UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: MAR 14 1990

SUBJECT: Review of Region 5 data for Murrell Landfill

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 6986
Sample Numbers: 90FT09 S18 – 21; D18 & R98
Parameter(s): PCB/Pest
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,~~ Dave Payne the Quality Control Coordinator, ~~at 353-3805.~~ 886-1970

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
MAR 14 1990

RECEIVED BY/DATE:
Comments:

TA SET	SITE	OU/ACT.
SF 6986	Murrell Landfill	TFA 902

MPLES	PARAMETER(S)
90 FT09 $18-21; D18 + R98	PCB/Pesticides

MPLED	RECEIVED	DUE	LAB
2/21/90	2/22/90	3/15/90	CRL

IPPED	DATA RECEIVED	CONTRACT

AM LEADER	SECTION CHIEF	QC 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 3/14/90

( ) REVIEWED ( ) UNREVIEWED SECTION CHIEF/DATE

( ) REVIEWED ( ) UNREVIEWED QC COORDINATOR/DATE

EVIEWED BY CONTRACT COORDINATOR/DATE

ECEIVED 3/14/90 TRANSMITTED 3/14/90 DATA MANAGEMENT COORDINATOR Griffin

ENVIRONMENTAL PROTECTION AGENCY, REGION V BASIC FORM **1A**

DIVISION/BRANCH: ESD Sampling Date: 2/21/90 Arrival Date: 2/22/90 Analysis Due Date: 3/12/90

Sample#/ D.U. Number: TEA302 Group# SF 6986 Activity#: Murrell Study: Murrell Landfill

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. 90FT09 $18	0.002U	0.03U	0.002U	0.01U	0.01U	0.01U	0.01U	0.01U	0.02U	0.02U	0.02U	0.02U	0.04U	0.02U	0.02U	0.13U	0.05U	0.03U	0.2U	1.0U
2. 90FT09D18	0.002U	0.03U	0.002U	0.01U	0.01U	0.01U	0.01U	0.01U	0.02U	0.02U	0.02U	0.02U	0.04U	0.02U	0.02U	0.13U	0.05U	0.03U	0.2U	1.0U
3. 90FT09$19	0.002U	0.03U	0.002U	0.01U	0.01U	0.01U	0.01U	0.01U	0.02U	0.02U	0.02U	0.02U	0.04U	0.02U	0.02U	0.13U	0.05U	0.03U	0.2U	1.0U
4. 90FT0 $20	0.002U	0.03U	0.002U	0.01U	0.01U	0.01U	0.01U	0.01U	0.02U	0.02U	0.02U	0.02U	0.04U	0.02U	0.02U	0.13U	0.05U	0.03U	0.2U	1.0U
5. 90FT09 $21	0.002U	0.03U	0.002U	0.01U	0.01U	0.01U	0.01U	0.01U	0.02U	0.02U	0.02U	0.02U	0.04U	0.02U	0.02U	0.13U	0.05U	0.03U	0.2U	1.0U
6. 90F01R98	0.002U	0.03U	0.002U	0.01U	0.01U	0.01U	0.01U	0.01U	0.02U	0.02U	0.02U	0.02U	0.04U	0.02U	0.02U	0.13U	0.05U	0.03U	0.2U	1.0U
7.																				
8.					AU 3/12/90															
9.					ZG 3/14/90															
10.																				
11.																				
12.																				
13.																				

ENVIRONMENTAL PROTECTION AGENCY, REGION V BASIC DATA FORM: Form #1:

DIVISION/BRANCH: ESD Sampling Date: 2/21/90 (Month Day Year) Arrival Date: 2/22/90 (Month Day Year) Analysis Due Date: 3/12/90 (Month Day)

D.U. Number: TFA302 Group #: SF6986 Activity #: Murrell Landfill Study:

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

#	Sample #	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor	Aroclor	Aroclor	Dibuthyl phthalate	Diethyl Hexyl phthalate	
1	90FT09$18	0.24	0.24	0.24	0.24						
2	90FT09D18	0.24	0.24	0.24	0.24						
3	90FT09$19	0.24	0.24	0.24	0.24						
4	90FT09$20	0.24	0.24	0.24	0.24						
5	90FT09$21	0.24	0.24	0.24	0.24						
6	90FT01R98	0.24	0.24	0.24	0.24						
7											
8					AL 3/12/90						
9					LE 3/14/90						
10											
11											
12											
13											
14											
15											
16											

USEPA REGION V CRL 03/13/90 15:09:22
SF6986 MURREL LANDFILL PAGE 01

WORKLIST : PPAK0027
TEST : PPWSO

WL#	ID	REP	COMMENTS
1	LRB		
2	LF1		
3	LF2		
4	LF3		
5	LF4		
6	S0000729	01	18
7	S0000730	01	D18
8	S0000731	01	19
9	S0000732	01	26
10	S0000733	01	21
11	S0000734	01	~~98~~ 98

Results entered 3/14/90

PCB's/pest -1

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

TFA302

3/15/90

DIVISION/BRANCH FIT SUPERFUND SAMPLE DATE 2/21/90 LAB ARRIVAL DATE 2/22/90 DUE DATE 3/12/90

DU NUMBER TFA-[redacted] DATA SET NUMBER 6986 STUDY Murrell Landfill 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
90FT09S18	RW1 5-083851-2		X	X		
19	RW2 5-083867-8		X	X		
20	MSD RW3 5-072752-53 5-072761-63		X	X		
21	RW4 5-072770-1		X	X		
D18	DUP 5-083859-60		X	X		
90FT01R98	BLANK 5-072778-9		X	X		
		shipment complete	(15)/15 NOT			

APPROVAL

ESAT DPO — DATE IN

Jay Thompson — 2-23-90

ESAT DPO — DATE OUT

TT.

EPA, REGION V
CENTRAL REGIONAL LABORATORY
WESTON/ESAT ANALYSIS

PCB'S/PESTICIDES

Sample Prep

APPROVAL

ETM — DATE OUT

ETM — DATE IN

TID # 0.2-
START DATE 2-23-90
DUE DATE 2-28-90
EST. HRS. REQUIRED FOR ANALYSIS 24

SMO 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 6955	Howmet Corp. Plant # 4	J.H. A.K. R.W.	6				24			2430
⇒	SF 6956	Muni Landfill		6							2431

ESAT CONTRACT **TID NO:** 02-12

TASK NO: 24 31

ENVIRONMENTAL SAMPLE EXTRACT CUSTODY TRANSFER FORM

Sample extraction was completed on 2/28/90, 19___ for:

DATASET NO: SF6936 **SITE NAME:** Murrell Landfill

PARAMETER : Pest PCB

MATRIX : Water **SF DU/ACT NO: TFA** 302 **Y**___ **/C**___

SAMPLE NUMBERS: 90FT09S13, S19, S20, S21, D18, ~~R98~~ AK.

90FT01R98 **NUMBER OF SAMPLES:** 6

ESAT APPROVALS:

Anthony Komesky 2/28/90
(ANALYST DATE)

[signature] 3/1/90
(TEAM LEADER DATE)

(QC COORDINATOR DATE)

[signature] 3/1/90
(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.

Anthony Komesky 2-28-90
(DELIVERED BY DATE)

[signature] 2-28-90

E. S. Evangelista 3/01/90
(RECEIVED BY DATE)

EPA APPROVALS:

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

(EPA TASK MONITOR DATE)

COMMENTS: _____

[ ] Reviewed [ ] Unreviewed

(SECTION CHIEF DATE)

(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.

+ 2 copies

PCB/PEST EXTRACTION

DATA SET(S) SF6986
SAMPLE TYPE(S) Water
EXTRACTION SYSTEM Separat. Funnels
SOLVENT SYSTEM CH_2Cl_2

DATE EXTRACTED: 2/27/90
DATE CONCENTRATED: 2/28/90
DATE COMPLETED:
VOLUMES USED

SAMPLE #	SAMPLE AMOUNT	CONC. EXTRACT	DILUTIONS 1ST	2ND	3RD	FINAL VOL	INSTDS MRX/OTHER
						10ml	ISD mix
90FT09S18	1L	10ml					10ml
90FT09S19	1L	10ml					
90FT09S20	1L	10ml					
90FT09S20 Pest MS	1L	10ml					
90FT09S20 Pest MSD	1L	10ml					
90FT09S20 PCB-MS	1L	10ml					
90FT09S20 PCB-MSD	1L	10ml					
90FT09S21	1L	10ml					
90FT09D13	1L	10ml					
90FT01R98	1L	10ml					
Method Blank	1L	10ml					

: PREPARATION DATE : VOLUME

*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. RW. JH. ANALYST DU

SAMPLE #	SAMPLE AMOUNT	CONC. EXTRACT final vol.	✓ surrogate added *	Pesticide Matrix Spike ⊗	PCB Matrix Spike **	Sample pH ⊠

Witness Signatures for:

* The addition DBC surrogate:

⊠ The pH adjustments:

⊗ The addition of Pesticide MS solution:

** The addition of PCB-MS solution:

DATE: MARCH 8, 1990

SUBJECT: SF 6986

TO: LINDA EVANGELISTA

FROM: AMBERINA KHAN

The data set consisted of 6 water samples. The samples were extracted by ESAT/WESTON. The analysis was done by using CRL method 608DNS.

The method blank was free of contamination.

Endrin and DDT degradation was under 10 percent for both the quantitation and confirmation column.

The pesticide MS and MSD recoveries were acceptable. The RPD's were below 10% except for ~~DDT~~ ENDRIN that had a RPD of 25. *

PCB MS and MSD recoveries were acceptable. The RPD was 31 percent. **

DBC surrogate recoveries were within a range of 120 to 194 percent.

The calibration curves were linear.

The RPD's for continuing calibrations were aceptable.

The RPD's for retention times for initial and continuing calibrations were below 1 percent.

The samples had a few interfering peaks but none of them matched peaks of compounds of interest.

* The unspiked sample showed an interference that was not confirmed on the secondary column; high recovery could be due to this. More of the interference is apparently present in the MSD aliquot.

** No obvious explanation.

Primary

	SAMPLE NAME	METHOD NAME	DATA FILE Filename	ISTD area	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1	SOLVENT BLANK	N:ZERO	ISF1	869025	1.0000	1.0000	1.00	1.000
2	METHOD BLANK 6985	N:ZERO	ISF2	1006546	1.0000	1.0000	10.00	1.000
3	DEG ENDRIN	N:ZERO	ISF3	900002	1.0000	1.0000	1.00	1.000
4	DEG DDT	N:ZERO	ISF4	924904	1.0000	1.0000	1.00	1.000
5	PEST STD A LEVEL 1	N:ZERO	ISF5	1006532	1.0000	1.0000	1.00	1.000
6	PEST STD A LEVEL 2	N:ZERO	ISF6	1057633	1.0000	1.0000	1.00	1.000
7	PEST STD A LEVEL 3	N:ZERO	ISF7	1102040	1.0000	1.0000	1.00	1.000
8	PEST STD A LEVEL 4	N:ZERO	ISF8	1209447	1.0000	1.0000	1.00	1.000
9	PEST STD A LEVEL 5	N:ZERO	ISF9	1266662	1.0000	1.0000	1.00	1.000
10	PEST SPK 90FW08S59	N:ZERO	ISF10	945567	1.0000	1.0000	10.00	1.000
11	PEST SPK DUP 90FW08S	N:ZERO	ISF11	917027	1.0000	1.0000	10.00	1.000
12	PEST STD B LEVEL 1	N:ZERO	ISF12	931256	1.0000	1.0000	1.00	1.000
13	PEST STD B LEVEL 3	N:ZERO	ISF13	939470	1.0000	1.0000	1.00	1.000
14	90FW08S59	N:ZERO	ISF14	989589	1.0000	1.0000	10.00	1.000
15	90FW08S60	N:ZERO	ISF15	945475	1.0000	1.0000	10.00	1.000
16	90FW08D60	N:ZERO	ISF16	935641	1.0000	1.0000	10.00	1.000
17	90FW08S61	N:ZERO	ISF17	956136	1.0000	1.0000	10.00	1.000
18	90FW08S62	N:ZERO	ISF18	989518	1.0000	1.0000	10.00	1.000
19	90FW01R93	N:ZERO	ISF19	929417	1.0000	1.0000	10.00	1.000
20	STD 1242 LEVEL 1	N:ZERO	ISF20	880495	1.0000	1.0000	1.00	1.000
21	STD 1242 LEVEL 2	N:ZERO	ISF21	942572	1.0000	1.0000	1.00	1.000
22	STD 1242 LEVEL 3	N:ZERO	ISF22	952432	1.0000	1.0000	1.00	1.000
23	STD 1242 LEVEL 4	N:ZERO	ISF23	924603	1.0000	1.0000	1.00	1.000
24	STD 1242 LEVEL 5	N:ZERO	ISF24	958023	1.0000	1.0000	1.00	1.000
25	PCB SPK 90FW08S59	N:ZERO	ISF25	987207	1.0000	1.0000	10.00	1.000
26	PCB SPK DUP 90FW08S5	N:ZERO	ISF26	921163	1.0000	1.0000	10.00	1.000
27	PEST STD A LEVEL 3	N:ZERO	ISF27	1121409	1.0000	1.0000	1.00	1.000
28	PEST STD B LEVEL 3	N:ZERO	ISF28	964337	1.0000	1.0000	1.00	1.000
29	DEG ENDRIN	N:ZERO	ISF29	910305	1.0000	1.0000	1.00	1.000
30	DEG DDT	N:ZERO	ISF30	993295	1.0000	1.0000	1.00	1.000
31	90FT09S20 PEST SPK	N:ZERO	ISF31	989596	1.0000	1.0000	10.00	1.000
32	90FT09S20 PEST SPK D	N:ZERO	*	982043	1.0000	1.0000	10.00	1.000
33	90FT09S18	N:ZERO	*	945848	1.0000	1.0000	10.00	1.000
34	90FT09S19	N:ZERO	*	922047	1.0000	1.0000	10.00	1.000
35	90FT09S20	N:ZERO	*	930926	1.0000	1.0000	10.00	1.000
36	90FT09S21	N:ZERO	ISF36	946903	1.0000	1.0000	10.00	1.000
37	90FT09D18	N:ZERO	ISF37	918293	1.0000	1.0000	10.00	1.000
38	90FT01R98	N:ZERO	ISF38	863854	1.0000	1.0000	10.00	1.000
39	METHOD BLANK SF 6986	N:ZERO	ISF39	918974	1.0000	1.0000	10.00	1.000
40	90FT09S20 PCB SPK	N:ZERO	ISF40	993260	1.0000	1.0000	10.00	1.000
41	90FT09S20 PCB SPK DU	N:ZERO	ISF41	1040121	1.0000	1.0000	10.00	1.000
42	STD 1242 LEVEL 3	N:ZERO	ISF42	950420	1.0000	1.0000	1.00	1.000
43	DEG ENDRIN	N:ZERO	ISF43	913769	1.0000	1.0000	1.00	1.000
44	DEG DDT	N:ZERO	ISF44	986475	1.0000	1.0000	1.00	1.000
45	PEST STD A LEVEL 3	N:ZERO	ISF45	1154265	1.0000	1.0000	1.00	1.000
46	PEST STD B LEVEL 3	N:ZERO	ISF46	941103	1.0000	1.0000	1.00	1.000
47	PEST STD B LEVEL 3	N:ZERO			1.0000	1.0000	1.00	1.000
48					0.0000	0.0000	0.00	0.000
49					0.0000	0.0000	0.00	0.000
50					0.0000	0.0000	0.00	0.000

* These samples were re-run at the end of the sequence + these are the corresponding file names.

DATA POINT	DATA ENTERED	DEVIATION
1	869025	-105163.1086956522
2	1006546	32357.89130434782
3	900002	-74186.10869565218
4	924904	-49284.10869565218
5	1006532	32343.89130434782
6	1057633	83444.89130434783
7	1102040	127851.8913043478
8	1209447	235258.8913043478
9	1266662	292473.8913043478
10	945567	-28621.10869565218
11	917027	-57161.10869565218
12	931256	-42932.10869565218
13	939470	-34718.10869565218
14	989589	15400.89130434782
15	945475	-28713.10869565218
16	935641	-38547.10869565218
17	956136	-18052.10869565218
18	989518	15329.89130434782
19	929417	-44771.10869565218
20	880495	-93693.10869565218
21	942572	-31616.10869565218
22	952432	-21756.10869565218
23	924603	-49585.10869565218
24	958023	-16165.10869565218
25	987207	13018.89130434782
26	921163	-53025.10869565218
27	1121409	147220.8913043478
28	964337	-9851.108695652176
29	910365	-63823.10869565218
30	993295	19106.89130434782
31	989596	15407.89130434782
32	983043	8854.891304347824
33	945846	-28342.10869565218
34	922047	-52141.10869565218
35	930926	-43262.10869565218
36	946903	-27285.10869565218
37	918293	-55895.10869565218
38	863854	-110334.1086956522
39	918974	-55214.10869565218
40	993230	19041.89130434782
41	1046121	71932.89130434783
42	980420	6231.891304347824
43	913769	-60419.10869565218
44	986475	12286.89130434782
45	1154265	180076.8913043478
46	941103	-33085.10869565218

The number of data points= 46

The sum of the data= 44812653

The mean= 974188.1086956522

The standard deviation is= 81746.10153960223

The coefficient of variation is= 8.391202973012338D-02

Conf.

	SAMPLE NAME	METHOD NAME DATA FILE	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1	HEXANE	N:ZERO	1.0000	1.0000	1.00	1.000
2	DDT DEGRADATION	N:ZERO 2SP2	1.0000	1.0000	1.00	1.000
3	END DEGRADATION	N:ZERO 2SP3	1.0000	1.0000	1.00	1.000
4	METHOD BLK DS6982	N:ZERO	1.0000	1.0000	10.00	1.000
5	90YK31D01	N:ZERO	1.0000	1.0000	10.00	1.000
6	90YK31R01	N:ZERO	1.0000	1.0000	10.00	1.000
7	PESTA L3	N:ZERO 2SP7	1.0000	1.0000	1.00	1.000
8	PESTB L3	N:ZERO 2SP8	1.0000	1.0000	1.00	1.000
9	PESTMS 90YK31S01	N:ZERO	1.0000	1.0000	10.00	1.000
10	PESTMSD 90YK31S01	N:ZERO	1.0000	1.0000	10.00	1.000
11	HEXANE	N:ZERO	1.0000	1.0000	1.00	1.000
12	90YK31S01	N:ZERO	1.0000	1.0000	10.00	1.000
13	90YK31S02	N:ZERO	1.0000	1.0000	10.00	1.000
14	90YK31S03	N:ZERO	1.0000	1.0000	10.00	1.000
15	90YK31S04	N:ZERO	1.0000	1.0000	10.00	1.000
16	90YK31S05	N:ZERO	1.0000	1.0000	10.00	1.000
17	90YK31S06	N:ZERO	1.0000	1.0000	10.00	1.000
18	1242 L5	N:ZERO	1.0000	1.0000	1.00	1.000
19	PCB MS 90YK31S01	N:ZERO	1.0000	1.0000	10.00	1.000
20	PCB MSD 90YK31S01	N:ZERO	1.0000	1.0000	10.00	1.000
21	DDT DEGRADATION	N:ZERO 2SP21	1.0000	1.0000	1.00	1.000
22	END DEGRADATION	N:ZERO 2SP22	1.0000	1.0000	1.00	1.000
23	PESTA 3	N:ZERO 2SP23	1.0000	1.0000	1.00	1.000
24	PESTB 3	N:ZERO 2SP24	1.0000	1.0000	1.00	1.000
25	METHOD BLANK	N:ZERO 2SP25	1.0000	1.0000	10.00	1.000
26	90FT09S18	N:ZERO 2SP26	1.0000	1.0000	10.00	1.000
27	90FT09D18	N:ZERO 2SP27	1.0000	1.0000	10.00	1.000
28	90FT09S19	N:ZERO 2SP28	1.0000	1.0000	10.00	1.000
29	90FT09S20	N:ZERO 2SP29	1.0000	1.0000	10.00	1.000
30	90FT09S21	N:ZERO 2SP30	1.0000	1.0000	10.00	1.000
31	90FT01R98	N:ZERO 2SP31	1.0000	1.0000	10.00	1.000
32	PEST SPK S20	N:ZERO 2SP32	1.0000	1.0000	10.00	1.000
33	PEST SPK DUP S20	N:ZERO 2SP33	1.0000	1.0000	10.00	1.000
34	PCB SPK S20	N:ZERO 2SP34	1.0000	1.0000	10.00	1.000
35	PCB SPK DUP S20	N:ZERO 2SP35	1.0000	1.0000	10.00	1.000
36	90FW08S59	N:ZERO 2SP36	1.0000	1.0000	10.00	1.000
37	90FW08S60	N:ZERO 2SP37	1.0000	1.0000	10.00	1.000
38	90FW08D60	N:ZERO 2SP38	1.0000	1.0000	10.00	1.000
39	90FW08S61	N:ZERO 2SP39	1.0000	1.0000	10.00	1.000
40	90FW08S62	N:ZERO 2SP40	1.0000	1.0000	10.00	1.000
41	90FW01R93	N:ZERO 2SP41	1.0000	1.0000	10.00	1.000
42	METHOD BLANK	N:ZERO 2SP42	1.0000	1.0000	10.00	1.000
43	PEST SPK S59	N:ZERO 2SP43	1.0000	1.0000	10.00	1.000
44	PEST SPK DUP S59	N:ZERO 2SP44	1.0000	1.0000	10.00	1.000
45	PCB SPK S59	N:ZERO 2SP45	1.0000	1.0000	10.00	1.000
46	PCB SPK DUP S59	N:ZERO 2SP46	1.0000	1.0000	10.00	1.000
47	1242 L3	N:ZERO 2SP47	1.0000	1.0000	1.00	1.000
48	DEG ENDRIN	N:ZERO 2SP48	1.0000	1.0000	1.00	1.000
49	DEG DDT	N:ZERO 2SP49	1.0000	1.0000	1.00	1.000
50	.	N:ZERO 2SP50	1.0000	1.0000	1.00	1.000

SEQUENCE RECORDED IN P:XXSEQ.SEQ

A1.....N13

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

CENTRAL REGIONAL LABORATORY REGION V CHICAGO IL.

ENDRIN AND DDT DEGRADATION

DATA SET: SF 6986 DATA SET NAME

DATE: 03-08-90 COLUMN TYPE QUANT GC # 1

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

CALIBRATI	DATE ANALYZED	FILE NAME	AREA OF END ALD	AREA OF END KET	AREA OF ENDRIN	% DEG
INITIAL	02-28-90	1SF3	365142	102570	4555791	9
CONT	03-01-90	1SF29	340372	82118	4787645	8
CONT	03-01-90	1SF43	279734	61722	4815832	7
						ERR
						ERR
						ERR

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

CALIBRATI	DATE ANALYZED	FILE NAME	AREA OF DDE	AREA OF DDD	AREA OF DDT	% DEG
INITIAL	02-28-90	1SF4	70219	80167	5240341	3
CONT	03-01-90	1SF30	69216	70939	5456781	3
CONT	03-01-90	1SF44	60483	66536	5319292	2
						ERR

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

********** 03-02-1990 13:33:32 Version 4.1 **********

* Sample Name: DEG ENDRIN Data File: O:1SF3 *
* Date: 02-28-1990 17:10:25 Method: N:PESTA5 03-02-1990 13:29:46 # 100 *
* Interface: 0 Cycle#: 3 Operator AK Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: Detector 1: ~~ECD CONF~~ *
* Misc. Information: LPT1: * *

****

Starting Delay: 1.50 Ending retention time: 45.00
Area reject: 50000 One sample per 1.000 sec.
Amount injected: 1.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

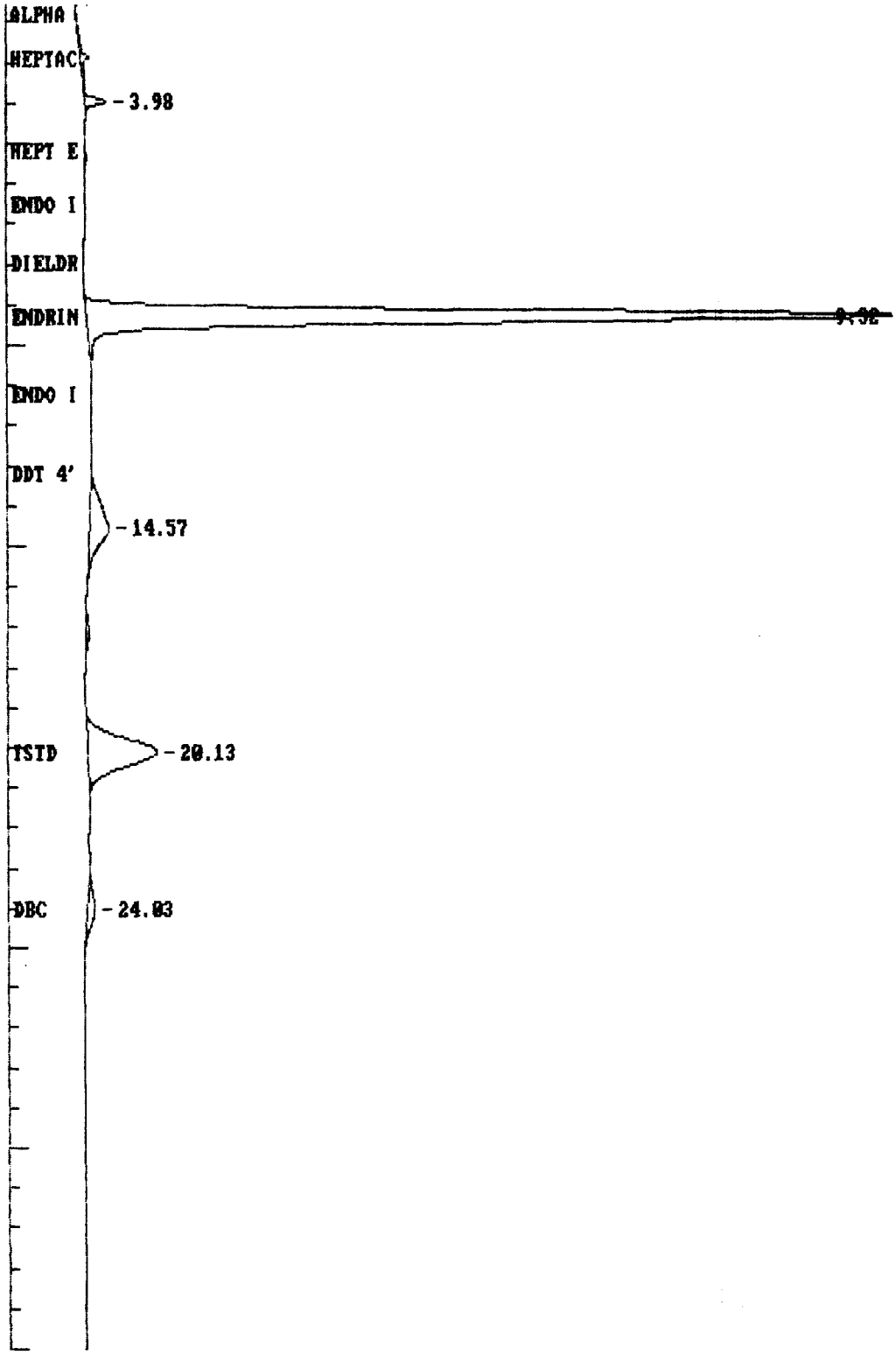
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
3	3.98		0.0000	0.0048%	61963	5868	10.6	2		8		1.1111E-10
5	9.32	ENDRIN	0.1434	99.8142%	4555791	216938	21.0	1	5	8	0	3.1469E-08
6	14.57		0.0000	0.0282%	365142	5304	68.8	1		8		1.1111E-10
8	20.13	ISTD	1.0000	0.0000%	900002	18650	48.3	1	8	8	0	1.1111E-06
9	24.03	DBC	0.0002	0.1528%	102570	1918	53.5	1	9	8	0	2.1394E-09

TOTAL AMOUNT = 0.1436

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	1.83	ALPHA BHC
LINDANE	2.30	LINDANE
HEPTACHLOR	2.90	HEPTACHLOR
ALDRIN	3.50	ALDRIN
HEPT EPOXIDE	5.20	HEPT EPOXIDE
ENDO I	6.51	ENDO I
DIELDRIN	7.96	DIELDRIN
ENDO II	11.25	ENDO II
DDT 4'4'	13.22	DDT 4'4'
METHOXYCHLOR	24.03	METHOXYCHLOR

Data File = 0:1SF3.PTS Printed on 03-02-1990 at 13:33:55
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 36263 uv High Value: 255793 uv Scale factor: 1.0



***** EXTERNAL STANDARD TABLE *****

********** 03-07-1990 10:38:23 Version 4.1 **********

* Sample Name: DEG ENDRIN Data File: 0:1SF3 *
* Date: 02-28-1990 17:10:25 Method: N:PESTB3 03-07-1990 10:27:33 # 28 *
* Interface: 0 Cycle#: 3 Operator AK Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: Detector 1: ~~ECD CONF~~ *
* Misc. Information: LPT1: * *

****

Starting Delay: 1.50 Ending retention time: 35.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 1.00 Dilution factor: 1.00
Sample Weight: 1.000000

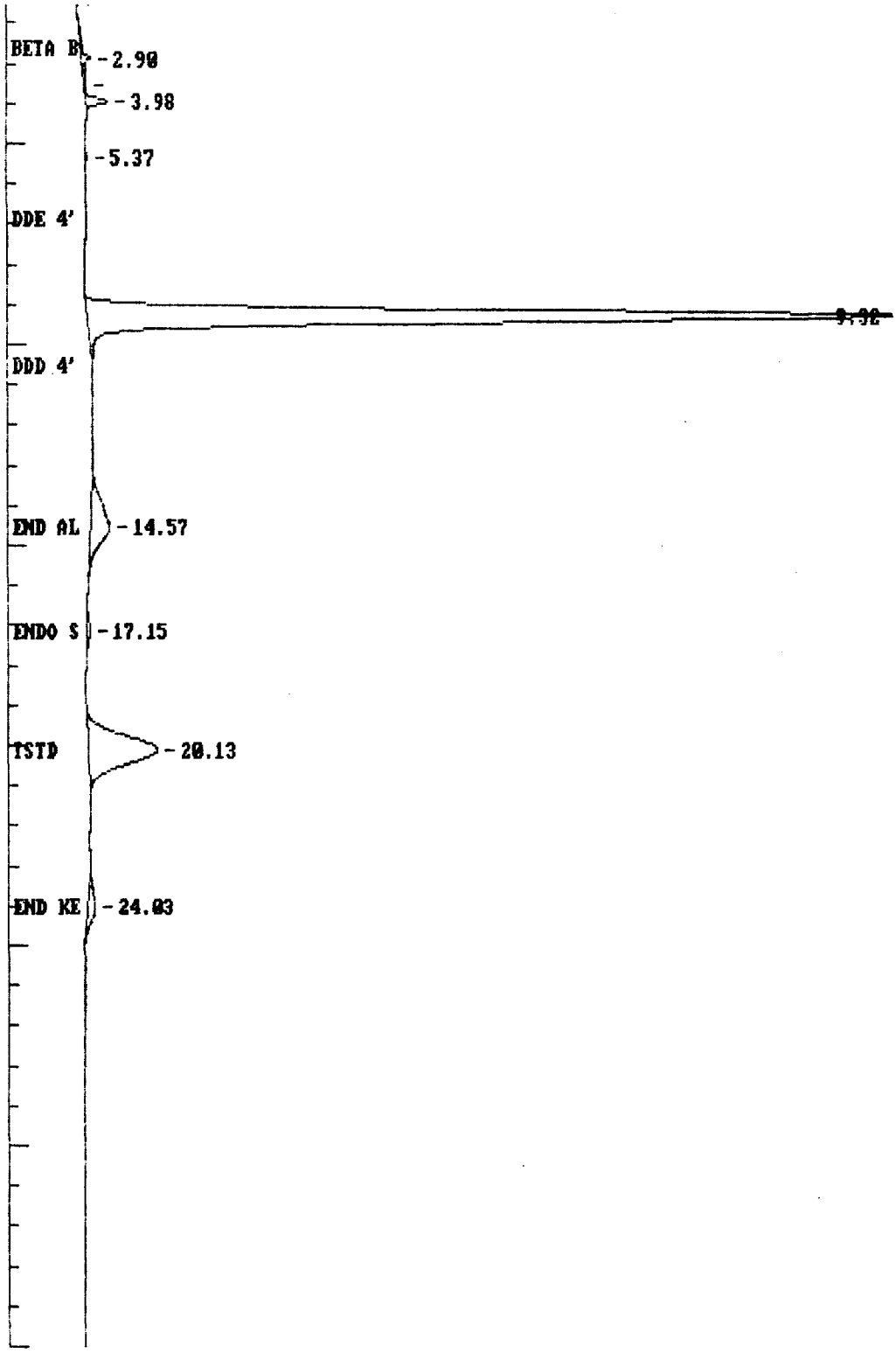
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
1	2.90	DELTA BHC	654.3823	0.0717%	36810	2192	16.8	2	1	0	1.7777E-02
6	14.57	END ALDEHYDE	8707.1650	0.9536%	365142	5304	68.8	1	6	0	2.3846E-02
7	17.15	ENDO SULFATE	544.3764	0.0596%	25794	718	35.9	1	7	0	2.1105E-02
8	20.13	ISTD	900002.0000	98.5625%	900002	18650	48.3	1	8	0	1.0000E+00
9	24.03	END KETONE	3220.7039	0.3527%	102570	1918	53.5	1	9	0	3.1400E-02

TOTAL AMOUNT = 913128.6200

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
BETA BHC	2.60	BETA BHC
DDE 4'4'	6.88	DDE 4'4'
DDD 4'4'	10.50	DDD 4'4'

Data File = O:1SF3.PTS Printed on 03-07-1990 at 10:38:49
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 36263 uv High Value: 255793 uv Scale factor: 1.0



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

********** 03-02-1990 13:34:44 Version 4.1 **********

* Sample Name: DEG DDT Data File: O:1SF4 *
* Date: 02-28-1990 17:43:54 Method: N:PESTA5 03-02-1990 13:29:46 # 100 *
* Interface: 0 Cycle#: 4 Operator AK Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: Detector 1: ~~ECD CONF~~ *
* Misc. Information: LPT1: * *

****

Starting Delay: 1.50 Ending retention time: 45.00
Area reject: 50000 One sample per 1.000 sec.
Amount injected: 1.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

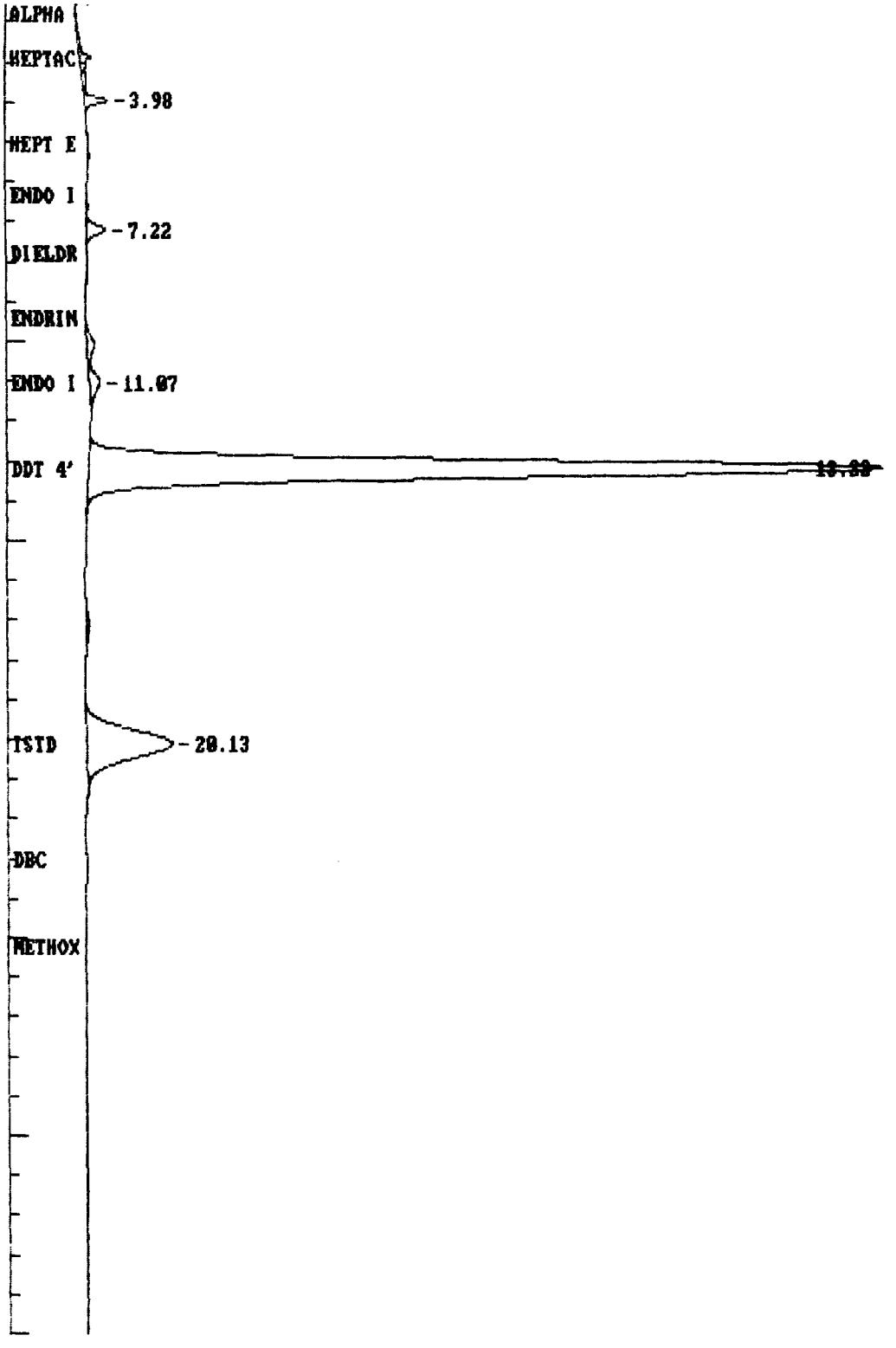
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
3	3.98		0.0000	0.0039%	51278	4749	10.8	2		12		1.0812E-10
7	7.22		0.0000	0.0054%	70219	4025	17.4	1		12		1.0812E-10
9	11.07	ENDO II	0.0012	0.8123%	80167	2390	33.5	2	9	12	0	1.4364E-08
10	13.22	DDT 4'4'	0.1406	99.1784%	5240341	175814	29.8	1	10	12	0	2.6829E-08
12	20.13	ISTD	1.0000	0.0000%	924904	18943	48.8	1	12	12	0	1.0812E-06

TOTAL AMOUNT = 0.1418

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	1.83	ALPHA BHC
LINDANE	2.30	LINDANE
HEPTACHLOR	2.90	HEPTACHLOR
ALDRIN	3.50	ALDRIN
HEPT EPOXIDE	5.08	HEPT EPOXIDE
ENDO I	6.37	ENDO I
DIELDRIN	7.79	DIELDRIN
ENDRIN	9.44	ENDRIN
DBC	23.03	DBC
METHOXYCHLOR	25.22	METHOXYCHLOR

Data File = 0:1SF4.PTS Printed on 03-02-1990 at 13:35:08
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 36238 uv High Value: 214814 uv Scale factor: 1.0



***** EXTERNAL STANDARD TABLE *****

********** 03-07-1990 10:40:04 Version 4.1 **********

* Sample Name: DEG DDT Data File: O:1SF4 *
* Date: 02-28-1990 17:43:54 Method: N:PESTB3 03-07-1990 10:27:33 # 28 *
* Interface: 0 Cycle#: 4 Operator AK Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: Detector 1: ~~ECD COMP~~ *
* Misc. Information: LPT1: * *

****

Starting Delay: 1.50 Ending retention time: 33.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 1.00 Dilution factor: 1.00
Sample Weight: 1.000000

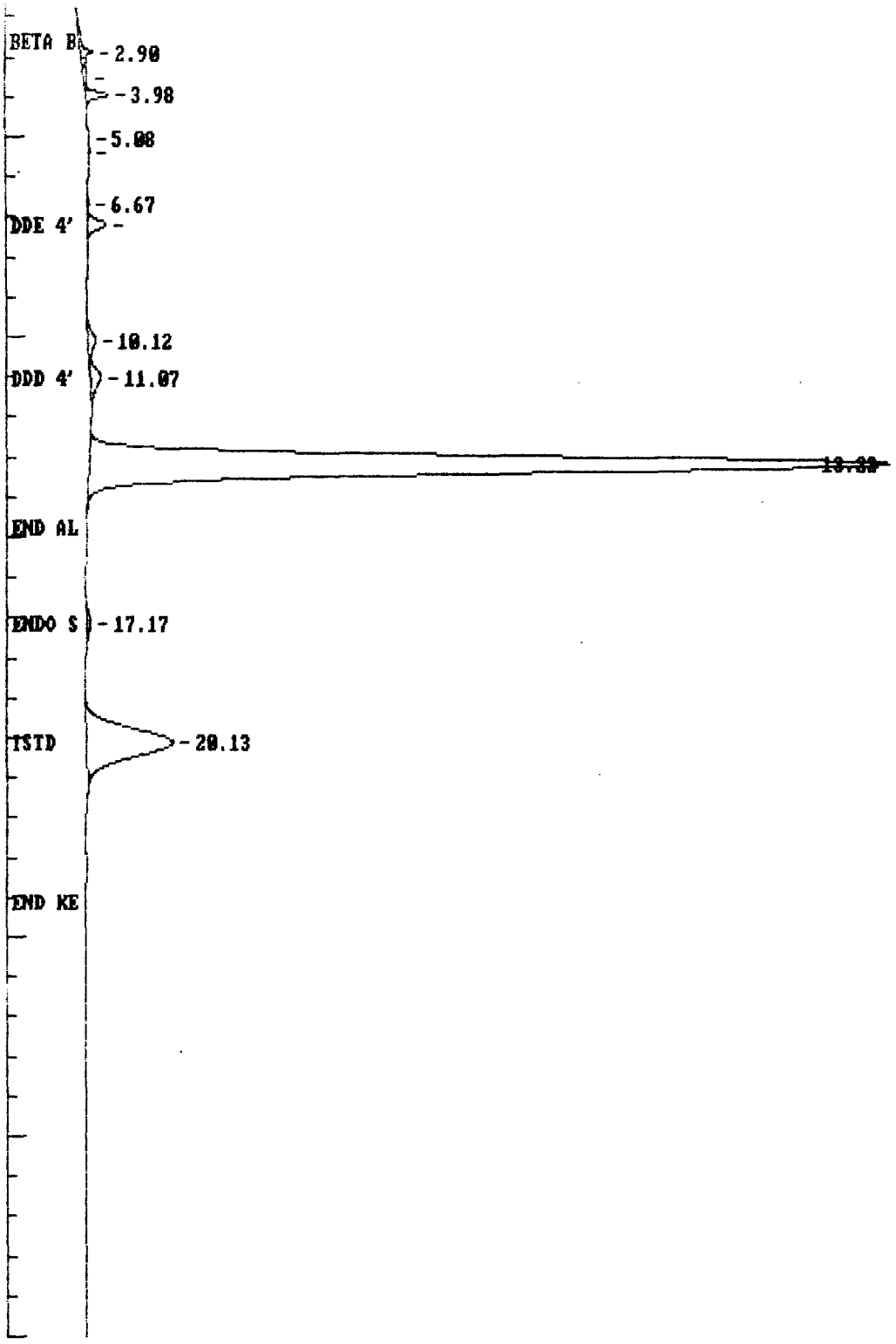
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
1	2.70	DELTA BHC	697.2644	0.0750%	39222	2371	16.5	2	1	0	1.7777E-02
7	7.22	DIE 4 4	1361.8344	0.1465%	70219	4025	17.4	1	7	0	1.9374E-02
9	11.07	DDD 4 4	1762.3661	0.1918%	80167	2390	33.5	2	9	0	2.1239E-02
11	17.17	ENDO SULFATE	603.8074	0.0650%	28610	778	36.8	1	11	0	2.1105E-02
12	20.13	ISTD	924904.3000	99.5216%	924904	18945	48.8	1	12	0	1.0000E+00

TOTAL AMOUNT = 929349.7500

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
BETA BHC	2.60	BETA BHC
END ALDEHYDE	[illegible]	END ALDEHYDE
END KETONE	[illegible]	END KETONE

Data File = [illegible] on 03-07-1990 at 10:40:30
Start time: [illegible] Stop time: 35.00 min. Offset: 0 mv.
Low Value: [illegible] uv High Value: 214814 uv Scale factor: 1.0



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

********** 03-07-1990 11:10:29 Version 4.1 **********

Sample Name: DEG ENDRIN Data File: 0:1SF29

Date: 03-01-1990 11:13:07 Method: N:PESTA5 03-02-1990 13:29:46 # 100

Interface: 0 Cycle#: 29 Operator AK Channel#: 0 Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quartz

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ~~ECD~~ CONF

Misc. Information: LPT1:

Starting Delay: 1.50 Ending retention time: 45.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

Internal Standard Amount: 1

Sample Weight: 1.000000

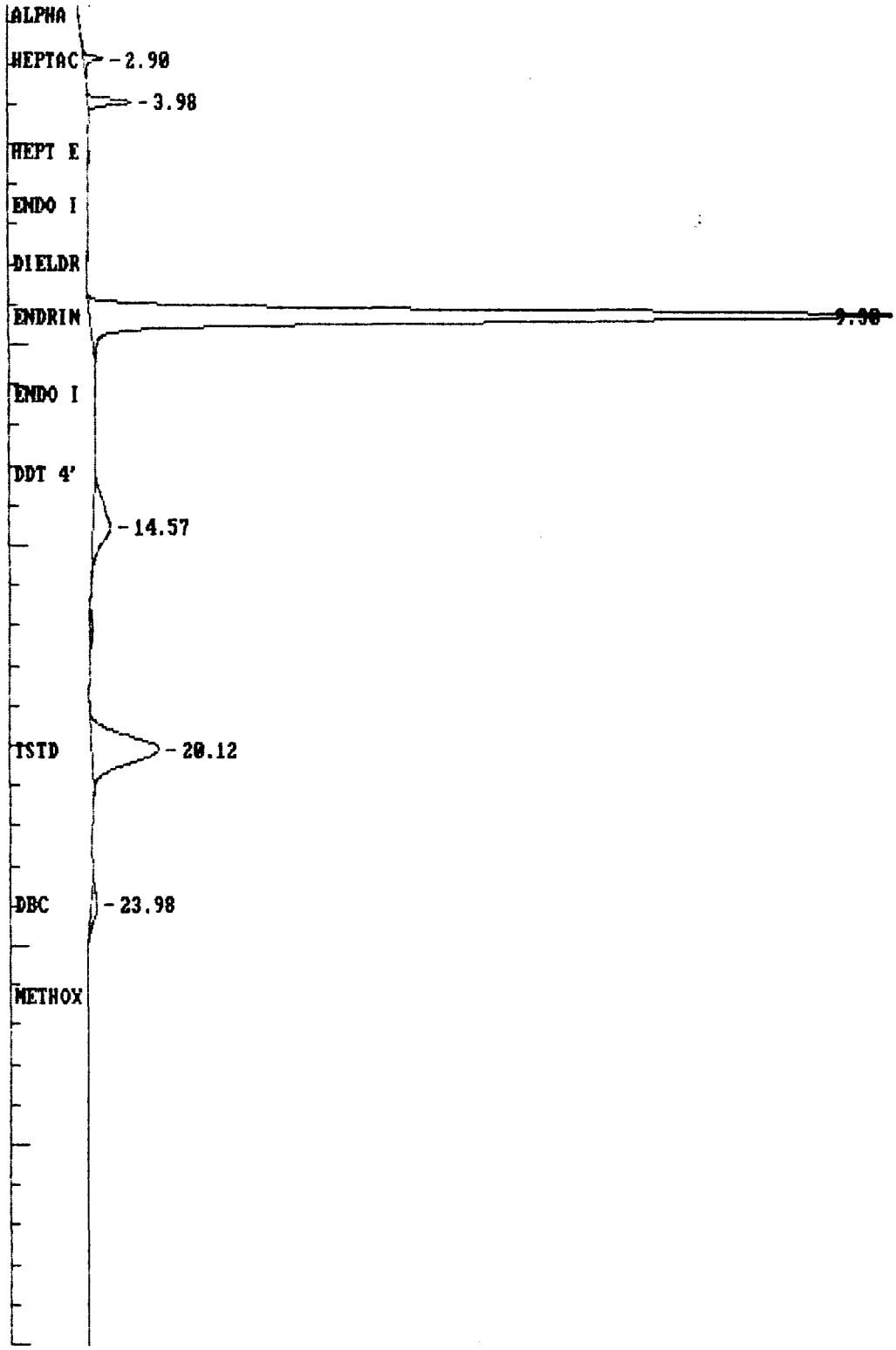
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	2.90	HEPTACHLOR	0.0002	0.1519%	58874	5231	11.3	3	1	8	0	3.8375E-09
3	3.98		0.0000	0.0091%	123257	12044	10.2	1		8		1.0985E-10
5	9.30	ENDRIN	0.1489	100.1505%	4787645	226942	21.1	1	5	8	0	3.1109E-08
6	14.57		0.0000	0.0251%	340372	4971	68.5	1		8		1.0985E-10
8	20.12	ISTD	1.0000	0.0000%	910365	19040	47.8	1	8	8	0	1.0985E-06
9	23.98	DBC	-0.0005	-0.3366%	82118	1581	51.9	1	9	8	0	-6.0964E-09

TOTAL AMOUNT = 0.1487

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	1.83	ALPHA BHC
LINDANE	2.30	LINDANE
ALDRIN	3.50	ALDRIN
HEPT EPOXIDE	5.20	HEPT EPOXIDE
ENDO I	6.51	ENDO I
DIELDRIN	7.96	DIELDRIN
ENDO II	11.23	ENDO II
DDT 4'4'	13.19	DDT 4'4'
METHOXYCHLOR	26.27	METHOXYCHLOR

Data File = 0:1SF29.PTS Printed on 03-07-1990 at 11:10:52
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 36737 uv High Value: 266806 uv Scale factor: 1.0



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

********** 03-07-1990 11:11:43 Version 4.1 **********

Sample Name: DEG ENDRIN Data File: O:1SF29

Date: 03-01-1990 11:13:07 Method: N:PESTB3 03-07-1990 10:27:33 # 28

Interface: 0 Cycle#: 29 Operator AK Channel#: 0 Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ~~ECD CONF~~

Misc. Information: LPT1:

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

Internal Standard Amount: 1

Sample Weight: 1.000000

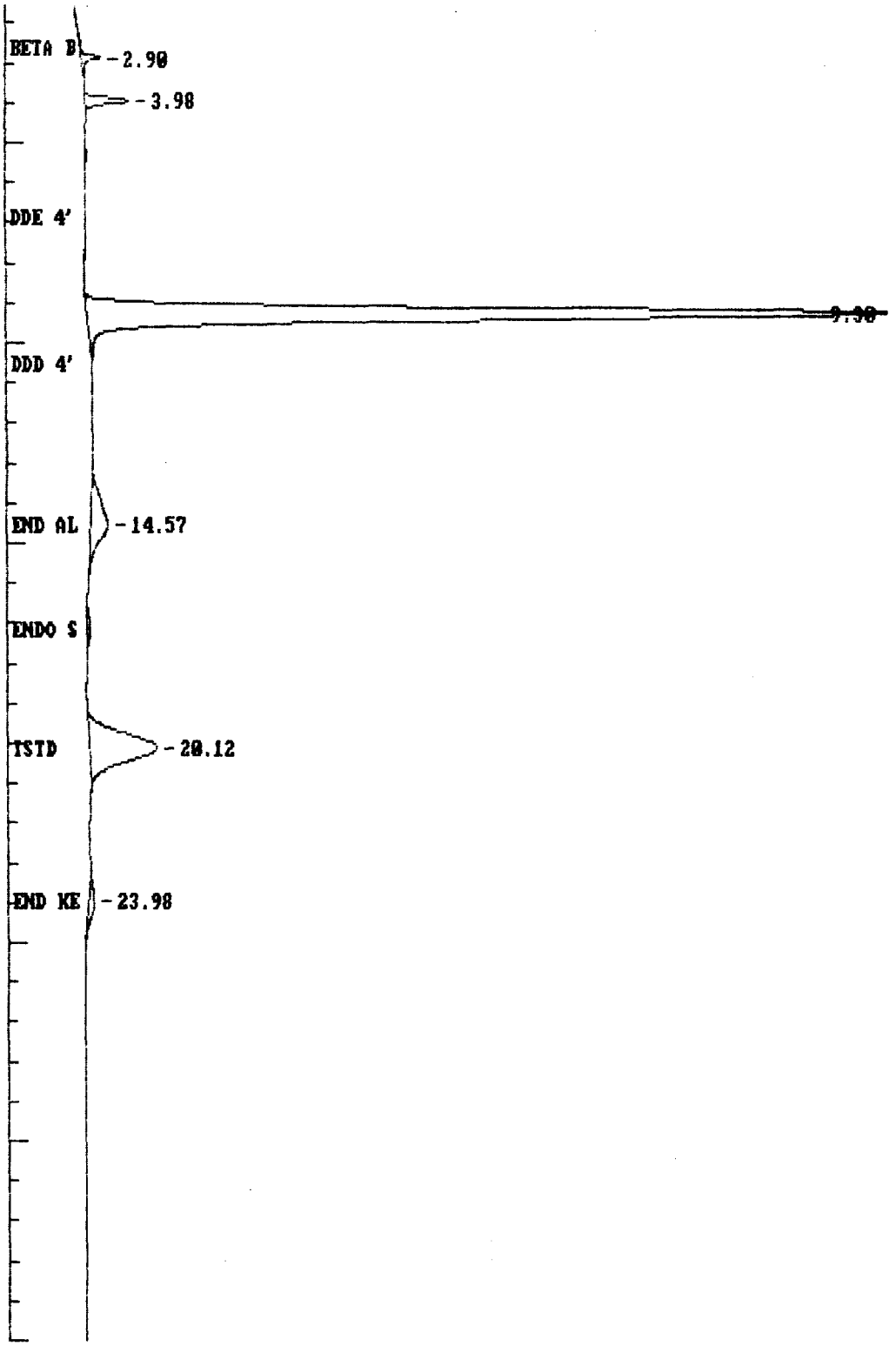
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	2.90	DELTA BHC	0.0011	8.9137%	58874	5231	11.3	3	1	8	0	1.9528E-08
6	14.57	END ALDEHYDE	0.0089	69.1258%	340372	4971	68.5	1	6	8	0	2.6194E-08
8	20.12	ISTD	1.0000	0.0000%	910365	19040	47.8	1	8	8	0	1.0985E-06
9	23.98	END KETONE	0.0028	21.9605%	82118	1581	51.9	1	9	8	0	3.4492E-08

TOTAL AMOUNT = 0.0129

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
BETA BHC	2.60	BETA BHC
DDE 4'4'	6.88	DDE 4'4'
DDD 4'4'	10.50	DDD 4'4'
ENDO SULFATE	17.13	ENDO SULFATE

Data File = O:1SF29.PTS Printed on 03-07-1990 at 11:12:03
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 36737 uv High Value: 266806 uv Scale factor: 1.0



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

********** 03-07-1990 11:12:54 Version 4.1 **********

Sample Name: DEG DDT Data File: O:1SF30

Date: 03-01-1990 11:40:10 Method: N:PESTA5 03-02-1990 13:29:46 # 100

Interface: O Cycle#: 30 Operator AK Channel#: O Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector O: Detector 1: ~~ECD~~ CONF

Misc. Information: LPT1:

Starting Delay: 1.50 Ending retention time: 45.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

Internal Standard Amount: 1

Sample Weight: 1.000000

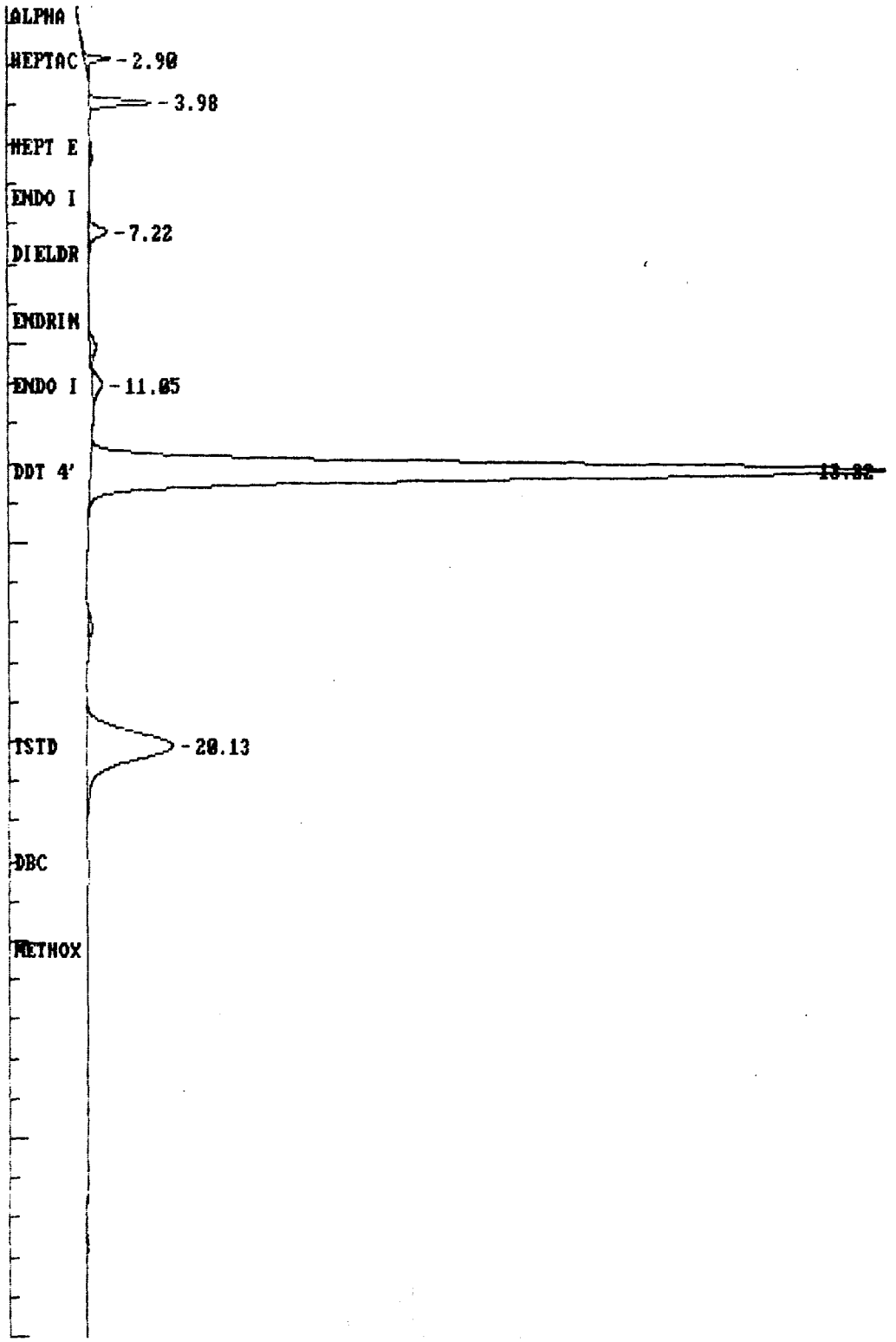
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	2.90	HEPTACHLOR	0.0002	0.1114%	60277	5643	10.7	3	1	12	0	2.5397E-09
3	3.98		0.0000	0.0107%	146164	14155	10.3	1		12		1.0068E-10
7	7.22		0.0000	0.0051%	69216	3971	17.4	1		12		1.0068E-10
9	11.05	ENDO II	0.0008	0.6122%	70939	2264	31.3	2	9	12	0	1.1856E-08
10	13.22	DDT 4'4'	0.1364	99.2606%	5456781	183047	29.8	1	10	12	0	2.4990E-08
12	20.13	ISTD	1.0000	0.0000%	993295	19690	50.4	1	12	12	0	1.0068E-06

TOTAL AMOUNT = 0.1374

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	1.83	ALPHA BHC
LINDANE	2.30	LINDANE
ALDRIN	3.50	ALDRIN
HEPT EPOXIDE	5.07	HEPT EPOXIDE
ENDO I	6.35	ENDO I
DIELDRIN	7.76	DIELDRIN
ENDRIN	9.41	ENDRIN
DBC	23.03	DBC
METHOXYCHLOR	25.22	METHOXYCHLOR

Data File = D:1SF30.PTS Printed on 03-07-1990 at 11:13:18
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 36487 uv High Value: 222397 uv Scale factor: 1.0



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

********** 03-07-1990 11:14:09 Version 4.1 **********

Sample Name: DEG DDT Data File: D:1SF30

Date: 03-01-1990 11:40:10 Method: N:PESTB3 03-07-1990 10:27:33 #28

Interface: 0 Cycle#: 30 Operator AK Channel#: 0 Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information: LPT1:

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

Internal Standard Amount: 1

Sample Weight: 1.000000

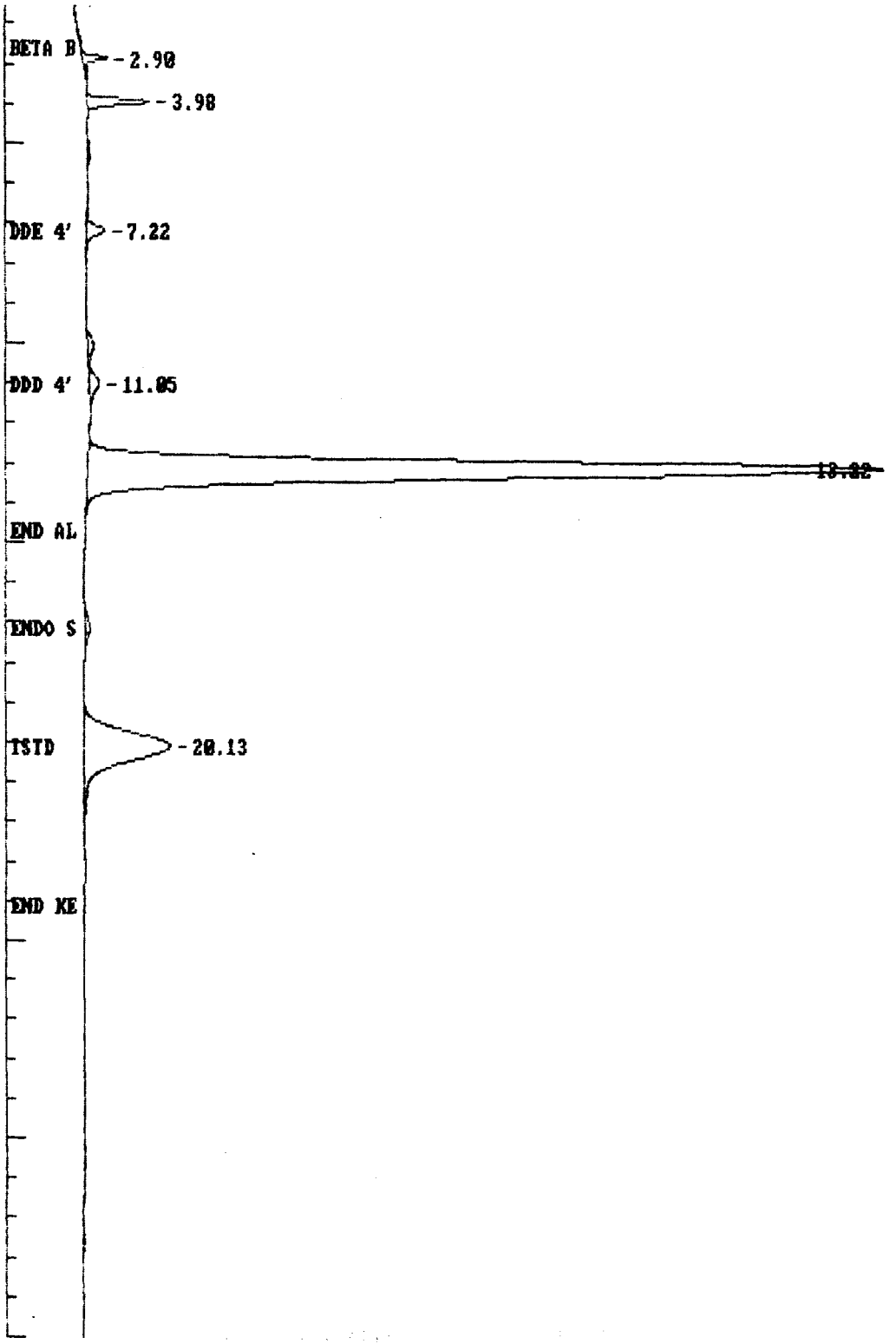
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	HEIGHT BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	2.90	DELTA BHC	0.0011	26.8455%	60277	5643	10.7	3	1	12	0	1.7897E-08
7	7.22	DDE 4'4'	0.0014	33.6304%	69216	3971	17.4	1	7	12	0	1.9525E-08
9	11.05	DDD 4'4'	0.0016	39.5241%	70939	2264	31.3	2	9	12	0	2.2390E-08
12	20.13	ISTD	1.0000	0.0000%	993295	19690	50.4	1	12	12	0	1.0068E-06

TOTAL AMOUNT = 0.0040

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
BETA BHC	2.60	BETA BHC
END ALDEHYDE	14.74	END ALDEHYDE
ENDO SULFATE	17.15	ENDO SULFATE
END KETONE	24.15	END KETONE

)ata File = O:1SF30.PTS Printed on 03-07-1990 at 11:14:29
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 36487 uv High Value: 222397 uv Scale factor: 1.0



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

********** 03-07-1990 11:15:20 Version 4.1 **********

Sample Name: DEG ENDRIN Data File: O:1SF43

Date: 03-01-1990 20:31:54 Method: N:PESTA5 03-02-1990 13:29:46 # 100

Interface: O Cycle#: 43 Operator AK Channel#: O Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector O: Detector 1: ECD CONF

Misc. Information: LPT1:

Starting Delay: 1.50 Ending retention time: [illegible]

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

Internal Standard Amount: 1

Sample Weight: 1.000000

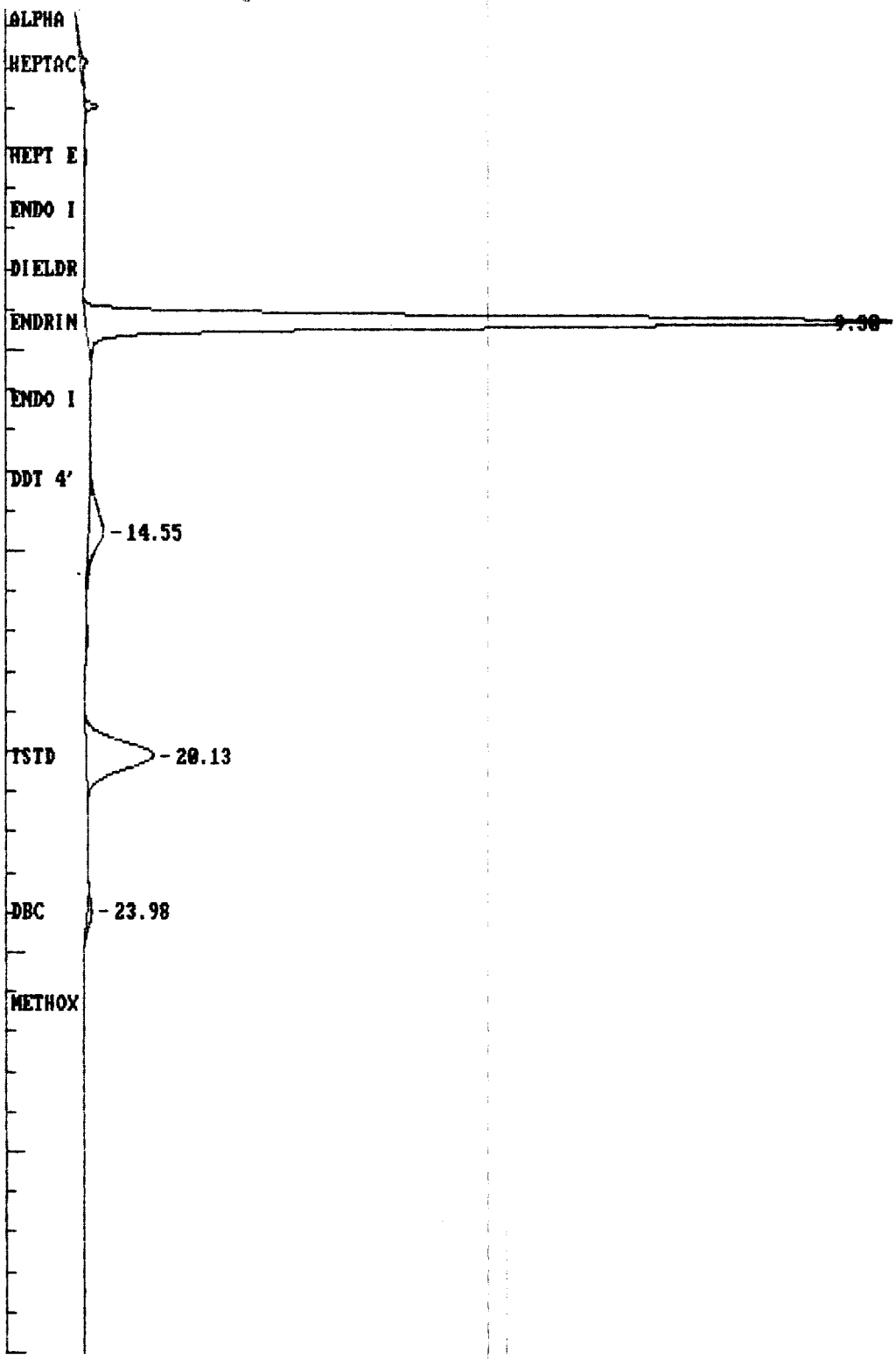
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
5	9.30	ENDRIN	0.1493	100.7810%	4815632	228754	21.1 1	5	8	0	3.0993E-08
6	14.55		0.0000	0.0207%	279734	4121	67.9 1		8		1.0944E-10
8	20.13	ISTD	1.0000	0.0000%	913769	18870	48.4 1	8	8	0	1.0944E-06
9	23.96	DBC	-0.0012	-0.8016%	61722	1247	49.5 1	9	8	0	-1.9234E-08

TOTAL AMOUNT = 0.1481

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET. TIME.	REFERENCE PEAK
ALPHA BHC	1.63	ALPHA BHC
LINDANE	2.30	LINDANE
HEPTACHLOR	2.90	HEPTACHLOR
ALDRIN	3.50	ALDRIN
HEPT EPOXIDE	5.20	HEPT EPOXIDE
ENDO I	6.51	ENDO I
DIELDRIN	7.96	DIELDRIN
ENDO II	[illegible]	ENDO II
DDT 4'4'	[illegible]	DDT 4'4'
METHOXYCHLOR	[illegible]	METHOXYCHLOR

Data File = U:[illegible] Printed on 03-07-1990 at 11:15:42
Start time: [illegible] min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: [illegible] uv High Value: 268382 uv Scale factor: 1.0



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

********** 03-07-1990 11:16:33 Version 4.1 **********

Sample Name: DEG ENDRIN Data File: O:1SF43

Date: 03-01-1990 20:31:54 Method: N:PESTB3 03-07-1990 10:27:33 # 28

Interface: O Cycle#: 43 Operator AK Channel#: O Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector O: Detector 1: ECD CONF

Misc. Information: LPT1:

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

Internal Standard Amount: 1

Sample Weight: 1.000000

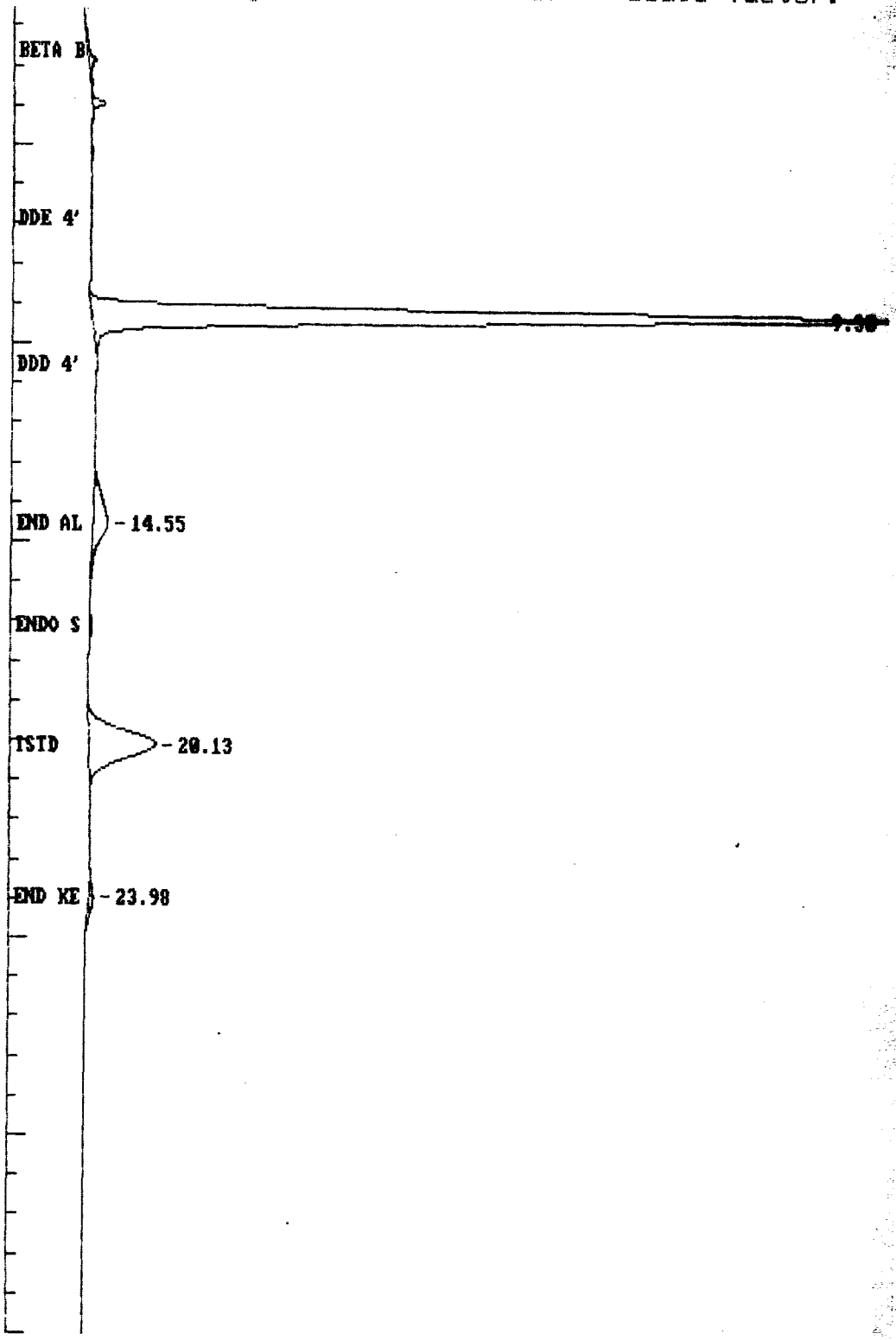
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
6	14.55	END ALDEHYDE	0.0073	77.4867%	279734	4121	67.9	1	6	8	0	2.6096E-08
8	20.13	ISTD	1.0000	0.0000%	913769	18870	48.4	1	8	8	0	1.0944E-06
9	23.98	END KETONE	0.0021	22.5133%	61722	1247	49.5	1	9	8	0	3.4363E-08

TOTAL AMOUNT = 0.0094

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
BETA BHC	2.60	BETA BHC
DELTA BHC	2.90	DELTA BHC
DDE 4'4'	6.88	DDE 4'4'
DDD 4'4'	10.50	DDD 4'4'
ENDO SULFATE	17.12	ENDO SULFATE

)ata File = 0:1SF43.PTS Printed on 03-07-1990 at 11:16:52
)tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
.ow Value: 36722 uv High Value: 268382 uv Scale factor: 1.0



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

********** 03-07-1990 11:17:42 Version 4.1 **********

Sample Name: DEG DDT Data File: 0:1SF44

Date: 03-01-1990 21:13:08 Method: N:PESTA5 03-02-1990 13:29:46 # 100

Interface: 0 Cycle#: 44 Operator AK Channel#: 0 Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information: LPT1:

Starting Delay: 1.50 Ending retention time: 45.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

Internal Standard Amount: 1

Sample Weight: 1.000000

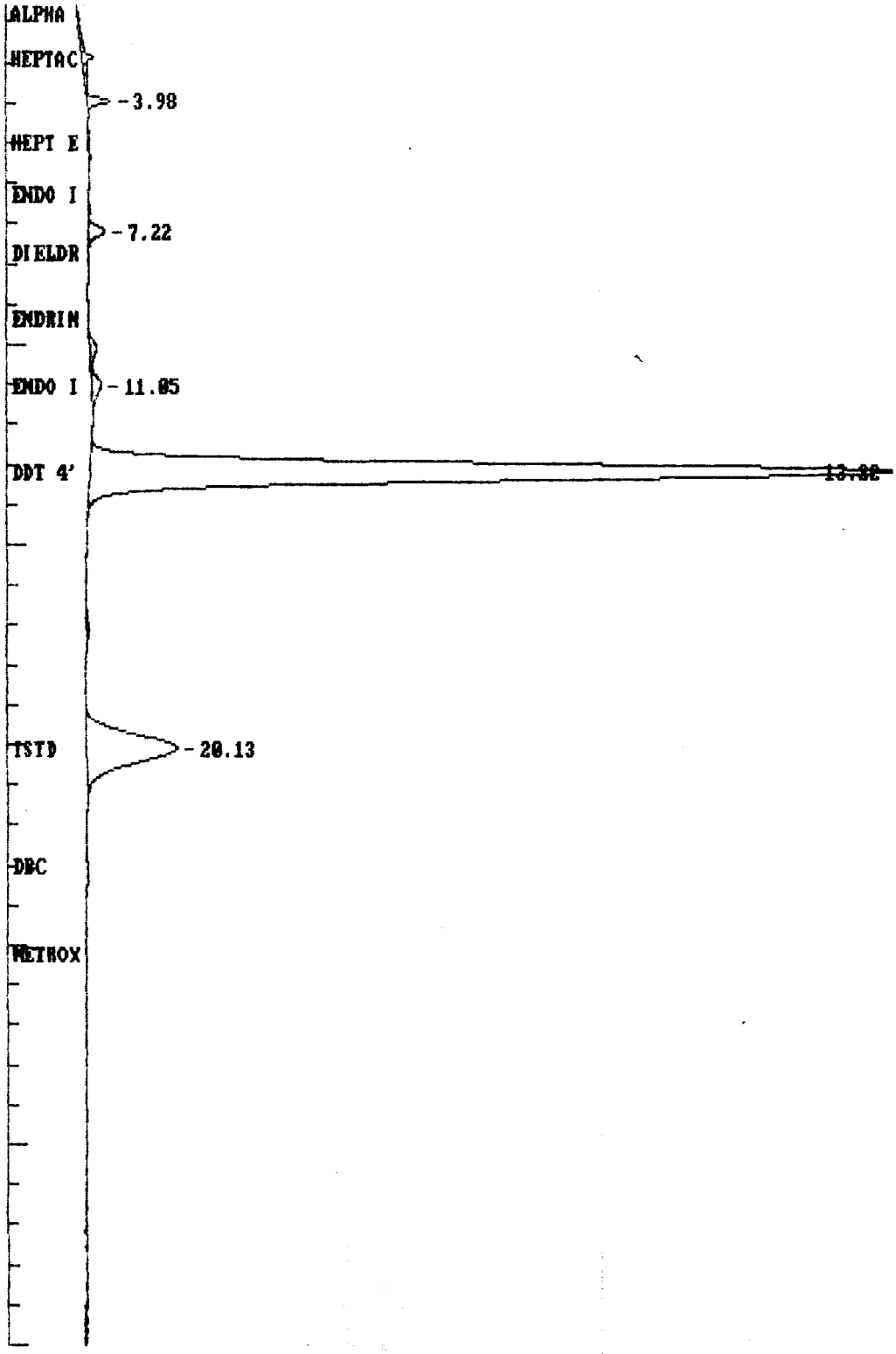
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
3	3.98		0.0000	0.0040%	53327	5031	10.6	2		12		1.0137E-10
7	7.22		0.0000	0.0046%	60483	3498	17.3	1		12		1.0137E-10
9	11.05	ENDO II	0.0008	0.5647%	66536	2027	32.8	2	9	12	0	1.1427E-08
10	13.22	DDT 4'4'	0.1339	99.4268%	5319292	178506	29.8	1	10	12	0	2.5167E-08
12	20.13	ISTD	1.0000	0.0000%	986475	20003	49.3	1	12	12	0	1.0137E-06

TOTAL AMOUNT = 0.1346

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	1.83	ALPHA BHC
LINDANE	2.30	LINDANE
HEPTACHLOR	2.90	HEPTACHLOR
ALDRIN	3.55	ALDRIN
HEPT EPOXIDE	5.03	HEPT EPOXIDE
ENDO I	6.30	ENDO I
DIELDRIN	7.71	DIELDRIN
ENDRIN	9.35	ENDRIN
DBC	23.03	DBC
METHOXYCHLOR	25.22	METHOXYCHLOR

Data File = 0:1SF44.PTS Printed on 03-07-1990 at 11:18:05
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 36530 uv High Value: 217815 uv Scale factor: 1.0



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

********** 03-07-1990 11:18:56 Version 4.1 **********

Sample Name: DEG DDT Data File: O:1SF44

Date: 03-01-1990 21:13:08 Method: N:PESTB3 03-07-1990 10:27:33 # 28

Interface: O Cycle#: 44 Operator AK Channel#: O Vial#: N.A.

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

****

Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector O: Detector 1: ECD CONF

Misc. Information: LPT1:

****

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

Internal Standard Amount: 1

Sample Weight: 1.000000

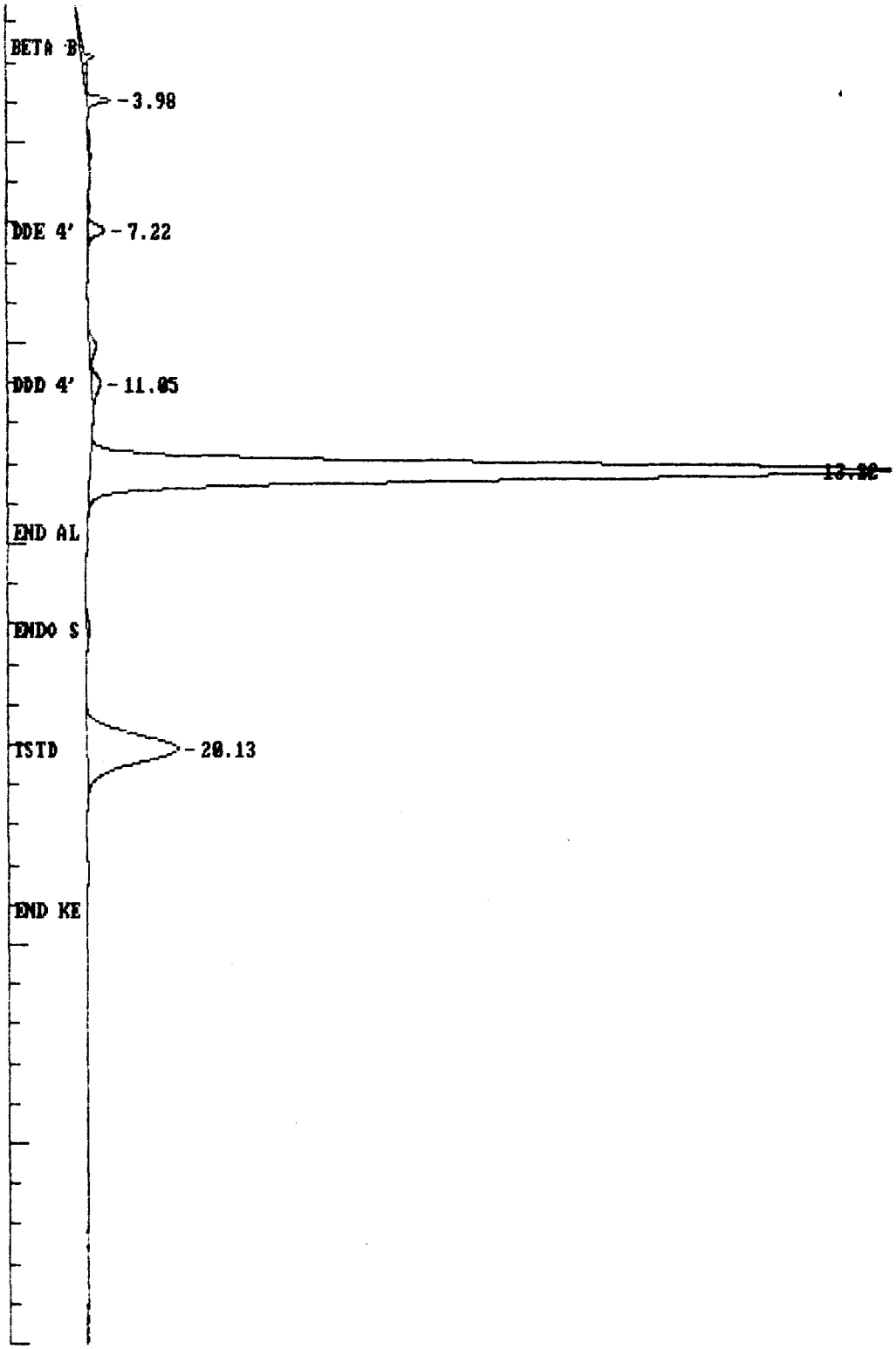
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
7	7.22	DDE 4'4'	0.0012	44.2192%	60483	3498	17.3	1	7	12	0	1.9660E-08
9	11.05	DDD 4'4'	0.0015	55.7808%	66536	2027	32.8	2	9	12	0	2.2544E-08
12	20.13	ISTD	1.0000	0.0000%	986475	20003	49.3	1	12	12	0	1.0137E-06

TOTAL AMOUNT = 0.0027

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
BETA BHC	2.60	BETA BHC
DELTA BHC	2.90	DELTA BHC
END ALDEHYDE	14.74	END ALDEHYDE
ENDO SULFATE	17.17	ENDO SULFATE
END KETONE	24.15	END KETONE

Data File = D:1SF44.PTS Printed on 03-07-1990 at 11:19:14
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 36530 uv High Value: 217815 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: SF6986 DATA SET NAME Murrel

DATE: 03-08-90 COLUMN TYPE CONF GC # 1

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

CALIBRATI	DATE ANALYZED	FILE NAME	AREA OF END ALD	AREA OF END KET	AREA OF ENDRIN	% DEG
INITIAL	03-02-90	2SF3	116072	0	14782065	1
CONT	03-03-90	2SF22	1123003	0	13294681	8
CONT	03-04-90	2SF48	835306	0	18321604	4
						ERR
						ERR
						ERR

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

CALIBRATI	DATE ANALYZED	FILE NAME	AREA OF DDE	AREA OF DDD	AREA OF DDT	% DEG
INITIAL	03-02-90	2SF2	927415	457736	21801948	6
CONT	03-03-90	2SF21	816641	0	20660992	4
CONT	03-04-90	2SF49	1364661	0	17557990	7
						ERR

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

********** 03-09-1990 08:32:49 Version 4.1 **********

Sample Name: END DEGRADATION Data File: P:2SF3

Date: 03-02-1990 17:33:11 Method: N:CONPESA 03-08-1990 14:03:43 # 27

Interface: 0 Cycle#: 3 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 30 Threshold: 10 Area Threshold: 1000

****

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information: LPT1:

****

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 0 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

Internal Standard Amount: 1

Sample Weight: 1.000000

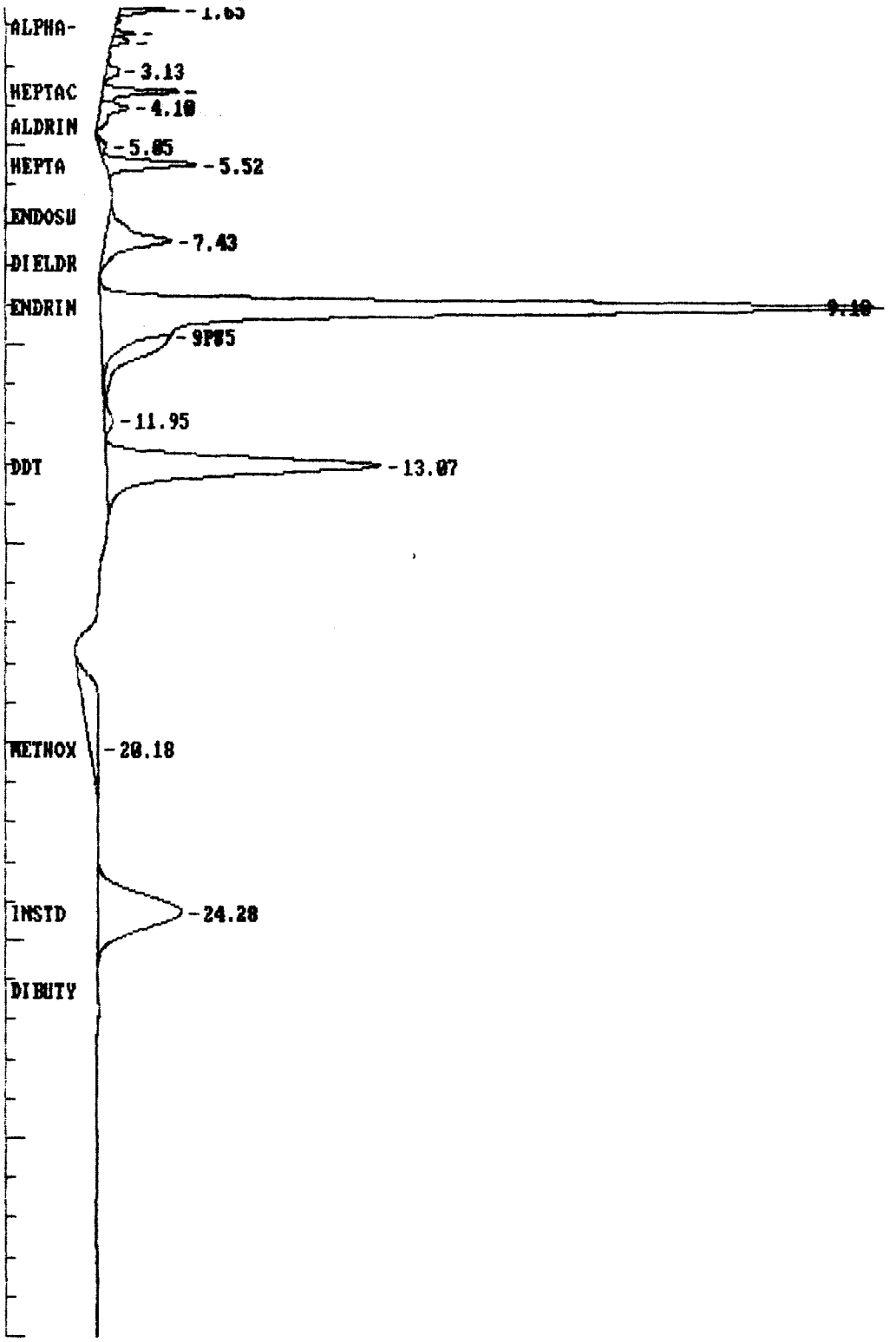
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ug\L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	1.65		0.0000	0.0048%	243512	40073	6.1	1		15		2.9684E-11
2	2.22		0.0000	0.0018%	90758	14774	6.1	2		15		2.9684E-11
3	2.43	LINDANE	0.0007	0.4959%	129655	12011	10.8	2	3	15	0	5.7299E-09
4	3.13		0.0000	0.0027%	137728	7586	18.2	2		15		2.9684E-11
5	3.68	HEPTACHLOR	0.0026	1.7258%	530933	50174	10.6	2	5	15	0	4.8697E-09
6	4.10		0.0000	0.0080%	406213	18759	21.7	2		15		2.9684E-11
7	5.05		0.0000	0.0016%	79062	4424	17.9	2		15		2.9684E-11
8	5.52	HEPTA EPOXIDE	0.0047	3.1054%	827846	60325	13.7	2	8	15	0	5.6200E-09
9	7.43		0.0000	0.0258%	1300260	43917	29.6	1		15		2.9684E-11
10	9.10	ENDRIN+ENDO II	0.0854	56.9773%	13669849	520631	26.3	3	10	15	0	6.2445E-09
11	9.85		0.0000	0.0221%	1116072	14549	76.7	4		15		2.9684E-11
12	11.95		0.0000	0.0035%	177756	5242	33.9	2		15		2.9684E-11
13	13.07	DDT	0.0434	28.9626%	5619592	181957	30.9	2	13	15	0	7.7214E-09
14	20.18	METHOXYCHLOR	0.0130	8.6627%	1163909	5063	229.9	1	14	15	0	1.1151E-08
15	24.28	INSTD MIREX	1.0000	0.0000%	3368872	55186	61.0	1	15	15	0	2.9684E-07

TOTAL AMOUNT = 0.1498

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
LPHA-BHC	2.05	ALPHA-BHC
LDRIN	4.52	ALDRIN
NDOSULFAN I	6.83	ENDOSULFAN I
IELDRIN	7.97	DIELDRIN
IBUTYLCHLORENDATE	26.30	DIBUTYLCHLORENDATE

Data File = P:2SF3.PTS Printed on 03-09-1990 at 08:33:35
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 46915 uv High Value: 584020 uv Scale factor: 1.0



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

********** 03-09-1990 08:34:36 Version 4.1 **********

Sample Name: END DEGRADATION Data File: P:2SF3

Date: 03-02-1990 17:33:11 Method: N:CONFESB 03-08-1990 14:04:37 # 19

Interface: 0 Cycle#: 3 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 30 Threshold: 10 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information: LPT1:

tarting Delay: 1.50 Ending retention time: 35.00

rea reject: 0 One sample per 1.000 sec.

mount injected: 1.00 Dilution factor: 1.00

nternal Standard Amount: 1

ample Weight: 1.000000

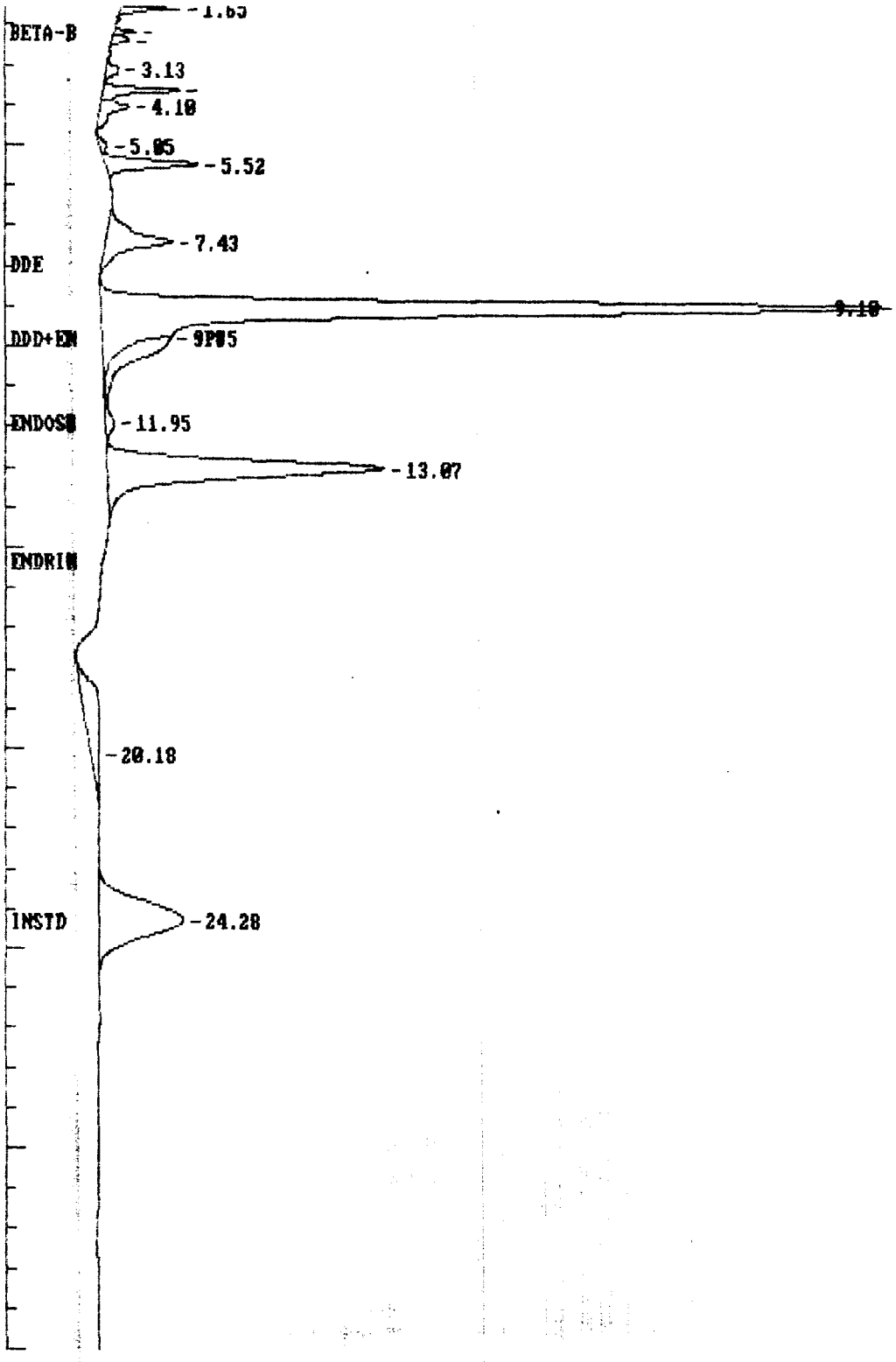
AK UM	RET TIME	PEAK NAME	CONCENTRATION in ug\L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	1.65		0.0000	0.0552%	243512	40073	6.1	1		15		2.9684E-11
2	2.22	BETA-BHC	0.0007	5.6398%	90758	14774	6.1	2	2	15	0	8.1324E-09
3	2.43	DELTA-BHC	0.0010	7.8896%	129655	12011	10.8	2	3	15	0	7.9636E-09
4	3.13		0.0000	0.0312%	137728	7586	18.2	2		15		2.9684E-11
5	3.68		0.0000	0.1204%	530933	50174	10.6	2		15		2.9684E-11
6	4.10		0.0000	0.0921%	406213	18759	21.7	2		15		2.9684E-11
7	5.05		0.0000	0.0179%	79062	4424	17.9	2		15		2.9684E-11
8	5.52		0.0000	0.1878%	827846	60325	13.7	2		15		2.9684E-11
9	7.43		0.0000	0.2949%	1300260	43917	29.6	1		15		2.9684E-11
0	9.10		0.0004	3.1006%	13669849	520631	26.3	3		15		2.9684E-11
1	9.85	DDD+ENDRINALDE	0.0084	64.4784%	1116072	14549	76.7	4	11	15	0	7.5607E-09
2	11.95	ENDOSULFAN 504	0.0022	16.5534%	177756	5242	33.9	2	12	15	0	1.2187E-08
3	13.07		0.0002	1.2746%	5619592	181957	30.9	2		15		2.9684E-11
4	20.18		0.0000	0.2640%	1163909	5063	229.9	1		15		2.9684E-11
5	24.28	INSTD MIREX	1.0000	0.0000%	3368872	55186	61.0	1	15	15	0	2.9684E-07

TOTAL AMOUNT = 0.0131

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
DE	7.94	DDE
NDRIN KETONE	15.33	ENDRIN KETONE

ata File = P:2SF3.PTS Printed on 03-09-1990 at 08:35:18
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 46915 uv High Value: 584020 uv Scale factor: 1.0



utput redirected to LPT1:

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

********** 03-09-1990 09:15:19 Version 4.1 **********

Sample Name: END DEGRADATION Data File: P:2SF22 *
Date: 03-03-1990 06:37:58 Method: N:CONPESA 03-08-1990 14:03:43 # 27 *
Interface: 0 Cycle#: 22 Operator AK Channel#: 0 Vial#: N.A. *
Starting Peak Width: 30 Threshold: 10 Area Threshold: 1000 *

****

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE *
Solvent Description: ULTRA HIGH PURITY NITROGEN *
Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
Detector 0: Detector 1: ECD CONF *
Misc. Information: LPT1: * *

****

tarting Delay: 1.50 Ending retention time: 35.00
rea reject: 0 One sample per 1.000 sec.
mount injected: 1.00 Dilution factor: 1.00
nternal Standard Amount: 1
ample Weight: 1.000000

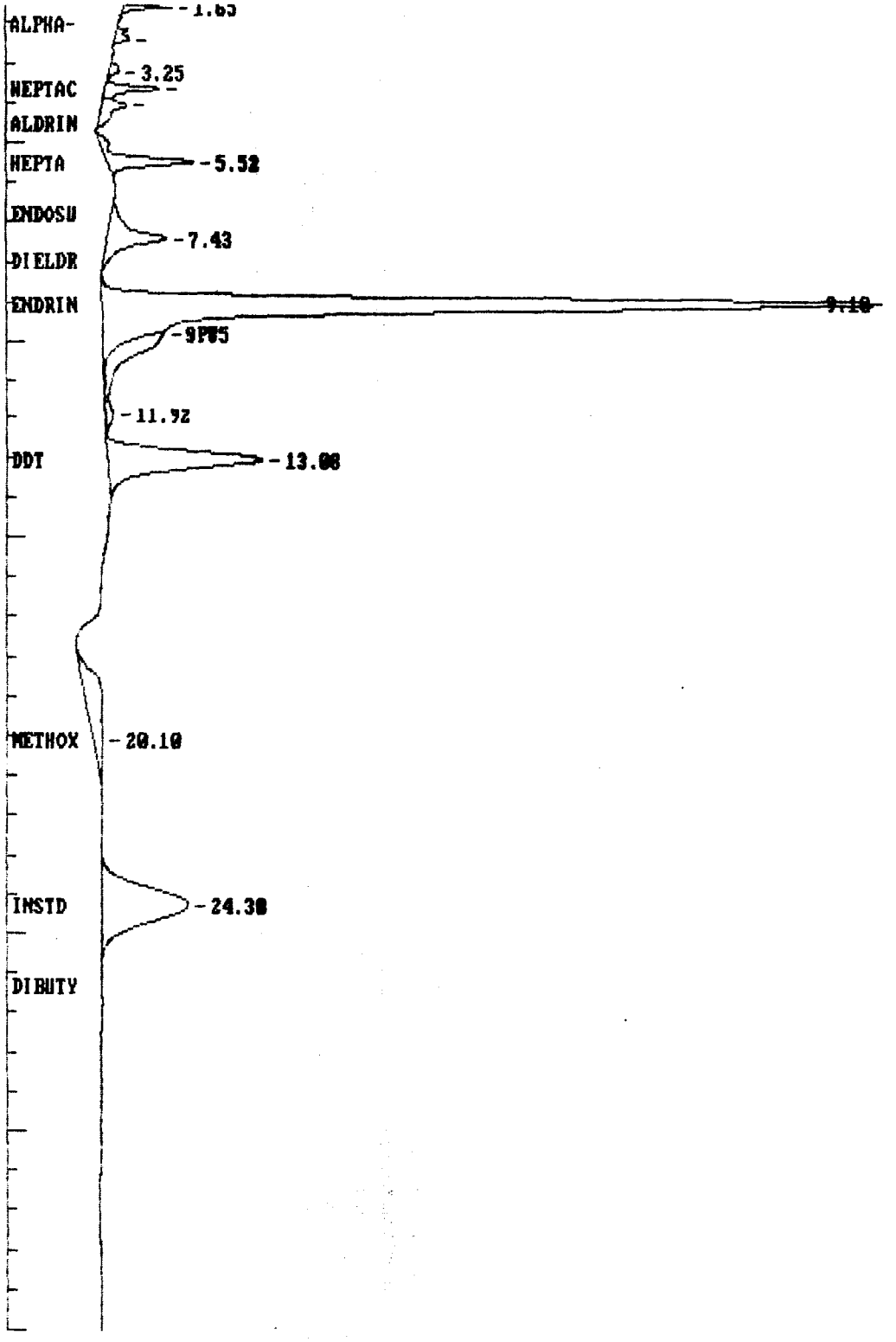
AK UM	RET TIME	PEAK NAME	CONCENTRATION in ug\L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	1.65		0.0000	0.0042%	182588	33268	5.5	1		13		2.8374E-11
2	2.43	LINDANE	0.0008	0.6798%	153855	10055	15.3	1	2	13	0	5.4772E-09
3	3.25		0.0000	0.0026%	114681	6552	17.5	2		13		2.8374E-11
4	3.68	HEPTACHLOR	0.0020	1.5907%	423589	36902	11.5	2	4	13	0	4.6549E-09
5	4.10		0.0000	0.0096%	418519	17264	24.2	2		13		2.8374E-11
6	5.52	HEPTA EPOXIDE	0.0049	3.9692%	915828	57174	16.0	1	6	13	0	5.3721E-09
7	7.43		0.0000	0.0271%	1184991	39763	29.8	1		13		2.8374E-11
8	9.10	ENDRIN+ENDO II	0.0794	64.0220%	13294681	523506	25.4	3	8	13	0	5.9691E-09
9	9.85		0.0000	0.0257%	1123003	13550	82.9	4		13		2.8374E-11
0	11.92		0.0000	0.0045%	195907	5201	37.7	2		13		2.8374E-11
1	13.08	DDT	0.0240	19.3245%	3245351	103899	31.2	1	11	13	0	7.3809E-09
2	20.10	METHOXYCHLOR	0.0128	10.3401%	1202486	5817	206.7	1	12	13	0	1.0659E-08
3	24.30	INSTD MIREX	1.0000	0.0000%	3524307	57697	61.1	1	13	13	0	2.8374E-07

TOTAL AMOUNT = 0.1240

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
LPHA-BHC	2.05	ALPHA-BHC
LDRIN	4.52	ALDRIN
NDOSULFAN I	6.83	ENDOSULFAN I
IELDRIN	7.97	DIELDRIN
IBUTYLCHLORENDATE	26.32	DIBUTYLCHLORENDATE

Data File = P:2SF22.PTS Printed on 03-09-1990 at 09:16:14
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 49092 uv High Value: 589747 uv Scale factor: 1.0



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

********** 03-09-1990 09:17:10 Version 4.1 **********

Sample Name: END DEGRADATION Data File: P:2SF22 *

Date: 03-03-1990 06:37:58 Method: N:CONPESB 03-08-1990 14:04:37 # 19 *

Interface: 0 Cycle#: 22 Operator AK Channel#: 0 Vial#: N.A. *

Starting Peak Width: 30 Threshold: 10 Area Threshold: 1000 *

****

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

********** 03-09-1990 09:18:13 Version 4.1 **********

Sample Name: END DEGRADATION Data File: P:2SF22 *
Date: 03-03-1990 06:37:58 Method: N:CONPESB 03-08-1990 14:04:37 # 19 *
Interface: 0 Cycle#: 22 Operator AK Channel#: 0 Vial#: N.A. *
Starting Peak Width: 30 Threshold: 10 Area Threshold: 1000 *

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE *
Solvent Description: ULTRA HIGH PURITY NITROGEN *
Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
Detector 0: Detector 1: ECD CONF *
Misc. Information: LPT1: * *

tarting Delay: 1.50 Ending retention time: 35.00
rea reject: 0 One sample per 1.000 sec.
mount injected: 1.00 Dilution factor: 1.00
nternal Standard Amount: 1
ample Weight: 1.000000

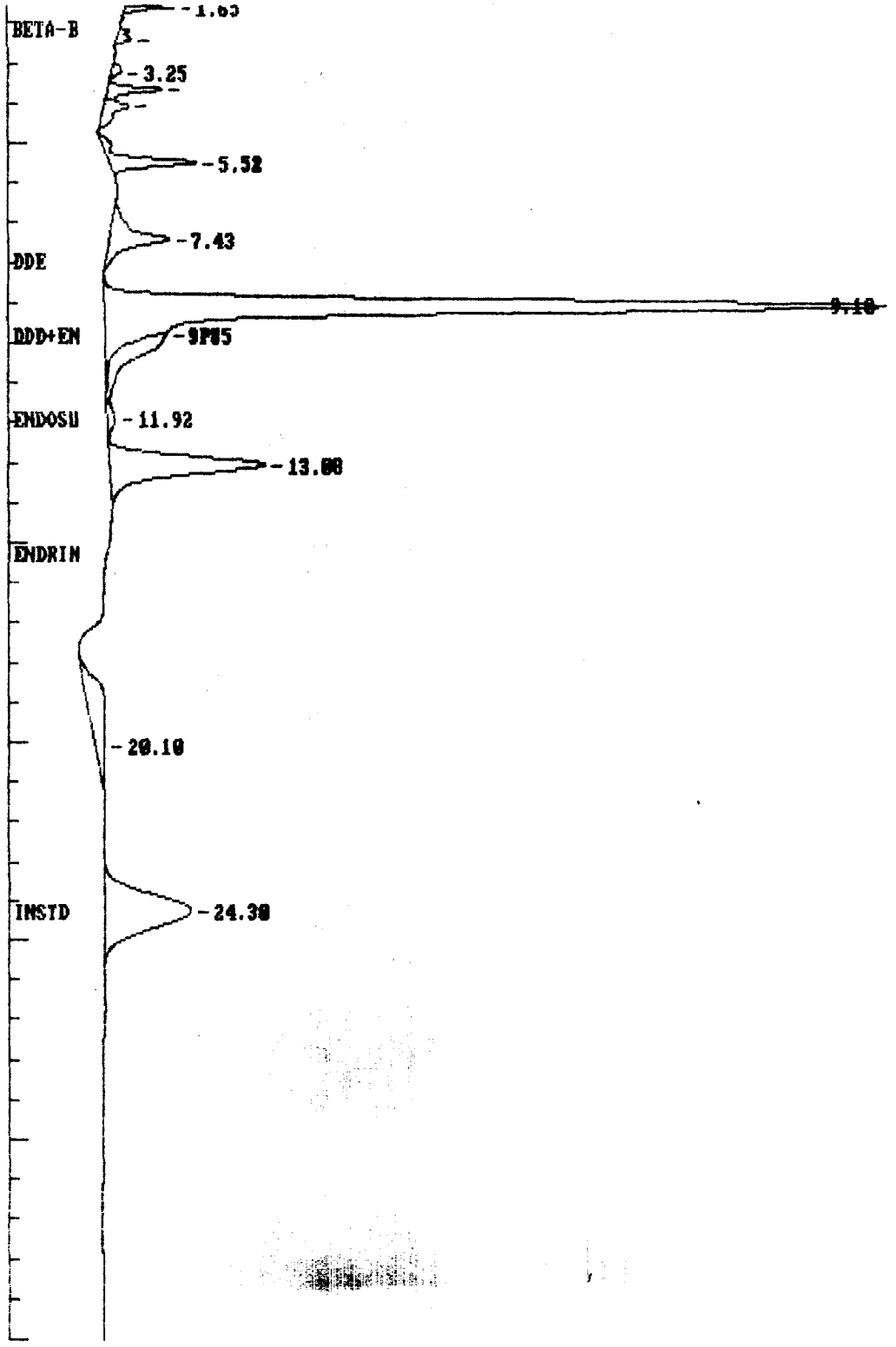
:AK IUM	RET TIME	PEAK NAME	CONCENTRATION in ug\L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	1.65		0.0000	0.0426%	182588	33268	5.5	1		13		2.8374E-11
2	2.43	DELTA-BHC	0.0012	9.6276%	153855	10055	15.3	1	2	13	0	7.6123E-09
3	3.25		0.0000	0.0267%	114681	6552	17.5	2		13		2.8374E-11
4	3.68		0.0000	0.0988%	423589	36902	11.5	2		13		2.8374E-11
5	4.10		0.0000	0.0976%	418519	17264	24.2	2		13		2.8374E-11
6	5.52		0.0000	0.2136%	915828	57174	16.0	1		13		2.8374E-11
7	7.43		0.0000	0.2764%	1184991	39763	29.8	1		13		2.8374E-11
8	9.10		0.0004	3.1009%	13294681	523506	25.4	3		13		2.8374E-11
9	9.85	DDD+ENDRINALDE	0.0081	66.7176%	1123003	13550	82.9	4	9	13	0	7.2273E-09
0	11.92	ENDOSULFAN SO4	0.0023	18.7608%	195907	5201	37.7	2	10	13	0	1.1650E-08
1	13.08		0.0001	0.7570%	3245351	103899	31.2	1		13		2.8374E-11
2	20.10		0.0000	0.2805%	1202486	5817	206.7	1		13		2.8374E-11
3	24.30	INSTD MIREX	1.0000	0.0000%	3524307	57697	61.1	1	13	13	0	2.8374E-07

TOTAL AMOUNT = 0.0122

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
ETA-BHC	2.18	BETA-BHC
DE	7.94	DDE
NDRIN KETONE	15.29	ENDRIN KETONE

ata File = P:2SF22.PTS Printed on 03-09-1990 at 09:18:47
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 49092 uv High Value: 589747 uv Scale factor: 1.0



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

********** 03-09-1990 08:42:52 Version 4.1 **********

Sample Name: DEG ENDRIN Data File: P:2SF48

Date: 03-04-1990 00:31:20 Method: N:CONPESA 03-08-1990 14:03:43 # 27

Interface: 0 Cycle#: 48 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 30 Threshold: 10 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 0 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

Internal Standard Amount: 1

Sample Weight: 1.000000

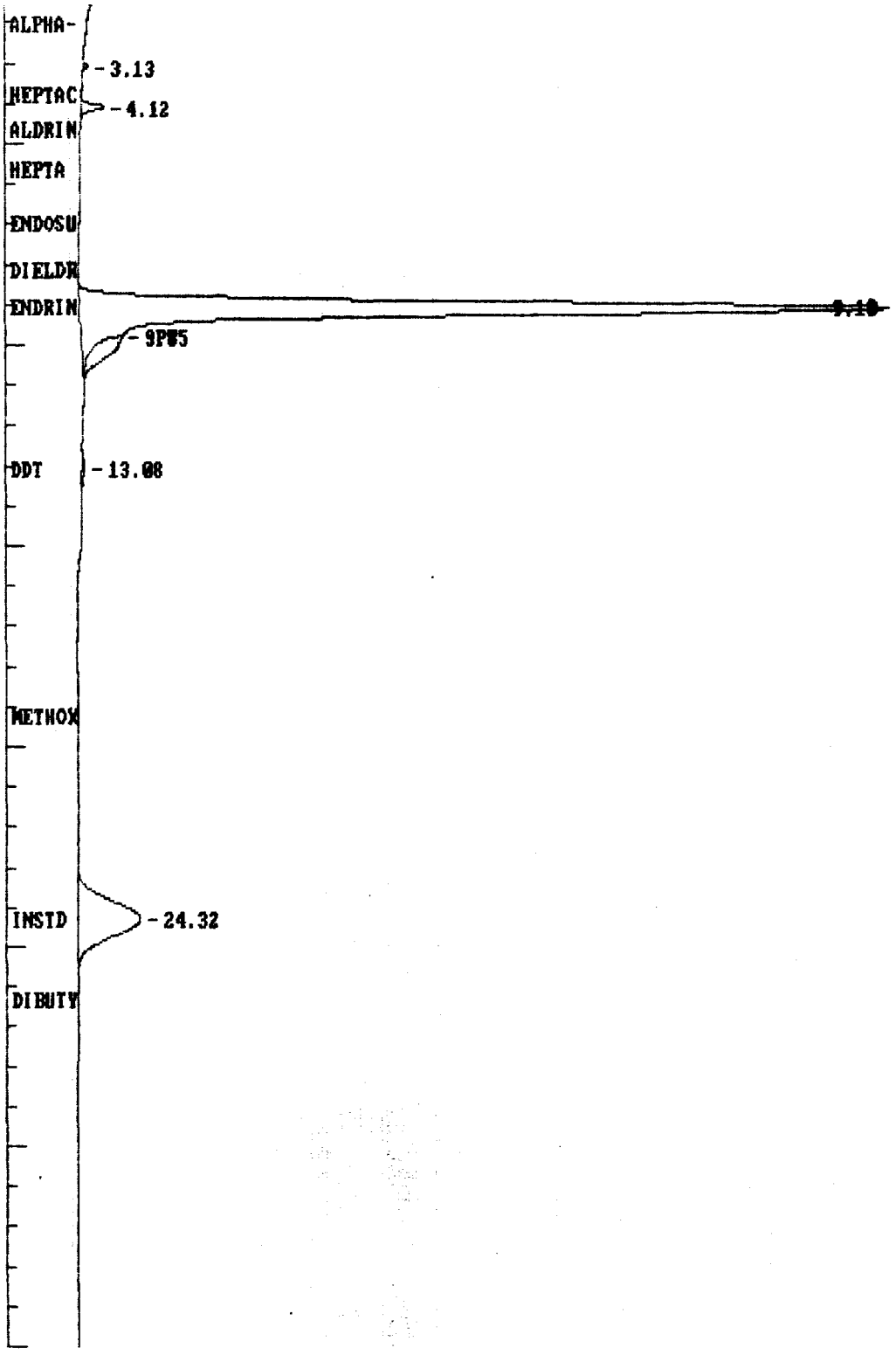
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ug\L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	3.13		0.0000	0.0010%	38571	4345	8.9	1		6		2.8992E-11
2	4.12		0.0000	0.0063%	243618	20396	11.9	1		6		2.8992E-11
3	9.10	ENDRIN+ENDO II	0.1117	99.4673%	18321604	736715	24.9	3	3	6	0	6.0992E-09
4	9.85		0.0000	0.0216%	835306	12403	67.3	4		6		2.8992E-11
5	13.08	DDT	0.0006	0.5039%	75061	2594	28.9	1	5	6	0	7.5416E-09
6	24.32	INSTD MIREX	1.0000	0.0000%	3449172	56672	60.9	1	6	6	0	2.8992E-07

TOTAL AMOUNT = 0.1123

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA-BHC	2.05	ALPHA-BHC
LINDANE	2.40	LINDANE
HEPTACHLOR	3.80	HEPTACHLOR
ALDRIN	4.67	ALDRIN
HEPTA EPOXIDE	5.65	HEPTA EPOXIDE
ENDOSULFAN I	7.00	ENDOSULFAN I
DIELDRIN	8.17	DIELDRIN
METHOXYCHLOR	19.22	METHOXYCHLOR
DIBUTYLCHLORENDATE	26.34	DIBUTYLCHLORENDATE

ata File = P:2SF48.PTS Printed on 03-09-1990 at 08:43:22
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 68854 uv High Value: 809523 uv Scale factor: 1.0



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

********** 03-09-1990 08:44:16 Version 4.1 **********

Sample Name: DEG ENDRIN Data File: P:2SF48

Date: 03-04-1990 00:31:20 Method: N:CONPESB 03-08-1990 14:04:37 # 19

Interface: 0 Cycle#: 48 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 30 Threshold: 10 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

tarting Delay: 1.50 Ending retention time: 35.00

rea reject: 0 One sample per 1.000 sec.

mount injected: 1.00 Dilution factor: 1.00

nternal Standard Amount: 1

ample Weight: 1.000000

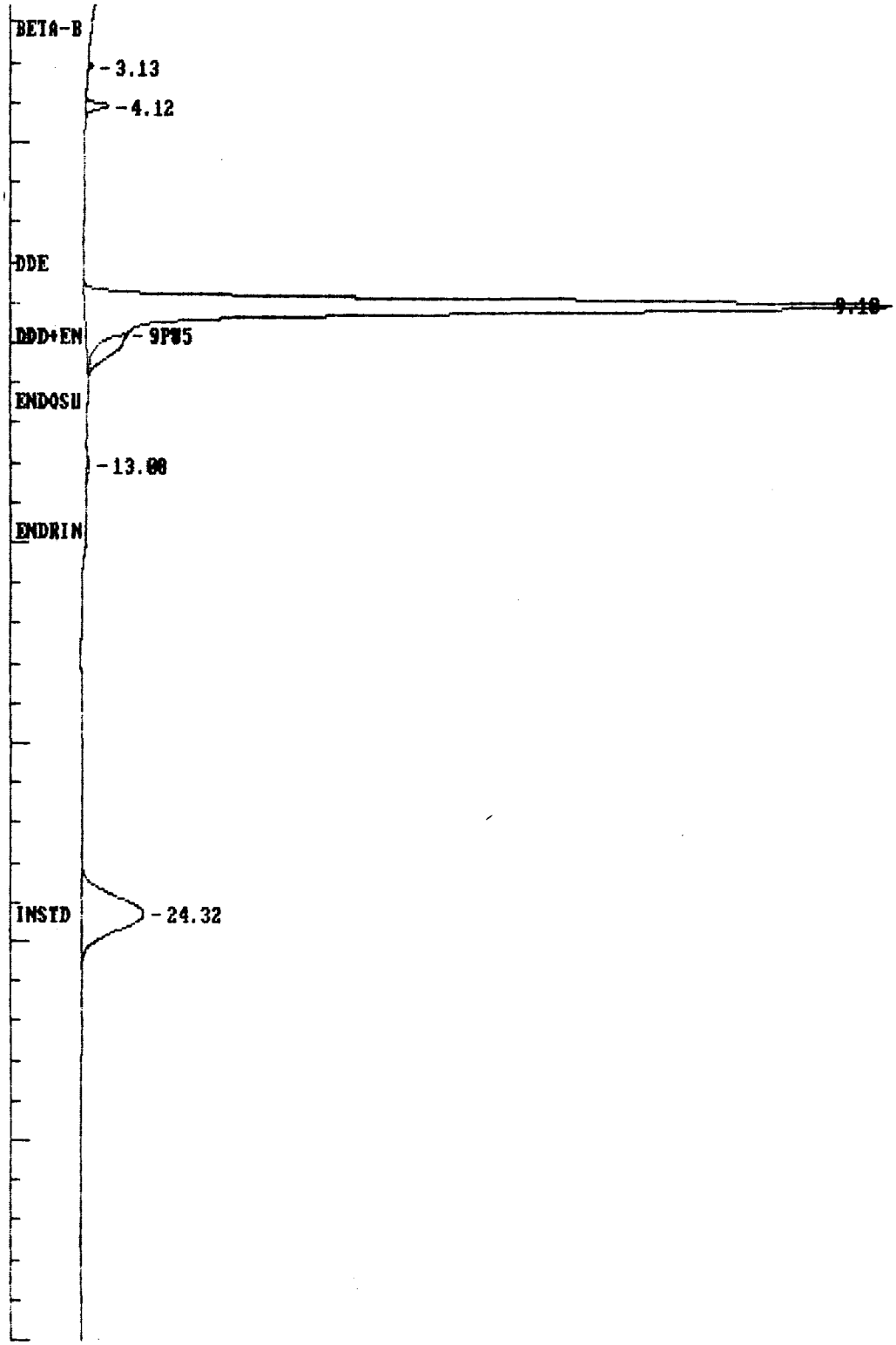
EAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ug\L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	3.13		0.0000	0.0167%	38571	4345	8.9	1		6		2.8992E-11
2	4.12		0.0000	0.1053%	243618	20396	11.9	1		6		2.8992E-11
3	9.10		0.0005	7.9163%	18321604	736715	24.9	3		6		2.8992E-11
4	9.85	DDD+ENDRINALDE	0.0062	91.9293%	835306	12403	67.3	4	4	6	0	7.3847E-09
5	13.08		0.0000	0.0324%	75061	2594	28.9	1		6		2.8992E-11
6	24.32	INSTD MIREX	1.0000	0.0000%	3449172	56672	60.9	1	6	6	0	2.8992E-07

TOTAL AMOUNT = 0.0067

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
ETA-BHC	2.18	BETA-BHC
ELTA-BHC	2.47	DELTA-BHC
DE	8.05	DDE
NDOSULFAN S04	11.48	ENDOSULFAN S04
NDRIN KETONE	14.73	ENDRIN KETONE

ata File = P:2SF48.PTS Printed on 03-09-1990 at 08:44:50
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 68854 uv High Value: 809523 uv Scale factor: 1.0



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

********** 03-09-1990 08:24:34 Version 4.1 **********

Sample Name: DDT DEGRADATION Data File: F:2SF2

Date: 03-02-1990 16:51:53 Method: N:CONPESA 03-08-1990 14:03:43 # 27

Interface: 0 Cycle#: 2 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 30 Threshold: 10 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information: LPT1:

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 0 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

Internal Standard Amount: 1

Sample Weight: 1.000000

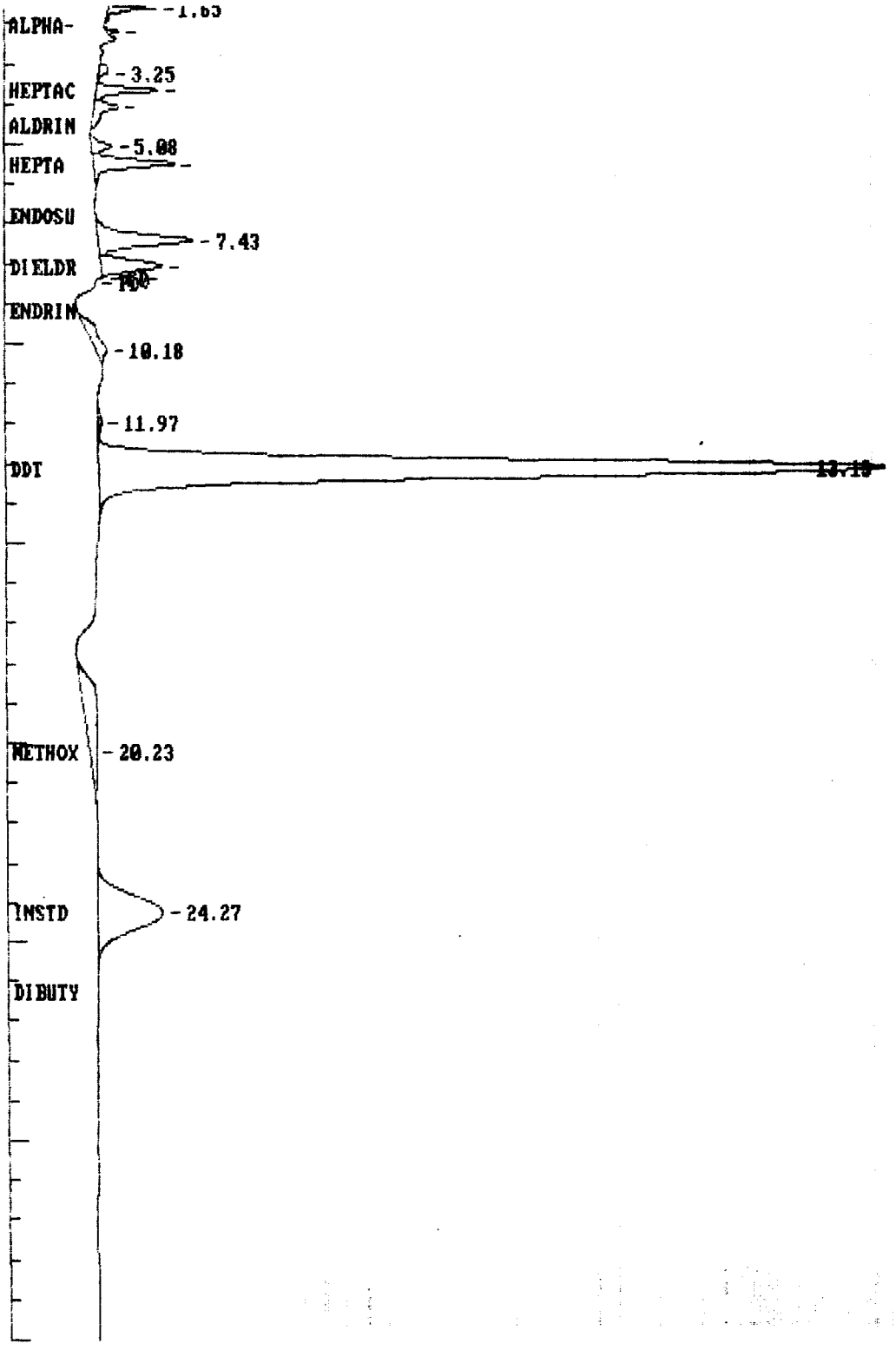
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ug\L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	1.65		0.0000	0.0039%	255189	41239	6.2	1		14		2.8600E-11
2	2.22		0.0000	0.0007%	48739	9915	4.9	1		14		2.8600E-11
3	3.25		0.0000	0.0022%	146268	8855	16.5	2		14		2.8600E-11
4	3.68	HEPTACHLOR	0.0027	1.4509%	584089	54432	10.7	2	4	14	0	4.6919E-09
5	4.10		0.0000	0.0067%	444253	21470	20.7	2		14		2.8600E-11
6	5.08		0.0000	0.0040%	264835	18038	14.7	2		14		2.8600E-11
7	5.52	HEPTA EPOXIDE	0.0058	3.0657%	1069443	70341	15.2	2	7	14	0	5.4147E-09
8	7.43		0.0000	0.0250%	1652426	82393	20.1	2		14		2.8600E-11
9	8.08	DIELDRIN	0.0049	2.6065%	927415	52032	17.8	2	9	14	0	5.3087E-09
10	10.18		0.0000	0.0069%	457736	8850	51.7	1		14		2.8600E-11
11	11.97		0.0000	0.0014%	93248	3130	29.8	2		14		2.8600E-11
12	13.13	DDT	0.1622	85.8685%	21801948	682577	31.9	2	12	14	0	7.4394E-09
13	20.23	METHOXYCHLOR	0.0131	6.9575%	1223246	5001	244.6	1	13	14	0	1.0743E-08
14	24.27	INSTD MIREX	1.0000	0.0000%	3496562	57176	61.2	1	14	14	0	2.8600E-07

