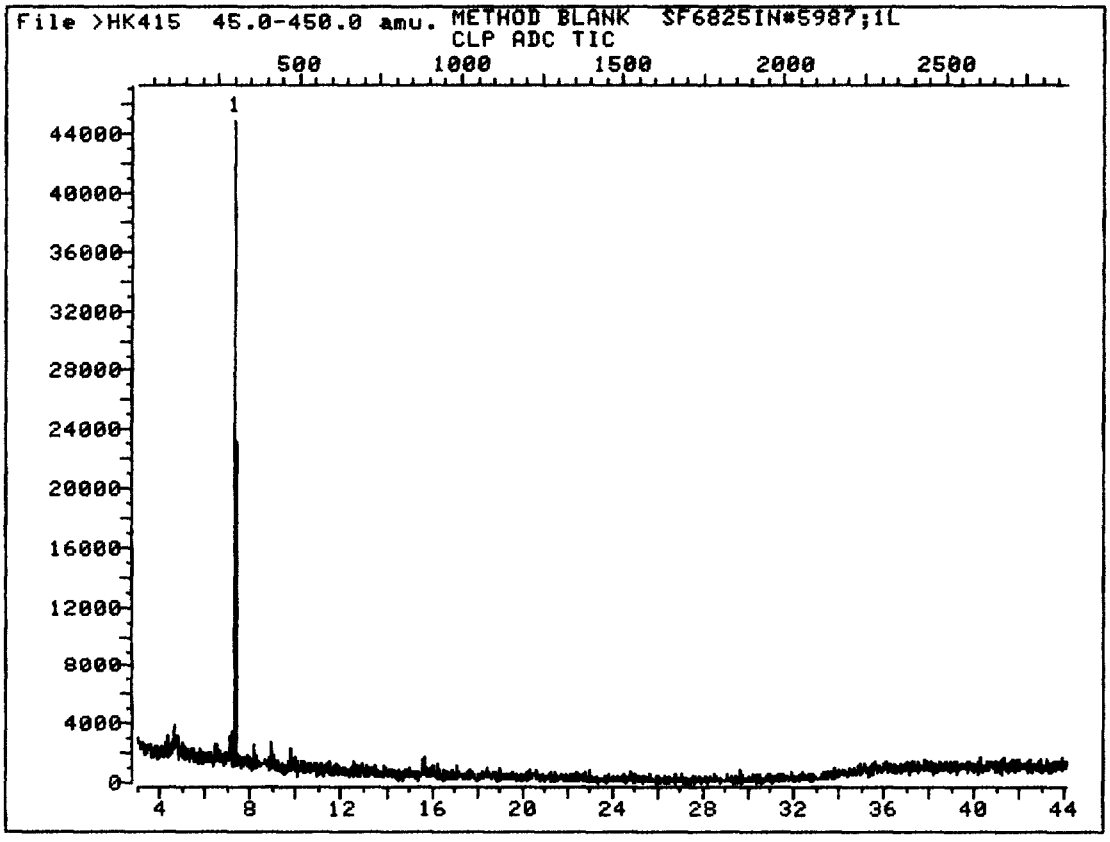
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CLP ADC TIC
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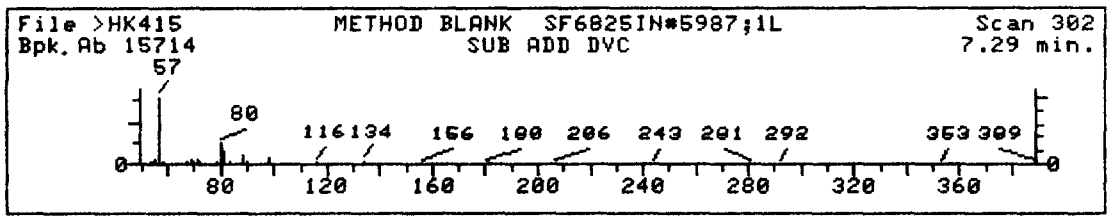
1
44000 40000 36000 32000 28000 24000 20000 16000 12000 8000 4000 0
4 8 12 16 20 24 28 32 36 40 44



. Unknown #,1
Area = 98050.00 Tentative Concentration is 41.00

Sample file: >HK415 Spectrum #: 302

No data base entries were retrieved.

QUANT REPORT

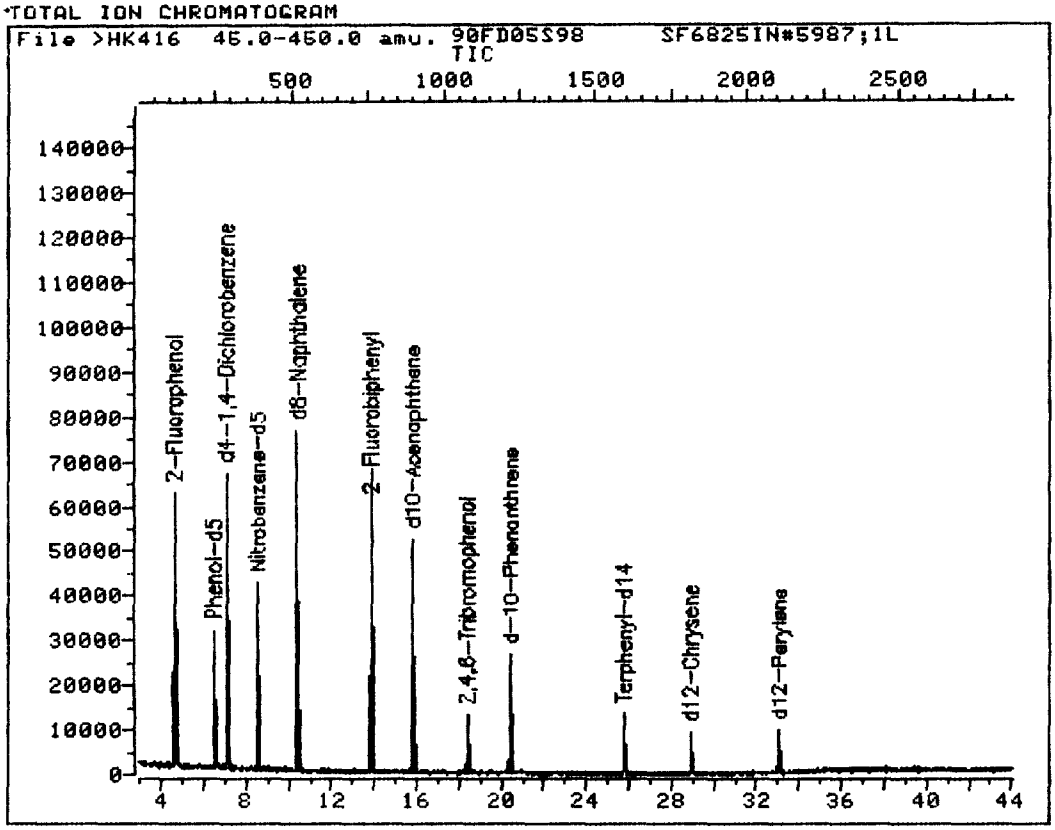
Operator ID: KELLY Quant Rev: 6 Quant Time: 900102 11:24
Output File: ^HK416::SK Injected at: 891230 00:25
Data File: >HK416::D1 Dilution Factor: 1.00000
Name: 90FD05S98 SF6825
Misc: IN#5987;1L BTL#11

ID File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.02	152.0	22214	50.00	NG/UL	89
2)	2-Fluorophenol	4.58	112.0	24722	39.10	NG/UL	90
3)	Phenol-d5	6.44	99.0	23303	26.16	NG/UL	73
16)	d8-Naphthalene	10.38	136.0	76583	44.96	NG/UL	91
17)	Nitrobenzene-d5	8.49	82.0	38789	51.60	NG/UL	93
31)	d10-Acenaphthene	15.77	164.0	22954	36.57	NG/UL	89
36)	2-Fluorobiphenyl	13.80	172.0	46357	43.38	NG/UL	92
39)	*d-10-Phenanthrene	20.42	188.0	22192	50.00	NG/UL	88
54)	2,4,6-Tribromophenol	18.32	330.0	3918	57.13	NG/UL	94
62)	d12-Chrysene	28.86	240.0	6932	22.17	NG/UL	93
64)	Terphenyl-d14	25.73	244.0	12223	47.02	NG/UL	93
69)	*d12-Perylene	33.03	264.0	9337	50.00	NG/UL	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >HK416::D1 Quant Output File: ^HK416::SK
Name: 90FD05S98 SF6825
Misc: IN#5987;1L BTL#11

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

Operator ID: KELLY
Quant Time: 900102 11:24
Injected at: 891230 00:25

QUANT REPORT

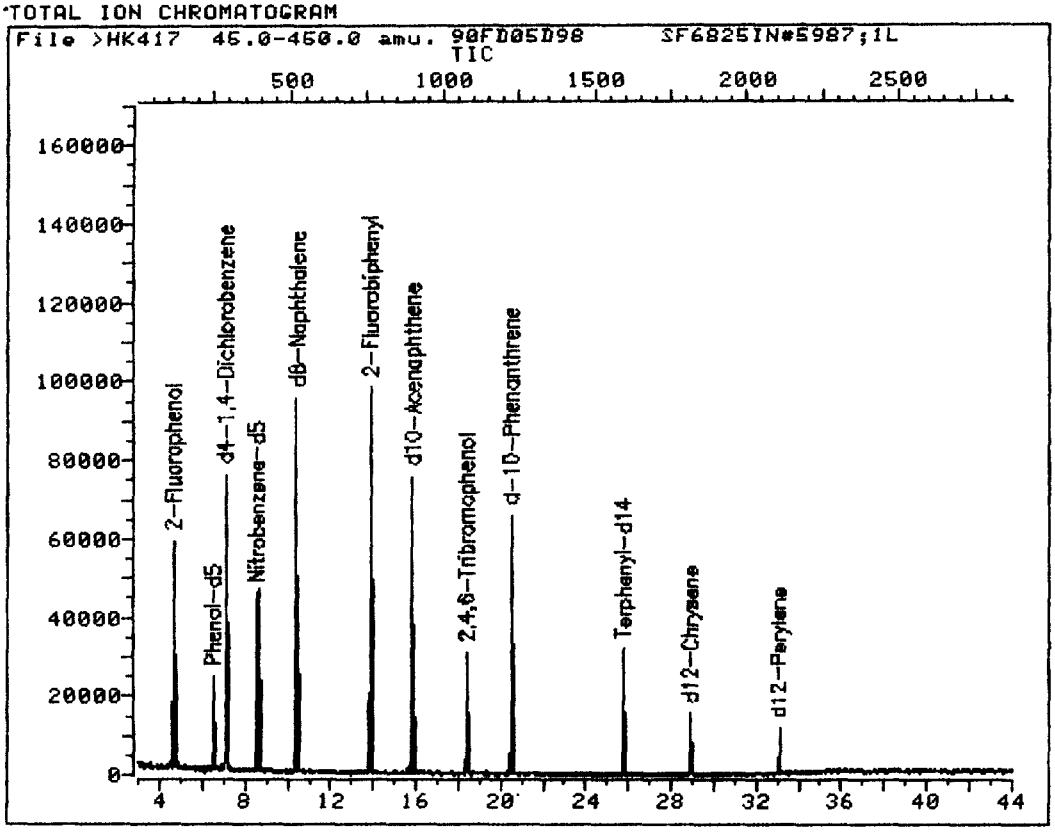
Operator ID: KELLY Quant Rev: 6 Quant Time: 900102 11:32
Output File: ^HK417::SK Injected at: 891230 01:22
Data File: >HK417::D1 Dilution Factor: 1.00000
Name: 90FD05D98 SF6825
Misc: IN#5987;1L BTL#12

ID File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.02	152.0	24698	50.00	NG/UL	95
2)	2-Fluorophenol	4.58	112.0	27675	39.37	NG/UL	93
3)	Phenol-d5	6.44	99.0	22145	22.36	NG/UL	71
16)	d8-Naphthalene	10.38	136.0	90577	47.83	NG/UL	86
17)	Nitrobenzene-d5	8.48	82.0	46572	55.72	NG/UL	97
31)	d10-Acenaphthene	15.78	164.0	35350	50.65	NG/UL	90
36)	2-Fluorobiphenyl	13.81	172.0	65657	55.27	NG/UL	90
39)	*d-10-Phenanthrene	20.43	188.0	52030	50.00	NG/UL	98
54)	2,4,6-Tribromophenol	18.32	330.0	9401	58.47	NG/UL	94
62)	d12-Chrysene	28.86	240.0	11887	16.22	NG/UL	92
64)	Terphenyl-d14	25.73	244.0	25166	41.29	NG/UL	99
69)	*d12-Perylene	33.02	264.0	10038	50.00	NG/UL	91

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >HK417::D1 Quant Output File: ^HK417::SK
Name: 90FD05D98 SF6825
Misc: IN#5987;1L BTL#12

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

Operator ID: KELLY
Quant Time: 900102 11:32
Injected at: 891230 01:22

QUANT REPORT

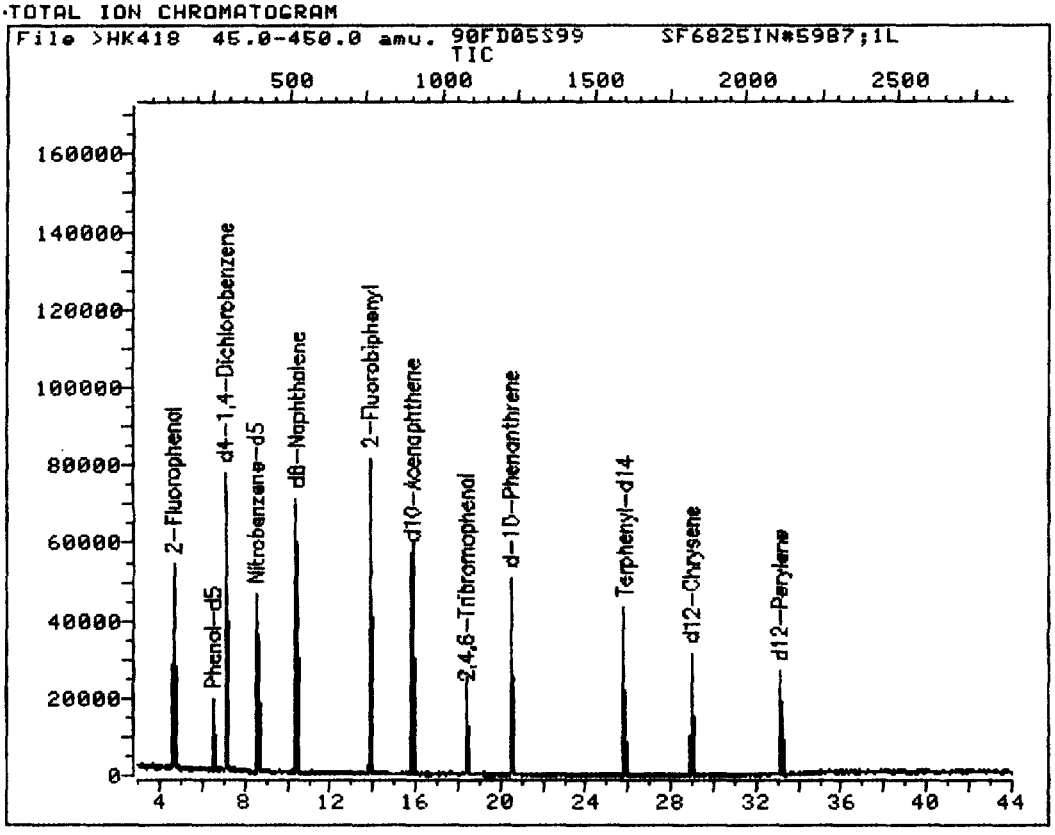
Operator ID: KELLY Quant Rev: 6 Quant Time: 900102 11:40
Output File: ^HK418::SK Injected at: 891230 02:20
Data File: >HK418::D1 Dilution Factor: 1.00000
Name: 90FD05S99 SF6825
Misc: IN#5987;1L BTL#13

ID File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.02	152.0	20789	50.00	NG/UL	93
2)	2-Fluorophenol	4.58	112.0	25019	42.29	NG/UL	94
3)	Phenol-d5	6.44	99.0	20776	24.92	NG/UL	67
16)	d8-Naphthalene	10.38	136.0	78027	48.95	NG/UL	87
17)	Nitrobenzene-d5	8.48	82.0	40055	56.93	NG/UL	92
31)	d10-Acenaphthene	15.79	164.0	27907	47.51	NG/UL	91
36)	2-Fluorobiphenyl	13.83	172.0	57180	57.18	NG/UL	91
39)	*d-10-Phenanthrene	20.45	188.0	42571	50.00	NG/UL	99
54)	2,4,6-Tribromophenol	18.33	330.0	7897	60.03	NG/UL	92
62)	d12-Chrysene	28.92	240.0	25141	41.92	NG/UL	93
64)	Terphenyl-d14	25.79	244.0	37579	75.36	NG/UL	93
69)	*d12-Perylene	33.09	264.0	25538	50.00	NG/UL	96

* Compound is ISTD

·TOTAL ION CHROMATOGRAM



Data File: >HK418::D1 Quant Output File: ^HK418::SK
Name: 90FD05S99 SF6825
Misc: IN#5987;1L BTL#13

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

Operator ID: KELLY
Quant Time: 900102 11:40
Injected at: 891230 02:20

QUANT REPORT

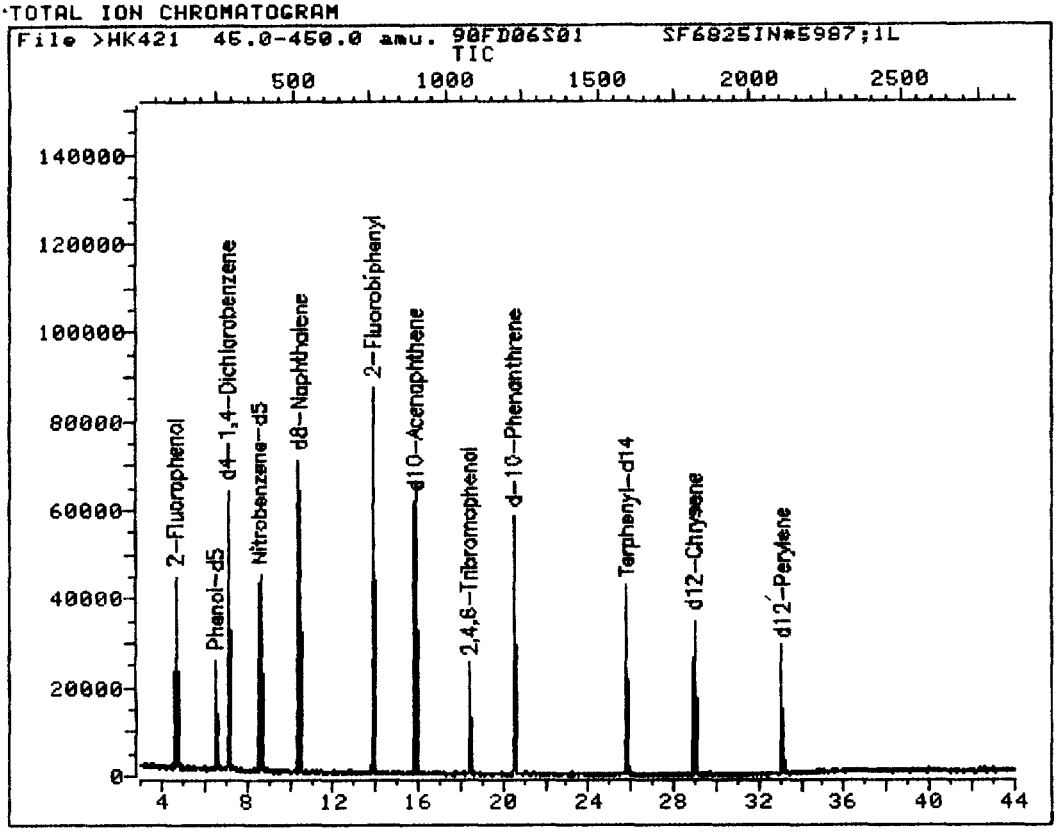
Operator ID: KELLY Quant Rev: 6 Quant Time: 900102 12:15
Output File: ^HK421::SK Injected at: 891230 05:12
Data File: >HK421::D1 Dilution Factor: 1.00000
Name: 90FD06S01 SF6825
Misc: IN#5987;1L BTL#16

ID File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.02	152.0	21800	50.00	NG/UL	95
2)	2-Fluorophenol	4.58	112.0	26158	42.16	NG/UL	99
3)	Phenol-d5	6.46	99.0	20254	23.17	NG/UL	71
16)	d8-Naphthalene	10.38	136.0	77040	46.09	NG/UL	87
17)	Nitrobenzene-d5	8.49	82.0	42397	57.47	NG/UL	92
31)	d10-Acenaphthene	15.78	164.0	31769	51.57	NG/UL	90
36)	2-Fluorobiphenyl	13.83	172.0	57721	55.04	NG/UL	96
39)	*d-10-Phenanthrene	20.45	188.0	45586	50.00	NG/UL	93
54)	2,4,6-Tribromophenol	18.33	330.0	8635	61.30	NG/UL	97
62)	d12-Chrysene	28.90	240.0	26932	41.93	NG/UL	87
64)	Terphenyl-d14	25.76	244.0	37458	70.15	NG/UL	97
69)	*d12-Perylene	33.06	264.0	28838	50.00	NG/UL	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >HK421::D1 Quant Output File: ^HK421::SK
Name: 90FD06S01 SF6825
Misc: IN#5987;1L BTL#16

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

Operator ID: KELLY
Quant Time: 900102 12:15
Injected at: 891230 05:12

QUANT REPORT

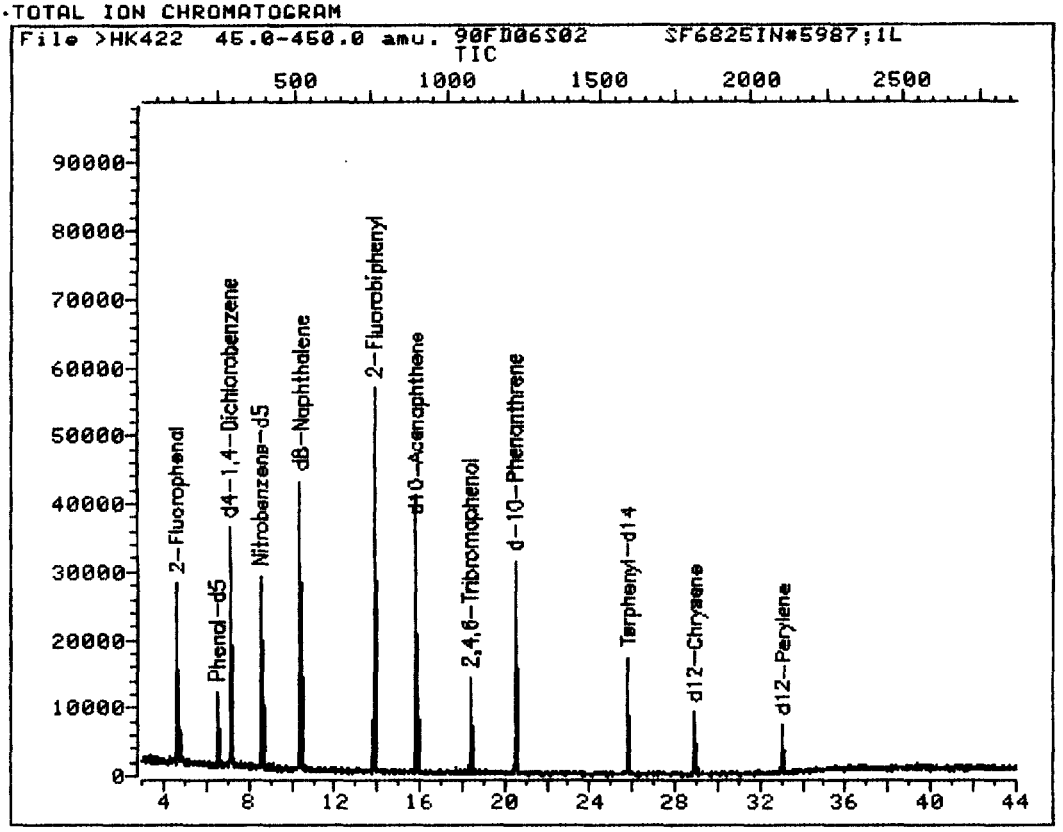
Operator ID: KELLY Quant Rev: 6 Quant Time: 900102 12:25
Output File: ^HK422::SK Injected at: 891230 06:10
Data File: >HK422::D1 Dilution Factor: 1.00000
Name: 90FD06S02 SF6825
Misc: IN#5987;1L BTL#17

ID File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.02	152.0	12955	50.00	NG/UL	92
2)	2-Fluorophenol	4.57	112.0	13585	36.84	NG/UL	82
3)	Phenol-d5	6.44	99.0	12737	24.52	NG/UL	67
16)	d8-Naphthalene	10.38	136.0	44017	44.31	NG/UL	90
17)	Nitrobenzene-d5	8.48	82.0	26354	60.11	NG/UL	91
31)	d10-Acenaphthene	15.77	164.0	18861	51.52	NG/UL	94
36)	2-Fluorobiphenyl	13.81	172.0	36173	58.05	NG/UL	96
39)	*d-10-Phenanthrene	20.43	188.0	22428	50.00	NG/UL	96
54)	2,4,6-Tribromophenol	18.32	330.0	3925	56.63	NG/UL	88
62)	d12-Chrysene	28.87	240.0	7578	23.98	NG/UL	89
64)	Terphenyl-d14	25.75	244.0	14383	54.75	NG/UL	95
69)	*d12-Perylene	33.03	264.0	6634	50.00	NG/UL	93

* Compound is ISTD

·TOTAL ION CHROMATOGRAM



Data File: >HK422::D1 Quant Output File: ^HK422::SK
Name: 90FD06S02 SF6825
Misc: IN#5987;1L BTL#17

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

Operator ID: KELLY
Quant Time: 900102 12:25
Injected at: 891230 06:10

QUANT REPORT

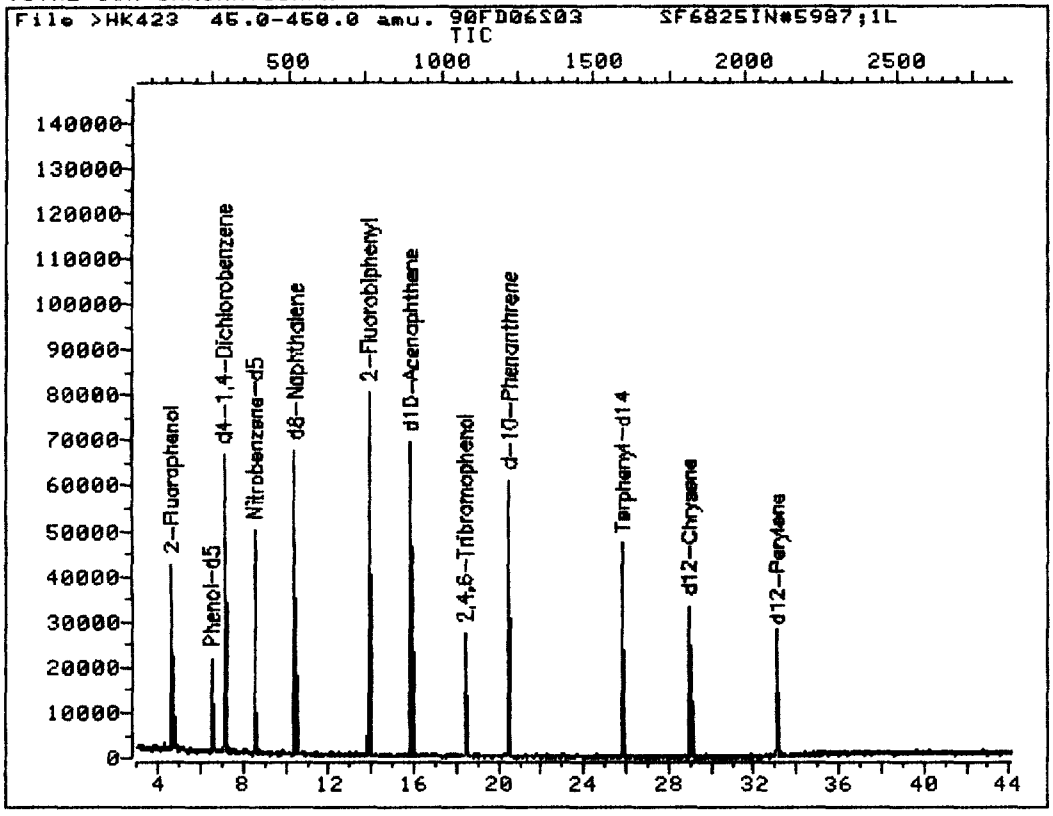
Operator ID: KELLY Quant Rev: 6 Quant Time: 900102 12:47
Output File: ^HK423::SK Injected at: 891230 07:07
Data File: >HK423::D1 Dilution Factor: 1.00000
Name: 90FD06S03 SF6825
Misc: IN#5987:1L BTL#18

ID File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.02	152.0	20178	50.00	NG/UL	95
2)	2-Fluorophenol	4.57	112.0	24676	42.97	NG/UL	97
3)	Phenol-d5	6.44	99.0	19561	24.18	NG/UL	72
16)	d8-Naphthalene	10.38	136.0	75245	48.63	NG/UL	88
17)	Nitrobenzene-d5	8.48	82.0	38512	56.40	NG/UL	96
31)	d10-Acenaphthene	15.78	164.0	30670	53.79	NG/UL	93
36)	2-Fluorobiphenyl	13.81	172.0	56174	57.88	NG/UL	95
39)	*d-10-Phenanthrene	20.45	188.0	47794	50.00	NG/UL	98
54)	2,4,6-Tribromophenol	18.33	330.0	7459	50.50	NG/UL	98
62)	d12-Chrysene	28.89	240.0	27587	40.97	NG/UL	95
64)	Terphenyl-d14	25.76	244.0	38892	69.47	NG/UL	92
69)	*d12-Perylene	33.05	264.0	27776	50.00	NG/UL	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >HK423::D1 Quant Output File: ^HK423::SK
Name: 90FD06S03 SF6825
Misc: IN#5987;1L BTL#18

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

Operator ID: KELLY
Quant Time: 900102 12:47
Injected at: 891230 07:07

QUANT REPORT

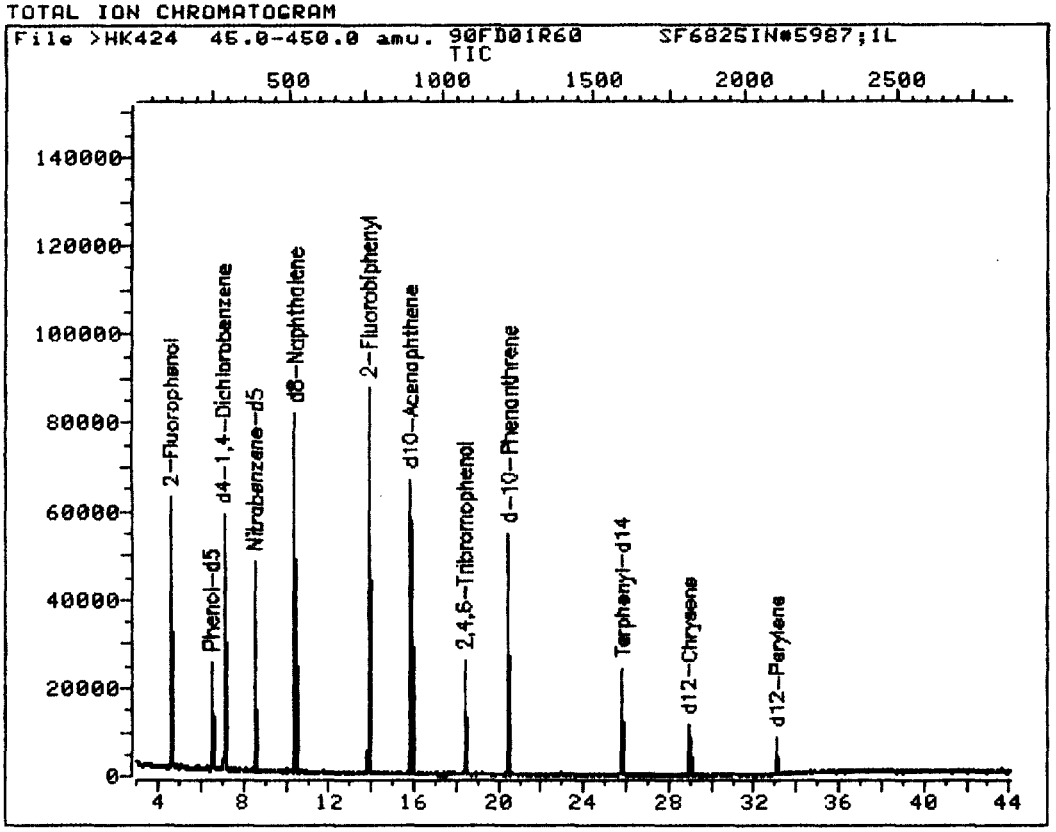
Operator ID: KELLY Quant Rev: 6 Quant Time: 900102 12:54
Output File: ^HK424::SK Injected at: 891230 08:05
Data File: >HK424::D1 Dilution Factor: 1.00000
Name: 90FD01R60 SF6825
Misc: IN#5987:1L BTL#19

ID File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.00	152.0	21085	50.00	NG/UL	97
2)	2-Fluorophenol	4.55	112.0	26459	44.09	NG/UL	98
3)	Phenol-d5	6.43	99.0	22924	27.11	NG/UL	69
16)	d8-Naphthalene	10.38	136.0	77479	47.92	NG/UL	89
17)	Nitrobenzene-d5	8.48	82.0	41154	57.67	NG/UL	98
31)	d10-Acenaphthene	15.78	164.0	32697	54.88	NG/UL	95
36)	2-Fluorobiphenyl	13.81	172.0	57912	57.10	NG/UL	95
39)	*d-10-Phenanthrene	20.45	188.0	42418	50.00	NG/UL	97
54)	2,4,6-Tribromophenol	18.33	330.0	7919	60.41	NG/UL	98
62)	d12-Chrysene	28.89	240.0	9076	15.19	NG/UL	92
64)	Terphenyl-d14	25.76	244.0	20132	40.52	NG/UL	94
69)	*d12-Perylene	33.05	264.0	7725	50.00	NG/UL	95

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >HK424::D1 Quant Output File: ^HK424::SK
Name: 90FD01R60 SF6825
Misc: IN#5987;1L BTL#19

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

Operator ID: KELLY
Quant Time: 900102 12:54
Injected at: 891230 08:05

QUANT REPORT

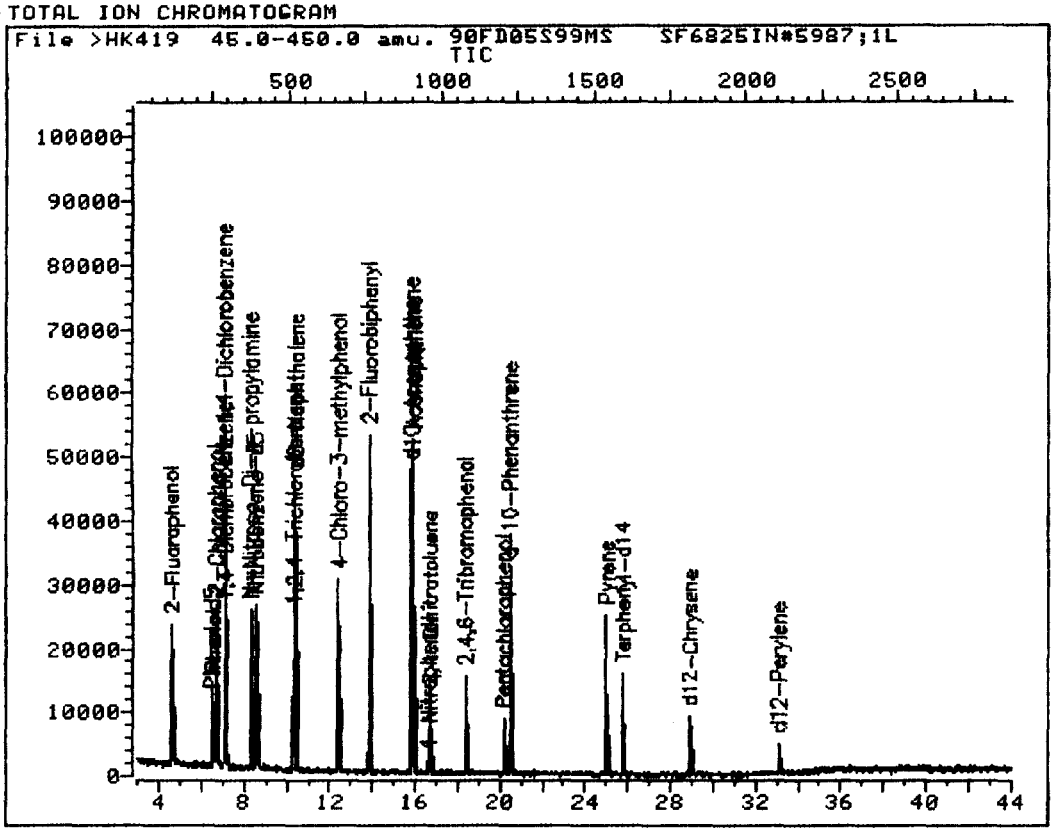
Operator ID: KELLY Quant Rev: 6 Quant Time: 900102 11:53
Output File: ^HK419::SK Injected at: 891230 03:17
Data File: >HK419::D1 Dilution Factor: 1.00000
Name: 90FD05S99MS SF6825
Misc: IN#5987:1L BTL#14

ID File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.02	152.0	13253	50.00	NG/UL	95
2)	2-Fluorophenol	4.57	112.0	13329	35.34	NG/UL	97
3)	Phenol-d5	6.44	99.0	11922	22.43	NG/UL	74
4)	Phenol	6.47	94.0	12573M	19.82	NG/UL	
6)	2-Chlorophenol	6.62	128.0	16397	43.11	NG/UL	97
8)	1,4-Dichlorobenzene	7.05	146.0	12538M	30.90	NG/UL	93
14)	N-Nitroso-Di-n-propylamine	8.25	70.0	24732	79.95	NG/UL	90
16)	d8-Naphthalene	10.38	136.0	49120	48.34	NG/UL	90
17)	Nitrobenzene-d5	8.48	82.0	25349	56.52	NG/UL	94
25)	1,2,4-Trichlorobenzene	10.29	180.0	11343	38.57	NG/UL	96
29)	4-Chloro-3-methylphenol	12.38	107.0	15496	48.37	NG/UL	90
31)	d10-Acenaphthene	15.79	164.0	21795	58.20	NG/UL	84
36)	2-Fluorobiphenyl	13.81	172.0	35873	56.27	NG/UL	96
39)	*d-10-Phenanthrene	20.45	188.0	24375	50.00	NG/UL	97
42)	Acenaphthene	15.89	153.0	28468	50.01	NG/UL	97
44)	4-Nitrophenol	16.59	109.0	732	23.01	NG/UL	97
46)	2,4-Dinitrotoluene	16.67	165.0	6357	45.14	NG/UL	75
54)	2,4,6-Tribromophenol	18.33	330.0	4320	57.35	NG/UL	94
57)	Pentachlorophenol	20.13	265.8	2940	57.99	NG/UL	97
62)	d12-Chrysene	28.89	240.0	7486	21.80	NG/UL	86
63)	Pyrene	24.99	202.0	24385	51.65	NG/UL	89
64)	Terphenyl-d14	25.76	244.0	14170	49.63	NG/UL	91
69)	*d12-Perylene	33.06	264.0	5149M	50.00	NG/UL	

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >HK419::D1 Quant Output File: ^HK419::SK
Name: 90FD05S99MS SF6825
Misc: IN#5987;1L BTL#14

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

Operator ID: KELLY
Quant Time: 900102 11:53
Injected at: 891230 03:17

QUANT REPORT

Operator ID: KELLY
Output File: ^HK420::SK
Data File: >HK420::D1
Name: 90FD05S99MSD SF6825
Misc: IN#5987;1L

Quant Rev: 6
Quant Time: 900102 12:01
Injected at: 891230 04:15
Dilution Factor: 1.00000

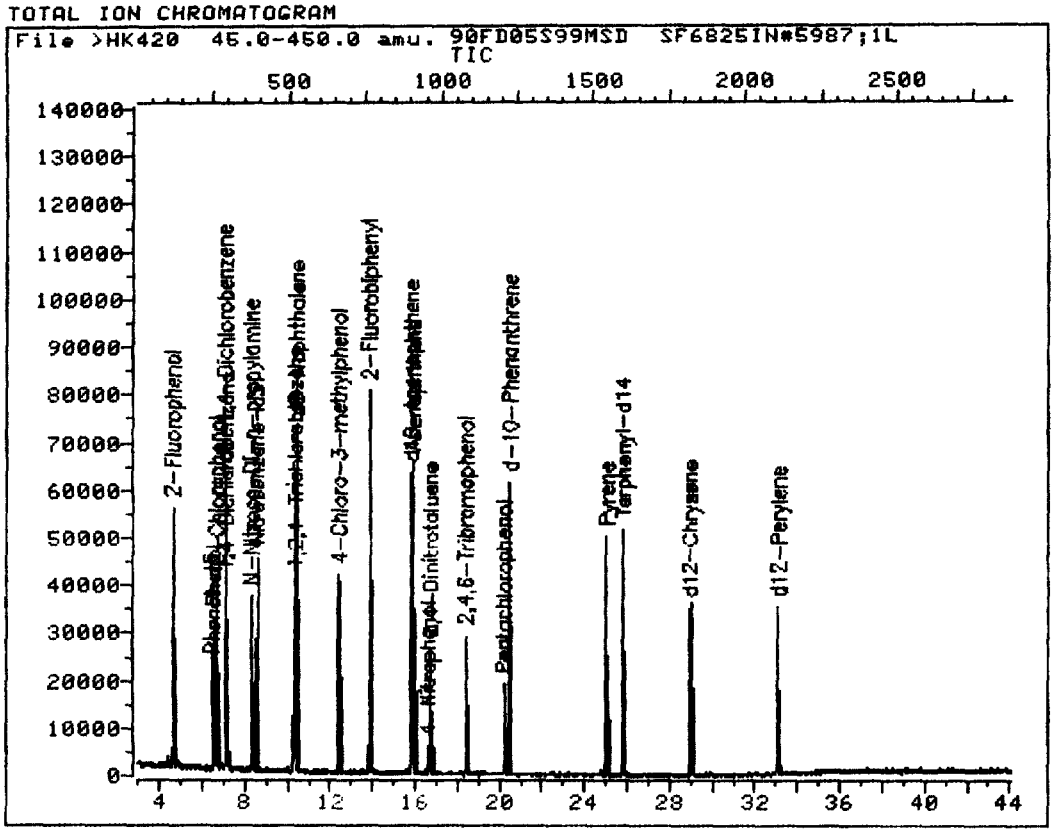
BTL#15

ID File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.02	152.0	22332	50.00	NG/UL	96
2)	2-Fluorophenol	4.58	112.0	24482	38.52	NG/UL	99
3)	Phenol-d5	6.46	99.0	21917	24.48	NG/UL	74
4)	Phenol	6.49	94.0	20810	19.47	NG/UL	60
6)	2-Chlorophenol	6.63	128.0	25194	39.31	NG/UL	99
8)	1,4-Dichlorobenzene	7.06	146.0	20375M	29.80	NG/UL	93
14)	N-Nitroso-Di-n-propylamine	8.26	70.0	42330	81.20	NG/UL	85
16)	d8-Naphthalene	10.39	136.0	77600	45.32	NG/UL	88
17)	Nitrobenzene-d5	8.49	82.0	43217	57.18	NG/UL	98
25)	1,2,4-Trichlorobenzene	10.31	180.0	17363	35.04	NG/UL	86
29)	4-Chloro-3-methylphenol	12.38	107.0	24761	45.87	NG/UL	91
31)	d10-Acenaphthene	15.79	164.0	30504	48.34	NG/UL	92
36)	2-Fluorobiphenyl	13.81	172.0	59059	54.98	NG/UL	92
39)	*d-10-Phenanthrene	20.45	188.0	47484	50.00	NG/UL	98
42)	Acenaphthene	15.89	153.0	34730	31.32	NG/UL	92
44)	4-Nitrophenol	16.59	109.0	1568	25.30	NG/UL	87
46)	2,4-Dinitrotoluene	16.69	165.0	12253	44.67	NG/UL	73
54)	2,4,6-Tribromophenol	18.33	330.0	8952	61.01	NG/UL	99
57)	Pentachlorophenol	20.13	265.8	4793	48.53	NG/UL	89
62)	d12-Chrysene	28.89	240.0	31684	47.36	NG/UL	95
63)	Pyrene	24.99	202.0	49644	53.98	NG/UL	87
64)	Terphenyl-d14	25.76	244.0	42585	76.57	NG/UL	96
69)	*d12-Perylene	33.07	264.0	34123	50.00	NG/UL	98

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >HK420::D1 Quant Output File: ^HK420::SK
Name: 90FD05S99MSD SF6825
Misc: IN#5987;1L BTL#15

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

Operator ID: KELLY
Quant Time: 900102 12:01
Injected at: 891230 04:15

QUANT REPORT

Operator ID: KELLY Quant Rev: 6 Quant Time: 900102 12:59
Output File: ^HK425::SK Injected at: 891230 09:02
Data File: >HK425::D1 Dilution Factor: 1.00000
Name: 5 PPM STD
Misc: IN#5987 BTL#20

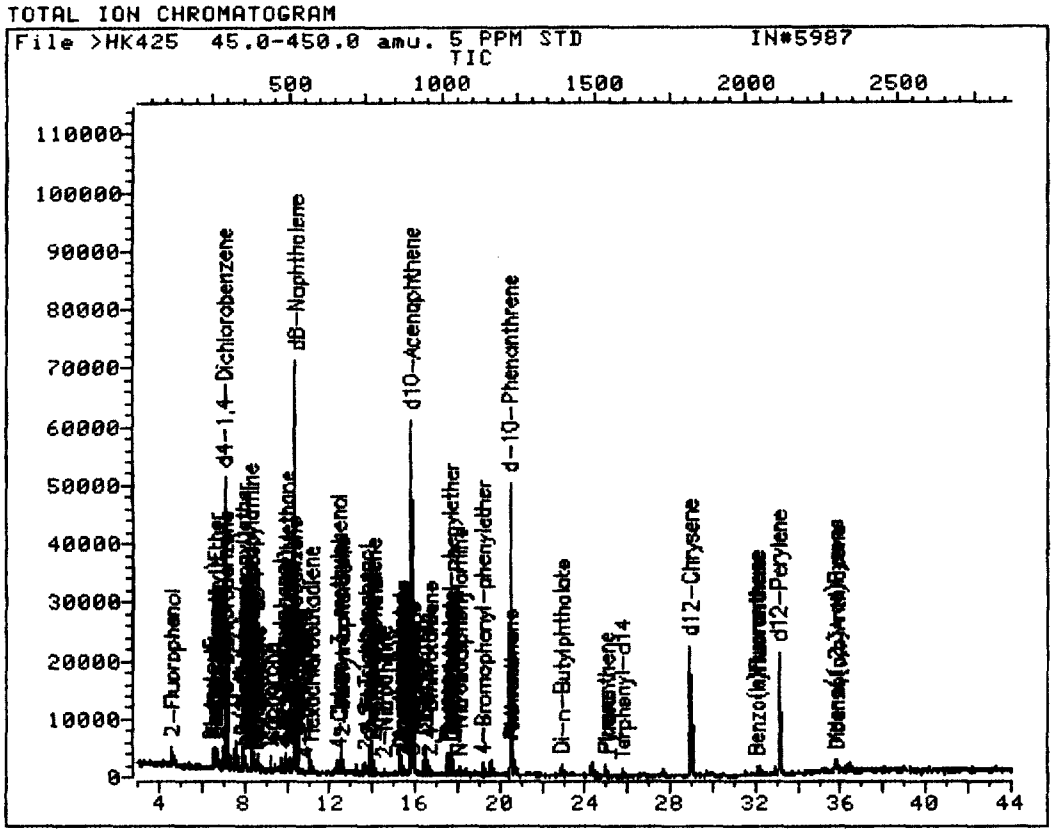
ID File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.02	152.0	17736	50.00	NG/UL	91
2)	2-Fluorophenol	4.57	112.0	1862	3.69	NG/UL	95
3)	Phenol-d5	6.44	99.0	2192	3.08	NG/UL	84
4)	Phenol	6.46	94.0	2569	3.03	NG/UL	74
5)	bis(2-Chloroethyl)Ether	6.57	93.0	2418	3.67	NG/UL	85
6)	2-Chlorophenol	6.61	128.0	1838	3.61	NG/UL	99
7)	1,3-Dichlorobenzene	7.06	146.0	2541	4.89	NG/UL	91
8)	1,4-Dichlorobenzene	7.06	146.0	2541	4.68	NG/UL	91
11)	2-Methylphenol	7.87	108.0	1573	3.10	NG/UL	84
12)	bis(2-Chloroisopropyl)ether	7.89	121.0	702	5.08	NG/UL	69
13)	4-Methylphenol	8.25	108.0	1782	3.22	NG/UL	87
14)	N-Nitroso-Di-n-propylamine	8.23	70.0	1686	4.07	NG/UL	78
15)	Hexachloroethane	8.25	201.0	601	3.91	NG/UL	89
16)	d8-Naphthalene	10.38	136.0	66923	49.21	NG/UL	87
17)	Nitrobenzene-d5	8.48	82.0	2536	4.23	NG/UL	90
18)	Nitrobenzene	8.52	123.0	620	2.06	NG/UL	84
19)	Isophorone	9.16	82.0	3833	3.65	NG/UL	95
21)	2,4-Dimethylphenol	9.69	122.0	630	1.63	NG/UL	85
23)	bis(2-Chloroethoxy)Methane	9.95	93.0	2702	3.65	NG/UL	91
24)	2,4-Dichlorophenol	10.08	162.0	1141	3.14	NG/UL	91
25)	1,2,4-Trichlorobenzene	10.29	180.0	1508	3.83	NG/UL	94
26)	Naphthalene	10.42	128.0	5695	4.01	NG/UL	95
27)	4-Chloroaniline	10.78	127.0	371	2.30	NG/UL	82
28)	Hexachlorobutadiene	11.08	225.0	952	5.04	NG/UL	84
29)	4-Chloro-3-methylphenol	12.38	107.0	1379	3.22	NG/UL	73
30)	2-Methylnaphthalene	12.54	142.0	2938	3.64	NG/UL	82
31)	d10-Acenaphthene	15.79	164.0	28331	56.53	NG/UL	91
34)	2,4,5-Trichlorophenol	13.64	196.0	789	4.04	NG/UL	86
35)	2-Chloronaphthalene	13.98	162.0	2707	3.87	NG/UL	94
36)	2-Fluorobiphenyl	13.81	172.0	3198	3.75	NG/UL	93
37)	2-Nitroaniline	14.51	138.0	348	1.54	NG/UL	76
38)	Dimethylphthalate	15.33	163.0	2420	3.79	NG/UL	99
39)	*d-10-Phenanthrene	20.45	188.0	39360	50.00	NG/UL	99
40)	Acenaphthylene	15.27	152.0	3601	2.81	NG/UL	85
41)	3-Nitroaniline	15.84	138.0	337	1.95	NG/UL	97
42)	Acenaphthene	15.87	153.0	2931	3.19	NG/UL	97
45)	Dibenzofuran	16.40	168.0	3572	3.28	NG/UL	99
46)	2,4-Dinitrotoluene	16.67	165.0	397	1.75	NG/UL	78
47)	2,6-Dinitrotoluene	15.49	165.0	490	2.57	NG/UL	96
48)	Diethylphthalate	17.63	149.0	2301	3.16	NG/UL	91
49)	4-Chlorophenyl-phenylether	17.64	204.0	1128	3.08	NG/UL	89
50)	Fluorene	17.49	166.0	2818	3.56	NG/UL	81
53)	N-Nitrosodiphenylamine	18.07	169.0	623	4.93	NG/UL	79

	Compound	R.T.	Q ion	Area	Conc	Units	q
55)	4-Bromophenyl-phenylether	19.16	248.0	631	3.63	NG/UL	81
58)	Phenanthrene	20.50	178.0	3840	3.98	NG/UL	87
59)	Anthracene	20.50	178.0	3840	4.37	NG/UL	87
60)	Di-n-Butylphthalate	22.90	149.0	2111	2.47	NG/UL	98
61)	Fluoranthene	24.98	202.0	2039	2.64	NG/UL	77
62)	d12-Chrysene	28.89	240.0	17709	31.93	NG/UL	92
63)	Pyrene	24.98	202.0	2039	2.67	NG/UL	74
64)	Terphenyl-d14	25.75	244.0	1117	2.42	NG/UL	94
69)	*d12-Perylene	33.06	264.0	20923	50.00	NG/UL	98
71)	Benzo(b)fluoranthene	32.05	252.0	1575	3.67	NG/UL	70
72)	Benzo(k)Fluoranthene	32.05	252.0	1575	3.69	NG/UL	70
74)	Indeno(1,2,3-cd)Pyrene	35.74	276.0	1689	4.72	NG/UL	63
75)	Dibenzo(a,h)Anthracene	35.82	278.0	1610	5.85	NG/UL	73

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >HK425::D1 Quant Output File: ^HK425::SK
Name: 5 PPM STD
Misc: IN#5987 BTL#20

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

Operator ID: KELLY
Quant Time: 900102 12:59
Injected at: 891230 09:02

QUANT REPORT

Operator ID: KELLY
Output File: ^HK426::SK
Data File: >HK426::D1
Name: 1 PPM STD
Misc: IN#5987

Quant Rev: 6
Quant Time: 900102 13:04
Injected at: 891230 10:00
Dilution Factor: 1.00000

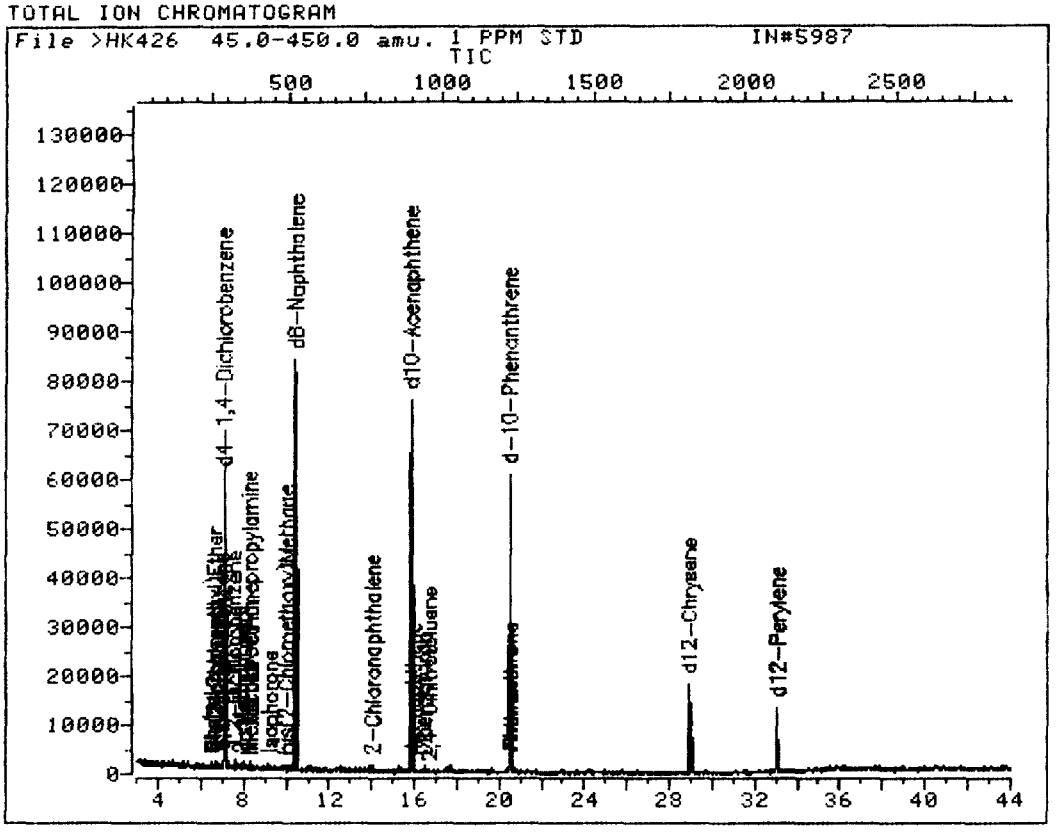
BTL#21

ID File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.02	152.0	23977	50.00	NG/UL	96
4)	Phenol	6.47	94.0	743	.65	NG/UL	74
5)	bis(2-Chloroethyl)Ether	6.59	93.0	659	.74	NG/UL	87
6)	2-Chlorophenol	6.63	128.0	440	.64	NG/UL	53
8)	1,4-Dichlorobenzene	6.93	146.0	678	.92	NG/UL	82
10)	1,2-Dichlorobenzene	7.50	146.0	545	.81	NG/UL	77
11)	2-Methylphenol	7.87	108.0	482	.70	NG/UL	96
14)	N-Nitroso-Di-n-propylamine	8.23	70.0	332	.59	NG/UL	75
15)	Hexachloroethane	8.25	201.0	265	1.28	NG/UL	88
16)	d8-Naphthalene	10.38	136.0	91326	49.67	NG/UL	88
19)	Isophorone	9.18	82.0	965	.68	NG/UL	96
23)	bis(2-Chloroethoxy)Methane	9.96	93.0	593	.59	NG/UL	97
31)	d10-Acenaphthene	15.80	164.0	36462	53.82	NG/UL	92
35)	2-Chloronaphthalene	13.98	162.0	829	.88	NG/UL	79
39)	*d-10-Phenanthrene	20.44	188.0	47785	50.00	NG/UL	98
42)	Acenaphthene	15.88	153.0	926	.83	NG/UL	87
45)	Dibenzofuran	16.40	168.0	1129	.85	NG/UL	81
46)	2,4-Dinitrotoluene	16.67	165.0	240	.87	NG/UL	71
58)	Phenanthrene	20.50	178.0	1129	.96	NG/UL	80
59)	Anthracene	20.50	178.0	1129	1.06	NG/UL	80
62)	d12-Chrysene	28.89	240.0	14486	21.52	NG/UL	86
69)	*d12-Perylene	33.05	264.0	12122	50.00	NG/UL	89

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >HK426::D1 Quant Output File: ^HK426::SK
Name: 1 PPM STD
Misc: IN#5987 BTL#21

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

Operator ID: KELLY
Quant Time: 900102 13:04
Injected at: 891230 10:00

QUANT REPORT

Operator ID: KELLY Quant Rev: 6 Quant Time: 900102 13:09
Output File: ^HK427::SK Injected at: 891230 10:58
Data File: >HK427::D1 Dilution Factor: 1.00000
Name: 12.5 PPM STD
Misc: IN#5987 BTL#22

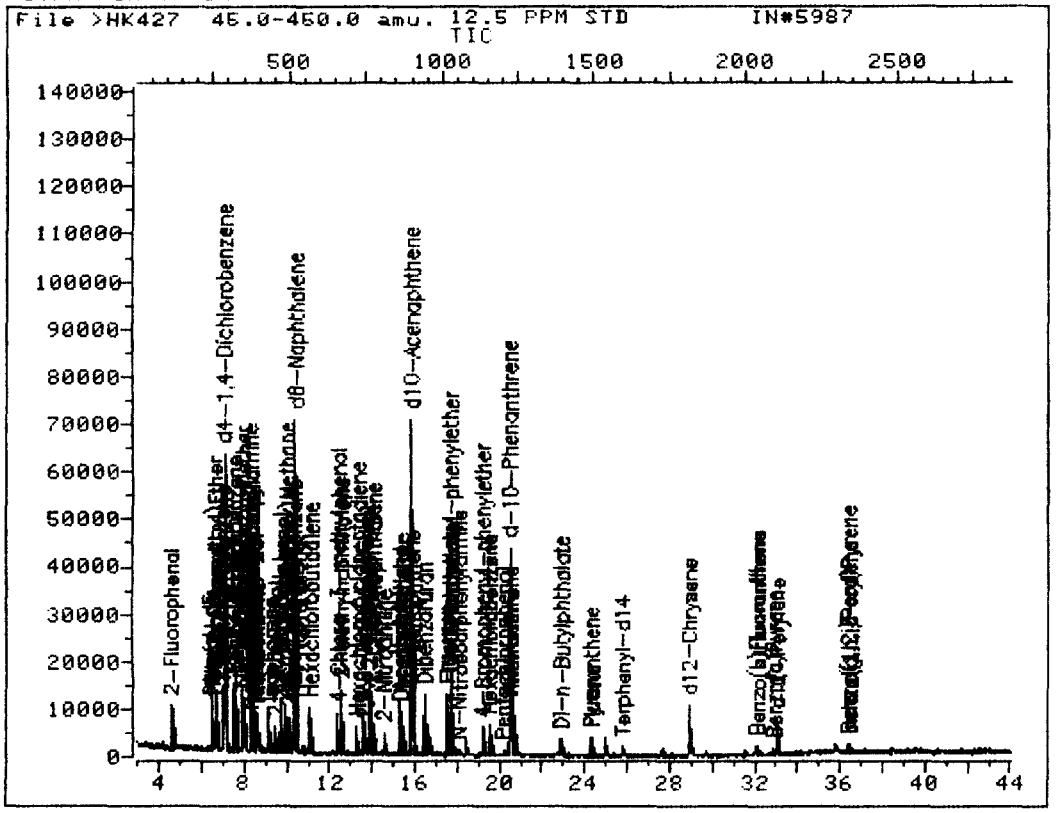
ID File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.02	152.0	21019	50.00	NG/UL	96
2)	2-Fluorophenol	4.57	112.0	6010	10.05	NG/UL	91
3)	Phenol-d5	6.44	99.0	8564	10.16	NG/UL	69
4)	Phenol	6.47	94.0	8534	8.48	NG/UL	63
5)	bis(2-Chloroethyl)Ether	6.59	93.0	7730	9.90	NG/UL	94
6)	2-Chlorophenol	6.62	128.0	6032	10.00	NG/UL	95
7)	1,3-Dichlorobenzene	6.93	146.0	6062	9.84	NG/UL	93
8)	1,4-Dichlorobenzene	6.93	146.0	6062	9.42	NG/UL	93
9)	Benzyl Alcohol	7.47	108.0	3341	8.76	NG/UL	64
10)	1,2-Dichlorobenzene	7.49	146.0	6528	11.14	NG/UL	88
11)	2-Methylphenol	7.88	108.0	5861	9.74	NG/UL	93
12)	bis(2-Chloroisopropyl)ether	7.89	121.0	1825	11.14	NG/UL	88
13)	4-Methylphenol	8.26	108.0	5840	8.90	NG/UL	91
14)	N-Nitroso-Di-n-propylamine	8.23	70.0	4172	8.50	NG/UL	90
15)	Hexachloroethane	8.25	201.0	1722	9.45	NG/UL	87
16)	d8-Naphthalene	10.38	136.0	73789	45.78	NG/UL	91
17)	Nitrobenzene-d5	8.48	82.0	6495	9.13	NG/UL	95
18)	Nitrobenzene	8.52	123.0	3282	9.21	NG/UL	98
19)	Isophorone	9.18	82.0	10694	8.60	NG/UL	99
20)	2-Nitrophenol	9.41	139.0	2860	9.26	NG/UL	73
21)	2,4-Dimethylphenol	9.69	122.0	3786	8.28	NG/UL	95
23)	bis(2-Chloroethoxy)Methane	9.96	93.0	7807	8.90	NG/UL	96
24)	2,4-Dichlorophenol	10.08	162.0	3884	9.02	NG/UL	97
25)	1,2,4-Trichlorobenzene	10.31	180.0	4452	9.55	NG/UL	89
26)	Naphthalene	10.44	128.0	16410	9.74	NG/UL	96
28)	Hexachlorobutadiene	11.08	225.0	2450	10.95	NG/UL	87
29)	4-Chloro-3-methylphenol	12.38	107.0	4155	8.18	NG/UL	86
30)	2-Methylnaphthalene	12.54	142.0	9723	10.17	NG/UL	92
31)	d10-Acenaphthene	15.79	164.0	32535	54.78	NG/UL	96
32)	Hexachlorocyclopentadiene	13.28	237.0	1839	8.37	NG/UL	99
33)	2,4,6-Trichlorophenol	13.63	196.0	2337	9.81	NG/UL	85
34)	2,4,5-Trichlorophenol	13.63	196.0	2337	10.10	NG/UL	85
35)	2-Chloronaphthalene	13.99	162.0	7950	9.60	NG/UL	98
36)	2-Fluorobiphenyl	13.81	172.0	10012	9.90	NG/UL	95
37)	2-Nitroaniline	14.51	138.0	2605	9.74	NG/UL	95
38)	Dimethylphthalate	15.33	163.0	8240	10.88	NG/UL	96
39)	*d-10-Phenanthrene	20.44	188.0	35625	50.00	NG/UL	98
40)	Acenaphthylene	15.27	152.0	10727	9.25	NG/UL	97
42)	Acenaphthene	15.87	153.0	9405	11.30	NG/UL	87
45)	Dibenzofuran	16.40	168.0	11358	11.52	NG/UL	98
48)	Diethylphthalate	17.63	149.0	6872	10.44	NG/UL	91
49)	4-Chlorophenyl-phenylether	17.65	204.0	3596	10.83	NG/UL	91
50)	Fluorene	17.49	166.0	7520	10.48	NG/UL	93

	Compound	R.T.	Q ion	Area	Conc	Units	q
53)	N-Nitrosodiphenylamine	18.08	169.0	782	6.84	NG/UL	81
55)	4-Bromophenyl-phenylether	19.16	248.0	1510	9.61	NG/UL	79
56)	Hexachlorobenzene	19.49	284.0	1973	9.11	NG/UL	67
57)	Pentachlorophenol	20.13	265.8	264	3.56	NG/UL	94
58)	Phenanthrene	20.51	178.0	8845	10.13	NG/UL	98
59)	Anthracene	20.51	178.0	8845	11.11	NG/UL	98
60)	Di-n-Butylphthalate	22.89	149.0	4880	6.31	NG/UL	93
61)	Fluoranthene	24.29	202.0	4281	6.13	NG/UL	97
62)	d12-Chrysene	28.88	240.0	8267	16.47	NG/UL	97
63)	Pyrene	24.29	202.0	4281	6.20	NG/UL	96
64)	Terphenyl-d14	25.75	244.0	2203	5.28	NG/UL	94
69)	*d12-Perylene	33.04	264.0	7466	50.00	NG/UL	93
71)	Benzo(b)fluoranthene	32.11	252.0	1828	11.94	NG/UL	78
72)	Benzo(k)Fluoranthene	32.11	252.0	1828	11.99	NG/UL	79
73)	Benzo(a)Pyrene	32.88	252.0	1321	10.29	NG/UL	91
74)	Indeno(1,2,3-cd)Pyrene	36.40	276.0	1886	14.76	NG/UL	61
76)	Benzo(g,h,i)Perylene	36.40	276.0	1886	18.05	NG/UL	64

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >HK427::D1 Quant Output File: ^HK427::SK
Name: 12.5 PPM STD
Misc: IN#5987 BTL#22

Id File: IDKH87::D1
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 900102 10:31

Operator ID: KELLY
Quant Time: 900102 13:09
Injected at: 891230 10:58

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: JAN 08 1990

SUBJECT: Review of Region 5 data for Duke Forest Drum Site

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

To: Data User:

Attached are the results for:

CRL Data Set Numbers: SF 6825
Sample Numbers: 90FD05$98-99; D98; 90FD06$01-$03 + RGD
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)

TRANSMITTED BY
JAN 08 1990
U.S. EPA CENTRAL REGIONAL LAB

RECEIVED BY/DATE:

Comments:

TA SET	SITE	OU/ACT.
SF 6825	Doko Earnest Drum Site	TFA 302

MPLES	PARAMETER(S)
90 FD05 $98 - $99; D98 90 FD06 $01 - $03; RC0	PCB / Pesticides

MPLED	RECEIVED	DUE	LAB
12/14/89	12/15/89	1/5/90	CRL

IPPED	DATA RECEIVED	CONTRACT

AM LEADER	SECTION CHIEF	SC COORD	DATA COORD.

omments By Reviewer:

Data are acceptable for use —

ATA MANAGEMENT COORDINATOR

ECEIVED	TRANSMITTED		CLERICAL SUPPORT RECEIVED	COMPLETED
✓) REVIEWED	( ) UNREVIEWED	TEAM LEADER/DATE	L Evangelista 1/4/90	
) REVIEWED	( ) UNREVIEWED	SECTION CHIEF/DATE		
) REVIEWED	( ) UNREVIEWED	SC COORDINATOR/DATE		

EVIEWED BY CONTRACT COORDINATOR/DATE

ECEIVED	TRANSMITTED	DATA MANAGEMENT COORDINATOR
1-8-90	1-8-90	[signature]

FORM 1D

ENVIRONMENTAL PROTECTION AGENCY, REGION V

DIVISION: ESD/SF SAMPLING DATE: 12/14/89 ARRIVAL DATE: 12/15/89 ANALYSIS DUE DATE: 1/5/90

DATA SET #: 6825 ACTIVITY #: TFA302 STUDY: Duke Earnest

REPORTING UNITS ARE: ug/l Sample Type: (Water) Sediments, Oil, Sludge, Wipes

#	Sample #	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260			
1.	90FD05 $98	.24	.24	.24	.24			
2.	90FD05 $99	.24	.24	.24	.24			
3.	90FD06 $01	.24	.24	.24	.24			
4.	90FD06 $02	.24	.24	.24	.24			
5.	90FD06 $03	.24	.24	.24	.24			
6.	90FD05 D98	.24	.24	.24	.24			
7.	90FD01 R60	.24	.24	.24	.24			
8.								
9.					1/3/89			
10.					1/4/90			
11.								
12.								
13.								

ENVIRONMENTAL PROTECTION AGENCY, REGION V BASIC FORM 1A

DIVISION/BRANCH: ESD/SF Sampling Date: 12/14/89 Arrival Date: 12/15/89 Analysis Due Date: 1/5/90

Sample#/
D.U. Number: TFA302 Group# 6825 Activity#: _____ Study: Dice Earnest

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

Pesticide / Sample #	Y-BHC Lindane	Heptachlor	Aldrin	Heptachlor Epoxide	Endosulfan I	Dieldrin	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. 90FD05$98	.002U	.03U	.002U	.01U	.01U	.01U	.01U	.01U	.02U	.02U	.02U	.02U	.04U	.02U	.02U	.13U	.05U	.03U	.2U	1U
2. 90FD05$99	.002U	.03U	.002U	.01U	.01U	.01U	.01U	.01U	.02U	.02U	.02U	.02U	.04U	.02U	.02U	.13U	.05U	.03U	.2U	1U
3. 90FD06$01	.002U	.03U	.002U	.01U	.01U	.01U	.01U	.01U	.02U	.02U	.02U	.02U	.04U	.02U	.02U	.13U	.05U	.03U	.2U	1U
4. 90FD06$02	.002U	.03U	.002U	.01U	.01U	.01U	.01U	.01U	.02U	.02U	.02U	.02U	.04U	.02U	.02U	.13U	.05U	.03U	.2U	1U
5. 90FD06$03	.002U	.03U	.002U	.01U	.01U	.01U	.01U	.01U	.02U	.02U	.02U	.02U	.04U	.02U	.02U	.13U	.05U	.03U	.2U	1U
6. 90FD05D98	.002U	.03U	.002U	.01U	.01U	.01U	.01U	.01U	.02U	.02U	.02U	.02U	.04U	.02U	.02U	.13U	.05U	.03U	.2U	1U
7. 90FD01R60	.002U	.03U	.002U	.01U	.01U	.01	.01U	.01U	.02U	.02U	.02U	.02U	.04U	.02U	.02U	.13U	.05U	.03U	.2U	1U
8.																				
9.																				
10.																				
11.																				
12.																				
13.																				

H Gunter 1/3/89

L. Evangelista 1/4/90

USEPA REGION V CRL 12/27/89 10:01:57
SF6825 DOKE EARNEST DRUM SITE PAGE 01

WORKLIST : PPKG0021
TEST : PPWSO

WL#	ID	REP	COMMENTS
1	LRB		
2	LF1		
3	LF2		
4	LF3		
5	LF4		
6	S9001495	01	$98
7	S9001496	01	D98
8	S9001497	01	$99
9	S9001498	01	R60
10	S9001499	01	$01
11	S9001500	01	$02
12	S9001501	01	$03

TFA302

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

DIVISION/BRANCH SUPERFUND FIT SAMPLE DATE 12/14/89 LAB ARRIVAL DATE 12/15/89 DUE DATE 1/15/90

DU NUMBER TFA-[illegible] DATA SET NUMBER 6825 STUDY Dale Ernest Dump Site 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
90FD05 S98	RW1 5-129138-9		X	X		
90FD05 S99	MSD RW2 5-08943-40		X	X		
90FD06 S01	RW3 5-072675-6		X	X		
02	RW4 5-072683-4		X	X		
90FD06 S03	RW5 5-072677 5-072700		X	X		
90FD05 D98	DUPLICATE 5-129146-147		X	X		
90FD01 R60	BLANK 5-072691-692		X	X		

DATE: 1/3/89

SUBJECT: SF6825

TO: L EVANGELISTA

FROM: K GUNTER

This data set consists of seven water samples that were separatory funnel extracted with 3X60 milliliters of methylene chloride. Sample extracts were concentrated and solvent exchanged to hexane. All sample extracts were analyzed on Hewlett Packard gas chromatographs and raw data collected and processed using Nelson analytical software.

Endrin and DDT degradation checks were performed for both the primary and confirmatory columns all criteria were achieved.

The method blank was free of contamination by parameters of interest. The Pesticide matrix spike and duplicate had recoveries ranging 74 to 129 percent and relative percent differences ranging from 11 to 22. The consistantly high relative percent differences indicate that poor precision may be the result of an error in one of the sample preparation steps: 1) sample /spike volume measurement 2) vigor and duration of agitation 3) sample conentration and solvent exchange. The PCB matrix spike and duplicate had recoveries of 82 and 80 percent and a relative percent difference of 3. Surrogate recoveries ranged from 115 to 164 percent. All criteria were achieved.

Five point calibration curves were generated for standard solutions A, B and 1242. Single levels were run all other standards including confirmatory. Two methods for pesticide standard A, QPESTA and QPESTA2, were used due to retention time shift. Response factors were not significantly effected as can be seen from Continuing Calibration Form.

Some commonly occuring peaks were noted in this data set, which upon secondary analysis are not confirmed these peaks are believed to be contamination and as of this date of unknown origin. An interfering peak is also noted trailing the internal standard (mirex) peak, this is believed to be a product of degradation.

All samples are negative for parameters of interest analyzable by method 608DNS.

*Lack of precision bet. the MS/MSD does not negatively impact the data quality. The recovery results are still within the QC limits.

LE 1/4/90

APPROVAL

SAT DPO — DATE IN: Jerry Thackeray 12.18.89

SAT DPO — DATE OUT

II

EPA, REGION V
CENTRAL REGIONAL LABORATORY
WESTON/ESAT ANALYSIS

PCB'S/PESTICIDES

Sample Prep

APPROVAL

ETM — DATE OUT: Alfa Ulfson 12/18/89

ETM — DATE IN: for Vonie Allen

TID # 12-11
START DATE 12.18.89
DUE DATE 1.2.90
EST. HRS. REQUIRED FOR ANALYSIS

SHO CASE #	DATA SET #	SITE NAME AND CODE	CHEMIST	# OF SAMPLES	DATE ASSIGNED	DATE COMPLETED	TIME SPENT	EST. HRS.	TECHNICAL QUALITY	COMPLIANCE WITH SCHEDULE	TASK NO.
	SF 6825	Doke Garnert Drum pit		7	12.18	20 Dec 89					2084
					see	2080	for	Total	Est	Hrs	

ESAT CONTRACT TID NO: 05-90-12-11

TASK NO: 2084

ENVIRONMENTAL SAMPLE EXTRACT CUSTODY TRANSFER FORM

Sample extraction was completed on 20 Dec, 1989 for:

DATASET NO: SF 6825 SITE NAME: Duke Earnest Drum Site

PARAMETER : PCB / Pest

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

SAMPLE NUMBERS: 90FD05$98, 90FD05$99, 90FD06$01, 90FD06$02, 90FD06$03, 90FD05D98, 90FD01R60 NUMBER OF SAMPLES: 7

ESAT APPROVALS:

Jason Holliday 20 Dec 89
(ANALYST DATE)

Dai-ming Lin 12/20/89
(TEAM LEADER DATE)

(QC COORDINATOR DATE)

Van Ctlle 12/20/89
(ESAT TEAM MANAGER DATE)

COMMENTS: _____

The subject sample extracts were transferred to the custody of the U.S. EPA Region V Central Regional Laboratory on the date indicated below.

Jason Holliday 20 Dec 89
(DELIVERED BY DATE)

E. Evangelista 12/20/89
(RECEIVED BY DATE)

EPA APPROVALS:

(EPA TASK MONITOR DATE)

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

COMMENTS: _____

(SECTION CHIEF DATE)

[ ] Reviewed [ ] Unreviewed

(ESAT DPO DATE)

(DATA COORD'R REC'D / TRANSMTD)

A:[bs]FORMS[bs]EXTTRANS.FRM WS
DOC.NO.: ESAT-05-0167-FORM
REVISION: NEW

FILE LOCATION NO: 5.6.

Extraction Task# 2089 TID # 05-90-12-11

Site Name: Duke Earnest Drum Site

PCB/PEST EXTRACTION

DATA SET(S) SF6825 DATE EXTRACTED: 19 Dec 89

SAMPLE TYPE(S) water DATE CONCENTRATED: 20 Dec 89

EXTRACTION SYSTEM Sep Funnel DATE COMPLETED:

SOLVENT SYSTEM CH_2Cl_2 VOLUMES USED

SAMPLE #	SAMPLE AMOUNT	CONC. EXTRACT Final Vol.	✓ Surrogate added *	Pesticide Matrix Spike ⊛	PCB Matrix Spike **	Sample PH *	Comments
Method Blank	1L	10 ml	✓			6.0	
90FD05$98	1L	10 ml	✓				
90FD05$99	1L	10 ml	✓				
Pest MS 90FD05$99	1L	10 ml	✓	✓			
Pest MSD 90FD05$99	1L	10 ml	✓	✓			
PCB-MS 90FD05$99	1L	10 ml	✓		✓		
PCB-MSD 90FD05$99	1L	10 ml	✓		✓		
90FD06$01	1L	10 ml	✓				
90FD06$02	1L	10 ml	✓				
90FD06$03	1L	10 ml	✓				
90FD05D98	1L	10 ml	✓				
90FD01R60	1L	10 ml	✓				

Witness Signatures for:

The addition DBC surrogate: Jason Holliday 19 Dec 89 AK

The pH adjustments: Jason Holliday 19 Dec 89 AK

The addition of Pesticide MS solution: Jason Holliday 19 Dec 89 AK

The addition of PCB-MS solution: Jason Holliday 19 Dec 89 AK

⊛ MATRIX SPIKE SOLUTION: 1ml of pesticide matrix spike solution was added to the Pest-MS / Pest MSD.

** MATRIX SPIKE SOLUTION: 1ml of Aroclor 1242 @ 3µg/ml was added to the PCB-MS / PCB-MSD sample.

* SURROGATES: 1ml of DBC (0.5µg/ml) solution was added to all of the above Pesticide / PCB samples.

PREP. CHEMIST AK, JH ANALYST

	SAMPLE NAME	METHOD NAME	DATA FILE	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGH
1	HEXANE	K:ZERO		5.0000	1.0000	1.00	1.00
2	DDT DEGRADATION	K:ZERO		5.0000	1.0000	1.00	1.00
3	ENDRIN DEGRADATION	K:ZERO		5.0000	1.0000	1.00	1.00
	~~4 STD A 3~~ tp	K:ZERO		5.0000	1.0000	1.00	1.00
5	STD A 3	K:ZERO		5.0000	1.0000	1.00	1.00
6	STD B 3	K:ZERO		5.0000	1.0000	1.00	1.00
7	STD B 3	K:ZERO		5.0000	1.0000	1.00	1.00
8	METHOD BLANK 6823	K:ZERO		5.0000	1.0000	10.00	1.00
9	METHOD BLANK 6825	K:ZERO		5.0000	1.0000	10.00	1.00
10	90L06S11 PEST SPK	K:ZERO		5.0000	1.0000	10.00	1.00
11	90L06S11 PEST SPK D	K:ZERO		5.0000	1.0000	10.00	1.00
12	90D05S99 PEST SPK	K:ZERO		5.0000	1.0000	10.00	1.00
13	90D05S99 PEST SPK D	K:ZERO		5.0000	1.0000	10.00	1.00
14	90FL06S11	K:ZERO		5.0000	1.0000	10.00	1.00
15	90FL06D11	K:ZERO		5.0000	1.0000	10.00	1.00
16	90FL01R62	K:ZERO		5.0000	1.0000	10.00	1.00
17	90FD05S98	K:ZERO		5.0000	1.0000	10.00	1.00
18	90FD05S99	K:ZERO		5.0000	1.0000	10.00	1.00
19	90FD05D98	K:ZERO		5.0000	1.0000	10.00	1.00
20	90FD06S01	K:ZERO		5.0000	1.0000	10.00	1.00
21	90FD06S02	K:ZERO		5.0000	1.0000	10.00	1.00
22	90FD06S03	K:ZERO		5.0000	1.0000	10.00	1.00
23	90FD01R60	K:ZERO		5.0000	1.0000	10.00	1.00
24	STD 1242 3	K:ZERO		5.0000	1.0000	1.00	1.00
25	90FL06S11 PCB SPK	K:ZERO		5.0000	1.0000	10.00	1.00
26	90FL06S11 PCB SPK D	K:ZERO		5.0000	1.0000	10.00	1.00
27	90FD05S99 PCB SPK	K:ZERO		5.0000	1.0000	10.00	1.00
28	90FD05S99 PCB SPK D	K:ZERO		5.0000	1.0000	10.00	1.00
29	STD 1248 3	K:ZERO		5.0000	1.0000	1.00	1.00
30	STD 1254 3	K:ZERO		1.0000	1.0000	1.00	1.00
31	STD 1260 3	K:ZERO		1.0000	1.0000	1.00	1.00
32	STD 1221	K:ZERO		5.0000	1.0000	1.00	1.00
33	STD 1232	K:ZERO		5.0000	1.0000	1.00	1.00

	SAMPLE NAME	METHOD NAME	DATA FILE	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1	HEXANE	ZERO		1.0000	1.0000	1.00	1.000
2	DDT DEGRADATION	ZERO		1.0000	1.0000	1.00	1.000
3	ENDRIN DEGRADATION	ZERO		1.0000	1.0000	1.00	1.000
4	STD A 1	ZERO		1.0000	1.0000	1.00	1.000
5	STD A 2	ZERO		5.0000	1.0000	1.00	1.000
6	STD A 3	ZERO		5.0000	1.0000	1.00	1.000
7	STD A 4	ZERO		5.0000	1.0000	1.00	1.000
8	STD A 5	ZERO		5.0000	1.0000	1.00	1.000
9	STD B 1	ZERO		5.0000	1.0000	1.00	1.000
10	STD B 2	ZERO		5.0000	1.0000	1.00	1.000
11	STD B 3	ZERO		5.0000	1.0000	1.00	1.000
12	STD B 4	ZERO		5.0000	1.0000	1.00	1.000
13	STD B 5	ZERO		5.0000	1.0000	1.00	1.000
14	METHOD BLANK 6823	ZERO		5.0000	1.0000	10.00	1.000
15	METHOD BLANK 6825	ZERO		5.0000	1.0000	10.00	1.000
16	90FL06S11 PEST SPK	ZERO		5.0000	1.0000	10.00	1.000
17	90FL06S11 PEST SPK D	ZERO		5.0000	1.0000	10.00	1.000
18	90FD05S99 PEST SPK	ZERO		5.0000	1.0000	10.00	1.000
19	90FD05S99 PEST SPKD	ZERO		5.0000	1.0000	10.00	1.000
20	STD A 3	ZERO		5.0000	1.0000	1.00	1.000
21	90FL06S11	ZERO		5.0000	1.0000	10.00	1.000
22	90FL06D11	ZERO		5.0000	1.0000	10.00	1.000
23	90FL01R62	ZERO		5.0000	1.0000	10.00	1.000
24	90FD05S98	ZERO		5.0000	1.0000	10.00	1.000
25	90FD05S99	ZERO		5.0000	1.0000	10.00	1.000
26	ENDRIN DEGRADATION	ZERO		5.0000	1.0000	1.00	1.000
27	DDT DEGRADATION	ZERO		5.0000	1.0000	1.00	1.000
28	STD B 3	ZERO		5.0000	1.0000	1.00	1.000
29	90FD05D98	ZERO		5.0000	1.0000	10.00	1.000
30	90FD06S01	ZERO		5.0000	1.0000	10.00	1.000
31	90FD06S02	ZERO		5.0000	1.0000	10.00	1.000
32	90FD06S03	ZERO		5.0000	1.0000	10.00	1.000
33	90FD01R60	ZERO		5.0000	1.0000	10.00	1.000
34	STD 1242 2	ZERO		5.0000	1.0000	1.00	1.000
35	STD 1242 3	ZERO		5.0000	1.0000	1.00	1.000
36	STD 1242 4	ZERO		5.0000	1.0000	1.00	1.000
37	STD 1242 5	ZERO		5.0000	1.0000	1.00	1.000
38	STD 1242 6	ZERO		5.0000	1.0000	1.00	1.000
39	90FL06S11 PCB SPK	ZERO		5.0000	1.0000	10.00	1.000
40	90FL06S11 PCB SPK D	ZERO		5.0000	1.0000	10.00	1.000
41	90FD05S99 PCB SPK	ZERO		5.0000	1.0000	10.00	1.000
42	90FD05S99 PCB SPK D	ZERO		5.0000	1.0000	10.00	1.000
43	STD 1248 3	ZERO		5.0000	1.0000	1.00	1.000
44	STD 1254 3	ZERO		1.0000	1.0000	1.00	1.000
45	STD 1260	ZERO		1.0000	1.0000	1.00	1.000
46	STD 1221	ZERO		5.0000	1.0000	1.00	1.000
47	STD 1232	ZERO		5.0000	1.0000	1.00	1.000

1st Column

MWex is the INSTD

INSTD AREAS

1	Hexane	—
2	DDT	3160339
3	ENDRIN	3231006
4	STD A 1	3406528
5	STD A 2	3531670
6	STD A 3	3875713
7	STD A 4	4248951
8	STD A 5	4497625
9	STD B 1	3154633
10	STD B 2	3091439
11	STD B 3	3208926
12	STD B 4	3190016
13	STD B 5	3189722
14	Method Blank 6823	3971767
15	Method Blank 6825	3984271
16	90FL06 $11 Pest gtk	3957781
17	90FL06 $11 Pest gtk D	3872285
18	90FD05 $99 Pest gtk	3977142
19	90FD05 $99 Pest gtk D	3995397
20	STD A 3	3830421
21	90FL06 $11	4076769
22	90FL06D11	3911861
23	90FL01R62	3791099
24	90FD05$98	3953064
25	90FD05$99	4030328
26	ENDRIN	3005029
27	DDT	3284185
28	STD B 3	3196917
29	90FD05D98	4060135
30	90FD06$01	3910659
31	90FD06$02	4024130

Continuing 1° Column

INSTD AREAS

32	90FD06$03	4099903
33	90FD01 R60	3509874
34	STD 1242 2	3153829
35	STD 1242 3	2943902
36	STD 1242 4	3128958
37	STD 1242 5	3030390
38	STD 1242 6	3102979
39	90FL06$11 PCB gpk	3896577
40	90FL06 $11 PCB gpk D	3780363
41	90FD05$99 PCB gpk	3746863
42	90FD05$99 PCB gpk D	3889284
43	STD 1248 3	3192212
44	STD 1254 3	—
45	STD 1260 3	—
46	STD 1221	3136175
47	STD 1232	3306722
48		

2° Column

INSTD AREAS

1	Hexane	—
2	DDT	1380097
3	ENDRIN	1363365
4	AUTO Sampler skip	
5	STD A 3	1536037
6	STD B 3	1479035
7	Nellson Blank 6823	1513281
8	Nellson Blank 6825	1398860
9	90FL06$11 PESTpkk	1525118
10	90FL06$11 PESTpkkD	1413921
11	90FD05$99 PESTpkk	1439856
12	90FD05$99 PESTpkkD	1385469
13	90FL06$11	1413705
14	90FL06D11	1420065
15	90FL01R62	1337083
16	90FD05$98	1401714
17	90FD05$99	1417189
18	90FD05D98	1468761
19	90FD06$01	1413150
20	90FD06$02	1417629
21	90FD06$03	1422927
22	90FD01R60	1462340
23	STD 1242 3	1386225
24	90FL06$11 PCBpkk	1384125
25	90FL06$11 PCBpkkD	1383089
26	90FD05$99 PCBpkk	1398789
27	90FD05$99 PCBpkkD	1397598
28	STD1248 3	1415487
29	STD1254 3	—

point	value
1	3160339
2	3231006
3	3406528
4	3531670
5	3875713
6	4248951
7	4497625
8	3154633
9	3091439
10	3208926
11	3190016
12	3189722
13	3971767
14	3984271
15	3957781
16	3872285
17	3977142
18	3995397
19	3830421
20	4076769
21	3911861
22	3791099
23	3953064
24	4030328
25	3005029
26	3284185
27	3196917
28	4060435
29	3910659
30	4024130
31	4044903
32	3909874
33	3153829
34	2943902
35	3128958
36	3030390
37	3102979
38	3896577
39	3780363
40	3746863
41	3889284
42	3142212
43	3156175
44	3306722

DATA POINT	DATA ENTERED	DEVIATION
1	3160339	-449959.6136363637
2	3231006	-379292.6136363637
3	3406528	-203770.6136363636
4	3531670	-78628.61363636365
5	3875713	265414.3863636364
6	4248951	638652.3863636364
7	4497625	887326.3863636364
8	3154633	-455665.6136363637

9	3091439	-518859.6136363637
10	3208926	-401372.6136363637
11	3190016	-420282.6136363637
12	3189722	-420576.6136363637
13	3971767	361468.3863636364
14	3984271	373972.3863636364
15	3957781	347482.3863636364
16	3872285	261986.3863636364
17	3977142	366843.3863636364
18	3995397	385098.3863636364
19	3830421	220122.3863636364
20	4076769	466470.3863636364
21	3911861	301562.3863636364
22	3791099	180800.3863636364
23	3953064	342765.3863636364
24	4030328	420029.3863636364
25	3005029	-605269.6136363637
26	3284185	-326113.6136363637
27	3196917	-413381.6136363637
28	4060435	450136.3863636364
29	3910659	300360.3863636364
30	4024130	413831.3863636364
31	4044903	434604.3863636364
32	3909874	299575.3863636364
33	3153829	-456469.6136363637
34	2943902	-666396.6136363637
35	3128958	-481340.6136363637
36	3030390	-579908.6136363637
37	3102979	-507319.6136363637
38	3896577	286278.3863636364
39	3780363	170064.3863636364
40	3746863	136564.3863636364
41	3889284	278985.3863636364
42	3142212	-468086.6136363637
43	3156175	-454123.6136363637
44	3306722	-303576.6136363637

****

The number of data points= 44

The sum of the data= 158853139

The mean= 3610298.613636364

The standard deviation is= 417418.8766270646

The coefficient of variation is= .1156189338606072

point	value
1	1380097
2	1363365
3	1536037
4	1474035
5	1513281
6	1548860
7	1525118
8	1413921
9	1434856
10	1385469
11	1413705
12	1420065
13	1339083
14	1401714
15	1417189
16	1468761
17	1413150
18	1417629
19	1422927
20	1462340
21	1386225
22	1384125
23	1383089
24	1398789
25	1397598
26	1415487
27	1382689
28	1345208

DATA POINT	DATA ENTERED	DEVIATION
1	1380097	-42932
2	1363365	-59664
3	1536037	113008
4	1474035	51006
5	1513281	90252
6	1548860	125831
7	1525118	102089
8	1413921	-9108
9	1434856	11827
10	1385469	-37560
11	1413705	-9324
12	1420065	-2964
13	1339083	-83946
14	1401714	-21315
15	1417189	-5840
16	1468761	45732
17	1413150	-9879
18	1417629	-5400
19	1422927	-102
20	1462340	39311
21	1386225	-36804
22	1384125	-38904
23	1383089	-39940
24	1398789	-24240

25	1377578	-23431
26	1415487	-7542
27	1382689	-40340
28	1345208	-77821

****

The number of data points= 28

The sum of the data= 39844812

The mean= 1423029

The standard deviation is= 53998.17668879473

The coefficient of variation is= 3.794594255548884D-02

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CENTRAL REGIONAL LABORATORY REGION V CHICAGO IL.

****

INITIAL AND CONTINUING CALIBRATION FORM

DATA SET: SF6823 & SF6825 DATE: 12/26/89 GC # 3

COLUMN TYPE MIXED PHASE FILE NAME M:OK

VERSION: 25 STANDARD NA NAME: STD B 3

COMPOUND	INITIAL AREA	CONT AREA	% RPD	INITIAL RT	CONTIN. RT	% RPD
BETA BHC	1310199	1372990	-5	3.55	3.77	-6
DELTA BHC	1288689	1324935	-3	4.13	4.38	-6
DDE 4 4'	1903897	1903097	0	9.87	10.48	-6
DDD 4 4'	2727569	2746141	-1	15.17	15.93	-5
ENDALDEHYDE	2577428	2692525	-4	20.37	21.43	-5
ENDOSULFATE	4458411	4626763	-4	24.58	25.90	-5
ISTD	3208926	3196917	0	27.72	29.15	-5
ENDKETONE	3146306	3321850	-5	33.57	35.27	-5

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

CENTRAL REGIONAL LABORATORY REGION V CHICAGO IL.

****

INITIAL AND CONTINUING CALIBRATION FORM

DATA SET: SF6823 DATE: 12/26/89 GC # 3

COLUMN TYPE MIXED PHASE FILE NAME M:OK

VERSION: 141 STANDARD NA NAME: PEST A 3

COMPOUND	INITIAL AREA	CONT AREA	% RPD	INITIAL RT	CONTIN. RT	% RPD
ALPHA BHC	1149480	1159119	-1	2.50	2.55	-2
LINDANE	818112	825541	-1	3.17	3.20	-1
HEPTACHLOR	981219	974570	1	3.87	3.92	-1
ALDRIN	1582051	1585134	-0	4.67	4.73	-1
HEPTEPOXIDE	2019663	2077365	-3	6.95	7.10	-2
ENDOSULFAN	2290337	2350748	-3	8.72	8.92	-2
DIELDRIN	2079830	2095405	-1	10.65	10.88	-2
ENDRIN	1643259	1786645	-8	12.88	13.17	-2
ENDO II	4498960	4660031	-4	15.65	16.00	-2
DDT 4 4'	3522616	3681161	-4	18.30	18.77	-3
ISTD	3875713	3830421	1	27.83	28.50	-2
DBC	3468100	3671307	-6	32.27	33.08	-2
METHOXHYCHL	3162805	3306190	0	35.13	36.05	-3
	0	0	ERR	0.00	0.00	ERR

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

CENTRAL REGIONAL LABORATORY REGION V CHICAGO IL.

DBC SURROGATE RECOVERY

DATA SET NO. SF6825

SAMPLE NAME	AMT ADDED	AMT FOUND	PERCENT RECOVERY
METHOD BLANK	0.50	0.72	144.92
PEST SPK	0.50	0.66	132.48
PEST SPK DUP	0.50	0.82	164.10
PCB SPK	0.50	0.58	115.84
PCB SPK DUP	0.50	0.72	144.24
90FD05S98	0.50	0.66	131.16
90FD05D98	0.50	0.59	117.72
90FD06S01	0.50	0.58	116.34
90FD06S02	0.50	0.79	157.12
90FD06S03	0.50	0.56	112.40
90FD01R60	0.50	0.58	115.52
90FD05S99	0.50	0.74	147.00

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

CENTRAL REGIONAL LABORATORY REGION V CHICAGO IL.

ENDRIN AND DDT DEGRADATION

DATA SET: SF6823 & SF6825 DATA SET NAME OLD KELLY'S DUKE EARNE

DATE: 12/20/89 COLUMN TYPE MIXED PHASE GC # 3

PERCENT ENDRIN DEGRADATION = $\frac{\text{AREA OF END ALD + AREA OF END KETONE}}{\text{AREA OF END ALD + END KET + ENDRIN}} \times 100$

A1.....N13

CALIBRATI	DATE ANALYZED	TIME ANALYZED	AREA OF END ALD	AREA OF END KET	AREA OF ENDRIN	% DEG
INITIAL	12/20/89	12:14:06	1199118	807395	8576528	19
CONT.	12/21/89	06:03:03	840804	617878	10097451	13

PERCENT DDT DEGRADATION = $\frac{\text{AREA OF DDE + DDD}}{\text{AREA OF DDE + DDD + DDT}} \times 100$

CALIBRATI	DATE ANALYZED	TIME ANALYZED	AREA OF DDD	AREA OF DDE	AREA OF DDT	% DEG
INITIAL	12/20/89	11:27:36	329907	376672	13196848	5
CONT.	12/21/89	06:49:31	123663	8423	~~1382731~~ 1383273	1 ~~9~~

KG
1/2/90

```
*****    INTERNAL STANDARD TABLE    *****
******************** 12-21-1989 12:38:54 Version 4.1 **********************
* Sample Name: DDT DEGRADATION                    Data File: M:OK2          *
* Date: 12-18-1989 11:27:36 Method: M:QPESTB 12-21-1989 11:34:46  #  25    *
* Interface: 0   Cycle#:  2    Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000            *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*             Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                        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
2	4.15	DELTA BHC	0.0013	14.4804%	33053	2902	11.4	1	2	10	0	4.0661E-08
6	10.13	DDE 4'4'	0.0035	38.0792%	376672	16109	23.4	1	6	10	0	9.3829E-09
8	15.60	DDD 4'4'	0.0044	47.4404%	329907	9299	35.5	1	8	10	0	1.3347E-08
10	28.48	ISTD	1.0000	0.0000%	3160339	50205	62.9	1	10	10	0	3.1642E-07

TOTAL AMOUNT = 0.0093

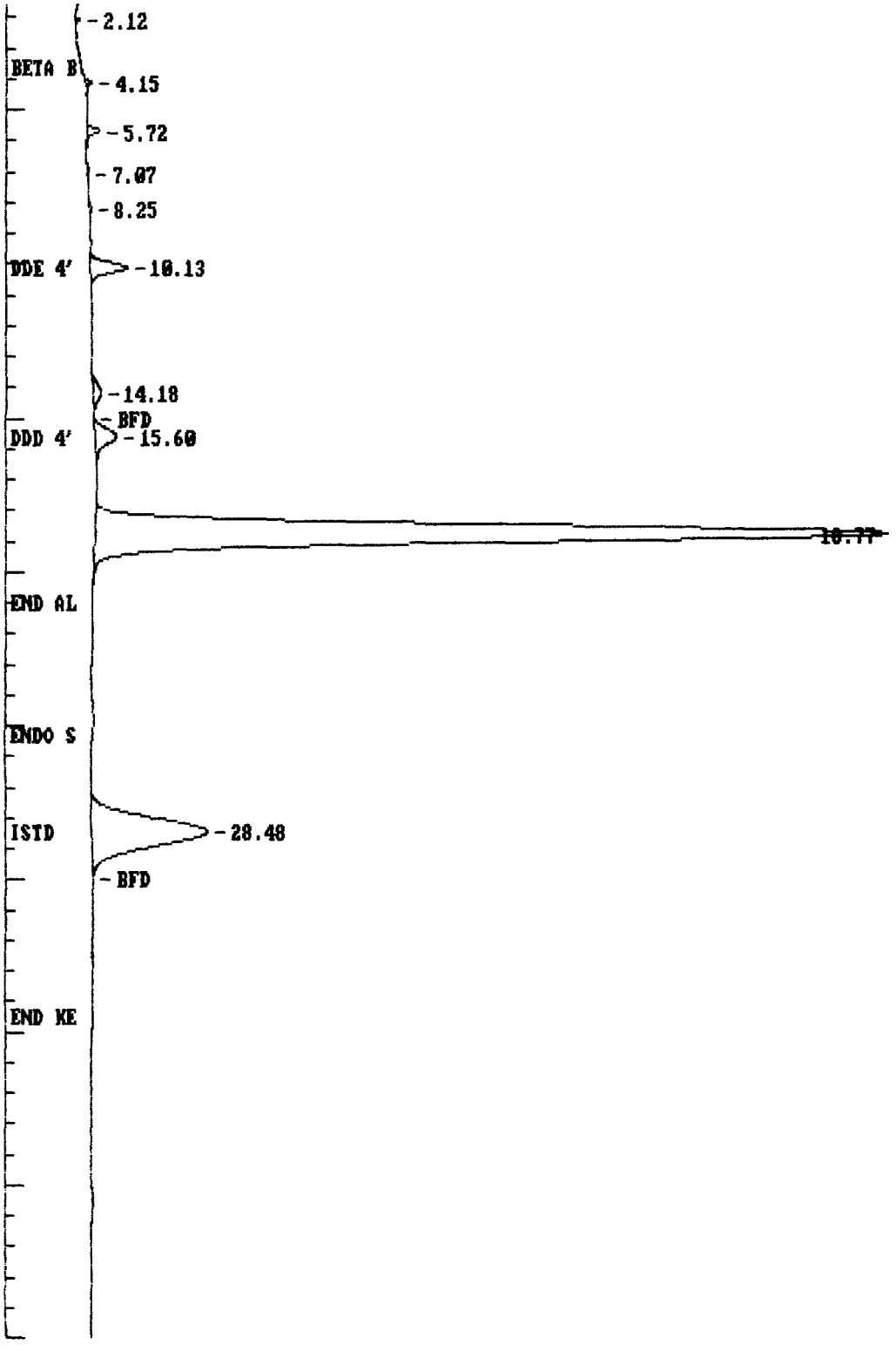
PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
BETA BHC	3.60	BETA BHC
END ALDEHYDE	20.99	END ALDEHYDE
ENDO SULFATE	25.32	ENDO SULFATE
END KETONE	34.49	END KETONE

$$\frac{\overset{(DDD)}{329907} + \overset{(DDE)}{376672}}{\underset{(DDD)}{329907} + \underset{(DDE)}{376672} + \underset{(DDT)}{13196848}} \times 100 = \frac{706579}{13903427} \times 100$$

$$= 5.1\%$$

Data File = M:OK2.PTS Printed on 12-21-1989 at 12:39:28
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 50087 uv High Value: 402355 uv Scale factor: 1.0



```
*****    INTERNAL STANDARD TABLE    *****
******************** 12-21-1989 12:37:07 Version 4.1 **********************
* Sample Name: DDT DEGRADATION                    Data File: M:OK2          *
* Date: 12-18-1989 11:27:36 Method: M:QPESTA 12-21-1989 12:24:18  #  141   *
* Interface: 0   Cycle#:  2    Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000            *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*             Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                          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
```

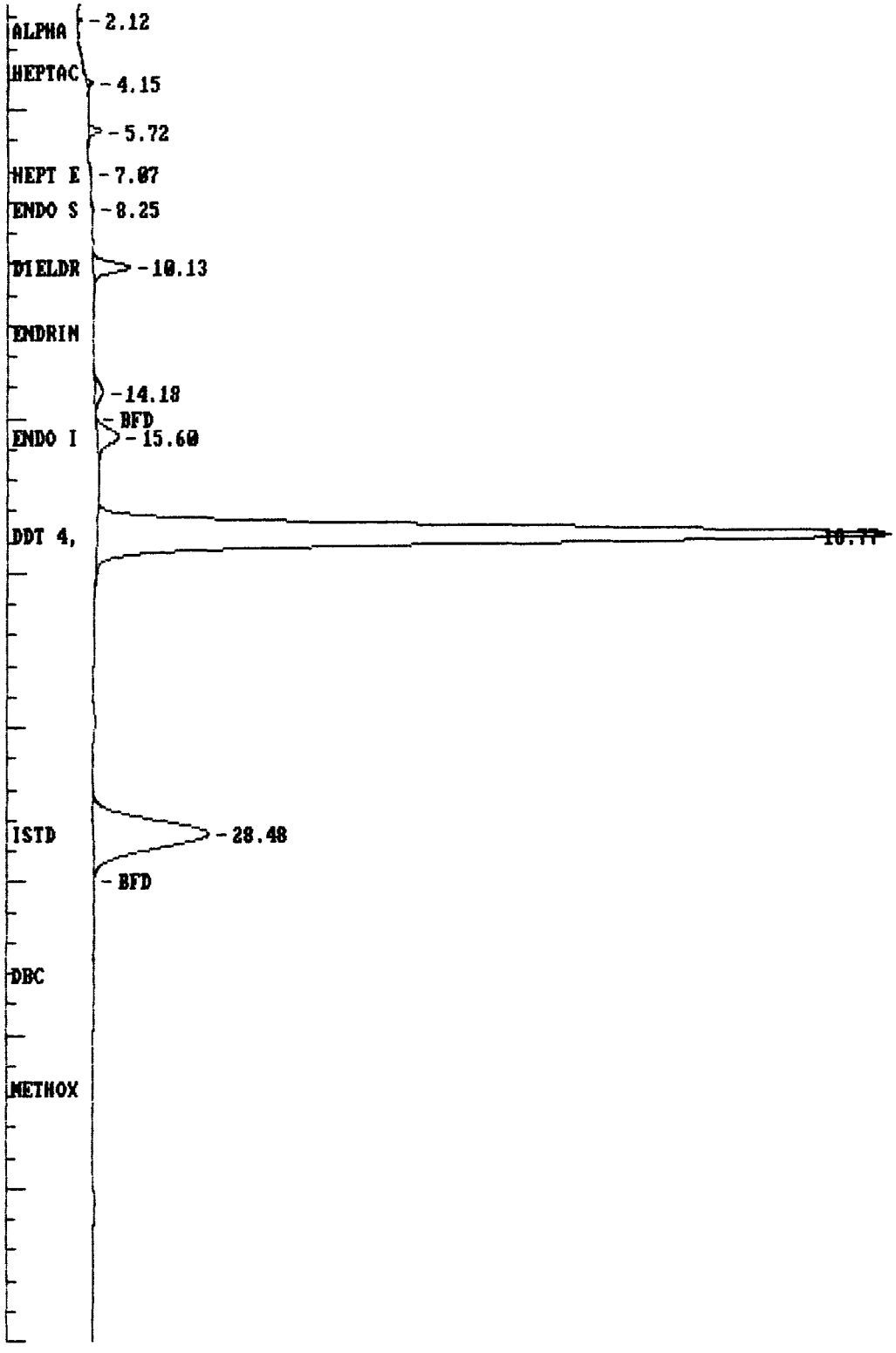
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
4	7.07	HEPT EPOXIDE	-0.0011	-0.7840%	13312	804	16.6	1	4	10	0	-8.4425E-08
5	8.25	ENDO SULFAN 1	-0.0015	-1.0475%	18007	922	19.5	1	5	10	0	-8.3385E-08
6	10.13	DIELDRIN	0.0025	1.7618%	376672	16109	23.4	1	6	10	0	6.7050E-09
8	15.60	ENDO II	-0.0002	-0.1650%	329907	9299	35.5	1	8	10	0	-7.1710E-10
9	18.77	DDT 4.4'	0.1437	100.2347%	13196848	343989	38.4	1	9	10	0	1.0888E-08
10	28.48	ISTD	1.0000	0.0000%	3160339	50205	62.9	1	10	10	0	3.1642E-07

TOTAL AMOUNT = 0.1433

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	2.45	ALPHA BHC
LINDANE	3.10	LINDANE
HEPTACHLOR	3.78	HEPTACHLOR
ALDRIN	4.55	ALDRIN
ENDRIN	12.26	ENDRIN
DBC	33.04	DBC
METHOXYCHLOR	36.76	METHOXYCHLOR

Data File = M:OK2.PTS Printed on 12-21-1989 at 12:37:40
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 50087 uv High Value: 402355 uv Scale factor: 1.0



```
******     INTERNAL STANDARD TABLE     ******
******************** 12-26-1989 11:34:13 Version 4.1 **********************
* Sample Name: DDT DEGRADATION                    Data File: m:ok27         *
* Date: 12-21-1989 06:49:31 Method: M:QPESTA2 12-26-1989 11:23:36  #  143 *
* Interface: 0   Cycle#:  27   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000            *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*            Solvent Description: ULTRA HIGH PURITY NITROGEN              *
* Conditions: ISOTHERMAL 200 C                                            *
*            Detector 0: ECD QUANT            Detector 1:                 *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                    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	7.38	HEPT EPOXIDE	-0.0011	-0.7567%	33591	961	34.9	1	4	10	0	-3.2349E-08
6	10.57	DIELDRIN	0.0011	0.7465%	244313	10567	23.1	2	6	10	0	4.3879E-09
8	16.12	ENDO II	-0.0011	-0.7594%	289252	8009	36.1	2	8	10	0	-3.7699E-09
9	19.40	DDT 4,4'	0.1447	100.7696%	13832731	354088	39.1	1	9	10	0	1.0461E-08
10	29.35	ISTD	1.0000	0.0000%	3284185	51788	63.4	1	10	10	0	3.0449E-07

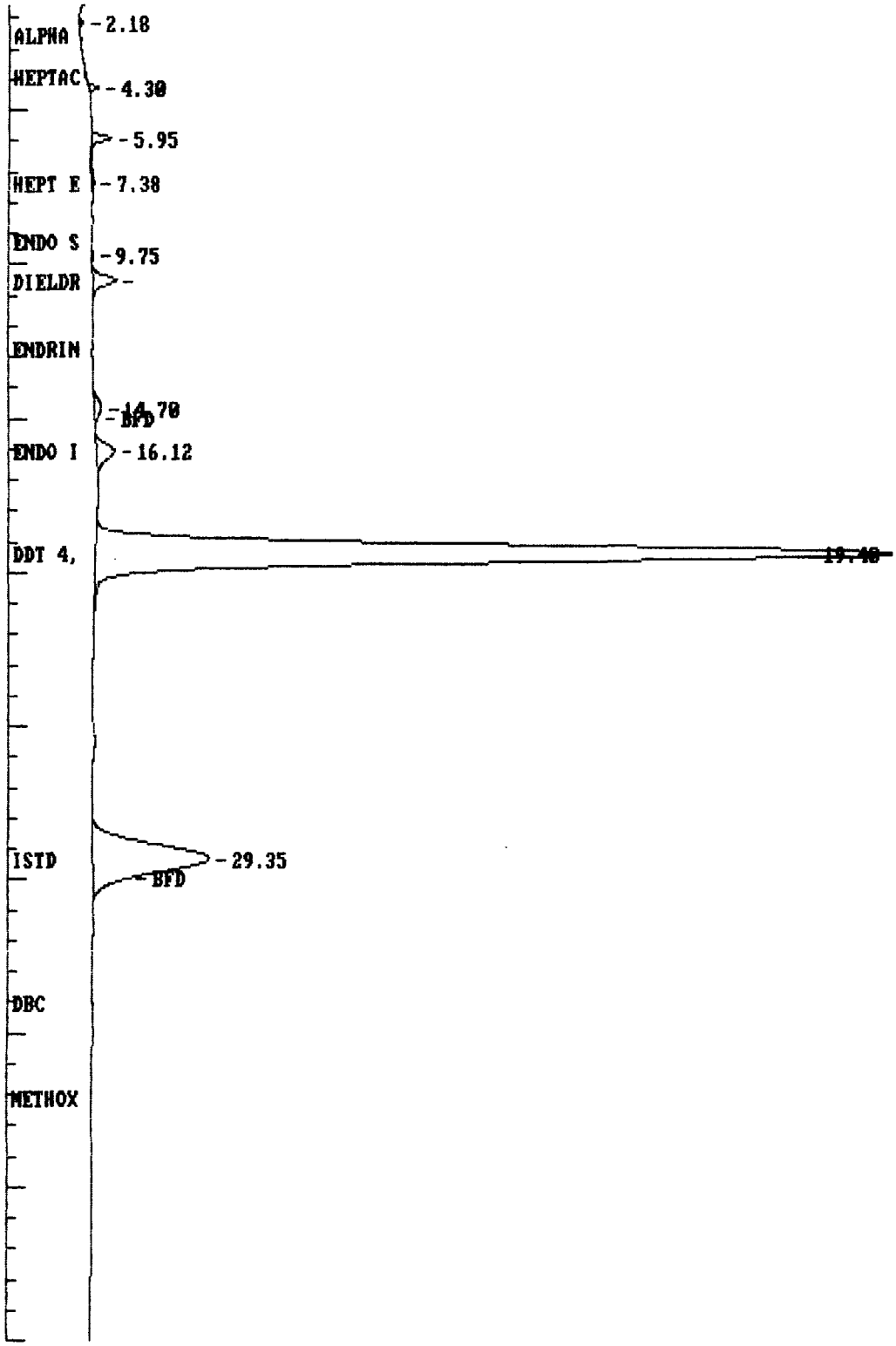
TOTAL AMOUNT = 0.1436

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	2.55	ALPHA BHC
LINDANE	3.20	LINDANE
HEPTACHLOR	3.92	HEPTACHLOR
ALDRIN	4.73	ALDRIN
ENDO SULFAN 1	9.27	ENDO SULFAN 1
ENDRIN	12.78	ENDRIN
DBC	34.07	DBC
METHOXYCHLOR	37.13	METHOXYCHLOR

$$\frac{\overset{(DDD)}{123663} + \overset{(DDE)}{8423}}{\underset{(DDD)}{123663} + \underset{(DDE)}{8423} + \underset{(DDT)}{13832731}} \times 100 = \frac{132086}{13964817} \times 100 = 0.9\%$$

Data File = m:ok27.PTS Printed on 12-26-1989 at 11:34:41
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 53921 uv High Value: 415812 uv Scale factor: 1.0



```
******   INTERNAL STANDARD TABLE   ******
******************** 12-26-1989 14:35:47 Version 4.1 ********************
* Sample Name: DDT DEGRADATION                    Data File: m:ok27        *
* Date: 12-21-1989 06:49:31 Method: M:QPESTB 12-21-1989 11:34:46  #  25   *
* Interface: 0   Cycle#:  27   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000           *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*             Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                      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
```

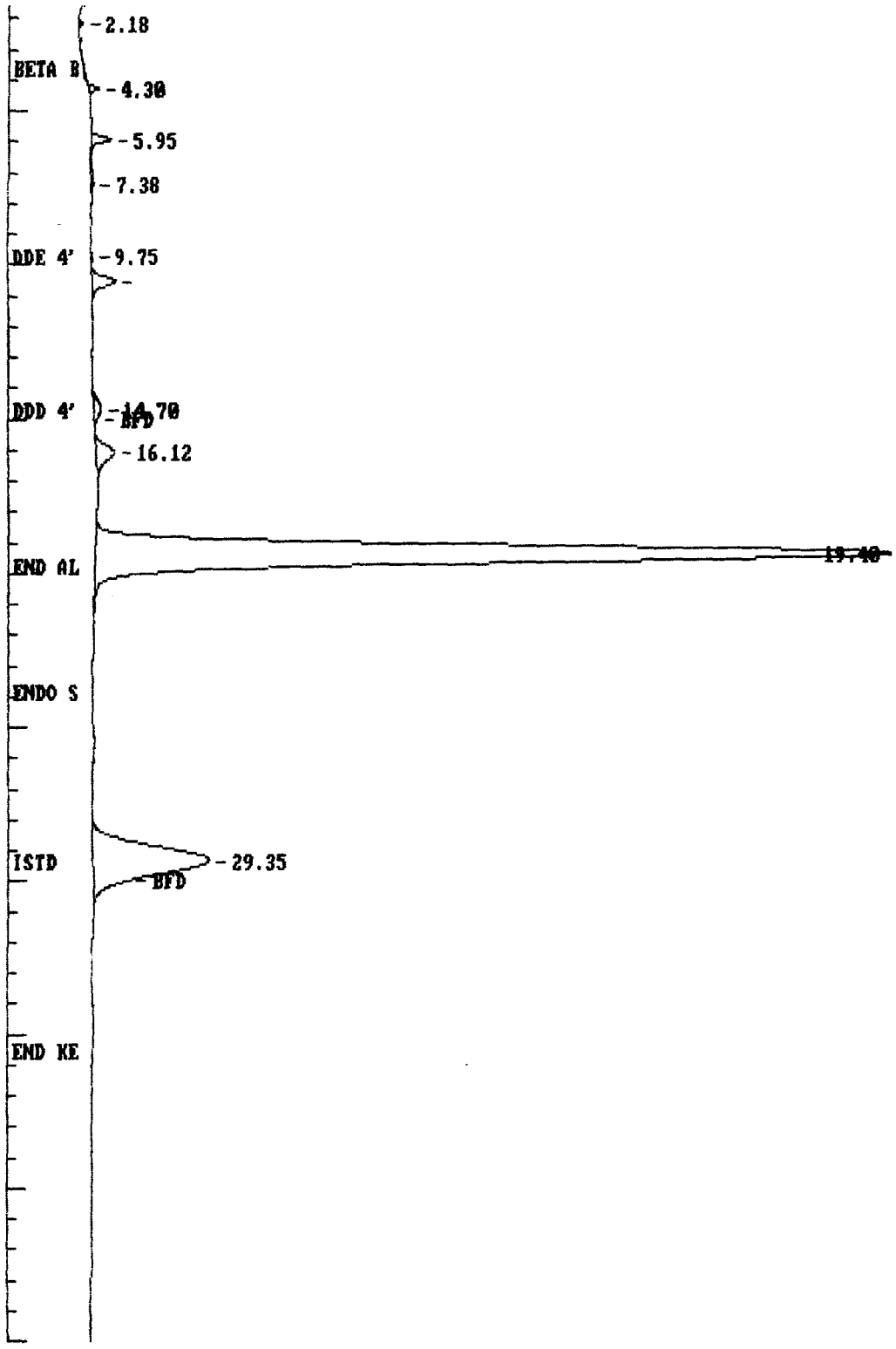
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
2	4.30	DELTA BHC	0.0014	0.9817%	39198	4384	8.9	1	2	10	0	3.5005E-08
5	9.75	DDE 4'4'	0.0009	0.6657%	8423	472	17.9	2	5	10	0	1.1047E-07
7	14.70	DDD 4'4'	0.0027	1.9560%	123663	3150	39.3	2	7	10	0	2.2109E-08
9	19.40	END ALDEHYDE	0.1347	96.3966%	13832731	354088	39.1	1	7	10	-1.902	9.7406E-09
10	29.35	ISTD	1.0000	0.0000%	3284185	51788	63.4	1	10	10	0	3.0449E-07

TOTAL AMOUNT = 0.1398

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
BETA BHC	3.60	BETA BHC
ENDO SULFATE	23.86	ENDO SULFATE
END KETONE	35.53	END KETONE

Data File = m:ok27.PTS Printed on 12-26-1989 at 14:36:15
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 53921 uv High Value: 415812 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

```
******************** 12-21-1989 12:40:28 Version 4.1 **********************
* Sample Name: ENDRIN DEGRADATION                    Data File: M:OK3        *
* Date: 12-18-1989 12:14:06 Method: M:QPESTA 12-21-1989 12:24:18  #  141   *
* Interface: 0   Cycle#:  3    Operator KG  Channel#: 0    Vial#: N.A.      *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000             *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE   *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN              *
* Conditions: ISOTHERMAL 200 C                                              *
*             Detector 0: ECD QUANT            Detector 1:                  *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *   *
*************************************************************************
Starting Delay:    1.50                        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	13.23	ENDRIN	0.1650	94.0326%	8576528	299205	28.7	1	0	6	5.165	1.9241E-08
6	28.55	ISTD	1.0000	0.0000%	3231006	51006	63.3	1	6	6	0	3.0950E-07
7	34.42	METHOXYCHLOR	0.0105	5.9674%	807395	9567	84.4	1	7	6	0	1.2971E-08

TOTAL AMOUNT = 0.1755

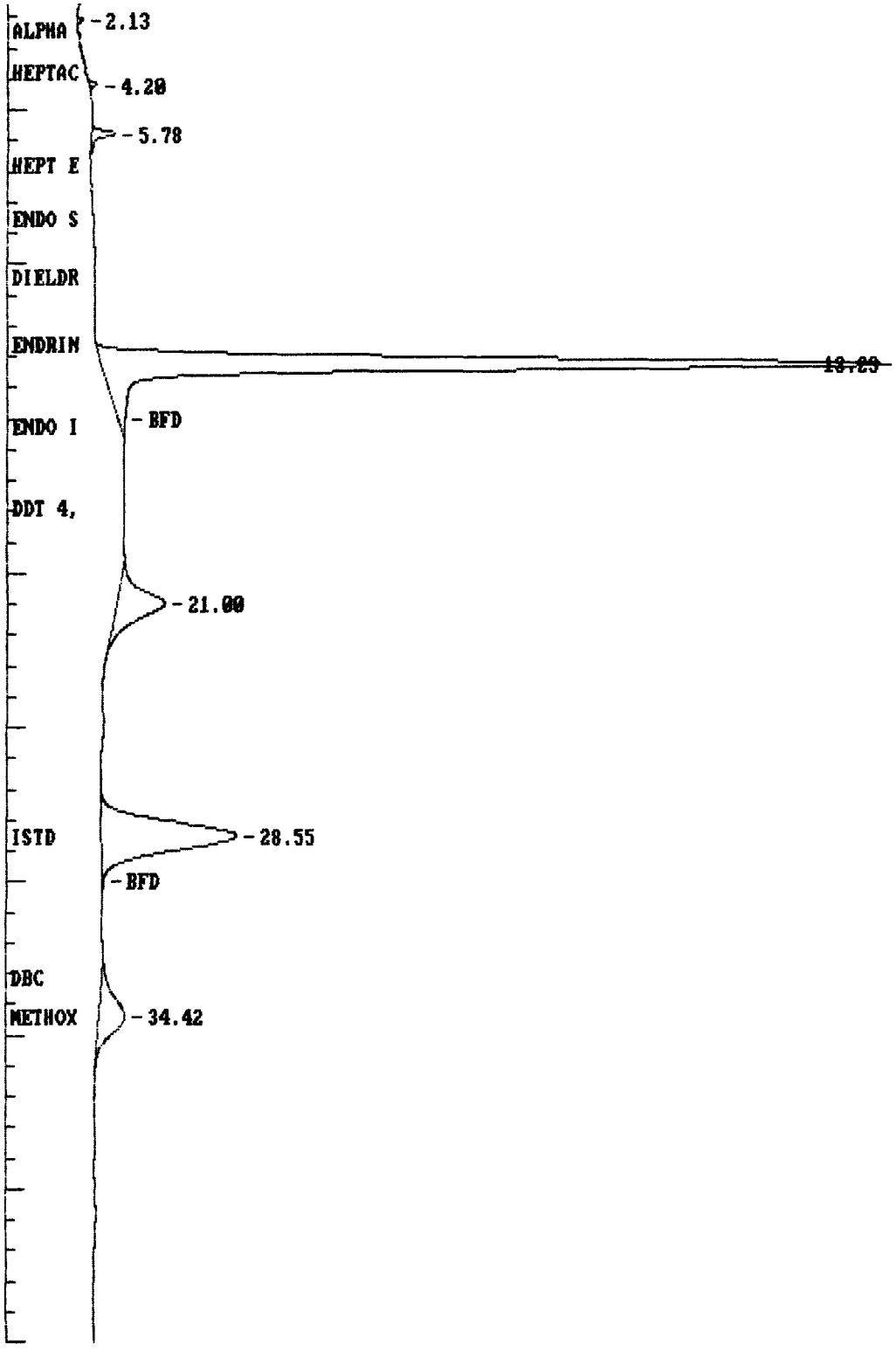
PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	2.45	ALPHA BHC
LINDANE	3.10	LINDANE
HEPTACHLOR	3.78	HEPTACHLOR
ALDRIN	4.55	ALDRIN
HEPT EPOXIDE	6.78	HEPT EPOXIDE
ENDO SULFAN 1	8.50	ENDO SULFAN 1
DIELDRIN	10.40	DIELDRIN
ENDO II	15.28	ENDO II
DDT 4,4'	17.87	DDT 4,4'
DBC	33.11	DBC

$$\frac{1199118 + 807395}{1199118 + 807395 + 8576528} \times 100 = \frac{2006513}{10583041} \times 100$$

$$= 18.96\%$$

Data File = M:OK3.PTS Printed on 12-21-1989 at 12:40:56
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 50342 uv High Value: 358247 uv Scale factor: 1.0



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

********** 12-21-1989 12:41:55 Version 4.1 **********

* Sample Name: ENDRIN DEGRADATION Data File: M:OK3 *
* Date: 12-18-1989 12:14:06 Method: M:QPESTB 12-21-1989 11:34:46 # 25 *
* Interface: 0 Cycle#: 3 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 5000 *

****

* Instrument Type: HP 5890 GC/EC #3 Column Type: PACKED MIXED PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL 200 C *
* Detector 0: ECD QUANT Detector 1: *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN: * *

****

Starting Delay: 1.50 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

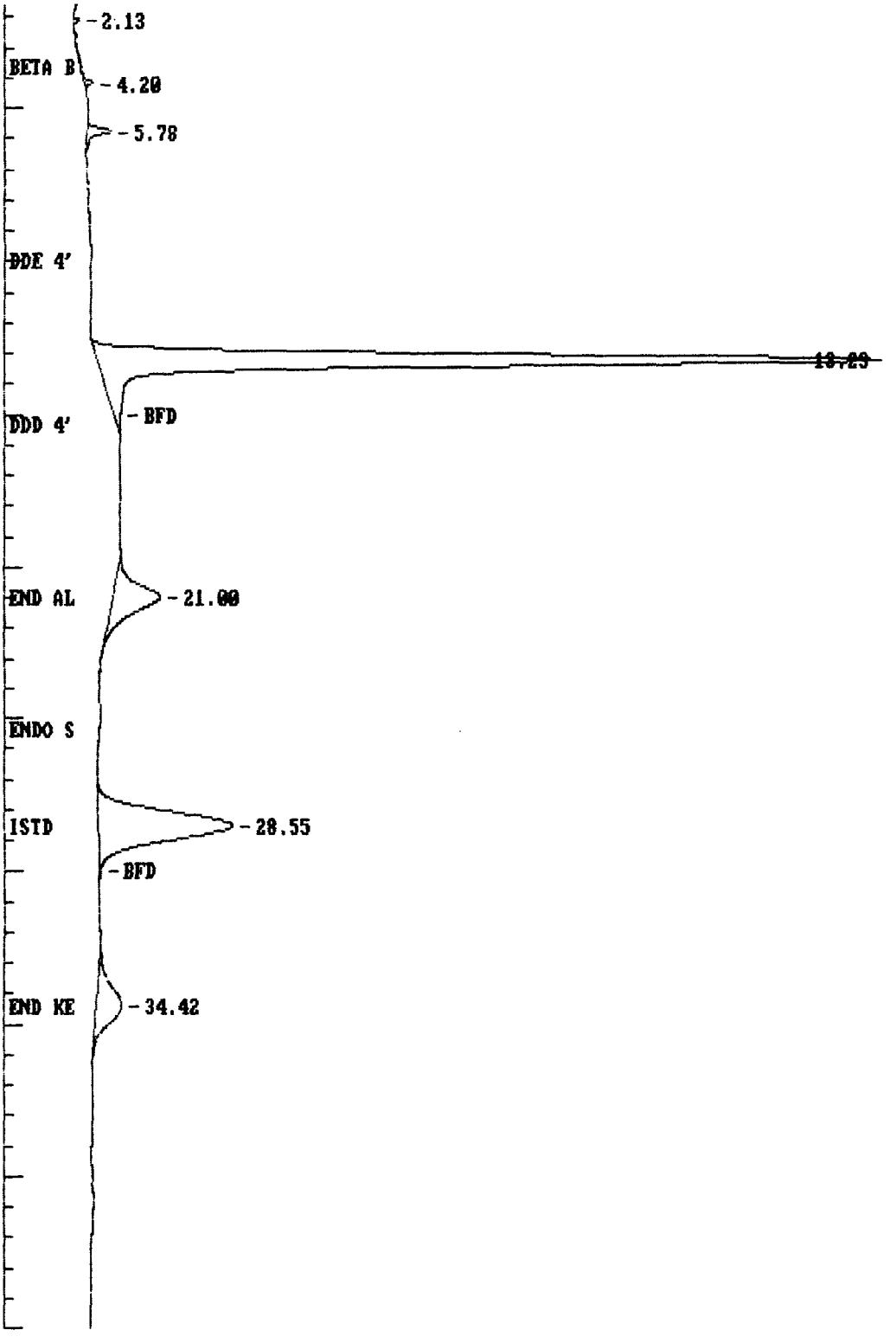
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
2	4.20	DELTA BHC	0.0013	5.8382%	31586	3061	10.3	1	2	6	0	4.2138E-08
5	21.00	END ALDEHYDE	0.0112	49.1825%	1199118	18319	65.5	1	5	6	0	9.3505E-09
6	28.55	ISTD	1.0000	0.0000%	3231006	51006	63.3	1	6	6	0	3.0950E-07
7	34.42	END KETONE	0.0103	44.9793%	807395	9567	84.4	1	7	6	0	1.2700E-08

TOTAL AMOUNT = 0.0228

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
BETA BHC	3.60	BETA BHC
DDE 4'4'	10.01	DDE 4'4'
DDD 4'4'	15.36	DDD 4'4'
ENDO SULFATE	25.34	ENDO SULFATE

Data File = M:OK3.PTS Printed on 12-21-1989 at 12:42:28
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 50342 uv High Value: 358247 uv Scale factor: 1.0



```
*****      INTERNAL STANDARD TABLE      *****
******************** 12-26-1989 11:24:19 Version 4.1 **********************
* Sample Name: ENDRIN DEGRADATION                Data File: m:ok26        *
* Date: 12-21-1989 06:03:03 Method: M:QPESTA2 12-26-1989 11:23:36  #  143 *
* Interface: 0   Cycle#:  26   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000           *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*            Solvent Description: ULTRA HIGH PURITY NITROGEN              *
* Conditions: ISOTHERMAL 200 C                                            *
*            Detector 0: ECD QUANT            Detector 1:                 *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                        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	13.55	ENDRIN	0.2091	96.4859%	10097451	352124	28.7	1	4	6	0	2.0708E-08
6	29.35	ISTD	1.0000	0.0000%	3005029	47383	63.4	1	6	6	0	3.3278E-07
7	35.38	METHOXYCHLOR	0.0076	3.5141%	617878	7058	87.5	1	7	6	0	1.2325E-08

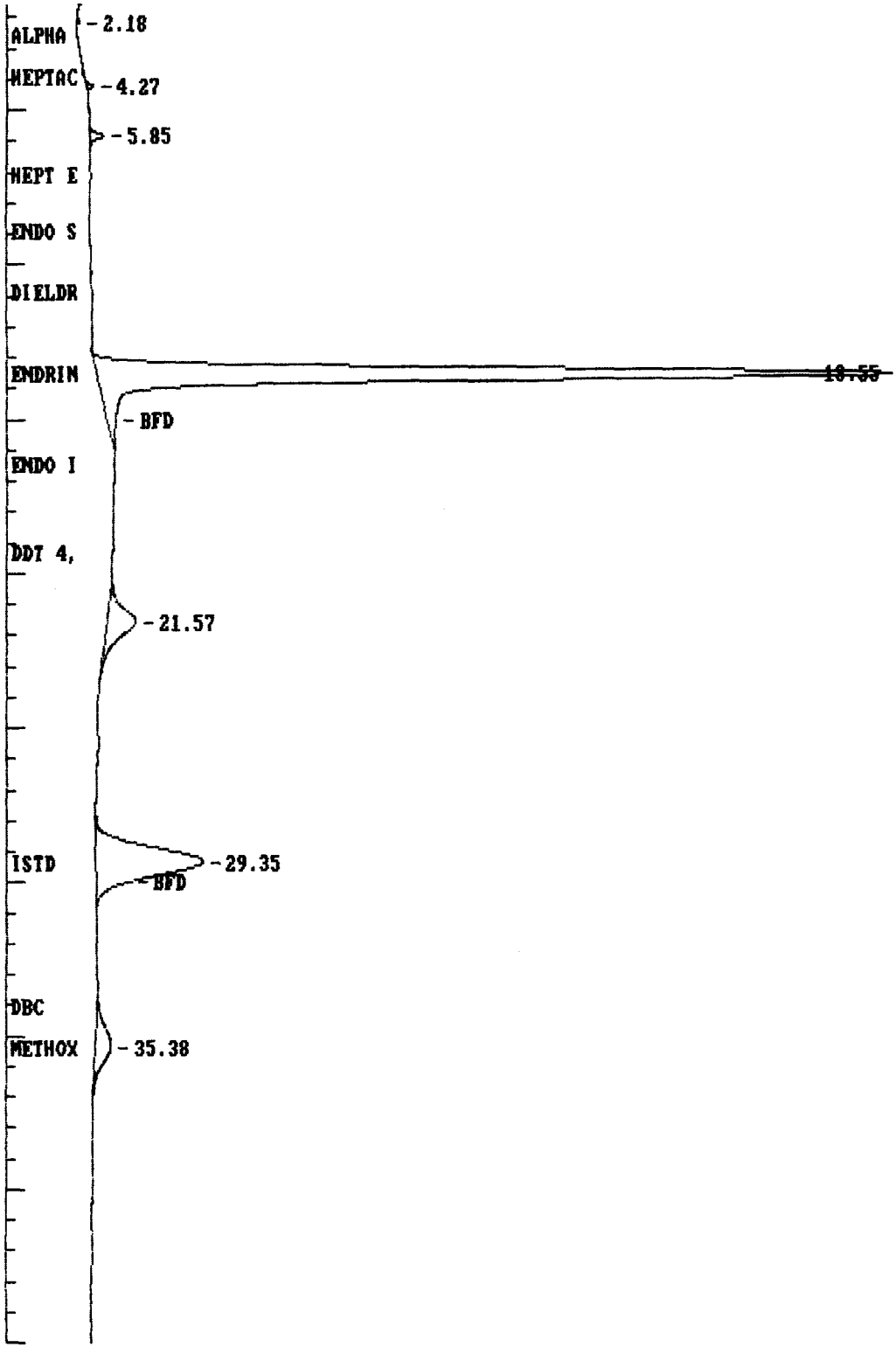
TOTAL AMOUNT = 0.2167

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	2.55	ALPHA BHC
LINDANE	3.20	LINDANE
HEPTACHLOR	3.92	HEPTACHLOR
ALDRIN	4.73	ALDRIN
HEPT EPOXIDE	7.10	HEPT EPOXIDE
ENDO SULFAN 1	8.92	ENDO SULFAN 1
DIELDRIN	10.88	DIELDRIN
ENDO II	16.47	ENDO II
DDT 4,4'	19.31	DDT 4,4'
DBC	34.07	DBC

$$\frac{\overset{(EA)}{840804} + \overset{(EK)}{617878}}{840804 + \underset{(EK)}{617878} + \underset{(E)}{10097451}} \times 100 = \frac{1458682}{11556133} \times 100 = 12.6\%$$

Data File = m:ok26.PTS Printed on 12-26-1989 at 11:24:51
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 54059 uv High Value: 415002 uv Scale factor: 1.0



```
*****    INTERNAL STANDARD TABLE    *****
******************** 12-26-1989 14:32:43 Version 4.1 ********************
* Sample Name: ENDRIN DEGRADATION                Data File: m:ok26        *
* Date: 12-21-1989 06:03:03 Method: M:QPESTB 12-21-1989 11:34:46  #  25   *
* Interface: 0   Cycle#:  26   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000           *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*             Solvent Description: ULTRA HIGH PURITY NITROGEN             *
* Conditions: ISOTHERMAL 200 C                                            *
*            Detector 0: ECD QUANT            Detector 1:                 *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                        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
```

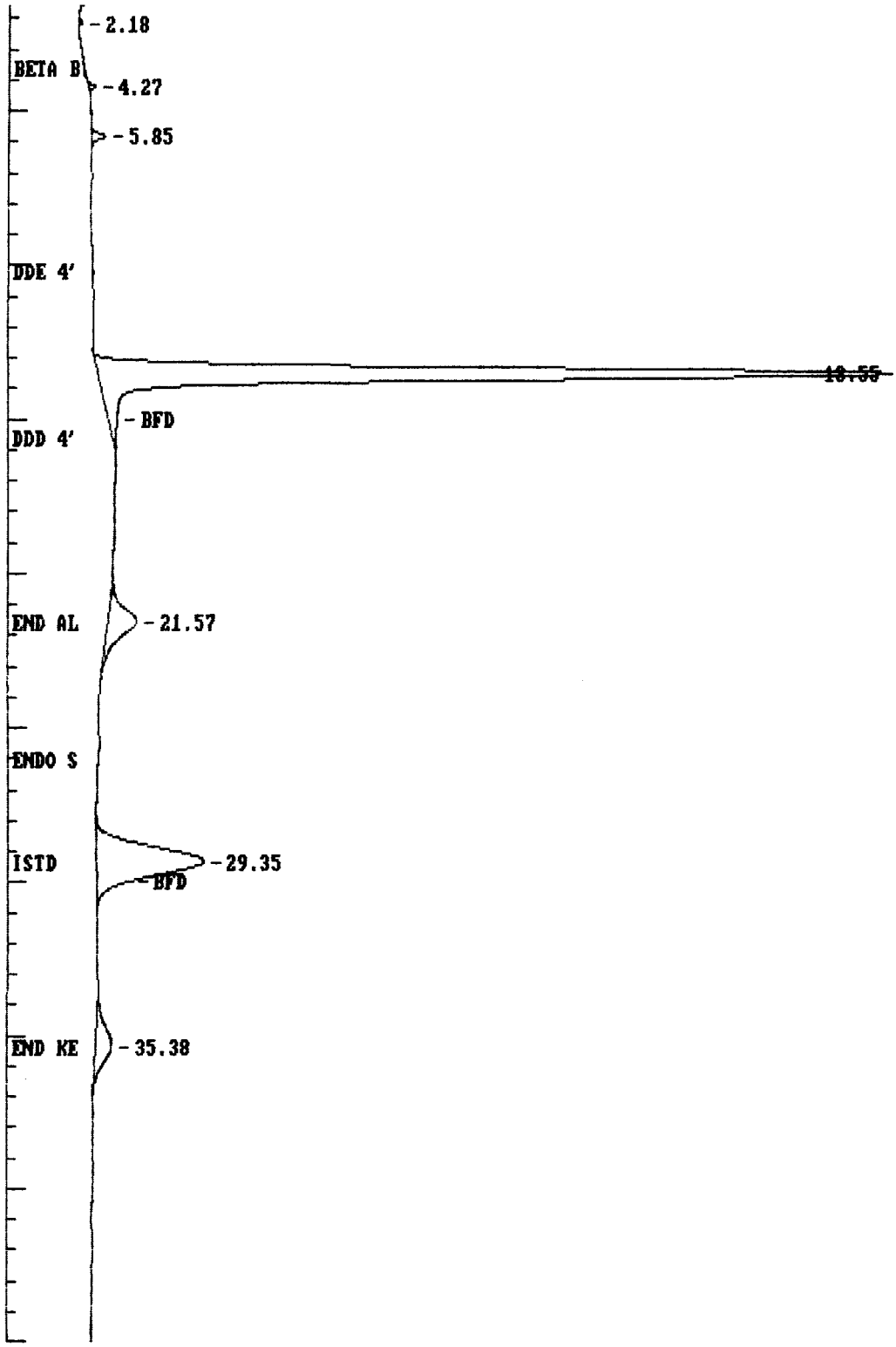
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
2	4.27	DELTA BHC	0.0013	7.1980%	25972	3151	8.2	1	2	6	0	5.0414E-08
5	21.57	END ALDEHYDE	0.0083	45.4903%	840804	12788	65.7	1	5	6	0	9.8418E-09
6	29.35	ISTD	1.0000	0.0000%	3005029	47383	63.4	1	6	6	0	3.327BE-07
7	35.38	END KETONE	0.0086	47.3117%	617878	7058	87.5	1	7	6	0	1.3929E-08

TOTAL AMOUNT = 0.0182

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
BETA BHC	3.60	BETA BHC
DDE 4'4'	10.17	DDE 4'4'
DDD 4'4'	15.60	DDD 4'4'
ENDO SULFATE	26.02	ENDO SULFATE

Data File = m:ok26.PTS Printed on 12-26-1989 at 14:33:21
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 54059 uv High Value: 415002 uv Scale factor: 1.0



A1.....N13

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

CENTRAL REGIONAL LABORATORY REGION V CHICAGO IL.

