START

9513356.0180

0041465

283

Analytical and Supporting Laboratory

Quality Control Data For

DOE – Hanford North Slope Site H–83–L

LEVEL IV Deliverable

VOLUME 1 OF 2

Prepared by: Environmental Science & Engineering, Inc.
August 1994

VOLUME 1 OF 2 TABLE OF CONTENTS

		Page
Section 1	Case Narrative	1
Section 2	Sample Date, Cross Reference & Methodologies Report	2
Section 3	Analytical Data	4
Section 4	Quality Control Summary Reports	10
	Volatiles Organics	11
	Semivolatile Organics	90
	Organochlorine Pesticides & PCBs	207
	Primary Column	245

VOLUME 2 0F 2 TABLE OF CONTENTS

Section 4 (continued)		
	Secondary Column	310
	Metals	412
Section 5	Dilution Factor Report	555
Section 6	Chain-of-Custody Forms (arranged chronologically)	557

CASE NARRATIVE

DOE –Hanford North Slope Site H–83–1

The following samples were analyzed :

CDM ID	ESE LAB ID	HEIS #
A03–1–05	CDMHNSS2*6	B0C3B5

The samples were analyzed using the prescribed EPA methods and EPA holding times were met.

In general, the laboratory quality control (QC) requirements have been met and the sample matrix quality control outliers are due to matrix effects. All QC outliers are addressed by the analyst, the department manager and/or the laboratory coordinator in the batch. This information can be found at the end of the batch checklist page.

Sample Date, Cross Reference &

Methodologies Report

ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

SAMPLE DATE AND CROSS REFERENCE REPORT FOR CDM - HANFORD NORTH SLOPE LABORATORY ANALYSES

CDM SAMPLE ID	LABORATORY SAMPLE ID	DATE COLLECT	DATE RECEIVED	ANALYSIS DESCRIPTION	DATE EXTRACTED	DATE ANALYZED	DAYS, ACTUAL/HOLD TIME DAYS TO EXTRACTION	DAYS TO ANALYSIS	ESE BATCH
A03-1-05	CDMHNSS2*6	06/20/94	06/21/94	SCREEN, ALPHA	NA	06/20/94	NA	0/180	G50410
				PERCENT MOISTURE - ASTM D2216	NA	06/21/94	NA	1/180	G50337
				ARSENIC - EPA 7060	NA	06/22/94	NA	2/180	G50430
				SELENIUM - EPA 7740	NA	06/22/94	NA	2/180	G50435
				MERCURY - EPA 7471 (MOD)	NA	06/22/94	NA	2/28	G50437
				ICAP METALS, EPA 6010	NA	06/22/94	NA	2/180	G50429
				VOAS - CLP SOW OLM01.8	NA	06/23/94	NA	3/14	G50516
				SVOCS - CLP SOW OLM01.8	06/28/94	06/30/94	8/14	2/40	G50788
				OCPS/PCBS - CLP SOW OLM01.8	06/23/94	06/29/94	3/14	6/40	G50744

FOOTNOTES: * = EXCEEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

9513556.0182

Analytical Data

Environmental Science & Engineering DATE 08/13/94 STATUS : PAGE 1
PROJECT NUMBER 1944022G 0202 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS2 PROJECT MANAGER E.H. MANSFIELD
ALL ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		A03-1-05
PARAMETERS	STORET	CDMHNSS2
UNITS	METHOD	6
DATE		06/20/94
TIME		09:30
FIELD I.D.	29	H83LA0301
#	0	
SITE #	96274	94H83L
	0	
CHAIN OF CUSTODY	96793	9
#	0	
SCREEN,GR. ALPHA,	96636	0.9
(ESTIMATE)NCI/KG-WET	R	
SCREEN,GR. BETA,	96637	16.7
(ESTIMATE)NCI/KG-WET	R	
MOISTURE	70320	1.6
%WET WT	I	
ARSENIC	1003	1.15
MG/KG-DRY	7060-G	
SELENIUM	1148	<0.252
MG/KG-DRY	7740-G	
MERCURY	71921	<0.095
MG/KG-DRY	7471M-G	
BARIUM	1008	61.1
MG/KG-DRY	6010-G	
CADMIUM	1028	<0.504
MG/KG-DRY	6010-G	
CHROMIUM	1029	6.13
MG/KG-DRY	6010-G	
	1052	<10.1
MG/KG-DRY	6010-G	
ER	1078	<0.504
MG/KG-DRY	6010-G	
1,1,1-TRICHL'ETHANE	34509	<10.0
UG/KG-DRY	CLP90-G	
1,1,2,2-TETRACHLORO	34519	<10.0
ETHANE UG/KG-DRY	CLP90-G	
1,1,2-TRICHL'ETHANE	34514	<10.0
UG/KG-DRY	CLP90-G	
1,1-DICHLOROETHANE	34499	<10.0
UG/KG-DRY	CLP90-G	
1,1-DICHLOROETHYLENE	34504	<10.0
UG/KG-DRY	CLP90-G	
1,2-DICHLOROETHANE	34534	<10.0
UG/KG-DRY	CLP90-G	
1,2-DICHLOROETHENE(T	96464	<10.0
OTAL) UG/KG-DRY	CLP90-G	
1,2-DICHLOROPROPANE	34544	<10.0
UG/KG-DRY	CLP90-G	
2-HEXANONE	75166	13
UG/KG-DRY	CLP90-G	
ACETONE	75059	95
UG/KG-DRY	CLP90-G	
BENZENE	34237	<10.0
UG/KG-DRY	CLP90-G	
BROMODICHLOROMETHANE	34330	<10.0
UG/KG-DRY	CLP90-G	
BROMOFORM	34290	<10.0
UG/KG-DRY	CLP90-G	
BROMOMETHANE	34416	<10.0
UG/KG-DRY	CLP90-G	
CARBON DISULFIDE	78544	<10.0
UG/KG-DRY	CLP90-G	
CARBON TETRACHLORIDE	34299	<10.0
UG/KG-DRY	CLP90-G	
BENZENE	34304	<10.0
UG/KG-DRY	CLP90-G	
CHLOROETHANE	34314	<10.0
UG/KG-DRY	CLP90-G	

PROJECT NUMBER 1944022G 0202 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS2 PROJECT MANAGER E.H. MANSFIELD
ALL ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		A03-1-05
PARAMETERS	STORET	CDMHNSS2
UNITS	METHOD	6
DATE		06/20/94
TIME		09:30
CHLOROFORM	34318	<10.0
UG/KG-DRY	CLP90-G	
CHLOROMETHANE	34421	<10.0
UG/KG-DRY	CLP90-G	
CIS-1,3-DICHLOROPROP	34702	<10.0
ENE UG/KG-DRY	CLP90-G	
DIBROMOCHLOROMETHANE	34309	<10.0
UG/KG-DRY	CLP90-G	
ETHYLBENZENE	34374	<10.0
UG/KG-DRY	CLP90-G	
METHYLENE CHLORIDE	34426	<10.0
UG/KG-DRY	CLP90-G	
2-BUTANONE (MEK)	75078	35
UG/KG-DRY	CLP90-G	
4-METHYL-2-PENTANONE	75169	<10.0
(MIBK) UG/KG-DRY	CLP90-G	
STYRENE	75192	<10.0
UG/KG-DRY	CLP90-G	
TETRACHLOROETHENE	34478	<10.0
UG/KG-DRY	CLP90-G	
TOLUENE	34483	<10.0
UG/KG-DRY	CLP90-G	
TRANS-1,3-DICHLOROPR	34697	<10.0
OPENE UG/KG-DRY	CLP90-G	
TRICHLOROETHENE	34487	<10.0
UG/KG-DRY	CLP90-G	
VINYL CHLORIDE	34495	<10.0
UG/KG-DRY	CLP90-G	
XYLENES, TOTAL	97353	<10.0
UG/KG-DRY	CLP90-G	
1,2,4-TRICH'BENZENE	34554	<41000
UG/KG-DRY	CLP90/SON-G	
1,2-DICHLOROBENZENE	34539	<41000
UG/KG-DRY	CLP90/SON-G	
1,3-DICHLOROBENZENE	34569	<41000
UG/KG-DRY	CLP90/SON-G	
1,4-DICHLOROBENZENE	34574	<41000
UG/KG-DRY	CLP90/SON-G	
2,2'-OXYBIS(1-CHLORO	34286	<41000
PROPANE) UG/KG-DRY	CLP90/SON-G	
2,4,5-TRICH'PHENOL	98587	<100000
UG/KG-DRY	CLP90/SON-G	
2,4,6-TRICH'PHENOL	34624	<41000
UG/KG-DRY	CLP90/SON-G	
2,4-DICHLOROPHENOL	34604	<41000
UG/KG-DRY	CLP90/SON-G	
2,4-DIMETHYLPHENOL	34609	<41000
UG/KG-DRY	CLP90/SON-G	
2,4-DINITROPHENOL	34619	<100000
UG/KG-DRY	CLP90/SON-G	
2,4-DINITROTOLUENE	34614	<41000
UG/KG-DRY	CLP90/SON-G	
2,6-DINITROTOLUENE	34629	<41000
UG/KG-DRY	CLP90/SON-G	
2-CHLORONAPHTHALENE	34584	<41000
UG/KG-DRY	CLP90/SON-G	
2-CHLOROPHENOL	34589	<41000
UG/KG-DRY	CLP90/SON-G	
2-METHYL-4,6-DINITRO	34660	<100000
PHENOL UG/KG-DRY	CLP90/SON-G	
2-METHYLNAPHTHALENE	78868	<41000
UG/KG-DRY	CLP90/SON-G	
2-METHYLPHENOL	78872	<41000
UG/KG-DRY	CLP90/SON-G	

Environmental Science & Engineering DATE 08/13/94 STATUS : PAGE 3
PROJECT NUMBER 1944022G 0202 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS2 PROJECT MANAGER E.H. MANSFIELD
ALL ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		A03-1-05
PARAMETERS	STORET	CDMHNSS2
UNITS	METHOD	6
DATE		06/20/94
TIME		09:30
2-NITROANILINE	98588	<100000
UG/KG-DRY	CLP90/SON-G	
2-NITROPHENOL	34594	<41000
UG/KG-DRY	CLP90/SON-G	
3,3-DICHL'BENZIDINE	34634	<41000
UG/KG-DRY	CLP90/SON-G	
3-NITROANILINE	78869	<100000
UG/KG-DRY	CLP90/SON-G	
4-BROMOPHENYL PHENYL	34639	<41000
ETHER UG/KG-DRY	CLP90/SON-G	
4-CHLORO-3-METHYLPHE	34455	<41000
NOL UG/KG-DRY	CLP90/SON-G	
4-CHLOROANILINE	78867	<41000
UG/KG-DRY	CLP90/SON-G	
4-CHLOROPHENYLPHENYL	34644	<41000
ETHER UG/KG-DRY	CLP90/SON-G	
4-METHYLPHENOL	78803	<41000
UG/KG-DRY	CLP90/SON-G	
4-NITROANILINE	78870	<100000
UG/KG-DRY	CLP90/SON-G	
4-NITROPHENOL	34649	<100000
UG/KG-DRY	CLP90/SON-G	
ACENAPHTHENE	34208	<41000
UG/KG-DRY	CLP90/SON-G	
APHTHYLENE	34203	<41000
UG/KG-DRY	CLP90/SON-G	
ANTHRACENE	34223	<41000
UG/KG-DRY	CLP90/SON-G	
BENZO(A)ANTHRACENE	34529	<41000
UG/KG-DRY	CLP90/SON-G	
BENZO(A)PYRENE	34250	<41000
UG/KG-DRY	CLP90/SON-G	
BENZO(B)FLUORANTHENE	34233	<41000
UG/KG-DRY	CLP90/SON-G	
BENZO(GHI)PERYLENE	34524	<41000
UG/KG-DRY	CLP90/SON-G	
BENZO(K)FLUORANTHENE	34245	<41000
UG/KG-DRY	CLP90/SON-G	
BIS(2-CHLOROETHOXY)M	34281	<41000
ETHANE UG/KG-DRY	CLP90/SON-G	
BIS(2-CHLOROETHYL)ET	34276	<41000
HER UG/KG-DRY	CLP90/SON-G	
BIS(2-ETHYLHEXYL)PHT	39102	<41000
HALATE UG/KG-DRY	CLP90/SON-G	
BUTYLBENZYLPHTHALATE	34295	<41000
UG/KG-DRY	CLP90/SON-G	
CARBAZOLE	96242	<41000
UG/KG-DRY	CLP90/SON-G	
CHRYSENE	34323	<41000
UG/KG-DRY	CLP90/SON-G	
DI-N-BUTYL PHTHALATE	39112	<41000
UG/KG-DRY	CLP90/SON-G	
DI-N-OCTYL PHTHALATE	34599	<41000
UG/KG-DRY	CLP90/SON-G	
DIBEN(A,H)ANTHRACENE	34559	<41000
UG/KG-DRY	CLP90/SON-G	
DIBENZOFURAN	75647	<41000
UG/KG-DRY	CLP90/SON-G	
DIETHYL PHTHALATE	34339	<41000
UG/KG-DRY	CLP90/SON-G	
HYL PHTHALATE	34344	<41000
UG/KG-DRY	CLP90/SON-G	
ORANTHENE	34379	<41000
UG/KG-DRY	CLP90/SON-G	

PROJECT NUMBER 1944022G 0202 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS2 PROJECT MANAGER E.H. MANSFIELD
ALL ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		A03-1-05
PARAMETERS	STORET	CDMHNSS2
UNITS	METHOD	6
DATE		06/20/94
TIME		09:30
FLUORENE	34384	<41000
UG/KG-DRY	CLP90/SON-G	
HEXACHLOROBENZENE	39701	<41000
UG/KG-DRY	CLP90/SON-G	
HEXACHLOROBUTADIENE	39705	<41000
UG/KG-DRY	CLP90/SON-G	
HEXACHLOROCYCLOPENTA	34389	<41000
DIENE UG/KG-DRY	CLP90/SON-G	
HEXACHLOROETHANE	34399	<41000
UG/KG-DRY	CLP90/SON-G	
INDENO(1,2,3-CD)PYRE	34406	<41000
NE UG/KG-DRY	CLP90/SON-G	
ISOPHORONE	34411	<41000
UG/KG-DRY	CLP90/SON-G	
N-NITROSODI-N-PROPYL	34431	<41000
AMINE UG/KG-DRY	CLP90/SON-G	
N-NITROSODIPHE'AMINE	34436	<41000
UG/KG-DRY	CLP90/SON-G	
NAPHTHALENE	34445	<41000
UG/KG-DRY	CLP90/SON-G	
NITROBENZENE	34450	<41000
UG/KG-DRY	CLP90/SON-G	
PENTACHLPHENOL	39061	<100000
UG/KG-DRY	CLP90/SON-G	
PHENANTHRENE	34464	<41000
UG/KG-DRY	CLP90/SON-G	
PHENOL	34695	<41000
UG/KG-DRY	CLP90/SON-G	
PYRENE	34472	<41000
UG/KG-DRY	CLP90/SON-G	
Aldrin	39333	<1.69
UG/KG-DRY	CLP90	
alpha-BHC	39076	<1.69
UG/KG-DRY	CLP90	
beta-BHC	34257	<1.69
UG/KG-DRY	CLP90	
delta-BHC	34262	<1.69
UG/KG-DRY	CLP90	
gamma-BHC (Lindane)	39783	<1.69
UG/KG-DRY	CLP90	
gamma-Chlordane	39811	<1.69
UG/KG-DRY	CLP90	
alpha-Chlordane	97501	<1.69
UG/KG-DRY	CLP90	
4,4'-DDD	39311	<3.39
UG/KG-DRY	CLP90	
4,4'-DDE	39321	<3.39
UG/KG-DRY	CLP90	
4,4'-DDT	39301	<3.39
UG/KG-DRY	CLP90	
Dieldrin	39383	<3.39
UG/KG-DRY	CLP90	
Endosulfan I	34364	<1.69
UG/KG-DRY	CLP90	
Endosulfan II	34359	<3.39
UG/KG-DRY	CLP90	
Endosulfan sulfate	34354	<3.39
UG/KG-DRY	CLP90	
Endrin	39393	<3.39
UG/KG-DRY	CLP90	
Endrin ketone	98591	<3.39
UG/KG-DRY	CLP90	
Endrin aldehyde	34369	<3.39
UG/KG-DRY	CLP90	

Environmental Science & Engineering DATE 08/13/94 STATUS : PAGE 5
PROJECT NUMBER 1944022G 0202 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS2 PROJECT MANAGER E.H. MANSFIELD
ALL ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		A03-1-05
PARAMETERS	STORET	CDMHNSS2
UNITS	METHOD	6
DATE		06/20/94
TIME		09:30
Heptachlor	39413	<1.69
UG/KG-DRY	CLP90	
Heptachlor epoxide	39423	<1.69
UG/KG-DRY	CLP90	
Methoxychlor	39481	<16.9
UG/KG-DRY	CLP90	
Toxaphene	39403	<169
UG/KG-DRY	CLP90	
Aroclor-1016	39514	<33.9
UG/KG-DRY	CLP90	
Aroclor-1221	39491	<67.8
UG/KG-DRY	CLP90	
Aroclor-1232	39495	<33.9
UG/KG-DRY	CLP90	
Aroclor-1242	39499	<33.9
UG/KG-DRY	CLP90	
Aroclor-1248	39503	<33.9
UG/KG-DRY	CLP90	
Aroclor-1254	39507	<33.9
UG/KG-DRY	CLP90	
Aroclor-1260	39511	<33.9
UG/KG-DRY	CLP90	

Quality Control Data

9513356.0186

Volatile Organic Compounds

QC Summary

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:ESE Contract:HANF N. SLP

Lab Code:ESE Case No.:50516 SAS No.: SDG No.:50516

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	A03-1-05	106	96	108		0
02	A03-1-05MS	106	92	106		0
03	A03-1-05MSD	108	94	108		0
04	VBLKS1	98	96	104		0
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(84-138)
SMC2 (BFB)	= Bromofluorobenzene	(59-113)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:ESE Contract:HANF N. SLP

Lab Code:ESE Case No.:50516 SAS No.: SDG No.:50516

Matrix Spike - EPA Sample No.: A03-1-05 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	51.	0.	51.	100	59-172
Trichloroethene	51.	0.	49.	96	62-137
Benzene	51.	0.	50.	98	66-142
Toluene	51.	0.	55.	108	59-139
Chlorobenzene	51.	0.	54.	106	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	51.	47.	92	8	22	59-172
Trichloroethene	51.	49.	96	0	24	62-137
Benzene	51.	51.	100	2	21	66-142
Toluene	51.	56.	110	2	21	59-139
Chlorobenzene	51.	56.	110	4	21	60-133

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:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKS1

Lab Name:ESE Contract:HANF N. SLP

Lab Code:ESE Case No.:50516 SAS No.: SDG No.:50516

Lab File ID:99961 Lab Sample ID:MB*NONE*1

Date Analyzed: 6/23/94 Time Analyzed:1123

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID:A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	A03-1-05	CDMHNSS2*6	99962	1426
02	A03-1-05MS	SPM1*CDMHNSS	99963	1455
03	A03-1-05MSD	SPM2*CDMHNSS	99964	1526
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name:ESE Contract:HANF N. SLP

Lab Code:ESE Case No.:50516 SAS No.: SDG No.:50516

Lab File ID:99679 BFB Injection Date: 5/27/94

Instrument ID:A BFB Injection Time:1039

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	22.9
75	30.0 - 66.0% of mass 95	51.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.0(0.0)1
174	50.0 - 120.0% of mass 95	79.7
175	4.0 - 9.0% of mass 174	6.6(8.3)1
176	93.0 - 101.0% of mass 174	79.9(100.2)1
177	5.0 - 9.0% of mass 176	5.2(6.5)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010		99681	5/27/94	1149
02	VSTD020		99682	5/27/94	1223
03	VSTD050		99683	5/27/94	1340
04	VSTD100		99684	5/27/94	1414
05	VSTD200		99686	5/27/94	1522
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

ab Name:ESE Contract:HANF N. SLP

Lab Code:ESE Case No.:50516 SAS No.: SDG No.:50516

Lab File ID:99959 BFB Injection Date: 6/23/94

Instrument ID:A BFB Injection Time:1023

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	23.8
75	30.0 - 66.0% of mass 95	55.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0(0.0)1
174	50.0 - 120.0% of mass 95	72.9
175	4.0 - 9.0% of mass 174	5.5(7.5)1
176	93.0 - 101.0% of mass 174	69.4(95.2)1
177	5.0 - 9.0% of mass 176	4.7(6.8)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050		99960	6/23/94	1055
02	VBLKS1	MB*NONE*1	99961	6/23/94	1123
03	A03-1-05	CDMHNSS2*6	99962	6/23/94	1426
04	A03-1-05MS	SPM1*CDMHNSS	99963	6/23/94	1455
05	A03-1-05MSD	SPM2*CDMHNSS	99964	6/23/94	1526
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:ESE Contract:HANF N. SLP

Lab Code:ESE Case No.:50516 SAS No.: SDG No.:50516

Lab File ID (Standard):99960 Date Analyzed: 6/23/94

Instrument ID:A Time Analyzed:1055

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	153228	9.60	628209	11.16	526622	15.43
	UPPER LIMIT	306456	10.10	1256418	11.66	1053244	15.93
	LOWER LIMIT	76614	9.10	314104	10.66	263311	14.93
	EPA SAMPLE NO.						
01	VBLKS1	152424	9.63	647886	11.17	553330	15.44
02	A03-1-05	117005	9.64	424310	11.18	300771	15.45
03	A03-1-05MS	115987	9.62	436791	11.18	305755	15.47
04	A03-1-05MSD	118070	9.62	442952	11.15	311950	15.45
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside of QC limits with an asterisk.
* Values outside of QC limits.

9513356.0190

Sample Data

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A03-1-05

Lab Name:ESE Contract:HANF N. SLP

Lab Code:ESE Case No.:50516 SAS No.: SDG No.:50516

Matrix: (soil/water) SOIL Lab Sample ID:CDMHNSS2*6

Sample wt/vol: 5.00 (g/ml) G Lab File ID: 99962

Level: (low/med) LOW Date Received: 6/20/94

% Moisture: not dec. 2 Date Analyzed: 6/23/94

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	3.	JB
67-64-1	Acetone	95.	B
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	35.	
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	4.	J
591-78-6	2-Hexanone	12.	
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	Xylene (total)	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

A03-1-05

Lab Name:ESE Contract:HANF N. SLP

Lab Code:ESE Case No.:50516 SAS No.: SDG No.:50516

Matrix: (soil/water) SOIL Lab Sample ID:CDMHNSS2*6

Sample wt/vol: 5.00 (g/ml) G Lab File ID: 99962

Level: (low/med) LOW Date Received: 6/20/94

% Moisture: not dec. 2 Date Analyzed: 6/23/94

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 10

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	75-69-4	Trichlorofluoromethane	4.78	5.	JN
2.	107-87-9	2-Pentanone	11.82	18.	JN
3.	590-36-3	2-Pentanol, 2-methyl-	13.02	18.	JN
4.	123-96-6	2-Octanol	13.71	19.	JN
5.	928-68-7	2-Heptanone, 6-methyl-	17.98	18.	JN
6.	0	UNKNOWN	19.68	4.	J
7.	2408-37-9	Cyclohexanone, 2,2,6-trimeth	19.81	20.	JN
8.	0	UNKNOWN	19.95	4.	J
9.	873-94-9	Cyclohexanone, 3,3,5-trimeth	20.27	20.	JN
10.	0	UNKNOWN	21.35	4.	J
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

QUANT REPORT

Operator ID: USER96
Output File: ^99962::P1
Data File: >99962::D2
Name: CDMHNSS2*6
Misc: 06/23/94

Quant Rev: 6
Quant Time: 940623 14:53
Injected at: 940623 14:26
Dilution Factor: 1.00000

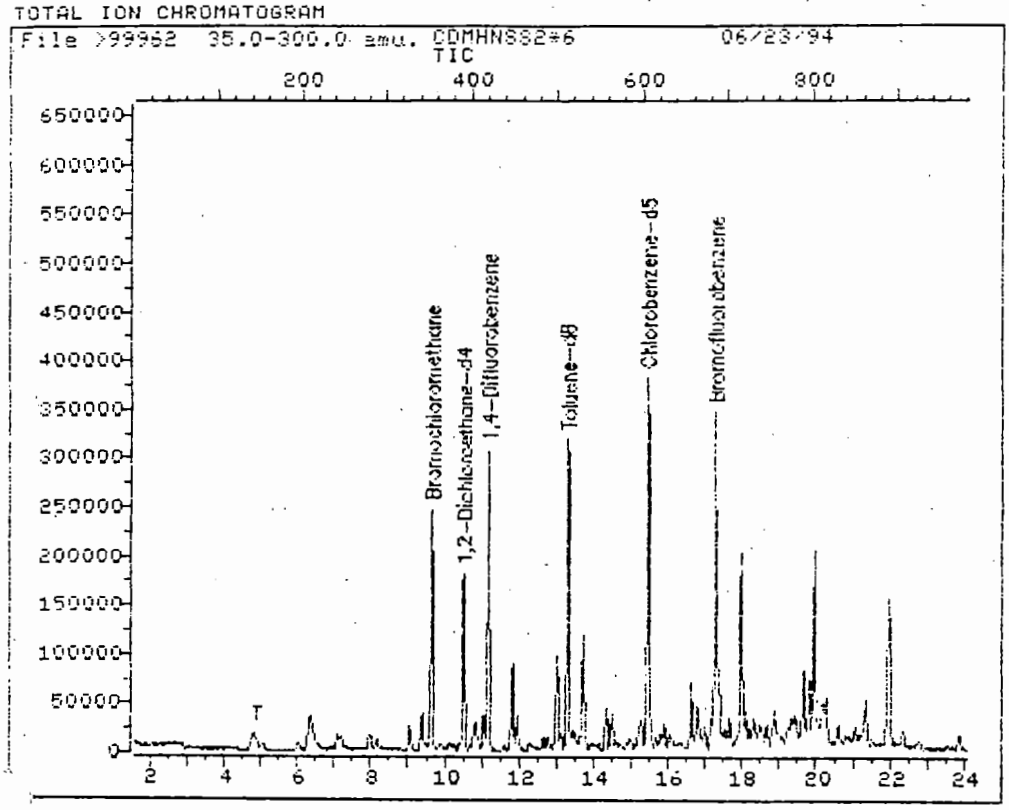
ID File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940623 13:23

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	9.64	128.0	117005	50.00	ug/Kg	97
8)	Methylene Chloride	7.10	84.0	12365	2.98	ug/Kg <DL	94
9)	Acetone	6.36	43.0	280011	93.35	ug/Kg <DL	100
13)	Trichlorofluoromethane	4.78	101.0	78180	26.97	ug/Kg	100
21)	1,2-Dichloroethane-d4	10.51	65.0	302204	53.56	ug/Kg	79
22)	2-Butanone	9.37	72.0	27184	34.33	ug/Kg <DL	92
23)	*1,4-Difluorobenzene	11.18	114.0	424310	50.00	ug/Kg	100
41)	*Chlorobenzene-d5	15.45	117.0	300771	50.00	ug/Kg	100
43)	2-Hexanone	14.35	43.0	61841	12.30	ug/Kg <DL	90
44)	4-Methyl-2-Pentanone	13.13	43.0	20682	3.48	ug/Kg <DL	69
49)	Toluene-d8	13.29	98.0	381856	53.05	ug/Kg	100
53)	Bromofluorobenzene	17.29	95.0	224255	47.88	ug/Kg	100

* Compound is ISTD

ylm 6-24-94

TOTAL ION CHROMATOGRAM

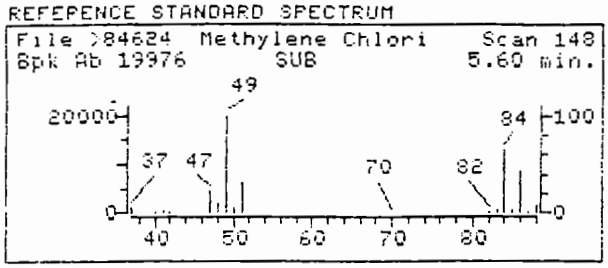


Data File: >99962::D2 Quant Output File: ^99962::P1
Name: CDMHNSS2*6
Misc: 06/23/94

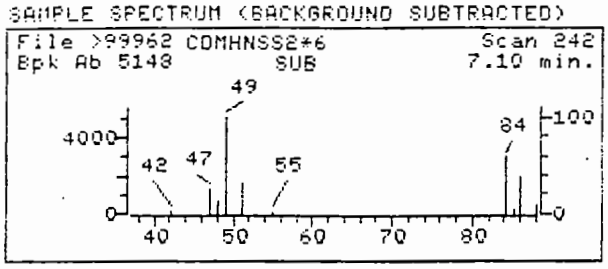
Id File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940623 13:23

Operator ID: USER96
Quant Time: 940623 14:53
Injected at: 940623 14:26

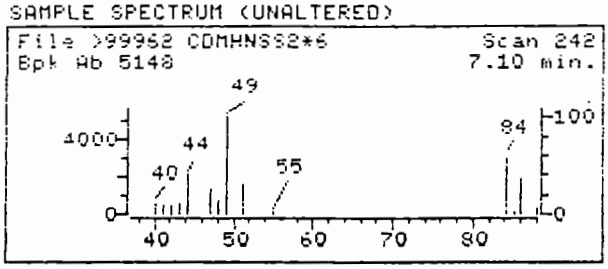
REFERENCE STANDARD SPECTRUM

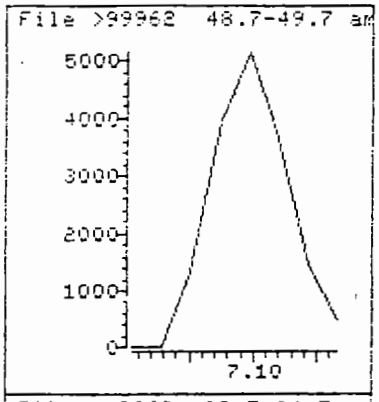


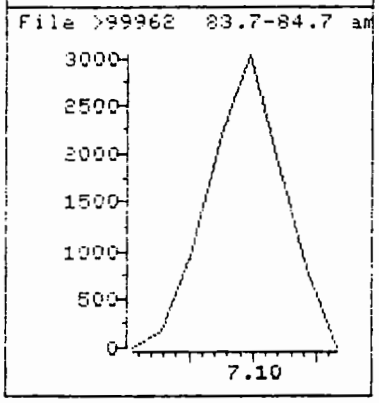
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >99962::D2
Name: CDMHNSS2*6
Misc: 06/23/94
Quant Time: 940623 14:53
Injected at: 940623 14:26

Quant Output File: ^99962::P1

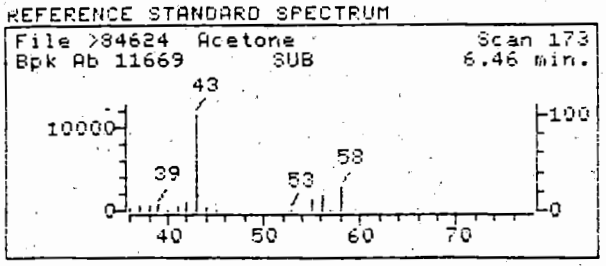
Quant ID File: IDARMS::E2
Last Calibration: 940623 13:23

Compound No: 8
Compound Name: Methylene Chloride
Scan Number: 242
Retention Time: 7.10 min.
Quant Ion: 84.0
Area: 12365
Concentration: 2.98 ug/Kg <D.L.
q-value: 94

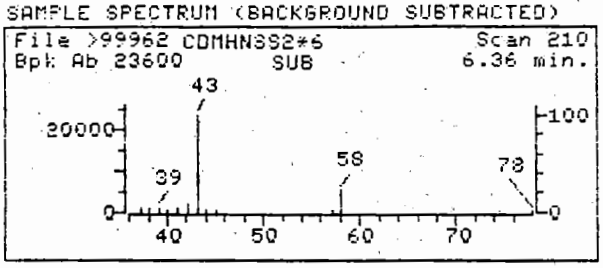
D.L. ≈ 5.00 ug/kg

yrt 6-24-94

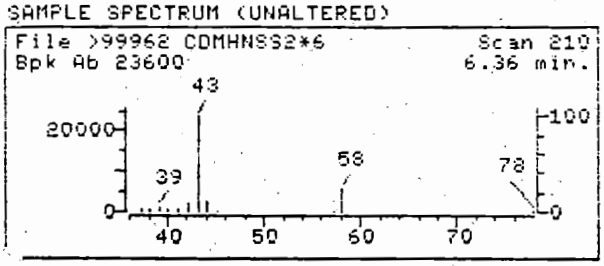
REFERENCE STANDARD SPECTRUM

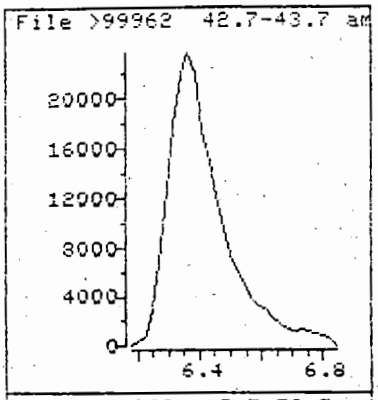


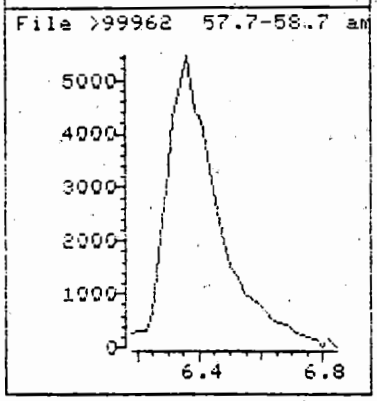
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >99962::D2
Name: CDMHNSS2*6
Misc: 06/23/94
Quant Time: 940623 14:53
Injected at: 940623 14:26

Quant Output File: ^99962::P1

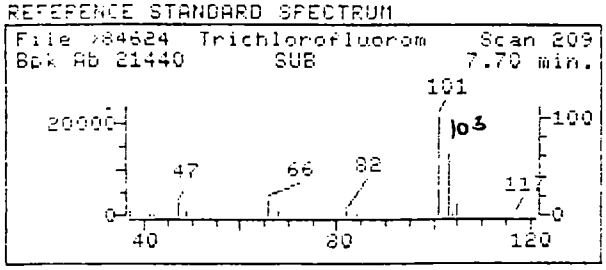
Quant ID File: IDARMS::E2
Last Calibration: 940623 13:23

Compound No: 9
Compound Name: Acetone
Scan Number: 210
Retention Time: 6.36 min.
Quant Ion: 43.0
Area: 280011
Concentration: 93.35 ug/Kg<D.L
q-value: 100

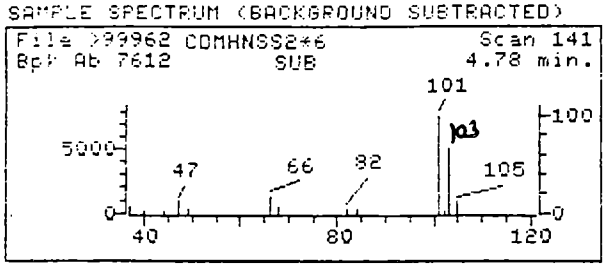
D.L ≈ 100 ug/Kg

ysh 6-24-94

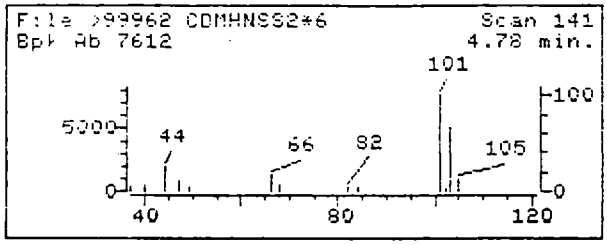
REFERENCE STANDARD SPECTRUM

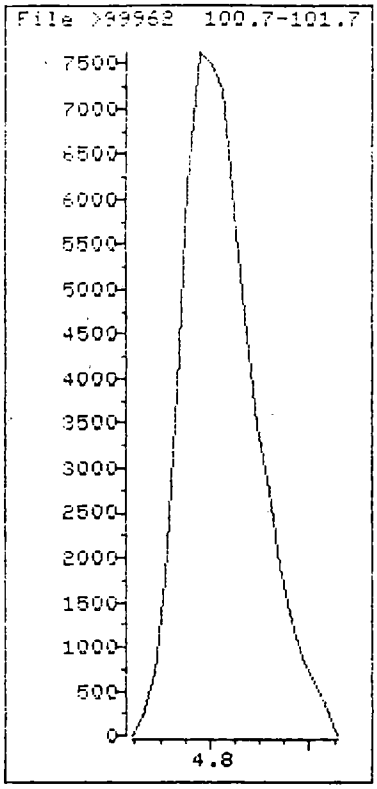


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >99962::D2
Name: CDMHNSS2*6
Misc: 06/23/94
Quant Time: 940623 14:53
Injected at: 940623 14:26

Quant Output File: ^99962::P1

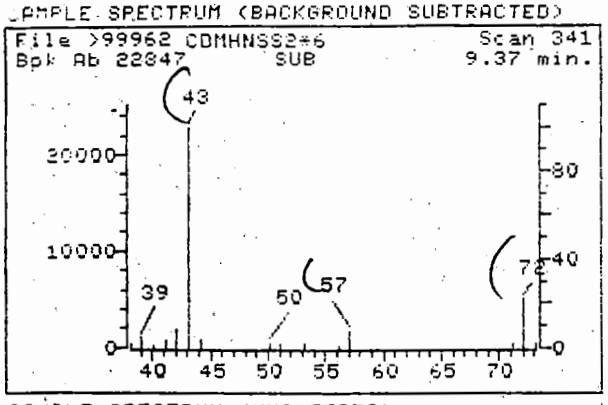
Quant ID File: IDARMS::E2
Last Calibration: 940623 13:23

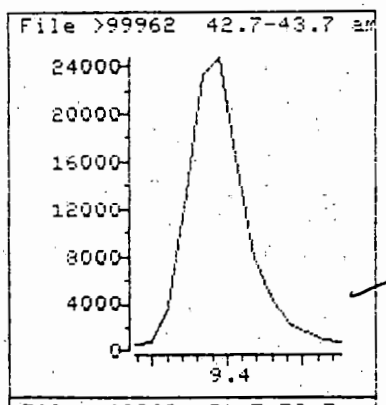
Compound No: 13
Compound Name: Trichlorofluoromethane
Scan Number: 141
Retention Time: 4.78 min.
Quant Ion: 101.0
Area: 78180
Concentration: 26.97 ug/Kg
q-value: 100

ysh 6-24-94

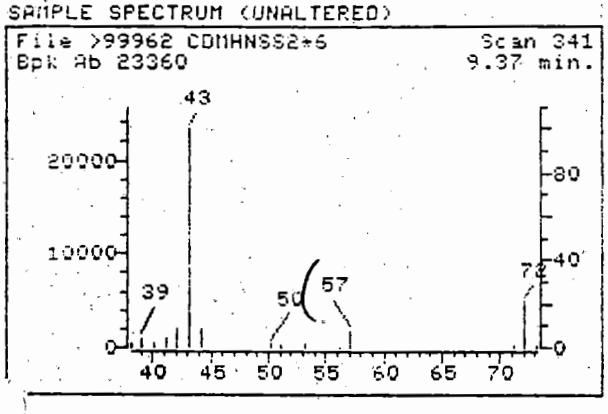
Reported as Unknown as requested

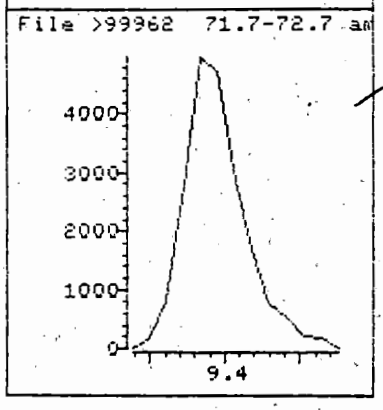
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





Data File: >99962::D2
Name: CDMHNSS2*6
Misc: 06/23/94
Quant Time: 940623 14:53
Injected at: 940623 14:26

Quant Output File: ^99962::P1

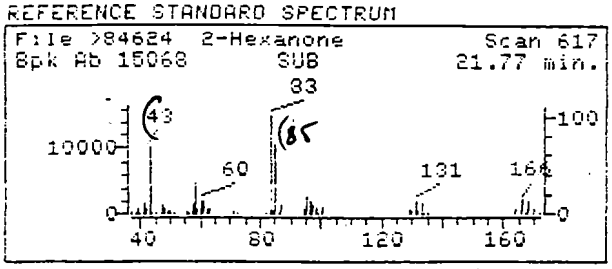
Quant ID File: IDARMS::E2
Last Calibration: 940623 13:23

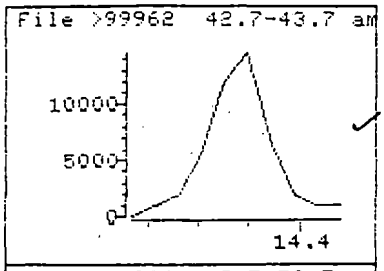
Compound No: 22
Compound Name: 2-Butanone
Scan Number: 341
Retention Time: 9.37 min.
Quant Ion: 72.0
Area: 27184
Concentration: 34.33 ug/Kg <D.L.
q-value: 92

D.L ≈ 100 ug/Kg

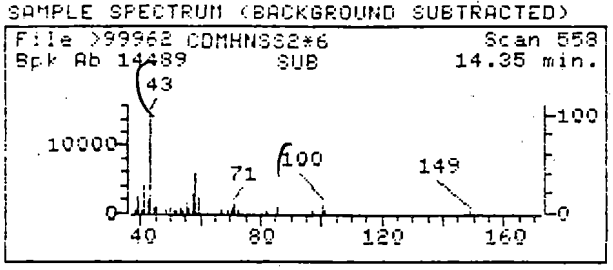
6-24-94

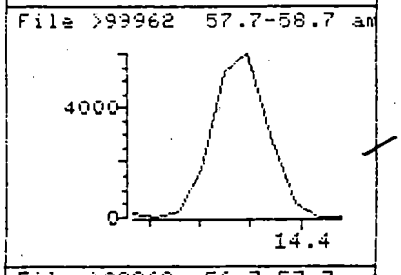
REFERENCE STANDARD SPECTRUM



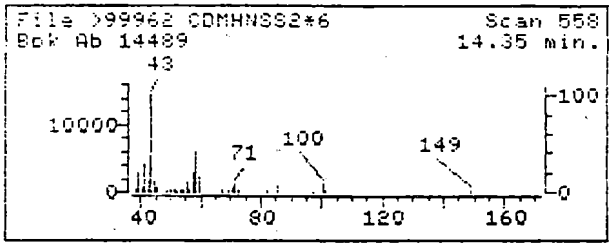


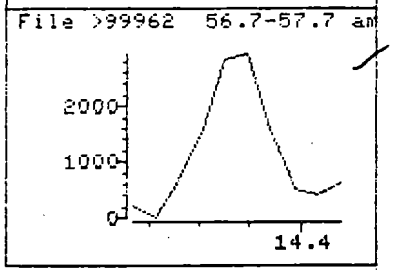
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





Data File: >99962::D2
Name: CDMHNSS2*6
Misc: 06/23/94
Quant Time: 940623 14:53
Injected at: 940623 14:26

Quant Output File: ^99962::P1

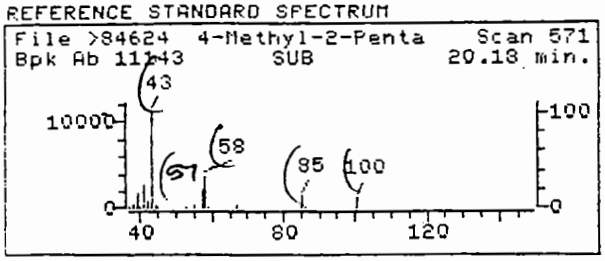
Quant ID File: IDARMS::E2
Last Calibration: 940623 13:23

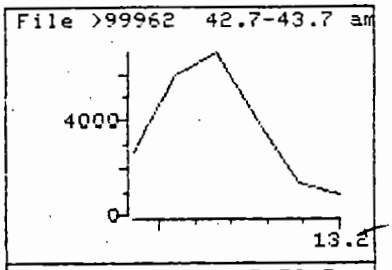
D.L ≈ 50 ug/kg

Compound No: 43
Compound Name: 2-Hexanone
Scan Number: 558
Retention Time: 14.35 min.
Quant Ion: 43.0
Area: 61841
Concentration: 12.30 ug/Kg <D.L.
q-value: 90

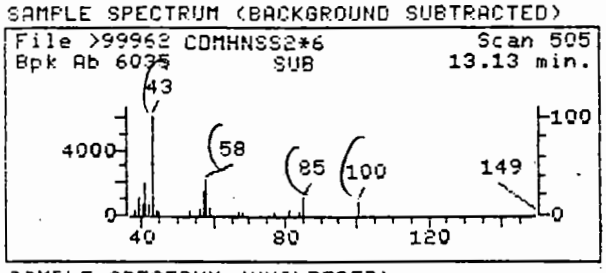
gsh 6-24-94

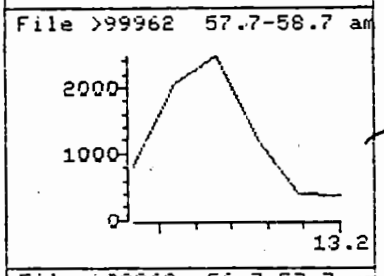
REFERENCE STANDARD SPECTRUM



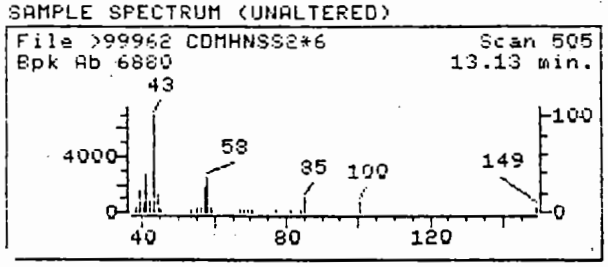


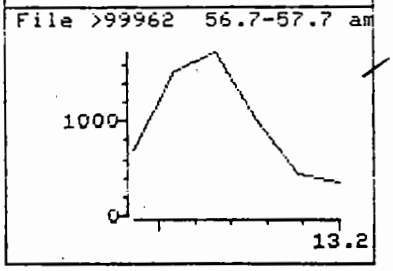
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





Data File: >99962::D2
Name: CDMHNSS2*6
Misc: 06/23/94
Quant Time: 940623 14:53
Injected at: 940623 14:26

Quant Output File: ^99962::P1

Quant ID File: IDARMS::E2
Last Calibration: 940623 13:23

Compound No: 44
Compound Name: 4-Methyl-2-Pentanone
Scan Number: 505
Retention Time: 13.13 min.
Quant Ion: 43.0
Area: 20682
Concentration: 3.48 ug/Kg < DL
q-value: 69

D.L ≈ 50 ug/kg.

yaw 6-24-94

MS data file header from : >99962

Sample: CDMHNSS2*6 Operator: USER96 MS 6/23/94 14:26
Misc : 06/23/94
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: MF96S Tuning file: MT9201 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 200 Transfer line temp. : 230

Chromatographic temperatures : 10. 170. 0. 0. 0.
Chromatographic times, min. : 3.0 5.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 10.0 0.0 0.0 0.0 0.0

>99962 CDMHNSS2*6 06/23/94
35.0| 300.0 CLP ADC TIC
Upslope: .20 Area Reject: 88250. Max Peaks: 10 Bunching: 1
Dnslope: 0.00 Results File I99962 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	11.82	442	448	451	89273	419380	401196	44.21	7.765
2	13.02	495	500	503	94076	441094	403893	44.50	7.817
3	13.71	527	530	537	117985	603888	575130	63.37	11.132
4	17.98	707	716	720	193275	962597	816361	89.95	15.801
5	19.68	784	790	793	75713	524468	397059	43.75	7.685
6	19.81	793	796	799	64598	386350	301749	33.25	5.840
7	19.95	799	802	808	195364	1033989	907526	100.00	17.565
8	20.27	814	816	823	55622	368331	261747	28.84	5.066
9	21.35	854	863	867	48883	456684	331025	36.48	6.407
10	21.97	884	890	895	149742	902796	770904	84.95	14.921

Sum of corrected areas: 5166590.

Summary of Unknowns PBM Library Search and Quantitation

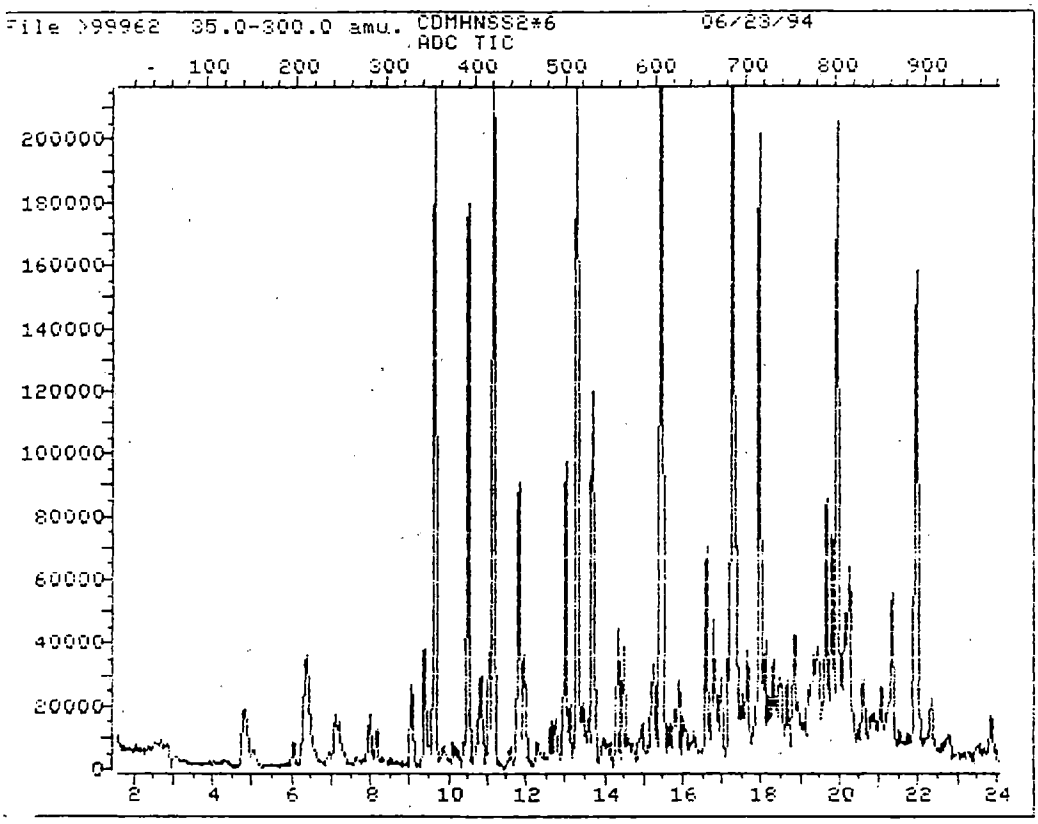
Standard #	Concentration	Area	Retention Time	Unknown Window
1	50.0	882505.	9.64	1.57 - 10.41
2	50.0	1118260.	11.18	10.41 - 13.32
3	50.0	1489536.	15.45	13.32 - 24.06

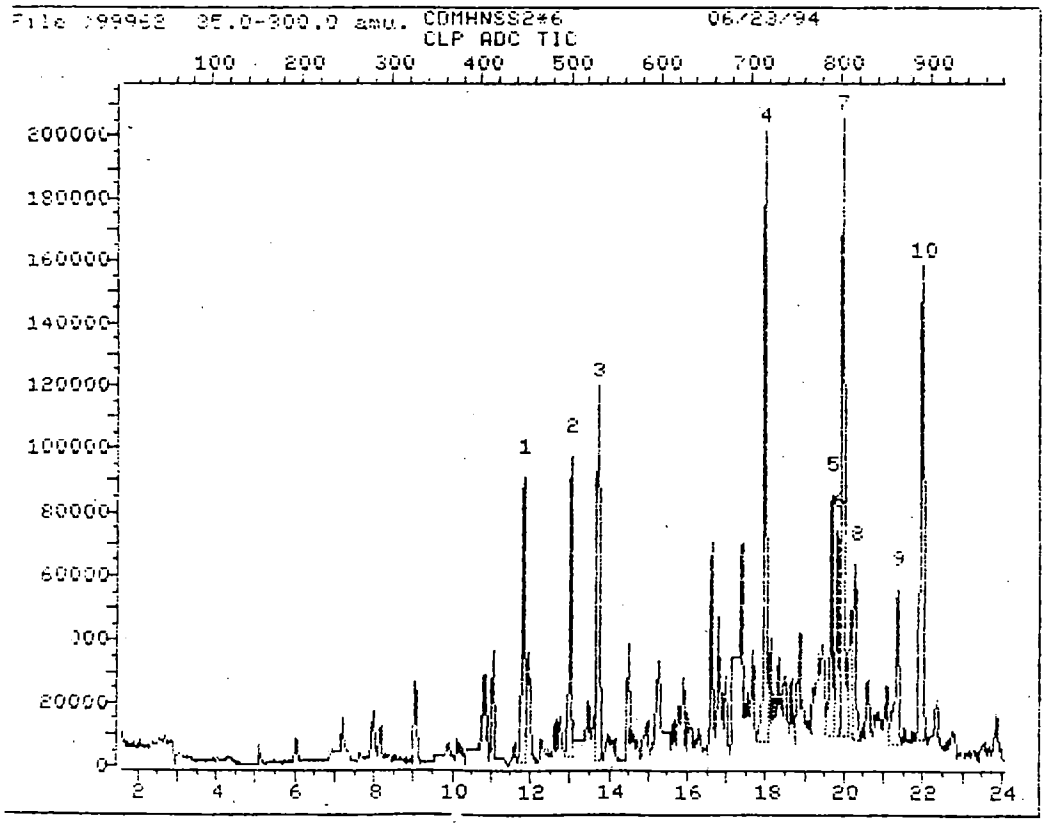
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 0.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

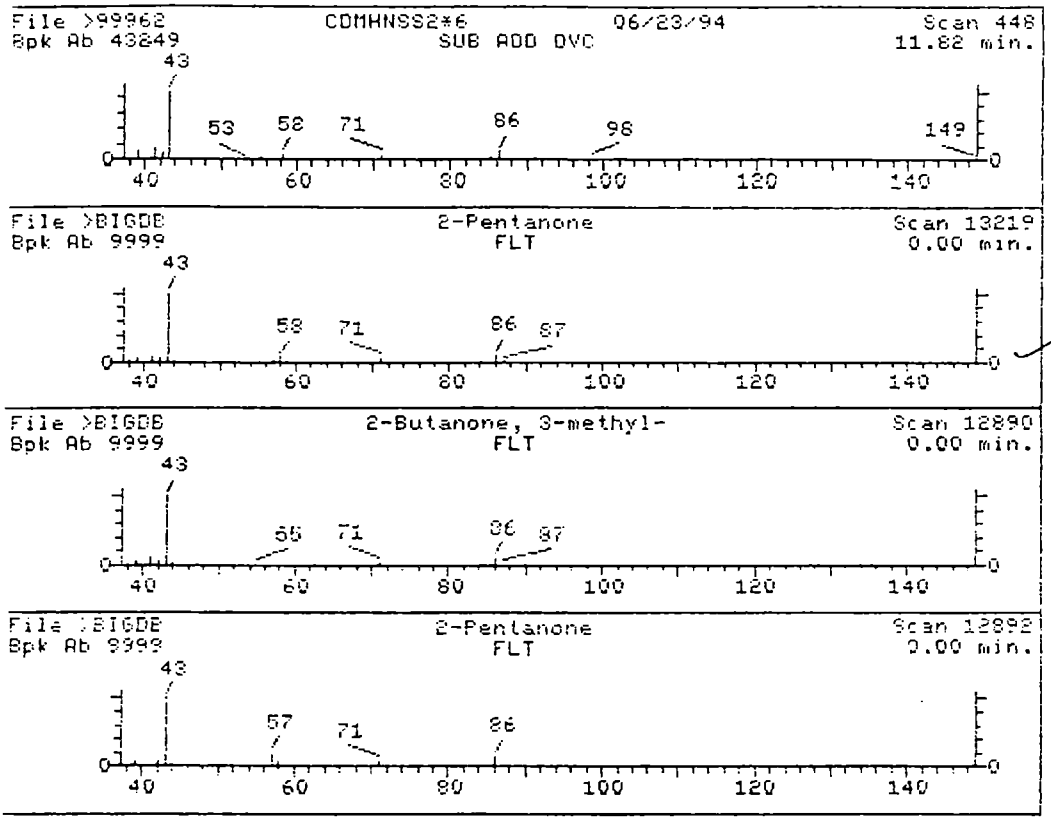
Correction Factor = ******** = (AM / AU) / (DF * FS)

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

3:38 PM FRI., 24 JUNE, 1994


File >99962 35.0-300.0 amu. CDMHNSS2*6 06/23/94
ADC TIC
100 200 300 400 500 600 700 800 900
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
2 4 6 8 10 12 14 16 18 20 22 24


File >99963 35.0-300.0 amu. CDMHNSS2*6 06/23/94
CLP ADC TIC
100 200 300 400 500 600 700 800 900
200000
180000
160000
140000
120000
100000
80000
60000
20000
0
1
2
3
4
5
7
8
9
10
2 4 6 8 10 12 14 16 18 20 22 24



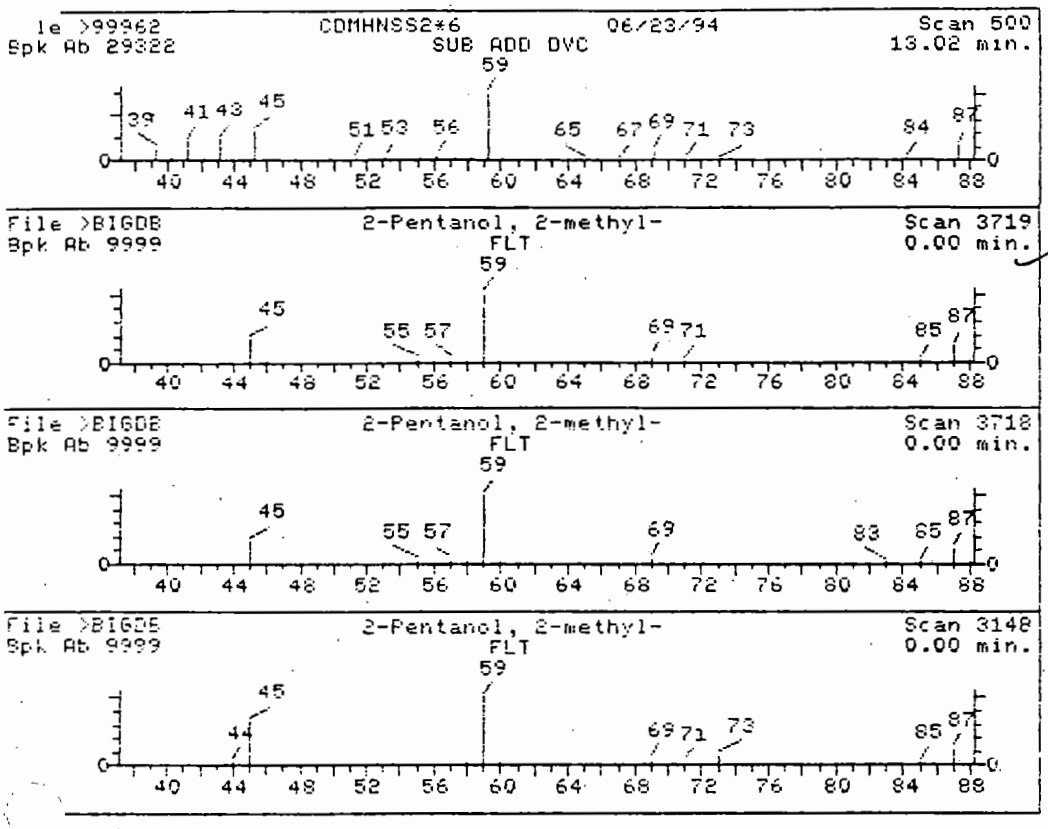
Unknown #,1
Area = 401196.0 Tentative Concentration is 18.00

1.	2-Pentanone	86	C5H10O
2.	2-Butanone, 3-methyl-	86	C5H10O
3.	2-Pentanone	86	C5H10O
4.	2-Pentanone	86	C5H10O
5.	2-Pentanone	86	C5H10O
6.	2-Pentanone	86	C5H10O
7.	2-Pentanone	86	C5H10O

Sample file: >99962 Spectrum #: 448
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	81*	107879	13219	"BIGDB	50	18	1	0	95	10	53	41
2.	76*	563804	12890	"BIGDB	41	26	0	0	95	14	40	53
3.	71*	107879	12892	"BIGDB	48	27	1	0	84	14	38	35
4.	70*	107879	13224	"BIGDB	39	37	2	0	74	10	42	19
5.	60*	107879	13218	"BIGDB	34	40	2	0	100	12	30	17
6.	60*	107879	13225	"BIGDB	26	34	1	0	81	14	30	14
7.	60*	107879	13222	"BIGDB	31	45	2	0	88	12	30	15

yll 06/24/94



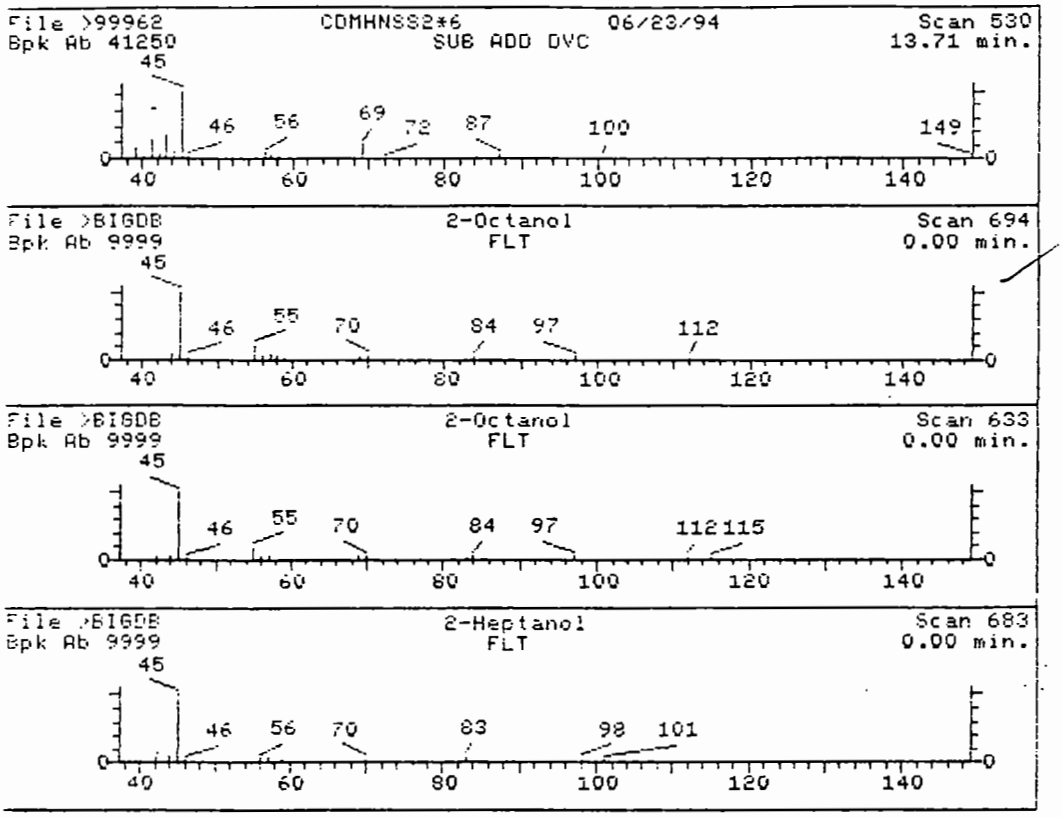
Unknown #,2
Area = 403593.0 Tentative Concentration is 18.00

1.	2-Pentanol, 2-methyl-	102	C6H140
2.	2-Pentanol, 2-methyl-	102	C6H140
3.	2-Pentanol, 2-methyl-	102	C6H140
4.	2-Pentanol, 2-methyl-	102	C6H140
5.	2-Butanol, 2,3-dimethyl-	102	C6H140
6.	2-Pentanol, 2-methyl-	102	C6H140
7.	2-Butanol, 2,3-dimethyl-	102	C6H140

Sample file: >99962 Spectrum #: 500
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	86	590363	3719	"BIGDB	61	23	0	0	84	4	60	38
2.	83	590363	3718	"BIGDB	59	28	1	0	98	4	57	26
3.	83	590363	3148	"BIGDB	54	36	1	0	67	3	57	22
4.	83	590363	3720	"BIGDB	54	38	1	0	68	3	57	22
5.	59	594605	3716	"BIGDB	52	37	0	0	76	25	27	31
6.	52	590363	3721	"BIGDB	31	46	0	0	86	20	20	17
7.	47	594605	3147	"BIGDB	52	35	2	0	91	25	17	18

YAH 6/24/94



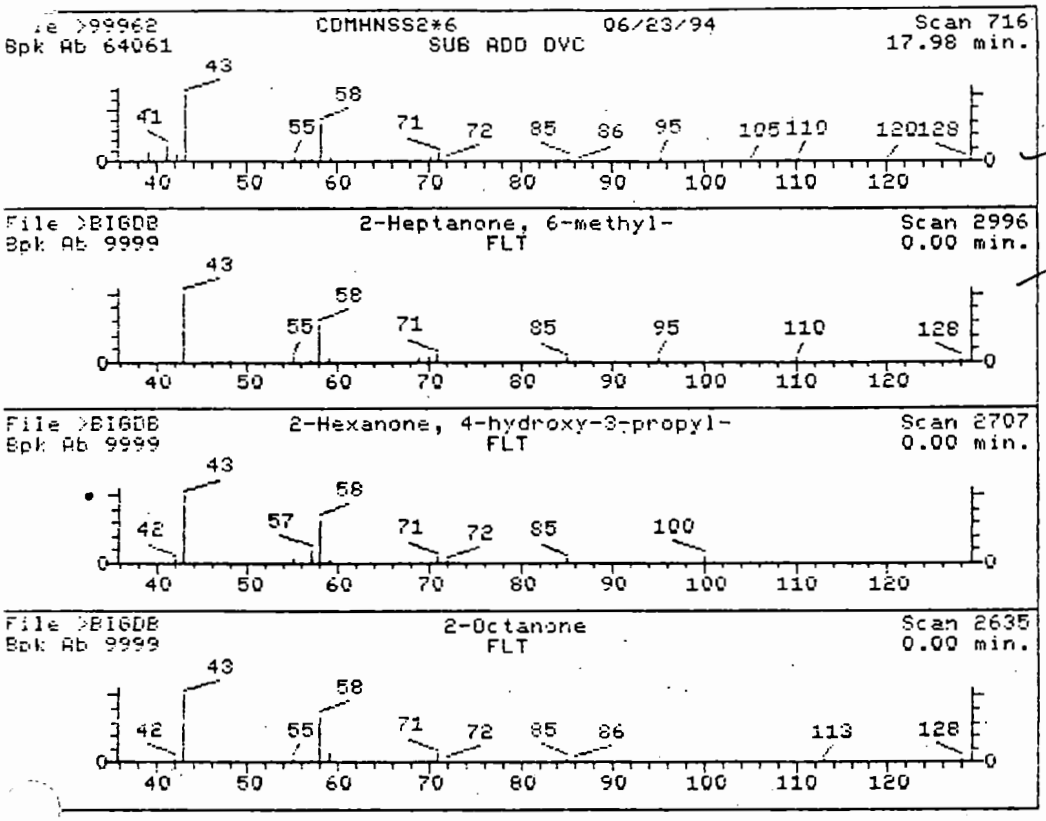
Unknown # 3
Area = 575130.0 Tentative Concentration is 19.00

1. 2-Octanol	130	C8H18O
2. 2-Octanol	130	C8H18O
3. 2-Heptanol	116	C7H16O
4. 2-Octanol	130	C8H18O
5. 2-Octanol	130	C8H18O
6. 2-Pentanol, 3-methyl-	102	C6H14O
7. 2-Hexanol	102	C6H14O

Sample file: >99962 Spectrum #: 530
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IO
1.	70	123966	694	"BIGDB	39	44	2	0	100	10	42	13
2.	60	123966	633	"BIGDB	39	40	2	0	100	12	30	13
3.	60	543497	683	"BIGDB	35	49	2	0	99	14	30	12
4.	60	123966	693	"BIGDB	44	37	2	0	100	12	30	14
5.	60	123966	696	"BIGDB	39	39	2	0	100	12	30	13
6.	60	565606	1829	"BIGDB	39	39	1	0	80	14	30	14
7.	52	626937	13325	"BIGDB	39	42	1	0	71	16	20	14

YSH 6/24/94



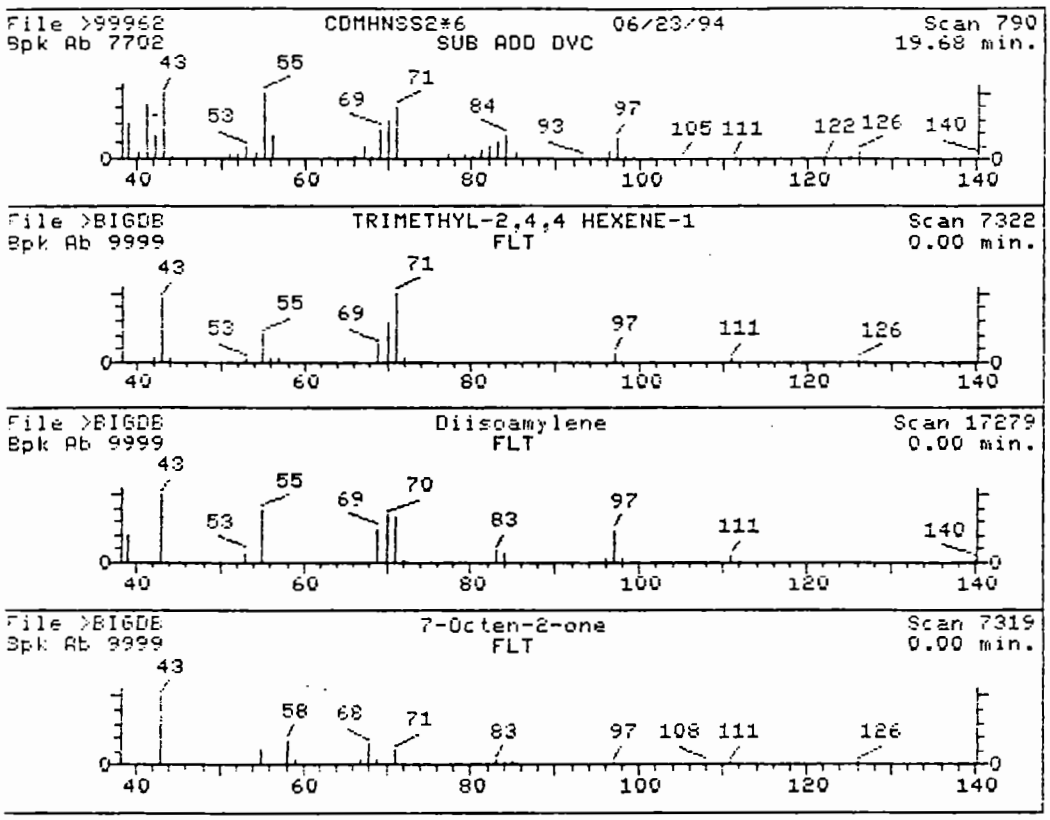
Unknown # 4
Area = 816361.0 Tentative Concentration is 27.00

1.	2-Heptanone, 6-methyl-	128	C8H16O
2.	2-Hexanone, 4-hydroxy-3-propyl-	158	C9H18O2
3.	2-Octanone	128	C8H16O
4.	2-Octanone	128	C8H16O
5.	2-Heptanone, 6-methyl-	128	C8H16O
6.	2-Heptanone	114	C7H14O
7.	2-Hexanone	100	C6H12O

Sample file: >99962 Spectrum #: 716
Search speed: 1 Tilting option: N No. of ion ranges searched: 40

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IO
1.	93*	928687	2996	"BIGDB	68	21	0	0	72	3	68	83
2.	70	62338174	2707	"BIGDB	40	47	2	0	89	9	42	13
3.	70	111137	2635	"BIGDB	36	49	2	0	84	9	42	12
4.	70	111137	2997	"BIGDB	46	43	2	0	94	7	42	15
5.	64*	928687	2634	"BIGDB	48	28	0	0	46	41	18	69
6.	60	110430	2605	"BIGDB	38	45	2	0	93	11	30	13
7.	60	591786	2961	"BIGDB	45	38	3	0	89	14	30	13

yst 6-24-~~98~~94
wlyse



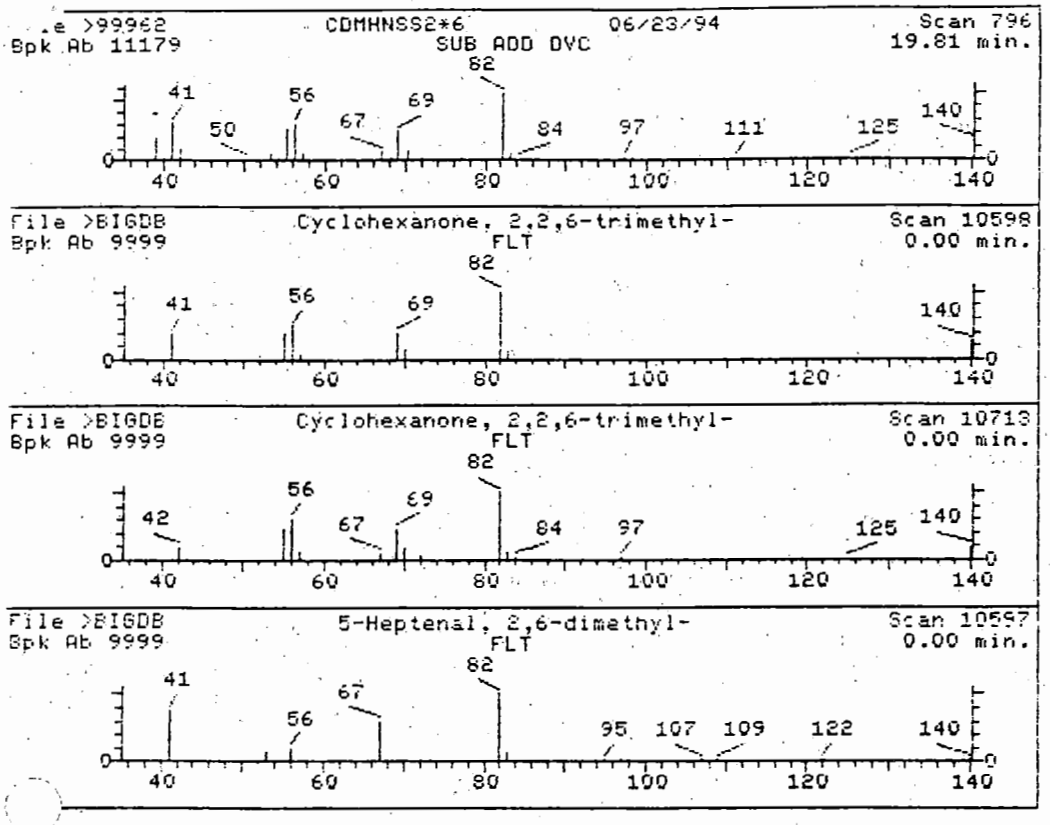
Unknown #.5
Area = 397059.0 Tentative Concentration is 13.00

1.	TRIMETHYL-2,4,4 HEXENE-1	126	C9H18
2.	Diisoamylene	140	C10H20
3.	7-Octen-2-one	126	C8H14O
4.	Ethanamine, N-butylidene-	99	C6H13N
5.	7-OXABICYCLO[4,1,0]HEPTANE, 1,5-DIMETHYL-	126	C8H14O
6.	Azetidine, 2-methyl-	71	C4H9N
7.	5-Octen-4-one, 7-methyl-	140	C9H16O

Sample file: >99962 Spectrum #: 790
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	27*	0	7322	"BIGDB	23	68	2	0	79	38	10	13
2.	25*	54063091	17279	"BIGDB	36	71	2	0	69	46	7	14
3.	25*	3664606	7319	"BIGDB	22	63	3	0	380	48	7	12
4.	25*	1611127	7265	"BIGDB	27	68	3	0	104	44	8	13
5.	25*	0	7318	"BIGDB	37	78	3	0	98	44	8	13
6.	15*	19812498	7602	"BIGDB	21	41	2	0	60	60	3	13
7.	15*	32064781	17271	"BIGDB	29	56	3	0	119	58	3	13

Unknown
Yes 6-24-94



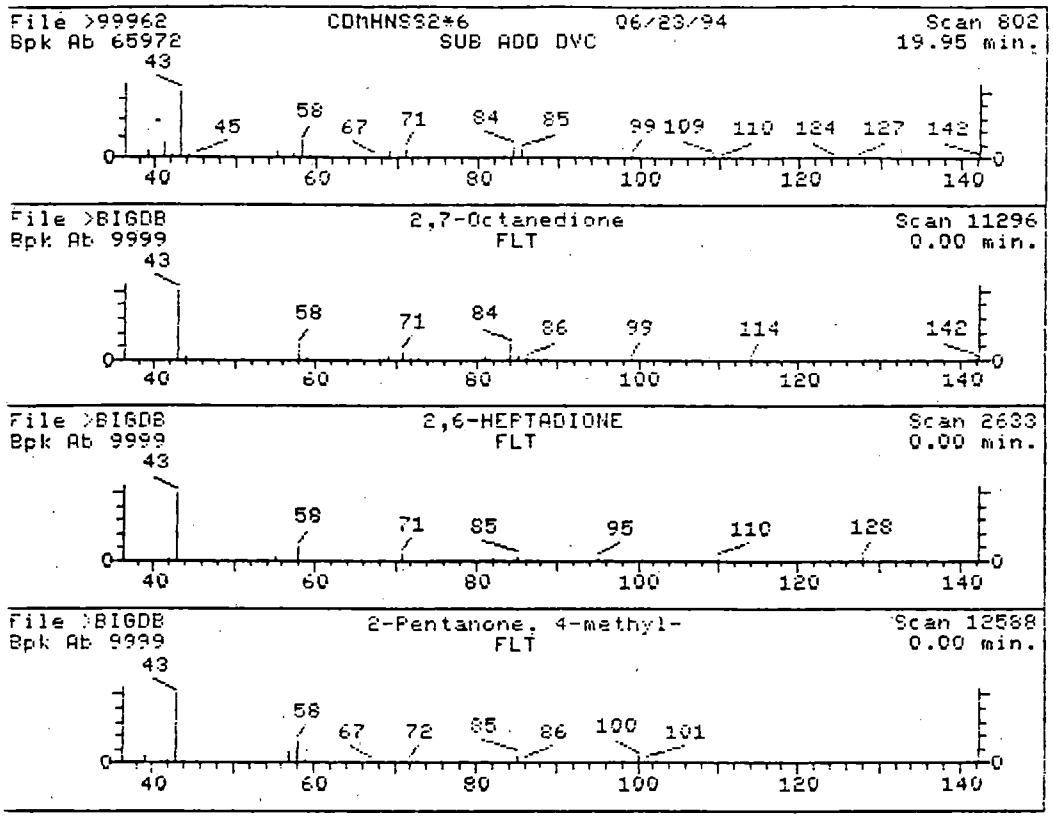
Unknown # 6
Area = 301749.0 Tentative Concentration is 10.00

1.	Cyclohexanone, 2,2,6-trimethyl-	140	C9H16O
2.	Cyclohexanone, 2,2,6-trimethyl-	140	C9H16O
3.	5-Heptenal, 2,6-dimethyl-	140	C9H16O
4.	3-Hexyne	82	C6H10
5.	4-Nonene, 2-methyl-, (Z)-	140	C10H20
6.	4-Nonene, 2-methyl-	140	C10H20
7.	4-Pentenal, 2-methyl-	98	C6H10O

Sample file: >99962 Spectrum #: 796
Search speed: 1 Tilting option: N No. of ion ranges searched: 39

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IO
1.	83*	2408379	10598	"BIGDB	53	13	0	0	83	13	51	77
2.	76*	2408379	10713	"BIGDB	70	30	2	0	71	11	40	50
3.	25*	106729	10597	"BIGDB	27	63	3	0	73	43	8	13
4.	20*	928494	10685	"BIGDB	25	71	3	0	100	53	5	13
5.	15*	51090052	1938	"BIGDB	34	71	3	0	51	57	3	13
6.	11*	55724840	1945	"BIGDB	30	48	2	0	48	62	2	15
7.	11*	5187713	2178	"BIGDB	32	55	3	0	212	65	2	13

YDA 6/24/94



Unknown # 7
Area = 907526.0 Tentative Concentration is 30.00

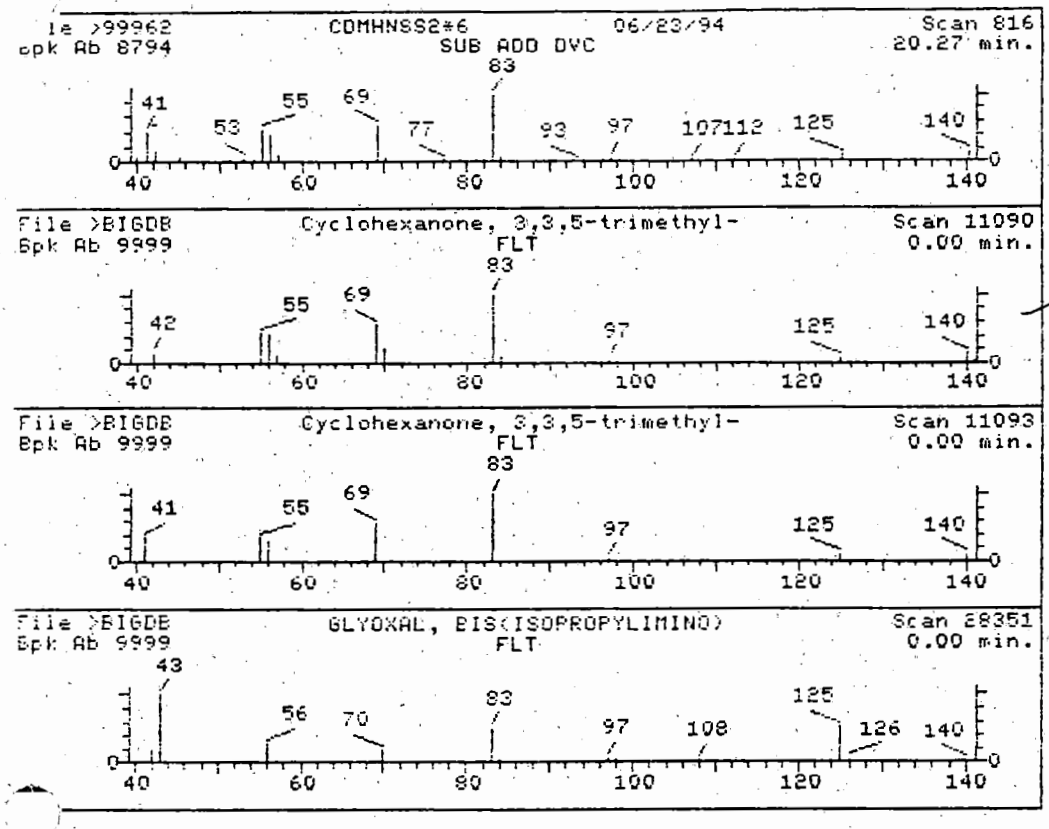
1.	2,7-Octanedione	142	C8H14O2
2.	2,6-HEPTADIONE	128	C7H12O2
3.	2-Pentanone, 4-methyl-	100	C6H12O
4.	Octane, 4-ethyl-	142	C10H22
5.	2-Propanone	58	C3H6O
6.	2-Propanone	58	C3H6O
7.	2-Propanone	58	C3H6O

Sample file: >99962 Spectrum #: 802
Search speed: 1 Tilting option: N No. of ion ranges searched: 40

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	60*	1626091	11296	"BIGDB	33	51	2	0	77	11	30	16
2.	52	0	2633	"BIGDB	37	42	2	0	100	16	20	12
3.	44	108101	12588	"BIGDB	45	31	2	0	79	21	17	15
4.	42*	15869860	12022	"BIGDB	26	64	3	0	114	23	17	13
5.	32*	67641	2895	"BIGDB	21	49	0	0	72	31	12	15
6.	31*	67641	2898	"BIGDB	21	45	1	0	72	31	12	14
7.	31*	67641	2900	"BIGDB	21	47	1	0	70	31	12	14

unknown
6-24-94

9513356.0200



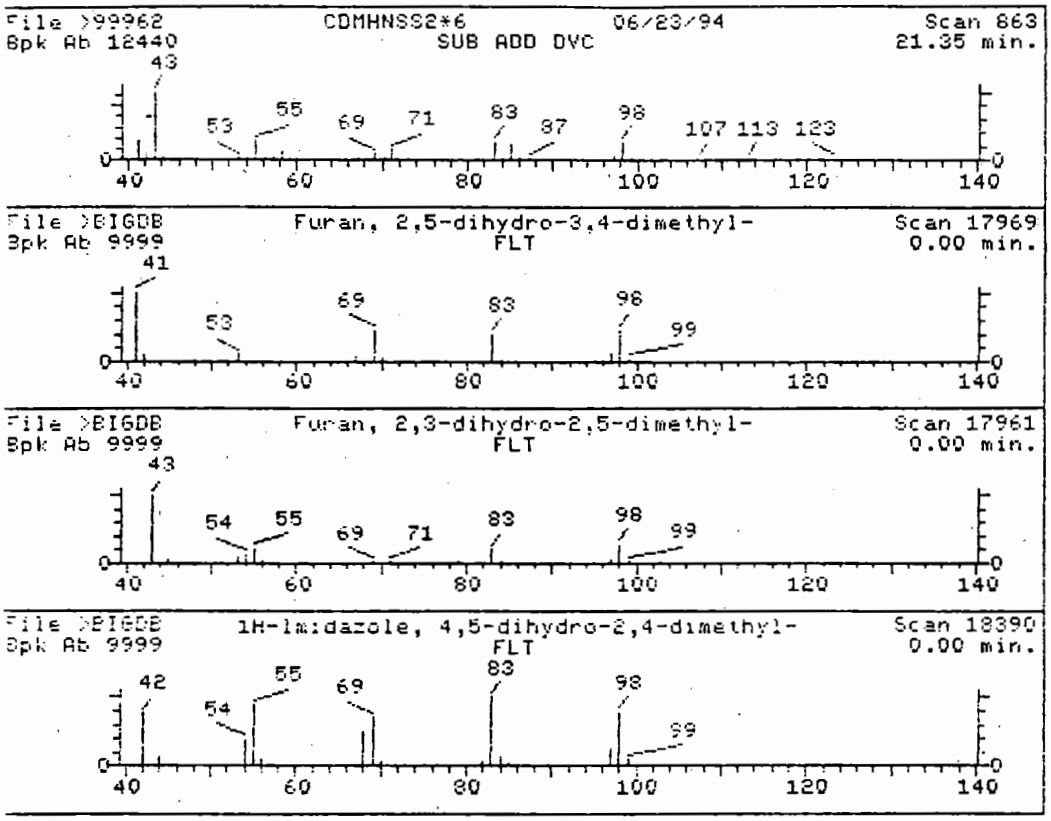
Unknown # 8
Area = 261747.0 Tentative Concentration is 9.00

1.	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O
2.	Cyclohexanone, 3,3,5-trimethyl-	140	C9H16O
3.	GLYOXAL, BIS(ISOPROPYLIMINO)	140	C8H16N2
4.	2-Propanamine, N,N'-1,2-ethanediylidenebis-	140	C8H16N2
5.	1H-1,2,4-Triazole, 1-methyl-	83	C3H5N3
6.	1H-1,2,4-Triazole, 3-methyl-	83	C3H5N3
7.	1H-1,2,4-Triazole, 1-methyl-	83	C3H5N3

Sample file: >99962 Spectrum #: 816
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IO
1.	84*	873949	11090	"BIGDB	64	38	1	0	84	7	55	63
2.	83*	873949	11093	"BIGDB	54	0	0	0	90	12	51	78
3.	70*	0	28351	"BIGDB	24	72	3	0	149	10	42	12
4.	70*	24764907	28347	"BIGDB	24	72	3	0	149	10	42	12
5.	47*	6086211	11049	"BIGDB	25	33	0	0	77	24	17	18
6.	42*	7170016	10744	"BIGDB	21	34	2	0	100	24	17	13
7.	42*	6086211	10745	"BIGDB	22	52	2	0	100	24	17	13

YDH 6-24-94



Unknown # 9
Area = 331025.0 Tentative Concentration is 11.00

1.	Furan, 2,5-dihydro-3,4-dimethyl-	98	C6H10O
2.	Furan, 2,3-dihydro-2,5-dimethyl-	98	C6H10O
3.	1H-Imidazole, 4,5-dihydro-2,4-dimethyl-	98	C5H10N2
4.	1H-Imidazole, 4,5-dihydro-2,4-dimethyl-	98	C5H10N2
5.	4-Hexen-2-one	98	C6H10O
6.	1H-Pyrazole, 3-ethyl-4,5-dihydro-	98	C5H10N2
7.	2-Cyclohexen-1-ol	98	C6H10O

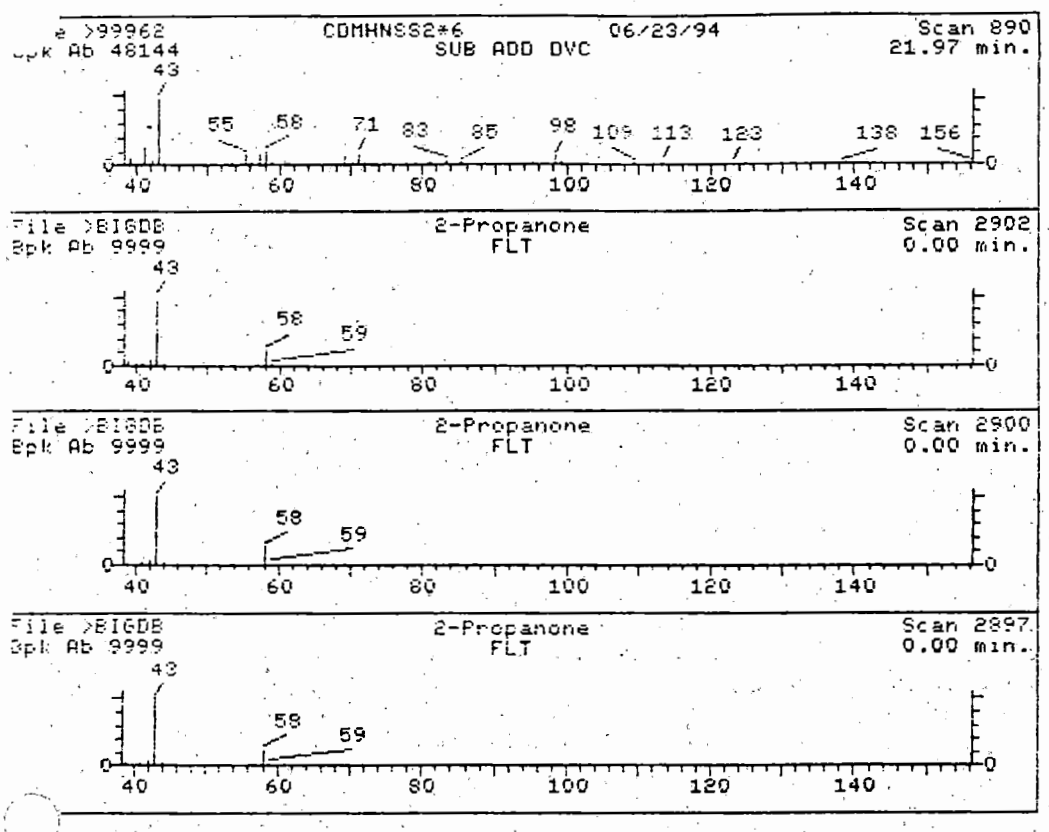
Sample file: >99962 Spectrum #: 863
Search speed: 1 Tilting option: N No. of ion ranges searched: 44

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IO
1.	25*	53720722	17969	"BIGDB	44	51	3	0	55	48	7	14
2.	25*	17108520	17961	"BIGDB	38	45	2	0	91	48	7	19
3.	25*	930610	18390	"BIGDB	39	57	3	0	27	45	8	13
4.	25*	930610	17941	"BIGDB	34	60	3	0	27	48	7	13
5.	25*	25659227	18416	"BIGDB	33	61	2	0	57	48	7	15
6.	25*	5920296	17942	"BIGDB	25	64	2	0	27	48	7	14
7.	25*	822673	17958	"BIGDB	22	77	3	0	59	48	7	12

Unknown

ysit 6-24-94

9513356.0201



Target Analyte
Acetone

Unknown # 10
Area = 770904.0 Tentative Concentration is 26.00

1.	2-Propanone	58 C3H6O
2.	2-Propanone	58 C3H6O
3.	2-Propanone	58 C3H6O
4.	Butane	58 C4H10
5.	2-Propanone	58 C3H6O
6.	2-Propanone	58 C3H6O
7.	4-Hexen-2-one	98 C6H10O

Sample file: >99962 Spectrum #: 890
Search speed: 1 Tilting option: N No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IO
1.	41*	67641	2902	"BIGDB	25	40	0	0	77	30	14	18
2.	41*	67641	2900	"BIGDB	25	43	0	0	76	30	14	18
3.	38*	67641	2897	"BIGDB	21	26	0	0	88	30	14	15
4.	36*	106978	2918	"BIGDB	21	55	2	0	90	30	14	13
5.	35*	67641	2896	"BIGDB	25	38	0	0	73	31	12	18
6.	32*	67641	2519	"BIGDB	21	50	0	0	84	31	12	15
7.	29*	25659227	17965	"BIGDB	21	36	0	0	100	40	10	15

YSH 6-24-94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A03-1-05MS

Lab Name:ESE Contract:HANF N. SLP

Lab Code:ESE Case No.:50516 SAS No.: SDG No.:50516

Matrix: (soil/water) SOIL Lab Sample ID:SPM1*CDMHNSS

Sample wt/vol: 5.00 (g/ml) G Lab File ID: 99963

Level: (low/med) LOW Date Received: 6/20/94

% Moisture: not dec. 2 Date Analyzed: 6/23/94

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	3.	JB
67-64-1	Acetone	92.	B
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	51.	
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	36.	
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	49.	
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	50.	
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	4.	J
591-78-6	2-Hexanone	12.	
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	55.	
108-90-7	Chlorobenzene	54.	
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	Xylene (total)	10.	U

QUANT REPORT

Operator ID: USER96
Output File: ^99963::P1
Data File: >99963::D2
Name: SPM1*CDMHNSS2*6
Misc: 06/23/94

Quant Rev: 6
Quant Time: 940623 15:24
Injected at: 940623 14:55
Dilution Factor: 1.00000

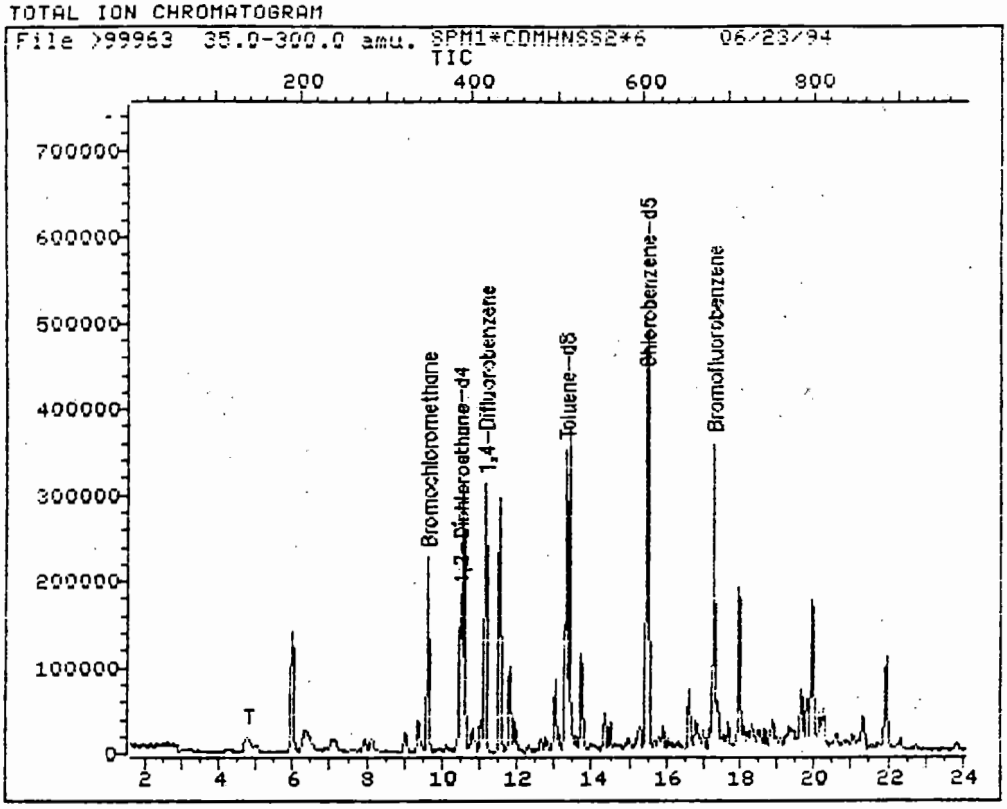
ID File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940623 13:23

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	9.62	128.0	115987	50.00	ug/Kg	98
8)	Methylene Chloride	7.05	84.0	13657	3.32	ug/Kg	89
9)	Acetone	6.34	43.0	267550	89.98	ug/Kg	100
13)	Trichlorofluoromethane	4.75	101.0	83365	29.01	ug/Kg	100
14)	1,1-Dichloroethene	5.99	96.0	120024	50.39	ug/Kg	62
21)	1,2-Dichloroethane-d4	10.49	65.0	299009	53.46	ug/Kg	80
22)	2-Butanone	9.36	72.0	28072	35.76	ug/Kg	88
23)	*1,4-Difluorobenzene	11.18	114.0	436791	50.00	ug/Kg	100
32)	Trichloroethene	11.54	130.0	172983	47.85	ug/Kg	100
34)	Benzene	10.58	78.0	479954	49.41	ug/Kg	100
41)	*Chlorobenzene-d5	15.47	117.0	305755	50.00	ug/Kg	100
43)	2-Hexanone	14.34	43.0	61370	12.01	ug/Kg	91
44)	4-Methyl-2-Pentanone	13.13	43.0	22876	3.79	ug/Kg	72
49)	Toluene-d8	13.31	98.0	390001	53.30	ug/Kg	100
50)	Toluene	13.40	92.0	268684	53.91	ug/Kg	83
51)	Chlorobenzene	15.51	112.0	328396	53.32	ug/Kg	99
53)	Bromofluorobenzene	17.28	95.0	220675	46.35	ug/Kg	100

* Compound is ISTD

yeh 6-24-94

TOTAL ION CHROMATOGRAM



Data File: >99963::D2
Name: SPM1*CDMHNSS2*6
Misc: 06/23/94

Quant Output File: ^99963::P1

Id File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940623 13:23

Operator ID: USER96
Quant Time: 940623 15:24
Injected at: 940623 14:55

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
A03-1-05MSD

Lab Name:ESE Contract:HANF N. SLP

Lab Code:ESE Case No.:50516 SAS No.: SDG No.:50516

Matrix: (soil/water) SOIL Lab Sample ID:SPM2*CDMHNSS

Sample wt/vol: 5.00 (g/ml) G Lab File ID: 99964

Level: (low/med) LOW Date Received: 6/20/94

% Moisture: not dec. 2 Date Analyzed: 6/23/94

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	3.	JB
67-64-1	Acetone	110.	B
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	47.	
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	44.	
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	49.	
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	51.	
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	4.	J
591-78-6	2-Hexanone	15.	
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	56.	
108-90-7	Chlorobenzene	56.	
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	Xylene (total)	10.	U

QUANT REPORT

Operator ID: USER96
Output File: ^99964::QT
Data File: >99964::D2
Name: SPM2*CDMHNSS2*6
Misc: 06/23/94

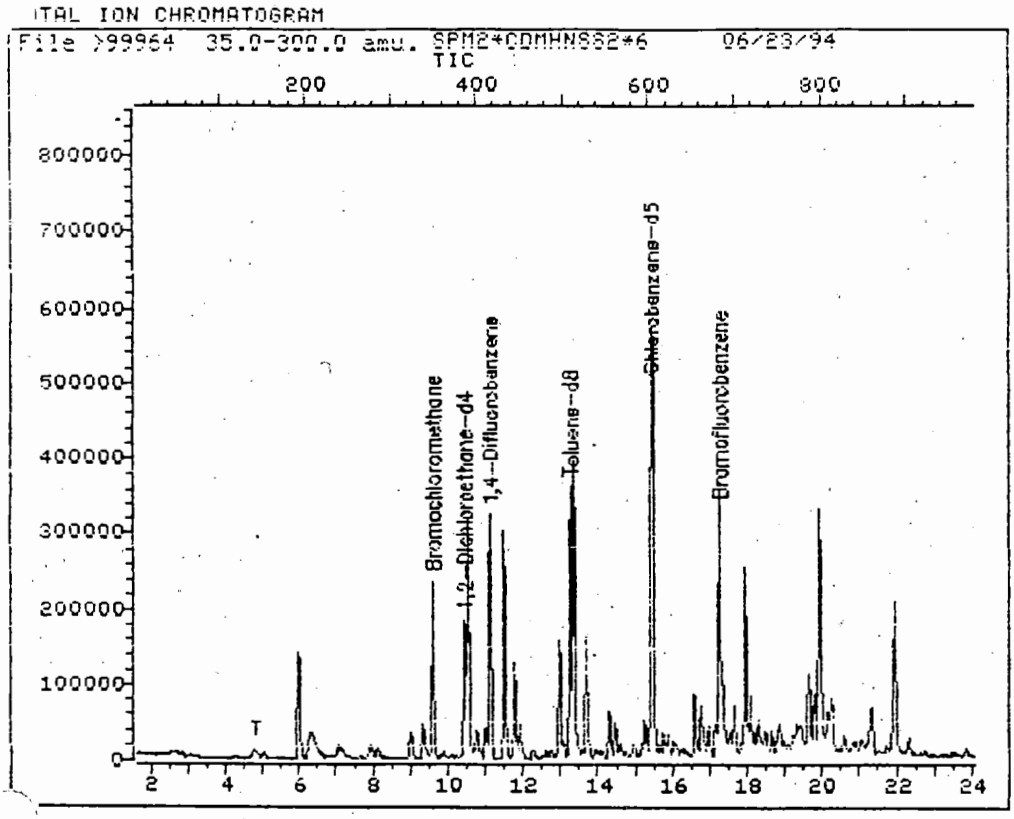
Quant Rev: 6
Quant Time: 940623 15:55
Injected at: 940623 15:26
Dilution Factor: 1.00000

ID File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940623 13:23

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	9.62	128.0	118070	50.00	ug/Kg	98
8)	Methylene Chloride	7.07	84.0	12215	2.92	ug/Kg	99
9)	Acetone	6.36	43.0	334050	110.36	ug/Kg	100
13)	Trichlorofluoromethane	4.75	101.0	50401	17.23	ug/Kg	100
14)	1,1-Dichloroethene	5.99	96.0	112480	46.39	ug/Kg	64
21)	1,2-Dichloroethane-d4	10.46	65.0	306514	53.83	ug/Kg	81
22)	2-Butanone	9.34	72.0	34101	42.67	ug/Kg	91
23)	*1,4-Difluorobenzene	11.15	114.0	442952	50.00	ug/Kg	100
32)	Trichloroethene	11.52	130.0	177213	48.34	ug/Kg	100
34)	Benzene	10.56	78.0	492726	50.02	ug/Kg	100
41)	*Chlorobenzene-d5	15.45	117.0	311950	50.00	ug/Kg	100
43)	2-Hexanone	14.32	43.0	78420	15.04	ug/Kg	89
44)	4-Methyl-2-Pentanone	13.10	43.0	24160	3.92	ug/Kg	73
49)	Toluene-d8	13.29	98.0	404731	54.21	ug/Kg	100
50)	Toluene	13.38	92.0	276905	54.46	ug/Kg	80
51)	Chlorobenzene	15.49	112.0	346536	55.15	ug/Kg	97
53)	Bromofluorobenzene	17.28	95.0	228933	47.13	ug/Kg	100

* Compound is ISTD

yelt 6-24-94



Data File: >99964::D2 Quant Output File: ^99964::QT
Name: SPM2*CDMHNSS2*6
Misc: 06/23/94

Id File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940623 13:23

Operator ID: USER96
Quant Time: 940623 15:55
Injected at: 940623 15:26

Standards Data

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

b Name:ESE Contract:HANF N. SLP

Lab Code:ESE Case No.:50516 SAS No.: SDG No.:50516

Instrument ID:A Calibration Date(s): 5/27/94 5/27/94

Heated Purge: (Y/N) Y Calibration Times: 1149 1522

GC Column:DB-624 ID: 0.53 (mm)

LAB FILE ID: RRF10 =99681 RRF20 =99682
RRF50 =99683 RRF100=99684 RRF200=99686

COMPOUND		RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
Chloromethane		1.153	1.075	0.908	0.920	1.517	1.115	22.2	
Bromomethane	*	1.594	1.572	1.285	1.369	1.248	1.414	11.4	*
Vinyl Chloride	*	1.813	1.724	1.469	1.715	1.577	1.660	8.2	*
Chloroethane		1.006	0.894	0.727	0.717	0.719	0.813	16.2	
Methylene Chloride		2.633	2.135	2.122	2.176	2.085	2.230	10.2	
Acetone		1.830	1.281	0.869	0.975	0.567	1.104	43.4	
Carbon Disulfide		2.442	2.477	2.462	2.117	1.820	2.264	12.8	
1,1-Dichloroethene	*	1.233	1.210	1.219	0.965	0.662	1.058	23.4	*
1,1-Dichloroethane	*	3.051	2.937	2.715	2.741	2.768	2.842	5.1	*
1,2-Dichloroethene (total)		1.554	1.493	1.369	1.355	1.324	1.419	7.0	
Chloroform	*	3.576	3.478	3.164	3.184	3.002	3.281	7.2	*
,2-Dichloroethane	*	3.412	3.394	2.971	2.967	2.560	3.061	11.6	*
-Butanone		0.404	0.300	0.205	0.301	0.236	0.289	26.4	
1,1,1-Trichloroethane	*	0.827	0.761	0.733	0.712	0.635	0.734	9.6	*
Carbon Tetrachloride	*	0.849	0.775	0.752	0.734	0.631	0.748	10.5	*
Bromodichloromethane	*	0.754	0.742	0.715	0.699	0.654	0.713	5.5	*
1,2-Dichloropropane		0.372	0.345	0.340	0.333	0.347	0.347	4.2	
cis-1,3-Dichloropropene	*	0.750	0.703	0.680	0.666	0.661	0.692	5.2	*
Trichloroethene	*	0.443	0.398	0.388	0.375	0.357	0.392	8.2	*
Dibromochloromethane	*	0.686	0.670	0.650	0.628	0.581	0.643	6.4	*
1,1,2-Trichloroethane	*	0.380	0.342	0.320	0.319	0.306	0.333	8.7	*
Benzene	*	1.114	1.024	1.031	1.003	0.952	1.025	5.7	*
trans-1,3-Dichloropropene	*	0.615	0.587	0.575	0.556	0.531	0.573	5.5	*
Bromoform	*	0.644	0.594	0.572	0.565	0.513	0.578	8.2	*
4-Methyl-2-Pentanone		1.141	0.925	0.675	0.919	0.968	0.926	18.0	
2-Hexanone		0.924	0.729	0.490	0.734	0.698	0.715	21.6	
Tetrachloroethene	*	0.533	0.467	0.459	0.439	0.427	0.465	8.8	*
1,1,2,2-Tetrachloroethane	*	0.831	0.751	0.668	0.666	0.661	0.715	10.4	*
Toluene	*	0.833	0.768	0.751	0.744	0.788	0.777	4.6	*
Chlorobenzene	*	1.059	0.972	0.943	0.927	0.920	0.964	5.9	*
Ethylbenzene	*	0.505	0.466	0.465	0.451	0.441	0.466	5.2	*
Styrene	*	1.073	0.976	0.980	0.934	0.921	0.977	6.1	*
Xylene (total)	*	0.620	0.569	0.570	0.546	0.551	0.571	5.1	*
Toluene-d8		1.316	1.190	1.182	1.158	1.186	1.206	5.2	
Bromofluorobenzene	*	0.867	0.783	0.774	0.718	0.686	0.766	9.0	*
1,2-Dichloroethane-d4		2.805	2.692	2.512	2.460	2.302	2.554	7.7	

Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5996/A

Contractor: ESE Calibration Date: 06/30/94

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.100 Maximum % RSD for CCC is 20.5%

Laboratory ID:	>99681 RF 10.00	>99682 RF 20.00	>99683 RF 50.00	>99684 RF 100.00	>99686 RF 200.00	$\overline{RF}$	% RSD	CCC	SPCC	
Chloromethane	1.15290	1.07543	.90784	.92035	1.51740	1.11479	22.234		**	
Bromomethane	1.59456	1.57253	1.28494	1.36874	1.24841	1.41384	11.397	*	**	
Vinyl Chloride	1.81309	1.72444	1.46938	1.71497	1.57704	1.65979	8.185	*	**	
Chloroethane	1.00581	.89385	.72735	.71696	.71932	.81266	16.167		**	
Methylene Chloride	2.63296	2.13526	2.12232	2.17585	2.08521	2.23032	10.196		**	
Acetone	1.83005	1.28123	.86908	.97502	.56666	1.10441	43.403		**	
Carbon Disulfide	2.44216	2.47699	2.46256	2.11660	1.82030	2.26372	12.787		**	
1,1-Dichloroethene	1.23332	1.20973	1.21864	.96509	.66204	1.05776	23.396	*	**	
1,1-Dichloroethane	3.05116	2.93683	2.71461	2.74093	2.76846	2.84240	5.116	*	**	
1,2-Dichloroethene (total)	1.55365	1.49297	1.36888	1.35519	1.32388	1.41892	6.980		**	
Chloroform	3.57617	3.47798	3.16407	3.18422	3.00227	3.28094	7.255	*	**	
1,2-Dichloroethane	3.41191	3.39434	2.97079	2.96744	2.55983	3.06086	11.578	*	**	
1,2-Dichloroethane-d4	2.80507	2.69223	2.51217	2.46020	2.30182	2.55430	7.739		**	
2-Butanone	.40430	.30001	.20510	.30129	.23595	.28933	26.446		**	
1,1,1-Trichloroethane	.82713	.76075	.73266	.71162	.63533	.73350	9.549	*	**	
Carbon Tetrachloride	.84880	.77483	.75183	.73398	.63076	.74804	10.534	*	**	
Bromodichloromethane	.75434	.74223	.71527	.69937	.65397	.71304	5.539	*	**	
1,2-Dichloropropane	.37255	.34546	.34007	.33267	.34719	.34759	4.332	*	**	
cis-1,3-Dichloropropene	.73796	.69940	.67756	.66528	.66032	.68811	4.606	*	**	(Conc=9.0,17.9,44.8,89.5,179.1)
Trichloroethene	.44320	.39820	.38818	.37496	.35663	.39223	8.277	*	**	
Dibromochloromethane	.68630	.67040	.65005	.62807	.58086	.64314	6.391	*	**	
Benzene	1.11357	1.02369	1.03121	1.00269	.95254	1.02474	5.697	*	**	
1,1,2-Trichloroethane	.38015	.34184	.32044	.31863	.30630	.33347	8.714	*	**	
trans-1,3-Dichloropropene	.61226	.58463	.57434	.55534	.53100	.57151	5.353	*	**	(Conc=11.0,22.1,55.2,110.5,22.
Bromoform	.64381	.59435	.57175	.56548	.51282	.57764	8.231	*	**	
2-Hexanone	.92426	.72940	.49026	.73455	.69829	.71535	21.562		**	
4-Methyl-2-Pentanone	1.14143	.92500	.67502	.91860	.96766	.92554	18.014		**	
Tetrachloroethene	.53289	.46746	.45884	.43871	.42700	.46498	8.860	*	**	
1,1,2,2-Tetrachloroethane	.83078	.75089	.66805	.66588	.66119	.71536	10.415	*	**	
Toluene-d8	1.31560	1.18966	1.18183	1.15844	1.18589	1.20628	5.165		**	
Toluene	.83316	.76832	.75088	.74407	.78782	.77685	4.602	*	**	
Chlorobenzene	1.05854	.97254	.94333	.92731	.91961	.96428	5.860	*	**	

RF - Response Factor (Subscript is amount in ug/kg)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5996/A

Contractor: ESE Calibration Date: 06/30/94

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.100 Maximum % RSD for CCC is 20.5%

Laboratory ID:	>99681 RF 10.00	>99682 RF 20.00	>99683 RF 50.00	>99684 RF 100.00	>99686 RF 200.00	$\overline{RF}$	% RSD	CCC	SPCC	
Ethylbenzene	.50484	.46597	.46469	.45143	.44127	.46564	5.187	*	**	
Bromofluorobenzene	.86671	.78347	.77426	.71782	.68558	.76557	9.074	*	**	
Xylene (total)	.61982	.56933	.57021	.54573	.55135	.57129	5.111	*	**	(Conc=5.0,10.0,25.0,50.0,100.0)
Styrene	1.07298	.97584	.97956	.93413	.92114	.97673	6.095	*	**	

RF - Response Factor (Subscript is amount in ug/kg)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

Form VI Page 2 of 2

QUANT REPORT

Operator ID: USER96
Output File: ^99681::ZA
Data File: >99681::MD
Name: VSTD10
Misc: 05/27/94

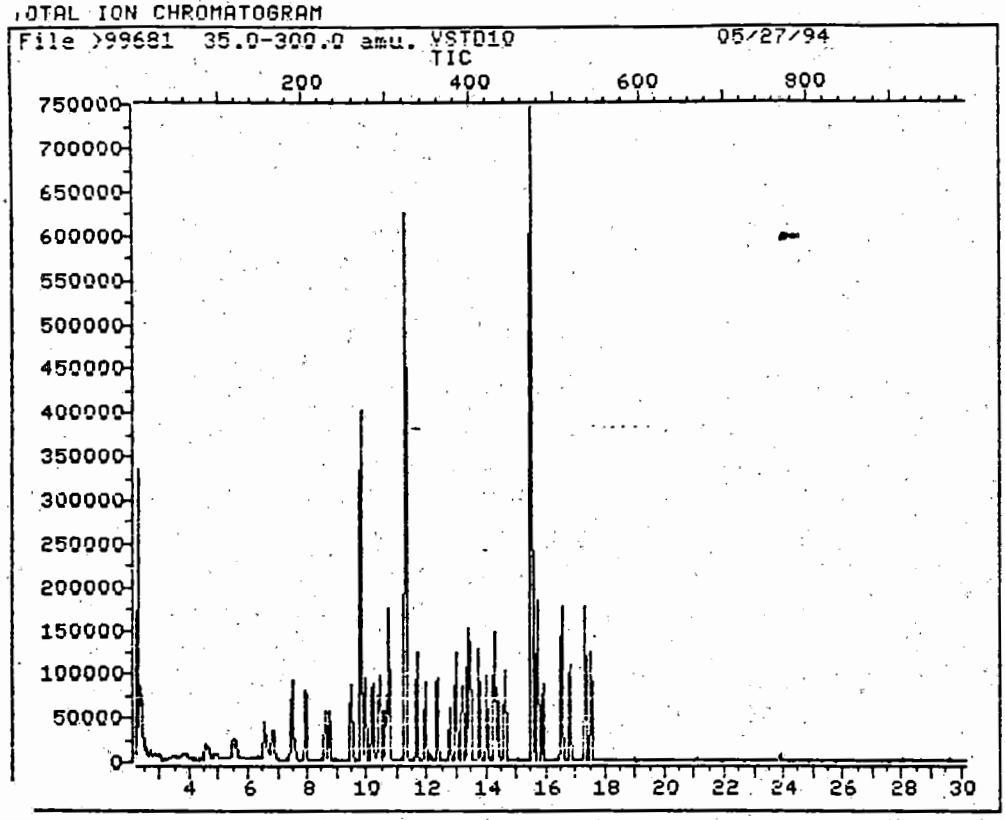
Quant Rev: 6
Quant Time: 940527 15:03
Injected at: 940527 11:49
Dilution Factor: 1.00000

ID File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940527 15:02

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	9.83	128.0	191642	50.00	ug/Kg	97
2)	Chloromethane	3.51	50.0	44189	12.70	ug/Kg	100
3)	Bromomethane	4.58	94.0	61117	12.41	ug/Kg	95
5)	Vinyl Chloride	3.82	62.0	69493	12.34	ug/Kg	100
6)	Chloroethane	4.89	64.0	38551	13.83	ug/Kg	97
8)	Methylene Chloride	7.49	84.0	100917	12.41	ug/Kg	85
9)	Acetone	6.81	43.0	70143	21.06	ug/Kg	100
11)	Carbon Disulfide	6.87	76.0	93604	9.92	ug/Kg	100
13)	Trichlorofluoromethane	5.51	101.0	99764	9.83	ug/Kg	100
14)	1,1-Dichloroethene	6.55	96.0	47271	10.12	ug/Kg	65
15)	1,1-Dichloroethane	8.62	63.0	116946	11.24	ug/Kg	96
16)	1,2-Dichloroethene (total)	7.94	96.0	59549	11.35	ug/Kg	73
18)	Chloroform	9.97	83.0	137069	11.30	ug/Kg	97
20)	1,2-Dichloroethane	10.76	62.0	130773	11.48	ug/Kg	99
21)	1,2-Dichloroethane-d4	10.65	65.0	107514	11.17	ug/Kg	80
22)	2-Butanone	9.55	72.0	15496	19.71	ug/Kg	84
23)	*1,4-Difluorobenzene	11.30	114.0	800428	50.00	ug/Kg	100
26)	1,1,1-Trichloroethane	10.23	97.0	132411	11.29	ug/Kg	98
27)	Carbon Tetrachloride	10.45	117.0	135881	11.29	ug/Kg	99
28)	Vinyl Acetate	8.76	43.0	165666	11.84	ug/Kg	93
29)	Bromodichloromethane	12.37	83.0	120759	10.55	ug/Kg	98
30)	1,2-Dichloropropane	11.95	63.0	59640	10.96	ug/Kg	98
31)	cis-1,3-Dichloropropene	12.99	75.0	105733	9.75	ug/Kg	100
32)	Trichloroethene	11.67	130.0	70950	11.42	ug/Kg	100
33)	Dibromochloromethane	14.63	129.0	109866	10.56	ug/Kg	100
34)	Benzene	10.73	78.0	178266	10.80	ug/Kg	100
35)	1,1,2-Trichloroethane	14.04	97.0	60857	11.86	ug/Kg	88
36)	chloro-ethyl-vinyl-ether	12.77	106.0	13736	12.44	ug/Kg	75
38)	trans-1,3-Dichloropropene	13.78	75.0	108306	11.78	ug/Kg	100
39)	Bromoform	16.81	173.0	103065	11.26	ug/Kg	98
41)	*Chlorobenzene-d5	15.53	117.0	650968	50.00	ug/Kg	100
43)	2-Hexanone	14.41	43.0	120333	18.85	ug/Kg	91
44)	4-Methyl-2-Pentanone	13.22	43.0	148607	16.91	ug/Kg	84
45)	Tetrachloroethene	14.29	163.7	69379	11.61	ug/Kg	100
47)	1,1,2,2-Tetrachloroethane	17.54	83.0	108162	12.44	ug/Kg	99
49)	Toluene-d8	13.39	98.0	171283	11.13	ug/Kg	100
50)	Toluene	13.47	92.0	108472	11.10	ug/Kg	80
51)	Chlorobenzene	15.56	112.0	137828	11.22	ug/Kg	96
52)	Ethylbenzene	15.73	106.0	65727	10.86	ug/Kg	94
53)	Bromofluorobenzene	17.34	95.0	112840	11.19	ug/Kg	100
56)	Xylene (total)	15.93	106.0	40348	5.44	ug/Kg	85
57)	Styrene	16.55	104.0	139635	10.95	ug/Kg	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >99681::MD
Name: VSTD10
Misc: 05/27/94

Quant Output File: ^99681::ZA

Id File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940527 15:02

Operator ID: USER96
Quant Time: 940527 15:03
Injected at: 940527 11:49

QUANT REPORT

Operator ID: USER96
Output File: ^99682::ZA
Data File: >99682::MD
Name: VSTD20
Misc: 05/27/94

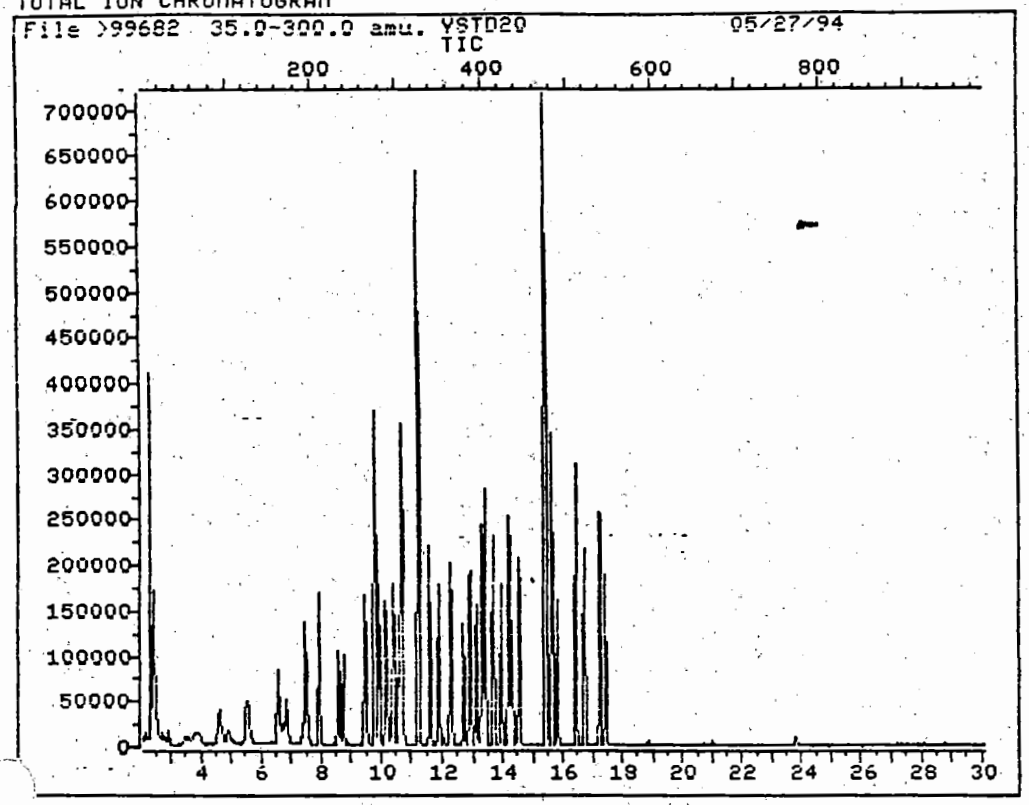
Quant Rev: 6
Quant Time: 940527 15:09
Injected at: 940527 12:23
Dilution Factor: 1.00000

ID File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940527 15:02

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	9.78	128.0	179526	50.00	ug/Kg	97
2)	Chloromethane	3.57	50.0	77227M	23.69	ug/Kg	100
3)	Bromomethane	4.61	94.0	112924	24.48	ug/Kg	97
5)	Vinyl Chloride	3.82	62.0	123833M	23.47	ug/Kg	100
6)	Chloroethane	4.90	64.0	64188	24.58	ug/Kg	99
8)	Methylene Chloride	7.47	84.0	153334	20.12	ug/Kg	92
9)	Acetone	6.76	43.0	92006	29.48	ug/Kg	100
11)	Carbon Disulfide	6.87	76.0	177874	20.12	ug/Kg	100
13)	Trichlorofluoromethane	5.55	101.0	193013	20.31	ug/Kg	100
14)	1,1-Dichloroethene	6.56	96.0	86871	19.85	ug/Kg	66
15)	1,1-Dichloroethane	8.60	63.0	210895	21.64	ug/Kg	98
16)	1,2-Dichloroethene (total)	7.95	96.0	107211	21.81	ug/Kg	65
18)	Chloroform	9.95	83.0	249755	21.98	ug/Kg	99
20)	1,2-Dichloroethane	10.71	62.0	243749	22.85	ug/Kg	98
21)	1,2-Dichloroethane-d4	10.60	65.0	193330	21.43	ug/Kg	82
22)	2-Butanone	9.50	72.0	21544	29.26	ug/Kg	89
23)	*1,4-Difluorobenzene	11.25	114.0	790919	50.00	ug/Kg	100
26)	1,1,1-Trichloroethane	10.18	97.0	240676	20.77	ug/Kg	98
27)	Carbon Tetrachloride	10.43	117.0	245132	20.61	ug/Kg	99
28)	Vinyl Acetate	8.74	43.0	291792	21.11	ug/Kg	92
29)	Bromodichloromethane	12.30	83.0	234819	20.75	ug/Kg	96
30)	1,2-Dichloropropane	11.90	63.0	109293	20.32	ug/Kg	98
31)	cis-1,3-Dichloropropene	12.92	75.0	198035	18.48	ug/Kg	100
32)	Trichloroethene	11.62	130.0	125979	20.52	ug/Kg	100
33)	Dibromochloromethane	14.56	129.0	212093	20.63	ug/Kg	100
34)	Benzene	10.71	78.0	323861	19.85	ug/Kg	100
35)	1,1,2-Trichloroethane	13.96	97.0	108147	21.34	ug/Kg	90
36)	chloro-ethyl-vinyl-ether	12.72	106.0	24342	22.30	ug/Kg	87
38)	trans-1,3-Dichloropropene	13.71	75.0	204378	22.50	ug/Kg	100
39)	Bromoform	16.73	173.0	188033	20.79	ug/Kg	99
41)	*Chlorobenzene-d5	15.43	117.0	644366	50.00	ug/Kg	100
43)	2-Hexanone	14.33	43.0	188001	29.76	ug/Kg	89
44)	4-Methyl-2-Pentanone	13.14	43.0	238416	27.41	ug/Kg	79
45)	Tetrachloroethene	14.22	163.7	120487	20.38	ug/Kg	100
47)	1,1,2,2-Tetrachloroethane	17.47	83.0	193540	22.48	ug/Kg	99
49)	Toluene-d8	13.31	98.0	306631	20.13	ug/Kg	100
50)	Toluene	13.43	92.0	198031	20.46	ug/Kg	84
51)	Chlorobenzene	15.49	112.0	250668	20.62	ug/Kg	99
52)	Ethylbenzene	15.66	106.0	120103	20.06	ug/Kg	92
53)	Bromofluorobenzene	17.27	95.0	201937	20.24	ug/Kg	100
56)	Xylene (total)	15.83	106.0	73372	9.98	ug/Kg	82
57)	Styrene	16.45	104.0	251518	19.92	ug/Kg	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >99682::MD
Name: VSTD20
Misc: 05/27/94

Quant Output File: ^99682::ZA

Id File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940527 15:02

Operator ID: USER96
Quant Time: 940527 15:09
Injected at: 940527 12:23

QUANT REPORT

Operator ID: USER96
Output File: ^99683::ZA
Data File: >99683::MD
Name: VSTD50
Misc: 05/27/94

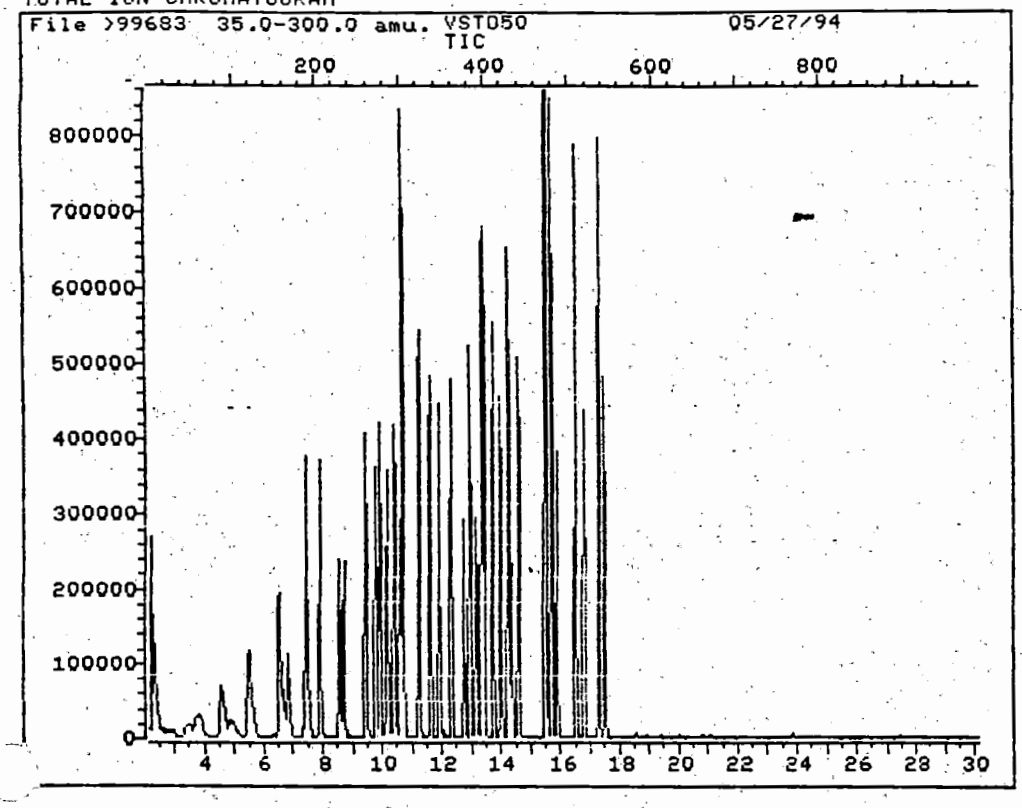
Quant Rev: 6
Quant Time: 940527 15:11
Injected at: 940527 13:40
Dilution Factor: 1.00000

ID File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940527 15:02

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	9.77	128.0	188506	50.00	ug/Kg	99
2)	Chloromethane	3.44	50.0	171134	50.00	ug/Kg	100
3)	Bromomethane	4.57	94.0	242219	50.00	ug/Kg	98
5)	Vinyl Chloride	3.81	62.0	276987	50.00	ug/Kg	100
6)	Chloroethane	4.86	64.0	137110	50.00	ug/Kg	97
8)	Methylene Chloride	7.45	84.0	400070	50.00	ug/Kg	83
9)	Acetone	6.69	43.0	163827	50.00	ug/Kg	100
11)	Carbon Disulfide	6.83	76.0	464208	50.00	ug/Kg	100
13)	Trichlorofluoromethane	5.51	101.0	499005	50.00	ug/Kg	100
14)	1,1-Dichloroethene	6.55	96.0	229721	50.00	ug/Kg	64
15)	1,1-Dichloroethane	8.58	63.0	511720	50.00	ug/Kg	98
16)	1,2-Dichloroethene (total)	7.94	96.0	258042	50.00	ug/Kg	65
18)	Chloroform	9.94	83.0	596446	50.00	ug/Kg	99
20)	1,2-Dichloroethane	10.73	62.0	560012	50.00	ug/Kg	99
21)	1,2-Dichloroethane-d4	10.62	65.0	473560	50.00	ug/Kg	78
22)	2-Butanone	9.49	72.0	38662	50.00	ug/Kg	83
23)	*1,4-Difluorobenzene	11.27	114.0	778231	50.00	ug/Kg	100
26)	1,1,1-Trichloroethane	10.17	97.0	570178	50.00	ug/Kg	99
27)	Carbon Tetrachloride	10.42	117.0	585100	50.00	ug/Kg	99
28)	Vinyl Acetate	8.73	43.0	680063	50.00	ug/Kg	90
29)	Bromodichloromethane	12.31	83.0	556646	50.00	ug/Kg	97
30)	1,2-Dichloropropane	11.92	63.0	264655	50.00	ug/Kg	94
31)	cis-1,3-Dichloropropene	12.96	75.0	472142	44.77	ug/Kg	100
32)	Trichloroethene	11.64	130.0	302095	50.00	ug/Kg	100
33)	Dibromochloromethane	14.60	129.0	505889	50.00	ug/Kg	100
34)	Benzene	10.70	78.0	802519	50.00	ug/Kg	100
35)	1,1,2-Trichloroethane	14.01	97.0	249375	50.00	ug/Kg	92
36)	chloro-ethyl-vinyl-ether	12.74	106.0	53694	50.00	ug/Kg	89
38)	trans-1,3-Dichloropropene	13.75	75.0	493724	55.23	ug/Kg	100
39)	Bromoform	16.78	173.0	444951	50.00	ug/Kg	98
41)	*Chlorobenzene-d5	15.48	117.0	653117	50.00	ug/Kg	100
43)	2-Hexanone	14.38	43.0	320194	50.00	ug/Kg	90
44)	4-Methyl-2-Pentanone	13.16	43.0	440865	50.00	ug/Kg	77
45)	Tetrachloroethene	14.26	163.7	299674	50.00	ug/Kg	100
47)	1,1,2,2-Tetrachloroethane	17.51	83.0	436314	50.00	ug/Kg	99
49)	Toluene-d8	13.36	98.0	771871	50.00	ug/Kg	100
50)	Toluene	13.44	92.0	490412	50.00	ug/Kg	83
51)	Chlorobenzene	15.53	112.0	616105	50.00	ug/Kg	99
52)	Ethylbenzene	15.70	106.0	303498	50.00	ug/Kg	94
53)	Bromofluorobenzene	17.31	95.0	505681	50.00	ug/Kg	100
56)	Xylene (total)	15.87	106.0	186206	25.00	ug/Kg	75
57)	Styrene	16.52	104.0	639768	50.00	ug/Kg	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >99683::MD
Name: VSTD50
Misc: 05/27/94

Quant Output File: ^99683::ZA

Id File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940527 15:02

Operator ID: USER96
Quant Time: 940527 15:11
Injected at: 940527 13:40

QUANT REPORT

Operator ID: USER96
Output File: ^99684::ZA
Data File: >99684::MD
Name: VSTD100
Misc: 05/27/94

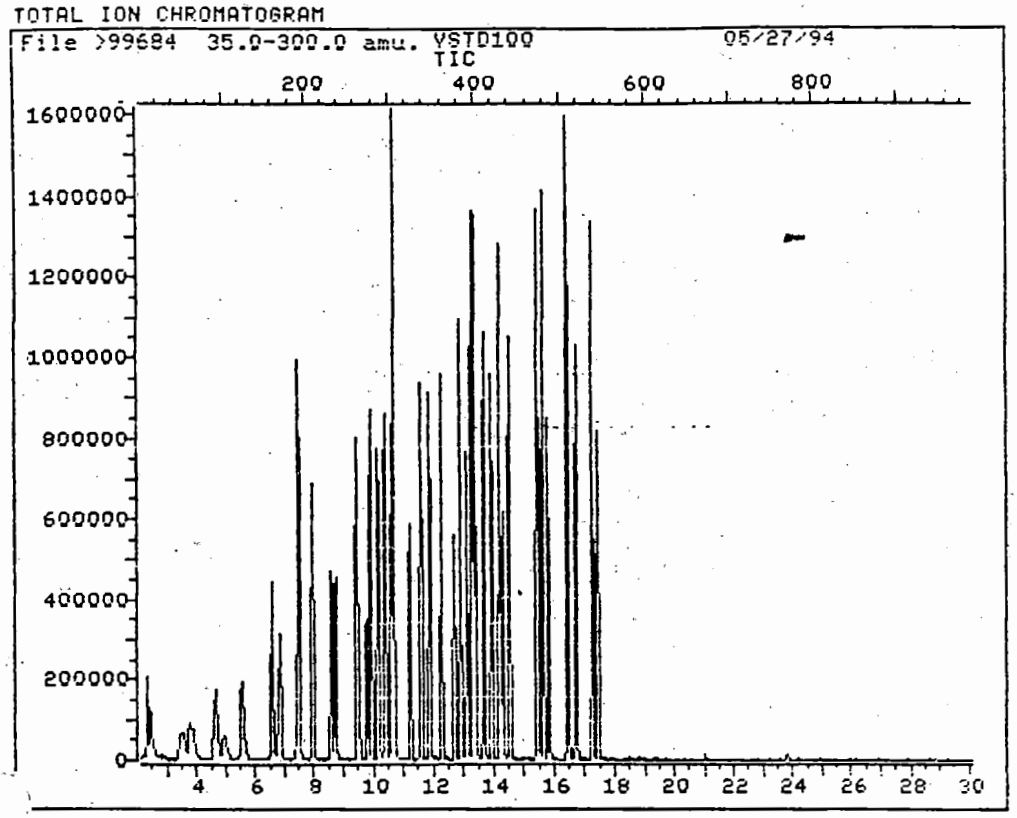
Quant Rev: 6
Quant Time: 940527 15:24
Injected at: 940527 14:14
Dilution Factor: 1.00000

ID File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940527 15:02

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	9.78	128.0	185744	50.00	ug/Kg	99
2)	Chloromethane	3.48	50.0	341899	101.38	ug/Kg	100
3)	Bromomethane	4.64	94.0	508472	106.52	ug/Kg	99
5)	Vinyl Chloride	3.77	62.0	637092M	116.71	ug/Kg	100
6)	Chloroethane	4.92	64.0	266342	98.57	ug/Kg	99
8)	Methylene Chloride	7.49	84.0	808302	102.52	ug/Kg	86
9)	Acetone	6.82	43.0	362209	112.19	ug/Kg	100
11)	Carbon Disulfide	6.84	76.0	786290	85.95	ug/Kg	100
13)	Trichlorofluoromethane	5.55	101.0	641283	65.21	ug/Kg	100
14)	1,1-Dichloroethene	6.59	96.0	358520	79.19	ug/Kg	60
15)	1,1-Dichloroethane	8.60	63.0	1018223	100.97	ug/Kg	96
16)	1,2-Dichloroethene (total)	7.95	96.0	503438	99.00	ug/Kg	75
18)	Chloroform	9.95	83.0	1182899	100.64	ug/Kg	99
20)	1,2-Dichloroethane	10.71	62.0	1102367	99.89	ug/Kg	96
21)	1,2-Dichloroethane-d4	10.60	65.0	913933	97.93	ug/Kg	81
22)	2-Butanone	9.50	72.0	111926	146.90	ug/Kg	88
23)	*1,4-Difluorobenzene	11.25	114.0	807507	50.00	ug/Kg	100
26)	1,1,1-Trichloroethane	10.18	97.0	1149281	97.13	ug/Kg	98
27)	Carbon Tetrachloride	10.43	117.0	1185394	97.63	ug/Kg	97
28)	Vinyl Acetate	8.77	43.0	1512393	107.16	ug/Kg	88
29)	Bromodichloromethane	12.30	83.0	1129497	97.78	ug/Kg	95
30)	1,2-Dichloropropane	11.90	63.0	537267	97.82	ug/Kg	95
31)	cis-1,3-Dichloropropene	12.92	75.0	962057	87.92	ug/Kg	100
32)	Trichloroethene	11.62	130.0	605558	96.59	ug/Kg	100
33)	Dibromochloromethane	14.56	129.0	1014344	96.62	ug/Kg	100
34)	Benzene	10.69	78.0	1619365	97.23	ug/Kg	100
35)	1,1,2-Trichloroethane	13.96	97.0	514591	99.44	ug/Kg	94
36)	chloro-ethyl-vinyl-ether	12.69	106.0	117837	105.75	ug/Kg	81
38)	trans-1,3-Dichloropropene	13.71	75.0	990697	106.81	ug/Kg	100
39)	Bromoform	16.73	173.0	913263	98.90	ug/Kg	98
41)	*Chlorobenzene-d5	15.43	117.0	660471	50.00	ug/Kg	100
43)	2-Hexanone	14.33	43.0	970302	149.83	ug/Kg	87
44)	4-Methyl-2-Pentanone	13.12	43.0	1213420	136.09	ug/Kg	79
45)	Tetrachloroethene	14.22	163.7	579508	95.61	ug/Kg	100
47)	1,1,2,2-Tetrachloroethane	17.44	83.0	879593	99.68	ug/Kg	97
49)	Toluene-d8	13.31	98.0	1530229	98.02	ug/Kg	100
50)	Toluene	13.40	92.0	982867	99.09	ug/Kg	80
51)	Chlorobenzene	15.49	112.0	1224918	98.30	ug/Kg	99
52)	Ethylbenzene	15.63	106.0	596308	97.15	ug/Kg	97
53)	Bromofluorobenzene	17.24	95.0	948200	92.71	ug/Kg	100
56)	Xylene (total)	15.83	106.0	360441	47.85	ug/Kg	82
57)	Styrene	16.45	104.0	1233936	95.36	ug/Kg	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >99684::MD
Name: VSTD100
Misc: 05/27/94

Quant Output File: ^99684::ZA

Id File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940527 15:02

Operator ID: USER96
Quant Time: 940527 15:24
Injected at: 940527 14:14

QUANT REPORT

Operator ID: USER96
Output File: ^99686::ZA
Data File: >99686::MD
Name: VSTD200
Misc: 05/27/94

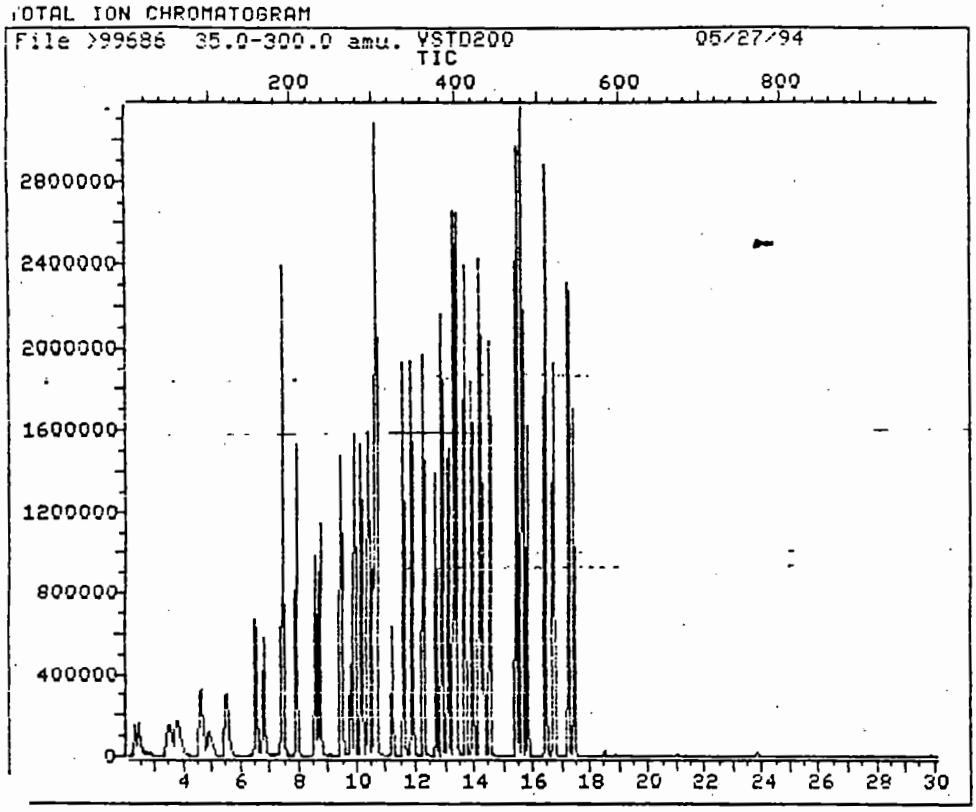
Quant Rev: 6
Quant Time: 940527 15:53
Injected at: 940527 15:22
Dilution Factor: 1.00000

ID File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940527 15:02

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	9.78	128.0	207478	50.00	ug/Kg	99
2)	Chloromethane	3.48	50.0	1259309	334.29	ug/Kg	100
3)	Bromomethane	4.61	94.0	1036068	194.31	ug/Kg	99
5)	Vinyl Chloride	3.76	62.0	1308808M	214.65	ug/Kg	100
6)	Chloroethane	4.89	64.0	596969	197.79	ug/Kg	98
8)	Methylene Chloride	7.46	84.0	1730540	196.50	ug/Kg	99
9)	Acetone	6.79	43.0	470282	130.41	ug/Kg	100
11)	Carbon Disulfide	6.81	76.0	1510687	147.84	ug/Kg	100
13)	Trichlorofluoromethane	5.51	101.0	1140878	103.86	ug/Kg	100
14)	1,1-Dichloroethene	6.53	96.0	549439	108.65	ug/Kg	64
15)	1,1-Dichloroethane	8.59	63.0	2297574	203.97	ug/Kg	94
16)	1,2-Dichloroethene (total)	7.91	96.0	1098707	193.43	ug/Kg	76
18)	Chloroform	9.92	83.0	2491619	189.77	ug/Kg	99
20)	1,2-Dichloroethane	10.71	62.0	2124430	172.33	ug/Kg	96
21)	1,2-Dichloroethane-d4	10.60	65.0	1910309	183.25	ug/Kg	80
22)	2-Butanone	9.50	72.0	195814	230.08	ug/Kg	84
23)	*1,4-Difluorobenzene	11.25	114.0	897092	50.00	ug/Kg	100
26)	1,1,1-Trichloroethane	10.17	97.0	2279802	173.43	ug/Kg	98
27)	Carbon Tetrachloride	10.40	117.0	2263402	167.79	ug/Kg	98
28)	Vinyl Acetate	8.73	43.0	3502294	223.38	ug/Kg	83
29)	Bromodichloromethane	12.29	83.0	2346698	182.86	ug/Kg	97
30)	1,2-Dichloropropane	11.90	63.0	1245840	204.18	ug/Kg	92
31)	cis-1,3-Dichloropropene	12.91	75.0	2121626	174.52	ug/Kg	100
32)	Trichloroethene	11.61	130.0	1279707	183.74	ug/Kg	100
33)	Dibromochloromethane	14.55	129.0	2084351	178.71	ug/Kg	100
34)	Benzene	10.68	78.0	3418063	184.74	ug/Kg	100
35)	1,1,2-Trichloroethane	13.96	97.0	1099110	191.17	ug/Kg	95
36)	chloro-ethyl-vinyl-ether	12.72	106.0	249587	201.62	ug/Kg	94
38)	trans-1,3-Dichloropropene	13.71	75.0	2104718	204.25	ug/Kg	100
39)	Bromoform	16.73	173.0	1840171	179.39	ug/Kg	98
41)	*Chlorobenzene-d5	15.43	117.0	693506	50.00	ug/Kg	100
43)	2-Hexanone	14.33	43.0	1937087	284.87	ug/Kg	86
44)	4-Methyl-2-Pentanone	13.14	43.0	2684325	286.71	ug/Kg	86
45)	Tetrachloroethene	14.21	163.7	1184495	186.12	ug/Kg	100
47)	1,1,2,2-Tetrachloroethane	17.46	83.0	1834159	197.95	ug/Kg	97
49)	Toluene-d8	13.31	98.0	3289681	200.69	ug/Kg	100
50)	Toluene	13.42	92.0	2185420	209.84	ug/Kg	82
51)	Chlorobenzene	15.49	112.0	2551007	194.97	ug/Kg	98
52)	Ethylbenzene	15.66	106.0	1224081	189.92	ug/Kg	91
53)	Bromofluorobenzene	17.27	95.0	1901817	177.09	ug/Kg	100
56)	Xylene (total)	15.83	106.0	764733	96.69	ug/Kg	79
57)	Styrene	16.45	104.0	2555263	188.07	ug/Kg	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >99686::MD
Name: VSTD200
Misc: 05/27/94

Quant Output File: ^99686::ZA

Id File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940527 15:02

Operator ID: USER96
Quant Time: 940527 15:53
Injected at: 940527 15:22

Raw QC Data

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	8-40% of mass 95	23.78	23.78	Ok
75	30-66% of mass 95	55.09	55.09	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.61	6.61	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	50-120% of mass 95	72.88	72.88	Ok
175	4-9% of mass 174	5.48	7.52	Ok
176	93-101% of mass 174	69.39	95.21	Ok
177	5-9% of mass 176	4.66	6.71	Ok

Injection Date: 06/23/94
Injection Time: 10:23
Data File: >99959
Scan: 256

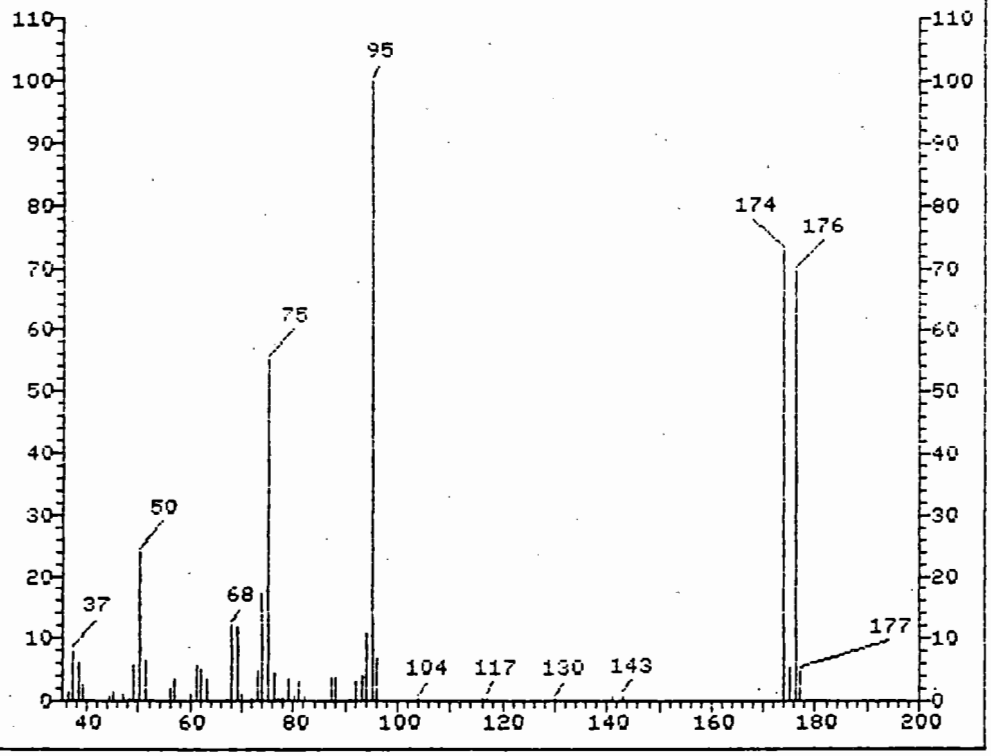
JAH 6/23/94

MS data file header from : >99959

Sample: BFB 50NG INJ Operator: USER96 MS 6/23/94 10:23
Misc : 06/23/94
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: MF96B Tuning file: MT9201 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 200 Transfer line temp. : 230

Chromatographic temperatures :	80.	160.	0.	0.	0.
Chromatographic times, min. :	.5	.5	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0

File >99959 BFB 50NG INJ 06/23/94 Scan 256
Bpk Ab 100 SUB ADD NRM DVC 8.99 min.