TOTAL AMOUNT = 0.1889

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
LPHA-BHC	2.05	ALPHA-BHC
INDANE	2.40	LINDANE
LDRIN	4.52	ALDRIN
NDOSULFAN I	6.83	ENDOSULFAN I
NDRIN+ENDO II	9.19	ENDRIN+ENDO II
IBUTYLCHLORENDATE	26.28	DIBUTYLCHLORENDATE

ata File = P:2SF2.PTS Printed on 03-09-1990 at 08:25:11
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 45034 uv High Value: 747294 uv Scale factor: 1.0



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

********** 03-09-1990 08:26:10 Version 4.1 **********

Sample Name: DDT DEGRADATION Data File: P:2SF2 *

Date: 03-02-1990 16:51:53 Method: N:CONPESB 03-08-1990 14:04:37 # 19 *

Interface: 0 Cycle#: 2 Operator AK Channel#: 0 Vial#: N.A. *

Starting Peak Width: 30 Threshold: 10 Area Threshold: 1000 *

****

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE *

Solvent Description: ULTRA HIGH PURITY NITROGEN *

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

Detector 0: Detector 1: ECD CONF *

Misc. Information: LPT1: * *

****

tarting Delay: 1.50 Ending retention time: 35.00

rea reject: 0 One sample per 1.000 sec.

mount injected: 1.00 Dilution factor: 1.00

nternal Standard Amount: 1

ample Weight: 1.000000

EAK 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	1.65		0.0000	0.0678%	255189	41239	6.2	1		14		2.8600E-11
2	2.22	BETA-BHC	0.0004	3.5490%	48739	9915	4.9	1	2	14	0	7.8354E-09
3	3.25		0.0000	0.0389%	146268	8855	16.5	2		14		2.8600E-11
4	3.68		0.0000	0.1552%	584089	54432	10.7	2		14		2.8600E-11
5	4.10		0.0000	0.1181%	444253	21470	20.7	2		14		2.8600E-11
6	5.08		0.0000	0.0704%	264835	18038	14.7	2		14		2.8600E-11
7	5.52		0.0000	0.2842%	1069443	70341	15.2	2		14		2.8600E-11
8	7.43		0.0000	0.4392%	1652426	82393	20.1	2		14		2.8600E-11
9	8.08	DDE	0.0052	47.9946%	927415	52032	17.8	2	9	14	0	5.5687E-09
10	10.18	DDD+ENDRINALDE	0.0033	30.9875%	457736	8850	51.7	1	10	14	0	7.2846E-09
11	11.97	ENDOSULFAN 504	0.0011	10.1754%	93248	3130	29.8	2	11	14	0	1.1742E-08
12	13.13		0.0006	5.7945%	21801948	682577	31.9	2		14		2.8600E-11
13	20.23		0.0000	0.3251%	1223246	5001	244.6	1		14		2.8600E-11
14	24.27	INSTD MIREX	1.0000	0.0000%	3496562	57176	61.2	1	14	14	0	2.8600E-07

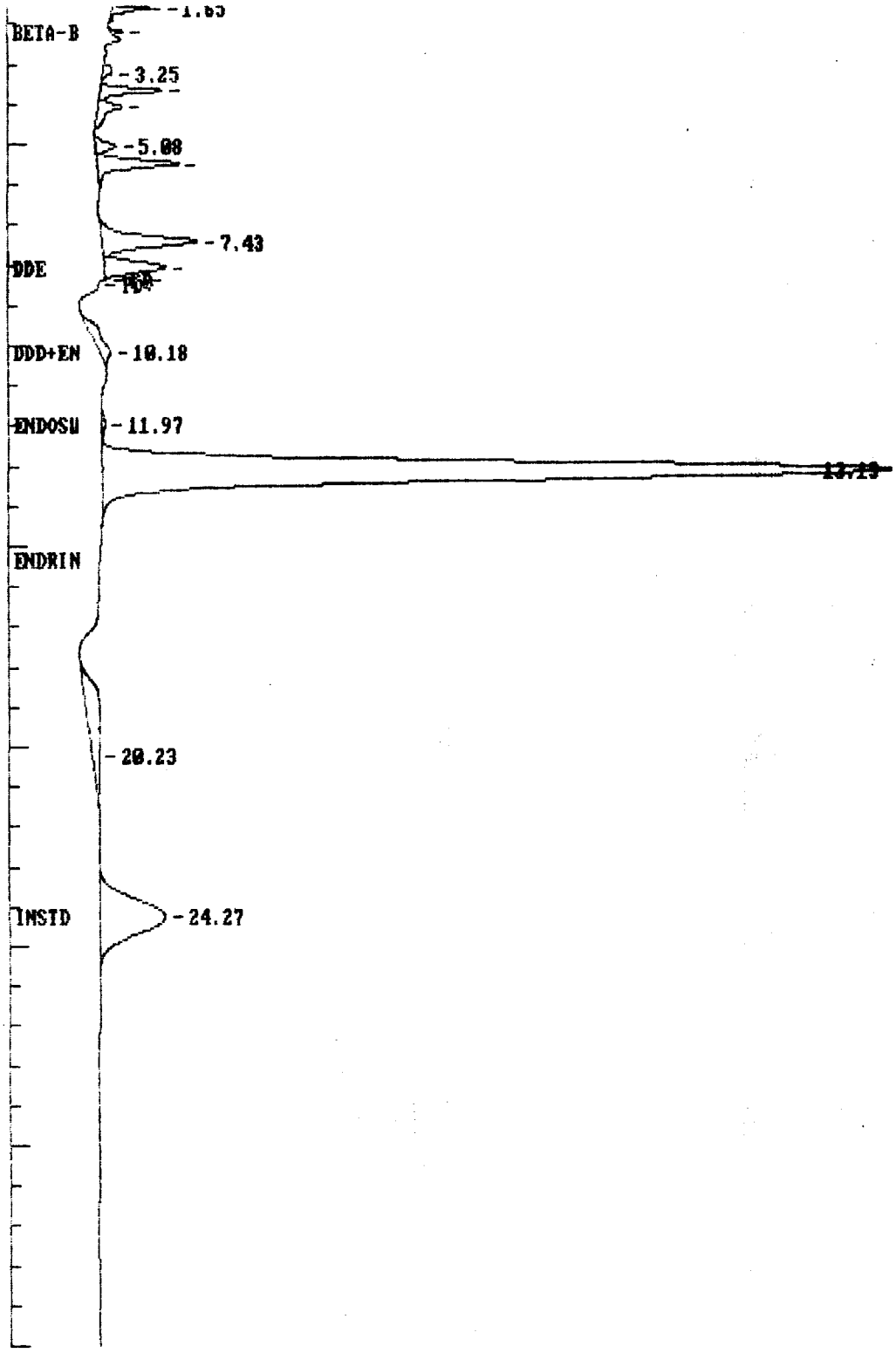
TOTAL AMOUNT = 0.0108

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
ELTA-BHC	2.50	DELTA-BHC
NDRIN KETONE	15.35	ENDRIN KETONE

23454374

ata File = P:2SP2.PTS Printed on 03-09-1990 at 08:26:57
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 45034 uv High Value: 747294 uv Scale factor: 1.0



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

********** 03-09-1990 08:37:54 Version 4.1 **********

Sample Name: DDT DEGRADATION Data File: P:2SF21

Date: 03-03-1990 05:56:40 Method: N:CONPESA 03-08-1990 14:03:43 # 27

Interface: 0 Cycle#: 21 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 30 Threshold: 10 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information: LPT1:

tarting Delay: 1.50 Ending retention time: 35.00

rea reject: 0 One sample per 1.000 sec.

mount injected: 1.00 Dilution factor: 1.00

nternal Standard Amount: 1

ample Weight: 1.000000

EAK 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	1.65		0.0000	0.0032%	196715	35563	5.5	2		14		3.1289E-11
2	2.22		0.0000	0.0024%	149189	8326	17.9	2		14		3.1289E-11
3	3.25		0.0000	0.0019%	120485	8143	14.8	2		14		3.1289E-11
4	3.68	HEPTACHLOR	0.0022	1.1562%	437608	39554	11.1	2	4	14	0	5.1331E-09
5	4.10		0.0000	0.0077%	480978	23646	20.3	2		14		3.1289E-11
6	5.08		0.0000	0.0060%	375099	25169	14.9	2		14		3.1289E-11
7	5.52	HEPTA EPOXIDE	0.0053	2.7090%	888475	60189	14.8	2	7	14	0	5.9239E-09
8	7.45		0.0001	0.0261%	1623635	82741	19.6	2		14		3.1289E-11
9	8.08	DIELDRIN	0.0047	2.4412%	816641	45938	17.8	2	9	14	0	5.8079E-09
10	10.20		0.0000	0.0077%	480386	8636	55.6	1		14		3.1289E-11
11	11.93		0.0000	0.0014%	84905	2863	29.7	2		14		3.1289E-11
12	13.15	DDT	0.1682	86.5523%	20660992	649121	31.8	2	12	14	0	8.1390E-09
13	20.07	METHOXYCHLOR	0.0138	7.0847%	1171106	5539	211.4	1	13	14	0	1.1754E-08
14	24.30	INSTD MIREX	1.0000	0.0000%	3196019	52559	60.8	1	14	14	0	3.1289E-07

TOTAL AMOUNT = 0.1943

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
LPHA-BHC	2.05	ALPHA-BHC
INDANE	2.40	LINDANE
LDRIN	4.52	ALDRIN
NDOSULFAN I	6.83	ENDOSULFAN I
DRIN+ENDO II	9.19	ENDRIN+ENDO II
BUTYLCHLORENDATE	26.32	DIBUTYLCHLORENDATE

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

********** 03-09-1990 08:39:30 Version 4.1 **********

Sample Name: DDT DEGRADATION Data File: P:2SF21

Date: 03-03-1990 05:56:40 Method: N:CONPESB 03-08-1990 14:04:37 # 19

Interface: 0 Cycle#: 21 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 30 Threshold: 10 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information: LPT1:

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 0 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

Internal Standard Amount: 1

Sample Weight: 1.000000

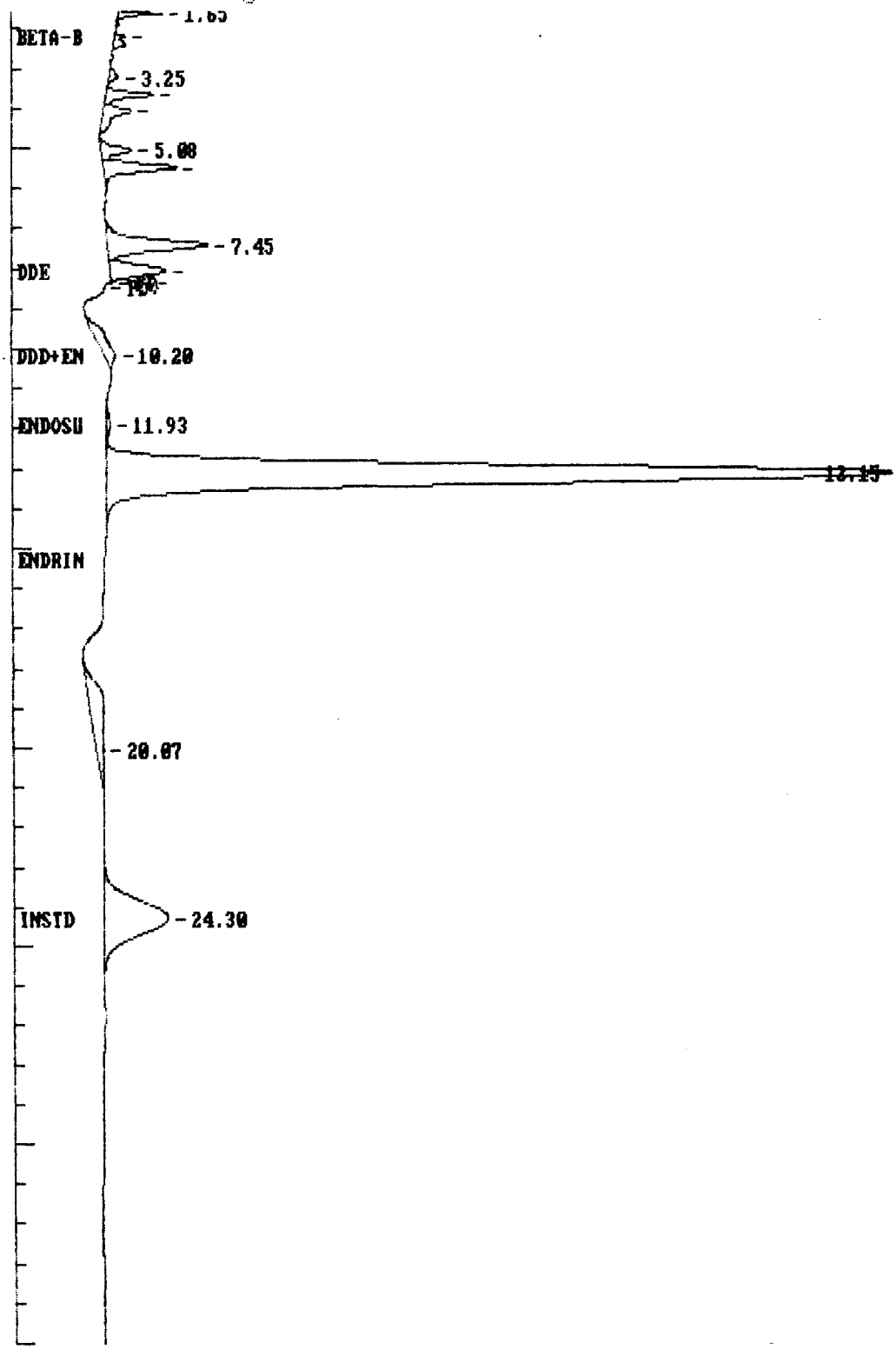
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ug\L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	1.65		0.0000	0.0514%	196715	35563	5.5	2		14		3.1289E-11
2	2.22	BETA-BHC	0.0013	10.6702%	149189	8326	17.9	2	2	14	0	8.5722E-09
3	3.25		0.0000	0.0315%	120485	8143	14.8	2		14		3.1289E-11
4	3.68		0.0000	0.1142%	437608	39554	11.1	2		14		3.1289E-11
5	4.10		0.0000	0.1256%	480978	23646	20.3	2		14		3.1289E-11
6	5.08		0.0000	0.0979%	375099	25169	14.9	2		14		3.1289E-11
7	5.52		0.0000	0.2319%	888475	60189	14.8	2		14		3.1289E-11
8	7.45		0.0001	0.4239%	1623635	82741	19.6	2		14		3.1289E-11
9	8.08	DDE	0.0050	41.5108%	816641	45938	17.8	2	9	14	0	6.0924E-09
10	10.20	DDD+ENDRINALDE	0.0038	31.9428%	480386	8636	55.6	1	10	14	0	7.9696E-09
11	11.93	ENDOSULFAN S04	0.0011	9.1004%	84905	2863	29.7	2	11	14	0	1.2846E-08
12	13.15		0.0006	5.3937%	20660992	649121	31.8	2		14		3.1289E-11
13	20.07		0.0000	0.3057%	1171106	5539	211.4	1		14		3.1289E-11
14	24.30	INSTD MIREX	1.0000	0.0000%	3196019	52559	60.8	1	14	14	0	3.1289E-07

TOTAL AMOUNT = 0.0120

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DELTA-BHC	2.50	DELTA-BHC
ENDRIN KETONE	15.31	ENDRIN KETONE

ata File = P:2SF21.PTS Printed on 03-09-1990 at 08:40:04
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 51258 uv High Value: 720215 uv Scale factor: 1.0



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

********** 03-09-1990 08:48:19 Version 4.1 **********

Sample Name: DEG DDT Data File: P:2SF49

Date: 03-04-1990 01:12:35 Method: N:CONPESA 03-08-1990 14:03:43 # 27

Interface: 0 Cycle#: 49 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 30 Threshold: 10 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

arting Delay: 1.50 Ending retention time: 35.00

ea reject: 0 One sample per 1.000 sec.

ount injected: 1.00 Dilution factor: 1.00

ternal Standard Amount: 1

mple Weight: 1.000000

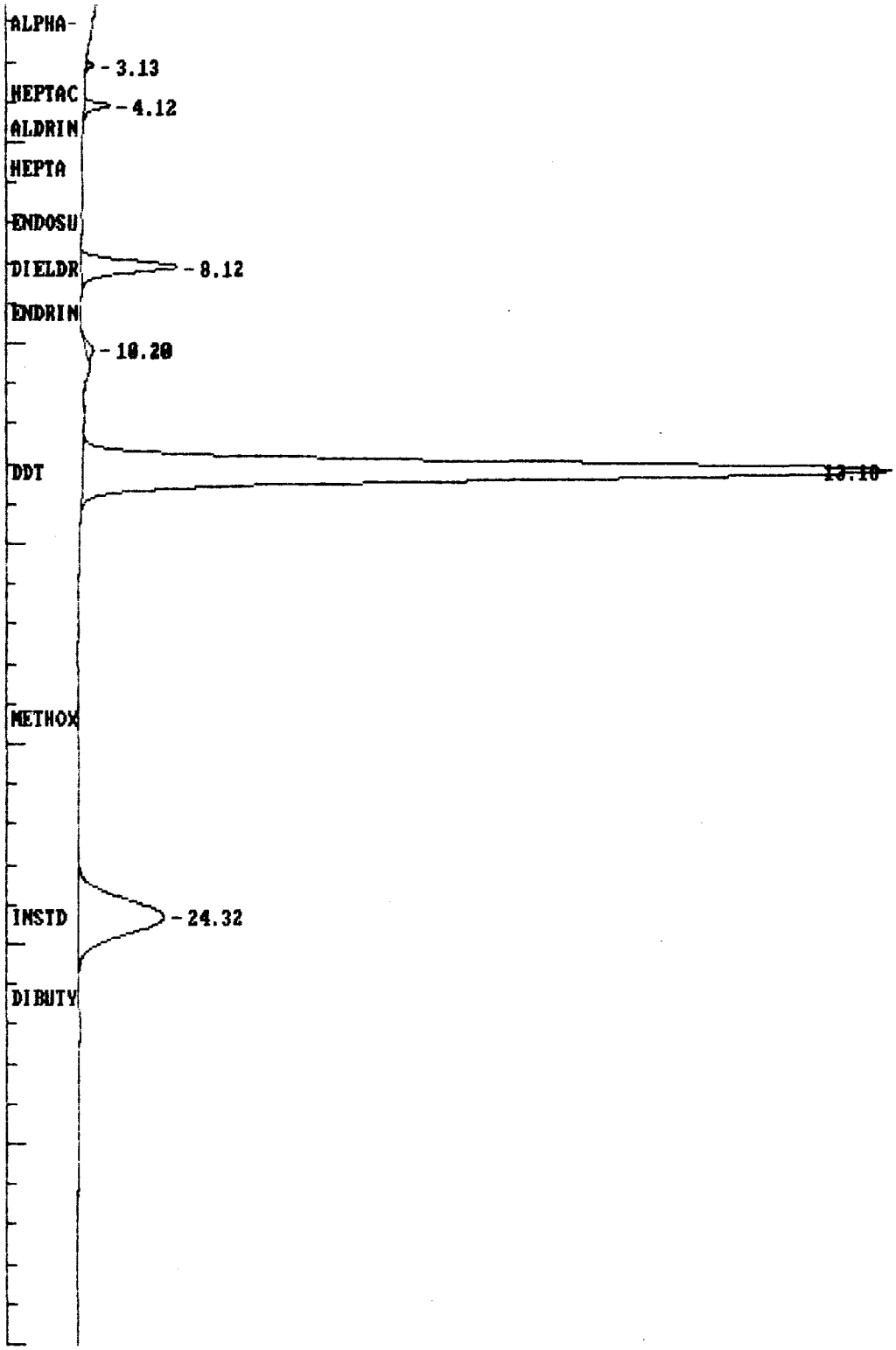
RET TIME	PEAK NAME	CONCENTRATION in ug\L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
3.13		0.0000	0.0009%	41434	4682	8.9	1		6		2.8095E-11
4.12		0.0000	0.0045%	217056	17443	12.4	1		6		2.8095E-11
8.12	DIELDRIN	0.0071	5.2544%	1364661	64681	21.1	1	3	6	0	5.2151E-09
10.20		0.0000	0.0023%	109918	4712	23.3	1		6		2.8095E-11
13.18	DDT	0.1283	94.7379%	17557990	552373	31.8	1	5	6	0	7.3083E-09
24.32	INSTD MIREX	1.0000	0.0000%	3559316	58144	61.2	1	6	6	0	2.8095E-07

TOTAL AMOUNT = 0.1354

EAKS NOT FOUND IN THIS RUN

E	ADJUSTED RET.TIME.	REFERENCE PEAK
HA-BHC	2.05	ALPHA-BHC
DANE	2.40	LINDANE
TACHLOR	3.80	HEPTACHLOR
RIN	4.67	ALDRIN
TA EPOXIDE	5.65	HEPTA EPOXIDE
OSULFAN I	7.00	ENDOSULFAN I
RIN+ENDO II	9.23	ENDRIN+ENDO II
HOXYCHLOR	19.37	METHOXYCHLOR
UTYLCHLORENDATE	26.34	DIBUTYLCHLORENDATE

ata File = P:2SF49.PTS Printed on 03-09-1990 at 08:48:49
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 67410 uv High Value: 623806 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

********** 03-09-1990 08:50:01 Version 4.1 **********

Sample Name: DEG DDT Data File: P:2SF49

Date: 03-04-1990 01:12:35 Method: N:CONPESB 03-08-1990 14:04:37 # 19

Interface: 0 Cycle#: 49 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 30 Threshold: 10 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 0 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

Internal Standard Amount: 1

Sample Weight: 1.000000

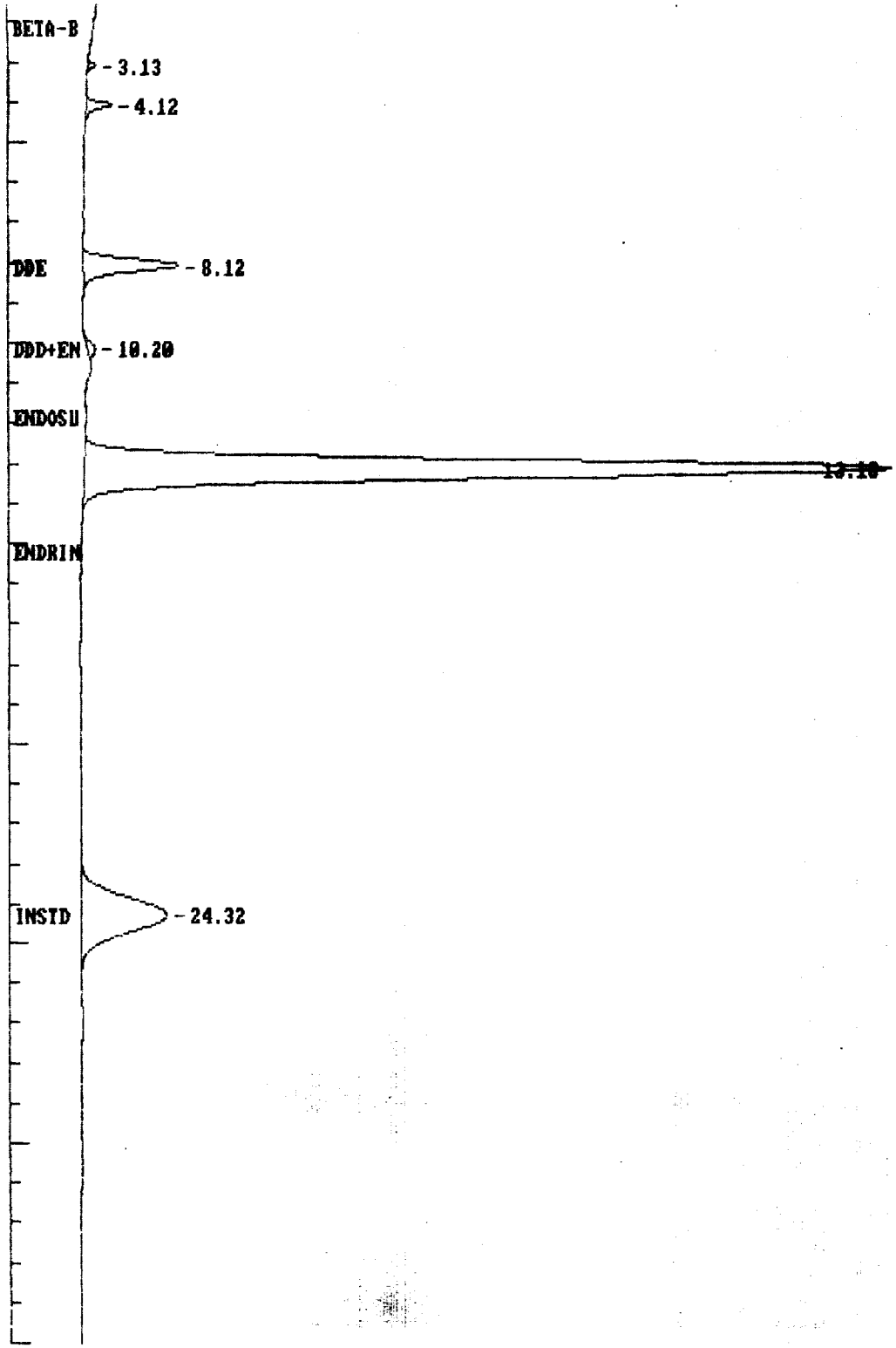
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ug\L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	3.13		0.0000	0.0133%	41434	4682	8.9	1		6		2.8095E-11
2	4.12		0.0000	0.0697%	217056	17443	12.4	1		6		2.8095E-11
3	8.12	DDE	0.0075	85.2940%	1364661	64681	21.1	1	3	6	0	5.4705E-09
4	10.20	DDD+ENDRINALDE	0.0008	8.9870%	109918	4712	23.3	1	4	6	0	7.1562E-09
5	13.18		0.0005	5.6360%	17557990	552373	31.8	1		6		2.8095E-11
6	24.32	INSTD MIREX	1.0000	0.0000%	3559316	58144	61.2	1	6	6	0	2.8095E-07

TOTAL AMOUNT = 0.0088

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
BETA-BHC	2.18	BETA-BHC
DELTA-BHC	2.47	DELTA-BHC
ENDOSULFAN SO4	11.89	ENDOSULFAN SO4
ENDRIN KETONE	15.25	ENDRIN KETONE

ata File # P:2SF49.PTS Printed on 03-09-1990 at 08:50:35
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 67410 uv High Value: 623806 uv Scale factor: 1.0



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

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A1.....N13 INITIAL AND CONTINUING CALIBRATION FORM

DATA SET: 3F6986 DATE: 03-07-90 GC # 1

COLUMN TYPE QUANT FILE NAME 1SF 7 + 27

VERSION: 100 STANDARD NA NAME: PESTICIDES

COMPOUND	INITIAL AREA	CONT AREA	% RPD	INITIAL RT	CONTIN. RT	% RPD
ALPHA BHC	391509	400751	-2	1.83	1.83	0
LINDANE	296806	310845	-5	2.30	2.30	0
HEPTACHLOR	383724	420334	-9	2.80	2.80	0
ALDRIN	628279	640644	-2	3.38	3.38	0
HEPT EPOXI	836336	845250	-1	5.02	5.02	0
ENDO I	899497	913300	-2	6.28	6.28	0
DIELDRIN	799559	811720	-2	7.68	7.68	0
ENDRIN	949755	1006999	-6	9.32	9.32	0
ENDO II	1671162	1702191	-2	11.25	11.25	0
DDT 4'4'	1261745	1294608	-3	13.22	13.22	0
ISTD	1102040	1121409	-2	20.15	20.15	0
DBC	1271276	1293816	-2	23.08	23.07	0
METHOXYCHLO	1116173	1138023	0	25.27	25.25	0

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

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INITIAL AND CONTINUING CALIBRATION FORM

DATA SET: SF6986 DATE: 03-07-90 GC # 1

COLUMN TYPE QUANT FILE NAME 1SF 7 + 45

VERSION: 100 STANDARD NA NAME: PESTICIDES

COMPOUND	INITIAL AREA	CONT AREA	% RPD	INITIAL RT	CONTIN. RT	% RPD
ALPHA BHC	391509	390870	0	1.83	1.83	0
LINDANE	296806	294361	1	2.30	2.30	0
HEPTACHLOR	383724	367268	4	2.80	2.80	0
ALDRIN	628279	593070	6	3.38	3.38	0
HEPT EPOXI	836336	743512	12	5.02	5.02	0
ENDO I	899497	838679	7	6.28	6.28	0
DIELDRIN	799559	777410	3	7.68	7.67	0
ENDRIN	949755	983204	-3	9.32	9.30	0
ENDO II	1671162	1655332	1	11.25	11.23	0
DDT 4'4'	1261745	1269434	-1	13.22	13.22	0
ISTD	1102040	1154265	-5	20.15	20.13	0
DBC	1271276	1256615	1	23.08	23.07	0
METHOXYCHLO	1116173	1110231	0	25.27	25.25	0

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

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

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INITIAL AND CONTINUING CALIBRATION FORM

DATA SET: SP6986 DATE: 03-07-90 GC # 1

COLUMN TYPE QUANT FILE NAME

VERSION: 28 STANDARD NA NAME: 1SF 13 + 28

COMPOUND	INITIAL AREA	CONT AREA	% RPD	INITIAL RT	CONTIN. RT	% RPD
BETA BHC	486992	491050	-1	2.60	2.60	0
DELTA BHC	528464	535726	-1	3.03	3.03	0
DDE 4'4'	726610	724643	0	7.20	7.20	0
DDD 4'4'	1056084	1054582	0	10.98	10.98	0
END ALDEHYD	984936	994780	-1	14.65	14.63	0
ENDO SULFAT	1780583	1809592	-2	17.70	17.68	0
END KETONE	1196769	1208069	-1	24.15	24.15	0

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

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INITIAL AND CONTINUING CALIBRATION FORM

DATA SET: SF6986 DATE: 03-07-90 GC # 1

COLUMN TYPE QUANT FILE NAME 1SF13 + 4C

VERSION: 28 STANDARD NA NAME:

COMPOUND	INITIAL AREA	CONT AREA	% RPD	INITIAL RT	CONTIN. RT	% RPD
BETA BHC	486992	494505	-2	2.60	2.60	0
DELTA BHC	528464	578638	-9	3.03	3.03	0
DDE 4'4'	726610	741886	-2	7.20	7.22	-0
DDD 4'4'	1056084	1076983	-2	10.98	10.98	0
END ALDEHYD	984936	1003823	-2	14.65	14.65	0
ENDO SULFAT	1780583	1857173	-4	17.70	17.70	0
END KETONE	1196769	1230674	-3	24.15	24.15	0

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

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INITIAL AND CONTINUING CALIBRATION FORM

DATA SET: SF 6986 DATE: 03-08-90 GC # 1

COLUMN TYPE QUANT FILE NAME 1SF 22 + 42

VERSION: 24 STANDARD NA NAME: AROCLOR 1242

COMPOUND	INITIAL AREA	CONT AREA	% RPD	INITIAL RT	CONTIN. RT	% RPD
A42	296025	292833	1	1.70	1.70	0
B42	556206	556333	-0	2.15	2.15	0
C42	1004864	1018997	-1	2.77	2.77	0
D42	456122	470222	-3	3.02	3.02	0
E42	670200	671137	-0	3.45	3.45	0
	0	0	ERR	0.00	0.00	ERR

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

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INITIAL AND CONTINUING CALIBRATION FORM

DATA SET: SF 6986 DATE: ~~02~~ 3-06-90 GC # 1

COLUMN TYPE CONF FILE NAME 2SF7 + 2SF23

VERSION: 19 STANDARD NAME: PESTICIDE STD

COMPOUND	INITIAL AREA	CONT AREA	% RPD	INITIAL RT	CONTIN. RT	% RPD
ALPHA BHC	1303796	1376489	-5	2.05	2.05	0
LINDANE	926965	984279	-6	2.40	2.40	0
HEPTACHLOR	1081356	1134730	-5	3.80	3.80	0
ALDRIN	1753372	1844715	-5	4.67	4.67	0
HEPT EPOXID	2342068	2490413	-6	5.65	5.67	-0
ENDO 1	2677790	3123279	-15	7.00	7.02	-0
DIELDRIN	2831431	3017041	-6	8.17	8.17	0
ENDRIN	9043331	9822245	-8	9.28	9.27	0
DDT 4'4'	3919301	4048107	-3	13.15	13.17	-0
METHOXYCHLO	3492468	3595651	-3	19.32	19.33	-0
DBC	4232086	4472345	-6	26.28	26.32	-0

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

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INITIAL AND CONTINUING CALIBRATION FORM

DATA SET: SF 6986 DATE: 03-08-90 GC # 1

COLUMN TYPE CONF FILE NAME 2SF8 + 24

VERSION: 19 STANDARD NA NAME: PESTICIDES

COMPOUND	INITIAL AREA	CONT AREA	% RPD	INITIAL RT	CONTIN. RT	% RPD
BETA BHC	1602258	1668827	-4	2.18	2.20	-1
DELTA BHC	1309520	1256825	4	2.47	2.47	0
DDE 4'4'	2695081	2686798	0	8.05	8.07	-0
DDD 4'4'	6773345	6850029	-1	10.17	10.18	-0
ENDO SULFAT	3179985	3149813	1	11.85	11.87	-0
END KETONE	3802727	4152520	-9	15.20	15.22	-0

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

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INITIAL AND CONTINUING CALIBRATION FORM

DATA SET: SP 6986 DATE: 03-08-90 GC # 1

COLUMN TYPE CONF FILE NAME 28F18 + 47

VERSION: 17 STANDARD NA NAME: AROCLOR 1242

COMPOUND	INITIAL AREA	CONT AREA	% RPD	INITIAL RT	CONTIN. RT	% RPD
A42	2205969	2201652	0	2.08	2.08	0
B42	3455135	3601021	-4	2.60	2.60	0
C42	7595506	7721994	-2	3.32	3.32	0
D42	5637421	5008806	12	5.77	5.77	0

Form 2A

AQC DATA

DATE: 3/9/90
DATA SET: SF6986

BLANK DATA:

	CONC. OF AROCLOR (PPB)				CONC. OF PEST (PPB)
	1242	1248	1254	1260	
MB	0.2µ	0.2µ	0.2µ	0.2µ	0.2µ

SPIKE DATA:

	COMPOUND:	CONC. (ug) of PEST/PCB SPIKE ADDED	SPIKE RESULT	SPIKE DUP. RESULT	RPD	% RECOVERY SPIKE RECOVERY	SPIKE DUPLICATE RECOVERY
PESTICIDES:	LINDANE	.060	.067	.063	6	112	105
	HEPTACHLOR	.060	.057	.053	7	95	88
	ALDRIN	.100	.11	.11	0	110	110
	ENDOSULFAN-1	.120	.13	.123	6	108	103
	DIELDRIN	.120	.132	.121	9	110	101
	ENDRIN	.220	.281	.362	25	128	165 *
	P,P'-DDT	.300	.33	.362	9	110	121
	P,P'-METHOXYCHLOR	.350	.42	.43	2	120	123
	DIBUTYL CHLORENDATE	.500	.82	.776	6	164	155
PCB:	AROCLOR 1242	3.00	1.96	2.6	31	65	89

COMMENTS: * The unspiked sample showed an interference that was not confirmed on the secondary column, high recoveries could be due to this. Possibility of the interference being higher in the aliquot used for the Pest MSD than the MS.

11/86
JFP

A1.....T3

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

DATASET: SF 6986 DATE: 03-09-90

SPIKES:	ADDED	SPIKE RESULT	DUP RESULT	RPD	SPIKE REC.	DUP REC
LINDANE	0.060	0.067	0.063	6	112	105
HEPTACHLOR	0.060	0.057	0.053	7	95	88
ALDRIN	0.100	0.110	0.110	0	110	110
ENDOSULFAN 1	0.120	0.130	0.123	6	108	103
DIELDRIN	0.120	0.132	0.121	9	110	101
ENDRIN	0.220	0.281 *	0.362	-25	128	165
DDT 4 4'	0.300	0.330	0.362	-9	110	121
METHOXYCHLOR	0.350	0.420	0.430	-2	120	123
DBC	0.500	0.820	0.776	6	164	155
PCB 1242	3.000	1.960	2.680	-31	65	89

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

CENTRAL REGIONAL LABORATORY REGION V CHICAGO IL.

DBC SURROGATE RECOVERY

DATA SET NO. SF 6986

SAMPLE NAME	AMT ADDED	AMT FOUND	PERCENT RECOVERY
METHOD BLANK	0.50	0.79	158.00
PEST SPK S20	0.50	0.82	164.00
PEST SPK DUP S20	0.50	0.77	154.00
PCB SPK S20	0.50	0.76	152.00
PCB SPK DUP S20	0.50	0.60	120.00
90FT09S18	0.50	0.63	126.00
90FT09D18	0.50	0.87	174.00
90FT09S19	0.50	0.90	180.00
90FT09S20	0.50	0.88	176.00
90FT09S21	0.50	0.97	194.00
90FT01R98	0.50	0.69	138.00

INTERNAL STANDARD TABLE

********** 03-12-1990 08:58:55 Version 4.1 **********

Sample Name: 90FT09520 FEST SPK Data File: 0:1SF31 *

Date: 03-01-1990 12:24:18 Method: N:PESTAS 03-02-1990 13:29:46 # 100 *

Interface: 0 Cycle#: 31 Operator AK Channel#: 0 Vial#: N.A. *

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

****

Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant *

Solvent Description: ULTRA HIGH PURITY NITROGEN *

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

Detector 0: Detector 1: ~~ECD CONF~~ *

Misc. Information: LPT1: * *

****

tarting Delay: 1.50 Ending retention time: 35.00

rea reject: 150000 One sample per 1.000 sec.

mount injected: 1.00 Dilution factor: 10.00

nternal Standard Amount: 1

ample Weight: 1.000000

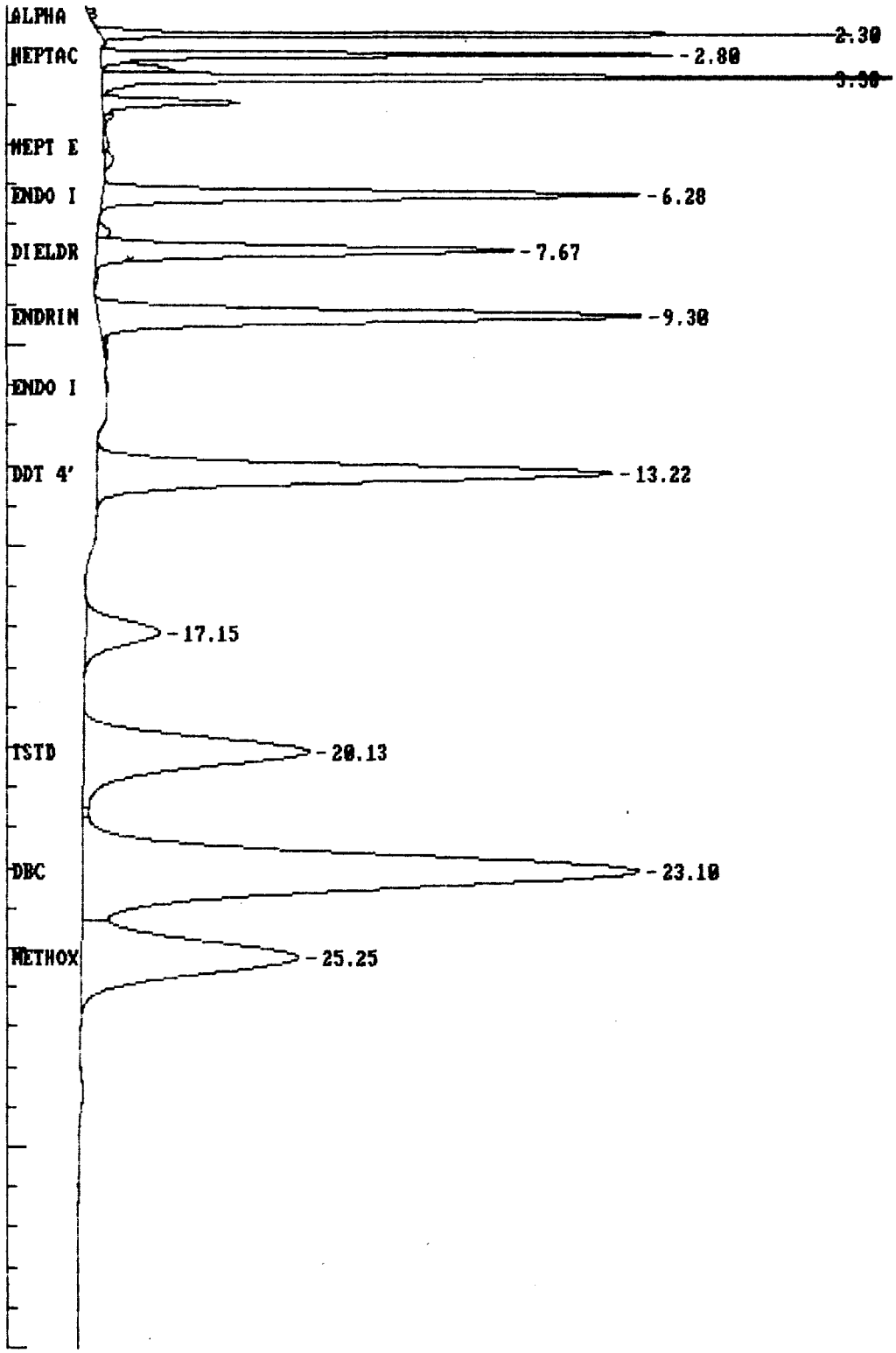
EAK IUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
3	2.30	LINDANE	0.0671	2.8306%	348640	62269	5.6	1	3	20	0	1.9232E-07
4	2.80	HEPTACHLOR	0.0578	2.4402%	364829	48421	7.5	3	4	20	0	1.5844E-07
6	3.38	ALDRIN	0.1101	4.6488%	591633	67065	8.8	2	6	20	0	1.8613E-07
11	6.28	ENDO I	0.1306	5.5115%	671812	45633	14.7	1	11	20	0	1.9433E-07
13	7.67	DIELDRIN	0.1328	5.6051%	630363	35373	17.8	3	13	20	0	2.1063E-07
15	9.30	ENDRIN	0.2819	11.8989%	977930	46105	21.2	3	15	20	0	2.8822E-07
18	13.22	DDT 4'4	0.3392	14.3201%	1309282	43782	29.9	1	18	20	0	2.5908E-07
19	17.15		0.0003	0.0111%	260635	6291	41.4	1		20		1.0105E-09
20	20.13	ISTD	1.0000	0.0000%	989596	19161	51.6	2	20	20	0	1.0105E-06
21	23.10	DBC	0.8203	34.6301%	2784504	47231	59.0	2	21	20	0	2.9460E-07
22	25.25	METHOXYCHLOR	0.4288	18.1035%	1098129	18414	59.6	2	22	20	0	3.9051E-07

TOTAL AMOUNT = 2.3688

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
LPHA BHC	1.83	ALPHA BHC
EPT EPOXIDE	5.05	HEPT EPOXIDE
NDO II	11.05	ENDO II

ata File = 0:1SF31.PTS Printed on 03-12-1990 at 08:59:30
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 38508 uv High Value: 107723 uv Scale factor: 1.0



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

********** 03-12-1990 09:25:47 Version 4.1 **********

Sample Name: 90FT09S20 PEST SPK DUP Data File: O:1SF47

Date: 03-01-1990 23:17:00 Method: N:PESTA5 03-02-1990 13:29:46 # 100

Interface: O Cycle#: 47 Operator AK Channel#: O Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: QUANT

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector O: Detector 1: ECD QUANT

Misc. Information:

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 150000 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 10.00

Internal Standard Amount: 1

Sample Weight: 1.000000

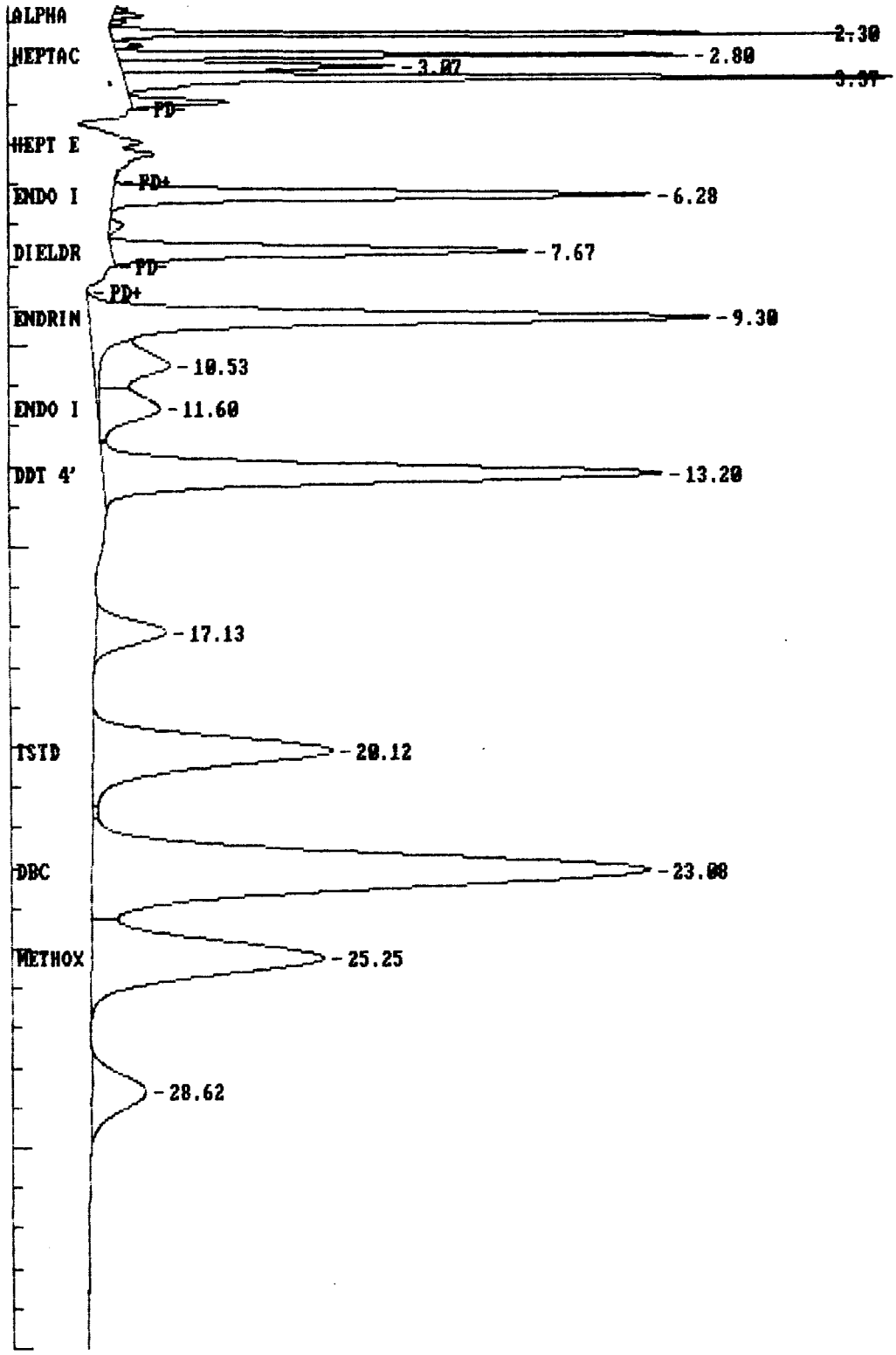
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
4	2.30	LINDANE	0.0637	2.5961%	329296	58346	5.6	2	4	18	0	1.9354E-07
6	2.80	HEPTACHLOR	0.0530	2.1597%	336667	45830	7.3	2	6	18	0	1.5748E-07
7	3.07		0.0002	0.0104%	250168	21981	11.4	2		18		1.0172E-09
8	3.37	ALDRIN	0.1111	4.5272%	592915	61687	9.6	2	8	18	0	1.8744E-07
10	6.28	ENDO I	0.1234	5.0274%	631826	43213	14.6	2	10	18	0	1.9533E-07
12	7.67	DIELDRIN	0.1216	4.9527%	573114	33460	17.1	1	12	18	0	2.1214E-07
13	9.30	ENDRIN	0.3628	14.7803%	1253002	49942	25.1	3	13	18	0	2.8957E-07
14	10.53		0.0003	0.0106%	255948	5682	45.0	4		18		1.0172E-09
15	~~11.60~~	~~ENDO II~~	0.0406	1.6532%	225655	4883	46.2	4	15	18	0	1.7985E-07
16	13.20	DDT 4'4'	0.3620	14.7442%	1391616	45108	30.9	2	16	18	0	2.6009E-07
17	17.13		0.0002	0.0096%	232213	5660	41.0	1		18		1.0172E-09
18	20.12	ISTD	1.0000	0.0000%	983043	19304	50.9	2	18	18	0	1.0172E-06
19	23.08	DBC	0.7768	31.6428%	2624868	44895	58.5	2	19	18	0	2.9593E-07
20	25.25	METHOXYCHLOR	0.4388	17.8745%	1115764	18691	59.7	2	20	18	0	3.9327E-07
21	28.62		0.0003	0.0112%	272954	4385	62.3	1		18		1.0172E-09

TOTAL AMOUNT = 2.4545

PEAKS NOT FOUND IN [illegible] RUN

NAME	ABSOLUTE RET.TIME.	REFERENCE PEAK
ALPHA BHC	1.83	ALPHA BHC
HEPT EPOXIDE	4.99	HEPT EPOXIDE

Data File # [illegible]P47.PTS Printed on 03-12-1990 at 09:26:43
Start Time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 38080 uv High Value: 103509 uv Scale factor: 1.0



utput redirected to LPT1:

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

********** 03-12-1990 10:45:08 Version 4.1 **********

Sample Name: PEST SPK 90FT01S20 Data File: P:2SF32

Date: 03-03-1990 13:30:56 Method: N:CONPESA 03-08-1990 14:03:43 # 27

Interface: 0 Cycle#: 32 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 10 Threshold: 5 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

Starting Delay: 1.50 Ending retention time: 40.00

Area reject: 30000 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 10.00

Internal Standard Amount: 1

Sample Weight: 1.000000

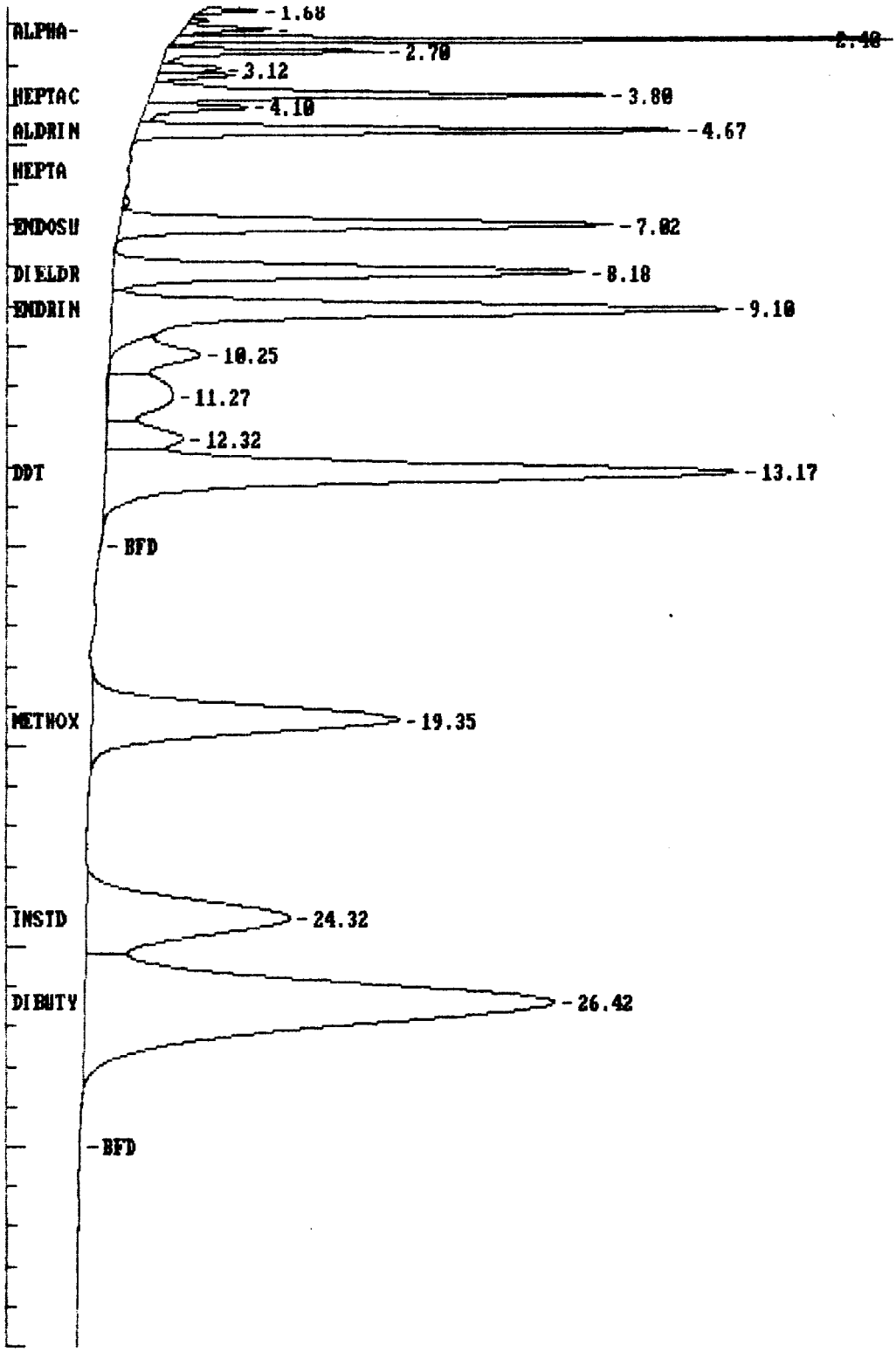
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ug\L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	1.68		0.0000	0.0011%	79710	13562	5.9	1		20		3.3270E-10
3	2.13	ALPHA-BHC	0.0097	0.4005%	172837	21485	8.0	2	3	20	0	5.6204E-08
4	2.40	LINDANE	0.0680	2.8049%	1059465	174594	6.1	2	4	20	0	6.4222E-08
5	2.70		0.0001	0.0057%	414477	52548	7.9	2		20		3.3270E-10
6	3.12		0.0000	0.0019%	140524	14774	9.5	2		20		3.3270E-10
7	3.30		0.0001	0.0026%	191392	18750	10.2	2		20		3.3270E-10
8	3.80	HEPTACHLOR	0.0720	2.9674%	1318846	110453	11.9	2	8	20	0	5.4581E-08
9	4.10		0.0001	0.0042%	307777	24627	12.5	2		20		3.3270E-10
10	4.67	ALDRIN	0.1038	4.2785%	1541621	131721	11.7	2	10	20	0	6.7323E-08
12	7.02	ENDOSULFAN I	0.1375	5.6678%	2089393	119966	17.4	2	12	20	0	6.5803E-08
13	8.18	DIELDRIN	0.1440	5.9357%	2331508	114180	20.4	2	13	20	0	6.1756E-08
14	9.10	ENDRIN+ENDO II	0.2563	10.5647%	3661598	149211	24.5	3	14	20	0	6.9990E-08
15	10.25		0.0003	0.0103%	753238	21268	35.4	4		20		3.3270E-10
16	11.27		0.0003	0.0126%	916184	16018	57.2	4		20		3.3270E-10
17	12.32		0.0002	0.0088%	638411	18502	34.5	4		20		3.3270E-10
18	13.17	DDT	0.4539	18.7121%	5244935	153716	34.1	2	18	20	0	8.6543E-08
19	19.35	METHOXYCHLOR	0.4433	18.2740%	3546926	74448	47.6	1	19	20	0	1.2498E-07
20	24.32	INSTD MIREX	1.0000	0.0000%	3005721	49276	61.0	2	20	20	0	3.3270E-07
21	26.42	DIBUTYLCHLORENDATE	0.7362	30.3472%	8889966	113952	78.0	2	21	20	0	8.2807E-08

TOTAL AMOUNT = 2.4258

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
HEPTA EPOXIDE	5.65	HEPTA EPOXIDE

Data File = P:2SF32.PTS Printed on 03-12-1990 at 10:45:39
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 68293 uv High Value: 266059 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

********** 03-12-1990 10:46:44 Version 4.1 **********

mple Name: PEST SPK DUP 90FT01S20 Data File: P:2SF33 *

te: 03-03-1990 14:12:13 Method: N:CONPESA 03-08-1990 14:03:43 # 27 *

terface: 0 Cycle#: 33 Operator AK Channel#: 0 Vial#: N.A. *

arting Peak Width: 10 Threshold: 5 Area Threshold: 1000 *

****

strument Type: HP 5890A #1 Column Type: SINGLE PHASE *

Solvent Description: ULTRA HIGH PURITY NITROGEN *

nditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

Detector 0: Detector 1: ECD CONF *

sc. Information: *

****

ting Delay: 1.50 Ending retention time: 40.00

reject: 30000 One sample per 1.000 sec.

nt injected: 1.00 Dilution factor: 10.00

rnal Standard Amount: 1

le Weight: 1.000000

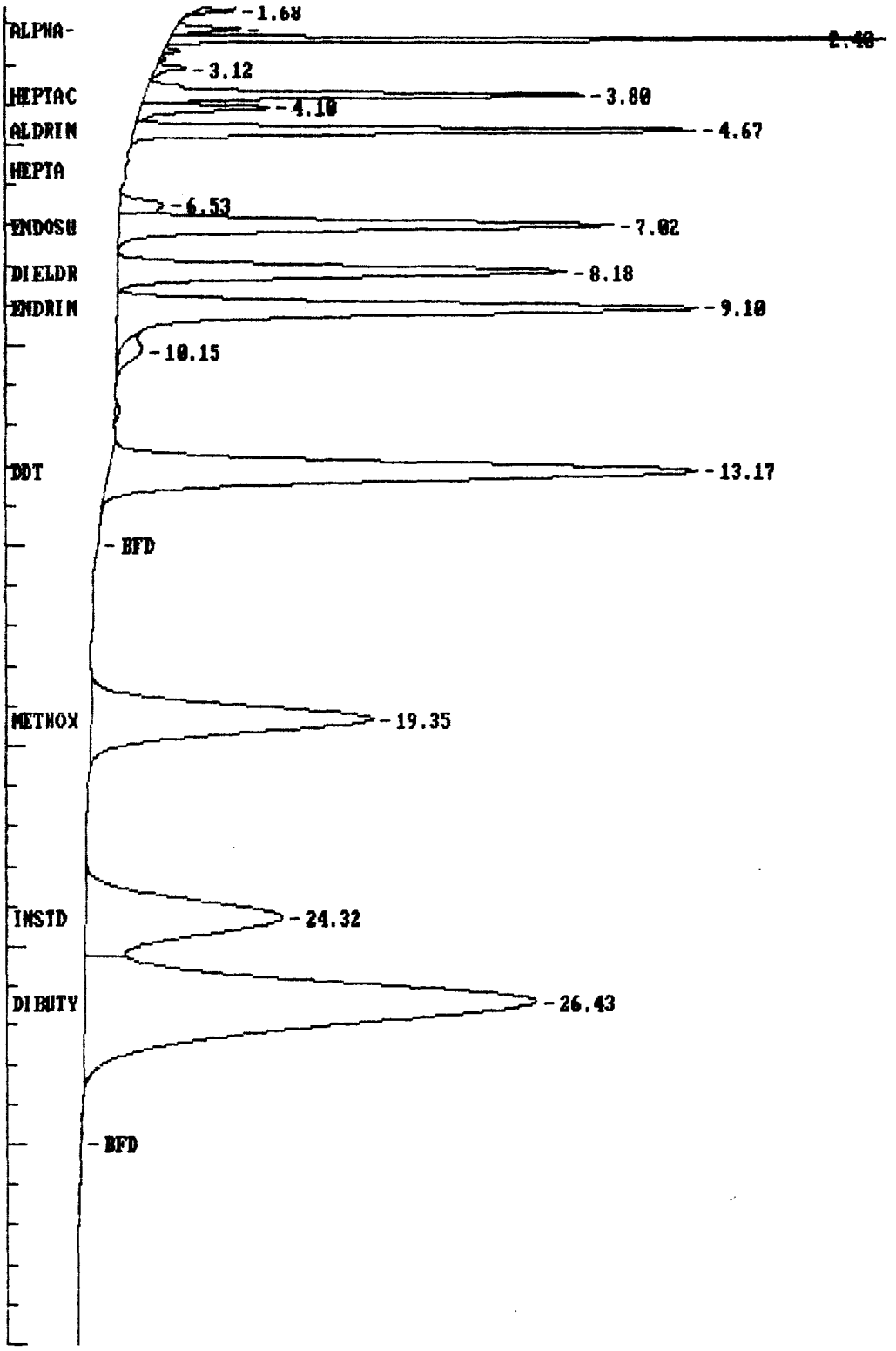
AK UM	RET ME	PEAK NAME	CONCENTRATION in ug\L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	68		0.0000	0.0008%	58953	10520	5.6	1		18		3.1666E-10
2	15	ALPHA-BHC	0.0078	0.3303%	145569	17569	8.3	2	2	18	0	5.3495E-08
3	40	LINDANE	0.0711	3.0174%	1163958	189130	6.2	2	3	18	0	6.1127E-08
6	12		0.0000	0.0011%	82144	7945	10.3	2		18		3.1666E-10
7	80	HEPTACHLOR	0.0646	2.7380%	1242735	115826	10.7	2	7	18	0	5.1950E-08
8	10		0.0001	0.0056%	420672	33876	12.4	2		18		3.1666E-10
9	67	ALDRIN	0.1119	4.7449%	1746033	148356	11.8	2	9	18	0	6.4078E-08
0	53		0.0001	0.0026%	196207	11749	16.7	2		18		3.1666E-10
1	02	ENDOSULFAN I	0.1496	6.3439%	2388371	130526	18.3	2	11	18	0	6.2631E-08
2	18	DIELDRIN	0.1402	5.9477%	2385904	118586	20.1	2	12	18	0	5.8780E-08
3	10	ENDRIN+ENDO II	0.2383	10.1077%	3577717	153344	23.3	3	13	18	0	6.6617E-08
4	15		0.0001	0.0026%	194538	6031	32.3	4		18		3.1666E-10
6	17	DDT	0.4068	17.2530%	4938791	155147	31.8	1	16	18	0	8.2372E-08
7	35	METHOXYCHLOR	0.4200	17.8111%	3530589	74376	47.5	1	17	18	0	1.1895E-07
8	32	INSTD MIREX	1.0000	0.0000%	3157930	51633	61.2	2	18	18	0	3.1666E-07
9	43	DIBUTYLCHLORENDATE	0.7473	31.6933%	9481718	118825	79.8	2	19	18	0	7.8816E-08

TOTAL AMOUNT = 2.3579

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
EPTA EPOXIDE	5.65	HEPTA EPOXIDE

ata File = P:25F33.PTS Printed on 03-12-1990 at 10:47:14
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 69065 uv High Value: 283085 uv Scale factor: 1.0



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

********** 03-07-1990 12:52:21 Version 4.1 **********

Sample Name: 90FT09S20 PCB SPK Data File: D:1SF40

Date: 03-01-1990 18:28:03 Method: N:SMET42 03-07-1990 12:41:23 # 24

Interface: 0 Cycle#: 40 Operator AK Channel#: 0 Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: ~~SINGL~~E PHASE Quant

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ~~ECD CONF~~

Misc. Information: LPT1:

Starting Delay: 1.50 Ending retention time: 45.00

Area reject: 0 One sample per 1.000 sec.

Amount injected: 1.00 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	HEIGHT BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	1.70	A42	1.3553	13.8090%	218345	40466	5.4	2	1	23	0	6.2072E-06
3	2.15	B42	1.7066	17.3879%	498740	71780	6.9	2	3	23	0	3.4217E-06
5	2.77	C42	2.3340	23.7810%	1167988	138175	8.5	2	5	23	0	1.9983E-06
6	3.02	D42	2.2031	22.4468%	516347	57761	8.9	2	6	23	0	4.2666E-06
8	3.45	E42	2.2157	22.5752%	780680	55136	14.2	2	8	23	0	2.8381E-06
23	20.13	ISTD	1.0000	0.0000%	993230	19655	50.5	1	23	23	0	1.0068E-06

TOTAL AMOUNT = 9.8146

1.96

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

********** 03-07-1990 13:27:22 Version 4.1 **********

Sample Name: 90FT09S20 PCB SPK Data File: 0:1SF40

Date: 03-01-1990 18:28:03 Method: N:ZERO 03-07-1990 08:45:08 # 10

Interface: 0 Cycle#: 40 Operator AK Channel#: 0 Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C Quant

Detector 0: Detector 1: ~~ECD 08NF~~

Misc. Information: LPT1:

Starting Delay: 1.50 Run Time: 0.00

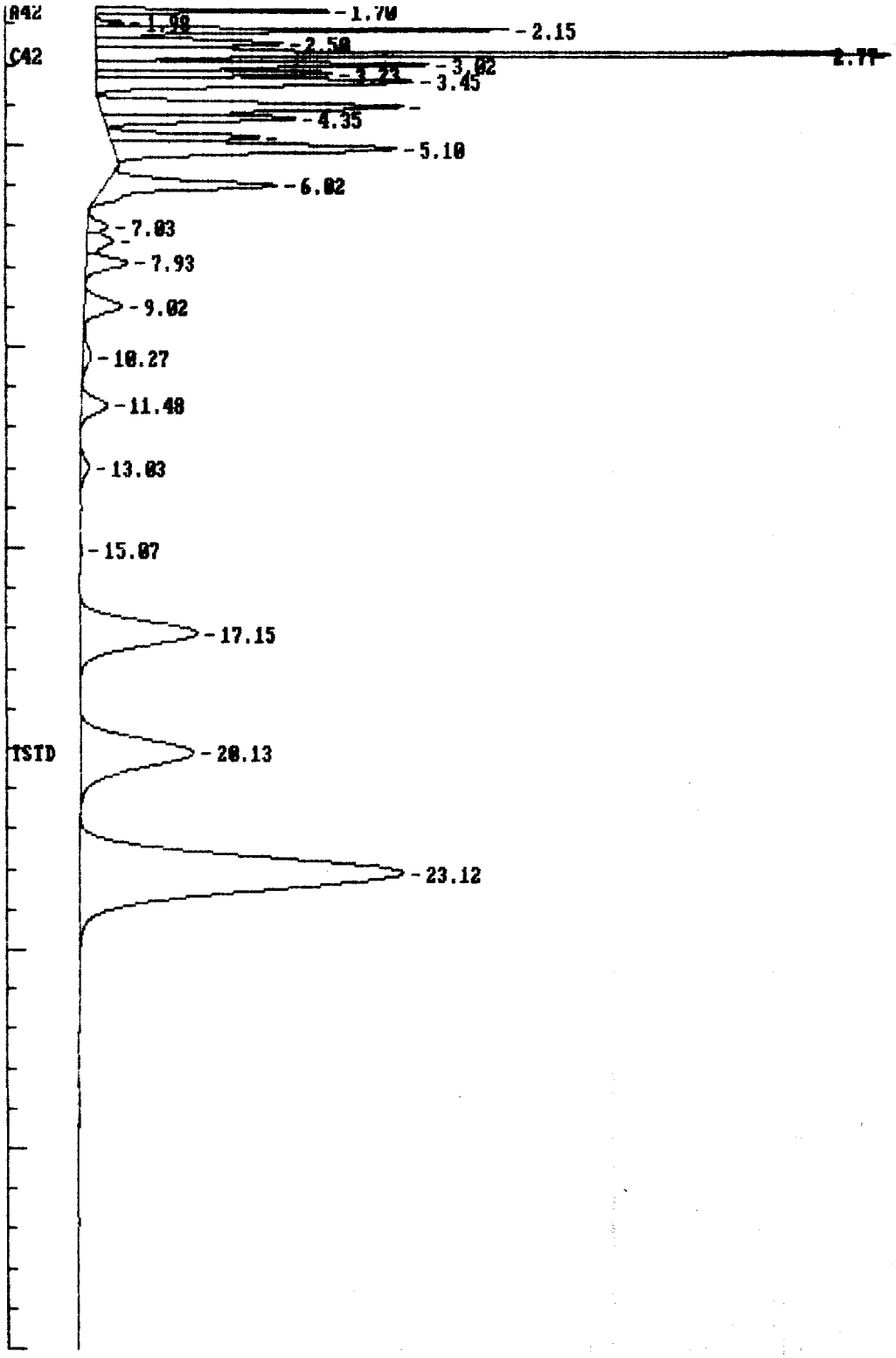
Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
1	1.70	218345	1.7400	2	40466	6.652	5.4
2	1.98	24133	0.1923	2	4858	0.735	5.0
3	2.15	498740	3.9745	2	71780	15.194	6.9
4	2.50	337175	2.6870	2	32445	10.272	10.4
5	2.77	1167988	9.3079	2	138175	35.583	8.5
6	3.02	516347	4.1148	2	57761	15.731	8.9
7	3.23	370090	2.9493	2	40922	11.275	9.0
8	3.45	780680	6.2213	2	55136	23.784	14.2
9	4.07	742143	5.9142	2	52553	22.610	14.1
10	4.35	421794	3.3613	2	33182	12.850	12.7
11	4.82	283383	2.2583	2	25990	8.633	10.9
12	5.10	810154	6.4562	2	49231	24.682	16.5
13	6.02	531388	4.2347	1	30036	16.189	17.7
14	7.03	59701	0.4758	2	3574	1.819	16.7
15	7.38	97621	0.7780	2	4473	2.974	21.8
16	7.93	149239	1.1893	2	7169	4.547	20.8
17	9.02	161886	1.2901	2	6425	4.932	25.2
18	10.27	48378	0.3855	2	1328	1.474	36.4
19	11.48	121205	0.9659	2	4488	3.693	27.0
20	13.03	47647	0.3797	1	1420	1.452	33.6
21	15.07	5799	0.0462	1	195	0.177	29.8
22	17.15	878923	7.0042	1	20430	26.777	43.0
23	20.13	993230	7.9152	1	19655	30.259	50.5
24	23.12	3282432	26.1581	1	56101	100.000	58.5

Total Area: 12548420 Area Reject: 0 One sample per 1.000 sec.

$$DBC = \frac{3282432}{2380918} \times .06 \times 10$$

$$= 0.76$$

Data File = O:1SF40.PTS Printed on 03-07-1990 at 12:52:40
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 38791 uv High Value: 180616 uv Scale factor: 1.0



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

********** 03-07-1990 13:28:03 Version 4.1 **********

Sample Name: 90FT09S20 PCB SPK DUP Data File: 0:1SF41

Date: 03-01-1990 19:09:22 Method: N:ZERO 03-07-1990 08:45:08 # 10

Interface: 0 Cycle#: 41 Operator AK Channel#: 0 Vial#: N.A.

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

****

Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ~~ECD~~ CONF

Misc. Information: LPT1:

****

Starting Delay: 1.50 Run Time: 0.00

Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
1	1.70	347714	2.0052	1	62963	13.220	5.5
2	1.98	30369	0.1751	2	6382	1.155	4.8
3	2.15	645557	3.7228	2	98378	24.543	6.6
4	2.50	600824	3.4648	2	44618	22.843	13.5
5	2.77	1309336	7.5506	2	174164	49.780	7.5
6	3.03	792032	4.5675	2	81985	30.112	9.7
7	3.22	494608	2.8523	2	56425	18.804	8.8
8	3.43	1046121	6.0327	2	72668	39.772	14.4
9	4.07	902868	5.2066	2	64324	34.326	14.0
10	4.35	521836	3.0093	2	39640	19.840	13.2
11	4.83	372276	2.1468	2	32179	14.154	11.6
12	5.10	1257418	7.2512	2	61652	47.806	20.4
13	6.00	1067000	6.1531	2	42506	40.566	25.1
14	6.33	127375	0.7345	2	9902	4.843	12.9
15	7.03	146826	0.8467	2	9186	5.582	16.0
16	7.37	317849	1.8330	2	14904	12.084	21.3
17	7.92	574125	3.3108	3	26836	21.828	21.4
18	8.45	36029	0.2078	4	3088	1.370	11.7
19	9.02	751499	4.3337	2	26620	28.571	28.2
20	10.17	535821	3.0899	2	11986	20.371	44.7
21	11.48	589199	3.3978	2	18284	22.401	32.2
22	13.00	534561	3.0827	3	16170	20.323	33.1
23	13.98	47888	0.2762	4	1348	1.821	35.5
24	15.20	12819	0.0739	1	437	0.487	29.3
25	17.12	474109	2.7341	2	9310	18.025	50.9
26	18.72	64573	0.3724	2	1470	2.455	43.9
27	20.13	1047978	6.0434	2	20330	39.843	51.5
28	23.10	2630268	15.1681	2	45809	100.000	57.4
29	26.27	30938	0.1784	1	633	1.176	48.9
30	28.65	30971	0.1786	1	613	1.177	50.6

Total Area: 17340784 Area Reject: 0 One sample per 1.000 sec.

DBC $= \frac{2630268}{2580918} \times .06 \times 10 = .68$

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

********** 03-07-1990 12:53:37 Version 4.1 **********

Sample Name: 90FT09S20 PCB SPK DUP Data File: O:1SF41

Date: 03-01-1990 19:09:22 Method: N:SMET42 03-07-1990 12:41:23 # 24

Interface: 0 Cycle#: 41 Operator AK Channel#: 0 Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Distinct

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information: LPT1:

Starting Delay: 1.50 Ending retention time: 45.00

Area reject: 0 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 10.00

Internal Standard Amount: 1

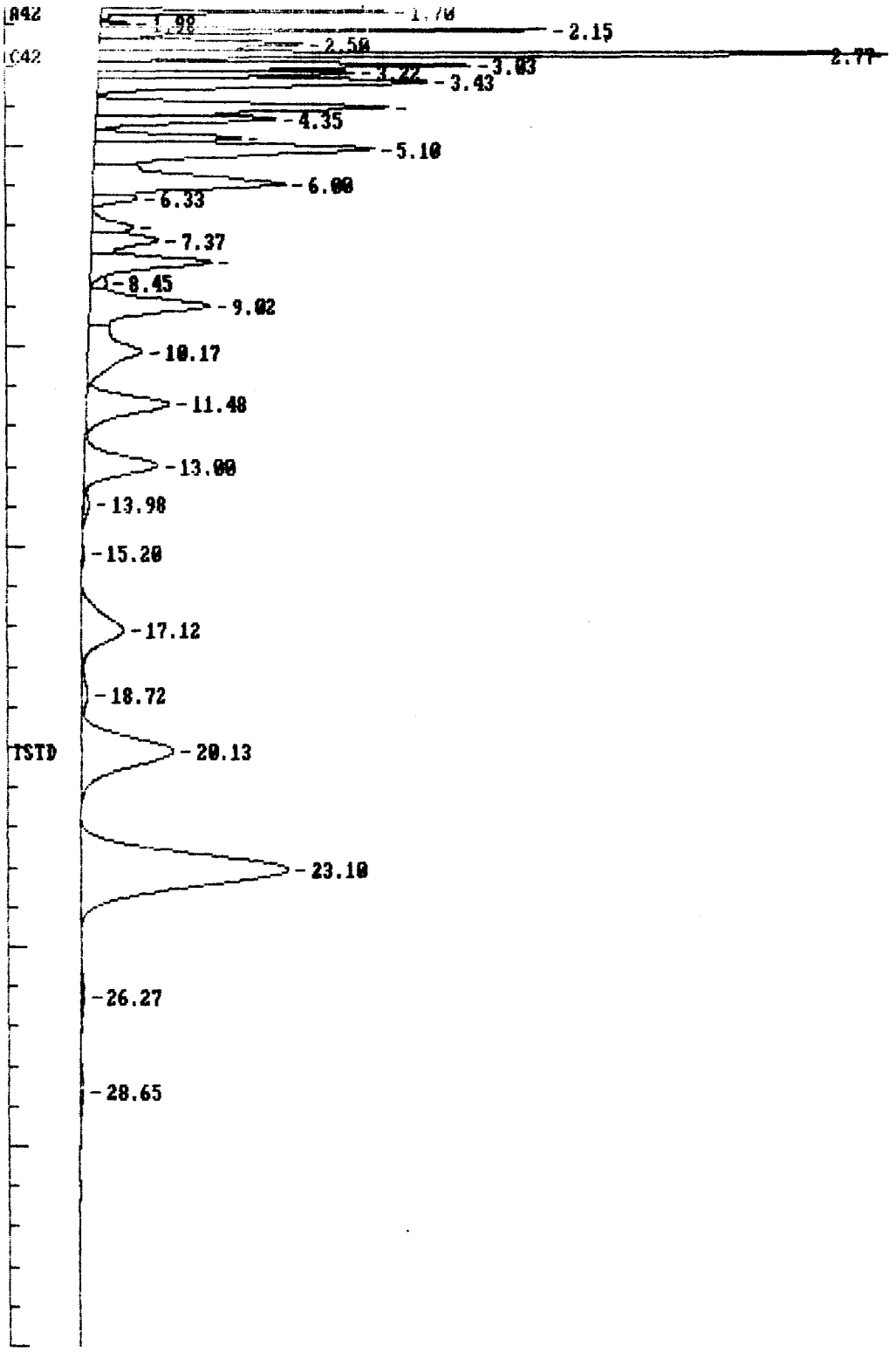
Sample Weight: 1.000000

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
1	1.70	A42	2.2614	16.8415%	347714	62963	5.5	1	1	27	0	6.5036E-06
3	2.15	B42	2.2057	16.4270%	645557	98378	6.6	2	3	27	0	3.4168E-06
5	2.77	C42	1.5106	18.6974%	1339336	174164	7.5	2	5	27	0	1.9174E-06
6	3.03	D42	3.4660	25.8275%	792032	81985	9.7	2	6	27	0	4.3786E-06
8	3.43	E42	2.9818	22.2064%	1046121	72668	14.4	2	8	27	0	2.8503E-06
27	20.13	IS13	1.0000	0.0000%	1047978	20330	51.5	2	27	27	0	9.5422E-07

TOTAL AMOUNT = 13.4274

2.68

Data File = [illegible] Printed on 03-07-1990 [illegible]
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 37014 uv High Value: [illegible] uv Scale factor: 1.0



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

********** 03-09-1990 09:04:03 Version 4.1 **********

Sample Name: PCB SPK 90FT01S20 Data File: P:2SF34

Date: 03-03-1990 14:53:28 Method: N:CON42 03-09-1990 08:57:35 # 17

Interface: 0 Cycle#: 34 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 10 Threshold: 1 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

tarting Delay: 1.50 Ending retention time: 40.00

rea reject: 0 One sample per 1.000 sec.

mount injected: 1.00 Dilution factor: 10.00

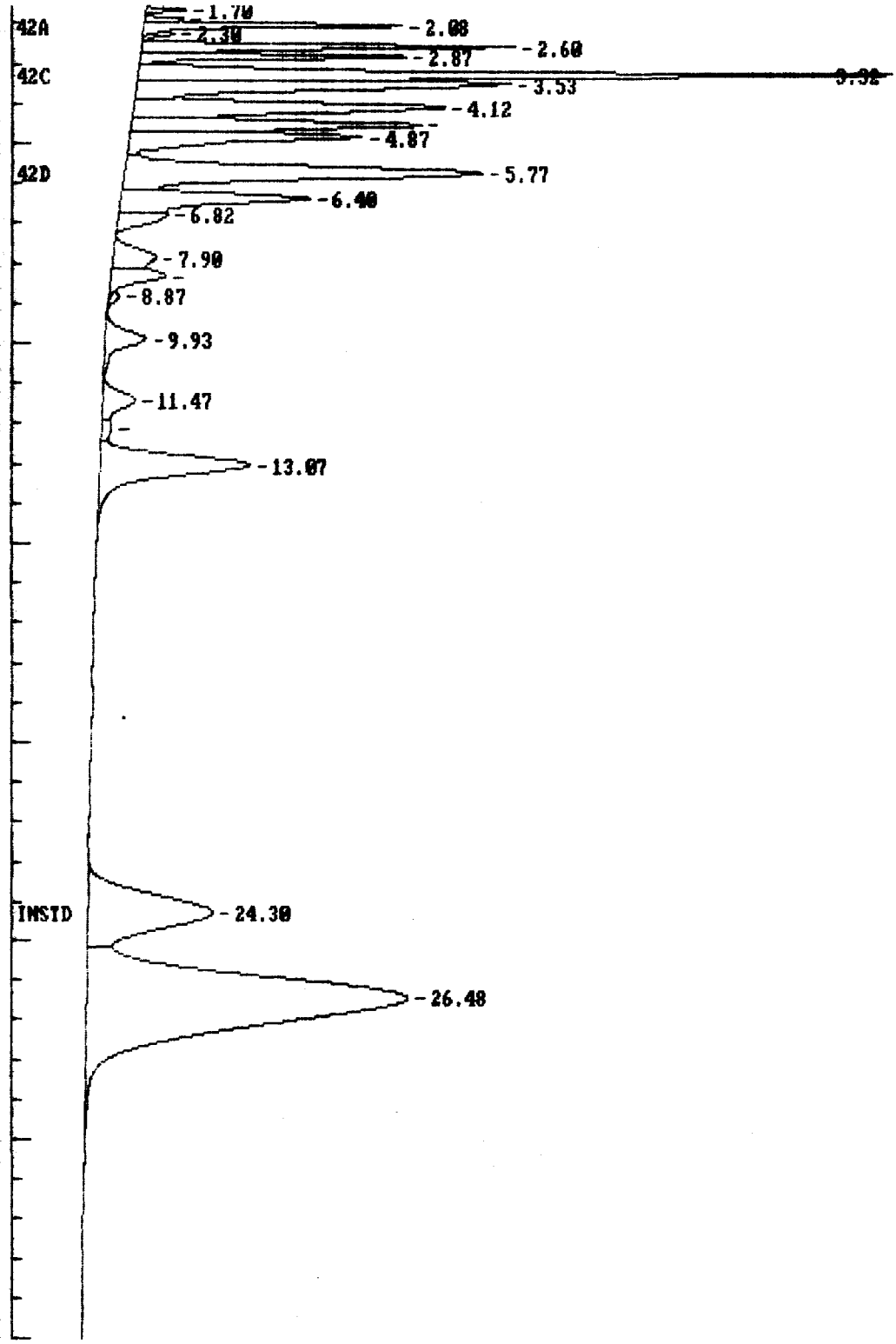
nternal Standard Amount: 1

ample Weight: 1.000000

EAK 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	2.08	42A	0.8056	15.8195%	847568	110642	7.7	3	3	22	0	9.5045E-07
5	2.60	42B	0.8297	16.2932%	1371019	159880	8.6	2	5	22	0	6.0517E-07
7	3.32	42C	0.9934	19.5077%	3612004	323536	11.2	2	7	22	0	2.7502E-07
12	5.77	42D	1.2388	24.3268%	3485533	153739	22.7	2	12	22	0	3.5541E-07
13	6.40	42E	1.2248	24.0528%	1571049	81358	19.3	2	13	22	0	7.7963E-07
22	24.30	INSTD MIREX	1.0000	0.0000%	3278932	53474	61.3	2	22	22	0	3.0498E-07

TOTAL AMOUNT = 5.0923

ata File = P:2SF34.PTS Printed on 03-09-1990 at 09:04:22
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 70158 uv High Value: 417645 uv Scale factor: 1.0



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

********** 03-09-1990 09:05:20 Version 4.1 **********

Sample Name: PCB SPK DUP 90FT01S20 Data File: P:2SF35 *

Date: 03-03-1990 15:34:46 Method: N:CON42 03-09-1990 08:57:35 # 17 *

Interface: 0 Cycle#: 35 Operator AK Channel#: 0 Vial#: N.A. *

Starting Peak Width: 10 Threshold: 1 Area Threshold: 1000 *

****

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE *

Solvent Description: ULTRA HIGH PURITY NITROGEN *

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

Detector 0: Detector 1: ECD CONF *

Misc. Information: *

****

tarting Delay: 1.50 Ending retention time: 40.00

rea reject: 0 One sample per 1.000 sec.

mount injected: 1.00 Dilution factor: 10.00

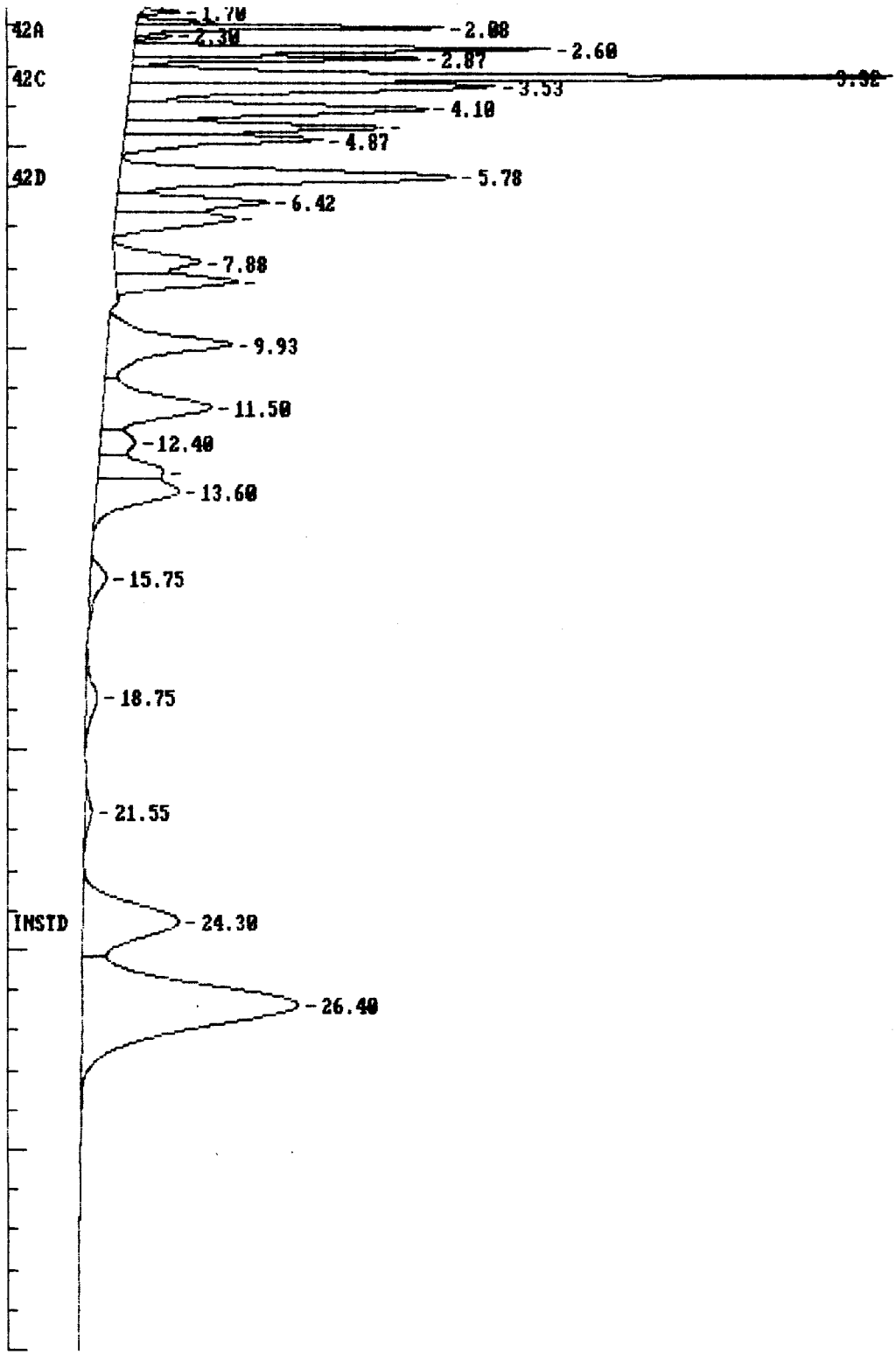
nternal Standard Amount: 1

ample Weight: 1.000000

EAK 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	2.08	42A	1.2347	18.4090%	1296415	170255	7.6	3	3	25	0	9.5238E-07
5	2.60	42B	1.3845	20.6425%	2283124	231250	9.9	2	5	25	0	6.0640E-07
7	3.32	42C	1.3178	19.6486%	4781936	424589	11.3	2	7	25	0	2.7558E-07
12	5.78	42D	1.4931	22.2618%	4192513	187187	22.4	2	12	25	0	3.5613E-07
13	6.42	42E	1.2769	19.0381%	1634476	85080	19.2	2	13	25	0	7.8121E-07
25	24.30	INSTD MIREX	1.0000	0.0000%	3272285	52810	62.0	2	25	25	0	3.0560E-07

TOTAL AMOUNT = 6.7069

ata File = P:2SF35.PTS Printed on 03-09-1990 at 09:05:39
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 69733 uv High Value: 523988 uv Scale factor: 1.0



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

********** 03-12-1990 09:16:28 Version 4.1 **********

Sample Name: METHOD BLANK SF 6986 Data File: 0:1SF39 *

Date: 03-01-1990 17:46:48 Method: N:PESTA5 03-02-1990 13:29:46 # 100 *

Interface: 0 Cycle#: 39 Operator AK Channel#: 0 Vial#: N.A. *

Starting Peak Width: 30 Threshold: 10 Area Threshold: 100 *

****

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

Solvent Description: ULTRA HIGH PURITY NITROGEN *

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

Detector 0: Detector 1: ECD QUANT *

Misc. Information: *

****

tarting Delay: 1.50 Ending retention time: 35.00

rea reject: 50000 One sample per 1.000 sec.

mount injected: 1.00 Dilution factor: 10.00

nternal Standard Amount: 1

ample Weight: 1.000000

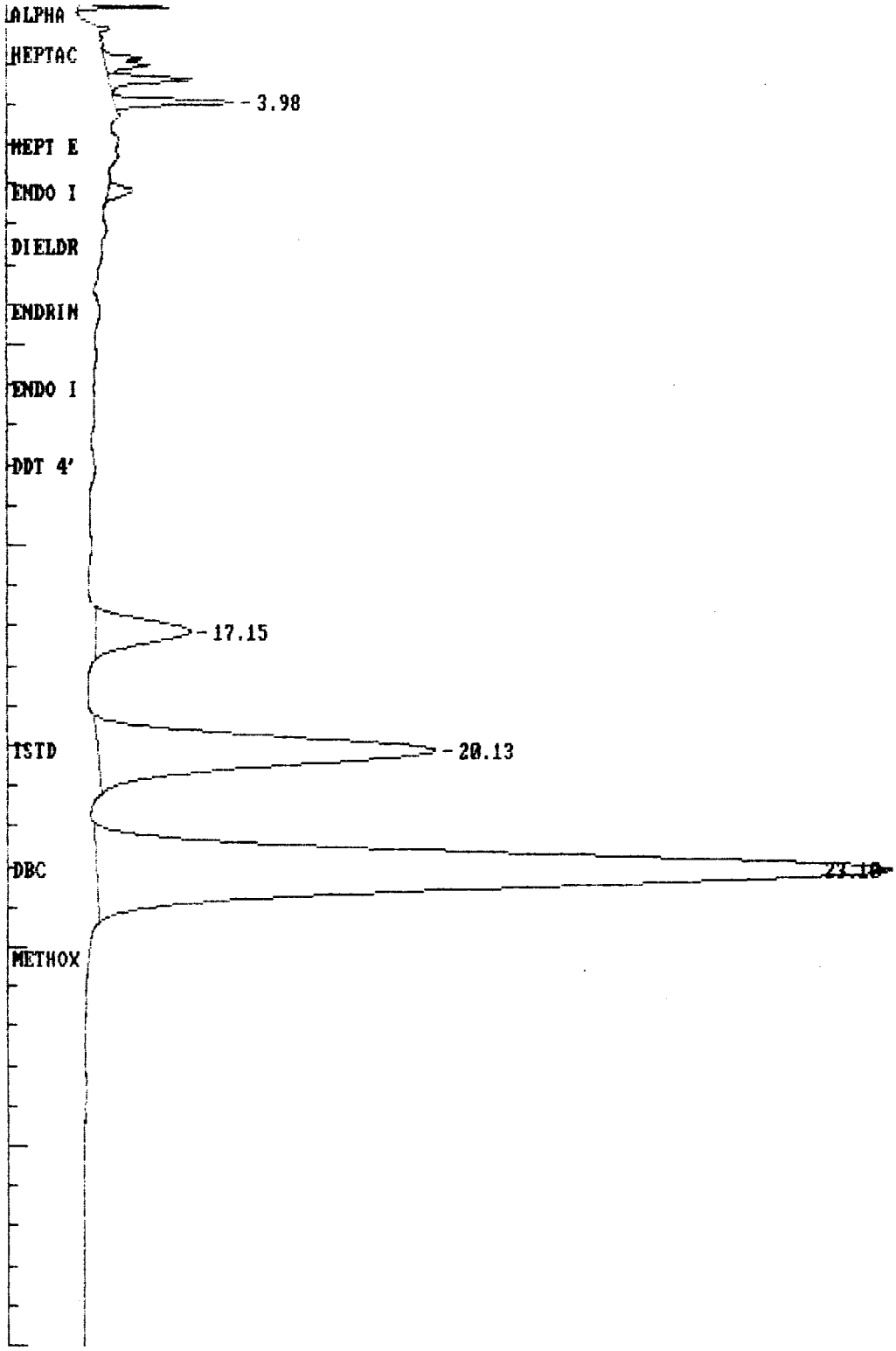
AK UM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
4	3.98		0.0001	0.0089%	64539	6610	9.8	1		7		1.0882E-09
6	17.15		0.0002	0.0275%	200034	5246	38.1	1		7		1.0882E-09
7	20.13	ISTD	1.0000	0.0000%	918974	18778	48.9	1	7	7	0	1.0882E-06
8	23.10	DBC	0.7920	99.9637%	2499853	44268	56.5	1	8	7	0	3.1681E-07

TOTAL AMOUNT = 0.7923

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
LPHA BHC	1.83	ALPHA BHC
INDANE	2.30	LINDANE
PTACHLOR	2.80	HEPTACHLOR
DRIN	3.42	ALDRIN
PT EPOXIDE	5.07	HEPT EPOXIDE
DO I	6.20	ENDO I
ELDRIN	7.58	DIELDRIN
DRIN	9.19	ENDRIN
DO II	11.10	ENDO II
T 4'4'	13.04	DDT 4'4'
THOXYCHLOR	25.30	METHOXYCHLOR

Data File = 0:1SF39.PTS Printed on 03-12-1990 at 09:16:55
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 38231 uv High Value: 83569 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

03-12-1990 10:19:10 Version 4.1

Sample Name: METHOD BLANK Data File: P:2SF25

Date: 03-03-1990 08:41:51 Method: N:CONPESA 03-08-1990 14:03:43 # 27

Interface: 0 Cycle#: 25 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 10 Threshold: 5 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

Starting Delay: 1.50 Ending retention time: 40.00

Area reject: 30000 One sample per 1.000 sec.

Amount injected: 1.00 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	~~2.18~~	~~ALPHA-BHC~~	0.0002	0.2880%	42189	3521	12.0	2	2	11	0	5.1438E-09
5	2.90		0.0000	0.0013%	31803	4014	7.9	2		11		3.0449E-11
6	3.13		0.0000	0.0035%	86397	9262	9.3	2		11		3.0449E-11
7	~~3.57~~	~~HEPTACHLOR~~	0.0009	1.1986%	180794	16305	11.1	1	7	11	0	4.9952E-09
8	4.12		0.0000	0.0133%	329013	26027	12.6	1		11		3.0449E-11
10	13.~~00~~	~~DDT~~	0.0056	7.4382%	707581	20837	34.0	1	10	11	0	7.9204E-09
11	24.30	INSTD MIREX	1.0000	0.0000%	3284226	53106	61.8	2	11	11	0	3.0449E-07
12	26.38	DIBUTYLCHLORENDATE	0.0686	91.0571%	9052881	118067	76.7	2	12	11	0	7.5785E-09

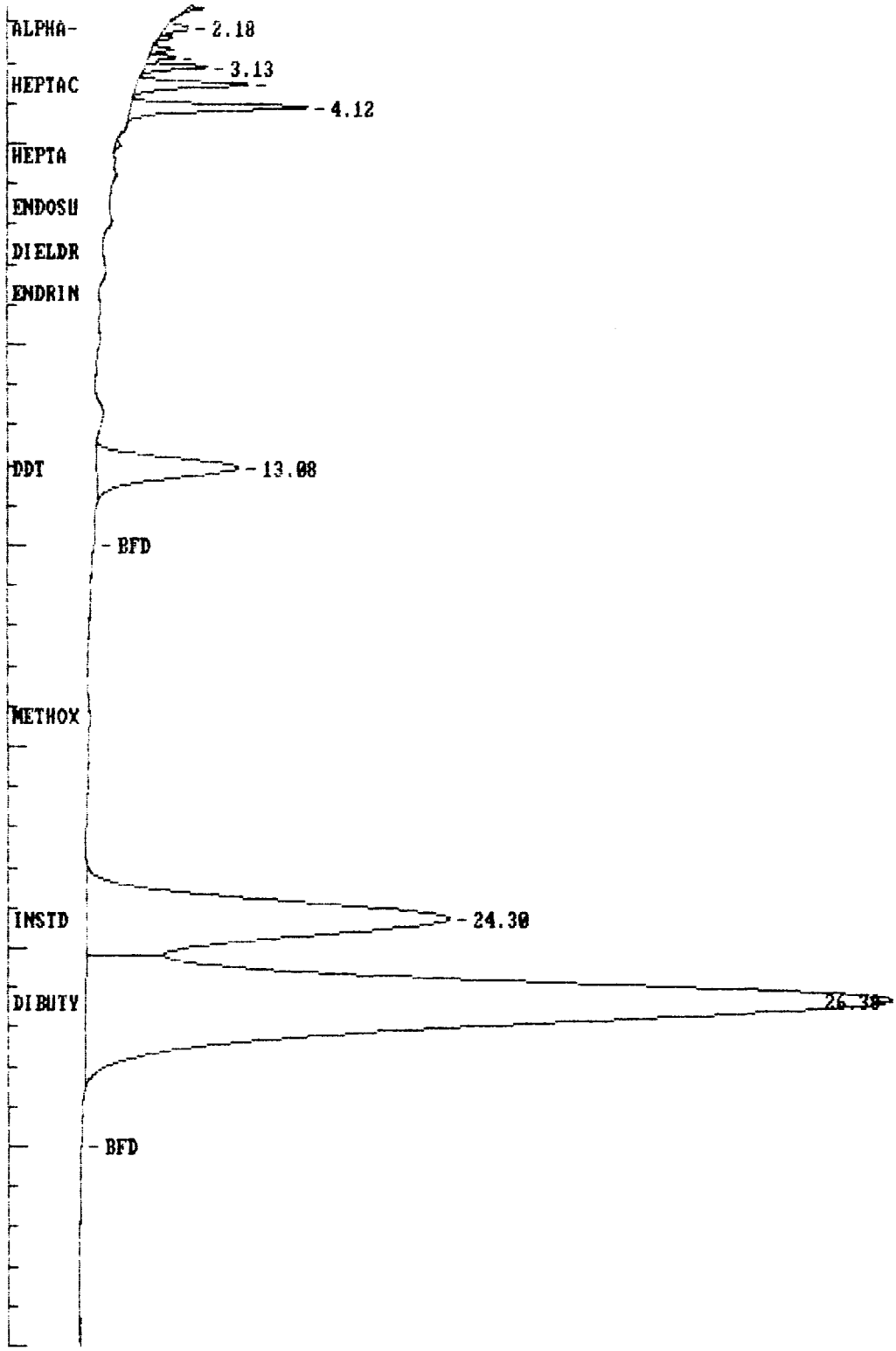
TOTAL AMOUNT = 0.0753

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
INDANE	2.40	LINDANE
LDRIN	4.38	ALDRIN
EPTA EPOXIDE	5.30	HEPTA EPOXIDE
NDOSULFAN I	6.57	ENDOSULFAN I
IELDRIN	7.67	DIELDRIN
NDRIN+ENDO II	8.71	ENDRIN+ENDO II
ETHOXYCHLOR	19.22	METHOXYCHLOR

not found on primary column.

ata File = P:2SF25.PTS Printed on 03-12-1990 at 10:19:33
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 63781 uv High value: 163016 uv Scale factor: 1.0



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

********** 03-12-1990 09:18:06 Version 4.1 **********

Sample Name: METHOD BLANK SF 6986 Data File: O:1SF39 *

Date: 03-01-1990 17:46:48 Method: N:FESTB3 03-07-1990 10:27:33 # 28 *

Interface: 0 Cycle#: 39 Operator AK Channel#: 0 Vial#: N.A. *

Starting Peak Width: 30 Threshold: 10 Area Threshold: 100 *

****

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

Solvent Description: ULTRA HIGH PURITY NITROGEN *

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

Detector 0: Detector 1: ECD QUANT *

Misc. Information: *

****

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 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	17.15	~~ENDO SULFATE~~	0.0459	5.1037%	200034	5246	38.1	1	6	7	0	2.2966E-07
7	20.13	ISTD	1.0000	0.0000%	918974	18778	48.9	1	7	7	0	1.0882E-06
8	23.10	~~END KETONE~~ DBC	0.8542	94.8963%	2499853	44268	56.5	1	8	7	0	3.4169E-07

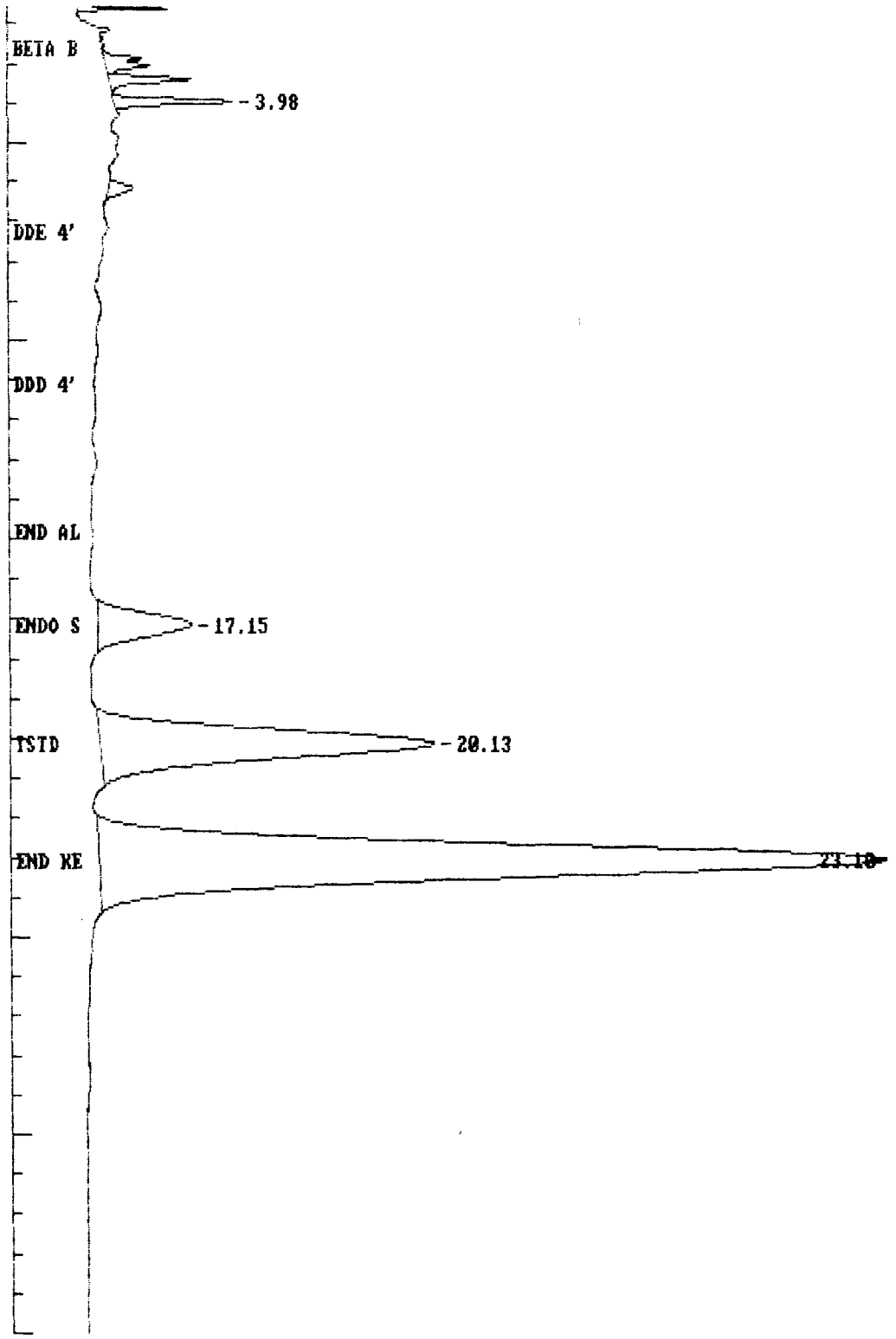
TOTAL AMOUNT = 0.9001

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
BETA BHC	2.60	BETA BHC
DELTA BHC	3.07	DELTA BHC
DDE 4'4'	7.28	DDE 4'4'
DDD 4'4'	11.10	DDD 4'4'
END ALDEHYDE	14.81	END ALDEHYDE

not confirmed on secondary column

ata File = 0:1SF39.PTS Printed on 03-12-1990 at 09:18:28
tart time: 1.50 min. Stop time: 33.00 min. Offset: 0 mv.
ow Value: 38231 uv High Value: 83569 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

03-12-1990 13:01:55 Version 4.1

Sample Name: METHOD BLANK Data File: P:2SF42

Date: 03-03-1990 20:23:42 Method: N:CONPESB 03-08-1990 14:04:37 # 19

Interface: 0 Cycle#: 42 Operator AK Channel#: 0 Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 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
2	2.~~13~~ ~~BETA-BHC~~		0.0040	18.2956%	52332	4249	12.3	2	2	19	0	7.5800E-08
6	3.12		0.0000	0.0858%	67214	7773	8.6	2		19		2.7667E-10
7	3.57		0.0001	0.2762%	216440	17081	12.7	2		19		2.7667E-10
8	4.10		0.0001	0.4999%	391712	31522	12.4	3		19		2.7667E-10
12	~~8.18 DDE~~		0.0057	26.1865%	105392	3191	33.0	2	12	19	0	5.3871E-08
13	9.10		0.0000	0.0756%	59206	2299	25.8	2		19		2.7667E-10
15	11.~~70 ENDOSULFAN 304~~		0.0087	40.3538%	77023	1784	43.2	2	15	19	0	1.1359E-07
16	13.08	area lower than lower standard	0.0003	1.2578%	985685	28005	35.2	2		19		2.7667E-10
18	19.33		0.0000	0.0732%	57380	1345	42.7	1		19		2.7667E-10
19	24.30	INSTD MIREX	1.0000	0.0000%	3614395	58375	61.9	2	19	19	0	2.7667E-07
20	26.47		0.0028	12.8957%	10105757	118413	85.3	2		19		2.7667E-10

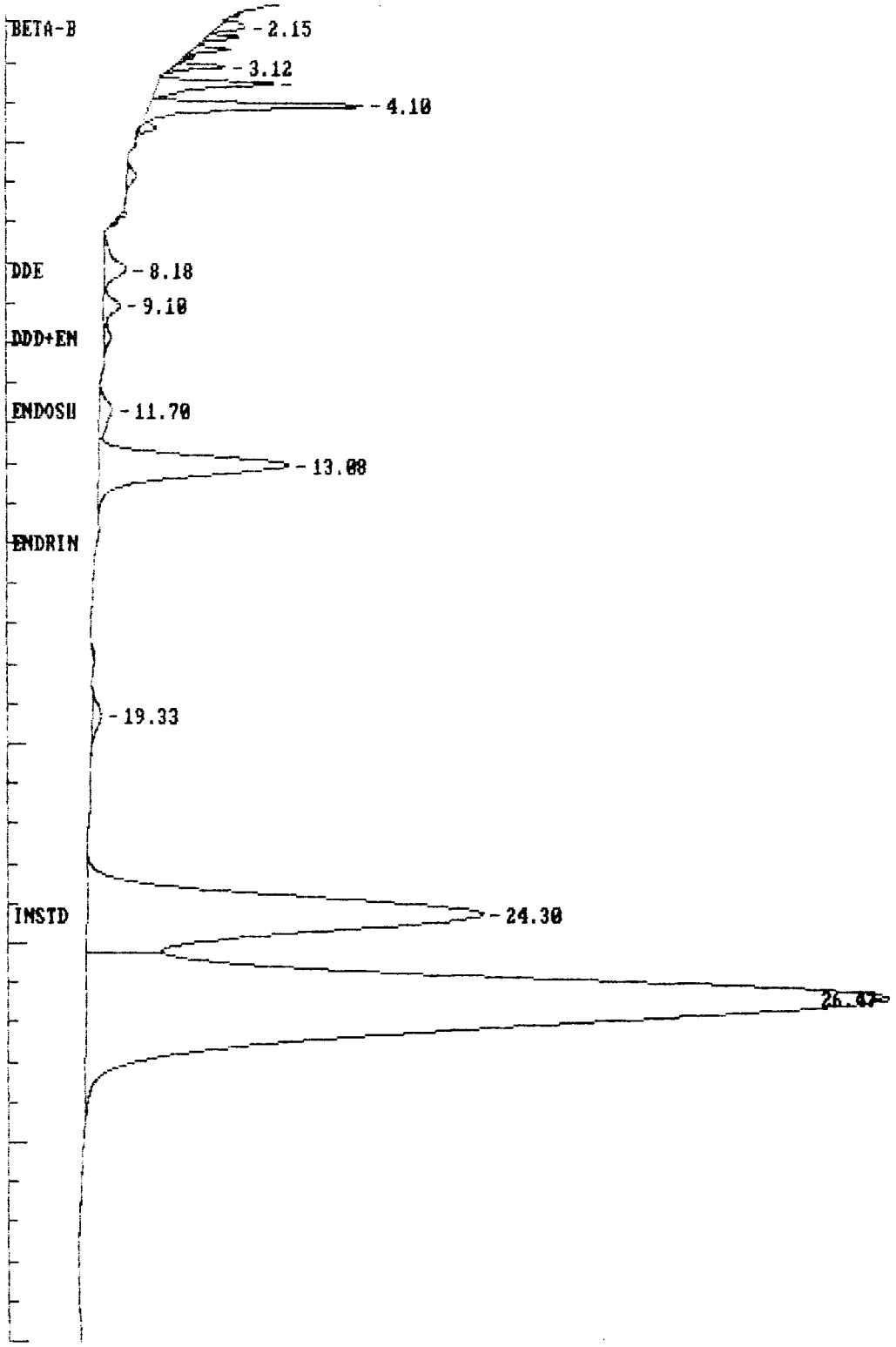
TOTAL AMOUNT = 0.0217

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DELTA-BHC	2.40	DELTA-BHC
DDD+ENDRINALDE	9.87	DDD+ENDRINALDE
ENDRIN KETONE	15.01	ENDRIN KETONE

not found on primary column.

ata File = P:28F42.PTS Printed on 03-12-1990 at 13:02:37
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 67052 uv High Value: 186665 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

```
******************** 03-02-1990 13:31:03 Version 4.1 ********************
* Sample Name: SOLVENT BLANK                    Data File: 0:1SF1         *
* Date: 02-28-1990 15:40:00 Method: N:PESTA5  03-02-1990 13:29:46  #  100 *
* Interface: 0   Cycle#:  1    Operator AK  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: ~~SINGLE~~ PHASE Quant*
*            Solvent Description: ULTRA HIGH PURITY NITROGEN              *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                        *
*            Detector 0:                      Detector 1: ~~ECD CO~~NF    *
* Misc. Information:                                LPT1:          *    *
*************************************************************************
Starting Delay:    1.50                    Ending retention time:    45.00
Area reject:     50000                     One sample per    1.000 sec.
Amount injected:        1.00               Dilution factor:        1.00
Internal Standard Amount:  1
Sample Weight:          1.000000
```

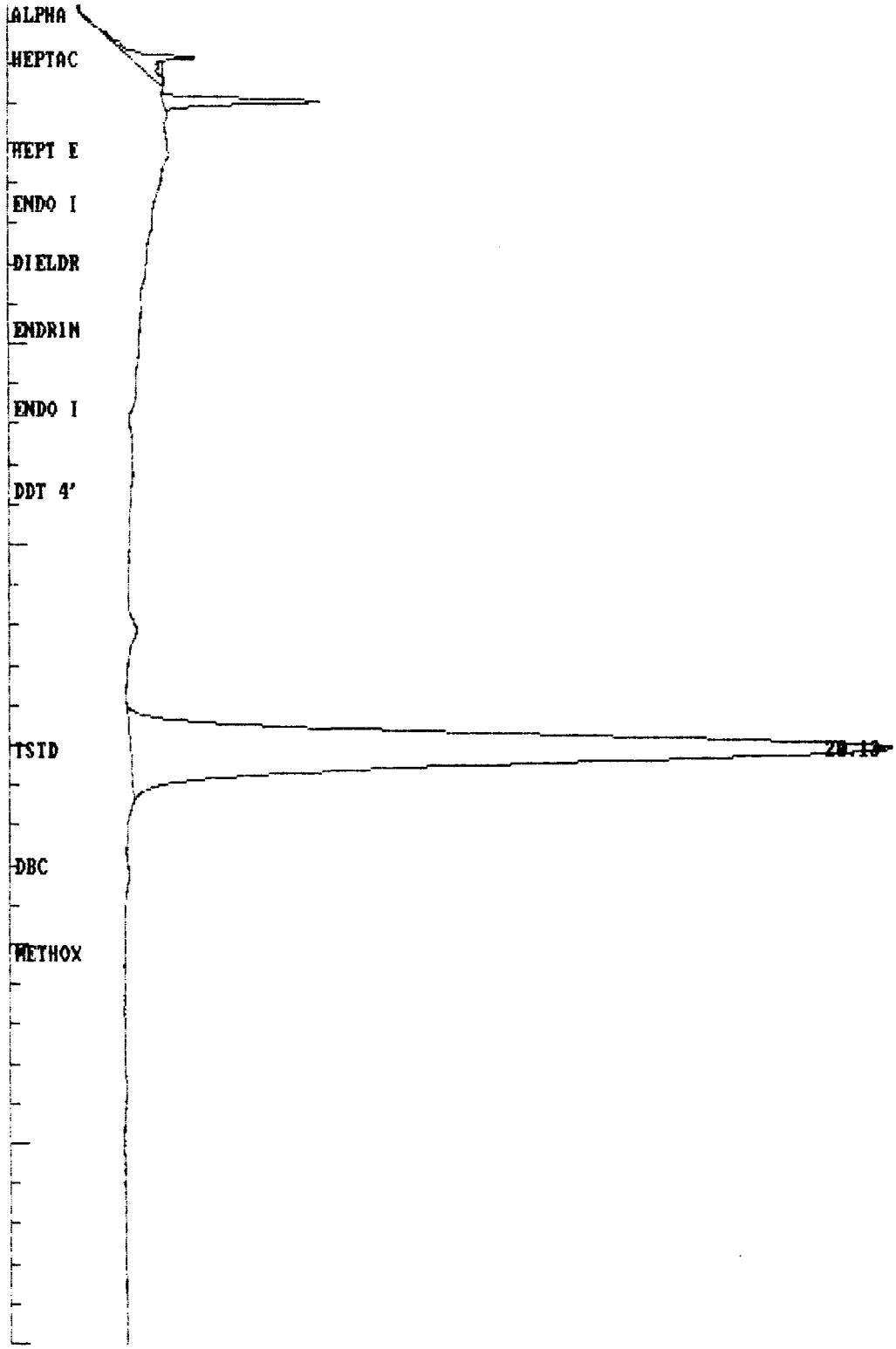
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
4	20.13	ISTD	1.0000	0.0000%	869025	17654	49.2	1	4	4	0	1.1507E-06

TOTAL AMOUNT = 0.0000

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	1.83	ALPHA BHC
LINDANE	2.30	LINDANE
HEPTACHLOR	2.90	HEPTACHLOR
ALDRIN	3.50	ALDRIN
HEPT EPOXIDE	5.20	HEPT EPOXIDE
ENDO I	6.51	ENDO I
DIELDRIN	7.96	DIELDRIN
ENDRIN	9.65	ENDRIN
ENDO II	11.65	ENDO II
DDT 4'4'	13.69	DDT 4'4'
DBC	23.03	DBC
METHOXYCHLOR	25.22	METHOXYCHLOR

Data File = O:1SF1.PTS Printed on 03-02-1990 at 13:31:20
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 36773 uv High Value: 55596 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

********** 03-12-1990 09:28:37 Version 4.1 **********

Sample Name: 90FT095[redacted]518 Data File: D:1SF48

Date: 03-01-1990 23:58:15 Method: N:PESTA5 03-02-1990 13:29:46 # 100

Interface: 0 Cycle#: 48 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 30 Threshold: 10 Area Threshold: 100

Instrument Type: HP 5890A #1 Column Type: QUANT

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD QUANT

Misc. Information:

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 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
1	2.18	~~LINDANE~~	0.0224	2.8142%	112576	10826	10.4	1	1	10	0	1.9854E-07
2	3.07		0.0001	0.0078%	58609	3252	18.0	2		10		1.0573E-09
3	3.42	~~ALDRIN~~	0.0064	0.8031%	55096	4099	13.4	2	3	10	0	1.1577E-07
4	3.98		0.0001	0.0091%	68177	6904	9.9	2		10		1.0573E-09
5	4.92	~~HEPT EPOXIDE~~	0.0129	1.6283%	90170	4393	20.5	2	5	10	0	1.4342E-07
6	5.27		0.0001	0.0097%	73233	4402	16.6	2		10		1.0573E-09
7	6.18	~~ENDO I~~	0.0162	2.0429%	94411	5682	16.6	1	7	10	0	1.7185E-07
9	17.13		0.0002	0.0292%	219031	5705	38.4	1		10		1.0573E-09
10	20.12	ISTD	1.0000	0.0000%	945846	19401	48.8	1	10	10	0	1.0573E-06
11	23.07	DBC	0.7359	92.6557%	2397879	42725	56.1	1	11	10	0	3.0689E-07

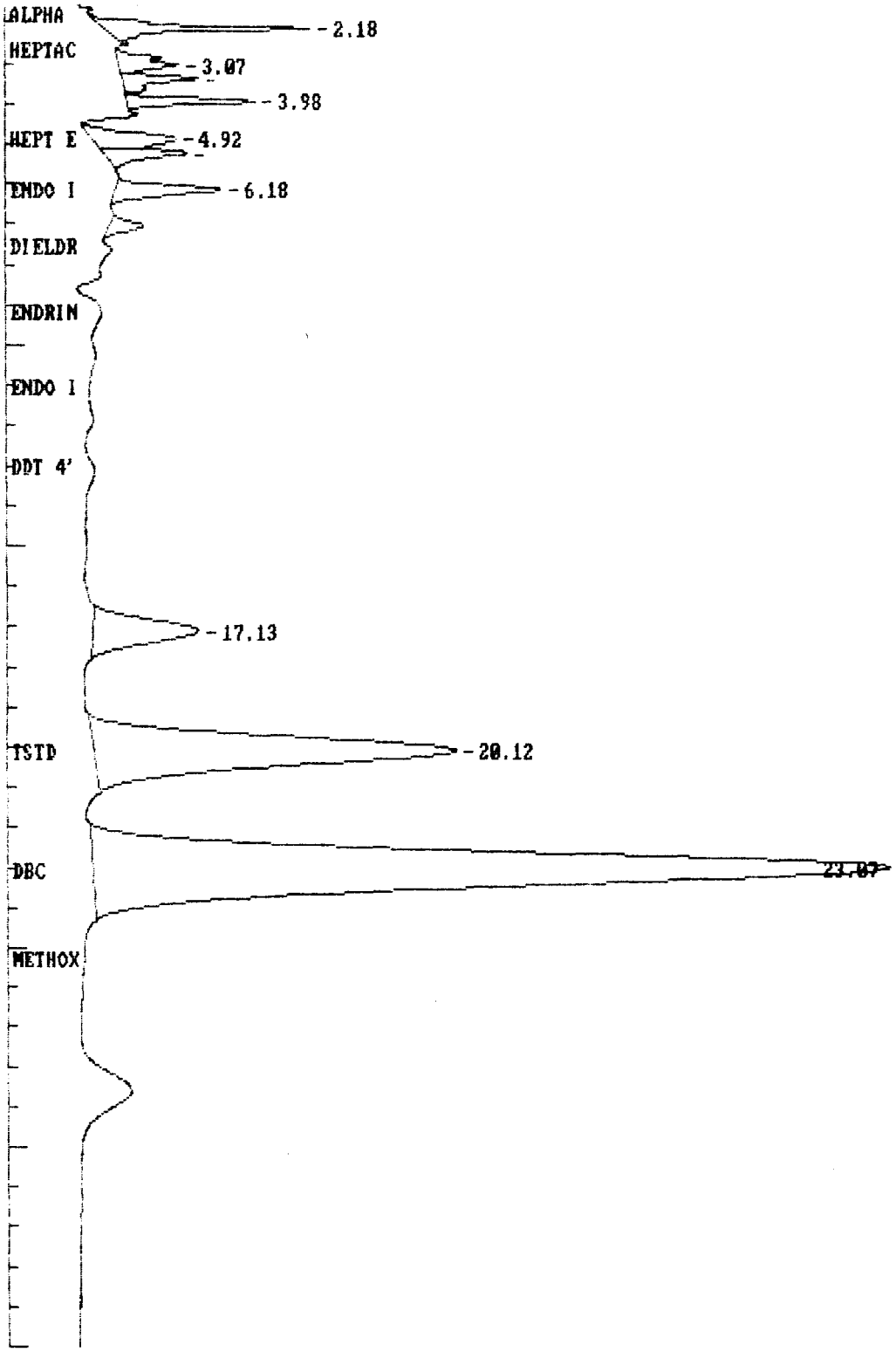
TOTAL AMOUNT = 0.7942

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	1.83	ALPHA BHC
HEPTACHLOR	2.66	HEPTACHLOR
DIELDRIN	7.56	DIELDRIN
ENDRIN	9.17	ENDRIN
ENDO II	11.07	ENDO II
DDT 4'4	13.01	DDT 4'4'
METHOXYCHLOR	25.27	METHOXYCHLOR

not found on primary Column

ata File = 0:1GF48.PTS Printed on 03-12-1990 at 09:29:09
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 38202 uv High value: 81744 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

********** 03-12-1990 09:30:11 Version 4.1 **********

Sample Name: 90FT09S[redacted]S18 Data File: 0:1SF48

Date: 03-01-1990 23:58:15 Method: N:PESTB3 03-07-1990 10:27:33 # 28

Interface: 0 Cycle#: 48 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 30 Threshold: 10 Area Threshold: 100

Instrument Type: HP 5890A #1 Column Type: QUANT

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD QUANT

Misc. Information:

tarting Delay: 1.50 Ending retention time: 35.00

rea reject: 50000 One sample per 1.000 sec.

mount injected: 1.00 Dilution factor: 10.00

nternal Standard Amount: 1

ample Weight: 1.000000

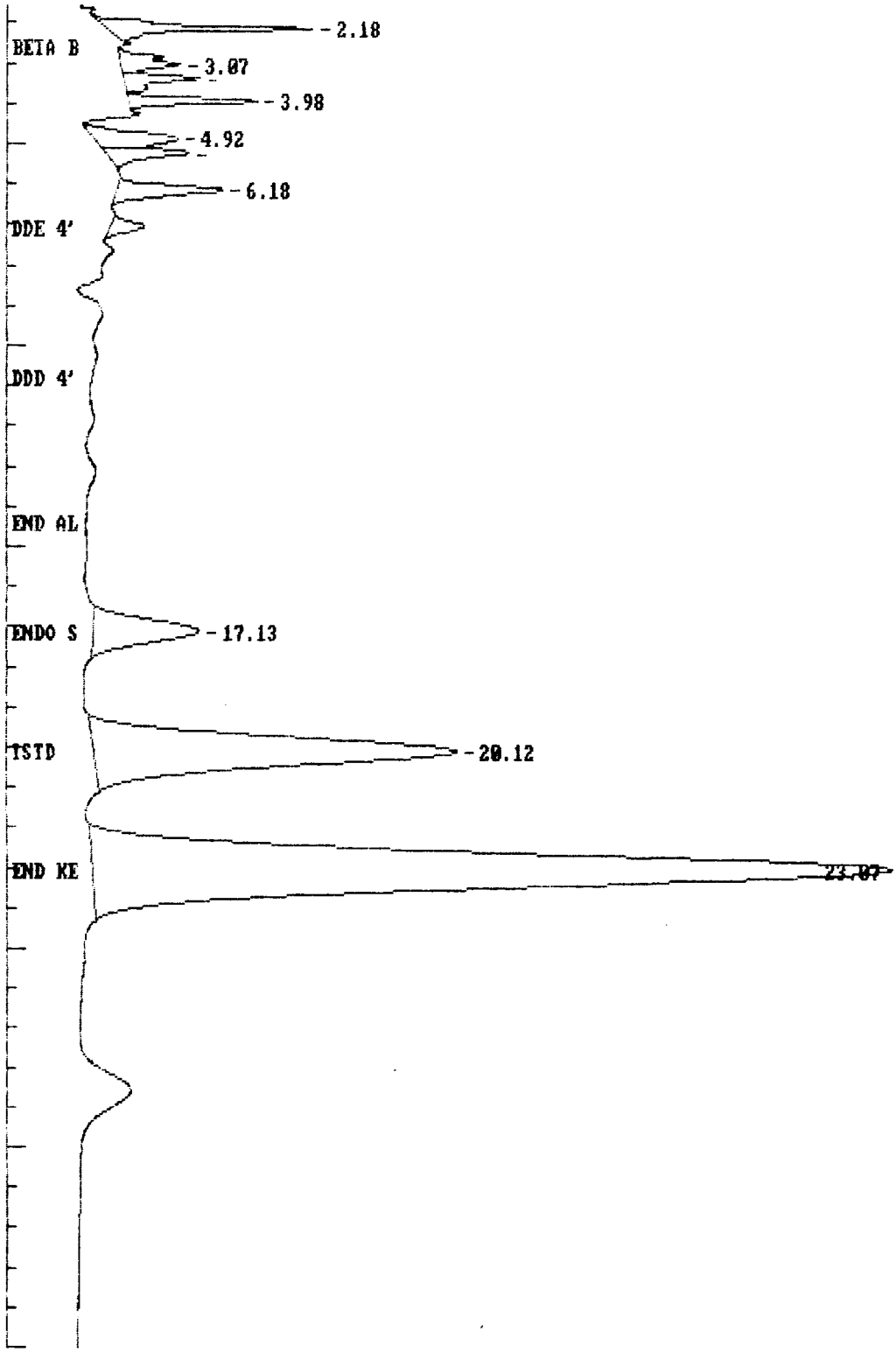
EAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	HEIGHT BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
2	3.07	~~DELTA BHC~~	0.0110	1.2870%	58609	3252	18.0	2	2	10	0	1.8795E-07
9	17.13	~~ENDO SULFATE~~	0.0489	5.7098%	219031	5705	38.4	1	9	10	0	2.2313E-07
10	20.12	ISTD	1.0000	0.0000%	945846	19401	48.6	1	10	10	0	1.0573E-06
11	23.07	~~END KETONE~~	0.7960	93.0032%	2397879	42725	56.1	1	11	10	0	3.3198E-07
		TOTAL AMOUNT =	0.8559									

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
ETA BHC	2.60	BETA BHC
DE 4'4'	7.08	DDE 4'4'
DD 4'4'	10.81	DDD 4'4'
ND ALDEHYDE	14.41	END ALDEHYDE

not found on Primary Column

ata File = D:1SF48.PTS Printed on 03-12-1990 at 09:30:42
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 38202 uv High Value: 81744 uv Scale factor: 1.0



[redacted]

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

********** 03-12-1990 10:20:28 Version 4.1 **********

Sample Name: 90FT09S18 Data File: P:2SF26

Date: 03-03-1990 09:23:10 Method: N:CONPESA 03-08-1990 14:03:43 # 27

Interface: 0 Cycle#: 26 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 10 Threshold: 5 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

Starting Delay: 1.50 Ending retention time: 40.00

Area reject: 30000 One sample per 1.000 sec.