ENDRIN AND DDT DEGRADATION

DATA SET: SF6823 + SF6825 DATA SET NAME QLD KELLY'S + Duke Earnest

DATE: 12/20/89 COLUMN TYPE SINGLE PHASE GC # 1

PERCENT ENDRIN DEGRADATION = $\frac{\text{AREA OF END ALD + AREA OF END KETONE}}{\text{AREA OF END ALD + END KET + ENDRIN}}$ X100

CALIBRATI	DATE ANALYZED	TIME ANALYZED	AREA OF END ALD	AREA OF END KET	AREA OF ENDRIN	% DEG
INITIAL	12/20/89	18:00:39	896897	0	4477616	17

PERCENT DDT DEGRADATION = $\frac{\text{AREA OF DDE + DDD}}{\text{AREA OF DDE + DDD + DDT}}$ X 100

CALIBRATI	DATE ANALYZED	TIME ANALYZED	AREA OF DDD	AREA OF DDE	AREA OF DDT	% DEG
INITIAL	12/20/89	17:14:11	41721	28809	4819989	1

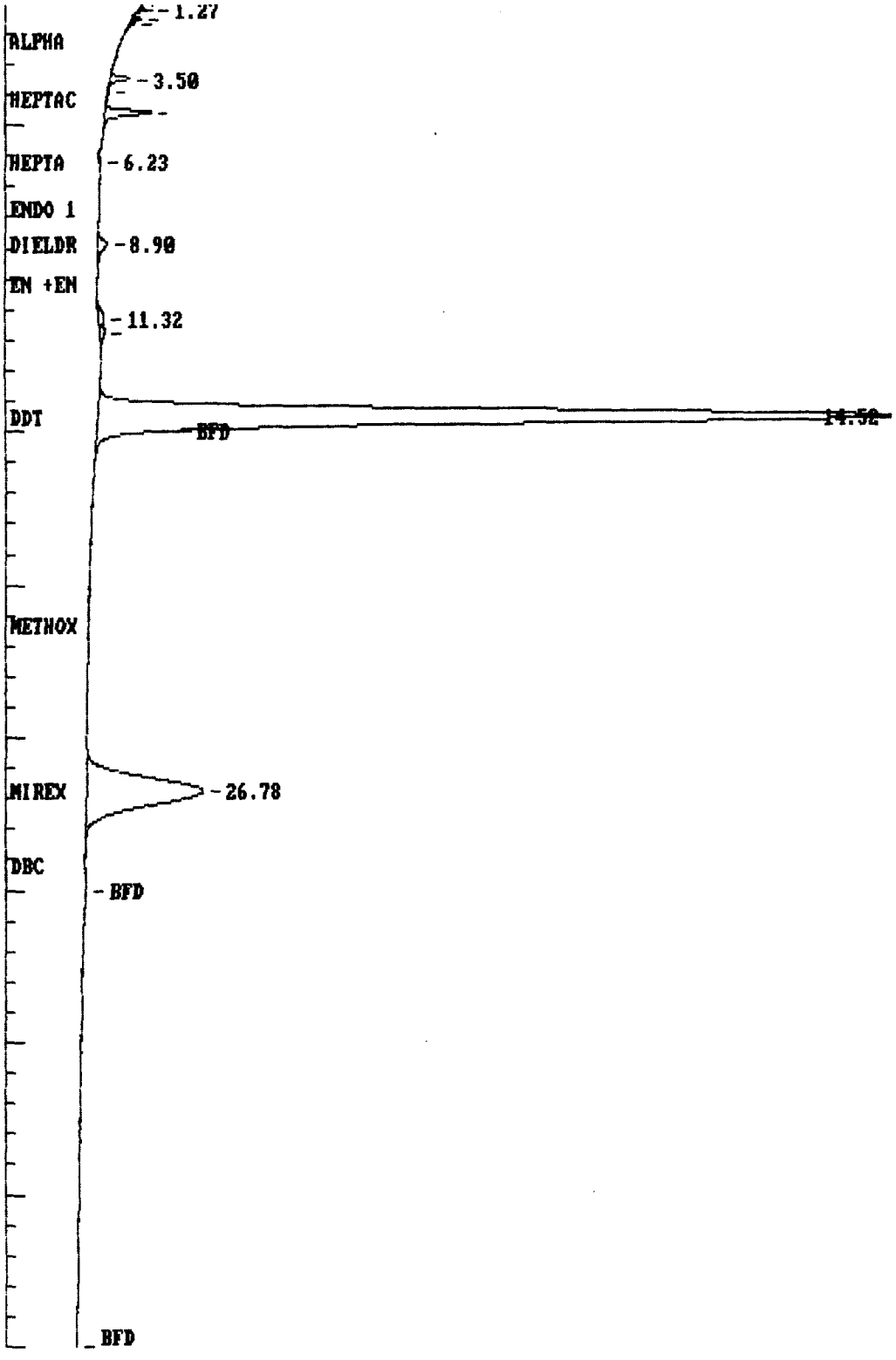
```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-24-1989 18:43:21 Version 4.1 **********************
* Sample Name: DDT DEGRADATION                    Data File: K:OK2          *
* Date: 12-20-1989 17:14:11 Method: K:CPESTA 12-24-1989 01:55:38  #  18    *
* Interface: 0   Cycle#:  2    Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100             *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION          *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN             *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                          *
*             Detector 0:                      Detector 1: ECD CONF        *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SCRN:          *   *
*************************************************************************
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	6.23	HEPTA EPOX	0.0000	0.0402%	3218	246	13.1	1	7	12	0	9.2043E-09
8	8.90	DIELDRIN	0.0005	0.6123%	41721	1805	23.1	1	8	12	0	1.0807E-08
11	14.52	DDT	0.0732	99.3475%	4819989	151386	31.8	1	11	12	0	1.5177E-08
12	26.78	MIREX	1.0000	0.0000%	1380097	22118	62.4	1	12	12	0	7.2459E-07

TOTAL AMOUNT = 0.0736

$$\frac{\overset{DDD}{41721} + \overset{DDE}{28809}}{\underset{DDD}{41721} + \underset{DDE}{28809} + \underset{DDT}{4819989}} \times 100 = \frac{70530}{4890519} \times 100 = 1.4\%$$

Data File = K:OK2.PTS Printed on 12-24-1989 at 18:43:52
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 38846 uv High Value: 194465 uv Scale factor: 1.0

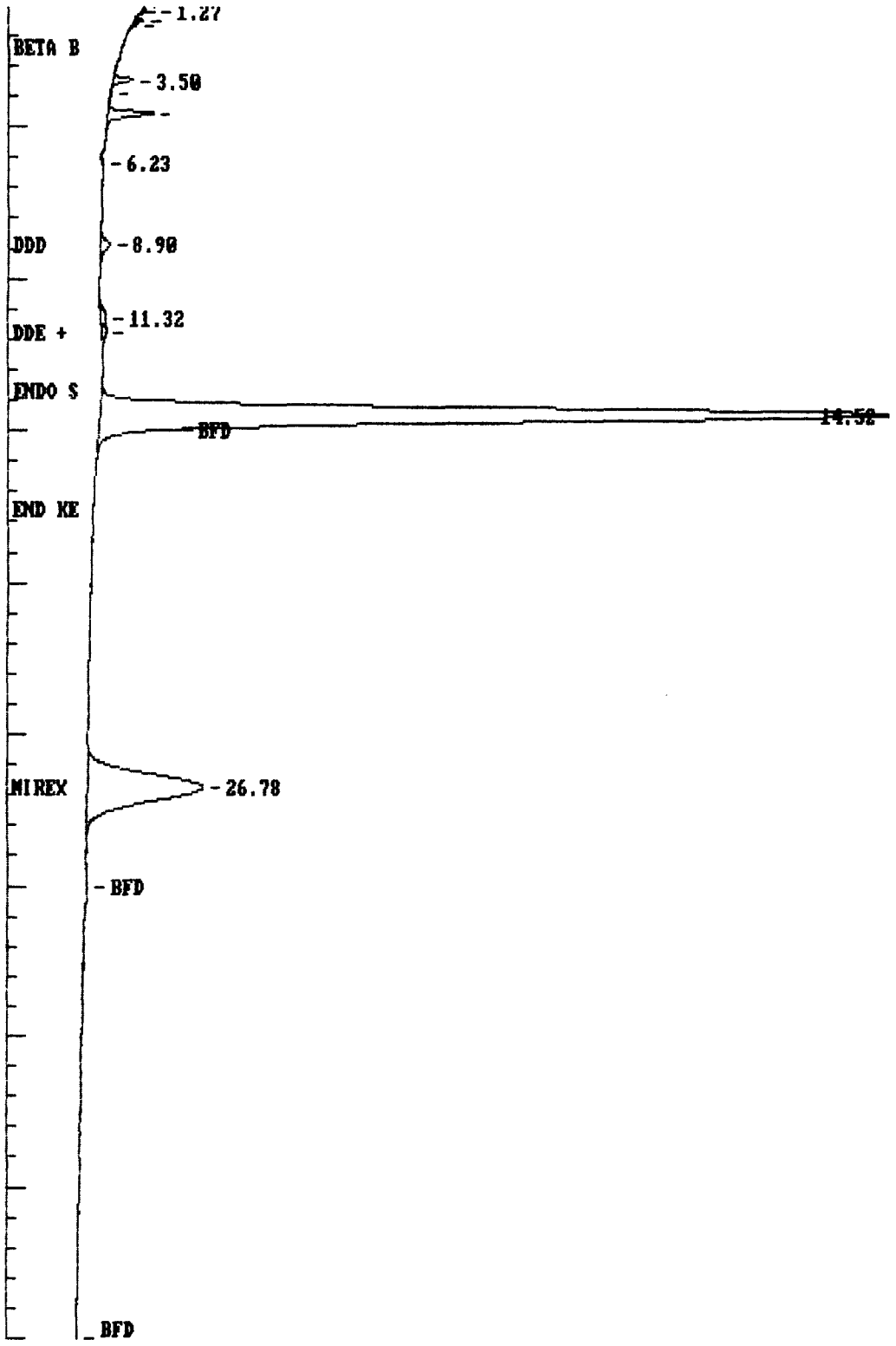


```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-24-1989 18:44:47 Version 4.1 **********************
* Sample Name: DDT DEGRADATION                    Data File: K:OK2          *
* Date: 12-20-1989 17:14:11 Method: K:CPESTB 12-24-1989 02:00:21  #  19    *
* Interface: 0   Cycle#:  2    Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100             *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION          *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN             *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                          *
*            Detector 0:                        Detector 1: ECD CONF       *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SCRN:          *   *
*************************************************************************
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
8	8.90	DDD	0.0007	69.4586%	41721	1805	23.1	1	8	12	0	1.7251E-08
10	11.75	DDE + EA	0.0003	30.5414%	28809	944	30.5	2	10	12	0	1.0985E-08
12	26.78	MIREX	1.0000	0.0000%	1380097	22118	62.4	1	12	12	0	7.2459E-07

TOTAL AMOUNT = 0.0010

Data File = K:OK2.PTS Printed on 12-24-1989 at 18:45:11
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 38846 uv High Value: 194465 uv Scale factor: 1.0



```
******    INTERNAL STANDARD TABLE    ******
******************** 12-27-1989 18:47:42 Version 4.1 **********************
* Sample Name: ENDRIN DEGRADATION                Data File: K:OK3          *
* Date: 12-20-1989 18:00:39 Method: K:CPESTA 12-24-1989 01:55:38  #  18   *
* Interface: 0   Cycle#:  3    Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*             Detector 0:                     Detector 1: ECD CONF        *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SCRN:          *  *
*************************************************************************
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
```

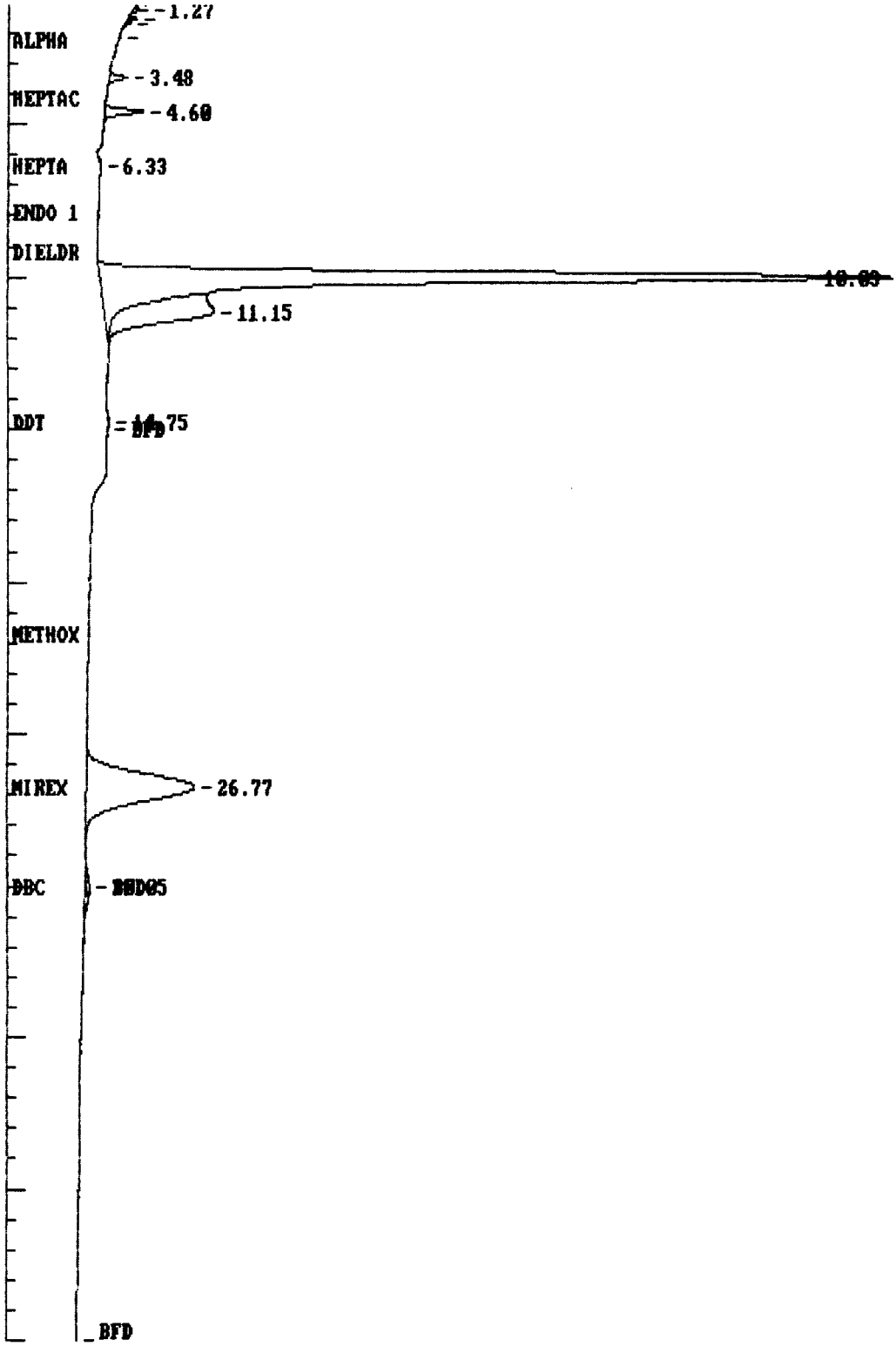
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
4	2.15	ALPHA BHC	0.0000	0.0071%	307	156	2.0	1	0	11	-4.444	1.1876E-08
7	6.33	HEPTA EPOX	0.0000	0.0807%	4411	141	31.3	1	7	11	0	9.3173E-09
8	10.03	EN +END 2	0.0502	98.6329%	4477616	161220	27.8	3	8	11	0	1.1221E-08
10	14.75	DDT	0.0000	0.0723%	2396	161	14.9	1	10	11	0	1.5363E-08
11	26.77	MIREX	1.0000	0.0000%	1363365	21890	62.3	1	11	11	0	7.3348E-07
12	30.05	DBC	0.0006	1.2070%	53293	812	65.6	1	12	11	0	1.1537E-08

TOTAL AMOUNT = 0.0509

$$\frac{\overset{(EA)}{896897} + \overset{(EK)}{0}}{\underset{(EA)}{896897} + \underset{(EK)}{0} + \underset{(E)}{4477616}} \times 100 = \frac{896897}{5374513} \times 100$$

$$= 16.7\%$$

Data File = K:OK3.PTS Printed on 12-27-1989 at 18:48:26
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 37854 uv High Value: 203469 uv Scale factor: 1.0

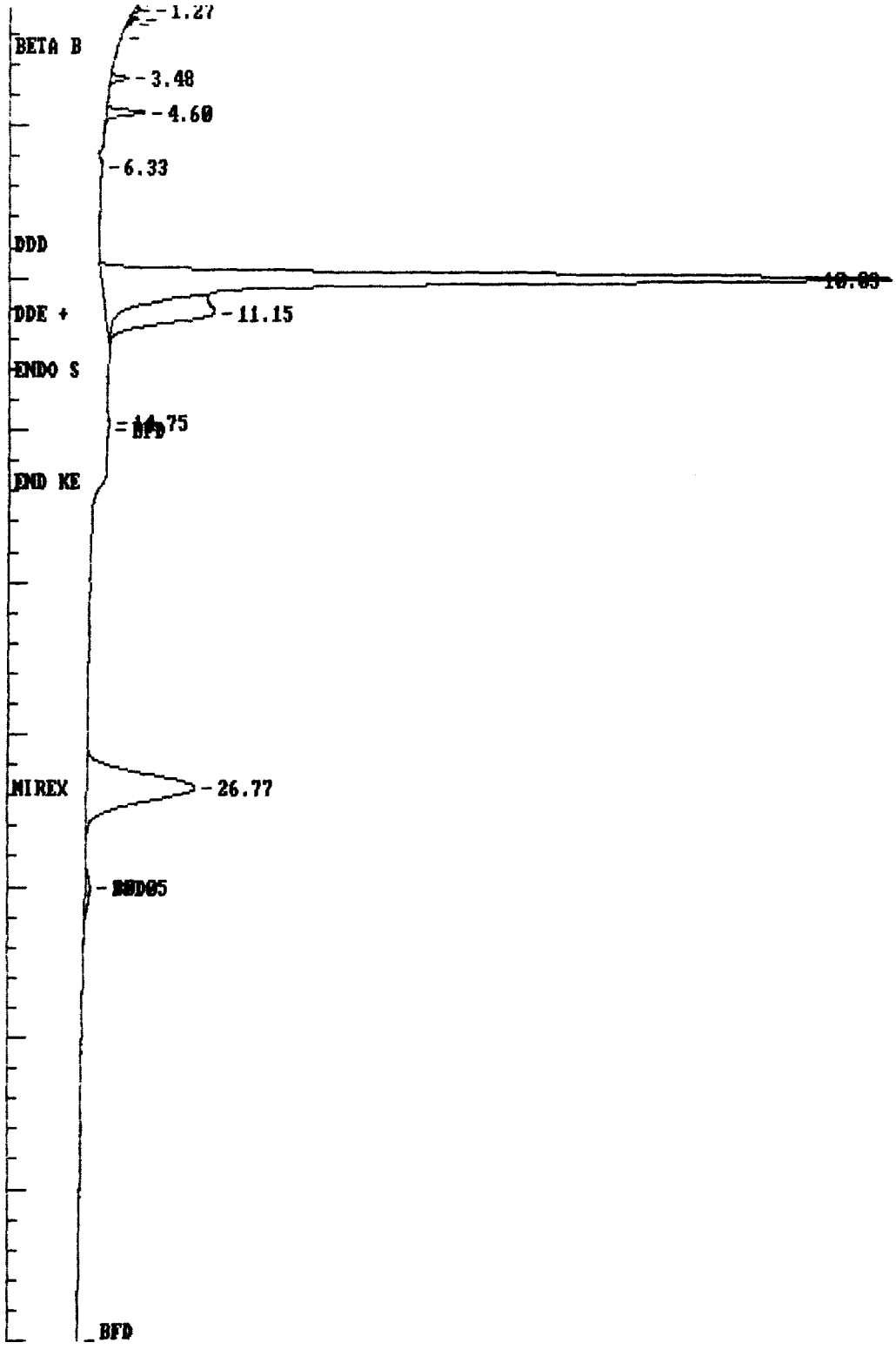


```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-27-1989 18:49:19 Version 4.1 **********************
* Sample Name: ENDRIN DEGRADATION                Data File: K:OK3          *
* Date: 12-20-1989 18:00:39 Method: K:CPESTB 12-24-1989 02:00:21  #  19   *
* Interface: 0   Cycle#:  3    Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*             Solvent Description: ULTRA HIGH PURITY NITROGEN             *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0:                      Detector 1: ECD CONF        *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SCRN:          *  *
*************************************************************************
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
9	11.15	DDE + EA	0.0100	100.0000%	896897	19343	46.4 4	9	11	0	1.1120E-08
11	26.77	MIREX	1.0000	0.0000%	1363365	21890	62.3 1	11	11	0	7.3348E-07

TOTAL AMOUNT = 0.0100

Data File = K:OK3.PTS Printed on 12-27-1989 at 18:49:47
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 37854 uv High Value: 203469 uv Scale factor: 1.0



AQC DATA

DATE: 12/29/89
DATA SET: 5F6825

BLANK DATA:

	CONC. OF AROCLOR (PPB)				CONC. OF PEST (PPB)
	1242	1248	1254	1260	
Method Blank	.24	.24	.24	.24	none detected

SPIKE DATA:

	COMPOUND:	CONC. (ug) of PEST/PCB				% RECOVERY	
		SPIKE ADDED	SPIKE RESULT	SPIKE DUP. RESULT	RPD	SPIKE RECOVERY	SPIKE DUPLICATE RECOVERY
PESTICIDES:	LINDANE	.060	.0446	.0559	22	74	93
	HEPTACHLOR	.060	.0488	.0544	11	81	91
	ALDRIN	.100	.0773	.0958	21	77	96
	ENDOSULFAN-1	.120	.1543	.1337	14	129	111
	DIELDRIN	.120	.0966	.1171	19	81	98
	ENDRIN	.220	.2069	.2572	22	94	117
	P,P'-DDT	.300	.2672	.3186	18	89	106
	P,P'-METHOXYCHLOR	.350	.3167	.3929	21	90	112
	DIBUTYL CHLORENDATE	.500	.6624	.8205	21	132	164
PCB:	AROCLOR 1242	3.00	2.46	2.399	3	82	80

COMMENTS: the consistently ~~above average~~ high relative percent differences indicate that poor precision may be the result of the sample preparation technique employed

Lack of precision does not affect the acceptability of the sample results. The recoveries are within QC limits.

LE 1/4/90

11/86
JFP

A1.....T3

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CENTRAL REGIONAL LABORATORY CHGO ILL.
AQC

DATASET: DATE:

SPIKES:	ADDED	SPIKE RESULT	DUP RESULT	RPD	SPIKE REC.	DUP REC
LINDANE	0.060	0.045	0.056	-22	74	93
HEPTACHLOR	0.060	0.049	0.054	-11	81	91
ALDRIN	0.100	0.077	0.096	-21	77	96
ENDOSULFAN 1	0.120	0.154	0.134	14	129	111
DIELDRIN	0.120	0.097	0.117	-19	81	98
ENDRIN	0.220	0.207 *	0.257	-22	94	117
DDT 4 4'	0.300	0.267	0.319	-18	89	106
METHOXYCHLOR	0.350	0.317	0.393	-21	90	112
DBC	0.500	0.662	0.821	-21	132	164

INTERNAL STANDARD TABLE

```
******************** 12-21-1989 13:03:11 Version 4.1 ********************
* Sample Name: METHOD BLANK 6825                    Data File: M:OK15      *
* Date: 12-20-1989 21:31:56 Method: M:QPESTA 12-21-1989 12:24:18  #  141  *
* Interface: 0   Cycle#:  15   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000           *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*             Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF68230LD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                        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	3.17	~~LINDANE~~ BLS	~~0.0014~~	0.1814%	13615	2098	6.5	1	3	15	0	9.9364E-08
5	4.67	~~ALDRIN~~ NC	~~0.0007~~	-0.0943%	37888	2638	14.4	4	5	15	0	-1.8555E-08
7	6.68	~~HEPT EPOXIDE~~ BLS	~~0.0118~~	-1.5781%	9191	736	12.5	1	7	15	0	-1.2804E-06
9	8.73	~~ENDO SULFAN I~~ NC	0.0440	5.9070%	826086	46058	17.9	1	9	15	0	5.3320E-08
10	10.73	~~DIELDRIN~~ BLS	~~0.0088~~	-1.1834%	35189	1038	33.9	1	10	15	0	-2.5077E-07
11	12.97	~~ENDRIN~~ NC	~~0.0071~~	-0.9522%	41686	1100	37.9	1	11	15	0	-1.7033E-07
12	18.55	~~DDT 4,4'~~ BLS	0.0040	0.5400%	131179	1867	70.3	1	12	15	0	3.0696E-08
15	28.18	ISTD	1.0000	0.0000%	3984271	52310	76.2	1	15	15	0	2.5099E-07
16	32.82	DBC	0.7246	97.1796%	7494530	83978	89.2	1	16	15	0	9.6690E-08

TOTAL AMOUNT = 0.7457

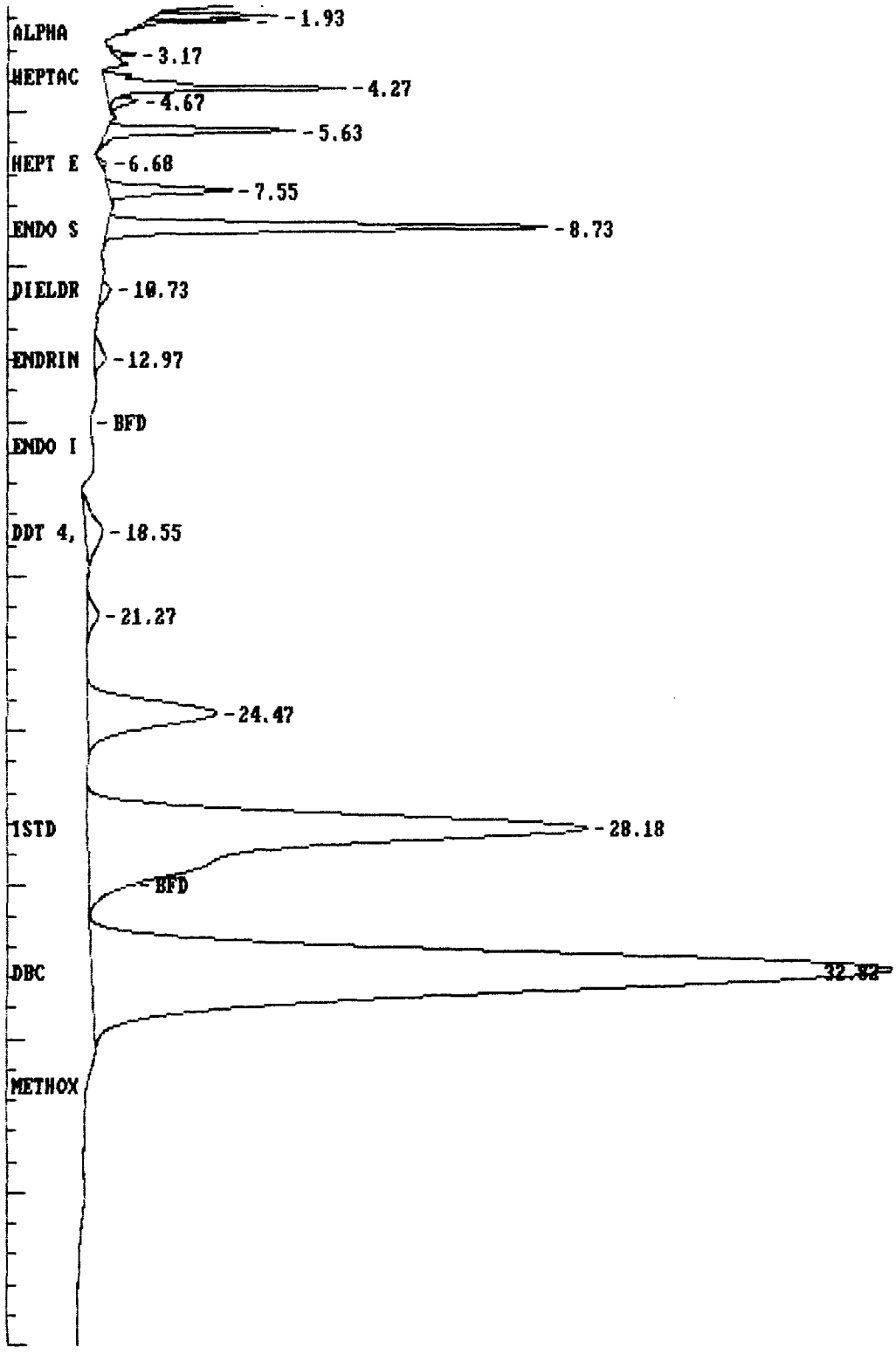
PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	2.45	ALPHA BHC
HEPTACHLOR	3.86	HEPTACHLOR
ENDO II	15.75	ENDO II
METHOXYCHLOR	36.52	METHOXYCHLOR

DBC Recovery

$$\frac{.7246\ \text{ug (found)}}{.5\ \text{ug (added)}} \times 100 = 145\%$$

Data File = M:OK15.PTS Printed on 12-21-1989 at 13:03:42
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 57748 uv High Value: 143212 uv Scale factor: 1.0

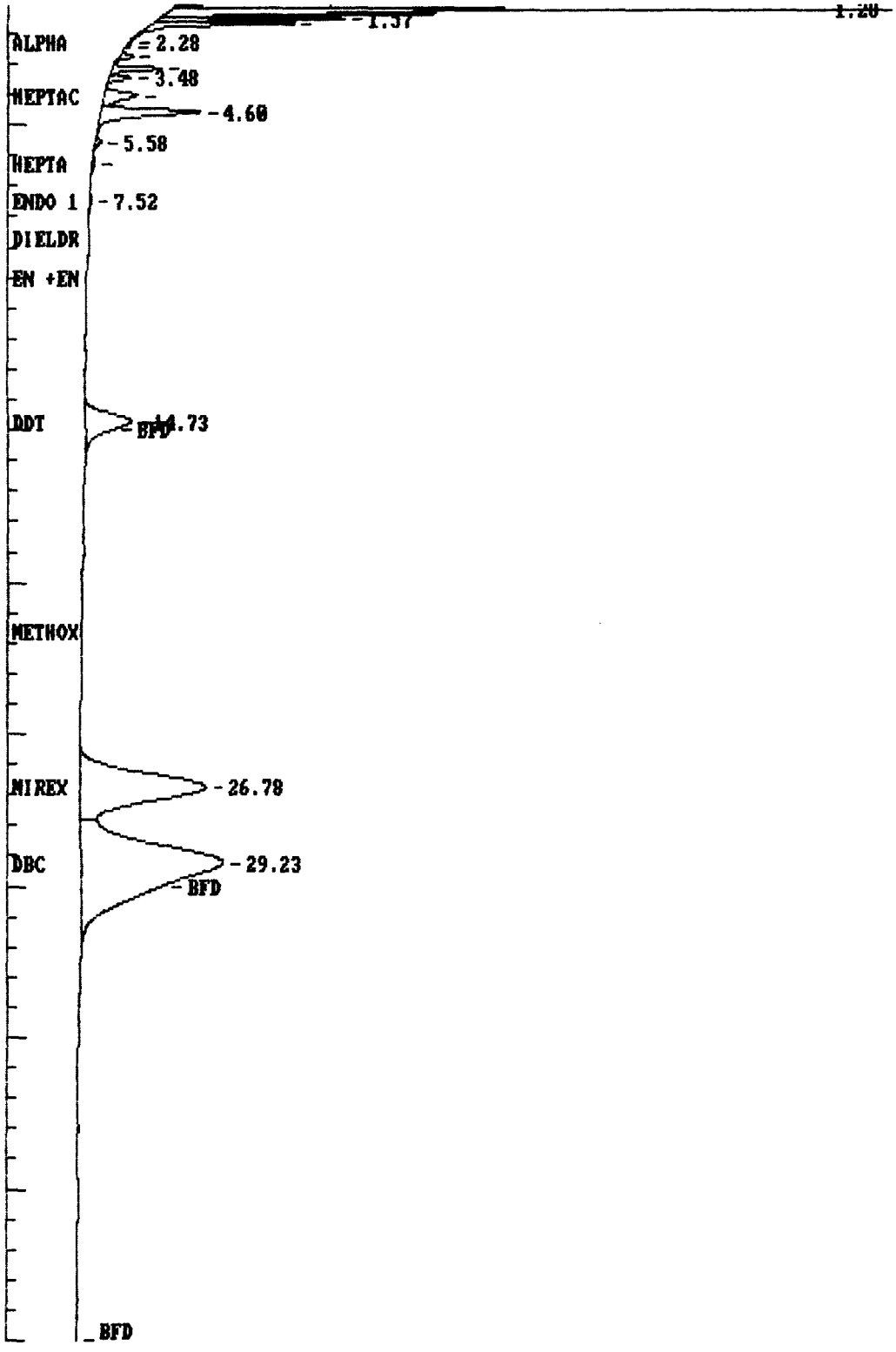


```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-27-1989 19:15:18 Version 4.1 **********************
* Sample Name: METHOD BLANK 6825                    Data File: K:OK8        *
* Date: 12-20-1989 21:51:31 Method: K:CPESTA 12-24-1989 01:55:38  #  18    *
* Interface: 0   Cycle#:  8    Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100             *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*             Detector 0:                      Detector 1: ECD CONF       *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY   *
*************************************************************************
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
4	2.28	ALPHA BHC	0.0004	0.1128%	3718	564	6.6	2	4	15	0	1.0454E-07
6	2.80	LINDANE	0.0035	1.0087%	31311	2897	10.8	1	4	15	4.776	1.1100E-07
9	4.05	HEPTACHLOR	0.0090	2.6055%	115509	6497	17.8	2	9	15	0	7.7716E-08
12	6.25	HEPTA EPOX .	0.0010	0.2872%	12064	483	25.0	1	12	15	0	8.2014E-08
13	7.52	~~ENDO~~ 1 Nonal	0.0005	0.1448%	5749	228	25.2	1	13	15	0	8.6803E-08
14	14.73	DDT	0.0468	13.5851%	346115	8767	39.5	1	14	15	0	1.3523E-07
15	26.78	MIREX	1.0000	0.0000%	1548860	24266	63.8	2	15	15	0	6.4564E-07
16	29.23	DBC	0.2834	82.2560%	2790700	27530	101.4	2	16	15	0	1.0155E-07

TOTAL AMOUNT = 0.3445

Data File = K:OK8.PTS Printed on 12-27-1989 at 19:15:53
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 23885 uv High Value: 181445 uv Scale factor: 1.0



```
*****    INTERNAL STANDARD TABLE    *****
******************** 12-21-1989 13:04:43 Version 4.1 **********************
* Sample Name: METHOD BLANK 6825                    Data File: M:OK15        *
* Date: 12-20-1989 21:31:56 Method: M:QPESTB 12-21-1989 11:34:46  #  25    *
* Interface: 0   Cycle#:  15   Operator KG  Channel#: 0    Vial#: N.A.      *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000             *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE   *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN             *
* Conditions: ISOTHERMAL 200 C                                             *
*             Detector 0: ECD QUANT            Detector 1:                 *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *   *
*************************************************************************
Starting Delay:    1.50                          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
```

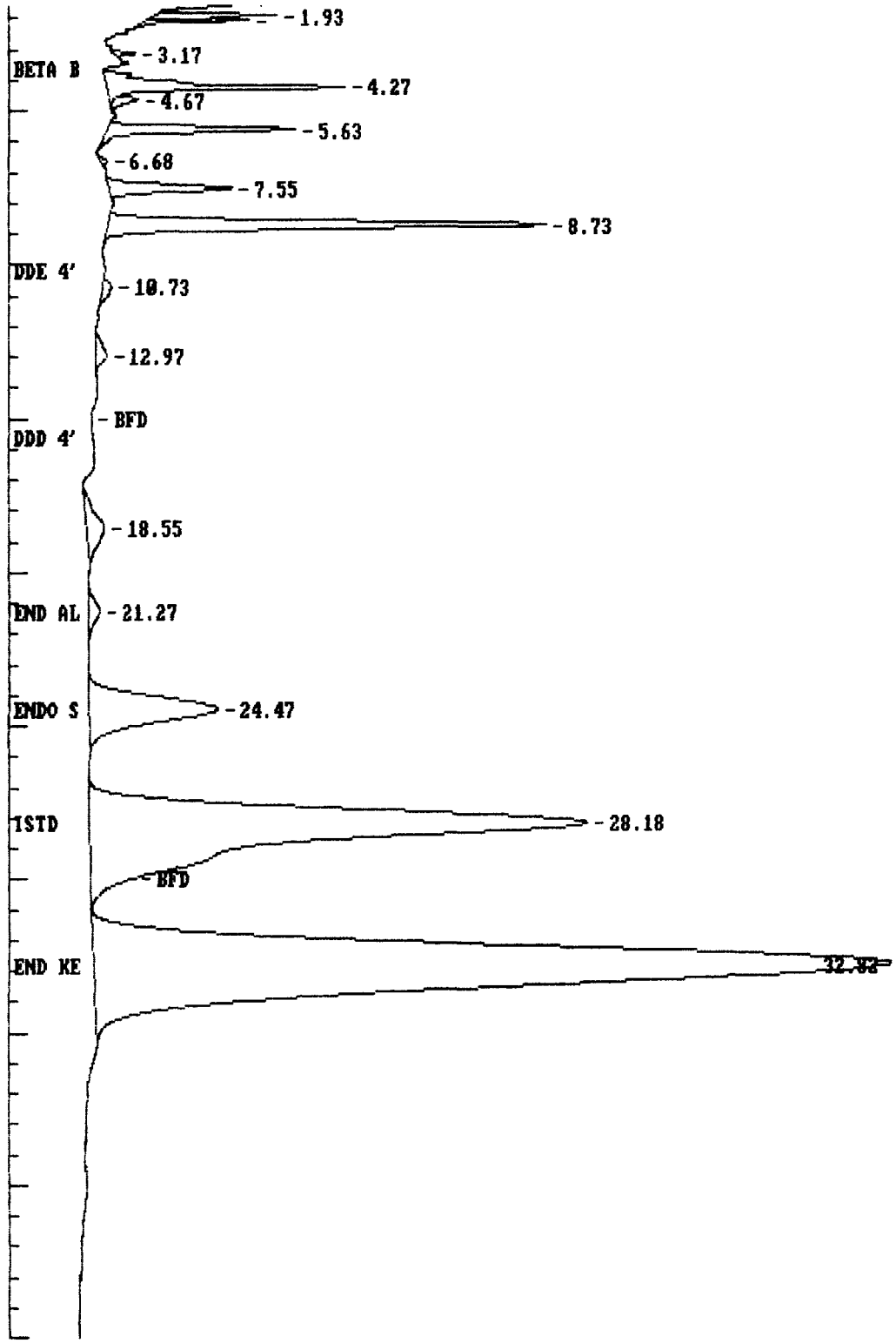
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
4	4.27	~~DELTA BHC~~ NC	~~0.0294~~	3.6827%	375707	25008	15.0	3	4	15	0	7.8313E-08
13	21.27	~~END ALDEHYDE~~ NC	~~-0.0031~~	-0.3838%	51679	1099	47.0	1	13	15	0	-5.9333E-08
14	24.47	~~ENDO SULFATE~~ NC	~~0.0630~~	7.8865%	757728	13435	56.4	1	14	15	0	8.3156E-08
15	28.18	ISTD	1.0000	0.0000%	3984271	52310	76.2	1	15	15	0	2.5099E-07
16	32.82	~~END KETONE~~ DBC	0.7096	88.8147%	7494530	83978	89.2	1	16	15	0	9.4681E-08

TOTAL AMOUNT = 0.7990

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
BETA BHC	3.60	BETA BHC
DDE 4'4'	10.17	DDE 4'4'
DDD 4'4'	15.60	DDD 4'4'

Data File = M:OK15.PTS Printed on 12-21-1989 at 13:05:09
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 57748 uv High Value: 143212 uv Scale factor: 1.0

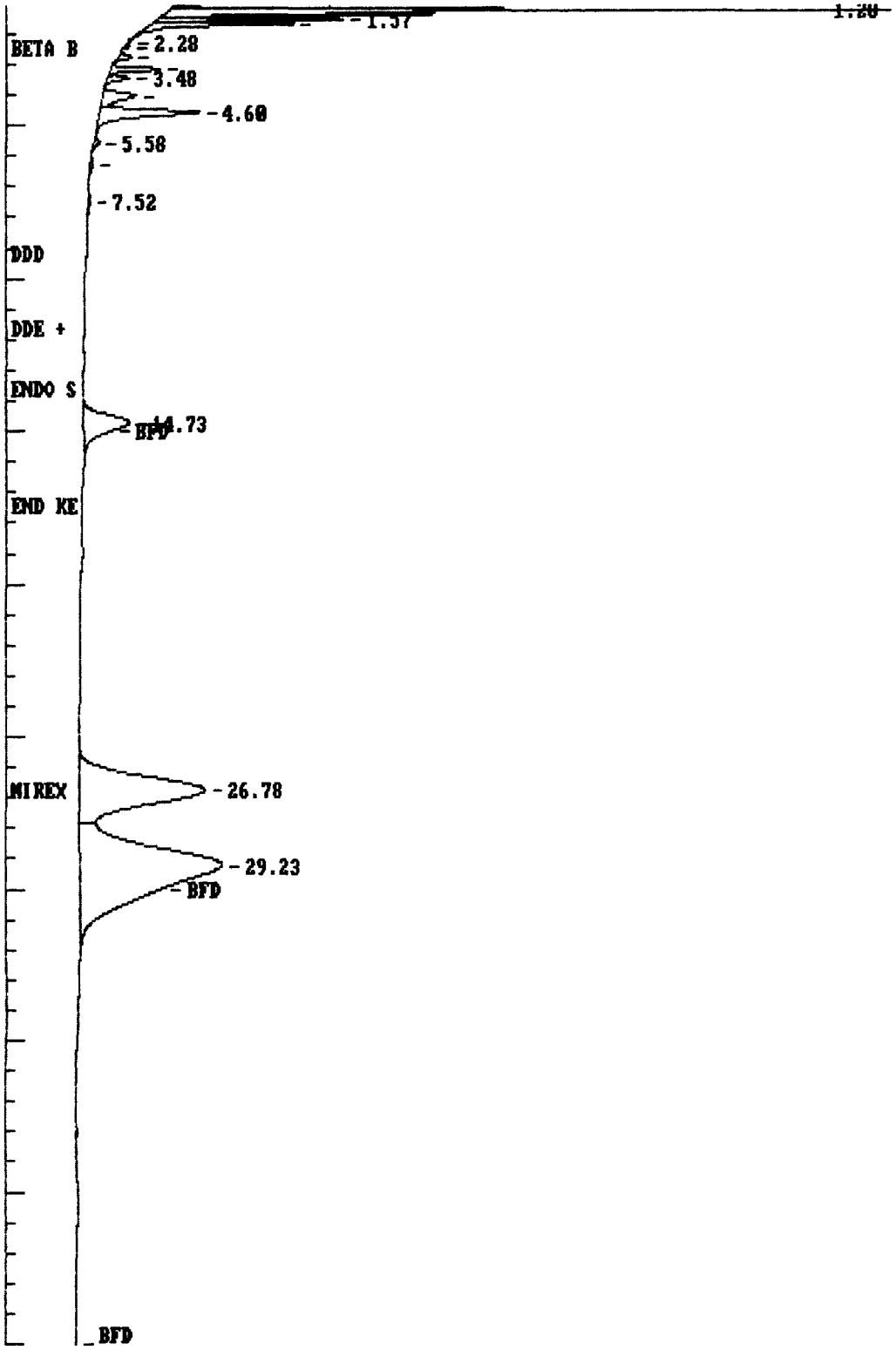


```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-27-1989 19:16:51 Version 4.1 **********************
* Sample Name: METHOD BLANK 6825                    Data File: K:OK8        *
* Date: 12-20-1989 21:51:31 Method: K:CPESTB 12-24-1989 02:00:21  #  19    *
* Interface: 0   Cycle#:  8    Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100             *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0:                        Detector 1: ECD CONF      *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY   *
*************************************************************************
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	2.45	BETA BHC	0.0010	19.7205%	7925	1117	7.1	2	5	15	0	1.2145E-07
6	2.80	~~DELTA BHC~~ noise	0.0039	80.2795%	31311	2897	10.8	1	6	15	0	1.2514E-07
15	26.78	MIREX	1.0000	0.0000%	1548860	24266	63.8	2	15	15	0	6.4564E-07

TOTAL AMOUNT = 0.0049

Data File = K:OK8.PTS Printed on 12-27-1989 at 19:17:13
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 23885 uv High Value: 181445 uv Scale factor: 1.0



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

********** 12-29-1989 14:53:05 Version 4.1 **********

* Sample Name: 90FD05S99 PEST SPK Data File: m:ok18 *
* Date: 12-20-1989 23:51:20 Method: M:QPESTA 12-21-1989 12:24:18 # 141 *
* Interface: 0 Cycle#: 18 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 1000 *

****

* Instrument Type: HP 5890 GC/EC #3 Column Type: PACKED MIXED PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL 200 C *
* Detector 0: ECD QUANT Detector 1: *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN: * *

****

Starting Delay: 1.50 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

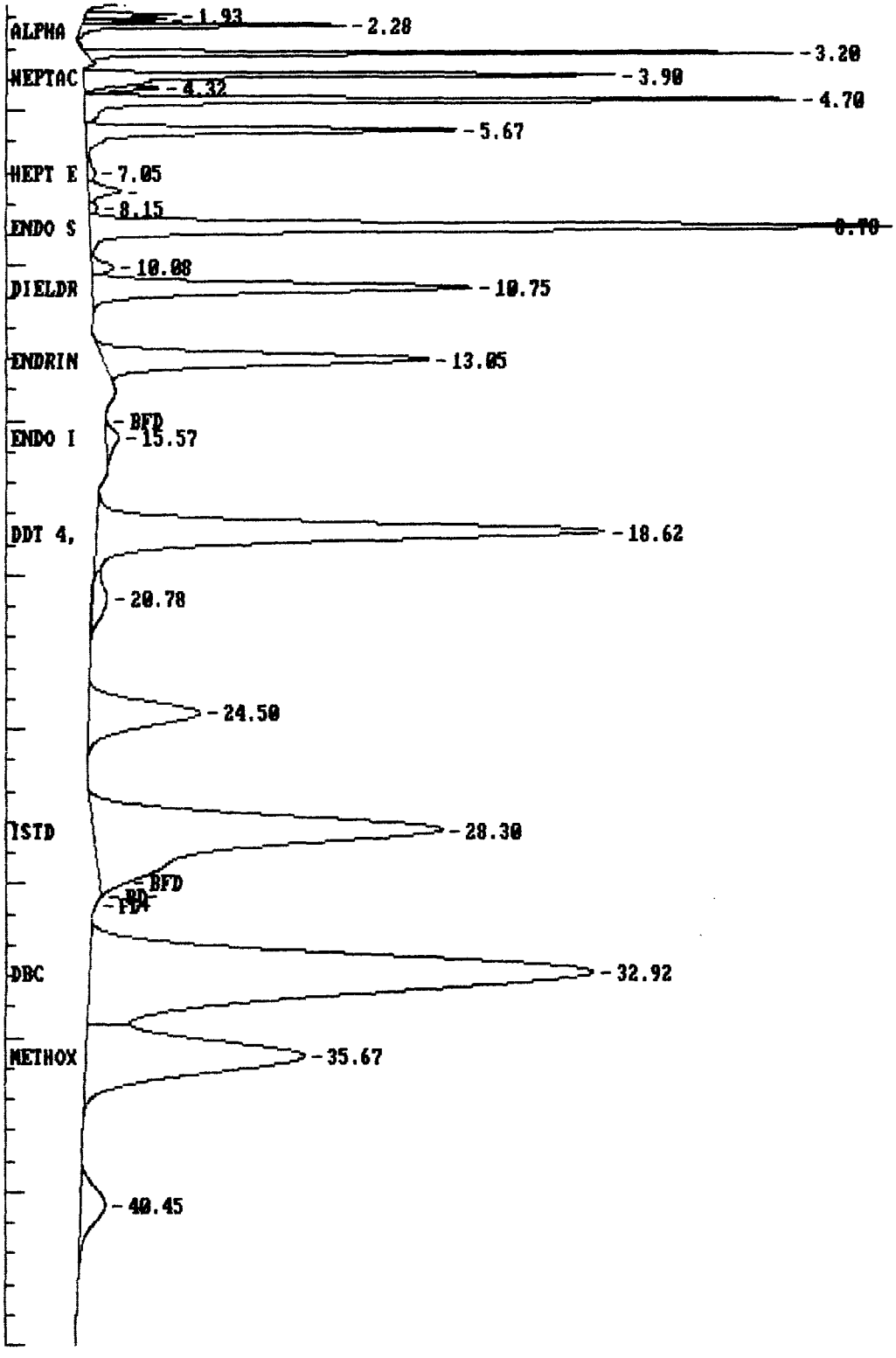
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
4	3.20	LINDANE	0.0446	2.4280%	687734	101340	6.8	1	4	20	0	6.4861E-08
5	3.90	HEPTACHLOR	0.0488	2.6548%	811830	76356	10.6	3	5	20	0	6.0080E-08
7	4.70	ALDRIN	0.0773	4.2076%	1130308	102241	11.1	2	7	20	0	6.8391E-08
9	7.05	HEPT EPOXIDE	-0.0099	-0.5407%	32600	1092	29.8	2	9	20	0	-3.0475E-07
12	8.78	ENDO SULFAN 1	0.1543	8.3960%	2135868	115431	18.5	2	12	20	0	7.2220E-08
14	10.75	DIELDRIN	0.0966	5.2575%	1281636	54588	23.5	2	14	20	0	7.5366E-08
15	13.05	ENDRIN	0.2069	11.2598%	1287604	46811	27.5	1	15	20	0	1.6066E-07
16	15.57	ENDO II	-0.0276	-1.5014%	72945	1724	42.3	1	16	20	0	-3.7815E-07
17	18.62	DDT 4,4'	0.2672	14.5448%	2905683	73169	39.7	3	17	20	0	9.1964E-08
20	28.30	ISTD	1.0000	0.0000%	3659931	50324	72.7	1	20	20	0	2.7323E-07
21	32.92	DBC	0.6624	36.0558%	6337636	72660	87.2	2	21	20	0	1.0452E-07
22	35.67	METHOXYCHLOR	0.3167	17.2379%	2392244	31520	75.9	2	22	20	0	1.3239E-07

TOTAL AMOUNT = 1.8372

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	2.45	ALPHA BHC

Data File = m:ok18.PTS Printed on 12-29-1989 at 14:53:45
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 59095 uv High Value: 176492 uv Scale factor: 1.0

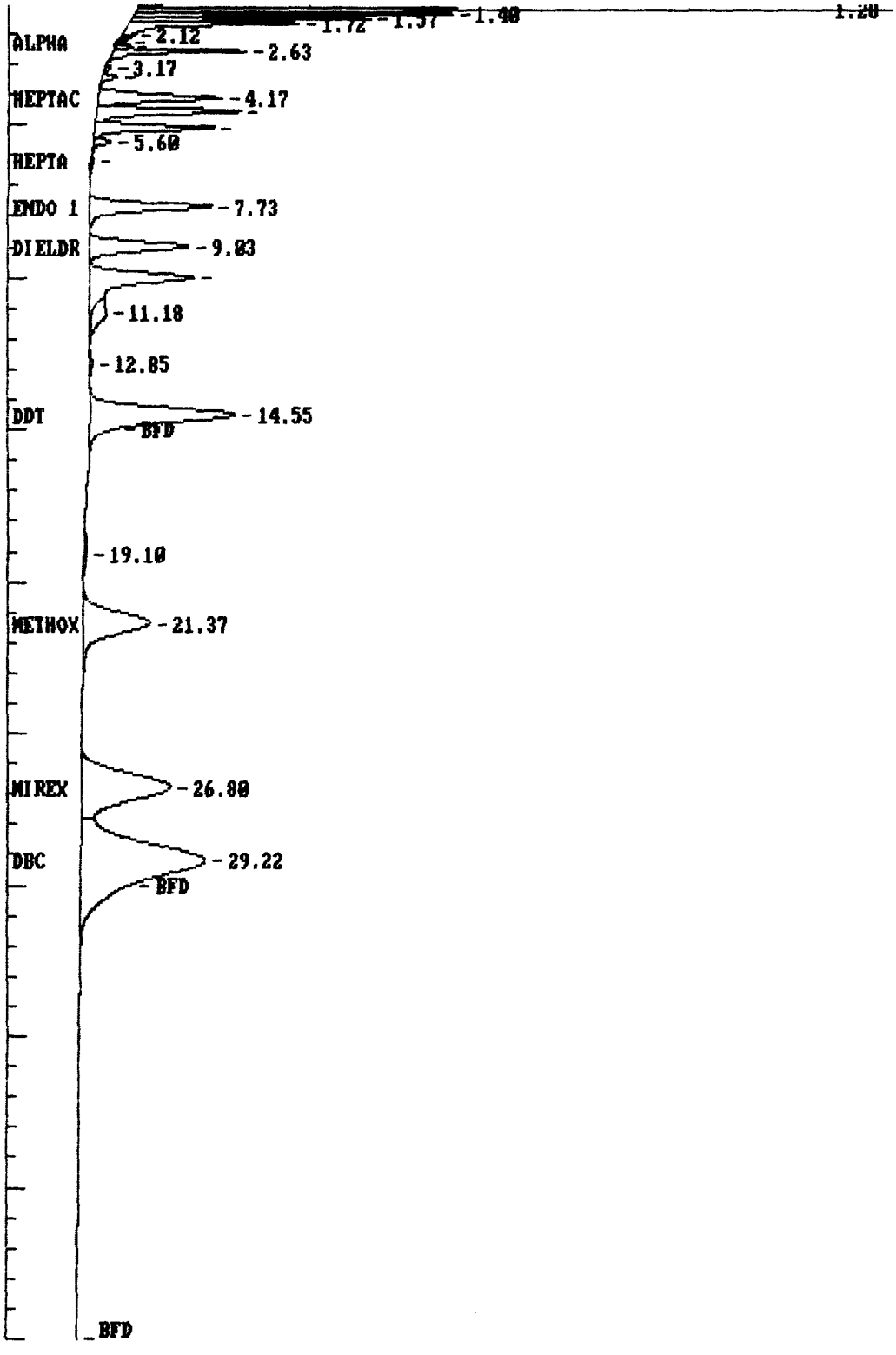


```
******   INTERNAL STANDARD TABLE   ******
******************** 12-27-1989 19:22:02 Version 4.1 **********************
* Sample Name: 90D05S99 PEST SPK                    Data File: K:OK11        *
* Date: 12-21-1989 00:11:02 Method: K:CPESTA 12-24-1989 01:55:38  #  18     *
* Interface: 0   Cycle#:  11   Operator KG  Channel#: 0    Vial#: N.A.       *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100               *
*****************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION            *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN               *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                            *
*             Detector 0:                        Detector 1: ECD CONF        *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY      *
*****************************************************************************
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	2.28	ALPHA BHC	0.0024	0.2412%	21171	2597	8.2	4	6	24	0	1.1284E-07
8	2.63	LINDANE	0.0312	3.1502%	260432	33747	7.7	2	8	24	0	1.1982E-07
11	4.17	HEPTACHLOR	0.0386	3.8971%	460140	31416	14.6	2	11	24	0	8.3891E-08
13	5.13	ALDRIN	0.0410	4.1363%	393860	30277	13.0	2	13	24	0	1.0402E-07
15	6.23	HEPTA EPOX	0.0017	0.1674%	18733	759	24.7	4	15	24	0	8.8530E-08
16	7.73	ENDO 1	0.0549	5.5384%	585474	30926	18.9	1	16	24	0	9.3700E-08
17	9.03	DIELDRIN	0.0558	5.6296%	536468	25137	21.3	2	17	24	0	1.0394E-07
18	10.03	EN +END 2	0.0808	8.1603%	758134	26456	28.7	3	18	24	0	1.0662E-07
21	14.55	DDT	0.1882	19.0036%	1289477	36848	35.0	1	21	24	0	1.4598E-07
23	21.37	METHOX	0.1931	19.4926%	843232	16841	50.1	1	23	24	0	2.2897E-07
24	26.80	MIREX	1.0000	0.0000%	1434856	22559	63.6	2	24	24	0	6.9693E-07
25	29.22	DBC	0.3029	30.5833%	2763438	31384	88.1	2	25	24	0	1.0962E-07

TOTAL AMOUNT = 0.9905

Data File = K:OK11.PTS Printed on 12-27-1989 at 19:22:35
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 24804 uv High Value: 230268 uv Scale factor: 1.0



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

********** 12-21-1989 13:11:58 Version 4.1 **********

* Sample Name: 90FD05599 PEST SPKD Data File: M:OK19 *
* Date: 12-21-1989 00:37:48 Method: M:QPESTA 12-21-1989 12:24:18 # 141 *
* Interface: 0 Cycle#: 19 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 5000 *

****

* Instrument Type: HP 5890 GC/EC #3 Column Type: PACKED MIXED PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL 200 C *
* Detector 0: ECD QUANT Detector 1: *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN: * *

****

Starting Delay: 1.50 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

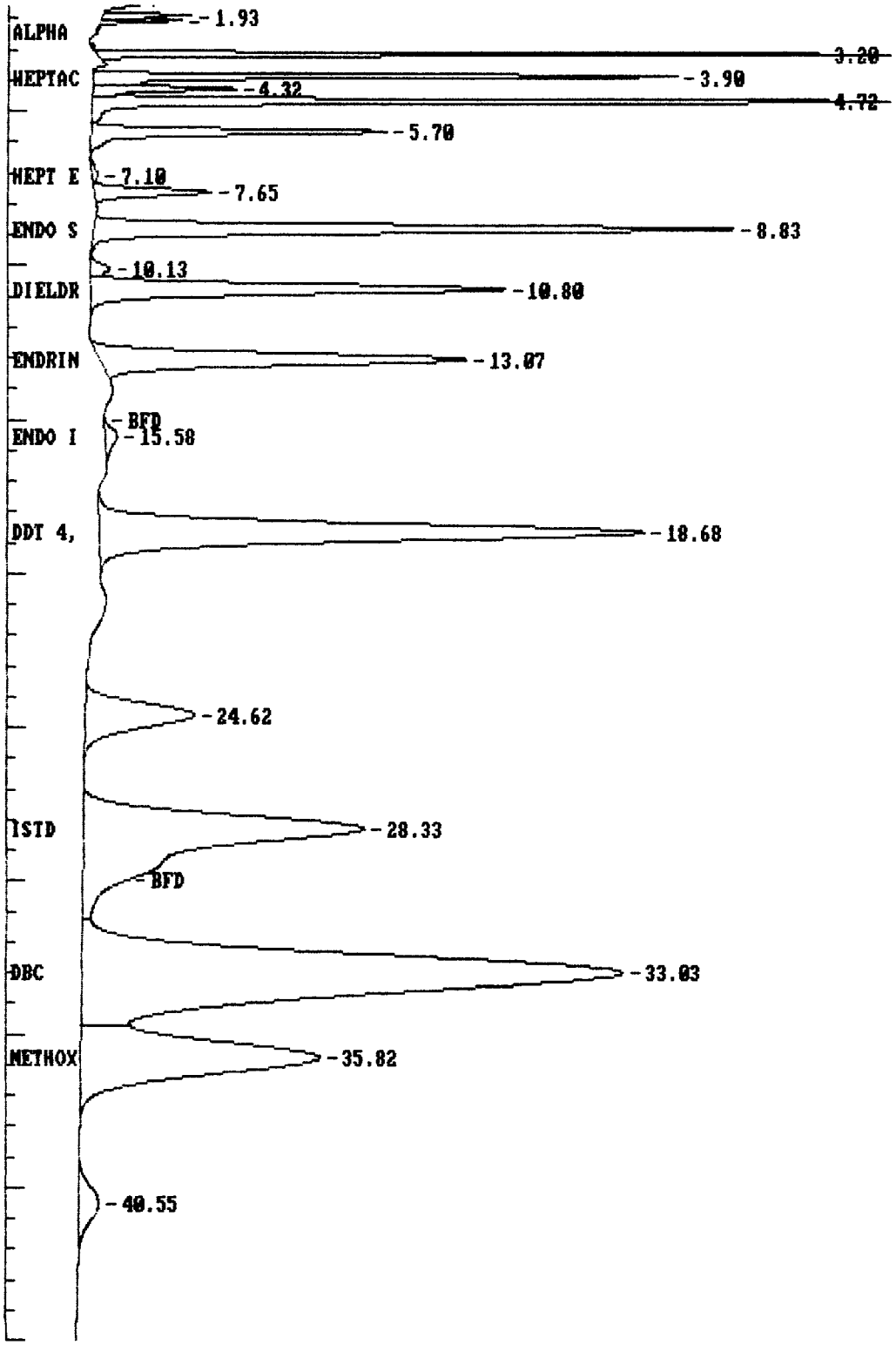
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
3	3.20	LINDANE	0.0559	2.5324%	943605	138599	6.8	1	3	17	0	5.9265E-08
4	3.90	HEPTACHLOR	0.0544	2.4654%	986470	102090	9.7	2	4	17	0	5.5189E-08
6	4.72	ALDRIN	0.0958	4.3366%	1516936	139694	10.9	2	6	17	0	6.3129E-08
8	7.10	HEPT EPOXIDE	-0.0106	-0.4797%	26119	980	26.7	2	8	17	0	-4.0557E-07
10	8.83	ENDO SULFAN 1	0.1337	6.0536%	2051013	111812	18.3	1	10	17	0	6.5177E-08
12	10.80	DIELDRIN	0.1171	5.3018%	1664138	72502	23.0	2	12	17	0	7.0353E-08
13	13.07	ENDRIN	0.2572	11.6456%	1726204	64187	26.9	1	13	17	0	1.4898E-07
14	15.58	ENDO II	-0.0273	-1.2354%	83703	2056	40.7	1	14	17	0	-3.2592E-07
15	18.68	DDT 4,4'	0.3186	14.4274%	3765485	95153	39.6	1	15	17	0	8.4609E-08
17	28.33	ISTD	1.0000	0.0000%	3995397	49116	81.3	2	17	17	0	2.5029E-07
18	33.03	DBC	0.8205	37.1579%	8435425	94633	89.1	2	18	17	0	9.7273E-08
19	35.82	METHOXYCHLOR	0.3929	17.7943%	3191731	41777	76.4	2	19	17	0	1.2311E-07

TOTAL AMOUNT = 2.2082

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	2.45	ALPHA BHC

Data File = M:OK19.PTS Printed on 12-21-1989 at 13:12:35
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 59901 uv High Value: 202107 uv Scale factor: 1.0

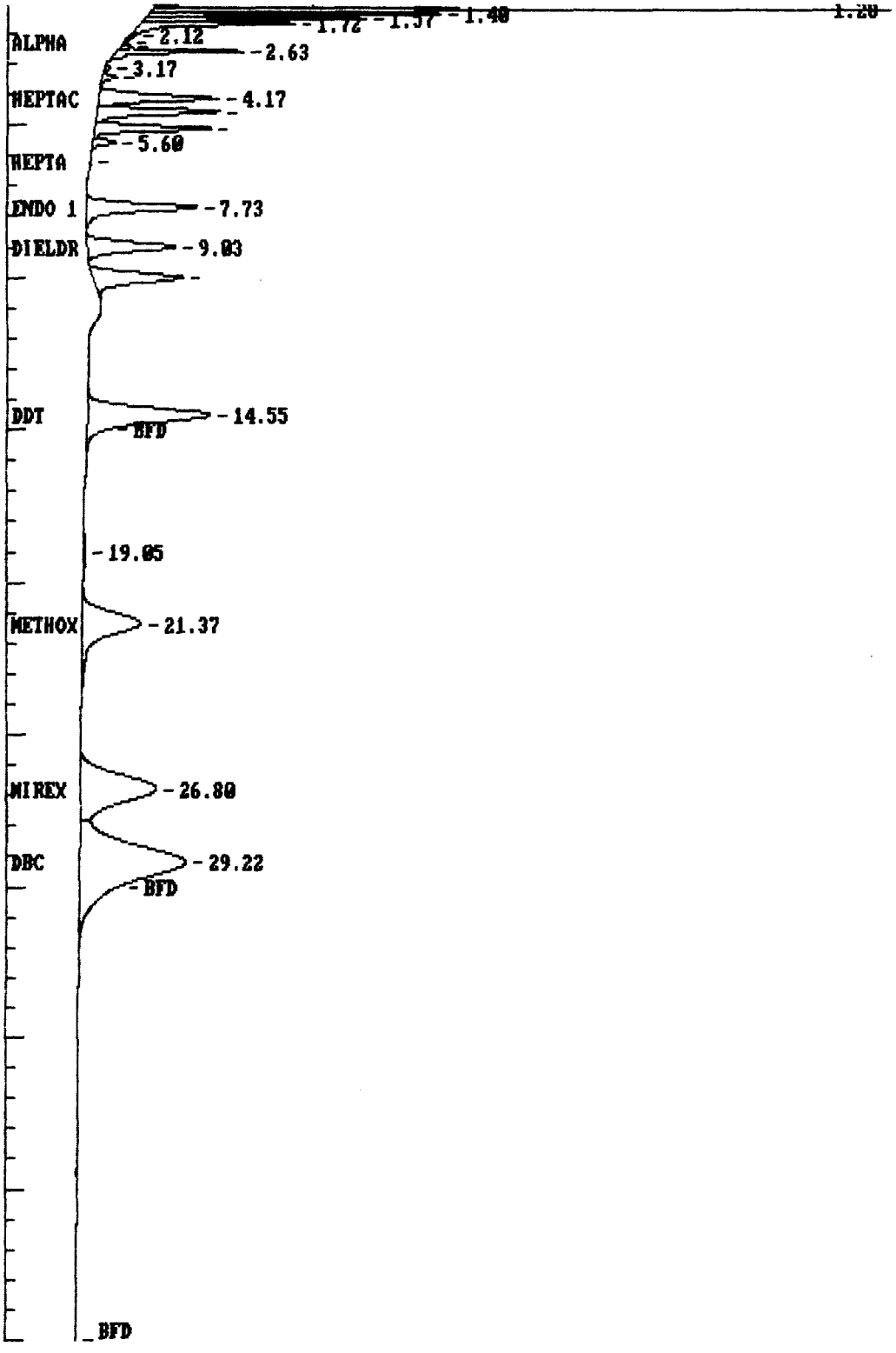


```
******   INTERNAL STANDARD TABLE   ******
******************** 12-27-1989 19:23:39 Version 4.1 **********************
* Sample Name: 90FD05S99 PEST SPK D                Data File: K:OK12        *
* Date: 12-21-1989 00:57:31 Method: K:CPESTA 12-24-1989 01:55:38  #  18    *
* Interface: 0   Cycle#:  12   Operator KG  Channel#: 0    Vial#: N.A.      *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100              *
*****************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION           *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN              *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                           *
*             Detector 0:                        Detector 1: ECD CONF       *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY     *
*****************************************************************************
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	2.28	ALPHA BHC	0.0011	0.1151%	9778	1532	6.4	4	6	22	0	1.1686E-07
8	2.63	LINDANE	0.0329	3.3137%	265061	36324	7.3	2	8	22	0	1.2409E-07
11	4.17	HEPTACHLOR	0.0444	4.4749%	511232	34607	14.8	2	11	22	0	8.6881E-08
13	5.15	ALDRIN	0.0459	4.6213%	425764	33395	12.7	2	13	22	0	1.0773E-07
15	6.23	HEPTA EPOX	0.0006	0.0609%	6591	356	18.5	1	15	22	0	9.1686E-08
16	7.73	ENDO 1	0.0577	5.8174%	595024	31532	18.9	1	16	22	0	9.7040E-08
17	9.03	DIELDRIN	0.0572	5.7618%	531256	25162	21.1	1	17	22	0	1.0765E-07
18	10.03	EN +END 2	0.0661	6.6645%	599088	25733	23.3	1	18	22	0	1.1042E-07
19	14.55	DDT	0.1838	18.5174%	1215732	35198	34.5	1	19	22	0	1.5118E-07
21	21.37	METHOX	0.2082	20.9807%	878171	16725	52.5	1	21	22	0	2.3714E-07
22	26.80	MIREX	1.0000	0.0000%	1385469	21840	63.4	2	22	22	0	7.2178E-07
23	29.22	DBC	0.2945	29.6723%	2594163	30331	85.5	2	23	22	0	1.1353E-07

TOTAL AMOUNT = 0.9926

Data File = K:OK12.PTS Printed on 12-27-1989 at 19:24:11
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 24947 uv High Value: 257922 uv Scale factor: 1.0



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

********** 12-26-1989 09:10:05 Version 4.1 **********

* Sample Name: 90FD05S99 PCB SPK Data File: m:ok41 *
* Date: 12-21-1989 17:39:49 Method: M:GMET42 12-26-1989 08:25:42 # 38 *
* Interface: 0 Cycle#: 41 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 5000 *

****

* Instrument Type: HP 5890 GC/EC #3 Column Type: PACKED MIXED PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL 200 C *
* Detector 0: ECD QUANT Detector 1: *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN: * *

****

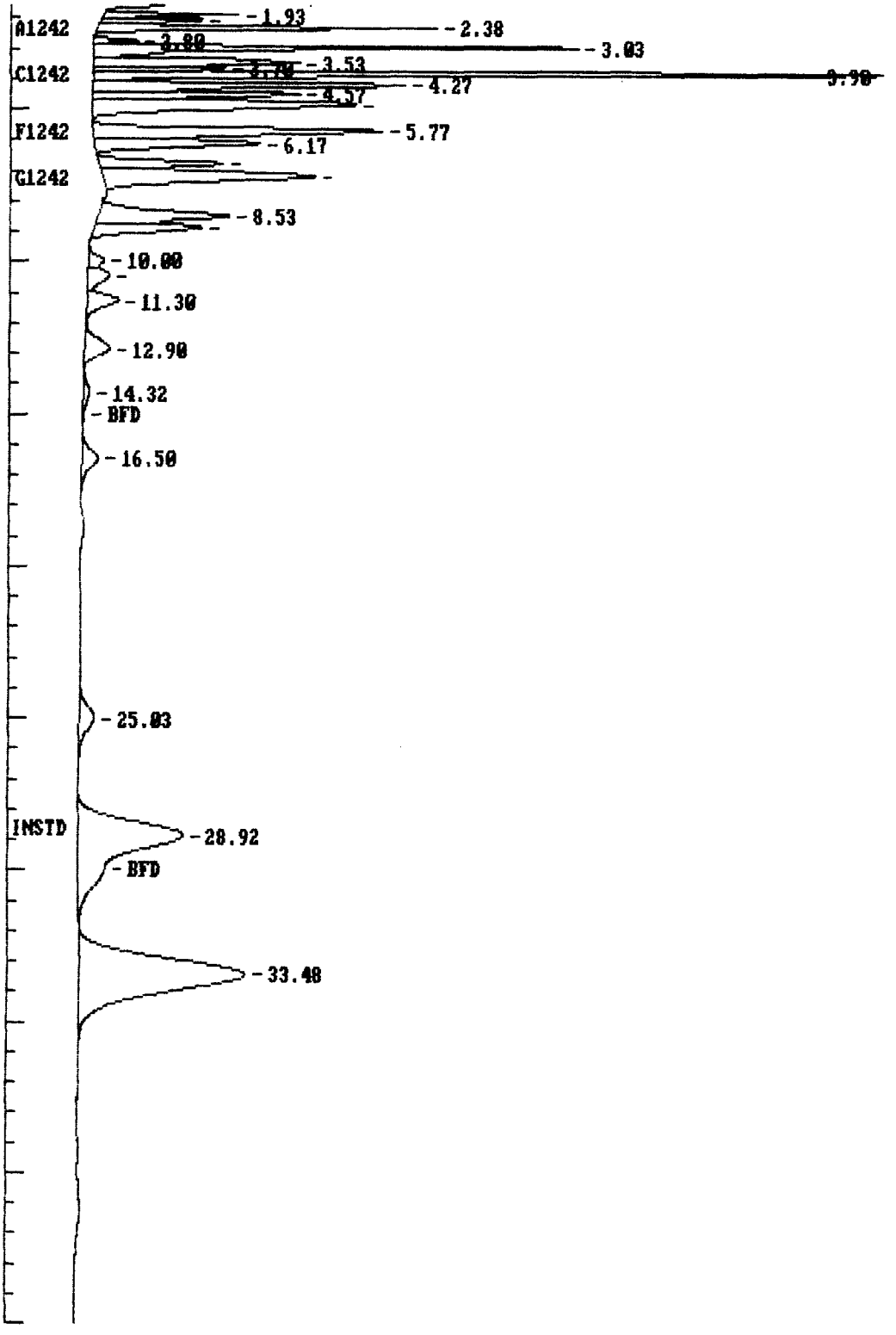
Starting Delay: 1.50 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

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	2.38	A1242	2.4520	14.2113%	1190110	155839	7.6	2	0	25	1.418	2.0603E-06
5	3.03	B1242	2.3130	13.4060%	1945617	221880	8.8	2	0	25	.5524	1.1888E-06
8	3.90	C1242	2.4088	13.9610%	3390211	361087	9.4	2	0	25	.4291	7.1051E-07
9	4.27	D1242	2.4892	14.4269%	1681204	143124	11.7	2	0	25	.3921	1.4806E-06
11	4.90	E1242	2.4225	14.0407%	2406483	120925	19.9	2	0	25	.3412	1.0067E-06
12	5.77	F1242	2.8472	16.5019%	2110690	132494	15.9	2	0	25	0	1.3489E-06
15	7.23	G1242	2.3210	13.4523%	2122834	97079	21.9	2	0	25	0	1.0934E-06
25	28.92	INSTD	1.0000	0.0000%	3746863	47631	78.7	2	0	25	1.166	2.6689E-07

TOTAL AMOUNT = 17.2537

Avg 2.46 ug/l
82% recovery

Data File = m:ok41.PTS Printed on 12-26-1989 at 09:10:35
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 60749 uv High Value: 427940 uv Scale factor: 1.0



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

********** 12-27-1989 21:06:54 Version 4.1 **********

* Sample Name: 90FD05S99 PCB SPK Data File: K:OK26 *
* Date: 12-21-1989 11:48:20 Method: K:CMET42 12-27-1989 20:10:50 # 17 *
* Interface: 0 Cycle#: 26 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HP 5890A #1 Column Type: CONFIRMATION *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: Detector 1: ECD CONF *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY *

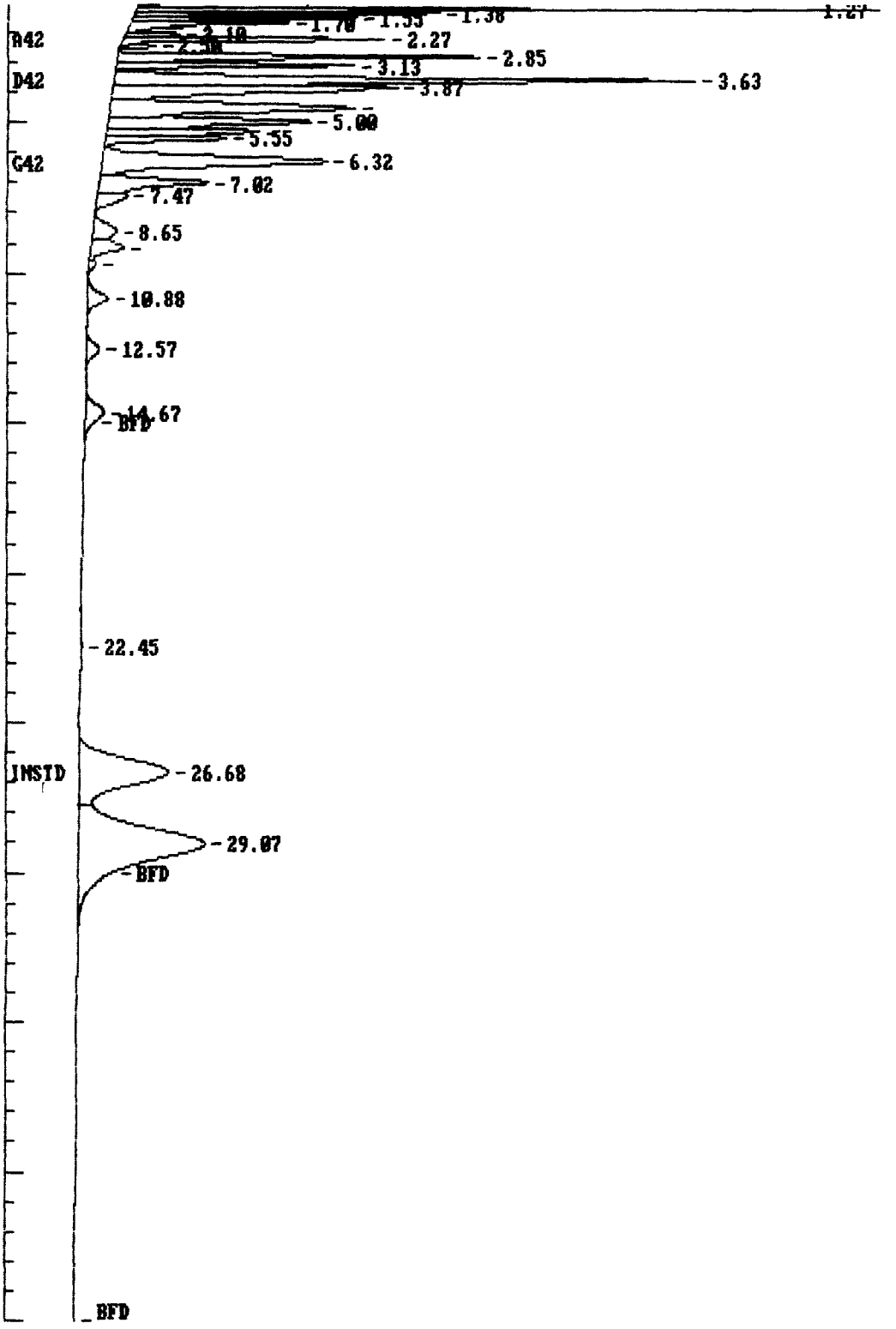
****

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	2.27	A42	2.4094	13.8906%	491019	64677	7.6	3	0	26	0	4.9070E-06
8	2.85	B42	2.3525	13.5624%	805689	89598	9.0	2	0	26	0	2.9199E-06
9	3.13	C42	2.5327	14.6015%	514068	58958	8.7	2	0	26	0	4.9268E-06
10	3.63	D42	2.3789	13.7147%	1664154	143701	11.6	2	0	26	0	1.4295E-06
11	3.87	E42	2.6444	15.2454%	1261966	70362	17.9	2	0	26	0	2.0955E-06
12	4.57	F42	2.4618	14.1928%	1192215	60788	19.6	2	0	26	0	2.0649E-06
16	6.32	G42	2.5659	14.7926%	1312260	55537	23.6	2	0	26	-.2631	1.9553E-06
26	26.68	INSTD	1.0000	0.0000%	1398789	22027	63.5	2	0	26	0	7.1490E-07

TOTAL AMOUNT = 17.3456

Data File = K:OK26.PTS Printed on 12-27-1989 at 21:52:29
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 25692 uv High Value: 224048 uv Scale factor: 1.0



```
*****      INTERNAL STANDARD TABLE      *****
******************** 12-26-1989 11:55:47 Version 4.1 **********************
* Sample Name: 90FD05S99 PCB SPK                  Data File: m:ok41        *
* Date: 12-21-1989 17:39:49 Method: M:QPESTA2 12-26-1989 11:23:36  #  143 *
* Interface: 0   Cycle#:  41   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000            *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*            Detector 0: ECD QUANT            Detector 1:                 *
* Misc. Information: SF68230LD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                    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	3.03	LINDANE	0.1221	9.0363%	1945617	221880	8.8	2	5	25	0	6.2763E-08
8	3.90	HEPTACHLOR	0.2030	15.0242%	3390211	361087	9.4	2	8	25	0	5.9887E-08
11	4.90	ALDRIN	0.1639	12.1300%	2406483	120925	19.9	2	11	25	0	6.8116E-08
15	7.23	HEPT EPOXIDE	0.1438	10.6386%	2122834	97079	21.9	2	15	25	0	6.7723E-08
16	8.53	ENDO SULFAN 1	0.0810	5.9963%	1267829	60594	20.9	2	16	25	0	6.3914E-08
20	11.30	DIELDRIN	0.0215	1.5885%	409054	14524	28.2	2	20	25	0	5.2477E-08
21	12.90	ENDRIN	0.0511	3.7822%	421462	11399	37.0	2	21	25	0	1.2127E-07
23	16.50	ENDO II	-0.0143	-1.0557%	287866	7136	40.3	1	23	25	0	-4.9558E-08
25	28.92	ISTD	1.0000	0.0000%	3746863	47631	78.7	2	25	25	0	2.6689E-07
26	33.48	DBC	0.5792	42.8596%	5782980	75965	76.1	2	26	25	0	1.0015E-07

TOTAL AMOUNT = 1.3514

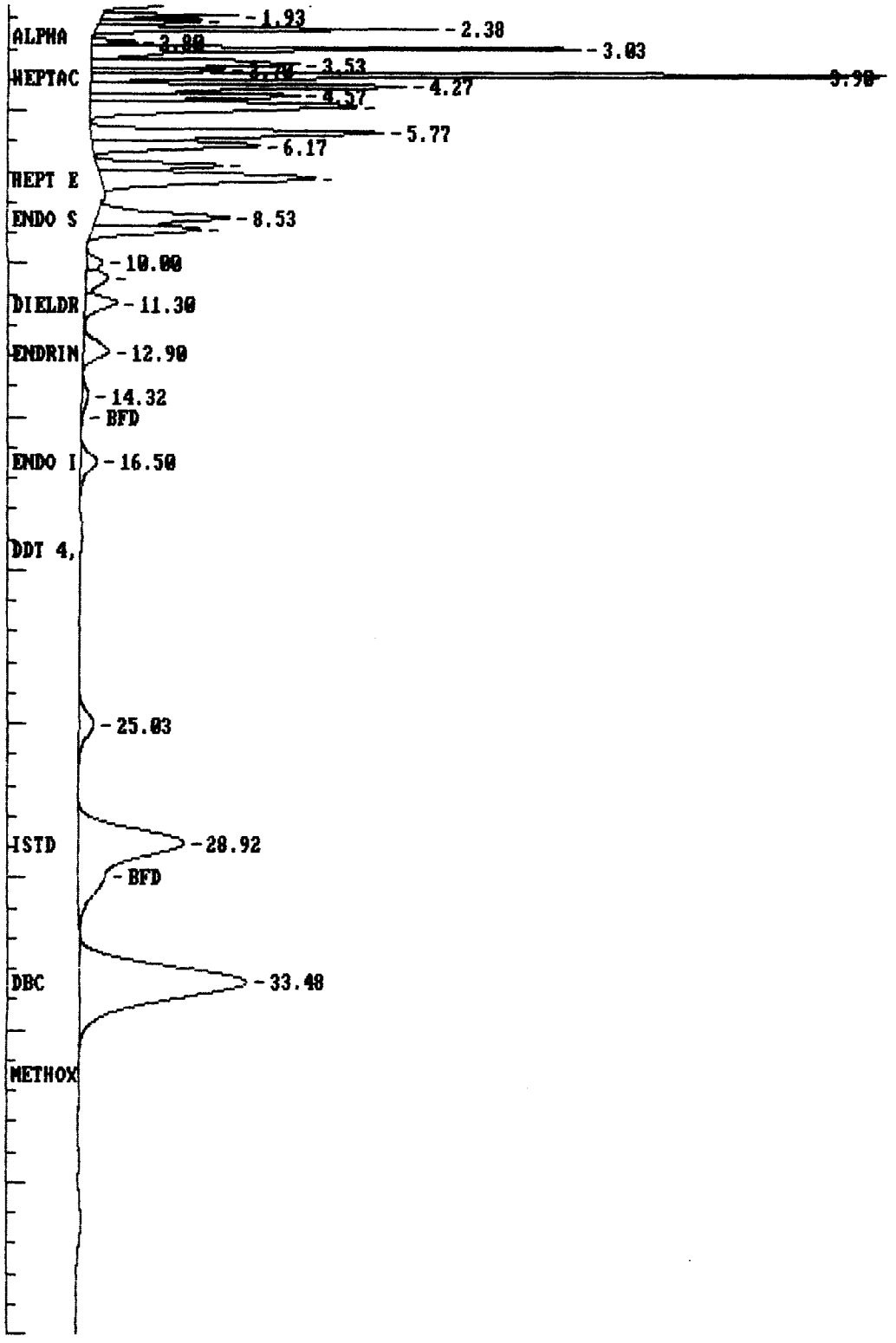
PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	2.55	ALPHA BHC
DDT 4,4'	19.35	DDT 4,4'
METHOXYCHLOR	36.49	METHOXYCHLOR

DBC Recovery

$$\frac{.5792\,ug(found)}{.5ug(added)} \times 100 = 116\%$$

Data File = m:ok41.PTS Printed on 12-26-1989 at 11:56:20
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 60749 uv High Value: 427940 uv Scale factor: 1.0

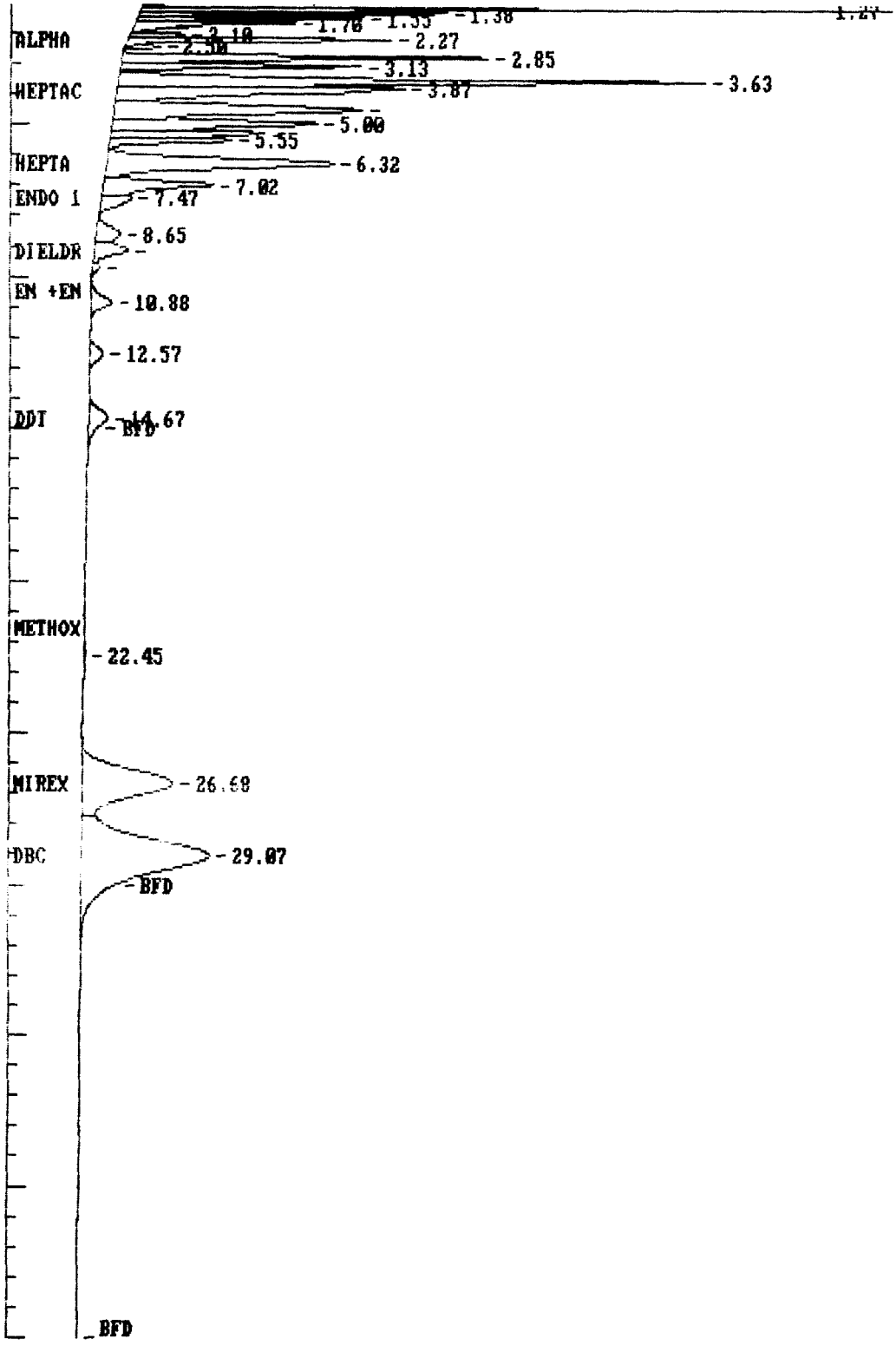


```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-27-1989 21:56:14 Version 4.1 **********************
* Sample Name: 90FD05S99 PCB SPK                    Data File: K:OK26      *
* Date: 12-21-1989 11:48:20 Method: K:CPESTA 12-24-1989 01:55:38  #  18   *
* Interface: 0   Cycle#:  26   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0:                        Detector 1: ECD CONF      *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY   *
*************************************************************************
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	2.27	ALPHA BHC	0.0568	7.5668%	491019	64677	7.6	3	6	26	0	1.1575E-07
7	2.50	LINDANE	0.0074	0.9826%	60048	8658	6.9	4	7	26	0	1.2290E-07
11	3.87	HEPTACHLOR	0.1086	14.4581%	1261966	70362	17.9	2	7	26	-2.250	8.6054E-08
13	5.00	ALDRIN	0.0838	11.1550%	785209	50100	15.7	2	13	26	0	1.0671E-07
16	6.32	HEPTA EPOX	0.1192	15.8658%	1312260	55537	23.6	2	16	26	0	9.0813E-08
18	7.47	ENDO 1	0.0168	2.2311%	174358	7318	23.8	2	18	26	0	9.6116E-08
20	9.17	DIELDRIN	0.0205	2.7277%	192152	7991	24.0	2	20	26	0	1.0662E-07
22	10.88	EN +END 2	0.0144	1.9173%	131678	4871	27.0	1	20	26	3.574	1.0937E-07
24	14.67	DDT	0.0280	3.7263%	186912	4563	41.0	1	24	26	0	1.4974E-07
25	22.45	METHOX	0.0022	0.2969%	9494	253	37.5	1	24	26	4.119	2.3488E-07
26	26.68	MIREX	1.0000	0.0000%	1398789	22027	63.5	2	26	26	0	7.1490E-07
27	29.07	DBC	0.2935	39.0725%	2609892	31085	84.0	2	27	26	0	1.1245E-07

TOTAL AMOUNT = 0.7511

Data File = K:OK26.PTS Printed on 12-27-1989 at 21:58:17
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 25692 uv High Value: 224048 uv Scale factor: 1.0



```
*****      INTERNAL STANDARD TABLE      *****
******************** 12-26-1989 09:11:42 Version 4.1 **********************
* Sample Name: 90FD05S99 PCB SPK D                Data File: m:ok42        *
* Date: 12-21-1989 18:26:17 Method: M:GMET42 12-26-1989 08:25:42  #  38    *
* Interface: 0   Cycle#:  42   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000            *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*             Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF68230LD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                          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
```

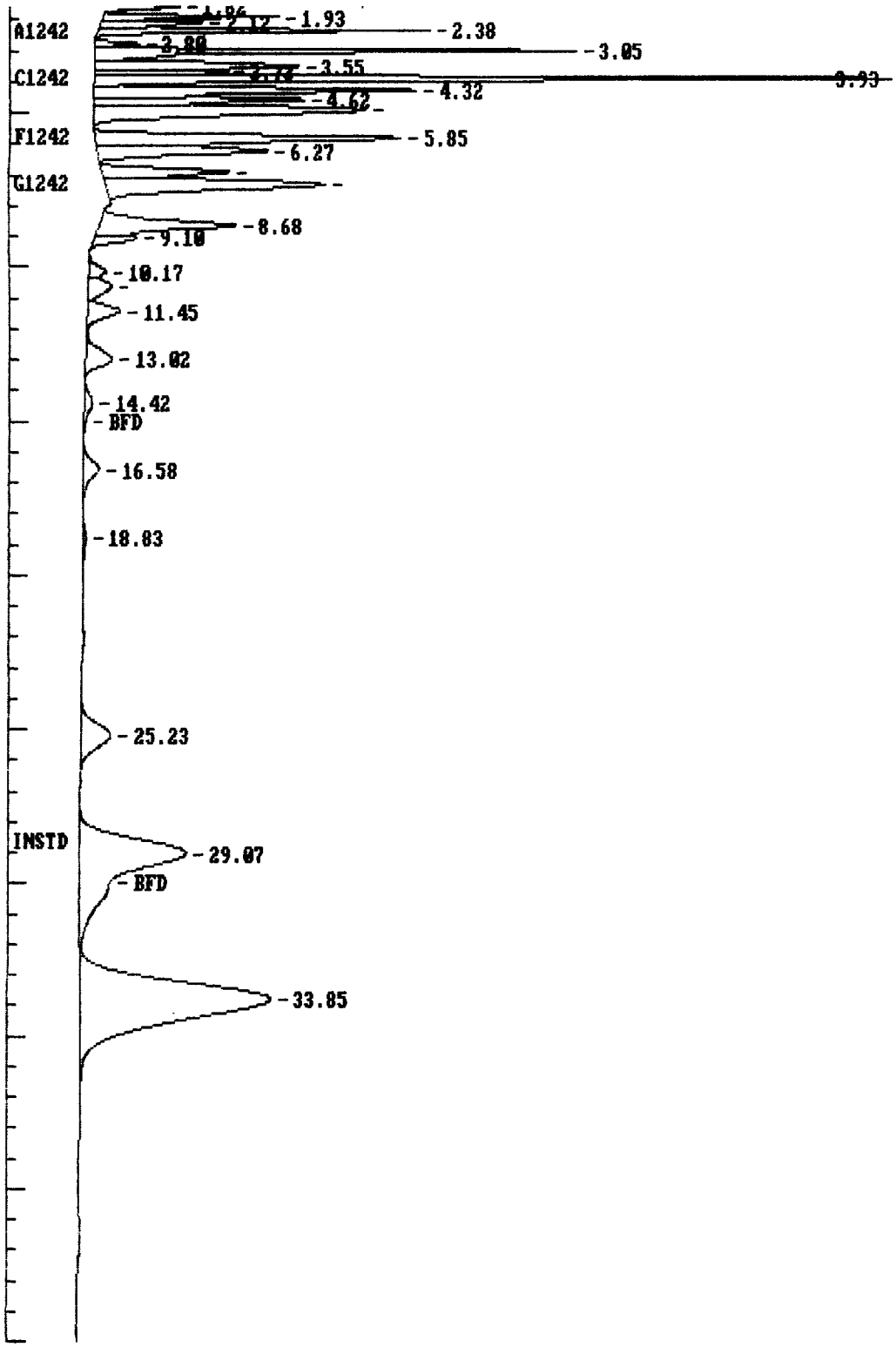
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
4	2.38	A1242	2.2469	13.3827%	1145345	148318	7.7	2	0	27	1.418	1.9618E-06
6	3.05	B1242	2.1756	12.9582%	1918781	215243	8.9	2	0	27	1.104	1.1339E-06
9	3.93	C1242	2.3515	14.0060%	3446892	356364	9.7	2	0	27	1.287	6.8222E-07
10	4.32	D1242	2.4963	14.8680%	1749351	143908	12.2	2	0	27	1.568	1.4270E-06
12	4.95	E1242	2.3530	14.0149%	2437325	121463	20.1	2	0	27	1.365	9.6541E-07
13	5.85	F1242	2.8782	17.1427%	2210728	136615	16.2	2	0	27	1.445	1.3019E-06
16	7.37	G1242	2.2880	13.6276%	2172352	98037	22.2	2	0	27	1.843	1.0532E-06
27	29.07	INSTD	1.0000	0.0000%	3889284	47408	82.0	2	0	27	1.690	2.5712E-07

TOTAL AMOUNT = 16.7895

Avg 2,399 ug/l

80% Recovery

Data File = m:ok42.PTS Printed on 12-26-1989 at 09:12:14
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 60944 uv High Value: 423953 uv Scale factor: 1.0

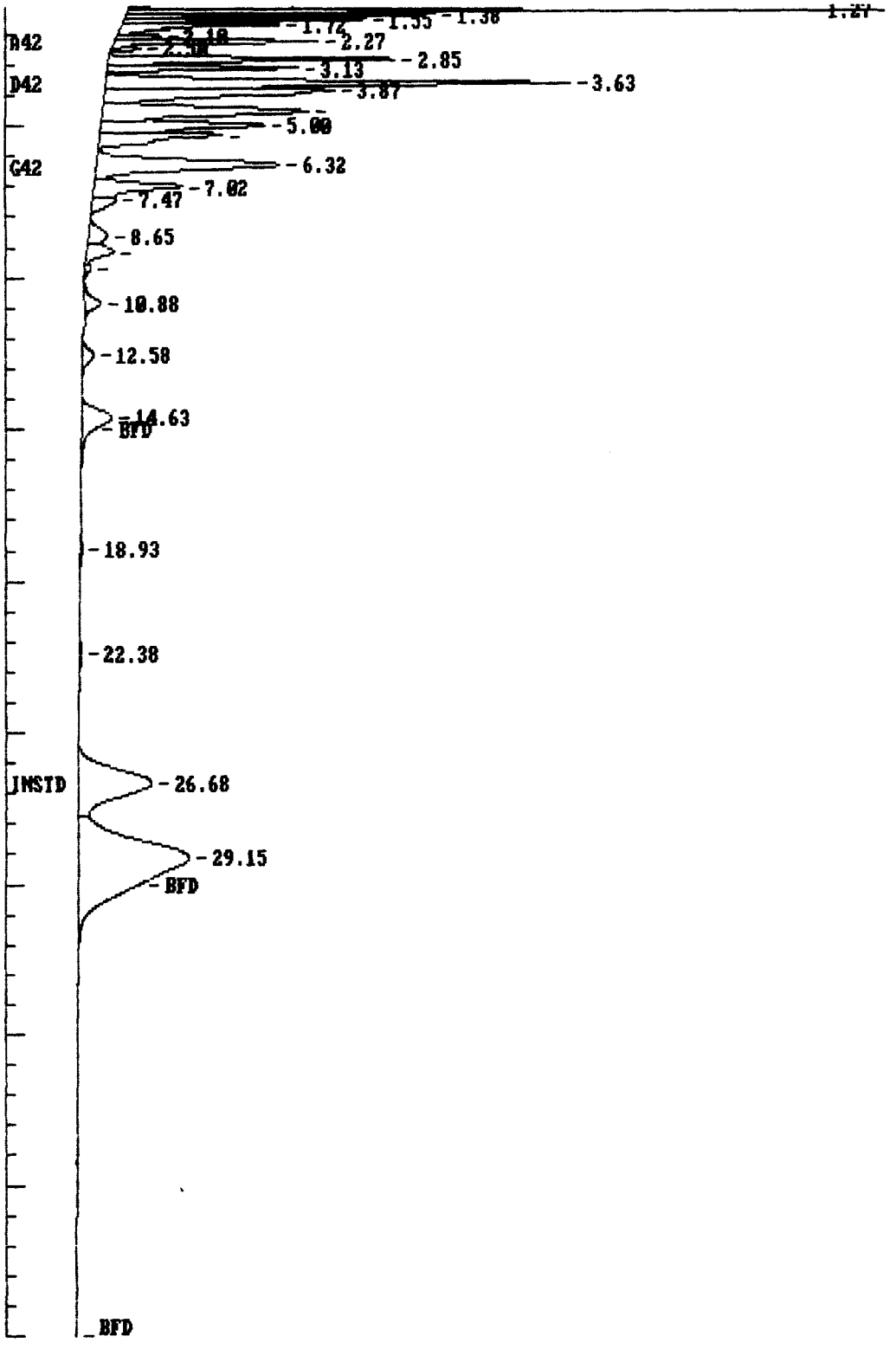


```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-27-1989 22:01:02 Version 4.1 **********************
* Sample Name: 90FD05S99 PCB SPK D                Data File: K:OK27        *
* Date: 12-21-1989 12:34:47 Method: K:CMET42 12-27-1989 20:10:50  #  17    *
* Interface: 0   Cycle#:  27   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100             *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0:                      Detector 1: ECD CONF        *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY   *
*************************************************************************
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	2.27	A42	2.3312	13.5935%	474669	61524	7.7	3	0	26	0	4.9111E-06
8	2.85	B42	2.2717	13.2470%	777369	86308	9.0	2	0	26	0	2.9223E-06
9	3.13	C42	2.4821	14.4734%	503355	57456	8.8	2	0	26	0	4.9310E-06
10	3.63	D42	2.3181	13.5174%	1620245	139993	11.6	2	0	26	0	1.4307E-06
11	3.87	E42	2.6867	15.6667%	1281056	69231	18.5	2	0	26	0	2.0973E-06
12	4.57	F42	2.5063	14.6146%	1212705	62111	19.5	2	0	26	0	2.0667E-06
15	6.32	G42	2.5530	14.8873%	1304586	55358	23.6	2	0	26	-.2631	1.9570E-06
26	26.68	INSTD	1.0000	0.0000%	1397598	22034	63.4	2	0	26	0	7.1551E-07

TOTAL AMOUNT = 17.1491

Data File = K:OK27.PTS Printed on 12-27-1989 at 22:01:57
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 25751 uv High Value: 270286 uv Scale factor: 1.0



```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-26-1989 12:03:59 Version 4.1 **********************
* Sample Name: 90FD05S99 PCB SPK D                Data File: m:ok42        *
* Date: 12-21-1989 18:26:17 Method: M:QPESTA2 12-26-1989 11:23:36  #  143 *
* Interface: 0   Cycle#:  42   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000            *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*             Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                      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	3.05	LINDANE	0.1160	7.9366%	1918781	215243	8.9	2	6	27	0	6.0473E-08
9	3.93	HEPTACHLOR	0.1988	13.6001%	3446892	356364	9.7	2	9	27	0	5.7686E-08
12	4.95	ALDRIN	0.1599	10.9339%	2437325	121463	20.1	2	12	27	0	6.5587E-08
16	7.37	HEPT EPOXIDE	0.1415	9.6809%	2172352	98037	22.2	2	16	27	0	6.5154E-08
17	8.68	ENDO SULFAN 1	0.0822	5.6223%	1331505	61416	21.7	2	17	27	0	6.1734E-08
20	10.67	DIELDRIN	0.0131	0.8971%	319482	10488	30.5	2	20	27	0	4.1053E-08
22	13.02	ENDRIN	0.0495	3.3836%	427308	11703	36.5	2	22	27	0	1.1577E-07
24	16.58	ENDO II	-0.0144	-0.9866%	296738	7150	41.5	1	24	27	0	-4.8612E-08
25	18.83	DDT 4,4'	-0.0058	-0.3953%	62361	1261	49.5	1	25	27	0	-9.2682E-08
27	29.07	ISTD	1.0000	0.0000%	3889284	47408	82.0	2	27	27	0	2.5712E-07
28	33.85	DBC	0.7212	49.3276%	7326682	84788	86.4	2	28	27	0	9.8432E-08

TOTAL AMOUNT = 1.4620

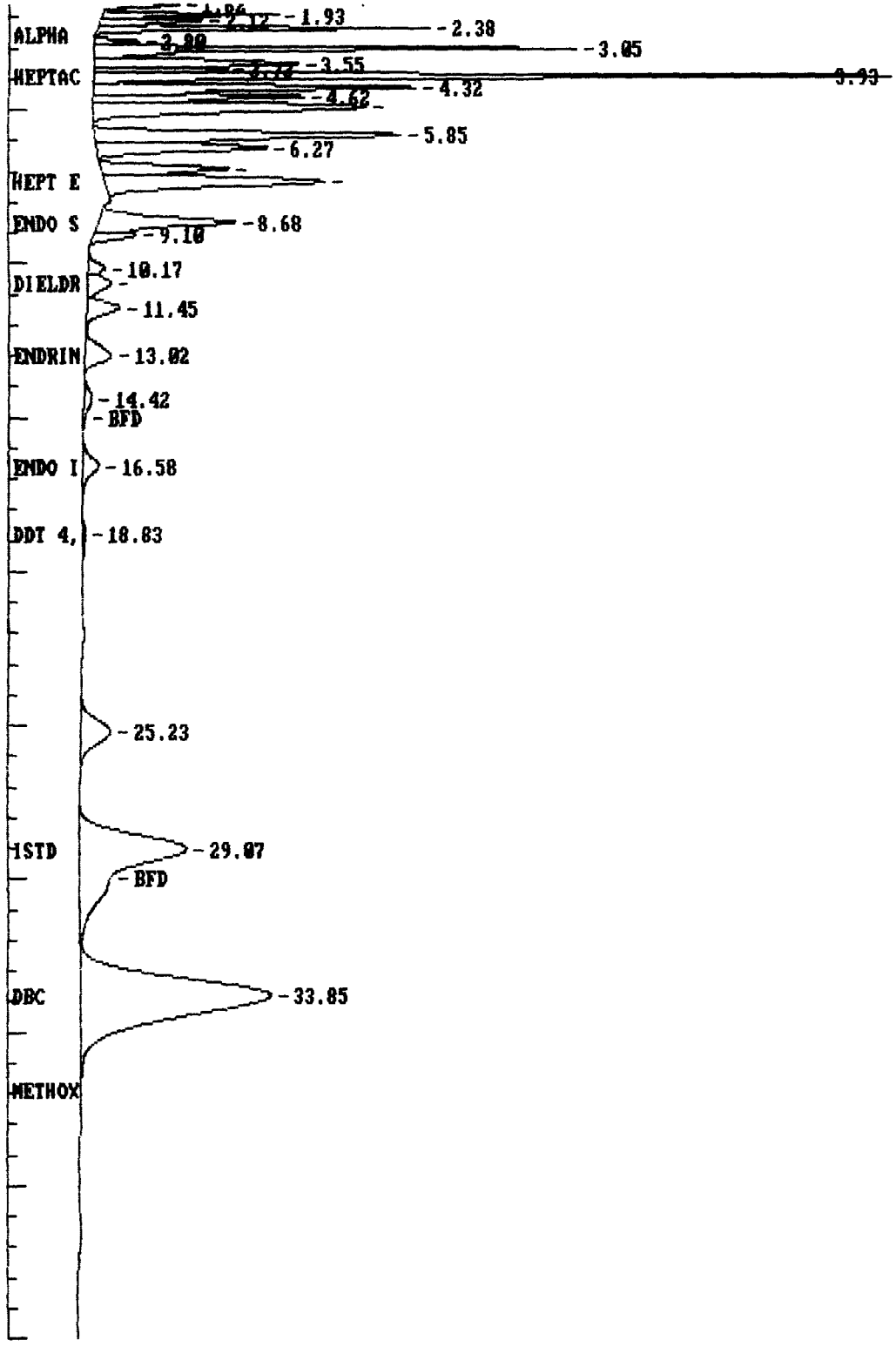
PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	2.55	ALPHA BHC
METHOXYCHLOR	36.89	METHOXYCHLOR

DBC Recovery

$$\frac{.7212\,\text{ug (found)}}{.5\,\text{ug (added)}} \times 100 = 144\%$$

Data File = m:ok42.PTS Printed on 12-26-1989 at 12:04:35
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 60944 uv High Value: 423953 uv Scale factor: 1.0