>99959 BFB 50NG INJ 06/23/94
256 SUB ADD NRM DVC

File: >99959 Scan #: 256 Retn. time: 8.99

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.20	1.516	52.00	.137	70.10	.936	81.05	3.030	105.95	.147
37.10	7.805	56.10	2.147	72.10	.539	82.05	.666	116.15	.287
38.20	6.070	57.10	3.269	73.10	4.827	87.15	3.633	116.95	.483
39.10	2.372	60.10	1.129	74.10	17.135	88.05	3.587	119.05	.161
44.10	.577	61.10	5.694	75.10	55.088	91.05	.533	130.10	.305
45.10	1.223	62.10	5.196	76.10	4.465	92.15	2.949	141.00	.861
47.20	1.164	63.10	3.531	77.15	.386	93.15	3.980	143.10	.863
48.10	.362	64.10	.199	77.75	.105	94.15	10.792	174.00	72.884
49.10	5.812	67.10	.357	78.05	.374	95.15	100.000	175.10	5.481
50.10	23.775	68.10	11.998	79.05	3.276	96.15	6.612	176.10	69.394
51.20	6.584	69.10	11.732	80.15	.862	104.05	.357	177.00	4.656

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
50	8-40% of mass 95	22.92	22.92	Ok
75	30-66% of mass 95	51.50	51.50	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.20	6.20	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	50-120% of mass 95	79.69	79.69	Ok
175	4-9% of mass 174	6.58	8.26	Ok
176	93-101% of mass 174	79.93	100.30	Ok
177	5-9% of mass 176	5.19	6.50	Ok

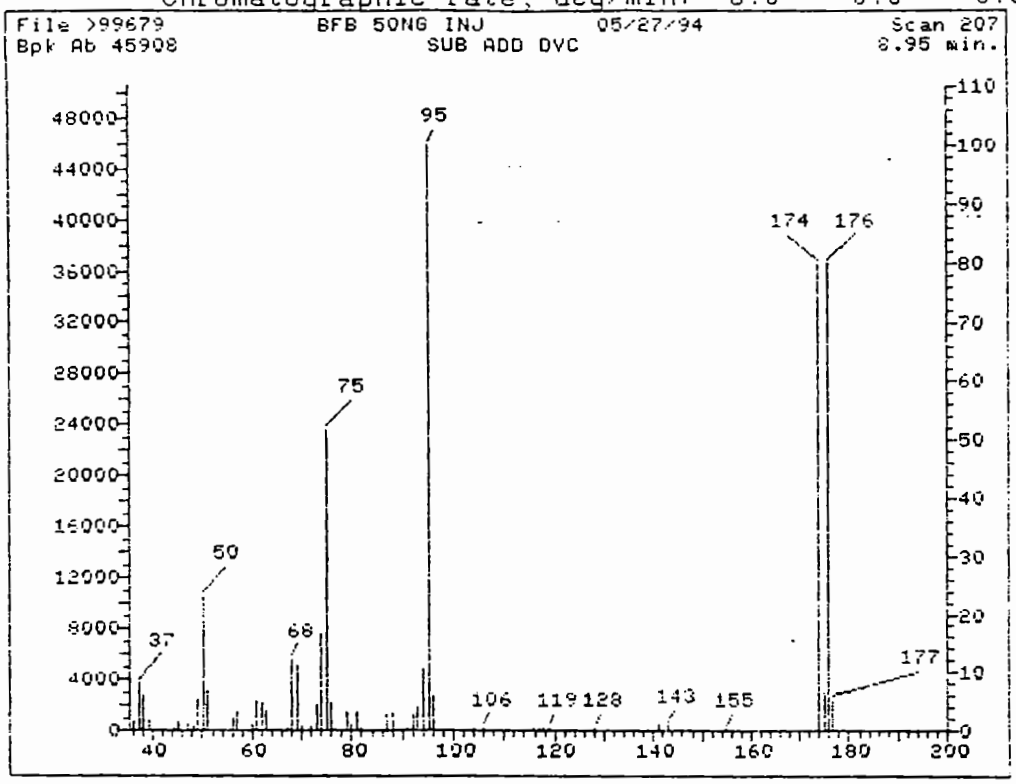
Injection Date: 05/27/94
Injection Time: 10:39
Data File: >99679
Scan: 207

ydH 5/27/94

MS data file header from : >99679

Sample: BFB 50NG INJ Operator: USER96 MS 5/27/94 10:39
Misc : 05/27/94
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: MF96B Tuning file: MT9201 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 200 Transfer line temp. : 230

Chromatographic temperatures :	80.	160.	0.	0.	0.
Chromatographic times, min. :	.5	.5	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0



>99679 BFB 50NG INJ 05/27/94
207 SUB ADD NRM DVC

File: >99679 Scan #: 207 Retn. time: 8.95

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.10	1.559	52.00	.096	73.00	4.476	91.05	.322	117.95	.335
37.10	8.023	55.00	.190	74.00	16.585	91.35	.077	118.85	.419
38.10	5.976	56.00	1.925	75.00	51.495	92.05	2.741	127.90	.297
39.10	1.865	57.00	3.256	76.00	4.801	93.05	4.066	128.80	.091
40.00	.105	60.10	1.136	76.85	.497	94.05	10.362	129.90	.181
41.20	.137	61.00	5.231	78.05	.029	95.05	100.000	140.90	.981
43.30	.125	62.00	4.749	78.95	3.145	96.05	6.199	142.90	1.035
44.10	.470	63.00	3.410	79.95	.921	97.05	.143	147.90	.149
45.10	1.402	63.90	.207	80.95	3.145	103.85	.439	154.80	.288
47.00	1.120	67.10	.375	81.95	.275	104.95	.082	173.90	79.690
48.10	.803	68.00	12.216	85.95	.091	105.85	.452	174.90	6.583
49.10	5.446	69.00	11.152	87.05	3.494	115.95	.418	175.90	79.928
50.10	22.923	70.00	.654	87.95	2.952	116.85	.292	176.80	5.194
51.10	6.905	72.00	.571	90.75	.141				

7A

VOLATILE CONTINUING CALIBRATION CHECK

b Name:ESE Contract:HANF N. SLP

Lab Code:ESE Case No.:50516 SAS No.: SDG No.:50516

Instrument ID:A Calibration Date: 6/23/94 Time:1055

Lab File ID:99960 Init. Calib. Date(s): 5/27/94 5/27/94

Heated Purge: (Y/N) Y Init. Calib. Times: 1149 1522

GC Column:DB-624 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Chloromethane	1.115	1.550		39.0	
Bromomethane	1.414	1.403	0.100	0.8	25.0
Vinyl Chloride	1.660	1.752	0.100	5.5	25.0
Chloroethane	0.813	0.820		0.9	
Methylene Chloride	2.230	1.772		20.5	
Acetone	1.104	1.282		16.1	
Carbon Disulfide	2.264	2.312		2.1	
1,1-Dichloroethene	1.058	1.027	0.100	2.9	25.0
1,1-Dichloroethane	2.842	2.810	0.200	1.1	25.0
1,2-Dichloroethene (total)	1.419	1.423		0.3	
Chloroform	3.281	3.193	0.200	2.7	25.0
1,2-Dichloroethane	3.061	2.968	0.100	3.0	25.0
2-Butanone	0.289	0.338		17.0	
1,1,1-Trichloroethane	0.734	0.745	0.100	1.5	25.0
Carbon Tetrachloride	0.748	0.729	0.100	2.5	25.0
Bromodichloromethane	0.713	0.735	0.200	3.1	25.0
1,2-Dichloropropane	0.347	0.369		6.3	
cis-1,3-Dichloropropene	0.692	0.722	0.200	4.3	25.0
Trichloroethene	0.392	0.414	0.300	5.6	25.0
Dibromochloromethane	0.643	0.669	0.100	4.0	25.0
1,1,2-Trichloroethane	0.333	0.354	0.100	6.3	25.0
Benzene	1.025	1.112	0.500	8.5	25.0
trans-1,3-Dichloropropene	0.573	0.593	0.100	3.5	25.0
Bromoform	0.578	0.676	0.100	17.0	25.0
4-Methyl-2-Pentanone	0.926	0.987		6.6	
2-Hexanone	0.715	0.836		16.9	
Tetrachloroethene	0.465	0.479	0.200	3.0	25.0
1,1,2,2-Tetrachloroethane	0.715	0.912	0.500	27.6	25.0
Toluene	0.777	0.815	0.400	4.9	25.0
Chlorobenzene	0.964	1.007	0.500	4.5	25.0
Ethylbenzene	0.466	0.507	0.100	8.8	25.0
Styrene	0.977	1.078	0.300	10.3	25.0
Xylene (total)	0.571	0.616	0.300	7.9	25.0
Toluene-d8	1.206	1.196		0.8	
Bromofluorobenzene	0.766	0.778	0.200	1.6	25.0
1,2-Dichloroethane-d4	2.554	2.411		5.6	

All other compounds must meet a minimum RRF of 0.010

FORM VII VOA

QUANT REPORT

Operator ID: USER96
Output File: ^99960::P1
Data File: ^99960#:D2
Name: VSTD50
Misc: 06/23/94

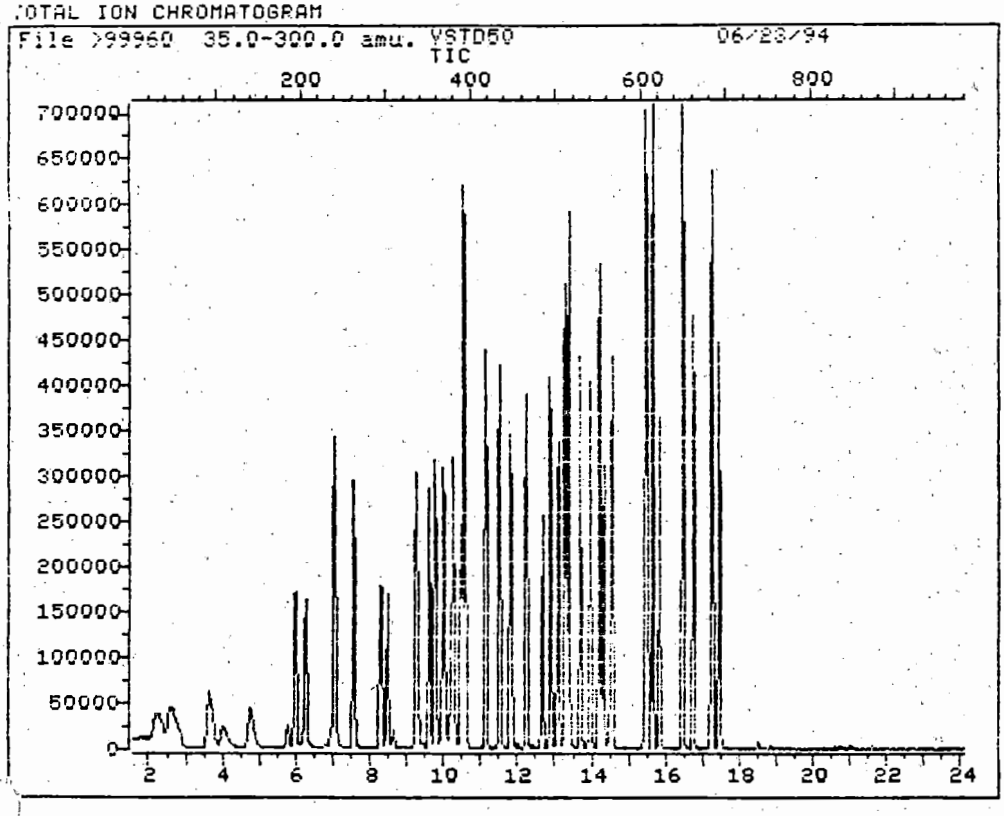
Quant Rev: 6
Quant Time: 940623 13:23
Injected at: 940623 10:55
Dilution Factor: 1.00000

ID File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940623 13:23

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	9.60	128.0	153228	50.00	ug/Kg	98
2)	Chloromethane	2.23	50.0	237581	50.00	ug/Kg	100
3)	Bromomethane	3.63	94.0	214956	50.00	ug/Kg	96
5)	Vinyl Chloride	2.60	62.0	268390	50.00	ug/Kg	100
6)	Chloroethane	4.02	64.0	125660	50.00	ug/Kg	97
8)	Methylene Chloride	7.05	84.0	271545	50.00	ug/Kg	96
9)	Acetone	6.25	43.0	196409	50.00	ug/Kg	100
11)	Carbon Disulfide	6.27	76.0	354300	50.00	ug/Kg	100
13)	Trichlorofluoromethane	4.76	101.0	189793	50.00	ug/Kg	100
14)	1,1-Dichloroethene	5.98	96.0	157321	50.00	ug/Kg	66
15)	1,1-Dichloroethane	8.29	63.0	430586	50.00	ug/Kg	97
16)	1,2-Dichloroethene (total)	7.58	96.0	217992	50.00	ug/Kg	69
18)	Chloroform	9.78	83.0	489213	50.00	ug/Kg	99
20)	1,2-Dichloroethane	10.59	62.0	454818	50.00	ug/Kg	96
21)	1,2-Dichloroethane-d4	10.47	65.0	369462	50.00	ug/Kg	82
22)	2-Butanone	9.30	72.0	51852	50.00	ug/Kg	90
23)	*1,4-Difluorobenzene	11.16	114.0	628209	50.00	ug/Kg	100
26)	1,1,1-Trichloroethane	10.01	97.0	468326	50.00	ug/Kg	95
27)	Carbon Tetrachloride	10.27	117.0	457866	50.00	ug/Kg	98
28)	Vinyl Acetate	8.50	43.0	553149	50.00	ug/Kg	92
29)	Bromodichloromethane	12.24	83.0	461909	50.00	ug/Kg	93
30)	1,2-Dichloropropane	11.83	63.0	232115	50.00	ug/Kg	94
31)	cis-1,3-Dichloropropene	12.88	75.0	406013	44.77	ug/Kg	100
32)	Trichloroethene	11.53	130.0	259951	50.00	ug/Kg	100
33)	Dibromochloromethane	14.56	129.0	420037	50.00	ug/Kg	100
34)	Benzene	10.57	78.0	698553	50.00	ug/Kg	100
35)	1,1,2-Trichloroethane	13.96	97.0	222100	50.00	ug/Kg	96
36)	chloro-ethyl-vinyl-ether	12.68	106.0	49768	50.00	ug/Kg	92
38)	trans-1,3-Dichloropropene	13.69	75.0	411548	55.23	ug/Kg	100
39)	Bromoform	16.74	173.0	424923	50.00	ug/Kg	98
41)	*Chlorobenzene-d5	15.43	117.0	526622	50.00	ug/Kg	100
43)	2-Hexanone	14.33	43.0	440012	50.00	ug/Kg	91
44)	4-Methyl-2-Pentanone	13.11	43.0	519860	50.00	ug/Kg	80
45)	Tetrachloroethene	14.22	163.7	252067	50.00	ug/Kg	100
47)	1,1,2,2-Tetrachloroethane	17.48	83.0	480236	50.00	ug/Kg	96
49)	Toluene-d8	13.30	98.0	630135	50.00	ug/Kg	100
50)	Toluene	13.39	92.0	429217	50.00	ug/Kg	81
51)	Chlorobenzene	15.48	112.0	530378	50.00	ug/Kg	96
52)	Ethylbenzene	15.66	106.0	267174	50.00	ug/Kg	94
53)	Bromofluorobenzene	17.27	95.0	410010	50.00	ug/Kg	100
56)	Xylene (total)	15.85	106.0	162314	25.00	ug/Kg	81
57)	Styrene	16.47	104.0	567858	50.00	ug/Kg	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >99960::D2 Quant Output File: ^99960::P1
Name: VSTD50
Misc: 06/23/94

Id File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940623 13:23

Operator ID: USER96
Quant Time: 940623 13:23
Injected at: 940623 10:55

Continuing Calibration Check
HSL Compounds

Case No: | Calibration Date: 06/23/94

Contractor: ESE | Time: 10:55

Contract No: | Laboratory ID: 99960

Instrument ID: 5996/A | Initial Calibration Date: 06/18/94

Minimum $\overline{RF}$ for SPCC is 0.100 Maximum % Diff for CCC is 25.0%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Chloromethane	1.11479	1.55051	39.09		**	
Bromomethane	1.41384	1.40285	.78	*	**	
Vinyl Chloride	1.65979	1.75157	5.53	*	**	
Chloroethane	.81266	.82009	.91		**	
Methylene Chloride	2.23032	1.77216	20.54		**	
Acetone	1.10441	1.28181	16.06		**	
Carbon Disulfide	2.26372	2.31224	2.14		**	
1,1-Dichloroethene	1.05776	1.02671	2.94	*	**	
1,1-Dichloroethane	2.84240	2.81010	1.14	*	**	
1,2-Dichloroethene (total)	1.41892	1.42266	.26		**	
Chloroform	3.28094	3.19271	2.69	*	**	
1,2-Dichloroethane	3.06086	2.96824	3.03	*	**	
1,2-Dichloroethane-d4	2.55430	2.41119	5.60		**	
2-Butanone	.28933	.33840	16.96		**	
1,1,1-Trichloroethane	.73350	.74549	1.64	*	**	
Carbon Tetrachloride	.74804	.72884	2.57	*	**	
Bromodichloromethane	.71304	.73528	3.12	*	**	
1,2-Dichloropropane	.34759	.36949	6.30	*	**	
cis-1,3-Dichloropropene	.65187	.68392	4.92	*	**	(Conc=47.25)
Trichloroethene	.39223	.41380	5.50	*	**	
Dibromochloromethane	.64314	.66863	3.96	*	**	
Benzene	1.02474	1.11198	8.51	*	**	
1,1,2-Trichloroethane	.33347	.35354	6.02	*	**	
trans-1,3-Dichloropropene	.59847	.62096	3.76	*	**	(Conc=52.75)
Bromoform	.57764	.67640	17.10	*	**	
2-Hexanone	.71535	.83554	16.80		**	
4-Methyl-2-Pentanone	.92554	.98716	6.66		**	
Tetrachloroethene	.46498	.47865	2.94	*	**	
1,1,2,2-Tetrachloroethane	.71536	.91192	27.48	*	**	
Toluene-d8	1.20628	1.19656	.81		**	
Toluene	.77685	.81504	4.92	*	**	
Chlorobenzene	.96428	1.00713	4.44	*	**	

RF - Response Factor from daily standard file at 50.00 ug/kg

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case No:

Contractor: ESE

Contract No:

Instrument ID: 5996/A

Calibration Date: 06/23/94

Time: 10:55

Laboratory ID: >99960

Initial Calibration Date: 06/18/94

Minimum $\overline{RF}$ for SPCC is 0.100 Maximum % Diff for CCC is 25.0%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Ethylbenzene	.46564	.50734	8.95	*	**	
Bromofluorobenzene	.76557	.77857	1.70	*	**	
Xylene (total)	.57129	.61643	7.90	*	**	(Conc=25.00)
Styrene	.97673	1.07830	10.40	*	**	

RF - Response Factor from daily standard file at 50.00 ug/kg

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

Quant ID File: IDARMS::E2

Title: CONTRACT LABORATORY PROGRAM ID FILE

Last EDIT Date: 940608 15:31 Last Calib Date: 940623 13:23

RT Window (+/- min): 1.00
Max Hits/Compound: 5
Minimum Area: 2000
Peak/Base Peak Ratio: 55.00 %
Slope Sensitivity: .300
Subtraction Method: 3
Ignore max check: NO
Auto Qdel Method: 1
Units of Conc: ug/Kg

Number of Compounds: 58

Comp No.	Compound Name	(Type)	Retention Time Min.	(Rel)	R.F.	Conc.	
1)	*Bromochloromethane	(I)	9.60	(1.000)	1.00000	50.00	
2)	Chloromethane	(T)	2.23	(.233)	1.55051	50.00	
3)	Bromomethane	(T)	3.63	(.379)	1.40285	50.00	
4)	Dichlorodifluoromethane	(T)	3.50	(.365)	0.00000	200.00	
5)	Vinyl Chloride	(T)	2.60	(.271)	1.75157	50.00	**
6)	Chloroethane	(T)	4.02	(.419)	.82009	50.00	
7)	Iodomethane	(T)	6.00	(.625)	0.00000	50.00	
8)	Methylene Chloride	(T)	7.05	(.735)	1.77216	50.00	
9)	Acetone	(T)	6.25	(.651)	1.28181	50.00	
10)	Acrolein	(T)	6.26	(.653)	0.00000	200.00	
11)	Carbon Disulfide	(T)	6.27	(.653)	2.31224	50.00	
12)	Acrylonitrile	(T)	7.73	(.805)	0.00000	200.00	
13)	Trichlorofluoromethane	(T)	4.76	(.496)	1.23863	50.00	
14)	1,1-Dichloroethene	(M)	5.98	(.622)	1.02671	50.00	
15)	1,1-Dichloroethane	(T)	8.29	(.864)	2.81010	50.00	
16)	1,2-Dichloroethene (total)	(T)	7.58	(.790)	1.42266	50.00	**
17)	Diethyl ether	(T)	10.84	(1.129)	0.00000	50.00	
18)	Chloroform	(T)	9.78	(1.019)	3.19271	50.00	
19)	112-Tricl-122-trifl-ethane		6.19	(.644)	0.00000	54.00	
20)	1,2-Dichloroethane	(T)	10.59	(1.103)	2.96824	50.00	
21)	1,2-Dichloroethane-d4	(S)	10.47	(1.091)	2.41119	50.00	
22)	2-Butanone	(T)	9.30	(.969)	.33840	50.00	
23)	*1,4-Difluorobenzene	(I)	11.16	(1.000)	1.00000	50.00	
24)	Dibromomethane	(T)	8.29	(.743)	0.00000	50.00	
25)	Methyl t-Butyl Ether	(T)	7.60	(.681)	0.00000	50.00	
26)	1,1,1-Trichloroethane	(T)	10.01	(.897)	.24549	50.00	
27)	Carbon Tetrachloride	(T)	10.27	(.920)	.72884	50.00	
28)	Vinyl Acetate	(T)	8.50	(.761)	.88052	50.00	
29)	Bromodichloromethane	(T)	12.24	(1.097)	.73528	50.00	
30)	1,2-Dichloropropane	(T)	11.83	(1.060)	.36949	50.00	
31)	cis-1,3-Dichloropropene	(T)	12.88	(1.154)	.72180	44.77	**
32)	Trichloroethene	(M)	11.53	(1.033)	.41380	50.00	
33)	Dibromochloromethane	(T)	14.56	(1.305)	.66863	50.00	
34)	Benzene	(M)	10.57	(.947)	1.11198	50.00	
35)	1,1,2-Trichloroethane	(T)	13.96	(1.251)	.35354	50.00	
36)	chloro-ethyl-vinyl-ether	(T)	12.68	(1.136)	.07922	50.00	
37)	Ethylene Dibromide	(T)	10.46	(.937)	0.00000	50.00	
38)	trans-1,3-Dichloropropene	(T)	13.69	(1.226)	.59308	55.23	**
39)	Bromoform	(T)	16.74	(1.500)	.67640	50.00	
40)	1,1,1,2 Tetrachloroethane	(T)	12.39	(1.110)	0.00000	50.00	
41)	*Chlorobenzene-d5	(I)	15.43	(1.000)	1.00000	50.00	
42)	1,2,3 Trichloropropane	(T)	15.49	(1.004)	0.00000	50.00	
43)	2-Hexanone	(T)	14.33	(.929)	.83554	50.00	
44)	4-Methyl-2-Pentanone	(T)	13.11	(.850)	.98716	50.00	
45)	Tetrachloroethene	(T)	14.22	(.921)	.47865	50.00	
46)	1,4 Dichlorobutane	(T)	13.80	(.894)	0.00000	50.00	
47)	1,1,2,2-Tetrachloroethane	(T)	17.48	(1.132)	.91192	50.00	
48)	Ethyl Methacrylate	(T)	14.69	(.952)	0.00000	50.00	
49)	Toluene-d8	(S)	13.30	(.862)	1.19656	50.00	
50)	Toluene	(M)	13.39	(.868)	.81504	50.00	
51)	Chlorobenzene	(M)	15.48	(1.003)	1.00713	50.00	
52)	Ethylbenzene	(T)	15.66	(1.015)	.50734	50.00	
53)	Bromofluorobenzene	(S)	17.27	(1.119)	.77857	50.00	
54)	ortho - Xylene	(T)	15.71	(1.018)	0.00000	25.00	**
55)	Ortho and Meta Xylene	(T)	15.71	(1.018)	0.00000	25.00	**
56)	Xylene (total)	(T)	15.85	(1.027)	.61643	25.00	**
57)	Styrene	(T)	16.47	(1.067)	1.07830	50.00	
58)	Dichlorobenzene	(T)	19.79	(1.282)	0.00000	50.00	

* Compound is ISTD
* Compound uses different Quant parameters

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKS1

Lab Name:ESE Contract:HANF N. SLP

Lab Code:ESE Case No.:50516 SAS No.: SDG No.:50516

Matrix: (soil/water) SOIL Lab Sample ID:MB*NONE*1

Sample wt/vol: 5.00 (g/ml) G Lab File ID: 99961

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 6/23/94

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	3.	J
67-64-1	Acetone	7.	J
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	Xylene (total)	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKS1

ab Name:ESE Contract:HANF N. SLP

Lab Code:ESE Case No.:50516 SAS No.: SDG No.:50516

Matrix: (soil/water) SOIL Lab Sample ID:MB*NONE*1

Sample wt/vol: 5.00 (g/ml) G Lab File ID: 99961

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 6/23/94

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	124-19-6	NONANAL	21.04	8.	JN
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

QUANT REPORT

Operator ID: USER96
Output File: ^99961::P1
Data File: >99961::D2
Name: MB*NONE*1
Misc: 06/23/94

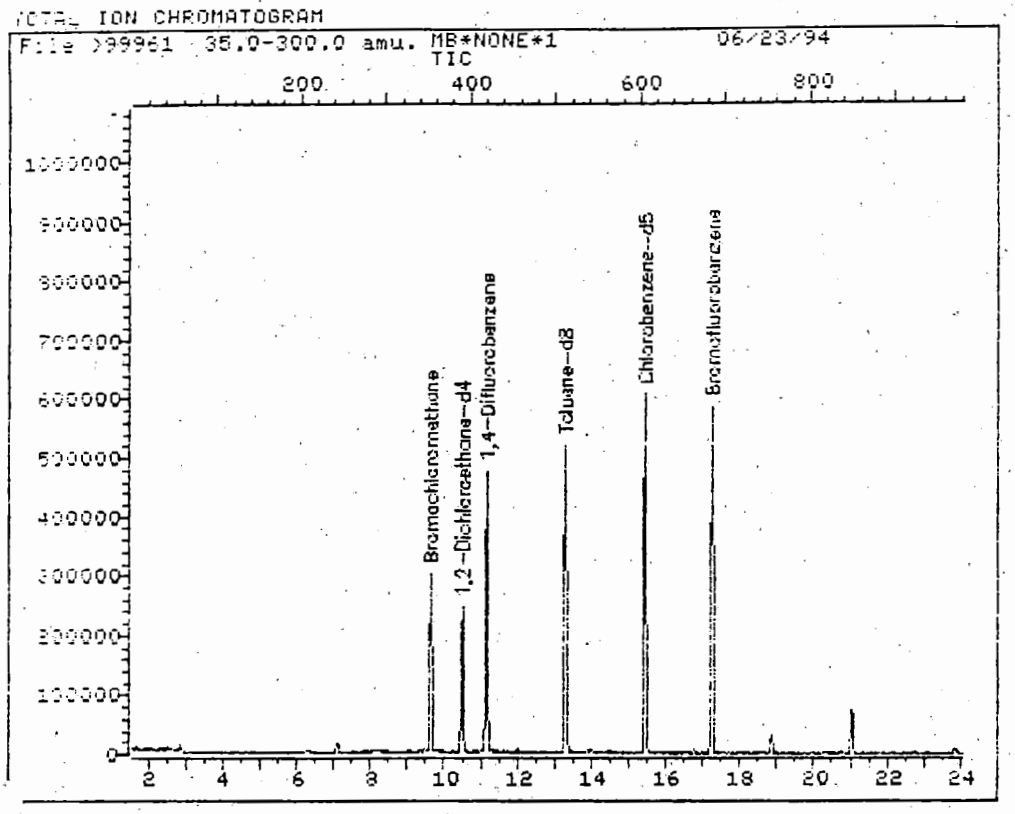
Quant Rev: 6
Quant Time: 940623 13:55
Injected at: 940623 11:23
Dilution Factor: 1.00000

ID File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940623 13:23

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	9.63	128.0	152424	50.00	ug/Kg	95
8)	Methylene Chloride	7.11	84.0	14444	2.67	ug/Kg	98
9)	Acetone	6.31	43.0	28462	7.28	ug/Kg	100
21)	1,2-Dichloroethane-d4	10.51	65.0	381426	51.89	ug/Kg	79
23)	*1,4-Difluorobenzene	11.17	114.0	647886	50.00	ug/Kg	100
41)	*Chlorobenzene-d5	15.44	117.0	553330	50.00	ug/Kg	100
49)	Toluene-d8	13.28	98.0	651067	49.17	ug/Kg	100
53)	Bromofluorobenzene	17.25	95.0	409515	47.53	ug/Kg	100

* Compound is ISTD

yH 6-24-94

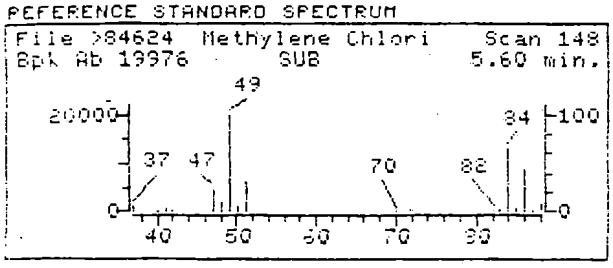


Data File: >99961::D2 Quant Output File: ^99961::P1
Name: MB*NONE*1
Misc: 06/23/94

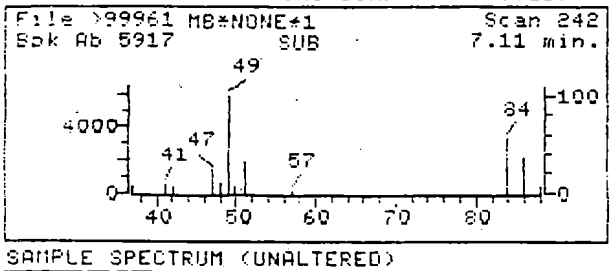
Id File: IDARMS::E2
Title: CONTRACT LABORATORY PROGRAM ID FILE
Last Calibration: 940623 13:23

Operator ID: USER96
Quant Time: 940623 13:55
Injected at: 940623 11:23

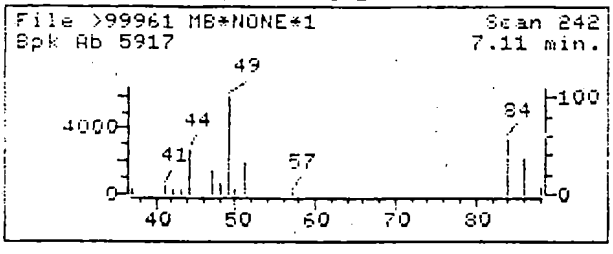
REFERENCE STANDARD SPECTRUM

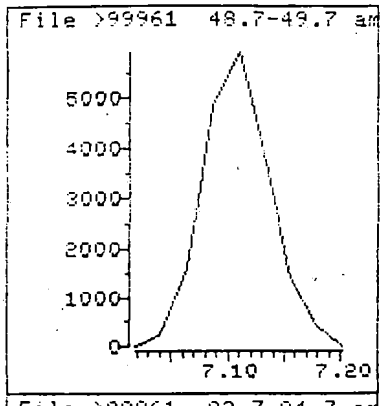


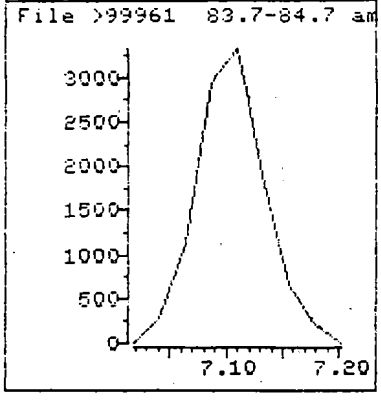
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







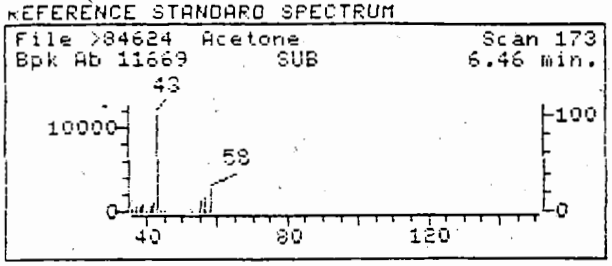
Data File: >99961::D2
Name: MB*NONE*1
Misc: 06/23/94
Quant Time: 940623 13:55
Injected at: 940623 11:23

Quant Output File: ^99961::P1
Quant ID File: IDARMS::E2
Last Calibration: 940623 13:23

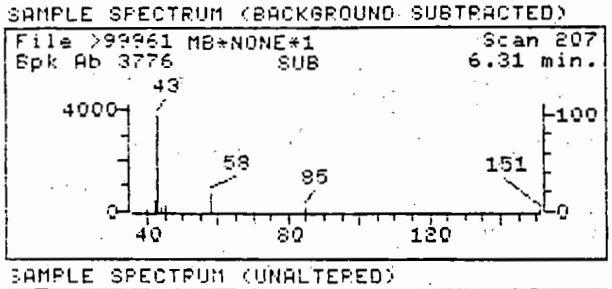
Compound No: 8
Compound Name: Methylene Chloride
Scan Number: 242
Retention Time: 7.11 min.
Quant Ion: 84.0
Area: 14444
Concentration: 2.67 ug/Kg < D.L
q-value: 98

ysH 6/24/94

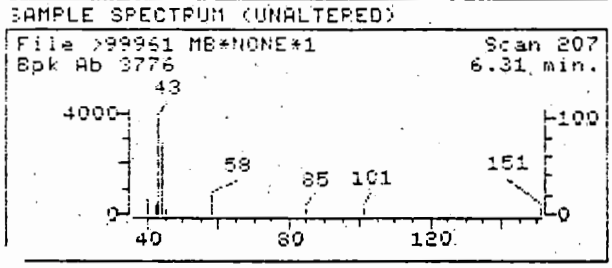
REFERENCE STANDARD SPECTRUM

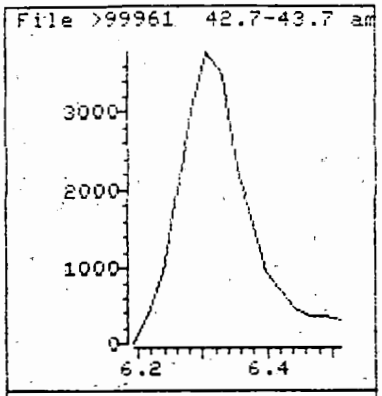


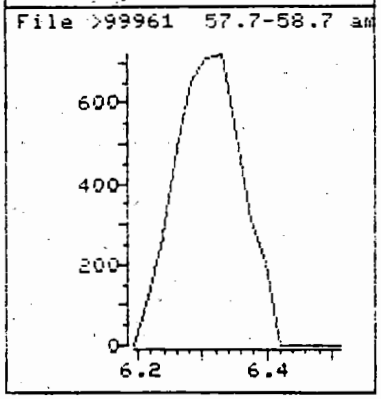
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >99961::D2
Name: MB*NONE*1
Misc: 06/23/94
Quant Time: 940623 13:55
Injected at: 940623 11:23

Quant Output File: ^99961::P1

Quant ID File: IDARMS::E2
Last Calibration: 940623 13:23

Compound No: 9
Compound Name: Acetone
Scan Number: 207
Retention Time: 6.31 min.
Quant Ion: 43.0
Area: 28462
Concentration: 7.28 ug/Kg < 10 L
q-value: 100

ysit 6-24-94

MS data file header from : >99961

Sample: MB*NONE*1 Operator: USER96 MS 6/23/94 11:23
Misc : 06/23/94
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: MF96S Tuning file: MT9201 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 200 Transfer line temp. : 230

Chromatographic temperatures :	10.	170.	0.	0.	0.
Chromatographic times, min. :	3.0	5.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

>99961 MB*NONE*1 06/23/94
35.0: 300.0 CLP ADC TIC
Upslope: .20 Area Reject: 112939. Max Peaks: 1 Bunching: 1
Dnslope: 0.00 Results File I99961 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	21.04	845	849	854	72028	304901	297978	100.00	100.000

Sum of corrected areas: 297978.

Summary of Unknowns PBM Library Search and Quantitation

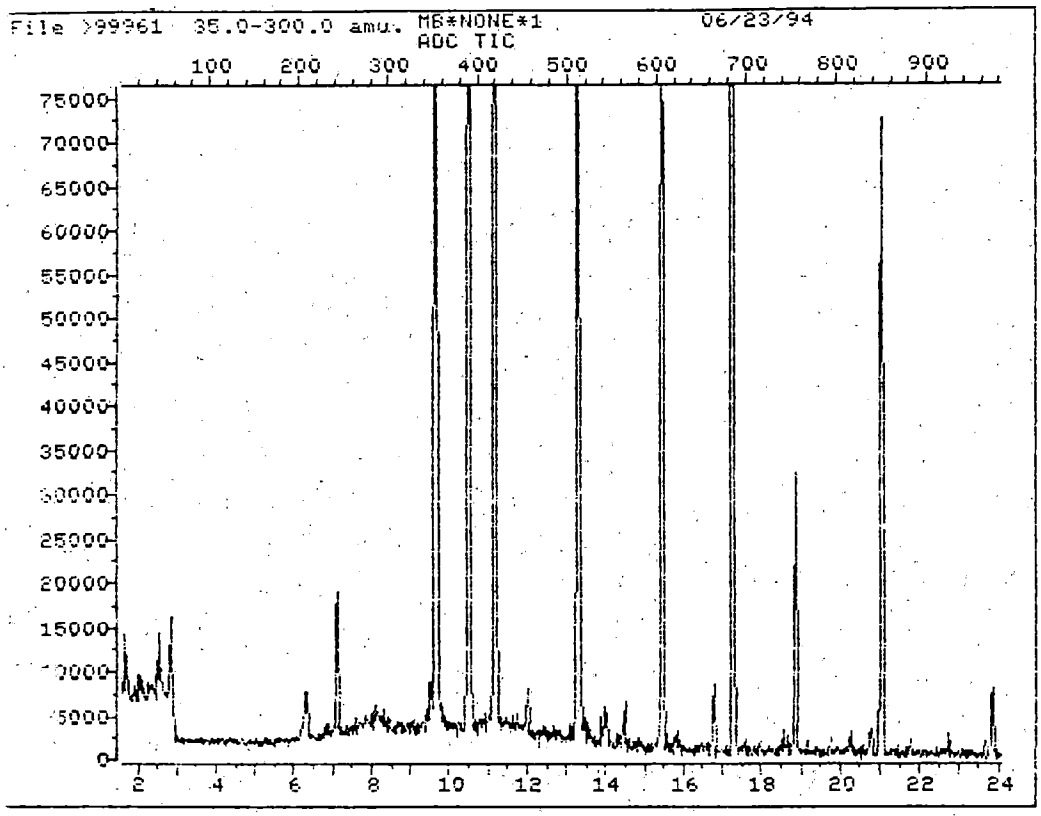
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	1129388.	9.63	1.58 - 10.40
2	50.0	1730369.	11.17	10.40 - 13.31
3	50.0	1963069.	15.44	13.31 - 24.06

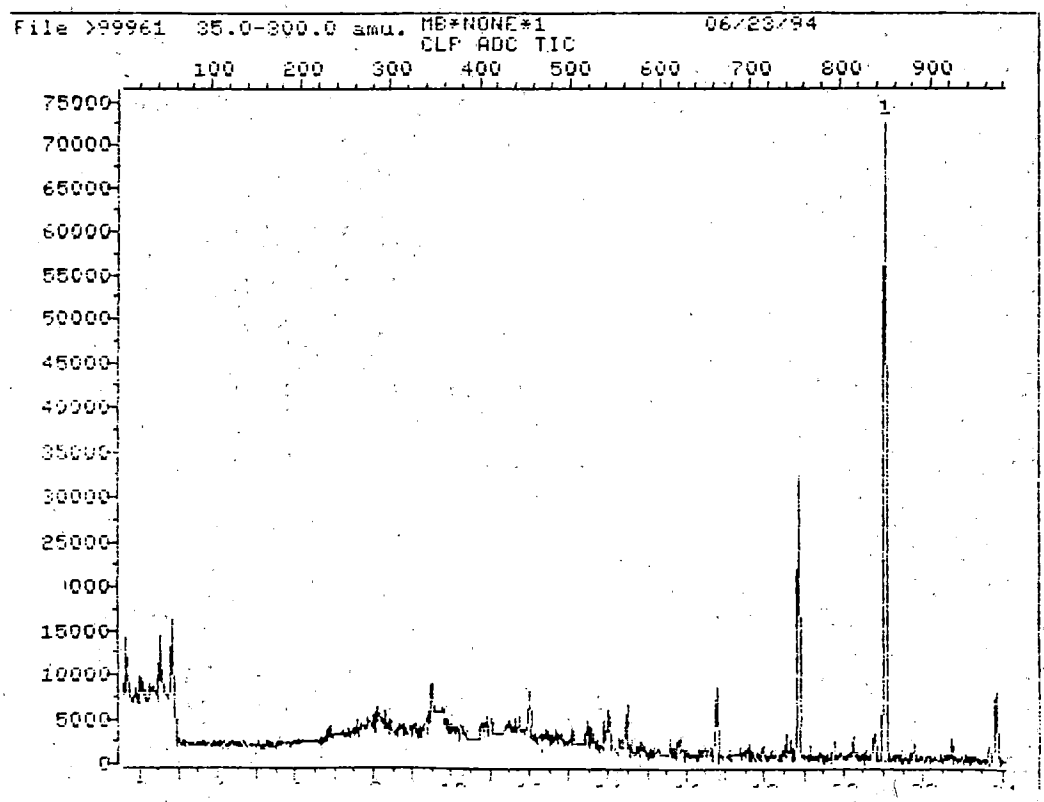
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 0.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

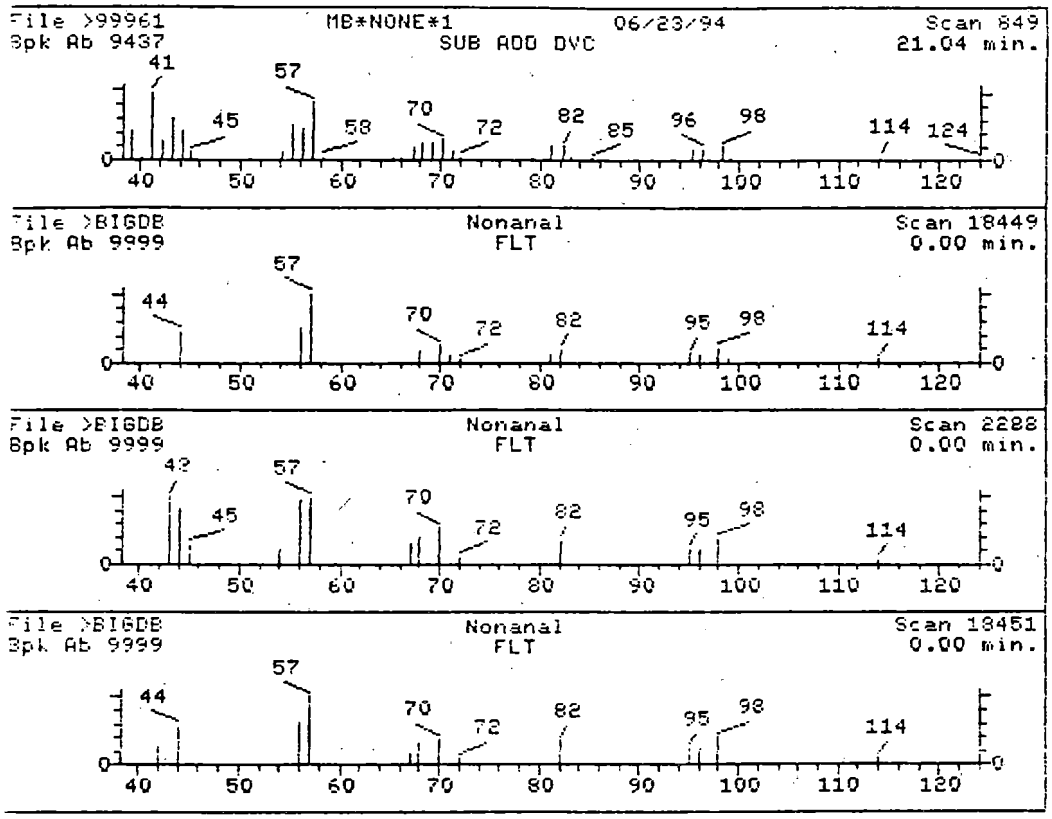
Correction Factor = ******** = (AM / AU) / (DF * FS)

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

9:36 AM FRI., 24 JUNE, 1994


File >99961 35.0-300.0 amu. MB*NONE*1 06/23/94
ADC TIC
100 200 300 400 500 600 700 800 900
75000 70000 65000 60000 55000 50000 45000 40000 35000 30000 25000 20000 15000 10000 5000 0
2 4 6 8 10 12 14 16 18 20 22 24


File >99961 35.0-300.0 amu. MB*NONE*1 06/23/94
CLP ADC TIC
100 200 300 400 500 600 700 800 900
1
75000 70000 65000 60000 55000 50000 45000 40000 35000 30000 25000 20000 15000 10000 5000 0



Unknown #:1
You're already on LU: 58
Area = 297978.0 Tentative Concentration is 8.00

You're already on LU: 58

1.	Nonanal	142 C9H18O
2.	Nonanal	142 C9H18O
3.	Nonanal	142 C9H18O
4.	Nonanal	142 C9H18O
5.	Nonanal	142 C9H18O
6.	Nonanal	142 C9H18O
7.	Nonanal	142 C9H18O

Sample file: >99961 Spectrum #: 849
Search speed: 1 Tilting option: N No. of ion ranges searched: 52

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IO
1.	89	124196	18449	"BIGDB	80	31	0	0	85	5	66	60
2.	88	124196	2288	"BIGDB	98	26	1	0	51	2	65	58
3.	76	124196	18451	"BIGDB	66	54	1	0	54	8	45	23
4.	64	124196	18452	"BIGDB	67	7	0	0	29	24	28	48
5.	52	124196	2289	"BIGDB	54	57	0	0	77	22	22	24
6.	52	124196	18447	"BIGDB	58	56	1	0	65	18	20	16
7.	48	124196	18450	"BIGDB	62	54	1	0	65	21	17	19

YSA 6/24/94

9513356.0222

Other Relevant Documents

Environmental Science & Engineering, Inc.

GC/MS INSTRUMENT LOGSHEET

INSTRUMENT ID (A) 5996

DATE 06/23/94 PROJECT NAME ICFKE APG TASK 10

OPERATOR YSH/GGL/WCW

MASS RANGE 35/300 A/D 2^3 CAL FILE CB5390

THRESHOLD 100 E. M. 1748V ID FILE IDARMS

SCAN DELAY 1.5 min SURR CLPSS72*C ID FILE UNITS ug/kg

TAPE DATE SURR CLPIS52*C DATE UPLOADED

COLUMN DB 624 75m INT STD CLPVS59*C UPLOAD NAME

GC PROGRAM 10°C t=3min to 170°C @ 10°C/min t=5min STANDARD DATE SIGN

FRN	SAMPLE ID	PURGE VOL	ALS POS	DIL FACT	COMMENTS	SAMPLE CHECK
>99959	BFB 50ng	—	—	—	DSSH25LH757 3 -50 10:23	✓
>99960	VSTD 50	5g	1	1.0		✓
>99961	MB*NONE*1	5g	2	1.0		✓
>99962	CDMHNSS2*6	5g	3	1.0		✓
>99963	SPM1*CDMHNSS2*6	5g	4	1.0		✓
>99964	SPM2*CDMHNSS2*6	5g	5	1.0		✓
>99965	KE100C*15		6			✓
>99966	KE100C*16		7			✓
>99967	KE100C*17		8			✓
>99968	KE100C*18		9			✓
>99969	KE100C*19		10		Tol-dB high. IS low	
>99970	KE100C*20		11		sur out	
>99971	KE100C*21		12		sur out	
>99972	KE100C*22		13		" "	
>99973	SP1*NONE*1	~~5g~~ 5g	14	1.0	SURRS OK	✓

06/24/94

SIGNED 6/23/94 DATE

Read and Understood by

SIGNED 06/24/94 DATE PAGE 1 OF 1

~~000055~~

000084

9513356.0223

Environmental Science & Engineering, Inc.

GC/MS INSTRUMENT LOGSHEET

INSTRUMENT ID (A) 5996

DATE 5/27/94 PROJECT NAME Soil Calibration CARMY5/CB5390

OPERATOR YSH/GGL CAL FILE CARMY5/CB5390

MASS RANGE 35-300 A/D 2^3 ID FILE IDARM5

THRESHOLD 100 E. M. 1748V ID FILE UNITS US/Kg

SCAN DELAY 2.1 min SURR CLP5572xA DATE UPLOADED

TAPE DATE INT STD CLP1552xA UPLOAD NAME

COLUMN DB 624 75m STANDARD CLP1559xA DATE SIGN

GC PROGRAM 10° t=3min 10°/min to 180°

FRN	SAMPLE ID	PURGE VOL	ALS POS	DIL FACT	COMMENTS	SAMPLE CHECK
>99679	BFB 50ng inj	—	—	—	10:39 207	✓
>99680	VSTD 50	5g	9	1.0	NOT USED	
>99681	VSTD 10	5g	10	1.0		✓
>99682	VSTD 20	5g	11	1.0		✓
>99683	VSTD 50	5g	12	1.0		✓
>99684	VSTD 100	5g	13	1.0		✓
>99685	VSTD 150	5g	14	1.0		✓
>99686	VSTD 200	5g	15	1.0		✓

05/27/94

Read and Understood by

SIGNED 5/27/94 DATE SIGNED 05/27/94 DATE PAGE 1 OF 1

000085

milliliters per minute (mL/min) for 11 ± 0.1 minutes at ambient temperature. After purging is complete, the trap is backflushed and heated to 180 C to desorb the trapped compounds. The gas chromatograph is temperature programmed using the conditions specified in Sec. 3.B.3.

D. NON-TARGET COMPOUND SEARCH

To be added after final discussion with USATHAMA.

VIII. CALCULATIONS

The following calculation is used to determine the concentration of a detected compound:

$$\text{Concentration (ug/L)} = (A_s C_{is})/(A_{is} R_f L_s)$$

$$(ug/Kg) = (ug/Kg) = (A_s C_{is})/(A_{IS} R_F K_{Ss})$$

where A_s = area of the quantitation ion for the analyte to be measured,

A_{is} = area of the quantitation ion for the internal standard,

C_{is} = micrograms of internal standard purged,

R_f = response factor calculated from the daily calibration standard,

L_s = liters of water purged.

K_{Ss} = Kilograms of soil purged

The response factor (R_f) for each compound is calculated from the daily calibration standard as follows:

$$R_f = (A_s C_{is})/(A_{is} C_s)$$

where A_s = Area of the quantitation ion for the analyte to be measured corrected for any trace contamination in the daily water blank,

C_{is} = micrograms of the internal standard purged,

A_{is} = Area of the quantitation ion of the internal standard, and

C_s = micrograms of the analyte in the calibration standard.

PROJECT CLPVSS9 * Standards Solution

Notebook No. 820

Continued From Page

1.0ml of Protocol CLP Blend-D @ 1000 ug/ml was added to a 5.0ml volumetric flask with Baxter/B+J brand methanol, lot# BG833, to yield a 200 ug/ml solution (Para-Xylene conc. = 100 ug/ml).

② 200 ul of each solution; CLP-Blend-D, Purgeables A, B, and C were combined in a autosampler vial to yield a 50 ug/ml solution.

These were denoted as CLPVSS9 * A → F

820-79-1

Expires 11-09-94

SUPELCO, INC. • Supelco Park • Bellefonte, PA 16823-0048 USA • Phone (814) 359-3441

EPA Purgeable A
1 x 1ml
200ug/ml each in methanol

Cat no 4-8851
Storage-FREEZE
Lot no-LA39580
Mfg Date OCT-93
Exp date OCT-94

FOR LABORATORY USE ONLY. NOT FOR DRUG, HOUSEHOLD OR OTHER USES.

FLAMMABLE (USA DEFINITION)
HIGHLY FLAMMABLE (EUROPEAN DEFINITION)

SUPELCO

Cat no 4-8852
Storage-REFRIGERATE
Exp date SEP-94
Lot no- LA39103

FOR RESEARCH USE ONLY

Purgeable B
1 x 1ml
200ug/ml each methanol

Mfg Date Sep-93

DANGER-TOXIC-MAY BE FATAL IF SWALLOWED
DANGER-EXTREMELY FLAMMABLE
May be fatal if swallowed. May cause headache, nausea,

SUPELCO

Cat no 4-8853
Storage-FREEZE
Exp date JUL-94
Lot no- LA37650

FOR RESEARCH USE ONLY

Purgeable C
1ml methanol

Mfg Date JUL-93

DANGER-TOXIC-MAY BE FATAL IF SWALLOWED
DANGER-EXTREMELY FLAMMABLE
May be fatal if swallowed. May cause headache, nausea, blindness.
INGREDIENTS PER PA. R-T-K: bromomethane, chloroethane, chloromethane, vinyl chloride.

SUPELCO, INC. • Supelco Park • Bellefonte, PA 16823-0048 USA • Phone (814) 359-3441

SAVE THIS DATA SHEET!
It Contains Important Information About This Product.

Purgeable A Mixture
Catalog Number 4-8851

This mixture contains 200µg/ml of each of the following components in methanol:

1. Methylene chloride
2. Trichlorofluoromethane
3. 1,1-Dichloroethylene
4. 1,1-Dichloroethane
5. Chloroform
6. Carbon tetrachloride
7. 1,2-Dichloropropane
8. Trichloroethylene
9. 1,1,2-Trichloroethane and Dibromochloromethane
10. 2-Chloroethyl vinyl ether *
11. Tetrachloroethylene
12. Chlorobenzene

Continued on Page

Read and Understood By

Signed	Date	Signed	Date
Daniel C. Lucas	05-09-94	Douglas H. [illegible]	05-09-94

5 DCA 05-31-94

PROJECT CLP IS72 * Internal Standard

Notebook No. 820

Continued From Page

① 500ul of Purgeable Internal Standard Mix was added to a 10ml volumetric flask and brought to volume with Baxter/B+J brand methanol, lot # BH233.

Fractions A thru F were prepared.

$$500ul \times \frac{1}{10{,}000\ ul} \times 1000\ \frac{mg}{ml} = 50\ mg/ul$$

DCA 05-24-94

820-82-1

Expires 11-24-94

SUPELCO

Cat no 4-8835
Storage-REFRIGERATE
Exp date AUG-94
Lot no- LA38238

FOR RESEARCH USE ONLY

Volatile Organic Compounds Internal Standards Mix 1 x 1ml
1000ug/ml each in methanol
Mfg Date AUG-93

DANGER-TOXIC-MAY BE FATAL IF SWALLOWED
DANGER-EXTREMELY FLAMMABLE
May be fatal if swallowed. May cause headache, nausea, blindness.
INGREDIENTS PER PA. R-T-K: bromochloromethane, chlorobenzene-d5, 1,4-difluorobenzene, methanol.

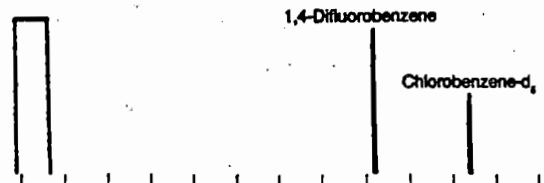
SUPELCO, INC. • Supelco Park • Bellefonte, PA 16823-0048 USA • Phone (814) 359-3441

SAVE THIS DATA SHEET!
It Contains Important Information About This Product.

VOA Internal Standard Mix

Catalog No. 4-8835

This mix contains 1000µg/ml of each of the following internal standards in methanol:



Continued on Page

Read and Understood By

David C. Lucas — Signed — 05-24-94 Date

[illegible] — Signed — 5-24-94 Date

ROJECT CLPSS77 * Surrogate Standard

Continued From Page

4 200ul of Purgeables Surrogate Standard Mix-CLP was added to 800ul of Baxter/B+J brand methanol, lot BH233, in a Wheaton auto-sampler vial and sealed. Fractions A thru E were prepared.

$$\frac{200ul}{1} \times 250 ng/ul \times \frac{1}{1000ul} = 50 ng/ul$$

Expires 11-23-94

820-E1-1

SUPELCO, INC. • Supelco Park • Bellefonte, PA 16823-0048 USA • Phone (814) 359-3441

Volatile Organic Compound Surrogate Spike Mix
1 x 1ml
250ug/ml each in methanol

Cat no 4-8876
Storage-REFRIGERATE
Lot no-LA40036
Mfg Date NOV-93
Exp date NOV-94

FOR LABORATORY USE ONLY. NOT FOR DRUG, HOUSEHOLD OR OTHER USES.

DANGER-TOXIC-MAY BE FATAL IF SWALLOWED
DANGER-EXTREMELY FLAMMABLE
May be fatal if swallowed. May cause headache, nausea, blindness.
INGREDIENTS PER PA, R-T-K: 4-bromofluorobenzene, 1,2-dichloroethane-d4, toluene-d8.

SUPELCO, INC. • Supelco Park • Bellefonte, PA 16823-0048 USA • Phone (814) 359-3441

SAVE THIS DATA SHEET!
It Contains Important Information About This Product.

Purgeables Surrogate Standard Mix

Catalog No. 4-8876

This mixture contains 250µg/ml of each of the following components in methanol:

Toluene-d_8

Continued on Page

Read and Understood By

Signed	Date	Signed	Date
David C. Lucas	05-23-94	Douglas H. Dick	05-23-94

Semivolatile Organic Compounds

9513356.0226

Case Narrative

SDG No. 50788

GC/MS Semivolatiles Narrative

1. Samples SBLKS1, AO3-1-O5, AO3-1-O5MS and AO3-1-O5MSD were analyzed as medium level samples based on the GC/FID of the extracts during sample workup following CLP 3/90 SOW. A further 1:4 dilution was per formed on samples AO3-1-O5, AO3-1-O5MS and AO3-1-O5MSD based on GC/FID screens of the final extracts.

2. The continuing calibration, file nvo502044.d, had a percent difference of 27.0%, greater than the required 25%, for pentachlorophenol. Following the 3/90 SOW up to four failures for continuing calibration controls are allowed.

QC Summary

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Level: (low/med) MED

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	SBLKS1	83	79	86	70	67	70	73	83	0
02	AO3-1-O5	75D	69D	60D	60D	56D	47D	61D	70D	0
03	AO3-1-O5MS	78D	78D	74D	65D	58D	63D	67D	76D	0
04	AO3-1-O5MSD	78D	74D	68D	64D	56D	52D	64D	70D	0
05										
06										
07										
08										
09										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(23-120)	
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)	
S3 (TPH)	= Terphenyl-d14	(18-137)	
S4 (PHL)	= Phenol-d5	(24-113)	
S5 (2FP)	= 2-Fluorophenol	(25-121)	
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)	
S7 (2CP)	= 2-Chlorophenol-d4	(20-130)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(20-130)	(advisory)

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

3D
SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Matrix Spike - EPA Sample No.: A03-1-05 Level(low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	76000	0	64000	84	26- 90
2-Chlorophenol	76000	0	59000	78	25-102
1,4-Dichlorobenzene	51000	0	41000	80	28-104
N-Nitroso-di-n-prop.(1)	51000	0	36000	70	41-126
1,2,4-Trichlorobenzene	51000	0	38000	74	38-107
4-Chloro-3-methylphenol	76000	0	61000	80	26-103
Acenaphthene	51000	0	27000	53	31-137
4-Nitrophenol	76000	0	66000	87	11-114
2,4-Dinitrotoluene	51000	0	33000	65	28- 89
Pentachlorophenol	76000	0	51000	67	17-109
Pyrene	51000	0	34000	67	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	76000	61000	80	5	35	26- 90
2-Chlorophenol	76000	55000	72	8	50	25-102
1,4-Dichlorobenzene	51000	39000	76	5	27	28-104
N-Nitroso-di-n-prop.(1)	51000	33000	65	7	38	41-126
1,2,4-Trichlorobenzene	51000	36000	70	6	23	38-107
4-Chloro-3-methylphenol	76000	58000	76	5	33	26-103
Acenaphthene	51000	23000	45	16	19	31-137
4-Nitrophenol	76000	50000	66	27	50	11-114
2,4-Dinitrotoluene	51000	30000	59	10	47	28- 89
Pentachlorophenol	76000	38000	50	29	47	17-109
Pyrene	51000	32000	63	6	36	35-142

(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: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKS1

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Lab File ID: NVO502052.D Lab Sample ID: SBLKS1

Instrument ID: NVO5 Date Extracted: 06/28/94

Matrix: (soil/water) SOIL Date Analyzed: 06/30/94

Level: (low/med) MED Time Analyzed: 1638

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	AO3-1-O5	CDMHNSS2*6	NVO502053.D	06/30/94
02	AO3-1-O5MS	CDMHNSS2*6MS	NVO502054.D	06/30/94
03	AO3-1-O5MSD	CDMHNSS2*6MSD	NVO502055.D	06/30/94
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Lab File ID: NVO501821.D DFTPP Injection Date: 06/17/94

Instrument ID: NVO5 DFTPP Injection Time: 0850

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	49.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	58.3
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	43.1
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	23.3
365	Greater than 0.75% of mass 198	2.73
441	Present, but less than mass 443	13.9
442	40.0 - 110.0% of mass 198	86.9
443	15.0 - 24.0% of mass 442	16.3 (18.8)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD20	SSTD20	NVO501822.D	06/17/94	0915
02	SSTD50	SSTD50	NVO501823.D	06/17/94	0951
03	SSTD80	SSTD80	NVO501824.D	06/17/94	1028
04	SSTD120	SSTD120	NVO501825.D	06/17/94	1105
05	SSTD160	SSTD160	NVO501826.D	06/17/94	1141
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Lab File ID: NVO502043.D DFTPP Injection Date: 06/30/94

Instrument ID: NVO5 DFTPP Injection Time: 0839

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	58.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	69.5
70	Less than 2.0% of mass 69	0.5 (0.7)1
127	25.0 - 75.0% of mass 198	49.1
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	22.2
365	Greater than 0.75% of mass 198	2.61
441	Present, but less than mass 443	12.3
442	40.0 - 110.0% of mass 198	77.0
443	15.0 - 24.0% of mass 442	15.2 (19.8)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD50	SSTD50	NVO502044.D	06/30/94	0902
02	SBLKS1	SBLKS1	NVO502052.D	06/30/94	1638
03	AO3-1-O5	CDMHNSS2*6	NVO502053.D	06/30/94	1715
04	AO3-1-O5MS	CDMHNSS2*6MS	NVO502054.D	06/30/94	1755
05	AO3-1-O5MSD	CDMHNSS2*6MSD	NVO502055.D	06/30/94	1832
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Lab File ID (Standard): NVO502044.D Date Analyzed: 06/30/94

Instrument ID: NVO5 Time Analyzed: 0902

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	1457947	5.48	4623831	7.59	2332463	11.07
	UPPER LIMIT	2915894	5.98	9247662	8.09	4664926	11.57
	LOWER LIMIT	728974	4.98	2311916	7.09	1166232	10.57
	EPA SAMPLE No.						
01	SBLKS1	1259862	5.47	3961950	7.57	2055051	11.06
02	AO3-1-O5	1135878	5.47	3501054	7.57	1754472	11.05
03	AO3-1-O5MS	940572	5.47	3055605	7.57	1588543	11.06
04	AO3-1-O5MSD	1245890	5.47	3733589	7.57	1785545	11.06
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8C
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Lab File ID (Standard): NVO502044.D Date Analyzed: 06/30/94

Instrument ID: NVO5 Time Analyzed: 0902

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	3337999	14.45	2538865	20.74	2553353	23.89
	UPPER LIMIT	6675998	14.95	5077730	21.24	5106706	24.39
	LOWER LIMIT	1669000	13.95	1269432	20.24	1276676	23.39
	EPA SAMPLE No.						
01	SBLKS1	3017696	14.43	2084224	20.71	2248563	23.87
02	AO3-1-O5	2119704	14.43	1888524	20.74	2296104	23.93
03	AO3-1-O5MS	2276970	14.44	1902014	20.75	2000062	23.94
04	AO3-1-O5MSD	2369464	14.44	1793735	20.75	2037254	23.93
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

9513356.0231

Sample Data

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AO3-1-05

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS2*6

Sample wt/vol: 1.0 (g/mL) G Lab File ID: NVO502053.D

Level: (low/med) MED Date Received: 06/21/94

% Moisture: 2 decanted: (Y/N) N Date Extracted: 06/28/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 06/30/94

Injection Volume: 2.0(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 6.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	41000	U
111-44-4	Bis(2-Chloroethyl)ether	41000	U
95-57-8	2-Chlorophenol	41000	U
541-73-1	1,3-Dichlorobenzene	41000	U
106-46-7	1,4-Dichlorobenzene	41000	U
95-50-1	1,2-Dichlorobenzene	41000	U
95-48-7	2-Methylphenol	41000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	41000	U
106-44-5	4-Methylphenol	41000	U
621-64-7	N-Nitroso-di-n-propylamine	41000	U
67-72-1	Hexachloroethane	41000	U
98-95-3	Nitrobenzene	41000	U
78-59-1	Isophorone	41000	U
88-75-5	2-Nitrophenol	41000	U
105-67-9	2,4-Dimethyphenol	41000	U
111-91-1	Bis(2-Chloroethoxy)methane	41000	U
120-83-2	2,4-Dichlorophenol	41000	U
120-82-1	1,2,4-Trichlorobenzene	41000	U
91-20-3	Naphthalene	41000	U
106-47-8	4-Chloroaniline	41000	U
87-68-3	Hexachlorobutadiene	41000	U
59-50-7	4-Chloro-3-methylphenol	41000	U
91-57-6	2-Methylnaphthalene	41000	U
77-47-4	Hexachlorocyclopentadiene	41000	U
88-06-2	2,4,6-Trichlorophenol	41000	U
95-95-4	2,4,5-Trichlorophenol	100000	U
91-58-7	2-Chloronaphthalene	41000	U
88-74-4	2-Nitroaniline	100000	U
131-11-3	Dimethyl phthalate	41000	U
208-96-8	Acenaphthylene	41000	U
606-20-2	2,6-Dinitrotoluene	41000	U
99-09-2	3-Nitroaniline	100000	U
83-32-9	Acenaphthene	41000	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AO3-1-05

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS2*6

Sample wt/vol: 1.0 (g/mL) G Lab File ID: NVO502053.D

Level: (low/med) MED Date Received: 06/21/94

% Moisture: 2 decanted: (Y/N) N Date Extracted: 06/28/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 06/30/94

Injection Volume: 2.0(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 6.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	100000	U
100-02-7	4-Nitrophenol	100000	U
132-64-9	Dibenzofuran	41000	U
121-14-2	2,4-Dinitrotoluene	41000	U
84-66-2	Diethyl phthalate	41000	U
7005-72-3	4-Chlorophenyl-phenylether	41000	U
86-73-7	Fluorene	41000	U
100-01-6	4-Nitroaniline	100000	U
534-52-1	4,6-Dinitro-2-methylphenol	100000	U
86-30-6	N-Nitrosodiphenylamine (1)	41000	U
101-55-3	4-Bromophenyl-phenylether	41000	U
118-74-1	Hexachlorobenzene	41000	U
87-86-5	Pentachlorophenol	100000	U
85-01-8	Phenanthrene	41000	U
120-12-7	Anthracene	41000	U
86-74-8	Carbazole	41000	U
84-74-2	Di-n-butylphthalate	41000	U
206-44-0	Fluoranthene	41000	U
129-00-0	Pyrene	41000	U
85-68-7	Butylbenzylphthalate	41000	U
91-94-1	3,3'-Dichlorobenzidine	41000	U
56-55-3	Benzo(a)anthracene	41000	U
218-01-9	Chrysene	41000	U
117-81-7	bis(2-Ethylhexyl)phthalate	41000	U
117-84-0	Di-n-octylphthalate	41000	U
205-99-2	Benzo(b)fluoranthene	41000	U
207-08-9	Benzo(k)fluoranthene	41000	U
50-32-8	Benzo(a)pyrene	41000	U
193-39-5	Indeno(1,2,3-cd)pyrene	41000	U
53-70-3	Dibenzo(a,h)anthracene	41000	U
191-24-2	Benzo(g,h,i)perylene	41000	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

A03-1-05

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS2*6

Sample wt/vol: 1.0 (g/mL) G Lab File ID: NVO502053.D

Level: (low/med) MED Date Received: 06/21/94

% Moisture: 2 decanted: (Y/N) N Date Extracted: 06/28/94

Concentrated Extract Volume: 500 (uL) Date Analyzed: 06/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 6.1

Number TICs found: 19

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	7.526	9800	J
2.	Unknown	14.815	8600	J
3.	Unknown	16.176	9000	J
4. 112-95-8	Eicosane	16.395	9500	J
5.	Unknown	16.997	8400	J
6.	Unknown	17.084	31000	J
7.	Unknown	17.163	9300	J
8.	Unknown Alkane	17.346	11000	J
9.	Unknown Alkane	17.591	8100	J
10.	Unknown	17.931	11000	J
11.	Unknown	19.022	8800	J
12.	Unknown Alkane	19.214	18000	J
13.	Unknown	19.895	12000	J
14.	Unknown	20.235	20000	J
15.	Unknown	22.514	84000	J
16.	Unknown Alkane	23.360	140000	J
17.	Unknown Alkane	25.805	68000	J
18. 630-05-7	Tritriacontane	26.485	87000	J
19.	Unknown Alkane	26.887	100000	J
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d
Report Date: 07-Jul-1994 07:59

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0630.b/nvo502053.d
Lab Smp Id: CDMHNSS2*6 Client Smp ID: AO3-1-O5
Inj Date : 30-JUN-1994 17:15 Autotune Date: 26-May-94 08:31
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : CDMHNSS2*6
Misc Info : CDM Hanford N. Slope
Comment :
Method : /chem/nvo5.i/nvo0630.b/clp390epc.m
Meth Date : 06-Jul-1994 16:51 user2 Quant Type: ISTD
Cal Date : 30-JUN-1994 09:02 Cal File: nvo502044.d
Als bottle: 3
Dil Factor: 4.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
* 1 1,4-Dichlorobenzene-d4	152.00	5.466	5.476	(1.000)	1135878	40	
$ 2 2-Fluorophenol	112.00	2.681	2.753	(0.491)	743839	21	42000
$ 3 Phenol-d5	99.00	5.064	5.110	(0.927)	1004094	23	45000
$ 6 2-Chlorophenol-d4	132.00	5.125	5.153	(0.938)	712133	23	46000
$ 10 1,2-Dichlorobenzene-d4	152.00	5.702	5.721	(1.043)	437490	18	35000(a)
* 17 Naphthalene-d8	136.00	7.570	7.589	(1.000)	3501054	40	
$ 18 Nitrobenzene-d5	82.00	6.365	6.393	(0.841)	793485	19	37000(a)
* 31 Acenaphthene-d10	164.00	11.052	11.072	(1.000)	1754472	40	
$ 35 2-Fluorobiphenyl	172.00	9.656	9.666	(0.874)	1115726	17	35000(a)
$ 51 2,4,6-Tribromophenol	330.00	12.859	12.878	(1.163)	207254	18	35000(a)
* 52 Phenanthrene-d10	188.00	14.431	14.450	(1.000)	2119704	40	
* 63 Chrysene-d12	240.00	20.742	20.743	(1.000)	1888524	40	
$ 65 Terphenyl-d14	244.00	18.306	18.308	(0.883)	814443	15	30000(a)
* 71 Perylene-d12	264.00	23.928	23.886	(1.000)	2296104	40	

QC Flag Legend

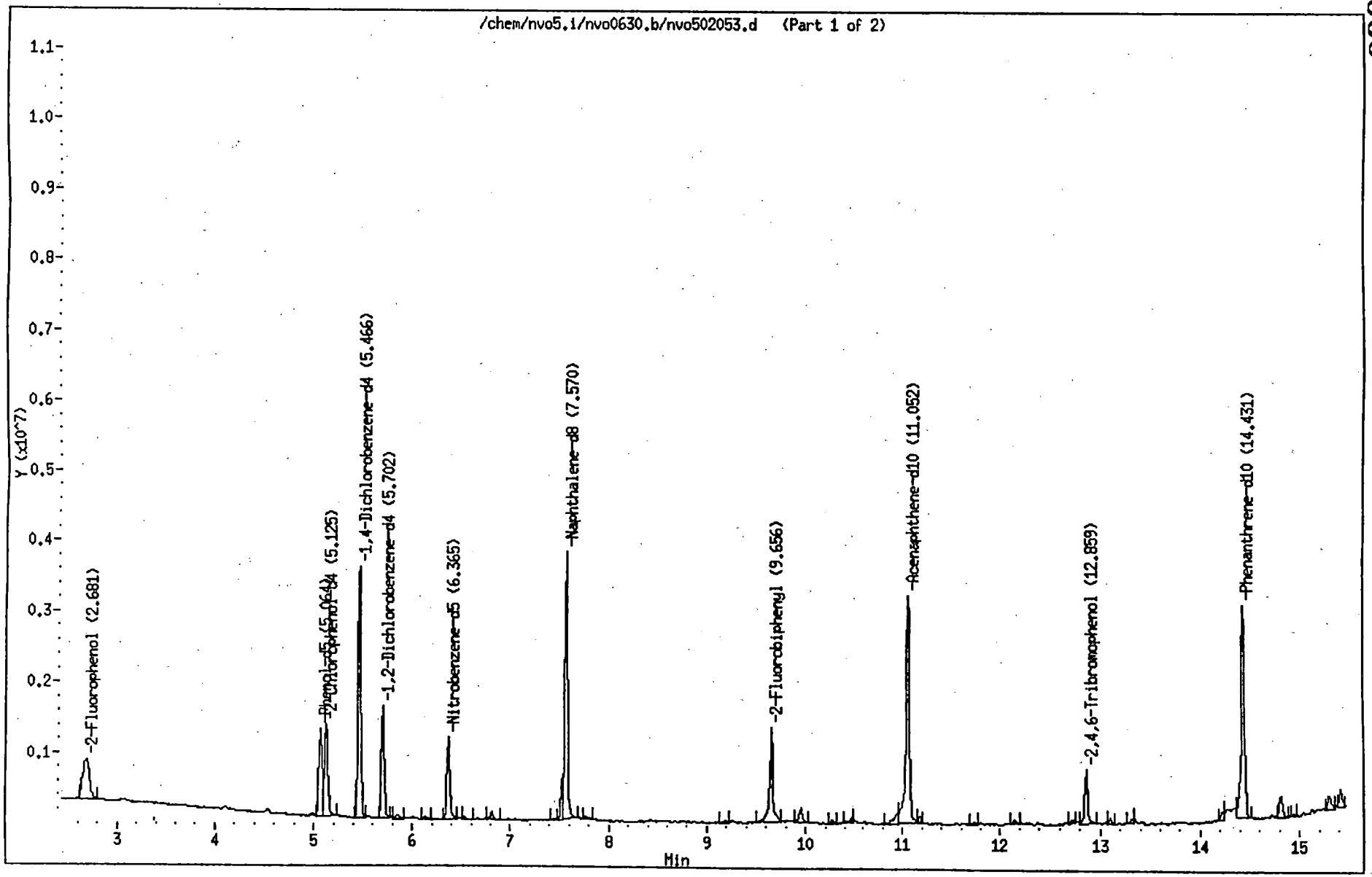
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d
Date : 30-JUN-1994 17:15
Client ID: A03-1-05
Sample Info: CDMHNSS2x6
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25

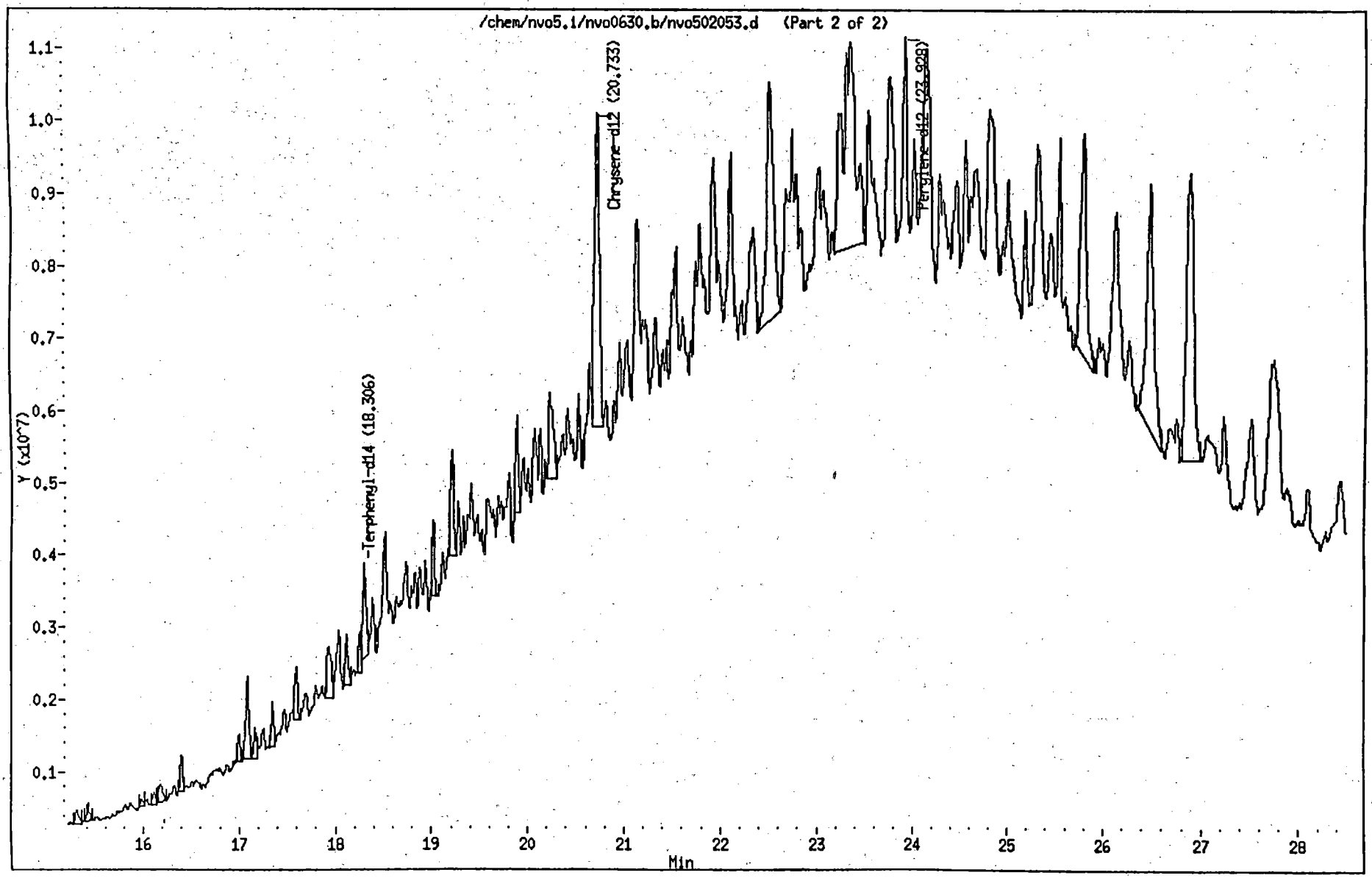
000106



Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d
Date : 30-JUN-1994 17:15
Client ID: A03-1-05
Sample Info: CDMHNSS2x6
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



000107

9513356.0234

Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d
Report Date: 07-Jul-1994 08:20

Environmental Science and Engineering

Unknown Compounds Quantitation Report

Data file : /chem/nvo5.i/nvo0630.b/nvo502053.d
Lab Smp Id: CDMHNSS2*6 Client Smp ID: AO3-1-O5
Inj Date : 30-JUN-1994 17:15 Autotune Date: 26-May-94 08:31:0
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : CDMHNSS2*6
Misc Info : CDM Hanford N. Slope
Comment :
Method : /chem/nvo5.i/nvo0630.b/clp390epc.m
Meth Date : 06-Jul-1994 16:51 user2
Cal Date : 30-JUN-1994 09:02 Cal File: nvo502044.d
Als bottle: 3
Dil Factor: 4.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 17 Naphthalene-d8	7.570	7520855	40.000
* 52 Phenanthrene-d10	14.431	6782401	40.000
* 63 Chrysene-d12	20.742	16000640	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
7.526	903130	5	9600	95	WILEY.1	121811	17
Unknown				CAS #:			
14.815	722399	4	8500	59	WILEY.1	34179	52
Unknown				CAS #:			
16.176	752188	4	8900	50	WILEY.1	51341	52
Eicosane				CAS #: 112-95-8			
16.395	792829	5	9400	90	WILEY.1	67233	52(L)
Unknown				CAS #:			
16.997	702147	4	8300	46	WILEY.1	105826	52

Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d
Report Date: 07-Jul-1994 08:20

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
17.084	2553993	15	30000	90	WILEY.1	129715	52
Unknown				CAS #:			
17.163	779472	4	9200	72	WILEY.1	9200	52
Unknown Alkane				CAS #:			
17.346	956517	6	11000	87	WILEY.1	125596	52
Unknown Alkane				CAS #:			
17.591	1600326	4	8000	91	WILEY.1	129716	63
Unknown				CAS #:			
17.931	2262761	6	11000	58	WILEY.1	28898	63
Unknown				CAS #:			
19.022	1737429	4	8700	90	WILEY.1	124979	63
Unknown Alkane				CAS #:			
19.214	3480673	9	17000	91	WILEY.1	67229	63
Unknown				CAS #:			
19.895	2351847	6	12000	94	WILEY.1	51341	63
Unknown				CAS #:			
20.235	4042003	10	20000	60	WILEY.1	46567	63
Unknown				CAS #:			
22.514	16452150	41	82000	83	WILEY.1	67229	63(ML)
Unknown Alkane				CAS #:			
23.360	28277558	71	140000	90	WILEY.1	126581	63(ML)
Unknown Alkane				CAS #:			
25.805	13436764	34	67000	95	WILEY.1	66576	63(ML)
Tritriacontane				CAS #: 630-05-7			
26.485	17107911	43	86000	96	WILEY.1	100829	63(ML)
Unknown Alkane				CAS #:			
26.887	20598961	51	100000	95	WILEY.1	67229	63(ML)

QC Flag Legend

M - Compound response manually integrated.
L - Operator selected an alternate library search match.

Data File: /chem/nva5.i/nva0630.b/nva502053.d

Date : 30-JUN-1994 17:15

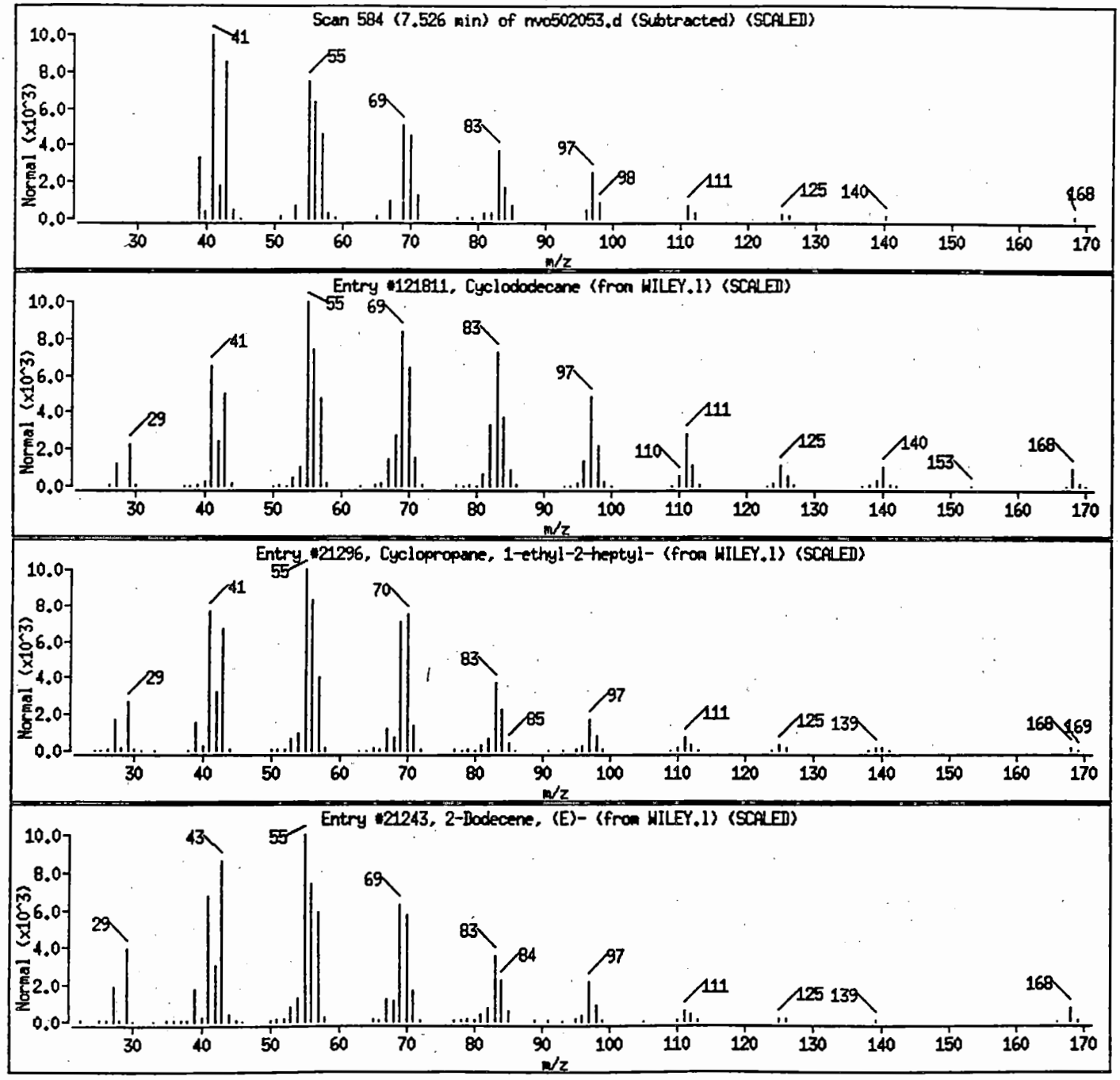
Client ID: A03-1-05 Instrument: nva5.i

Sample Info: CDMHNSS2×6

Volume Injected (uL): 2.0 Operator: WAV/AT

Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclododecane	294-62-2	WILEY.1	121811	95	C12H24	168
Cyclopropane, 1-ethyl-2-heptyl-	74663-86-8	WILEY.1	21296	94	C12H24	168
2-Dodecene, (E)-	7206-13-5	WILEY.1	21243	94	C12H24	168



Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d

Date : 30-JUN-1994 17:15

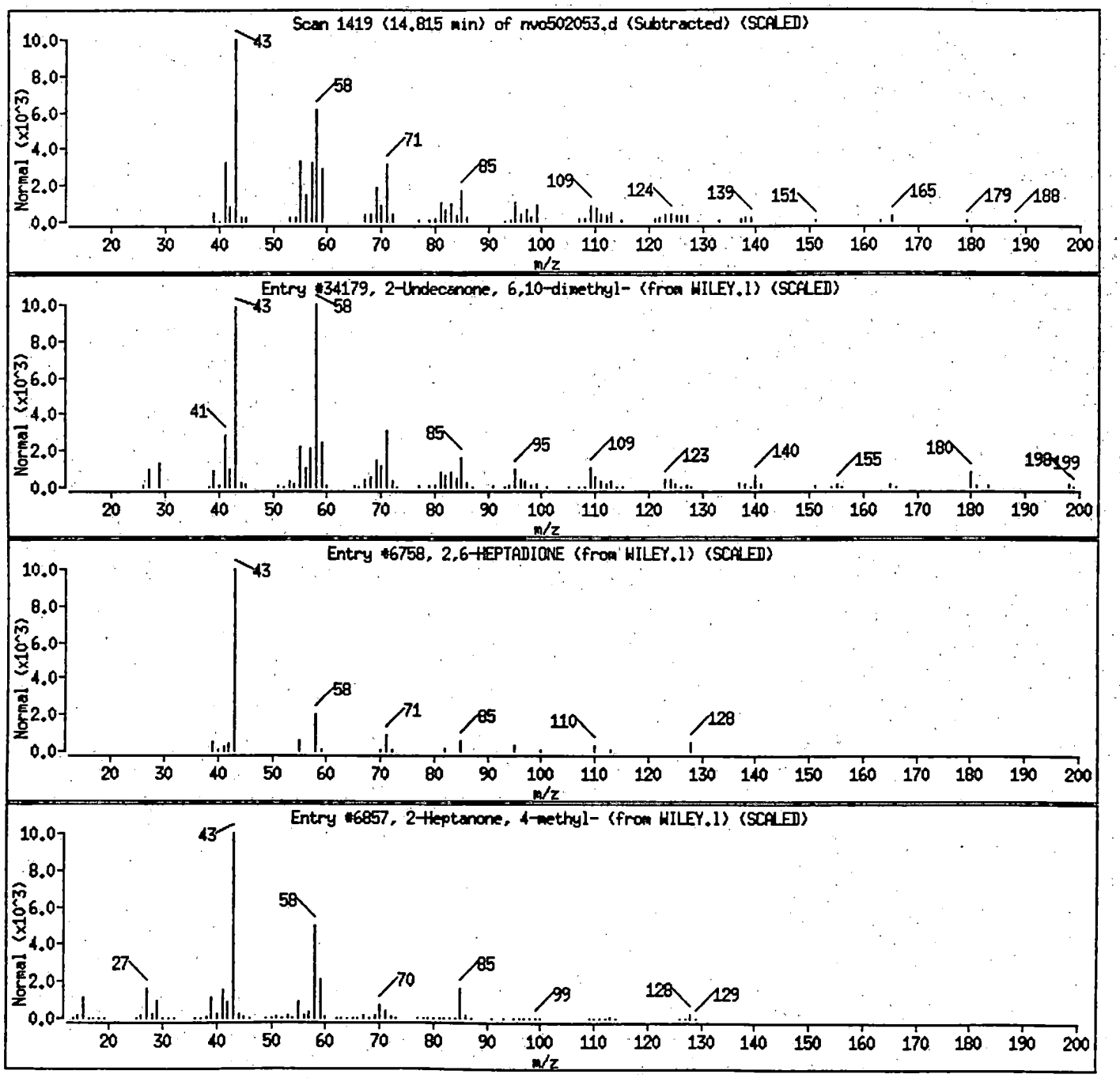
Client ID: A03-1-05 Instrument: nvo5.i

Sample Info: CDMHNSS2x6

Volume Injected (uL): 2.0 Operator: WAV/AT

Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Undecanone, 6,10-dimethyl-	1604-34-8	WILEY.1	34179	59	C13H26O	198
2,6-HEPTADIONE	0-00-0	WILEY.1	6758	53	C7H12O2	128
2-Heptanone, 4-methyl-	6137-06-0	WILEY.1	6857	47	C8H16O	128



Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d

Date : 30-JUN-1994 17:15

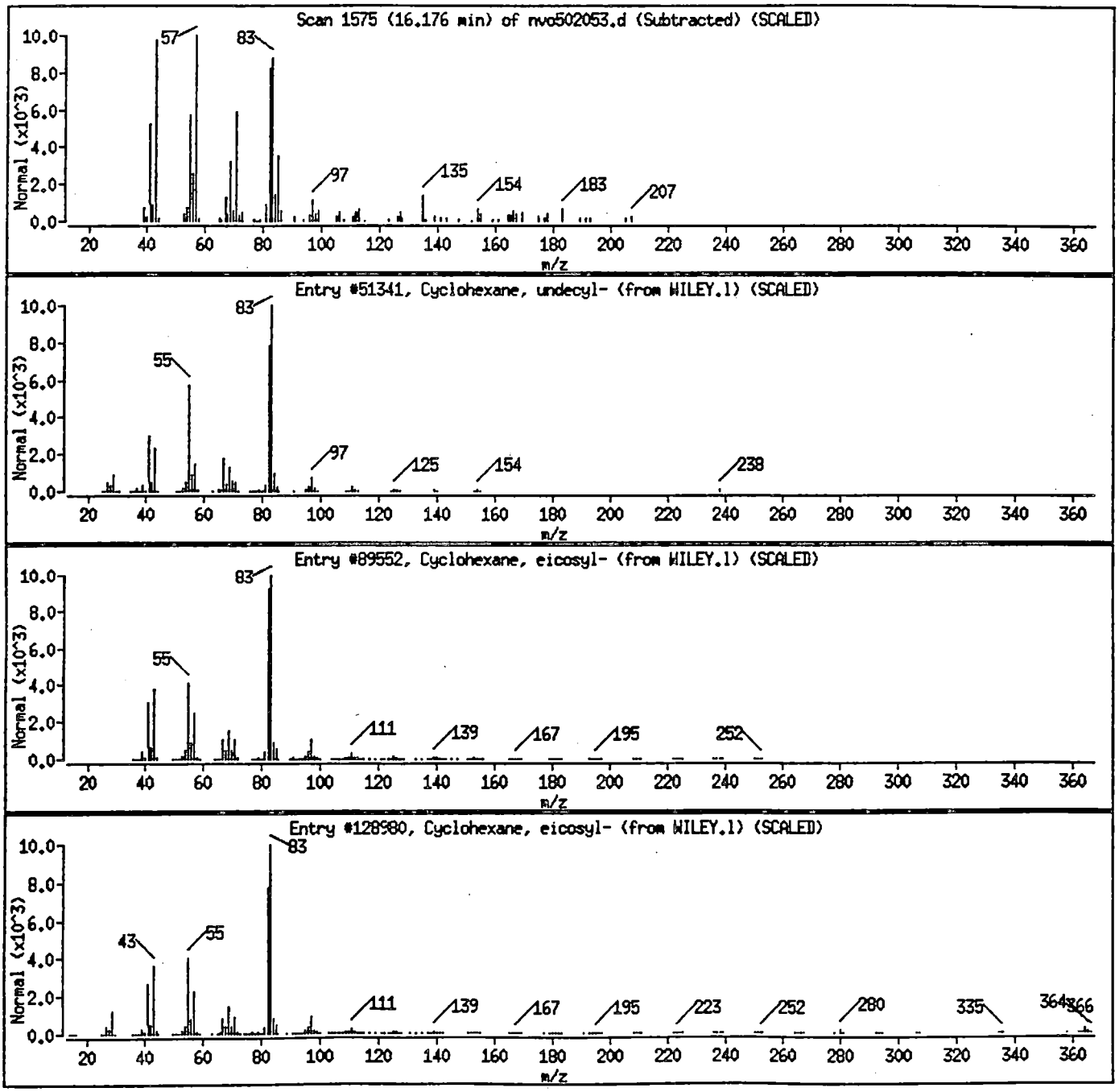
Client ID: A03-1-05 | Instrument: nvo5.i

Sample Info: CDMHNSS2x6

Volume Injected (uL): 2.0 | Operator: WAY/AT

Column phase: DB-5MS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexane, undecyl-	54105-66-7	WILEY.1	51341	50	C17H34	238
Cyclohexane, eicosyl-	4443-55-4	WILEY.1	89552	50	C26H52	364
Cyclohexane, eicosyl-	4443-55-4	WILEY.1	128980	50	C26H52	364



Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d

Date : 30-JUN-1994 17:15

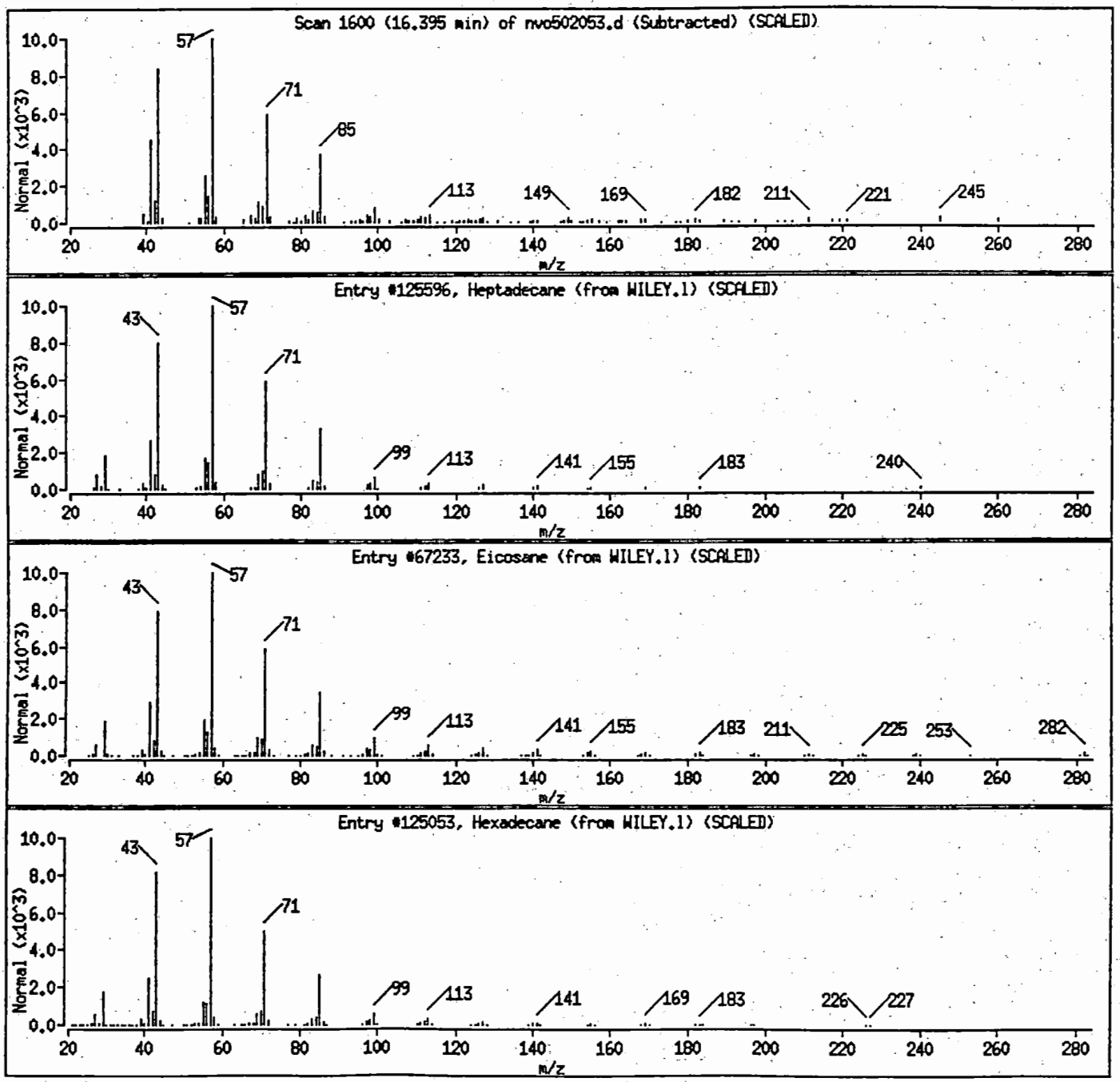
Client ID: A03-1-05 Instrument: nvo5.i

Sample Info: CDMHNSS2x6

Volume Injected (uL): 2.0 Operator: WAV/AT

Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heptadecane	629-78-7	WILEY.1	125596	91	C17H36	240
Eicosane	112-95-8	WILEY.1	67233	90	C20H42	282
Hexadecane	544-76-3	WILEY.1	125053	87	C16H34	226



Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d

Date : 30-JUN-1994 17:15

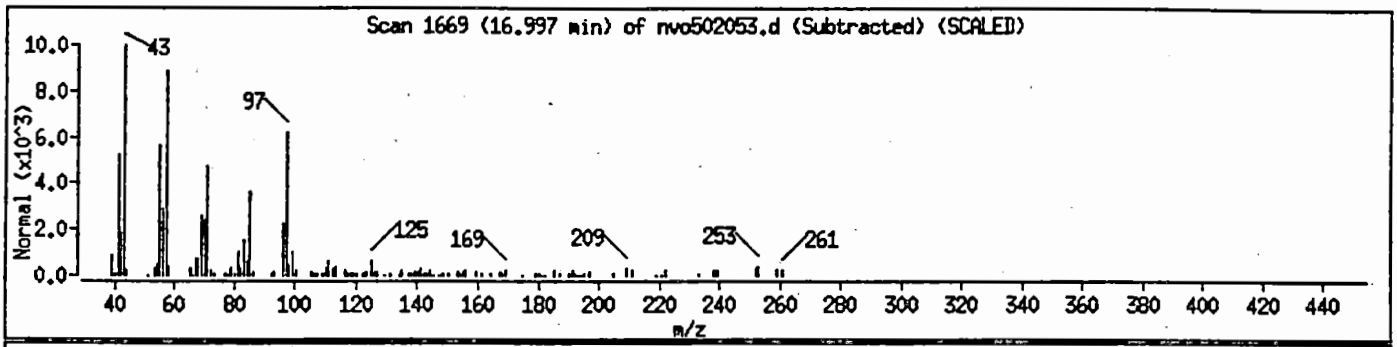
Client ID: A03-1-05 Instrument: nvo5.i

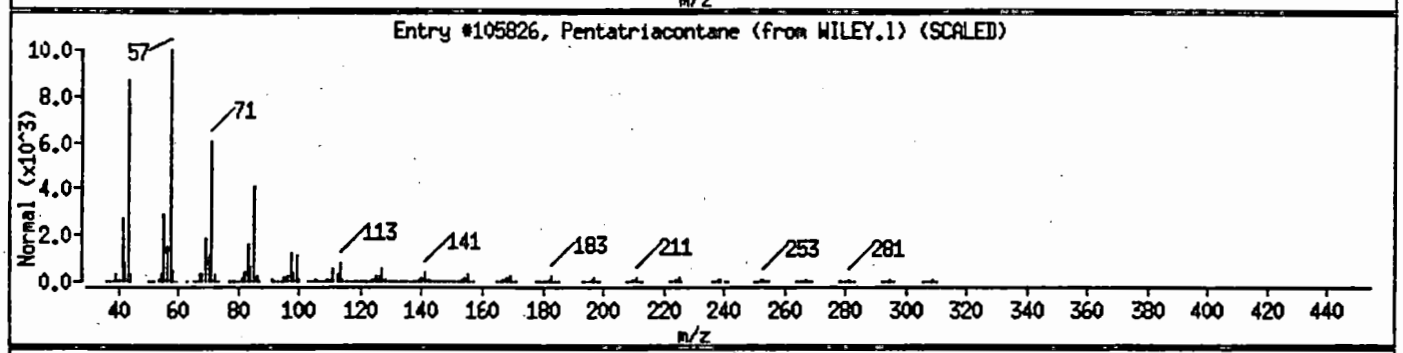
Sample Info: CDMHNSS2x6

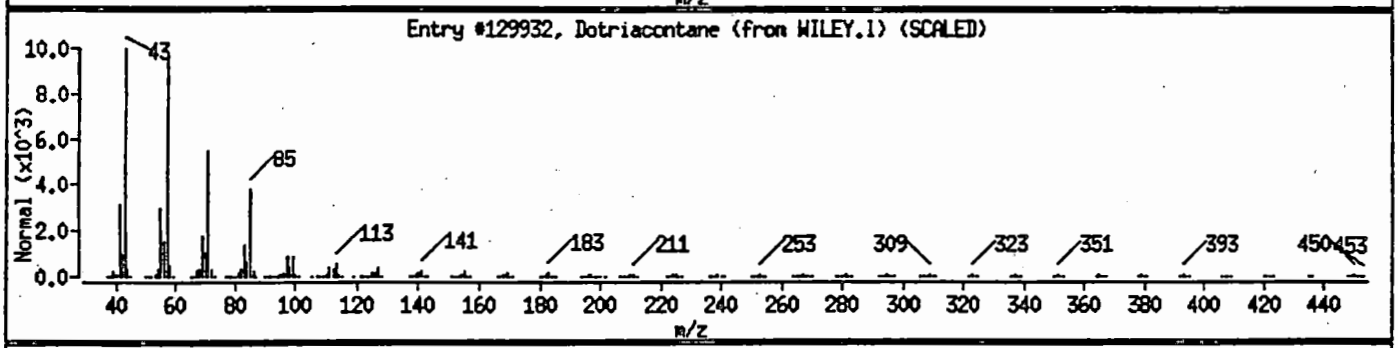
Volume Injected (uL): 2.0 Operator: WAV/AT

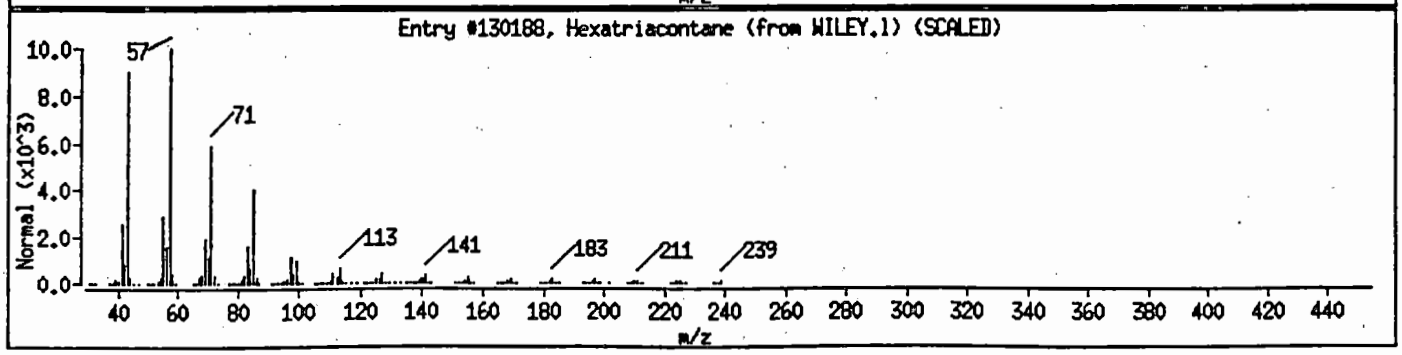
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pentatriacontane	630-07-9	WILEY.1	105826	46	C35H72	493
Dotriacontane	544-85-4	WILEY.1	129932	46	C32H66	451
Hexatriacontane	630-06-8	WILEY.1	130188	46	C36H74	507









Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d

Date : 30-JUN-1994 17:15

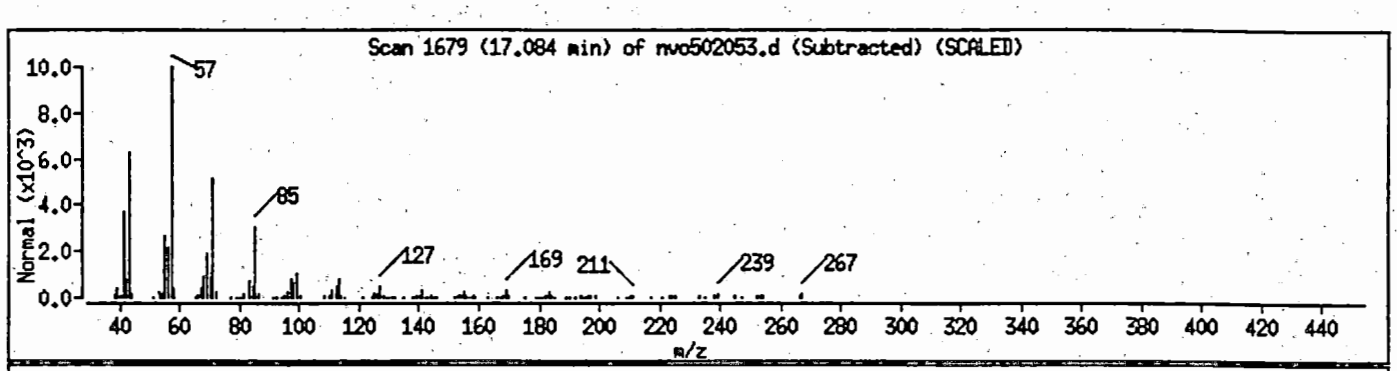
Client ID: A03-1-05 Instrument: nvo5.i

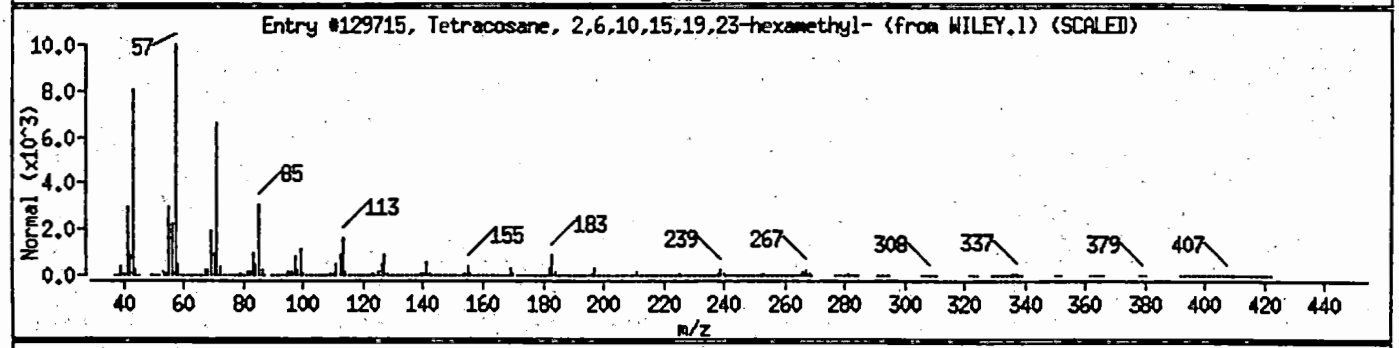
Sample Info: CDMHNSS2x6

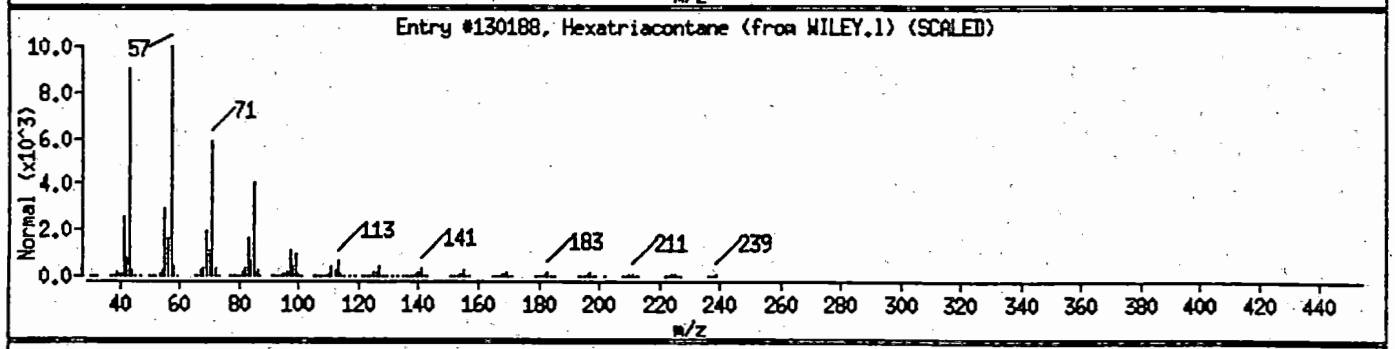
Volume Injected (uL): 2.0 Operator: WAV/AT

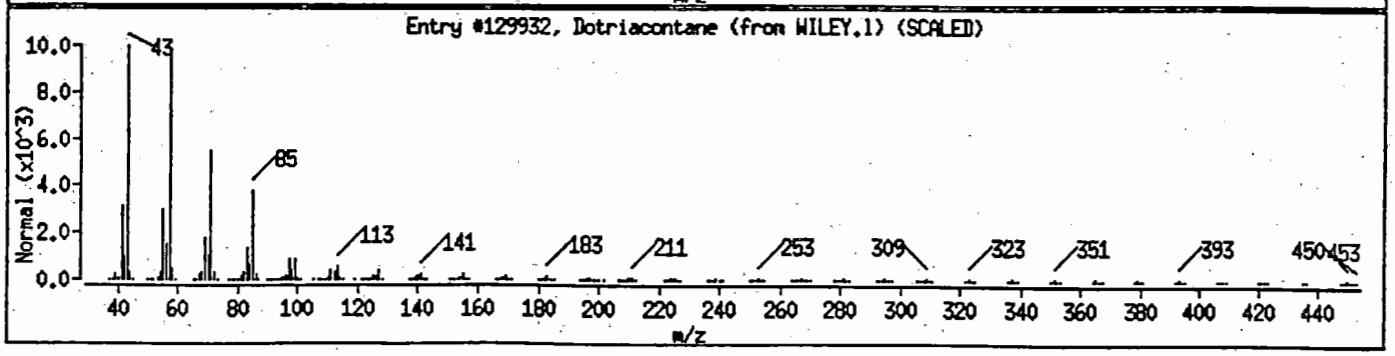
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetracosane, 2,6,10,15,19,23-hexamethyl-	111-01-3	WILEY.1	129715	90	C30H62	422
Hexatriacontane	630-06-8	WILEY.1	130188	83	C36H74	507
Dotriacontane	544-85-4	WILEY.1	129932	83	C32H66	451









Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d

Date : 30-JUN-1994 17:15

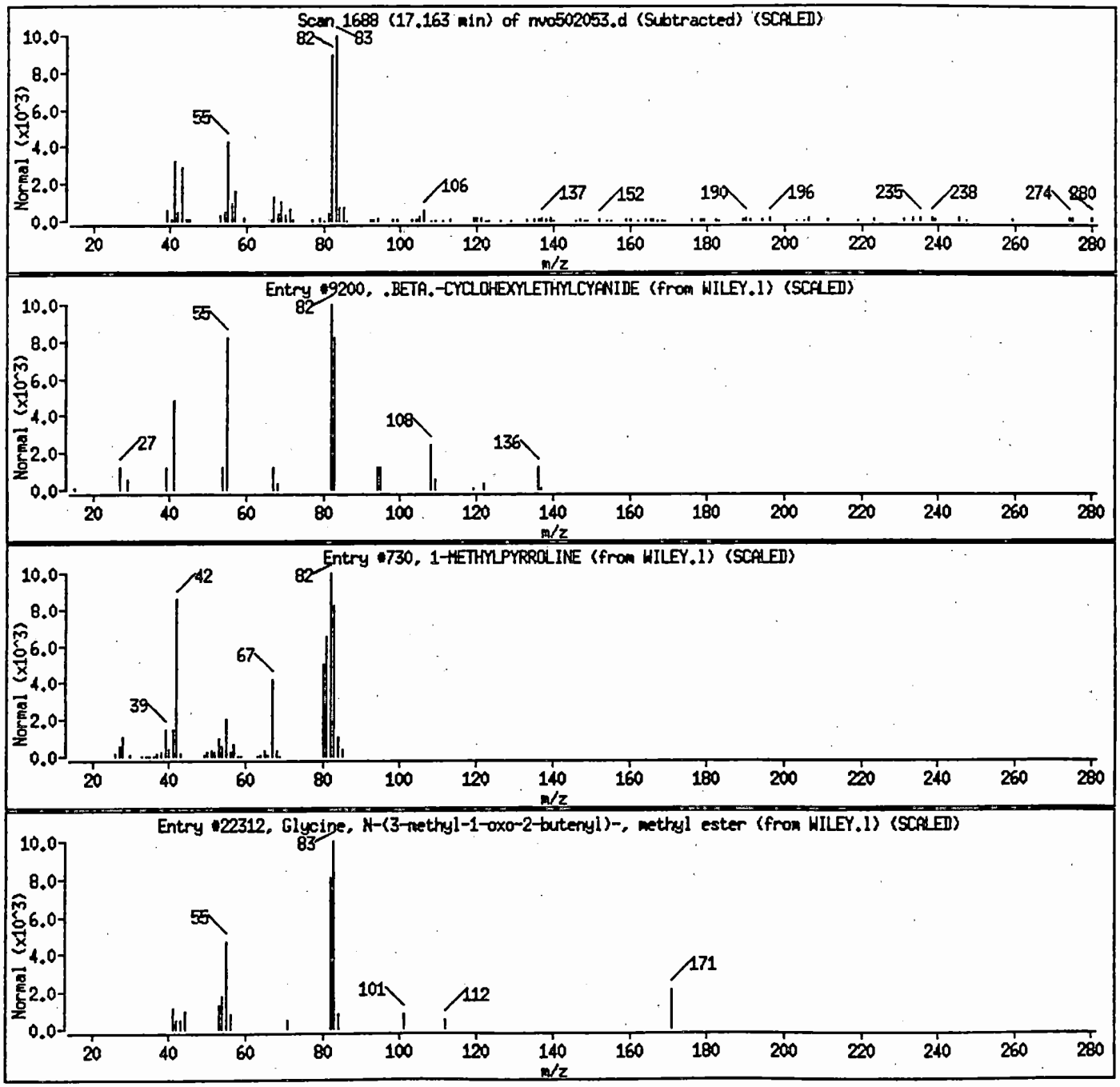
Client ID: A03-1-05 Instrument: nvo5.i

Sample Info: CDMHNSS2x6

Volume Injected (uL): 2.0 Operator: WAV/AT

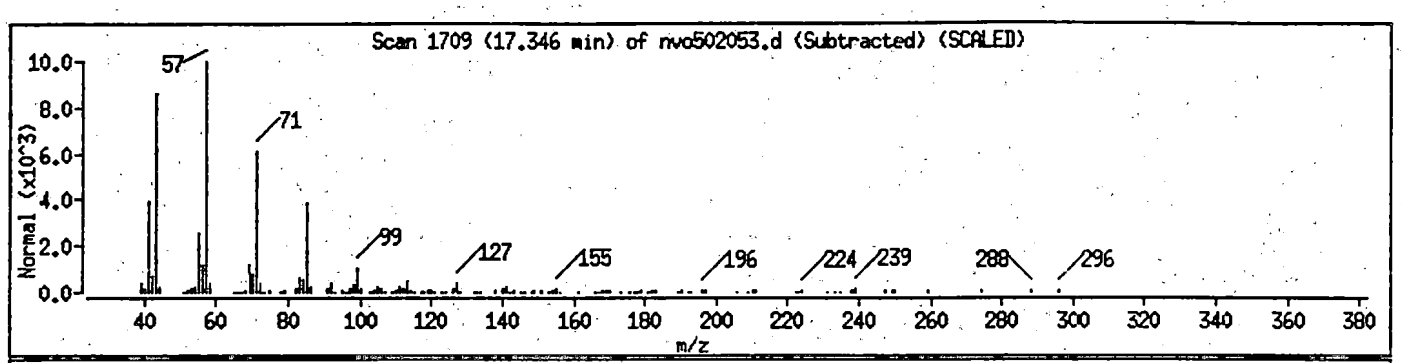
Column phase: DB-5MS Column diameter: 0.25

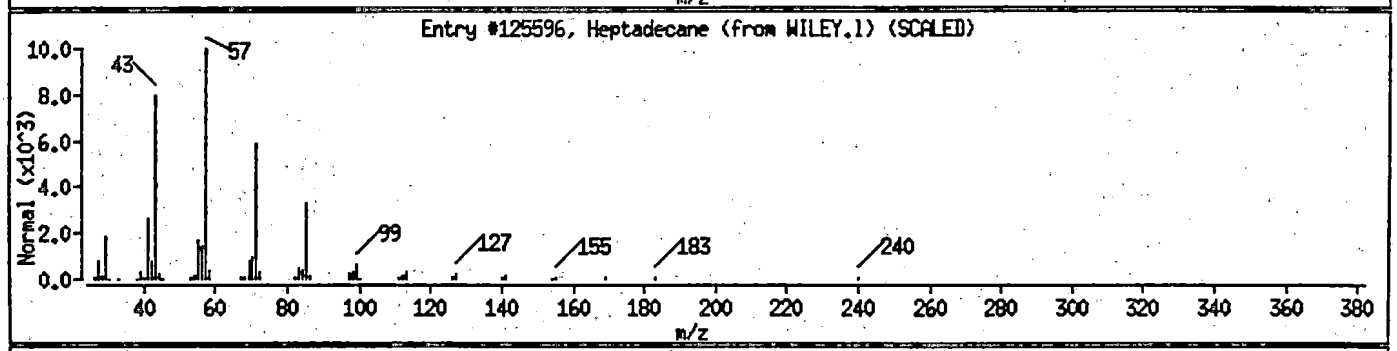
Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.BETA.-CYCLOHEXYLETHYLCYANIDE	0-00-0	WILEY.1	9200	72	C9H15N	137
1-METHYLPYRROLINE	0-00-0	WILEY.1	730	72	C5H9N	83
Glycine, N-(3-methyl-1-oxo-2-butenyl)-,	56009-34-8	WILEY.1	22312	56	C8H13NO3	171

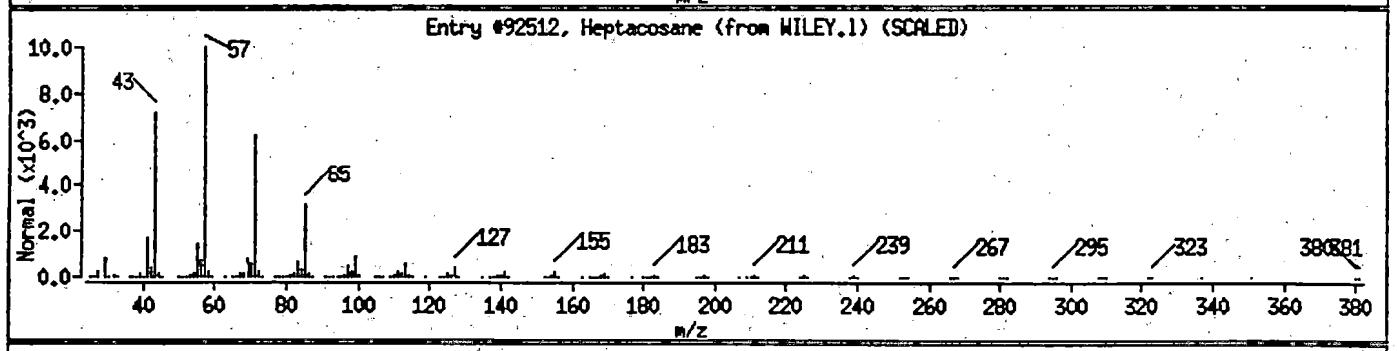


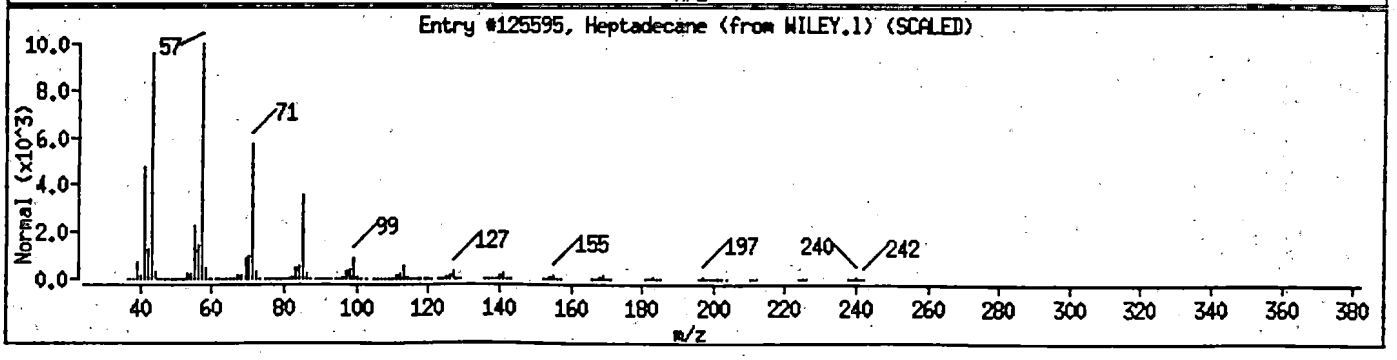
Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d
Date : 30-JUN-1994 17:15
Client ID: A03-1-05 Instrument: nvo5.i
Sample Info: CDMHNSS2×6
Volume Injected (uL): 2.0 Operator: WAV/AT
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heptadecane	629-78-7	WILEY.1	125596	87	C17H36	240
Heptacosane	593-49-7	WILEY.1	92512	87	C27H56	380
Heptadecane	629-78-7	WILEY.1	125595	87	C17H36	240









Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d

Date : 30-JUN-1994 17:15

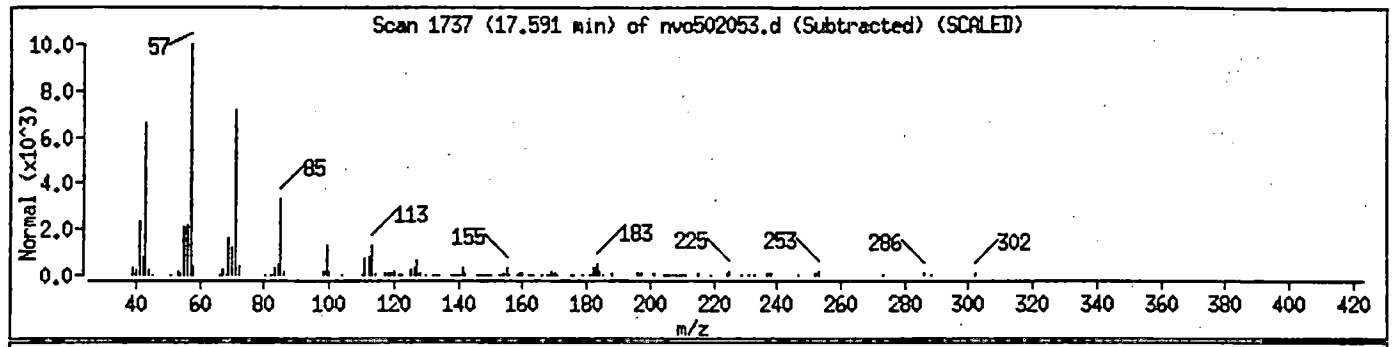
Client ID: A03-1-05 Instrument: nvo5.i

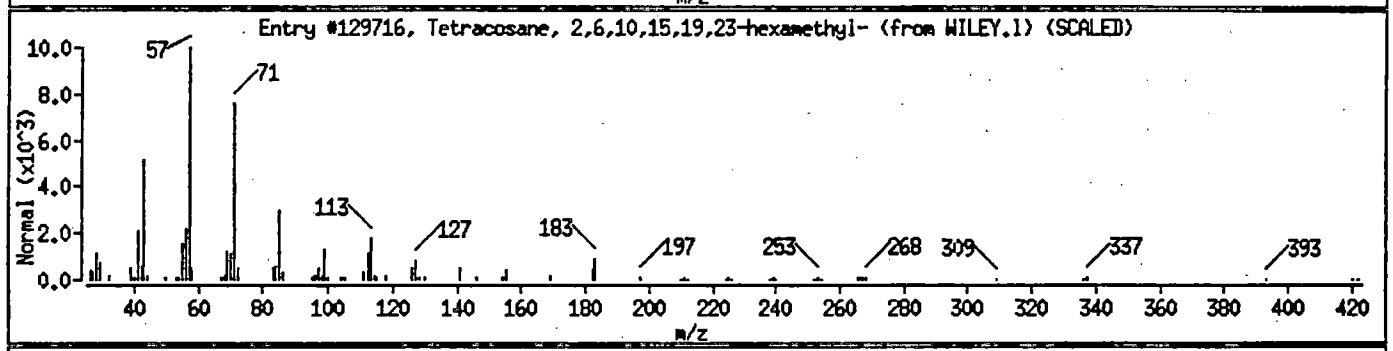
Sample Info: CDMHNSS2x6

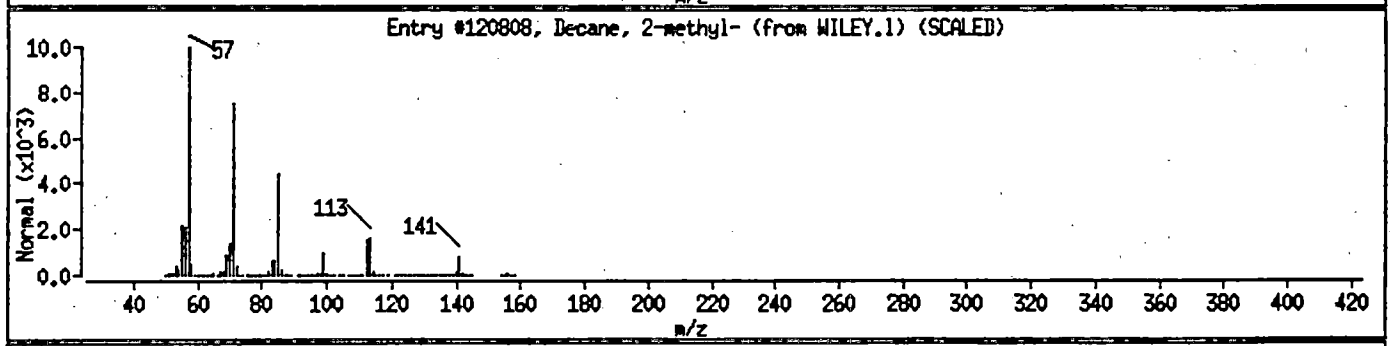
Volume Injected (uL): 2.0 Operator: WAV/AT

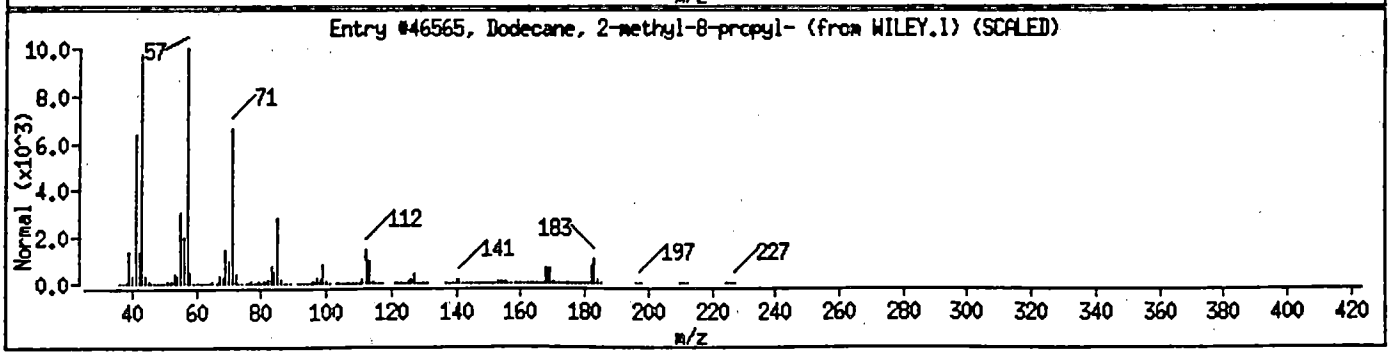
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetracosane, 2,6,10,15,19,23-hexamethyl-	111-01-3	WILEY.1	129716	91	C30H62	422
Decane, 2-methyl-	6975-98-0	WILEY.1	120808	87	C11H24	156
Dodecane, 2-methyl-8-propyl-	55045-07-3	WILEY.1	46565	86	C16H34	226









Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d

Date : 30-JUN-1994 17:15

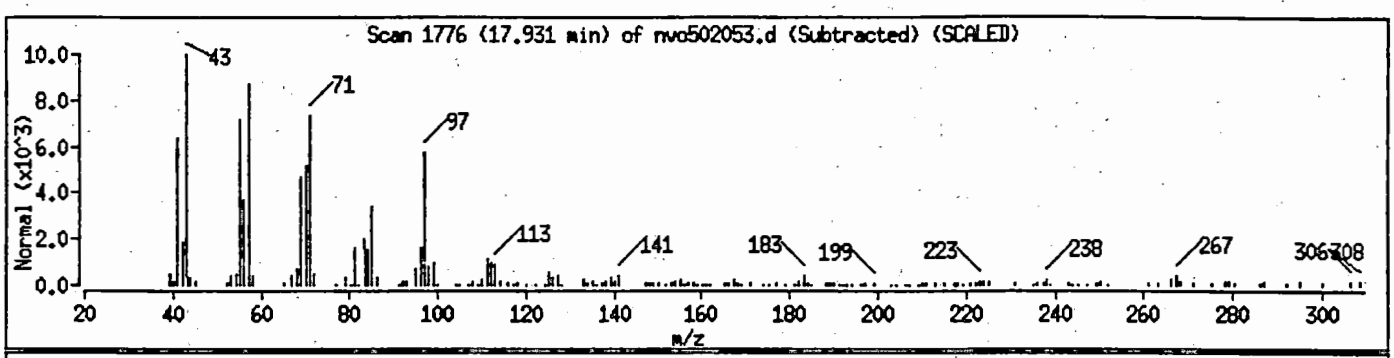
Client ID: A03-1-05 Instrument: nvo5.i

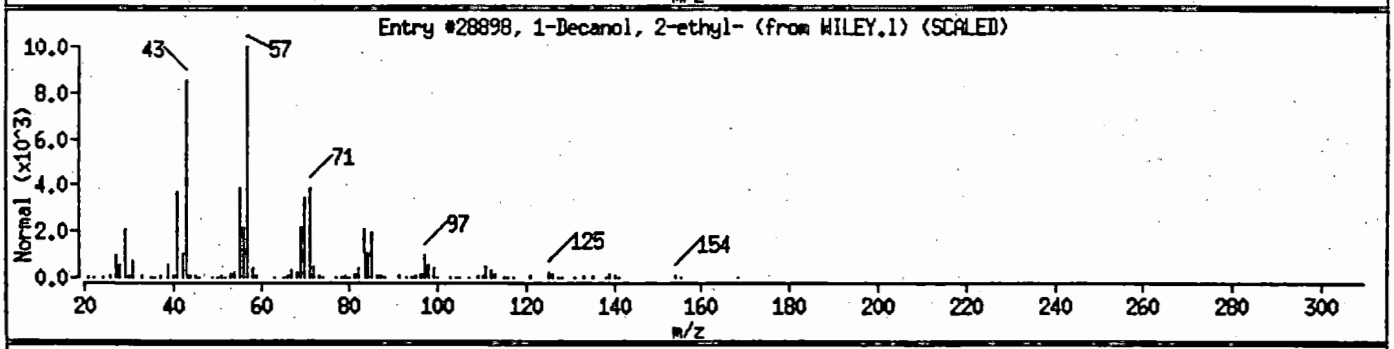
Sample Info: CDMHNSS2x6

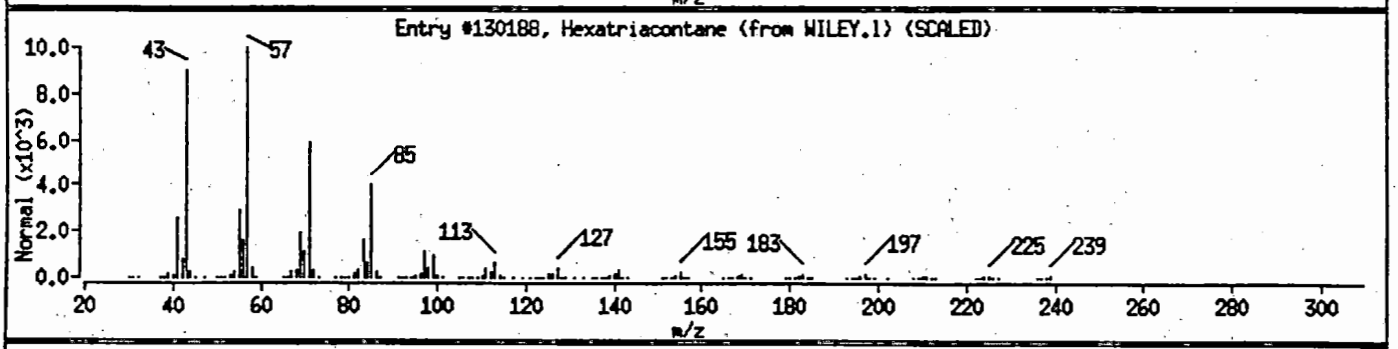
Volume Injected (uL): 2.0 Operator: WAV/AT

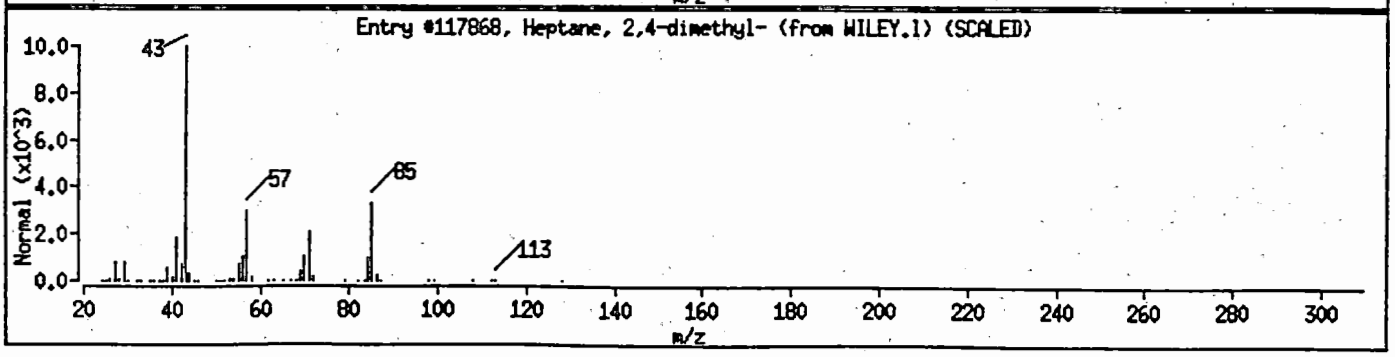
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Decanol, 2-ethyl-	21078-65-9	WILEY.1	28898	58	C12H26O	186
Hexatriacontane	630-06-8	WILEY.1	130188	52	C36H74	507
Heptane, 2,4-dimethyl-	2213-23-2	WILEY.1	117868	43	C9H20	128









Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d

Date : 30-JUN-1994 17:15

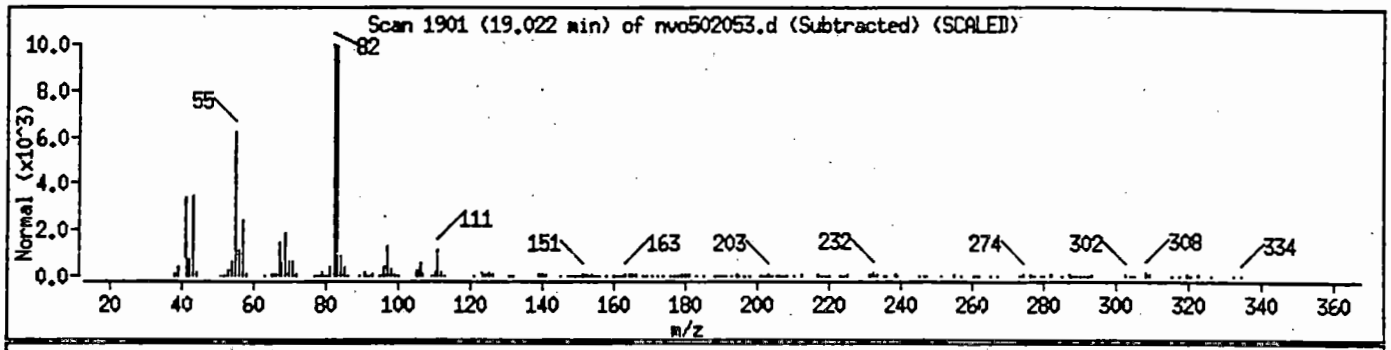
Client ID: A03-1-05 Instrument: nvo5.i

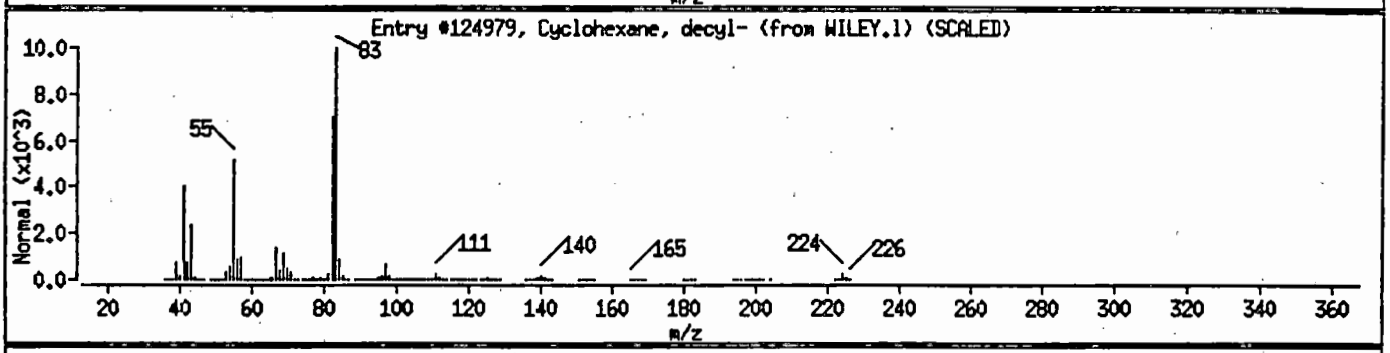
Sample Info: CDMHNSS2x6

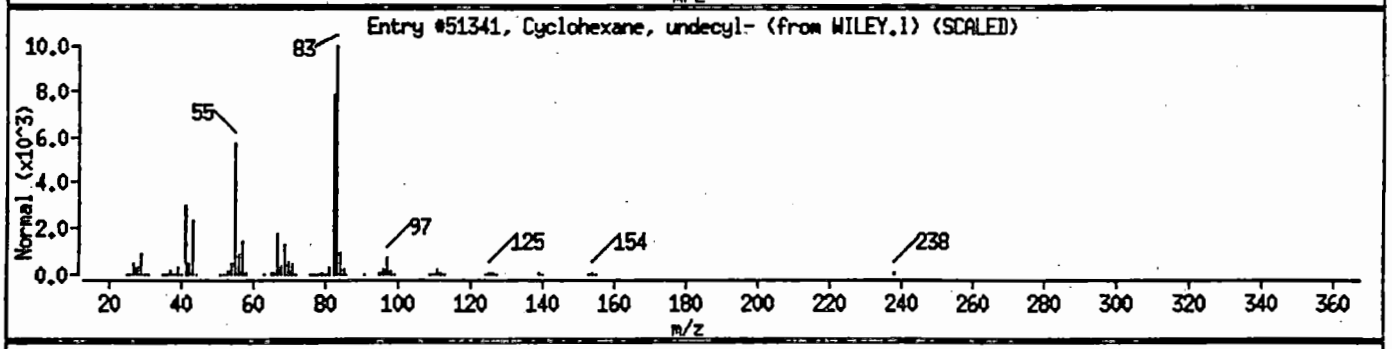
Volume Injected (uL): 2.0 Operator: WAV/AT

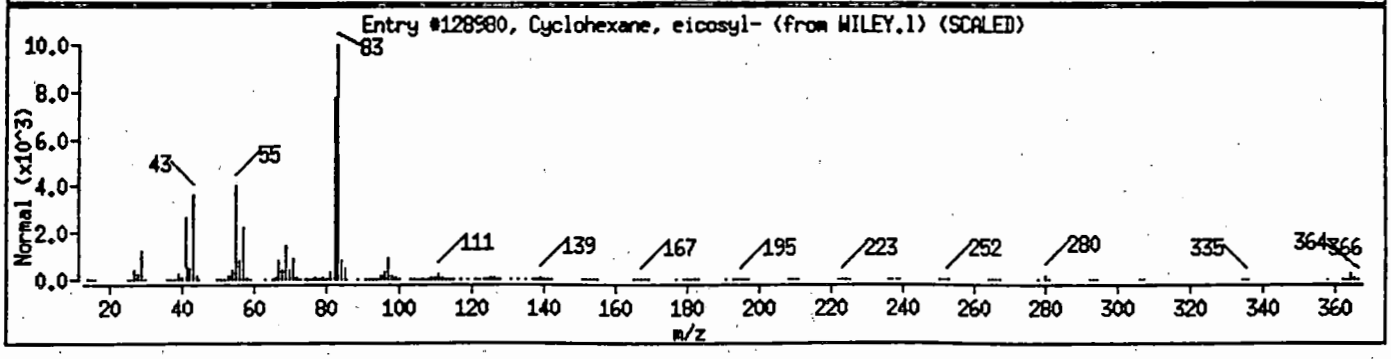
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexane, decyl-	1795-16-0	WILEY.1	124979	90	C16H32	224
Cyclohexane, undecyl-	54105-66-7	WILEY.1	51341	86	C17H34	238
Cyclohexane, eicosyl-	4443-55-4	WILEY.1	128980	86	C26H52	364









Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d

Date : 30-JUN-1994 17:15

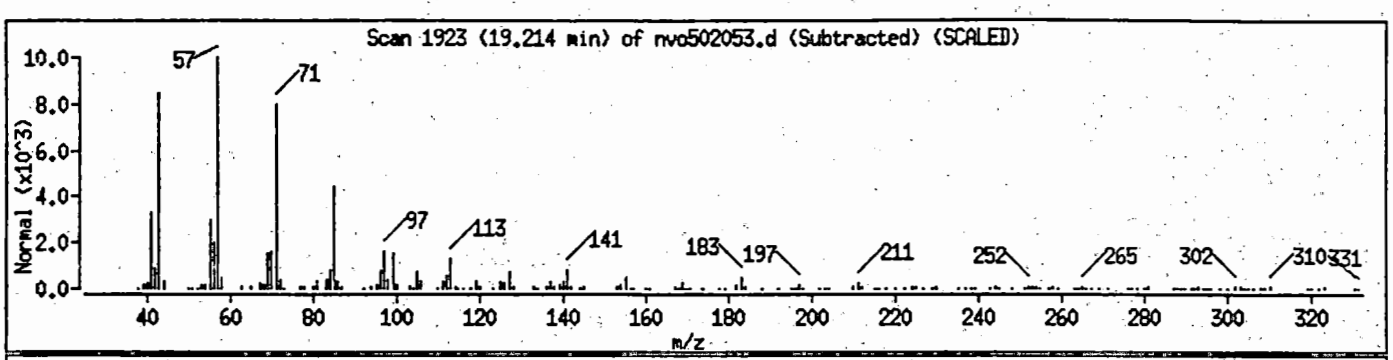
Client ID: A03-1-05 Instrument: nvo5.i

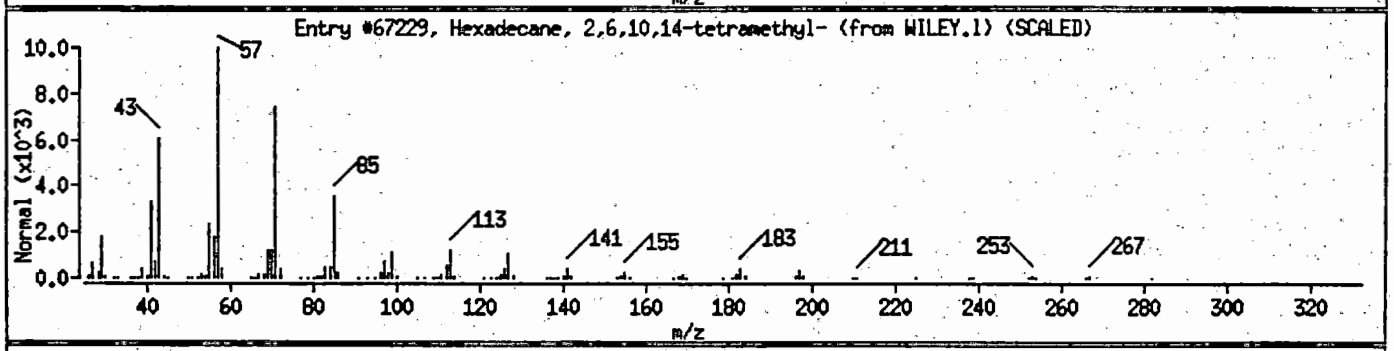
Sample Info: CDMHNSS2x6

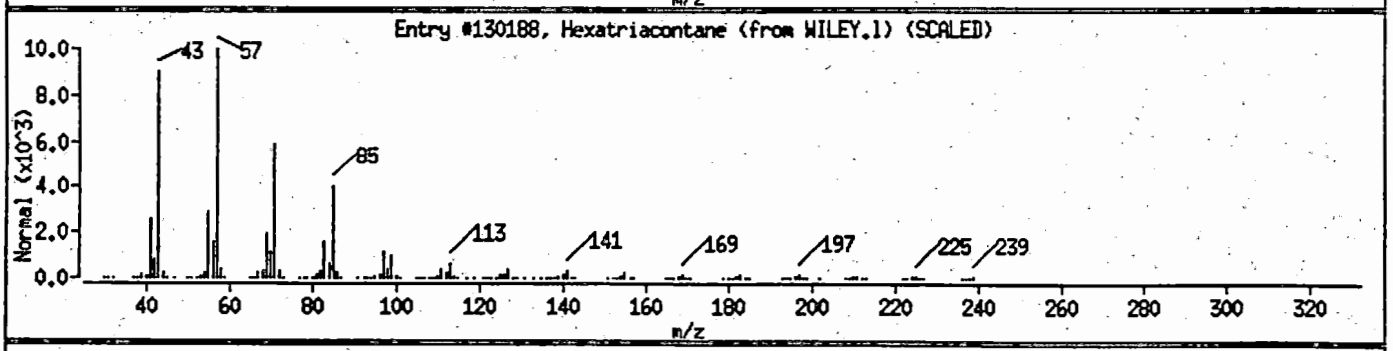
Volume Injected (uL): 2.0 Operator: WAV/AT

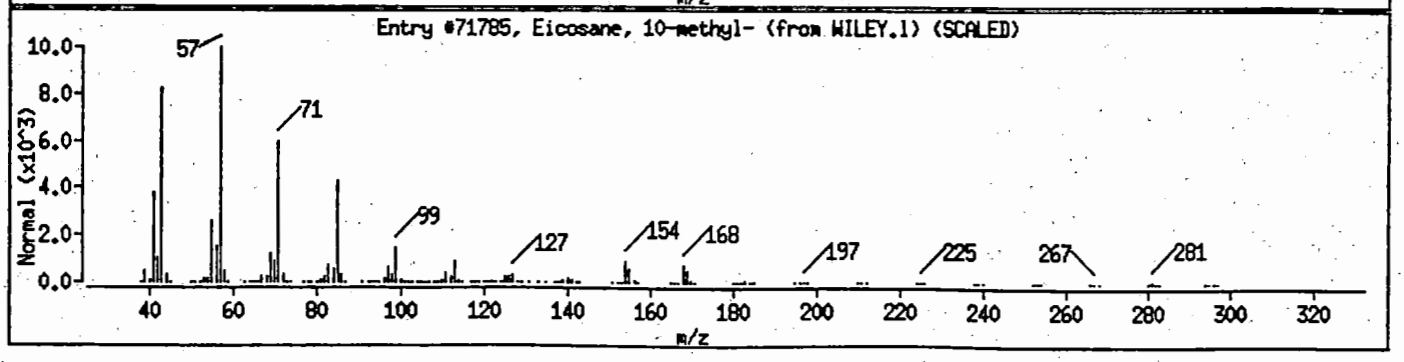
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexadecane, 2,6,10,14-tetramethyl-	638-36-8	WILEY.1	67229	91	C20H42	282
Hexatriacontane	630-06-8	WILEY.1	130188	91	C36H74	507
Eicosane, 10-methyl-	54833-23-7	WILEY.1	71785	90	C21H44	296









Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d

Date : 30-JUN-1994 17:15

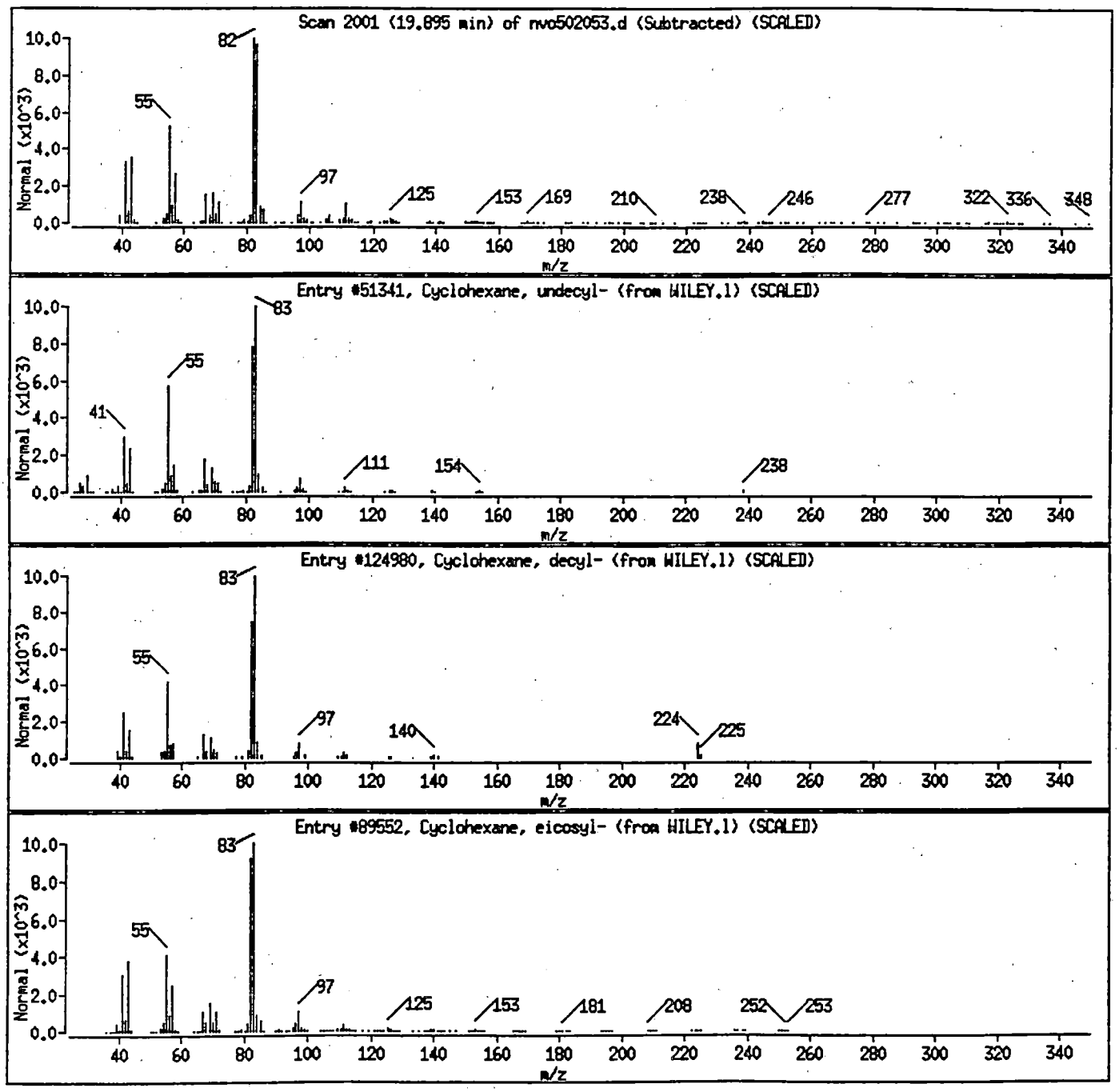
Client ID: A03-1-05 Instrument: nvo5.i

Sample Info: CDMHNSS2x6

Volume Injected (uL): 2.0 Operator: WAV/AT

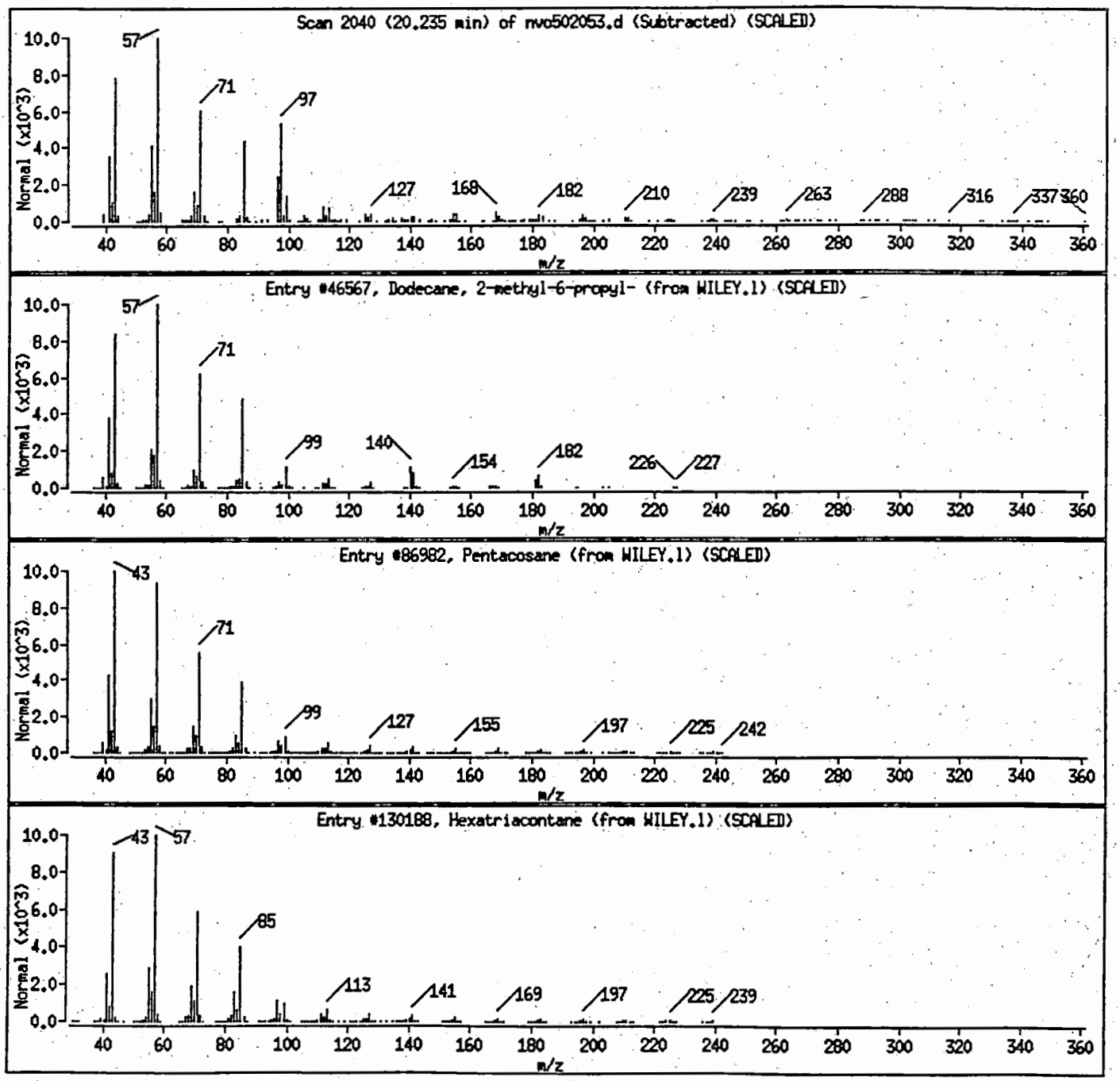
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexane, undecyl-	54105-66-7	WILEY.1	51341	94	C17H34	238
Cyclohexane, decyl-	1795-16-0	WILEY.1	124980	91	C16H32	224
Cyclohexane, eicosyl-	4443-55-4	WILEY.1	89552	91	C26H52	364



Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d
Date : 30-JUN-1994 17:15
Client ID: A03-1-05 Instrument: nvo5.i
Sample Info: CDMHNSS2x6
Volume Injected (uL): 2.0 Operator: WAV/AT
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Dodecane, 2-methyl-6-propyl-	55045-08-4	WILEY.1	46567	60	C16H34	226
Pentacosane	629-99-2	WILEY.1	86982	60	C25H52	352
Hexatriacontane	630-06-8	WILEY.1	130188	60	C36H74	507



Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d

Date : 30-JUN-1994 17:15

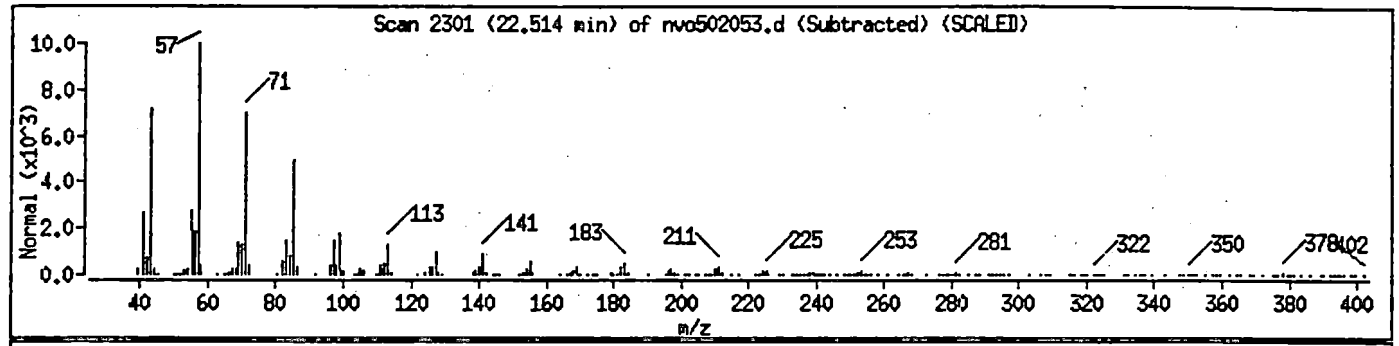
Client ID: A03-1-05 Instrument: nvo5.i

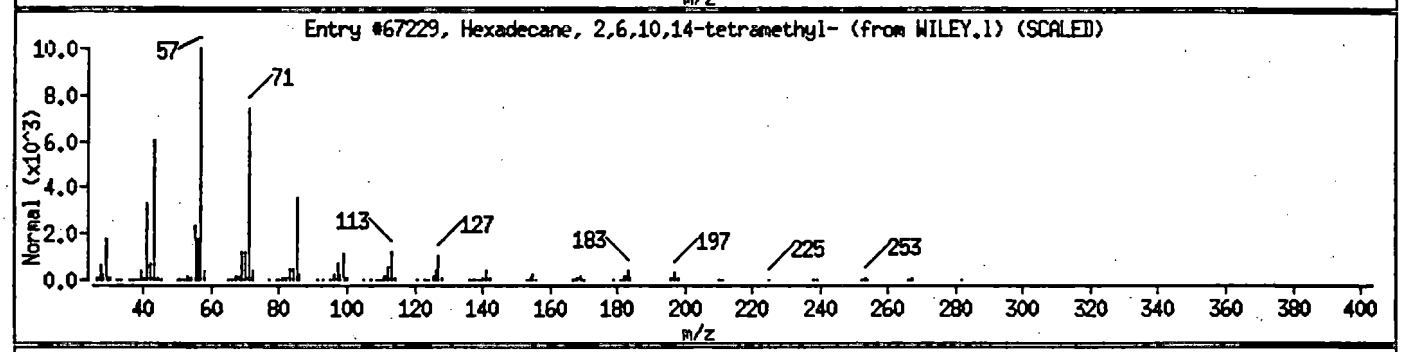
Sample Info: CDMHNSS2x6

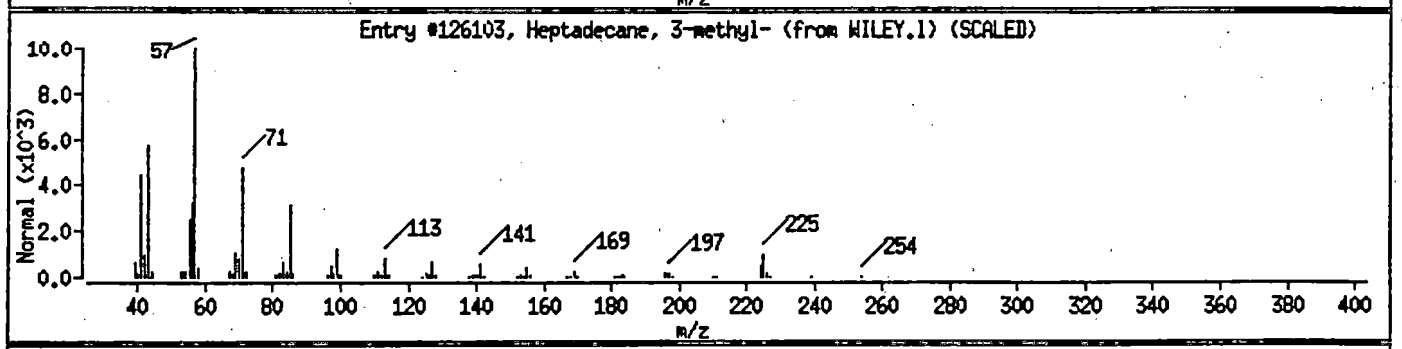
Volume Injected (uL): 2.0 Operator: WAV/AT

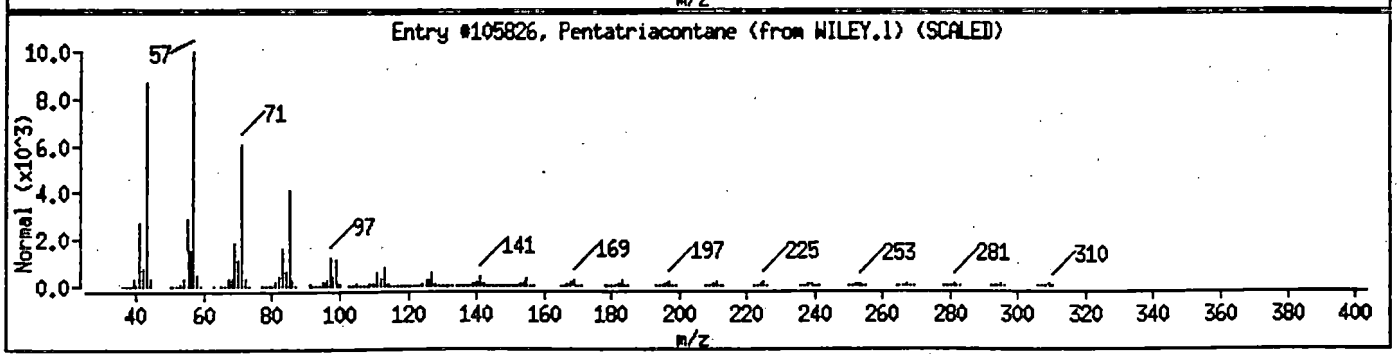
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexadecane, 2,6,10,14-tetramethyl-	638-36-8	WILEY.1	67229	83	C20H42	282
Heptadecane, 3-methyl-	6418-44-6	WILEY.1	126103	70	C18H38	254
Pentatriacontane	630-07-9	WILEY.1	105826	60	C35H72	493









Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d

Date : 30-JUN-1994 17:15

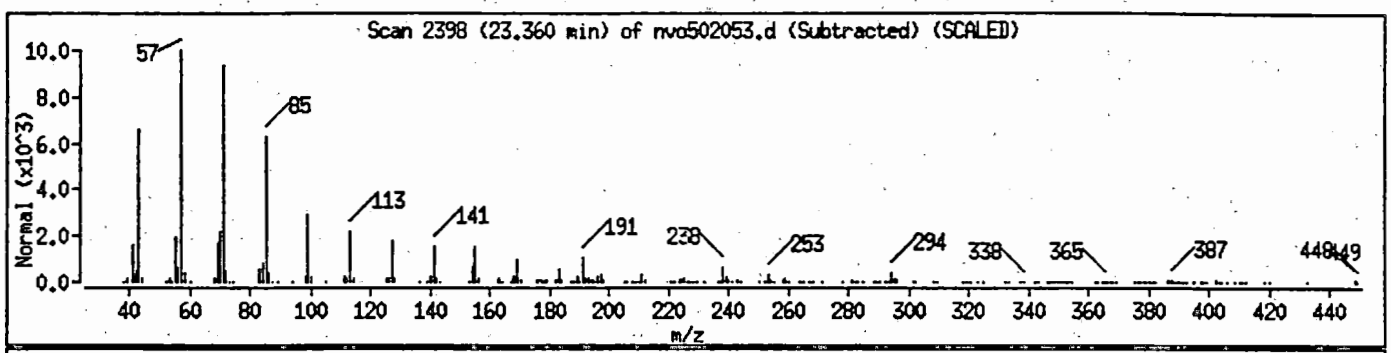
Client ID: A03-1-05 Instrument: nvo5.i

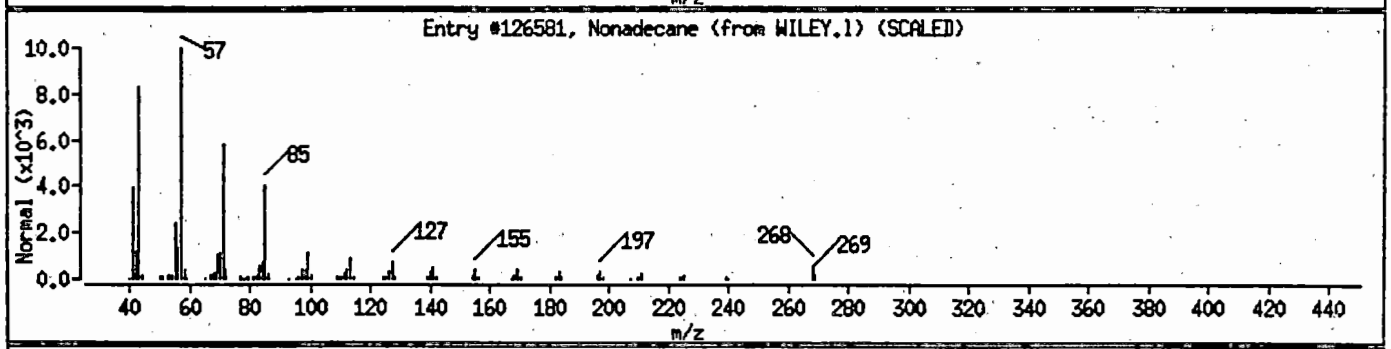
Sample Info: CDMHNSS2x6

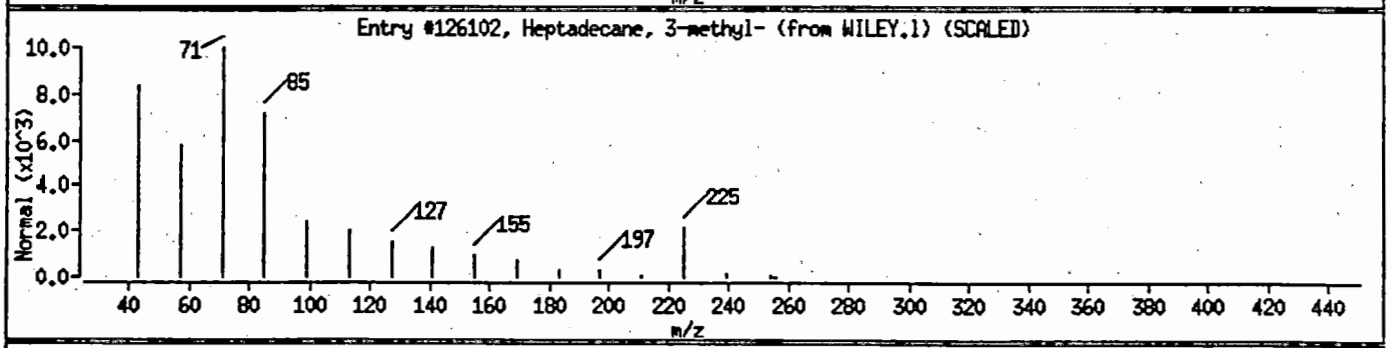
Volume Injected (uL): 2.0 Operator: WAV/AT

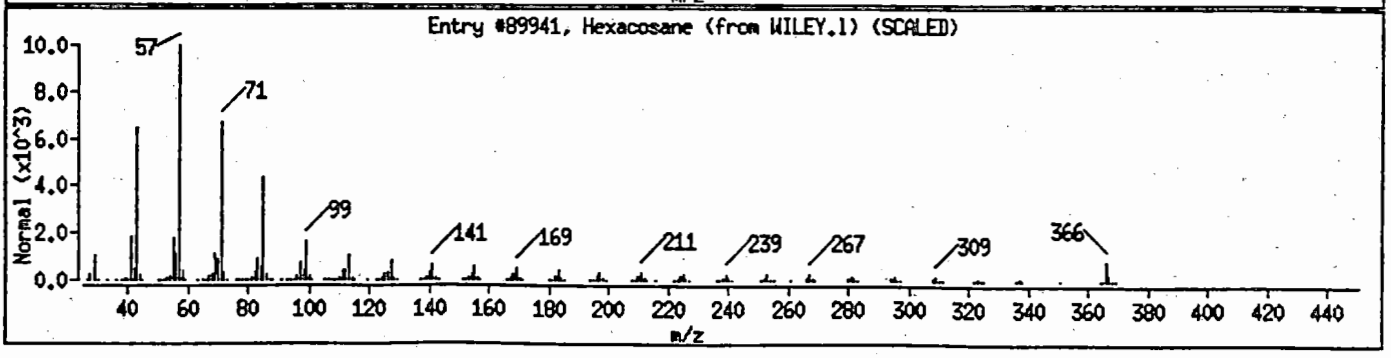
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Nonadecane	629-92-5	WILEY.1	126581	90	C19H40	268
Heptadecane, 3-methyl-	6418-44-6	WILEY.1	126102	87	C18H38	254
Hexacosane	630-01-3	WILEY.1	89941	78	C26H54	366









Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d

Date : 30-JUN-1994 17:15

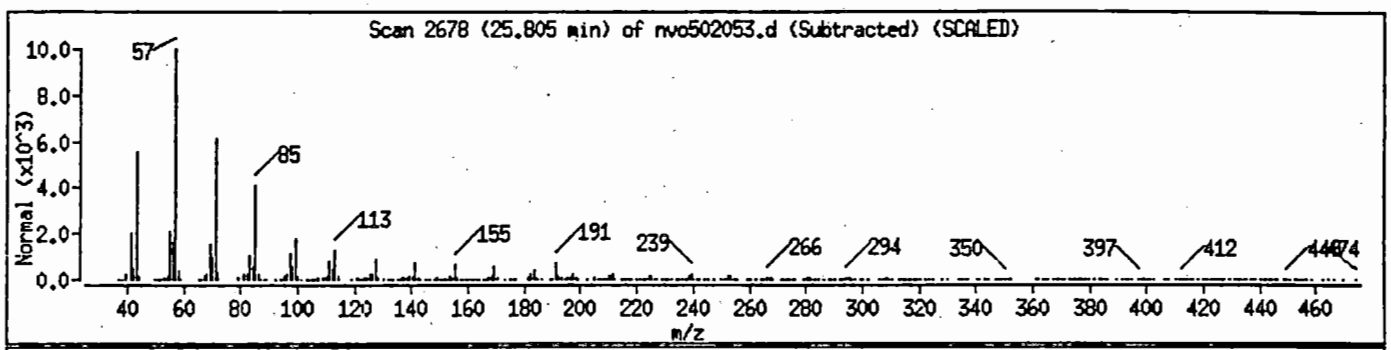
Client ID: A03-1-05 | Instrument: nvo5.i

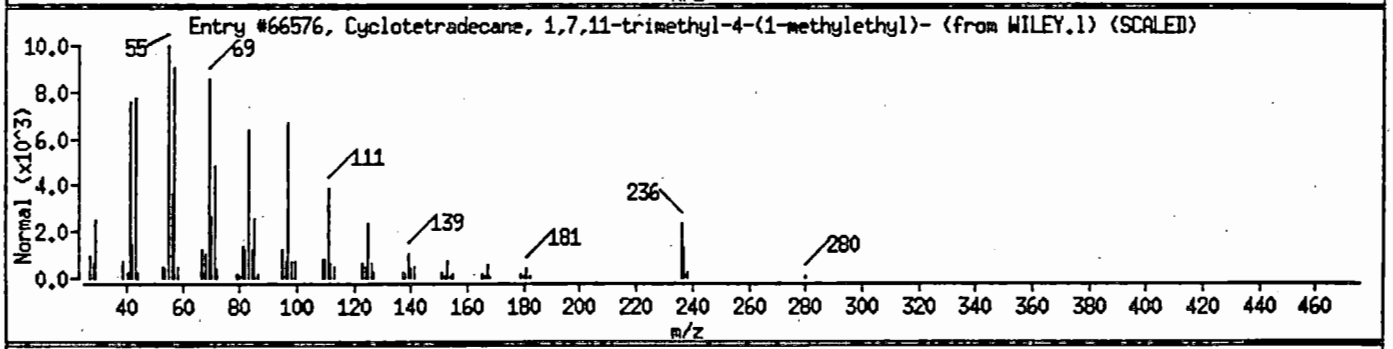
Sample Info: CDMHNSS2x6

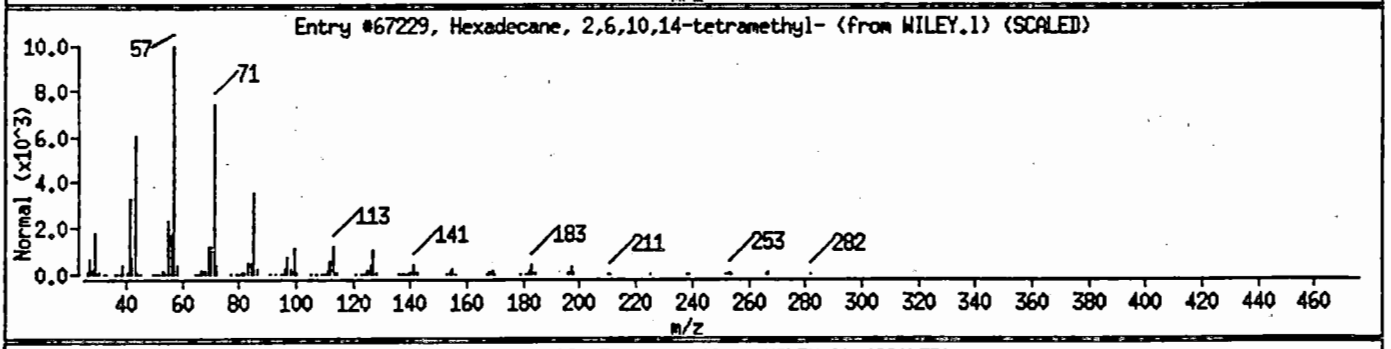
Volume Injected (uL): 2.0 | Operator: WAV/AT

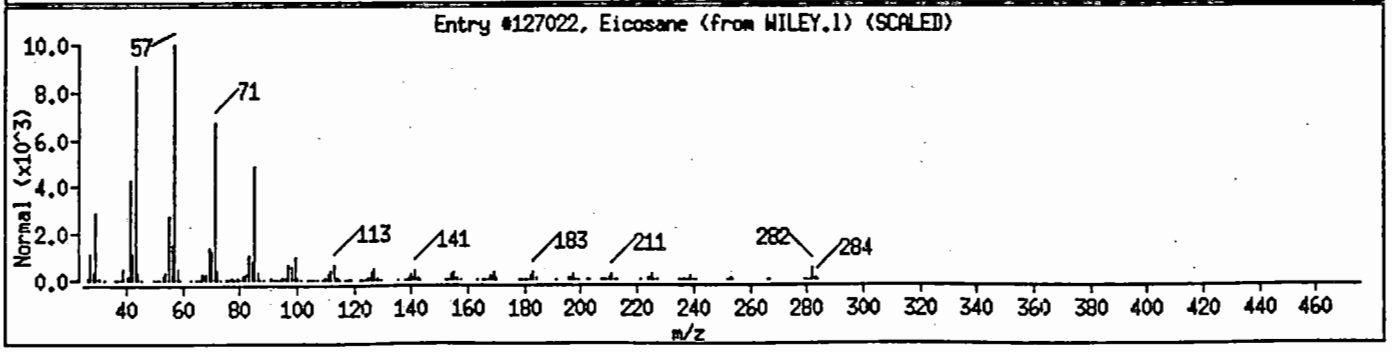
Column phase: DB-5MS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclotetradecane, 1,7,11-trimethyl-4-(1-	1786-12-5	WILEY.1	66576	95	C20H40	280
Hexadecane, 2,6,10,14-tetramethyl-	638-36-8	WILEY.1	67229	95	C20H42	282
Eicosane	112-95-8	WILEY.1	127022	89	C20H42	282



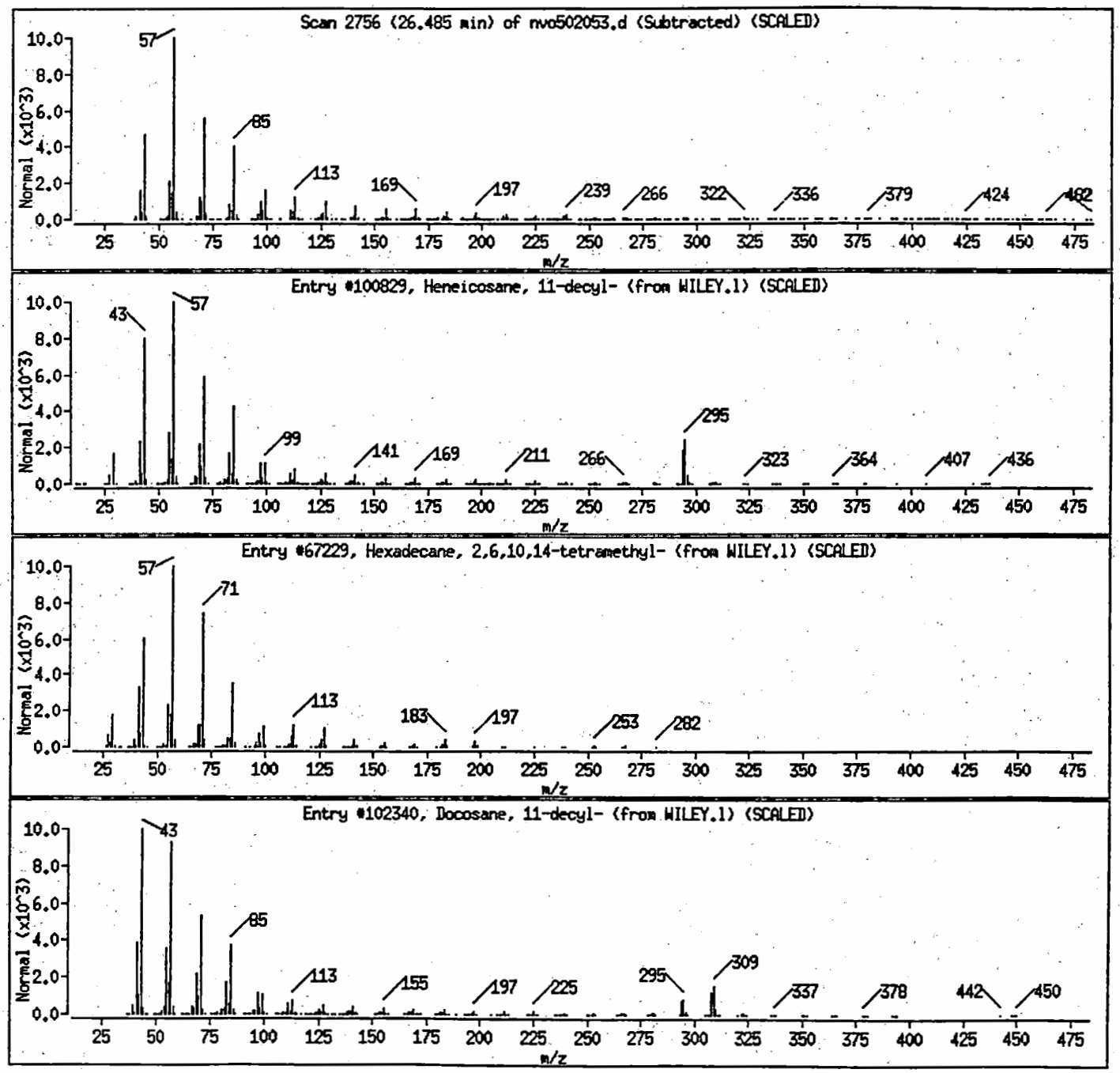






Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d
Date : 30-JUN-1994 17:15
Client ID: A03-1-05 Instrument: nvo5.i
Sample Info: CDMHNSS2x6
Volume Injected (uL): 2.0 Operator: WAV/AT
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heneicosane, 11-decyl-	55320-06-4	WILEY.l	100829	96	C31H64	436
Hexadecane, 2,6,10,14-tetramethyl-	638-36-8	WILEY.l	67229	96	C20H42	282
Docosane, 11-decyl-	55401-55-3	WILEY.l	102340	90	C32H66	451



Data File: /chem/nvo5.i/nvo0630.b/nvo502053.d

Date : 30-JUN-1994 17:15

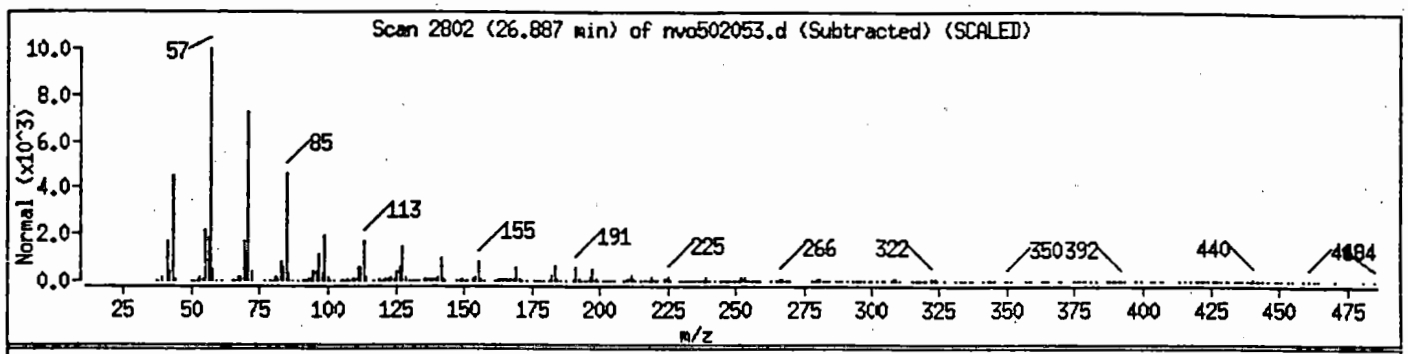
Client ID: A03-1-05 Instrument: nvo5.i

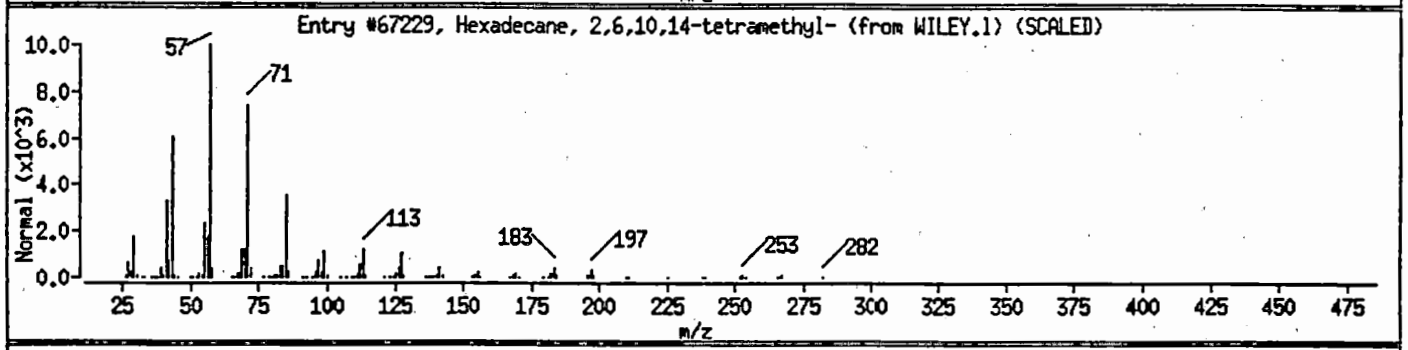
Sample Info: CDMHNSS2x6

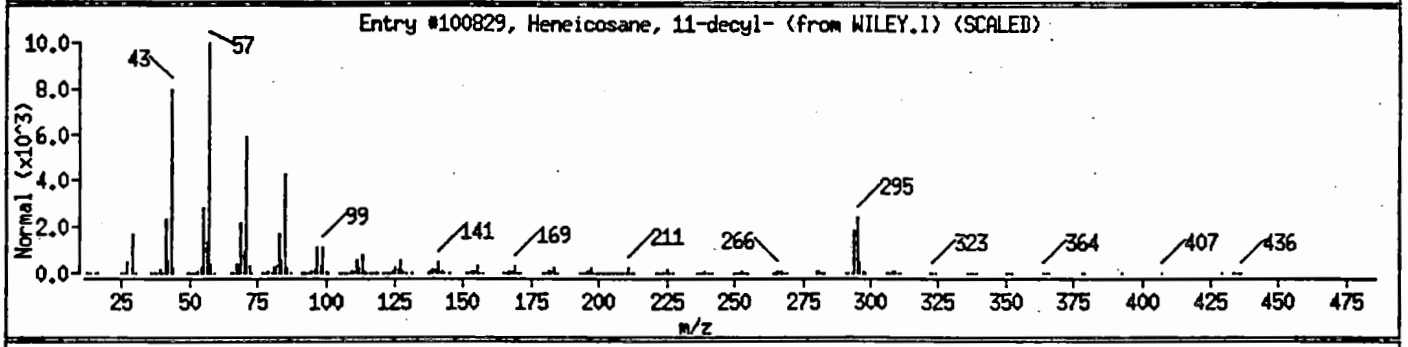
Volume Injected (uL): 2.0 Operator: WAV/AT

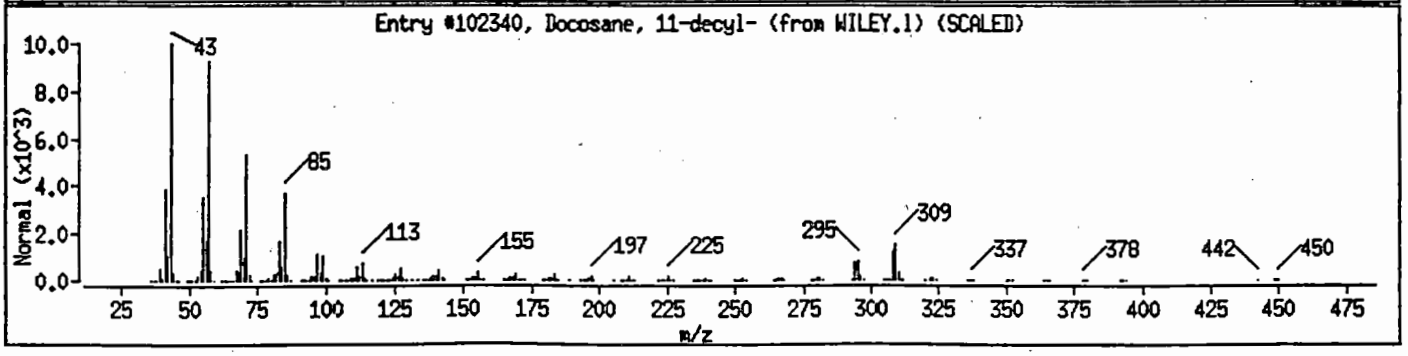
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexadecane, 2,6,10,14-tetramethyl-	638-36-8	WILEY.1	67229	95	C20H42	282
Heneicosane, 11-decyl-	55320-06-4	WILEY.1	100829	93	C31H64	436
Docosane, 11-decyl-	55401-55-3	WILEY.1	102340	90	C32H66	451









1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AO3-1-05MS

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS2*6MS

Sample wt/vol: 1.0 (g/mL) G Lab File ID: NVO502054.D

Level: (low/med) MED Date Received: 06/21/94

% Moisture: 2 decanted: (Y/N) N Date Extracted: 06/28/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 06/30/94

Injection Volume: 2.0(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 6.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	64000	
111-44-4	Bis(2-Chloroethyl)ether	41000	U
95-57-8	2-Chlorophenol	59000	
541-73-1	1,3-Dichlorobenzene	41000	U
106-46-7	1,4-Dichlorobenzene	41000	
95-50-1	1,2-Dichlorobenzene	41000	U
95-48-7	2-Methylphenol	41000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	41000	U
106-44-5	4-Methylphenol	41000	U
621-64-7	N-Nitroso-di-n-propylamine	36000	J
67-72-1	Hexachloroethane	41000	U
98-95-3	Nitrobenzene	41000	U
78-59-1	Isophorone	41000	U
88-75-5	2-Nitrophenol	41000	U
105-67-9	2,4-Dimethyphenol	41000	U
111-91-1	Bis(2-Chloroethoxy)methane	41000	U
120-83-2	2,4-Dichlorophenol	41000	U
120-82-1	1,2,4-Trichlorobenzene	38000	J
91-20-3	Naphthalene	41000	U
106-47-8	4-Chloroaniline	41000	U
87-68-3	Hexachlorobutadiene	41000	U
59-50-7	4-Chloro-3-methylphenol	61000	
91-57-6	2-Methylnaphthalene	41000	U
77-47-4	Hexachlorocyclopentadiene	41000	U
88-06-2	2,4,6-Trichlorophenol	41000	U
95-95-4	2,4,5-Trichlorophenol	100000	U
91-58-7	2-Chloronaphthalene	41000	U
88-74-4	2-Nitroaniline	100000	U
131-11-3	Dimethyl phthalate	41000	U
208-96-8	Acenaphthylene	41000	U
606-20-2	2,6-Dinitrotoluene	41000	U
99-09-2	3-Nitroaniline	100000	U
83-32-9	Acenaphthene	27000	J

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AO3-1-O5MS

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS2*6MS

Sample wt/vol: 1.0 (g/mL) G Lab File ID: NVO502054.D

Level: (low/med) MED Date Received: 06/21/94

% Moisture: 2 decanted: (Y/N) N Date Extracted:06/28/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 06/30/94

Injection Volume: 2.0(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 6.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	100000	U
100-02-7	4-Nitrophenol	66000	J
132-64-9	Dibenzofuran	41000	U
121-14-2	2,4-Dinitrotoluene	33000	J
84-66-2	Diethyl phthalate	41000	U
7005-72-3	4-Chlorophenyl-phenylether	41000	U
86-73-7	Fluorene	41000	U
100-01-6	4-Nitroaniline	100000	U
534-52-1	4,6-Dinitro-2-methylphenol	100000	U
86-30-6	N-Nitrosodiphenylamine (1)	41000	U
101-55-3	4-Bromophenyl-phenylether	41000	U
118-74-1	Hexachlorobenzene	41000	U
87-86-5	Pentachlorophenol	51000	J
85-01-8	Phenanthrene	41000	U
120-12-7	Anthracene	41000	U
86-74-8	Carbazole	41000	U
84-74-2	Di-n-butylphthalate	41000	U
206-44-0	Fluoranthene	41000	U
129-00-0	Pyrene	34000	J
85-68-7	Butylbenzylphthalate	41000	U
91-94-1	3,3'-Dichlorobenzidine	41000	U
56-55-3	Benzo(a)anthracene	41000	U
218-01-9	Chrysene	41000	U
117-81-7	bis(2-Ethylhexyl)phthalate	41000	U
117-84-0	Di-n-octylphthalate	41000	U
205-99-2	Benzo(b)fluoranthene	41000	U
207-08-9	Benzo(k)fluoranthene	41000	U
50-32-8	Benzo(a)pyrene	41000	U
193-39-5	Indeno(1,2,3-cd)pyrene	41000	U
53-70-3	Dibenzo(a,h)anthracene	41000	U
191-24-2	Benzo(g,h,i)perylene	41000	U

(1) - Cannot be separated from Diphenylamine

Data File: /chem/nvo5.i/nvo0630.b/nvo502054.d
Report Date: 07-Jul-1994 08:00

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0630.b/nvo502054.d
Lab Smp Id: CDMHNSS2*6MS — Client Smp ID: AO3-1-O5MS
Inj Date : 30-JUN-1994 17:55 — Autotune Date: 26-May-94 08:31
Operator : WAV/AT — Inst ID: nvo5.i
Smp Info : CDMHNSS2*6MS
Misc Info : CDM Hanford N. Slope
Comment :
Method : /chem/nvo5.i/nvo0630.b/clp390epc.m
Meth Date : 06-Jul-1994 16:51 user2 — Quant Type: ISTD
Cal Date : 30-JUN-1994 09:02 — Cal File: nvo502044.d
Als bottle: 4 — QC Sample: MS
Dil Factor: 4.000
Integrator: HP RTE — Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
*	1 1,4-Dichlorobenzene-d4	152.00	5.465	5.476	(1.000)	940572	40	
$	2 2-Fluorophenol	112.00	2.681	2.753	(0.491)	638670	22	44000
$	3 Phenol-d5	99.00	5.064	5.110	(0.927)	889063	24	48000(H)
	4 Phenol	94.00	5.090	5.136	(0.931)	1348855	31	63000
$	6 2-Chlorophenol-d4	132.00	5.125	5.153	(0.938)	652394	25	51000
	7 2-Chlorophenol	128.00	5.151	5.179	(0.943)	914778	29	58000
	9 1,4-Dichlorobenzene	146.00	5.492	5.502	(1.005)	733286	20	41000
$	10 1,2-Dichlorobenzene-d4	152.00	5.701	5.721	(1.043)	390122	19	38000(a)
	15 N-Nitroso-di-n-propylamine	70.00	6.155	6.192	(1.126)	488328	18	35000(a)
*	17 Naphthalene-d8	136.00	7.569	7.589	(1.000)	3055605	40	
$	18 Nitrobenzene-d5	82.00	6.365	6.393	(0.841)	720001	19	39000(a)
	25 1,2,4-Trichlorobenzene	180.00	7.482	7.493	(0.988)	544124	19	37000(a)
	29 4-Chloro-3-methylphenol	107.00	8.791	8.802	(1.161)	788558	30	60000
*	31 Acenaphthene-d10	164.00	11.061	11.072	(1.000)	1588543	40	
$	35 2-Fluorobiphenyl	172.00	9.655	9.666	(0.873)	1135741	19	39000(a)
	42 Acenaphthene	153.00	11.122	11.141	(1.006)	684497	13	27000(a)
	44 4-Nitrophenol	109.00	11.672	11.700	(1.055)	205938	32	65000(a)
	46 2,4-Dinitrotoluene	165.00	11.558	11.587	(1.045)	315541	16	33000(a)
$	51 2,4,6-Tribromophenol	330.00	12.868	12.878	(1.163)	250157	24	47000
*	52 Phenanthrene-d10	188.00	14.439	14.450	(1.000)	2276970	40	
	57 Pentachlorophenol	266.00	14.090	14.092	(0.976)	172003	25	50000(a)
*	63 Chrysene-d12	240.00	20.750	20.743	(1.000)	1902014	40	
	64 Pyrene	202.00	17.826	17.837	(0.859)	1214512	17	33000(a)
$	65 Terphenyl-d14	244.00	18.315	18.308	(0.883)	1003514	18	37000(a)
*	71 Perylene-d12	264.00	23.936	23.886	(1.000)	2000062	40	

Data File: /chem/nvo5.i/nvo0630.b/nvo502054.d
Report Date: 07-Jul-1994 08:00

QC Flag Legend

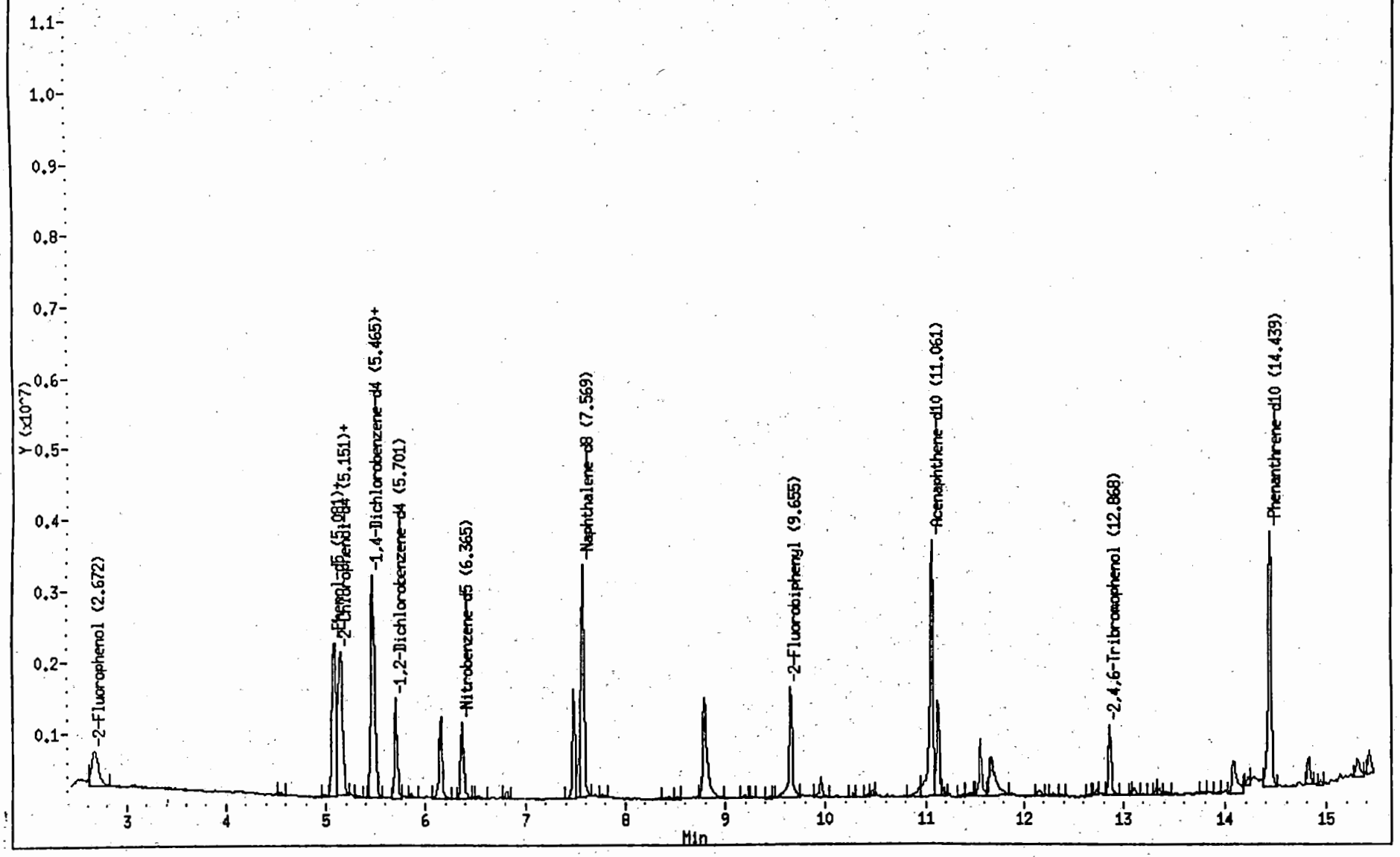
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

Data File: /chem/nvo5.i/nvo0630.b/nvo502054.d
Date : 30-JUN-1994 17:55
Client ID: A03-1-05MS
Sample Info: CDMHNSS2x6MS
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25

/chem/nvo5.i/nvo0630.b/nvo502054.d (Part 1 of 2)



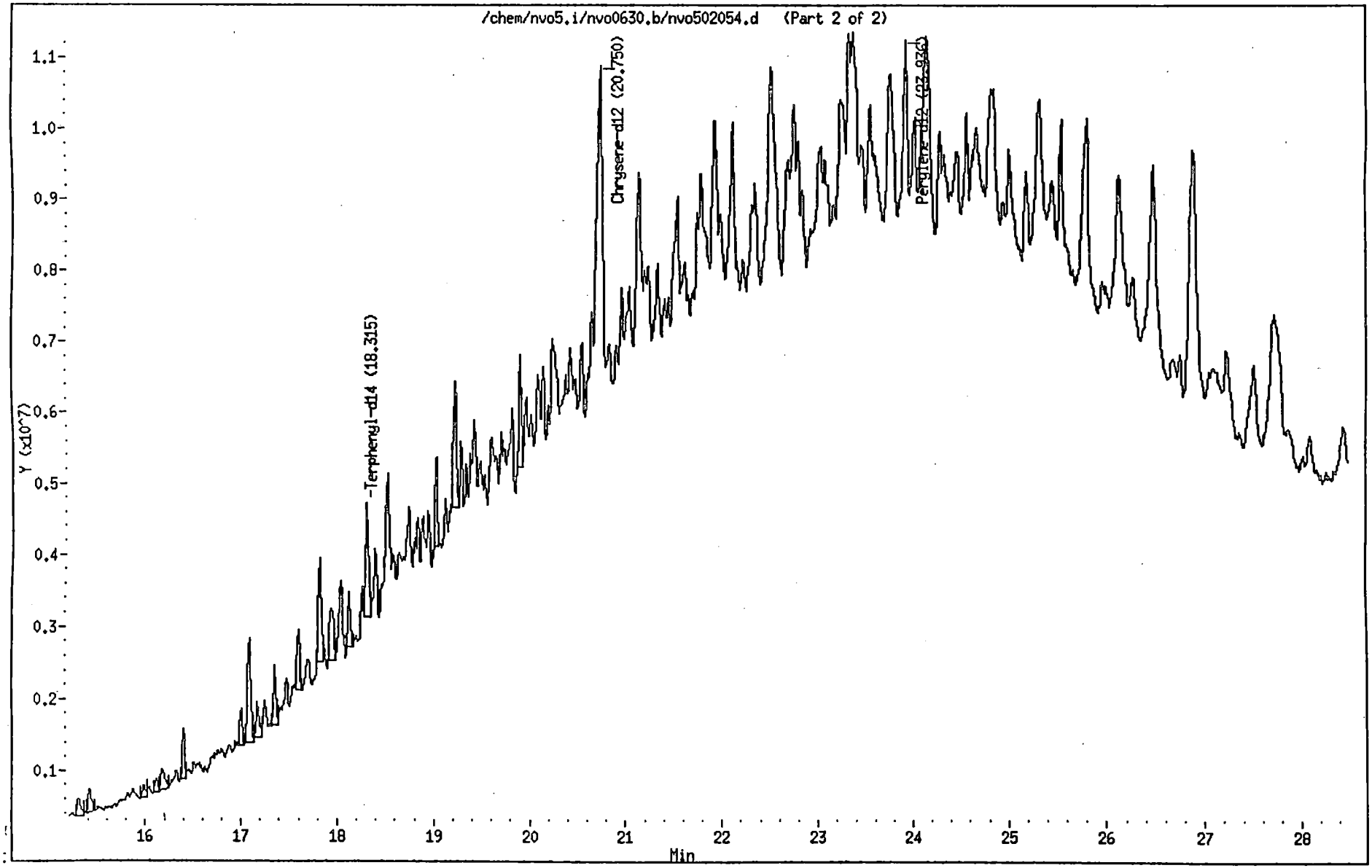
000133

9513356.0247

Data File: /chem/nvo5.i/nvo0630.b/nvo502054.d
Date : 30-JUN-1994 17:55
Client ID: A03-1-05MS
Sample Info: CDMHNSS2x6MS
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



000134

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AO3-1-O5MSD

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS2*6MS

Sample wt/vol: 1.0 (g/mL) G Lab File ID: NVO502055.D

Level: (low/med) MED Date Received: 06/21/94

% Moisture: 2 decanted: (Y/N) N Date Extracted: 06/28/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 06/30/94

Injection Volume: 2.0(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 6.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	61000	
111-44-4	Bis(2-Chloroethyl)ether	41000	U
95-57-8	2-Chlorophenol	55000	
541-73-1	1,3-Dichlorobenzene	41000	U
106-46-7	1,4-Dichlorobenzene	39000	J
95-50-1	1,2-Dichlorobenzene	41000	U
95-48-7	2-Methylphenol	41000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	41000	U
106-44-5	4-Methylphenol	41000	U
621-64-7	N-Nitroso-di-n-propylamine	33000	J
67-72-1	Hexachloroethane	41000	U
98-95-3	Nitrobenzene	41000	U
78-59-1	Isophorone	41000	U
88-75-5	2-Nitrophenol	41000	U
105-67-9	2,4-Dimethyphenol	41000	U
111-91-1	Bis(2-Chloroethoxy)methane	41000	U
120-83-2	2,4-Dichlorophenol	41000	U
120-82-1	1,2,4-Trichlorobenzene	36000	J
91-20-3	Naphthalene	41000	U
106-47-8	4-Chloroaniline	41000	U
87-68-3	Hexachlorobutadiene	41000	U
59-50-7	4-Chloro-3-methylphenol	58000	
91-57-6	2-Methylnaphthalene	41000	U
77-47-4	Hexachlorocyclopentadiene	41000	U
88-06-2	2,4,6-Trichlorophenol	41000	U
95-95-4	2,4,5-Trichlorophenol	100000	U
91-58-7	2-Chloronaphthalene	41000	U
88-74-4	2-Nitroaniline	100000	U
131-11-3	Dimethyl phthalate	41000	U
208-96-8	Acenaphthylene	41000	U
606-20-2	2,6-Dinitrotoluene	41000	U
99-09-2	3-Nitroaniline	100000	U
83-32-9	Acenaphthene	23000	J

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AO3-1-O5MSD

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS2*6MS

Sample wt/vol: 1.0 (g/mL) G Lab File ID: NVO502055.D

Level: (low/med) MED Date Received: 06/21/94

% Moisture: 2 decanted: (Y/N) N Date Extracted: 06/28/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 06/30/94

Injection Volume: 2.0(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 6.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	100000	U
100-02-7	4-Nitrophenol	50000	J
132-64-9	Dibenzofuran	41000	U
121-14-2	2,4-Dinitrotoluene	30000	J
84-66-2	Diethyl phthalate	41000	U
7005-72-3	4-Chlorophenyl-phenylether	41000	U
86-73-7	Fluorene	41000	U
100-01-6	4-Nitroaniline	100000	U
534-52-1	4,6-Dinitro-2-methylphenol	100000	U
86-30-6	N-Nitrosodiphenylamine (1)	41000	U
101-55-3	4-Bromophenyl-phenylether	41000	U
118-74-1	Hexachlorobenzene	41000	U
87-86-5	Pentachlorophenol	38000	J
85-01-8	Phenanthrene	41000	U
120-12-7	Anthracene	41000	U
86-74-8	Carbazole	41000	U
84-74-2	Di-n-butylphthalate	41000	U
206-44-0	Fluoranthene	41000	U
129-00-0	Pyrene	32000	J
85-68-7	Butylbenzylphthalate	41000	U
91-94-1	3,3'-Dichlorobenzidine	41000	U
56-55-3	Benzo(a)anthracene	41000	U
218-01-9	Chrysene	41000	U
117-81-7	bis(2-Ethylhexyl)phthalate	41000	U
117-84-0	Di-n-octylphthalate	41000	U
205-99-2	Benzo(b)fluoranthene	41000	U
207-08-9	Benzo(k)fluoranthene	41000	U
50-32-8	Benzo(a)pyrene	41000	U
193-39-5	Indeno(1,2,3-cd)pyrene	41000	U
53-70-3	Dibenzo(a,h)anthracene	41000	U
191-24-2	Benzo(g,h,i)perylene	41000	U

(1) - Cannot be separated from Diphenylamine

Data File: /chem/nvo5.i/nvo0630.b/nvo502055.d
Report Date: 07-Jul-1994 08:00

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0630.b/nvo502055.d
Lab Smp Id: CDMHNSS2*6MSD Client Smp ID: AO3-1-O5MSD
Inj Date : 30-JUN-1994 18:32 Autotune Date: 26-May-94 08:31
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : CDMHNSS2*6MSD
Misc Info : CDM Hanford N. Slope
Comment :
Method : /chem/nvo5.i/nvo0630.b/clp390epc.m
Meth Date : 06-Jul-1994 16:51 user2 Quant Type: ISTD
Cal Date : 30-JUN-1994 09:02 Cal File: nvo502044.d
Als bottle: 5 QC Sample: MSD
Dil Factor: 4.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
*	1 1,4-Dichlorobenzene-d4	152.00	5.468	5.476	(1.000)	1245890	40	
$	2 2-Fluorophenol	112.00	2.692	2.753	(0.492)	818102	21	42000
$	3 Phenol-d5	99.00	5.075	5.110	(0.928)	1156488	24	48000
	4 Phenol	94.00	5.093	5.136	(0.931)	1714788	30	60000
$	6 2-Chlorophenol-d4	132.00	5.128	5.153	(0.938)	823372	24	48000
	7 2-Chlorophenol	128.00	5.163	5.179	(0.944)	1134850	27	54000
	9 1,4-Dichlorobenzene	146.00	5.494	5.502	(1.005)	914417	19	38000(a)
$	10 1,2-Dichlorobenzene-d4	152.00	5.704	5.721	(1.043)	477882	18	35000(a)
	15 N-Nitroso-di-n-propylamine	70.00	6.158	6.192	(1.126)	601021	16	33000(a)
*	17 Naphthalene-d8	136.00	7.572	7.589	(1.000)	3733589	40	
$	18 Nitrobenzene-d5	82.00	6.367	6.393	(0.841)	879514	19	39000(a)
	25 1,2,4-Trichlorobenzene	180.00	7.485	7.493	(0.988)	627756	18	35000(a)
	29 4-Chloro-3-methylphenol	107.00	8.794	8.802	(1.161)	913234	28	57000
*	31 Acenaphthene-d10	164.00	11.064	11.072	(1.000)	1785545	40	
$	35 2-Fluorobiphenyl	172.00	9.658	9.666	(0.873)	1204458	18	37000(a)
	42 Acenaphthene	153.00	11.125	11.141	(1.006)	655858	11	23000(a)
	44 4-Nitrophenol	109.00	11.675	11.700	(1.055)	178182	25	50000(a)
	46 2,4-Dinitrotoluene	165.00	11.561	11.587	(1.045)	323116	15	30000(a)
$	51 2,4,6-Tribromophenol	330.00	12.870	12.878	(1.163)	231864	20	39000(a)
*	52 Phenanthrene-d10	188.00	14.442	14.450	(1.000)	2369464	40	
	57 Pentachlorophenol	266.00	14.084	14.092	(0.975)	133653	19	37000(a)
*	63 Chrysene-d12	240.00	20.753	20.743	(1.000)	1793735	40	
	64 Pyrene	202.00	17.829	17.837	(0.859)	1068452	16	31000(a)
$	65 Terphenyl-d14	244.00	18.309	18.308	(0.882)	875244	17	34000(a)
*	71 Perylene-d12	264.00	23.930	23.886	(1.000)	2037254	40	

Data File: /chem/nvo5.i/nvo0630.b/nvo502055.d
Report Date: 07-Jul-1994 08:00

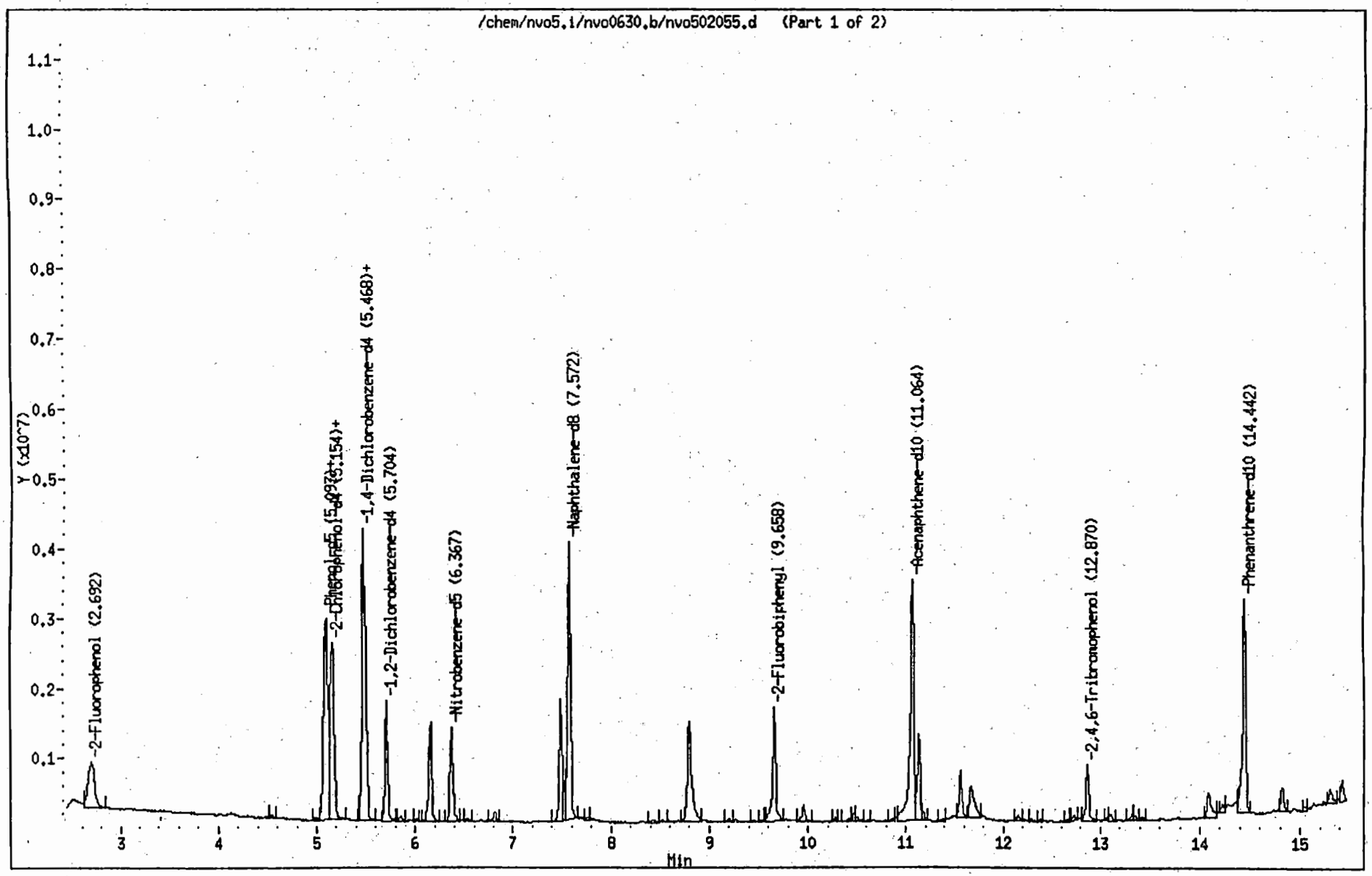
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/nvo5.i/nvo0630.b/nvo502055.d
Date : 30-JUN-1994 18:32
Client ID: A03-1-05MSD
Sample Info: CDMHNSS2x6MSD
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



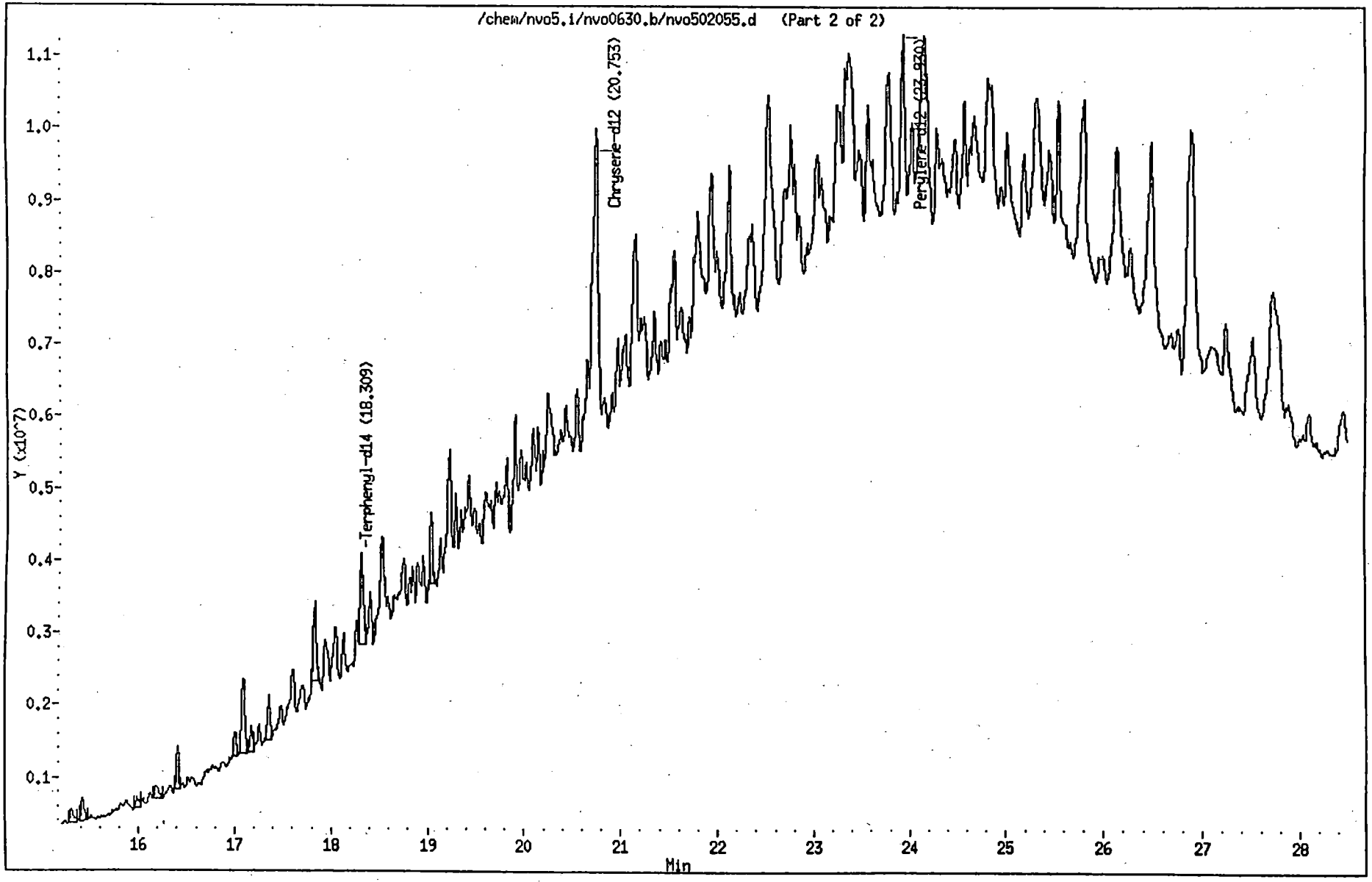
000139

95133564.0250

Data File: /chem/nvo5.i/nvo0630.b/nvo502055.d
Date : 30-JUN-1994 18:32
Client ID: A03-1-05MSD
Sample Info: CDMHNSS2x6MSD
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



000140

9513356.0251

Standards Data

6B
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Instrument ID: NVO5 Calibration Date(s): 06/17/94

Calibration Times: 0915 1141

LAB FILE ID: RRF20 =NVO501822.D RRF50 =NVO501823.D
RRF80 =NVO501824.D RRF120=NVO501825.D RRF160=NVO501826.D

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Phenol *	1.473	1.727	1.488	1.720	1.536	1.589	7.9*
Bis(2-Chloroethyl)ether *	1.530	1.526	1.313	1.801	1.422	1.518	12.0*
2-Chlorophenol *	1.220	1.308	1.124	1.326	1.173	1.230	7.0*
1,3-Dichlorobenzene *	1.446	1.548	1.352	1.562	1.343	1.450	7.2*
1,4-Dichlorobenzene *	1.439	1.545	1.338	1.543	1.318	1.437	7.5*
1,2-Dichlorobenzene *	1.353	1.429	1.240	1.410	1.200	1.327	7.7*
2-Methylphenol *	1.078	1.146	0.975	1.139	1.033	1.074	6.7*
2,2'-oxybis(1-Chloropropane)	1.648	1.691	1.562	1.661	1.493	1.611	5.1
4-Methylphenol *	1.079	1.175	1.004	1.148	1.003	1.082	7.4*
N-Nitroso-di-n-propylamine *	0.985	1.085	0.909	1.047	0.956	0.996	7.0*
Hexachloroethane *	0.603	0.645	0.560	0.622	0.511	0.588	9.0*
Nitrobenzene *	0.431	0.458	0.399	0.441	0.367	0.419	8.7*
Isophorone *	0.819	0.880	0.741	0.858	0.780	0.816	6.9*
2-Nitrophenol *	0.252	0.280	0.242	0.276	0.249	0.260	6.6*
2,4-Dimethyphenol *	0.368	0.404	0.343	0.391	0.339	0.369	7.8*
Bis(2-Chloroethoxy)methane *	0.434	0.466	0.395	0.454	0.389	0.428	8.1*
2,4-Dichlorophenol *	0.303	0.335	0.288	0.331	0.297	0.311	6.8*
1,2,4-Trichlorobenzene *	0.364	0.389	0.334	0.377	0.324	0.358	7.8*
Naphthalene *	1.047	1.107	0.948	1.047	0.892	1.008	8.6*
4-Chloroaniline	0.359	0.386	0.339	0.390	0.352	0.365	6.1
Hexachlorobutadiene	0.213	0.231	0.200	0.225	0.188	0.211	8.4
4-Chloro-3-methylphenol *	0.333	0.361	0.313	0.353	0.317	0.335	6.3*
2-Methylnaphthalene *	0.735	0.783	0.667	0.737	0.583	0.701	11.1*
Hexachlorocyclopentadiene	0.183	0.215	0.186	0.223	0.219	0.205	9.3
2,4,6-Trichlorophenol *	0.407	0.462	0.404	0.474	0.497	0.449	9.2*
2,4,5-Trichlorophenol *	0.454	0.519	0.451	0.488	0.466	0.475	5.9*
2-Chloronaphthalene *	1.242	1.362	1.162	1.304	1.262	1.266	5.9*
2-Nitroaniline	0.512	0.554	0.457	0.495	0.487	0.501	7.1
Dimethyl phthalate	1.547	1.670	1.402	1.546	1.504	1.534	6.3
Acenaphthylene *	1.610	1.807	1.549	1.733	1.678	1.676	6.0*
2,6-Dinitrotoluene *	0.352	0.390	0.327	0.365	0.355	0.358	6.4*
3-Nitroaniline	0.492	0.583	0.494	0.549	0.536	0.531	7.3
Acenaphthene *	1.205	1.330	1.122	1.248	1.063	1.194	8.8*
2,4-Dinitrophenol	0.242	0.314	0.273	0.322	0.325	0.295	12.3
4-Nitrophenol	0.178	0.208	0.166	0.203	0.218	0.194	11.2
Dibenzofuran *	1.860	1.959	1.721	1.756	1.625	1.784	7.2*
2,4-Dinitrotoluene *	0.486	0.562	0.467	0.504	0.525	0.509	7.2*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6C
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Instrument ID: NVO5 Calibration Date(s): 06/17/94

Calibration Times: 0915 1141

LAB FILE ID: RRF20 =NVO501822.D RRF50 =NVO501823.D
RRF80 =NVO501824.D RRF120=NVO501825.D RRF160=NVO501826.D

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Diethyl phthalate	1.530	1.650	1.374	1.498	1.447	1.500	6.8
4-Chlorophenyl-phenylether *	0.672	0.742	0.610	0.633	0.608	0.653	8.6*
Fluorene *	1.355	1.464	1.202	1.277	1.202	1.300	8.6*
4-Nitroaniline	0.492	0.583	0.494	0.549	0.536	0.531	7.3
4,6-Dinitro-2-methylphenol	0.197	0.228	0.192	0.210	0.208	0.207	6.7
N-Nitrosodiphenylamine (1)	0.551	0.592	0.489	0.516	0.462	0.522	9.8
4-Bromophenyl-phenylether *	0.266	0.278	0.236	0.243	0.220	0.249	9.4*
Hexachlorobenzene *	0.302	0.320	0.276	0.290	0.266	0.291	7.4*
Pentachlorophenol *	0.154	0.177	0.144	0.177	0.177	0.166	9.6*
Phenanthrene *	1.198	1.303	1.131	1.144	1.054	1.166	7.9*
Anthracene *	1.056	1.088	0.968	0.976	0.883	0.994	8.1*
Carbazole	1.083	1.151	0.950	1.066	0.977	1.045	7.8
Di-n-butylphthalate	1.705	1.826	1.522	1.596	1.459	1.621	9.0
Fluoranthene *	1.268	1.313	1.067	1.189	1.173	1.202	7.9*
Pyrene *	1.426	1.572	1.362	1.446	1.433	1.448	5.3*
Butylbenzylphthalate	0.799	0.877	0.773	0.838	0.832	0.824	4.8
3,3'-Dichlorobenzidine	0.386	0.424	0.360	0.396	0.362	0.386	6.8
Benzo(a)anthracene *	1.244	1.348	1.157	1.264	1.223	1.247	5.6*
Chrysene *	1.144	1.208	1.029	1.135	1.102	1.124	5.8*
bis(2-Ethylhexyl)phthalate	1.082	1.197	1.064	1.127	1.064	1.107	5.1
Di-n-octylphthalate	1.503	1.682	1.471	1.508	1.417	1.516	6.6
Benzo(b)fluoranthene *	0.979	1.091	0.919	1.028	1.004	1.004	6.3*
Benzo(k)fluoranthene *	1.020	1.062	0.899	0.928	0.831	0.948	9.8*
Benzo(a)pyrene *	0.859	0.927	0.779	0.822	0.793	0.836	7.1*
Indeno(1,2,3-cd)pyrene *	0.814	0.930	0.766	0.876	0.844	0.846	7.3*
Dibenzo(a,h)anthracene *	0.860	0.947	0.788	0.842	0.760	0.839	8.6*
Benzo(g,h,i)perylene *	0.858	0.924	0.779	0.826	0.758	0.829	8.0*
Nitrobenzene-d5 *	0.431	0.462	0.400	0.451	0.394	0.428	7.0*
2-Fluorobiphenyl *	1.371	1.502	1.281	1.441	1.391	1.397	5.9*
Terphenyl-d14 *	0.987	1.118	0.961	1.017	1.007	1.018	5.9*
Phenol-d5 *	1.398	1.483	1.270	1.488	1.329	1.394	6.8*
2-Fluorophenol *	1.209	1.288	1.118	1.320	1.139	1.215	7.3*
2,4,6-Tribromophenol	0.267	0.310	0.269	0.301	0.278	0.285	6.8
2-Chlorophenol-d4 *	0.995	1.059	0.916	1.058	0.928	0.991	6.9*
1,2-Dichlorobenzene-d4 *	0.825	0.873	0.758	0.865	0.743	0.813	7.4*

(1) - Cannot be separated from Diphenylamine
* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

Report Date : 22-Jun-1994 10:10

Environmental Science and Engineering

INITIAL CALIBRATION DATA

Start Cal Date : 17-JUN-94 09:15
End Cal Date : 17-JUN-1994 11:41
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem/nvo5.i/nvo0617.b/clp390epc.m
Cal Date : 20-Jun-1994 14:16 user2
Curve Type : Average

Calibration File Names:
Level 1: /chem/nvo5.i/nvo0617.b/nvo501822.d
Level 2: /chem/nvo5.i/nvo0617.b/nvo501823.d
Level 3: /chem/nvo5.i/nvo0617.b/nvo501824.d
Level 4: /chem/nvo5.i/nvo0617.b/nvo501825.d
Level 5: /chem/nvo5.i/nvo0617.b/nvo501826.d

Compound	20 Level 1	50 Level 2	80 Level 3	120 Level 4	160 Level 5	RRF	% RSD
4 Phenol	1.47324	1.72702	1.48791	1.71975	1.53599	1.58878	7.872
5 Bis(2-Chloroethyl)ether	1.52959	1.52567	1.31262	1.80112	1.42183	1.51817	11.956
7 2-Chlorophenol	1.22012	1.30762	1.12405	1.32559	1.17340	1.23016	7.003
8 1,3-Dichlorobenzene	1.44560	1.54809	1.35167	1.56221	1.34305	1.45012	7.178
9 1,4-Dichlorobenzene	1.43872	1.54511	1.33816	1.54309	1.31760	1.43654	7.543
11 1,2-Dichlorobenzene	1.35300	1.42922	1.24018	1.41027	1.20020	1.32658	7.694
12 2-Methylphenol	1.07771	1.14584	0.97478	1.13946	1.03346	1.07425	6.736
13 4-Methylphenol	1.07936	1.17515	1.00357	1.14754	1.00273	1.08167	7.369
14 2,2'-oxybis(1-Chloropropane)	1.64771	1.69123	1.56244	1.66115	1.49296	1.61110	5.061
15 N-Nitroso-di-n-propylamine	0.98512	1.08469	0.90930	1.04659	0.95582	0.99630	7.039
16 Hexachloroethane	0.60267	0.64474	0.55965	0.62187	0.51106	0.58800	9.041
19 Nitrobenzene	0.43120	0.45778	0.39885	0.44054	0.36656	0.41899	8.665
20 Isophorone	0.81942	0.88030	0.74127	0.85836	0.77964	0.81580	6.947
21 2-Nitrophenol	0.25208	0.28014	0.24207	0.27555	0.24871	0.25971	6.554
22 2,4-Dimethyphenol	0.36843	0.40437	0.34306	0.39140	0.33891	0.36924	7.815
23 Bis(2-Chloroethoxy)methane	0.43385	0.46606	0.39474	0.45435	0.38947	0.42769	8.072
24 2,4-Dichlorophenol	0.30276	0.33513	0.28782	0.33119	0.29700	0.31078	6.808
25 1,2,4-Trichlorobenzene	0.36422	0.38908	0.33408	0.37691	0.32420	0.35770	7.753
26 Naphthalene	1.04695	1.10701	0.94760	1.04695	0.89185	1.00811	8.584
27 4-Chloroaniline	0.35901	0.38635	0.33889	0.38996	0.35158	0.36516	6.087
28 Hexachlorobutadiene	0.21344	0.23090	0.19952	0.22461	0.18788	0.21127	8.377
29 4-Chloro-3-methylphenol	0.33289	0.36086	0.31343	0.35342	0.31663	0.33545	6.349
30 2-Methylnaphthalene	0.73461	0.78251	0.66738	0.73661	0.58261	0.70074	11.097
32 Hexachlorocyclopentadiene	0.18286	0.21462	0.18603	0.22321	0.21895	0.20513	9.341
33 2,4,6-Trichlorophenol	0.40736	0.46228	0.40409	0.47372	0.49738	0.44897	9.236
34 2,4,5-Trichlorophenol	0.45408	0.51853	0.45061	0.48751	0.46608	0.47536	5.916
36 2-Chloronaphthalene	1.24197	1.36193	1.16165	1.30388	1.26190	1.26627	5.873

Report Date : 22-Jun-1994 10:10

Environmental Science and Engineering

INITIAL CALIBRATION DATA

Start Cal Date : 17-JUN-94 09:15
End Cal Date : 17-JUN-1994 11:41
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem/nvo5.i/nvo0617.b/clp390epc.m
Cal Date : 20-Jun-1994 14:16 user2
Curve Type : Average

Compound	20 Level 1	50 Level 2	80 Level 3	120 Level 4	160 Level 5	RRF	% RSD
37 2-Nitroaniline	0.51200	0.55377	0.45708	0.49499	0.48655	0.50088	7.114
38 Dimethyl phthalate	1.54704	1.67015	1.40216	1.54632	1.50430	1.53400	6.280
39 Acenaphthylene	1.61020	1.80702	1.54920	1.73342	1.67817	1.67560	6.033
40 2,6-Dinitrotoluene	0.35222	0.39003	0.32710	0.36482	0.35540	0.35791	6.352
41 3-Nitroaniline	0.49211	0.58315	0.49398	0.54930	0.53567	0.53084	7.271
42 Acenaphthene	1.20530	1.32985	1.12218	1.24766	1.06335	1.19367	8.755
43 2,4-Dinitrophenol	0.24164	0.31378	0.27281	0.32161	0.32480	0.29493	12.329
44 4-Nitrophenol	0.17802	0.20779	0.16557	0.20308	0.21782	0.19446	11.215
45 Dibenzofuran	1.85991	1.95944	1.72050	1.75561	1.62529	1.78415	7.231
46 2,4-Dinitrotoluene	0.48569	0.56177	0.46734	0.50393	0.52537	0.50882	7.192
47 Diethyl phthalate	1.53001	1.64981	1.37350	1.49827	1.44673	1.49967	6.848
48 4-Chlorophenyl-phenylether	0.67235	0.74150	0.60960	0.63287	0.60844	0.65295	8.555
49 Fluorene	1.35517	1.46417	1.20206	1.27738	1.20204	1.30016	8.573
50 4-Nitroaniline	0.49211	0.58315	0.49398	0.54930	0.53567	0.53084	7.271
53 4,6-Dinitro-2-methylphenol	0.19717	0.22809	0.19240	0.20999	0.20786	0.20710	6.674
54 N-Nitrosodiphenylamine	0.55074	0.59176	0.48880	0.51585	0.46216	0.52186	9.777
55 4-Bromophenyl-phenylether	0.26619	0.27796	0.23563	0.24324	0.22022	0.24865	9.375
56 Hexachlorobenzene	0.30187	0.32032	0.27637	0.28957	0.26579	0.29078	7.354
57 Pentachlorophenol	0.15431	0.17735	0.14361	0.17658	0.17728	0.16583	9.561
58 Phenanthrene	1.19793	1.30327	1.13075	1.14363	1.05418	1.16595	7.920
59 Anthracene	1.05576	1.08775	0.96809	0.97647	0.88262	0.99414	8.108
60 Carbazole	1.08336	1.15062	0.95000	1.06631	0.97684	1.04542	7.823
61 Di-n-butylphthalate	1.70452	1.82638	1.52222	1.59561	1.45869	1.62148	9.038
62 Fluoranthene	1.26845	1.31316	1.06711	1.18943	1.17277	1.20218	7.889
64 Pyrene	1.42574	1.57152	1.36243	1.44558	1.43347	1.44775	5.271
66 Butylbenzylphthalate	0.79858	0.87663	0.77310	0.83812	0.83213	0.82371	4.807
67 3,3'-Dichlorobenzidine	0.38555	0.42385	0.35961	0.39612	0.36242	0.38551	6.847
68 Benzo(a)anthracene	1.24432	1.34827	1.15673	1.26351	1.22297	1.24716	5.564
69 Chrysene	1.14411	1.20778	1.02903	1.13543	1.10202	1.12367	5.811
70 bis(2-Ethylhexyl)phthalate	1.08164	1.19651	1.06428	1.12686	1.06361	1.10658	5.103
72 Di-n-octylphthalate	1.50288	1.68217	1.47053	1.50778	1.41680	1.51603	6.576
73 Benzo(b)fluoranthene	0.97899	1.09123	0.91893	1.02846	1.00352	1.00422	6.312
74 Benzo(k)fluoranthene	1.01982	1.06206	0.89888	0.92757	0.83087	0.94784	9.829
75 Benzo(a)pyrene	0.85905	0.92669	0.77879	0.82165	0.79301	0.83584	7.099

Report Date : 22-Jun-1994 10:10

Environmental Science and Engineering

INITIAL CALIBRATION DATA

Start Cal Date : 17-JUN-94 09:15
End Cal Date : 17-JUN-1994 11:41
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem/nvo5.i/nvo0617.b/clp390epc.m
Cal Date : 20-Jun-1994 14:16 user2
Curve Type : Average

Compound	20 Level 1	50 Level 2	80 Level 3	120 Level 4	160 Level 5	___ RRF	% RSD
76 Indeno(1,2,3-cd)pyrene	0.81361	0.93019	0.76580	0.87562	0.84367	0.84578	7.348
77 Dibenzo(a,h)anthracene	0.85961	0.94720	0.78813	0.84199	0.75959	0.83930	8.640
78 Benzo(g,h,i)perylene	0.85762	0.92377	0.77877	0.82554	0.75789	0.82872	7.957
$ 2 2-Fluorophenol	1.20932	1.28842	1.11765	1.32032	1.13922	1.21499	7.331
$ 3 Phenol-d5	1.39826	1.48282	1.26973	1.48776	1.32932	1.39358	6.838
$ 6 2-Chlorophenol-d4	0.99482	1.05907	0.91587	1.05804	0.92811	0.99118	6.906
$ 10 1,2-Dichlorobenzene-d4	0.82541	0.87304	0.75837	0.86491	0.74263	0.81287	7.378
$ 18 Nitrobenzene-d5	0.43120	0.46212	0.40028	0.45070	0.39420	0.42770	7.015
$ 35 2-Fluorobiphenyl	1.37103	1.50167	1.28092	1.44107	1.39065	1.39707	5.890
$ 51 2,4,6-Tribromophenol	0.26727	0.30992	0.26869	0.30061	0.27800	0.28490	6.783
$ 65 Terphenyl-d14	0.98724	1.11785	0.96137	1.01687	1.00671	1.01801	5.863

Data File: /chem/nvo5.i/nvo0617.b/nvo501822.d
Report Date: 22-Jun-1994 10:08

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0617.b/nvo501822.d
Lab Smp Id: SSTD20 Client Smp ID: SSTD20
Inj Date : 17-JUN-1994 09:15 Autotune Date: 26-May-94 08:31
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : SSTD20 20ng on col
Misc Info : 10ug/ml CLP STD 1000-7-1
Comment :
Method : /chem/nvo5.i/nvo0617.b/clp390epc.m
Meth Date : 20-Jun-1994 14:16 user2 Quant Type: ISTD
Cal Date : 17-JUN-1994 09:51 Cal File: nvo501823.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	CONCENTRATIONS ON-COL (ng)
* 1	1,4-Dichlorobenzene-d4	152.00	5.467	5.467	(1.000)	1171044	40	
$ 2	2-Fluorophenol	112.00	2.595	2.595	(0.475)	708084	20	20
$ 3	Phenol-d5	99.00	4.987	4.987	(0.912)	818712	20	20
4	Phenol	94.00	5.004	5.004	(0.915)	862616	20	18
5	Bis(2-Chloroethyl)ether	93.00	5.083	5.083	(0.930)	895608	20	20
$ 6	2-Chlorophenol-d4	132.00	5.100	5.100	(0.933)	582491	20	20
7	2-Chlorophenol	128.00	5.126	5.126	(0.938)	714405	20	20
8	1,3-Dichlorobenzene	146.00	5.362	5.362	(0.981)	846431	20	20
9	1,4-Dichlorobenzene	146.00	5.493	5.493	(1.005)	842404	20	20
$ 10	1,2-Dichlorobenzene-d4	152.00	5.702	5.702	(1.043)	483293	20	20
11	1,2-Dichlorobenzene	146.00	5.720	5.720	(1.046)	792213	20	20
12	2-Methylphenol	108.00	5.973	5.973	(1.093)	631020	20	20
13	4-Methylphenol	108.00	6.226	6.226	(1.139)	631990	20	20
14	2,2'-oxybis(1-Chloropropane)	45.00	5.956	5.956	(1.089)	964769	20	20
15	N-Nitroso-di-n-propylamine	70.00	6.165	6.165	(1.128)	576808	20	20
16	Hexachloroethane	117.00	6.261	6.261	(1.145)	352875	20	20
* 17	Naphthalene-d8	136.00	7.562	7.562	(1.000)	3535548	40	
$ 18	Nitrobenzene-d5	82.00	6.366	6.366	(0.842)	762261	20	20
19	Nitrobenzene	77.00	6.392	6.392	(0.845)	762272	20	20
20	Isophorone	82.00	6.802	6.802	(0.900)	1448544	20	20
21	2-Nitrophenol	139.00	6.924	6.924	(0.916)	445628	20	19
22	2,4-Dimethyphenol	107.00	7.073	7.073	(0.935)	651303	20	20
23	Bis(2-Chloroethoxy)methane	93.00	7.204	7.204	(0.953)	766953	20	20
24	2,4-Dichlorophenol	162.00	7.370	7.370	(0.975)	535220	20	19
25	1,2,4-Trichlorobenzene	180.00	7.474	7.474	(0.988)	643855	20	20
26	Naphthalene	128.00	7.597	7.597	(1.005)	1850765	20	21
27	4-Chloroaniline	127.00	7.736	7.736	(1.023)	634651	20	40(H)
28	Hexachlorobutadiene	225.00	7.841	7.841	(1.037)	377307	20	20
29	4-Chloro-3-methylphenol	107.00	8.696	8.696	(1.150)	588472	20	20

Data File: /chem/nvo5.i/nvo0617.b/nvo501822.d
Report Date: 22-Jun-1994 10:08

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	ON-COL (ng)
	30 2-Methylnaphthalene	142.00	8.888	8.888	(1.175)	1298623	20	21
*	31 Acenaphthene-d10	164.00	11.036	11.036	(1.000)	1837695	40	
	32 Hexachlorocyclopentadiene	237.00	9.203	9.203	(0.834)	168019	20	18
	33 2,4,6-Trichlorophenol	196.00	9.482	9.482	(0.859)	374306	20	18
	34 2,4,5-Trichlorophenol	196.00	9.578	9.578	(0.868)	417227	20	19(a)
$	35 2-Fluorobiphenyl	172.00	9.648	9.648	(0.874)	1259770	20	20
	36 2-Chloronaphthalene	162.00	9.857	9.857	(0.893)	1141179	20	20
	37 2-Nitroaniline	65.00	11.001	11.001	(0.997)	470450	20	20(a)
	38 Dimethyl phthalate	163.00	10.547	10.547	(0.956)	1421495	20	20
	39 Acenaphthylene	152.00	10.722	10.722	(0.972)	1479525	20	19
	40 2,6-Dinitrotoluene	165.00	10.652	10.652	(0.965)	323637	20	20
	41 3-Nitroaniline	138.00	10.111	10.111	(0.916)	452175	20	18(a)
	42 Acenaphthene	153.00	11.106	11.106	(1.006)	1107490	20	20
	43 2,4-Dinitrophenol	184.00	11.237	11.237	(1.018)	222026	20	16(a)
	44 4-Nitrophenol	109.00	11.516	11.516	(1.044)	163578	20	18(a)
	45 Dibenzofuran	168.00	11.490	11.490	(1.041)	1708975	20	21
	46 2,4-Dinitrotoluene	165.00	11.525	11.525	(1.044)	446279	20	19
	47 Diethyl phthalate	149.00	12.127	12.127	(1.099)	1405847	20	20
	48 4-Chlorophenyl-phenylether	204.00	12.310	12.310	(1.115)	617791	20	20
	49 Fluorene	166.00	12.249	12.249	(1.110)	1245191	20	21
	50 4-Nitroaniline	138.00	10.111	10.111	(0.916)	452175	20	18(a)
$	51 2,4,6-Tribromophenol	330.00	12.808	12.808	(1.161)	245578	20	19
*	52 Phenanthrene-d10	188.00	14.397	14.397	(1.000)	2908556	40	
	53 4,6-Dinitro-2-methylphenol	198.00	12.432	12.432	(0.864)	286738	20	19(a)
	54 N-Nitrosodiphenylamine	169.00	12.590	12.590	(0.874)	800927	20	21
	55 4-Bromophenyl-phenylether	248.00	13.419	13.419	(0.932)	387110	20	21
	56 Hexachlorobenzene	284.00	13.497	13.497	(0.938)	439005	20	21
	57 Pentachlorophenol	266.00	13.995	13.995	(0.972)	224411	20	19(a)
	58 Phenanthrene	178.00	14.449	14.449	(1.004)	1742118	20	20(H)
	59 Anthracene	178.00	14.562	14.562	(1.012)	1535364	20	21
	60 Carbazole	167.00	14.999	14.999	(1.042)	1575500	20	21
	61 Di-n-butylphthalate	149.00	15.976	15.976	(1.110)	2478839	20	21
	62 Fluoranthene	202.00	17.242	17.242	(1.198)	1844674	20	21
*	63 Chrysene-d12	240.00	20.655	20.655	(1.000)	2656582	40	
	64 Pyrene	202.00	17.757	17.757	(0.860)	1893794	20	20
$	65 Terphenyl-d14	244.00	18.255	18.255	(0.884)	1311347	20	19
	66 Butylbenzylphthalate	149.00	19.520	19.520	(0.945)	1060748	20	19
	67 3,3'-Dichlorobenzidine	252.00	20.664	20.664	(1.000)	512118	20	20
	68 Benzo(a)anthracene	228.00	20.629	20.629	(0.999)	1652817	20	20
	69 Chrysene	228.00	20.708	20.708	(1.003)	1519710	20	20
	70 bis(2-Ethylhexyl)phthalate	149.00	20.969	20.969	(1.015)	1436730	20	20
*	71 Perylene-d12	264.00	23.789	23.789	(1.000)	3195924	40	
	72 Di-n-octylphthalate	149.00	22.445	22.445	(0.943)	2401547	20	20
	73 Benzo(b)fluoranthene	252.00	23.012	23.012	(0.967)	1564382	20	19
	74 Benzo(k)fluoranthene	252.00	23.073	23.073	(0.970)	1629632	20	22
	75 Benzo(a)pyrene	252.00	23.658	23.658	(0.994)	1372732	20	20
	76 Indeno(1,2,3-cd)pyrene	276.00	25.744	25.744	(1.082)	1300116	20	19
	77 Dibenzo(a,h)anthracene	278.00	25.797	25.797	(1.084)	1373616	20	20
	78 Benzo(g,h,i)perylene	276.00	26.207	26.207	(1.102)	1370448	20	21

Data File: /chem/nvo5.i/nvo0617.b/nvo501822.d
Report Date: 22-Jun-1994 10:08

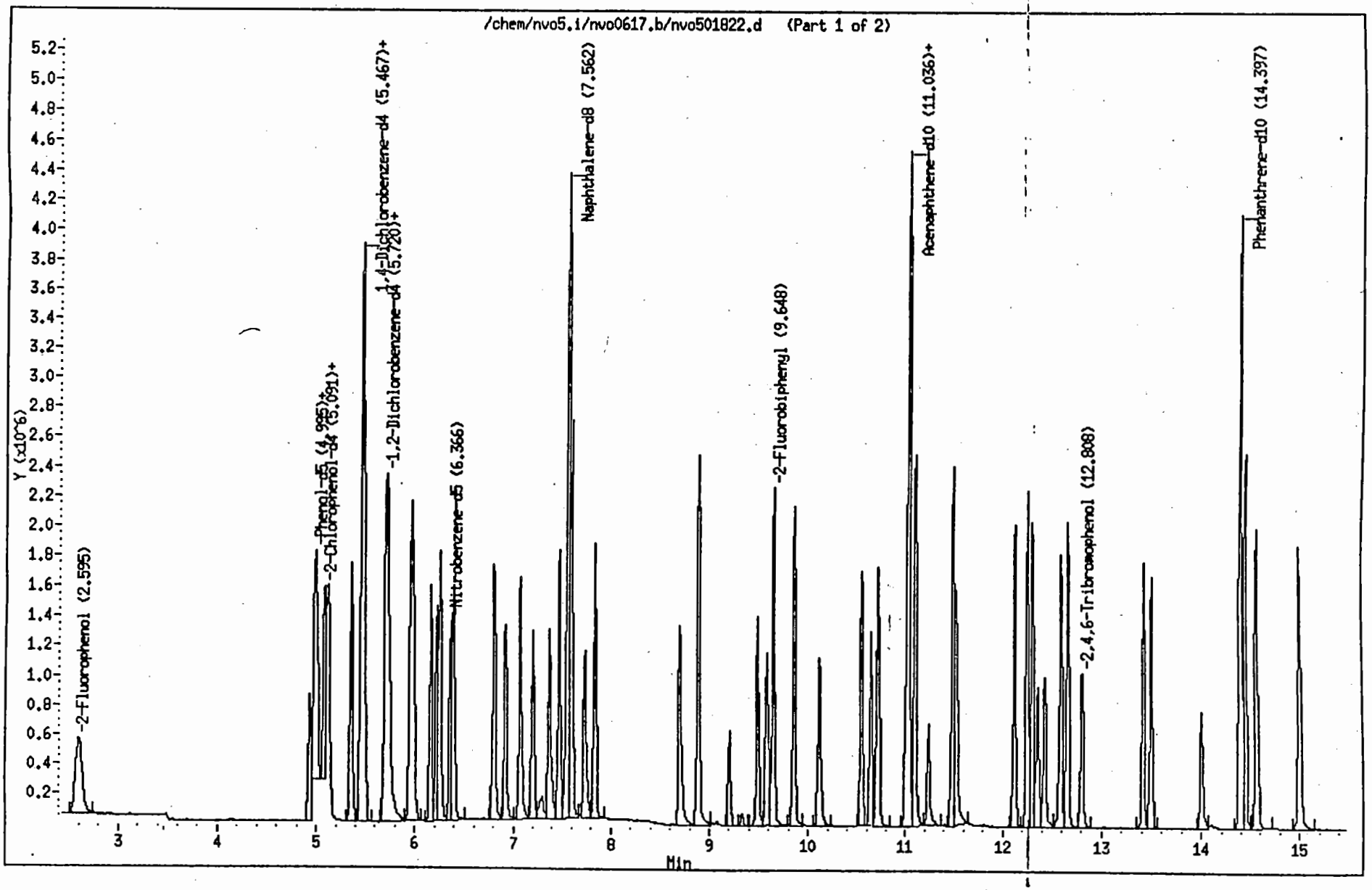
QC Flag Legend

a - Target compound detected but, quantitated amount
  - Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

Data File: /chem/nvo5.i/nvo0617.b/nvo501822.d
Date : 17-JUN-1994 09:15
Client ID: SSTD20
Sample Info: SSTD20 20ng on col
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25

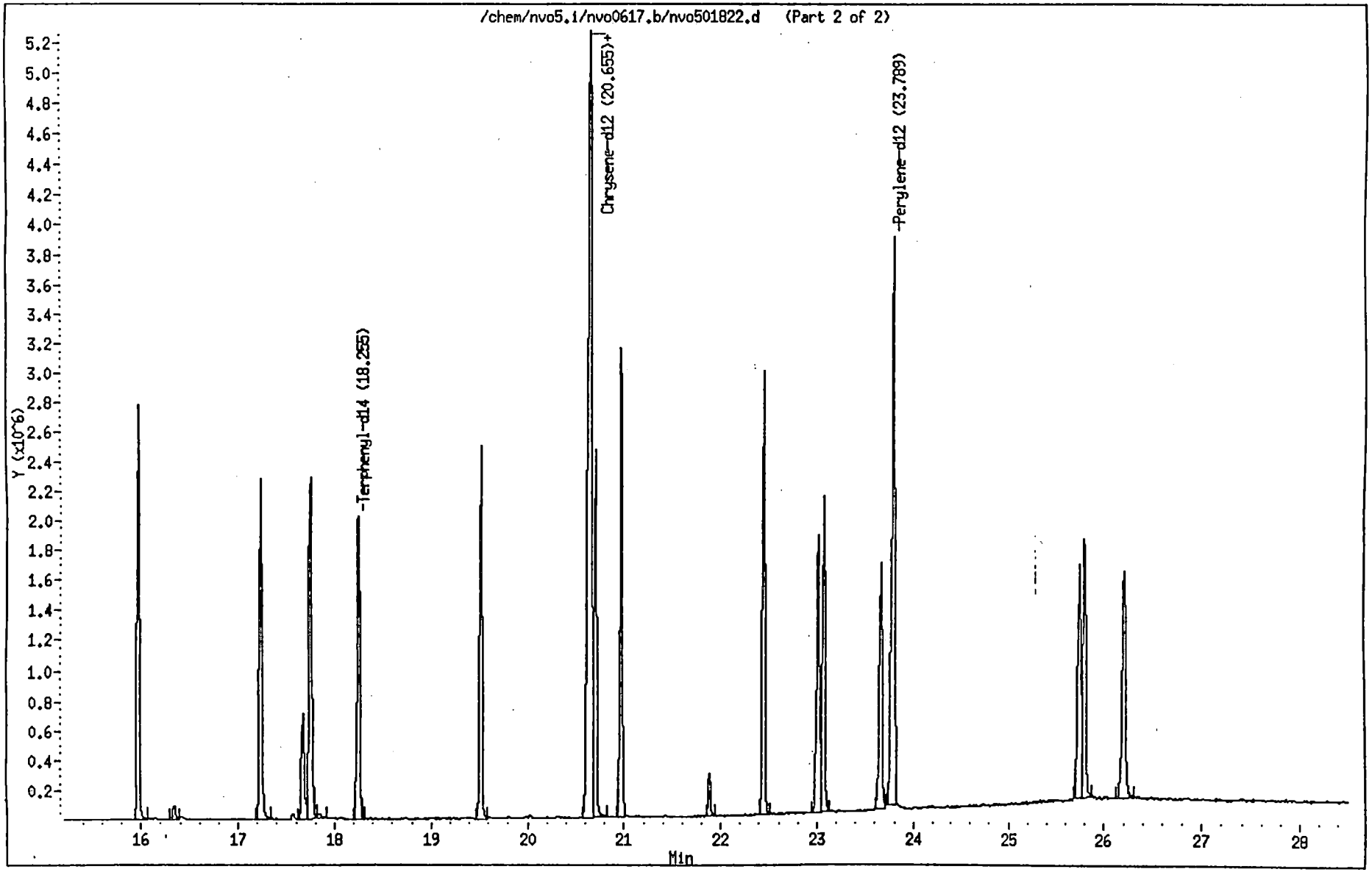


000150

Data File: /chem/nvo5.i/nvo0617.b/nvo501822.d
Date : 17-JUN-1994 09:15
Client ID: SSTD20
Sample Info: SSTD20 20ng on col
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



000151

95 1356 0256

Data File: /chem/nvo5.i/nvo0617.b/nvo501823.d
Report Date: 22-Jun-1994 10:08

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0617.b/nvo501823.d
Lab Smp Id: SSTD50 Client Smp ID: SSTD50
Inj Date : 17-JUN-1994 09:51 Autotune Date: 26-May-94 08:31
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : SSTD50 50ng on col
Misc Info : 25ug/ml CLP STD 1000-8-1
Comment :
Method : /chem/nvo5.i/nvo0617.b/clp390epc.m
Meth Date : 20-Jun-1994 14:16 user2 Quant Type: ISTD
Cal Date : 17-JUN-1994 09:51 Cal File: nvo501823.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	ON-COL (ng)
*	1 1,4-Dichlorobenzene-d4	152.00	5.468	5.468	(1.000)	927695	40	
$	2 2-Fluorophenol	112.00	2.622	2.622	(0.480)	1494079	50	53
$	3 Phenol-d5	99.00	4.996	4.996	(0.914)	1719509	50	53
	4 Phenol	94.00	5.022	5.022	(0.919)	2002683	50	54
	5 Bis(2-Chloroethyl)ether	93.00	5.092	5.092	(0.931)	1769194	50	50
$	6 2-Chlorophenol-d4	132.00	5.110	5.110	(0.935)	1228120	50	53
	7 2-Chlorophenol	128.00	5.136	5.136	(0.939)	1516338	50	53
	8 1,3-Dichlorobenzene	146.00	5.363	5.363	(0.981)	1795196	50	53
	9 1,4-Dichlorobenzene	146.00	5.494	5.494	(1.005)	1791745	50	54
$	10 1,2-Dichlorobenzene-d4	152.00	5.703	5.703	(1.043)	1012389	50	54
	11 1,2-Dichlorobenzene	146.00	5.729	5.729	(1.048)	1657356	50	54
	12 2-Methylphenol	108.00	5.974	5.974	(1.093)	1328741	50	53
	13 4-Methylphenol	108.00	6.236	6.236	(1.140)	1362727	50	54
	14 2,2'-oxybis(1-Chloropropane)	45.00	5.956	5.956	(1.089)	1961184	50	52
	15 N-Nitroso-di-n-propylamine	70.00	6.183	6.183	(1.131)	1257831	50	54
	16 Hexachloroethane	117.00	6.262	6.262	(1.145)	747654	50	55
*	17 Naphthalene-d8	136.00	7.571	7.571	(1.000)	2841448	40	
$	18 Nitrobenzene-d5	82.00	6.375	6.375	(0.842)	1641380	50	54
	19 Nitrobenzene	77.00	6.402	6.402	(0.846)	1625932	50	55
	20 Isophorone	82.00	6.821	6.821	(0.901)	3126653	50	54
	21 2-Nitrophenol	139.00	6.925	6.925	(0.915)	995004	50	54
	22 2,4-Dimethyphenol	107.00	7.082	7.082	(0.935)	1436256	50	55
	23 Bis(2-Chloroethoxy)methane	93.00	7.205	7.205	(0.952)	1655340	50	54
	24 2,4-Dichlorophenol	162.00	7.370	7.370	(0.973)	1190302	50	54
	25 1,2,4-Trichlorobenzene	180.00	7.475	7.475	(0.987)	1381929	50	54
	26 Naphthalene	128.00	7.606	7.606	(1.005)	3931872	50	55
	27 4-Chloroaniline	127.00	7.737	7.737	(1.022)	1372229	50	85(H)
	28 Hexachlorobutadiene	225.00	7.842	7.842	(1.036)	820097	50	55
	29 4-Chloro-3-methylphenol	107.00	8.706	8.706	(1.150)	1281719	50	54

Data File: /chem/nvo5.i/nvo0617.b/nvo501823.d
Report Date: 22-Jun-1994 10:08

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	CONCENTRATIONS ON-COL (ng)
	30 2-Methylnaphthalene	142.00	8.898	8.898	(1.175)	2779318	50	56
*	31 Acenaphthene-d10	164.00	11.037	11.037	(1.000)	1447407	40	
	32 Hexachlorocyclopentadiene	237.00	9.204	9.204	(0.834)	388295	50	52
	33 2,4,6-Trichlorophenol	196.00	9.492	9.492	(0.860)	836379	50	51
	34 2,4,5-Trichlorophenol	196.00	9.579	9.579	(0.868)	938163	50	54
$	35 2-Fluorobiphenyl	172.00	9.657	9.657	(0.875)	2716909	50	54
	36 2-Chloronaphthalene	162.00	9.867	9.867	(0.894)	2464088	50	54
	37 2-Nitroaniline	65.00	11.019	11.019	(0.998)	1001912	50	55
	38 Dimethyl phthalate	163.00	10.557	10.557	(0.956)	3021738	50	54
	39 Acenaphthylene	152.00	10.731	10.731	(0.972)	3269364	50	54
	40 2,6-Dinitrotoluene	165.00	10.661	10.661	(0.966)	705674	50	54
	41 3-Nitroaniline	138.00	10.129	10.129	(0.918)	1055069	50	55
	42 Acenaphthene	153.00	11.115	11.115	(1.007)	2406050	50	56
	43 2,4-Dinitrophenol	184.00	11.255	11.255	(1.020)	567716	50	53
	44 4-Nitrophenol	109.00	11.525	11.525	(1.044)	375953	50	53
	45 Dibenzofuran	168.00	11.499	11.499	(1.042)	3545142	50	55
	46 2,4-Dinitrotoluene	165.00	11.543	11.543	(1.046)	1016387	50	55
	47 Diethyl phthalate	149.00	12.137	12.137	(1.100)	2984935	50	55
	48 4-Chlorophenyl-phenylether	204.00	12.311	12.311	(1.115)	1341568	50	57
	49 Fluorene	166.00	12.267	12.267	(1.112)	2649056	50	56
	50 4-Nitroaniline	138.00	10.129	10.129	(0.918)	1055069	50	55
$	51 2,4,6-Tribromophenol	330.00	12.817	12.817	(1.161)	560721	50	54
*	52 Phenanthrene-d10	188.00	14.397	14.397	(1.000)	2373066	40	
	53 4,6-Dinitro-2-methylphenol	198.00	12.451	12.451	(0.865)	676598	50	55
	54 N-Nitrosodiphenylamine	169.00	12.608	12.608	(0.876)	1755352	50	57
	55 4-Bromophenyl-phenylether	248.00	13.428	13.428	(0.933)	824517	50	56
	56 Hexachlorobenzene	284.00	13.507	13.507	(0.938)	950162	50	55
	57 Pentachlorophenol	266.00	14.005	14.005	(0.973)	526083	50	53
	58 Phenanthrene	178.00	14.458	14.458	(1.004)	3865934	50	56(H)
	59 Anthracene	178.00	14.572	14.572	(1.012)	3226625	50	55
	60 Carbazole	167.00	15.008	15.008	(1.042)	3413124	50	55
	61 Di-n-butylphthalate	149.00	15.986	15.986	(1.110)	5417644	50	56
	62 Fluoranthene	202.00	17.252	17.252	(1.198)	3895260	50	55
*	63 Chrysene-d12	240.00	20.665	20.665	(1.000)	2031870	40	
	64 Pyrene	202.00	17.767	17.767	(0.860)	3991416	50	54
$	65 Terphenyl-d14	244.00	18.264	18.264	(0.884)	2839165	50	55
	66 Butylbenzylphthalate	149.00	19.530	19.530	(0.945)	2226490	50	53
	67 3,3'-Dichlorobenzidine	252.00	20.674	20.674	(1.000)	1076522	50	55
	68 Benzo(a)anthracene	228.00	20.639	20.639	(0.999)	3424384	50	54
	69 Chrysene	228.00	20.726	20.726	(1.003)	3067567	50	54
	70 bis(2-Ethylhexyl)phthalate	149.00	20.979	20.979	(1.015)	3038934	50	54
*	71 Perylene-d12	264.00	23.790	23.790	(1.000)	2413151	40	
	72 Di-n-octylphthalate	149.00	22.454	22.454	(0.944)	5074162	50	55
	73 Benzo(b)fluoranthene	252.00	23.030	23.030	(0.968)	3291629	50	54
	74 Benzo(k)fluoranthene	252.00	23.091	23.091	(0.971)	3203654	50	56
	75 Benzo(a)pyrene	252.00	23.676	23.676	(0.995)	2795311	50	55
	76 Indeno(1,2,3-cd)pyrene	276.00	25.763	25.763	(1.083)	2805856	50	55
	77 Dibenzo(a,h)anthracene	278.00	25.815	25.815	(1.085)	2857167	50	56
	78 Benzo(g,h,i)perylene	276.00	26.234	26.234	(1.103)	2786496	50	56

Data File: /chem/nvo5.i/nvo0617.b/nvo501823.d
Report Date: 22-Jun-1994 10:08

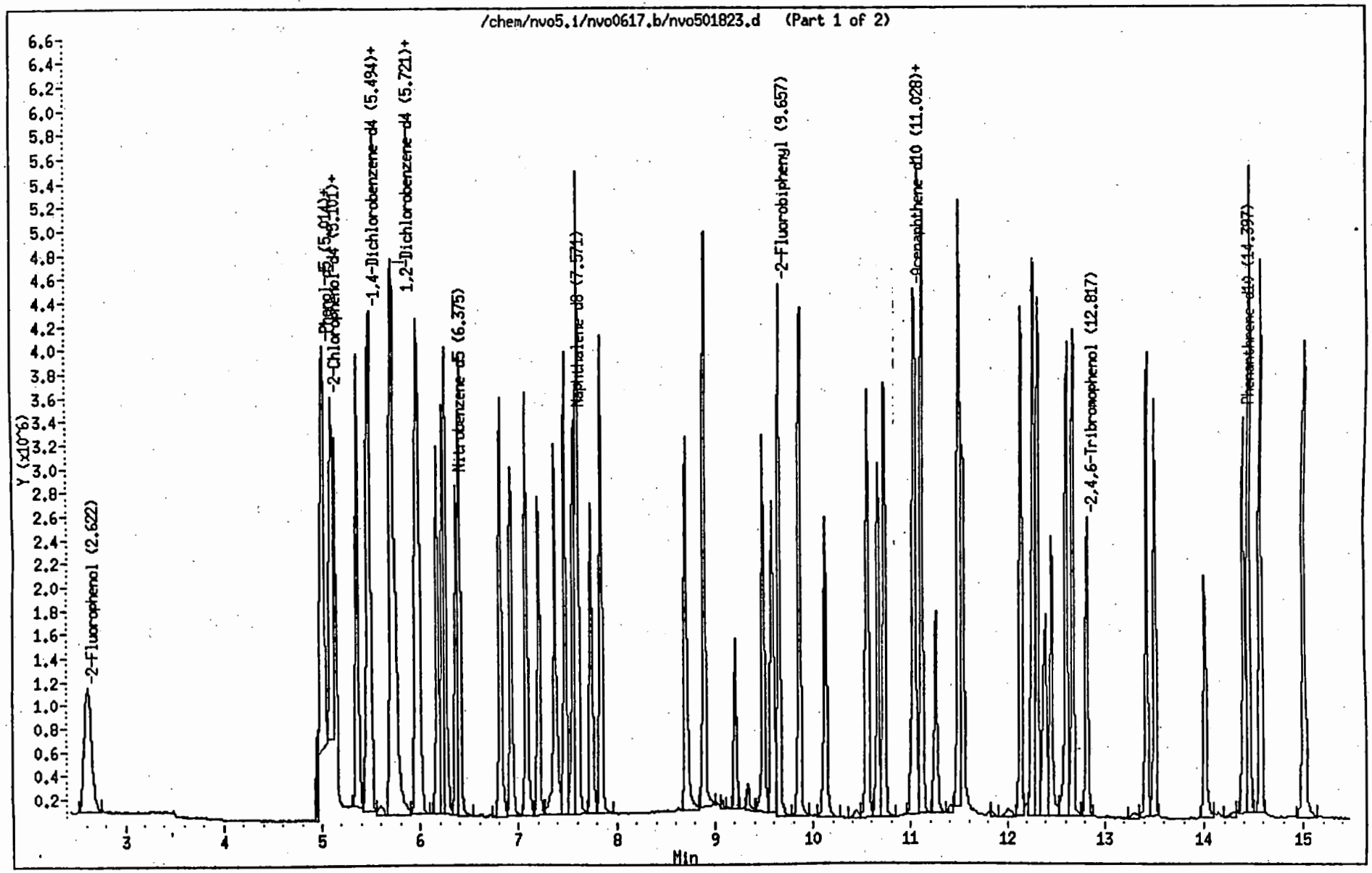
QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/nvo5.i/nvo0617.b/nvo501823.d
Date : 17-JUN-1994 09:51
Client ID: SSTD50
Sample Info: SSTD50 50ng on col
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25

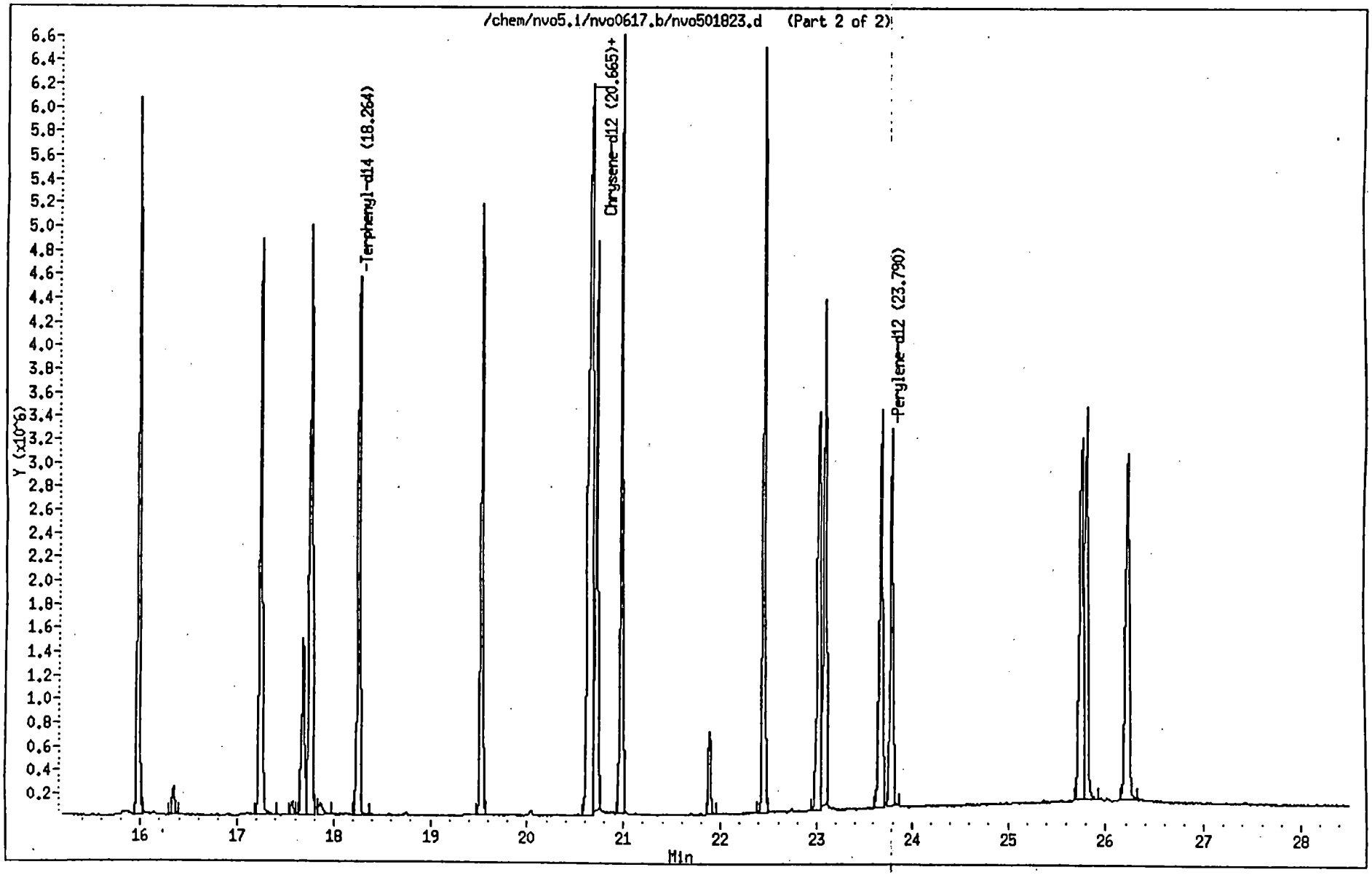


9513356.0258

Data File: /chem/nvo5.1/nvo0617.b/nvo501823.d
Date : 17-JUN-1994 09:51
Client ID: SSTD50
Sample Info: SSTD50 50ng on col
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.1