Amount injected: 1.00 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
1	1.70		0.0000	0.0062%	147240	25161	5.9	1		14		3.0054E-10
2	2.22		0.0000	0.0054%	127641	10998	11.6	1		14		3.0054E-10
4	2.92		0.0000	0.0029%	68663	7059	9.7	2		14		3.0054E-10
5	3.13		0.0001	0.0095%	223832	15144	14.8	2		14		3.0054E-10
6	3.57	~~HEPTACHLOR~~	0.0089	1.2590%	181130	14884	12.2	2	6	14	0	4.9305E-08
7	4.13		0.0002	0.0259%	611004	43167	14.2	3		14		3.0054E-10
8	4.7	~~ALDRIN~~ *	0.0029	0.4118%	48032	3202	15.0	4	8	14	0	6.0816E-08
9	5.07		0.0000	0.0015%	35374	2744	12.9	4		14		3.0054E-10
11	6.45		0.0000	0.0013%	30659	1813	16.9	1		14		3.0054E-10
13	~~13.08~~	~~DDT~~	0.0606	8.5480%	775620	22640	34.3	1	13	14	0	7.8178E-08
14	24.30	INSTD MIREX	1.0000	0.0000%	3327327	53904	61.7	2	14	14	0	3.0054E-07
15	26.38	DIBUTYLCHLORENDATE	0.6365	89.7286%	8509031	113629	74.9	2	15	14	0	7.4803E-08

TOTAL AMOUNT = 0.7094

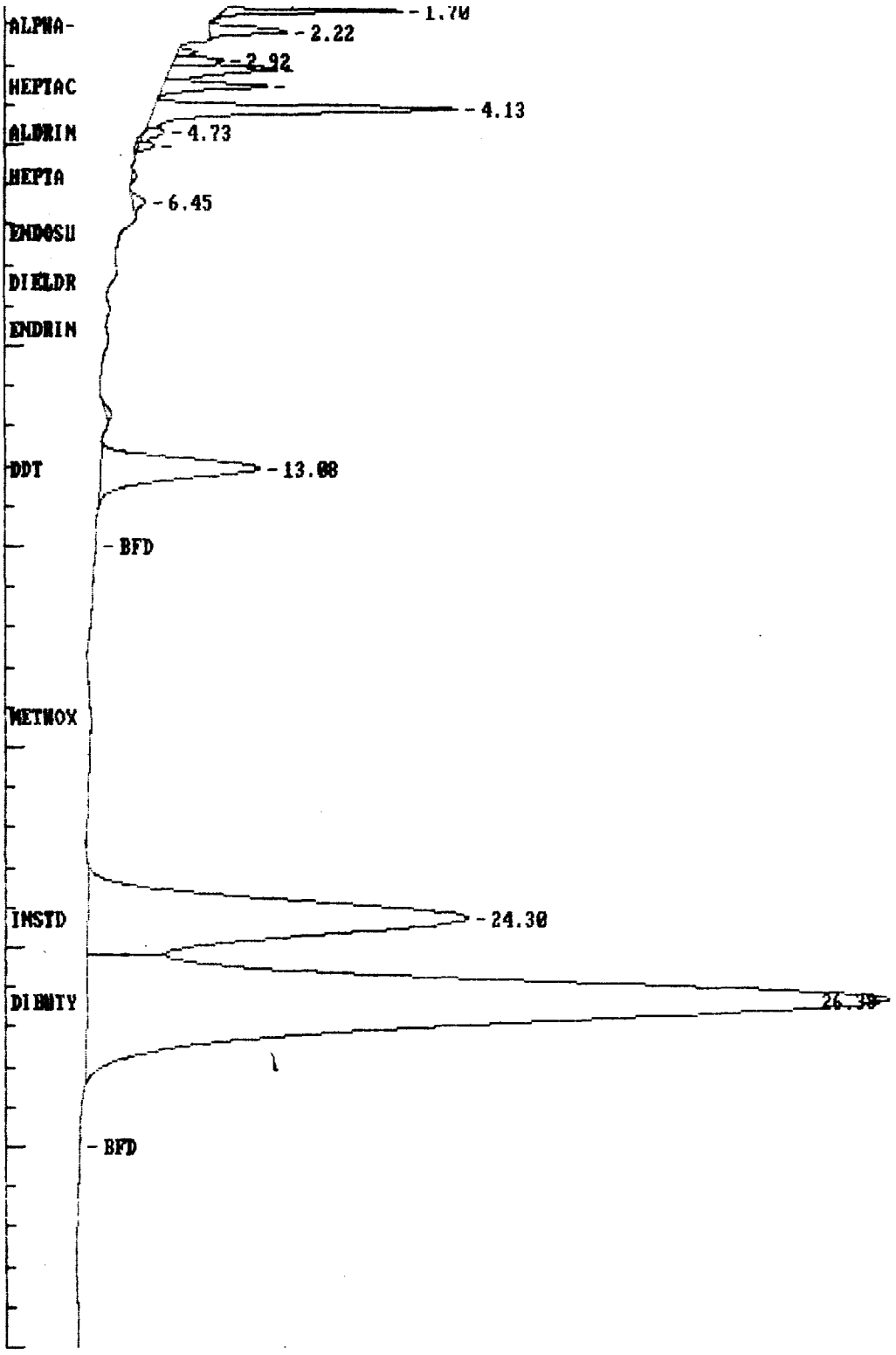
PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA-BHC	2.05	ALPHA-BHC
LINDANE	2.40	LINDANE
HEPTA EPOXIDE	5.83	HEPTA EPOXIDE
ENDOSULFAN I	7.23	ENDOSULFAN I
DIELDRIN	8.43	DIELDRIN
ENDRIN+ENDO II	9.58	ENDRIN+ENDO II
METHOXYCHLOR	19.22	METHOXYCHLOR

not ~~found~~ on Confirmation secondary column

* area lower than lowest standard.

File # P:2SF26.PTS Printed on 03-12-1990 at 10:20:58
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 64746 uv High Value: 179881 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

********** 03-12-1990 10:33:06 Version 4.1 **********

Sample Name: 90FT09S18 Data File: P:2SF26

Date: 03-03-1990 09:23:10 Method: N:CONPESB 03-08-1990 14:04:37 # 19

Interface: 0 Cycle#: 26 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 10 Threshold: 5 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

Starting Delay: 1.50 Ending retention time: 40.00

Area reject: 30000 One sample per 1.000 sec.

Amount injected: 1.00 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	HEIGHT BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	1.70		0.0000	0.3229%	147240	25161	5.9	1		14		3.0054E-10
2	~~2.22~~	~~BETA-BHC~~	0.0105	76.6875%	127641	10998	11.6	1	2	14	0	8.2339E-08
4	2.92		0.0000	0.1506%	68663	7059	9.7	2		14		3.0054E-10
5	3.13		0.0001	0.4909%	223832	15144	14.8	2		14		3.0054E-10
6	3.57		0.0001	0.3972%	181130	14884	12.2	2		14		3.0054E-10
7	4.13		0.0002	1.3399%	611004	43167	14.2	3		14		3.0054E-10
8	4.73		0.0000	0.1053%	48032	3202	15.0	4		14		3.0054E-10
9	5.07		0.0000	0.0776%	35374	2744	12.9	4		14		3.0054E-10
11	6.45		0.0000	0.0672%	30659	1813	16.9	1		14		3.0054E-10
13	13.08		0.0002	1.7009%	775620	22640	34.3	1		14		3.0054E-10
14	24.30	INSTD MIREX	1.0000	0.0000%	3327327	53904	61.7	2	14	14	0	3.0054E-07
15	26.38		0.0026	18.6600%	8509031	113629	74.9	2		14		3.0054E-10

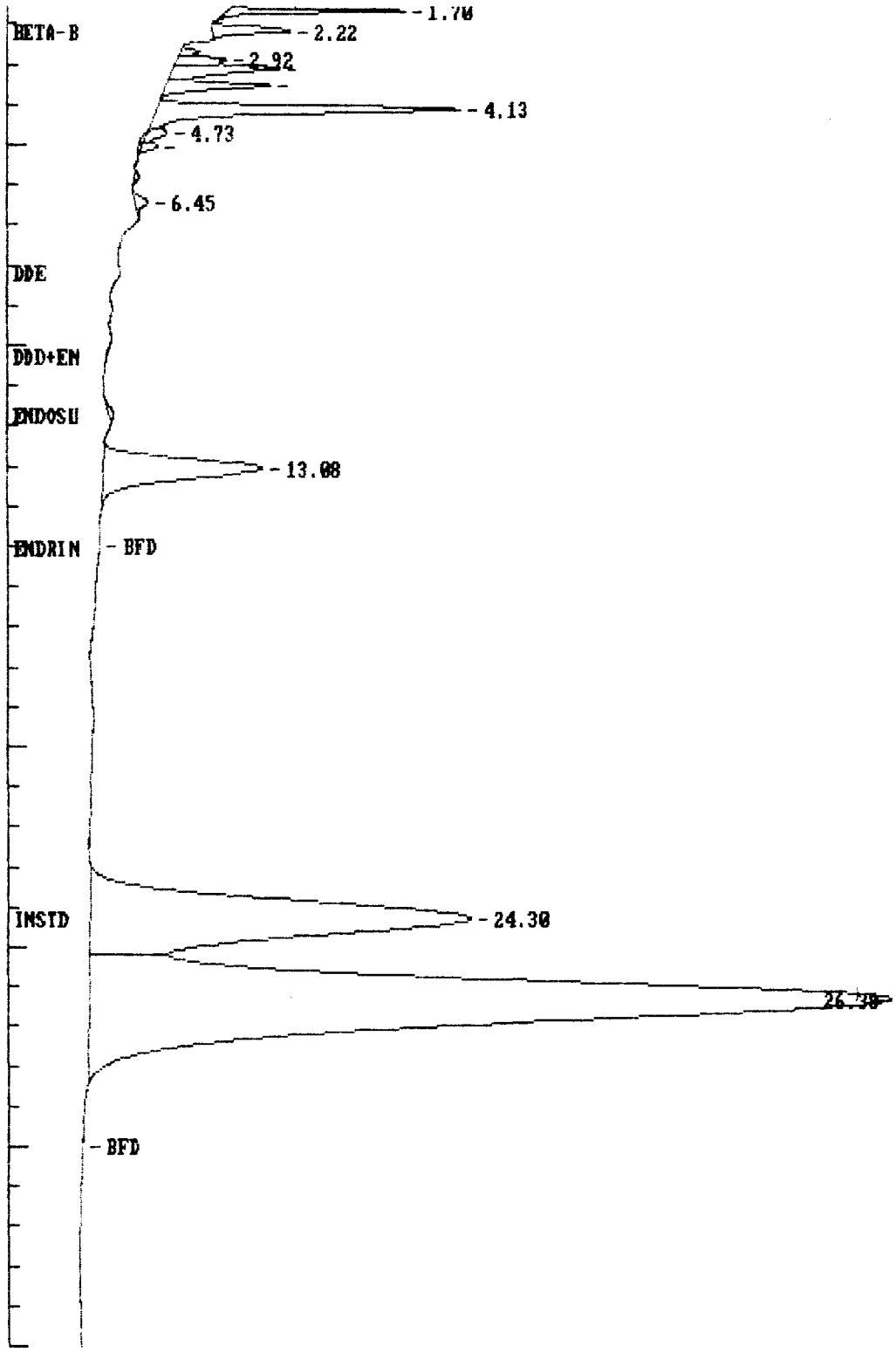
TOTAL AMOUNT = 0.0137

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DELTA-BHC	2.50	DELTA-BHC
DDE	8.17	DDE
DDD+ENDRINALDE	10.32	DDD+ENDRINALDE
ENDOSULFAN SO4	11.75	ENDOSULFAN SO4
ENDRIN KETONE	15.07	ENDRIN KETONE

not ~~for~~ confirmed on secondary column

ata File = P:2SF26.PTS Printed on 03-12-1990 at 10:33:34
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 64746 uv High Value: 179881 uv Scale factor: 1.0



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

********** 03-12-1990 09:09:55 Version 4.1 **********

Sample Name: 90FT09D18 Data File: 0:1SF37 *

Date: 03-01-1990 16:24:21 Method: N:PESTA5 03-02-1990 13:29:46 # 100 *

Interface: 0 Cycle#: 37 Operator AK Channel#: 0 Vial#: N.A. *

Starting Peak Width: 30 Threshold: 10 Area Threshold: 100 *

****

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

Solvent Description: ULTRA HIGH PURITY NITROGEN *

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

Detector 0: Detector 1: ECD QUANT *

Misc. Information: *

****

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 10.00

Internal Standard Amount: 1

Sample Weight: 1.000000

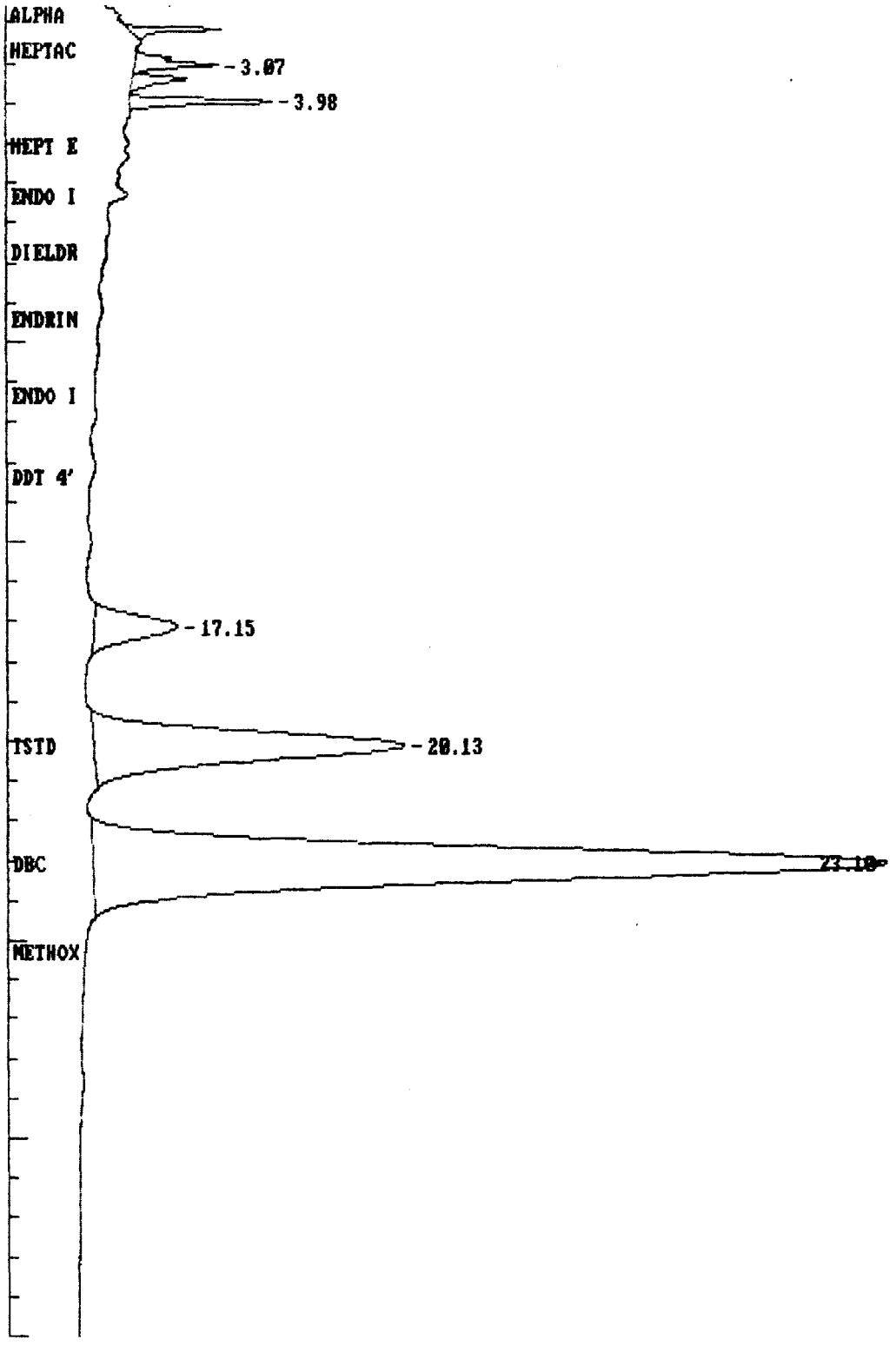
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
2	3.07		0.0001	0.0080%	64352	5036	12.8	2		6		1.0890E-09
4	3.98		0.0001	0.0107%	85583	8562	10.0	1		6		1.0890E-09
5	17.15		0.0002	0.0241%	192551	5061	38.0	1		6		1.0890E-09
6	20.13	ISTD	1.0000	0.0000%	918293	18771	48.9	1	6	6	0	1.0890E-06
7	23.10	DBC	0.8702	99.9572%	2735191	48030	56.9	1	7	6	0	3.1817E-07

TOTAL AMOUNT = 0.8706

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	1.83	ALPHA BHC
LINDANE	2.18	LINDANE
HEPTACHLOR	2.66	HEPTACHLOR
ALDRIN	3.42	ALDRIN
HEPT EPOXIDE	5.07	HEPT EPOXIDE
ENDO I	6.35	ENDO I
DIELDRIN	7.76	DIELDRIN
ENDRIN	9.41	ENDRIN
ENDO II	11.36	ENDO II
DDT 4'4'	13.35	DDT 4'4'
METHOXYCHLOR	25.30	METHOXYCHLOR

ata File = O:1SF37.PTS Printed on 03-12-1990 at 09:10:23
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 39092 uv High Value: 88058 uv Scale factor: 1.0



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

********** 03-12-1990 09:11:26 Version 4.1 **********

Sample Name: 90FT09D18 Data File: D:1SF37 *

Date: 03-01-1990 16:24:21 Method: N:PESTB3 03-07-1990 10:27:33 # 28 *

Interface: 0 Cycle#: 37 Operator AK Channel#: 0 Vial#: N.A. *

Starting Peak Width: 30 Threshold: 10 Area Threshold: 100 *

****

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

Solvent Description: ULTRA HIGH PURITY NITROGEN *

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

Detector 0: Detector 1: ECD QUANT *

Misc. Information: *

****

tarting Delay: 1.50 Ending retention time: 35.00

rea reject: 50000 One sample per 1.000 sec.

mount injected: 1.00 Dilution factor: 10.00

nternal Standard Amount: 1

ample Weight: 1.000000

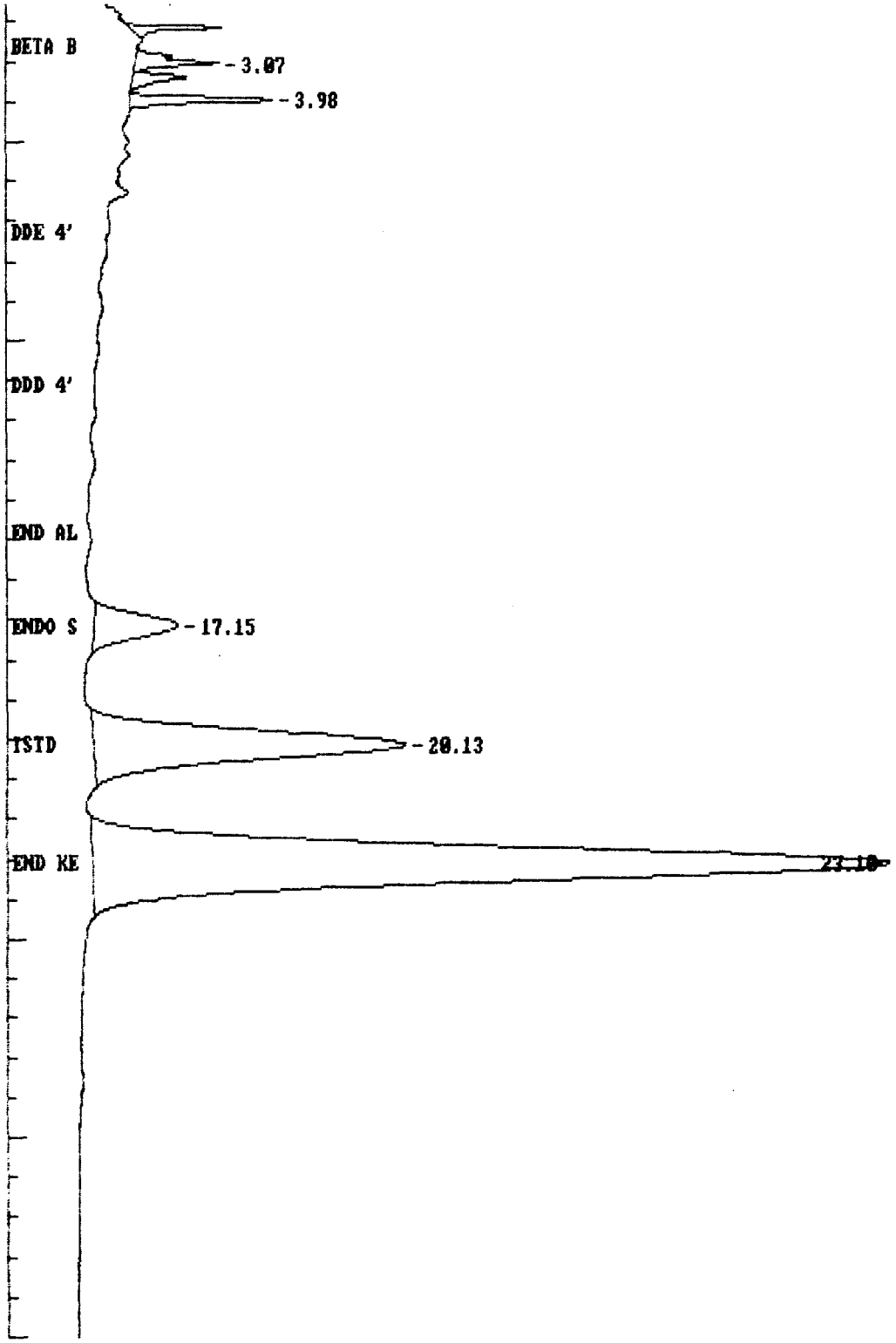
EAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
2	3.07	~~DELTA BHC~~	0.0125	1.2559%	64352	5036	12.8	2	2	6	0	1.9359E-07
5	17.15	~~ENDO SULFATE~~	0.0443	4.4611%	192551	5061	38.0	1	5	6	0	2.2983E-07
6	20.13	ISTD	1.0000	0.0000%	918293	18771	48.9	1	6	6	0	1.0890E-06
7	23.10	~~END KETONE~~ PBC	0.9353	94.2831%	2735191	48030	56.9	1	7	6	0	3.4194E-07
		TOTAL AMOUNT =	0.9920									

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
ETA BHC	2.60	BETA BHC
DE 4'4'	7.28	DDE 4'4'
DD 4'4'	11.10	DDD 4'4'
ND ALDEHYDE	14.81	END ALDEHYDE

Area lower than lowest standard.

ata File = 0:1SF37.PTS Printed on 03-12-1990 at 09:11:54
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 39092 uv High Value: 88058 uv Scale factor: 1.0



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

********** 03-12-1990 10:21:54 Version 4.1 **********

Sample Name: 90FT09D18 Data File: P:2SF27

Date: 03-03-1990 10:04:29 Method: N:CONPESA 03-08-1990 14:03:43 # 27

Interface: 0 Cycle#: 27 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 10 Threshold: 5 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

Starting Delay: 1.50 Ending retention time: 40.00

Area reject: 30000 One sample per 1.000 sec.

Amount injected: 1.00 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
1	1.70		0.0000	0.0032%	83729	15364	5.4	1		12		2.9991E-10
2	~~2.13~~	~~ALPHA BHC~~	0.0026	0.3316%	51523	4163	12.4	2	2	12	0	5.0665E-08
4	2.70		0.0000	0.0018%	47724	6326	7.5	2		12		2.9991E-10
5	2.90		0.0000	0.0033%	87820	8793	10.0	2		12		2.9991E-10
6	3.12		0.0000	0.0037%	96903	9126	10.6	2		12		2.9991E-10
7	3.~~37~~	~~HEPTACHLOR~~	0.0057	0.7272%	116374	9896	11.8	1	7	12	0	4.9202E-08
8	4.10		0.0001	0.0134%	352026	29437	12.0	1		12		2.9991E-10
10	11.73		0.0000	0.0012%	32721	1249	26.2	1		12		2.9991E-10
11	13.~~08~~	~~DDT~~	0.0515	6.5398%	660004	19518	33.8	1	11	12	0	7.8014E-08
12	24.30	INSTD MIREX	1.0000	0.0000%	3334316	54206	61.5	2	12	12	0	2.9991E-07
13	26.42	DIBUTYLCHLORENDATE	0.7273	92.3747%	9743076	122730	79.4	2	13	12	0	7.4647E-08

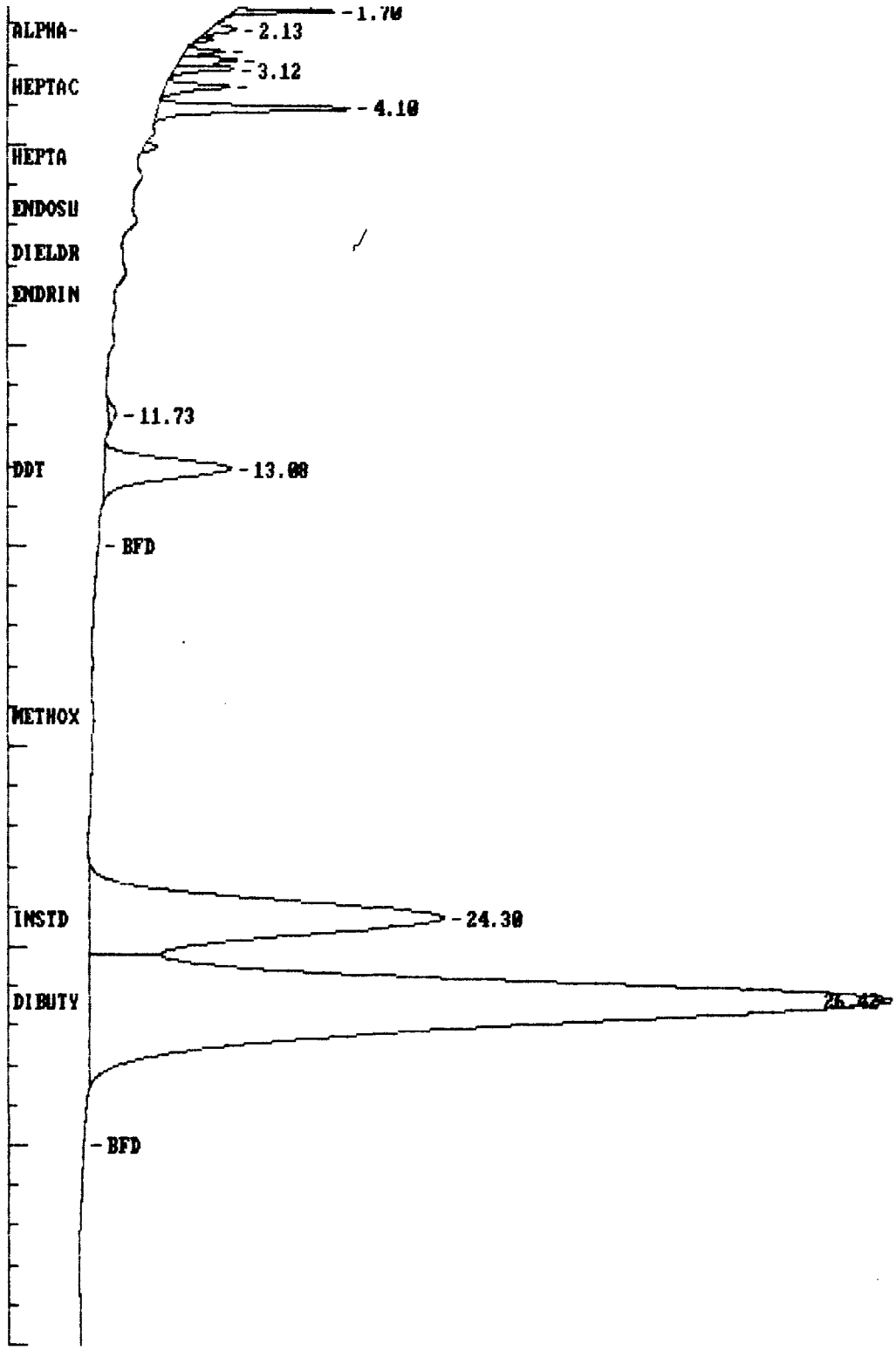
TOTAL AMOUNT = 0.7873

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
LINDANE	2.40	LINDANE
ALDRIN	4.38	ALDRIN
HEPTA EPOXIDE	5.30	HEPTA EPOXIDE
ENDOSULFAN I	6.57	ENDOSULFAN I
DIELDRIN	7.67	DIELDRIN
ENDRIN+ENDO II	8.71	ENDRIN+ENDO II
METHOXYCHLOR	19.22	METHOXYCHLOR

not found on primary column

Data File = P:2SF27.PTS Printed on 03-12-1990 at 10:22:22
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 65290 uv High Value: 189733 uv Scale factor: 1.0



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

********** 03-12-1990 10:34:30 Version 4.1 **********

Sample Name: 90FT09D18 Data File: P:2SF27

Date: 03-03-1990 10:04:29 Method: N:CONPESB 03-08-1990 14:04:37 # 19

Interface: 0 Cycle#: 27 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 10 Threshold: 5 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

Starting Delay: 1.50 Ending retention time: 40.00

Area reject: 30000 One sample per 1.000 sec.

Amount injected: 1.00 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
1	1.70		0.0000	0.2161%	83729	15364	5.4	1		12		2.9991E-10
2	2.13	~~BETA-BHC~~	0.0042	36.4392%	51523	4163	12.4	2	2	12	0	8.2167E-08
4	2.70		0.0000	0.1232%	47724	6326	7.5	2		12		2.9991E-10
5	2.90		0.0000	0.2267%	87820	8793	10.0	2		12		2.9991E-10
6	3.12		0.0000	0.2502%	96903	9126	10.6	2		12		2.9991E-10
7	3.57		0.0000	0.3004%	116374	9896	11.8	1		12		2.9991E-10
8	4.10		0.0001	0.9087%	352026	29437	12.0	1		12		2.9991E-10
10	11.73	~~ENDOSULFAN SO4~~	0.0040	34.6802%	32721	1249	26.2	1	10	12	0	1.2313E-07
11	13.08		0.0002	1.7038%	660004	19518	33.8	1		12		2.9991E-10
12	24.30	INSTD MIREX	1.0000	0.0000%	3334316	54206	61.5	2	12	12	0	2.9991E-07
13	26.42		0.0029	25.1515%	9743076	122730	79.4	2		12		2.9991E-10

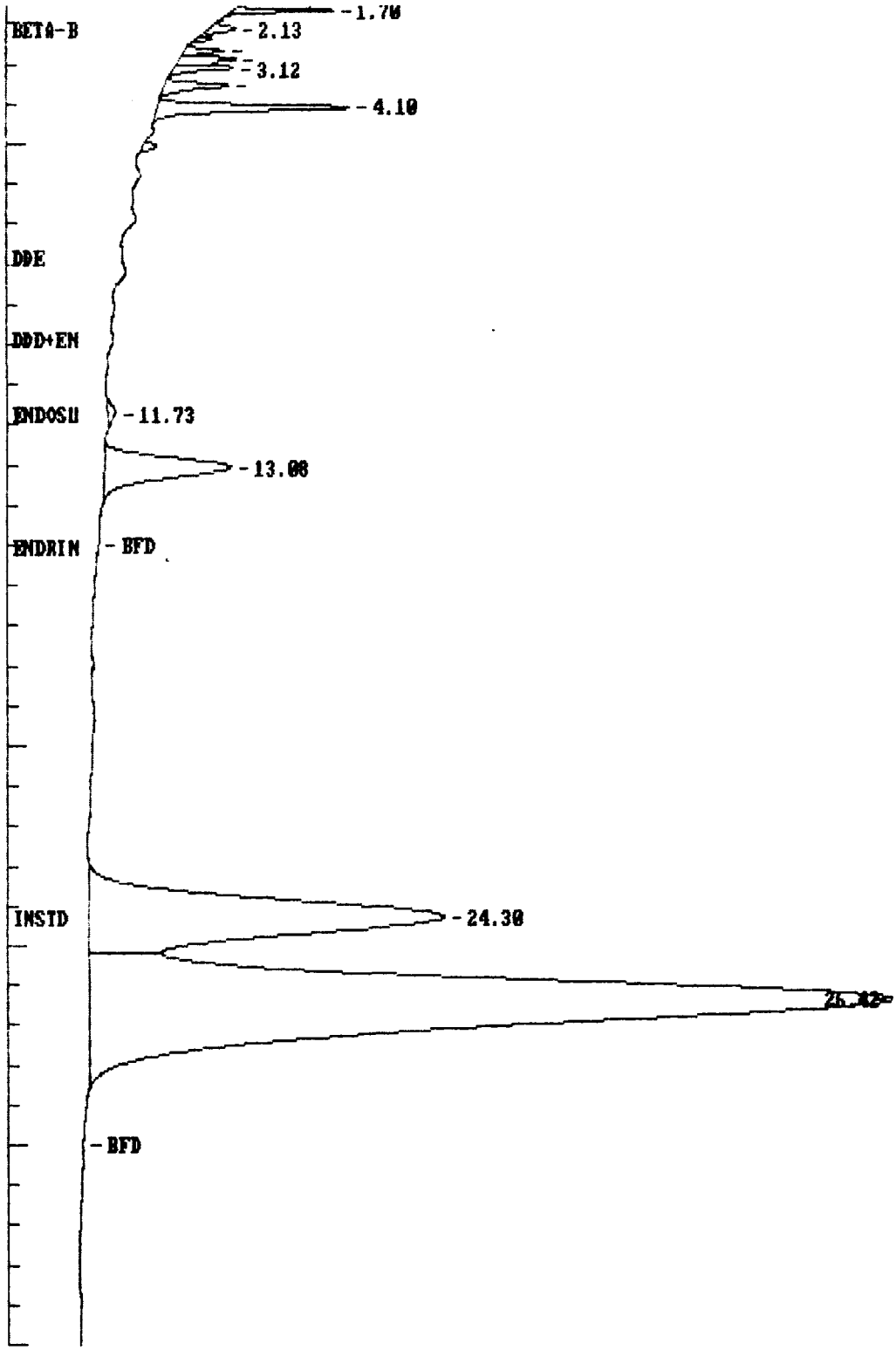
TOTAL AMOUNT = 0.0116

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DELTA-BHC	2.40	DELTA-BHC
DDE	7.83	DDE
DDD+ENDRINALDE	9.89	DDD+ENDRINALDE
ENDRIN KETONE	15.05	ENDRIN KETONE

not found on primary column.

ata File = P:2SF27.PTS Printed on 03-12-1990 at 10:34:58
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 65290 uv High Value: 189733 uv Scale factor: 1.0



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

********** 03-12-1990 10:03:43 Version 4.1 **********

Sample Name: 90FT09S19 Data File: D:1SF49

Date: 03-02-1990 00:39:30 Method: N:PESTA5 03-02-1990 13:29:46 # 100

Interface: 0 Cycle#: 49 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 30 Threshold: 10 Area Threshold: 100

Instrument Type: HP 5890A #1 Column Type: QUANT

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD QUANT

Misc. Information:

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 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
1	2.18	LINDANE *	0.0343	3.2398%	167241	20155	8.3	2	1	8	0	2.0509E-07
2	3.07		0.0001	0.0099%	96587	5802	16.6	2		8		1.0845E-09
3	3.42	EDRIN *	0.0155	1.4677%	97642	6674	14.6	2	3	8	0	1.5914E-07
4	3.98		0.0001	0.0097%	94692	9034	10.5	2		8		1.0845E-09
6	4.73	ENDO I	0.1031	9.7401%	497831	35280	14.1	1	6	8	0	2.0714E-07
7	17.13		0.0003	0.0290%	283340	7235	39.2	1		8		1.0845E-09
8	20.12	ISTD	1.0000	0.0000%	922047	18859	48.9	1	8	8	0	1.0845E-06
9	23.10	DBC	0.9052	85.5038%	2852835	49830	57.3	1	9	8	0	3.1731E-07

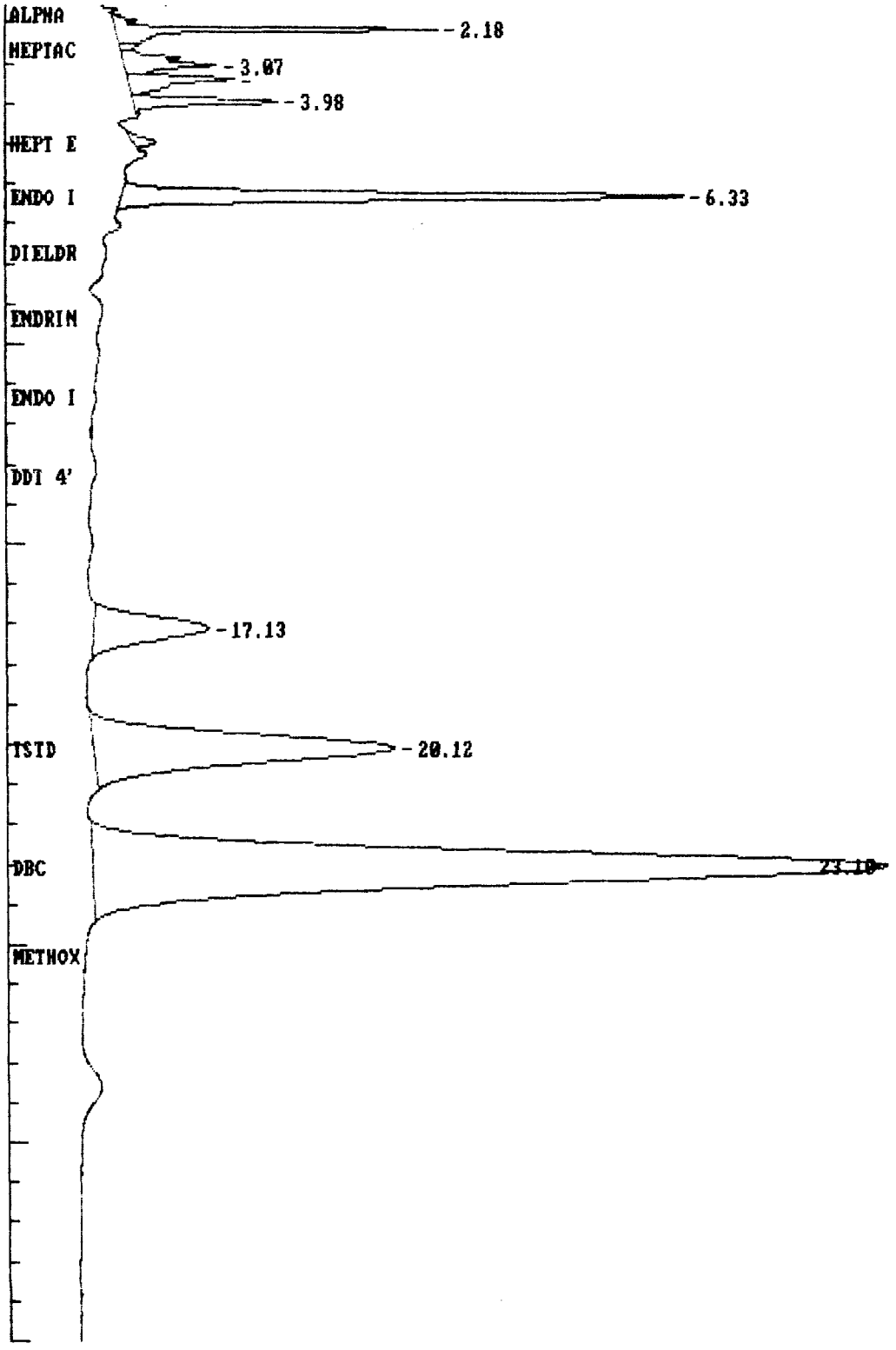
TOTAL AMOUNT = 1.0587

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	1.83	ALPHA BHC
HEPTACHLOR	2.66	HEPTACHLOR
HEPT EPOXIDE	4.98	HEPT EPOXIDE
DIELDRIN	7.74	DIELDRIN
ENDRIN	9.39	ENDRIN
ENDO II	11.34	ENDO II
DDT 4'4'	13.32	DDT 4'4'
METHOXYCHLOR	25.30	METHOXYCHLOR

* Area lower than area of lowest standard
endosulfan I does not confirm on secondary colum.

ata File = O:1SF49.PTS Printed on 03-12-1990 at 10:04:15
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 38537 uv High Value: 89346 uv Scale factor: 1.0



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

********** 03-12-1990 10:05:19 Version 4.1 **********

Sample Name: 90FT09S19 Data File: 0:1SF49 *

Date: 03-02-1990 00:39:30 Method: N:PESTB3 03-07-1990 10:27:33 # 28 *

Interface: 0 Cycle#: 49 Operator AK Channel#: 0 Vial#: N.A. *

Starting Peak Width: 30 Threshold: 10 Area Threshold: 100 *

****

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

Solvent Description: ULTRA HIGH PURITY NITROGEN *

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

Detector 0: Detector 1: ECD QUANT *

Misc. Information: *

****

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 10.00

Internal Standard Amount: 1

Sample Weight: 1.000000

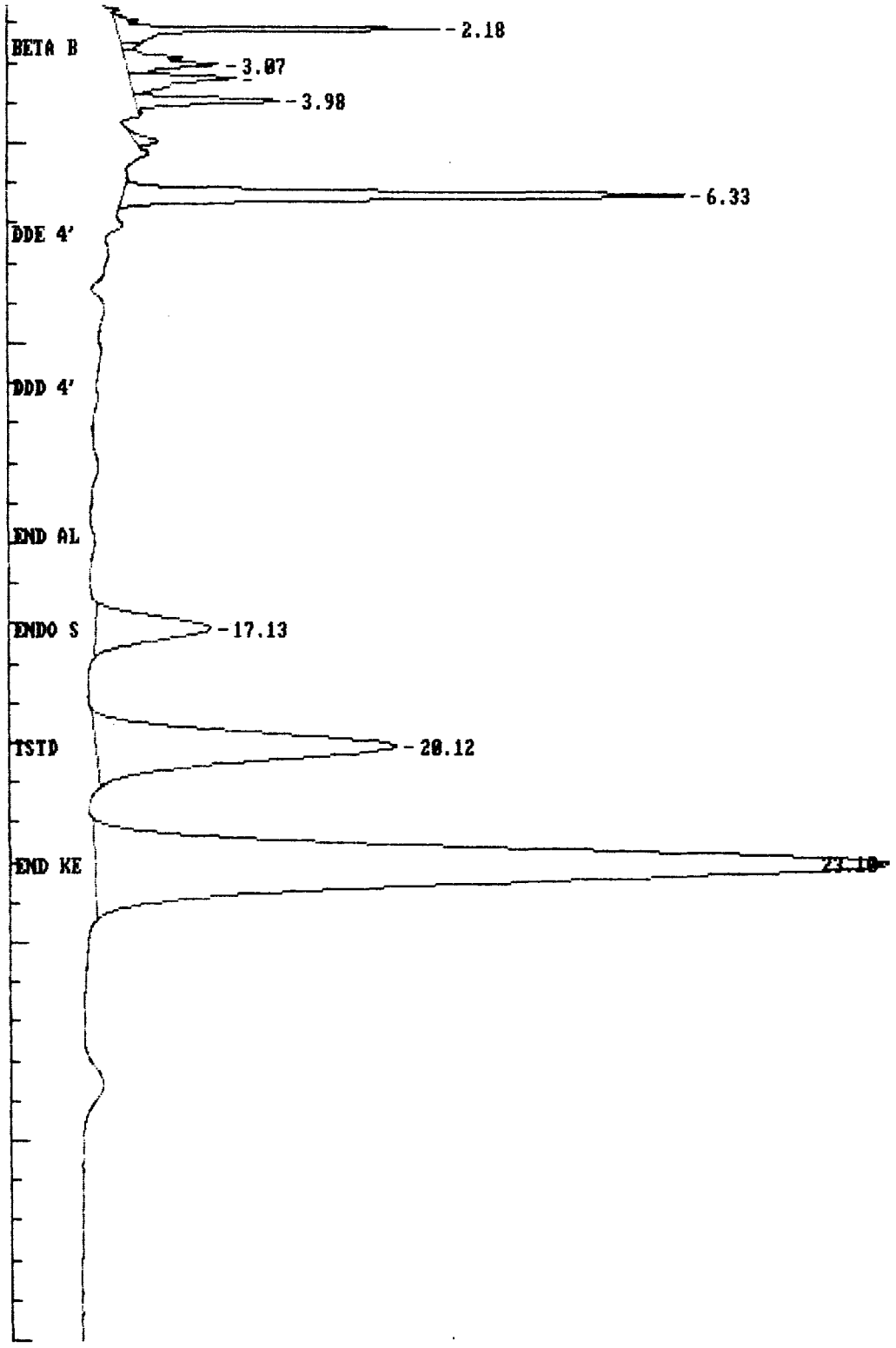
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	HEIGHT BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
2	3.07	~~DELTA BHC~~	0.0186	1.7651%	96587	5802	16.6	2	2	8	0	1.9280E-07
7	17.13	~~ENDO SULFATE~~	0.0649	6.1472%	283340	7235	39.2	1	7	8	0	2.2889E-07
8	20.12	ISTD	1.0000	0.0000%	922047	18859	48.9	1	8	8	0	1.0845E-06
9	23.10	~~END KETONE~~ DDC	0.9715	92.0876%	2852835	49830	57.3	1	9	8	0	3.4055E-07
		TOTAL AMOUNT =	1.0550									

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
BETA BHC	2.60	BETA BHC
DDE 4'4'	7.28	DDE 4'4'
DDD 4'4'	11.10	DDD 4'4'
END ALDEHYDE	14.81	END ALDEHYDE

not confirmed on secondary column

ata File = O:1SF49.PTS Printed on 03-12-1990 at 10:05:41
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 38537 uv High Value: 89346 uv Scale factor: 1.0



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

********** 03-12-1990 10:23:18 Version 4.1 **********

Sample Name: 90FT09S19 Data File: P:2SF28

Date: 03-03-1990 10:45:44 Method: N:CONPESA 03-08-1990 14:03:43 # 27

Interface: 0 Cycle#: 28 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 10 Threshold: 5 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

Starting Delay: 1.50 Ending retention time: 40.00

Area reject: 30000 One sample per 1.000 sec.

Amount injected: 1.00 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
1	1.70		0.0001	0.0125%	350471	58646	6.0	2		13		3.1301E-10
2	2.13	~~ALPHA-BHC~~ *	0.0027	0.3112%	51459	3820	13.5	2	2	13	0	5.2878E-08
4	2.68		0.0000	0.0022%	62815	8321	7.5	2		13		3.1301E-10
5	2.90		0.0000	0.0023%	63549	7099	9.0	2		13		3.1301E-10
6	3.12		0.0000	0.0026%	73672	7559	9.7	2		13		3.1301E-10
7	3.57	~~HEPTACHLOR~~ *	0.0109	1.2510%	213001	18733	11.4	2	7	13	0	5.1350E-08
8	4.12		0.0001	0.0126%	351494	26823	13.1	2		13		3.1301E-10
9	4.57	~~ALDRIN~~	0.0023	0.2670%	36853	3095	11.9	2	9	13	0	6.3339E-08
10	5.08		0.0003	0.0297%	830686	70134	11.8	2		13		3.1301E-10
11	6.88	~~ENDOSULFAN I~~	0.0039	0.4498%	63526	2980	21.3	1	11	13	0	6.1908E-08
12	13.08	~~DDT~~ *	0.0711	8.1313%	873143	25500	34.2	1	12	13	0	8.1421E-08
13	24.30	INSTD MIREX	1.0000	0.0000%	3194794	52142	61.3	2	13	13	0	3.1301E-07
14	26.43	DIBUTYLCHLORENDATE	0.7827	89.5276%	10047161	122446	82.1	2	14	13	0	7.7907E-08

TOTAL AMOUNT = 0.8743

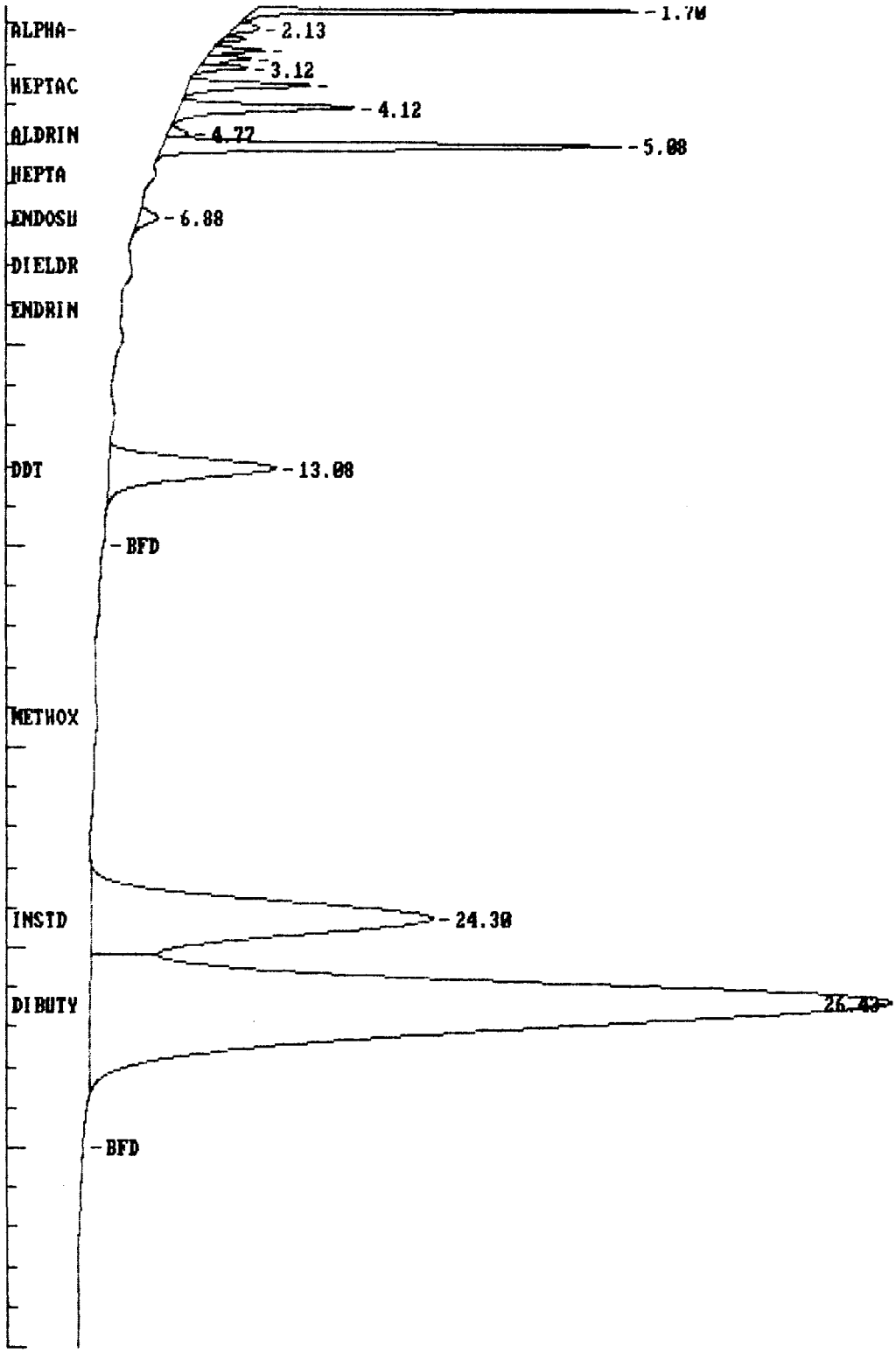
PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
LINDANE	2.40	LINDANE
HEPTA EPOXIDE	5.77	HEPTA EPOXIDE
DIELDRIN	8.03	DIELDRIN
ENDRIN+ENDO II	9.13	ENDRIN+ENDO II
METHOXYCHLOR	19.22	METHOXYCHLOR

* ~~DDT~~ not found on primary column.

Area of endosulfan I ~~as~~ is lower than lowest standard the peak also does not match in area or height to the corresponding peak on the primary column

ata File = P:2SF28.PTS Printed on 03-12-1990 at 10:23:47
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 66708 uv High Value: 191118 uv Scale factor: 1.0



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

********** 03-12-1990 10:35:53 Version 4.1 **********

Sample Name: 90FT09S19 Data File: P:2SF28 *

Date: 03-03-1990 10:45:44 Method: N:CONPESB 03-08-1990 14:04:37 # 19 *

Interface: 0 Cycle#: 28 Operator AK Channel#: 0 Vial#: N.A. *

Starting Peak Width: 10 Threshold: 5 Area Threshold: 1000 *

****

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE *

Solvent Description: ULTRA HIGH PURITY NITROGEN *

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

Detector 0: Detector 1: ECD CONF *

Misc. Information: *

****

tarting Delay: 1.50 Ending retention time: 40.00

rea reject: 30000 One sample per 1.000 sec.

mount injected: 1.00 Dilution factor: 10.00

nternal Standard Amount: 1

ample Weight: 1.000000

EAK UM	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	1.70		0.0001	1.2949%	350471	58646	6.0	2		13		3.1301E-10
2	2.[illegible]	~~DELTA BHC~~	0.0044	52.0908%	51459	3820	13.5	2	2	13	0	8.5755E-08
4	2.68		0.0000	0.2321%	62815	8321	7.5	2		13		3.1301E-10
5	2.90		0.0000	0.2348%	63549	7099	9.0	2		13		3.1301E-10
6	3.12		0.0000	0.2722%	73672	7559	9.7	2		13		3.1301E-10
7	3.57		0.0001	0.7870%	213001	18733	11.4	2		13		3.1301E-10
8	4.12		0.0001	1.2987%	351494	26823	13.1	2		13		3.1301E-10
9	4.77		0.0000	0.1362%	36853	3095	11.9	2		13		3.1301E-10
10	5.08		0.0003	3.0693%	830686	70134	11.8	2		13		3.1301E-10
11	6.88		0.0000	0.2347%	63526	2980	21.3	1		13		3.1301E-10
12	13.08		0.0003	3.2262%	873143	25500	34.2	1		13		3.1301E-10
13	24.30	INSTD MIREX	1.0000	0.0000%	3194794	52142	61.3	2	13	13	0	3.1301E-07
14	26.43		0.0031	37.1230%	10047161	122446	82.1	2		13		3.1301E-10

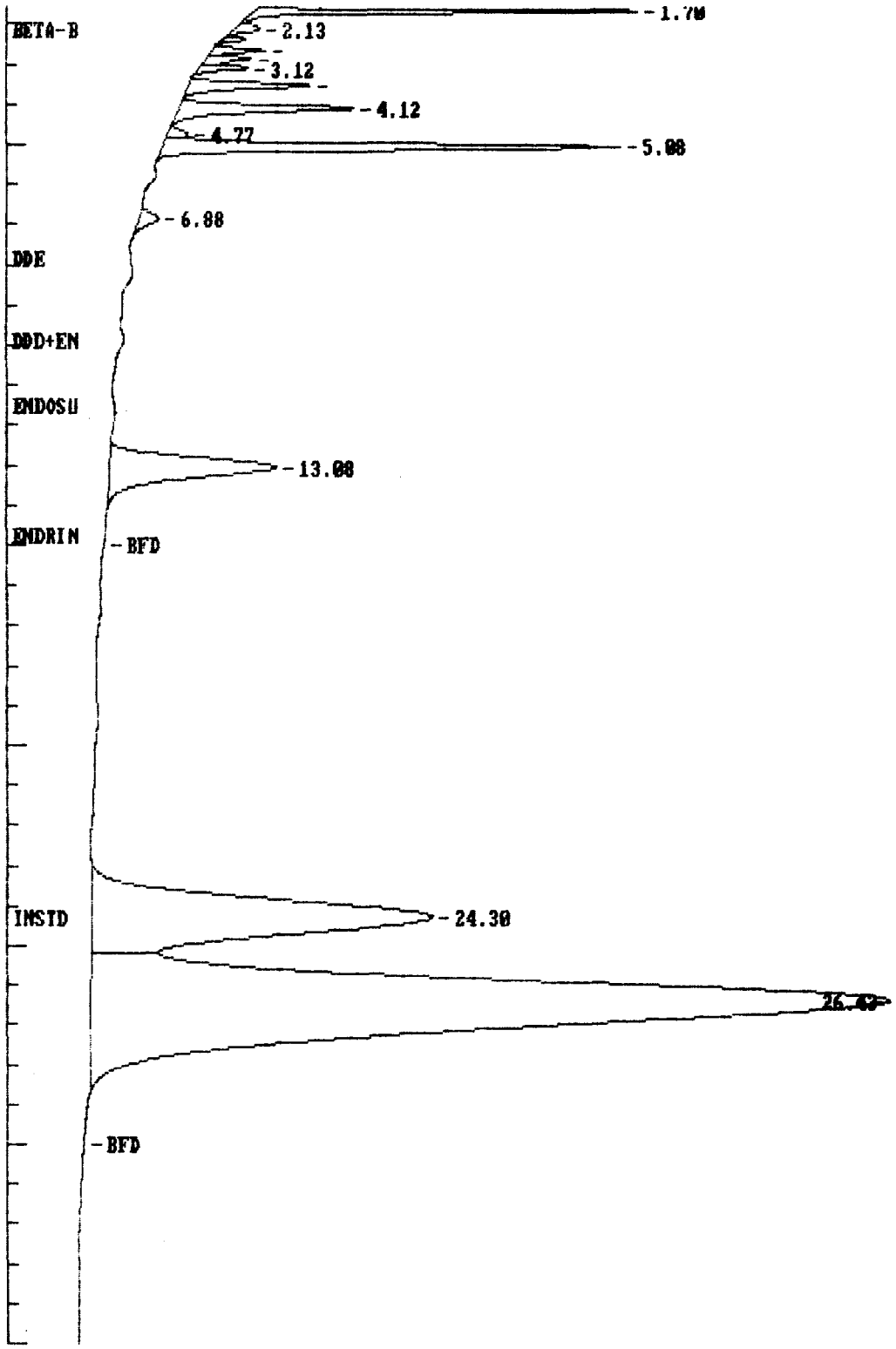
TOTAL AMOUNT = 0.0085

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
ELTA-BHC	2.40	DELTA-BHC
DE	7.83	DDE
DD+ENDRINALDE	9.89	DDD+ENDRINALDE
NDOSULFAN S04	11.53	ENDOSULFAN S04
NDRIN KETONE	14.79	ENDRIN KETONE

not found on primary column

ata File = P:2SF28.PTS Printed on 03-12-1990 at 10:36:22
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 66708 uv High Value: 191118 uv Scale factor: 1.0



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

********** 03-12-1990 10:07:08 Version 4.1 **********

Sample Name: 90FT09S20 Data File: D:1SF50

Date: 03-02-1990 01:20:46 Method: N:PESTA5 03-02-1990 13:29:46 # 100

Interface: 0 Cycle#: 50 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 30 Threshold: 10 Area Threshold: 100

Instrument Type: HP 5890A #1 Column Type: QUANT

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD QUANT

Misc. Information:

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 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
2	3.17		0.0007	0.0688%	606097	34246	17.7	2		11		1.0742E-09
3	3.98		0.0001	0.0083%	73485	6769	10.9	2		11		1.0742E-09
6	9.76	~~ENDRIN~~	0.0302	3.1917%	91390	3140	29.1	2	6	11	0	3.3063E-07
7	10.53		0.0002	0.0196%	173077	4607	37.6	2		11		1.0742E-09
8	11.[illegible]	~~ENDO II~~	0.0284	3.0024%	158056	4314	36.6	2	8	11	0	1.7983E-07
10	17.13		0.0001	0.0105%	92490	2696	34.3	1		11		1.0742E-09
11	20.12	ISTD	1.0000	0.0000%	930926	19081	48.8	1	11	11	0	1.0742E-06
12	23.08	DBC	0.8870	93.6986%	2824417	49556	57.0	1	12	11	0	3.1406E-07

Area lower than the lowest std

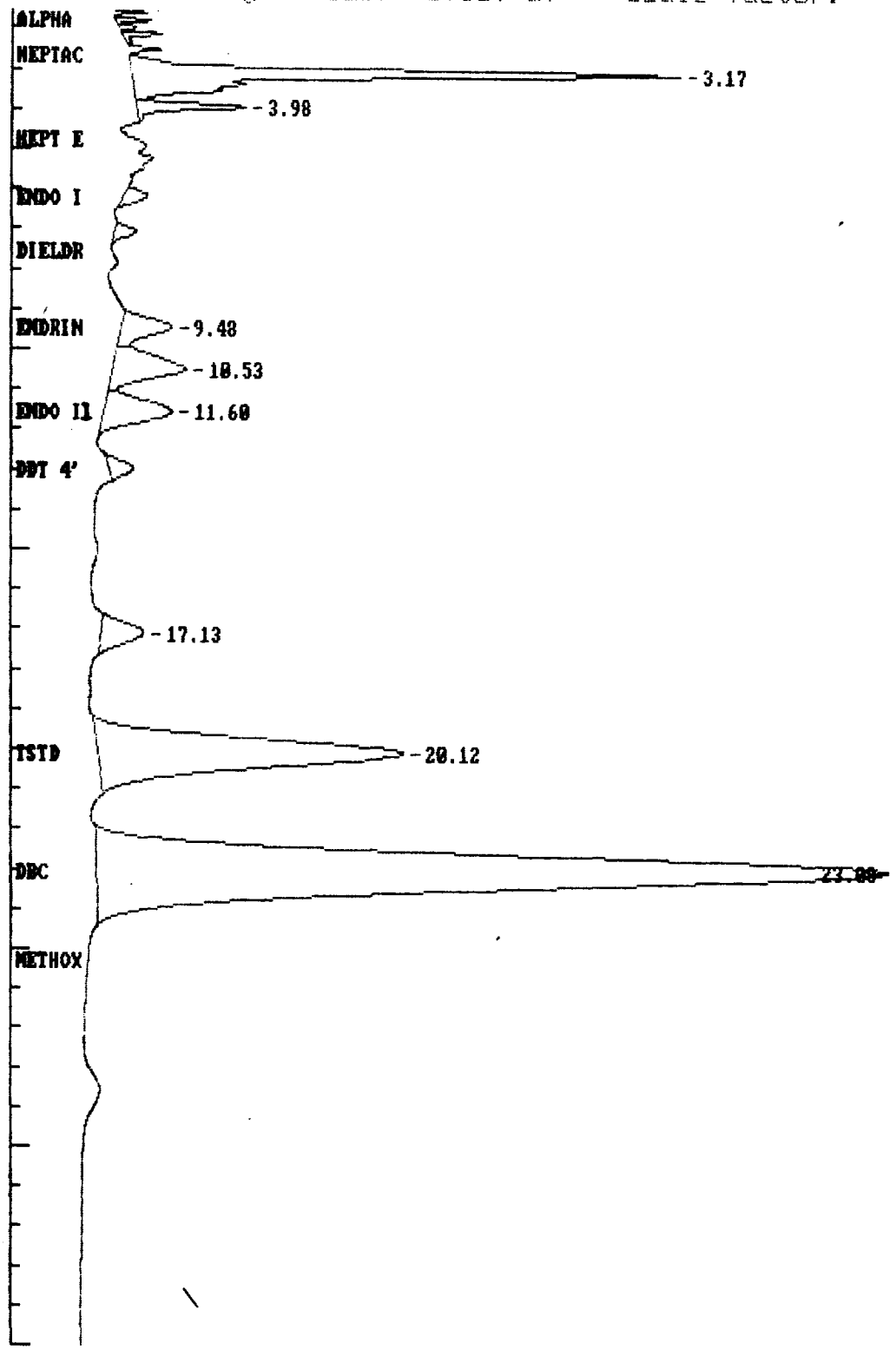
TOTAL AMOUNT = 0.9467

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	1.83	ALPHA BHC
LINDANE	2.18	LINDANE
HEPTACHLOR	2.66	HEPTACHLOR
ALDRIN	3.21	ALDRIN
HEPT EPOXIDE	4.76	HEPT EPOXIDE
ENDO I	6.20	ENDO I
DIELDRIN	7.58	DIELDRIN
DDT 4'4'	13.00	DDT 4'4'
METHOXYCHLOR	25.28	METHOXYCHLOR

The areas of endrin & endosulfan II are lower than the lowest standard.

ata File = O:1SF50.PTS Printed on 03-12-1990 at 10:07:38
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 38638 uv High Value: 89189 uv Scale factor: 1.0



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

********** 03-12-1990 10:13:39 Version 4.1 **********

Sample Name: 90FT09S20 Data File: O:1SF50 *

Date: 03-02-1990 01:20:46 Method: N:PESTB3 03-07-1990 10:27:33 # 28 *

Interface: O Cycle#: 50 Operator AK Channel#: O Vial#: N.A. *

Starting Peak Width: 30 Threshold: 10 Area Threshold: 100 *

****

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

Solvent Description: ULTRA HIGH PURITY NITROGEN *

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

Detector O: Detector 1: ECD QUANT *

Misc. Information: *

****

tarting Delay: 1.50 Ending retention time: 35.00

rea reject: 50000 One sample per 1.000 sec.

mount injected: 1.00 Dilution factor: 10.00

nternal Standard Amount: 1

ample Weight: 1.000000

EAK 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	3.17	~~DELTA BHC~~	0.1157	10.2361%	606097	34246	17.7	2	2	11	0	1.9096E-07
7	10.55	~~DDD 4'4'~~	0.0413	3.6567%	173077	4607	37.6	2	7	11	0	2.3890E-07
10	17.13	~~ENDO SULFATE~~	0.0210	1.8544%	92490	2696	34.3	1	10	11	0	2.2671E-07
11	20.12	ISTD	1.0000	0.0000%	930926	19081	48.8	1	11	11	0	1.0742E-06
12	23.08	~~END KETONE~~	0.9527	84.2529%	2824417	49556	57.0	1	12	11	0	3.3730E-07

DBC

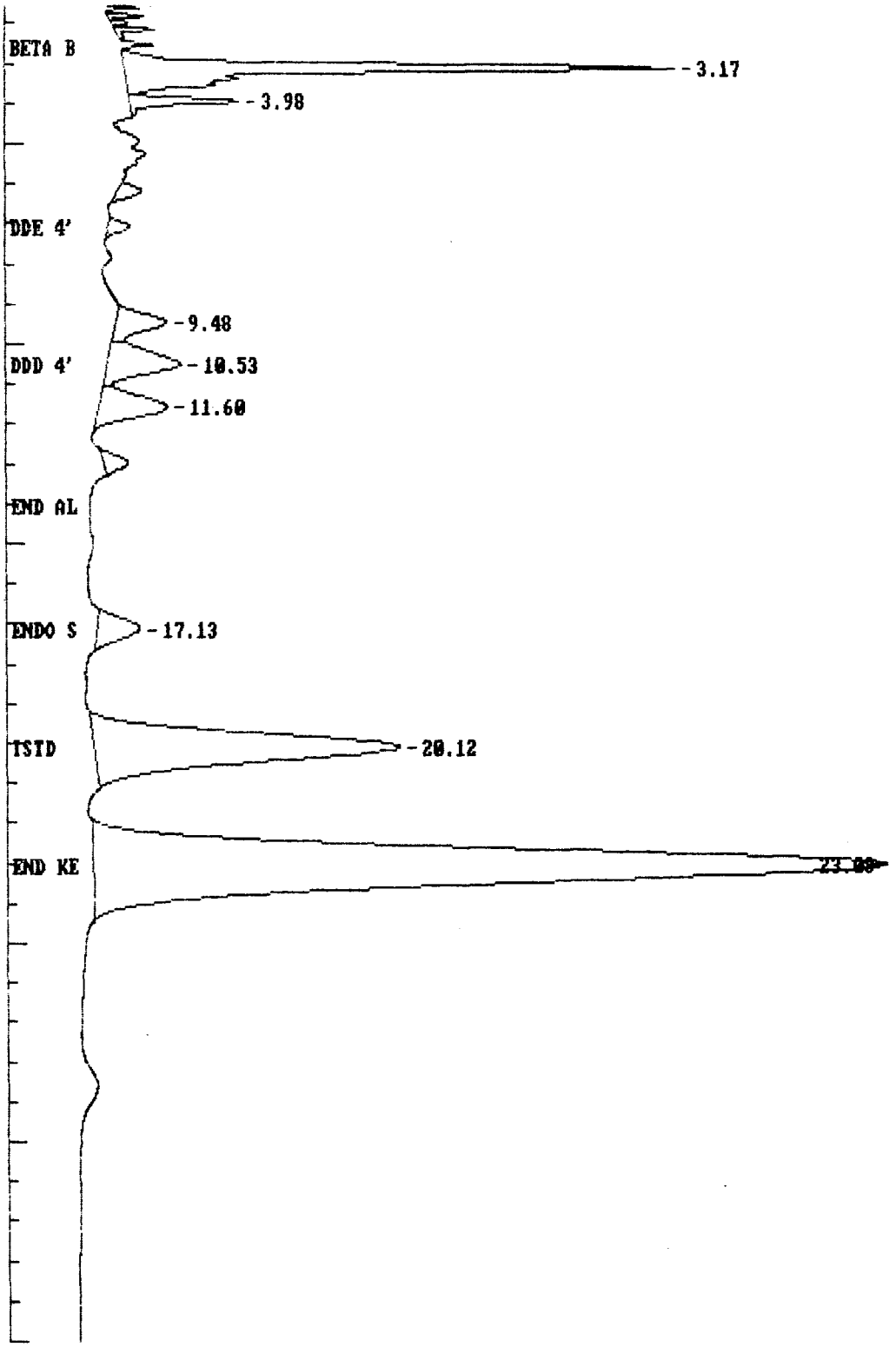
TOTAL AMOUNT = 1.1307

. PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
ETA BHC	2.60	BETA BHC
DE 4'4'	7.10	DDE 4'4'
ND ALDEHYDE	14.05	END ALDEHYDE

Area lower than lowest stand

ata File = O:1SF50.PTS Printed on 03-12-1990 at 10:14:23
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 38638 uv High Value: 89189 uv Scale factor: 1.0



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

********** 03-12-1990 10:24:45 Version 4.1 **********

Sample Name: 90FT09S20 Data File: P:2SF29

Date: 03-03-1990 11:27:02 Method: N:CONPESA 03-08-1990 14:03:43 # 27

Interface: 0 Cycle#: 29 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 10 Threshold: 5 Area Threshold: 1000

****

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

****

Starting Delay: 1.50 Ending retention time: 40.00

Area reject: 30000 One sample per 1.000 sec.

Amount injected: 1.00 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
1	1.68		0.0000	0.0025%	69763	11666	6.0	1		19		2.9684E-10
2	1.93		0.0000	0.0014%	38360	7027	5.5	2		19		2.9684E-10
3	~~2.13 ALPHA-BHC~~		0.0361	4.3333%	719969	86919	8.3	2	3	19	0	5.0147E-08
4	2.70		0.0001	0.0180%	504390	57083	8.8	2		19		2.9684E-10
5	3.12		0.0001	0.0074%	207614	19923	10.4	2		19		2.9684E-10
6	3.30		0.0001	0.0089%	249358	22875	10.9	2		19		2.9684E-10
7	~~3.62 HEPTACHLOR~~		0.0214	2.5659%	438998	26855	16.3	2	7	19	0	4.8698E-08
8	4.12		0.0001	0.0147%	411999	24796	16.6	2		19		2.9684E-10
11	~~5.83 HEPTA EPOXIDE~~		0.0022	0.2674%	39645	1890	21.0	2	11	19	0	5.6201E-08
13	~~9.58 ENDRIN+ENDO II~~		0.0088	1.0593%	141338	5295	26.7	2	13	19	0	6.2447E-08
14	10.28		0.0002	0.0217%	608611	17200	35.4	2		19		2.9684E-10
15	11.33		0.0003	0.0319%	895394	16178	55.3	2		19		2.9684E-10
16	12.33		0.0002	0.0265%	745156	19837	37.6	2		19		2.9684E-10
17	~~13.08 DDT~~		0.0333	3.9987%	431471	12385	34.8	2	17	19	0	7.7216E-08
18	13.68		0.0001	0.0078%	217954	7075	30.8	2		19		2.9684E-10
19	24.30	INSTD MIREX	1.0000	0.0000%	3368779	54848	61.4	2	19	19	0	2.9684E-07
20	26.42	DIBUTYLCHLORENDATE	0.7302	87.6347%	9882621	124146	79.6	2	20	19	0	7.3883E-08

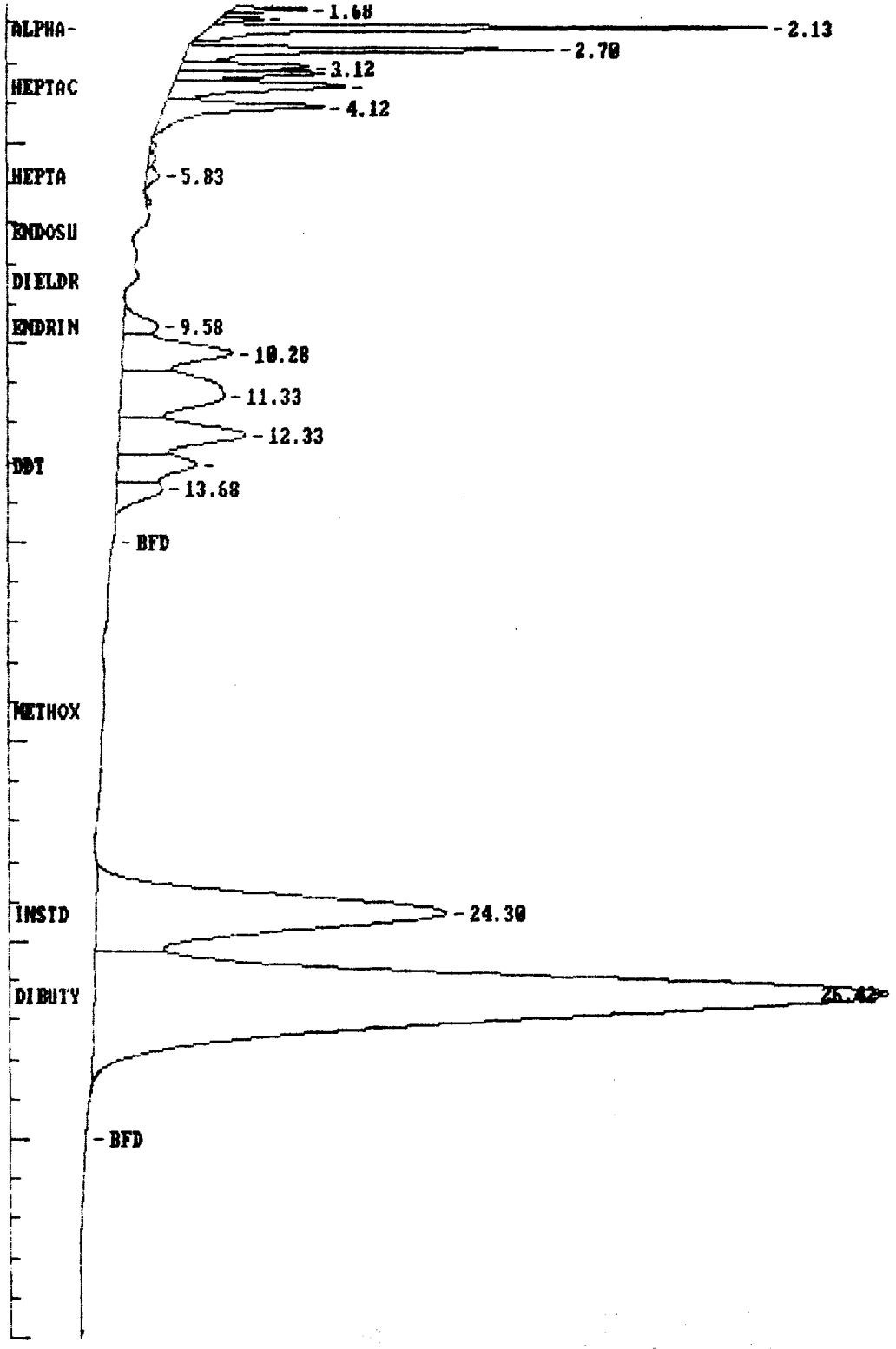
TOTAL AMOUNT = 0.8332

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
LINDANE	2.50	LINDANE
ALDRIN	4.44	ALDRIN
ENDOSULFAN I	7.23	ENDOSULFAN I
DIELDRIN	8.43	DIELDRIN
METHOXYCHLOR	19.22	METHOXYCHLOR

not found on Primary Column.

ata File = P:2SF29.PTS Printed on 03-12-1990 at 10:25:18
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 67770 uv High Value: 194162 uv Scale factor: 1.0



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

********** 03-12-1990 10:37:20 Version 4.1 **********

Sample Name: 90FT09S20 Data File: P:2SF29

Date: 03-03-1990 11:27:02 Method: N:CONPESB 03-08-1990 14:04:37 # 19

Interface: 0 Cycle#: 29 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 10 Threshold: 5 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 DELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

Starting Delay: 1.50 Ending retention time: 40.00

Area reject: 30000 One sample per 1.000 sec.

Amount injected: 1.00 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
1	1.68		0.0000	0.0095%	69763	11666	6.0	1		19		2.9684E-10
2	1.93		0.0000	0.0052%	38360	7027	5.5	2		19		2.9684E-10
3	~~2.13 BETA-BHC~~		0.0586	26.9000%	719969	86919	8.3	2	3	19	0	8.1326E-08
4	2.70		0.0001	0.0688%	504390	57083	8.8	2		19		2.9684E-10
5	3.12		0.0001	0.0283%	207614	19923	10.4	2		19		2.9684E-10
6	3.30		0.0001	0.0340%	249358	22875	10.9	2		19		2.9684E-10
7	3.62		0.0001	0.0599%	438998	26855	16.3	2		19		2.9684E-10
8	4.12		0.0001	0.0562%	411999	24796	16.6	2		19		2.9684E-10
11	5.83		0.0000	0.0054%	39645	1890	21.0	2		19		2.9684E-10
13	9.58		0.0000	0.0193%	141338	5295	26.7	2		19		2.9684E-10
14	~~10.28 DDD+ENDRINALDE~~		0.0460	21.1409%	608611	17200	35.4	2	14	19	0	7.5609E-08
15	~~11.35 ENDOSULFAN SO4~~		0.1091	50.1346%	895394	16178	55.3	2	15	19	0	1.2188E-07
16	12.33		0.0002	0.1016%	745156	19837	37.6	2		19		2.9684E-10
17	13.08		0.0001	0.0588%	431471	12385	34.8	2		19		2.9684E-10
18	13.68		0.0001	0.0297%	217954	7075	30.8	2		19		2.9684E-10
19	24.30	INSTD MIREX	1.0000	0.0000%	3368779	54848	61.4	2	19	19	0	2.9684E-07
20	26.42		0.0029	1.3477%	9882621	124146	79.6	2		19		2.9684E-10

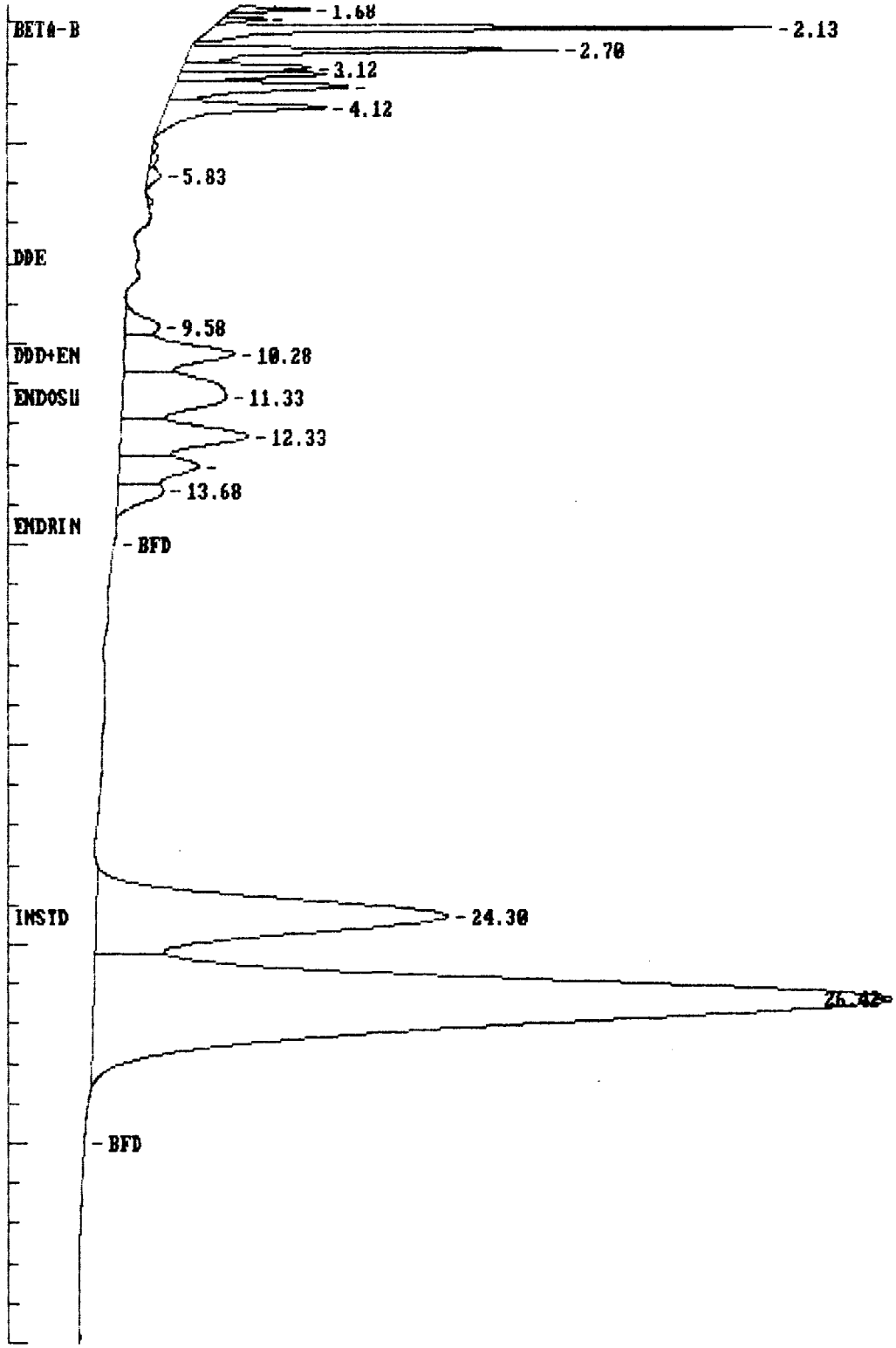
TOTAL AMOUNT = 0.2177

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DELTA-BHC	2.41	DELTA-BHC
DDE	7.87	DDE
ENDRIN KETONE	14.54	ENDRIN KETONE

not found on primary column

ata File = P:2SF29.PTS Printed on 03-12-1990 at 10:37:52
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 67770 uv High Value: 194162 uv Scale factor: 1.0



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

********** 03-12-1990 09:06:33 Version 4.1 **********

Sample Name: 90FT09S21 Data File: 0:1SF36 *

Date: 03-01-1990 15:58:01 Method: N:PESTA5 03-02-1990 13:29:46 # 100 *

Interface: 0 Cycle#: 36 Operator AK Channel#: 0 Vial#: N.A. *

Starting Peak Width: 30 Threshold: 10 Area Threshold: 100 *

****

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

Solvent Description: ULTRA HIGH PURITY NITROGEN *

Conditions: ISOTHERMAL AT 200 CELSIUS 1NJ 250C *

Detector 0: Detector 1: ECD QUANT *

Misc. Information: *

****

tarting Delay: 1.50 Ending retention time: 35.00

rea reject: 50000 One sample per 1.000 sec.

mount injected: 1.00 Dilution factor: 10.00

nternal Standard Amount: 1

ample Weight: 1.000000

EAK 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	1.63		0.0001	0.0063%	59618	10694	5.6	1		8		1.0561E-09
3	~~3.42 ALDRIN~~		0.0107	1.0729%	~~76497~~	6744	11.3	1	3	8	0	1.4002E-07
4	3.98		0.0001	0.0082%	77819	7851	9.9	1		8		1.0561E-09
6	~~6.23 ENDO I~~		0.0118	1.1825%	~~73321~~	3155	23.2	1	6	8	0	1.6101E-07
7	17.15		0.0005	0.0525%	496214	12194	40.7	1		8		1.0561E-09
8	20.13 ISTD		1.0000	0.0000%	946903	19399	48.8	1	8	8	0	1.0561E-06
9	23.12 DBC		0.9751	97.6776%	3148192	54670	57.6	1	9	8	0	3.0975E-07

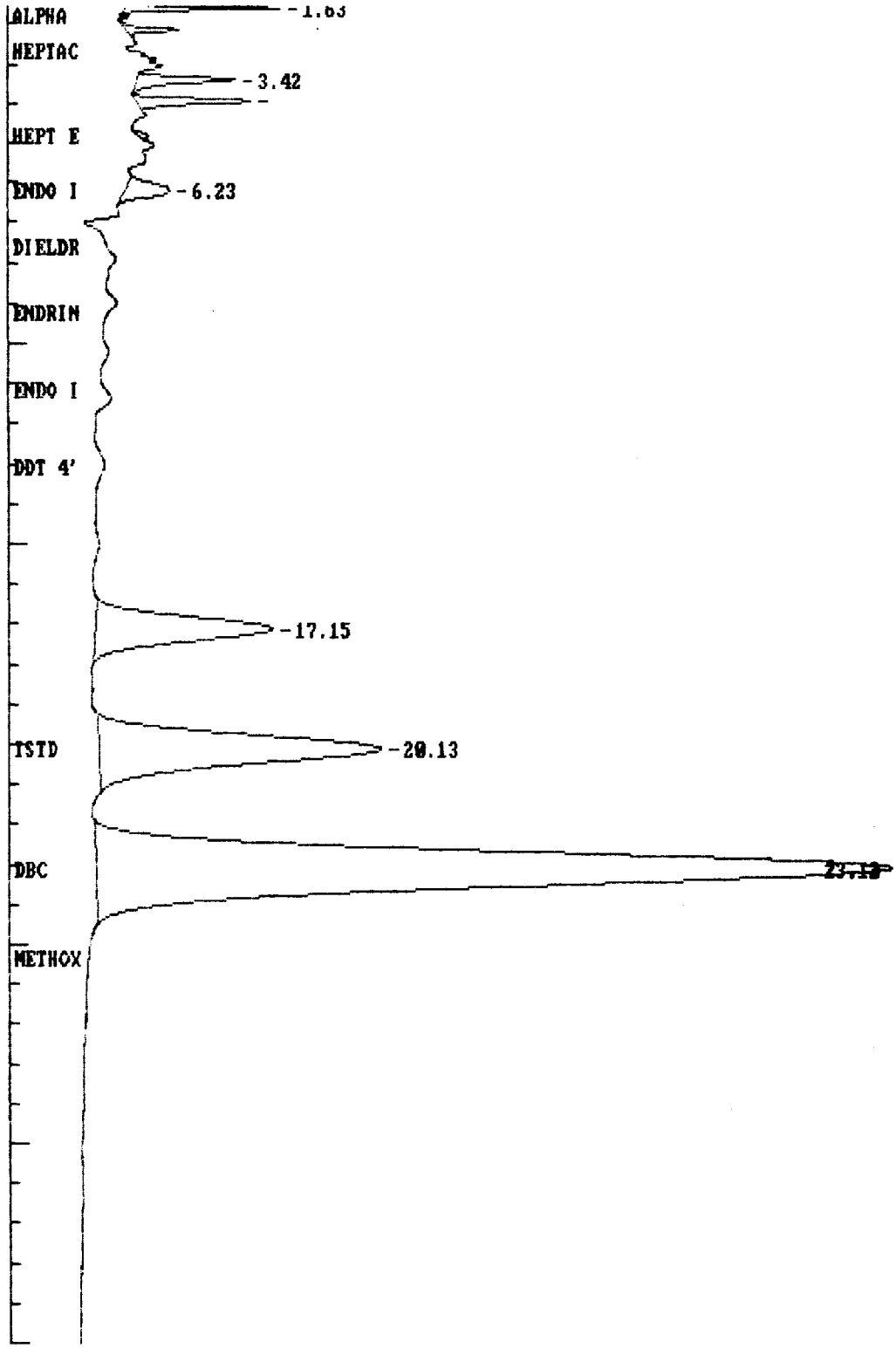
TOTAL AMOUNT = 0.9983

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
LPHA BHC	1.83	ALPHA BHC
INDANE	2.18	LINDANE
EPTACHLOR	2.66	HEPTACHLOR
EPT EPOXIDE	4.85	HEPT EPOXIDE
IELDRIN	7.62	DIELDRIN
NDRIN	9.24	ENDRIN
NDO II	11.16	ENDO II
DT 4'4'	13.11	DDT 4'4'
ETHOXYCHLOR	25.32	METHOXYCHLOR

Area lower than lowest standard

[redacted] = 0:1SF36.PTS Printed on 03-12-1990 at 09:07:12
[redacted] time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 39425 uv High Value: 95271 uv Scale factor: 1.0



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

********** 03-12-1990 09:08:14 Version 4.1 **********

Sample Name: 90FT09821 Data File: 0:1SF36 *

Date: 03-01-1990 15:58:01 Method: N:PESTB3 03-07-1990 10:27:33 # 28 *

Interface: 0 Cycle#: 36 Operator AK Channel#: 0 Vial#: N.A. *

Starting Peak Width: 30 Threshold: 10 Area Threshold: 100 *

****

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

Solvent Description: ULTRA HIGH PURITY NITROGEN *

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

Detector 0: Detector 1: ECD QUANT *

Misc. Information: *

****

tarting Delay: 1.50 Ending retention time: 35.00

rea reject: 50000 One sample per 1.000 sec.

mount injected: 1.00 Dilution factor: 10.00

nternal Standard Amount: 1

ample Weight: 1.000000

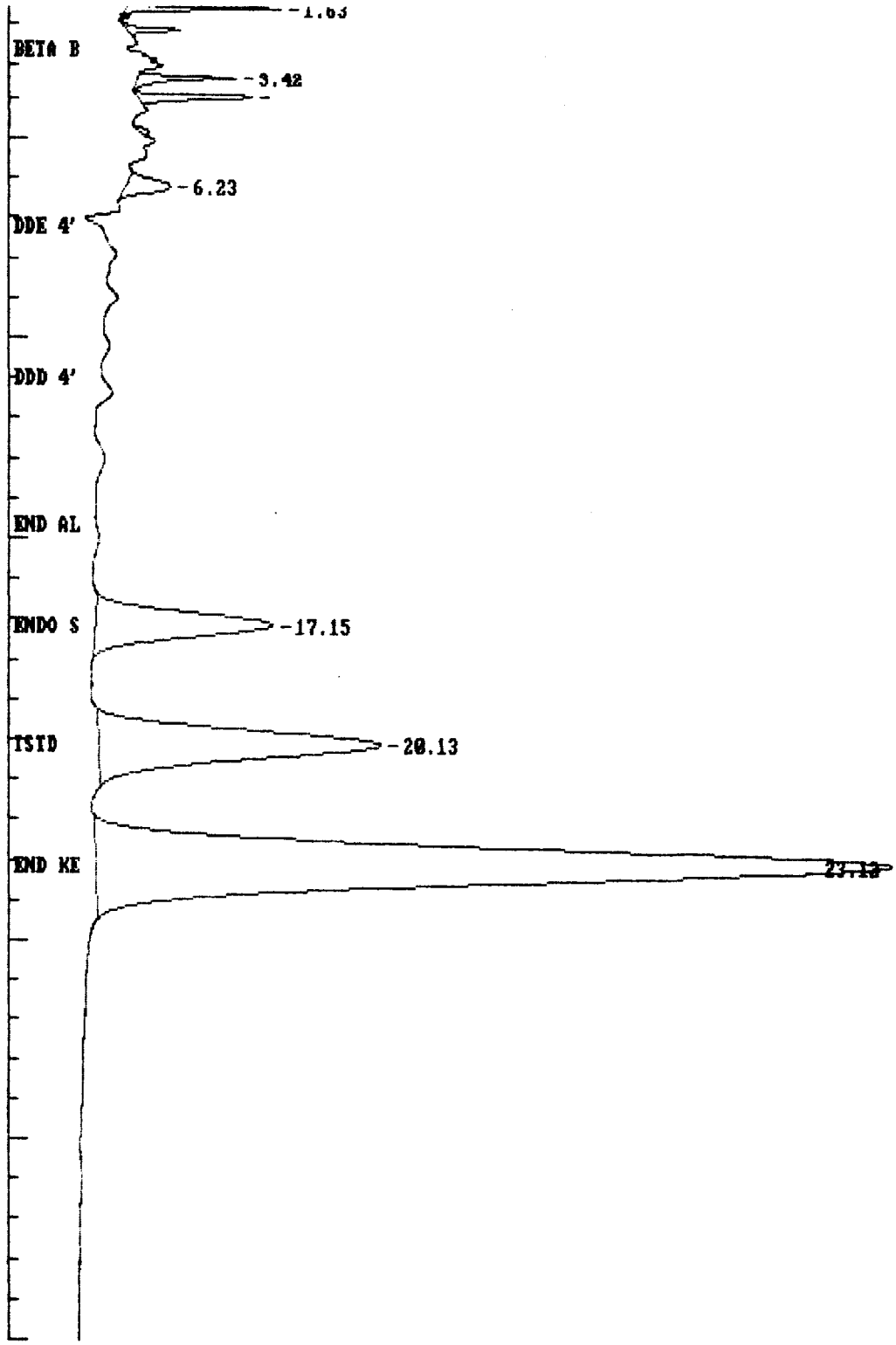
EAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
7	17.15	~~END SULFATE~~	0.1106	9.5791%	496214	12194	40.7	1	7	8	0	2.2288E-07
8	20.13	ISTD	1.0000	0.0000%	946903	19399	48.8	1	8	8	0	1.0561E-06
9	23.12	~~END KETONE~~ DBC	1.0440	90.4209%	3148192	54670	57.6	1	9	8	0	3.3161E-07
		TOTAL AMOUNT =	1.1546									

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
ETA BHC	2.60	BETA BHC
ELTA BHC	3.03	DELTA BHC
DE 4'4'	7.20	DDE 4'4'
DD 4'4'	10.98	DDD 4'4'
ND ALDEHYDE	14.65	END ALDEHYDE

not found on secondary column

at[illegible] = 0:1SF36.PTS Printed on 03-12-1990 at 09:08:39
[illegible] time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 39425 uv High Value: 95271 uv Scale factor: 1.0



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

********** 03-12-1990 10:26:17 Version 4.1 **********

Sample Name: 90FT09S21 Data File: F:2SF30

Date: 03-03-1990 12:08:19 Method: N:CONPESA 03-08-1990 14:03:43 # 27

Interface: 0 Cycle#: 30 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 10 Threshold: 5 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

Starting Delay: 1.50 Ending retention time: 40.00

Area reject: 30000 One sample per 1.000 sec.

Amount injected: 1.00 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
1	1.68		0.0000	0.0018%	58515	10777	5.4	2		19		3.1112E-10
2	1.90		0.0000	0.0016%	51781	7076	7.3	2		19		3.1112E-10
3	2.18	ALPHA-BHC	0.0041	0.4061%	78681	5827	13.5	2	3	19	0	5.2559E-08
4	2.30	LINDANE	0.0024	0.2381%	40378	4661	8.7	2	4	19	0	6.0058E-08
6	2.92		0.0000	0.0015%	50341	5386	9.3	2		19		3.1112E-10
7	3.13		0.0000	0.0042%	138334	10575	13.1	2		19		3.1112E-10
8	3.37	HEPTACHLOR	0.0189	1.8563%	370379	25907	14.3	2	8	19	0	5.1041E-08
9	4.12		0.0001	0.0142%	464581	31263	14.9	3		19		3.1112E-10
10	4.53	ALDRIN	0.0025	0.2487%	40228	2797	14.4	4	10	19	0	6.2957E-08
11	5.08		0.0000	0.0018%	60258	5462	11.0	2		19		3.1112E-10
12	5.40	HEPTA EPOXIDE	0.0058	0.5647%	97630	4857	20.1	2	12	19	0	5.8905E-08
13	6.40		0.0000	0.0024%	77975	3908	20.0	2		19		3.1112E-10
14	6.80	ENDOSULFAN I	0.0028	0.2751%	45535	3117	14.6	2	14	19	0	6.1535E-08
15	8.33	DIELDRIN	0.0022	0.2139%	37724	1975	19.1	1	15	19	0	5.7751E-08
16	9.92		0.0000	0.0013%	41745	1927	21.7	1		19		3.1112E-10
18	13.00	DDT	0.1075	10.5599%	1328835	39232	33.9	1	18	19	0	8.0931E-08
19	24.30	INSTD MIREX	1.0000	0.0000%	3214161	52646	61.1	2	19	19	0	3.1112E-07
20	26.48	DIBUTYLCHLORENDATE	0.8718	85.6084%	11258785	133251	84.5	2	20	19	0	7.7437E-08

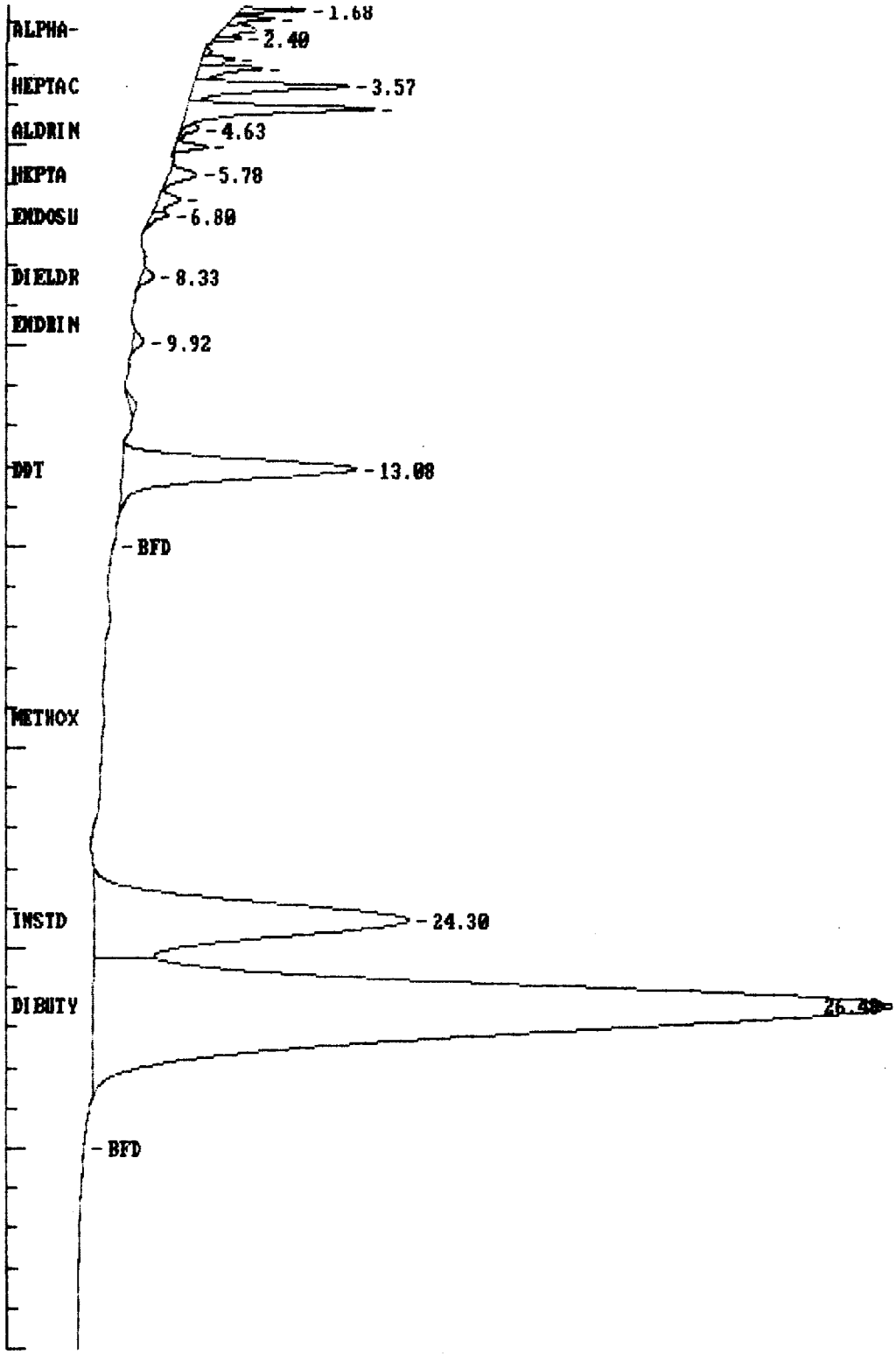
TOTAL AMOUNT = 1.0184

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
ENDRIN+ENDO II	9.47	ENDRIN+ENDO II
METHOXYCHLOR	19.22	METHOXYCHLOR

not found on primary column

= P:2SF30.PTS Printed on 03-12-1990 at 10:26:51
time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 69939 uv High Value: 205829 uv Scale factor: 1.0



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

********** 03-12-1990 10:38:52 Version 4.1 **********

Sample Name: 90FT09S21 Data File: P:2SF30

Date: 03-03-1990 12:08:19 Method: N:CONPESB 03-08-1990 14:04:37 # 19

Interface: 0 Cycle#: 30 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 10 Threshold: 5 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

tarting Delay: 1.50 Ending retention time: 40.00

rea reject: 30000 One sample per 1.000 sec.

mount injected: 1.00 Dilution factor: 10.00

nternal Standard Amount: 1

ample Weight: 1.000000

AK 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	1.68		0.0000	0.0908%	58515	10777	5.4	2		19		3.1112E-10
2	1.90		0.0000	0.0804%	51781	7076	7.3	2		19		3.1112E-10
3	2.10 BETA-BHC		0.0067	33.4670%	78681	5827	13.5	2	3	19	0	8.5238E-08
4	2.40 DELTA-BHC		0.0034	16.8184%	40378	4661	8.7	2	4	19	0	8.3469E-08
6	2.92		0.0000	0.0782%	50341	5386	9.3	2		19		3.1112E-10
7	3.13		0.0000	0.2148%	138334	10575	13.1	2		19		3.1112E-10
8	3.57		0.0001	0.5750%	370379	25907	14.3	2		19		3.1112E-10
9	4.12		0.0001	0.7213%	464581	31263	14.9	3		19		3.1112E-10
10	4.63		0.0000	0.0625%	40228	2797	14.4	4		19		3.1112E-10
11	5.08		0.0000	0.0936%	60258	5462	11.0	2		19		3.1112E-10
12	5.78		0.0000	0.1516%	97630	4857	20.1	2		19		3.1112E-10
13	6.40		0.0000	0.1211%	77975	3908	20.0	2		19		3.1112E-10
14	6.80		0.0000	0.0707%	45535	3117	14.6	2		19		3.1112E-10
15	8.33 DDE		0.0023	11.4038%	37724	1975	19.1	1	15	19	0	6.0580E-08
16	9.92 DDD+ENDRINALDE		0.0033	16.5081%	41745	1927	21.7	1	16	19	0	7.9246E-08
18	13.08		0.0004	2.0631%	1328835	39232	33.9	1		19		3.1112E-10
19	24.30 INSTD MIREX		1.0000	0.0000%	3214161	52646	61.1	2	19	19	0	3.1112E-07
20	26.48		0.0035	17.4798%	11258785	133251	84.5	2		19		3.1112E-10

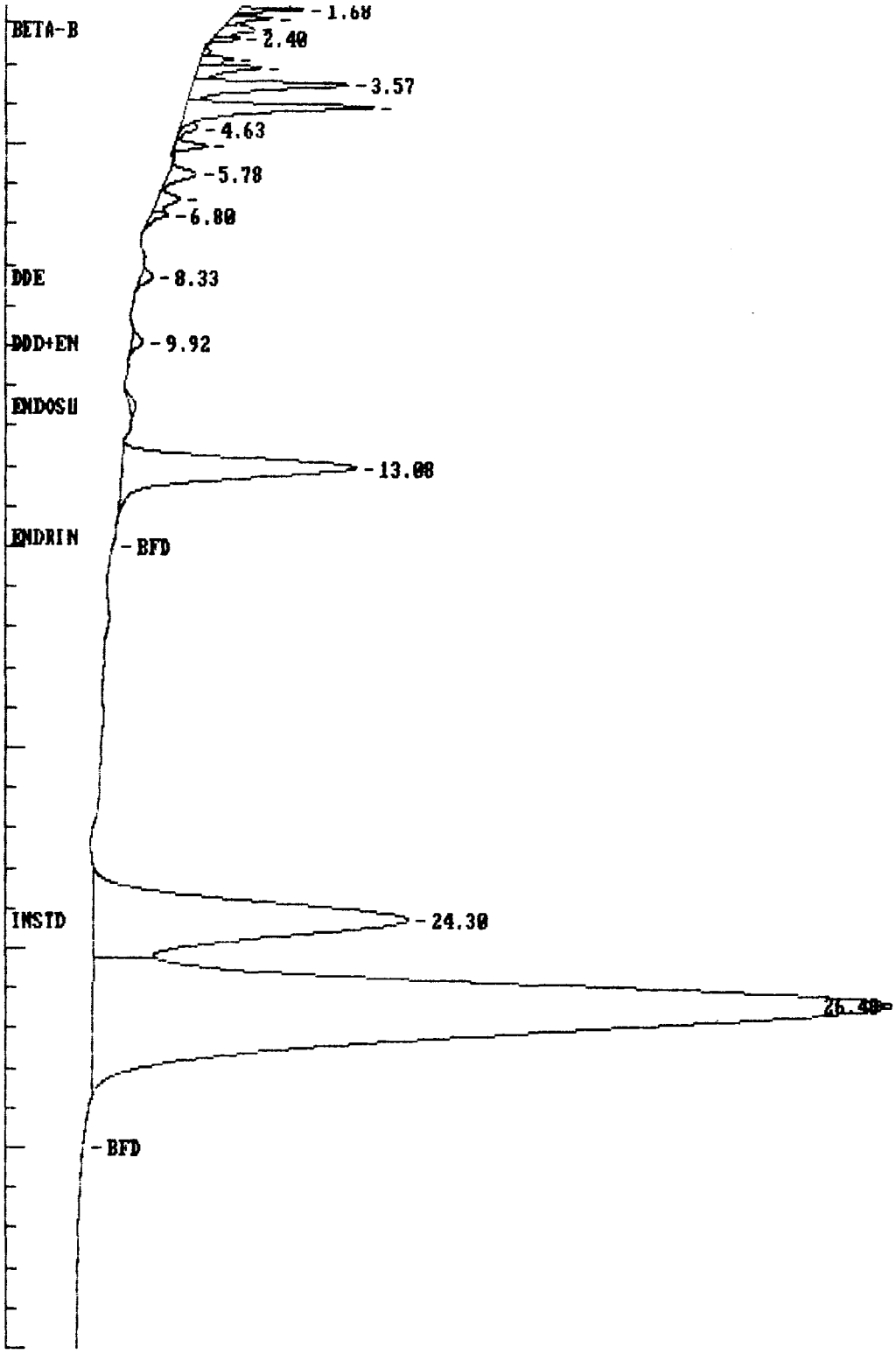
TOTAL AMOUNT = 0.0200

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
NDOSULFAN S04	11.53	ENDOSULFAN S04
NDRIN KETONE	14.79	ENDRIN KETONE

not found on Primary colum

ata File = P:2SF30.PTS Printed on 03-12-1990 at 10:39:25
art time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 69939 uv High Value: 205829 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

********** 03-12-1990 09:13:09 Version 4.1 **********

Name: 90FT01R98 Data File: 0:1SF38

03-01-1990 17:05:34 Method: N:PESTA5 03-02-1990 13:29:46 # 100

ace: 0 Cycle#: 38 Operator AK Channel#: 0 Vial#: N.A.

ng Peak Width: 30 Threshold: 10 Area Threshold: 100

****

ent Type: HP 5890A #1 Column Type: QUANT

Solvent Description: ULTRA HIGH PURITY NITROGEN

ions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD QUANT

nformation:

****

Delay: 1.50 Ending retention time: 35.00

t: 50000 One sample per 1.000 sec.

njected: 1.00 Dilution factor: 10.00

Standard Amount: 1

ight: 1.000000

PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
	0.0683	8.7971%	335275	37822	8.9	1	1	9	0	2.0362E-07
	0.0102	1.3167%	~~67572~~	4691	14.4	1	4	9	0	1.5122E-07
	0.0003	0.0346%	232267	22356	10.4	1		9		1.1576E-09
	0.0013	0.1698%	1138456	26793	42.5	1		9		1.1576E-09
	1.0000	0.0000%	863854	17832	48.4	1	9	9	0	1.1576E-06
	0.6960	89.6817%	2076218	36457	57.0	1	10	9	0	3.3521E-07

TOTAL AMOUNT = 0.7760

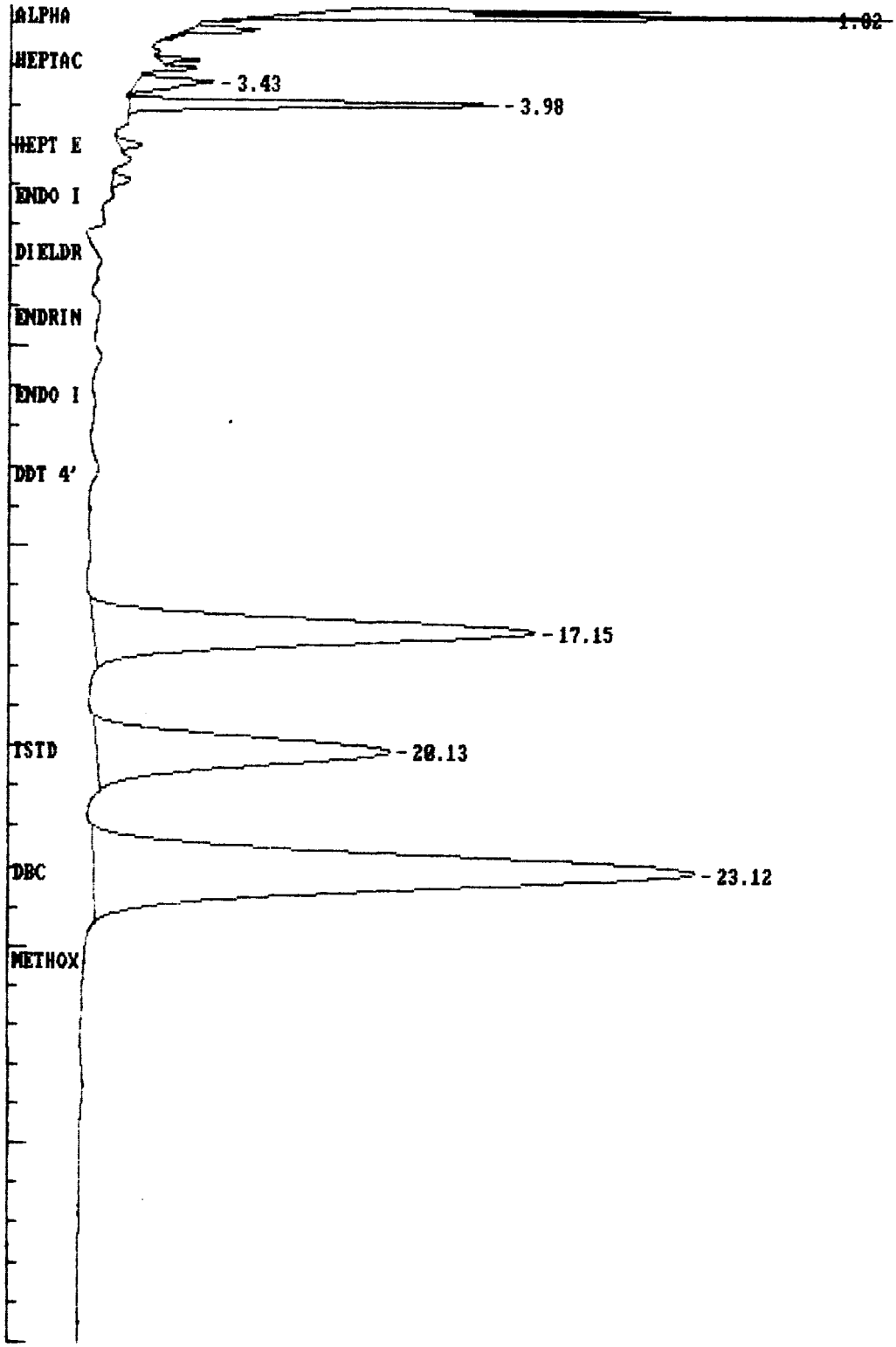
NOT FOUND IN THIS RUN

	ADJUSTED RET.TIME.	REFERENCE PEAK
	2.28	LINDANE
LOR	2.90	HEPTACHLOR
IDE	5.00	HEPT EPOXIDE
	6.26	ENDO I
	7.66	DIELDRIN
	9.29	ENDRIN
	11.21	ENDO II
	13.17	DDT 4'4'
HLOR	25.32	METHOXYCHLOR

not confirmed on secondary column

rea lower than lowest standard

= 0:1SF38.FTS Printed on 03-12-1990 at 09:13:38
me: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ue: 38833 uv High Value: 88220 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

********** 03-12-1990 09:14:47 Version 4.1 **********

Sample Name: 90FT01R98 Data File: U:1SF38

Date: 03-01-1990 17:05:34 Method: N:PESTB3 03-07-1990 10:27:33 # 28

Interface: 0 Cycle#: 38 Operator AK Channel#: 0 Vial#: N.A.

Smoothing Peak Width: 30 Threshold: 10 Area Threshold: 100

****

Instrument Type: HP 5890A #1 Column Type: QUANT

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD QUANT

Misc. Information:

****

Start Delay: 1.50 Ending retention time: 35.00

Injection: 50000 One sample per 1.000 sec.

Amount Injected: 1.00 Dilution factor: 10.00

Internal Standard Amount: 1

Sample Weight: 1.000000

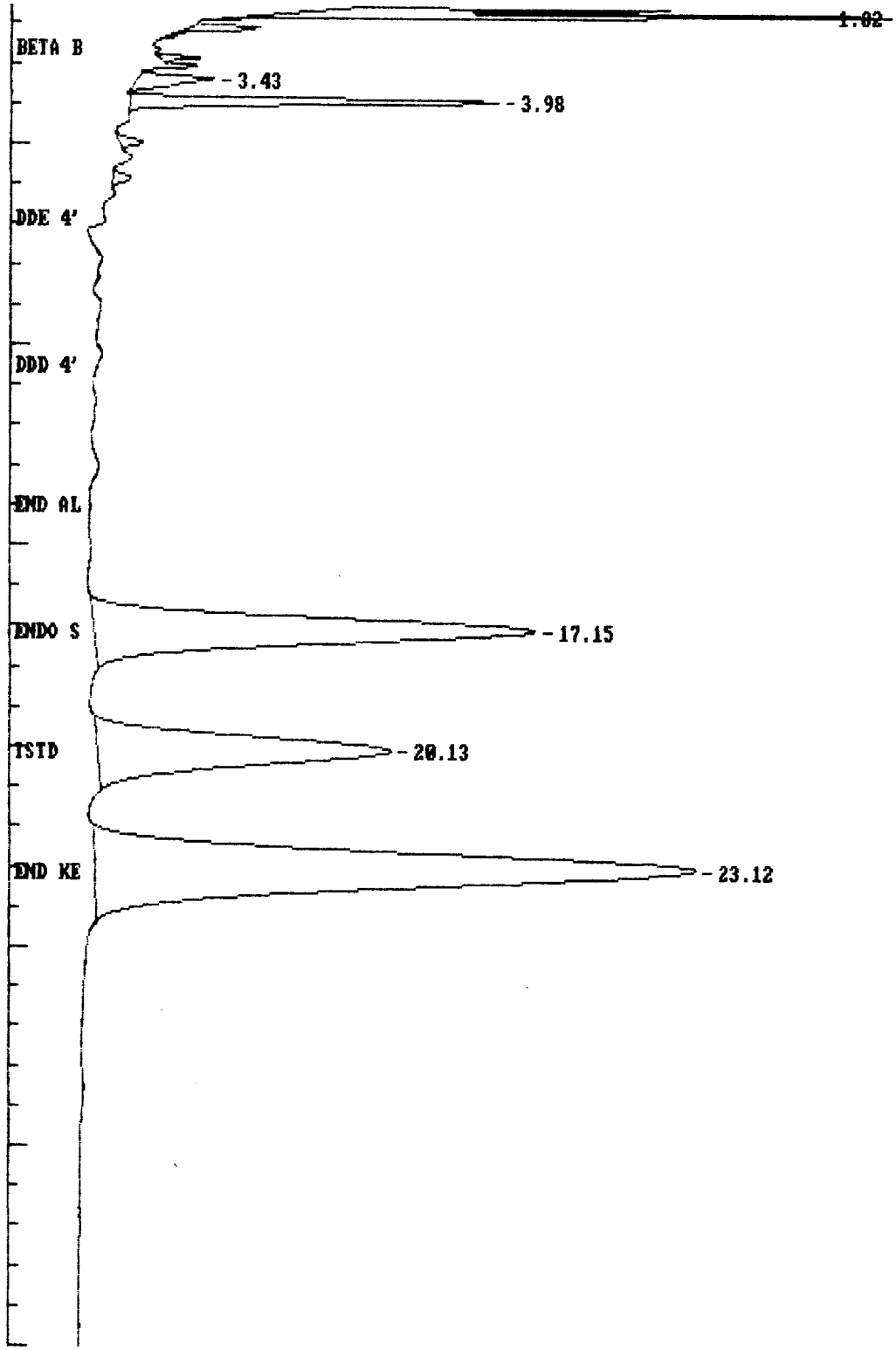
PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
[illegible] SULFATE	0.2781	26.9297%	1138456	26793	42.5	1	8	9	0	2.4431E-07
[illegible] STD	1.0000	0.0000%	863854	17832	48.4	1	9	9	0	1.1576E-06
[illegible] ACETONE	0.7547	73.0703%	2076218	36457	57.0	1	10	9	0	3.6349E-07
[illegible] HEX										
TOTAL AMOUNT =	1.0328									

PEAKS NOT FOUND IN THIS RUN

	ADJUSTED RET.TIME.	REFERENCE PEAK
ALPHA BHC	2.60	BETA BHC
DELTA BHC	2.90	DELTA BHC
DDE 4'4'	6.88	DDE 4'4'
DDD 4'4'	10.50	DDD 4'4'
END ALDEHYDE	14.01	END ALDEHYDE

confirmed on secondary column

= 0:1SF38.PTS Printed on 03-12-1990 at 09:15:09
ng: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
de: 38833 uv High Value: 88220 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

03-12-1990 10:27:49 Version 4.1

Sample Name: 9CFT01R98 Data File: P:2SF31

Date: 03-03-1990 12:49:39 Method: N:CONPESA 03-08-1990 14:03:43 # 27

Interface: 0 Cycle#: 31 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 10 Threshold: 5 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

Starting Delay: 1.50 Ending retention time: 40.00

Area reject: 30000 One sample per 1.000 sec.

Amount injected: 1.00 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
1	1.55		0.0001	0.0069%	193761	57898	3.3	2		15		3.0833E-10
2	1.70		0.0002	0.0225%	634485	70946	8.9	2		15		3.0833E-10
3	1.88		0.0003	0.0355%	1000776	118993	8.4	2		15		3.0833E-10
4	2.47	~~LINDANE~~	0.0041	0.4676%	68278	5129	13.3	2	4	15	0	5.9519E-08
6	3.12		0.0000	0.0027%	75148	8596	8.7	1		15		3.0833E-10
7	3.58	~~HEPTACHLOR~~	0.0118	1.3543%	232695	15905	14.6	2	7	15	0	5.0583E-08
8	4.10		0.0002	0.0272%	766602	57532	13.3	2		15		3.0833E-10
9	4.78	~~ALDRIN~~	0.0043	0.4919%	68525	3861	17.7	2	9	15	0	6.2392E-08
10	5.83	~~HEPTA EPOXIDE~~	0.0053	0.6127%	91219	2773	32.9	2	10	15	0	5.8377E-08
11	6.87	~~ENDOSULFAN I~~	0.0074	0.8543%	121751	5198	23.4	2	11	15	0	6.0984E-08
13	12.12		0.0000	0.0036%	100657	2674	37.6	2		15		3.0833E-10
14	13.07	~~DDT~~	0.2539	29.2090%	3165049	88418	35.8	2	14	15	0	8.0205E-08
15	24.30	INSTD MIREX	1.0000	0.0000%	3243245	52854	61.4	2	15	15	0	3.0833E-07
16	26.42	DIBUTYLCHLORENDATE	0.5815	66.9117%	7577551	94409	80.3	2	16	15	0	7.6743E-08

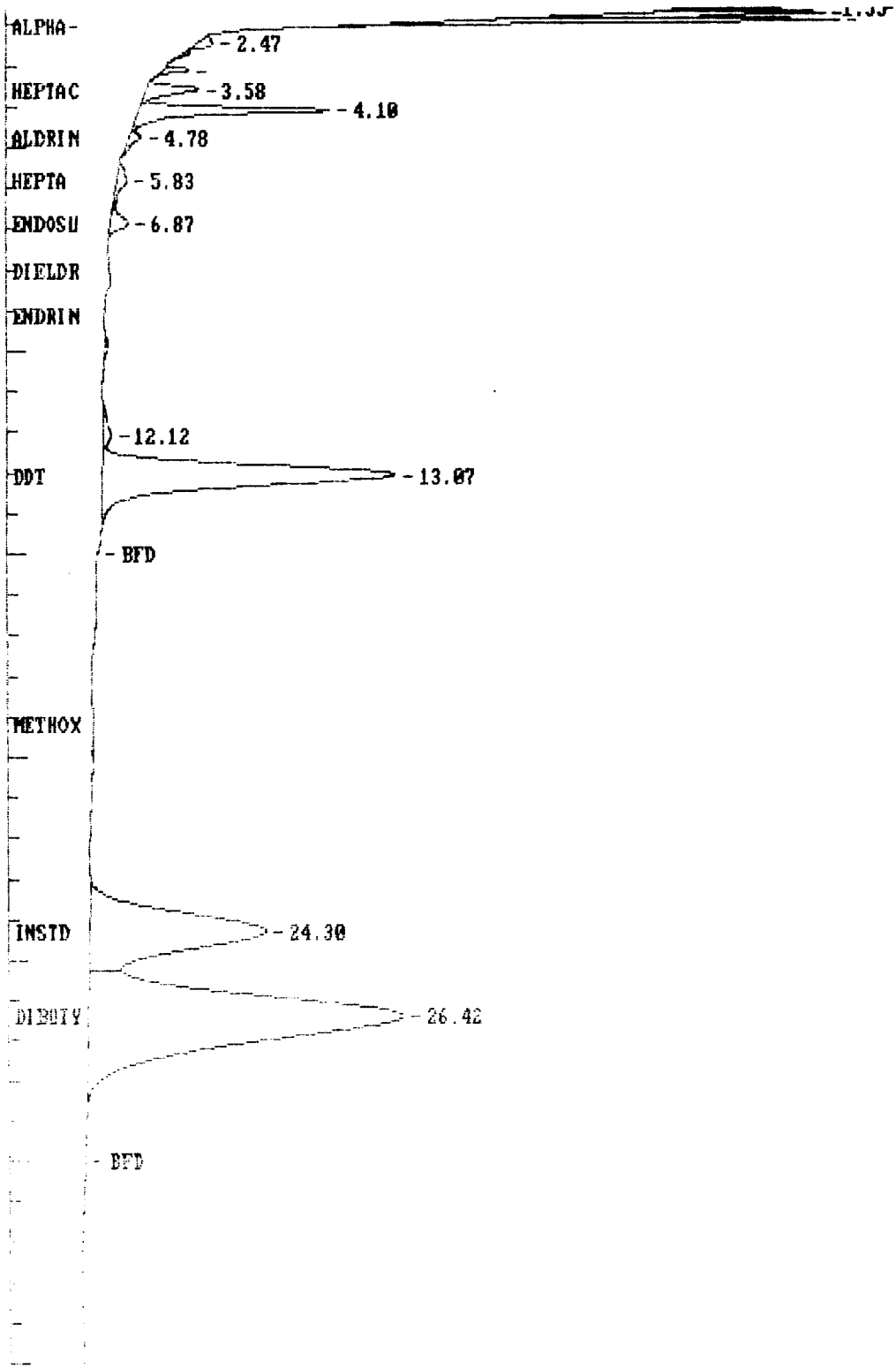
TOTAL AMOUNT = 0.8691

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
LPHA-BHC	2.05	ALPHA-BHC
IELDRIN	8.01	DIELDRIN
NDRIN+ENDO II	9.11	ENDRIN+ENDO II
ETHOXYCHLOR	19.19	METHOXYCHLOR

not found on primary Colum.

ta File = P:2SF31.PTS Printed on 03-12-1990 at 10:28:19
art time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
w Value: 67036 uv High Value: 314552 uv Scale factor: 1.0



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

********** 03-12-1990 10:40:23 Version 4.1 **********

Sample Name: 90FT01R98 Data File: P:2SF31

Date: 03-03-1990 12:49:39 Method: N:CONPESB 03-08-1990 14:04:37 # 19

Interface: 0 Cycle#: 31 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 10 Threshold: 5 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

Starting Delay: 1.50 Ending retention time: 40.00

Area reject: 30000 One sample per 1.000 sec.