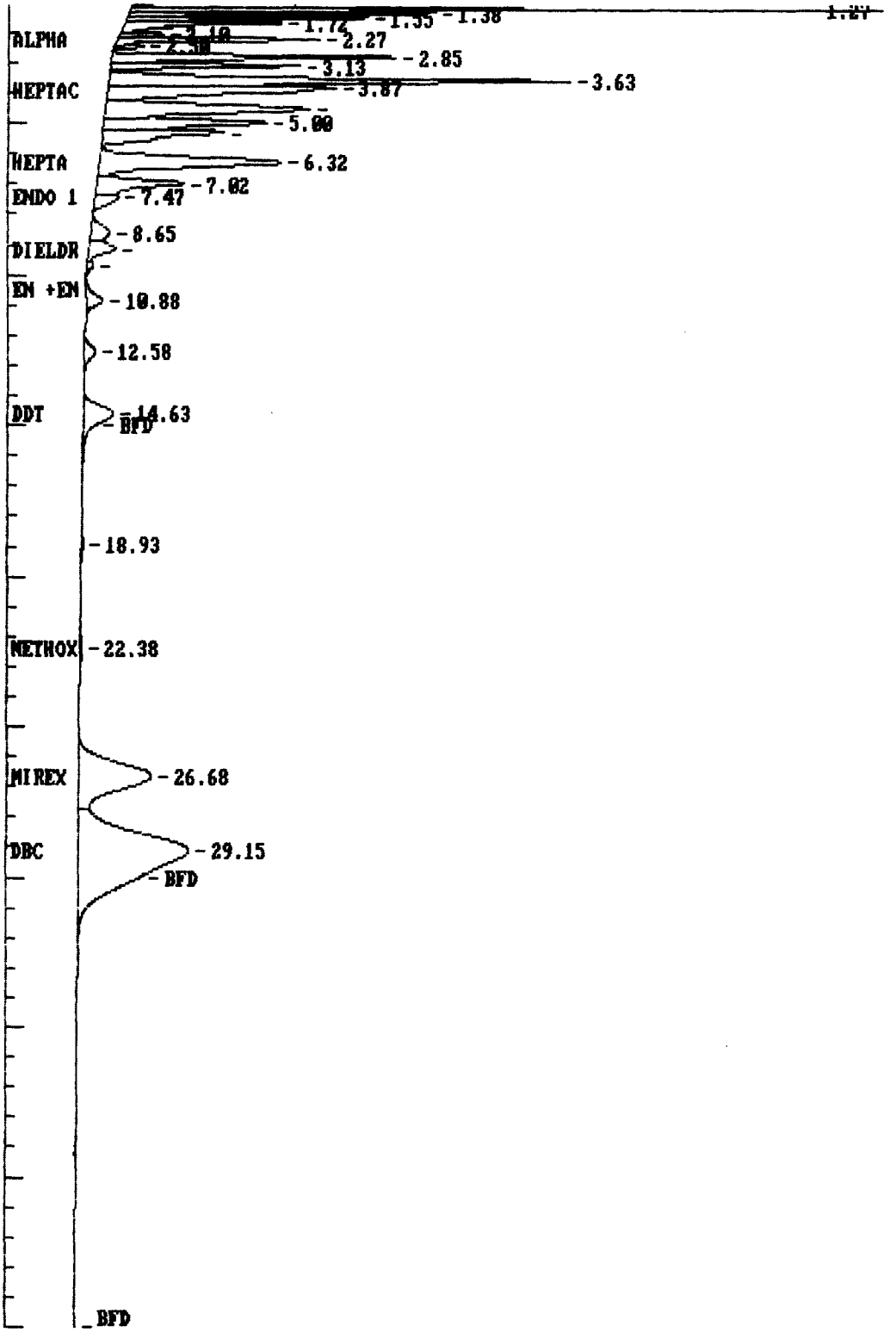


```
******   INTERNAL STANDARD TABLE   ******
******************** 12-27-1989 21:59:27 Version 4.1 ********************
* Sample Name: 90FD05S99 PCB SPK D                Data File: K:OK27        *
* Date: 12-21-1989 12:34:47 Method: K:CPESTA 12-24-1989 01:55:38  #  18    *
* Interface: 0   Cycle#:  27   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100             *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*             Detector 0:                      Detector 1: ECD CONF       *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY   *
*************************************************************************
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	2.27	ALPHA BHC	0.0550	6.2865%	474669	61524	7.7	3	6	26	0	1.1585E-07
7	2.50	LINDANE	0.0075	0.8542%	60742	8608	7.1	4	7	26	0	1.2301E-07
11	3.87	HEPTACHLOR	0.1103	12.6134%	1281056	69231	18.5	2	7	26	-2.250	8.6127E-08
13	5.00	ALDRIN	0.0830	9.4920%	777446	49465	15.7	2	13	26	0	1.0680E-07
15	6.32	HEPTA EPOX	0.1186	13.5556%	1304586	55358	23.6	2	15	26	0	9.0890E-08
17	7.47	ENDO 1	0.0166	1.9021%	172960	7251	23.9	2	17	26	0	9.6198E-08
19	9.17	DIELDRIN	0.0209	2.3919%	196059	8080	24.3	2	19	26	0	1.0671E-07
21	10.88	DN +END 2	0.0147	1.6858%	134716	4897	27.5	1	19	26	3.574	1.0946E-07
23	14.63	DDT	0.0573	6.5473%	382138	8999	42.5	1	23	26	0	1.4987E-07
25	22.38	METHOX	0.0052	0.5892%	21923	466	47.0	1	25	26	0	2.3508E-07
26	26.68	MIREX	1.0000	0.0000%	1397598	22034	63.4	2	26	26	0	7.1551E-07
27	29.15	DBC	0.3856	44.0821%	3426184	33277	103.0	2	27	26	0	1.1254E-07

TOTAL AMOUNT = 0.8747

Data File = K:OK27.PTS Printed on 12-27-1989 at 21:59:59
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 25751 uv High Value: 270286 uv Scale factor: 1.0



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

********** 12-26-1989 11:26:00 Version 4.1 **********

* Sample Name: 90FD05S98 Data File: m:ok24 *
* Date: 12-21-1989 04:30:06 Method: M:QPESTA2 12-26-1989 11:23:36 # 143 *
* Interface: 0 Cycle#: 24 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 5000 *

****

* Instrument Type: HP 5890 GC/EC #3 Column Type: PACKED MIXED PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL 200 C *
* Detector 0: ECD QUANT Detector 1: *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN: * *

****

Starting Delay: 1.50 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	2.53	~~ALPHA-BHC~~ B.L.S	~~0.0027~~	0.4634%	30859	3882	7.9	2	3	16	0	9.3987E-08
5	3.28	~~LINDANE~~ B.L.S	~~0.0015~~	0.2432%	20204	2456	8.2	2	5	16	0	7.5344E-08
10	7.27	~~HEPT EPOXIDE~~ B.L.S	~~0.0106~~	-1.6849%	44993	1734	26.0	2	10	16	0	-2.3439E-07
12	9.07	~~ENDO-SULFAN 1~~ N.C.	~~0.0107~~	-1.7044%	101066	5778	17.5	1	12	16	0	-1.0555E-07
13	12.98	~~ENDRIN~~ N.C	~~0.0131~~	-2.0925%	40542	1064	38.1	1	13	16	0	-3.2303E-07
16	29.15	ISTD	1.0000	0.0000%	3953064	47610	83.0	2	16	16	0	2.5297E-07
17	33.93	DBC	0.6558	104.7752%	6826940	82527	82.7	2	17	16	0	9.6056E-08

TOTAL AMOUNT = 0.6259

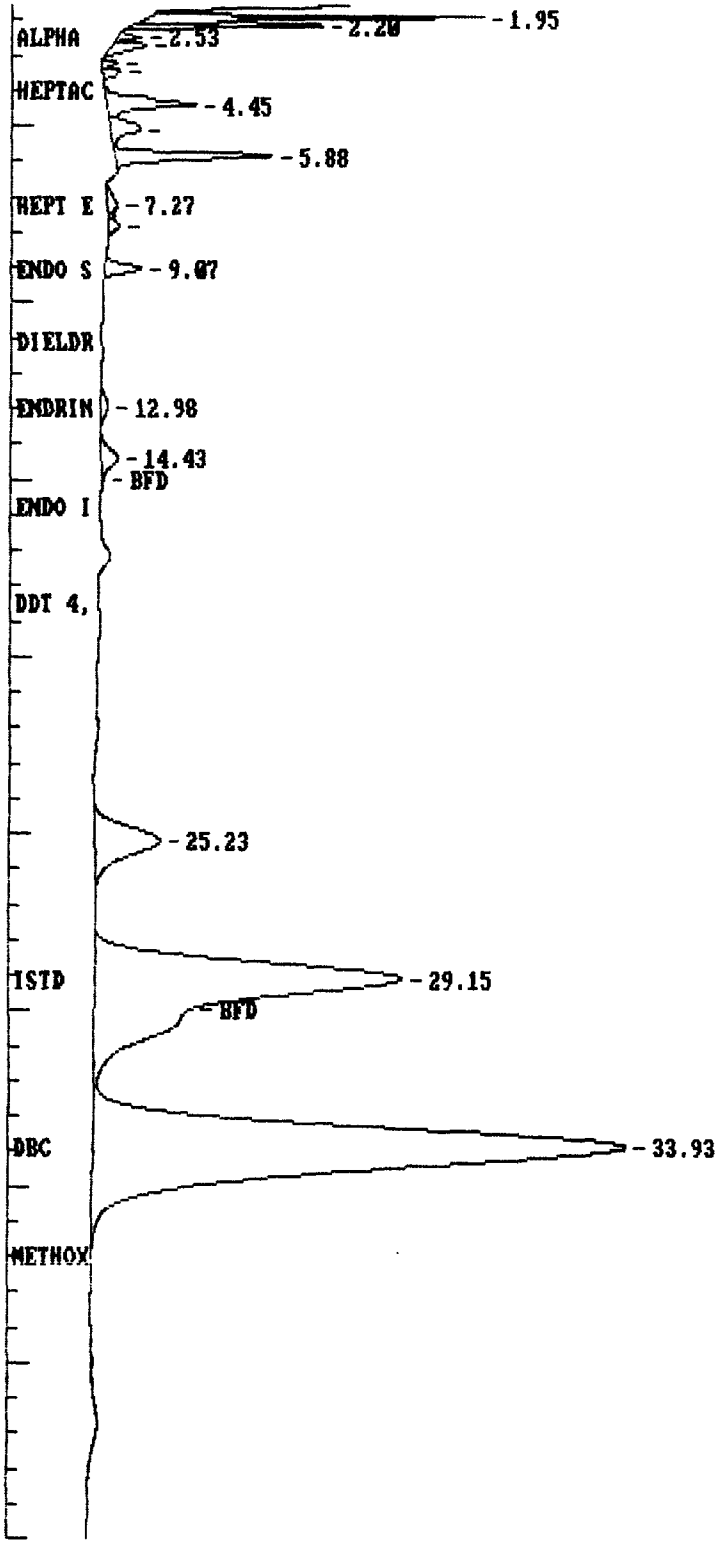
PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
HEPTACHLOR	4.02	HEPTACHLOR
ALDRIN	4.86	ALDRIN
DIELDRIN	11.07	DIELDRIN
ENDO II	15.78	ENDO II
DDT 4,4'	18.51	DDT 4,4'
METHOXYCHLOR	36.98	METHOXYCHLOR

DBC Recovery

$$\frac{.6558 \text{ ug (found)}}{.5 \text{ ug (added)}} \times 100 = 131\%$$

Data File = m:ok24.PTS Printed on 12-26-1989 at 11:26:32
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 60987 uv High Value: 205458 uv Scale factor: 1.0



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

********** 12-27-1989 19:46:24 Version 4.1 **********

* Sample Name: 90FD05S98 Data File: K:OK16 *
* Date: 12-21-1989 04:03:33 Method: K:CPESTA 12-24-1989 01:55:38 # 18 *
* Interface: 0 Cycle#: 16 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HP 5890A #1 Column Type: CONFIRMATION *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: Detector 1: ECD CONF *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY *

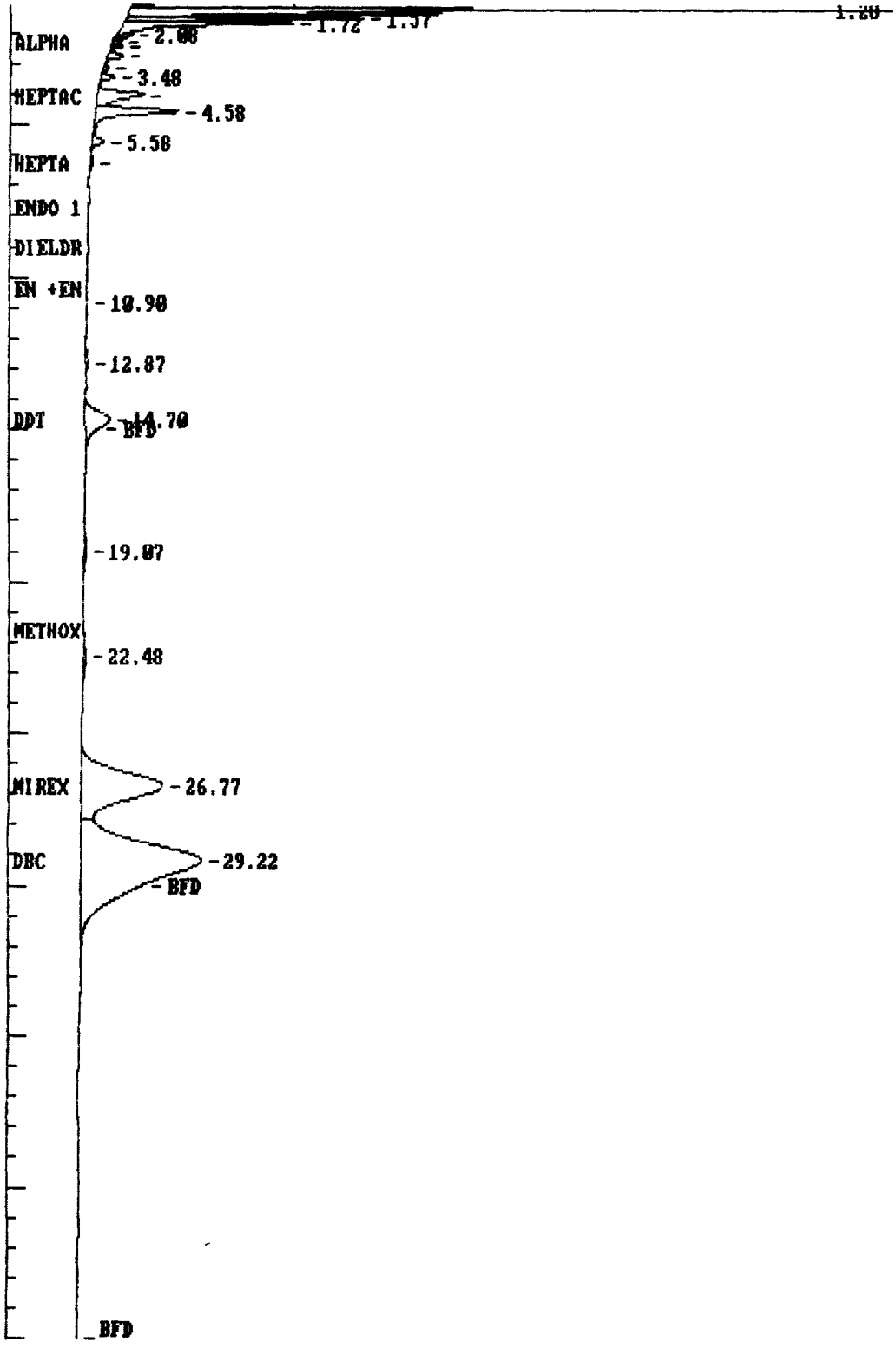
****

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	2.28	ALPHA BHC	0.0022	0.5148%	19050	2498	7.6	4	5	19	0	1.1551E-07
7	2.78	LINDANE	0.0060	1.3990%	48756	4196	11.6	2	5	19	4.153	1.2265E-07
10	4.03	HEPTACHLOR	0.0192	4.4866%	223322	12579	17.8	2	10	19	0	8.5874E-08
13	6.25	HEPTA EPOX	0.0012	0.2818%	13290	593	22.4	1	13	19	0	9.0624E-08
16	14.70	DDT	0.0368	8.6198%	246567	6476	38.1	1	16	19	0	1.4943E-07
18	22.48	METHOX	0.0060	1.4019%	25566	523	48.8	1	16	19	4.038	2.3439E-07
19	26.77	MIREX	1.0000	0.0000%	1401714	22060	63.5	2	19	19	0	7.1341E-07
20	29.22	DBC	0.3560	83.2961%	3172839	32696	97.0	2	20	19	0	1.1221E-07

TOTAL AMOUNT = 0.4274

Data File = K:OK16.PTS Printed on 12-27-1989 at 19:46:51
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 25270 uv High Value: 247090 uv Scale factor: 1.0



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

```
******************** 12-26-1989 11:28:20 Version 4.1 *********************
* Sample Name: 90FD05598                              Data File: m:ok24   *
* Date: 12-21-1989 04:30:06 Method: M:QPESTB 12-21-1989 11:34:46  #  25   *
* Interface: 0   Cycle#:  24   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000           *
***************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*             Solvent Description: ULTRA HIGH PURITY NITROGEN             *
* Conditions: ISOTHERMAL 200 C                                            *
*            Detector 0: ECD QUANT          Detector 1:                   *
* Misc. Information: SF68230LD KELLY SF6825 DUKE EARNESTSCRN:          *  *
***************************************************************************
Starting Delay:   1.50                      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
```

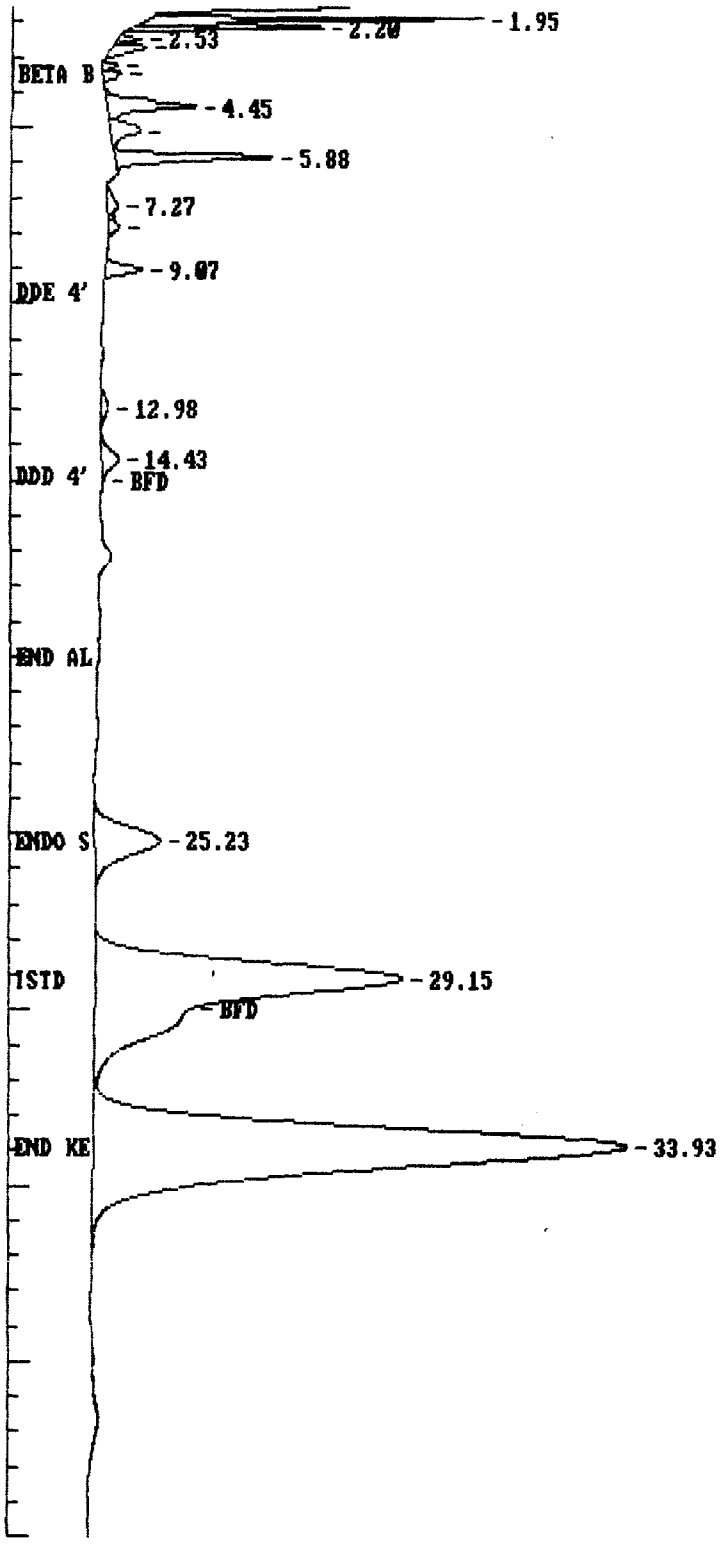
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
6	3.50	~~BETA BHC~~ B.L.S.	~~0.0025~~	0.3601%	40135	2898	13.8 2	6	16	0	6.3287E-08
15	25.23	~~ENDO SULFATE~~ B.L.S.	0.0505	7.1664%	566382	10036	56.4 1	15	16	0	8.9248E-08
16	29.15	ISTD	1.0000	0.0000%	3953064	47610	83.0 2	16	16	0	2.5297E-07
17	33.93	~~END KETONE~~ DBC	~~0.6523~~	92.4735%	6826940	82527	82.7 2	17	16	0	9.5543E-08

TOTAL AMOUNT = 0.7054

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DELTA BHC	4.07	DELTA BHC
DDE 4'4'	9.69	DDE 4'4'
DDD 4'4'	14.88	DDD 4'4'
END ALDEHYDE	20.01	END ALDEHYDE

Data File = m:ok24.PTS Printed on 12-26-1989 at 11:28:50
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 60987 uv High Value: 205458 uv Scale factor: 1.0

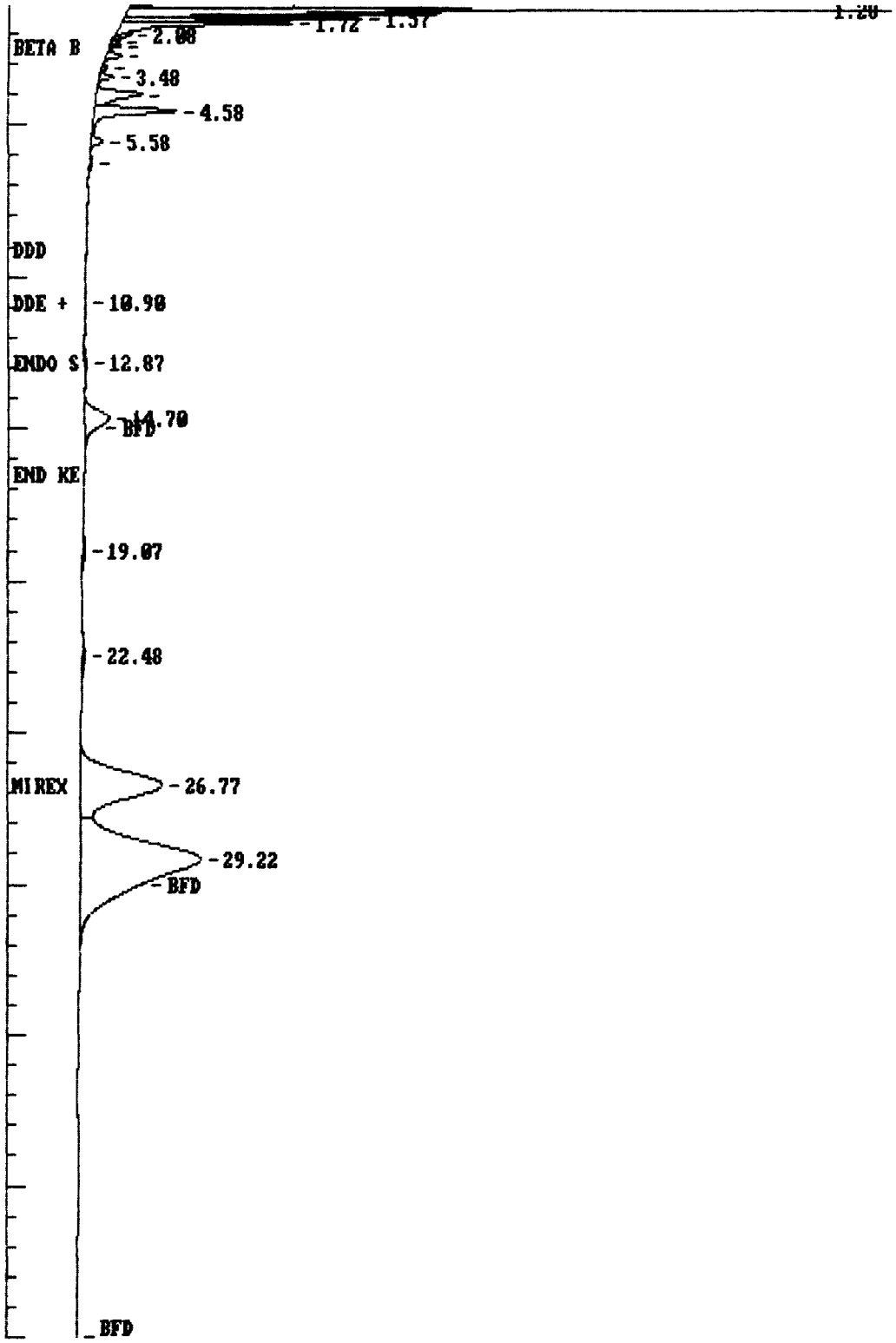


```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-27-1989 19:47:42 Version 4.1 **********************
* Sample Name: 90FD05S98                          Data File: K:OK16        *
* Date: 12-21-1989 04:03:33 Method: K:CPESTB 12-24-1989 02:00:21  #  19   *
* Interface: 0   Cycle#:  16   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0:                        Detector 1: ECD CONF      *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY   *
*************************************************************************
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	2.47	BETA BHC	0.0036	26.9644%	26721	3197	8.4	4	6	19	0	1.3420E-07
7	2.78	DELTA BHC	0.0067	50.6958%	48756	4196	11.6	2	7	19	0	1.3828E-07
14	10.90	DDE + EA	0.0002	1.7324%	2130	123	17.3	1	14	19	0	1.0816E-07
15	12.87	ENDO SO4	0.0027	20.6074%	14798	556	26.6	1	15	19	0	1.8520E-07
19	26.77	MIREX	1.0000	0.0000%	1401714	22060	63.5	2	19	19	0	7.1341E-07

TOTAL AMOUNT = 0.0133

Data File = K:OK16.PTS Printed on 12-27-1989 at 19:48:06
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 25270 uv High Value: 247090 uv Scale factor: 1.0



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

```
******************** 12-26-1989 11:36:38 Version 4.1 **********************
* Sample Name: 90FD05D98                              Data File: m:ok29     *
* Date: 12-21-1989 08:22:23 Method: M:QPESTA2 12-26-1989 11:23:36  #  143 *
* Interface: 0   Cycle#:  29   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000           *
***************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*             Solvent Description: ULTRA HIGH PURITY NITROGEN             *
* Conditions: ISOTHERMAL 200 C                                            *
*           Detector 0: ECD QUANT              Detector 1:                *
* Misc. Information: SF68230LD KELLY SF6825 DUKE EARNESTSCRN:         *   *
***************************************************************************
Starting Delay:    1.50                  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	9.07	~~ENDO-SULFAN I~~ N.C.	0.0138	2.3526%	442737	24635	18.0	1	7	11	0	3.1174E-08
8	12.95	~~ENDRIN~~ N.C.	-0.0157	-2.6791%	24702	685	36.0	1	8	11	0	-6.3626E-07
11	29.05	ISTD	1.0000	0.0000%	4060435	50357	80.6	2	11	11	0	2.4628E-07
12	33.70	DBC	0.5886	100.3264%	6358297	80251	79.2	2	12	11	0	9.2567E-08

TOTAL AMOUNT = 0.5867

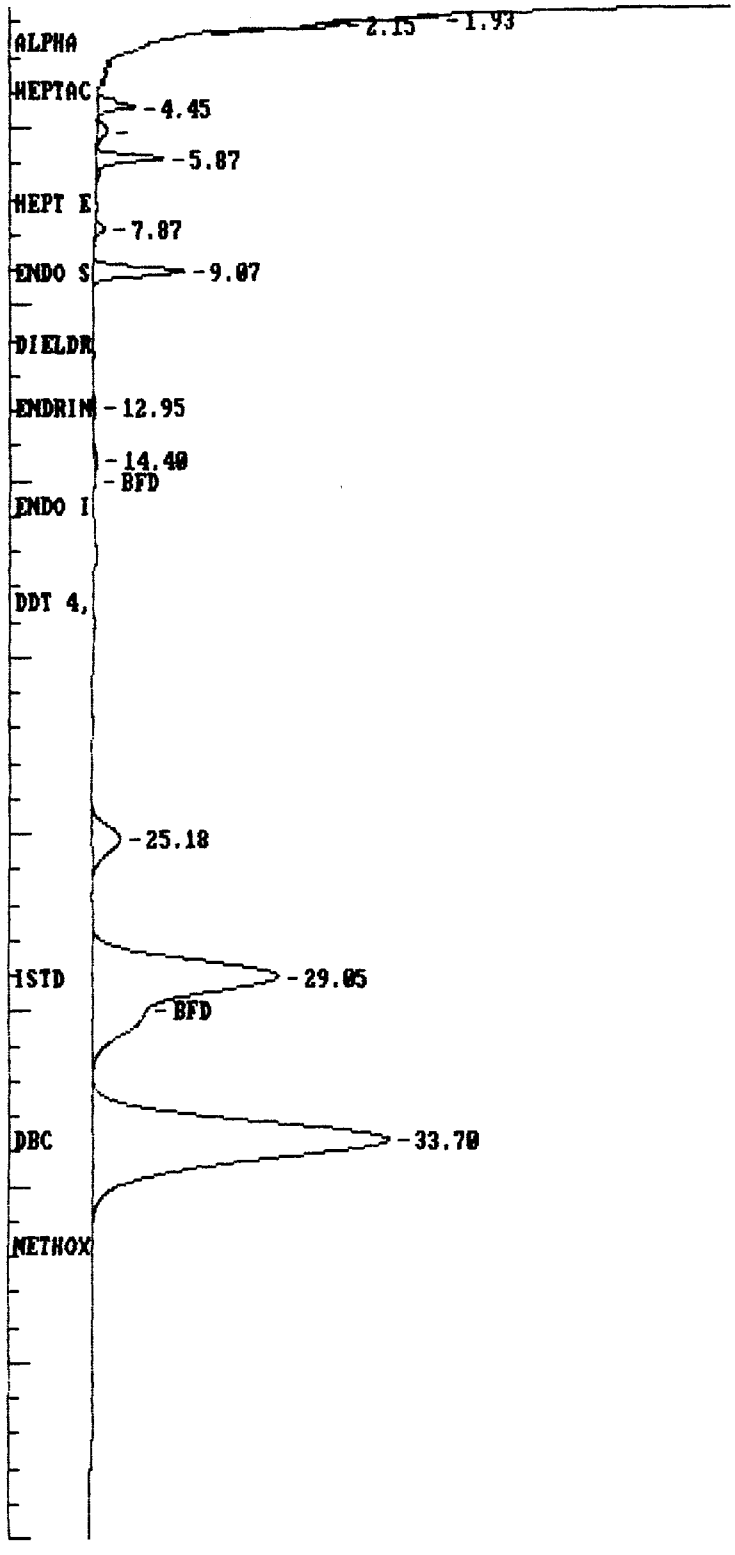
PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	2.55	ALPHA BHC
LINDANE	3.20	LINDANE
HEPTACHLOR	3.92	HEPTACHLOR
ALDRIN	4.73	ALDRIN
HEPT EPOXIDE	7.10	HEPT EPOXIDE
DIELDRIN	11.07	DIELDRIN
ENDO II	15.74	ENDO II
DDT 4,4'	18.46	DDT 4,4'
METHOXYCHLOR	36.72	METHOXYCHLOR

DBC Recovery

$$\frac{.5886\ ug\ (found)}{.5\ ug\ (added)} \times 100 = 118\%$$

Data File = m:ok29.PTS Printed on 12-26-1989 at 11:37:09
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 59583 uv High Value: 312107 uv Scale factor: 1.0



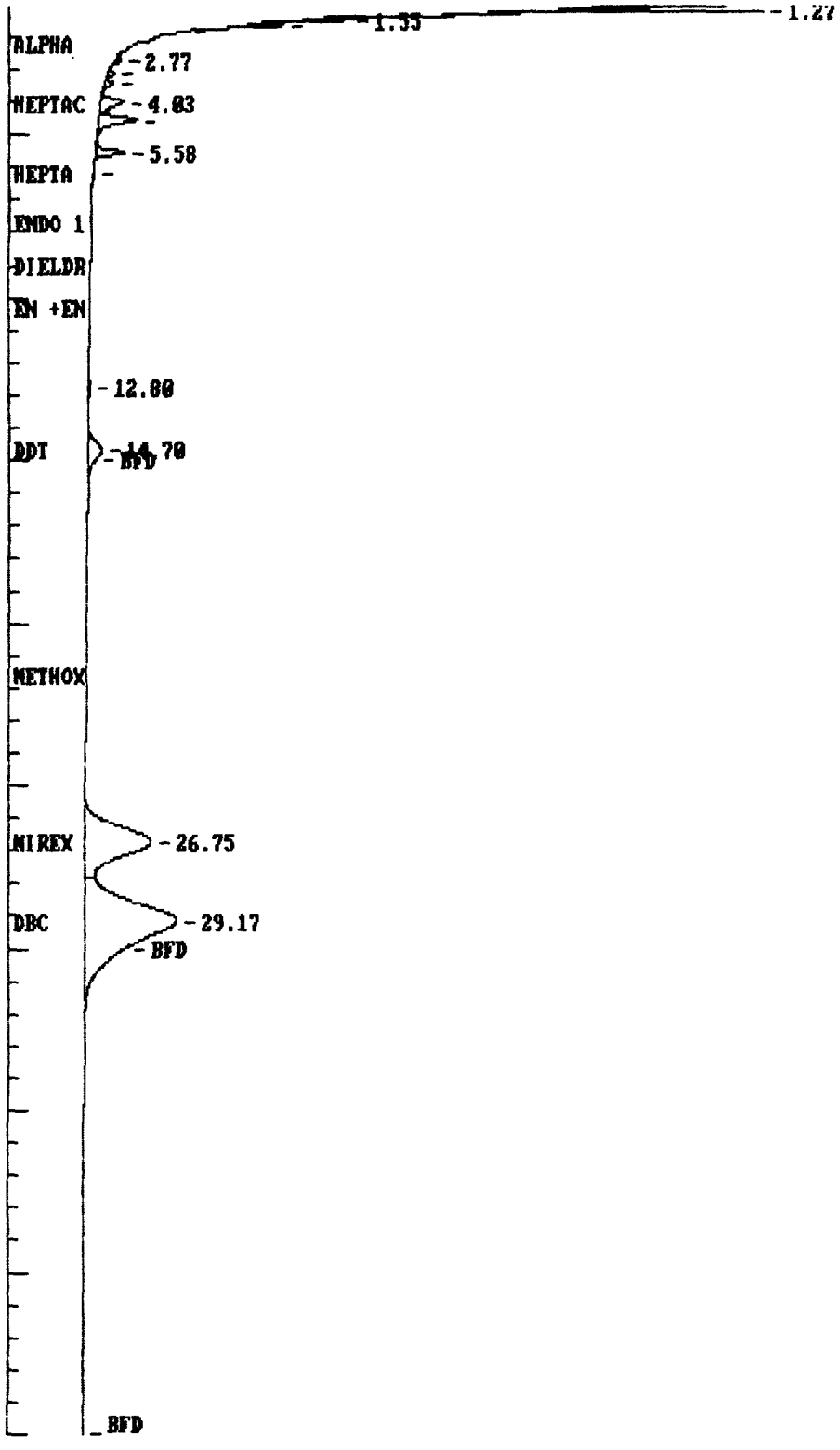
****** INTERNAL STANDARD TABLE ******

```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-27-1989 19:51:50 Version 4.1 **********************
* Sample Name: 90FD05D98                          Data File: K:OK18        *
* Date: 12-21-1989 05:36:31 Method: K:CPESTA 12-24-1989 01:55:38  #  18    *
* Interface: 0   Cycle#:  18   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100             *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0:                        Detector 1: ECD CONF      *
* Misc. Information: SF68230LD KELLY SF6825DUKE EARNEST SF68230LD KELLY   *
*************************************************************************
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
4	2.77	LINDANE	0.0028	0.7745%	23673	2175	10.9	1	4	13	0	1.1705E-07
7	4.03	HEPTACHLOR	0.0111	3.0903%	134900	8048	16.8	2	7	13	0	8.1954E-08
10	6.23	HEPTA EPOX	0.0008	0.2290%	9473	373	25.4	1	10	13	0	8.6487E-08
12	14.70	DDT	0.0255	7.1365%	179028	4678	38.3	1	12	13	0	1.4261E-07
13	26.75	MIREX	1.0000	0.0000%	1468761	23120	63.5	2	13	13	0	6.8085E-07
14	29.17	DBC	0.3176	88.7697%	2965437	32033	92.6	2	14	13	0	1.0709E-07

TOTAL AMOUNT = 0.3578

Data File = K:OK18.PTS Printed on 12-27-1989 at 19:52:15
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 25295 uv High Value: 331752 uv Scale factor: 1.0



```
******************** 12-26-1989 11:38:00 Version 4.1 **********************
* Sample Name: 90FD05D98                          Data File: m:ok29         *
* Date: 12-21-1989 08:22:23 Method: M:QPESTB 12-21-1989 11:34:46  #  25    *
* Interface: 0   Cycle#:  29   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000            *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*            Detector 0: ECD QUANT            Detector 1:                 *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                        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
```

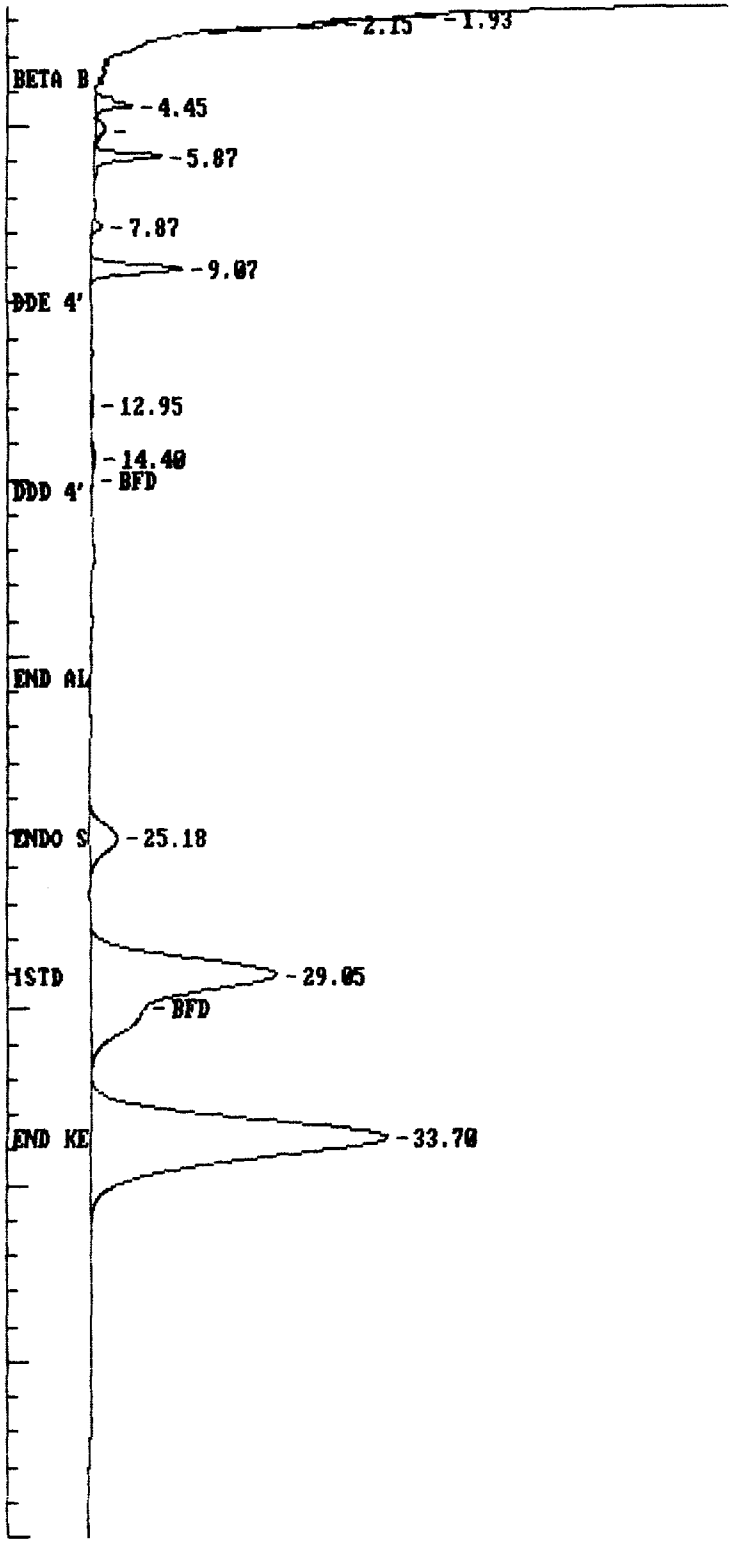
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
10	25.18	~~ENDO SULFATE~~ B.L.S,	0.0404	6.3872%	426861	7700	55.4	1	10	11	0	9.4676E-08
11	29.05	ISTD	1.0000	0.0000%	4060435	50357	80.6	2	11	11	0	2.4628E-07
12	33.70	~~END KETONE~~ DBC	~~0.5923~~	93.6128%	6358297	80251	79.2	2	12	11	0	9.3156E-08

TOTAL AMOUNT = 0.6327

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
BETA BHC	3.60	BETA BHC
DELTA BHC	4.18	DELTA BHC
DDE 4'4'	9.97	DDE 4'4'
DDD 4'4'	15.30	DDD 4'4'
END ALDEHYDE	20.58	END ALDEHYDE

Data File = m:ok29.PTS Printed on 12-26-1989 at 11:38:30
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 59583 uv High Value: 312107 uv Scale factor: 1.0

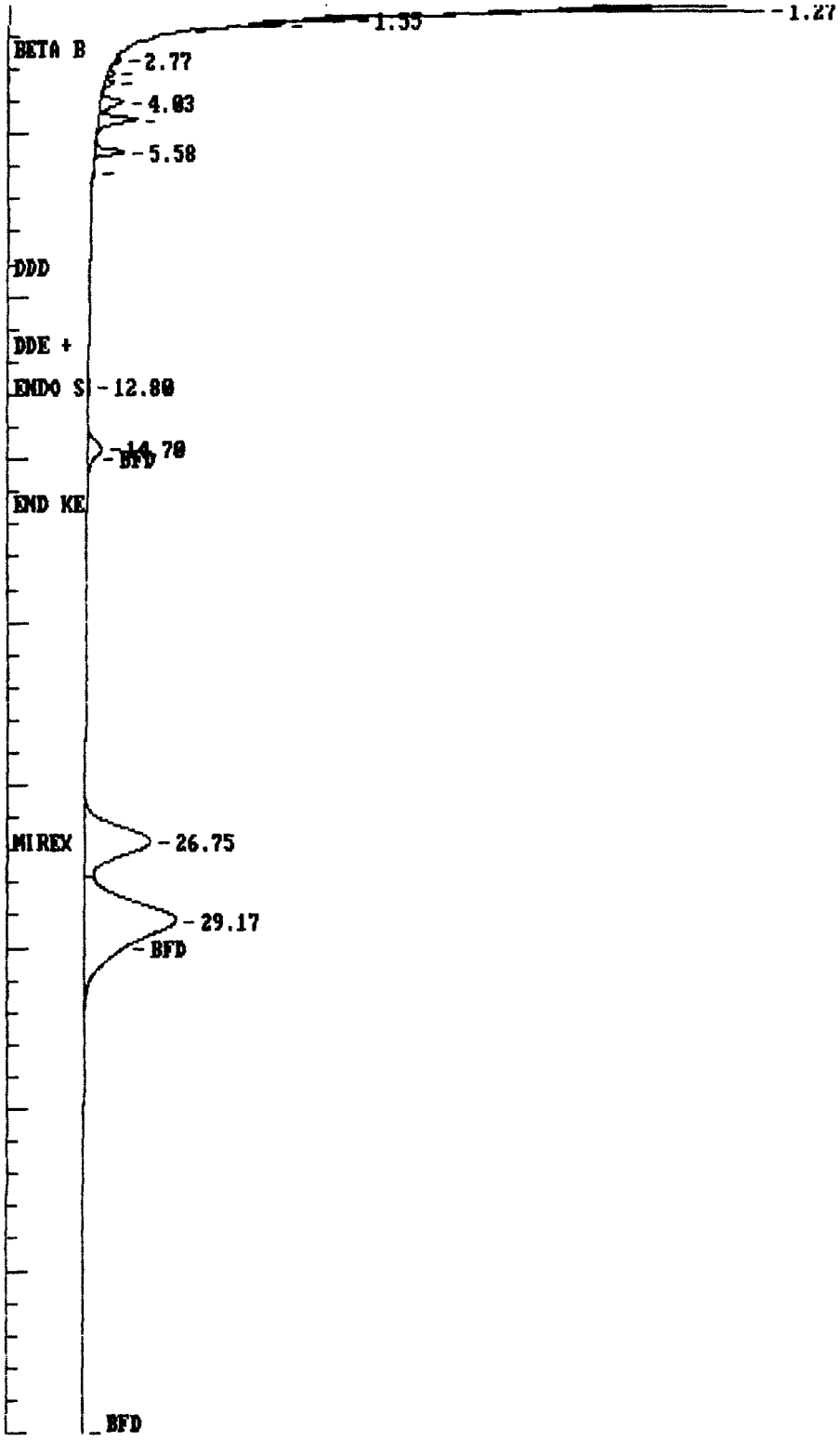


```
*****    INTERNAL STANDARD TABLE    *****
******************** 12-27-1989 19:53:05 Version 4.1 **********************
* Sample Name: 90FD05D98                          Data File: K:OK18        *
* Date: 12-21-1989 05:36:31 Method: K:CPESTB 12-24-1989 02:00:21  #  19   *
* Interface: 0   Cycle#:  18   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*             Solvent Description: ULTRA HIGH PURITY NITROGEN             *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0:                        Detector 1: ECD CONF      *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY   *
*************************************************************************
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
4	2.77	DELTA BHC	0.0031	71.7012%	23673	2175	10.9	1	4	13	0	1.3196E-07
11	12.80	ENDO SO4	0.0012	28.2988%	6976	279	25.0	1	11	13	0	1.7675E-07
13	26.75	MIREX	1.0000	0.0000%	1468761	23120	63.5	2	13	13	0	6.8085E-07

TOTAL AMOUNT = 0.0044

Data File = K:OK18.PTS Printed on 12-27-1989 at 19:53:26
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 25295 uv High Value: 331752 uv Scale factor: 1.0



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

********** 12-26-1989 11:30:00 Version 4.1 **********

* Sample Name: 90FD05S99 Data File: m:ok25 *
* Date: 12-21-1989 05:16:35 Method: M:QPESTA2 12-26-1989 11:23:36 # 143 *
* Interface: 0 Cycle#: 25 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 5000 *

****

* Instrument Type: HP 5890 GC/EC #3 Column Type: PACKED MIXED PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL 200 C *
* Detector 0: ECD QUANT Detector 1: *
* Misc. Information: SF68230LD KELLY SF6825 DUKE EARNESTSCRN: * *

****

Starting Delay: 1.50 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	2.43	~~ALPHA-BHC~~ N.C.	~~0.0029~~	0.4007%	31761	3970	8.0	1	3	16	0	9.1795E-08
5	3.28	~~LINDANE~~ N.C.	~~0.0019~~	0.2619%	27187	3496	7.8	2	5	16	0	7.0094E-08
7	4.02	~~HEPTACHLOR~~ B.L.S.	~~0.0006~~	-0.0796%	14609	1381	10.6	2	7	16	0	-3.9620E-08
9	5.08	~~ALDRIN~~ N.C.	~~0.0063~~	0.8653%	151521	4438	34.1	2	7	16	4.720	4.1551E-08
11	7.32	~~HEPT EPOXIDE~~ B.L.S.	~~-0.0101~~	-1.3880%	52352	1632	32.1	2	11	16	0	-1.9290E-07
13	9.12	~~ENDO SULFAN I~~ N.C.	~~-0.0078~~	-1.0788%	141790	8063	17.6	1	13	16	0	-5.5359E-08
16	29.32	ISTD	1.0000	0.0000%	4030328	48633	82.9	2	16	16	0	2.4812E-07
17	34.08	DBC	0.7350	101.0184%	7725753	89550	86.3	2	17	16	0	9.5135E-08

TOTAL AMOUNT = 0.7276

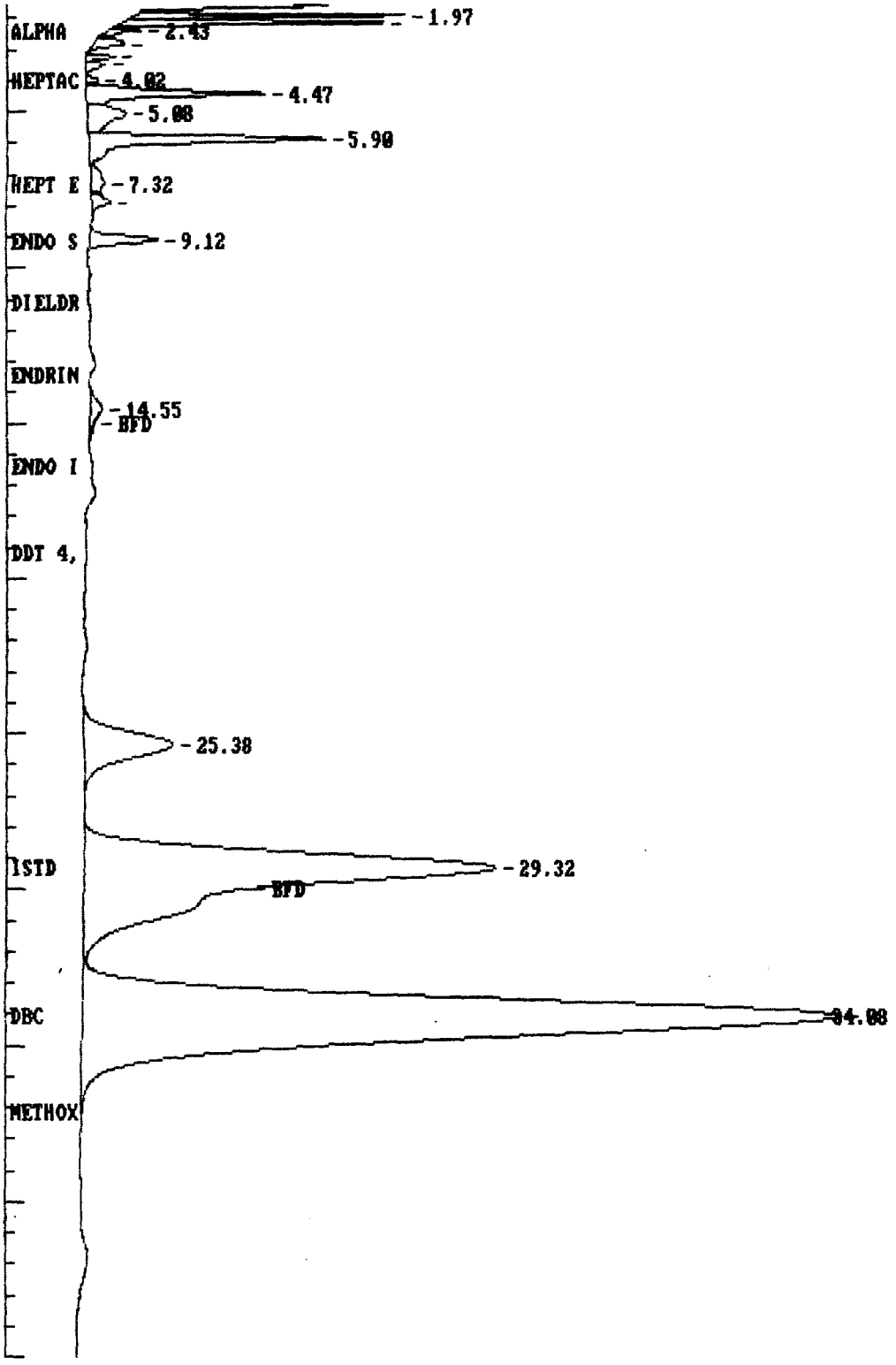
PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DIELDRIN	11.13	DIELDRIN
ENDRIN	13.46	ENDRIN
ENDO II	16.36	ENDO II
DDT 4,4'	19.19	DDT 4,4'
METHOXYCHLOR	37.14	METHOXYCHLOR

DBC Recovery

$$\frac{.735\ \text{ug (found)}}{.5\ \text{ug (added)}} \times 100 = 147\%$$

Data File = m:ok25.PTS Printed on 12-26-1989 at 11:30:56
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 61079 uv High Value: 158353 uv Scale factor: 1.0

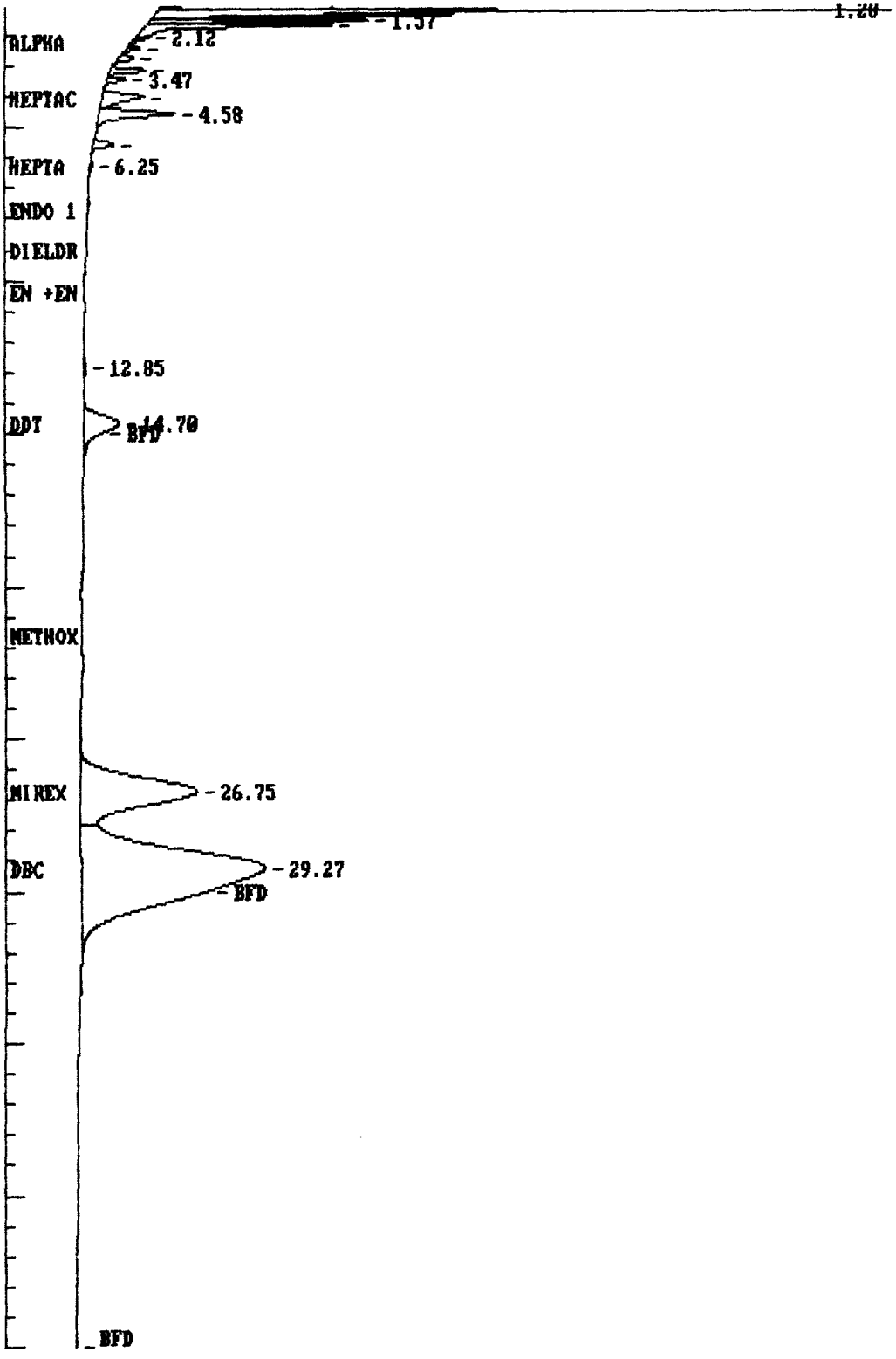


```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-27-1989 19:49:08 Version 4.1 **********************
* Sample Name: 90FD05S99                          Data File: K:OK17        *
* Date: 12-21-1989 04:50:01 Method: K:CPESTA 12-24-1989 01:55:38  #  18   *
* Interface: 0   Cycle#:  17   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0:                        Detector 1: ECD CONF      *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY   *
*************************************************************************
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
9	4.03	HEPTACHLOR	0.0116	2.4256%	136006	7952	17.1	2	9	15	0	8.4936E-08
12	6.25	HEPTA EPOX	0.0010	0.2119%	11261	450	25.0	1	12	15	0	8.9634E-08
14	14.70	DDT	0.0375	7.8749%	253752	6585	38.5	1	14	15	0	1.4780E-07
15	26.75	MIREX	1.0000	0.0000%	1417189	22334	63.5	2	15	15	0	7.0562E-07
16	29.27	DBC	0.4262	89.4876%	3839862	35357	108.6	2	16	15	0	1.1099E-07

TOTAL AMOUNT = 0.4762

Data File = K:OK17.PTS Printed on 12-27-1989 at 19:49:32
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 25433 uv High Value: 181498 uv Scale factor: 1.0



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

********** 12-21-1989 13:46:35 Version 4.1 **********

* Sample Name: 90FD05S99 Data File: M:OK25 *
* Date: 12-21-1989 05:16:35 Method: M:QPESTB 12-21-1989 11:34:46 # 25 *
* Interface: 0 Cycle#: 25 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 5000 *

****

* Instrument Type: HP 5890 GC/EC #3 Column Type: PACKED MIXED PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL 200 C *
* Detector 0: ECD QUANT Detector 1: *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN: * *

****

Starting Delay: 1.50 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

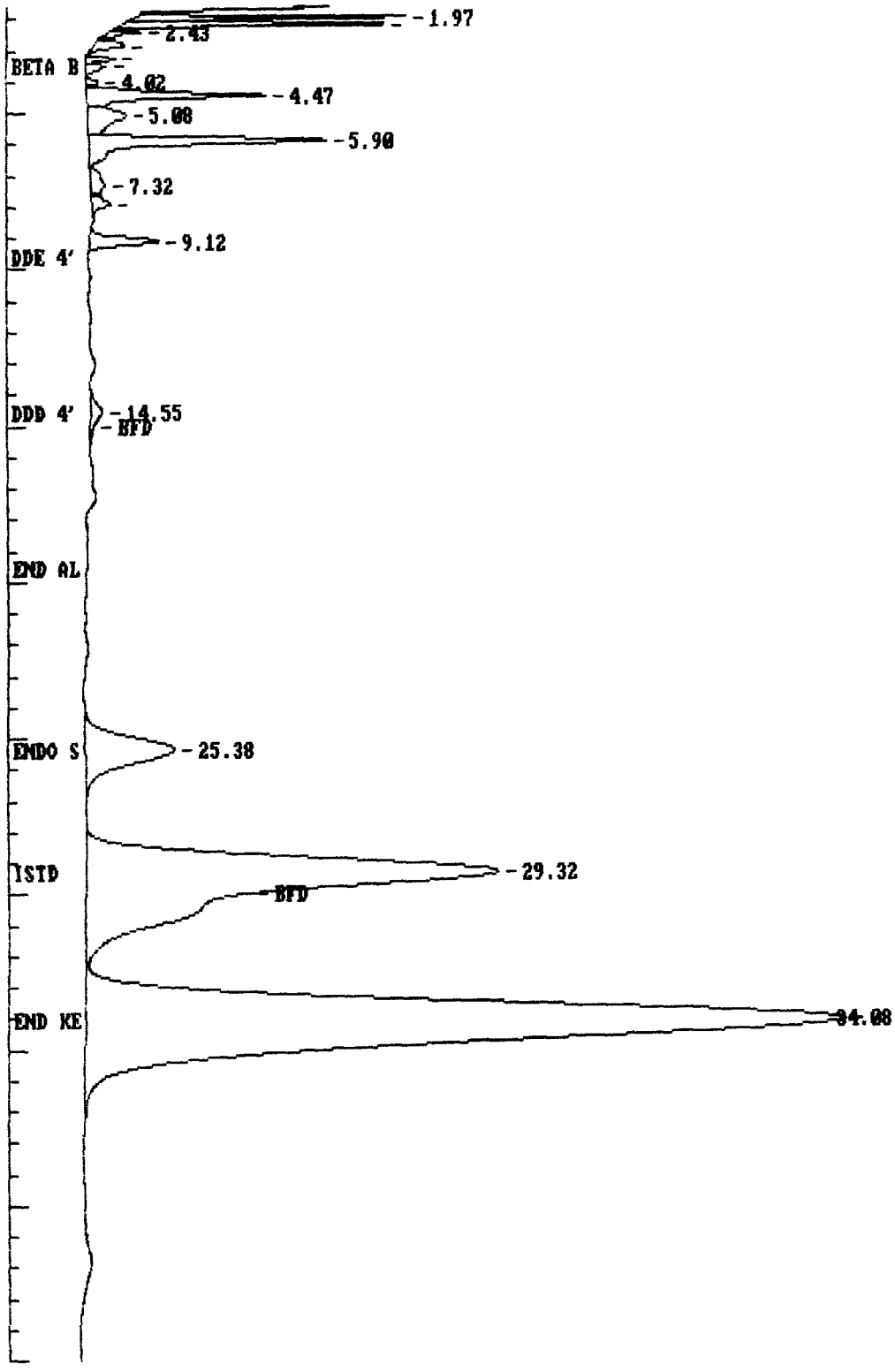
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
6	3.52	~~BETA BHC~~ B.L.S.	~~0.0019~~	0.2374%	32474	2335	13.9	2	6	16	0	5.9287E-08
7	4.02	~~DELTA BHC~~ B.L.S	~~0.0121~~	1.4966%	14609	1381	10.6	2	7	16	0	8.3078E-07
14	14.55	~~DDD 4'4'~~ N.C.	~~0.0218~~	2.6842%	61970	1440	43.0	1	14	16	0	3.5127E-07
15	25.38	~~ENDO SULFATE~~ B.L.S.	~~0.0522~~	6.4360%	602402	10437	57.7	1	15	16	0	8.6642E-08
16	29.32	ISTD	1.0000	0.0000%	4030328	48633	82.9	2	16	16	0	2.4812E-07
17	34.08	~~END KETONE~~ DBC	~~0.7229~~	89.1458%	7725753	89550	86.3	2	17	16	0	9.3575E-08

TOTAL AMOUNT = 0.8110

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DDE 4'4'	9.57	DDE 4'4'
END ALDEHYDE	19.57	END ALDEHYDE

Data File = M:OK25.PTS Printed on 12-21-1989 at 13:47:01
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 61079 uv High Value: 158353 uv Scale factor: 1.0



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

********** 12-27-1989 19:50:27 Version 4.1 **********

* Sample Name: 90FD05S99 Data File: K:OK17 *

* Date: 12-21-1989 04:50:01 Method: K:CPESTB 12-24-1989 02:00:21 # 19 *

* Interface: 0 Cycle#: 17 Operator KG Channel#: 0 Vial#: N.A. *

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

****

* Instrument Type: HP 5890A #1 Column Type: CONFIRMATION *

* Solvent Description: ULTRA HIGH PURITY NITROGEN *

* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

* Detector 0: Detector 1: ECD CONF *

* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY *

****

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

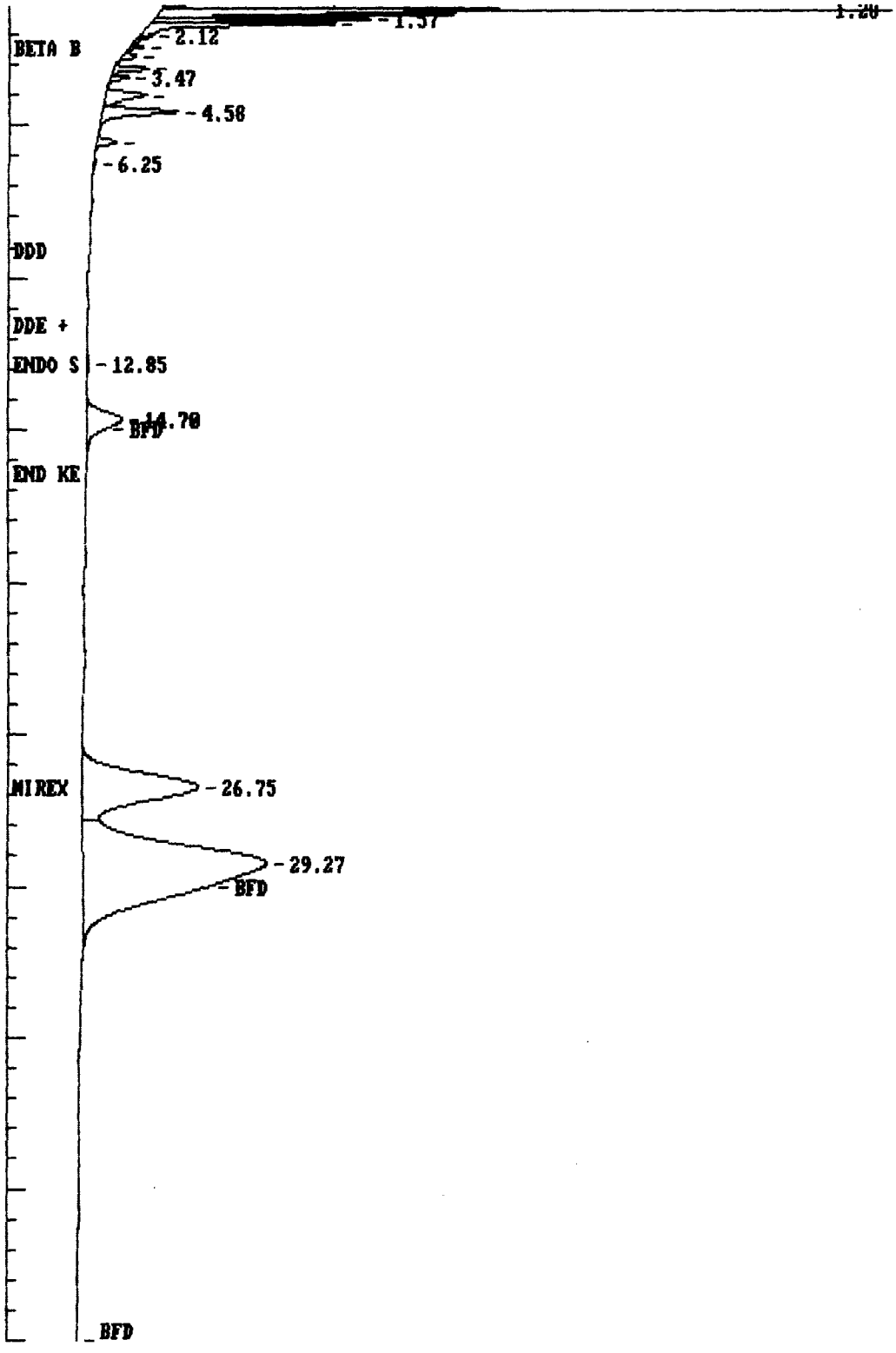
Internal Standard Amount: 1

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	2.47	BETA BHC	0.0027	32.6946%	20116	2819	7.1	2	5	15	0	1.3273E-07
6	2.78	DELTA BHC	0.0044	53.8771%	32170	2919	11.0	2	6	15	0	1.3677E-07
13	12.85	ENDU SO4	0.0011	13.4281%	5987	248	24.1	1	13	15	0	1.8318E-07
15	26.75	MIREX	1.0000	0.0000%	1417189	22334	63.5	2	15	15	0	7.0562E-07

TOTAL AMOUNT = 0.0082

Data File = K:OK17.PTS Printed on 12-27-1989 at 19:50:48
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 25433 uv High Value: 181498 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

```
******************** 12-26-1989 11:39:33 Version 4.1 ********************
* Sample Name: 90FD06S01                          Data File: m:ok30       *
* Date: 12-21-1989 10:12:42 Method: M:QPESTA2 12-26-1989 11:23:36  #  143 *
* Interface: 0   Cycle#:  30   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000           *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*            Solvent Description: ULTRA HIGH PURITY NITROGEN              *
* Conditions: ISOTHERMAL 200 C                                           *
*            Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                    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	2.52	~~ALPHA BHC~~ B.L.S.	0.0027	0.4574%	27196	3731	7.3	2	3	16	0	1.0024E-07
5	3.25	~~LINDANE~~ B.L.S.	0.0009	0.1457%	9090	1366	6.7	1	5	16	0	9.5565E-08
7	5.02	~~ALDRIN~~ N.C.	0.0003	0.0437%	56483	2993	18.9	2	5	16	4.355	4.6158E-09
9	7.02	~~HEPT EPOXIDE~~ B.L.S.	-0.0100	-1.6746%	52445	1571	33.4	2	9	16	0	-1.9033E-07
11	9.02	~~ENDO SULFAN I~~ N.C.	0.0325	5.4538%	675941	37327	18.1	2	11	16	0	4.8093E-08
13	12.88	~~ENDRIN~~ N.C.	-0.0120	-2.0101%	47049	1152	40.9	2	13	16	0	-2.5466E-07
16	28.87	ISTD	1.0000	0.0000%	3910659	48610	80.5	2	16	16	0	2.5571E-07
17	33.47	DBC	0.5817	97.5841%	6058930	78519	77.2	2	17	16	0	9.6000E-08

TOTAL AMOUNT = 0.5961

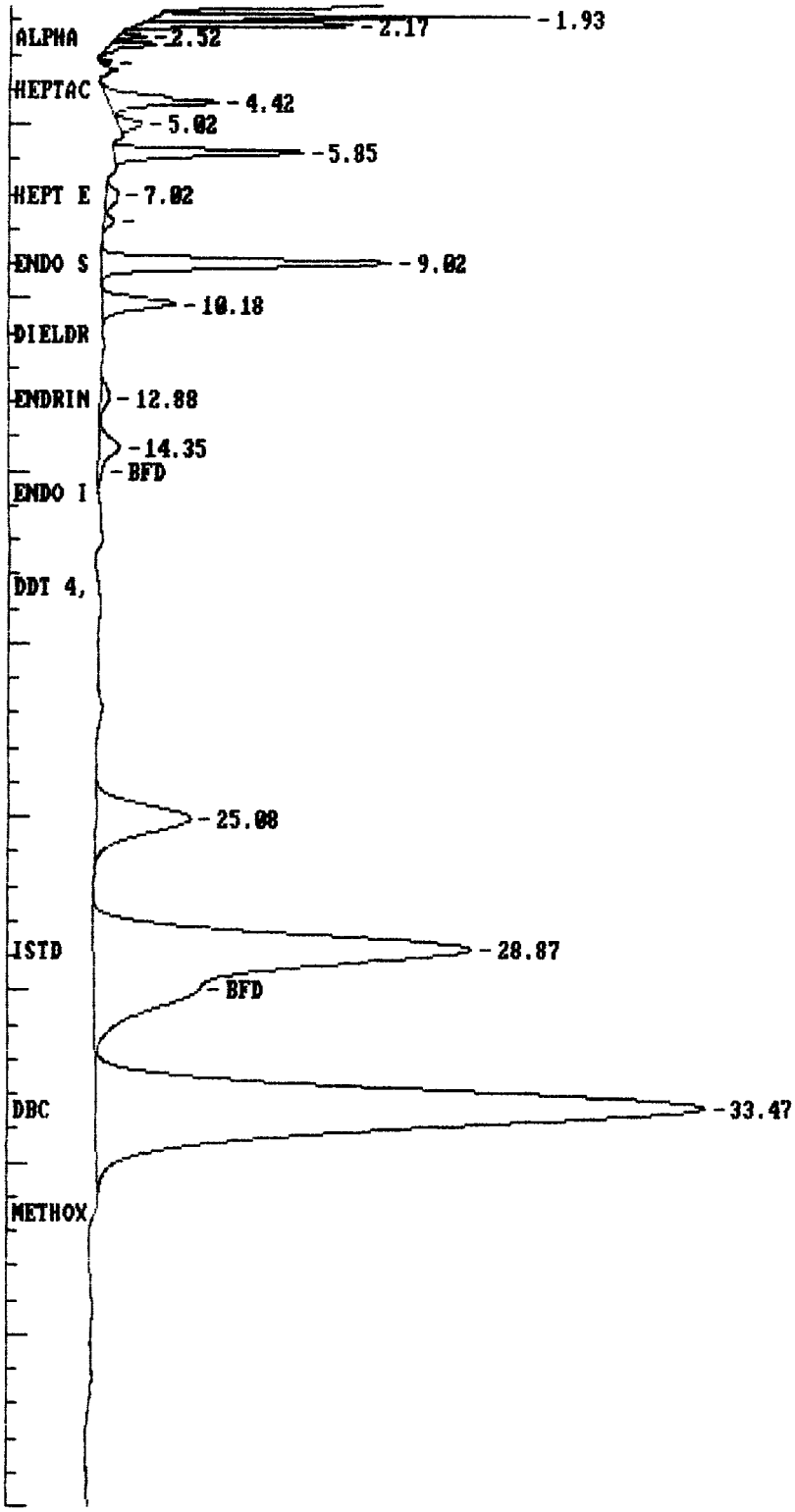
PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
HEPTACHLOR	3.98	HEPTACHLOR
DIELDRIN	11.01	DIELDRIN
ENDO II	15.66	ENDO II
DDT 4,4'	18.36	DDT 4,4'
METHOXYCHLOR	36.47	METHOXYCHLOR

DBC Recovery

$$\frac{.5817\,\mu g\,(\text{found})}{.5\,\mu g\,(\text{added})} \times 100 = 116\%$$

Data File = m:ok30.PTS Printed on 12-26-1989 at 11:40:03
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 59497 uv High Value: 177634 uv Scale factor: 1.0



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

********** 12-27-1989 19:54:24 Version 4.1 **********

* Sample Name: 90FD06S01 Data File: K:OK19 *
* Date: 12-21-1989 06:22:56 Method: K:CPESTA 12-24-1989 01:55:38 # 18 *
* Interface: 0 Cycle#: 19 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HP 5890A #1 Column Type: CONFIRMATION *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: Detector 1: ECD CONF *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY *

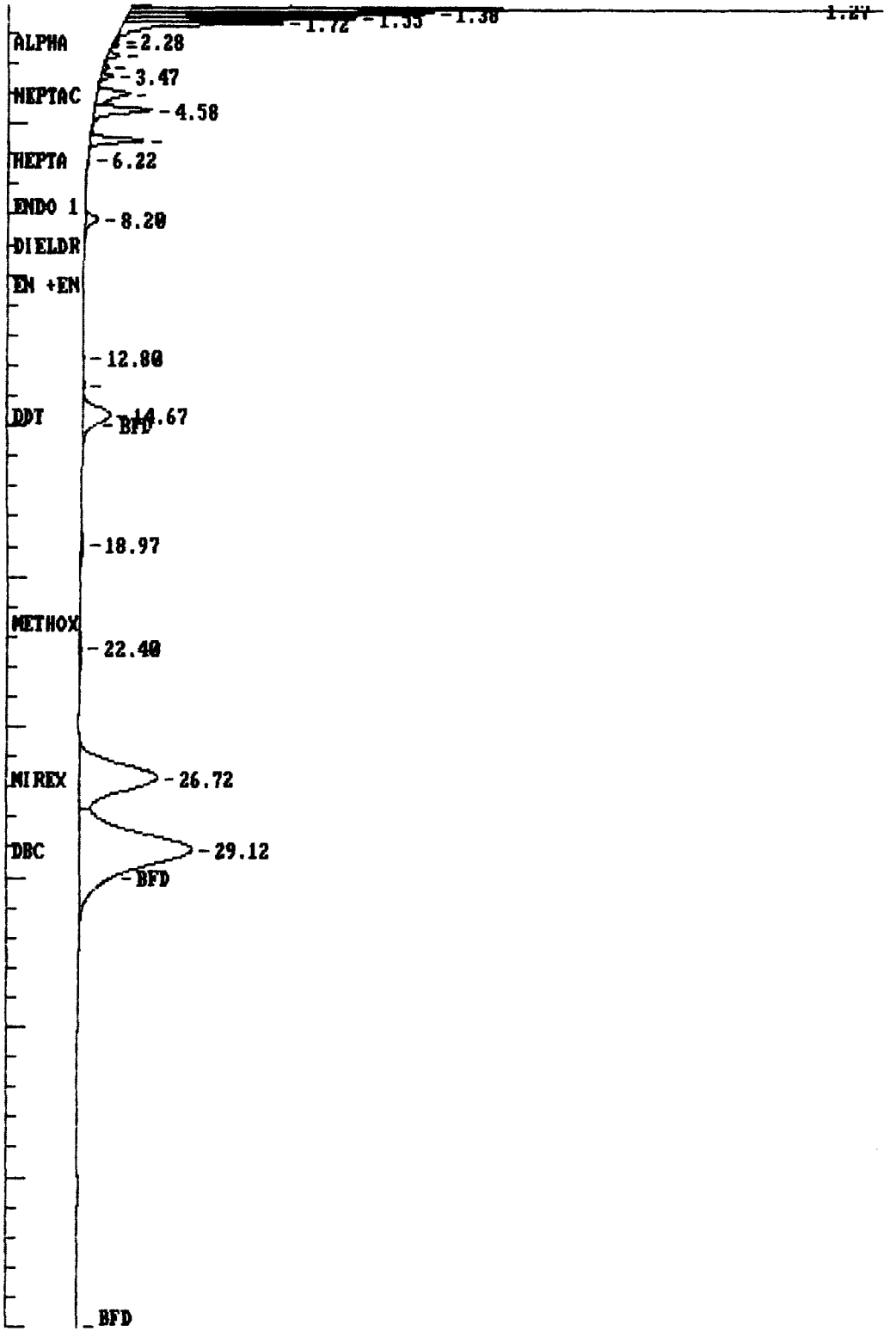
****

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	2.28	ALPHA BHC	0.0012	0.3085%	10096	1404	7.2	2	5	20	0	1.1457E-07
7	2.78	LINDANE	0.0050	1.3317%	41047	3904	10.5	1	5	20	4.153	1.2166E-07
10	4.03	HEPTACHLOR	0.0147	3.9230%	172701	9496	18.2	2	10	20	0	8.5179E-08
13	6.22	HEPTA EPOX	0.0009	0.2439%	10174	481	21.2	1	13	20	0	8.9890E-08
17	14.67	DDT	0.0445	11.8609%	300067	7726	38.8	2	17	20	0	1.4822E-07
19	22.40	METHOX	0.0046	1.2191%	19662	434	45.3	1	17	20	3.887	2.3249E-07
20	26.72	MIREX	1.0000	0.0000%	1413150	22297	63.4	2	20	20	0	7.0764E-07
21	29.12	DBC	0.3042	81.1129%	2732609	32326	84.5	2	21	20	0	1.1131E-07

TOTAL AMOUNT = 0.3750

Data File = K:OK19.PTS Printed on 12-27-1989 at 19:54:50
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 25330 uv High Value: 256021 uv Scale factor: 1.0



```
*****    INTERNAL STANDARD TABLE    *****
******************** 12-26-1989 11:41:04 Version 4.1 **********************
* Sample Name: 90FD06S01                          Data File: m:ok30        *
* Date: 12-21-1989 10:12:42 Method: M:QPESTB 12-21-1989 11:34:46  #  25   *
* Interface: 0   Cycle#:  30   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000           *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*             Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                          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
```

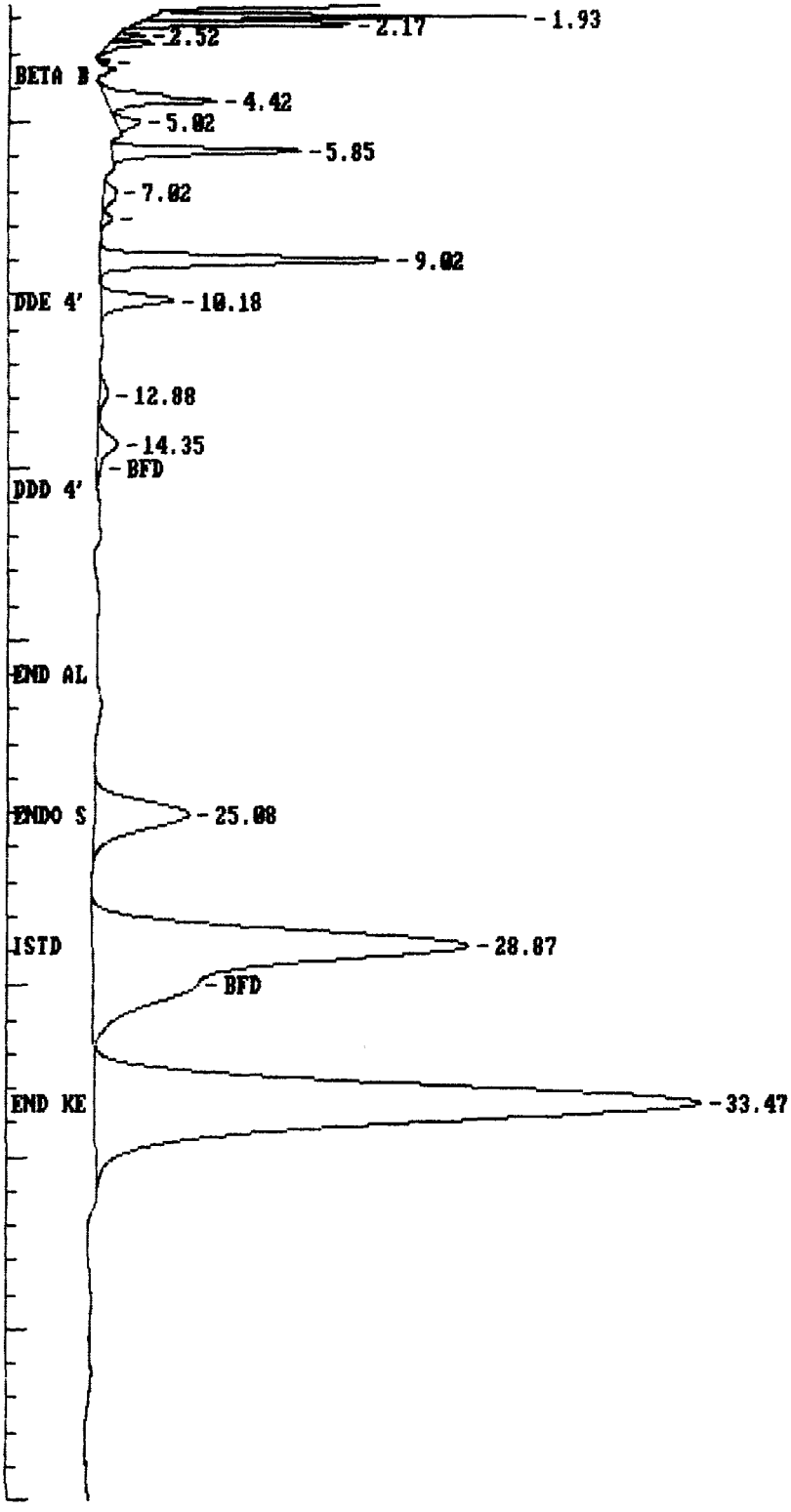
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
12	10.18	~~DDE 4'4'~~ N.C.	~~0.0212~~	3.1838%	218666	9516	23.0	2	12	16	0	9.7027E-08
15	25.08	~~ENDO SULFATE~~ B.L.S.	~~0.0590~~	8.8578%	685114	12173	56.3	1	15	16	0	8.6157E-08
16	28.87	ISTD	1.0000	0.0000%	3910659	48610	80.5	2	16	16	0	2.5571E-07
17	33.47	~~END KETONE~~ DBC	~~0.5861~~	87.9584%	6058930	78519	77.2	2	17	16	0	9.6741E-08

TOTAL AMOUNT = 0.6664

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
BETA BHC	3.60	BETA BHC
DELTA BHC	4.18	DELTA BHC
DDD 4'4'	15.63	DDD 4'4'
END ALDEHYDE	21.03	END ALDEHYDE

Data File = m:ok30.PTS Printed on 12-26-1989 at 11:41:34
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 59497 uv High Value: 177634 uv Scale factor: 1.0

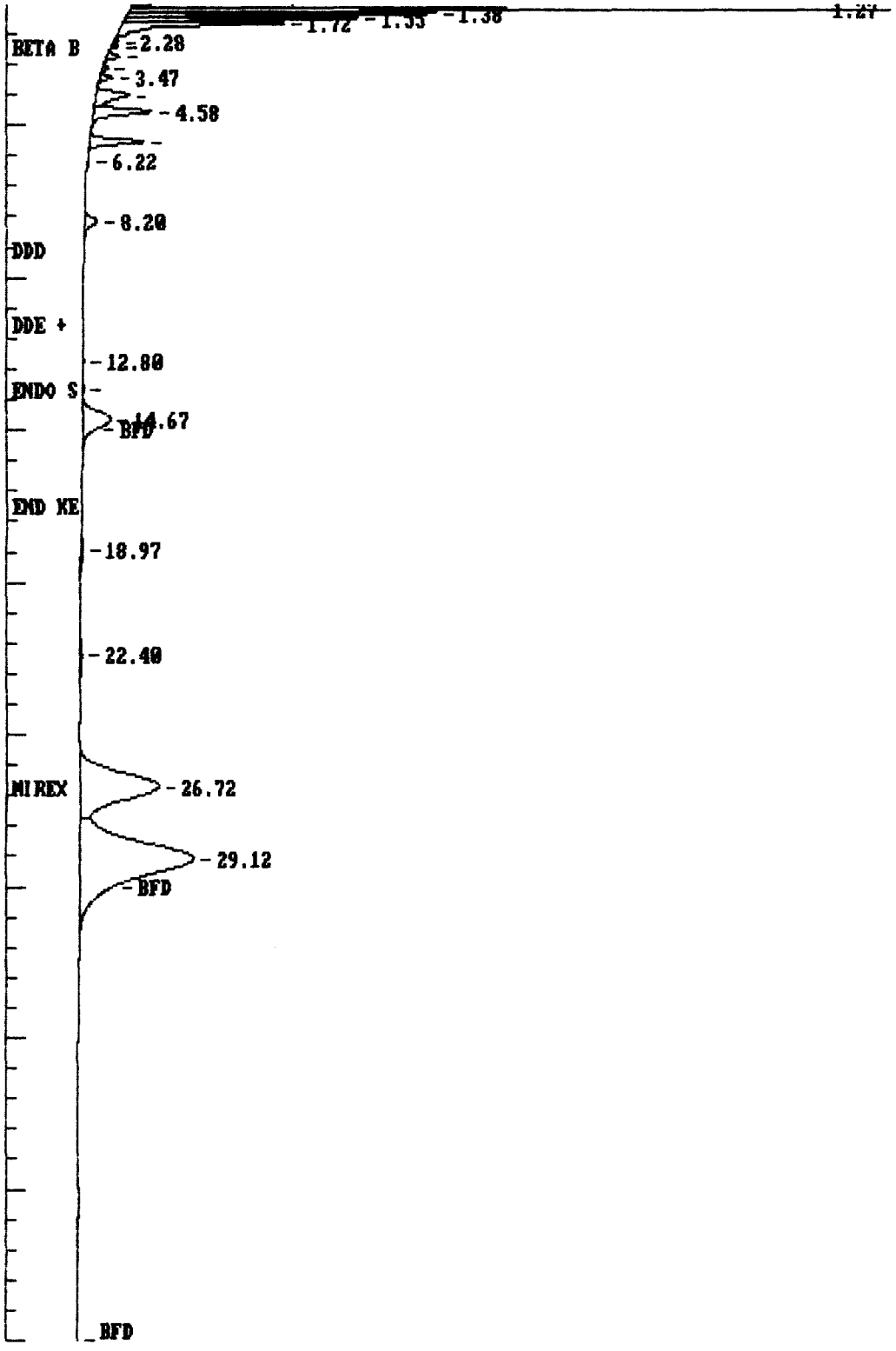


```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-27-1989 19:55:41 Version 4.1 **********************
* Sample Name: 90FD06S01                          Data File: K:OK19        *
* Date: 12-21-1989 06:22:56 Method: K:CPESTB 12-24-1989 02:00:21  #  19   *
* Interface: 0   Cycle#:  19   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*             Detector 0:                        Detector 1: ECD CONF     *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY   *
*************************************************************************
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	2.45	BETA BHC	0.0024	25.5090%	17865	2414	7.4	2	6	20	0	1.3311E-07
7	2.78	DELTA BHC	0.0056	60.3906%	41047	3904	10.5	1	7	20	0	1.3716E-07
16	13.68	ENDO S04	0.0013	14.1004%	7156	260	27.6	2	16	20	0	1.8370E-07
20	26.72	MIREX	1.0000	0.0000%	1413150	22297	63.4	2	20	20	0	7.0764E-07

TOTAL AMOUNT = 0.0093

Data File = K:OK19.PTS Printed on 12-27-1989 at 19:56:03
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 25330 uv High Value: 256021 uv Scale factor: 1.0



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

********** 12-26-1989 11:42:36 Version 4.1 **********

* Sample Name: 90FD06S02 Data File: m:ok31 *
* Date: 12-21-1989 10:13:16 Method: M:QPESTA2 12-26-1989 11:23:36 # 143 *
* Interface: 0 Cycle#: 31 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 5000 *

****

* Instrument Type: HP 5890 GC/EC #3 Column Type: PACKED MIXED PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL 200 C *
* Detector 0: ECD QUANT Detector 1: *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN: * *

****

Starting Delay: 1.50 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	3.23	~~LINDANE~~ N.C.	~~0.0070~~	0.9341%	114660	15343	7.5	1	4	14	0	6.1106E-08
6	4.93	~~ALDRIN~~ B.L.S.	~~0.0039~~	0.5243%	114809	3801	30.2	2	6	14	0	3.4255E-08
8	6.80	~~HEPT EPOXIDE~~ B.L.S.	-0.0129	-1.7162%	12112	967	12.5	1	8	14	0	-1.0628E-06
10	8.93	~~ENDO SULFAN I~~ B.L.S.	-0.0157	-2.0967%	33440	2021	16.6	1	10	14	0	-4.7029E-07
11	11.30	~~DIELDRIN~~ N.C.	~~0.0112~~	-1.4970%	13472	536	25.2	1	11	14	0	-8.3346E-07
12	14.37	~~ENDRIN~~ N.C.	~~0.0066~~	-0.8854%	82630	2088	39.6	1	11	14	5.090	-8.0371E-08
14	28.85	ISTD	1.0000	0.0000%	4024130	49959	80.5	2	14	14	0	2.4850E-07
15	33.53	DBC	0.7856	104.7369%	8201952	94239	87.0	2	15	14	0	9.5780E-08

TOTAL AMOUNT = 0.7501

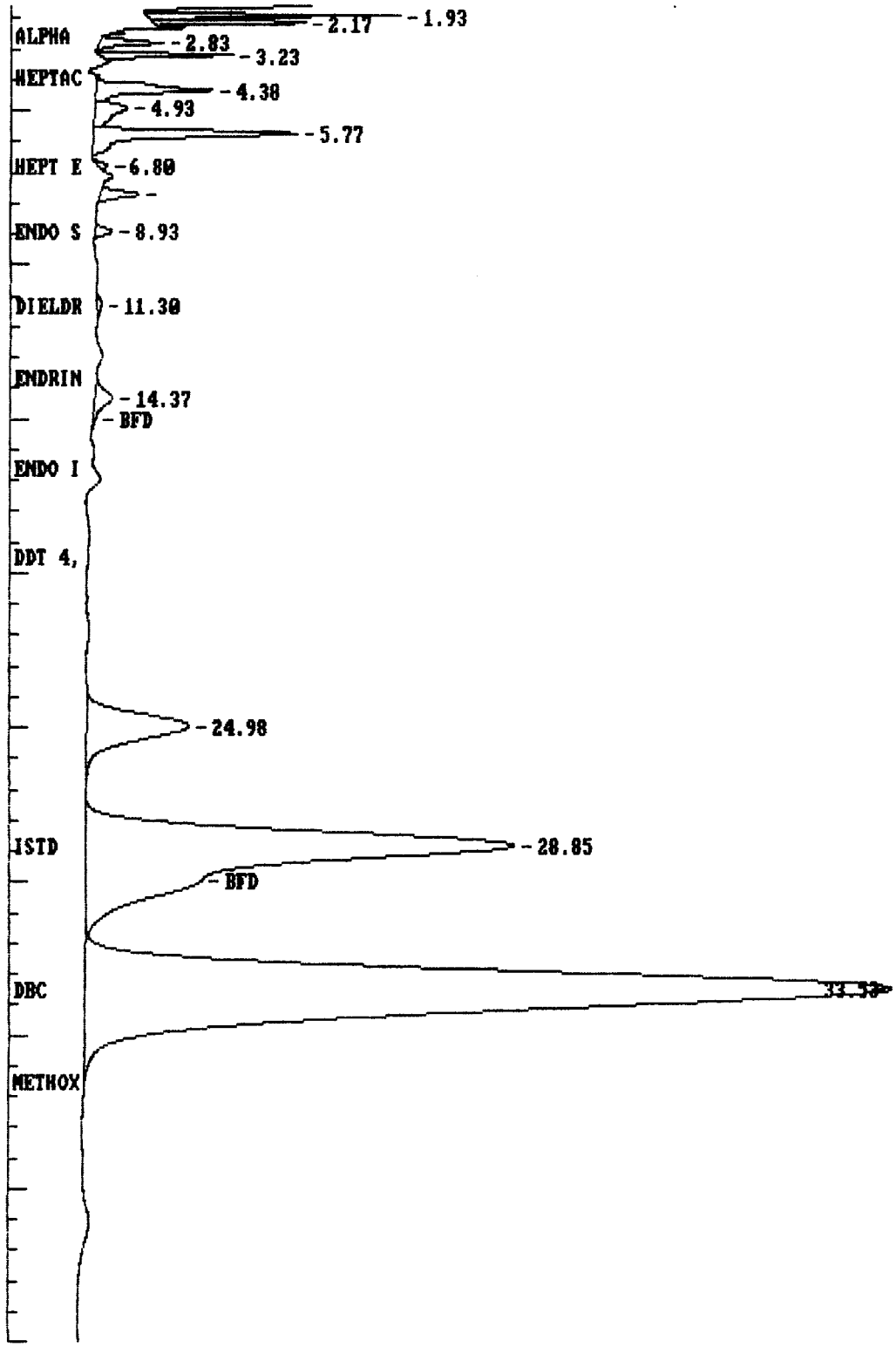
PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	2.55	ALPHA BHC
HEPTACHLOR	3.96	HEPTACHLOR
ENDO II	16.61	ENDO II
DDT 4,4'	19.49	DDT 4,4'
METHOXYCHLOR	36.54	METHOXYCHLOR

DBC Recovery

$$\frac{.7856\ \text{ug (found)}}{.5\ \text{ug (added)}} \times 100 = 157\%$$

Data File = m:ok31.PTS Printed on 12-26-1989 at 11:43:08
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 60527 uv High Value: 155514 uv Scale factor: 1.0

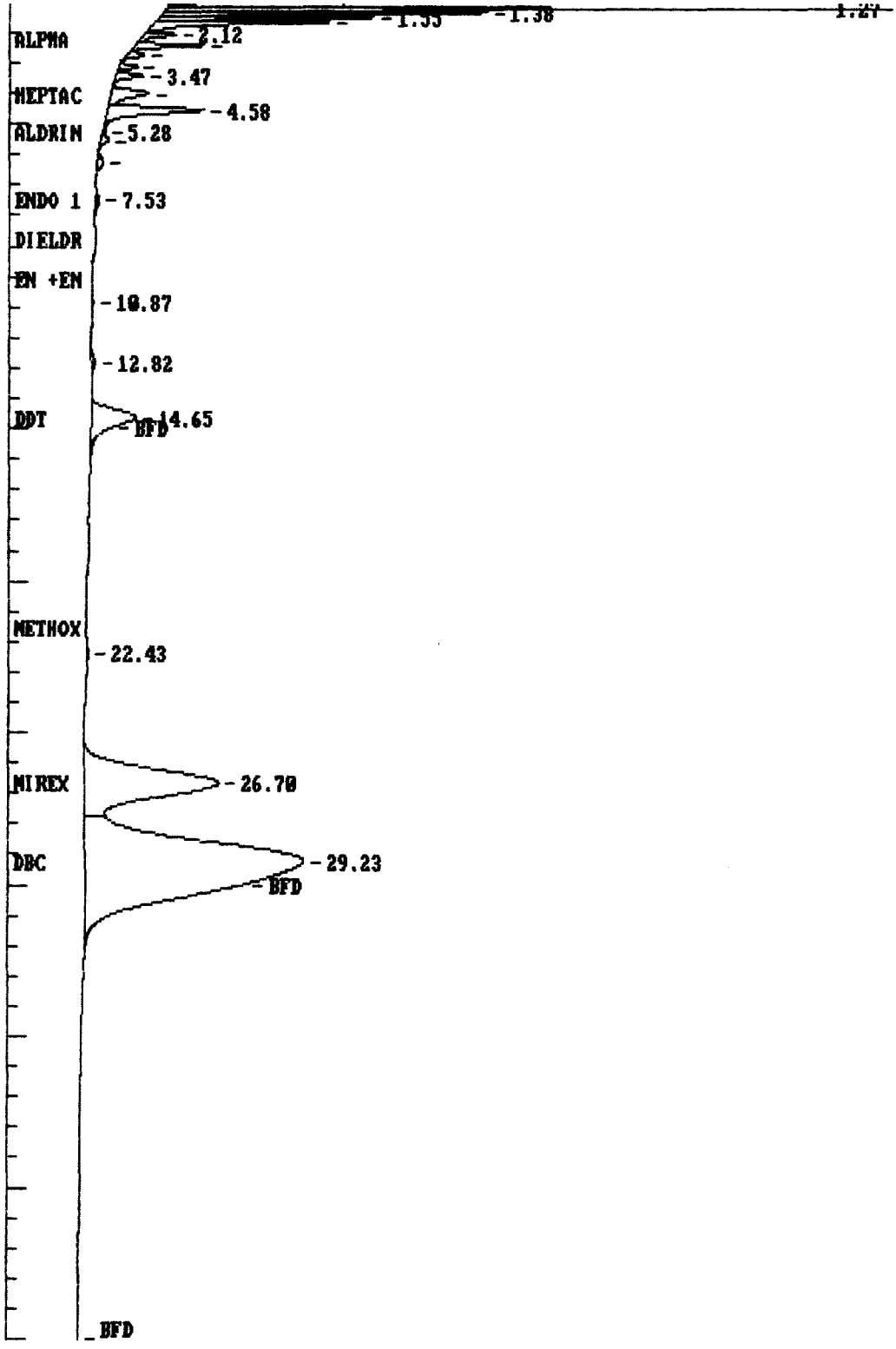


```
******    INTERNAL STANDARD TABLE    ******
******************** 12-27-1989 19:57:04 Version 4.1 **********************
* Sample Name: 90FD06S02                          Data File: K:OK20        *
* Date: 12-21-1989 07:09:28 Method: K:CPESTA 12-24-1989 01:55:38  #  18   *
* Interface: 0   Cycle#:  20   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
***********************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0:                        Detector 1: ECD CONF      *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY   *
***********************************************************************
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
10	4.03	HEPTACHLOR	0.0095	1.8314%	111731	6479	17.2	2	10	20	0	8.4910E-08
12	5.28	ALDRIN	0.0006	0.1202%	5914	479	12.4	4	12	20	0	1.0529E-07
14	6.28	HEPTA EPOX	0.0019	0.3689%	21329	962	22.2	1	14	20	0	8.9606E-08
15	7.53	ENDO 1	0.0014	0.2720%	14858	554	26.8	1	15	20	0	9.4838E-08
18	14.65	DDT	0.0423	8.1636%	286211	7353	38.9	1	18	20	0	1.4775E-07
19	22.43	METHOX	0.0013	0.2494%	5574	179	31.1	1	18	20	4.160	2.3176E-07
20	26.70	MIREX	1.0000	0.0000%	1417629	22452	63.1	2	20	20	0	7.0540E-07
21	29.23	DBC	0.4610	88.9945%	4154861	36954	112.4	2	21	20	0	1.1095E-07

TOTAL AMOUNT = 0.5180

Data File = K:OK20.PTS Printed on 12-27-1989 at 19:57:30
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 25822 uv High Value: 162927 uv Scale factor: 1.0



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

********** 12-26-1989 11:44:13 Version 4.1 **********

* Sample Name: 90FD06S02 Data File: m:ok31 *
* Date: 12-21-1989 10:13:16 Method: M:QPESTB 12-21-1989 11:34:46 # 25 *
* Interface: 0 Cycle#: 31 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 5000 *

****

* Instrument Type: HP 5890 GC/EC #3 Column Type: PACKED MIXED PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL 200 C *
* Detector 0: ECD QUANT Detector 1: *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN: * *

****

Starting Delay: 1.50 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

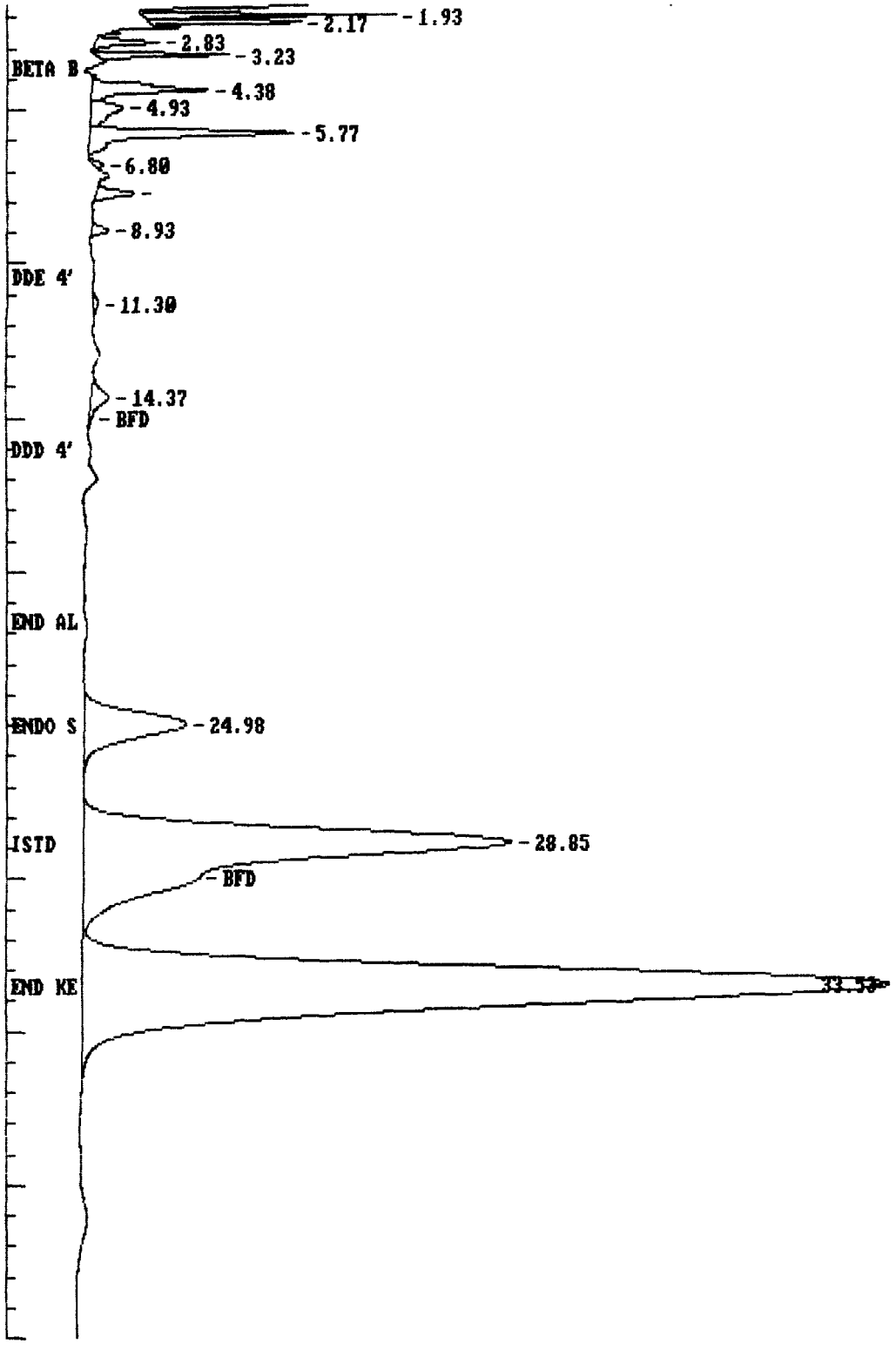
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
5	4.38	DELTA BHC	0.0221	2.6129%	225707	13610	16.6	2	5	14	0	9.8085E-08
13	24.98	~~ENDO SULFATE~~ B.L.S.	~~0.0571~~	6.7358%	675371	11881	56.8	1	13	14	0	8.4504E-08
14	28.85	ISTD	1.0000	0.0000%	4024130	49959	80.5	2	14	14	0	2.4850E-07
15	33.53	~~END KETONE~~ DBC	~~0.7681~~	90.6513%	8201952	94239	87.0	2	15	14	0	9.3646E-08

TOTAL AMOUNT = 0.8473

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
BETA BHC	3.60	BETA BHC
DDE 4'4'	10.44	DDE 4'4'
DDD 4'4'	16.03	DDD 4'4'
END ALDEHYDE	21.57	END ALDEHYDE

Data File = m:ok31.PTS Printed on 12-26-1989 at 11:44:39
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 60527 uv High Value: 155514 uv Scale factor: 1.0

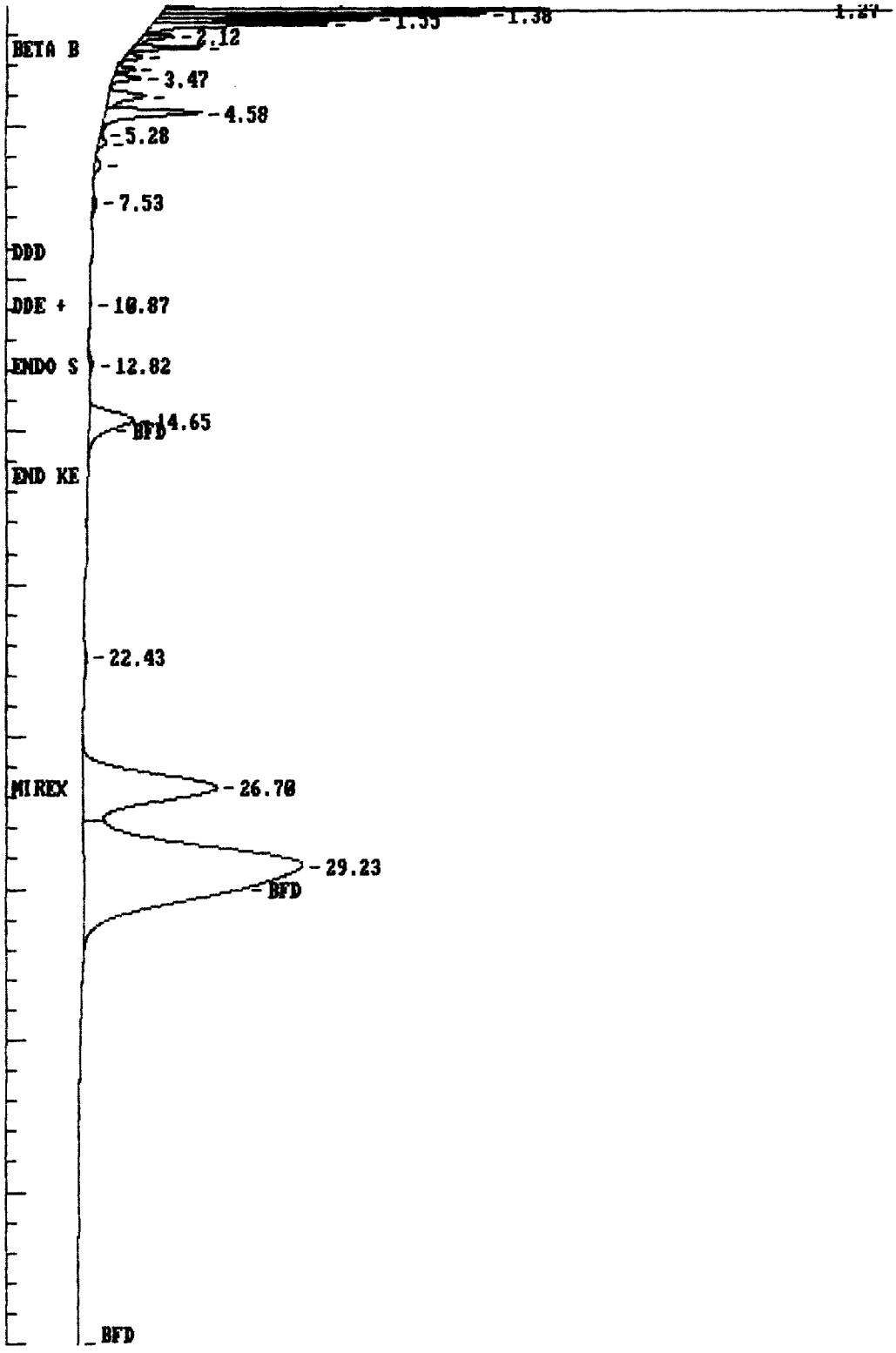


```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-27-1989 19:58:22 Version 4.1 **********************
* Sample Name: 90FD06S02                          Data File: K:OK20        *
* Date: 12-21-1989 07:09:28 Method: K:CPESTB 12-24-1989 02:00:21  #  19   *
* Interface: 0   Cycle#:  20   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0:                        Detector 1: ECD CONF      *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY   *
*************************************************************************
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	2.47	BETA BHC	0.0124	63.0104%	93225	11862	7.9	2	6	20	0	1.3269E-07
7	2.78	DELTA BHC	0.0045	22.9140%	32901	3020	10.9	2	7	20	0	1.3672E-07
16	10.87	DDE + EA	0.0003	1.7699%	3249	169	19.2	1	16	20	0	1.0695E-07
17	12.82	ENDO SO4	0.0024	12.3056%	13193	497	26.6	1	17	20	0	1.8312E-07
20	26.70	MIREX	1.0000	0.0000%	1417629	22452	63.1	2	20	20	0	7.0540E-07

TOTAL AMOUNT = 0.0196

Data File = K:OK20.PTS Printed on 12-27-1989 at 19:58:46
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 25822 uv High Value: 162927 uv Scale factor: 1.0



```
****** INTERNAL STANDARD TABLE ******
******************** 12-26-1989 11:45:49 Version 4.1 **********************
* Sample Name: 90FD06S03                          Data File: m:ok32        *
* Date: 12-21-1989 10:41:44 Method: M:QPESTA2 12-26-1989 11:23:36  #  143 *
* Interface: 0   Cycle#:  32   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000            *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*            Detector 0: ECD QUANT            Detector 1:                 *
* Misc. Information: SF68230LD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                          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	2.52	~~ALPHA BHC~~ B.L.S.	~~0.0032~~	0.5917%	36864	4806	7.7	2	4	17	0	8.5928E-08
6	3.23	~~LINDANE~~ B.L.S.	~~0.0012~~	0.2274%	15416	2074	7.4	2	6	17	0	7.8970E-08
9	4.97	~~ALDRIN~~ N.C.	~~0.0069~~	1.2800%	160701	5662	28.4	2	9	17	0	4.2639E-08
11	7.17	~~HEPT EPOXIDE~~ B.L.S.	-0.0110	-2.0615%	38908	2017	19.3	2	11	17	0	-2.8364E-07
13	8.93	~~ENDO SULFAN I~~ BLS	-0.0169	-3.1482%	18068	1112	16.2	1	13	17	0	-9.3275E-07
14	12.82	~~ENDRIN~~ N.C.	-0.0100	-1.8637%	61573	1321	46.6	2	14	17	0	-1.6204E-07
17	28.70	ISTD	1.0000	0.0000%	4044903	49880	81.1	2	17	17	0	2.4722E-07
18	33.42	DBC	0.5620	104.9743%	6075916	71090	85.5	2	18	17	0	9.2489E-08

TOTAL AMOUNT = 0.5353

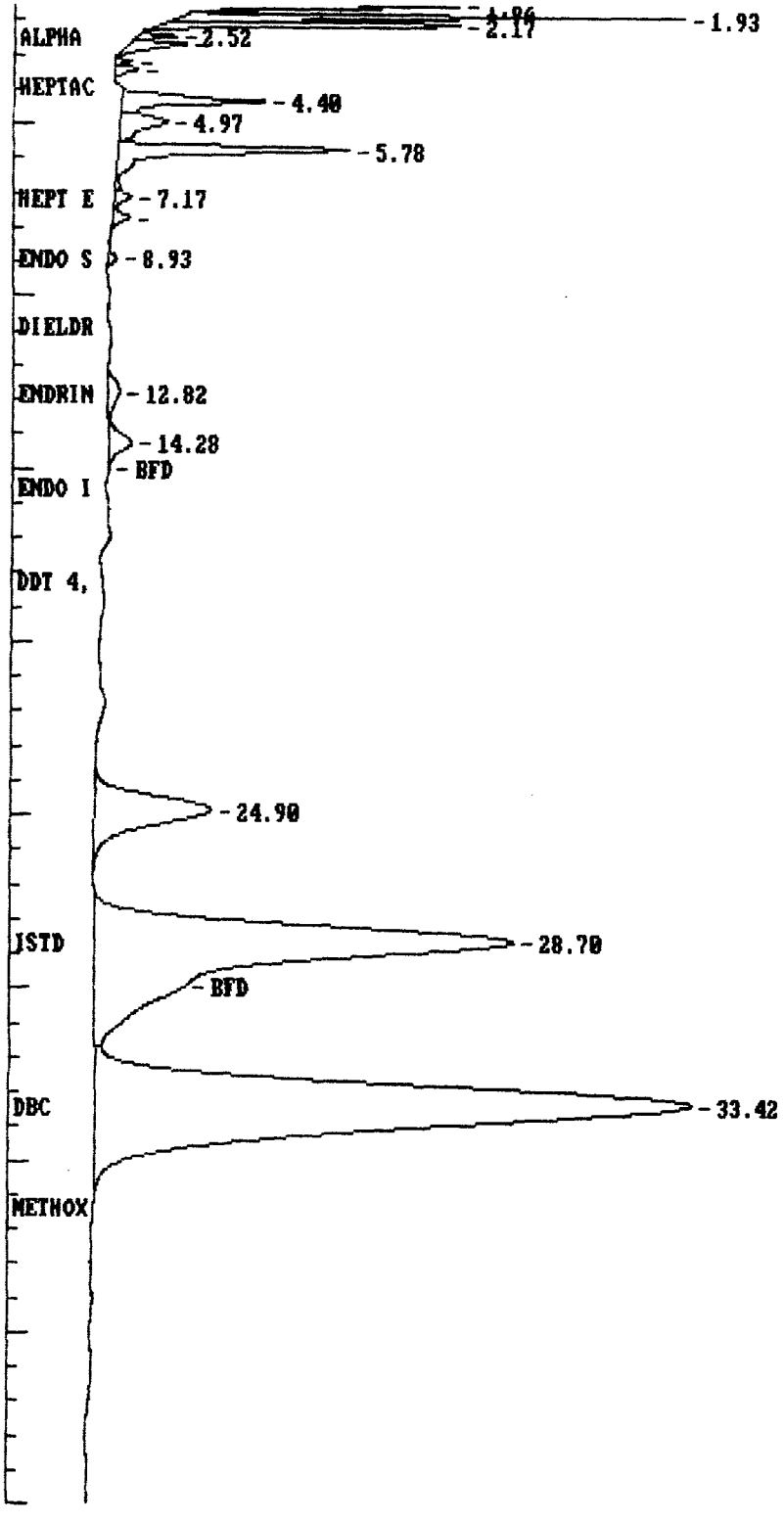
PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
HEPTACHLOR	3.96	HEPTACHLOR
DIELDRIN	10.90	DIELDRIN
ENDO II	15.57	ENDO II
DDT 4,4'	18.27	DDT 4,4'
METHOXYCHLOR	36.41	METHOXYCHLOR

DBC Recovery

$$\frac{.5620\ \text{ng (found)}}{.5\ \text{ng (added)}} \times 100 = 112\%$$

Data File = m:ok32.PTS Printed on 12-26-1989 at 11:46:19
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 60232 uv High Value: 169038 uv Scale factor: 1.0

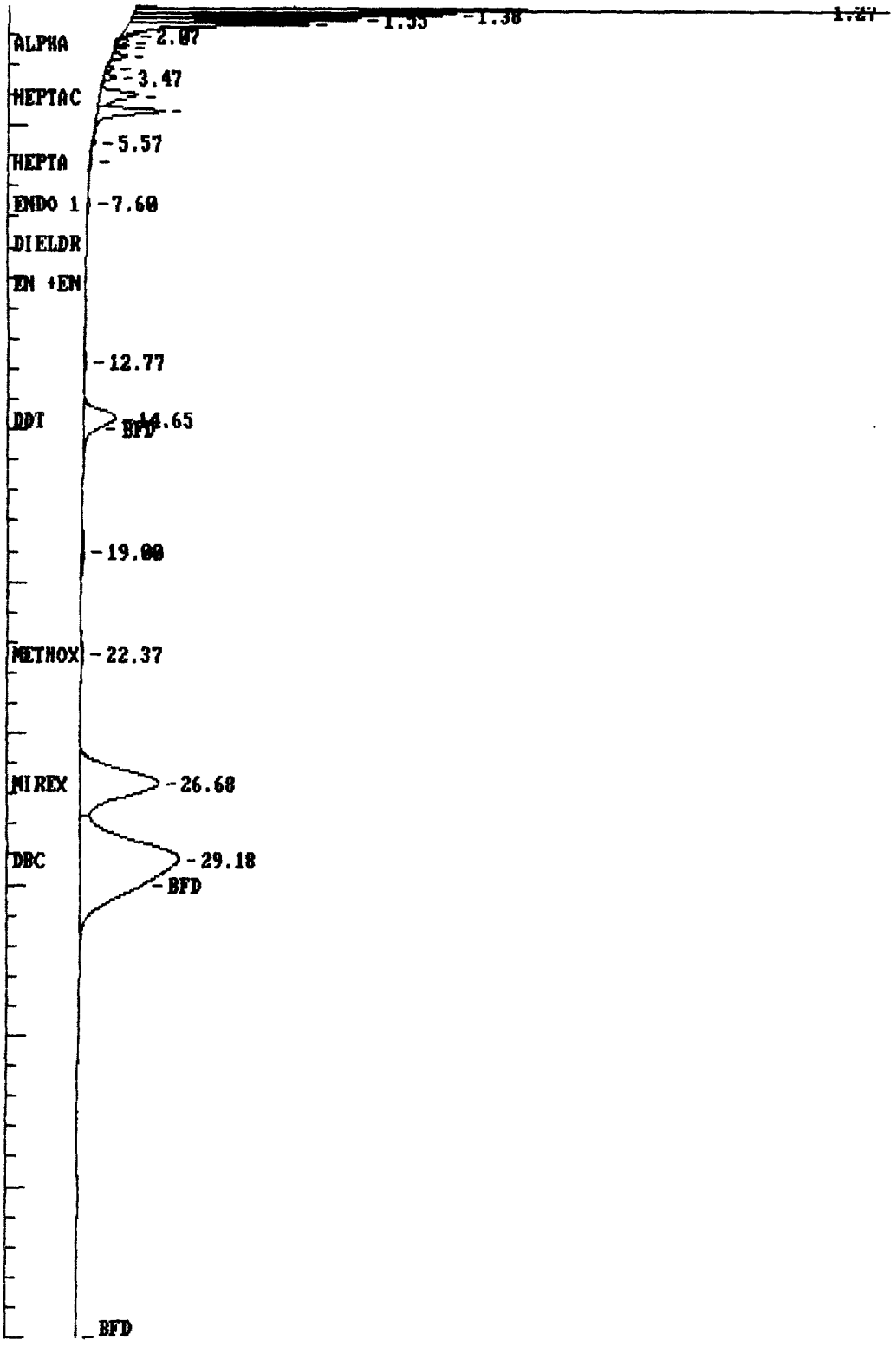


```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-27-1989 19:59:46 Version 4.1 **********************
* Sample Name: 90FD06S03                          Data File: K:OK21        *
* Date: 12-21-1989 07:55:56 Method: K:CPESTA 12-24-1989 01:55:38  #  18    *
* Interface: 0   Cycle#:  21   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100             *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0:                        Detector 1: ECD CONF      *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY   *
*************************************************************************
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	2.28	ALPHA BHC	0.0035	0.8241%	30922	3521	8.8	4	6	20	0	1.1379E-07
8	2.78	LINDANE	0.0061	1.4223%	50265	4420	11.4	2	6	20	4.153	1.2082E-07
11	4.03	HEPTACHLOR	0.0171	4.0135%	202577	11131	18.2	2	11	20	0	8.4594E-08
14	6.22	HEPTA EPOX	0.0012	0.2883%	13791	612	22.5	1	14	20	0	8.9273E-08
15	7.60	ENDO 1	0.0017	0.3932%	17770	641	27.7	1	15	20	0	9.4485E-08
17	14.65	DDT	0.0508	11.9051%	345326	8978	38.5	1	17	20	0	1.4720E-07
19	22.37	METHOX	0.0066	1.5495%	28654	594	48.3	1	19	20	0	2.3089E-07
20	26.68	MIREX	1.0000	0.0000%	1422927	22413	63.5	2	20	20	0	7.0278E-07
21	29.18	DBC	0.3399	79.6041%	3074827	28303	108.6	2	21	20	0	1.1054E-07

TOTAL AMOUNT = 0.4270

Data File = K:OK21.PTS Printed on 12-27-1989 at 20:00:14
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 25607 uv High Value: 257838 uv Scale factor: 1.0



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

********** 12-26-1989 11:47:19 Version 4.1 **********

* Sample Name: 90FD06S03 Data File: m:ok32 *
* Date: 12-21-1989 10:41:44 Method: M:QPESTB 12-21-1989 11:34:46 # 25 *
* Interface: 0 Cycle#: 32 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 5000 *

****

* Instrument Type: HP 5890 GC/EC #3 Column Type: PACKED MIXED PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL 200 C *
* Detector 0: ECD QUANT Detector 1: *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN: * *

****

Starting Delay: 1.50 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

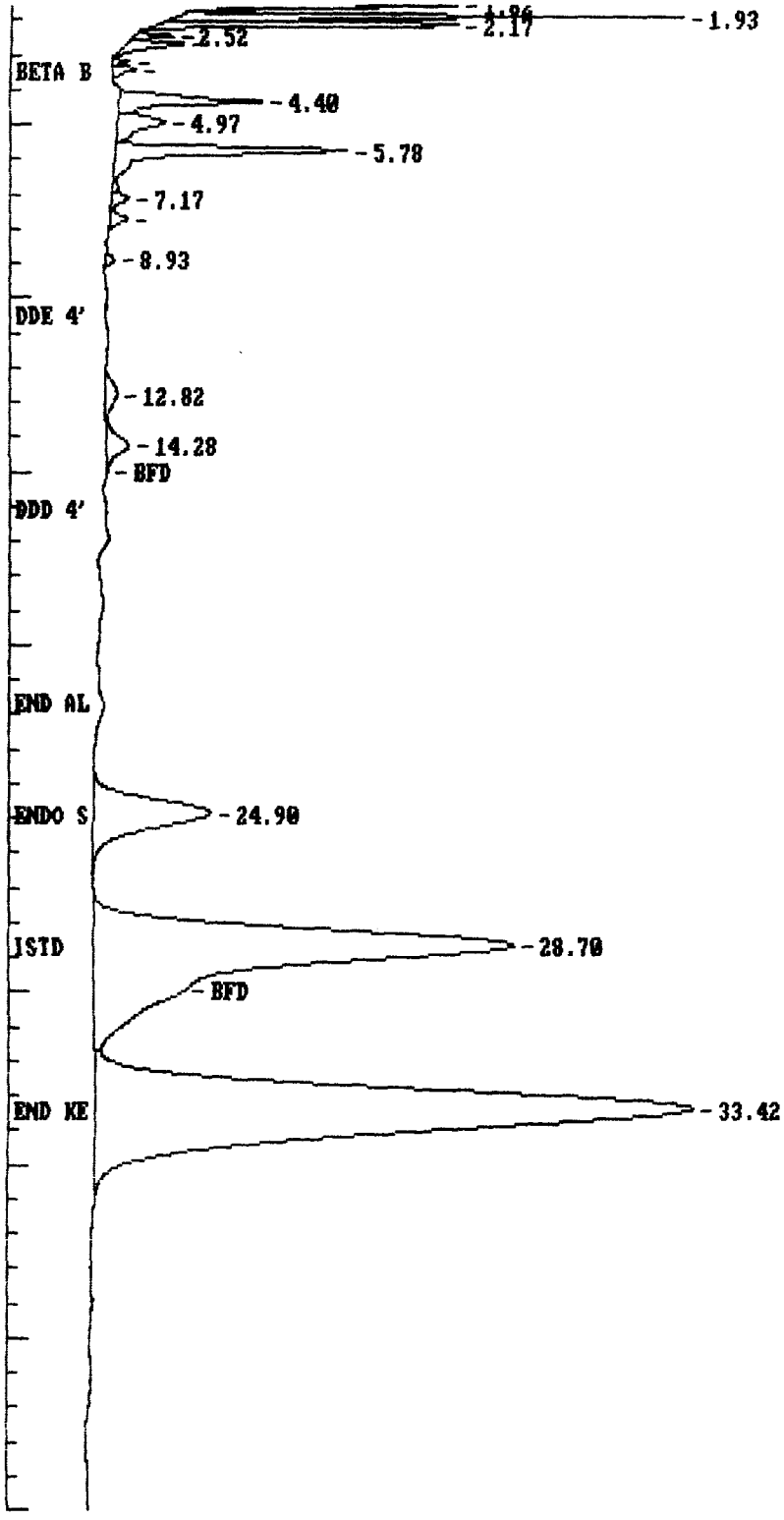
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
7	3.45	~~BETA BHC~~ B.L.S.	0.0019	0.2815%	31583	2811	11.2	2	7	17	0	5.8644E-08
8	4.40	DELTA BHC	0.0240	3.6534%	267098	17059	15.7	2	8	17	0	8.9984E-08
16	24.90	~~ENDO SULFATE~~ B.L.S	0.0634	9.6376%	775239	13783	56.2	1	16	17	0	8.1784E-08
17	28.70	ISTD	1.0000	0.0000%	4044903	49880	81.1	2	17	17	0	2.4722E-07
18	33.42	~~END KETONE~~ DBC	~~0.5686~~	86.4274%	6075916	71090	85.5	2	18	17	0	9.3578E-08

TOTAL AMOUNT = 0.6579

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DDE 4'4'	10.48	DDE 4'4'
DDD 4'4'	16.09	DDD 4'4'
END ALDEHYDE	21.65	END ALDEHYDE

Data File = m:ok32.PTS Printed on 12-26-1989 at 11:47:44
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 60232 uv High Value: 169038 uv Scale factor: 1.0