Operator: WAV/AT
Column diameter: 0.25



000156

Data File: /chem/nvo5.i/nvo0617.b/nvo501824.d
Report Date: 22-Jun-1994 10:09

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0617.b/nvo501824.d
Lab Smp Id: SSTD80 Client Smp ID: SSTD80
Inj Date : 17-JUN-1994 10:28 Autotune Date: 26-May-94 08:31
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : SSTD80 80ng on col
Misc Info : 40ug/ml CLP STD 1000-7-2
Comment :
Method : /chem/nvo5.i/nvo0617.b/clp390epc.m
Meth Date : 20-Jun-1994 14:16 user2 Quant Type: ISTD
Cal Date : 17-JUN-1994 09:51 Cal File: nvo501823.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	ON-COL (ng)
*	1 1,4-Dichlorobenzene-d4	152.00	5.465	5.465	(1.000)	776921	40	
$	2 2-Fluorophenol	112.00	2.602	2.602	(0.476)	1736647	80	74
$	3 Phenol-d5	99.00	5.002	5.002	(0.915)	1972962	80	73
	4 Phenol	94.00	5.020	5.020	(0.919)	2311982	80	75
	5 Bis(2-Chloroethyl)ether	93.00	5.090	5.090	(0.931)	2039610	80	69
$	6 2-Chlorophenol-d4	132.00	5.107	5.107	(0.934)	1423114	80	74
	7 2-Chlorophenol	128.00	5.133	5.133	(0.939)	1746604	80	73
	8 1,3-Dichlorobenzene	146.00	5.360	5.360	(0.981)	2100275	80	74
	9 1,4-Dichlorobenzene	146.00	5.491	5.491	(1.005)	2079286	80	74
$	10 1,2-Dichlorobenzene-d4	152.00	5.701	5.701	(1.043)	1178393	80	75
	11 1,2-Dichlorobenzene	146.00	5.727	5.727	(1.048)	1927043	80	75
	12 2-Methylphenol	108.00	5.980	5.980	(1.094)	1514653	80	72
	13 4-Methylphenol	108.00	6.233	6.233	(1.141)	1559386	80	74
	14 2,2'-oxybis(1-Chloropropane)	45.00	5.954	5.954	(1.089)	2427778	80	78
	15 N-Nitroso-di-n-propylamine	70.00	6.181	6.181	(1.131)	1412916	80	73
	16 Hexachloroethane	117.00	6.259	6.259	(1.145)	869603	80	76
*	17 Naphthalene-d8	136.00	7.569	7.569	(1.000)	2353416	40	
$	18 Nitrobenzene-d5	82.00	6.373	6.373	(0.842)	1884036	80	75
	19 Nitrobenzene	77.00	6.408	6.408	(0.847)	1877331	80	76
	20 Isophorone	82.00	6.818	6.818	(0.901)	3489011	80	73
	21 2-Nitrophenol	139.00	6.932	6.932	(0.916)	1139382	80	74
	22 2,4-Dimethyphenol	107.00	7.080	7.080	(0.935)	1614740	80	74
	23 Bis(2-Chloroethoxy)methane	93.00	7.211	7.211	(0.953)	1857961	80	74
	24 2,4-Dichlorophenol	162.00	7.377	7.377	(0.975)	1354712	80	74
	25 1,2,4-Trichlorobenzene	180.00	7.481	7.481	(0.988)	1572477	80	75
	26 Naphthalene	128.00	7.604	7.604	(1.005)	4461145	80	75
	27 4-Chloroaniline	127.00	7.743	7.743	(1.023)	1595075	80	100(H)
	28 Hexachlorobutadiene	225.00	7.839	7.839	(1.036)	939121	80	76
	29 4-Chloro-3-methylphenol	107.00	8.704	8.704	(1.150)	1475253	80	75

Data File: /chem/nvo5.i/nvo0617.b/nvo501824.d
Report Date: 22-Jun-1994 10:09

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	ON-COL (ng)
	30 2-Methylnaphthalene	142.00	8.896	8.896	(1.175)	3141255	80	76
*	31 Acenaphthene-d10	164.00	11.043	11.043	(1.000)	1196269	40	
	32 Hexachlorocyclopentadiene	237.00	9.210	9.210	(0.834)	445092	80	72
	33 2,4,6-Trichlorophenol	196.00	9.489	9.489	(0.859)	966801	80	72
	34 2,4,5-Trichlorophenol	196.00	9.585	9.585	(0.868)	1078103	80	76
$	35 2-Fluorobiphenyl	172.00	9.655	9.655	(0.874)	3064657	80	73
	36 2-Chloronaphthalene	162.00	9.865	9.865	(0.893)	2779304	80	73
	37 2-Nitroaniline	65.00	11.025	11.025	(0.998)	1093582	80	73
	38 Dimethyl phthalate	163.00	10.554	10.554	(0.956)	3354729	80	73
	39 Acenaphthylene	152.00	10.729	10.729	(0.972)	3706522	80	74
	40 2,6-Dinitrotoluene	165.00	10.668	10.668	(0.966)	782595	80	73
	41 3-Nitroaniline	138.00	10.126	10.126	(0.917)	1181878	80	74
	42 Acenaphthene	153.00	11.113	11.113	(1.006)	2684864	80	75
	43 2,4-Dinitrophenol	184.00	11.252	11.252	(1.019)	652711	80	74
	44 4-Nitrophenol	109.00	11.523	11.523	(1.043)	396142	80	68
	45 Dibenzofuran	168.00	11.497	11.497	(1.041)	4116370	80	77
	46 2,4-Dinitrotoluene	165.00	11.540	11.540	(1.045)	1118139	80	73
	47 Diethyl phthalate	149.00	12.143	12.143	(1.100)	3286162	80	73
	48 4-Chlorophenyl-phenylether	204.00	12.317	12.317	(1.115)	1458490	80	75
	49 Fluorene	166.00	12.265	12.265	(1.111)	2875970	80	74
	50 4-Nitroaniline	138.00	10.126	10.126	(0.917)	1181878	80	74
$	51 2,4,6-Tribromophenol	330.00	12.824	12.824	(1.161)	642854	80	75
*	52 Phenanthrene-d10	188.00	14.395	14.395	(1.000)	1956837	40	
	53 4,6-Dinitro-2-methylphenol	198.00	12.457	12.457	(0.865)	753006	80	74
	54 N-Nitrosodiphenylamine	169.00	12.605	12.605	(0.876)	1913012	80	75
	55 4-Bromophenyl-phenylether	248.00	13.426	13.426	(0.933)	922194	80	76
	56 Hexachlorobenzene	284.00	13.513	13.513	(0.939)	1081603	80	76
	57 Pentachlorophenol	266.00	14.011	14.011	(0.973)	562058	80	69
	58 Phenanthrene	178.00	14.456	14.456	(1.004)	4425405	80	78 (H)
	59 Anthracene	178.00	14.578	14.578	(1.013)	3788774	80	78
	60 Carbazole	167.00	15.015	15.015	(1.043)	3717983	80	73
	61 Di-n-butylphthalate	149.00	15.992	15.992	(1.111)	5957463	80	75
	62 Fluoranthene	202.00	17.249	17.249	(1.198)	4176328	80	71
*	63 Chrysene-d12	240.00	20.662	20.662	(1.000)	1551183	40	
	64 Pyrene	202.00	17.764	17.764	(0.860)	4226744	80	75
$	65 Terphenyl-d14	244.00	18.262	18.262	(0.884)	2982536	80	76
	66 Butylbenzylphthalate	149.00	19.536	19.536	(0.946)	2398427	80	75
	67 3,3'-Dichlorobenzidine	252.00	20.671	20.671	(1.000)	1115627	80	75
	68 Benzo(a)anthracene	228.00	20.645	20.645	(0.999)	3588602	80	74
	69 Chrysene	228.00	20.723	20.723	(1.003)	3192417	80	73
	70 bis(2-Ethylhexyl)phthalate	149.00	20.977	20.977	(1.015)	3301776	80	77
*	71 Perylene-d12	264.00	23.787	23.787	(1.000)	1826236	40	
	72 Di-n-octylphthalate	149.00	22.461	22.461	(0.944)	5371077	80	78
	73 Benzo(b)fluoranthene	252.00	23.028	23.028	(0.968)	3356356	80	73
	74 Benzo(k)fluoranthene	252.00	23.089	23.089	(0.971)	3283146	80	76
	75 Benzo(a)pyrene	252.00	23.683	23.683	(0.996)	2844493	80	74
	76 Indeno(1,2,3-cd)pyrene	276.00	25.760	25.760	(1.083)	2797079	80	72
	77 Dibenzo(a,h)anthracene	278.00	25.812	25.812	(1.085)	2878624	80	75
	78 Benzo(g,h,i)perylene	276.00	26.231	26.231	(1.103)	2844422	80	75

Data File: /chem/nvo5.i/nvo0617.b/nvo501824.d
Report Date: 22-Jun-1994 10:09

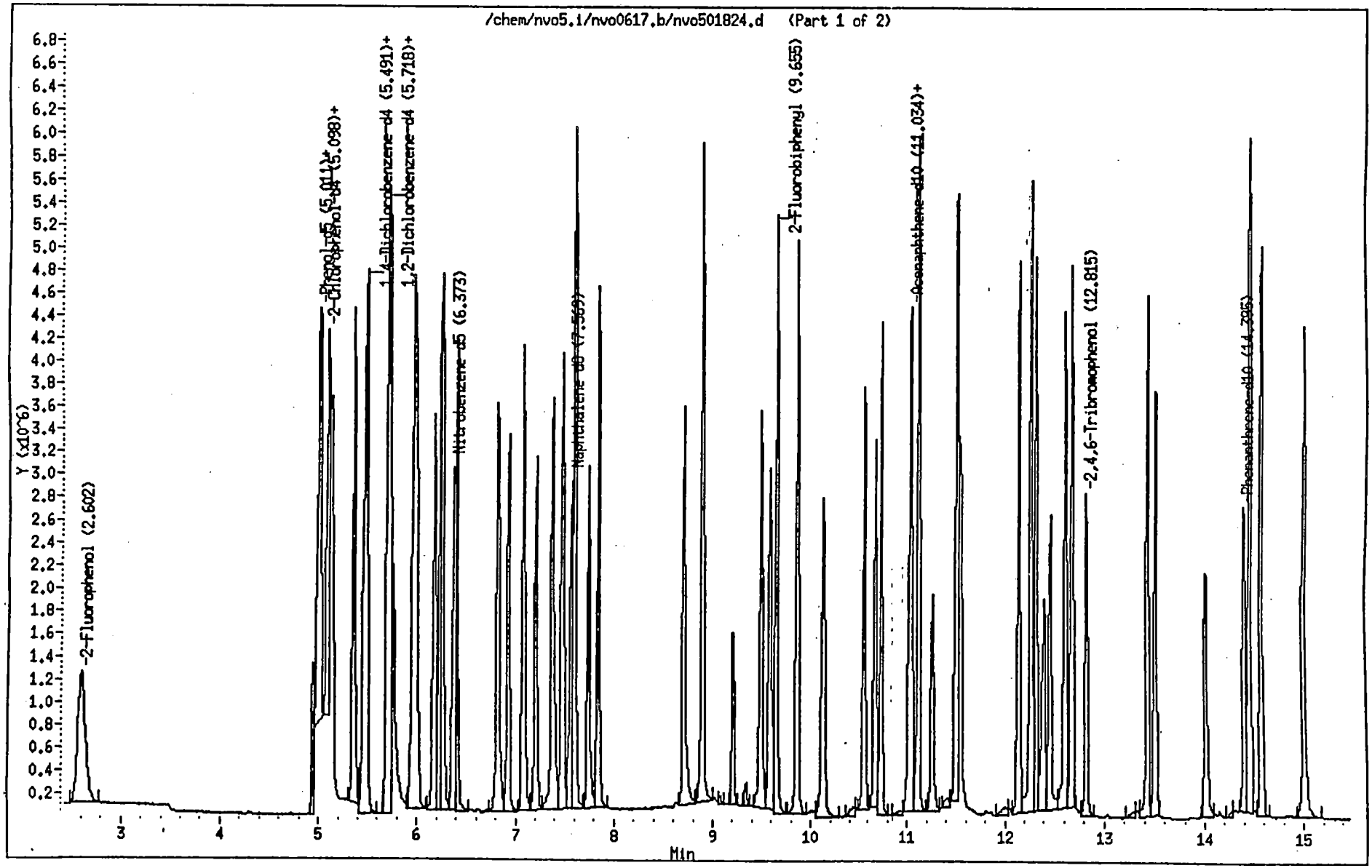
QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/nvo5.1/nvo0617.b/nvo501824.d
Date : 17-JUN-1994 10:28
Client ID: SSTD80
Sample Info: SSTD80 80ng on col
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.1

Operator: WAV/AT
Column diameter: 0.25

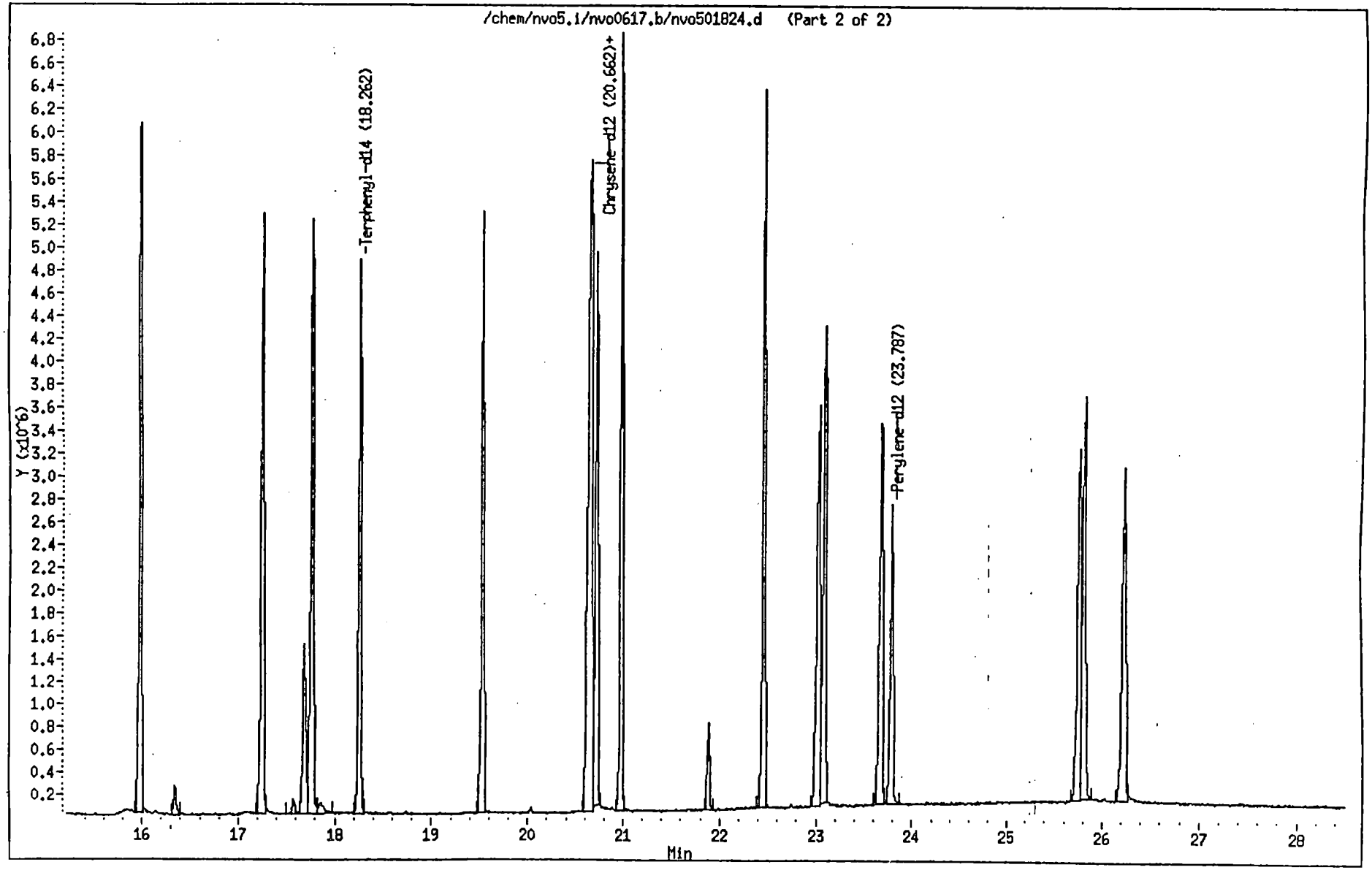


000160

Data File: /chem/nvo5.i/nvo0617.b/nvo501824.d
Date : 17-JUN-1994 10:28
Client ID: SSTD80
Sample Info: SSTD80 80ng on col
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



000161

Data File: /chem/nvo5.i/nvo0617.b/nvo501825.d
Report Date: 22-Jun-1994 10:09

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0617.b/nvo501825.d
Lab Smp Id: SSTD120 Client Smp ID: SSTD120
Inj Date : 17-JUN-1994 11:05 Autotune Date: 26-May-94 08:31
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : SSTD120 120ng on col
Misc Info : 60ug/ml CLP STD 1000-7-3
Comment :
Method : /chem/nvo5.i/nvo0617.b/clp390epc.m
Meth Date : 20-Jun-1994 14:16 user2 Quant Type: ISTD
Cal Date : 17-JUN-1994 09:51 Cal File: nvo501823.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	ON-COL (ng)
*	1 1,4-Dichlorobenzene-d4	152.00	5.467	5.467	(1.000)	784331	40	
$	2 2-Fluorophenol	112.00	2.621	2.621	(0.479)	3106713	120	130
$	3 Phenol-d5	99.00	5.022	5.022	(0.919)	3500688	120	130
	4 Phenol	94.00	5.039	5.039	(0.922)	4046567	120	130
	5 Bis(2-Chloroethyl)ether	93.00	5.109	5.109	(0.935)	4238012	120	140
$	6 2-Chlorophenol-d4	132.00	5.118	5.118	(0.936)	2489558	120	130
	7 2-Chlorophenol	128.00	5.152	5.152	(0.943)	3119107	120	130
	8 1,3-Dichlorobenzene	146.00	5.371	5.371	(0.982)	3675857	120	130
	9 1,4-Dichlorobenzene	146.00	5.502	5.502	(1.006)	3630870	120	130
$	10 1,2-Dichlorobenzene-d4	152.00	5.711	5.711	(1.045)	2035121	120	130
	11 1,2-Dichlorobenzene	146.00	5.737	5.737	(1.049)	3318346	120	130
	12 2-Methylphenol	108.00	5.982	5.982	(1.094)	2681131	120	130
	13 4-Methylphenol	108.00	6.244	6.244	(1.142)	2700147	120	130
	14 2,2'-oxybis(1-Chloropropane)	45.00	5.964	5.964	(1.091)	3908666	120	120
	15 N-Nitroso-di-n-propylamine	70.00	6.200	6.200	(1.134)	2462616	120	130
	16 Hexachloroethane	117.00	6.261	6.261	(1.145)	1463266	120	130
*	17 Naphthalene-d8	136.00	7.570	7.570	(1.000)	2432007	40	
$	18 Nitrobenzene-d5	82.00	6.392	6.392	(0.844)	3288346	120	130
	19 Nitrobenzene	77.00	6.418	6.418	(0.848)	3214208	120	130
	20 Isophorone	82.00	6.837	6.837	(0.903)	6262635	120	130
	21 2-Nitrophenol	139.00	6.942	6.942	(0.917)	2010433	120	130
	22 2,4-Dimethyphenol	107.00	7.090	7.090	(0.937)	2855669	120	130
	23 Bis(2-Chloroethoxy)methane	93.00	7.221	7.221	(0.954)	3314923	120	130
	24 2,4-Dichlorophenol	162.00	7.387	7.387	(0.976)	2416359	120	130
	25 1,2,4-Trichlorobenzene	180.00	7.483	7.483	(0.988)	2749958	120	130
	26 Naphthalene	128.00	7.614	7.614	(1.006)	7638563	120	120
	27 4-Chloroaniline	127.00	7.745	7.745	(1.023)	2845139	120	150(H)
	28 Hexachlorobutadiene	225.00	7.850	7.850	(1.037)	1638769	120	130
	29 4-Chloro-3-methylphenol	107.00	8.714	8.714	(1.151)	2578587	120	130

Data File: /chem/nvo5.i/nvo0617.b/nvo501825.d
Report Date: 22-Jun-1994 10:09

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	CONCENTRATIONS ON-COL (ng)
	30 2-Methylnaphthalene	142.00	8.906	8.906	(1.176)	5374335	120	130
*	31 Acenaphthene-d10	164.00	11.045	11.045	(1.000)	1235530	40	
	32 Hexachlorocyclopentadiene	237.00	9.211	9.211	(0.834)	827347	120	130
	33 2,4,6-Trichlorophenol	196.00	9.500	9.500	(0.860)	1755879	120	130
	34 2,4,5-Trichlorophenol	196.00	9.587	9.587	(0.868)	1806998	120	120
$	35 2-Fluorobiphenyl	172.00	9.665	9.665	(0.875)	5341446	120	120
	36 2-Chloronaphthalene	162.00	9.875	9.875	(0.894)	4832962	120	120
	37 2-Nitroaniline	65.00	11.045	11.045	(1.000)	1834738	120	120
	38 Dimethyl phthalate	163.00	10.573	10.573	(0.957)	5731560	120	120
	39 Acenaphthylene	152.00	10.739	10.739	(0.972)	6425061	120	120
	40 2,6-Dinitrotoluene	165.00	10.687	10.687	(0.968)	1352220	120	120
	41 3-Nitroaniline	138.00	10.146	10.146	(0.919)	2036029	120	120
	42 Acenaphthene	153.00	11.123	11.123	(1.007)	4624566	120	120
	43 2,4-Dinitrophenol	184.00	11.280	11.280	(1.021)	1192074	120	130
	44 4-Nitrophenol	109.00	11.542	11.542	(1.045)	752734	120	120
	45 Dibenzofuran	168.00	11.507	11.507	(1.042)	6507341	120	120
	46 2,4-Dinitrotoluene	165.00	11.560	11.560	(1.047)	1867847	120	120
	47 Diethyl phthalate	149.00	12.162	12.162	(1.101)	5553489	120	120
	48 4-Chlorophenyl-phenylether	204.00	12.328	12.328	(1.116)	2345779	120	120
	49 Fluorene	166.00	12.275	12.275	(1.111)	4734711	120	120
	50 4-Nitroaniline	138.00	10.146	10.146	(0.919)	2036029	120	120
$	51 2,4,6-Tribromophenol	330.00	12.834	12.834	(1.162)	1114224	120	130
*	52 Phenanthrene-d10	188.00	14.405	14.405	(1.000)	2091257	40	
	53 4,6-Dinitro-2-methylphenol	198.00	12.485	12.485	(0.867)	1317438	120	120
	54 N-Nitrosodiphenylamine	169.00	12.625	12.625	(0.876)	3236300	120	120
	55 4-Bromophenyl-phenylether	248.00	13.436	13.436	(0.933)	1526021	120	120
	56 Hexachlorobenzene	284.00	13.524	13.524	(0.939)	1816692	120	120
	57 Pentachlorophenol	266.00	14.021	14.021	(0.973)	1107803	120	130
	58 Phenanthrene	178.00	14.475	14.475	(1.005)	7174870	120	120(H)
	59 Anthracene	178.00	14.589	14.589	(1.013)	6126147	120	120
	60 Carbazole	167.00	15.025	15.025	(1.043)	6689790	120	120
	61 Di-n-butylphthalate	149.00	16.003	16.003	(1.111)	10010508	120	120
	62 Fluoranthene	202.00	17.268	17.268	(1.199)	7462222	120	120
*	63 Chrysene-d12	240.00	20.681	20.681	(1.000)	1761401	40	
	64 Pyrene	202.00	17.783	17.783	(0.860)	7638758	120	120
$	65 Terphenyl-d14	244.00	18.272	18.272	(0.883)	5373339	120	120
	66 Butylbenzylphthalate	149.00	19.547	19.547	(0.945)	4428812	120	120
	67 3,3'-Dichlorobenzidine	252.00	20.690	20.690	(1.000)	2093182	120	120
	68 Benzo(a)anthracene	228.00	20.655	20.655	(0.999)	6676639	120	120
	69 Chrysene	228.00	20.751	20.751	(1.003)	5999852	120	120
	70 bis(2-Ethylhexyl)phthalate	149.00	20.987	20.987	(1.015)	5954554	120	120
*	71 Perylene-d12	264.00	23.798	23.798	(1.000)	2142348	40	
	72 Di-n-octylphthalate	149.00	22.471	22.471	(0.944)	9690547	120	120
	73 Benzo(b)fluoranthene	252.00	23.047	23.047	(0.968)	6609926	120	120
	74 Benzo(k)fluoranthene	252.00	23.117	23.117	(0.971)	5961540	120	120
	75 Benzo(a)pyrene	252.00	23.702	23.702	(0.996)	5280775	120	120
	76 Indeno(1,2,3-cd)pyrene	276.00	25.779	25.779	(1.083)	5627641	120	120
	77 Dibenzo(a,h)anthracene	278.00	25.832	25.832	(1.085)	5411481	120	120
	78 Benzo(g,h,i)perylene	276.00	26.259	26.259	(1.103)	5305792	120	120

Data File: /chem/nvo5.i/nvo0617.b/nvo501825.d
Report Date: 22-Jun-1994 10:09

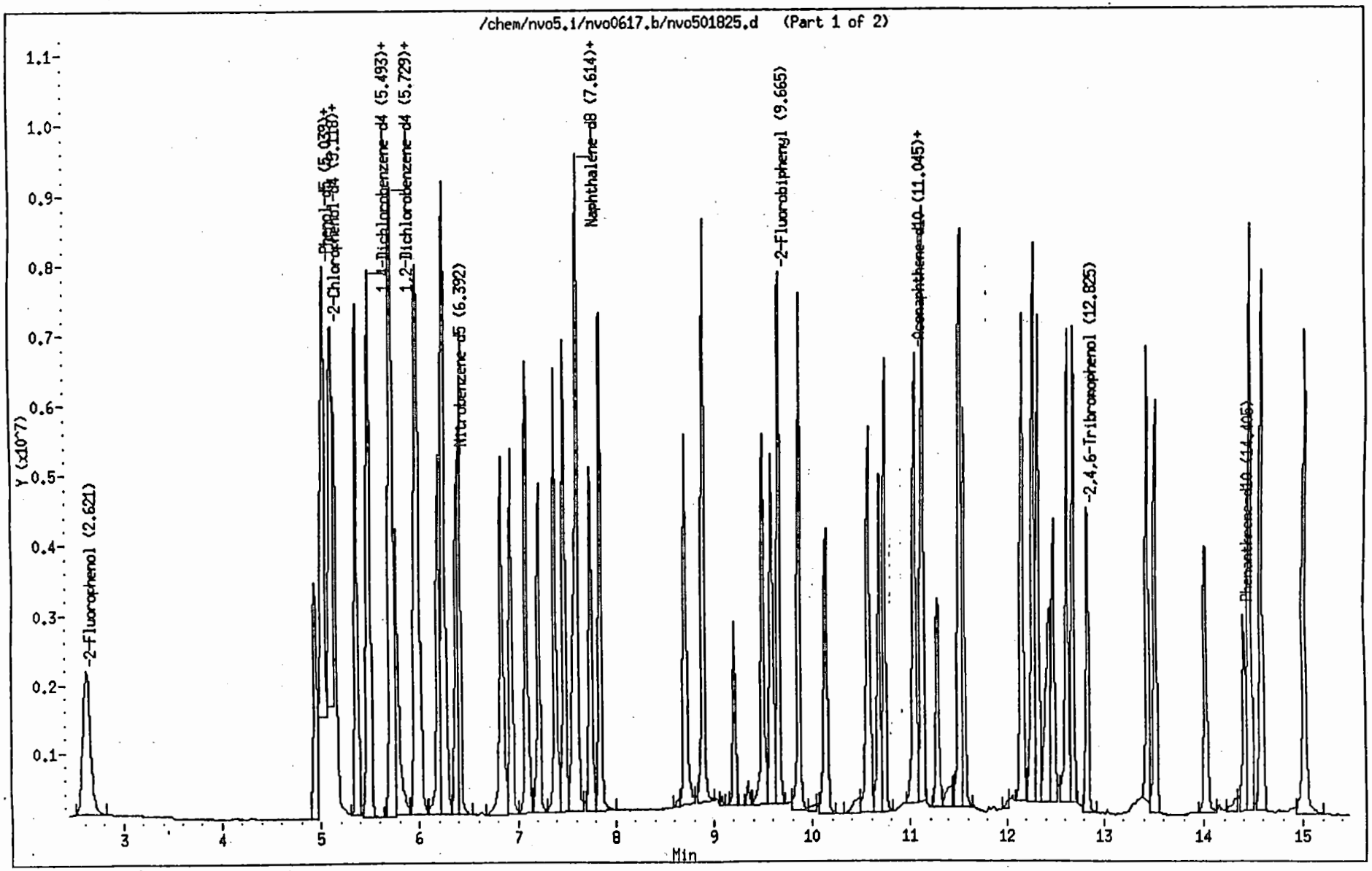
QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/nvo5.i/nvo0617.b/nvo501825.d
Date : 17-JUN-1994 11:05
Client ID: SSTD120
Sample Info: SSTD120 120ng on col
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



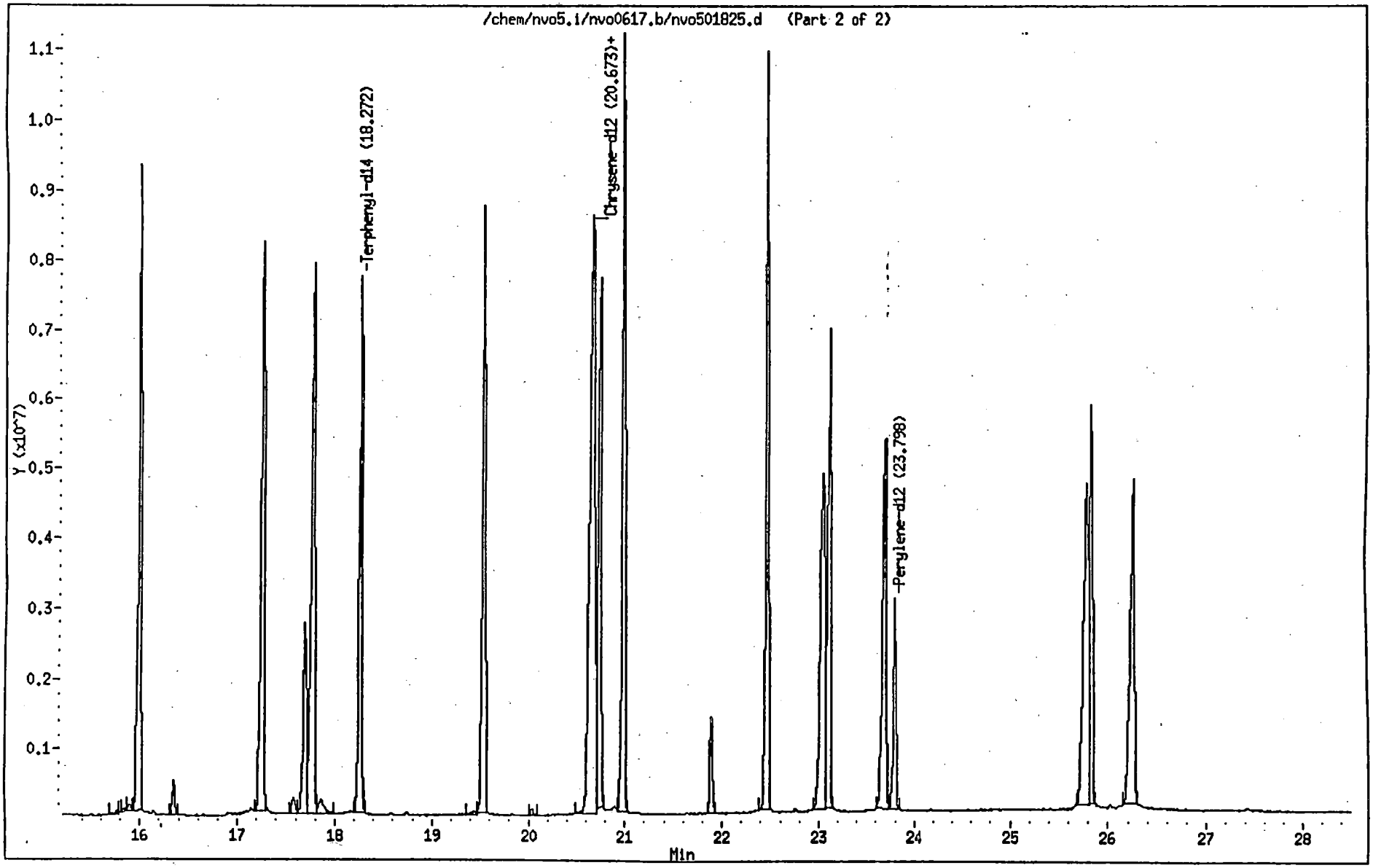
000165

95133356.0263

Data File: /chem/nvo5.i/nvo0617.b/nvo501825.d
Date : 17-JUN-1994 11:05
Client ID: SSTD120
Sample Info: SSTD120 120ng on col
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



000166

Data File: /chem/nvo5.i/nvo0617.b/nvo501826.d
Report Date: 22-Jun-1994 10:10

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0617.b/nvo501826.d
Lab Smp Id: SSTD160 Client Smp ID: SSTD160
Inj Date : 17-JUN-1994 11:41 Autotune Date: 26-May-94 08:31
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : SSTD160 160ng on col
Misc Info : 80ug/ml CLP STD 1000-7-4
Comment :
Method : /chem/nvo5.i/nvo0617.b/clp390epc.m
Meth Date : 20-Jun-1994 14:16 user2 Quant Type: ISTD
Cal Date : 17-JUN-1994 09:51 Cal File: nvo501823.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	ON-COL (ng)
*	1 1,4-Dichlorobenzene-d4	152.00	5.475	5.475	(1.000)	899219	40	
$	2 2-Fluorophenol	112.00	2.621	2.621	(0.479)	4097634	160	150
$	3 Phenol-d5	99.00	5.030	5.030	(0.919)	4781410	160	150
	4 Phenol	94.00	5.056	5.056	(0.923)	5524756	160	150
	5 Bis(2-Chloroethyl)ether	93.00	5.117	5.117	(0.935)	5114143	160	150
$	6 2-Chlorophenol-d4	132.00	5.126	5.126	(0.936)	3338279	160	150
	7 2-Chlorophenol	128.00	5.161	5.161	(0.943)	4220566	160	150
	8 1,3-Dichlorobenzene	146.00	5.370	5.370	(0.981)	4830782	160	150
	9 1,4-Dichlorobenzene	146.00	5.501	5.501	(1.005)	4739248	160	150
$	10 1,2-Dichlorobenzene-d4	152.00	5.719	5.719	(1.045)	2671153	160	150
	11 1,2-Dichlorobenzene	146.00	5.737	5.737	(1.048)	4316981	160	140
	12 2-Methylphenol	108.00	5.990	5.990	(1.094)	3717241	160	150
	13 4-Methylphenol	108.00	6.261	6.261	(1.143)	3606682	160	150
	14 2,2'-oxybis(1-Chloropropane)	45.00	5.964	5.964	(1.089)	5370004	160	150
	15 N-Nitroso-di-n-propylamine	70.00	6.217	6.217	(1.136)	3437958	160	150
	16 Hexachloroethane	117.00	6.269	6.269	(1.145)	1838233	160	140
*	17 Naphthalene-d8	136.00	7.579	7.579	(1.000)	2948170	40	
$	18 Nitrobenzene-d5	82.00	6.400	6.400	(0.845)	4648684	160	150
	19 Nitrobenzene	77.00	6.435	6.435	(0.849)	4322729	160	140
	20 Isophorone	82.00	6.854	6.854	(0.904)	9194059	160	150
	21 2-Nitrophenol	139.00	6.950	6.950	(0.917)	2932918	160	150
	22 2,4-Dimethyphenol	107.00	7.107	7.107	(0.938)	3996711	160	150
	23 Bis(2-Chloroethoxy)methane	93.00	7.229	7.229	(0.954)	4592841	160	140
	24 2,4-Dichlorophenol	162.00	7.395	7.395	(0.976)	3502438	160	150
	25 1,2,4-Trichlorobenzene	180.00	7.491	7.491	(0.988)	3823171	160	140
	26 Naphthalene	128.00	7.622	7.622	(1.006)	10517260	160	140
	27 4-Chloroaniline	127.00	7.762	7.762	(1.024)	4146095	160	150(H)
	28 Hexachlorobutadiene	225.00	7.849	7.849	(1.036)	2215644	160	140
	29 4-Chloro-3-methylphenol	107.00	8.713	8.713	(1.150)	3733973	160	150

Data File: /chem/nvo5.i/nvo0617.b/nvo501826.d
Report Date: 22-Jun-1994 10:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	ON-COL (ng)
	30 2-Methylnaphthalene	142.00	8.905	8.905	(1.175)	6870534	160	130
*	31 Acenaphthene-d10	164.00	11.053	11.053	(1.000)	1378816	40	
	32 Hexachlorocyclopentadiene	237.00	9.211	9.211	(0.833)	1207554	160	170(A)
	33 2,4,6-Trichlorophenol	196.00	9.508	9.508	(0.860)	2743174	160	180(A)
	34 2,4,5-Trichlorophenol	196.00	9.595	9.595	(0.868)	2570580	160	160
$	35 2-Fluorobiphenyl	172.00	9.674	9.674	(0.875)	7669780	160	160
	36 2-Chloronaphthalene	162.00	9.883	9.883	(0.894)	6959693	160	160
	37 2-Nitroaniline	65.00	11.070	11.070	(1.002)	2683471	160	160
	38 Dimethyl phthalate	163.00	10.590	10.590	(0.958)	8296637	160	160
	39 Acenaphthylene	152.00	10.747	10.747	(0.972)	9255551	160	160(A)
	40 2,6-Dinitrotoluene	165.00	10.704	10.704	(0.968)	1960152	160	160
	41 3-Nitroaniline	138.00	10.162	10.162	(0.919)	2954355	160	160(A)
	42 Acenaphthene	153.00	11.140	11.140	(1.008)	5864677	160	140
	43 2,4-Dinitrophenol	184.00	11.297	11.297	(1.022)	1791343	160	180(A)
	44 4-Nitrophenol	109.00	11.568	11.568	(1.047)	1201341	160	180(A)
	45 Dibenzofuran	168.00	11.524	11.524	(1.043)	8963886	160	140
	46 2,4-Dinitrotoluene	165.00	11.585	11.585	(1.048)	2897570	160	160(A)
	47 Diethyl phthalate	149.00	12.179	12.179	(1.102)	7979101	160	150
	48 4-Chlorophenyl-phenylether	204.00	12.336	12.336	(1.116)	3355687	160	150
	49 Fluorene	166.00	12.292	12.292	(1.112)	6629591	160	150
	50 4-Nitroaniline	138.00	10.162	10.162	(0.919)	2954355	160	160(A)
$	51 2,4,6-Tribromophenol	330.00	12.842	12.842	(1.162)	1533270	160	160
*	52 Phenanthrene-d10	188.00	14.413	14.413	(1.000)	2497464	40	
	53 4,6-Dinitro-2-methylphenol	198.00	12.519	12.519	(0.869)	2076522	160	160(A)
	54 N-Nitrosodiphenylamine	169.00	12.642	12.642	(0.877)	4616899	160	140
	55 4-Bromophenyl-phenylether	248.00	13.453	13.453	(0.933)	2199988	160	140
	56 Hexachlorobenzene	284.00	13.541	13.541	(0.939)	2655207	160	150
	57 Pentachlorophenol	266.00	14.029	14.029	(0.973)	1770980	160	170(A)
	58 Phenanthrene	178.00	14.483	14.483	(1.005)	10531099	160	140(H)
	59 Anthracene	178.00	14.606	14.606	(1.013)	8817246	160	140
	60 Carbazole	167.00	15.042	15.042	(1.044)	9758472	160	150
	61 Di-n-butylphthalate	149.00	16.011	16.011	(1.111)	14572129	160	140
	62 Fluoranthene	202.00	17.285	17.285	(1.199)	11715832	160	160
*	63 Chrysene-d12	240.00	20.698	20.698	(1.000)	2100894	40	
	64 Pyrene	202.00	17.800	17.800	(0.860)	12046254	160	160
$	65 Terphenyl-d14	244.00	18.289	18.289	(0.884)	8459995	160	160
	66 Butylbenzylphthalate	149.00	19.564	19.564	(0.945)	6992865	160	160(A)
	67 3,3'-Dichlorobenzidine	252.00	20.707	20.707	(1.000)	3045589	160	150
	68 Benzo(a)anthracene	228.00	20.672	20.672	(0.999)	10277303	160	160
	69 Chrysene	228.00	20.777	20.777	(1.004)	9260931	160	160
	70 bis(2-Ethylhexyl)phthalate	149.00	21.004	21.004	(1.015)	8938130	160	150
*	71 Perylene-d12	264.00	23.806	23.806	(1.000)	2337337	40	
	72 Di-n-octylphthalate	149.00	22.488	22.488	(0.945)	13246136	160	150
	73 Benzo(b)fluoranthene	252.00	23.073	23.073	(0.969)	9382273	160	160
	74 Benzo(k)fluoranthene	252.00	23.134	23.134	(0.972)	7768132	160	140
	75 Benzo(a)pyrene	252.00	23.719	23.719	(0.996)	7414131	160	150
	76 Indeno(1,2,3-cd)pyrene	276.00	25.787	25.787	(1.083)	7887768	160	160
	77 Dibenzo(a,h)anthracene	278.00	25.857	25.857	(1.086)	7101645	160	140
	78 Benzo(g,h,i)perylene	276.00	26.276	26.276	(1.104)	7085807	160	150

Data File: /chem/nvo5.i/nvo0617.b/nvo501826.d
Report Date: 22-Jun-1994 10:10

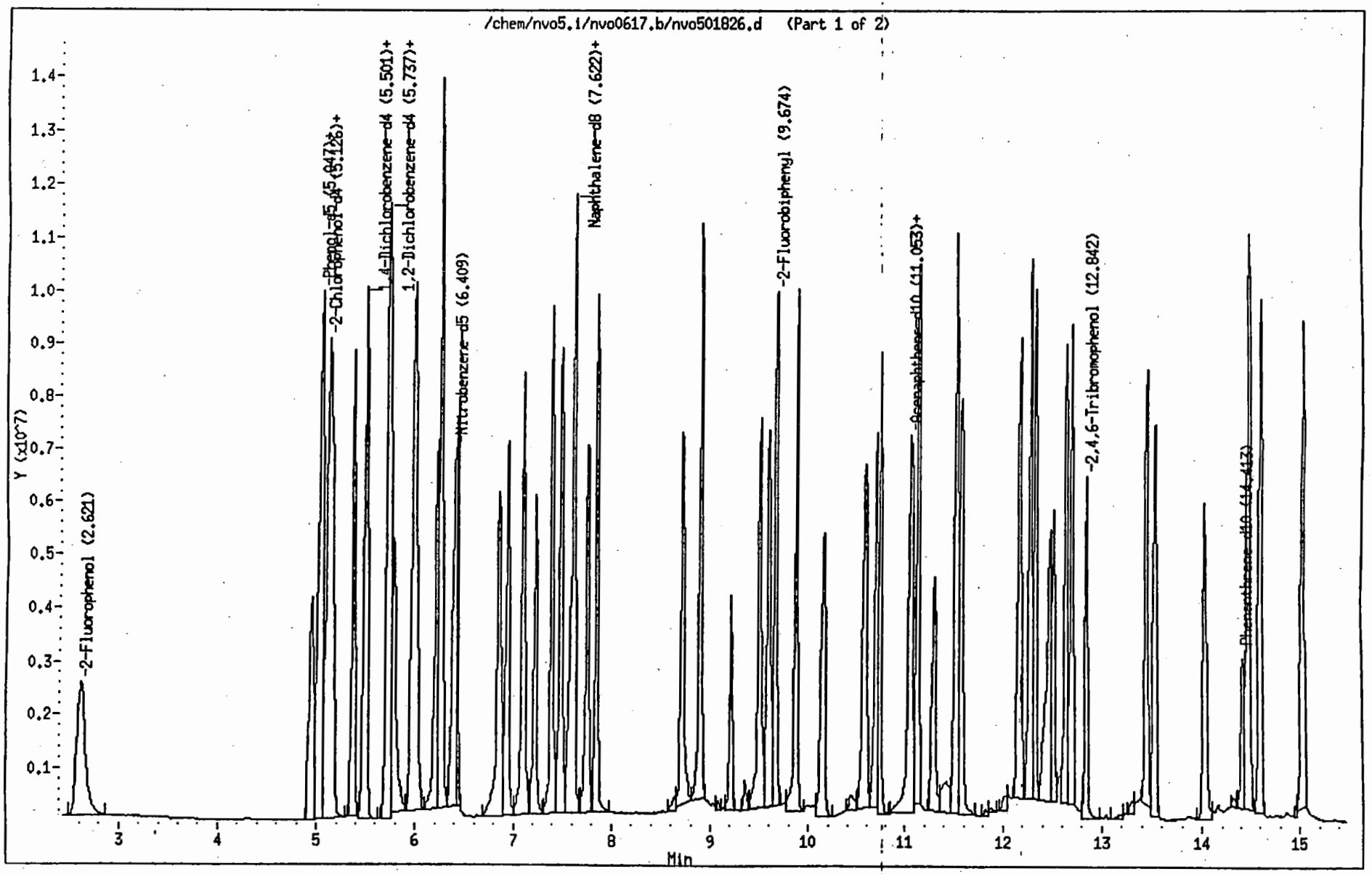
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
H - Operator selected an alternate compound hit.

Data File: /chem/nvo5.i/nvo0617.b/nvo501826.d
Date : 17-JUN-1994 11:41
Client ID: SSTD160
Sample Info: SSTD160 160ng on col
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25

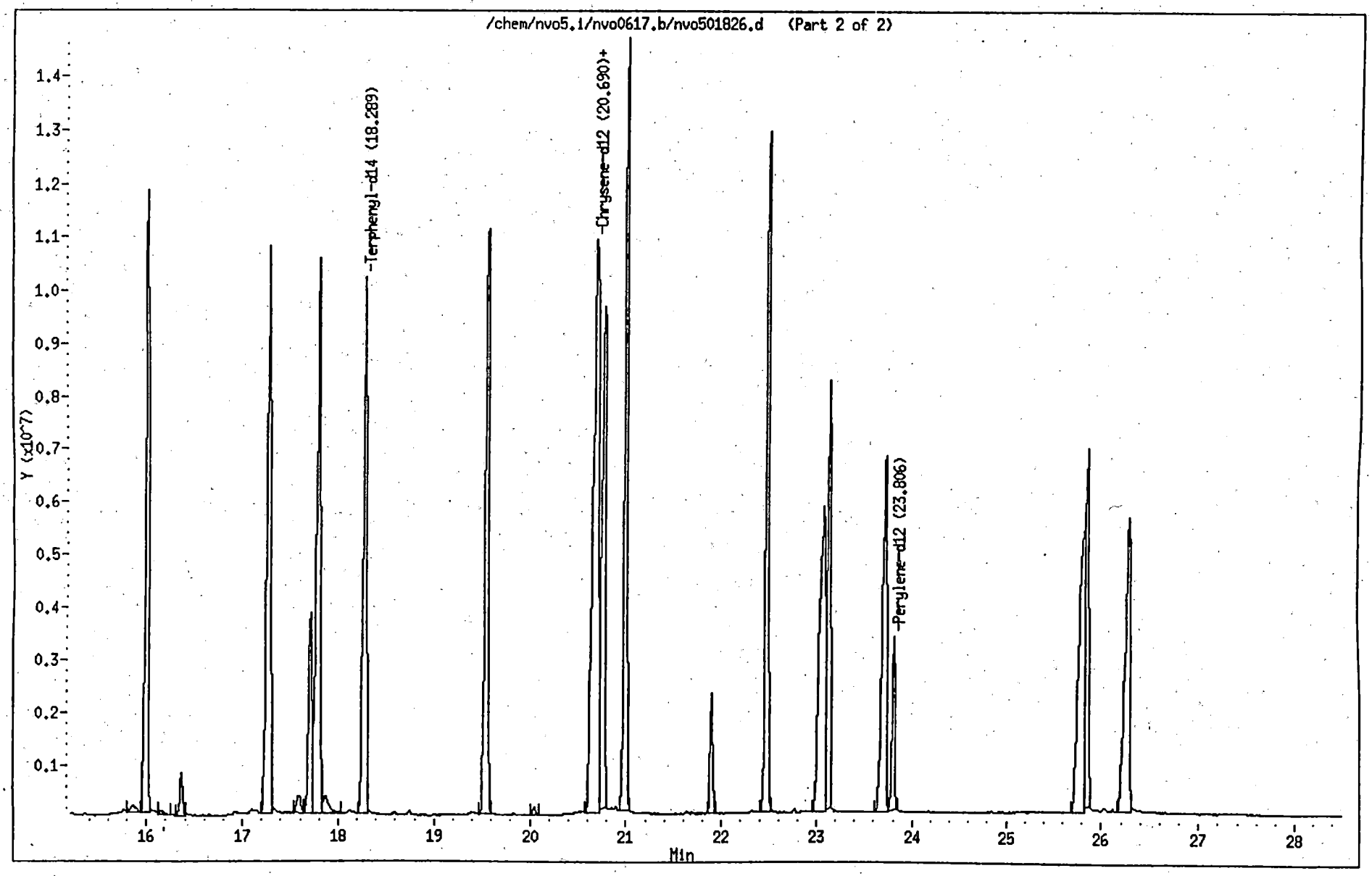


000170

Data File: /chem/nvo5.i/nvo0617.b/nvo501826.d
Date : 17-JUN-1994 11:41
Client ID: SSTD160
Sample Info: SSTD160 160ng on col
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25

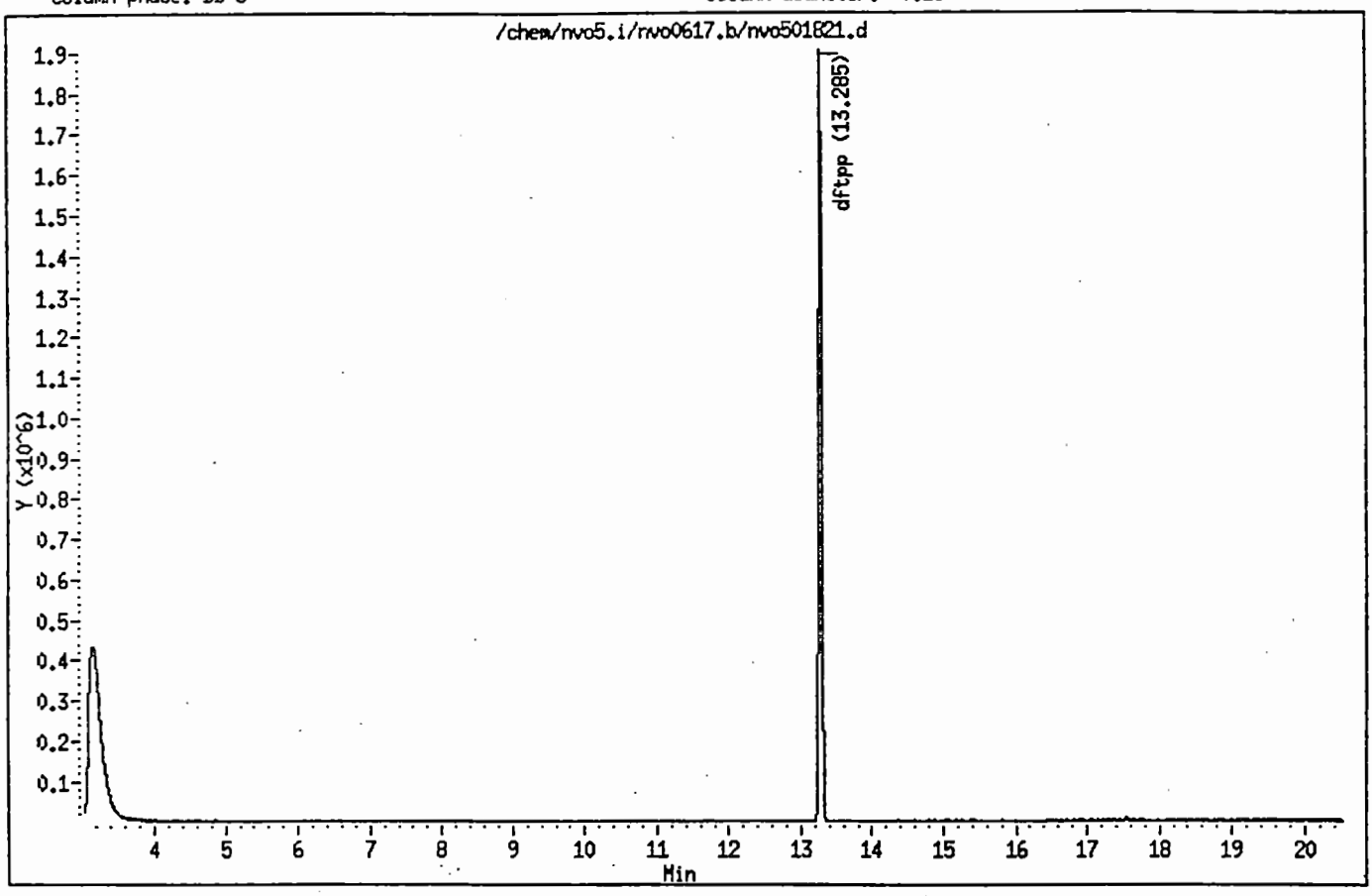


000171

9920.9561.96

Raw QC Data

Data File: /chem/nvo5.i/nvo0617.b/nvo501821.d
Date : 17-JUN-1994 08:50
Client ID: DFTPP
Instrument: nvo5.i
Sample Info: DFTPP
Volume Injected (uL): 2.0
Operator: WAY/AT
Column phase: DB-5
Column diameter: 0.25



Data File: /chem/nvo5.i/nvo0617.b/nvo501821.d

Date : 17-JUN-1994 08:50

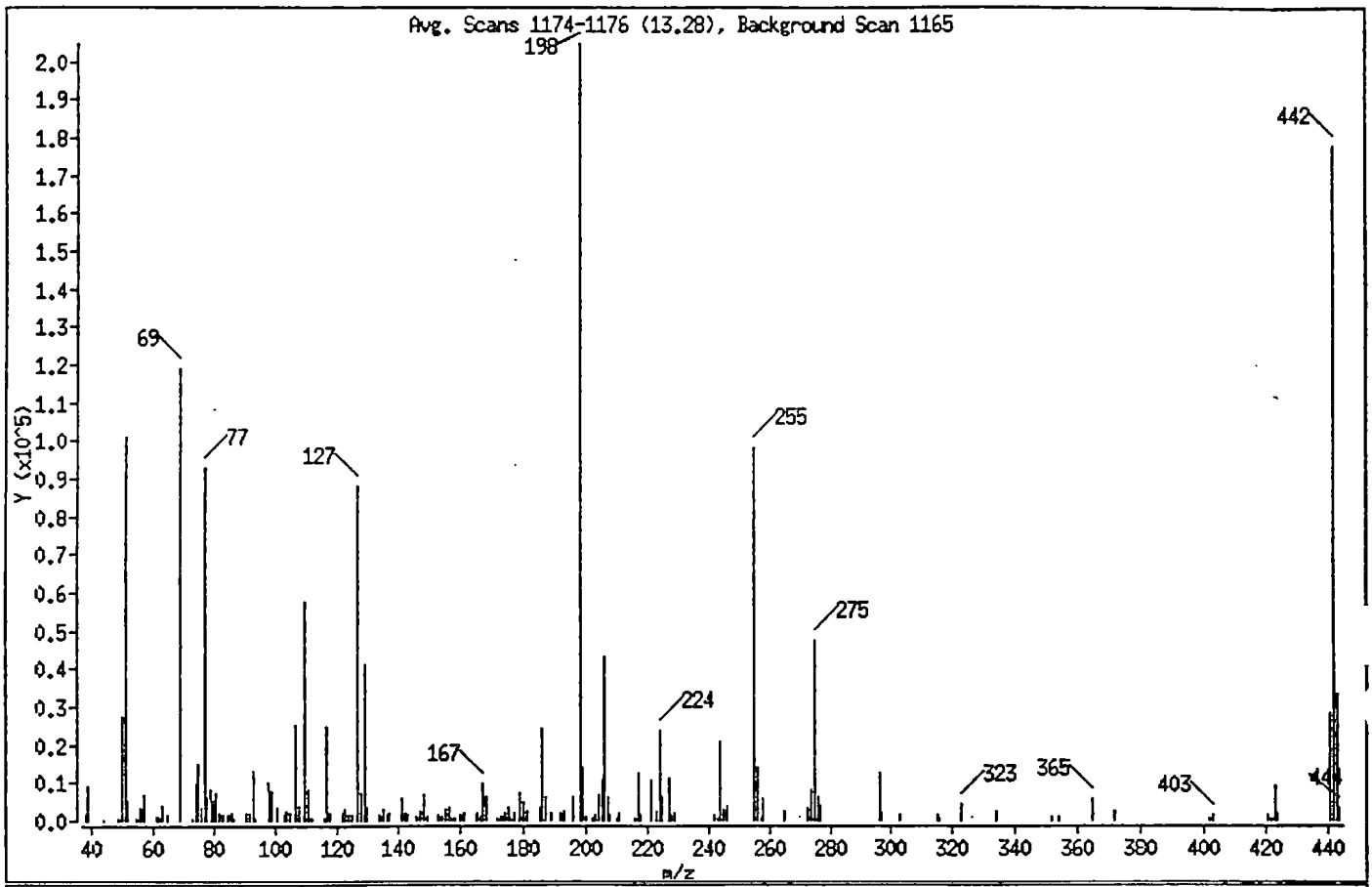
Client ID: DFTPP | Instrument: nvo5.i

Sample Info: DFTPP

Volume Injected (uL): 2.0 | Operator: WAV/AT

Column phase: DB-5 | Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	49.49
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	58.27
70	Less than 2.00% of mass 69	0.00 (0.00)
127	25.00 - 75.00% of mass 198	43.11
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.91
275	10.00 - 30.00% of mass 198	23.29
365	Greater than 0.75% of mass 198	2.73
441	Present, but less than mass 443	13.89
442	40.00 - 110.00% of mass 198	86.93
443	15.00 - 24.00% of mass 442	16.34 (18.79)

Data File: /chem/nvo5.i/nvo0617.b/nvo501821.d

Date : 17-JUN-1994 08:50

Client ID: DFTPP

Instrument: nvo5.i

Sample Info: DFTPP

Volume Injected (uL): 2.0

Operator: WAV/AT

Column phase: DB-5

Column diameter: 0.25

Data File: nvo501821.d

Spectrum : Avg. Scans 1174-1176 (13.28), Background Scan 1165

Largest m/z: 197.95

Number of peaks: 152

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.05	1482	106.90	25392	171.90	346	242.95	571
38.95	9364	107.90	3791	173.00	1189	243.95	20864
43.90	178	109.90	57456	173.90	2051	244.95	2789
49.10	390	111.00	8420	175.00	3374	245.95	3922
49.95	27808	111.90	390	175.95	404	254.85	98216
50.95	101328	115.95	532	176.85	1952	255.85	14170
51.95	5280	116.95	24688	178.85	7022	256.95	368
54.95	401	117.95	1751	179.95	4869	257.85	5691
55.95	3231	122.00	2157	180.95	2264	264.90	2515
56.95	6633	122.90	3067	185.00	3277	272.85	3430
61.00	937	124.00	1282	186.00	23960	273.95	8348
62.00	934	124.90	1235	186.90	6522	274.95	47672
63.00	3748	127.00	88256	188.90	1770	275.95	6133
65.00	1593	128.00	7315	191.85	2143	276.95	3705
68.95	119304	128.95	41088	192.95	2315	295.90	12471
72.95	336	129.95	3185	195.95	6124	296.90	1809
74.00	9512	133.95	1212	197.95	204736	302.95	1282
74.90	14798	134.95	2929	198.95	14157	314.80	1564
76.10	3254	135.95	1401	199.80	772	315.90	343
77.00	93096	136.90	1890	201.50	700	322.85	4204
78.00	6173	140.90	5614	202.90	1498	333.95	2386
79.00	8216	141.90	1714	203.90	6693	351.95	855
80.00	5315	142.90	1365	205.00	10595	353.85	934
81.00	7215	145.95	793	205.90	42872	364.85	5589
81.95	1747	146.95	2474	207.00	6065	371.95	2342
82.95	1388	147.95	6546	207.85	1444	401.95	448
84.95	1627	148.95	985	210.05	391	402.95	1382
85.95	2177	152.90	1651	210.85	1844	420.90	1234
86.85	718	153.80	838	215.90	358	421.90	386
90.90	1777	154.90	2783	216.80	12462	422.90	9426
92.00	1992	156.00	3620	217.90	1674	423.90	1855
92.90	12964	157.00	413	221.00	10778	441.00	28440
94.00	360	157.90	354	222.85	2628	441.90	177984
97.95	10108	159.90	1615	223.95	23600	442.90	33440
98.95	7702	160.85	2084	224.95	6097	443.95	3337

Data File: /chem/nvo5.i/nvo0617.b/nvo501821.d

Date : 17-JUN-1994 08:50

Client ID: DFTPP

Instrument: nvo5.i

Sample Info: DFTPP

Volume Injected (uL): 2.0

Operator: WAY/AT

Column phase: DB-5

Column diameter: 0.25

Data File: nvo501821.d

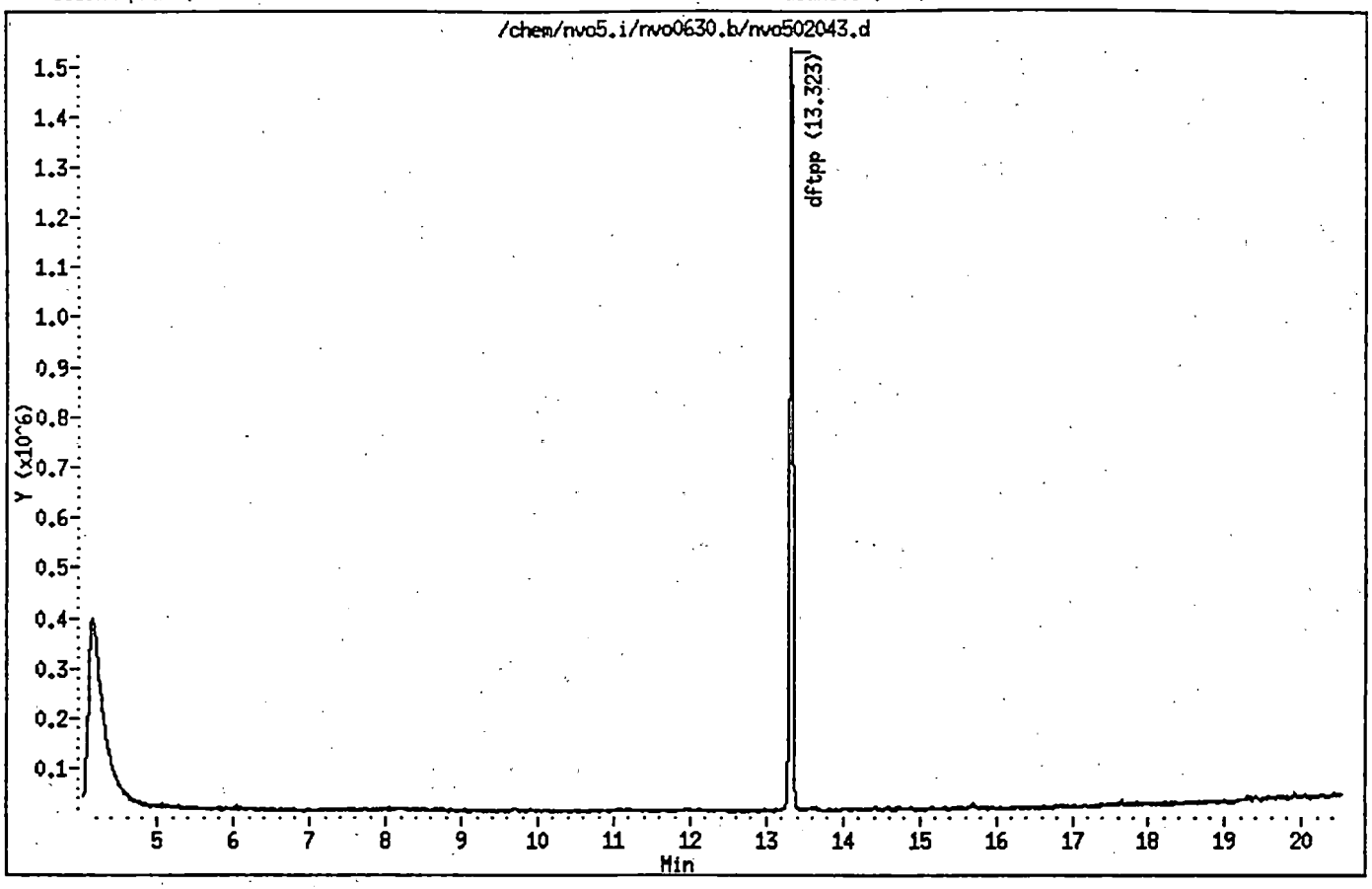
Spectrum : Avg. Scans 1174-1176 (13.28), Background Scan 1165

Largest m/z: 197.95

Number of peaks: 152

m/z	Y	m/z	Y	m/z	Y	m/z	Y
100.95	3395	164.95	1924	226.85	11151		
102.95	1439	166.05	1176	227.95	1452		
103.95	2592	166.95	9527	228.95	2159		
104.85	2005	167.90	6119	241.95	1297		

Data File: /chem/nvo5.i/nvo0630.b/nvo502043.d
Date : 30-JUN-94 08:39
Client ID: DFTPP
Instrument: nvo5.i
Sample Info: DFTPP
Volume Injected (uL): 2.0
Operator: WAV/AT
Column phase: DB-5
Column diameter: 0.25



Data File: /chem/nvo5.i/nvo0630.b/nvo502043.d

Date : 30-JUN-94 08:39

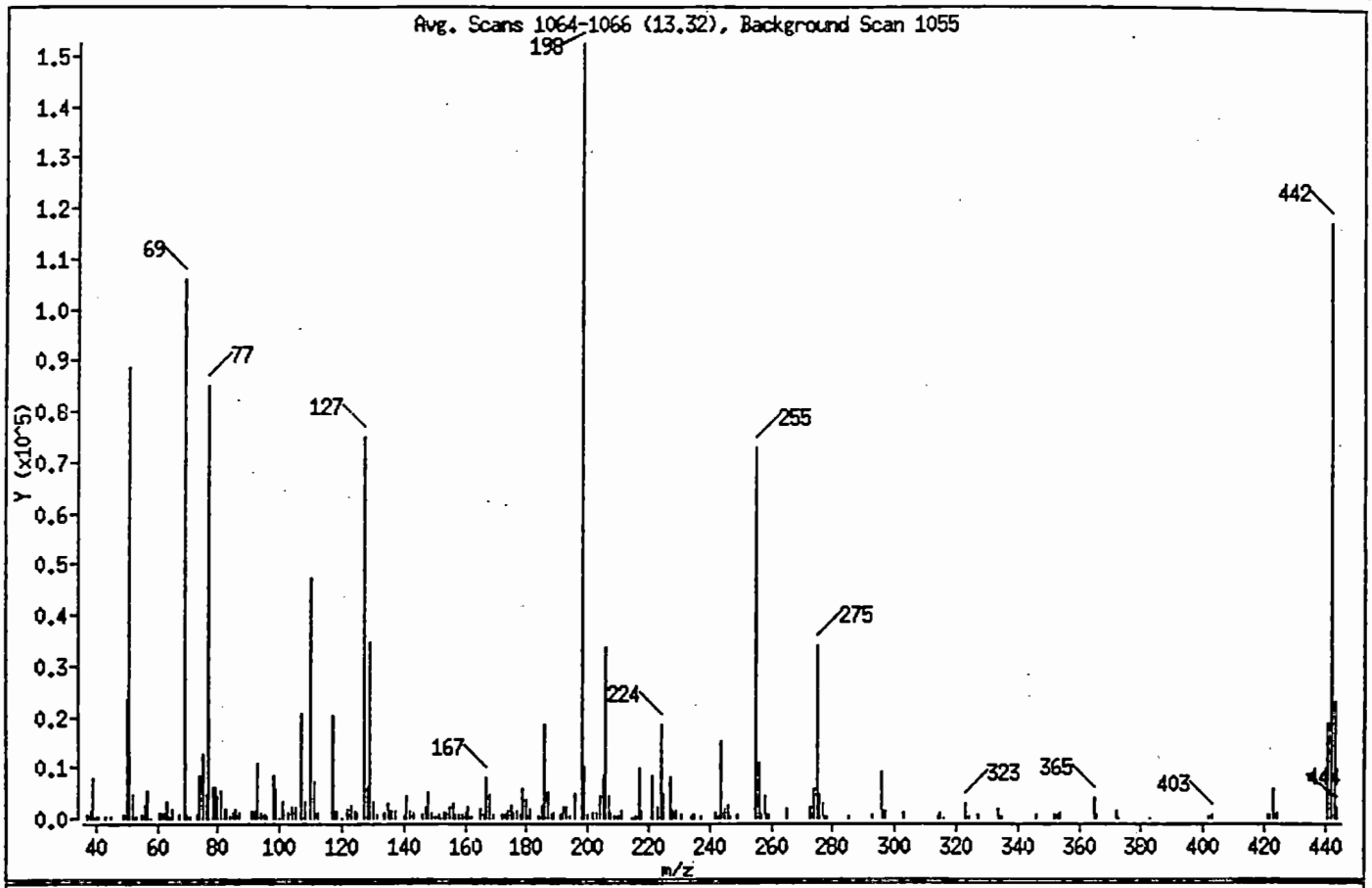
Client ID: DFTPP | Instrument: nvo5.i

Sample Info: DFTPP

Volume Injected (uL): 2.0 | Operator: WAV/AT

Column phase: DB-5 | Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	58.26
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	69.53
70	Less than 2.00% of mass 69	0.46 (0.66)
127	25.00 - 75.00% of mass 198	49.06
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.69
275	10.00 - 30.00% of mass 198	22.24
365	Greater than 0.75% of mass 198	2.61
441	Present, but less than mass 443	12.27
442	40.00 - 110.00% of mass 198	76.97
443	15.00 - 24.00% of mass 442	15.24 (19.80)

Data File: /chem/nvo5.i/nvo0630.b/nvo502043.d
Date : 30-JUN-94 08:39
Client ID: DFTPP
Instrument: nvo5.i
Sample Info: DFTPP
Volume Injected (uL): 2.0
Operator: WAV/AT
Column phase: DB-5
Column diameter: 0.25

Data File: nvo502043.d
Spectrum : Avg. Scans 1064-1066 (13.32), Background Scan 1055
Largest m/z: 197.85
Number of peaks: 200

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.95	683	103.95	2138	174.00	1526	245.85	2689
38.05	1548	104.90	2013	175.00	2561	246.80	407
38.95	8014	106.90	20632	175.85	1005	248.80	634
39.95	312	107.90	3364	176.85	1506	254.85	72928
40.95	251	109.90	47296	178.05	699	255.85	10695
43.00	442	110.90	7109	178.85	5764	256.95	736
45.00	405	112.00	1130	179.95	3686	257.85	4435
49.00	776	116.95	20104	180.95	1866	258.85	604
49.95	23304	117.95	1536	183.80	193	264.90	1832
50.95	88824	119.95	168	184.90	2636	272.85	2286
52.05	4569	121.90	1725	185.90	18400	273.85	5855
52.85	429	122.90	2459	187.00	5116	274.85	33904
54.95	705	123.90	1304	188.00	547	275.85	4633
55.95	2593	124.90	1179	188.90	1148	276.85	2854
56.95	5467	127.00	74800	190.90	692	277.85	263
58.00	167	128.00	6211	191.85	1987	285.00	198
60.90	978	128.95	34456	192.95	2119	292.75	628
61.90	1251	129.95	3127	193.85	206	295.80	9127
63.00	3219	130.95	593	195.95	4650	296.90	1402
64.00	402	133.85	1096	197.85	152448	302.85	1029
65.00	1643	134.95	2799	198.95	10205	313.80	206
67.05	693	135.95	1264	199.90	825	314.80	1036
68.95	106008	136.90	1470	201.40	941	315.90	169
69.95	704	139.90	367	203.00	1043	322.95	2824
71.05	443	140.90	4423	203.90	4396	323.85	387
72.95	659	141.90	1353	205.00	8299	326.80	682
74.00	8410	142.90	985	205.90	33416	333.85	1665
74.90	12520	145.95	667	206.90	4312	334.85	532
76.00	4595	146.95	2134	207.85	1232	345.90	651
77.00	85008	147.85	4899	208.75	192	351.85	844
78.00	5964	148.85	929	210.15	413	352.85	580
79.00	5991	149.95	227	211.05	1496	353.95	902
80.00	4464	151.05	699	214.85	178	364.85	3977
81.00	5497	151.75	173	215.70	197	365.75	577
81.95	1957	153.00	1214	216.80	9896	371.85	1596

Data File: /chem/nvo5.i/nvo0630.b/nvo502043.d

Date : 30-JUN-94 08:39

Client ID: DFTPP | Instrument: nvo5.i

Sample Info: DFTPP

Volume Injected (uL): 2.0 | Operator: WAV/AT

Column phase: DB-5 | Column diameter: 0.25

Data File: nvo502043.d

Spectrum : Avg. Scans 1064-1066 (13.32), Background Scan 1055

Largest m/z: 197.85

Number of peaks: 200

m/z	Y	m/z	Y	m/z	Y	m/z	Y
82.95	1754	153.90	995	217.80	1302	372.80	173
84.05	190	154.90	2068	221.00	8273	382.85	170
84.95	1184	156.00	2920	222.95	2210	401.85	207
85.95	1827	156.90	659	223.95	18280	402.85	868
86.95	934	157.90	838	224.95	4650	420.90	842
90.90	1497	158.90	572	226.85	7815	422.00	832
92.00	1551	159.95	1261	227.85	1266	422.90	5711
93.00	10827	160.95	2023	228.85	1597	423.90	1244
94.00	963	161.95	380	230.90	764	441.00	18704
95.00	653	164.95	1896	233.90	380	441.90	117352
96.00	422	165.85	842	234.90	584	442.90	23240
97.95	8173	166.95	7927	236.90	424	443.85	2261
98.95	5865	167.90	4650	241.85	1002		
99.95	125	169.00	794	242.95	407		
100.95	3229	171.90	744	243.95	15166		
102.95	1157	173.00	781	244.95	1864		

7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Instrument ID: NV05 Calibration Date: 06/30/94 Time: 0902

Lab File ID: NV0502044.D Init. Calibration Date(s): 06/17/94

Init. Calibration Times: 0915 1141

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	1.589	1.825	0.800	-14.8	25.0
Bis(2-Chloroethyl)ether	1.518	1.519	0.700	0.0	25.0
2-Chlorophenol	1.230	1.340	0.800	-8.9	25.0
1,3-Dichlorobenzene	1.450	1.537	0.600	-6.0	25.0
1,4-Dichlorobenzene	1.437	1.536	0.500	-6.9	25.0
1,2-Dichlorobenzene	1.327	1.439	0.400	-8.5	25.0
2-Methylphenol	1.074	1.177	0.700	-9.5	25.0
2,2'-oxybis(1-Chloropropane)	1.611	2.028		-25.9	
4-Methylphenol	1.082	1.262	0.600	-16.7	25.0
N-Nitroso-di-n-propylamine	0.996	1.183	0.500	-18.7	25.0
Hexachloroethane	0.588	0.647	0.300	-10.0	25.0
Nitrobenzene	0.419	0.486	0.200	-16.0	25.0
Isophorone	0.816	0.887	0.400	-8.7	25.0
2-Nitrophenol	0.260	0.283	0.100	-8.9	25.0
2,4-Dimethyphenol	0.369	0.363	0.200	1.8	25.0
Bis(2-Chloroethoxy)methane	0.428	0.477	0.300	-11.6	25.0
2,4-Dichlorophenol	0.311	0.328	0.200	-5.6	25.0
1,2,4-Trichlorobenzene	0.358	0.380	0.200	-6.2	25.0
Naphthalene	1.008	1.086	0.700	-7.7	25.0
4-Chloroaniline	0.365	0.409		-12.0	
Hexachlorobutadiene	0.211	0.223		-5.4	
4-Chloro-3-methylphenol	0.335	0.345	0.200	-3.0	25.0
2-Methylnaphthalene	0.701	0.776	0.400	-10.7	25.0
Hexachlorocyclopentadiene	0.205	0.160		21.9	
2,4,6-Trichlorophenol	0.449	0.432	0.200	3.8	25.0
2,4,5-Trichlorophenol	0.475	0.450	0.200	5.3	25.0
2-Chloronaphthalene	1.266	1.321	0.800	-4.3	25.0
2-Nitroaniline	0.501	0.505		-0.8	
Dimethyl phthalate	1.534	1.663		-8.4	
Acenaphthylene	1.676	1.750	1.300	-4.4	25.0
2,6-Dinitrotoluene	0.358	0.366	0.200	-2.3	25.0
3-Nitroaniline	0.531	0.580		-9.2	
Acenaphthene	1.194	1.279	0.800	-7.2	25.0
2,4-Dinitrophenol	0.295	0.255		13.4	
4-Nitrophenol	0.194	0.160		17.5	
Dibenzofuran	1.784	1.947	0.800	-9.1	25.0
2,4-Dinitrotoluene	0.509	0.483	0.200	5.1	25.0

All other compounds must meet a minimum RRF of 0.010.

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Instrument ID: NVO5 Calibration Date: 06/30/94 Time: 0902

Lab File ID: NVO502044.D Init. Calibration Date(s): 06/17/94

Init. Calibration Times: 0915 1141

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D	
Diethyl phthalate	1.500	1.451		3.3		
4-Chlorophenyl-phenylether	0.653	0.709	0.400	-8.6	25.0	
Fluorene	1.300	1.396	0.900	-7.3	25.0	
4-Nitroaniline	0.531	0.580		-9.2		
4,6-Dinitro-2-methylphenol	0.207	0.208		-0.4		
N-Nitrosodiphenylamine (1)	0.522	0.567		-8.7		
4-Bromophenyl-phenylether	0.249	0.305	0.100	-22.6	25.0	
Hexachlorobenzene	0.291	0.347	0.100	-19.4	25.0	
Pentachlorophenol	0.166	0.121	0.050	27.0	25.0	<-
Phenanthrene	1.166	1.326	0.700	-13.7	25.0	
Anthracene	0.994	1.050	0.700	-5.6	25.0	
Carbazole	1.045	1.132		-8.2		
Di-n-butylphthalate	1.621	1.678		-3.5		
Fluoranthene	1.202	1.258	0.600	-4.6	25.0	
Pyrene	1.448	1.529	0.600	-5.6	25.0	
Butylbenzylphthalate	0.824	0.902		-9.5		
3,3'-Dichlorobenzidine	0.386	0.388		-0.7		
Benzo(a)anthracene	1.247	1.342	0.800	-7.6	25.0	
Chrysene	1.124	1.179	0.700	-4.9	25.0	
bis(2-Ethylhexyl)phthalate	1.107	1.247		-12.6		
Di-n-octylphthalate	1.516	2.044		-34.8		
Benzo(b)fluoranthene	1.004	1.165	0.700	-16.0	25.0	
Benzo(k)fluoranthene	0.948	1.145	0.700	-20.7	25.0	
Benzo(a)pyrene	0.836	0.951	0.700	-13.8	25.0	
Indeno(1,2,3-cd)pyrene	0.846	0.895	0.500	-5.8	25.0	
Dibenzo(a,h)anthracene	0.839	0.867	0.400	-3.3	25.0	
Benzo(g,h,i)perylene	0.829	0.874	0.500	-5.5	25.0	
Nitrobenzene-d5	0.428	0.486	0.200	-13.6	25.0	
2-Fluorobiphenyl	1.397	1.468	0.700	-5.1	25.0	
Terphenyl-d14	1.018	1.139	0.500	-11.9	25.0	
Phenol-d5	1.394	1.558	0.800	-11.8	25.0	
2-Fluorophenol	1.215	1.238	0.600	-1.9	25.0	
2,4,6-Tribromophenol	0.285	0.266		6.6		
2-Chlorophenol-d4	0.991	1.096	0.800	-10.6	25.0	
1,2-Dichlorobenzene-d4	0.813	0.874	0.400	-7.6	25.0	

(1) Cannot be separated from Diphenylamine
All other compounds must meet a minimum RRF of 0.010.

Data File: /chem/nvo5.i/nvo0630.b/nvo502044.d
Report Date: 06-Jul-1994 17:09

Environmental Science and Engineering

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nvo5.i
Lab File ID: nvo502044.d
Analysis Type: WATER
Lab Sample ID: SSTD50
Quant Type: ISTD

Injection Date: 30-JUN-1994 09:02
Init. Calibration Date(s): 06/17/94 06/17/94
Init. Calibration Times: 09:15 11:41
Method File: /chem/nvo5.i/nvo0630.b/clp390epc.m

	COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D
$	2 2-Fluorophenol	1.215	1.238	0.600	1.9	25.0
$	3 Phenol-d5	1.394	1.558	0.800	11.8	25.0
	4 Phenol	1.589	1.825	0.800	14.8	25.0
	5 Bis(2-Chloroethyl)ether	1.518	1.519	0.700	0.0	25.0
$	6 2-Chlorophenol-d4	0.991	1.096	0.800	10.6	25.0
	7 2-Chlorophenol	1.230	1.340	0.800	8.9	25.0
	8 1,3-Dichlorobenzene	1.450	1.537	0.600	6.0	25.0
	9 1,4-Dichlorobenzene	1.437	1.536	0.500	6.9	25.0
$	10 1,2-Dichlorobenzene-d4	0.813	0.874	0.400	7.6	25.0
	11 1,2-Dichlorobenzene	1.327	1.439	0.400	8.5	25.0
	12 2-Methylphenol	1.074	1.177	0.700	9.5	25.0
	13 4-Methylphenol	1.082	1.262	0.600	16.7	25.0
	14 2,2'-oxybis(1-Chloropropane)	1.611	2.028	0.010	25.9	
	15 N-Nitroso-di-n-propylamine	0.996	1.183	0.500	18.7	25.0
	16 Hexachloroethane	0.588	0.647	0.300	10.0	25.0
$	18 Nitrobenzene-d5	0.428	0.486	0.200	13.6	25.0
	19 Nitrobenzene	0.419	0.486	0.200	16.0	25.0
	20 Isophorone	0.816	0.887	0.400	8.7	25.0
	21 2-Nitrophenol	0.260	0.283	0.100	8.9	25.0
	22 2,4-Dimethyphenol	0.369	0.363	0.200	1.8	25.0
	23 Bis(2-Chloroethoxy)methane	0.428	0.477	0.300	11.6	25.0
	24 2,4-Dichlorophenol	0.311	0.328	0.200	5.6	25.0
	25 1,2,4-Trichlorobenzene	0.358	0.380	0.200	6.2	25.0
	26 Naphthalene	1.008	1.086	0.700	7.7	25.0
	27 4-Chloroaniline	0.365	0.409	0.010	12.0	
	28 Hexachlorobutadiene	0.211	0.223	0.010	5.4	
	29 4-Chloro-3-methylphenol	0.335	0.345	0.200	3.0	25.0
	30 2-Methylnaphthalene	0.701	0.776	0.400	10.7	25.0
	32 Hexachlorocyclopentadiene	0.205	0.160	0.010	21.9	
	33 2,4,6-Trichlorophenol	0.449	0.432	0.200	3.8	25.0
	34 2,4,5-Trichlorophenol	0.475	0.450	0.200	5.3	25.0
$	35 2-Fluorobiphenyl	1.397	1.468	0.700	5.1	25.0
	36 2-Chloronaphthalene	1.266	1.321	0.800	4.3	25.0
	37 2-Nitroaniline	0.501	0.505	0.010	0.8	
	38 Dimethyl phthalate	1.534	1.663	0.010	8.4	
	39 Acenaphthylene	1.676	1.750	1.300	4.4	25.0
	40 2,6-Dinitrotoluene	0.358	0.366	0.200	2.3	25.0
	41 3-Nitroaniline	0.531	0.580	0.010	9.2	
	42 Acenaphthene	1.194	1.279	0.800	7.2	25.0
	43 2,4-Dinitrophenol	0.295	0.255	0.010	13.4	

Data File: /chem/nvo5.i/nvo0630.b/nvo502044.d
Report Date: 06-Jul-1994 17:09

Environmental Science and Engineering

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nvo5.i
Lab File ID: nvo502044.d
Analysis Type: WATER
Lab Sample ID: SSTD50
Quant Type: ISTD

Injection Date: 30-JUN-1994 09:02
Init. Calibration Date(s): 06/17/94 06/17/94
Init. Calibration Times: 09:15 11:41
Method File: /chem/nvo5.i/nvo0630.b/clp390epc.m

	COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D	
	44 4-Nitrophenol	0.194	0.160	0.010	17.5		
	45 Dibenzofuran	1.784	1.947	0.800	9.1	25.0	
	46 2,4-Dinitrotoluene	0.509	0.483	0.200	5.1	25.0	
	47 Diethyl phthalate	1.500	1.451	0.010	3.3		
	48 4-Chlorophenyl-phenylether	0.653	0.709	0.400	8.6	25.0	
	49 Fluorene	1.300	1.396	0.900	7.3	25.0	
	50 4-Nitroaniline	0.531	0.580	0.010	9.2		
$	51 2,4,6-Tribromophenol	0.285	0.266	0.010	6.6		
	53 4,6-Dinitro-2-methylphenol	0.207	0.208	0.010	0.4		
	54 N-Nitrosodiphenylamine	0.522	0.567	0.010	8.7		
	55 4-Bromophenyl-phenylether	0.249	0.305	0.100	22.6	25.0	
	56 Hexachlorobenzene	0.291	0.347	0.100	19.4	25.0	
	57 Pentachlorophenol	0.166	0.121	0.050	27.0	25.0	<-
	58 Phenanthrene	1.166	1.326	0.700	13.7	25.0	
	59 Anthracene	0.994	1.050	0.700	5.6	25.0	
	60 Carbazole	1.045	1.132	0.010	8.2		
	61 Di-n-butylphthalate	1.621	1.678	0.010	3.5		
	62 Fluoranthene	1.202	1.258	0.600	4.6	25.0	
	64 Pyrene	1.448	1.529	0.600	5.6	25.0	
$	65 Terphenyl-d14	1.018	1.139	0.500	11.9	25.0	
	66 Butylbenzylphthalate	0.824	0.902	0.010	9.5		
	67 3,3'-Dichlorobenzidine	0.386	0.388	0.010	0.7		
	68 Benzo(a)anthracene	1.247	1.342	0.800	7.6	25.0	
	69 Chrysene	1.124	1.179	0.700	4.9	25.0	
	70 bis(2-Ethylhexyl)phthalate	1.107	1.247	0.010	12.6		
	72 Di-n-octylphthalate	1.516	2.044	0.010	34.8		
	73 Benzo(b)fluoranthene	1.004	1.165	0.700	16.0	25.0	
	74 Benzo(k)fluoranthene	0.948	1.145	0.700	20.7	25.0	
	75 Benzo(a)pyrene	0.836	0.951	0.700	13.8	25.0	
	76 Indeno(1,2,3-cd)pyrene	0.846	0.895	0.500	5.8	25.0	
	77 Dibenzo(a,h)anthracene	0.839	0.867	0.400	3.3	25.0	
	78 Benzo(g,h,i)perylene	0.829	0.874	0.500	5.5	25.0	

Data File: /chem/nvo5.i/nvo0630.b/nvo502044.d
Report Date: 06-Jul-1994 17:09

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0630.b/nvo502044.d
Lab Smp Id: SSTD50 — Client Smp ID: SSTD50
Inj Date : 30-JUN-1994 09:02 — Autotune Date: 26-May-94 08:31
Operator : WAV/AT — Inst ID: nvo5.i
Smp Info : SSTD50 50ng on col
Misc Info : 25ug/ml CLP STD 1000-8-1
Comment :
Method : /chem/nvo5.i/nvo0630.b/clp390epc.m
Meth Date : 06-Jul-1994 16:51 user2 — Quant Type: ISTD
Cal Date : 30-JUN-1994 09:02 — Cal File: nvo502044.d
Als bottle: 2 — Continuing Calibration Sample
Dil Factor: 1.000
Integrator: HP RTE — Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	ON-COL (ng)
*	1 1,4-Dichlorobenzene-d4	152.00	5.476	5.476	(1.000)	1457947	40	
$	2 2-Fluorophenol	112.00	2.753	2.753	(0.503)	2256751	50	51
$	3 Phenol-d5	99.00	5.110	5.110	(0.933)	2839817	50	56
	4 Phenol	94.00	5.136	5.136	(0.938)	3325075	50	57
	5 Bis(2-Chloroethyl)ether	93.00	5.083	5.083	(0.928)	2767931	50	50
$	6 2-Chlorophenol-d4	132.00	5.153	5.153	(0.941)	1997989	50	55
	7 2-Chlorophenol	128.00	5.179	5.179	(0.946)	2441541	50	54
	8 1,3-Dichlorobenzene	146.00	5.371	5.371	(0.981)	2800986	50	53
	9 1,4-Dichlorobenzene	146.00	5.502	5.502	(1.005)	2799222	50	53
$	10 1,2-Dichlorobenzene-d4	152.00	5.721	5.721	(1.045)	1593278	50	54
	11 1,2-Dichlorobenzene	146.00	5.738	5.738	(1.048)	2622021	50	54
	12 2-Methylphenol	108.00	6.070	6.070	(1.108)	2144534	50	55
	13 4-Methylphenol	108.00	6.332	6.332	(1.156)	2299508	50	58
	14 2,2'-oxybis(1-Chloropropane)	45.00	5.965	5.965	(1.089)	3695221	50	63
	15 N-Nitroso-di-n-propylamine	70.00	6.192	6.192	(1.131)	2155979	50	59
	16 Hexachloroethane	117.00	6.262	6.262	(1.143)	1178568	50	55
*	17 Naphthalene-d8	136.00	7.589	7.589	(1.000)	4623831	40	
$	18 Nitrobenzene-d5	82.00	6.393	6.393	(0.842)	2807690	50	57
	19 Nitrobenzene	77.00	6.428	6.428	(0.847)	2808073	50	58
	20 Isophorone	82.00	6.855	6.855	(0.903)	5127634	50	54
	21 2-Nitrophenol	139.00	6.951	6.951	(0.916)	1634296	50	54
	22 2,4-Dimethyphenol	107.00	7.143	7.143	(0.941)	2096108	50	49
	23 Bis(2-Chloroethoxy)methane	93.00	7.222	7.222	(0.952)	2758106	50	56
	24 2,4-Dichlorophenol	162.00	7.440	7.440	(0.980)	1896677	50	53
	25 1,2,4-Trichlorobenzene	180.00	7.493	7.493	(0.987)	2196070	50	53
	26 Naphthalene	128.00	7.624	7.624	(1.005)	6275115	50	54
	27 4-Chloroaniline	127.00	7.772	7.772	(1.024)	2363057	50	56
	28 Hexachlorobutadiene	225.00	7.842	7.842	(1.033)	1286735	50	53
	29 4-Chloro-3-methylphenol	107.00	8.802	8.802	(1.160)	1996081	50	51

Data File: /chem/nvo5.i/nvo0630.b/nvo502044.d
Report Date: 06-Jul-1994 17:09

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	ON-COL (ng)	
	30 2-Methylnaphthalene	142.00	8.915	8.915	(1.175)	4484307	50	55	
*	31 Acenaphthene-d10	164.00	11.072	11.072	(1.000)	2332463	40		
	32 Hexachlorocyclopentadiene	237.00	9.212	9.212	(0.832)	467267	50	39	
	33 2,4,6-Trichlorophenol	196.00	9.553	9.553	(0.863)	1258848	50	48	
	34 2,4,5-Trichlorophenol	196.00	9.675	9.675	(0.874)	1312771	50	47	
$	35 2-Fluorobiphenyl	172.00	9.666	9.666	(0.873)	4281107	50	52	
	36 2-Chloronaphthalene	162.00	9.893	9.893	(0.894)	3850678	50	52	
	37 2-Nitroaniline	65.00	11.089	11.089	(1.002)	1472467	50	50	
	38 Dimethyl phthalate	163.00	10.583	10.583	(0.956)	4847730	50	54	
	39 Acenaphthylene	152.00	10.757	10.757	(0.972)	5101460	50	52	
	40 2,6-Dinitrotoluene	165.00	10.705	10.705	(0.967)	1068007	50	51	
	41 3-Nitroaniline	138.00	10.181	10.181	(0.920)	1690544	50	55	
	42 Acenaphthene	153.00	11.141	11.141	(1.006)	3729495	50	54	
	43 2,4-Dinitrophenol	184.00	11.307	11.307	(1.021)	744729	50	43	
	44 4-Nitrophenol	109.00	11.700	11.700	(1.057)	467905	50	41	
	45 Dibenzofuran	168.00	11.534	11.534	(1.042)	5675979	50	54	
	46 2,4-Dinitrotoluene	165.00	11.587	11.587	(1.047)	1407757	50	47	
	47 Diethyl phthalate	149.00	12.163	12.163	(1.099)	4229072	50	48	
	48 4-Chlorophenyl-phenylether	204.00	12.337	12.337	(1.114)	2067176	50	54	
	49 Fluorene	166.00	12.302	12.302	(1.111)	4068914	50	54	
	50 4-Nitroaniline	138.00	10.181	10.181	(0.920)	1690544	50	55	
$	51 2,4,6-Tribromophenol	330.00	12.878	12.878	(1.163)	776168	50	47	
*	52 Phenanthrene-d10	188.00	14.450	14.450	(1.000)	3337999	40		
	53 4,6-Dinitro-2-methylphenol	198.00	12.512	12.512	(0.866)	867422	50	50	
	54 N-Nitrosodiphenylamine	169.00	12.643	12.643	(0.875)	2366308	50	54	
	55 4-Bromophenyl-phenylether	248.00	13.455	13.455	(0.931)	1271863	50	61	
	56 Hexachlorobenzene	284.00	13.559	13.559	(0.938)	1448934	50	60	
	57 Pentachlorophenol	266.00	14.092	14.092	(0.975)	504940	50	36	
	58 Phenanthrene	178.00	14.511	14.511	(1.004)	5531791	50	57	
	59 Anthracene	178.00	14.624	14.624	(1.012)	4382368	50	53	
	60 Carbazole	167.00	15.087	15.087	(1.044)	4721699	50	54	
	61 Di-n-butylphthalate	149.00	16.012	16.012	(1.108)	6999535	50	52	
	62 Fluoranthene	202.00	17.313	17.313	(1.198)	5246986	50	52	
*	63 Chrysene-d12	240.00	20.743	20.743	(1.000)	2538865	40		
	64 Pyrene	202.00	17.837	17.837	(0.860)	4851838	50	53	
$	65 Terphenyl-d14	244.00	18.308	18.308	(0.883)	3613781	50	56	
	66 Butylbenzylphthalate	149.00	19.565	19.565	(0.943)	2862790	50	55	
	67 3,3'-Dichlorobenzidine	252.00	20.743	20.743	(1.000)	1232433	50	50	
	68 Benzo(a)anthracene	228.00	20.717	20.717	(0.999)	4257677	50	54	
	69 Chrysene	228.00	20.804	20.804	(1.003)	3740547	50	52	
	70 bis(2-Ethylhexyl)phthalate	149.00	21.005	21.005	(1.013)	3956024	50	56	
*	71 Perylene-d12	264.00	23.886	23.886	(1.000)	2553353	40		(H)
	72 Di-n-octylphthalate	149.00	22.489	22.489	(0.946)	6522790	50	67	
	73 Benzo(b)fluoranthene	252.00	23.118	23.118	(0.973)	3718811	50	58	
	74 Benzo(k)fluoranthene	252.00	23.179	23.179	(0.975)	3652911	50	60	(H)
	75 Benzo(a)pyrene	252.00	23.764	23.764	(1.000)	3035004	50	57	
	76 Indeno(1,2,3-cd)pyrene	276.00	25.859	25.859	(1.088)	2856431	50	53	
	77 Dibenzo(a,h)anthracene	278.00	25.911	25.911	(1.090)	2766100	50	52	
	78 Benzo(g,h,i)perylene	276.00	26.347	26.347	(1.109)	2789549	50	53	

Data File: /chem/nvo5.i/nvo0630.b/nvo502044.d
Report Date: 06-Jul-1994 17:09

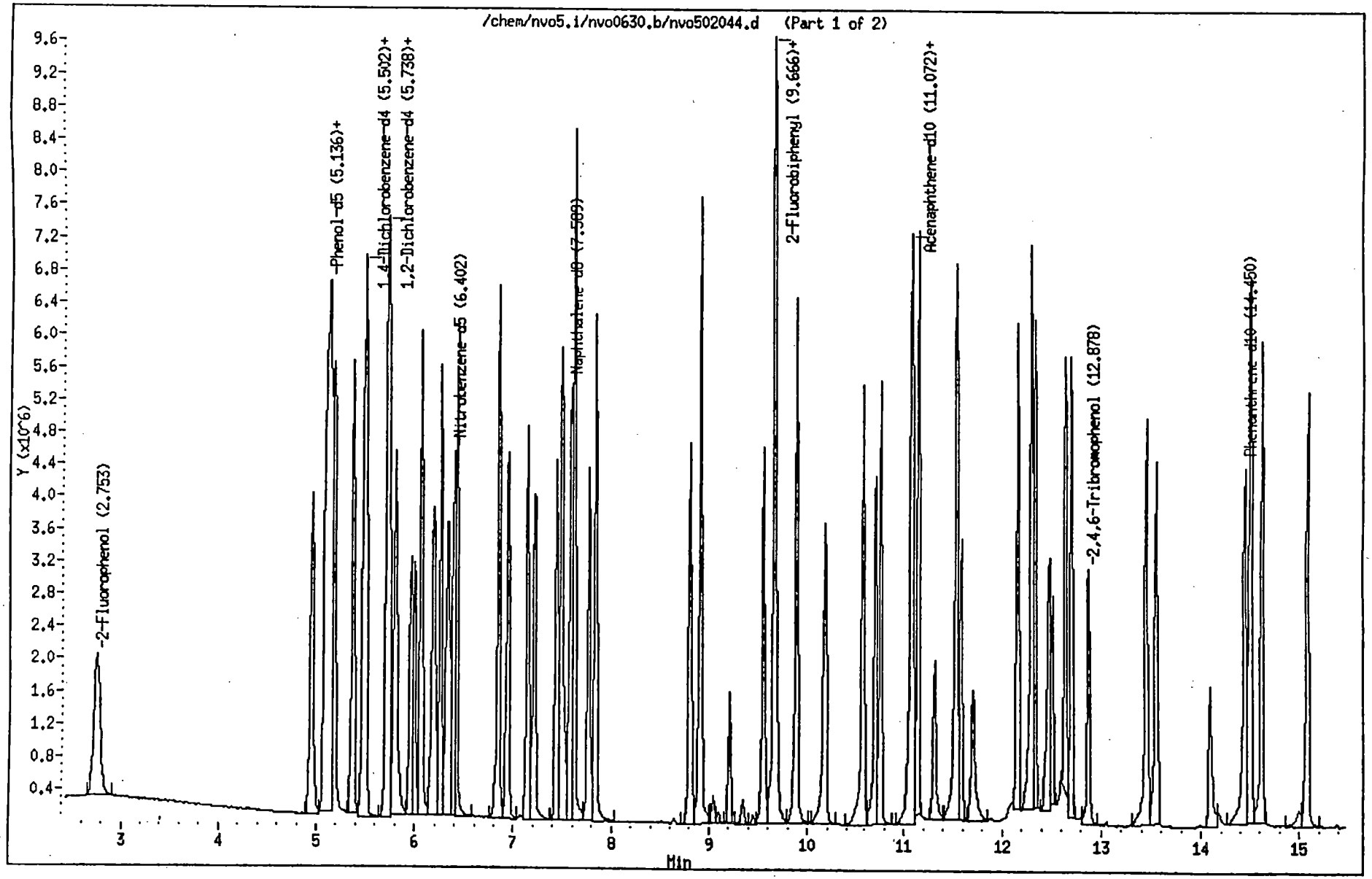
QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/nvo5.i/nvo0630.b/nvo502044.d
Date : 30-JUN-1994 09:02
Client ID: SSTD50
Sample Info: SSTD50 50ng on col
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25

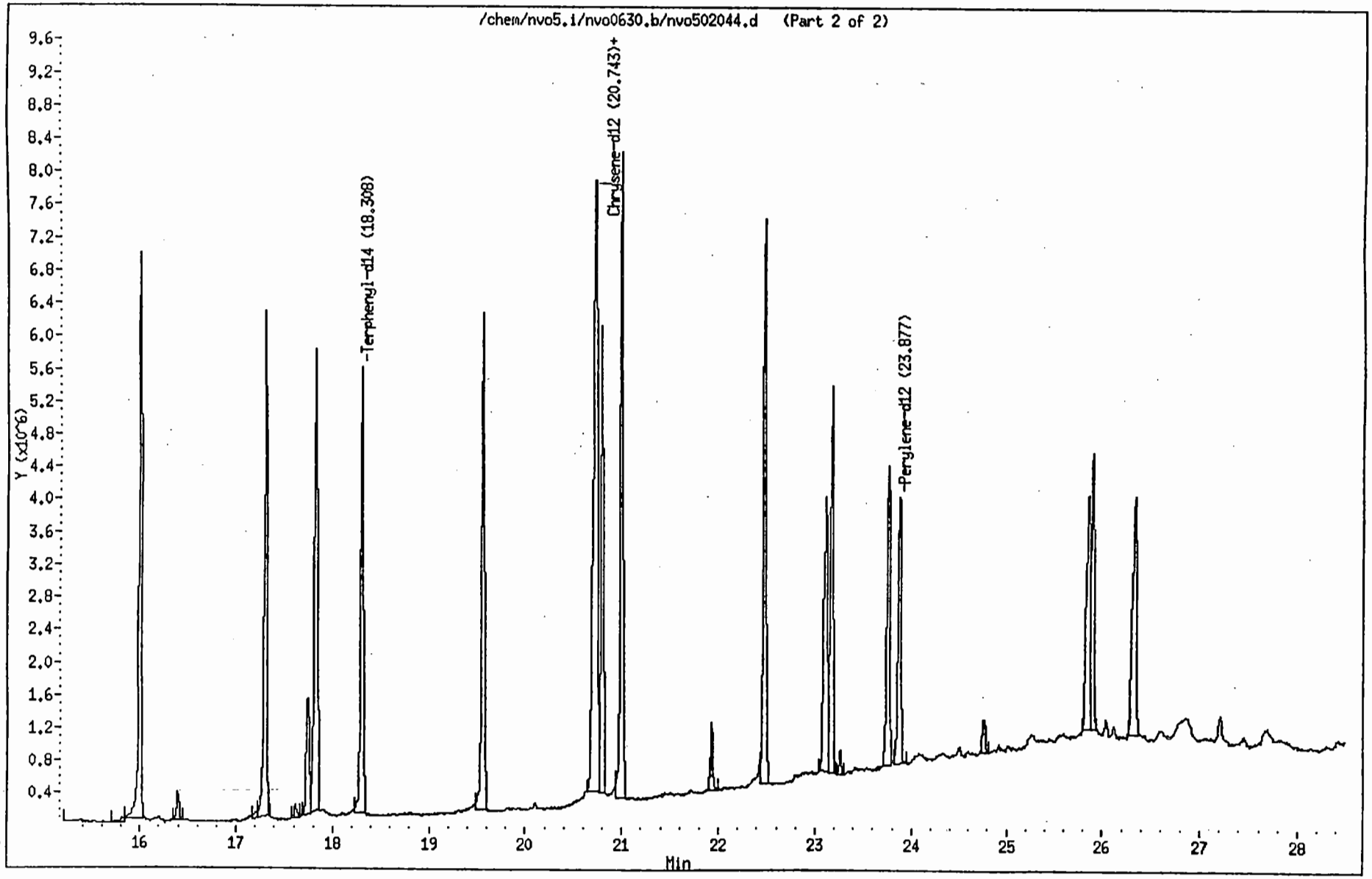


000188

Data File: /chem/nvo5.i/nvo0630.b/nvo502044.d
Date : 30-JUN-1994 09:02
Client ID: SSTD50
Sample Info: SSTD50 50ng on col
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



000189

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKS1

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Matrix: (soil/water) SOIL Lab Sample ID: SBLKS1

Sample wt/vol: 1.0 (g/mL) G Lab File ID: NVO502052.D

Level: (low/med) MED Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted:06/28/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 06/30/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	10000	U
111-44-4	Bis(2-Chloroethyl)ether	10000	U
95-57-8	2-Chlorophenol	10000	U
541-73-1	1,3-Dichlorobenzene	10000	U
106-46-7	1,4-Dichlorobenzene	10000	U
95-50-1	1,2-Dichlorobenzene	10000	U
95-48-7	2-Methylphenol	10000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10000	U
106-44-5	4-Methylphenol	10000	U
621-64-7	N-Nitroso-di-n-propylamine	10000	U
67-72-1	Hexachloroethane	10000	U
98-95-3	Nitrobenzene	10000	U
78-59-1	Isophorone	10000	U
88-75-5	2-Nitrophenol	10000	U
105-67-9	2,4-Dimethyphenol	10000	U
111-91-1	Bis(2-Chloroethoxy)methane	10000	U
120-83-2	2,4-Dichlorophenol	10000	U
120-82-1	1,2,4-Trichlorobenzene	10000	U
91-20-3	Naphthalene	10000	U
106-47-8	4-Chloroaniline	10000	U
87-68-3	Hexachlorobutadiene	10000	U
59-50-7	4-Chloro-3-methylphenol	10000	U
91-57-6	2-Methylnaphthalene	10000	U
77-47-4	Hexachlorocyclopentadiene	10000	U
88-06-2	2,4,6-Trichlorophenol	10000	U
95-95-4	2,4,5-Trichlorophenol	25000	U
91-58-7	2-Chloronaphthalene	10000	U
88-74-4	2-Nitroaniline	25000	U
131-11-3	Dimethyl phthalate	10000	U
208-96-8	Acenaphthylene	10000	U
606-20-2	2,6-Dinitrotoluene	10000	U
99-09-2	3-Nitroaniline	25000	U
83-32-9	Acenaphthene	10000	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKS1

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Matrix: (soil/water) SOIL Lab Sample ID: SBLKS1

Sample wt/vol: 1.0 (g/mL) G Lab File ID: NVO502052.D

Level: (low/med) MED Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 06/28/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 06/30/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	25000	U
100-02-7	4-Nitrophenol	25000	U
132-64-9	Dibenzofuran	10000	U
121-14-2	2,4-Dinitrotoluene	10000	U
84-66-2	Diethyl phthalate	10000	U
7005-72-3	4-Chlorophenyl-phenylether	10000	U
86-73-7	Fluorene	10000	U
100-01-6	4-Nitroaniline	25000	U
534-52-1	4,6-Dinitro-2-methylphenol	25000	U
86-30-6	N-Nitrosodiphenylamine (1)	10000	U
101-55-3	4-Bromophenyl-phenylether	10000	U
118-74-1	Hexachlorobenzene	10000	U
87-86-5	Pentachlorophenol	25000	U
85-01-8	Phenanthrene	10000	U
120-12-7	Anthracene	10000	U
86-74-8	Carbazole	10000	U
84-74-2	Di-n-butylphthalate	10000	U
206-44-0	Fluoranthene	10000	U
129-00-0	Pyrene	10000	U
85-68-7	Butylbenzylphthalate	10000	U
91-94-1	3,3'-Dichlorobenzidine	10000	U
56-55-3	Benzo(a)anthracene	10000	U
218-01-9	Chrysene	10000	U
117-81-7	bis(2-Ethylhexyl)phthalate	10000	U
117-84-0	Di-n-octylphthalate	10000	U
205-99-2	Benzo(b)fluoranthene	10000	U
207-08-9	Benzo(k)fluoranthene	10000	U
50-32-8	Benzo(a)pyrene	10000	U
193-39-5	Indeno(1,2,3-cd)pyrene	10000	U
53-70-3	Dibenzo(a,h)anthracene	10000	U
191-24-2	Benzo(g,h,i)perylene	10000	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKS1

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 50788

Matrix: (soil/water) SOIL Lab Sample ID: SBLKS1

Sample wt/vol: 1.0 (g/mL) G Lab File ID: NVO502052.D

Level: (low/med) MED Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted:06/28/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 06/30/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

Number TICs found: 0

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

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

Data File: /chem/nvo5.i/nvo0630.b/nvo502052.d
Report Date: 07-Jul-1994 07:58

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

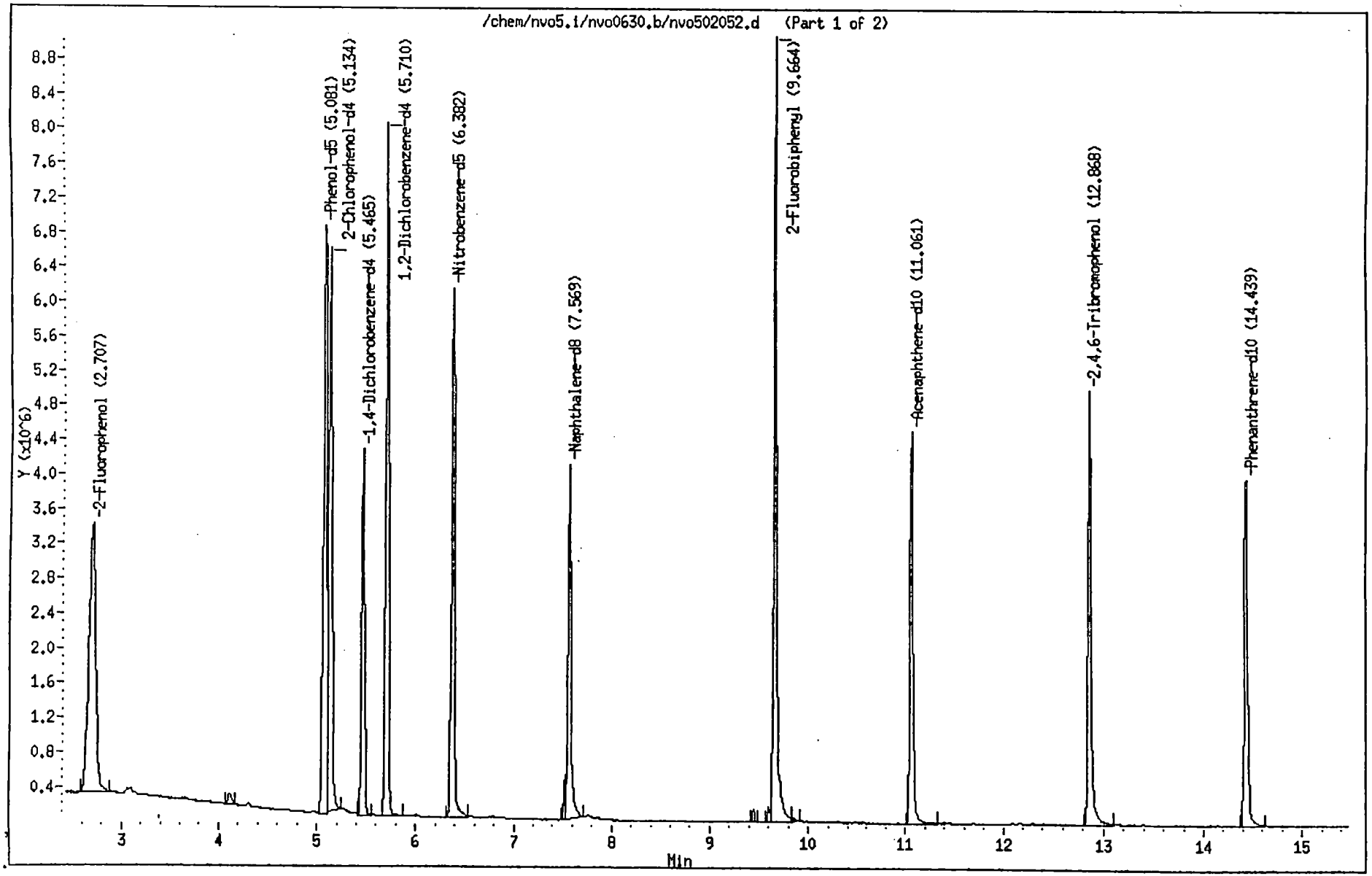
Data file : /chem/nvo5.i/nvo0630.b/nvo502052.d
Lab Smp Id: SBLKS1 Client Smp ID: SBLKS1
Inj Date : 30-JUN-1994 16:38 Autotune Date: 26-May-94 08:31
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : SBLKS1
Misc Info : CDM Hanford N. Slope
Comment :
Method : /chem/nvo5.i/nvo0630.b/clp390epc.m
Meth Date : 06-Jul-1994 16:51 user2 Quant Type: ISTD
Cal Date : 30-JUN-1994 09:02 Cal File: nvo502044.d
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
* 1 1,4-Dichlorobenzene-d4	152.00	5.465	5.476	(1.000)	1259862	40	
$ 2 2-Fluorophenol	112.00	2.707	2.753	(0.495)	3946537	100	50000
$ 3 Phenol-d5	99.00	5.081	5.110	(0.930)	5185952	100	53000
$ 6 2-Chlorophenol-d4	132.00	5.134	5.153	(0.939)	3766272	110	54000
$ 10 1,2-Dichlorobenzene-d4	152.00	5.710	5.721	(1.045)	2276335	83	41000
* 17 Naphthalene-d8	136.00	7.569	7.589	(1.000)	3961950	40	
$ 18 Nitrobenzene-d5	82.00	6.382	6.393	(0.843)	4010613	83	42000
* 31 Acenaphthene-d10	164.00	11.061	11.072	(1.000)	2055051	40	
$ 35 2-Fluorobiphenyl	172.00	9.664	9.666	(0.874)	5957705	79	39000
$ 51 2,4,6-Tribromophenol	330.00	12.868	12.878	(1.163)	1431165	100	52000
* 52 Phenanthrene-d10	188.00	14.430	14.450	(1.000)	3017696	40	
* 63 Chrysene-d12	240.00	20.715	20.743	(1.000)	2084224	40	
$ 65 Terphenyl-d14	244.00	18.315	18.308	(0.884)	5076935	86	43000
* 71 Perylene-d12	264.00	23.866	23.886	(1.000)	2248563	40	

Data File: /chem/nvo5.i/nvo0630.b/nvo502052.d
Date : 30-JUN-1994 16:38
Client ID: SBLKS1
Sample Info: SBLKS1
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25

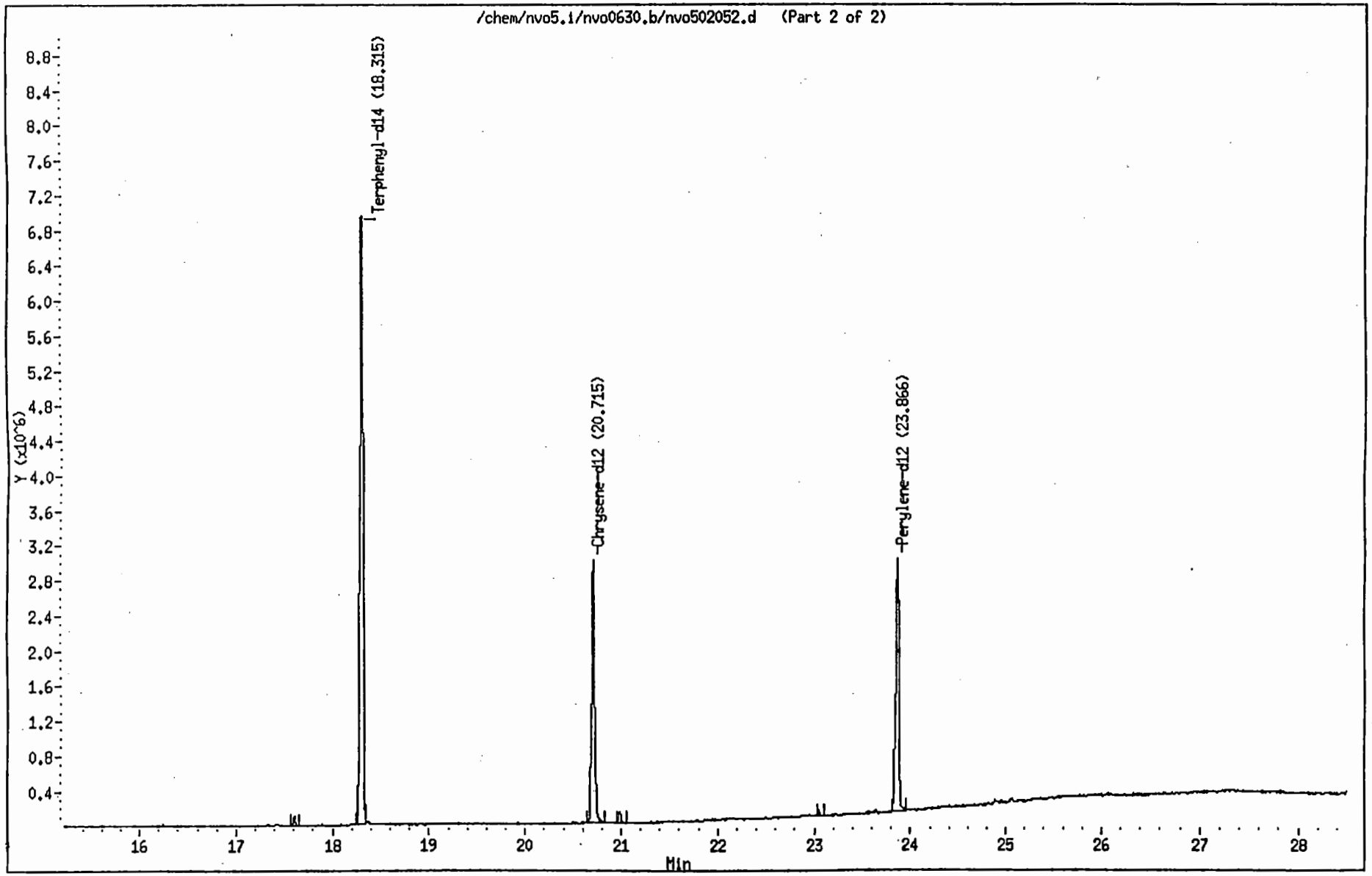


000194

Data File: /chem/nvo5.i/nvo0630.b/nvo502052.d
Date : 30-JUN-1994 16:38
Client ID: SBLKS1
Sample Info: SBLKS1
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



000195

0513356.0278

Other Relevant Documents

GC/MS Semivolatiles Calculations
Soil Samples

$$RRF = \frac{(A_x)(C_{is})}{(A_{is})(C_x)}$$

$$\text{Sample Concentration } (\mu g/Kg) = \frac{(A_x)(I_s)(V_t)}{(A_{is})(RRF)(V_i)(W_s)(D)}$$

A_x = Area of the characteristic ion for the compound to be measured

A_{is} = Area of the characteristic ion for the internal standard

C_x = Standard concentration for the compound to be measured (ng/µL)

C_{is} = Concentration for the internal standard (ng/µL)

I_s = Amount of internal standard injected in nanograms (ng)

V_i = Volume of extract injected (µL)

V_t = Volume of total extract (µL)

W_s = Weight of sample extracted (grams)

$D = \frac{100 - \%\ \text{moisture}}{100}$

BOOK NO: 587 031

ESE ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

ORGANIC LABORATORY/EXTRACTION LOG SHEET

PROJECT: CDM Hanford N Slope
PROJECT NO.: 19440022G0202 CASE NO.: NA
EXTRACTOR(S): DJD(2296) CLEAN-UP: GPC
DATE: 6/28/94 TIME: 10 AM

EXTRACTION METHOD: mid level BNA Soil
SAMPLE FRACTION: SS
CHECKED BY: CAT
BALANCE USED: #4

SAMPLE NO.	VOLUME-ml MASS-gr.	INITIAL/ FINAL pH	TYPE/DATE OF CLEAN-UP	FINAL VOL. SOLVENT	SURRO-GATE ADDED Y/N	COMMENTS
CDMHA0552*6	1.0g	6.13	GPC	1.0ml MeCl2	Y	0.5ml to All 3/90 CLP surrogate
6MS		NA				1005-6-1 150 Acids 100 BN ug/ml WAV 6/9/94
6MSD						
BLK						0.5ml to 6MS, 6MSD
						3/90 CLP Matrix 1000-6-1 150 Acids 100 BN
						AT 6/9/94 Exp 6/9/95
						Spiked: [illegible] wit CAT
						MeCl2 Lot# BH392

CHAIN-OF-CUSTODY RECORD

FORM 87262

000198

PROJECT CDM Hanford N. Slope

Notebook No. 1041

Continued From Page

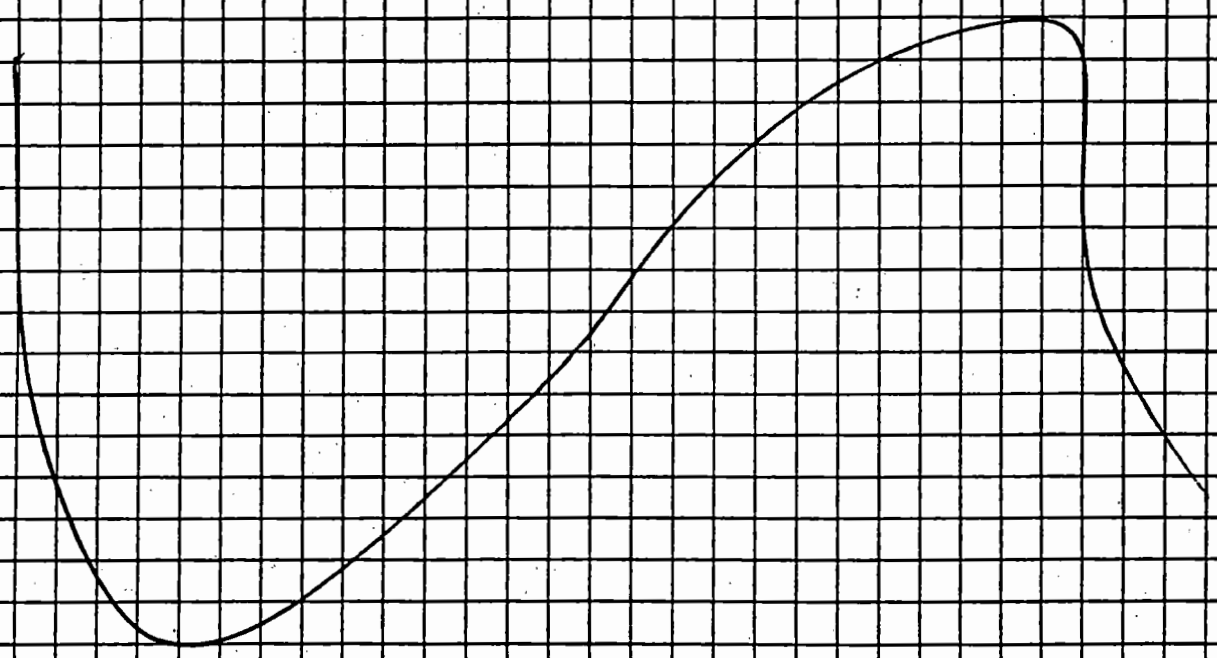
Ext: DJD

Method Med level BNA Soil

Samples: CDMHNSS27 6, 6ms, 6msD, BLK

1. weighed up 1.0g of sample, Added 2g of powdered Na_2SO_4 to dry used powdered Na_2SO_4 for BLK 1.0g
2. spiked samples
3. Added 9.5ml $MeCl_2$ to #6 & BLK
   Added 9.0ml $MeCl_2$ to 6ms, 6msD
4. put $MeCl_2$ through pipet with 2-3cm glasswool collected in G.C. tube
5. loaded on GPC 1002A 6-28-94 DJD
   Conc to ~ 10ml 6/29/94

Put microsaturation conc to 1ml, transfer to autoinjection vials, conc to 0.5ml under N_2 - AT 6/30/94



Continued on Page

Read and Understood By

Dana Dechaw 6-28-94 — Signed — Date

AT — Signed — 6/30/94 — Date

DATE 6/28/94 SAMPLES CDM HNSS 2*6, 6MS, 6MSD
BIK

METHOD mid level BNA soil

Conc ~ 10ml

Chain of Custody	TOGPC DJD 6-28-94 1002A	to FRINGE B NM 6/29/94	to GCMS NT 6/30/94	Rec'd GC/MS 6/30/94 AT

000200

ESE ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

CHROMATOGRAPHIC ANALYSIS LOG

Date: 6-28-94
Analyst: DJD
Project: ICPKE APG Task 10 CDM Hanford N Slope
Case No.: NA
Instrument ID: 1002A
Data System ID: NA
Analysis Type: 3/90 BNA Sos 1

COLUMN	INJECTOR	DETECTOR
Length	Type	Type
OD	Temp °C	Attn.
ID	Volume	Range
Phase	Carrier Gas	Temp °C
Thickness	Type	Make-up
Support	Flow Rate	
Loading		
Oven Temp. Initial °C	for Min.	
Rate A	Final Temp A °C	for Min.
Rate B	Final B °C	for Min.

Comments: GPCCHK=1.0ml 3/90 GPC check grep 6/14/94 by AJ Exp 12/14/94 890:26 + 9.0ml MeCl2
SPKCHK/End STD=0.5ml 3/90 CLP Surrogate 1005-4-1 150 Acids 100 ANS WAV 6/14/94 Exp 6/14/95 + 0.5ml 3/90 CLP Matrix
1005-4-1 150 Acids 1.0 ANS 1ml WAV 5/2/94 Exp 5/2/95 + 9.0ml MeCl2

Run No.	Sample No.	Run No.	Sample No.	Run No.	Sample No.
1	GPC CHK		D = 24		MeCl2 Lot#BH1649
2	SPK CHK		C = 26		Temp = 21.7°C
3	MeCl2		W = 10		Chart speed = 10cm/hr
4	KE10BR* B1K				Flow Rate = 5.1ml/min
5	CDMHNSS2* B1K				
6	~~KE10BR~~ KE10BR* 2ms KE10BR				
7	↓ 150 Acids 100 ANS 6-28-94 2msD				
8	CDMHNSS2* 6MS				
9	↓ 6msD				
10	MeCl2				
11	KE10BR* 1				
12	↓ 2				
13	↓ 3				
14	KE100C* 34				
15	KE10MS* 2				
16	CDMHNSS2* 6				
17	End STD				

FORM 87303

BOOK NO: 731

000014

000201

Standards were prepared at 4 levels by dilution of the CLP 3/90 SOW stock standard (1005-1-1) with methylene chloride.

1000-7-1 10µg/mL $\frac{(50\mu L)(200\mu g/mL)}{1mL} = 10\mu g/mL$

1000-7-2 40µg/mL $\frac{(200\mu L)(200\mu g/mL)}{1mL} = 40\mu g/mL$

1000-7-3 60µg/mL $\frac{(300\mu L)(200\mu g/mL)}{1mL} = 60\mu g/mL$

1000-7-4 80µg/mL $\frac{(400\mu L)(200\mu g/mL)}{1mL} = 80\mu g/mL$

Continued on Page

Read and Understood By

Signed 6/16/94 Date Signed 6/16/94 Date

Notebook No. 1000

PROJECT CLP 3/90 SOW Daily Calibration Curve

Continued From Page

1000-8-1

Daily calibration standards were prepared by pipeting 1.25 mL of the 200µg/mL CLP stock standard (1005-1-1) into a 10mL volumetric flask and diluting to the mark with methylene chloride.

$$25\mu g/mL = \frac{(1.25mL)(200\mu g/mL)}{10mL} = 25\mu g/mL$$

Continued on Page

Read and Understood By

Signed — Date 6/16/94 — Signed — Date 6/16/94

Continued From Page

1005-2-1

The indicated volume of each of the following Pulsed Standards was pipeted into a 20-ml volumetric flask and diluted to the mark with meOH.

Expires 6/9/95

$$\frac{(2\text{ ml})(2000\ \mu g/ml)}{20\text{ ml}} = 200\ \mu g/ml$$

Standard	Conc	Volume	Lot
BSG-BN-2	2000 µg/ml	2 ml	09401125A
C05-X	2000 µg/ml	2 ml	09309023A
H2CAL-ACIDS	↓	↓	09306023B
ESB-SV-X			09306223B
CLP 90-6205			09403750
CLP90-6205	1000 µg/ml	1 ml	09402040

Continued on Page

Read and Understood By

Signed	Date	Signed	Date
William C. [illegible]	6/9/94	[illegible]	6/9/94

[redacted]

Notebook No. 1005

PROJECT CLP 3/90 SOW Surrogate Spiking Solution

Continued From Page –

1005-61

The CLP 3/90 SOW Surrogate Spiking Solution was prepared by pipeting 7.5 ml of the protocol Acid Surrogate Solution and 10 ml of the Protocol B/N Surrogate Solution into a 100 ml flask and diluted to the mark with MeOH.

Acid conc

$$\frac{(7.5\ ml)(2000\ ug/ml)}{100\ ml} = 150\ ug/ml$$

B/N Conc

$$\frac{(10.0\ ml)(1000\ ug/ml)}{100\ ml} = 100\ ug/ml$$

Protocol analytical supplies, inc.

CAT# CLP90-SA5
LOT# 0930727B
DATE OPENED
CLP ACID SURROGATE
FOR RESEARCH USE ONLY

Contains 5 ml @ 2000 ug/ml of the following in Methanol [67-56-1]:
2-Chlorophenol-d4
2-Fluorophenol
Phenol-d5
2,4,6-Tribromophenol

195 Lehigh Avenue, Lakewood, NJ 08701 908-901-8600

CONTAINS MATERIALS KNOWN OR SUSPECTED TO CAUSE CANCER
DANGER-FLAMMABLE

Protocol analytical supplies, inc.

CAT# CLP90-SB5
LOT# 0940204D
DATE OPENED
B/N SURROGATE (3/90)
FOR RESEARCH USE ONLY

Contains 5 ml @ 1000 ug/ml of the following in Methylene Chloride [75-09-2]:

1,2-Dichlorobenzene-d4	2199-69-1
2-Fluorobiphenyl	321-60-8
Nitrobenzene-d5	4165-60-0
Terphenyl-d14	1718-51-0

448 Lincoln Blvd., Middlesex, NJ 08846

CONTAINS MATERIALS KNOWN OR SUSPECTED TO CAUSE CANCER
DANGER-FLAMMABLE

Continued on Page

Read and Understood By

Signed	Date	Signed	Date
[signature]	6/8/94	[signature]	6/9/94

Notebook No. 1000

PROJECT CLP 3/90 SOW Matrix Spiking Solution

Continued From Page —

1000-6-1

The CLP 3/90 Matrix Spike Solution was prepared by pipeting 3.75 mL of the Protocol CLP Acid Spike Solution and 5mL of the CLP B/N Spike Solution listed below into a 50mL volumetric flask and diluting to the mark with MeOH.

Acid Curve

$$\frac{(3.75\,mL)(2000\,\mu g/mL)}{50\,mL} = 150\,\mu g/mL$$

B/N Curve

$$\frac{(5.0\,mL)(1000\,\mu g/mL)}{50\,mL} = 100\,\mu g/mL$$

Protocol analytical supplies, inc.

CAT# CLPS-MSA5
LOT# 0940201D
DATE OPENED
CLP ACID SPIKE
FOR RESEARCH USE ONLY

Contains 2000 ug/ml of the following in Methylene Chloride[75-09-2]:

4-Chloro-3-Methylphenol	59-50-7
2-Chlorophenol	95-57-8
4-Nitrophenol	100-02-7
Pentachlorophenol	87-86-5
Phenol	108-95-2

448 Lincoln Blvd., Middlesex, NJ 08846

CONTAINS MATERIALS KNOWN OR SUSPECTED TO CAUSE CANCER DANGER-FLAMMABLE

Protocol analytical supplies, inc.

CAT# CLPS-MSB5
LOT# 0931229F
DATE OPENED
CLP B/N SPIKE
FOR RESEARCH USE ONLY

Contains 1000 ug/ml of the following in Methylene Chloride[75-09-2]:

Acenaphthene	83-32-9
1,4-Dichlorobenzene	106-46-7
2,4-Dinitrotoluene	121-14-2
N-Nitroso-Di-n-Propylamine	621-64-7
Pyrene	129-00-0
1,2,4-Trichlorobenzene	120-82-1

448 Lincoln Blvd., Middlesex, NJ 08846

CONTAINS MATERIALS KNOWN OR SUSPECTED TO CAUSE CANCER DANGER-FLAMMABLE

Continued on Page

Read and Understood By

Signed 6/9/94 Date

Signed 7/7/94 Date

9513356.0284

Organochlorine Pesticides

& PCBs

Case Narrative

SDG No.: 50744
Pesticides/PCBs

1. The USEPA contract laboratory program statement of work for organics analysis dated 3/90 revision OLM01.8 was followed.

2. The following codes are used on the data report:
   NC = Not Confirmed by the other column.
   BDL = Below Detection Limit.

3. Samples H83LA0301, H83LA0301MS, and H83LA0301MSD have low decachlorobiphenyl surrogate recoveries. The other surrogate tetrachloro-m-xylene is within QC limits. Both surrogates are within QC limits for sample PBLK1. Five out of twelve spike recoveries are outside limits for the MS and MSD. No target compounds are in the samples. The results for the samples are acceptable.

4. On FORM 6E two compounds have %RSD >30% and one compound has %RSD >20% on the DB608 column. The results are acceptable.