Amount injected: 1.00 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
1	1.55		0.0001	0.2634%	193761	57898	3.3	2		15		3.0833E-10
2	1.70		0.0002	0.8624%	634485	70946	8.9	2		15		3.0833E-10
3	1.88		0.0003	1.3603%	1000776	118993	8.4	2		15		3.0833E-10
4	2.[illegible]	~~DELTA BHC~~	0.0056	24.8976%	68278	5129	13.3	2	4	15	0	8.2720E-08
6	3.12		0.0000	0.1021%	75148	8596	8.7	1		15		3.0833E-10
7	3.58		0.0001	0.3163%	232695	15905	14.6	2		15		3.0833E-10
8	4.10		0.0002	1.0420%	766602	57532	13.3	2		15		3.0833E-10
9	4.78		0.0000	0.0931%	68525	3861	17.7	2		15		3.0833E-10
10	5.83		0.0000	0.1240%	91219	2773	32.9	2		15		3.0833E-10
11	6.87		0.0000	0.1655%	121751	5198	23.4	2		15		3.0833E-10
13	12.12	~~ENDOSULFAN SO4~~	0.0127	56.1719%	100657	2674	37.6	2	13	15	0	1.2659E-07
14	13.07		0.0010	4.3020%	3165049	88418	35.8	2		15		3.0833E-10
15	24.30	INSTD MIREX	1.0000	0.0000%	3243245	52854	61.4	2	15	15	0	3.0833E-07
16	26.42		0.0023	10.2995%	7577551	94409	80.3	2		15		3.0833E-10

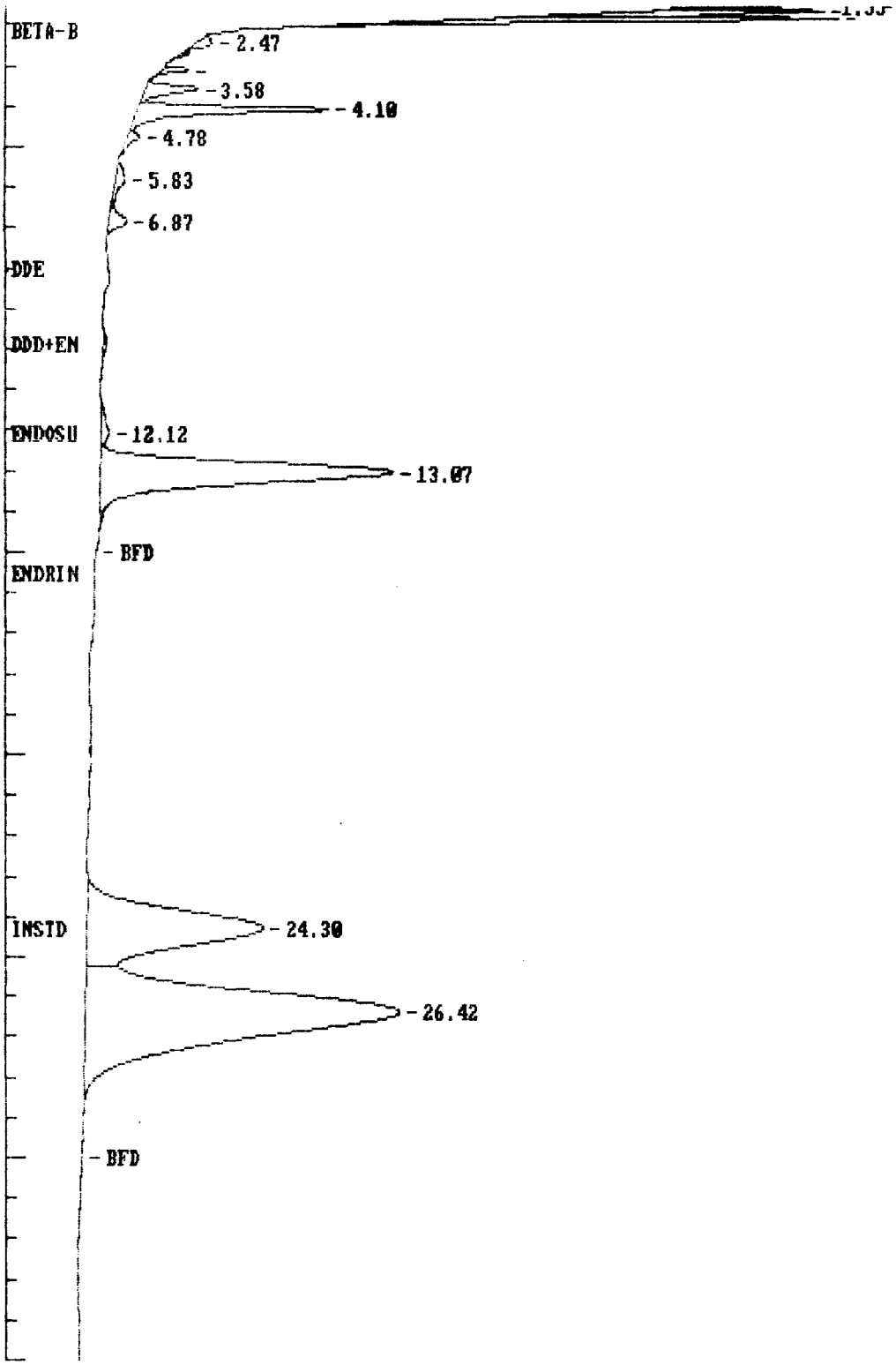
TOTAL AMOUNT = 0.0227

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
BETA-BHC	2.18	BETA-BHC
DDE	8.05	DDE
DDD+ENDRINALDE	9.88	DDD+ENDRINALDE
ENDRIN KETONE	15.54	ENDRIN KETONE

not found on primary column.
Endosulfan sulfate area is lower than area of the lowest standard. The peak does not correspond in area to the peak on the primary column

ata File = P:2SF31.PTS Printed on 03-12-1990 at 10:40:53
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 67036 uv High Value: 314552 uv Scale factor: 1.0



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

********** 03-02-1990 13:35:59 Version 4.1 **********

* Sample Name: PEST STD A LEVEL 1 Data File: 0:15F5 *
* Date: 02-28-1990 18:25:15 Method: N:PESTA5 03-02-1990 13:29:46 # 100 *
* Interface: 0 Cycle#: 5 Operator AK Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: Detector 1: ECD CONF *
* Misc. Information: LPT1: * *

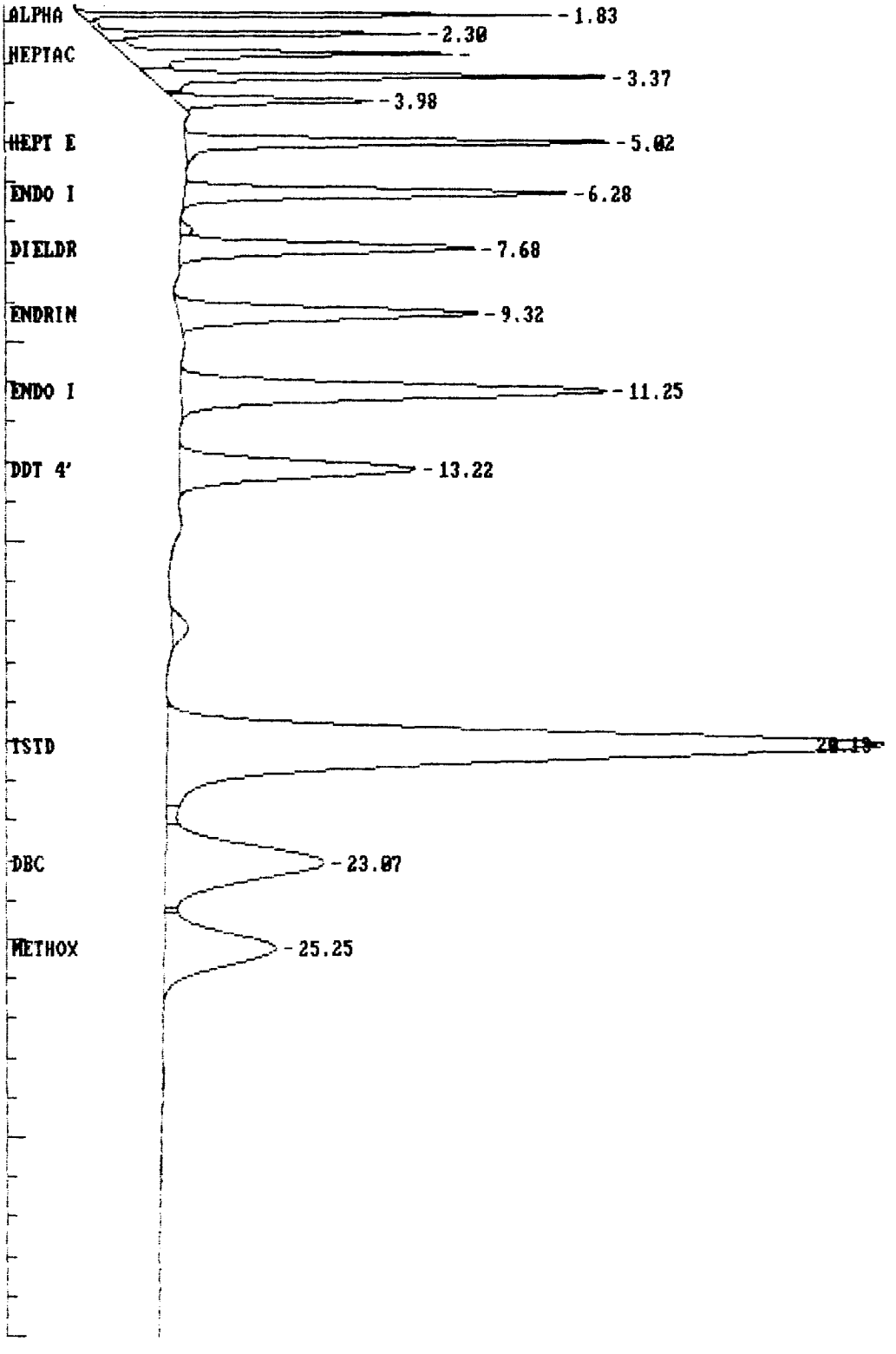
****

Starting Delay: 1.50 Ending retention time: 45.00
Area reject: 50000 One sample per 1.000 sec.
Amount injected: 1.00 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	1.83	ALPHA BHC	0.0013	3.0746%	58658	12788	4.6	2	1	14	0	2.1383E-08
2	2.30	LINDANE	0.0010	2.3840%	53478	8660	6.2	2	2	14	0	1.8185E-08
3	2.80	HEPTACHLOR	0.0008	1.9660%	96828	8930	10.8	2	3	14	0	8.2828E-09
4	3.37	ALDRIN	0.0018	4.4982%	121307	12415	9.8	2	4	14	0	1.5127E-08
5	3.98		0.0000	0.0137%	56302	5318	10.6	2		14		9.9351E-11
6	5.02	HEPT EPOXIDE	0.0022	5.2729%	143098	11551	12.4	1	6	14	0	1.5032E-08
7	6.28	ENDO I	0.0028	6.7547%	158232	10440	15.2	1	7	14	0	1.7415E-08
9	7.68	DIELDRIN	0.0031	7.6456%	147898	8030	18.4	2	9	14	0	2.1089E-08
10	9.32	ENDRIN	0.0052	12.8349%	177643	8180	21.7	1	10	14	0	2.9475E-08
11	11.25	ENDO II	0.0057	13.8595%	309985	11600	26.7	1	11	14	0	1.8239E-08
12	13.22	DDT 4'4'	0.0062	15.1681%	195250	6445	30.3	1	12	14	0	3.1691E-08
14	20.13	ISTD	1.0000	0.0000%	1006532	19555	51.5	2	14	14	0	9.9351E-07
15	23.07	DBC	0.0046	11.2467%	259817	4305	60.3	2	15	14	0	1.7659E-08
16	25.25	METHOXYCHLOR	0.0062	15.2812%	178857	3020	59.2	2	16	14	0	3.4854E-08

TOTAL AMOUNT = 0.0408

Data File = 0:1SF5.PTS Printed on 03-02-1990 at 13:36:26
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 35763 uv High Value: 57838 uv Scale factor: 1.0



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

********** 03-02-1990 13:37:35 Version 4.1 **********

* Sample Name: PEST STD A LEVEL 2 Data File: O:1SF6 *
* Date: 02-28-1990 19:06:35 Method: N:PESTA5 03-02-1990 13:29:46 # 100 *
* Interface: O Cycle#: 6 Operator AK Channel#: O Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector O: Detector 1: ECD CONF *
* Misc. Information: LPT1: * *

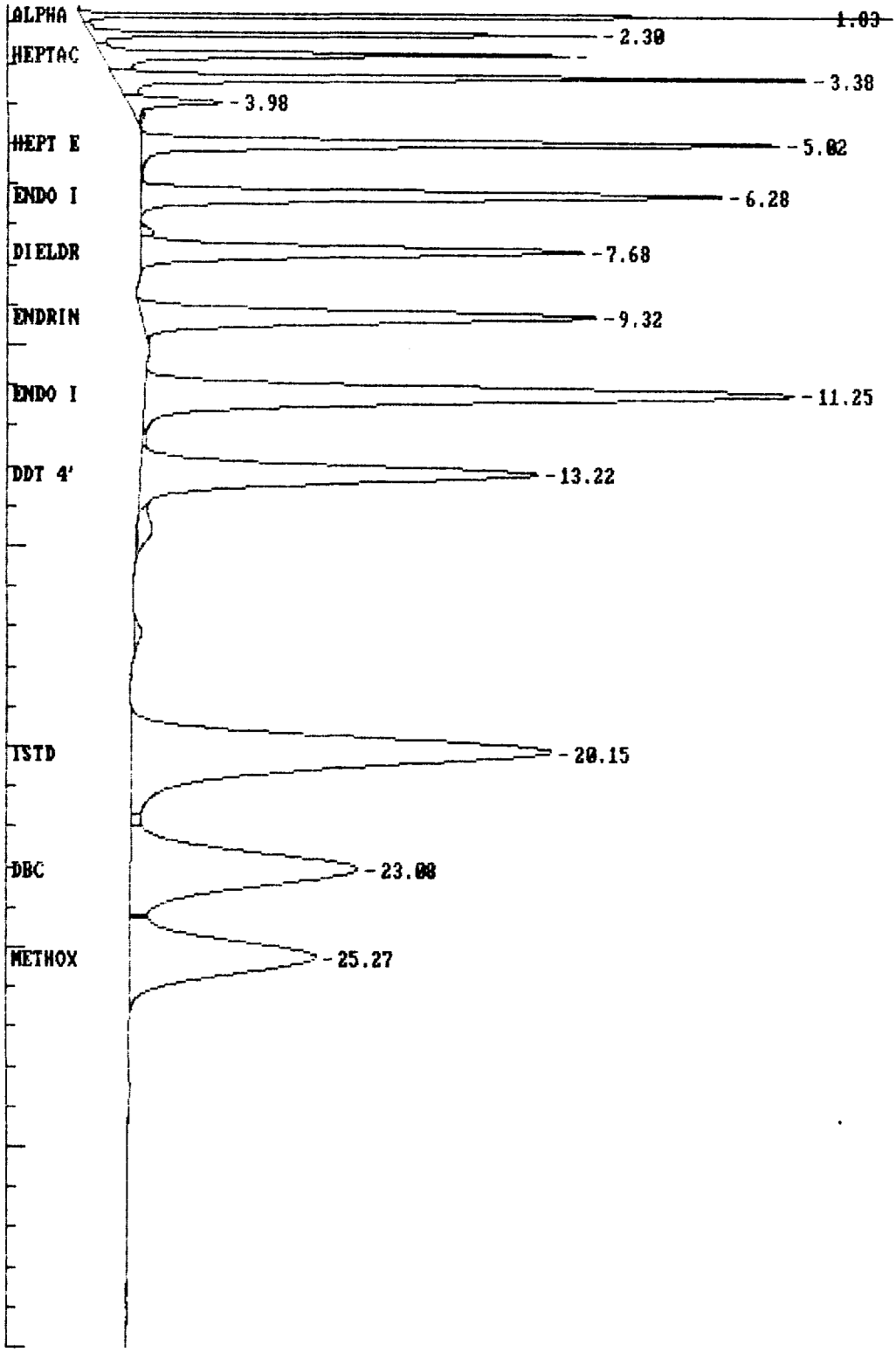
****

Starting Delay: 1.50 Ending retention time: 45.00
Area reject: 50000 One sample per 1.000 sec.
Amount injected: 1.00 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	1.83	ALPHA BHC	0.0029	2.6880%	167379	38015	4.4	2	1	16	0	1.7586E-08
2	2.30	LINDANE	0.0024	2.2144%	136355	23655	5.8	2	2	16	0	1.7783E-08
3	2.80	HEPTACHLOR	0.0024	2.2237%	196269	21894	9.0	2	3	16	0	1.2406E-08
4	3.38	ALDRIN	0.0048	4.4234%	292980	32386	9.0	2	4	16	0	1.6533E-08
5	3.98		0.0000	0.0049%	56439	4391	12.9	3		16		9.4551E-11
7	5.02	HEPT EPOXIDE	0.0059	5.3827%	366514	29958	12.2	2	7	16	0	1.6082E-08
8	6.28	ENDO I	0.0073	6.6579%	409198	27256	15.0	2	8	16	0	1.7817E-08
10	7.68	DIELDRIN	0.0075	6.8495%	378956	20835	18.2	2	10	16	0	1.9792E-08
11	9.32	ENDRIN	0.0125	11.3736%	456687	21345	21.4	1	11	16	0	2.7271E-08
12	11.25	ENDO II	0.0150	13.6741%	810190	30479	26.6	2	12	16	0	1.8482E-08
13	13.22	DDT 4'4'	0.0148	13.5447%	577360	18629	31.0	3	13	16	0	2.5689E-08
16	20.15	ISTD	1.0000	0.0000%	1057633	19732	53.6	2	16	16	0	9.4551E-07
17	23.08	DBC	0.0152	13.9078%	644418	10677	60.4	2	17	16	0	2.3633E-08
18	25.27	METHOXYCHLOR	0.0187	17.0553%	522571	8724	59.9	2	18	16	0	3.5739E-08

TOTAL AMOUNT = 0.1095

Data File = 0:15F6.PTS Printed on 03-02-1990 at 13:38:00
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 35494 uv High Value: 73693 uv Scale factor: 1.0

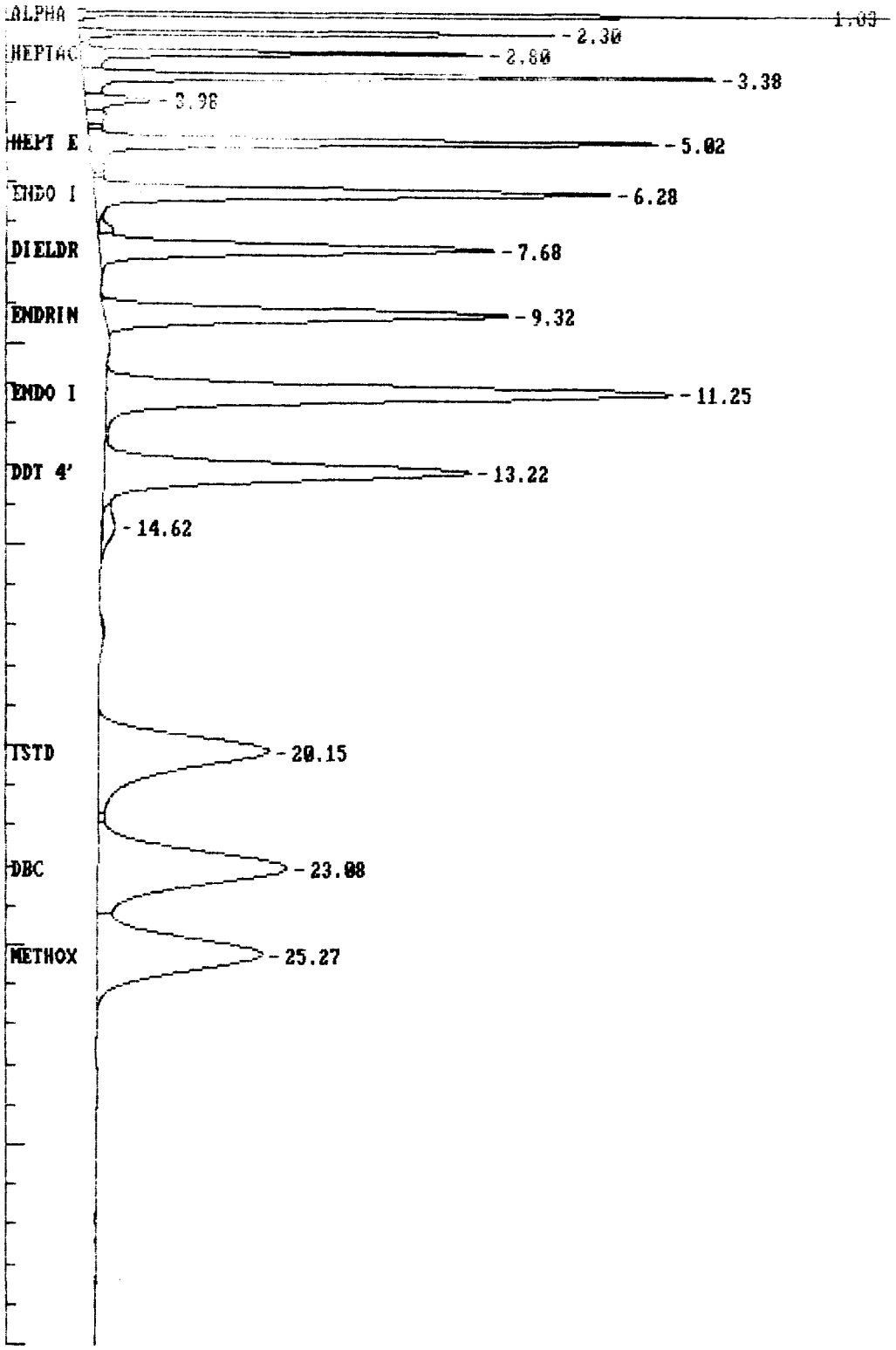


```
*****    INTERNAL STANDARD TABLE    *****
******************** 03-02-1990 13:39:09 Version 4.1 **********************
* Sample Name: PEST STD A LEVEL 3                Data File: 0:1SF7         *
* Date: 02-28-1990 19:47:55 Method: N:PESTA5  03-02-1990 13:29:46  #  100 *
* Interface: 0   Cycle#:  7    Operator AK  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: SINGLE PHASE         *
*            Solvent Description: ULTRA HIGH PURITY NITROGEN              *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0:                      Detector 1: ECD CONF        *
* Misc. Information:                                  LPT1:          *    *
*************************************************************************
Starting Delay:    1.50                    Ending retention time:    45.00
Area reject:     50000                     One sample per    1.000 sec.
Amount injected:        1.00               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	1.83	ALPHA BHC	0.0063	2.7652%	391509	91381	4.3	3	1	17	0	1.6020E-08
3	2.30	LINDANE	0.0051	2.2552%	296806	53440	5.6	2	3	17	0	1.7234E-08
4	2.80	HEPTACHLOR	0.0054	2.3836%	383724	45116	8.5	2	4	17	0	1.4089E-08
5	3.38	ALDRIN	0.0105	4.6200%	628279	71053	8.8	2	5	17	0	1.6676E-08
6	3.98		0.0000	0.0042%	106041	7395	14.3	2		17		9.0741E-11
8	5.02	HEPT EPOXIDE	0.0134	5.9286%	836336	63964	13.1	2	6	17	0	1.6073E-08
9	6.28	ENDO I	0.0158	6.9517%	899497	58106	15.5	2	9	17	0	1.7527E-08
11	7.66	DIELDRIN	0.0151	6.6631%	799559	44408	18.0	2	11	17	0	1.8901E-08
12	9.32	ENDRIN	0.0246	10.8516%	949755	45389	20.9	1	12	17	0	2.5914E-08
13	11.25	ENDO II	0.0302	13.3333%	1671162	63728	26.2	2	13	17	0	1.8066E-08
14	13.22	DDT 4'4'	0.0295	13.0267%	1261745	41277	30.6	2	14	17	0	2.3417E-08
15	14.62		0.0000	0.0025%	71354	1520	46.9	4		17		9.0741E-11
17	20.18	[illegible]	0.0000	0.0000%	1102040	19261	57.2	2	17	17	0	9.0741E-07
18	23.[illegible]	[illegible]	[illegible]	13.9863%	1271276	21310	59.7	2	18	17	0	2.4953E-08
19	25.27	[illegible]	[illegible]	17.2280%	1116173	18612	60.0	2	19	17	0	3.5008E-08

[illegible] = 0.2266

Data File = [illegible] printed on [illegible] at 13:39:36
Start time: [illegible] min. Step time: [illegible] min. Offset: 0 mv.
Low Value: [illegible] uv High Value: 127267 uv Scale factor: 1.0



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

********** 03-02-1990 13:40:39 Version 4.1 **********

* Sample Name: PEST STD A LEVEL 4 Data File: O:1SF8 *
* Date: 02-28-1990 20:29:11 Method: N:PESTA5 03-02-1990 13:29:46 # 100 *
* Interface: 0 Cycle#: 8 Operator AK Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: Detector 1: ECD CONF *
* Misc. Information: LPT1: * *

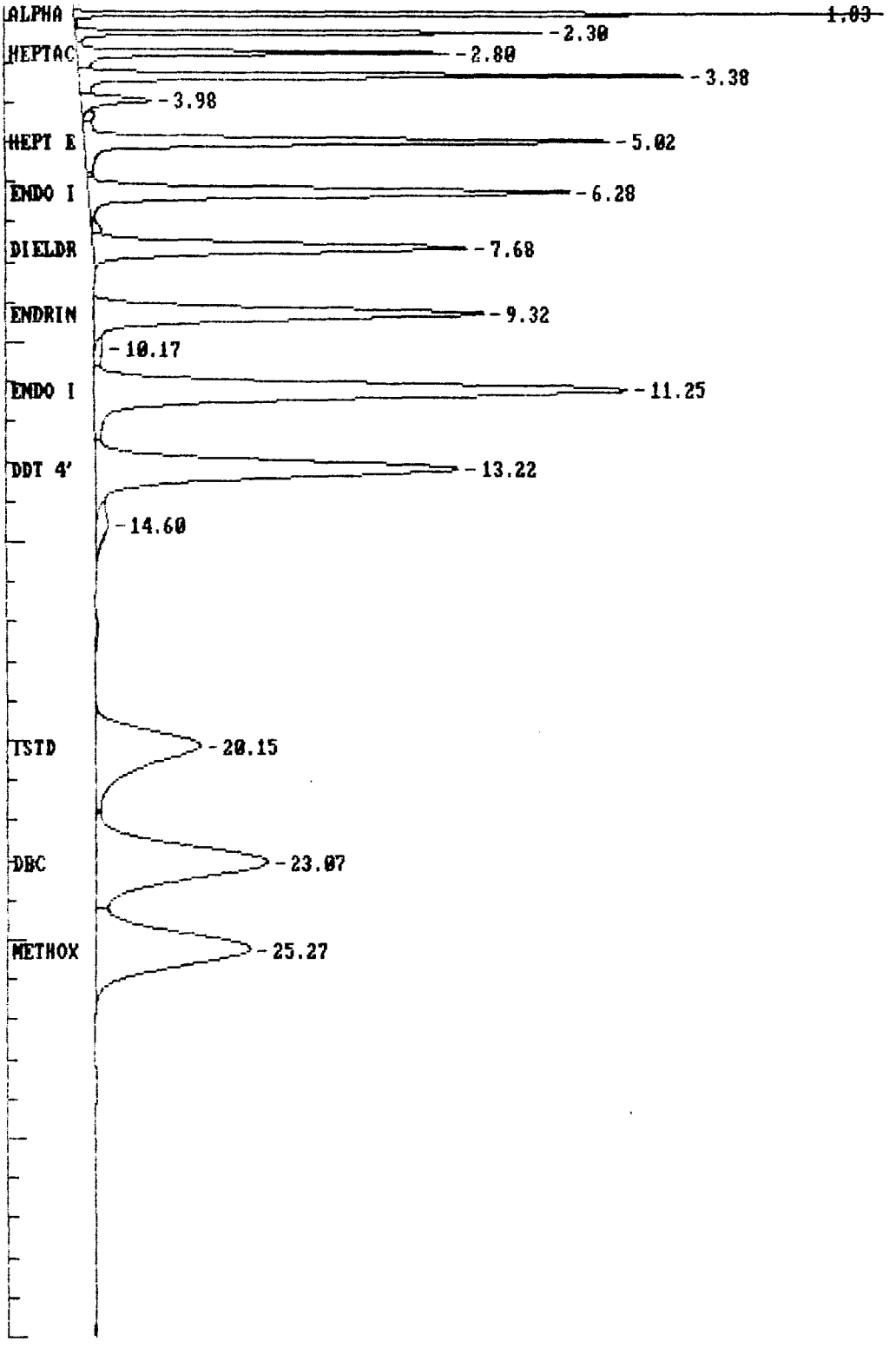
****

Starting Delay: 1.50 Ending retention time: 45.00
Area reject: 50000 One sample per 1.000 sec.
Amount injected: 1.00 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	1.83	ALPHA BHC	0.0095	2.8373%	662984	155298	4.3	3	1	18	0	1.4376E-08
3	2.30	LINDANE	0.0076	2.2607%	482208	89340	5.4	2	3	18	0	1.5749E-08
4	2.80	HEPTACHLOR	0.0076	2.2610%	566028	71186	8.0	2	4	18	0	1.3419E-08
5	3.38	ALDRIN	0.0151	4.4967%	980574	115899	8.5	2	5	18	0	1.5405E-08
6	3.98		0.0000	0.0043%	174512	13351	13.1	3		18		8.2682E-11
8	5.02	HEPT EPOXIDE	0.0190	5.6502%	1283279	100819	12.7	2	8	18	0	1.4791E-08
9	6.28	ENDO I	0.0225	6.6902%	1398006	92332	15.1	3	9	18	0	1.6076E-08
11	7.68	DIELDRIN	0.0218	6.5030%	1270291	72033	17.6	2	11	18	0	1.7197E-08
12	9.32	ENDRIN	0.0376	11.1818%	1596284	74983	21.3	3	12	18	0	2.3531E-08
13	10.17		0.0000	0.0013%	53172	1549	34.3	4		18		8.2682E-11
14	11.25	ENDO II	0.0458	13.6471%	2761591	102577	26.9	2	14	18	0	1.6601E-08
15	13.22	DDT 4'4'	0.0457	13.6152%	2181939	69942	31.2	3	15	18	0	2.0962E-08
16	14.60		0.0000	0.0029%	117564	2313	50.8	4		18		8.2682E-11
18	20.15	ISTD	1.0000	0.0000%	1209447	20214	59.8	2	18	18	0	8.2682E-07
19	23.07	DBC	0.0460	13.6787%	1963041	33164	59.2	2	19	18	0	2.3408E-08
20	25.27	METHOXYCHLOR	0.0577	17.1695%	1797072	29913	60.1	2	20	18	0	3.2095E-08

TOTAL AMOUNT = 0.3359

Data File = 0:1SF8.PTS Printed on 03-02-1990 at 13:41:07
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 34756 uv High Value: 190166 uv Scale factor: 1.0



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

********** 03-02-1990 13:42:09 Version 4.1 **********

* Sample Name: PEST STD A LEVEL 5 Data File: O:1SF9 *

* Date: 02-28-1990 21:10:30 Method: N:PESTAS 03-02-1990 13:29:46 # 100 *

* Interface: O Cycle#: 9 Operator AK Channel#: O Vial#: N.A. *

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

* Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE *

* Solvent Description: ULTRA HIGH PURITY NITROGEN *

* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

* Detector O: Detector 1: ECD CONF *

* Misc. Information: LPT1: * *

Starting Delay: 1.50 Ending retention time: 45.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

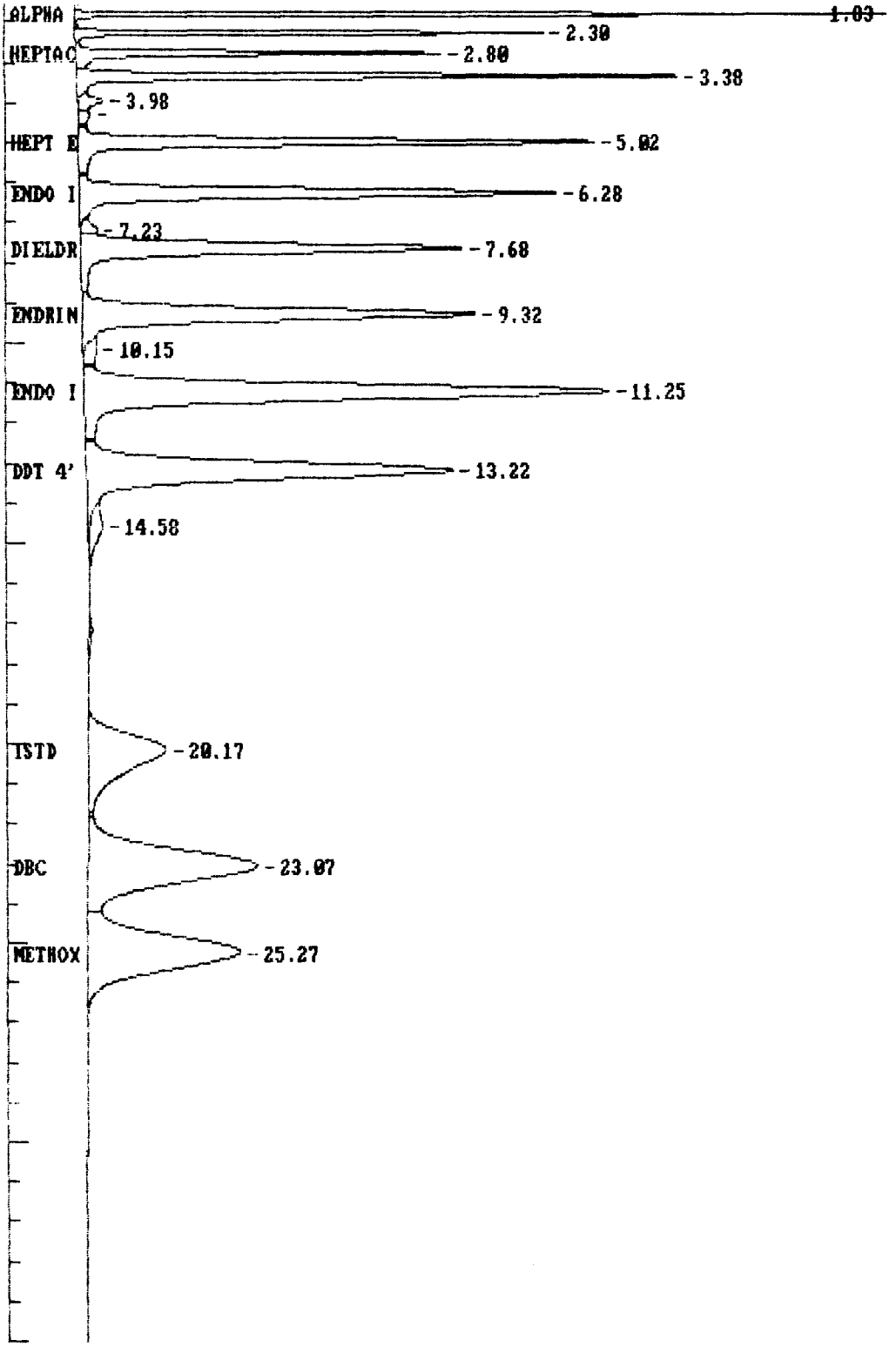
Internal Standard Amount: 1

Sample Weight: 1.000000

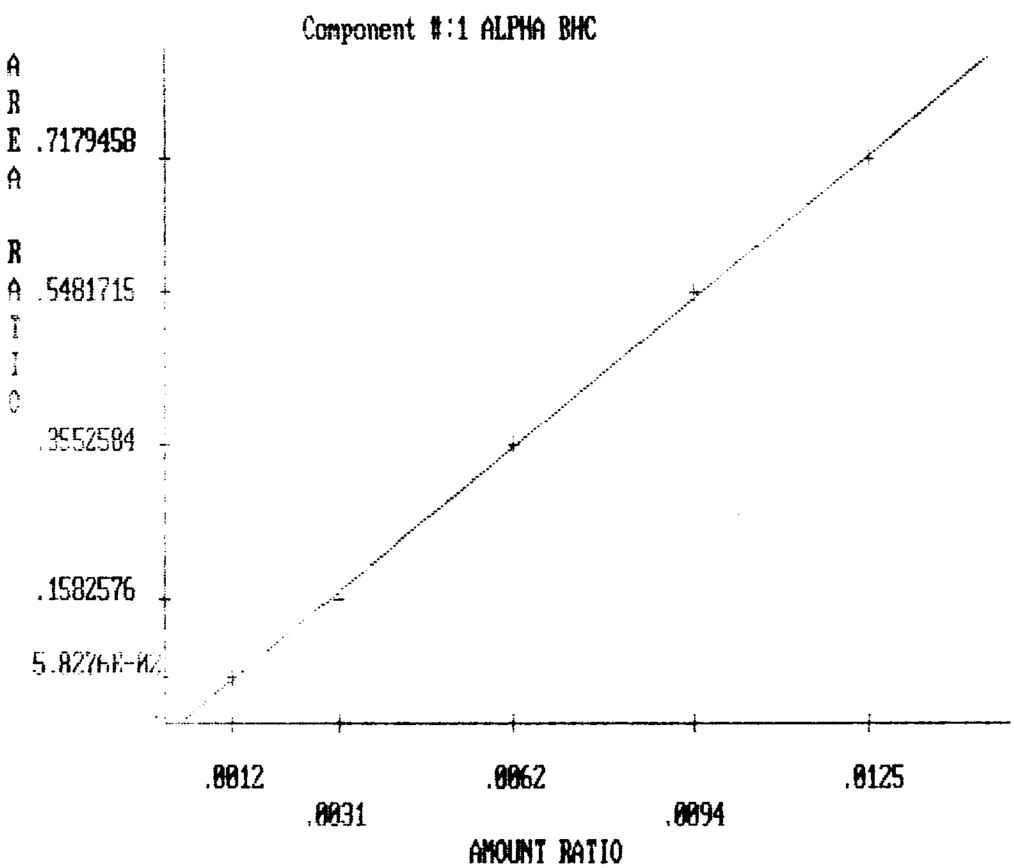
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	1.83	ALPHA BHC	0.0124	2.8357%	909395	211409	4.3	3	1	18	0	1.3635E-08
3	2.30	LINDANE	0.0099	2.2626%	657006	121783	5.4	2	3	18	0	1.5058E-08
4	2.80	HEPTACHLOR	0.0098	2.2324%	742969	95020	7.8	2	4	18	0	1.3138E-08
5	3.38	ALDRIN	0.0197	4.5138%	1332119	156464	8.5	3	5	18	0	1.4816E-08
6	3.98		0.0000	0.0017%	94613	6218	15.2	4		18		7.8948E-11
7	4.33		0.0000	0.0010%	56887	3120	18.2	4		18		7.8948E-11
8	5.02	HEPT EPOXIDE	0.0244	5.5865%	1720697	134328	12.8	2	8	18	0	1.4196E-08
9	6.28	ENDO I	0.0297	6.7952%	1928540	123960	15.6	3	9	18	0	1.5407E-08
10	7.23		0.0000	0.0012%	64469	4025	16.0	4		18		7.8948E-11
11	7.68	DIELDRIN	0.0304	6.9576%	1854533	99343	18.7	2	11	18	0	1.6405E-08
12	9.32	ENDRIN	0.0501	11.4656%	2235044	102267	21.9	3	12	18	0	2.2431E-08
13	10.15		0.0000	0.0018%	97690	2771	35.3	4		18		7.8948E-11
14	11.25	ENDO II	0.0593	13.5589%	3729210	136548	27.3	2	14	18	0	1.5898E-08
15	13.22	DDT 4'4'	0.0597	13.6527%	3005086	95232	31.6	3	15	18	0	1.9866E-08
16	14.58		0.0000	0.0028%	154278	3067	50.3	4		18		7.8948E-11
18	20.17	ISTD	1.0000	0.0000%	1266662	20142	62.9	2	18	18	0	7.8948E-07
19	23.07	DBC	0.0585	13.3811%	2580918	43989	58.7	2	19	18	0	2.2670E-08
20	25.27	METHOXYCHLOR	0.0732	16.7494%	2383353	39495	60.3	2	20	18	0	3.0729E-08

TOTAL AMOUNT = 0.4373

Data File = 0:1889.PTS Printed on 03-02-1990 at 13:42:39
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 35674 uv High Value: 247127 uv Scale factor: 1.0



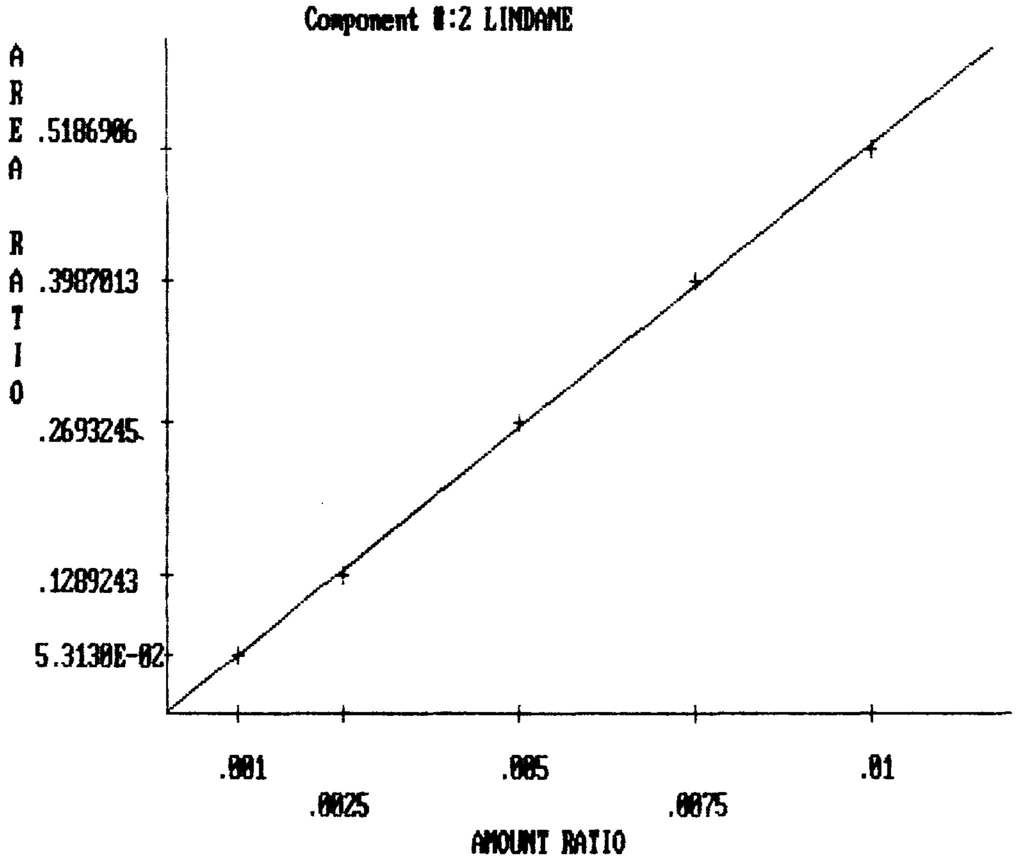
Method N:PESTA5
Sample PEST
Operator AK
Run date 03-02-1990 13:29:46 version: 100
Printed on 03-12-1990 AT 14:52:42
Straight Line fit



Component 1 = ALPHA BHC
INTERNAL STANDARD CALIBRATION

EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0012	58658	0.0012	0.0583
2	0.0031	167379	0.0031	0.1583
3	0.0062	391509	0.0062	0.3553
4	0.0094	662984	0.0094	0.5482
5	0.0125	909395	0.0125	0.7179

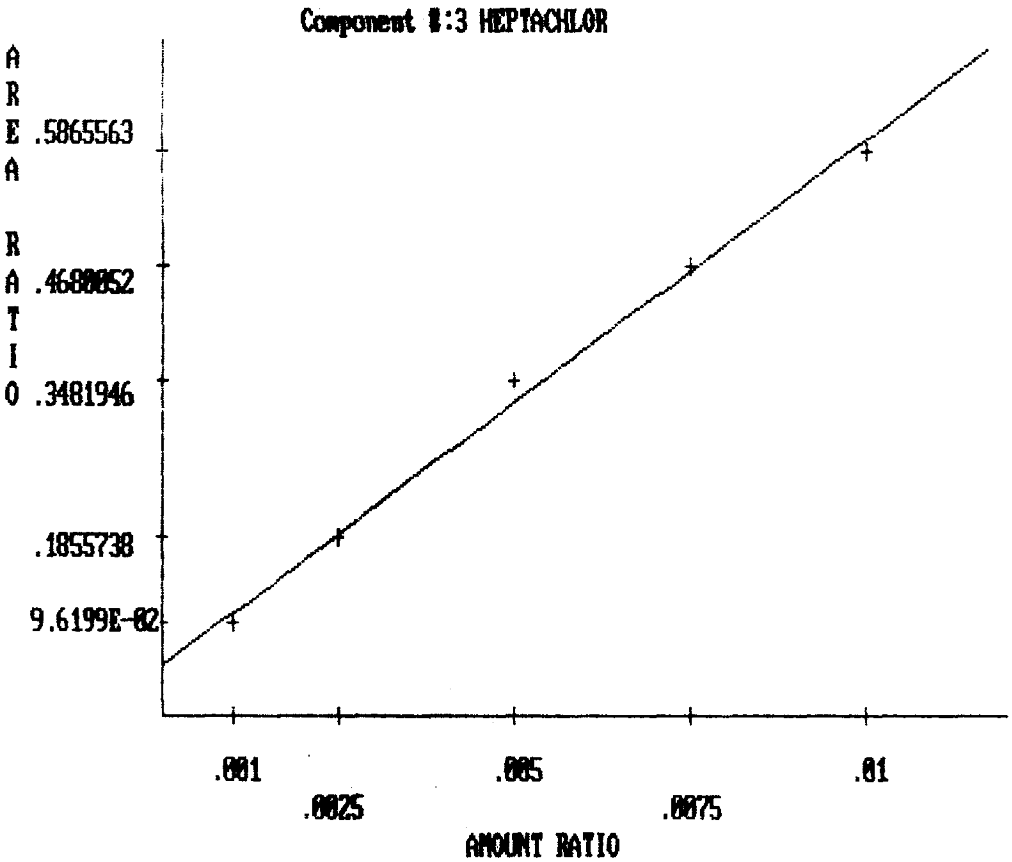
Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 5.9189E+01 * Amt ratio + -1.5961E-02
mt ratio = 1.6895E-02 * Area ratio + 2.6966E-04
Correlation Coefficient = 0.9993



Component 2 = LINDANE
INTERNAL STANDARD CALIBRATION

EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0010	53478	0.0010	0.0531
2	0.0025	136355	0.0025	0.1289
3	0.0050	296806	0.0050	0.2693
4	0.0075	482208	0.0075	0.3987
5	0.0100	657006	0.0100	0.5187

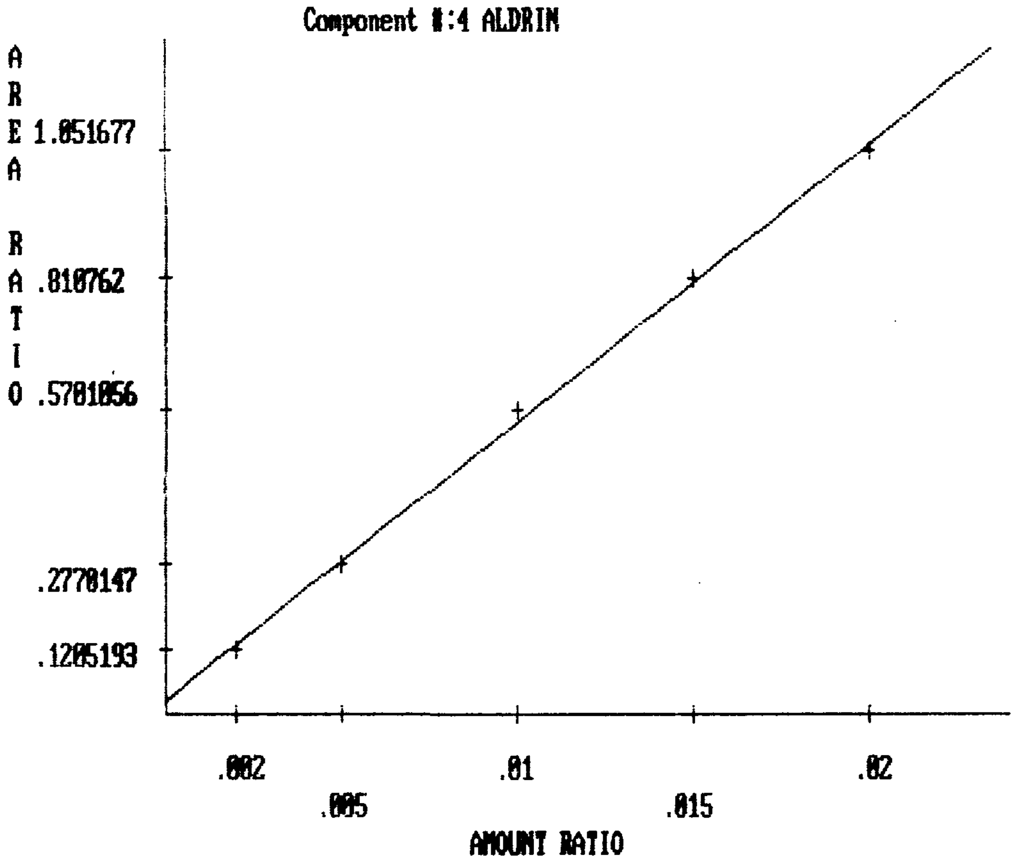
Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 5.2188E+01 * Amt ratio + 2.3770E-03
mt ratio = 1.9162E-02 * Area ratio + -4.5548E-05
Correlation Coefficient = 0.9993



Component 3 = HEPTACHLOR
INTERNAL STANDARD CALIBRATION

EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0010	96828	0.0010	0.0962
2	0.0025	196269	0.0025	0.1856
3	0.0050	383724	0.0050	0.3482
4	0.0075	566028	0.0075	0.4680
5	0.0100	742969	0.0100	0.5866

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 5.4731E+01 * Amt ratio + 5.2305E-02
nt ratio = 1.8271E-02 * Area ratio + -9.5568E-04
Correlation Coefficient = 0.9949



Component 4 = ALDRIN
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0020	121307	0.0020	0.1205
2	0.0050	292980	0.0050	0.2770
3	0.0100	628279	0.0100	0.5701
4	0.0150	980574	0.0150	0.8108
5	0.0200	1332119	0.0200	1.0517

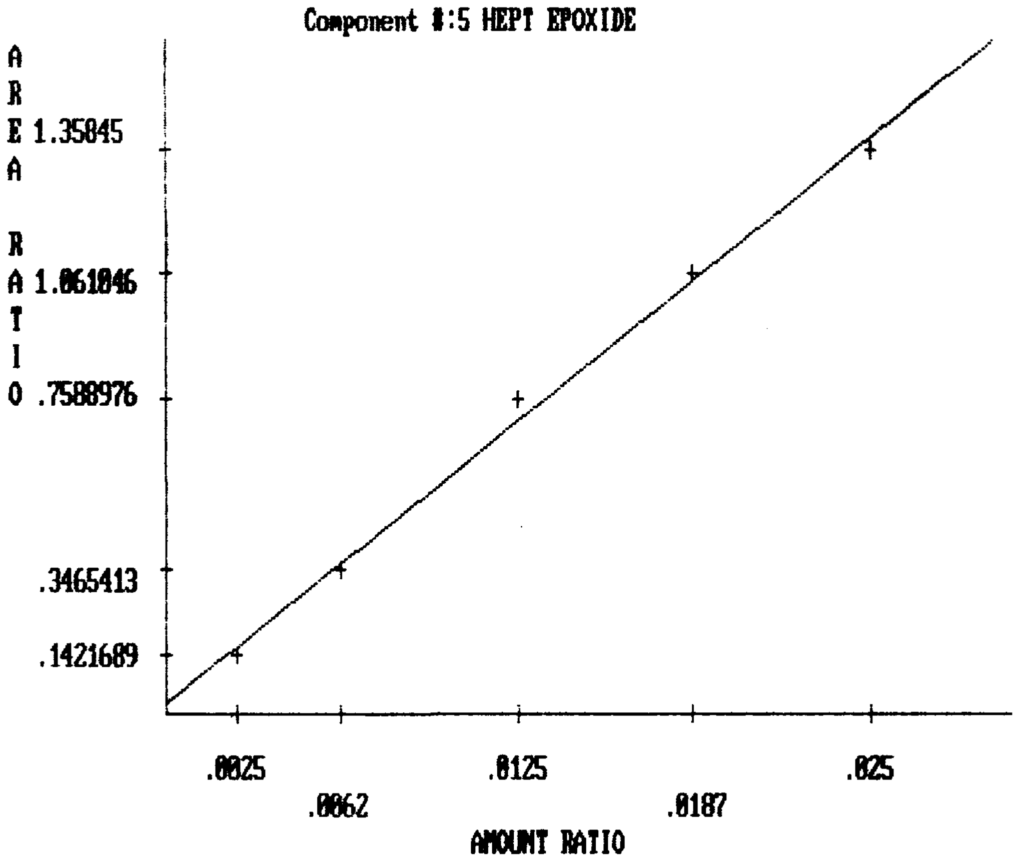
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 5.2014E+01 * Amt ratio + 2.5073E-02

Amt ratio = 1.9226E-02 * Area ratio + -4.8205E-04

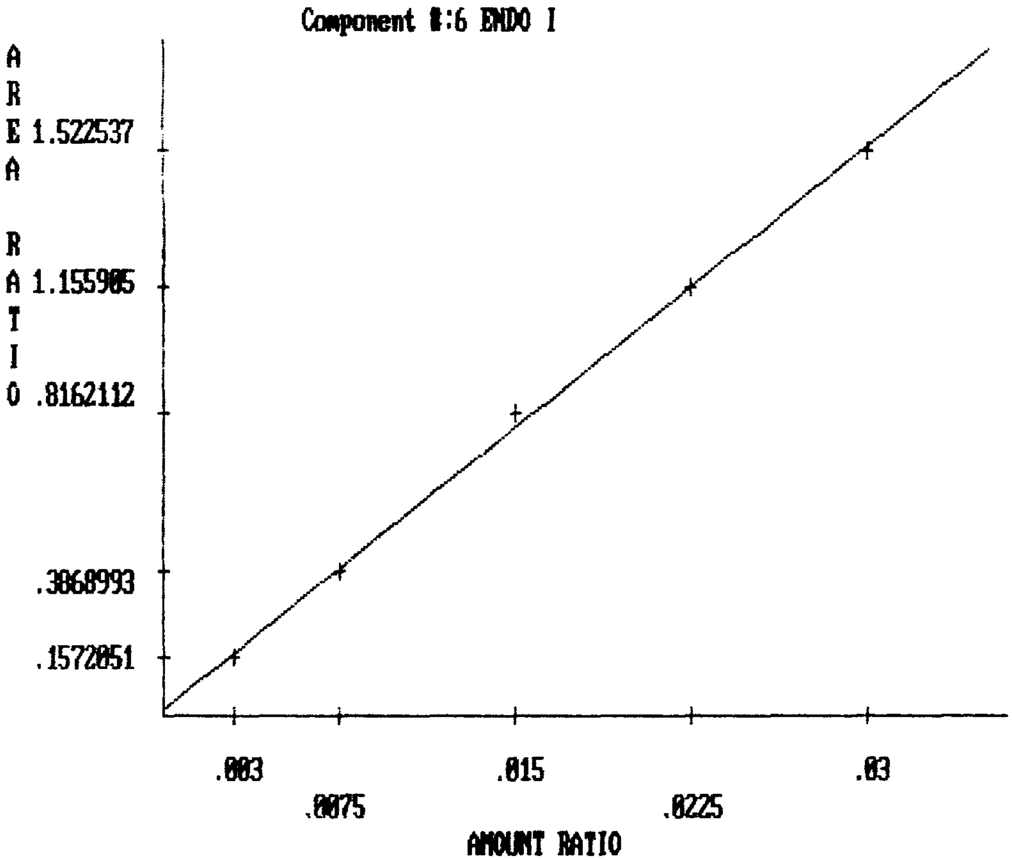
Correlation Coefficient = 0.9983



Component 5 = HEPT EPOXIDE
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0025	143098	0.0025	0.1422
2	0.0062	366514	0.0062	0.3465
3	0.0125	836336	0.0125	0.7589
4	0.0187	1283279	0.0187	1.0610
5	0.0250	1720697	0.0250	1.3585

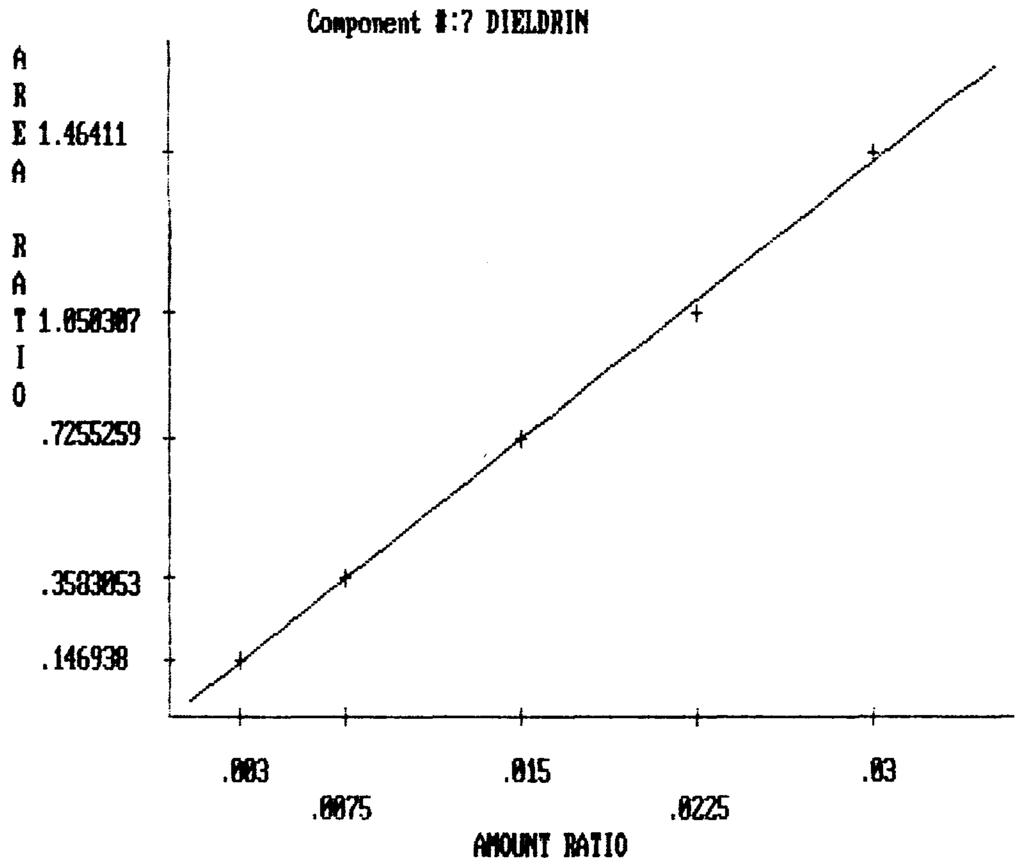
Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 5.4599E+01 * Amt ratio + 2.4722E-02
Amt ratio = 1.8315E-02 * Area ratio + -4.5280E-04
Correlation Coefficient = 0.9955



Component 6 = ENDO I
INTERNAL STANDARD CALIBRATION

EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0030	158232	0.0030	0.1572
2	0.0075	409198	0.0075	0.3869
3	0.0150	899497	0.0150	0.8162
4	0.0225	1398006	0.0225	1.1559
5	0.0300	1928540	0.0300	1.5225

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 5.0648E+01 * Amt ratio + 1.7642E-02
mt ratio = 1.9744E-02 * Area ratio + -3.4832E-04
Correlation Coefficient = 0.9984



Component 7 = DIELDRIN

INTERNAL STANDARD CALIBRATION

EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0030	147898	0.0030	0.1469
2	0.0075	378956	0.0075	0.3583
3	0.0150	799559	0.0150	0.7255
4	0.0225	1270291	0.0225	1.0503
5	0.0300	1854533	0.0300	1.4641

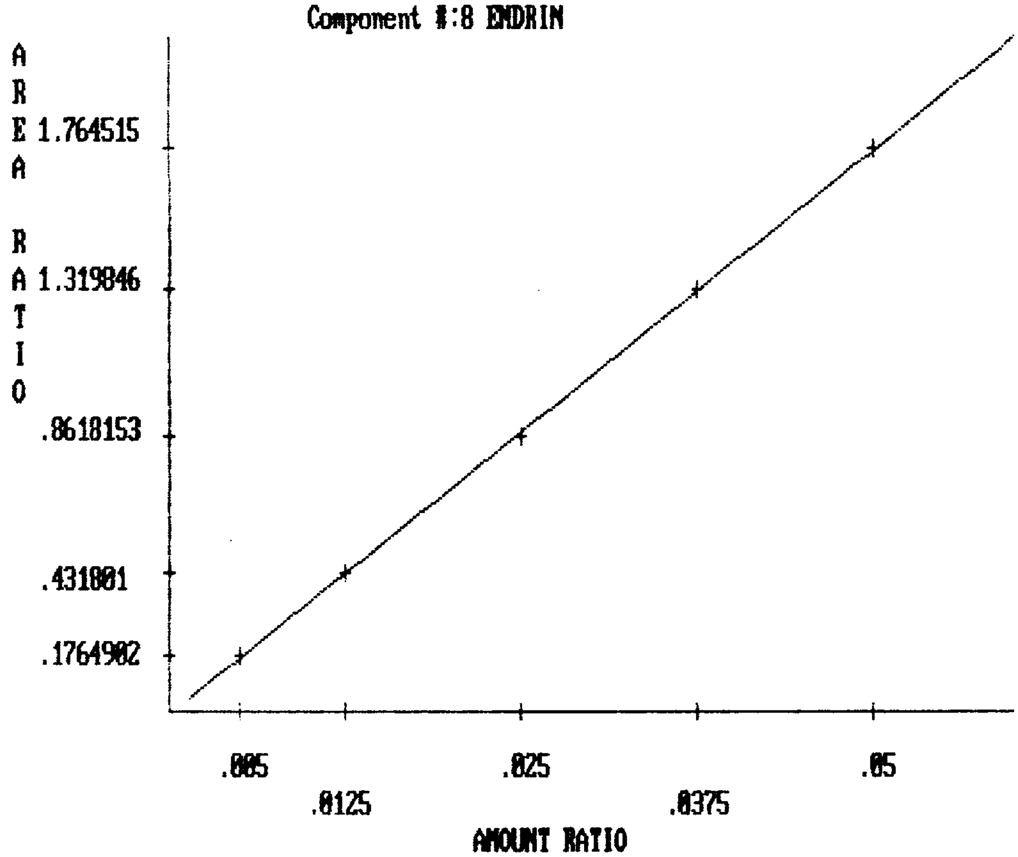
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 4.8241E+01 * Amt ratio + -3.5253E-03

mt ratio = 2.0729E-02 * Area ratio + 7.3077E-05

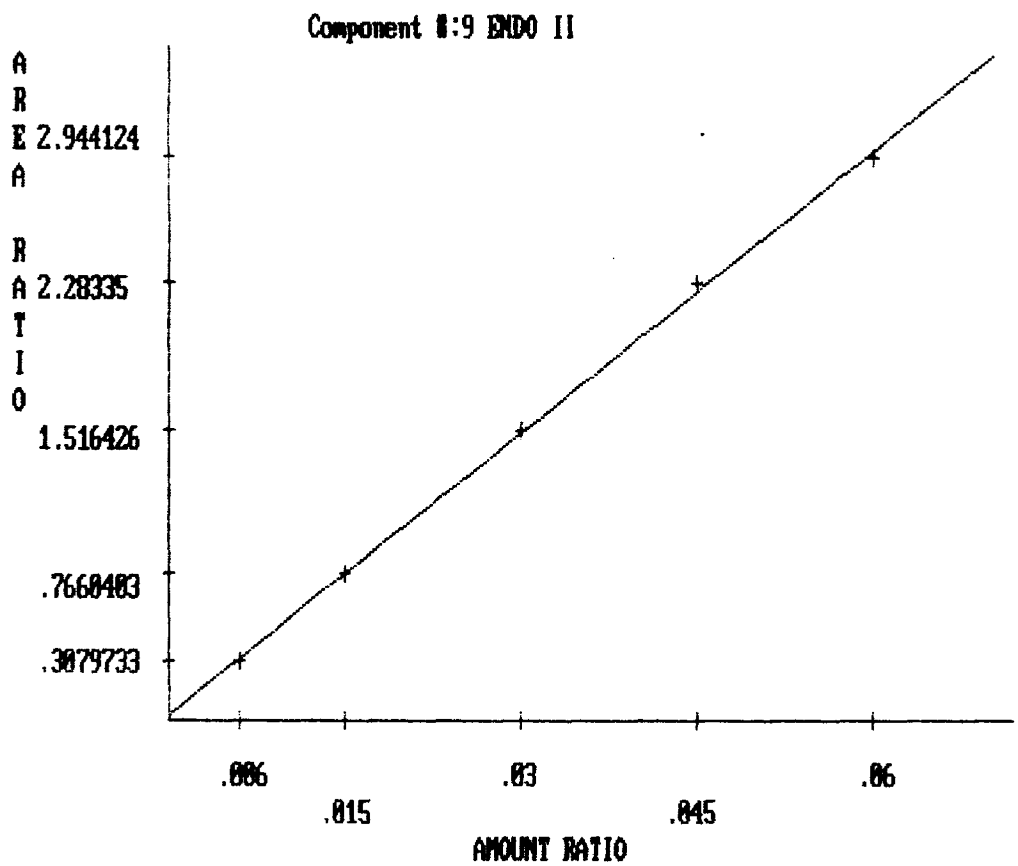
Correlation Coefficient = 0.9987



Component 8 = ENDRIN
INTERNAL STANDARD CALIBRATION

EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0050	177643	0.0050	0.1765
2	0.0125	456687	0.0125	0.4318
3	0.0250	949755	0.0250	0.8618
4	0.0375	1596284	0.0375	1.3198
5	0.0500	2235044	0.0500	1.7645

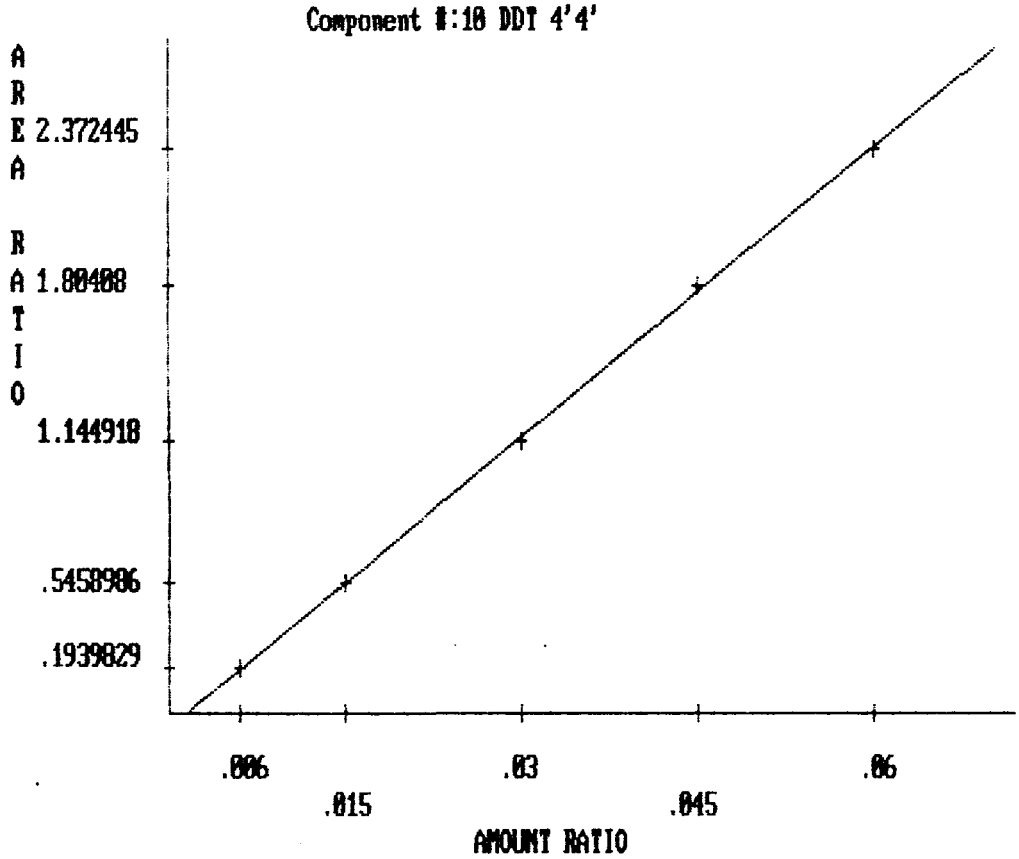
Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 3.5369E+01 * Amt ratio + -8.7000E-03
mt ratio = 2.8273E-02 * Area ratio + 2.4598E-04
Correlation Coefficient = 0.9998



Component 9 = ENDO II
INTERNAL STANDARD CALIBRATION

EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0060	309985	0.0060	0.3080
2	0.0150	810190	0.0150	0.7660
3	0.0300	1671162	0.0300	1.5164
4	0.0450	2761591	0.0450	2.2834
5	0.0600	3729210	0.0600	2.9441

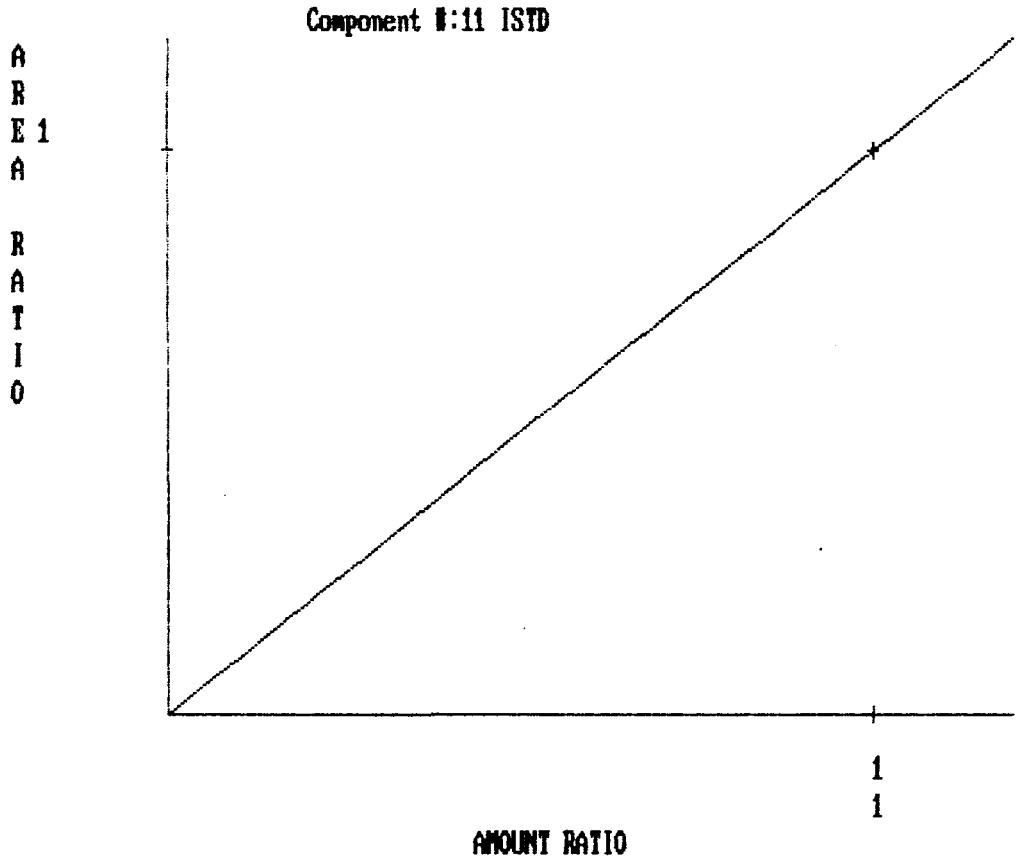
Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 4.9151E+01 * Amt ratio + 3.0078E-02
nt ratio = 2.0346E-02 * Area ratio + -6.1196E-04
Correlation Coefficient = 0.9993



Component 10 = DDT 4'4'
INTERNAL STANDARD CALIBRATION

EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0060	195250	0.0060	0.1940
2	0.0150	577360	0.0150	0.5459
3	0.0300	1261745	0.0300	1.1449
4	0.0450	2181939	0.0450	1.8041
5	0.0600	3005086	0.0600	2.3724

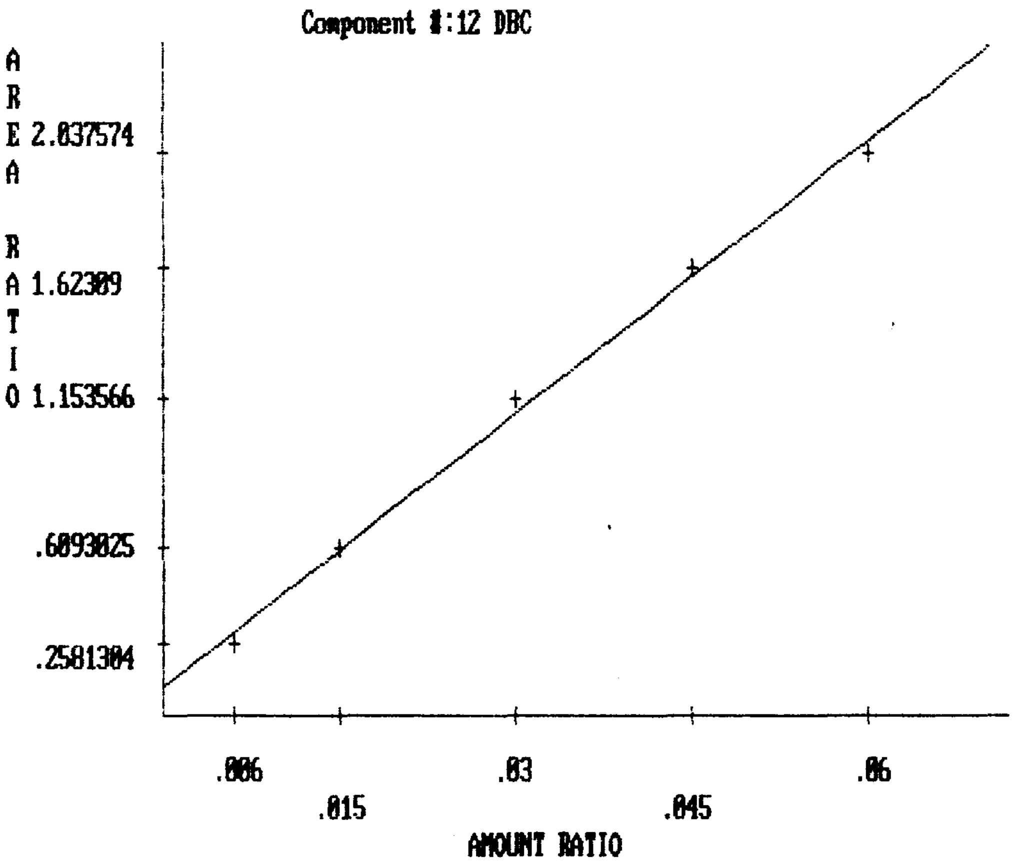
Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 4.0711E+01 * Amt ratio + -5.7929E-02
mt ratio = 2.4563E-02 * Area ratio + 1.4229E-03
Correlation Coefficient = 0.9995



Component 11 = ISTD
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	1.0000	1006532	1.0000	1.0000
2	1.0000	1057633	1.0000	1.0000
3	1.0000	1102040	1.0000	1.0000
4	1.0000	1209447	1.0000	1.0000
5	1.0000	1266662	1.0000	1.0000

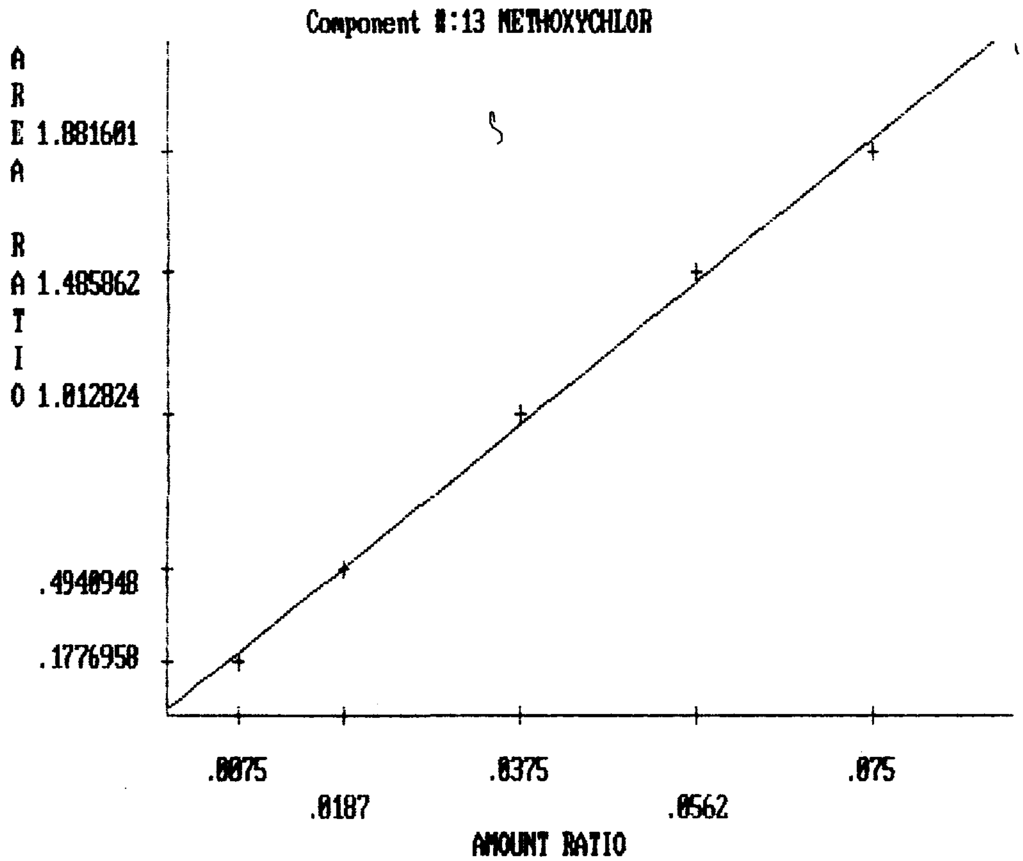
Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 1.0000E+00 * Amt ratio + 0.0000E+00
Amt ratio = 1.0000E+00 * Area ratio + 0.0000E+00
Correlation Coefficient = 0.0000



Component 12 = DBC
INTERNAL STANDARD CALIBRATION

EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0060	259817	0.0060	0.2581
2	0.0150	644418	0.0150	0.6093
3	0.0300	1271276	0.0300	1.1536
4	0.0450	1963041	0.0450	1.6231
5	0.0600	2580918	0.0600	2.0376

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 3.3000E+01 * Amt ratio + 1.0672E-01
mt ratio = 3.0303E-02 * Area ratio + -3.2340E-03
Correlation Coefficient = 0.9958



Component 13 = METHOXYCHLOR
INTERNAL STANDARD CALIBRATION

EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0075	178857	0.0075	0.1777
2	0.0187	522571	0.0187	0.4941
3	0.0375	1116173	0.0375	1.0128
4	0.0562	1797072	0.0562	1.4859
5	0.0750	2383353	0.0750	1.8816

Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 2.5430E+01 * Amt ratio + 1.9171E-02

mt ratio = 3.9324E-02 * Area ratio + -7.5389E-04

Correlation Coefficient = 0.9969

INTERNAL STANDARD TABLE

********** 03-07-1990 12:43:44 Version 4.1 **********

Sample Name: STD 1242 LEVEL 1 Data File: 0:1SF20

Date: 03-01-1990 04:44:44 Method: N:SMET42 03-07-1990 12:41:23 # 24

Interface: 0 Cycle#: 20 Operator AK Channel#: 0 Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ~~ECD CONF~~

Misc. Information: LPT1:

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

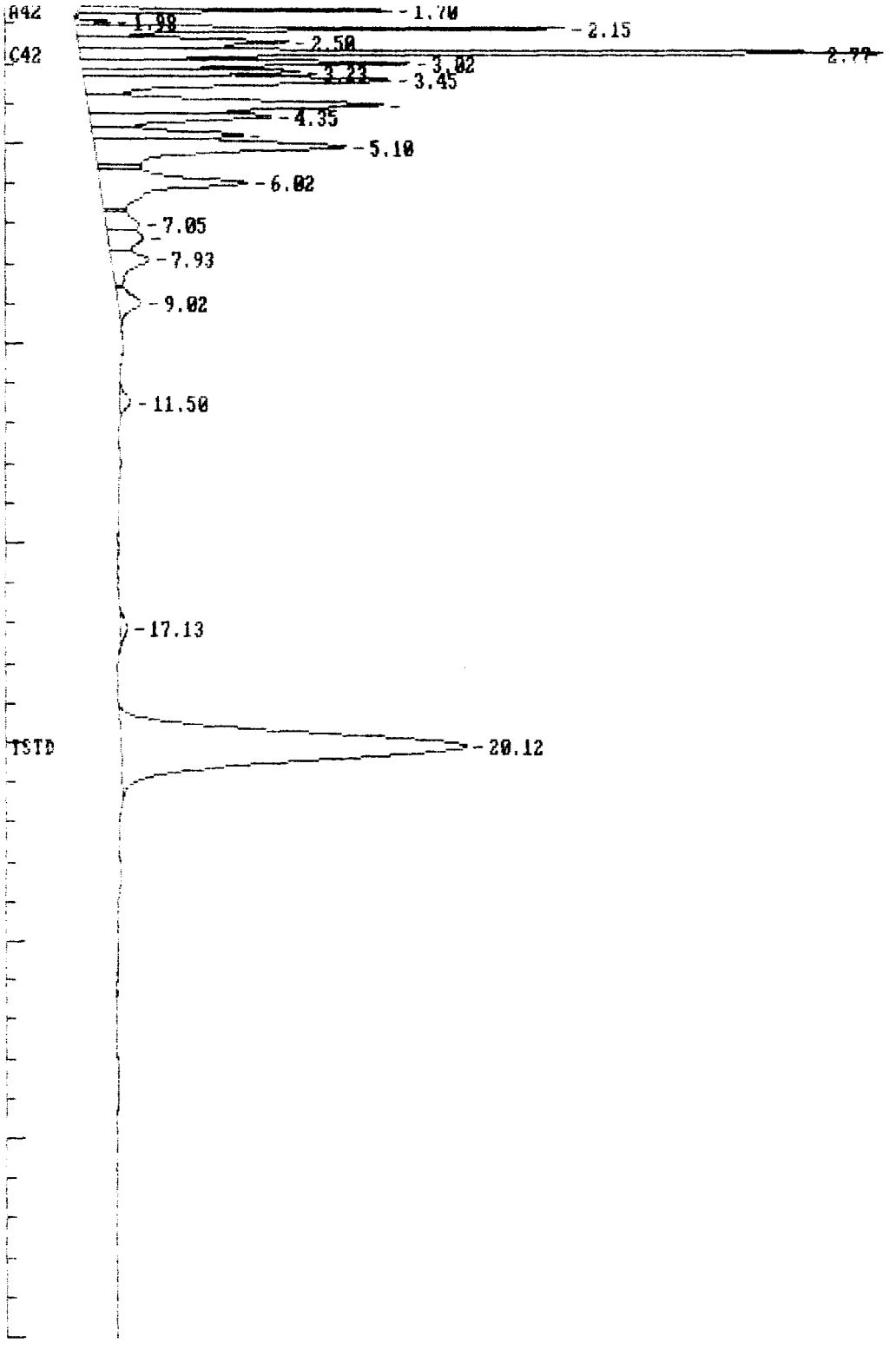
Internal Standard Amount: 1

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	1.70	A42	0.0359	18.6087%	85156	16225	5.2	1	1	20	0	4.2147E-07
3	2.15	B42	0.0366	18.9806%	172904	25325	6.8	2	3	20	0	2.1173E-07
5	2.77	C42	0.0401	20.7690%	327268	41708	7.8	2	5	20	0	1.2240E-07
6	3.02	D42	0.0397	20.5709%	161120	17016	9.5	2	6	20	0	2.4625E-07
8	3.45	E42	0.0406	21.0707%	250741	15908	15.8	2	8	20	0	1.6208E-07
20	20.12	ISTD	1.0000	0.0000%	880495	17932	49.1	1	20	20	0	1.1357E-06

TOTAL AMOUNT = 0.1929

ata File = [illegible] Printed on 03-07-1990 at 12:44:00
tart time: [illegible] min. Stop time: 35.00 min. Offset: 0 mv.
Value: [illegible] uv High Value: 78451 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

********** 03-07-1990 12:44:59 Version 4.1 **********

Sample Name: STD 1242 LEVEL 2 Data File: 0:1SF21

Date: 03-01-1990 05:26:04 Method: N:SMET42 03-07-1990 12:41:23 # 24

Interface: 0 Cycle#: 21 Operator AK Channel#: 0 Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: S~~INGLE~~ PHASE Quant

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ~~ECD CONF~~

Misc. Information: LPT1:

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

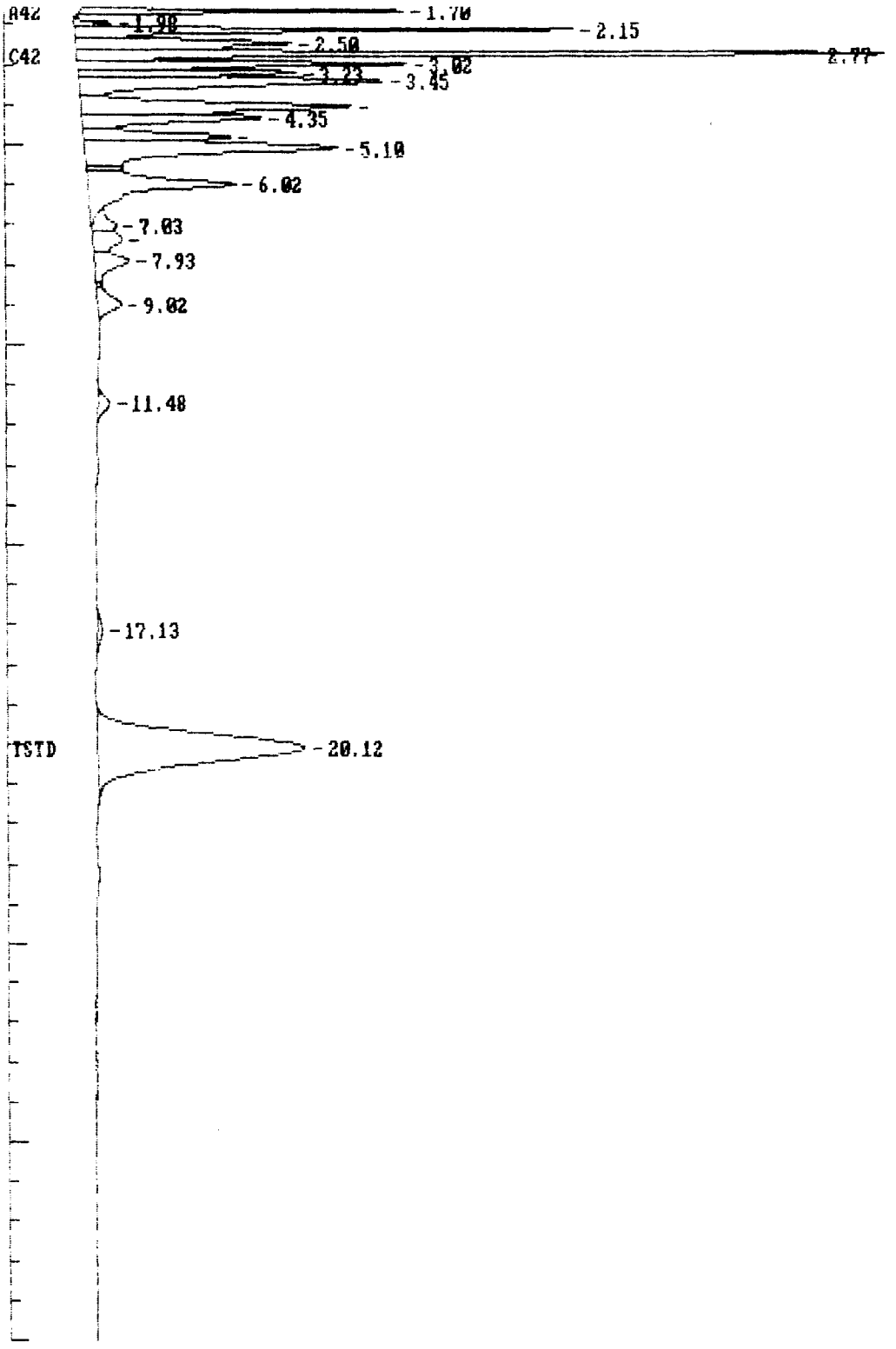
Internal Standard Amount: 1

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	1.70	A42	0.0942	19.3206%	159107	29858	5.3	1	1	20	0	5.9225E-07
3	2.15	B42	0.0966	19.7965%	313975	45844	6.8	2	3	20	0	3.0751E-07
5	2.77	C42	0.0973	19.9488%	574760	74320	7.7	2	5	20	0	1.6928E-07
6	3.02	D42	0.0981	20.1052%	275109	30278	9.1	2	6	20	0	3.5643E-07
8	3.45	E42	0.1016	20.8290%	427569	27893	15.3	2	8	20	0	2.3759E-07
10	20.12	ISTD	1.0000	0.0000%	942572	19127	49.3	1	20	20	0	1.0609E-06

TOTAL AMOUNT = 0.4877

Data File = G:1SF21.PTS Printed on 03-07-1990 at 12:45:17
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 37003 uv High Value: 111572 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

03-07-1990 12:46:13 Version 4.1

Sample Name: STD 1242 LEVEL 3 Data File: 0:1SF22

Date: 03-01-1990 06:07:19 Method: N:SMET42 03-07-1990 12:41:23 # 24

Interface: 0 Cycle#: 22 Operator AK Channel#: 0 Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ~~ECD CONF~~

Misc. Information: LPT1:

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

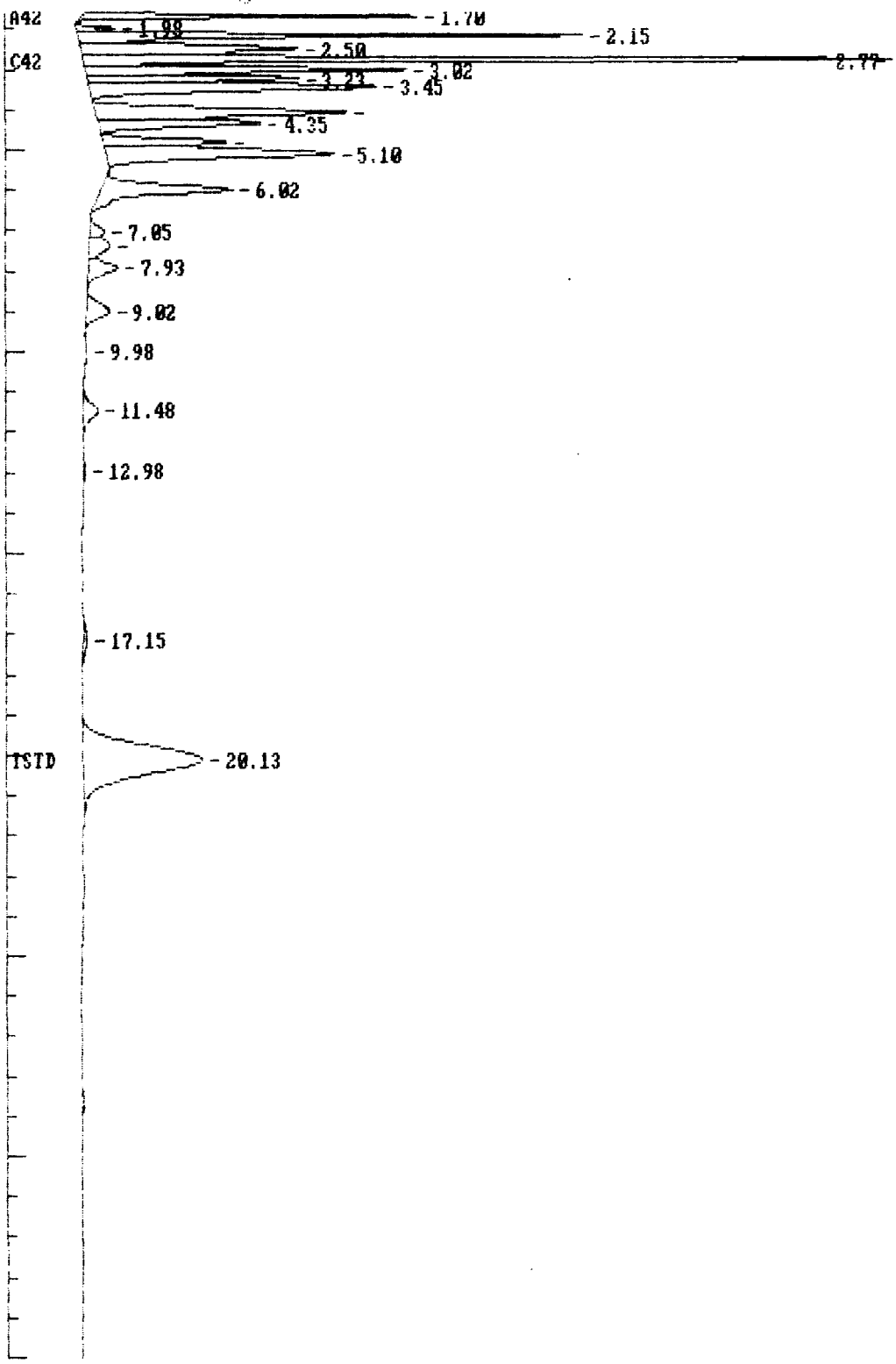
Internal Standard Amount: 1

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	1.70	A42	0.2092	20.7040%	296025	54828	5.4	1	1	22	0	7.0655E-07
3	2.15	B42	0.2065	20.4447%	556206	82380	6.8	2	3	22	0	3.7133E-07
5	2.77	C42	0.2045	20.2270%	1004664	132147	7.6	2	5	22	0	2.0335E-07
6	3.02	D42	0.1983	19.6335%	456122	52429	8.7	2	6	22	0	4.3484E-07
8	3.45	E42	0.1918	18.9908%	670200	46934	14.3	2	8	22	0	2.8626E-07
22	4.13	ISTD	1.0000	0.0000%	952432	19400	49.1	1	22	22	0	1.0499E-06

TOTAL AMOUNT = 1.0102

ata File = 0:1SP22.PTS Printed on 03-07-1990 at 12:46:31
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 37760 uv High Value: 171132 uv Scale factor: 1.0



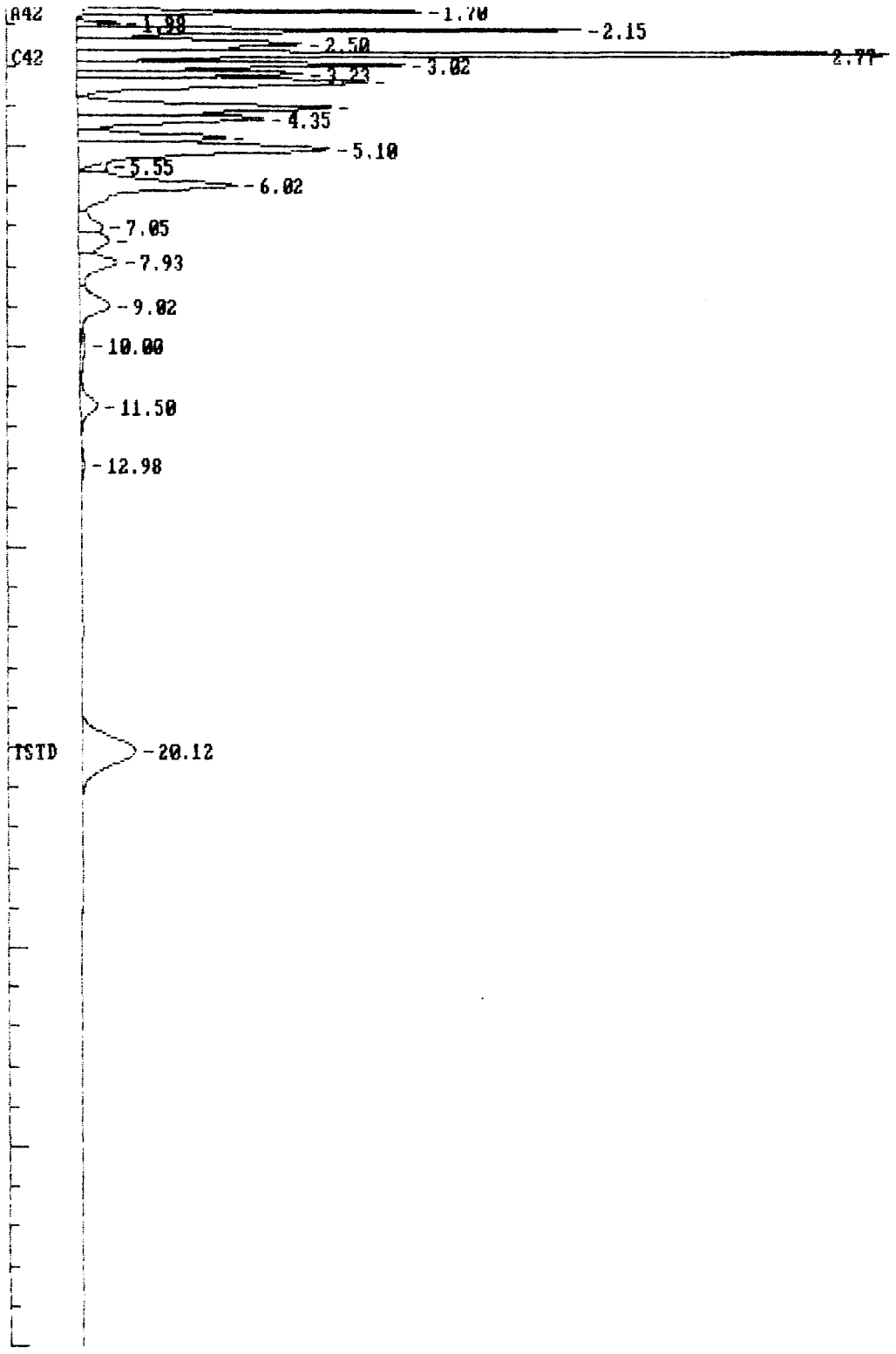
INTERNAL STANDARD TABLE

```
******************** 03-07-1990 12:47:26 Version 4.1 ********************
* Sample Name: STD 1242 LEVEL 4                    Data File: D:1SF23      *
* Date: 03-01-1990 06:48:36 Method: N:SMET42  03-07-1990 12:41:23  #  24  *
* Interface: 0   Cycle#:  23   Operator AK  Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*************************************************************************
* Instrument Type: HP 5890A #1          Column Type: ~~SINGLE~~ PHASE Quant *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*             Detector 0:                     Detector 1: ~~ECD CONF~~    *
* Misc. Information:                                   LPT1:          *   *
*************************************************************************
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
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	1.70	A42	0.5344	20.0181%	658917	120366	5.5	1	1	22	0	8.1097E-07
3	2.15	B42	0.5321	19.9327%	1226547	178919	6.9	2	3	22	0	4.3380E-07
5	2.77	C42	0.5253	19.6797%	2210073	288431	7.7	2	5	22	0	2.3770E-07
6	3.02	D42	0.5376	20.1397%	1027819	116250	8.8	2	6	22	0	5.2306E-07
8	3.45	E42	0.5400	20.2298%	1542420	102905	15.0	2	8	22	0	3.5011E-07
22	20.12	ISTD	1.0000	0.0000%	924603	18837	49.1	1	22	22	0	1.0815E-06

TOTAL AMOUNT = 2.6694

Data File = D:16F23.PTS Printed on 03-07-1990 at 12:47:44
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 37160 uv High Value: 325738 uv Scale factor: 1.0



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

********** 03-07-1990 12:48:39 Version 4.1 **********

Sample Name: STD 1242 LEVEL 5 Data File: D:1SF24

Date: 03-01-1990 07:29:50 Method: N:SMET42 03-07-1990 12:41:23 # 24

Interface: 0 Cycle#: 24 Operator AK Channel#: 0 Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ~~ECD CONF~~

Misc. Information: LPT1:

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

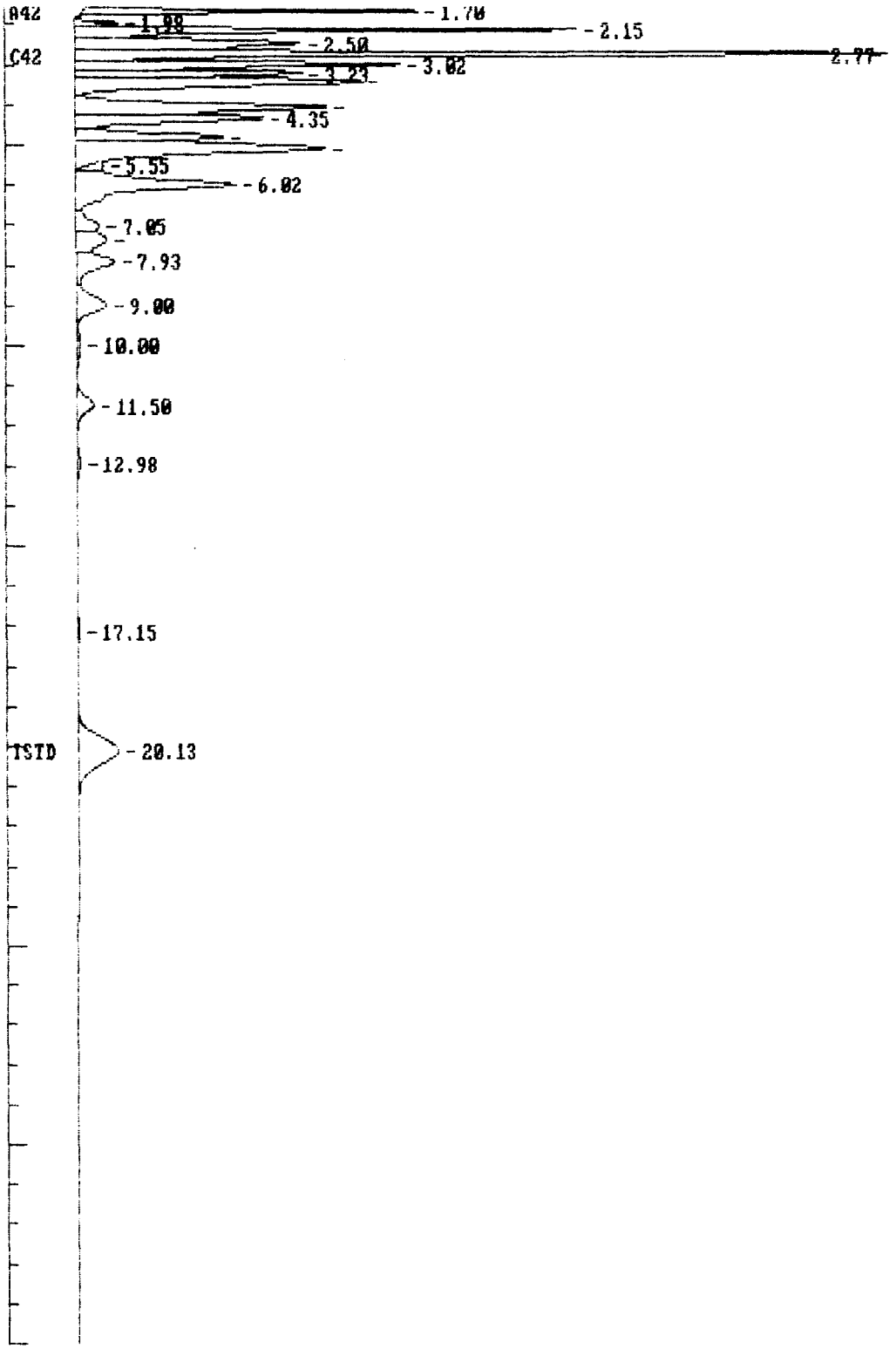
Internal Standard Amount: 1

Sample Weight: 1.000000

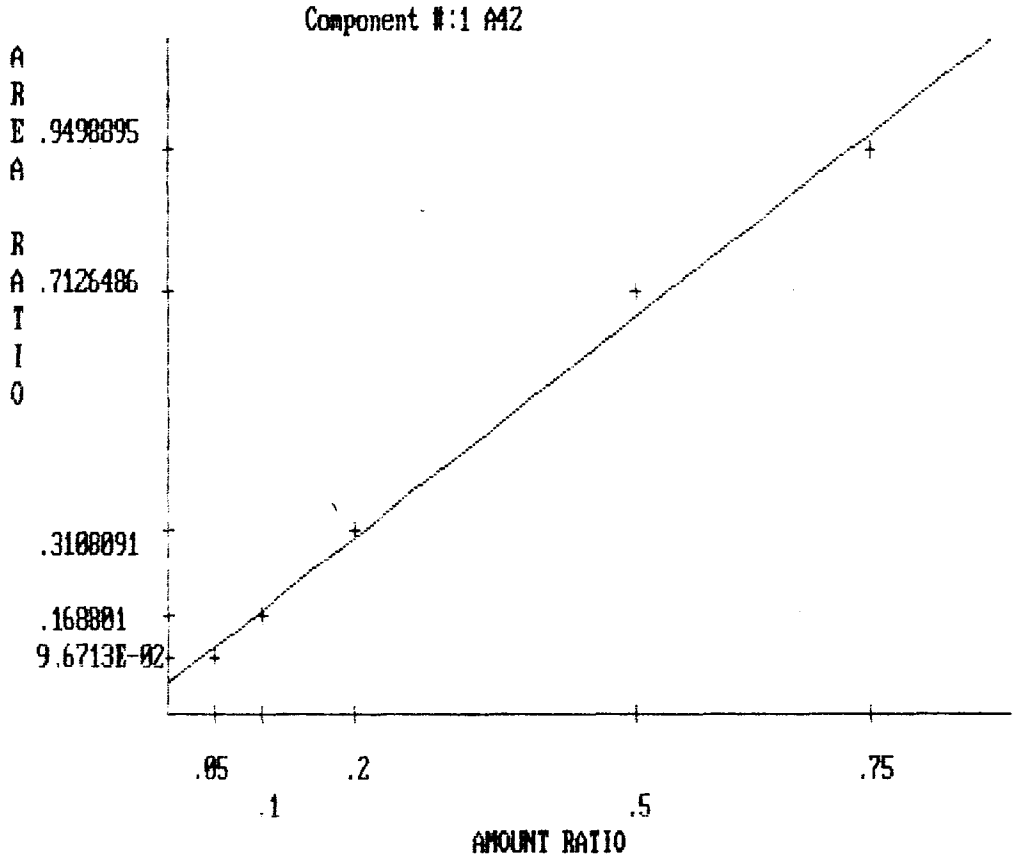
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	1.70	A42	0.7264	19.9561%	910016	165083	5.5	1	1	23	0	7.9818E-07
3	2.15	B42	0.7282	20.0072%	1699501	245880	6.9	2	3	23	0	4.2849E-07
5	2.77	C42	0.7330	20.1380%	3117462	398130	7.8	2	5	23	0	2.3512E-07
6	3.02	D42	0.7263	19.9549%	1402140	159007	8.8	2	6	23	0	5.1801E-07
8	3.45	E42	0.7259	19.9437%	2091543	139911	14.9	2	8	23	0	3.4707E-07
23	20.13	ISTD	1.0000	0.0000%	958023	19347	49.5	1	23	23	0	1.0438E-06

TOTAL AMOUNT = 3.6398

Data File = C:1SF24.PTS Printed on 03-07-1990 at 12:48:57
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 37963 uv High Value: 436150 uv Scale factor: 1.0



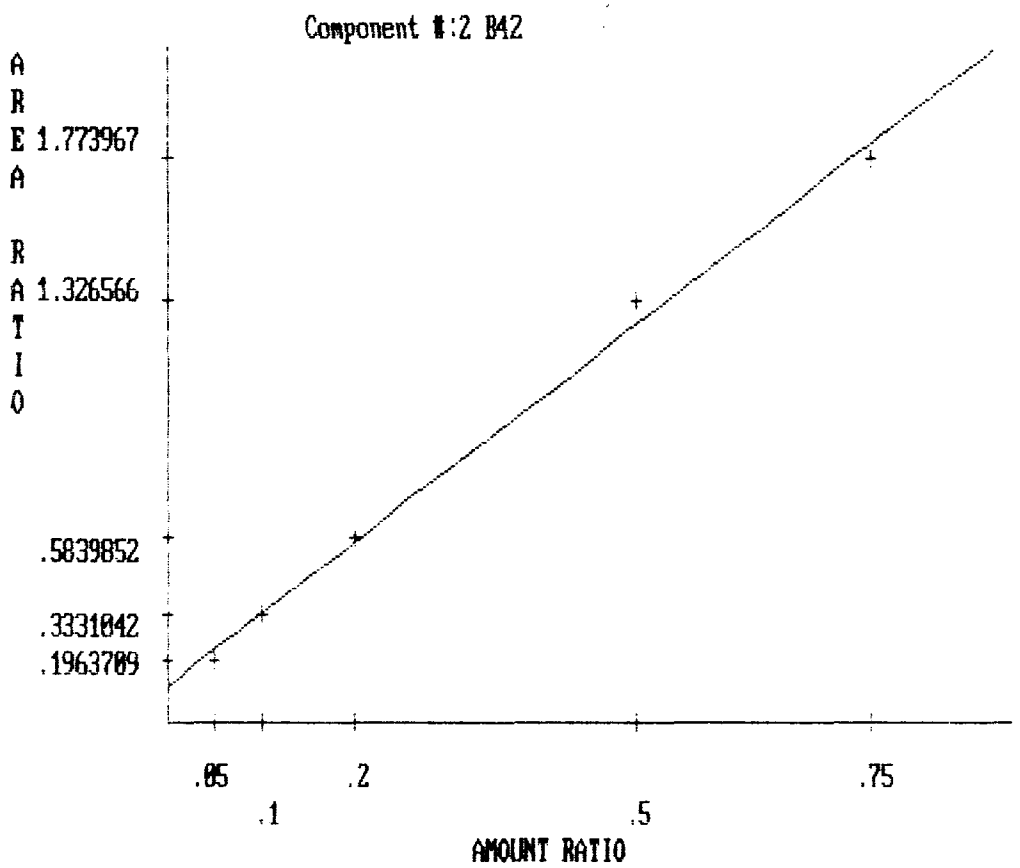
Method N:SMET42
Sample PCB
Operator AK
Run date 03-07-1990 12:41:23 version: 24
Printed on 03-13-1990 AT 10:21:24
Straight Line fit



Component 1 = A42
INTERNAL STANDARD CALIBRATION

EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	85156	0.0500	0.0967
2	0.1000	159107	0.1000	0.1688
3	0.2000	296025	0.2000	0.3108
4	0.5000	658917	0.5000	0.7126
5	0.7500	910016	0.7500	0.9499

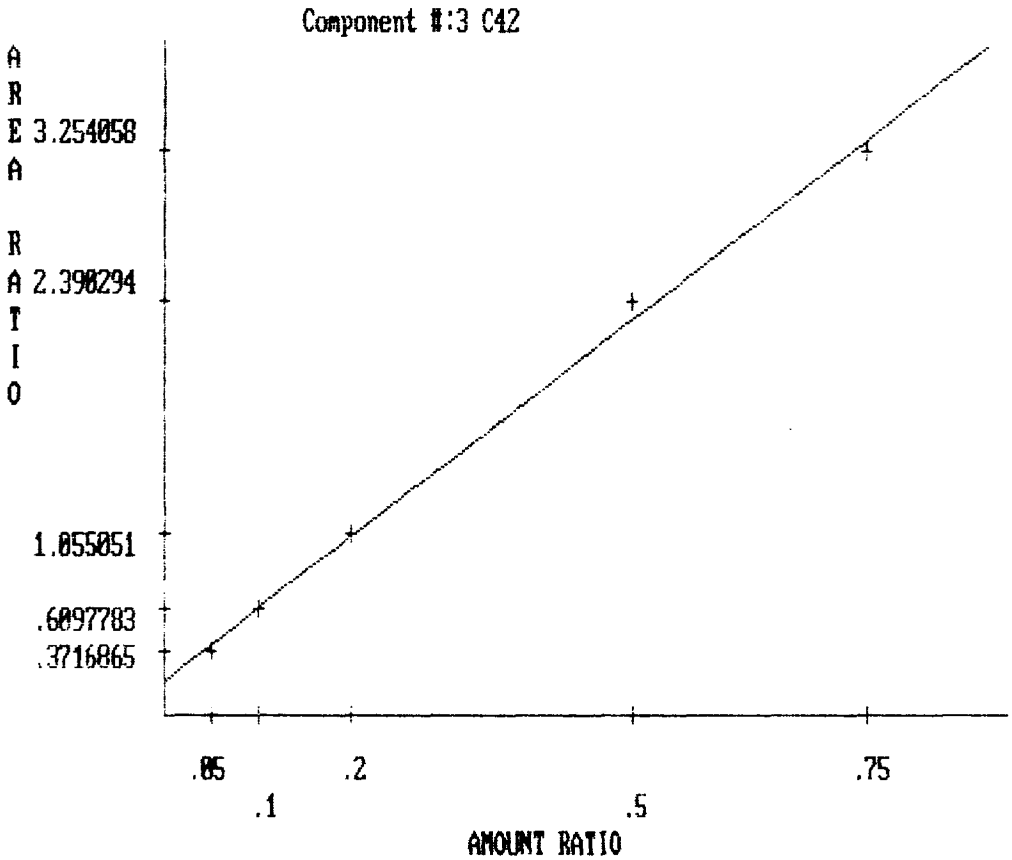
Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 1.2356E+00 * Amt ratio + 5.2366E-02
mt ratio = 8.0929E-01 * Area ratio + -4.2379E-02
Correlation Coefficient = 0.9942



Component 2 = B42
INTERNAL STANDARD CALIBRATION

EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	172904	0.0500	0.1964
2	0.1000	313975	0.1000	0.3331
3	0.2000	556206	0.2000	0.5840
4	0.5000	1226547	0.5000	1.3266
5	0.7500	1699501	0.7500	1.7740

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 2.2810E+00 * Amt ratio + 1.1287E-01
mt ratio = 4.3840E-01 * Area ratio + -4.9480E-02
Correlation Coefficient = 0.9951



Component 3 = C42

INTERNAL STANDARD CALIBRATION

EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	327268	0.0500	0.3717
2	0.1000	574760	0.1000	0.6098
3	0.2000	1004864	0.2000	1.0551
4	0.5000	2210073	0.5000	2.3903
5	0.7500	3117462	0.7500	3.2541

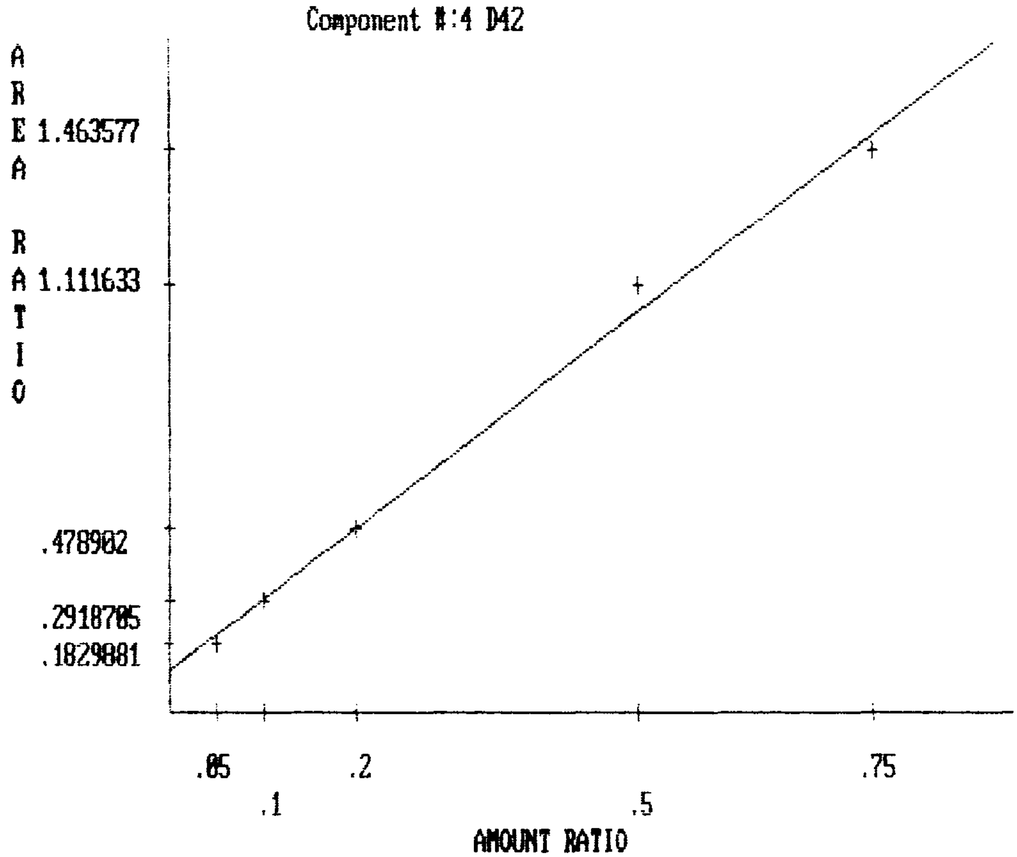
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 4.1597E+00 * Amt ratio + 2.0506E-01

mt ratio = 2.4040E-01 * Area ratio + -4.9296E-02

Correlation Coefficient = 0.9970



Component 4 = D42
INTERNAL STANDARD CALIBRATION

.EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	161120	0.0500	0.1830
2	0.1000	275109	0.1000	0.2919
3	0.2000	456122	0.2000	0.4789
4	0.5000	1027819	0.5000	1.1116
5	0.7500	1402140	0.7500	1.4636

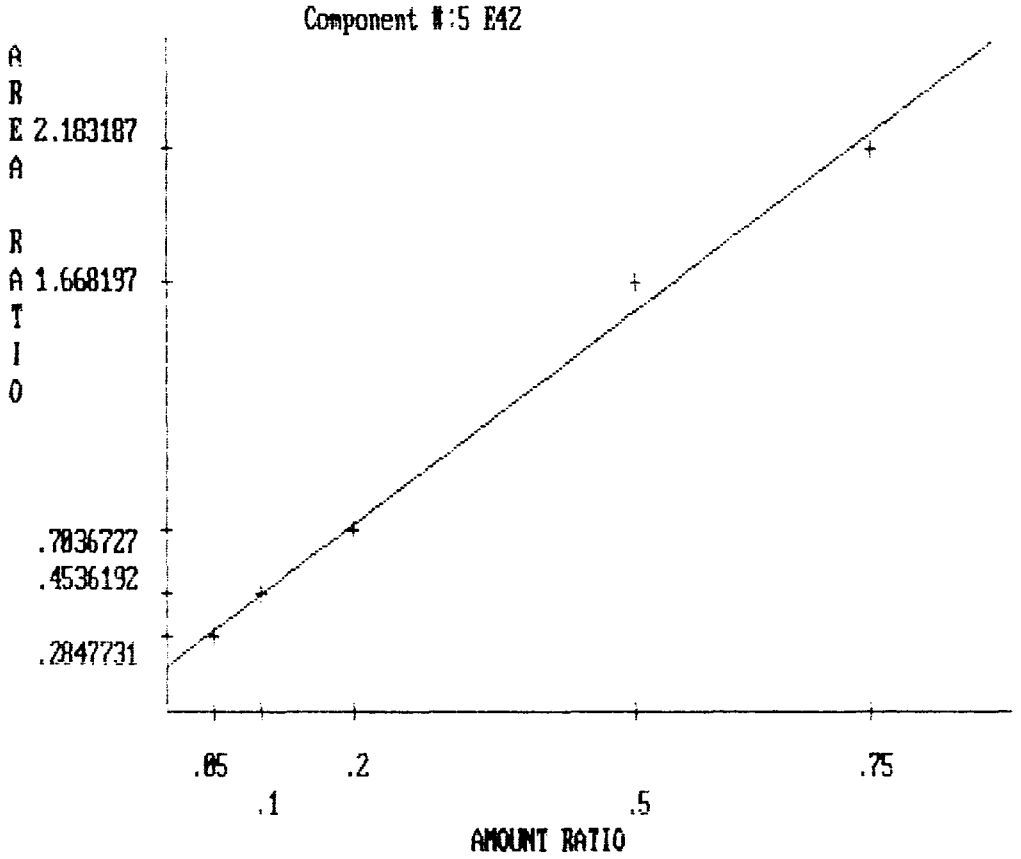
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 1.8650E+00 * Amt ratio + 1.0899E-01

mt ratio = 5.3619E-01 * Area ratio + -5.8442E-02

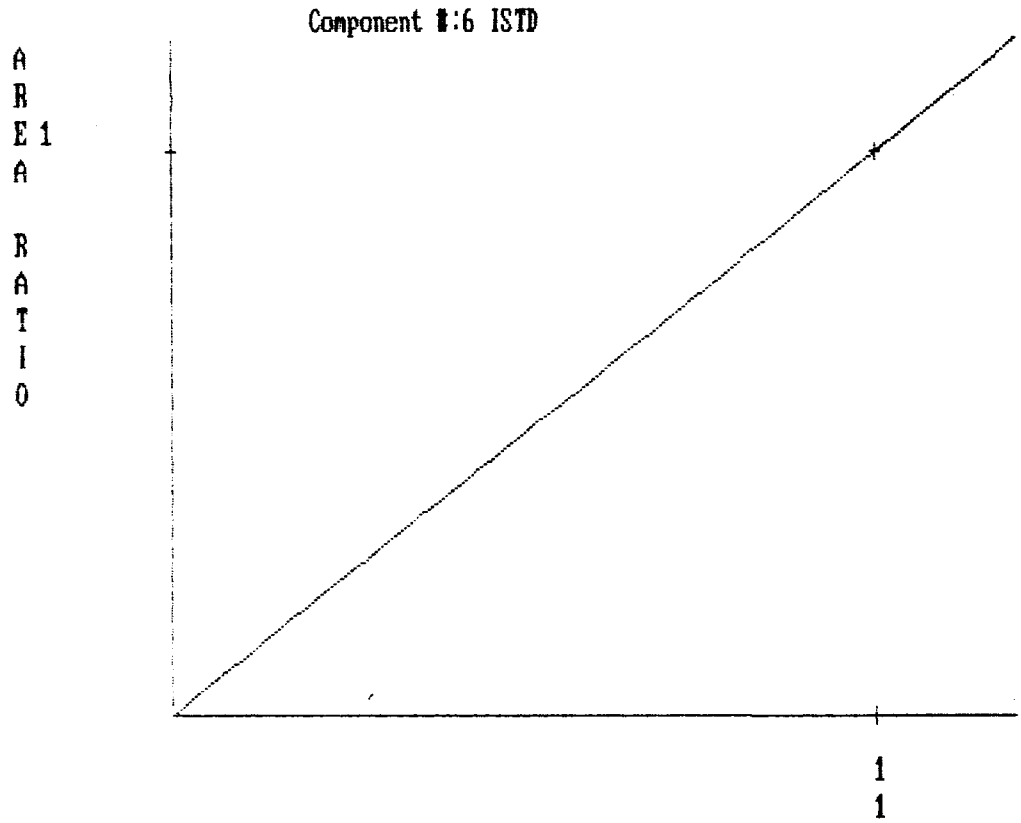
Correlation Coefficient = 0.9941



Component 5 = E42
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	250741	0.0500	0.2848
2	0.1000	427569	0.1000	0.4536
3	0.2000	670200	0.2000	0.7037
4	0.5000	1542420	0.5000	1.6682
5	0.7500	2091543	0.7500	2.1832

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 2.7703E+00 * Amt ratio + 1.7219E-01
Amt ratio = 3.6097E-01 * Area ratio + -6.2155E-02
Correlation Coefficient = 0.9934



Component 6 = ISTD
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	1.0000	880495	1.0000	1.0000
2	1.0000	942572	1.0000	1.0000
3	1.0000	952432	1.0000	1.0000
4	1.0000	924603	1.0000	1.0000
5	1.0000	958023	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 *****

********** 03-07-1990 10:28:54 Version 4.1 **********

* Sample Name: PEST STD B LEVEL 1 Data File: 0:1SF12 *
* Date: 02-26-1990 23:14:26 Method: N:PESTB3 03-07-1990 10:27:33 # 28 *
* Interface: 0 Cycle#: 12 Operator AK Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: Detector 1: ECD CONF *
* Misc. Information: LPT1: * *

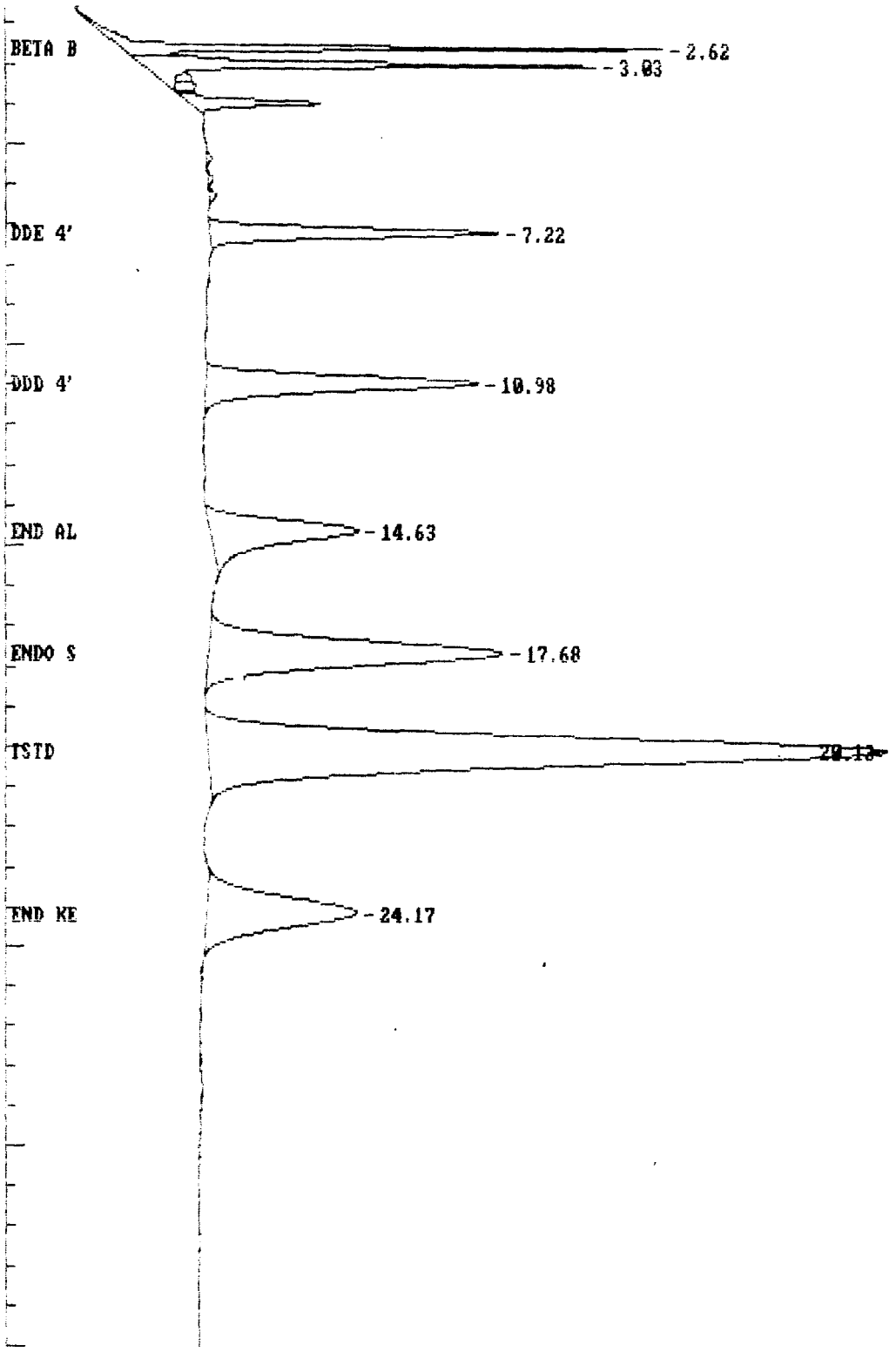
****

Starting Delay: 1.50 Ending retention time: 35.00
Area reject: 50000 One sample per 1.000 sec.
Amount injected: 1.00 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	2.62	BETA BHC	0.0030	9.2424%	116268	15091	7.7	2	1	13	0	2.5894E-08
2	3.03	DELTA BHC	0.0025	7.5316%	128518	12665	10.1	3	2	13	0	1.9090E-08
9	7.22	DDE 4 4'	0.0029	8.8342%	138180	8049	17.2	1	9	13	0	2.0826E-08
10	10.98	DDD 4 4'	0.0047	14.5669%	198697	7599	26.1	1	10	13	0	2.3881E-08
11	14.63	END ALDEHYDE	0.0041	12.5711%	159921	4121	38.8	1	11	13	0	2.5606E-08
12	17.68	ENDO SULFATE	0.0078	23.9061%	343619	8203	41.9	1	12	13	0	2.2663E-08
13	20.13	ISTD	1.0000	0.0000%	931256	18965	49.1	1	13	13	0	1.0738E-06
14	24.17	END KETONE	0.0076	23.3478%	225560	4184	53.9	1	14	13	0	3.3718E-08

TOTAL AMOUNT = 0.0326

Data File = 0:19F12.PT8 Printed on 03-07-1990 at 10:29:13
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 35310 uv High Value: 57978 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

********** 03-07-1990 10:30:21 Version 4.1 **********

* Sample Name: PEST STD B LEVEL 3 Data File: U:1SF13 *
* Date: 02-28-1990 23:55:43 Method: N:PESTB3 03-07-1990 10:27:33 # 28 *
* Interface: 0 Cycle#: 13 Operator AK Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: Detector 1: ECD CONF *
* Misc. Information: LPT1: * *

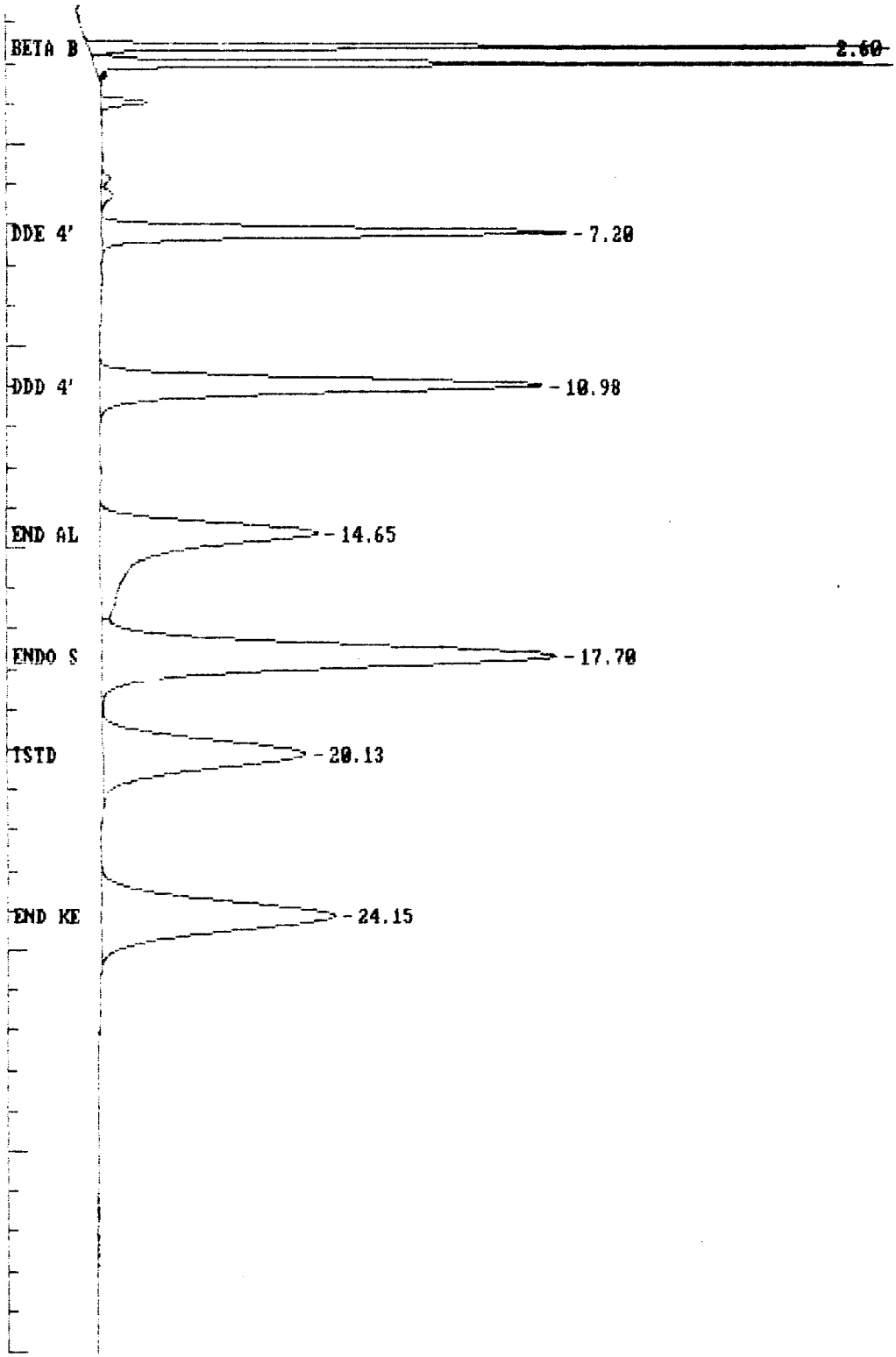
****

Starting Delay: 1.50 Ending retention time: 35.00
Area reject: 50000 One sample per 1.000 sec.
Amount injected: 1.00 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
1	2.60	BETA BHC	0.0125	7.4627%	486992	73927	6.6	2	1	12	0	2.5668E-08
2	3.03	DELTA BHC	0.0100	5.9701%	528464	75455	7.0	3	2	12	0	1.8923E-08
8	7.20	DDE 4 4'	0.0150	8.9552%	726610	43899	16.6	1	8	12	0	2.0644E-08
9	10.98	DDD 4'4'	0.0250	14.9254%	1056084	41807	25.3	1	9	12	0	2.3672E-08
10	14.65	END ALDEHYDE	0.0250	14.9254%	984936	20612	47.8	2	10	12	0	2.5382E-08
11	17.70	ENDO SULFATE	0.0400	23.8806%	1780583	42980	41.4	2	11	12	0	2.2465E-08
12	20.13	ISTD	1.0000	0.0000%	939470	19154	49.0	2	12	12	0	1.0644E-06
13	24.15	END KETONE	0.0400	23.8806%	1196769	22126	54.1	1	13	12	0	3.3423E-08

TOTAL AMOUNT = 0.1675

Data File = B:1SF13.PTS Printed on 03-07-1990 at 10:30:40
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 36740 uv High Value: 113928 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

********** 03-07-1990 11:07:41 Version 4.1 **********

Sample Name: PEST STD A LEVEL 3 Data File: O:1SF27

Date: 03-01-1990 11:11:32 Method: N:PESTA5 03-02-1990 13:29:46 # 100

Interface: 0 Cycle#: 27 Operator AK Channel#: 0 Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ~~ECD CONF~~

Misc. Information: LPT1:

Starting Delay: 1.50 Ending retention time: 45.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

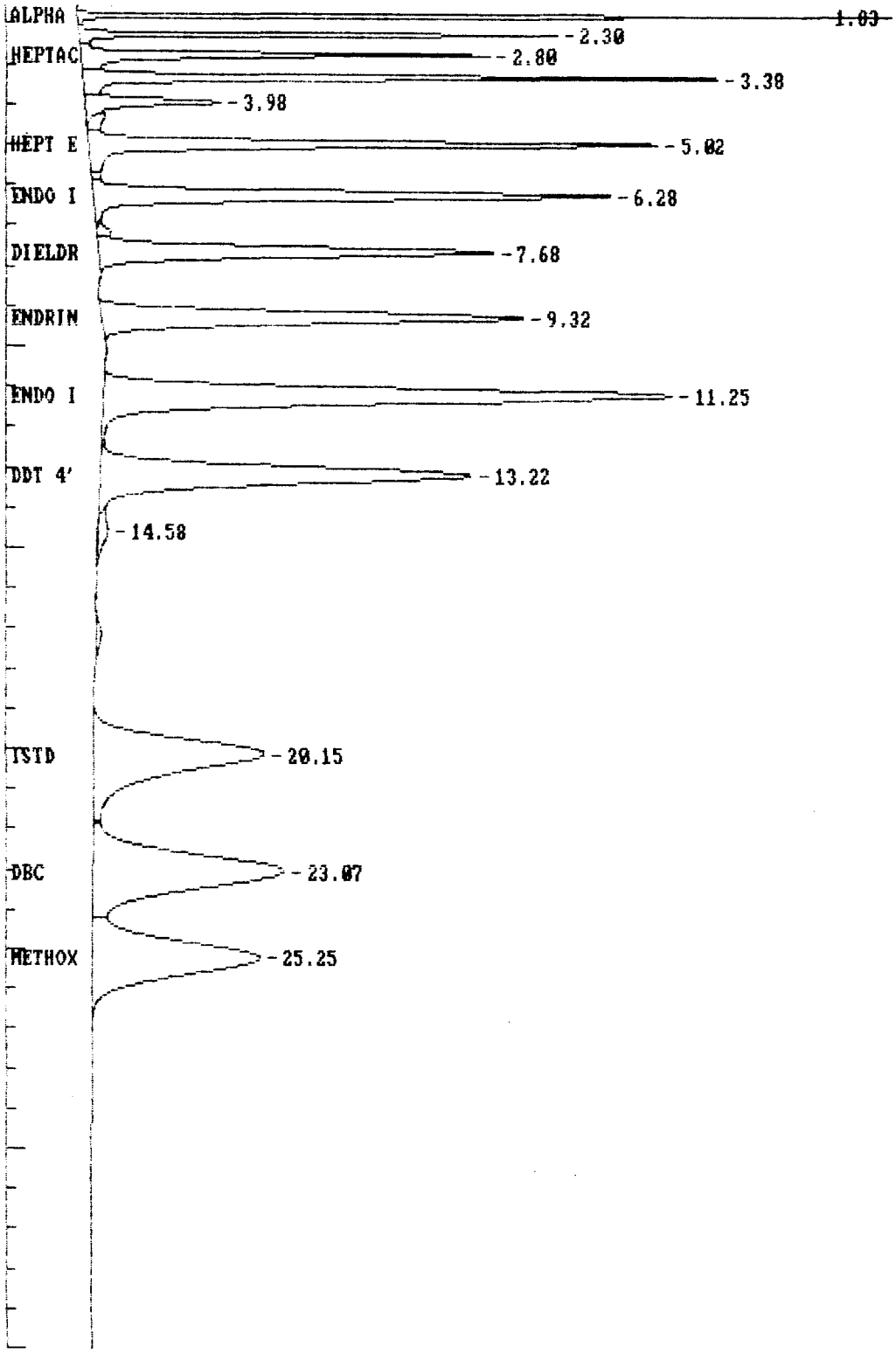
Internal Standard Amount: 1

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	1.83	ALPHA BHC	0.0063	2.7577%	400751	92944	4.3	2	1	16	0	1.5739E-08
2	2.30	LINDANE	0.0053	2.3023%	310845	54514	5.7	2	2	16	0	1.6940E-08
3	2.80	HEPTACHLOR	0.0059	2.5765%	420334	46626	9.0	2	3	16	0	1.4019E-08
4	3.38	ALDRIN	0.0105	4.5914%	640644	72482	8.8	2	4	16	0	1.6392E-08
5	3.98		0.0000	0.0079%	203027	15460	13.1	3		16		8.9174E-11
7	5.02	HEPT EPOXIDE	0.0134	5.8378%	845250	65023	13.0	2	7	16	0	1.5797E-08
8	6.28	ENDO I	0.0157	6.8782%	913300	59150	15.4	3	8	16	0	1.7225E-08
10	7.68	DIELDRIN	0.0151	6.5923%	811720	45214	18.0	2	10	16	0	1.8575E-08
11	9.32	ENDRIN	0.0256	11.2080%	1006999	48208	20.9	1	11	16	0	2.5457E-08
12	11.25	ENDO II	0.0303	13.2349%	1702191	65015	26.2	2	12	16	0	1.7783E-08
13	13.22	DDT 4'4'	0.0298	13.0203%	1294608	42484	30.5	3	13	16	0	2.3003E-08
14	14.58		0.0000	0.0022%	55499	1305	42.5	4		16		8.9174E-11
16	20.15	ISTD	1.0000	0.0000%	1121409	19540	57.4	2	16	16	0	8.9174E-07
17	23.07	DEC	0.0317	13.8719%	1293816	21817	59.3	2	17	16	0	2.4522E-08
18	25.25	METHOXYCHLOR	0.0392	17.1185%	1138023	19055	59.7	2	18	16	0	3.4404E-08

TOTAL AMOUNT = 0.2287

Data File = 0:16F27.PTS Printed on 03-07-1990 at 11:08:07
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 37415 uv High Value: 130440 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

********** 03-07-1990 11:09:09 Version 4.1 **********

Sample Name: PEST STD B LEVEL 3 Data File: D:1SF28

Date: 03-01-1990 11:12:20 Method: N:PESTB3 03-07-1990 10:27:33 # 28

Interface: 0 Cycle#: 28 Operator AK Channel#: 0 Vial#: N.A.