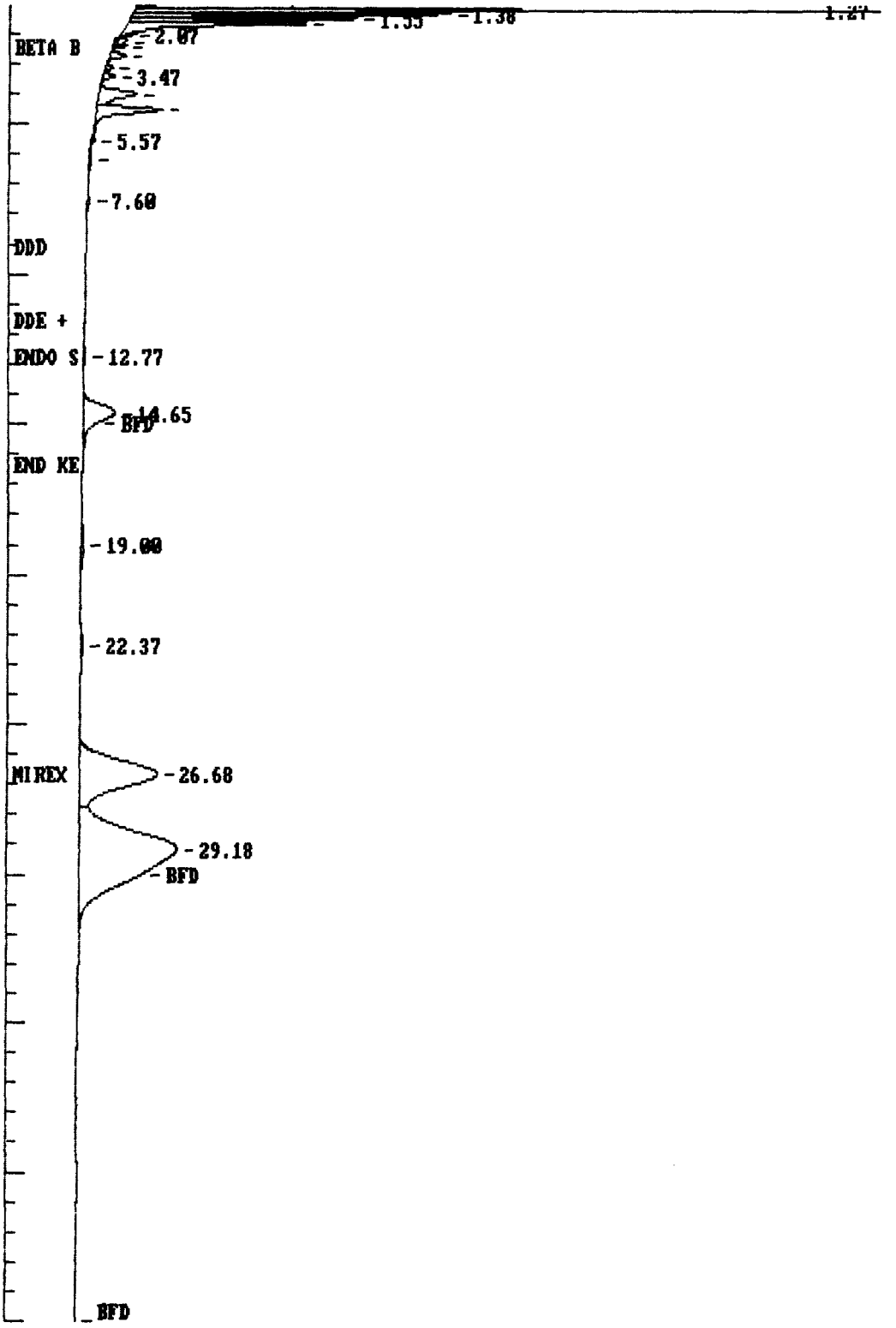


```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-27-1989 20:01:07 Version 4.1 **********************
* Sample Name: 90FD06S03                          Data File: K:OK21        *
* Date: 12-21-1989 07:55:56 Method: K:CPESTB 12-24-1989 02:00:21  #  19   *
* Interface: 0   Cycle#:  21   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*             Detector 0:                        Detector 1: ECD CONF     *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY   *
*************************************************************************
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	2.45	BETA BHC	0.0042	32.5035%	31438	3791	8.3 4	7	20	0	1.3220E-07
8	2.78	DELTA BHC	0.0068	53.5492%	50265	4420	11.4 2	8	20	0	1.3622E-07
16	12.77	ENDO SO4	0.0018	13.9474%	9775	378	25.9 1	16	20	0	1.8244E-07
20	26.68	MIREX	1.0000	0.0000%	1422927	22413	63.5 2	20	20	0	7.0278E-07

TOTAL AMOUNT = 0.0128

Data File = K:OK21.PTS Printed on 12-27-1989 at 20:01:30
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 25607 uv High Value: 257838 uv Scale factor: 1.0



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

********** 12-26-1989 11:49:04 Version 4.1 **********

* Sample Name: 90FD01R60 Data File: m:ok33 *
* Date: 12-21-1989 11:31:05 Method: M:QPESTA2 12-26-1989 11:23:36 # 143 *
* Interface: 0 Cycle#: 33 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 5000 *

****

* Instrument Type: HP 5890 GC/EC #3 Column Type: PACKED MIXED PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL 200 C *
* Detector 0: ECD QUANT Detector 1: *
* Misc. Information: SF68230LD KELLY SF6825 DUKE EARNESTSCRN: * *

****

Starting Delay: 1.50 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	2.47	~~ALPHA BHC~~ B.L.S,	~~0.0047~~	0.7665%	65261	7120	9.2	2	3	16	0	7.2278E-08
6	4.38	~~ALDRIN~~ N.C,	~~0.0172~~	2.7926%	310329	17225	18.0	2	3	16	-4.265	5.5379E-08
9	6.93	~~HEPT EPOXIDE~~ N.C,	~~0.0065~~	1.0560%	284265	15652	18.2	2	9	16	0	2.2862E-08
11	8.92	~~ENDO SULFAN I~~ N.C,	~~0.0093~~	1.5192%	366931	20418	18.0	2	11	16	0	2.5479E-08
16	28.67	ISTD	1.0000	0.0000%	3909874	49791	78.5	2	16	16	0	2.5576E-07
17	33.23	DBC	0.5776	93.8657%	6020131	77146	78.0	2	17	16	0	9.5952E-08

TOTAL AMOUNT = 0.6154

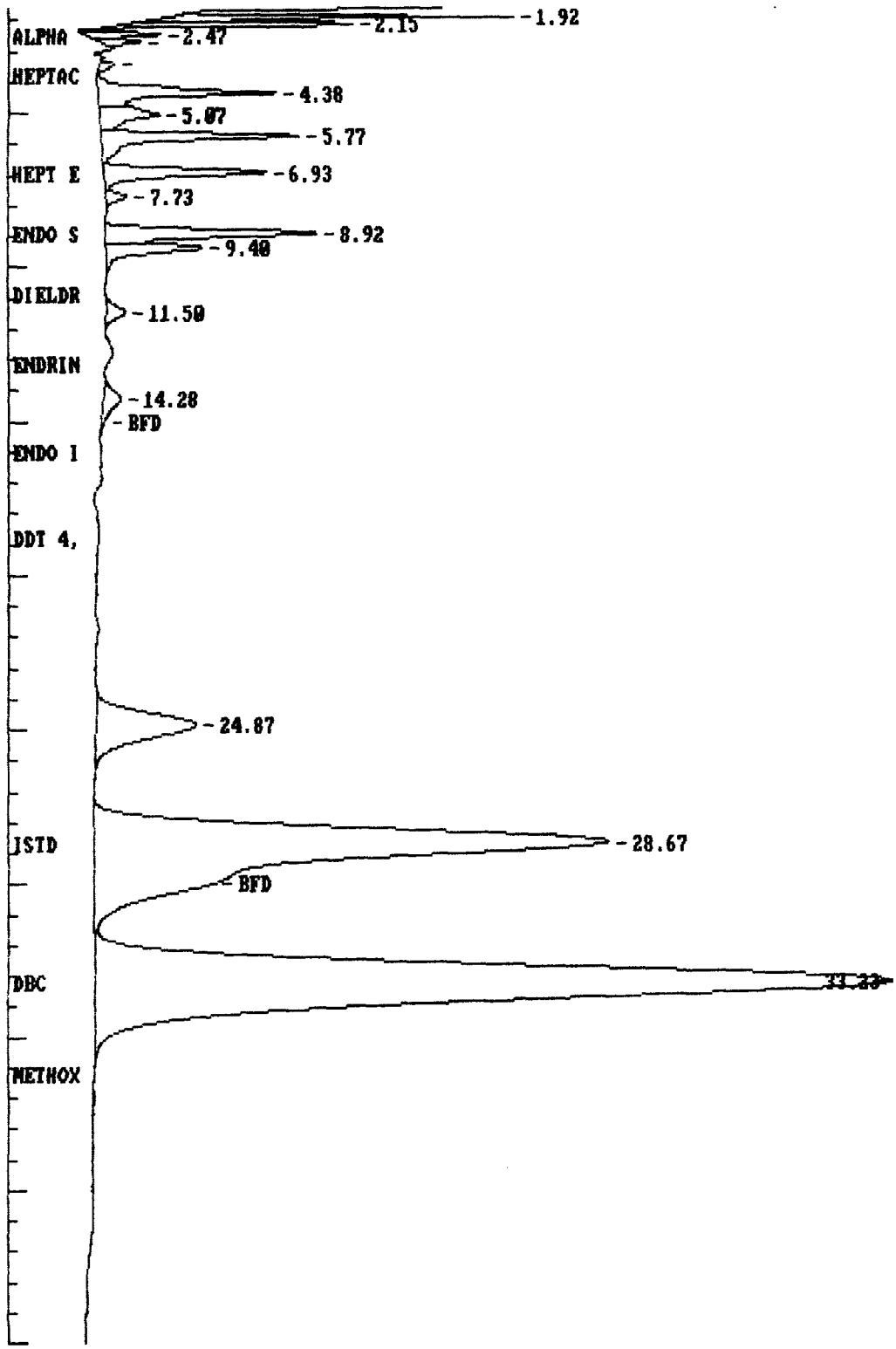
PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
LINDANE	3.10	LINDANE
HEPTACHLOR	3.79	HEPTACHLOR
DIELDRIN	10.88	DIELDRIN
ENDRIN	13.17	ENDRIN
ENDO II	16.00	ENDO II
DDT 4,4'	18.77	DDT 4,4'
METHOXYCHLOR	36.21	METHOXYCHLOR

DBC Recovery

$$\frac{.5776\ \text{ug (found)}}{.5\ \text{ug (added)}} \times 100 = 116\%$$

Data File = m:ok33.PTS Printed on 12-26-1989 at 11:49:34
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 59136 uv High Value: 137817 uv Scale factor: 1.0

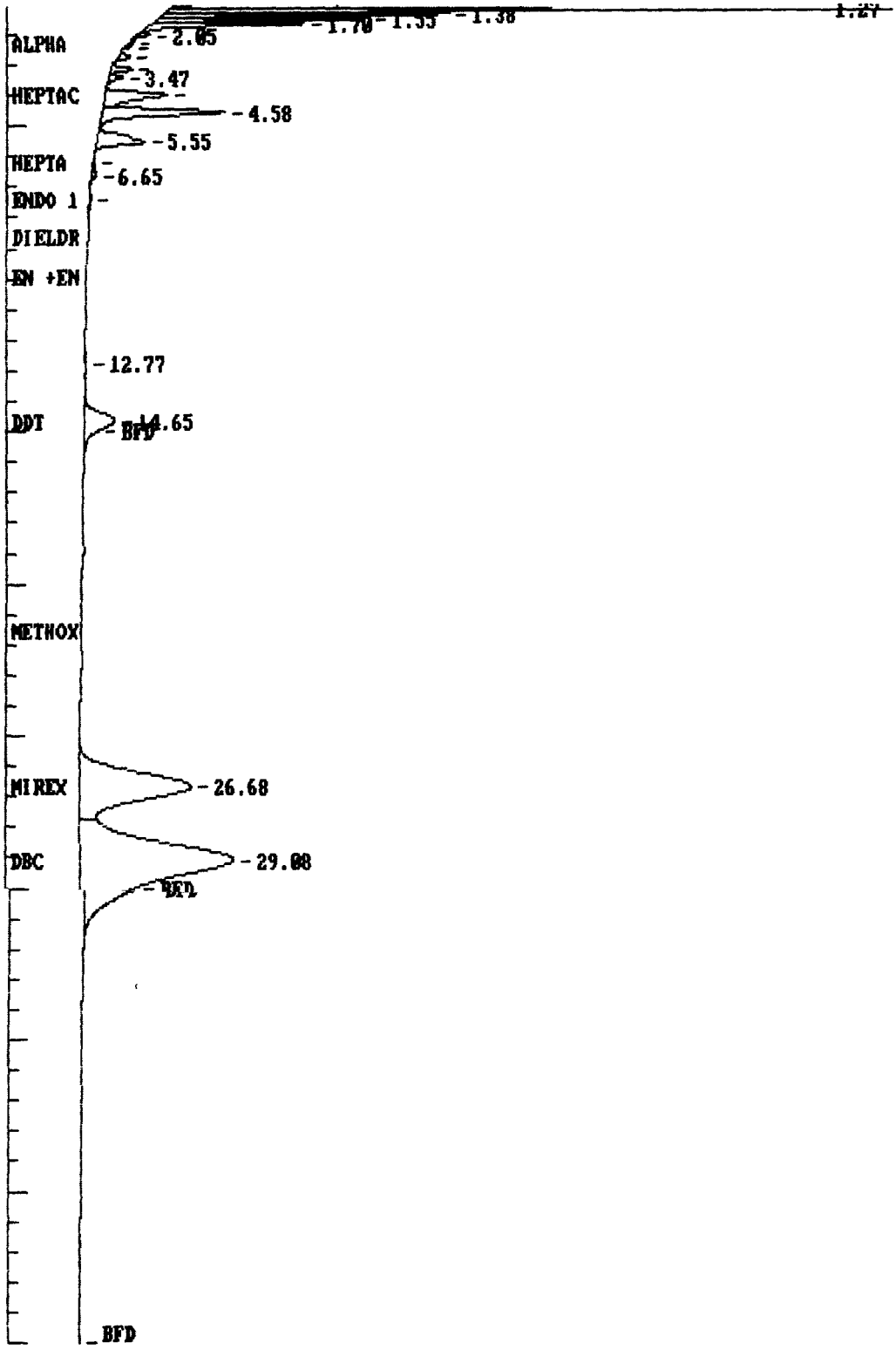


```
****** INTERNAL STANDARD TABLE ******
******************** 12-27-1989 20:02:30 Version 4.1 **********************
* Sample Name: 90FD01R60                          Data File: K:OK22        *
* Date: 12-21-1989 08:42:23 Method: K:CPESTA 12-24-1989 01:55:38  #  18    *
* Interface: 0   Cycle#:  22   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100             *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*             Detector 0:                        Detector 1: ECD CONF     *
* Misc. Information: SF68230LD KELLY SF6825DUKE EARNEST SF68230LD KELLY   *
*************************************************************************
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	2.28	ALPHA BHC	0.0006	0.1661%	5486	824	6.7	2	6	19	0	1.1072E-07
8	2.78	LINDANE	0.0033	0.9052%	28164	2602	10.8	1	6	19	4.153	1.1756E-07
11	4.02	HEPTACHLOR	0.0185	5.0673%	225182	13243	17.0	2	11	19	0	8.2314E-08
14	6.23	~~HEPTA EPOX~~ NOISE	0.0005	0.1366%	5751	307	18.7	2	14	19	0	8.6866E-08
16	7.42	~~ENDO I~~ NOISE	0.0007	0.2019%	8033	304	26.4	1	16	19	0	9.1939E-08
18	14.65	DDT	0.0335	9.1538%	233765	6105	38.3	1	18	19	0	1.4323E-07
19	26.68	MIREX	1.0000	0.0000%	1462340	23035	63.5	2	19	19	0	6.8384E-07
20	29.08	DBC	0.3086	84.3692%	2869138	31924	89.9	2	20	19	0	1.0756E-07

TOTAL AMOUNT = 0.3658

Data File = K:OK22.PTS Printed on 12-27-1989 at 20:02:58
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 25252 uv High Value: 194276 uv Scale factor: 1.0



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

********** 12-26-1989 11:50:34 Version 4.1 **********

* Sample Name: 90FD01R60 Data File: m:ok33 *
* Date: 12-21-1989 11:31:05 Method: M:QPESTB 12-21-1989 11:34:46 # 25 *
* Interface: 0 Cycle#: 33 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 5000 *

****

* Instrument Type: HP 5890 GC/EC #3 Column Type: PACKED MIXED PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL 200 C *
* Detector 0: ECD QUANT Detector 1: *
* Misc. Information: SF68230LD KELLY SF6825 DUKE EARNESTSCRN: * *

****

Starting Delay: 1.50 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

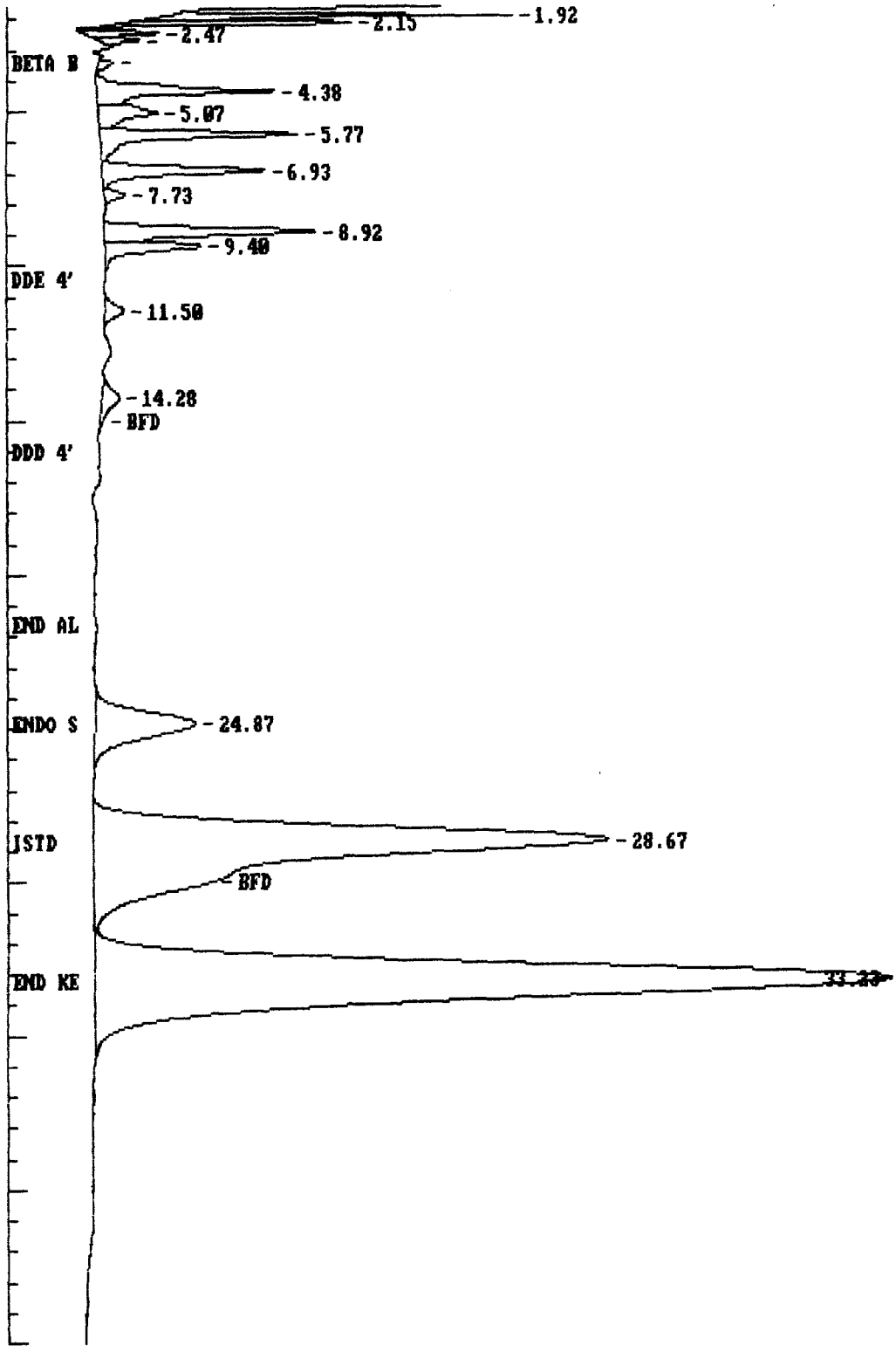
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
5	3.43	~~BETA BHC~~ N.C.	~~0.0012~~	0.1803%	21707	1525	14.2	1	5	16	0	5.4835E-08
6	4.38	~~DELTA BHC~~ N.C.	~~0.0266~~	4.0258%	310329	17225	18.0	2	6	16	0	8.5642E-08
15	24.87	~~ENDO SULFATE~~ N.C.	~~0.0499~~	7.5479%	549593	9680	56.8	1	15	16	0	9.0664E-08
16	28.67	ISTD	1.0000	0.0000%	3909874	49791	78.5	2	16	16	0	2.5576E-07
17	33.23	~~END KETONE~~ DBC	~~0.5826~~	88.2460%	6020131	77146	78.0	2	17	16	0	9.6770E-08

TOTAL AMOUNT = 0.6602

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DDE 4'4'	10.44	DDE 4'4'
DDD 4'4'	16.03	DDD 4'4'
END ALDEHYDE	21.57	END ALDEHYDE

Data File = m:ok33.PTS Printed on 12-26-1989 at 11:51:03
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 59136 uv High Value: 137817 uv Scale factor: 1.0

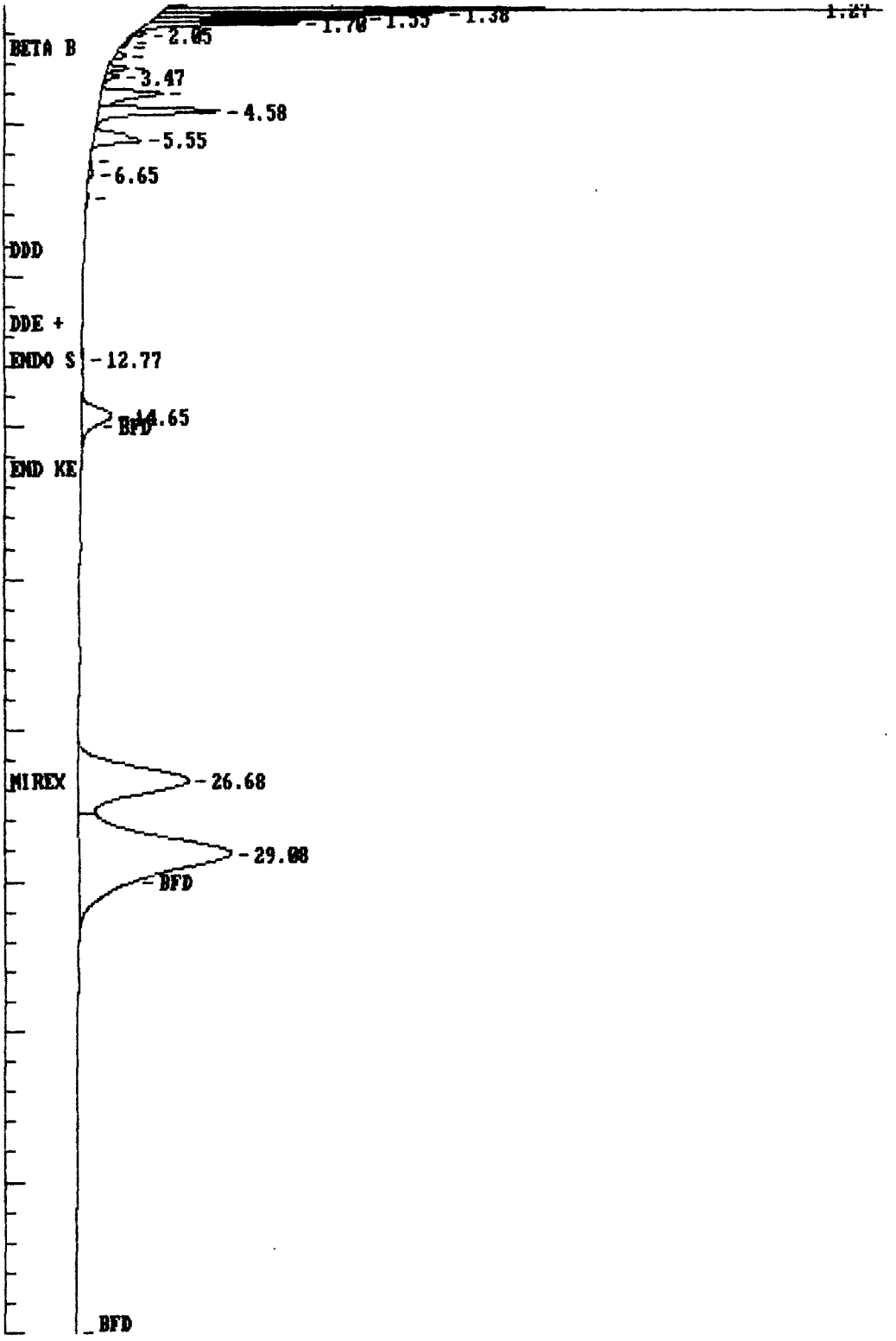


```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-27-1989 20:03:49 Version 4.1 *********************
* Sample Name: 90FD01R60                          Data File: K:OK22        *
* Date: 12-21-1989 08:42:23 Method: K:CPESTB 12-24-1989 02:00:21  #  19    *
* Interface: 0   Cycle#:  22   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100             *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0:                        Detector 1: ECD CONF      *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY   *
*************************************************************************
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
```

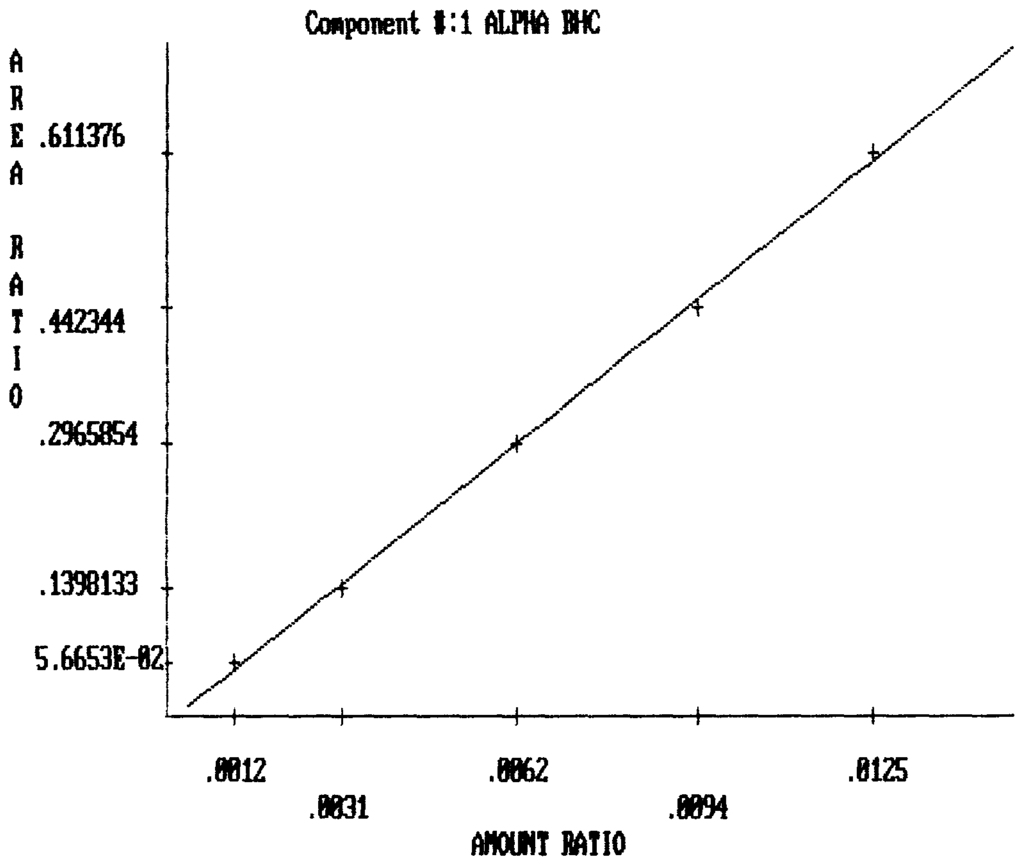
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
7	2.43	~~BETA-BHC~~ Noise	0.0012	19.8966%	9278	1294	7.2	2	7	19	0	1.2863E-07
8	2.78	~~DELTA-BHC~~ Noise	0.0037	62.2350%	28164	2602	10.8	1	8	19	0	1.3254E-07
17	12.77	~~ENDO-SO4~~ Noise	0.0011	17.8684%	6038	260	23.3	1	17	19	0	1.7752E-07
19	26.68	MIREX	1.0000	0.0000%	1462340	23035	63.5	2	19	19	0	6.8384E-07

TOTAL AMOUNT = 0.0060

Data File = K:OK22.PTS Printed on 12-27-1989 at 20:04:11
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 25252 uv High Value: 194276 uv Scale factor: 1.0



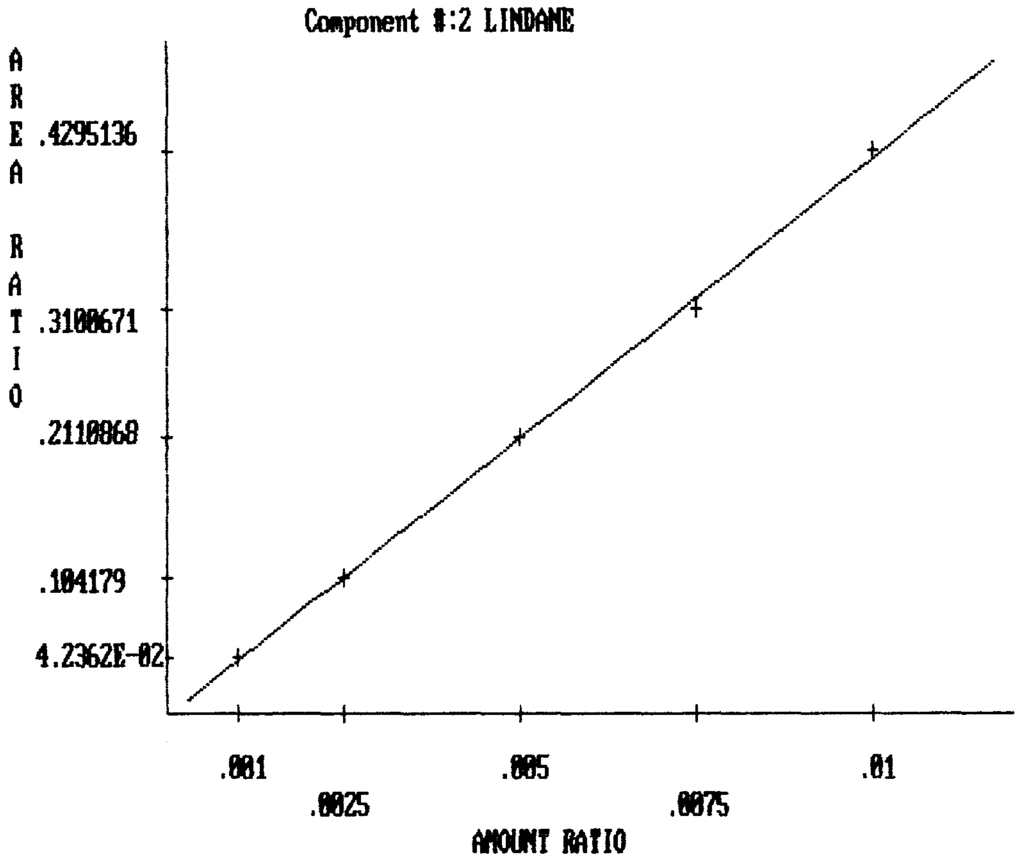
Method M:QPESTA
Sample PEST
Operator JH
Run date 12-21-1989 12:24:18 version: 141
Printed on 12-21-1989 AT 13:17:42
Straight Line fit



Component 1 = ALPHA BHC
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0012	192992	0.0012	0.0567
2	0.0031	493775	0.0031	0.1398
3	0.0062	1149480	0.0062	0.2966
4	0.0094	1879498	0.0094	0.4423
5	0.0125	2749740	0.0125	0.6114

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 4.8930E+01 * Amt ratio + -7.7138E-03
Amt ratio = 2.0437E-02 * Area ratio + 1.5765E-04
Correlation Coefficient = 0.9990



Component 2 = LINDANE
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0010	144309	0.0010	0.0424
2	0.0025	367926	0.0025	0.1042
3	0.0050	818112	0.0050	0.2111
4	0.0075	1317460	0.0075	0.3101
5	0.0100	1931791	0.0100	0.4295

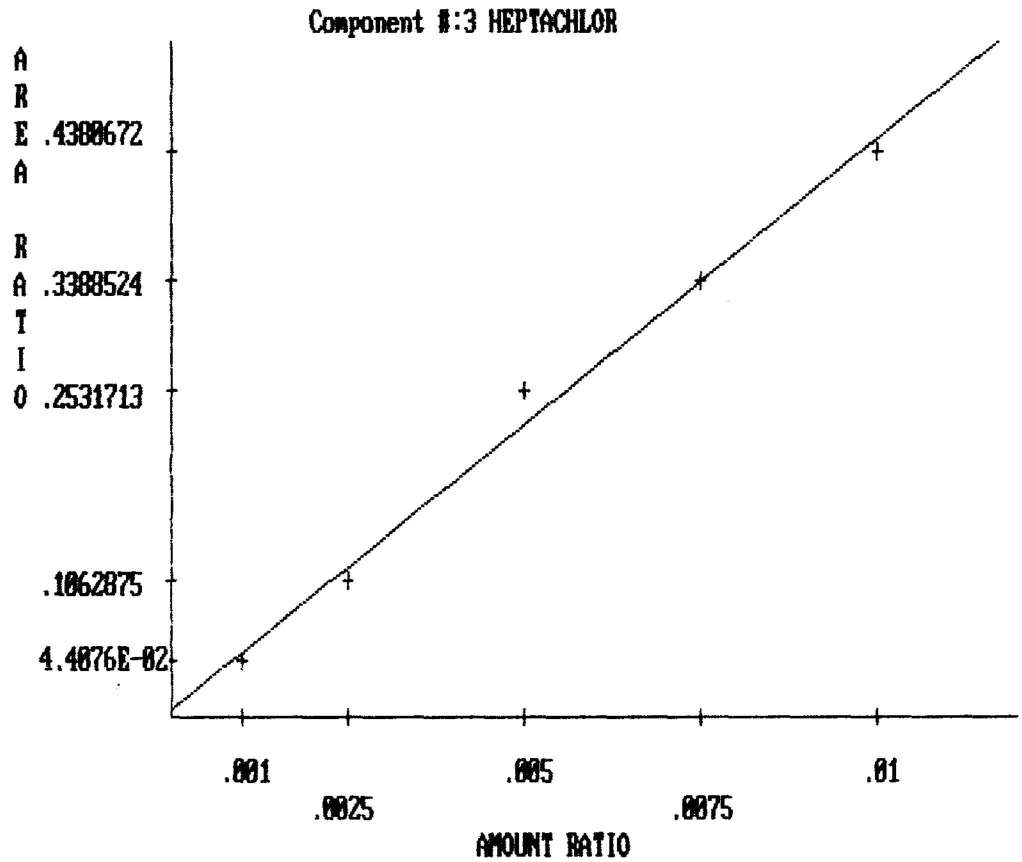
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 4.2653E+01 * Amt ratio + -2.3530E-03

Amt ratio = 2.3445E-02 * Area ratio + 5.5165E-05

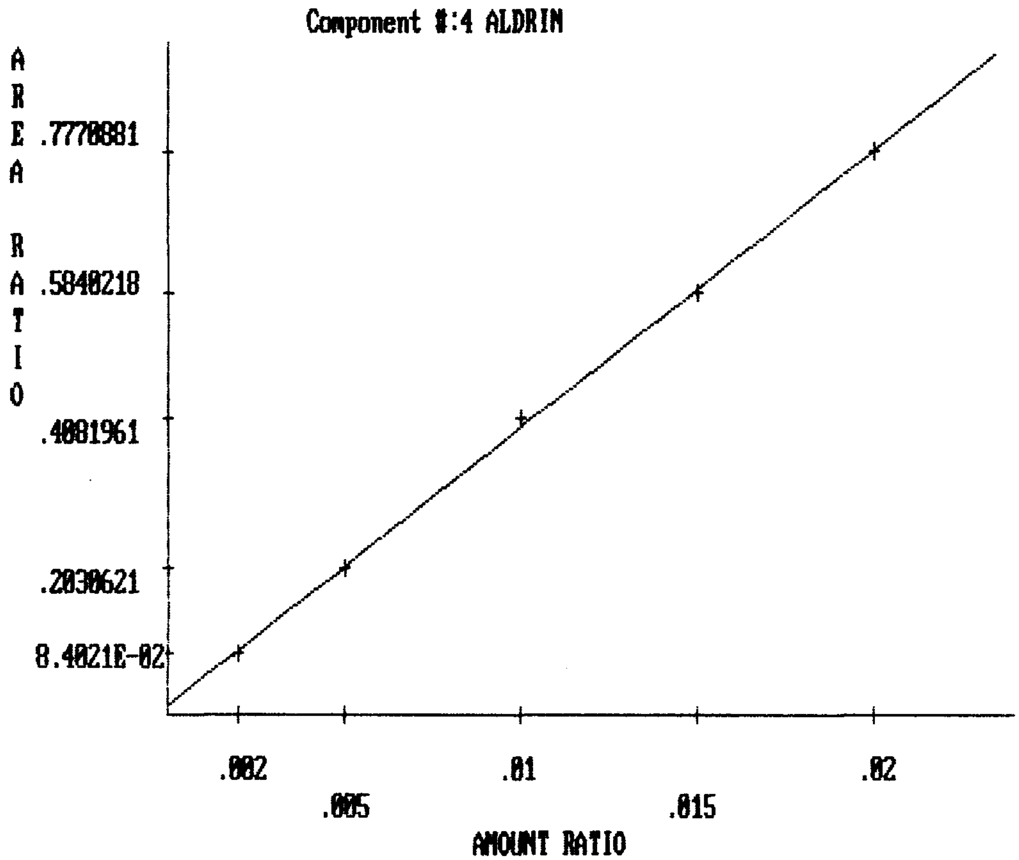
Correlation Coefficient = 0.9991



Component 3 = HEPTACHLOR
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0010	150150	0.0010	0.0441
2	0.0025	375373	0.0025	0.1063
3	0.0050	981219	0.0050	0.2532
4	0.0075	1439767	0.0075	0.3389
5	0.0100	1970262	0.0100	0.4381

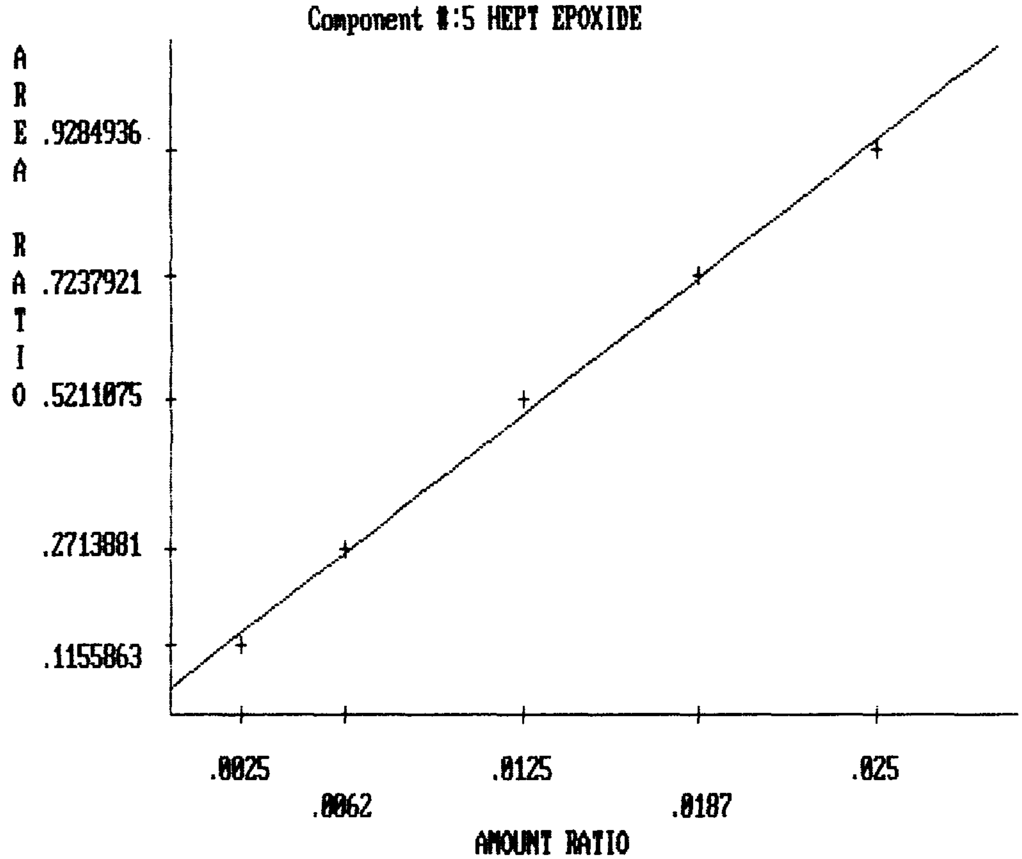
Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 4.4265E+01 * Amt ratio + 5.9107E-03
Amt ratio = 2.2591E-02 * Area ratio + -1.3353E-04
Correlation Coefficient = 0.9912



Component 4 = ALDRIN
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0020	286221	0.0020	0.0840
2	0.0050	717149	0.0050	0.2031
3	0.0100	1582051	0.0100	0.4082
4	0.0150	2481480	0.0150	0.5840
5	0.0200	3495051	0.0200	0.7771

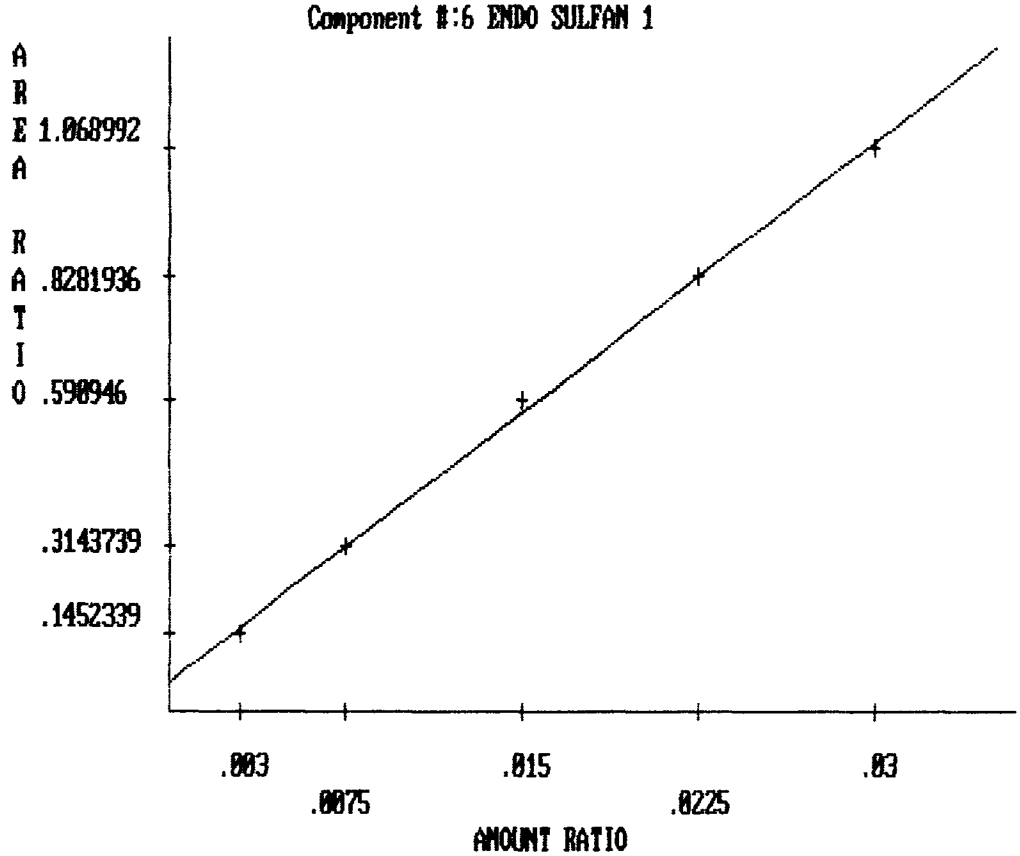
Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 3.8372E+01 * Amt ratio + 1.2207E-02
Amt ratio = 2.6061E-02 * Area ratio + -3.1812E-04
Correlation Coefficient = 0.9994



Component 5 = HEPT EPOXIDE
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0025	393748	0.0025	0.1156
2	0.0062	958453	0.0062	0.2714
3	0.0125	2019663	0.0125	0.5211
4	0.0187	3075357	0.0187	0.7238
5	0.0250	4176016	0.0250	0.9285

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 3.6009E+01 * Amt ratio + 4.4681E-02
Amt ratio = 2.7771E-02 * Area ratio + -1.2408E-03
Correlation Coefficient = 0.9968



Component 6 = ENDO SULFAN 1

INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0030	494744	0.0030	0.1452
2	0.0075	1110265	0.0075	0.3144
3	0.0150	2290337	0.0150	0.5909
4	0.0225	3518954	0.0225	0.8282
5	0.0300	4807924	0.0300	1.0690

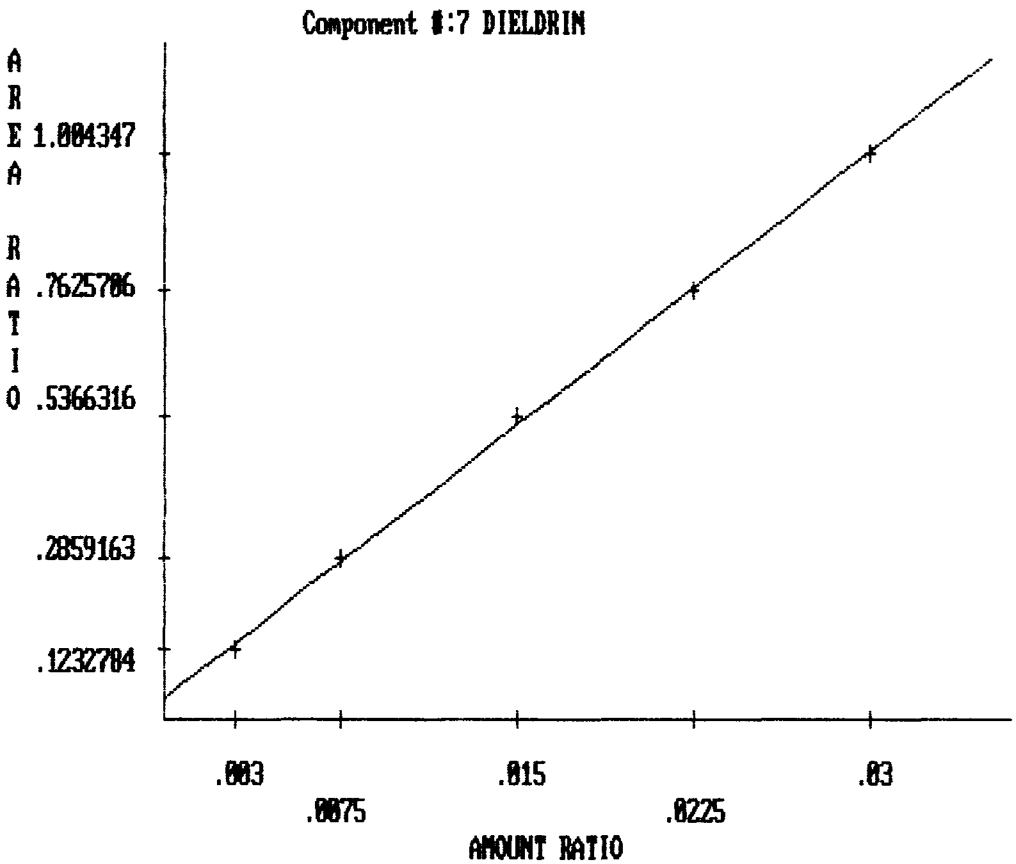
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 3.4140E+01 * Amt ratio + 5.6960E-02

Amt ratio = 2.9291E-02 * Area ratio + -1.6684E-03

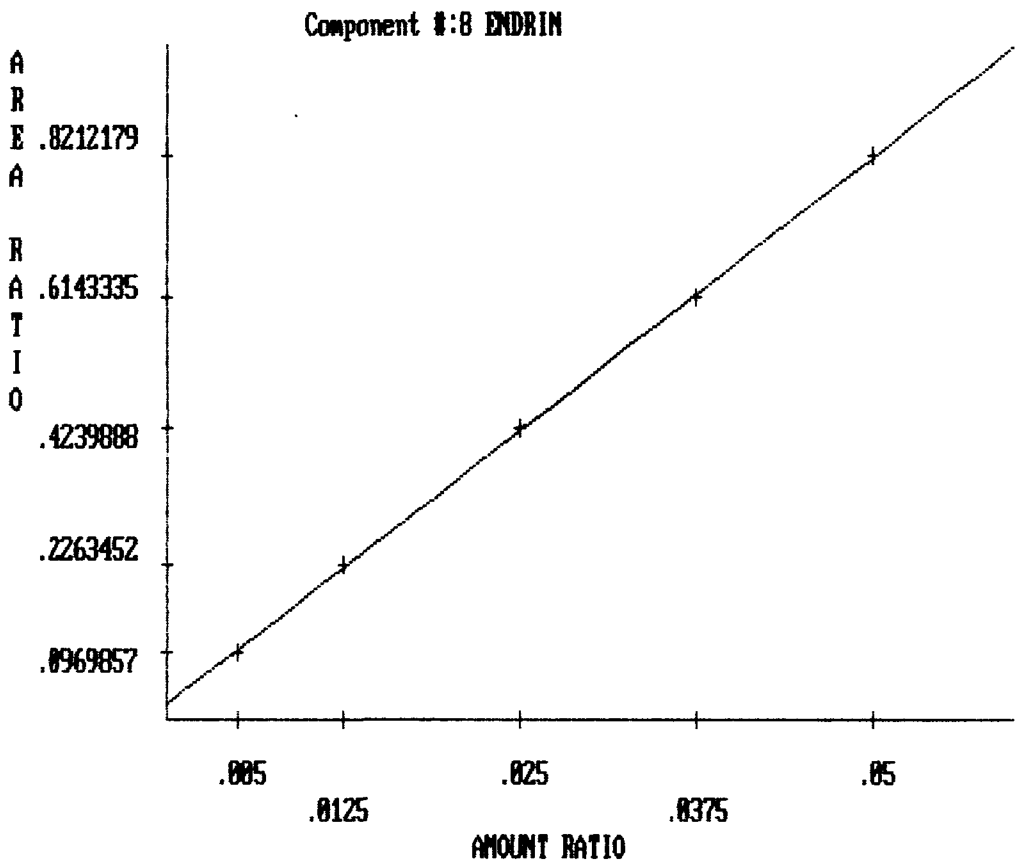
Correlation Coefficient = 0.9985



Component 7 = DIELDRIN
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0030	419951	0.0030	0.1233
2	0.0075	1009762	0.0075	0.2859
3	0.0150	2079830	0.0150	0.5366
4	0.0225	3240125	0.0225	0.7626
5	0.0300	4517177	0.0300	1.0043

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 3.2381E+01 * Amt ratio + 3.7406E-02
Amt ratio = 3.0882E-02 * Area ratio + -1.1552E-03
Correlation Coefficient = 0.9993



Component 8 = ENDRIN

INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0050	330385	0.0050	0.0970
2	0.0125	799377	0.0125	0.2263
3	0.0250	1643259	0.0250	0.4240
4	0.0375	2610273	0.0375	0.6143
5	0.0500	3693530	0.0500	0.8212

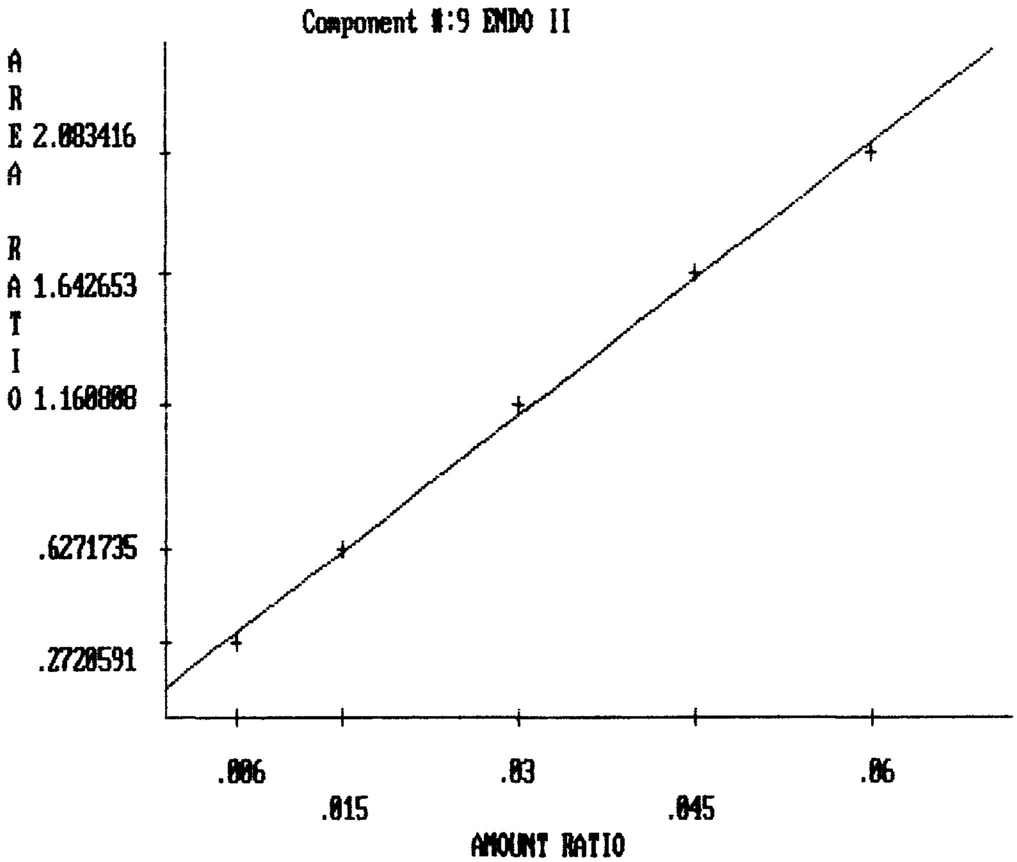
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 1.5953E+01 * Amt ratio + 2.1790E-02

Amt ratio = 6.2683E-02 * Area ratio + -1.3658E-03

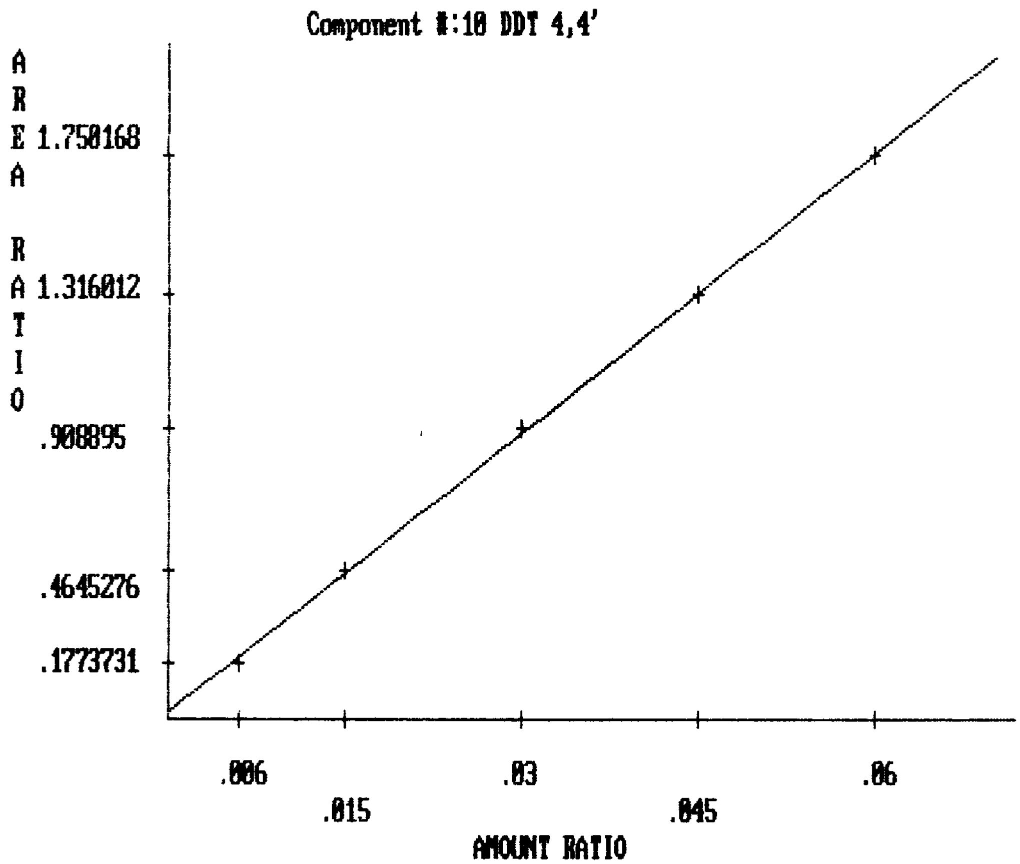
Correlation Coefficient = 0.9997



Component 9 = ENDO II
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0060	926777	0.0060	0.2721
2	0.0150	2214970	0.0150	0.6272
3	0.0300	4498960	0.0300	1.1608
4	0.0450	6979550	0.0450	1.6427
5	0.0600	9370422	0.0600	2.0834

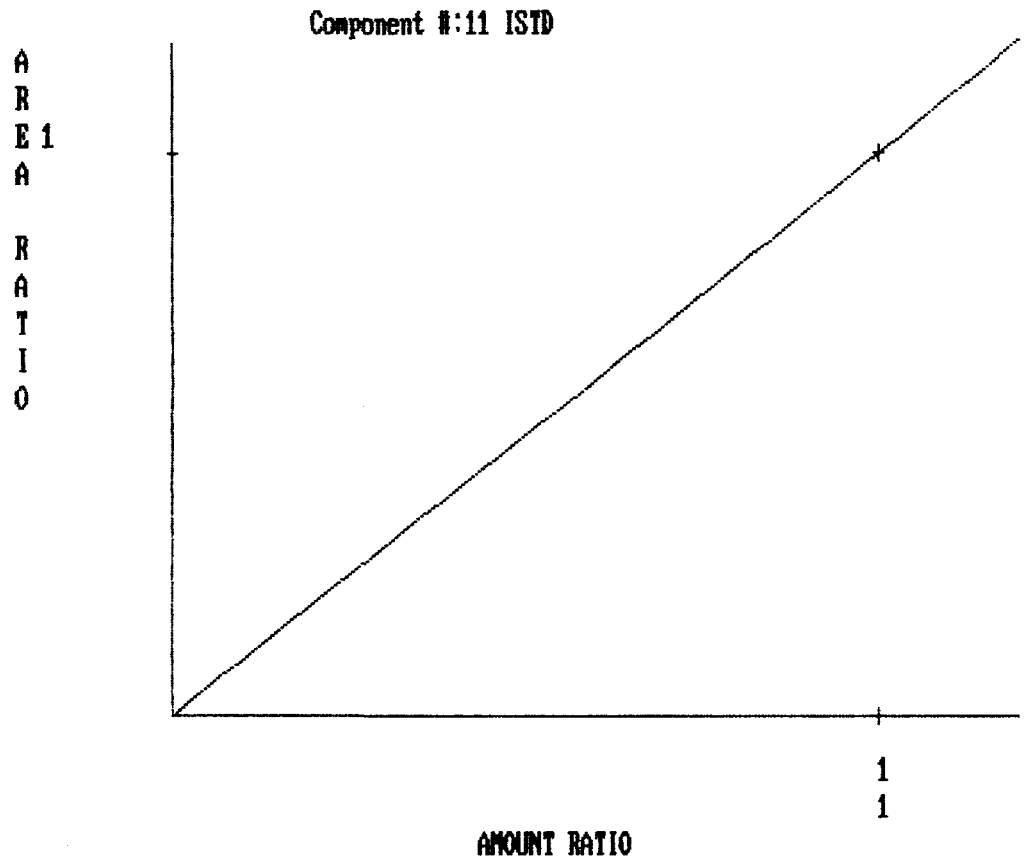
Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 3.3491E+01 * Amt ratio + 1.1231E-01
Amt ratio = 2.9859E-02 * Area ratio + -3.3536E-03
Correlation Coefficient = 0.9973



Component 10 = DDT 4,4'
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0060	604227	0.0060	0.1774
2	0.0150	1640558	0.0150	0.4645
3	0.0300	3522616	0.0300	0.9089
4	0.0450	5591669	0.0450	1.3160
5	0.0600	7871598	0.0600	1.7502

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 2.8914E+01 * Amt ratio + 2.1282E-02
Amt ratio = 3.4585E-02 * Area ratio + -7.3604E-04
Correlation Coefficient = 0.9995



Component 11 = ISTD
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	1.0000	3406528	1.0000	1.0000
2	1.0000	3531670	1.0000	1.0000
3	1.0000	3875713	1.0000	1.0000
4	1.0000	4248951	1.0000	1.0000
5	1.0000	4497625	1.0000	1.0000

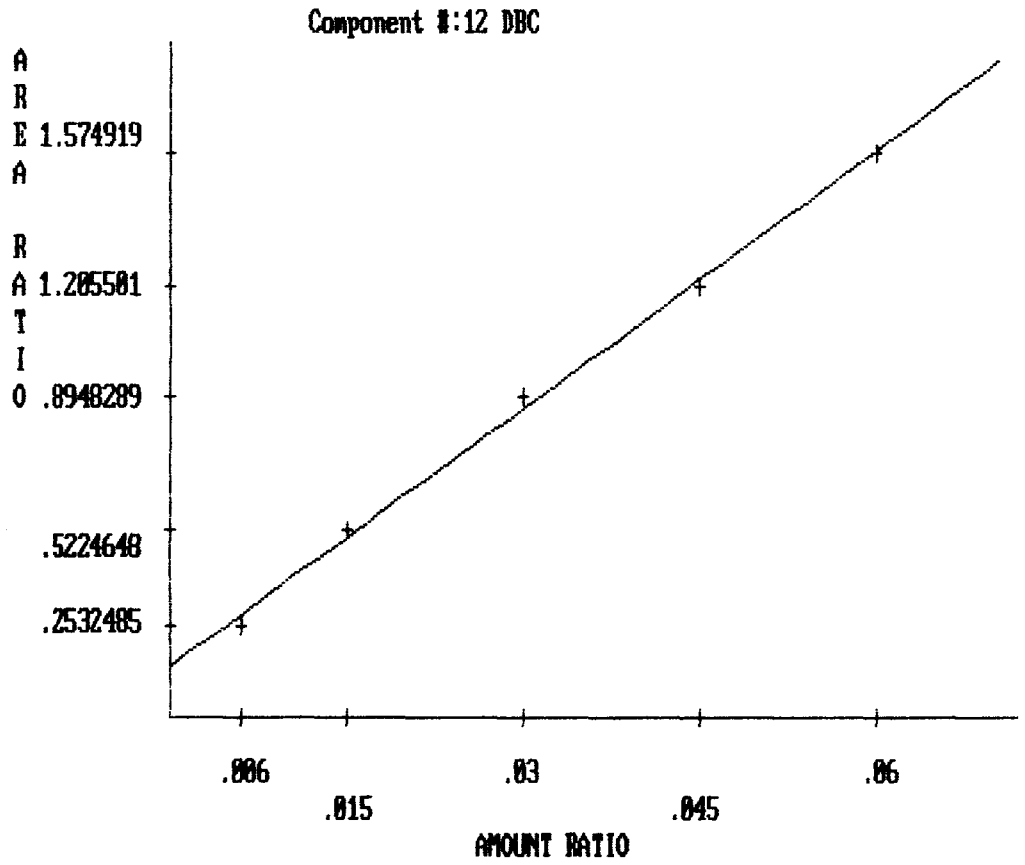
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

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 = DBC
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0060	862698	0.0060	0.2532
2	0.0150	1845173	0.0150	0.5225
3	0.0300	3468100	0.0300	0.8948
4	0.0450	5122113	0.0450	1.2055
5	0.0600	7083395	0.0600	1.5749

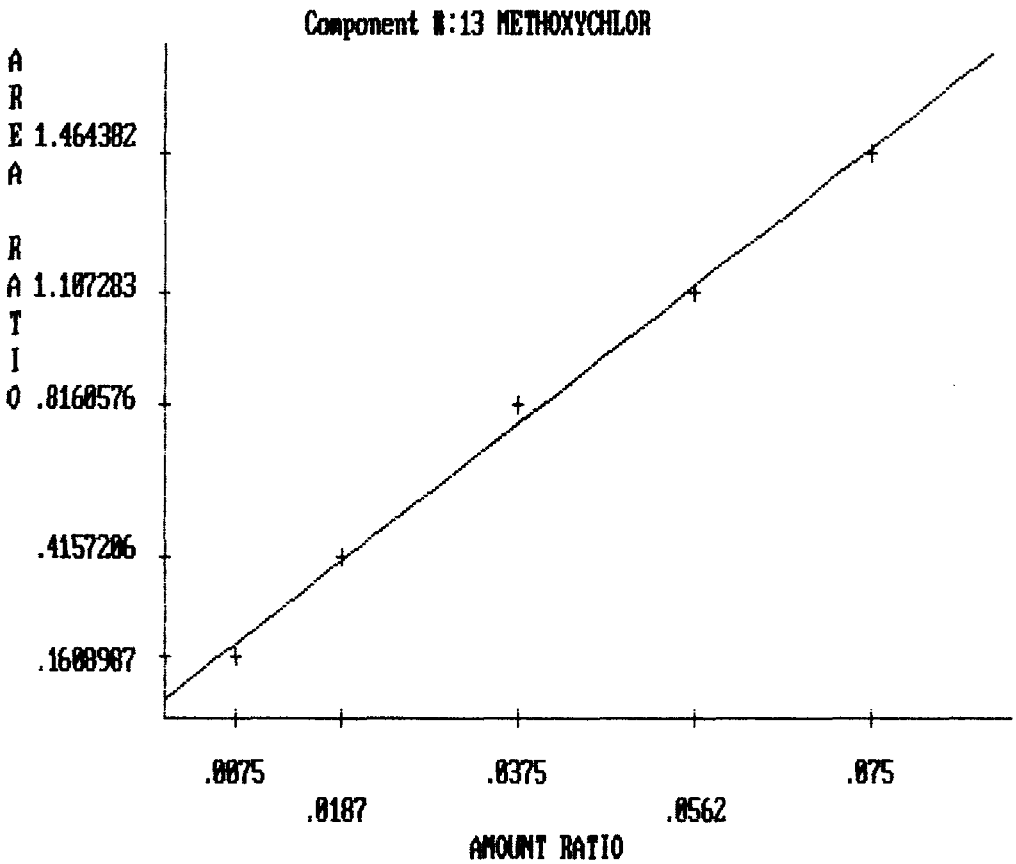
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 2.4012E+01 * Amt ratio + 1.4102E-01

Amt ratio = 4.1646E-02 * Area ratio + -5.8730E-03

Correlation Coefficient = 0.9974



Component 13 = METHOXYCHLOR

INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0075	548106	0.0075	0.1609
2	0.0187	1468188	0.0187	0.4157
3	0.0375	3162805	0.0375	0.8161
4	0.0562	4704793	0.0562	1.1073
5	0.0750	6586241	0.0750	1.4644

Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 1.9047E+01 * Amt ratio + 5.0420E-02

Amt ratio = 5.2502E-02 * Area ratio + -2.6471E-03

Correlation Coefficient = 0.9962

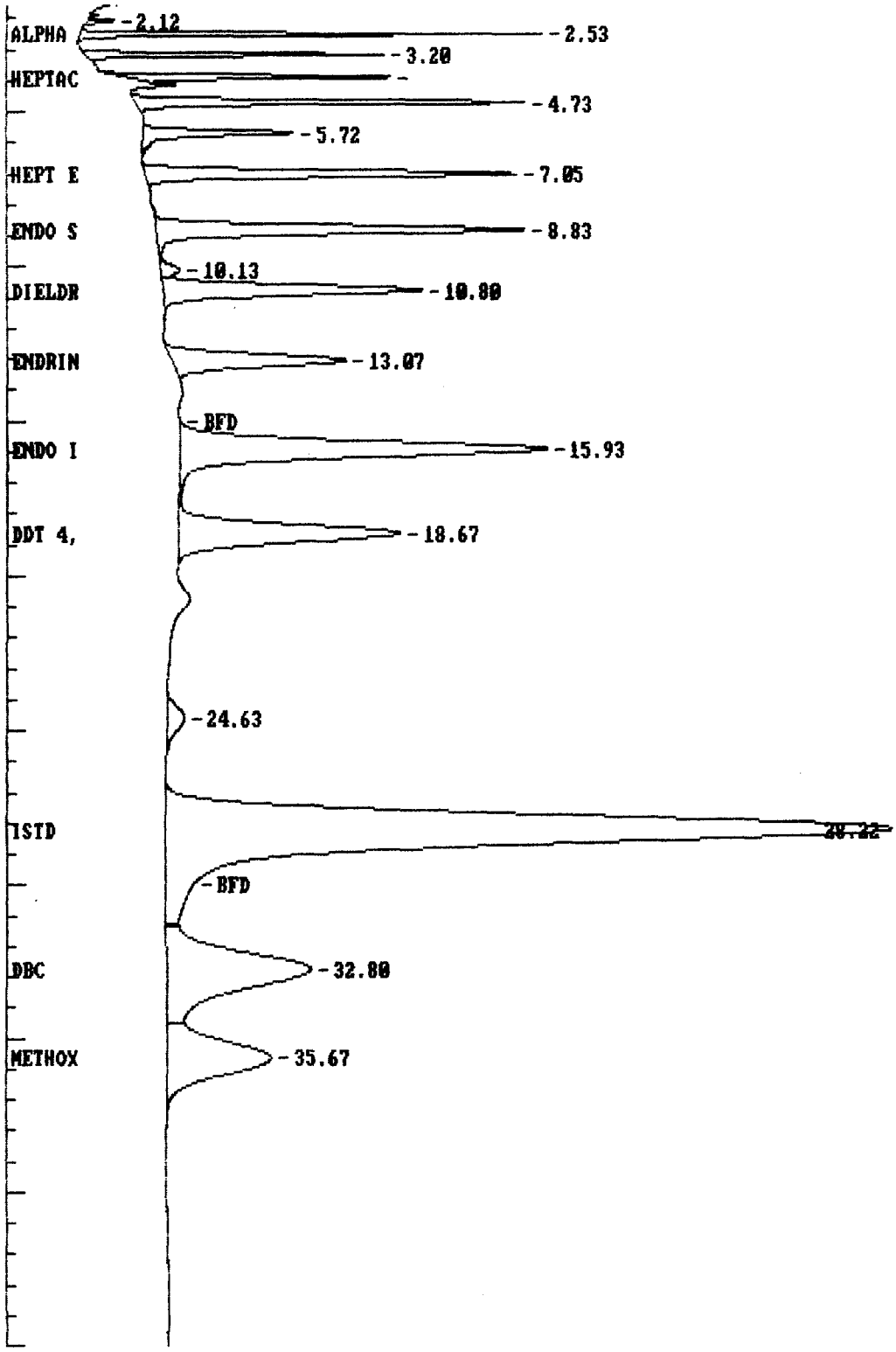
INTERNAL STANDARD TABLE

```
******************** 12-21-1989 12:25:20 Version 4.1 **********************
* Sample Name: STD A 1                          Data File: M:OK4          *
* Date: 12-20-1989 13:00:34 Method: M:QPESTA 12-21-1989 12:24:18  #  141  *
* Interface: 0   Cycle#:  4    Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000           *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*             Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                      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
2	2.53	ALPHA BHC	0.0013	3.4930%	192992	31771	6.1	1	2	15	0	6.8163E-09
3	3.20	LINDANE	0.0010	2.7837%	144309	20449	7.1	1	3	15	0	7.2647E-09
4	3.92	HEPTACHLOR	0.0009	2.2895%	150150	17893	8.4	1	4	15	0	5.7424E-09
5	4.73	ALDRIN	0.0019	4.9695%	286221	26800	10.7	1	5	15	0	6.5387E-09
7	7.05	HEPT EPOXIDE	0.0020	5.2286%	393748	25545	15.4	1	7	15	0	5.0010E-09
8	8.83	ENDO SULFAN 1	0.0026	6.8656%	494744	25329	19.5	2	8	15	0	5.2262E-09
10	10.80	DIELDRIN	0.0027	7.0417%	419951	17798	23.6	2	10	15	0	6.3149E-09
11	13.07	ENDRIN	0.0047	12.5159%	330385	11989	27.6	1	11	15	0	1.4267E-08
12	15.93	ENDO II	0.0048	12.6655%	926777	25306	36.6	2	12	15	0	5.1467E-09
13	18.67	DDT 4,4'	0.0054	14.3347%	604227	15285	39.5	2	13	15	0	8.9346E-09
15	28.22	ISTD	1.0000	0.0000%	3406528	49985	68.2	2	15	15	0	2.9355E-07
16	32.80	DBC	0.0047	12.4104%	862698	9907	87.1	2	16	15	0	5.4177E-09
17	35.67	METHOXYCHLOR	0.0058	15.4018%	548106	7173	76.4	2	17	15	0	1.0583E-08

TOTAL AMOUNT = 0.0377

Data File = M:OK4.PTS Printed on 12-21-1989 at 12:26:55
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 50370 uv High Value: 106477 uv Scale factor: 1.0

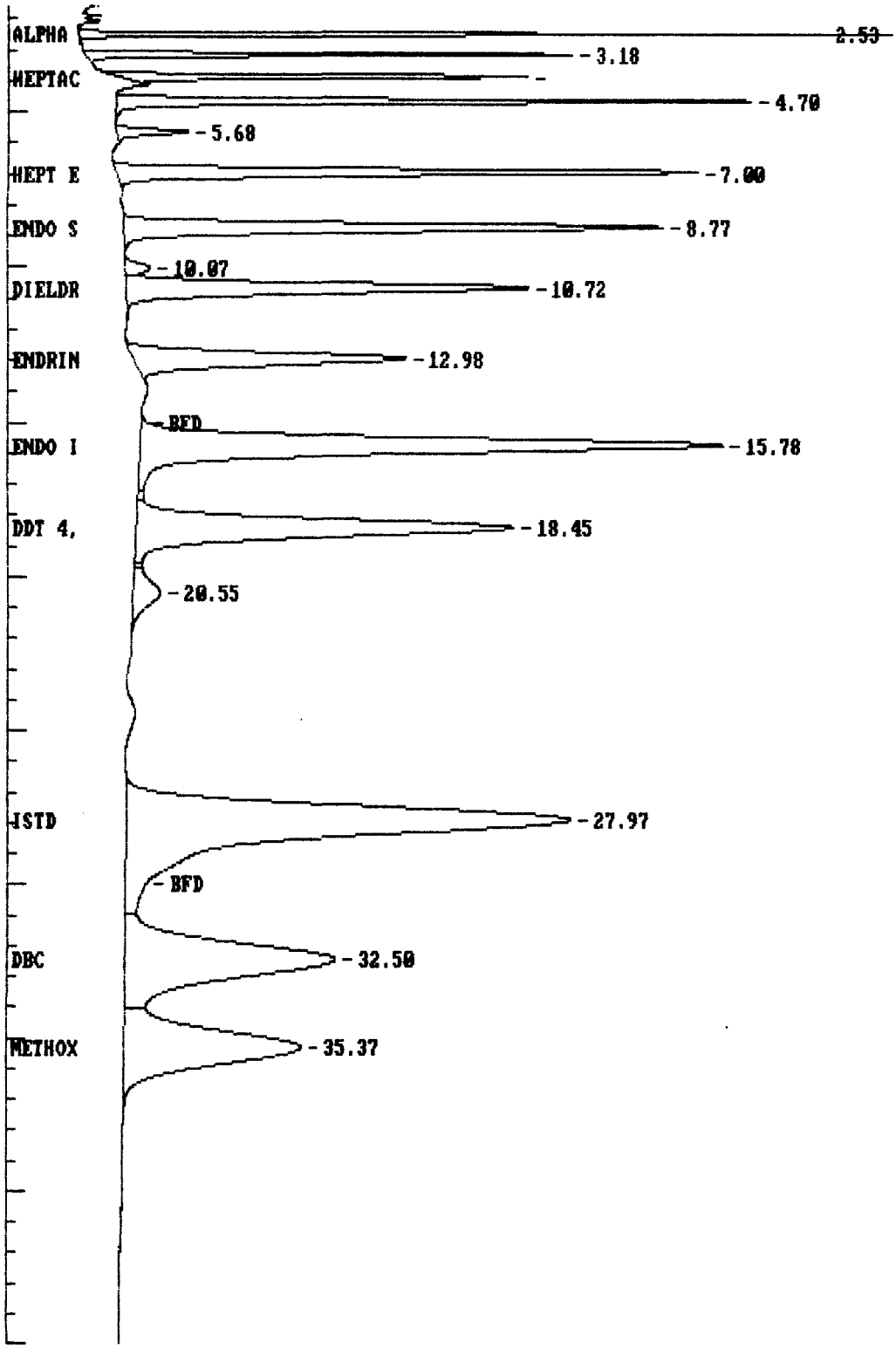


```
*****    INTERNAL STANDARD TABLE    *****
******************** 12-21-1989 12:28:21 Version 4.1 **********************
* Sample Name: STD A 2                          Data File: M:OK5          *
* Date: 12-20-1989 13:55:19 Method: M:QPESTA 12-21-1989 12:24:18  #  141  *
* Interface: 0   Cycle#:  5    Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000           *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*             Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:        *   *
*************************************************************************
Starting Delay:    1.50                      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
1	2.53	ALPHA BHC	0.0030	2.6716%	493775	88022	5.6	1	1	14	0	6.1061E-09
2	3.18	LINDANE	0.0025	2.2132%	367926	52564	7.0	1	2	14	0	6.7885E-09
3	3.90	HEPTACHLOR	0.0023	2.0093%	375373	43581	8.6	1	3	14	0	6.0410E-09
4	4.70	ALDRIN	0.0050	4.4073%	717149	68746	10.4	1	4	14	0	6.9355E-09
6	7.00	HEPT EPOXIDE	0.0063	5.5788%	958453	62911	15.2	1	6	14	0	6.5688E-09
7	8.77	ENDO SULFAN 1	0.0075	6.6811%	1110265	58386	19.0	1	7	14	0	6.7911E-09
9	10.72	DIELDRIN	0.0077	6.8004%	1009762	43599	23.2	2	9	14	0	7.6004E-09
10	12.98	ENDRIN	0.0128	11.3617%	799377	29344	27.2	1	10	14	0	1.6040E-08
11	15.78	ENDO II	0.0154	13.6222%	2214970	63063	35.1	2	11	14	0	6.9406E-09
12	18.45	DDT 4,4'	0.0153	13.5838%	1640558	40837	40.2	2	12	14	0	9.3443E-09
14	27.97	ISTD	1.0000	0.0000%	3531670	48145	73.4	2	14	14	0	2.8315E-07
15	32.50	DBC	0.0159	14.0762%	1845173	22815	80.9	2	15	14	0	8.6093E-09
16	35.37	METHOXYCHLOR	0.0192	16.9945%	1468188	19125	76.8	2	16	14	0	1.3063E-08

TOTAL AMOUNT = 0.1129

Data File = M:OK5.PTS Printed on 12-21-1989 at 12:28:57
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 51779 uv High Value: 139858 uv Scale factor: 1.0



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

********** 12-21-1989 12:30:26 Version 4.1 **********

* Sample Name: STD A 3 Data File: M:OK6 *
* Date: 12-20-1989 14:33:35 Method: M:QPESTA 12-21-1989 12:24:18 # 141 *
* Interface: 0 Cycle#: 6 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 5000 *

****

* Instrument Type: HP 5890 GC/EC #3 Column Type: PACKED MIXED PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL 200 C *
* Detector 0: ECD QUANT Detector 1: *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN: * *

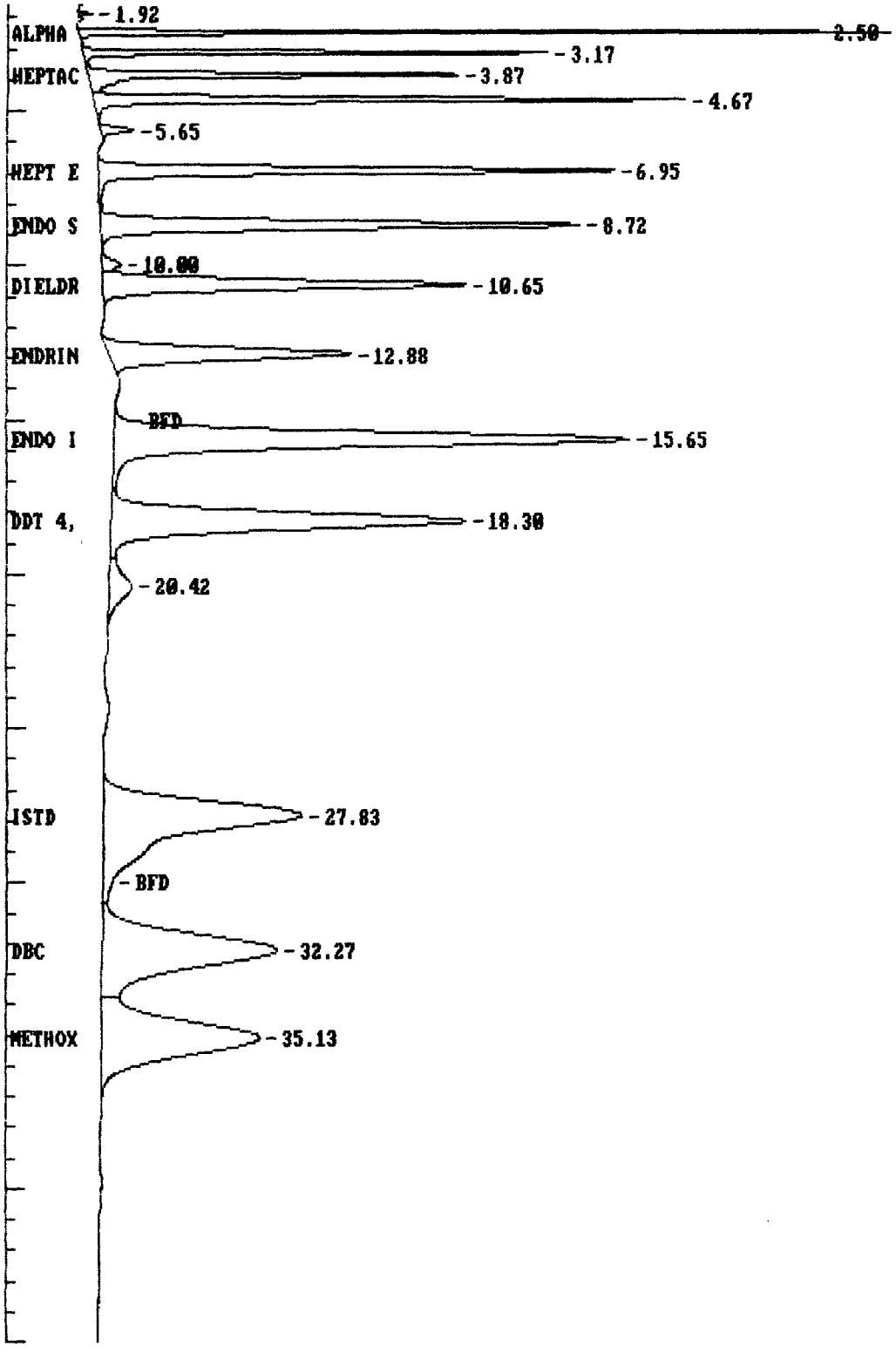
****

Starting Delay: 1.50 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
2	2.50	ALPHA BHC	0.0062	2.7013%	1149480	207468	5.5	1	2	15	0	5.4103E-09
3	3.17	LINDANE	0.0050	2.1736%	818112	118540	6.9	2	3	15	0	6.1167E-09
4	3.87	HEPTACHLOR	0.0056	2.4263%	981219	94268	10.4	2	4	15	0	5.6928E-09
5	4.67	ALDRIN	0.0103	4.4824%	1582051	151269	10.5	2	5	15	0	6.5230E-09
7	6.95	HEPT EPOXIDE	0.0132	5.7469%	2019663	131809	15.3	2	7	15	0	6.5510E-09
8	8.72	ENDO SULFAN 1	0.0156	6.7938%	2290337	122523	18.7	2	8	15	0	6.8291E-09
10	10.65	DIELDRIN	0.0154	6.6966%	2079830	92697	22.4	2	10	15	0	7.4128E-09
11	12.88	ENDRIN	0.0252	10.9506%	1643259	61774	26.6	1	11	15	0	1.5342E-08
12	15.65	ENDO II	0.0313	13.5985%	4498960	131753	34.1	2	12	15	0	6.9587E-09
13	18.30	DDT 4,4'	0.0307	13.3341%	3522616	90512	38.9	2	13	15	0	8.7147E-09
15	27.83	ISTD	1.0000	0.0000%	3875713	50923	76.1	2	15	15	0	2.5802E-07
16	32.27	DBC	0.0314	13.6358%	3468100	44561	77.8	2	16	15	0	9.0520E-09
17	35.13	METHOXYCHLOR	0.0402	17.4601%	3162805	40214	78.6	2	17	15	0	1.2709E-08

TOTAL AMOUNT = 0.2302

Data File = M:OK6.PTS Printed on 12-21-1989 at 12:31:02
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 50507 uv High Value: 258364 uv Scale factor: 1.0



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

********** 12-21-1989 12:32:15 Version 4.1 **********

* Sample Name: STD A 4 Data File: M:OK7 *
* Date: 12-20-1989 15:20:05 Method: M:QPESTA 12-21-1989 12:24:18 # 141 *
* Interface: 0 Cycle#: 7 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 5000 *

****

* Instrument Type: HP 5890 GC/EC #3 Column Type: PACKED MIXED PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL 200 C *
* Detector 0: ECD QUANT Detector 1: *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN: * *

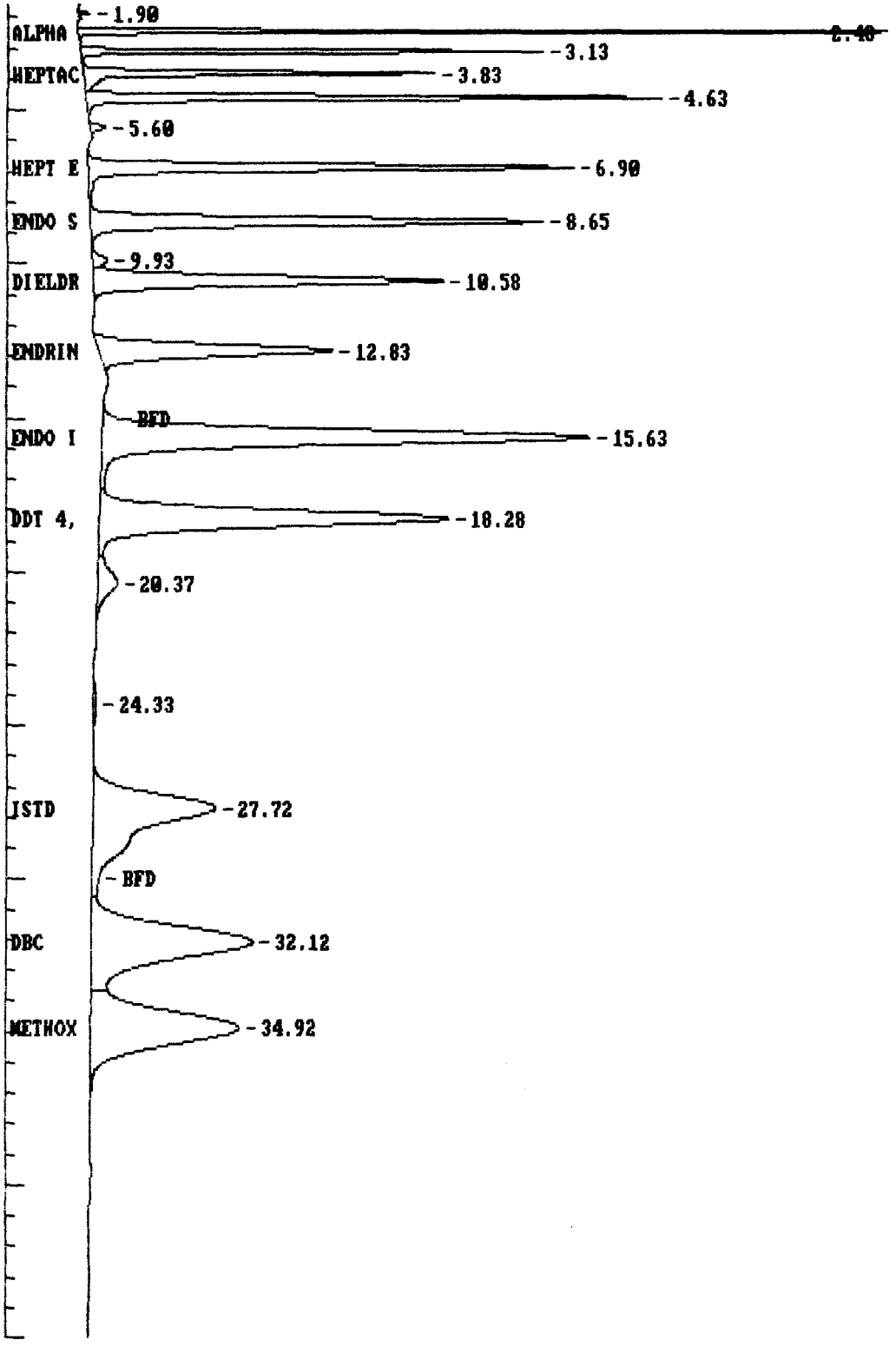
****

Starting Delay: 1.50 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
2	2.48	ALPHA BHC	0.0092	2.7854%	1879498	340238	5.5	1	2	16	0	4.8938E-09
3	3.13	LINDANE	0.0073	2.2181%	1317460	194020	6.8	2	3	16	0	5.5597E-09
4	3.83	HEPTACHLOR	0.0075	2.2777%	1439767	147344	9.8	2	4	16	0	5.2241E-09
5	4.63	ALDRIN	0.0149	4.5126%	2481480	242034	10.3	2	5	16	0	6.0052E-09
7	6.90	HEPT EPOXIDE	0.0189	5.7112%	3075357	203586	15.1	2	7	16	0	6.1325E-09
8	8.65	ENDO SULFAN 1	0.0226	6.8408%	3518954	190255	18.5	2	8	16	0	6.4196E-09
10	10.58	DIELDRIN	0.0224	6.7817%	3240125	147229	22.0	2	10	16	0	6.9117E-09
11	12.83	ENDRIN	0.0371	11.2476%	2610273	98273	26.6	1	11	16	0	1.4229E-08
12	15.63	ENDO II	0.0457	13.8374%	6979550	204496	34.1	2	12	16	0	6.5469E-09
13	18.28	DDT 4,4'	0.0448	13.5601%	5591669	146504	38.2	2	13	16	0	8.0081E-09
16	27.72	ISTD	1.0000	0.0000%	4248951	51553	82.4	2	16	16	0	2.3535E-07
17	32.12	DBC	0.0443	13.4246%	5122113	67525	75.9	2	17	16	0	8.6549E-09
18	34.92	METHOXYCHLOR	0.0555	16.8029%	4704793	62123	75.7	2	18	16	0	1.1794E-08

TOTAL AMOUNT = 0.3302

Data File = M:OK7.PTS Printed on 12-21-1989 at 12:33:40
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 50721 uv High Value: 391278 uv Scale factor: 1.0

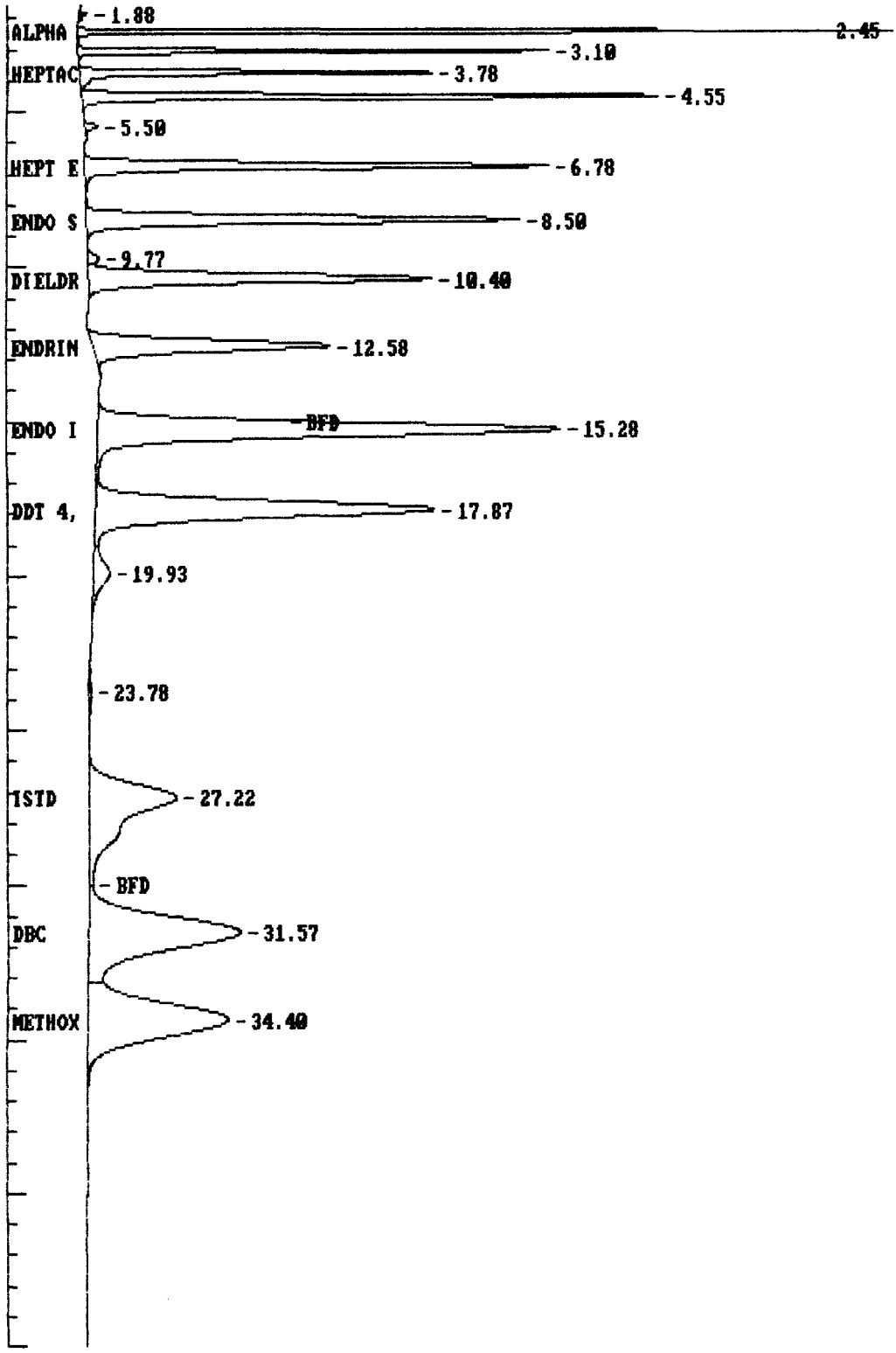


```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-21-1989 12:34:54 Version 4.1 **********************
* Sample Name: STD A 5                          Data File: M:OK8          *
* Date: 12-20-1989 16:06:32 Method: M:QPESTA 12-21-1989 12:24:18  #  141  *
* Interface: 0   Cycle#:  8    Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000           *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*             Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:        *    *
*************************************************************************
Starting Delay:    1.50                          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
2	2.45	ALPHA BHC	0.0127	2.8806%	2749740	498932	5.5	1	2	16	0	4.6013E-09
3	3.10	LINDANE	0.0101	2.3052%	1931791	287518	6.7	1	3	16	0	5.2413E-09
4	3.78	HEPTACHLOR	0.0098	2.2227%	1970262	215221	9.2	2	4	16	0	4.9551E-09
5	4.55	ALDRIN	0.0199	4.5382%	3495051	352486	9.9	2	5	16	0	5.7033E-09
7	6.78	HEPT EPOXIDE	0.0245	5.5880%	4176016	283407	14.7	2	7	16	0	5.8775E-09
8	8.50	ENDO SULFAN 1	0.0296	6.7489%	4807924	264844	18.2	2	8	16	0	6.1655E-09
10	10.40	DIELDRIN	0.0299	6.7985%	4517177	210106	21.5	2	10	16	0	6.6106E-09
11	12.58	ENDRIN	0.0501	11.4086%	3693530	144905	25.5	1	11	16	0	1.3567E-08
12	15.28	ENDO II	0.0589	13.3995%	9370422	283355	33.1	2	12	16	0	6.2810E-09
13	17.87	DDT 4,4'	0.0598	13.6133%	7871598	207316	38.0	2	13	16	0	7.5962E-09
16	27.22	ISTD	1.0000	0.0000%	4497625	53347	84.3	2	16	16	0	2.2234E-07
17	31.57	DBC	0.0597	13.5955%	7083395	92539	76.5	2	17	16	0	8.4304E-09
18	34.40	METHOXYCHLOR	0.0742	16.9011%	6586241	85179	77.3	2	18	16	0	1.1271E-08

TOTAL AMOUNT = 0.4392

Data File = M:OK8.PTS Printed on 12-21-1989 at 12:35:30
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 50586 uv High Value: 549644 uv Scale factor: 1.0

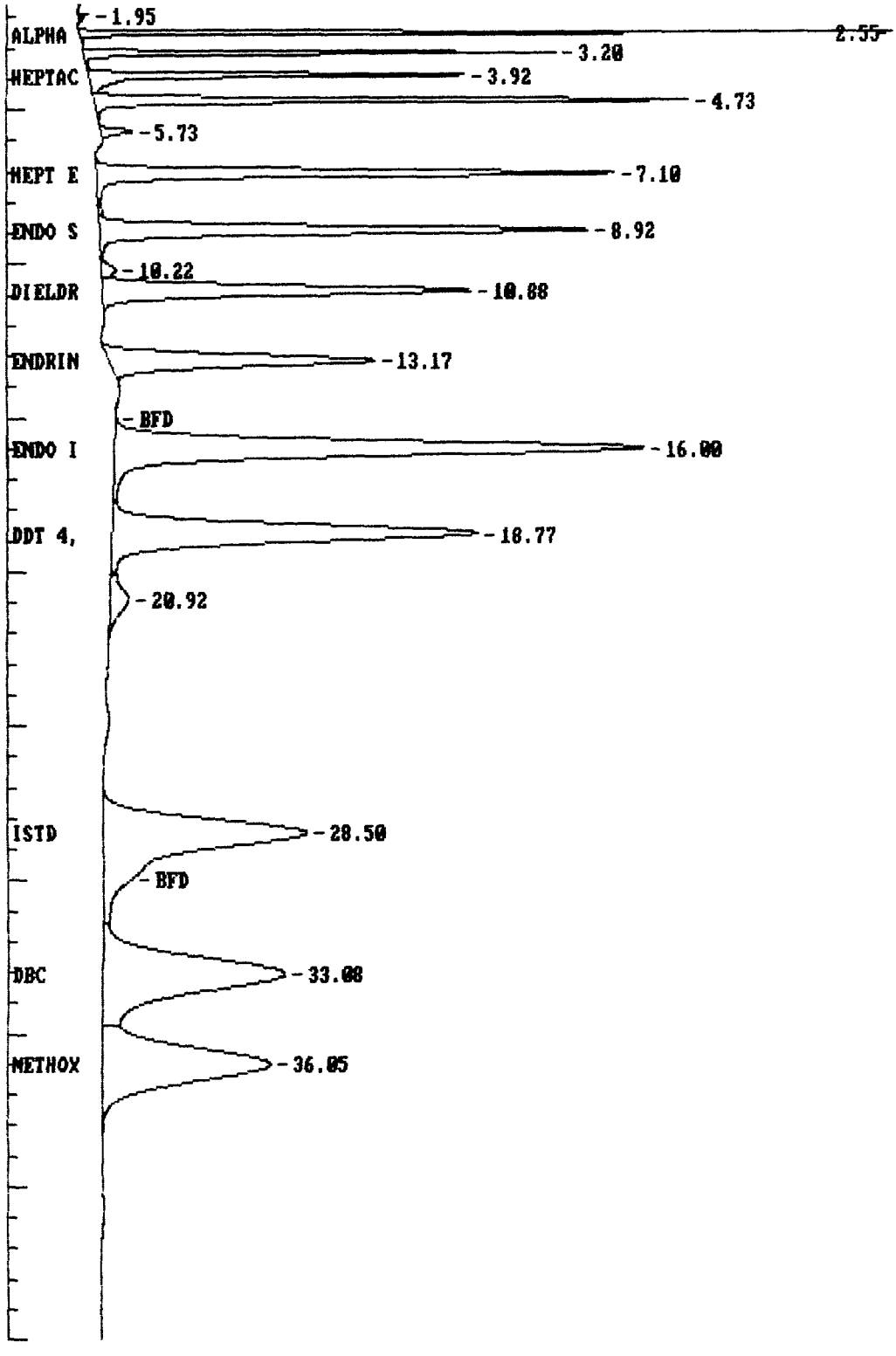


```
******    INTERNAL STANDARD TABLE    ******
******************** 12-21-1989 13:13:59 Version 4.1 **********************
* Sample Name: STD A 3                          Data File: M:OK20          *
* Date: 12-21-1989 01:24:16 Method: M:QPESTA 12-21-1989 12:24:18  #  141  *
* Interface: 0   Cycle#:  20   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000            *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*             Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                    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
```

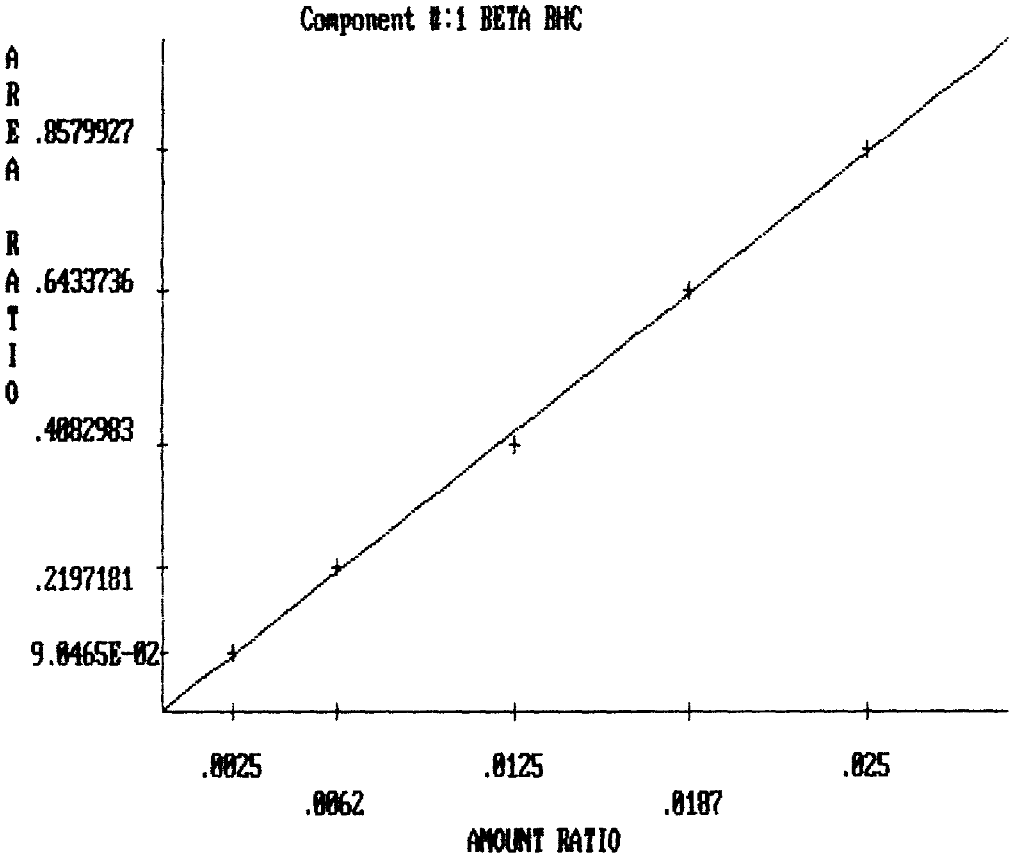
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
2	2.55	ALPHA BHC	0.0063	2.6050%	1159119	204890	5.7	1	2	15	0	5.4715E-09
3	3.20	LINDANE	0.0051	2.0982%	825541	118934	6.9	2	3	15	0	6.1876E-09
4	3.92	HEPTACHLOR	0.0056	2.3061%	974570	94646	10.3	2	4	15	0	5.7608E-09
5	4.73	ALDRIN	0.0105	4.2991%	1585134	149859	10.6	2	5	15	0	6.6029E-09
7	7.10	HEPT EPOXIDE	0.0138	5.6767%	2077365	130437	15.9	2	7	15	0	6.6528E-09
8	8.92	ENDO SULFAN 1	0.0163	6.6984%	2350748	123043	19.1	2	8	15	0	6.9372E-09
10	10.88	DIELDRIN	0.0157	6.4647%	2095405	92758	22.6	2	10	15	0	7.5111E-09
11	13.17	ENDRIN	0.0279	11.4484%	1786645	66817	26.7	1	11	15	0	1.5600E-08
12	16.00	ENDO II	0.0330	13.5435%	4660031	133227	35.0	2	12	15	0	7.0756E-09
13	18.77	DDT 4,4'	0.0325	13.3501%	3681161	92138	40.0	2	13	15	0	8.8292E-09
15	28.50	ISTD	1.0000	0.0000%	3830421	51253	74.7	2	15	15	0	2.6107E-07
16	33.08	DBC	0.0340	13.9833%	3671307	45722	80.3	2	16	15	0	9.2727E-09
17	36.05	METHOXYCHLOR	0.0427	17.5265%	3306190	42006	78.7	2	17	15	0	1.2906E-08

TOTAL AMOUNT = 0.2435

Data File = M:OK20.PTS Printed on 12-21-1989 at 13:14:34
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 53552 uv High Value: 258883 uv Scale factor: 1.0



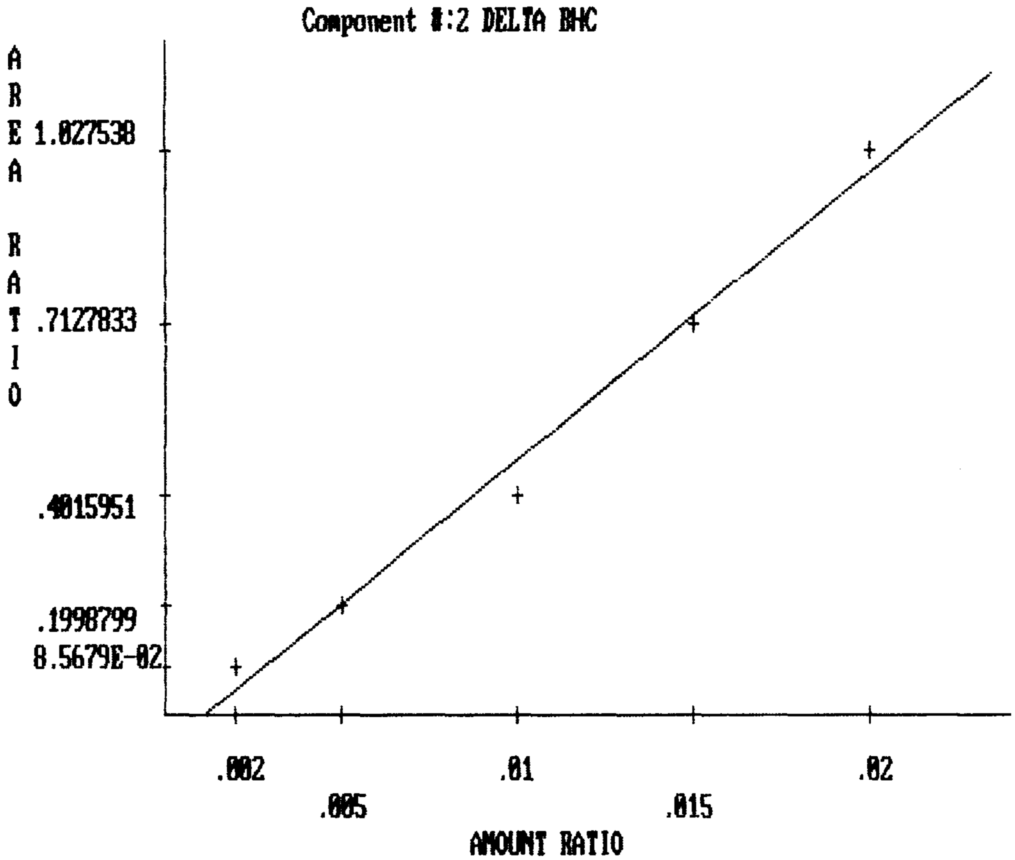
Method M:QPESTB
Sample PESTICIDES
Operator AK
Run date 12-21-1989 11:34:46 version: 25
Printed on 12-21-1989 AT 11:35:32
Straight Line fit



Component 1 = BETA BHC
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0025	285387	0.0025	0.0905
2	0.0062	679245	0.0062	0.2197
3	0.0125	1310199	0.0125	0.4083
4	0.0187	2052372	0.0187	0.6434
5	0.0250	2736758	0.0250	0.8580

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 3.4089E+01 * Amt ratio + 1.4942E-03
Amt ratio = 2.9335E-02 * Area ratio + -4.3834E-05
Correlation Coefficient = 0.9988



Component 2 = DELTA BHC

INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0020	270287	0.0020	0.0857
2	0.0050	617916	0.0050	0.1999
3	0.0100	1288689	0.0100	0.4016
4	0.0150	2273790	0.0150	0.7128
5	0.0200	3277562	0.0200	1.0275

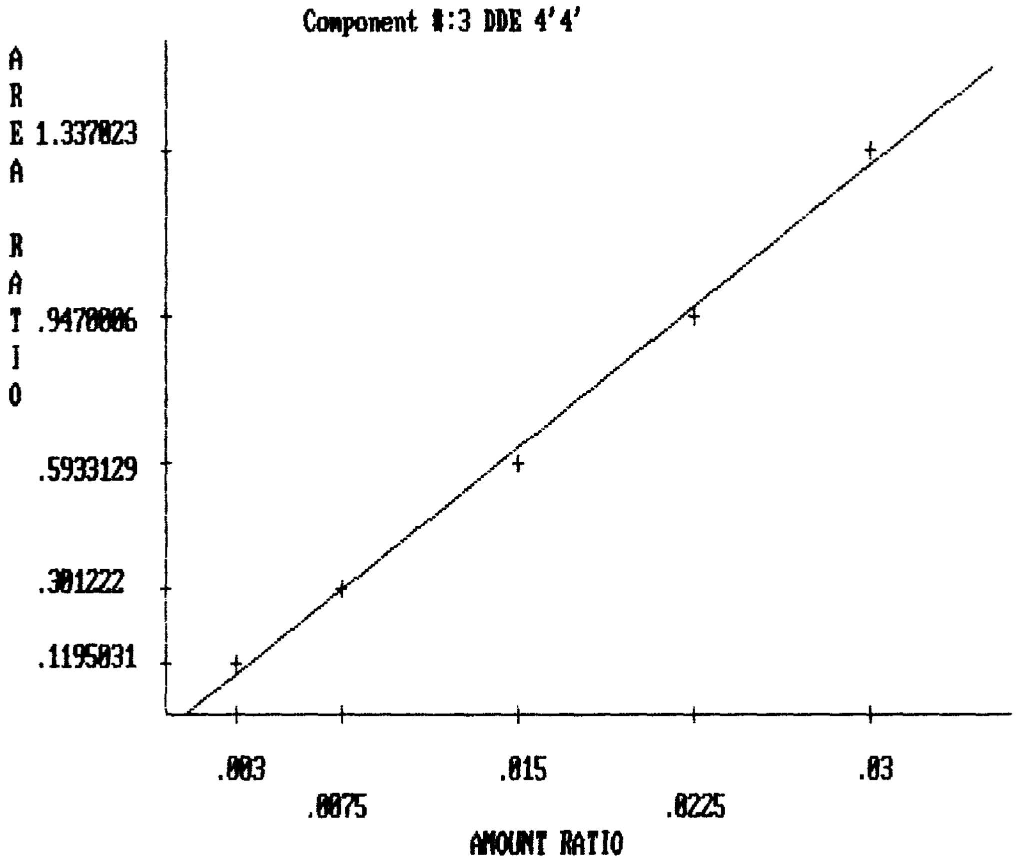
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 5.2455E+01 * Amt ratio + -6.0040E-02

Amt ratio = 1.9064E-02 * Area ratio + 1.1446E-03

Correlation Coefficient = 0.9877



Component 3 = DDE 4'4'

INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0030	376989	0.0030	0.1195
2	0.0075	931210	0.0075	0.3012
3	0.0150	1903897	0.0150	0.5933
4	0.0225	3020947	0.0225	0.9470
5	0.0300	4264732	0.0300	1.3370

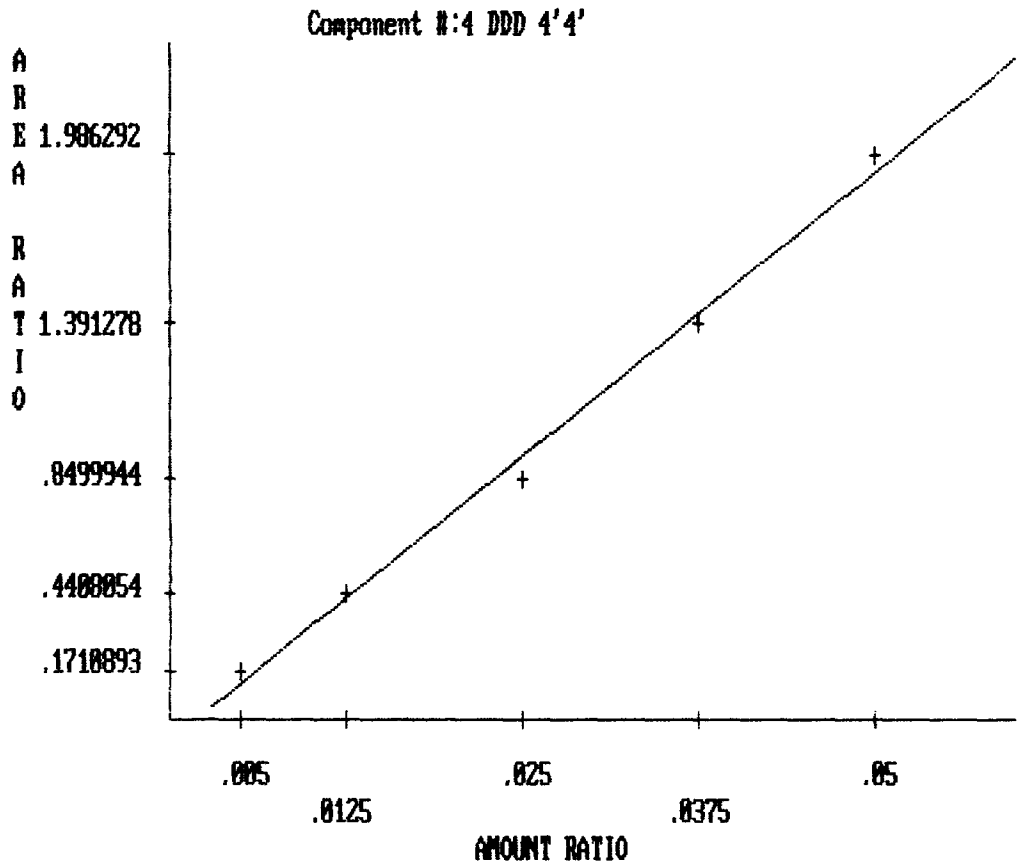
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 4.4790E+01 * Amt ratio + -3.9113E-02

Amt ratio = 2.2326E-02 * Area ratio + 8.7326E-04

Correlation Coefficient = 0.9962



Component 4 = DDD 4'4'
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0050	539724	0.0050	0.1711
2	0.0125	1362723	0.0125	0.4408
3	0.0250	2727569	0.0250	0.8500
4	0.0375	4438198	0.0375	1.3913
5	0.0500	6335719	0.0500	1.9863

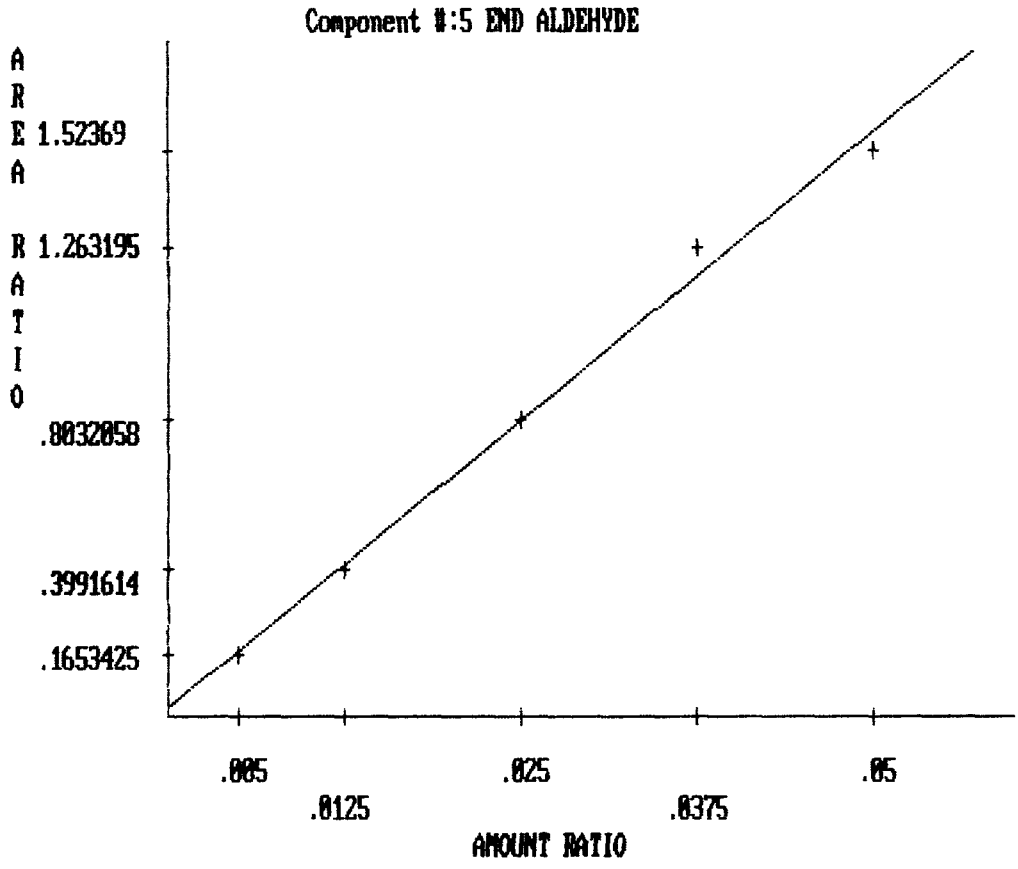
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 3.9983E+01 * Amt ratio + -7.1659E-02

Amt ratio = 2.5011E-02 * Area ratio + 1.7922E-03

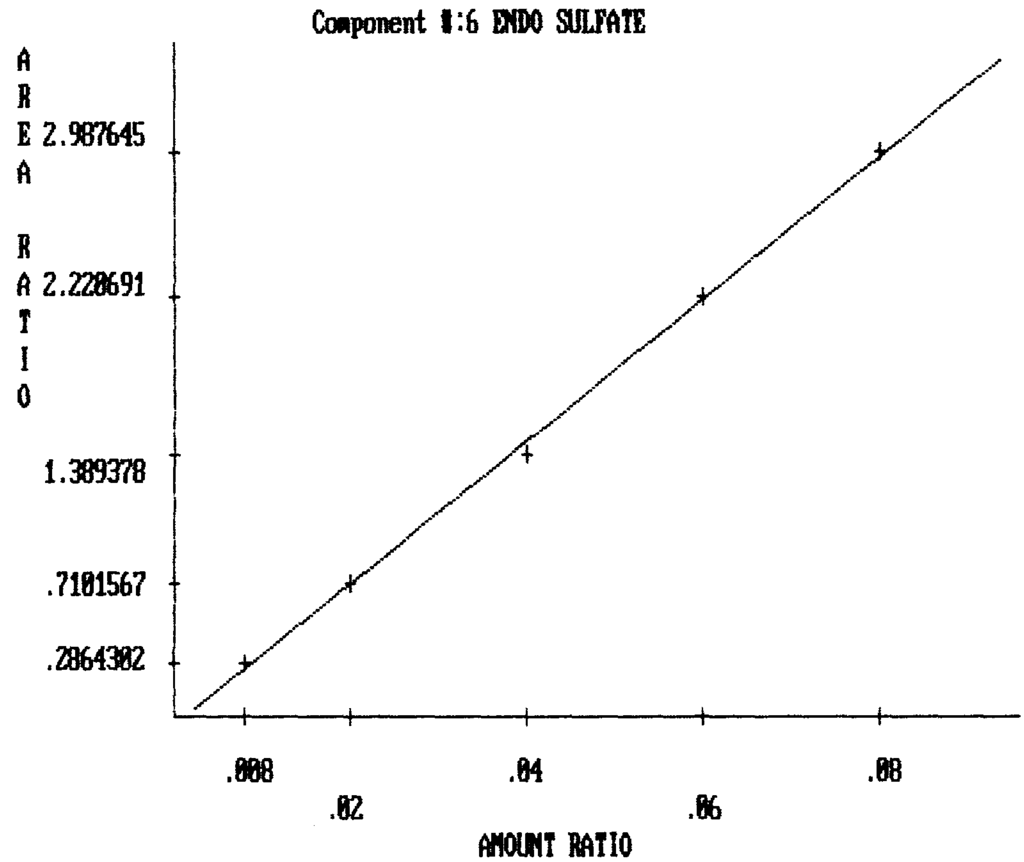
Correlation Coefficient = 0.9940



Component 5 = END ALDEHYDE
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0050	521595	0.0050	0.1653
2	0.0125	1233983	0.0125	0.3992
3	0.0250	2577428	0.0250	0.8032
4	0.0375	4029612	0.0375	1.2632
5	0.0500	4860149	0.0500	1.5237

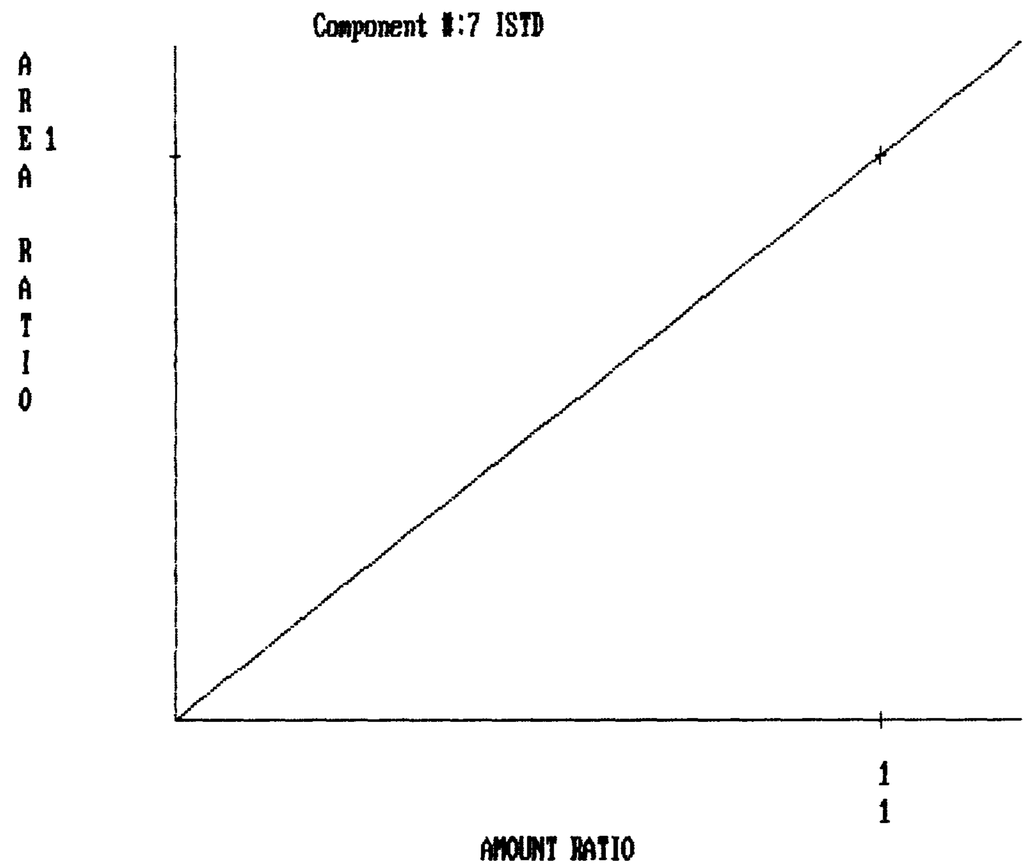
Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 3.1093E+01 * Amt ratio + 2.2505E-02
Amt ratio = 3.2162E-02 * Area ratio + -7.2379E-04
Correlation Coefficient = 0.9933



Component 6 = ENDO SULFATE
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0080	903582	0.0080	0.2864
2	0.0200	2195406	0.0200	0.7102
3	0.0400	4458411	0.0400	1.3894
4	0.0600	7084039	0.0600	2.2207
5	0.0800	9529758	0.0800	2.9876

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 3.7641E+01 * Amt ratio + -4.6992E-02
Amt ratio = 2.6567E-02 * Area ratio + 1.2484E-03
Correlation Coefficient = 0.9987



Component 7 = ISTD

INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	1.0000	3154633	1.0000	1.0000
2	1.0000	3091439	1.0000	1.0000
3	1.0000	3208926	1.0000	1.0000
4	1.0000	3190016	1.0000	1.0000
5	1.0000	3189722	1.0000	1.0000

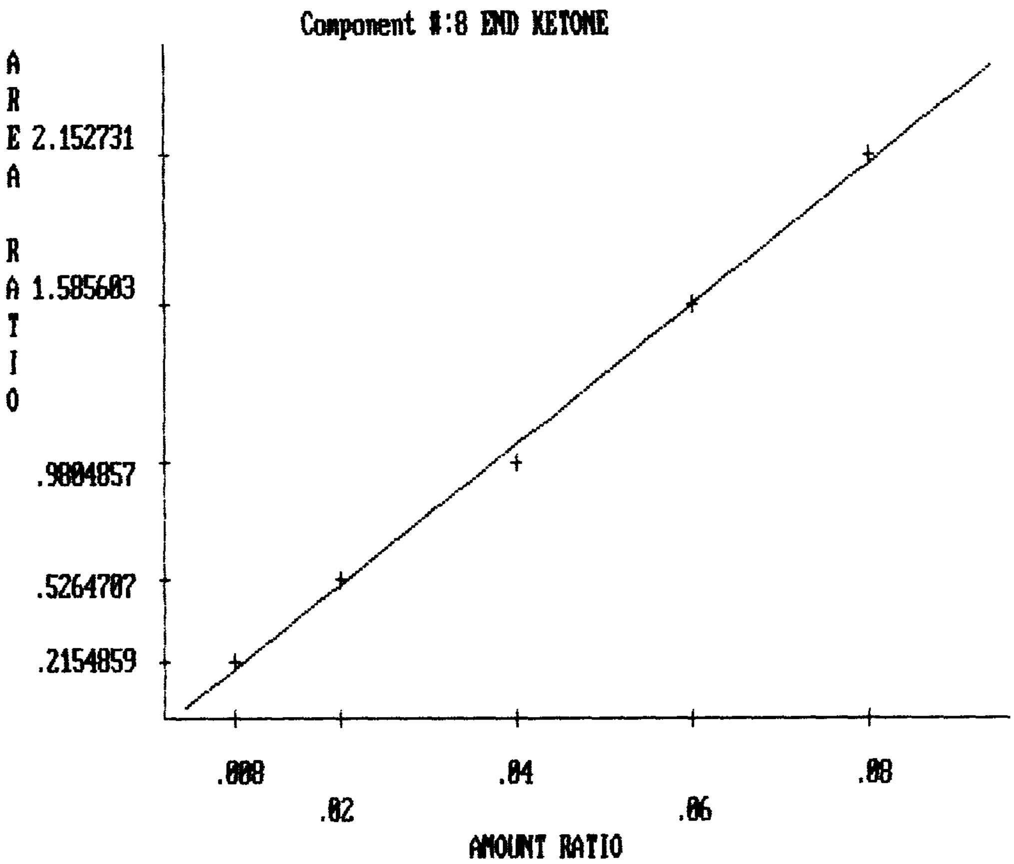
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

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 8 = END KETONE
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0080	679779	0.0080	0.2155
2	0.0200	1627552	0.0200	0.5265
3	0.0400	3146306	0.0400	0.9805
4	0.0600	5058099	0.0600	1.5856
5	0.0800	6866615	0.0800	2.1527

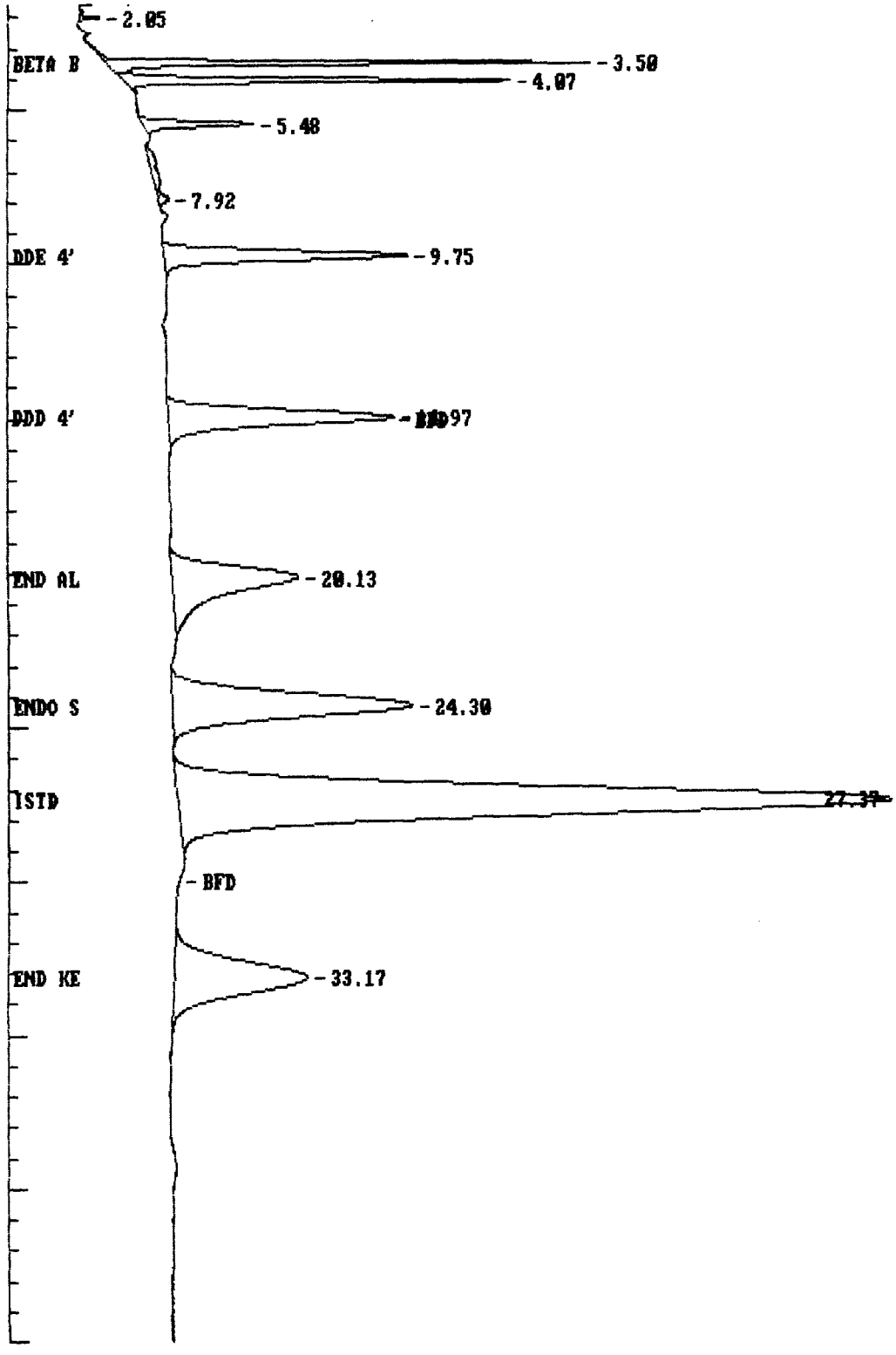
Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 2.6870E+01 * Amt ratio + -2.5639E-02
Amt ratio = 3.7216E-02 * Area ratio + 9.5417E-04
Correlation Coefficient = 0.9974