QC Summary

2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

GC Column(1): DB608 ID: .53 (mm) GC Column(2): DB1701 ID: .53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK1	97	103	98	101			0
02	H83LA0301	110	62	8 *	80			1
03	H83LA0301M	125	64	7 *	79			1
04	H83LA0301M	111	63	7 *	9 *			2
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60 -150)
DCB = Decachlorobiphenyl	(60 -150)

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

FORM II PEST-2 3/90

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No: 44022 SAS No.: SDG No.: 50744

Matrix Spike - EPA Sample No.: H83LA0301

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	17	0.0	8.2	48	46-127
Heptachlor	17	0.0	5.1	30 *	35-130
Aldrin	17	0.0	5.3	31 *	34-132
Dieldrin	34	0.0	13	38	31-134
Endrin	34	0.0	18	53	42-139
4,4'-DDT	34	0.0	13	38	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
gamma-BHC (Lindane)	17	7.0	41 *	16	50	46-127
Heptachlor	17	4.7	28 *	7	31	35-130
Aldrin	17	5.0	29 *	7	43	34-132
Dieldrin	34	14	41	8	38	31-134
Endrin	34	17	50	6	45	42-139
4,4'-DDT	34	12	35	8	50	23-134

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

* Values outside of QC limits

RPD: 0 out of 6 outside limits

Spike Recovery: 5 out of 12 outside limits

COMMENTS:

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK1

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

Lab Sample ID: MB*QC*1 Lab File ID:

Matrix:(soil/water) SOIL Extraction: (SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) Y Date Extracted: 06/23/94

Date Analyzed (1): 06/29/94 Date Analyzed (2): 06/29/94

Time Analyzed (1): 0711 Time Analyzed (2): 0752

Instrument ID (1): HP58907 Instrument ID (2): HP58907

GC Column (1): DB608 ID:.53 (mm) GC Column (2): DB1701 ID:.53 (mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	H83LA0301	CDMHNSS2*6	06/29/94	06/29/94
02	H83LA0301MS	SPM1*CDMHNSS2	06/29/94	06/29/94
03	H83LA0301MS	SPM2*CDMHNSS2	06/29/94	06/29/94
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS:

Sample Data

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H83LA0301

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS2*6

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 2 decanted: (Y/N) Y Date Received: 06/21/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/23/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 06/29/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.1 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.4	U
72-55-9	4,4'-DDE	3.4	U
72-20-8	Endrin	3.4	U
33213-65-9	Endosulfan II	3.4	U
72-54-8	4,4'-DDD	3.4	U
1031-07-8	Endosulfan sulfate	3.4	U
50-29-3	4,4'-DDT	3.4	U
72-43-5	Methoxychlor	17.	U
53494-70-5	Endrin ketone	3.4	U
742-93-4	Endrin aldehyde	3.4	U
5103-71-9	alpha-Chlordane	1.7	U
5566-34-7	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170.	U
12674-11-2	Aroclor-1016	34.	U
11104-28-2	Aroclor-1221	68.	U
11141-16-5	Aroclor-1232	34.	U
53469-21-9	Aroclor-1242	34.	U
12672-29-6	Aroclor-1248	34.	U
11097-69-1	Aroclor-1254	34.	U
11096-82-5	Aroclor-1260	34.	U

Software Version: 4.0<1C29>
Sample Name : CDMHNSS2*6 6-23-94 Time : 7/1/94 11:24 AM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/33

Interface Serial # : NONE Data Acquisition Time: 6/29/94 07:52 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A033.RAW
Result File : C:\TC4\HP58907\866A033.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A033.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A033.RST
Calib Method : C:\TC4\HP58907\866A from C:\TC4\HP58907\866A033.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul Area Reject : 5921.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 15 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 172

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	4.589		33549	B	9074	-------
2	4.730		110476	V	19137	-------
3	4.886		22339	V	5831	-------
4	4.954		69263	V	19663	-------
5	5.042		87197	V	20373	-------
6	5.220	TCX	220506	*V	73398	0.6168
7	5.280		1189097	*V	204757	-------
8	5.600		507334	V	86301	-------
9	5.713		116420	V	28962	-------
10	5.797		160948	V	31530	-------
11	5.892		28031	V	7894	-------
12	6.005		114199	V	29001	-------
13	6.147		897973	V	132874	-------
14	6.254		204818	V	42996	-------
15	6.554		94500	B	21674	-------

Peak	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
16	6.749		81711	*B	12828	-------
17	6.989		194272	*B	26827	-------
18	7.129		148332	*V	19752	-------
19	7.487		128298	B	15118	-------
20	7.768		57788	*B	14531	-------
21	7.904		21349	*B	5742	-------
22	8.048		273862	*V	45949	-------
23	8.256		112861	B	14672	-------
24	8.576		84795	B	12446	-------
25	8.795		400395	V	68142	-------
26	9.092		160912	B	19806	-------
27	9.279		192573	V	20078	-------
29	9.738		151299	B	27289	-------
30	9.997		152566	*B	19996	-------
31	10.172	ALDRIN	24830	*V	5324	0.0152
32	10.324		21282	B	5344	-------
33	10.406		24265	V	5401	-------
34	10.572		92902	V	15261	-------
35	10.939		152762	B	11802	-------
36	11.400		79093	B	7587	-------
37	11.696		19883	B	3934	-------
38	12.088		202983	B	18993	-------
39	12.521		49024	*B	7663	-------
40	12.790		15843	B	1893	-------
41	12.889		24040	*V	3844	-------
42	13.043	GAMMA-CHLORDANE	8148	*B	2599	-0.4666
43	13.209		50047	B	5720	-------
44	13.431		6458	V	1466	-------
46	13.770	ALPHA-CHLORDANE	27256	*B	3578	-0.3689
47	14.019		44138	B	6880	-------
48	14.243		9227	B	2563	-------
49	14.388		65095	V	11040	-------
50	14.688		33688	B	4492	-------
	14.916		27053	*B	5363	-------
	15.211	DIELDRIN	209795	B	30511	0.4540
54	15.630		136804	B	13312	-------
55	15.770		40049	V	8212	-------
56	15.904		117638	V	19730	-------
57	16.081		18862	V	4120	-------
59	16.305		28588	B	4021	-------
60	16.534		552655	*B	81643	-------
61	16.769		75288	B	13779	-------
62	17.030	ENDOSULFAN B	55622	*B	13868	-0.1276
63	17.167		138557	B	28236	-------
64	17.320		90228	V	17140	-------
65	17.646		274821	*B	44814	-------
66	17.778		208519	*V	46499	-------
67	17.887	P,P'-DDT	11257	B	2782	0.1113
68	18.079	ENDRIN ALDEHYDE	157069	B	28795	-0.0857
69	18.319		44419	*B	11259	-------
70	18.463	ENDOSULFAN SULFATE	76785	B	18296	-0.0067
71	18.683		542143	B	77374	-------
72	18.902		125256	V	21407	-------
73	19.152		498209	B	64384	-------
74	19.294		60718	V	15315	-------
75	19.382		56174	V	11677	-------
76	19.559		237461	V	37041	-------
77	19.665		84709	V	18739	-------
78	19.758		26983	V	7204	-------
79	19.829		9535	V	3794	-------
80	19.963		317060	V	48976	-------
81	20.114		120693	V	26416	-------
82	20.316		81951	B	13527	-------
84	20.465		39309	B	7954	-------
85	20.617	ENDRIN KETONE	27944	B	9175	0.1682
86	20.746		156823	B	37863	-------
87	20.911		37225	B	11514	-------
	20.985		41795	V	9021	-------
	21.041		25626	V	6413	-------
	21.312		23887	B	7958	-------
93	21.490		58001	B	16790	-------
94	21.521		63509	V	18553	-------
95	21.600		54036	V	16537	-------
96	21.660		68714	V	16265	-------
97	21.769		271116	V	27620	-------

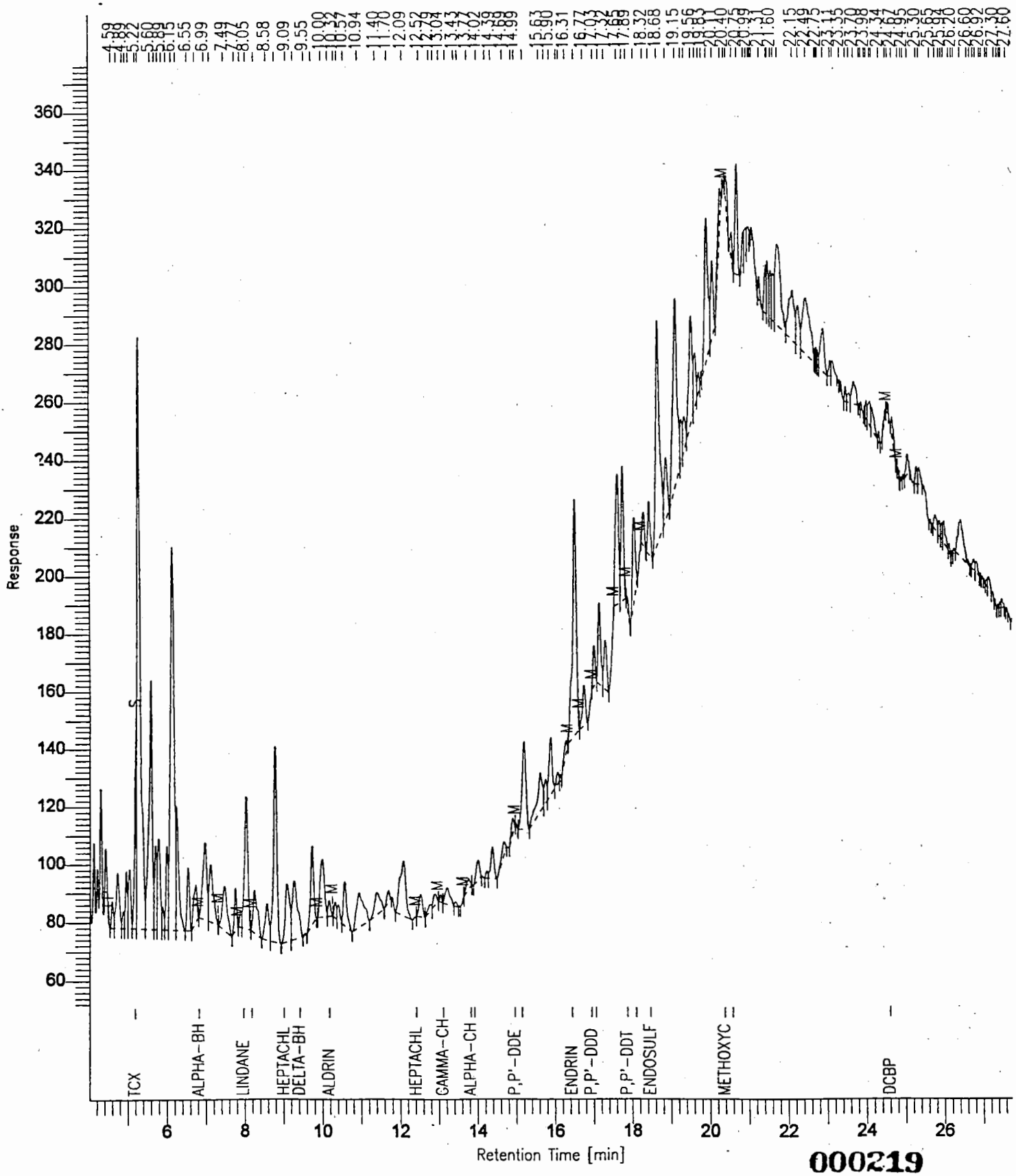
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
98	22.152		170602	V	17128	-------
99	22.294		82850	V	13858	-------
100	22.488		249203	V	19101	-------
101	22.719		8838	V	4961	-------
102	22.751		12697	V	6038	-------
103	22.785		11091	V	5506	-------
104	22.915		101002	V	14535	-------
105	23.106		17225	B	5233	-------
106	23.159		24969	V	5127	-------
108	23.496		13705	B	5361	-------
109	23.582		15127	V	3395	-------
110	23.702		54669	V	7695	-------
112	23.890		6175	V	2822	-------
113	23.980		6000	V	3633	-------
114	24.021		14081	V	6408	-------
115	24.114		40847	V	8489	-------
116	24.156		38461	V	7333	-------
117	24.336		5928	V	3435	-------
118	24.502	VSB 7.5 94	13276	*B	2400	-------
119	24.555	DCBP	6583	*B	3675	-0.1315
120	24.666		24503	B	5683	-------
124	25.062		28883	B	6850	-------
125	25.295		19921	B	5886	-------
126	25.360		25081	V	5847	-------
128	25.775		25082	B	4991	-------
129	25.875		18355	V	5195	-------
130	25.936		14416	V	5708	-------
131	25.991		32546	V	7446	-------
132	26.129		6586	B	3094	-------
135	26.424		121128	B	12747	-------
138	26.751		14510	V	3714	-------
139	26.808		16096	V	3712	-------
143	27.131		16838	V	3886	-------
147	27.473		9370	V	3010	-------
149	27.769		6738	B	1863	-------
150	27.924		47666	V	8547	-------
151	27.970		31552	V	9393	-------
152	28.017		31047	V	9345	-------
153	28.105		19651	V	6622	-------
154	28.177		36709	V	7619	-------
155	28.239		14807	V	5842	-------
156	28.291		27350	V	6026	-------
160	28.853		7745	V	2064	-------
162	29.111		6107	B	2170	-------
163	29.214		6614	V	2014	-------
168	29.603		7941	V	2018	-------
170	29.791		11024	V	2561	-------
			13783104		2395910	

9513356.0290

Chromatogram

.e Name : CDMHNSS2*6 6-23-94
Iame : C:\TC4\HP58907\866A033.RAW
.nod :
Start Time : 4.01 min End Time : 27.74 min
Scale Factor: 0.0 Plot Offset: 51 mV

Sample #:
Date : 7/1/94 11:24 AM
Time of Injection: 6/29/94 07:52 AM
Low Point : 50.73 mV High Point : 377.71 mV
Plot Scale: 327.0 mV



Software Version: 4.0<1C29>
Sample Name : CDMHNSS2*6 6-23-94 Time : 7/5/94 09:16 AM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/35

Interface Serial # : NONE Data Acquisition Time: 6/29/94 08:32 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B034.RAW
Result File : C:\TC4\HP58907\866B034.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B034.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B034.RST
Calib Method : C:\TC4\HP58907\866B from C:\TC4\HP58907\866B034.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5948.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 33 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 85

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	2.799		10750	B	4988	-------
2	2.900		129255	V	23777	-------
3	3.071		18563	B	8890	-------
4	3.223		705858	*B	206650	-------
5	3.267		538689	*V	172905	-------
6	3.336		511651	*V	134347	-------
7	3.467		157123	*V	34325	-------
8	3.579		6222	*B	2856	-------
9	3.675	TCX	356408	*B	95572	0.0174
10	3.950		278833	B	43725	-------
11	4.137		1421851	B	308357	-------
12	4.340		654389	V	114168	-------
13	4.567		427498	V	96240	-------
14	4.776		839503	B	186611	-------
15	4.877		1464745	V	231106	-------

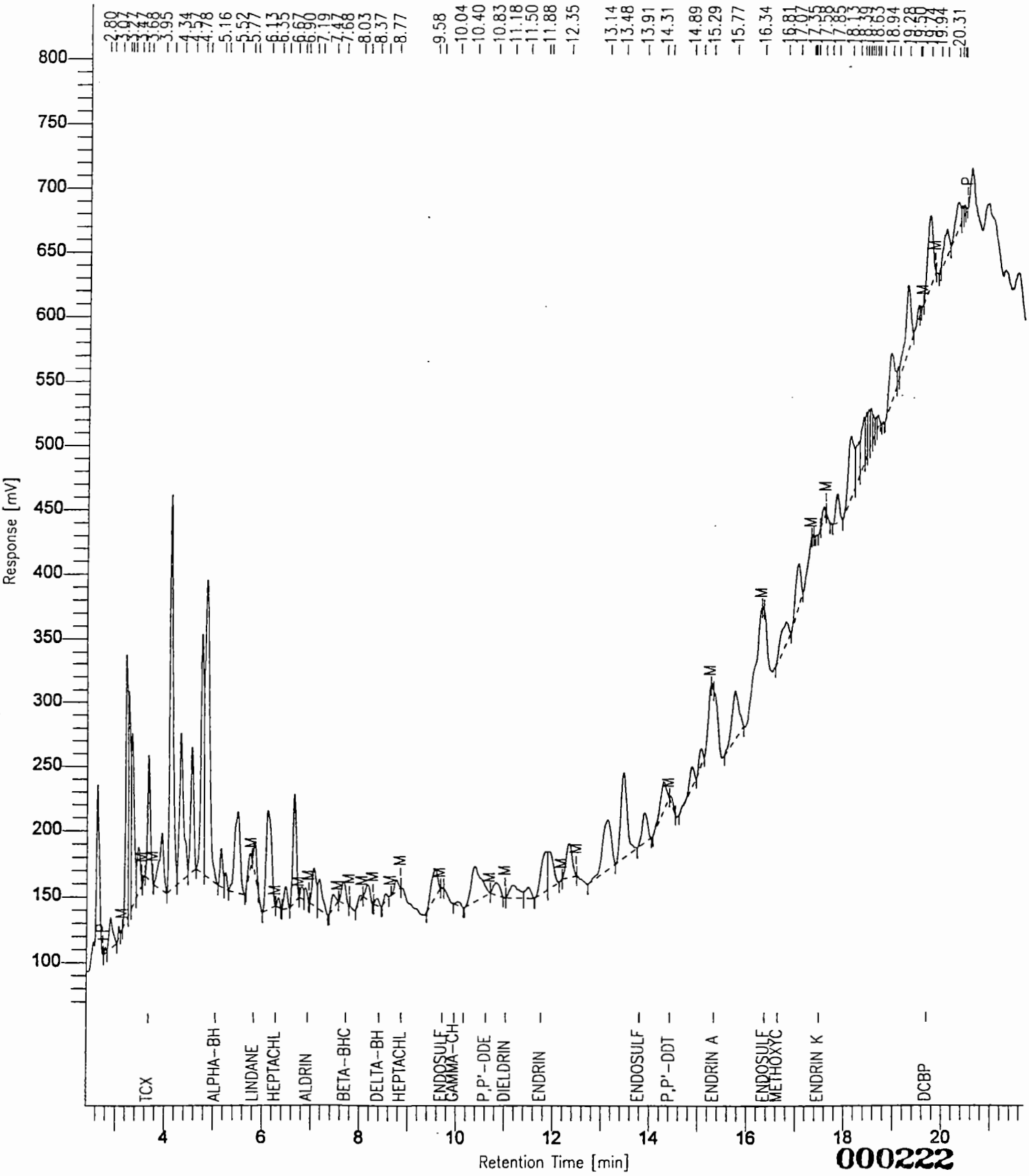
Result File : 866B034.RST, Printed On 7/5/94 09:16 AM

Peak	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
	5.164		115963	B	28833	-------
17	5.259		40568	V	12394	-------
18	5.515		493785	B	61797	-------
19	5.766		57913	*B	10533	-------
20	5.860	LINDANE NC	96589	*B	24649	0.5316
21	6.130		580934	*B	75669	-------
22	6.345		23395	*B	7014	-------
23	6.494		80920	B	16762	-------
24	6.674		408033	*B	82671	-------
25	6.822		38855	*B	9086	-------
26	6.897	ALDRIN BDL	34724	*V	9467	-0.5066
27	7.071		172129	B	28969	-------
28	7.187		149748	V	23190	-------
29	7.470		66126	*B	10729	-------
30	7.683	BETA-BHC NC	101145	*B	16987	-0.4645
31	8.031		22859	*B	3925	-------
32	8.177		71089	*B	11612	-------
33	8.373	DELTA-BHC NC	28432	B	5455	-0.3551
34	8.547		26350	B	5744	-------
35	8.771		51790	*B	8934	-------
36	9.578		206387	*B	21066	-------
38	10.036		19159	B	2894	-------
39	10.396		386397	*B	26944	-------
40	10.834		88481	*B	9377	-------
41	11.175		137119	B	9637	-------
42	11.503		68208	V	8277	-------
43	11.876		275012	B	29807	-------
44	11.939		219828	V	28199	-------
45	12.348		223698	*B	25743	-------
46	13.144		485192	B	37967	-------
47	13.481		606786	V	66238	-------
48	13.913		180295	V	22631	-------
49	14.310		207054	*B	22204	-------
	14.446	P,P'-DDT BDL	23218	*B	4328	0.1541
	14.889		117327	B	16376	-------
	15.079		75207	B	13009	-------
53	15.292	ENDRIN ALDEHYDE BDL	6551	*B	3664	-0.2501
54	15.774		384873	B	37976	-------
56	16.814		219776	B	17157	-------
57	17.069		251961	B	32804	-------
61	17.577		43528	*B	9499	-------
63	17.851		125443	B	22398	-------
64	18.129		409997	B	47583	-------
65	18.288		170289	V	27509	-------
66	18.387		197552	V	36735	-------
67	18.439		95492	V	35159	-------
68	18.488		101701	V	32328	-------
69	18.533		85421	V	28741	-------
70	18.575		46947	V	19646	-------
71	18.634		28098	V	12003	-------
72	18.677		25672	V	9280	-------
74	18.944		297430	B	37998	-------
75	19.076		31679	V	12367	-------
76	19.283		412874	V	50820	-------
77	19.496		39202	V	9968	-------
78	19.527		8826	V	6236	-------
79	19.735	DCBP	428568	*B	55207	0.2142
81	20.073		169367	V	21253	-------
82	20.311		173947	V	21186	-------
83	20.385		28468	V	11914	-------
84	20.437		17012	V	8059	-------
			17302727		3071130	

Chromatogram

Sample Name : CDMHNSS2*6 6-23-94
FileName : C:\TC4\HP58907\866B034.RAW
Method :
Start Time : 2.41 min End Time : 21.71 min
Scale Factor: 0.0 Plot Offset: 61 mV

Sample #:
Date : 7/5/94 09:27 AM
Time of Injection: 6/29/94 08:32 AM
Low Point : 60.95 mV High Point : 805.24 mV
Plot Scale: 744.3 mV



9513356.0292

Standards Data

6D

PESTICIDE INITIAL CALIBRATION OF SINGLE COMPONENT ANALYTES

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

Instrument ID: HP58907 Level (x low): low 1.0 mid 4.0 high 16.0

GC Column: DB608 ID: .53 (mm) Date(s) Analyzed: 06/28/94 06/28/94

COMPOUND	RT OF STANDARDS LOW	MID	HIGH	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	6.82	6.83	6.82	6.82	6.77	6.87
beta-BHC	8.17	8.18	8.17	8.17	8.12	8.22
delta-BHC	9.41	9.41	9.41	9.41	9.36	9.46
gamma-BHC (Lindane)	7.96	7.96	7.96	7.96	7.91	8.01
Heptachlor	9.01	9.01	9.00	9.01	8.96	9.06
Aldrin	10.17	10.17	10.16	10.17	10.12	10.22
Heptachlor epoxide	12.41	12.41	12.40	12.41	12.34	12.48
Endosulfan I	13.91	13.91	13.90	13.91	13.84	13.98
Dieldrin	15.14	15.14	15.13	15.14	15.07	15.21
4,4'-DDE	14.96	14.96	14.96	14.96	14.89	15.03
Endrin	16.43	16.43	16.43	16.43	16.36	16.50
Endosulfan II	17.05	17.05	17.05	17.05	16.98	17.12
4,4'-DDD	16.93	16.94	16.93	16.93	16.86	17.00
Endosulfan sulfate	18.46	18.46	18.46	18.46	18.39	18.53
4,4'-DDT	17.86	17.87	17.86	17.86	17.79	17.93
Methoxychlor	20.38	20.38	20.37	20.37	20.30	20.44
Endrin ketone	20.58	20.58	20.58	20.58	20.51	20.65
Endrin aldehyde	18.09	18.09	18.09	18.09	18.02	18.16
alpha-Chlordane	13.82	13.82	13.82	13.82	13.75	13.89
gamma-Chlordane	13.10	13.10	13.10	13.10	13.03	13.17
Tetrachloro-m-xylene	5.19	5.19	5.18	5.19	5.14	5.24
Decachlorobiphenyl	24.58	24.59	24.58	24.59	24.49	24.69

* Surrogate retention times are measured from Standard Mix A analyses.

Retention time windows are +/- 0.05 minutes for all compounds that elute before Heptachlor epoxide, +/- 0.07 minutes for all other compounds, except +/- 0.10 minutes for Decachlorobiphenyl.

6D
PESTICIDE INITIAL CALIBRATION OF SINGLE COMPONENT ANALYTES

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

Instrument ID: HP58907 Level (x low): low 1.0 mid 4.0 high 16.0

GC Column: DB1701 ID: .53 (mm) Date(s) Analyzed: 06/28/94 06/28/94

COMPOUND	RT OF STANDARDS LOW	MID	HIGH	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	5.05	5.05	5.05	5.05	5.00	5.10
beta-BHC	7.72	7.72	7.72	7.72	7.67	7.77
delta-BHC	8.40	8.40	8.40	8.40	8.35	8.45
gamma-BHC (Lindane)	5.83	5.83	5.83	5.83	5.78	5.88
Heptachlor	6.28	6.28	6.28	6.28	6.23	6.33
Aldrin	6.93	6.93	6.93	6.93	6.88	6.98
Heptachlor epoxide	8.86	8.86	8.86	8.86	8.79	8.93
Endosulfan I	9.72	9.71	9.71	9.71	9.64	9.78
Dieldrin	11.03	11.03	11.03	11.03	10.96	11.10
4,4'-DDE	10.62	10.62	10.62	10.62	10.55	10.69
Endrin	11.76	11.76	11.76	11.76	11.69	11.83
Endosulfan II	13.79	13.79	13.79	13.79	13.72	13.86
4,4'-DDD	13.81	13.80	13.80	13.80	13.73	13.87
Endosulfan sulfate	16.37	16.37	16.37	16.37	16.30	16.44
4,4'-DDT	14.43	14.42	14.43	14.42	14.35	14.49
Methoxychlor	16.64	16.64	16.64	16.64	16.57	16.71
Endrin ketone	17.48	17.48	17.48	17.48	17.41	17.55
Endrin aldehyde	15.33	15.33	15.33	15.33	15.26	15.40
alpha-Chlordane	10.15	10.15	10.15	10.15	10.08	10.22
gamma-Chlordane	9.96	9.96	9.96	9.96	9.89	10.03
Tetrachloro-m-xylene	3.68	3.67	3.67	3.67	3.62	3.72
Decachlorobiphenyl	19.70	19.69	19.69	19.69	19.59	19.79

* Surrogate retention times are measured from Standard Mix A analyses.

Retention time windows are +/- 0.05 minutes for all compounds that elute before Heptachlor epoxide, +/- 0.07 minutes for all other compounds, except +/- 0.10 minutes for Decachlorobiphenyl.

6E

PESTICIDE INITIAL CALIBRATION OF SINGLE COMPONENT ANALYTES

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

Instrument ID: HP58907 Level (x low): low 1.0 mid 4.0 high 16.0

GC Column: DB608 ID: .53 (mm) Date(s) Analyzed: 06/28/94 06/28/94

COMPOUND	CALIBRATION FACTORS LOW	MID	HIGH	MEAN	%RSD
alpha-BHC	3171400	3941900	6337688	4483663	36.8
beta-BHC	2521200	2727450	3236625	2828425	13.0
delta-BHC	2793800	3178750	5210963	3727838	34.8
gamma-BHC (Lindane)	3432400	4139250	6052925	4541525	29.9
Heptachlor	6216800	6526050	7073375	6605408	6.6
Aldrin	3999400	4164450	5345100	4502983	16.3
Heptachlor epoxide	5294200	5327600	5898800	5506867	6.2
Endosulfan I	4621000	4822000	5267225	4903408	6.7
Dieldrin	4233100	4457325	5356744	4682390	12.7
4,4'-DDE	3436800	3804175	4943175	4061383	19.3
Endrin	3775500	4064300	4790925	4210242	12.4
Endosulfan II	4269900	4348000	4990569	4536156	8.7
4,4'-DDD	2490300	2823975	3627506	2980594	19.6
Endosulfan sulfate	4087800	4238925	4626838	4317854	6.4
4,4'-DDT	3218500	3675575	4401219	3765098	15.8
Methoxychlor	2652900	2598325	2416984	2556070	4.8
Endrin ketone	4116400	4562300	5267588	4648763	12.5
Endrin aldehyde	3432000	3365500	3412700	3403400	1.0
alpha-Chlordane	4988800	5149550	5855763	5331371	8.7
gamma-Chlordane	5052400	5140500	5700100	5297667	6.6
Tetrachloro-m-xylene	4690000	5013150	5323925	5009025	6.3
Decachlorobiphenyl	7906200	7551600	6611738	7356513	9.1

* Surrogate calibration factors are measured from Standard Mix A analyses.

%RSD must be less than or equal 20.0% for all compounds except the surrogates, where %RSD must be less than or equal to 30.0%. Up to two target compounds, but not surrogates, may have %RSD greater than 20.0% but less than or equal to 30.0%.

6E
PESTICIDE INITIAL CALIBRATION OF SINGLE COMPONENT ANALYTES

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

Instrument ID: HP58907 Level (x low): low 1.0 mid 4.0 high 16.0

GC Column: DB1701 ID: .53 (mm) Date(s) Analyzed: 06/28/94 06/28/94

COMPOUND	CALIBRATION FACTORS LOW	MID	HIGH	MEAN	%RSD
alpha-BHC	16036200	18936650	20353663	18442171	11.9
beta-BHC	7764400	8459400	8464988	8229596	4.9
delta-BHC	12018800	14749850	17425850	14731500	18.4
gamma-BHC (Lindane)	16120800	18659100	19178413	17986104	9.1
Heptachlor	20619200	21349200	20569888	20846096	2.1
Aldrin	16906800	17876350	19506038	18096396	7.3
Heptachlor epoxide	17395000	18237450	19094850	18242433	4.7
Endosulfan I	15670800	16387350	16560100	16206083	2.9
Dieldrin	15139300	16635975	17032675	16269317	6.1
4,4'-DDE	9478000	11490900	14096175	11688358	19.8
Endrin	12934400	14198900	14651738	13928346	6.4
Endosulfan II	14079400	14161350	14902744	14381165	3.2
4,4'-DDD	7028800	9913275	11075081	9339052	22.3
Endosulfan sulfate	10613200	10960925	11562669	11045598	4.3
4,4'-DDT	9429600	12125650	13541244	11698831	17.9
Methoxychlor	5281960	5617845	5371924	5423910	3.2
Endrin ketone	10722800	11670075	12184350	11525742	6.4
Endrin aldehyde	7608500	9373125	9347225	8776283	11.5
alpha-Chlordane	18567000	18367300	18538225	18490842	0.6
gamma-Chlordane	17874800	17594250	18122338	17863796	1.5
Tetrachloro-m-xylene	13881600	14308300	13198425	13796108	4.1
Decachlorobiphenyl	13706200	13434550	11971419	13037390	7.2

* Surrogate calibration factors are measured from Standard Mix A analyses.

%RSD must be less than or equal 20.0% for all compounds except the surrogates, where %RSD must be less than or equal to 30.0%. Up to two target compounds, but not surrogates, may have %RSD greater than 20.0% but less than or equal to 30.0%.

6F

PESTICIDE INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

Instrument ID: HP58907 Date(s) Analyzed: 06/28/94 06/28/94

GC Column: DB608 ID: .53 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Toxaphene	0.50	*1	17.14	17.07	17.21	117022
		*2	19.53	19.46	19.60	168176
		*3	19.70	19.63	19.77	157802
		4				
		5				
Aroclor 1016	0.10	*1	7.90	7.83	7.97	276010
		*2	9.06	8.99	9.13	512540
		*3	9.64	9.57	9.71	148860
		4				
		5				
Aroclor 1221	0.20	*1	4.66	4.59	4.73	62980
		*2	6.16	6.09	6.23	65625
		*3	6.71	6.64	6.78	167235
		4				
		5				
Aroclor 1232	0.10	*1	6.71	6.64	6.78	118420
		*2	7.89	7.82	7.96	135450
		*3	9.06	8.99	9.13	231130
		4				
		5				
Aroclor 1242	0.10	*1	7.89	7.82	7.96	212890
		*2	9.05	8.98	9.12	389580
		*3	11.45	11.38	11.52	175000
		4				
		5				
Aroclor 1248	0.10	*1	9.06	8.99	9.13	366650
		*2	11.46	11.39	11.53	254440
		*3	12.79	12.72	12.86	352900
		4				
		5				
Aroclor 1254	0.10	*1	13.43	13.36	13.50	364260
		*2	15.51	15.44	15.58	521900
		*3	17.82	17.75	17.89	334880
		4				
		5				
Aroclor 1260	0.10	*1	16.14	16.07	16.21	432000
		*2	17.82	17.75	17.89	404710
		*3	19.36	19.29	19.43	573970
		4				
		5				

* Denotes required peaks

6F

PESTICIDE INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

Instrument ID: HP58907 Date(s) Analyzed: 06/28/94 06/28/94

GC Column: DB1701 ID: .53 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Toxaphene	0.50	*1	14.61	14.54	14.68	584262
		*2	15.81	15.74	15.88	607060
		*3	16.11	16.04	16.18	458764
		4				
		5				
Aroclor 1016	0.10	*1	5.18	5.11	5.25	404600
		*2	6.11	6.04	6.18	501220
		*3	6.93	6.86	7.00	805220
		4				
		5				
Aroclor 1221	0.20	*1	3.22	3.15	3.29	157485
		*2	4.20	4.13	4.27	116690
		*3	4.53	4.46	4.60	228080
		4				
		5				
Aroclor 1232	0.10	*1	4.53	4.46	4.60	140670
		*2	5.18	5.11	5.25	171580
		*3	6.12	6.05	6.19	118970
		4				
		5				
Aroclor 1242	0.10	*1	5.18	5.11	5.25	302040
		*2	6.12	6.05	6.19	388570
		*3	8.76	8.69	8.83	256780
		4				
		5				
Aroclor 1248	0.10	*1	6.12	6.05	6.19	371740
		*2	6.93	6.86	7.00	943540
		*3	8.77	8.70	8.84	1052320
		4				
		5				
Aroclor 1254	0.10	*1	8.70	8.63	8.77	902820
		*2	10.84	10.77	10.91	969520
		*3	13.72	13.65	13.79	663180
		4				
		5				
Aroclor 1260	0.10	*1	11.39	11.32	11.46	690770
		*2	12.32	12.25	12.39	766720
		*3	16.01	15.94	16.08	1123310
		4				
		5				

* Denotes required peaks

6G
PESTICIDE ANALYTE RESOLUTION SUMMARY

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

GC Column (1): DB608 ID: .53 (mm) Instrument ID (1): HP58907

EPA Sample No. (Standard 1): RESC11 Lab Sample ID (1): CK*RESC*1

Date Analyzed (1): 06/28/94 Time Analyzed (1): 1305

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.19	100
02	gamma-Chlordane	13.11	100
03	Endosulfan I	13.91	100
04	4,4'-DDE	14.97	65.1
05	Dieldrin	15.14	100
06	Endosulfan sulfate	18.47	100
07	Methoxychlor	20.38	93.2
08	Endrin ketone	20.58	100
09	Decachlorobiphenyl	24.59	

GC column (2): DB1701 ID:.53 (mm) Instrument Id (2): HP58907

EPA Sample No. (Standard 2): RESC21 Lab sample ID (2): CK*RESC*1

Date Analyzed (2): 06/28/94 Time Analyzed (2): 1345

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	3.68	100
02	Endosulfan I	9.72	86.9
03	gamma-Chlordane	9.96	100
04	4,4'-DDE	10.62	80.8
05	Dieldrin	11.03	100
06	Endosulfan sulfate	16.37	93.2
07	Methoxychlor	16.64	100
08	Endrin ketone	17.48	100
09	Decachlorobiphenyl	19.70	

Resolution of two adjacent peaks must be calculated as a percentage of the height of the smaller peak, and must be greater than or equal to 60.0%.

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

GC column: DB608 ID: .53 (mm) Init. Calib.Date(s): 06/28/94 06/28/94

EPA Sample No. (PIBLK): Date Analyzed:

Lab Sample ID (PIBLK): Time Analyzed:

EPA Sample No. (PEM): PEM11 Date Analyzed: 06/28/94

Lab Sample ID (PEM): CK*PEM*1 Time Analyzed: 1345

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
alpha-BHC	6.82	6.77	6.87	0.0086	0.010	14.0
beta-BHC	8.18	8.12	8.22	0.010	0.010	0.0
gamma-BHC (Lindane)	7.96	7.91	8.01	0.0088	0.010	12.0
Endrin	16.43	16.36	16.50	0.048	0.050	4.0
4,4'-DDT	17.86	17.79	17.93	0.11	0.10	10.0
Methoxychlor	20.37	20.30	20.44	0.25	0.25	0.0

4,4'-DDT % breakdown (1): 1.2 Endrin % breakdown (1): 6.0

Combined % breakdown (1): 7.2

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%

4,4'-DDT breakdown must be less than or equal to 20.0%

Endrin breakdown must be less than or equal to 20.0%

Combined breakdown must be less than or equal to 30.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

GC column: DB608 ID: .53 (mm) Init. Calib.Date(s): 06/28/94 06/28/94

EPA Sample No. (PIBLK): PIBLK11 Date Analyzed: 06/28/94

Lab Sample ID (PIBLK): MB*PIBLK*1 Time Analyzed: 2309

EPA Sample No. (PEM): PEM12 Date Analyzed: 06/28/94

Lab Sample ID (PEM): CK*PEM*2 Time Analyzed: 2349

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
alpha-BHC	6.82	6.77	6.87	0.0087	0.010	13.0
beta-BHC	8.17	8.12	8.22	0.010	0.010	0.0
gamma-BHC (Lindane)	7.96	7.91	8.01	0.0088	0.010	12.0
Endrin	16.43	16.36	16.50	0.048	0.050	4.0
4,4'-DDT	17.86	17.79	17.93	0.11	0.10	10.0
Methoxychlor	20.37	20.30	20.44	0.25	0.25	0.0

4,4'-DDT % breakdown (1): 1.4 Endrin % breakdown (1): 6.8

Combined % breakdown (1): 8.2

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%

4,4'-DDT breakdown must be less than or equal to 20.0%

Endrin breakdown must be less than or equal to 20.0%

Combined breakdown must be less than or equal to 30.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

GC column: DB608 ID: .53 (mm) Init. Calib.Date(s): 06/28/94 06/28/94

EPA Sample No. (PIBLK): PIBLK13 Date Analyzed: 06/29/94

Lab Sample ID (PIBLK): MB*PIBLK*3 Time Analyzed: 1233

EPA Sample No. (PEM): PEM13 Date Analyzed: 06/29/94

Lab Sample ID (PEM): CK*PEM*3 Time Analyzed: 1314

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
alpha-BHC	6.81	6.77	6.87	0.0087	0.010	13.0
beta-BHC	8.16	8.12	8.22	0.0099	0.010	1.0
gamma-BHC (Lindane)	7.95	7.91	8.01	0.0087	0.010	13.0
Endrin	16.41	16.36	16.50	0.045	0.050	10.0
4,4'-DDT	17.85	17.79	17.93	0.10	0.10	0.0
Methoxychlor	20.36	20.30	20.44	0.24	0.25	4.0

4,4'-DDT % breakdown (1): 1.3 Endrin % breakdown (1): 6.1

Combined % breakdown (1): 7.4

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%

4,4'-DDT breakdown must be less than or equal to 20.0%

Endrin breakdown must be less than or equal to 20.0%

Combined breakdown must be less than or equal to 30.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

GC column: DB1701 ID: .53 (mm) Init. Calib.Date(s): 06/28/94 06/28/94

EPA Sample No. (PIBLK): Date Analyzed:

Lab Sample ID (PIBLK): Time Analyzed:

EPA Sample No. (PEM): PEM21 Date Analyzed: 06/28/94

Lab Sample ID (PEM): CK*PEM*1 Time Analyzed: 1426

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
alpha-BHC	5.05	5.00	5.10	0.0092	0.010	8.0
beta-BHC	7.72	7.67	7.77	0.011	0.010	10.0
gamma-BHC (Lindane)	5.83	5.78	5.88	0.0093	0.010	7.0
Endrin	11.77	11.69	11.83	0.047	0.050	6.0
4,4'-DDT	14.43	14.35	14.49	0.098	0.10	2.0
Methoxychlor	16.64	16.57	16.71	0.26	0.25	4.0

4,4'-DDT % breakdown (1): 0.5 Endrin % breakdown (1): 10.3

Combined % breakdown (1): 10.8

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%

4,4'-DDT breakdown must be less than or equal to 20.0%

Endrin breakdown must be less than or equal to 20.0%

Combined breakdown must be less than or equal to 30.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

GC column: DB1701 ID: .53 (mm) Init. Calib.Date(s): 06/28/94 06/28/94

EPA Sample No. (PIBLK): PIBLK11 Date Analyzed: 06/28/94

Lab Sample ID (PIBLK): MB*PIBLK*1 Time Analyzed: 2349

EPA Sample No. (PEM): PEM22 Date Analyzed: 06/29/94

Lab Sample ID (PEM): CK*PEM*2 Time Analyzed: 0030

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
alpha-BHC	5.05	5.00	5.10	0.0095	0.010	5.0
beta-BHC	7.72	7.67	7.77	0.011	0.010	10.0
gamma-BHC (Lindane)	5.83	5.78	5.88	0.0096	0.010	4.0
Endrin	11.76	11.69	11.83	0.047	0.050	6.0
4,4'-DDT	14.43	14.35	14.49	0.097	0.10	3.0
Methoxychlor	16.64	16.57	16.71	0.26	0.25	4.0

4,4'-DDT % breakdown (1): 1.1 Endrin % breakdown (1): 12.0

Combined % breakdown (1): 13.1

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%

4,4'-DDT breakdown must be less than or equal to 20.0%

Endrin breakdown must be less than or equal to 20.0%

Combined breakdown must be less than or equal to 30.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

GC column: DB1701 ID: .53 (mm) Init. Calib.Date(s): 06/28/94 06/28/94

EPA Sample No. (PIBLK): PIBLK13 Date Analyzed: 06/29/94

Lab Sample ID (PIBLK): MB*PIBLK*3 Time Analyzed: 1314

EPA Sample No. (PEM): PEM23 Date Analyzed: 06/29/94

Lab Sample ID (PEM): CK*PEM*3 Time Analyzed: 1354

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
alpha-BHC	5.05	5.00	5.10	0.0098	0.010	2.0
beta-BHC	7.72	7.67	7.77	0.011	0.010	10.0
gamma-BHC (Lindane)	5.83	5.78	5.88	0.0098	0.010	2.0
Endrin	11.76	11.69	11.83	0.045	0.050	10.0
4,4'-DDT	14.42	14.35	14.49	0.089	0.10	11.0
Methoxychlor	16.64	16.57	16.71	0.24	0.25	4.0

4,4'-DDT % breakdown (1): 1.8 Endrin % breakdown (1): 9.9

Combined % breakdown (1): 11.7

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%

4,4'-DDT breakdown must be less than or equal to 20.0%

Endrin breakdown must be less than or equal to 20.0%

Combined breakdown must be less than or equal to 30.0%

7E

PESTICIDE CALIBRATION VERIFICATION SUMMARY

ab Name: ESE Contract: 1944022G

Lab Code: ESE Case No: 44022 SAS No: SDG No: 50744

GC Column: DB608 ID: .53 (mm) Init. Calib. Date(s) 06/28/94 06/28/94

EPA Sample No.(PIBLK): PIBLK12 Date Analyzed: 06/29/94

Lab Sample ID (PIBLK): MB*PIBLK*2 Time Analyzed: 0511

EPA Sample No.(INDA): INDAM12 Date Analyzed: 06/29/94

Lab Sample ID (INDA): CCS*INDAM*2 Time Analyzed: 0551

INDIVIDUAL MIX A COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
alpha-BHC	6.83	6.77	6.87	0.020	0.020	0.0
gamma-BHC (Lindane)	7.96	7.91	8.01	0.020	0.020	0.0
Heptachlor	9.01	8.96	9.06	0.019	0.020	5.0
Endosulfan I	13.92	13.84	13.98	0.019	0.020	5.0
Dieldrin	15.14	15.07	15.21	0.038	0.040	5.0
Endrin	16.44	16.36	16.50	0.038	0.040	5.0
4,4'-DDD	16.94	16.86	17.00	0.038	0.040	5.0
4,4'-DDT	17.87	17.79	17.93	0.038	0.040	5.0
Methoxychlor	20.38	20.30	20.44	0.19	0.20	5.0
Tetrachloro-m-xylene	5.19	5.14	5.24	0.020	0.020	0.0
Decachlorobiphenyl	24.60	24.49	24.69	0.038	0.040	5.0

EPA Sample No.(INDB): INDBM12 Date Analyzed : 06/29/94

Lab Sample ID (INDB): CCS*INDBM*2 Time Analyzed : 0631

INDIVIDUAL MIX B COMPOUND	RT	RT WINDOW FROM	RT WINDOW RT	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
beta-BHC	8.18	8.12	8.22	0.020	0.020	0.0
delta-BHC	9.42	9.36	9.46	0.020	0.020	0.0
Aldrin	10.17	10.12	10.22	0.020	0.020	0.0
Heptachlor epoxide	12.42	12.34	12.48	0.020	0.020	0.0
4,4'-DDE	14.97	14.89	15.03	0.040	0.040	0.0
Endosulfan II	17.05	16.98	17.12	0.040	0.040	0.0
Endosulfan sulfate	18.47	18.39	18.53	0.040	0.040	0.0
Endrin ketone	20.58	20.51	20.65	0.040	0.040	0.0
Endrin aldehyde	18.10	18.02	18.16	0.039	0.040	2.5
alpha-Chlordane	13.83	13.75	13.89	0.020	0.020	0.0
gamma-Chlordane	13.11	13.03	13.17	0.020	0.020	0.0
Tetrachloro-m-xylene	5.19	5.14	5.24	0.019	0.020	5.0
Decachlorobiphenyl	24.59	24.48	24.68	0.039	0.040	2.5

QC LIMITS: RPD of amounts in the Individual Mixes must be less than or equal to 25.0%.

7E

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No: 44022 SAS No: SDG No: 50744

GC Column: DB1701 ID: .53 (mm) Init. Calib. Date(s) 06/28/94 06/28/94

EPA Sample No.(PIBLK): PIBLK12 Date Analyzed: 06/29/94

Lab Sample ID (PIBLK): MB*PIBLK*2 Time Analyzed: 0551

EPA Sample No.(INDA): INDAM22 Date Analyzed: 06/29/94

Lab Sample ID (INDA): CCS*INDAM*2 Time Analyzed: 0631

INDIVIDUAL MIX A COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
alpha-BHC	5.05	5.00	5.10	0.020	0.020	0.0
gamma-BHC (Lindane)	5.83	5.78	5.88	0.020	0.020	0.0
Heptachlor	6.27	6.23	6.33	0.020	0.020	0.0
Endosulfan I	9.71	9.64	9.78	0.020	0.020	0.0
Dieldrin	11.02	10.96	11.10	0.040	0.040	0.0
Endrin	11.75	11.69	11.83	0.040	0.040	0.0
4,4'-DDD	13.80	13.73	13.87	0.041	0.040	2.5
4,4'-DDT	14.42	14.35	14.49	0.040	0.040	0.0
Methoxychlor	16.64	16.57	16.71	0.20	0.20	0.0
Tetrachloro-m-xylene	3.67	3.62	3.72	0.020	0.020	0.0
Decachlorobiphenyl	19.69	19.59	19.79	0.040	0.040	0.0

EPA Sample No.(INDB): INDBM22 Date Analyzed : 06/29/94

Lab Sample ID (INDB): CCS*INDBM*2 Time Analyzed : 0711

INDIVIDUAL MIX B COMPOUND	RT	RT WINDOW FROM	RT WINDOW RT	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
beta-BHC	7.71	7.67	7.77	0.020	0.020	0.0
delta-BHC	8.40	8.35	8.45	0.020	0.020	0.0
Aldrin	6.93	6.88	6.98	0.020	0.020	0.0
Heptachlor epoxide	8.85	8.79	8.93	0.020	0.020	0.0
4,4'-DDE	10.61	10.55	10.69	0.041	0.040	2.5
Endosulfan II	13.78	13.72	13.86	0.040	0.040	0.0
Endosulfan sulfate	16.36	16.30	16.44	0.040	0.040	0.0
Endrin ketone	17.48	17.41	17.55	0.041	0.040	2.5
Endrin aldehyde	15.32	15.26	15.40	0.041	0.040	2.5
alpha-Chlordane	10.14	10.08	10.22	0.020	0.020	0.0
gamma-Chlordane	9.95	9.89	10.03	0.020	0.020	0.0
Tetrachloro-m-xylene	3.67	3.62	3.72	0.019	0.020	5.0
Decachlorobiphenyl	19.69	19.59	19.79	0.040	0.040	0.0

QC LIMITS: RPD of amounts in the Individual Mixes must be less than or equal to 25.0%.

8D
PESTICIDE ANALYTICAL SEQUENCE

) Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

GC Column: DB608 ID: .53 (mm) Init. Calib. Date(s): 06/28/94 06/28/94

Instrument ID: HP58907

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 5.19 DCB: 24.59

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	RESC11	CK*RESC*1	06/28/94	1305	5.19	24.59
02	PEM11	CK*PEM*1	06/28/94	1345	5.19	24.59
03	AR166011	ICV*AR1660*1	06/28/94	1426	5.18	24.59
04	AR122111	ICV*AR1221*1	06/28/94	1506	5.19	24.59
05	AR123211	ICV*AR1232*1	06/28/94	1546	5.18	24.58
06	AR124211	ICV*AR1242*1	06/28/94	1627	5.18	24.57
07	AR124811	ICV*AR1248*1	06/28/94	1707	5.18	24.57
08	AR125411	ICV*AR1254*1	06/28/94	1747	5.18	24.58
09	TOXAPH11	ICV*TOXAPH*1	06/28/94	1828	5.18	24.58
10	INDAL11	ICV*INDAL*1	06/28/94	1908	5.19	24.58
11	INDBL11	ICV*INDBL*1	06/28/94	1948	5.19	24.59
12	INDAM11	ICV*INDAM*1	06/28/94	2028	5.19	24.59
13	INDBM11	ICV*INDBM*1	06/28/94	2109	5.19	24.58
14	INDAH11	ICV*INDAH*1	06/28/94	2149	5.18	24.58
15	INDBH11	ICV*INDBH*1	06/28/94	2229	5.18	24.58
16	PIBLK11	MB*PIBLK*1	06/28/94	2309	5.19	24.59
17	PEM12	CK*PEM*2	06/28/94	2349	5.19	24.58
18	PIBLK12	MB*PIBLK*2	06/29/94	0511	5.19	24.59
19	INDAM12	CCS*INDAM*2	06/29/94	0551	5.19	24.60
20	INDBM12	CCS*INDBM*2	06/29/94	0631	5.19	24.59
21	PBLK1	MB*QC*1	06/29/94	0711	5.19	24.60
22	H83LA0301	CDMHNSS2*6	06/29/94	0752	5.22	24.67
23	H83LA0301MS	SPM1*CDMHNSS	06/29/94	0913	5.22	24.67
24	H83LA0301MSD	SPM2*CDMHNSS	06/29/94	1033	5.21	24.67
25	PIBLK13	MB*PIBLK*3	06/29/94	1233	5.18	24.57
26	PEM13	CK*PEM*3	06/29/94	1314	5.18	24.56
27						
28						
29						
30						
31						
32						

QC LIMITS
TCX = Tetrachloro-m-xylene (± 0.05 MINUTES)
DCB = Decachlorobiphenyl (± 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

GC Column: DB1701 ID: .53 (mm) Init. Calib. Date(s): 06/28/94 06/28/94

Instrument ID: HP58907

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.67 DCB: 19.69

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	RESC21	CK*RESC*1	06/28/94	1345	3.68	19.70
02	PEM21	CK*PEM*1	06/28/94	1426	3.68	19.70
03	AR166021	ICV*AR1660*1	06/28/94	1506	3.67	19.69
04	AR122121	ICV*AR1221*1	06/28/94	1546	3.67	19.70
05	AR123221	ICV*AR1232*1	06/28/94	1627	3.68	19.70
06	AR124221	ICV*AR1242*1	06/28/94	1707	3.68	19.70
07	AR124821	ICV*AR1248*1	06/28/94	1747	3.68	19.70
08	AR125421	ICV*AR1254*1	06/28/94	1828	3.68	19.69
09	TOXAPH21	ICV*TOXAPH*1	06/28/94	1908	3.68	19.69
10	INDAL21	ICV*INDAL*1	06/28/94	1948	3.68	19.70
11	INDBL21	ICV*INDBL*1	06/28/94	2028	3.67	19.69
12	INDAM21	ICV*INDAM*1	06/28/94	2109	3.67	19.69
13	INDBM21	ICV*INDBM*1	06/28/94	2149	3.67	19.69
14	INDAH21	ICV*INDAH*1	06/28/94	2229	3.67	19.69
15	INDBH21	ICV*INDBH*1	06/28/94	2309	3.67	19.69
16	PIBLK21	MB*PIBLK*1	06/28/94	2349	3.67	19.69
17	PEM22	CK*PEM*2	06/29/94	0030	3.67	19.69
18	PIBLK22	MB*PIBLK*2	06/29/94	0551	3.67	19.69
19	INDAM22	CCS*INDAM*2	06/29/94	0631	3.67	19.69
20	INDBM22	CCS*INDBM*2	06/29/94	0711	3.67	19.69
21	PBLK1	MB*QC*1	06/29/94	0752	3.67	19.69
22	H83LA0301	CDMHNSS2*6	06/29/94	0832	3.68	19.74
23	H83LA0301MS	SPM1*CDMHNSS	06/29/94	0953	3.68	19.75
24	H83LA0301MSD	SPM2*CDMHNSS	06/29/94	1113	3.68	19.70
25	PIBLK23	MB*PIBLK*3	06/29/94	1314	3.68	19.69
26	PEM23	CK*PEM*3	06/29/94	1354	3.67	19.69
27						
28						
29						
30						
31						
32						

QC LIMITS
TCX = Tetrachloro-m-xylene (± 0.05 MINUTES)
DCB = Decachlorobiphenyl (± 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

9A
PESTICIDE FLORISIL CARTRIDGE CHECK

b Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

Florisil Cartridge Lot Number: 511H08556 Date of Analysis: 5-11-94

GC Column(1): DB608 ID: .53 (mm) GC Column (2): DB1701 ID: .53 (mm)

COMPOUND	SPIKE ADDED (ng)	SPIKE RECOVERED (ng)	% REC #	QC LIMITS
alpha-BHC	0.010	0.0096	96.0	80-120
gamma-BHC (Lindane)	0.010	0.0099	99.0	80-120
Heptachlor	0.010	0.011	110.0	80-120
Endosulfan I	0.010	0.011	110.0	80-120
Dieldrin	0.020	0.021	105.0	80-120
Endrin	0.020	0.021	105.0	80-120
4,4'-DDD	0.020	0.023	115.0	80-120
4,4'-DDT	0.020	0.021	105.0	80-120
Methoxychlor	0.10	0.11	110.0	80-120
Tetrachloro-m-xylene	0.010	0.0100	100.0	80-120
Decachlorobiphenyl	0.020	0.023	115.0	80-120

Column to be used to flag recovery with an asterisk.
* Values outside of QC limits.

THIS CARTRIDGE LOT APPLIES TO THE FOLLOWING SAMPLES, BLANKS, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PBLK1	MB*QC*1	06/29/94	06/29/94
02	H83LA0301	CDMHNSS2*6	06/29/94	06/29/94
03	H83LA0301MS	SPM1*CDMHNSS	06/29/94	06/29/94
04	H83LA0301MSD	SPM2*CDMHNSS	06/29/94	06/29/94
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				

9B
PESTICIDE GPC CALIBRATION

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

GPC Column 6231002B1 Calibration Date: 6-23-94

GC Column(1): DB608 ID: .53 (mm) GC Column (2): DB1701 ID: .53 (mm)

COMPOUND	SPIKE ADDED (ng)	SPIKE RECOVERED (ng)	% REC #	QC LIMITS
gamma-BHC (Lindane)	50	45	90	80-110
Heptachlor	50	42	80	80-110
Aldrin	50	42	80	80-110
Dieldrin	100	92	90	80-110
Endrin	100	93	90	80-110
4,4'-DDT	100	89	90	80-110

Column to be used to flag recovery with an asterisk.
* Values outside of QC limits.

THIS GPC CALIBRATION APPLIES TO THE FOLLOWING SAMPLES, BLANKS, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PBLK1	MB*QC*1	06/29/94	06/29/94
02	H83LA0301	CDMHNSS2*6	06/29/94	06/29/94
03	H83LA0301MS	SPM1*CDMHNSS	06/29/94	06/29/94
04	H83LA0301MSD	SPM2*CDMHNSS	06/29/94	06/29/94
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO

H83LA0301MS

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

Lab Sample ID : SPM1*CDMHNSS2*6 Date(s) Analyzed: 06/29/94 06/29/94

Instrument ID (1): HP58907 Instrument ID (2): HP58907

GC Column(1): DB608 ID: .53 (mm) GC Column(2): DB1701 ID:.53 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
gamma-BHC (Lindane)	1	7.98	7.91	8.01	25.24	
	2	5.83	5.78	5.88	8.22	207.1
Heptachlor	1	9.04	8.96	9.06	15.11	
	2	6.29	6.23	6.33	5.08	197.4
Aldrin	1	10.19	10.12	10.22	12.66	
	2	6.94	6.88	6.98	5.33	137.5
Dieldrin	1	15.19	15.07	15.21	40.37	
	2	11.07	10.96	11.10	13.43	200.6
Endrin	1	16.48	16.36	16.48	35.20	
	2	11.81	11.69	11.83	17.85	97.2
4,4'-DDT	1	17.91	17.79	17.91	32.18	
	2	14.47	14.35	14.47	12.95	148.5
	1					
	2					
	1					
	2					

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO

H83LA0301MSD

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

Lab Sample ID : SPM2*CDMHNSS2*6 Date(s) Analyzed: 06/29/94 06/29/94

Instrument ID (1): HP58907 Instrument ID (2): HP58907

GC Column(1): DB608 ID: .53 (mm) GC Column(2): DB1701 ID:.53 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
gamma-BHC (Lindane)	1	7.97	7.91	8.01	7.51	
	2	5.83	5.78	5.88	7.00	7.3
Heptachlor	1	9.03	8.96	9.06	15.80	
	2	6.29	6.23	6.33	4.67	238.3
Aldrin	1	10.19	10.12	10.22	15.62	
	2	6.95	6.88	6.98	5.05	209.3
Dieldrin	1	15.19	15.07	15.21	39.17	
	2	11.07	10.96	11.10	14.11	177.6
Endrin	1	16.47	16.36	16.47	22.74	
	2	11.81	11.69	11.83	17.33	31.2
4,4'-DDT	1	17.91	17.79	17.91	30.07	
	2	14.48	14.35	14.48	12.00	150.6
	1					
	2					
	1					
	2					

9513356.0303

Primary Column

Turbochrom Sequence File : C:\TC4\HP58907\866A.SEQ
Created by : VIC on : 7/1/94 08:21 AM
Edited by : VIC on : 7/1/94 08:43 AM
Description :

Number of Times Edited : 1

Sequence File Header Information:

Number of Rows : 49
Instrument Type : 760 / 900 Series Intelligent Interface
Injection Type : DUAL

Sequence Sample Descriptions - Channel A

Row	Type	Sample Name	Sample Number	Study Name	Sample Amount	ISTD Amount	Sample Volume	Dil. Factor	Mult	Divisor	Addend
1	Sample	RESC			1.000	1.000	1.000	1.000	1.000	1.000	0.000
2	Sample	INDAH			1.000	1.000	1.000	1.000	1.000	1.000	0.000
3	Sample	INDBH			1.000	1.000	1.000	1.000	1.000	1.000	0.000
4	Sample	HEXANE			1.000	1.000	1.000	1.000	1.000	1.000	0.000
5	Cal:Replace	CK*RESC*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
6	Sample	CK*PEM*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
7	Cal:Replace	ICV*AR1660*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
8	Cal:Replace	ICV*AR1221*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
9	Cal:Replace	ICV*AR1232*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
10	Cal:Replace	ICV*AR1242*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
11	Cal:Replace	ICV*AR1248*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
12	Cal:Replace	ICV*AR1254*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
13	Cal:Replace	ICV*TOXAPH*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
14	Cal:Replace	ICV*INDAL*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
15	Cal:Replace	ICV*INDBL*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
16	Cal:Replace	ICV*INDAM*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
17	Cal:Replace	ICV*INDBM*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
18	Cal:Replace	ICV*INDAH*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
19	Cal:Replace	ICV*INDBH*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
20	Sample	MB*PIBLK*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
21	Sample	CK*PEM*2			1.000	1.000	1.000	1.000	1.000	1.000	0.000
22	Sample	MB*THAMA-PEJD*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
23	Sample	KE10RB*3 6-21-9			1.000	1.000	1.000	1.000	1.000	1.000	0.000
24	Sample	SPM1*KE10RB*3 6			1.000	1.000	1.000	1.000	1.000	1.000	0.000
25	Sample	SPM2*KE10RB*3 6			1.000	1.000	1.000	1.000	1.000	1.000	0.000
26	Sample	KE10RB*4 6-21-9			1.000	1.000	1.000	1.000	1.000	1.000	0.000
27	Sample	KE10RB*5 6-21-9			1.000	1.000	1.000	1.000	1.000	1.000	0.000
28	Sample	HEXANE			1.000	1.000	1.000	1.000	1.000	1.000	0.000
29	Sample	MB*PIBLK*2			1.000	1.000	1.000	1.000	1.000	1.000	0.000
30	Cal:Replace	CCS*INDAM*2			1.000	1.000	1.000	1.000	1.000	1.000	0.000
31	Cal:Replace	CCS*INDBM*2			1.000	1.000	1.000	1.000	1.000	1.000	0.000
32	Sample	MB*QC*1 6-23-94			1.000	1.000	1.000	1.000	1.000	1.000	0.000
33	Sample	CDMHNSS2*6 6-23			1.000	1.000	1.000	1.000	1.000	1.000	0.000
34	Sample	HEXANE			1.000	1.000	1.000	1.000	1.000	1.000	0.000
35	Sample	SPM1*CDMHNSS2*6			1.000	1.000	1.000	1.000	1.000	1.000	0.000
36	Sample	HEXANE			1.000	1.000	1.000	1.000	1.000	1.000	0.000
37	Sample	SPM2*CDMHNSS2*6			1.000	1.000	1.000	1.000	1.000	1.000	0.000
38	Sample	HEXANE			1.000	1.000	1.000	1.000	1.000	1.000	0.000
39	Sample	HEXANE			1.000	1.000	1.000	1.000	1.000	1.000	0.000
40	Sample	MB*PIBLK*3			1.000	1.000	1.000	1.000	1.000	1.000	0.000
41	Sample	CK*PEM*3			1.000	1.000	1.000	1.000	1.000	1.000	0.000
42	Sample	HEXANE			1.000	1.000	1.000	1.000	1.000	1.000	0.000
43	Sample	GPC*AS2000*BLAN			1.000	1.000	1.000	1.000	1.000	1.000	0.000
44	Sample	GPC*AS2000*MATR			1.000	1.000	1.000	1.000	1.000	1.000	0.000
45	Sample	GPC*AS2000*AR16			1.000	1.000	1.000	1.000	1.000	1.000	0.000
46	Sample	MB*PIBLK*4			1.000	1.000	1.000	1.000	1.000	1.000	0.000
47	Cal:Replace	CCS*INDAM*3			1.000	1.000	1.000	1.000	1.000	1.000	0.000
48	Cal:Replace	CCS*INDBM*3			1.000	1.000	1.000	1.000	1.000	1.000	0.000
49	Sample	NO SHOT			1.000	1.000	1.000	1.000	1.000	1.000	0.000

Sequence Process Information - Channel A

Row	Site	Rack	Vial	Inst Method	Process Method	Calib Method	Report Format	Raw File	Result File	Baseline File	Modified Raw File	Cal Rpt	Level Name	Updat RT
1	-	-	2	HP58907	DB608	866A	ALL	866A001	866A001			-	-	-
2	-	-	3	HP58907	DB608	866A	ALL	866A002	866A002			-	-	-
3	-	-	4	HP58907	DB608	866A	ALL	866A003	866A003			-	-	-
4	-	-	5	HP58907	DB608	866A	ALL	866A004	866A004			-	-	-
5	-	-	6	HP58907	DB608	866ARES	CLPS	866A005	866A005			N	1	R
6	-	-	7	HP58907	DB608	866APEM	CLPEM	866A006	866A006			-	-	-
7	-	-	8	HP58907	DB608	866A1660	CLPPCB	866A007	866A007			N	1	R
8	-	-	9	HP58907	DB608	866A1221	CLPPCB	866A008	866A008			N	1	R
9	-	-	10	HP58907	DB608	866A1232	CLPPCB	866A009	866A009			N	1	R
10	-	-	11	HP58907	DB608	866A1242	CLPPCB	866A010	866A010			N	1	R
11	-	-	12	HP58907	DB608	866A1248	CLPPCB	866A011	866A011			N	1	R
12	-	-	13	HP58907	DB608	866A1254	CLPPCB	866A012	866A012			N	1	R
13	-	-	14	HP58907	DB608	866ATOX	CLPPCB	866A013	866A013			N	1	R
14	-	-	15	HP58907	DB608	866AAL	CLPS	866A014	866A014			N	1	R
15	-	-	16	HP58907	DB608	866ABL	CLPS	866A015	866A015			N	1	R
16	-	-	17	HP58907	DB608	866AAM	CLPS	866A016	866A016			N	1	R
17	-	-	18	HP58907	DB608	866ABM	CLPS	866A017	866A017			N	1	R
18	-	-	19	HP58907	DB608	866AAH	CLPS	866A018	866A018			N	1	R
19	-	-	20	HP58907	DB608	866ABH	CLPS	866A019	866A019			N	1	R
20	-	-	21	HP58907	DB608	866A	ALL	866A020	866A020			-	-	-
21	-	-	22	HP58907	DB608	866APEM	CLPEM	866A021	866A021			-	-	-
22	-	-	23	HP58907	DB608	866A	ALL	866A022	866A022			-	-	-
23	-	-	24	HP58907	DB608	866A	ALL	866A023	866A023			-	-	-
24	-	-	25	HP58907	DB608	866A	ALL	866A024	866A024			-	-	-
25	-	-	26	HP58907	DB608	866A	ALL	866A025	866A025			-	-	-
26	-	-	27	HP58907	DB608	866A	ALL	866A026	866A026			-	-	-
27	-	-	28	HP58907	DB608	866A	ALL	866A027	866A027			-	-	-
28	-	-	29	HP58907	DB608	866A	ALL	866A028	866A028			-	-	-
29	-	-	30	HP58907	DB608	866A	ALL	866A029	866A029			-	-	-
30	-	-	31	HP58907	DB608	866AAM	CLPS	866A030	866A030			N	1	N
31	-	-	32	HP58907	DB608	866ABM	CLPS	866A031	866A031			N	1	N
32	-	-	33	HP58907	DB608	866A	ALL	866A032	866A032			-	-	-
33	-	-	34	HP58907	DB608	866A	ALL	866A033	866A033			-	-	-
34	-	-	35	HP58907	DB608	866A	ALL	866A034	866A034			-	-	-
35	-	-	36	HP58907	DB608	866A	ALL	866A035	866A035			-	-	-
[illegible]	-	-	37	HP58907	DB608	866A	ALL	866A036	866A036			-	-	-
[illegible]	-	-	38	HP58907	DB608	866A	ALL	866A037	866A037			-	-	-
[illegible]	-	-	39	HP58907	DB608	866A	ALL	866A038	866A038			-	-	-
39	-	-	40	HP58907	DB608	866A	ALL	866A039	866A039			-	-	-
40	-	-	41	HP58907	DB608	866A	ALL	866A040	866A040			-	-	-
41	-	-	42	HP58907	DB608	866APEM	CLPEM	866A041	866A041			-	-	-
42	-	-	43	HP58907	DB608	866A	ALL	866A042	866A042			-	-	-
43	-	-	44	HP58907	DB608	866A	ALL	866A043	866A043			-	-	-
44	-	-	45	HP58907	DB608	866A	ALL	866A044	866A044			-	-	-
45	-	-	46	HP58907	DB608	866A	ALL	866A045	866A045			-	-	-
46	-	-	47	HP58907	DB608	866A	ALL	866A046	866A046			-	-	-
47	-	-	48	HP58907	DB608	866AAM	CLPS	866A047	866A047			N	1	N
48	-	-	49	HP58907	DB608	866ABM	CLPS	866A048	866A048			N	1	N
49	-	-	50	HP58907	DB608	866A	ALL	866A049	866A049			-	-	-

Software Version: 4.0<1C29>
Sample Name : CK*RESC*1 Time : 7/1/94 09:46 AM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/5

Interface Serial # : NONE Data Acquisition Time: 6/28/94 01:05 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A005.RAW
Result File : C:\TC4\HP58907\866A005.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A005.RST
Proc Method : C:\TC4\HP58907\866ARES from C:\TC4\HP58907\866A005.RST
Calib Method : C:\TC4\HP58907\866ARES from C:\TC4\HP58907\866A005.RST
Sequence File : C:\TC4\HP58907\866.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 15 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 19

DATA REPORT

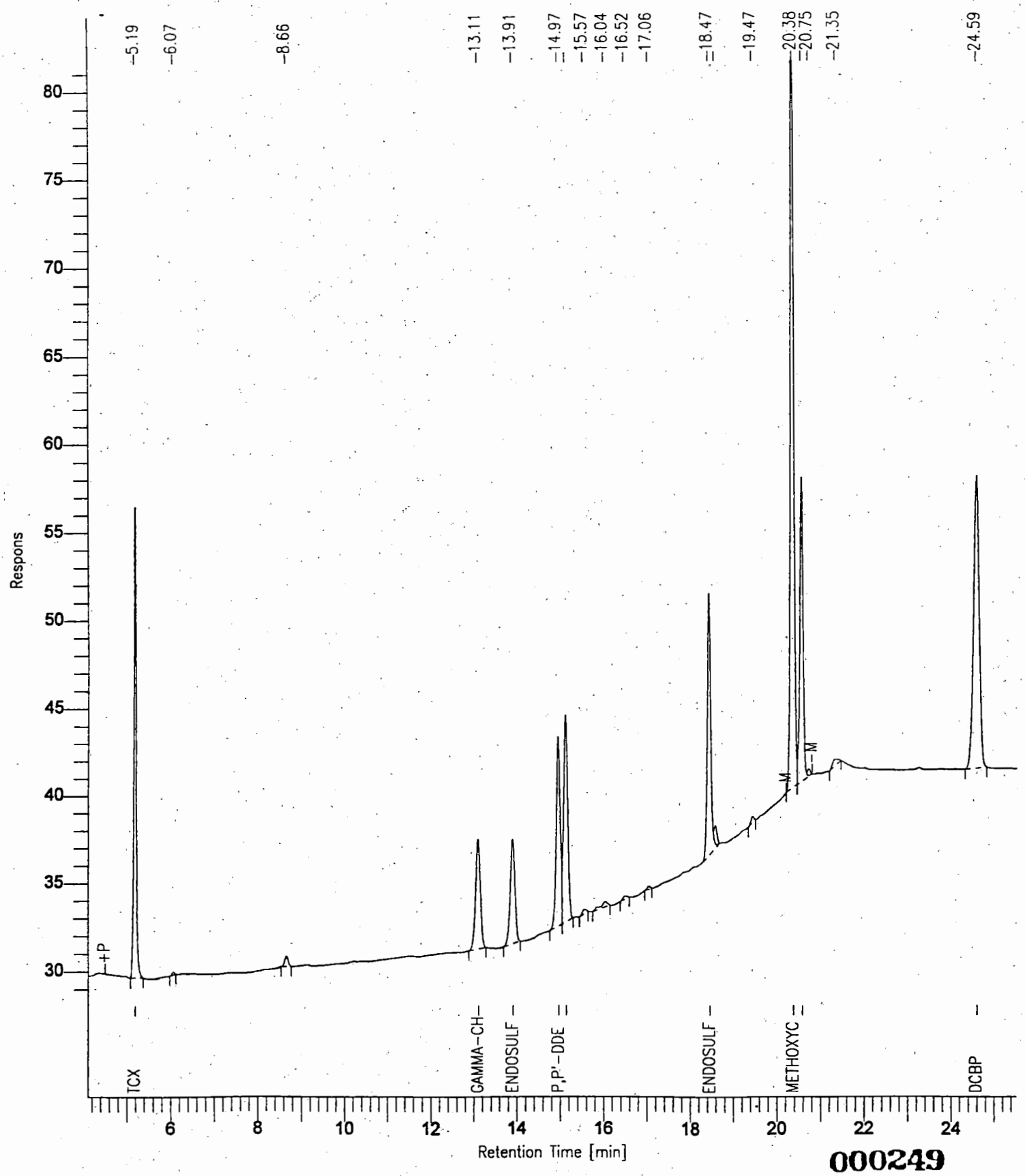
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	5.188	TCX	95682	B	26838	1e-15	0.0200
4	13.106	GAMMA-CHLORDANE	48003	B	6231	3e-15	0.0100
5	13.911	ENDOSULFAN A	44307	B	5928	6e-15	0.0100
6	14.968	P,P'-DDE	70309	B	10890	3e-15	0.0200
7	15.140	DIELDRIN	77993	V	11855	-3e-15	0.0200
12	18.465	ENDOSULFAN SULFATE	81774	B	14923	3e-15	0.0200
15	20.378	METHOXYCHLOR	245048	*B	50543	-6e-15	0.1000
16	20.583	ENDRIN KETONE	88104	*V	17394	-6e-15	0.0200
19	24.592	DCBP	149461	B	16663	-2e-15	0.0200
			900681		161267		0.2400

9513356.0305

Chromatogram

Sample Name : CK*RESC*1
Name : C:\TC4\HP58907\866A005.RAW
Method :
Start Time : 4.11 min End Time : 25.53 min
Scale Factor: 0.0 Plot Offset: 28 mV

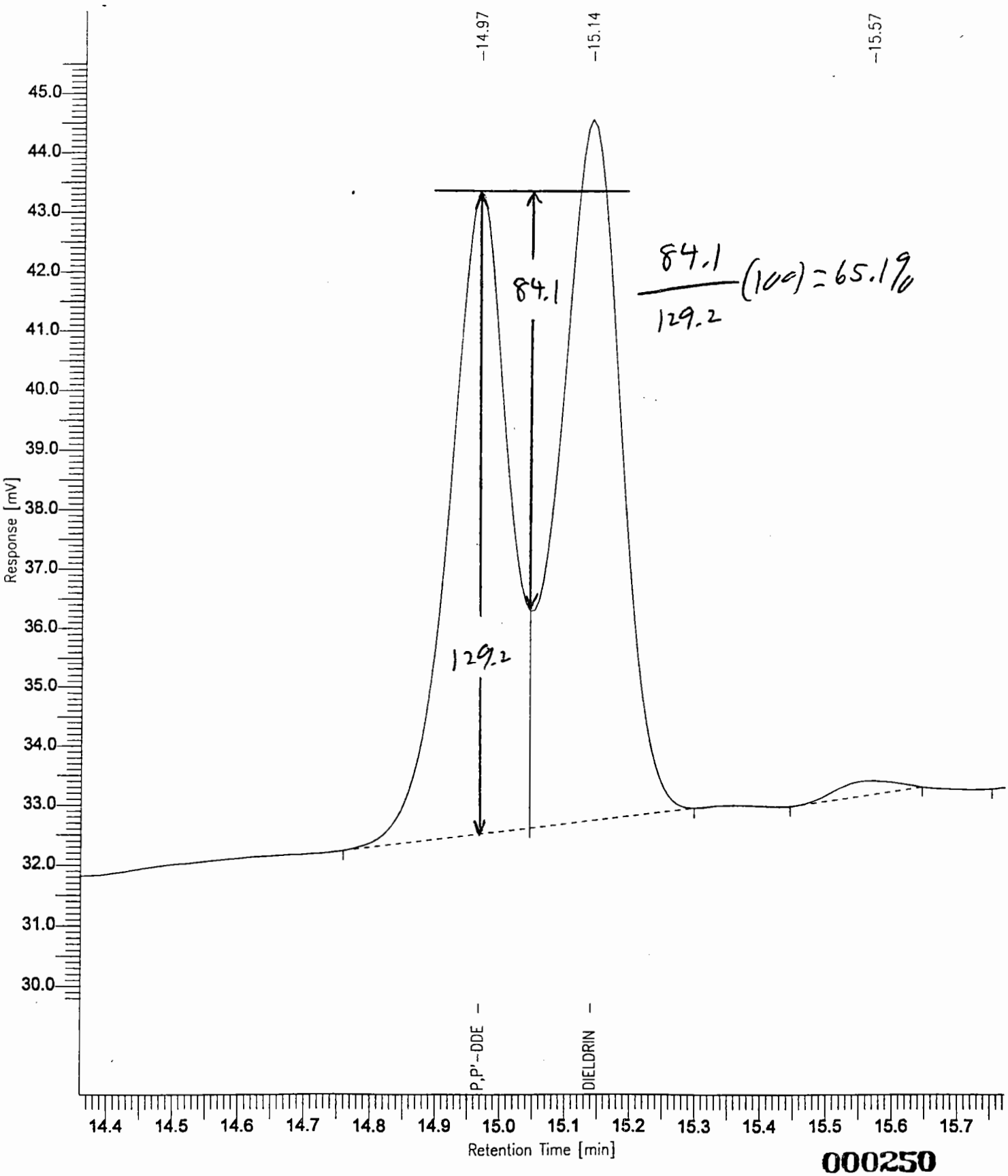
Sample #:
Date : 7/1/94 09:46 AM
Time of Injection: 6/28/94 01:05 PM
Low Point : 28.10 mV High Point : 81.61 mV
Plot Scale: 53.5 mV



Chromatogram

Sample Name : CK*RESC*1
FileName : C:\TC4\HP58907\866A005.RAW
Method :
Start Time : 14.36 min End Time : 15.77 min
Scale Factor: 0.0 Plot Offset: 30 mV

Sample #:
Date : 7/1/94 09:47 AM
Time of Injection: 6/28/94 01:05 PM
Low Point : 29.71 mV High Point : 45.60 mV
Plot Scale: 15.9 mV



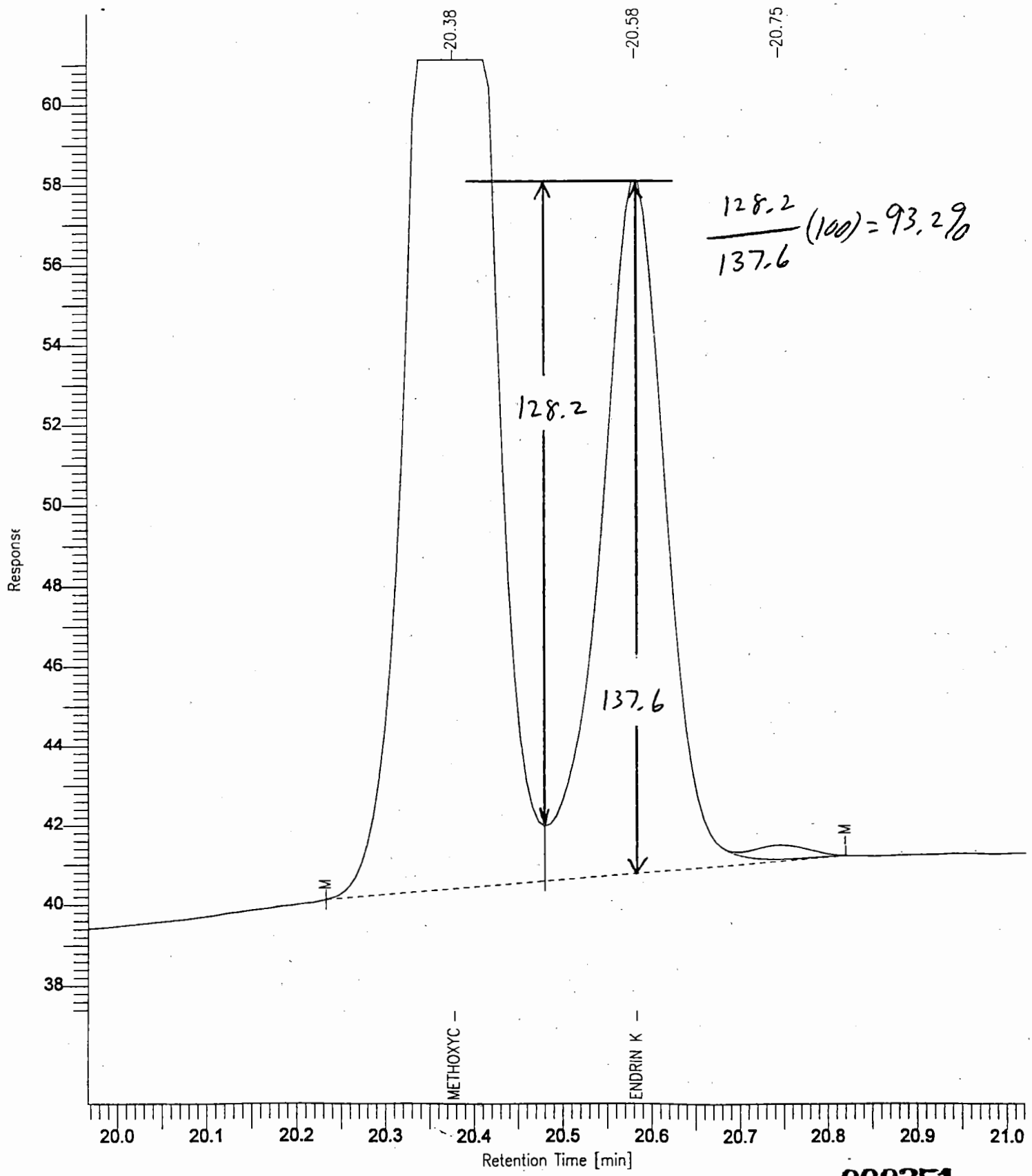
$\frac{84.1}{129.2}(100) = 65.1\%$

9513356.0306

Chromatogram

Sample Name : CK*RESC*1
Name : C:\TC4\HP58907\866A005.RAW
Method :
Start Time : 19.97 min End Time : 21.02 min
Scale Factor: 0.0 Plot Offset: 37 mV

Sample #:
Date : 7/1/94 09:47 AM
Time of Injection: 6/28/94 01:05 PM
Low Point : 37.37 mV High Point : 61.09 mV
Plot Scale: 23.7 mV



Software Version: 4.0<1C29>
Sample Name : CK*PEM*1 Time : 7/1/94 09:56 AM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/6

Interface Serial # : NONE Data Acquisition Time: 6/28/94 01:45 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A006.RAW
Result File : C:\TC4\HP58907\866A006.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A006.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A006.RST
Calib Method : C:\TC4\HP58907\866APEM from C:\TC4\HP58907\866A006.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul Area Reject : 777.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 15 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 20

DATA REPORT

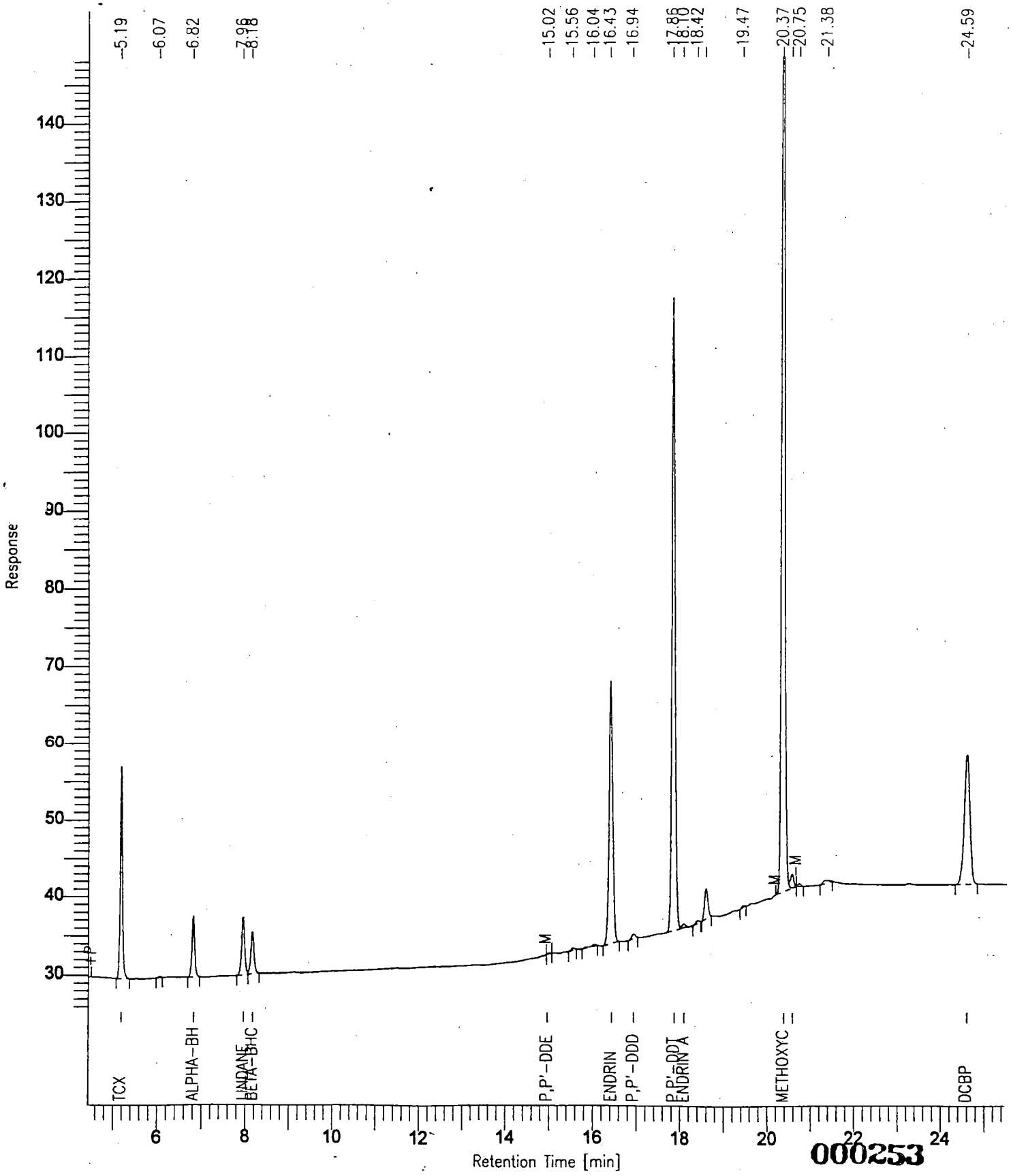
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	5.187	TCX	96222	B	27401	-0.0128
3	6.824	ALPHA-BHC	33938	B	7808	-0.0266
4	7.961	LINDANE	36455	B	7360	-0.0390
5	8.175	BETA-BHC	27547	V	5363	-0.0114
9	16.431	ENDRIN	194671	B	34163	-0.0165
10	16.944	P,P'-DDD	3550	B	600	0.0291
11	17.864	P,P'-DDT	400482	B	82019	-0.0146
12	18.096	ENDRIN ALDEHYDE	2593	E	459	0.0117
16	20.374	METHOXYCHLOR	650920	*B	135530	-0.0176
17	20.579	ENDRIN KETONE	9541	*E	1808	-0.0156
20	24.585	DCBP	151087	B	16891	-0.0089
			1607007		319402	

9513356.0307

Chromatogram

Name : CK*PEM*1
ame : C:\TC4\HP58907\866A006.RAW
l :
Start Time : 4.43 min End Time : 25.48 min
Scale Factor: 0.0 Plot Offset: 25 mV

Sample #:
Date : 7/1/94 09:56 AM
Time of Injection: 6/28/94 01:45 PM
Low Point : 25.35 mV High Point : 148.44 mV
Plot Scale: 123.1 mV



Software Version: 4.0<1C29>
Sample Name : ICV*AR1660*1 Time : 7/1/94 09:57 AM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/7

Interface Serial # : NONE Data Acquisition Time: 6/28/94 02:26 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A007.RAW
Result File : C:\TC4\HP58907\866A007.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A007.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A007.RST
Calib Method : C:\TC4\HP58907\866A1660 from C:\TC4\HP58907\866A007.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 15 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 47

DATA REPORT

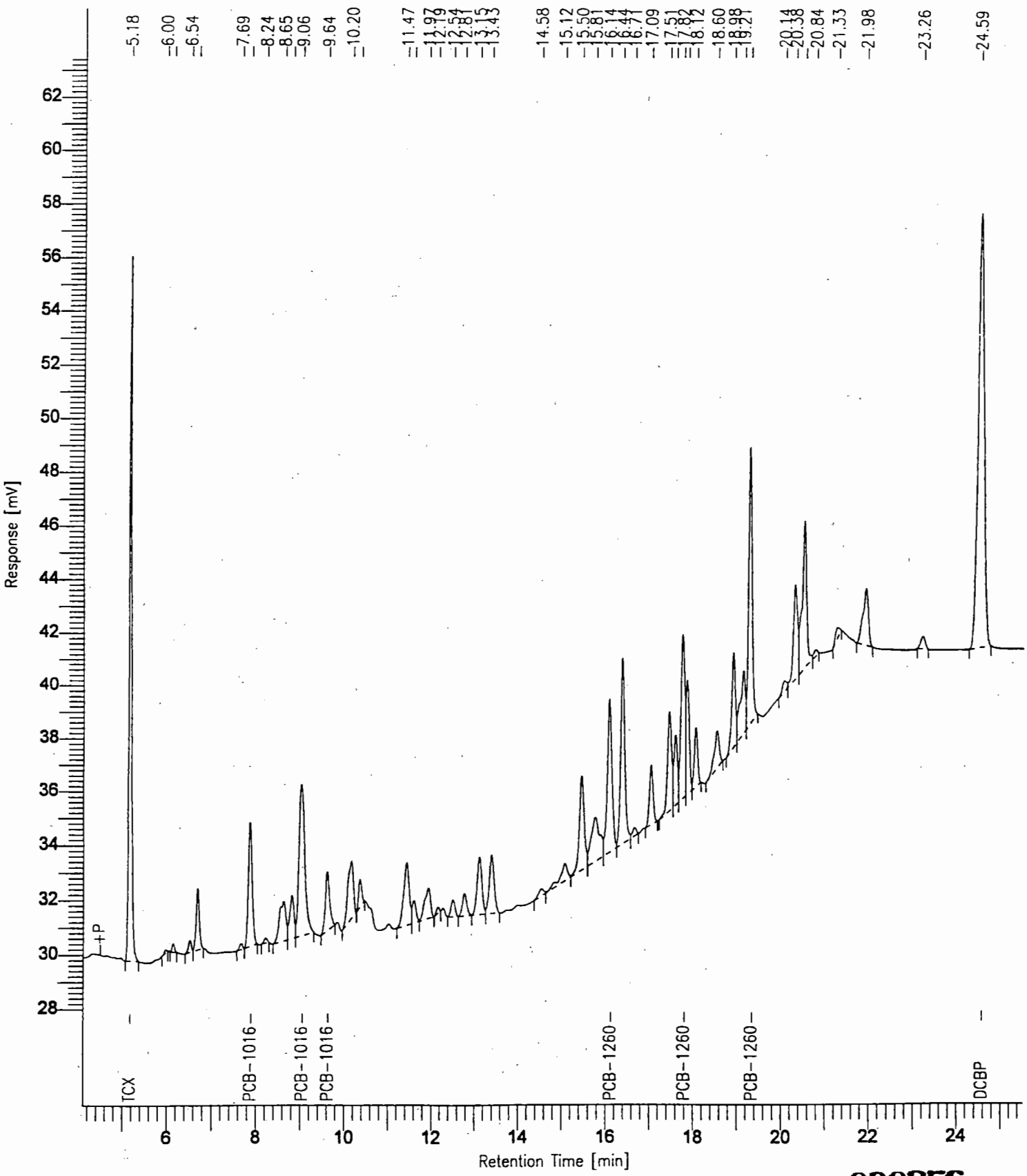
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	5.184	TCX	97723	B	26415	-3e-15	0.0200
5	6.714		11308	V	2251	-------	1.1308e-07
7	7.896	PCB-1016-1	27601	B	4544	5e-15	0.1000
9	8.653		14861	B	1443	-------	1.4861e-07
10	8.840		10818	V	1591	-------	1.0818e-07
11	9.061	PCB-1016-2	51254	V	5570	8e-15	0.1000
12	9.644	PCB-1016-3	14886	B	2150	9e-15	0.1000
13	10.198		19071	B	2090	-------	1.9071e-07
15	11.466		20583	B	2289	-------	2.0583e-07
17	11.967		10642	V	1107	-------	1.0642e-07
20	12.805		5922	B	826	-------	5.9220e-08
21	13.152		16291	V	2099	-------	1.6291e-07
22	13.430		16823	V	2147	-------	1.6823e-07
24	15.115		7577	V	635	-------	7.5771e-08
25	15.503		26992	V	3514	-------	2.6992e-07

Peak	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
	15.812		22385	V	1621	-------	2.2385e-07
27	16.139	PCB-1260-1	43200	V	5777	7e-15	0.1000
28	16.439		45521	V	7024	-------	4.5521e-07
30	17.092		12968	B	2242	-------	1.2968e-07
31	17.512		24956	B	3743	-------	2.4956e-07
32	17.653		15178	V	2634	-------	1.5178e-07
33	17.820	PCB-1260-2	40471	V	6229	7e-15	0.1000
34	17.921		21253	V	4335	-------	2.1253e-07
35	18.117		12105	V	2230	-------	1.2105e-07
36	18.601		11353	B	1404	-------	1.1353e-07
37	18.976		21163	B	3622	-------	2.1163e-07
38	19.207		20059	V	2351	-------	2.0059e-07
39	19.357	PCB-1260-3	57397	V	10422	9e-15	0.1000
41	20.379		24423	V	3555	-------	2.4423e-07
42	20.593		40306	V	5522	-------	4.0306e-07
45	21.982		18309	B	2138	-------	1.8309e-07
47	24.585	DCBP	152703	B	16268	-5e-15	0.0200
			936102		139784		0.6400

Chromatogram

Sample Name : ICV*AR1660*1
FileName : C:\TC4\HP58907\866A007.RAW
Method :
Start Time : 4.11 min End Time : 25.57 min
Scale Factor: 0.0 Plot Offset: 28 mV

Sample #:
Date : 7/1/94 09:57 AM
Time of Injection: 6/28/94 02:26 PM
Low Point : 27.84 mV High Point : 63.52 mV
Plot Scale: 35.7 mV



000256

Software Version: 4.0<1C29>
Sample Name : ICV*AR1221*1 Time : 7/1/94 09:59 AM
mple Number: Study :
erator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/8

Interface Serial # : NONE Data Acquisition Time: 6/28/94 03:06 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A008.RAW
Result File : C:\TC4\HP58907\866A008.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A008.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A008.RST
Calib Method : C:\TC4\HP58907\866A1221 from C:\TC4\HP58907\866A008.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

ise Threshold: 15 Area Threshold : 444 Bunch Factor: 1
ltiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 21

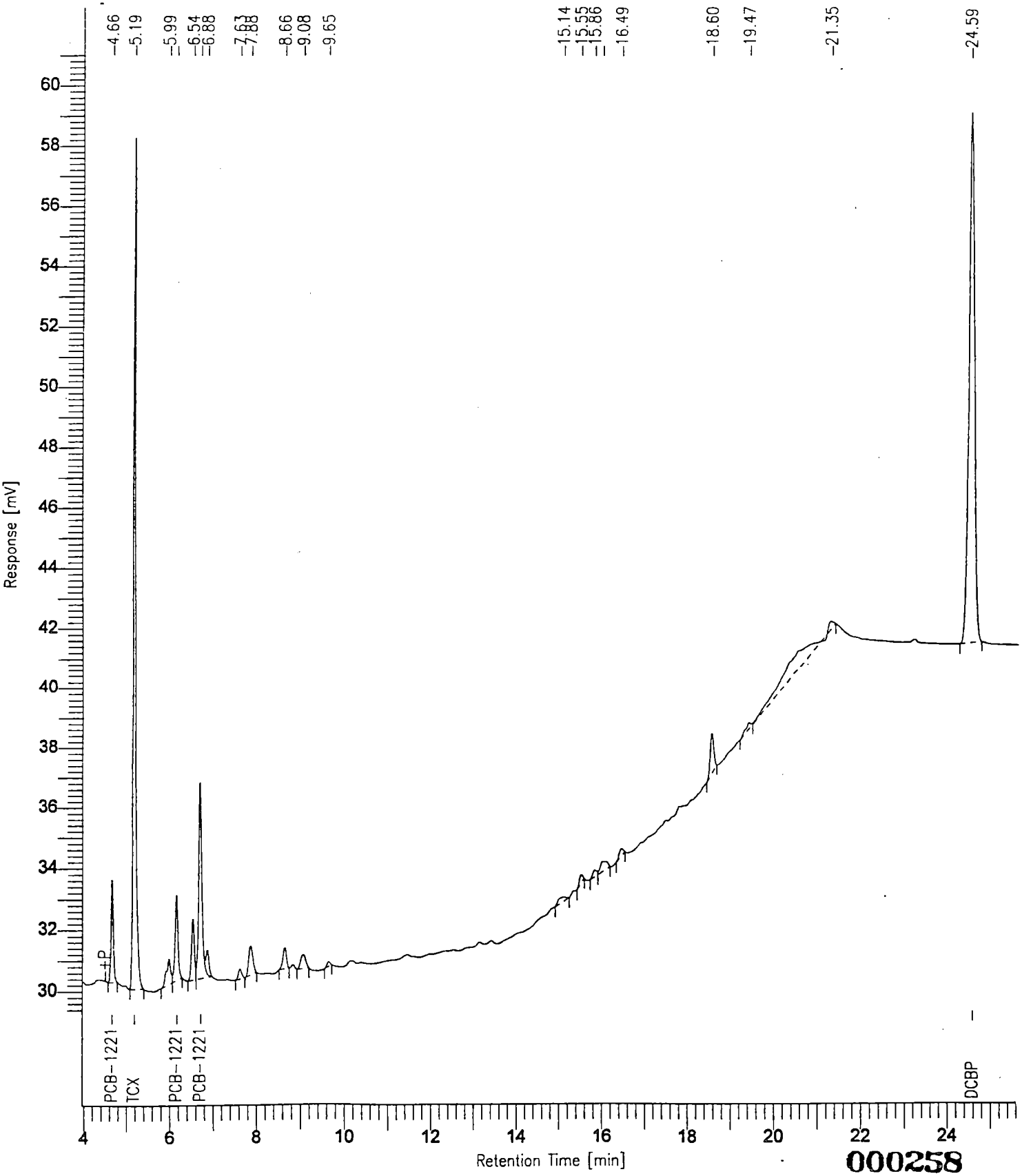
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	4.660	PCB-1221-1	12596	B	3343	-9e-15	0.2000
2	5.186	TCX	102191	B	28232	1e-15	0.0200
3	5.992		5864	B	837	-------	5.8639e-08
4	6.162	PCB-1221-2	13125	V	2800	0.0000	0.2000
5	6.543		9368	B	2014	-------	9.3681e-08
6	6.714	PCB-1221-3	33447	V	6444	-5e-15	0.2000
9	7.879		6461	B	948	-------	6.4614e-08
18	18.603		7878	B	1342	-------	7.8779e-08
	21.347		30837	V	252	-------	3.0837e-07
	24.586	DCBP	154619	B	17655	4e-15	0.0200
			376386		63866		0.6400

Chromatogram

Sample Name : ICV*AR1221*1
FileName : C:\TC4\HP58907\866A008.RAW
Method :
Start Time : 3.96 min End Time : 25.67 min
Scale Factor: 0.0 Plot Offset: 29 mV

Sample #:
Date : 7/1/94 09:59 AM
Time of Injection: 6/28/94 03:06 PM
Low Point : 29.28 mV High Point : 61.00 mV
Plot Scale: 31.7 mV



Software Version: 4.0<1C29>
Sample Name : ICV*AR1232*1 Time : 7/1/94 09:59 AM
ple Number: Study :
erator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/9

Interface Serial # : NONE Data Acquisition Time: 6/28/94 03:46 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A009.RAW
Result File : C:\TC4\HP58907\866A009.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A009.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A009.RST
Calib Method : C:\TC4\HP58907\866A1232 from C:\TC4\HP58907\866A009.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 15 Area Threshold : 444 Bunch Factor: 1
tiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 30

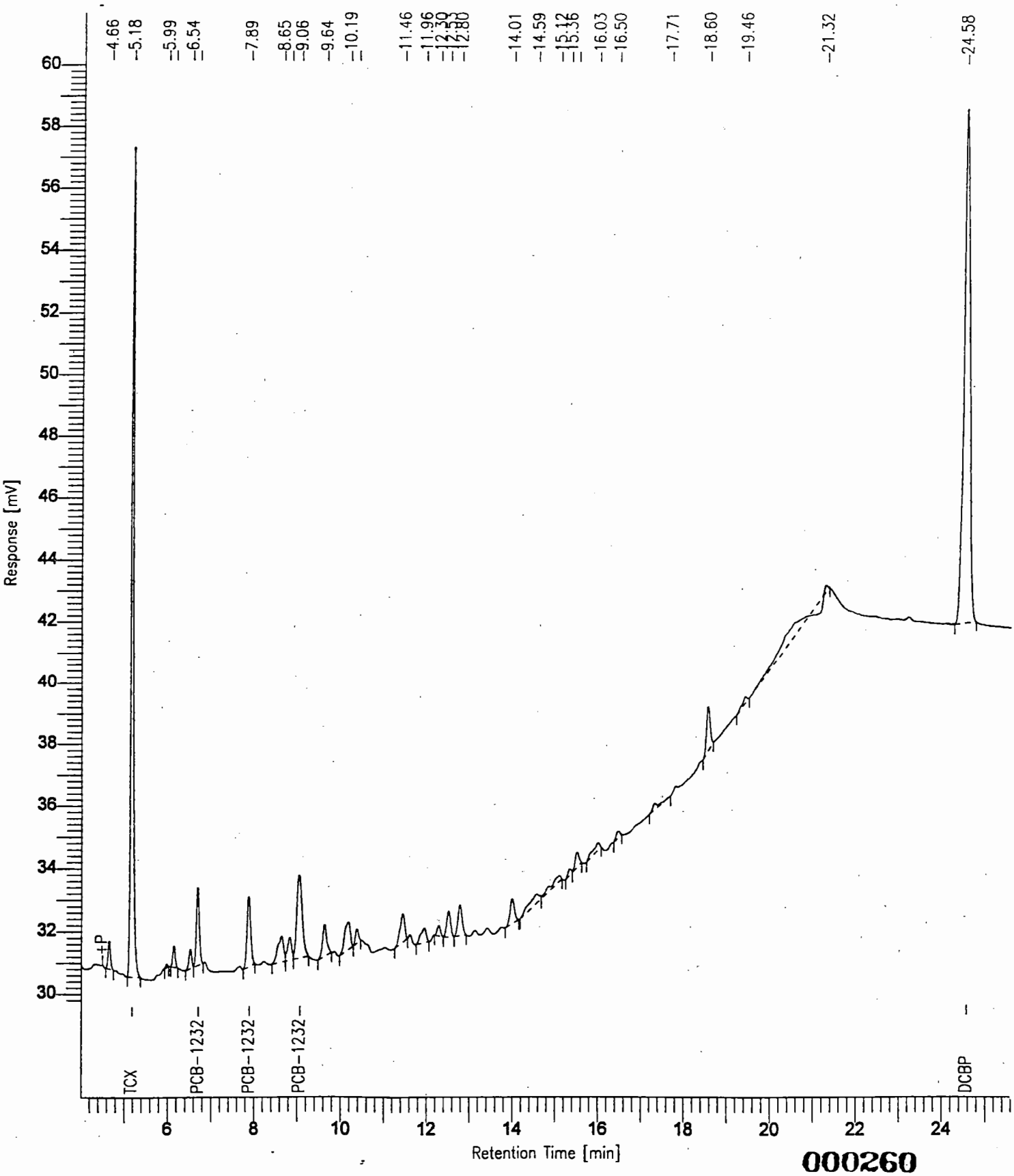
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	5.182	TCX	98866	B	26895	6e-15	0.0200
6	6.710	PCB-1232-1	11842	V	2494	-6e-15	0.1000
7	7.892	PCB-1232-2	13545	B	2239	-2e-15	0.1000
8	8.651		7692	B	826	-------	7.6920e-08
10	9.060	PCB-1232-3	23113	V	2643	-3e-15	0.1000
11	9.642		6863	B	1014	-------	6.8630e-08
12	10.191		8279	B	884	-------	8.2795e-08
14	11.461		7033	B	895	-------	7.0327e-08
	12.797		6768	B	980	-------	6.7676e-08
	14.013		5654	B	786	-------	5.6538e-08
27	18.598		8481	B	1443	-------	8.4813e-08
29	21.322		13195	V	221	-------	1.3195e-07
30	24.577	DCBP	155878	B	16720	-2e-15	0.0200
			367210		58039		0.3400

Chromatogram

Sample Name : ICV*AR1232*1
FileName : C:\TC4\HP58907\866A009.RAW
Method :
Start Time : 4.01 min End Time : 25.62 min
Scale Factor: 0.0 Plot Offset: 30 mV

Sample #:
Date : 7/1/94 09:59 AM
Time of Injection: 6/28/94 03:46 PM
Low Point : 29.61 mV High Point : 60.15 mV
Plot Scale: 30.5 mV



000260

Software Version: 4.0<1C29>
Sample Name : ICV*AR1242*1 Time : 7/1/94 09:59 AM
mple Number: Study :
erator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/10

Interface Serial # : NONE Data Acquisition Time: 6/28/94 04:27 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A010.RAW
Result File : C:\TC4\HP58907\866A010.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A010.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A010.RST
Calib Method : C:\TC4\HP58907\866A1242 from C:\TC4\HP58907\866A010.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

ise Threshold: 15 Area Threshold : 444 Bunch Factor: 1
ltiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 37

DATA REPORT

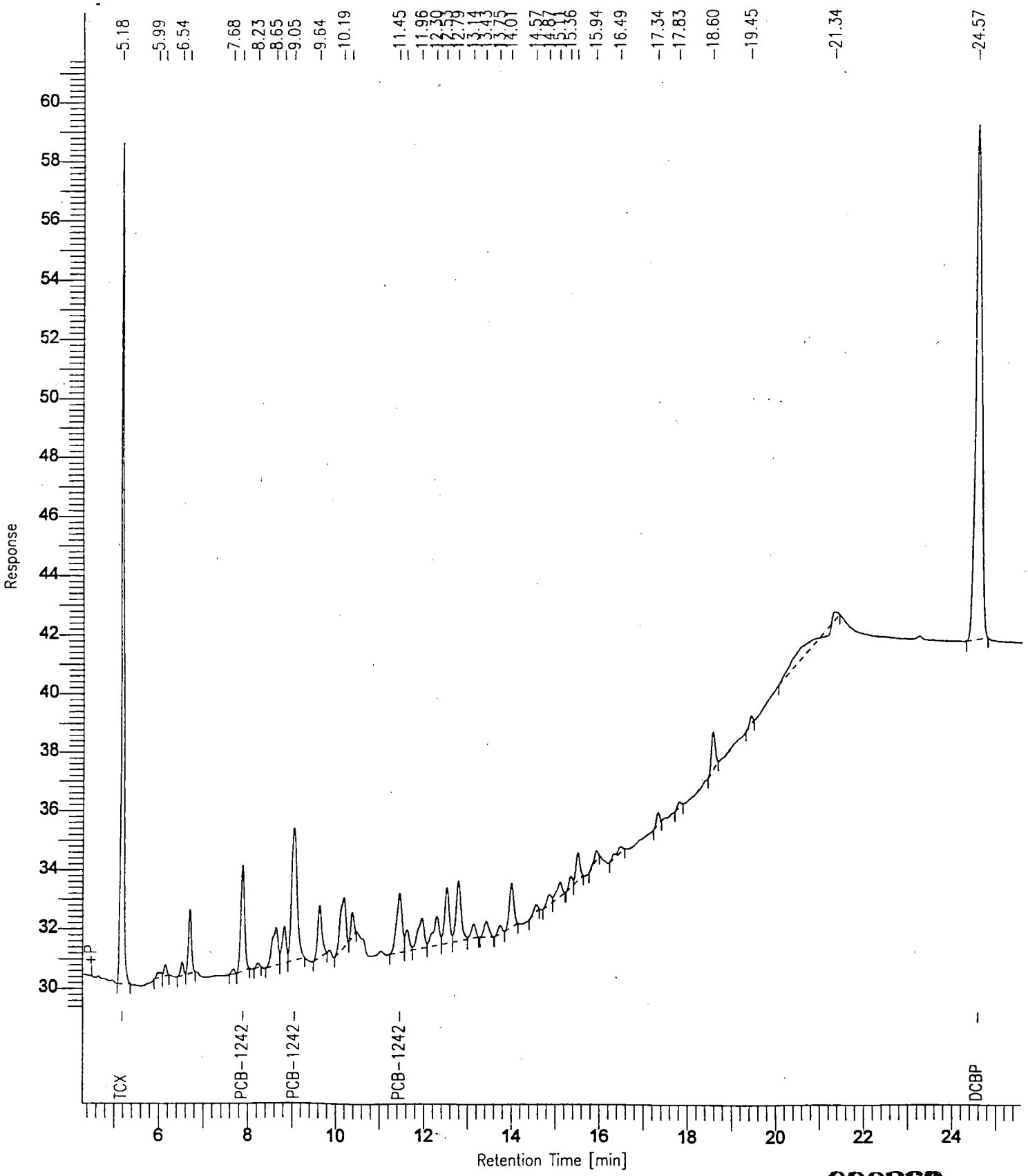
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	5.179	TCX	102899	B	28530	-1e-15	0.0200
5	6.706		10214	V	2124	-------	1.0214e-07
7	7.887	PCB-1242-1	21289	B	3574	-8e-16	0.1000
9	8.645		12036	B	1259	-------	1.2036e-07
10	8.831		8055	V	1226	-------	8.0551e-08
11	9.053	PCB-1242-2	38958	V	4464	-9e-15	0.1000
12	9.635		11579	B	1720	-------	1.1579e-07
13	10.188		15036	B	1661	-------	1.5036e-07
	11.454	PCB-1242-3	17500	B	1984	-6e-15	0.1000
	11.958		10298	V	990	-------	1.0298e-07
18	12.296		9524	V	960	-------	9.5245e-08
19	12.525		14064	V	1872	-------	1.4064e-07
20	12.790		16299	V	2029	-------	1.6299e-07
24	14.005		10482	B	1494	-------	1.0482e-07
29	15.516		6067	V	957	-------	6.0670e-08

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
34	18.595		7951	B	1343	-------	7.9513e-08
36	21.335		13121	B	270	-------	1.3121e-07
37	24.574	DCBP	159928	B	17362	7e-15	0.0200
			485302		73820		0.3400

Chromatogram

Sample Name : ICV*AR1242*1
Name : C:\TC4\HP58907\866A010.RAW
Method :
Start Time : 4.29 min End Time : 25.57 min
Scale Factor: 0.0 Plot Offset: 29 mV

Sample #:
Date : 7/1/94 09:59 AM
Time of Injection: 6/28/94 04:27 PM
Low Point : 29.25 mV High Point : 61.43 mV
Plot Scale: 32.2 mV



Software Version: 4.0<1C29>
Sample Name : ICV*AR1248*1 Time : 7/1/94 10:00 AM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/11

Interface Serial # : NONE Data Acquisition Time: 6/28/94 05:07 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A011.RAW
Result File : C:\TC4\HP58907\866A011.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A011.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A011.RST
Calib Method : C:\TC4\HP58907\866A1248 from C:\TC4\HP58907\866A011.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 15 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 37

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	5.180	TCX	98073	B	27015	7e-15	0.0200
3	7.890		11635	B	2024	-------	1.1635e-07
4	8.645		7689	B	788	-------	7.6895e-08
6	9.058	PCB-1248-1	36665	V	4108	0.0000	0.1000
7	9.637		7356	B	1088	-------	7.3560e-08
9	10.198		20823	B	2770	-------	2.0823e-07
10	10.386		16282	V	1959	-------	1.6282e-07
12	11.460	PCB-1248-2	25444	B	3153	-1e-15	0.1000
13	11.623		7898	V	1171	-------	7.8982e-08
14	11.961		20681	V	1961	-------	2.0681e-07
15	12.296		21088	V	2232	-------	2.1088e-07
16	12.527		28922	V	3667	-------	2.8922e-07
17	12.791	PCB-1248-3	35290	V	4155	0.0000	0.1000
18	13.142		8233	V	986	-------	8.2329e-08
19	13.427		9035	V	1031	-------	9.0347e-08

9513356.0313

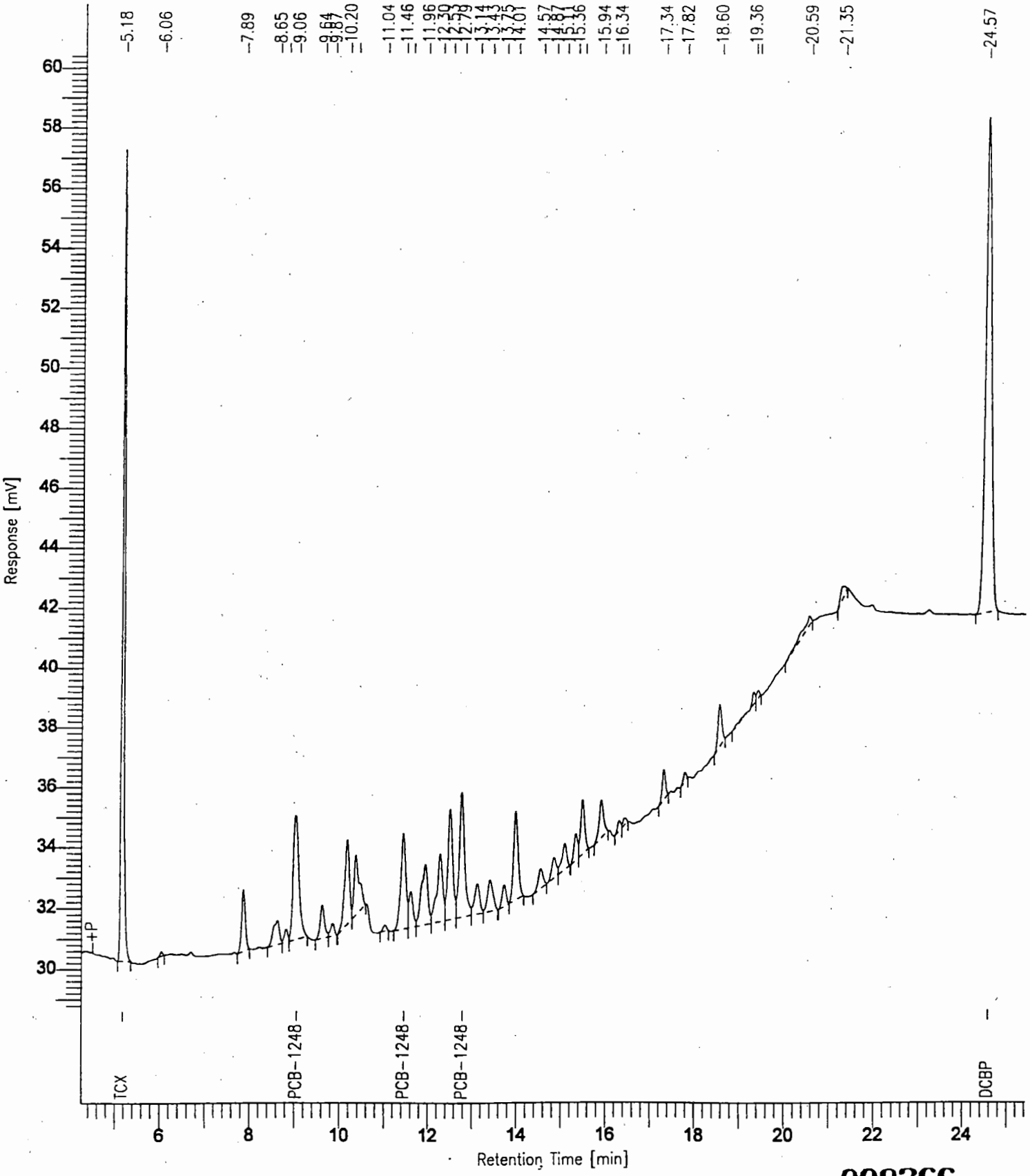
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
	14.007		20952	V	2952	-------	2.0952e-07
4	15.109		6957	V	874	-------	6.9570e-08
26	15.514		11628	V	1832	-------	1.1628e-07
27	15.935		8946	B	1266	-------	8.9460e-08
32	18.596		8428	B	1427	-------	8.4279e-08
37	24.573	DCBP	153491	B	16606	2e-15	0.0200
			565517		83065		0.3400

Chromatogram

Sample Name : ICV*ARI248*1
FileName : C:\TC4\HP58907\866A011.RAW
Method :
Start Time : 4.25 min
Scale Factor: 0.0

End Time : 25.43 min
Plot Offset: 29 mV

Sample #:
Date : 7/1/94 10:00 AM
Time of Injection: 6/28/94 05:07 PM
Low Point : 28.63 mV
Plot Scale: 31.9 mV



000266

Software Version: 4.0<1C29>
Sample Name : ICV*AR1254*1 Time : 7/1/94 10:00 AM
nple Number: Study :
erator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/12

Interface Serial # : NONE Data Acquisition Time: 6/28/94 05:47 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A012.RAW
Result File : C:\TC4\HP58907\866A012.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A012.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A012.RST
Calib Method : C:\TC4\HP58907\866A1254 from C:\TC4\HP58907\866A012.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 15 Area Threshold : 444 Bunch Factor: 1
tiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 36

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	5.182	TCX	98363	B	27296	6e-15	0.0200
4	10.202		17511	B	2590	-------	1.7511e-07
6	11.465		8078	B	1200	-------	8.0775e-08
9	12.532		12918	V	1762	-------	1.2918e-07
11	13.143		30597	B	4052	-------	3.0597e-07
12	13.426	PCB-1254-1	36426	V	4535	3e-15	0.1000
13	13.747		11537	B	1713	-------	1.1537e-07
15	14.565		12629	B	1703	-------	1.2629e-07
	14.869		13390	V	1835	-------	1.3390e-07
	15.111		20843	V	2995	-------	2.0843e-07
[illegible]	15.513	PCB-1254-2	52190	V	6990	2e-15	0.1000
19	15.936		42456	V	4981	-------	4.2456e-07
20	16.135		20303	V	2879	-------	2.0303e-07
21	16.437		21941	V	3259	-------	2.1941e-07
25	17.344		13519	B	2358	-------	1.3519e-07

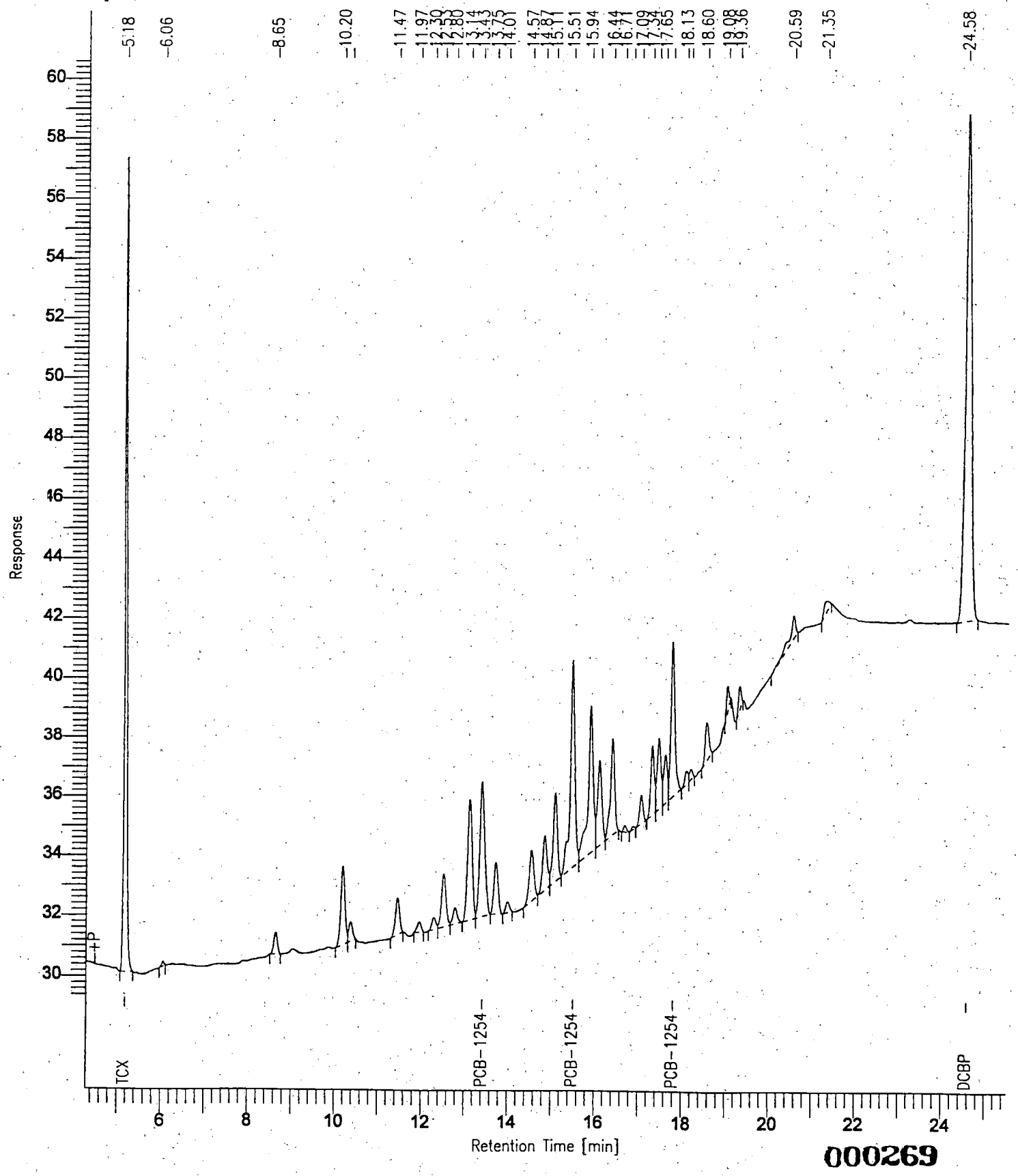
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
26	17.498		15337	V	2401	-------	1.5337e-07
27	17.648		9881	V	1622	-------	9.8814e-08
28	17.815	PCB-1254-3	33488	V	5201	-1e-15	0.1000
31	18.600		7957	B	1316	-------	7.9565e-08
34	20.592		7391	B	760	-------	7.3915e-08
36	24.577	DCBP	154236	B	16980	-5e-15	0.0200
			640991		98427		0.3400

9513356.0315

Chromatogram

Sample Name : ICV*AR1254*1
File Name : C:\TC4\HP58907\866A012.RAW
Method :
Start Time : 4.29 min End Time : 25.53 min
Scale Factor: 0.0 Plot Offset: 29 mV

Sample #:
Date : 7/1/94 10:00 AM
Time of Injection: 6/28/94 05:47 PM
Low Point : 29.30 mV High Point : 60.72 mV
Plot Scale: 31.4 mV



000269

Software Version: 4.0<1C29>
Sample Name : ICV*TOXAPH*1 Time : 7/1/94 10:00 AM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/13

Interface Serial # : NONE Data Acquisition Time: 6/28/94 06:28 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A013.RAW
Result File : C:\TC4\HP58907\866A013.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A013.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A013.RST
Calib Method : C:\TC4\HP58907\866ATOX from C:\TC4\HP58907\866A013.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 15 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 42

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	5.183	TCX	98364	B	26238	-3e-15	0.0200
4	11.284		5751	B	729	-------	5.7513e-08
6	13.167		7699	B	909	-------	7.6988e-08
9	14.340		7215	B	644	-------	7.2150e-08
10	14.694		8329	B	993	-------	8.3295e-08
11	14.937		10089	V	1273	-------	1.0089e-07
12	15.080		16672	V	1729	-------	1.6672e-07
14	15.645		30665	V	2586	-------	3.0665e-07
15	15.941		27189	V	3105	-------	2.7189e-07
16	16.136		6270	V	842	-------	6.2698e-08
19	16.791		22072	B	2147	-------	2.2072e-07
20	17.138	TOXAPHENE-1	58511	V	6337	0.0000	0.5000
22	17.561		26293	B	2676	-------	2.6293e-07
23	17.856		35944	V	5346	-------	3.5944e-07
24	18.074		12773	B	2589	-------	1.2773e-07

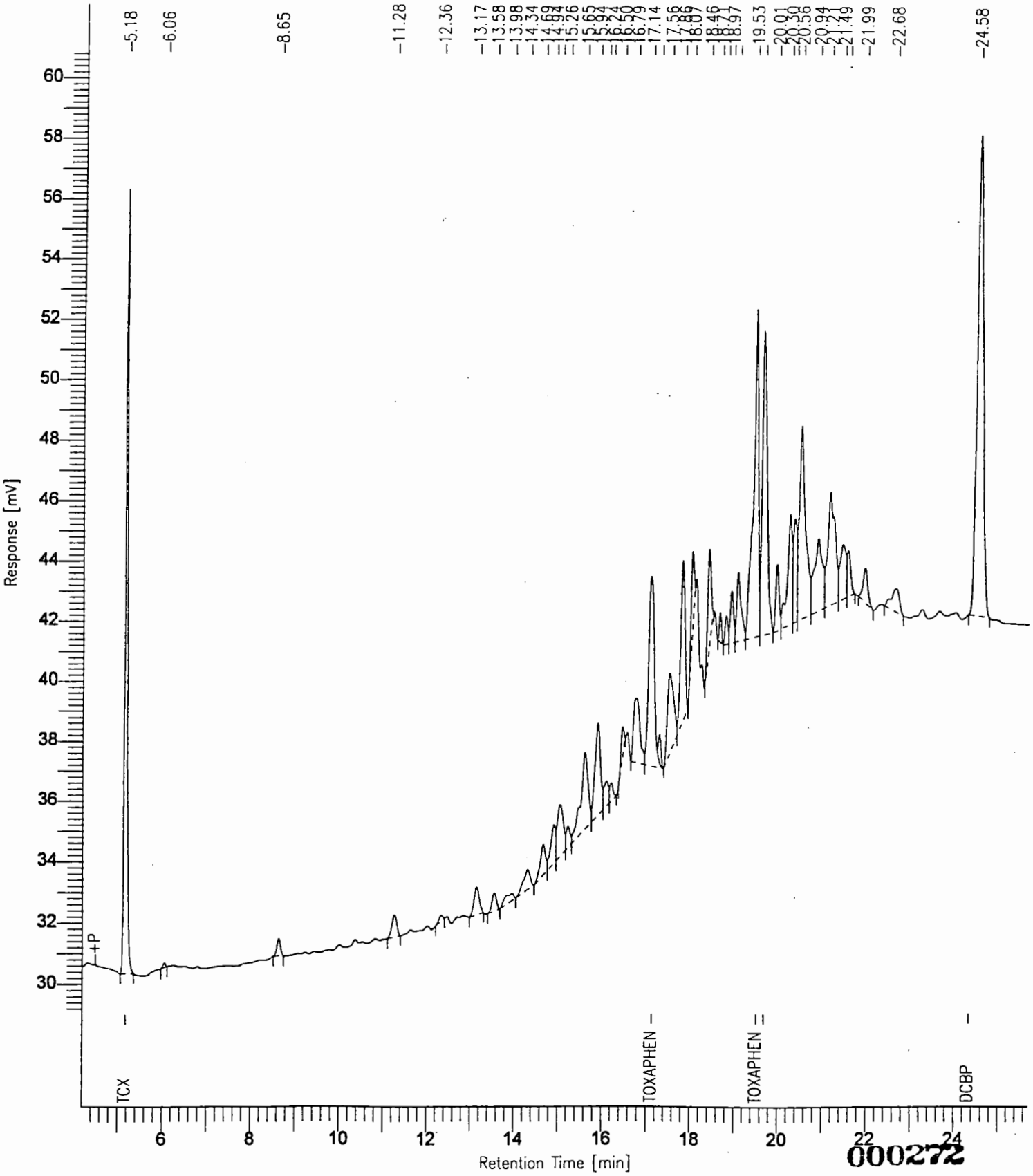
Peak	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
	18.458		18292	B	3242	-------	1.8292e-07
28	18.969		9036	V	1718	-------	9.0357e-08
29	19.117		16250	V	2293	-------	1.6250e-07
30	19.530	TOXAPHENE-2	84088	V	10903	4e-15	0.5000
31	19.701	TOXAPHENE-3	78901	V	10083	-4e-15	0.5000
32	20.010		11217	B	2197	-------	1.1217e-07
33	20.303		28283	V	3658	-------	2.8283e-07
34	20.411		20164	V	3438	-------	2.0164e-07
35	20.556		63068	V	6424	-------	6.3068e-07
36	20.940		31228	V	2408	-------	3.1228e-07
37	21.205		44146	V	3756	-------	4.4146e-07
38	21.494		17021	V	1813	-------	1.7021e-07
39	21.614		8470	V	1534	-------	8.4705e-08
40	21.993		8266	B	1149	-------	8.2664e-08
41	22.680		9628	B	769	-------	9.6283e-08
42	24.581	— DCBP	151217	B	16040	-------	1.5122e-06
			973111		129566		1.5200

VSB 7-5-94

Chromatogram

Sample Name : ICV*TOXAPH*1
FileName : C:\TC4\HP58907\866A013.RAW
Method :
Start Time : 4.20 min End Time : 25.71 min
Scale Factor: 0.0 Plot Offset: 29 mV

Sample #:
Date : 7/1/94 10:00 AM
Time of Injection: 6/28/94 06:28 PM
Low Point : 29.01 mV High Point : 60.86 mV
Plot Scale: 31.8 mV



000272

Software Version: 4.0<1C29>
Sample Name : ICV*INDAL*1 Time : 7/1/94 10:03 AM
ıple Number: Study :
erator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/14

Interface Serial # : NONE Data Acquisition Time: 6/28/94 07:08 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A014.RAW
Result File : C:\TC4\HP58907\866A014.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A014.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A014.RST
Calib Method : C:\TC4\HP58907\866AAL from C:\TC4\HP58907\866A014.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

.se Threshold: 15 Area Threshold : 444 Bunch Factor: 1
ıtiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 18

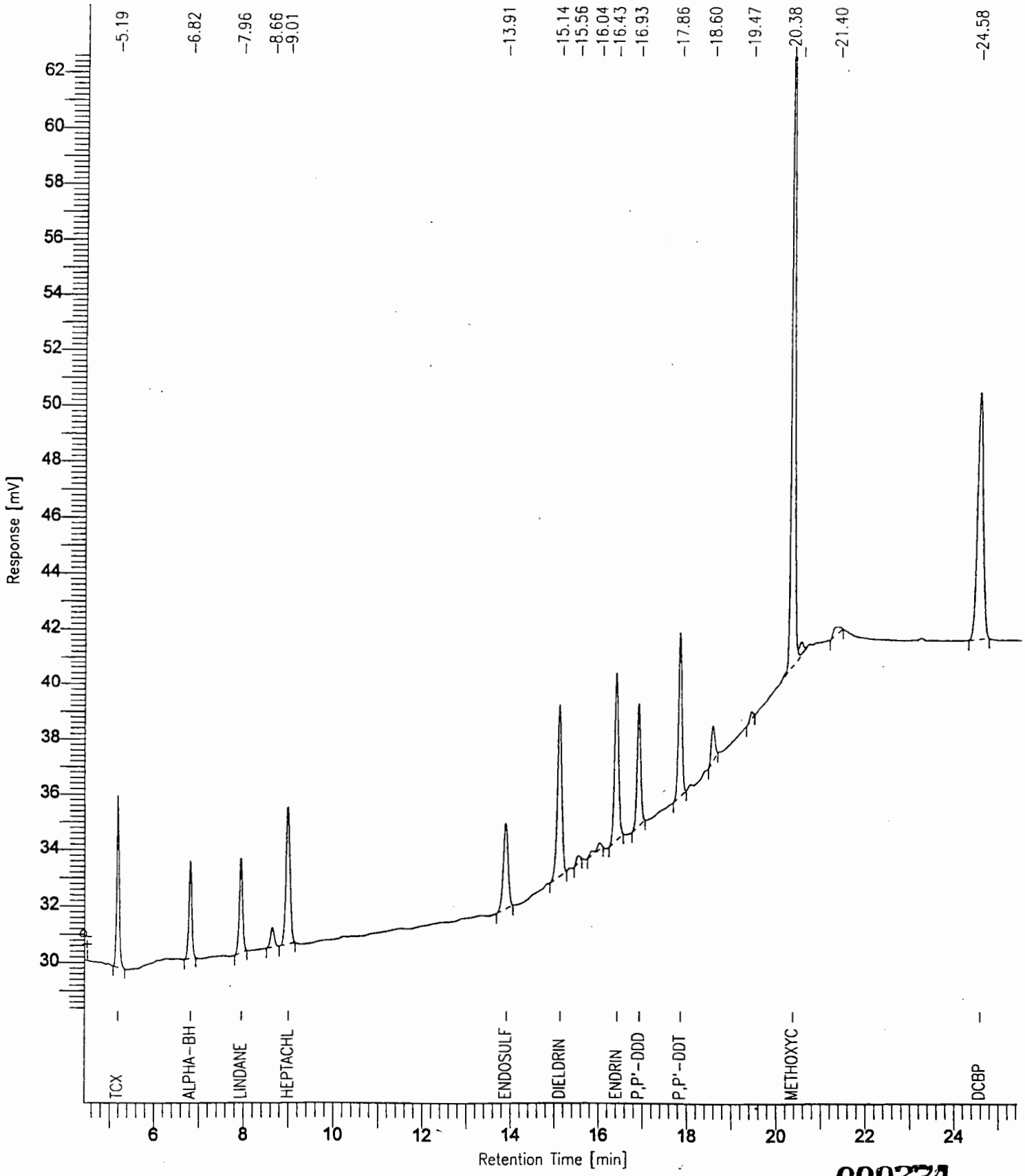
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	5.186	TCX	23450	B	6126	0.0000	0.0050
2	6.820	ALPHA-BHC	15857	B	3455	3e-15	0.0050
3	7.957	LINDANE	17162	B	3363	-3e-15	0.0050
5	9.005	HEPTACHLOR	31084	B	4901	-5e-15	0.0050
6	13.906	ENDOSULFAN A	23105	B	3070	-3e-15	0.0050
7	15.135	DIELDRIN	42331	B	6230	-2e-15	0.0100
10	16.429	ENDRIN	37755	B	6088	3e-15	0.0100
**	16.932	P,P'-DDD	24903	B	4471	-7e-15	0.0100
	17.862	P,P'-DDT	32185	B	5989	-4e-15	0.0100
	20.375	METHOXYCHLOR	132645	B	26568	1e-15	0.0500
18	24.584	DCBP	79062	B	8879	-3e-15	0.0100
			459539		79141		0.1250

Chromatogram

Sample Name : ICV*INDAL*1
FileName : C:\TC4\HP58907\866A014.RAW
Method :
Start Time : 4.43 min End Time : 25.53 min
Scale Factor: 0.0 Plot Offset: 28 mV

Sample #:
Date : 7/1/94 10:03 AM
Time of Injection: 6/28/94 07:08 PM
Low Point : 28.29 mV High Point : 62.72 mV
Plot Scale: 34.4 mV



Software Version: 4.0<1C29>
Sample Name : ICV*INDBL*1 Time : 7/1/94 10:18 AM
ple Number: Study :
erator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/15

Interface Serial # : NONE Data Acquisition Time: 6/28/94 07:48 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A015.RAW
Result File : C:\TC4\HP58907\866A015.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A015.RST
Proc Method : C:\TC4\HP58907\866ABL from C:\TC4\HP58907\866A015.RST
Calib Method : C:\TC4\HP58907\866ABL from C:\TC4\HP58907\866A015.RST
Sequence File : C:\TC4\HP58907\866.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 15 Area Threshold : 444 Bunch Factor: 1
tiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 21

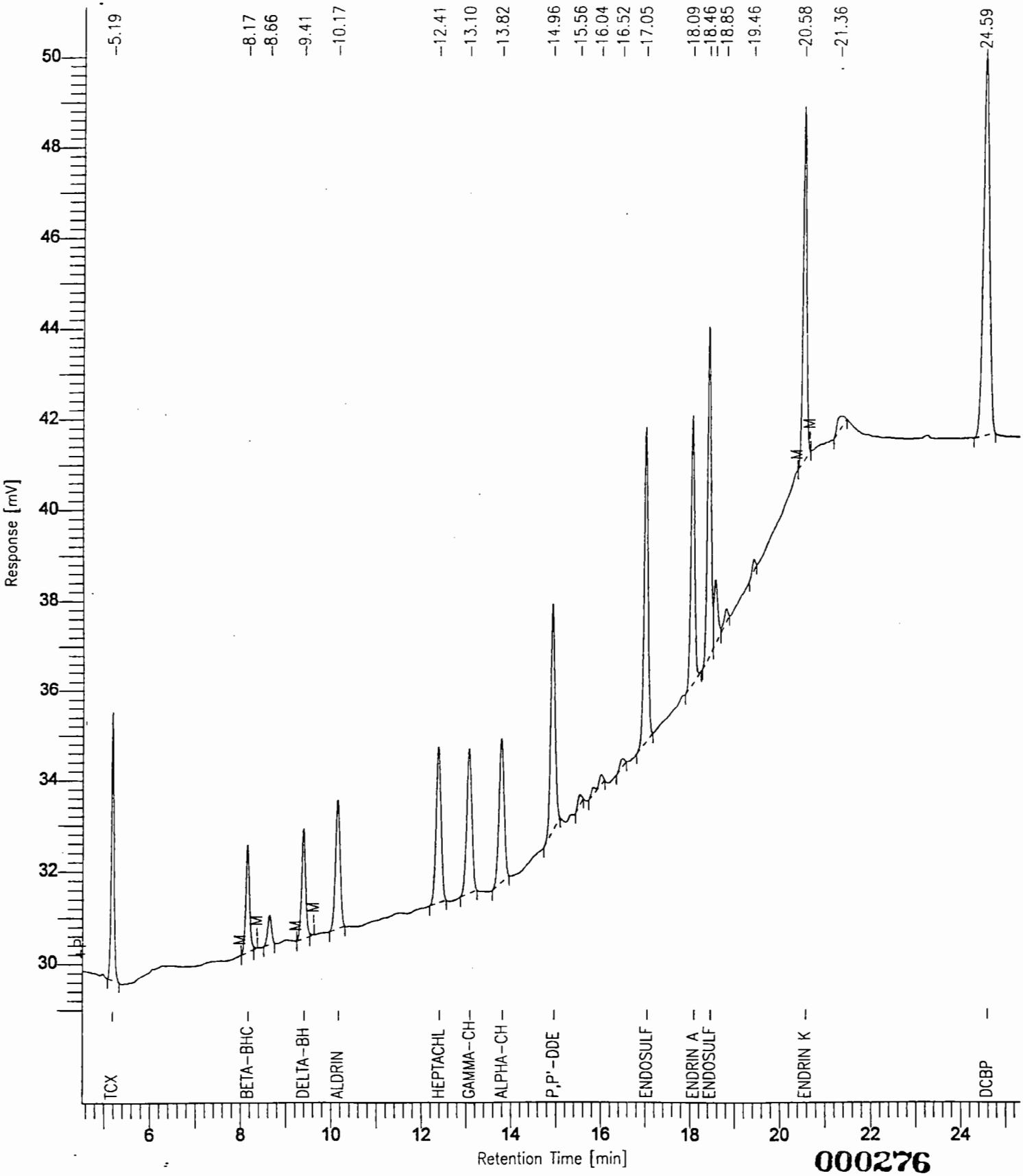
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	5.186	TCX	23354	B	5865	5e-15	0.0050
2	8.173	BETA-BHC	12606	*B	2289	-6e-15	0.0050
4	9.408	DELTA-BHC	13969	*B	2353	6e-15	0.0050
5	10.166	ALDRIN	19997	B	2804	1e-15	0.0050
6	12.407	HEPTACHLOR EPOXIDE	26471	B	3427	-5e-15	0.0050
7	13.098	GAMMA-CHLORDANE	25262	B	3186	-5e-15	0.0050
8	13.817	ALPHA-CHLORDANE	24944	B	3180	2e-15	0.0050
[illegible]	14.962	P,P'-DDE	34368	B	5063	8e-16	0.0100
	17.050	ENDOSULFAN B	42699	B	7007	-8e-15	0.0100
	18.094	ENDRIN ALDEHYDE	34320	B	5935	-3e-15	0.0100
15	18.462	ENDOSULFAN SULFATE	40878	B	7282	-8e-15	0.0100
19	20.580	ENDRIN KETONE	41164	*B	7793	-6e-15	0.0100
21	24.586	DCBP	78919	B	8452	2e-15	0.0100
			418948		64636		0.0950

Chromatogram

Sample Name : ICV*INDBL*1
FileName : C:\TC4\HP58907\866A015.RAW
Method :
Start Time : 4.53 min End Time : 25.34 min
Scale Factor: 0.0 Plot Offset: 29 mV

Sample #:
Date : 7/1/94 10:18 AM
Time of Injection: 6/28/94 07:48 PM
Low Point : 28.98 mV High Point : 50.05 mV
Plot Scale: 21.1 mV



Software Version: 4.0<1C29>
Sample Name : ICV*INDAM*1 Time : 7/1/94 10:19 AM
~ mple Number: Study :
erator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/16

Interface Serial # : NONE Data Acquisition Time: 6/28/94 08:28 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A016.RAW
Result File : C:\TC4\HP58907\866A016.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A016.RST
Proc Method : C:\TC4\HP58907\866AAM from C:\TC4\HP58907\866A016.RST
Calib Method : C:\TC4\HP58907\866AAM from C:\TC4\HP58907\866A016.RST
Sequence File : C:\TC4\HP58907\866.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

ise Threshold: 15 Area Threshold : 444 Bunch Factor: 1
ltiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 21

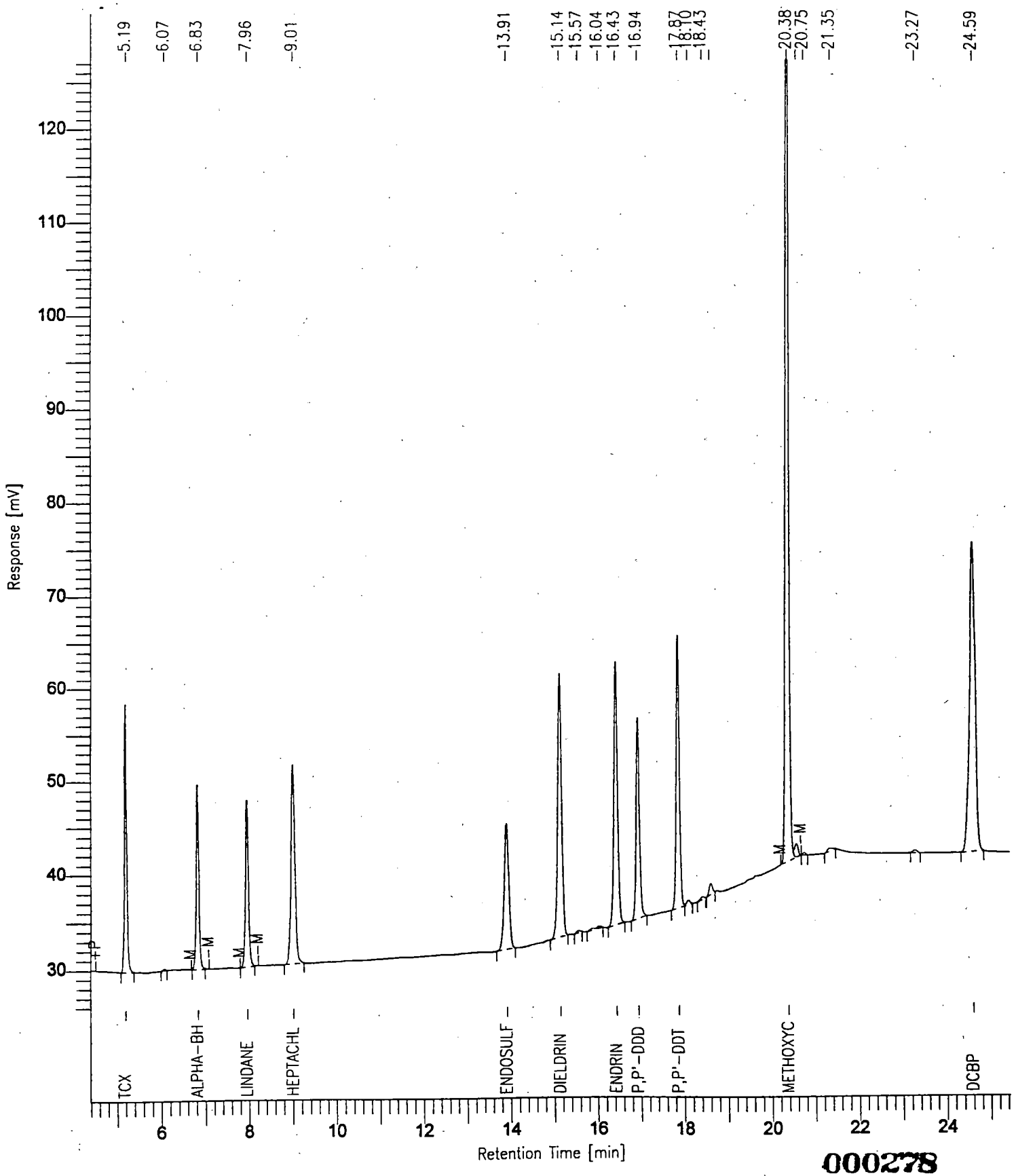
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	5.188	TCX	100263	B	28578	-7e-15	0.0200
3	6.826	ALPHA-BHC	78838	*B	19565	-3e-15	0.0200
4	7.964	LINDANE	82785	*B	17762	2e-15	0.0200
5	9.011	HEPTACHLOR	130521	B	21223	-1e-15	0.0200
6	13.913	ENDOSULFAN A	96440	B	13316	5e-15	0.0200
7	15.142	DIELDRIN	178293	B	28409	-8e-16	0.0400
10	16.434	ENDRIN	162572	B	28429	1e-15	0.0400
11	16.939	P,P'-DDD	112959	B	21666	-1e-14	0.0400
	17.867	P,P'-DDT	147023	B	29589	-5e-15	0.0400
	20.378	METHOXYCHLOR	519665	*B	108678	-3e-15	0.2000
	24.592	DCBP	302064	B	33772	-5e-15	0.0400
			1911423		350988		0.5000

Chromatogram

Sample Name : ICV*INDAM*1
FileName : C:\TC4\HP58907\866A016.RAW
Method :
Start Time : 4.39 min End Time : 25.43 min
Scale Factor: 0.0 Plot Offset: 26 mV

Sample #:
Date : 7/1/94 10:19 AM
Time of Injection: 6/28/94 08:28 PM
Low Point : 25.81 mV High Point : 127.27 mV
Plot Scale: 101.5 mV



000278

Software Version: 4.0<1C29>
Sample Name : ICV*INDBM*1 Time : 7/1/94 10:19 AM
ple Number: Study :
erator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/17

Interface Serial # : NONE Data Acquisition Time: 6/28/94 09:09 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A017.RAW
Result File : C:\TC4\HP58907\866A017.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A017.RST
Proc Method : C:\TC4\HP58907\866ABM from C:\TC4\HP58907\866A017.RST
Calib Method : C:\TC4\HP58907\866ABM from C:\TC4\HP58907\866A017.RST
Sequence File : C:\TC4\HP58907\866.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 15 Area Threshold : 444 Bunch Factor: 1
ltiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 21