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

****

Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector ~~1: ECD CONF~~

Misc. Information: LPT1:

****

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

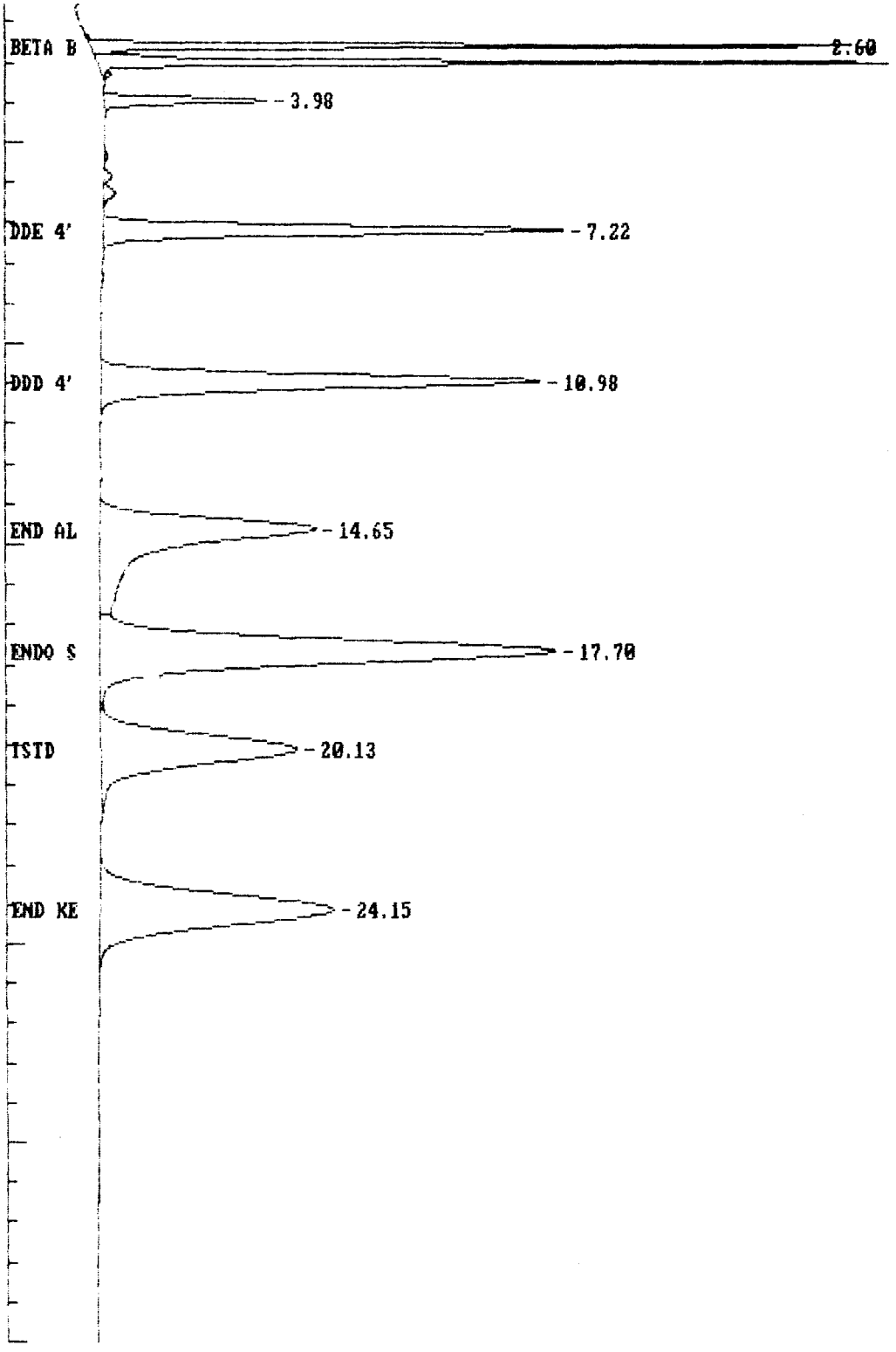
Internal Standard Amount: 1

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	2.60	BETA BHC	0.0124	7.3460%	494505	74020	6.7	2	2	13	0	2.5006E-08
3	3.03	DELTA BHC	0.0107	6.3370%	578638	76962	7.5	3	3	13	0	1.8435E-08
9	7.22	DDE 4'4'	0.0149	8.8638%	741886	44788	16.6	1	9	13	0	2.0111E-08
10	10.98	DDD 4'4'	0.0248	14.7551%	1076983	42758	25.2	1	10	13	0	2.3062E-08
11	14.65	END ALDEHYDE	0.0248	14.7463%	1003823	20984	47.8	2	11	13	0	2.4728E-08
12	17.70	ENDO SULFATE	0.0406	24.1459%	1857173	44258	42.0	2	12	13	0	2.1885E-08
13	20.13	ISTD	1.0000	0.0000%	964337	19122	50.4	2	13	13	0	1.0370E-06
14	24.15	END KETONE	0.0401	23.8059%	1230674	22672	54.3	1	14	13	0	3.2561E-08

TOTAL AMOUNT = 0.1683

Data File = G:1S-28.FIS Printed on 03-07-1990 at 11:09:29
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 36889 uv High Value: 115977 uv Scale factor: 1.0



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

********** 03-07-1990 12:32:22 Version 4.1 **********

Sample Name: PEST STD A LEVEL 3 Data File: 0:1SF45

Date: 03-01-1990 21:54:25 Method: N:PESTA5 03-02-1990 13:29:46 # 100

Interface: 0 Cycle#: 45 Operator AK Channel#: 0 Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ~~ECD CONF~~

Misc. Information: LPT1:

Starting Delay: 1.50 Ending retention time: 45.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

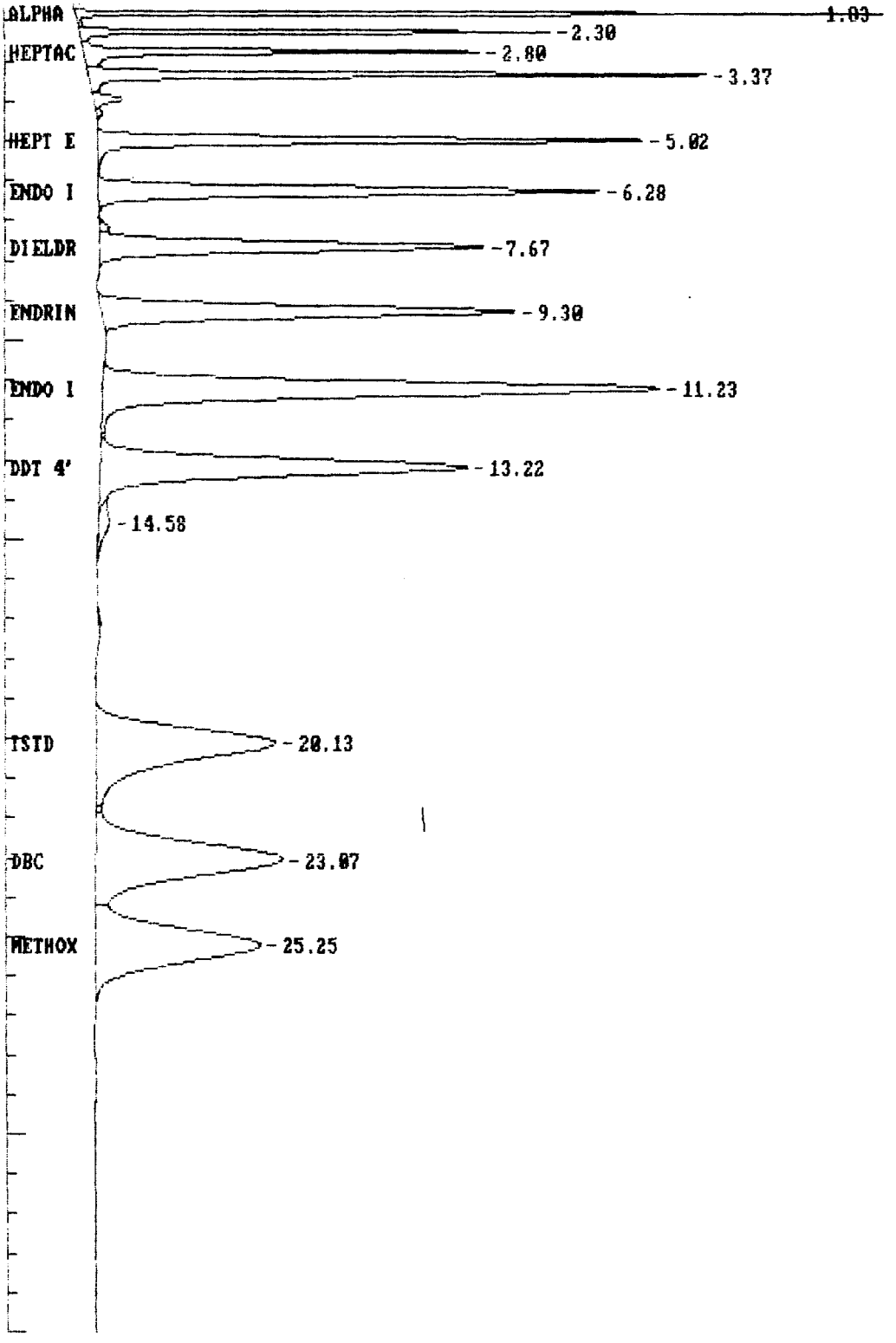
Internal Standard Amount: 1

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	1.83	ALPHA BHC	0.0060	2.8176%	390870	91571	4.3	3	1	17	0	1.5327E-08
3	2.30	LINDANE	0.0048	2.2768%	294361	53292	5.5	2	3	17	0	1.6446E-08
4	2.80	HEPTACHLOR	0.0049	2.2847%	367268	44903	8.2	2	4	17	0	1.3227E-08
5	3.37	ALDRIN	0.0094	4.4192%	593070	70112	8.5	2	5	17	0	1.5843E-08
8	5.02	HEPT EPOXIDE	0.0113	5.3356%	743512	61800	12.0	2	8	17	0	1.5258E-08
9	6.28	ENDO I	0.0140	6.5832%	838679	56896	14.7	2	9	17	0	1.6690E-08
11	7.67	DIELDRIN	0.0140	6.6005%	777410	43734	17.8	2	11	17	0	1.8053E-08
12	9.30	ENDRIN	0.0243	11.4423%	983204	47024	20.9	1	12	17	0	2.4745E-08
13	11.23	ENDO II	0.0286	13.4347%	1655332	63123	26.2	2	13	17	0	1.7257E-08
14	13.22	DDT 4'4'	0.0284	13.3742%	1269434	41602	30.5	3	14	17	0	2.2401E-08
15	14.58		0.0000	0.0023%	57477	1268	45.3	4		17		8.6635E-11
17	20.13	ISTD	1.0000	0.0000%	1154265	20437	56.5	2	17	17	0	8.6635E-07
18	23.07	DBC	0.0298	13.9944%	1256615	21148	59.4	2	18	17	0	2.3679E-08
19	25.25	METHOXYCHLOR	0.0371	17.4345%	1110231	18660	59.5	2	19	17	0	3.3390E-08

TOTAL AMOUNT = 0.2126

Data File = 0:1SP45.PTS Printed on 03-07-1990 at 12:32:47
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 36151 uv High Value: 127912 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

03-07-1990 12:32:49 Version 4.1

Sample Name: PEST STD B LEVEL 3 Data File: D:1SF46

Date: 03-01-1990 22:35:42 Method: N:PESTB3 03-07-1990 10:27:33 # 28

Interface: 0 Cycle#: 46 Operator AK Channel#: 0 Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: ~~SINGLE~~ PHASE Quant

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 DELSIUS INJ 250C

Detector 0: Detector 1: ~~ECD CONF~~

Misc. Information: LPT1:

Starting Delay: 1.50 Ending retention time: 35.00

Area reject: 50000 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

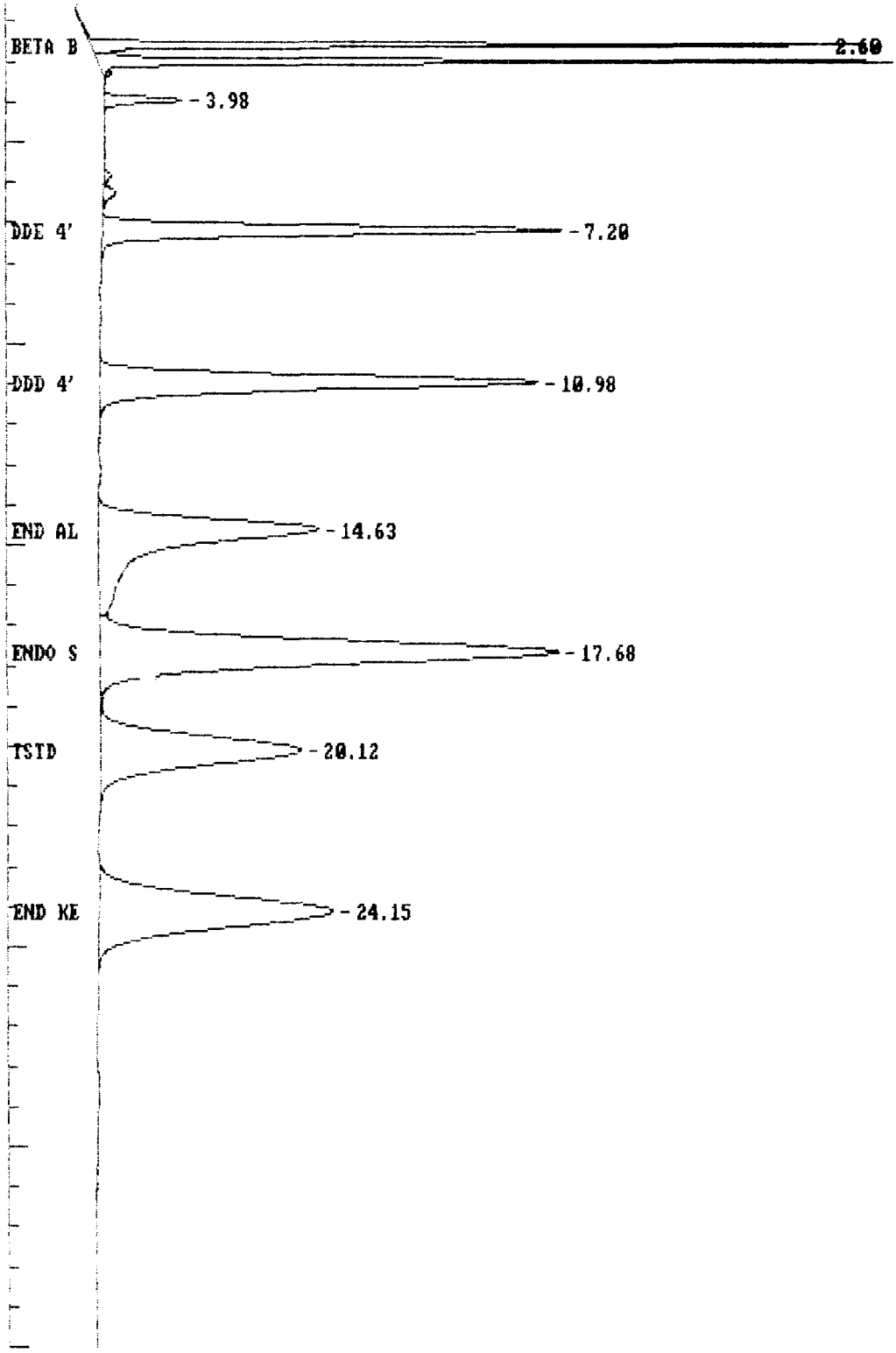
Internal Standard Amount: 1

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	2.60	BETA BHC	0.0126	7.4605%	491050	73732	6.7	2	1	12	0	2.5623E-08
2	3.03	DELTA BHC	0.0101	6.0004%	535726	75770	7.1	3	2	12	0	1.8890E-08
8	7.20	DDE 4 4'	0.0149	8.8546%	724643	43770	16.6	1	8	12	0	2.0608E-08
9	10.98	DDD 4 4'	0.0249	14.7767%	1054582	41737	25.3	1	9	12	0	2.3631E-08
10	14.63	END ALDEHYDE	0.0252	14.9456%	994780	20927	47.5	2	10	12	0	2.5338E-08
11	17.68	ENDO SULFATE	0.0406	24.0621%	1809592	43714	41.4	2	11	12	0	2.2426E-08
12	20.12	ISTD	1.0000	0.0000%	941103	19099	49.3	2	12	12	0	1.0626E-06
13	24.15	END KETONE	0.0403	23.9000%	1208069	22318	54.1	1	13	12	0	3.3365E-08

TOTAL AMOUNT = 0.1687

Data File = U:ISF46.FIS Printed on 03-07-1990 at 12:34:10
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 36329 uv High Value: 114139 uv Scale factor: 1.0



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

********** 03-09-1990 09:02:52 Version 4.1 **********

Sample Name: STD 1242 LEVEL 3 Data File: F:2SF18 *

Date: 03-03-1990 03:52:46 Method: N:CON42 03-09-1990 08:57:35 # 17 *

Interface: 0 Cycle#: 18 Operator AK Channel#: 0 Vial#: N.A. *

Starting Peak Width: 10 Threshold: 1 Area Threshold: 1000 *

****

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE *

Solvent Description: ULTRA HIGH PURITY NITROGEN *

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

Detector 0: Detector 1: ECD CONF *

Misc. Information: *

****

Starting Delay: 1.50 Ending retention time: 40.00

Area reject: 0 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

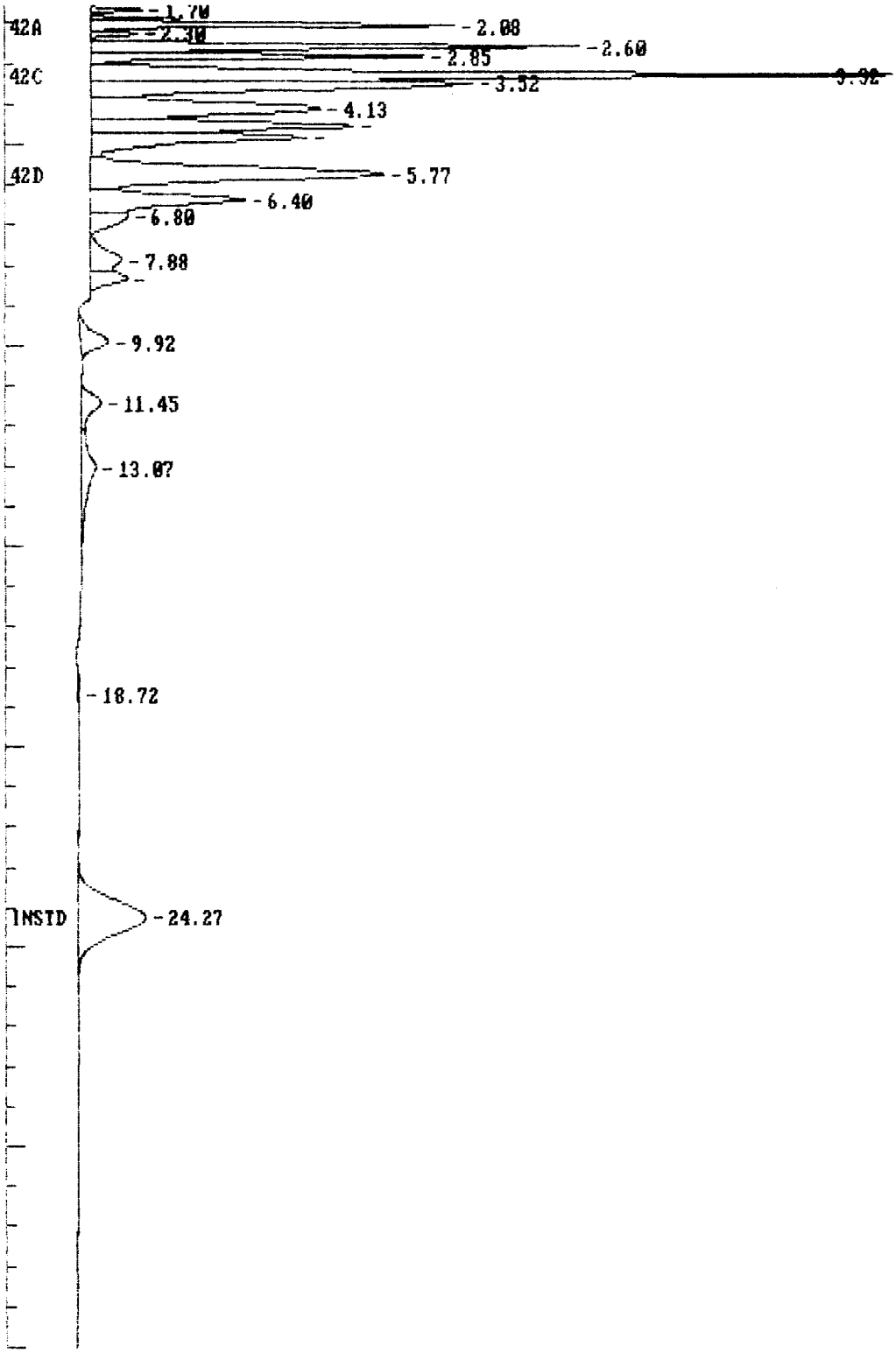
Internal Standard Amount: 1

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	2.08	42A	0.1993	20.5410%	2205969	305367	7.2	2	3	21	0	9.0360E-08
5	2.60	42B	0.1988	20.4849%	3455135	410715	8.4	2	5	21	0	5.7534E-08
7	3.32	42C	0.1986	20.4654%	7595506	673920	11.3	2	7	21	0	2.6147E-08
12	5.77	42D	0.1905	19.6291%	5637421	246583	22.9	2	12	21	0	3.3789E-08
13	6.40	42E	0.1832	18.8797%	2471806	130136	19.0	2	13	21	0	7.4120E-08
21	24.27	INSTD MIREX	1.0000	0.0000%	3448943	56126	61.5	1	21	21	0	2.8994E-07

TOTAL AMOUNT = 0.9704

Data File = F:2SF18.PTS Printed on 03-09-1990 at 09:03:08
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 55335 uv High Value: 751949 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

********** 03-09-1990 09:06:37 Version 4.1 **********

Sample Name: STD 1242 LEVEL 3 Data File: P:2SF47

Date: 03-03-1990 23:50:05 Method: N:CON42 03-09-1990 08:57:35 # 17

Interface: 0 Cycle#: 47 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 10 Threshold: 1 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 DELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

Starting Delay: 1.50 Ending retention time: 40.00

Area reject: 0 One sample per 1.000 sec.

Amount injected: 1.00 Dilution factor: 1.00

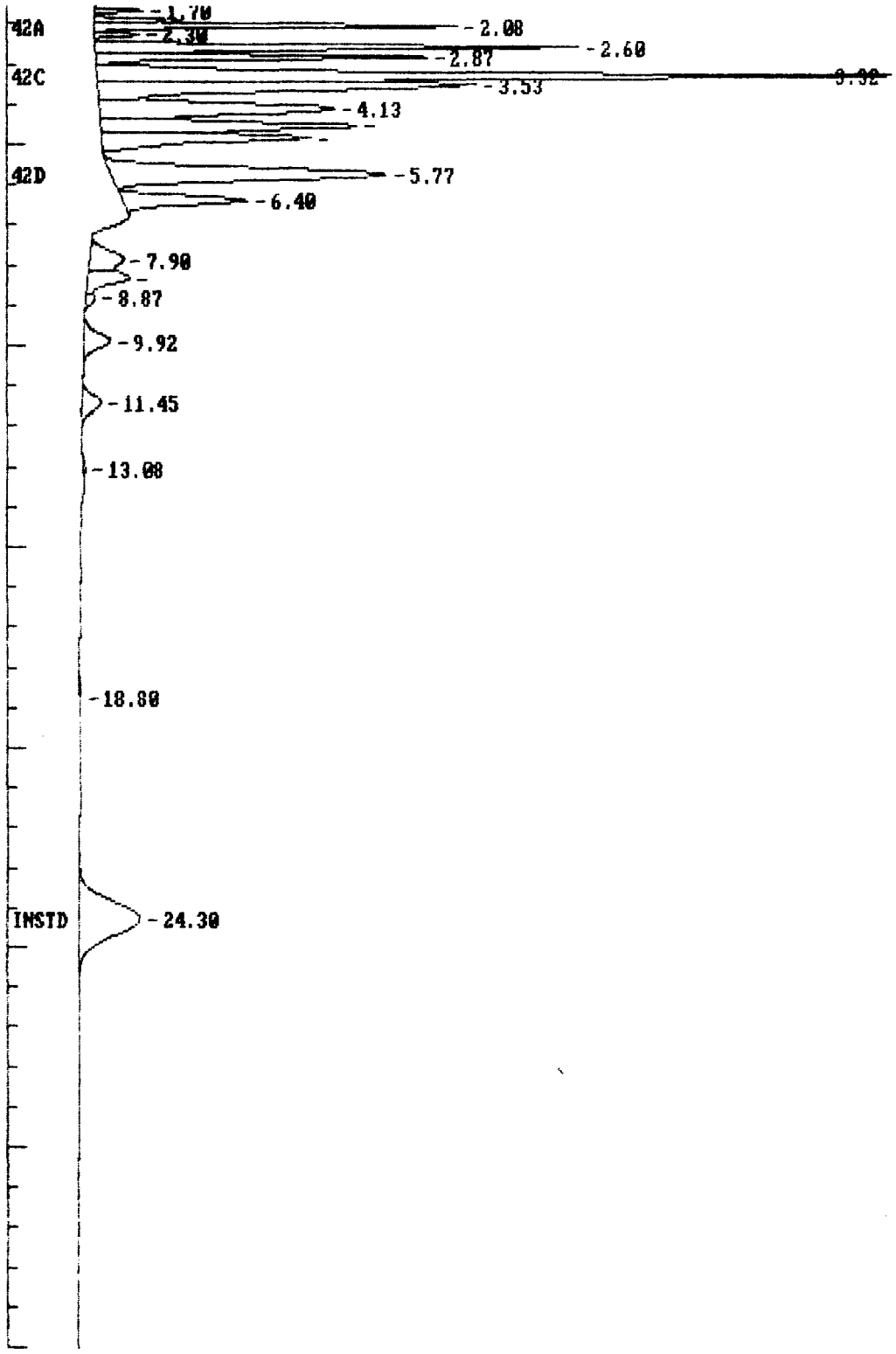
Internal Standard Amount: 1

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	2.08	42A	0.2136	22.2105%	2201652	316532	7.0	2	3	21	0	9.7013E-08
5	2.60	42B	0.2224	23.1304%	3601021	420852	8.6	2	5	21	0	6.1770E-08
7	3.32	42C	0.2168	22.5414%	7721994	692206	11.2	2	7	21	0	2.8072E-08
12	5.77	42D	0.1817	18.8949%	5008806	239835	20.9	2	12	21	0	3.6277E-08
13	6.40	42E	0.1272	13.2228%	1597922	109204	14.6	2	13	21	0	7.9577E-08
21	24.30	INSTD MIREX	1.0000	0.0000%	3212414	52437	61.3	1	21	21	0	3.1129E-07

TOTAL AMOUNT = 0.9617

ata File = F:2SF47.PTS Printed on 03-09-1990 at 09:06:56
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 70759 uv High Value: 779854 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

********** 03-09-1990 08:52:56 Version 4.1 **********

Sample Name: PEST STD A LEVEL 3 Data File: P:25F23

Date: 03-03-1990 07:19:16 Method: N:CONPESA 03-08-1990 14:03:43 # 27

Interface: 0 Cycle#: 23 Operator AK Channel#: 0 Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information:

tarting Delay: 1.50 Ending retention time: 35.00

rea reject: 0 One sample per 1.000 sec.

mount injected: 1.00 Dilution factor: 1.00

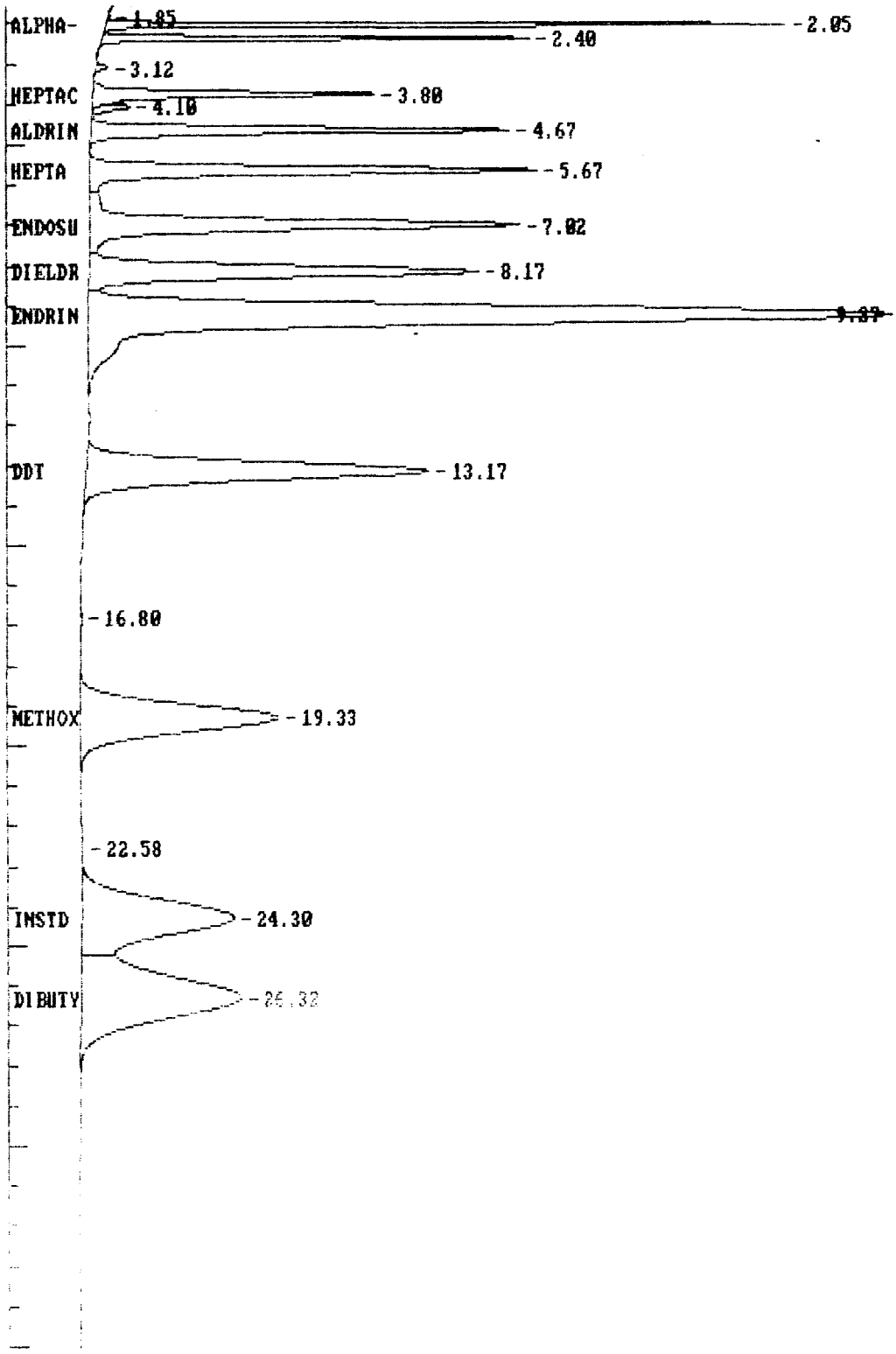
nternal Standard Amount: 1

ample 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	1.85		0.0000	0.0001%	4251	761	5.6	2		16		2.7932E-11
2	2.05	ALPHA-BHC	0.0065	2.8308%	1376489	256485	5.4	2	2	16	0	4.7187E-09
3	2.40	LINDANE	0.0053	2.3130%	984279	161540	6.1	2	3	16	0	5.3919E-09
4	3.12		0.0000	0.0005%	42068	4743	8.9	1		16		2.7932E-11
5	3.80	HEPTACHLOR	0.0052	2.2662%	1134730	106475	10.7	3	5	16	0	4.5824E-09
6	4.10		0.0000	0.0017%	141982	13079	10.9	4		16		2.7932E-11
7	4.67	ALDRIN	0.0104	4.5442%	1844715	157981	11.7	2	7	16	0	5.6522E-09
8	5.67	HEPTA EPOXIDE	0.0132	5.7399%	2490413	168812	14.8	2	8	16	0	5.2884E-09
9	7.02	ENDOSULFAN I	0.0173	7.5200%	3123279	162477	19.2	2	9	16	0	5.5246E-09
10	8.17	DIELDRIN	0.0156	6.8175%	3017041	146677	20.6	2	10	16	0	5.1849E-09
11	9.27	ENDRIN+ENDO II	0.0577	25.1541%	9822245	303611	32.4	2	11	16	0	5.8761E-09
12	13.17	DDT	0.0294	12.8187%	4048107	129213	31.3	1	12	16	0	7.2658E-09
13	16.80		0.0000	0.0000%	728	52	14.1	1		16		2.7932E-11
14	19.33	METHOXYCHLOR	0.0377	16.4426%	3595651	74908	48.0	1	14	16	0	1.0493E-08
15	22.58		0.0000	0.0000%	1897	68	28.0	1		16		2.7932E-11
16	24.30	INSTD MIREX	1.0000	0.0000%	3580090	57380	62.4	2	16	16	0	2.7932E-07
17	26.32	DIBUTYLCHLORENDATE	0.0311	13.5508%	4472345	60372	74.1	2	17	16	0	6.9522E-09

TOTAL AMOUNT = 0.2295

ata File = P:26F23.PTS Printed on 03-09-1990 at 06:53:34
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 63780 uv High Value: 371904 uv Scale factor: 1.0



EQUENCE RECORDED IN R:CWNSEQ.SEQ
EQUENCE RECORDED IN R:CWMSEQ.SEQ
utput redirected to LPT1:

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

********** 03-08-1990 16:17:14 Version 4.1 **********

Sample Name: PESTA L3 Data File: P:2SF7 *
Date: 03-02-1990 20:18:27 Method: N:CONPESA 03-08-1990 14:03:43 # 27 *
Interface: 0 Cycle#: 7 Operator AK Channel#: 0 Vial#: N.A. *
Starting Peak Width: 10 Threshold: 5 Area Threshold: 1000 *

****

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE *
Solvent Description: ULTRA HIGH PURITY NITROGEN *
Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
Detector 0: Detector 1: ECD CONF *
Misc. Information: LPT1: * *

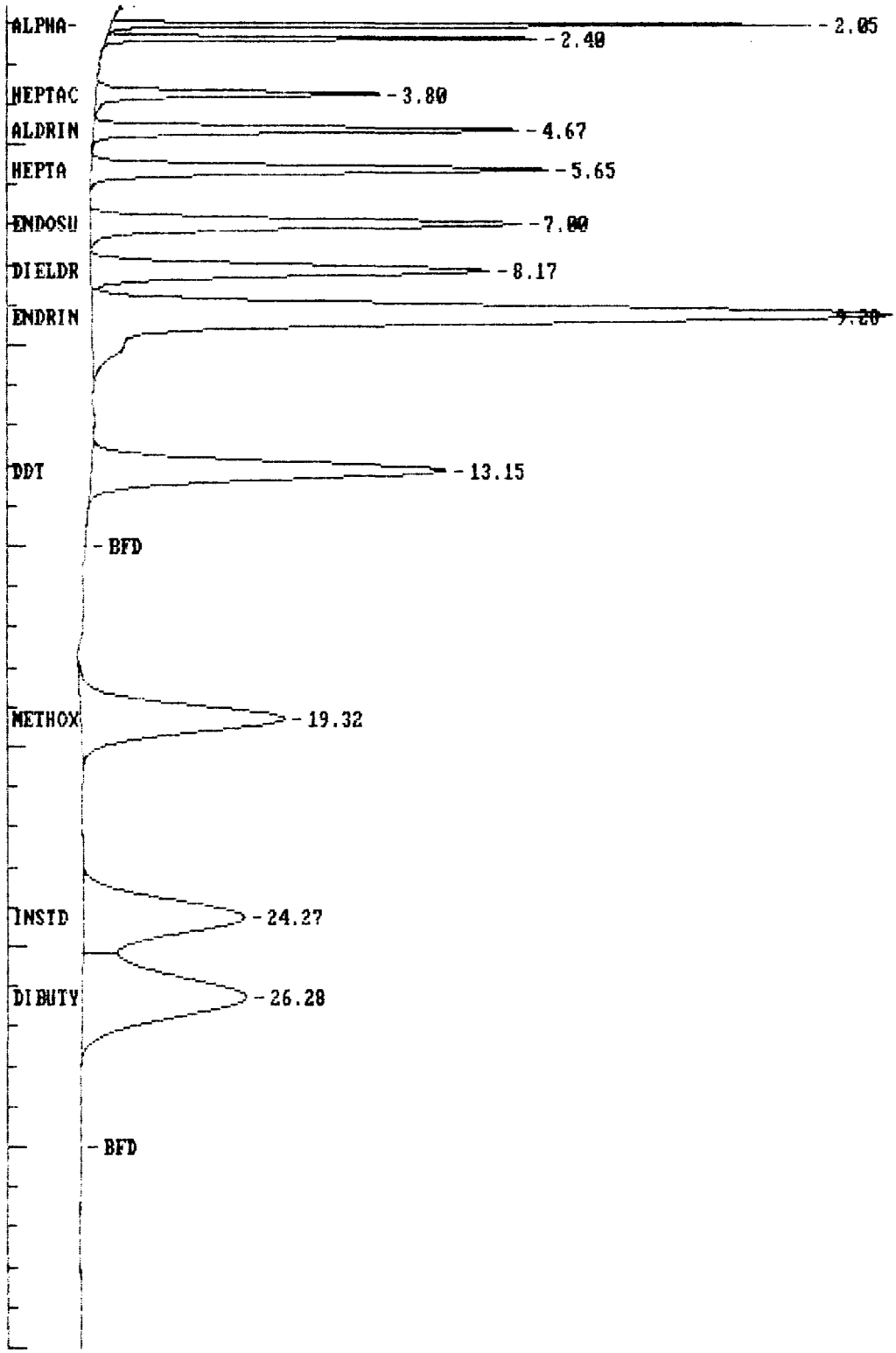
****

tarting Delay: 1.50 Ending retention time: 40.00
rea reject: 30000 One sample per 1.000 sec.
mount injected: 1.00 Dilution factor: 1.00
nternal Standard Amount: 1
ample Weight: 1.000000

AK 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	2.05	ALPHA-BHC	0.0062	2.8541%	1303796	245331	5.3	2	1	11	0	4.7803E-09
2	2.40	LINDANE	0.0051	2.3186%	926965	151282	6.1	2	2	11	0	5.4623E-09
3	3.80	HEPTACHLOR	0.0050	2.2988%	1081356	99807	10.8	2	3	11	0	4.6422E-09
4	4.67	ALDRIN	0.0100	4.5975%	1753372	149619	11.7	2	4	11	0	5.7260E-09
5	5.65	HEPTA EPOXIDE	0.0125	5.7459%	2342068	160612	14.6	1	5	11	0	5.3574E-09
6	7.00	ENDOSULFAN I	0.0150	6.8629%	2677790	151612	17.7	1	6	11	0	5.5967E-09
7	8.17	DIELDRIN	0.0149	6.8104%	2831431	140111	20.2	2	7	11	0	5.2525E-09
8	9.28	ENDRIN+ENDO II	0.0538	24.6519%	9043331	281441	32.1	2	8	11	0	5.9528E-09
9	13.15	DDT	0.0288	13.2107%	3919301	124854	31.4	1	9	11	0	7.3607E-09
0	19.32	METHOXYCHLOR	0.0371	17.0000%	3492468	71502	48.8	1	10	11	0	1.0630E-08
1	24.27	INSTD MIREX	1.0000	0.0000%	3533964	56728	62.3	2	11	11	0	2.8297E-07
2	26.28	DIBUTYLCHLORENDATE	0.0298	13.6492%	4232086	57581	73.5	2	12	11	0	7.0430E-09

TOTAL AMOUNT = 0.2184

ata File = P:25F7.RTS Printed on 03-08-1990 at 16:17:37
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 61242 uv High Value: 347623 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

********** 03-08-1990 16:18:38 Version 4.1 **********

Sample Name: PESTB L3 Data File: F:2SPB

Date: 03-02-1990 20:59:43 Method: N:CONPESB 03-08-1990 14:04:37 # 19

Interface: 0 Cycle#: 8 Operator AK Channel#: 0 Vial#: N.A.

Starting Peak Width: 10 Threshold: 5 Area Threshold: 1000

Instrument Type: HP 5890A #1 Column Type: SINGLE PHASE

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information: LPT1:

tarting Delay: 1.50 Ending retention time: 40.00

rea reject: 30000 One sample per 1.000 sec.

mount injected: 1.00 Dilution factor: 1.00

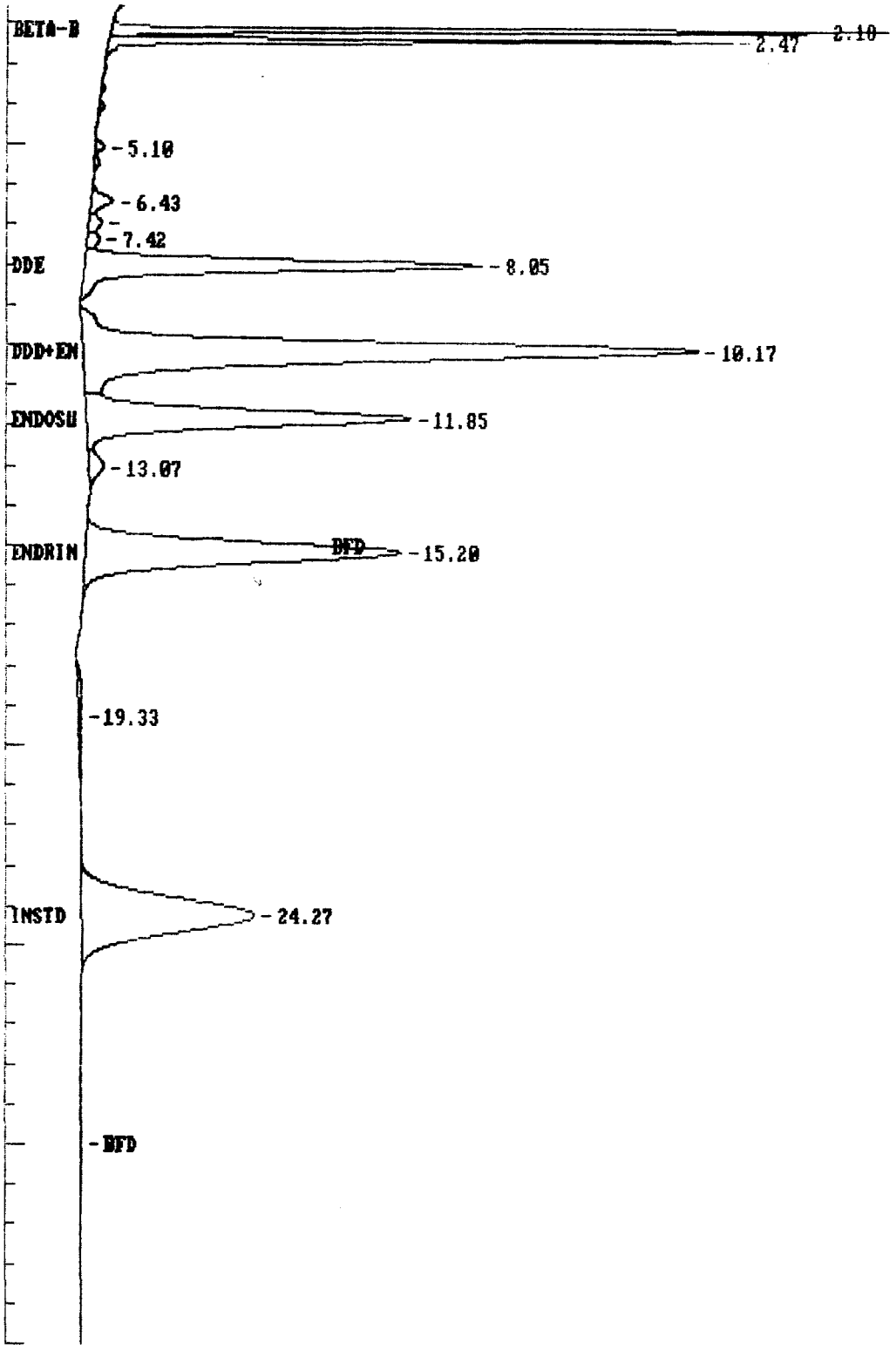
nternal Standard Amount: 1

ample Weight: 1.000000

AK UM	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	2.13	BETA-BHC	0.0126	7.8414%	1602258	255510	6.3	2	1	16	0	7.8640E-09
2	2.47	DELTA-BHC	0.0101	6.2757%	1309520	204761	6.4	2	2	16	0	7.7007E-09
5	5.10		0.0000	0.0008%	46942	3467	13.5	2		16		2.8704E-11
7	6.43		0.0000	0.0027%	149157	7257	20.6	2		16		2.8704E-11
8	7.00		0.0000	0.0016%	88715	4267	20.8	2		16		2.8704E-11
9	7.42		0.0000	0.0015%	81983	3981	20.6	2		16		2.8704E-11
0	8.05	DDE	0.0151	9.3740%	2695081	131008	20.6	2	10	16	0	5.5690E-09
1	10.17	DDD+ENDRINALDE	0.0495	30.8183%	6773345	202164	33.5	2	11	16	0	7.3112E-09
2	11.85	ENDOSULFAN SO4	0.0375	23.3223%	3179985	106685	29.8	2	12	16	0	1.1785E-08
3	13.07		0.0000	0.0028%	157907	4825	32.7	2		16		2.8704E-11
4	15.20	ENDRIN KETONE	0.0359	22.3563%	3802727	103596	36.7	1	14	16	0	9.4468E-09
5	19.33		0.0000	0.0026%	146329	989	148.0	1		16		2.8704E-11
6	24.27	INSTD MIREX	1.0000	0.0000%	3483862	56809	61.3	1	16	16	0	2.8704E-07

TOTAL AMOUNT = 0.1607

ata File = F:2SF8.PTS Printed on 03-08-1990 at 16:19:04
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 59387 uv High Value: 326211 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

********** 03-09-1990 08:[illegible] version [illegible] **********

Sample Name: PEST [illegible] LEVEL 3 Date File: P:2SF24 *

Date: 03-03-1990 [illegible]:32 Method: [illegible] 14:04:37 # 19 *

Interface: 0 Cycle#: 24 Operator [illegible] Channel#: 0 Vial#: [illegible] *

Starting Peak Width: 10 Threshold: 1 Area Threshold: [illegible] *

****

Instrument Type: HP 5890A #1 Column [illegible] *

Solvent Description: [illegible] NITROGEN *

Conditions: ISOTHERMAL AT 200 Cel[illegible] *

Detector 0: Detector 1: ECD CONF *

Misc. Information: *

****

Starting Delay: 1.[illegible] Ending retention time: 35.00

Area Reject: 0 One sample per 1.000 sec.

Amount Injected: 1.00 Dilution factor: 1.00

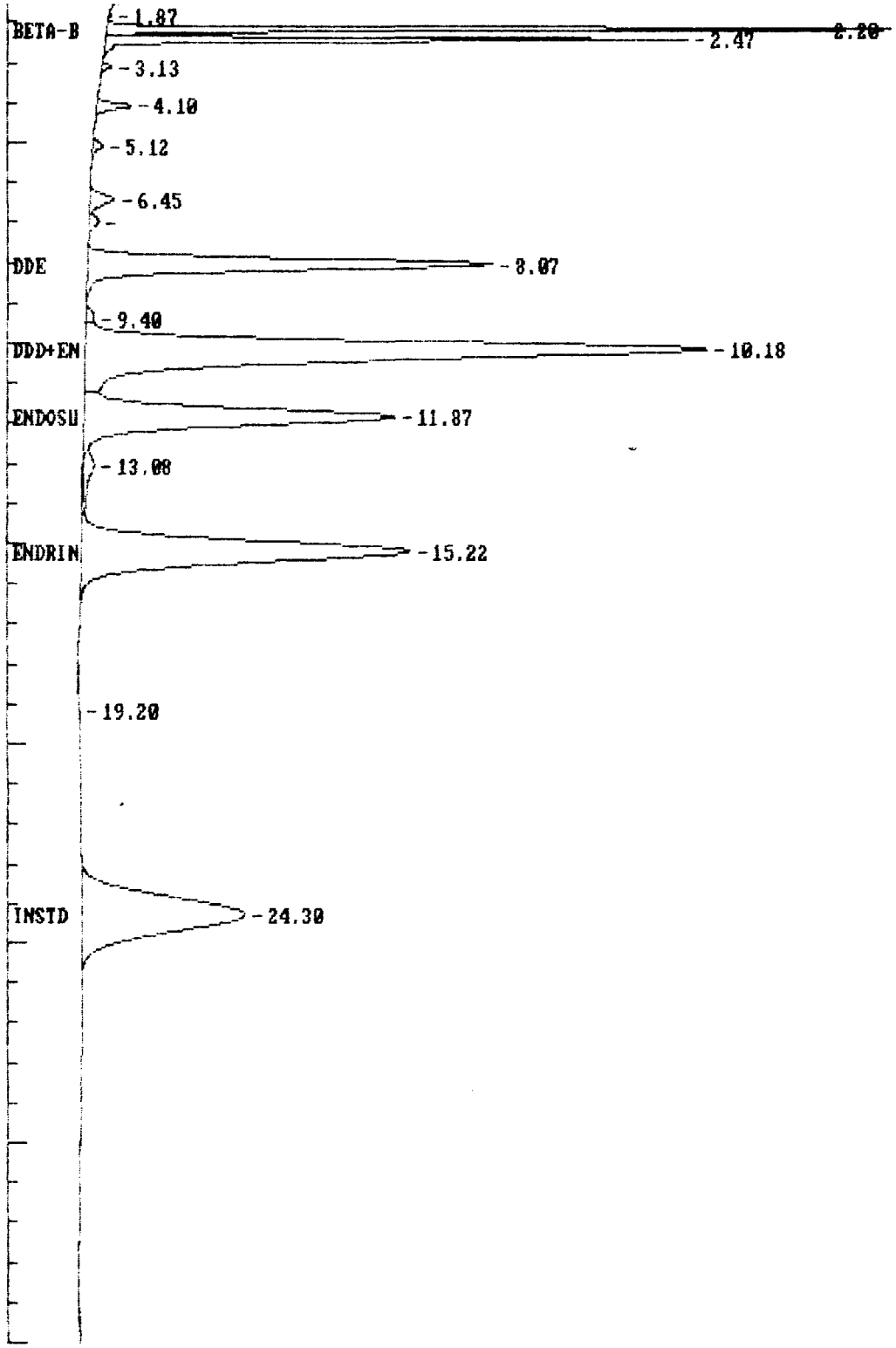
Internal Standard Amount: 1

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	1.87		0.0000	0.0000%	2805	631	4.4	1		16		2.9579E-11
2	2.20	BETA-BHC	0.0135	7.9891%	1668827	263210	6.3	2	2	16	0	8.1037E-09
3	2.47	DELTA-BHC	0.0100	5.8918%	1256825	195591	6.4	2	3	16	0	7.9355E-09
4	3.13		0.0000	0.0006%	35304	3391	10.4	1		16		2.9579E-11
5	4.10		0.0000	0.0024%	139350	11657	12.0	1		16		2.9579E-11
6	5.12		0.0000	0.0009%	49793	3360	14.8	1		16		2.9579E-11
7	6.45		0.0000	0.0028%	159449	8367	19.1	2		16		2.9579E-11
8	7.02		0.0000	0.0011%	62724	3237	19.4	2		16		2.9579E-11
9	8.07	DDE	0.0155	9.1414%	2686798	136097	19.7	2	9	16	0	5.7594E-09
0	9.40		0.0000	0.0008%	46292	2732	16.9	2		16		2.9579E-11
1	10.18	DDD+ENDRINALDE	0.0516	30.4875%	6850029	208885	32.8	2	11	16	0	7.5340E-09
2	11.87	ENDOSULFAN S04	0.0383	22.5972%	3149813	104488	30.1	3	12	16	0	1.2144E-08
3	13.08		0.0000	0.0036%	208483	3836	54.4	4		16		2.9579E-11
4	15.22	ENDRIN KETONE	0.0404	23.8804%	4152520	110420	37.6	2	14	16	0	9.7348E-09
5	19.20		0.0000	0.0002%	13113	33	399.0	1		16		2.9579E-11
6	24.30	INSTD MIREX	1.0000	0.0000%	3380806	54735	61.8	1	16	16	0	2.9579E-07

TOTAL AMOUNT = 0.1693

ata File = P:29F24.FTS Printed on 03-09-1990 at 08:55:54
tart time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
ow Value: 63729 uv High Value: 336738 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

********** 03-07-1990 12:54:54 Version 4.1 **********

Sample Name: STD 1242 LEVEL 3 Data File: 0:1SF42

Date: 03-01-1990 19:50:38 Method: N:SMET42 03-07-1990 12:41:23 # 24

Interface: 0 Cycle#: 42 Operator AK Channel#: 0 Vial#: N.A.

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

Instrument Type: HP 5890A #1 Column Type: ~~SINGL~~E PHASE Quant

Solvent Description: ULTRA HIGH PURITY NITROGEN

Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C

Detector 0: Detector 1: ECD CONF

Misc. Information: LPT1:

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

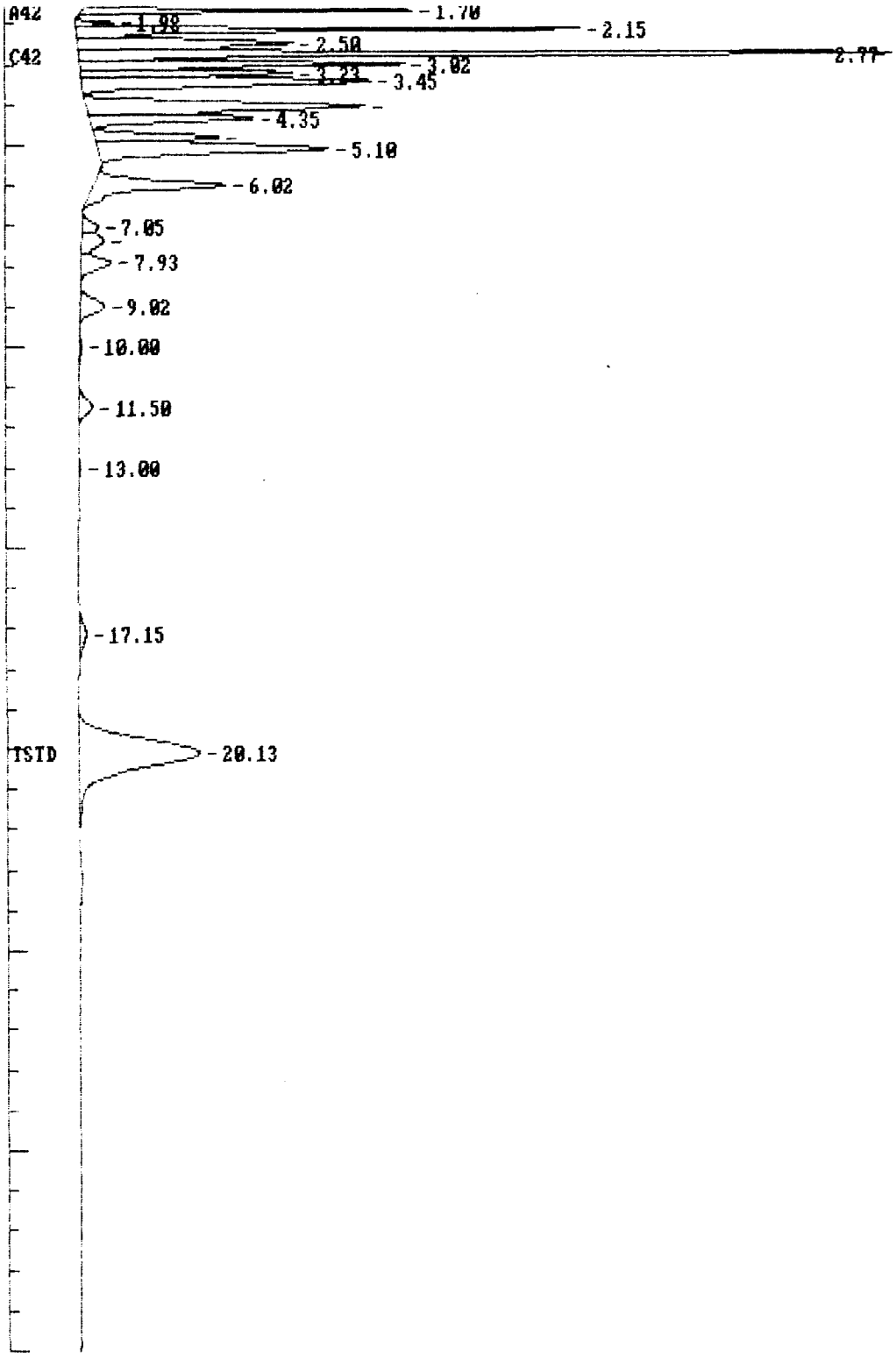
Internal Standard Amount: 1

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	1.70	A42	0.1993	20.2818%	292833	54187	5.4	1	1	22	0	6.8073E-07
3	2.15	B42	0.1993	20.2761%	556333	82303	6.8	2	3	22	0	3.5821E-07
5	2.77	C42	0.2006	20.4061%	1018997	132828	7.7	2	5	22	0	1.9682E-07
6	3.02	D42	0.1987	20.2189%	470222	52987	8.9	2	6	22	0	4.2262E-07
8	3.45	E42	0.1849	18.8169%	671137	47202	14.2	2	8	22	0	2.7557E-07
22	20.13	ISTD	1.0000	0.0000%	980420	19577	50.1	1	22	22	0	1.0200E-06

TOTAL AMOUNT = 0.9829

Data File = 0:1SF42.PTS Printed on 03-07-1990 at 12:55:12
Start time: 1.50 min. Stop time: 35.00 min. Offset: 0 mv.
Low Value: 38282 uv High Value: 171733 uv Scale factor: 1.0



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: MAR 14 1990

SUBJECT: Review of Region 5 data for Murrell Landfill

FROM: Curtis Ross, Director
BABU PARVCHURI
Region 5 Central Regional Laboratory

To: Data User:

Attached are the results for:

CRL Data Set Numbers: SF 6986
Sample Numbers: 90FT0518, 519, 520, 521, D18 and 90FT01R98
Parameter(s): ORGANICS - ABNs
Laboratory: 5SCRL - ESD - USEPA

Results Status:

(✓) DATA ACCEPTABLE FOR USE* Babu...
( ) 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 [redacted], 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
MAR 14 1990
U.S. EPA CENTRAL REGIONAL LAB

RECEIVED BY/DATE:

Comments:

ATA SET	SITE	OU/ACT.
3F6986	Murrell Landfill	TFA302

AMPLES	PARAMETER(S)
90FT09318, 319, 320, 321, 018 and 90FT08R98	ORGANICS - ABNs

AMPLED	RECEIVED	DUE	LAB
2/21/90	2/22/90	3/15/90	SSCRL- USEPA

HPPED	DATA RECEIVED	CONTRACT

AM LEADER	SECTION CHIEF	QC COORD.	DATA COORD.

omments By Reviewer:

THE DATA ARE ACCEPTABLE FOR USE.

ATA MANAGEMENT COORDINATOR

ECEIVED	TRANSMITTED		CLERICAL SUPPORT RECEIVED	COMPLETED
√ REVIEWED	( ) UNREVIEWED	TEAM LEADER/DATE Barbara Pabuchuk 3/14/90		
) REVIEWED	( ) UNREVIEWED	SECTION CHIEF/DATE		
) REVIEWED	( ) UNREVIEWED	QC COORDINATOR/DATE		

EVIEWED BY CONTRACT COORDINATOR/DATE

ECEIVED	TRANSMITTED	DATA MANAGEMENT COORDINATOR
3/14/90	3/14/90	[illegible]

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

METHODBLANK

Study Name: MURRELL LANDFILL | 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: METHODBLANK

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP143

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — 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

U.S. EPA - REGION II
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

METHODBLANK

Study Name: MURRELL LANDFILL | 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: METHODBLANK

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP143

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — 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	2.	U N.F.
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[✓]

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT01R98

Study Name: MURRELL LANDFILL | 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT01R98

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP153

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — 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

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT01R98

Study Name: MURRELL LANDFILL | 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT01R98

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP153

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — 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	3.	B
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[✓]

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S18

Study Name: MURRELL LANDFILL | 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09S18

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP144

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — 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	

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S18

Study Name: MURRELL LANDFILL | 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09S18

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP144

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — 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	7.	B
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[✓]

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09D18

Study Name: MURRELL LANDFILL | 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09D18

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP145

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — 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	X
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	

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09D18

Study Name: MURRELL LANDFILL | 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09D18

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP145

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — 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	3.	B
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[✓]

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S19

Study Name: MURRELL LANDFILL | 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09S19

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP146

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — 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

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S19

Study Name: MURRELL LANDFILL | 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09S19

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP146

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — 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	3.	B
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[✓]

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S20

Study Name: MURRELL LANDFILL | 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09S20

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP147

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — 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	X
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	

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S20

Study Name: MURRELL LANDFILL | 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09S20

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP147

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — 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	4.	B
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[✓]

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S21

Study Name: MURRELL LANDFILL | 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09S21

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: ->BP148

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — 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	X
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	

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S21

Study Name: MURRELL LANDFILL | 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09S21

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP148

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — 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	X
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	3.	B	
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[✓]

ESAT CONTRACT **TID NO:** 02-13

TASK NO: 2433

ENVIRONMENTAL SAMPLE EXTRACT CUSTODY TRANSFER FORM

Sample extraction was completed on Febr 28, 1990 for:

DATASET NO: SF6986 **SITE NAME:** Murrel Landfill

PARAMETER : ABN

MATRIX : Water **SF DU/ACT NO: TFA** 302 **Y**____ **/C**____

SAMPLE NUMBERS: 90FT09S18, S19, S20, S21, D18, 90FT01R98

NUMBER OF SAMPLES: 6

ESAT APPROVALS:

Jason Holliday 28 Feb 90
(ANALYST DATE)

[signature] 3/1/90
(TEAM LEADER DATE)

[signature]
(QC COORDINATOR DATE)

Wilma Wilson 3/1/90
(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.

Anthony Korinsky 2-28-90
(DELIVERED BY MJH 3-1-90 DATE)

E. S. Evangelista 3/1/90
(RECEIVED BY DATE)

EPA APPROVALS:

Babu Parachutzi
(EPA TASK MONITOR DATE)

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

COMMENTS: Ratings: Tech. Quality: 3.5 ; compliance w/ schedule: 3.5
(Sample Prep. Only)

[ ] Reviewed [ ] Unreviewed

(SECTION CHIEF DATE)

Sylvia Guppy 3/14/90, 3/14/90
(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.

+2 copies

Semivolatile Organic Analysis

Subject: SF6986 MURRELL LANDFILL

To : Files
From : Nidia Feliciano
Date : 03/12/90

Six (6) low level water samples (90FT09S18, S19, S20 ,S21 ,D18 and 90FT01R98) were analyzed for semivolatile organics (ABNs) by the Region V laboratory using the test procedure #625NS. The laboratory produced data of acceptable quality.

The following comments apply to the quality control (QC) requirements as specified by the Central Regional Laboratory (CRL) test method:

- The site samples were extracted within seven days of sample receipt. The sample extracts were analyzed within 21 days of sample collection.

- Prior to the sample analysis, the GC/MS instrument was checked to determine if : 1) acceptable performance criteria (see Table 5, SOP) were achieved for DFTPP and 2) the tailing factor of PCP was <5.

- The surrogate spike recovery data were evaluated to determine the method accuracy of each sample. The surrogate spike recoveries were acceptable for all of the parameters.

- The laboratory used 90FT09S20 for the collection of matrix precision and accuracy data. The data were acceptable for all 11 parameters, the precision data for two out of 11 compounds were outside QC acceptance critiria.

- The initial calibration and continuing calibration data were acceptable. No problems were observed.

The following comments apply to the sample analysis results and overall quality of the data: 1) the laboratory method blank and the site samples contained a common lab contaminant, bis(2-ethylhexyl)phthalate, and 2) the laboratory data are acceptable for use.

TFA302

15

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

DUE DATE 3/12/90

LAB ARRIVAL DATE 2/22/90

SAMPLE DATE 2/21/90

CONTRACTOR —

PRIORITY —

VISION/BRANCH FIT SUPERFUND

STUDY Murrell Landfill

DATA SET NUMBER 6986

J NUMBER TFA-102

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 215822	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
90FT09S18	RW1 5-083853-5	X			
19	RW2 5-083869-71	X			
20	MSD/RW3 5-072759-6 5-072764-8	X			
21	RW4 5-072772-4	X			
D18	DUP 5-083861-63	X			
90FT01R98	BLANK 5-072780 5-072781-2	X			
			Shipment (13) is not complete		
90FT09S18	RW1 5-083850		X		
D18	DUPLICATE 5-083858		X		
S19	RW2 5-083866		X		
S20	RW3/MSD 5-072751 5-072759-760		X		
S21	RW4 5-072769		X		
90FT01R98	BLANK 5-072777		X		

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Study Name: MURRELL LANDFILL | 25 characte SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	METHODBLAN	52	51	96	28	37	76		0
02	90FT09S18	45	51	99	16	23	63		0
03	90FT09D18	54	51	91	18	26	67		0
04	90FT09S19	55	60	104	20	28	72		0
05	90FT09S20	55	66	114	22	32	76		0
06	90FT09S21	50	51	102	20	27	79		0
07									
08									
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27									
28									
29									
30									

		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.

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Study Name: MURRELL LANDFILL | 25 characte SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TF[illegible]502

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	90FT01R98	57	59	99	24	34	73		0
02	90FT09S20M	64	66	102	25	34	73		0
03	90FT01S20MSD	62	61	92	25	34	74		0
04									
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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

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Study Name: MURRELL LANDFILL | 25 char SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix Spike - EPA Sample No.: 90FT09S20

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	73.00	0.00	23.00	31	12- 89
2-Chlorophenol	76.00	0.00	54.00	70	27-123
1,4-Dichlorobenzene	76.00	0.00	54.00	70	36- 97
N-Nitroso-di-n-prop.(1)	180.00	0.00	110.00	61	41-116
1,2,4-Trichlorobenzene	96.00	0.00	74.00	77	39- 98
4-Chloro-3-methylphenol	78.00	0.00	59.00	75	23- 97
Acenaphthene	87.00	0.00	66.00	76	46-118
4-Nitrophenol	93.00	0.00	23.00	25	10- 80
2,4-Dinitrotoluene	69.00	0.00	65.00	94	24- 96
Pentachlorophenol	99.00	0.00	72.00	72	9-103
Pyrene	64.00	0.00	76.00	119	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	73.00	24.00	32	3	42	12- 89
2-Chlorophenol	76.00	54.00	70	0	40	27-123
1,4-Dichlorobenzene	76.00	39.00	51	31 *	28	36- 97
N-Nitroso-di-n-prop.(1)	180.00	82.00	45	30	38	41-116
1,2,4-Trichlorobenzene	96.00	54.00	56	31 *	28	39- 98
4-Chloro-3-methylphenol	78.00	54.00	69	8	42	23- 97
Acenaphthene	87.00	65.00	74	2	31	46-118
4-Nitrophenol	93.00	19.00	20	22	50	10- 80
2,4-Dinitrotoluene	69.00	64.00	92	2	38	24- 96
Pentachlorophenol	99.00	62.00	63	13	50	9-103
Pyrene	64.00	68.00	105	12	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: 2 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS: _____

5B

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

Lab Name: MURRELL LANDFILL Contract: SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Lab File ID: >BP134 DFTPP Injection Date: 2/28/90

Instrument ID: 96 1 DFTPP Injection Time: 16:45

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	43.0
68	Less than 2.0% of mass 69	.3(.4)1
69	Mass 69 relative abundance	56.
70	Less than 2.0% of mass 69	.1(.2)1
127	40.0 - 60.0% of mass 198	41.4
197	Less than 1.0% of mass 198	.1
198	Base Peak, 100% relative abundance	100.
199	5.0 - 9.0% of mass 198	6.4
275	10.0 - 30.0% of mass 198	19.2
365	Greater than 1.00% of mass 198	1.60
441	Present, but less than mass 443	8.3
442	Greater than 40.0% of mass 198	56.3
443	17.0 - 23.0% of mass 442	11.0(19.5)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	TOXSTD50PPM	TOXSTD50PPM	>BP135	2/28/90	17:29
02	~~90FW01R93~~	~~90FW01R93~~	~~>BP142~~	~~3/01/90~~	~~9:55~~
03	METHODBLANK	METHODBLANK	>BP143	3/01/90	10:55
04	90FT09S18	90FT09S18	>BP144	3/01/90	11:54
05	90FT09D18	90FT09D18	>BP145	3/01/90	12:54
06	90FT09S19	90FT09S19	>BP146	3/01/90	13:53
07	90FT09S20	90FT09S20	>BP147	3/01/90	14:53
08	90FT09S21	90FT09S21	>BP148	3/01/90	15:53
09					
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5B

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

Lab Name: MURRELL LANDFILL Contract: SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Lab File ID: >BP149 DFTPP Injection Date: 3/01/90

Instrument ID: 96 1 DFTPP Injection Time: 16:52

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	45.5
68	Less than 2.0% of mass 69	.8(1.4)1
69	Mass 69 relative abundance	60.
70	Less than 2.0% of mass 69	.1(.2)1
127	40.0 - 60.0% of mass 198	40.1
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	6.4
275	10.0 - 30.0% of mass 198	20.0
365	Greater than 1.00% of mass 198	1.59
441	Present, but less than mass 443	7.9
442	Greater than 40.0% of mass 198	57.1
443	17.0 - 23.0% of mass 442	9.3(17.5)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	TOXSTD50PPM	TOXSTD50PPM	>BP150	3/01/90	17:07
02	90FT01R98	90FT01R98	>BP153	3/01/90	21:07
03	90FT09S20MS	90FT09S20MS	>BP154	3/01/90	22:07
04	90FT01S20MS	90FT01S20MSD	>BP155	3/01/90	23:07
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22					

FORM V SV 1/87 Rev.

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Study Name: MURRELL LANDFILL | 25 ch SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Lab File ID (Standard): >BP135 Date Analyzed: 2/28/90

Instrument ID: 96 1 Time Analyzed: 17:29

		IS1(DCB) AREA #	RT	IS2(PHN) AREA #	RT	IS3(PRY) AREA #	RT
	12 HOUR STD	202214.	7.29	288725.	20.65	133253.	32.86
	UPPER LIMIT	404428.		577450.		266506.	
	LOWER LIMIT	101107.		144363.		66626.	
	EPA SAMPLE NO.						
01	~~90FW01R93~~	~~219575~~.	~~7.33~~	~~315053~~.	~~20.67~~	~~106914~~.	~~32.89~~
02	METHODBLANK	231721.	7.35	328962.	20.67	125574.	32.89
03	90FT09S18	147568.	7.38	238222.	20.69	108211.	32.89
04	90FT09D18	241999.	7.33	290079.	20.67	111375.	32.89
05	90FT09S19	129844.	7.31	216703.	20.69	99517.	32.92
06	90FT09S20	123555.	7.31	221247.	20.69	109513.	32.90
07	90FT09S21	189050.	7.41	279842.	20.71	121159.	32.90
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22							

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.

8B
SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Study Name: MURRELL LANDFILL | 25 ch SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Lab File ID (Standard): >BP150 Date Analyzed: 3/01/90

Instrument ID: 96 1 Time Analyzed: 17:27

		IS1(DCB) AREA #	RT	IS2(PHN) AREA #	RT	IS3(PRY) AREA #	RT
	12 HOUR STD	174222.	7.35	239359.	20.72	111241.	32.92
	UPPER LIMIT	348444.		478718.		222482.	
	LOWER LIMIT	87111.		119680.		55620.	
	EPA SAMPLE NO.						
01	90FT01R98	214901.	7.36	287067.	20.69	106824.	32.91
02	90FT09S20MS	194164.	7.36	299749.	20.69	114370.	32.91
03	90FT01S20MSD	223509.	7.36	293070.	20.67	103121.	32.89
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21							
22							

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

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S20MS

Study Name: MURRELL LANDFILL | 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FT09S20MS

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >BP154

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

FOR Q.C. ONLY

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q	
108-95-2	Phenol	23.		
111-44-4	bis(2-Chloroethyl)Ether	2.	U	
95-57-8	2-Chlorophenol	54.		
541-73-1	1,3-Dichlorobenzene	2.	U	X
106-46-7	1,4-Dichlorobenzene	54.		
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	110.		E
67-72-1	Hexachloroethane	2.	U	
98-95-3	Nitrobenzene	3.	U	
78-59-1	Isophorone	3.	U	
88-75-5	2-Nitrophenol	2.		
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	X
120-82-1	1,2,4-Trichlorobenzene	74.		
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	59.		
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	

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S20MS

Study Name: MURRELL LANDFILL | 2 SFUND

Lab Code: CHICAGOIL Case No.: SF698 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09S20MS

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP154

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — Dilution Factor: 1.00000

FOR Q.C. ONLY

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	66.	
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	65.	
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	72.	
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	76.	
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	3.	B
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

U.S. EPA - REGION I
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT01520MSD

Study Name: MURRELL LANDFILL I 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURPLAN SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FT01520MSD

Sample wt/vol: 1000 (g/mL) mL Lab File ID: [illegible]

Level: (low/med) LOW Date Received: [illegible]

% Moisture: not dec.____ dec. ____ Date Extracted: [illegible]

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: [illegible]

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

FOR Q.C. ONLY

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/kg) ug/L	Q
108-95-2	Phenol	24.	
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	54.	
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	39.	
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	82.	
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	
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	54.	
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	54.	
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

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT01S20MSD

Study Name: MURRELL LANDFILL | 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT01S20MSD

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP155

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — Dilution Factor: 1.00000

FOR Q.C. ONLY

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	65.	
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	19.	
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	64.	
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	62.	
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	68.	
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	2.	B
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[ ]

QUANT REPORT

Operator ID: BABU
Output File: ^BP143::C6
Data File: >BP143::D0
Name: SF6986 METHOD BLANK
Misc: 022890 1L/1ML

Quant Rev: 6
Quant Time: 900301 11:43
Injected at: 900301 10:55
Dilution Factor: 1.00000

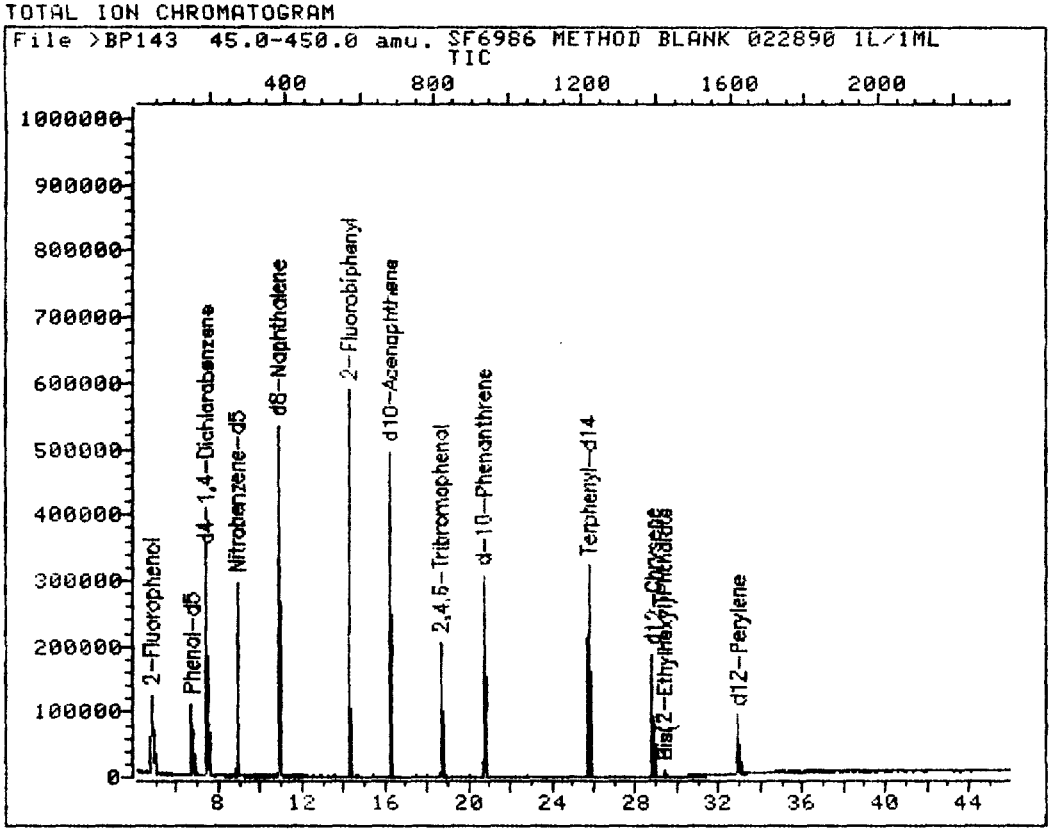
ID File: IDBP96::D6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900228 18:30

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.34	152.0	231721	50.00	NG/UL	95
2)	2-Fluorophenol	4.75	112.0	217221	37.44	NG/UL	90
3)	Phenol-d5	6.67	99.0	161888	26.07	NG/UL	96
16)	d8-Naphthalene	10.81	136.0	620199	47.25	NG/UL	90
17)	Nitrobenzene-d5	8.84	82.0	261350	47.49	NG/UL	93
31)	d10-Acenaphthene	16.20	164.0	244641	52.25	NG/UL	94
36)	2-Fluorobiphenyl	14.23	172.0	425452	47.28	NG/UL	93
39)	*d-10-Phenanthrene	20.67	188.0	328962	50.00	NG/UL	99
54)	2,4,6-Tribromophenol	18.62	330.0	75188	62.91	NG/UL	98
62)	d12-Chrysene	28.81	240.0	205003	50.73	NG/UL	93
64)	Terphenyl-d14	25.72	244.0	316237	66.95	NG/UL	95
67)	Bis(2-Ethylhexyl)Phthalate	29.37	149.0	5495	1.65	NG/UL	94
69)	*d12-Perylene	32.89	264.0	125574	50.00	NG/UL	97

* Compound is ISTD

1 target
No TIC

TOTAL ION CHROMATOGRAM



Data File: >BP143 Quant Output File: ^BP143::C6
Name: SF6986 METHOD BLANK
Misc: 022890 1L/1ML

Id File: IDBP96::D6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900228 18:30

Operator ID: BABU
Quant Time: 900301 11:43
Injected at: 900301 10:55

QUANT REPORT

Operator ID: BABU
Output File: ^BP144::C6
Data File: >BP144::D0
Name: SF6986 90FT09S18
Misc: 022890 1L/1ML

Quant Rev: 6
Quant Time: 900301 12:43
Injected at: 900301 11:54
Dilution Factor: 1.00000

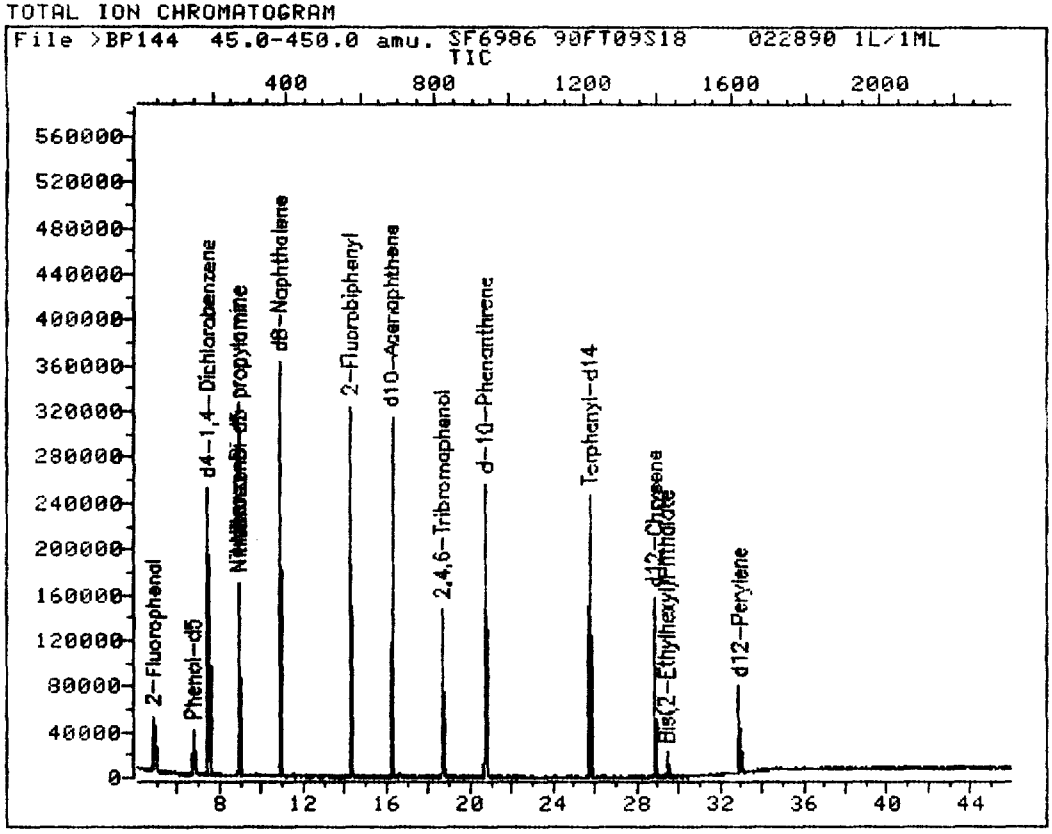
ID File: IDBP96::D6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900228 18:30

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.38	152.0	147568	50.00	NG/UL	93
2)	2-Fluorophenol	4.80	112.0	85070	23.02	NG/UL	90
3)	Phenol-d5	6.69	99.0	57556	14.56	NG/UL	98
14)	N-Nitroso-Di-n-propylamine	8.86	70.0	22472	8.79	NG/UL	59
16)	d8-Naphthalene	10.83	136.0	390493	46.72	NG/UL	91
17)	Nitrobenzene-d5	8.86	82.0	144245	41.16	NG/UL	88
31)	d10-Acenaphthene	16.20	164.0	165385	55.46	NG/UL	95
36)	2-Fluorobiphenyl	14.23	172.0	270145	47.14	NG/UL	94
39)	*d-10-Phenanthrene	20.69	188.0	238222	50.00	NG/UL	98
54)	2,4,6-Tribromophenol	18.64	330.0	45152	52.17	NG/UL	97
62)	d12-Chrysene	28.81	240.0	163940	56.02	NG/UL	94
64)	Terphenyl-d14	25.72	244.0	237147	69.33	NG/UL	96
67)	✓Bis(2-Ethylhexyl)Phthalate	29.36	149.0	15858	6.56	NG/UL	93
69)	*d12-Perylene	32.89	264.0	108211	50.00	NG/UL	96

* Compound is ISTD

1 target
NO TIC

TOTAL ION CHROMATOGRAM



Data File: >BP144 Quant Output File: ^BP144::C6
Name: SF6986 90FT09S18
Misc: 022890 1L/1ML

Id File: IDBP96::D6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900228 18:30

Operator ID: BABU
Quant Time: 900301 12:43
Injected at: 900301 11:54

QUANT REPORT

Operator ID: BABU
Output File: ^BP145::C6
Data File: >BP145::D0
Name: SF6986 90FT09D18
Misc: 022890 1L/1ML

Quant Rev: 6
Quant Time: 900301 13:42
Injected at: 900301 12:54
Dilution Factor: 1.00000

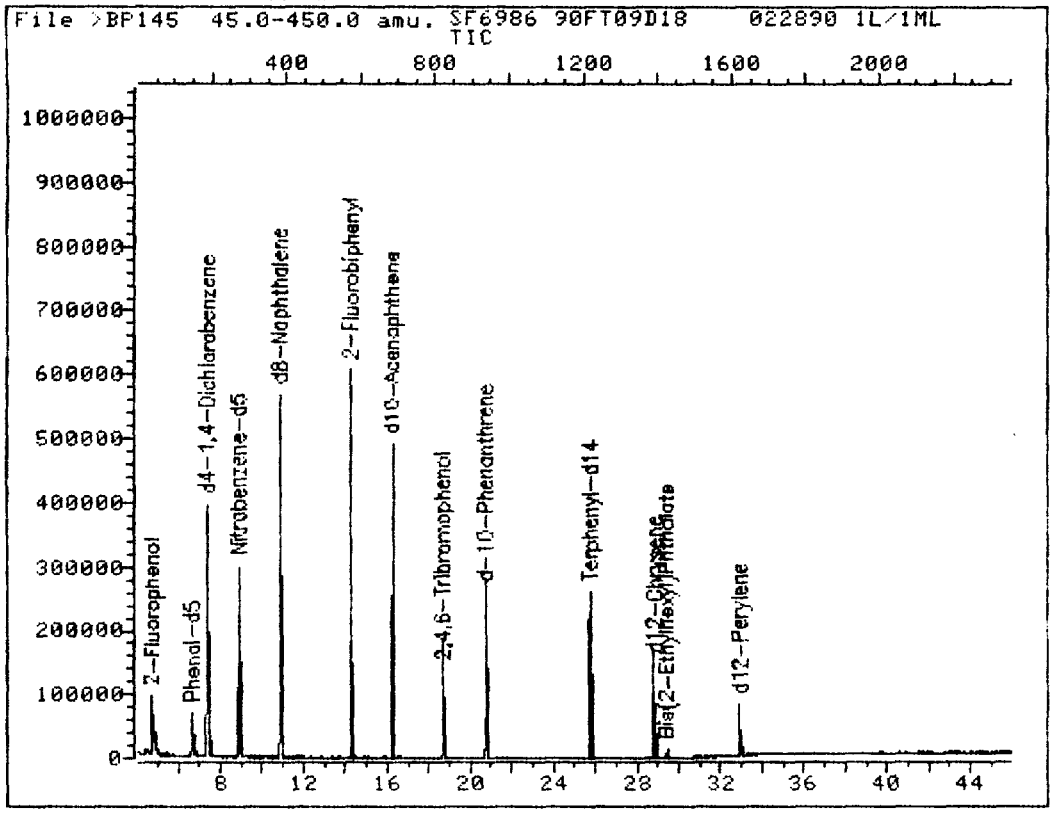
ID File: IDBP96::D6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900228 18:30

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.33	152.0	241999	50.00	NG/UL	96
2)	2-Fluorophenol	4.69	112.0	160156	26.43	NG/UL	93
3)	Phenol-d5	6.61	99.0	108533	16.74	NG/UL	99
16)	d8-Naphthalene	10.81	136.0	645756	47.11	NG/UL	90
17)	Nitrobenzene-d5	8.82	82.0	280282	48.77	NG/UL	91
31)	d10-Acenaphthene	16.21	164.0	242426	49.58	NG/UL	95
36)	2-Fluorobiphenyl	14.23	172.0	441360	46.97	NG/UL	93
39)	*d-10-Phenanthrene	20.67	188.0	290079	50.00	NG/UL	99
54)	2,4,6-Tribromophenol	18.62	330.0	58923	55.91	NG/UL	94
62)	d12-Chrysene	28.80	240.0	185361	52.01	NG/UL	92
64)	Terphenyl-d14	25.72	244.0	265780	63.81	NG/UL	95
67)	Bis(2-Ethylhexyl)Phthalate	29.37	149.0	8761	2.97	NG/UL	94
69)	*d12-Perylene	32.89	264.0	111375	50.00	NG/UL	96

* Compound is ISTD

, target
NO TIC

TOTAL ION CHROMATOGRAM



Data File: >BP145 Quant Output File: ^BP145::C6
Name: SF6986 90FT09D18
Misc: 022890 1L/1ML

Id File: IDBP96::D6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900228 18:30

Operator ID: BABU
Quant Time: 900301 13:42
Injected at: 900301 12:54

QUANT REPORT

Operator ID: BABU
Output File: ^BP146::C6
Data File: >BP146::D0
Name: SF6986 90FT09S19
Misc: 022890 1L/1ML

Quant Rev: 6
Quant Time: 900301 14:42
Injected at: 900301 13:53
Dilution Factor: 1.00000

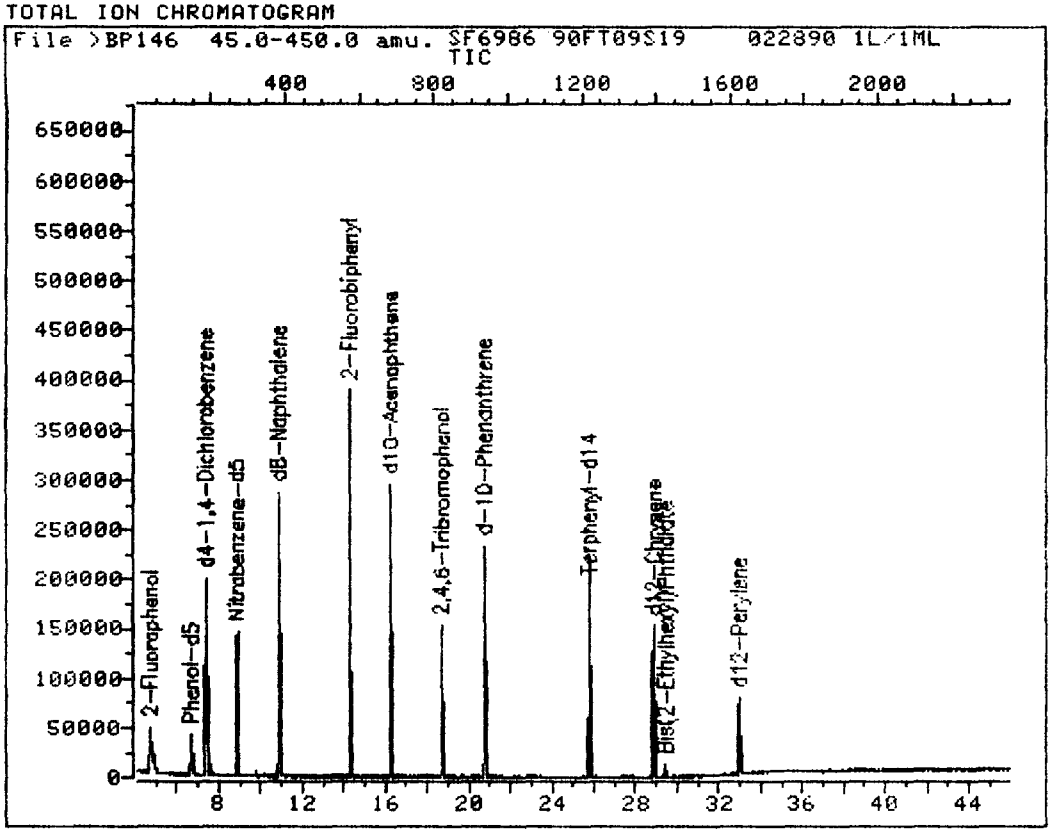
ID File: IDBP96::D6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900228 18:30

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.31	152.0	129844	50.00	NG/UL	96
2)	2-Fluorophenol	4.67	112.0	93420	28.74	NG/UL	93
3)	Phenol-d5	6.61	99.0	65168	18.73	NG/UL	93
16)	d8-Naphthalene	10.81	136.0	347092	47.19	NG/UL	94
17)	Nitrobenzene-d5	8.82	82.0	155248	50.34	NG/UL	88
31)	d10-Acenaphthene	16.20	164.0	147307	56.14	NG/UL	94
36)	2-Fluorobiphenyl	14.23	172.0	277293	55.00	NG/UL	94
39)	*d-10-Phenanthrene	20.69	188.0	216703	50.00	NG/UL	98
54)	2,4,6-Tribromophenol	18.64	330.0	47038	59.74	NG/UL	96
62)	d12-Chrysene	28.83	240.0	168030	63.12	NG/UL	95
64)	Terphenyl-d14	25.72	244.0	227557	73.13	NG/UL	97
67)	Bis(2-Ethylhexyl)Phthalate	29.38	149.0	7212	3.28	NG/UL	97
69)	*d12-Perylene	32.92	264.0	99517	50.00	NG/UL	97

* Compound is ISTD

1 target
NO TIC

TOTAL ION CHROMATOGRAM



Data File: >BP146 Quant Output File: ^BP146::C6
Name: SF6986 90FT09S19
Misc: 022890 1L/1ML

Id File: IDBP96::D6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900228 18:30

Operator ID: BABU
Quant Time: 900301 14:42
Injected at: 900301 13:53

QUANT REPORT

Operator ID: BABU
Output File: ^BP147::C6
Data File: >BP147::D0
Name: SF6986 90FT09S20
Misc: 022890 1L/1ML

Quant Rev: 6
Quant Time: 900301 15:42
Injected at: 900301 14:53
Dilution Factor: 1.00000

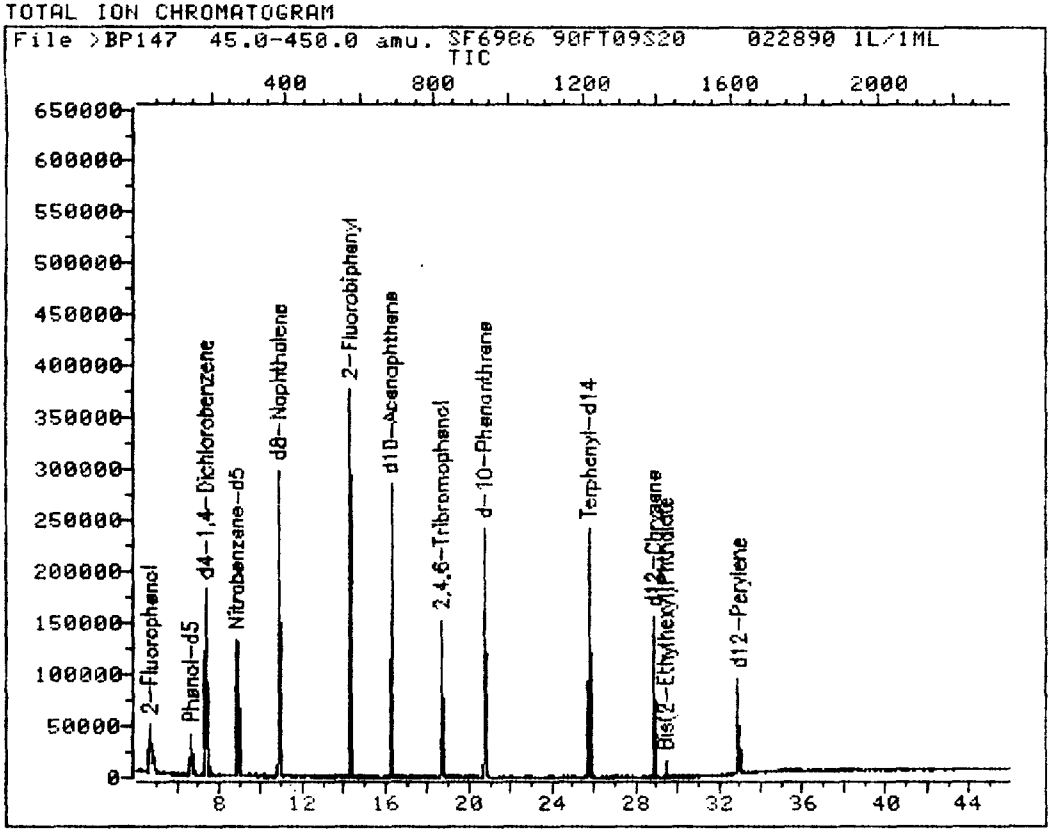
ID File: IDBP96::D6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900228 18:30

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.31	152.0	123555	50.00	NG/UL	96
2)	2-Fluorophenol	4.66	112.0	99980	32.32	NG/UL	98
3)	Phenol-d5	6.61	99.0	68923	20.82	NG/UL	96
16)	d8-Naphthalene	10.81	136.0	337022	48.15	NG/UL	93
17)	Nitrobenzene-d5	8.80	82.0	147455	50.25	NG/UL	91
31)	d10-Acenaphthene	16.20	164.0	152872	61.23	NG/UL	92
36)	2-Fluorobiphenyl	14.23	172.0	290921	60.64	NG/UL	93
39)	*d-10-Phenanthrene	20.69	188.0	221247	50.00	NG/UL	97
54)	2,4,6-Tribromophenol	18.64	330.0	50885	63.30	NG/UL	99
62)	d12-Chrysene	28.81	240.0	182141	67.01	NG/UL	94
64)	Terphenyl-d14	25.72	244.0	253292	79.73	NG/UL	98
67)	Bis(2-Ethylhexyl)Phthalate	29.38	149.0	9761	4.35	NG/UL	89
69)	*d12-Perylene	32.90	264.0	109513	50.00	NG/UL	95

* Compound is ISTD

1 target
NO TIC

TOTAL ION CHROMATOGRAM



Data File: >BP147 Quant Output File: ^BP147::C6
Name: SF6986 90FT09S20
Misc: 022890 1L/1ML

Id File: IDBP96::D6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900228 18:30

Operator ID: BABU
Quant Time: 900301 15:42
Injected at: 900301 14:53

QUANT REPORT

Operator ID: BABU
Output File: ^BP148::C6
Data File: >BP148::D0
Name: SF6986 90FT09S21
Misc: 022890 1L/1ML

Quant Rev: 6
Quant Time: 900301 16:41
Injected at: 900301 15:53
Dilution Factor: 1.00000

ID File: IDBP96::D6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900228 18:30

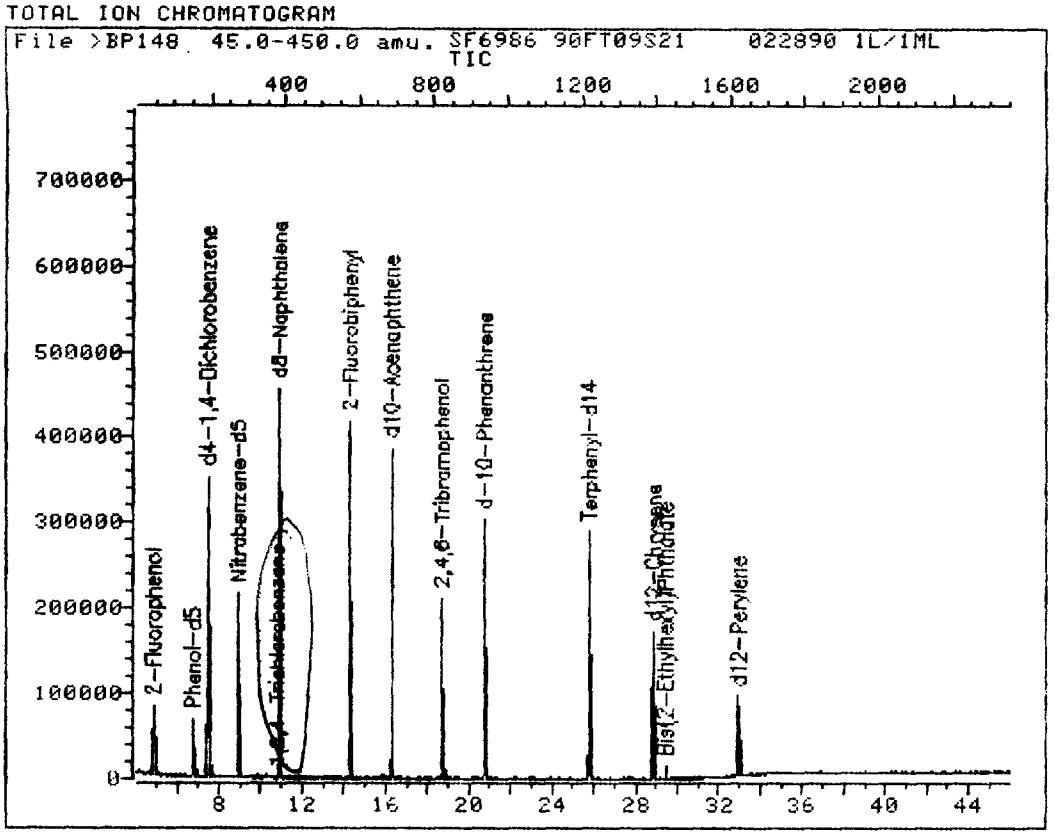
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.41	152.0	189050	50.00	NG/UL	97
2)	2-Fluorophenol	4.82	112.0	129832	27.43	NG/UL	95
3)	Phenol-d5	6.72	99.0	93274	18.41	NG/UL	99
16)	d8-Naphthalene	10.85	136.0	514793	48.07	NG/UL	91
17)	Nitrobenzene-d5	8.89	82.0	205606	45.79	NG/UL	84
25)	1,2,4-Trichlorobenzene	10.76	180.0	378	.10	NG/UL	88
31)	d10-Acenaphthene	16.22	164.0	209611	54.87	NG/UL	95
36)	2-Fluorobiphenyl	14.25	172.0	346201	47.16	NG/UL	93
39)	*d-10-Phenanthrene	20.70	188.0	279842	50.00	NG/UL	98
54)	2,4,6-Tribromophenol	18.66	330.0	66478	65.38	NG/UL	97
62)	d12-Chrysene	28.83	240.0	179929	52.34	NG/UL	93
64)	Terphenyl-d14	25.74	244.0	285788	71.12	NG/UL	96
67)	Bis(2-Ethylhexyl)Phthalate	29.38	149.0	8998	3.17	NG/UL	90
69)	*d12-Perylene	32.91	264.0	121159	50.00	NG/UL	96

* Compound is ISTD

1 target

NO TIC

TOTAL ION CHROMATOGRAM



Data File: >BP148 Quant Output File: ^BP148::C6
Name: SF6986 90FT09S21
Misc: 022890 1L/1ML

Id File: IDBP96::D6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900228 18:30

Operator ID: BABU
Quant Time: 900301 16:41
Injected at: 900301 15:53

QUANT REPORT

Operator ID: BABU
Output File: ^BP153::D1
Data File: >BP153::C6
Name: SF6986 90FT01R98
Misc: 030190 1L/1ML

Quant Rev: 6
Quant Time: 900308 09:45
Injected at: 900301 21:23
Dilution Factor: 1.00000

ID File: IDBP96::C6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900308 09:22

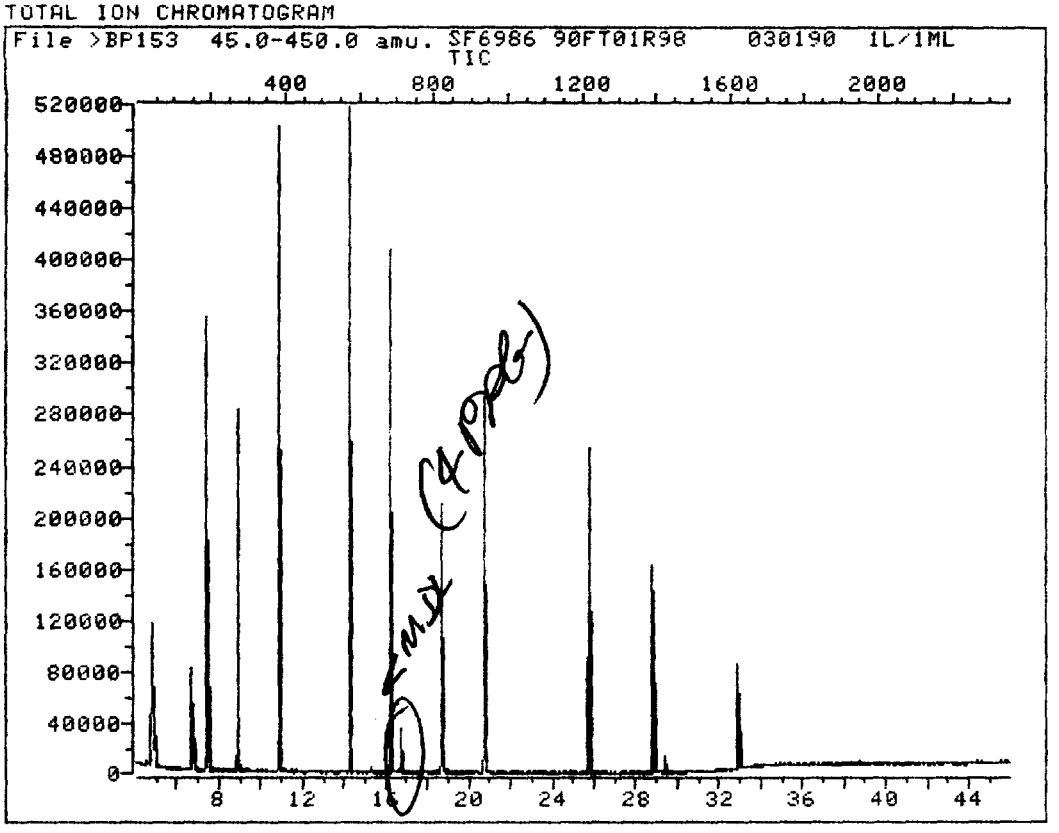
	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.36	184	214901	50.00	NG/UL	97
2)	2-Fluorophenol	4.75	37	187663	34.34	NG/UL	93
3)	Phenol-d5	6.65	144	126840	22.01	NG/UL	98
14)	~~N-Nitroso-Di-n-propylamine~~	8.84	267	41302	10.17	NG/UL	60
16)	d8-Naphthalene	10.83	379	574242	47.57	NG/UL	92
17)	Nitrobenzene-d5	8.84	267	272747	52.17	NG/UL	92
31)	d10-Acenaphthene	16.21	681	227135	54.48	NG/UL	93
36)	2-Fluorobiphenyl	14.23	570	433899	54.17	NG/UL	93
39)	*d-10-Phenanthrene	20.69	933	287067	50.00	NG/UL	98
54)	2,4,6-Tribromophenol	18.64	818	71064	60.20	NG/UL	94
62)	d12-Chrysene	28.81	1390	180258	50.79	NG/UL	93
64)	Terphenyl-d14	25.72	1216	280121	69.16	NG/UL	98
67)	✓Bis(2-Ethylhexyl)Phthalate	29.38	1422	9730	3.38	NG/UL	90
69)	*d12-Perylene	32.91	1620	106824	50.00	NG/UL	95

* Compound is ISTD

1 Target

NQ T iC

TOTAL ION CHROMATOGRAM



Data File: >BP153::C6 Quant Output File: ^BP153::D1
Name: SF6986 90FT01R98
Misc: 030190 1L/1ML

Id File: IDBP96::C6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900308 09:22

Operator ID: BABU
Quant Time: 900308 09:45
Injected at: 900301 21:23

QUANT REPORT

Operator ID: BABU
Output File: ^BP154::D1
Data File: >BP154::C6
Name: SF6986 90FT09S20MS
Misc: 030190 1L/1ML

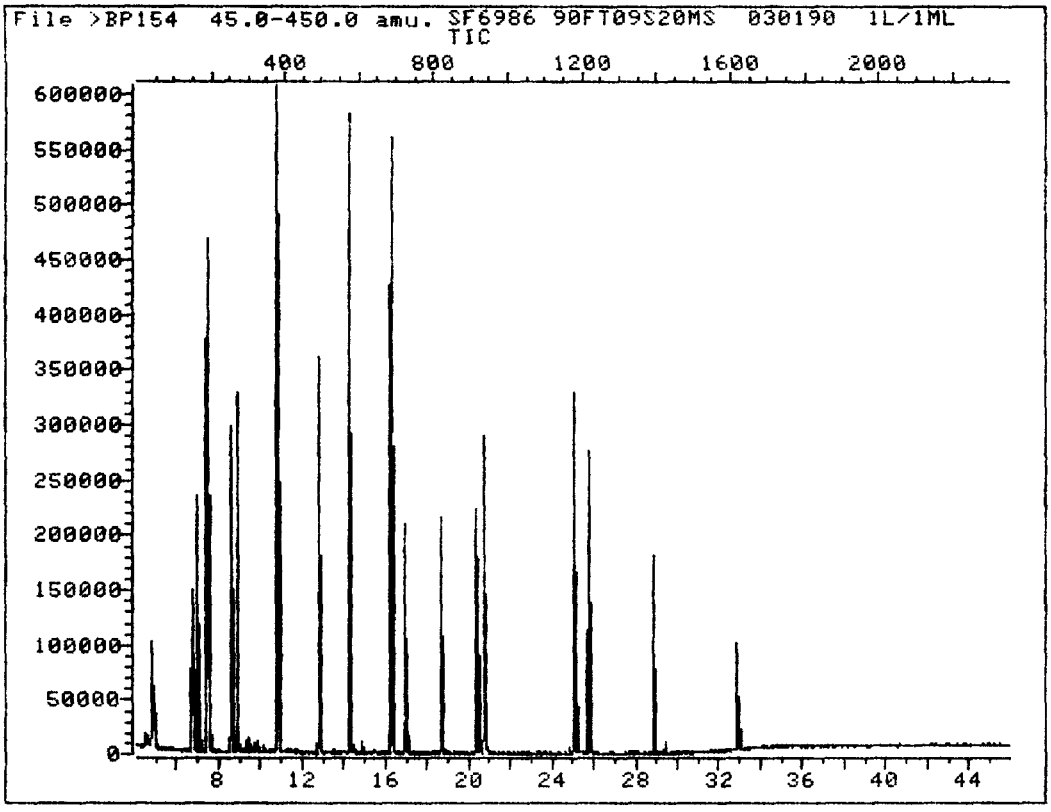
Quant Rev: 6
Quant Time: 900308 09:49
Injected at: 900301 22:23
Dilution Factor: 1.00000

ID File: IDBP96::C6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900308 09:22

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.36	184	194164	50.00	NG/UL	95
2)	2-Fluorophenol	4.76	38	171973	34.83	NG/UL	93
3)	Phenol-d5	6.69	146	120065	23.06	NG/UL	93
4)	Phenol	6.70	147	140962	23.09	NG/UL	88
6)	2-Chlorophenol	6.95	161	243953	53.82	NG/UL	96
7)	~~1,3-Dichlorobenzene~~	7.42	187	306617	60.23	NG/UL	97
8)	1,4-Dichlorobenzene	7.42	187	306617	53.56	NG/UL	98
14)	~~N-Nitroso-Di-n-~~propylamine	8.59	253	400873	109.29	NG/UL	98
16)	d8-Naphthalene	10.83	379	533651	48.93	NG/UL	89
17)	Nitrobenzene-d5	8.86	268	275697	58.37	NG/UL	90
20)	✓ 2-Nitrophenol	9.80	321	4452	2.49	NG/UL	86
24)	✓ ~~2,4-Dichlorophenol~~	10.51	361	321	.10	NG/UL	79
25)	1,2,4-Trichlorobenzene	10.74	374	288436	74.13	NG/UL	92
29)	4-Chloro-3-methylphenol	12.76	487	170085	59.20	NG/UL	93
31)	d10-Acenaphthene	16.23	682	221760	58.87	NG/UL	94
36)	2-Fluorobiphenyl	14.25	571	438636	60.61	NG/UL	92
39)	*d-10-Phenanthrene	20.69	933	299749	50.00	NG/UL	99
42)	Acenaphthene	16.31	687	367877	66.39	NG/UL	96
44)	4-Nitrophenol	16.85	717	15443	23.38	NG/UL	94
46)	2,4-Dinitrotoluene	16.97	724	102652	65.36	NG/UL	74
54)	2,4,6-Tribromophenol	18.65	818	74426	60.38	NG/UL	98
57)	Pentachlorophenol	20.37	915	76995	71.53	NG/UL	96
62)	d12-Chrysene	28.82	1390	199976	53.96	NG/UL	94
63)	Pyrene	25.07	1179	447088	76.17	NG/UL	91
64)	Terphenyl-d14	25.72	1216	302854	71.61	NG/UL	97
67)	✓ Bis(2-Ethylhexyl)Phthalate	29.37	1421	8293	2.76	NG/UL	92
69)	*d12-Perylene	32.91	1620	114370	50.00	NG/UL	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >BP154::C6 Quant Output File: ^BP154::D1
Name: SF6986 90FT09S20MS
Misc: 030190 1L/1ML

Id File: IDBP96::C6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900308 09:22

Operator ID: BABU
Quant Time: 900308 09:49
Injected at: 900301 22:23

QUANT REPORT

Operator ID: BABU
Output File: ^BP155::D1
Data File: >BP155::C6
Name: SF6986 90FT09S20MSD
Misc: 030190 1L/1ML

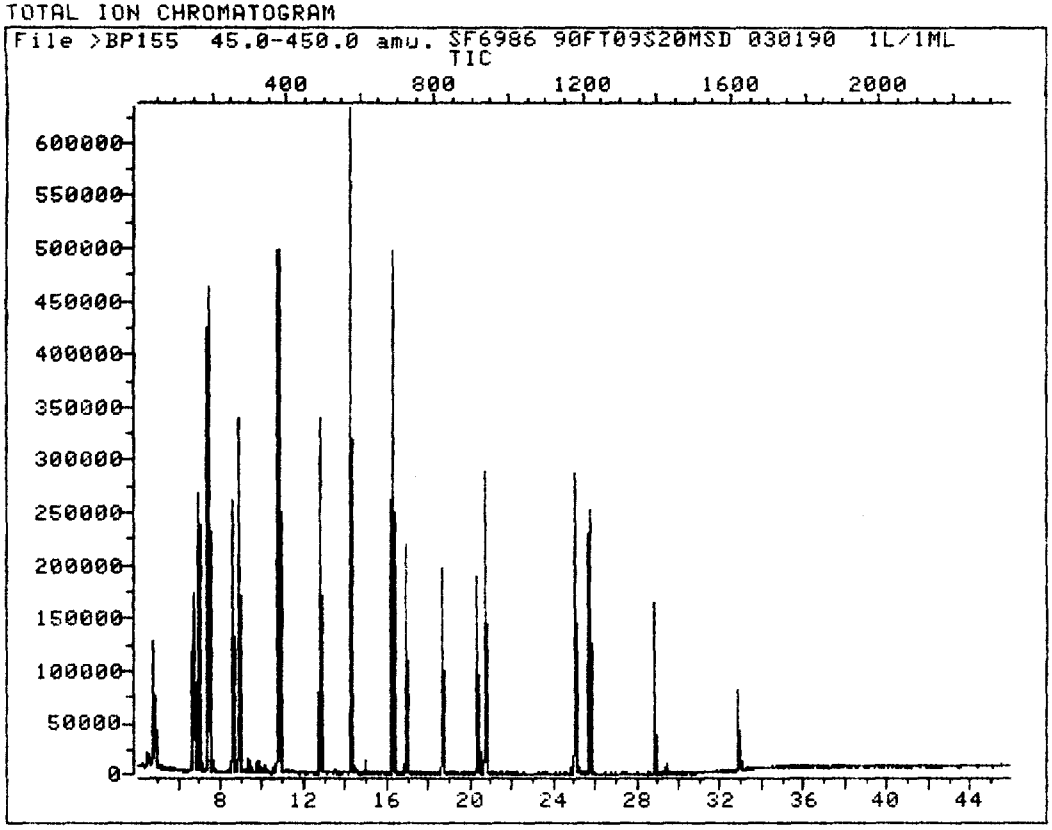
Quant Rev: 6
Quant Time: 900308 09:52
Injected at: 900301 23:22
Dilution Factor: 1.00000

ID File: IDBP96::C6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900308 09:22

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.36	184	223509	50.00	NG/UL	99
2)	2-Fluorophenol	4.76	38	197286	34.72	NG/UL	93
3)	Phenol-d5	6.67	145	141914	23.67	NG/UL	99
4)	Phenol	6.70	147	165526	23.55	NG/UL	86
6)	2-Chlorophenol	6.94	160	280298	53.72	NG/UL	99
7)	~~1,3-Dichlorobenzene~~	7.40	186	255730	43.64	NG/UL	94
8)	1,4-Dichlorobenzene	7.40	186	255730	38.80	NG/UL	95
14)	N-Nitroso-Di-n-propylamine	8.59	253	346597	82.09	NG/UL	93
16)	d8-Naphthalene	10.82	378	625246	49.80	NG/UL	89
17)	Nitrobenzene-d5	8.86	268	308292	56.70	NG/UL	83
20)	✓2-Nitrophenol	9.80	321	5127	2.49	NG/UL	97
25)	1,2,4-Trichlorobenzene	10.73	373	243884	54.45	NG/UL	89
29)	4-Chloro-3-methylphenol	12.76	487	179146	54.17	NG/UL	86
31)	d10-Acenaphthene	16.21	681	238956	55.11	NG/UL	96
36)	2-Fluorobiphenyl	14.23	570	469609	56.37	NG/UL	93
39)	*d-10-Phenanthrene	20.67	932	293070	50.00	NG/UL	99
42)	Acenaphthene	16.30	686	351622	64.90	NG/UL	97
44)	4-Nitrophenol	16.83	716	12118	18.76	NG/UL	89
46)	2,4-Dinitrotoluene	16.97	724	97972	63.80	NG/UL	90
54)	2,4,6-Tribromophenol	18.63	817	74307	61.65	NG/UL	97
57)	Pentachlorophenol	20.35	914	65772	62.50	NG/UL	97
62)	d12-Chrysene	28.82	1390	179661	49.59	NG/UL	95
63)	Pyrene	25.05	1178	388935	67.77	NG/UL	91
64)	Terphenyl-d14	25.71	1215	265700	64.26	NG/UL	97
67)	✓Bis(2-Ethylhexyl)Phthalate	29.37	1421	5939	2.02	NG/UL	96
69)	*d12-Perylene	32.89	1619	103121	50.00	NG/UL	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >BP155::C6 Quant Output File: ^BP155::D1
Name: SF6986 90FT09S20MSD
Misc: 030190 1L/1ML

Id File: IDBP96::C6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900308 09:22

Operator ID: BABU
Quant Time: 900308 09:52
Injected at: 900301 23:22

MS data file header from : >BP153

Sample: SF6986 90FT01R98 Operator: BABU REG. GRP. 3/01/90 21:23
Misc : 030190 1L/1ML
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: TOXIC6 Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	65.	320.	321.	0.	0.
Chromatographic times, min. :	1.0	10.0	2.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	1.0	0.0	0.0	0.0

>BP153 SF6986 90FT01R98 030190 1L/1ML
45.01 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 26294. Max Peaks: 1 Bunching: 1
Dnslope: 0.00 Results File IBP153 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	16.67	704	707	709	35430	78631	72461	100.00	100.000

Sum of corrected areas: 72461.