```
******      INTERNAL STANDARD TABLE      ******
******************** 12-21-1989 12:44:37 Version 4.1 **********************
* Sample Name: STD B 1                          Data File: M:OK9          *
* Date: 12-20-1989 16:53:02 Method: M:QPESTB 12-21-1989 11:34:46  #  25   *
* Interface: 0   Cycle#:  9    Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000           *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*            Detector 0: ECD QUANT            Detector 1:                 *
* Misc. Information: SF68230LD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                      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
2	3.50	BETA BHC	0.0026	6.9737%	285387	34006	8.4	2	2	10	0	9.1454E-09
3	4.07	DELTA BHC	0.0028	7.4225%	270287	27133	10.0	2	3	10	0	1.0278E-08
6	9.75	DDE 4'4'	0.0035	9.4621%	376989	17164	22.0	1	6	10	0	9.3937E-09
7	14.97	DDD 4'4'	0.0061	16.2221%	539724	15906	33.9	1	7	10	0	1.1249E-08
8	20.13	END ALDEHYDE	0.0046	12.2746%	521595	8910	58.5	1	8	10	0	8.8074E-09
9	24.30	ENDO SULFATE	0.0089	23.6679%	903582	16928	53.4	1	9	10	0	9.8032E-09
10	27.37	ISTD	1.0000	0.0000%	3154633	50317	62.7	1	10	10	0	3.1699E-07
11	33.17	END KETONE	0.0090	23.9771%	679779	9386	72.4	1	11	10	0	1.3201E-08

TOTAL AMOUNT = 0.0374

Data File = M:OK9.PTS Printed on 12-21-1989 at 12:45:04
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 49537 uv High Value: 106863 uv Scale factor: 1.0

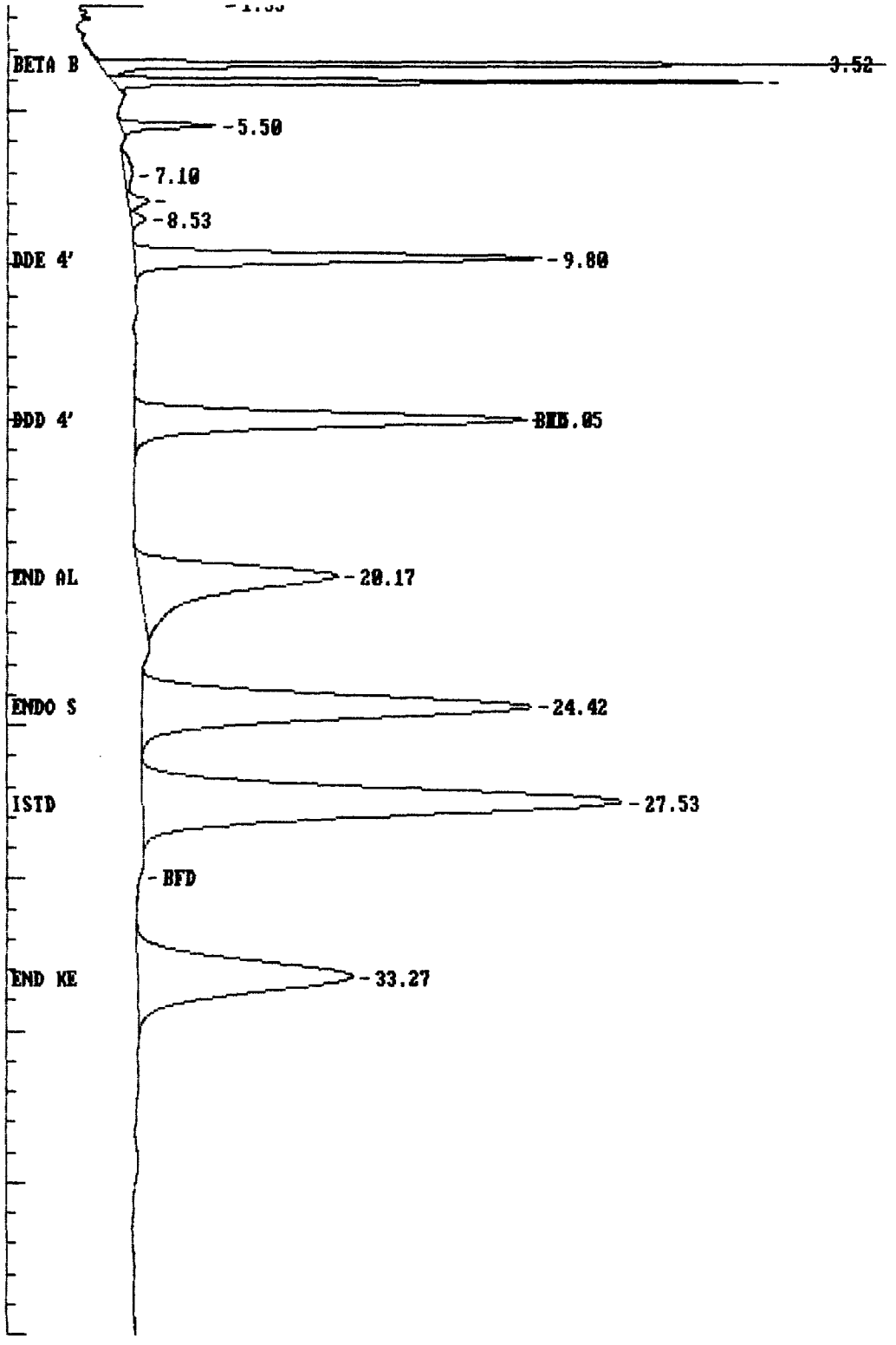


```
******     INTERNAL STANDARD TABLE     ******
******************** 12-21-1989 12:46:59 Version 4.1 **********************
* Sample Name: STD B 2                          Data File: M:OK10          *
* Date: 12-20-1989 17:39:30 Method: M:QPESTB 12-21-1989 11:34:46  #  25   *
* Interface: 0   Cycle#:  10   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000           *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*            Detector 0: ECD QUANT            Detector 1:                 *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                      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
2	3.52	BETA BHC	0.0064	7.5715%	679245	82472	8.2	2	2	12	0	9.4246E-09
3	4.08	DELTA BHC	0.0050	5.8606%	617916	67946	9.1	2	3	12	0	8.0190E-09
8	9.80	DDE 4'4'	0.0076	8.9871%	931210	42707	21.8	1	8	12	0	8.1598E-09
9	15.05	DDD 4'4'	0.0128	15.1595%	1362723	41002	33.2	1	9	12	0	9.4055E-09
10	20.17	END ALDEHYDE	0.0121	14.3277%	1233983	20829	59.2	1	10	12	0	9.8169E-09
11	24.42	ENDO SULFATE	0.0201	23.7912%	2195406	40818	53.8	1	11	12	0	9.1624E-09
12	27.53	ISTD	1.0000	0.0000%	3091439	50278	61.5	1	12	12	0	3.2347E-07
13	33.27	END KETONE	0.0205	24.3024%	1627552	22547	72.2	1	13	12	0	1.2625E-08

TOTAL AMOUNT = 0.0845

Data File = M:OK10.PTS Printed on 12-21-1989 at 12:47:31
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 50288 uv High Value: 135208 uv Scale factor: 1.0



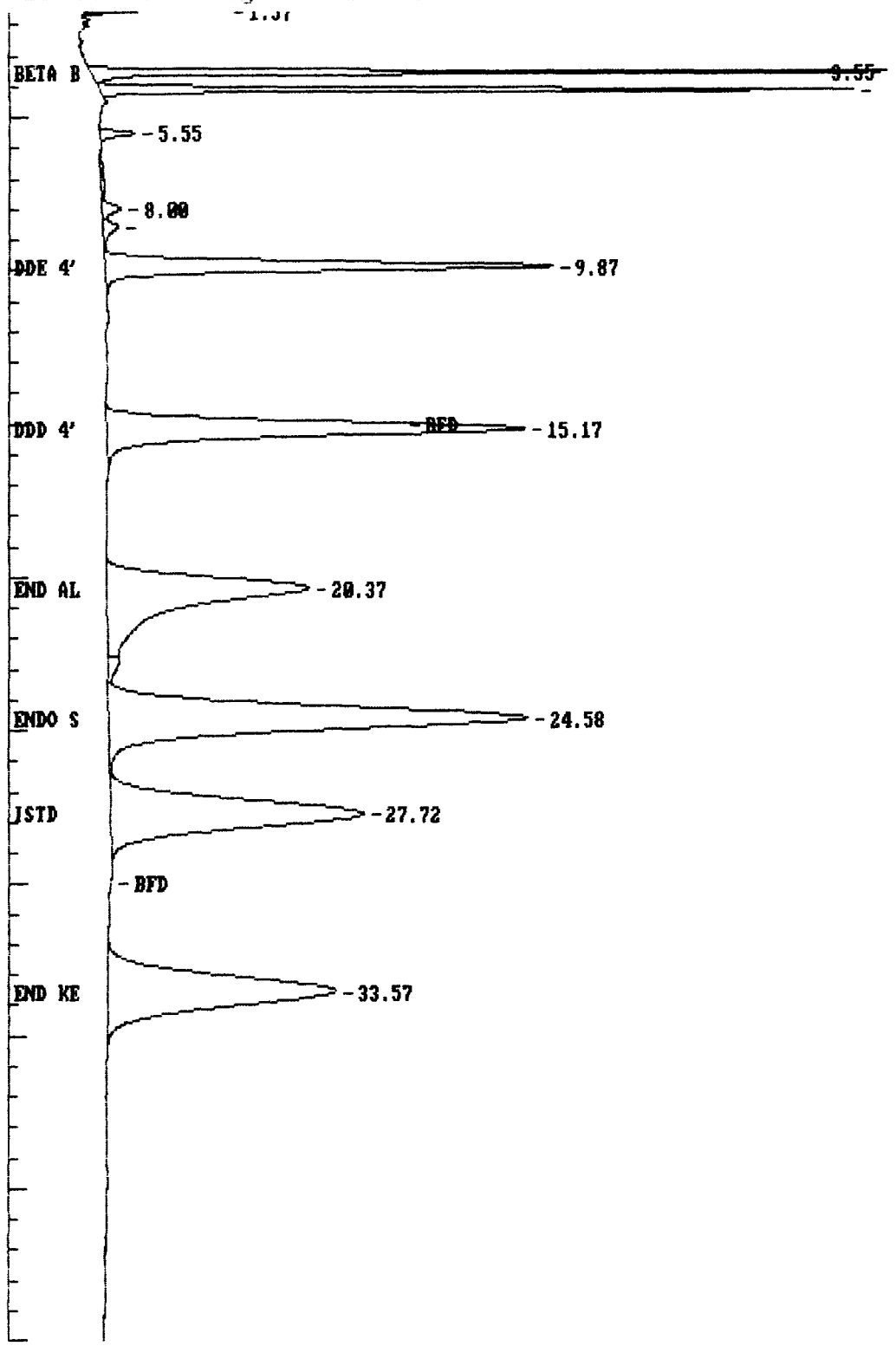
INTERNAL STANDARD TABLE

```
******************** 12-21-1989 12:48:44 Version 4.1 ********************
* Sample Name: STD B 3                          Data File: M:OK11        *
* Date: 12-20-1989 18:26:01 Method: M:QPESTB 12-21-1989 11:34:46  #  25  *
* Interface: 0   Cycle#:  11   Operator KG  Channel#: 0    Vial#: N.A.   *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000          *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN           *
* Conditions: ISOTHERMAL 200 C                                           *
*             Detector 0: ECD QUANT            Detector 1:               *
* Misc. Information: SF68230LD KELLY SF6825 DUKE EARNESTSCRN:        *  *
*************************************************************************
Starting Delay:    1.50                      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
2	3.55	BETA BHC	0.0119	7.5235%	1310199	159388	8.2	2	2	11	0	9.1082E-09
3	4.13	DELTA BHC	0.0088	5.5483%	1288689	150764	8.5	2	3	11	0	6.8291E-09
7	9.87	DDE 4'4'	0.0141	8.9017%	1903897	89444	21.3	2	7	11	0	7.4162E-09
8	15.17	DDD 4'4'	0.0231	14.5326%	2727569	83615	32.6	1	8	11	0	8.4512E-09
9	20.37	END ALDEHYDE	0.0251	15.8297%	2577428	40462	63.7	2	9	11	0	9.7418E-09
10	24.58	ENDO SULFATE	0.0382	24.0578%	4458411	83639	53.3	2	10	11	0	8.5591E-09
11	27.72	ISTD	1.0000	0.0000%	3208926	50579	63.4	2	11	11	0	3.1163E-07
12	33.57	END KETONE	0.0374	23.6065%	3146306	45567	69.0	1	12	11	0	1.1901E-08

TOTAL AMOUNT = 0.1586

Data File = M:OK11.PTS Printed on 12-21-1989 at 12:49:14
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 51399 uv High Value: 213155 uv Scale factor: 1.0

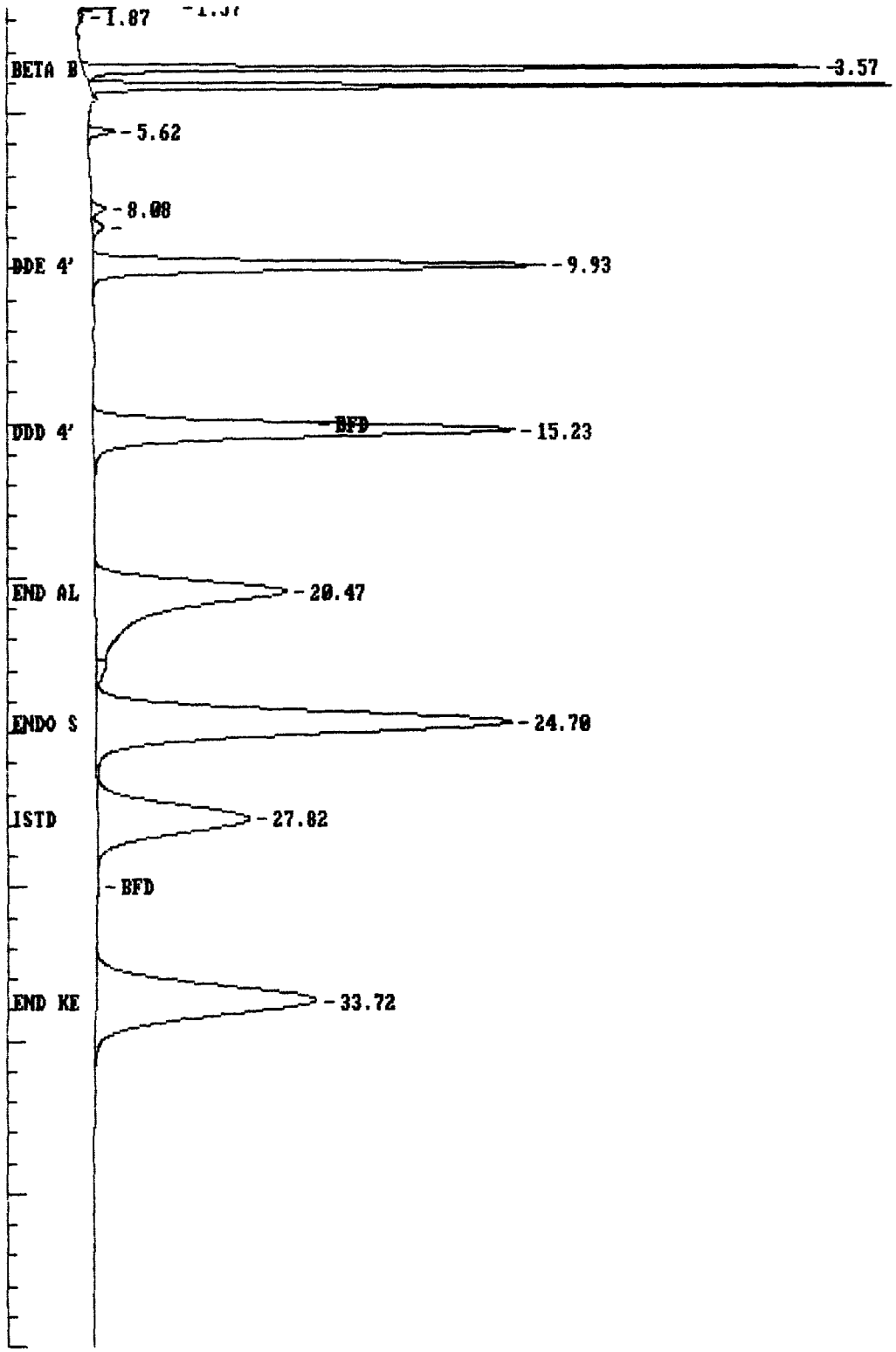


```
*****    INTERNAL STANDARD TABLE    *****
******************** 12-21-1989 12:50:24 Version 4.1 ********************
* Sample Name: STD B 4                          Data File: M:OK12        *
* Date: 12-20-1989 19:12:30 Method: M:QPESTB 12-21-1989 11:34:46  #  25  *
* Interface: 0   Cycle#:  12   Operator KG  Channel#: 0    Vial#: N.A.   *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000          *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN           *
* Conditions: ISOTHERMAL 200 C                                           *
*             Detector 0: ECD QUANT           Detector 1:                *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:        *  *
*************************************************************************
Starting Delay:    1.50                      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	3.57	BETA BHC	0.0188	7.4637%	2052372	241824	8.5	2	3	12	0	9.1745E-09
4	4.17	DELTA BHC	0.0147	5.8399%	2273790	263516	8.6	2	4	12	0	6.4795E-09
8	9.93	DDE 4'4'	0.0220	8.7269%	3020947	148635	20.3	1	8	12	0	7.2879E-09
9	15.23	DDD 4'4'	0.0366	14.5034%	4438198	138190	32.1	1	9	12	0	8.2442E-09
10	20.47	END ALDEHYDE	0.0399	15.8168%	4029612	63099	63.9	2	10	12	0	9.9024E-09
11	24.70	ENDO SULFATE	0.0602	23.8804%	7084039	136528	51.9	2	11	12	0	8.5044E-09
12	27.82	ISTD	1.0000	0.0000%	3190016	50044	63.7	2	12	12	0	3.1348E-07
13	33.72	END KETONE	0.0600	23.7689%	5058099	72612	69.7	1	13	12	0	1.1855E-08

TOTAL AMOUNT = 0.2523

Data File = M:OK12.PTS Printed on 12-21-1989 at 12:50:52
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 51924 uv High Value: 319863 uv Scale factor: 1.0



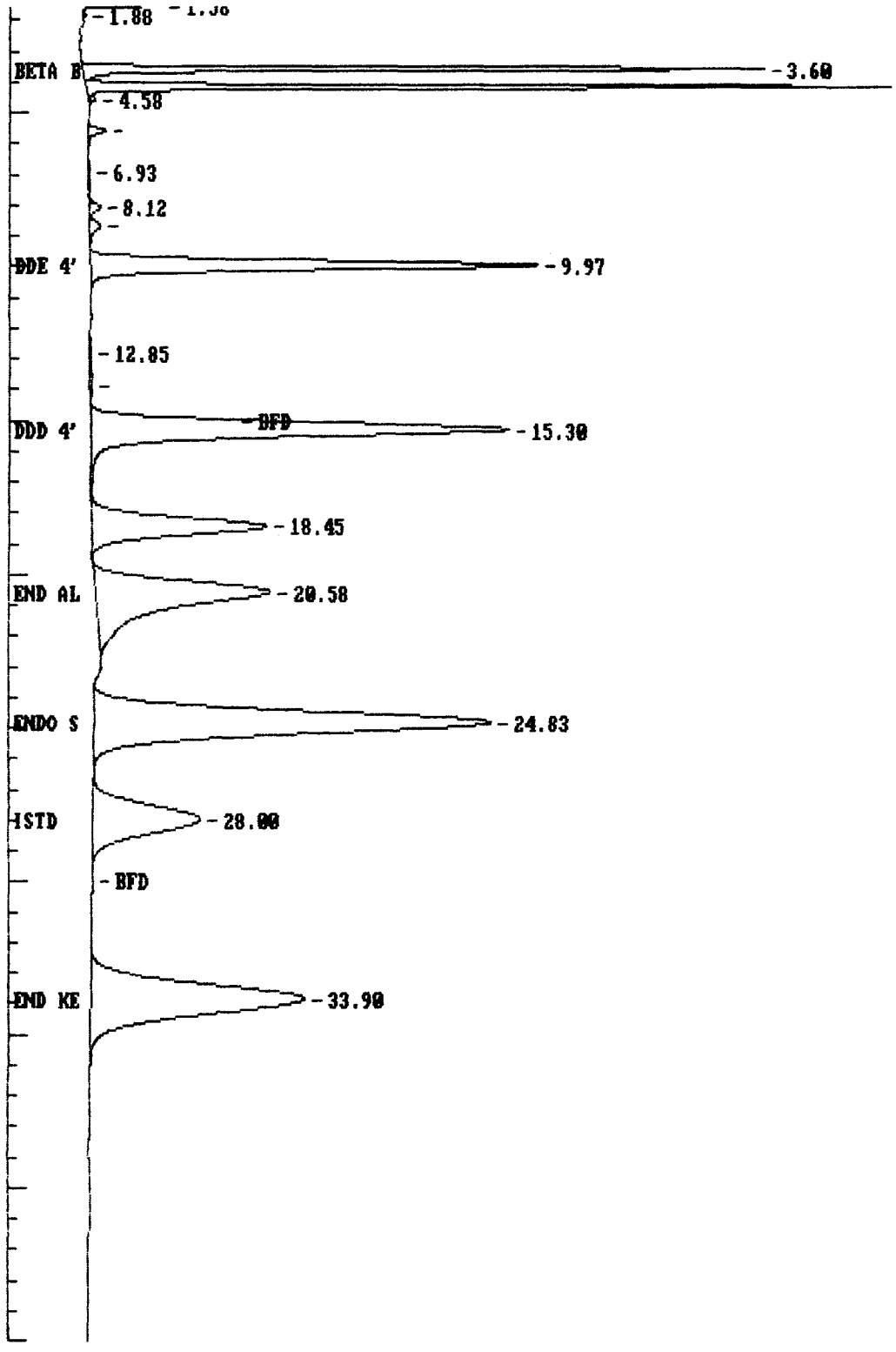
INTERNAL STANDARD TABLE

```
******************** 12-21-1989 12:51:57 Version 4.1 **********************
* Sample Name: STD B 5                          Data File: M:OK13          *
* Date: 12-20-1989 19:58:59 Method: M:QPESTB 12-21-1989 11:34:46  #  25   *
* Interface: 0   Cycle#:  13   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000           *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*             Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                      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	3.60	BETA BHC	0.0251	7.4330%	2736758	320521	8.5	2	3	17	0	9.1807E-09
4	4.18	DELTA BHC	0.0207	6.1337%	3277562	378908	8.7	3	4	17	0	6.3259E-09
10	9.97	DDE 4'4'	0.0307	9.0893%	4264732	210604	20.3	2	10	17	0	7.2042E-09
13	15.30	DDD 4'4'	0.0515	15.2269%	6335719	196567	32.2	2	13	17	0	8.1239E-09
15	20.58	END ALDEHYDE	0.0483	14.2831%	4860149	82452	58.9	1	15	17	0	9.9340E-09
16	24.83	ENDO SULFATE	0.0806	23.8506%	9529758	186600	51.1	2	16	17	0	8.4599E-09
17	28.00	ISTD	1.0000	0.0000%	3189722	50478	63.2	2	17	17	0	3.1351E-07
18	33.90	END KETONE	0.0811	23.9835%	6866615	100899	68.1	1	18	17	0	1.1806E-08

TOTAL AMOUNT = 0.3380

Data File = M:OK13.PTS Printed on 12-21-1989 at 12:56:16
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 52492 uv High Value: 434398 uv Scale factor: 1.0

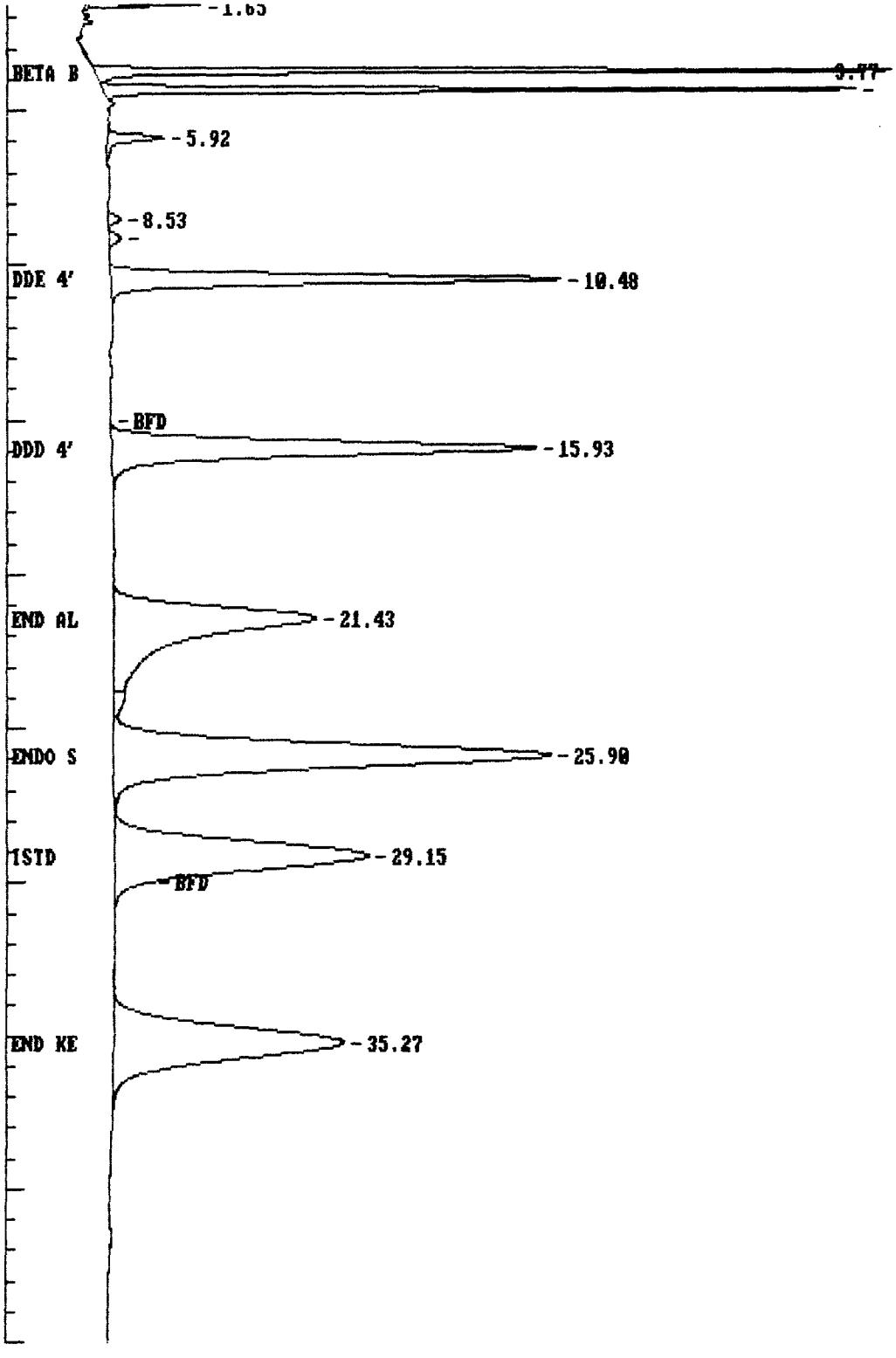


```
*****   INTERNAL STANDARD TABLE   *****
******************* 12-26-1989 11:20:01 Version 4.1 *********************
* Sample Name: STD B 3                          Data File: m:ok28        *
* Date: 12-21-1989 07:35:57 Method: M:QPESTB 12-21-1989 11:34:46  #  25  *
* Interface: 0   Cycle#:  28   Operator KG  Channel#: 0    Vial#: N.A.   *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000          *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN           *
* Conditions: ISOTHERMAL 200 C                                           *
*             Detector 0: ECD QUANT            Detector 1:               *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:        *  *
*************************************************************************
Starting Delay:    1.50                      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
```

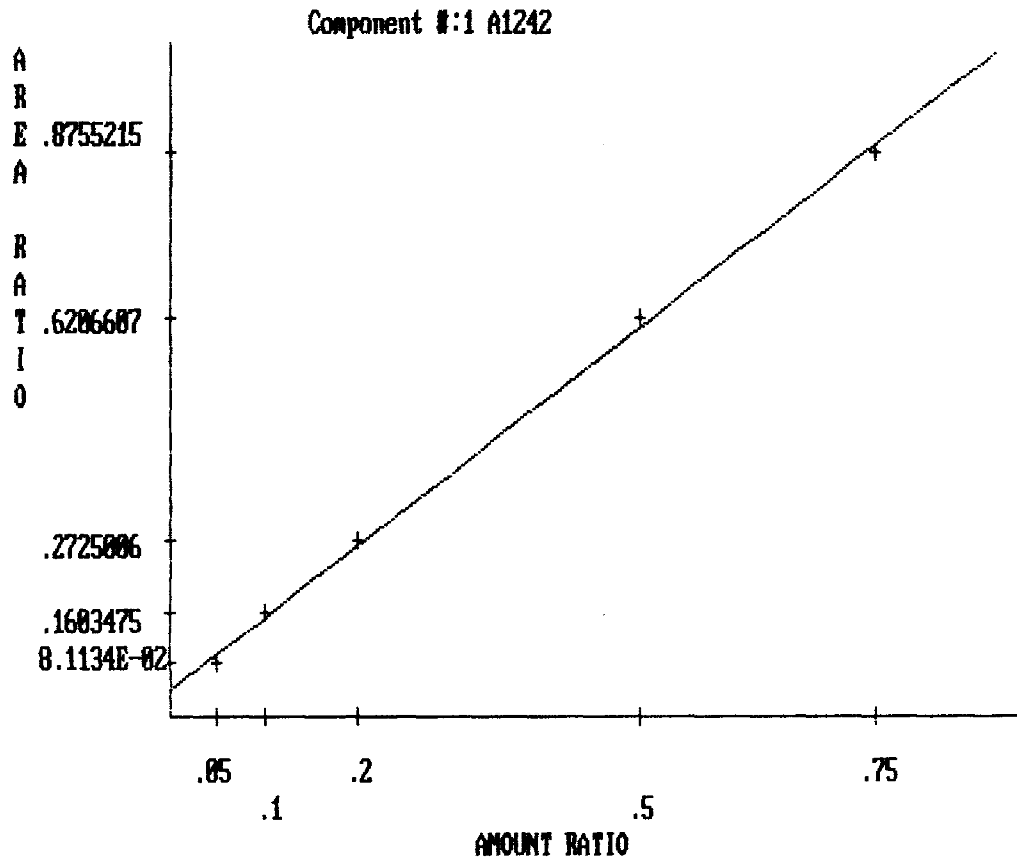
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	HEIGHT BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
2	3.77	BETA BHC	0.0126	7.6216%	1372990	157220	8.7	2	2	11	0	9.1441E-09
3	4.38	DELTA BHC	0.0090	5.4912%	1324935	148025	9.0	2	3	11	0	6.8271E-09
7	10.48	DDE 4'4'	0.0142	8.5985%	1903097	88819	21.4	1	3	11	.3846	7.4426E-09
8	15.93	DDD 4'4'	0.0233	14.1303%	2746141	83579	32.9	1	8	11	0	8.4761E-09
9	21.43	END ALDEHYDE	0.0264	16.0045%	2692525	39964	67.4	2	9	11	0	9.7914E-09
10	25.90	ENDO SULFATE	0.0397	24.0992%	4626763	86074	53.8	2	10	11	0	8.5800E-09
11	29.15	ISTD	1.0000	0.0000%	3196917	50168	63.7	2	11	11	0	3.1280E-07
12	35.27	END KETONE	0.0396	24.0548%	3321850	45463	73.1	1	12	11	0	1.1929E-08

TOTAL AMOUNT = 0.1647

Data File = m:ok28.PTS Printed on 12-26-1989 at 11:20:29
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 53068 uv High Value: 213676 uv Scale factor: 1.0



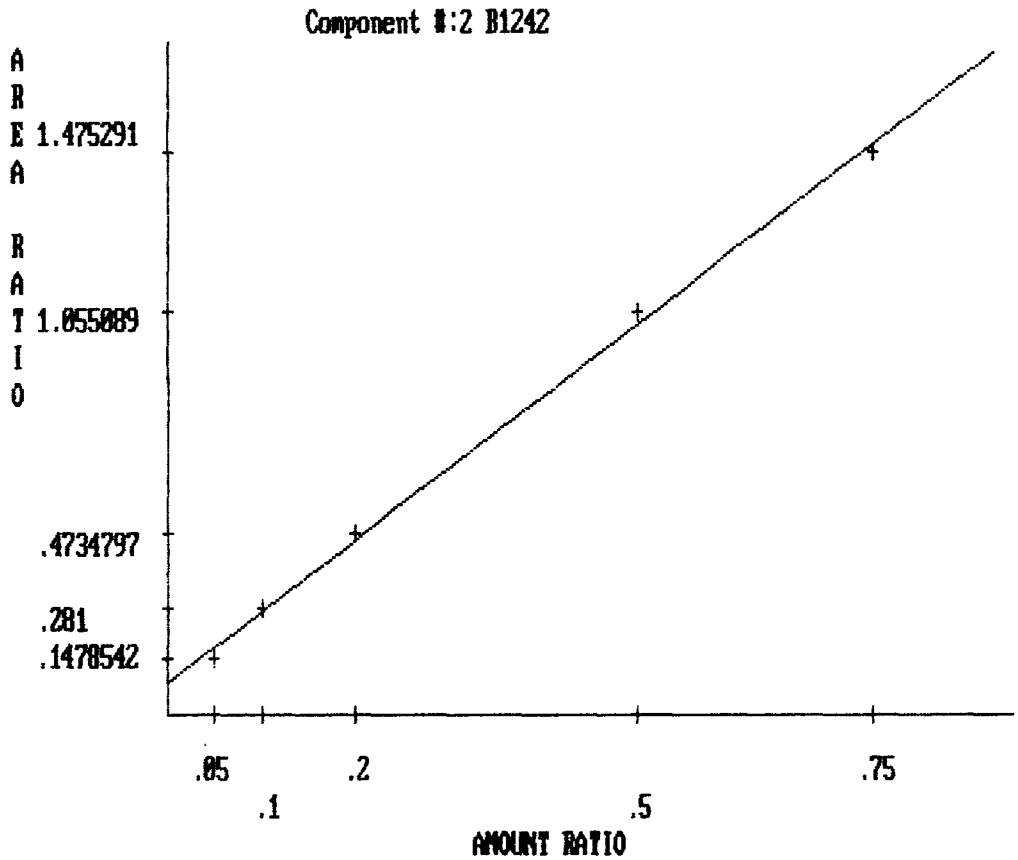
Method M:GMET42
Sample
Operator JV
Run date 12-26-1989 08:25:42 version: 38
Printed on 12-26-1989 AT 08:26:13
Straight Line fit



Component 1 = A1242
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	255884	0.0500	0.0811
2	0.1000	472047	0.1000	0.1603
3	0.2000	852643	0.2000	0.2725
4	0.5000	1880844	0.5000	0.6207
5	0.7500	2716725	0.7500	0.8755

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 1.1284E+00 * Amt ratio + 4.0958E-02
Amt ratio = 8.8624E-01 * Area ratio + -3.6299E-02
Correlation Coefficient = 0.9984



Component 2 = B1242

INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	466307	0.0500	0.1479
2	0.1000	827236	0.1000	0.2810
3	0.2000	1481498	0.2000	0.4735
4	0.5000	3197330	0.5000	1.0551
5	0.7500	4577798	0.7500	1.4753

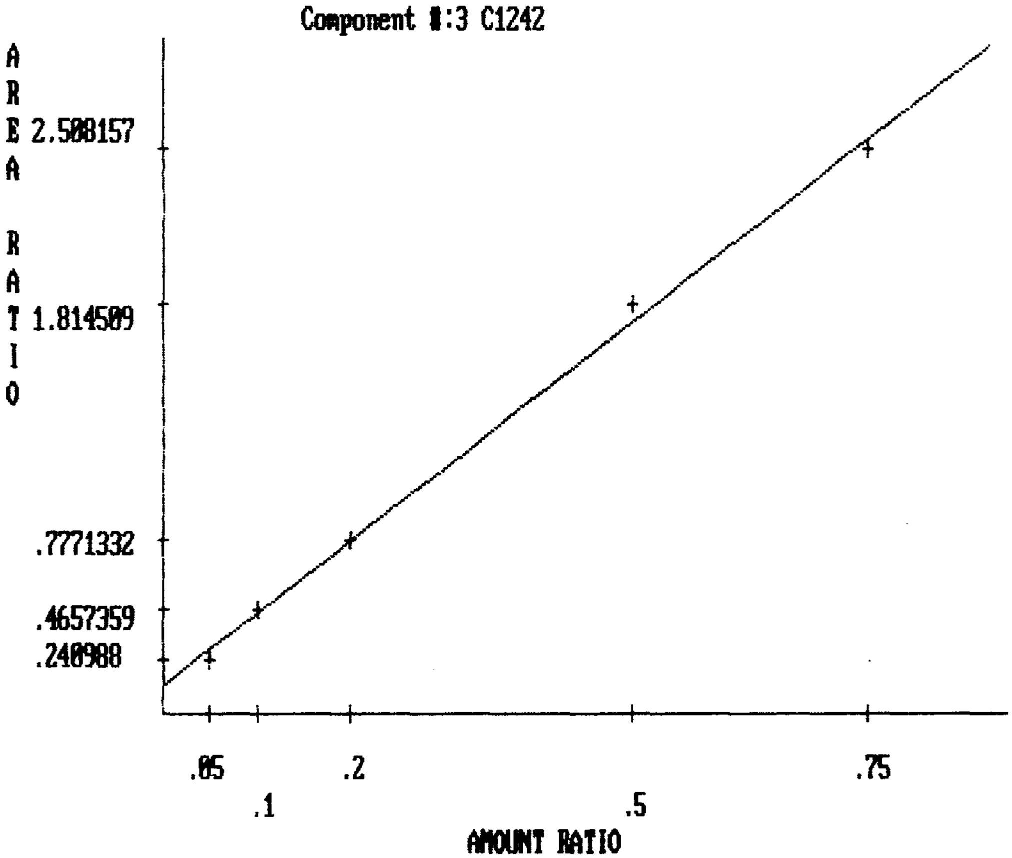
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 1.8859E+00 * Amt ratio + 8.3045E-02

Amt ratio = 5.3024E-01 * Area ratio + -4.4034E-02

Correlation Coefficient = 0.9980



Component 3 = C1242
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	760035	0.0500	0.2410
2	0.1000	1371081	0.1000	0.4657
3	0.2000	2431617	0.2000	0.7771
4	0.5000	5498669	0.5000	1.8145
5	0.7500	7782759	0.7500	2.5082

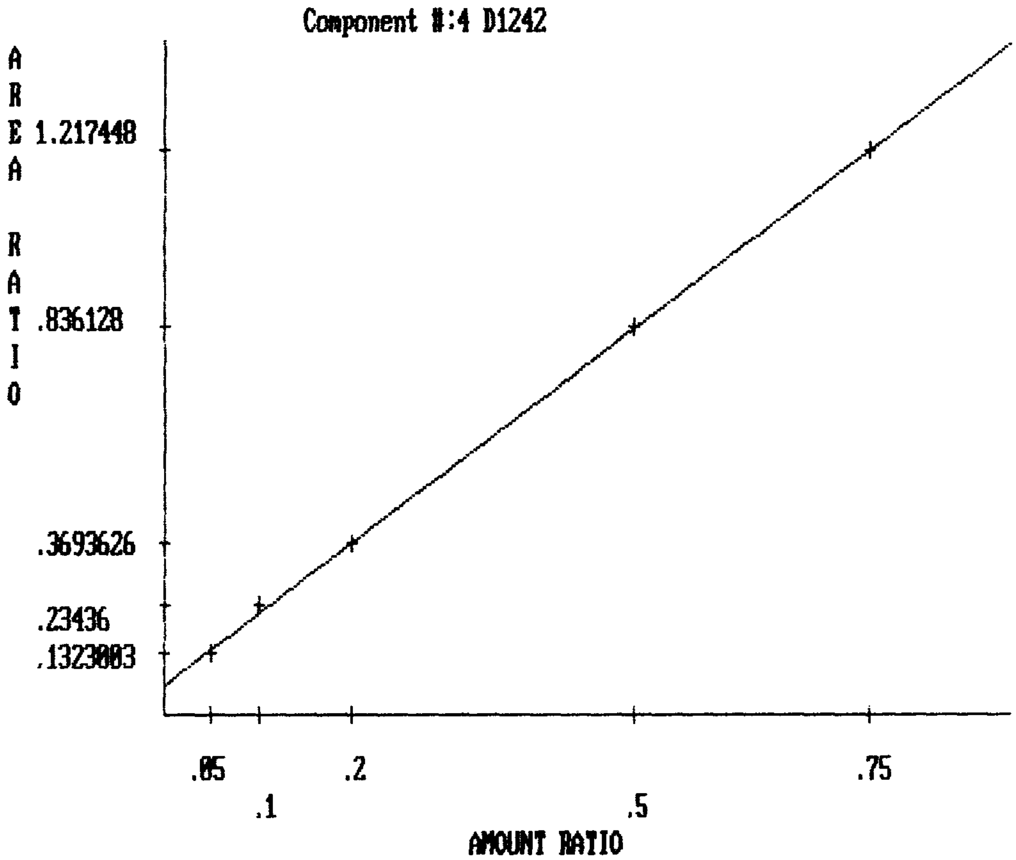
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 3.2417E+00 * Amt ratio + 1.2395E-01

Amt ratio = 3.0848E-01 * Area ratio + -3.8235E-02

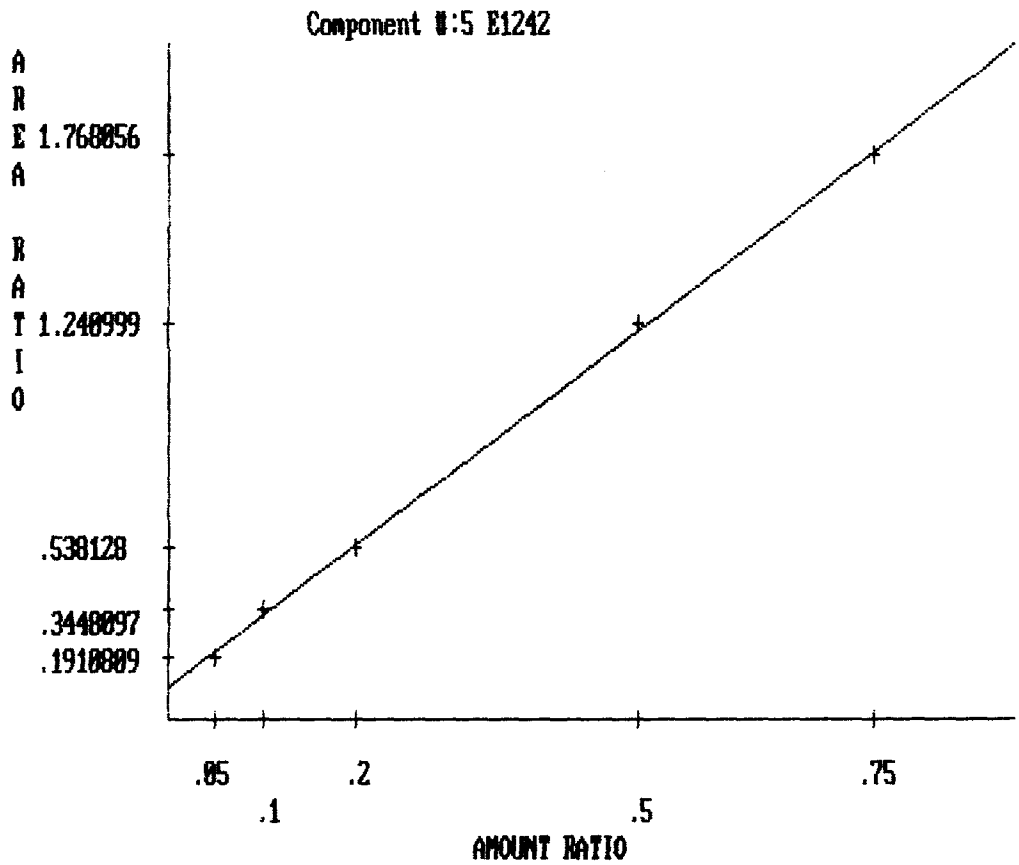
Correlation Coefficient = 0.9975



Component 4 = D1242
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	417253	0.0500	0.1323
2	0.1000	689933	0.1000	0.2344
3	0.2000	1155720	0.2000	0.3694
4	0.5000	2533794	0.5000	0.8361
5	0.7500	3777717	0.7500	1.2174

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 1.5365E+00 * Amt ratio + 6.6224E-02
Amt ratio = 6.5081E-01 * Area ratio + -4.3099E-02
Correlation Coefficient = 0.9996



Component 5 = E1242

INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	602637	0.0500	0.1911
2	0.1000	1015086	0.1000	0.3448
3	0.2000	1683780	0.2000	0.5381
4	0.5000	3760710	0.5000	1.2410
5	0.7500	5486242	0.7500	1.7681

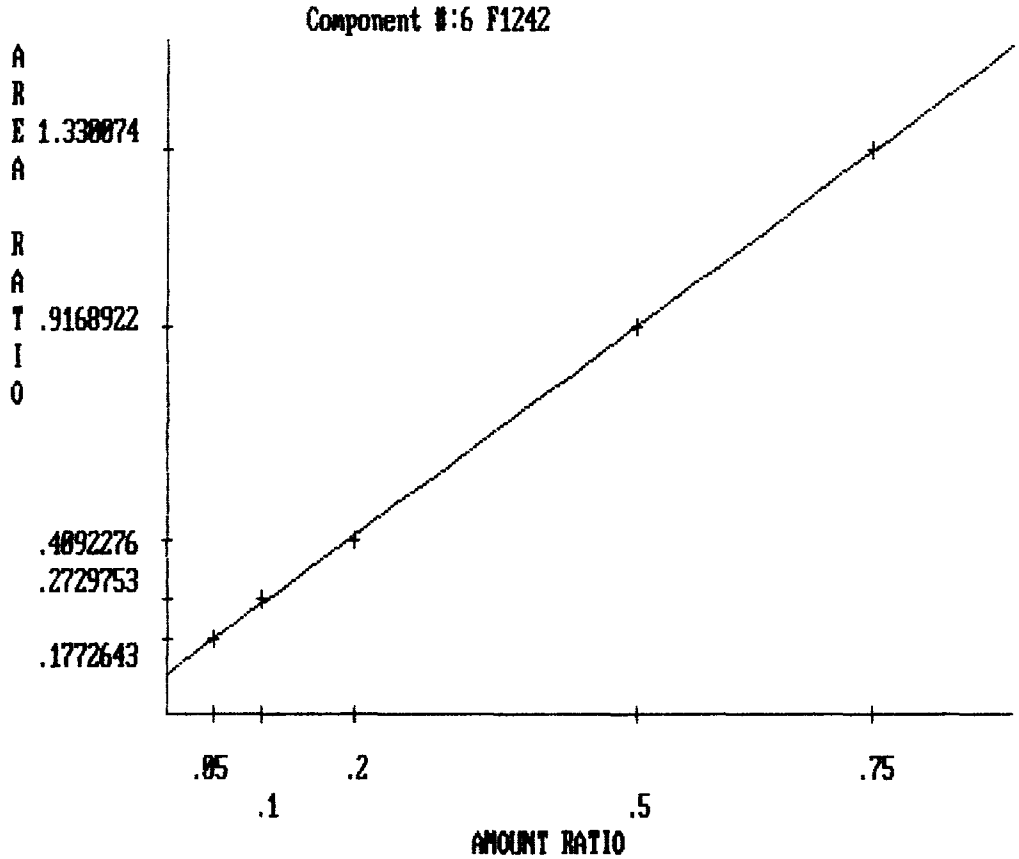
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 2.2425E+00 * Amt ratio + 9.9000E-02

Amt ratio = 4.4592E-01 * Area ratio + -4.4146E-02

Correlation Coefficient = 0.9991



Component 6 = F1242

INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	559061	0.0500	0.1773
2	0.1000	803613	0.1000	0.2730
3	0.2000	1280456	0.2000	0.4092
4	0.5000	2778541	0.5000	0.9169
5	0.7500	4127193	0.7500	1.3301

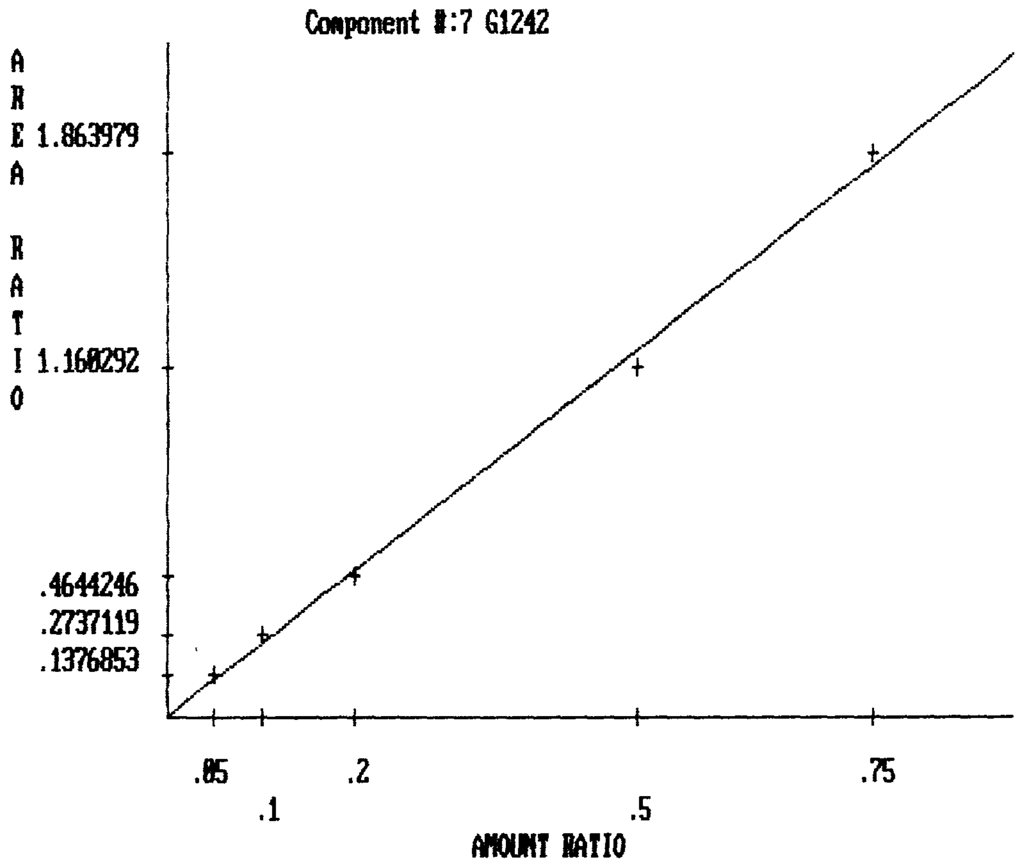
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 1.6429E+00 * Amt ratio + 9.5554E-02

Amt ratio = 6.0867E-01 * Area ratio + -5.8161E-02

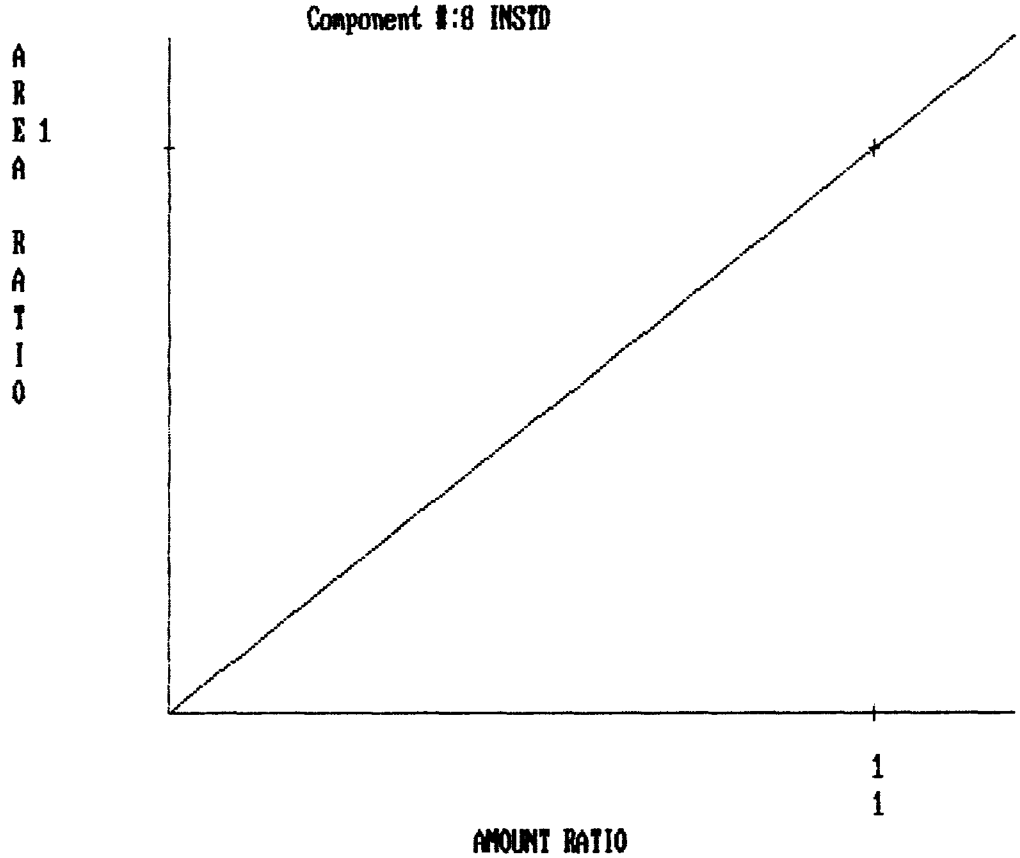
Correlation Coefficient = 0.9996



Component 7 = G1242
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	434236	0.0500	0.1377
2	0.1000	805781	0.1000	0.2737
3	0.2000	1453165	0.2000	0.4644
4	0.5000	3516136	0.5000	1.1603
5	0.7500	5783887	0.7500	1.8640

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 2.4284E+00 * Amt ratio + 2.9163E-03
Amt ratio = 4.1179E-01 * Area ratio + -1.2009E-03
Correlation Coefficient = 0.9970



Component 8 = INSTD
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	1.0000	3153829	1.0000	1.0000
2	1.0000	2943902	1.0000	1.0000
3	1.0000	3128958	1.0000	1.0000
4	1.0000	3030390	1.0000	1.0000
5	1.0000	3102979	1.0000	1.0000

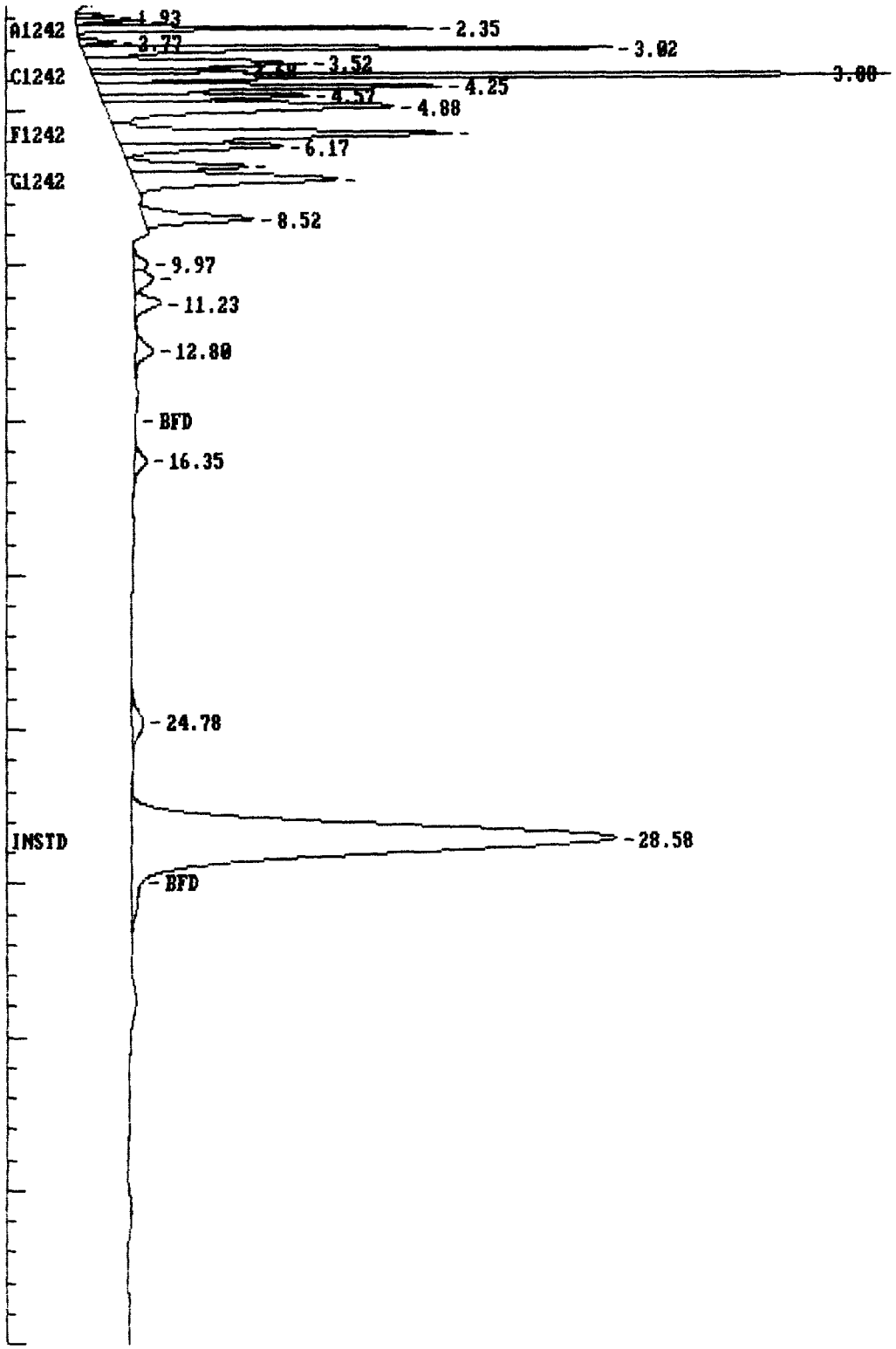
Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 1.0000E+00 * Amt ratio + 0.0000E+00
Amt ratio = 1.0000E+00 * Area ratio + 0.0000E+00
Correlation Coefficient = 0.0000

```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-26-1989 08:37:16 Version 4.1 ********************
* Sample Name: STD 1242 2                          Data File: m:ok34        *
* Date: 12-21-1989 12:15:01 Method: M:GMET42 12-26-1989 08:25:42  #  38    *
* Interface: 0   Cycle#:  34   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: .1  Area Threshold: 1000           *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN             *
* Conditions: ISOTHERMAL 200 C                                             *
*             Detector 0: ECD QUANT            Detector 1:                 *
* Misc. Information: SF68230LD KELLY SF6825 DUKE EARNESTSCRN:          *   *
*************************************************************************
Starting Delay:    1.50                      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	2.35	A1242	0.0356	12.0547%	255884	35354	7.2	2	0	23	0	1.3915E-07
5	3.02	B1242	0.0344	11.6344%	466307	52455	8.9	2	0	23	0	7.3695E-08
8	3.88	C1242	0.0361	12.2234%	760035	79040	9.6	2	0	23	0	4.7503E-08
9	4.25	D1242	0.0430	14.5591%	417253	34074	12.2	2	0	23	0	1.0306E-07
11	4.88	E1242	0.0411	13.9015%	602637	28630	21.0	2	0	23	0	6.8135E-08
12	5.77	F1242	0.0497	16.8383%	559061	33286	16.8	2	0	23	0	8.8962E-08
15	7.23	G1242	0.0555	18.7887%	434236	20167	21.5	2	0	23	0	1.2780E-07
23	28.58	INSTD	1.0000	0.0000%	3153829	47953	65.8	1	0	23	0	3.1707E-07

TOTAL AMOUNT = 0.2954

Data File = m:ok34.PT5 Printed on 12-26-1989 at 08:38:18
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 53882 uv High Value: 134617 uv Scale factor: 1.0



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

********** 12-26-1989 08:39:30 Version 4.1 **********

* Sample Name: STD 1242 3 Data File: m:ok35 *
* Date: 12-21-1989 13:01:51 Method: M:GMET42 12-26-1989 08:25:42 # 38 *
* Interface: 0 Cycle#: 35 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 5000 *

****

* Instrument Type: HP 5890 GC/EC #3 Column Type: PACKED MIXED PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL 200 C *
* Detector 0: ECD QUANT Detector 1: *
* Misc. Information: SF68230LD KELLY SF6825 DUKE EARNESTSCRN: * *

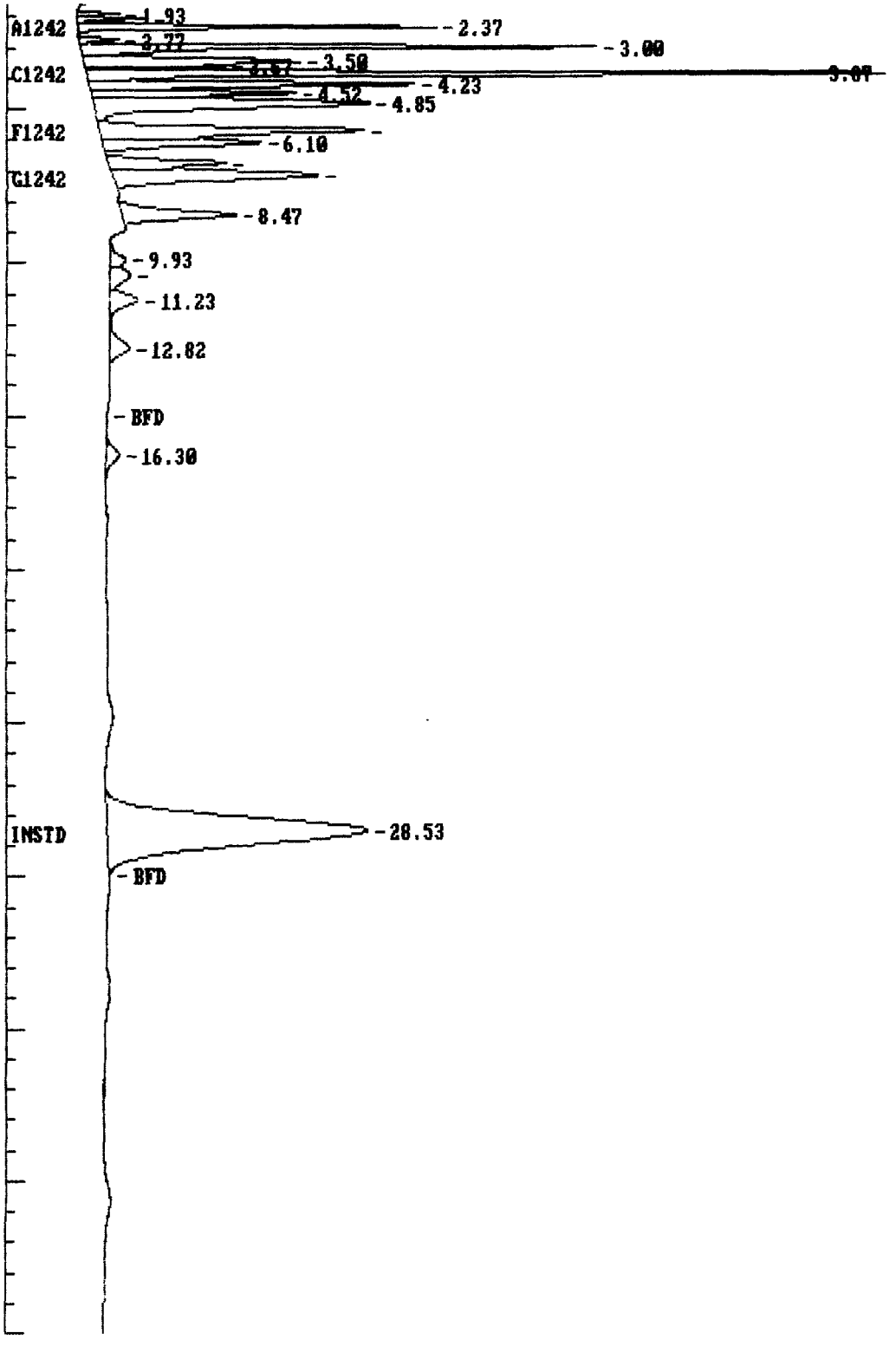
****

Starting Delay: 1.50 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	2.37	A1242	0.1058	14.0190%	472047	64922	7.3	2	0	22	.7092	2.2415E-07
5	3.00	B1242	0.1050	13.9072%	827236	93495	8.8	2	0	22	-.5524	1.2689E-07
8	3.87	C1242	0.1054	13.9695%	1371081	144632	9.5	2	0	22	-.4291	7.6898E-08
9	4.23	D1242	0.1094	14.4982%	689933	58933	11.7	2	0	22	-.3921	1.5860E-07
11	4.85	E1242	0.1096	14.5231%	1015086	49873	20.4	2	0	22	-.6825	1.0798E-07
12	5.72	F1242	0.1080	14.3084%	803613	47924	16.8	2	0	22	-.8670	1.3438E-07
15	7.17	G1242	0.1115	14.7745%	805781	37177	21.7	2	0	22	-.9216	1.3839E-07
22	28.53	INSTD	1.0000	0.0000%	2943902	47218	62.3	1	0	22	-.1749	3.3969E-07

TOTAL AMOUNT = 0.7547

Data File = m:ok35.PTS Printed on 12-26-1989 at 08:40:03
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 53658 uv High Value: 200174 uv Scale factor: 1.0

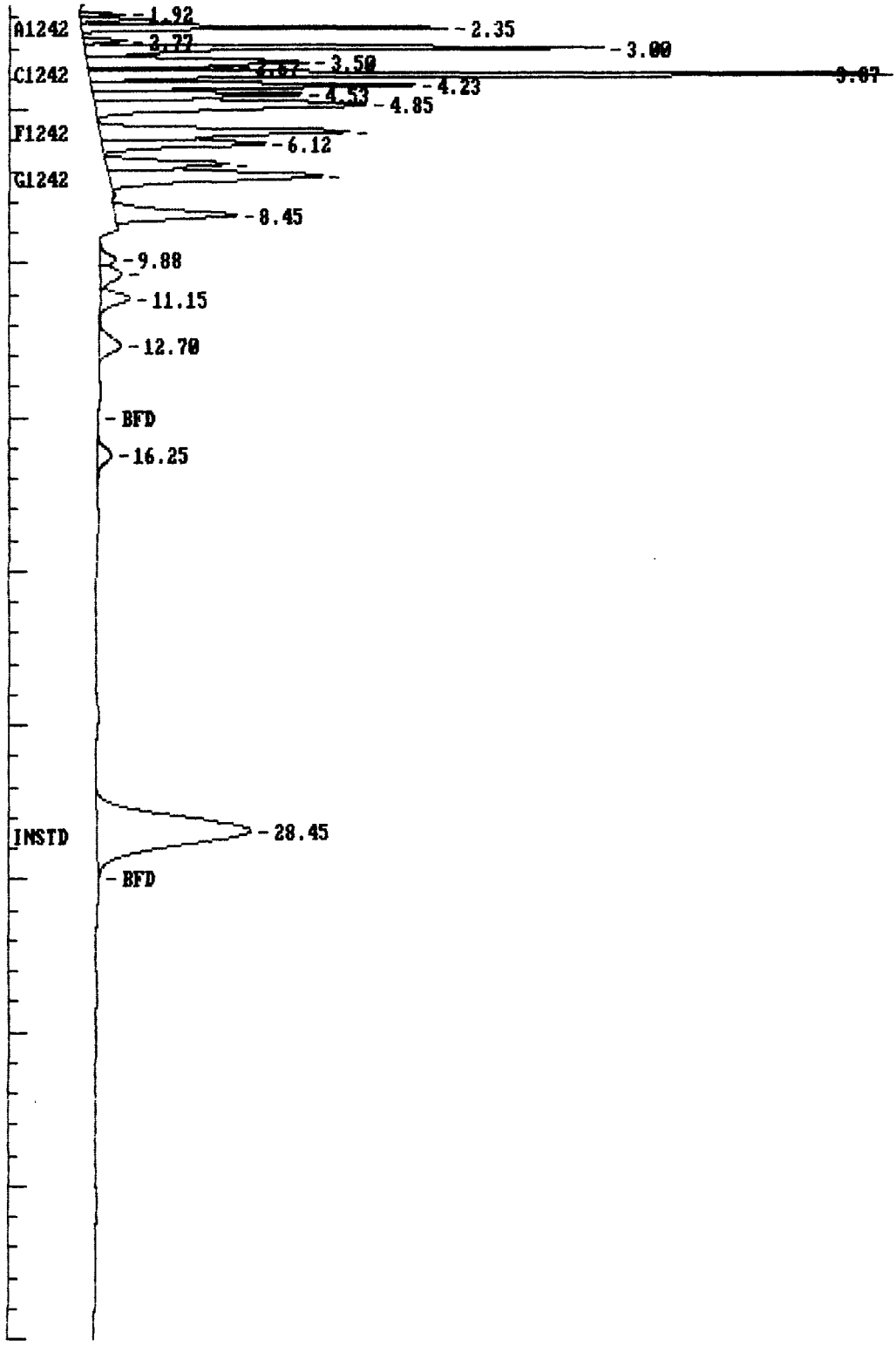


```
******    INTERNAL STANDARD TABLE    ******
******************** 12-26-1989 08:41:13 Version 4.1 **********************
* Sample Name: STD 1242 4                          Data File: m:ok36        *
* Date: 12-21-1989 13:53:06 Method: M:GMET42 12-26-1989 08:25:42  #  38    *
* Interface: 0   Cycle#:  36   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000            *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*             Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                    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	2.35	A1242	0.2052	14.7863%	852643	115932	7.4	2	0	22	0	2.4067E-07
5	3.00	B1242	0.2070	14.9176%	1481498	164082	9.0	2	0	22	-.5524	1.3974E-07
8	3.87	C1242	0.2015	14.5189%	2431617	254273	9.6	2	0	22	-.4291	8.2863E-08
9	4.23	D1242	0.1973	14.2158%	1155720	102191	11.3	2	0	22	-.3921	1.7070E-07
11	4.85	E1242	0.1958	14.1100%	1683780	85700	19.6	2	0	22	-.6825	1.1630E-07
12	5.72	F1242	0.1909	13.7575%	1280456	78761	16.3	2	0	22	-.8670	1.4911E-07
15	7.17	G1242	0.1900	13.6939%	1453165	67156	21.6	2	0	22	-.9216	1.3078E-07
22	28.45	INSTD	1.0000	0.0000%	3128958	48896	64.0	1	0	22	-.4664	3.1960E-07

TOTAL AMOUNT = 1.3878

Data File = m:ok36.PTS Printed on 12-26-1989 at 08:41:42
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 53192 uv High Value: 310705 uv Scale factor: 1.0

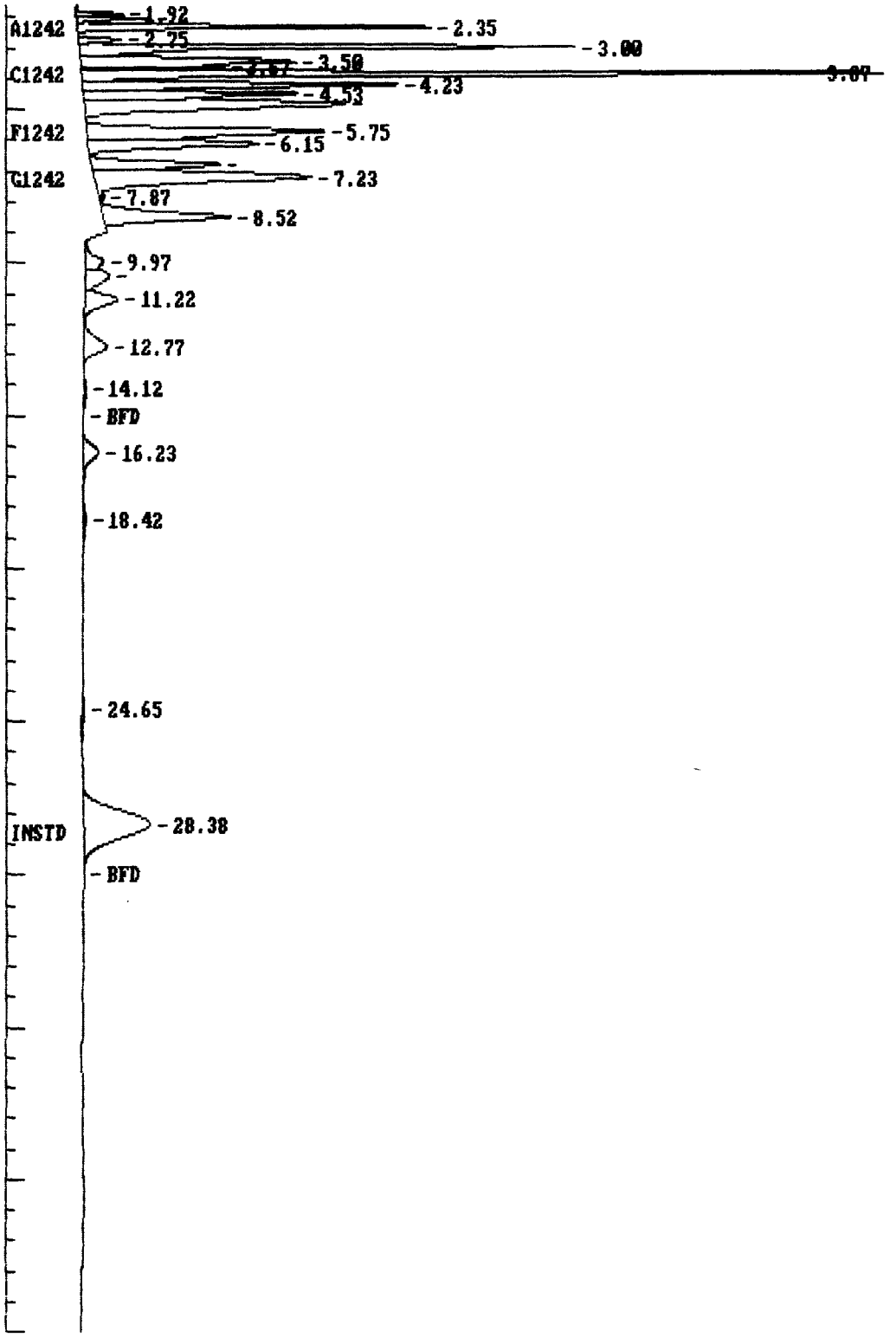


```
*****    INTERNAL STANDARD TABLE    *****
******************** 12-26-1989 08:42:51 Version 4.1 **********************
* Sample Name: STD 1242 5                          Data File: m:ok37        *
* Date: 12-21-1989 14:34:00 Method: M:GMET42 12-26-1989 08:25:42  #  38    *
* Interface: 0   Cycle#:  37   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000            *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*             Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF68230LD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                      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	2.35	A1242	0.5138	14.5232%	1880844	250299	7.5	2	0	26	0	2.7315E-07
5	3.00	B1242	0.5154	14.5702%	3197330	350896	9.1	2	0	26	-.5524	1.6120E-07
8	3.87	C1242	0.5215	14.7420%	5498669	568379	9.7	2	0	26	-.4291	9.4841E-08
9	4.23	D1242	0.5011	14.1643%	2533794	223226	11.4	2	0	26	-.3921	1.9775E-07
11	4.87	E1242	0.5092	14.3956%	3760710	185058	20.3	2	0	26	-.3412	1.3541E-07
12	5.75	F1242	0.4999	14.1322%	2778541	167986	16.5	2	0	26	-.2890	1.7992E-07
15	7.23	G1242	0.4766	13.4726%	3516136	153436	22.9	3	0	26	0	1.3554E-07
26	28.38	INSTD	1.0000	0.0000%	3030390	47606	63.7	1	0	26	-.6997	3.2999E-07

TOTAL AMOUNT = 3.5375

Data File = m:ok37.PTS Printed on 12-26-1989 at 08:43:19
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 53814 uv High Value: 626270 uv Scale factor: 1.0

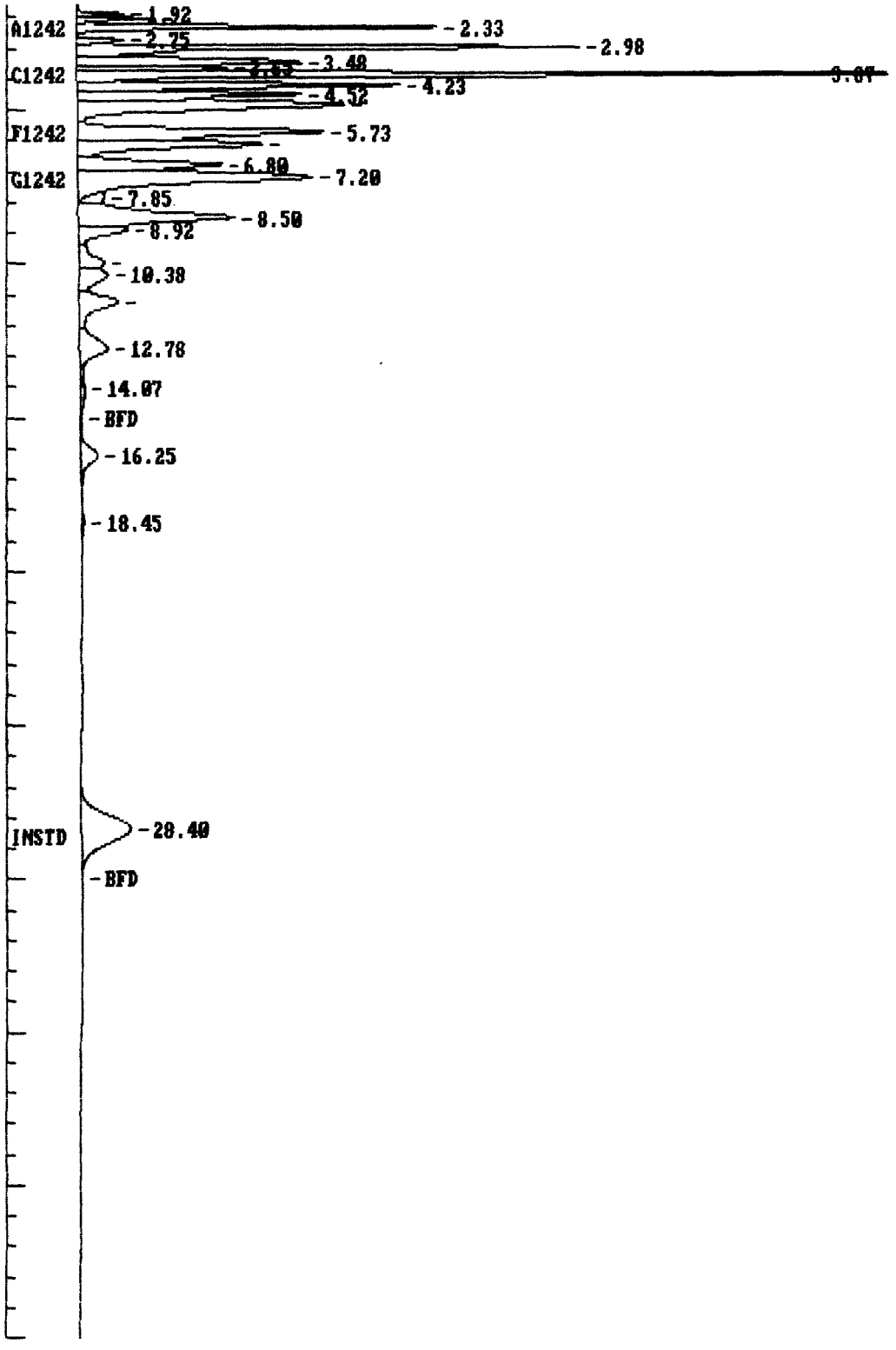


```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-26-1989 08:44:42 Version 4.1 **********************
* Sample Name: STD 1242 6                          Data File: m:ok38        *
* Date: 12-21-1989 15:20:25 Method: M:GMET42 12-26-1989 08:25:42  #  38    *
* Interface: 0   Cycle#:  38   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000            *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*             Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF68230LD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                        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	2.33	A1242	0.7396	14.1566%	2716725	357886	7.6	2	0	26	-.7092	2.7225E-07
5	2.98	B1242	0.7382	14.1298%	4577798	499088	9.2	2	0	26	-1.104	1.6126E-07
8	3.87	C1242	0.7355	14.0771%	7782759	806891	9.6	2	0	26	-.4291	9.4500E-08
9	4.23	D1242	0.7492	14.3404%	3777717	320909	11.8	2	0	26	-.3921	1.9833E-07
11	4.85	E1242	0.7443	14.2455%	5486242	265452	20.7	2	0	26	-.6825	1.3566E-07
12	5.73	F1242	0.7514	14.3823%	4127193	244687	16.9	2	0	26	-.5780	1.8207E-07
15	7.20	G1242	0.7664	14.6683%	5783887	233042	24.8	3	0	26	-.4608	1.3250E-07
26	28.40	INSTD	1.0000	0.0000%	3102979	48856	63.5	1	0	26	-.6413	3.2227E-07

TOTAL AMOUNT = 5.2246

Data File = m:ok38.PTS Printed on 12-26-1989 at 08:45:10
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 53625 uv High Value: 861170 uv Scale factor: 1.0

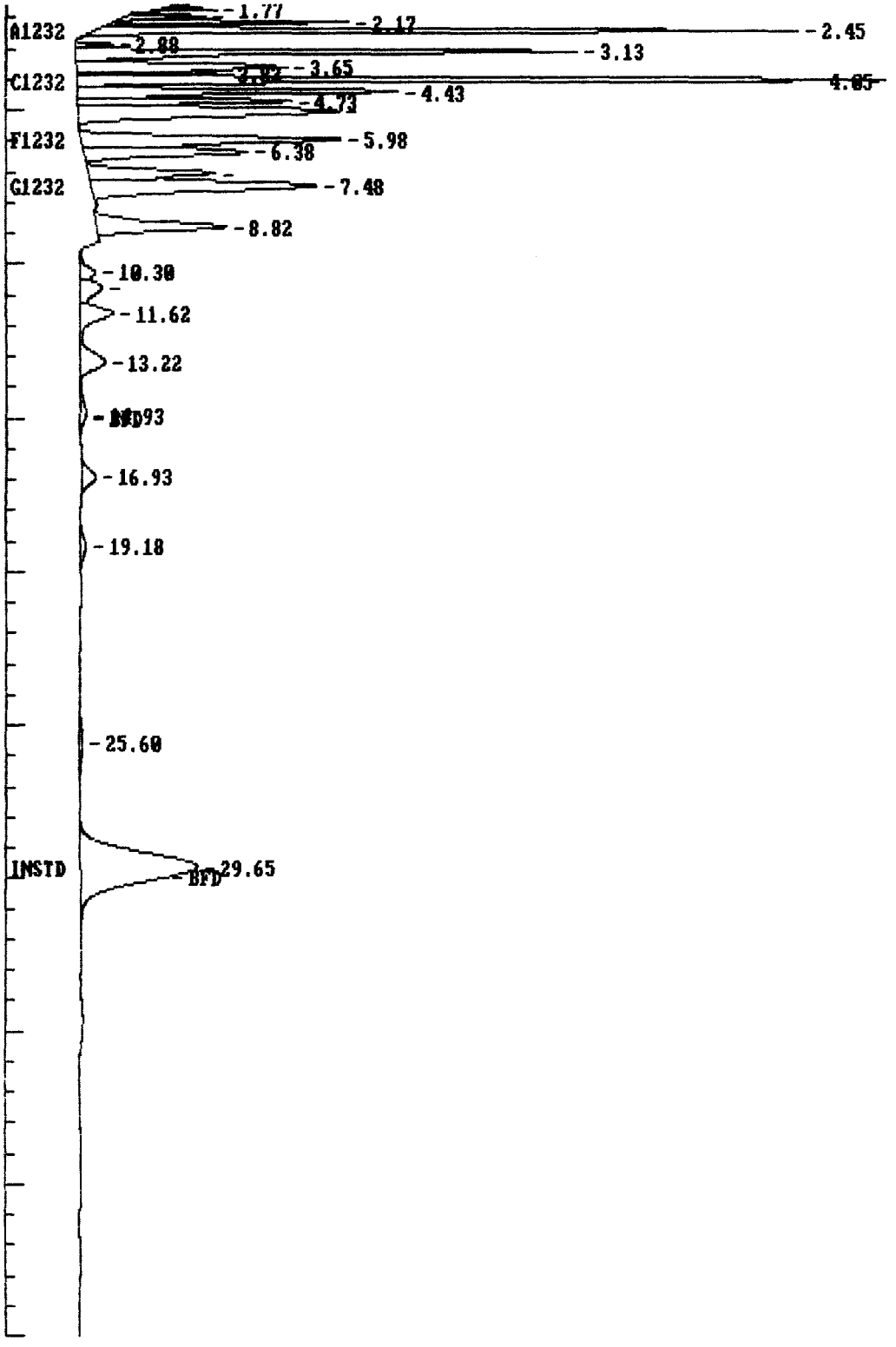


```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-26-1989 14:27:33 Version 4.1 **********************
* Sample Name: STD 1232                          Data File: m:ok47        *
* Date: 12-21-1989 22:18:38 Method: M:GMET32 12-26-1989 13:42:28  #  45   *
* Interface: 0   Cycle#:  47   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000           *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*             Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                        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	2.45	A1232	0.5000	14.2857%	2394589	303571	7.9	2	0	26	0	2.0880E-07
6	3.13	B1232	0.5000	14.2857%	2157901	215867	10.0	2	0	26	0	2.3171E-07
9	4.05	C1232	0.5000	14.2857%	3443835	348238	9.9	2	0	26	0	1.4519E-07
10	4.43	D1232	0.5000	14.2857%	1604258	137981	11.6	2	0	26	0	3.1167E-07
12	5.07	E1232	0.5000	14.2857%	2250635	112230	20.1	2	0	26	0	2.2216E-07
13	5.98	F1232	0.5000	14.2857%	1876351	111576	16.8	2	0	26	0	2.6647E-07
16	7.48	G1232	0.5000	14.2857%	2153639	96963	22.2	2	0	26	0	2.3217E-07
26	29.65	INSTD	1.0000	0.0000%	3306722	50285	65.8	1	0	26	0	3.0241E-07

TOTAL AMOUNT = 3.5000

Data File = m:ok47.PTS Printed on 12-26-1989 at 14:28:05
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 58484 uv High Value: 407307 uv Scale factor: 1.0

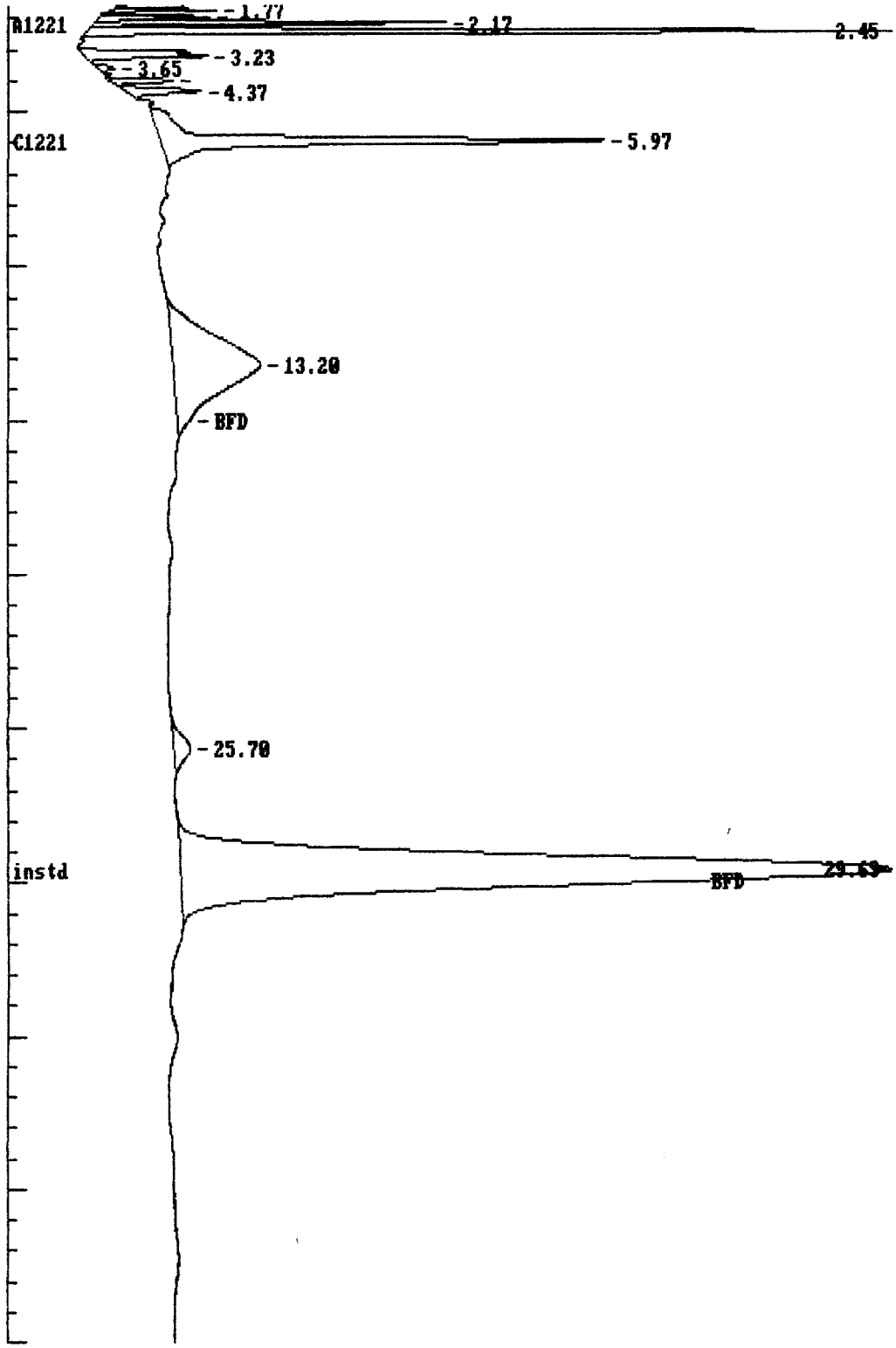


```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-26-1989 14:25:44 Version 4.1 **********************
* Sample Name: STD 1221                          Data File: m:ok46          *
* Date: 12-21-1989 21:32:09 Method: M:GMET21 12-26-1989 13:33:01  #  45    *
* Interface: 0   Cycle#:  46   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 5000            *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*             Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                        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	2.17	A1221	0.5000	33.3333%	137423	23578	5.8	2	0	12	0	3.6384E-06
4	2.45	B1221	0.5000	33.3333%	437221	53922	8.1	2	0	12	0	1.1436E-06
9	5.97	C1221	0.5000	33.3333%	541005	29782	18.2	1	0	12	0	9.2421E-07
12	29.63	instd	1.0000	0.0000%	3156175	47780	66.1	1	0	12	0	3.1684E-07

TOTAL AMOUNT = 1.5000

Data File = m:ok46.PTS Printed on 12-26-1989 at 14:26:13
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 53833 uv High Value: 108480 uv Scale factor: 1.0



***** EXTERNAL STANDARD TABLE *****

********** 12-26-1989 14:23:33 Version 4.1 **********

* Sample Name: STD 1260 3 Data File: m:ok45 *

* Date: 12-21-1989 20:45:39 Method: M:GMET60 12-26-1989 13:29:03 # 53 *

* Interface: 0 Cycle#: 45 Operator KG Channel#: 0 Vial#: N.A. *

* Starting Peak Width: 10 Threshold: 1 Area Threshold: 5000 *

****

* Instrument Type: HP 5890 GC/EC #3 Column Type: PACKED MIXED PHASE *

* Solvent Description: ULTRA HIGH PURITY NITROGEN *

* Conditions: ISOTHERMAL 200 C *

* Detector 0: ECD QUANT Detector 1: *

* Misc. Information: SF68230LD KELLY SF6825 DUKE EARNESTSCRN: * *

****

Starting Delay: 1.50 Ending retention time: 45.00

Area reject: 0 One sample per 1.000 sec.

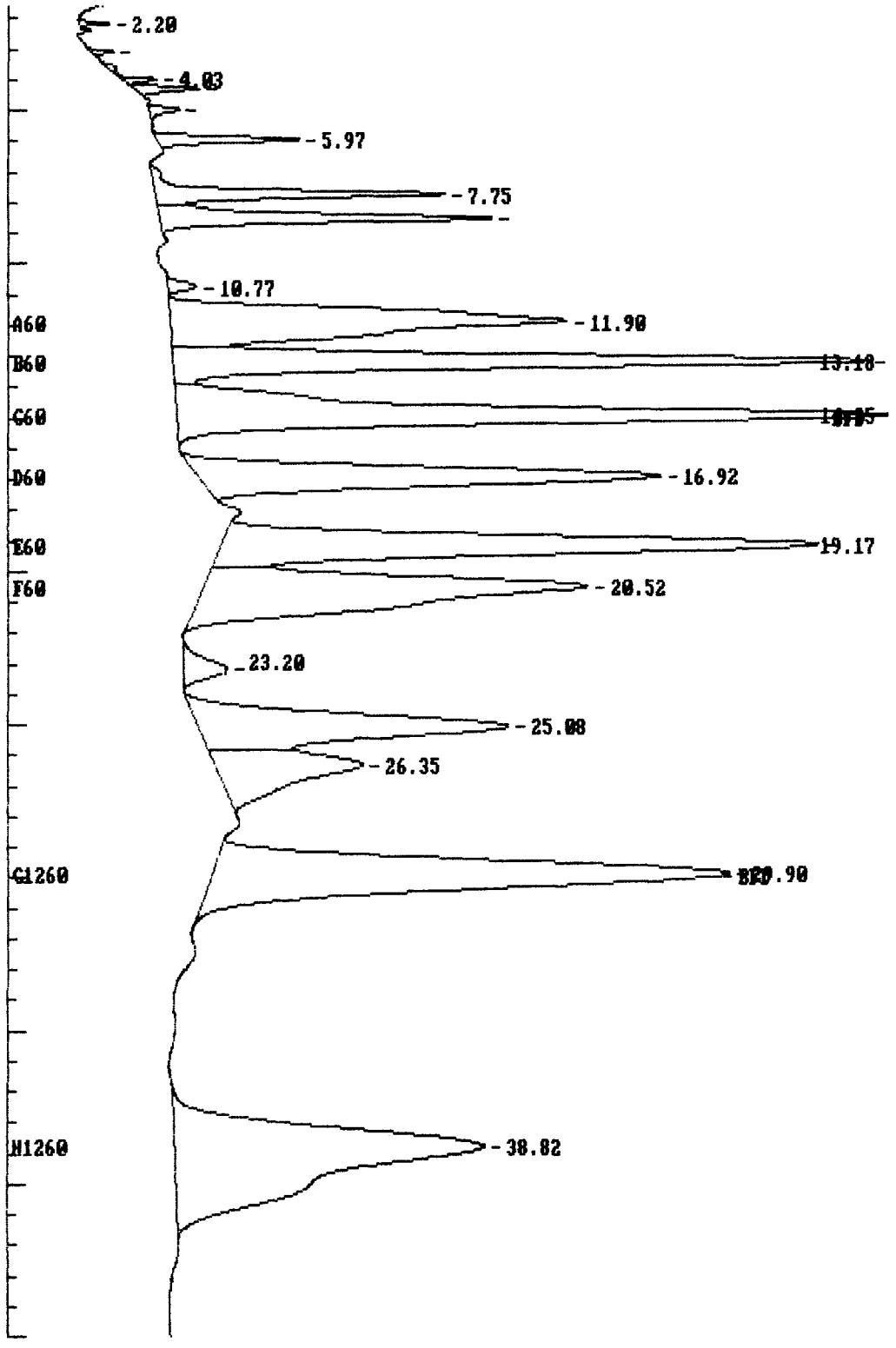
Amount injected: 1.00 Dilution factor: 1.00

Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/KG	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
10	11.90	A60	0.1000	12.5000%	1472139	29099	50.6	2	10	0	6.7928E-08
11	13.18	B60	0.1000	12.5000%	1549192	50955	30.4	2	11	0	6.4550E-08
12	14.95	C60	0.1000	12.5000%	2036503	52124	39.1	2	12	0	4.9104E-08
13	16.92	D60	0.1000	12.5000%	1372242	33841	40.6	1	13	0	7.2873E-08
14	19.17	E60	0.1000	12.5000%	1831705	43774	41.8	2	14	0	5.4594E-08
15	20.52	F60	0.1000	12.5000%	1743717	28177	61.9	2	15	0	5.7349E-08
19	29.90	G1260	0.1000	12.5000%	2394090	37894	63.2	1	19	0	4.1770E-08
20	38.82	H1260	0.1000	12.5000%	2513056	22679	110.8	1	20	0	3.9792E-08

TOTAL AMOUNT = 0.8000

Data File = m:ok45.PTS Printed on 12-26-1989 at 14:24:02
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 53751 uv High Value: 113116 uv Scale factor: 1.0



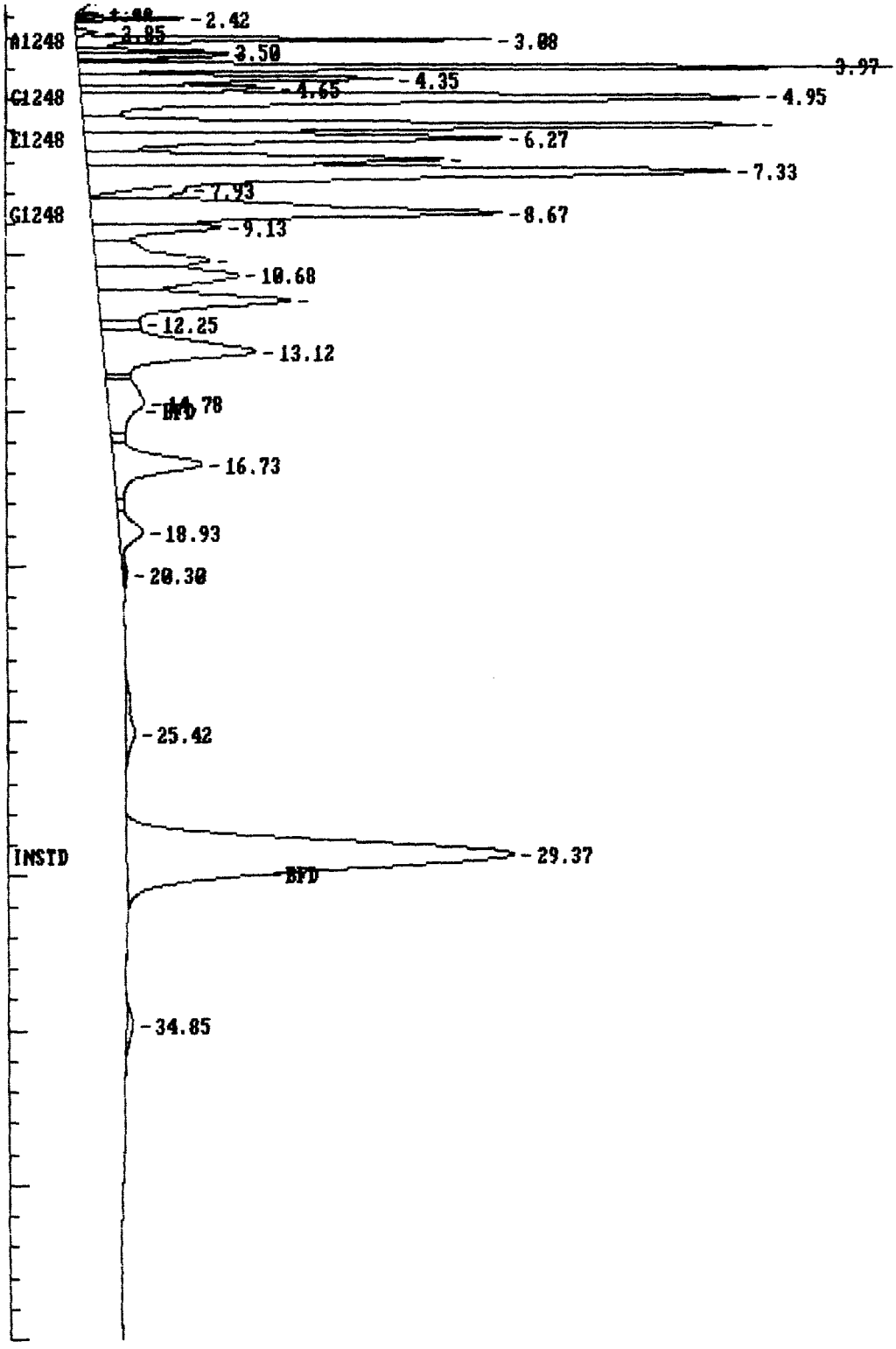
```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-26-1989 14:18:25 Version 4.1 ********************
* Sample Name: STD 1248 3                        Data File: m:ok43        *
* Date: 12-21-1989 19:12:45 Method: M:GMET48 12-26-1989 13:03:31  #  43   *
* Interface: 0   Cycle#:  43   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*************************************************************************
* Instrument Type: HP 5890 GC/EC #3     Column Type: PACKED MIXED  PHASE  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL 200 C                                            *
*             Detector 0: ECD QUANT            Detector 1:                *
* Misc. Information: SF68230LD KELLY SF6825 DUKE EARNESTSCRN:          *  *
*************************************************************************
Starting Delay:    1.50                      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	3.08	A1248	0.1000	14.2857%	439559	51661	8.5	2	0	30	0	2.2750E-07
9	3.97	B1248	0.1000	14.2857%	995074	101292	9.8	2	0	30	0	1.0050E-07
12	4.95	C1248	0.1000	14.2857%	1729680	84389	20.5	2	0	30	0	5.7814E-08
13	5.85	D1248	0.1000	14.2857%	1337009	83666	16.0	2	0	30	0	7.4794E-08
14	6.27	E1248	0.1000	14.2857%	934582	51911	18.0	2	0	30	0	1.0700E-07
16	7.33	F1248	0.1000	14.2857%	2157166	80014	27.0	3	0	30	0	4.6357E-08
18	8.67	G1248	0.1000	14.2857%	1459949	51188	28.5	2	0	30	0	6.8496E-08
30	29.37	INSTD	1.0000	0.0000%	3142212	48221	65.2	1	0	30	0	3.1825E-07

TOTAL AMOUNT = 0.7000

```
Data File = m:ok43.PTS  Printed on 12-26-1989 at 14:18:53
Start time:    1.50 min.  Stop time:   45.00 min.     Offset:   0 mv.
```

Data File = m:ok43.PTS Printed on 12-26-1989 at 14:20:03
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 55283 uv High Value: 157005 uv Scale factor: 1.0



***** EXTERNAL STANDARD TABLE *****

********** 12-26-1989 14:21:41 Version 4.1 **********

* Sample Name: STD 1254 3 Data File: m:ok44 *

* Date: 12-21-1989 19:59:11 Method: M:GMET54 12-26-1989 13:07:41 # 49 *

* Interface: 0 Cycle#: 44 Operator KG Channel#: 0 Vial#: N.A. *

* Starting Peak Width: 10 Threshold: 1 Area Threshold: 5000 *

****

* Instrument Type: HP 5890 GC/EC #3 Column Type: PACKED MIXED PHASE *

* Solvent Description: ULTRA HIGH PURITY NITROGEN *

* Conditions: ISOTHERMAL 200 C *

* Detector 0: ECD QUANT Detector 1: *

* Misc. Information: SF6823OLD KELLY SF6825 DUKE EARNESTSCRN: * *

****

Starting Delay: 1.50 Ending retention time: 45.00

Area reject: 0 One sample per 1.000 sec.

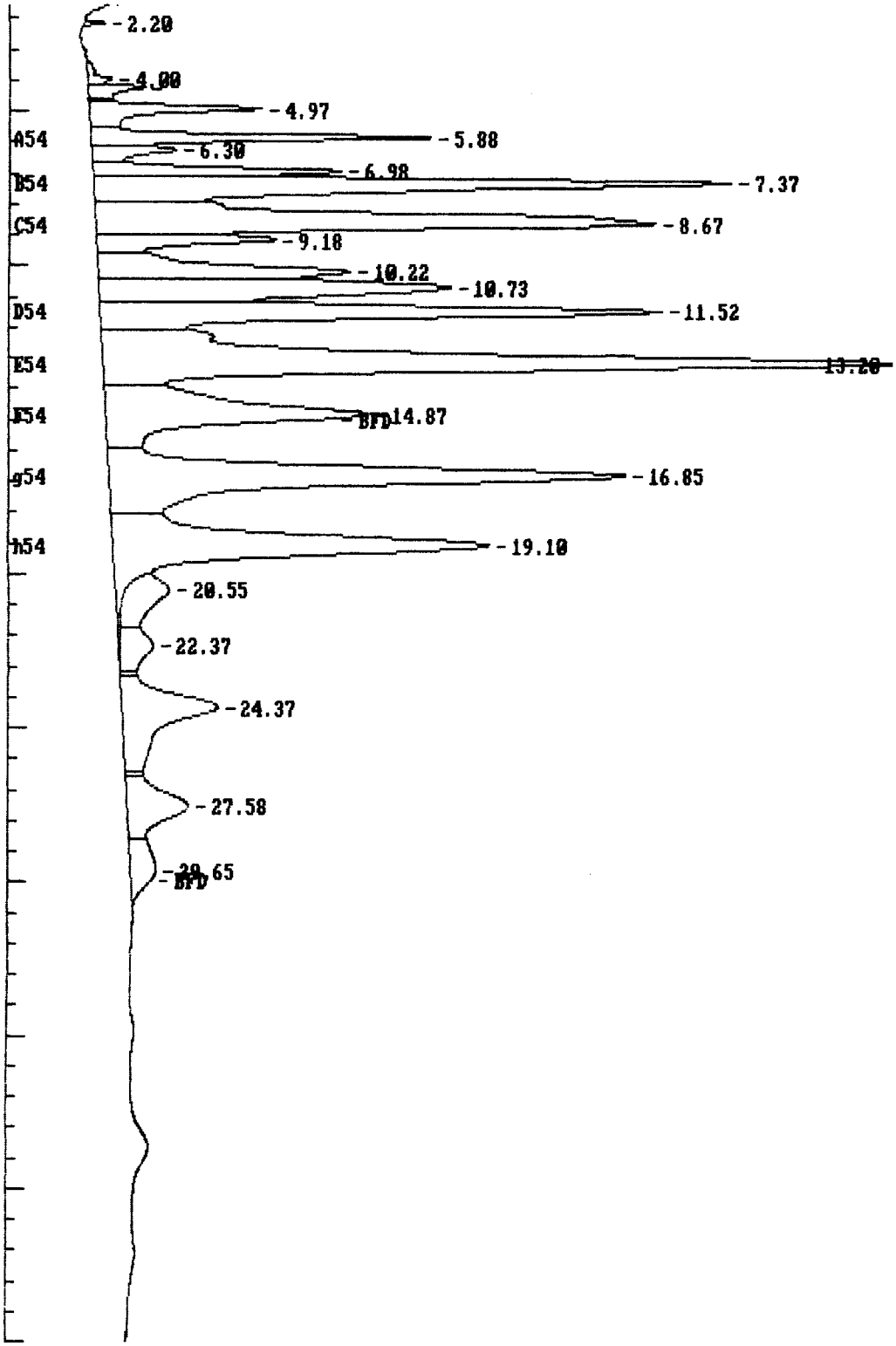
Amount injected: 1.00 Dilution factor: 1.00

Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/KG	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
5	5.88	A54	0.1000	12.5000%	546759	34562	15.8	2	5	0	1.8290E-07
8	7.37	B54	0.1000	12.5000%	1734109	64827	26.7	2	8	0	5.7666E-08
9	8.67	C54	0.1000	12.5000%	2134797	56914	37.5	2	9	0	4.6843E-08
13	11.52	D54	0.1000	12.5000%	1666921	57100	29.2	2	13	0	5.9991E-08
14	13.20	E54	0.1000	12.5000%	3327581	80239	41.5	2	14	0	3.0052E-08
15	14.87	F54	0.1000	12.5000%	1452316	26675	54.4	2	15	0	6.8856E-08
16	16.85	g54	0.1000	12.5000%	2410019	52477	45.9	2	16	0	4.1493E-08
17	19.10	h54	0.1000	12.5000%	2041175	38233	53.4	3	17	0	4.8991E-08

TOTAL AMOUNT = 0.8000

Data File = m:ok44.PTS Printed on 12-26-1989 at 14:22:12
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 54976 uv High Value: 137663 uv Scale factor: 1.0

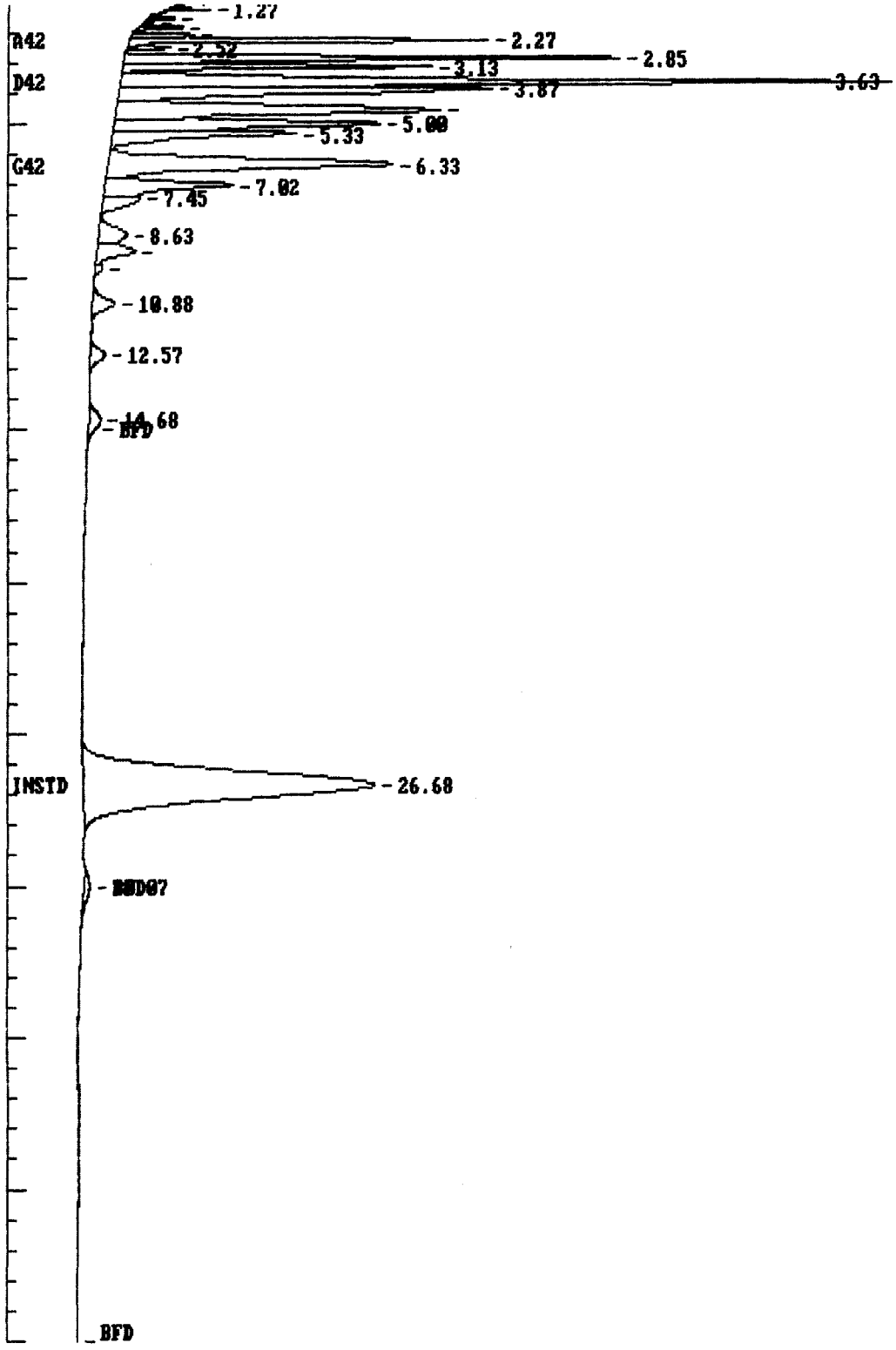


```
*****   INTERNAL STANDARD TABLE   *****
******************** 12-27-1989 20:12:38 Version 4.1 **********************
* Sample Name: STD 1242 3                          Data File: K:OK23        *
* Date: 12-21-1989 09:28:50 Method: K:CMET42 12-27-1989 20:10:50  #  17    *
* Interface: 0   Cycle#:  23   Operator KG  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100             *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*             Solvent Description: ULTRA HIGH PURITY NITROGEN             *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0:                          Detector 1: ECD CONF    *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY   *
*************************************************************************
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	2.27	A42	0.1000	14.2857%	201962	27189	7.4	2	0	24	0	4.9514E-07
8	2.85	B42	0.1000	14.2857%	339407	37590	9.0	2	0	24	0	2.9463E-07
9	3.13	C42	0.1000	14.2857%	201147	23443	8.6	2	0	24	0	4.9715E-07
10	3.63	D42	0.1000	14.2857%	693263	58446	11.9	2	0	24	0	1.4425E-07
11	3.87	E42	0.1000	14.2857%	472934	28218	16.8	2	0	24	0	2.1145E-07
12	4.57	F42	0.1000	14.2857%	479930	24568	19.5	2	0	24	0	2.0836E-07
15	6.33	G42	0.1000	14.2857%	506834	21561	23.5	2	0	24	0	1.9730E-07
24	26.68	INSTD	1.0000	0.0000%	1386225	22037	62.9	1	0	24	0	7.2138E-07

TOTAL AMOUNT = 0.7000

Data File = K:OK23.PTS Printed on 12-27-1989 at 20:13:13
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 24767 uv High Value: 86391 uv Scale factor: 1.0