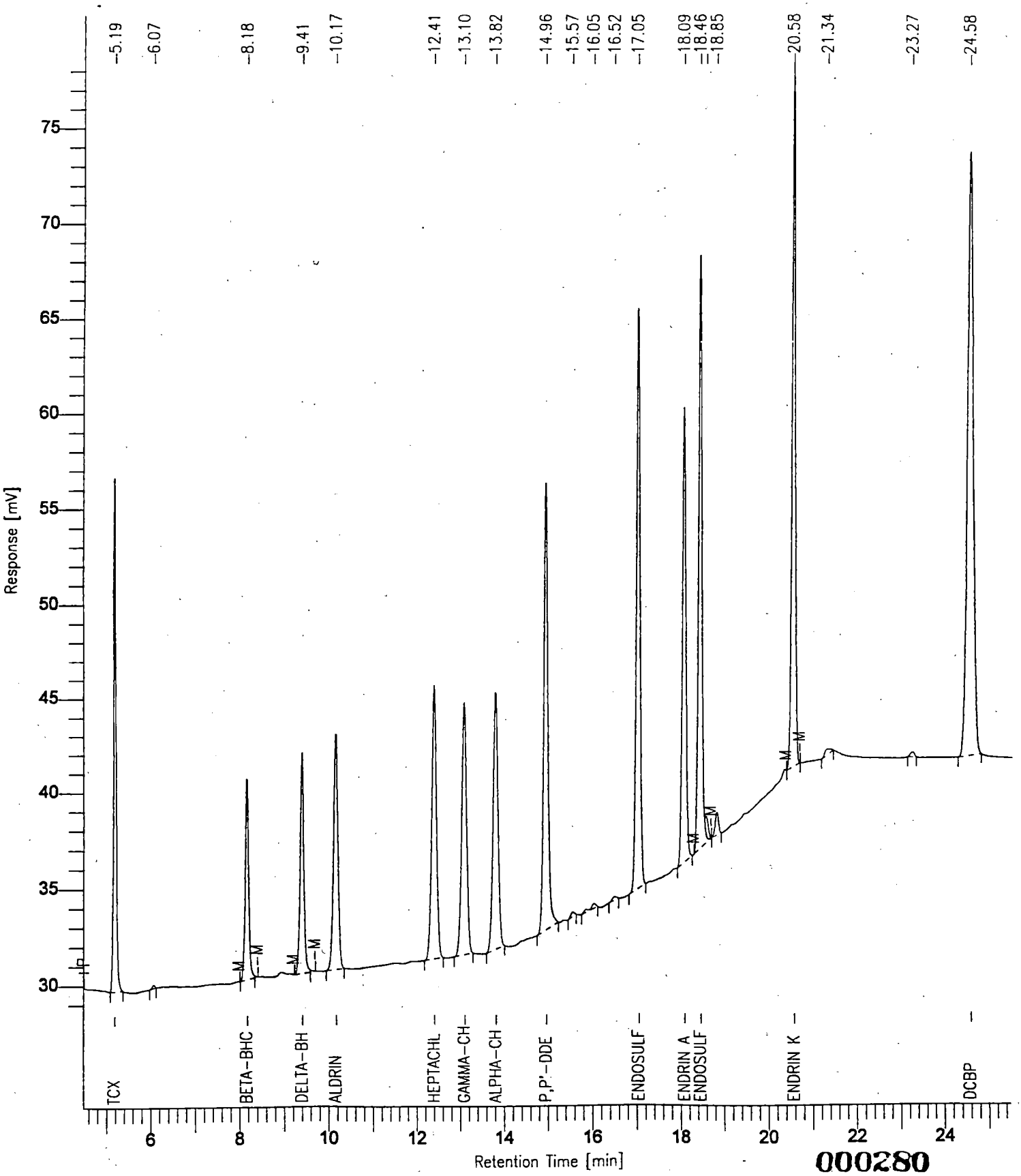
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	5.188	TCX	97862	B	26950	6e-15	0.0200
3	8.176	BETA-BHC	54549	*B	10427	-1e-15	0.0200
4	9.413	DELTA-BHC	63575	*B	11518	5e-15	0.0200
5	10.170	ALDRIN	83289	B	12378	-5e-15	0.0200
6	12.409	HEPTACHLOR EPOXIDE	106552	B	14417	-3e-15	0.0200
7	13.104	GAMMA-CHLORDANE	102810	B	13283	3e-15	0.0200
8	13.821	ALPHA-CHLORDANE	102991	B	13511	-4e-15	0.0200
	14.963	P,P'-DDE	152167	B	23660	6e-15	0.0400
	17.052	ENDOSULFAN B	173920	B	30666	3e-15	0.0400
	18.094	ENDRIN ALDEHYDE	134620	B	24055	7e-15	0.0400
15	18.464	ENDOSULFAN SULFATE	169557	*B	31456	-5e-15	0.0400
18	20.582	ENDRIN KETONE	182492	*B	37118	-8e-15	0.0400
21	24.582	DCBP	295507	B	31945	-5e-15	0.0400
			1719889		281386		0.3800

Chromatogram

Sample Name : ICV*INDBM*1
FileName : C:\TC4\HP58907\866A017.RAW
Method :
Start Time : 4.48 min End Time : 25.53 min
Scale Factor: 0.0 Plot Offset: 28 mV

Sample #:
Date : 7/1/94 10:19 AM
Time of Injection: 6/28/94 09:09 PM
Low Point : 28.40 mV High Point : 78.43 mV
Plot Scale: 50.0 mV



000280

Software Version: 4.0<1C29>
Sample Name : ICV*INDAH*1 Time : 7/1/94 10:19 AM
ple Number: Study :
erator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/18

Interface Serial # : NONE Data Acquisition Time: 6/28/94 09:49 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A018.RAW
Result File : C:\TC4\HP58907\866A018.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A018.RST
Proc Method : C:\TC4\HP58907\866AAH from C:\TC4\HP58907\866A018.RST
Calib Method : C:\TC4\HP58907\866AAH from C:\TC4\HP58907\866A018.RST
Sequence File : C:\TC4\HP58907\866.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 15 Area Threshold : 444 Bunch Factor: 1
itiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 26

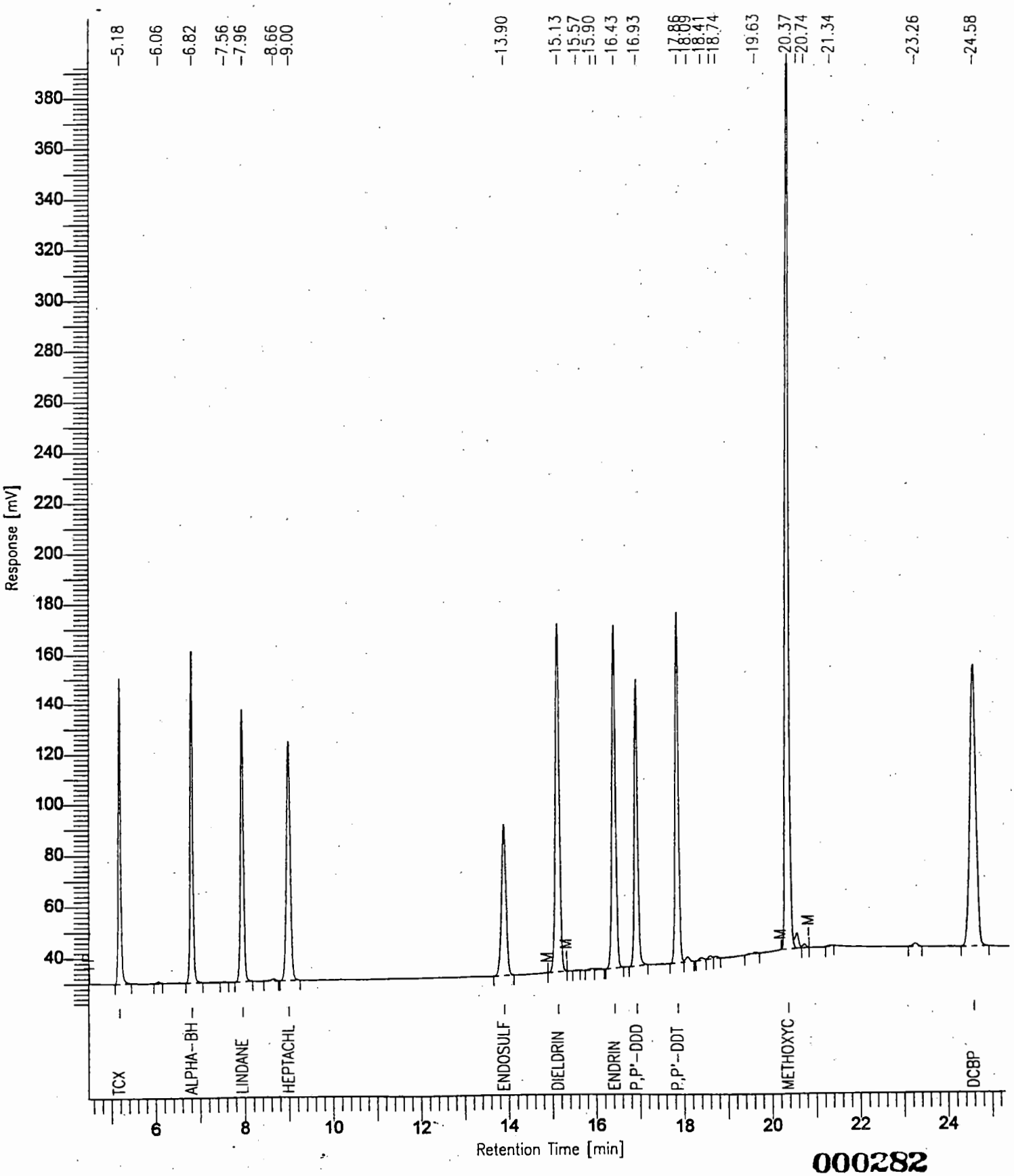
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	5.182	TCX	425914	B	121501	5e-15	0.0800
3	6.819	ALPHA-BHC	507015	B	131324	-9e-16	0.0800
5	7.955	LINDANE	484234	B	107633	-3e-15	0.0800
7	9.002	HEPTACHLOR	565870	B	94413	-7e-15	0.0800
8	13.904	ENDOSULFAN A	421378	B	59261	-2e-15	0.0800
9	15.134	DIELDRIN	857079	*B	138529	2e-15	0.1600
13	16.427	ENDRIN	766548	B	136421	-3e-15	0.1600
	16.933	P,P'-DDD	580401	B	113967	-1e-15	0.1600
	17.862	P,P'-DDT	704195	B	139683	-9e-15	0.1600
	20.370	METHOXYCHLOR	1933587	*B	393701	7e-15	0.8000
26	24.584	DCBP	1057878	B	112485	-7e-15	0.1600
			8304099		1548918		2.0000

Chromatogram

Sample Name : ICV*INDAH*1
FileName : C:\TC4\HP58907\866A018.RAW
Method :
Start Time : 4.48 min End Time : 25.39 min
Scale Factor: 0.0 Plot Offset: 20 mV

Sample #:
Date : 7/1/94 10:19 AM
Time of Injection: 6/28/94 09:49 PM
Low Point : 20.45 mV High Point : 393.19 mV
Plot Scale: 372.7 mV



000282

Software Version: 4.0<1C29>
Sample Name : ICV*INDBH*1 Time : 7/1/94 10:20 AM
nple Number: Study :
erator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/19

Interface Serial # : NONE Data Acquisition Time: 6/28/94 10:29 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A019.RAW
Result File : C:\TC4\HP58907\866A019.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A019.RST
Proc Method : C:\TC4\HP58907\866ABH from C:\TC4\HP58907\866A019.RST
Calib Method : C:\TC4\HP58907\866ABH from C:\TC4\HP58907\866A019.RST
Sequence File : C:\TC4\HP58907\866.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 15 Area Threshold : 444 Bunch Factor: 1
ıtiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 30

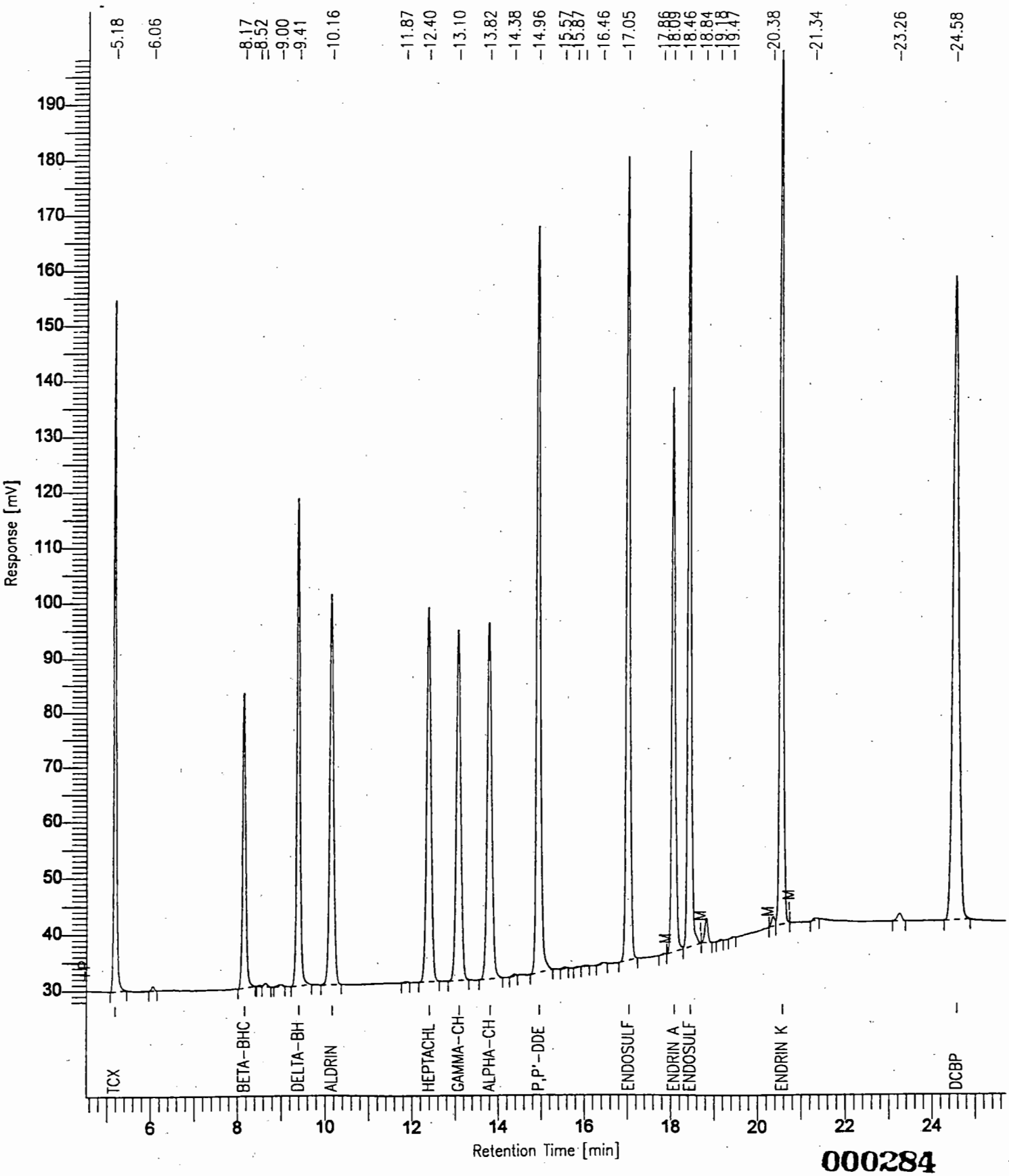
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	5.183	TCX	427211	B	125915	-3e-15	0.0800
3	8.170	BETA-BHC	258930	B	53509	-4e-15	0.0800
7	9.407	DELTA-BHC	416877	B	88261	0.0000	0.0800
8	10.163	ALDRIN	427608	B	70968	6e-15	0.0800
10	12.404	HEPTACHLOR EPOXIDE	471904	B	67914	1e-15	0.0800
11	13.097	GAMMA-CHLORDANE	456008	B	63697	-3e-15	0.0800
12	13.815	ALPHA-CHLORDANE	468461	B	64698	-4e-15	0.0800
14	14.959	P,P'-DDE	790908	B	135163	5e-15	0.1600
	17.047	ENDOSULFAN B	798491	B	145754	-6e-15	0.1600
	18.091	ENDRIN ALDEHYDE	546032	*B	102757	0.0000	0.1600
22	18.460	ENDOSULFAN SULFATE	740294	*V	144345	0.0000	0.1600
27	20.578	ENDRIN KETONE	842814	*V	173407	5e-15	0.1600
30	24.579	DCBP	1069254	B	117265	6e-15	0.1600
			7714793		1353656		1.5200

Chromatogram

Sample Name : ICV*INDBH*1
FileName : C:\TC4\HP58907\866A019.RAW
Method :
Start Time : 4.53 min End Time : 25.71 min
Scale Factor: 0.0 Plot Offset: 27 mV

Sample #:
Date : 7/1/94 10:20 AM
Time of Injection: 6/28/94 10:29 PM
Low Point : 27.25 mV High Point : 198.33 mV
Plot Scale: 171.1 mV



Software Version: 4.0<1C29>
Sample Name : MB*PIBLK*1 Time : 7/1/94 10:47 AM
ple Number: Study :
erator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/20

Interface Serial # : NONE Data Acquisition Time: 6/28/94 11:09 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A020.RAW
Result File : C:\TC4\HP58907\866A020.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A020.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A020.RST
Calib Method : C:\TC4\HP58907\866A from C:\TC4\HP58907\866A020.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul Area Reject : 5921.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 15 Area Threshold : 444 Bunch Factor: 1
ıtiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 15

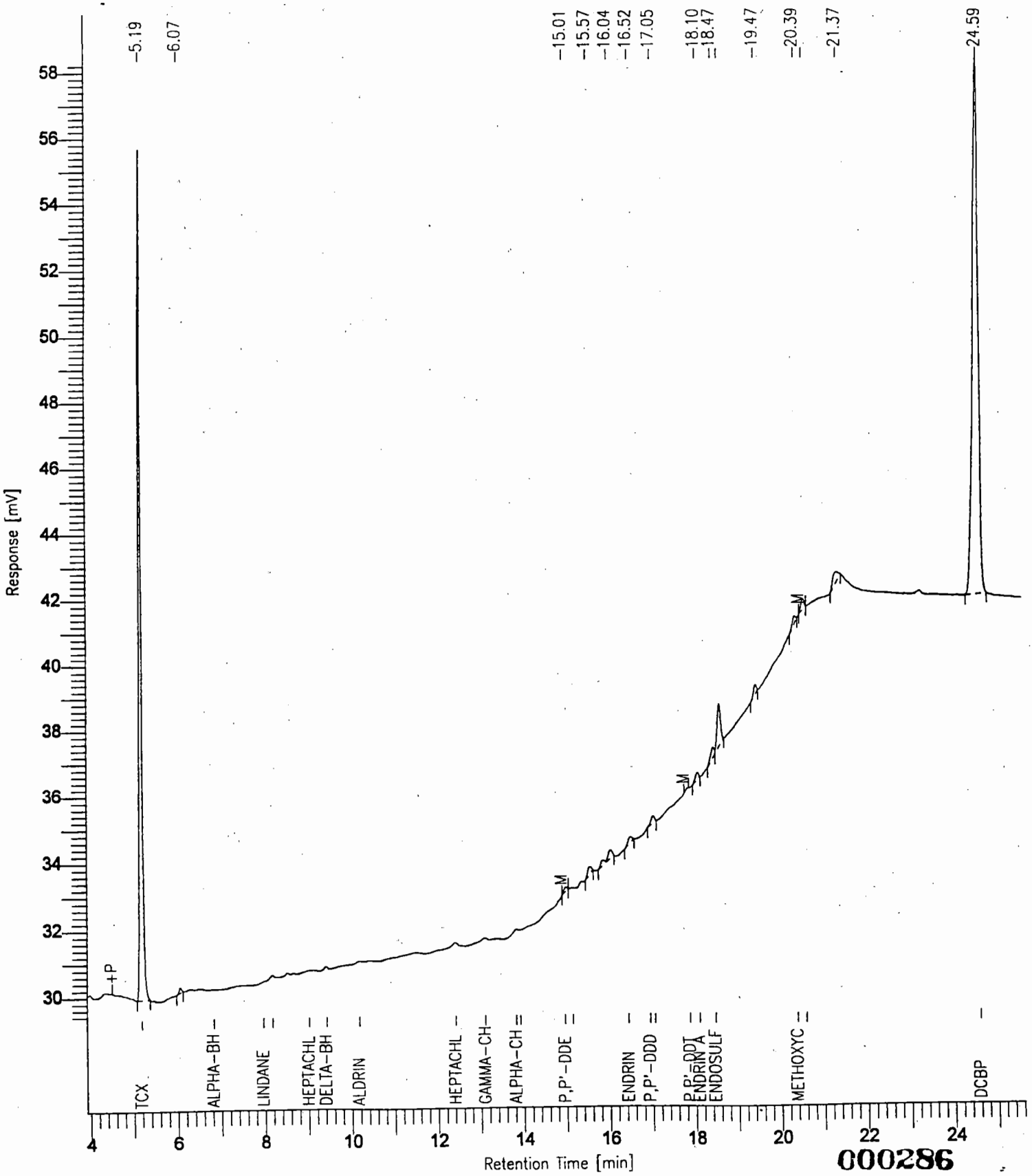
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	5.186	TCX	93626	B	25759	-0.0382
10	18.606		7518	V	1306	-------
15	24.588	DCBP	148756	B	16326	0.0052
			249901		43391	

Chromatogram

Sample Name : MB*PIBLK*1
FileName : C:\TC4\HP58907\866A020.RAW
Method :
Start Time : 3.91 min End Time : 25.62 min
Scale Factor: 0.0 Plot Offset: 29 mV

Sample #:
Date : 7/1/94 10:47 AM
Time of Injection: 6/28/94 11:09 PM
Low Point : 29.34 mV High Point : 58.33 mV
Plot Scale: 29.0 mV



000286

Software Version: 4.0<1C29>
Sample Name : CK*PEM*2 Time : 7/1/94 10:48 AM
ıple Number: Study :
ɜrator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/21

Interface Serial # : NONE Data Acquisition Time: 6/28/94 11:49 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A021.RAW
Result File : C:\TC4\HP58907\866A021.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A021.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A021.RST
Calib Method : C:\TC4\HP58907\866APEM from C:\TC4\HP58907\866A021.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul Area Reject : 777.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

ıse Threshold: 15 Area Threshold : 444 Bunch Factor: 1
ıtiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 20

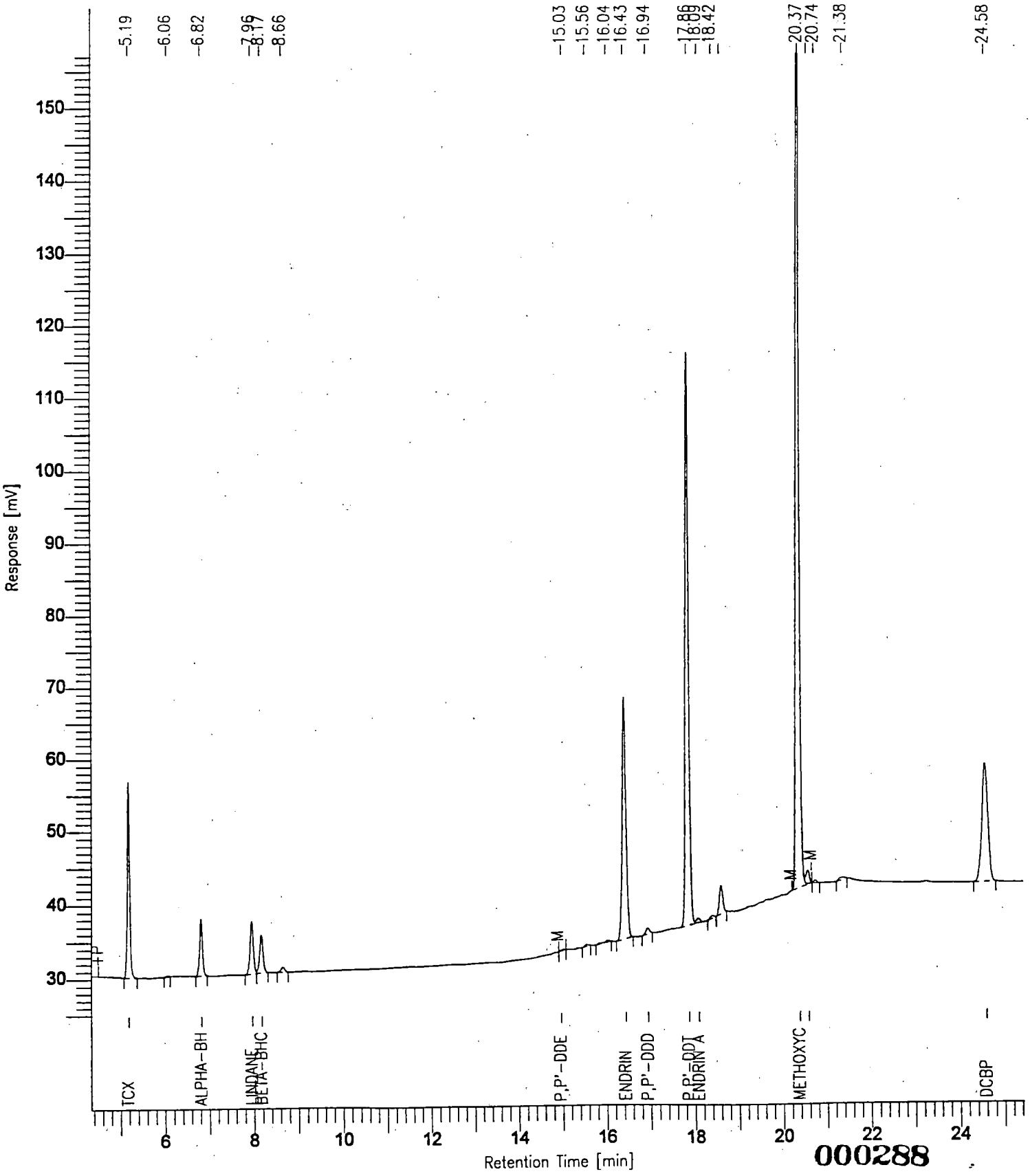
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	5.185	TCX	97662	B	26768	-0.0538
3	6.822	ALPHA-BHC	34385	B	7692	-0.0640
4	7.958	LINDANE	36614	B	7112	-0.0733
5	8.173	BETA-BHC	27598	V	5189	-0.0340
7	15.033	P,P'-DDE	900	*B	101	0.4651
10	16.429	ENDRIN	194149	B	33478	-0.0327
11	16.943	P,P'-DDD	4445	B	743	0.0226
[illegible]	17.862	P,P'-DDT	404642	B	79510	-0.0300
	18.090	ENDRIN ALDEHYDE	3635	E	596	-0.0221
	20.374	METHOXYCHLOR	656021	*B	132440	-0.0215
17	20.573	ENDRIN KETONE	9988	*E	1842	-0.0450
20	24.584	DCBP	152542	B	16518	-0.0125
			1622579		311990	

Chromatogram

Sample Name : CK*PEM*2
FileName : C:\TC4\HP58907\866A021.RAW
Method :
Start Time : 4.34 min End Time : 25.43 min
Scale Factor: 0.0 Plot Offset: 25 mV

Sample #:
Date : 7/1/94 10:48 AM
Time of Injection: 6/28/94 11:49 PM
Low Point : 24.86 mV High Point : 157.29 mV
Plot Scale: 132.4 mV



Software Version: 4.0<1C29>
Sample Name : HEXANE
ple Number:
erator : VIC

Time : 7/1/94 10:50 AM
Study :

Instrument : HP5890A_-_7
AutoSampler : HP7673A
Rack/Vial : 0/28

Channel : A A/D mV Range : 1000

Interface Serial # : NONE Data Acquisition Time: 6/29/94 04:31 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A028.RAW
Result File : C:\TC4\HP58907\866A028.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A028.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A028.RST
Calib Method : C:\TC4\HP58907\866A from C:\TC4\HP58907\866A028.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul
Sample Amount : 1.0000

Area Reject : 5921.000000
Dilution Factor : 1.00

se Threshold: 15
ltiplier : 1.0000

Area Threshold : 444
Divisor : 1.0000

Bunch Factor: 1
Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 7

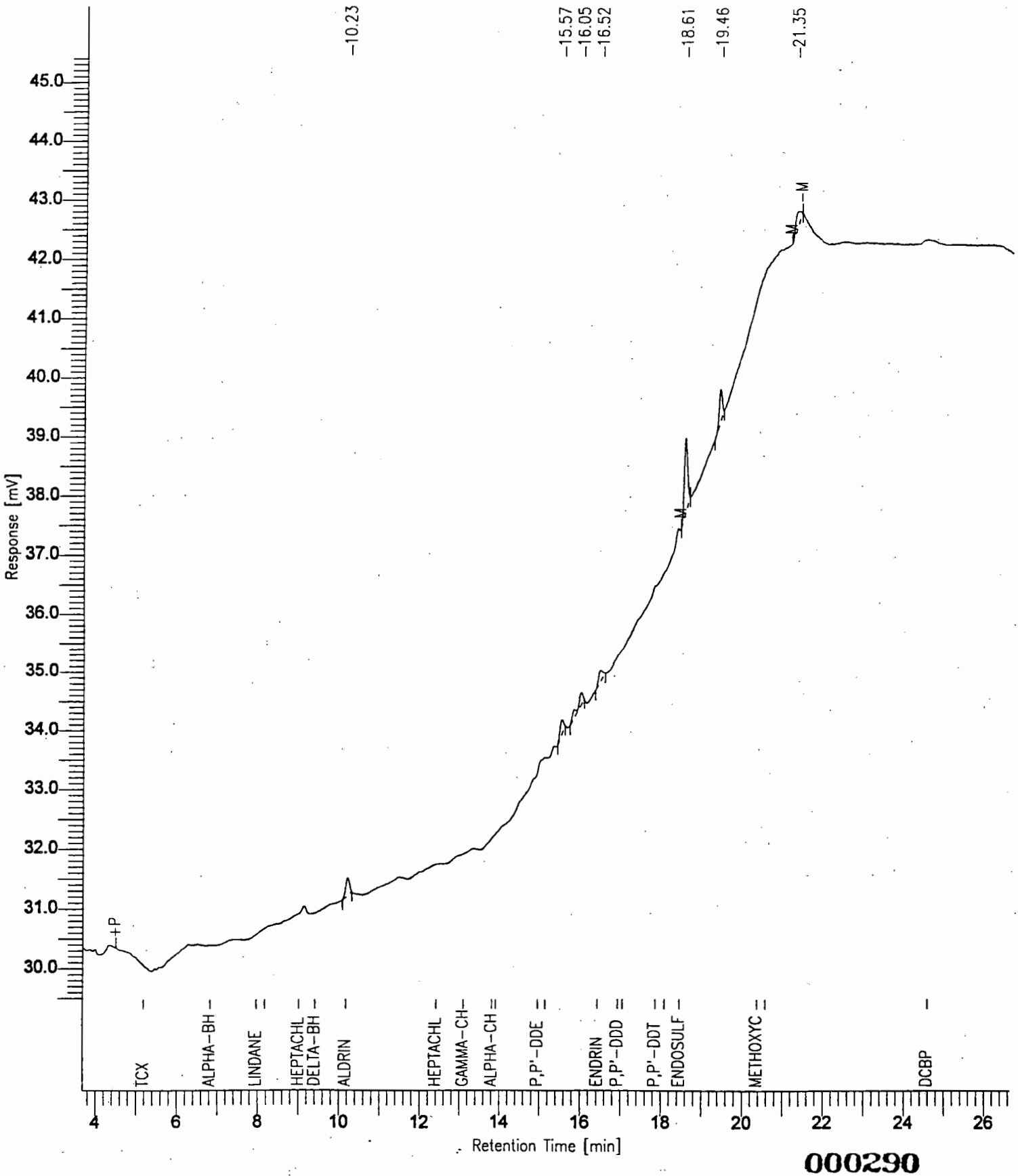
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
5	18.606		7333	*B	1269	-------
			7333		1269	

Chromatogram

Sample Name : HEXANE
FileName : C:\TC4\HP58907\866A028.RAW
Method :
Start Time : 3.68 min End Time : 26.71 min
Scale Factor: 0.0 Plot Offset: 29 mV

Sample #:
Date : 7/1/94 10:50 AM
Time of Injection: 6/29/94 04:31 AM
Low Point : 29.48 mV High Point : 45.49 mV
Plot Scale: 16.0 mV



000290

Software Version: 4.0<1C29>
Sample Name : MB*PIBLK*2 Time : 7/1/94 10:50 AM
ple Number: Study :
erator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/29

Interface Serial # : NONE Data Acquisition Time: 6/29/94 05:11 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A029.RAW
Result File : C:\TC4\HP58907\866A029.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A029.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A029.RST
Calib Method : C:\TC4\HP58907\866A from C:\TC4\HP58907\866A029.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul Area Reject : 5921.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 15 Area Threshold : 444 Bunch Factor: 1
ltiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 9

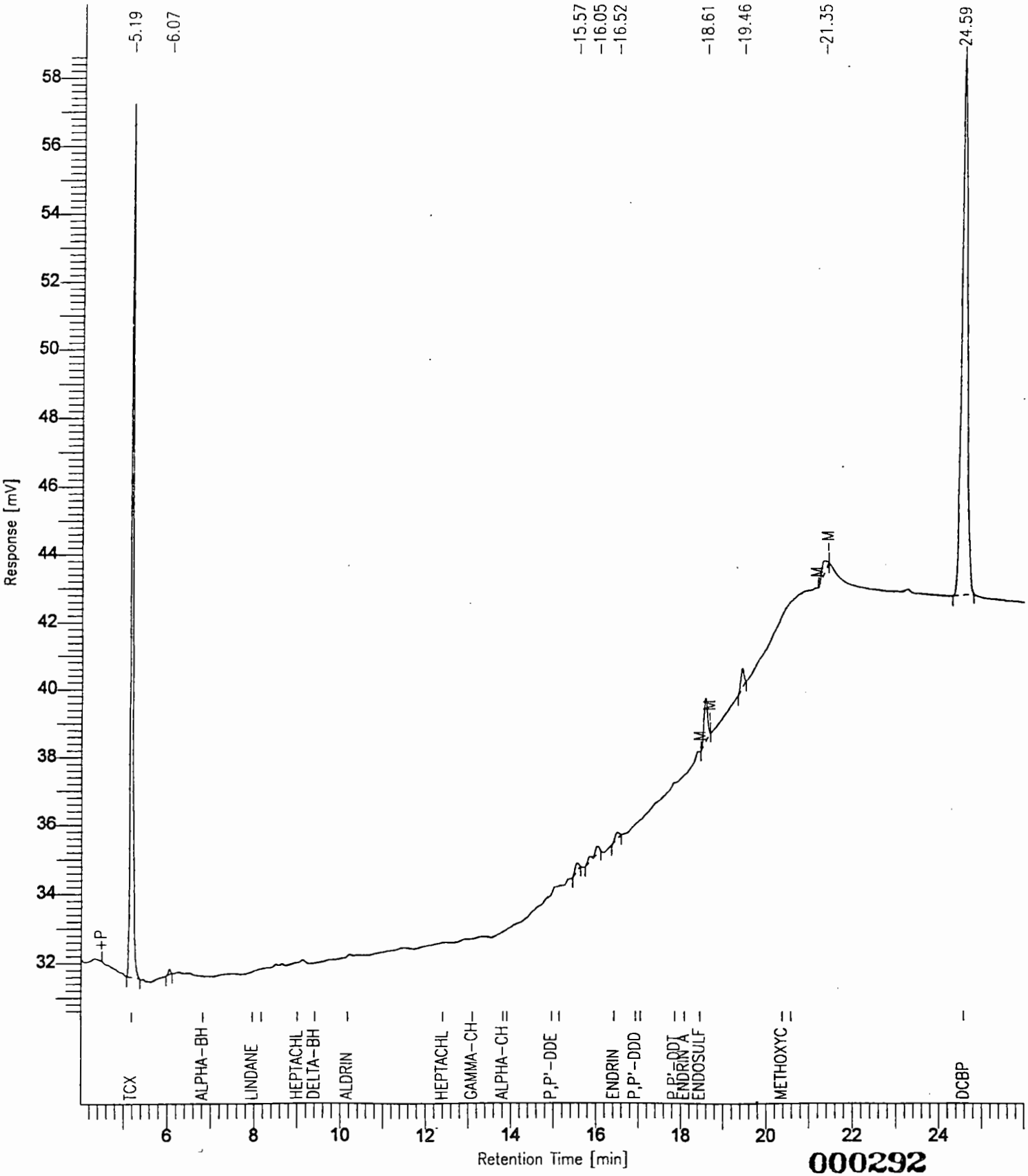
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	5.188	TCX	93048	B	25701	0.0030
6	18.607		7530	*B	1288	-------
9	24.589	DCBP	144705	B	15915	0.0062
			245284		42904	

Chromatogram

Sample Name : MB*PIBLK*2
FileName : C:\TC4\HP58907\866A029.RAW
Method :
Start Time : 4.01 min End Time : 26.00 min
Scale Factor: 0.0 Plot Offset: 31 mV

Sample #:
Date : 7/1/94 10:50 AM
Time of Injection: 6/29/94 05:11 AM
Low Point : 30.57 mV High Point : 58.77 mV
Plot Scale: 28.2 mV



Software Version: 4.0<1C29>
Sample Name : CCS*INDAM*2 Time : 7/1/94 10:59 AM
ple Number: Study :
perator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/30

Interface Serial # : NONE Data Acquisition Time: 6/29/94 05:51 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A030.RAW
Result File : C:\TC4\HP58907\866A030.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A030.RST
Proc Method : C:\TC4\HP58907\866AAM from C:\TC4\HP58907\866A030.RST
Calib Method : C:\TC4\HP58907\866AAM from C:\TC4\HP58907\866A030.RST
Sequence File : C:\TC4\HP58907\866.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 15 Area Threshold : 444 Bunch Factor: 1
ultiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 23

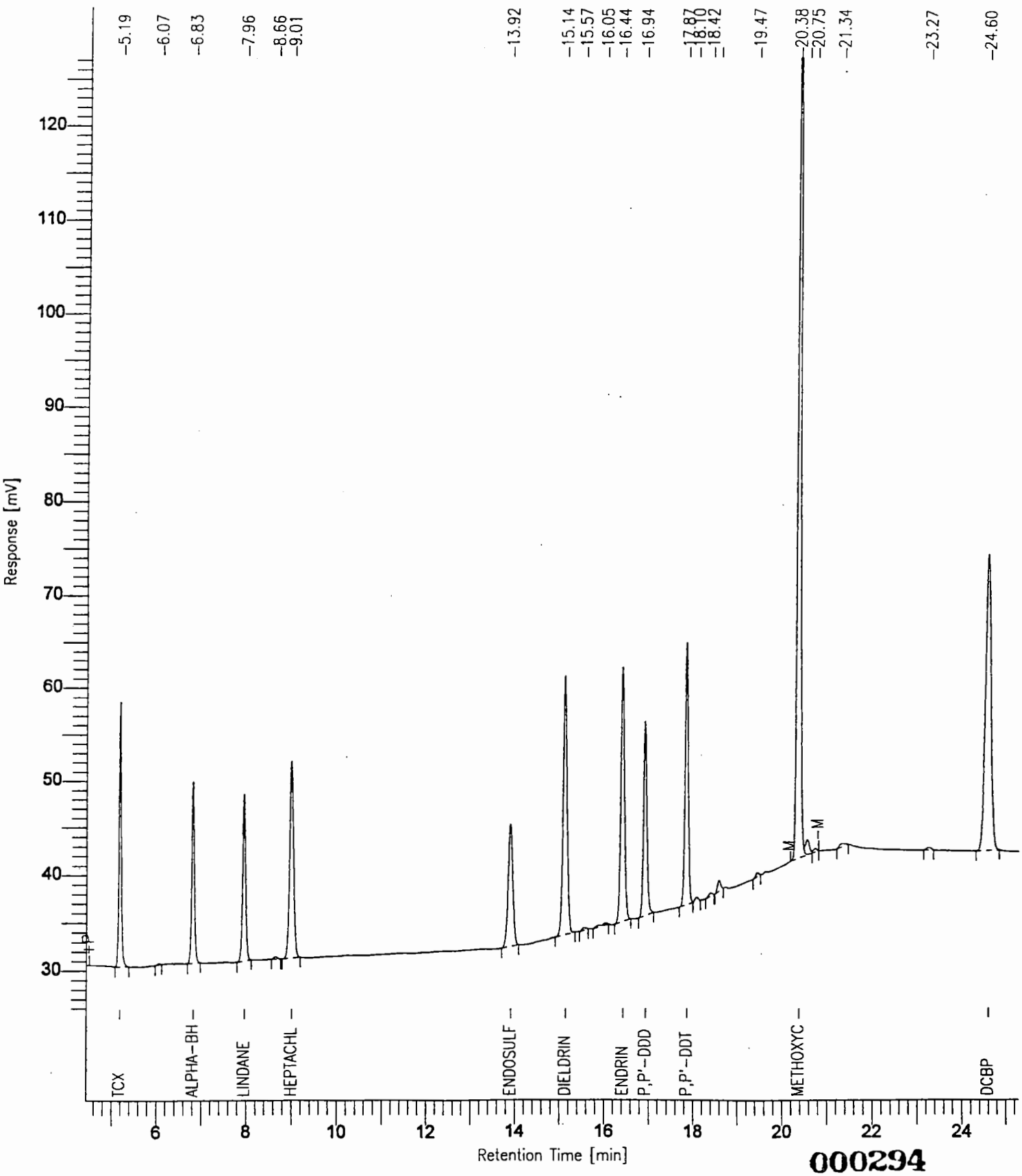
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	5.190	TCX	98172	B	28418	6e-15	0.0200
3	6.827	ALPHA-BHC	77044	B	19207	9e-16	0.0200
4	7.964	LINDANE	80791	B	17669	-1e-15	0.0200
6	9.012	HEPTACHLOR	124424	B	20927	-8e-15	0.0200
7	13.916	ENDOSULFAN A	92211	B	12920	-5e-15	0.0200
8	15.144	DIELDRIN	171196	B	27792	2e-15	0.0400
11	16.436	ENDRIN	155475	B	27375	4e-15	0.0400
	16.942	P,P'-DDD	108514	B	20857	-8e-15	0.0400
	17.869	P,P'-DDT	139505	B	28367	5e-15	0.0400
[illegible]	20.379	METHOXYCHLOR	494122	*B	105237	-6e-15	0.2000
23	24.595	DCBP	288423	B	32190	-1e-15	0.0400
			1829877		340960		0.5000

Chromatogram

Sample Name : CCS*INDAM*2
FileName : C:\TC4\HP58907\866A030.RAW
Method :
Start Time : 4.43 min End Time : 25.29 min
Scale Factor: 0.0 Plot Offset: 26 mV

Sample #:
Date : 7/1/94 10:59 AM
Time of Injection: 6/29/94 05:51 AM
Low Point : 25.97 mV High Point : 127.58 mV
Plot Scale: 101.6 mV



000294

Software Version: 4.0<1C29>
Sample Name : CCS*INDBM*2 Time : 7/1/94 10:59 AM
ple Number: Study :
erator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/31

Interface Serial # : NONE Data Acquisition Time: 6/29/94 06:31 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A031.RAW
Result File : C:\TC4\HP58907\866A031.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A031.RST
Proc Method : C:\TC4\HP58907\866ABM from C:\TC4\HP58907\866A031.RST
Calib Method : C:\TC4\HP58907\866ABM from C:\TC4\HP58907\866A031.RST
Sequence File : C:\TC4\HP58907\866.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 15 Area Threshold : 444 Bunch Factor: 1
tiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 24

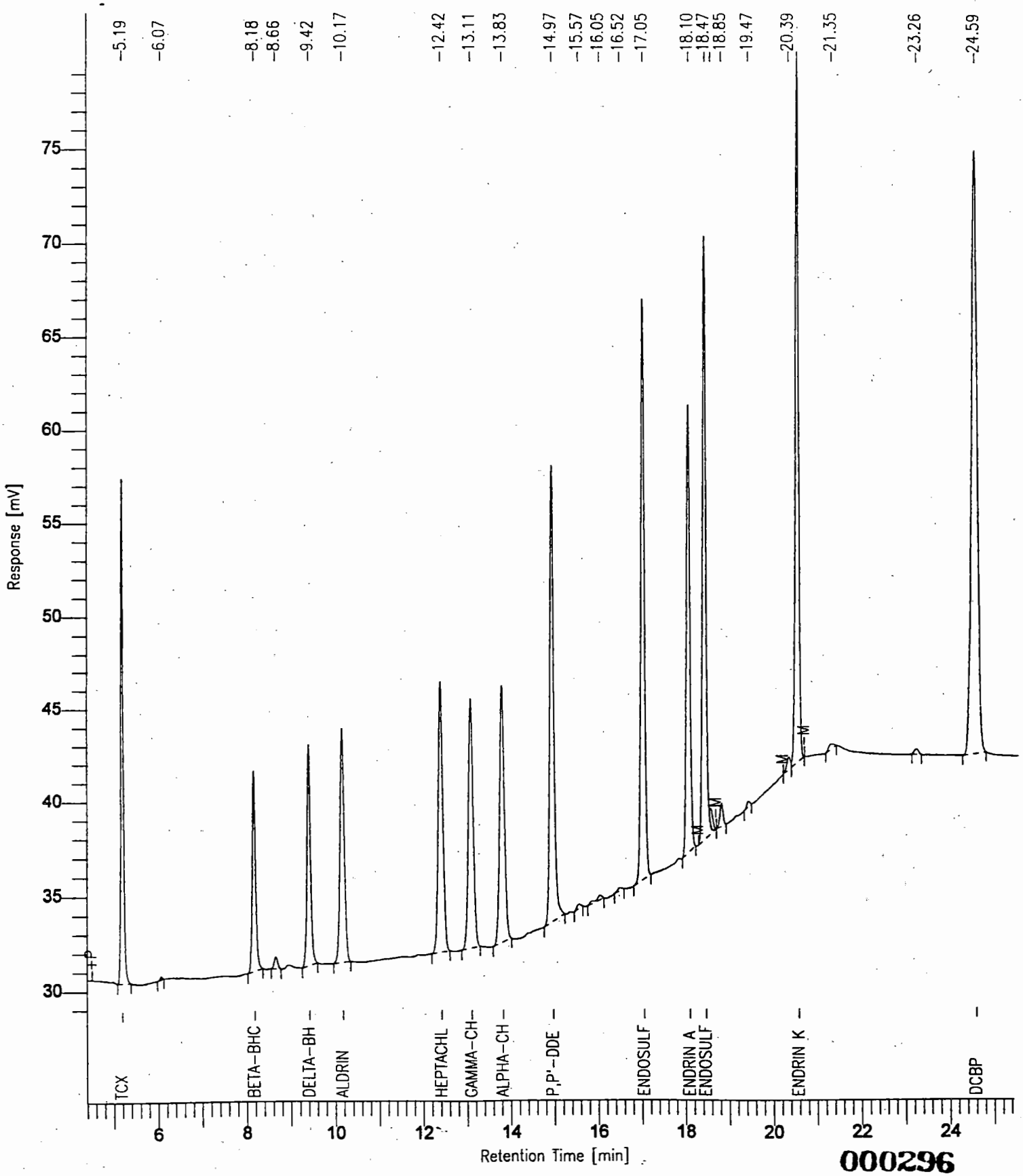
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	5.190	TCX	97215	B	27325	8e-15	0.0200
3	8.179	BETA-BHC	54483	B	10683	-1e-15	0.0200
5	9.416	DELTA-BHC	63829	B	11863	-3e-15	0.0200
6	10.173	ALDRIN	82480	B	12519	8e-15	0.0200
7	12.416	HEPTACHLOR EPOXIDE	105048	B	14572	5e-15	0.0200
8	13.108	GAMMA-CHLORDANE	101708	B	13409	5e-15	0.0200
9	13.826	ALPHA-CHLORDANE	102135	B	13794	6e-15	0.0200
[illegible]	14.969	P,P'-DDE	153783	B	24586	3e-15	0.0400
	17.054	ENDOSULFAN B	174194	B	31236	-1e-15	0.0400
	18.097	ENDRIN ALDEHYDE	132834	B	24216	-4e-15	0.0400
16	18.468	ENDOSULFAN SULFATE	169557	*B	32499	-4e-15	0.0400
21	20.583	ENDRIN KETONE	184622	*V	37977	-3e-15	0.0400
24	24.589	DCBP	293427	B	32529	-7e-15	0.0400
			1715315		287206		0.3800

Chromatogram

Sample Name : CCS*INDBM*2
FileName : C:\TC4\HP58907\866A031.RAW
Method :
Start Time : 4.39 min End Time : 25.57 min
Scale Factor: 0.0 Plot Offset: 29 mV

Sample #:
Date : 7/1/94 10:59 AM
Time of Injection: 6/29/94 06:31 AM
Low Point : 28.94 mV High Point : 79.75 mV
Plot Scale: 50.8 mV



000296

Software Version: 4.0<1C29>
Sample Name : HEXANE
mple Number:
erator : VIC

Time : 7/1/94 11:55 AM
Study :

Instrument : HP5890A_-_7
AutoSampler : HP7673A
Rack/Vial : 0/34

Channel : A A/D mV Range : 1000

Interface Serial # : NONE Data Acquisition Time: 6/29/94 08:32 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A034.RAW
Result File : C:\TC4\HP58907\866A034.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A034.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A034.RST
Calib Method : C:\TC4\HP58907\866A from C:\TC4\HP58907\866A034.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul
Sample Amount : 1.0000

Area Reject : 5921.000000
Dilution Factor : 1.00

se Threshold: 15
ltiplier : 1.0000

Area Threshold : 444
Divisor : 1.0000

Bunch Factor: 1
Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 80

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
6	18.760		6651	B	1304	-------
8	19.084		6043	V	1051	-------
10	19.274		6180	B	1789	-------
11	19.460		9775	V	651	-------
13	19.752		6728	B	1675	-------
14	19.854		11876	V	2143	-------
15	20.091		11685	B	1701	-------
16	20.181		7930	V	1985	-------
	20.655	ENDRIN KETONE	8026	B	2616	0.3559
	20.782		14801	B	2408	-------
22	20.918		10305	V	2289	-------
25	21.453		8668	V	1498	-------
28	21.762		9323	V	1963	-------
33	22.732		9705	V	1773	-------
35	23.022		6651	B	1557	-------

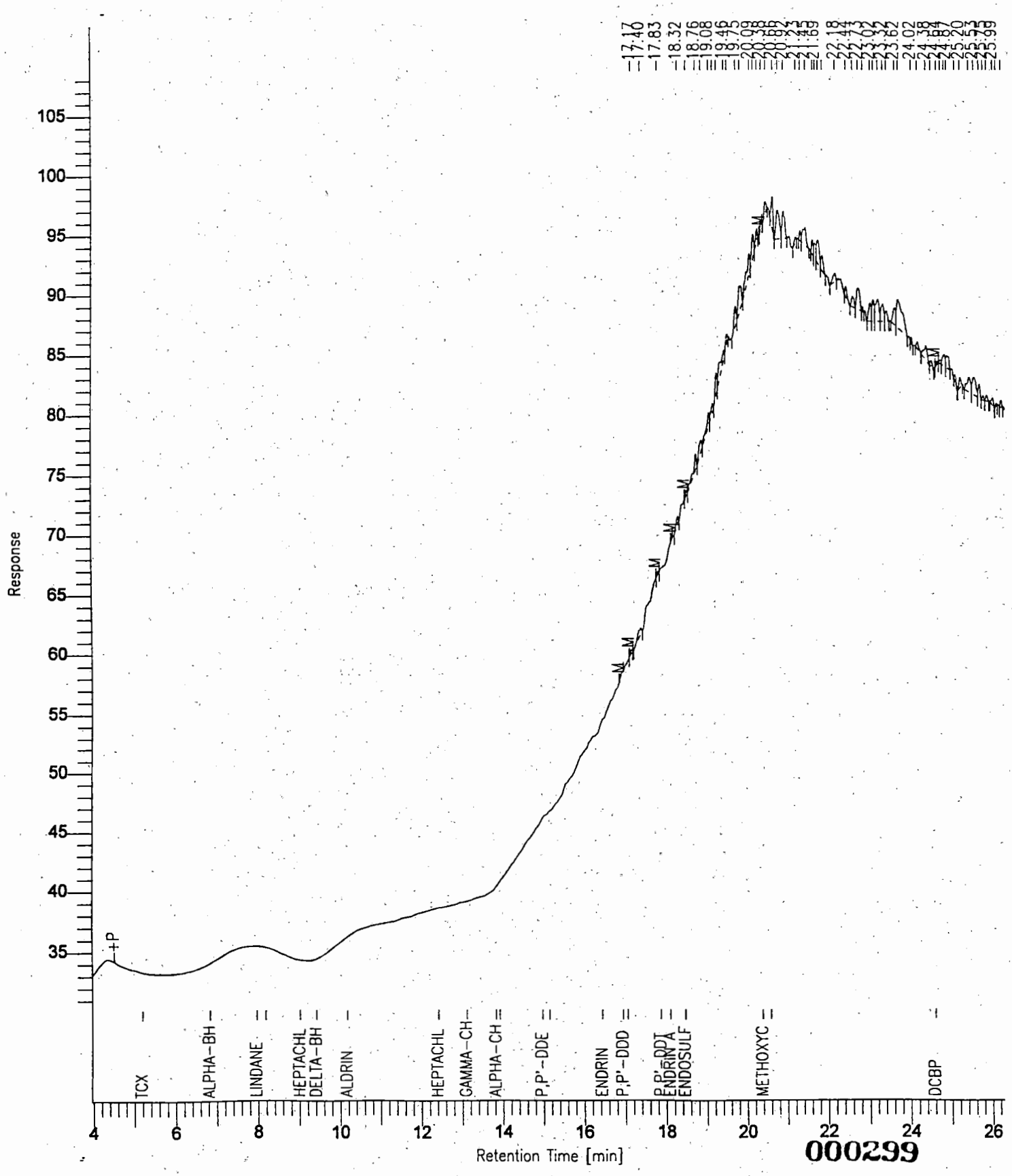
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
36	23.094		6625	V	1816	-------
37	23.202		11598	V	1858	-------
38	23.324		7533	V	1458	-------
40	23.615		6472	B	1404	-------
41	23.697		24686	V	2400	-------
44	24.375		6623	B	1185	-------
52	25.408		7760	B	1246	-------
53	25.526		9462	V	1459	-------
69	28.337		17588	B	1438	-------
			232695		40670	

9513356.0330

Chromatogram

Sample Name : HEXANE
ame : C:\TC4\HP58907\866A034.RAW
d :
Start Time : 3.96 min End Time : 26.28 min
Scale Factor: 0.0 Plot Offset: 30 mV

Sample #:
Date : 7/1/94 11:55 AM
Time of Injection: 6/29/94 08:32 AM
Low Point : 30.21 mV High Point : 108.62 mV
Plot Scale: 78.4 mV



Software Version: 4.0<1C29>
Sample Name : HEXANE
Time : 7/1/94 12:07 PM
Sample Number:
Study :
Operator : VIC

Instrument : HP5890A_-_7
Channel : A
A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/36

Interface Serial # : NONE
Data Acquisition Time: 6/29/94 09:53 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A036.RAW
Result File : C:\TC4\HP58907\866A036.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A036.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A036.RST
Calib Method : C:\TC4\HP58907\866A from C:\TC4\HP58907\866A036.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul
Area Reject : 5921.000000
Sample Amount : 1.0000
Dilution Factor : 1.00

Noise Threshold: 15
Area Threshold : 444
Bunch Factor: 1
Multiplier : 1.0000
Divisor : 1.0000
Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 69

DATA REPORT

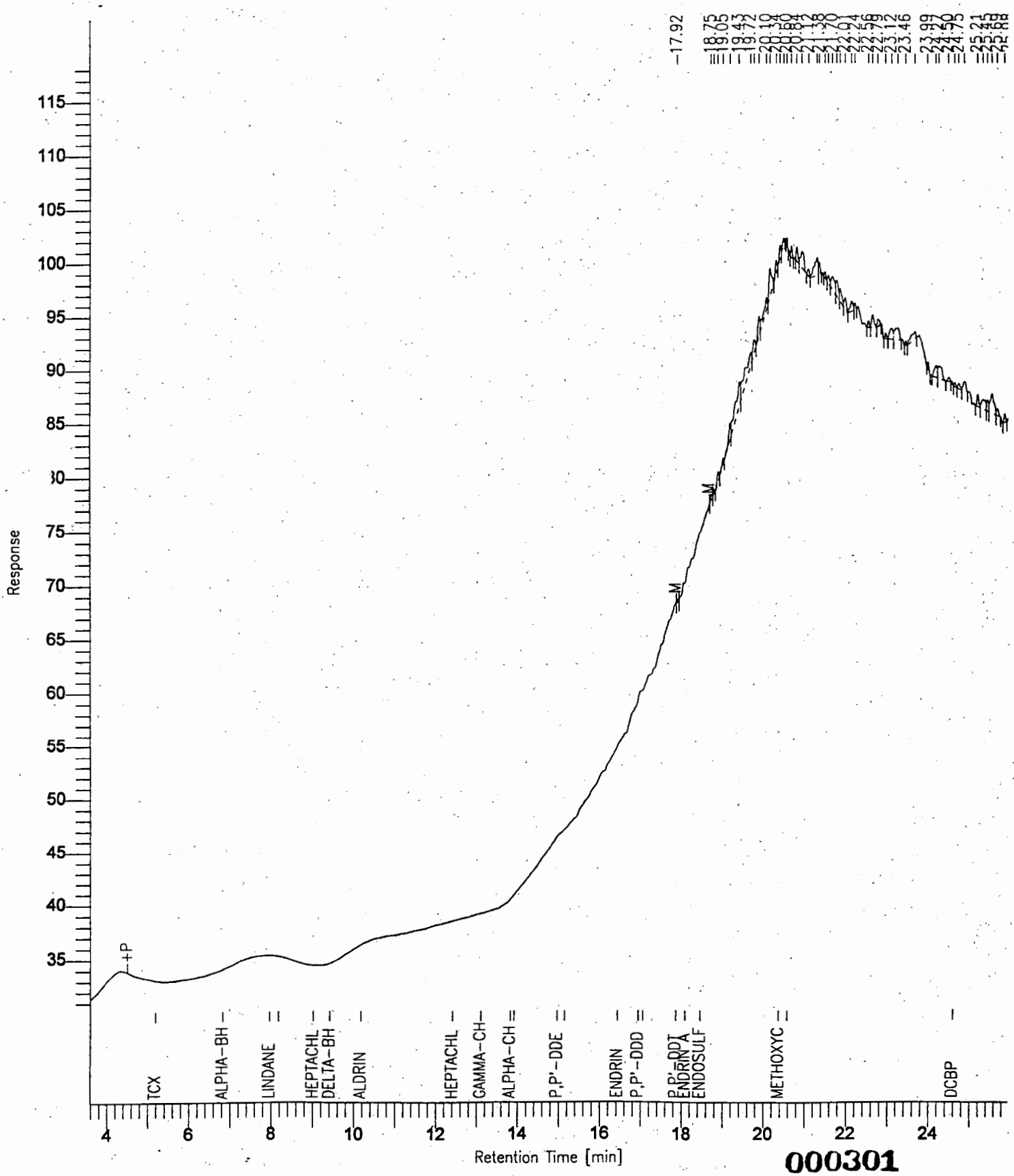
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
6	19.212		6067	V	1478	-------
7	19.433		20996	V	2262	-------
8	19.719		21284	V	1104	-------
10	19.920		6884	V	1796	-------
11	20.103		8161	V	1078	-------
12	20.187		12116	B	2637	-------
19	20.963		8804	V	1511	-------
21	21.330		10924	B	1630	-------
25	21.700		7421	V	1218	-------
26	21.802		5925	V	1466	-------
36	23.272		8979	V	1099	-------
41	24.265		8143	V	1161	-------
47	25.336		6766	V	872	-------
49	25.563		12171	V	1847	-------

9513356.0331

Chromatogram

: Name : HEXANE
me : C:\TC4\HP58907\866A036.RAW
1 :
Start Time : 3.59 min End Time : 25.95 min
Scale Factor: 0.0 Plot Offset: 30 mV

Sample #:
Date : 7/1/94 12:07 PM
Time of Injection: 6/29/94 09:53 AM
Low Point : 30.24 mV High Point : 118.24 mV
Plot Scale: 88.0 mV



000301

Software Version: 4.0<1C29>
Sample Name : HEXANE
Sample Number:
Operator : VIC

Time : 7/1/94 12:15 PM
Study :

Instrument : HP5890A_-_7
AutoSampler : HP7673A
Rack/Vial : 0/38

Channel : A A/D mV Range : 1000

Interface Serial # : NONE Data Acquisition Time: 6/29/94 11:13 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A038.RAW
Result File : C:\TC4\HP58907\866A038.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A038.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A038.RST
Calib Method : C:\TC4\HP58907\866A from C:\TC4\HP58907\866A038.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul
Sample Amount : 1.0000

Area Reject : 5921.000000
Dilution Factor : 1.00

Noise Threshold: 15
Multiplier : 1.0000

Area Threshold : 444
Divisor : 1.0000

Bunch Factor: 1
Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 73

DATA REPORT

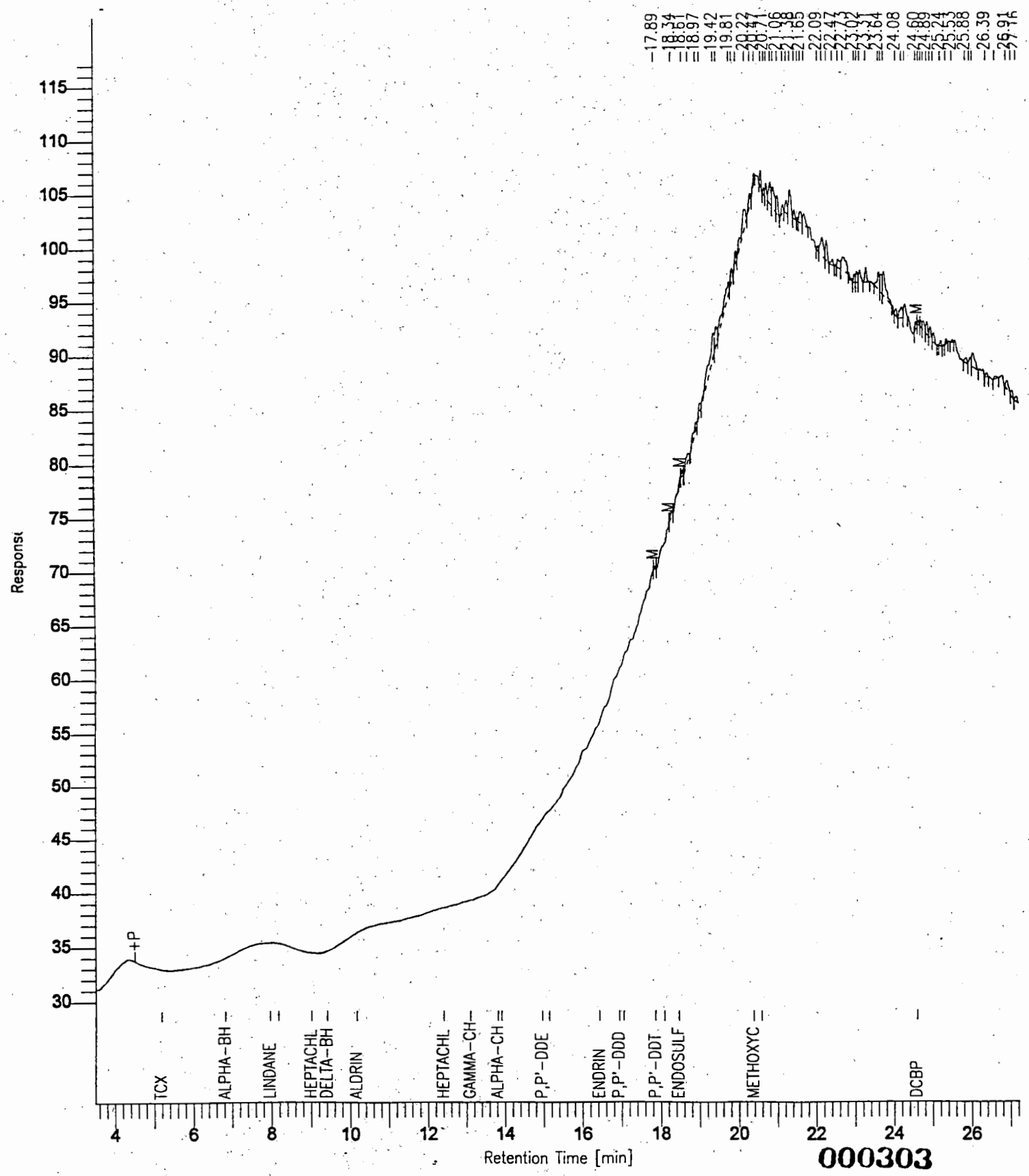
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
7	19.415		23375	V	2195	-------
8	19.489		7855	V	1711	-------
9	19.812		17181	V	1016	-------
12	20.222		16005	V	1708	-------
18	20.881		8806	V	2058	-------
19	20.948		9809	V	1939	-------
23	21.382		10202	V	2390	-------
29	22.201		9812	V	1715	-------
30	22.311		6019	V	1873	-------
33	22.729		10727	V	1251	-------
38	23.638		6322	B	1643	-------
39	23.694		6502	V	1668	-------
40	23.765		12683	V	2217	-------
56	26.051		7254	V	1293	-------

9513356.0332

Chromatogram

Sample Name : HEXANE
Name : C:\TC4\HP58907\866A038.RAW
ɔd :
art Time : 3.49 min End Time : 27.22 min
Scale Factor: 0.0 Plot Offset: 29 mV

Sample #:
Date : 7/1/94 12:15 PM
Time of Injection: 6/29/94 11:13 AM
Low Point : 29.18 mV High Point : 117.18 mV
Plot Scale: 88.0 mV



Software Version: 4.0<1C29>
Sample Name : HEXANE
Sample Number:
Operator : VIC

Time : 7/1/94 12:16 PM
Study :

Instrument : HP5890A_-_7
AutoSampler : HP7673A
Rack/Vial : 0/39

Channel : A A/D mV Range : 1000

Interface Serial # : NONE Data Acquisition Time: 6/29/94 11:53 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A039.RAW
Result File : C:\TC4\HP58907\866A039.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A039.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A039.RST
Calib Method : C:\TC4\HP58907\866A from C:\TC4\HP58907\866A039.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul
Sample Amount : 1.0000

Area Reject : 5921.000000
Dilution Factor : 1.00

Noise Threshold: 15
Multiplier : 1.0000

Area Threshold : 444
Divisor : 1.0000

Bunch Factor: 1
Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 30

DATA REPORT

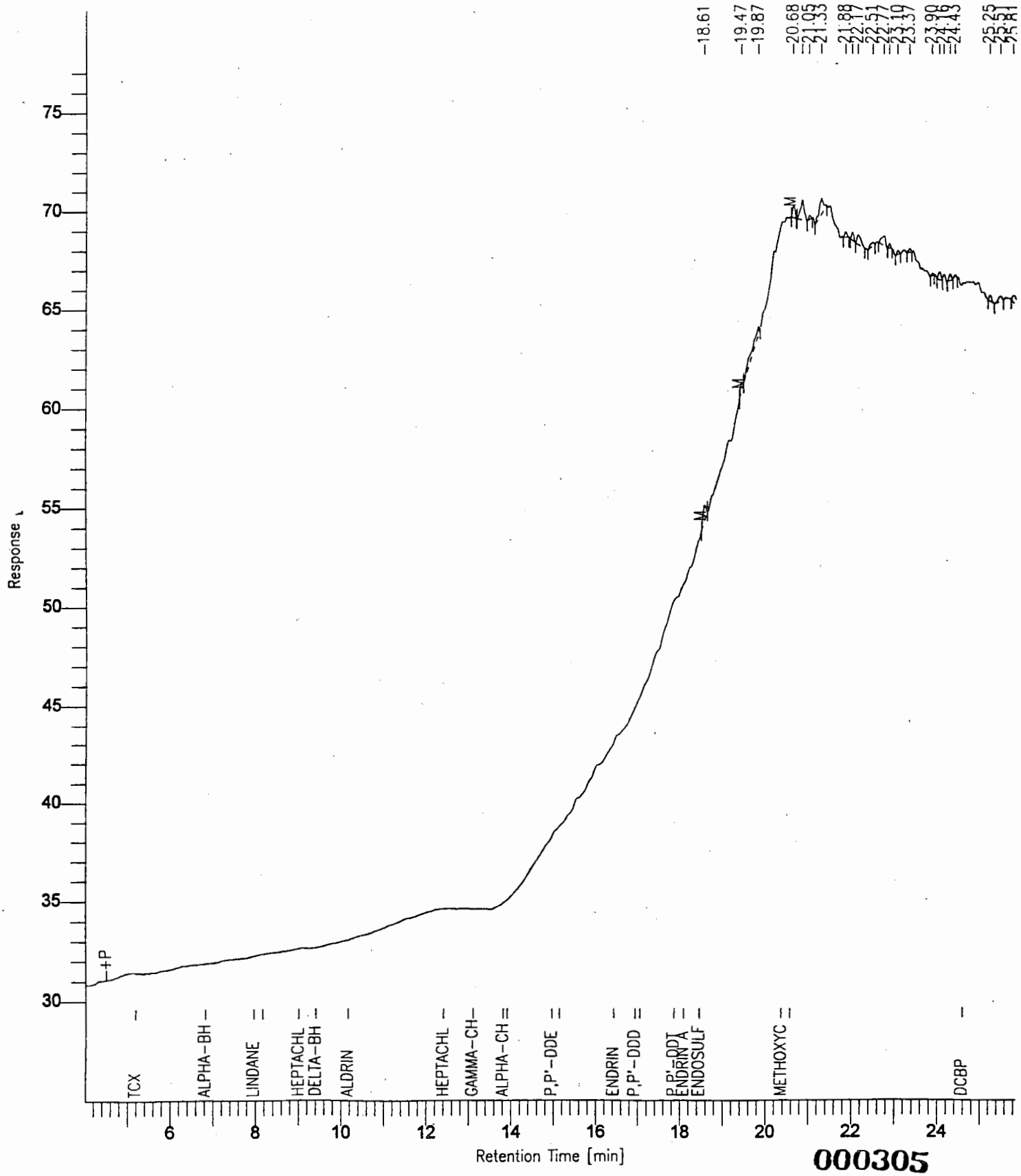
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
3	19.867		7097	B	311	-------
5	20.884		6113	B	1002	-------
			13211		1313	

9513356.0333

Chromatogram

le Name : HEXANE
Name : C:\TC4\HP58907\866A039.RAW
od :
Start Time : 4.01 min End Time : 25.87 min
Scale Factor: 0.0 Plot Offset: 30 mV

Sample #:
Date : 7/1/94 12:16 PM
Time of Injection: 6/29/94 11:53 AM
Low Point : 29.62 mV High Point : 77.79 mV
Plot Scale: 48.2 mV



Software Version: 4.0<1C29>
Sample Name : MB*PIBLK*3 Time : 7/1/94 12:17 PM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/40

Interface Serial # : NONE Data Acquisition Time: 6/29/94 12:33 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A040.RAW
Result File : C:\TC4\HP58907\866A040.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A040.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A040.RST
Calib Method : C:\TC4\HP58907\866A from C:\TC4\HP58907\866A040.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul Area Reject : 5921.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 15 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 11

DATA REPORT

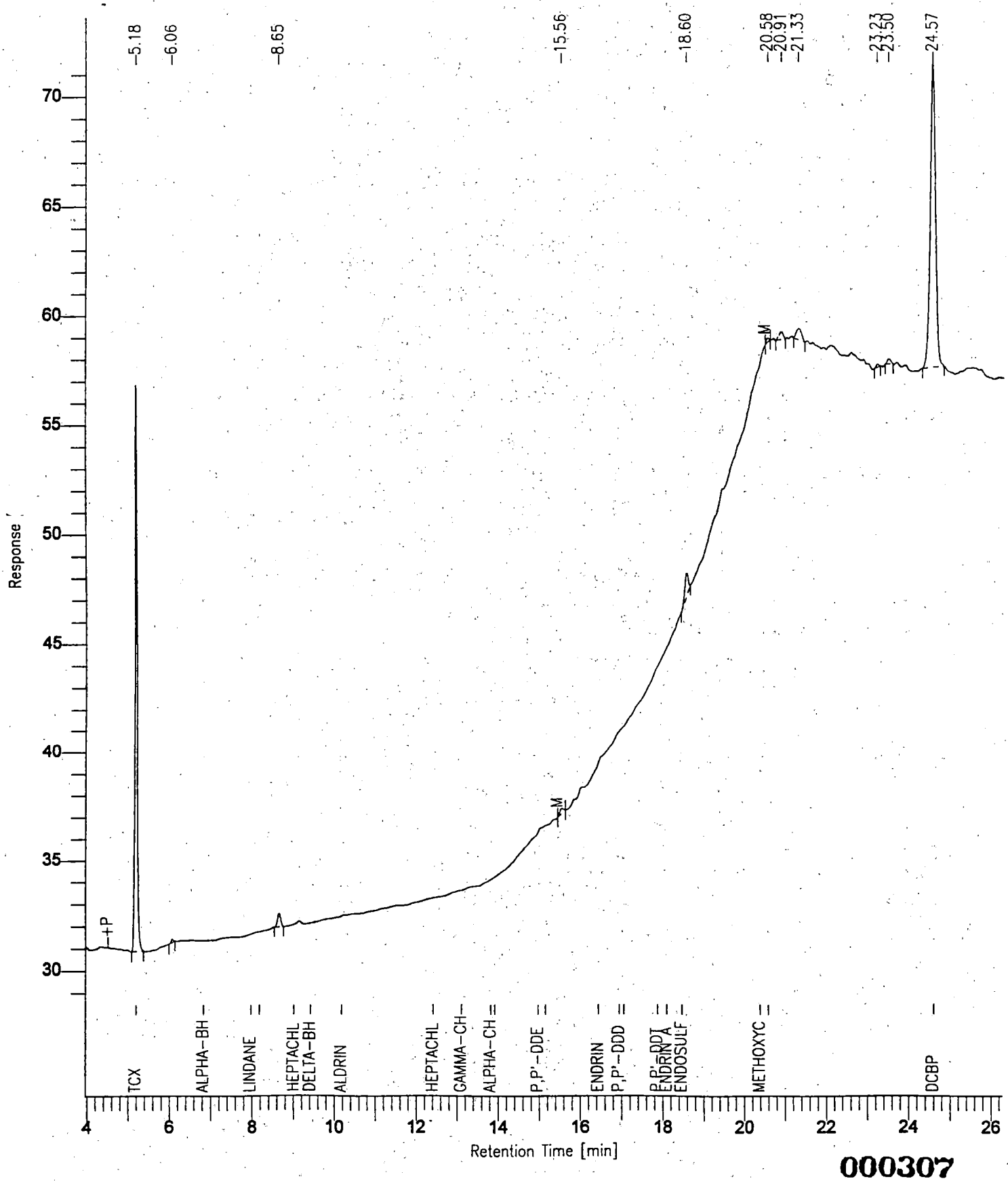
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	5.183	TCX	90842	B	26204	-0.1012
5	18.601		6309	B	1042	-------
11	24.567	DCBP	121498	B	13904	-0.0796
			218650		41150	

9513356.0334

Chromatogram

: Name : MB*PIBLK*3
ame : C:\TC4\HP58907\866A040.RAW
od :
Start Time : 3.96 min End Time : 26.28 min
Scale Factor: 0.0 Plot Offset: 28 mV

Sample #:
Date : 7/1/94 12:17 PM
Time of Injection: 6/29/94 12:33 PM
Low Point : 28.48 mV High Point : 71.47 mV
Plot Scale: 43.0 mV



Software Version: 4.0<1C29>
Sample Name : CK*PEM*3 Time : 7/1/94 12:18 PM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/41

Interface Serial # : NONE Data Acquisition Time: 6/29/94 01:14 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A041.RAW
Result File : C:\TC4\HP58907\866A041.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A041.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A041.RST
Calib Method : C:\TC4\HP58907\866APEM from C:\TC4\HP58907\866A041.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul Area Reject : 777.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 15 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 16

DATA REPORT

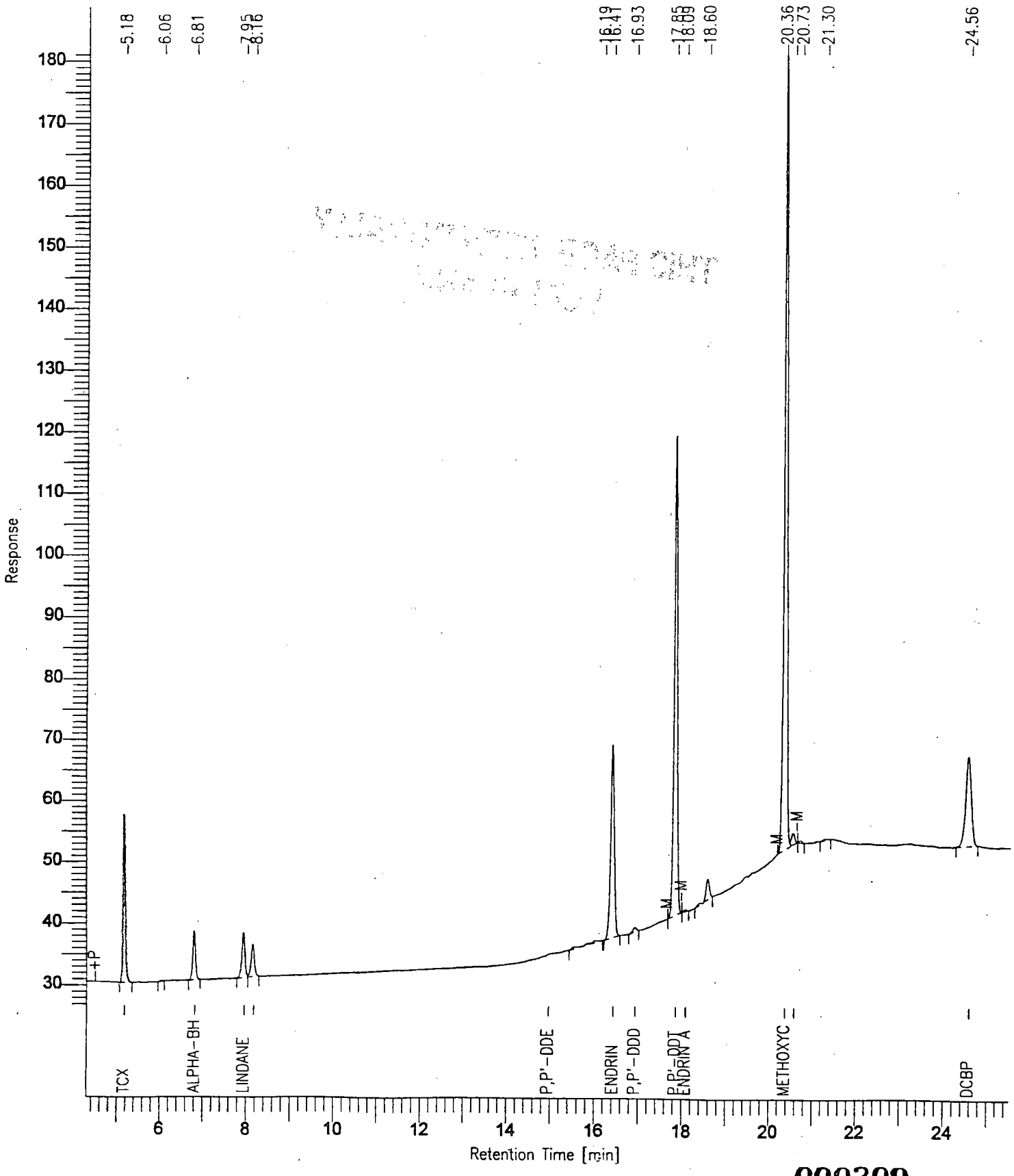
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	5.180	TCX	96096	B	27304	-0.1540
3	6.814	ALPHA-BHC	34278	B	7872	-0.1810
4	7.948	LINDANE	35931	B	7256	-0.2036
5	8.162	BETA-BHC	26975	V	5223	-0.1653
7	16.414	ENDRIN	182100	B	31619	-0.1199
8	16.933	P,P'-DDD	3922	B	692	-0.0326
9	17.851	P,P'-DDT	384180	*B	78184	-0.0907
10	18.085	ENDRIN ALDEHYDE	1370	B	280	-0.0486
12	20.363	METHOXYCHLOR	625486	*B	130310	-0.0717
13	20.563	ENDRIN KETONE	10577	*E	1936	-0.0907
16	24.564	DCBP	132311	B	14800	-0.0939
			1533225		305476	

9513356.0335

Chromatogram

le Name : CK*PEM*3
Name : C:\TC4\HP58907\866A041.RAW
...od :
Start Time : 4.29 min End Time : 25.53 min
Scale Factor: 0.0 Plot Offset: 27 mV

Sample #:
Date : 7/1/94 12:18 PM
Time of Injection: 6/29/94 01:14 PM
Low Point : 26.80 mV High Point : 181.15 mV
Plot Scale: 154.3 mV



THIS PAGE INTENTIONALLY
LEFT BLANK

9513356.0336

Analytical and Supporting Laboratory Quality Control Data For DOE – Hanford North Slope Site H–83–L

LEVEL IV Deliverable

VOLUME 2 OF 2

Prepared by: Environmental Science & Engineering, Inc.
August 1994

VOLUME 1 OF 2 TABLE OF CONTENTS

		Page
Section 1	Case Narrative	1
Section 2	Sample Date, Cross Reference & Methodologies Report	2
Section 3	Analytical Data	4
Section 4	Quality Control Summary Reports	10
	Volatiles Organics	11
	Semivolatile Organics	90
	Organochlorine Pesticides & PCBs	207
	Primary Column	245

VOLUME 2 0F 2 TABLE OF CONTENTS

Section 4 (continued)		
	Secondary Column	310
	Metals	412
Section 5	Dilution Factor Report	555
Section 6	Chain-of-Custody Forms (arranged chronologically)	557

9513356.0337

Secondary Column

Turbochrom Sequence File : C:\TC4\HP58907\866B.SEQ
Created by : VIC on : 7/1/94 12:34 PM
Edited by : VIC on : 7/1/94 12:54 PM
Description :

Number of Times Edited : 1

Sequence File Header Information:

Number of Rows : 49
Instrument Type : 760 / 900 Series Intelligent Interface
Injection Type : DUAL

Sequence Sample Descriptions - Channel B

Row	Type	Sample Name	Sample Number	Study Name	Sample Amount	ISTD Amount	Sample Volume	Dil. Factor	Mult	Divisor	Addend
1	Sample	RESC			1.000	1.000	1.000	1.000	1.000	1.000	0.000
2	Sample	RESC			1.000	1.000	1.000	1.000	1.000	1.000	0.000
3	Sample	INDAH			1.000	1.000	1.000	1.000	1.000	1.000	0.000
4	Sample	INDBH			1.000	1.000	1.000	1.000	1.000	1.000	0.000
5	Sample	HEXANE			1.000	1.000	1.000	1.000	1.000	1.000	0.000
6	Cal:Replace	CK*RESC*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
7	Sample	CK*PEM*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
8	Cal:Replace	ICV*AR1660*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
9	Cal:Replace	ICV*AR1221*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
10	Cal:Replace	ICV*AR1232*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
11	Cal:Replace	ICV*AR1242*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
12	Cal:Replace	ICV*AR1248*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
13	Cal:Replace	ICV*AR1254*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
14	Cal:Replace	ICV*TOXAPH*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
15	Cal:Replace	ICV*INDAL*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
16	Cal:Replace	ICV*INDBL*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
17	Cal:Replace	ICV*INDAM*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
18	Cal:Replace	ICV*INDBM*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
19	Cal:Replace	ICV*INDAH*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
20	Cal:Replace	ICV*INDBH*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
21	Sample	MB*PIBLK*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
22	Sample	CK*PEM*2			1.000	1.000	1.000	1.000	1.000	1.000	0.000
23	Sample	MB*THAMA-PEJD*1			1.000	1.000	1.000	1.000	1.000	1.000	0.000
24	Sample	KE10RB*3 6-21-9			1.000	1.000	1.000	1.000	1.000	1.000	0.000
25	Sample	SPM1*KE10RB*3 6			1.000	1.000	1.000	1.000	1.000	1.000	0.000
26	Sample	SPM2*KE10RB*3 6			1.000	1.000	1.000	1.000	1.000	1.000	0.000
27	Sample	KE10RB*4 6-21-9			1.000	1.000	1.000	1.000	1.000	1.000	0.000
28	Sample	KE10RB*5 6-21-9			1.000	1.000	1.000	1.000	1.000	1.000	0.000
29	Sample	HEXANE			1.000	1.000	1.000	1.000	1.000	1.000	0.000
30	Sample	MB*PIBLK*2			1.000	1.000	1.000	1.000	1.000	1.000	0.000
31	Cal:Replace	CCS*INDAM*2			1.000	1.000	1.000	1.000	1.000	1.000	0.000
32	Cal:Replace	CCS*INDBM*2			1.000	1.000	1.000	1.000	1.000	1.000	0.000
33	Sample	MB*QC*1 6-23-94			1.000	1.000	1.000	1.000	1.000	1.000	0.000
34	Sample	CDMHNSS2*6 6-23			1.000	1.000	1.000	1.000	1.000	1.000	0.000
35	Sample	HEXANE			1.000	1.000	1.000	1.000	1.000	1.000	0.000
36	Sample	SPM1*CDMHNSS2*6			1.000	1.000	1.000	1.000	1.000	1.000	0.000
37	Sample	HEXANE			1.000	1.000	1.000	1.000	1.000	1.000	0.000
38	Sample	SPM2*CDMHNSS2*6			1.000	1.000	1.000	1.000	1.000	1.000	0.000
39	Sample	HEXANE			1.000	1.000	1.000	1.000	1.000	1.000	0.000
40	Sample	HEXANE			1.000	1.000	1.000	1.000	1.000	1.000	0.000
41	Sample	MB*PIBLK*3			1.000	1.000	1.000	1.000	1.000	1.000	0.000
42	Sample	CK*PEM*3			1.000	1.000	1.000	1.000	1.000	1.000	0.000
43	Sample	HEXANE			1.000	1.000	1.000	1.000	1.000	1.000	0.000
44	Sample	GPC*AS2000*BLAN			1.000	1.000	1.000	1.000	1.000	1.000	0.000
45	Sample	GPC*AS2000*MATR			1.000	1.000	1.000	1.000	1.000	1.000	0.000
46	Sample	GPC*AS2000*AR16			1.000	1.000	1.000	1.000	1.000	1.000	0.000
47	Sample	MB*PIBLK*4			1.000	1.000	1.000	1.000	1.000	1.000	0.000
48	Cal:Replace	CCS*INDAM*3			1.000	1.000	1.000	1.000	1.000	1.000	0.000
49	Cal:Replace	CCS*INDBM*3			1.000	1.000	1.000	1.000	1.000	1.000	0.000

Sequence Process Information - Channel B

Row	Site	Rack	Vial	Inst Method	Process Method	Calib Method	Report Format	Raw File	Result File	Baseline File	Modified Raw File	Cal Rpt	Level Name	Updat RT
	-	-	1	HP58907	DB1701	866B	BALL	866B001	866B001			-	-	-
	-	-	2	HP58907	DB1701	866B	BALL	866B002	866B002			-	-	-
	-	-	3	HP58907	DB1701	866B	BALL	866B003	866B003			-	-	-
4	-	-	4	HP58907	DB1701	866B	BALL	866B004	866B004			-	-	-
5	-	-	5	HP58907	DB1701	866B	BALL	866B005	866B005			-	-	-
6	-	-	6	HP58907	DB1701	866BRES	CLPS	866B006	866B006			N	1	R
7	-	-	7	HP58907	DB1701	866BPEM	CLPEM	866B007	866B007			-	-	-
8	-	-	8	HP58907	DB1701	866B1660	CLPPCB	866B008	866B008			N	1	R
9	-	-	9	HP58907	DB1701	866B1221	CLPPCB	866B009	866B009			N	1	R
10	-	-	10	HP58907	DB1701	866B1232	CLPPCB	866B010	866B010			N	1	R
11	-	-	11	HP58907	DB1701	866B1242	CLPPCB	866B011	866B011			N	1	R
12	-	-	12	HP58907	DB1701	866B1248	CLPPCB	866B012	866B012			N	1	R
13	-	-	13	HP58907	DB1701	866B1254	CLPPCB	866B013	866B013			N	1	R
14	-	-	14	HP58907	DB1701	866BTOX	CLPPCB	866B014	866B014			N	1	R
15	-	-	15	HP58907	DB1701	866BAL	CLPS	866B015	866B015			N	1	R
16	-	-	16	HP58907	DB1701	866BBL	CLPS	866B016	866B016			N	1	R
17	-	-	17	HP58907	DB1701	866BAM	CLPS	866B017	866B017			N	1	R
18	-	-	18	HP58907	DB1701	866BBM	CLPS	866B018	866B018			N	1	R
19	-	-	19	HP58907	DB1701	866BAH	CLPS	866B019	866B019			N	1	R
20	-	-	20	HP58907	DB1701	866BBH	CLPS	866B020	866B020			N	1	R
21	-	-	21	HP58907	DB1701	866B	BALL	866B021	866B021			-	-	-
22	-	-	22	HP58907	DB1701	866BPEM	CLPEM	866B022	866B022			-	-	-
23	-	-	23	HP58907	DB1701	866B	BALL	866B023	866B023			-	-	-
24	-	-	24	HP58907	DB1701	866B	BALL	866B024	866B024			-	-	-
25	-	-	25	HP58907	DB1701	866B	BALL	866B025	866B025			-	-	-
26	-	-	26	HP58907	DB1701	866B	BALL	866B026	866B026			-	-	-
27	-	-	27	HP58907	DB1701	866B	BALL	866B027	866B027			-	-	-
28	-	-	28	HP58907	DB1701	866B	BALL	866B028	866B028			-	-	-
29	-	-	29	HP58907	DB1701	866B	BALL	866B029	866B029			-	-	-
30	-	-	30	HP58907	DB1701	866B	BALL	866B030	866B030			-	-	-
31	-	-	31	HP58907	DB1701	866BAM	CLPS	866B031	866B031			N	1	N
32	-	-	32	HP58907	DB1701	866BBM	CLPS	866B032	866B032			N	1	N
33	-	-	33	HP58907	DB1701	866B	BALL	866B033	866B033			-	-	-
34	-	-	34	HP58907	DB1701	866B	BALL	866B034	866B034			-	-	-
35	-	-	35	HP58907	DB1701	866B	BALL	866B035	866B035			-	-	-
	-	-	36	HP58907	DB1701	866B	BALL	866B036	866B036			-	-	-
	-	-	37	HP58907	DB1701	866B	BALL	866B037	866B037			-	-	-
3	-	-	38	HP58907	DB1701	866B	BALL	866B038	866B038			-	-	-
39	-	-	39	HP58907	DB1701	866B	BALL	866B039	866B039			-	-	-
40	-	-	40	HP58907	DB1701	866B	BALL	866B040	866B040			-	-	-
41	-	-	41	HP58907	DB1701	866B	BALL	866B041	866B041			-	-	-
42	-	-	42	HP58907	DB1701	866BPEM	CLPEM	866B042	866B042			-	-	-
43	-	-	43	HP58907	DB1701	866B	BALL	866B043	866B043			-	-	-
44	-	-	44	HP58907	DB1701	866B	BALL	866B044	866B044			-	-	-
45	-	-	45	HP58907	DB1701	866B	BALL	866B045	866B045			-	-	-
46	-	-	46	HP58907	DB1701	866B	BALL	866B046	866B046			-	-	-
47	-	-	47	HP58907	DB1701	866B	BALL	866B047	866B047			-	-	-
48	-	-	48	HP58907	DB1701	866BAM	CLPS	866B048	866B048			N	1	N
49	-	-	49	HP58907	DB1701	866BBM	CLPS	866B049	866B049			N	1	N

Software Version: 4.0<1C29>
Sample Name : CK*RESC*1 Time : 7/1/94 01:06 PM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/7

Interface Serial # : NONE Data Acquisition Time: 6/28/94 01:45 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B006.RAW
Result File : C:\TC4\HP58907\866B006.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B006.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B006.RST
Calib Method : C:\TC4\HP58907\866BRES from C:\TC4\HP58907\866B006.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 33 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 13

DATA REPORT

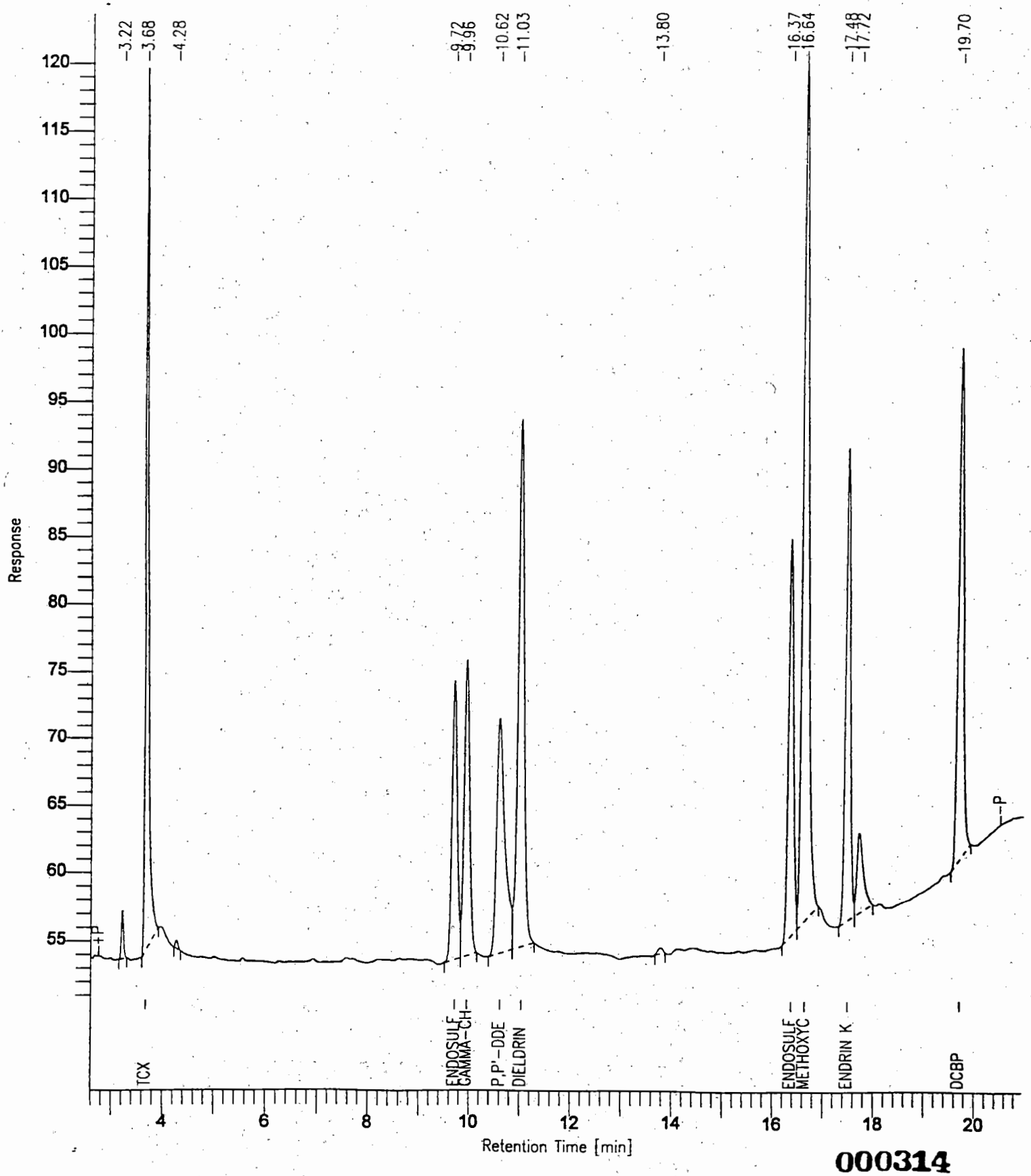
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.675	TCX	260472	B	65504	4e-15	0.0200
4	9.715	ENDOSULFAN A	152131	B	20785	5e-15	0.0100
5	9.959	GAMMA-CHLORDANE	169433	V	22039	-1e-15	0.0100
6	10.615	P,P'-DDE	199050	B	17535	-6e-15	0.0200
7	11.031	DIELDRIN	321816	V	39158	-3e-15	0.0200
9	16.369	ENDOSULFAN SULFATE	204323	B	29461	4e-15	0.0200
10	16.641	METHOXYCHLOR	508906	V	63648	6e-15	0.1000
11	17.484	ENDRIN KETONE	224816	B	35128	-4e-15	0.0200
13	19.695	DCBP	266107	B	38010	5e-15	0.0200
			2307053		331268		0.2400

95|3356.0339

Chromatogram

e Name : CK*RESC*1
ame : C:\TC4\HP58907\866B006.RAW
d :
Start Time : 2.59 min End Time : 20.96 min
Scale Factor: 0.0 Plot Offset: 51 mV

Sample #:
Date : 7/1/94 01:06 PM
Time of Injection: 6/28/94 01:45 PM
Low Point : 50.69 mV High Point : 120.18 mV
Plot Scale: 69.5 mV

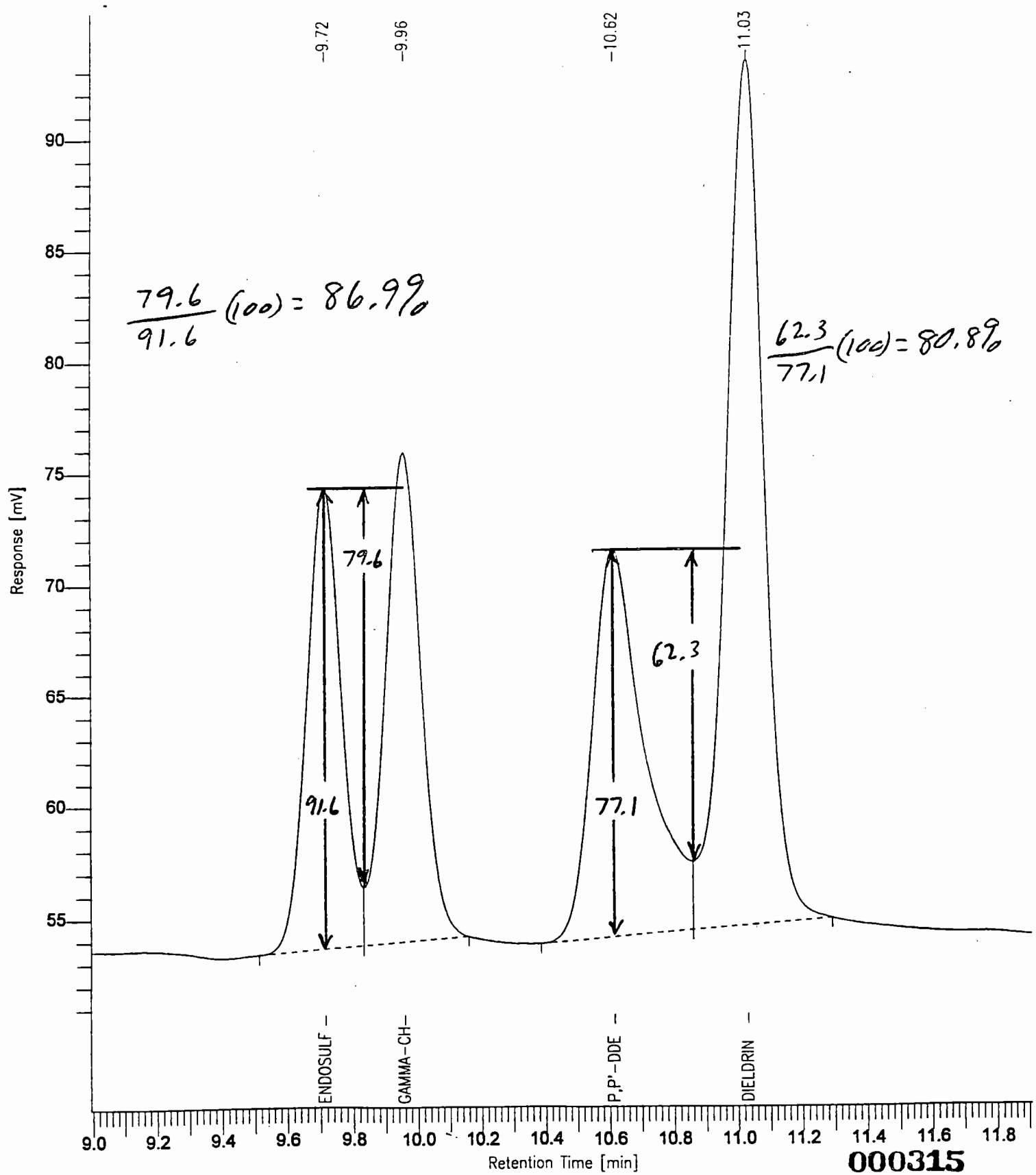


000314

Chromatogram

Sample Name : CK*RESC*1
FileName : C:\TC4\HP58907\866B006.RAW
Method :
Start Time : 8.99 min End Time : 11.91 min
Scale Factor: 0.0 Plot Offset: 51 mV

Sample #:
Date : 7/1/94 01:07 PM
Time of Injection: 6/28/94 01:45 PM
Low Point : 50.69 mV High Point : 93.54 mV
Plot Scale: 42.8 mV

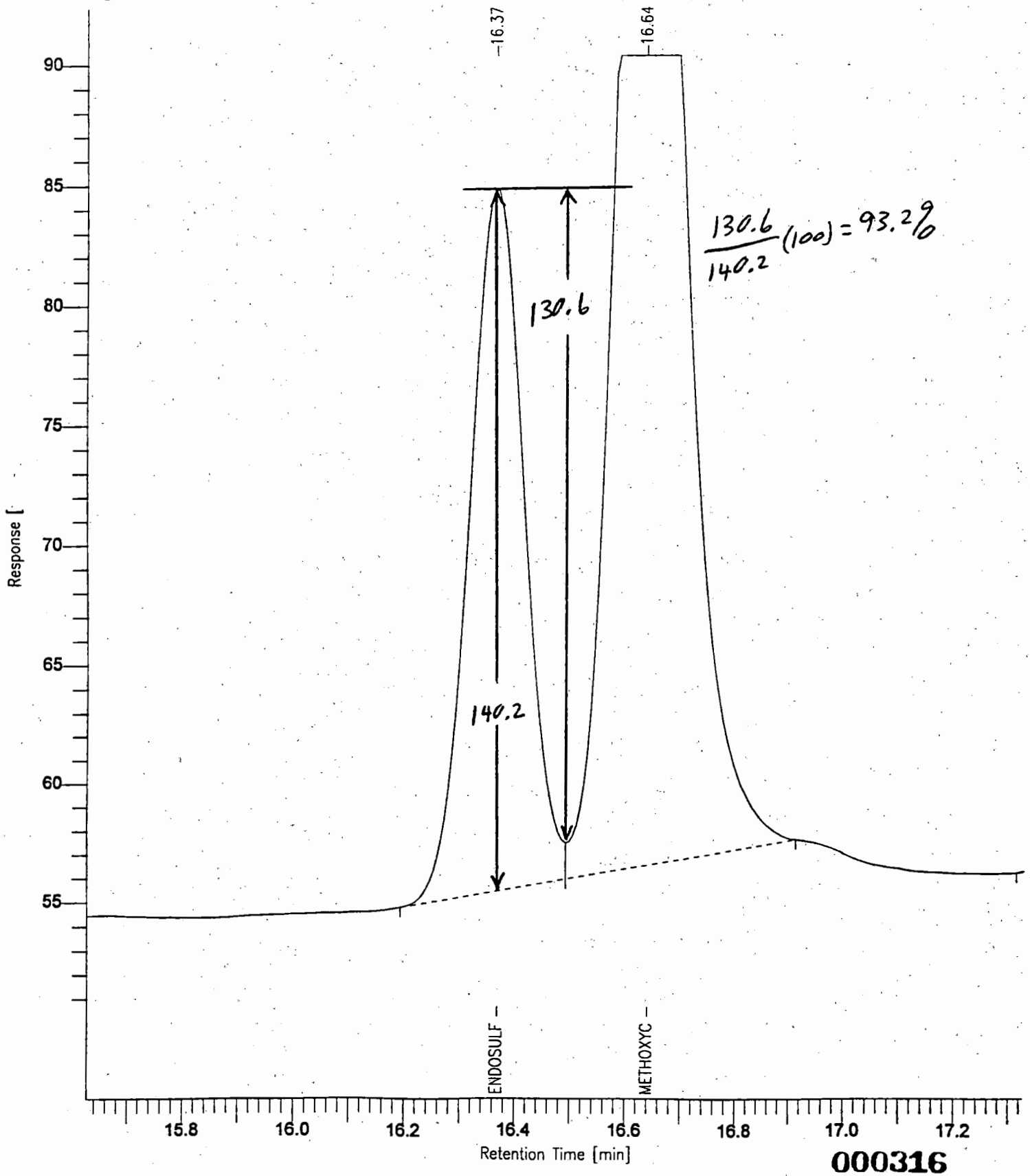


9513356.0340

Chromatogram

S Name : CK*RESC*1
me : C:\TC4\HP58907\866B006.RAW
Start Time : 15.63 min End Time : 17.33 min
Scale Factor: 0.0 Plot Offset: 51 mV

Sample #:
Date : 7/1/94 01:07 PM
Time of Injection: 6/28/94 01:45 PM
Low Point : 50.69 mV High Point : 90.39 mV
Plot Scale: 39.7 mV



Software Version: 4.0<1C29>
Sample Name : CK*PEM*1 Time : 7/1/94 02:31 PM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/8

Interface Serial # : NONE Data Acquisition Time: 6/28/94 02:26 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B007.RAW
Result File : C:\TC4\HP58907\866B007.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B007.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B007.RST
Calib Method : C:\TC4\HP58907\866BPEM from C:\TC4\HP58907\866B007.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 777.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 33 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 19

DATA REPORT

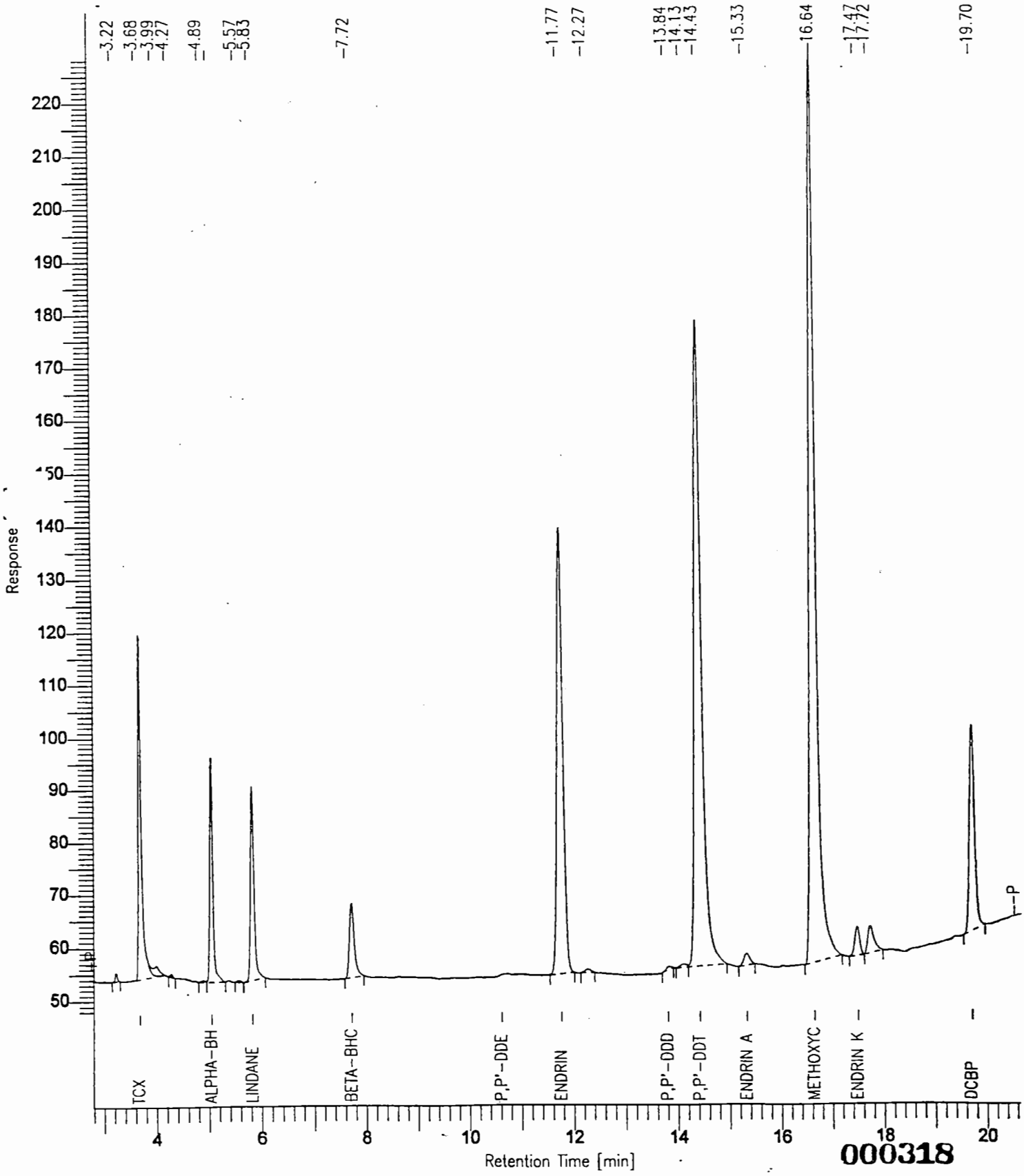
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
2	3.676	TCX	272732	B	65861	0.0426
6	5.050	ALPHA-BHC	174431	V	42985	0.0346
8	5.831	LINDANE	172954	B	36898	0.0311
9	7.722	BETA-BHC	89777	B	13878	0.0382
10	11.766	ENDRIN	672807	B	84499	0.0627
12	13.838	P,P'-DDD	4443	B	589	0.2624
14	14.431	P,P'-DDT	1190754	V	122137	0.0479
15	15.332	ENDRIN ALDEHYDE	17914	B	2199	0.0131
16	16.641	METHOXYCHLOR	1476379	B	172288	0.0191
17	17.474	ENDRIN KETONE	34416	B	5213	-0.0461
19	19.695	DCBP	271704	B	39345	0.0109
			4378312		585892	

9513356.0341

Chromatogram

S--- Name : CK*PEM*1
F me : C:\TC4\HP58907\866B007.RAW
I :
Start Time : 2.79 min End Time : 20.63 min
Scale Factor: 0.0 Plot Offset: 48 mV

Sample #:
Date : 7/1/94 02:31 PM
Time of Injection: 6/28/94 02:26 PM
Low Point : 47.63 mV High Point : 228.21 mV
Plot Scale: 180.6 mV



Software Version: 4.0<1C29>
Sample Name : ICV*AR1660*1 Time : 7/1/94 02:33 PM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/9

Interface Serial # : NONE Data Acquisition Time: 6/28/94 03:06 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B008.RAW
Result File : C:\TC4\HP58907\866B008.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B008.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B008.RST
Calib Method : C:\TC4\HP58907\866B1660 from C:\TC4\HP58907\866B008.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 33 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 43

DATA REPORT

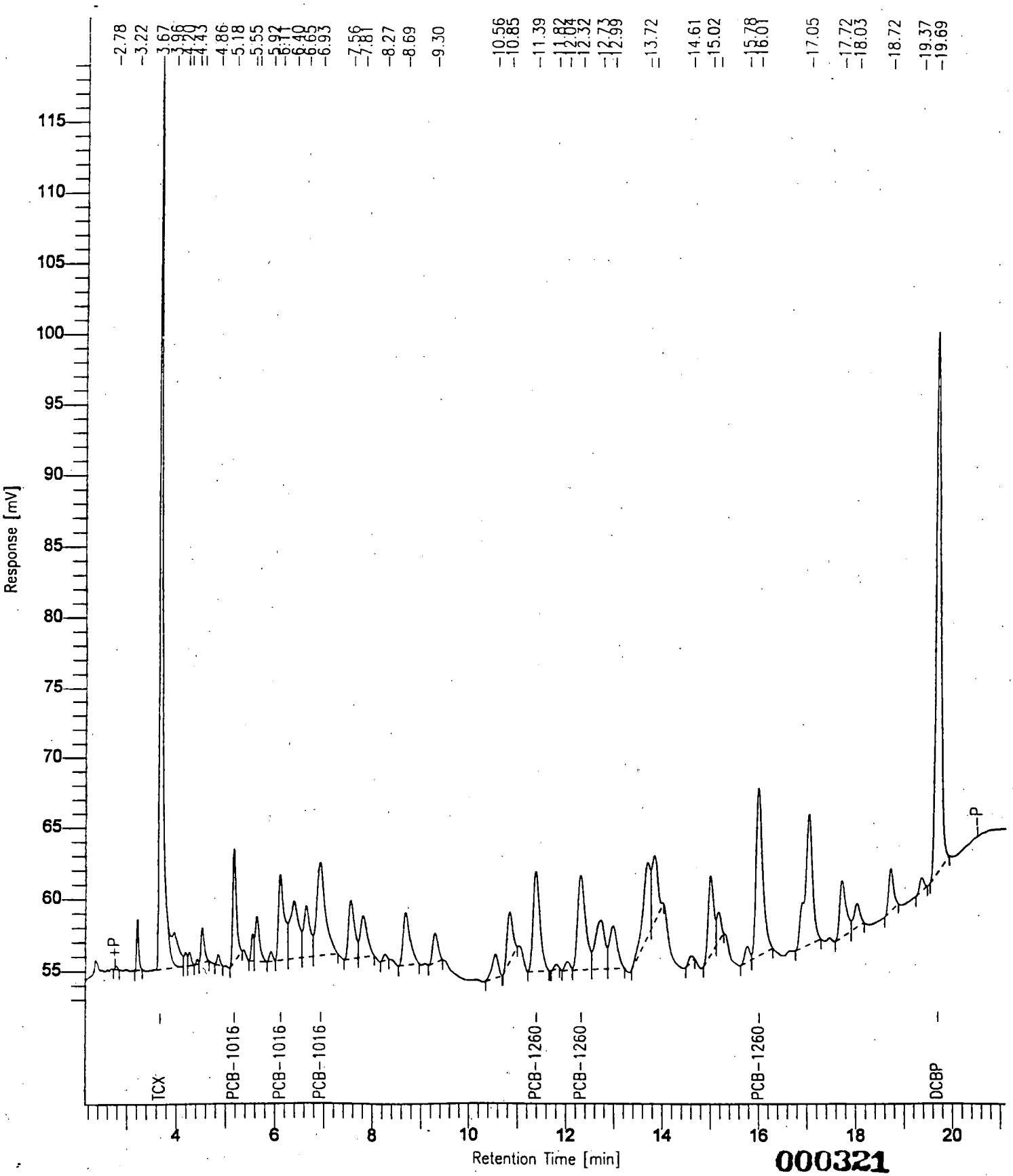
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.217		10475	B	3551	-------	1.0475e-07
3	3.674	TCX	273896	B	65940	2e-15	0.0200
4	3.959		24722	E	2185	-------	2.4722e-07
8	4.530		11765	V	2467	-------	1.1765e-07
10	5.180	PCB-1016-1	40460	B	7879	-2e-15	0.1000
11	5.554		6973	B	1882	-------	6.9733e-08
12	5.640		19111	V	3113	-------	1.9111e-07
14	6.114	PCB-1016-2	50122	V	5979	0.0000	0.1000
15	6.399		50085	V	3998	-------	5.0085e-07
16	6.645		32774	V	3570	-------	3.2774e-07
17	6.933	PCB-1016-3	80522	V	6504	-9e-16	0.1000
18	7.557		36181	B	4084	-------	3.6181e-07
19	7.809		29113	V	2881	-------	2.9113e-07
21	8.690		36409	B	3644	-------	3.6409e-07
22	9.296		16052	B	2048	-------	1.6052e-07

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
	10.556		14743	B	1649	-------	1.4743e-07
	10.848		28162	B	3436	-------	2.8162e-07
25	11.393	PCB-1260-1	69077	B	6966	6e-15	0.1000
28	12.319	PCB-1260-2	76672	V	6592	2e-15	0.1000
29	12.734		47898	V	3400	-------	4.7898e-07
30	12.987		33411	V	2966	-------	3.3411e-07
31	13.715		57586	B	5131	-------	5.7586e-07
32	13.856		39952	V	4626	-------	3.9952e-07
34	15.017		44543	B	5473	-------	4.4543e-07
35	15.181		12477	V	2015	-------	1.2477e-07
36	15.775		7868	B	1085	-------	7.8684e-08
37	16.014	PCB-1260-3	112331	V	11815	4e-15	0.1000
38	17.049		98819	B	9180	-------	9.8819e-07
39	17.724		35808	B	3916	-------	3.5808e-07
40	18.029		14267	V	1641	-------	1.4267e-07
41	18.724		21086	B	2993	-------	2.1086e-07
42	19.366		6104	B	958	-------	6.1044e-08
43	19.694	DCBP	267359	B	38620	-2e-15	0.0200
			1706823		232186		0.6400

Chromatogram

Sample Name : ICV*AR1660*1
FileName : C:\TC4\HP58907\866B008.RAW
Method :
Start Time : 2.13 min End Time : 21.10 min
Scale Factor: 0.0 Plot Offset: 52 mV

Sample #:
Date : 7/1/94 02:33 PM
Time of Injection: 6/28/94 03:06 PM
Low Point : 52.07 mV High Point : 119.03 mV
Plot Scale: 67.0 mV



000321

Software Version: 4.0<1C29>
Sample Name : ICV*AR1221*1 Time : 7/1/94 02:35 PM
ple Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/10

Interface Serial # : NONE Data Acquisition Time: 6/28/94 03:46 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B009.RAW
Result File : C:\TC4\HP58907\866B009.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B009.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B009.RST
Calib Method : C:\TC4\HP58907\866B1221 from C:\TC4\HP58907\866B009.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

.se Threshold: 33 Area Threshold : 444 Bunch Factor: 1
multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 10

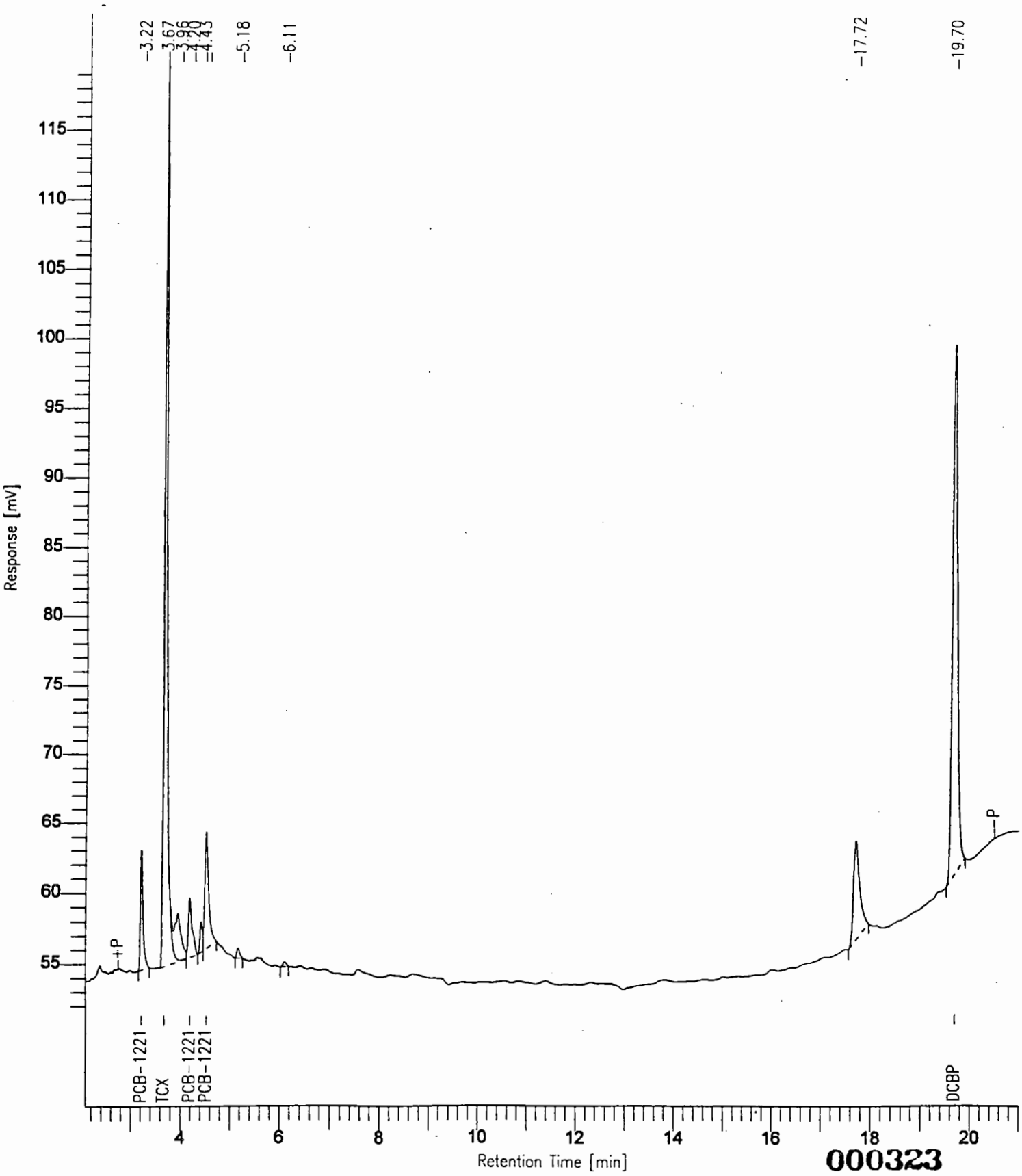
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	3.220	PCB-1221-1	31497	B	8481	2e-15	0.2000
2	3.674	TCX	272725	B	67258	2e-15	0.0200
3	3.957		31953	E	3278	-------	3.1953e-07
4	4.196	PCB-1221-2	23338	V	4220	1e-14	0.2000
5	4.432		7669	B	2159	-------	7.6689e-08
6	4.530	PCB-1221-3	45616	V	8326	7e-15	0.2000
9	17.724		60908	B	7058	-------	6.0908e-07
	19.696	DCBP	266725	B	38663	-6e-15	0.0200
			740430		139441		0.6400

Chromatogram

Sample Name : ICV*AR1221*1
FileName : C:\TC4\HP58907\866B009.RAW
Method :
Start Time : 2.08 min End Time : 21.01 min
Scale Factor: 0.0 Plot Offset: 51 mV

Sample #:
Date : 7/1/94 02:35 PM
Time of Injection: 6/28/94 03:46 PM
Low Point : 51.38 mV High Point : 119.97 mV
Plot Scale: 68.6 mV



Software Version: 4.0<1C29>
Sample Name : ICV*AR1232*1 Time : 7/1/94 02:36 PM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/11

Interface Serial # : NONE Data Acquisition Time: 6/28/94 04:27 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B010.RAW
Result File : C:\TC4\HP58907\866B010.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B010.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B010.RST
Calib Method : C:\TC4\HP58907\866B1232 from C:\TC4\HP58907\866B010.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Peak Threshold: 33 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 19

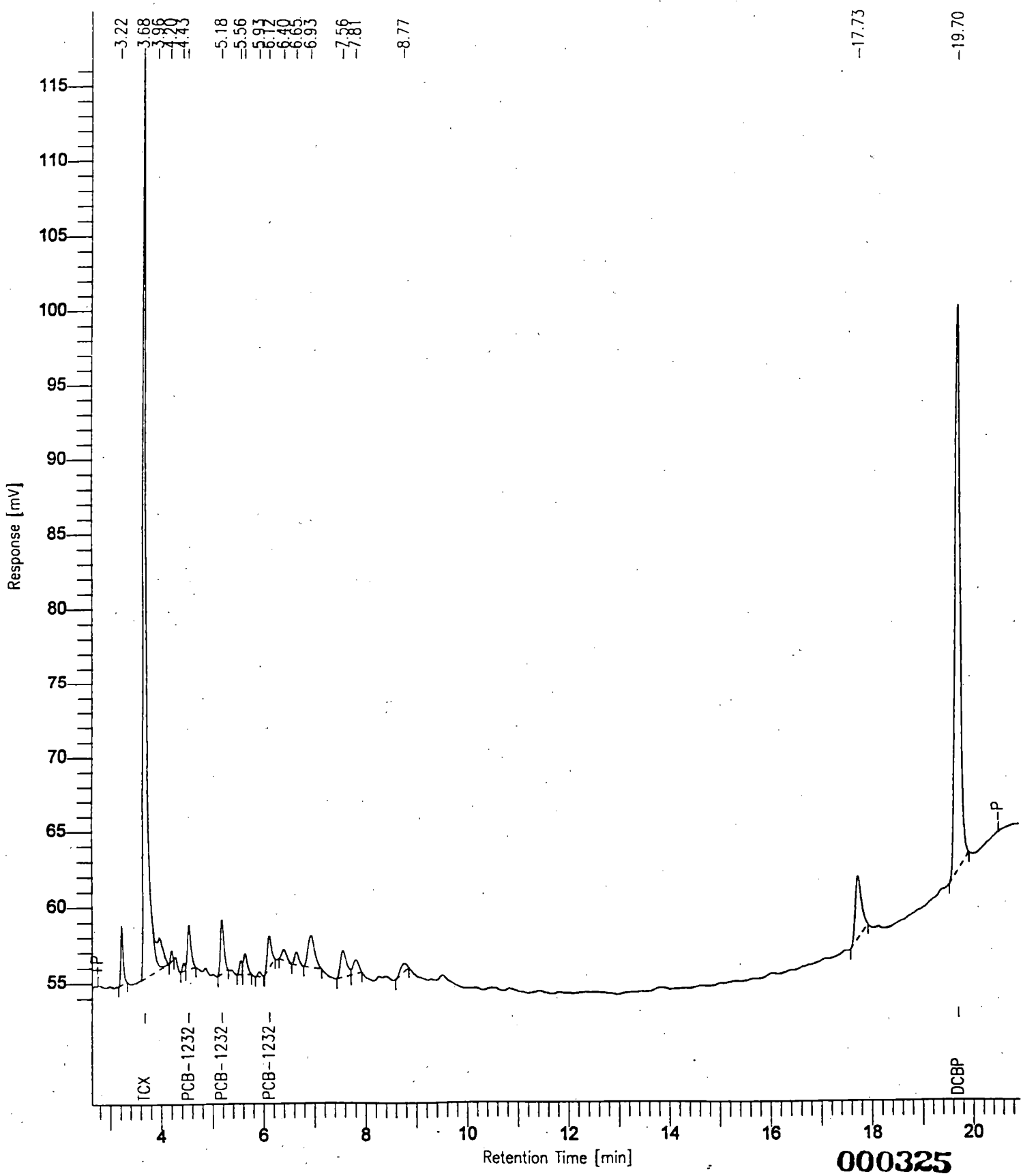
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	3.220		12591	B	3914	-------	1.2591e-07
2	3.676	TCX	273745	B	66321	8e-16	0.0200
3	3.957		17122	E	1840	-------	1.7122e-07
6	4.532	PCB-1232-1	14067	V	2912	1e-15	0.1000
7	5.182	PCB-1232-2	17158	B	3564	-7e-15	0.1000
9	5.641		7420	V	1369	-------	7.4204e-08
11	6.117	PCB-1232-3	11897	B	2102	5e-15	0.1000
	6.932		19119	B	2103	-------	1.9119e-07
	7.562		14605	B	1738	-------	1.4605e-07
	7.809		6954	V	905	-------	6.9544e-08
18	17.733		35529	B	4151	-------	3.5529e-07
19	19.699	DCBP	265377	B	38288	-7e-15	0.0200
			695584		129207		0.3400

Chromatogram

Sample Name : ICV*AR1232*1
FileName : C:\TC4\HP58907\866B010.RAW
Method :
Start Time : 2.64 min End Time : 20.91 min
Scale Factor: 0.0 Plot Offset: 53 mV

Sample #:
Date : 7/1/94 02:36 PM
Time of Injection: 6/28/94 04:27 PM
Low Point : 53.05 mV High Point : 116.87 mV
Plot Scale: 63.8 mV



000325

Software Version: 4.0<1C29>
Sample Name : ICV*AR1242*1 Time : 7/1/94 02:36 PM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/12

Interface Serial # : NONE Data Acquisition Time: 6/28/94 05:07 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B011.RAW
Result File : C:\TC4\HP58907\866B011.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B011.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B011.RST
Calib Method : C:\TC4\HP58907\866B1242 from C:\TC4\HP58907\866B011.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Peak Threshold: 33 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 24

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	3.219		11124	B	3758	-------	1.1124e-07
2	3.676	TCX	288433	B	69062	-8e-16	0.0200
3	3.959		25373	E	2199	-------	2.5373e-07
7	4.532		10411	V	2193	-------	1.0411e-07
9	5.182	PCB-1242-1	30204	B	5891	6e-15	0.1000
10	5.557		5785	B	1450	-------	5.7852e-08
11	5.642		14349	V	2354	-------	1.4349e-07
	6.117	PCB-1242-2	38857	V	4618	-6e-15	0.1000
	6.402		38726	V	3063	-------	3.8726e-07
	6.648		25654	V	2711	-------	2.5654e-07
16	6.933		61667	V	4994	-------	6.1667e-07
17	7.559		29483	B	3328	-------	2.9483e-07
18	7.811		21214	V	2216	-------	2.1214e-07
20	8.764	PCB-1242-3	25678	B	2000	0.0000	0.1000
21	9.514		6151	B	763	-------	6.1513e-08

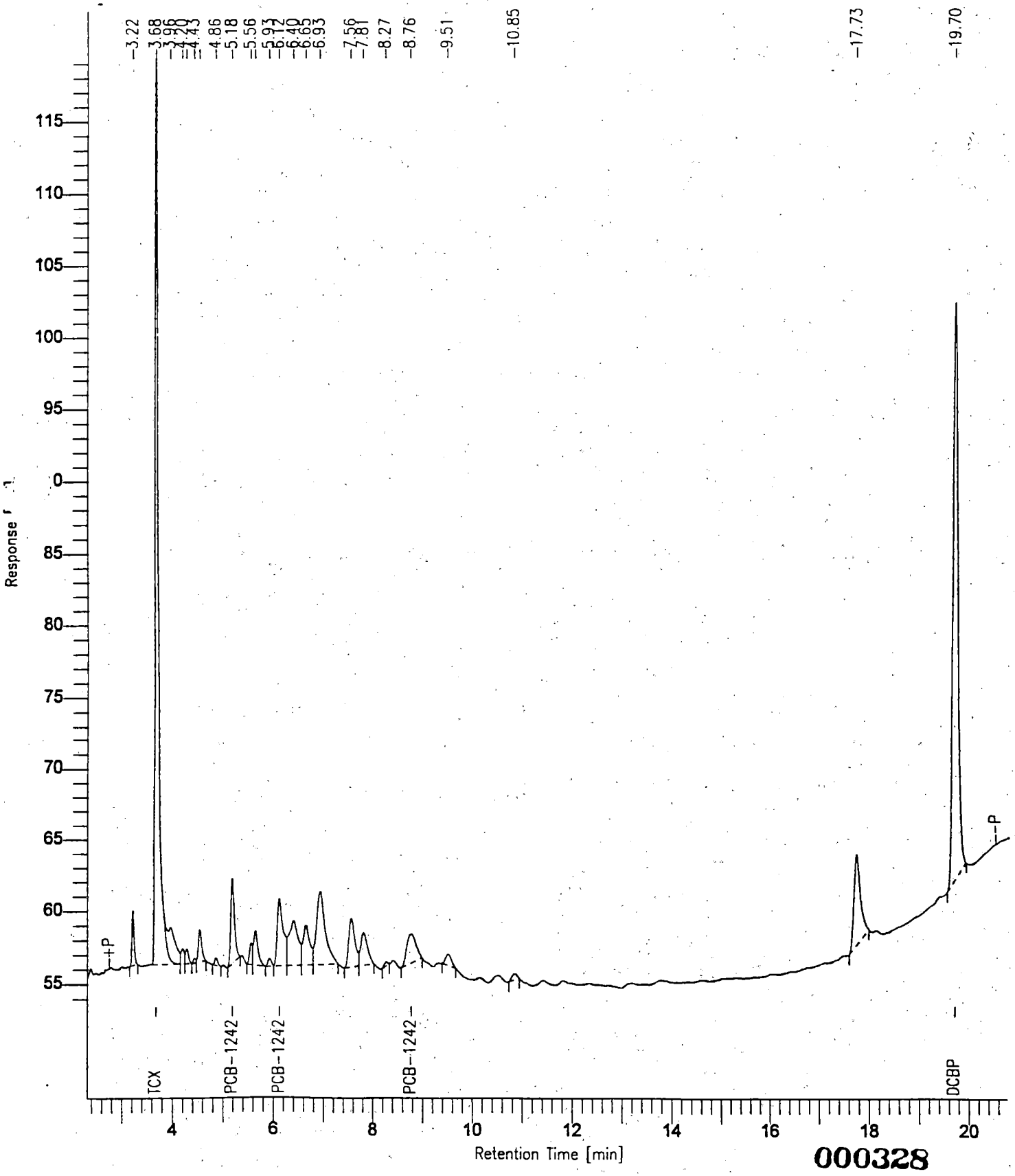
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
23	17.728		55280	B	6266	-------	5.5280e-07
24	19.697	DCBP	279014	B	40375	-7e-15	0.0200
			967405		157241		0.3400

9513356.0346

Chromatogram

S Name : ICV*AR1242*1
F me : C:\TC4\HP58907\866B011.RAW
I :
Start Time : 2.31 min End Time : 20.77 min
Scale Factor: 0.0 Plot Offset: 53 mV

Sample #:
Date : 7/1/94 02:36 PM
Time of Injection: 6/28/94 05:07 PM
Low Point : 53.49 mV High Point : 119.38 mV
Plot Scale: 65.9 mV



000328

Software Version: 4.0<1C29>
Sample Name : ICV*AR1248*1 Time : 7/1/94 02:37 PM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/13

Interface Serial # : NONE Data Acquisition Time: 6/28/94 05:47 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B012.RAW
Result File : C:\TC4\HP58907\866B012.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B012.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B012.RST
Calib Method : C:\TC4\HP58907\866B1248 from C:\TC4\HP58907\866B012.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 33 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 24

DATA REPORT

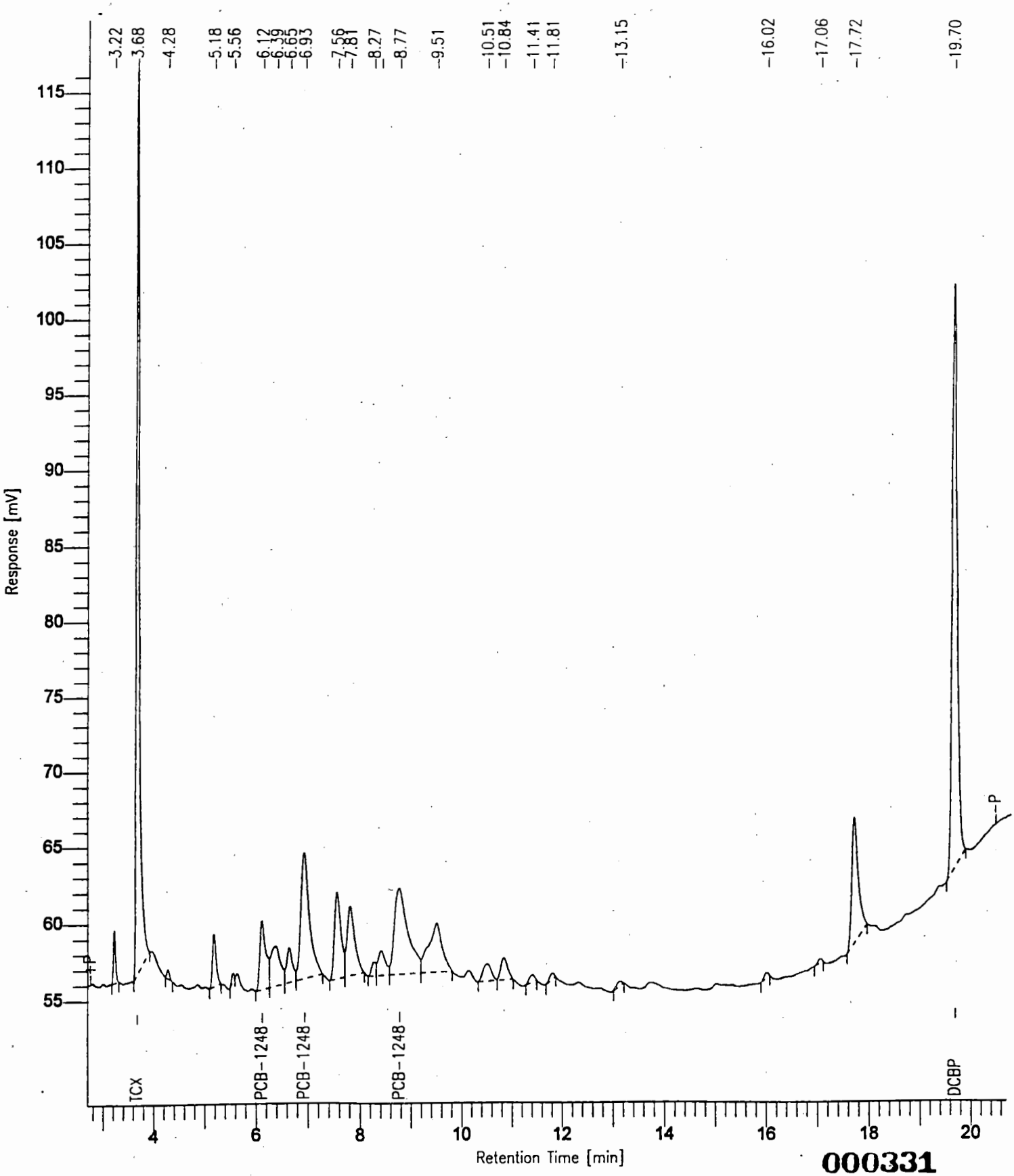
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	3.219		10106	B	3462	-------	1.0106e-07
2	3.676	TCX	255472	B	64915	0.0000	0.0200
4	5.181		17287	B	3433	-------	1.7287e-07
6	6.117	PCB-1248-1	37174	B	4495	-3e-15	0.1000
7	6.385		34053	V	2629	-------	3.4053e-07
8	6.647		18162	V	2267	-------	1.8162e-07
9	6.934	PCB-1248-2	94354	V	8225	4e-15	0.1000
10	7.558		49085	B	5679	-------	4.9085e-07
11	7.808		47147	V	4537	-------	4.7147e-07
13	8.412		16633	V	1617	-------	1.6633e-07
14	8.773	PCB-1248-3	105232	V	5603	-8e-15	0.1000
15	9.507		59280	V	3206	-------	5.9280e-07
16	10.512		13148	B	1136	-------	1.3148e-07
17	10.839		13442	V	1443	-------	1.3442e-07
23	17.722		71825	B	8257	-------	7.1825e-07

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
	19.696	DCBP	266979	B	39068	-2e-15	0.0200
			1109381		159971		0.3400

Chromatogram

Sample Name : ICV*AR1248*1
FileName : C:\TC4\HP58907\866B012.RAW
Method :
Start Time : 2.69 min End Time : 20.82 min
Scale Factor: 0.0 Plot Offset: 54 mV

Sample #:
Date : 7/1/94 02:37 PM
Time of Injection: 6/28/94 05:47 PM
Low Point : 54.17 mV High Point : 116.66 mV
Plot Scale: 62.5 mV



Software Version: 4.0<1C29>
Sample Name : ICV*AR1254*1 Time : 7/1/94 02:38 PM
ple Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/14

Interface Serial # : NONE Data Acquisition Time: 6/28/94 06:28 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B013.RAW
Result File : C:\TC4\HP58907\866B013.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B013.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B013.RST
Calib Method : C:\TC4\HP58907\866B1254 from C:\TC4\HP58907\866B013.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 33 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 24

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	3.218		11375	B	3876	-------	1.1375e-07
2	3.675	TCX	257590	B	66116	-6e-15	0.0200
4	6.903		35036	B	4052	-------	3.5036e-07
5	7.556		13688	B	1848	-------	1.3688e-07
6	8.695	PCB-1254-1	90282	B	7337	-5e-15	0.1000
7	9.101		14082	V	1683	-------	1.4082e-07
8	9.316		76624	V	6547	-------	7.6624e-07
	9.507		42989	V	4319	-------	4.2989e-07
	10.154		15002	B	1732	-------	1.5002e-07
11	10.503		47670	V	3831	-------	4.7670e-07
12	10.842	PCB-1254-2	96952	V	7424	-8e-15	0.1000
13	11.396		38020	B	3997	-------	3.8020e-07
14	11.820		20461	B	2240	-------	2.0461e-07
15	12.315		30131	B	3005	-------	3.0131e-07
16	12.763		17430	B	2061	-------	1.7430e-07