Summary of Unknowns PBM Library Search and Quantitation

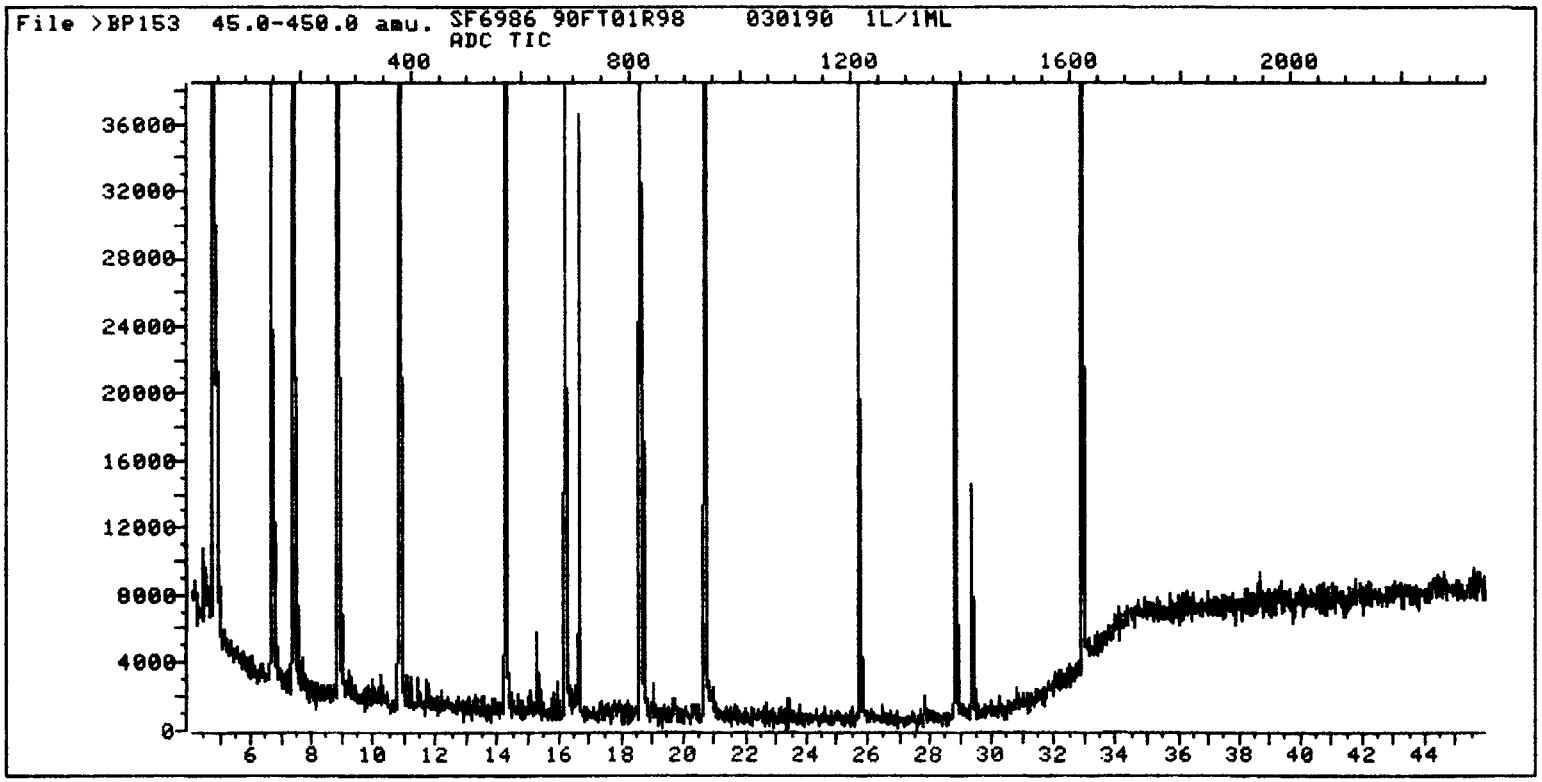
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	1298928.	7.36	4.11 - 14.03
2	50.0	811120.	20.69	14.03 - 26.80
3	50.0	262936.	32.91	26.80 - 45.93

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)

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

9:56 AM FRI., 9 MAR., 1990


File >BP153 45.0-450.0 amu. SF6986 90FT01R98 030190 1L/1ML
ADC TIC
400
800
1200
1600
2000
36000
32000
28000
24000
20000
16000
12000
8000
4000
0
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
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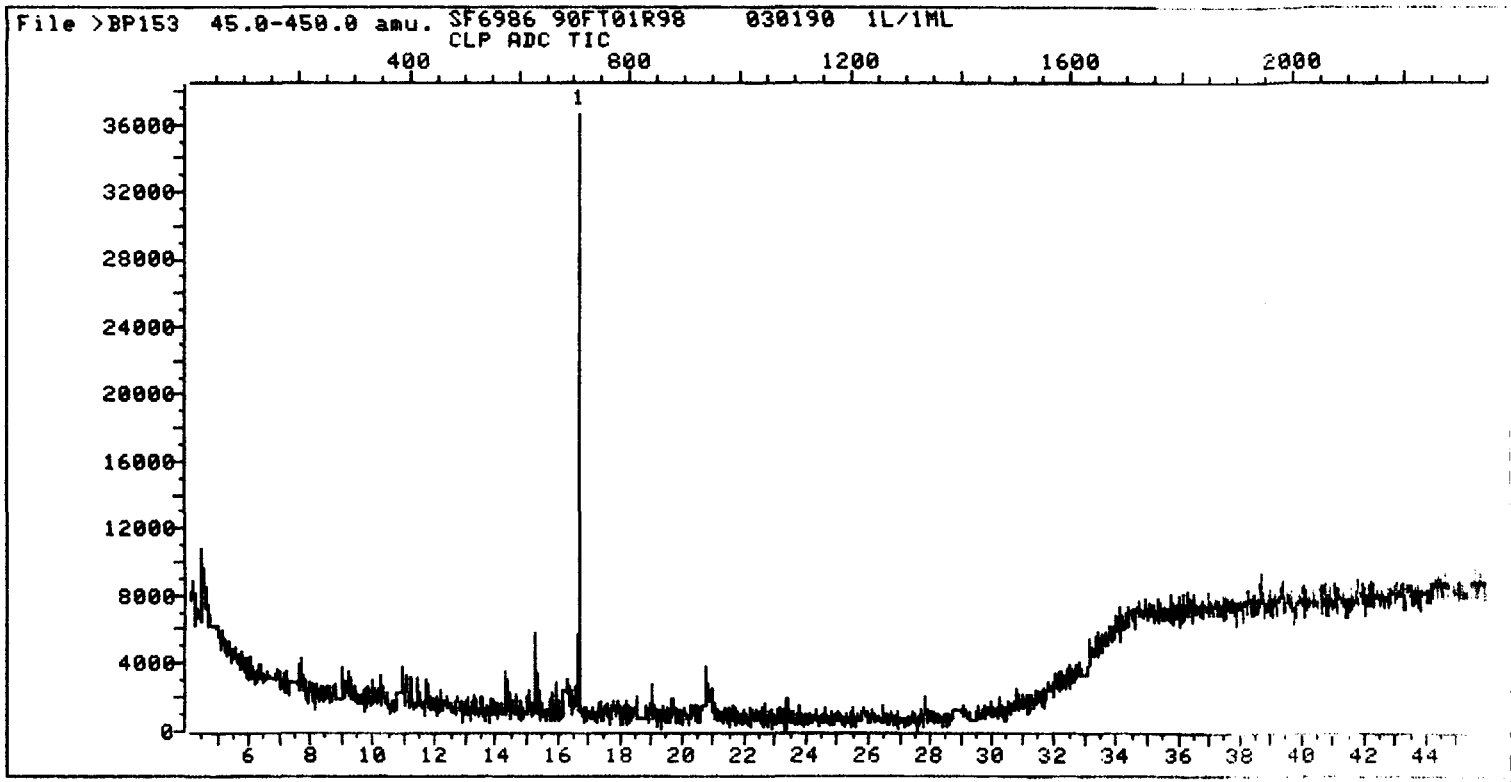
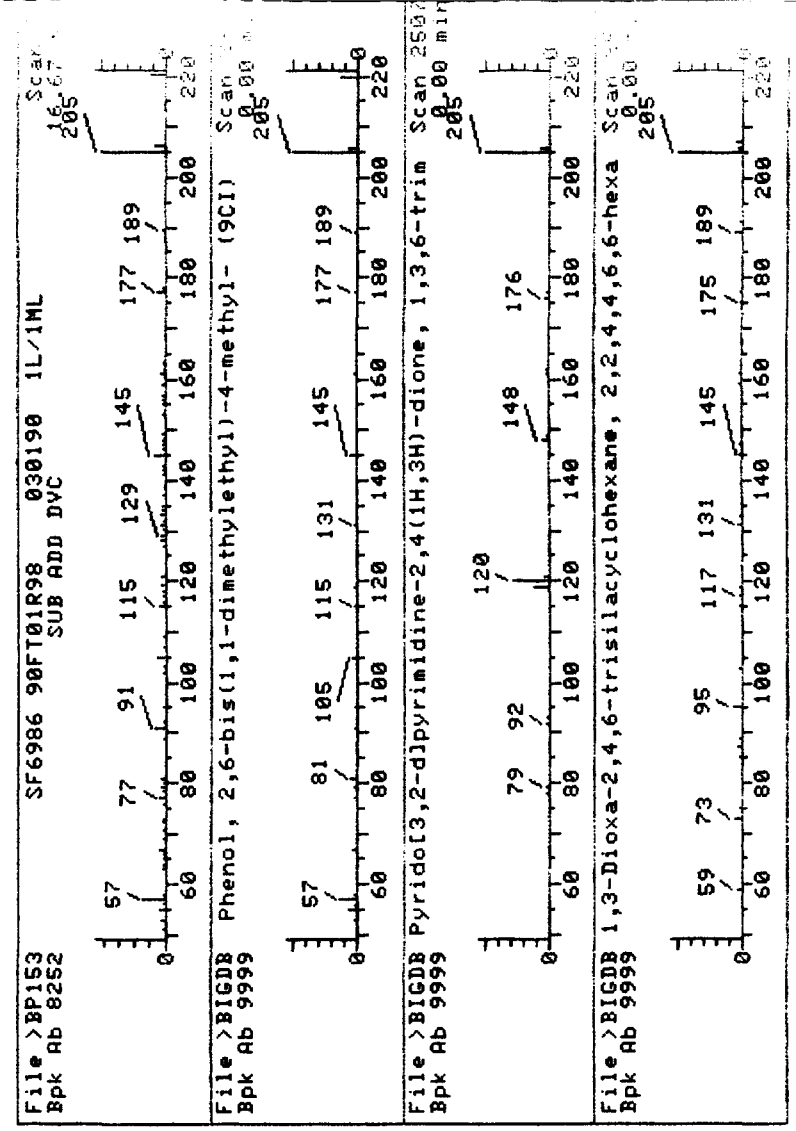
38
40
42
44


File >BP153 45.0-450.0 amu. SF6986 90FT01R98 030190 1L/1ML
CLP ADC TIC
400
800
1200
1600
2000
1
36000
32000
28000
24000
20000
16000
12000
8000
4000
0
6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44



. Unknown #,1
Area = 72461.00 Tentative Concentration is 4.00

1. Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl- (9CI) 220 C15H24O
2. Pyrido[3,2-d]pyrimidine-2,4(1H,3H)-dione, 1,3,6-trim ethyl- (8CI) 205 C10H11N3O2
3. 1,3-Dioxa-2,4,6-trisilacyclohexane, 2,2,4,4,6,6-hexa methyl- (8CI9CI) 220 C7H20O2Si3
4. 2-Phenazinecarbonitrile (8CI9CI) 205 C13H7N3
5. Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-, methyl carbamate (9CI) 277 C17H27NO2

Sample file: >BP153 Spectrum #: 707
Search speed: 2 Tilting option: S No. of ion ranges searched: 53

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	87*	128370	25107	"BIGDB	77	40	2	1	82	3	63	49
2.	30*	16953814	25075	"BIGDB	37	66	3	0	100	35	12	13
3.	30*	17945196	25093	"BIGDB	25	91	3	0	100	35	12	13
4.	29*	6479932	25069	"BIGDB	23	105	3	0	100	33	12	12
5.	20	1918112	25104	"BIGDB	72	65	2	0	65	53	5	17

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	43.05	43.05	Ok
68	Less than 2% of mass 69	.25	.45	Ok
69	(reference only)	55.89	55.89	Ok
70	Less than 2% of mass 69	.13	.24	Ok
127	40-60% of mass 198	41.40	41.40	Ok
197	Less than 1% of mass 198	.05	.05	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.44	6.44	Ok
275	10-30% of mass 198	19.18	19.18	Ok
365	Greater than 1% of mass 198	1.60	1.60	Ok
441	0-100% of mass 443	8.31	75.56	Ok
442	Greater than 40% of mass 198	56.35	56.35	Ok
443	17-23% of mass 442	11.00	19.52	Ok

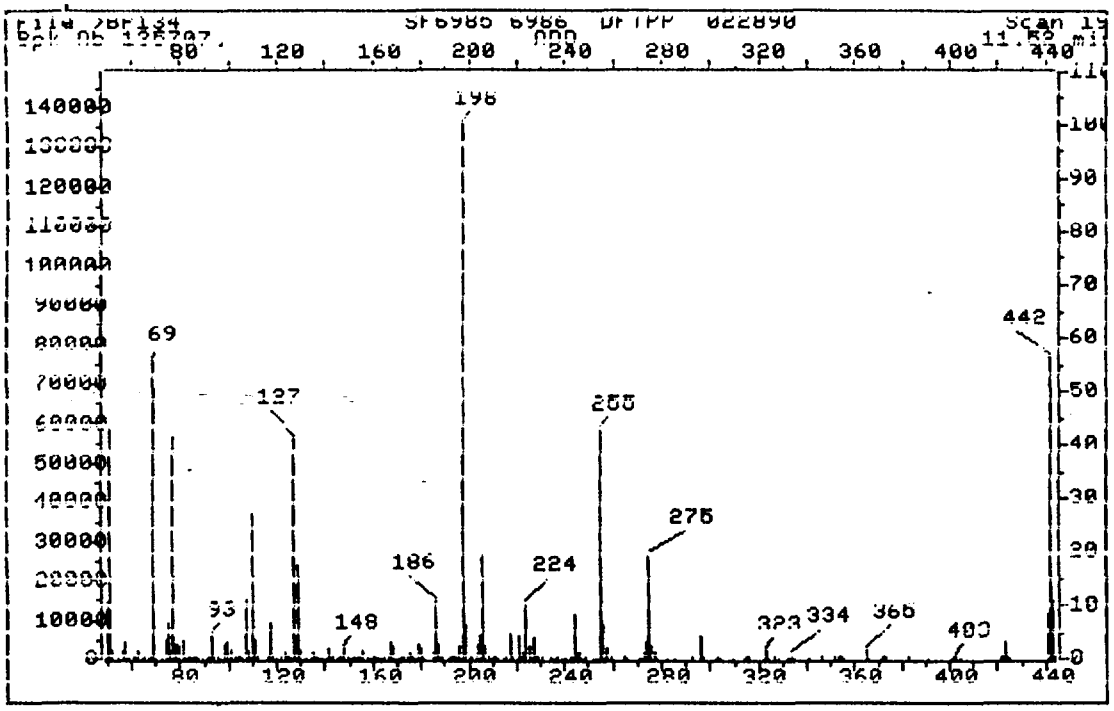
Injection Date: 02/28/90
Injection Time: 16:44
Data File: >BP134
Scan: 193+4+5

ERROR: Data file: >BP134::D6

RPN-099

Unable to access current data file retention time and number of scans.

This error message is returned to RPN by the QHD program. RPN calls the QHD program whenever a real-time data file is being accessed. QHD informs RPN how many data records are currently in the data file.



ERROR: Data file: >BP134::D6

RPN-099

Unable to access current data file retention time and number of scans.

This error message is returned to RPN by the QHD program. RPN calls the QHD program whenever a real-time data file is being accessed. QHD informs RPN how many data records are currently in the data file.

>BP134 SF6985 6986 DFTPP 022890
193 ADD

File: >BP134 Scan #: 193 Retn. time: 11.52

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
48.95	684.	103.05	656.	156.00	2197.	210.00	336.	276.95	1861.
50.05	14673.	104.05	1309.	157.00	463.	211.00	842.	277.95	145.
51.05	58421.	105.05	1387.	158.00	457.	211.60	145.	282.95	167.
52.05	2306.	105.95	367.	158.90	189.	215.00	221.	285.05	242.
54.95	277.	107.05	15286.	160.00	657.	216.00	457.	292.95	401.
56.05	1956.	108.00	2211.	161.00	1270.	217.00	6637.	296.05	5743.
57.05	4414.	109.00	364.	162.00	363.	218.00	848.	297.00	799.
58.05	128.	110.00	36929.	163.00	47.	220.00	60.	302.00	87.
58.75	77.	111.00	5173.	164.00	94.	221.00	5768.	303.00	626.
61.10	865.	111.90	433.	165.00	1137.	222.00	321.	304.00	74.
62.00	851.	116.00	742.	166.00	816.	223.00	1435.	309.90	44.
63.00	2419.	117.00	9102.	167.00	4547.	224.00	14030.	314.10	134.
64.10	247.	118.00	640.	168.00	3266.	225.00	3405.	314.90	595.
65.00	819.	120.00	97.	169.10	211.	226.05	286.	316.10	397.
66.80	52.	121.90	995.	170.00	150.	226.95	5261.	322.05	48.
67.70	132.	123.00	1540.	170.90	84.	228.05	755.	323.05	2119.
68.00	341.	124.00	745.	171.90	425.	228.95	1191.	324.05	259.
69.00	75852.	125.00	526.	173.00	477.	230.95	581.	326.95	370.
70.00	182.	126.20	59.	174.10	1069.	233.95	360.	327.95	208.
72.90	462.	127.00	56184.	175.10	1806.	235.05	182.	331.95	157.
74.00	5090.	128.00	4067.	176.00	321.	236.05	209.	333.05	145.
75.00	9533.	129.00	23760.	177.00	977.	236.95	488.	334.05	1348.
76.00	2465.	130.00	2143.	178.00	151.	238.95	222.	334.95	200.
77.00	56312.	131.05	168.	178.95	3987.	239.95	111.	341.05	257.
78.10	3819.	132.05	137.	180.05	2567.	240.95	263.	346.00	349.
79.00	3804.	133.95	599.	181.05	1240.	242.05	632.	352.00	620.
80.00	3165.	134.95	1566.	184.95	1655.	243.05	494.	353.00	445.
81.00	4720.	135.95	659.	186.05	14499.	244.05	11471.	354.10	697.
82.00	1158.	136.95	820.	187.05	3887.	245.05	1522.	355.00	54.
83.10	994.	138.05	179.	188.05	478.	246.05	1906.	365.00	2173.
83.95	457.	138.75	109.	188.95	737.	247.05	145.	366.00	287.
85.05	697.	139.75	94.	191.05	171.	247.95	67.	370.95	180.
85.95	1151.	140.05	93.	192.05	1016.	249.05	436.	372.05	1116.
87.05	650.	140.95	2502.	193.05	1267.	252.00	113.	372.95	328.
87.95	178.	141.95	994.	193.95	337.	252.90	97.	383.05	333.
89.05	59.	142.95	619.	195.05	45.	254.10	227.	391.15	89.
89.85	44.	144.95	83.	196.05	3315.	255.00	58019.	400.80	45.
91.05	965.	145.25	71.	197.05	72.	256.00	8455.	402.00	448.
91.95	1064.	146.05	361.	197.95	135707.	257.00	504.	403.00	605.
92.95	6124.	147.05	1191.	198.95	8734.	258.00	2887.	404.00	179.
93.95	360.	148.05	2588.	200.05	546.	259.00	432.	421.05	608.
94.15	70.	149.05	614.	201.55	416.	265.00	951.	422.05	436.
95.95	333.	150.05	151.	203.00	710.	265.90	134.	423.05	4282.
96.15	214.	151.05	109.	204.00	3592.	270.90	50.	424.05	841.
96.65	64.	151.65	331.	205.00	5769.	272.00	93.	425.05	78.
96.95	60.	151.65	64.	206.00	26527.	273.00	1683.	441.00	11276.
98.05	3918.	151.95	78.	207.00	3259.	273.95	4277.	442.00	76465.
99.05	4317.	153.05	941.	208.00	722.	274.95	26025.	443.00	14924.
99.95	181.	154.05	523.	209.00	242.	275.95	3202.	444.00	1130.
101.05	2318.	155.00	1251.						

ERROR: Data file: >BP134::D6

RPN-099

Unable to access current data file retention time and number of scans.

,req	,type	# pts	scan#	range: amu\r.t.	base	file	ion range
X	MS	227	196	49.05- 444.10	103184.3	>BP149	

FMGR : ,D

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	45.51	45.51	Ok
68	Less than 2% of mass 69	.82	1.37	Ok
69	(reference only)	59.91	59.91	Ok
70	Less than 2% of mass 69	.13	.21	Ok
127	40-60% of mass 198	40.11	40.11	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	6.41	6.41	Ok
275	10-30% of mass 198	19.98	19.98	Ok
365	Greater than 1% of mass 198	1.59	1.59	Ok
441	0-100% of mass 443	7.94	85.46	Ok
442	Greater than 40% of mass 198	53.15	53.15	Ok
443	17-23% of mass 442	9.30	17.49	Ok

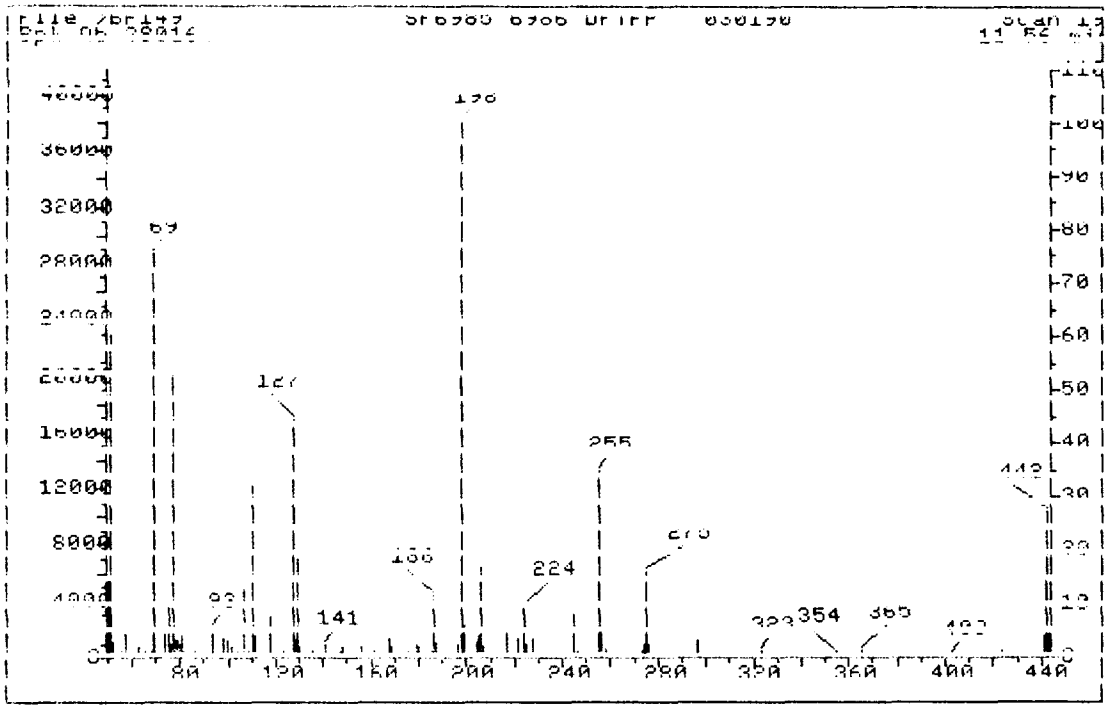
Injection Date: 03/01/90
Injection Time: 16:51
Data File: >BP149
Scan: 196

197

FMGR : AL, Move cursor; then press carriage return :

FMGRA: BAMON

BAMON - Batch Monitor Control Program (c) Copyright 1983 ETC Corp.
Enter ? for help.



>BP149 SF6985 6986 DFTPP 030190
197 NRM

File: >BP149 Scan #: 197 Retn. time: 11.56

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
49.15	56.29	98.05	359.81	149.05	39.45	191.05	28.93	244.15	796.16
50.05	1497.11	99.05	328.78	151.05	25.78	192.05	75.22	245.15	66.02
51.05	6036.85	101.05	192.53	151.85	16.83	193.05	88.64	246.05	111.26
52.05	270.65	103.15	48.13	153.05	78.12	194.05	26.04	255.00	3488.96
52.95	21.83	104.05	116.78	154.05	61.55	196.05	231.98	256.10	476.33
55.05	32.09	105.05	100.21	155.00	101.00	198.05	9999.00	258.00	177.01
55.95	171.23	107.05	1285.91	156.10	188.06	199.05	620.73	265.00	88.64
57.05	442.66	108.00	182.54	157.00	40.24	200.15	43.66	266.10	24.72
57.95	24.99	109.00	25.25	158.00	54.18	201.55	38.66	273.10	109.94
61.00	71.02	110.00	3205.95	159.00	29.20	203.00	45.24	274.05	251.45
62.00	90.74	111.00	419.78	160.00	58.13	204.10	281.43	275.05	1606.79
63.00	218.57	112.10	38.14	161.10	112.84	205.00	407.42	276.05	235.93
65.10	124.93	116.00	71.80	162.00	27.35	206.10	1699.11	277.05	95.74
68.00	131.77	117.00	782.22	164.90	79.17	207.10	216.20	285.15	29.72
69.00	7551.85	118.00	54.97	166.10	63.12	208.00	47.61	296.05	314.57
70.00	34.19	122.00	76.28	167.10	374.28	209.90	16.31	297.00	34.46
73.10	37.87	123.10	106.00	168.10	208.57	210.30	24.99	304.10	17.36
74.00	461.86	124.00	64.70	169.00	33.14	211.00	59.97	314.10	27.88
75.00	999.48	125.00	57.34	169.90	12.89	216.00	29.46	316.10	37.35
76.10	244.08	127.10	4431.38	170.90	24.46	217.00	482.12	320.95	19.46
77.10	5369.83	128.10	332.46	172.00	37.87	218.10	59.18	323.05	130.72
78.10	305.37	129.10	1858.76	173.20	47.34	221.10	362.97	324.05	23.93
79.10	320.62	130.10	191.48	174.10	76.28	223.00	90.22	327.05	22.09
80.00	254.87	130.90	21.04	175.10	118.62	224.10	938.98	333.15	11.31
81.00	391.90	133.95	45.77	176.10	49.45	225.10	250.40	353.10	26.83
82.00	114.68	135.05	130.72	177.00	59.71	226.05	26.04	354.10	30.77
83.10	93.90	136.05	57.34	179.05	258.02	227.05	347.98	365.10	104.68
83.75	16.83	136.95	71.02	180.05	193.32	228.95	86.80	403.10	32.09
85.05	61.55	137.65	16.04	181.05	101.00	231.05	47.08	423.15	142.29
86.05	133.35	141.05	248.29	185.05	131.51	233.95	19.20	424.05	34.72
91.05	87.59	142.05	77.06	186.05	1145.19	235.05	35.77	441.10	420.83
92.05	97.58	143.05	53.92	187.05	276.17	237.05	39.98	442.10	2705.69
93.05	569.96	147.05	113.89	189.05	49.97	241.05	24.99	443.10	460.55
94.05	41.56	148.05	192.00	189.95	17.89	242.05	42.61	444.10	44.98

FMGRA: AL, Move cursor; then press carriage return :

Calibration Report

ID BP96

Title: HP BNA STD REV E KELLY 06\23\89
Calibrated: 900208 09:28

Compound	Files: >BP027 RF 25.00	>BP026 RF 50.00	>BP025 RF 100.00	RRT	$\overline{RF}$	% RSD	
2-Fluorophenol	1.07061	1.13464	1.28851	.647	1.16459	9.617	
Phenol-d5	1.25198	1.29089	1.39068	.907	1.31119	5.456	
Phenol	1.48106	1.50683	1.55355	.911	1.51381	2.427	
bis(2-Chloroethyl)Ether	1.38719	1.40510	1.46899	.929	1.42043	3.027	
2-Chlorophenol	1.07285	1.10930	1.21858	.943	1.13358	6.690	
1,3-Dichlorobenzene	1.31002	1.26561	1.38610	.988	1.32058	4.614	
1,4-Dichlorobenzene	1.35701	1.33829	1.41596	1.007	1.37042	2.958	
Benzyl Alcohol	.57833	.59194	.62483	1.059	.59837	3.996	
1,2-Dichlorobenzene	1.29720	1.26340	1.33524	1.068	1.29861	2.768	
2-Methylphenol	.84499	.84770	.86903	1.111	.85391	1.542	
bis(2-Chloroisopropyl)ether	.35849	.34790	.35899	1.119	.35513	1.764	
4-Methylphenol	.84115	.81301	.79768	1.167	.81728	2.698	
N-Nitroso-Di-n-propylamine	.87137	.89233	.83387	1.167	.86586	3.420	
Hexachloroethane	.52943	.52104	.54271	1.180	.53106	2.058	
d8-Naphthalene	3.03186	2.97578	2.76981	1.472	2.92582	4.716	(Conc=50.0,50.0,50.0)
Nitrobenzene-d5	1.18152	1.21443	1.27621	1.203	1.22405	3.928	
Nitrobenzene	.50603	.50877	.52250	1.209	.51243	1.722	
Isophorone	2.22568	2.19466	2.04853	1.301	2.15629	4.387	
2-Nitrophenol	.49044	.51704	.54922	1.332	.51890	5.672	
2,4-Dimethylphenol	.66326	.66090	.66974	1.366	.66463	.689	
Benzoic Acid	.45030	.48759	.51300	1.422	.48363	6.521	
bis(2-Chloroethoxy)Methane	1.37177	1.33972	1.29145	1.401	1.33431	3.030	
2,4-Dichlorophenol	.89610	.85948	.81766	1.427	.85775	4.576	
1,2,4-Trichlorobenzene	1.08073	1.01026	.98260	1.458	1.02453	4.939	
Naphthalene	2.91608	2.75747	2.69023	1.479	2.78793	4.159	
4-Chloroaniline	.38017	.35473	.33045	1.515	.35512	7.001	
Hexachlorobutadiene	.72340	.68333	.64320	1.565	.68331	5.868	
4-Chloro-3-methylphenol	.86300	.79872	.69098	1.732	.78423	11.084	
2-Methylnaphthalene	1.76637	1.59364	1.45538	1.763	1.60513	9.707	
d10-Acenaphthene	1.38137	1.20914	.92121	2.200	1.17057	19.861	(Conc=50.0,50.0,50.0)
Hexachlorocyclopentadiene	.66171	.68686	.68036	1.865	.67631	1.930	
2,4,6-Trichlorophenol	.65360	.59079	.50282	1.896	.58240	13.004	
2,4,5-Trichlorophenol	.70078	.61593	.50666	1.911	.60779	16.011	
2-Chloronaphthalene	1.90921	1.72213	1.42661	1.961	1.68599	14.432	
2-Fluorobiphenyl	2.38513	2.15208	1.80789	1.933	2.11503	13.730	
2-Nitroaniline	.49840	.43914	.38867	2.022	.44207	12.424	
Dimethylphthalate	2.30605	1.77168	1.37402	2.127	1.81725	25.736	
Acenaphthylene	1.18840	1.31620	1.22379	.759	1.24280	5.309	
3-Nitroaniline	.15732	.15617	.17006	.782	.16119	4.784	

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

RRT - Average Relative Retention Time (RT Std/RT Istd)

RF - Average Response Factor

%RSD - Percent Relative Standard Deviation

Calibration Report

IDBP96

Title: HP BNA STD REV E KELLY 06\23\89
Calibrated: 900208 09:28

Compound	Files: >BP027 RF 25.00	>BP026 RF 50.00	>BP025 RF 100.00	RRT	RF	% RSD	
Acenaphthene	.81849	.83461	.76869	.788	.80727	4.257	
2,4-Dinitrophenol	.07220	.08543	.10781	.796	.08848	20.345	
4-Nitrophenol	.09626	.09337	.10955	.814	.09973	8.651	
Dibenzofuran	1.15963	1.17389	1.12836	.813	1.15396	2.018	
2,4-Dinitrotoluene	.24090	.25358	.28004	.820	.25817	7.736	
2,6-Dinitrotoluene	.19312	.20419	.21383	.763	.20371	5.087	
Diethylphthalate	.98358	.91638	.92417	.865	.94138	3.905	
4-Chlorophenyl-phenylether	.45773	.44061	.42123	.868	.43985	4.152	
Fluorene	.85614	.81626	.79533	.863	.82257	3.756	
4-Nitroaniline	.13275	.13685	.15343	.873	.14101	7.765	
4,6-Dinitro-2-methylphenol	.10043	.10842	.13452	.880	.11446	15.575	
N-Nitrosodiphenylamine	.18532	.14395	.13994	.886	.15640	16.064	
2,4,6-Tribromophenol	.17118	.16878	.18433	.901	.17476	4.792	
4-Bromophenyl-phenylether	.27681	.26458	.25666	.938	.26602	3.817	
Hexachlorobenzene	.36195	.33354	.33401	.957	.34317	4.740	
Pentachlorophenol	.13558	.14791	.17491	.984	.15280	13.165	
Phenanthrene	1.10053	1.02284	1.04281	1.003	1.05539	3.823	
Anthracene	1.04417	.98353	1.03823	1.010	1.02198	3.271	
Di-n-Butylphthalate	1.12112	1.00957	1.16674	1.107	1.09914	7.357	
Fluoranthene	1.07156	.96096	1.04954	1.180	1.02735	5.698	
d12-Chrysene	.58685	.50287	.54282	1.394	.54418	7.719	(Conc=50.0,50.0,50.0)
Pyrene	1.05711	.95149	1.05726	1.212	1.02195	5.971	
Terphenyl-d14	.80358	.69666	.78010	1.244	.76011	7.393	
Butylbenzylphthalate	.22969	.19602	.31719	1.327	.24763	25.259	
Benzo(a)Anthracene	.78433	.63447	.70236	1.392	.70705	10.613	
Bis(2-Ethylhexyl)Phthalate	.24901	.22623	.38761	1.421	.28762	30.368	
Chrysene	.65633	.54310	.61637	1.398	.60527	9.488	
Di-n-octylphthalate	.91241	.88992	1.29382	.947	1.03205	21.993	
Benzo(b)fluoranthene	1.26849	.98935	1.20010	.970	1.15265	12.622	
Benzo(k)Fluoranthene	.97900	.96219	.92269	.972	.95463	3.028	
Benzo(a)Pyrene	.94765	.91563	1.01383	.995	.95904	5.222	
Indeno(1,2,3-cd)Pyrene	1.30717	1.21386	1.32162	1.092	1.28089	4.567	
Dibenzo(a,h)Anthracene	1.02007	.93398	1.03381	1.094	.99595	5.433	
Benzo(g,h,i)Perylene	1.10934	1.02501	1.11896	1.118	1.08444	4.767	

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

RRT - Average Relative Retention Time (RT Std/RT Istd)

RF - Average Response Factor

%RSD - Percent Relative Standard Deviation

Calibration Check Report

Title: HP BNA STD REV E KELLY 06\23\89
Calibrated: 900208 09:28

IDBP96

Check Standard Data File: >BP135
Injection Time: 900228 17:29

Compound	RF	RF	%Diff	Calib Meth	
2-Fluorophenol	1.16459	1.25191	7.50	Average	
Phenol-d5	1.31119	1.33984	2.19	Average	
Phenol	1.51381	1.55765	2.90	Average	
bis(2-Chloroethyl)Ether	1.42043	1.45392	2.36	Average	
2-Chlorophenol	1.13358	1.16845	3.08	Average	
1,3-Dichlorobenzene	1.32058	1.31116	.71	Average	
1,4-Dichlorobenzene	1.37042	1.48087	8.06	Average	
Benzyl Alcohol	.59837	.60406	.95	Average	
1,2-Dichlorobenzene	1.29861	1.34635	3.68	Average	
2-Methylphenol	.85391	.86569	1.38	Average	
bis(2-Chloroisopropyl)ether	.35513	.35574	.17	Average	
4-Methylphenol	.81728	.84520	3.42	Average	
N-Nitroso-Di-n-propylamine	.86586	.86597	.01	Average	
Hexachloroethane	.53106	.55262	4.06	Average	
d8-Naphthalene	2.92582	2.83226	3.20	Average	(Conc=50.00)
Nitrobenzene-d5	1.22405	1.18750	2.99	Average	
Nitrobenzene	.51243	.51160	.16	Average	
Isophorone	2.15629	2.10416	2.42	Average	
2-Nitrophenol	.51890	.44948	13.38	Average	
2,4-Dimethylphenol	.66463	.65735	1.10	Average	
Benzoic Acid	.48363	.32174	33.47	Average	
bis(2-Chloroethoxy)Methane	1.33431	1.26890	4.90	Average	
2,4-Dichlorophenol	.85775	.84224	1.81	Average	
1,2,4-Trichlorobenzene	1.02453	.99771	2.62	Average	
Naphthalene	2.78793	2.79875	.39	Average	
4-Chloroaniline	.35512	.31727	10.66	Average	
Hexachlorobutadiene	.68331	.66900	2.09	Average	
4-Chloro-3-methylphenol	.78423	.71748	8.51	Average	
2-Methylnaphthalene	1.60513	1.55677	3.01	Average	
d10-Acenaphthene	1.17057	1.01033	13.69	Average	(Conc=50.00)
Hexachlorocyclopentadiene	.67631	.63853	5.59	Average	
2,4,6-Trichlorophenol	.58240	.52531	9.80	Average	
2,4,5-Trichlorophenol	.60779	.53122	12.60	Average	
2-Chloronaphthalene	1.68599	1.53266	9.09	Average	
2-Fluorobiphenyl	2.11503	1.94153	8.20	Average	
2-Nitroaniline	.44207	.32957	25.45	Average	
Dimethylphthalate	1.81725	1.41763	21.99	Average	
Acenaphthylene	1.24280	1.42983	15.05	Average	
3-Nitroaniline	.16119	.15591	3.27	Average	
Acenaphthene	.80727	.89754	11.18	Average	

RF - Response Factor from daily standard file at 50.00 NG/UL

RF - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

Calibration Check Report

Title: HP BNA STD REV E KELLY 06\23\89
Calibrated: 900208 09:28

I DBP96

Check Standard Data File: >BP135
Injection Time: 900228 17:29

Compound	RF	RF	%Diff	Calib Meth	
2,4-Dinitrophenol	.08848	.07479	15.47	Average	
4-Nitrophenol	.09973	.09347	6.27	Average	
Dibenzofuran	1.15396	1.23952	7.41	Average	
2,4-Dinitrotoluene	.25817	.25966	.58	Average	
2,6-Dinitrotoluene	.20371	.20350	.10	Average	
Diethylphthalate	.94138	.93904	.25	Average	
4-Chlorophenyl-phenylether	.43985	.45570	3.60	Average	
Fluorene	.82257	.88455	7.53	Average	
4-Nitroaniline	.14101	.13334	5.44	Average	
4,6-Dinitro-2-methylphenol	.11446	.09668	15.53	Average	
N-Nitrosodiphenylamine	.15640	.13965	10.71	Average	
2,4,6-Tribromophenol	.17476	.18167	3.95	Average	
4-Bromophenyl-phenylether	.26602	.26274	1.23	Average	
Hexachlorobenzene	.34317	.35373	3.08	Average	
Pentachlorophenol	.15280	.16615	8.73	Average	
Phenanthrene	1.05539	1.07363	1.73	Average	
Anthracene	1.02198	1.03993	1.76	Average	
Di-n-Butylphthalate	1.09914	1.10423	.46	Average	
Fluoranthene	1.02735	.99362	3.28	Average	
d12-Chrysene	.54418	.61425	12.88	Average	(Conc=50.00)
Pyrene	1.02195	1.00341	1.81	Average	
Terphenyl-d14	.76011	.71794	5.55	Average	
Butylbenzylphthalate	.24763	.38966	57.36	Average	
Benzo(a)Anthracene	.70705	.74272	5.04	Average	
Bis(2-Ethylhexyl)Phthalate	.28762	.50768	76.51	Average	
Chrysene	.60527	.69487	14.80	Average	
Di-n-octylphthalate	1.03205	1.27907	23.93	Average	
Benzo(b)fluoranthene	1.15265	1.05257	8.68	Average	
Benzo(k)Fluoranthene	.95463	1.06672	11.74	Average	
Benzo(a)Pyrene	.95904	.88788	7.42	Average	
Indeno(1,2,3-cd)Pyrene	1.28089	1.08389	15.38	Average	
Dibenzo(a,h)Anthracene	.99595	.84235	15.42	Average	
Benzo(g,h,i)Perylene	1.08444	.88831	18.09	Average	

RF - Response Factor from daily standard file at 50.00 NG/UL

RF - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

Calibration Check Report

Title: HP BNA STD REV E KELLY 06\23\89
Calibrated: 900208 09:28

Check Standard Data File: >BP150
Injection Time: 900301 17:27

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
2-Fluorophenol	1.16459	1.27131	9.16	Average	
Phenol-d5	1.31119	1.34106	2.28	Average	
Phenol	1.51381	1.57228	3.86	Average	
bis(2-Chloroethyl)Ether	1.42043	1.48114	4.27	Average	
2-Chlorophenol	1.13358	1.16726	2.97	Average	
1,3-Dichlorobenzene	1.32058	1.31098	.73	Average	
1,4-Dichlorobenzene	1.37042	1.47425	7.58	Average	
Benzyl Alcohol	.59837	.61069	2.06	Average	
1,2-Dichlorobenzene	1.29861	1.33095	2.49	Average	
2-Methylphenol	.85391	.88192	3.28	Average	
bis(2-Chloroisopropyl)ether	.35513	.35078	1.22	Average	
4-Methylphenol	.81728	.84724	3.67	Average	
N-Nitroso-Di-n-propylamine	.86586	.94456	9.09	Average	
Hexachloroethane	.53106	.56534	6.45	Average	
d8-Naphthalene	2.92582	2.80874	4.00	Average	(Conc=50.00)
Nitrobenzene-d5	1.22405	1.21630	.63	Average	
Nitrobenzene	.51243	.49777	2.86	Average	
Isophorone	2.15629	2.19871	1.97	Average	
2-Nitrophenol	.51890	.45996	11.36	Average	
2,4-Dimethylphenol	.66463	.64659	2.71	Average	
Benzoic Acid	.48363	.34419	28.83	Average	
bis(2-Chloroethoxy)Methane	1.33431	1.31627	1.35	Average	
2,4-Dichlorophenol	.85775	.83228	2.97	Average	
1,2,4-Trichlorobenzene	1.02453	1.00201	2.20	Average	
Naphthalene	2.78793	2.71109	2.76	Average	
4-Chloroaniline	.35512	.30754	13.40	Average	
Hexachlorobutadiene	.68331	.68725	.58	Average	
4-Chloro-3-methylphenol	.78423	.73983	5.66	Average	
2-Methylnaphthalene	1.60513	1.49004	7.17	Average	
d10-Acenaphthene	1.17057	.97006	17.13	Average	(Conc=50.00)
Hexachlorocyclopentadiene	.67631	.64641	4.42	Average	
2,4,6-Trichlorophenol	.58240	.52826	9.30	Average	
2,4,5-Trichlorophenol	.60779	.51767	14.83	Average	
2-Chloronaphthalene	1.68599	1.45119	13.93	Average	
2-Fluorobiphenyl	2.11503	1.86373	11.88	Average	
2-Nitroaniline	.44207	.32264	27.02	Average	
Dimethylphthalate	1.81725	1.43110	21.25	Average	
Acenaphthylene	1.24280	1.47846	18.32	Average	
3-Nitroaniline	.16119	.16241	.76	Average	
Acenaphthene	.80727	.92428	14.49	Average	

RF - Response Factor from daily standard file at 50.00 NG/UL

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

Calibration Check Report

Title: HP BNA STD REV E KELLY 06\23\89
Calibrated: 900208 09:28

Check Standard Data File: >BP150
Injection Time: 900301 17:27

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
2,4-Dinitrophenol	.08848	.07984	9.77	Average	
4-Nitrophenol	.09973	.11019	10.49	Average	
Dibenzofuran	1.15396	1.21341	5.15	Average	
2,4-Dinitrotoluene	.25817	.26198	1.47	Average	
2,6-Dinitrotoluene	.20371	.21145	3.80	Average	
Diethylphthalate	.94138	.95751	1.71	Average	
4-Chlorophenyl-phenylether	.43985	.45215	2.80	Average	
Fluorene	.82257	.86069	4.63	Average	
4-Nitroaniline	.14101	.13230	6.18	Average	
4,6-Dinitro-2-methylphenol	.11446	.10247	10.48	Average	
N-Nitrosodiphenylamine	.15640	.14227	9.03	Average	
2,4,6-Tribromophenol	.17476	.20562	17.66	Average	
4-Bromophenyl-phenylether	.26602	.27272	2.52	Average	
Hexachlorobenzene	.34317	.36879	7.47	Average	
Pentachlorophenol	.15280	.17954	17.50	Average	
Phenanthrene	1.05539	1.04858	.65	Average	
Anthracene	1.02198	1.02322	.12	Average	
Di-n-Butylphthalate	1.09914	1.12372	2.24	Average	
Fluoranthene	1.02735	.97776	4.83	Average	
d12-Chrysene	.54418	.61816	13.60	Average	(Conc=50.00)
Pyrene	1.02195	.97914	4.19	Average	
Terphenyl-d14	.76011	.70548	7.19	Average	
Butylbenzylphthalate	.24763	.41141	66.14	Average	
Benzo(a)Anthracene	.70705	.72341	2.31	Average	
Bis(2-Ethylhexyl)Phthalate	.28762	.50204	74.55	Average	
Chrysene	.60527	.68798	13.67	Average	
Di-n-octylphthalate	1.03205	1.25464	21.57	Average	
Benzo(b)fluoranthene	1.15265	1.25025	8.47	Average	
Benzo(k)Fluoranthene	.95463	1.04523	9.49	Average	
Benzo(a)Pyrene	.95904	.98965	3.19	Average	
Indeno(1,2,3-cd)Pyrene	1.28089	1.34865	5.29	Average	
Dibenzo(a,h)Anthracene	.99595	1.04313	4.74	Average	
Benzo(g,h,i)Perylene	1.08444	1.14334	5.43	Average	

RF - Response Factor from daily standard file at 50.00 NG/UL

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

FMGR : QCAL,^BP135,IDBP96:KH

Quant Output File: ^BP135::D5
From ID File: IDBP96::D6
Quant Time: 900228 18:18

Quant ID File: IDBP96:KH:D6
Title: HP BNA STD REV E KELLY 06\23\89

Recalibrating.....

1)	d4-1,4-Dichlorobenzene	RT:	7.29	Scan:	180 (ISTD)
2)	2-Fluorophenol	RT:	4.68	Scan:	33 (New Rf =1.251911)
3)	Phenol-d5	RT:	6.60	Scan:	141 (New Rf =1.339838)
4)	Phenol	RT:	6.63	Scan:	143 (New Rf =1.557652)
5)	bis(2-Chloroethyl)Ether	RT:	6.78	Scan:	151 (New Rf =1.453920)
6)	2-Chlorophenol	RT:	6.87	Scan:	156 (New Rf =1.168445)
7)	1,3-Dichlorobenzene	RT:	7.20	Scan:	175 (New Rf =1.311161)
8)	1,4-Dichlorobenzene	RT:	7.33	Scan:	182 (New Rf =1.480872)
9)	Benzyl Alcohol	RT:	7.72	Scan:	204 (New Rf = .604063)
10)	1,2-Dichlorobenzene	RT:	7.81	Scan:	209 (New Rf =1.346351)
11)	2-Methylphenol	RT:	8.13	Scan:	227 (New Rf = .865687)
12)	bis(2-Chloroisopropyl)ether	RT:	8.17	Scan:	229 (New Rf = .355742)
13)	4-Methylphenol	RT:	8.52	Scan:	249 (New Rf = .845199)
14)	N-Nitroso-Di-n-propylamine	RT:	8.52	Scan:	249 (New Rf = .865974)
15)	Hexachloroethane	RT:	8.63	Scan:	255 (New Rf = .552622)
16)	d8-Naphthalene	RT:	10.78	Scan:	376 (New Rf =2.832262)
17)	Nitrobenzene-d5	RT:	8.81	Scan:	265 (New Rf =1.187499)
18)	Nitrobenzene	RT:	8.84	Scan:	267 (New Rf = .511597)
19)	Isophorone	RT:	9.52	Scan:	305 (New Rf =2.104157)
20)	2-Nitrophenol	RT:	9.75	Scan:	318 (New Rf = .449479)
21)	2,4-Dimethylphenol	RT:	10.02	Scan:	333 (New Rf = .657348)
22)	Benzoic Acid	RT:	10.43	Scan:	356 (New Rf = .321738)
23)	bis(2-Chloroethoxy)Methane	RT:	10.27	Scan:	347 (New Rf =1.268898)
24)	2,4-Dichlorophenol	RT:	10.46	Scan:	358 (New Rf = .842236)
25)	1,2,4-Trichlorobenzene	RT:	10.69	Scan:	371 (New Rf = .997710)
26)	Naphthalene	RT:	10.84	Scan:	379 (New Rf =2.798753)
27)	4-Chloroaniline	RT:	11.12	Scan:	395 (New Rf = .317273)
28)	Hexachlorobutadiene	RT:	11.48	Scan:	415 (New Rf = .668999)
29)	4-Chloro-3-methylphenol	RT:	12.71	Scan:	484 (New Rf = .717482)
30)	2-Methylnaphthalene	RT:	12.94	Scan:	497 (New Rf =1.556767)
31)	d10-Acenaphthene	RT:	16.18	Scan:	679 (New Rf =1.010326)
32)	Hexachlorocyclopentadiene	RT:	13.70	Scan:	540 (New Rf = .638527)
33)	2,4,6-Trichlorophenol	RT:	13.94	Scan:	553 (New Rf = .525310)
34)	2,4,5-Trichlorophenol	RT:	14.04	Scan:	559 (New Rf = .531219)
35)	2-Chloronaphthalene	RT:	14.40	Scan:	579 (New Rf =1.532659)
36)	2-Fluorobiphenyl	RT:	14.20	Scan:	568 (New Rf =1.941532)
37)	2-Nitroaniline	RT:	14.86	Scan:	605 (New Rf = .329567)
38)	Dimethylphthalate	RT:	15.65	Scan:	649 (New Rf =1.417627)
39)	d-10-Phenanthrene	RT:	20.65	Scan:	930 (ISTD)
40)	Acenaphthylene	RT:	15.68	Scan:	651 (New Rf =1.429828)
41)	3-Nitroaniline	RT:	16.14	Scan:	677 (New Rf = .155913)
42)	Acenaphthene	RT:	16.27	Scan:	684 (New Rf = .897539)
43)	2,4-Dinitrophenol	RT:	16.43	Scan:	693 (New Rf = .074794)
44)	4-Nitrophenol	RT:	16.82	Scan:	715 (New Rf = .093470)
45)	Dibenzofuran	RT:	16.79	Scan:	713 (New Rf =1.239519)
46)	2,4-Dinitrotoluene	RT:	16.93	Scan:	721 (New Rf = .259659)
47)	2,6-Dinitrotoluene	RT:	15.77	Scan:	656 (New Rf = .203502)
48)	Diethylphthalate	RT:	17.87	Scan:	774 (New Rf = .939035)
49)	4-Chlorophenyl-phenylether	RT:	17.92	Scan:	777 (New Rf = .455697)
50)	Fluorene	RT:	17.84	Scan:	772 (New Rf = .884548)
51)	4-Nitroaniline	RT:	18.03	Scan:	783 (New Rf = .133338)
52)	4,6-Dinitro-2-methylphenol	RT:	18.17	Scan:	791 (New Rf = .096684)
53)	N-Nitrosodiphenylamine	RT:	18.30	Scan:	798 (New Rf = .139652)

55)	4-Bromophenyl-phenylether	RT: 19.38	Scan: 859	(New Rf = .262738)
56)	Hexachlorobenzene	RT: 19.76	Scan: 880	(New Rf = .353728)
57)	Pentachlorophenol	RT: 20.33	Scan: 912	(New Rf = .166148)
58)	Phenanthrene	RT: 20.72	Scan: 934	(New Rf =1.073631)
59)	Anthracene	RT: 20.86	Scan: 942	(New Rf =1.039934)
60)	Di-n-Butylphthalate	RT: 22.87	Scan: 1055	(New Rf =1.104231)
61)	Fluoranthene	RT: 24.37	Scan: 1139	(New Rf = .993624)
62)	d12-Chrysene	RT: 28.78	Scan: 1387	(New Rf = .614249)
63)	Pyrene	RT: 25.03	Scan: 1176	(New Rf =1.003408)
64)	Terphenyl-d14	RT: 25.68	Scan: 1213	(New Rf = .717936)
65)	Butylbenzylphthalate	RT: 27.39	Scan: 1309	(New Rf = .389665)
66)	Benzo(a)Anthracene	RT: 28.73	Scan: 1384	(New Rf = .742717)
67)	Bis(2-Ethylhexyl)Phthalate	RT: 29.33	Scan: 1418	(New Rf = .507680)
68)	Chrysene	RT: 28.85	Scan: 1391	(New Rf = .694872)
69)	d12-Perylene	RT: 32.86	Scan: 1616	(ISTD)
70)	Di-n-octylphthalate	RT: 31.11	Scan: 1518	(New Rf =1.279071)
71)	Benzo(b)fluoranthene	RT: 31.88	Scan: 1561	(New Rf =1.052569)
72)	Benzo(k)Fluoranthene	RT: 31.93	Scan: 1564	(New Rf =1.066723)
73)	Benzo(a)Pyrene	RT: 32.71	Scan: 1608	(New Rf = .887882)
74)	Indeno(1,2,3-cd)Pyrene	RT: 35.87	Scan: 1785	(New Rf =1.083893)
75)	Dibenzo(a,h)Anthracene	RT: 35.95	Scan: 1789	(New Rf = .842353)
76)	Benzo(g,h,i)Perylene	RT: 36.70	Scan: 1831	(New Rf = .888310)

Done

7BB135
OCAL

QUANT REPORT

Operator ID: BABU Quant Rev: 6 Quant Time: 900228 18:18
Output File: ^BP135::C6 Injected at: 900228 17:29
Data File: >BP135::D6 Dilution Factor: 1.00000
Name: SF6985 6986 TOXSTD50
Misc: 022890 PPM

ID File: IDBP96::D6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900224 12:39

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.29	180	202214	50.00	NG/UL	95
2)	2-Fluorophenol	4.68	33	253154	51.22	NG/UL	97
3)	Phenol-d5	6.60	141	270934	47.44	NG/UL	99
4)	Phenol	6.63	143	314979	48.73	NG/UL	85
5)	bis(2-Chloroethyl)Ether	6.78	151	294003	48.67	NG/UL	98
6)	2-Chlorophenol	6.87	156	236276	49.87	NG/UL	99
7)	1,3-Dichlorobenzene	7.20	175	265135M	48.04	NG/UL	95
8)	1,4-Dichlorobenzene	7.33	182	299453	51.34	NG/UL	94
9)	Benzyl Alcohol	7.72	204	122150	46.39	NG/UL	98
10)	1,2-Dichlorobenzene	7.81	209	272251	48.79	NG/UL	96
11)	2-Methylphenol	8.13	227	175054	45.40	NG/UL	99
12)	bis(2-Chloroisopropyl)ether	8.17	229	71936	48.25	NG/UL	97
13)	4-Methylphenol	8.52	249	170911	46.40	NG/UL	97
14)	N-Nitroso-Di-n-propylamine	8.52	249	175112	48.36	NG/UL	98
15)	Hexachloroethane	8.63	255	111748	49.83	NG/UL	97
16)	d8-Naphthalene	10.78	376	572723	44.72	NG/UL	88
17)	Nitrobenzene-d5	8.81	265	240129	48.43	NG/UL	92
18)	Nitrobenzene	8.84	267	103452	44.96	NG/UL	86
19)	Isophorone	9.52	305	425490	45.29	NG/UL	95
20)	2-Nitrophenol	9.75	318	90891	48.08	NG/UL	94
21)	2,4-Dimethylphenol	10.02	333	132925	44.62	NG/UL	94
22)	Benzoic Acid	10.43	356	65060	39.90	NG/UL	93
23)	bis(2-Chloroethoxy)Methane	10.27	347	256589	44.72	NG/UL	99
24)	2,4-Dichlorophenol	10.46	358	170312	46.55	NG/UL	94
25)	1,2,4-Trichlorobenzene	10.69	371	201751	47.22	NG/UL	91
26)	Naphthalene	10.84	379	565947	44.95	NG/UL	97
27)	4-Chloroaniline	11.12	395	64157	41.00	NG/UL	94
28)	Hexachlorobutadiene	11.48	415	135281	51.11	NG/UL	99
29)	4-Chloro-3-methylphenol	12.71	484	145085	44.86	NG/UL	99
30)	2-Methylnaphthalene	12.94	497	314800	43.11	NG/UL	95
31)	d10-Acenaphthene	16.18	679	204302	41.37	NG/UL	94
32)	Hexachlorocyclopentadiene	13.70	540	129119	47.27	NG/UL	98
33)	2,4,6-Trichlorophenol	13.94	553	106225	44.65	NG/UL	89
34)	2,4,5-Trichlorophenol	14.04	559	107420	43.99	NG/UL	94
35)	2-Chloronaphthalene	14.40	579	309925	42.54	NG/UL	98
36)	2-Fluorobiphenyl	14.20	568	392605	42.65	NG/UL	93
37)	2-Nitroaniline	14.86	605	66643	40.61	NG/UL	84
38)	Dimethylphthalate	15.65	649	286664	41.64	NG/UL	86
39)	*d-10-Phenanthrene	20.65	930	288725	50.00	NG/UL	98
40)	Acenaphthylene	15.68	651	412827	46.86	NG/UL	91
41)	3-Nitroaniline	16.14	677	45016	49.26	NG/UL	98
42)	Acenaphthene	16.27	684	259142	48.91	NG/UL	98
43)	2,4-Dinitrophenol	16.43	693	21595	51.73	NG/UL	89
44)	4-Nitrophenol	16.82	715	26987M	62.08	NG/UL	91
45)	Dibenzofuran	16.79	713	357880	[illegible]	NG/UL	[illegible]

47)	2,6-Dinitrotoluene	[illegible]	[illegible]	[illegible]	[illegible]	NG/UL	[illegible]
48)	Diethylphthalate	[illegible]	[illegible]	[illegible]	[illegible]	NG/UL	[illegible]
49)	4-Chlorophenyl-phenylether	[illegible]	777	131571	47.22	NG/UL	96
50)	Fluorene	[illegible]	[illegible]	[illegible]	[illegible]	NG/UL	[illegible]
51)	4-Nitroaniline	18.[illegible]	[illegible]	[illegible]	[illegible]	NG/UL	93
52)	4,6-Dinitro-2-methylphenol	[illegible]	791	[illegible]	[illegible]	NG/UL	70
53)	N-Nitrosodiphenylamine	[illegible]	[illegible]	[illegible]	47.37	NG/UL	97
54)	2,4,6-Tribromophenol	[illegible]	[illegible]	[illegible]	54.28	NG/UL	95
55)	4-Bromophenyl-phenylether	[illegible]	859	75859	50.41	NG/UL	85
56)	Hexachlorobenzene	19.76	880	102130	52.14	NG/UL	93
57)	Pentachlorophenol	20.33	912	47971	55.28	NG/UL	95
58)	Phenanthrene	20.72	934	309984	50.08	NG/UL	99
59)	Anthracene	20.86	942	300255M	49.75	NG/UL	99
60)	Di-n-Butylphthalate	22.87	1055	318819	55.75	NG/UL	96
61)	Fluoranthene	24.37	1139	286804	56.00	NG/UL	87
62)	d12-Chrysene	28.78	1387	177348	50.98	NG/UL	92
63)	Pyrene	25.13	1176	289709	55.16	NG/UL	93
64)	Terphenyl-d14	25.68	1213	207286	57.31	NG/UL	96
65)	Butylbenzylphthalate	27.39	1309	112506	55.04	NG/UL	79
66)	Benzo(a)Anthracene	28.73	1384	214441	52.94	NG/UL	93
67)	Bis(2-Ethylhexyl)Phthalate	29.33	1418	146580	57.61	NG/UL	93
68)	Chrysene	28.85	1391	200627M	52.42	NG/UL	90
69)	*d12-Perylene	32.86	1616	133253	50.00	NG/UL	96
70)	Di-n-octylphthalate	31.11	1518	170440	47.67	NG/UL	86
71)	Benzo(b)fluoranthene	31.88	1561	140258M	39.16	NG/UL	89
72)	Benzo(k)Fluoranthene	31.97	1564	142144	51.00	NG/UL	89
73)	Benzo(a)Pyrene	32.71	1608	118313	43.72	NG/UL	93
74)	Indeno(1,2,3-cd)Pyrene	35.87	1785	144432	43.92	NG/UL	93
75)	Dibenzo(a,h)Anthracene	35.95	1789	112246	44.68	NG/UL	96
76)	Benzo(g,h,i)Perylene	36.70	1831	118370	43.28	NG/UL	96

* Compound is ISTD

7BP135

Quant Output File: ^BP150::D1
From ID File: IDBP96::C6
Quant Time: 900307 15:05

Quant ID File: IDBP96:BP:C6
Title: HP BNA STD REV E KELLY 06\23\89

Recalibrating.....

1)	d4-1,4-Dichlorobenzene	RT:	7.35	Scan:	183	(ISTD)
2)	2-Fluorophenol	RT:	4.69	Scan:	34	(New Rf =1.271315)
3)	Phenol-d5	RT:	6.65	Scan:	144	(New Rf =1.341059)
4)	Phenol	RT:	6.67	Scan:	145	(New Rf =1.572281)
5)	bis(2-Chloroethyl)Ether	RT:	6.81	Scan:	153	(New Rf =1.481139)
6)	2-Chlorophenol	RT:	6.92	Scan:	159	(New Rf =1.167258)
7)	1,3-Dichlorobenzene	RT:	7.26	Scan:	178	(New Rf =1.310982)
8)	1,4-Dichlorobenzene	RT:	7.38	Scan:	185	(New Rf =1.474246)
9)	Benzyl Alcohol	RT:	7.77	Scan:	207	(New Rf = .610692)
10)	1,2-Dichlorobenzene	RT:	7.86	Scan:	212	(New Rf =1.330951)
11)	2-Methylphenol	RT:	8.18	Scan:	230	(New Rf = .881921)
12)	bis(2-Chloroisopropyl)ether	RT:	8.22	Scan:	232	(New Rf = .350782)
13)	4-Methylphenol	RT:	8.59	Scan:	253	(New Rf = .847241)
14)	N-Nitroso-Di-n-propylamine	RT:	8.57	Scan:	252	(New Rf = .944559)
15)	Hexachloroethane	RT:	8.68	Scan:	258	(New Rf = .565336)
16)	d8-Naphthalene	RT:	10.84	Scan:	379	(New Rf =2.808744)
17)	Nitrobenzene-d5	RT:	8.86	Scan:	268	(New Rf =1.216305)
18)	Nitrobenzene	RT:	8.90	Scan:	270	(New Rf = .497773)
19)	Isophorone	RT:	9.57	Scan:	308	(New Rf =2.198707)
20)	2-Nitrophenol	RT:	9.80	Scan:	321	(New Rf = .459959)
21)	2,4-Dimethylphenol	RT:	10.07	Scan:	336	(New Rf = .646589)
22)	Benzoic Acid	RT:	10.48	Scan:	359	(New Rf = .344187)
23)	bis(2-Chloroethoxy)Methane	RT:	10.32	Scan:	350	(New Rf =1.316269)
24)	2,4-Dichlorophenol	RT:	10.52	Scan:	361	(New Rf = .832277)
25)	1,2,4-Trichlorobenzene	RT:	10.75	Scan:	374	(New Rf =1.002015)
26)	Naphthalene	RT:	10.89	Scan:	382	(New Rf =2.711087)
27)	4-Chloroaniline	RT:	11.18	Scan:	398	(New Rf = .307539)
28)	Hexachlorobutadiene	RT:	11.53	Scan:	418	(New Rf = .687250)
29)	4-Chloro-3-methylphenol	RT:	12.76	Scan:	487	(New Rf = .739826)
30)	2-Methylnaphthalene	RT:	12.99	Scan:	500	(New Rf =1.490036)
31)	d10-Acenaphthene	RT:	16.23	Scan:	682	(New Rf = .970055)
32)	Hexachlorocyclopentadiene	RT:	13.76	Scan:	543	(New Rf = .646411)
33)	2,4,6-Trichlorophenol	RT:	13.99	Scan:	556	(New Rf = .528263)
34)	2,4,5-Trichlorophenol	RT:	14.10	Scan:	562	(New Rf = .517667)
35)	2-Chloronaphthalene	RT:	14.47	Scan:	583	(New Rf =1.451195)
36)	2-Fluorobiphenyl	RT:	14.26	Scan:	571	(New Rf =1.863731)
37)	2-Nitroaniline	RT:	14.91	Scan:	608	(New Rf = .322640)
38)	Dimethylphthalate	RT:	15.70	Scan:	652	(New Rf =1.431099)
39)	d-10-Phenanthrene	RT:	20.72	Scan:	934	(ISTD)
40)	Acenaphthylene	RT:	15.73	Scan:	654	(New Rf =1.470461)
41)	3-Nitroaniline	RT:	16.20	Scan:	680	(New Rf = .162409)
42)	Acenaphthene	RT:	16.32	Scan:	687	(New Rf = .924277)
43)	2,4-Dinitrophenol	RT:	16.50	Scan:	697	(New Rf = .079838)
44)	4-Nitrophenol	RT:	16.87	Scan:	718	(New Rf = .110190)
45)	Dibenzofuran	RT:	16.84	Scan:	716	(New Rf =1.213408)
46)	2,4-Dinitrotoluene	RT:	17.00	Scan:	725	(New Rf = .261979)
47)	2,6-Dinitrotoluene	RT:	15.82	Scan:	659	(New Rf = .211448)
48)	Diethylphthalate	RT:	17.92	Scan:	777	(New Rf = .957512)
49)	4-Chlorophenyl-phenylether	RT:	17.98	Scan:	780	(New Rf = .452149)
50)	Fluorene	RT:	17.89	Scan:	775	(New Rf = .860686)

52)	4,6-Dinitro-2-methylphenol	RT:	18.23	Scan:	799 (New Rf = .101465)
53)	N-Nitrosodiphenylamine	RT:	18.37	Scan:	802 (New Rf = .142272)
54)	2,4,6-Tribromophenol	RT:	18.67	Scan:	819 (New Rf = .205620)
55)	4-Bromophenyl-phenylether	RT:	19.45	Scan:	863 (New Rf = .272724)
56)	Hexachlorobenzene	RT:	19.83	Scan:	884 (New Rf = .368785)
57)	Pentachlorophenol	RT:	20.40	Scan:	916 (New Rf = .179542)
58)	Phenanthrene	RT:	20.77	Scan:	937 (New Rf =1.048576)
59)	Anthracene	RT:	20.91	Scan:	945 (New Rf =1.023220)
60)	Di-n-Butylphthalate	RT:	22.92	Scan:	1058 (New Rf =1.123722)
61)	Fluoranthene	RT:	24.42	Scan:	1142 (New Rf = .977757)
62)	d12-Chrysene	RT:	28.85	Scan:	1391 (New Rf = .618159)
63)	Pyrene	RT:	25.08	Scan:	1179 (New Rf = .979144)
64)	Terphenyl-d14	RT:	25.74	Scan:	1216 (New Rf = .705476)
65)	Butylbenzylphthalate	RT:	27.44	Scan:	1312 (New Rf = .411407)
66)	Benzo(a)Anthracene	RT:	28.79	Scan:	1388 (New Rf = .723411)
67)	Bis(2-Ethylhexyl)Phthalate	RT:	29.40	Scan:	1422 (New Rf = .502041)
68)	Chrysene	RT:	28.92	Scan:	1395 (New Rf = .687979)
69)	d12-Perylene	RT:	32.92	Scan:	1620 (ISTD)
70)	Di-n-octylphthalate	RT:	31.18	Scan:	1522 (New Rf =1.254636)
71)	Benzo(b)fluoranthene	RT:	31.93	Scan:	1564 (New Rf =1.250249)
72)	Benzo(k)Fluoranthene	RT:	32.00	Scan:	1568 (New Rf =1.045226)
73)	Benzo(a)Pyrene	RT:	32.76	Scan:	1611 (New Rf = .989653)
74)	Indeno(1,2,3-cd)Pyrene	RT:	35.96	Scan:	1790 (New Rf =1.348648)
75)	Dibenzo(a,h)Anthracene	RT:	36.03	Scan:	1794 (New Rf =1.043132)
76)	Benzo(g,h,i)Perylene	RT:	36.78	Scan:	1836 (New Rf =1.143337)

1 BP150

Done

QUANT REPORT

Operator ID: BABU Quant Rev: 6 Quant Time: 900307 15:05
Output File: ^BP150::D1 Injected at: 900301 17:27
Data File: >BP150::C6 Dilution Factor: 1.00000
Name: SF6985 6986 TOXSTD
Misc: 030190 50PPM

ID File: IDBP96::C6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900228 18:30

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.35	183	174222	50.00	NG/UL	96
2)	2-Fluorophenol	4.69	34	221491M	50.77	NG/UL	99
3)	Phenol-d5	6.65	144	233642	50.05	NG/UL	94
4)	Phenol	6.67	145	273926	50.47	NG/UL	90
5)	bis(2-Chloroethyl)Ether	6.81	153	258047	50.94	NG/UL	96
6)	2-Chlorophenol	6.92	159	203362	49.95	NG/UL	99
7)	1,3-Dichlorobenzene	7.26	178	228402M	49.99	NG/UL	96
8)	1,4-Dichlorobenzene	7.38	185	256846	49.78	NG/UL	97
9)	Benzyl Alcohol	7.77	207	106396	50.55	NG/UL	93
10)	1,2-Dichlorobenzene	7.86	212	231881	49.43	NG/UL	99
11)	2-Methylphenol	8.18	230	153650	50.94	NG/UL	96
12)	bis(2-Chloroisopropyl)ether	8.22	232	61114	49.30	NG/UL	97
13)	4-Methylphenol	8.59	253	147608	50.12	NG/UL	98
14)	N-Nitroso-Di-n-propylamine	8.57	252	164563	54.54	NG/UL	97
15)	Hexachloroethane	8.68	258	98494	51.15	NG/UL	99
16)	d8-Naphthalene	10.84	379	489345	49.58	NG/UL	91
17)	Nitrobenzene-d5	8.86	268	211907	51.21	NG/UL	84
18)	Nitrobenzene	8.90	270	86723	48.65	NG/UL	83
19)	Isophorone	9.57	308	383063	52.25	NG/UL	98
20)	2-Nitrophenol	9.80	321	80135	51.17	NG/UL	95
21)	2,4-Dimethylphenol	10.07	336	112650	49.18	NG/UL	92
22)	Benzoic Acid	10.48	359	59965	53.49	NG/UL	99
23)	bis(2-Chloroethoxy)Methane	10.32	350	229323	51.87	NG/UL	98
24)	2,4-Dichlorophenol	10.52	361	145001	49.41	NG/UL	95
25)	1,2,4-Trichlorobenzene	10.75	374	174573	50.22	NG/UL	94
26)	Naphthalene	10.89	382	472331	48.43	NG/UL	98
27)	4-Chloroaniline	11.18	398	53580	48.47	NG/UL	95
28)	Hexachlorobutadiene	11.53	418	119734	51.36	NG/UL	97
29)	4-Chloro-3-methylphenol	12.76	487	128894	51.56	NG/UL	96
30)	2-Methylnaphthalene	12.99	500	259597	47.86	NG/UL	98
31)	d10-Acenaphthene	16.23	682	169005	48.01	NG/UL	96
32)	Hexachlorocyclopentadiene	13.76	543	112619	50.62	NG/UL	99
33)	2,4,6-Trichlorophenol	13.99	556	92035	50.28	NG/UL	91
34)	2,4,5-Trichlorophenol	14.10	562	90189M	48.72	NG/UL	86
35)	2-Chloronaphthalene	14.47	583	252830	47.34	NG/UL	94
36)	2-Fluorobiphenyl	14.26	571	324703	48.00	NG/UL	93
37)	2-Nitroaniline	14.91	608	56211	48.95	NG/UL	80
38)	Dimethylphthalate	15.70	652	249329	50.48	NG/UL	84
39)	*d-10-Phenanthrene	20.72	934	239359	50.00	NG/UL	99
40)	Acenaphthylene	15.73	654	351968	51.42	NG/UL	91
41)	3-Nitroaniline	16.20	680	38874	52.08	NG/UL	99
42)	Acenaphthene	16.32	687	221234	51.49	NG/UL	96
43)	2,4-Dinitrophenol	16.50	697	19110	53.37	NG/UL	82

45)	Dibenzofuran	[illegible]	716	[illegible]	[illegible]	[illegible]	89
46)	2,4-Dinitrotoluene	17.00	725	[illegible]	[illegible]	NG/UL	85
47)	2,6-Dinitrotoluene	15.82	659	50612	51.95	NG/UL	88
48)	Diethylphthalate	17.92	777	229189	50.98	NG/UL	90
49)	4-Chlorophenyl-phenylether	17.98	780	108226	49.61	NG/UL	95
50)	Fluorene	17.89	775	206013	48.65	NG/UL	95
51)	4-Nitroaniline	18.08	786	31667	49.61	NG/UL	96
52)	4,6-Dinitro-2-methylphenol	18.23	794	24526	52.99	NG/UL	74
53)	N-Nitrosodiphenylamine	18.37	802	34054	50.94	NG/UL	99
54)	2,4,6-Tribromophenol	18.67	819	49217	56.59	NG/UL	98
55)	4-Bromophenyl-phenylether	19.45	863	65279	51.90	NG/UL	89
56)	Hexachlorobenzene	19.83	884	88272	52.13	NG/UL	92
57)	Pentachlorophenol	20.40	916	42975	54.03	NG/UL	96
58)	Phenanthrene	20.77	937	250986	48.83	NG/UL	96
59)	Anthracene	20.91	945	244917M	49.20	NG/UL	96
60)	Di-n-Butylphthalate	22.92	1058	268973	50.88	NG/UL	95
61)	Fluoranthene	24.42	1142	234035	49.20	NG/UL	86
62)	d12-Chrysene	28.85	1391	147962	50.32	NG/UL	95
63)	Pyrene	25.08	1179	234367	48.79	NG/UL	93
64)	Terphenyl-d14	25.74	1216	168862	49.13	NG/UL	96
65)	Butylbenzylphthalate	27.44	1312	98474	52.79	NG/UL	77
66)	Benzo(a)Anthracene	28.79	1388	173155	48.70	NG/UL	94
67)	Bis(2-Ethylhexyl)Phthalate	29.40	1422	120168	49.44	NG/UL	90
68)	Chrysene	28.92	1395	164674M	49.50	NG/UL	91
69)	*d12-Perylene	32.92	1620	111241	50.00	NG/UL	96
70)	Di-n-octylphthalate	31.18	1522	139567	49.04	NG/UL	86
71)	Benzo(b)fluoranthene	31.93	1564	139079	59.39	NG/UL	90
72)	Benzo(k)Fluoranthene	32.00	1568	116272M	48.99	NG/UL	90
73)	Benzo(a)Pyrene	32.76	1611	110090	55.73	NG/UL	90
74)	Indeno(1,2,3-cd)Pyrene	35.96	1790	150025	62.21	NG/UL	94
75)	Dibenzo(a,h)Anthracene	36.03	1794	116039	61.92	NG/UL	98
76)	Benzo(g,h,i)Perylene	36.78	1836	127186	64.35	NG/UL	99

* Compound is ISTD

7BP150

QUANT REPORT

Operator ID: BABU Quant Rev: 6 Quant Time: 900309 14:40
Output File: ^BP158::D1 Injected at: 900302 02:21
Data File: >BP158::C6 Dilution Factor: 1.00000
Name: SF6985 SF6986 TOXSTD
Misc: 030190 12.5PPM

ID File: IDBP96::C6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900308 09:22

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.36	184	224218	50.00	NG/UL	96
2)	2-Fluorophenol	4.76	38	56645	9.94	NG/UL	91
3)	Phenol-d5	6.67	145	62202	10.34	NG/UL	98
4)	Phenol	6.70	147	73861	10.48	NG/UL	82
5)	bis(2-Chloroethyl)Ether	6.83	154	66323	9.99	NG/UL	95
6)	2-Chlorophenol	6.94	160	53366	10.20	NG/UL	98
7)	1,3-Dichlorobenzene	7.40	186	69298	11.79	NG/UL	91
8)	1,4-Dichlorobenzene	7.40	186	69298	10.48	NG/UL	91
9)	Benzyl Alcohol	7.79	208	26347	9.62	NG/UL	94
10)	1,2-Dichlorobenzene	7.86	212	62971	10.55	NG/UL	97
11)	2-Methylphenol	8.18	230	40982	10.36	NG/UL	93
12)	bis(2-Chloroisopropyl)ether	8.24	233	17112	10.68	NG/UL	96
13)	4-Methylphenol	8.57	252	40062	10.54	NG/UL	95
14)	N-Nitroso-Di-n-propylamine	8.57	252	41838	9.88	NG/UL	99
15)	Hexachloroethane	8.68	258	26229	10.35	NG/UL	97
16)	d8-Naphthalene	10.83	379	625611	49.67	NG/UL	89
17)	Nitrobenzene-d5	8.86	268	51669	9.47	NG/UL	86
18)	Nitrobenzene	8.89	270	21896	9.81	NG/UL	85
19)	Isophorone	9.57	308	100625	10.21	NG/UL	99
20)	2-Nitrophenol	9.80	321	18749	9.09	NG/UL	92
21)	2,4-Dimethylphenol	10.05	335	30486	10.51	NG/UL	95
22)	Benzoic Acid	10.32	350	5193	3.36	NG/UL	95
23)	bis(2-Chloroethoxy)Methane	10.30	349	58379	9.89	NG/UL	96
24)	2,4-Dichlorophenol	10.50	360	39703	10.64	NG/UL	95
25)	1,2,4-Trichlorobenzene	10.75	374	48996	10.90	NG/UL	93
26)	Naphthalene	10.89	382	128157	10.54	NG/UL	98
27)	4-Chloroaniline	11.16	397	12474	9.04	NG/UL	96
28)	Hexachlorobutadiene	11.53	418	33461	10.86	NG/UL	95
29)	4-Chloro-3-methylphenol	12.76	487	33314	10.04	NG/UL	86
30)	2-Methylnaphthalene	12.99	500	72127	10.79	NG/UL	98
31)	d10-Acenaphthene	16.23	682	232386	53.42	NG/UL	93
32)	Hexachlorocyclopentadiene	13.74	542	22866	7.89	NG/UL	98
33)	2,4,6-Trichlorophenol	14.07	561	25526	10.78	NG/UL	86
34)	2,4,5-Trichlorophenol	14.07	561	25526	11.00	NG/UL	91
35)	2-Chloronaphthalene	14.45	582	72494	11.14	NG/UL	92
36)	2-Fluorobiphenyl	14.23	570	96045	11.49	NG/UL	95
37)	2-Nitroaniline	14.89	607	12192	8.43	NG/UL	86
38)	Dimethylphthalate	15.68	651	76371	11.90	NG/UL	84
39)	*d-10-Phenanthrene	20.69	933	313488	50.00	NG/UL	99
40)	Acenaphthylene	15.73	654	98732	10.71	NG/UL	91
41)	3-Nitroaniline	16.17	679	8298	8.15	NG/UL	87
42)	Acenaphthene	16.30	686	69498	11.99	NG/UL	97
45)	Dibenzofuran	16.82	715	91683	12.05	NG/UL	96

	Compound	R.T.	Scan#	Area	Conc	Units	q
46)	2,4-Dinitrotoluene	16.96	723	14112	8.59	NG/UL	66
48)	Diethylphthalate	17.88	775	66233	11.03	NG/UL	91
49)	4-Chlorophenyl-phenylether	17.95	779	32960	11.63	NG/UL	98
50)	Fluorene	17.86	774	64064	11.87	NG/UL	95
51)	4-Nitroaniline	18.04	784	5593	6.74	NG/UL	96
52)	4,6-Dinitro-2-methylphenol	18.19	792	4260	6.63	NG/UL	70
53)	N-Nitrosodiphenylamine	18.35	801	6866	7.70	NG/UL	91
54)	2,4,6-Tribromophenol	18.65	818	13242	10.27	NG/UL	92
55)	4-Bromophenyl-phenylether	19.43	862	18693	10.93	NG/UL	84
56)	Hexachlorobenzene	19.80	883	25354	10.97	NG/UL	92
57)	Pentachlorophenol	20.37	915	9252	8.22	NG/UL	93
58)	Phenanthrene	20.77	937	75833	11.53	NG/UL	98
59)	Anthracene	20.77	937	75833	11.82	NG/UL	98
60)	Di-n-Butylphthalate	22.90	1057	67108	9.52	NG/UL	96
61)	Fluoranthene	24.41	1142	64113	10.46	NG/UL	89
62)	d12-Chrysene	28.84	1391	201549	52.00	NG/UL	94
63)	Pyrene	25.07	1179	65071	10.60	NG/UL	94
64)	Terphenyl-d14	25.73	1216	47692	10.78	NG/UL	96
65)	Butylbenzylphthalate	27.43	1312	23022	8.93	NG/UL	73
66)	Benzo(a)Anthracene	28.79	1388	49632	10.94	NG/UL	91
67)	Bis(2-Ethylhexyl)Phthalate	29.39	1422	29997	9.53	NG/UL	94
68)	Chrysene	28.79	1388	49632	11.51	NG/UL	89
69)	*d12-Perylene >BP158	32.91	1620	121413	50.00	NG/UL	98
70)	Di-n-octylphthalate	31.17	1522	35926	11.79	NG/UL	86
71)	Benzo(b)fluoranthene	31.92	1564	41397	13.64	NG/UL	88
72)	Benzo(k)Fluoranthene	31.92	1564	41397	16.31	NG/UL	89
73)	Benzo(a)Pyrene	32.75	1611	27573	11.47	NG/UL	92
74)	Indeno(1,2,3-cd)Pyrene	35.93	1789	33416	10.20	NG/UL	92
75)	Dibenzo(a,h)Anthracene	36.00	1793	26160	10.33	NG/UL	98
76)	Benzo(g,h,i)Perylene	36.77	1836	28957	10.43	NG/UL	97

* Compound is ISTD

QUANT REPORT

Operator ID: BABU
Output File: ^BP159::D1
Data File: >BP159::C6
Name: SF6985 SF6986 TOXSTD
Misc: 030190 5.0PPM

Quant Rev: 6
Quant Time: 900309 14:43
Injected at: 900302 03:21
Dilution Factor: 1.00000

ID File: IDBP96::C6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900308 09:22

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.37	184	358819	50.00	NG/UL	96
2)	2-Fluorophenol	4.77	38	36689	4.02	NG/UL	97
3)	Phenol-d5	6.67	145	39092	4.06	NG/UL	98
4)	Phenol	6.71	147	47057	4.17	NG/UL	82
5)	bis(2-Chloroethyl)Ether	6.85	155	44179	4.16	NG/UL	97
6)	2-Chlorophenol	6.94	160	34559	4.13	NG/UL	96
7)	1,3-Dichlorobenzene	7.40	186	43958	4.67	NG/UL	92
8)	1,4-Dichlorobenzene	7.40	186	43958	4.15	NG/UL	92
9)	Benzyl Alcohol	7.79	208	16130	3.68	NG/UL	93
10)	1,2-Dichlorobenzene	7.88	213	42240	4.42	NG/UL	99
11)	2-Methylphenol	8.18	230	26697	4.22	NG/UL	99
12)	bis(2-Chloroisopropyl)ether	8.24	233	10881	4.32	NG/UL	99
13)	4-Methylphenol	8.58	252	24458	4.02	NG/UL	98
14)	N-Nitroso-Di-n-propylamine	8.58	252	26265	3.87	NG/UL	96
15)	Hexachloroethane	8.68	258	17289	4.26	NG/UL	96
16)	d8-Naphthalene	10.84	379	986556	48.94	NG/UL	89
17)	Nitrobenzene-d5	8.86	268	31658	3.63	NG/UL	88
18)	Nitrobenzene	8.90	270	14204	3.98	NG/UL	87
19)	Isophorone	9.57	308	62522	3.96	NG/UL	95
20)	2-Nitrophenol	9.80	321	10993	3.33	NG/UL	96
21)	2,4-Dimethylphenol	10.07	336	18308	3.95	NG/UL	90
22)	Benzoic Acid	10.30	349	883	.36	NG/UL	87
23)	bis(2-Chloroethoxy)Methane	10.32	350	37501	3.97	NG/UL	99
24)	2,4-Dichlorophenol	10.50	360	24319	4.07	NG/UL	97
25)	1,2,4-Trichlorobenzene	10.75	374	30978	4.31	NG/UL	88
26)	Naphthalene	10.89	382	81568	4.19	NG/UL	98
27)	4-Chloroaniline	11.18	398	8162	3.70	NG/UL	90
28)	Hexachlorobutadiene	11.53	418	21411	4.34	NG/UL	96
29)	4-Chloro-3-methylphenol	12.76	487	19279	3.63	NG/UL	89
30)	2-Methylnaphthalene	12.99	500	45492	4.25	NG/UL	99
31)	d10-Acenaphthene	16.23	682	354384	50.91	NG/UL	94
32)	Hexachlorocyclopentadiene	13.76	543	11357	2.45	NG/UL	99
33)	2,4,6-Trichlorophenol	14.08	561	14803	3.90	NG/UL	89
34)	2,4,5-Trichlorophenol	14.08	561	14803	3.98	NG/UL	94
35)	2-Chloronaphthalene	14.45	582	44474	4.27	NG/UL	92
36)	2-Fluorobiphenyl	14.24	570	59489	4.45	NG/UL	92
37)	2-Nitroaniline	14.89	607	5207	2.25	NG/UL	78
38)	Dimethylphthalate	15.68	651	42848	4.17	NG/UL	81
39)	*d-10-Phenanthrene	20.71	934	448140	50.00	NG/UL	95
40)	Acenaphthylene	15.73	654	59492	4.51	NG/UL	93
41)	3-Nitroaniline	16.19	680	3438	2.36	NG/UL	77
42)	Acenaphthene	16.32	687	43924	5.30	NG/UL	95
43)	2,4-Dinitrophenol	16.48	696	971	1.36	NG/UL	74

	Compound	R.T.	Scan#	Area	Conc	Units	q
45)	Dibenzofuran	16.82	715	54867	5.04	NG/UL	95
46)	2,4-Dinitrotoluene	16.98	724	5821	2.48	NG/UL	88
48)	Diethylphthalate	17.88	775	37219	4.34	NG/UL	91
49)	4-Chlorophenyl-phenylether	17.97	780	19644	4.85	NG/UL	96
50)	Fluorene	17.87	774	38608	5.00	NG/UL	99
51)	4-Nitroaniline	18.06	785	2264	1.91	NG/UL	98
52)	4,6-Dinitro-2-methylphenol	18.20	793	1896	2.06	NG/UL	72
53)	N-Nitrosodiphenylamine	18.35	801	4333	3.40	NG/UL	93
54)	2,4,6-Tribromophenol	18.65	818	6689	3.63	NG/UL	98
55)	4-Bromophenyl-phenylether	19.43	862	10744	4.40	NG/UL	92
56)	Hexachlorobenzene	19.81	883	15206	4.60	NG/UL	97
57)	Pentachlorophenol	20.39	916	3940	2.45	NG/UL	92
58)	Phenanthrene	20.77	937	42981	4.57	NG/UL	97
59)	Anthracene	20.77	937	42981	4.69	NG/UL	97
60)	Di-n-Butylphthalate	22.92	1058	38727	3.85	NG/UL	94
61)	Fluoranthene	24.41	1142	36937	4.21	NG/UL	89
62)	d12-Chrysene	28.84	1391	234155	42.26	NG/UL	93
63)	Pyrene	25.07	1179	37765	4.30	NG/UL	95
64)	Terphenyl-d14	25.73	1216	27133	4.29	NG/UL	98
65)	Butylbenzylphthalate	27.43	1312	11760	3.19	NG/UL	77
66)	Benzo(a)Anthracene	28.79	1388	26100	4.03	NG/UL	94
67)	Bis(2-Ethylhexyl)Phthalate	29.39	1422	15521	3.45	NG/UL	93
68)	Chrysene	28.79	1388	26100	4.23	NG/UL	91
69)	*d12-Perylene	32.91	1620	137486	50.00	NG/UL	96
70)	Di-n-octylphthalate	31.17	1522	15988	4.63	NG/UL	88
71)	Benzo(b)fluoranthene >BP159	31.92	1564	21375	6.22	NG/UL	85
72)	Benzo(k)Fluoranthene	31.92	1564	21375	7.44	NG/UL	85
73)	Benzo(a)Pyrene	32.77	1612	13583	4.99	NG/UL	92
74)	Indeno(1,2,3-cd)Pyrene	35.95	1790	16532	4.46	NG/UL	96
75)	Dibenzo(a,h)Anthracene	36.02	1794	12819	4.47	NG/UL	97
76)	Benzo(g,h,i)Perylene	36.77	1836	14493	4.61	NG/UL	91

* Compound is ISTD

QUANT REPORT

Operator ID: BABU
Output File: ^BP160::D1
Data File: >BP160::C6
Name: SF6985 6986 TOX STD
Misc: 030190 1PPM

Quant Rev: 6
Quant Time: 900309 14:46
Injected at: 900301 18:24
Dilution Factor: 1.00000

ID File: IDBP96::C6
Title: HP BNA STD REV E KELLY 06\23\89
Last Calibration: 900308 09:22

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	7.31	181	155078	50.00	NG/UL	97
2)	2-Fluorophenol	4.69	34	2450	62	NG/UL	75
3)	Phenol-d5	6.60	141	3566	.86	NG/UL	94
4)	Phenol	6.63	143	3955	.81	NG/UL	95
5)	bis(2-Chloroethyl)Ether	6.77	151	4275	.93	NG/UL	98
6)	2-Chlorophenol	6.88	157	3389	.94	NG/UL	82
7)	1,3-Dichlorobenzene	7.34	183	5394	1.33	NG/UL	94
8)	1,4-Dichlorobenzene	7.34	183	5394	1.18	NG/UL	94
9)	Benzyl Alcohol	7.74	205	1190	.63	NG/UL	77
10)	1,2-Dichlorobenzene	7.82	210	4826	1.17	NG/UL	91
11)	2-Methylphenol	8.14	228	2321	.85	NG/UL	87
12)	bis(2-Chloroisopropyl)ether	8.20	231	1022	.94	NG/UL	54
13)	4-Methylphenol	8.55	251	2527	.96	NG/UL	80
14)	N-Nitroso-Di-n-propylamine	8.54	250	2361	.81	NG/UL	95
15)	Hexachloroethane	8.64	256	1957	1.12	NG/UL	93
16)	d8-Naphthalene	10.81	378	433132	49.72	NG/UL	91
17)	Nitrobenzene-d5	8.82	266	2511	.67	NG/UL	87
18)	Nitrobenzene	8.86	268	1300	.84	NG/UL	90
19)	Isophorone	9.55	307	5840	.86	NG/UL	97
20)	2-Nitrophenol	9.78	320	816	.57	NG/UL	87
21)	2,4-Dimethylphenol	10.05	335	1637	.82	NG/UL	84
23)	bis(2-Chloroethoxy)Methane	10.30	349	3241	.79	NG/UL	91
24)	2,4-Dichlorophenol	10.49	360	2178	.84	NG/UL	81
25)	1,2,4-Trichlorobenzene	10.72	373	3535	1.14	NG/UL	96
26)	Naphthalene	10.87	381	9180	1.09	NG/UL	94
28)	Hexachlorobutadiene	11.53	418	2391	1.12	NG/UL	90
29)	4-Chloro-3-methylphenol	12.77	488	1321	.58	NG/UL	95
30)	2-Methylnaphthalene	12.98	500	4773	1.03	NG/UL	95
31)	d10-Acenaphthene	16.22	682	171671	57.06	NG/UL	94
32)	Hexachlorocyclopentadiene	13.75	543	767	.38	NG/UL	93
33)	2,4,6-Trichlorophenol	13.98	556	1165	.71	NG/UL	93
34)	2,4,5-Trichlorophenol	13.98	556	1165	.73	NG/UL	89
35)	2-Chloronaphthalene	14.44	582	4926	1.09	NG/UL	95
36)	2-Fluorobiphenyl	14.25	571	6992	1.21	NG/UL	94
38)	Dimethylphthalate	15.67	651	4956	1.12	NG/UL	89
39)	*d-10-Phenanthrene	20.70	934	258468	50.00	NG/UL	99
40)	Acenaphthylene	15.72	654	6084	.80	NG/UL	98
42)	Acenaphthene	16.31	687	5352	1.12	NG/UL	93
45)	Dibenzofuran	16.81	715	6470	1.03	NG/UL	97
49)	4-Chlorophenyl-phenylether	17.97	780	2370	1.01	NG/UL	94
50)	Fluorene	17.88	775	4879	1.10	NG/UL	94
55)	4-Bromophenyl-phenylether	19.44	863	1078	.76	NG/UL	99
56)	Hexachlorobenzene	19.80	883	2295	1.20	NG/UL	97

	Compound	R.T.	Scan#	Area	Conc	Units	q
58)	Phenanthrene	20.76	937	6336	1.17	NG/UL	96
59)	Anthracene	20.76	937	6336	1.20	NG/UL	96
60)	Di-n-Butylphthalate	22.91	1058	7277	1.25	NG/UL	98
61)	Fluoranthene	24.40	1142	5417	1.07	NG/UL	86
62)	d12-Chrysene	28.83	1391	183183	57.33	NG/UL	94
63)	Pyrene	25.06	1179	5613	1.11	NG/UL	91
64)	Terphenyl-d14	25.74	1217	4308	1.18	NG/UL	94
66)	Benzo(a)Anthracene	28.90	1395	4711	1.26	NG/UL	89
67)	Bis(2-Ethylhexyl)Phthalate	29.38	1422	1988	.77	NG/UL	92
68)	Chrysene	28.90	1395	4711	1.32	NG/UL	91
69)	*d12-Perylene	32.92	1621	119398	50.00	NG/UL	97
71)	Benzo(b)fluoranthene	31.98	1568	3474	1.16	NG/UL	87
72)	Benzo(k)Fluoranthene	31.98	1568	3474	1.39	NG/UL	87
74)	Indeno(1,2,3-cd)Pyrene	35.96	1791	3845	1.19	NG/UL	78
76)	Benzo(g,h,i)Perylene	36.76	1836	5130	1.88	NG/UL	96

* Compound is ISTD

A/BN BENCH SHEET

DATA SET: SF6986 SAMPLE TYPE: Water EXTRACTION METHOD: Sep. Funnels

SAMPLE #	SAMPLE AMOUNT	FINAL VOL.	SOLVENT EXTRACT.	DILUTION w/HEXANE 1st	2nd	3rd	EXTR VOL.	
90FT09S18	1L	1ml						6.0
90FT09S19	1L	1ml						6.0
90FT09S20	1L	1ml						6.0
90FT09S20-MS	1L	1ml						6.0
90FT09S20-MSD	1L	1ml						6.0
90FT09S21	1L	1ml						6.0
90FT09D18	1L	1ml						6.0
90FT01R98	1L	1ml						6.0
Method Blank	1L	1ml						6.0

DATE EXTRACTED: 26/02/90 PREP. CHEM.: J.H.AK, R W.
DATE CONCENTRATED: 28 Feb 90 PREP. CHEM.: JH, AK
DATE RECEIVED: GC/MS CHEM.: M. Feliciano

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.

Individual who performed spiking: Jason Holiday J.H. 26 Feb 90
Individual who witness: Anthony Kowsky A.K. 26 Feb 90

Sequence File: BABP13::D2

> BP 149 DFTPP
> BP 150 TOX Std 50

Tune File: MT5996

CR List: D0,D6
CR Cut-off: 3500 blocks.

Number of samples: 14

Samp No.	Data File / Method File	Sample Name / Misc Data	Bottle	Sample Size	Quant	Report	Data	Archive	ID	Archive	Output	Archive	Quant ID / Quant Output
001)	>BP160	SF6985 6986 TOX STD	-1	3	Y	N	N	N	N				IDBP96::D6
	TOXIC6	030190 1PPM		Dil=1.00000									^BP160::D5
✓ 002)	>BP151	SF6985 METHOD BLANK	-1	3	Y	N	N	N	N				IDBP96::D6
	TOXIC6	030190 1L/1ML		Dil=1.00000									^BP151::D5
✓ 003)	>BP152	SF6985 90FW08D60	-1	3	Y	N	N	N	N				IDBP96::D6
	TOXIC6	030190 1L/1ML		Dil=1.00000									^BP152::D5
✓ 004)	>BP153	SF6986 90FT01R98	-1	3	Y	N	N	N	N				IDBP96::D6
	TOXIC6	030190 1L/1ML		Dil=1.00000									^BP153::D5
✓ 005)	>BP154	SF6986 90FT09S20MS	-1	3	Y	N	N	N	N				IDBP96::D6
	TOXIC6	030190 1L/1ML		Dil=1.00000									^BP154::D5
✓ 006)	>BP155	SF6986 90FT09S20MSD	-1	3	Y	N	N	N	N				IDBP96::D6
	TOXIC6	030190 1L/1ML		Dil=1.00000									^BP155::D5
007)	>BP156	SF6985 90FW08S59MS	-1	3	Y	N	N	N	N				IDBP96::D6
	TOXIC6	030190 1L/1ML		Dil=1.00000									^BP156::D5
✓ 008)	>BP157	SF6985 90FW08S59MSD	-1	3	Y	N	N	N	N				IDBP96::D6
	TOXIC6	030190 1L/1ML		Dil=1.00000									^BP157::D5
009)	>BP158	SF6985 SF6986 TOXSTD	-1	3	Y	N	N	N	N				IDBP96::D6
	TOXIC6	030190 12.5PPM		Dil=1.00000									^BP158::D5
010)	>BP159	SF6985 SF6986 TOXSTD	-1	3	Y	N	N	N	N				IDBP96::D6
	TOXIC6	030190 5.0PPM		Dil=1.00000									^BP159::D5
011)	>BP164	SF6985 SF6986 MS/MSD	-1	3	Y	N	N	N	N				IDBP96::D6
	TOXIC6	030190 STD		Dil=1.00000									^BP164::D5
012)	>BP161	SF6985 SF6986 TOXSTD	-1	3	Y	N	N	N	N				IDBP96::D6
	TOXIC6	030190 80.0PPM		Dil=1.00000									^BP161::D5
013)	>BP162	SF6985 SF6986 TOXSTD	-1	3	Y	N	N	N	N				IDBP96::D6
	TOXIC6	030190 80.0PPM		Dil=1.00000									^BP162::D5
014)	>BP163	SF6985 SF6986 DFTPP	-1	3	N	N	N	N	N				IDBP96::D6
	DFTPP	030190		Dil=1.00000									

End of sequence file.

FMGR : AL, Move cursor; then press carriage return :

ICT OCALD

FMGR : BEDIT
FMGR : BLIST,BABP12

7 BP 134 DFTPP
7 BP 135 TOX Std 50
7 BP 137 SF6985 90FW08S59
7 BP 138 SF6985 90FW08S60

Sequence File: BABP12::D2

Tune File: MT5996

CR List: D6,D0
CR Cut-off: 3500 blocks.

Number of samples: 11

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

Samp No.	Data File Method File	Sample Name Misc Data		Quant ID Quant Output
001)	>BP139	SF6985 90FW08D60	-1 3 Y N N N N	IDBP96::D6
	TOXIC6	022890 1L/1ML	Dil=1.00000	^BP139::D5
002)	>BP140	SF6985 90FW08S61	-1 3 Y N N N N	IDBP96::D6
	TOXIC6	022890 1L/1ML	Dil=1.00000	^BP140::D5
003)	>BP141	SF6985 90FW08S62	-1 3 Y N N N N	IDBP96::D6
	TOXIC6	022890 1L/1ML	Dil=1.00000	^BP141::D5
004)	>BP142	SF6985 90FW01R93	-1 3 Y N N N N	IDBP96::D6
	TOXIC6	022890 1L/1ML	Dil=1.00000	^BP142::D5
005)	>BP143	SF6986 METHOD BLANK	-1 3 Y N N N N	IDBP96::D6
	TOXIC6	022890 1L/1ML	Dil=1.00000	^BP143::D5
006)	>BP144	SF6986 90FT09S18	-1 3 Y N N N N	IDBP96::D6
	TOXIC6	022890 1L/1ML	Dil=1.00000	^BP144::D5
007)	>BP145	SF6986 90FT09D18	-1 3 Y N N N N	IDBP96::D6
	TOXIC6	022890 1L/1ML	Dil=1.00000	^BP145::D5
008)	>BP146	SF6986 90FT09S19	-1 3 Y N N N N	IDBP96::D6
	TOXIC6	022890 1L/1ML	Dil=1.00000	^BP146::D5
009)	>BP147	SF6986 90FT09S20	-1 3 Y N N N N	IDBP96::D6
	TOXIC6	022890 1L/1ML	Dil=1.00000	^BP147::D5
010)	>BP148	SF6986 90FT09S21	-1 3 Y N N N N	IDBP96::D6
	TOXIC6	022890 1L/1ML	Dil=1.00000	^BP148::D5
011)	>BP~~158~~ 49	SF6985 6986 DFTPP	-1 3 N N N N N	IDBP96::D6
	T~~OXIC6~~ DFTPP	030190	Dil=1.00000	

End of sequence file.

WORKLIST : ABBP0032
TEST : ABWS0

WL#	ID	REP	COMMENTS
1	LRB		
2	LF1		
3	LF2		
4	S0000729	01	90FT09S18
5	S0000730	01	D18
6	S0000731	01	S19
7	S0000732	01	S20
8	S0000733	01	S21
9	S0000734	01	FT01R98

mDL

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

X Sample tags

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

___ Resolution / Contrast

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: MAR 19 1990

SUBJECT: Review of Region 5 data for Murrell Landfill

FROM: Curtis Ross, Director
Region 5 Central Regional Laboratory

To: Data User:

Attached are the results for:

CRL Data Set Numbers: SF6986
Sample Numbers: 90FT09518-521, 018, and 90FT01898 (6)
Parameter(s): VOA WATERS
Laboratory: US EPA CRL/WESTON PSAT

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
MAR 19 1990
U.S. EPA CENTRAL REGIONAL LAB

RECEIVED BY/DATE:

Comments:

DATA SET	SITE	DU/ACT.
SF6986	Murrell Landfill	TFA302

SAMPLES	PARAMETER(S)
90FT09S18-21,D18,01R98	VOA/WATER

SAMPLED	RECEIVED	DUE	LAB
2/21/90	2/22/90	3/15/90	CRL/WESTON ESAT

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 Barbara Palmer 3/14/90		
( ) REVIEWED	( ) UNREVIEWED	SECTION CHIEF/DATE		
( ) REVIEWED	( ) UNREVIEWED	QC COORDINATOR/DATE		

REVIEWED BY CONTRACT COORDINATOR/DATE

RECEIVED 3/19/90 TRANSMITTED 3/19/90 DATA MANAGEMENT COORDINATOR [illegible]

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| METH BLNK |

Study Name: MURRELL LF | 2
Data Set: SF6986 Date Received: 02/22/90
Lab File ID: >KH141 Date Analyzed: 2/27/90
Matrix: (soil/water) WATER Dilution Factor: 1.0
Sample wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	U	
74-83-9	Bromomethane	3.	U	
75-01-4	Vinyl Chloride	3.	U	
75-00-3	Chloroethane	3.	U	
75-09-2	Methylene_Chloride	1.	U	X
107-02-8	Acrolein	75.	U	
67-64-1	Acetone	50.	U	X
107-13-1	Acrylonitrile	50.	U	
75-15-0	Carbon Disulfide	2.	U	
75-35-4	1,1-Dichloroethene	1.	U	
75-34-3	1,1-Dichloroethane	1.	U	
156-60-5	1,2-Dichloroethene_(total)	1.	U	
67-66-3	Chloroform	1.	U	
107-02-2	1,2-Dichloroethane	1.	U	
78-93-3	2-Butanone	20.	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	1.	U	
71-43-2	Benzene	1.	U	
124-48-1	Dibromochloromethane	1.	U	
10061-02-6	trans-1,3-Dichloropropene	1.	U	
79-00-5	1,1,2-Trichloroethane	1.	U	
110-75-8	2-Chloroethyl_Vinylether	1.	U	X
75-25-2	Bromoform	1.	U	
108-10-1	4-Methyl-2-pentanone	4.	U	
591-78-6	2-Hexanone	4.	U	
127-18-4	Tetrachloroethene	1.	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	Meta Xylene	2.	U	
95-47-6	O-&/or P-Xylene	2.	U	

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES NO

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

METH BLNK

Lab Name: MURRELL LF Contract: ESAT

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

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

Sample wt/vol: 20 (g/mL) mL Lab File ID: >KH141

Level: (low/med) LOW Date Received: 02/22/90

Date Analyzed: 02/27/90

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.		Uknown	20.48	6.	J
2.					
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U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

METH BLNK

Study Name: MURRELL LF
Data Set: SF6986
Lab File ID: >CJ186
Matrix: (soil/water) WATER
Sample wt/vol: 20 mL

| 2

Date Received: 02/22/90
Date Analyzed: 2/28/90
Dilution Factor: 1.0
Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	U	
74-83-9	Bromomethane	3.	U	
75-01-4	Vinyl Chloride	3.	U	
75-00-3	Chloroethane	3.	U	
75-09-2	Methylene Chloride	1.	U	X
107-02-8	Acrolein	75.	U	
67-64-1	Acetone	50.	U	
107-13-1	Acrylonitrile	50.	U	
75-15-0	Carbon Disulfide	2.	U	
75-35-4	1,1-Dichloroethene	1.	U	
75-34-3	1,1-Dichloroethane	1.	U	
156-60-5	1,2-Dichloroethene (total)	1.	U	
67-66-3	Chloroform	1.	U	
107-02-2	1,2-Dichloroethane	1.	U	
78-93-3	2-Butanone	20.	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	1.	U	
71-43-2	Benzene	1.	U	
124-48-1	Dibromochloromethane	1.	U	
10061-02-6	trans-1,3-Dichloropropene	1.	U	
79-00-5	1,1,2-Trichloroethane	1.	U	
110-75-8	2-Chloroethyl Vinylether	1.	U	X
75-25-2	Bromoform	1.	U	
108-10-1	4-Methyl-2-pentanone	4.	U	
591-78-6	2-Hexanone	4.	U	
127-18-4	Tetrachloroethene	1.	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	Meta Xylene	2.	U	
95-47-6	O-&/or P-Xylene	2.	U	

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES NO

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
METH BLNK

Lab Name: MURRELL LF Contract: ESAT

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

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

Sample wt/vol: 20 (g/mL) mL Lab File ID: >CJ186

Level: (low/med) LOW Date Received: 02/22/90

Date Analyzed: 02/28/90

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.	Uknown	20.49	6.	J
2.				
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U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT01R98

Study Name: MURRELL LF | 2
Data Set: SF6986 Date Received: 02/22/90
Lab File ID: >KH144 Date Analyzed: 2/27/90
Matrix: (soil/water) WATER Dilution Factor: 1.0
Sample wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	U	
74-83-9	Bromomethane	3.	U	
75-01-4	Vinyl Chloride	3.	U	
75-00-3	Chloroethane	3.	U	
75-09-2	Methylene_Chloride	1.	U	X
107-02-8	Acrolein	75.	U	X
67-64-1	Acetone	50.	U	X
107-13-1	Acrylonitrile	50.	U	
75-15-0	Carbon Disulfide	2.	U	
75-35-4	1,1-Dichloroethene	1.	U	
75-34-3	1,1-Dichloroethane	1.	U	
156-60-5	1,2-Dichloroethene_(total)	1.	U	
67-66-3	Chloroform	1.	U	X
107-02-2	1,2-Dichloroethane	1.	U	
78-93-3	2-Butanone	20.	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	1.	U	
71-43-2	Benzene	1.	U	
124-48-1	Dibromochloromethane	1.	U	X
10061-02-6	trans-1,3-Dichloropropene	1.	U	
79-00-5	1,1,2-Trichloroethane	1.	U	
110-75-8	2-Chloroethyl_Vinylether	1.	U	X
75-25-2	Bromoform	1.	U	
108-10-1	4-Methyl-2-pentanone	4.	U	
591-78-6	2-Hexanone	4.	U	
127-18-4	Tetrachloroethene	1.	U	
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	
108-88-3	Toluene	1.	U	X
108-90-7	Chlorobenzene	1.	U	
100-41-4	Ethylbenzene	1.	U	
100-42-5	Styrene	2.	U	
108-38-3	Meta Xylene	2.	U	X
95-47-6	O-&/or P-Xylene	2.	U	X

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES NO

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
90FT01R98

Lab Name: MURRELL LF Contract: ESAT

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 90FT01R98

Sample wt/vol: 20 (g/mL) mL Lab File ID: >KH144

Level: (low/med) LOW Date Received: 02/22/90

Date Analyzed: 02/27/90

Dilution Factor: 1.00000

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Uknown	6.68	4.	J
2.	Uknown	20.51	2.	J
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U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT01R98

Study Name: MURRELL LF | 2
Data Set: SF6986 Date Received: 02/22/90
Lab File ID: >KH153 Date Analyzed: 2/28/90
Matrix: (soil/water) WATER Dilution Factor: 1.0
Sample wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L		Q
74-87-3	Chloromethane	3.	U	X
74-83-9	Bromomethane	3.	U	
75-01-4	Vinyl Chloride	3.	U	
75-00-3	Chloroethane	3.	U	
75-09-2	Methylene_Chloride	1.	U	X
107-02-8	Acrolein	75.	U	X
67-64-1	Acetone	50.	U	
107-13-1	Acrylonitrile	50.	U	
75-15-0	Carbon Disulfide	2.	U	
75-35-4	1,1-Dichloroethene	1.	U	
75-34-3	1,1-Dichloroethane	1.	U	
156-60-5	1,2-Dichloroethene_(total)	1.	U	
67-66-3	Chloroform	1.	U	X
107-02-2	1,2-Dichloroethane	1.	U	
78-93-3	2-Butanone	20.	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	1.	U	
71-43-2	Benzene	1.	U	
124-48-1	Dibromochloromethane	1.	U	
10061-02-6	trans-1,3-Dichloropropene	1.	U	
79-00-5	1,1,2-Trichloroethane	1.	U	
110-75-8	2-Chloroethyl_Vinylether	1.	U	X
75-25-2	Bromoform	1.	U	
108-10-1	4-Methyl-2-pentanone	4.	U	
591-78-6	2-Hexanone	4.	U	
127-18-4	Tetrachloroethene	1.	U	
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	
108-88-3	Toluene	1.	U	X
108-90-7	Chlorobenzene	1.	U	
100-41-4	Ethylbenzene	1.	U	
100-42-5	Styrene	2.	U	
108-38-3	Meta Xylene	2.	U	
95-47-6	O-&/or P-Xylene	2.	U	

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES/NO

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
90FT01R98

Lab Name: MURRELL LF Contract: ESAT

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 90FT01R98

Sample wt/vol: 20 (g/mL) mL Lab File ID: >KH153

Level: (low/med) LOW Date Received: 02/22/90

Date Analyzed: 02/28/90

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.	Uknown	20.51	3.	J
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U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S18

Study Name: MURRELL LF | 2
Data Set: SF6986 Date Received: 02/22/90
Lab File ID: >KH145 Date Analyzed: 2/27/90
Matrix: (soil/water) WATER Dilution Factor: 1.0
Sample wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	U	
74-83-9	Bromomethane	3.	U	
75-01-4	Vinyl Chloride	3.	U	
75-00-3	Chloroethane	3.	U	
75-09-2	Methylene Chloride	1.	U	X
107-02-8	Acrolein	75.	U	
67-64-1	Acetone	50.	U	
107-13-1	Acrylonitrile	50.	U	
75-15-0	Carbon Disulfide	2.	U	X
75-35-4	1,1-Dichloroethene	1.	U	
75-34-3	1,1-Dichloroethane	1.	U	
156-60-5	1,2-Dichloroethene (total)	1.	U	
67-66-3	Chloroform	1.	U	
107-02-2	1,2-Dichloroethane	1.	U	
78-93-3	2-Butanone	20.	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	1.	U	
71-43-2	Benzene	1.	U	
124-48-1	Dibromochloromethane	1.	U	
10061-02-6	trans-1,3-Dichloropropene	1.	U	
79-00-5	1,1,2-Trichloroethane	1.	U	
110-75-8	2-Chloroethyl Vinylether	1.	U	X
75-25-2	Bromoform	1.	U	
108-10-1	4-Methyl-2-pentanone	4.	U	
591-78-6	2-Hexanone	4.	U	
127-18-4	Tetrachloroethene	1.	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	Meta Xylene	2.	U	
95-47-6	O-&/or P-Xylene	2.	U	

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES/NO

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09D18

Study Name: MURRELL LF | 2
Data Set: SF6986 Date Received: 02/22/90
Lab File ID: >KH149 Date Analyzed: 2/27/90
Matrix: (soil/water) WATER Dilution Factor: 1.0
Sample wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	U	X
74-83-9	Bromomethane	3.	U	
75-01-4	Vinyl Chloride	3.	U	
75-00-3	Chloroethane	3.	U	
75-09-2	Methylene Chloride	1.	U	X
107-02-8	Acrolein	75.	U	
67-64-1	Acetone	50.	U	
107-13-1	Acrylonitrile	50.	U	
75-15-0	Carbon Disulfide	2.	U	
75-35-4	1,1-Dichloroethene	1.	U	
75-34-3	1,1-Dichloroethane	1.	U	
156-60-5	1,2-Dichloroethene (total)	1.	U	
67-66-3	Chloroform	1.	U	
107-02-2	1,2-Dichloroethane	1.	U	
78-93-3	2-Butanone	20.	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	1.	U	
71-43-2	Benzene	1.	U	
124-48-1	Dibromochloromethane	1.	U	
10061-02-6	trans-1,3-Dichloropropene	1.	U	
79-00-5	1,1,2-Trichloroethane	1.	U	
110-75-8	2-Chloroethyl Vinylether	1.	U	X
75-25-2	Bromoform	1.	U	
108-10-1	4-Methyl-2-pentanone	4.	U	
591-78-6	2-Hexanone	4.	U	
127-18-4	Tetrachloroethene	1.	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	Meta Xylene	2.	U	
95-47-6	O-&/or P-Xylene	2.	U	

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES/NO

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S19

Study Name: MURRELL LF | 2
Data Set: SF6986 Date Received: 02/22/90
Lab File ID: >KH146 Date Analyzed: 2/27/90
Matrix: (soil/water) WATER Dilution Factor: 1.0
Sample wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	U	
74-83-9	Bromomethane	3.	U	
75-01-4	Vinyl Chloride	3.	U	
75-00-3	Chloroethane	3.	U	
75-09-2	Methylene_Chloride	1.	U	X
107-02-8	Acrolein	75.	U	
67-64-1	Acetone	50.	U	
107-13-1	Acrylonitrile	50.	U	
75-15-0	Carbon Disulfide	2.	U	X
75-35-4	1,1-Dichloroethene	1.	U	
75-34-3	1,1-Dichloroethane	1.	U	
156-60-5	1,2-Dichloroethene_(total)	1.	U	
67-66-3	Chloroform	1.	U	
107-02-2	1,2-Dichloroethane	1.	U	
78-93-3	2-Butanone	20.	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	1.	U	
71-43-2	Benzene	1.	U	
124-48-1	Dibromochloromethane	1.	U	
10061-02-6	trans-1,3-Dichloropropene	1.	U	
79-00-5	1,1,2-Trichloroethane	1.	U	
110-75-8	2-Chloroethyl_Vinylether	1.	U	X
75-25-2	Bromoform	1.	U	
108-10-1	4-Methyl-2-pentanone	4.	U	
591-78-6	2-Hexanone	4.	U	
127-18-4	Tetrachloroethene	1.	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	Meta Xylene	2.	U	
95-47-6	O-&/or P-Xylene	2.	U	

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES/NO

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S20

Study Name: MURRELL LF | 2
Data Set: SF6986 Date Received: 02/22/90
Lab File ID: >KH147 Date Analyzed: 2/27/90
Matrix: (soil/water) WATER Dilution Factor: 1.0
Sample wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	U	
74-83-9	Bromomethane	3.	U	
75-01-4	Vinyl Chloride	3.	U	
75-00-3	Chloroethane	3.	U	
75-09-2	Methylene_Chloride	1.	U	X
107-02-8	Acrolein	75.	U	
67-64-1	Acetone	50.	U	
107-13-1	Acrylonitrile	50.	U	
75-15-0	Carbon Disulfide	2.	U	X
75-35-4	1,1-Dichloroethene	1.	U	
75-34-3	1,1-Dichloroethane	1.	U	
156-60-5	1,2-Dichloroethene_(total)	1.	U	
67-66-3	Chloroform	1.	U	X
107-02-2	1,2-Dichloroethane	1.	U	
78-93-3	2-Butanone	20.	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	1.	U	
71-43-2	Benzene	1.	U	
124-48-1	Dibromochloromethane	1.	U	
10061-02-6	trans-1,3-Dichloropropene	1.	U	
79-00-5	1,1,2-Trichloroethane	1.	U	
110-75-8	2-Chloroethyl_Vinylether	1.	U	X
75-25-2	Bromoform	1.	U	
108-10-1	4-Methyl-2-pentanone	4.	U	
591-78-6	2-Hexanone	4.	U	
127-18-4	Tetrachloroethene	1.	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	Meta Xylene	2.	U	
95-47-6	O-&/or P-Xylene	2.	U	

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES/NO

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

90FT09S20

Lab Name: MURRELL LF Contract: ESAT

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 90FT09S20

Sample wt/vol: 20 (g/mL) mL Lab File ID: >KH147

Level: (low/med) LOW Date Received: 02/22/90

Date Analyzed: 02/27/90

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.	Uknown	12.85	1.	J
2.				
3.				
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U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S21

Study Name: MURRELL LF | 2
Data Set: SF6986 Date Received: 02/22/90
Lab File ID: >KH148 Date Analyzed: 2/27/90
Matrix: (soil/water) WATER Dilution Factor: 1.0
Sample wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	U	
74-83-9	Bromomethane	3.	U	
75-01-4	Vinyl Chloride	3.	U	
75-00-3	Chloroethane	3.	U	
75-09-2	Methylene Chloride	1.	U	X
107-02-8	Acrolein	75.	U	
67-64-1	Acetone	50.	U	
107-13-1	Acrylonitrile	50.	U	
75-15-0	Carbon Disulfide	2.	U	X
75-35-4	1,1-Dichloroethene	1.	U	
75-34-3	1,1-Dichloroethane	1.	U	
156-60-5	1,2-Dichloroethene (total)	1.	U	
67-66-3	Chloroform	1.	U	
107-02-2	1,2-Dichloroethane	1.	U	
78-93-3	2-Butanone	20.	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	1.	U	
71-43-2	Benzene	1.	U	
124-48-1	Dibromochloromethane	1.	U	
10061-02-6	trans-1,3-Dichloropropene	1.	U	
79-00-5	1,1,2-Trichloroethane	1.	U	
110-75-8	2-Chloroethyl Vinylether	1.	U	X
75-25-2	Bromoform	1.	U	
108-10-1	4-Methyl-2-pentanone	4.	U	
591-78-6	2-Hexanone	4.	U	
127-18-4	Tetrachloroethene	1.	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	Meta Xylene	2.	U	
95-47-6	O-&/or P-Xylene	2.	U	

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES/NO

ESAT CONTRACT **TID NO:** 02-10
TASK NO: 2429

DATASET CUSTODY TRANSFER FORM

Analytical testing was completed on March 5, 1990 for:

DATASET NO: SF6986 **SITE NAME:** Muppell Landfill

PARAMETER : VOA

MATRIX : WATER **SF DU/ACT NO: TFA** 302 **Y** ____ **/C** ____

SAMPLE NUMBERS: 90FT09S18-S21, D18, 90FT01R98

NUMBER OF SAMPLES: 6

ESAT APPROVALS:

Kelly R. Head 3/5/90
(ANALYST DATE)

[signature] 3/ /90
(TEAM LEADER DATE)

(QC COORDINATOR DATE)

(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.

Kelly R. Head 3/5/90
(DELIVERED BY DATE)

L. Evangelista 3/5/90
(RECEIVED BY DATE)

EPA APPROVALS:

Baber Pakuchuk 3/14/90
(EPA TASK MONITOR DATE)

[✓] Reviewed
[ ] Unreviewed
[✓] Accepted
[ ] Rejected
[X] Returned/ 3/12/90 (Date)

COMMENTS: Ratings: Tech. Quality: 3.0 ; Compliance w Schedule: 3.0

(SECTION CHIEF DATE)

[ ] Reviewed [ ] Unreviewed

(ESAT DPO DATE)

Sylvia Guppins 3/19/90, 3/19/90
(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: 03/05/90

Kelly B. Head

To: File

From: Kelly Head

Re: Dataset SF6986 Narrative

Six (6) low level water samples (90FT09S18-90FT09S21, 90FT09D18, and 90FT01R98) from dataset SF6986 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 tunes were acceptable with BFB meeting all QC requirements (FORM 5).

The initial calibration (02/06/90) reported one (1) compound above the 35%RSD limit (FORM 6): bromoform (%RSD=41.8%, average RF=0.06). Two continuing calibration was used (FORM7). The continuing calibration from 2/27/90 reported methylene chloride (%D=196, RF= 2.27), and bromoform (%D=127, RF=.14) above the 35%D limit. The continuing calibration from 2/28/90 reported methylene chloride (%D=151 RF=1.9), 2-butanone (%D=37.8 RF=.01), bromoform (%D=65.7 RF=.10), and 2-hexanone (%D=38.54 RF=.16). None of these compounds were detected in any of these samples.

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

Sample 90FT01R98 reported the toluene-d8 surrogate above QC limits. When this sample was re-analyzed, two surrogates were outside QC limits (FORM 2).

Sample 90FT09S20 was used for the matrix spike and matrix spike duplicate (FORM 3). Trichloroethene was reported above recovery limits. All of the RPDs were outside QC limits. The MS and MSD were reanalyzed all percent recoveries and RPDs were within QC limits.

Two method blanks were purged with the samples. No target compounds were detected in any of these blanks. The blank from 2/27/90 reported two surrogates below QC limits. One TIC a at retention time of 20.48 minutes was present in both blanks. The samples that were reanalyzed with the second blank were outside of hold times on 2/27/90. These samples are 90FT01R98, 90FT09S20MS, and 90FT09S20MSD.

One field blank (90FT01R90) was associated with this case. No target compounds were detected. Two TICs was present at a retention time of 6.68 and 20.51 minutes.

Sample (90FT09SS18) and its duplicate (90FT09D18), correlated very well. No target compounds or TICs were present in either sample.

Samples 90FT09S19 through S21 reported no Target compounds or TICs. Except for 90FT09S20, which reported one TIC at a retention time of 12.85 minutes.

VOA 1

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

TFA302

DIVISION/BRANCH FIT SUPERFUND SAMPLE DATE 2/21/90 LAB ARRIVAL DATE 2/22/90 DUE DATE 3/12/90 15

DU NUMBER TFA-102 DATA SET NUMBER 6986 STUDY Murrell Landfill PRIORITY — CONTRACTOR —

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER VOLATILE ORGANICS SCAN UG/L TOX 17664	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
90FT09S18	RW1 5-083853-5	X			
19	RW2 5-083869-71	X			
20	MSD/RW3 5-072759-6 5-072764-8	X			
21	RW4 5-072772-4	X			
D 18	DUP 5-083861-63	X			
90FT01R98	BLANK 5-072780 5-072781-2	X			
		2/5/90 Kelly R. Head Shipment (13) is not complete			
90FT09S18	RW1 5-083850		X		
018	DUPLICATE 5-083858		X		
S19	RW2 5-083866		X		
S20	RW3/MSD 5-072751 5-072759-760		X		
S21	RW4 5-072769		X		
90FT01R98	BLANK 5-072777		X		

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

Dataset No: SF6986

Task No: _____

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
		AQC
[✓] (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

PRESENT	NOT REQD	
		CALIBRATION DATA
[✓]	[ ]	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
[✓]	[ ]	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

ROY F. WESTON, INC.
C, J 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: _____

RUN DATE(S): 2/26/90
INST.NO.: 5987
ANALYST(S): KOH

SAMPLE SUMMARY MATRIX

DATASET NUMBER:	SF6986				
TASK NUMBER:	2029				
DU/ACTIVITY NO:	TFA302				
PARAMETER:	VOA				
MATRIX:	WATER				
NUMBER SAMPLES:	6				
DATE RECEIVED:	2/22/90				
DATE EXTRACTED:	NA				
NOTBK NO/PG NO:	Chacko				
DATE ASSAYED:	3/2/90				

FILE IDENTIFICATION SUMMARY

TUNING FILE: 2KH093+141+CJ186
BLANK FILE: ~~2K~~ same
RUN SEQUENCE FILE: _____

PRIMARY COLUMN

INITIAL CALIBRATION FILE: 2KH095-99
CONTINUING CALIBRATION FILES: 2KH143, 2CJ182
STANDARDS FILES: NA
SAMPLE FILES: 2KH144-152

ID/METHOD FILES: IDRA3
VOA#3

CONFIRMATORY COLUMN

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

ID/METHOD FILES: _____

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

2A
U.S. EPA - REGION V
WATER VOLATILE SURROGATE RECOVERY

Study Name:5SCRL US EPA 312/353-9065 | Data Set:SF6986

Lab File ID: >KH152::A9 SAS No.: TFA302 SDG No.: ------

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BEN)#	S3 (DCE)#	OTHER	TOT OUT
01	METH BLNK	97	100	102		0
02	90FT01R98	125 *	115	88		1
03	90FT09S18	104	102	98		0
04	90FT09S19	103	103	100		0
05	90FT09S20	104	104	100		0
06	90FT09S21	104	103	99		0
07	90FT09D18	99	102	102		0
08	90FT09S20M	97	99	101		0
09	90FT09S20D	101	102	101		0
10	MDL0227	110	107	101		0
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	QC LIMITS
S1 (TOL) = Toluene-d8	(80-120)
S2 (BEN) = Benzene-d6	(80-120)
S3 (DCE) = 1,2-Dichloroethane-d4	(80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

FORM II VOA-1 1/87 Rev.

2A

U.S. EPA - REGION V

WATER VOLATILE SURROGATE RECOVERY

Study Name:5SCRL US EPA 312/353-9065 | Data Set:SF6986

Lab File ID: >KH155::A9 SAS No.: TFA302 SDG No.: ------

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BEN)#	S3 (DCE)#	OTHER	TOT OUT
01	METH BLNK	39 *	100	35 *		2
02	90FT01R98	167 *	127 *	90		2
03	90FT09S20M	105	98	90		0
04	90FT09S20D	109	100	93		0
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		QC LIMITS
S1 (TOL)	= Toluene-d8	(80-120)
S2 (BEN)	= Benzene-d6	(80-120)
S3 (DCE)	= 1,2-Dichloroethane-d4	(80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

FORM II VOA-1

1/87 Rev.

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

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

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

Matrix Spike - EPA Sample No.: 90FT09S20

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	10.00	0.00	8.70	86	61-145
Trichloroethene	10.00	0.00	9.50	95	71-120
Benzene	10.00	0.00	8.90	89	76-127
Toluene	10.00	0.00	9.50	95	76-125
Chlorobenzene	10.00	0.00	9.60	95	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	10.00	9.80	98	13	14	61-145
Trichloroethene	10.00	10.00	104	9	14	71-120
Benzene	10.00	9.50	95	6	11	76-127
Toluene	10.00	10.00	103	8	13	76-125
Chlorobenzene	10.00	10.00	101	6	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: _____

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

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

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

Matrix Spike - EPA Sample No.: 90FT09S20

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	10.00	0.00	8.70	87	61-145
Trichloroethene	10.00	0.00	9.00	90	71-120
Benzene	10.00	0.00	9.00	89	76-127
Toluene	10.00	0.00	9.10	90	76-125
Chlorobenzene	10.00	0.00	9.40	93	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	10.00	13.00	126	36 *	14	61-145
Trichloroethene	10.00	13.00	127 *	34 *	14	71-120
Benzene	10.00	12.00	122	31 *	11	76-127
Toluene	10.00	12.00	124	31 *	13	76-125
Chlorobenzene	10.00	13.00	127	30 *	13	75-130

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

* Values outside of qc limits

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

COMMENTS: _____

4A

VOLATILE METHOD BLANK SUMMARY

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

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

Lab File ID: >KH141 Lab Sample ID: METH BLNK

Date Analyzed: 2/27/90 Time Analyzed: 8:55

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

Instrument ID: 87 3

THIS METHOD BLANK APPLIES TO THE FOLLOWING:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	90FT01R98	90FT01R98	>KH144	12:51
02	90FT09S18	90FT09S18	>KH145	13:39
03	90FT09S19	90FT09S19	>KH146	14:26
04	90FT09S20	90FT09S20	>KH147	15:14
05	90FT09S21	90FT09S21	>KH148	16:01
06	90FT09D18	90FT09D18	>KH149	16:49
07	90FT09S20M	90FT09S20M	>KH150	17:36
08	90FT09S20D	90FT09S20D	>KH151	18:24
09	MDL0227	MDL0227	>KH152	19:11
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COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

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

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

Lab File ID: >CJ186 Lab Sample ID: METH BLNK

Date Analyzed: 2/28/90 Time Analyzed: 10:41

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

Instrument ID: 87 3

THIS METHOD BLANK APPLIES TO THE FOLLOWING:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	90FT01R98	90FT01R98	>KH153	13:38
02	90FT09S20M	90FT09S20M	>KH154	15:41
03	90FT09S20D	90FT09S20D	>KH155	16:28
04				
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COMMENTS: _____

5A

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

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

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

Lab File ID: >KH093 BFB Injection Date: 2/06/90

Instrument ID: 87 3 BFB Injection Time: 9:08

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	18.5
75	30.0 - 60.0% OF MASS 95	45.3
95	Base peak, 100% relative abundance	100.
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0(0.0)1
174	Greater than 50.0% of mass 95	59.8
175	5.0 - 9.0% of mass 174	4.3(7.2)1
176	Greater than 95.0%, but less than 101.0% of mass 174	57.2(95.7)1
177	5.0 - 9.0% of mass 176	4.5(7.9)2

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

THIS TUNE APPLIES TO THE FOLLOWING:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VOASTD05	VOASTD05	>KH095	2/06/90	11:30
02	VOASTD010	VOASTD010	>KH096	2/06/90	12:15
03	VOASTD015	VOASTD015	>KH097	2/06/90	12:59
04	VOASTD020	VOASTD020	>KH098	2/06/90	13:44
05	VOASTD025	VOASTD025	>KH099	2/06/90	14:29
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5A

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

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

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

Lab File ID: >KH141 BFB Injection Date: 2/27/90

Instrument ID: 87 3 BFB Injection Time: 8:55

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	18.3
75	30.0 - 60.0% OF MASS 95	45.1
95	Base peak, 100% relative abundance	100.
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0(0.0)1
174	Greater than 50.0% of mass 95	57.8
175	5.0 - 9.0% of mass 174	3.7(6.4)1
176	Greater than 95.0%, but less than 101.0% of mass 174	55.3(95.8)1
177	5.0 - 9.0% of mass 176	3.8(6.8)2

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

THIS TUNE APPLIES TO THE FOLLOWING:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD015	VSTD015	>KH143	2/27/90	11:29
02	90FT01R98	90FT01R98	>KH144	2/27/90	12:51
03	90FT09S18	90FT09S18	>KH145	2/27/90	13:39
04	90FT09S19	90FT09S19	>KH146	2/27/90	14:26
05	90FT09S20	90FT09S20	>KH147	2/27/90	15:14
06	90FT09S21	90FT09S21	>KH148	2/27/90	16:01
07	90FT09D18	90FT09D18	>KH149	2/27/90	16:49
08	90FT09S20M	90FT09S20M	>KH150	2/27/90	17:36
09	90FT09S20D	90FT09S20D	>KH151	2/27/90	18:24
10	MDL0227	MDL0227	>KH152	2/27/90	19:11
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5A

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

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

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

Lab File ID: >CJ186 BFB Injection Date: 2/28/90

Instrument ID: 87 3 BFB Injection Time: 10:41

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	17.7
75	30.0 - 60.0% OF MASS 95	43.2
95	Base peak, 100% relative abundance	100.
96	5.0 - 9.0% of mass 95	7.9
173	Less than 2.0% of mass 174	0.0(0.0)1
174	Greater than 50.0% of mass 95	52.8
175	5.0 - 9.0% of mass 174	3.7(7.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	51.4(97.3)1
177	5.0 - 9.0% of mass 176	4.5(8.7)2

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

THIS TUNE APPLIES TO THE FOLLOWING:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD015	VSTD015	>CJ187	2/28/90	11:44
02	90FT01R98	90FT01R98	>KH153	2/28/90	13:38
03	90FT09S20M	90FT09S20M	>KH154	2/28/90	15:41
04	90FT09S20D	90FT09S20D	>KH155	2/28/90	16:28
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6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name:REFINERS TRANSPORT Contract:WESTON ESAT
Lab Code: CHICAGOIL Case No.: SF6968 SAS No.: TFA302 SDG No.: ------
Instrument ID: 87 3 Calibration Date(s):02/06/90
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%

LAB FILE ID: RRF5.0=>KH095 RRF10.0=>KH096
RRF15.0=>KH097 RRF20.0=>KH098 RRF25.0=>KH099

COMPOUND	RRF5	RRF10	RRF15	RRF20	RRF25	$\overline{RRF}$	% RSD
Chloromethane #	3.099	1.911	3.068	2.765	2.074	2.583	21.6#
Bromomethane	2.926	1.904	2.703	2.506	2.135	2.435	17.1
Vinyl_Chloride *	3.454	2.244	3.276	3.047	2.634	2.931	16.8*
Chloroethane	1.808	1.161	1.672	1.549	1.326	1.503	17.4
Methylene_Chloride	.874	.670	.785	.766	.741	.767	9.6
Acrolein	.075	.062	.076	.075	.060	.070	11.1
Acetone	.124	.108	.118	.119	.114	.117	5.2
Acrylonitrile	.121	.105	.115	.116	.119	.115	5.5
Carbon_Disulfide	8.288	6.637	7.917	7.332	6.677	7.370	10.0
1,1-Dichloroethene *	2.612	1.970	2.391	2.370	2.161	2.301	10.6*
1,1-Dichloroethane #	5.624	4.242	5.187	5.168	4.726	4.989	10.5#
1,2-Dichloroethene_(total)	2.888	2.180	2.662	2.635	2.399	2.553	10.6
Chloroform *	4.268	3.242	3.913	3.924	3.617	3.793	10.1*
1,2-Dichloroethane	1.309	1.010	1.145	1.190	1.152	1.161	9.2
2-Butanone	.018	.016	.017	.017	.018	.017	4.2
1,1,1-Trichloroethane	.748	.587	.669	.688	.623	.663	9.3
Carbon_Tetrachloride	.605	.482	.567	.569	.509	.546	9.1
Vinyl_Acetate	.608	.462	.691	.528	.326	.523	26.7
Bromodichloromethane	.853	.677	.771	.790	.771	.772	8.2
1,2-Dichloropropane *	.990	.792	.908	.928	.886	.901	8.0*
cis-1,3-Dichloropropene	.982	.797	.911	.943	.921	.911	7.6
Trichloroethene	.744	.597	.696	.707	.668	.683	8.1
Dibromochloromethane	.438	.361	.405	.428	.427	.412	7.5
1,1,2-Trichloroethane	.368	.300	.328	.346	.348	.338	7.6
Benzene	2.727	2.190	2.589	2.572	2.349	2.486	8.6
trans-1,3-Dichloropropene	.534	.446	.493	.563	.493	.506	8.8
2-Chloroethyl_vinylether	.273	.220	.232	.246	.247	.243	8.1
Bromoform #	.076	.042	.087	.026	.066	.060	41.8#
4-Methyl-2-pentanone	.485	.414	.458	.448	.453	.452	5.6
2-Hexanone	.273	.235	.266	.265	.275	.263	6.1
Tetrachloroethene	1.046	.795	.991	.964	.843	.928	11.3
1,1,2,2-Tetrachloroethane	.363	.310	.389	.423	.403	.378	11.5
Toluene *	3.238	2.440	3.073	3.010	2.644	2.881	11.4*
Chlorobenzene #	3.075	2.377	2.897	2.892	2.587	2.766	10.1#
Ethylbenzene *	1.684	1.273	1.576	1.548	1.349	1.486	11.4*
Styrene	3.276	2.681	3.245	3.019	2.738	2.992	9.3
Meta Xylene	1.973	1.365	1.670	1.625	1.546	1.636	13.6
O-&/or_P-Xylene	1.918	1.339	1.634	1.605	1.536	1.606	13.0
1,2-Dichloroethane-d4	2.312	2.271	2.359	2.418	2.484	2.369	3.6
Benzene-d6	2.394	2.338	2.475	2.355	2.319	2.376	2.6
Toluene-d8	9.590	8.850	9.649	9.278	8.401	9.154	5.8

7A

VOLATILE CONTINUING CALIBRATION CHECK

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

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

Instrument ID: 87 3 Calibration Date: 2/27/90 Time: 11:29

Lab File ID: >KH143 Init. Calib. Date(s):02/06/90 02/27/90

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	RRF	RRF15	%D
Chloromethane #	2.583	2.652	2.7 #
Bromomethane	2.435	2.580	6.0
Vinyl Chloride *	2.931	2.979	1.6 *
Chloroethane	1.503	1.727	14.9
Methylene_Chloride	.767	2.271	196.1
Acrolein	.070	.061	12.9
Acetone	.117	.111	4.7
Acrylonitrile	.115	.097	15.6
Carbon_Disulfide	7.370	6.945	5.8
1,1-Dichloroethene *	2.301	2.136	7.1 *
1,1-Dichloroethane #	4.989	5.238	5.0 #
1,2-Dichloroethene_(total)	2.553	2.462	3.6
Chloroform *	3.793	4.049	6.7 *
1,2-Dichloroethane	1.161	1.263	8.8
2-Butanone	.017	.016	10.1
1,1,1-Trichloroethane	.663	.717	8.1
Carbon_Tetrachloride	.546	.556	1.7
Vinyl Acetate	.523	.549	4.9
Bromodichloromethane	.772	.773	.1
1,2-Dichloropropane *	.901	.865	3.9 *
cis-1,3-Dichloropropene	.911	.840	7.7
Trichloroethene	.683	.695	1.8
Dibromochloromethane	.412	.373	9.5
1,1,2-Trichloroethane	.338	.297	12.3
Benzene	2.486	2.717	9.3
trans-1,3-Dichloropropene	.506	.513	1.4
2-Chloroethyl_vinylether	.243	.216	11.2
Bromoform #	.060	.135	127.1 #
4-Methyl-2-pentanone	.452	.415	8.1
2-Hexanone	.263	.224	14.7
Tetrachloroethene	.928	.908	2.1
1,1,2,2-Tetrachloroethane	.378	.348	7.7
Toluene *	2.881	2.942	2.1 *
Chlorobenzene #	2.766	2.909	5.2 #
Ethylbenzene *	1.486	1.663	11.9 *
Styrene	2.992	3.055	2.1
Meta Xylene	1.636	2.129	30.2
O-&/or_P-Xylene	1.606	2.032	26.5
1,2-Dichloroethane-d4	2.369	2.548	7.6
Benzene-d6	2.376	2.064	13.1
Toluene-d8	9.154	10.282	12.3

7A

VOLATILE CONTINUING CALIBRATION CHECK

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

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

Instrument ID: 87 3 Calibration Date: 2/28/90 Time: 11:44

Lab File ID: >CJ187 Init. Calib. Date(s):02/06/90 02/28/90

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		RRF	RRF15	%D	
Chloromethane	#	2.583	2.579	.2	#
Bromomethane		2.435	2.287	6.1	
Vinyl Chloride	*	2.931	2.794	4.7	*
Chloroethane		1.503	1.695	12.7	
Methylene Chloride		.767	1.929	151.5	
Acrolein		.070	.046	34.5	
Acetone		.117	.081	30.3	
Acrylonitrile		.115	.079	31.3	
Carbon Disulfide		7.370	6.358	13.7	
1,1-Dichloroethene	*	2.301	2.114	8.1	*
1,1-Dichloroethane	#	4.989	4.960	.6	#
1,2-Dichloroethene (total)		2.553	2.397	6.1	
Chloroform	*	3.793	3.686	2.8	*
1,2-Dichloroethane		1.161	1.060	8.7	
2-Butanone		.017	.011	37.6	
1,1,1-Trichloroethane		.663	.691	4.2	
Carbon Tetrachloride		.546	.546	.1	
Vinyl Acetate		.523	.404	22.8	
Bromodichloromethane		.772	.627	18.8	
1,2-Dichloropropane	*	.901	.729	19.1	*
cis-1,3-Dichloropropene		.911	.678	25.6	
Trichloroethene		.683	.638	6.5	
Dibromochloromethane		.412	.290	29.5	
1,1,2-Trichloroethane		.338	.227	32.8	
Benzene		2.486	2.457	1.1	
trans-1,3-Dichloropropene		.506	.405	19.9	
2-Chloroethyl vinylether		.243	.163	32.9	
Bromoform	#	.060	.099	65.8	#
4-Methyl-2-pentanone		.452	.318	29.7	
2-Hexanone		.263	.162	38.5	
Tetrachloroethene		.928	.929	.1	
1,1,2,2-Tetrachloroethane		.378	.292	22.8	
Toluene	*	2.881	2.838	1.5	*
Chlorobenzene	#	2.766	2.647	4.3	#
Ethylbenzene	*	1.486	1.677	12.9	*
Styrene		2.992	2.733	8.7	
Meta Xylene		1.636	2.197	34.3	
O-&/or P-Xylene		1.606	2.122	32.1	
1,2-Dichloroethane-d4		2.369	2.623	10.7	
Benzene-d6		2.376	2.319	2.4	
Toluene-d8		9.154	11.925	30.3	

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Study Name:5SCRL US EPA 312/353-9065 | 25 Data Set:SF6986

SAS No.: TFA302 SDG No.: ------ Contract: ESAT

Lab File ID (Standard): >KH143 Date Analyzed: 2/27/90

Instrument ID: 87 3 Time Analyzed: 11:29

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

		IS1(BCB) AREA #	RT	IS2(BCP) AREA #	RT	IS3(DCB) AREA #	RT
	12 HOUR STD	348600.	10.42	1304332.	19.42	653724.	23.34
	UPPER LIMIT	697200.	10.92	2608664.	19.92	1307448.	23.84
	LOWER LIMIT	174300.	9.92	652166.	18.92	326862.	22.84
	EPA SAMPLE NO.						
01	METH BLNK	322615.	10.41	1203703.	19.41	617716.	23.33
02	90FT01R98	302357.	10.42	1124108.	19.41	457700.	23.36
03	90FT09S18	344835.	10.41	1290466.	19.41	629481.	23.36
04	90FT09S19	351450.	10.44	1328839.	19.43	661747.	23.38
05	90FT09S20	328241.	10.46	1241609.	19.42	618463.	23.37
06	90FT09S21	332490.	10.44	1256151.	19.44	621754.	23.39
07	90FT09D18	301787.	10.44	1150374.	19.44	581215.	23.35
08	90FT09S20M	320021.	10.44	1214016.	19.41	616339.	23.36
09	90FT09S20D	272557.	10.41	1035483.	19.41	521790.	23.36
10	MDL0227	298806.	10.42	1131193.	19.41	550565.	23.36
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IS1 (BCM) = Bromochloromethane
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.