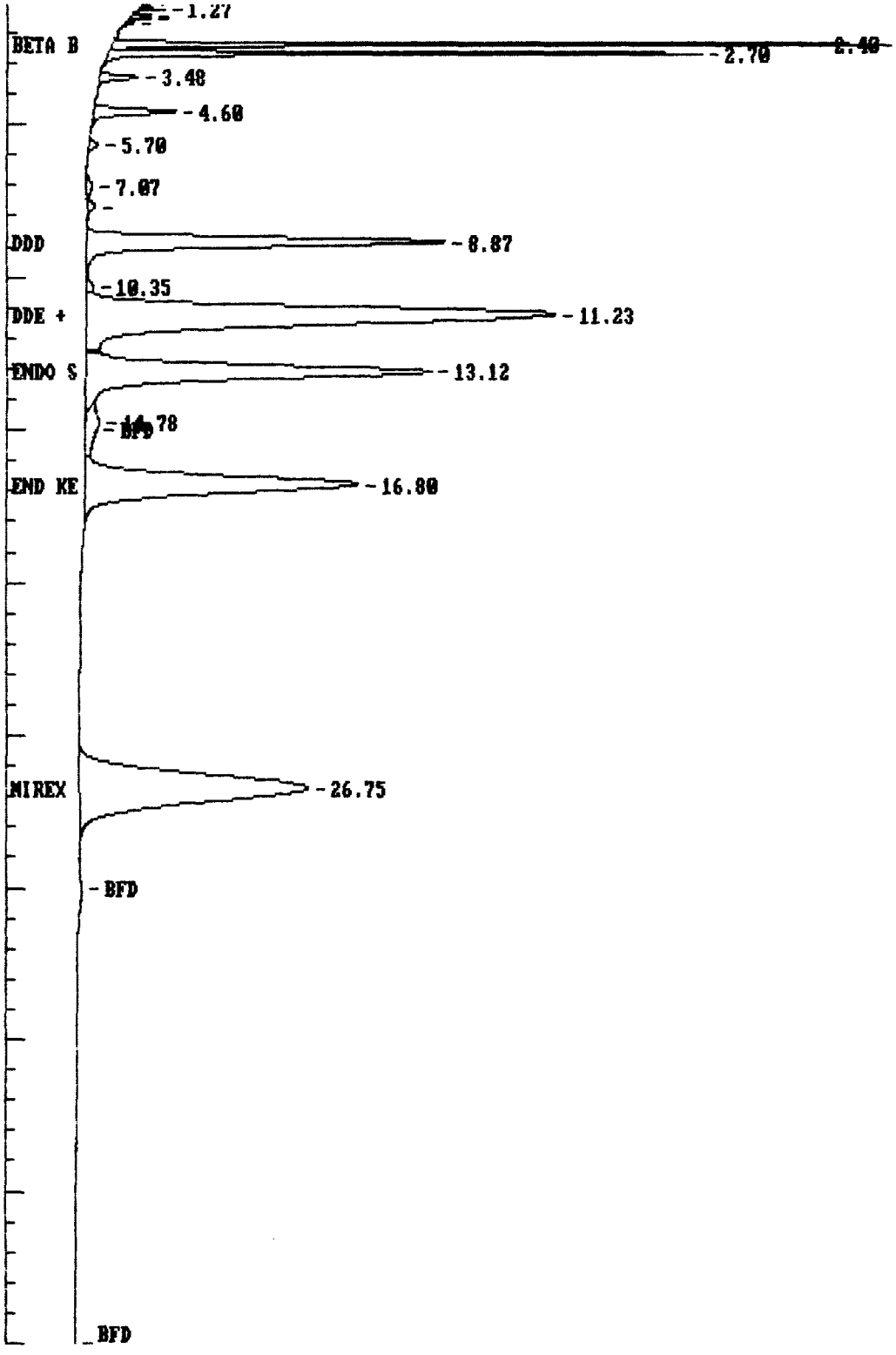


```
*****    INTERNAL STANDARD TABLE    *****
******************** 12-24-1989 02:03:00 Version 4.1 **********************
* Sample Name: STD B 3                          Data File: K:OK6          *
* Date: 12-20-1989 20:18:32 Method: K:CPESTB 12-24-1989 02:00:21  #  19   *
* Interface: 0   Cycle#:  6    Operator KG  Channel#: 0    Vial#: N.A.   *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0:                        Detector 1: ECD CONF      *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SCRN:          *  *
*************************************************************************
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	2.40	BETA BHC	0.0062	7.4074%	485842	79473	6.1	2	5	18	0	1.2761E-08
6	2.70	DELTA BHC	0.0050	5.9737%	380249	60588	6.3	2	6	18	0	1.3149E-08
12	8.87	DDD	0.0125	14.9343%	773896	36591	21.1	2	12	18	0	1.6152E-08
14	11.23	DDE + EA	0.0200	23.8949%	1944524	47956	40.5	2	14	18	0	1.0285E-08
15	13.12	ENDO SO4	0.0200	23.8949%	1135636	35294	32.2	3	15	18	0	1.7611E-08
17	16.80	END KETONE	0.0200	23.8949%	1102889	27904	39.5	2	17	18	0	1.8134E-08
18	26.75	MIREX	1.0000	0.0000%	1474035	23300	63.3	1	18	18	0	6.7841E-07

TOTAL AMOUNT = 0.0837

Data File = K:OK6.PTS Printed on 12-24-1989 at 02:03:26
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 23503 uv High Value: 106654 uv Scale factor: 1.0



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

********** 12-24-1989 02:01:00 Version 4.1 **********

* Sample Name: STD A 3 Data File: K:OK5 *
* Date: 12-20-1989 19:32:03 Method: K:CPESTA 12-24-1989 01:55:38 # 18 *
* Interface: 0 Cycle#: 5 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

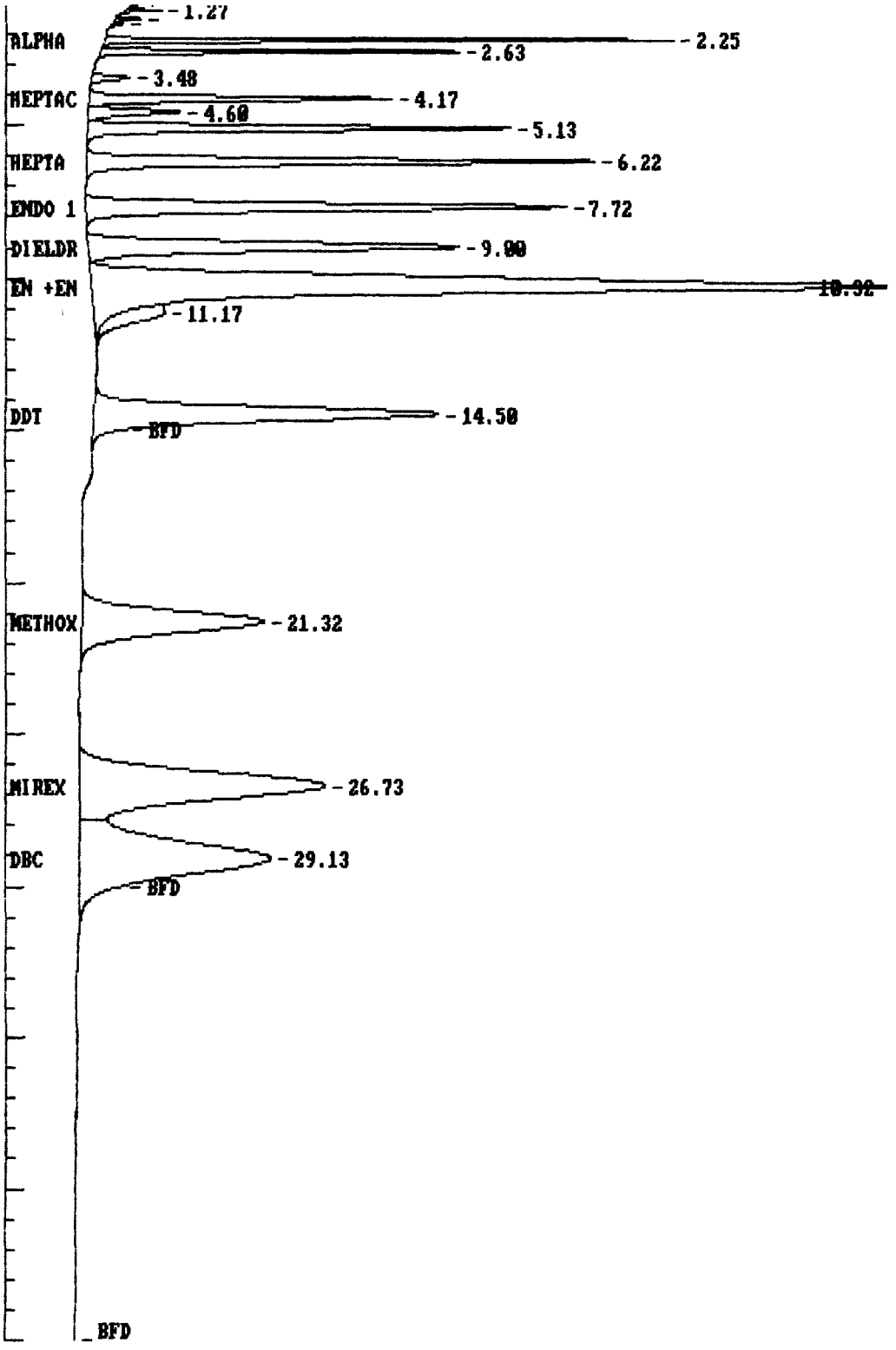
* Instrument Type: HP 5890A #1 Column Type: CONFIRMATION *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: Detector 1: ECD CONF *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SCRN: * *

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
4	2.25	ALPHA BHC	0.0031	2.8054%	294095	55660	5.3 2	4	17	0	1.0541E-08
5	2.63	LINDANE	0.0025	2.2624%	223368	35145	6.4 2	5	17	0	1.1192E-08
7	4.17	HEPTACHLOR	0.0025	2.2624%	319022	29536	10.8 2	7	17	0	7.8365E-09
9	5.13	ALDRIN	0.0050	4.5249%	514550	41253	12.5 2	9	17	0	9.7172E-09
10	6.22	HEPTA EPOX	0.0062	5.6109%	749710	49590	15.1 1	10	17	0	8.2699E-09
11	7.72	ENDO 1	0.0075	6.7873%	856874	46959	18.2 1	11	17	0	8.7528E-09
12	9.00	DIELDRIN	0.0075	6.7873%	772426	36249	21.3 2	12	17	0	9.7097E-09
13	10.32	EN +END 2	0.0275	24.8869%	2761234	77729	35.5 3	13	17	0	9.9593E-09
15	14.50	DDT	0.0150	13.5747%	1100013	33579	32.8 1	15	17	0	1.3636E-08
16	21.32	METHOX	0.0187	16.9231%	874276	17801	49.1 1	16	17	0	2.1389E-08
17	26.73	MIREX	1.0000	0.0000%	1536037	24076	63.8 2	17	17	0	6.5103E-07
18	29.13	DBC	0.0150	13.5747%	1464823	18705	78.3 2	18	17	0	1.0240E-08

TOTAL AMOUNT = 0.1105

Data File = K:OKS.PTS Printed on 12-24-1989 at 02:01:40
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 23452 uv High Value: 102727 uv Scale factor: 1.0



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

********** 12-29-1989 22:32:44 Version 4.1 **********

* Sample Name: STD 1248 3 Data File: K:OK28 *

* Date: 12-21-1989 13:21:16 Method: K:CMET48 12-29-1989 22:28:43 # 19 *

* Interface: 0 Cycle#: 28 Operator KG Channel#: 0 Vial#: N.A. *

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

****

* Instrument Type: HP 5890A #1 Column Type: CONFIRMATION *

* Solvent Description: ULTRA HIGH PURITY NITROGEN *

* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

* Detector 0: Detector 1: ECD CONF *

* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY *

****

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

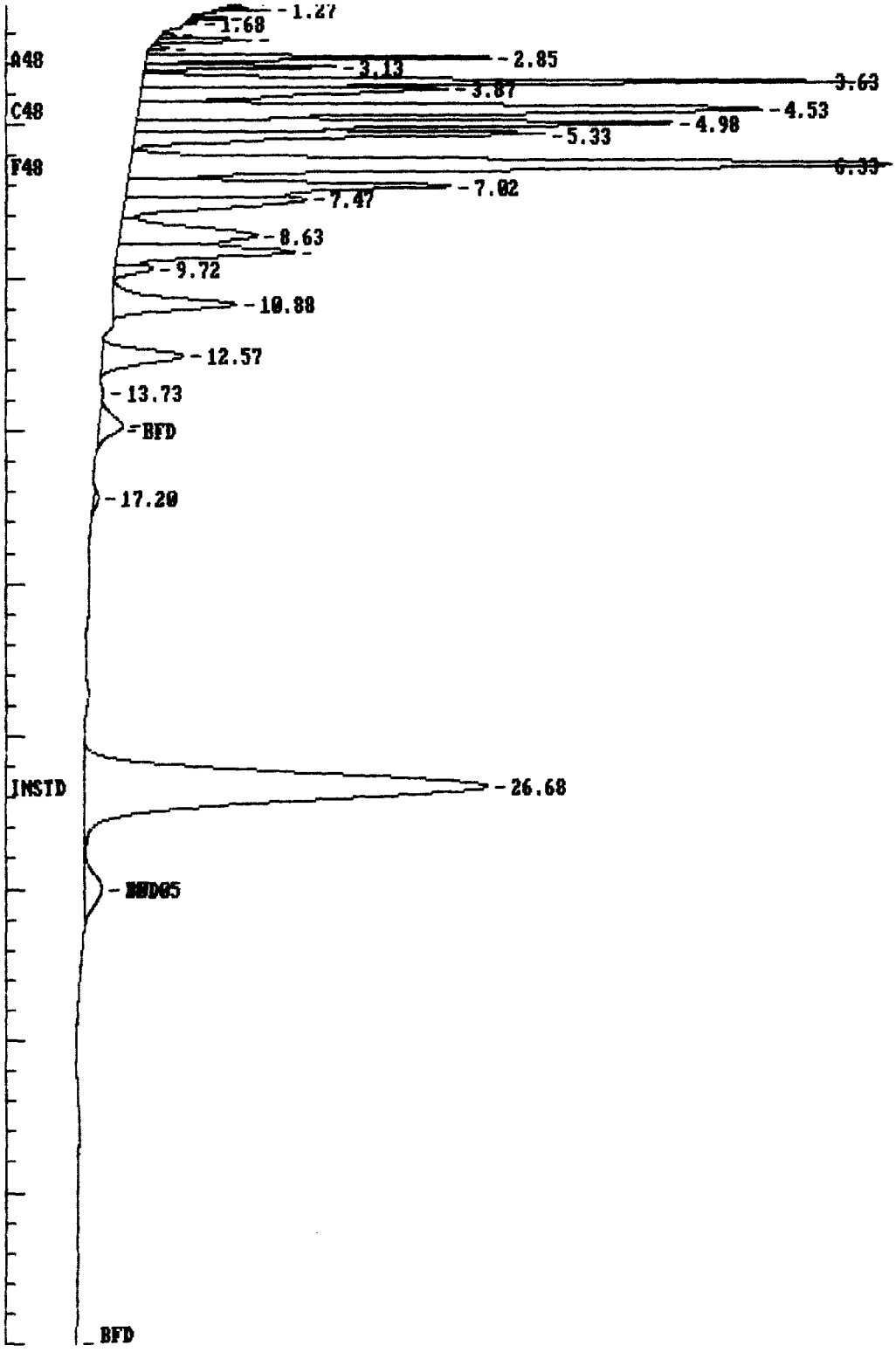
Internal Standard Amount: 1

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	2.85	A48	0.1000	14.2857%	161070	19114	8.4	2	0	25	0	6.2085E-07
9	3.63	B48	0.1000	14.2857%	440793	39396	11.2	2	0	25	0	2.2686E-07
11	4.53	C48	0.1000	14.2857%	719425	34521	20.8	2	0	25	0	1.3900E-07
12	4.98	D48	0.1000	14.2857%	450343	29703	15.2	2	0	25	0	2.2205E-07
13	5.33	E48	0.1000	14.2857%	370410	22697	16.3	2	0	25	0	2.6997E-07
14	6.33	F48	0.1000	14.2857%	1018610	42189	24.1	2	0	25	0	9.8173E-08
15	7.02	G48	0.1000	14.2857%	386839	17940	21.6	2	0	25	0	2.5851E-07
25	26.68	INSTD	1.0000	0.0000%	1415487	22290	63.5	2	0	25	0	7.0647E-07

TOTAL AMOUNT = 0.7000

Data File = K:OK28.PTS Printed on 12-29-1989 at 22:35:03
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 24994 uv High Value: 70158 uv Scale factor: 1.0



```
*****   INTERNAL STANDARD TABLE   *****
******************* 12-29-1989 22:57:19 Version 4.1 **********************
* Sample Name: STD 1221                          Data File: K:OK31        *
* Date: 12-21-1989 15:40:42 Method: K:CMET21 12-29-1989 22:47:39  #  14   *
* Interface: 0   Cycle#:  31   Operator KG  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*****************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION         *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0:                        Detector 1: ECD CONF      *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY   *
*****************************************************************************
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
```

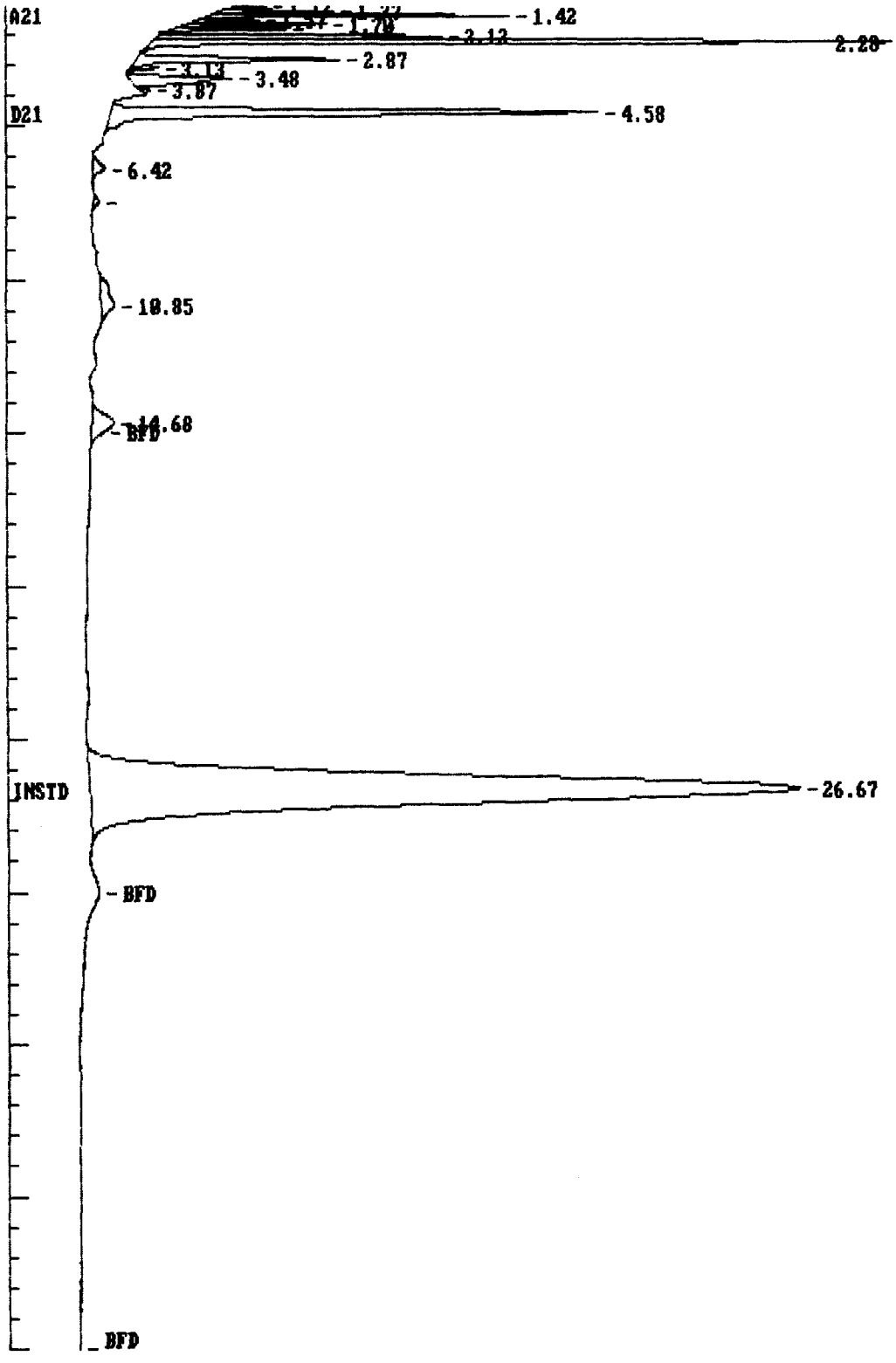
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
3	1.42	A21	0.5000	33.3333%	42172	9360	4.5	2	0	18	0	1.1856E-05
7	2.12	B21	0.5000	33.3333%	53063	8884	6.0	2	0	18	0	9.4227E-06
13	4.58	D21	0.5000	33.3333%	198990	15108	13.2	1	0	18	0	2.5127E-06
18	26.67	INSTD	1.0000	0.0000%	1382689	21979	62.9	1	0	18	0	7.2323E-07

TOTAL AMOUNT = 1.5000

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
C21	2.20	C21

Data File = K:OK31.PTS Printed on 12-29-1989 at 22:57:54
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 24629 uv High Value: 49939 uv Scale factor: 1.0



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

********** 12-29-1989 23:05:15 Version 4.1 **********

* Sample Name: STD 1232 Data File: K:OK32 *
* Date: 12-21-1989 16:27:08 Method: K:CMET32 12-29-1989 23:04:44 # 13 *
* Interface: 0 Cycle#: 32 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HP 5890A #1 Column Type: CONFIRMATION *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: Detector 1: ECD CONF *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY *

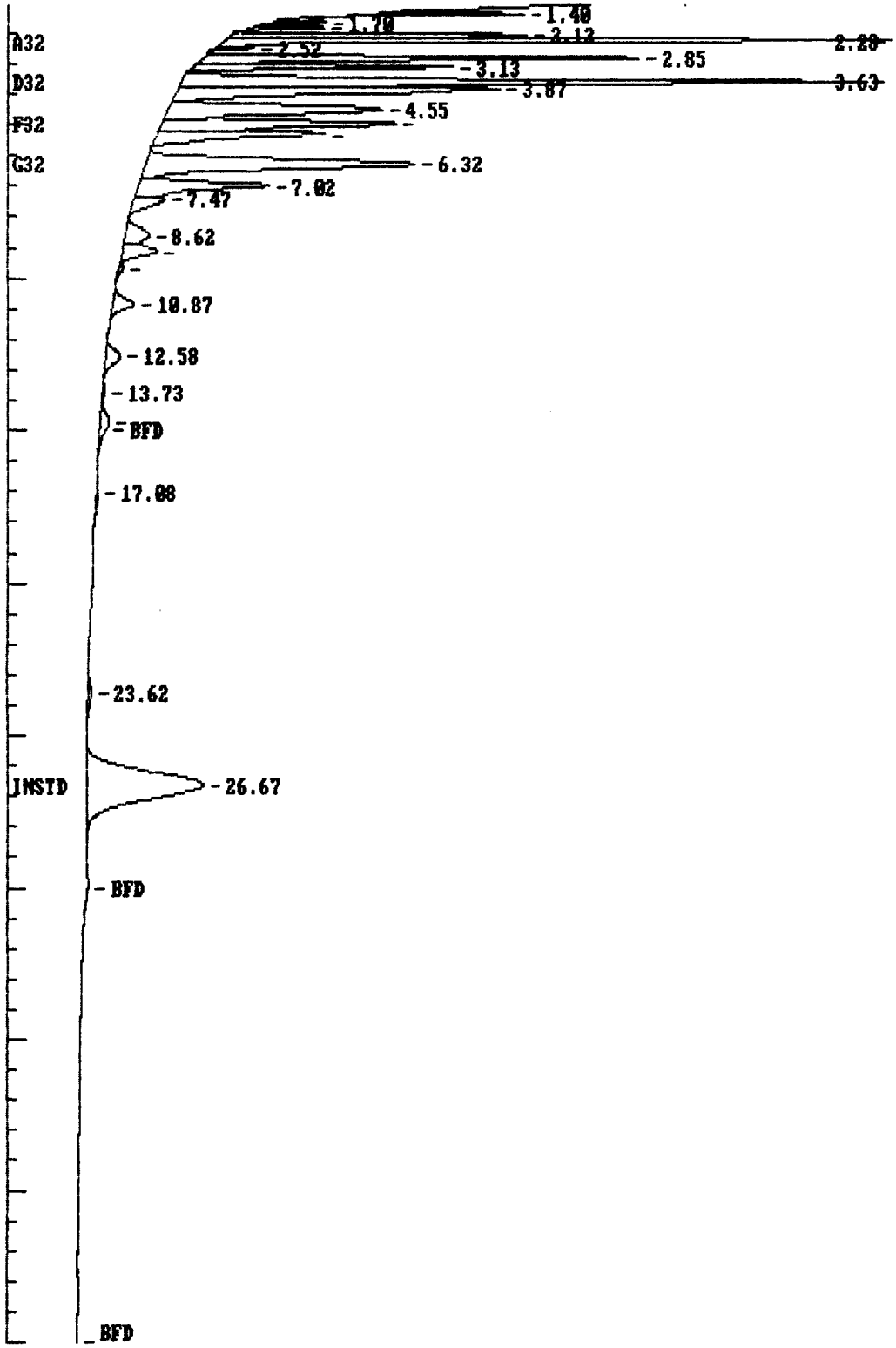
****

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	2.28	A32	0.5000	14.2857%	1022749	124421	8.2	3	0	26	0	4.8888E-07
7	2.85	B32	0.5000	14.2857%	721464	81337	8.9	2	0	26	0	6.9304E-07
8	3.13	C32	0.5000	14.2857%	399385	48533	8.2	2	0	26	0	1.2519E-06
9	3.63	D32	0.5000	14.2857%	1427033	127493	11.2	2	0	26	0	3.5038E-07
10	3.87	E32	0.5000	14.2857%	977837	59791	16.4	2	0	26	0	5.1133E-07
12	5.00	F32	0.5000	14.2857%	658488	43653	15.1	2	0	26	0	7.5932E-07
14	6.32	G32	0.5000	14.2857%	1140837	50219	22.7	2	0	26	0	4.3827E-07
26	26.67	INSTD	1.0000	0.0000%	1345208	21584	62.3	1	0	26	0	7.4338E-07

TOTAL AMOUNT = 3.5000

Data File = K:OK32.PTS Printed on 12-29-1989 at 23:05:43
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 26398 uv High Value: 177671 uv Scale factor: 1.0

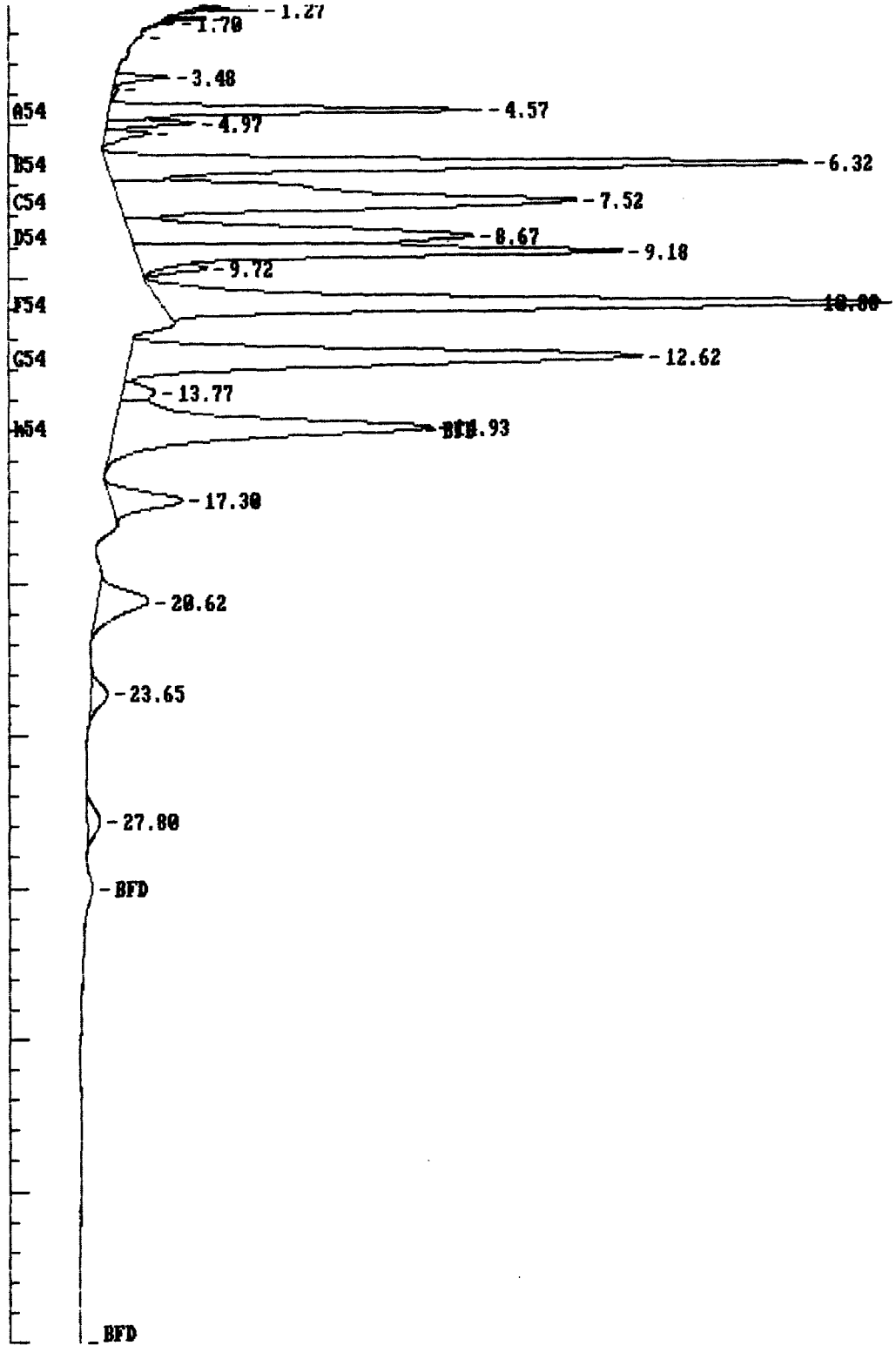