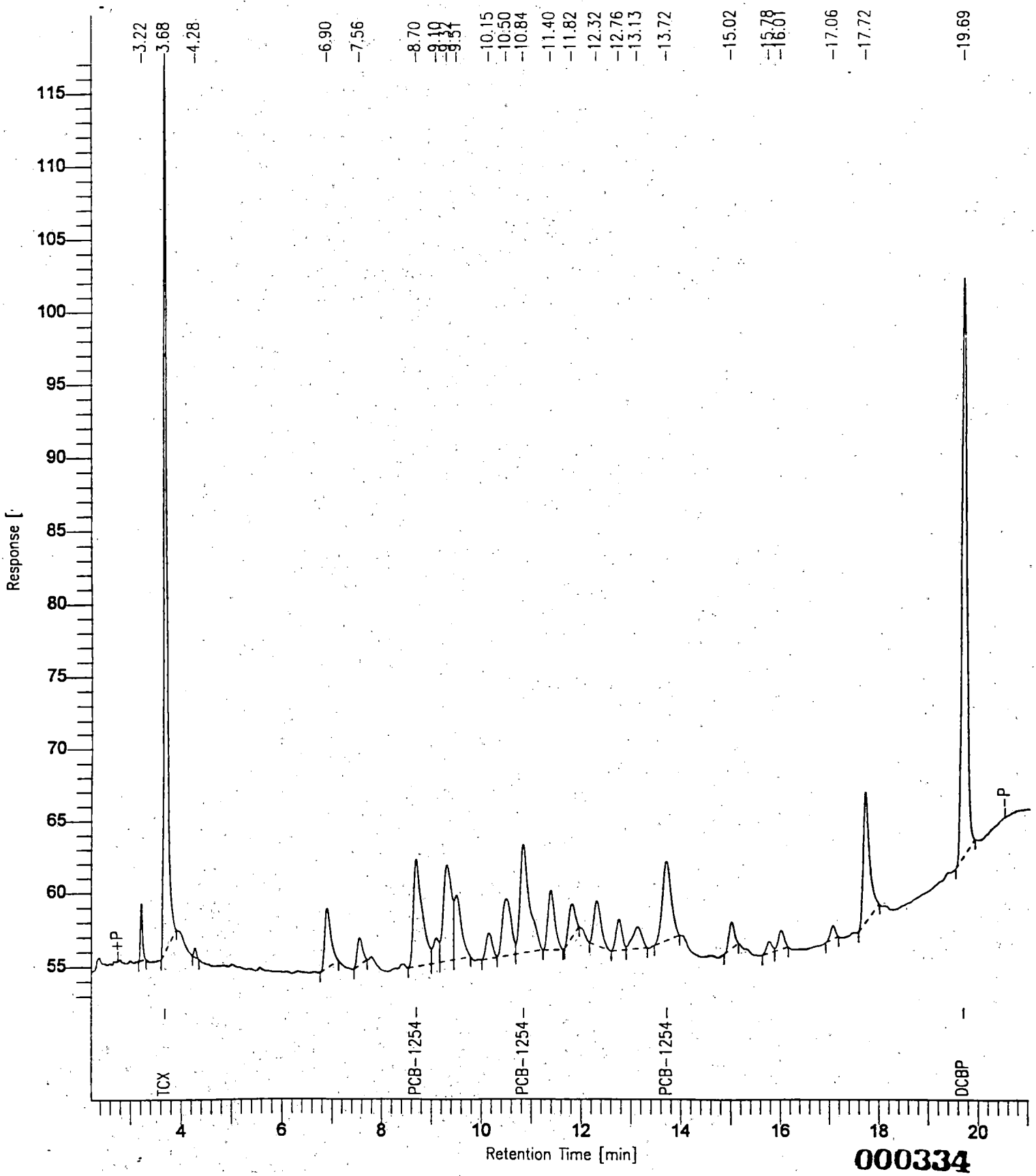
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
17	13.127		19053	V	1454	-------	1.9053e-07
18	13.716	PCB-1254-3	66318	B	5401	-5e-15	0.1000
19	15.022		13583	B	1729	-------	1.3583e-07
20	15.775		5948	B	747	-------	5.9478e-08
21	16.013		10288	V	1249	-------	1.0288e-07
22	17.061		6318	B	883	-------	6.3179e-08
23	17.719		77645	B	9035	-------	7.7645e-07
24	19.694	DCBP	270726	B	39696	-6e-15	0.0200
			1277212		180262		0.3400

9513356.0349

Chromatogram

.e Name : ICV*AR1254*1
lame : C:\TC4\HP58907\866B013.RAW
.od :
Start Time : 2.22 min End Time : 21.01 min
Scale Factor: 0.0 Plot Offset: 52 mV

Sample #:
Date : 7/1/94 02:38 PM
Time of Injection: 6/28/94 06:28 PM
Low Point : 52.20 mV High Point : 117.13 mV
Plot Scale: 64.9 mV



Software Version: 4.0<1C29>
Sample Name : ICV*TOXAPH*1 Time : 7/1/94 02:39 PM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/15

Interface Serial # : NONE Data Acquisition Time: 6/28/94 07:08 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B014.RAW
Result File : C:\TC4\HP58907\866B014.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B014.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B014.RST
Calib Method : C:\TC4\HP58907\866BTOX from C:\TC4\HP58907\866B014.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 33 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 44

DATA REPORT

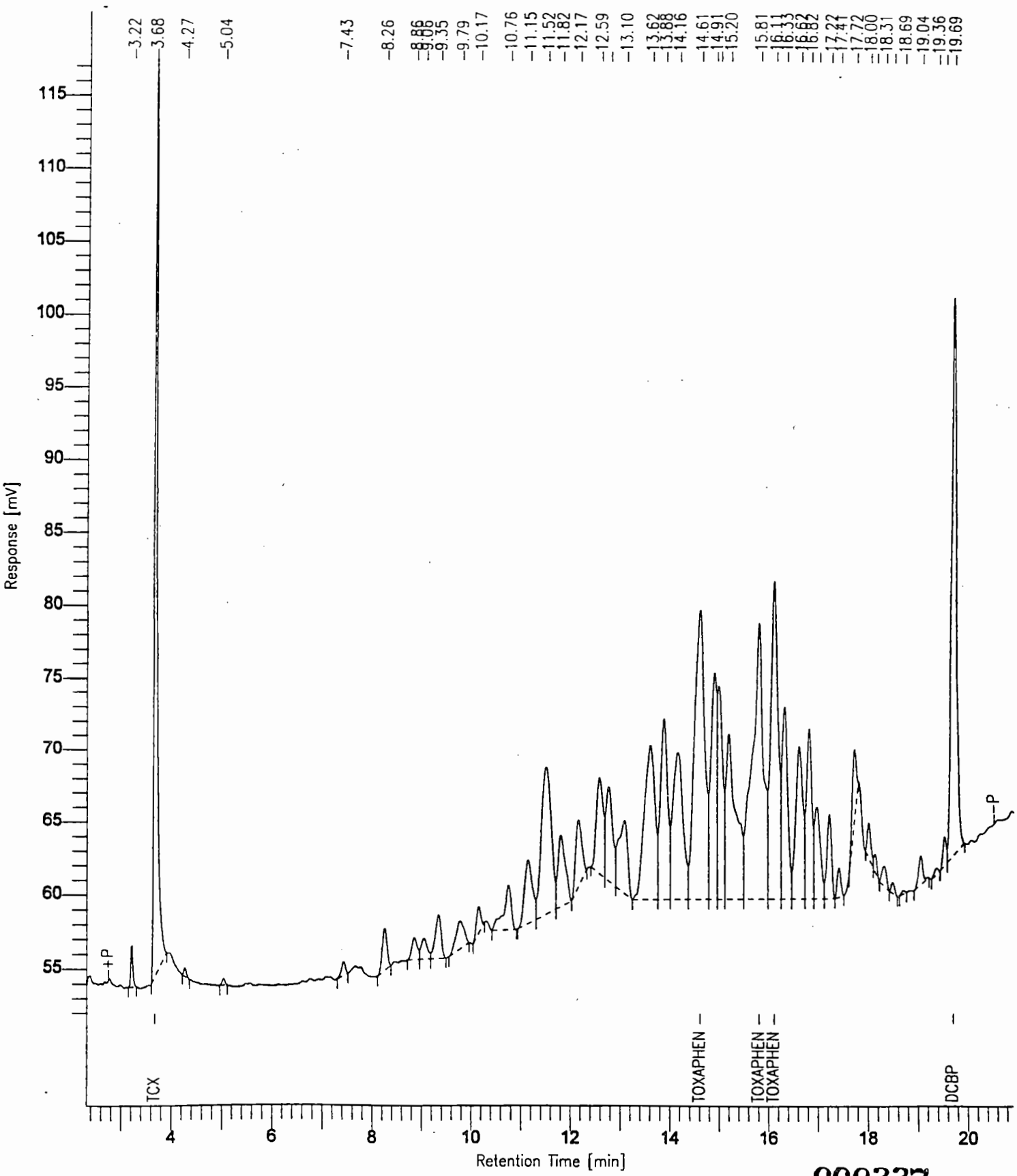
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	3.218		8350	B	2833	-------	8.3502e-08
2	3.675	TCX	263627	B	66951	-2e-15	0.0200
6	8.259		19597	B	2846	-------	1.9597e-07
7	8.860		11567	B	1469	-------	1.1567e-07
8	9.057		12302	V	1398	-------	1.2302e-07
9	9.349		24897	V	2946	-------	2.4897e-07
10	9.786		22301	B	1889	-------	2.2301e-07
11	10.165		11547	B	1769	-------	1.1547e-07
12	10.761		32771	B	3035	-------	3.2771e-07
13	11.154		48656	B	4344	-------	4.8656e-07
14	11.521		143973	V	10203	-------	1.4397e-06
15	11.816		50882	V	4923	-------	5.0882e-07
16	12.171		40150	B	4603	-------	4.0150e-07
17	12.593		65395	B	6681	-------	6.5395e-07
18	12.778		61015	V	6542	-------	6.1015e-07

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
	13.097		62601	V	5055	-------	6.2601e-07
20	13.615		160605	B	10767	-------	1.6060e-06
21	13.884		129335	V	12570	-------	1.2934e-06
22	14.164		144954	V	10224	-------	1.4495e-06
23	14.611	TOXAPHENE-1	292131	V	20102	2e-15	0.5000
24	14.908		132590	V	15769	-------	1.3259e-06
25	14.994		108841	V	14891	-------	1.0884e-06
26	15.198		164171	V	11508	-------	1.6417e-06
27	15.806	TOXAPHENE-2	303530	V	19182	-8e-16	0.5000
28	16.107	TOXAPHENE-3	229382	V	22063	-6e-15	0.5000
29	16.325		108138	V	13393	-------	1.0814e-06
30	16.615		107907	V	10633	-------	1.0791e-06
31	16.817		90993	V	11884	-------	9.0993e-07
32	16.968		51839	V	6350	-------	5.1839e-07
33	17.219		37010	V	5821	-------	3.7010e-07
34	17.412		10368	B	2009	-------	1.0368e-07
35	17.722		29683	B	5002	-------	2.9683e-07
36	18.001		12242	B	2454	-------	1.2242e-07
38	18.306		8523	B	1395	-------	8.5233e-08
41	19.038		11951	B	1986	-------	1.1951e-07
43	19.517		9716	B	2013	-------	9.7162e-08
44	19.694	DCBP	266089	V	38667	2e-15	0.0200
			3289630		366169		1.5400

Chromatogram

Sample Name : ICV*TOXAPH*1
FileName : C:\TC4\HP58907\866B014.RAW
Method :
Start Time : 2.31 min End Time : 20.91 min
Scale Factor: 0.0 Plot Offset: 52 mV

Sample #:
Date : 7/1/94 02:39 PM
Time of Injection: 6/28/94 07:08 PM
Low Point : 51.96 mV High Point : 117.51 mV
Plot Scale: 65.6 mV



Software Version: 4.0<1C29>
Sample Name : ICV*INDAL*1 Time : 7/1/94 02:43 PM
ple Number: Study :
erator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/16

Interface Serial # : NONE Data Acquisition Time: 6/28/94 07:48 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B015.RAW
Result File : C:\TC4\HP58907\866B015.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B015.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B015.RST
Calib Method : C:\TC4\HP58907\866BAL from C:\TC4\HP58907\866B015.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 33 Area Threshold : 444 Bunch Factor: 1
ultiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

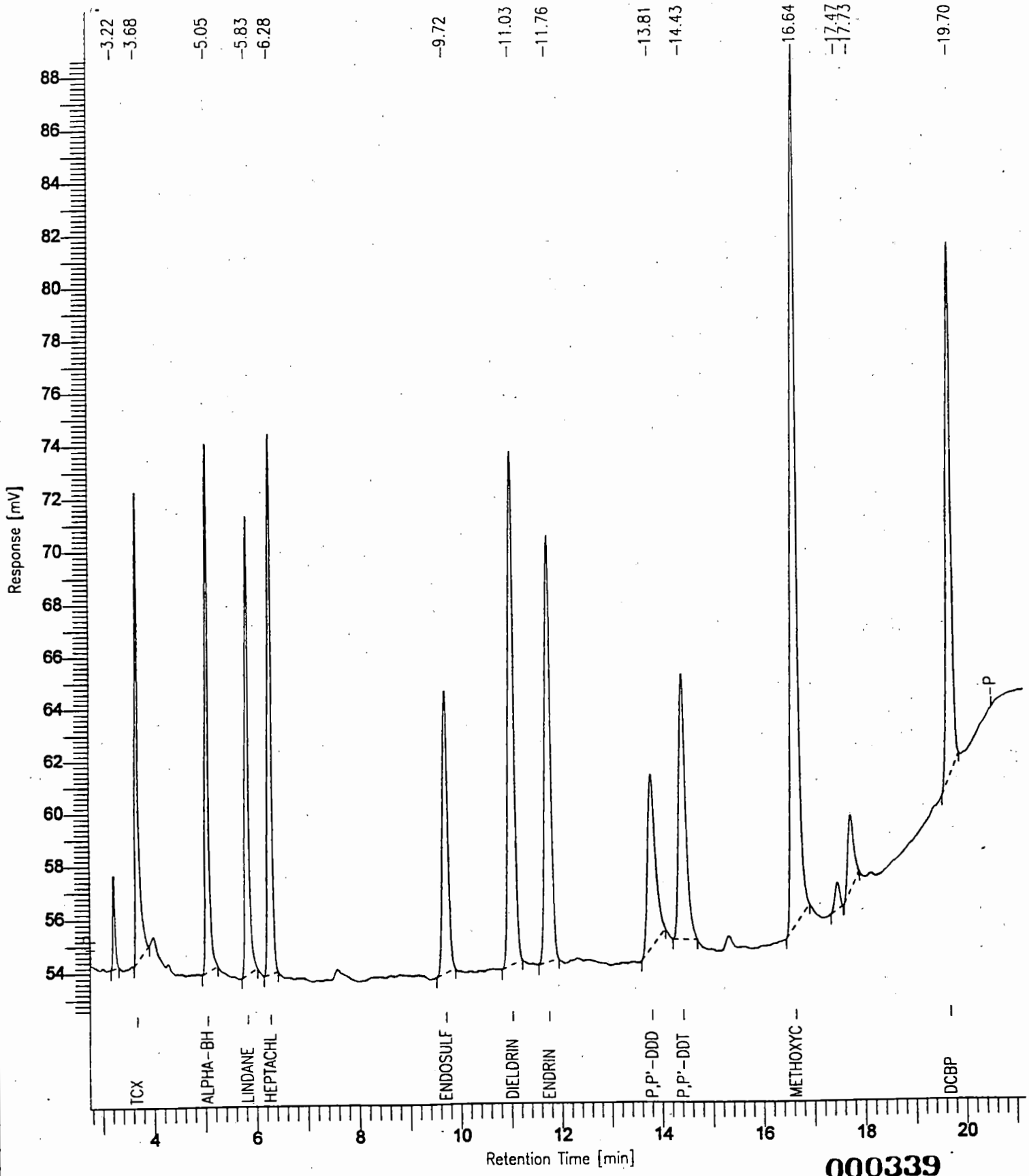
Total number of peaks detected: 14

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.675	TCX	69408	B	17901	-6e-15	0.0050
3	5.048	ALPHA-BHC	80181	B	20099	5e-15	0.0050
4	5.829	LINDANE	80604	B	17512	-3e-15	0.0050
5	6.279	HEPTACHLOR	103096	B	20568	4e-15	0.0050
6	9.715	ENDOSULFAN A	78354	B	10781	0.0000	0.0050
7	11.029	DIELDRIN	151393	B	19589	8e-15	0.0100
8	11.759	ENDRIN	129344	B	16263	-6e-15	0.0100
	13.807	P,P'-DDD	70288	B	6571	2e-15	0.0100
	14.425	P,P'-DDT	94296	B	10164	-4e-15	0.0100
	16.642	METHOXYCHLOR	264098	B	33199	-1e-15	0.0500
14	19.695	DCBP	137062	B	20427	1e-15	0.0100
			1258123		193072		0.1250

Sample Name : ICV*INDAL*1
FileName : C:\TC4\HP58907\866B015.RAW
Method :
Start Time : 2.74 min End Time : 21.15 min
Scale Factor: 0.0 Plot Offset: 52 mV

Sample #:
Date : 7/1/94 02:43 PM
Time of Injection: 6/28/94 07:48 PM
Low Point : 52.42 mV High Point : 88.70 mV
Plot Scale: 36.3 mV



000339

Software Version: 4.0<1C29>
Sample Name : ICV*INDBL*1 Time : 7/1/94 02:43 PM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/17

Interface Serial # : NONE Data Acquisition Time: 6/28/94 08:28 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B016.RAW
Result File : C:\TC4\HP58907\866B016.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B016.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B016.RST
Calib Method : C:\TC4\HP58907\866BBL from C:\TC4\HP58907\866B016.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 33 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 16

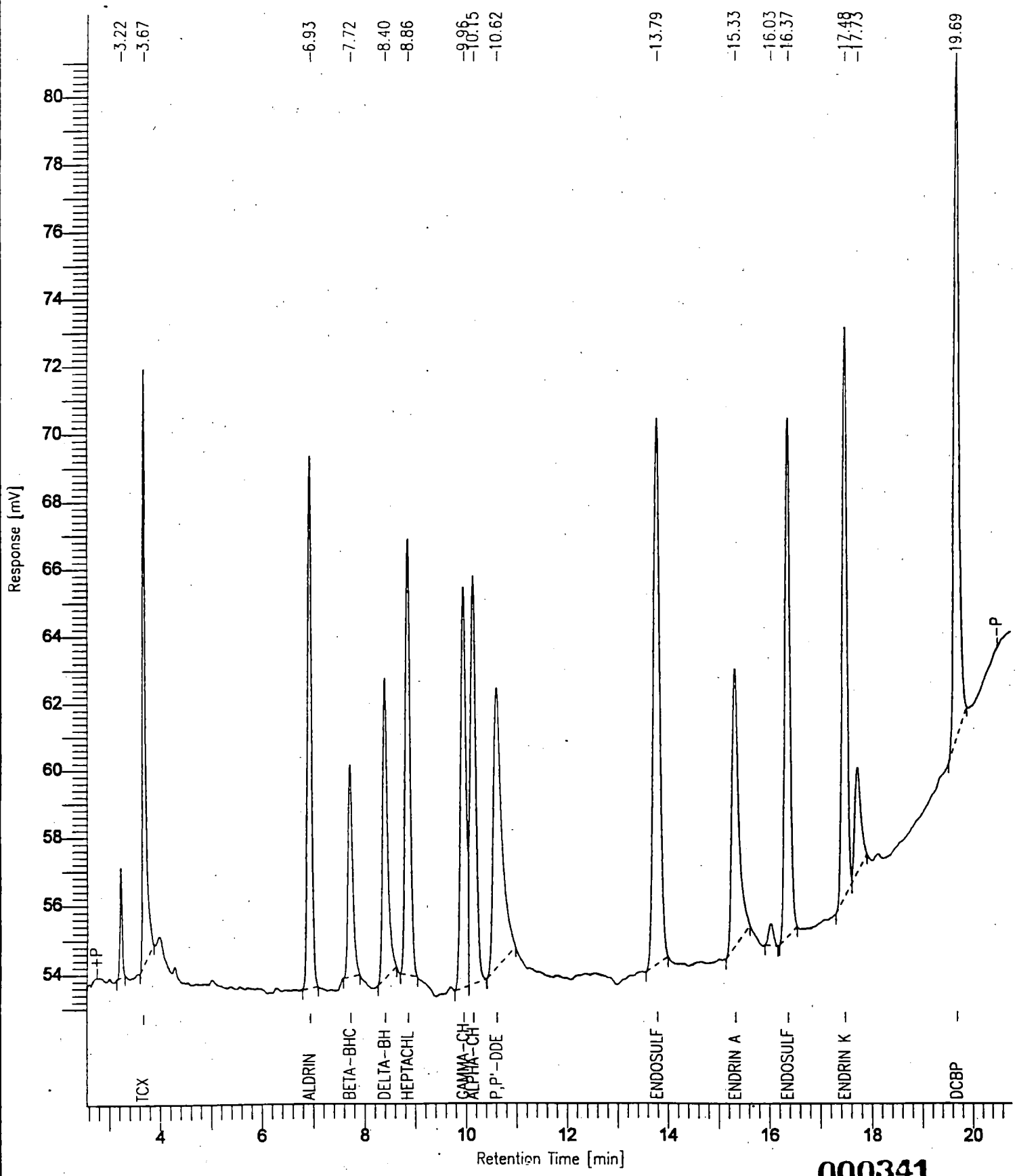
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.674	TCX	67625	B	17678	-6e-15	0.0050
3	6.930	ALDRIN	84534	B	15848	2e-15	0.0050
4	7.717	BETA-BHC	38822	B	6274	8e-16	0.0050
5	8.401	DELTA-BHC	60094	B	8875	-4e-15	0.0050
6	8.858	HEPTACHLOR EPOXIDE	86975	B	12949	-9e-15	0.0050
7	9.956	GAMMA-CHLORDANE	89374	B	11903	6e-15	0.0050
8	10.149	ALPHA-CHLORDANE	92835	V	12128	-4e-15	0.0050
	10.615	P,P'-DDE	94780	B	8286	-6e-15	0.0100
	13.791	ENDOSULFAN B	140794	B	16210	2e-15	0.0100
	15.331	ENDRIN ALDEHYDE	76085	B	8255	-5e-15	0.0100
13	16.365	ENDOSULFAN SULFATE	106132	B	15397	7e-15	0.0100
14	17.481	ENDRIN KETONE	107228	B	16965	-5e-15	0.0100
16	19.692	DCBP	137026	B	20114	-8e-15	0.0100
			1182305		170883		0.0950

Chromatogram

Sample Name : ICV*INDBL*1
FileName : C:\TC4\HP58907\866B016.RAW
Method :
Start Time : 2.55 min End Time : 20.77 min
Scale Factor: 0.0 Plot Offset: 53 mV

Sample #:
Date : 7/1/94 02:44 PM
Time of Injection: 6/28/94 08:28 PM
Low Point : 52.85 mV High Point : 81.05 mV
Plot Scale: 28.2 mV



000341

Software Version: 4.0<1C29>
Sample Name : ICV*INDAM*1 Time : 7/1/94 02:49 PM
ple Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/18

Interface Serial # : NONE Data Acquisition Time: 6/28/94 09:09 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B017.RAW
Result File : C:\TC4\HP58907\866B017.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B017.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B017.RST
Calib Method : C:\TC4\HP58907\866BAM from C:\TC4\HP58907\866B017.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 33 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 18

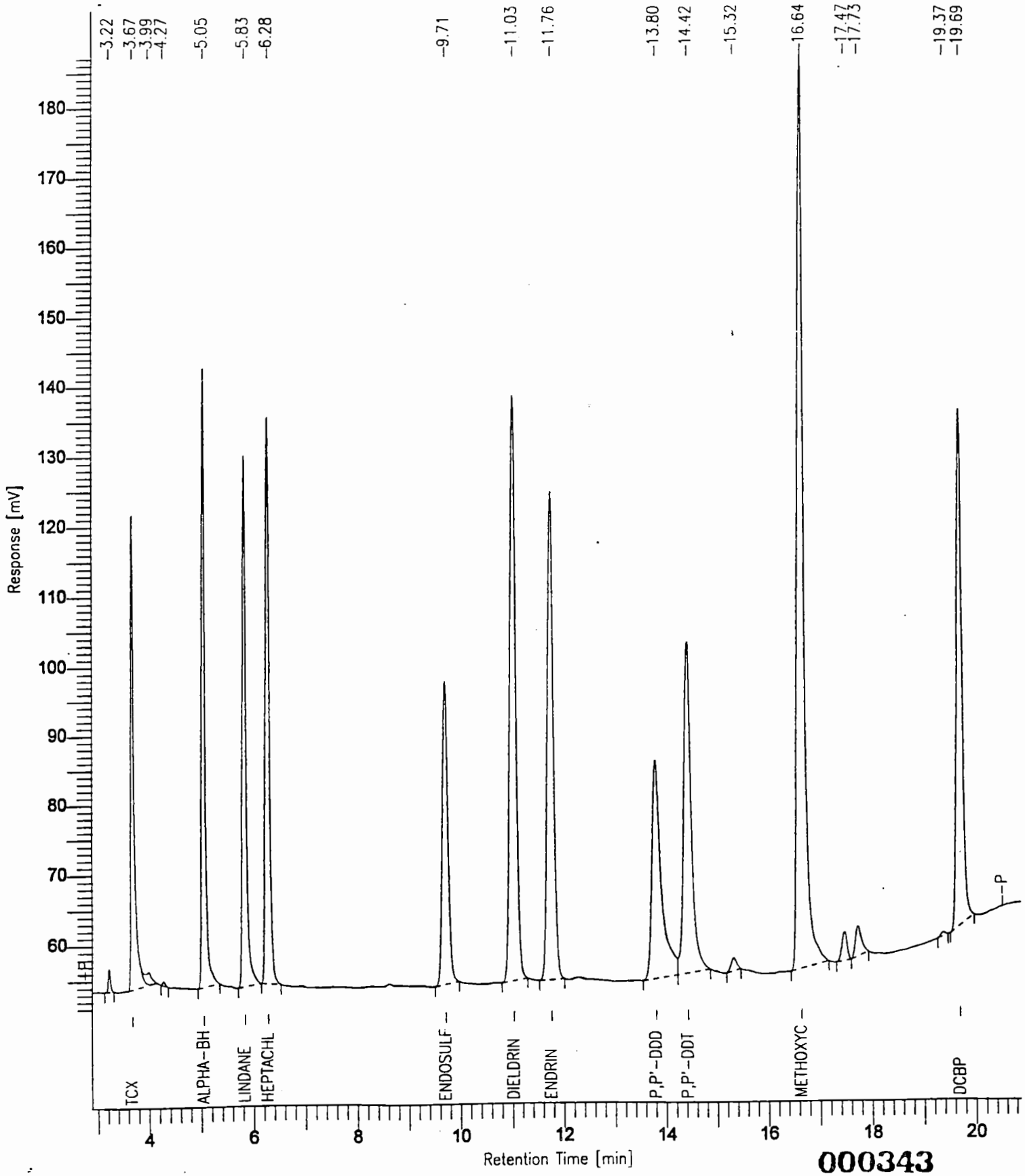
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.674	TCX	286166	B	67841	2e-15	0.0200
5	5.048	ALPHA-BHC	378733	B	88780	-2e-15	0.0200
6	5.829	LINDANE	373182	B	76374	4e-15	0.0200
7	6.277	HEPTACHLOR	426984	B	81588	-6e-15	0.0200
8	9.712	ENDOSULFAN A	327747	B	43598	2e-15	0.0200
9	11.028	DIELDRIN	665439	B	84078	-4e-15	0.0400
10	11.759	ENDRIN	567956	B	70145	-3e-15	0.0400
	13.802	P,P'-DDD	396531	B	31358	-3e-15	0.0400
	14.424	P,P'-DDT	485026	V	47805	-3e-15	0.0400
14	16.638	METHOXYCHLOR	1123569	B	131330	-7e-15	0.2000
18	19.693	DCBP	537382	B	74642	-8e-15	0.0400
			5568713		797539		0.5000

Chromatogram

Sample Name : ICV*INDAM*1
FileName : C:\TC4\HP58907\866B017.RAW
Method :
Start Time : 2.88 min End Time : 20.87 min
Scale Factor: 0.0 Plot Offset: 50 mV

Sample #:
Date : 7/1/94 02:49 PM
Time of Injection: 6/28/94 09:09 PM
Low Point : 50.06 mV High Point : 187.09 mV
Plot Scale: 137.0 mV



Software Version: 4.0<1C29>
Sample Name : ICV*INDBM*1 Time : 7/1/94 02:49 PM
ple Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/19

Interface Serial # : NONE Data Acquisition Time: 6/28/94 09:49 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B018.RAW
Result File : C:\TC4\HP58907\866B018.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B018.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B018.RST
Calib Method : C:\TC4\HP58907\866BBM from C:\TC4\HP58907\866B018.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 33 Area Threshold : 444 Bunch Factor: 1
multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 20

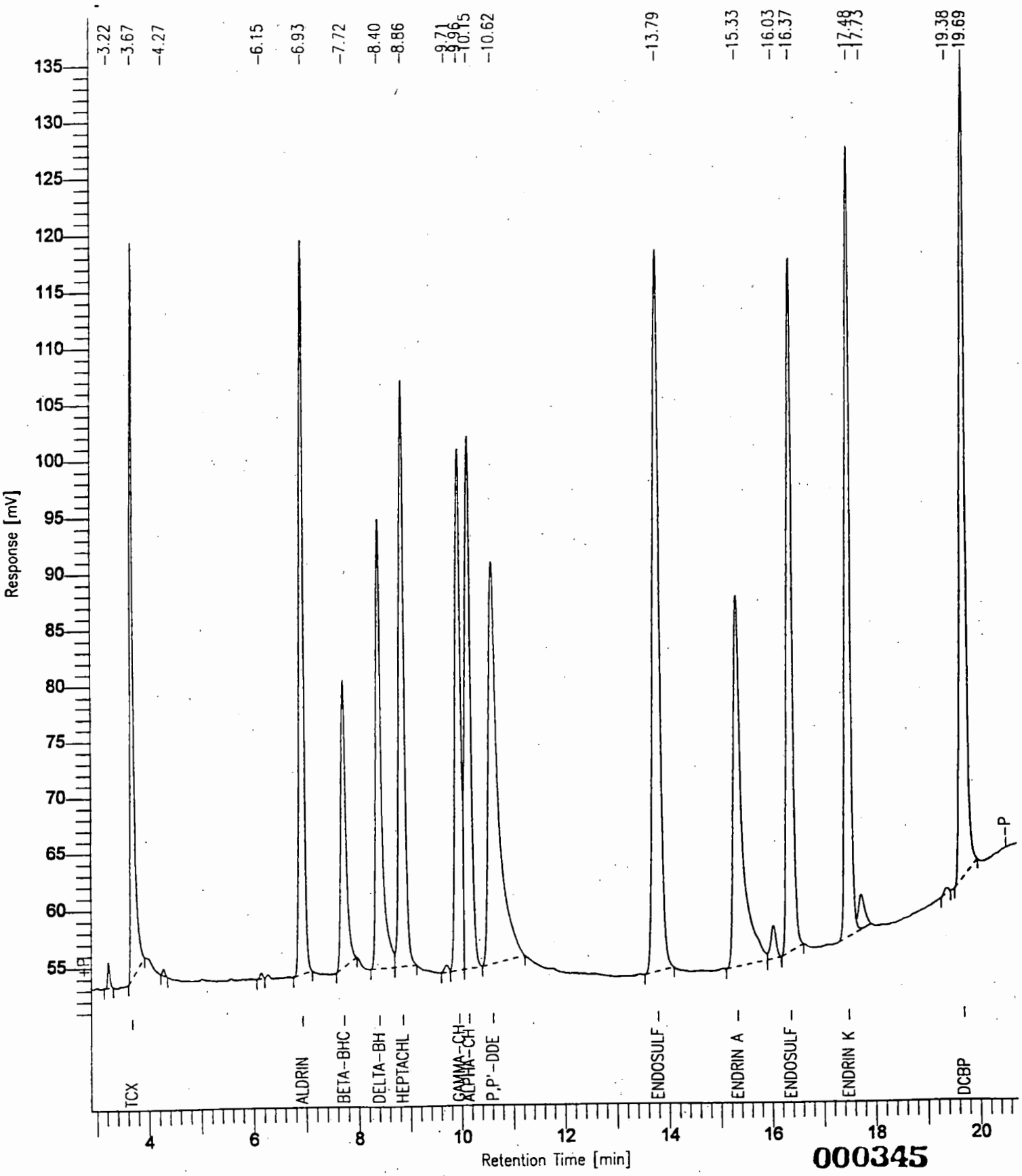
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.674	TCX	262324	B	65370	6e-15	0.0200
5	6.932	ALDRIN	357527	B	65347	-9e-16	0.0200
6	7.719	BETA-BHC	169188	B	25647	-2e-15	0.0200
7	8.403	DELTA-BHC	294997	B	40185	-7e-15	0.0200
8	8.860	HEPTACHLOR EPOXIDE	364749	V	52206	1e-15	0.0200
10	9.957	GAMMA-CHLORDANE	351885	V	46522	-6e-15	0.0200
11	10.150	ALPHA-CHLORDANE	367346	V	47512	8e-15	0.0200
	10.615	P,P'-DDE	459636	B	35928	7e-15	0.0400
	13.792	ENDOSULFAN B	566454	B	64305	2e-15	0.0400
14	15.330	ENDRIN ALDEHYDE	374925	B	33225	5e-15	0.0400
16	16.366	ENDOSULFAN SULFATE	438437	B	61795	4e-15	0.0400
17	17.482	ENDRIN KETONE	466803	B	70595	9e-15	0.0400
20	19.694	DCBP	525532	B	73205	2e-15	0.0400
			4999802		681840		0.3800

Chromatogram

Sample Name : ICV*INDBM*1
FileName : C:\TC4\HP58907\866B018.RAW
Method :
Start Time : 2.88 min End Time : 20.72 min
Scale Factor: 0.0 Plot Offset: 51 mV

Sample #:
Date : 7/1/94 02:49 PM
Time of Injection: 6/28/94 09:49 PM
Low Point : 50.55 mV High Point : 135.20 mV
Plot Scale: 84.6 mV



000345

Software Version: 4.0<1C29>
Sample Name : ICV*INDAH*1 Time : 7/1/94 02:50 PM
ple Number: Study :
erator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/20

Interface Serial # : NONE Data Acquisition Time: 6/28/94 10:29 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B019.RAW
Result File : C:\TC4\HP58907\866B019.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B019.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B019.RST
Calib Method : C:\TC4\HP58907\866BAH from C:\TC4\HP58907\866B019.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 33 Area Threshold : 444 Bunch Factor: 1
ultiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 22

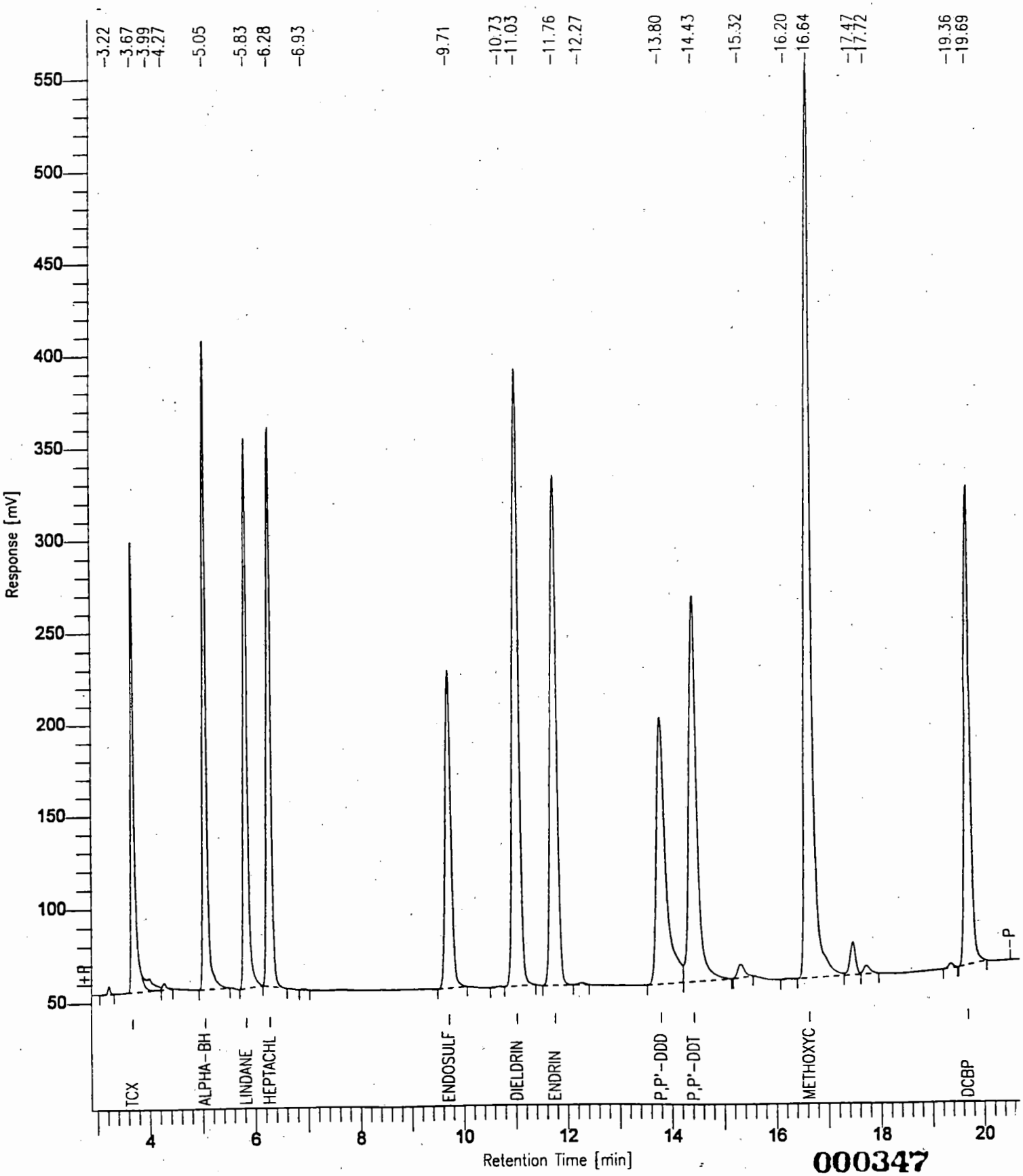
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.674	TCX	1055874	B	243776	3e-15	0.0800
5	5.049	ALPHA-BHC	1628293	B	352545	0.0000	0.0800
6	5.829	LINDANE	1534273	B	299272	0.0000	0.0800
7	6.278	HEPTACHLOR	1645591	B	303609	0.0000	0.0800
9	9.713	ENDOSULFAN A	1324808	B	173146	-6e-15	0.0800
11	11.028	DIELDRIN	2725228	V	335278	-5e-15	0.1600
12	11.761	ENDRIN	2344278	B	277439	-4e-15	0.1600
	13.797	P,P'-DDD	1772013	B	145099	5e-15	0.1600
	14.425	P,P'-DDT	2166599	V	209795	-2e-15	0.1600
	16.637	METHOXYCHLOR	4297539	V	499980	9e-15	0.8000
22	19.692	DCBP	1915427	B	261563	-4e-15	0.1600
			22409923		3101502		2.0000

Chromatogram

Sample Name : ICV*INDAH*1
FileName : C:\TC4\HP58907\866B019.RAW
Method :
Start Time : 2.88 min End Time : 20.68 min
Scale Factor: 0.0 Plot Offset: 42 mV

Sample #:
Date : 7/1/94 02:50 PM
Time of Injection: 6/28/94 10:29 PM
Low Point : 41.62 mV High Point : 556.99 mV
Plot Scale: 515.4 mV



000347

Software Version: 4.0<1C29>
Sample Name : ICV*INDBH*1 Time : 7/1/94 02:50 PM
ple Number: Study :
erator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/21

Interface Serial # : NONE Data Acquisition Time: 6/28/94 11:09 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B020.RAW
Result File : C:\TC4\HP58907\866B020.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B020.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B020.RST
Calib Method : C:\TC4\HP58907\866BBH from C:\TC4\HP58907\866B020.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 33 Area Threshold : 444 Bunch Factor: 1
ultiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 24

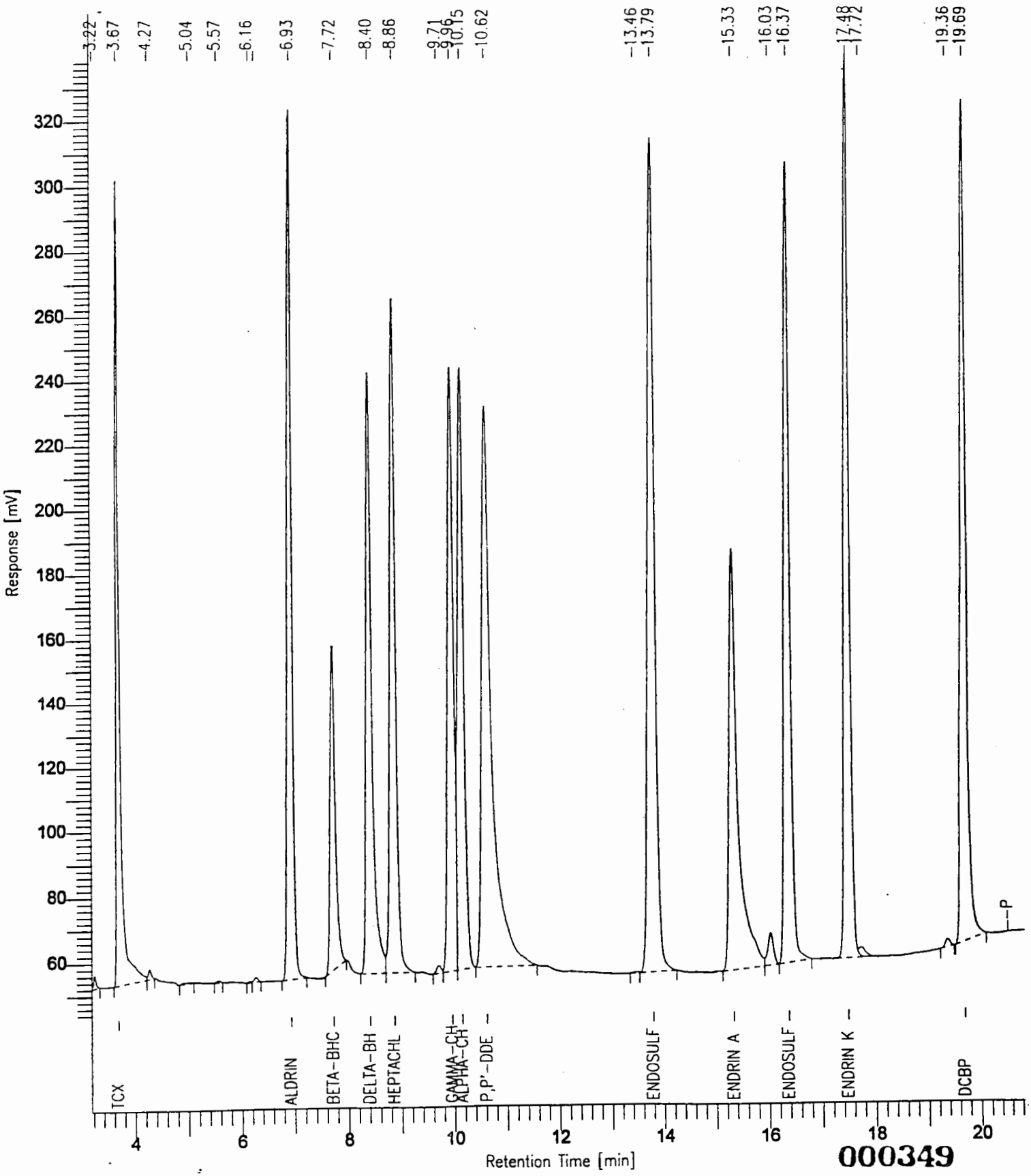
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.673	TCX	1140118	B	248692	-3e-15	0.0800
8	6.932	ALDRIN	1560483	B	269341	-4e-15	0.0800
9	7.717	BETA-BHC	677199	B	101006	-3e-15	0.0800
10	8.403	DELTA-BHC	1394068	B	186557	-8e-15	0.0800
11	8.859	HEPTACHLOR EPOXIDE	1527588	V	208863	-8e-15	0.0800
13	9.957	GAMMA-CHLORDANE	1449787	V	187588	7e-15	0.0800
14	10.150	ALPHA-CHLORDANE	1483058	V	186924	7e-15	0.0800
	10.616	P,P'-DDE	2255388	B	174127	-6e-15	0.1600
	13.790	ENDOSULFAN B	2384439	V	259184	-5e-15	0.1600
	15.329	ENDRIN ALDEHYDE	1495556	B	130842	-2e-15	0.1600
20	16.365	ENDOSULFAN SULFATE	1850027	B	248382	-9e-15	0.1600
21	17.481	ENDRIN KETONE	1949496	B	281236	-9e-15	0.1600
24	19.692	DCBP	1963689	B	262153	1e-15	0.1600
			21130897		2744895		1.5200

Chromatogram

Sample Name : ICV*INDBH*1
FileName : C:\TC4\HP58907\866B020.RAW
Method :
Start Time : 3.16 min End Time : 20.82 min
Scale Factor: 0.0 Plot Offset: 43 mV

Sample #:
Date : 7/1/94 02:50 PM
Time of Injection: 6/28/94 11:09 PM
Low Point : 42.77 mV High Point : 338.86 mV
Plot Scale: 296.1 mV



000349

Software Version: 4.0<1C29>
Sample Name : MB*PIBLK*1 Time : 7/1/94 02:59 PM
ple Number: Study :
erator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/22

Interface Serial # : NONE Data Acquisition Time: 6/28/94 11:49 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B021.RAW
Result File : C:\TC4\HP58907\866B021.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B021.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B021.RST
Calib Method : C:\TC4\HP58907\866B from C:\TC4\HP58907\866B021.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5948.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 33 Area Threshold : 444 Bunch Factor: 1
ultiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

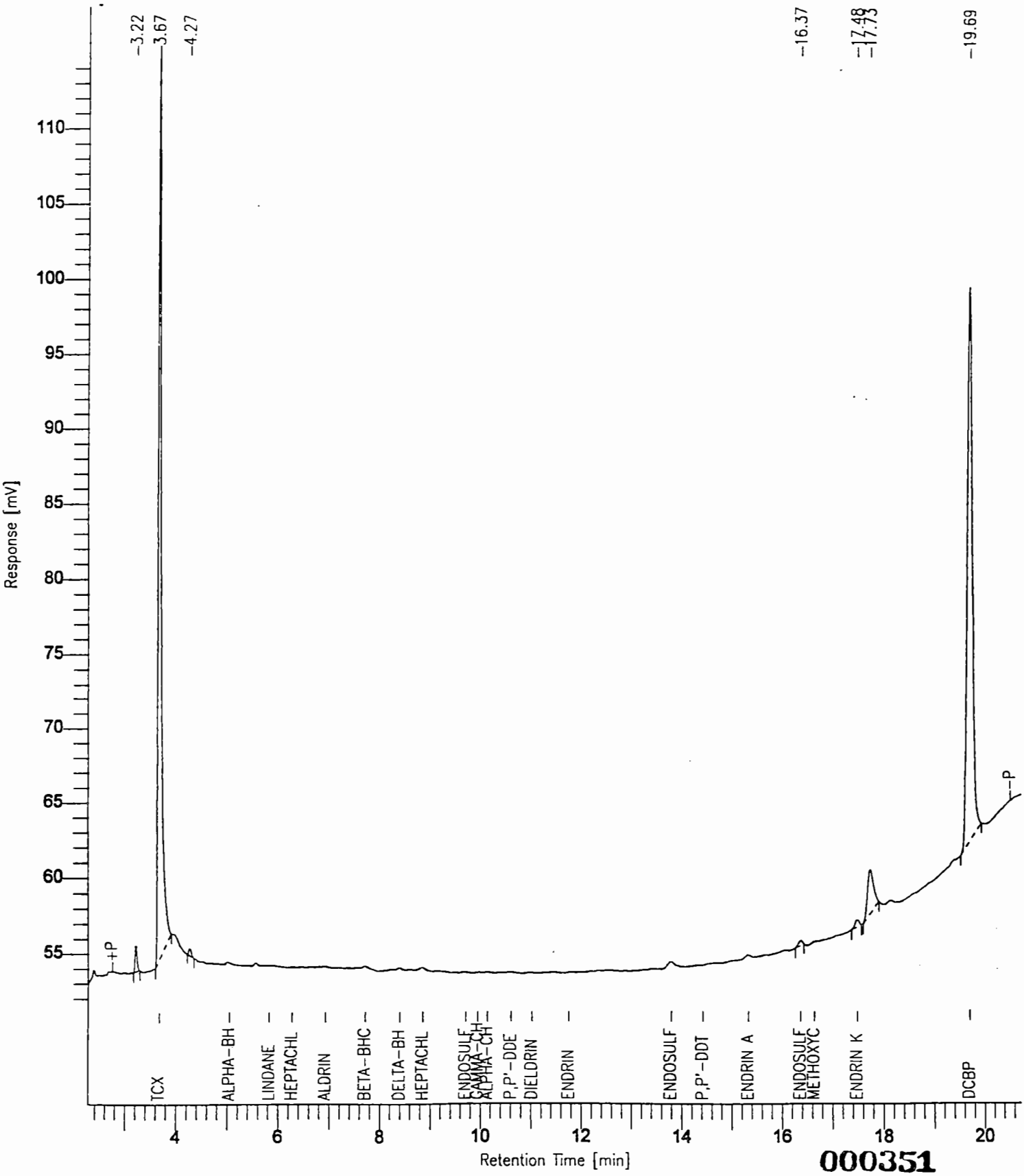
Total number of peaks detected: 7

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
2	3.674	TCX	254771	B	63286	-0.0019
6	17.733		24045	B	2894	-------
7	19.693	DCBP	259032	B	37288	-0.0012
			537848		103468	

Sample Name : MB*PIBLK*1
FileName : C:\TC4\HP58907\866B021.RAW
Method :
Start Time : 2.27 min End Time : 20.72 min
Scale Factor: 0.0 Plot Offset: 51 mV

Sample #:
Date : 7/1/94 02:59 PM
Time of Injection: 6/28/94 11:49 PM
Low Point : 51.10 mV High Point : 114.89 mV
Plot Scale: 63.8 mV



000351

Software Version: 4.0<1C29>
Sample Name : CK*PEM*2 Time : 7/1/94 03:00 PM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/23

Interface Serial # : NONE Data Acquisition Time: 6/29/94 12:30 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B022.RAW
Result File : C:\TC4\HP58907\866B022.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B022.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B022.RST
Calib Method : C:\TC4\HP58907\866BPEM from C:\TC4\HP58907\866B022.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 777.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 33 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 19

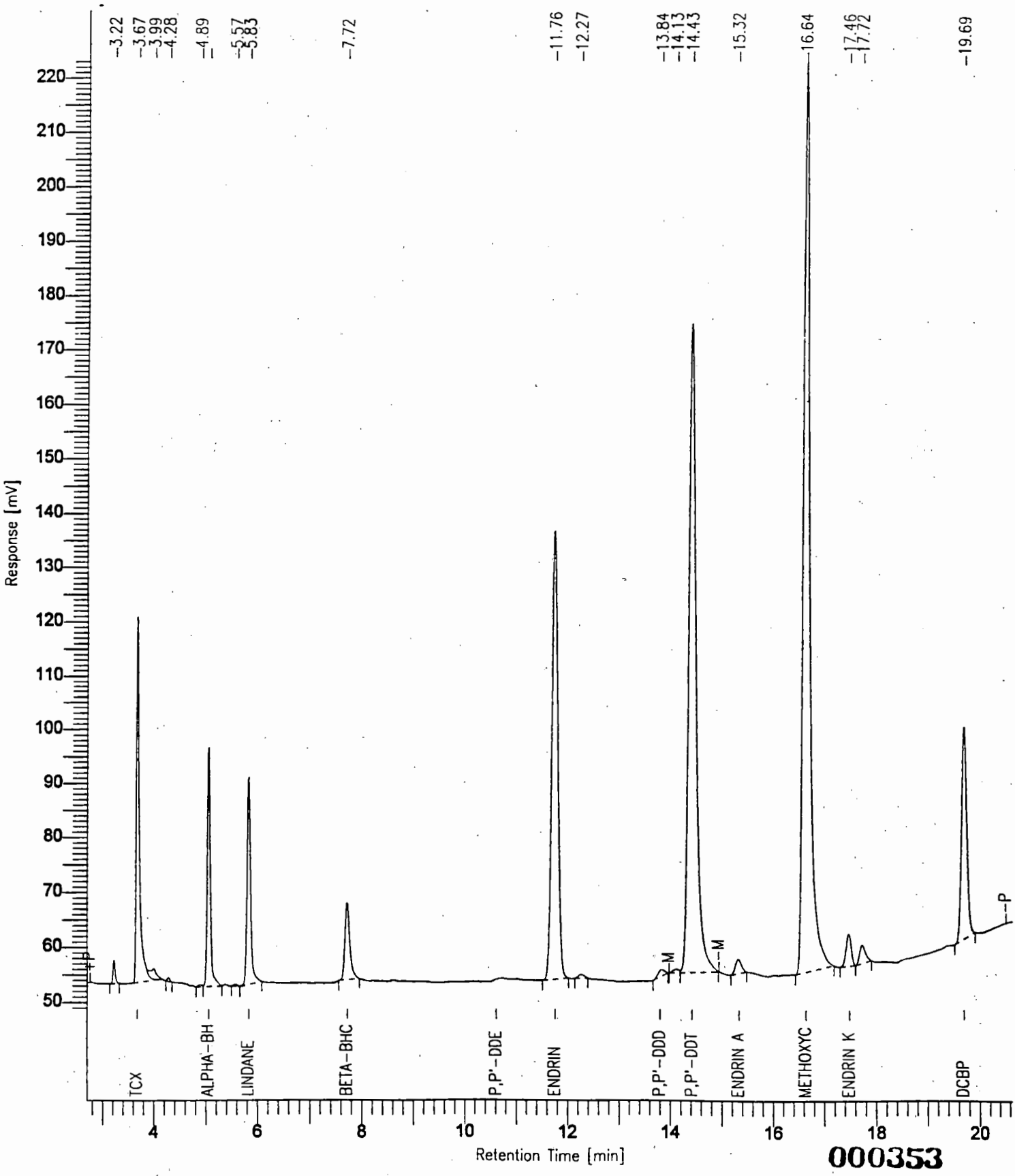
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
2	3.674	TCX	283239	B	67273	-0.0064
6	5.047	ALPHA-BHC	180760	V	43835	-0.0230
8	5.827	LINDANE	179811	B	37977	-0.0362
9	7.716	BETA-BHC	91062	B	13953	-0.0334
10	11.757	ENDRIN	673614	B	83034	-0.0166
12	13.835	P,P'-DDD	10618	B	1206	0.2422
14	14.426	P,P'-DDT	1178958	*V	119736	0.0105
--	15.319	ENDRIN ALDEHYDE	21350	B	2587	-0.0691
	16.639	METHOXYCHLOR	1457050	B	168039	0.0042
	17.462	ENDRIN KETONE	40123	B	5819	-0.1131
19	19.691	DCBP	272753	B	39404	-0.0082
			4389339		582863	

Chromatogram

Sample Name : CK*PEM*2
FileName : C:\TC4\HP58907\866B022.RAW
Method :
Start Time : 2.69 min End Time : 20.63 min
Scale Factor: 0.0 Plot Offset: 49 mV

Sample #:
Date : 7/1/94 03:00 PM
Time of Injection: 6/29/94 12:30 AM
Low Point : 48.83 mV High Point : 223.77 mV
Plot Scale: 174.9 mV



000353

Software Version: 4.0<1C29>
Sample Name : HEXANE
ple Number:
erator : VIC

Time : 7/1/94 03:03 PM
Study :

Instrument : HP5890A_-_7
AutoSampler : HP7673A
Rack/Vial : 0/30

Channel : B A/D mV Range : 1000

Interface Serial # : NONE Data Acquisition Time: 6/29/94 05:11 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B029.RAW
Result File : C:\TC4\HP58907\866B029.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B029.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B029.RST
Calib Method : C:\TC4\HP58907\866B from C:\TC4\HP58907\866B029.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul
Sample Amount : 1.0000

Area Reject : 5948.000000
Dilution Factor : 1.00

se Threshold: 33
ultiplier : 1.0000

Area Threshold : 444
Divisor : 1.0000

Bunch Factor: 1
Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 3

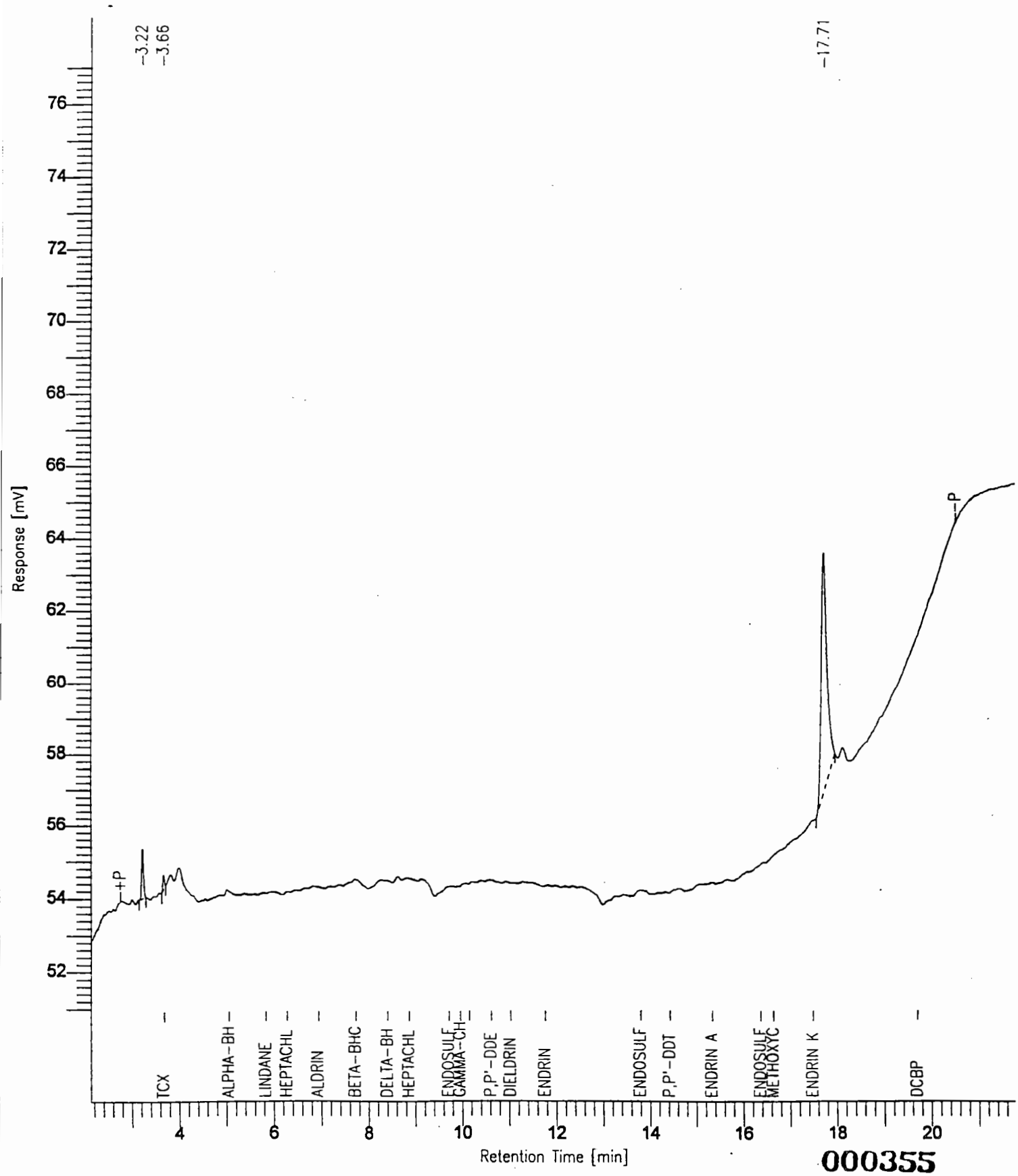
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
3	17.713		57502	B	6700	-------
			57502		6700	

Chromatogram

Sample Name : HEXANE
FileName : C:\TC4\HP58907\866B029.RAW
Method :
Start Time : 2.13 min End Time : 21.76 min
Scale Factor: 0.0 Plot Offset: 51 mV

Sample #:
Date : 7/1/94 03:03 PM
Time of Injection: 6/29/94 05:11 AM
Low Point : 50.94 mV High Point : 77.09 mV
Plot Scale: 26.2 mV



000355

Software Version: 4.0<1C29>
Sample Name : MB*PIBLK*2 Time : 7/1/94 03:04 PM
ple Number: Study :
erator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/31

Interface Serial # : NONE Data Acquisition Time: 6/29/94 05:51 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B030.RAW
Result File : C:\TC4\HP58907\866B030.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B030.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B030.RST
Calib Method : C:\TC4\HP58907\866B from C:\TC4\HP58907\866B030.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5948.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 33 Area Threshold : 444 Bunch Factor: 1
ultiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

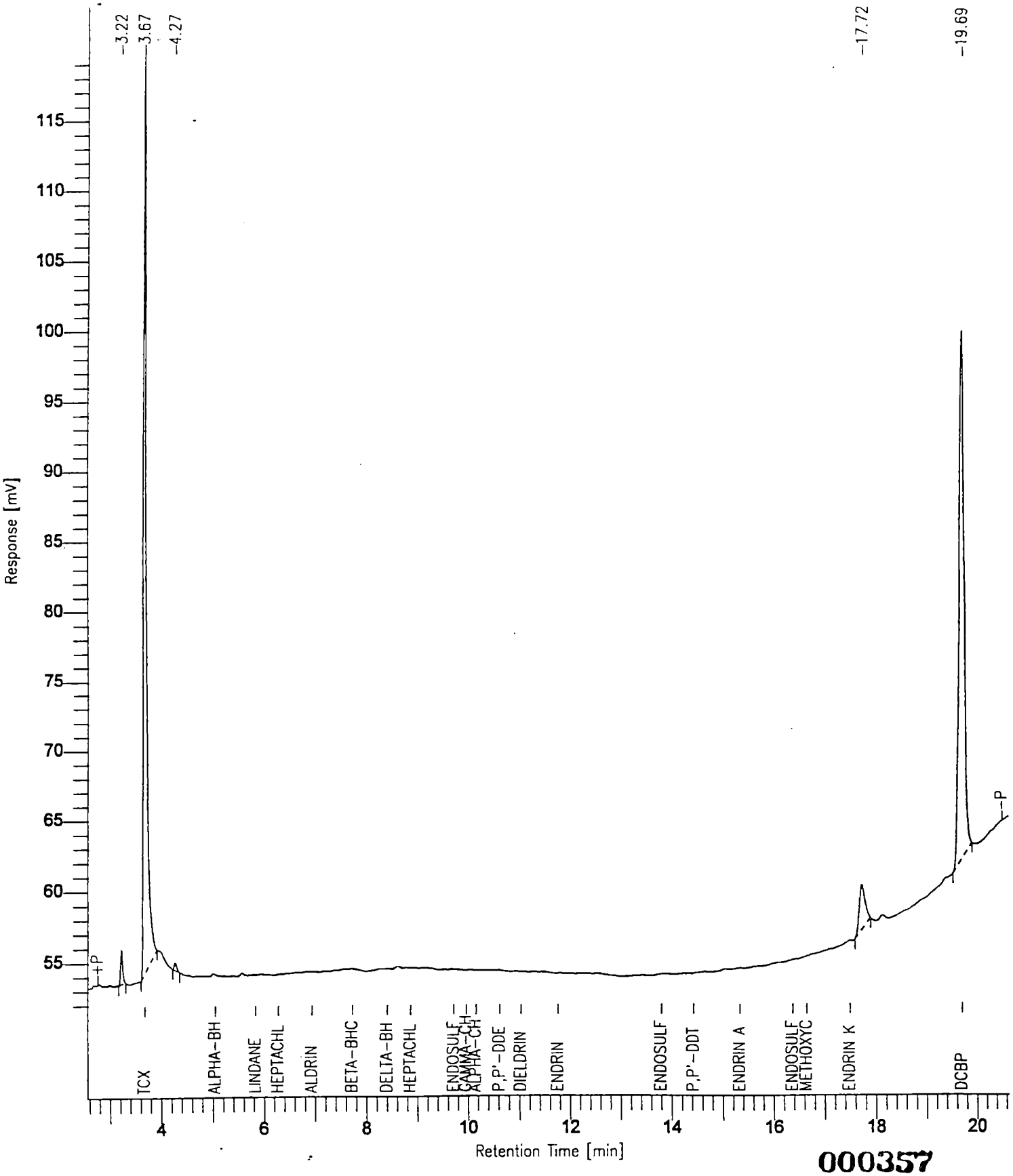
Total number of peaks detected: 5

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	3.215		7112	B	2450	-------
2	3.673	TCX	259629	B	65560	-0.0378
4	17.719		24971	B	3159	-------
5	19.691	DCBP	262634	B	38124	-0.0115
			554346		109293	

Sample Name : MB*PIBLK*2
FileName : C:\TC4\HP58907\866B030.RAW
Method :
Start Time : 2.55 min End Time : 20.63 min
Scale Factor: 0.0 Plot Offset: 52 mV

Sample #:
Date : 7/1/94 03:04 PM
Time of Injection: 6/29/94 05:51 AM
Low Point : 51.96 mV High Point : 119.78 mV
Plot Scale: 67.8 mV



000357

Software Version: 4.0<1C29>
Sample Name : CCS*INDAM*2 Time : 7/1/94 03:05 PM
ple Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/32

Interface Serial # : NONE Data Acquisition Time: 6/29/94 06:31 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B031.RAW
Result File : C:\TC4\HP58907\866B031.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B031.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B031.RST
Calib Method : C:\TC4\HP58907\866BAM from C:\TC4\HP58907\866B031.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 33 Area Threshold : 444 Bunch Factor: 1
multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 18

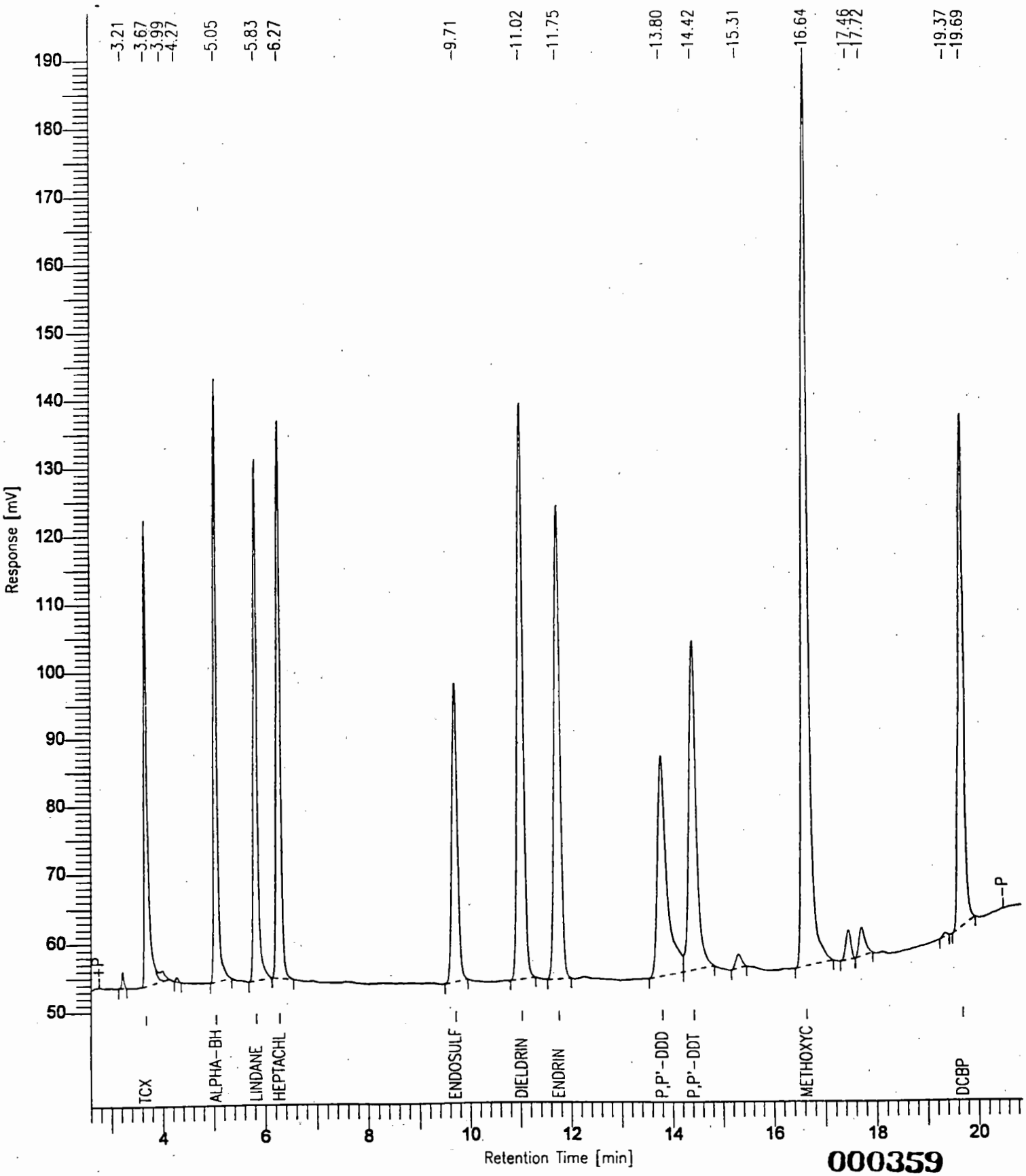
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.672	TCX	288352	B	68615	-0.0445	0.0200
5	5.045	ALPHA-BHC	381377	B	89012	-0.0596	0.0200
6	5.825	LINDANE	375209	B	77039	-0.0664	0.0200
7	6.274	HEPTACHLOR	427763	B	82194	-0.0581	0.0200
8	9.709	ENDOSULFAN A	327594	B	44199	-0.0378	0.0200
9	11.024	DIELDRIN	666811	B	85069	-0.0342	0.0400
10	11.753	ENDRIN	563478	B	69877	-0.0500	0.0400
	13.797	P,P'-DDD	405833	B	32354	-0.0389	0.0400
	14.418	P,P'-DDT	486454	V	48565	-0.0367	0.0400
14	16.635	METHOXYCHLOR	1133350	B	134075	-0.0205	0.2000
18	19.691	DCBP	541011	B	76198	-0.0104	0.0400
			5597232		807198		0.5000

Chromatogram

Sample Name : CCS*INDAM*2
FileName : C:\TC4\HP58907\866B031.RAW
Method :
Start Time : 2.59 min End Time : 20.87 min
Scale Factor: 0.0 Plot Offset: 50 mV

Sample #:
Date : 7/1/94 03:05 PM
Time of Injection: 6/29/94 06:31 AM
Low Point : 49.64 mV High Point : 190.01 mV
Plot Scale: 140.4 mV



000359

Software Version: 4.0<1C29>
Sample Name : CCS*INDBM*2 Time : 7/1/94 03:06 PM
ple Number: Study :
rator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/33

Interface Serial # : NONE Data Acquisition Time: 6/29/94 07:11 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B032.RAW
Result File : C:\TC4\HP58907\866B032.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B032.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B032.RST
Calib Method : C:\TC4\HP58907\866BBM from C:\TC4\HP58907\866B032.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

se Threshold: 33 Area Threshold : 444 Bunch Factor: 1
ıtiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 20

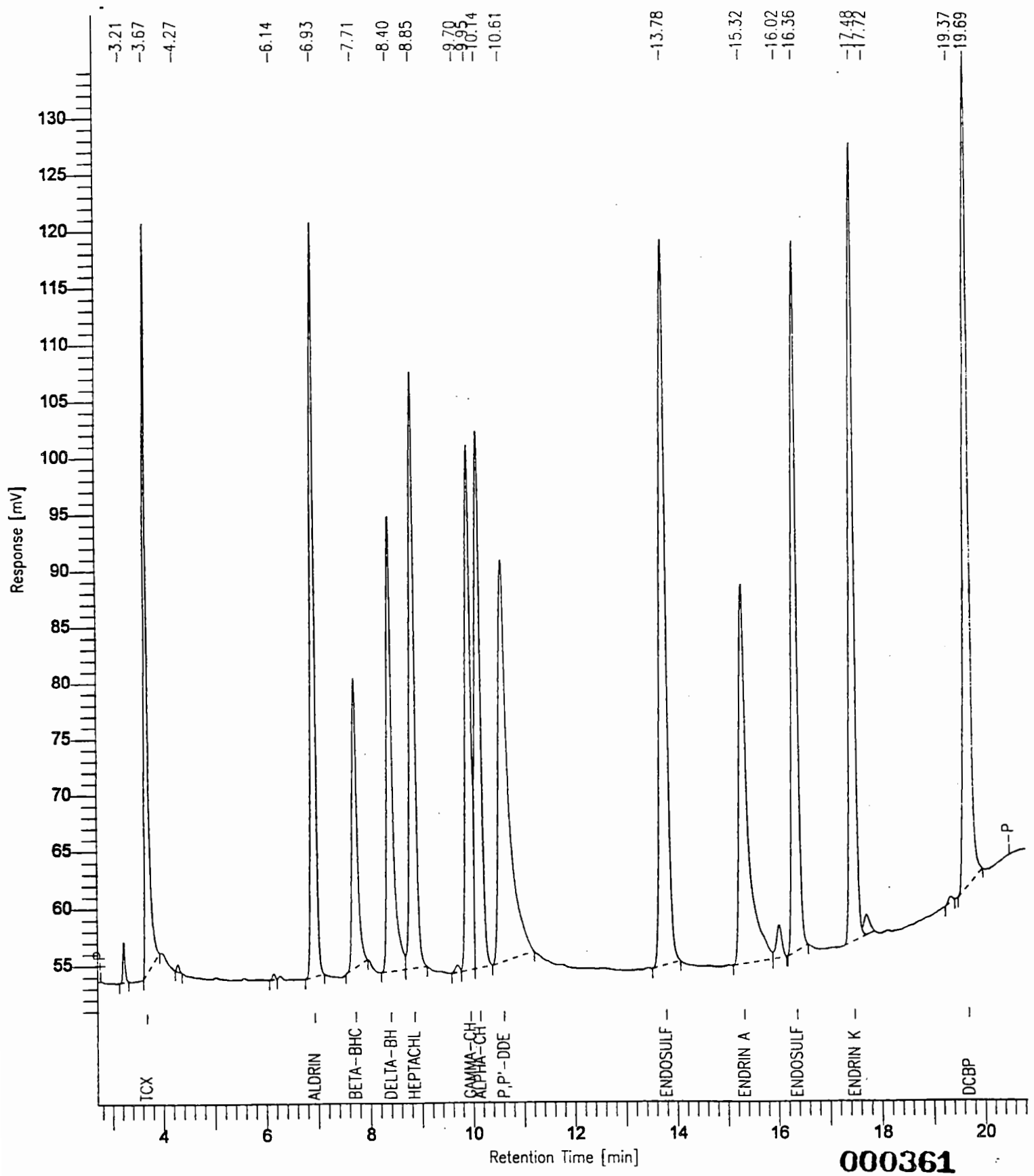
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.672	TCX	268960	B	66598	-0.0742	0.0200
5	6.926	ALDRIN	364342	B	66772	-0.0811	0.0200
6	7.713	BETA-BHC	170802	B	25724	-0.0776	0.0200
7	8.397	DELTA-BHC	297743	B	40436	-0.0723	0.0200
8	8.853	HEPTACHLOR EPOXIDE	369773	V	52878	-0.0755	0.0200
10	9.950	GAMMA-CHLORDANE	357523	V	46616	-0.0652	0.0200
11	10.143	ALPHA-CHLORDANE	371663	V	47684	-0.0726	0.0200
12	10.612	P,P'-DDE	467043	B	35657	-0.0342	0.0400
	13.782	ENDOSULFAN B	572333	B	64308	-0.0783	0.0400
	15.324	ENDRIN ALDEHYDE	379630	B	33639	-0.0368	0.0400
16	16.360	ENDOSULFAN SULFATE	443419	B	62934	-0.0359	0.0400
17	17.477	ENDRIN KETONE	473524	B	71019	-0.0271	0.0400
20	19.690	DCBP	537787	B	74085	-0.0222	0.0400
			5074540		688350		0.3800

Chromatogram

Sample Name : CCS*INDBM*2
FileName : C:\TC4\HP58907\866B032.RAW
Method :
Start Time : 2.69 min End Time : 20.82 min
Scale Factor: 0.0 Plot Offset: 51 mV

Sample #:
Date : 7/1/94 03:06 PM
Time of Injection: 6/29/94 07:11 AM
Low Point : 50.86 mV High Point : 135.00 mV
Plot Scale: 84.1 mV



000361

Software Version: 4.0<1C29>
Sample Name : HEXANE
ıple Number:
erator : VIC

Time : 7/1/94 04:07 PM
Study :

Instrument : HP5890A_-_7
AutoSampler : HP7673A
Rack/Vial : 0/36

Channel : B A/D mV Range : 1000

Interface Serial # : NONE Data Acquisition Time: 6/29/94 09:13 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B035.RAW
Result File : C:\TC4\HP58907\866B035.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B035.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B035.RST
Calib Method : C:\TC4\HP58907\866B from C:\TC4\HP58907\866B035.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul
Sample Amount : 1.0000

Area Reject : 5948.000000
Dilution Factor : 1.00

ise Threshold: 33
ıltiplier : 1.0000

Area Threshold : 444
Divisor : 1.0000

Bunch Factor: 1
Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 9

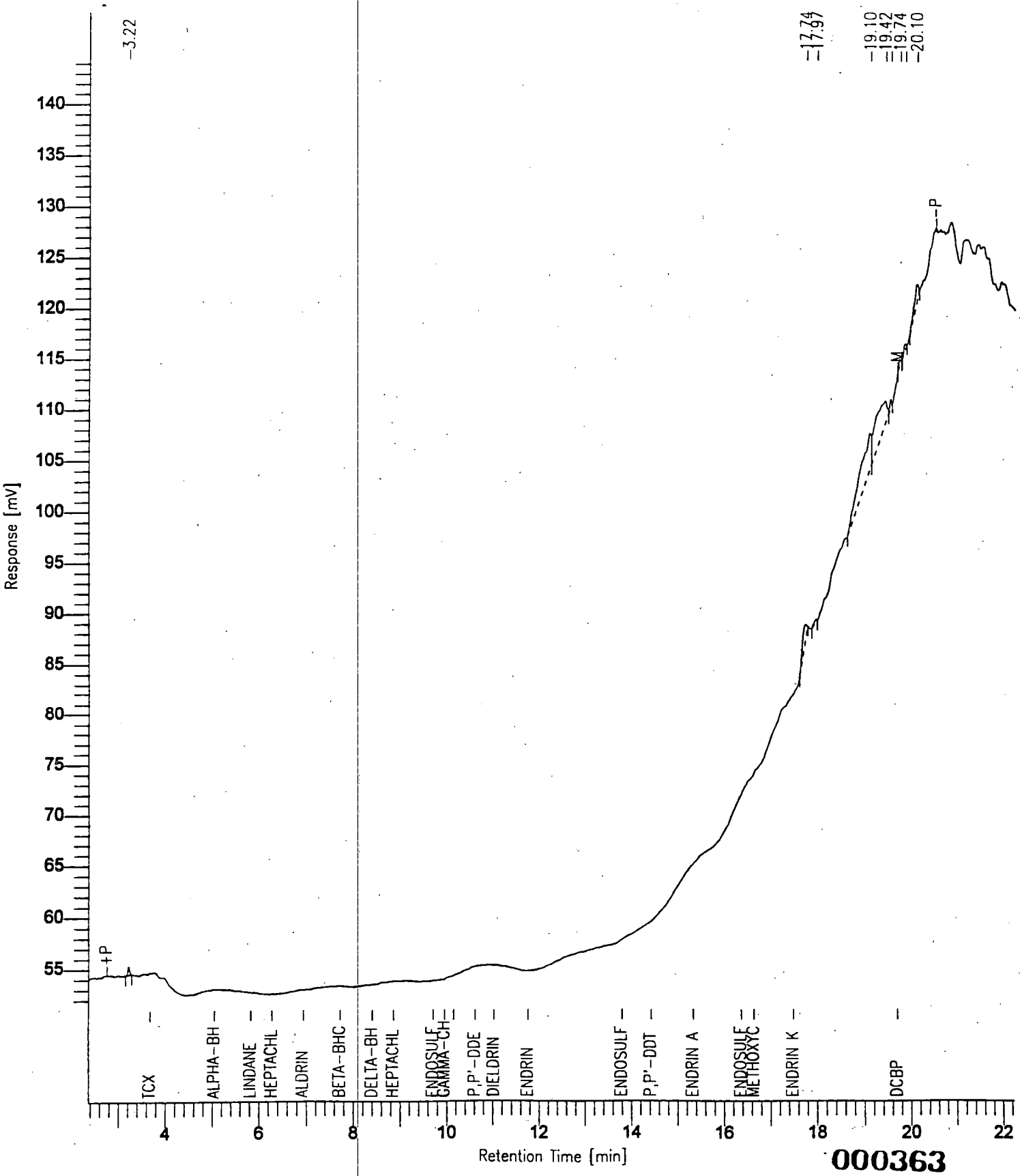
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
2	17.743		13382	B	1633	-------
4	19.095		68960	B	3574	-------
5	19.418		57383	V	2251	-------
9	20.100		12284	B	1637	-------
			152008		9096	

Chromatogram

Sample Name : HEXANE
FileName : C:\TC4\HP58907\866B035.RAW
Method :
Start Time : 2.36 min End Time : 22.23 min
Scale Factor: 0.0 Plot Offset: 51 mV

Sample #:
Date : 7/1/94 04:07 PM
Time of Injection: 6/29/94 09:13 AM
Low Point : 51.02 mV High Point : 144.49 mV
Plot Scale: 93.5 mV



000363

Software Version: 4.0<1C29>
Sample Name : HEXANE
ple Number:
perator : VIC

Time : 7/1/94 04:12 PM
Study :

Instrument : HP5890A_-_7
AutoSampler : HP7673A
Rack/Vial : 0/38

Channel : B A/D mV Range : 1000

Interface Serial # : NONE Data Acquisition Time: 6/29/94 10:33 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B037.RAW
Result File : C:\TC4\HP58907\866B037.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B037.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B037.RST
Calib Method : C:\TC4\HP58907\866B from C:\TC4\HP58907\866B037.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul
Sample Amount : 1.0000

Area Reject : 5948.000000
Dilution Factor : 1.00

se Threshold: 33
ultiplier : 1.0000

Area Threshold : 444
Divisor : 1.0000

Bunch Factor: 1
Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 6

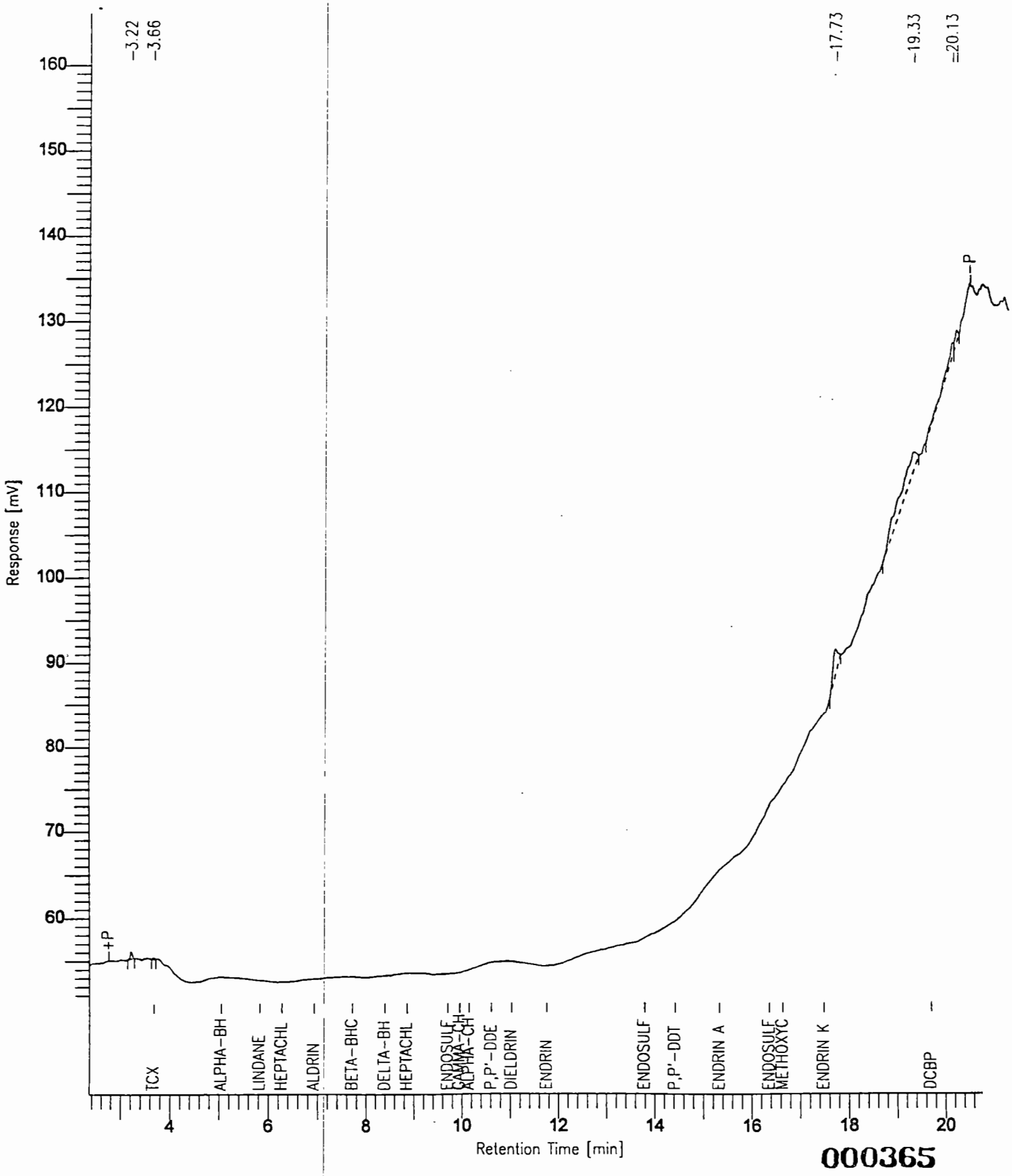
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
3	17.726		22213	B	3100	-------
4	19.330		75741	B	2240	-------
5	20.129		21778	B	1604	-------
6	20.221		6891	V	1322	-------
			126623		8265	

Chromatogram

Sample Name : HEXANE
FileName : C:\TC4\HP58907\866B037.RAW
Method :
Start Time : 2.35 min End Time : 21.31 min
Scale Factor: 0.0 Plot Offset: 50 mV

Sample #:
Date : 7/1/94 04:12 PM
Time of Injection: 6/29/94 10:33 AM
Low Point : 50.05 mV High Point : 160.64 mV
Plot Scale: 110.6 mV



000365

Software Version: 4.0<1C29>
Sample Name : HEXANE
ple Number:
erator : VIC

Time : 7/1/94 04:17 PM
Study :

Instrument : HP5890A_-_7
AutoSampler : HP7673A
Rack/Vial : 0/40

Channel : B A/D mV Range : 1000

Interface Serial # : NONE Data Acquisition Time: 6/29/94 11:53 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B039.RAW
Result File : C:\TC4\HP58907\866B039.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B039.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B039.RST
Calib Method : C:\TC4\HP58907\866B from C:\TC4\HP58907\866B039.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul
Sample Amount : 1.0000

Area Reject : 5948.000000
Dilution Factor : 1.00

se Threshold: 33
ltiplier : 1.0000

Area Threshold : 444
Divisor : 1.0000

Bunch Factor: 1
Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 6

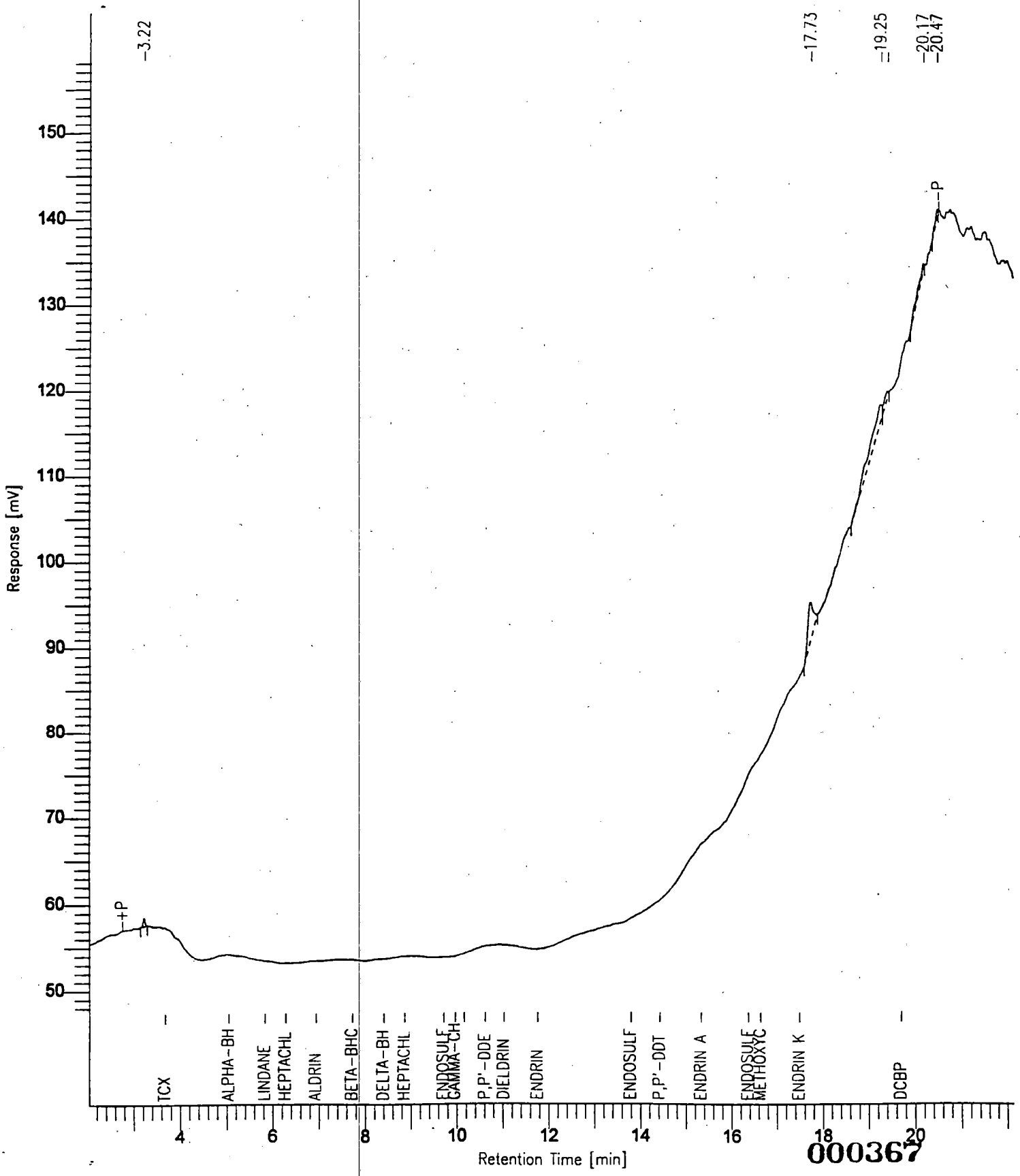
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
2	17.729		37624	B	4581	-------
3	19.253		51284	B	1922	-------
4	19.395		7241	V	743	-------
5	20.169		12904	B	903	-------
			109054		8149	

Chromatogram

Sample Name : HEXANE
FileName : C:\TC4\HP58907\866B039.RAW
Method :
Start Time : 2.03 min End Time : 22.13 min
Scale Factor: 0.0 Plot Offset: 47 mV

Sample #:
Date : 7/1/94 04:17 PM
Time of Injection: 6/29/94 11:53 AM
Low Point : 47.38 mV High Point : 158.38 mV
Plot Scale: 111.0 mV



000367

Software Version: 4.0<1C29>
Sample Name : HEXANE
mple Number:
erator : VIC

Time : 7/1/94 04:18 PM
Study :

Instrument : HP5890A_-_7
AutoSampler : HP7673A
Rack/Vial : 0/41

Channel : B A/D mV Range : 1000

Interface Serial # : NONE Data Acquisition Time: 6/29/94 12:33 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B040.RAW
Result File : C:\TC4\HP58907\866B040.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B040.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B040.RST
Calib Method : C:\TC4\HP58907\866B from C:\TC4\HP58907\866B040.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul
Sample Amount : 1.0000

Area Reject : 5948.000000
Dilution Factor : 1.00

ise Threshold: 33
ultiplier : 1.0000

Area Threshold : 444
Divisor : 1.0000

Bunch Factor: 1
Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

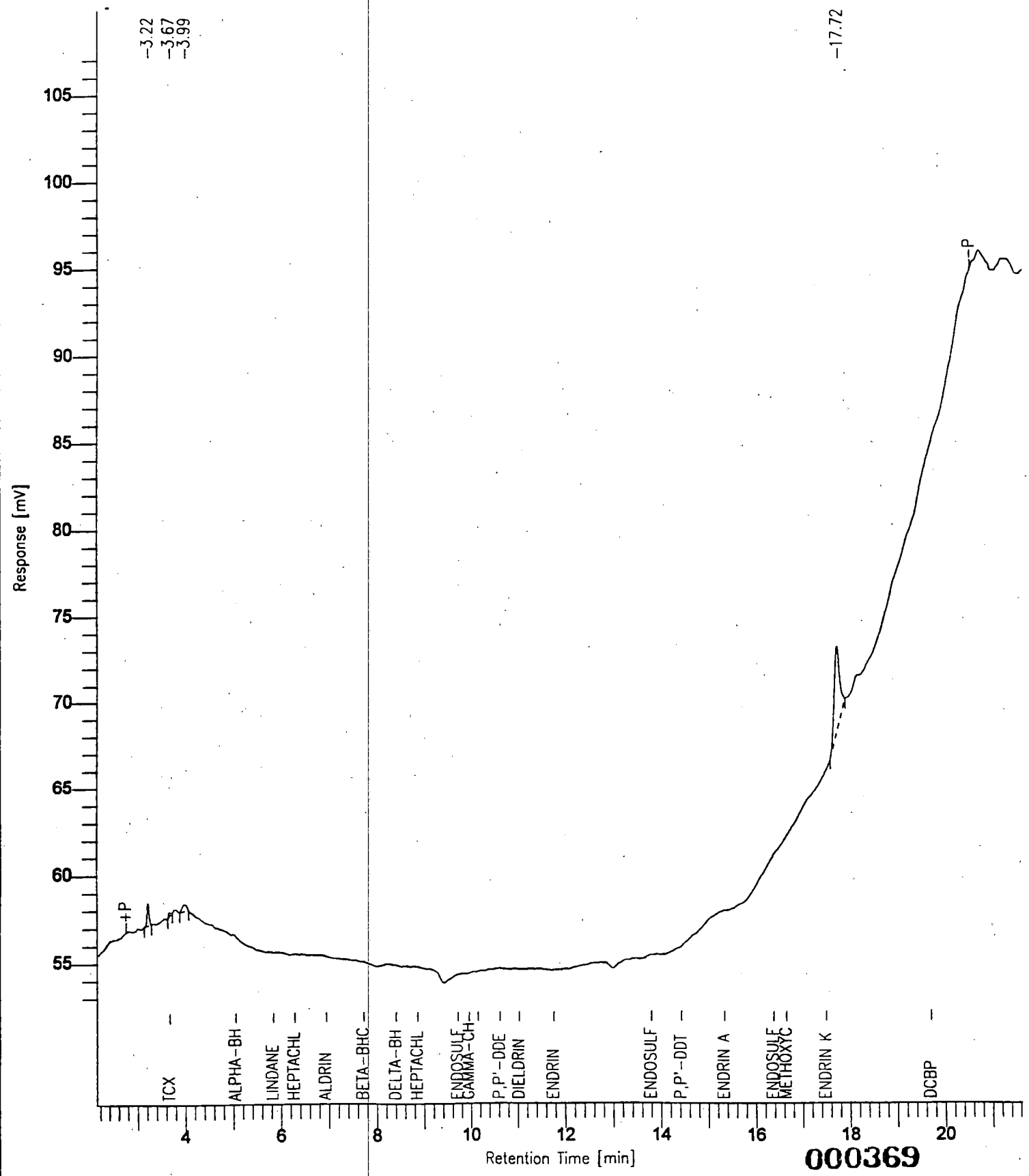
Total number of peaks detected: 4

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
4	17.716		40212	B	5000	-------
			40212		5000	

Sample Name : HEXANE
FileName : C:\TC4\HP58907\866B040.RAW
Method :
Start Time : 2.13 min End Time : 21.62 min
Scale Factor: 0.0 Plot Offset: 52 mV

Sample #:
Date : 7/1/94 04:18 PM
Time of Injection: 6/29/94 12:33 PM
Low Point : 52.16 mV High Point : 107.16 mV
Plot Scale: 55.0 mV



000369

Software Version: 4.0<1C29>
Sample Name : MB*PIBLK*3 Time : 7/1/94 04:18 PM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/42

Interface Serial # : NONE Data Acquisition Time: 6/29/94 01:14 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B041.RAW
Result File : C:\TC4\HP58907\866B041.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B041.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B041.RST
Calib Method : C:\TC4\HP58907\866B from C:\TC4\HP58907\866B041.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5948.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 33 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

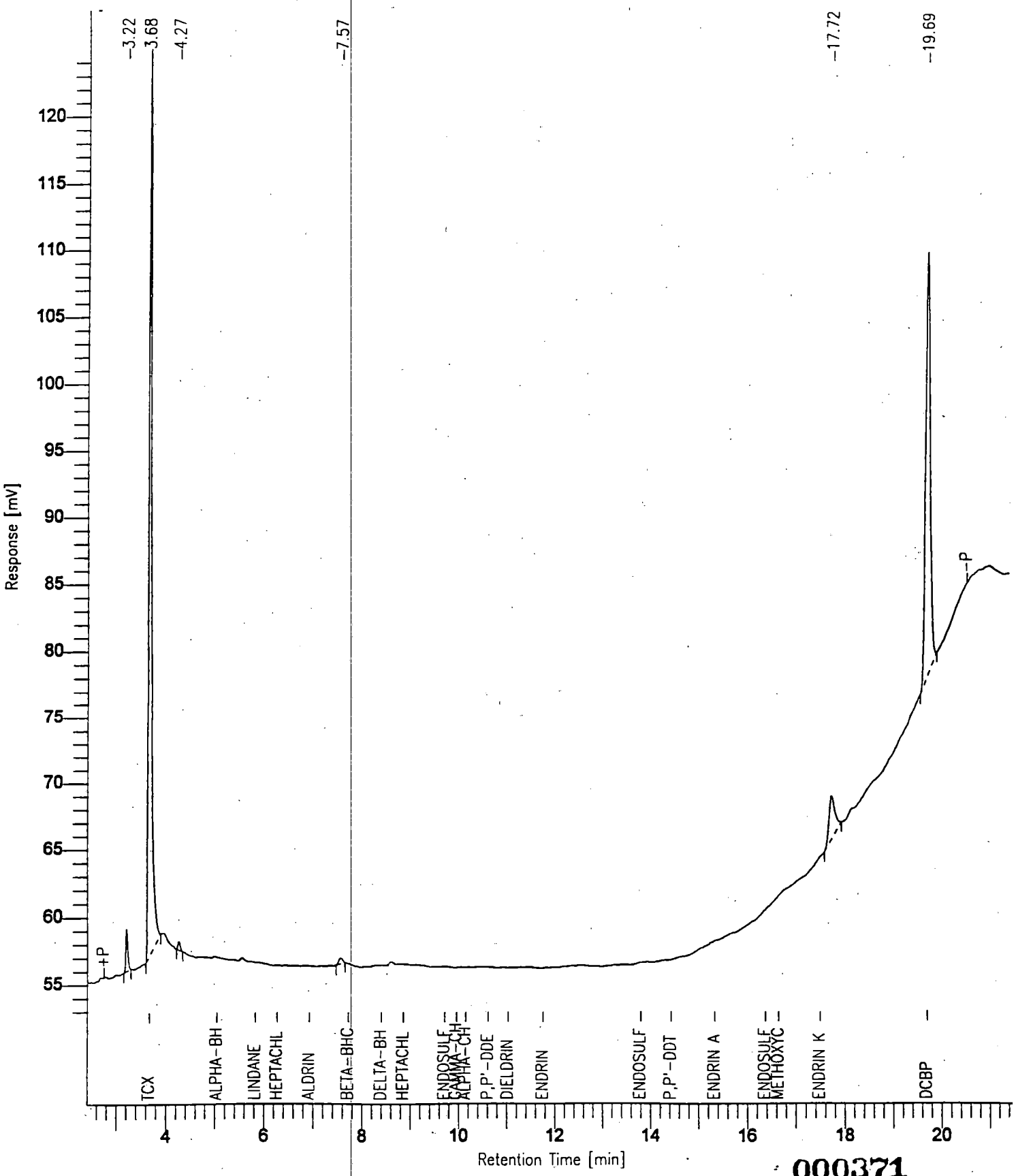
Total number of peaks detected: 6

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	3.217		9075	B	3144	-------
2	3.675	TCX	268543	B	70427	0.0257
5	17.721		28156	B	3313	-------
6	19.694	DCBP	209636	B	31846	0.0052
			515410		108731	

Sample Name : MB*PIBLK*3
FileName : C:\TC4\HP58907\866B041.RAW
Method :
Start Time : 2.41 min End Time : 21.48 min
Scale Factor: 0.0 Plot Offset: 53 mV

Sample #:
Date : 7/1/94 04:18 PM
Time of Injection: 6/29/94 01:14 PM
Low Point : 52.95 mV High Point : 124.35 mV
Plot Scale: 71.4 mV



000371

Software Version: 4.0<1C29>
Sample Name : CK*PEM*3 Time : 7/1/94 04:19 PM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/43

Interface Serial # : NONE Data Acquisition Time: 6/29/94 01:54 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B042.RAW
Result File : C:\TC4\HP58907\866B042.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B042.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B042.RST
Calib Method : C:\TC4\HP58907\866BPEM from C:\TC4\HP58907\866B042.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 777.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 33 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 18

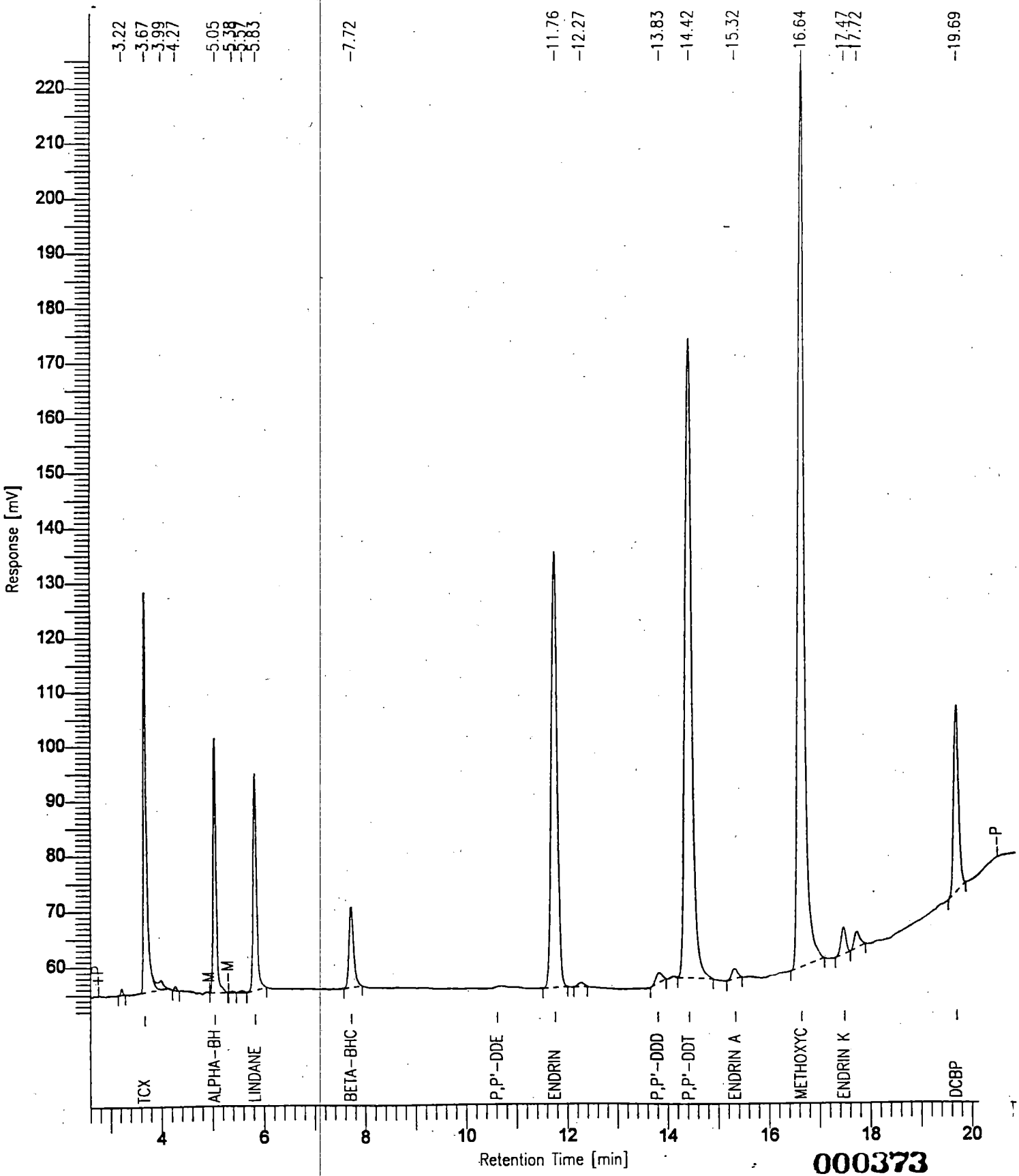
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
2	3.674	TCX	291010	B	72952	0.0023
5	5.047	ALPHA-BHC	185184	*B	46284	-0.0252
8	5.827	LINDANE	183579	B	39430	-0.0337
9	7.716	BETA-BHC	92132	B	14474	-0.0347
10	11.760	ENDRIN	638742	B	79654	0.0092
12	13.833	P,P'-DDD	16212	B	1794	0.2271
13	14.424	P,P'-DDT	1079945	B	116830	0.0028
	15.319	ENDRIN ALDEHYDE	14989	B	1861	-0.0702
	16.639	METHOXYCHLOR	1353163	B	165698	0.0058
16	17.465	ENDRIN KETONE	33515	B	4792	-0.0954
18	19.693	DCBP	231023	B	34472	0.0018
			4119494		578240	

Chromatogram

Sample Name : CK*PEM*3
FileName : C:\TC4\HP58907\866B042.RAW
Method :
Start Time : 2.59 min End Time : 20.87 min
Scale Factor: 0.0 Plot Offset: 51 mV

Sample #:
Date : 7/1/94 04:19 PM
Time of Injection: 6/29/94 01:54 PM
Low Point : 51.39 mV High Point : 225.06 mV
Plot Scale: 173.7 mV



000373

Raw QC Data

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK1

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

Matrix: (soil/water) SOIL Lab Sample ID: MB*QC*1

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: decanted: (Y/N) Y Date Received: 00/00/00

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/23/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 06/29/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17.	U
53494-70-5	Endrin ketone	3.3	U
742-93-4	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5566-34-7	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170.	U
12674-11-2	Aroclor-1016	33.	U
11104-28-2	Aroclor-1221	67.	U
11141-16-5	Aroclor-1232	33.	U
53469-21-9	Aroclor-1242	33.	U
12672-29-6	Aroclor-1248	33.	U
11097-69-1	Aroclor-1254	33.	U
11096-82-5	Aroclor-1260	33.	U

Software Version: 4.0<1C29>
Sample Name : MB*QC*1 6-23-94 PBLK1 Time : 7/1/94 11:13 AM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/32

Interface Serial # : NONE Data Acquisition Time: 6/29/94 07:11 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A032.RAW
Result File : C:\TC4\HP58907\866A032.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A032.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A032.RST
Calib Method : C:\TC4\HP58907\866A from C:\TC4\HP58907\866A032.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul Area Reject : 5921.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 15 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 23

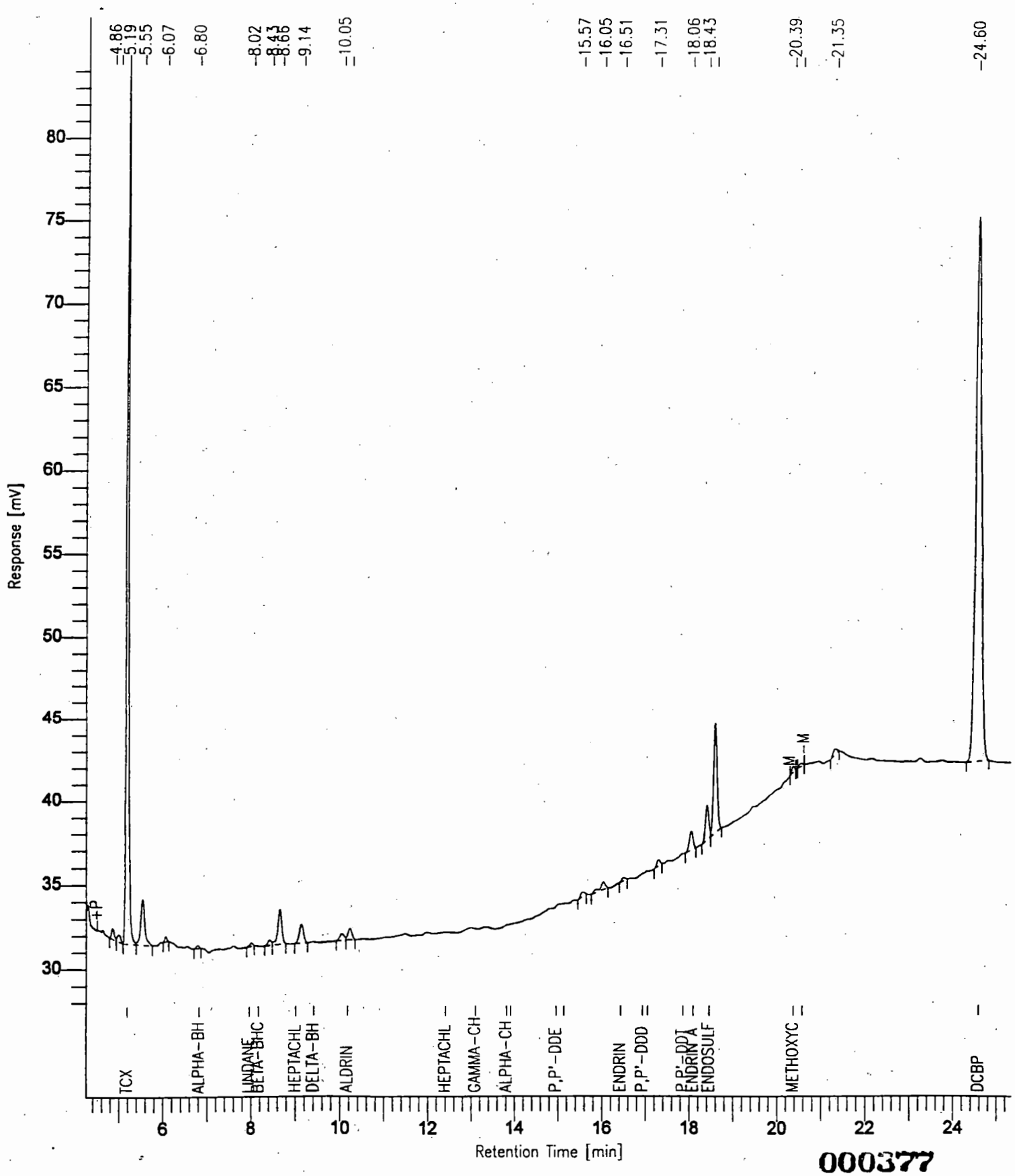
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
3	5.189	TCX	194285	B	57444	0.0259
4	5.548		18105	V	2709	-------
9	8.663		13065	V	2074	-------
10	9.143		7547	B	1135	-------
17	18.063	ENDRIN ALDEHYDE	6788	B	1126	-0.1724
18	18.428	ENDOSULFAN SULFATE	11745	B	2101	-0.1946
19	18.615		38488	V	6701	-------
	24.595	DCBP	297229	B	33025	0.0344
			587252		106316	

Chromatogram

Sample Name : MB*QC*1 6-23-94 PBLK1
FileName : C:\TC4\HP58907\866A032.RAW
Method :
Start Time : 4.25 min End Time : 25.34 min
Scale Factor: 0.0 Plot Offset: 28 mV

Sample #:
Date : 7/1/94 11:13 AM
Time of Injection: 6/29/94 07:11 AM
Low Point : 27.79 mV High Point : 84.40 mV
Plot Scale: 56.6 mV



000377

Software Version: 4.0<1C29>
Sample Name : MB*QC*1 6-23-94 PBLK1 Time : 7/1/94 03:08 PM
mple Number: Study :
perator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/34

Interface Serial # : NONE Data Acquisition Time: 6/29/94 07:52 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B033.RAW
Result File : C:\TC4\HP58907\866B033.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B033.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B033.RST
Calib Method : C:\TC4\HP58907\866B from C:\TC4\HP58907\866B033.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5948.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

ise Threshold: 33 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 25

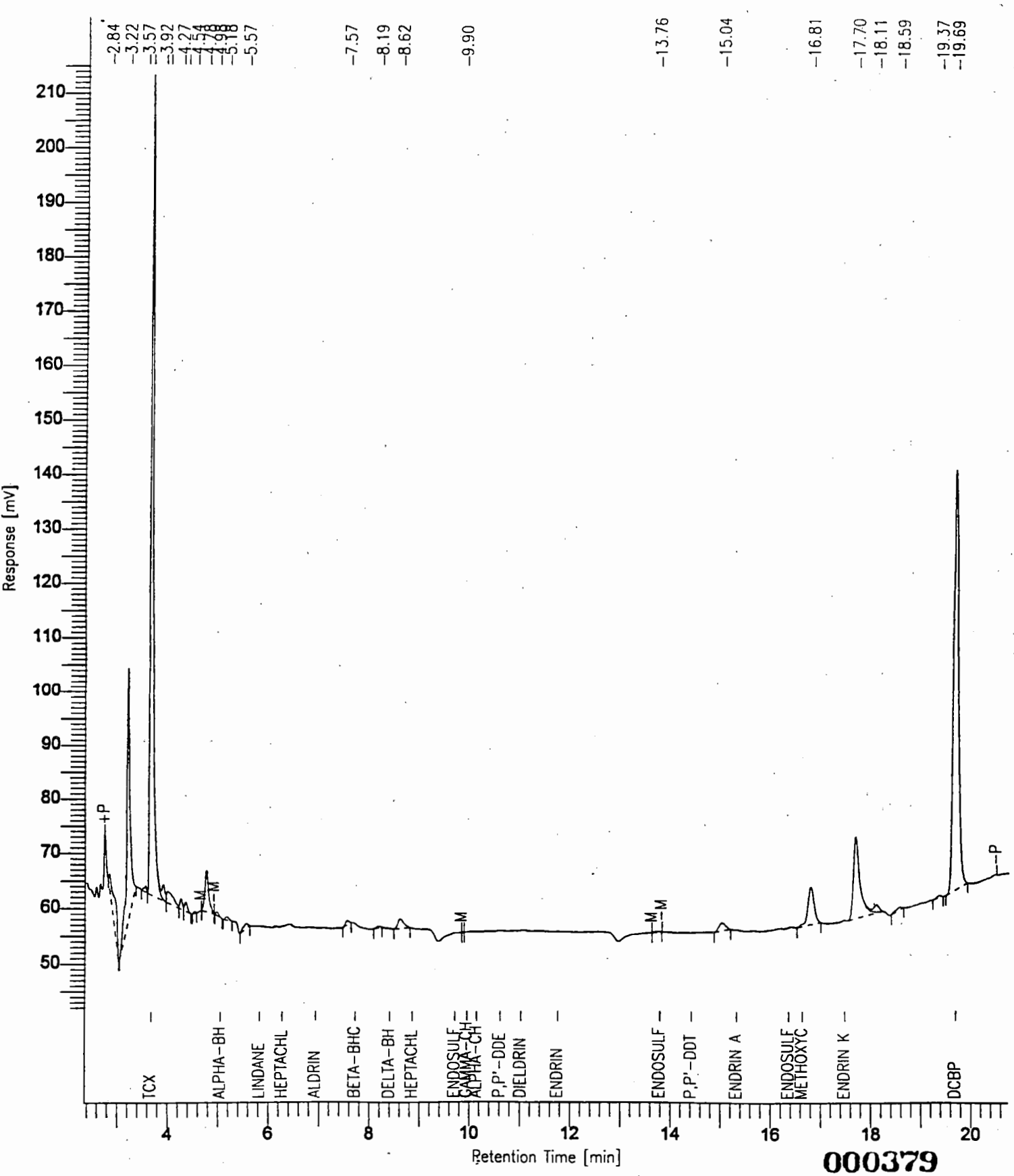
DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	2.844		42497	B	2432	-------
2	3.215		212103	B	47029	-------
4	3.669	TCX	590503	B	152282	-0.1239
5	3.919		13576	E	2724	-------
6	4.008		20224	V	2124	-------
7	4.269		6529	V	1834	-------
8	4.365		6516	V	1665	-------
0	4.776		39414	*B	7554	-------
3	5.573		6377	B	826	-------
.6	8.621		14828	B	1739	-------
19	15.044		13600	B	1410	-------
20	16.808		59848	B	6794	-------
21	17.701		138188	B	15041	-------
22	18.113		11215	E	1328	-------
25	19.689	DCBP	543270	B	78203	-0.0193

Chromatogram

Sample Name : MB*QC*1 6-23-94 PBLK1
FileName : C:\TC4\HP58907\866B033.RAW
Method :
Start Time : 2.35 min End Time : 20.75 min
Scale Factor: 0.0 Plot Offset: 41 mV

Sample #:
Date : 7/1/94 03:08 PM
Time of Injection: 6/29/94 07:52 AM
Low Point : 41.28 mV High Point : 215.34 mV
Plot Scale: 174.1 mV



000379

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H83LA0301MS

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

Matrix: (soil/water) SOIL Lab Sample ID: SPM1*CDMHNSS2*6

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 2 decanted: (Y/N) Y Date Received: 06/21/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/23/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 06/29/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.1 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	8.2	P
76-44-8	Heptachlor	5.1	P
309-00-2	Aldrin	5.3	P
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	13.	P
72-55-9	4,4'-DDE	3.4	U
72-20-8	Endrin	18.	P
33213-65-9	Endosulfan II	3.4	U
72-54-8	4,4'-DDD	3.4	U
1031-07-8	Endosulfan sulfate	3.4	U
50-29-3	4,4'-DDT	13.	P
72-43-5	Methoxychlor	17.	U
53494-70-5	Endrin ketone	3.4	U
742-93-4	Endrin aldehyde	3.4	U
5103-71-9	alpha-Chlordane	1.7	U
5566-34-7	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170.	U
12674-11-2	Aroclor-1016	34.	U
11104-28-2	Aroclor-1221	68.	U
11141-16-5	Aroclor-1232	34.	U
53469-21-9	Aroclor-1242	34.	U
12672-29-6	Aroclor-1248	34.	U
11097-69-1	Aroclor-1254	34.	U
11096-82-5	Aroclor-1260	34.	U

Software Version: 4.0<1C29>
Sample Name : SPM1*CDMHNSS2*6 6-23-94 Time : 7/1/94 12:06 PM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/35

Interface Serial # : NONE Data Acquisition Time: 6/29/94 09:13 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A035.RAW
Result File : C:\TC4\HP58907\866A035.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A035.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A035.RST
Calib Method : C:\TC4\HP58907\866A from C:\TC4\HP58907\866A035.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul Area Reject : 5921.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 15 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 165

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	4.586		48443	B	11961	-------
2	4.726		88913	V	14789	-------
3	4.881		27494	V	6576	-------
4	4.952		50873	V	14979	-------
5	5.042		102519	V	23655	-------
6	5.220	TCX	249828	*V	89312	0.6168
7	5.278		1473625	*V	251704	-------
8	5.596		397060	V	61983	-------
9	5.793		237941	V	29548	-------
10	5.893		20835	V	6504	-------
11	6.003		82940	V	22540	-------
12	6.144		1349477	V	171176	-------
13	6.552		61427	B	14156	-------
14	6.745		58402	*B	9241	-------
15	6.985		218942	*B	28738	-------

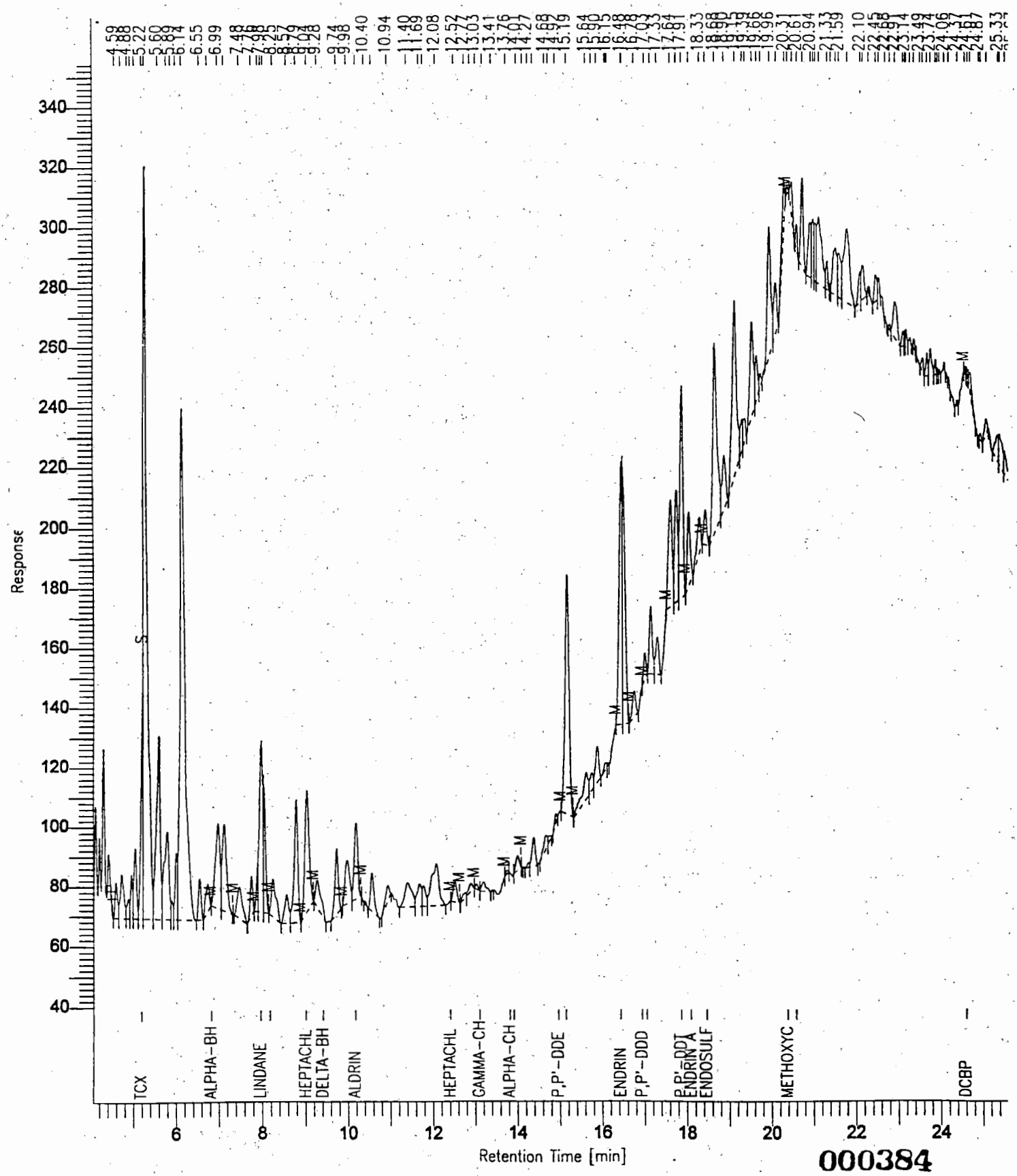
Peak	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
	7.127		208125	*V	29145	-------
17	7.482		86625	B	10629	-------
18	7.761		52906	*B	13420	-------
19	7.907		39862	*B	17132	-------
20	7.978	LINDANE	308403	*V	58097	0.1796
21	8.027		145725	*V	43217	-------
22	8.250		95085	B	12806	-------
23	8.569		64196	B	9700	-------
24	8.792		244296	*V	41639	-------
25	9.038	HEPTACHLOR	291079	*B	41157	0.2962
26	9.277		80238	B	9228	-------
27	9.735		123299	B	22099	-------
28	9.978		112386	*B	14694	-------
29	10.191	ALDRIN	155648	*V	25630	0.2089
31	10.566		74410	B	12952	-------
32	10.940		35704	B	5229	-------
33	11.397		98412	B	8311	-------
34	11.691		56352	V	7531	-------
35	11.783		38823	V	6829	-------
36	12.084		177174	V	14171	-------
37	12.520		41839	*B	6901	-------
38	12.771		11689	B	1572	-------
39	12.901		18013	*V	2585	-------
40	13.032	GAMMA-CHLORDANE	6252	*B	1694	-0.5518
41	13.194		22635	B	3061	-------
44	14.007	ENDOSULFAN A	28122	*B	5025	0.6758
46	14.269		6059	B	1600	-------
47	14.389		54044	V	9847	-------
48	14.675		31083	B	4701	-------
49	14.752		8245	V	2151	-------
50	14.919	P,P'-DDE	12536	B	2643	-0.2966
51	15.187	DIELDRIN	531133	*B	80087	0.2998
--	15.640		92214	B	8879	-------
	15.774		33363	V	5779	-------
	15.899		68738	V	11948	-------
--	16.105		11654	V	2188	-------
57	16.480	ENDRIN	422284	*B	87230	0.2770
58	16.493		369490	*V	85824	-------
59	16.777		48050	B	8610	-------
60	17.027	ENDOSULFAN B	35067	*B	8828	-0.1446
61	17.170		108891	B	22637	-------
62	17.326		68263	V	12381	-------
63	17.644		226154	*B	35560	-------
64	17.781		193954	*V	37089	-------
65	17.908	P,P'-DDT	349193	*V	70296	0.2297
66	18.074	ENDRIN ALDEHYDE	123200	B	24538	-0.1111
67	18.328		74587	*B	11632	-------
68	18.462	ENDOSULFAN SULFATE	52762	*B	11557	-0.0112
69	18.681		433130	B	62788	-------
70	18.899		109265	V	17743	-------
71	19.153		416504	B	57994	-------
72	19.325		44144	V	10214	-------
73	19.387		33843	V	7528	-------
74	19.556		181672	V	31324	-------
75	19.663		64862	V	14982	-------
76	19.751		14913	V	4701	-------
77	19.963		257065	V	43158	-------
78	20.112		85367	V	17210	-------
79	20.314		86643	*B	15865	-------
80	20.383	METHOXYCHLOR	7284	*B	3241	0.0237
81	20.489		35776	B	10010	-------
82	20.610	ENDRIN KETONE	22071	B	8479	0.1368
83	20.743		117262	B	29708	-------
84	20.937		85579	B	18328	-------
85	20.992		75875	V	20079	-------
86	21.039		60366	V	19154	-------
87	21.128		184097	V	22128	-------
--	21.325		30121	V	9546	-------
	21.520		111677	V	15696	-------
	21.594		75451	V	14776	-------
92	21.788		241173	V	24652	-------
93	22.095		42268	B	10299	-------
94	22.148		54807	V	11508	-------
96	22.454		39439	B	8856	-------
97	22.524		19947	V	7052	-------

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
100	22.906		80325	V	12054	-------
101	23.097		16383	B	5018	-------
102	23.143		9390	V	5159	-------
103	23.172		12544	V	5387	-------
104	23.266		6844	V	2465	-------
107	23.557		14834	B	4889	-------
108	23.660		24652	B	7616	-------
109	23.741	VSH 7-5-94	36177	V	8860	-------
110	23.857		13186	V	5088	-------
113	24.059		8659	V	3542	-------
118	24.666	— PCBP	22227	B	5783	-------
120	24.918		6387	V	2422	-------
121	25.052		23337	B	5184	-------
122	25.333		44990	B	8759	-------
123	25.375		60605	V	10038	-------
124	25.491		34479	V	7561	-------
127	25.788		6489	B	2309	-------
128	25.845		6458	V	2946	-------
129	25.957		7130	B	2058	-------
132	26.389		34046	B	5754	-------
133	26.440		11852	V	4859	-------
136	26.801		12101	V	2727	-------
138	27.103		19751	V	4364	-------
139	27.144		26955	V	4769	-------
145	27.906		16953	B	3455	-------
146	27.967		14343	V	4141	-------
147	28.031		8593	V	2900	-------
148	28.188		9475	B	2823	-------
149	28.264		7178	V	2467	-------
151	28.420		19465	B	1260	-------
154	28.842		12641	B	2718	-------
157	29.055		6319	V	2016	-------
161	29.553		7461	V	2087	-------
162	29.704		7091	B	2029	-------
			13586897		2399853	

Chromatogram

Sample Name : SPM1*CDMHNSS2*6 6-23-94
ame : C:\TC4\HP58907\866A035.RAW
d :
.. Time : 4.05 min End Time : 25.57 min
Scale Factor: 0.0 Plot Offset: 39 mV

Sample #:
Date : 7/1/94 12:06 PM
Time of Injection: 6/29/94 09:13 AM
Low Point : 38.95 mV High Point : 354.18 mV
Plot Scale: 315.2 mV



Software Version: 4.0<1C29>
Sample Name : SPM1*CDMHNSS2*6 6-23-94 Time : 7/5/94 09:27 AM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/37

Interface Serial # : NONE Data Acquisition Time: 6/29/94 09:53 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B036.RAW
Result File : C:\TC4\HP58907\866B036.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B036.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B036.RST
Calib Method : C:\TC4\HP58907\866B from C:\TC4\HP58907\866B036.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5948.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 33 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 81

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	2.802		15059	B	7026	-------
2	2.902		133377	V	25695	-------
3	3.072		12498	B	6261	-------
4	3.229		648525	B	208819	-------
5	3.276		810091	V	222795	-------
6	3.338		788679	V	195716	-------
7	3.462		177269	V	42850	-------
8	3.676	TCX	367424	*B	107879	0.0614
9	3.955		283751	B	50670	-------
10	4.140		1926623	B	418354	-------
11	4.337		368723	V	75105	-------
12	4.570		389023	B	99488	-------
13	4.780		380082	*B	103634	-------
14	4.882		1920135	*V	299514	-------
15	5.166		69544	B	18617	-------

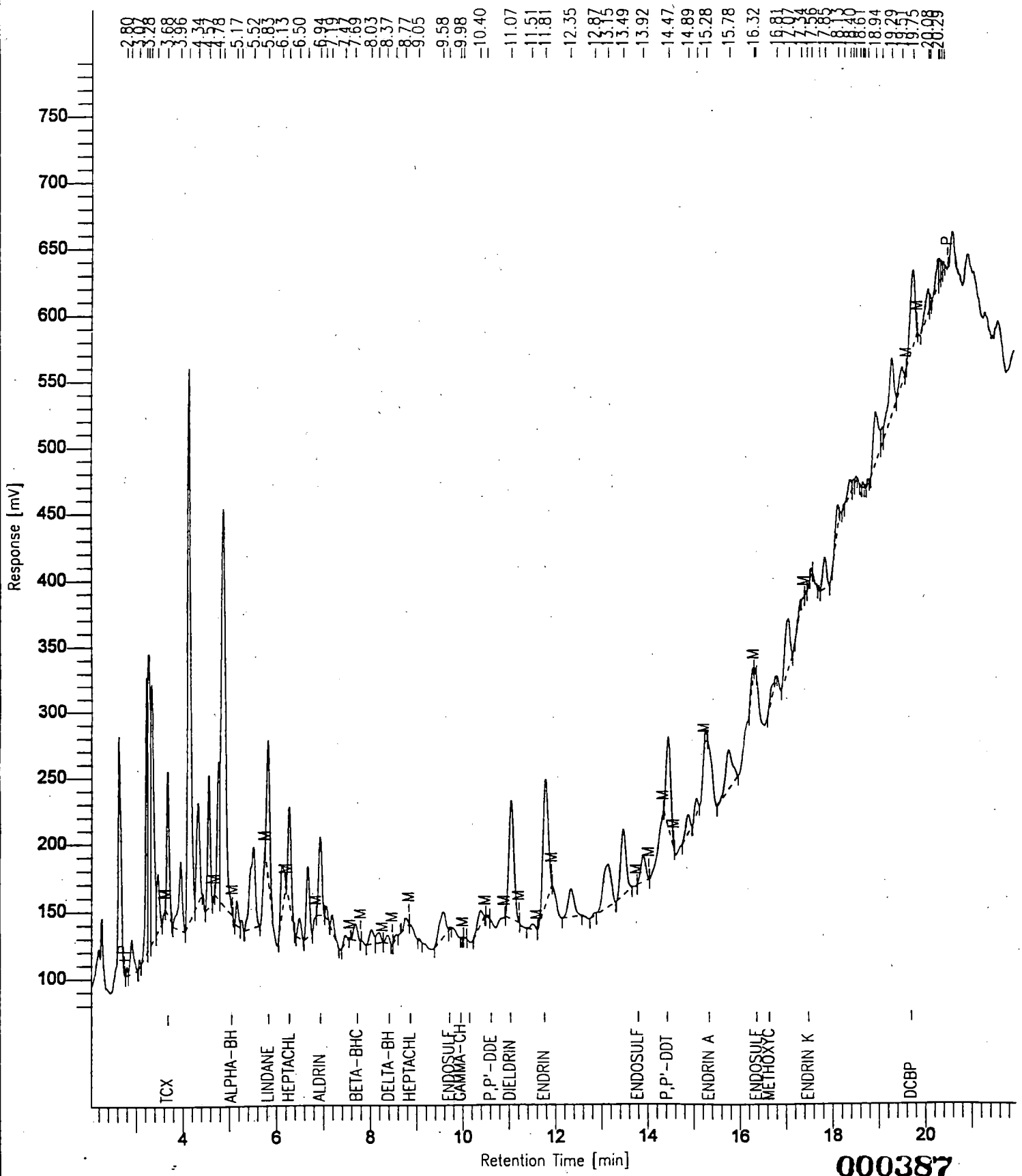
Result File : 866B036.RST, Printed On 7/5/94 09:27 AM

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
	5.262		19294	V	6645	-------
17	5.522		491493	B	59996	-------
18	5.831	LINDANE	452941	*B	104107	0.0369
19	6.133		198623	*B	34407	-------
20	6.287	HEPTACHLOR	319994	*B	72370	0.1527
21	6.496		70302	B	14729	-------
22	6.677		248693	B	52479	-------
23	6.941	ALDRIN	281327	*B	58436	0.1321
24	7.069		30160	B	9490	-------
25	7.190		52337	B	11871	-------
26	7.470		29497	B	5917	-------
27	7.686	BETA-BHC VC	72552	*B	12260	-0.4286
28	8.030		74576	B	10870	-------
29	8.193		52464	*V	7981	-------
30	8.374	DELTA-BHC VC	30445	*B	5792	-0.3467
31	8.564		14709	B	2819	-------
32	8.768		41786	*B	7432	-------
34	9.583		190724	B	18890	-------
35	9.723	ENDOSULFAN A BPL	6329	V	2028	0.1162
38	10.399		81035	B	10211	-------
40	11.065	DIELDRIN	659546	*B	89221	0.3340
41	11.506		26797	B	3979	-------
42	11.806	ENDRIN	748013	*B	94076	0.4010
43	12.350		189564	B	20882	-------
44	12.874		10087	B	1883	-------
45	13.152		391328	V	31803	-------
46	13.489		407759	B	49360	-------
47	13.918		143638	*B	19260	-------
48	14.468	P,P'-DDT	463418	*B	69511	0.3070
49	14.894		92057	B	14056	-------
50	15.080		60631	B	11670	-------
51	15.283	ENDRIN ALDEHYDE BPL	21938	*B	8740	-0.3070
52	15.781		312571	B	29592	-------
--	16.315		51227	*B	6824	-------
	16.814		69547	B	2482	-------
	17.073		307034	B	37844	-------
57	17.340		29837	B	3960	-------
59	17.563		12481	*B	6041	-------
61	17.848		134479	B	23703	-------
62	18.128		100358	B	15895	-------
63	18.257		6362	B	3077	-------
64	18.397		67442	V	10594	-------
65	18.461		17639	V	6348	-------
66	18.512		11555	V	4698	-------
68	18.669		8784	B	4309	-------
70	18.775		9927	B	4125	-------
71	18.943		305333	B	39144	-------
72	19.087		38545	V	12205	-------
73	19.290		357061	V	43095	-------
74	19.512		86978	V	12819	-------
75	19.750	DCBP	426085	*B	57627	0.2914
76	20.077		126646	B	18492	-------
77	20.117		18217	V	10866	-------
78	20.287		92012	V	19887	-------
79	20.316		43499	V	17737	-------
80	20.360		22475	V	11888	-------
81	20.410		11743	V	6028	-------
			16932702		3214875	

Chromatogram

Sample Name : SPM1*CDMHNSS2*6 6-23-94
FileName : C:\TC4\HP58907\866B036.RAW
Method :
Start Time : 2.03 min End Time : 21.95 min
Scale Factor: 0.0 Plot Offset: 74 mV

Sample #:
Date : 7/5/94 09:27 AM
Time of Injection: 6/29/94 09:53 AM
Low Point : 73.64 mV High Point : 794.12 mV
Plot Scale: 720.5 mV



1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H83LA0301MSD

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 50744

Matrix: (soil/water) SOIL Lab Sample ID: SPM2*CDMHNSS2*6

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 2 decanted: (Y/N) Y Date Received: 06/21/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/23/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 06/29/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.1 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	7.0	
76-44-8	Heptachlor	4.7	P
309-00-2	Aldrin	5.0	P
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	14.	P
72-55-9	4,4'-DDE	3.4	U
72-20-8	Endrin	17.	P
33213-65-9	Endosulfan II	3.4	U
72-54-8	4,4'-DDD	3.4	U
1031-07-8	Endosulfan sulfate	3.4	U
50-29-3	4,4'-DDT	12.	P
72-43-5	Methoxychlor	17.	U
53494-70-5	Endrin ketone	3.4	U
742-93-4	Endrin aldehyde	3.4	U
5103-71-9	alpha-Chlordane	1.7	U
5566-34-7	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170.	U
12674-11-2	Aroclor-1016	34.	U
11104-28-2	Aroclor-1221	68.	U
11141-16-5	Aroclor-1232	34.	U
53469-21-9	Aroclor-1242	34.	U
12672-29-6	Aroclor-1248	34.	U
11097-69-1	Aroclor-1254	34.	U
11096-82-5	Aroclor-1260	34.	U

Software Version: 4.0<1C29>
Sample Name : SPM2*CDMHNSS2*6 6-23-94 Time : 7/1/94 12:14 PM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : A A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/37

Interface Serial # : NONE Data Acquisition Time: 6/29/94 10:33 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866A037.RAW
Result File : C:\TC4\HP58907\866A037.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866A037.RST
Proc Method : C:\TC4\HP58907\DB608 from C:\TC4\HP58907\866A037.RST
Calib Method : C:\TC4\HP58907\866A from C:\TC4\HP58907\866A037.RST
Sequence File : C:\TC4\HP58907\866A.SEQ

Sample Volume : 1 ul Area Reject : 5921.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 15 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 169

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	4.582		55615	B	14695	-------
2	4.719		85067	V	15726	-------
3	4.878		28894	V	6283	-------
4	4.948		29503	V	10075	-------
5	5.039		94655	V	23917	-------
6	5.213	TCX	222414	*B	90713	0.4883
7	5.274		1651925	*V	289825	-------
8	5.593		247276	V	44268	-------
9	5.791		202534	V	32274	-------
10	6.002		47902	B	15761	-------
11	6.140		1503055	V	197725	-------
12	6.548		55022	B	12896	-------
13	6.744		63676	*B	9460	-------
14	6.976		251817	*B	33777	-------
15	7.121		235297	*V	34490	-------

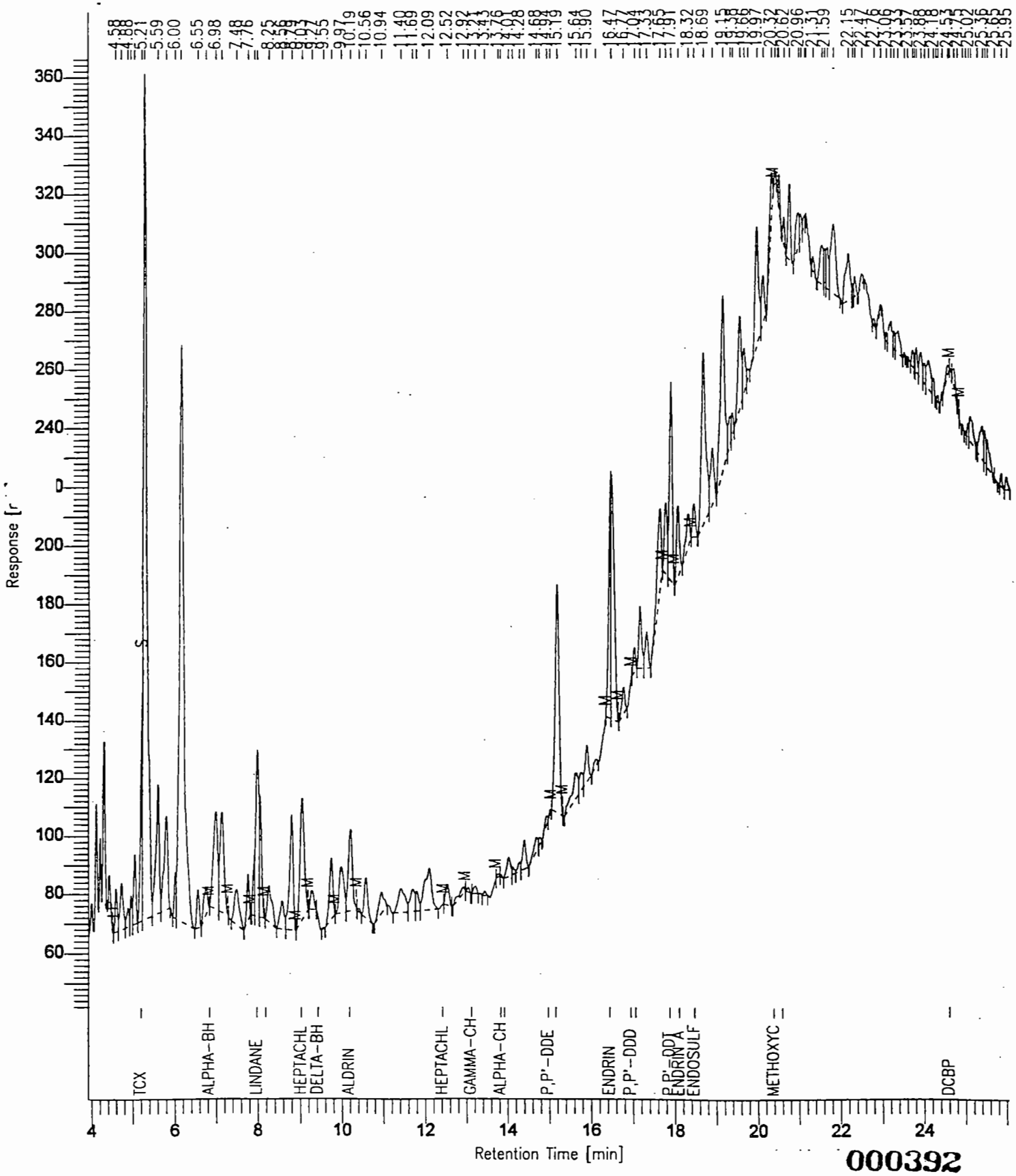
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
	7.480		99015	B	11958	-------
	7.757		61104	*B	15729	-------
18	7.913		11425	*B	2691	-------
19	7.974	LINDANE	91811	*V	25731	0.1308
20	8.251		92280	B	12283	-------
21	8.564		64787	B	9525	-------
22	8.788		239048	*V	39831	-------
23	9.034	HEPTACHLOR	304392	*B	42231	0.2588
24	9.273		34840	*B	6338	-------
26	9.732		121215	*B	21157	-------
27	9.967		126753	*B	15869	-------
28	10.191	ALDRIN	191974	*V	28208	0.2029
30	10.563		78292	B	13716	-------
31	10.938		61273	B	7170	-------
32	11.403		95831	B	8109	-------
33	11.686		60044	V	7546	-------
34	11.780		35099	V	6661	-------
35	12.088		171763	V	14185	-------
36	12.523		40959	*B	7078	-------
37	12.915		26125	*B	2151	-------
38	13.028	GAMMA-CHLORDANE	6147	*B	1695	-0.5836
39	13.206		13611	B	2553	-------
40	13.433		6035	B	1483	-------
43	14.014		43226	B	6706	-------
44	14.109		10342	V	2653	-------
45	14.280		15870	V	3151	-------
46	14.391		55497	V	10041	-------
47	14.683		35088	B	4555	-------
48	14.756		8311	V	2421	-------
49	14.935	P,P'-DDE	16414	B	2771	-0.1893
51	15.186	DIELDRIN	515369	*B	78488	0.2912
52	15.638		94664	B	8864	-------
53	15.760		38381	V	6248	-------
	15.897		69978	V	12761	-------
	16.110		16247	B	2558	-------
	16.467	ENDRIN	272799	*B	81094	0.1988
57	16.482		454408	*V	83397	-------
58	16.773		46059	B	8950	-------
59	17.036	ENDOSULFAN B	32351	*B	8302	-0.0966
60	17.167		100775	B	21299	-------
61	17.327		64871	V	12478	-------
62	17.649		213309	*B	27851	-------
63	17.781		115802	*B	24402	-------
64	17.907	P,P'-DDT	326302	*V	67681	0.2239
65	18.074	ENDRIN ALDEHYDE	119326	B	24296	-0.1088
66	18.323		74450	*B	11191	-------
67	18.456	ENDOSULFAN SULFATE	52957	*B	11366	-0.0450
68	18.685		428348	B	58600	-------
69	18.905		119079	V	19117	-------
70	19.154		432511	B	59929	-------
71	19.328		49308	V	9711	-------
72	19.384		24522	V	7960	-------
73	19.562		184229	V	31450	-------
74	19.660		68474	V	15337	-------
75	19.750		12499	V	3620	-------
76	19.970		245656	V	40517	-------
77	20.118		75740	V	16197	-------
78	20.317		90177	*B	16545	-------
79	20.397	METHOXYCHLOR	10892	*B	5657	0.0908
81	20.492		24623	V	10059	-------
82	20.615	ENDRIN KETONE	25032	B	8978	0.1617
83	20.747		104173	B	25509	-------
84	20.961		76099	B	11549	-------
85	21.015		27387	V	8271	-------
86	21.102		13412	V	3597	-------
88	21.309		18211	B	5271	-------
89	21.527		85021	B	13650	-------
90	21.586		35836	V	13121	-------
	21.652		64388	V	14291	-------
	21.797		193369	V	23771	-------
	22.152		127765	B	16159	-------
94	22.253		10138	V	4894	-------
95	22.304		22419	V	6859	-------
96	22.473		19521	B	3998	-------
97	22.764		7335	B	2517	-------

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
98	22.920		12084	B	1905	-------
99	23.056		7136	B	3227	-------
100	23.166		49094	V	8437	-------
101	23.240		15514	V	6189	-------
102	23.331		51232	V	7469	-------
105	23.687		19900	B	5657	-------
106	23.733		8596	V	5619	-------
107	23.778		25689	V	8408	-------
108	23.883		41980	V	8859	-------
109	23.971		24373	V	6835	-------
110	24.066		68085	V	9576	-------
111	24.181		17651	V	5954	-------
115	24.526		20869	*B	3471	-------
117	24.671 — PCBf		21894	*B	5498	-------
121	25.019		11980	V	5106	-------
122	25.070	VSB	57175	V	8554	-------
123	25.232	7.5.94	6682	V	3227	-------
124	25.361		73805	V	11224	-------
125	25.421		34629	V	11104	-------
126	25.478		44583	V	9246	-------
128	25.824		11814	B	4351	-------
129	25.950		16673	B	4269	-------
131	26.153		6565	V	-3101	-------
134	26.349		29115	V	8437	-------
135	26.417		93012	V	12583	-------
136	26.556		20952	V	5820	-------
137	26.720		17593	B	3493	-------
138	26.828		29504	V	4313	-------
141	27.125		20374	V	4466	-------
142	27.171		11478	V	4097	-------
144	27.457		16205	V	2779	-------
148	27.864		6187	B	2292	-------
149	27.930		15589	V	4542	-------
150	27.994		20208	V	4695	-------
151	28.083		10286	V	3530	-------
152	28.154		16432	V	4378	-------
153	28.230		8784	V	3209	-------
158	28.859		6048	V	2144	-------
160	29.007		7185	V	2052	-------
162	29.221		10976	B	2082	-------
166	29.667		12167	V	2999	-------
169	29.881		6333	V	2084	-------
			13203862		2337520	

Chromatogram

S: Name : SPM2*CDMHNSS2*6 6-23-94
F e : C:\TC4\HP58907\866A037.RAW
M :
Start Time : 3.91 min End Time : 26.05 min
Scale Factor: 0.0 Plot Offset: 42 mV

Sample #:
Date : 7/1/94 12:14 PM
Time of Injection: 6/29/94 10:33 AM
Low Point : 41.72 mV High Point : 366.18 mV
Plot Scale: 324.5 mV



Software Version: 4.0<1C29>
Sample Name : SPM2*CDMHNSS2*6 6-23-94 Time : 7/5/94 09:31 AM
Sample Number: Study :
Operator : VIC

Instrument : HP5890A_-_7 Channel : B A/D mV Range : 1000
AutoSampler : HP7673A
Rack/Vial : 0/39

Interface Serial # : NONE Data Acquisition Time: 6/29/94 11:13 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.5000 pts/sec

Raw Data File : C:\TC4\HP58907\866B038.RAW
Result File : C:\TC4\HP58907\866B038.RST
Inst Method : C:\TC4\HP58907\HP58907 from C:\TC4\HP58907\866B038.RST
Proc Method : C:\TC4\HP58907\DB1701 from C:\TC4\HP58907\866B038.RST
Calib Method : C:\TC4\HP58907\866B from C:\TC4\HP58907\866B038.RST
Sequence File : C:\TC4\HP58907\866B.SEQ

Sample Volume : 1 ul Area Reject : 5948.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 33 Area Threshold : 444 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58907 GC #3126A36767; CHANNEL A:DB608 0.53mm ID; CHANNEL B:DB1701 0.53mm ID

Total number of peaks detected: 79

DATA REPORT

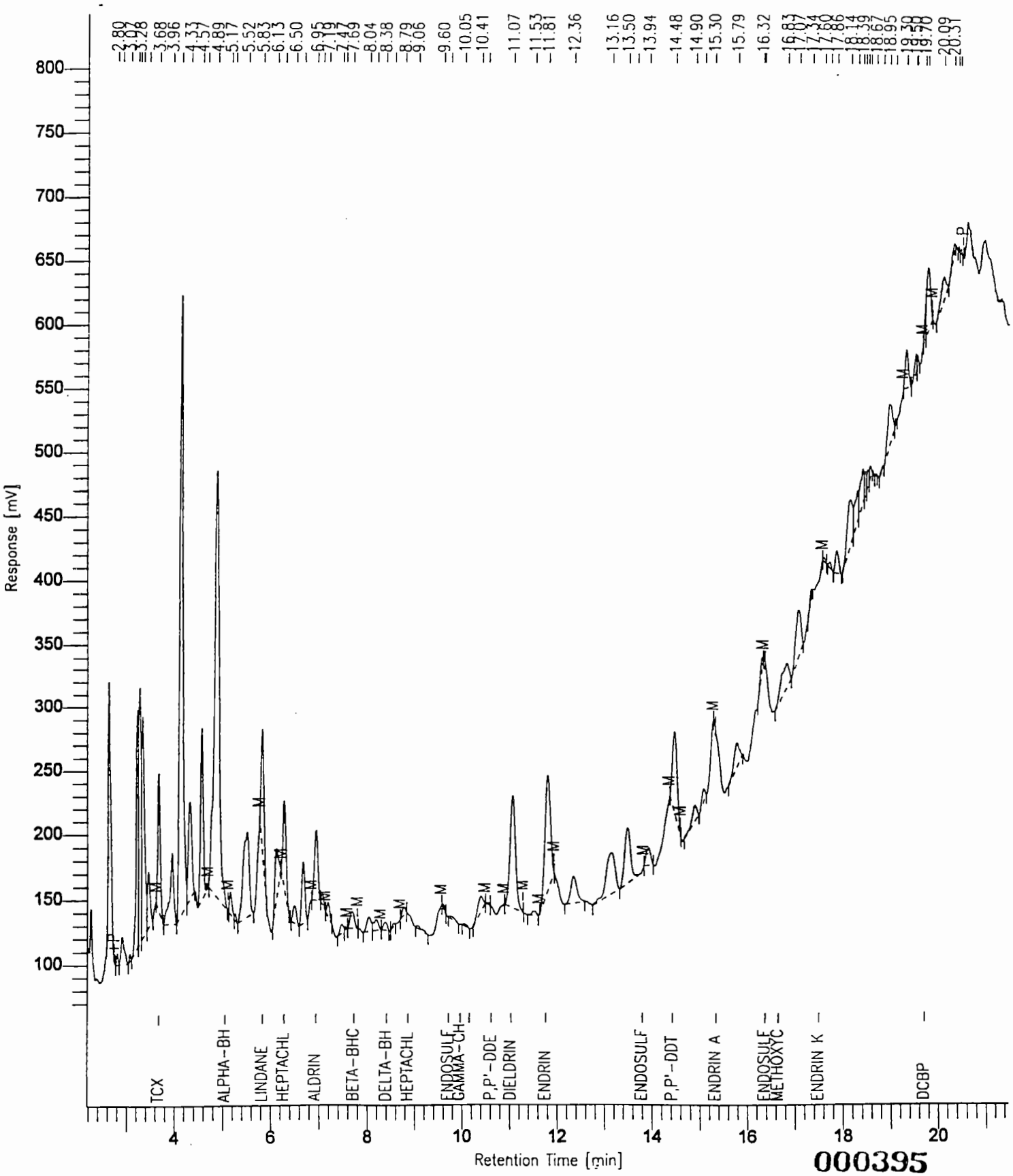
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	2.804		19782	B	9008	-------
2	2.907		107998	V	21267	-------
3	3.074		11862	B	5516	-------
4	3.229		588296	B	185541	-------
5	3.277		703025	V	199848	-------
6	3.341		680383	V	172500	-------
7	3.463		167791	V	43286	-------
8	3.679	TCX	362842	*B	106631	0.1231
9	3.958		316095	B	54926	-------
10	4.141		2272377	B	485122	-------
11	4.329		383417	V	75048	-------
12	4.573		535314	B	133274	-------
13	4.677		10462	E	5400	-------
14	4.885		2326404	*B	333763	-------
15	5.168		63002	B	17518	-------

Peak	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
-	5.260		12757	V	4923	-------
17	5.521		587786	B	65483	-------
18	5.833	LINDANE	385300	*B	94070	0.0672
19	6.128		216707	*B	39694	-------
20	6.289	HEPTACHLOR	294521	*B	67640	0.1971
21	6.504		68971	B	14031	-------
22	6.681		220820	B	47180	-------
23	6.946	ALDRIN	266391	*B	53988	0.2065
24	7.073		26499	B	8553	-------
25	7.194		42467	*B	11266	-------
26	7.474		32740	B	6314	-------
27	7.542		7381	*V	2571	-------
28	7.687	BETA-BHC NC	79618	*B	12949	-0.4187
29	8.038		73286	B	10962	-------
30	8.193		56730	*V	8067	-------
31	8.378	DELTA-BHC NC	31897	*B	5780	-0.2923
32	8.562		8897	B	2081	-------
33	8.786		31423	*B	5733	-------
34	9.064		16532	B	2081	-------
35	9.599		8825	*B	3034	-------
36	9.752	ENDOSULFAN A NC	14123	B	1424	0.4102
37	10.045		9522	B	1617	-------
38	10.407		99887	*B	11957	-------
40	11.073	DIELDRIN	692733	*B	87323	0.4063
41	11.532		21943	B	3360	-------
42	11.814	ENDRIN	726392	*B	90075	0.4659
43	12.355		189273	B	20597	-------
44	13.157		417775	B	31743	-------
45	13.497		372141	B	42871	-------
47	13.939		85600	*B	13464	-------
48	14.478	P,P'-DDT	429471	*B	64715	0.3740
49	14.901		90573	B	12390	-------
50	15.088		51138	B	9874	-------
!	15.791		153531	B	19047	-------
	16.317		51525	*B	9242	-------
	16.830		244482	B	20203	-------
56	17.071		285944	B	36608	-------
57	17.343		23194	B	3186	-------
58	17.597		6016	*B	3008	-------
59	17.719		14666	B	5064	-------
60	17.858		87728	B	17730	-------
61	18.139		285007	B	35968	-------
62	18.289		153508	V	23674	-------
63	18.391		160486	V	27040	-------
64	18.445		47939	V	18343	-------
65	18.498		38168	V	12568	-------
66	18.547		24980	V	9070	-------
68	18.808		9704	B	2673	-------
69	18.948		233236	B	32980	-------
70	19.076		10378	V	4416	-------
71	19.302		142580	*B	30036	-------
72	19.502		54382	B	14988	-------
73	19.526		22854	V	11402	-------
74	19.700	DCBP	49871	*B	26428	0.0355
75	19.757		278824	*V	49394	-------
76	20.094		146539	B	17760	-------
77	20.314		48363	B	6075	-------
78	20.405		6046	B	4026	-------
79	20.451		6085	V	4229	-------
			16805201		3151615	

Chromatogram

Sample Name : SPM2*CDMHNSS2*6 6-23-94
FileName : C:\TC4\HP58907\866B038.RAW
Method :
Start Time : 2.17 min End Time : 21.48 min
Scale Factor: 0.0 Plot Offset: 62 mV

Sample #:
Date : 7/5/94 09:31 AM
Time of Injection: 6/29/94 11:13 AM
Low Point : 61.73 mV High Point : 805.55 mV
Plot Scale: 743.8 mV



000395

9513356.0380

Other Relevant Documents

015

BOOK NO: 588

ESE ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

ORGANIC LABORATORY/EXTRACTION LOG SHEET

PROJECT: CDM Hanford N Slope
PROJECT NO.: 194022G 0202 CASE NO.: NA
EXTRACTOR(S): DJD(2296) CLEAN-UP: GPC/silica
DATE: 6-23-94 TIME: 9AM

EXTRACTION METHOD: 3/90 OCP Sai 1
SAMPLE FRACTION: SS
CHECKED BY: GAH
BALANCE USED: #5

SAMPLE NO.	VOLUME-ml MASS-gr.	INITIAL/ FINAL pH	TYPE/DATE OF CLEAN-UP	FINAL VOL. SOLVENT	SURRO-GATE ADDED Y/N	COMMENTS
CDM HNSS2*6	30g	6.13	GPC/Silica	10.0ml Hexane	Y	to All 2.0ml 6-17-94 Acetone
6ms		NA				vic Bauder cLP Pest 3/90 surrogate
6msD						1.2ug/ml TCX/DCBP lot 3 231:89
BIK						Exp 12-17-94
						1.0ml to 6ms, 6msD
						6-20-94 Methanol vic Bauder
						cLP Pest 3/90 .5-1.0ug/ml Matrix
						lot 2 231:84 Exp 12-20-94
						spiked: [illegible] wit: GAH
						Hexane lot BH188
						$MeCl_2$ Lot# BG588
						Acetone Lot# BH634

CHAIN-OF-CUSTODY RECORD

FORM 87212

000397

PROJECT CDM Hanford NSlope

Notebook No. 1033

Continued From Page

Ext: DJD Method: 3/90 OCP Soil

samples: CDM+NSS2* 6, 10ms, 10msD, BLK

1. weighed up 30g of sample, powdered Na_2SO_4 for QC
2. Added 100g of powdered Na_2SO_4 to each
3. weighed up 50g of sample for PH, added 50ml HPLC H_2O
4. Spiked samples
5. Added 100ml 50/50 Acetone/$MeCl_2$
6. Sonicated for 3min.
7. Centrifuged for 5min.
8. decant extract into KD/Receiver through Funnel
9. Repeat steps 5-8 twice more
10. Concentrate to 10ml
11. checked PH = 6.13
12. Put through another funnel, concentrated to 10ml
13. Transferred To G.C. Tubes, Brought to 10ml

Loaded on 10023 MT/DJD 6/24/94

1) Conc to ≈ 10ml in KDs.
2) Solvent exchanged to hexane took to 5.0ml.
3) Ran 2.0ml Florisil calibrs eluted with 8ml 10% acetone in hexane. Took to 2.0ml MT 6/25/94

Continued on Page

Read and Understood By

Signed	Date	Signed	Date
Dana Bechaus	6-23-94	MT	6/25/94

ESE ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

CHROMATOGRAPHIC ANALYSIS LOG

Date: 6-24-94
Analyst: DJD
Project: CDM Hanford
Case No.: NA
Instrument ID: 1002B-1
Data System ID: NA
Analysis Type: 3/90 OCD Soil

COLUMN		INJECTOR		DETECTOR	
Length		Type		Type	
OD		Temp °C		Attn.	
ID		Volume		Range	
Phase		Carrier Gas		Temp °C	
Thickness		Type		Make-up	
Support		Flow Rate			
Loading					

Oven Temp. Initial ____ °C ____ for ____ Min.
Rate A ____ Final Temp A °C ____ for ____ Min.
Rate B ____ Final B °C ____ for ____ Min.