* Value outside QC limit.
\# Column used to flag internal standard area values with an asterisk

FORM VIII VOA 1/87 Rev.

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Study Name:5SCRL US EPA 312/353-9065 | 25 Data Set:SF6986

SAS No.: TFA302 SDG No.: ------ Contract: ESAT

Lab File ID (Standard): >CJ187 Date Analyzed: 2/28/90

Instrument ID: 87 3 Time Analyzed: 11:44

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

		IS1(BCB) AREA #	RT	IS2(BCP) AREA #	RT	IS3(DCB) AREA #	RT
	12 HOUR STD	325040.	10.42	1270187.	19.42	593951.	23.33
	UPPER LIMIT	650080.	10.92	2540374.	19.92	1187902.	23.83
	LOWER LIMIT	162520.	9.92	635093.	18.92	296975.	22.83
	EPA SAMPLE NO.						
01	METH BLNK	280490.	10.42	1051837.	19.42	474845.	23.34
02	90FT01R98	241066.	10.45	905433.	19.41	343262.	23.36
03	90FT09S20M	310322.	10.42	1167621.	19.41	527663.	23.36
04	90FT09S20D	275408.	10.44	1058508.	19.41	479889.	23.35
05							
06							
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22							

IS1 (BCM) = Bromochloromethane
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.

* Value outside QC limit.
# Column used to flag internal standard area values with an asterisk

FORM VIII VOA 1/87 Rev.

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S20M

Study Name: MURRELL LF | 2
Data Set: SF6986 Date Received: 02/22/90
Lab File ID: >KH150 Date Analyzed: 2/27/90
Matrix: (soil/water) WATER Dilution Factor: 1.0
Sample wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	U	
74-83-9	Bromomethane	3.	U	
75-01-4	Vinyl Chloride	3.	U	
75-00-3	Chloroethane	3.	U	
75-09-2	Methylene Chloride	1.	U	X
107-02-8	Acrolein	75.	U	X
67-64-1	Acetone	50.	U	
107-13-1	Acrylonitrile	50.	U	
75-15-0	Carbon Disulfide	2.	U	
75-35-4	1,1-Dichloroethene	9.		
75-34-3	1,1-Dichloroethane	1.	U	
156-60-5	1,2-Dichloroethene (total)	1.	U	
67-66-3	Chloroform	1.	U	X
107-02-2	1,2-Dichloroethane	1.	U	
78-93-3	2-Butanone	20.	U	
71-55-6	1,1,1-Trichloroethane	1.	U	
56-23-5	Carbon Tetrachloride	1.	U	
108-05-4	Vinyl Acetate	10.	U	
75-27-4	Bromodichloromethane	1.	U	
78-87-5	1,2-Dichloropropane	1.	U	
10061-01-5	cis-1,3-Dichloropropene	1.	U	
79-01-6	Trichloroethene	9.		
71-43-2	Benzene	9.		
124-48-1	Dibromochloromethane	1.	U	
10061-02-6	trans-1,3-Dichloropropene	1.	U	
79-00-5	1,1,2-Trichloroethane	1.	U	
110-75-8	2-Chloroethyl Vinylether	1.	U	
75-25-2	Bromoform	1.	U	
108-10-1	4-Methyl-2-pentanone	4.	U	X
591-78-6	2-Hexanone	4.	U	
127-18-4	Tetrachloroethene	1.	U	
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	
108-88-3	Toluene	9.		
108-90-7	Chlorobenzene	9.		
100-41-4	Ethylbenzene	1.	U	
100-42-5	Styrene	2.	U	
108-38-3	Meta Xylene	2.	U	
95-47-6	O-&/or P-Xylene	2.	U	

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES/NO

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S20D

Study Name: MURRELL LF | 2
Data Set: SF6986 Date Received: 02/22/90
Lab File ID: >KH151 Date Analyzed: 2/27/90
Matrix: (soil/water) WATER Dilution Factor: 1.0
Sample wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	U	
74-83-9	Bromomethane	3.	U	
75-01-4	Vinyl Chloride	3.	U	
75-00-3	Chloroethane	3.	U	
75-09-2	Methylene_Chloride	1.	U	X
107-02-8	Acrolein	75.	U	X
67-64-1	Acetone	50.	U	
107-13-1	Acrylonitrile	50.	U	
75-15-0	Carbon Disulfide	2.	U	
75-35-4	1,1-Dichloroethene	13.		
75-34-3	1,1-Dichloroethane	1.	U	
156-60-5	1,2-Dichloroethene_(total)	1.	U	
67-66-3	Chloroform	1.	U	X
107-02-2	1,2-Dichloroethane	1.	U	
78-93-3	2-Butanone	20.	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	13.		
71-43-2	Benzene	12.		
124-48-1	Dibromochloromethane	1.	U	
10061-02-6	trans-1,3-Dichloropropene	1.	U	
79-00-5	1,1,2-Trichloroethane	1.	U	
110-75-8	2-Chloroethyl_Vinylether	1.	U	X
75-25-2	Bromoform	1.	U	
108-10-1	4-Methyl-2-pentanone	4.	U	
591-78-6	2-Hexanone	4.	U	
127-18-4	Tetrachloroethene	1.	U	
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	
108-88-3	Toluene	12.		
108-90-7	Chlorobenzene	13.		
100-41-4	Ethylbenzene	1.	U	
100-42-5	Styrene	2.	U	
108-38-3	Meta Xylene	2.	U	
95-47-6	O-&/or P-Xylene	2.	U	

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES/NO

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S20M

Study Name: MURRELL LF | 2
Data Set: SF6986 Date Received: 02/22/90
Lab File ID: >KH154 Date Analyzed: 2/28/90
Matrix: (soil/water) WATER Dilution Factor: 1.0
Sample wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	U	
74-83-9	Bromomethane	3.	U	
75-01-4	Vinyl Chloride	3.	U	
75-00-3	Chloroethane	3.	U	
75-09-2	Methylene_Chloride	1.	U	X
107-02-8	Acrolein	75.	U	X
67-64-1	Acetone	50.	U	
107-13-1	Acrylonitrile	50.	U	
75-15-0	Carbon Disulfide	2.	U	X
75-35-4	1,1-Dichloroethene	9.		
75-34-3	1,1-Dichloroethane	1.	U	
156-60-5	1,2-Dichloroethene_(total)	1.	U	
67-66-3	Chloroform	1.	U	X
107-02-2	1,2-Dichloroethane	1.	U	
78-93-3	2-Butanone	20.	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.		
71-43-2	Benzene	9.		
124-48-1	Dibromochloromethane	1.	U	
10061-02-6	trans-1,3-Dichloropropene	1.	U	
79-00-5	1,1,2-Trichloroethane	1.	U	
110-75-8	2-Chloroethyl_Vinylether	1.	U	X
75-25-2	Bromoform	1.	U	
108-10-1	4-Methyl-2-pentanone	4.	U	
591-78-6	2-Hexanone	4.	U	
127-18-4	Tetrachloroethene	1.	U	
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	
108-88-3	Toluene	10.		
108-90-7	Chlorobenzene	10.		
100-41-4	Ethylbenzene	1.	U	
100-42-5	Styrene	2.	U	
108-38-3	Meta Xylene	2.	U	
95-47-6	O-&/or P-Xylene	2.	U	

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES/NO

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S20D

Study Name: MURRELL LF | 2
Data Set: SF6986 Date Received: 02/22/90
Lab File ID: >KH155 Date Analyzed: 2/28/90
Matrix: (soil/water) WATER Dilution Factor: 1.0
Sample wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L		Q
74-87-3	Chloromethane	3.	U	
74-83-9	Bromomethane	3.	U	
75-01-4	Vinyl Chloride	3.	U	
75-00-3	Chloroethane	3.	U	
75-09-2	Methylene_Chloride	1.	U	X
107-02-8	Acrolein	75.	U	X
67-64-1	Acetone	50.	U	
107-13-1	Acrylonitrile	50.	U	
75-15-0	Carbon Disulfide	2.	U	
75-35-4	1,1-Dichloroethene	10.		
75-34-3	1,1-Dichloroethane	1.	U	
156-60-5	1,2-Dichloroethene_(total)	1.	U	
67-66-3	Chloroform	1.	U	X
107-02-2	1,2-Dichloroethane	1.	U	
78-93-3	2-Butanone	20.	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.		
71-43-2	Benzene	10.		
124-48-1	Dibromochloromethane	1.	U	
10061-02-6	trans-1,3-Dichloropropene	1.	U	
79-00-5	1,1,2-Trichloroethane	1.	U	
110-75-8	2-Chloroethyl_Vinylether	1.	U	X
75-25-2	Bromoform	1.	U	
108-10-1	4-Methyl-2-pentanone	4.	U	
591-78-6	2-Hexanone	4.	U	
127-18-4	Tetrachloroethene	1.	U	
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	
108-88-3	Toluene	10.		
108-90-7	Chlorobenzene	10.		
100-41-4	Ethylbenzene	1.	U	
100-42-5	Styrene	2.	U	
108-38-3	Meta Xylene	2.	U	
95-47-6	O-&/or P-Xylene	2.	U	

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES/NO

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MDL0227

Study Name: MURRELL LF | 2
Data Set: SF6986 Date Received: 02/22/90
Lab File ID: >KH152 Date Analyzed: 2/27/90
Matrix: (soil/water) WATER Dilution Factor: 1.0
Sample wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
74-87-3	Chloromethane	2.	J
74-83-9	Bromomethane	2.	J
75-01-4	Vinyl Chloride	2.	J
75-00-3	Chloroethane	2.	J
75-09-2	Methylene_Chloride	1.	
107-02-8	Acrolein	14.	J
67-64-1	Acetone	41.	J
107-13-1	Acrylonitrile	38.	J
75-15-0	Carbon Disulfide	1.	J
75-35-4	1,1-Dichloroethene	.9	J
75-34-3	1,1-Dichloroethane	1.	J
156-60-5	1,2-Dichloroethene_(total)	.9	J
67-66-3	Chloroform	1.	J
107-02-2	1,2-Dichloroethane	1.	J
78-93-3	2-Butanone	13.	J
71-55-6	1,1,1-Trichloroethane	1.	J
56-23-5	Carbon Tetrachloride	1.	J
108-05-4	Vinyl Acetate	.9	J
75-27-4	Bromodichloromethane	.9	J
78-87-5	1,2-Dichloropropane	1.	J
10061-01-5	cis-1,3-Dichloropropene	1.	
79-01-6	Trichloroethene	1.	
71-43-2	Benzene	1.	J
124-48-1	Dibromochloromethane	.9	J
10061-02-6	trans-1,3-Dichloropropene	.5	J
79-00-5	1,1,2-Trichloroethane	1.	J
110-75-8	2-Chloroethyl_Vinylether	1.	
75-25-2	Bromoform	.8	J
108-10-1	4-Methyl-2-pentanone	3.	J
591-78-6	2-Hexanone	2.	J
127-18-4	Tetrachloroethene	1.	J
79-34-5	1,1,2,2-Tetrachloroethane	.7	J
108-88-3	Toluene	1.	J
108-90-7	Chlorobenzene	1.	J
100-41-4	Ethylbenzene	1.	J
100-42-5	Styrene	.7	J
108-38-3	Meta Xylene	2.	J
95-47-6	O-&/or P-Xylene	2.	

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES/NO

Quant ID File: IDKH3::D3

Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE

Last EDIT Date: 900216 08:56 Last Calib Date: 900227 12:31

RT Window (+/- min):	.75
Max Hits/Compound:	1
Minimum Area:	1000
Peak/Base Peak Ratio:	35.00 %
Slope Sensitivity:	.200
Subtraction Method:	2
Ignore max check:	NO
Auto Qdel Method:	5
Units of Conc:	UG/L

Number of Compounds: 44

Comp No.	Compound Name	(Type)	Retention Time Min.	(Rel)	R.F.	Conc.	
1)	*Bromochloromethane	(I)	10.42	(1.000)	1.00000	10.00	**
2)	CHLOROMETHANE	(T)	2.06	(.198)	2.65229	20.00	**
3)	BROMOMETHANE	(T)	3.17	(.304)	2.57988	20.00	**
4)	VINYL CHLORIDE	(T)	3.99	(.383)	2.97894	20.00	**
5)	CHLOROETHANE	(T)	5.06	(.486)	1.72736	20.00	**
6)	METHYLENE CHLORIDE	(T)	7.20	(.692)	2.27137	15.00	**
7)	ACROLEIN	(T)	8.00	(.768)	.06077	375.00	
8)	ACETONE	(T)	8.00	(.768)	.11109	375.00	**
9)	ACRYLONITRILE	(T)	8.67	(.833)	.09724	375.00	**
10)	CARBON DISULFIDE	(T)	8.76	(.841)	6.94503	12.50	**
11)	1,1-DICHLOROETHENE	(M)	9.99	(.959)	2.13627	15.00	**
12)	1,1-DICHLOROETHANE	(T)	11.27	(1.082)	5.23762	15.00	**
13)	1,2-DICHLOROETHENE (TOTAL)	(T)	11.95	(1.147)	2.46180	15.00	
14)	CHLOROFORM	(T)	12.50	(1.200)	4.04847	15.00	**
15)	1,2-DICHLOROETHANE-D4	(S)	13.14	(1.262)	2.54789	10.00	
16)	1,2-DICHLOROETHANE	(T)	13.23	(1.270)	1.26322	15.00	**
17)	*2-Bromo-1-chloropropane	(I)	19.42	(1.000)	1.00000	10.00	**
18)	2-BUTANONE	(T)	13.26	(.683)	.01565	125.00	**
19)	1,1,1-TRICHLOROETHANE	(T)	14.49	(.746)	.71679	15.00	**
20)	CARBON TETRACHLORIDE	(T)	14.86	(.765)	.55574	15.00	**
21)	VINYL ACETATE	(T)	15.04	(.774)	.54856	37.50	**
22)	BROMODICHLOROMETHANE	(T)	15.35	(.790)	.77311	15.00	**
23)	1,2-DICHLOROPROPANE	(T)	16.72	(.861)	.86546	15.00	**
24)	CIS-1,3-DICHLOROPROPENE	(T)	16.94	(.872)	.84019	21.00	**
25)	TRICHLOROETHENE	(M)	17.49	(.901)	.69466	15.00	**
26)	BENZENE-D6	(S)	17.82	(.918)	2.06421	10.00	
27)	BENZENE	(M)	17.98	(.926)	2.71663	15.00	**
28)	DIBROMOCHLOROMETHANE	(T)	18.07	(.931)	.37263	15.00	
29)	TRANS-1,3-DICHLOROPROPENE	(T)	18.22	(.938)	.52755	9.00	**
30)	1,1,2-TRICHLOROETHANE	(T)	18.19	(.937)	.29661	15.00	**
31)	2-CHLOROETHYL VINYLETHER	(T)	19.30	(.994)	.21614	15.00	**
32)	BROMOFORM	(T)	20.70	(1.066)	.13512	15.00	**
33)	*1,4-Dichlorobutane	(I)	23.34	(1.000)	1.00000	10.00	**
34)	4-METHYL-2-PENTANONE	(T)	21.29	(.912)	.41513	25.00	**
35)	2-HEXANONE	(T)	22.85	(.979)	.22423	25.00	**
36)	TETRACHLOROETHENE	(T)	23.06	(.988)	.90850	15.00	**
37)	1,1,2,2-TETRACHLOROETHANE	(T)	23.00	(.986)	.34847	15.00	**
38)	TOLUENE-D8	(S)	24.13	(1.034)	10.28183	10.00	
39)	TOLUENE	(M)	24.32	(1.042)	2.94167	15.00	**
40)	CHLOROBENZENE	(M)	25.42	(1.089)	2.90882	15.00	**

[illegible]	[illegible]		27.38(1.1[illegible])	1.66256	15.00	**
42)	STYRENE	(T)	31.43(1.347)	3.05499	12.50	**
43)	META XYLENE	(T)	31.73(1.360)	2.15834	30.00	**
44)	O-&/OR P-XYLENE	(T)	32.77(1.404)	2.03234	37.60	**

* Compound is ISTD
** Compound uses different Quant parameters

Quant ID File: IDKH3::D3

Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE

Last EDIT Date: 900216 08:56 Last Calib Date: 900228 14:34

RT Window (+/- min): .75
Max Hits/Compound: 1
Minimum Area: 1000
Peak/Base Peak Ratio: 35.00 %
Slope Sensitivity: .200
Subtraction Method: 2
Ignore max check: NO
Auto Qdel Method: 5
Units of Conc: UG/L

Number of Compounds: 44

Comp No.	Compound Name	(Type)	Retention Time Min.	(Rel)	R.F.	Conc.	
1)	*Bromochloromethane	(I)	10.42	(1.000)	1.00000	10.00	**
2)	CHLOROMETHANE	(T)	2.06	(.198)	2.57890	20.00	**
3)	BROMOMETHANE	(T)	3.13	(.301)	2.28669	20.00	**
4)	VINYL CHLORIDE	(T)	3.99	(.383)	2.79401	20.00	**
5)	CHLOROETHANE	(T)	5.06	(.486)	1.69471	20.00	**
6)	METHYLENE CHLORIDE	(T)	7.20	(.692)	1.92887	15.00	**
7)	ACROLEIN	(T)	8.00	(.768)	.04570	375.00	
8)	ACETONE	(T)	8.03	(.771)	.08123	375.00	**
9)	ACRYLONITRILE	(T)	8.70	(.835)	.07913	375.00	**
10)	CARBON DISULFIDE	(T)	8.73	(.838)	6.35764	12.50	**
11)	1,1-DICHLOROETHENE	(M)	9.99	(.959)	2.11388	15.00	**
12)	1,1-DICHLOROETHANE	(T)	11.27	(1.082)	4.95978	15.00	**
13)	1,2-DICHLOROETHENE (TOTAL)	(T)	11.95	(1.147)	2.39729	15.00	
14)	CHLOROFORM	(T)	12.50	(1.200)	3.68565	15.00	**
15)	1,2-DICHLOROETHANE-D4	(S)	13.14	(1.262)	2.62262	10.00	
16)	1,2-DICHLOROETHANE	(T)	13.23	(1.270)	1.06034	15.00	**
17)	*2-Bromo-1-chloropropane	(I)	19.42	(1.000)	1.00000	10.00	**
18)	2-BUTANONE	(T)	13.29	(.685)	.01085	125.00	**
19)	1,1,1-TRICHLOROETHANE	(T)	14.49	(.746)	.69084	15.00	**
20)	CARBON TETRACHLORIDE	(T)	14.85	(.765)	.54584	15.00	**
21)	VINYL ACETATE	(T)	15.07	(.776)	.40352	37.50	**
22)	BROMODICHLOROMETHANE	(T)	15.37	(.792)	.62738	15.00	**
23)	1,2-DICHLOROPROPANE	(T)	16.72	(.861)	.72871	15.00	**
24)	CIS-1,3-DICHLOROPROPENE	(T)	16.97	(.874)	.67775	21.00	**
25)	TRICHLOROETHENE	(M)	17.49	(.901)	.63801	15.00	**
26)	BENZENE-D6	(S)	17.82	(.918)	2.31871	10.00	
27)	BENZENE	(M)	17.98	(.926)	2.45754	15.00	**
28)	DIBROMOCHLOROMETHANE	(T)	18.10	(.932)	.29021	15.00	
29)	TRANS-1,3-DICHLOROPROPENE	(T)	18.22	(.938)	.40520	9.00	**
30)	1,1,2-TRICHLOROETHANE	(T)	18.22	(.938)	.22723	15.00	**
31)	2-CHLOROETHYL VINYLETHER	(T)	19.29	(.994)	.16347	15.00	**
32)	BROMOFORM	(T)	20.73	(1.068)	.09864	15.00	**
33)	*1,4-Dichlorobutane	(I)	23.33	(1.000)	1.00000	10.00	**
34)	4-METHYL-2-PENTANONE	(T)	21.28	(.912)	.31765	25.00	**
35)	2-HEXANONE	(T)	22.84	(.979)	.16159	25.00	**
36)	TETRACHLOROETHENE	(T)	23.06	(.988)	.92909	15.00	**
37)	1,1,2,2-TETRACHLOROETHANE	(T)	23.03	(.987)	.29159	15.00	**
38)	TOLUENE-D8	(S)	24.16	(1.035)	11.92500	10.00	
39)	TOLUENE	(M)	24.34	(1.043)	2.83811	15.00	**
40)	CHLOROBENZENE	(M)	25.45	(1.091)	2.64737	15.00	**
41)	ETHYLBENZENE	(T)	27.38	(1.173)	1.67717	15.00	**
42)	STYRENE	(T)	31.42	(1.347)	2.73258	12.50	**

43)	META XYLENE	(T)	31.75(1.381)	2.19638	30.00 **
44)	O-&/OR P-XYLENE	(T)	32.74(1.403)	2.12163	37.60 **

* Compound is ISTD
** Compound uses different Quant parameters

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

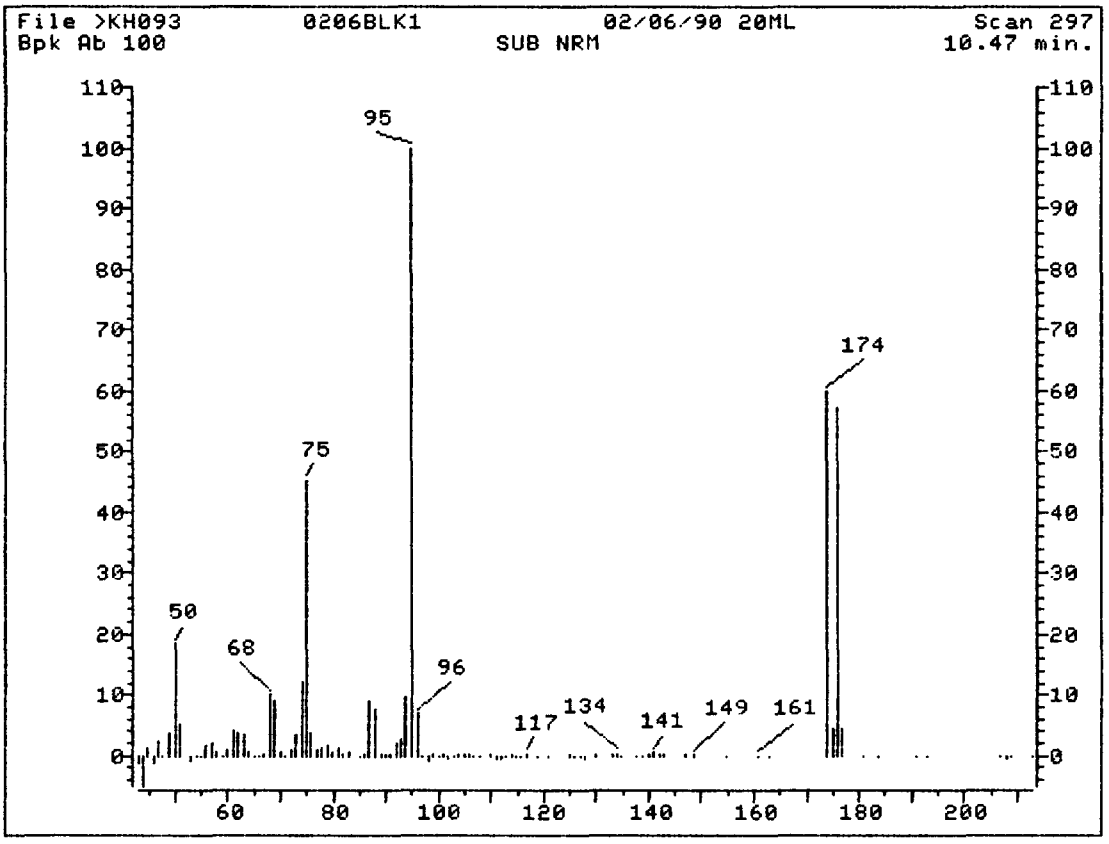
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
50	15-40% of mass 95	18.52	18.52	Ok
75	30-60% of mass 95	45.29	45.29	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.84	6.84	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	59.80	59.80	Ok
175	5-9% of mass 174	4.32	7.22	Ok
176	95-101% of mass 174	57.24	95.71	Ok
177	5-9% of mass 176	4.50	7.87	Ok

Injection Date: 02/06/90
Injection Time: 09:08
Data File: >KH093
Scan: 297

MS data file header from : >KH099

Sample: VSTD025 Operator: CHACKO MS 2/06/90 14:29
Misc : 02/06/90 20ML
Sys. #: 3 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: VOA#3 Tuning file: MTBFB3 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 : >KH099

Sample: VSTD025 Operator: CHACKO MS 2/06/90 14:29
Misc : 02/06/90 20ML
Sys. #: 3 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: VOA#3 Tuning file: MTBFB3 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

>KH093 0206BLK1 02/06/90 20ML
297 SUB NRM

File: >KH093 Scan #: 297 Retn. time: 10.47

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
42.95	-.988	64.95	-.031	86.90	8.909	107.80	-.176	139.90	.145
43.80	-5.026	65.95	-.193	87.90	7.503	109.95	.228	140.90	.593
44.95	1.155	66.90	.277	89.00	.158	110.95	-.343	141.90	.119
45.80	-1.089	67.90	10.051	89.90	.334	112.05	-.378	142.90	.360
46.95	2.491	68.90	8.975	90.90	.237	112.95	-.149	146.80	.242
47.80	-.062	69.90	.536	91.90	2.047	113.95	.220	148.70	.233
48.95	3.936	70.90	-.141	92.95	2.772	114.95	.053	154.70	-.132
49.95	18.521	71.90	.822	93.80	9.603	115.80	.066	160.80	.088
50.95	5.140	72.90	3.475	94.80	100.000	116.80	.369	162.80	-.075
52.95	-.690	73.90	12.235	95.95	6.844	118.90	.048	173.75	59.803
53.95	.022	74.90	45.293	96.80	.013	120.90	-.110	174.90	4.318
54.95	-.092	75.90	3.690	98.05	-.725	124.90	.127	175.75	57.237
55.95	1.542	76.90	1.006	98.95	.360	125.75	-.228	176.75	4.503
56.95	1.955	77.90	1.191	99.95	.044	127.00	-.110	180.90	-.053
57.95	.558	78.90	1.661	100.95	.141	127.90	-.417	183.65	-.026
58.95	-.198	79.75	.470	101.95	-.589	129.90	.123	190.90	-.185
59.95	.817	80.90	1.309	102.95	-.158	133.00	.228	192.90	-.026
60.95	4.169	81.90	.338	103.80	.426	133.90	.373	206.95	-.026
61.95	3.919	83.00	.571	104.95	.101	134.90	.048	207.95	-.294
62.95	3.326	85.00	-.101	105.80	.281	137.40	-.123	208.95	-.193
63.80	.606	85.90	.224	106.80	-.031	138.90	.083	212.95	-.136

MS data file header from : >KH099

Sample: VSTD025 Operator: CHACKO MS 2/06/90 14:29
Misc : 02/06/90 20ML
Sys. #: 3 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: VOA#3 Tuning file: MTBFB3 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

Calibration Report

Title: VOLATILES CRL624NS 12\05\89
Calibrated: 900227 12:19

Compound	Files: >KH095 RF 5.00	>KH096 RF 10.00	>KH097 RF 15.00	>KH098 RF 20.00	>KH099 RF 25.00	$\overline{RRT}$	$\overline{RF}$	% RSD	
CHLOROMETHANE	3.09880	1.91133	3.06761	2.76459	2.07428	.193	2.58332	21.586	(Conc=10.0,15.0,20.0,25.0,30.0)
BROMOMETHANE	2.92644	1.90406	2.70288	2.50571	2.13514	.292	2.43484	17.059	(Conc=10.0,15.0,20.0,25.0,30.0)
VINYL CHLORIDE	3.45387	2.24383	3.27570	3.04649	2.63412	.369	2.93080	16.767	(Conc=10.0,15.0,20.0,25.0,30.0)
CHLOROETHANE	1.80803	1.16089	1.67220	1.54912	1.32550	.472	1.50315	17.359	(Conc=10.0,15.0,20.0,25.0,30.0)
METHYLENE CHLORIDE	.87356	.66966	.78496	.76564	.74117	.683	.76700	9.630	(Conc=5.0,10.0,15.0,20.0,25.0)
ACROLEIN	.07522	.06231	.07635	.07471	.06043	.766	.06980	11.106	(Conc=225.0,300.0,375.0,450.0,525.
ACETONE	.12389	.10777	.11794	.11951	.11389	.770	.11660	5.230	(Conc=225.0,300.0,375.0,450.0,525.
ACRYLONITRILE	.12104	.10480	.11489	.11591	.11917	.833	.11516	5.468	(Conc=225.0,300.0,375.0,450.0,525.
CARBON DISULFIDE	8.28823	6.63680	7.91696	7.33229	6.67712	.838	7.37028	9.974	(Conc=7.5,10.0,12.5,15.0,17.5)
1,1-DICHLOROETHENE	2.61163	1.97010	2.39134	2.37011	2.16064	.961	2.30076	10.616	(Conc=5.0,10.0,15.0,20.0,25.0)
1,1-DICHLOROETHANE	5.62395	4.24216	5.18718	5.16804	4.72577	1.085	4.98942	10.518	(Conc=5.0,10.0,15.0,20.0,25.0)
1,2-DICHLOROETHENE (TOTAL)	2.88776	2.17973	2.66158	2.63464	2.39930	1.155	2.55260	10.611	(Conc=5.0,10.0,15.0,20.0,25.0)
CHLOROFORM	4.26764	3.24215	3.91303	3.92357	3.61678	1.209	3.79263	10.137	(Conc=5.0,10.0,15.0,20.0,25.0)
1,2-DICHLOROETHANE-D4	2.31214	2.27058	2.35870	2.41853	2.48438	1.272	2.36887	3.581	(Conc=10.0,10.0,10.0,10.0,10.0)
1,2-DICHLOROETHANE	1.30921	1.01034	1.14493	1.18959	1.15212	1.282	1.16124	9.217	(Conc=5.0,10.0,15.0,20.0,25.0)
2-BUTANONE	.01805	.01653	.01693	.01743	.01830	.681	.01745	4.248	(Conc=75.0,100.0,125.0,150.0,175.0
1,1,1-TRICHLOROETHANE	.74833	.58751	.66942	.68788	.62286	.742	.66320	9.311	(Conc=5.0,10.0,15.0,20.0,25.0)
CARBON TETRACHLORIDE	.60472	.48233	.56734	.56856	.50878	.761	.54634	9.084	(Conc=5.0,10.0,15.0,20.0,25.0)
VINYL ACETATE	.60804	.46184	.69095	.52822	.32580	.774	.52297	26.717	(Conc=22.5,30.0,37.5,45.0,52.5)
BROMODICHLOROMETHANE	.85261	.67661	.77139	.78982	.77083	.789	.77225	8.169	(Conc=5.0,10.0,15.0,20.0,25.0)
1,2-DICHLOROPROPANE	.98947	.79175	.90792	.92794	.88643	.859	.90070	7.996	(Conc=5.0,10.0,15.0,20.0,25.0)
CIS-1,3-DICHLOROPROPENE	.98182	.79662	.91069	.94310	.92090	.872	.91062	7.614	(Conc=7.0,14.0,21.0,28.0,35.0)
TRICHLOROETHENE	.74439	.59704	.69554	.70752	.66789	.901	.68248	8.073	(Conc=5.0,10.0,15.0,20.0,25.0)
BENZENE-D6	2.39375	2.33752	2.47524	2.35519	2.31861	.918	2.37606	2.609	(Conc=10.0,10.0,10.0,10.0,10.0)
BENZENE	2.72754	2.19025	2.58940	2.57184	2.34914	.926	2.48563	8.596	(Conc=5.0,10.0,15.0,20.0,25.0)
DIBROMOCHLOROMETHANE	.43829	.36113	.40496	.42818	.42651	.931	.41181	7.485	(Conc=5.0,10.0,15.0,20.0,25.0)
TRANS-1,3-DICHLOROPROPENE	.53426	.44626	.49253	.56315	.49250	.938	.50574	8.841	(Conc=3.0,6.0,9.0,12.0,15.0)
1,1,2-TRICHLOROETHANE	.36840	.29994	.32807	.34609	.34807	.938	.33811	7.596	(Conc=5.0,10.0,15.0,20.0,25.0)
2-CHLOROETHYL VINYLETHER	.27273	.22001	.23206	.24590	.24687	.995	.24351	8.094	(Conc=5.0,10.0,15.0,20.0,25.0)
BROMOFORM	.07633	.04251	.08691	.02616	.06572	1.069	.05952	41.773	(Conc=5.0,10.0,15.0,20.0,25.0)
4-METHYL-2-PENTANONE	.48536	.41447	.45771	.44849	.45321	.912	.45185	5.607	(Conc=15.0,20.0,25.0,30.0,35.0)
2-HEXANONE	.27293	.23520	.26620	.26471	.27552	.979	.26291	6.136	(Conc=15.0,20.0,25.0,30.0,35.0)
TETRACHLOROETHENE	1.04599	.79464	.99144	.96444	.84270	.988	.92784	11.347	(Conc=5.0,10.0,15.0,20.0,25.0)
1,1,2,2-TETRACHLOROETHANE	.36316	.31042	.38943	.42288	.40255	.987	.37769	11.491	(Conc=5.0,10.0,15.0,20.0,25.0)
TOLUENE-D8	9.59015	8.84962	9.64881	9.27822	8.40109	1.035	9.15358	5.755	(Conc=10.0,10.0,10.0,10.0,10.0)
TOLUENE	3.23845	2.44037	3.07316	3.01018	2.64401	1.043	2.88124	11.402	(Conc=5.0,10.0,15.0,20.0,25.0)
CHLOROBENZENE	3.07531	2.37672	2.89713	2.89170	2.58648	1.091	2.76547	10.106	(Conc=5.0,10.0,15.0,20.0,25.0)
ETHYLBENZENE	1.68382	1.27324	1.57561	1.54803	1.34867	1.173	1.48587	11.418	(Conc=5.0,10.0,15.0,20.0,25.0)
STYRENE	3.27575	2.68061	3.24517	3.01914	2.73773	1.340	2.99168	9.260	(Conc=7.5,10.0,12.5,15.0,17.5)

RF - Response Factor (Subscript is amount in UG/L)

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

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

Calibration Report

Title: VOLATILES CRL624NS 12\05\89
Calibrated: 900227 12:19

Compound	Files: >KH095 RF 5.00	>KH096 RF 10.00	>KH097 RF 15.00	>KH098 RF 20.00	>KH099 RF 25.00	$\overline{RRT}$	$\overline{RF}$	% RSD	
META XYLENE	1.97318	1.36486	1.67020	1.62509	1.54601	1.354	1.63587	13.552	(Conc=10.0,20.0,30.0,40.0,50.0)
O-&/OR P-XYLENE	1.91803	1.33924	1.63438	1.60471	1.53615	1.395	1.60650	12.990	(Conc=12.5,25.1,37.6,50.1,62.7)

RF - Response Factor (Subscript is amount in UG/L)

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

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

QUANT REPORT

Operator ID: CHACKO Quant Rev: 6 Quant Time: 900206 12:08
Output File: ^KH095::A8 Injected at: 900206 11:30
Data File: >KH095::A9 Dilution Factor: 1.00000
Name: VSTD005
Misc: 02/06/90 20ML

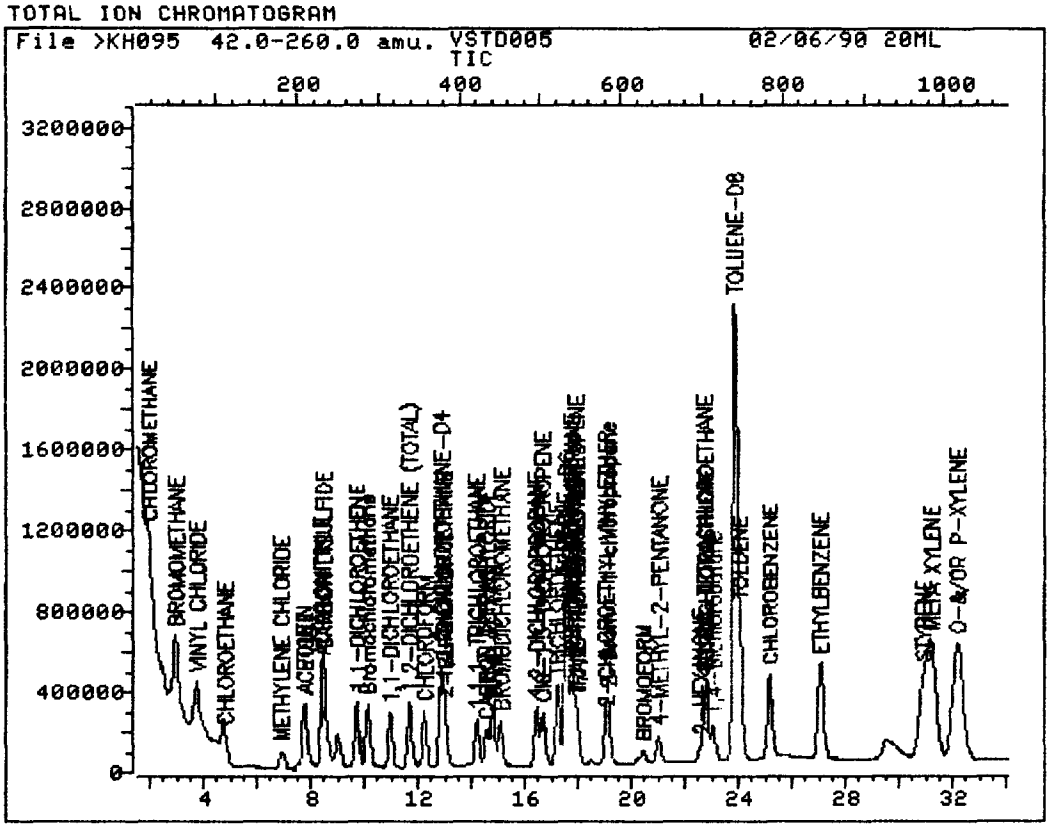
ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900206 10:52

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.13	130.0	582713	10.00	UG/L	98
2)	CHLOROMETHANE	1.97	50.0	1805711	2.32	UG/L	100
3)	BROMOMETHANE	2.97	94.0	1705272	1.67	UG/L	95
4)	VINYL CHLORIDE	3.75	62.0	2012617	1.99	UG/L	96
5)	CHLOROETHANE	4.81	64.0	1053565	1.78	UG/L	99
6)	METHYLENE CHLORIDE	6.92	84.0	254516	7.38	UG/L	93
7)	ACROLEIN	7.77	56.0	986236	289.93	UG/L	99
8)	ACETONE	7.80	43.0	1624324	288.87	UG/L	88
9)	ACRYLONITRILE	8.43	53.0	1586983	151.31	UG/L	98
10)	CARBON DISULFIDE	8.49	76.0	3622244	74.92	UG/L	100
11)	1,1-DICHLOROETHENE	9.73	96.0	760916	6.35	UG/L	88
12)	1,1-DICHLOROETHANE	10.97	63.0	1638575	6.18	UG/L	96
13)	1,2-DICHLOROETHENE (TOTAL)	11.70	96.0	841368	6.13	UG/L	85
14)	CHLOROFORM	12.24	83.0	1243406	6.06	UG/L	99
15)	1,2-DICHLOROETHANE-D4	12.87	65.0	1347312	9.38	UG/L	85
16)	1,2-DICHLOROETHANE	12.97	62.0	381448	5.96	UG/L	96
17)	*2-Bromo-1-chloropropane	19.13	77.0	2190371	10.00	UG/L	98
18)	2-BUTANONE	13.03	72.0	296494	172.07	UG/L	99
19)	1,1,1-TRICHLOROETHANE	14.20	97.0	819560	4.62	UG/L	97
20)	CARBON TETRACHLORIDE	14.57	117.0	662285	4.49	UG/L	98
21)	VINYL ACETATE	14.81	43.0	2996613	24.74	UG/L	95
22)	BROMODICHLOROMETHANE	15.11	83.0	933770	5.46	UG/L	97
23)	1,2-DICHLOROPROPANE	16.44	63.0	1083652	5.76	UG/L	98
24)	CIS-1,3-DICHLOROPROPENE	16.68	75.0	1505390	8.21	UG/L	98
25)	TRICHLOROETHENE	17.22	130.0	815250	4.53	UG/L	97
26)	BENZENE-D6	17.56	84.0	5243204	9.21	UG/L	96
27)	BENZENE	17.71	78.0	2987162	5.16	UG/L	98
28)	DIBROMOCHLOROMETHANE	17.80	129.0	480005	5.18	UG/L	99
29)	TRANS-1,3-DICHLOROPROPENE	17.95	75.0	351066	2.96	UG/L	95
30)	1,1,2-TRICHLOROETHANE	17.95	97.0	403463	6.03	UG/L	97
31)	2-CHLOROETHYL VINYLETHER	19.04	63.0	298686	6.56	UG/L	96
32)	BROMOFORM	20.46	173.0	83595	2.44	UG/L	81
33)	*1,4-Dichlorobutane	23.06	55.0	1119673	10.00	UG/L	97
34)	4-METHYL-2-PENTANONE	21.03	43.0	815161	18.24	UG/L	99
35)	2-HEXANONE	22.60	43.0	458386	17.65	UG/L	96
36)	TETRACHLOROETHENE	22.79	164.0	585583	4.39	UG/L	97
37)	1,1,2,2-TETRACHLOROETHANE	22.76	83.0	203312	5.82	UG/L	99
38)	TOLUENE-D8	23.87	98.0	10737838	8.66	UG/L	99
39)	TOLUENE	24.06	92.0	1813002	5.27	UG/L	97
40)	CHLOROBENZENE	25.17	112.0	1721673	5.37	UG/L	98
41)	ETHYLBENZENE	27.05	106.0	942664	5.06	UG/L	97
42)	STYRENE	30.92	104.0	2750827	8.38	UG/L	87
43)	META XYLENE	31.22	106.0	2209316	12.87	UG/L	94

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	O-&/OR P-XYLENE	32.19	106.0	2684461	16.16	UG/L	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >KH095::A9 Quant Output File: ^KH095::A8
Name: VSTD005
Misc: 02/06/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900206 10:52

Operator ID: CHACKO
Quant Time: 900206 12:08
Injected at: 900206 11:30

QUANT REPORT

Operator ID: CHACKO Quant Rev: 6 Quant Time: 900206 12:52
Output File: ^KH096::A8 Injected at: 900206 12:15
Data File: >KH096::A9 Dilution Factor: 1.00000
Name: VSTD010
Misc: 02/06/90 20ML

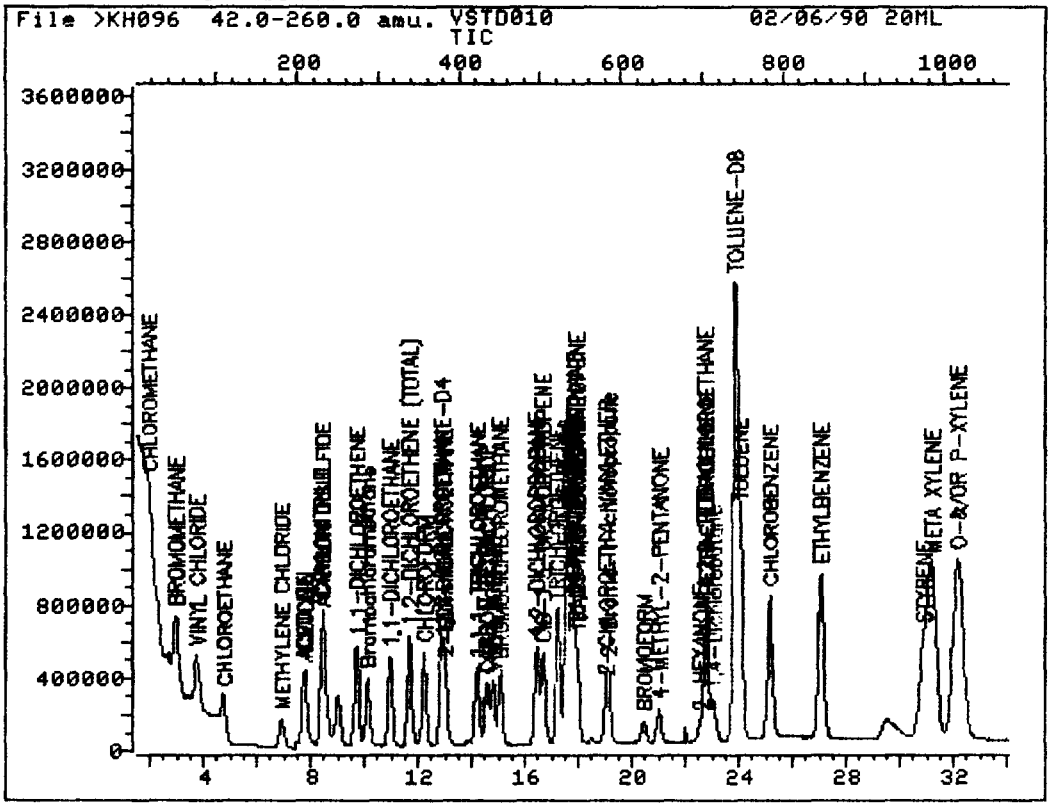
ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900206 10:52

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.12	130.0	706951	10.00	UG/L	98
2)	CHLOROMETHANE	1.97	50.0	2026830	2.15	UG/L	100
3)	BROMOMETHANE	2.96	94.0	2019115	1.63	UG/L	95
4)	VINYL CHLORIDE	3.75	62.0	2379412	1.94	UG/L	96
5)	CHLOROETHANE	4.77	64.0	1231041	1.71	UG/L	99
6)	METHYLENE CHLORIDE	6.92	84.0	473415	11.31	UG/L	93
7)	ACROLEIN	7.76	56.0	1321418	320.20	UG/L	99
8)	ACETONE	7.79	43.0	2285570	335.04	UG/L	90
9)	ACRYLONITRILE	8.43	53.0	2222685	174.68	UG/L	99
10)	CARBON DISULFIDE	8.46	76.0	4691895	79.99	UG/L	100
11)	1,1-DICHLOROETHENE	9.73	96.0	1392764	9.57	UG/L	87
12)	1,1-DICHLOROETHANE	11.00	63.0	2998996	9.32	UG/L	95
13)	1,2-DICHLOROETHENE (TOTAL)	11.69	96.0	1540962	9.26	UG/L	84
14)	CHLOROFORM	12.24	83.0	2292044	9.21	UG/L	99
15)	1,2-DICHLOROETHANE-D4	12.87	65.0	1605191	9.21	UG/L	84
16)	1,2-DICHLOROETHANE	12.96	62.0	714259	9.20	UG/L	97
17)	*2-Bromo-1-chloropropane	19.13	77.0	2539700	10.00	UG/L	99
18)	2-BUTANONE	13.02	72.0	419935	210.19	UG/L	98
19)	1,1,1-TRICHLOROETHANE	14.20	97.0	1492096	7.25	UG/L	98
20)	CARBON TETRACHLORIDE	14.56	117.0	1224962	7.16	UG/L	98
21)	VINYL ACETATE	14.80	43.0	3518812	25.06	UG/L	96
22)	BROMODICHLOROMETHANE	15.08	83.0	1718381	8.66	UG/L	94
23)	1,2-DICHLOROPROPANE	16.44	63.0	2010801	9.21	UG/L	98
24)	CIS-1,3-DICHLOROPROPENE	16.68	75.0	2832433	13.32	UG/L	98
25)	TRICHLOROETHENE	17.22	130.0	1516311	7.27	UG/L	96
26)	BENZENE-D6	17.55	84.0	5936590	8.99	UG/L	95
27)	BENZENE	17.70	78.0	5562575	8.28	UG/L	99
28)	DIBROMOCHLOROMETHANE	17.83	129.0	917155	8.54	UG/L	99
29)	TRANS-1,3-DICHLOROPROPENE	17.95	75.0	680024M	4.94	UG/L	
30)	1,1,2-TRICHLOROETHANE	17.95	97.0	761752	9.82	UG/L	98
31)	2-CHLOROETHYL VINYLETHER	19.03	63.0	558753	10.58	UG/L	98
32)	BROMOFORM	20.46	173.0	107968M	2.72	UG/L	
33)	*1,4-Dichlorobutane	23.05	55.0	1370348	10.00	UG/L	96
34)	4-METHYL-2-PENTANONE	21.03	43.0	1135931	20.77	UG/L	99
35)	2-HEXANONE	22.57	43.0	644617	20.28	UG/L	92
36)	TETRACHLOROETHENE	22.78	164.0	1088932	6.67	UG/L	98
37)	1,1,2,2-TETRACHLOROETHANE	22.75	83.0	425380	9.95	UG/L	98
38)	TOLUENE-D8	23.87	98.0	12127056	7.99	UG/L	97
39)	TOLUENE	24.05	92.0	3344159	7.94	UG/L	97
40)	CHLOROBENZENE	25.17	112.0	3256939	8.29	UG/L	99
41)	ETHYLBENZENE	27.08	106.0	1744780	7.65	UG/L	95
42)	STYRENE	30.89	104.0	3673372	9.14	UG/L	85
43)	META XYLENE	31.22	106.0	3740665	17.81	UG/L	93

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	O-&/OR P-XYLENE	32.16	106.0	4606431	22.65	UG/L	95

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >KH096::A9 Quant Output File: ^KH096::A8
Name: VSTD010
Misc: 02/06/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900206 10:52

Operator ID: CHACKO
Quant Time: 900206 12:52
Injected at: 900206 12:15

QUANT REPORT

Operator ID: CHACKO Quant Rev: 6 Quant Time: 900206 13:37
Output File: ^KH097::A8 Injected at: 900206 12:59
Data File: >KH097::A9 Dilution Factor: 1.00000
Name: VSTD015
Misc: 02/06/90 20ML

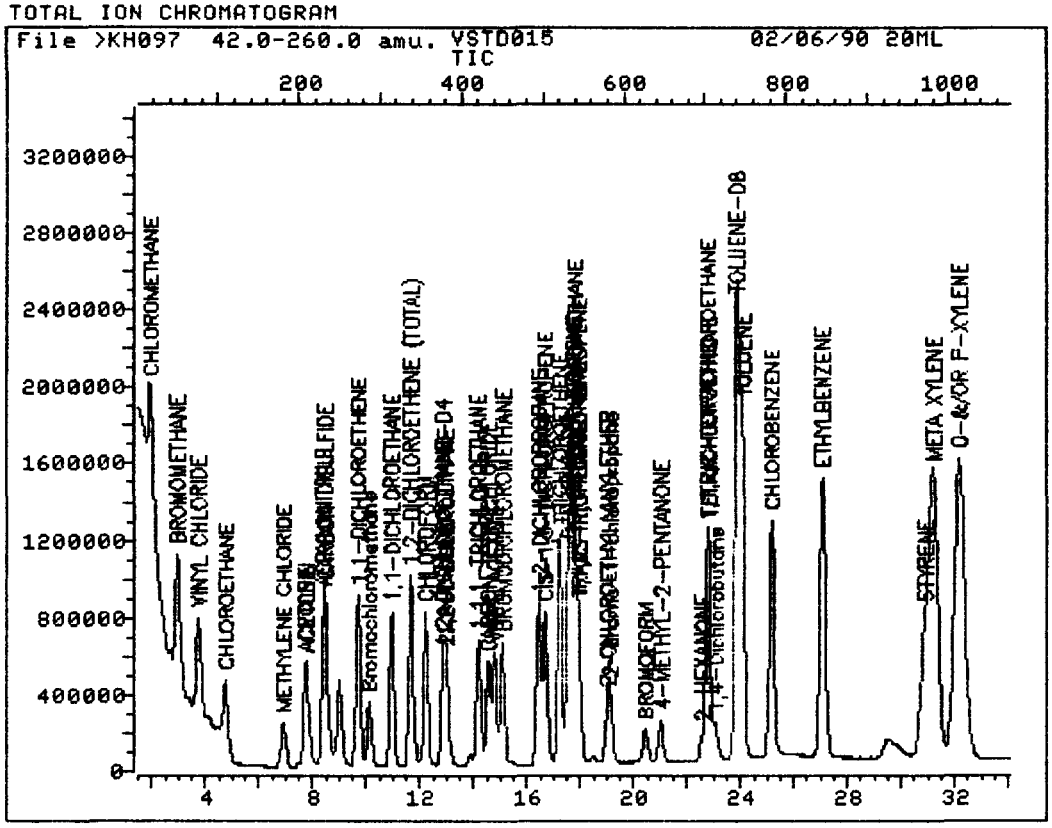
ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900206 10:52

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.10	130.0	619033	10.00	UG/L	96
2)	CHLOROMETHANE	1.95	50.0	3797900	4.60	UG/L	100
3)	BROMOMETHANE	2.94	94.0	3346340	3.09	UG/L	96
4)	VINYL CHLORIDE	3.73	62.0	4055539	3.77	UG/L	95
5)	CHLOROETHANE	4.76	64.0	2070294	3.29	UG/L	99
6)	METHYLENE CHLORIDE	6.90	84.0	728870	19.88	UG/L	93
7)	ACROLEIN	7.75	56.0	1772324	490.45	UG/L	96
8)	ACETONE	7.78	43.0	2737742	458.32	UG/L	91
9)	ACRYLONITRILE	8.41	53.0	2667064	239.37	UG/L	99
10)	CARBON DISULFIDE	8.47	76.0	6126075	119.28	UG/L	100
11)	1,1-DICHLOROETHENE	9.71	96.0	2220475	17.43	UG/L	88
12)	1,1-DICHLOROETHANE	10.98	63.0	4816552	17.10	UG/L	94
13)	1,2-DICHLOROETHENE (TOTAL)	11.67	96.0	2471407	16.96	UG/L	86
14)	CHLOROFORM	12.22	83.0	3633438	16.68	UG/L	99
15)	1,2-DICHLOROETHANE-D4	12.85	65.0	1460112	9.56	UG/L	84
16)	1,2-DICHLOROETHANE	12.97	62.0	1063122	15.63	UG/L	97
17)	*2-Bromo-1-chloropropane	19.13	77.0	2304007	10.00	UG/L	99
18)	2-BUTANONE	13.00	72.0	487533	268.99	UG/L	99
19)	1,1,1-TRICHLOROETHANE	14.18	97.0	2313539	12.39	UG/L	97
20)	CARBON TETRACHLORIDE	14.55	117.0	1960719	12.63	UG/L	99
21)	VINYL ACETATE	14.79	43.0	5969790	46.86	UG/L	95
22)	BROMODICHLOROMETHANE	15.09	83.0	2665932	14.82	UG/L	96
23)	1,2-DICHLOROPROPANE	16.45	63.0	3137770	15.85	UG/L	97
24)	CIS-1,3-DICHLOROPROPENE	16.67	75.0	4406281	22.84	UG/L	99
25)	TRICHLOROETHENE	17.24	130.0	2403800	12.70	UG/L	98
26)	BENZENE-D6	17.56	84.0	5702963	9.52	UG/L	95
27)	BENZENE	17.71	78.0	8948986	14.69	UG/L	99
28)	DIBROMOCHLOROMETHANE	17.80	129.0	1399543	14.37	UG/L	96
29)	TRANS-1,3-DICHLOROPROPENE	17.95	75.0	1021320M	8.18	UG/L	
30)	1,1,2-TRICHLOROETHANE	17.95	97.0	1133813	16.12	UG/L	99
31)	2-CHLOROETHYL VINYLETHER	19.01	63.0	802017	16.74	UG/L	99
32)	BROMOFORM	20.43	173.0	300346	8.34	UG/L	77
33)	*1,4-Dichlorobutane	23.07	55.0	1178026	10.00	UG/L	97
34)	4-METHYL-2-PENTANONE	21.04	43.0	1347995	28.67	UG/L	98
35)	2-HEXANONE	22.58	43.0	783980	28.68	UG/L	95
36)	TETRACHLOROETHENE	22.80	164.0	1751910	12.49	UG/L	97
37)	1,1,2,2-TETRACHLOROETHANE	22.77	83.0	688135	18.72	UG/L	95
38)	TOLUENE-D8	23.86	98.0	11366544	8.72	UG/L	98
39)	TOLUENE	24.07	92.0	5430386	14.99	UG/L	98
40)	CHLOROBENZENE	25.16	112.0	5119334	15.17	UG/L	99
41)	ETHYLBENZENE	27.07	106.0	2784166	14.21	UG/L	95
42)	STYRENE	30.87	104.0	4778615	13.83	UG/L	86
43)	META XYLENE	31.21	106.0	5902634	32.69	UG/L	93

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	O-&/OR P-XYLENE	32.15	106.0	7239291	41.41	UG/L	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: VSTD015
Misc: 02/06/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900206 10:52

Operator ID: CHACKO
Quant Time: 900206 13:37
Injected at: 900206 12:59

QUANT REPORT

Operator ID: CHACKO Quant Rev: 6 Quant Time: 900206 14:22
Output File: ^KH098::A8 Injected at: 900206 13:44
Data File: >KH098::A9 Dilution Factor: 1.00000
Name: VSTD020
Misc: 02/06/90 20ML

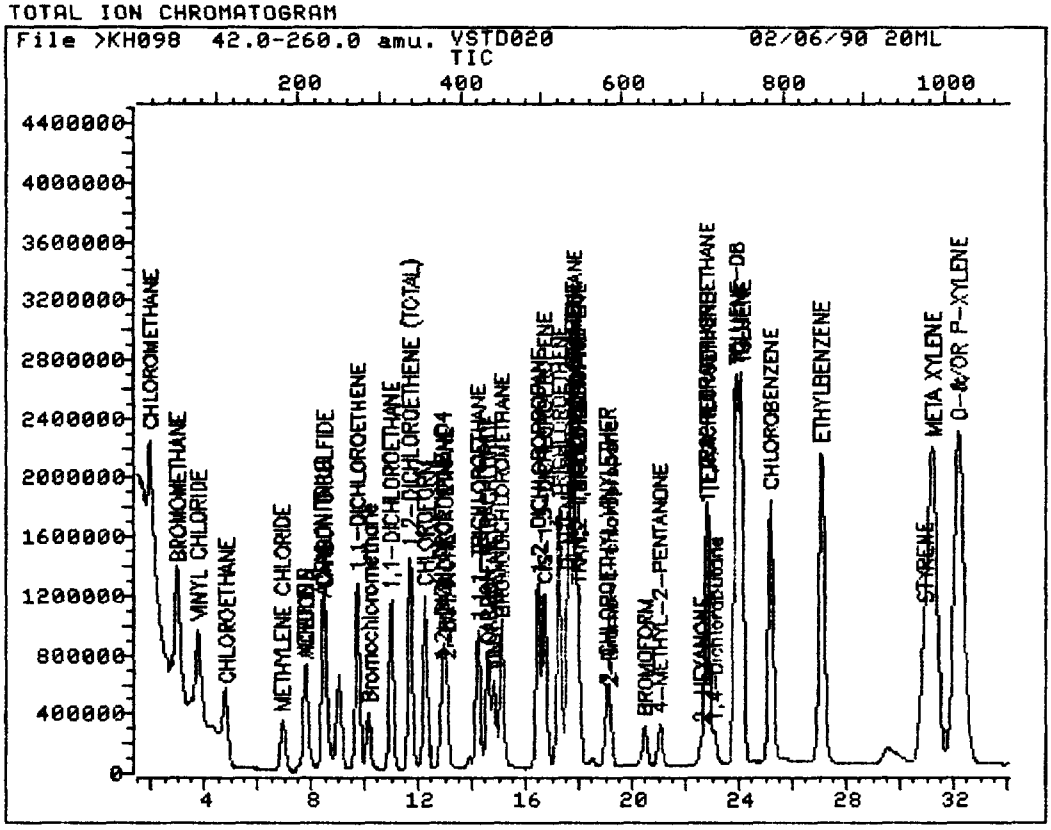
ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900206 10:52

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.14	130.0	672064	10.00	UG/L	98
2)	CHLOROMETHANE	1.95	50.0	4644948	5.18	UG/L	100
3)	BROMOMETHANE	2.98	94.0	4209991	3.58	UG/L	96
4)	VINYL CHLORIDE	3.73	62.0	5118591	4.38	UG/L	94
5)	CHLOROETHANE	4.79	64.0	2602778	3.81	UG/L	99
6)	METHYLENE CHLORIDE	6.90	84.0	1029116	25.86	UG/L	93
7)	ACROLEIN	7.75	56.0	2259530	575.94	UG/L	96
8)	ACETONE	7.78	43.0	3614195	557.30	UG/L	92
9)	ACRYLONITRILE	8.41	53.0	3505440	289.79	UG/L	97
10)	CARBON DISULFIDE	8.48	76.0	7391651	132.56	UG/L	100
11)	1,1-DICHLOROETHENE	9.71	96.0	3185731	23.03	UG/L	90
12)	1,1-DICHLOROETHANE	10.98	63.0	6946511	22.71	UG/L	94
13)	1,2-DICHLOROETHENE (TOTAL)	11.68	96.0	3541290	22.39	UG/L	85
14)	CHLOROFORM	12.22	83.0	5273774	22.30	UG/L	98
15)	1,2-DICHLOROETHANE-D4	12.86	65.0	1625410	9.81	UG/L	85
16)	1,2-DICHLOROETHANE	12.98	62.0	1598958	21.66	UG/L	97
17)	*2-Bromo-1-chloropropane	19.14	77.0	2466294	10.00	UG/L	99
18)	2-BUTANONE	13.04	72.0	644637	332.27	UG/L	97
19)	1,1,1-TRICHLOROETHANE	14.22	97.0	3393008	16.97	UG/L	96
20)	CARBON TETRACHLORIDE	14.58	117.0	2804456	16.87	UG/L	98
21)	VINYL ACETATE	14.79	43.0	5862390	42.98	UG/L	95
22)	BROMODICHLOROMETHANE	15.09	83.0	3895858	20.23	UG/L	97
23)	1,2-DICHLOROPROPANE	16.45	63.0	4577127	21.60	UG/L	96
24)	CIS-1,3-DICHLOROPROPENE	16.69	75.0	6512696	31.54	UG/L	99
25)	TRICHLOROETHENE	17.24	130.0	3489921	17.23	UG/L	96
26)	BENZENE-D6	17.57	84.0	5808594	9.06	UG/L	94
27)	BENZENE	17.72	78.0	12685836	19.46	UG/L	99
28)	DIBROMOCHLOROMETHANE	17.81	129.0	2112017	20.25	UG/L	96
29)	TRANS-1,3-DICHLOROPROPENE	17.96	75.0	1666673	12.48	UG/L	99
30)	1,1,2-TRICHLOROETHANE	17.93	97.0	1707143	22.67	UG/L	98
31)	2-CHLOROETHYL VINYLETHER	19.02	63.0	1212916	23.65	UG/L	99
32)	BROMOFORM	20.44	173.0	129037M	3.35	UG/L	
33)	*1,4-Dichlorobutane	23.07	55.0	1301757	10.00	UG/L	94
34)	4-METHYL-2-PENTANONE	21.02	43.0	1751470	33.71	UG/L	99
35)	2-HEXANONE	22.59	43.0	1033767	34.23	UG/L	95
36)	TETRACHLOROETHENE	22.80	164.0	2510928	16.20	UG/L	96
37)	1,1,2,2-TETRACHLOROETHANE	22.77	83.0	1100965	27.11	UG/L	96
38)	TOLUENE-D8	23.89	98.0	12077986	8.38	UG/L	99
39)	TOLUENE	24.07	92.0	7837058	19.58	UG/L	96
40)	CHLOROBENZENE	25.16	112.0	7528577	20.18	UG/L	99
41)	ETHYLBENZENE	27.07	106.0	4030325	18.61	UG/L	95
42)	STYRENE	30.91	104.0	5895275	15.44	UG/L	87
43)	META XYLENE	31.21	106.0	8461908	42.41	UG/L	92

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	O-&/OR P-XYLENE	32.16	106.0	10465618	54.17	UG/L	95

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: VSTD020
Misc: 02/06/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900206 10:52

Operator ID: CHACKO
Quant Time: 900206 14:22
Injected at: 900206 13:44

QUANT REPORT

Operator ID: CHACKO Quant Rev: 6 Quant Time: 900206 15:06
Output File: ^KH099::A8 Injected at: 900206 14:29
Data File: >KH099::A9 Dilution Factor: 1.00000
Name: VSTD025
Misc: 02/06/90 20ML

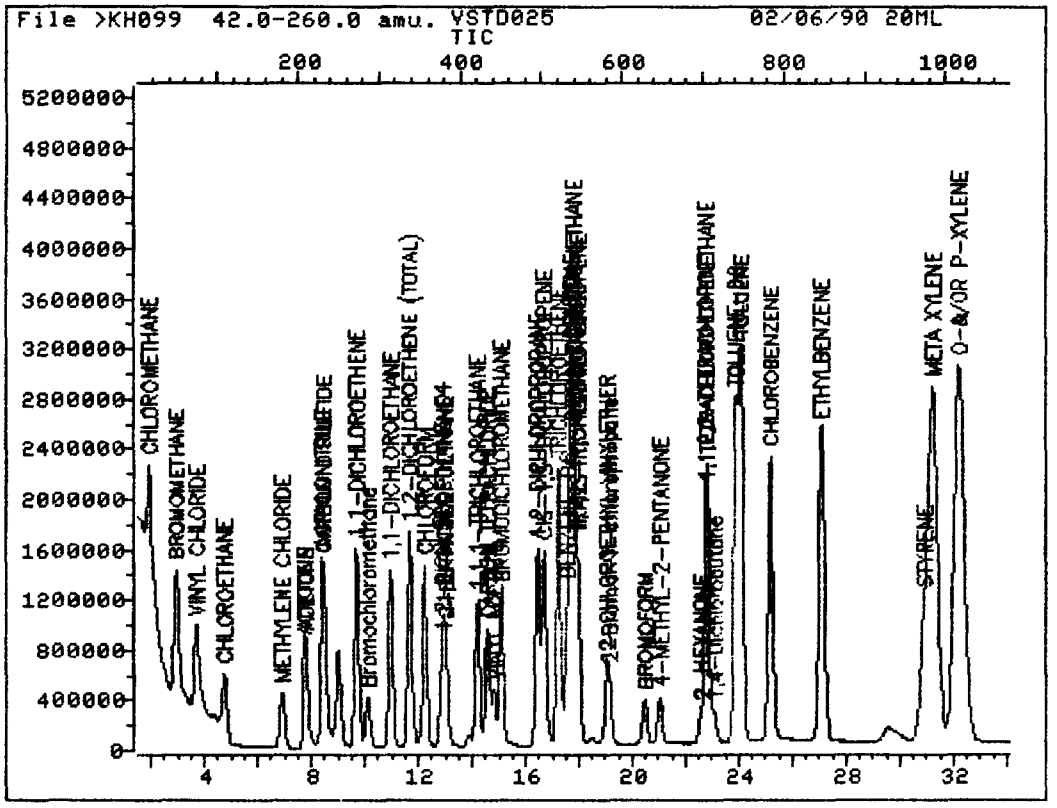
ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900206 10:52

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.10	130.0	728758	10.00	UG/L	99
2)	CHLOROMETHANE	1.94	50.0	4534942	4.66	UG/L	100
3)	BROMOMETHANE	2.94	94.0	4668007	3.66	UG/L	97
4)	VINYL CHLORIDE	3.72	62.0	5758912	4.54	UG/L	96
5)	CHLOROETHANE	4.75	64.0	2897906	3.92	UG/L	98
6)	METHYLENE CHLORIDE	6.92	84.0	1350331	31.29	UG/L	92
7)	ACROLEIN	7.74	56.0	2311988	543.46	UG/L	95
8)	ACETONE	7.80	43.0	4357392	619.63	UG/L	90
9)	ACRYLONITRILE	8.43	53.0	4559367	347.59	UG/L	98
10)	CARBON DISULFIDE	8.46	76.0	8515506	140.84	UG/L	100
11)	1,1-DICHLOROETHENE	9.70	96.0	3936465	26.25	UG/L	90
12)	1,1-DICHLOROETHANE	10.97	63.0	8609864	25.96	UG/L	94
13)	1,2-DICHLOROETHENE (TOTAL)	11.67	96.0	4371282	25.49	UG/L	88
14)	CHLOROFORM	12.24	83.0	6589402	25.69	UG/L	98
15)	1,2-DICHLOROETHANE-D4	12.88	65.0	1810512	10.07	UG/L	86
16)	1,2-DICHLOROETHANE	12.97	62.0	2099048	26.22	UG/L	96
17)	*2-Bromo-1-chloropropane	19.13	77.0	2645816	10.00	UG/L	99
18)	2-BUTANONE	13.03	72.0	847507	407.19	UG/L	98
19)	1,1,1-TRICHLOROETHANE	14.21	97.0	4119910	19.21	UG/L	98
20)	CARBON TETRACHLORIDE	14.57	117.0	3365354	18.87	UG/L	98
21)	VINYL ACETATE	14.81	43.0	4525585	30.93	UG/L	95
22)	BROMODICHLOROMETHANE	15.08	83.0	5098674	24.68	UG/L	96
23)	1,2-DICHLOROPROPANE	16.44	63.0	5863348	25.79	UG/L	96
24)	CIS-1,3-DICHLOROPROPENE	16.68	75.0	8527842	38.50	UG/L	99
25)	TRICHLOROETHENE	17.23	130.0	4417763	20.33	UG/L	97
26)	BENZENE-D6	17.56	84.0	6134615	8.92	UG/L	95
27)	BENZENE	17.71	78.0	15538464	22.21	UG/L	97
28)	DIBROMOCHLOROMETHANE	17.80	129.0	2821184	25.22	UG/L	97
29)	TRANS-1,3-DICHLOROPROPENE	17.95	75.0	1954600M	13.64	UG/L	
30)	1,1,2-TRICHLOROETHANE	17.95	97.0	2302311	28.50	UG/L	97
31)	2-CHLOROETHYL VINYLETHER	19.04	63.0	1632949	29.68	UG/L	99
32)	BROMOFORM	20.46	173.0	434682	10.51	UG/L	84
33)	*1,4-Dichlorobutane	23.06	55.0	1470092	10.00	UG/L	96
34)	4-METHYL-2-PENTANONE	21.04	43.0	2331908	39.74	UG/L	99
35)	2-HEXANONE	22.58	43.0	1417627	41.56	UG/L	94
36)	TETRACHLOROETHENE	22.79	164.0	3097103	17.69	UG/L	97
37)	1,1,2,2-TETRACHLOROETHANE	22.76	83.0	1479470	32.26	UG/L	99
38)	TOLUENE-D8	23.88	98.0	12350374	7.59	UG/L	98
39)	TOLUENE	24.06	92.0	9717360	21.50	UG/L	91
40)	CHLOROBENZENE	25.18	112.0	9505910	22.57	UG/L	98
41)	ETHYLBENZENE	27.06	106.0	4956673	20.27	UG/L	97
42)	STYRENE	30.90	104.0	7043253	16.34	UG/L	86
43)	META XYLENE	31.23	106.0	11363892	50.43	UG/L	93

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	O-&/OR P-XYLENE	32.20	106.0	14159424	64.90	UG/L	95

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: VSTD025
Misc: 02/06/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900206 10:52

Operator ID: CHACKO
Quant Time: 900206 15:06
Injected at: 900206 14:29

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  draw complete...
:SUB
 reg type  # pts  scan#    range: amu\r.t.      base   file     ion range
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  X   MS      91    930    39.95-   209.90   10578.0 >KH141
:TUNER,=BFB
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GC/MS PERFORMANCE STANDARD

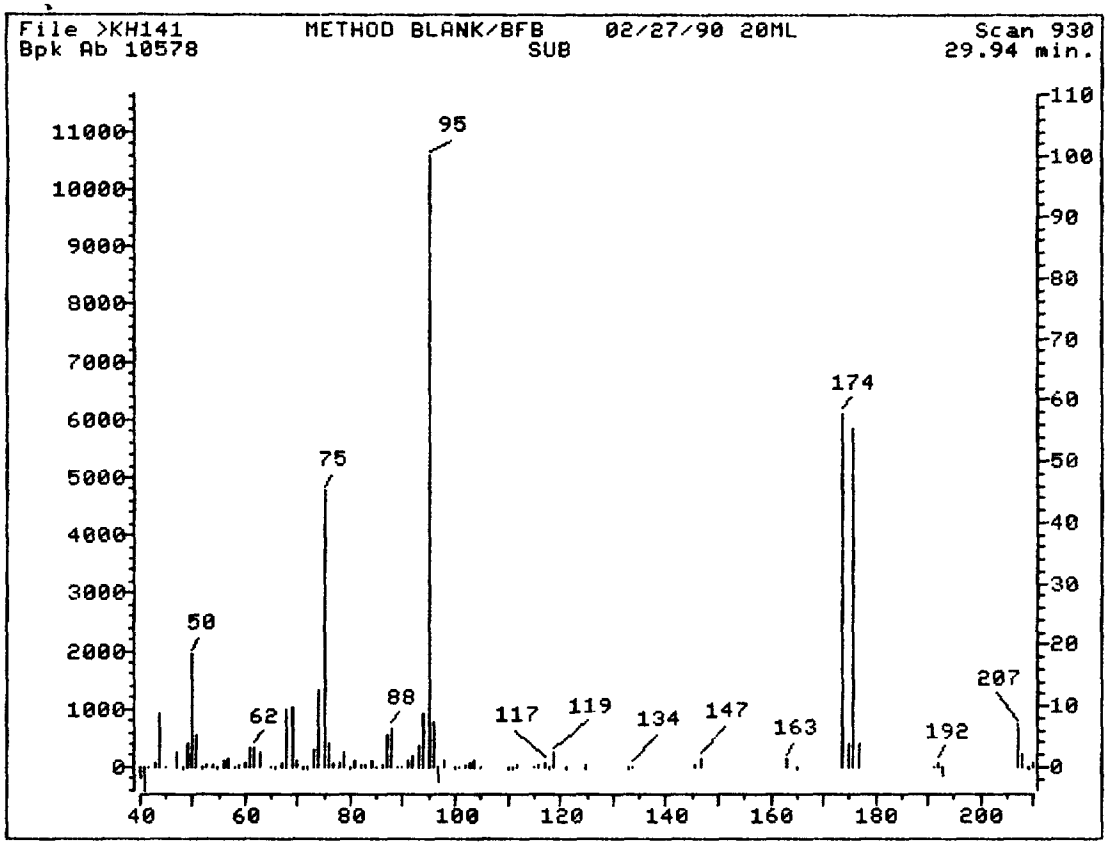
Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
50	15-40% of mass 95	18.28	18.28	Ok
75	30-60% of mass 95	45.13	45.13	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.24	7.24	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	57.75	57.75	Ok
175	5-9% of mass 174	3.72	6.43	Ok
176	95-101% of mass 174	55.31	95.78	Ok
177	5-9% of mass 176	3.78	6.84	Ok

Injection Date: 02/27/90
Injection Time: 08:55
Data File: >KH141
Scan: 930

930-955

:AL,,3 Move cursor; then press carriage return :



>KH141 METHOD BLANK/BFB 02/27/90 20ML
930 SUB NRM

File: >KH141 Scan #: 930 Retn. time: 29.94

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
39.95	-1.758	59.90	.822	78.80	2.250	96.75	-2.496	124.95	.236
40.90	-3.885	61.00	2.987	80.05	-.359	97.90	.908	132.95	-.369
41.90	.142	61.90	3.224	80.80	1.172	100.00	-.321	133.80	.076
42.90	.747	62.90	2.316	81.95	.359	100.90	-.066	145.75	.246
43.90	8.773	65.00	-.199	82.95	.180	101.90	.473	146.75	1.522
44.90	-.142	65.90	-.529	83.95	1.021	102.90	.558	162.90	1.229
46.90	2.250	66.95	.520	84.95	-.161	103.75	1.078	164.90	-.293
48.40	-.293	67.80	9.520	85.95	.350	104.90	-.019	173.80	57.752
48.90	3.772	68.95	9.851	86.95	5.152	110.15	-.303	174.80	3.715
49.90	18.283	69.95	1.012	87.95	6.372	110.90	-.265	175.80	55.313
50.90	5.209	70.95	-.340	88.95	-.132	111.90	.359	176.80	3.781
51.90	-.340	71.95	-.303	89.95	-.047	114.90	-.085	190.95	.047
52.90	.312	72.95	2.685	90.95	.860	115.90	.199	191.95	.794
53.90	.217	73.95	12.498	91.95	1.654	116.90	.775	192.95	-1.276
54.90	-.425	74.95	45.131	92.90	3.555	117.90	-.284	206.90	6.901
55.90	.945	75.95	3.791	93.90	8.678	118.80	2.382	207.90	2.174
57.00	1.191	76.95	.510	94.90	100.000	120.95	-.520	208.90	-.350
57.90	.076	77.95	.586	95.90	7.241	124.70	-.265	209.90	.596
58.90	.416								

Calibration Check Report

Title: VOLATILES CRL624NS 12\05\89
Calibrated: 900227 12:19

Check Standard Data File: >KH143
Injection Time: 900227 11:29

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
CHLOROMETHANE	2.58332	2.65229	2.67	Average	(Conc=20.00)
BROMOMETHANE	2.43484	2.57988	5.96	Average	(Conc=20.00)
VINYL CHLORIDE	2.93080	2.97894	1.64	Average	(Conc=20.00)
CHLOROETHANE	1.50315	1.72736	14.92	Average	(Conc=20.00)
METHYLENE CHLORIDE	.76700	2.27137	196.14	Average	(Conc=15.00)
ACROLEIN	.06980	.06077	12.94	Average	(Conc=375.00)
ACETONE	.11660	.11109	4.73	Average	(Conc=375.00)
ACRYLONITRILE	.11516	.09724	15.56	Average	(Conc=375.00)
CARBON DISULFIDE	7.37028	6.94503	5.77	Average	(Conc=12.50)
1,1-DICHLOROETHENE	2.30076	2.13627	7.15	Average	(Conc=15.00)
1,1-DICHLOROETHANE	4.98942	5.23762	4.97	Average	(Conc=15.00)
1,2-DICHLOROETHENE (TOTAL)	2.55260	2.46180	3.56	Average	(Conc=15.00)
CHLOROFORM	3.79263	4.04847	6.75	Average	(Conc=15.00)
1,2-DICHLOROETHANE-D4	2.36887	2.54789	7.56	Average	(Conc=10.00)
1,2-DICHLOROETHANE	1.16124	1.26322	8.78	Average	(Conc=15.00)
2-BUTANONE	.01745	.01565	10.30	Average	(Conc=125.00)
1,1,1-TRICHLOROETHANE	.66320	.71679	8.08	Average	(Conc=15.00)
CARBON TETRACHLORIDE	.54634	.55574	1.72	Average	(Conc=15.00)
VINYL ACETATE	.52297	.54856	4.89	Average	(Conc=37.50)
BROMODICHLOROMETHANE	.77225	.77311	.11	Average	(Conc=15.00)
1,2-DICHLOROPROPANE	.90070	.86546	3.91	Average	(Conc=15.00)
CIS-1,3-DICHLOROPROPENE	.91062	.84019	7.74	Average	(Conc=21.00)
TRICHLOROETHENE	.68248	.69466	1.79	Average	(Conc=15.00)
BENZENE-D6	2.37606	2.06421	13.12	Average	(Conc=10.00)
BENZENE	2.48563	2.71663	9.29	Average	(Conc=15.00)
DIBROMOCHLOROMETHANE	.41181	.37263	9.52	Average	(Conc=15.00)
TRANS-1,3-DICHLOROPROPENE	.50574	.51272	1.38	Average	(Conc=9.00)
1,1,2-TRICHLOROETHANE	.33811	.29661	12.27	Average	(Conc=15.00)
2-CHLOROETHYL VINYLETHER	.24351	.21614	11.24	Average	(Conc=15.00)
BROMOFORM	.05952	.13512	126.99	Average	(Conc=15.00)
4-METHYL-2-PENTANONE	.45185	.41513	8.13	Average	(Conc=25.00)
2-HEXANONE	.26291	.22423	14.71	Average	(Conc=25.00)
TETRACHLOROETHENE	.92784	.90850	2.08	Average	(Conc=15.00)
1,1,2,2-TETRACHLOROETHANE	.37769	.34847	7.74	Average	(Conc=15.00)
TOLUENE-D8	9.15358	10.2818	12.33	Average	(Conc=10.00)
TOLUENE	2.88124	2.94167	2.10	Average	(Conc=15.00)
CHLOROBENZENE	2.76547	2.90882	5.18	Average	(Conc=15.00)
ETHYLBENZENE	1.48587	1.66256	11.89	Average	(Conc=15.00)
STYRENE	2.99168	3.05499	2.12	Average	(Conc=12.50)
META XYLENE	1.63587	2.12928	30.16	Average	(Conc=30.00)

RF - Response Factor from daily standard file at 10.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

Calibration Check Report

Title: VOLATILES CRL624NS 12\05\89
Calibrated: 900227 12:19

Check Standard Data File: >KH143
Injection Time: 900227 11:29

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
O-&/OR P-XYLENE	1.60650	2.03234	26.51	Average	(Conc=37.60)

RF - Response Factor from daily standard file at 10.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

QUANT REPORT

Operator ID: CHACKO Quant Rev: 6 Quant Time: 900227 15:04
Output File: ^KH143::A8 Injected at: 900227 11:29
Data File: >KH143::A9 Dilution Factor: 1.00000
Name: VSTD015
Misc: 02/27/90 20ML

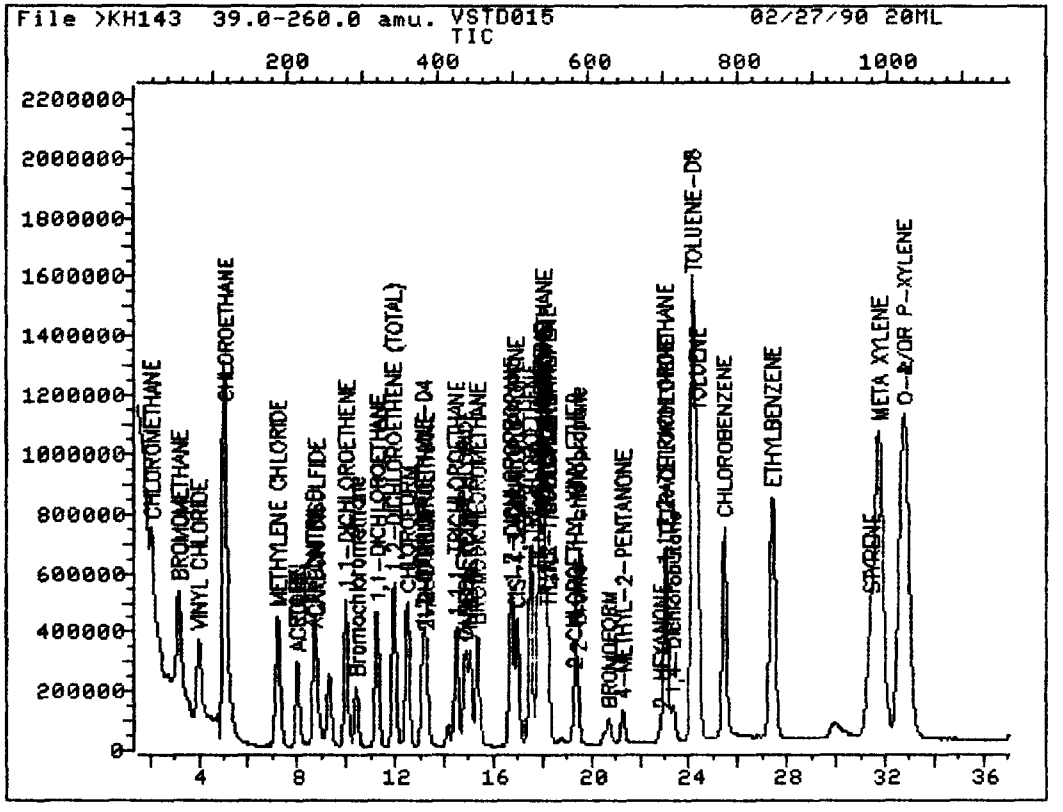
ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.42	130.0	348600	10.00	UG/L	96
2)	CHLOROMETHANE	2.06	50.0	1849178	20.00	UG/L	100
3)	BROMOMETHANE	3.17	94.0	1798694	20.00	UG/L	95
4)	VINYL CHLORIDE	3.99	62.0	2076918	20.00	UG/L	96
5)	CHLOROETHANE	5.06	64.0	1204315	20.00	UG/L	97
6)	METHYLENE CHLORIDE	7.20	84.0	1187697	15.00	UG/L	88
7)	ACROLEIN	8.00	56.0	794444	375.00	UG/L	93
8)	ACETONE	8.00	43.0	1452164	375.00	UG/L	99
9)	ACRYLONITRILE	8.67	53.0	1271160	375.00	UG/L	99
10)	CARBON DISULFIDE	8.76	76.0	3026296	12.50	UG/L	100
11)	1,1-DICHLOROETHENE	9.99	96.0	1117058	15.00	UG/L	81
12)	1,1-DICHLOROETHANE	11.27	63.0	2738753	15.00	UG/L	95
13)	1,2-DICHLOROETHENE (TOTAL)	11.95	96.0	1287275	15.00	UG/L	78
14)	CHLOROFORM	12.50	83.0	2116946	15.00	UG/L	98
15)	1,2-DICHLOROETHANE-D4	13.14	65.0	888193	10.00	UG/L	86
16)	1,2-DICHLOROETHANE	13.23	62.0	660536	15.00	UG/L	96
17)	*2-Bromo-1-chloropropane	19.42	77.0	1304332	10.00	UG/L	99
18)	2-BUTANONE	13.26	72.0	255176	125.00	UG/L	98
19)	1,1,1-TRICHLOROETHANE	14.49	97.0	1402394	15.00	UG/L	98
20)	CARBON TETRACHLORIDE	14.86	117.0	1087301	15.00	UG/L	97
21)	VINYL ACETATE	15.04	43.0	2683120	37.50	UG/L	96
22)	BROMODICHLOROMETHANE	15.35	83.0	1512596	15.00	UG/L	96
23)	1,2-DICHLOROPROPANE	16.72	63.0	1693269	15.00	UG/L	97
24)	CIS-1,3-DICHLOROPROPENE	16.94	75.0	2301354	21.00	UG/L	98
25)	TRICHLOROETHENE	17.49	130.0	1359105	15.00	UG/L	99
26)	BENZENE-D6	17.82	84.0	2692420	10.00	UG/L	98
27)	BENZENE	17.98	78.0	5315076	15.00	UG/L	98
28)	DIBROMOCHLOROMETHANE	18.07	129.0	729042	15.00	UG/L	96
29)	TRANS-1,3-DICHLOROPROPENE	18.22	75.0	601878M	8.75	UG/L	
30)	1,1,2-TRICHLOROETHANE	18.19	97.0	580320	15.00	UG/L	98
31)	2-CHLOROETHYL VINYLETHER	19.30	63.0	422880	15.00	UG/L	99
32)	BROMOFORM	20.70	173.0	264353	15.00	UG/L	97
33)	*1,4-Dichlorobutane	23.34	55.0	653724	10.00	UG/L	98
34)	4-METHYL-2-PENTANONE	21.29	43.0	678458	25.00	UG/L	94
35)	2-HEXANONE	22.85	43.0	366469	25.00	UG/L	95
36)	TETRACHLOROETHENE	23.06	164.0	890863	15.00	UG/L	97
37)	1,1,2,2-TETRACHLOROETHANE	23.00	83.0	341700	15.00	UG/L	94
38)	TOLUENE-D8	24.13	98.0	6721479	10.00	UG/L	99
39)	TOLUENE	24.32	92.0	2884564	15.00	UG/L	99
40)	CHLOROBENZENE	25.42	112.0	2852346	15.00	UG/L	99
41)	ETHYLBENZENE	27.38	106.0	1630285	15.00	UG/L	96
42)	STYRENE	31.43	104.0	2496399	12.50	UG/L	96
43)	META XYLENE	31.73	106.0	4175882M	29.60	UG/L	96

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	O-&/OR P-XYLENE	32.77	106.0	4995506M	37.60	UG/L	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >KH143::A9 Quant Output File: ^KH143::A8
Name: VSTD015
Misc: 02/27/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

Operator ID: CHACKO
Quant Time: 900227 15:04
Injected at: 900227 11:29

```
:,C
 reg type  # pts  scan#    range: amu\r.t.      base   file     ion range
 --- ----  -----  -----   ----------------    -------  -----  --------------
  X   MS      80    930    39.95-   208.90   17800.1 >CJ186
  working...
  draw complete...
:,C
 reg type  # pts  scan#    range: amu\r.t.      base   file     ion range
 --- ----  -----  -----   ----------------    -------  -----  --------------
  X   MS      71    960    39.95-   208.90   16109.0 >CJ186
  working...
  draw complete...
:SUB
 reg type  # pts  scan#    range: amu\r.t.      base   file     ion range
 --- ----  -----  -----   ----------------    -------  -----  --------------
  X   MS      93    930    39.95-   208.90    9694.0 >CJ186
:TUNER,=BFB
```

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	17.72	17.72	Ok
75	30-60% of mass 95	43.16	43.16	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.88	7.88	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	52.84	52.84	Ok
175	5-9% of mass 174	3.68	6.97	Ok
176	95-101% of mass 174	51.41	97.31	Ok
177	5-9% of mass 176	4.46	8.67	Ok

Injection Date: 02/28/90
Injection Time: 10:41
Data File: >CJ186
Scan: 930

:AL,,3 Move cursor; then press carriage return :

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

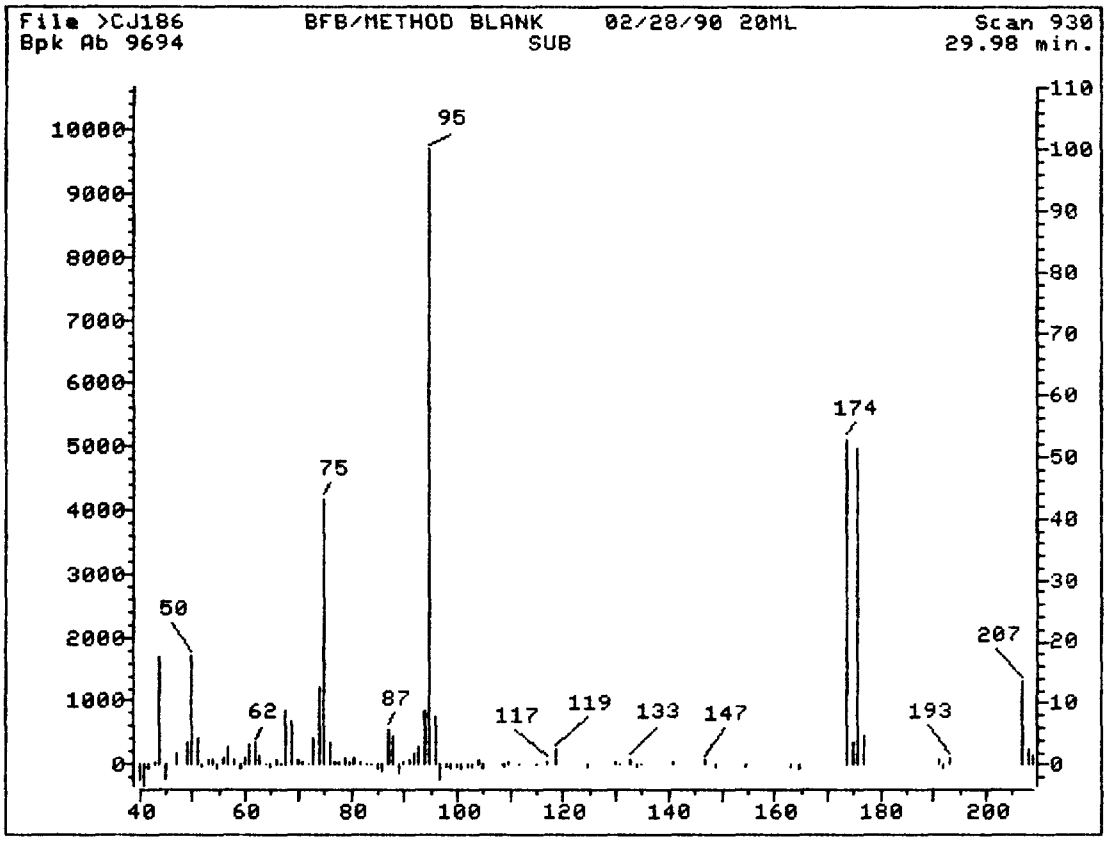
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
50	15-40% of mass 95	17.72	17.72	Ok
75	30-60% of mass 95	43.16	43.16	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.88	7.88	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	52.84	52.84	Ok
175	5-9% of mass 174	3.68	6.97	Ok
176	95-101% of mass 174	51.41	97.31	Ok
177	5-9% of mass 176	4.46	8.67	Ok

Injection Date: 02/28/90
Injection Time: 10:41
Data File: >CJ186
Scan: 930

MS data file header from : >CJ186

Sample: BFB/METHOD BLANK Operator: CHACKO MS 2/28/90 10:41
Misc : 02/28/90 20ML
Sys. #: 3 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: VOA#3 Tuning file: MTBFB3 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 : >CJ186

Sample: BFB/METHOD BLANK Operator: CHACKO MS 2/28/90 10:41
Misc : 02/28/90 20ML
Sys. #: 3 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: VOA#3 Tuning file: MTBFB3 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

>CJ186 BFB/METHOD BLANK 02/28/90 20ML
930 SUB

File: >CJ186 Scan #: 930 Retn. time: 29.98

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
39.95	-241.00	60.90	314.00	79.80	41.00	99.00	-44.00	133.95	-19.00
40.90	-329.00	61.90	333.00	80.80	126.00	100.00	-21.00	134.95	17.00
41.90	-67.00	63.00	142.00	81.95	43.00	100.90	-66.00	140.95	46.00
42.90	44.00	63.90	-4.00	82.95	14.00	101.90	-7.00	146.75	68.00
43.90	1691.05	64.90	-17.00	83.95	8.00	102.90	-37.00	148.90	-20.00
44.90	-237.00	65.90	70.00	84.95	-72.00	103.90	69.00	154.75	-11.00
46.90	192.00	66.95	3.00	85.95	-85.00	104.75	-60.00	163.00	-33.00
48.90	330.00	67.80	848.00	86.95	558.00	108.40	5.00	164.90	-42.00
49.90	1718.00	68.95	695.00	87.95	453.00	108.90	-31.00	173.80	5122.00
50.90	403.00	69.95	82.00	88.95	-114.00	109.90	36.00	174.80	357.00
51.90	-8.00	70.95	31.00	89.95	45.00	111.90	21.00	175.80	4984.00
52.90	72.00	71.95	24.00	90.95	89.00	114.90	3.00	176.80	432.00
53.90	83.00	72.95	411.00	91.95	170.00	116.90	44.00	190.95	88.00
54.90	-59.00	73.95	1202.00	92.90	287.00	118.80	235.00	191.95	-47.00
55.90	101.00	74.95	4184.00	93.90	865.00	124.80	-27.00	192.95	105.00
56.90	270.00	75.95	346.00	94.90	9694.00	129.80	27.00	206.90	1315.00
57.90	73.00	76.95	40.00	95.90	764.00	130.95	22.00	207.90	235.00
59.00	-52.00	77.95	42.00	96.90	-210.00	132.95	83.00	208.90	156.00
60.00	97.00	78.80	119.00	98.00	-18.00				

MS data file header from : >CJ186

Sample: BFB/METHOD BLANK Operator: CHACKO MS 2/28/90 10:41
Misc : 02/28/90 20ML
Sys. #: 3 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: VOA#3 Tuning file: MTBFB3 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

Calibration Check Report

Title: VOLATILES CRL624NS 12\05\89
Calibrated: 900227 12:19

Check Standard Data File: >CJ187
Injection Time: 900228 11:44

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
CHLOROMETHANE	2.58332	2.57890	.17	Average	(Conc=20.00)
BROMOMETHANE	2.43484	2.28669	6.08	Average	(Conc=20.00)
VINYL CHLORIDE	2.93080	2.79401	4.67	Average	(Conc=20.00)
CHLOROETHANE	1.50315	1.69471	12.74	Average	(Conc=20.00)
METHYLENE CHLORIDE	.76700	1.92887	151.48	Average	(Conc=15.00)
ACROLEIN	.06980	.04570	34.53	Average	(Conc=375.00)
ACETONE	.11660	.08123	30.34	Average	(Conc=375.00)
ACRYLONITRILE	.11516	.07913	31.29	Average	(Conc=375.00)
CARBON DISULFIDE	7.37028	6.35763	13.74	Average	(Conc=12.50)
1,1-DICHLOROETHENE	2.30076	2.11388	8.12	Average	(Conc=15.00)
1,1-DICHLOROETHANE	4.98942	4.95978	.59	Average	(Conc=15.00)
1,2-DICHLOROETHENE (TOTAL)	2.55260	2.39729	6.08	Average	(Conc=15.00)
CHLOROFORM	3.79263	3.68565	2.82	Average	(Conc=15.00)
1,2-DICHLOROETHANE-D4	2.36887	2.62262	10.71	Average	(Conc=10.00)
1,2-DICHLOROETHANE	1.16124	1.06034	8.69	Average	(Conc=15.00)
2-BUTANONE	.01745	.01085	37.81	Average	(Conc=125.00)
1,1,1-TRICHLOROETHANE	.66320	.69084	4.17	Average	(Conc=15.00)
CARBON TETRACHLORIDE	.54634	.54584	.09	Average	(Conc=15.00)
VINYL ACETATE	.52297	.40352	22.84	Average	(Conc=37.50)
BROMODICHLOROMETHANE	.77225	.62738	18.76	Average	(Conc=15.00)
1,2-DICHLOROPROPANE	.90070	.72871	19.10	Average	(Conc=15.00)
CIS-1,3-DICHLOROPROPENE	.91062	.67775	25.57	Average	(Conc=21.00)
TRICHLOROETHENE	.68248	.63801	6.52	Average	(Conc=15.00)
BENZENE-D6	2.37606	2.31871	2.41	Average	(Conc=10.00)
BENZENE	2.48563	2.45754	1.13	Average	(Conc=15.00)
DIBROMOCHLOROMETHANE	.41181	.29021	29.53	Average	(Conc=15.00)
TRANS-1,3-DICHLOROPROPENE	.50574	.40520	19.88	Average	(Conc=9.00)
1,1,2-TRICHLOROETHANE	.33811	.22723	32.80	Average	(Conc=15.00)
2-CHLOROETHYL VINYLETHER	.24351	.16347	32.87	Average	(Conc=15.00)
BROMOFORM	.05952	.09864	65.71	Average	(Conc=15.00)
4-METHYL-2-PENTANONE	.45185	.31765	29.70	Average	(Conc=25.00)
2-HEXANONE	.26291	.16159	38.54	Average	(Conc=25.00)
TETRACHLOROETHENE	.92784	.92909	.13	Average	(Conc=15.00)
1,1,2,2-TETRACHLOROETHANE	.37769	.29159	22.80	Average	(Conc=15.00)
TOLUENE-D8	9.15358	11.9250	30.28	Average	(Conc=10.00)
TOLUENE	2.88124	2.83811	1.50	Average	(Conc=15.00)
CHLOROBENZENE	2.76547	2.64737	4.27	Average	(Conc=15.00)
ETHYLBENZENE	1.48587	1.67717	12.87	Average	(Conc=15.00)
STYRENE	2.99168	2.73258	8.66	Average	(Conc=12.50)
META XYLENE	1.63587	2.19658	34.28	Average	(Conc=30.00)

RF - Response Factor from daily standard file at 10.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

Calibration Check Report

Title: VOLATILES CRL624NS 12\05\89
Calibrated: 900227 12:19

Check Standard Data File: >CJ187
Injection Time: 900228 11:44

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
O-&/OR P-XYLENE	1.60650	2.12163	32.07	Average	(Conc=37.60)

RF - Response Factor from daily standard file at 10.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

QUANT REPORT

Operator ID: CHACKO Quant Rev: 6 Quant Time: 900228 12:25
Output File: ^CJ187::A3 Injected at: 900228 11:44
Data File: >CJ187::A3 Dilution Factor: 1.00000
Name: VSTD015
Misc: 02/28/90 20ML

ID File: IDKH3A::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900217 16:24

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.42	130.0	325040	10.00	UG/L	96
2)	CHLOROMETHANE	2.06	50.0	1676494	10.01	UG/L	100
3)	BROMOMETHANE	3.13	94.0	1486533	12.79	UG/L	95
4)	VINYL CHLORIDE	3.99	62.0	1816332	10.78	UG/L	95
5)	CHLOROETHANE	5.06	64.0	1101694	11.47	UG/L	96
6)	METHYLENE CHLORIDE	7.20	84.0	940441	9.94	UG/L	86
7)	ACROLEIN	8.00	56.0	557030M	317.88	UG/L	96
8)	ACETONE	8.03	43.0	990082	296.39	UG/L	96
9)	ACRYLONITRILE	8.70	53.0	964464M	175.39	UG/L	98
10)	CARBON DISULFIDE	8.73	76.0	2583107	13.70	UG/L	100
11)	1,1-DICHLOROETHENE	9.99	96.0	1030645	9.06	UG/L	81
12)	1,1-DICHLOROETHANE	11.27	63.0	2418189	11.41	UG/L	94
13)	1,2-DICHLOROETHENE (TOTAL)	11.95	96.0	1168821	8.82	UG/L	79
14)	CHLOROFORM	12.50	83.0	1796976	12.48	UG/L	98
15)	1,2-DICHLOROETHANE-D4	13.14	65.0	852458	24.57	UG/L	87
16)	1,2-DICHLOROETHANE	13.23	62.0	516981	13.22	UG/L	96
17)	*2-Bromo-1-chloropropane	19.42	77.0	1270187	10.00	UG/L	99
18)	2-BUTANONE	13.29	72.0	172271	105.76	UG/L	99
19)	1,1,1-TRICHLOROETHANE	14.49	97.0	1316248	8.05	UG/L	99
20)	CARBON TETRACHLORIDE	14.85	117.0	1039981	9.27	UG/L	96
21)	VINYL ACETATE	15.07	43.0	1922070	31.24	UG/L	95
22)	BROMODICHLOROMETHANE	15.37	83.0	1195337	12.23	UG/L	96
23)	1,2-DICHLOROPROPANE	16.72	63.0	1388390	12.87	UG/L	97
24)	CIS-1,3-DICHLOROPROPENE	16.97	75.0	1807817	18.70	UG/L	97
25)	TRICHLOROETHENE	17.49	130.0	1215592	9.91	UG/L	99
26)	BENZENE-D6	17.82	84.0	2945191	7.29	UG/L	97
27)	BENZENE	17.98	78.0	4682311	9.93	UG/L	99
28)	DIBROMOCHLOROMETHANE	18.10	129.0	552925	14.75	UG/L	93
29)	TRANS-1,3-DICHLOROPROPENE	18.22	75.0	463214M	7.68	UG/L	
30)	1,1,2-TRICHLOROETHANE	18.22	97.0	432928	14.43	UG/L	99
31)	2-CHLOROETHYL VINYLETHER	19.29	63.0	311461	21.39	UG/L	99
32)	BROMOFORM	20.73	173.0	187938	13.26	UG/L	98
33)	*1,4-Dichlorobutane	23.33	55.0	593951	10.00	UG/L	98
34)	4-METHYL-2-PENTANONE	21.28	43.0	471678	18.69	UG/L	95
35)	2-HEXANONE	22.84	43.0	239940	17.67	UG/L	99
36)	TETRACHLOROETHENE	23.06	164.0	827752	8.33	UG/L	96
37)	1,1,2,2-TETRACHLOROETHANE	23.03	83.0	259787	12.09	UG/L	90
38)	TOLUENE-D8	24.16	98.0	7082866M	18.83	UG/L	99
39)	TOLUENE	24.34	92.0	2528550	8.50	UG/L	97
40)	CHLOROBENZENE	25.45	112.0	2358609	11.33	UG/L	98
41)	ETHYLBENZENE	27.38	106.0	1494231	8.48	UG/L	99
42)	STYRENE	31.42	104.0	2028774	8.66	UG/L	98
43)	META XYLENE	31.76	106.0	3913991M	32.28	UG/L	95

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	O-&/OR P-XYLENE	32.74	106.0	4738141M	40.79	UG/L	96

* Compound is ISTD

QUANT REPORT

Operator ID: CHACKO
Output File: ^KH141::A8
Data File: >KH141::A9
Name: METHOD BLANK/BFB
Misc: 02/27/90 20ML

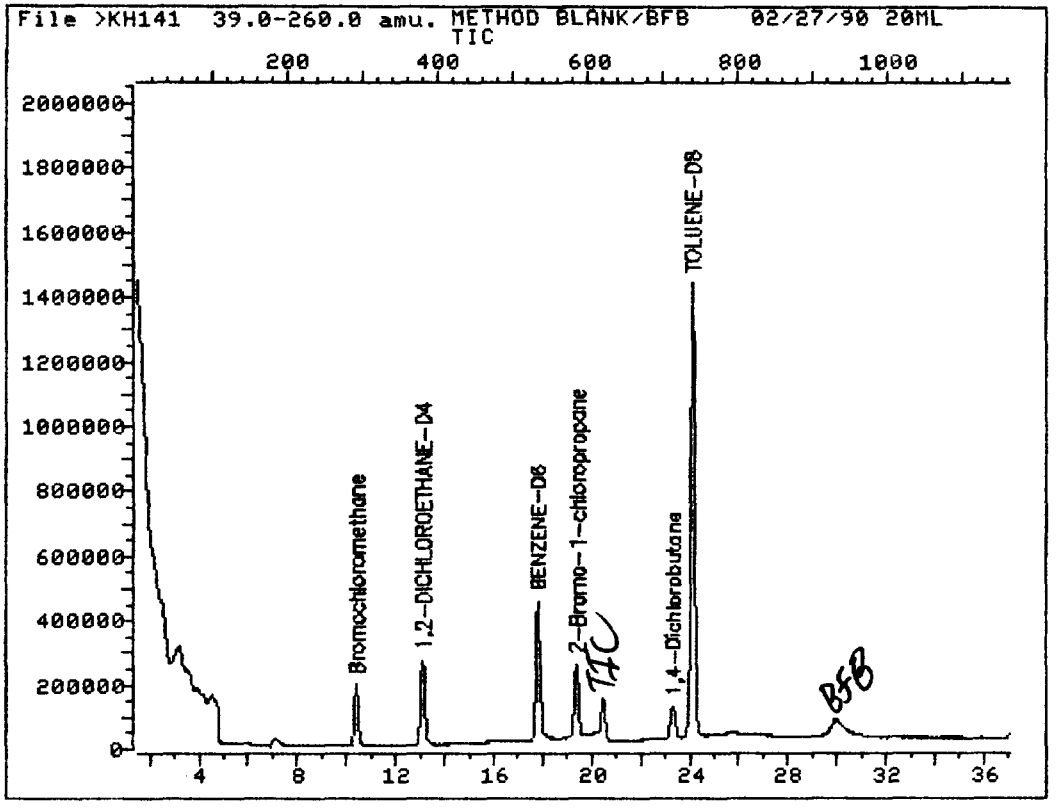
Quant Rev: 6
Quant Time: 900227 12:31
Injected at: 900227 08:55
Dilution Factor: 1.00000

ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.41	130.0	322615	10.00	UG/L	97
15)	1,2-DICHLOROETHANE-D4	13.14	65.0	836716	10.18	UG/L	86
17)	*2-Bromo-1-chloropropane	19.41	77.0	1203703	10.00	UG/L	98
26)	BENZENE-D6	17.82	84.0	2478925	9.98	UG/L	98
33)	*1,4-Dichlorobutane	23.33	55.0	617716	10.00	UG/L	96
38)	TOLUENE-D8	24.12	98.0	6165907	9.71	UG/L	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >KH141::A9 Quant Output File: ^KH141::A8
Name: METHOD BLANK/BFB
Misc: 02/27/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

Operator ID: CHACKO
Quant Time: 900227 12:31
Injected at: 900227 08:55

MS data file header from : >KH141

Sample: METHOD BLANK/BFB Operator: CHACKO MS 2/27/90 8:55
Misc : 02/27/90 20ML
Sys. 3 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: VOA#3 Tuning file: MTBFB3 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

>KH141 METHOD BLANK/BFB 02/27/90 20ML
39.0| 260.0 CLP ADC TIC
Upslope: .20 Area Reject: 127936. Max Peaks: 3 Bunching: 1
Dnslope: 0.00 Results File IKH141 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
CO2 ~~1~~	~~7.14~~	~~178~~	~~185~~	~~200~~	~~23330~~	~~496766~~	~~496766~~	~~30.66~~	~~18.123~~
2	20.48	615	621	630	133072	2108113	1620061	100.00	59.104
BFB ~~3~~	~~29.94~~	~~920~~	~~930~~	~~932~~	~~45066~~	~~1432925~~	~~624208~~	~~38.53~~	~~22.773~~

Sum of corrected areas: 2741035.

Summary of Unknowns PBM Library Search and Quantitation

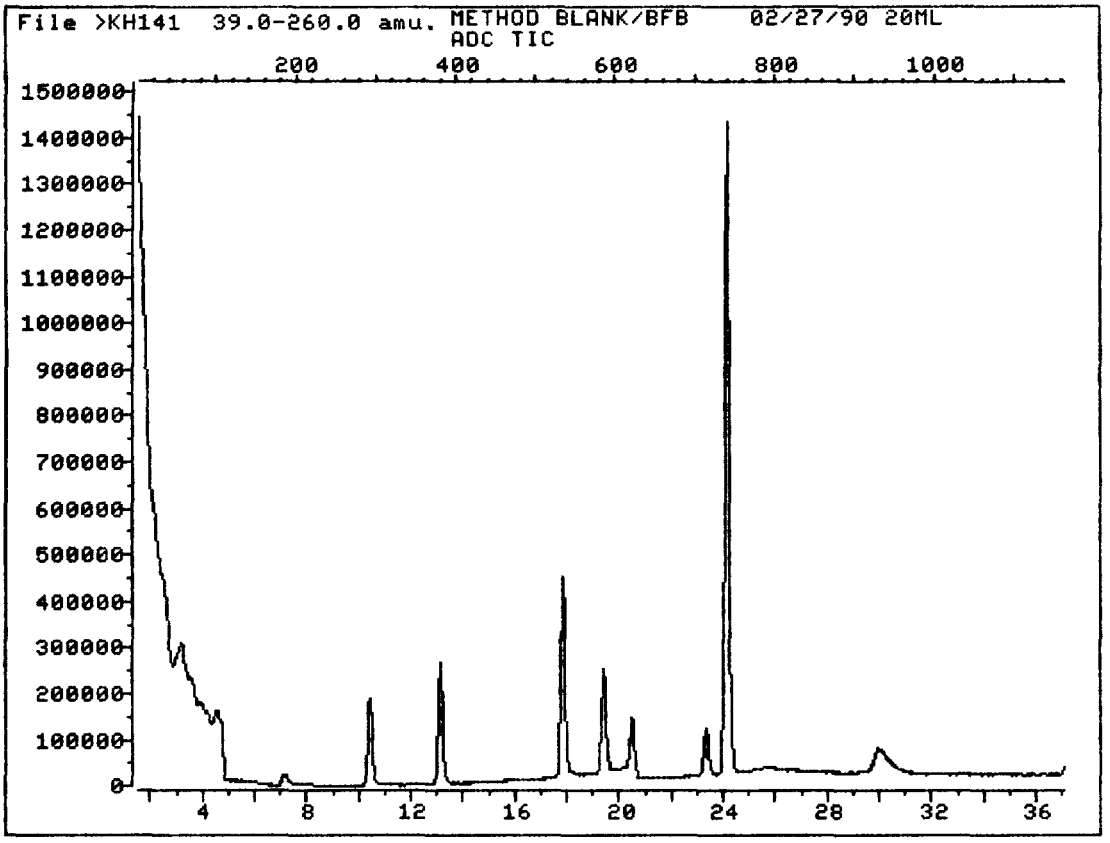
Standard	Concentration	Area	Retention Time	Unknown Window
CO2 ~~1~~	~~10.0~~	~~2193137.~~	~~10.41~~	~~1.51 - 14.91~~
2	10.0	2720361.	19.41	14.91 - 21.37
BFB ~~3~~	~~10.0~~	~~1279356.~~	~~23.33~~	~~21.37 - 37.05~~

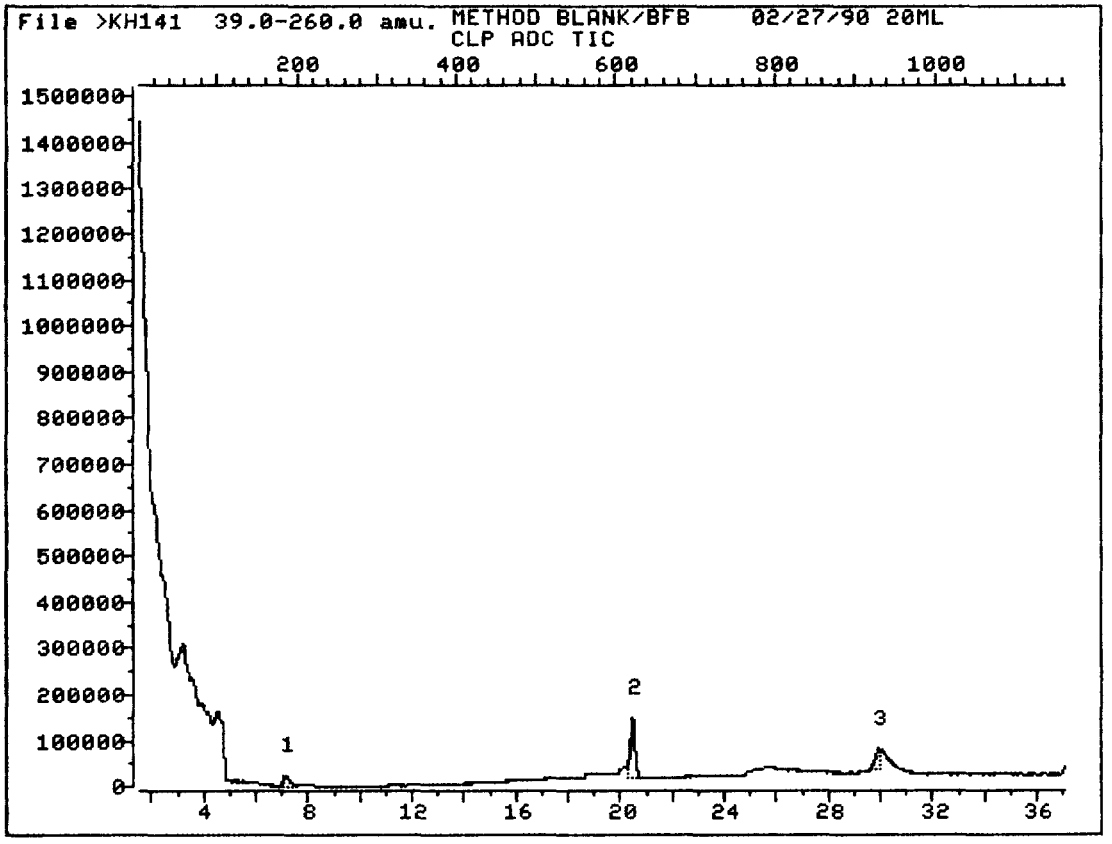
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 20.00 Amount Used (AU) = 20.00

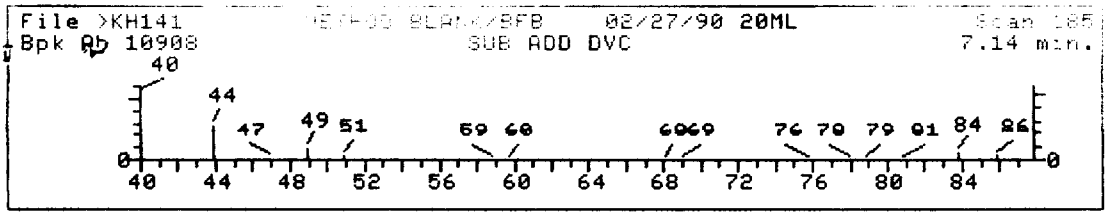
Correction Factor = 1.00 = (AM / AU) / (DF * FS)

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

11:13 AM MON., 12 MAR., 1990


File >KH141 39.0-260.0 amu. METHOD BLANK/BFB 02/27/90 20ML
ADC TIC
200 400 600 800 1000
1500000 1400000 1300000 1200000 1100000 1000000 900000 800000 700000 600000 500000 400000 300000 200000 100000 0
4 8 12 16 20 24 28 32 36

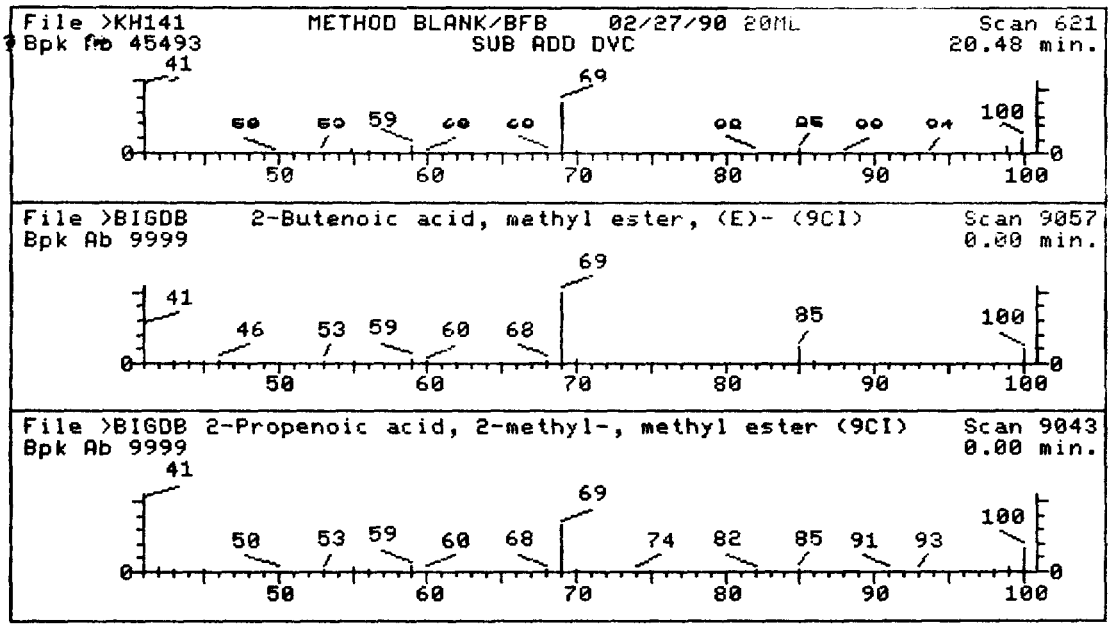

File >KH141 39.0-260.0 amu. METHOD BLANK/BFB 02/27/90 20ML
CLP ADC TIC
200 400 600 800 1000
1500000 1400000 1300000 1200000 1100000 1000000 900000 800000 700000 600000 500000 400000 300000 200000 100000 0
1
2
3
4 8 12 16 20 24 28 32 36



. Unknown #,1
Area = 496766.0 Tentative Concentration is 2.00

Sample file: >KH141 Spectrum #: 185

No data base entries were retrieved.



$$\frac{1620061}{2720361} \times 10 = 6$$

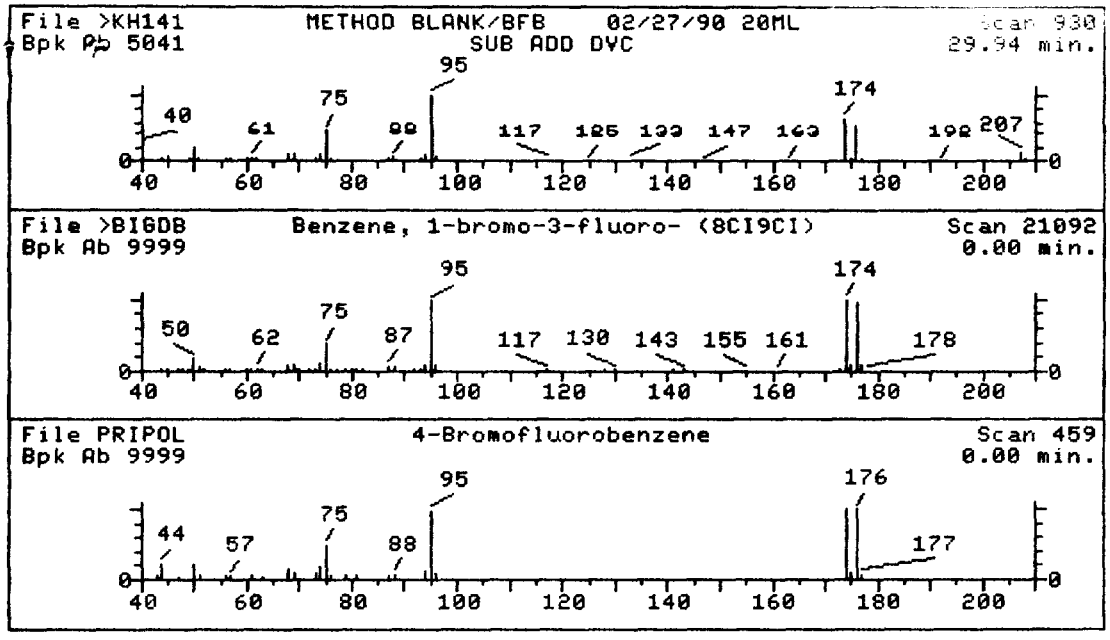
Unknown #,2

Area = 1620061. Tentative Concentration is 6.00

1. 2-Butenoic acid, methyl ester, (E)- (9CI) 100 C5H8O2
2. 2-Propenoic acid, 2-methyl-, methyl ester (9CI) 100 C5H8O2

Sample file: >KH141 Spectrum #: 621
Search speed: 2 Tilting option: F No. of ion ranges searched: 55

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	52*	623438	9057	"BIGDB	21	67	2	0	82	17	20	13
2.	26*	80626	9043	"BIGDB	29	60	2	0	67	41	8	14



. Unknown #,3
Area = 624208.0 Tentative Concentration is 5.00

1. Benzene, 1-bromo-3-fluoro- (8CI9CI) 174 C6H4BrF
2. 4-Bromofluorobenzene 174 C6H4BrF

Sample file: >KH141 Spectrum #: 930
Search speed: 2 Tilting option: F No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	68*	1073069	21092	"BIGDB	74	39	1	0	57	40	28	72
2.	54*	459	303	PRIPOL	75	44	2	0	56	41	17	57

QUANT REPORT

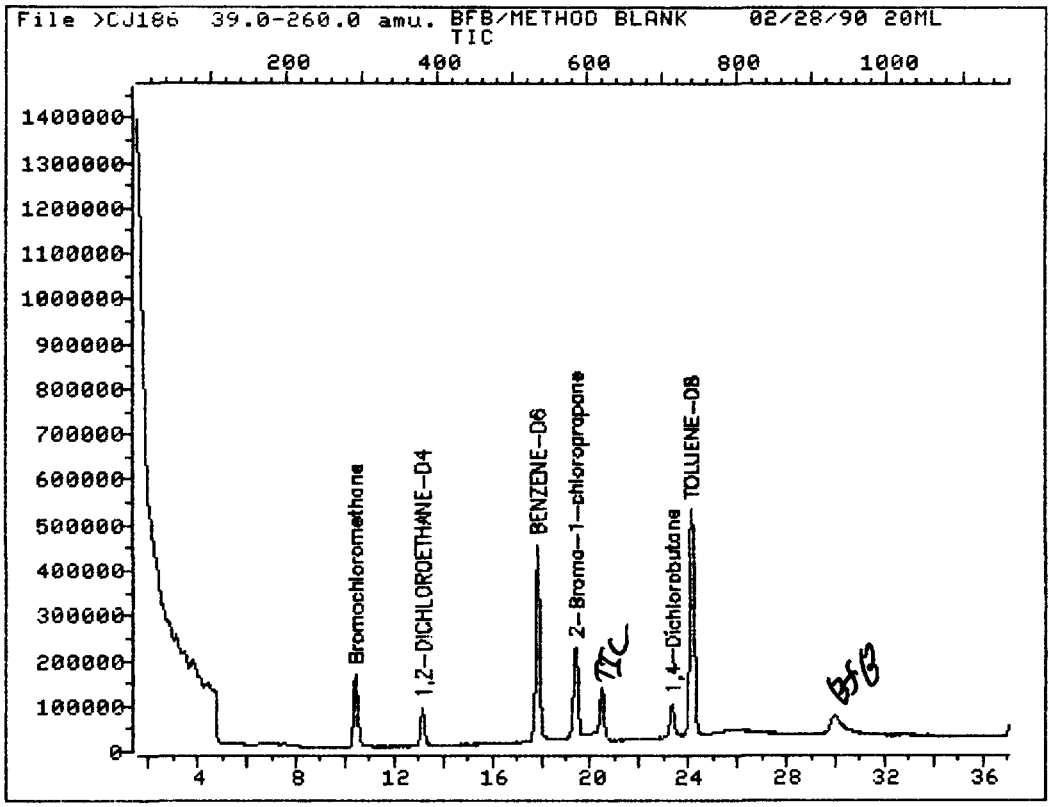
Operator ID: CHACKO Quant Rev: 6 Quant Time: 900301 10:27
Output File: ^CJ186::A3 Injected at: 900228 10:41
Data File: >CJ186::A3 Dilution Factor: 1.00000
Name: BFB/METHOD BLANK
Misc: 02/28/90 20ML

ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900228 14:34

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.42	130.0	280490	10.00	UG/L	97
15)	1,2-DICHLOROETHANE-D4	13.15	65.0	260715	3.54	UG/L	86
17)	*2-Bromo-1-chloropropane	19.42	77.0	1051837	10.00	UG/L	99
26)	BENZENE-D6	17.86	84.0	2431045	9.97	UG/L	97
33)	*1,4-Dichlorobutane	23.34	55.0	474845	10.00	UG/L	99
38)	TOLUENE-D8	24.13	98.0	2235337	3.95	UG/L	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >CJ186::A3 Quant Output File: ^CJ186::A3
Name: BFB/METHOD BLANK
Misc: 02/28/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900228 14:34

Operator ID: CHACKO
Quant Time: 900301 10:27
Injected at: 900228 10:41

MS data file header from : >CJ186

Sample: BFB/METHOD BLANK Operator: CHACKO MS 2/28/90 10:41
Misc : 02/28/90 20ML
Sys. #: 3 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: VOA#3 Tuning file: MTBFB3 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

>CJ186 BFB/METHOD BLANK 02/28/90 20ML
39.0| 260.0 CLP ADC TIC
Upslope: .20 Area Reject: 99205. Max Peaks: 1 Bunching: 1
Dnslope: 0.00 Results File ICJ186 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	20.49	614	620	628	111525	1782902	1322161	100.00	100.000

Sum of corrected areas: 1322161.