```
*****   EXTERNAL STANDARD TABLE   *****
******************** 12-29-1989 22:49:54 Version 4.1 ********************
* Sample Name: STD 1254 3                    Data File: K:OK29          *
* Date: 12-21-1989 14:07:44 Method: K:CMET54 12-29-1989 22:32:15  #  20 *
* Interface: 0   Cycle#:  29   Operator KG  Channel#: 0    Vial#: N.A.  *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100          *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: CONFIRMATION       *
*            Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                       *
*            Detector 0:                      Detector 1: ECD CONF      *
* Misc. Information: SF6823OLD KELLY SF6825DUKE EARNEST SF6823OLD KELLY *
*************************************************************************
Starting Delay:    1.00                    Ending retention time:    45.00
Area reject:        0                      One sample per   1.000 sec.
Amount injected:        1.00               Dilution factor:        1.00
Sample Weight:          1.000000
```

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
7	4.57	A54	0.1000	12.5000%	289512	18759	15.4	2	0	0	3.4541E-07
10	6.32	B54	0.1000	12.5000%	834762	35262	23.7	2	0	0	1.1979E-07
11	7.52	C54	0.1000	12.5000%	929079	23073	40.3	2	0	0	1.0763E-07
12	8.67	D54	0.1000	12.5000%	559856	17245	32.5	2	0	0	1.7862E-07
13	9.18	E54	0.1000	12.5000%	608075	24488	24.8	3	0	0	1.6445E-07
15	10.88	F54	0.1000	12.5000%	1021864	36781	27.8	1	0	0	9.7860E-08
16	12.62	G54	0.1000	12.5000%	910314	25846	35.2	2	0	0	1.0985E-07
18	14.93	h54	0.1000	12.5000%	718686	16009	44.9	2	0	0	1.3914E-07

TOTAL AMOUNT = 0.8000

Data File = K:QK29.PTS Printed on 12-29-1989 at 22:50:33
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 24756 uv High Value: 65748 uv Scale factor: 1.0



****** EXTERNAL STANDARD TABLE ******

********** 12-29-1989 22:53:31 Version 4.1 **********

* Sample Name: STD 1260 3 Data File: K:OK30 *
* Date: 12-21-1989 14:54:15 Method: K:CMET60 12-29-1989 22:42:57 # 57 *
* Interface: 0 Cycle#: 30 Operator KG Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HP 5890A #1 Column Type: CONFIRMATION *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: Detector 1: ECD CONF *
* Misc. Information: SF68230LD KELLY SF6825DUKE EARNEST SF68230LD KELLY *

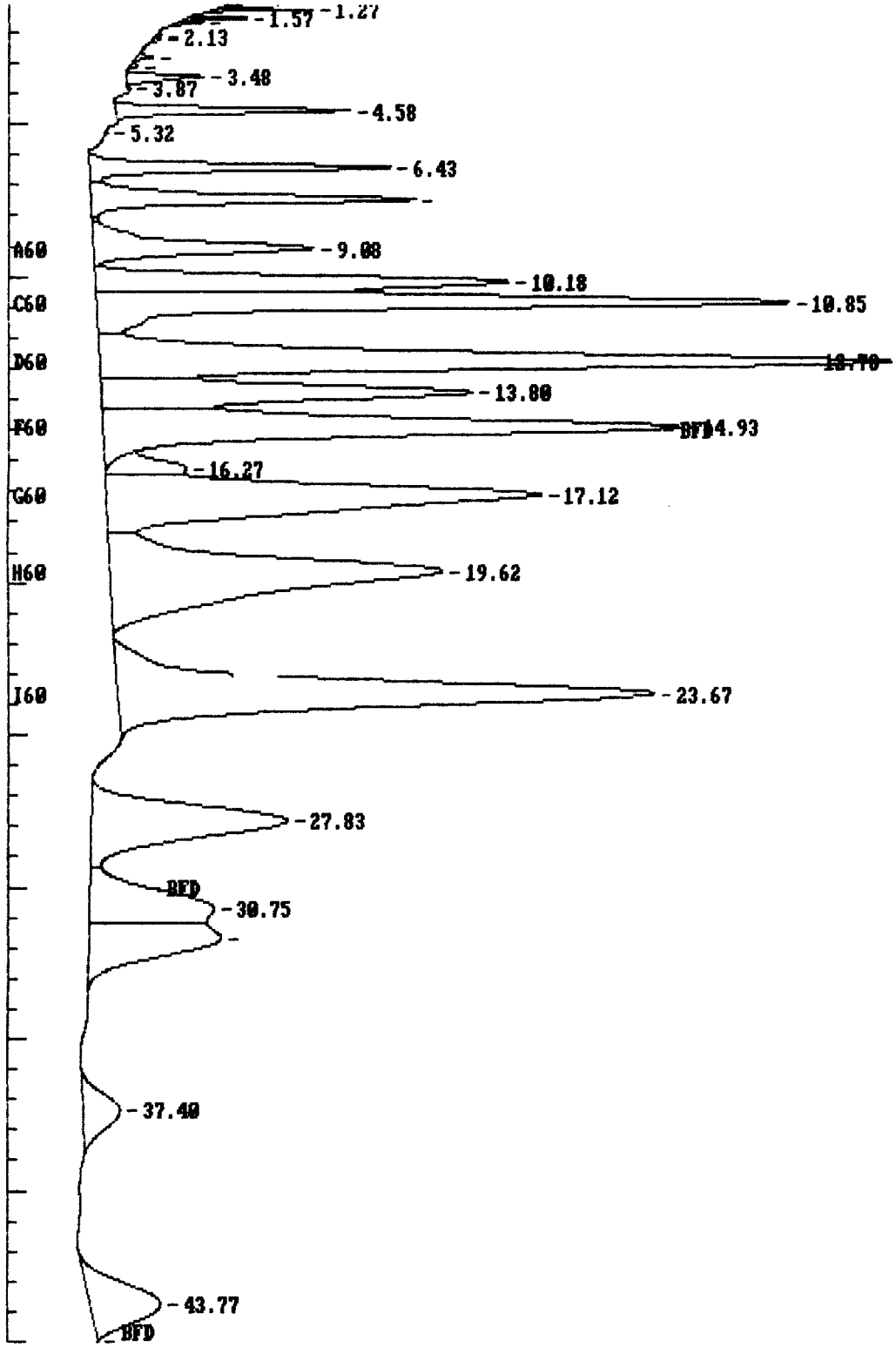
****

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

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
14	9.08	A60	0.1000	11.1111%	252556	8318	30.4	2	14	0	3.9595E-07
15	10.18	B60	0.1000	11.1111%	443111	15574	28.5	2	15	0	2.2568E-07
16	10.85	C60	0.1000	11.1111%	801728	26119	30.7	2	16	0	1.2473E-07
17	12.78	D60	0.1000	11.1111%	1124122	29902	37.6	2	17	0	8.8958E-08
18	13.80	E60	0.1000	11.1111%	507673	14008	36.2	2	18	0	1.9698E-07
19	14.93	F60	0.1000	11.1111%	921461	21807	42.3	3	19	0	1.0852E-07
21	17.12	G60	0.1000	11.1111%	960683	16412	58.5	2	19	0	1.0409E-07
22	19.62	H60	0.1000	11.1111%	995728	12536	79.4	2	19	0	1.0043E-07
23	23.67	I60	0.1000	11.1111%	1188620	20220	58.8	1	19	0	8.4131E-08

TOTAL AMOUNT = 0.9000

Data File = K:OK30.PTS Printed on 12-29-1989 at 22:54:06
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 24745 uv High Value: 55423 uv Scale factor: 1.0



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: JAN 08 1990

SUBJECT: Review of Region 5 data for Duke Forest Drum Site

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

To: Data User:

Attached are the results for:

CRL Data Set Numbers: 8F 6825
Sample Numbers: 90FD05$98-99; D98; 90FD06$01-$03 + RGO
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)

TRANSMITTED BY
Sylvia Griffin
JAN 08 1990
U.S. EPA CENTRAL
REGIONAL LAB

RECEIVED BY/DATE: M. Gray 1/11/90

Comments:

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: JAN 10 1990

SUBJECT: Review of Region 5 data for Duke Forest Dev. Site

FROM: Curtis Ross, Director
Region 5 Central Regional Laboratory

To: Data User:

Attached are the results for:

CRL Data Set Numbers: SF6825
Sample Numbers: 90ED05598-9, 90F006501-3, D98, 90FD01R60(7)
Parameter(s): ABOL/WATER
Laboratory: CRL/WESTON 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 ~~Steve Parker,~~ David A. 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)

TRANSMITTED BY
JAN 10 1990
U.S. EPA CENTRAL REGIONAL LAB

RECEIVED BY/DATE: M. Gryn 1/11/90

Comments:

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: JAN 10 1990

SUBJECT: Review of Region 5 data for Duke Earnest Drum Site

FROM: Curtis Ross, Director
Region 5 Central Regional Laboratory

To: Data User:

Attached are the results for:

CRL Data Set Numbers: SF-6825
Sample Numbers: 90FD05598 90FD05599 90FD06301-303 90FD06098 (7) 90FD01R60
Parameter(s): VOA/VOA TCL
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~~, David A. 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)

TRANSMITTED BY
JAN 10 1990
U.S. EPA CENTRAL REGIONAL LAB

RECEIVED BY/DATE: M. Grace 1/11/90

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

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: JAN 10 1990

SUBJECT: Review of Region 5 data for Duke Earnest Drum Site

FROM: Curtis Ross, Director
Region 5 Central Regional Laboratory

To: Data User:

Attached are the results for:

CRL Data Set Numbers: SF-6875
Sample Numbers: 90FD05598 90FD05599 90FD06501-503 90FD06D98 90FD01R60 (7)
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~~, David A. 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)

TRANSMITTED BY
JAN 10 1990
U.S. EPA CENTRAL REGIONAL LAB

RECEIVED BY/DATE:

Comments:

DATA SET	SITE	OU/ACT.
SF-6825	Duke Earnest Drum Site	TFA302

SAMPLES	PARAMETER(S)
90FD06598-599 90FD06598 90FD06501-503 90FD01260	VOA/water

SAMPLED	RECEIVED	DUE	LAB
12/14/89	12/15/89	1/5/90	CRL/weston-GN

SHIPPED	DATA RECEIVED	CONTRACT

TEAM LEADER	SECTION CHIEF	QC COORD.	DATA COORD.
[illegible]			

Comments By Reviewer:

THE DATA ARE ACCEPTABLE FOR USE.

DATA MANAGEMENT COORDINATOR

RECEIVED **TRANSMITTED**

CLERICAL SUPPORT

RECEIVED **COMPLETED**

(✓) REVIEWED ( ) UNREVIEWED **TEAM LEADER/DATE** Balu Paruchuri 1/4/90

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

( ) REVIEWED ( ) UNREVIEWED **QC COORDINATOR/DATE**

REVIEWED BY CONTRACT COORDINATOR/DATE

RECEIVED **TRANSMITTED** **DATA MANAGEMENT COORDINATOR**

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1218BLK1

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 1218BLK1

Sample wt/vol: 20 (g/mL) ML Lab File ID: 1218BLK1

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

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

1218BLK1 (Cont.) 1A

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.

1218BLK1

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 1218BLK1

Sample wt/vol: 20 (g/mL) ML Lab File ID: 1218BLK1

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

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.

90FD01R60

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 90FD01R60

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6825R60

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

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

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.

90FD01R60

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 90FD01R60

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6825R60

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

Column (pack/cap) PACK Dilution Factor: 1

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	6.13	5	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD05S98

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S98

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6825S98

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

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

90FD05598 (cont.) 1A

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.

90FD05S98

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S98

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6825S98

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

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.

90FD05D98

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 90FD05D98

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6825D98

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

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

90FD06D98 (cont.) 1A

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.

90FD05D98

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 90FD05D98

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6825D98

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

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.

90FD05S99

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S99

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6825S99

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

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

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.

90FD05S99

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S99

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6825S99

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

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.

90FD06S01

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 90FD06S01

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6825S01

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

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	27	J
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

90FD06S01 (cont.)

1A

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.

90FD06S01

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 90FD06S01

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6825S01

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

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.

90FD06S02

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 90FD06S02

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6825S02

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

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

90FD06502 (cont.)

1A

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.

90FD06S02

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 90FD06S02

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6825S02

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

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.

90FD06S03

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 90FD06S03

Sample wt/vol: 30 (g/mL) ML Lab File ID: 6825S03

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

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

90FD06503 (cont.) 1A

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.

90FD06S03

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 90FD06S03

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6825S03

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

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

ESAT CONTRACT TID NO: 12-08
TASK NO: 2082

DATASET CUSTODY TRANSFER FORM

Analytical testing was completed on Dec. 20, 1989 for:

DATASET NO: SF-6525 SITE NAME: Duke Forest Drum Site

PARAMETER : VOA

MATRIX : Water SF DU/ACT NO: TFA302 Y____ /C_____

SAMPLE NUMBERS: 90FD05598 - 90FD05599 90FD06501 - 90FD06503
90FD06D98 90FD06R60 NUMBER OF SAMPLES: 7

ESAT APPROVALS:

Karen Turner 12/20/89
(ANALYST DATE)

Jing-Mei Lin 12/21/89
(TEAM LEADER DATE)

(QC COORDINATOR DATE)

Vern Utley 12/21/89
(ESAT TEAM MANAGER DATE)

COMMENTS:

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.

Karen Turner 12/21/89
(DELIVERED BY DATE)

Barbara Patrowicz 3:10 pm 12/21/89
(RECEIVED BY DATE)

EPA APPROVALS:

Barbara Patrowicz 1/4/90
(EPA TASK MONITOR DATE)

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

COMMENTS: RATINGS: TECH. QUALITY: 3.0 ; COMPLIANCE & SCHEDULE: 3.0

(SECTION CHIEF DATE)

[ ] Reviewed [ ] Unreviewed

(ESAT DPO DATE)

(DATA COORD'R REC'D TRANSMTD)

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

Date: December 19, 1989

To: Babu Paruchuri

From: Karen Turner K. Turner 12/21/89

Re: Dataset SF-6825
Duke Earnst Drum Site

Seven (7) low level water samples from dataset SF-6825 were submitted for volatile organic analysis (VOA) by GC/MS utilizing EPA method 624NS.

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

The tunings were 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=48.3% / avg RF=0.207). The continuing calibration was acceptable (Forms 7A) with all compounds having %Ds less than 35% except vinyl acetate (%D=99.9% / RF=0.426).

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 90FD05S99 was used for the matrix spike and matrix spike duplicate analyses (Form 3A). All % recoveries and % RPDs met their respective QC criteria.

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 (90FD01R60) associated with the samples. The Field Blank contained no TCL compounds. One TIC was detected at 6.13 minutes.

Sample 90FD05S98 and its duplicate 90FD06D98 correlated very well. No TCL compounds or TICs were detected in either sample.

Samples 90FD05S99, 90FD06S02, and 90FD06S03 contained no TCL compounds or TICs.

Sample 90FD06S01 contained acetone at 27 ppb and 1,2-dichloroethene (total) at its MDL level. No other TCL compounds or Tics were detected.

30 minutes
K. Turner

Level 2 review is done. 12/22/89 Liz

USEPA REGION V CRL 12/20/89 14:2
SF6825 1/4/90 PAG

WORKLIST : VOKT0006
TEST : VOWS0

SF 6825

WL#	ID	REP	COMMENTS
1	LRB		
2	LF1		
3	LF2		
4	S9001495	01	90FD05S98
5	S9001496	01	90FD05D98
6	S9001497	01	90FD05S99
7	S9001498	01	90FD01K60
8	S9001499	01	90FD06S01
9	S9001500	01	90FD06S02
10	S9001501	01	90FD06S03

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

TFA302

DIVISION/BRANCH Superfund FIT SAMPLE DATE 12/14/89 LAB ARRIVAL DATE 12/15/89 DUE DATE 1/5/90

DU NUMBER TFA ~~[illegible]~~ DATA SET NUMBER 6825 STUDY Duke Forest Dump Site PRIORITY — CONTRACTOR —

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER VOLATILE ORGANICS SCAN UG/L TOX 17684	WATER ABN ORGANICS SCAN UG/L TOX 17674	SEDIMENTS SOLIDS VOLATILE ORGANICS SCAN MG/KG (DRY) TOX 215622	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
90FD05S98	RW1 5-129140-2	X III	X 1 vial missing I-chem tab		
90FD05S99	MSD/RW2 5-089441-8	X IIII III	X only 1 vial has I-chem tab		
90FD06S01	RW3 5-072677-9	X III	X		
↓ 02	RW4 5-072685-7	X III	X		
90FD06S03	RW5 5-115699 5-114499-500	X III	X		
90FD05D98	DUPLICATE 5-129148-180	X III	X		
90FD01R60	BLANK 5-072693-95	X III	X 1 vial missing I-chem tab		
90FD05S98	RW1 5-129137		X K. Turner	12/20/89	
90FD05D98	DUPLICATE 5-129145		X		
90FD05S99	RW2/MSD 5-089433-35		X		
90FD06S01	RW3 5-072674		X		
90FD06S02	RW4 5-072682		X		
90FD06S03	RW5 5-072698		X		
90FD01R60	BLANK 5-072690		X		

ROY F. WESTON, INC.
C/O ESAT Project
Room 671
536 South Clark Street
Chicago IL 60605
(312)-353-2895

Dataset No: SF-6825

Task No: 2082

VOLATILE ORGANIC DELIVERABLES CHECK-OFF LIST

PRESENT	NOT REQD	
[✓]	[ ]	DATA USERS REPORT
[✓] (3 COPIES)	[ ]	DATASET CUSTODY TRANSFER FORM
[✓] (1 COPY)	[ ]	SAMPLE REPORT LOG
[✓]	[ ]	NARRATIVE
[✓]	[ ]	RUN SEQUENCE

AOC

PRESENT	NOT REQD	
[✓] (1 COPY)	[ ]	SURROGATE RECOVERY (FORM II)
[✓] (1 COPY)	[ ]	MATRIX SPIKE/DUP (FORM III)
[✓]	[ ]	MS/MSD RAW DATA
[✓]	[ ]	METHOD BLANK (FORM IV)
[✓]	[ ]	MASS CAL/TUNING (FORM V)
[✓]	[ ]	MASS CAL RAW DAT
[✓]	[ ]	MDL RESULTS

CALIBRATION DATA

PRESENT	NOT REQD	
[✓]	[ ]	INITIAL CAL RRF (FORM VI)
[✓]	[ ]	ICV RAW DATA
[✓]	[ ]	CONT CAL VERIFIC (FORM VII)
[✓]	[ ]	CCV RAW DATA
[✓] (1 COPY)	[ ]	INT STD AREA & RT (FORM VIII)

SAMPLE DATA

PRESENT	NOT REQD	
[ ]	[✓]	ID FILE (SHORT) (HP ONLY)
[✓]	[ ]	TCL RESULTS (FORM I)
[✓]	[ ]	TIC RESULTS (FORM I-TIC)
[✓]	[ ]	SAMPLE RAW DATA
[✓]	[ ]	SAMPLE TAGS
[✓] (2 COPIES)	[ ]	ARCHIVE REFERENCE
[✓]	[ ]	CONTROL CHART SUMMARY

[illegible] 0 DEC 89

[illegible]

FORMULA: [illegible] WEIGHT: [illegible]

SUBMITTED BY: [illegible] PROJECTOR

[illegible]

ENTRY NO.: 3 FILE [illegible]: [illegible]

SAMPLE: [illegible]

COLOR: [illegible] TO 220° [illegible] MIN

FORMULA: [illegible] WEIGHT: 1.000

SUBMITTED BY: [illegible] PROJECTOR

AG-DESC: [illegible] GC-DESC: UO SEQ-DESC: [illegible] VIAL NO: 5

ENTRY NO.: [illegible] FILE [illegible]: [illegible]

SAMPLE: [illegible]

COLOR: [illegible] MIN TO 220° [illegible] MIN

FORMULA: [illegible] WEIGHT: 1.000

SUBMITTED BY: [illegible] PROJECTOR

AG-DESC: [illegible] GC-DESC: UO [illegible] VIAL NO: 5

ENTRY NO.: 5 [illegible] [illegible]

SAMPLE: [illegible]

COLOR: [illegible]

FORMULA: [illegible]

[illegible]

PRESS TO DONE, TYPE <CR> TO CONTINUE...

18 DEC 89

ASK DESC:VO NUMBER OF ENTRIES: 10 CURRENT INDEX: 3

ENTRY NO.: 7 FILE NAME: 6825S03
SAMPLE: CLP,6825,,90FD06S03,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
FORMULA: ANALYST : KAT WEIGHT: 1.000
SUBMITTED BY: ACCT. NO: PROC:DOTCA
AS-DESC: VO GC-DESC: VO SEQ-DESC: VO VIAL NO: 9

ENTRY NO.: 8 FILE NAME: 6825S99M
SAMPLE: CLP,6825,,90FD05S99MS,L,W,,V,MS,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
FORMULA: ANALYST : KAT WEIGHT: 1.000
SUBMITTED BY: ACCT. NO: PROC:DOTCA
AS-DESC: VO GC-DESC: VO SEQ-DESC: VO VIAL NO: 10

ENTRY NO.: 9 FILE NAME: 6825S99D
SAMPLE: CLP,6825,,90FD05S99MSD,L,W,,V,MSD,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
FORMULA: ANALYST : KAT WEIGHT: 1.000
SUBMITTED BY: ACCT. NO: PROC:DOTCA
AS-DESC: VO GC-DESC: VO SEQ-DESC: VO VIAL NO: 1

ENTRY NO.: 10 FILE NAME: MDL1218
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
FORMULA: ANALYST : KAT WEIGHT: 1.000
SUBMITTED BY: ACCT. NO: PROC:DOTCA
AS-DESC: VO GC-DESC: VO SEQ-DESC: VO VIAL NO: 2

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

	EPA SAMPLE NO.	S1 (TOL) #	S2 ~~(BFB)~~ # (BEN)	S3 (DCE) #	OTHER	TOT OUT
01	90FD01R60	114	104	95		0
02	90FD05S98	97	99	99		0
03	90FD05S99	91	100	103		0
04	90FD06D98	94	97	102		0
05	90FD06S01	91	100	104		0
06	90FD06S02	89	96	104		0
07	90FD06S03	94	97	102		0
08	MDL1218	91	95	105		0
09	90FD05S99MS	91	98	103		0
10	90FD05S99MSD	92	99	103		0
11	1218BLK1	112	103	93		0

	QC LIMITS
S1 (TOL) = Toluene-d8	(80-120)
~~S2 (BFB) = Bromofluorobenzene~~	~~(80-120)~~ KJ 12/19/89
S3 (DCE) = 1,2-Dichloroethane-d4	(80-120)
S2 (BEN) = Benzene-d6	(80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix Spike - EPA Sample No.: 90FD05S99

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	10.0	0	9.87	99	61-145
Trichloroethene	10.0	0	10.0	100	71-120
Benzene	10.0	0	10.8	108	76-127
Toluene	10.0	0	10.7	107	76-125
Chlorobenzene	10.0	0	10.7	107	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	10.3	103	+4	14	61-145
Trichloroethene	10.0	10.2	102	+2	14	71-120
Benzene	10.0	11.1	111	+3	11	76-127
Toluene	10.0	10.9	109	+2	13	76-125
Chlorobenzene	10.0	10.8	108	+1	13	75-130

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

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: CLP,6825,,90FD05S99,L,W,,V,EPA,
45' (3 MIN) TO 220' @ 8'/MIN

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Lab File ID: 1218BLK1 Lab Sample ID: 1218BLK1

Date Analyzed: 12/18/89 Time Analyzed: 0919

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	90FD01R60	90FD01R60	6825R60	1139
02	90FD05S98	90FD05S98	6825S98	1228
03	90FD05S99	90FD05S99	6825S99	1357
04	90FD06D98	90FD06D98	6825D98	1312
05	90FD06S01	90FD06S01	6825S01	1443
06	90FD06S02	90FD06S02	6825S02	1527
07	90FD06S03	90FD06S03	6825S03	1611
08	MDL1218	MDL1218	MDL1218	1824
09	90FD05S99MS	90FD05S99MS	6825S99M	1656
10	90FD05S99MSD	90FD05S99MSD	6825S99D	1740

COMMENTS: CLP,1218,,1218BLK1,L,W,,V,BLANK,
45' (3 MIN) TO 220' @ 8'/MIN

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

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Lab File ID: 1116BFB1 BFB Injection Date: 11/16/89

Instrument ID: INCOS BFB Injection Time: 1339

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	22.7
75	30.0 - 60.0% of mass 95	45.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.3
173	Less than 2.0% of mass 174	0.3 (0.4)1
174	Greater than 50.0% of mass 95	76.7
175	5.0 - 9.0% of mass 174	5.8 (7.5)1
176	Greater than 95.0%, but less than 101.0% of mass 174	76.3 (99.5)1
177	5.0 - 9.0% of mass 176	5.3 (7.0)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	IC11116	IC11116	IC11116	11/16/89	1507
02	IC21116	IC21116	IC21116	11/16/89	1545
03	IC31116	IC31116	IC31116	11/16/89	1634
04	IC41116	IC41116	IC41116	11/16/89	1718
05	IC51116	IC51116	IC51116	11/16/89	1803

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

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Lab File ID: 1218BFB1 BFB Injection Date: 12/18/89

Instrument ID: INCOS BFB Injection Time: 0848

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	23.2
75	30.0 - 60.0% of mass 95	47.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.3
173	Less than 2.0% of mass 174	0.3 (0.4)1
174	Greater than 50.0% of mass 95	80.8
175	5.0 - 9.0% of mass 174	5.3 (6.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	77.3 (95.7)1
177	5.0 - 9.0% of mass 176	4.6 (5.9)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	1218BLK1	1218BLK1	1218BLK1	12/18/89	0919
02	CC1218	CC1218	CC1218	12/18/89	1007
03	90FD01R60	90FD01R60	6825R60	12/18/89	1139
04	90FD05S98	90FD05S98	6825S98	12/18/89	1228
05	90FD06D98	90FD06D98	6825D98	12/18/89	1312
06	90FD05S99	90FD05S99	6825S99	12/18/89	1357
07	90FD06S01	90FD06S01	6825S01	12/18/89	1443
08	90FD06S02	90FD06S02	6825S02	12/18/89	1527
09	90FD06S03	90FD06S03	6825S03	12/18/89	1611
10	90FD05S99MS	90FD05S99MS	6825S99M	12/18/89	1656
11	90FD05S99MSD	90FD05S99MSD	6825S99D	12/18/89	1740
12	MDL1218	MDL1218	MDL1218	12/18/89	1824

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Instrument ID: INCOS1 Calibration Date(s): 11/16/89 11/16/89

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 crosschecks K.Tubbs 12/19/89

LAB FILE ID: ~~RRF20~~ = IC11116=RRF05 ~~RRF50~~ = IC21116=RRF10
~~RRF100~~ = IC31116=RRF15 ~~RRF150~~ = IC41116=RRF20 ~~RRF200~~ = IC51116=RRF25

COMPOUND	RRF05 ~~RRF20~~	RRF10 ~~RRF50~~	RRF15 ~~RRF100~~	RRF20 ~~RRF150~~	RRF25 ~~RRF200~~	$\overline{RRF}$	% RSD
Chloromethane #	2.212	1.611	1.776	1.773	1.817	1.838	12.2#
Bromomethane	2.280	1.728	1.869	1.821	1.928	1.925	11.0
Vinyl Chloride *	2.352	1.823	1.968	1.942	2.020	2.021	9.8*
Chloroethane	1.633	1.233	1.312	1.303	1.387	1.374	11.3
Methylene Chloride	3.047	2.440	2.348	2.404	2.553	2.558	11.1
Acetone	0.142	0.126	0.126	0.109	0.108	0.122	11.6
Acrolein	0.076	0.068	0.065	0.056	0.052	0.063	15.2
Carbon Disulfide	0.609	0.527	0.530	0.438	0.444	0.510	13.9
Acrylonitrile	0.151	0.139	0.132	0.115	0.115	0.130	12.0
1,1-Dichloroethene *	2.269	1.817	1.627	1.788	1.920	1.884	12.7*
1,1-Dichloroethane #	4.494	3.487	3.214	3.607	3.754	3.711	12.9#
1,2-Dichloroethene (total)	2.323	1.913	1.806	1.923	2.082	2.009	10.0
Chloroform *	4.290	3.475	3.189	3.593	3.754	3.660	11.2*
1,2-Dichloroethane	2.018	1.606	1.474	1.716	1.755	1.714	11.8
2-Butanone	0.008	0.008	0.007	0.007	0.007	0.007	7.8
1,1,1-Trichloroethane	0.931	0.762	0.696	0.789	0.847	0.805	11.1
Carbon Tetrachloride	0.657	0.553	0.525	0.603	0.678	0.603	10.9
Vinyl Acetate	0.343	0.264	0.203	0.121	0.103	0.207	48.3
Bromodichloromethane	0.862	0.703	0.646	0.742	0.820	0.755	11.6
1,2-Dichloropropane *	0.723	0.594	0.522	0.584	0.624	0.609	12.1*
cis-1,3-Dichloropropene	0.904	0.746	0.673	0.774	0.852	0.790	11.5
Trichloroethene	0.951	0.761	0.726	0.832	0.937	0.841	12.0
Dibromochloromethane	0.449	0.373	0.369	0.434	0.497	0.424	12.7
1,1,2-Trichloroethane	0.359	0.279	0.265	0.299	0.324	0.305	12.3
Benzene	2.038	1.610	1.475	1.606	1.730	1.692	12.6
Trans-1,3-Dichloropropene	0.382	0.317	0.284	0.331	0.378	0.338	12.3
2-Chloroethylvinylether	0.210	0.167	0.148	0.166	0.180	0.174	13.2
Bromoform #	0.215	0.192	0.183	0.235	0.257	0.216	14.1#
4-Methyl-2-Pentanone	0.245	0.321	0.295	0.292	0.265	0.284	10.3
2-Hexanone	0.401	0.436	0.411	0.400	0.366	0.403	6.2
Tetrachloroethene	1.455	1.144	1.064	1.217	1.308	1.238	12.2
1,1,2,2-Tetrachloroethane #	0.480	0.379	0.346	0.389	0.409	0.401	12.4#
Toluene *	2.353	1.787	1.683	1.902	1.963	1.938	13.2*
Chlorobenzene #	2.658	2.098	1.976	2.228	2.327	2.257	11.5#
Ethylbenzene *	1.451	1.044	1.007	1.171	1.222	1.179	14.9*
Styrene	2.450	2.085	2.215	1.874	2.003	2.125	10.3
M-Xylene	1.464	1.195	1.323	1.258	1.407	1.329	8.2
O-&/or P-Xylene	1.319	1.073	1.220	1.175	1.278	1.213	7.9

Toluene-d8	2.781	2.751	2.713	2.739	2.669	2.731	1.5
Benzene-d6	1.728	1.681	1.654	1.597	1.659	1.664	2.9
1,2-Dichloroethane-d4	1.621	1.673	1.623	1.698	1.749	1.673	3.2

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Instrument ID: INCOS1 Calibration date: 12/18/89 Time: 1007

Lab File ID: CC1218 Init. Calib. Date(s): 11/16/89 11/16/89

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

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF15 ~~RRF50~~ 12/19/89	%D	
Chloromethane	#	1.838	1.480	19.5	#
Bromomethane		1.925	1.728	10.2	
Vinyl Chloride	*	2.021	1.731	14.4	*
Chloroethane		1.374	1.367	0.5	
Methylene Chloride		2.558	2.247	12.2	
Acetone		0.122	0.145	-18.9	
Acrolein		0.063	0.071	-12.7	
Carbon Disulfide		0.510	0.596	-16.9	
Acrylonitrile		0.130	0.161	-23.9	
1,1-Dichloroethene	*	1.884	1.778	5.6	*
1,1-Dichloroethane	#	3.711	3.839	-3.4	#
1,2-Dichloroethene (total)		2.009	1.909	5.0	
Chloroform	*	3.660	3.671	-0.3	*
1,2-Dichloroethane		1.714	1.798	-4.9	
2-Butanone		0.007	0.008	-14.3	
1,1,1-Trichloroethane		0.805	0.757	6.0	
Carbon Tetrachloride		0.603	0.562	6.8	
Vinyl Acetate		0.207	0.426	-99.9	
Bromodichloromethane		0.755	0.702	7.0	
1,2-Dichloropropane	*	0.609	0.585	3.9	*
cis-1,3-Dichloropropene		0.790	0.748	5.3	
Trichloroethene		0.841	0.700	16.8	
Dibromochloromethane		0.424	0.389	8.3	
1,1,2-Trichloroethane		0.305	0.294	3.6	
Benzene		1.692	1.656	2.1	
Trans-1,3-Dichloropropene		0.338	0.317	6.2	
2-Chloroethylvinylether		0.174	0.160	8.0	
Bromoform	#	0.216	0.161	25.5	#
4-Methyl-2-Pentanone		0.284	0.212	25.4	
2-Hexanone		0.403	0.347	13.9	
Tetrachloroethene		1.238	0.915	26.1	
1,1,2,2-Tetrachloroethane	#	0.401	0.373	7.0	#
Toluene	*	1.938	1.614	16.7	*
Chlorobenzene	#	2.257	1.903	15.7	#
Ethylbenzene	*	1.179	0.979	17.0	*
Styrene		2.125	1.912	10.0	
M-Xylene		1.329	1.087	18.2	
O-&/or P-Xylene		1.213	0.961	20.8	
Toluene-d8		2.731	2.572	5.8	

Benzene-d6	1.664	1.617	2.8
1,2-Dichloroethane-d4	1.673	1.877	-12.2

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Lab File ID (Standard): CC1218 Date Analyzed: 12/18/89

Instrument ID: INCOS1 Time Analyzed: 1007

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	29400	9.97	117000	19.20	76900	23.24
	UPPER LIMIT	58800	10.47	234000	19.70	153800	23.74
	LOWER LIMIT	14700	9.47	58500	18.70	38450	22.74
	EPA SAMPLE NO.						
01	90FD01R60	29300	9.97	118000	19.20	69100	23.24
02	90FD05S98	28700	9.97	113000	19.20	74100	23.24
03	90FD05S99	32300	9.97	125000	19.20	85600	23.24
04	90FD06D98	29200	9.97	115000	19.20	75600	23.24
05	90FD06S01	28300	10.00	112000	19.20	75000	23.24
06	90FD06S02	36400	9.97	141000	19.20	100000	23.24
07	90FD06S03	31400	9.97	119000	19.20	78300	23.24
08	MDL1218	30600	9.97	125000	19.20	83300	23.24
09	90FD05S99MS	30900	9.97	122000	19.20	83100	23.24
10	90FD05S99MSD	28300	9.97	113000	19.20	77300	23.20
11	1218BLK1	23400	9.97	92700	19.20	56100	23.24

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

4 crossouts K. Turner 12/19/89

FORM VIII VOA 1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FD05S99MS

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S99MS

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6825S99M

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

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	10	
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	10	
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	11	
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	11	
108-90-7	Chlorobenzene	11	
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	2	U

90FD05599MS (Cont.) 1A

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.

90FD05S99MSD

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 90FD05S99MSD

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6825S99D

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

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	10	
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	10	
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	11	
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	11	
108-90-7	Chlorobenzene	11	
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	2	U

90FD05599 MSD (cont.) 1A

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

9/15/1991

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MDL1218

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6825 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: MDL1218

Sample wt/vol: _____ (g/mL) ML Lab File ID: MDL1218

Level: (low/med) LOW Date Received: 12/15/89

% Moisture: not dec. 100 Date Analyzed: 12/18/89

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	
74-83-9	Bromomethane	2	
75-01-4	Vinyl Chloride	2	
75-00-3	Chloroethane	2	
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	51	J
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	2	U
107-13-1	Acrylonitrile	43	J
75-35-4	1,1-Dichloroethene	1	
75-35-3	1,1-Dichloroethane	1	
540-59-0	1,2-Dichloroethene (total)	1	
67-66-3	Chloroform	1	
107-06-2	1,2-Dichloroethane	1	J
78-93-3	2-Butanone	25	U
71-55-6	1,1,1-Trichloroethane	1	
56-23-5	Carbon Tetrachloride	0.8	J
108-05-4	Vinyl Acetate	0.7	J
75-27-4	Bromodichloromethane	1	
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	0.9	J
79-00-5	1,1,2-Trichloroethane	1	J
71-43-2	Benzene	1	
10061-02-6	Trans-1,3-Dichloropropene	0.8	J
110-75-8	2-Chloroethylvinylether	2	
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	3	
591-78-6	2-Hexanone	3	
127-18-4	Tetrachloroethene	0.9	J
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1	
108-90-7	Chlorobenzene	1	
100-41-4	Ethylbenzene	1	
100-42-5	Styrene	1	J

MDL1218 (cont.)

1A

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

BROMOFLUOROBENZENE

Tuning Report
11/16/89 13:39:00 + 12:28
Instrument: INCOS1
#361 to #388 summed - #394
Case Number:

Data: 1116BFB1 # 374
Cali: FC1024 # 3
Analyst: KAT

Laboratory:

Base m/z: 95
RIC: 118400.
Acct. No.: TFA302

Contract:

m/z	Intensity	% RA	Ion Abundance Criteria Min %	Max %	Mass	Actual	Status
50	5528.	22.7	15.0	40.0	95	22.7	PASS
75	10960.	45.0	30.0	60.0	95	45.0	PASS
95	24352.	100.0	100.0	---	---	100.0	PASS
96	2024.	8.3	5.0	9.0	95	8.3	PASS
173	79.	0.3	---	2.0	174	0.4	PASS
174	18688.	76.7	50.0	---	95	76.7	PASS
175	1404.	5.8	5.0	9.0	174	7.5	PASS
176	18592.	76.3	95.0	101.0	174	99.5	PASS
177	1306.	5.4	5.0	9.0	176	7.0	PASS

Mass List
11/16/89 13:39:00 + 12:28
Sample: 50NG BFB INCOS-50 QC/MS/DS USEPA-REGION_V
Conds.: 150' TO 220' @ 15'/MIN
#361 to #388 summed - #394

Data: 1116BFB1 # 374
Cali: FC1024 # 3

Base m/z: 95
RIC: 118400.

36 0.00 0.
242

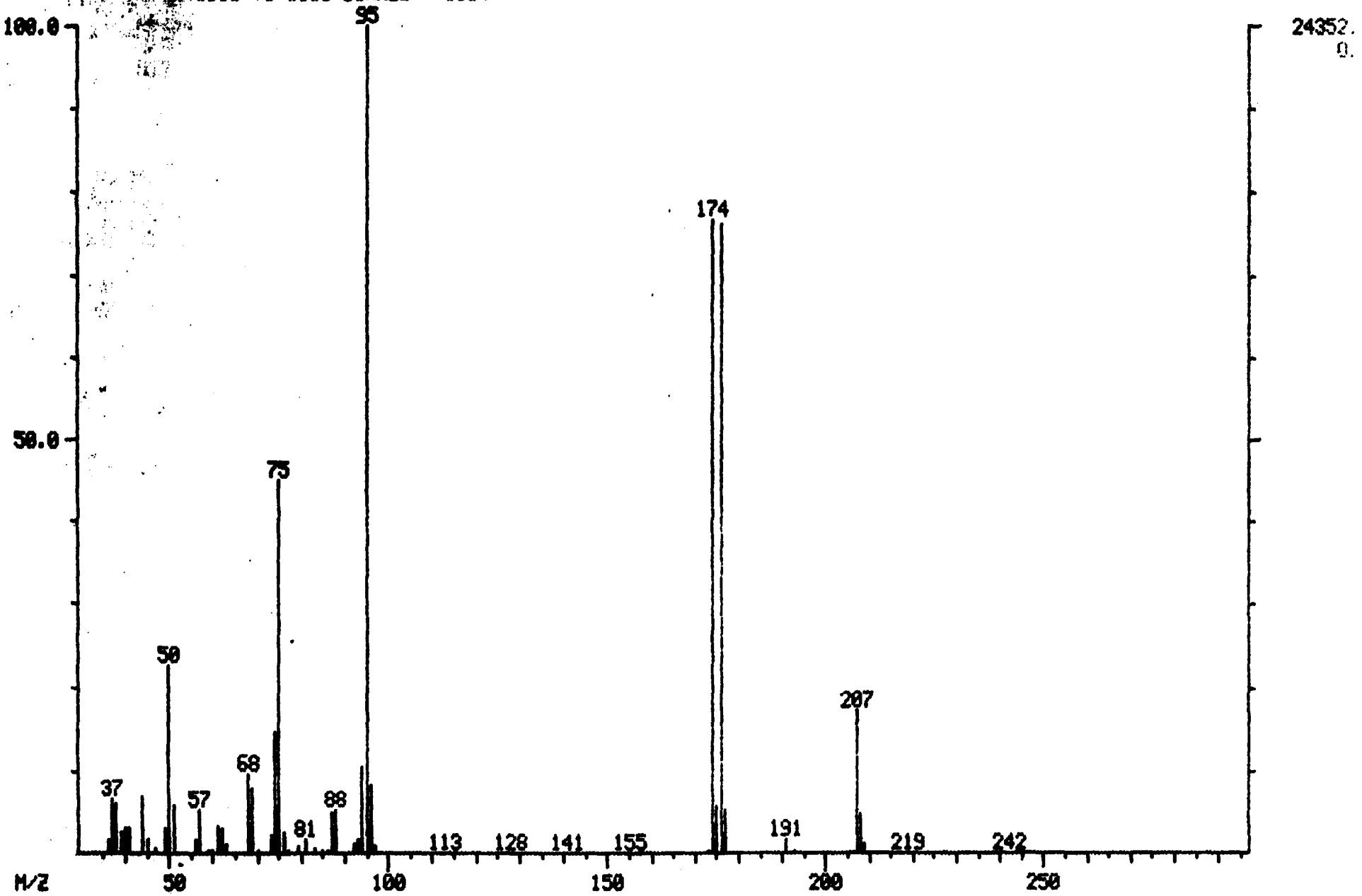
Minima Min Inten: 0.
Maxima # 0

Mass		% RA	Inten.
36?		1.52	371.
37?		6.60	1608.
38?		5.95	1448.
39?		2.46	599.
40?	S	3.14	764.
41?	S	3.01	734.
44?	S	6.85	1668.
45?	S	1.55	377.
47?		0.52	126.
49?		3.04	740.
50?		22.70	5528.
51?		5.84	1422.
53?		0.06	15.
56?		1.76	429.
57?	S	5.17	1260.
59?		0.14	35.
60?		0.19	47.
61?		3.30	803.
62?		2.91	708.
63?		1.23	300.
68?		9.61	2340.
69	S	7.92	1928.
70		0.37	89.
73	S	2.29	558.
74		14.59	3552.
75		45.01	10960.
76		2.58	628.
77		0.16	40.
79		0.90	220.
81		1.74	423.
83		0.48	116.
85		0.37	91.
86		0.28	68.
87		4.96	1208.
88	S	5.31	1292.
89		0.08	19.
92		1.02	249.
93		1.79	435.
94		10.55	2568.
95		100.00	24352.
96	S	8.31	2024.
97		0.96	234.
113		0.06	15.
119		0.12	29.
128		0.07	16.
141		0.07	17.
147		0.06	15.
155		0.07	17.
163		0.08	19.
172		0.07	16.
173		0.32	79.
174		76.74	18688.
175		5.77	1404.
176		76.35	18592.
177		5.36	1306.
191		1.54	376.
193		0.20	48.
207	S	17.02	4144.
208	S	4.79	1166.
209	S	0.99	240.
210		0.07	17.
219		0.07	16.
242		0.11	28.

MASS SPECTRUM
11/16/89 13:39:00 + 12:28
SAMPLE: 50NG BFB INCOS-50 GC/MS/DS USEPA-REGION_V
CONDS.: 150' TO 220' @ 15'/MIN
TEMP: 219 DEG. C
#361 TO #388 SUMMED - #394

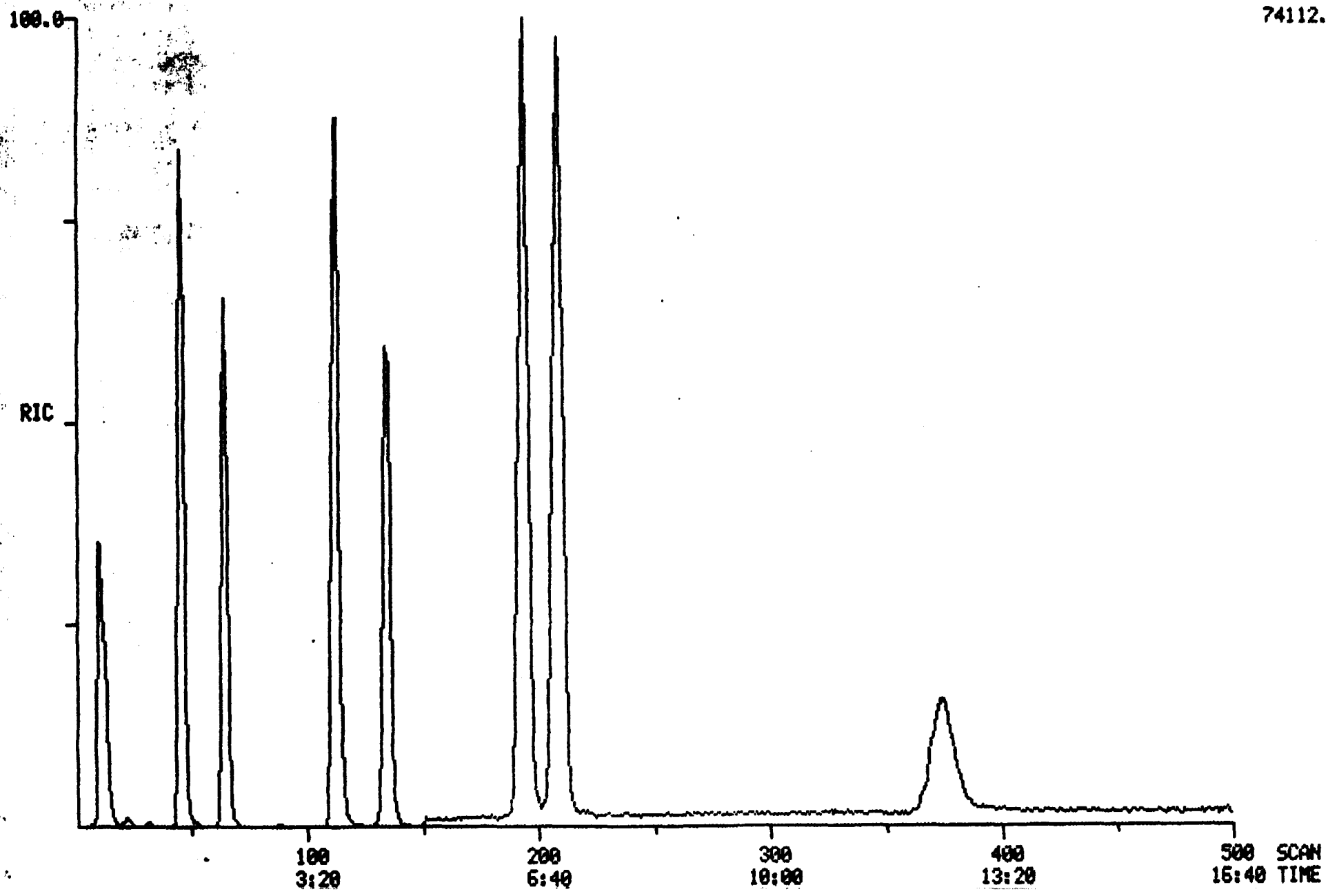
DATA: 1116BFB1 #374
CALI: FC1024 #3

BASE M/Z: 95
RIC: 118400.



RIC
11/16/89 13:39:00
SAMPLE: 50NG BFB INCOS-50 GC/MS/DS USEPA-REGION_V
CONDS.: 150' TO 220' @ 15'/MIN
RANGE: G 500, 500 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 1116BFB1 #361 SCANS 1 TO 500
CALI: FC1024 #3



BROMOFLUOROBENZENE

Tuning Report
12/18/89 8:48:00 + 12:22
Instrument: INCOS1
#358 to #385 summed - #386
Case Number:

Data: 1218BFB1 # 371
Cali: FC1024 # 3
Analyst: KAT
Laboratory:

Base m/z: 95
RIC: 175104.
Acct. No.:
Contract:

Ion Abundance Criteria

m/z	Intensity	% RA	Min %	Max %	Mass	Actual	Status
50	8624.	23.2	15.0	40.0	95	23.2	PASS
75	17472.	47.0	30.0	60.0	95	47.0	PASS
95	37184.	100.0	100.0	---	---	100.0	PASS
96	3084.	8.3	5.0	9.0	95	8.3	PASS
173	117.	0.3	---	2.0	174	0.4	PASS
174	30048.	80.8	50.0	---	95	80.8	PASS
175	1978.	5.3	5.0	9.0	174	6.6	PASS
176	28768.	77.4	95.0	101.0	174	95.7	PASS
177	1696.	4.6	5.0	9.0	176	5.9	PASS

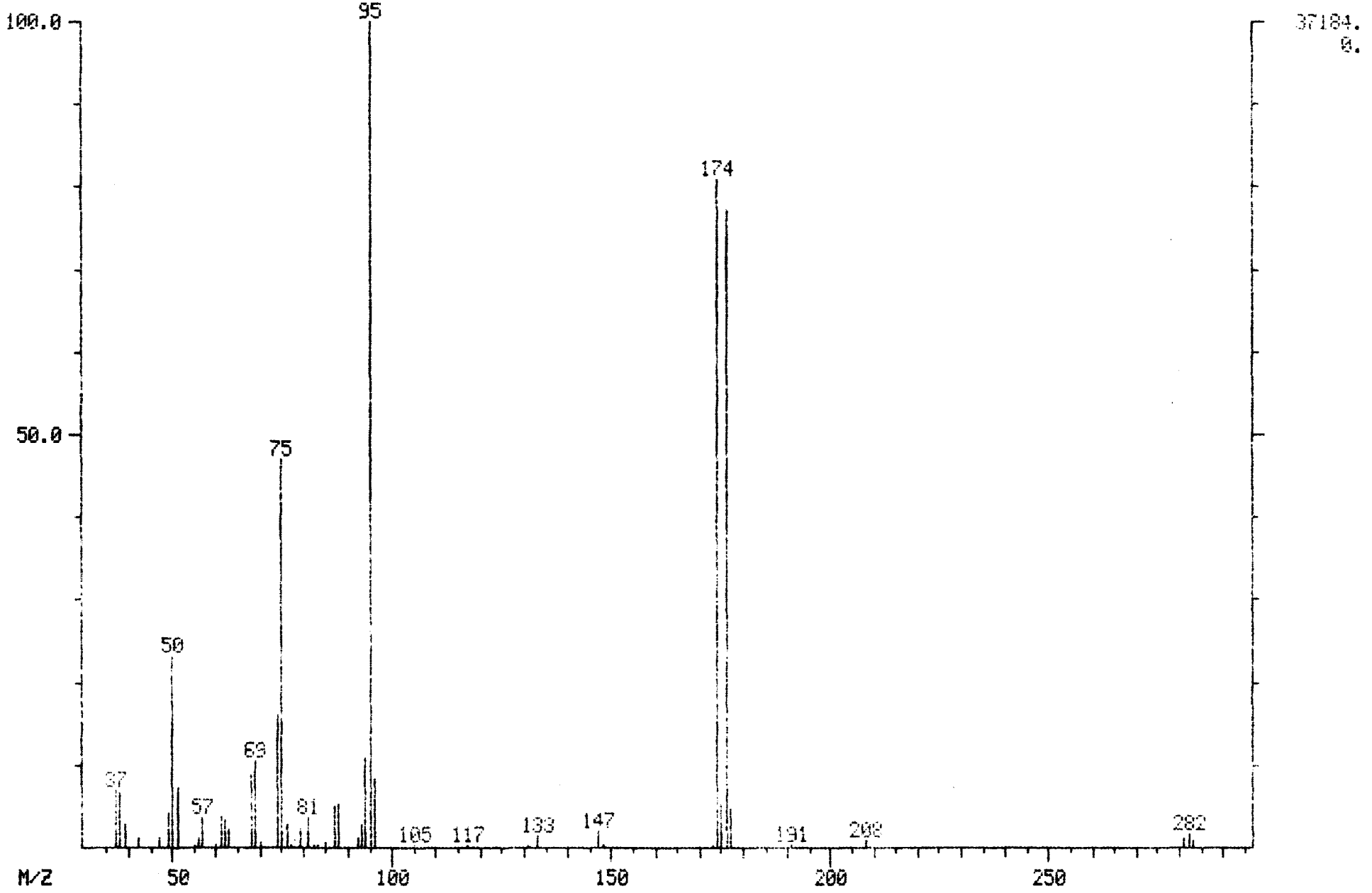
Mass List Data: 1218BFB1 # 371 Base m/z: 95
12/18/89 8:48:00 + 12:22 Cali: FC1024 # 3 RIC: 175104.
Sample: 50NG BFB INCOS 50 GC/MS/DS USEPA-REGION_V
Conds.: 150' TO 220' @ 15'/MIN
#358 to #385 summed - #386

37		0.00	0.	Minima	Min	Inten:	0.
283				Maxima	#	0	
Mass		% RA	Inten.	Mass		% RA	Inten.
37?		6.92	2572.	148	S	0.20	74.
38?		6.66	2476.	173		0.31	117.
39?	S	2.75	1022	174	S	80.81	30048.
42?		1.24	460.	175		5.32	1978.
46?		0.04	15.	176	S	77.37	28768.
47?		1.02	381.	177		4.56	1696.
49?		4.15	1544.	179		0.05	17.
50?		23.19	8624.	191		0.25	93
51?		7.08	2632.	205		0.04	15.
55?	S	0.36	134.	208		0.89	331.
56?	S	1.22	452.	209		0.12	43.
57?	S	3.51	1304.	281	S	1.16	432.
60?		0.18	68.	282	S	1.62	604.
61?		3.79	1410.	283	S	0.78	290.
62?		3.28	1218.				
63?		2.21	822.				
67?		0.04	16.				
68?		8.78	3264.				
69	S	10.37	3856.				
70		0.62	230.				
74	S	16.05	5968.				
75	S	46.99	17472.				
76		2.72	1013.				
77		0.22	81.				
78		0.04	15.				
79		2.16	803.				
80		0.08	30.				
81		3.47	1290.				
82		0.14	52.				
83		0.30	111.				
84		0.10	37.				
85		0.47	176.				
86		0.05	18.				
87		5.02	1866.				
88	S	5.24	1948.				
91		0.04	16.				
92		1.06	394.				
93		2.80	1042.				
94		10.65	3960.				
95	S	100.00	37184.				
96		8.29	3084.				
97		0.05	20.				
105		0.23	84.				
111		0.04	16.				
117		0.21	79.				
119		0.04	16.				
131		0.27	99.				
133		1.26	469.				
143		0.13	47.				
147	S	2.02	752.				

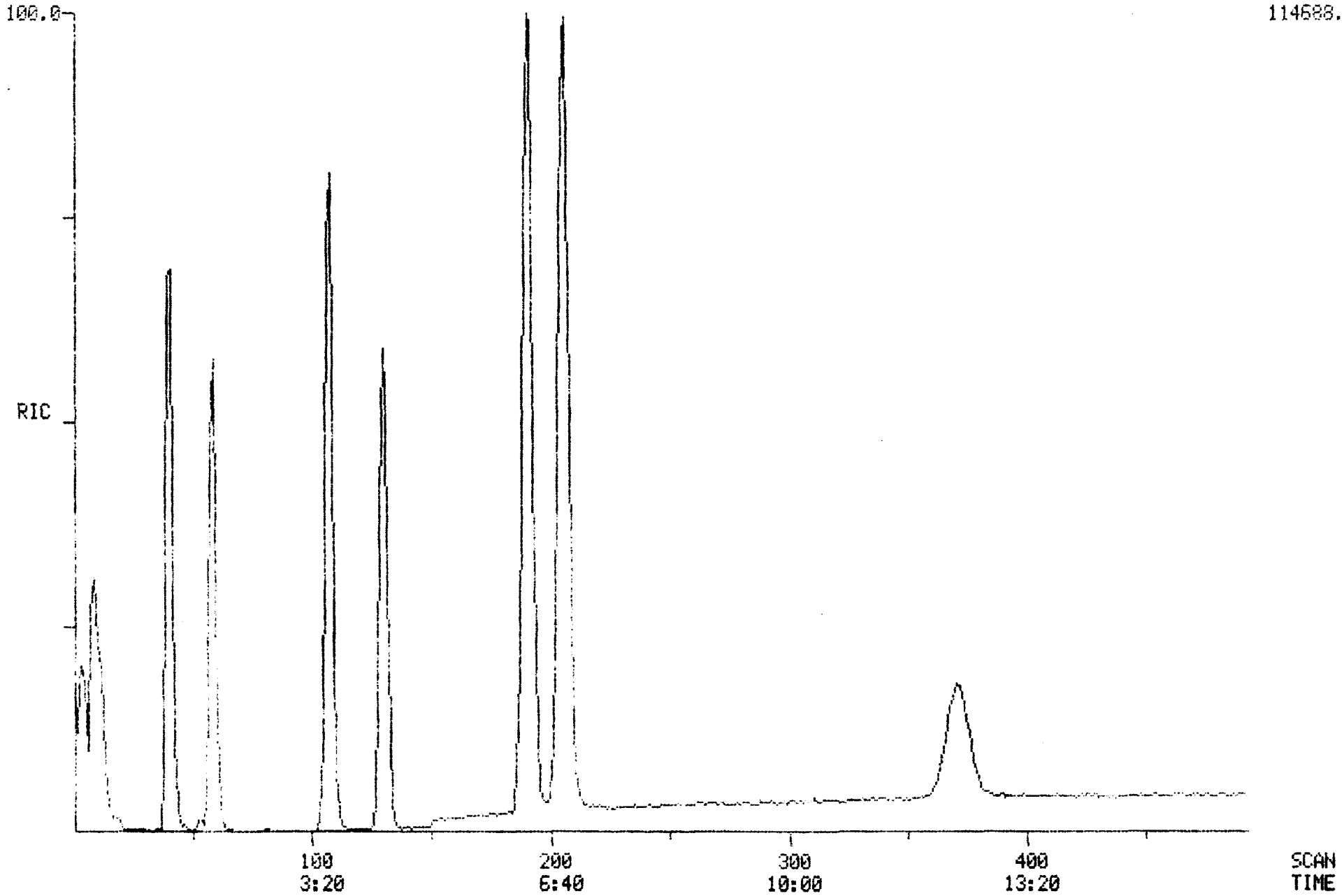
MASS SPECTRUM
12/18/89 8:48:00 + 12:22
SAMPLE: 50NG BFB INCOS 50 GC/MS/DS USEPA-REGION_V
CONDS.: 150' TO 220' @ 15'/MIN
TEMP: 219 DEG. C
#358 TO #385 SUMMED - #386

DATA: 1218BFB1 #371
CALI: FC1024 #3

BASE m/Z: 95
RIC: 175104.



RIC DATA: 1218BFB1 #358 SCANS 1 TO 493
12/18/86 6:48:00 CALI: FC1024 #3
SAMPLE: 50NG BFB INCOS 50 GC/MS/DS USEPA-REGION_V
CONDS.: 150' TO 220' @ 15'/MIN
RANGE: G 500. 556 LABEL: N 0. 4.0 QUAN: A 0. 1.0 J 0 BASE: U 20. 3



Quantitation Report File: IC11116

Data: IC11116.TI
11/16/89 15:07:00
Sample: CLP,1116,,IC11116,L,W,,V,IC-020,
Conds.: 45' (3 MIN) TO 220' @ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: Analyst: KAT 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	298	9:56	1	1.000	A BB	20159.	10.000	UG/L	0.73
2	77	575	19:10	2	1.000	A BB	77160.	10.000	UG/L	0.73
3	55	696	23:12	3	1.000	A BB	46460.	10.000	UG/L	0.73
4	65	381	12:42	1	1.279	A BB	32671.	8.375	UG/L	0.61
5	84	528	17:36	2	0.918	A BB	133307.	10.608	UG/L	0.78
6	98	722	24:04	3	1.037	A BB	129183.	11.912	UG/L	0.87
7	50	51	1:42	1	0.171	A BB	44591.	9.761	UG/L	0.72
8	94	82	2:44	1	0.275	A BB	45967.	11.352	UG/L	0.83
9	62	105	3:30	1	0.352	A BB	47423.	9.941	UG/L	0.73
10	64	136	4:32	1	0.456	A BB	32930.	10.362	UG/L	0.76
11	84	201	6:42	1	0.674	A BB	30711.	5.088	UG/L	0.37
12	43	220	7:20	1	0.738	A BB	64556.	202.907	UG/L	14.89
13	56	220	7:20	1	0.738	A BB	34480.	565.752	UG/L	41.52
14	76	249	8:18	1	0.836	A BB	9203.	19.202	UG/L	1.41
15	53	242	8:04	1	0.812	A BB	68648.	201.938	UG/L	14.82
16	96	285	9:30	1	0.956	A BB	22867.	5.596	UG/L	0.41
17	63	323	10:46	1	1.084	A BB	45295.	4.981	UG/L	0.37
18	96	346	11:32	1	1.161	A BB	23413.	5.321	UG/L	0.39
19	83	362	12:04	1	1.215	A BB	43245.	5.030	UG/L	0.37
20	62	385	12:50	1	1.292	A BB	20338.	4.526	UG/L	0.33
21	72	382	12:44	2	0.664	A BB	4570.	57.057	UG/L	4.19
22	97	423	14:06	2	0.736	A BB	35927.	5.040	UG/L	0.37
23	117	436	14:32	2	0.758	A VB	25340.	4.961	UG/L	0.36
24	43	440	14:40	2	0.765	A BB	59500.	29.012	UG/L	2.13
25	83	451	15:02	2	0.784	A BB	33268.	5.100	UG/L	0.37
26	63	492	16:24	2	0.856	A BB	27897.	5.019	UG/L	0.37
27	75	500	16:40	2	0.870	A BB	41858.	5.833	UG/L	0.43
28	130	517	17:14	2	0.899	A BB	36672.	5.600	UG/L	0.41
29	129	536	17:52	2	0.932	A BB	17326.	4.766	UG/L	0.35
30	97	539	17:58	2	0.937	A BB	13862.	5.353	UG/L	0.39
31	78	532	17:44	2	0.925	A BB	78643.	5.458	UG/L	0.40
32	75	539	17:58	2	0.937	A BB	11778.	3.769	UG/L	0.28
33	63	571	19:02	2	0.993	A BB	8090.	4.858	UG/L	0.36
34	173	617	20:34	2	1.073	A BB	8292.	4.769	UG/L	0.35
35	43	630	21:00	3	0.905	A BB	27924.	12.795	UG/L	0.94
36	43	677	22:34	3	0.973	A BB	17081.	10.745	UG/L	0.79
37	164	687	22:54	3	0.987	A BB	33808.	6.473	UG/L	0.48
38	83	686	22:52	3	0.986	A BB	11139.	5.602	UG/L	0.41
39	92	727	24:14	3	1.045	A BB	54660.	6.327	UG/L	0.46
40	112	762	25:24	3	1.095	A BB	61739.	6.234	UG/L	0.46
41	106	825	27:30	3	1.185	A BB	33698.	6.629	UG/L	0.49
42	104	953	31:46	3	1.369	A BB	85357.	9.375	UG/L	0.69
43	[illegible]	961	32:02	3	1.381	A BB	68002.	13.200	UG/L	0.97
44	[illegible]	993	33:06	3	1.427	A BB	76603.	15.871	UG/L	1.16

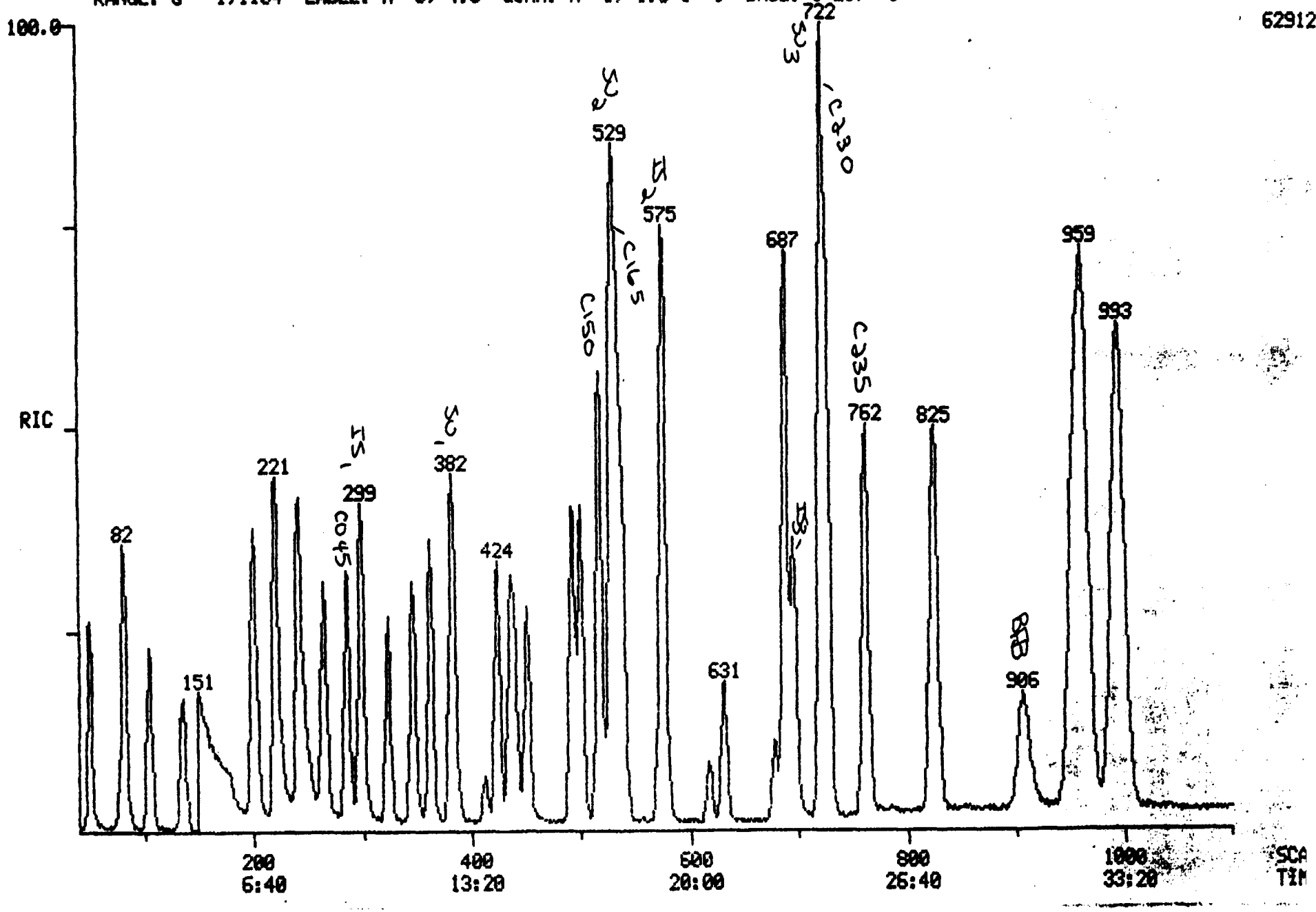
No	R[illegible]	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.[illegible](L)	Ratio
1	[illegible]	1.00	1.000	1.00	10.00	10.00	1.000	[illegible]	1.00
2	19:12	1.00	1.000	1.00	10.00	10.00	1.000	[illegible]	1.00
3	23:12	1.00	1.000	1.00	10.00	10.00	1.000	[illegible]	1.00
4	12:44	1.00	1.282	1.00	8.38	10.00	1.621	1.935	0.84
5	17:36	1.00	0.917	1.00	10.61	10.00	1.728	1.629	1.06
6	24:02	1.00	1.036	1.00	11.91	10.00	2.781	2.334	1.19
7	1:40	1.02	0.168	1.02	9.76	10.00	2.212	2.266	0.98
8	2:44	1.00	0.275	1.00	11.35	10.00	2.280	2.009	1.14
9	3:30	1.00	0.352	1.00	9.94	10.00	2.352	2.366	0.99
10	4:32	1.00	0.456	1.00	10.36	10.00	1.633	1.576	1.04

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
11	6:40	1.00	0.671	1.00	5.09	5.00	3.047	2.994	1.02
12	7:2[illegible]	1.00	0.738	1.00	202.91	225.00	0.142	0.158	0.90
13	7:20	1.00	0.738	1.00	565.75	225.00	0.076	0.030	2.51
14	8:18	1.00	0.836	1.00	19.20	7.50	0.609	0.238	2.56
15	[illegible]	1.00	0.809	1.00	201.94	225.00	0.151	0.169	0.90
16	[illegible]	1.00	0.956	1.00	5.60	5.00	2.269	2.027	1.12
17	10:[illegible]	1.00	1.084	1.00	4.98	5.00	4.494	4.511	1.00
18	11:3[illegible]	1.00	1.161	1.00	5.32	5.00	2.323	2.183	1.06
19	12:06	1.00	1.218	1.00	5.03	5.00	4.290	4.265	1.01
20	12:50	1.00	1.292	1.00	4.53	5.00	2.018	2.229	0.91
21	12:46	1.00	0.665	1.00	57.06	75.00	0.008	0.010	0.76
22	14:08	1.00	0.736	1.00	5.04	5.00	0.931	0.924	1.01
23	14:32	1.00	0.757	1.00	4.96	5.00	0.657	0.662	0.99
24	14:40	1.00	0.764	1.00	29.01	22.50	0.343	0.266	1.29
25	15:02	1.00	0.783	1.00	5.10	5.00	0.862	0.845	1.02
26	16:24	1.00	0.854	1.00	5.02	5.00	0.723	0.720	1.00
27	16:40	1.00	0.868	1.00	5.83	6.00	0.904	0.930	0.97
28	17:14	1.00	0.898	1.00	5.60	5.00	0.951	0.849	1.12
29	17:52	1.00	0.931	1.00	4.77	5.00	0.449	0.471	0.95
30	17:58	1.00	0.936	1.00	5.35	5.00	0.359	0.336	1.07
31	17:44	1.00	0.924	1.00	5.46	5.00	2.038	1.867	1.09
32	17:58	1.00	0.936	1.00	3.77	4.00	0.382	0.405	0.94
33	19:02	1.00	0.991	1.00	4.86	5.00	0.210	0.216	0.97
34	20:34	1.00	1.071	1.00	4.77	5.00	0.215	0.225	0.95
35	21:02	1.00	0.907	1.00	12.79	15.00	0.401	0.470	0.85
36	22:34	1.00	0.973	1.00	10.74	15.00	0.245	0.342	0.72
37	22:54	1.00	0.987	1.00	6.47	5.00	1.455	1.124	1.29
38	22:52	1.00	0.986	1.00	5.60	5.00	0.480	0.428	1.12
39	24:14	1.00	1.045	1.00	6.33	5.00	2.353	1.859	1.27
40	25:22	1.00	1.093	1.00	6.23	5.00	2.658	2.132	1.25
41	27:30	1.00	1.185	1.00	6.63	5.00	1.451	1.094	1.33
42	31:46	1.00	1.369	1.00	9.38	7.50	2.450	1.960	1.25
43	32:02	1.00	1.381	1.00	13.20	10.00	1.464	1.109	1.32
44	33:06	1.00	1.427	1.00	15.87	12.50	1.319	1.039	1.27

RIC
11/16/89 15:07:00
SAMPLE: CLP,1116,,IC11116,L,W,,V,IC-020,
CONDS.: 45' (3 MIN) 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: IC11116 #1
CALI: IC11116 #3

SCANS 40 TO 1100



62912

Quantitation Report File: IC21116

Data: IC21116.TI
11/16/89 15:45:00
Sample: CLP,1116,,IC21116,L,W,,V,IC-050,
Conds.: 45' (3 MIN) TO 220' @ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: Analyst: KAT Acct. No.: TFA302

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

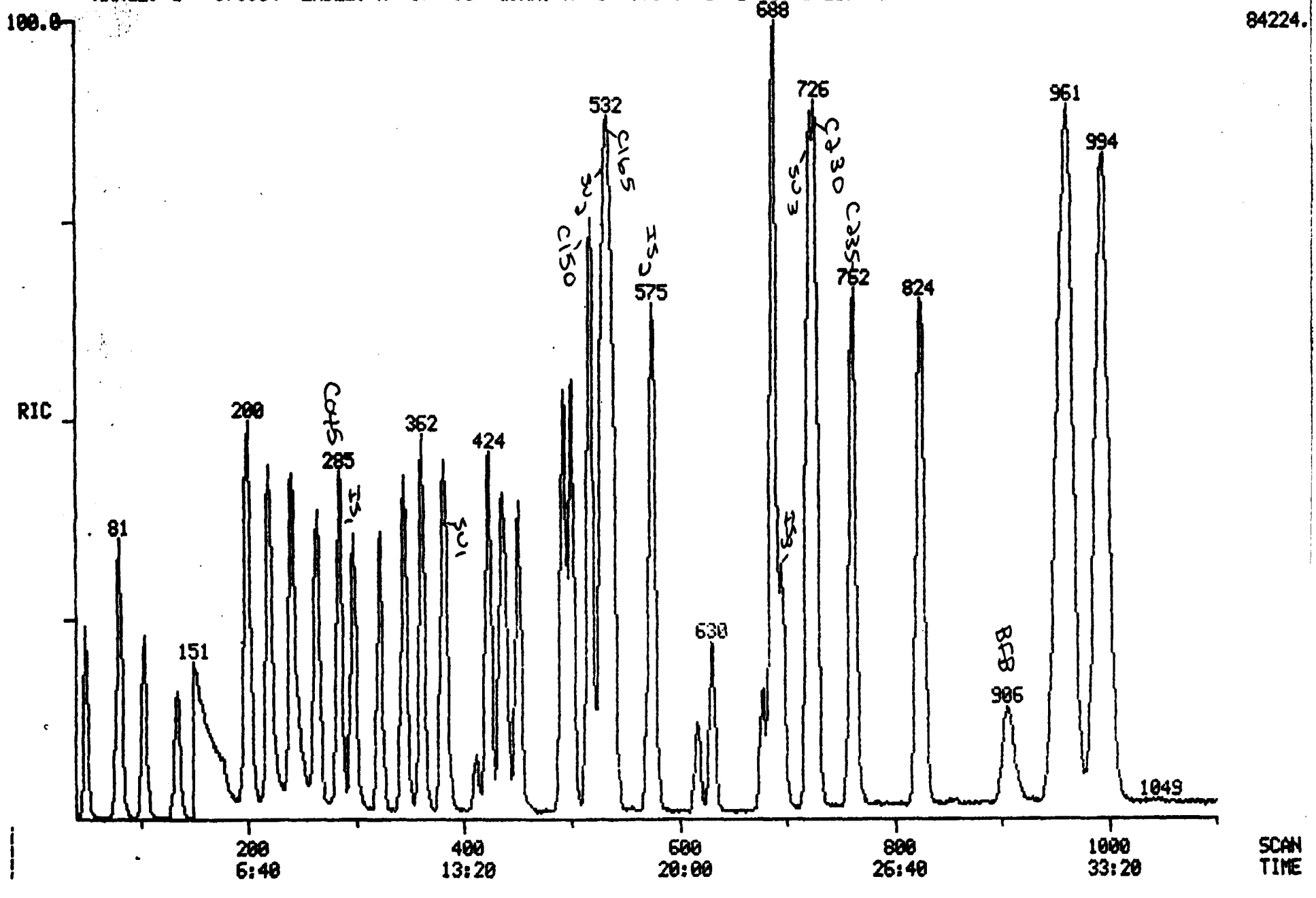
No	Name		
1	CI01	BROMOCHLOROMETHANE	*INTERNAL STANDARD*
2	CI10	2-BROMO-1-CHLOROPROPANE	*INTERNAL STANDARD*
3	CI20	1,4-DICHLOROBUTANE	*INTERNAL STANDARD*
4	CS15	1,2-DICHLOROETHANE-D4	*SURROGATE*
5	CS10	BENZENE-D6	*SURROGATE*
6	CS05	TOLUENE-D8	*SURROGATE*
7	C010	CHLOROMETHANE	
8	C015	BROMOMETHANE	
9	C020	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	298	9:56	1	1.000	A BB	22989.	10.000	UG/L	0.63
2	77	575	19:10	2	1.000	A BB	87615.	10.000	UG/L	0.63
3	55	696	23:12	3	1.000	A BB	54649.	10.000	UG/L	0.63
4	65	381	12:42	1	1.279	A BB	38457.	10.557	UG/L	0.66
5	84	528	17:36	2	0.918	A BB	147305.	10.008	UG/L	0.63
6	98	722	24:04	3	1.037	A BB	150337.	9.467	UG/L	0.59
7	50	50	1:40	1	0.168	A BB	55566.	8.639	UG/L	0.54
8	94	81	2:42	1	0.272	A BB	59595.	8.847	UG/L	0.55
9	62	104	3:28	1	0.349	A BB	62872.	8.941	UG/L	0.56
10	64	135	4:30	1	0.453	A BB	42518.	8.295	UG/L	0.52
11	84	200	6:40	1	0.671	A BB	56092.	6.916	UG/L	0.43
12	43	220	7:20	1	0.738	A BB	87185.	229.381	UG/L	14.37
13	56	219	7:18	1	0.735	A BB	46961.	622.506	UG/L	39.00
14	76	248	8:16	1	0.832	A BB	12115.	20.405	UG/L	1.28
15	53	241	8:02	1	0.809	A BB	95528.	215.027	UG/L	13.47
16	96	285	9:30	1	0.956	A BB	41782.	10.449	UG/L	0.65
17	63	323	10:46	1	1.084	A BB	80165.	7.266	UG/L	0.46
18	96	345	11:30	1	1.158	A BB	43971.	8.577	UG/L	0.54
19	83	362	12:04	1	1.215	A BB	79889.	7.041	UG/L	0.44
20	62	384	12:48	1	1.289	A BB	36914.	6.950	UG/L	0.44
21	72	383	12:46	2	0.666	A BB	6843.	74.387	UG/L	4.66
22	97	424	14:08	2	0.737	A BB	66792.	9.516	UG/L	0.60
23	117	435	14:30	2	0.757	A VB	48427.	9.372	UG/L	0.59
24	43	440	14:40	2	0.765	A BB	69268.	38.935	UG/L	2.44
25	83	451	15:02	2	0.784	A BB	61589.	8.583	UG/L	0.54
26	63	492	16:24	2	0.856	A BB	52042.	8.122	UG/L	0.51
27	75	500	16:40	2	0.870	A BB	78431.	10.893	UG/L	0.68
28	130	517	17:14	2	0.899	A BB	66671.	10.545	UG/L	0.66
29	129	535	17:50	2	0.930	A BB	32655.	8.665	UG/L	0.54
30	97	539	17:58	2	0.937	A BB	24448.	7.568	UG/L	0.47
31	78	532	17:44	2	0.925	A BB	141021.	8.180	UG/L	0.51
32	75	538	17:56	2	0.936	A BB	22186.	5.115	UG/L	0.32
33	63	570	19:00	2	0.991	A BB	14588.	8.255	UG/L	0.52
34	173	617	20:34	2	1.073	A BB	16820.	12.105	UG/L	0.76
35	43	631	21:02	3	0.907	A BB	47688.	21.825	UG/L	1.37
36	43	678	22:36	3	0.974	A BB	35129.	25.409	UG/L	1.59
37	164	688	22:56	3	0.989	A BB	62544.	13.119	UG/L	0.82
38	83	686	22:52	3	0.986	A BB	20738.	6.353	UG/L	0.40
39	92	727	24:14	3	1.045	A BB	97642.	8.456	UG/L	0.53
40	112	762	25:24	3	1.095	A BB	114659.	8.885	UG/L	0.56
41	106	824	27:28	3	1.184	A BB	57035.	8.509	UG/L	0.53
42	104	952	31:44	3	1.368	A BB	113924.	27.619	UG/L	1.73
43	106	963	32:06	3	1.384	A BB	130608.	8.181	UG/L	0.51
44	106	993	33:06	3	1.427	A BB	147215.	18.437	UG/L	1.16

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:56	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:12	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:12	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:44	1.00	1.282	1.00	10.56	10.00	1.673	1.585	1.06
5	17:36	1.00	0.917	1.00	10.01	10.00	1.681	1.680	1.00
6	24:02	1.00	1.036	1.00	9.47	10.00	2.751	2.906	0.95
7	1:40	1.00	0.168	1.00	8.64	15.00	1.611	2.798	0.58
8	2:44	0.99	0.275	0.99	8.85	15.00	1.728	2.930	0.59
9	3:30	0.99	0.352	0.99	8.94	15.00	1.823	3.059	0.60
10	4:32	0.99	0.456	0.99	8.29	15.00	1.233	2.230	0.55

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
11	6:40	1.00	0.671	1.00	6.92	10.00	2.440	3.528	0.69
12	7:20	1.00	0.738	1.00	229.38	300.00	0.126	0.165	0.76
13	7:20	1.00	0.738	1.00	622.51	300.00	0.068	0.033	2.08
14	8:18	1.00	0.836	1.00	20.40	10.00	0.527	0.258	2.04
15	8:02	1.00	0.809	1.00	215.03	300.00	0.139	0.193	0.72
16	9:30	1.00	0.956	1.00	10.45	10.00	1.817	1.739	1.04
17	10:46	1.00	1.084	1.00	7.27	10.00	3.487	4.799	0.73
18	11:32	1.00	1.161	1.00	8.58	10.00	1.913	2.230	0.86
19	12:06	1.00	1.218	1.00	7.04	10.00	3.475	4.936	0.70
20	12:50	1.00	1.292	1.00	6.95	10.00	1.606	2.310	0.70
21	12:46	1.00	0.665	1.00	74.39	100.00	0.008	0.011	0.74
22	14:08	1.00	0.736	1.00	9.52	10.00	0.762	0.801	0.95
23	14:32	1.00	0.757	1.00	9.37	10.00	0.553	0.590	0.94
24	14:40	1.00	0.764	1.00	38.94	30.00	0.264	0.203	1.30
25	15:02	1.00	0.783	1.00	8.58	10.00	0.703	0.819	0.86
26	16:24	1.00	0.854	1.00	8.12	10.00	0.594	0.731	0.81
27	16:40	1.00	0.868	1.00	10.89	12.00	0.746	0.822	0.91
28	17:14	1.00	0.898	1.00	10.54	10.00	0.761	0.722	1.05
29	17:52	1.00	0.931	1.00	8.66	10.00	0.373	0.430	0.87
30	17:58	1.00	0.936	1.00	7.57	10.00	0.279	0.369	0.76
31	17:44	1.00	0.924	1.00	8.18	10.00	1.610	1.968	0.82
32	17:58	1.00	0.936	1.00	5.11	8.00	0.317	0.495	0.64
33	19:02	1.00	0.991	1.00	8.26	10.00	0.167	0.202	0.83
34	20:34	1.00	1.071	1.00	12.10	10.00	0.192	0.159	1.21
35	21:02	1.00	0.907	1.00	21.82	20.00	0.436	0.400	1.09
36	22:34	1.00	0.973	1.00	25.41	20.00	0.321	0.253	1.27
37	22:54	1.00	0.987	1.00	13.12	10.00	1.144	0.872	1.31
38	22:52	1.00	0.986	1.00	6.35	10.00	0.379	0.597	0.64
39	24:14	1.00	1.045	1.00	8.46	10.00	1.787	2.113	0.85
40	25:22	1.00	1.093	1.00	8.88	10.00	2.098	2.362	0.89
41	27:30	1.00	1.185	1.00	8.51	10.00	1.044	1.226	0.85
42	31:46	1.00	1.369	1.00	27.62	10.00	2.085	0.755	2.76
43	32:02	1.00	1.381	1.00	8.18	20.00	1.195	2.921	0.41
44	33:06	1.00	1.427	1.00	18.44	25.10	1.073	1.461	0.73

RIC DATA: IC21116 #1 SCANS 40 TO 1100
11/16/89 15:45:00 CALI: IC21116 #3
SAMPLE: CLP,1116,,IC21116,L,W,,V,IC-050,
CONDS.: 45' (3 MIN) 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: IC31116

Data: IC31116.TI
11/16/89 16:34:00
Sample: CLP,1116,,IC31116,L,W,,V,IC-100,
Conds.: 45' (3 MIN) TO 220' @ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: Analyst: KAT Acct. No.: TFA302

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

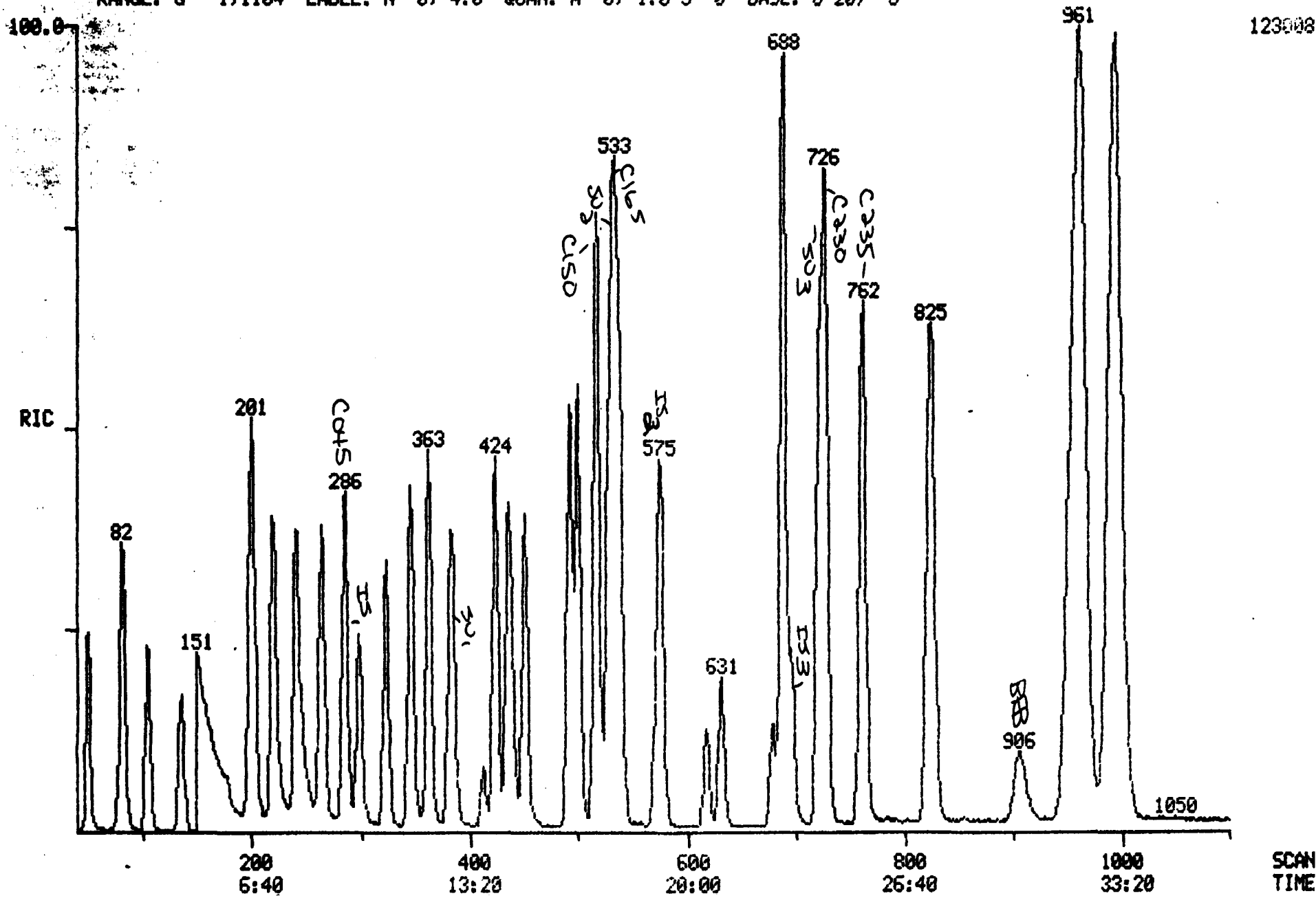
No	Name		
1	CI01	BROMOCHLOROMETHANE	*INTERNAL STANDARD*
2	CI10	2-BROMO-1-CHLOROPROPANE	*INTERNAL STANDARD*
3	CI20	1,4-DICHLOROBUTANE	*INTERNAL STANDARD*
4	CS15	1,2-DICHLOROETHANE-D4	*SURROGATE*
5	CS10	BENZENE-D6	*SURROGATE*
6	CS05	TOLUENE-D8	*SURROGATE*
7	C010	CHLOROMETHANE	
8	C015	BROMOMETHANE	
9	C020	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	23871.	10.000	UG/L	0.51
2	77	575	19:10	2	1.000	A BB	92910.	10.000	UG/L	0.51
3	55	696	23:12	3	1.000	A BB	56119.	10.000	UG/L	0.51
4	65	382	12:44	1	1.278	A BB	38749.	10.244	UG/L	0.52
5	84	528	17:36	2	0.918	A BB	153635.	9.843	UG/L	0.50
6	98	722	24:04	3	1.037	A BB	152255.	9.336	UG/L	0.48
7	50	51	1:42	1	0.171	A BB	84792.	12.695	UG/L	0.65
8	94	82	2:44	1	0.274	A BB	89239.	12.758	UG/L	0.65
9	62	105	3:30	1	0.351	A BB	93955.	12.868	UG/L	0.66
10	64	136	4:32	1	0.455	A BB	62630.	11.767	UG/L	0.60
11	84	201	6:42	1	0.672	A BB	84059.	9.982	UG/L	0.51
12	43	221	7:22	1	0.739	A BB	113141.	286.674	UG/L	14.65
13	56	220	7:20	1	0.736	A BB	58156.	742.428	UG/L	37.93
14	76	249	8:18	1	0.833	A BB	15811.	25.645	UG/L	1.31
15	53	241	8:02	1	0.806	A BB	118373.	256.602	UG/L	13.11
16	96	286	9:32	1	0.957	A BB	58255.	14.031	UG/L	0.72
17	63	323	10:46	1	1.080	A BB	115089.	10.046	UG/L	0.51
18	96	346	11:32	1	1.157	A BB	64681.	12.150	UG/L	0.62
19	83	363	12:06	1	1.214	A BV	114197.	9.693	UG/L	0.50
20	62	385	12:50	1	1.288	A BB	52772.	9.569	UG/L	0.49
21	72	382	12:44	2	0.664	A BB	8240.	84.463	UG/L	4.32
22	97	424	14:08	2	0.737	A BB	97053.	13.040	UG/L	0.67
23	117	436	14:32	2	0.758	A VB	73125.	13.345	UG/L	0.68
24	43	440	14:40	2	0.765	A BB	70665.	37.457	UG/L	1.91
25	83	451	15:02	2	0.784	A BB	90025.	11.831	UG/L	0.60
26	63	492	16:24	2	0.856	A BB	72751.	10.707	UG/L	0.55
27	75	500	16:40	2	0.870	A BB	112578.	14.744	UG/L	0.75
28	130	517	17:14	2	0.899	A BB	101196.	15.093	UG/L	0.77
29	129	536	17:52	2	0.932	A BB	51357.	12.850	UG/L	0.66
30	97	539	17:58	2	0.937	A BB	36963.	10.791	UG/L	0.55
31	78	532	17:44	2	0.925	A BV	205569.	11.244	UG/L	0.57
32	75	539	17:58	2	0.937	A BB	31707.	6.893	UG/L	0.35
33	63	571	19:02	2	0.993	A BB	20654.	11.022	UG/L	0.56
34	173	617	20:34	2	1.073	A BB	25502.	17.307	UG/L	0.88
35	43	631	21:02	3	0.907	A BB	57666.	25.700	UG/L	1.31
36	43	677	22:34	3	0.973	A BB	41371.	29.141	UG/L	1.49
37	164	688	22:56	3	0.989	A BB	89528.	18.288	UG/L	0.93
38	83	687	22:54	3	0.987	A BB	29129.	8.689	UG/L	0.44
39	92	727	24:14	3	1.045	A BB	141673.	11.948	UG/L	0.61
40	112	762	25:24	3	1.095	A BB	166367.	12.553	UG/L	0.64
41	106	824	27:28	3	1.184	A BB	84730.	12.310	UG/L	0.63
42	104	953	31:46	3	1.369	A BB	155383.	36.684	UG/L	1.87
43	106	962	32:04	3	1.382	A BB	222790.	13.589	UG/L	0.69
44	106	994	33:08	3	1.428	A BB	257354.	31.387	UG/L	1.60

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:56	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:12	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:12	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:44	1.00	1.282	1.00	10.24	10.00	1.623	1.585	1.02
5	17:36	1.00	0.917	1.00	9.84	10.00	1.654	1.680	0.98
6	24:02	1.00	1.036	1.00	9.34	10.00	2.713	2.906	0.93
7	1:40	1.02	0.168	1.02	12.69	20.00	1.776	2.798	0.63
8	2:44	1.00	0.275	1.00	12.76	20.00	1.869	2.930	0.64
9	3:30	1.00	0.352	1.00	12.87	20.00	1.968	3.059	0.64
10	4:32	1.00	0.456	1.00	11.77	20.00	1.312	2.230	0.59

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
11	6:40	1.00	0.671	1.00	9.98	15.00	2.348	3.528	0.67
12	7:20	1.00	0.738	1.00	286.67	375.00	0.126	0.165	0.76
13	7:20	1.00	0.738	1.00	742.43	375.00	0.065	0.033	1.98
14	8:18	1.00	0.836	1.00	25.64	12.50	0.530	0.258	2.05
15	8:02	1.00	0.809	1.00	256.60	375.00	0.132	0.193	0.68
16	9:30	1.00	0.956	1.00	14.03	15.00	1.627	1.739	0.94
17	10:46	1.00	1.084	1.00	10.05	15.00	3.214	4.799	0.67
18	11:32	1.00	1.161	1.00	12.15	15.00	1.806	2.230	0.81
19	12:06	1.00	1.218	1.00	9.69	15.00	3.189	4.936	0.65
20	12:50	1.00	1.292	1.00	9.57	15.00	1.474	2.310	0.64
21	12:46	1.00	0.665	1.00	84.46	125.00	0.007	0.011	0.68
22	14:08	1.00	0.736	1.00	13.04	15.00	0.696	0.801	0.87
23	14:32	1.00	0.757	1.00	13.35	15.00	0.525	0.590	0.89
24	14:40	1.00	0.764	1.00	37.46	37.50	0.203	0.203	1.00
25	15:02	1.00	0.783	1.00	11.83	15.00	0.646	0.819	0.79
26	16:24	1.00	0.854	1.00	10.71	15.00	0.522	0.731	0.71
27	16:40	1.00	0.868	1.00	14.74	18.00	0.673	0.822	0.82
28	17:14	1.00	0.898	1.00	15.09	15.00	0.726	0.722	1.01
29	17:52	1.00	0.931	1.00	12.85	15.00	0.369	0.430	0.86
30	17:58	1.00	0.936	1.00	10.79	15.00	0.265	0.369	0.72
31	17:44	1.00	0.924	1.00	11.24	15.00	1.475	1.968	0.75
32	17:58	1.00	0.936	1.00	6.89	12.00	0.284	0.495	0.57
33	19:02	1.00	0.991	1.00	11.02	15.00	0.148	0.202	0.73
34	20:34	1.00	1.071	1.00	17.31	15.00	0.183	0.159	1.15
35	21:02	1.00	0.907	1.00	25.70	25.00	0.411	0.400	1.03
36	22:34	1.00	0.973	1.00	29.14	25.00	0.295	0.253	1.17
37	22:54	1.00	0.987	1.00	18.29	15.00	1.064	0.872	1.22
38	22:52	1.00	0.986	1.00	8.69	15.00	0.346	0.597	0.58
39	24:14	1.00	1.045	1.00	11.95	15.00	1.683	2.113	0.80
40	25:22	1.00	1.093	1.00	12.55	15.00	1.976	2.362	0.84
41	27:30	1.00	1.185	1.00	12.31	15.00	1.007	1.226	0.82
42	31:46	1.00	1.369	1.00	36.68	12.50	2.215	0.755	2.93
43	32:02	1.00	1.381	1.00	13.59	30.00	1.323	2.921	0.45
44	33:06	1.00	1.427	1.00	31.39	37.60	1.220	1.461	0.83

RIC DATA: IC31116 #1 SCANS 40 TO 1100
11/16/89 16:34:00 CALI: IC31116 #3
SAMPLE: CLP,1116,,IC31116,L,W,,V,IC-100,
CONDS.: 45' (3 MIN) 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: IC41116

Data: IC41116.TI
11/16/89 17:18:00
Sample: CLP,1116,,IC41116,L,W,,V,IC-150,
Conds.: 45' (3 MIN) TO 220' @ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: Analyst: KAT 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	298	9:56	1	1.000	A BB	23021.	10.000	UG/L	0.46
2	77	575	19:10	2	1.000	A BB	89928.	10.000	UG/L	0.46
3	55	696	23:12	3	1.000	A BB	52940.	10.000	UG/L	0.46
4	65	382	12:44	1	1.282	A BB	39093.	10.716	UG/L	0.49
5	84	528	17:36	2	0.918	A VB	143639.	9.508	UG/L	0.43
6	98	721	24:02	3	1.036	A BB	144986.	9.425	UG/L	0.43
7	50	50	1:40	1	0.168	A BB	102025.	15.839	UG/L	0.72
8	94	82	2:44	1	0.275	A BB	104807.	15.537	UG/L	0.71
9	62	105	3:30	1	0.352	A BB	111744.	15.869	UG/L	0.72
10	64	136	4:32	1	0.456	A BB	75019.	14.615	UG/L	0.67
11	84	200	6:40	1	0.671	A BB	110678.	13.628	UG/L	0.62
12	43	221	7:22	1	0.742	A BB	113326.	297.744	UG/L	13.57
13	56	220	7:20	1	0.738	A BB	58501.	774.400	UG/L	35.30
14	76	249	8:18	1	0.836	A BB	15130.	25.447	UG/L	1.16
15	53	241	8:02	1	0.809	A BB	119095.	267.699	UG/L	12.20
16	96	285	9:30	1	0.956	A BB	82328.	20.561	UG/L	0.94
17	63	323	10:46	1	1.084	A BB	166051.	15.029	UG/L	0.69
18	96	346	11:32	1	1.161	A BB	88557.	17.249	UG/L	0.79
19	83	363	12:06	1	1.218	A BB	165443.	14.561	UG/L	0.66
20	62	384	12:48	1	1.289	A BB	79002.	14.854	UG/L	0.68
21	72	382	12:44	2	0.664	A BB	9304.	98.532	UG/L	4.49
22	97	424	14:08	2	0.737	A BB	141820.	19.686	UG/L	0.90
23	117	436	14:32	2	0.758	A VB	108409.	20.440	UG/L	0.93
24	43	440	14:40	2	0.765	A BB	49053.	26.864	UG/L	1.22
25	83	451	15:02	2	0.784	A BB	133538.	18.132	UG/L	0.83
26	63	492	16:24	2	0.856	A BB	105121.	15.985	UG/L	0.73
27	75	500	16:40	2	0.870	A BB	167093.	22.610	UG/L	1.03
28	130	517	17:14	2	0.899	A BB	149704.	23.069	UG/L	1.05
29	129	536	17:52	2	0.932	A BB	78140.	20.200	UG/L	0.92
30	97	539	17:58	2	0.937	A BB	53839.	16.239	UG/L	0.74
31	78	532	17:44	2	0.925	A BB	288894.	16.326	UG/L	0.74
32	75	539	17:58	2	0.937	A BB	47644.	10.702	UG/L	0.49
33	63	570	19:00	2	0.991	A BB	29934.	16.504	UG/L	0.75
34	173	617	20:34	2	1.073	A BB	42287.	29.650	UG/L	1.35
35	43	631	21:02	3	0.907	A BB	63567.	30.031	UG/L	1.37
36	43	677	22:34	3	0.973	A BB	46337.	34.599	UG/L	1.58
37	164	688	22:56	3	0.989	A BB	128823.	27.895	UG/L	1.27
38	83	687	22:54	3	0.987	A BB	41184.	13.023	UG/L	0.59
39	92	727	24:14	3	1.045	A BB	201393.	18.004	UG/L	0.82
40	112	762	25:24	3	1.095	A BB	235855.	18.865	UG/L	0.86
41	106	824	27:28	3	1.184	A BB	124034.	19.103	UG/L	0.87
42	104	953	31:46	3	1.369	A BB	148819.	37.244	UG/L	1.70
43	106	962	32:04	3	1.382	A BB	266299.	17.219	UG/L	0.78
44	106	994	33:08	3	1.428	A BB	311582.	40.283	UG/L	1.84

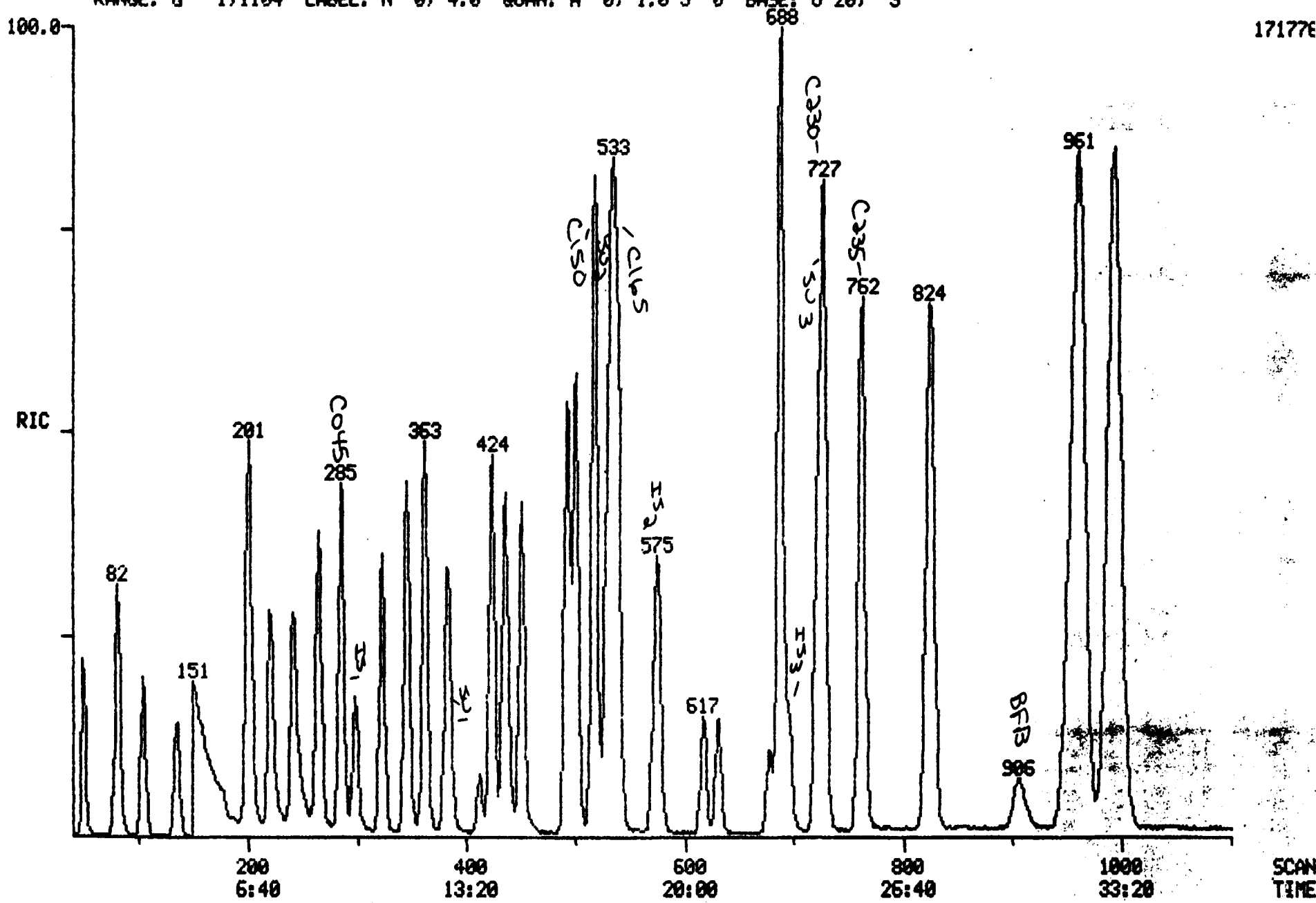
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:56	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:12	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:12	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:44	1.00	1.282	1.00	10.72	10.00	1.698	1.585	1.07
5	17:36	1.00	0.917	1.00	9.51	10.00	1.597	1.680	0.95
6	24:02	1.00	1.036	1.00	9.42	10.00	2.739	2.906	0.94
7	1:40	1.00	0.168	1.00	15.84	25.00	1.773	2.798	0.63
8	2:44	1.00	0.275	1.00	15.54	25.00	1.821	2.930	0.62
9	3:30	1.00	0.352	1.00	15.87	25.00	1.942	3.059	0.63
10	4:32	1.00	0.456	1.00	14.62	25.00	1.303	2.230	0.58

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
11	6:40	1.00	0.671	1.00	13.63	20.00	2.404	3.528	0.68
12	7:20	1.00	0.738	1.00	297.74	450.00	0.109	0.165	0.66
13	7:20	1.00	0.738	1.00	774.40	450.00	0.056	0.033	1.72
14	8:18	1.00	0.836	1.00	25.45	15.00	0.438	0.258	1.70
15	8:02	1.00	0.809	1.00	267.70	450.00	0.115	0.193	0.59
16	9:30	1.00	0.956	1.00	20.56	20.00	1.788	1.739	1.03
17	10:46	1.00	1.084	1.00	15.03	20.00	3.607	4.799	0.75
18	11:32	1.00	1.161	1.00	17.25	20.00	1.923	2.230	0.86
19	12:06	1.00	1.218	1.00	14.56	20.00	3.593	4.936	0.73
20	12:50	1.00	1.292	1.00	14.85	20.00	1.716	2.310	0.74
21	12:46	1.00	0.665	1.00	98.53	150.00	0.007	0.011	0.66
22	14:08	1.00	0.736	1.00	19.69	20.00	0.789	0.801	0.98
23	14:32	1.00	0.757	1.00	20.44	20.00	0.603	0.590	1.02
24	14:40	1.00	0.764	1.00	26.86	45.00	0.121	0.203	0.60
25	15:02	1.00	0.783	1.00	18.13	20.00	0.742	0.819	0.91
26	16:24	1.00	0.854	1.00	15.98	20.00	0.584	0.731	0.80
27	16:40	1.00	0.868	1.00	22.61	24.00	0.774	0.822	0.94
28	17:14	1.00	0.898	1.00	23.07	20.00	0.832	0.722	1.15
29	17:52	1.00	0.931	1.00	20.20	20.00	0.434	0.430	1.01
30	17:58	1.00	0.936	1.00	16.24	20.00	0.299	0.369	0.81
31	17:44	1.00	0.924	1.00	16.33	20.00	1.606	1.968	0.82
32	17:58	1.00	0.936	1.00	10.70	16.00	0.331	0.495	0.67
33	19:02	1.00	0.991	1.00	16.50	20.00	0.166	0.202	0.83
34	20:34	1.00	1.071	1.00	29.65	20.00	0.235	0.159	1.48
35	21:02	1.00	0.907	1.00	30.03	30.00	0.400	0.400	1.00
36	22:34	1.00	0.973	1.00	34.60	30.00	0.292	0.253	1.15
37	22:54	1.00	0.987	1.00	27.89	20.00	1.217	0.872	1.39
38	22:52	1.00	0.986	1.00	13.02	20.00	0.389	0.597	0.65
39	24:14	1.00	1.045	1.00	18.00	20.00	1.902	2.113	0.90
40	25:22	1.00	1.093	1.00	18.87	20.00	2.228	2.362	0.94
41	27:30	1.00	1.185	1.00	19.10	20.00	1.171	1.226	0.96
42	31:46	1.00	1.369	1.00	37.24	15.00	1.874	0.755	2.48
43	32:02	1.00	1.381	1.00	17.22	40.00	1.258	2.921	0.43
44	33:06	1.00	1.427	1.00	40.28	50.10	1.175	1.461	0.80

RIC
11/16/89 17:18:00
SAMPLE: CLP,1116,,IC41116,L,W,,V,IC-150,
CONDS.: 45' (3 MIN) 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: IC41116 #1
CALI: IC41116 #3

SCANS 40 TO 1100



Quantitation Report File: IC51116

Data: IC51116.TI
11/16/89 18:03:00
Sample: CLP,1116,,IC51116,L,W,,V,IC-200,
Conds.: 45' (3 MIN) TO 220' @ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: Analyst: KAT 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	24306.	10.000	UG/L	0.39
2	77	576	19:12	2	1.000	A BB	93024.	10.000	UG/L	0.39
3	55	696	23:12	3	1.000	A BB	57144.	10.000	UG/L	0.39
4	65	382	12:44	1	1.278	A BB	42503.	11.035	UG/L	0.43
5	84	528	17:36	2	0.917	A VB	154324.	9.875	UG/L	0.39
6	98	722	24:04	3	1.037	A BB	152491.	9.183	UG/L	0.36
7	50	51	1:42	1	0.171	A BB	132487.	19.480	UG/L	0.76
8	94	82	2:44	1	0.274	A BB	140586.	19.738	UG/L	0.77
9	62	105	3:30	1	0.351	A BB	147284.	19.810	UG/L	0.78
10	64	136	4:32	1	0.455	A BB	101148.	18.664	UG/L	0.73
11	84	201	6:42	1	0.672	A BB	155128.	18.092	UG/L	0.71
12	43	221	7:22	1	0.739	A BB	137623.	342.459	UG/L	13.40
13	56	220	7:20	1	0.736	A BB	65825.	825.275	UG/L	32.29
14	76	249	8:18	1	0.833	A BB	18902.	30.109	UG/L	1.18
15	53	241	8:02	1	0.806	A BB	146306.	311.475	UG/L	12.19
16	96	286	9:32	1	0.957	A BB	116677.	27.599	UG/L	1.08
17	63	323	10:46	1	1.080	A BB	228106.	19.554	UG/L	0.77
18	96	346	11:32	1	1.157	A BB	126533.	23.343	UG/L	0.91
19	83	363	12:06	1	1.214	A BB	228112.	19.015	UG/L	0.74
20	62	385	12:50	1	1.288	A BB	106669.	18.996	UG/L	0.74
21	72	383	12:46	2	0.665	A BB	11489.	117.622	UG/L	4.60
22	97	424	14:08	2	0.736	A BB	197063.	26.444	UG/L	1.03
23	117	436	14:32	2	0.757	A VB	157708.	28.746	UG/L	1.12
24	43	441	14:42	2	0.766	A BB	50412.	26.689	UG/L	1.04
25	83	452	15:04	2	0.785	A BB	190656.	25.025	UG/L	0.98
26	63	492	16:24	2	0.854	A BB	145137.	21.335	UG/L	0.83
27	75	500	16:40	2	0.868	A BB	237761.	31.102	UG/L	1.22
28	130	517	17:14	2	0.898	A BB	217970.	32.470	UG/L	1.27
29	129	536	17:52	2	0.931	A BB	115586.	28.885	UG/L	1.13
30	97	539	17:58	2	0.936	A BB	75295.	21.954	UG/L	0.86
31	78	533	17:46	2	0.925	A BB	402235.	21.975	UG/L	0.86
32	75	539	17:58	2	0.936	A BB	70346.	15.275	UG/L	0.60
33	63	571	19:02	2	0.991	A BB	41821.	22.291	UG/L	0.87
34	173	617	20:34	2	1.071	A BB	59659.	40.437	UG/L	1.58
35	43	631	21:02	3	0.907	A BB	73300.	32.081	UG/L	1.26
36	43	678	22:36	3	0.974	A BB	52953.	36.629	UG/L	1.43
37	164	688	22:56	3	0.989	A BB	186879.	37.488	UG/L	1.47
38	83	687	22:54	3	0.987	A BB	58465.	17.127	UG/L	0.67
39	92	727	24:14	3	1.045	A BB	280381.	23.221	UG/L	0.91
40	112	762	25:24	3	1.095	A BB	332430.	24.634	UG/L	0.96
41	106	825	27:30	3	1.185	A BB	174619.	24.914	UG/L	0.97
42	104	953	31:46	3	1.369	A BB	200331.	46.447	UG/L	1.82
43	106	962	32:04	3	1.382	A BB	401949.	24.077	UG/L	0.94
44	106	994	33:08	3	1.428	A BB	458041.	54.860	UG/L	2.15

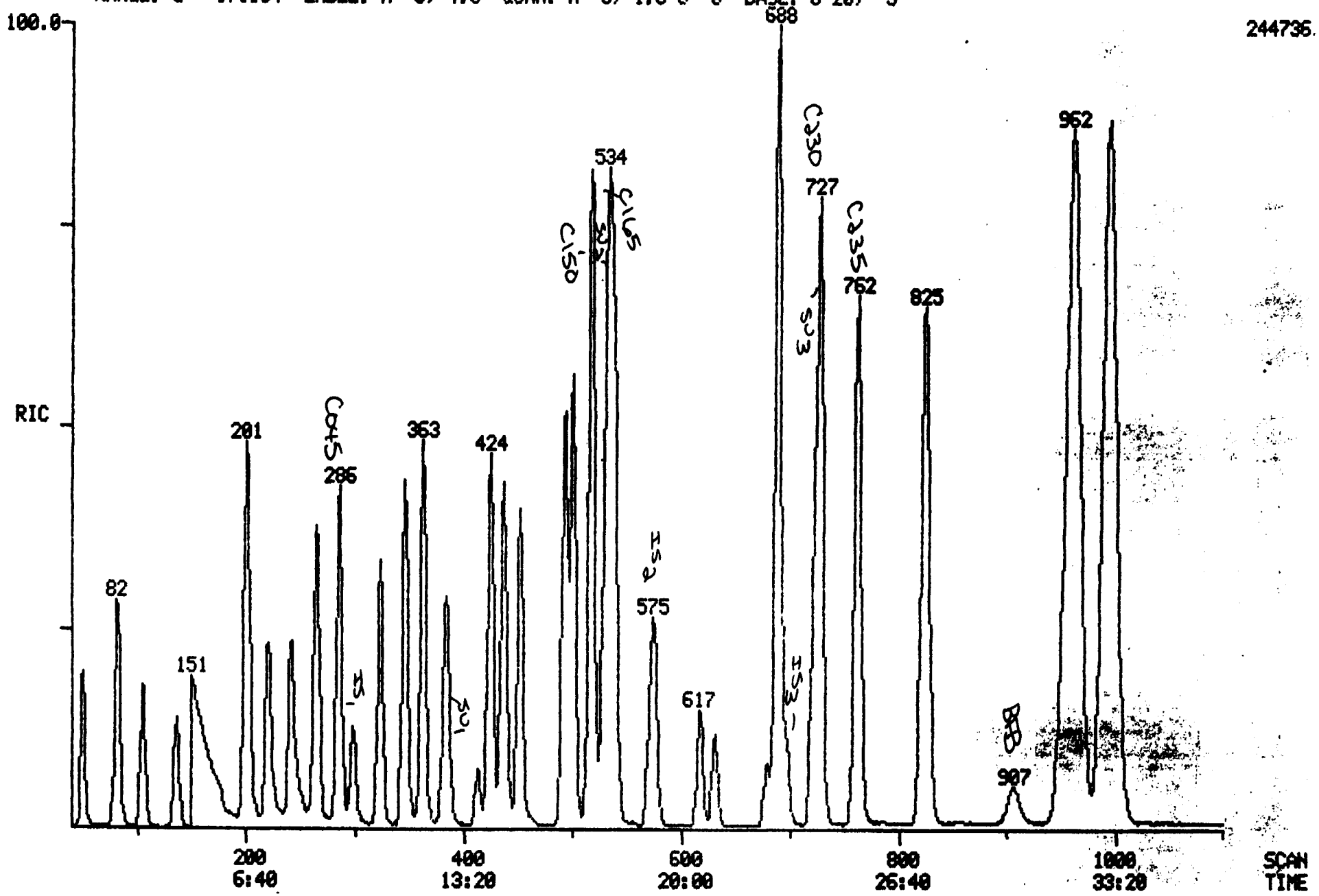
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:56	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:12	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:12	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:44	1.00	1.282	1.00	11.03	10.00	1.749	1.585	1.10
5	17:36	1.00	0.917	1.00	9.88	10.00	1.659	1.680	0.99
6	24:02	1.00	1.036	1.00	9.18	10.00	2.669	2.906	0.92
7	1:40	1.02	0.168	1.02	19.48	30.00	1.817	2.798	0.65
8	2:44	1.00	0.275	1.00	19.74	30.00	1.928	2.930	0.66
9	3:30	1.00	0.352	1.00	19.81	30.00	2.020	3.059	0.66
10	4:32	1.00	0.456	1.00	18.66	30.00	1.387	2.230	0.62

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
11	6:40	1.00	0.671	1.00	21.32	25.00	2.553	2.994	0.85
12	7:20	1.00	0.738	1.00	358.76	525.00	0.108	0.158	0.68
13	7:20	1.00	0.738	1.00	895.79	525.00	0.052	0.030	1.71
14	8:18	1.00	0.836	1.00	32.71	17.50	0.444	0.238	1.87
15	8:02	1.00	0.809	1.00	356.95	525.00	0.115	0.169	0.68
16	9:30	1.00	0.956	1.00	23.68	25.00	1.920	2.027	0.95
17	10:46	1.00	1.084	1.00	20.80	25.00	3.754	4.511	0.83
18	11:32	1.00	1.161	1.00	23.85	25.00	2.082	2.183	0.95
19	12:06	1.00	1.218	1.00	22.00	25.00	3.754	4.265	0.88
20	12:50	1.00	1.292	1.00	19.69	25.00	1.755	2.229	0.79
21	12:46	1.00	0.665	1.00	118.98	175.00	0.007	0.010	0.68
22	14:08	1.00	0.736	1.00	22.93	25.00	0.847	0.924	0.92
23	14:32	1.00	0.757	1.00	25.61	25.00	0.678	0.662	1.02
24	14:40	1.00	0.764	1.00	20.39	52.50	0.103	0.266	0.39
25	15:02	1.00	0.783	1.00	24.24	25.00	0.820	0.845	0.97
26	16:24	1.00	0.854	1.00	21.66	25.00	0.624	0.720	0.87
27	16:40	1.00	0.868	1.00	27.48	30.00	0.852	0.930	0.92
28	17:14	1.00	0.898	1.00	27.61	25.00	0.937	0.849	1.10
29	17:52	1.00	0.931	1.00	26.37	25.00	0.497	0.471	1.05
30	17:58	1.00	0.936	1.00	24.12	25.00	0.324	0.336	0.96
31	17:44	1.00	0.924	1.00	23.16	25.00	1.730	1.867	0.93
32	17:58	1.00	0.936	1.00	18.67	20.00	0.378	0.405	0.93
33	19:02	1.00	0.991	1.00	20.83	25.00	0.180	0.216	0.83
34	20:34	1.00	1.071	1.00	28.46	25.00	0.257	0.225	1.14
35	21:02	1.00	0.907	1.00	27.31	35.00	0.366	0.470	0.78
36	22:34	1.00	0.973	1.00	27.08	35.00	0.265	0.342	0.77
37	22:54	1.00	0.987	1.00	29.09	25.00	1.308	1.124	1.16
38	22:52	1.00	0.986	1.00	23.91	25.00	0.409	0.428	0.96
39	24:14	1.00	1.045	1.00	26.39	25.00	1.963	1.859	1.06
40	25:22	1.00	1.093	1.00	27.29	25.00	2.327	2.132	1.09
41	27:30	1.00	1.185	1.00	27.93	25.00	1.222	1.094	1.12
42	31:44	1.00	1.369	1.00	17.89	17.50	2.003	1.960	1.02
43	32:02	1.00	1.381	1.00	63.44	50.00	1.407	1.109	1.27
44	33:06	1.00	1.427	1.00	77.15	62.70	1.278	1.039	1.23

RIC
11/16/89 18:03:00
SAMPLE: CLP,1116,,IC51116,L,W,,V,IC-200,
CONDS.: 45' (3 MIN) 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: IC51116 #1
CALI: IC51116 #3

SCANS 40 TO 1100



Quantitation Report File: CC1218

Data: CC1218 [illegible]
12/18/89 [illegible]
Sample: [illegible] CAL
Conds: [illegible] @ 8°/MIN
Formula: Instrument: INCOS1 Weight: [illegible]
Submitted by: Analyst: KAT Acct No.:

AMOUNT=(AREA * REF AMNT/REF AREA * RESP FACT)
Resp fac: [illegible] averages of the 5 closest data points in [illegible]

No	Name	
1	C101	BROMOCHLOROMETHANE *INTERNAL STANDARD*
2	C110	2-BROMO 1-CHLOROPROPANE *INTERNAL STANDARD*
3	C120	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	C145	CIS-1,3-DICHLOROPROPENE
28	C150	TRICHLOROETHENE
29	C155	DIBROMOCHLOROMETHANE
30	C160	1,1,2-TRICHLOROETHANE
31	C165	BENZENE
32	C170	TRANS-1,3-DICHLOROPROPENE
33	C175	2-CHLOROETHYL VINYLETHER
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	C250	M-XYLENE
44	C270	O-XYLENE / P-XYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	299	9 [illegible]	1	1.000	A BB	29378.	10.000	UG/L	0.47
2	77	576	19 12	2	1.000	A BB	116982.	10.000	UG/L	0.47
3	55	691	23 14	3	1.000	A BB	76879.	10.000	UG/L	0.47
4	65	382	12 44	1	1.278	A BB	55139.	11.221	UG/L	0.53
5	84	577	17 23	2	0.918	A VB	189211	9.722	UG/L	0.46
6	95	587	[illegible]	2	1.037	A BB	197711	9.419	UG/L	0.45
7	50	51	1 42	1	0.171	A BV	86978.	16.109	UG/L	0.77
8	94	93	[illegible]	1	0.278	A BB	101531.	17.950	UG/L	0.85
9	62	106	3 [illegible]	1	0.355	A BB	101685	17.126	UG/L	0.81
10	64	137	4 34	1	0.458	A BB	80332.	19.904	UG/L	0.95
11	84	202	6 44	1	0.676	A BB	99026	13.176	UG/L	0.63
12	43	222	7 [illegible]	1	0.742	A BB	160073.	444.881	UG/L	21.13
13	56	222	7 04	1	0.742	A BB	78690	422.307	UG/L	20.06
14	75	249	8 19	1	0.833	A BB	21880.	14.614	UG/L	0.69
15	52	243	8 01	1	0.813	A BB	177097.	462.461	UG/L	21.97
16	96	286	9 32	1	0.957	A BB	78362.	14.156	UG/L	0.67
17	[illegible]	324	10 45	1	1.084	A BB	169160.	15.516	UG/L	0.74
18	96	346	[illegible]	1	1.157	A BB	84120.	14.249	UG/L	0.68
19	66	362	1[illegible] 06	1	1.214	A BB	161789.	15.045	UG/L	0.71
20	82	384	[illegible]	1	1.291	A BB	77247	15.740	UG/L	0.75
21	77	337	12 42	2	0.665	A BB	11261.	130.[illegible]42	UG/L	6.22
22	97	425	14 10	2	0.738	A BB	132907	14.110	UG/L	0.67
23	117	437	14 34	2	0.759	A VB	98679.	13.988	UG/L	0.66
24	43	441	14 42	2	0.766	A BB	187015.	77.342	UG/L	3.67
25	83	452	15 04	2	0.785	A BB	123101	13.943	UG/L	0.66
26	62	473	16 26	2	0.856	A BB	102584.	14.387	UG/L	0.68
27	77	501	16 42	2	0.870	A BB	157537.	17.049	UG/L	0.81
28	130	513	17 16	2	0.899	A BB	122761.	12.471	UG/L	0.59
29	129	534	17 52	2	0.931	A BB	68246.	13.748	UG/L	0.65
30	97	539	17 [illegible]	2	0.936	A BB	51515	14.422	UG/L	0.68
31	78	533	17 40	2	0.925	A BB	290496.	14.678	UG/L	0.70
32	75	540	18 00	2	0.937	A BB	44550.	11.255	UG/L	0.53
33	63	572	19 04	2	0.993	A BB	28139.	13.814	UG/L	0.65
34	173	617	20 34	2	1.071	A BB	28229.	11.156	UG/L	0.53
35	43	632	21 04	3	0.907	A BB	66764.	21.551	UG/L	1.02
36	43	679	22 36	3	0.973	A BB	40735	18.685	UG/L	0.89
37	164	689	22 58	3	0.989	A BB	105519.	11.090	UG/L	0.53
38	85	687	22 54	3	0.986	A BB	42983.	13.955	UG/L	0.66
39	92	728	24 16	3	1.044	A BB	186109.	12.495	UG/L	0.59
40	112	762	25 36	3	1.095	A BB	219455.	12.646	UG/L	0.60
41	106	827	27 34	3	1.187	A BB	112846.	12.451	UG/L	0.59
42	104	955	31 [illegible]	3	1.370	A BB	183753	11.246	UG/L	0.53
43	104	965	32 10	3	1.385	A BB	250733.	24.536	UG/L	1.17
44	102	957	[illegible] 14	3	1.430	A BB	277656.	29.774	UG/L	1.41

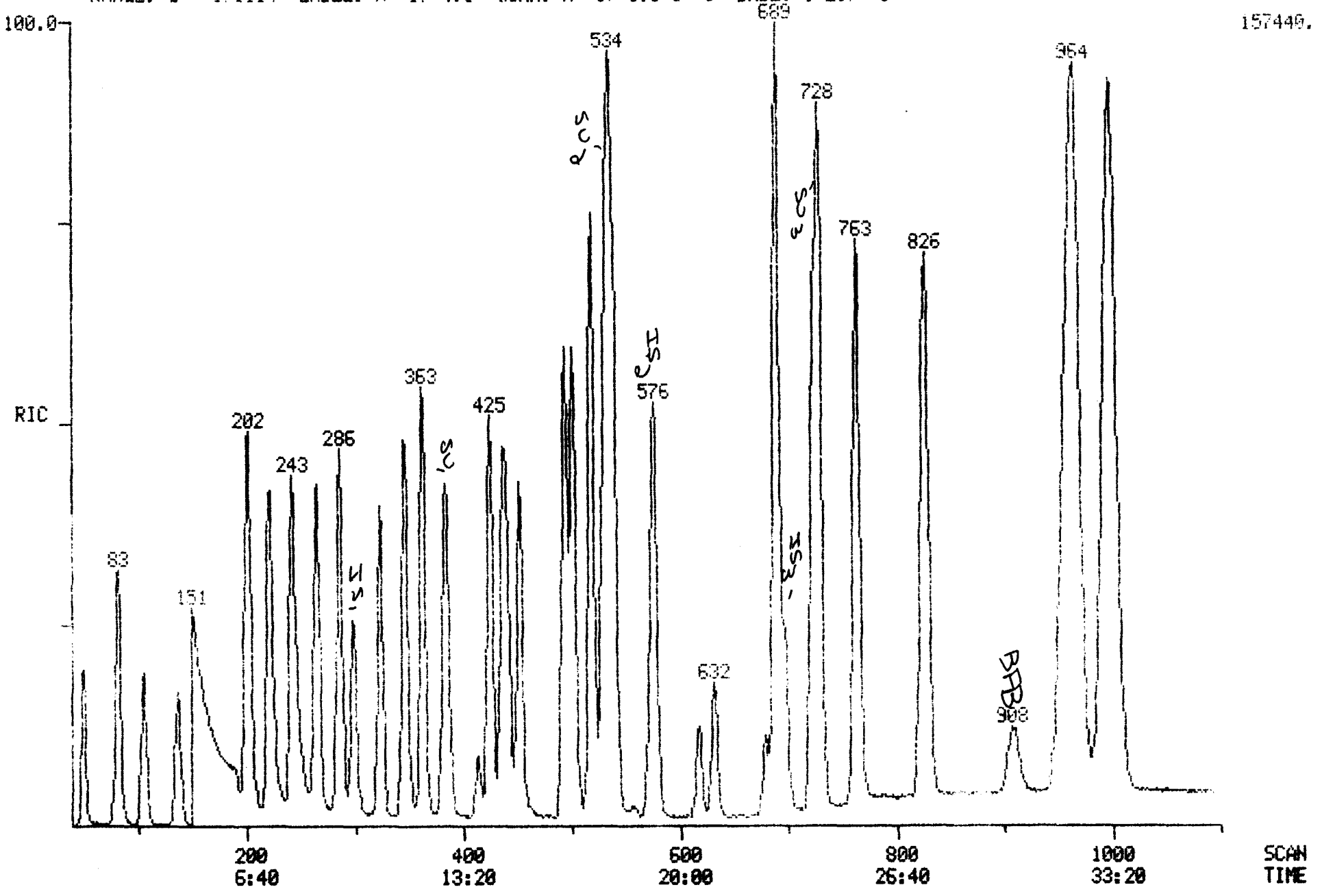
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R Fac	R Fac(L)	Ratio
1	10.00	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19.12	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23.16	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12.46	1.00	1.477	1.00	11.22	10.00	1.877	1.673	1.12
5	17.40	1.00	0.919	1.00	9.72	10.00	1.617	1.664	0.97
6	24.06	1.00	1.036	1.00	9.42	10.00	2.572	2.730	0.94
7	1.47	1.00	0.170	1.00	16.11	20.00	1.480	1.838	0.81
8	2.46	1.00	0.271	1.00	17.95	20.00	1.728	1.925	0.90
9	3.32	1.00	0.350	1.00	17.13	20.00	1.731	2.051	0.86
10	4.08	1.00	1.407	1.00	19.90	20.00	1.367	1.374	1.00

No	Ret(L)	Ratio	RR(L)	Ratio	Amnt	Amnt(L)	R Fac	R Fac(L)	Ratio
11	6.44	1.00	0.[illegible]	1.00	13.18	15.00	2.247	2.558	0.88
12	7.24	1.00	0.740	1.00	444.88	375.00	0.145	0.122	1.19
13	7.24	1.00	0.740	1.00	422.31	375.00	0.071	0.063	1.13
14	8.22	1.00	0.937	1.00	14.61	12.50	0.596	0.510	1.17
15	8.06	1.00	0.[illegible]	1.00	462.46	375.00	0.161	0.130	1.23
16	9.34	1.00	0.[illegible]	1.00	14.16	15.00	1.778	1.884	0.94
17	10.50	1.00	1.[illegible]	1.00	15.52	15.00	3.829	3.711	1.03
18	11.34	1.00	1.[illegible]	1.00	14.25	15.00	1.909	2.010	0.95
19	12.06	1.00	1.[illegible]	1.00	15.05	15.00	3.671	3.660	1.00
20	12.52	1.00	1.047	1.00	15.74	15.00	1.798	1.714	1.05
21	12.48	1.00	0.666	1.00	130.94	125.00	0.008	0.007	1.05
22	14.10	1.00	0.[illegible]	1.00	14.11	15.00	0.757	0.805	0.94
23	14.36	1.00	0.[illegible]	1.00	13.99	15.00	0.562	0.610	0.92
24	14.44	1.00	0.[illegible]	1.00	77.34	37.50	0.426	0.207	2.06
25	15.06	1.00	0.[illegible]	1.00	13.94	15.00	0.702	0.755	0.93
26	16.28	1.00	0.9[illegible]	1.00	14.39	15.00	0.585	0.610	0.96
27	16.42	1.00	0.9[illegible]	1.00	17.05	18.00	0.548	0.590	0.93
28	17.10	1.00	0.[illegible]	1.00	12.47	15.00	0.700	0.841	0.83
29	17.34	1.00	0.[illegible]	1.00	13.75	15.00	0.389	0.424	0.92
30	18.00	1.00	0.936	1.00	14.42	15.00	0.294	0.305	0.96
31	17.40	1.00	0.929	1.00	14.68	15.00	1.656	1.692	0.98
32	18.02	1.00	0.9[illegible]	1.00	11.26	12.00	0.317	0.336	0.94
33	19.06	1.00	0.993	1.00	13.81	15.00	0.160	0.174	0.92
34	20.38	1.00	1.[illegible]	1.00	11.16	15.00	0.161	0.216	0.74
35	21.06	1.00	0.967	1.00	21.55	25.00	0.347	0.403	0.86
36	22.38	1.00	0.973	1.00	18.68	25.00	0.212	0.284	0.75
37	23.00	1.00	0.999	1.00	11.09	15.00	0.915	1.238	0.74
38	22.56	1.00	0.986	1.00	13.95	15.00	0.373	0.401	0.93
39	24.18	1.00	1.044	1.00	12.49	15.00	1.614	1.937	0.83
40	25.28	1.00	1.[illegible]	1.00	12.65	15.00	1.902	2.257	0.84
41	27.34	1.00	1.180	1.00	12.45	15.00	0.979	1.179	0.83
42	31.56	1.00	1.372	1.00	11.25	12.50	1.912	2.125	0.90
43	33.14	1.00	1.382	1.00	24.54	30.00	1.097	1.329	0.82
44	33.18	1.00	1.431	1.00	29.77	37.60	0.961	1.213	0.79

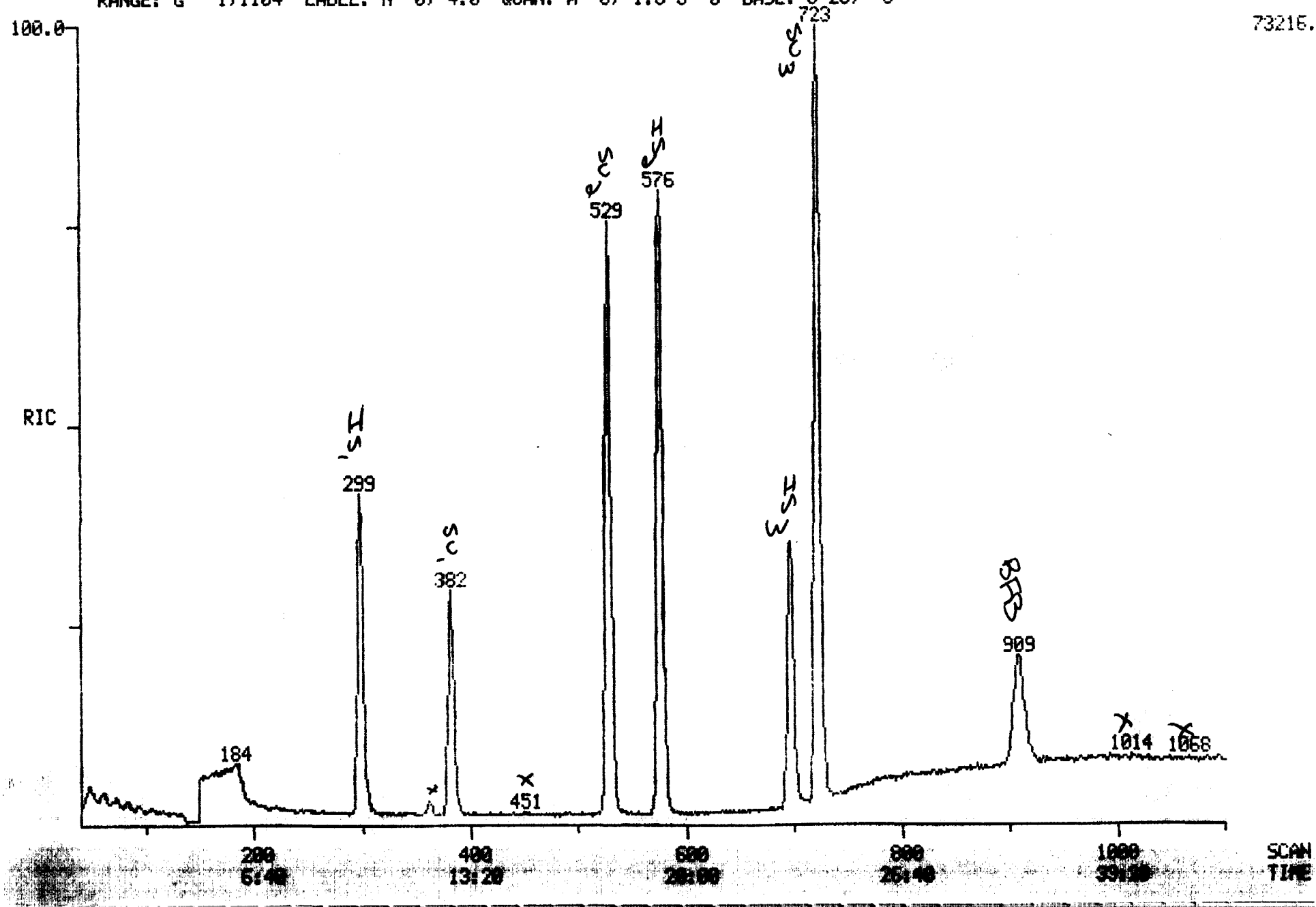
RIC
12/18/89 10:07:00
SAMPLE: CLP.1218,.CC1218.L.W.,U,CAL,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
RANGE: G 1,1104 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: CC1218 #1
CALI: CC1218 #3

SCANS 40 TO 1100



RIC DATA: 1218BLK1 #1 SCANS 40 TO 1100
12/18/89 9:19:00 CALI: 1218BLK1 #3
SAMPLE: CLP,1218,,1218BLK1,L,W,,V,BLANK,
CONDS.: 45' (3 MIN) 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: 1218BLK1

Data: 1218BLK1.TI
12/18/89 9:19:00
Sample: CLP,1218,,1218BLK1,L,W,,V,BLANK,
Conds.: 45' (3 MIN) TO 220' @ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: Analyst: KAT Acct. No.:

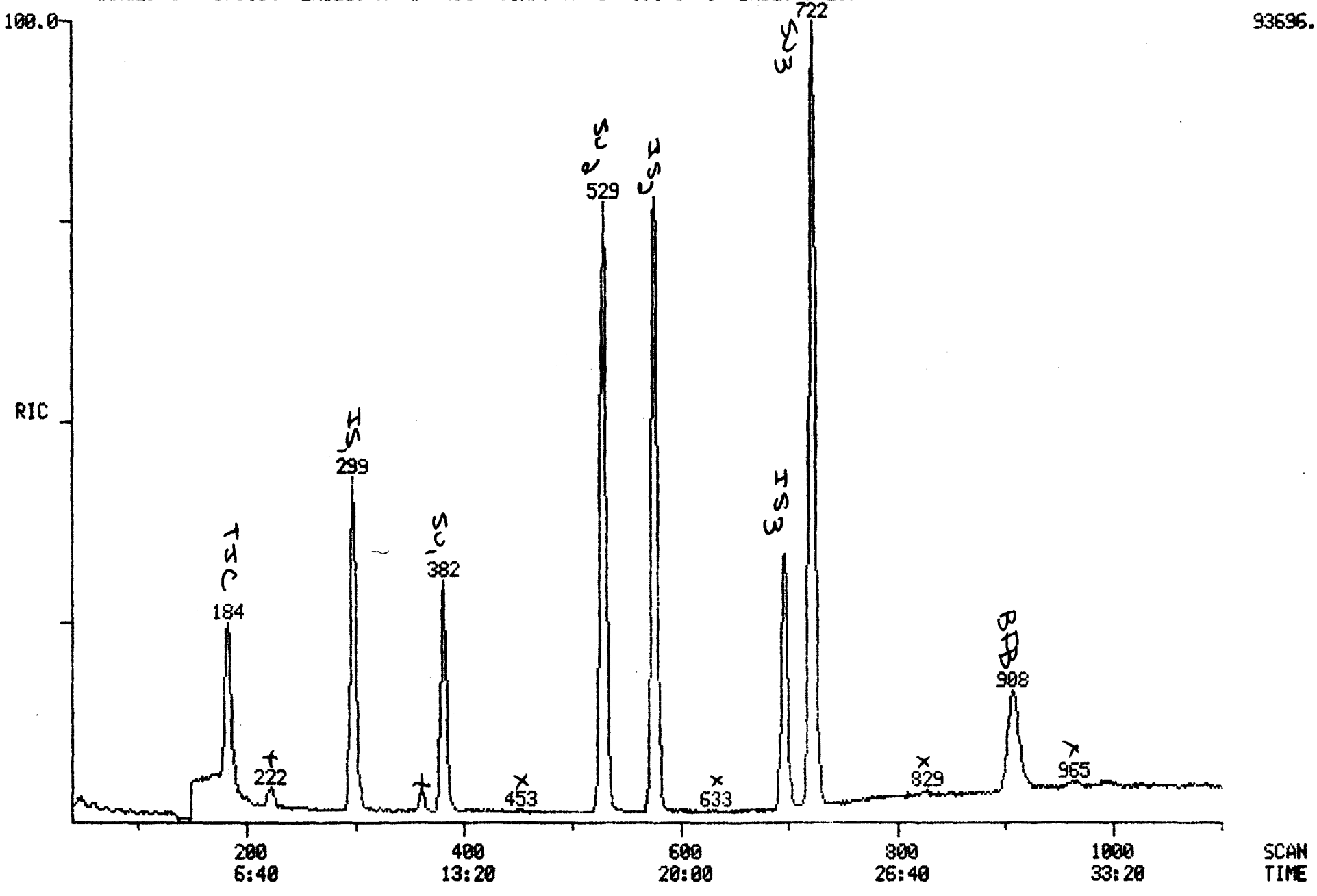
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

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	23397.	10.000 UG/L	16.45
2	77	576	19:12	2	1.000	A BB	92685.	10.000 UG/L	16.45
3	55	697	23:14	3	1.000	A BB	56088.	10.000 UG/L	16.45
4	65	382	12:44	1	1.278	A BB	40791.	9.289 UG/L	15.28
5	84	529	17:38	2	0.918	A BB	153693.	10.252 UG/L	16.87
6	98	722	24:04	3	1.036	A BB	162246.	11.248 UG/L	18.50

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:00	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:14	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:16	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:46	1.00	1.277	1.00	9.29	10.00	1.743	1.877	0.93
5	17:40	1.00	0.919	1.00	10.25	10.00	1.658	1.617	1.03
6	24:06	1.00	1.036	1.00	11.25	10.00	2.893	2.572	1.12

RIC DATA: 6825R60 #1 SCANS 40 TO 1100
12/18/89 11:39:00 CALI: 6825R60 #3
SAMPLE: CLP,6825,,90FD01R60,L,W,,V,EPA,
CONDS.: 45' (3 MIN) 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: 6825R60

Data: 6825R60 TI
12/18/89 11:39:00
Sample: CLP,6825,,90FD01R60,L,W,,V,EPA,
Conds.: 45' (3 MIN) TO 220' @ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: Analyst: KAT Acct. No.:

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	29250.	10.000 UG/L	16.30
2	77	576	19:12	2	1.000	A BB	117806.	10.000 UG/L	16.30
3	55	697	23:14	3	1.000	A BB	69144.	10.000 UG/L	16.30
4	65	382	12:44	1	1.278	A BB	52228.	9.514 UG/L	15.51
5	84	529	17:38	2	0.918	A BB	198523.	10.419 UG/L	16.99
6	98	722	24:04	3	1.036	A BB	202847.	11.407 UG/L	18.60

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:00	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:14	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:16	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:46	1.00	1.277	1.00	9.51	10.00	1.786	1.877	0.95
5	17:40	1.00	0.919	1.00	10.42	10.00	1.685	1.617	1.04
6	24:06	1.00	1.036	1.00	11.41	10.00	2.934	2.572	1.14

Quantitation Report File: 6825R60T

Data: 6825R60.TI
12/18/89 11:39:00
Sample: CLP,6825,,90FD01R60,L,W,,V,EPA,
Conds.: 45' (3 MIN) TO 220' @ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: Analyst: KAT Acct. No.:

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

No	Name
1	UNKNOWN
2	CI01 BROMOCHLOROMETHANE *INTERNAL STANDARD*

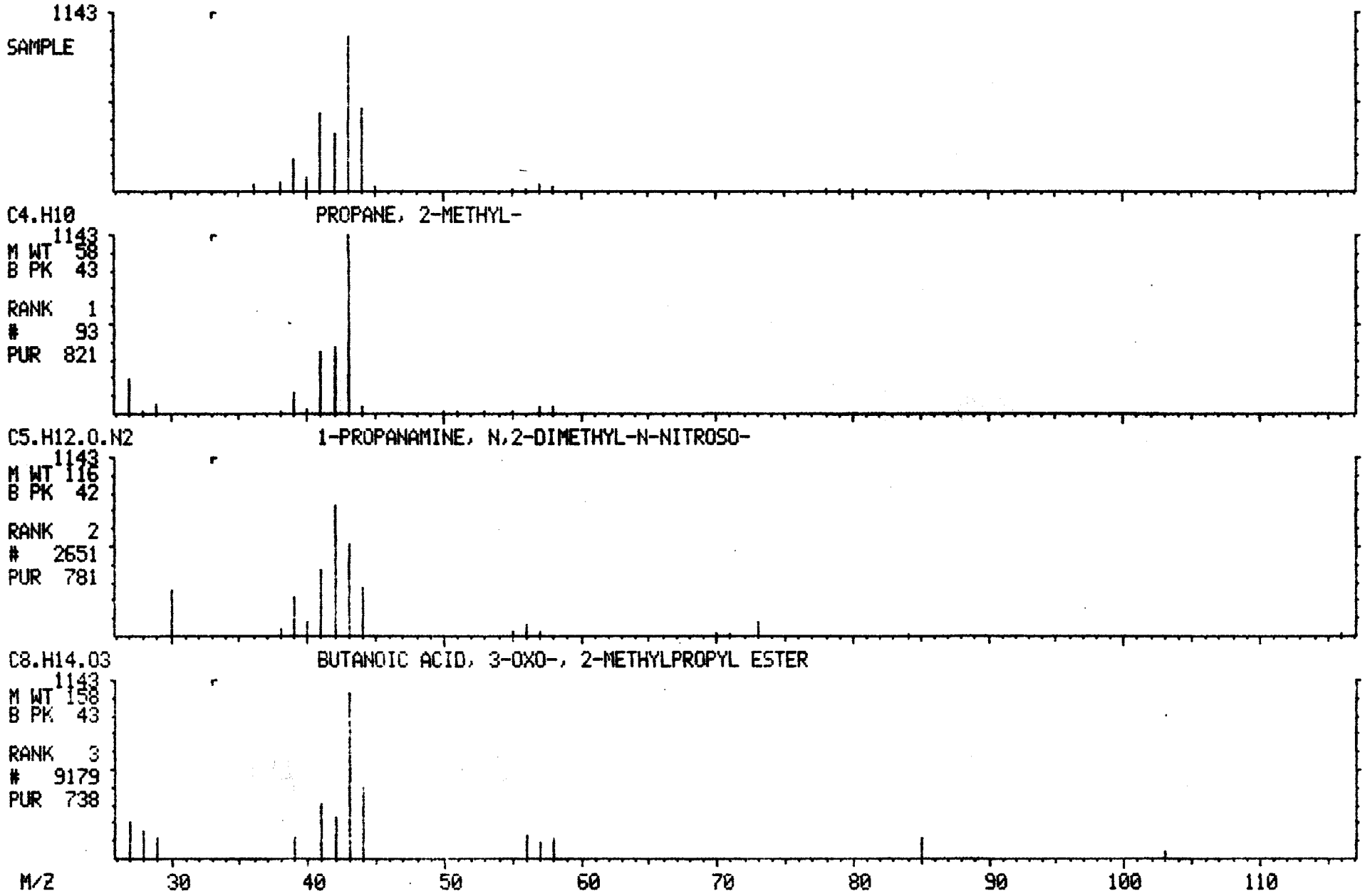
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	RIC	184	6:08	2	0.615	A BB	124540.	~~53.043~~ 5	84.14
2	RIC	299	9:58	2	1.000	A BB	234791.	10.000 UG/L	15.86

1.) $\frac{124540}{1} \times \frac{10}{234791} = 5$ mcg/L

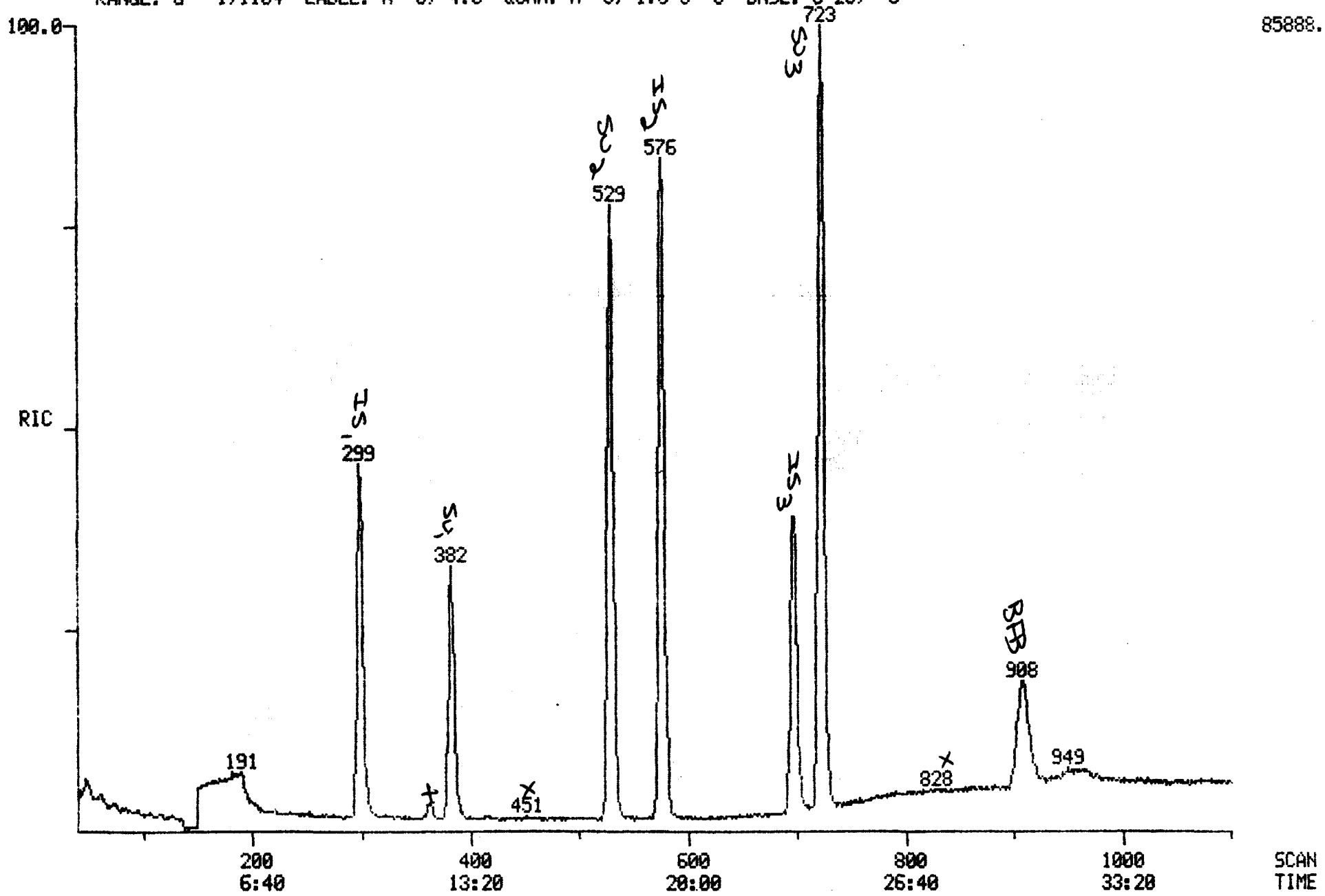
MID LIBRARY SEARCH (LIBRARYNB)
12/18/89 11:39:00 + 6:06
SAMPLE: CLP,6825,,90FD01R60,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN

DATA: 6825R60 # 184
CALI: 6825R60 # 3

BASE M/Z: 43
RIC: 22784.



RIC DATA: 6825S98 #1 SCANS 40 TO 1100
12/18/89 12:28:00 CALI: 6825S98 #3
SAMPLE: CLP,6825,,90FD05S98,L,W,,V,EPA,
CONDS.: 45' (3 MIN) 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: 6825S98

Data: 6825S98.TI
12/18/89 12:28:00
Sample: CLP,6825,,90FD05S98,L,W,,V,EPA,
Conds.: 45' (3 MIN) TO 220' @ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: Analyst: KAT Acct. No.:

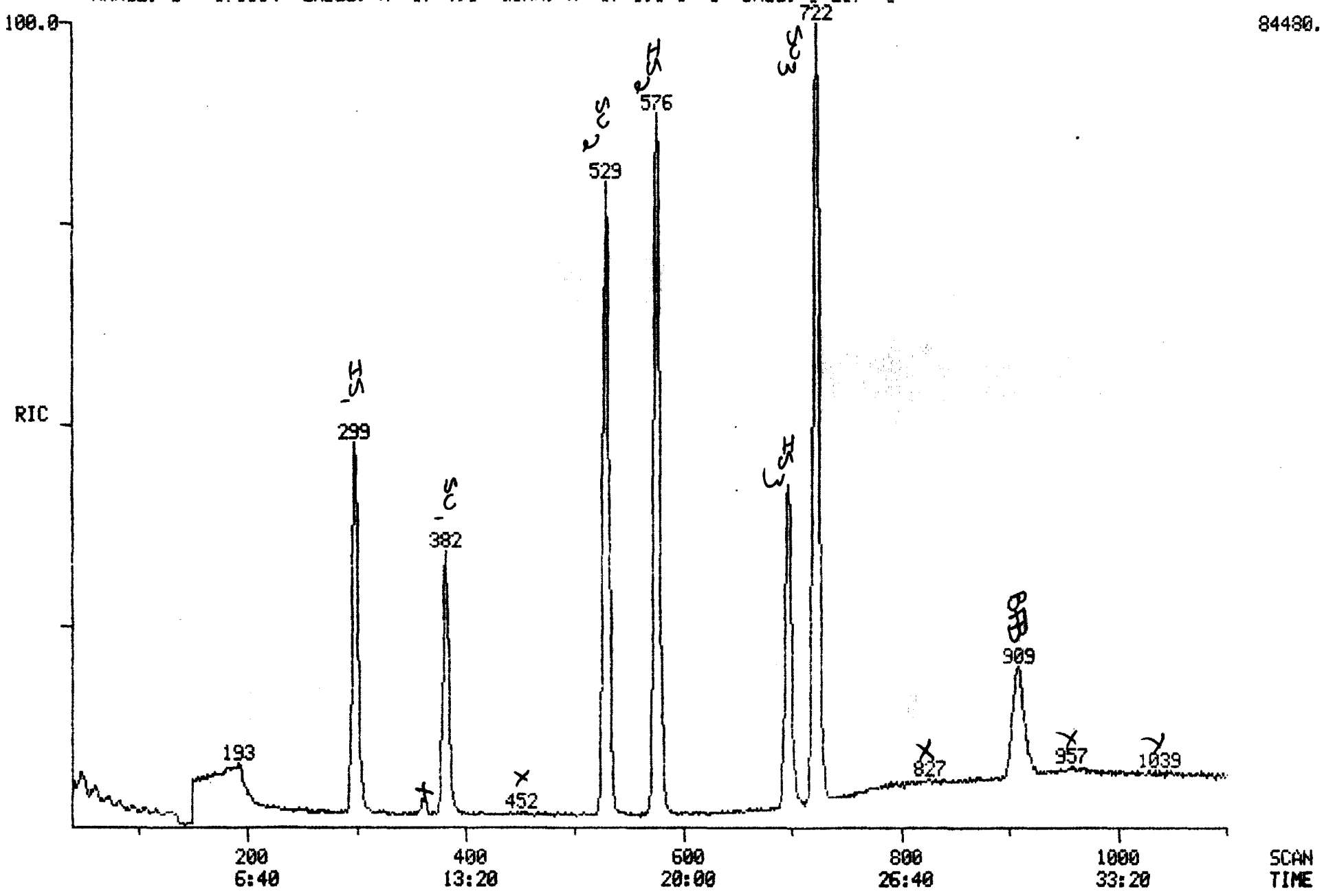
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

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	28703.	10.000 UG/L	16.83
2	77	576	19:12	2	1.000	A BB	113070.	10.000 UG/L	16.83
3	55	697	23:14	3	1.000	A BB	74111.	10.000 UG/L	16.83
4	65	382	12:44	1	1.278	A BB	53167.	9.869 UG/L	16.61
5	84	529	17:38	2	0.918	A BB	180189.	9.853 UG/L	16.58
6	98	723	24:06	3	1.037	A BB	184625.	9.687 UG/L	16.31

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:00	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:14	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:16	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:46	1.00	1.277	1.00	9.87	10.00	1.852	1.877	0.99
5	17:40	1.00	0.919	1.00	9.85	10.00	1.594	1.617	0.99
6	24:06	1.00	1.036	1.00	9.69	10.00	2.491	2.572	0.97

RIC DATA: 6825D98 #1 SCANS 40 TO 1100
12/18/89 13:12:00 CALI: 6825D98 #3
SAMPLE: CLP,6825,,90FD06D98,L,W,,U,EPA,
CONDS.: 45' (3 MIN) 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: 6825D98

Data: 6825D98.TI
12/18/89 13:12:00
Sample: CLP,6825,,90FD06D98,L,W,,V,EPA,
Conds.: 45' (3 MIN) TO 220' @ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: Analyst: KAT Acct. No.:

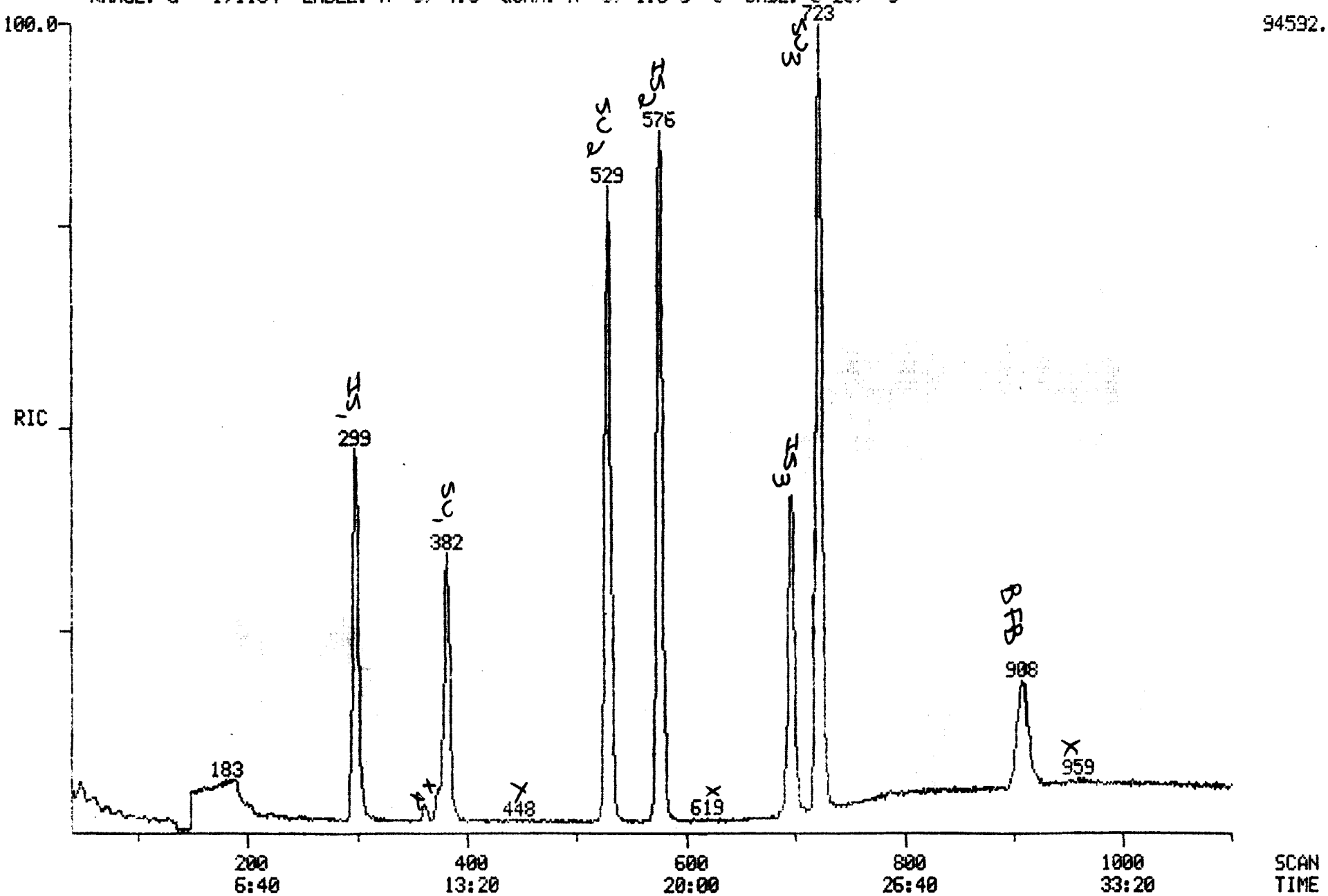
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

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 BV	29196.	10.000 UG/L	16.88
2	77	576	19:12	2	1.000	A BB	114960.	10.000 UG/L	16.88
3	55	697	23:14	3	1.000	A BB	75599.	10.000 UG/L	16.88
4	65	382	12:44	1	1.278	A BB	55764.	10.177 UG/L	17.18
5	84	529	17:38	2	0.918	A BB	179736.	9.666 UG/L	16.31
6	98	722	24:04	3	1.036	A BB	182908.	9.408 UG/L	15.88

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:00	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:14	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:16	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:46	1.00	1.277	1.00	10.18	10.00	1.910	1.877	1.02
5	17:40	1.00	0.919	1.00	9.67	10.00	1.563	1.617	0.97
6	24:06	1.00	1.036	1.00	9.41	10.00	2.419	2.572	0.94

RIC DATA: 6825599 #1 SCANS 40 TO 1100
12/18/89 13:57:00 CALI: 6825599 #3
SAMPLE: CLP,6825,,90FD05599,L,W,,V,EPA,
CONDS.: 45' (3 MIN) 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: 6825S99

Data: 6825S99.TI
12/18/89 13:57:00
Sample: CLP,6825,,90FD05S99,L,W,,V,EPA,
Conds.: 45' (3 MIN) TO 220' @ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: Analyst: KAT Acct. No.:

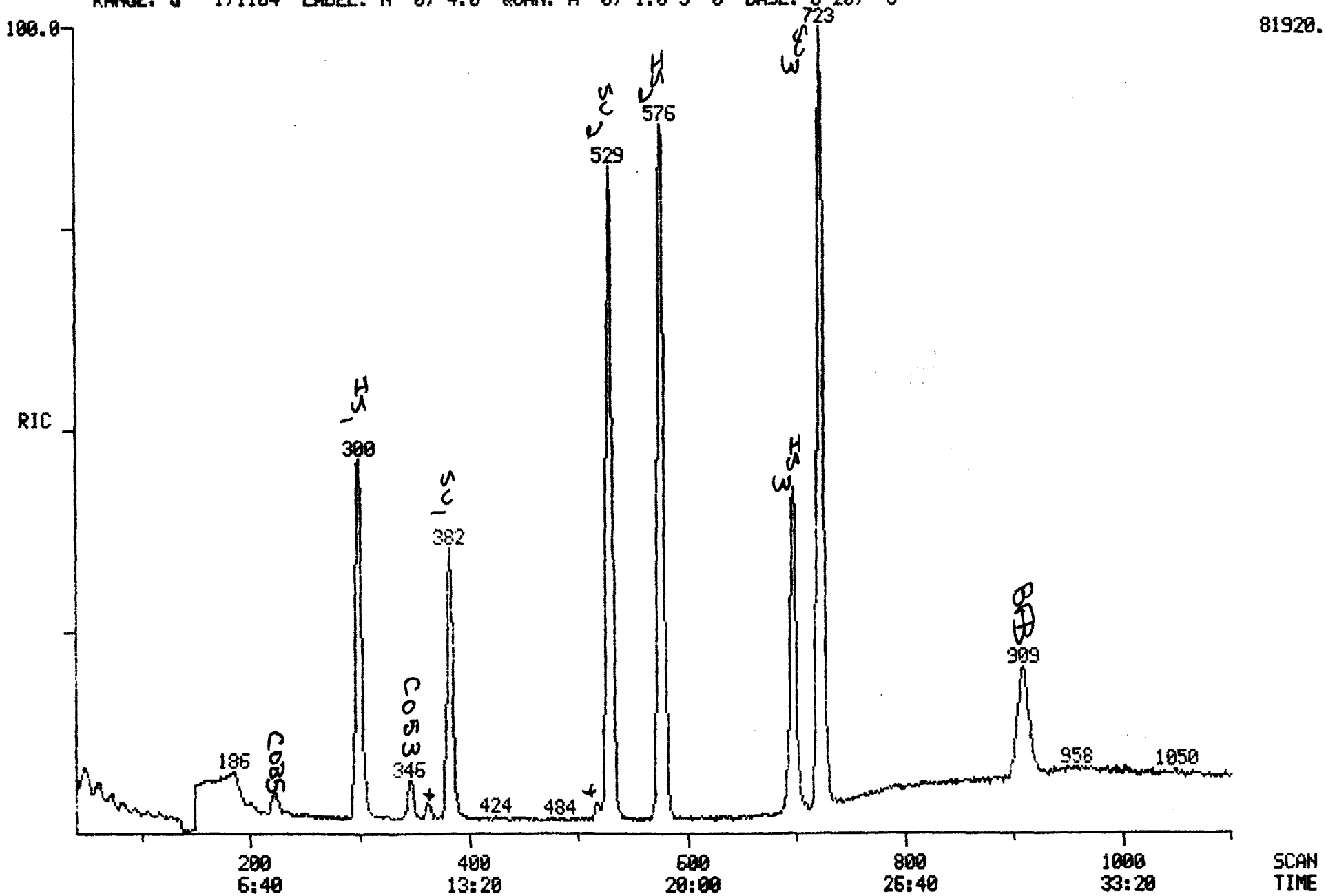
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

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	32310.	10.000 UG/L	16.82
2	77	576	19:12	2	1.000	A BB	125326.	10.000 UG/L	16.82
3	55	697	23:14	3	1.000	A BB	85575.	10.000 UG/L	16.82
4	65	382	12:44	1	1.278	A BB	62713.	10.341 UG/L	17.40
5	84	529	17:38	2	0.918	A BB	202828.	10.006 UG/L	16.83
6	98	722	24:04	3	1.036	A BB	200164.	9.095 UG/L	15.30

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:00	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:14	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:16	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:46	1.00	1.277	1.00	10.34	10.00	1.941	1.877	1.03
5	17:40	1.00	0.919	1.00	10.01	10.00	1.618	1.617	1.00
6	24:06	1.00	1.036	1.00	9.10	10.00	2.339	2.572	0.91

RIC DATA: 6825S01 #1 SCANS 40 TO 1100
12/18/89 14:43:00 CALI: 6825S01 #3
SAMPLE: CLP,6825,,90FD06S01,L,W.,V,EPA,
CONDS.: 45' (3 MIN) 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: 6825S01

Data: 6825S01.TI
12/18/89 14:43:00
Sample: CLP,6825,,90FD06S01,L,W,,V,EPA,
Conds.: 45' (3 MIN) TO 220' @ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: Analyst: KAT Acct. No.:

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	CO35	ACETONE	
8	CO53	1,2-DICHLOROETHENE (TOTAL)	

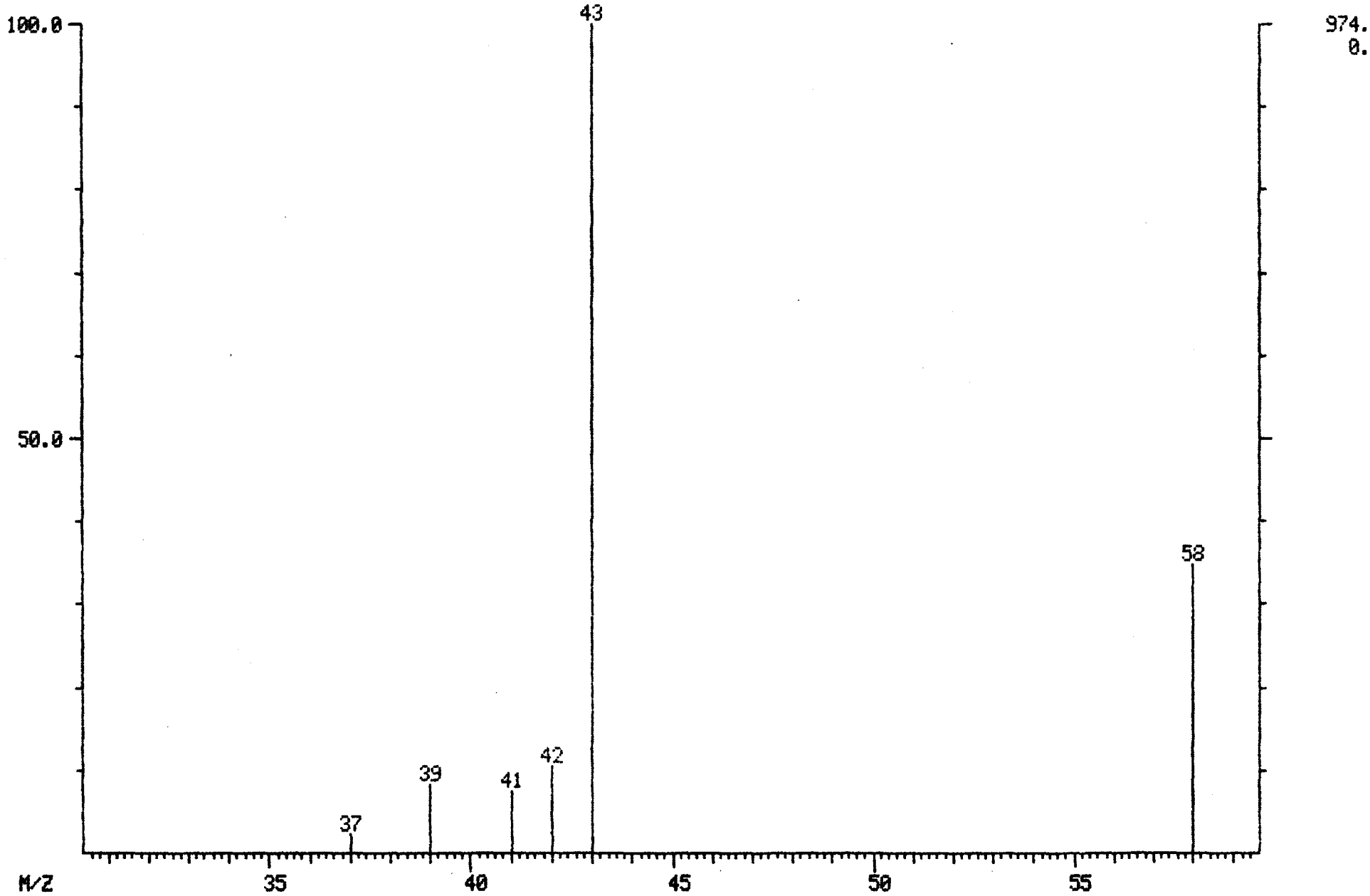
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	300	10:00	1	1.000	A BB	28285.	10.000 UG/L	11.47
2	77	576	19:12	2	1.000	A BB	112140.	10.000 UG/L	11.47
3	55	697	23:14	3	1.000	A BB	75045.	10.000 UG/L	11.47
4	65	383	12:46	1	1.277	A BB	55407.	10.437 UG/L	11.97
5	84	529	17:38	2	0.918	A BB	180381.	9.945 UG/L	11.41
6	98	723	24:06	3	1.037	A BB	175180.	9.077 UG/L	10.41
7	43	224	7:28	1	0.747	A BV	11014.	26.801 UG/L	30.74
8	96	346	11:32	1	1.153	A BB	4942.	0.915 UG/L	1.05

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:00	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:14	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:16	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:46	1.00	1.277	1.00	10.44	10.00	1.959	1.877	1.04
5	17:40	1.00	0.919	1.00	9.94	10.00	1.609	1.617	0.99
6	24:06	1.00	1.036	1.00	9.08	10.00	2.334	2.572	0.91
7	7:24	1.01	0.740	1.01	26.80	375.00	0.010	0.145	0.07
8	11:34	1.00	1.157	1.00	0.92	15.00	0.116	1.909	0.06

MASS SPECTRUM
12/18/89 14:43:00 + 7:28
SAMPLE: CLP,6825,,90FD06S01,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 80 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 6825S01 #224
CALI: 6825S01 #3

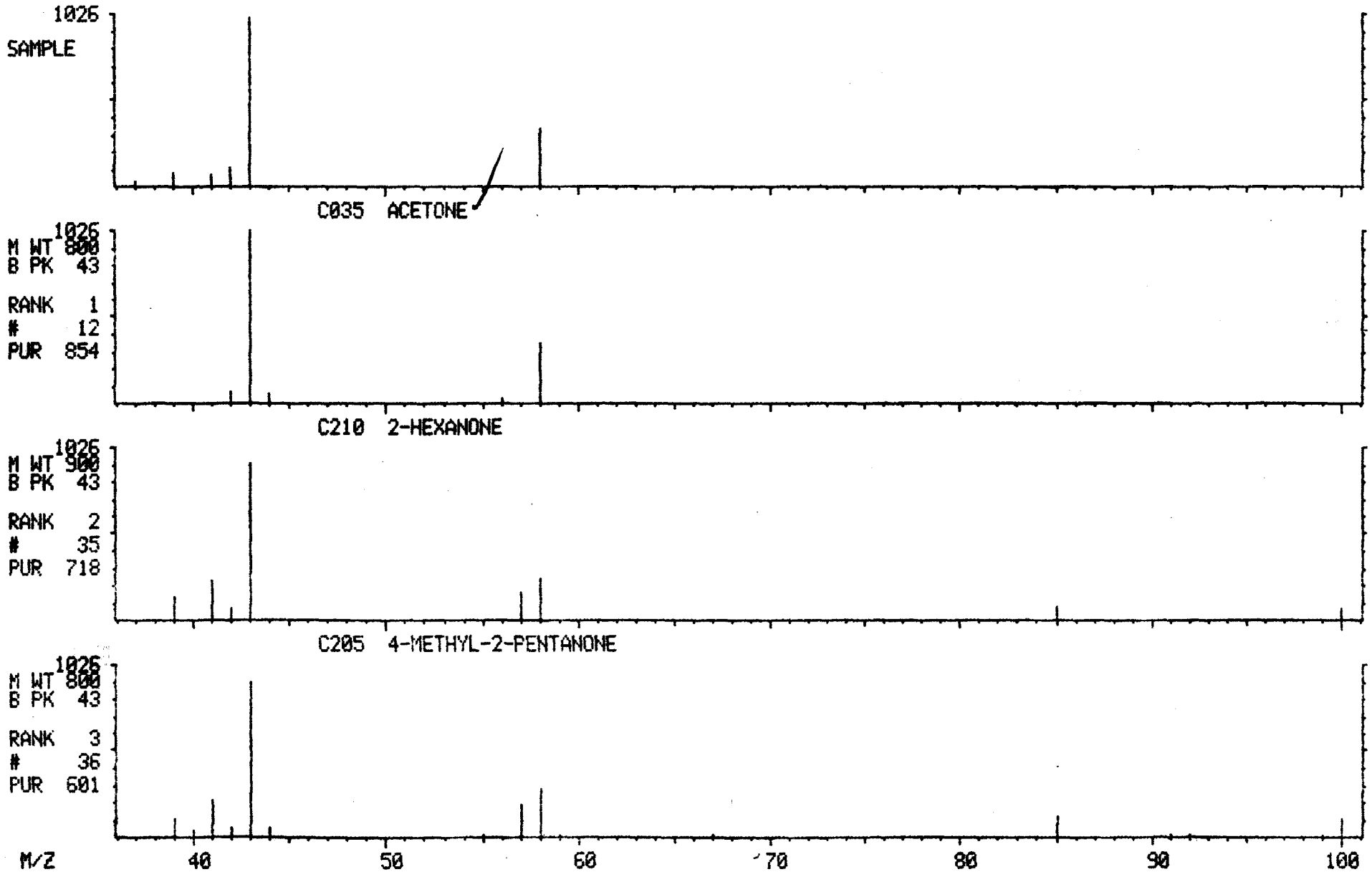
BASE M/Z: 43
RIC: 1592.



MID LIBRARY SEARCH (LIBRARYUP)
12/18/89 14:43:00 + 7:28
SAMPLE: CLP,6825,,90FD06S01,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
ENHANCED (S 15B 2N 0T)

DATA: 6825S01 # 224
CALI: 6825S01 # 3

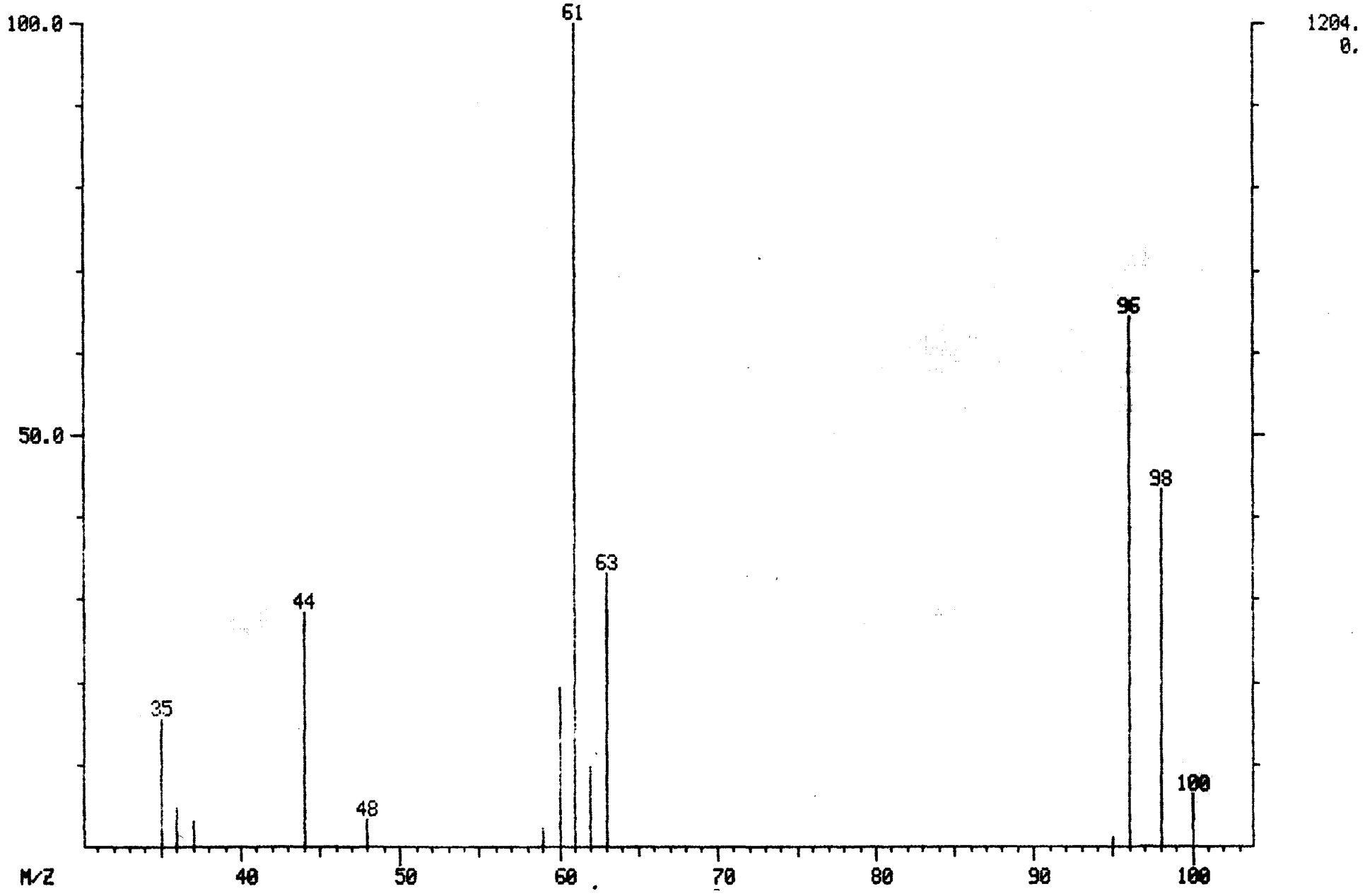
BASE M/Z: 43
RIC: 1590.



MASS SPECTRUM
12/18/89 14:43:00 + 11:32
SAMPLE: CLP,6825,,90FD06S01,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 112 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 6825S01 #346
CALI: 6825S01 #3

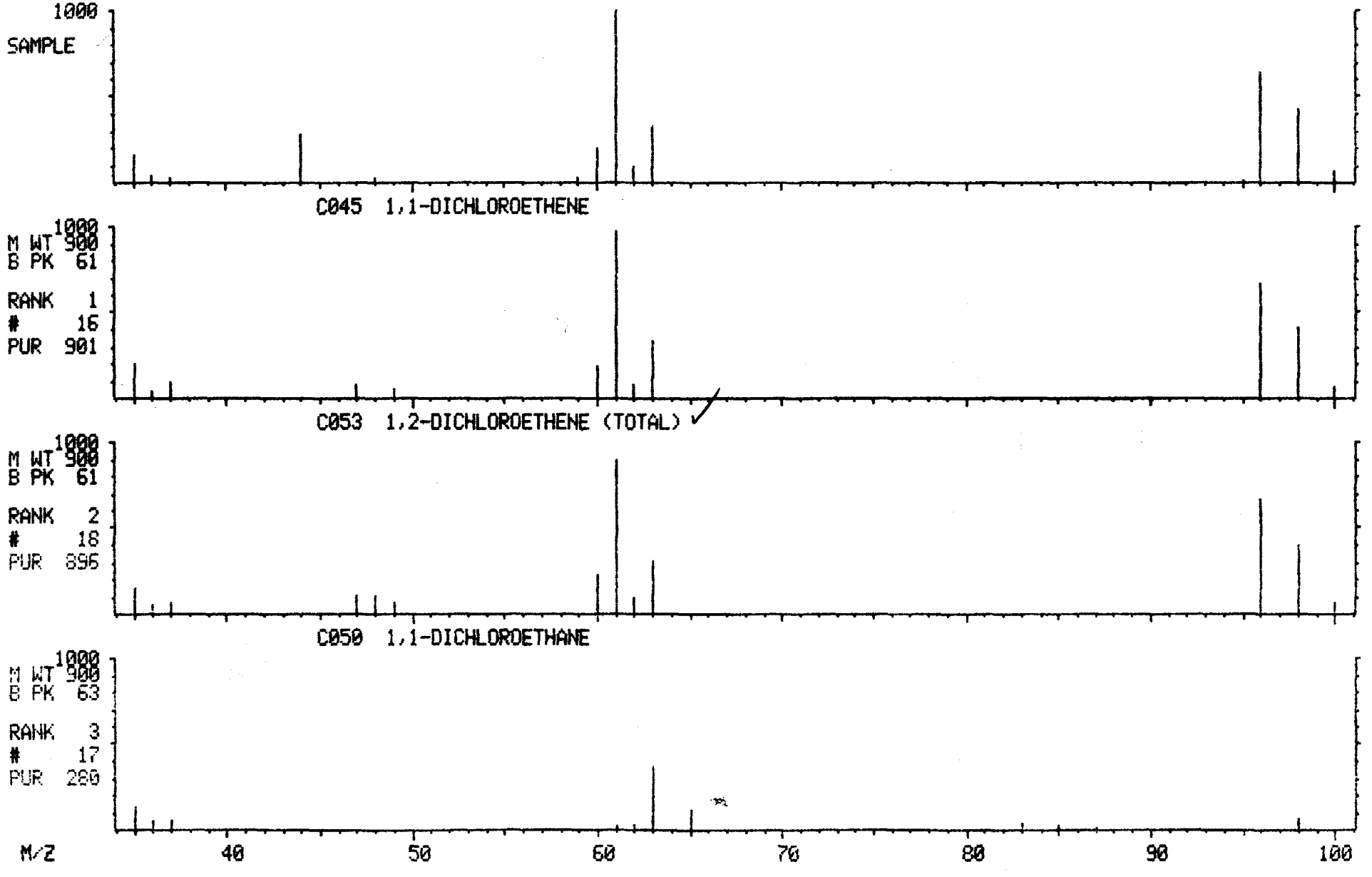
BASE M/Z: 61
RIC: 4024.



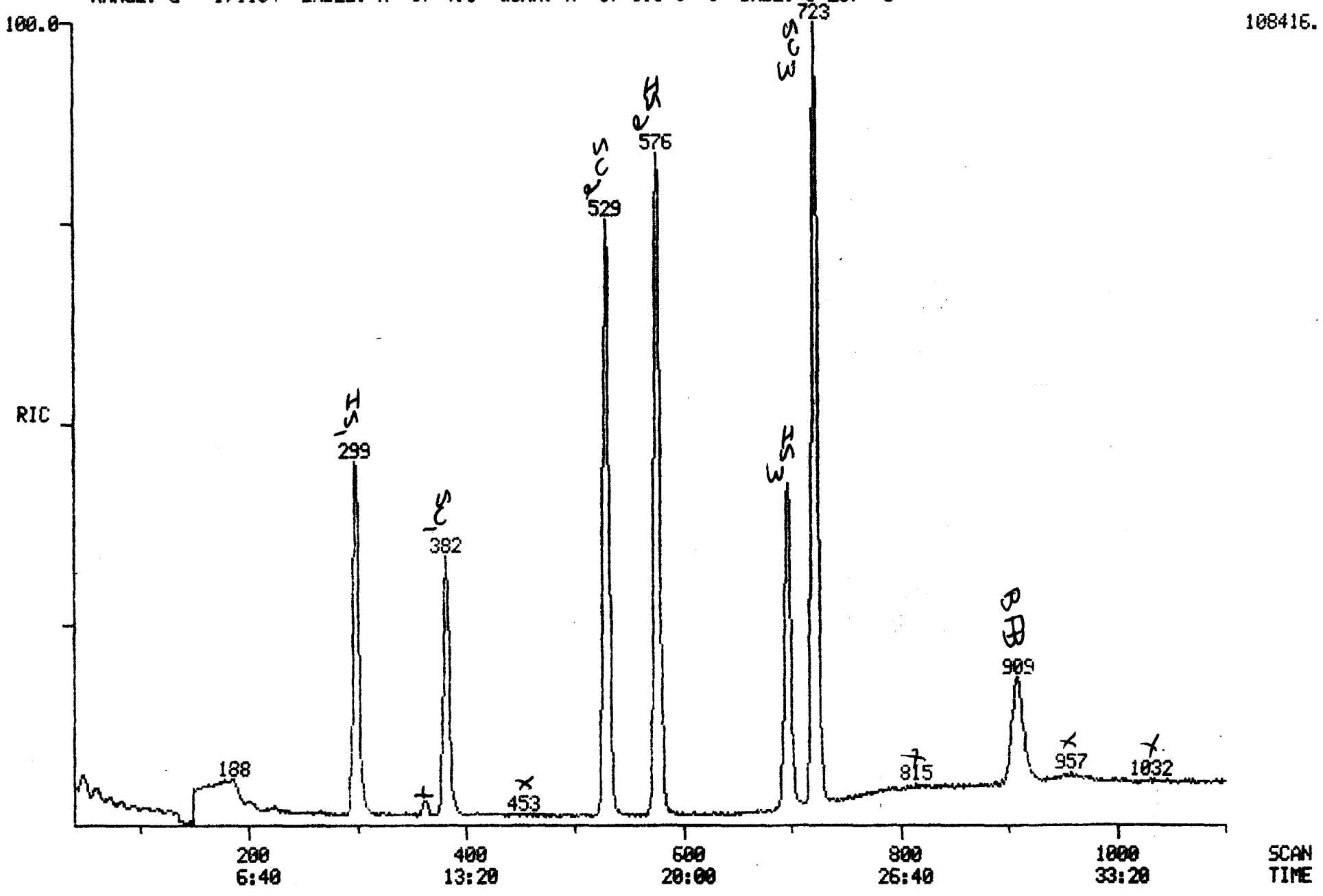
MID LIBRARY SEARCH (LIBRARYVP)
12/18/89 14:43:00 + 11:32
SAMPLE: CLP,6825,,90FD06501,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
ENHANCED (S 15B 2N 0T)

DATA: 6825S01 # 346
CALI: 6825S01 # 3

BASE M/Z: 61
RIC: 4024.



RIC DATA: 6825S02 #1 SCANS 40 TO 1100
12/18/89 15:27:00 CALI: 6825S02 #3
SAMPLE: CLP,6825,,90FD06S02,L,W,,V,EPA,
CONDS.: 45' (3 MIN) 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: 6825S02

Data: 6825S02.TI
12/18/89 15:27:00
Sample: CLP,6825,,90FD06S02,L,W,,V,EPA,
Conds.: 45' (3 MIN) TO 220' @ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: Analyst: KAT Acct. No.:

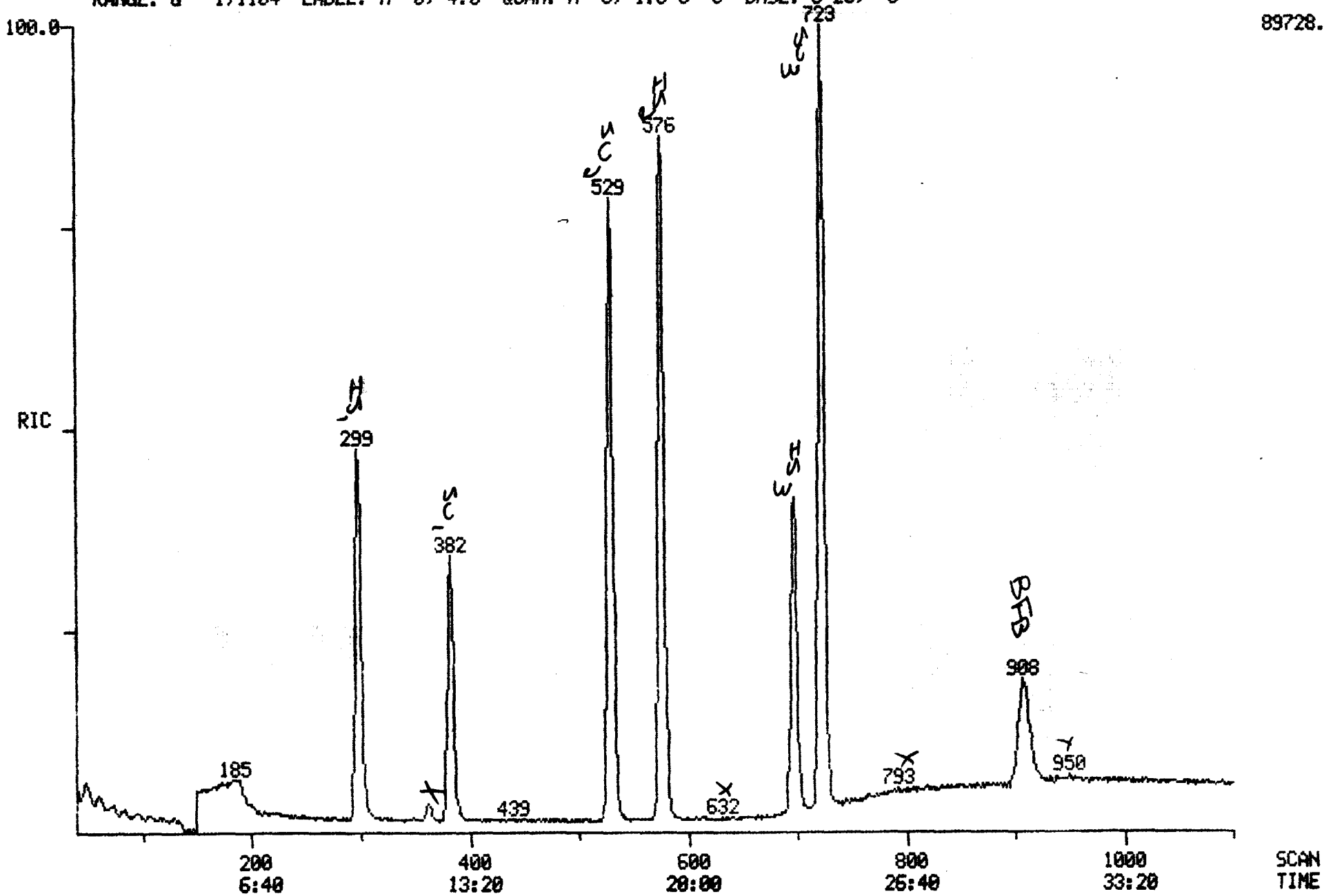
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

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	36449.	10.000 UG/L	16.97
2	77	576	19:12	2	1.000	A BB	141456.	10.000 UG/L	16.97
3	55	697	23:14	3	1.000	A BB	100127.	10.000 UG/L	16.97
4	65	382	12:44	1	1.278	A BB	71302.	10.423 UG/L	17.69
5	84	529	17:38	2	0.918	A BB	219892.	9.611 UG/L	16.31
6	98	723	24:06	3	1.037	A BB	228946.	8.891 UG/L	15.09

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:00	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:14	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:16	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:46	1.00	1.277	1.00	10.42	10.00	1.956	1.877	1.04
5	17:40	1.00	0.919	1.00	9.61	10.00	1.554	1.617	0.96
6	24:06	1.00	1.036	1.00	8.89	10.00	2.287	2.572	0.89

RIC DATA: 6825S03 #1 SCANS 40 TO 1100
12/18/89 16:11:00 CALI: 6825S03 #3
SAMPLE: CLP,6825,,90FD06S03,L,W,,V,EPA,
CONDS.: 45' (3 MIN) 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: 6825S03

Data: 6825S03.TI
12/18/89 16:11:00
Sample: CLP,6825,,90FD06S03,L,W,,V,EPA,
Conds.: 45' (3 MIN) TO 220' @ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: Analyst: KAT Acct. No.:

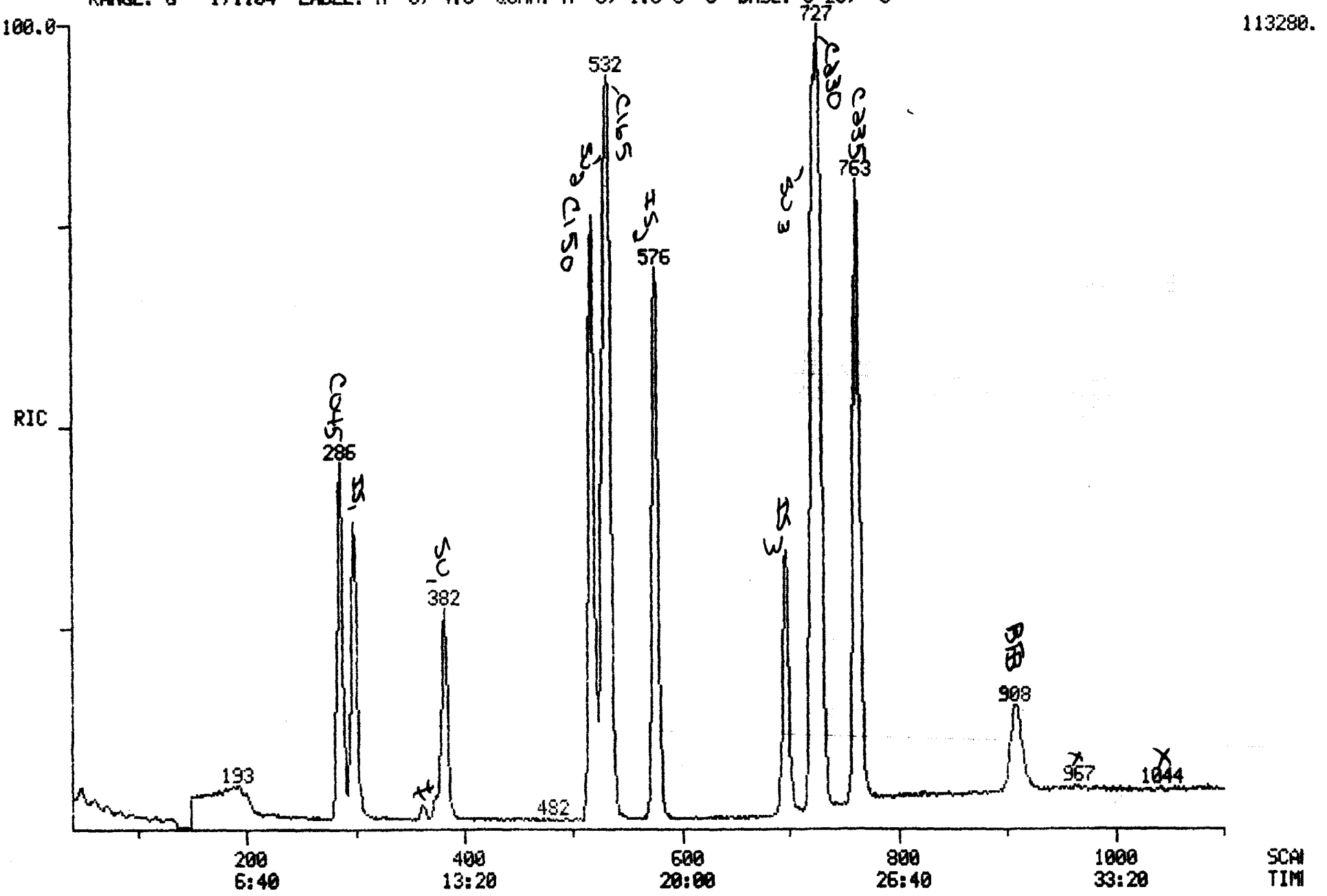
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

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	31407.	10.000 UG/L	16.86
2	77	576	19:12	2	1.000	A BB	119477.	10.000 UG/L	16.86
3	55	697	23:14	3	1.000	A BB	78312.	10.000 UG/L	16.86
4	65	382	12:44	1	1.278	A BB	60079.	10.192 UG/L	17.19
5	84	529	17:38	2	0.918	A BB	187433.	9.699 UG/L	16.35
6	98	722	24:04	3	1.036	A BB	189601.	9.414 UG/L	15.87

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:00	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:14	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:16	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:46	1.00	1.277	1.00	10.19	10.00	1.913	1.877	1.02
5	17:40	1.00	0.919	1.00	9.70	10.00	1.569	1.617	0.97
6	24:06	1.00	1.036	1.00	9.41	10.00	2.421	2.572	0.94

RIC DATA: 6825S99M #1 SCANS 40 TO 1100
12/18/89 16:56:00 CALI: 6825S99M #3
SAMPLE: CLP,6825,,90FD05S99MS,L,W,,V,MS,
CONDS.: 45' (3 MIN) 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: 6825S99M

Data: 6825S99M.TI
12/18/89 16:56:00
Sample: CLP,6825,,90FD05S99MS,L,W,,V,MS,
Conds.: 45' (3 MIN) TO 220' @ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: Analyst: KAT Acct. No.:

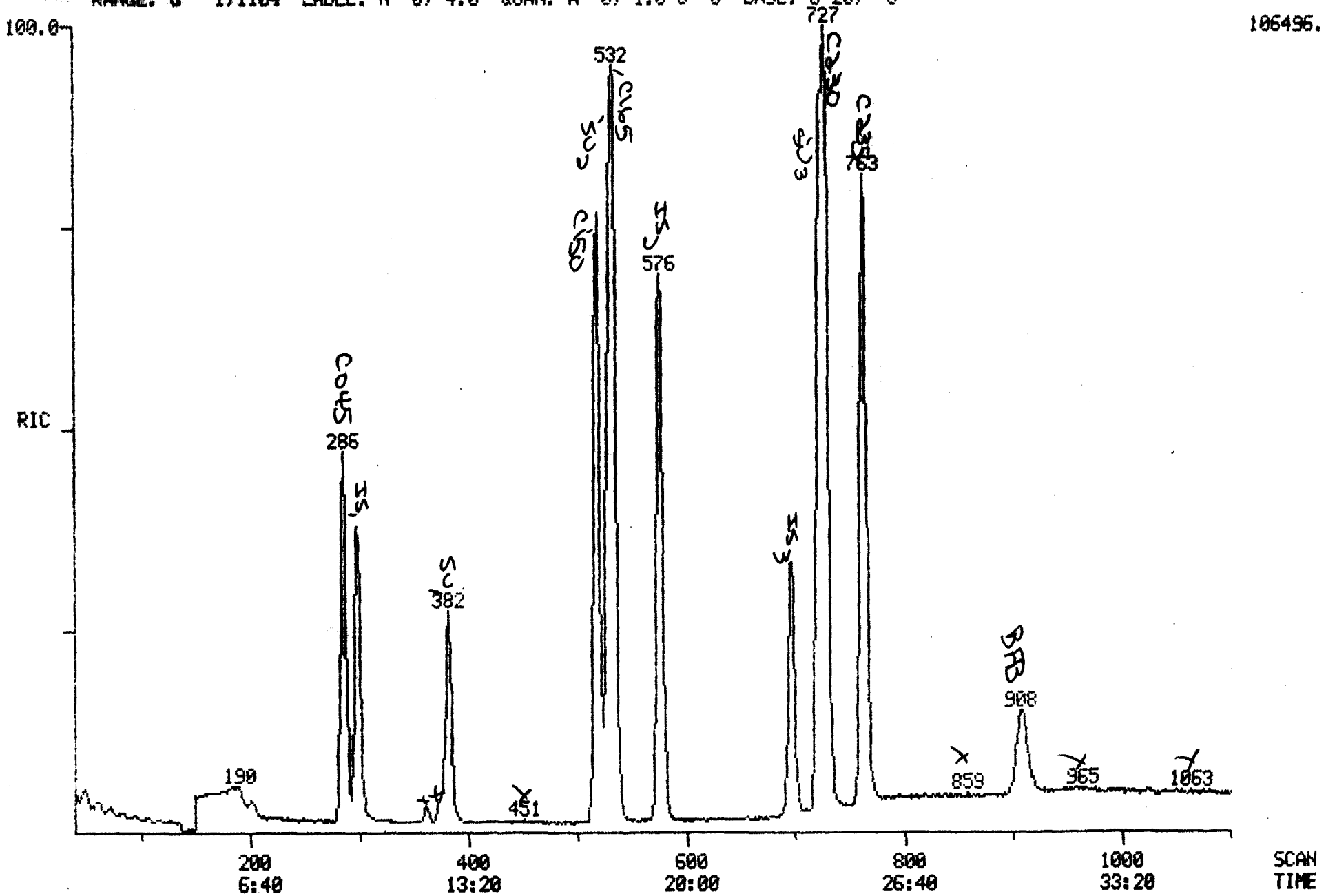
AMOUNT=AREA)* REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

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	C230	TOLUENE	
11	C235	CHLOROBENZENE	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	299	9:58	1	1.000	A BV	30885.	10.000 UG/L	8.98
2	77	576	19:12	2	1.000	A BB	121904.	10.000 UG/L	8.98
3	55	697	23:14	3	1.000	A BB	83051.	10.000 UG/L	8.98
4	65	382	12:44	1	1.278	A BB	59977.	10.347 UG/L	9.29
5	84	529	17:38	2	0.918	A VB	193502.	9.814 UG/L	8.81
6	98	723	24:06	3	1.037	A BB	194269.	9.096 UG/L	8.17
7	96	286	9:32	1	0.957	A BB	54226.	9.873 UG/L	8.87
8	130	518	17:16	2	0.899	A BB	85695.	10.048 UG/L	9.02
9	78	533	17:46	2	0.925	A BB	217699.	10.787 UG/L	9.69
10	92	728	24:16	3	1.044	A BB	143658.	10.718 UG/L	9.63
11	112	763	25:26	3	1.095	A BB	168677.	10.672 UG/L	9.58

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:00	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:14	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:16	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:46	1.00	1.277	1.00	10.35	10.00	1.942	1.877	1.03
5	17:40	1.00	0.919	1.00	9.81	10.00	1.587	1.617	0.98
6	24:06	1.00	1.036	1.00	9.10	10.00	2.339	2.572	0.91
7	9:34	1.00	0.957	1.00	9.87	15.00	1.170	1.778	0.66
8	17:18	1.00	0.899	1.00	10.05	15.00	0.469	0.700	0.67
9	17:48	1.00	0.925	1.00	10.79	15.00	1.191	1.656	0.72
10	24:18	1.00	1.044	1.00	10.72	15.00	1.153	1.614	0.71
11	25:28	1.00	1.095	1.00	10.67	15.00	1.354	1.903	0.71

RIC DATA: 6825S99D #1 SCANS 40 TO 1100
12/18/89 17:40:00 CALI: 6825S99D #3
SAMPLE: CLP,6825,,90FD05S99MSD,L,W,,V,MSD,
CONDS.: 45' (3 MIN) 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: 6825S99D

Data: 6825S99D.TI
12/18/89 17:40:00
Sample: CLP,6825,,90FD05S99MSD,L,W,,V,MSD,
Conds.: 45' (3 MIN) TO 220' @ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: Analyst: KAT Acct. No.:

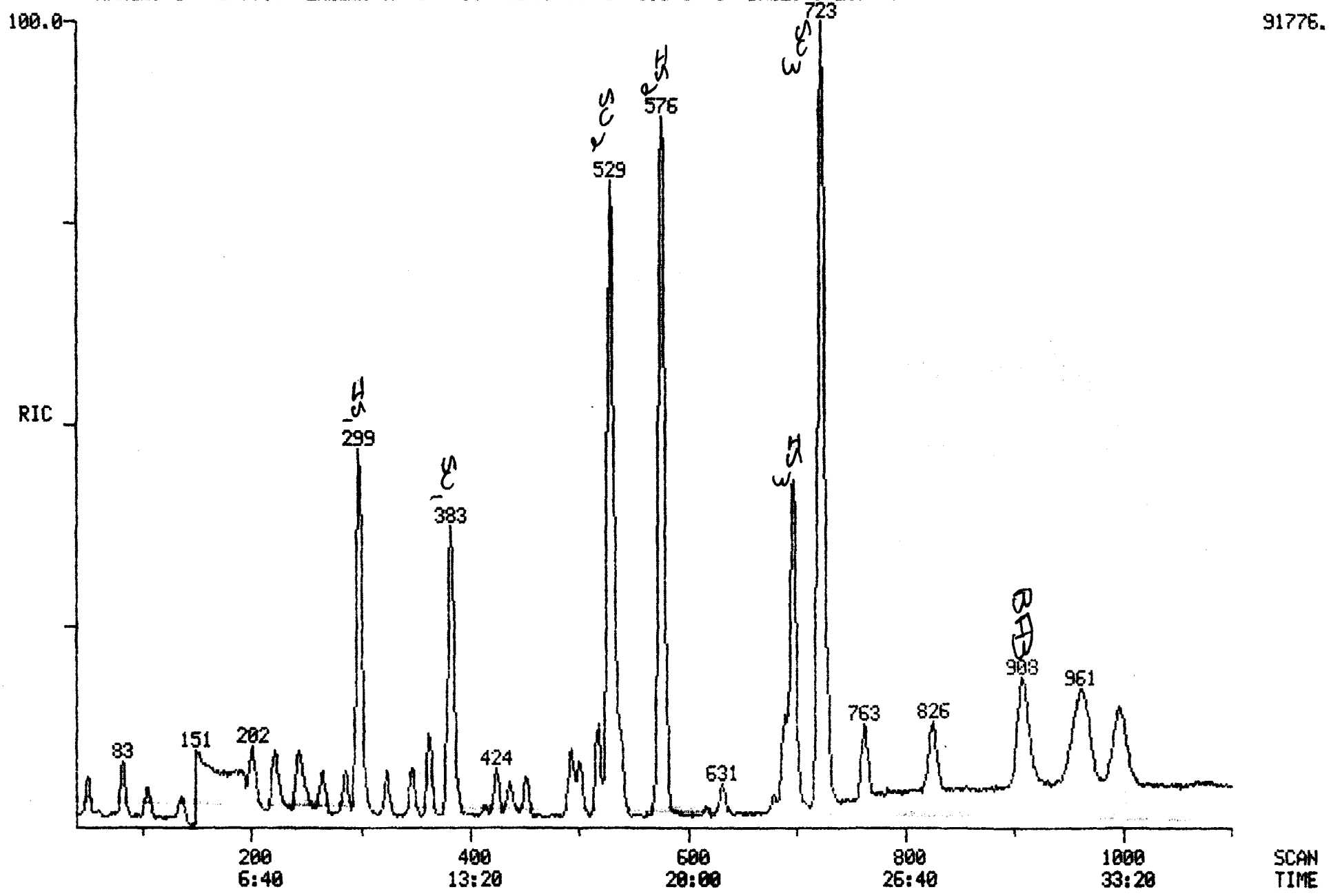
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

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	C230	TOLUENE	
11	C235	CHLOROBENZENE	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	299	9:58	1	1.000	A BB	28340.	10.000	UG/L	8.86
2	77	576	19:12	2	1.000	A BB	113039.	10.000	UG/L	8.86
3	55	696	23:12	3	1.000	A BB	77276.	10.000	UG/L	8.86
4	65	382	12:44	1	1.278	A BB	54981.	10.337	UG/L	9.16
5	84	529	17:38	2	0.918	A BB	180514.	9.873	UG/L	8.75
6	98	723	24:06	3	1.039	A BB	181982.	9.157	UG/L	8.12
7	96	286	9:32	1	0.957	A BV	51977.	10.314	UG/L	9.14
8	130	518	17:16	2	0.899	A BB	80917.	10.232	UG/L	9.07
9	78	533	17:46	2	0.925	A BB	208490.	11.141	UG/L	9.88
10	92	728	24:16	3	1.046	A BB	136382.	10.936	UG/L	9.69
11	112	763	25:26	3	1.096	A BB	159062.	10.816	UG/L	9.59

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:00	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:14	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:16	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:46	1.00	1.277	1.00	10.34	10.00	1.940	1.877	1.03
5	17:40	1.00	0.919	1.00	9.87	10.00	1.597	1.617	0.99
6	24:06	1.00	1.036	1.00	9.16	10.00	2.355	2.572	0.92
7	9:34	1.00	0.957	1.00	10.31	15.00	1.223	1.778	0.69
8	17:18	1.00	0.899	1.00	10.23	15.00	0.477	0.700	0.68
9	17:48	1.00	0.925	1.00	11.14	15.00	1.230	1.656	0.74
10	24:18	1.00	1.044	1.00	10.94	15.00	1.177	1.614	0.73
11	25:28	1.00	1.095	1.00	10.82	15.00	1.372	1.903	0.72

RIC DATA: MDL1218 #1 SCANS 40 TO 1100
12/18/89 18:24:00 CALI: MDL1218 #3
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) 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: MDL1218

Data: MDL1218.TI
12/18/89 18:24:00
Sample: CLP,6825,,MDL1218,L,W,,V,EPA,
Conds.: 45' (3 MIN) TO 220' @ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: Analyst: KAT Acct. No.:

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	C043	ACRYLONITRILE	
14	C045	1,1-DICHLOROETHENE	
15	C050	1,1-DICHLOROETHANE	
16	C053	1,2-DICHLOROETHENE (TOTAL)	
17	C060	CHLOROFORM	
18	C065	1,2-DICHLOROETHANE	
19	C115	1,1,1-TRICHLOROETHANE	
20	C120	CARBON TETRACHLORIDE	
21	C125	VINYL ACETATE	
22	C130	BROMODICHLOROMETHANE	
23	C140	1,2-DICHLOROPROPANE	
24	C143	CIS-1,3-DICHLOROPROPENE	
25	C150	TRICHLOROETHENE	
26	C155	DIBROMOCHLOROMETHANE	
27	C160	1,1,2-TRICHLOROETHANE	
28	C165	BENZENE	
29	C172	TRANS-1,3-DICHLOROPROPENE	
30	C175	2-CHLOROETHYLVINYLETHER	
31	C210	2-HEXANONE	
32	C205	4-METHYL-2-PENTANONE	
33	C220	TETRACHLOROETHENE	
34	C230	TOLUENE	
35	C235	CHLOROBENZENE	
36	C240	ETHYL BENZENE	
37	C245	STYRENE	
38	C260	M-XYLENE	
39	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	30586.	10.000 UG/L	5.05
2	77	576	19:12	2	1.000	A BB	124536.	10.000 UG/L	5.05
3	55	697	23:14	3	1.000	A BB	83329.	10.000 UG/L	5.05
4	65	383	12:46	1	1.281	A BB	60005.	10.453 UG/L	5.28

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
5	84	529	17:38	2	0.918	A BB	191676.	9.516	UG/L	4.81
6	98	722	24:04	3	1.036	A BB	195589.	9.127	UG/L	4.61
7	50	52	1:44	1	0.174	A BB	10680.	2.359	UG/L	1.19
8	94	83	2:46	1	0.278	A BB	12048.	2.280	UG/L	1.15
9	62	106	3:32	1	0.355	A BB	11157.	2.108	UG/L	1.06
10	64	138	4:36	1	0.462	A BB	9881.	2.363	UG/L	1.19
11	84	202	6:44	1	0.676	A BB	8011.	1.166	UG/L	0.59
12	43	222	7:24	1	0.742	A BB	22636.	50.936	UG/L	25.73
13	53	244	8:08	1	0.816	A BB	21158.	43.035	UG/L	21.74
14	96	287	9:34	1	0.960	A BB	5245.	0.964	UG/L	0.49
15	63	324	10:48	1	1.084	A BB	13976.	1.190	UG/L	0.60
16	96	347	11:34	1	1.161	A BB	6557.	1.123	UG/L	0.57
17	83	363	12:06	1	1.214	A BB	15390.	1.371	UG/L	0.69
18	62	386	12:52	1	1.291	A BB	7345.	1.335	UG/L	0.67
19	97	424	14:08	2	0.736	A BB	9596.	1.017	UG/L	0.51
20	117	437	14:34	2	0.759	A BB	5494.	0.784	UG/L	0.40
21	43	441	14:42	2	0.766	A BB	3894.	0.733	UG/L	0.37
22	83	452	15:04	2	0.785	A BB	9286.	1.063	UG/L	0.54
23	63	493	16:26	2	0.856	A BB	8242.	1.132	UG/L	0.57
24	75	501	16:42	2	0.870	A BB	11011.	1.182	UG/L	0.60
25	130	518	17:16	2	0.899	A BB	10292.	1.181	UG/L	0.60
26	129	536	17:52	2	0.931	A BB	4262.	0.880	UG/L	0.44
27	97	539	17:58	2	0.936	A BB	4614.	1.262	UG/L	0.64
28	78	533	17:46	2	0.925	A BB	24452.	1.186	UG/L	0.60
29	75	540	18:00	2	0.937	A BB	3108.	0.786	UG/L	0.40
30	63	573	19:06	2	0.995	A BB	3806.	1.906	UG/L	0.96
31	43	631	21:02	3	0.905	A BB	8955.	3.094	UG/L	1.56
32	43	679	22:38	3	0.974	A BB	5322.	3.013	UG/L	1.52
33	164	689	22:58	3	0.989	A BB	6747.	0.885	UG/L	0.45
34	92	729	24:18	3	1.046	A BB	15127.	1.125	UG/L	0.57
35	112	764	25:28	3	1.096	A BB	16518.	1.042	UG/L	0.53
36	106	826	27:32	3	1.185	A BB	7891.	0.968	UG/L	0.49
37	104	956	31:52	3	1.372	A BB	19077.	1.197	UG/L	0.60
38	106	964	32:08	3	1.383	A BB	15503.	1.711	UG/L	0.86
39	106	997	33:14	3	1.430	A BB	19636.	2.453	UG/L	1.24

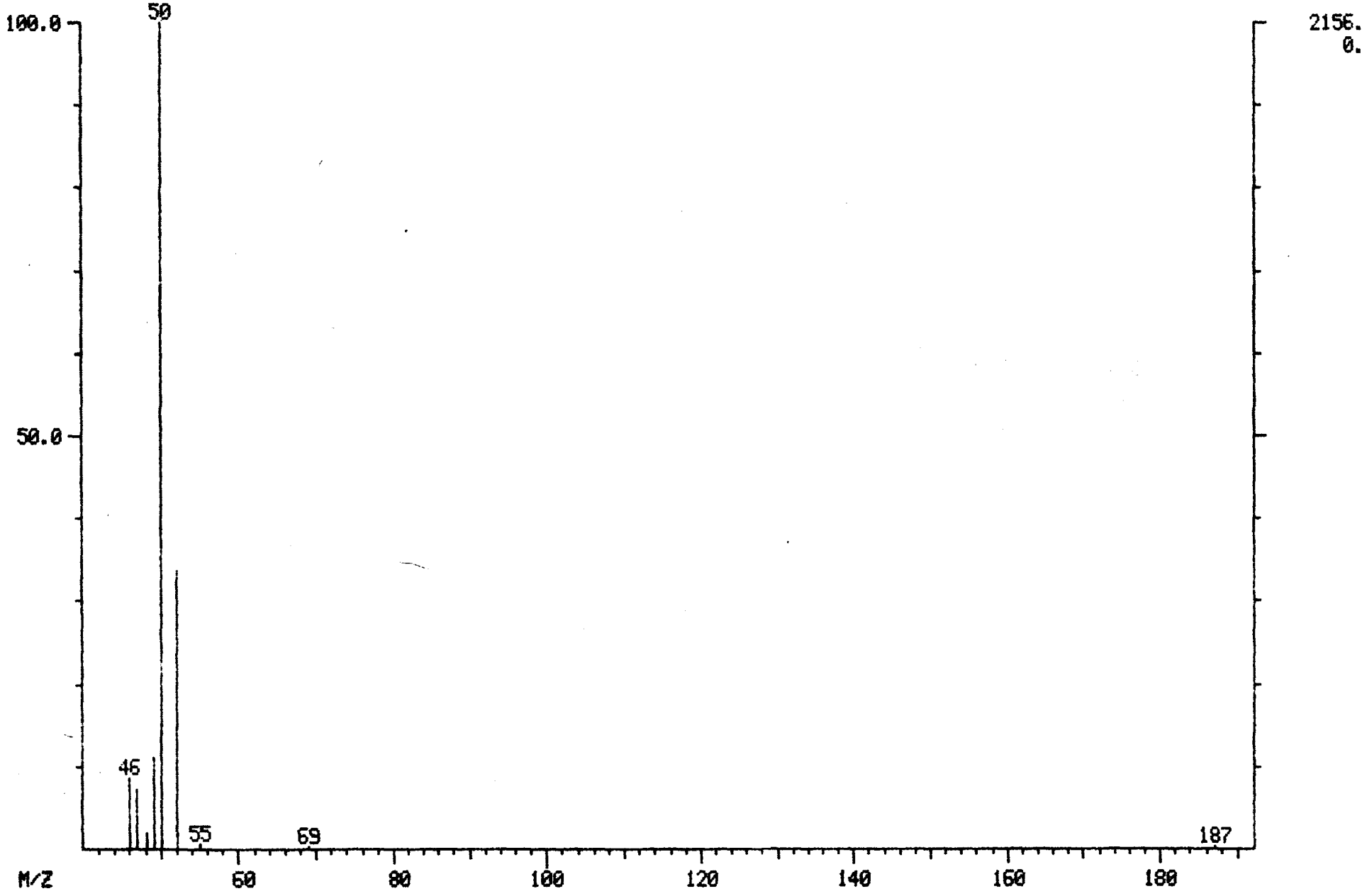
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:00	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:14	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:16	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:46	1.00	1.277	1.00	10.45	10.00	1.962	1.877	1.05
5	17:40	1.00	0.919	1.00	9.52	10.00	1.539	1.617	0.95
6	24:06	1.00	1.036	1.00	9.13	10.00	2.347	2.572	0.91
7	1:42	1.02	0.170	1.02	2.36	20.00	0.175	1.480	0.12
8	2:46	1.00	0.277	1.00	2.28	20.00	0.197	1.728	0.11
9	3:32	1.00	0.353	1.00	2.11	20.00	0.182	1.731	0.11
10	4:34	1.01	0.457	1.01	2.36	20.00	0.162	1.367	0.12
11	6:44	1.00	0.673	1.00	1.17	15.00	0.175	2.247	0.08
12	7:24	1.00	0.740	1.00	50.94	375.00	0.020	0.145	0.14
13	8:06	1.00	0.810	1.01	43.04	375.00	0.018	0.161	0.11
14	9:34	1.00	0.957	1.00	0.96	15.00	0.114	1.778	0.06
15	10:50	1.00	1.083	1.00	1.19	15.00	0.305	3.839	0.08
16	11:34	1.00	1.157	1.00	1.12	15.00	0.143	1.909	0.07
17	12:08	1.00	1.213	1.00	1.37	15.00	0.335	3.671	0.09
18	12:52	1.00	1.287	1.00	1.34	15.00	0.160	1.798	0.09
19	14:10	1.00	0.737	1.00	1.02	15.00	0.051	0.757	0.07

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
20	14:36	1.00	0.759	1.00	0.78	15.00	0.029	0.562	0.05
21	14:44	1.00	0.766	1.00	0.73	37.50	0.008	0.426	0.02
22	15:06	1.00	0.785	1.00	1.06	15.00	0.050	0.702	0.07
23	16:28	1.00	0.856	1.00	1.13	15.00	0.044	0.585	0.08
24	16:42	1.00	0.868	1.00	1.18	18.00	0.049	0.748	0.07
25	17:18	1.00	0.899	1.00	1.18	15.00	0.055	0.700	0.08
26	17:54	1.00	0.931	1.00	0.88	15.00	0.023	0.389	0.06
27	18:00	1.00	0.936	1.00	1.26	15.00	0.025	0.294	0.08
28	17:48	1.00	0.925	1.00	1.19	15.00	0.131	1.656	0.08
29	18:02	1.00	0.938	1.00	0.79	12.00	0.021	0.317	0.07
30	19:06	1.00	0.993	1.00	1.91	15.00	0.020	0.160	0.13
31	21:06	1.00	0.907	1.00	3.09	25.00	0.043	0.347	0.12
32	22:38	1.00	0.973	1.00	3.01	25.00	0.026	0.212	0.12
33	23:00	1.00	0.989	1.00	0.88	15.00	0.054	0.915	0.06
34	24:18	1.00	1.044	1.00	1.12	15.00	0.121	1.614	0.07
35	25:28	1.00	1.095	1.00	1.04	15.00	0.132	1.903	0.07
36	27:34	1.00	1.185	1.00	0.97	15.00	0.063	0.979	0.06
37	31:56	1.00	1.372	1.00	1.20	12.50	0.183	1.912	0.10
38	32:14	1.00	1.385	1.00	1.71	30.00	0.062	1.087	0.06
39	33:18	1.00	1.431	1.00	2.45	37.60	0.063	0.961	0.07

MASS SPECTRUM
12/18/89 18:24:00 + 1:44
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 44 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #52
CALI: MDL1218 #3

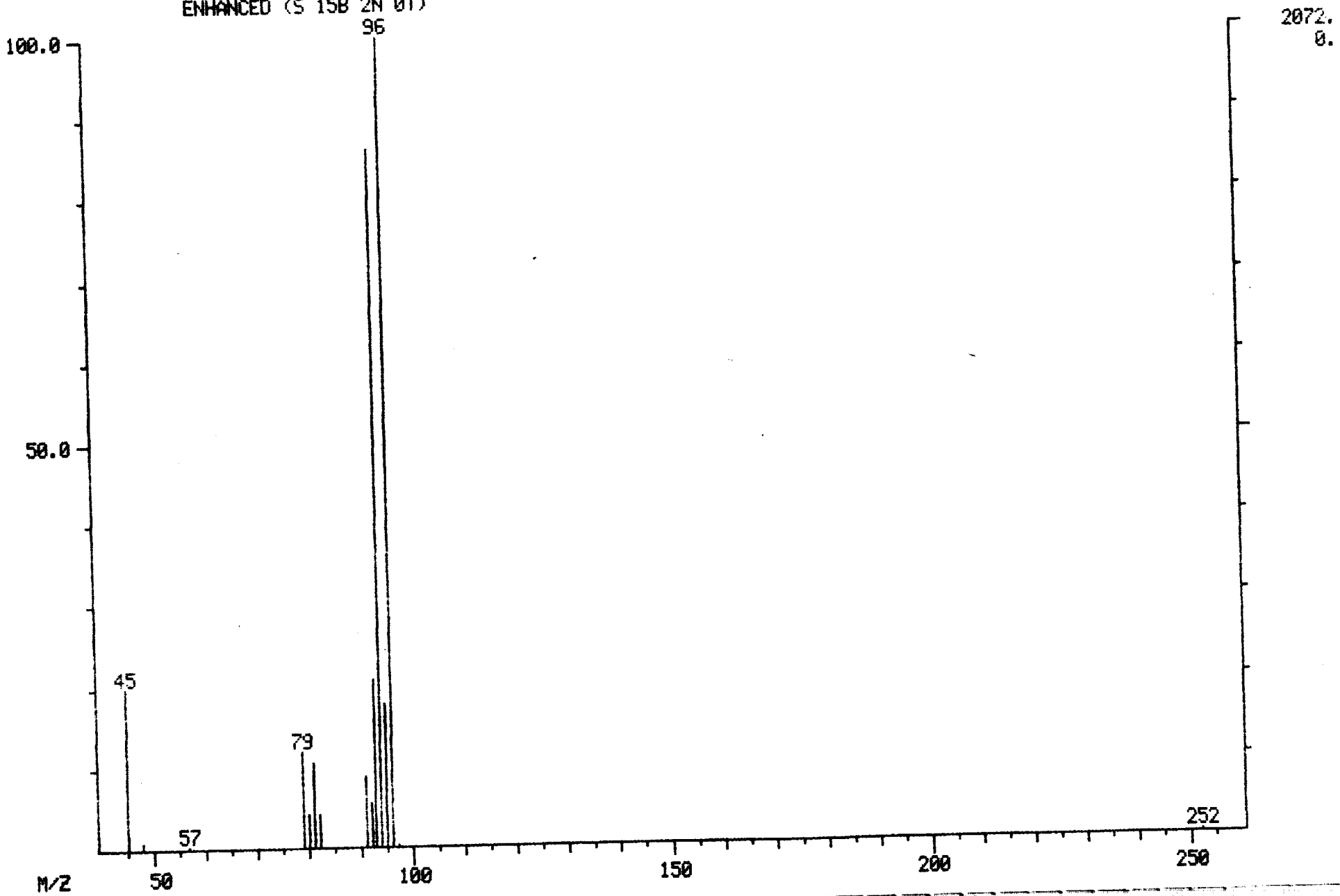
BASE M/Z: 50
RIC: 3524.



MASS SPECTRUM
12/18/89 18:24:00 + 2:46
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 45 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #83
CALI: MDL1218 #3

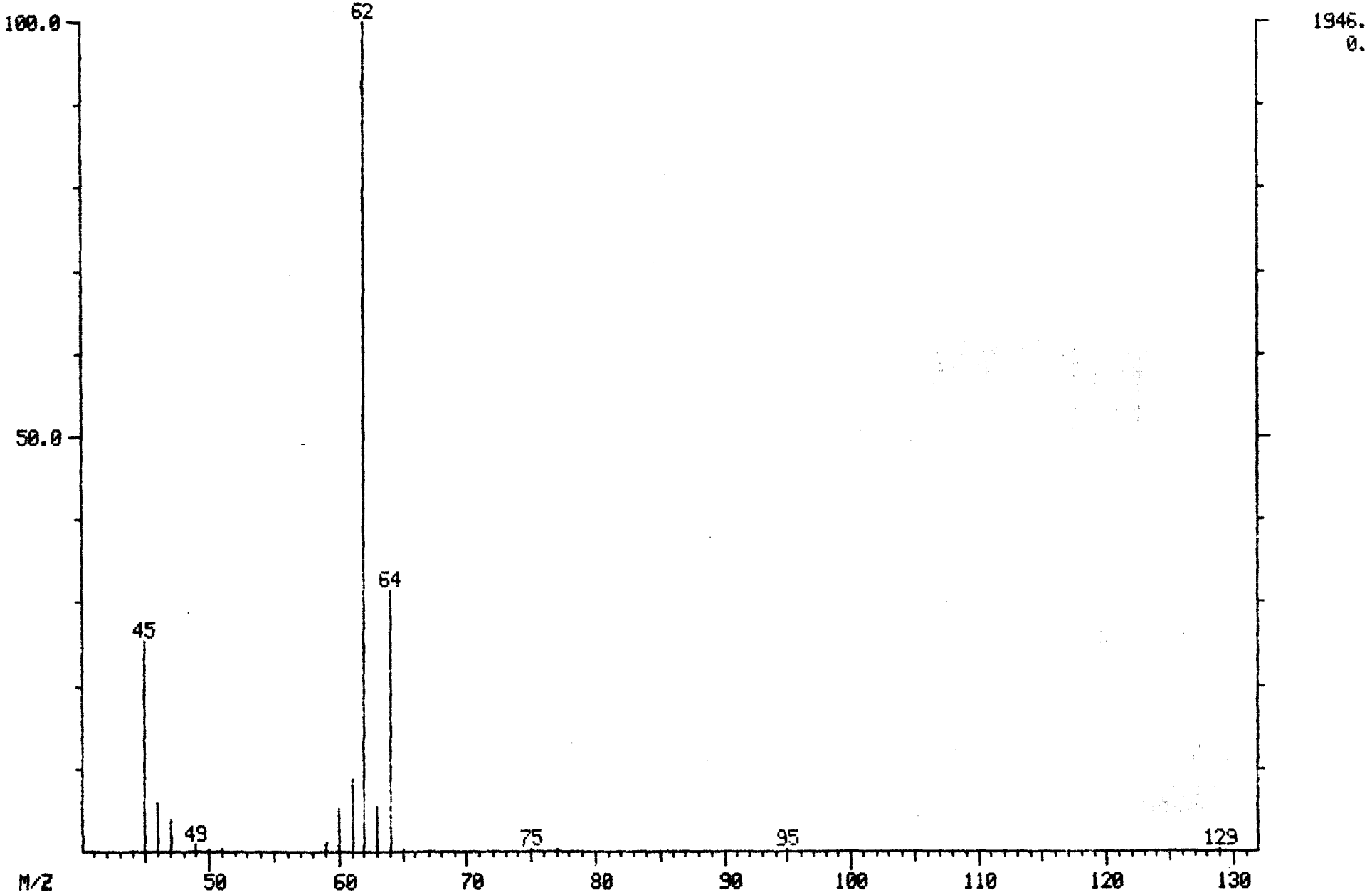
BASE M/Z: 96
RIC: 6032.



MASS SPECTRUM
12/18/89 18:24:00 + 3:32
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 48 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #106
CALI: MDL1218 #3

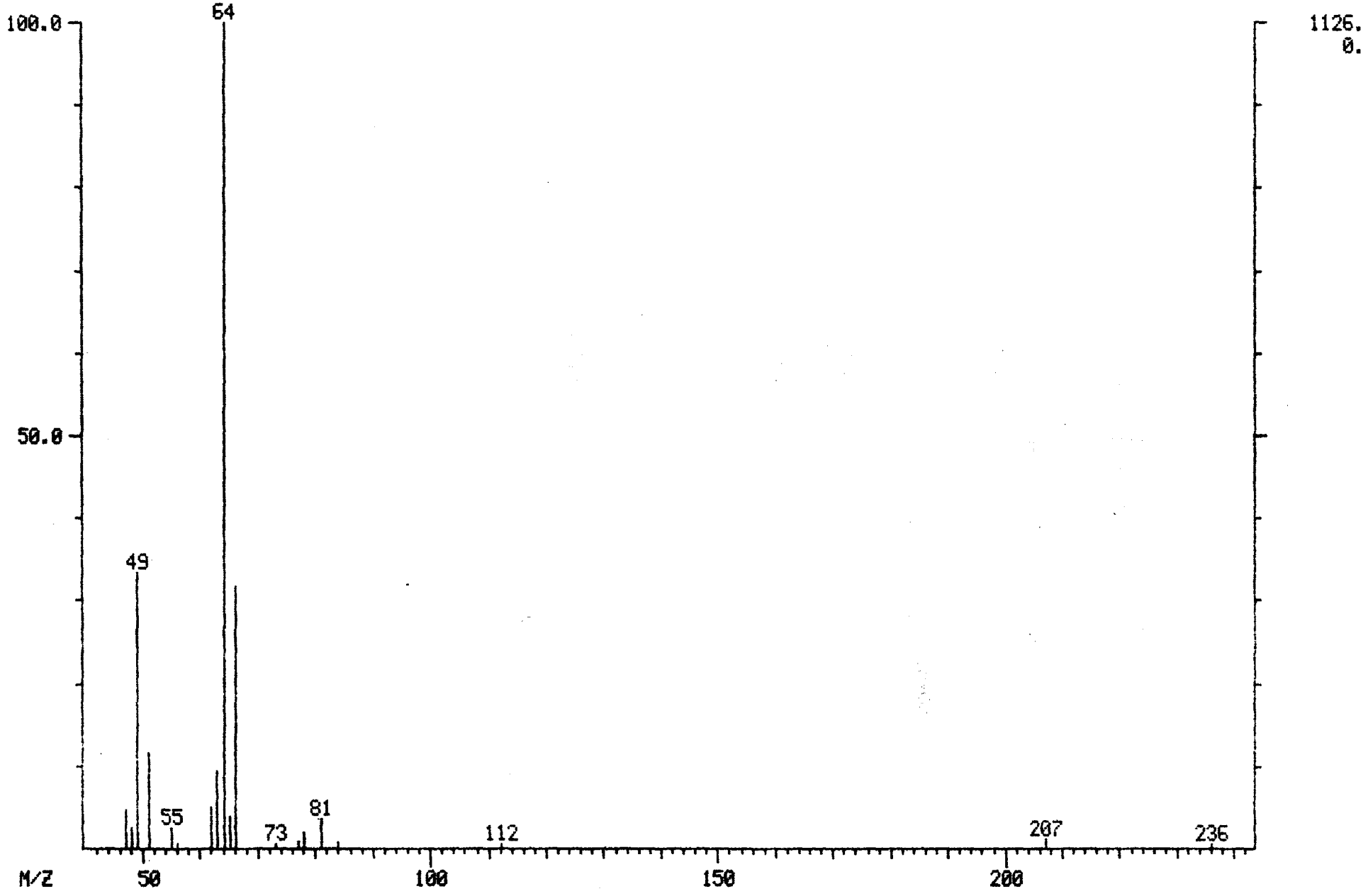
BASE M/Z: 62
RIC: 3700.



MASS SPECTRUM
12/18/89 18:24:00 + 4:36
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 57 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #138
CALI: MDL1218 #3

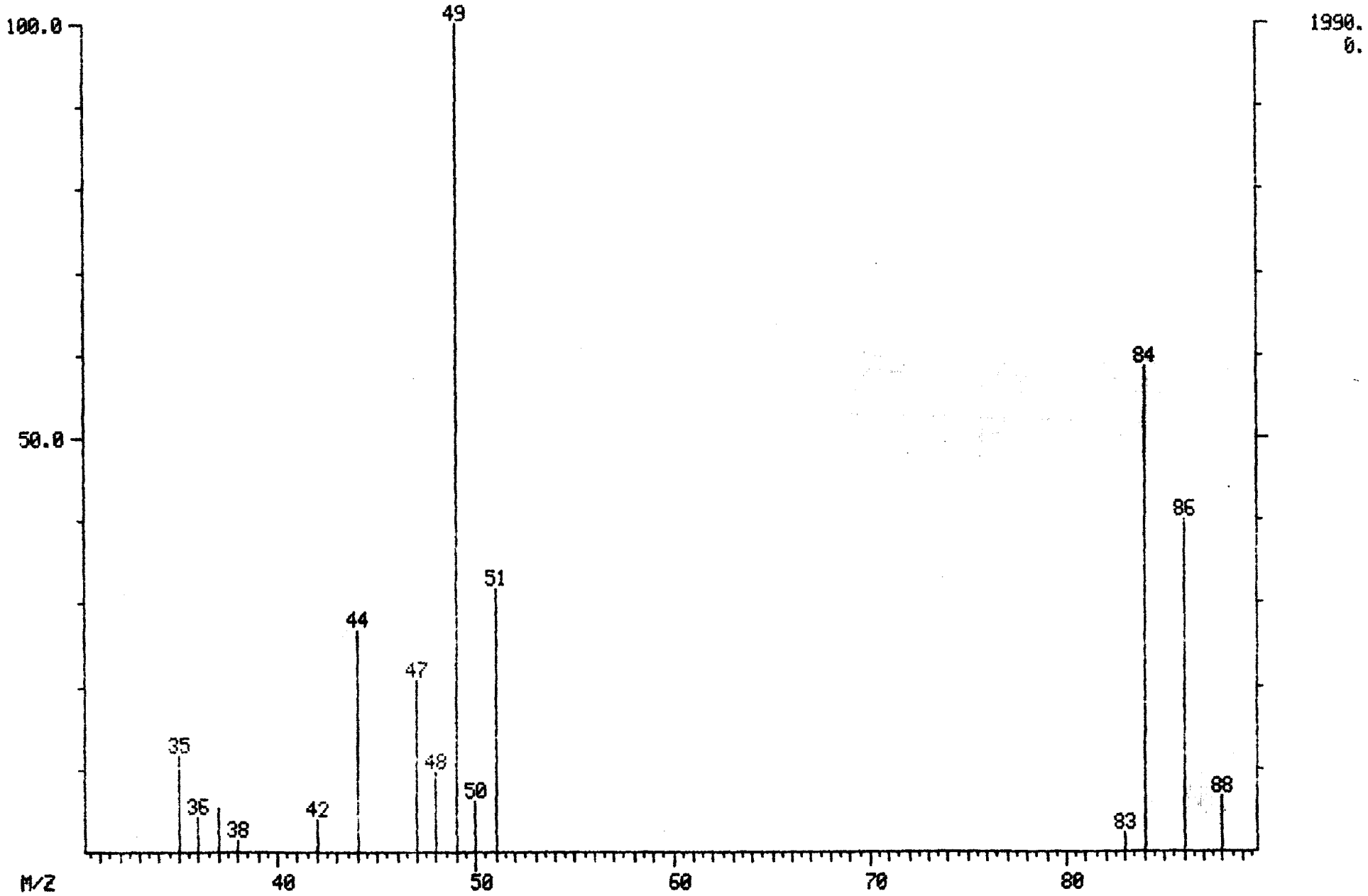
BASE M/Z: 64
RIC: 2412.



MASS SPECTRUM
12/18/89 18:24:00 + 6:44
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 74 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #202
CALI: MDL1218 #3

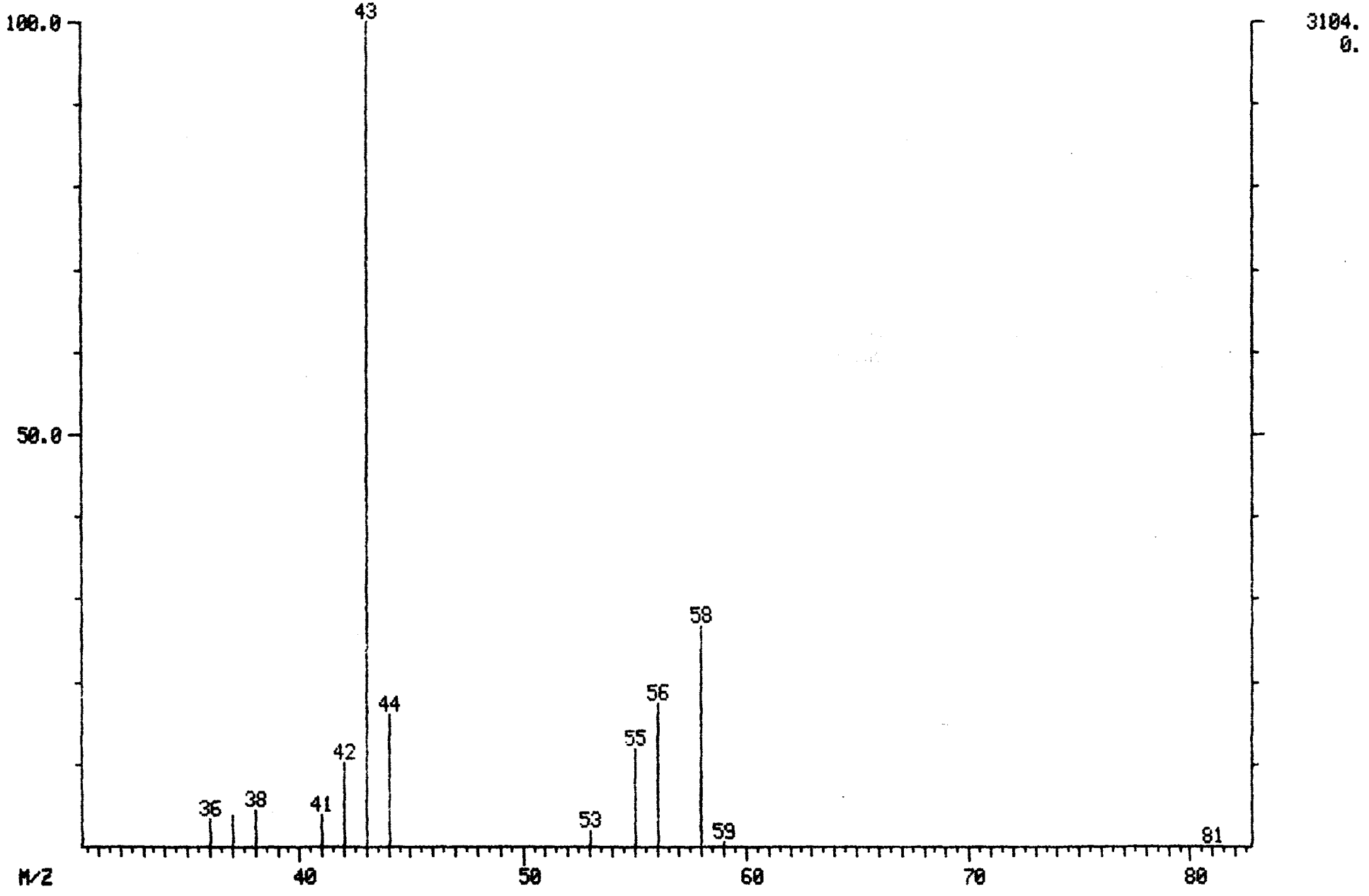
BASE M/Z: 49
RIC: 6544.



MASS SPECTRUM
12/18/89 18:24:00 + 7:24
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 79 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #222
CALI: MDL1218 #3

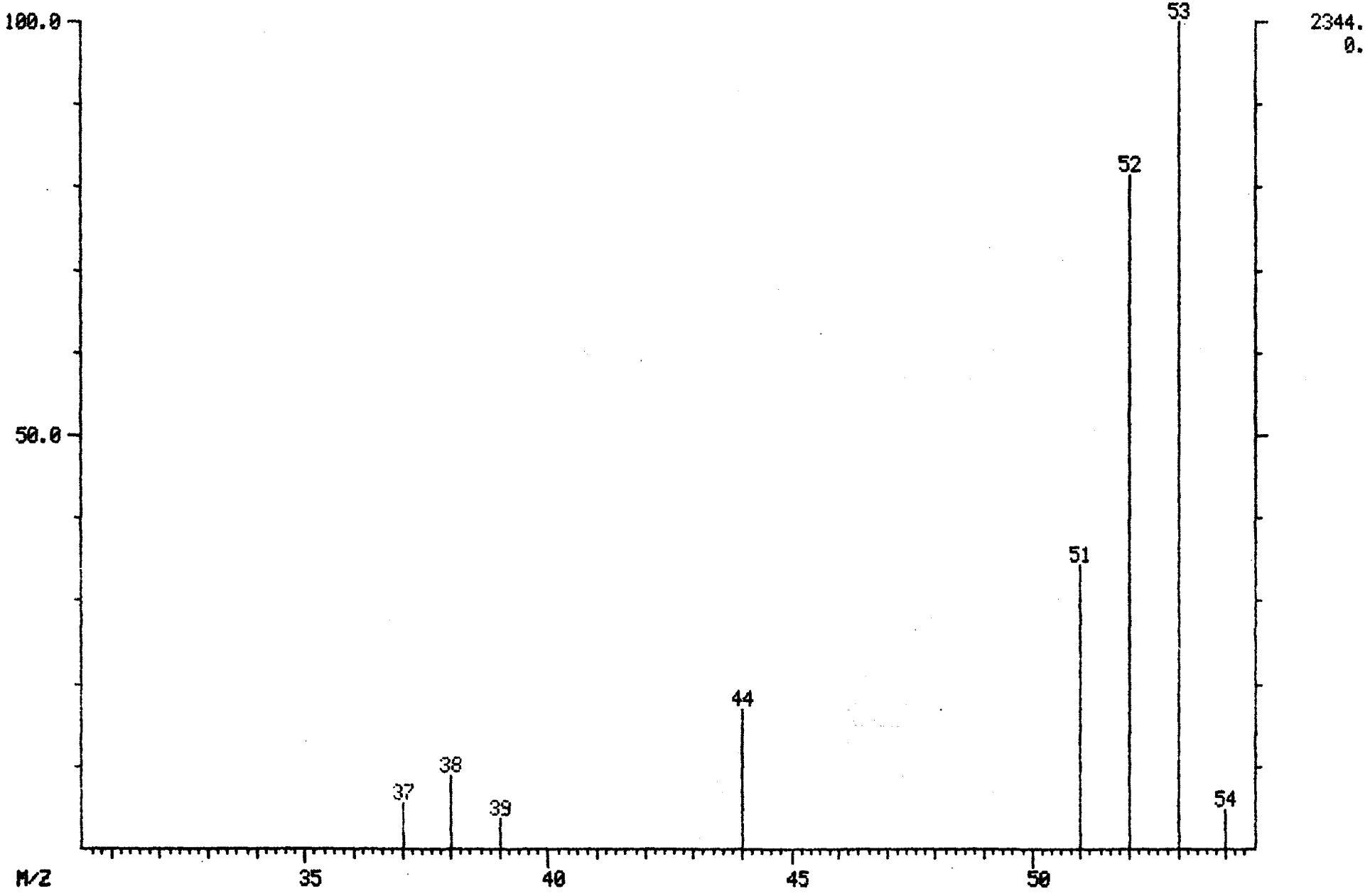
BASE M/Z: 43
RIC: 6232.



MASS SPECTRUM
12/18/89 18:24:00 + 8:08
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 85 DEG. C
ENHANCED (5 15B 2N 0T)

DATA: MDL1218 #244
CALI: MDL1218 #3

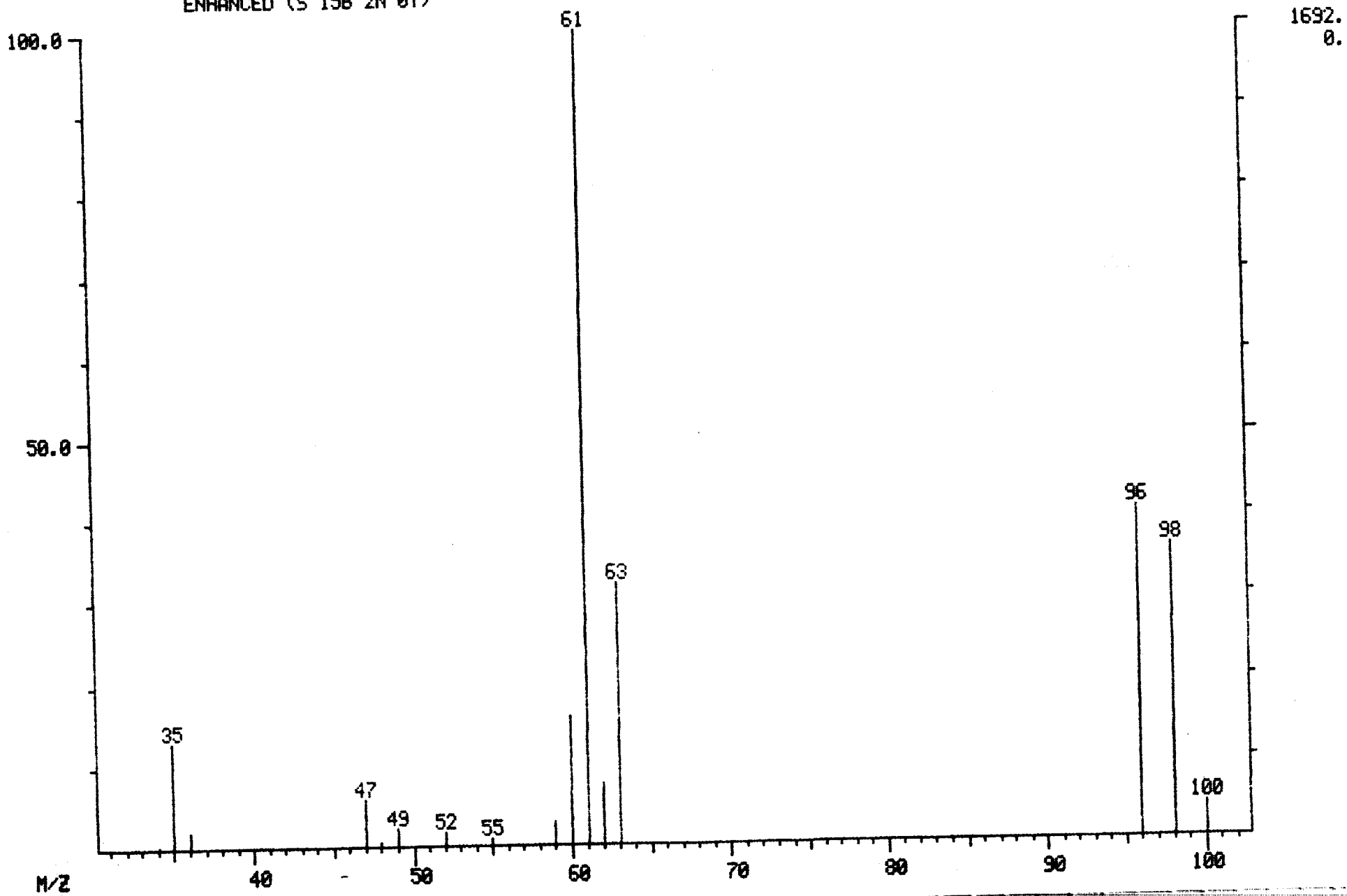
BASE M/Z: 53
RIC: 5984.



MASS SPECTRUM
12/18/89 18:24:00 + 9:34
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 96 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #287
CALI: MDL1218 #3

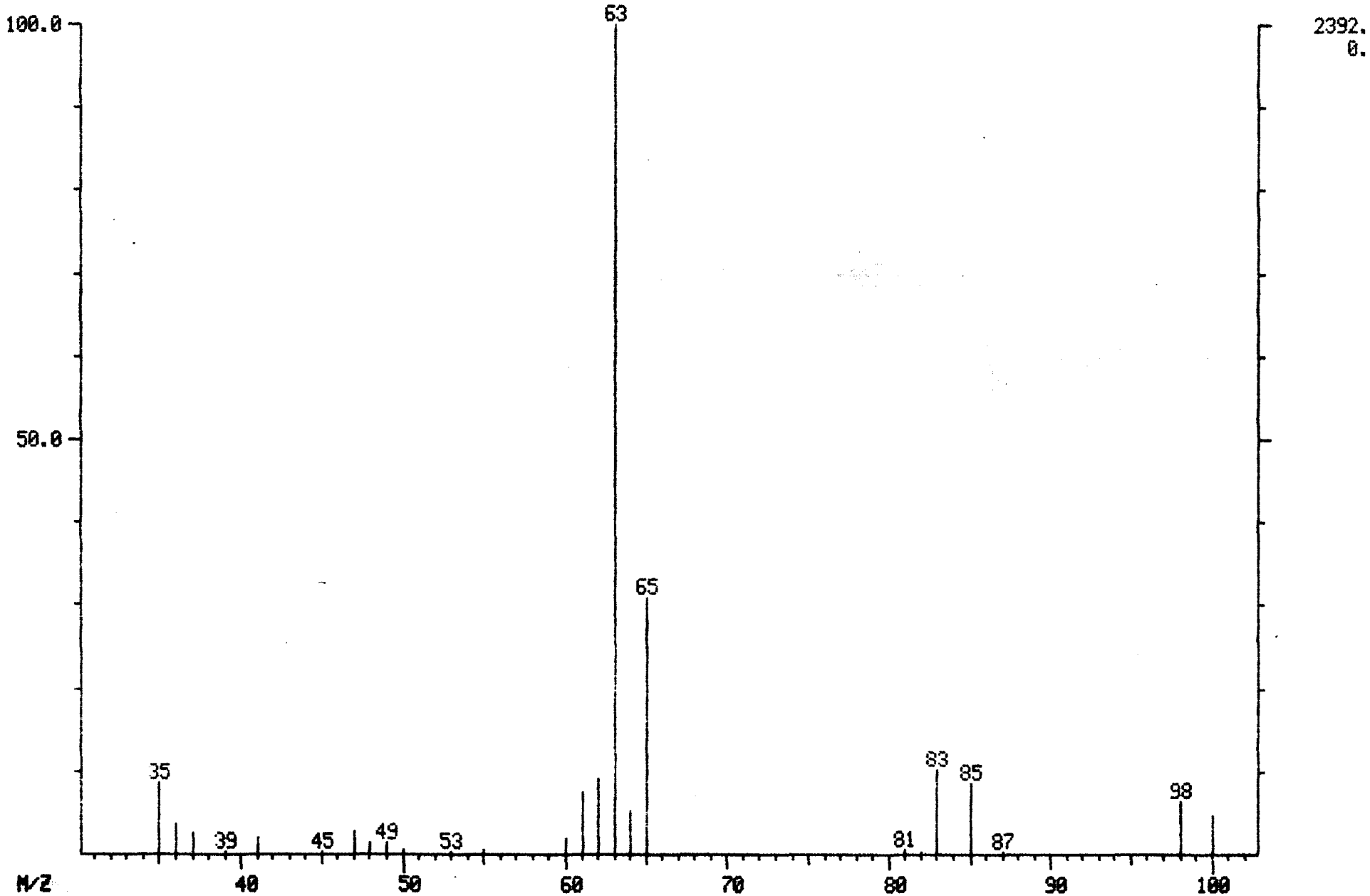
BASE M/Z: 61
RIC: 4480.



MASS SPECTRUM
12/18/89 18:24:00 + 10:48
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 106 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #324
CALI: MDL1218 #3

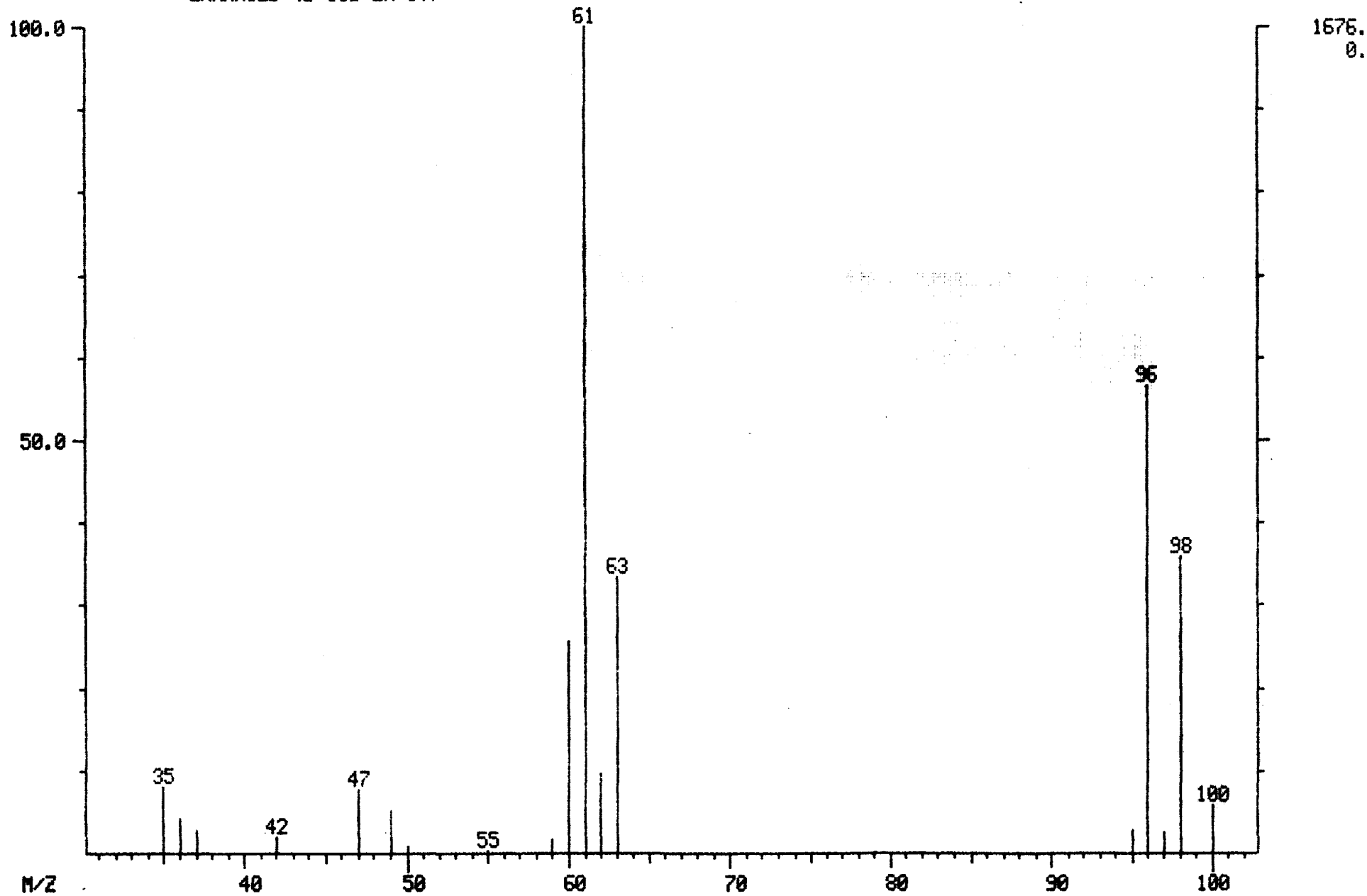
BASE M/Z: 63
RIC: 5024.



MASS SPECTRUM
12/18/89 18:24:00 + 11:34
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 112 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #347
CALI: MDL1218 #3

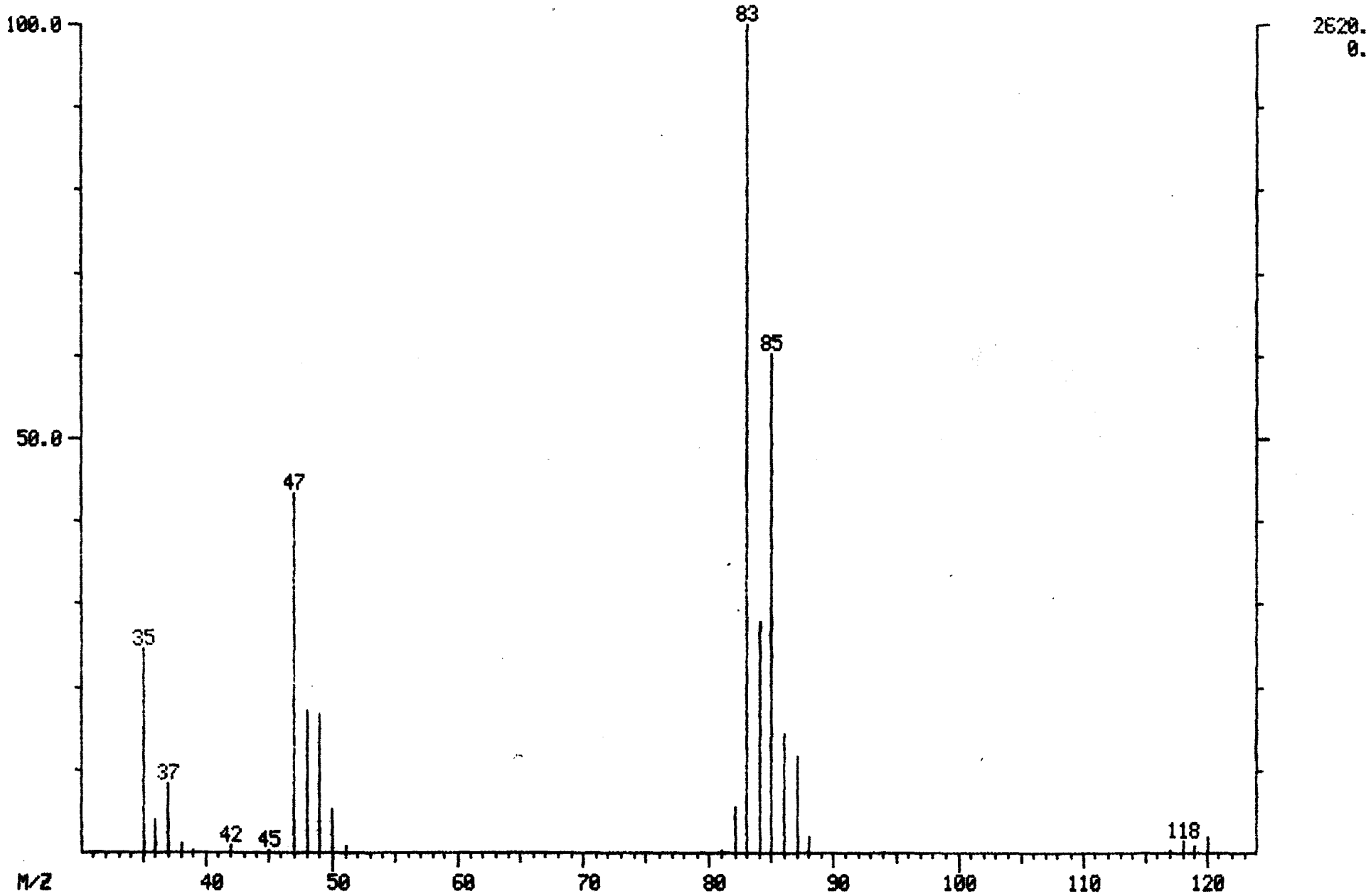
BASE M/Z: 61
RIC: 5104.



MASS SPECTRUM
12/18/89 18:24:00 + 12:06
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 117 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #363
CALI: MDL1218 #3

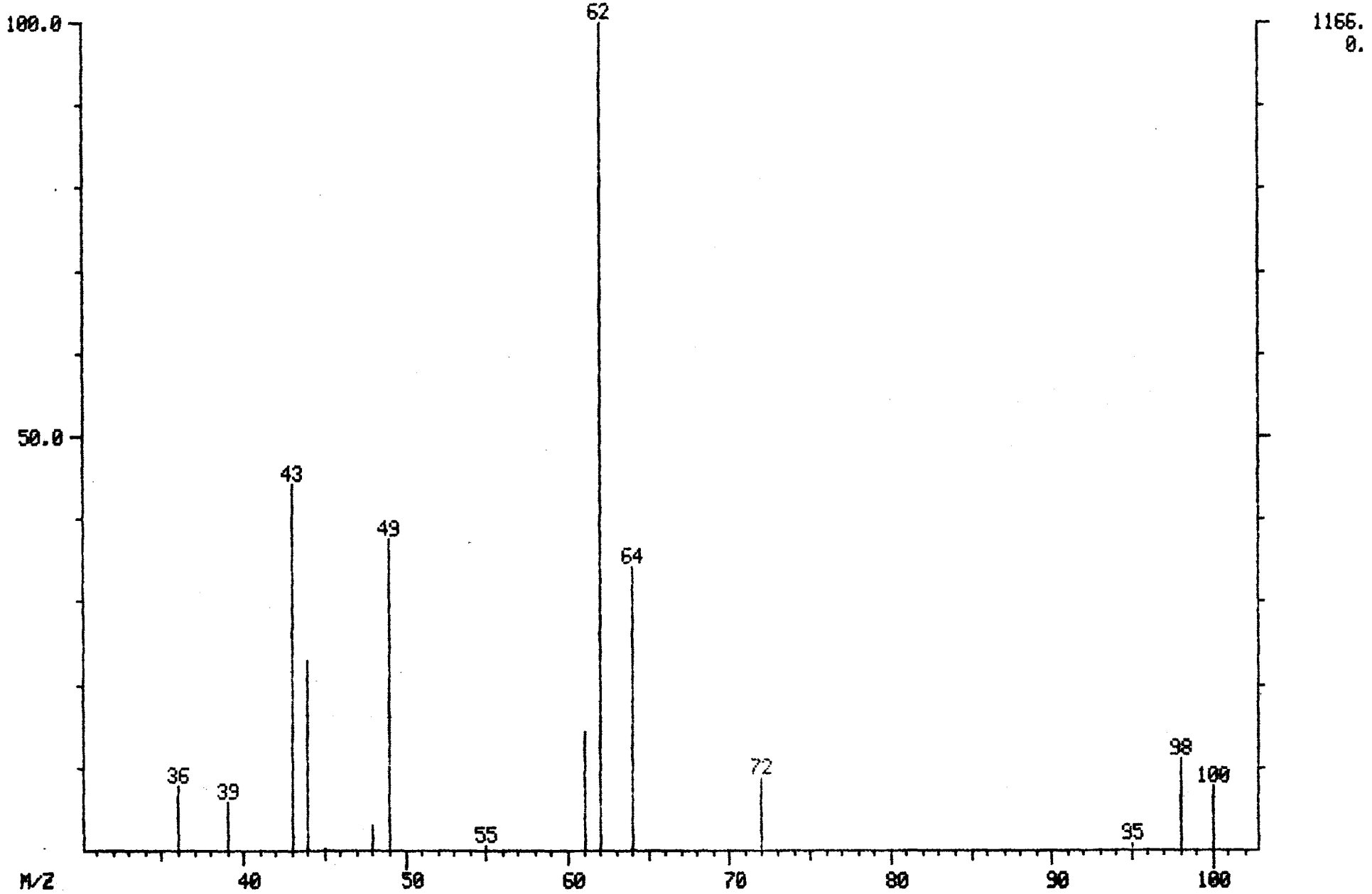
BASE M/Z: 83
RIC: 9152.



MASS SPECTRUM
12/18/89 18:24:00 + 12:52
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 123 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #386
CALI: MDL1218 #3

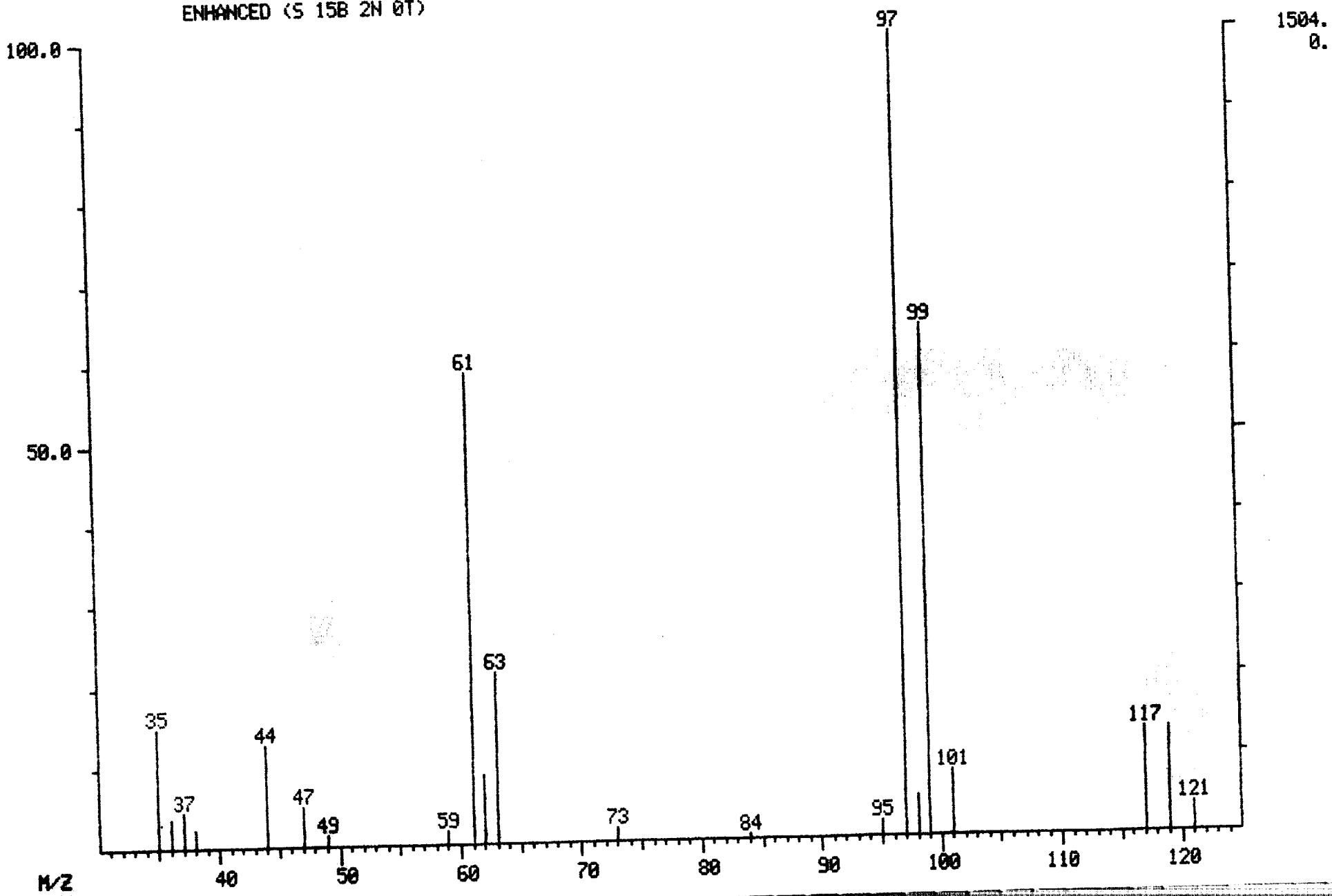
BASE M/Z: 62
RIC: 3496.



MASS SPECTRUM
12/18/89 18:24:00 + 14:08
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 133 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #424
CALI: MDL1218 #3

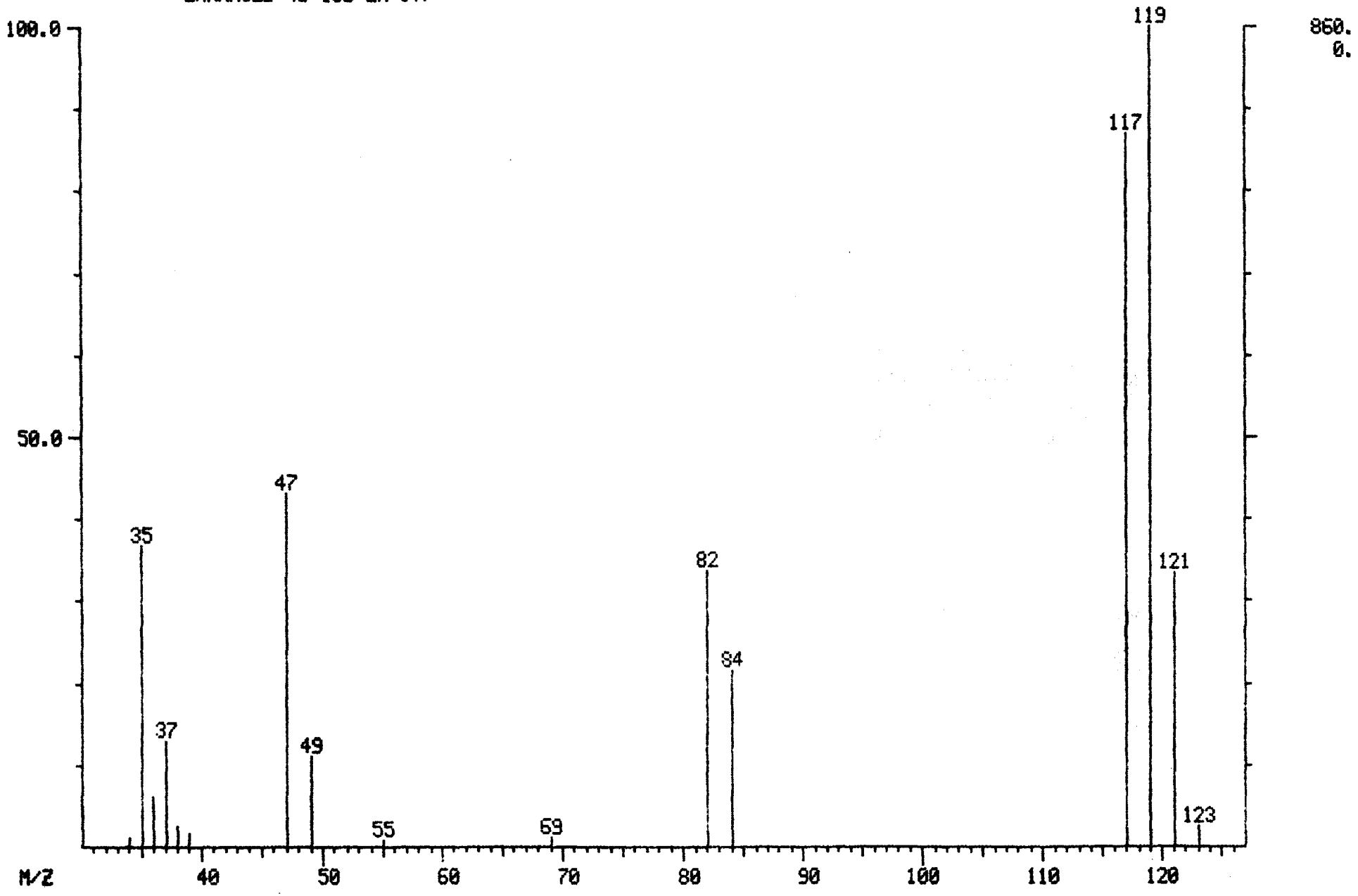
BASE M/Z: 97
RIC: 5168.



MASS SPECTRUM
12/18/89 18:24:00 + 14:34
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 137 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #437
CALI: MDL1218 #3

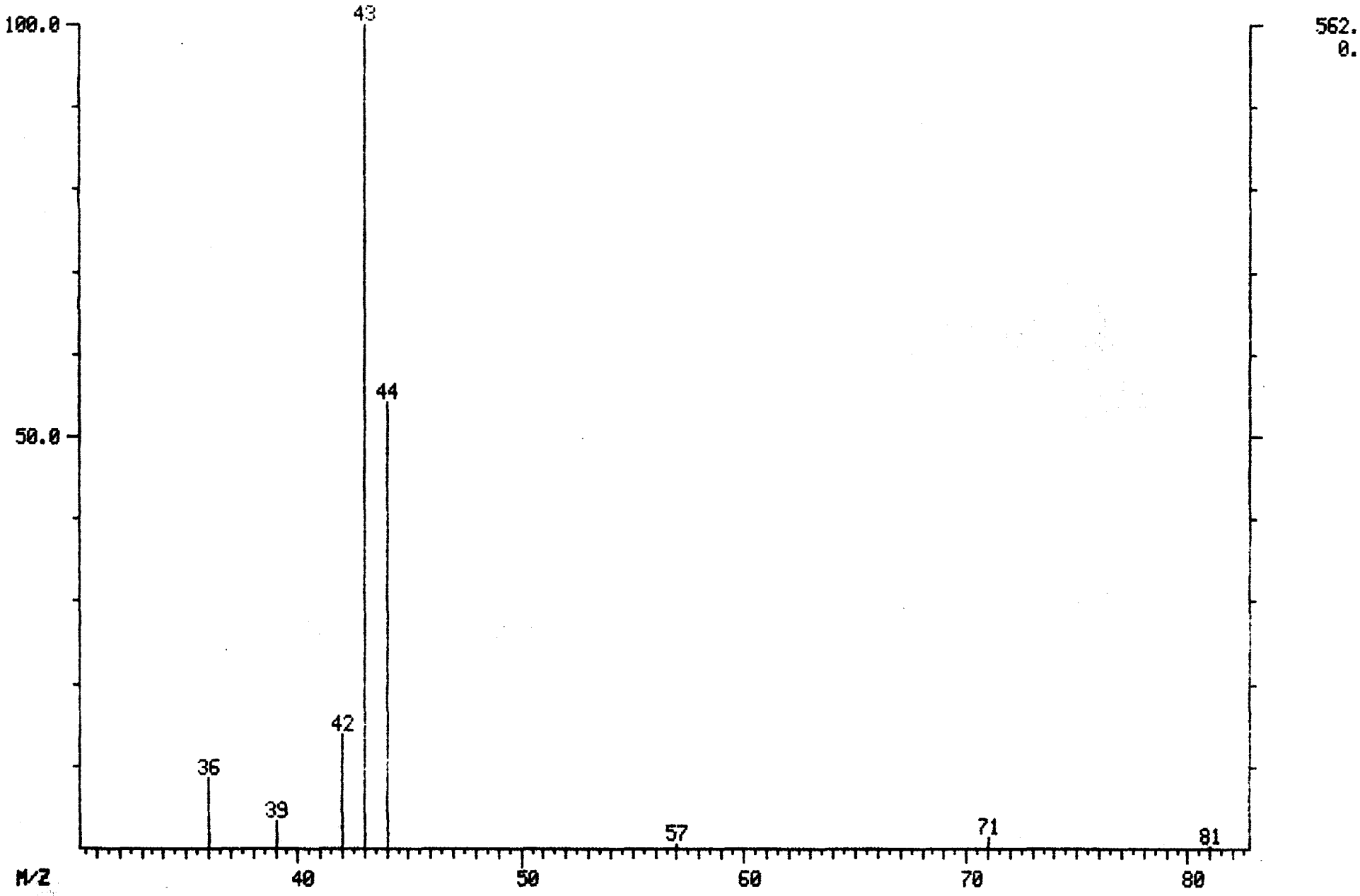
BASE M/Z: 119
RIC: 3404.



MASS SPECTRUM
12/18/89 18:24:00 + 14:42
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 138 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #441
CALI: MDL1218 #3

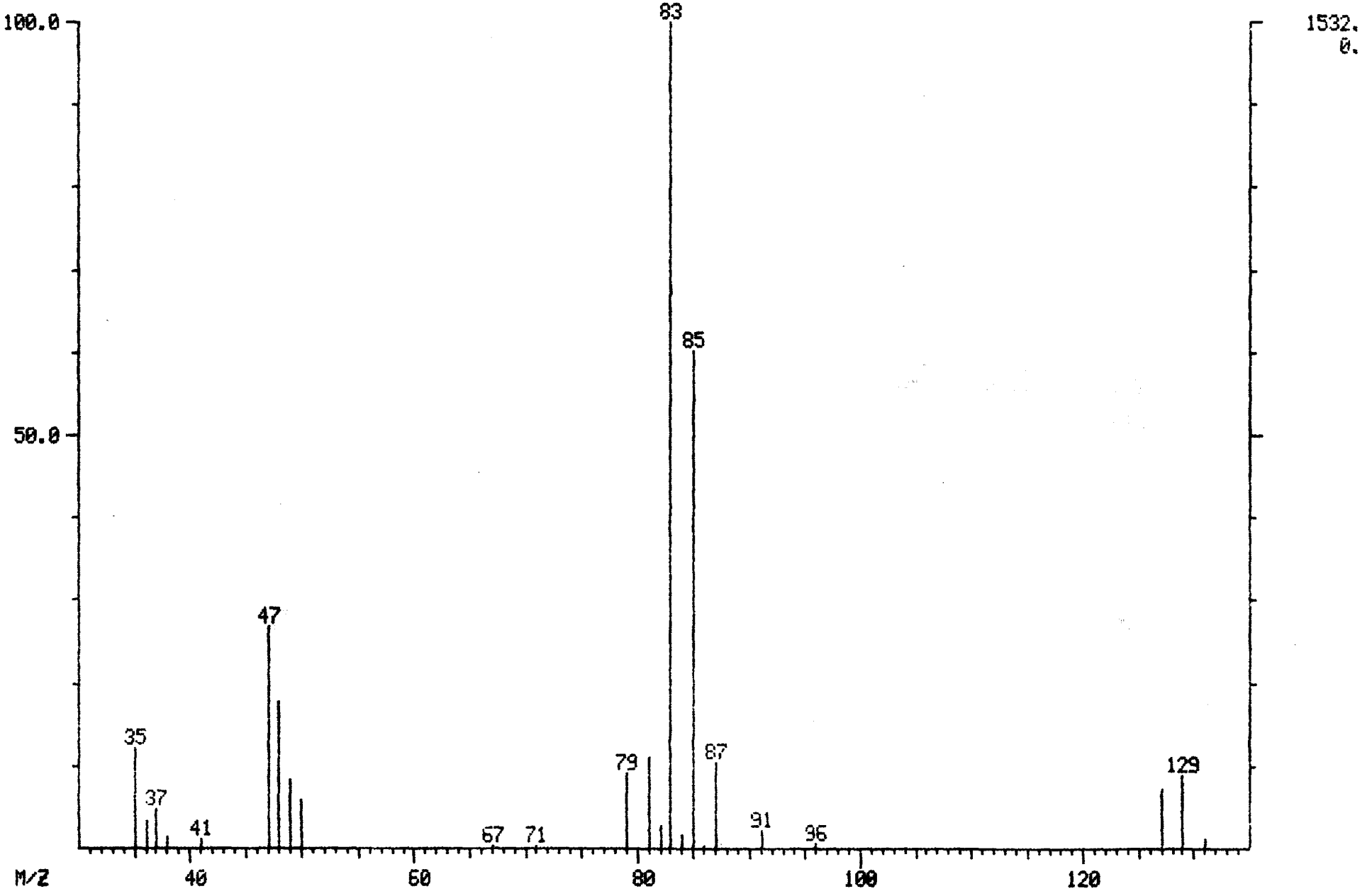
BASE M/Z: 43
RIC: 1026.



MASS SPECTRUM
12/18/89 18:24:00 + 15:04
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 140 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #452
CALI: MDL1218 #3

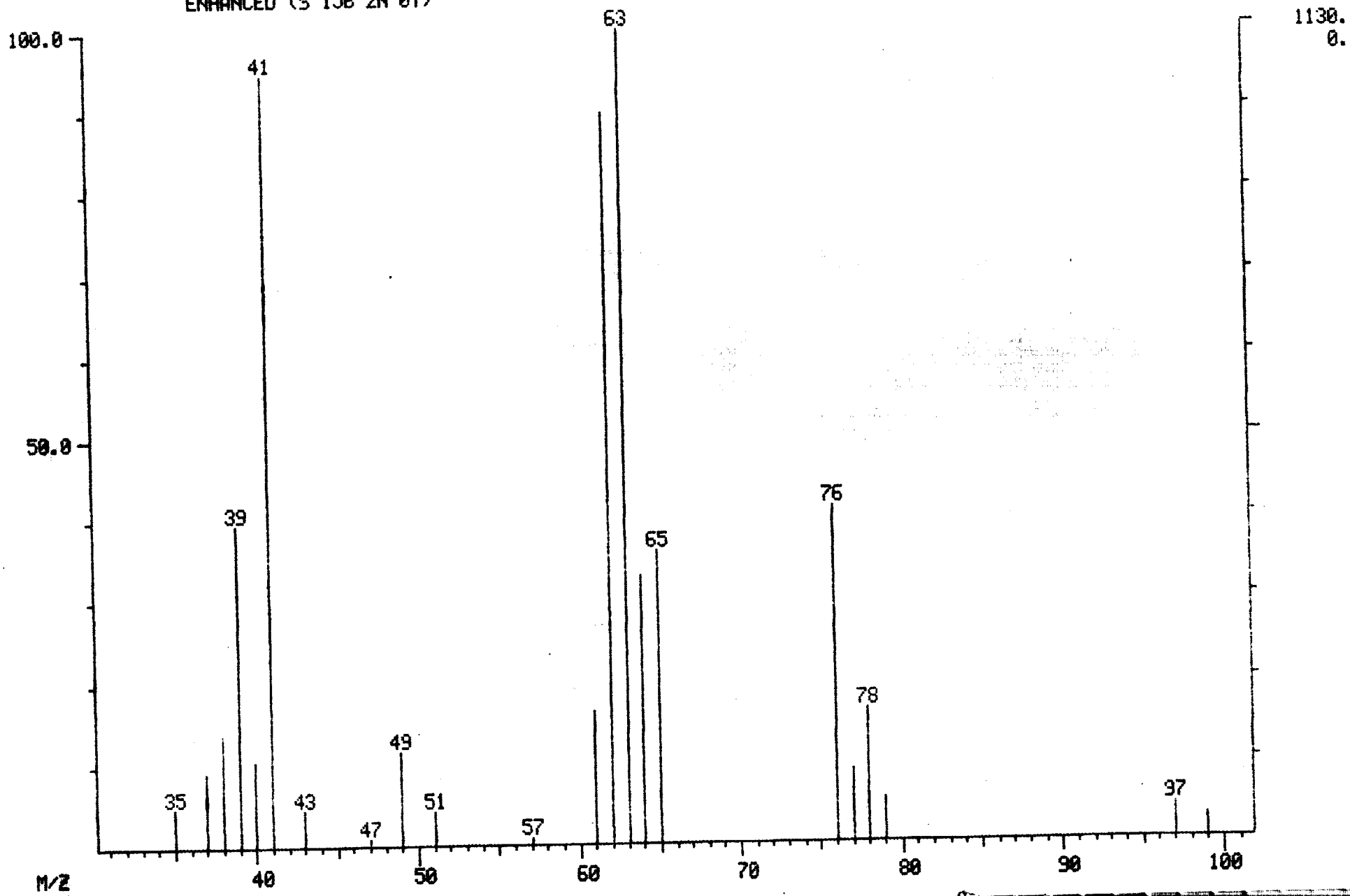
BASE M/Z: 83
RIC: 4568.



MASS SPECTRUM
12/18/89 18:24:00 + 16:26
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 151 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #493
CALI: MDL1218 #3

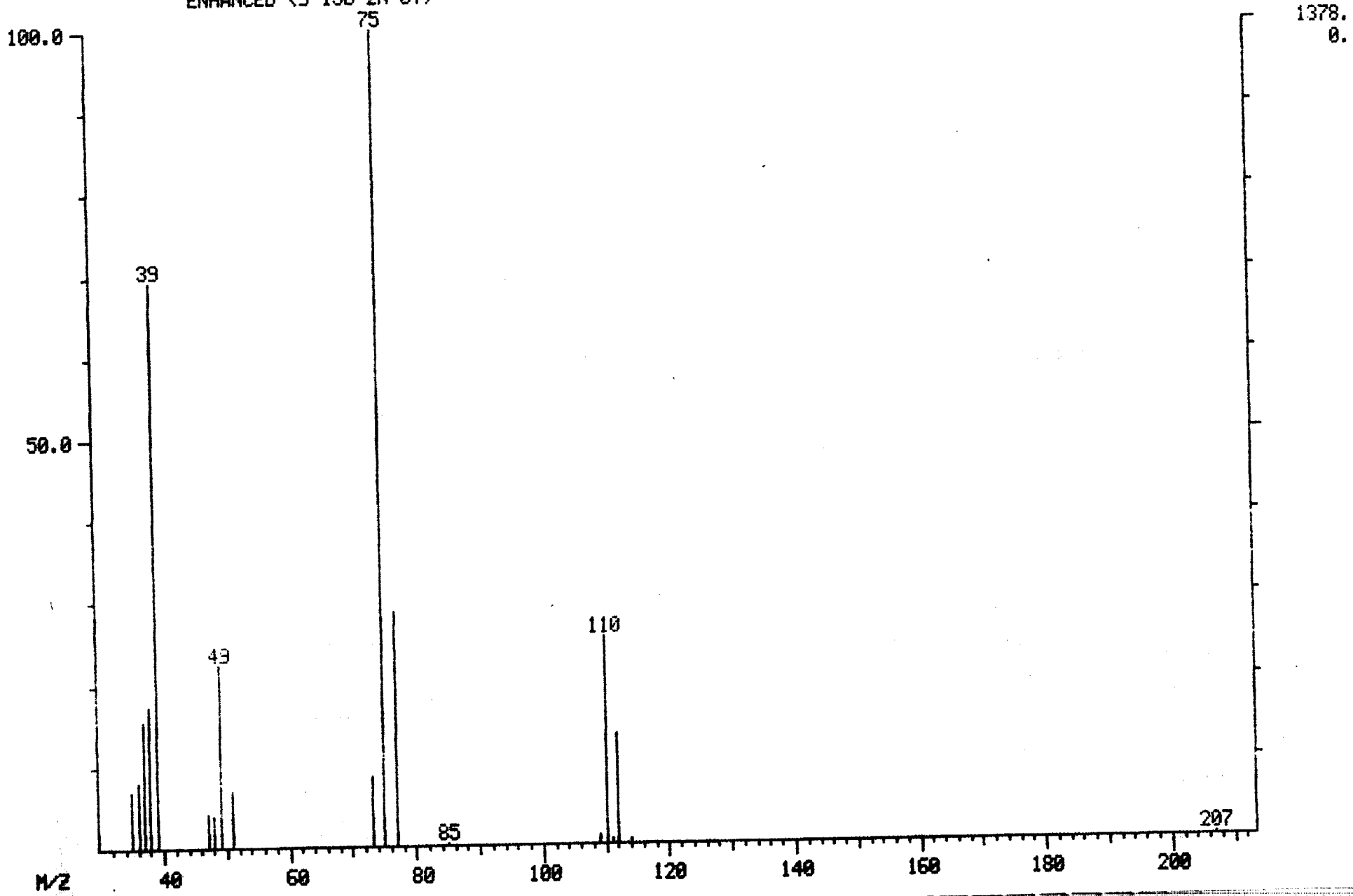
BASE M/Z: 63
RIC: 6200.



MASS SPECTRUM
12/18/89 18:24:00 + 16:42
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 154 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #501
CALI: MDL1218 #3

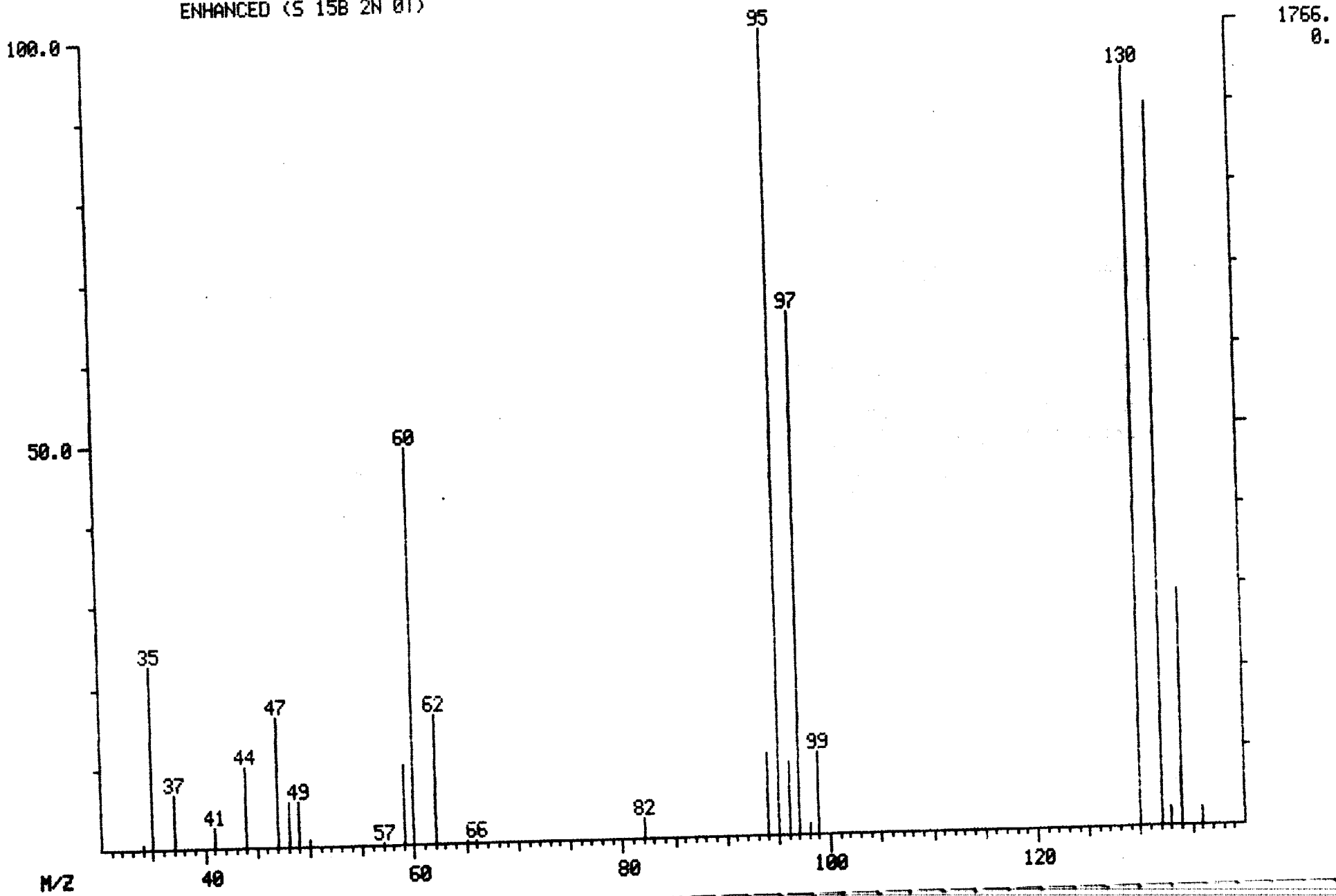
BASE M/Z: 75
RIC: 4608.



MASS SPECTRUM
12/18/89 18:24:00 + 17:16
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 158 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #518
CALI: MDL1218 #3

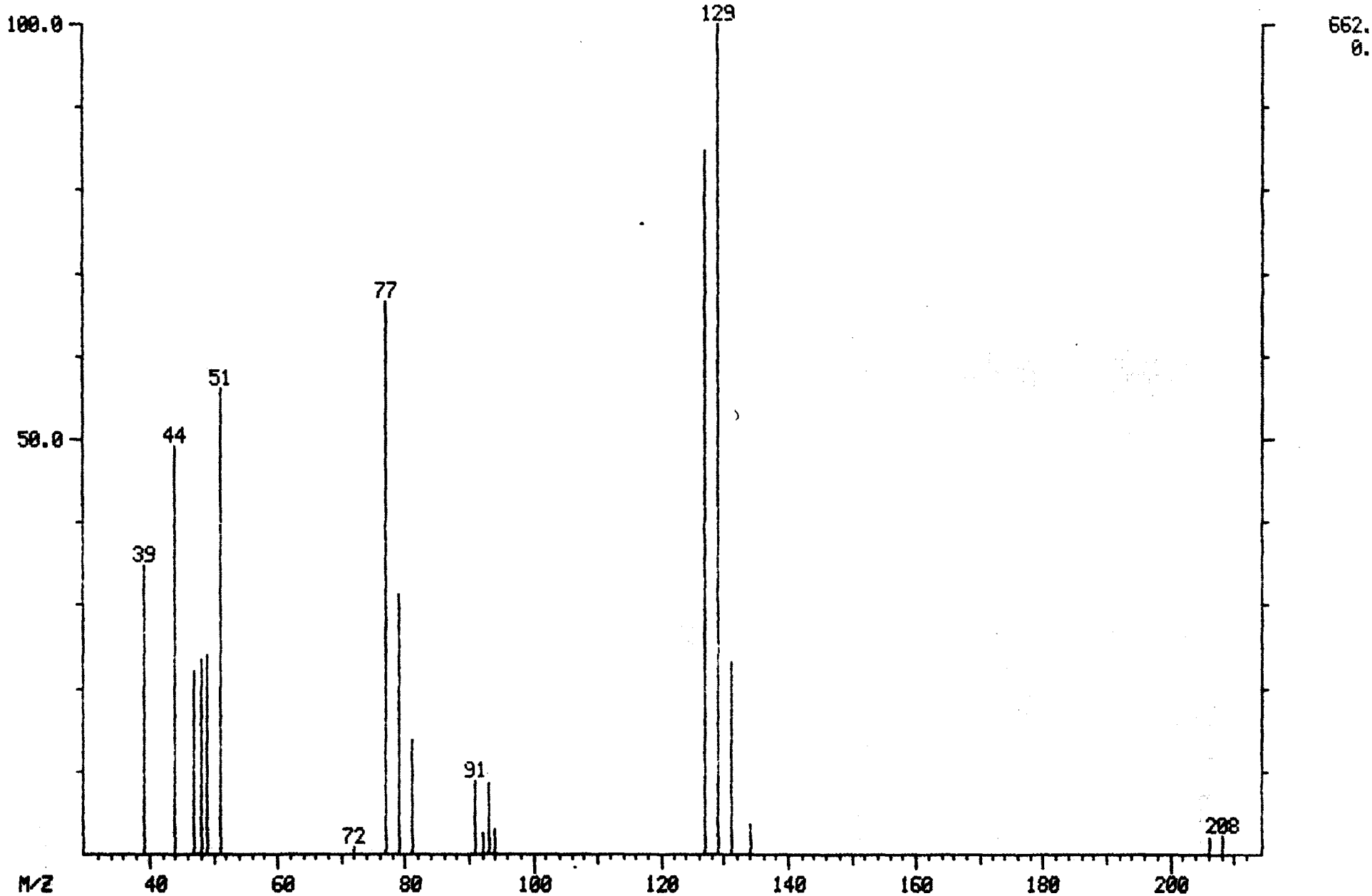
BASE M/Z: 95
RIC: 9920.



MASS SPECTRUM
12/18/89 18:24:00 + 17:52
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 163 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #536
CALI: MDL1218 #3

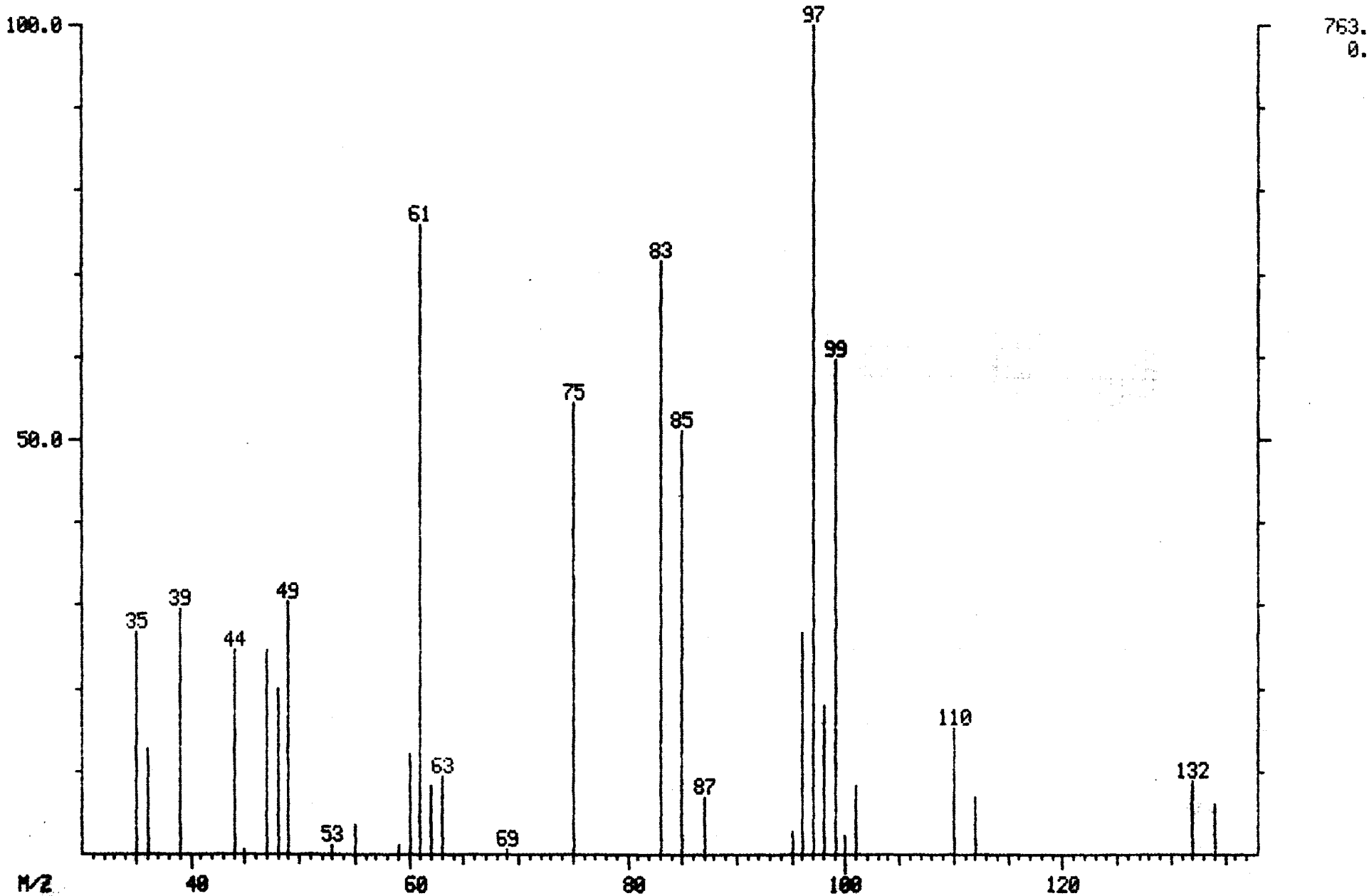
BASE M/Z: 129
RIC: 3720.



MASS SPECTRUM
12/18/89 18:24:00 + 17:58
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 164 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #539
CALI: MDL1218 #3

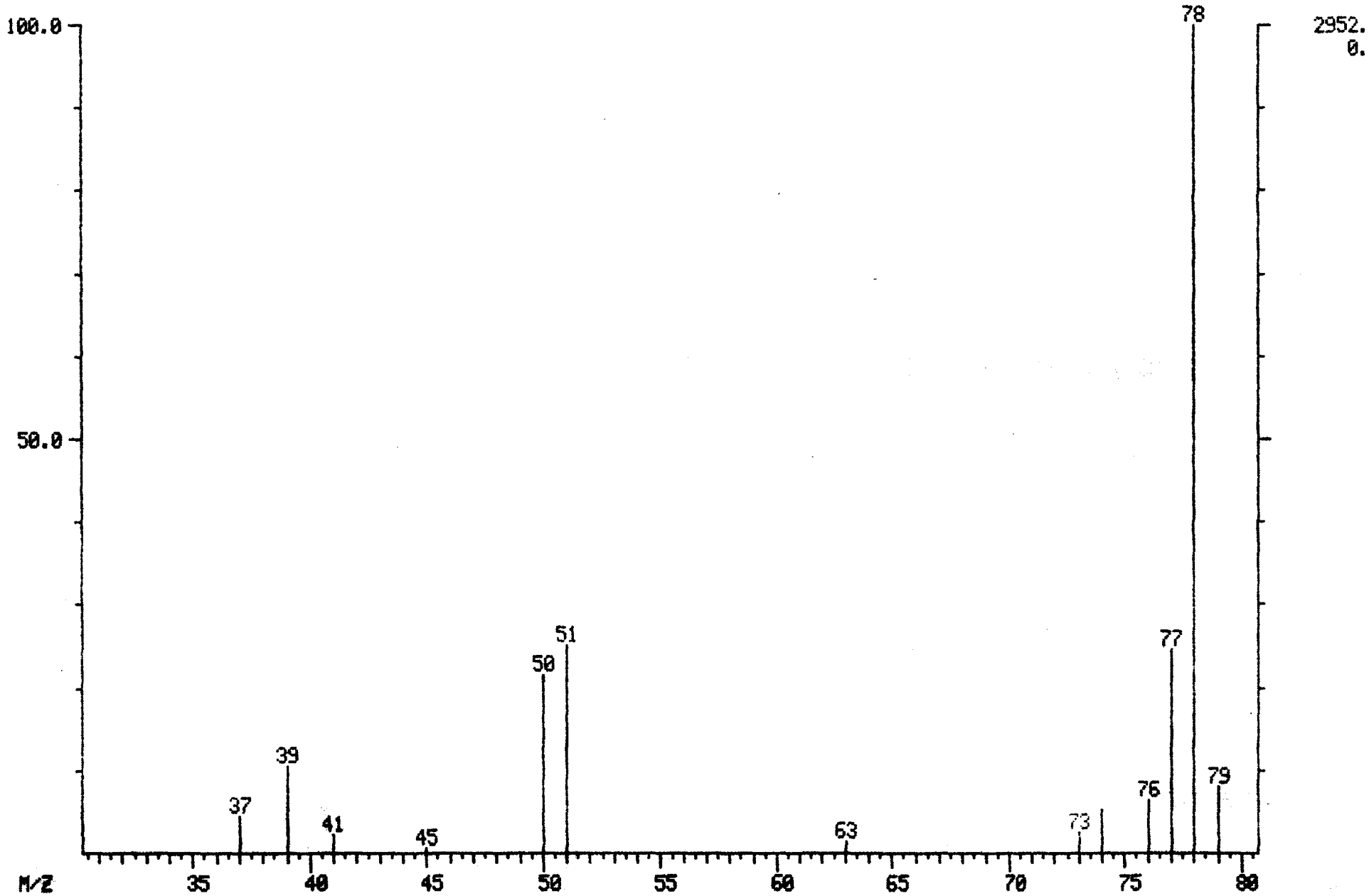
BASE M/Z: 97
RIC: 5512.



MASS SPECTRUM
12/18/89 18:24:00 + 17:46
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 162 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #533
CALI: MDL1218 #3

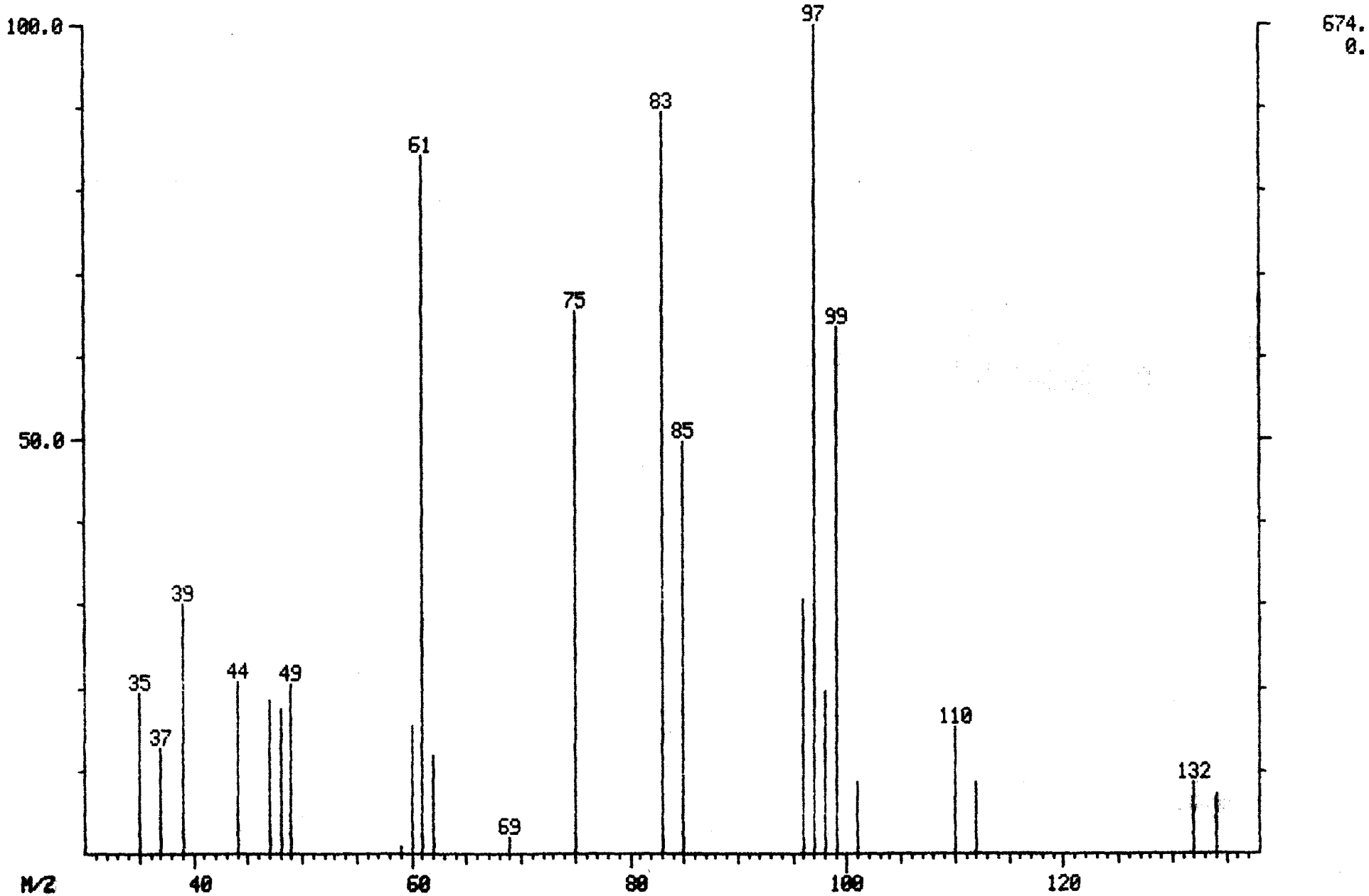
BASE M/Z: 78
RIC: 6280.



MASS SPECTRUM
12/18/89 18:24:00 + 18:00
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 164 DEG. C
ENHANCED (5 15B 2N 0T)

DATA: MDL1218 #540
CALI: MDL1218 #3

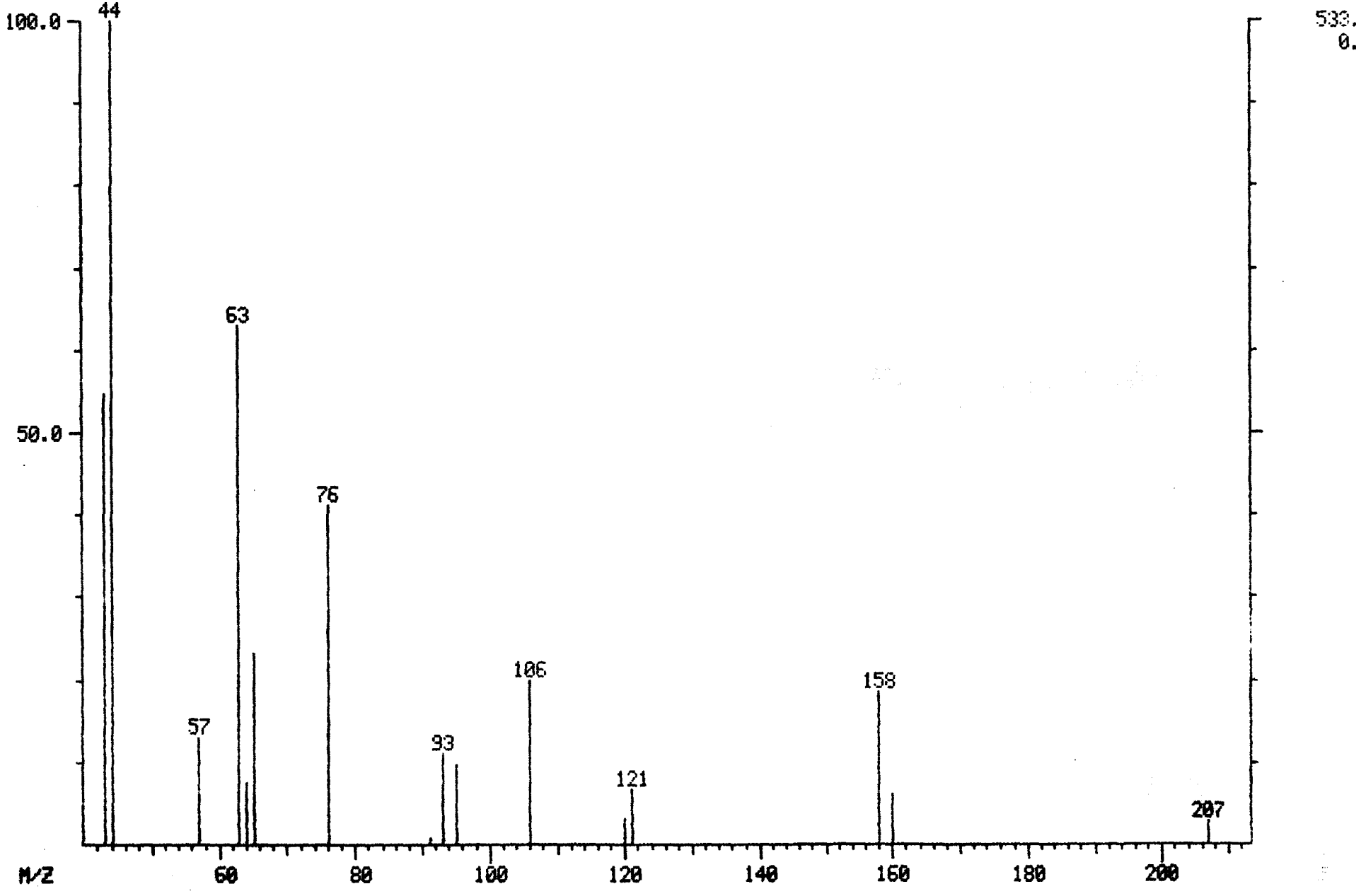
BASE M/Z: 97
RIC: 4856.



MASS SPECTRUM
12/18/89 18:24:00 + 19:06
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 173 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #573
CALI: MDL1218 #3

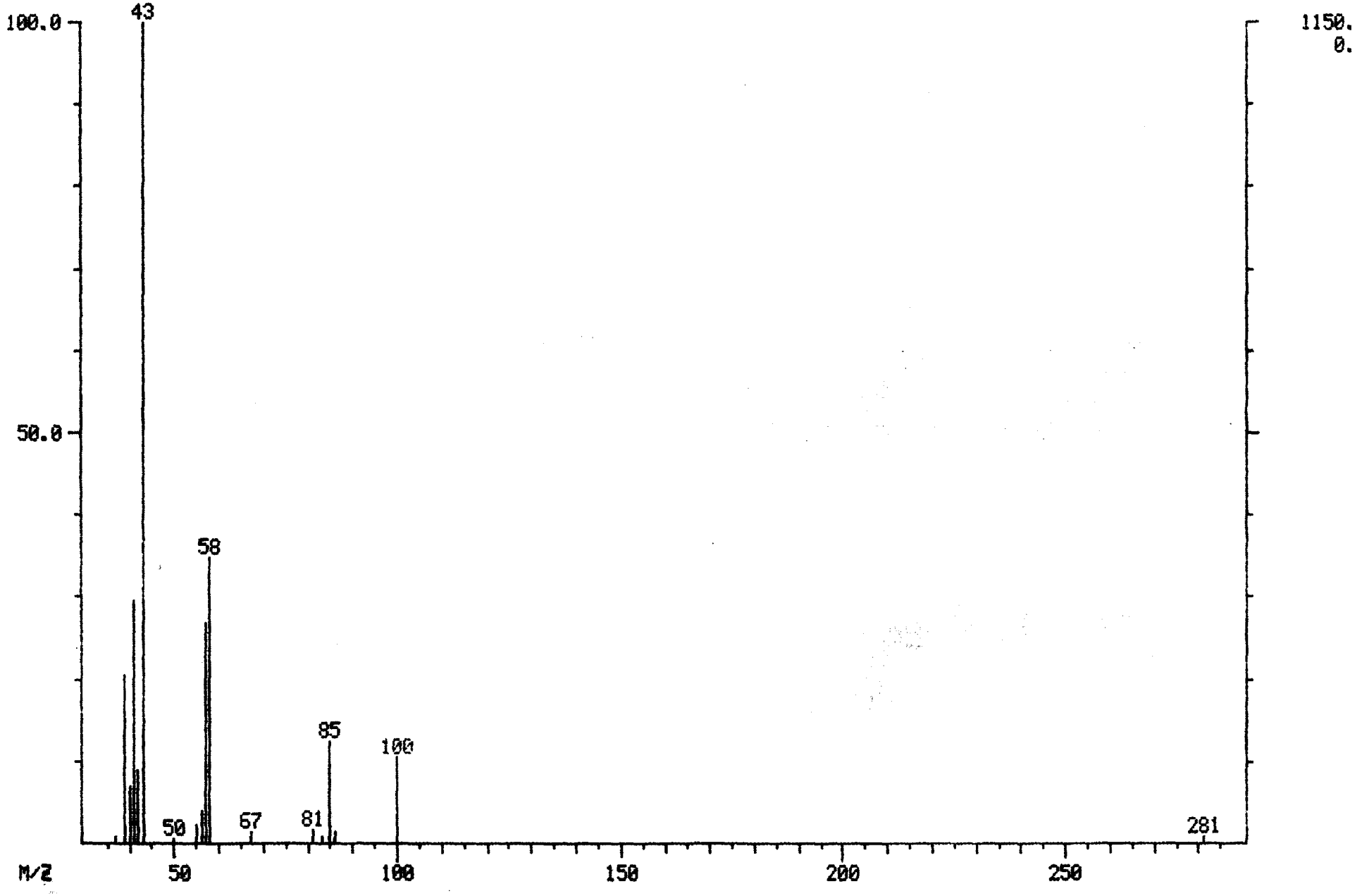
BASE M/Z: 44
RIC: 2038.



MASS SPECTRUM
12/18/89 18:24:00 + 21:02
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 188 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #631
CALI: MDL1218 #3

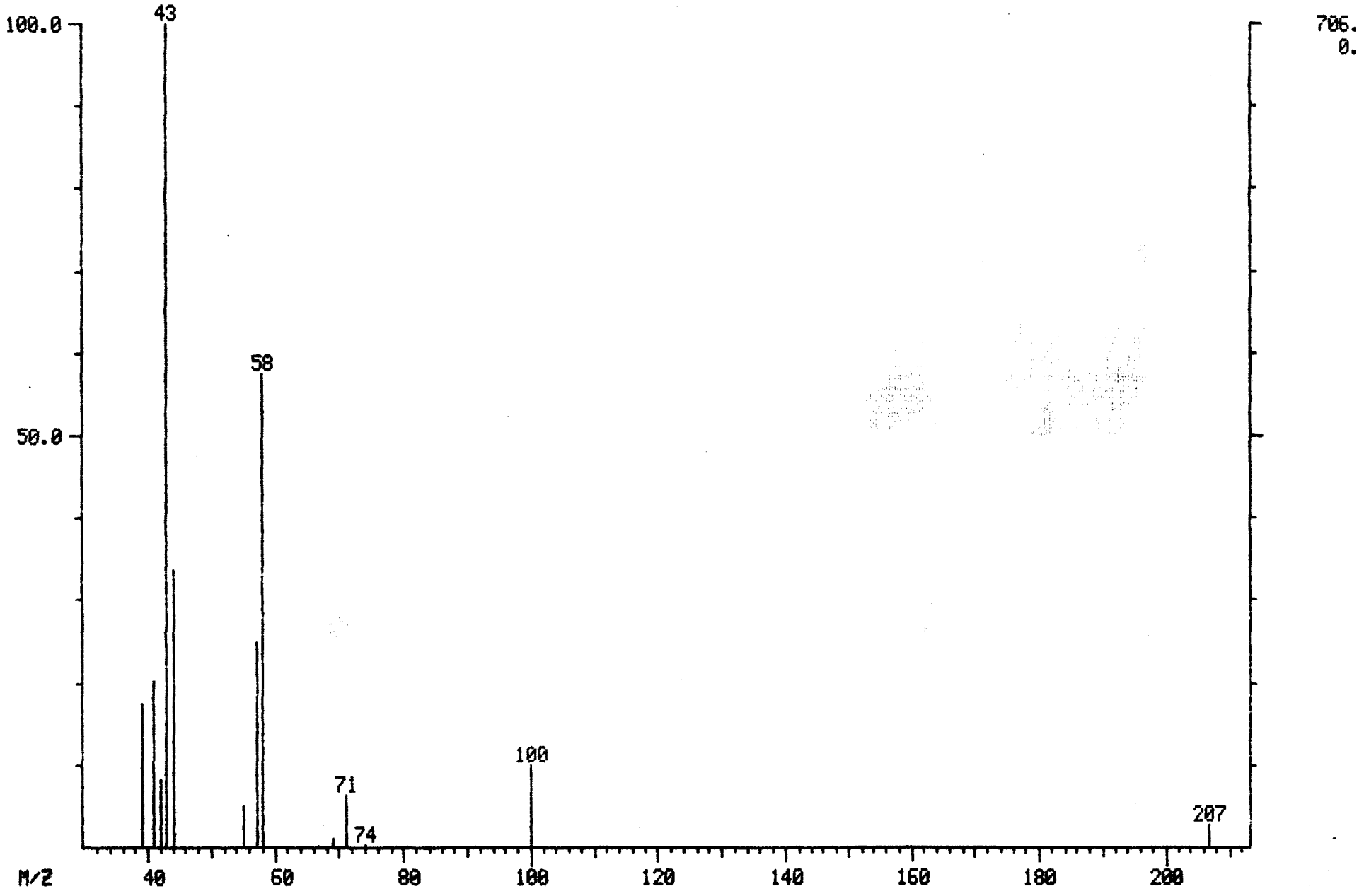
BASE M/Z: 43
RIC: 3024.



MASS SPECTRUM
12/18/89 18:24:00 + 22:38
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 201 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #679
CALI: MDL1218 #3

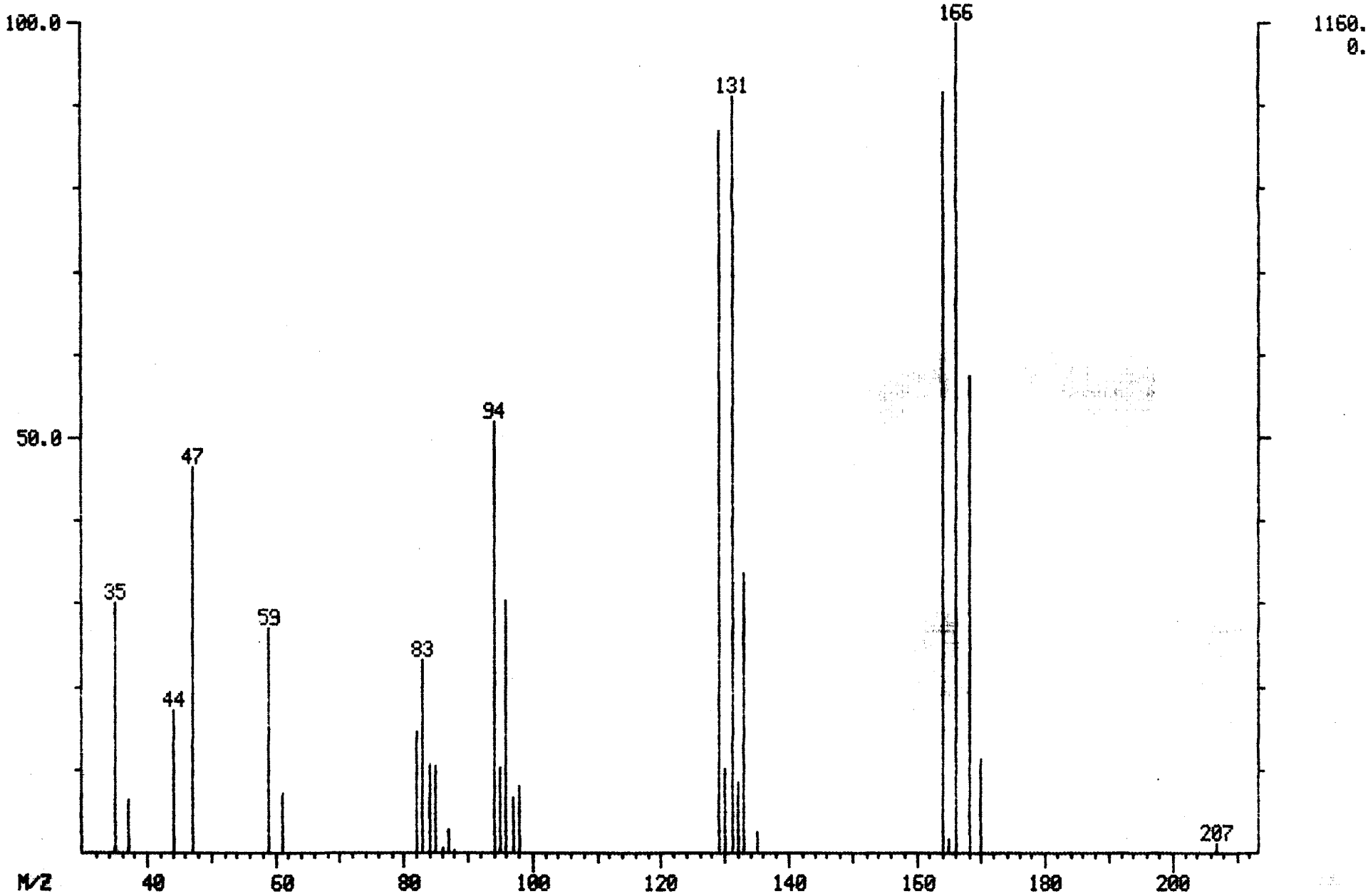
BASE M/Z: 43
RIC: 2034.



MASS SPECTRUM
12/18/89 18:24:00 + 22:58
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 204 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #689
CALI: MDL1218 #3

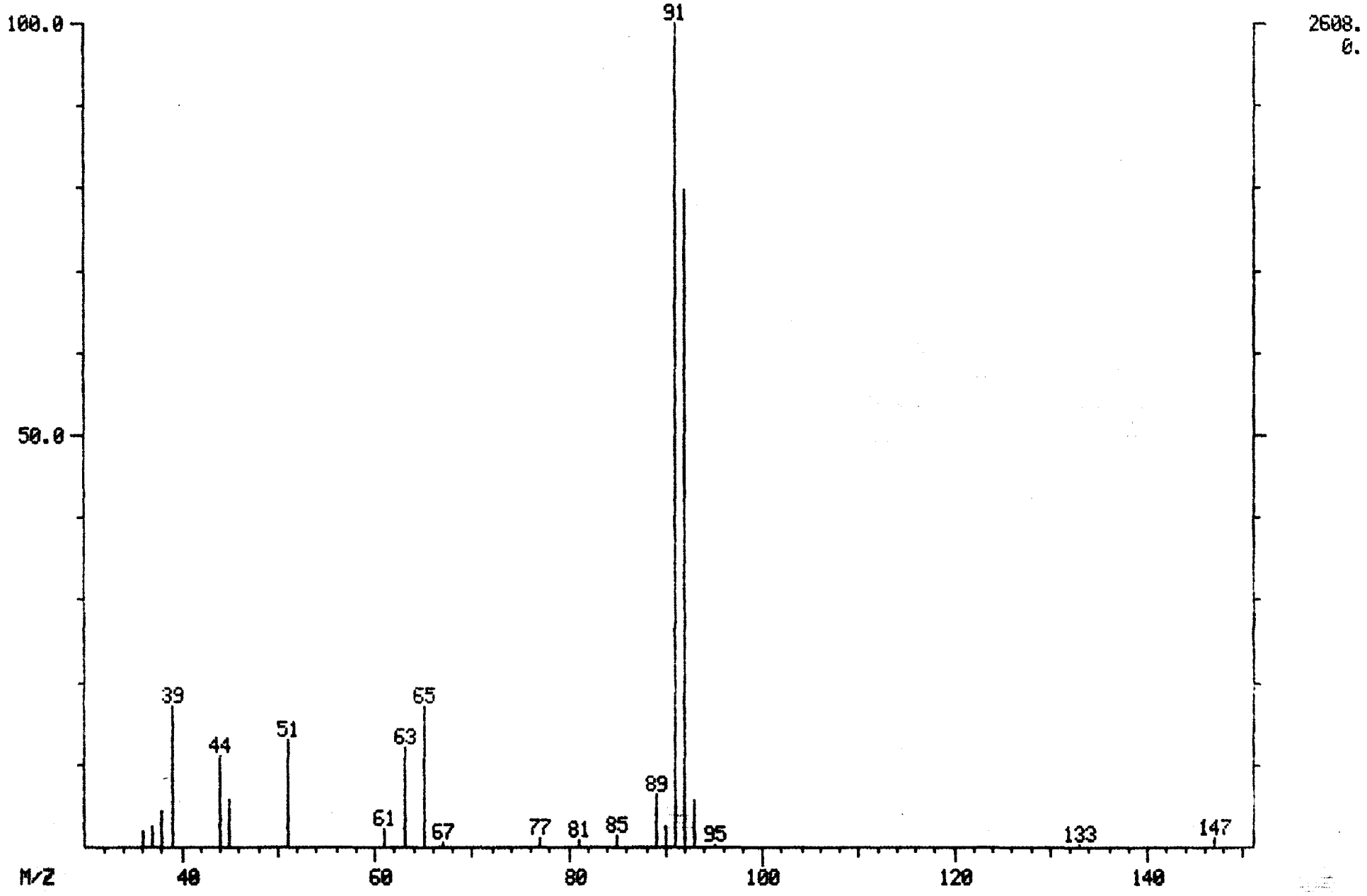
BASE M/Z: 166
RIC: 9312.



MASS SPECTRUM
12/18/89 18:24:00 + 24:18
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 214 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #729
CALI: MDL1218 #3

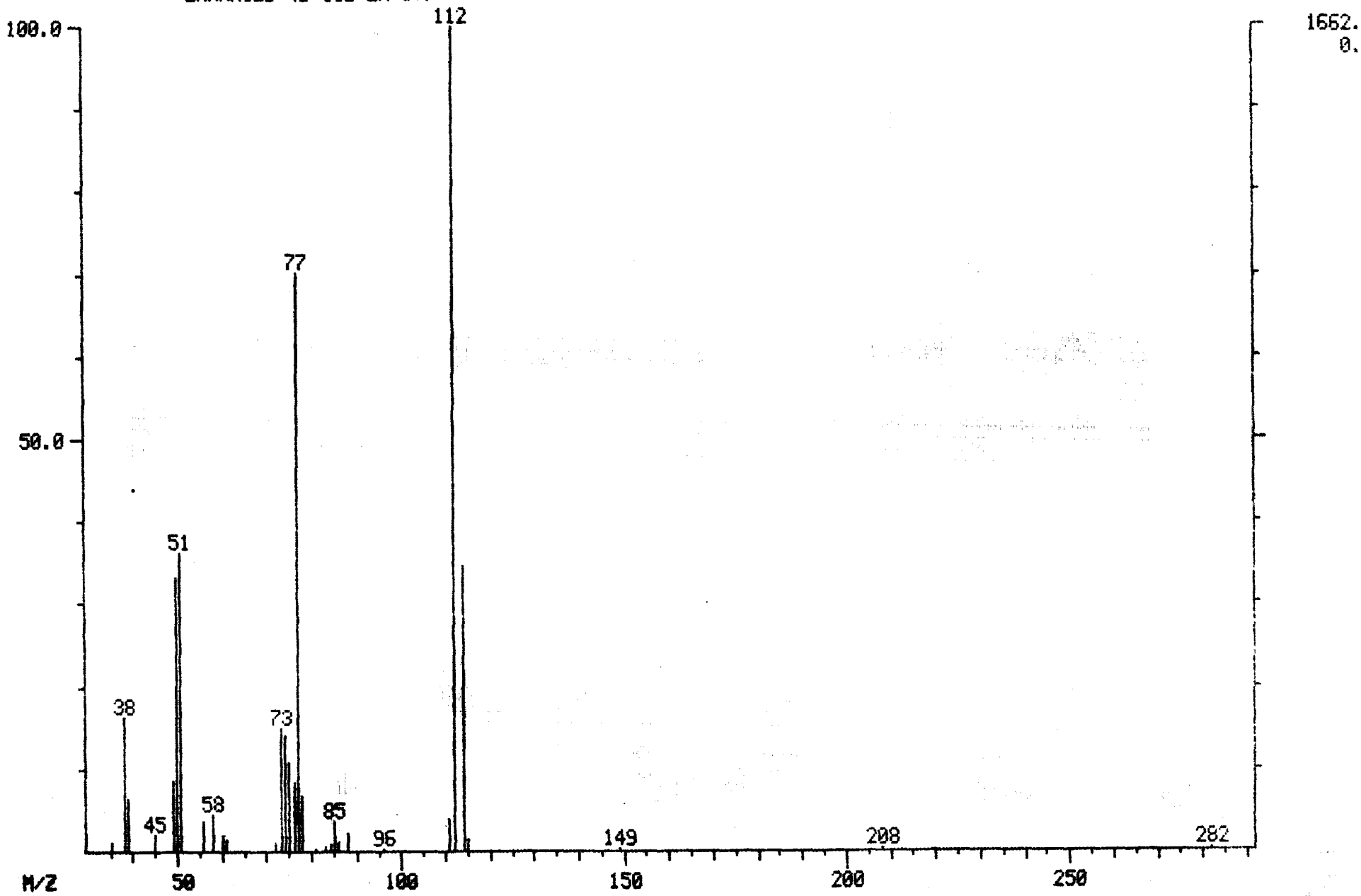
BASE M/Z: 91
RIC: 7496.



MASS SPECTRUM
12/18/89 18:24:00 + 25:28
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 220 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #764
CALI: MDL1218 #3

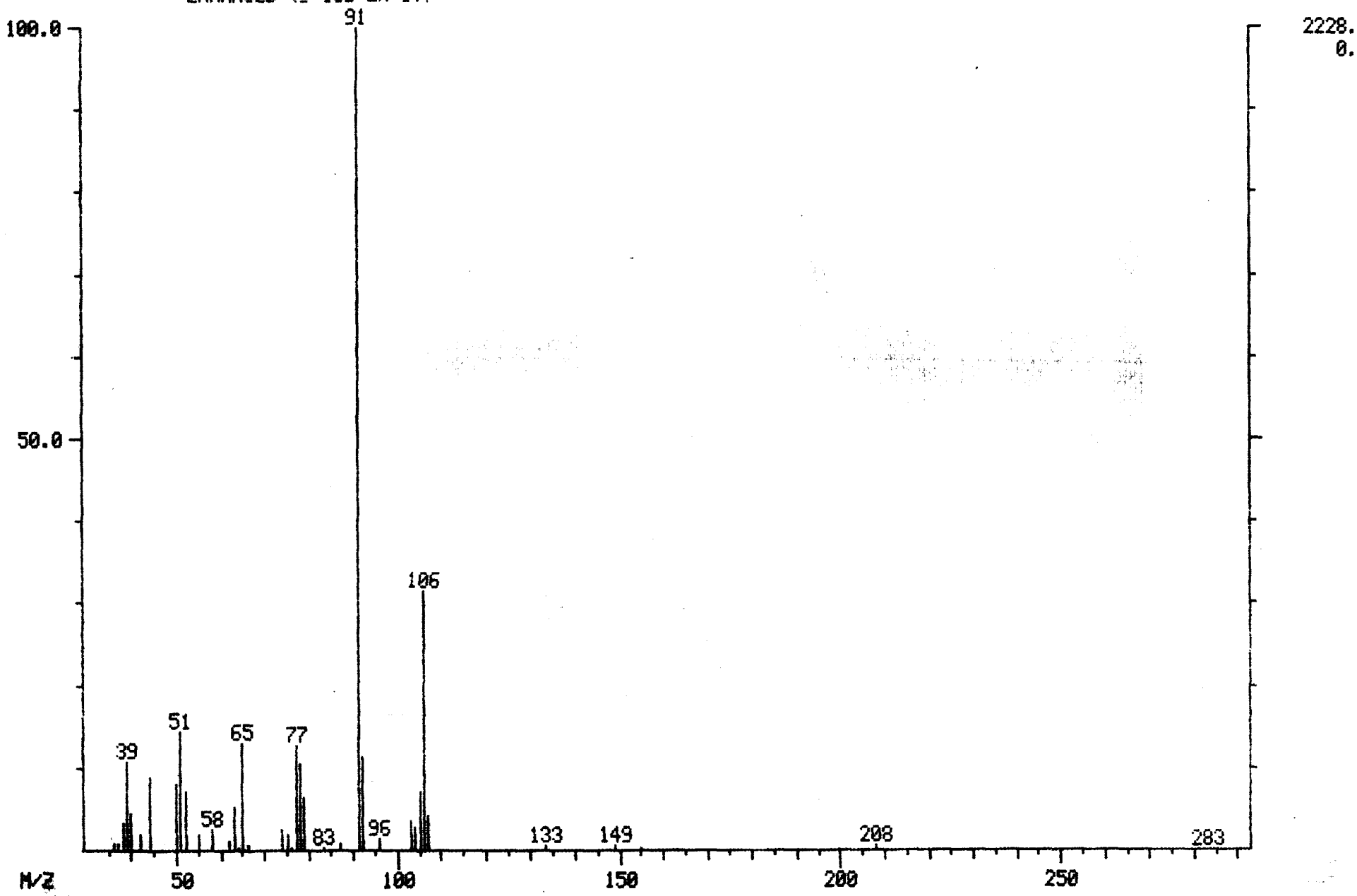
BASE M/Z: 112
RIC: 6504.



MASS SPECTRUM
12/18/89 18:24:00 + 27:32
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 219 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #826
CALI: MDL1218 #3

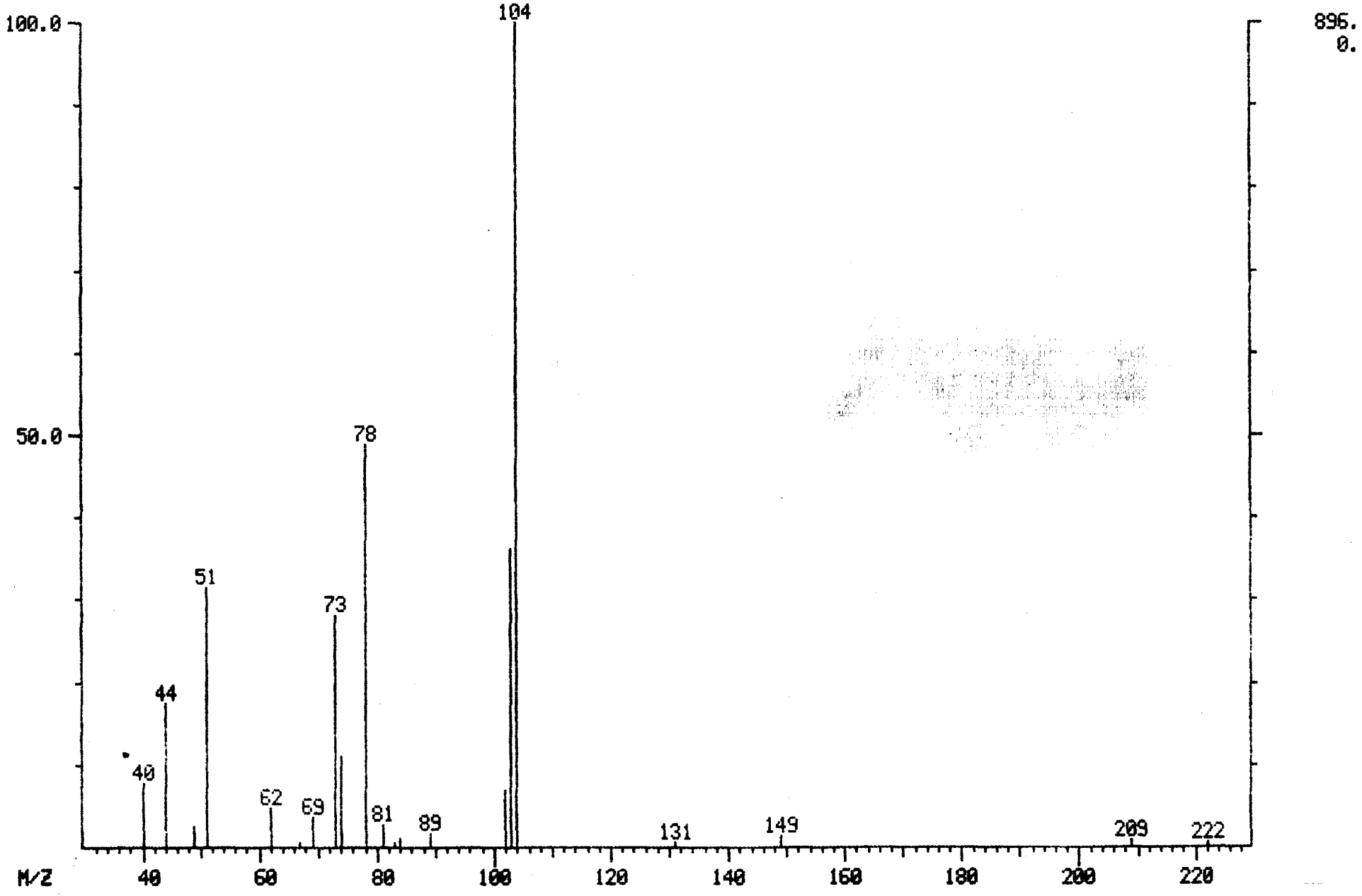
BASE M/Z: 91
RIC: 6352.



MASS SPECTRUM
12/18/89 18:24:00 + 31:52
SAMPLE: CLP,6825,,MDL1218,L,W.,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 219 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #956
CALI: MDL1218 #3

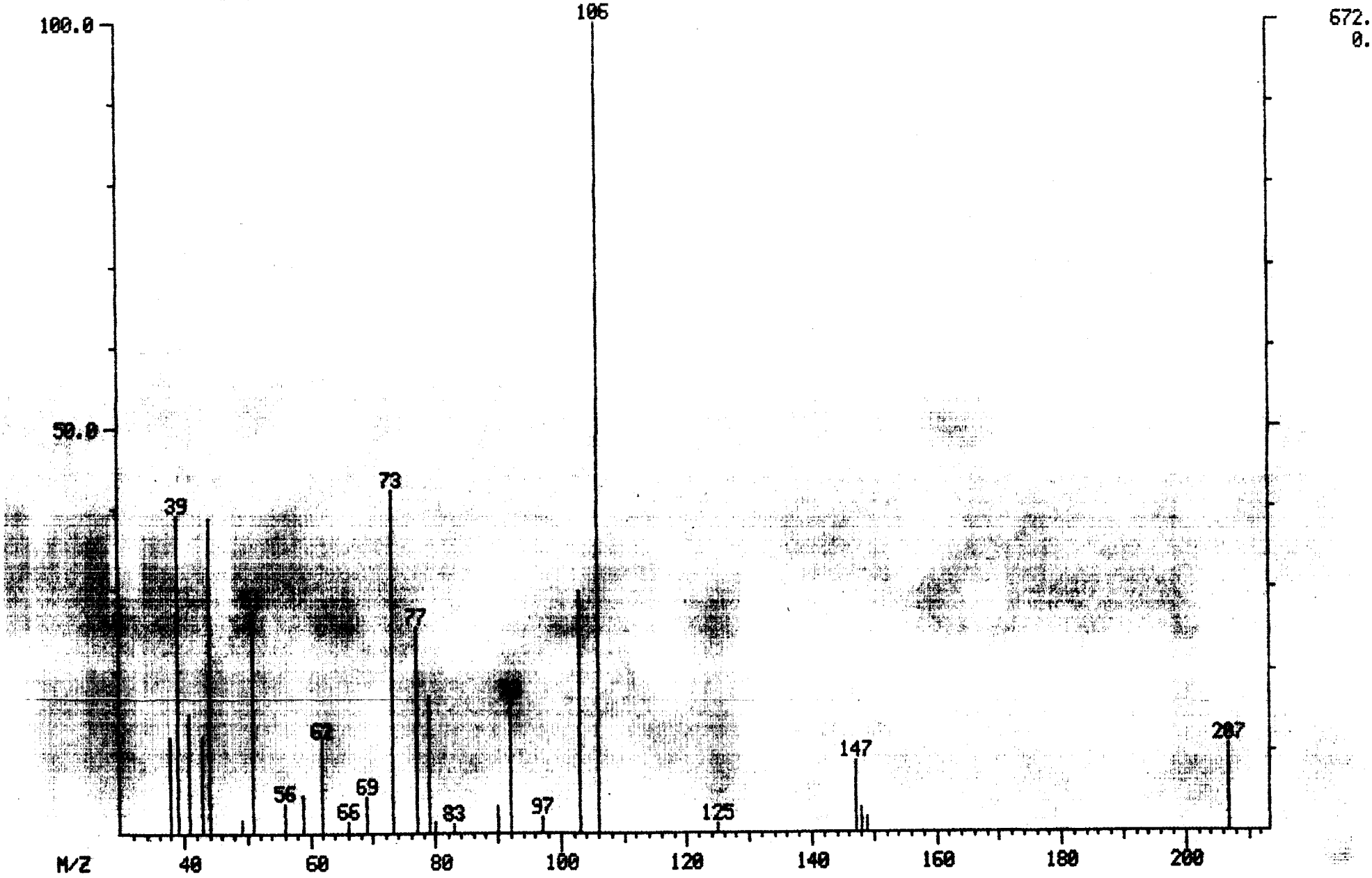
BASE M/Z: 104
RIC: 2772.



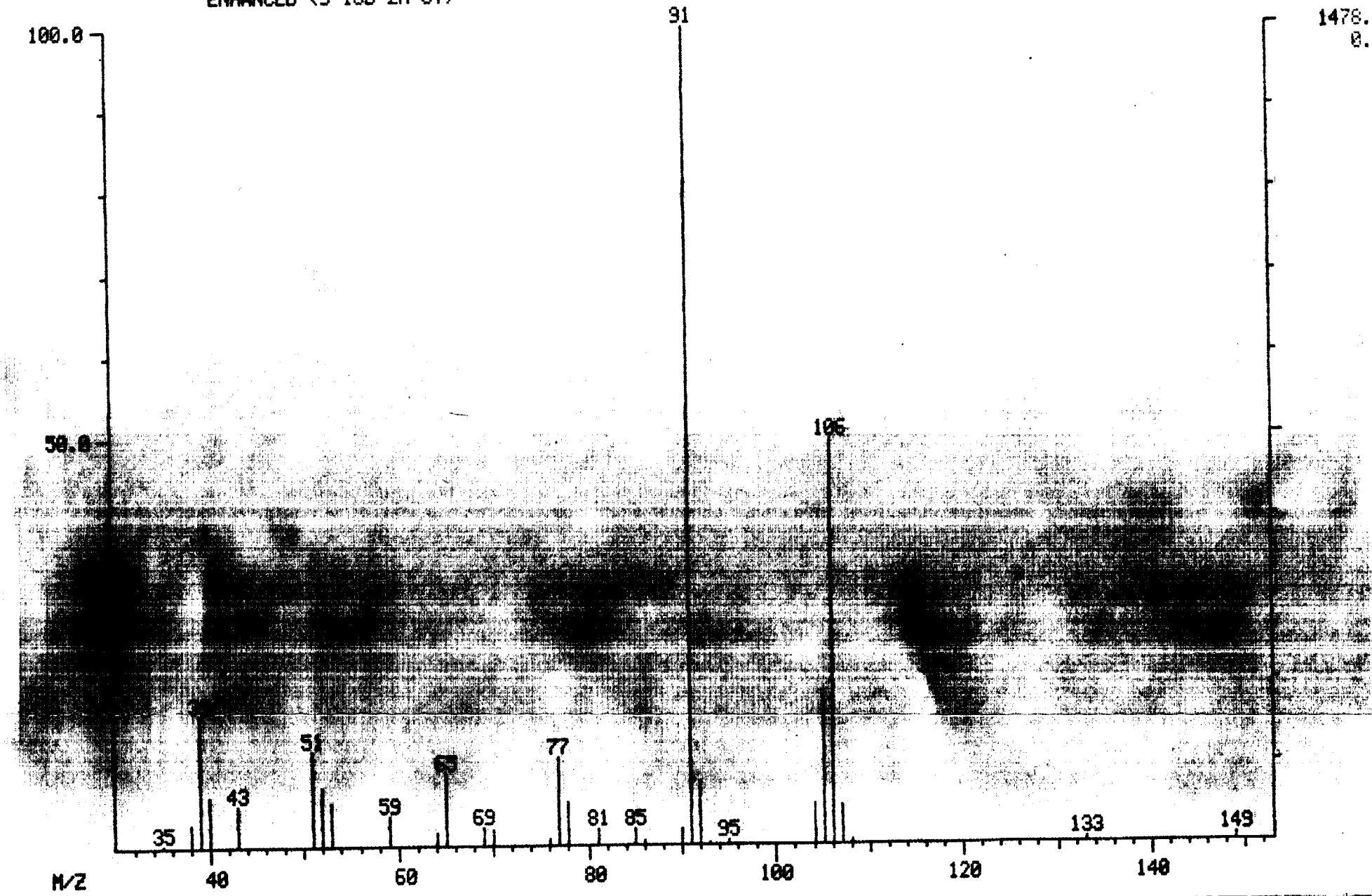
MASS SPECTRUM
12/18/89 18:24:00 + 32:08
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 219 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #964
CALI: MDL1218 #3

BASE M/Z: 106
RIC: 2932.



MASS SPECTRUM
12/18/89 18:24:00 + 33:14
SAMPLE: CLP,6825,,MDL1218,L,W,,V,EPA,
CONDS.: 45' (3 MIN) TO 220' @ 8'/MIN
TEMP: 219 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL1218 #997
CALI: MDL1218 #3

BASE M/Z: 91
RIC: 4208.