Summary of Unknowns PBM Library Search and Quantitation

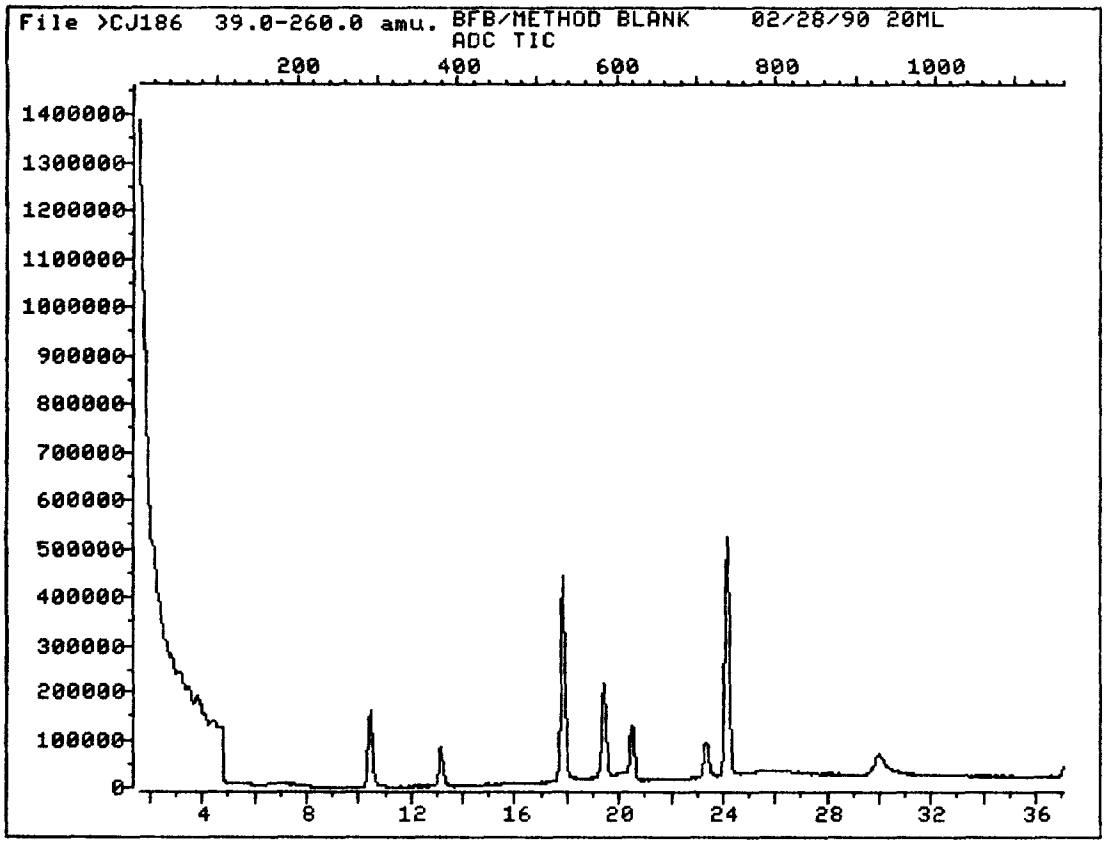
Standard	Concentration	Area	Retention Time	Unknown Window
1	10.0	1871524.	10.42	1.55 - 14.92
2	10.0	2307489.	19.42	14.92 - 21.38
3	10.0	992051.	23.34	21.38 - 37.06

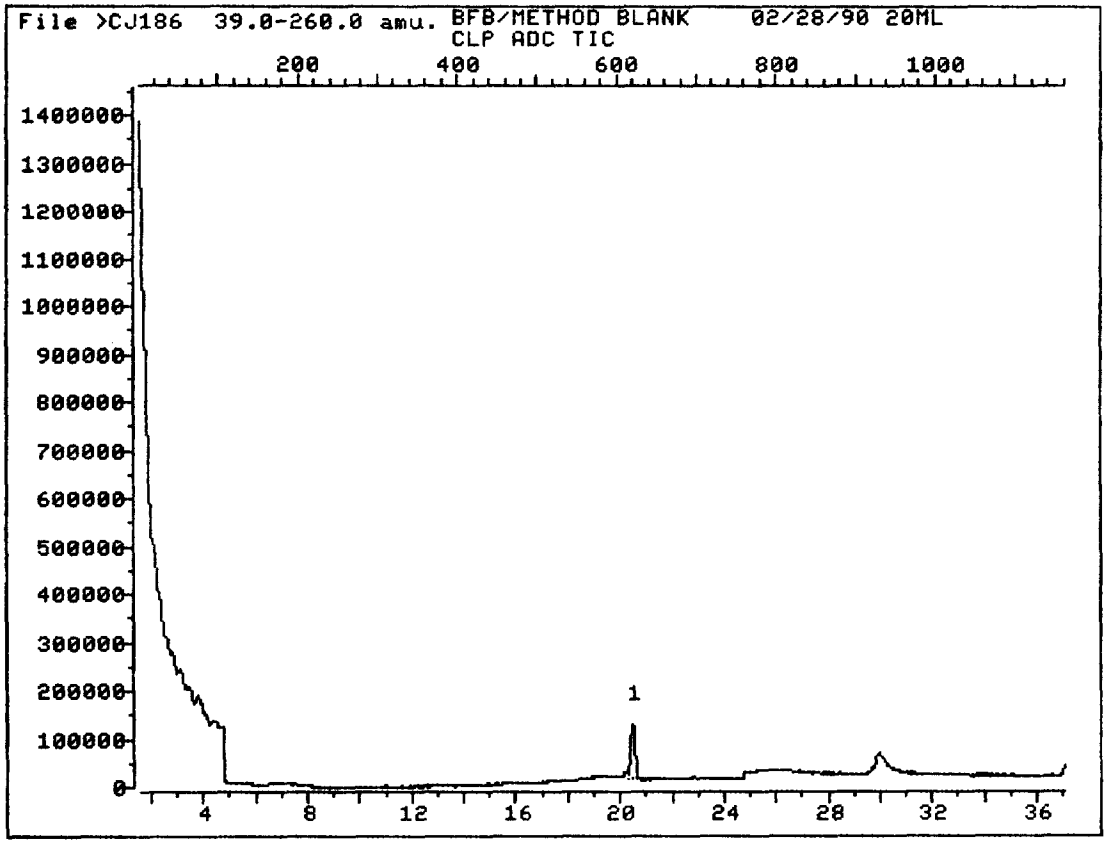
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 20.00 Amount Used (AU) = 20.00

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

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

11:26 AM MON., 12 MAR., 1990


File >CJ186 39.0-260.0 amu. BFB/METHOD BLANK 02/28/90 20ML
ADC TIC
200 400 600 800 1000
1400000 1300000 1200000 1100000 1000000 900000 800000 700000 600000 500000 400000 300000 200000 100000 0
4 8 12 16 20 24 28 32 36


File >CJ186 39.0-260.0 amu. BFB/METHOD BLANK 02/28/90 20ML
CLP ADC TIC
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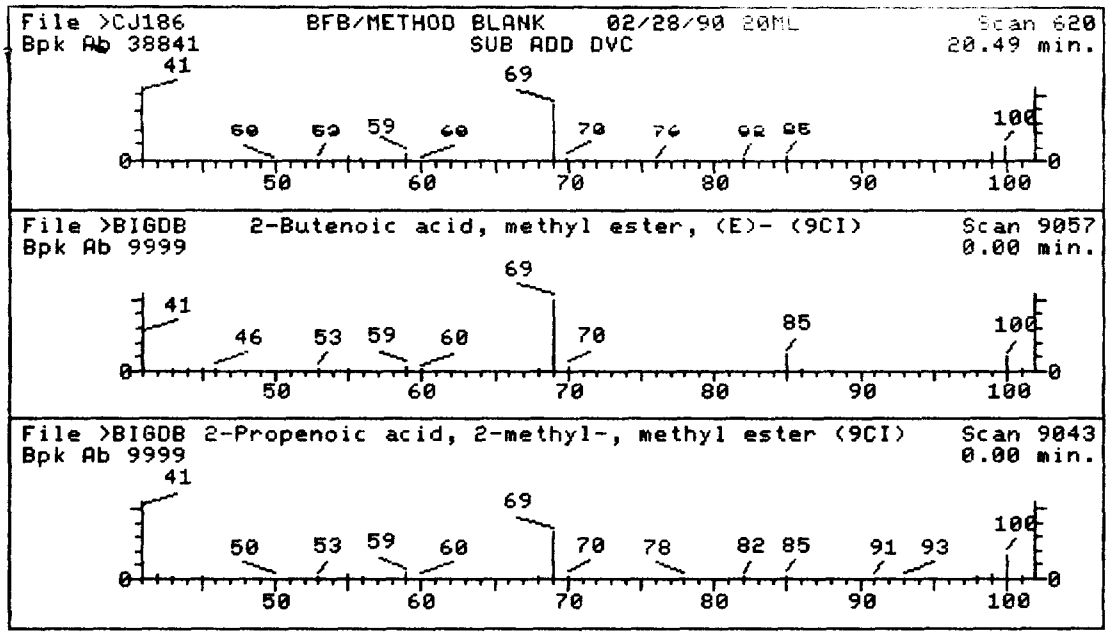
1400000 1300000 1200000 1100000 1000000 900000 800000 700000 600000 500000 400000 300000 200000 100000 0
1
4 8 12 16 20 24 28 32 36



$$\frac{1322161}{2307489} \times 10 = 6$$

. Unknown #,1
Area = 1322161. Tentative Concentration is 6.00

1. 2-Butenoic acid, methyl ester, (E)- (9CI) 100 C5H8O2
2. 2-Propenoic acid, 2-methyl-, methyl ester (9CI) 100 C5H8O2

Sample file: >CJ186 Spectrum #: 620
Search speed: 2 Tilting option: F No. of ion ranges searched: 55

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	52*	623438	9057	"BIGDB	21	67	2	0	86	17	20	13
2.	26*	80626	9043	"BIGDB	24	65	2	0	70	41	8	14

QUANT REPORT

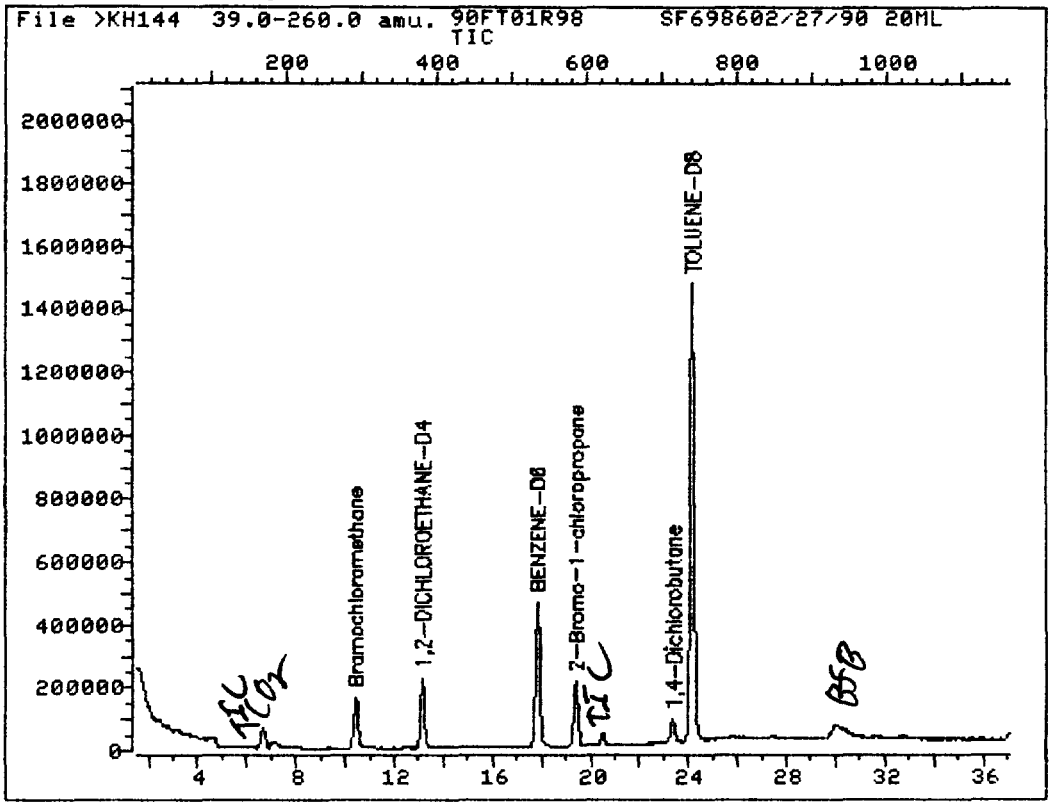
Operator ID: CHACKO Quant Rev: 6 Quant Time: 900228 08:22
Output File: ^KH144::A8 Injected at: 900227 12:51
Data File: >KH144::A9 Dilution Factor: 1.00000
Name: 90FT01R98 SF6986
Misc: 02/27/90 20ML

ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.42	130.0	302357	10.00	UG/L	96
15)	1,2-DICHLOROETHANE-D4	13.14	65.0	679237	8.82	UG/L	84
17)	*2-Bromo-1-chloropropane	19.41	77.0	1124108	10.00	UG/L	99
26)	BENZENE-D6	17.85	84.0	2661319	11.47	UG/L	98
33)	*1,4-Dichlorobutane	23.36	55.0	457700	10.00	UG/L	98
38)	TOLUENE-D8	24.15	98.0	5890711M	12.52	UG/L	98

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >KH144::A9 Quant Output File: ^KH144::A8
Name: 90FT01R98 SF6986
Misc: 02/27/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

Operator ID: CHACKO
Quant Time: 900228 08:22
Injected at: 900227 12:51

MS data file header from : >KH144

Sample: 90FT01R98 SF6986 Operator: CHACKO MS 2/27/90 12:51
Misc : 02/27/90 20ML
Sys. #: 3 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: VOA#3 Tuning file: MTBFB3 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

>KH144 90FT01R98 SF698602/27/90 20ML
39.0| 260.0 CLP ADC TIC
Upslope: .20 Area Reject: 91651. Max Peaks: 6 Bunching: 1
Dnslope: 0.00 Results File IKH144 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	6.68	163	170	177	62463	726993	688876	48.25	23.203
CO2 ~~2~~	~~7.08~~	~~177~~	~~183~~	~~184~~	~~15824~~	~~170536~~	~~151484~~	~~10.61~~	~~5.102~~
3	20.51	615	622	632	35927	710474	407014	28.51	13.709
SS ~~4~~	~~23.94~~	~~731~~	~~734~~	~~735~~	~~32621~~	~~281942~~	~~156762~~	~~10.98~~	~~5.280~~
SS ~~5~~	~~24.40~~	~~748~~	~~749~~	~~758~~	~~31079~~	~~657337~~	~~137249~~	~~9.61~~	~~4.623~~
BFB ~~6~~	~~30.01~~	~~922~~	~~932~~	~~961~~	~~38636~~	~~3944250~~	~~1427577~~	~~100.00~~	~~48.083~~

Sum of corrected areas: 2968962.

Summary of Unknowns PBM Library Search and Quantitation

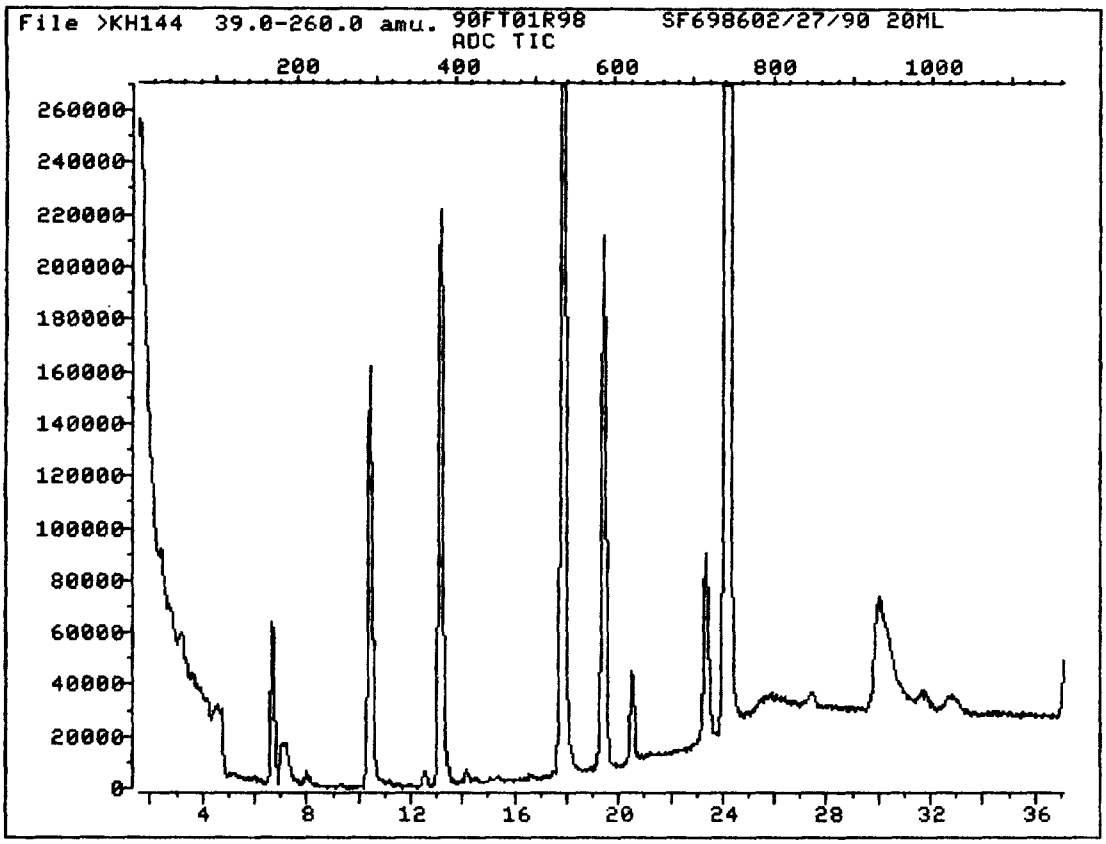
Standard	Concentration	Area	Retention Time	Unknown Window
1	10.0	1927037.	10.42	1.52 - 14.91
2	10.0	2337668.	19.41	14.91 - 21.38
3	10.0	916509.	23.36	21.38 - 37.08

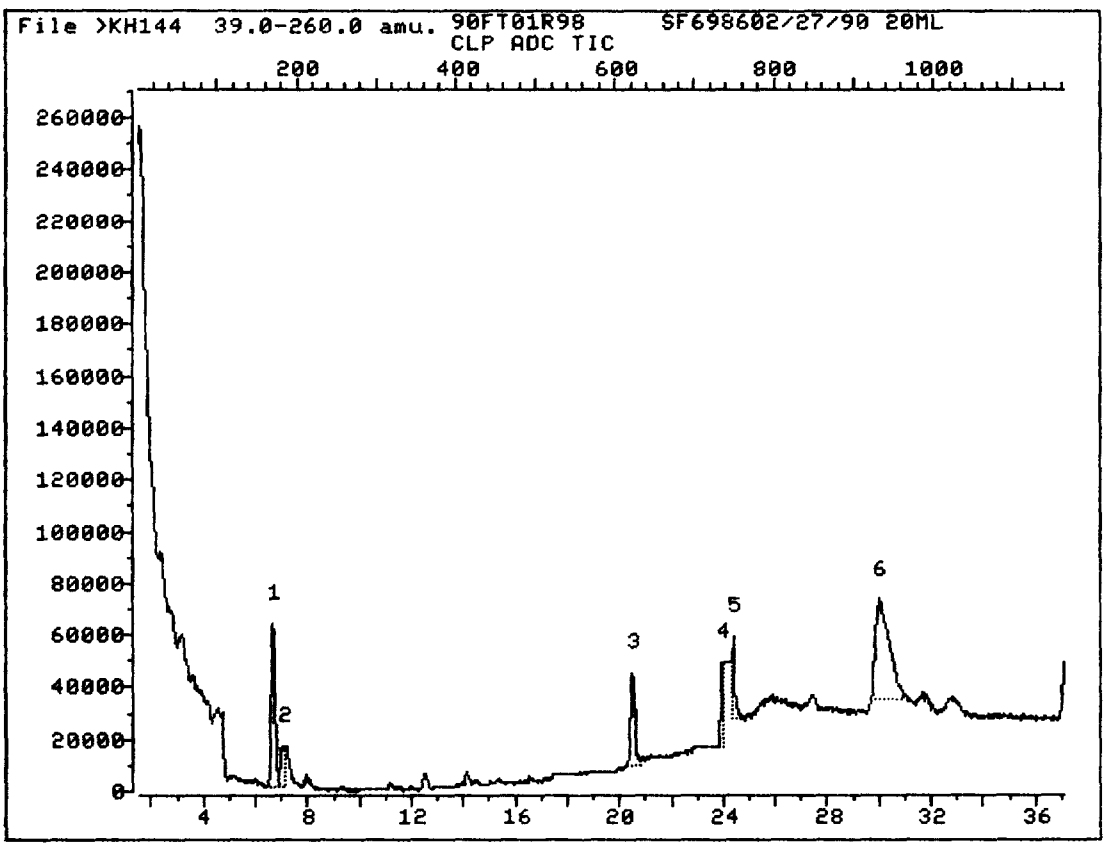
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 20.00 Amount Used (AU) = 20.00

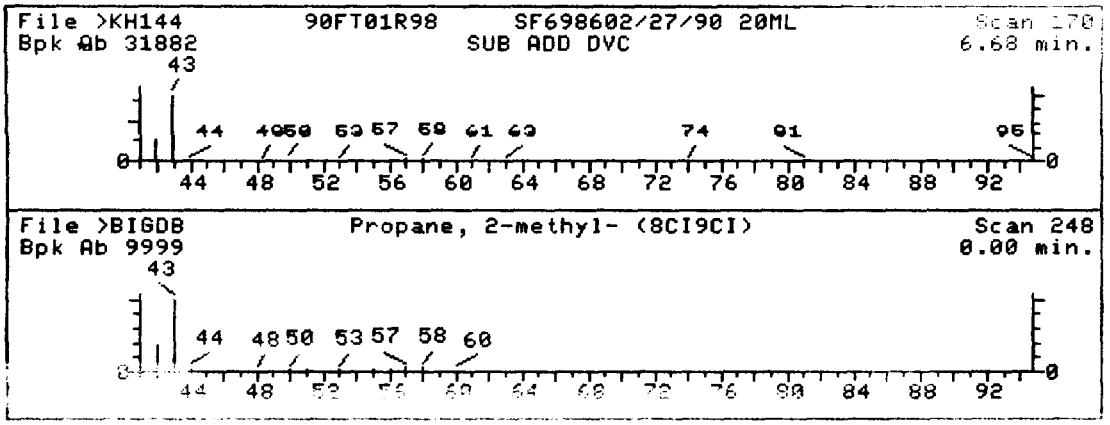
Correction Factor = 1.00 = (AM / AU) / (DF * FS)

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

11:35 AM MON., 12 MAR., 1990


File >KH144 39.0-260.0 amu. 90FT01R98 SF698602/27/90 20ML
ADC TIC
200 400 600 800 1000
260000 240000 220000 200000 180000 160000 140000 120000 100000 80000 60000 40000 20000 0
4 8 12 16 20 24 28 32 36


File >KH144 39.0-260.0 amu. 90FT01R98 SF698602/27/90 20ML
CLP ADC TIC
200 400 600 800 1000
260000 240000 220000 200000 180000 160000 140000 120000 100000 80000 60000 40000 20000 0
1
2
3
4
5
6
4 8 12 16 20 24 28 32 36



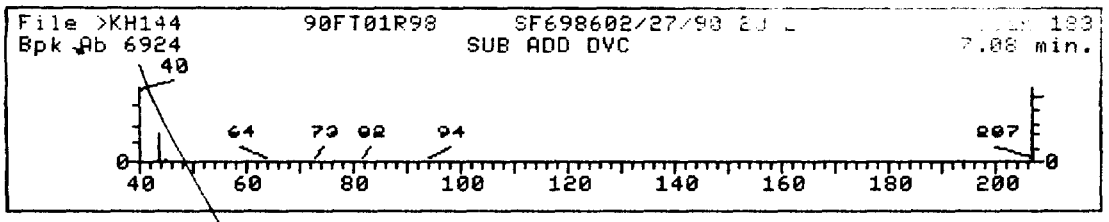
$$\frac{688876}{1927037} \times 10 = 4$$

. Unknown #,1
Area = 688876.0 Tentative Concentration is 4.00

1. Propane, 2-methyl- (8CI9CI) 58 C4H10

Sample file: >KH144 Spectrum #: 170
Search speed: 2 Tilting option: F No. of ion ranges searched: 55

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	52*	75285	248	"BIGDB	25	44	1	0	83	20	20	14

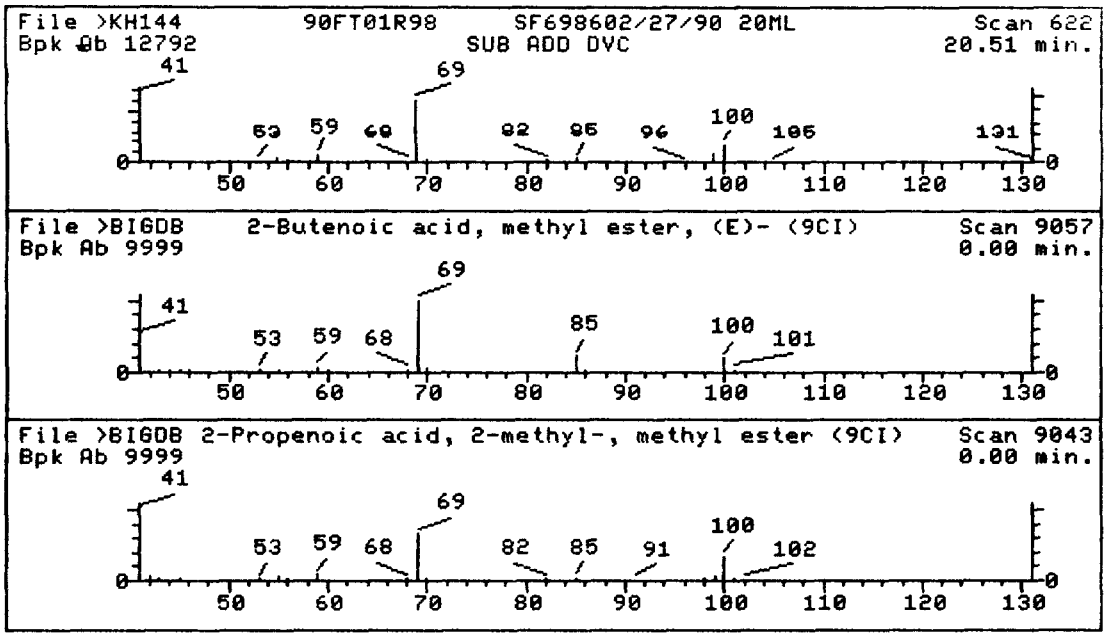


CO_2

. Unknown #,2
Area = 151484.0 Tentative Concentration is .800

Sample file: >KH144 Spectrum #: 183

No data base entries were retrieved.



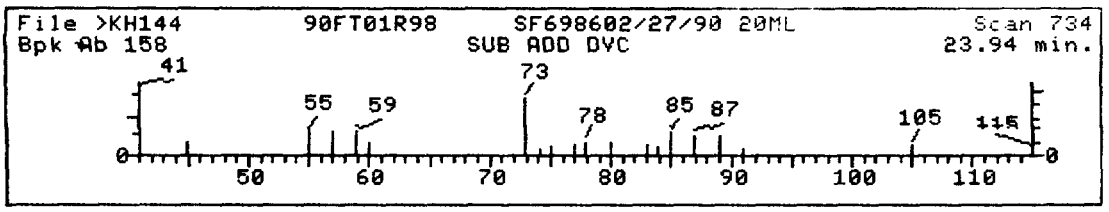
$$\frac{407014}{2337668} \times 10 = 2$$

. Unknown #,3
Area = 407014.0 Tentative Concentration is 2.00

1. 2-Butenoic acid, methyl ester, (E)- (9CI) 100 C5H8O2
2. 2-Propenoic acid, 2-methyl-, methyl ester (9CI) 100 C5H8O2

Sample file: >KH144 Spectrum #: 622
Search speed: 2 Tilting option: F No. of ion ranges searched: 55

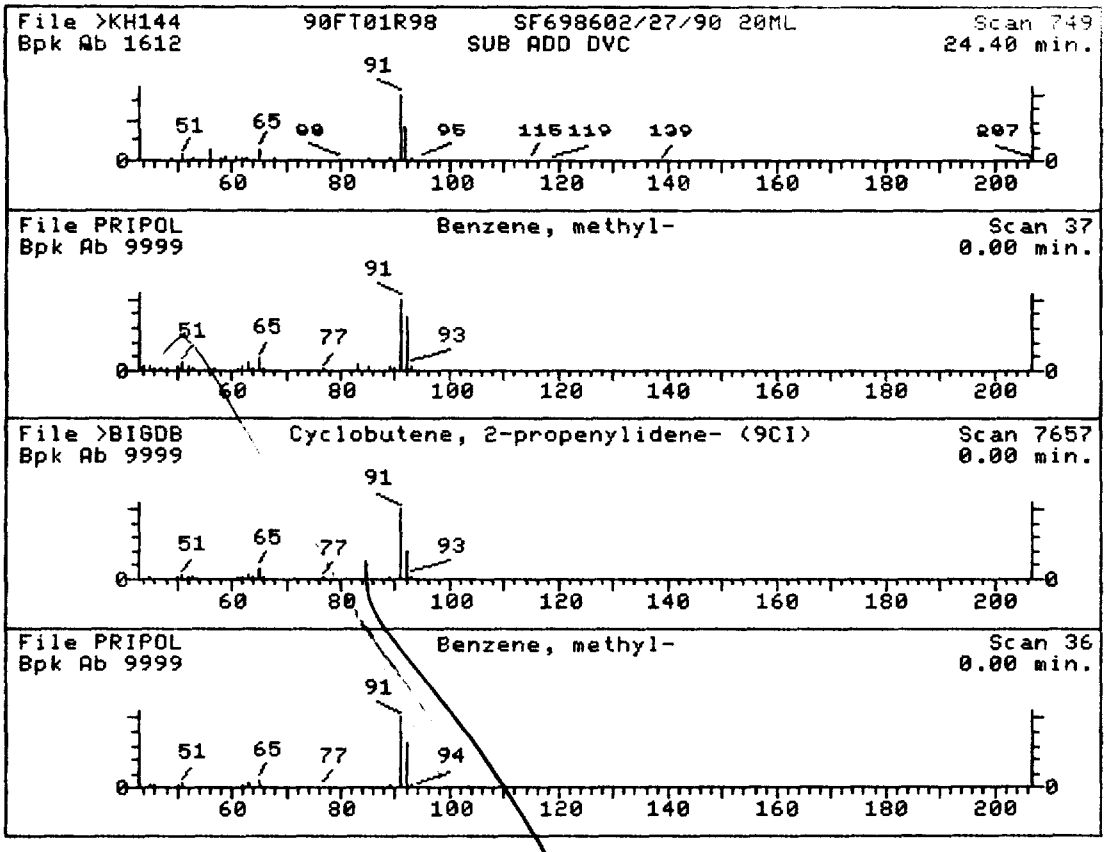
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	43*	623438	9057	"BIGDB	26	62	2	0	93	21	17	14
2.	26*	80626	9043	"BIGDB	29	60	2	0	78	42	8	14



. Unknown #,4
Area = 156762.0 Tentative Concentration is 2.00

Sample file: >KH144 Spectrum #: 734

No data base entries were retrieved.

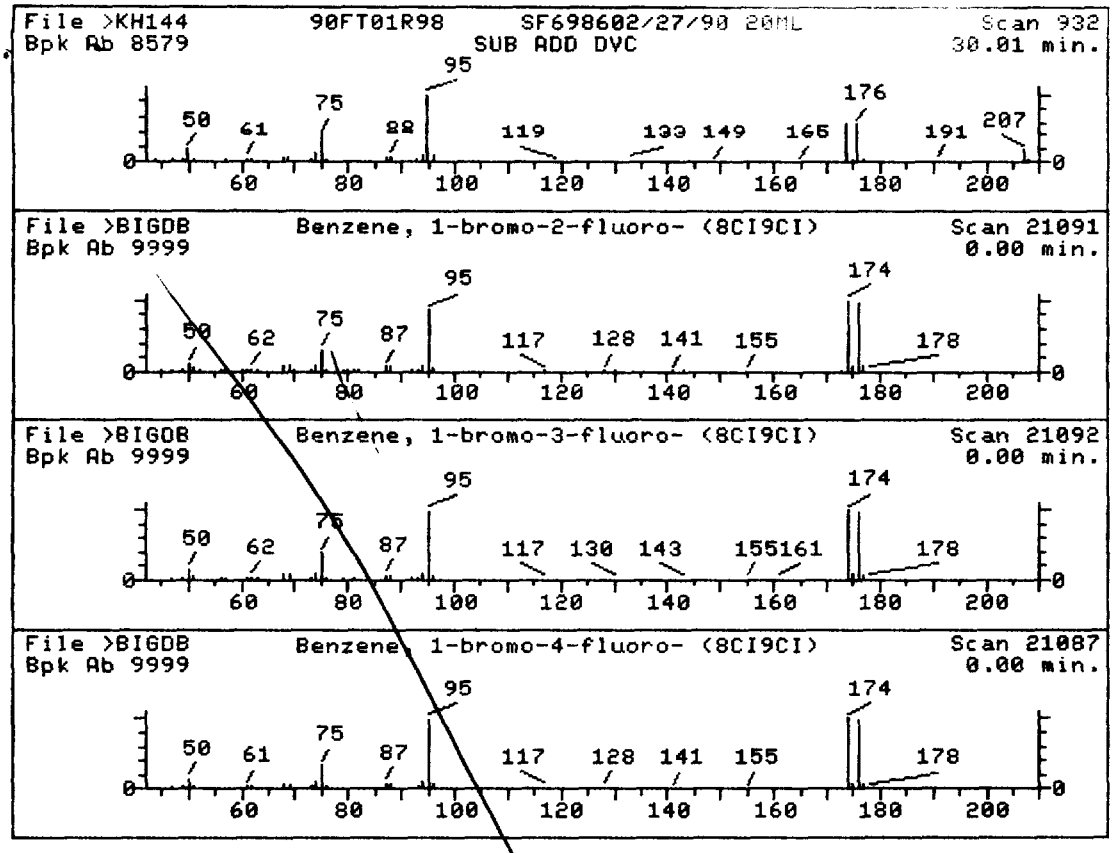


. Unknown #,5
Area = 137249.0 Tentative Concentration is 1.000

1.	Benzene, methyl-	92 C7H8
2.	Cyclobutene, 2-propenylidene- (9CI)	92 C7H8
3.	Benzene, methyl-	92 C7H8
4.	Benzene, methyl-	92 C7H8
5.	Benzene, methyl-	92 C7H8
6.	1,3,5-Cycloheptatriene (8CI9CI)	92 C7H8
7.	Benzene, methyl- (9CI)	92 C7H8

Sample file: >KH144 Spectrum #: 749
Search speed: 2 Tilting option: F No. of ion ranges searched: 57

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	79*	37	133	PRIPOL	53	43	2	0	73	10	48	31
2.	71*	52097855	7657	"BIGDB	50	29	2	0	100	13	38	31
3.	71*	36	132	PRIPOL	52	32	2	0	83	11	38	35
4.	67*	35	131	PRIPOL	44	51	2	0	69	11	34	22
5.	67*	34	130	PRIPOL	50	28	2	2	87	13	34	25
6.	67*	544252	7652	"BIGDB	49	36	2	1	79	11	34	23
7.	60*	108883	7659	"BIGDB	37	53	2	0	74	13	30	18



. Unknown #,6
Area = 1427577. Tentative Concentration is 16.00

1.	Benzene, 1-bromo-2-fluoro- (8CI9CI)	174	C6H4BrF
2.	Benzene, 1-bromo-3-fluoro- (8CI9CI)	174	C6H4BrF
3.	Benzene, 1-bromo-4-fluoro- (8CI9CI)	174	C6H4BrF
4.	4-Bromofluorobenzene	174	C6H4BrF
5.	2(1H)-Pyridinone (9CI)	95	C5H5NO

Sample file: >KH144 Spectrum #: 932
Search speed: 2 Tilting option: F No. of ion ranges searched: 56

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	89*	1072851	21091	"BIGDB	96	11	1	2	85	9	62	89
2.	84*	1073069	21092	"BIGDB	95	18	2	2	88	9	55	65
3.	83*	460004	21087	"BIGDB	88	22	2	2	97	9	54	59
4.	48*	459	303	PRIPOL	53	50	1	0	49	39	17	37
5.	11*	142085	7971	"BIGDB	23	68	3	0	100	65	2	12

QUANT REPORT

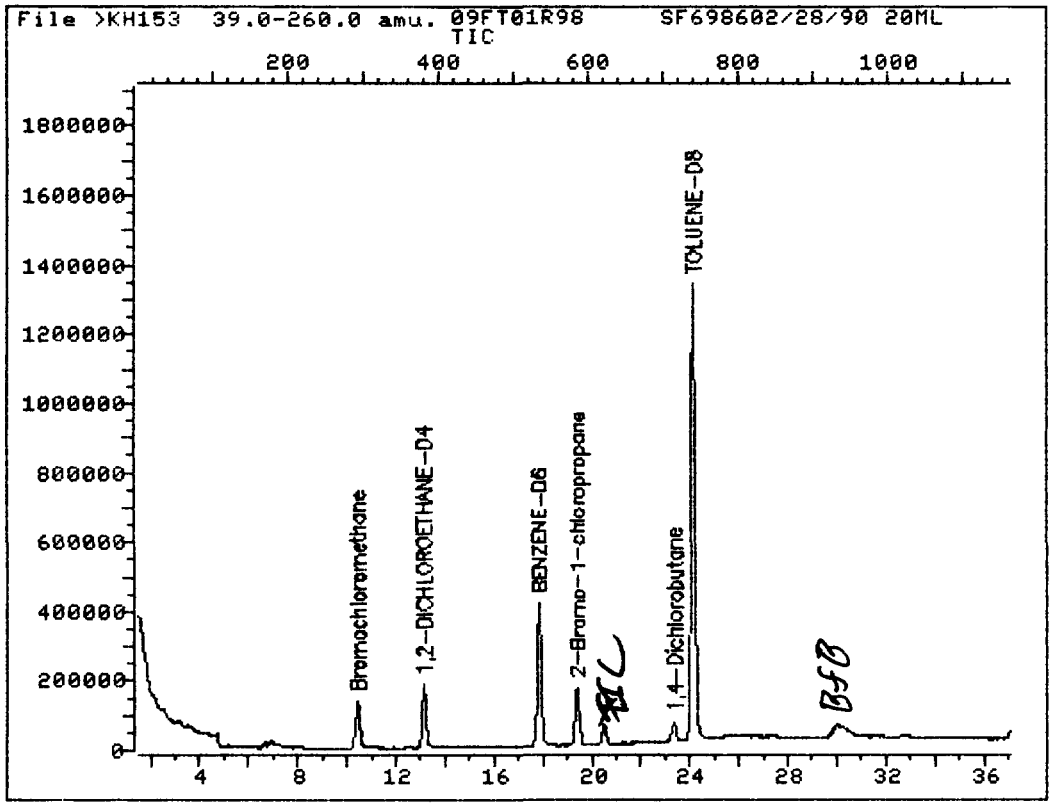
Operator ID: CHACKO Quant Rev: 6 Quant Time: 900228 14:19
Output File: ^KH153::S1 Injected at: 900228 13:38
Data File: >KH153::A9 Dilution Factor: 1.00000
Name: 09FT01R98 SF6986
Misc: 02/28/90 20ML

ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.45	130.0	241066	10.00	UG/L	96
15)	1,2-DICHLOROETHANE-D4	13.14	65.0	551282	8.98	UG/L	86
17)	*2-Bromo-1-chloropropane	19.41	77.0	905433	10.00	UG/L	98
26)	BENZENE-D6	17.85	84.0	2367823	12.67	UG/L	98
33)	*1,4-Dichlorobutane	23.36	55.0	343262	10.00	UG/L	98
38)	TOLUENE-D8	24.15	98.0	5878440	16.66	UG/L	99

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >KH153::A9 Quant Output File: ^KH153::S1
Name: 09FT01R98 SF6986
Misc: 02/28/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

Operator ID: CHACKO
Quant Time: 900228 14:19
Injected at: 900228 13:38

MS data file header from : >KH153

Sample: 09FT01R98 SF6986 Operator: CHACKO MS 2/28/90 13:38
Misc : 02/28/90 20ML
Sys. #: 3 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: VOA#3 Tuning file: MTBFB3 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

>KH153 09FT01R98 SF698602/28/90 20ML
39.0| 260.0 CLP ADC TIC
Upslope: .20 Area Reject: 156849. Max Peaks: 2 Bunching: 1
Dnslope: 0.00 Results File IKH153 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	20.51	616	622	630	53724	870722	598243	53.93	35.036
BFB ~~2~~	~~30.07~~	~~925~~	~~934~~	~~963~~	~~30907~~	~~3461321~~	~~1109243~~	~~100.00~~	64.964

Sum of corrected areas: 1707486.

Summary of Unknowns PBM Library Search and Quantitation

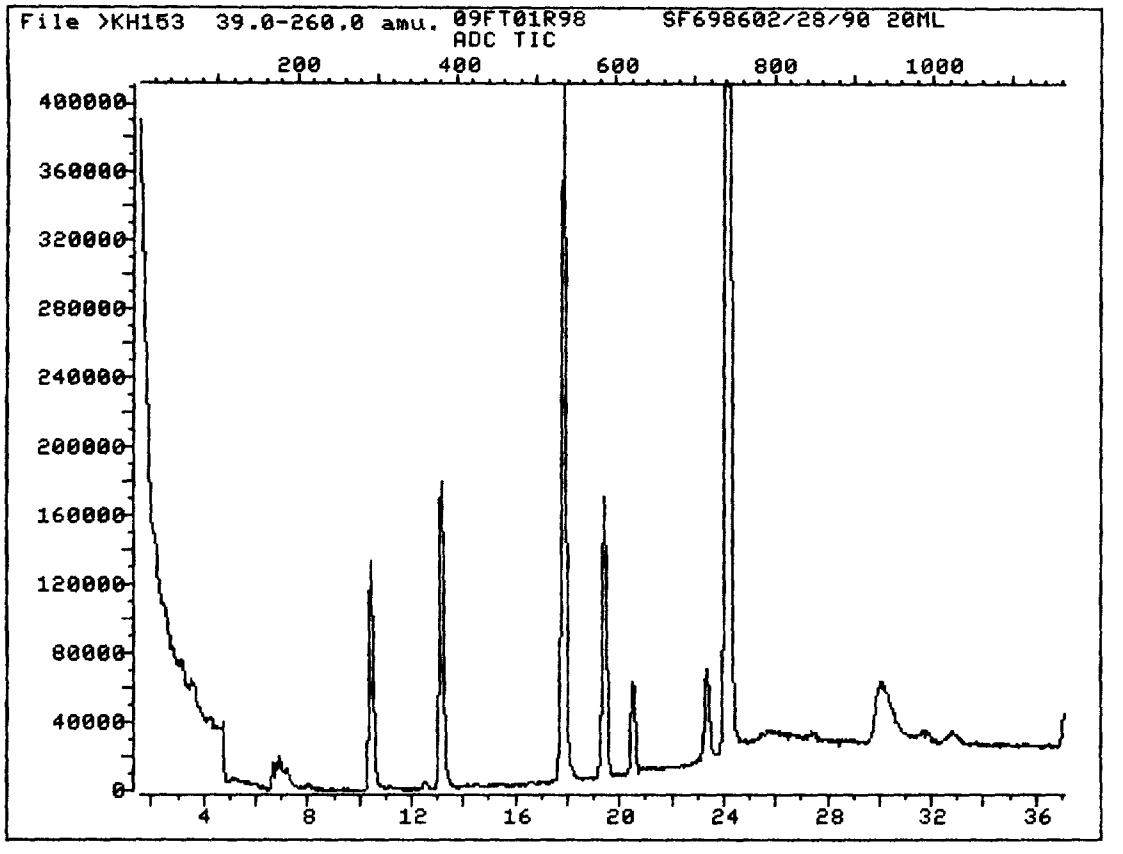
Standard	Concentration	Area	Retention Time	Unknown Window
1	10.0	1568486.	10.45	1.52 - 14.93
2	10.0	1936166.	19.41	14.93 - 21.38
3	10.0	15522722.	23.36	21.38 - 37.08

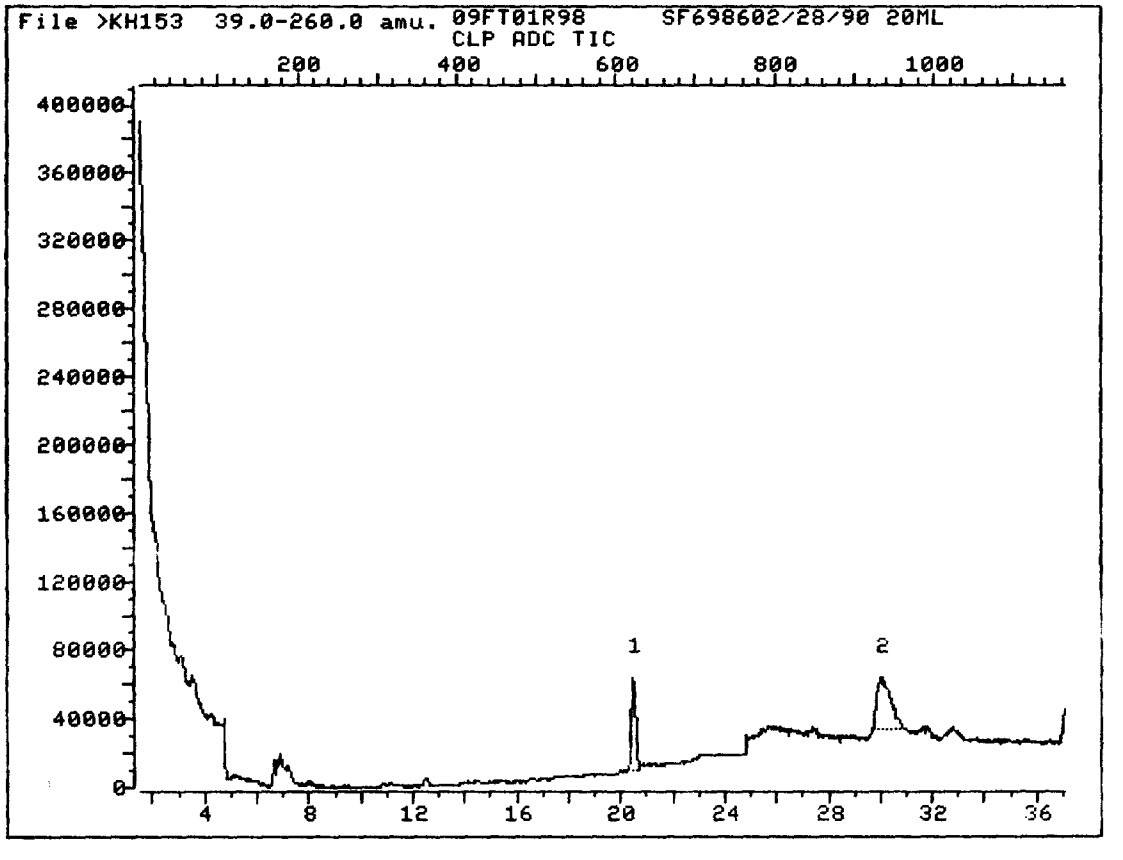
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 20.00 Amount Used (AU) = 20.00

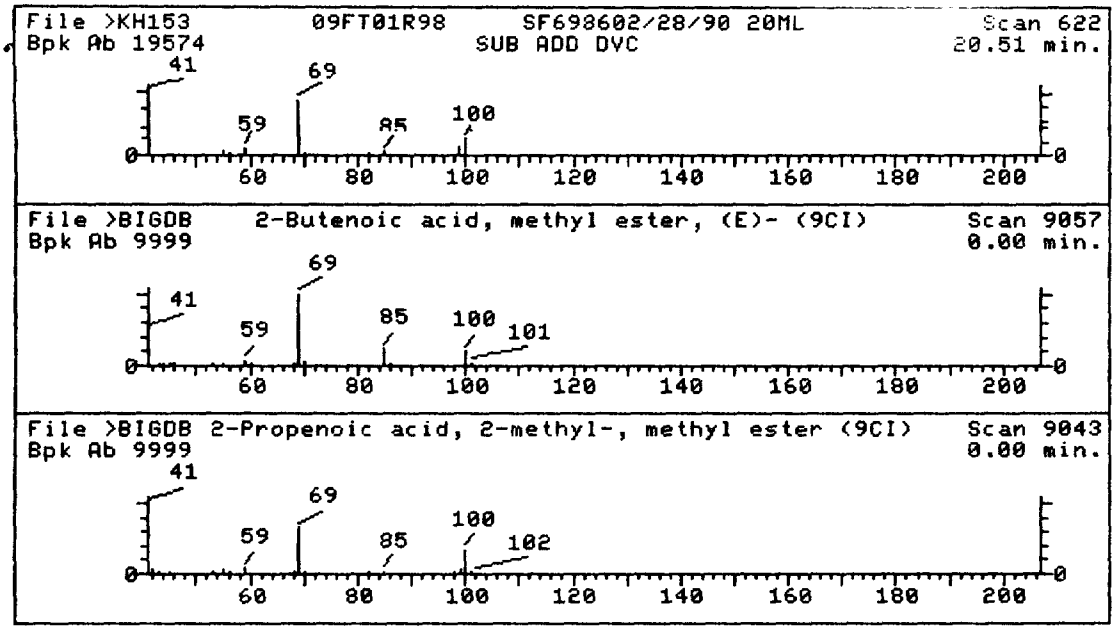
Correction Factor = 1.00 = (AM / AU) / (DF * FS)

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

11:56 AM MON., 12 MAR., 1990


File >KH153 39.0-260.0 amu. 09FT01R98 SF698602/28/90 20ML
ADC TIC
200
400
600
800
1000
400000
360000
320000
280000
240000
200000
160000
120000
80000
40000
0
4
8
12
16
20
24
28
32
36


File >KH153 39.0-260.0 amu. 09FT01R98 SF698602/28/90 20ML
CLP ADC TIC
200
400
600
800
1000
400000
360000
320000
280000
240000
200000
160000
120000
80000
40000
0
1
2
4
8
12
16
20
24
28
32
36



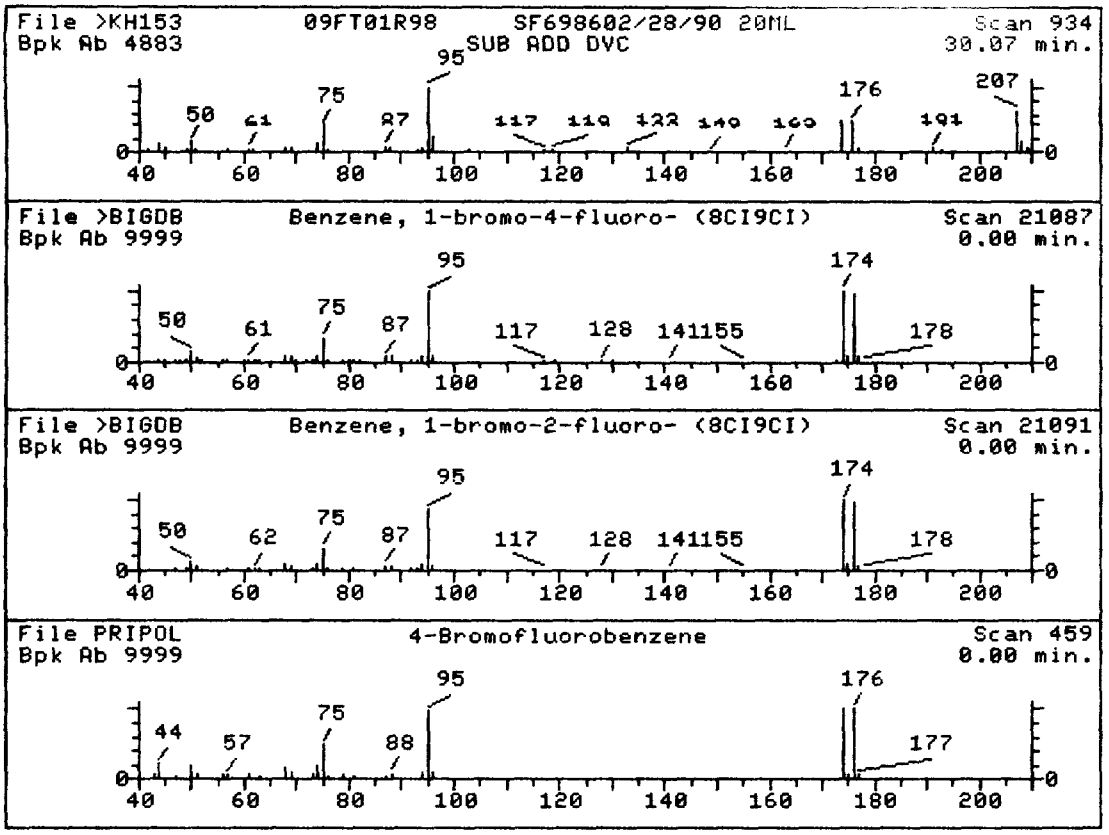
$$\frac{598243}{1936166} \times 10 = 3$$

. Unknown #,1
Area = 598243.0 Tentative Concentration is 3.00

1. 2-Butenoic acid, methyl ester, (E)- (9CI) 100 C5H8O2
2. 2-Propenoic acid, 2-methyl-, methyl ester (9CI) 100 C5H8O2

Sample file: >KH153 Spectrum #: 622
Search speed: 2 Tilting option: F No. of ion ranges searched: 55

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	52*	623438	9057	"BIGDB	21	67	2	0	90	17	20	13
2.	26*	80626	9043	"BIGDB	29	60	2	0	72	41	8	14



. Unknown #,2
Area = 1109243. Tentative Concentration is .700

1. Benzene, 1-bromo-4-fluoro- (8CI9CI) 174 C6H4BrF
2. Benzene, 1-bromo-2-fluoro- (8CI9CI) 174 C6H4BrF
3. 4-Bromofluorobenzene 174 C6H4BrF
4. Benzene, 1-bromo-3-fluoro- (8CI9CI) 174 C6H4BrF

Sample file: >KH153 Spectrum #: 934
Search speed: 2 Tilting option: F No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	54*	460004	21087	"BIGDB	86	24	2	2	57	41	17	57
2.	52*	1072851	21091	"BIGDB	84	23	2	2	63	41	17	55
3.	45*	459	303	PRIPOL	73	46	2	0	52	47	13	55
4.	34*	1073069	21092	"BIGDB	80	33	2	1	68	52	10	53

QUANT REPORT

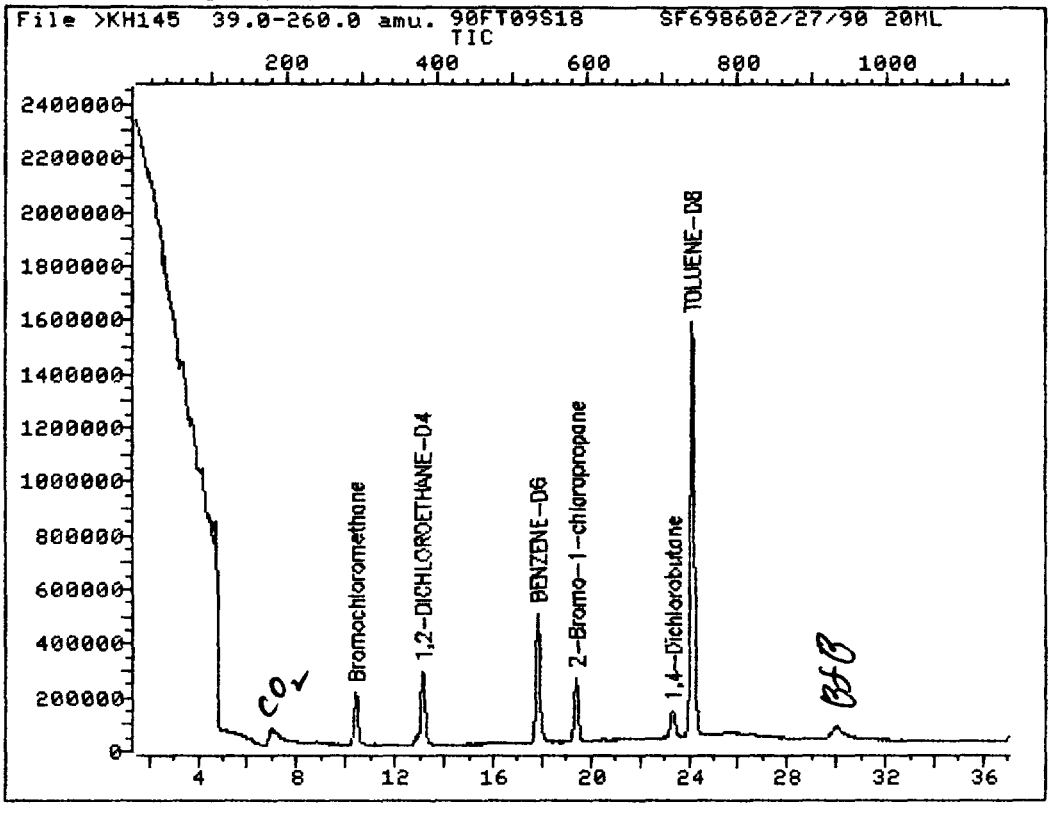
Operator ID: CHACKO Quant Rev: 6 Quant Time: 900227 14:20
Output File: ^KH145::A8 Injected at: 900227 13:39
Data File: >KH145::A9 Dilution Factor: 1.00000
Name: 90FT09S18 SF6986
Misc: 02/27/90 20ML

ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.41	130.0	344835	10.00	UG/L	95
15)	1,2-DICHLOROETHANE-D4	13.14	65.0	858485	9.77	UG/L	86
17)	*2-Bromo-1-chloropropane	19.41	77.0	1290466	10.00	UG/L	99
26)	BENZENE-D6	17.85	84.0	2727986	10.24	UG/L	98
33)	*1,4-Dichlorobutane	23.36	55.0	629481	10.00	UG/L	99
38)	TOLUENE-D8	24.15	98.0	6760761	10.45	UG/L	99

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >KH145::A9 Quant Output File: ^KH145::A8
Name: 90FT09S18 SF6986
Misc: 02/27/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

Operator ID: CHACKO
Quant Time: 900227 14:20
Injected at: 900227 13:39

QUANT REPORT

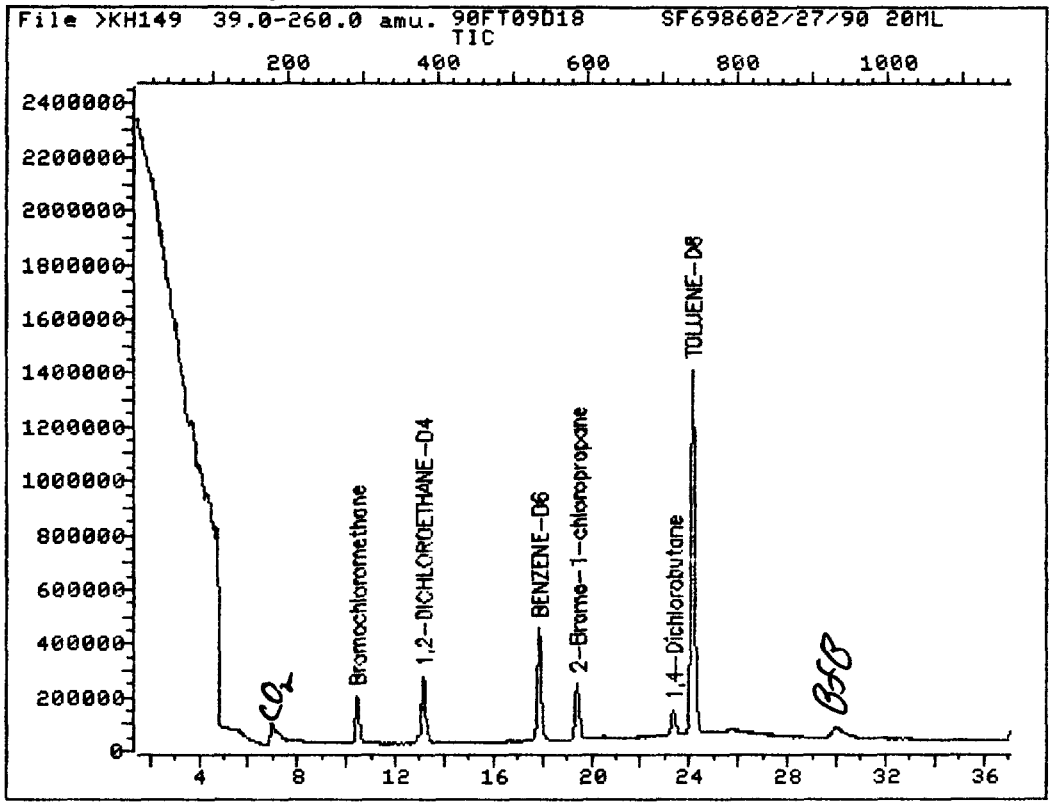
Operator ID: CHACKO Quant Rev: 6 Quant Time: 900227 17:30
Output File: ^KH149::QT Injected at: 900227 16:49
Data File: >KH149::A9 Dilution Factor: 1.00000
Name: 90FT09D18 SF6986
Misc: 02/27/90 20ML

ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.44	130.0	301787	10.00	UG/L	95
15)	1,2-DICHLOROETHANE-D4	13.17	65.0	782410	10.18	UG/L	86
17)	*2-Bromo-1-chloropropane	19.44	77.0	1150374	10.00	UG/L	99
26)	BENZENE-D6	17.88	84.0	2415200	10.17	UG/L	98
33)	*1,4-Dichlorobutane	23.36	55.0	581215	10.00	UG/L	96
38)	TOLUENE-D8	24.15	98.0	5924123	9.91	UG/L	98

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >KH149::A9 Quant Output File: ^KH149::QT
Name: 90FT09D18 SF6986
Misc: 02/27/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

Operator ID: CHACKO
Quant Time: 900227 17:30
Injected at: 900227 16:49

QUANT REPORT

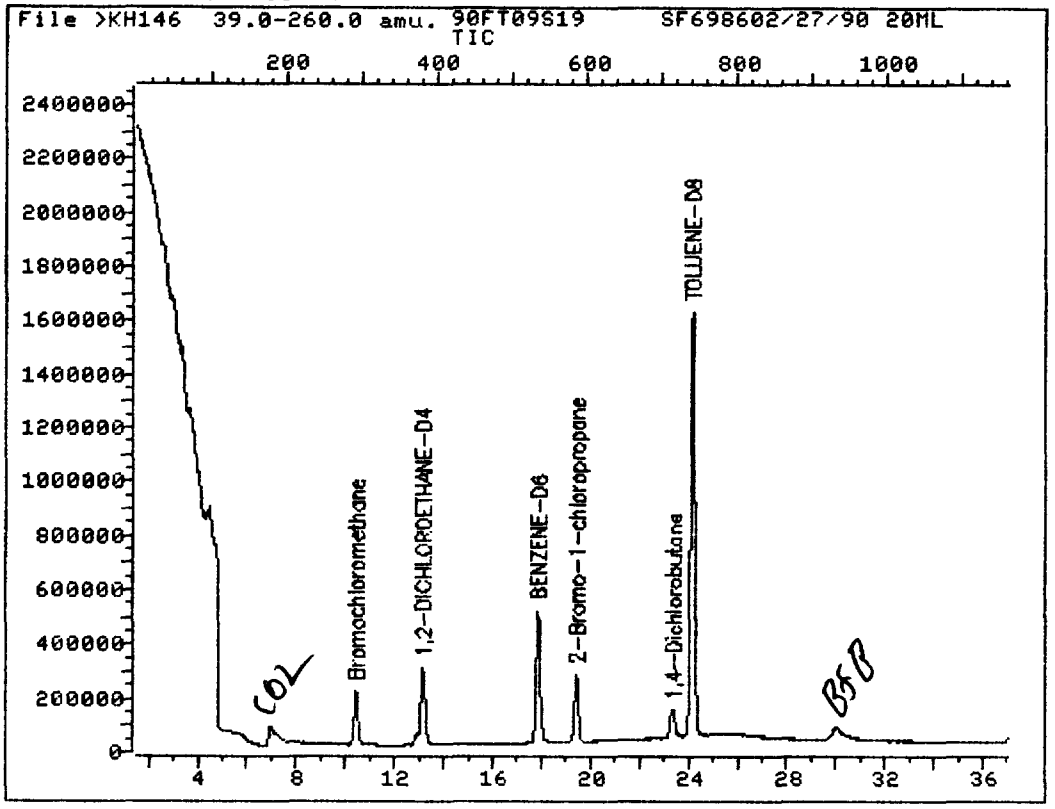
Operator ID: CHACKO Quant Rev: 6 Quant Time: 900227 15:07
Output File: ^KH146::A9 Injected at: 900227 14:26
Data File: >KH146::A9 Dilution Factor: 1.00000
Name: 90FT09S19 SF6986
Misc: 02/27/90 20ML

ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.44	130.0	351450	10.00	UG/L	97
15)	1,2-DICHLOROETHANE-D4	13.16	65.0	891609	9.96	UG/L	86
17)	*2-Bromo-1-chloropropane	19.43	77.0	1328839	10.00	UG/L	99
26)	BENZENE-D6	17.87	84.0	2838166	10.35	UG/L	98
33)	*1,4-Dichlorobutane	23.38	55.0	661747	10.00	UG/L	96
38)	TOLUENE-D8	24.18	98.0	7009754	10.30	UG/L	99

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >KH146::A9 Quant Output File: ^KH146::A9
Name: 90FT09S19 SF6986
Misc: 02/27/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

Operator ID: CHACKO
Quant Time: 900227 15:07
Injected at: 900227 14:26

QUANT REPORT

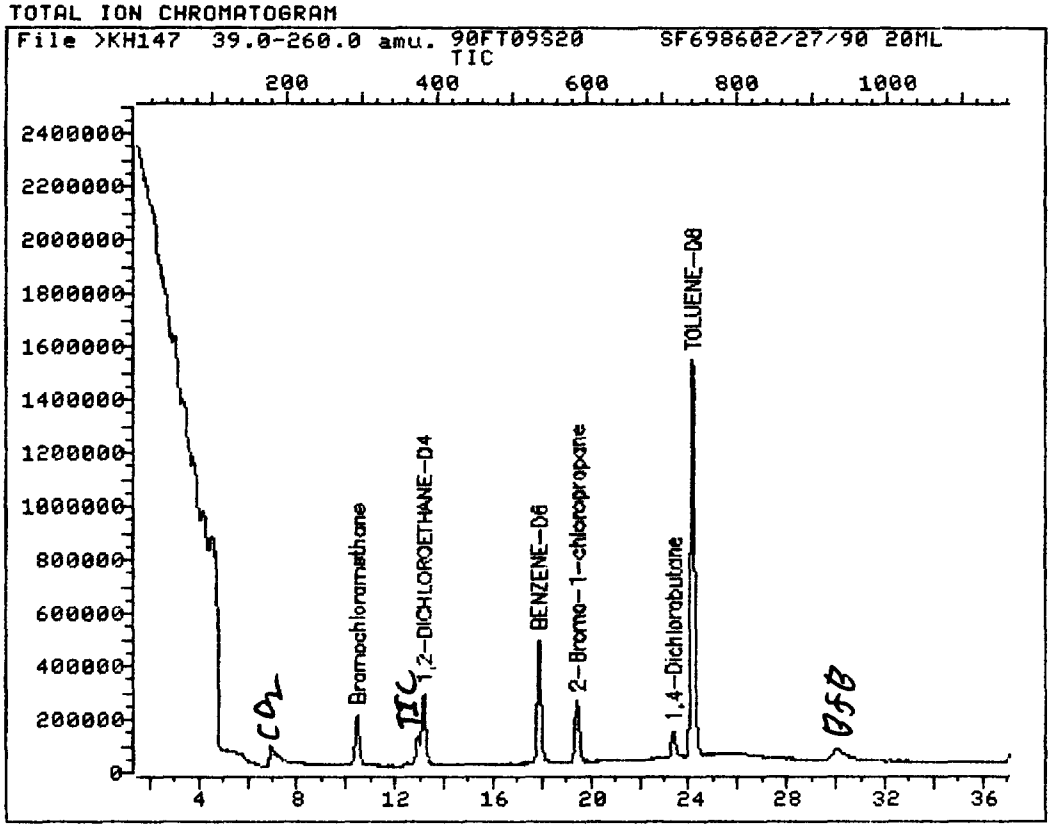
Operator ID: CHACKO Quant Rev: 6 Quant Time: 900227 15:55
Output File: ^KH147::A9 Injected at: 900227 15:14
Data File: >KH147::A9 Dilution Factor: 1.00000
Name: 90FT09S20 SF6986
Misc: 02/27/90 20ML

ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.46	130.0	328241	10.00	UG/L	96
15)	1,2-DICHLOROETHANE-D4	13.18	65.0	833292	9.96	UG/L	84
17)	*2-Bromo-1-chloropropane	19.43	77.0	1241609	10.00	UG/L	99
26)	BENZENE-D6	17.90	84.0	2665007	10.40	UG/L	97
33)	*1,4-Dichlorobutane	23.37	55.0	618463	10.00	UG/L	98
38)	TOLUENE-D8	24.17	98.0	6620070	10.41	UG/L	98

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >KH147::A9 Quant Output File: ^KH147::A9
Name: 90FT09S20 SF6986
Misc: 02/27/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

Operator ID: CHACKO
Quant Time: 900227 15:55
Injected at: 900227 15:14

MS data file header from : >KH147

Sample: 90FT09S20 SF6986 Operator: CHACKO MS 2/27/90 15:14
Misc : 02/27/90 20ML
Sys. #: 3 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: VOA#3 Tuning file: MTBFB3 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

>KH147 90FT09S20 SF698602/27/90 20ML
39.0| 260.0 CLP ADC TIC
Upslope: .20 Area Reject: 120528. Max Peaks: 3 Bunching: 1
Dnslope: 0.00 Results File IKH147 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
~~CO2 1~~	~~6.94~~	~~175~~	~~179~~	~~204~~	~~83475~~	~~2174572~~	~~2174572~~	~~100.00~~	~~56.983~~
2	12.85	367	372	373	63747	318233	234045	10.76	6.133
~~B+C 3~~	~~30.05~~	~~925~~	~~934~~	~~968~~	~~43530~~	~~3469752~~	~~1407562~~	~~64.73~~	~~36.884~~

Sum of corrected areas: 3816179.

Summary of Unknowns PBM Library Search and Quantitation

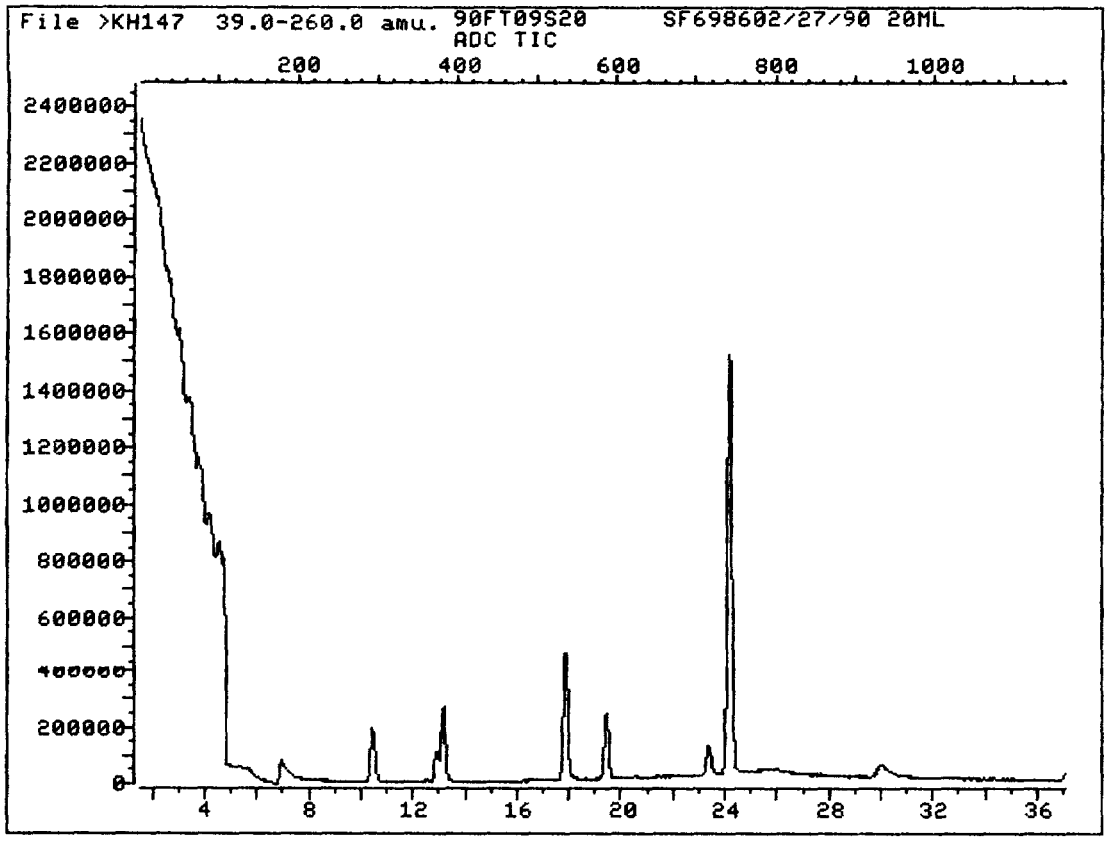
Standard	Concentration	Area	Retention Time	Unknown Window
1	10.0	2179812.	10.46	1.50 - 14.94
2	10.0	2727181.	19.42	14.94 - 21.40
3	10.0	1205275.	23.37	21.40 - 37.07

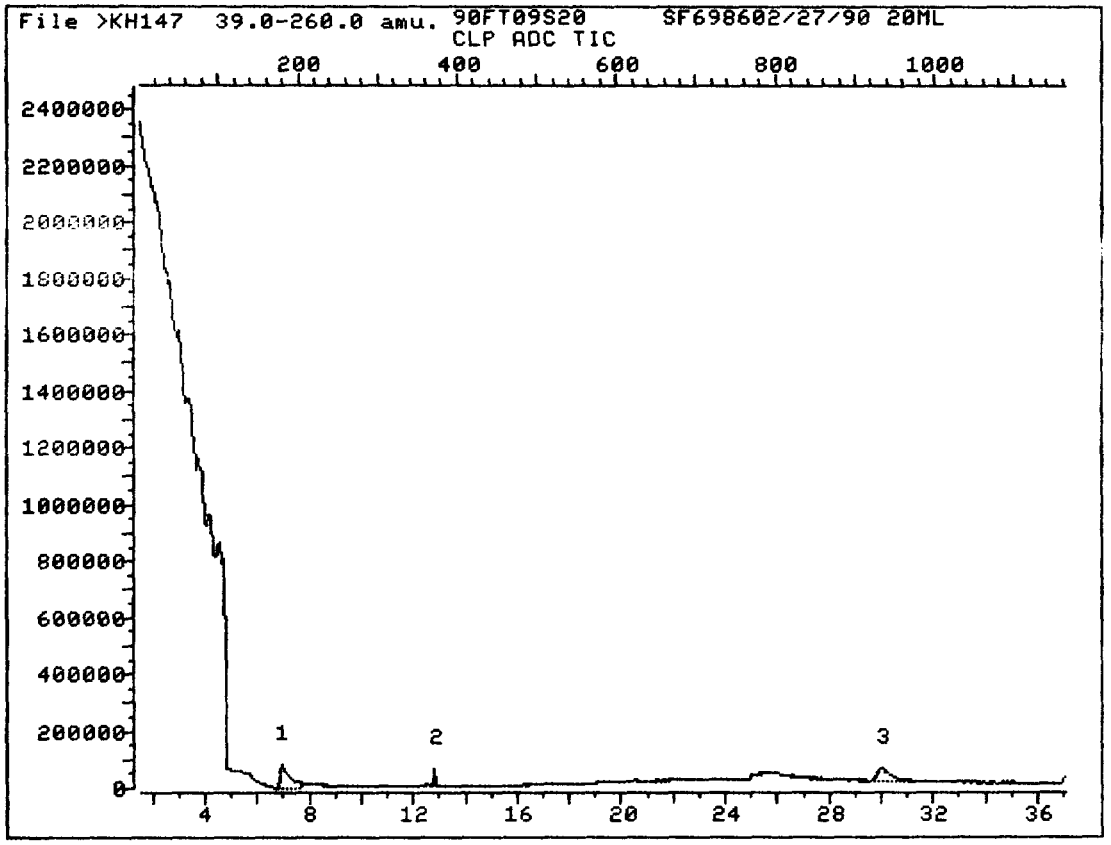
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 20.00 Amount Used (AU) = 20.00

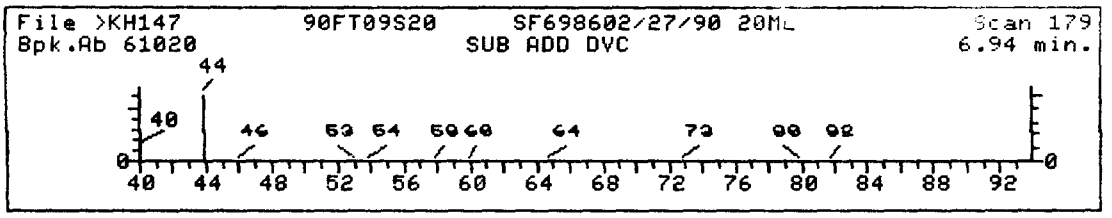
Correction Factor = 1.00 = (AM / AU) / (DF * FS)

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

12:24 PM MON., 12 MAR., 1990


File >KH147 39.0-260.0 amu. 90FT09S20 SF698602/27/90 20ML
ADC TIC
200 400 600 800 1000
2400000
2200000
2000000
1800000
1600000
1400000
1200000
1000000
800000
600000
400000
200000
0
4 8 12 16 20 24 28 32 36

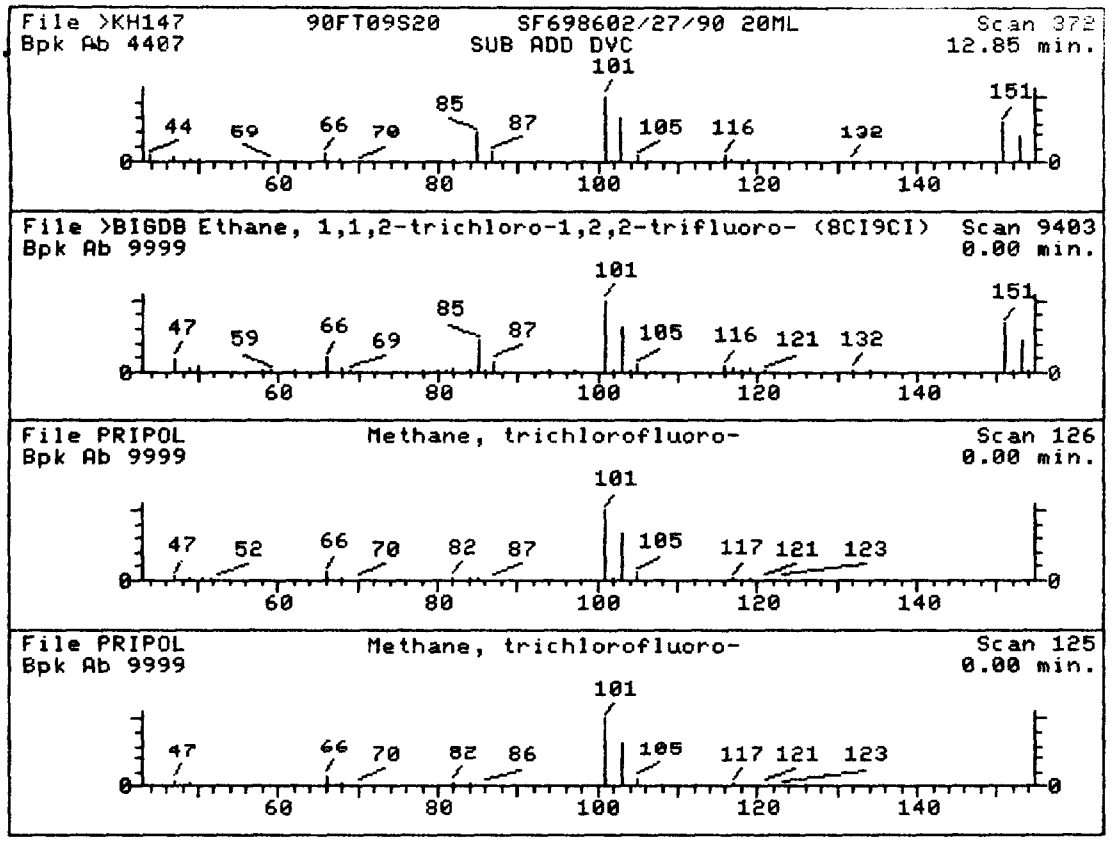

File >KH147 39.0-260.0 amu. 90FT09S20 SF698602/27/90 20ML
CLP ADC TIC
200 400 600 800 1000
2400000
2200000
2000000
1800000
1600000
1400000
1200000
1000000
800000
600000
400000
200000
0
1
2
3
4 8 12 16 20 24 28 32 36



. Unknown #,1
Area = 2174572. Tentative Concentration is 10.00

Sample file: >KH147 Spectrum #: 179

No data base entries were retrieved.



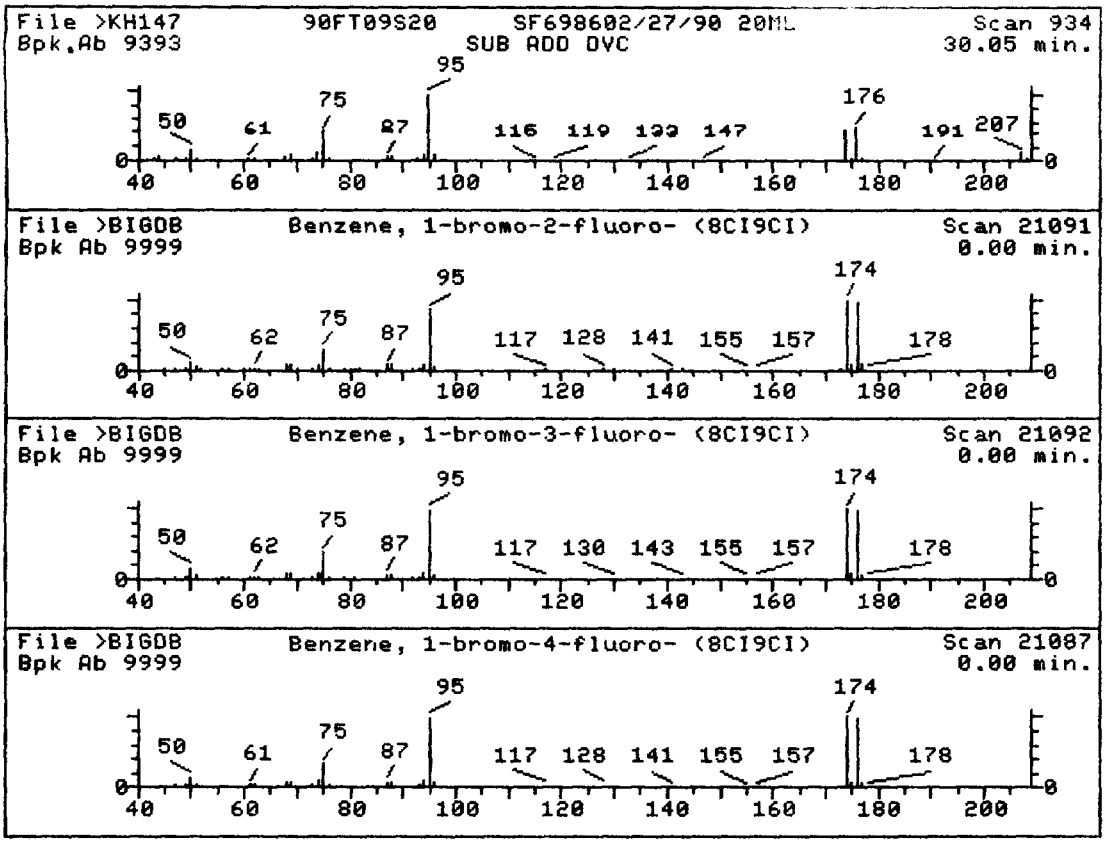
$$\frac{234045}{2179812} \times 10 = 1$$

. Unknown #,2
Area = 234045.0 Tentative Concentration is 1.000

1.	Ethane, 1,1,2-trichloro-1,2,2-trifluoro- (8CI9CI)	186 C2Cl3F3
2.	Methane, trichlorofluoro-	136 CCl3F
3.	Methane, trichlorofluoro-	136 CCl3F
4.	Methane, trichlorofluoro- (8CI9CI)	136 CCl3F
5.	Methane, trichlorofluoro-	136 CCl3F

Sample file: >KH147 Spectrum #: 372
Search speed: 2 Tilting option: F No. of ion ranges searched: 57

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	46	76131	9403	"BIGDB	71	67	2	0	62	21	17	17
2.	31	126	162	PRIPOL	68	25	0	0	71	51	10	50
3.	24	125	161	PRIPOL	71	22	2	0	92	51	7	26
4.	24	75694	9306	"BIGDB	66	30	2	0	86	51	7	23
5.	24	128	164	PRIPOL	66	30	2	0	86	51	7	23



. Unknown #,3
Area = 1407562. Tentative Concentration is 12.00

1. Benzene, 1-bromo-2-fluoro- (8CI9CI) 174 C6H4BrF
2. Benzene, 1-bromo-3-fluoro- (8CI9CI) 174 C6H4BrF
3. Benzene, 1-bromo-4-fluoro- (8CI9CI) 174 C6H4BrF
4. 4-Bromofluorobenzene 174 C6H4BrF

Sample file: >KH147 Spectrum #: 934
Search speed: 2 Tilting option: F No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	93*	1072851	21091	"BIGDB	103	4	1	2	87	13	64	93
2.	79*	1073069	21092	"BIGDB	95	18	2	2	79	13	43	65
3.	67*	460004	21087	"BIGDB	81	29	2	3	64	30	27	53
4.	55*	459	303	PRIPOL	62	57	2	0	50	34	22	40

QUANT REPORT

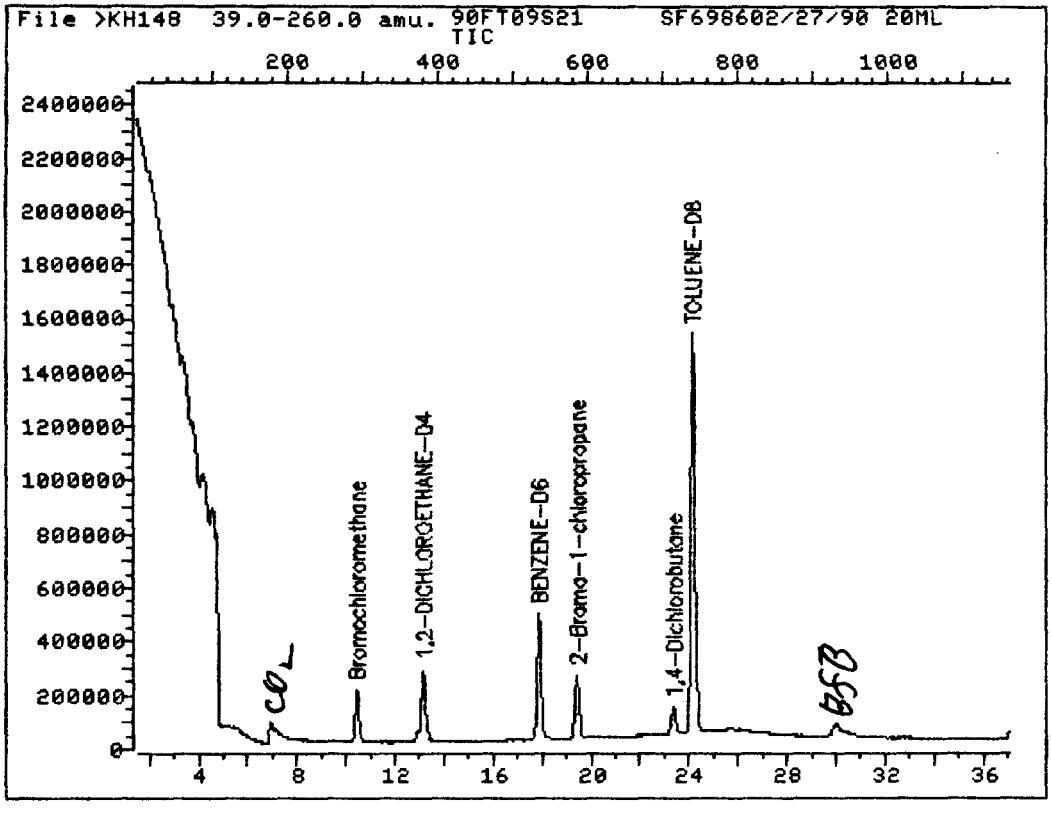
Operator ID: CHACKO Quant Rev: 6 Quant Time: 900227 16:42
Output File: ^KH148::A9 Injected at: 900227 16:01
Data File: >KH148::A9 Dilution Factor: 1.00000
Name: 90FT09S21 SF6986
Misc: 02/27/90 20ML

ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.44	130.0	332490	10.00	UG/L	95
15)	1,2-DICHLOROETHANE-D4	13.17	65.0	840767	9.92	UG/L	86
17)	*2-Bromo-1-chloropropane	19.44	77.0	1256151	10.00	UG/L	99
26)	BENZENE-D6	17.88	84.0	2670337	10.30	UG/L	98
33)	*1,4-Dichlorobutane	23.39	55.0	621754	10.00	UG/L	98
38)	TOLUENE-D8	24.18	98.0	6646356	10.40	UG/L	99

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >KH148::A9 Quant Output File: ^KH148::A9
Name: 90FT09S21 SF6986
Misc: 02/27/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

Operator ID: CHACKO
Quant Time: 900227 16:42
Injected at: 900227 16:01

QUANT REPORT

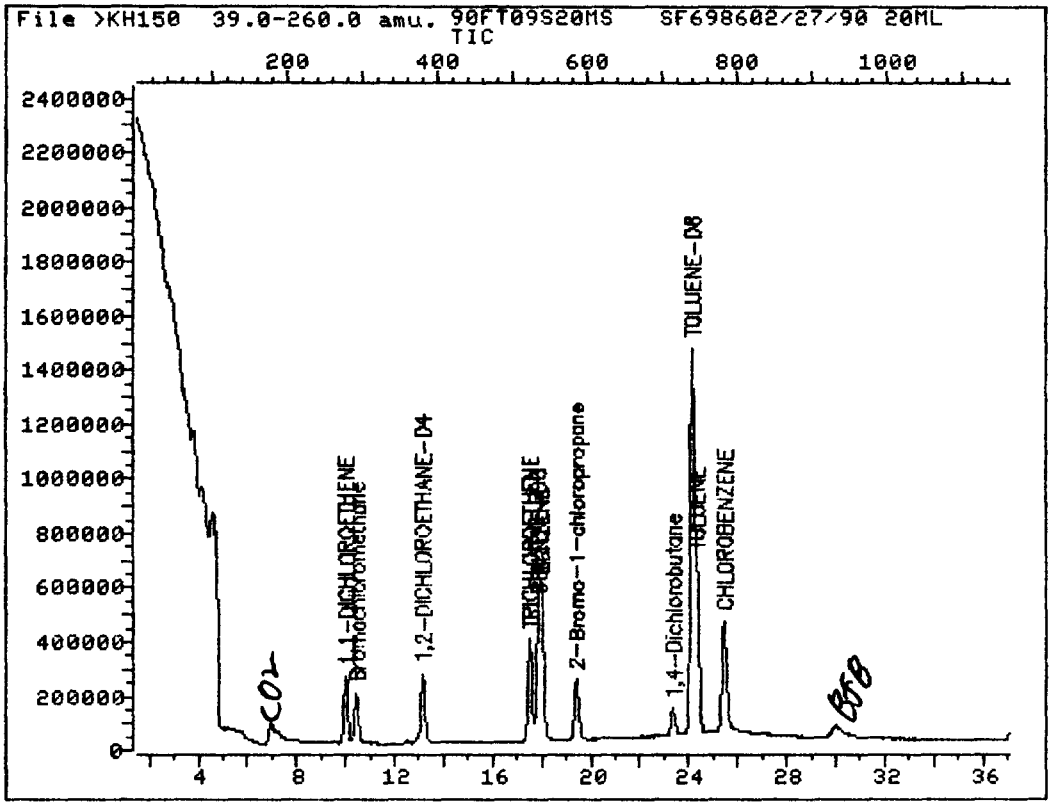
Operator ID: CHACKO Quant Rev: 6 Quant Time: 900227 18:17
Output File: ^KH150::A9 Injected at: 900227 17:36
Data File: >KH150::A9 Dilution Factor: 1.00000
Name: 90FT09S20MS SF6986
Misc: 02/27/90 20ML

ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.44	130.0	320021	10.00	UG/L	94
11)	1,1-DICHLOROETHENE	10.02	96.0	595306	8.71	UG/L	79
15)	1,2-DICHLOROETHANE-D4	13.14	65.0	819962	10.06	UG/L	86
17)	*2-Bromo-1-chloropropane	19.41	77.0	1214016	10.00	UG/L	99
25)	TRICHLOROETHENE	17.51	130.0	762661	9.04	UG/L	95
26)	BENZENE-D6	17.85	84.0	2487548	9.93	UG/L	98
27)	BENZENE	18.00	78.0	2963681	8.99	UG/L	98
33)	*1,4-Dichlorobutane	23.36	55.0	616339	10.00	UG/L	97
38)	TOLUENE-D8	24.15	98.0	6176034	9.75	UG/L	99
39)	TOLUENE	24.34	92.0	1643665	9.07	UG/L	96
40)	CHLOROBENZENE	25.47	112.0	1676554	9.35	UG/L	99

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >KH150::A9 Quant Output File: ^KH150::A9
Name: 90FT09S20MS SF6986
Misc: 02/27/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

Operator ID: CHACKO
Quant Time: 900227 18:17
Injected at: 900227 17:36

QUANT REPORT

Operator ID: CHACKO
Output File: ^KH151::A9
Data File: >KH151::A9
Name: 90FT09S20MSD SF6986
Misc: 02/27/90 20ML

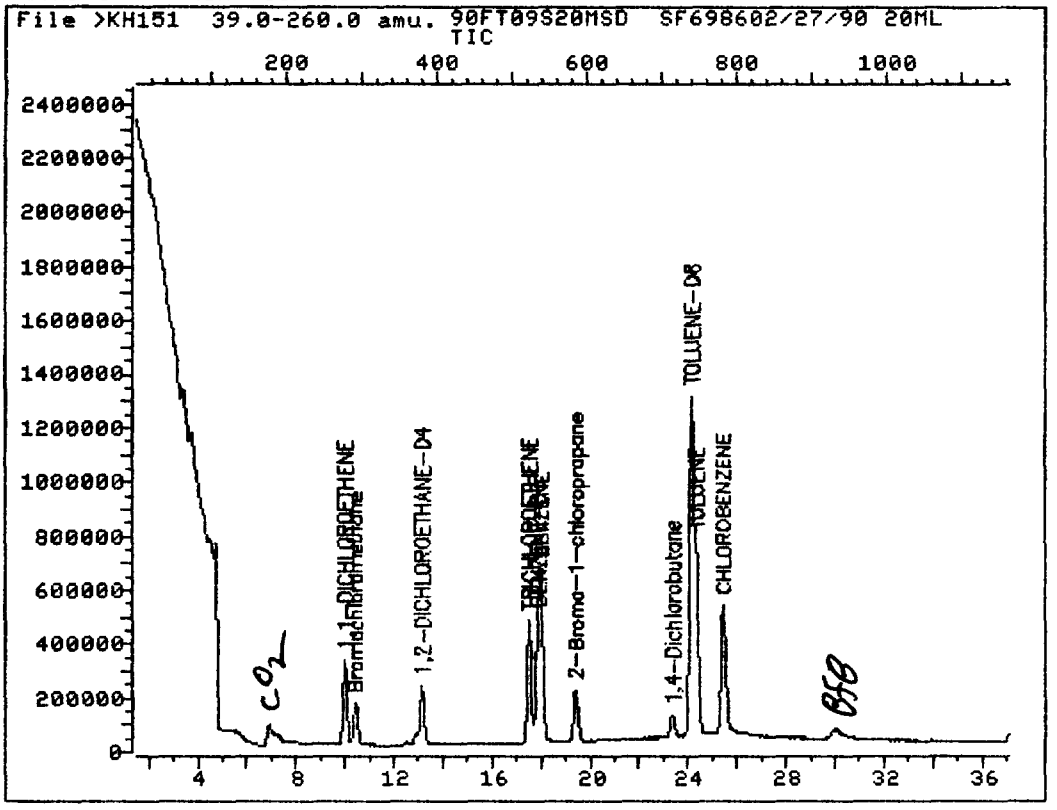
Quant Rev: 6
Quant Time: 900227 19:04
Injected at: 900227 18:24
Dilution Factor: 1.00000

ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.41	130.0	272557	10.00	UG/L	96
11)	1,1-DICHLOROETHENE	9.99	96.0	737451	12.67	UG/L	79
15)	1,2-DICHLOROETHANE-D4	13.14	65.0	702983	10.12	UG/L	86
17)	*2-Bromo-1-chloropropane	19.41	77.0	1035483	10.00	UG/L	98
25)	TRICHLOROETHENE	17.51	130.0	916563	12.74	UG/L	97
26)	BENZENE-D6	17.85	84.0	2183972	10.22	UG/L	97
27)	BENZENE	18.00	78.0	3455527	12.28	UG/L	98
33)	*1,4-Dichlorobutane	23.36	55.0	521790	10.00	UG/L	95
38)	TOLUENE-D8	24.15	98.0	5437320	10.13	UG/L	99
39)	TOLUENE	24.34	92.0	1914299	12.47	UG/L	99
40)	CHLOROBENZENE	25.44	112.0	1937107	12.76	UG/L	99

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >KH151::A9 Quant Output File: ^KH151::A9
Name: 90FT09S20MSD SF6986
Misc: 02/27/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

Operator ID: CHACKO
Quant Time: 900227 19:04
Injected at: 900227 18:24

QUANT REPORT

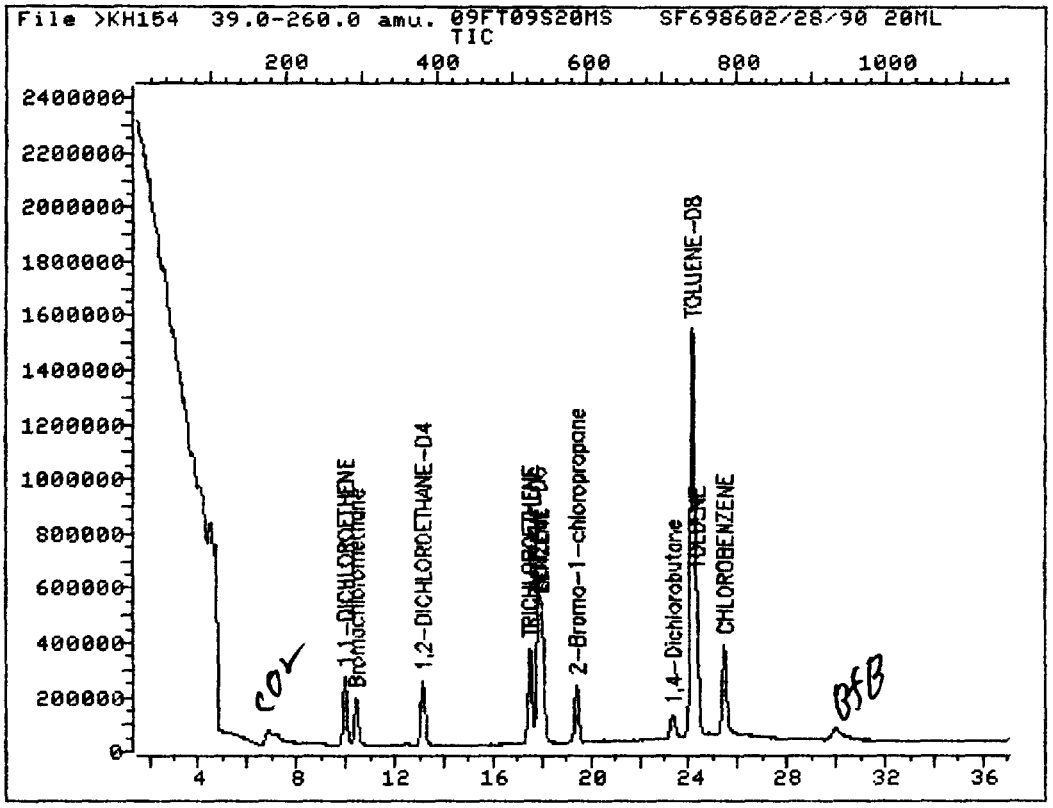
Operator ID: CHACKO Quant Rev: 6 Quant Time: 900228 16:22
Output File: ^KH154::S1 Injected at: 900228 15:41
Data File: >KH154::A9 Dilution Factor: 1.00000
Name: 09FT09S20MS SF6986
Misc: 02/28/90 20ML

ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900228 14:34

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.42	130.0	310322	10.00	UG/L	94
11)	1,1-DICHLOROETHENE	9.99	96.0	568936	8.67	UG/L	83
15)	1,2-DICHLOROETHANE-D4	13.17	65.0	729274	8.96	UG/L	84
17)	*2-Bromo-1-chloropropane	19.41	77.0	1167621	10.00	UG/L	99
25)	TRICHLOROETHENE	17.51	130.0	709955	9.53	UG/L	97
26)	BENZENE-D6	17.85	84.0	2648097	9.78	UG/L	97
27)	BENZENE	18.00	78.0	2554812	8.90	UG/L	98
33)	*1,4-Dichlorobutane	23.36	55.0	527663	10.00	UG/L	99
38)	TOLUENE-D8	24.16	98.0	6617126	10.52	UG/L	98
39)	TOLUENE	24.34	92.0	1425077	9.52	UG/L	97
40)	CHLOROBENZENE	25.47	112.0	1335958	9.56	UG/L	99

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >KH154::A9 Quant Output File: ^KH154::S1
Name: 09FT09S20MS SF6986
Misc: 02/28/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900228 14:34

Operator ID: CHACKO
Quant Time: 900228 16:22
Injected at: 900228 15:41

QUANT REPORT

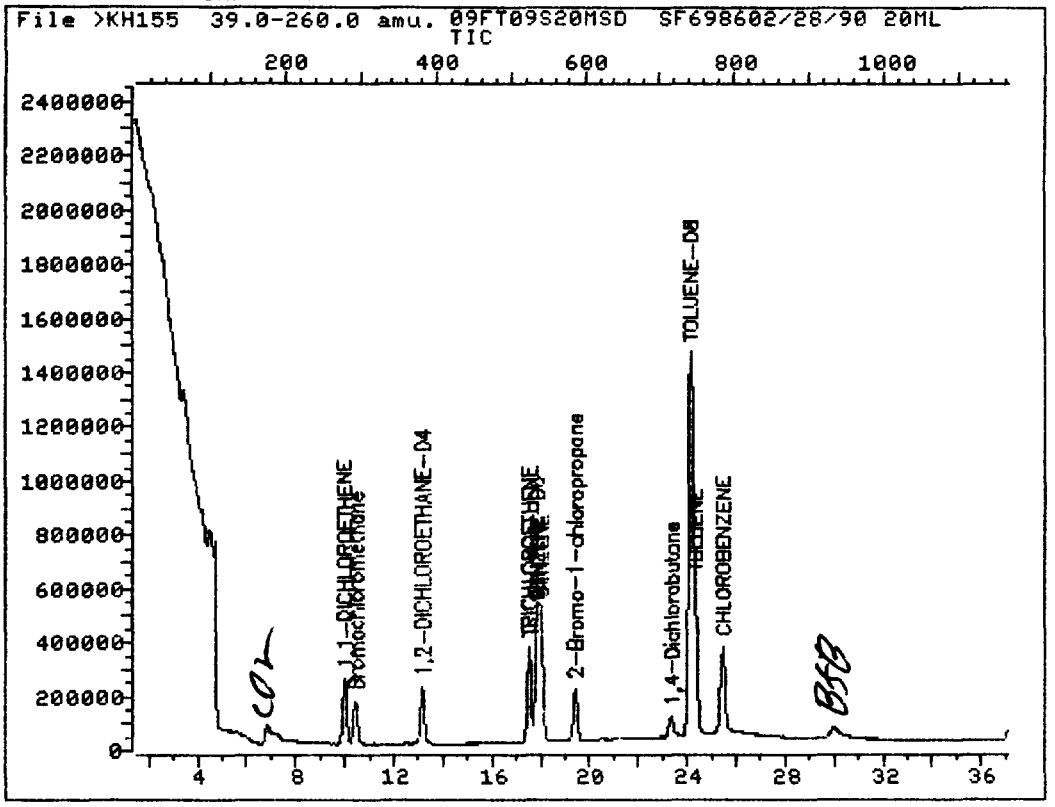
Operator ID: CHACKO Quant Rev: 6 Quant Time: 900228 17:09
Output File: ^KH155::S1 Injected at: 900228 16:28
Data File: >KH155::A9 Dilution Factor: 1.00000
Name: 09FT09S20MSD SF6986
Misc: 02/28/90 20ML

ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900228 14:34

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.44	130.0	275408	10.00	UG/L	95
11)	1,1-DICHLOROETHENE	9.98	96.0	573233	9.85	UG/L	82
15)	1,2-DICHLOROETHANE-D4	13.17	65.0	670010	9.28	UG/L	84
17)	*2-Bromo-1-chloropropane	19.41	77.0	1058508	10.00	UG/L	99
25)	TRICHLOROETHENE	17.51	130.0	704489	10.43	UG/L	97
26)	BENZENE-D6	17.85	84.0	2465360	10.04	UG/L	98
27)	BENZENE	18.00	78.0	2483577	9.55	UG/L	98
33)	*1,4-Dichlorobutane	23.35	55.0	479889	10.00	UG/L	96
38)	TOLUENE-D8	24.15	98.0	6239787	10.90	UG/L	99
39)	TOLUENE	24.33	92.0	1403900	10.31	UG/L	97
40)	CHLOROBENZENE	25.47	112.0	1292703	10.18	UG/L	99

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >KH155::A9 Quant Output File: ^KH155::S1
Name: 09FT09S20MSD SF6986
Misc: 02/28/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900228 14:34

Operator ID: CHACKO
Quant Time: 900228 17:09
Injected at: 900228 16:28

QUANT REPORT

Operator ID: CHACKO Quant Rev: 6 Quant Time: 900227 19:52
Output File: ^KH152::A9 Injected at: 900227 19:11
Data File: >KH152::A9 Dilution Factor: 1.00000
Name: MDL0227 SF6986
Misc: 02/27/90 20ML

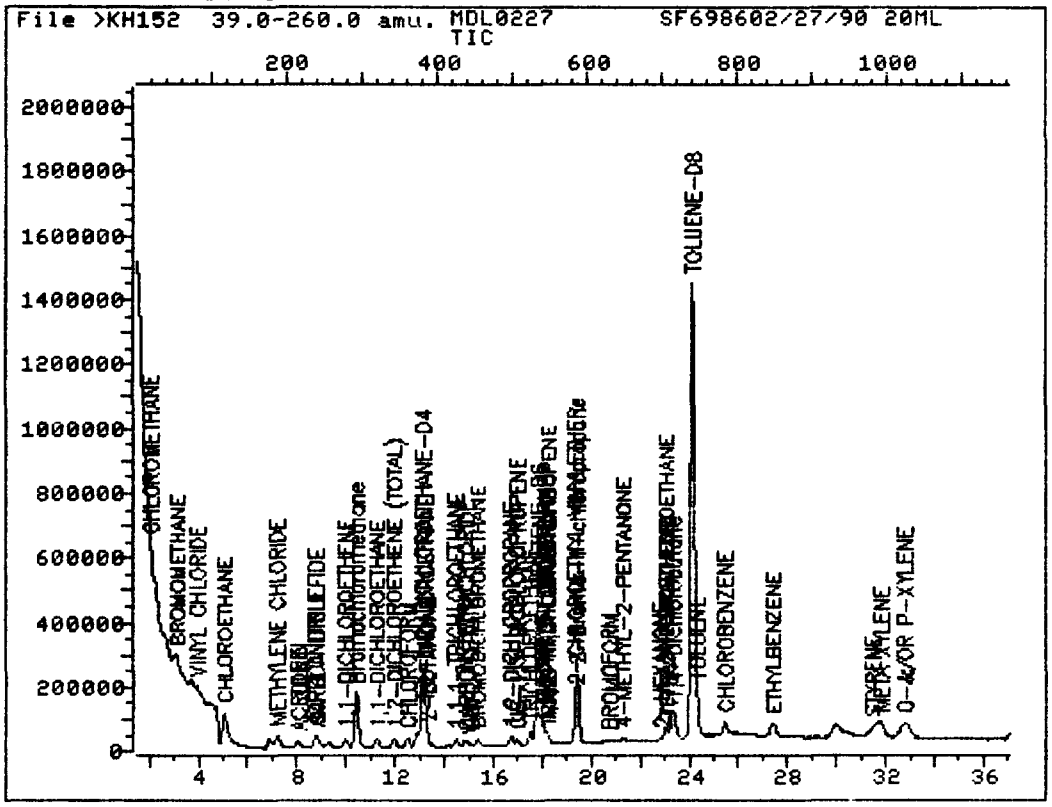
ID File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.41	130.0	298806	10.00	UG/L	96
2)	CHLOROMETHANE	2.06	50.0	143029	1.80	UG/L	100
3)	BROMOMETHANE	3.13	94.0	135284	1.75	UG/L	95
4)	VINYL CHLORIDE	3.96	62.0	145150	1.63	UG/L	94
5)	CHLOROETHANE	5.06	64.0	93147	1.80	UG/L	96
6)	METHYLENE CHLORIDE	7.20	84.0	85579	1.26	UG/L	85
7)	ACROLEIN	8.09	56.0	25437	14.01	UG/L	90
8)	ACETONE	8.06	43.0	135632	40.86	UG/L	99
9)	ACRYLONITRILE	8.76	53.0	111006	38.20	UG/L	96
10)	CARBON DISULFIDE	8.79	76.0	259766	1.25	UG/L	100
11)	1,1-DICHLOROETHENE	9.99	96.0	60112	.94	UG/L	83
12)	1,1-DICHLOROETHANE	11.27	63.0	154585	.99	UG/L	96
13)	1,2-DICHLOROETHENE (TOTAL)	11.98	96.0	68829	.94	UG/L	79
14)	CHLOROFORM	12.53	83.0	119108	.98	UG/L	99
15)	1,2-DICHLOROETHANE-D4	13.14	65.0	766526	10.07	UG/L	85
16)	1,2-DICHLOROETHANE	13.26	62.0	37096	.98	UG/L	84
17)	*2-Bromo-1-chloropropane	19.41	77.0	1131193	10.00	UG/L	99
18)	2-BUTANONE	13.32	72.0	22205	12.54	UG/L	99
19)	1,1,1-TRICHLOROETHANE	14.48	97.0	79437	.98	UG/L	95
20)	CARBON TETRACHLORIDE	14.88	117.0	60886	.97	UG/L	94
21)	VINYL ACETATE	15.07	43.0	53277	.86	UG/L	92
22)	BROMODICHLOROMETHANE	15.37	83.0	80688	.92	UG/L	98
23)	1,2-DICHLOROPROPANE	16.72	63.0	95245	.97	UG/L	97
24)	CIS-1,3-DICHLOROPROPENE	16.96	75.0	116940	1.23	UG/L	92
25)	TRICHLOROETHENE	17.51	130.0	84618	1.08	UG/L	98
26)	BENZENE-D6	17.85	84.0	2502748	10.72	UG/L	98
27)	BENZENE	18.00	78.0	304092	.99	UG/L	96
28)	DIBROMOCHLOROMETHANE	18.10	129.0	36368	.86	UG/L	90
29)	TRANS-1,3-DICHLOROPROPENE	18.25	75.0	29652	.50	UG/L	88
30)	1,1,2-TRICHLOROETHANE	18.22	97.0	32150	.96	UG/L	96
31)	2-CHLOROETHYL VINYLETHER	19.35	63.0	35877	1.47	UG/L	83
32)	BROMOFORM	20.76	173.0	11657	.76	UG/L	93
33)	*1,4-Dichlorobutane	23.36	55.0	550565	10.00	UG/L	97
34)	4-METHYL-2-PENTANONE	21.31	43.0	67712	2.96	UG/L	90
35)	2-HEXANONE	22.87	43.0	24035	1.95	UG/L	92
36)	TETRACHLOROETHENE	23.05	164.0	49663	.99	UG/L	96
37)	1,1,2,2-TETRACHLOROETHANE	23.05	83.0	13228	.69	UG/L	83
38)	TOLUENE-D8	24.16	98.0	6203129	10.96	UG/L	98
39)	TOLUENE	24.34	92.0	161692	1.00	UG/L	97
40)	CHLOROBENZENE	25.47	112.0	153813	.96	UG/L	99
41)	ETHYLBENZENE	27.43	106.0	87384	.95	UG/L	99
42)	STYRENE	31.48	104.0	118611	.71	UG/L	95
43)	META XYLENE	31.81	106.0	208832	1.76	UG/L	95

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	O-&/OR P-XYLENE	32.80	106.0	250751	2.24	UG/L	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >KH152::A9 Quant Output File: ^KH152::A9
Name: MDL0227 SF6986
Misc: 02/27/90 20ML

Id File: IDKH3::D3
Title: ID FOR 624NS HP5985B KT 12\28\89 20ML PURGE
Last Calibration: 900227 12:31

Operator ID: CHACKO
Quant Time: 900227 19:52
Injected at: 900227 19:11

Sequence File: S_0228::A9

Tune File: MTBFB3

CR List: A9,A8,S1,A5,A3
CR Cut-off: 650 blocks.

Number of samples: 17

Samp No.	Data File / Method File	Sample Name / Misc Data		Bottle	Sample Size	Quant	Report	Data	Archive	ID	Archive	Output	Archive	Quant ID / Quant Output
001)	>KH153	09FT01R98	SF6986	00	3	Y	S	N	N	N				IDKH3::D3
	VOA#3	02/28/90 20ML						Dil=1.00000						^KH153::S1
	REPRT OPTIONS: Qion replaces Scan#													
002)	>KH154	09FT09S20MS	SF6986	00	3	Y	S	N	N	N				IDKH3::D3
	VOA#3	02/28/90 20ML						Dil=1.00000						^KH154::S1
	REPRT OPTIONS: Qion replaces Scan#													
003)	>KH155	09FT09S20MSD	SF6986	00	3	Y	S	N	N	N				IDKH3::D3
	VOA#3	02/28/90 20ML						Dil=1.00000						^KH155::S1
	REPRT OPTIONS: Qion replaces Scan#													
004)	>KH156	09FW08S59	SF6985	00	3	Y	S	N	N	N				IDKH3::D3
	VOA#3	02/28/90 20ML						Dil=1.00000						^KH156::S1
	REPRT OPTIONS: Qion replaces Scan#													
005)	>KH157	09FW08D60	SF6985	00	3	Y	S	N	N	N				IDKH3::D3
	VOA#3	02/28/90 20ML						Dil=1.00000						^KH157::S1
	REPRT OPTIONS: Qion replaces Scan#													
006)	>KH158	524.2 D1 5UL		00	3	Y	S	N	N	N				IDKH3::D3
	VOA#3	02/28/90 20ML						Dil=1.00000						^KH158::S1
	REPRT OPTIONS: Qion replaces Scan#													
007)	>KH159	524.2 D2 10UL		00	3	Y	S	N	N	N				IDKH3::D3
	VOA#3	02/28/90 20ML						Dil=1.00000						^KH159::S1
	REPRT OPTIONS: Qion replaces Scan#													
008)	>KH160	524.2 D3 20UL		00	3	Y	S	N	N	N				IDKH3::D3
	VOA#3	02/28/90 20ML						Dil=1.00000						^KH160::S1
	REPRT OPTIONS: Qion replaces Scan#													
009)	>KH161	524.2 D4 25UL		00	3	Y	S	N	N	N				IDKH3::D3
	VOA#3	02/28/90 20ML						Dil=1.00000						^KH161::S1
	REPRT OPTIONS: Qion replaces Scan#													
010)	>KH162	524.2 D5 50UL		00	3	Y	S	N	N	N				IDKH3::D3
	VOA#3	02/28/90 20ML						Dil=1.00000						^KH162::S1
	REPRT OPTIONS: Qion replaces Scan#													
011)	>KH163	CRL D MIX 4UL		00	3	Y	S	N	N	N				IDKH3::D3
	VOA#3	02/28/90 20ML						Dil=1.00000						^KH163::S1
	REPRT OPTIONS: Qion replaces Scan#													
012)	>KH164	CRL D MIX 4UL	DUP	00	3	Y	S	N	N	N				IDKH3::D3
	VOA#3	02/28/90 20ML						Dil=1.00000						^KH164::S1
	REPRT OPTIONS: Qion replaces Scan#													
013)	>KH165	CRL D MIX 2/10/90		00	3	Y	S	N	N	N				IDKH3::D3
	VOA#3	02/28/90 20ML						Dil=1.00000						^KH165::S1
	REPRT OPTIONS: Qion replaces Scan#													
014)	>KH166	SUPELCO D MIX 2UL		00	3	Y	S	N	N	N				IDKH3::D3
	VOA#3	02/28/90 20ML						Dil=1.00000						^KH166::S1
	REPRT OPTIONS: Qion replaces Scan#													
015)	>KH167	SUPELCO D MIX 2UL		00	3	Y	S	N	N	N				IDKH3::D3
	VOA#3	02/28/90 20ML DUP						Dil=1.00000						^KH167::S1
	REPRT OPTIONS: Qion replaces Scan#													
016)	>KH168	SUPELCO D MIX 30UL		00	3	Y	S	N	N	N				IDKH3::D3
	VOA#3	02/28/90 20ML						Dil=1.00000						^KH168::S1
	REPRT OPTIONS: Qion replaces Scan#													
017)	>KH169	SUPELCO D MIX 30UL		00	3	Y	S	N	N	N				IDKH3::D3

VOA#3 02/28/90 20ML DOP [illegible] 1.00000 KH169::SI
REPRT OPTIONS: Qion replaces Scan#

End of sequence file.

Sequence File: S_0227::S1

Tune File: MTBFB3

CR List: A9,A8,S1,A5
CR Cut-off: 700 blocks.

Number of samples: 8

```
                                                  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) >KH145        90FT09S18      SF6986     00 3 Y S N N N    IDKH3::D3
     VOA#3         02/27/90 20ML                Dil=1.00000    ^KH145::A8
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
002) >KH146        90FT09S19      SF6986     00 3 Y S N N N    IDKH3::D3
     VOA#3         02/27/90 20ML                Dil=1.00000    ^KH146::A9
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
003) >KH147        90FT09S20      SF6986     00 3 Y S N N N    IDKH3::D3
     VOA#3         02/27/90 20ML                Dil=1.00000    ^KH147::A9
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
004) >KH148        90FT09S21      SF6986     00 3 Y S N N N    IDKH3::D3
     VOA#3         02/27/90 20ML                Dil=1.00000    ^KH148::A9
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
005) >KH149        90FT09D18      SF6986     00 3 Y S N N N    IDKH3::D3
     VOA#3         02/27/90 20ML                Dil=1.00000    ^KH149:A9:QT
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
006) >KH150        90FT09S20MS    SF6986     00 3 Y S N N N    IDKH3::D3
     VOA#3         02/27/90 20ML                Dil=1.00000    ^KH150::A9
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
007) >KH151        90FT09S20MSD   SF6986     00 3 Y S N N N    IDKH3::D3
     VOA#3         02/27/90 20ML                Dil=1.00000    ^KH151::A9
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
008) >KH152        MDL0227        SF6986     00 3 Y S N N N    IDKH3::D3
     VOA#3         02/27/90 20ML                Dil=1.00000    ^KH152::A9
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
```

End of sequence file.

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: MAR 19 1990

SUBJECT: Review of Region 5 data for Murrell Landfill

FROM: Curtis Ross, Director
Region 5 Central Regional Laboratory

To: Data User:

Attached are the results for:

CRL Data Set Numbers: SF6986
Sample Numbers: 90FT09518-521, 018, and 90FT01R18 (6)
Parameter(s): VOA WATERS
Laboratory: US EPA CRL/WESTON PSAT

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
MAR 19 1990
U.S. EPA CENTRAL REGIONAL LAB

RECEIVED BY/DATE: 3/20/90

Comments:

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: MAR 14 1990

SUBJECT: Review of Region 5 data for Murrell Landfill

FROM: Curtis Ross, Director
BABU PARVCHURI
Region 5 Central Regional Laboratory

To: Data User:

Attached are the results for:

CRL Data Set Numbers: 5F6986
Sample Numbers: 90FT0518, 519, 520, 521, D18 and 90FT01R92
Parameter(s): ORGANICS - ABNs
Laboratory: 5SCRL - ESD - USEPA

Results Status:

(✓) DATA ACCEPTABLE FOR USE* Babu
( ) 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
MAR 14 1990

RECEIVED BY/DATE: 3/16/90

U.S. EPA CENTRAL
REGIONAL LAB

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: MAR 14 1990

SUBJECT: Review of Region 5 data for Murrell Landfill

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 6986
Sample Numbers: 90FT09 S18 - 21; D18 & R98
Parameter(s): PCB/Pest
Laboratory: CRL

(✓) 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,~~ Dave Payne the Quality Control Coordinator, ~~at 353-3805.~~ 886-1970

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
MAR 14 1990
U.S. EPA CENTRAL REGIONAL LAB

RECEIVED BY/DATE: 3/16/90
Comments:

U.S. Environmental Protection Agency Region V

Superfund Document Management System (SDMS)

Lab Data Reference Sheet

Please contact the Superfund Records Manager for further information.

I. Unscannable item due to format

___ Graph

_X_ Mail receipts

___ Sample tags

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

___ Resolution / Contrast

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

Cooler ID # E&E 251

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
FIL0492	F05-8612-070 / CASE# 13623 / ~~SAS#~~ BM

SAMPLERS: (Signature) [signature]

Superfund 6984

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1 liter extractable	40 ml VOA					TAG #S	REMARKS: Low Conc. Matrix
T09S18	2/21/90	0920		X	RW1	6	3	3					5-083850-55	water
T09D18	2/21/90	0920		X	DUP	6	3	3					5-083858-63	↓
T09S19	2/21/90	1505		X	RW2	6	3	3					5-083866-71	↓
T09S21	2/21/90	0930		X	RW4	6	3	3					5-072769-74	↓

Shipment (is) is not complete

lot #s –
All VOA's – B9269033
RW1, DUP, & RW2 1 liters: H9205303
RW4 1 liter: H9241083

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	2/21/90 1800	William [signature]			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) William [signature]	Date / Time 2/22/90 2:17 PM	Remarks: Shipped FED Ex to CRL Airbill # – 1060849414 C.O.C. #'s – 167791, 167792	

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

05-03785

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

Cooler ID # E&E V 92

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: FIL0492
PROJECT NAME: F05-8612-070 / CASE # 13623
SAMPLERS: (Signature) [signature]

Superfund 6986

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1 liter extractables	40 ml VOA					REMARKS TAG #S	Low Conc Matrix
T09520	2/21/90	0910		X	RW3 + MSD	16	8	8					5-072751-56 & 5072759-68	Water
T01298	2/21/90	1030		X	BLANK	6	3	3					5-072777-82	"
													lot #'s	
					shipment (us) is not complete								All VOA's - B9269033	
													RW3/MSD 1 liters - H9241083	
													BLANK 1 liters - H9205303	
					CRL tracking forms in cooler # E&E251									

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	2/21/90 1800	William Sayo 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 Sayo Jr.	Date / Time 2/22/90 2:17pm	Remarks Shipped FED Ex to CRL Airbill # - 1060849414 C.O.C. #'s - 167793, 167794	

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

05-03786

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

TFA302

DIVISION/BRANCH FIT SUPERFUND SAMPLE DATE 2/21/90 LAB ARRIVAL DATE 2/22/90 DUE DATE 3/12/90

DU NUMBER TFA-[redacted] DATA SET NUMBER 6986 STUDY Murbell Landfill 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
90FT09518	RW1 5-083851-2		X	X		
19	RW2 5-083867-8		X	X		
20	MSD RW3 5-072752-53 5-072761-63		X	X		
21	RW4 5-072770-1		X	X		
D18	DUP 5-083859-60		X	X		
90FT01R98	BLANK 5-072778-9		X	X		
		shipment (15) is not complete				

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

TFA302

DIVISION/BRANCH FIT SUPERFUND SAMPLE DATE 2/21/90 LAB ARRIVAL DATE 2/22/90 DUE DATE 3/12/90

DU NUMBER TFA-102 DATA SET NUMBER 6986 STUDY MURRELL LANDFILL 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
90FT09S18	RW1 5-083853-5	X			
19	RW2 5-083869-71	X			
20	MSD/RW3 5-072759-6 5-072764-8	X			
21	RW4 5-072772-4	X			
D18	DUP 5-083861-63	X			
90FT01R98	BLANK 5-072780 5-072781-2	X			
		Shipment (13) is not complete			
90FT09S18	RW1 5-083850		X		
D18	DUPLICATE 5-083858		X		
S19	RW2 5-083866		X		
S20	RW3/MSD 5-072751 5-072759-760		X		
S21	RW4 5-072769		X		
90FT01R98	BLANK 5-072777		X		