Comments: GPCCHK = 1.0ml 3/90 GPC check prep 6/18/94 by AJ Exp 12/14/94 890:26 + 9.0ml MeCl2
SPKCHK/EndSTD = 1.0ml 6-17-94 Acetone via Bauder CLP Pest 3/90 surrogate 731:89 + 1.0ml 6-20-94
methanol via Bauder CLP Pest 3/90 731:84 + 8.0ml MeCl2

Run No.	Sample No.	Run No.	Sample No.	Run No.	Sample No.
1	GPCCHK		D = 32		Temp = 22.0°C
2	SPKCHK		C = 18		MeCl2 Lot# = BH392
3	MeCl2		W = 10		chart speed = 10cm/hr
4	CDMHNSS2*BIK				Flow Rate = 5.2ml/min
5	↓ 6MS				
6	↓ 6MSD				
7	MeCl2				
8	CDMHNSS2*6				
9	End STD				

FORM 87303

BOOK NO: 732

SAMPLES CDMHNSS2* 6

3/90 CLP OCP SONICATIONS

EXTRACTION SOLVENT: 50/50 $MeCl_2$/ACETONE

1) Decant aqueous layer from sample, discard stones, sticks, leaves: weigh up **30.0g** soil into Teflon beaker, DJD 6-23-94

2) Add **60.0g** baked Na_2SO_4 (granular or powdered) to dry ✓
3) Method blank is **30.0g** of Na_2SO_4 ✓

4) Weigh **50.0g** sample into 250ml beaker, add **50ml** HPLC H_2O to all, stir for 1 hour, check and tabulate pH. ✓

5) Tune sonicator. ✓
6) Spike samples, Immediately add 100ml of 50/50 MeCl/Acetone ✓
7) Sonicate for 3 minutes with 3/4 inch horn, power at 10, and duty cycle at 50%, 1s pulse. Centrifuge at 1000 RPM for 5 minutes, decant extract into KD-receiver through funnels packed with silane treated glasswool and baked sodium sulfate ✓
8) Repeat steps (7) two more times ✓

9) Conc. to 10mls with snyder attachment at 60-80 °C ✓

10) Conc. to 1ml with microsnyder attachment, take to 10.0ml with MeCl in GCT. ✓
11) Load on GPC, check if calibrated within 1 week, GPC check peaks should have <5% shift from previous run DJD 6-24-94

12) Conc extracts off GPC to 10ml using KD-receivers, make copies of GPC chart and include with logsheets AF 6/25/94
13) Solvent exchange to hexane, take to 5.0ml Hexane

14) Run 2.0ml through florisil catridge, elute with 8ml of 10% acetone in hexane, collect in receivers. Check if performance chk done on catridge, tabulate lot# 408556 Catridge must be rinsed with 10ml of 10% acetone in hexane prior to use.
15) Conc to <2ml using modified microsnyders, quantitatively transfer to amber vials, top to 2.0ml mark with hexane
16) Clean fraction to fidge C, unclead to B2 in vials

QC Required: MS
MSD
BLANK

Chain of Custody	To Fridge A DJD 6-23-94	To GPC 1002B DJD 6-24-94	clean to C under B2 AF 6/25/94	To Fridge B 6-27-94 VSB

PROJECT STD. PREP. FOR CLP-PEST -3/90

Notebook No. 00731

Continued From Page

CLP PESTICIDES/PCB (3/90 SOL)
CALIBRATION MIX 1 C-177-02
EXP=3/96 ISO-OCTANE NSI ENVIRONMENTAL SOLUTIONS

	UG/ML	INDAH NG/ML	INDAM NG/ML	INDAL NG/ML
ALPHA-BHC	8.	80.	20.	5.
GAMMA-BHC	8.	80.	20.	5.
4,4'-DDD	16.	160.	40.	10.
4,4'-DDT	16.	160.	40.	10.
DIELDRIN	16.	160.	40.	10.
ENDOSULFAN I	8.	80.	20.	5.
ENDRIN	16.	160.	40.	10.
HEPTACHLOR	8.	80.	20.	5.
4,4'-METHOXYCHLOR	80.	800.	200.	50.
TETRACHLORO-M-XYLENE	8.	80.	20.	5.
DECACHLOROBIPHENYL	16.	160.	40.	10.

0.5ML → 50.ML HEXANE → 25.ML → 100.ML HEXANE

0.5ML → 200 ML HEXANE

CLP PESTICIDES/PCB (3/90 SOL)
CALIBRATION MIX 2 C-176-02
EXP=3/96 ISO-OCTANE NSI ENVIRONMENTAL SOLUTIONS

HEXANE USED IS BHJ BRAND NON-SPECTRO LOT# BG656

	UG/ML	INDBH NG/ML	INDBM NG/ML	INDBL NG/ML
ALDRIN	8.	80.	20.	5.
BETA-BHC	8.	80.	20.	5.
DELTA-BHC	8.	80.	20.	5.
ALPHA-CHLORDANE	8.	80.	20.	5.
GAMMA-CHLORDANE	8.	80.	20.	5.
4,4'-DDE	16.	160.	40.	10.
ENDOSULFAN II	16.	160.	40.	10.
ENDOSULFAN SULFATE	16.	160.	40.	10.
ENDRIN ALDEHYDE	16.	160.	40.	10.
ENDRIN KETONE	16.	160.	40.	10.
HEPTACHLOR EPOXIDE	8.	80.	20.	5.
TETRACHLORO-M-XYLENE	8.	80.	20.	5.
DECACHLOROBIPHENYL	16.	160.	40.	10.

0.5ML → 50.ML HEXANE → 25.ML → 100.ML HEXANE

0.5ML → 200 ML HEXANE

Continued on Page

Nathan S. Zeh 3-29-94 Read and Understood By Robert R. Robert 4/1/94

Signed Date Signed Date

PROJECT STD. PREP. FOR CLP-PEST-3/90

Continued From Page

CLP PESTICIDES/PCB (3/90 SOW)
PERFORMANCE EVALUATION MIX C-180-01
EXP: 4/95, ISO-OCTANE NSI ENVIRONMENTAL SOLUTIONS

~~UG~~ USE WT 3-30-94	UG/ML		PEM NG/ML
ALPHA-BHC	1.		10.
BETA-BHC	1.		10.
GAMMA-BHC	1.		10.
4,4'-DDT	10.	0.2 ML →	100.
ENDRIN	5.	20. ML	50.
4,4'-METHOXYCHLOR	25.	HEXANE	250.
TETRACHLORO-M-XYLENE	2.	G+J BRAND	20.
DECACHLOROBIPHENYL	2.	NON-SPECIF	20.
		LOT# BG656	

4-13-94 VIC BAUDER REMADE PEM AS ABOVE USING PEM C-180-01 AND HEXANE LOT # BG656 Robert R. Robertson 4/15/94

4-19-94 VIC BAUDER REMADE PEM AS ABOVE USING PEM C-180-01 AND HEXANE LOT #BH188 Robert R. Robertson 4/20/94

4-26-94 VIC BAUER REMADE PEM AS ABOVE USING PEM C180-01 AND HEXANE LOT # BH188 Robert R. Robertson 4/26/94

5-3-94 Vic BAUDER REMADE PEM 0.1 ML → 10. ML HEXANE TOTAL USING PEM C-180-01 AND HEXANE LOT # BH188. Robert R. Robertson 5/12/94

5-12-94 VIC BAUER REMADE PEM 0.1 ML → 10. ML HEXANE TOTAL USING PEM C-180-01 AND HEXANE LOT # BH188. Robert R. Robertson 5/12/94

5-21-94 VIC BAUDER REMADE PEM 0.1 ML → 10. ML HEXANE TOTAL USING PEM C-180-01 AND HEXANE LOT # BH188 Robert R. Robertson 5/25/94

5-29-94 VIC BAUER REMADE PEM 0.1 ML → 10. ML HEXANE TOTAL USING PEM C-180-01 AND HEXANE LOT # BH188 KRR 6/6/94

6-6-94 VIC BAUDER REMADE PEM 0.1 ML → 10. ML HEXANE TOTAL USING PEM C-180-01 AND HEXANE LOT # BH188 Robert R. Robertson 6/14/94

Continued on Page

Nick S. [illegible] 3-30-94 Robert R. Robertson 4/11/94

Read and Understood By

Signed Date Signed Date

PROJECT MATRIX SPIKE PREP. CLP-PEST-3/90

Notebook No. 00731

Continued From Page

COMPOUND	INDIVIDUAL PRIMARIES NOTEBOOK:PAGE	① UG/ML	VOLUME ADDED ML	STOCK MATRIX SPIKE UG/ML		MATRIX SPIKE UG/ML
LINDANE	933 : 40	1000.	1.	20.		0.5
HEPTACHLOR	933 : 40	1000.	1.	20.	2.5 ML	0.5
ALDRIN	933 : 40	1000.	1.	20.	→	0.5
DIELDRIN	933 : 41	1000.	2.	40.	100 ML TOTAL	1.0
ENDRIN	933 : 41	1000.	2.	40.	IN METHANOL	1.0
4,4'-DDT	933 : 42	1000.	2.	40.		1.0
			50. ML TOTAL IN ACETONE → B+J BRAND LOT # BH059		B+J BRAND LOT # BE686	

① INDIVIDUAL PRIMARIES MADE BY JOE K. 4-5-94, SOLUTION C IN ACETONE WAS USED.

REMADE MATRIX SPIKE 5-6-94 VSB

STOCK MATRIX SPIKE —5 ML→ MATRIX SPIKE
200. ML METHANOL → B+J BRAND LOT # BE686 Robert R. Robert 5/6/94

REMADE MATRIX SPIKE 6-20-94 VSB

STOCK MATRIX SPIKE —5. ML→ MATRIX SPIKE
200. ML METHANOL → B+J BRAND LOT # BE686 Robert R. Robert 6/20/94

Continued on Page

Nate S. [illegible] 4-20-94 Robert R. Robert 5-6-94

Read and Understood By

Signed Date Signed Date

PROJECT SURROGATE PREP. CLP-PEST-3/90

Continued From Page

PESTICIDE SURROGATE MIX
RESTEK LOT #A 002789 CATALOG #31000
DATE MADE: 9/93 IN ACETONE

	UG/ML		STOCK UG/ML		SURROGATE SPIKE UG/ML
TCX	200.	0.5 ML →	2.	20. ML →	0.2
DCBP	200.	50. ML ACETONE	2.	200. ML ACETONE	0.2

ACETONE USED IS LOT #BH059 B+J BRAND.

VIC BAUPER REMADE SURROGATE SPIKE AS ABOVE ON 5-9-94
USED ACETONE LOT #BH059 B+J BRAND. Robert R. Roberts 5/6/94

Continued on Page

Nita S. Zuber 4-26-94 Read and Understood By Robert R. Roberts 5/6/94

Signed Date Signed Date

PROJECT SURROGATE PREP. CLP-PEST-3/90

Continued From Page

PESTICIDE SURROGATE MIX
RESTEK LOT # A002789 CATALOG # 32000
DATE MADE = 9/93 IN ACETONE

	UG/ML		STOCK UG/ML		SURROGATE SPIKE UG/ML
TCX	200.	1.0 ML → 50. ML ACETONE	4.	10. ML → 200. ML ACETONE	0.2
DCBP	200.		4.		0.2

DONE 2X FOR 400 ML TOTAL.

ACETONE USED IS LOT # BH440 B+J BRAND

REMADE SURROGATE SPIKE AS ABOVE ON 6-17-94 VSP.
ACETONE USED IS LOT # BH440 B+J BRAND 7/5/94 Robert Ritter

Continued on Page

5-17-94 Nick L. Zoh Robert Ritter 5/17/94

Read and Understood By

Signed Date Signed Date

 Notebook No. 00731

PROJECT STD. PREP. FOR CLP-PEST-3/90 Continued From Page

PESTICIDE RESOLUTION CHECK MIX RESTEK LOT# A000056, CATALOG #32001

	UG/ML		RESC NG/ML
GAMMA-CHLORDANE	1.0		10.
ENDOSULFAN I	0.98		9.8
DIELDRIN	1.98	0.5ML	19.8
4,4'-DDE	1.98		19.8
ENDOSULFAN SULFATE	2.0		20.
ENDRIN KETONE	2.02	50.ML TOTAL HEXANE	20.2
METHOXYCHLOR	9.98		99.8
TCX ①	2.0	0.5ML	20.
DCBP	2.0		20.

HEXANE B+J BRAND NAN-SPECTRO LOT# BH188

ACETONE B+J BRAND LOT # BH440

SOURCE: NSI ENVIRONMENTAL SOLUTIONS INC.

	CATALOG-LOT #	SOLVENT	EXPIRATION DATE	UG/ML	VOLUME ADDED ML	FINAL VOLUME ACETONE ML	STOCK UG/ML
PCB-1016	125-01-06	ISOOCTANE	5-95	1000.	1.	100.	10.
PCB-1260	129-01-07	ISOOCTANE	8-96	1002.	1.	100.	10.
PCB-1221	126-01-05	ISOOCTANE	4-97	1005.	1.	50.	20.
PCB-1232	107-01-07	METHANOL	2-95	1010.	1.	100.	10.
PCB-1242	132-01-03	ISOOCTANE	10-97	1001.	1.	100.	10.
PCB-1254	135-01-03	ISOOCTANE	10-97	1012.	1.	100.	10.
TOXAPHENE	111-01-07	METHANOL	3-96	1007.	1.	50.	20.
PCB-1248	108-01-06	ISOOCTANE	2-96	5005.	1.	50.	100. 5. → 50 ACETONE → 10. UG/ML

	STOCK UG/ML	VOLUME ADDED ML	VOLUME OF 200 UG/ML TCX/DCBP ADDED ML ①	FINAL VOLUME HEXANE ML	PCB CONC. NG/ML	TCX/DCBP CONC. NG/ML
PCB-1016	10.	1.	1.	100.	100.	20.
PCB-1260	10	1.			100.	
PCB-1221	20.	1.	1.	100.	200.	20.
PCB-1232	10.	1.	1.	100.	100.	20.
PCB-1242	10.	1.	1.	100.	100.	20.
PCB-1254	10.	1.	1.	100.	100.	20.
TOXAPHENE	20.	2.5	1.	100.	500.	20.
PCB-1248	10.	1.	1.	100.	100.	20.

	STOCK ② UG/ML		PIBLK NG/ML
TCX	4.0	0.5ML → 100.ML HEXANE	20.
DCBP	4.0		20.

① SEE PAGE 87 THIS NOTEBOOK 00731 (VIC BAUER) FOR STD. PREP.

② SEE PAGE 89 THIS NOTEBOOK 00731 (VIC BAUER) FOR STD. PREP.

Continued on Page

Nita S. Lah 5-21-94 Read and Understood By Robert R. Robertson 5/24/94

Signed Date Signed Date

- Remade PEM 1ml into 10ml Hexane lot BH188 using PEM(-180-01 as on pg 00731:81 LFS 6-13-94

- Remade as above 6-21-94 LFS

New bottle-same lot

- Remad as above 6-27-94 LFS

Continued on Page

Signed 6-13-94 Date

Read and Understood By Signed 6-15-94 Date

PROJECT OCP PRIMARY STOCKS

Notebook No. 933

Continued From Page

1)	AHBHC	A)	Chem Serv LOT: 112-86A 98%	B) CHEM SERV LOT 45-45B	98%
		A)	.025 g → 25 ml Hexane	= 1000 µg/ml	
		B)	.025 g → 25 ml Hexane	= 1,000 µg/ml	
2)	LINDANE	A)	Chem Serv 99.5% Lot: 84-83B	.025g → 25 ml Hex	= 1,000 µg/ml
		B)	Chem Serv 99.0% Lot: 20-42D	.025g → 25 ml Hex	= 1000 µg/ml
		C)	Chem Serv 99.5% Lot: 84-13B	.025g → 25 ml ACE	= 1000 µg/ml
3)	Δ-BHC	A)	Chem Serv 98% Lot: 126-47A	.025g → 25 ml Hex	= 1,000 µg/ml
		B)	EPA 99.6% Lot K800	.025g → 25 ml Hex	= 1,000 µg/ml
4)	HEPTACHLOR	A)	Chem Serv 99.5% LOT: 85-153B	.025g → 25 ml Hex	= 1000 µg/ml
		B)	EPA 99.8% LOT: E06H	.025g → 25 ml Hex	= 1,000 µg/ml
		C)	CHEM SERV 99.5% LOT 85-133B	.025g → 25 ml ACE	= 1,000 µg/ml
5)	B-BHC	A)	CHEM SERV 98.0 LOT 92-76A	.025g → 25 ml Hex	= 1,000 µg/ml
		B)	" " "	.025g → 25 ml Hex	= 1,000 µg/ml
6)	ALDRIN	A)	SARM 99.8 LOT: A359	.025g → 25 ml Hex	= 1,000 µg/ml
		B)	EPA 99% LOT: H501	.025g → 25 ml Hex	= 1,000 µg/ml
		C)	SARM 99.8% LOT: A359	.025g → 25 ml ACE	= 1,000 µg/ml

Continued on Page

Read and Understood By

Joe Hostetler	April 5, 1994	Mark Mathes	4/14/94
Signed	Date	Signed	Date

7)	ISODRIN	A)	SARM	99.8% LOT: A403	.025g →	25 ml	HEX =	1,000 µg/ml
		B)	EPA	99.3% LOT: E040	.025g →	25 ml	HEX =	1,000 µg/ml
		C)	SARM	99.8% LOT: A403	.025g →	25 ml	ACE =	1,000 µg/ml
8)	HEPTACHLOR EPOXIDE	A)	CHEM SERV	99.0% LOT: 83-100A	.025g →	25 ml	HEX =	1,000 µg/ml
		B)	CHEM SERV	99% LOT: 14-14G	.025g →	25 ml	HEX =	1,000 µg/ml
9)	ENDOSULFAN-A	A)	CHEM SERV	99.5% LOT: 96-62A	.025g →	25 ml	HEX =	1,000 µg/ml
		B)	EPA	99.8% LOT: C09E	.025g →	25 ml	HEX =	1,000 µg/ml
		C)	CHEM SERV	99.5% LOT: 96-62A	.025g →	25 ml	ACE =	1,000 µg/ml
10)	PP-DDE	A)	CHEM SERV	99.0% LOT: 105-62A	.025g →	25 ml	HEX =	1,000 µg/ml
		B)	CHEM SERV	99.3% LOT: 23-27E	.025g →	25 ml	HEX =	1,000 µg/ml
11)	DIELDRIN	A)	SARM	99.7% LOT: A401	.025g →	25 ml	HEX =	1,000 µg/ml
		B)	EPA	99.5% LOT: A04B	.025g →	25 ml	HEX =	1,000 µg/ml
		C)	SARM	99.7% LOT: A401	.025g →	25 ml	ACE =	1,000 µg/ml
12)	ENDRIN	A)	SARM	99.6% LOT: A402	.025g →	25 ml	HEX =	1,000 µg/ml
		B)	CHEM SERV	99% LOT: 100-F4B	.025g →	25 ml	HEX =	1,000 µg/ml
		C)	~~CHEM SERV~~ SARM	99.6% LOT: A402	.025g →	25 ml	ACE =	1,000 µg/ml
13)	PP-DDD	A)	SARM	99.4% LOT: A410	.025g →	25 ml	HEX =	1,000 µg/ml
		B)	CHEM SERV	99% LOT: 19-19A	.025g →	25 ml	HEX =	1,000 µg/ml

Continued on Page

Read and Understood By

Signed	Date	Signed	Date
[signature]	April 5, 1994	[signature]	4/14/94

Notebook No. 933

PROJECT OCP Primary Stocks

Continued From Page

14) Endosulfan B	A) Chem Serv	98%	LOT: 114-116A	.025g	→	25 ml Hex	=	1,000	µg/ml
	B) Chem Serv	99%	LOT 96-63A	.025g	→	25 ml Hex	=	1,000	µg/ml
	C) Chem Serv	99%	LOT: 114-116A	.025g	→	25 ml ACE	=	1,000	µg/ml
15) PP-DDT	A) SARM	99.1%	LOT: A400	.025g	→	25 ml Hex	=	1,000	µg/ml
	B) CHEM SERV	99%	LOT: 114-57A	.025g	→	25 ml Hex	=	1,000	µg/ml
	C) SARM	99.1%	LOT: A400	.025g	→	25 ml ACE	=	1,000	µg/ml
16) Endrin Aldehyde	A) Axact	95%	LOT: ~~15737~~ correct #	.025g	→	25 ml HEX		1,000	µg/ml
	B) Acustd	97+	LOT MUB-22x-054	.025g	→	25 ml Hex	=	1,000	µg/ml
17) Endosulfan Sulfate	A) SARM	98.6%	LOT: A405	.025g	→	25 ml Hex	=	1,000	µg/ml
	B) CHEM SERV	98%	LOT: 30-95B	.025g	→	25 ml Hex	=	1,000	µg/ml
18) Methoxychlor	A) CHEM SERV	98%	LOT: 83-43A	.025g	→	25 ml Hex	=	1,000	µg/ml
	B) CHEM SERV	99%	LOT 30-40	.025g	→	25 ml Hex	=	1,000	µg/ml
	C) CHEM SERV	98%	LOT: 83-43A	.025g	→	25 ml ACE	=	1,000	µg/ml
19) Endrin Ketone	A) Axact	98%	LOT: 15740	.025g	→	25 ml Hex	=	1,000	µg/ml
	B) EPA	95.1%	LOT CO4L	.010g	→	10 ml Hex	=	1,000	µg/ml
20) TCX	A) Aldrich	95.9%	KY 00052481	.025g	→	25 ml Hex	=	1,000	µg/ml
	B) "	"	"	.025g	→	25 ml Hex	=	1,000	µg/ml

Continued on Page

Read and Understood By

Signed	Date	Signed	Date
Joe Kontlarski	April 5, 1994	Mark Mattes	4/4/94

ESE ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

CHROMATOGRAPHIC ANALYSIS LOG

Date: 6-28-94
Analyst: VIC BAUDER 1781
Project: IC FKE APG TASK 10
Case No.: 7934040G 0202
Instrument ID: HP5890 G.C.
Data System ID: TURBOCHROM 4.0
Analysis Type: CLP-TEST-3/90

COLUMN: A/B
Length:
OD: 3288237/4321663
ID: 0.53 mm
Phase: DB608/DB1701
Thickness: 0.83/1.0 µm
Support: FUSED SILICA
Loading: NA
Oven Temp. Initial: 140 °C for 1 Min.
Rate A: 20 Final Temp A °C: 190 for 0 Min.
Rate B: 3 Final B °C: 220 for 0 Min.
8 275 14

INJECTOR: A/B
Type: ON COLUMN
Temp °C: 150 40/min 250
Volume: 1
Carrier Gas: HELIUM
Type: VPC
Flow Rate: 7.5/16.0 ml/min
CONSTANT FLOW

DETECTOR: A/B
Type: EC; Ni-63
Attn.: 1 0
Range: 0/2
Temp °C: 300
Make-up: 5% CH_4/Ar

Comments: TURBOCHROM FILES: 866A *-* + 866B *-*

Run No.	Sample No.	Run No.	Sample No.	Run No.	Sample No.
1	RESC 731:90	28	KE10RB*5 6-21-94		
2	RESC :90	29	HEXANE		
3	INDAH :80	30	PIBLK 731:90		
4	INDBH :80	31	INDAM 80		
5	HEXANE	32	INDBM 80		
6	RESC 731:90	33	CDMHNSS2*BLK VSB 7-1-94 WF 6-23-94		
7	PEM 91	34	*6		
8	AR1660 90	35	HEXANE		
9	AR1221	36	CDMHNSS2*6MS VSB 7-1-94 WF 6-23-94		
10	AR1232	37	HEXANE		
11	AR1242	38	CDMHNSS2*6MSD VSB 7-1-94 WF 6-23-94		
12	AR1248	39	HEXANE		
13	AR1254	40	HEXANE		
14	TOXAPH 90	41	PIBLK 731:90		
15	INPAL 80	42	PEM 91		
16	INDBL	43	HEXANE		
17	INDAM	44	GPC*AS2000*BLK 6-28-94		
18	INDBM	45	*MATRIX SPK		
19	INDAH	46	*ARIW SPK		
20	INDBH 80	47	PIBLK 731:90		
21	PIBLK 90	48	INDAM 80		
22	PEM 731:91	49	INDBM 80		
23	KE10RB*BLK PESD 6-21-94				
24	*3				
25	*3MS				
26	*3MSD				
27	*4				

FORM 87303

9513356.0388

Metals

1. COVER PAGE AND CASE NARRATIVE

U. S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

SOW No. 3/90

EPA Sample No.	Lab Sample ID
A03-1-05	CDMHNSS2*6
A03-1-05MS	SPM1*CDMHNSS2*
A03-1-05MSD	SPM2*CDMHNSS2*

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes, were raw data generated before application of background corrections? Yes/No NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name:

Date: Title:

U. S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

SOW No. 3/90

EPA Sample No.	Lab Sample ID
A03-1-05	CDMHNSS2*6
A03-1-05	SPM1*CDMHNSS2*
A03-1-05MSD	SPM2*CDMHNSS2*

Were ICP interelement corrections applied? Yes/No

Were ICP background corrections applied? Yes/No
If yes, were raw data generated before application of background corrections? Yes/No

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name:

Date: Title:

U. S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: ESE Contract: G50435

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50435

SOW No. 3/90

EPA Sample No.	Lab Sample ID
A03-1-05	CDMHNSS2*6
A03-1-05MS	SPM1*CDMHNSS2*
A03-1-05MSD	SPM2*CDMHNSS2*

Were ICP interelement corrections applied? Yes/No

Were ICP background corrections applied? Yes/No
If yes, were raw data generated before application of background corrections? Yes/No

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name:

Date: Title:

U. S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

SOW No. 3/90

EPA Sample No.	Lab Sample ID
A03-1-05	CDMHNSS2*6
A03-1-05MS	SPM1*CDMHNSS2*
A03-1-05MSD	SPM2*CDMHNSS2*

Were ICP interelement corrections applied? Yes/No

Were ICP background corrections applied? Yes/No
If yes, were raw data generated before application of background corrections? Yes/No

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name:

Date: Title:

9513556.0391

2. DATA SUMMARY (Form 1)

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A03-1-05

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG No.: G50429

Matrix (soil/water): SOIL Lab Sample ID: CDMHNSS2*6

Level (low/med): Date Received: 06/21/94

% Solids: 98.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium	61.10			P
7440-41-7	Beryllium				
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	6.13			P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	10.10	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver	0.50	U		P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

FORM I - IN

3/90

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A03-1-05

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG No.: G50429

Matrix (soil/water): SOIL Lab Sample ID: CDMHNSS2*6

Level (low/med): Date Received: 06/21/94

% Solids: 98.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	1.15		N	F
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead				
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

FORM I - IN

3/90

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A03-1-05

Lab Name: ESE Contract: G50435

Lab Code: ESE Case No.: SAS No.: SDG No.: G50435

Matrix (soil/water): SOIL Lab Sample ID: CDMHNSS2*6

Level (low/med): LOW Date Received: 06/21/94

% Solids: 98.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium	0.25	U		NR
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead				
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	0.25	U		F
7440-22-4	Silver				
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

FORM I - IN

3/90

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A03-1-05

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG No.: G50429

Matrix (soil/water): SOIL Lab Sample ID: CDMHNSS2*6

Level (low/med): LOW Date Received: 06/21/94

% Solids: 98.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead				
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

FORM I - IN

3/90

3. **QC SUMMARY** (FORM 2-14)

95133356.0394

ICAP Metals

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Initial Calibration Source: SPEX

Continuing Calibration Source: ESE

Concentration Units: UG/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium				1.0	1.01	101.0			P
Beryllium									
Cadmium				1.0	1.00	100.0			P
Calcium									
Chromium				1.0	1.00	100.0			P
Cobalt									
Copper									
Iron									
Lead				1.0	1.01	101.0			P
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver				1.0			1.02	102.0	P
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Initial Calibration Source: SPEX

Continuing Calibration Source: ESE

Concentration Units: UG/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									P
Beryllium									
Cadmium	1.0	1.02	102.0						P
Calcium									
Chromium	1.0	1.02	102.0						P
Cobalt									
Copper									
Iron									
Lead	1.0	1.00	100.0						P
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									P
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Initial Calibration Source: SPEX

Continuing Calibration Source: ESE

Concentration Units: UG/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium	1.0	1.02	102.0	0.5	0.50	100.0			P
Beryllium									
Cadmium				0.5	0.51	102.0			P
Calcium									
Chromium				0.5	0.50	100.0			P
Cobalt									
Copper									
Iron									
Lead				0.5	0.49	98.0			P
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver	1.0	1.04	104.0	0.5	0.52	104.0			P
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

3
BLANKS

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
ium			0.0	U					0.020	U	P
yllium											
dmium			0.0	U					0.005	U	P
Calcium											
Chromium			0.0	U					0.010	U	P
Cobalt											
Copper											
Iron											
Lead			0.1	U					0.100	U	P
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver			0.0						0.000		P
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

FORM III - IN

3/90

U.S. EPA - CLP

3
BLANKS

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium									1.970	U	P
Beryllium											
Cadmium									0.493	U	P
Calcium											
Chromium									0.985	U	P
Cobalt											
Copper											
Iron											
Lead									9.852	U	P
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver									0.000		P
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD A03-1-05MS

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Matrix (soil/water): SOIL Level (low/med):

% Solids for Sample: 98.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony									
Arsenic									
Barium	75-125	253.9383		61.0956		193.57	99.6		P
B llium									
C ium	75-125	4.8577		0.0000		4.84	100.4		P
C cium									
C omium	75-125	23.8173		6.1349		19.36	91.3		P
Cobalt									
Copper									
Iron									
Lead	75-125	51.7102		0.0000		48.39	106.9		P
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver	75-125	4.8839		0.0000		4.84	100.9		P
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

Comments:

FORM V (Part 1) - IN

3/90

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD A03-1-05MSD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Matrix (soil/water): SOIL Level (low/med):

% Solids for Sample: 98.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony									
Arsenic									
Barium	75-125	255.8558		61.0956		193.59	100.6		P
Beryllium									
Cadmium	75-125	4.9046		0.0000		4.84	101.3		P
Calcium									
Chromium	75-125	23.5214		6.1349		19.36	89.8		P
Cobalt									
Copper									
Iron									
Lead	75-125	50.2806		0.0000		48.40	103.9		P
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver	75-125	4.7595		0.0000		4.84	98.3		P
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

Comments:

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Solid LCS Source: ERA

Aqueous LCS Source:

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium				198.5	193.2		0.0	0.0	97.3
Beryllium									
Cadmium				5.0	4.9		80.0	108.0	98.0
Calcium									
omium				19.9	19.6		79.0	109.0	98.5
alt									
pper									
Iron									
Lead				49.6	48.0		79.0	109.0	96.8
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver				5.0	4.9		73.0	107.0	98.0
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

ICP ID Number: JA61 Date: 08/15/94

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum					
Antimony					
Arsenic					
Barium	493.40		0	2.0	P
Beryllium					
Cadmium	228.80		0	0.5	P
Calcium					
Chromium	267.70		0	1.0	P
Cobalt					
Copper					
Iron					
Lead	220.30		0	10.0	P
Magnesium					
Manganese					
Mercury					
Nickel					
Potassium					
Selenium					
Silver	220.30		0	0.0	P
Sodium					
Thallium					
Vanadium					
Zinc					

Comments:

FORM X - IN

3/90

ENVIROFORMS/INORGANIC CLP

11A

ICP INTERELEMENT CORRECTION FACTORS (Annually)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 01/19/94

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	MN
Aluminum	308.20					
Antimony	206.80					
Arsenic	193.60	0.0091340		0.0003720		
Barium	493.40					
Beryllium	313.00					
Cadmium	228.80					
[illegible]cium	317.90					-0.0018800
[illegible]omium	267.70					
[illegible]balt	228.60			0.0000710		
Copper	324.70					
Iron	259.90					
Lead	220.30	0.0020210				-0.0022420
Magnesium	279.00			0.0002940		-0.0052840
Manganese	257.60	0.0000240	0.0000150	0.0000580	0.0000380	
Mercury						
Nickel	231.60					
Potassium	766.40					
Selenium	196.00	0.0038590		0.0023470	0.0006650	0.0023000
Silver	328.00					0.0001790
Sodium	589.00					
Thallium	190.80	-0.0001690		0.0004090	0.0003700	-0.0108300
Vanadium	292.40			0.0001780		
Zinc	213.80			0.0000850	0.0000400	
Cyanide						

C[illegible]ents:

ENVIROFORMS/INORGANIC CLP

11B

ICP INTERELEMENT CORRECTION FACTORS (Annually)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 01/19/94

Analyte	Wave-length (nm)	Interelement Correction Factors for: BA	BE	CD	CO	CR
Aluminum	308.20				-0.0145850	
Antimony	206.80				-0.0035060	0.0117370
Arsenic	193.60					
Barium	493.40					
Beryllium	313.00					
Cadmium	228.80		0.0042080			
Calcium	317.90					
Chromium	267.70		0.0002570			
Cobalt	228.60	0.0008820		0.0006270		0.0003870
Copper	324.70					
Iron	259.90		0.0007080			
Lead	220.30					
Magnesium	279.00				-0.0017760	-0.0012550
Manganese	257.60		0.0001130			
Mercury						
Nickel	231.60				0.0006390	
Potassium	766.40					
Selenium	196.00		0.0020100		0.0030620	0.0015230
Silver	328.00					
Sodium	589.00					
Thallium	190.80					
Vanadium	292.40					0.0003190
Zinc	213.80					
Cyanide						

Comments:

ENVIROFORMS/INORGANIC CLP

11B

ICP INTERELEMENT CORRECTION FACTORS (Annually)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 01/19/94

Analyte	Wave-length (nm)	Interelement Correction Factors for: CU	MO	NI	PB	V
Aluminum	308.20		0.0135050			0.0041440
Antimony	206.80		0.0059640	-0.0081770		-0.0033430
Arsenic	193.60		0.0015360			0.0102360
Barium	493.40					
Beryllium	313.00					0.0042470
Cadmium	228.80			-0.0002510		
Calcium	317.90					
Chromium	267.70		-0.0029540			0.0006160
Cobalt	228.60			0.0004180		
Copper	324.70		0.0007150			
Iron	259.90					
Lead	220.30		0.0016320			-0.0010490
Magnesium	279.00		-0.0110400	-0.0015080		
Manganese	257.60			0.0001570		
Mercury						
Nickel	231.60		-0.0004060			
Potassium	766.40					
Selenium	196.00		0.0024970	0.0015040		0.0020000
Silver	328.00					-0.0014600
Sodium	589.00					
Thallium	190.80					
Vanadium	292.40		0.0011430			
Zinc	213.80	0.0027620	-0.0004980	0.0032420		
Cyanide						

ments:

ENVIROFORMS/INORGANIC CLP

11B

ICP INTERELEMENT CORRECTION FACTORS (Annually)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 01/19/94

Analyte	Wave-length (nm)	Interelement Correction Factors for: AS	SN	TI	TL	ZN
Aluminum	308.20					
Antimony	206.80		0.0048600	0.0017150		
Arsenic	193.60					
Barium	493.40					
Beryllium	313.00					
Cadmium	228.80	0.0087800				
Calcium	317.90			-0.0012870		
Chromium	267.70			0.0001450		
Cobalt	228.60			0.0015940		
Copper	324.70			0.0003030		
Iron	259.90					
Lead	220.30					
Magnesium	279.00					
Manganese	257.60					
Mercury						
Nickel	231.60				0.0002880	
Potassium	766.40					
Selenium	196.00			0.0012360		0.0016530
Silver	328.00			-0.0002010		
Sodium	589.00					
Thallium	190.80					
Vanadium	292.40			0.0005860		
Zinc	213.80					
Cyanide						

Comments:

U.S. EPA - CLP

12
ICP Linear Ranges (Quarterly)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

ICP ID Number: JA61 Date:

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Aluminum			
Antimony			
Arsenic			
Barium		100000.0	P
Beryllium			
Cadmium		100000.0	P
Calcium			
Chromium		100000.0	P
Cobalt			
Copper			
Iron			
Lead		100000.0	P
Magnesium			
Manganese			
Mercury			
Nickel			
Potassium			
Selenium			
Silver			
Sodium			
Thallium			
Vanadium			
Zinc			

Comments:

U.S. EPA - CLP

13
PREPARATION LOG

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Method: P

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
A03-1-	06/21/94	1.01	100
A03-1-S	06/21/94	1.05	100
A03-1-S	06/21/94	1.05	100
LCSS	06/21/94	1.01	100
PBS	06/21/94	1.00	1
PBS	06/21/94	1.02	100

FORM XIII - IN

3/90

U.S. EPA - CLP

13
PREPARATION LOG

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Method: P

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
A03-1-	06/21/94	1.01	100
A03-1-S	06/21/94	1.05	100
A03-1-S	06/21/94	1.05	100
LCSS	06/21/94	1.01	100
PBS	06/21/94	1.00	1
PBS	06/21/94	1.02	100

FORM XIII - IN

3/90

U.S. EPA - CLP

14

ANALYSIS RUN LOG

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Instrument ID Number: JA61 Method: P

Start Date: 06/22/94 End Date: 06/22/94

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCV	1.00	1514					X		X		X				X												
ICV	1.00	1520							X		X				X												
ICV	1.00	1522					X																				
ICSAB	1.00	1526					X		X		X				X												
PBS	1.00	1535					X		X		X				X												
PBS	1.00	1537					X		X		X				X												
LCSS	1.00	1539					X		X		X				X												
A03-1-	1.00	1542					X		X		X				X												
A03-1-L	5.00	1546					X		X		X				X												
A03-1-A	2.00	1548					X		X		X				X												
A03-1-S	1.00	1551					X		X		X				X												
A03-1-S	1.00	1553					X		X		X				X												
ICSAB	1.00	1601					X		X		X				X												
CCV	1.00	1605					X		X		X				X												
CCB	1.00	1610					X		X		X				X												
	10.00						X		X		X				X												
	10.00						X		X		X				X												
	10.00						X		X		X				X												

FORM XIV - IN

3/90

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Instrument ID Number: Method: P

Start Date: 06/22/94 End Date: 06/22/94

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCV	1.00	1517																				X					
ICV	1.00	1522																				X					
ICSAB	1.00	1526																				X					
PBS	1.00	1535																				X					
PBS	1.00	1537																				X					
LCSS	1.00	1539																				X					
A[illegible] 1-	1.00	1542																				X					
A[illegible] 1-L	5.00	1546																				X					
[illegible]-1-A	2.00	1548																				X					
[illegible]-1-S	1.00	1551																				X					
A03-1-S	1.00	1553																				X					
ICSAB	1.00	1601																				X					
CCV	1.00	1605																				X					
CCB	1.00	1610																				X					
	10.00																					X					
	10.00																					X					
	10.00																					X					
	10.00																					X					

FORM XIV - IN

3/90

GFAA Metals – Arsenic

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Initial Calibration Source: PE-PURE

Continuing Calibration Source: ESE

Concentration Units: UG/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									
Antimony									
Arsenic	50.0	50.60	101.2	50.0	51.90	103.8			F
Barium									
[illegible]llium									
[illegible]ium									
[illegible]cium									
[illegible]omium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

3
BLANKS

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic			0.0	U					0.000	U	F
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

3
BLANKS

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
enic									0.000		F
ium											
eryllium											
dmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD A03-1-05MS

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Matrix (soil/water): SOIL Level (low/med):

% Solids for Sample: 98.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony									
Arsenic	75-125	3.8888		1.1488		3.91	70.1	N	F
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

Comments:

FORM V (Part 1) - IN

3/90

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD A03-1-B5MSD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Matrix (soil/water): SOIL Level (low/med):

% Solids for Sample: 98.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony									
Arsenic	75-125	4.1213		1.1488		3.91	76.0		F
Barium									
[illegible]llium									
[illegible]ium									
[illegible]lcium									
[illegible]romium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

Comments:

FORM V (Part 1) - IN

3/90

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Solid LCS Source: ESE

Aqueous LCS Source:

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic				3.9	4.2		80.0	122.0	107.7
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

ENVIROFORMS/INORGANIC CLP

11A
ICP INTERELEMENT CORRECTION FACTORS (Annually)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 01/19/94

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	MN
Aluminum	308.20					
Antimony	206.80					
Arsenic	193.60	0.0091340		0.0003720		
Barium	493.40					
Beryllium	313.00					
imium	228.80					
.cium	317.90					-0.0018800
hromium	267.70					
obalt	228.60			0.0000710		
Copper	324.70					
Iron	259.90					
Lead	220.30	0.0020210				-0.0022420
Magnesium	279.00			0.0002940		-0.0052840
Manganese	257.60	0.0000240	0.0000150	0.0000580	0.0000380	
Mercury						
Nickel	231.60					
Potassium	766.40					
Selenium	196.00	0.0038590		0.0023470	0.0006650	0.0023000
Silver	328.00					0.0001790
Sodium	589.00					
Thallium	190.80	-0.0001690		0.0004090	0.0003700	-0.0108300
Vanadium	292.40			0.0001780		
Zinc	213.80			0.0000850	0.0000400	
Cyanide						

C ıents:

ENVIROFORMS/INORGANIC CLP

11B

ICP INTERELEMENT CORRECTION FACTORS (Annually)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 01/19/94

Analyte	Wave-length (nm)	Interelement Correction Factors for: BA	BE	CD	CO	CR
Aluminum	308.20				-0.0145850	
Antimony	206.80				-0.0035060	0.0117370
Arsenic	193.60					
Barium	493.40					
Beryllium	313.00					
Cadmium	228.80		0.0042080			
Calcium	317.90					
Chromium	267.70		0.0002570			
Cobalt	228.60	0.0008820		0.0006270		0.0003870
Copper	324.70					
Iron	259.90		0.0007080			
Lead	220.30					
Magnesium	279.00				-0.0017760	-0.0012550
Manganese	257.60		0.0001130			
Mercury						
Nickel	231.60				0.0006390	
Potassium	766.40					
Selenium	196.00		0.0020100		0.0030620	0.0015230
Silver	328.00					
Sodium	589.00					
Thallium	190.80					
Vanadium	292.40					0.0003190
Zinc	213.80					
Cyanide						

Comments:

ENVIROFORMS/INORGANIC CLP

11B

ICP INTERELEMENT CORRECTION FACTORS (Annually)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 01/19/94

Analyte	Wave-length (nm)	Interelement Correction Factors for: CU	MO	NI	PB	V
Aluminum	308.20		0.0135050			0.0041440
Antimony	206.80		0.0059640	-0.0081770		-0.0033430
Arsenic	193.60		0.0015360			0.0102360
Barium	493.40					
Beryllium	313.00					0.0042470
admium	228.80			-0.0002510		
alcium	317.90					
Chromium	267.70		-0.0029540			0.0006160
Cobalt	228.60			0.0004180		
Copper	324.70		0.0007150			
Iron	259.90					
Lead	220.30		0.0016320			-0.0010490
Magnesium	279.00		-0.0110400	-0.0015080		
Manganese	257.60			0.0001570		
Mercury						
Nickel	231.60		-0.0004060			
Potassium	766.40					
Selenium	196.00		0.0024970	0.0015040		0.0020000
Silver	328.00					-0.0014600
Sodium	589.00					
Thallium	190.80					
Vanadium	292.40		0.0011430			
Zinc	213.80	0.0027620	-0.0004980	0.0032420		
Cyanide						

mments:

ENVIROFORMS/INORGANIC CLP

11B

ICP INTERELEMENT CORRECTION FACTORS (Annually)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 01/19/94

Analyte	Wave-length (nm)	Interelement Correction Factors for: AS	SN	TI	TL	ZN
Aluminum	308.20					
Antimony	206.80		0.0048600	0.0017150		
Arsenic	193.60					
Barium	493.40					
Beryllium	313.00					
Cadmium	228.80	0.0087800				
Calcium	317.90			-0.0012870		
Chromium	267.70			0.0001450		
Cobalt	228.60			0.0015940		
Copper	324.70			0.0003030		
Iron	259.90					
Lead	220.30					
Magnesium	279.00					
Manganese	257.60					
Mercury						
Nickel	231.60				0.0002880	
Potassium	766.40					
Selenium	196.00			0.0012360		0.0016530
Silver	328.00			-0.0002010		
Sodium	589.00					
Thallium	190.80					
Vanadium	292.40			0.0005860		
Zinc	213.80					
Cyanide						

Comments:

ENVIROFORMS/INORGANIC CLP

12
ICP LINEAR RANGES (QUARTERLY)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 04/18/94

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Aluminum	5.00	1000000.0	P
Antimony	5.00	100000.0	P
Arsenic	5.00	100000.0	P
Barium	5.00	100000.0	P
Beryllium	5.00	100000.0	P
Cadmium	5.00	100000.0	P
Calcium	5.00	1000000.0	P
Chromium	5.00	100000.0	P
Cobalt	5.00	100000.0	P
Copper	5.00	100000.0	P
Iron	5.00	1000000.0	P
Lead	5.00	100000.0	P
Magnesium	5.00	1000000.0	P
Manganese	5.00	100000.0	P
Nickel	5.00	100000.0	P
Potassium	5.00	1000000.0	P
Selenium	5.00	100000.0	P
Silver	5.00	100000.0	P
Sodium	5.00	500000.0	P
Thallium	5.00	100000.0	P
Vanadium	5.00	100000.0	P
Zinc	5.00	100000.0	P

Comments:

U.S. EPA - CLP

13
PREPARATION LOG

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Method: F

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
A03-1-	06/21/94	1.01	0
A03-1-S	06/21/94	1.04	0
A03-1-S	06/21/94	1.04	0
LCSS	06/21/94	1.02	0
PBS	06/21/94	1.00	1
PBS	06/21/94	1.02	0

FORM XIII - IN

3/90

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Instrument ID Number: Method: F

Start Date: 06/22/94 End Date: 06/22/94

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ICV	1.00	1412				X																					
PBS	1.00	1422				X																					
PBS	1.00	1426				X																					
LCSS	1.00	1435				X																					
A03-1-	1.00	1440				X																					
A03-1-S	1.00	1445				X																					
A03-1-S	1.00	1449				X																					
-1-A	2.00	1455				X																					
	1.00	1500				X																					
B	1.00	1504				X																					

FORM XIV - IN

3/90

GFAA Metals – Selenium

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ESE Contract: G50435

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50435

Initial Calibration Source: PE-PURE

Continuing Calibration Source: ESE

Concentration Units: UG/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium	25.0	26.90	107.6	50.0	48.10	96.2			NR
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium	25.0	26.90	107.6	50.0	48.10	96.2			F
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

3
BLANKS

Lab Name: ESE Contract: G50435

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50435

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium			0.0	U					1.400		NR
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium			0.0	U					1.400		F
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

3
BLANKS

Lab Name: ESE Contract: G50435

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50435

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium									0.000		NR
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium									0.000		F
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

Lab Name: ESE Contract: G50435 A03-1-05MS

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50435

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

% Solids for Sample: 98.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium	75-125	0.8305		0.0000		0.98	84.7		NR
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium	75-125	0.8305		0.0000		0.98	84.7		F
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

Comments:

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

Lab Name: ESE Contract: G50435 A03-1-05MSD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50435

Matrix (soil/water): SOIL Level (low/med):

% Solids for Sample: 98.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium	75-125	1.0547		0.0000		0.98	107.6		NR
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium	75-125	1.0547		0.0000		0.98	107.6		F
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

Comments:

FORM V (Part 1) - IN

3/90

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: ESE Contract: G50435

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50435

Solid LCS Source: ESE

Aqueous LCS Source:

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium				1.0	1.0		75.0	123.0	100.0
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium				1.0	1.0		75.0	123.0	100.0
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

ENVIROFORMS/INORGANIC CLP

11A

ICP INTERELEMENT CORRECTION FACTORS (Annually)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 01/19/94

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	MN
Aluminum	308.20					
Antimony	206.80					
Arsenic	193.60	0.0091340		0.0003720		
Barium	493.40					
Beryllium	313.00					
Cadmium	228.80					
Calcium	317.90					-0.0018800
Chromium	267.70					
Cobalt	228.60			0.0000710		
Copper	324.70					
Iron	259.90					
Lead	220.30	0.0020210				-0.0022420
Magnesium	279.00			0.0002940		-0.0052840
Manganese	257.60	0.0000240	0.0000150	0.0000580	0.0000380	
Mercury						
Nickel	231.60					
Potassium	766.40					
Selenium	196.00	0.0038590		0.0023470	0.0006650	0.0023000
Silver	328.00					0.0001790
Sodium	589.00					
Thallium	190.80	-0.0001690		0.0004090	0.0003700	-0.0108300
Vanadium	292.40			0.0001780		
Zinc	213.80			0.0000850	0.0000400	
Cyanide						

Comments:

ENVIROFORMS/INORGANIC CLP

11B

ICP INTERELEMENT CORRECTION FACTORS (Annually)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 01/19/94

Analyte	Wave-length (nm)	Interelement Correction Factors for: BA	BE	CD	CO	CR
Aluminum	308.20				-0.0145850	
Antimony	206.80				-0.0035060	0.0117370
Arsenic	193.60					
Barium	493.40					
Beryllium	313.00					
Cadmium	228.80		0.0042080			
Calcium	317.90					
Chromium	267.70		0.0002570			
Cobalt	228.60	0.0008820		0.0006270		0.0003870
Copper	324.70					
Iron	259.90		0.0007080			
Lead	220.30					
Magnesium	279.00				-0.0017760	-0.0012550
Manganese	257.60		0.0001130			
Mercury						
Nickel	231.60				0.0006390	
Potassium	766.40					
Selenium	196.00		0.0020100		0.0030620	0.0015230
Silver	328.00					
Sodium	589.00					
Thallium	190.80					
Vanadium	292.40					0.0003190
Zinc	213.80					
Cyanide						

Comments:

ENVIROFORMS/INORGANIC CLP

11B

ICP INTERELEMENT CORRECTION FACTORS (Annually)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 01/19/94

Analyte	Wave-length (nm)	Interelement Correction Factors for: CU	MO	NI	PB	V
Aluminum	308.20		0.0135050			0.0041440
Antimony	206.80		0.0059640	-0.0081770		-0.0033430
Arsenic	193.60		0.0015360			0.0102360
Barium	493.40					
Beryllium	313.00					0.0042470
Cadmium	228.80			-0.0002510		
Calcium	317.90					
Chromium	267.70		-0.0029540			0.0006160
Cobalt	228.60			0.0004180		
Copper	324.70		0.0007150			
Iron	259.90					
Lead	220.30		0.0016320			-0.0010490
Magnesium	279.00		-0.0110400	-0.0015080		
Manganese	257.60			0.0001570		
Mercury						
Nickel	231.60		-0.0004060			
Potassium	766.40					
Selenium	196.00		0.0024970	0.0015040		0.0020000
Silver	328.00					-0.0014600
Sodium	589.00					
Thallium	190.80					
Vanadium	292.40		0.0011430			
Zinc	213.80	0.0027620	-0.0004980	0.0032420		
Cyanide						

Comments:

ENVIROFORMS/INORGANIC CLP

11B

ICP INTERELEMENT CORRECTION FACTORS (Annually)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 01/19/94

Analyte	Wave-length (nm)	Interelement Correction Factors for: AS	SN	TI	TL	ZN
Aluminum	308.20					
Antimony	206.80		0.0048600	0.0017150		
Arsenic	193.60					
Barium	493.40					
Beryllium	313.00					
Cadmium	228.80	0.0087800				
Calcium	317.90			-0.0012870		
Chromium	267.70			0.0001450		
Cobalt	228.60			0.0015940		
Copper	324.70			0.0003030		
Iron	259.90					
Lead	220.30					
Magnesium	279.00					
Manganese	257.60					
Mercury						
Nickel	231.60				0.0002880	
Potassium	766.40					
Selenium	196.00			0.0012360		0.0016530
Silver	328.00			-0.0002010		
Sodium	589.00					
Thallium	190.80					
Vanadium	292.40			0.0005860		
Zinc	213.80					
Cyanide						

Comments:

ENVIROFORMS/INORGANIC CLP

12
ICP LINEAR RANGES (QUARTERLY)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 04/18/94

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Aluminum	5.00	1000000.0	P
Antimony	5.00	100000.0	P
Arsenic	5.00	100000.0	P
Barium	5.00	100000.0	P
Beryllium	5.00	100000.0	P
Cadmium	5.00	100000.0	P
Calcium	5.00	1000000.0	P
Chromium	5.00	100000.0	P
Cobalt	5.00	100000.0	P
Copper	5.00	100000.0	P
Iron	5.00	1000000.0	P
Lead	5.00	100000.0	P
Magnesium	5.00	1000000.0	P
Manganese	5.00	100000.0	P
Nickel	5.00	100000.0	P
Potassium	5.00	1000000.0	P
Selenium	5.00	100000.0	P
Silver	5.00	100000.0	P
Sodium	5.00	500000.0	P
Thallium	5.00	100000.0	P
Vanadium	5.00	100000.0	P
Zinc	5.00	100000.0	P

Comments:

U.S. EPA - CLP

13
PREPARATION LOG

Lab Name: ESE Contract: G50435

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50435

Method: F

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
A03-1-	06/21/94	1.01	0
A03-1-S	06/21/94	1.04	0
A03-1-S	06/21/94	1.04	0
LCSS	06/21/94	1.02	0
PBS	06/21/94	1.00	1
PBS	06/21/94	1.02	0

FORM XIII - IN

3/90

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: ESE | Contract: G50435

Lab Code: ESE | Case No.: | SAS No.: | SDG.No.: G50435

Instrument ID Number: | Method: F

Start Date: 06/22/94 | End Date: 06/22/94

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ICV	1.00	1539																			X						
PBS	1.00	1551																			X						
PBS	1.00	1556																			X						
LCSS	1.00	1602																			X						
A03-1-	1.00	1607																			X						
A03-1-S	1.00	1613																			X						
A03-1-S	1.00	1618																			X						
A03-1-A	2.00	1624																			X						
CCV	1.00	1631																			X						
CCB	1.00	1636																			X						

FORM XIV - IN

3/90

Mercury

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Initial Calibration Source: PE-PURE

Continuing Calibration Source: ESE

Concentration Units: UG/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
dmium									
lcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury	5.0	4.04	80.8	5.0	4.13	82.6			CV
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

3
BLANKS

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury			0.0						0.000		CV
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD A03-1-05MS

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

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

% Solids for Sample: 98.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
admium									
alcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury	75-125	0.7514		0.0000		2.42	31.0	N	CV
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

Comments:

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD A03-1-05MSD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Matrix (soil/water): SOIL Level (low/med):

% Solids for Sample: 98.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury	75-125	0.9807		0.0000		2.50	39.2	N	CV
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

Comments:

FORM V (Part 1) - IN

3/90

U.S. EPA - CLP

7
LABORATORY CONTROL SAMPLE

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Solid LCS Source: ESE

Aqueous LCS Source:

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
hromium									
obalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury				2.4	2.3		0.0	0.0	95.8
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

ENVIROFORMS/INORGANIC CLP

11A

ICP INTERELEMENT CORRECTION FACTORS (Annually)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 01/19/94

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	MN
Aluminum	308.20					
Antimony	206.80					
Arsenic	193.60	0.0091340		0.0003720		
Barium	493.40					
Beryllium	313.00					
Cadmium	228.80					
Calcium	317.90					-0.0018800
Chromium	267.70					
Cobalt	228.60			0.0000710		
Copper	324.70					
Iron	259.90					
Lead	220.30	0.0020210				-0.0022420
Magnesium	279.00			0.0002940		-0.0052840
Manganese	257.60	0.0000240	0.0000150	0.0000580	0.0000380	
Mercury						
Nickel	231.60					
Potassium	766.40					
Selenium	196.00	0.0038590		0.0023470	0.0006650	0.0023000
Silver	328.00					0.0001790
Sodium	589.00					
Thallium	190.80	-0.0001690		0.0004090	0.0003700	-0.0108300
Vanadium	292.40			0.0001780		
Zinc	213.80			0.0000850	0.0000400	
Cyanide						

Comments:

ENVIROFORMS/INORGANIC CLP

11B

ICP INTERELEMENT CORRECTION FACTORS (Annually)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 01/19/94

Analyte	Wave-length (nm)	Interelement Correction Factors for: BA	BE	CD	CO	CR
Aluminum	308.20				-0.0145850	
Antimony	206.80				-0.0035060	0.0117370
Arsenic	193.60					
Barium	493.40					
Beryllium	313.00					
Cadmium	228.80		0.0042080			
Calcium	317.90					
Chromium	267.70		0.0002570			
Cobalt	228.60	0.0008820		0.0006270		0.0003870
Copper	324.70					
Iron	259.90		0.0007080			
Lead	220.30					
Magnesium	279.00				-0.0017760	-0.0012550
Manganese	257.60		0.0001130			
Mercury						
Nickel	231.60				0.0006390	
Potassium	766.40					
Selenium	196.00		0.0020100		0.0030620	0.0015230
Silver	328.00					
Sodium	589.00					
Thallium	190.80					
Vanadium	292.40					0.0003190
Zinc	213.80					
Cyanide						

Comments:

ENVIROFORMS/INORGANIC CLP

11B

ICP INTERELEMENT CORRECTION FACTORS (Annually)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 01/19/94

Analyte	Wave-length (nm)	Interelement Correction Factors for: CU	MO	NI	PB	V
Aluminum	308.20		0.0135050			0.0041440
Antimony	206.80		0.0059640	-0.0081770		-0.0033430
Arsenic	193.60		0.0015360			0.0102360
Barium	493.40					
Beryllium	313.00					0.0042470
Cadmium	228.80			-0.0002510		
Calcium	317.90					
Chromium	267.70		-0.0029540			0.0006160
Cobalt	228.60			0.0004180		
Copper	324.70		0.0007150			
Iron	259.90					
Lead	220.30		0.0016320			-0.0010490
Magnesium	279.00		-0.0110400	-0.0015080		
Manganese	257.60			0.0001570		
Mercury						
Nickel	231.60		-0.0004060			
Potassium	766.40					
Selenium	196.00		0.0024970	0.0015040		0.0020000
Silver	328.00					-0.0014600
Sodium	589.00					
Thallium	190.80					
Vanadium	292.40		0.0011430			
Zinc	213.80	0.0027620	-0.0004980	0.0032420		
Cyanide						

Comments:

ENVIROFORMS/INORGANIC CLP

11B

ICP INTERELEMENT CORRECTION FACTORS (Annually)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 01/19/94

Analyte	Wave-length (nm)	Interelement Correction Factors for: AS	SN	TI	TL	ZN
Aluminum	308.20					
Antimony	206.80		0.0048600	0.0017150		
Arsenic	193.60					
Barium	493.40					
Beryllium	313.00					
Cadmium	228.80	0.0087800				
Calcium	317.90			-0.0012870		
Chromium	267.70			0.0001450		
Cobalt	228.60			0.0015940		
Copper	324.70			0.0003030		
Iron	259.90					
Lead	220.30					
Magnesium	279.00					
Manganese	257.60					
Mercury						
Nickel	231.60				0.0002880	
Potassium	766.40					
Selenium	196.00			0.0012360		0.0016530
Silver	328.00			-0.0002010		
Sodium	589.00					
Thallium	190.80					
Vanadium	292.40			0.0005860		
Zinc	213.80					
Cyanide						

Comments:

ENVIROFORMS/INORGANIC CLP

12

ICP LINEAR RANGES (QUARTERLY)

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANNSL

Lab Code: ESE Case No.: SAS No.: SDG No.: G48756

ICP ID Number: JA61 Date: 04/18/94

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Aluminum	5.00	1000000.0	P
Antimony	5.00	100000.0	P
Arsenic	5.00	100000.0	P
Barium	5.00	100000.0	P
Beryllium	5.00	100000.0	P
Cadmium	5.00	100000.0	P
Calcium	5.00	1000000.0	P
Chromium	5.00	100000.0	P
Cobalt	5.00	100000.0	P
Copper	5.00	100000.0	P
Iron	5.00	1000000.0	P
Lead	5.00	100000.0	P
Magnesium	5.00	1000000.0	P
Manganese	5.00	100000.0	P
Nickel	5.00	100000.0	P
Potassium	5.00	1000000.0	P
Selenium	5.00	100000.0	P
Silver	5.00	100000.0	P
Sodium	5.00	500000.0	P
Thallium	5.00	100000.0	P
Vanadium	5.00	100000.0	P
Zinc	5.00	100000.0	P

Comments:

U.S. EPA - CLP

13
PREPARATION LOG

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Method: CV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
A03-1-	06/22/94	0.21	0
A03-1-S	06/22/94	0.21	0
A03-1-S	06/22/94	0.20	0
LCSS	06/22/94	0.21	0
PBS	06/22/94	0.20	0

FORM XIII - IN

3/90

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: E.S.E. (GAINESVILLE LAB) Contract: CDM-HANFD

Lab Code: ESE Case No.: SAS No.: SDG.No.: G50429

Instrument ID Number: Method: CV

Start Date: 06/22/94 End Date: 06/22/94

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ICV	1.00	1218																X									
PBS	1.00																	X									
LCSS	1.00																	X									
A03-1-	1.00																	X									
A03-1-S	1.00																	X									
A03-1-S	1.00																	X									
CCV	1.00	1225																X									
CCB	1.00																	X									

FORM XIV - IN

3/90

9513356.0424

4. INSTRUMENT RAW DATA

ICAP Metals

(2)

BK# 3 PG# 000010

JA 61 ICAP

Instrument Log

Analyst: Gary Price Date: 6/22/94

PROFILING	Initial	Final
Time		
Temp	76°F	
Humidity	72%	
Entr. Slit	745	
Ele. Cd		
Argon Tank Level	—	
Argon Regulator (psi)	~80	

Element File Used EJE

File Name 622GP / 622GP2

Method No. 200.7 / SW6010

OPTIMIZATION

Cu/Mn / 244/921 = 1.3507

Coolant flow (LPM) ~15

Coolant mass flow 15.0

Nebulizer flow (LPM) ~0.75

Nebulizer mass flow 0.55

Forward power 1.1 kw

Reflected power ~3w

Peristaltic pump 850

Viewing height 15.5 mm above coil

Y tongue 1 mm above torch

Maintenance/Comments:

Samples Analyzed:

MK1058*1,2 / CDMHN552*6

Read & Understood By: Marlene Banner 6/22/94

(3)

6/22/94
GLP JA61
CDMAN 552 * 6
G 50429

Method: ESE Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Ag3280	328.068	STD4	STD1-Blank	2.07526	-.005257	06/22/94 02:31:00
Al3082	308.215	STD3	STD1-Blank	2.87417	-.109410	06/22/94 02:31:00
As1936	193.696	STD2	STD1-Blank	4.27462	.001425	06/22/94 02:31:00
B_2496	249.678	STD5	STD1-Blank	8.43750	-.002250	06/22/94 02:31:00
Ba4934	493.409	STD2	STD1-Blank	2.93456	-.000391	06/22/94 02:31:00
Be3130	313.042	STD2	STD1-Blank	2.87201	-.004595	06/22/94 02:31:00
Ca	317.933	STD3	STD1-Blank	1.63816	-.007208	06/22/94 02:31:00
Ca	307.603	STD3	STD1-Blank	12.3118	.027907	06/22/94 02:31:00
Cd2288	228.802	STD2	STD1-Blank	3.52680	.000000	06/22/94 02:31:00
Co2286	228.616	STD2	STD1-Blank	3.10250	-.001655	06/22/94 02:31:00
Cr2677	267.716	STD2	STD1-Blank	1.90280	-.002410	06/22/94 02:31:00
Cu3247	324.754	STD2	STD1-Blank	2.03500	-.003256	06/22/94 02:31:00
Fe	259.940	STD3	STD1-Blank	2.99216	-.007979	06/22/94 02:31:00
Fe	271.441	STD3	STD1-Blank	26.7681	-.064243	06/22/94 02:31:00
K_7664	766.491	STD3	STD1-Blank	70.8985	-.600274	06/22/94 02:31:00
Mg2790	279.079	STD3	STD1-Blank	16.6808	-.010009	06/22/94 02:31:00
Mn2576	257.610	STD2	STD1-Blank	2.44725	-.024146	06/22/94 02:31:00
Mo2020	202.030	STD5	STD1-Blank	4.41436	-.000883	06/22/94 02:31:00
Na5889	588.995	STD3	STD1-Blank	3.35218	-.240240	06/22/94 02:31:00
Ni2316	231.604	STD2	STD1-Blank	4.04252	-.004177	06/22/94 02:31:00
Pb2203	220.353	STD2	STD1-Blank	5.42673	-.017727	06/22/94 02:31:00
Sb2068	206.838	STD2	STD1-Blank	8.53836	.002846	06/22/94 02:31:00
Se1960	196.026	STD2	STD1-Blank	5.11287	-.809196	06/22/94 02:31:00
Si2881	288.158	STD5	STD1-Blank	4.69778	-.083620	06/22/94 02:31:00
Sn1899	189.989	STD5	STD1-Blank	6.04294	-.086616	06/22/94 02:31:00
Ti3349	334.941	STD5	STD1-Blank	2.39349	-.000798	06/22/94 02:31:00
Tl1908	190.864	STD2	STD1-Blank	11.5109	.023789	06/22/94 02:31:00
V_2924	292.402	STD2	STD1-Blank	2.66420	.003552	06/22/94 02:31:00
Zn2138	213.856	STD2	STD1-Blank	1.85861	-.003222	06/22/94 02:31:00

Method: ESE Slope = IR/Conc(SIR)

Element	Wavelen	High std	Low std	Slope	BEC	Date Standardized
Ag3280	328.068	STD4	STD1-Blank	.481867	.005257	06/22/94 02:31:00
Al3082	308.215	STD3	STD1-Blank	.347927	.109410	06/22/94 02:31:00
As1936	193.696	STD2	STD1-Blank	.233939	.001425	06/22/94 02:31:00
B_2496	249.678	STD5	STD1-Blank	.118519	.002250	06/22/94 02:31:00
Ba4934	493.409	STD2	STD1-Blank	.340767	.000391	06/22/94 02:31:00
Be3130	313.042	STD2	STD1-Blank	.348188	.004595	06/22/94 02:31:00
Ca	317.933	STD3	STD1-Blank	.610440	.007208	06/22/94 02:31:00
Ca	307.603	STD3	STD1-Blank	.081223	.027907	06/22/94 02:31:00
Cd2288	228.802	STD2	STD1-Blank	.283543	.000000	06/22/94 02:31:00
Co2286	228.616	STD2	STD1-Blank	.322321	.001655	06/22/94 02:31:00
Cr2677	267.716	STD2	STD1-Blank	.525541	.002410	06/22/94 02:31:00
Cu3247	324.754	STD2	STD1-Blank	.491400	.003256	06/22/94 02:31:00
Fe	259.940	STD3	STD1-Blank	.334207	.007979	06/22/94 02:31:00
Fe	271.441	STD3	STD1-Blank	.037358	.064243	06/22/94 02:31:00
K_7664	766.491	STD3	STD1-Blank	.014105	.600274	06/22/94 02:31:00
Mg2790	279.079	STD3	STD1-Blank	.059949	.010009	06/22/94 02:31:00
Mn2576	257.610	STD2	STD1-Blank	.408623	.024146	06/22/94 02:31:00
Mo2020	202.030	STD5	STD1-Blank	.226533	.000883	06/22/94 02:31:00
Na5889	588.995	STD3	STD1-Blank	.298313	.240240	06/22/94 02:31:00

Element	Wavelen	High std	Low std	Slope	BEC	Date Standardized
Ni2316	231.604	STD2	STD1-Blank	.247371	.004177	06/22/94 02:31:00
Pb2203	220.353	STD2	STD1-Blank	.184273	.017727	06/22/94 02:31:00
Sb2068	206.838	STD2	STD1-Blank	.117119	.002846	06/22/94 02:31:00
Se1960	196.026	STD2	STD1-Blank	.195585	.809196	06/22/94 02:31:00
Si2881	288.158	STD5	STD1-Blank	.212867	.083620	06/22/94 02:31:00
Sn1899	189.989	STD5	STD1-Blank	.165482	.086616	06/22/94 02:31:00
Ti3349	334.941	STD5	STD1-Blank	.417800	.000798	06/22/94 02:31:00
Tl1908	190.864	STD2	STD1-Blank	.086874	.023789	06/22/94 02:31:00
V_2924	292.402	STD2	STD1-Blank	.375347	.003552	06/22/94 02:31:00
Zn2138	213.856	STD2	STD1-Blank	.538037	.003222	06/22/94 02:31:00

Method: ESE Sample Name: CCV*STD2*1 Operator: GLP
Run Time: 06/22/94 15:14:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0031	.0122	.9944	.0027	1.006	1.003	.0042
SDev	.0023	.0146	.0131	.0010	.013	.011	.0023
%RSD	73.32	120.1	1.315	36.22	1.303	1.140	54.82
#1	-.0052	-.0047	.9846	.0032	1.017	1.011	.0016
#2	-.0035	.0195	.9894	.0016	1.009	1.009	.0052
#3	-.0007	.0217	1.009	.0032	.9912	.9901	.0058

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe	K_7664	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.002	1.002	1.003	1.007	.0011	.4207	.0043
SDev	.008	.007	.006	.013	.0013	.0737	.0101
%RSD	.8167	.6532	.6353	1.248	115.4	17.52	235.2
#1	1.012	1.005	1.007	1.015	-.0003	.3356	.0132
#2	.9975	1.007	1.007	1.012	.0015	.4632	-.0067
#3	.9974	.9950	.9961	.9923	.0021	.4632	.0065

Elem	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.002	.0011	-.0078	1.014	1.006	1.004	.9914
SDev	.007	.0005	.0124	.011	.010	.011	.0120
%RSD	.6667	49.03	159.1	1.133	.9606	1.097	1.210
#1	1.003	.0005	-.0197	1.009	1.003	.9915	1.005
#2	1.008	.0014	-.0089	1.027	1.017	1.009	.9865
#3	.9946	.0013	.0051	1.006	.9961	1.012	.9826

Elem	Si2881	Sn1899	Ti3349	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0072	.0040	.0007	.9900	1.005	1.010
SDev	.0020	.0024	.0006	.0212	.009	.005
%RSD	27.16	59.72	80.01	2.138	.8751	.4964
#1	.0094	.0040	.0004	.9854	1.007	1.011
#2	.0057	.0016	.0013	1.013	1.012	1.014
#3	.0065	.0064	.0004	.9715	.9948	1.004

Method: ESE Sample Name: CCV*STD4*1 Operator: GLP
Run Time: 06/22/94 15:17:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.019	.0169	-.0127	.0028	.0005	-.0002	.0473
SDev	.006	.0041	.0167	.0017	.0005	.0003	.0054
%RSD	.5935	24.38	132.0	60.17	103.9	180.4	11.44
#1	1.012	.0205	.0029	.0045	.0008	-.0000	.0488
#2	1.024	.0124	-.0106	.0011	-.0001	-.0006	.0413
#3	1.020	.0176	-.0303	.0028	.0008	.0000	.0518

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe	K_7664	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0029	.0008	.0009	.0020	.0024	.4916	-.0022
SDev	.0025	.0033	.0035	.0014	.0021	.5160	.0127
%RSD	84.15	398.0	393.4	69.29	87.79	105.0	576.8
#1	.0042	.0021	.0025	.0028	.0046	.7752	.0034
#2	.0001	-.0029	-.0032	.0004	.0022	-.1040	-.0167
#3	.0045	.0033	.0033	.0028	.0004	.8035	.0067

Elem	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	.0021	.0087	.0014	-.0076	.0045	.0016
SDev	.0006	.0014	.0085	.0031	.0111	.0119	.0138
%RSD	115.6	65.55	97.71	232.2	145.2	264.5	850.8
#1	.0008	.0018	.0185	.0039	-.0156	-.0006	.0006
#2	-.0002	.0009	.0038	-.0021	-.0123	-.0040	-.0116
#3	.0008	.0035	.0038	.0023	.0050	.0182	.0159

Elem	Si2881	Sn1899	Ti3349	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0182	.0052	.0003	-.0130	-.0016	.0031
SDev	.0011	.0042	.0010	.0106	.0022	.0007
%RSD	6.048	79.71	312.2	80.92	134.5	21.30
#1	.0188	.0028	.0006	-.0222	.0004	.0027
#2	.0188	.0101	-.0008	-.0153	-.0012	.0038
#3	.0169	.0028	.0011	-.0015	-.0039	.0027

Method: ESE Sample Name: ICV*ICAP19*1 Operator: GLP
Run Time: 06/22/94 15:20:00
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0017	.0127	1.022	.0044	.0004	1.015	1.053
SDev	.0014	.0057	.007	.0000	.0004	.003	.009
%RSD	86.81	44.92	.6530	.1954	114.6	.2978	.8826

#1	.0000	.0184	1.019	.0044	.0005	1.018	1.060
#2	-.0025	.0127	1.030	.0044	.0008	1.013	1.057
#3	-.0025	.0070	1.018	.0044	-.0001	1.012	1.043

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe	K_7664	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.019	1.011	1.019	1.007	1.055	.1654	1.006
SDev	.010	.002	.002	.004	.007	.4666	.008
%RSD	.9582	.1832	.2064	.4127	.6323	282.1	.8389
#1	1.025	1.013	1.021	1.010	1.060	.5341	1.015
#2	1.024	1.011	1.019	1.008	1.048	.3214	1.005
#3	1.008	1.009	1.017	1.002	1.058	-.3592	.9983

Elem	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.011	1.013	.0364	1.031	.9988	1.007	1.007
SDev	.002	.004	.0025	.005	.0103	.008	.014
%RSD	.1745	.3479	6.968	.4769	1.035	.7983	1.367
#1	1.013	1.017	.0393	1.025	1.010	1.013	1.020
#2	1.010	1.013	.0353	1.034	.9977	.9975	.9928
#3	1.011	1.010	.0346	1.033	.9891	1.009	1.007

Elem	Si2881	Sn1899	Ti3349	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0631	.0242	.9978	1.019	1.027	1.030
SDev	.0057	.0105	.0032	.019	.004	.003
%RSD	9.057	43.49	.3194	1.849	.4156	.3268
#1	.0659	.0153	.9999	1.015	1.031	1.033
#2	.0565	.0214	.9994	1.003	1.026	1.026
#3	.0668	.0358	.9941	1.040	1.023	1.030

Method: ESE Sample Name: ICV*ICAP7*1 Operator: GLP
Run Time: 06/22/94 15:22:16
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.038	1.026	-.0084	.9928	1.019	.0011	.0116
SDev	.014	.014	.0109	.0211	.014	.0006	.0053
%RSD	1.328	1.345	130.3	2.125	1.387	49.83	45.74
#1	1.054	1.010	.0034	1.014	1.036	.0017	.0059
#2	1.031	1.034	-.0104	.9934	1.014	.0012	.0164
#3	1.030	1.033	-.0182	.9715	1.009	.0006	.0125

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe	K_7664	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0034	.0007	.0022	.0047	.0189	10.50	-.0033
SDev	.0018	.0014	.0004	.0008	.0010	.38	.0067
%RSD	54.90	191.6	17.58	17.85	5.468	3.580	203.3

#1	.0014	-.0001	.0018	.0041	.0201	10.12	-.0100
#2	.0050	.0024	.0026	.0057	.0184	10.87	-.0033
#3	.0037	-.0001	.0022	.0045	.0184	10.52	.0034

Elem	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	.0044	1.037	-.0015	-.0029	-.0035	-.0101
SDev	.0006	.0000	.015	.0027	.0044	.0130	.0006
%RSD	39.21	.0896	1.483	182.2	148.5	372.9	5.547
#1	.0018	.0044	1.055	-.0046	-.0076	-.0177	-.0104
#2	.0018	.0044	1.030	-.0001	.0010	-.0007	-.0095
#3	.0008	.0044	1.027	.0003	-.0022	.0079	-.0105

Elem	Si2881	Sn1899	Ti3349	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5431	.0037	.0021	-.0228	.0002	.0061
SDev	.0348	.0048	.0010	.0252	.0013	.0007
%RSD	6.407	130.9	46.16	110.5	894.4	12.12
#1	.5092	-.0011	.0011	-.0428	.0014	.0053
#2	.5788	.0085	.0030	-.0313	-.0013	.0061
#3	.5412	.0037	.0021	.0055	.0003	.0068

Method: ESE Sample Name: ICS*A*1 Operator: GLP
Run Time: 06/22/94 15:24:40
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0057	519.3	.0293	.0062	.0037	-.0007	482.1
SDev	.0007	3.9	.0205	.0059	.0003	.0003	2.6
%RSD	12.64	.7467	69.94	94.86	7.895	45.07	.5356
#1	-.0053	515.4	.0174	.0128	.0040	-.0005	479.1
#2	-.0053	519.4	.0530	.0046	.0037	-.0005	483.3
#3	-.0065	523.1	.0176	.0013	.0034	-.0011	483.8

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe	K_7664	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0014	-.0045	.0051	.0034	182.9	-.3403	514.2
SDev	.0028	.0010	.0023	.0019	1.4	.3265	3.0
%RSD	200.9	23.03	45.86	56.75	.7700	95.95	.5750
#1	.0013	-.0033	.0056	.0049	181.4	-.2600	511.2
#2	-.0011	-.0053	.0072	.0041	183.3	-.0614	514.2
#3	-.0044	-.0047	.0026	.0012	184.1	-.6995	517.1

Elem	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0084	.0102	.2123	-.0078	-.0212	.0423	.0785
SDev	.0004	.0057	.0042	.0081	.0289	.0289	.0113
%RSD	4.760	56.52	1.972	103.4	136.0	68.30	14.41
#1	.0085	.0105	.2090	-.0042	.0054	.0094	.0674

#2	.0086	.0157	.2170	-.0171	-.0171	.0637	.0781
#3	.0079	.0043	.2110	-.0022	-.0520	.0538	.0901

Elem	Si2881	Sn1899	Ti3349	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0123	.0360	.0040	.1242	-.0058	.0160
SDev	.0077	.0253	.0010	.0179	.0006	.0001
%RSD	62.78	70.28	24.00	14.41	9.479	.4549
#1	-.0207	.0080	.0049	.1123	-.0062	.0160
#2	-.0057	.0573	.0040	.1156	-.0061	.0160
#3	-.0104	.0426	.0030	.1448	-.0052	.0161

Method: ESE Sample Name: ICS*AB*1 Operator: GLP
Run Time: 06/22/94 15:26:56
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.007	520.0	-.0003	.0015	.5001	.4902	481.2
SDev	.007	3.9	.0474	.0026	.0034	.0046	3.0
%RSD	.6938	.7410	14470.	172.6	.6851	.9278	.6281
#1	1.012	520.9	.0162	.0039	.5008	.4920	483.2
#2	.9989	515.7	-.0538	.0019	.4964	.4851	477.7
#3	1.009	523.3	.0366	-.0013	.5032	.4937	482.6

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe	K_7664	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9948	.4495	.4735	.4975	181.9	-.1182	515.1
SDev	.0068	.0024	.0012	.0043	1.3	.5041	3.5
%RSD	.6826	.5366	.2590	.8669	.7076	426.6	.6760
#1	1.002	.4516	.4740	.4982	182.8	.2789	516.3
#2	.9946	.4469	.4721	.4929	180.4	.0520	511.1
#3	.9862	.4498	.4744	.5014	182.3	-.6854	517.8

Elem	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4715	.0091	.2747	.9308	.9338	.0215	.0922
SDev	.0031	.0032	.0169	.0061	.0271	.0380	.0128
%RSD	.6485	34.96	6.161	.6596	2.905	176.8	13.85
#1	.4733	.0126	.2773	.9374	.9651	-.0126	.1061
#2	.4680	.0064	.2901	.9253	.9168	.0147	.0899
#3	.4733	.0082	.2566	.9297	.9195	.0624	.0808

Elem	Si2881	Sn1899	Ti3349	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0016	.0382	.0034	.1548	.4743	.9929
SDev	.0102	.0143	.0005	.0681	.0027	.0067
%RSD	639.7	37.57	14.14	43.97	.5806	.6704
#1	.0097	.0386	.0029	.1111	.4766	.9973
#2	-.0101	.0236	.0034	.1200	.4712	.9852

#3	-.0044	.0523	.0039	.2332	.4750	.9961

Method: ESE Sample Name: MB*REAGENTS*1 Operator: GLP
Run Time: 06/22/94 15:35:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0372	-.0092	.0174	.0002	-.0004	.0678
SDev	.0006	.0086	.0211	.0035	.0003	.0003	.0028
%RSD	78970.	23.13	229.5	20.14	150.0	86.29	4.185
#1	-.0007	.0337	-.0254	.0214	.0002	-.0006	.0695
#2	.0001	.0308	-.0168	.0163	.0005	-.0000	.0695
#3	.0006	.0469	.0147	.0146	-.0001	-.0006	.0645

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe	K_7664	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0002	.0005	.0019	.0331	.4679	.0256
SDev	.0015	.0006	.0010	.0013	.0007	.2207	.0151
%RSD	144.5	303.3	189.0	68.84	2.086	47.17	59.91
#1	.0023	.0008	.0006	.0024	.0327	.6759	.0267
#2	-.0006	.0002	.0014	.0028	.0339	.4916	.0401
#3	.0013	-.0004	-.0005	.0004	.0327	.2363	.0100

Elem	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0009	.4963	-.0030	-.0026	-.0030	-.0105
SDev	.0000	.0018	.0027	.0004	.0154	.0036	.0068
%RSD	.1694	201.3	.5459	13.60	592.2	119.8	64.97
#1	.0003	.0009	.4939	-.0030	.0093	-.0058	-.0087
#2	.0003	.0026	.4993	-.0026	.0028	-.0041	-.0180
#3	.0003	-.0009	.4959	-.0034	-.0200	.0010	-.0047

Elem	Si2881	Sn1899	Ti3349	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0623	.0185	.0005	-.0062	.0005	.0009
SDev	.0033	.0064	.0007	.0069	.0013	.0007
%RSD	5.299	34.49	152.8	112.1	255.7	85.83
#1	.0592	.0210	.0011	-.0062	-.0007	.0016
#2	.0658	.0113	.0006	.0007	.0003	.0001
#3	.0620	.0233	-.0003	-.0131	.0019	.0009

Method: ESE Sample Name: MB*QC*1 Operator: GLP
Run Time: 06/22/94 15:37:25
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.1251	-.0168	.0181	.0008	-.0004	.1182

SDev	.0022	.0238	.0064	.0017	.0006	.0003	.0052
%RSD	783.8	19.05	33.97	9.300	75.00	84.38	4.421
#1	.0014	.1492	-.0242	.0181	.0014	-.0000	.1226
#2	-.0028	.1016	-.0117	.0198	.0002	-.0006	.1124
#3	.0005	.1245	-.0205	.0164	.0008	-.0006	.1196

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe	K_7664	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0016	.0008	.0010	.0041	.8155	.5861	.0856
SDev	.0012	.0006	.0018	.0015	.0120	.2012	.0117
%RSD	79.08	81.02	170.9	36.06	1.473	34.33	13.69
#1	.0009	.0008	.0025	.0037	.8268	.8035	.0967
#2	.0008	.0001	-.0009	.0028	.8167	.4065	.0867
#3	.0030	.0014	.0014	.0057	.8029	.5483	.0734

Elem	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0300	.0029	.4539	.0001	.0063	.0079	-.0019
SDev	.0006	.0018	.0060	.0040	.0059	.0029	.0080
%RSD	1.883	62.77	1.324	2882.	93.62	36.59	431.1
#1	.0306	.0044	.4570	-.0038	.0092	.0112	.0041
#2	.0296	.0009	.4577	-.0001	-.0005	.0062	-.0110
#3	.0296	.0035	.4470	.0043	.0103	.0062	.0012

Elem	Si2881	Sn1899	Ti3349	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2690	.0161	.0034	-.0177	.0006	.0059
SDev	.0141	.0084	.0007	.0166	.0019	.0009
%RSD	5.240	52.56	21.81	93.91	331.0	16.02
#1	.2697	.0245	.0035	-.0223	.0023	.0067
#2	.2828	.0161	.0026	.0007	-.0014	.0049
#3	.2546	.0076	.0040	-.0315	.0007	.0060

Method: ESE Sample Name: SP*QC*1 Operator: GLP
Run Time: 06/22/94 15:39:36
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0498	2.138	1.976	.9889	1.946	.0494	9.930
SDev	.0027	.006	.037	.0061	.006	.0003	.063
%RSD	5.466	.2964	1.865	.6166	.2975	.6444	.6373
#1	.0494	2.139	1.934	.9872	1.949	.0491	9.893
#2	.0473	2.131	1.992	.9838	1.950	.0496	9.895
#3	.0527	2.144	2.002	.9957	1.940	.0496	10.00

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe	K_7664	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0492	.4800	.1972	.2464	1.828	10.52	9.906
SDev	.0015	.0047	.0038	.0019	.006	.06	.034

%RSD	2.979	.9766	1.914	.7607	.3439	.5611	.3418
#1	.0486	.4794	.1946	.2453	1.621	10.47	9.884
#2	.0482	.4757	.1954	.2453	1.827	10.59	9.888
#3	.0509	.4850	.2015	.2486	1.834	10.50	9.945

Elem	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5125	.4856	10.22	.4891	.4835	.4924	1.983
SDev	.0021	.0074	.05	.0144	.0185	.0158	.025
%RSD	.4156	1.526	.4515	2.940	3.826	3.219	1.237
#1	.5110	.4818	10.22	.4730	.4781	.4792	1.971
#2	.5115	.4809	10.27	.5005	.4683	.4880	1.966
#3	.5150	.4941	10.18	.4940	.5041	.5100	2.011

Elem	Si2881	Sn1899	Ti3349	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4448	.9604	.4834	1.952	.4849	.4901
SDev	.0252	.0036	.0003	.049	.0032	.0027
%RSD	5.669	.3778	.0570	2.521	.6697	.5458
#1	.4720	.9568	.4831	1.968	.4813	.4888
#2	.4222	.9604	.4836	1.897	.4856	.4884
#3	.4401	.9640	.4836	1.991	.4877	.4932

Method: ESE Sample Name: CDMHNS52*6 Operator: GLP
Run Time: 06/22/94 15:42:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0023	45.27	.0325	.0311	.6057	.0012	68.68
SDev	.0007	.42	.0075	.0044	.0069	.0003	.59
%RSD	30.85	.9262	22.91	14.07	1.148	26.76	.8632
#1	-.0027	45.51	.0372	.0351	.6100	.0016	68.98
#2	-.0027	45.51	.0364	.0317	.6094	.0010	69.06
#3	-.0015	44.78	.0239	.0264	.5977	.0011	68.00

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe	K_7664	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	.0443	.0608	.0828	154.5	10.40	36.14
SDev	.0006	.0005	.0027	.0010	1.0	.05	.34
%RSD	143.0	1.141	4.510	1.267	.6463	.4914	.9406
#1	.0011	.0446	.0616	.0832	155.1	10.35	36.35
#2	.0004	.0446	.0631	.0836	155.0	10.45	36.33
#3	-.0002	.0437	.0578	.0816	153.3	10.42	35.75

Elem	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.690	.0020	1.532	.0619	.0206	.0131	.0129
SDev	.024	.0049	.015	.0034	.0086	.0065	.0102
%RSD	.9077	242.7	.9551	5.569	41.62	50.11	79.61

#1	2.706	.0064	1.519	.0633	.0107	.0175	.0088
#2	2.702	.0029	1.548	.0580	.0259	.0055	.0245
#3	2.662	-.0033	1.529	.0645	.0251	.0161	.0053

Elem	Si2881	Sn1899	Ti3349	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.684	.0009	8.853	.0400	.2937	1.596
SDev	.004	.0028	.085	.0421	.0014	.012
%RSD	.1329	330.6	.9566	105.1	.4810	.7247
#1	2.682	.0016	8.908	.0253	.2935	1.600
#2	2.688	-.0023	8.895	.0875	.2952	1.604
#3	2.682	.0032	8.755	.0073	.2923	1.583

Method: ESE Sample Name: SD*CDMHNSS*6 Operator: GLP
Run Time: 06/22/94 15:46:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0019	9.151	-.0009	.0095	.1231	-.0002	14.09
SDev	.0026	.078	.0200	.0009	.0010	.0000	.09
%RSD	141.4	.8575	2162.	9.874	.8375	3.308	.6451
#1	-.0003	9.077	.0149	.0101	.1220	-.0003	14.01
#2	-.0003	9.143	.0057	.0101	.1232	-.0002	14.06
#3	-.0049	9.233	-.0234	.0084	.1240	-.0002	14.19

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe	K_7664	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0019	.0073	.0112	.0175	32.26	2.453	7.330
SDev	.0009	.0011	.0018	.0010	.32	.397	.060
%RSD	50.08	15.17	15.99	5.860	.9815	16.20	.8221
#1	.0020	.0080	.0133	.0186	31.97	2.860	7.266
#2	.0028	.0080	.0106	.0166	32.22	2.066	7.336
#3	.0009	.0061	.0099	.0174	32.60	2.434	7.386

Elem	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5516	.0008	.3008	.0127	-.0011	.0056	.0014
SDev	.0041	.0013	.0121	.0071	.0108	.0065	.0079
%RSD	.7507	169.7	4.030	55.90	1019.	116.9	554.2
#1	.5475	.0011	.3135	.0128	.0110	.0085	-.0003
#2	.5514	-.0007	.2894	.0197	-.0097	.0102	.0101
#3	.5558	.0019	.2995	.0055	-.0045	-.0019	-.0055

Elem	Si2881	Sn1899	Ti3349	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5478	.0089	1.801	-.0184	.0585	.3273
SDev	.0068	.0037	.014	.0232	.0019	.0024
%RSD	1.239	41.56	.7853	126.3	3.308	.7235

#1	.5444	.0055	1.790	-.0329	.0603	.3246
#2	.5434	.0129	1.797	-.0306	.0587	.3283
#3	.5556	.0083	1.817	.0084	.0565	.3290

Method: ESE Sample Name: SPX*CDMHNSS2*6 Operator: GLP
Run Time: 06/22/94 15:48:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2557	25.02	.3675	.2620	.5507	.2528	37.07
SDev	.0019	.26	.0138	.0035	.0061	.0025	.26
%RSD	.7313	1.058	3.761	1.329	1.108	.9884	.6961
#1	.2558	24.72	.3602	.2647	.5437	.2499	36.77
#2	.2537	25.20	.3588	.2632	.5542	.2545	37.23
#3	.2575	25.14	.3834	.2581	.5542	.2539	37.21

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe	K_7664	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2512	.2683	.2777	.2902	80.98	7.846	20.58
SDev	.0017	.0037	.0019	.0032	.64	.129	.15
%RSD	.6699	1.363	.6755	1.107	.7957	1.640	.7258
#1	.2494	.2699	.2790	.2866	80.29	7.993	20.41
#2	.2515	.2709	.2786	.2927	81.56	7.794	20.69
#3	.2527	.2641	.2755	.2914	81.09	7.752	20.64

Elem	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.604	.2494	3.272	.2850	.2665	.2581	.3453
SDev	.011	.0031	.023	.0027	.0077	.0181	.0068
%RSD	.6794	1.223	.7126	.9453	2.901	6.998	1.977
#1	1.591	.2458	3.245	.2819	.2754	.2513	.3527
#2	1.611	.2511	3.287	.2863	.2614	.2444	.3393
#3	1.609	.2511	3.283	.2867	.2626	.2786	.3438

Elem	Si2881	Sn1899	Ti3349	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.340	.2582	4.664	.3722	.3949	1.056
SDev	.009	.0074	.048	.0197	.0013	.006
%RSD	.7062	2.851	1.018	5.285	.3207	.5382
#1	1.330	.2660	4.610	.3732	.3935	1.049
#2	1.341	.2513	4.698	.3521	.3959	1.060
#3	1.349	.2572	4.686	.3914	.3954	1.058

Method: ESE Sample Name: SPM1*CDMHNSS2*6 Operator: GLP
Run Time: 06/22/94 15:51:06
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca

Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0505	39.83	2.004	1.001	2.624	.0518	76.86
SDev	.0019	.18	.038	.014	.015	.0003	.51
%RSD	3.773	.4468	1.877	1.423	.5656	.6121	.6583
#1	.0500	39.63	1.963	.9850	2.608	.0514	76.33
#2	.0488	39.97	2.012	1.010	2.638	.0519	76.93
#3	.0525	39.90	2.037	1.009	2.625	.0519	77.33

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe	K_7664	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0502	.5235	.2461	.3455	152.2	19.45	41.07
SDev	.0017	.0052	.0023	.0029	.8	.27	.16
%RSD	3.384	.9830	.9367	.8462	.5449	1.401	.3847
#1	.0498	.5177	.2439	.3431	151.3	19.21	40.89
#2	.0487	.5255	.2458	.3447	152.5	19.41	41.16
#3	.0520	.5274	.2485	.3487	152.9	19.75	41.17

Elem	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.419	.4835	11.53	.5473	.5343	.4809	1.982
SDev	.023	.0064	.06	.0127	.0184	.0158	.012
%RSD	.6684	1.320	.5437	2.312	3.448	3.297	.5852
#1	3.395	.4794	11.46	.5328	.5245	.4734	1.971
#2	3.422	.4803	11.57	.5534	.5228	.4701	1.994
#3	3.440	.4909	11.56	.5558	.5555	.4991	1.982

Elem	Si2881	Sn1899	Ti3349	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.809	.9691	8.409	2.010	.7531	2.476
SDev	.033	.0029	.037	.016	.0041	.016
%RSD	.5594	.2960	.4343	.7988	.5444	.6657
#1	5.776	.9710	8.367	1.993	.7490	2.460
#2	5.811	.9658	8.435	2.025	.7531	2.474
#3	5.841	.9705	8.425	2.011	.7572	2.493

Method: ESE Sample Name: SPM2*CDMHNSS2*6 Operator: GLP
Run Time: 06/22/94 15:53:37
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0492	40.47	1.973	.9852	2.643	.0508	75.63
SDev	.0012	.05	.018	.0035	.006	.0006	.27
%RSD	2.451	.1346	.8933	.3570	.2142	1.104	.3524
#1	.0506	40.52	1.986	.9881	2.648	.0514	75.87
#2	.0485	40.49	1.978	.9813	2.645	.0508	75.67
#3	.0465	40.41	1.953	.9863	2.637	.0502	75.34

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe	K_7664	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm

Avge	.0507	.5146	.2430	.3229	134.4	19.33	41.85
SDev	.0016	.0036	.0023	.0020	.4	.31	.14
%RSD	3.245	.6923	.9419	.6192	.2746	1.598	.3430
#1	.0524	.5173	.2428	.3239	134.7	19.42	41.94
#2	.0504	.5161	.2454	.3243	134.4	19.58	41.93
#3	.0492	.5106	.2409	.3206	134.0	18.98	41.69

Elem	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.038	.4792	11.44	.5372	.5195	.4675	1.985
SDev	.010	.0043	.02	.0048	.0072	.0102	.019
%RSD	.3218	.9070	.1441	.8881	1.382	2.189	.9423
#1	3.047	.4842	11.45	.5360	.5176	.4783	2.004
#2	3.038	.4762	11.44	.5425	.5274	.4579	1.984
#3	3.028	.4771	11.42	.5332	.5134	.4664	1.966

Elem	Si2881	Sn1899	Ti3349	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.799	.9614	8.549	1.967	.7493	2.293
SDev	.013	.0045	.025	.036	.0032	.007
%RSD	.2212	.4665	.2982	1.814	.4238	.3060
#1	5.797	.9637	8.572	2.003	.7528	2.300
#2	5.813	.9563	8.554	1.931	.7486	2.293
#3	5.788	.9643	8.522	1.966	.7466	2.286

Method: ESE Sample Name: ICS*A*2 Operator: GLP
Run Time: 06/22/94 15:58:34
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0061	520.2	.0262	.0064	.0038	-.0007	483.7
SDev	.0023	2.9	.0393	.0034	.0002	.0003	3.4
%RSD	37.97	.5517	150.2	52.05	4.441	45.12	.7028
#1	-.0057	517.1	-.0066	.0097	.0037	-.0011	480.1
#2	-.0040	522.7	.0698	.0066	.0040	-.0006	486.9
#3	-.0086	521.0	.0154	.0030	.0037	-.0005	484.2

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe	K_7664	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	-.0052	.0040	.0031	184.5	-.3072	515.3
SDev	.0008	.0031	.0050	.0008	.8	.1956	3.3
%RSD	305.3	59.76	125.1	27.31	.4440	63.67	.6463
#1	-.0007	-.0085	-.0016	.0041	183.9	-.1607	511.6
#2	.0009	-.0049	.0056	.0028	185.4	-.5294	518.2
#3	.0006	-.0023	.0079	.0024	184.2	-.2316	516.0

Elem	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0092	.0140	.2181	-.0044	-.0020	.0315	.0926

SDev	.0002	.0055	.0131	.0062	.0039	.0085	.0163
%RSD	1.910	39.43	6.010	142.3	197.1	27.02	17.62
#1	.0093	.0095	.2291	-.0115	-.0021	.0315	.0741
#2	.0092	.0201	.2217	-.0006	.0020	.0401	.0990
#3	.0090	.0122	.2036	-.0010	-.0058	.0230	.1048

Elem	Si2881	Sn1899	Ti3349	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0037	.0283	.0059	.1755	-.0072	.0167
SDev	.0132	.0094	.0021	.0406	.0028	.0002
%RSD	357.0	33.26	35.36	23.15	38.94	1.296
#1	-.0104	.0388	.0069	.2081	-.0072	.0165
#2	.0056	.0258	.0073	.1300	-.0044	.0167
#3	.0159	.0204	.0035	.1886	-.0100	.0169

Method: ESE Sample Name: ICS*AB*2 Operator: GLP
Run Time: 06/22/94 16:01:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.006	520.0	.0439	.0016	.4995	.4912	481.4
SDev	.006	4.4	.1384	.0052	.0056	.0046	3.9
%RSD	.5779	.8377	315.2	325.6	1.117	.9432	.8166
#1	1.008	520.4	.0296	.0073	.4997	.4920	482.3
#2	.9994	515.5	-.0867	.0003	.4938	.4862	477.1
#3	1.010	524.2	.1889	-.0028	.5049	.4954	484.8

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe	K_7664	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9834	.4513	.4743	.4960	182.6	-.3120	515.2
SDev	.0027	.0028	.0017	.0045	1.4	.5323	3.6
%RSD	.2745	.6111	.3640	.8993	.7635	170.6	.6971
#1	.9861	.4529	.4760	.4945	183.4	-.4159	515.7
#2	.9807	.4481	.4725	.4925	181.0	.2647	511.3
#3	.9834	.4529	.4744	.5010	183.5	-.7846	518.4

Elem	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4725	.0117	.2648	.9210	.9283	.0322	.1140
SDev	.0036	.0066	.0125	.0113	.0054	.0256	.0295
%RSD	.7541	56.91	4.705	1.229	.5769	79.54	25.89
#1	.4753	.0126	.2733	.9322	.9334	.0471	.0844
#2	.4685	.0046	.2706	.9095	.9227	.0026	.1434
#3	.4736	.0178	.2505	.9212	.9288	.0470	.1141

Elem	Si2881	Sn1899	Ti3349	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0035	.0273	.0034	.1115	.4741	1.001
SDev	.0016	.0063	.0005	.0163	.0026	.005

%RSD	47.37	22.92	14.16	14.61	.5546	.5161
#1	-.0025	.0303	.0029	.1134	.4760	1.005
#2	-.0054	.0201	.0039	.0943	.4711	.9952
#3	-.0025	.0314	.0034	.1268	.4753	1.002

Method: ESE Sample Name: CCV*QC*2 Operator: GLP
Run Time: 06/22/94 16:05:43
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5186	5.078	.7196	.5028	.5013	.5066	5.050
SDev	.0023	.011	.0134	.0017	.0012	.0003	.012
%RSD	.4416	.2251	1.866	.3322	.2366	.0630	.2419
#1	.5160	5.064	.7338	.5028	.5002	.5062	5.042
#2	.5197	5.085	.7181	.5011	.5026	.5068	5.064
#3	.5201	5.083	.7070	.5045	.5011	.5068	5.045

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe	K_7664	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5076	.5003	.5038	.4996	5.098	5.086	5.096
SDev	.0010	.0007	.0041	.0006	.012	.191	.014
%RSD	.2042	.1441	.8168	.1240	.2352	3.751	.2658
#1	.5084	.5011	.5009	.4997	5.086	5.242	5.083
#2	.5065	.4999	.5085	.5001	5.110	5.143	5.110
#3	.5080	.4999	.5020	.4989	5.097	4.873	5.093

Elem	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5015	.5000	5.016	.5089	.4926	.5168	.7206
SDev	.0012	.0041	.015	.0069	.0098	.0161	.0093
%RSD	.2451	.8173	.2905	1.359	1.989	3.115	1.286
#1	.5002	.4976	4.999	.5024	.5021	.5225	.7313
#2	.5027	.5047	5.021	.5162	.4933	.5293	.7157
#3	.5017	.4976	5.027	.5081	.4825	.4987	.7148

Elem	Si2881	Sn1899	Ti3349	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0086	.5013	.4950	.7359	.5010	.5052
SDev	.0076	.0036	.0000	.0233	.0029	.0040
%RSD	88.46	.7240	.0002	3.164	.5846	.7896
#1	.0004	.5049	.4950	.7628	.4977	.5007
#2	.0155	.5013	.4950	.7214	.5030	.5080
#3	.0099	.4977	.4950	.7237	.5025	.5070

Method: ESE Sample Name: CCB*QC*2 Operator: GLP
Run Time: 06/22/94 16:10:19
Comment:

Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0018	.0119	-.0129	.0034	-.0002	-.0004	-.0005
SDev	.0012	.0140	.0075	.0052	.0002	.0003	.0024
%RSD	66.69	118.5	58.16	152.6	86.60	87.33	434.4
#1	-.0011	.0256	-.0210	.0079	-.0001	.0000	.0007
#2	-.0032	-.0025	-.0062	.0045	-.0004	-.0006	.0010
#3	-.0011	.0124	-.0115	-.0022	-.0001	-.0006	-.0033

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe	K_7664	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	-.0010	-.0009	.0015	.0040	.3214	.0011
SDev	.0010	.0011	.0024	.0010	.0021	.2832	.0117
%RSD	100.2	103.7	268.4	68.58	51.96	88.12	1045.
#1	.0009	-.0017	-.0035	.0024	.0052	.4632	-.0100
#2	.0022	.0002	.0010	.0016	.0016	.5057	.0133
#3	.0001	-.0017	-.0001	.0004	.0052	-.0047	-.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0012	.0072	-.0003	-.0040	.0045	-.0150
SDev	.0000	.0020	.0031	.0034	.0134	.0157	.0024
%RSD	.3499	173.6	42.96	1300.	334.2	347.5	16.03
#1	-.0002	.0035	.0105	.0031	.0072	.0182	-.0178
#2	-.0002	.0000	.0065	-.0001	-.0004	-.0126	-.0136
#3	-.0002	-.0000	.0045	-.0038	-.0188	.0080	-.0137

Elem	Si2881	Sn1899	Ti3349	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0141	.0077	.0003	-.0138	-.0016	-.0007
SDev	.0102	.0123	.0010	.0106	.0020	.0008
%RSD	72.25	160.4	312.1	77.01	126.0	102.6
#1	.0225	.0185	.0011	-.0015	-.0007	.0001
#2	.0028	.0101	.0006	-.0200	-.0039	-.0014
#3	.0169	-.0057	-.0008	-.0200	-.0002	-.0010

9513356.0434

GFAA Metals – Arsenic

2

ANT: As METHOD # ASM3233-011 BK# 39 PG# 84 A

ALYST: R. McCurdy EMP. # 3472 DATE: 6/22/94

SAMPLES ANALYZED:

CDMHWSS2 #6

BATCH # G50430

RAM 6/22/94

INSTRUMENT PARAMETERS:

Inst. model	5100-B
Wavelength	195.7
Bandwidth	0.7 L
EDL/HCL#	2858
Energy/Watts	48/9
Power Supply	#2-B
HGA model	HGA-600
Tube type	Pyro/Plat.
Sample aliq.	20 ul
Modifier	500ppm Pd(NO3)2
Modifier aliq.	5 ul
Zeeman type	Longitudinal

STANDARDS:

1000 ppm stock	
Manufacturer	Fisher
Lot number	925266-24
Date received	7/93
Date expires	7/94
Working Standards	
Date prep'ed:	
10 mg/L std.	6/6/94
100 ug/L std.	6/22/94
10 ug/L std.	6/22/94
50 ug/L	6/22/94

CALIBRATION CURVE:

	conc.	abs.
Blank	0	0.003
Std.1	2.5	0.018
Std.2	5	0.029
Std.3	10	0.058
Std.4	25	0.145
Std.5	50	0.267
Std.6	100	0.507
Std.7		
Std.8		
c.c.:	0.99907 Linear	
Det. L	~~2.0~~ ug/L 2.50	

RAM WJ 6/23/94

HGA KEYBOARD ENTRIES:

STEP	1	2	3	4	5
Temp(C)	140	1100	2200	2650	
Ramp (sec)	5	10	0	1	
Hold (sec)	50	20	4	5	
Read Step			#		
Gas (ml/min)	300	300	20	300	

PREVENTATIVE MAINTENANCE/COMMENTS:

READ AND UNDERSTOOD BY: Suzanne T. Osborne 6/23/94

000054

000505

Analyst: R. McCauley Date: 6/22/94 Element As Inst. 5100 B Book 39 Pg: 84 D

Print #	Sample I. D.	Peak Area	Conc. (ppb)	Target (ppb)	Comments
1	Calib. Blank	0.0034	0.6		
2	Standard 1	0.0153	2.7		
3	Standard 2	0.0262	4.3		
4	Standard 3	0.0548	10.1		
5	Standard 4	0.1418	25.9		
6	Standard 5	0.2642	46.8		
7	Standard 6	0.5038	93.8		cc: 0.99907 Linear
8	ICV*SPEX*1	0.2590	50.6	50	101.2%REC
9	MB*REAGENT*1	-0.0029	-0.6		
10	MB*QC*1	0.0000	0	Printer	Jammed. Had to rerun - See #
11	MB*QC*1	-0.0025	-0.5		
12	SP*QC*1	0.2215	43.2	40	108.0%REC
13	CDMHNSS2*6	0.0584	11.4		
14	SPM1*CDMHNSS2*6	0.2039	39.8	40	99.5%REC
15	SPM2*CDMHNSS2*6	0.2160	42.2	40	105.5%REC
16	SPX*CDMHNSS2*6	0.2688	52.5	100	93.6 % Rec. 105 - 11.4 = 93.6
17	CCV*QC*1	0.2658	51.9	50	103.8%REC
18	CCB*QC*1	-0.0025	-0.5		

3

Element File: AS_FURN.GEL Element: As Wavelength: 193.7
Date: 06/22/94 Time: 12:43 Slit: 0.70 L
Data File: A:NI_6_21.DAT ID/Wt File: NI.IDW Lamp Current: 5
Technique: HGA Calib. Type: Linear Energy: 48
Remark 1: CDMHNSS2*6
Remark 2: Analyzed by RICK MCCAULEY
Remark 3: JUNE 22, 1994 Data on RAM 1
Remark 4: 5100-B
Remark 5: Lamp No. 2858 (EDL) Modifier: 500 PPM PD(NO3)2

As ID: Calib. Blank Seq. No.: 00001 A/S Pos.: 36 Date: 06/22/94

Replicate 1 Time: 12:44
Peak Area (A-s): 0.000 Peak Height (A): 0.015
Background Pk Area (A-s): 0.004 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.2

Replicate 2 Time: 12:47
Peak Area (A-s): 0.005 Peak Height (A): 0.021
Background Pk Area (A-s): 0.005 Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.006
Concentration (ug/L): 1.0

Mean Conc (ug/L): 0.6 SD: 0.58 RSD(%): 99.77

Auto-zero performed.

As ID: Standard 1 Seq. No.: 00002 A/S Pos.: 1 Date: 06/22/94

Replicate 1 Time: 12:49
Peak Area (A-s): 0.017 Peak Height (A): 0.043
Background Pk Area (A-s): 0.017 Background Pk Height (A): 0.028
Blank Corrected Pk Area (A-s): 0.014
Concentration (ug/L): 2.5

Replicate 2 Time: 12:52
Peak Area (A-s): 0.019 Peak Height (A): 0.048
Background Pk Area (A-s): 0.019 Background Pk Height (A): 0.024
Blank Corrected Pk Area (A-s): 0.016
Concentration (ug/L): 2.8

Mean Conc (ug/L): 2.7 SD: 0.23 RSD(%): 8.52

Standard number 1 applied. [2.5]
Correlation coefficient: 1.00000 Slope: 0.0061

As ID: Standard 2 Seq. No.: 00003 A/S Pos.: 1 Date: 06/22/94

Replicate 1 Time: 12:55
Peak Area (A-s): 0.025 Peak Height (A): 0.075
Background Pk Area (A-s): 0.020 Background Pk Height (A): 0.026
Blank Corrected Pk Area (A-s): 0.022
Concentration (ug/L): 3.7

Replicate 2 Time: 12:57
Peak Area (A-s): 0.033 Peak Height (A): 0.075
Background Pk Area (A-s): 0.021 Background Pk Height (A): 0.025
Blank Corrected Pk Area (A-s): 0.030
Concentration (ug/L): 4.9

Mean Conc (ug/L): 4.3 SD: 0.88 RSD(%): 20.46

Standard number 2 applied. [5.0]
Correlation coefficient: 0.97848 Slope: 0.0054

As ID: Standard 3 Seq. No.: 00004 A/S Pos.: 1 Date: 06/22/94

Replicate 1 Time: 12:59
Peak Area (A-s): 0.060 Peak Height (A): 0.129
Background Pk Area (A-s): 0.019 Background Pk Height (A): 0.025
Blank Corrected Pk Area (A-s): 0.058
Concentration (ug/L): 10.6

Replicate 2 Time: 13:02
Peak Area (A-s): 0.055 Peak Height (A): 0.121
Background Pk Area (A-s): 0.024 Background Pk Height (A): 0.033
Blank Corrected Pk Area (A-s): 0.052
Concentration (ug/L): 9.6

Mean Conc (ug/L): 10.1 SD: 0.72 RSD(%): 7.13

Standard number 3 applied. [10.0]
Correlation coefficient: 0.99770 Slope: 0.0055

As ID: Standard 4 Seq. No.: 00005 A/S Pos.: 2 Date: 06/22/94

Replicate 1 Time: 13:04
Peak Area (A-s): 0.146 Peak Height (A): 0.359
Background Pk Area (A-s): 0.022 Background Pk Height (A): 0.034
Blank Corrected Pk Area (A-s): 0.143
Concentration (ug/L): 26.1

Replicate 2 Time: 13:07
Peak Area (A-s): 0.143 Peak Height (A): 0.362
Background Pk Area (A-s): 0.027 Background Pk Height (A): 0.033
Blank Corrected Pk Area (A-s): 0.141
Concentration (ug/L): 25.7

Mean Conc (ug/L): 25.9 SD: 0.30 RSD(%): 1.14

Standard number 4 applied. [25.0]
Correlation coefficient: 0.99956 Slope: 0.0056

As ID: Standard 5 Seq. No.: 00006 A/S Pos.: 2 Date: 06/22/94

Replicate 1 Time: 13:09
Peak Area (A-s): 0.274 Peak Height (A): 0.651
Background Pk Area (A-s): 0.028 Background Pk Height (A): 0.042
Blank Corrected Pk Area (A-s): 0.271
Concentration (ug/L): 48.1

Replicate 2 Time: 13:12
Peak Area (A-s): 0.260 Peak Height (A): 0.652
Background Pk Area (A-s): 0.029 Background Pk Height (A): 0.045
Blank Corrected Pk Area (A-s): 0.257
Concentration (ug/L): 45.6

Mean Conc (ug/L): 46.8 SD: 1.78 RSD(%): 3.79

Standard number 5 applied. [50.0]
Correlation coefficient: 0.99909 Slope: 0.0054

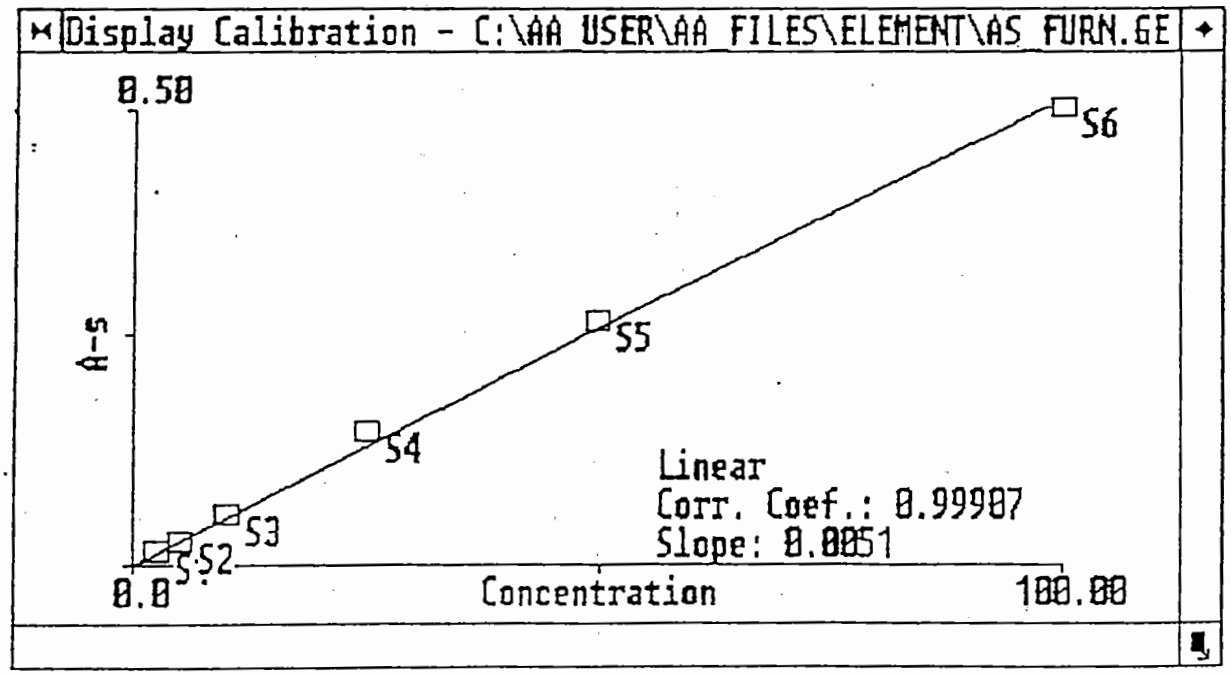
As ID: Standard 6 Seq. No.: 00007 A/S Pos.: 2 Date: 06/22/94

The height of this peak exceeds the rollover value.
Replicate 1 Time: 13:14
Peak Area (A-s): 0.502 Peak Height (A): 1.154
Background Pk Area (A-s): 0.039 Background Pk Height (A): 0.074
Blank Corrected Pk Area (A-s): 0.499
Concentration (ug/L): 92.9

The height of this peak exceeds the rollover value.
Replicate 2 Time: 13:17
Peak Area (A-s): 0.512 Peak Height (A): 1.146
Background Pk Area (A-s): 0.033 Background Pk Height (A): 0.073
Blank Corrected Pk Area (A-s): 0.509
Concentration (ug/L): 94.7

Mean Conc (ug/L): 93.8 SD: 1.29 RSD(%): 1.37

Standard number 6 applied. [100.0]
Correlation coefficient: 0.99907 Slope: 0.0051



As ID: ICV*SPEX*1 Seq. No.: 00008 A/S Pos.: 3 Date: 06/22/94

Replicate 1 Time: 14:12
Peak Area (A-s): 0.262 Peak Height (A): 0.540
Background Pk Area (A-s): 0.015 Background Pk Height (A): 0.039
Blank Corrected Pk Area (A-s): 0.259
Concentration (ug/L): 50.5

Replicate 2 Time: 14:15
Peak Area (A-s): 0.262 Peak Height (A): 0.562
Background Pk Area (A-s): 0.020 Background Pk Height (A): 0.043
Blank Corrected Pk Area (A-s): 0.259
Concentration (ug/L): 50.6

Mean Conc (ug/L): 50.6 SD: 0.01 RSD(%): 0.03

As ID: MB*REAGENT*1 Seq. No.: 00009 A/S Pos.: 4 Date: 06/22/94

Replicate 1 Time: 14:22
Peak Area (A-s): 0.003 Peak Height (A): 0.020
Background Pk Area (A-s): 0.010 Background Pk Height (A): 0.020
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.0

Replicate 2 Time: 14:24
Peak Area (A-s): -0.003 Peak Height (A): 0.020
Background Pk Area (A-s): 0.008 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): -0.006
Concentration (ug/L): -1.1

Mean Conc (ug/L): -0.6 SD: 0.77 RSD(%): 133.78

As ID: MB*QC*1 Seq. No.: 00010 A/S Pos.: 5 Date: 06/22/94
Replicate 1 Time: 14:26
Peak Area (A-s): 0.003 Peak Height (A): 0.020
Background Pk Area (A-s): 0.003 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.0

MB*QC*1 Seq. No. 10

As ID: MB*QC*1 Seq. No.: 00011 A/S Pos.: 5 Date: 06/22/94

Replicate 1
Peak Area (A-s): -0.000
Background Pk Area (A-s): 0.035
Blank Corrected Pk Area (A-s): -0.003
Concentration (ug/L): -0.6

Time: 14:30
Peak Height (A): 0.027
Background Pk Height (A): 0.035

Replicate 2
Peak Area (A-s): 0.001
Background Pk Area (A-s): 0.020
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.4

Time: 14:33
Peak Height (A): 0.021
Background Pk Height (A): 0.026

Mean Conc (ug/L): -0.5 SD: 0.09 RSD(%): 18.38

As ID: SP*QC*1 Seq. No.: 00012 A/S Pos.: 6 Date: 06/22/94

Replicate 1
Peak Area (A-s): 0.224
Background Pk Area (A-s): 0.022
Blank Corrected Pk Area (A-s): 0.221
Concentration (ug/L): 43.1

Time: 14:35
Peak Height (A): 0.422
Background Pk Height (A): 0.033

Replicate 2
Peak Area (A-s): 0.225
Background Pk Area (A-s): 0.026
Blank Corrected Pk Area (A-s): 0.222
Concentration (ug/L): 43.4

Time: 14:37
Peak Height (A): 0.393
Background Pk Height (A): 0.035

Mean Conc (ug/L): 43.2 SD: 0.19 RSD(%): 0.45

As ID: CDMHNSS2*6 Seq. No.: 00013 A/S Pos.: 7 Date: 06/22/94

Replicate 1
Peak Area (A-s): 0.060
Background Pk Area (A-s): 0.546
Blank Corrected Pk Area (A-s): 0.057
Concentration (ug/L): 11.2

Time: 14:40
Peak Height (A): 0.119
Background Pk Height (A): 0.296

Replicate 2
Peak Area (A-s): 0.062
Background Pk Area (A-s): 0.567
Blank Corrected Pk Area (A-s): 0.059
Concentration (ug/L): 11.6

Time: 14:42
Peak Height (A): 0.121
Background Pk Height (A): 0.323

Mean Conc (ug/L): 11.4 SD: 0.30 RSD(%): 2.64

As ID: SPM1*CDMHNSS2*6 Seq. No.: 00014 A/S Pos.: 8 Date: 06/22/94

Replicate 1
Peak Area (A-s): 0.211
Background Pk Area (A-s): 0.551
Blank Corrected Pk Area (A-s): 0.208
Concentration (ug/L): 40.6

Time: 14:45
Peak Height (A): 0.358
Background Pk Height (A): 0.304

Replicate 2 Time: 14:47
Peak Area (A-s): 0.203 Peak Height (A): 0.343
Background Pk Area (A-s): 0.557 Background Pk Height (A): 0.312
Blank Corrected Pk Area (A-s): 0.200
Concentration (ug/L): 39.0

Mean Conc (ug/L): 39.8 SD: 1.08 RSD(%): 2.71

As ID: SPM2*CDMHNSS2*6 Seq. No.: 00015 A/S Pos.: 9 Date: 06/22/94

Replicate 1 Time: 14:49
Peak Area (A-s): 0.216 Peak Height (A): 0.373
Background Pk Area (A-s): 0.620 Background Pk Height (A): 0.347
Blank Corrected Pk Area (A-s): 0.213
Concentration (ug/L): 41.6

Replicate 2 Time: 14:52
Peak Area (A-s): 0.222 Peak Height (A): 0.385
Background Pk Area (A-s): 0.614 Background Pk Height (A): 0.346
Blank Corrected Pk Area (A-s): 0.219
Concentration (ug/L): 42.7

Mean Conc (ug/L): 42.2 SD: 0.83 RSD(%): 1.98

As ID: SPX*CDMHNSS2*6 Seq. No.: 00016 A/S Pos.: 10 Date: 06/22/94

Replicate 1 Time: 14:55
Peak Area (A-s): 0.277 Peak Height (A): 0.387
Background Pk Area (A-s): 0.296 Background Pk Height (A): 0.166
Blank Corrected Pk Area (A-s): 0.274
Concentration (ug/L): 53.5

Replicate 2 Time: 14:57
Peak Area (A-s): 0.267 Peak Height (A): 0.401
Background Pk Area (A-s): 0.309 Background Pk Height (A): 0.168
Blank Corrected Pk Area (A-s): 0.264
Concentration (ug/L): 51.5

Mean Conc (ug/L): 52.5 SD: 1.41 RSD(%): 2.68

As ID: CCV*QC*1 Seq. No.: 00017 A/S Pos.: 11 Date: 06/22/94

Replicate 1 Time: 15:00
Peak Area (A-s): 0.268 Peak Height (A): 0.612
Background Pk Area (A-s): 0.029 Background Pk Height (A): 0.043
Blank Corrected Pk Area (A-s): 0.265
Concentration (ug/L): 51.7

Replicate 2 Time: 15:02
Peak Area (A-s): 0.269 Peak Height (A): 0.654
Background Pk Area (A-s): 0.025 Background Pk Height (A): 0.043
Blank Corrected Pk Area (A-s): 0.267
Concentration (ug/L): 52.0

Mean Conc (ug/L): 51.9 SD: 0.19 RSD(%): 0.37

As ID: CCB*QC*1 Seq. No.: 00018 A/S Pos.: 12 Date: 06/22/94

Replicate 1
Peak Area (A-s): -0.001
Background Pk Area (A-s): 0.011
Blank Corrected Pk Area (A-s): -0.004
Concentration (ug/L): -0.8

Time: 15:04
Peak Height (A): 0.018
Background Pk Height (A): 0.021

Replicate 2
Peak Area (A-s): 0.002
Background Pk Area (A-s): 0.008
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.2

Time: 15:07
Peak Height (A): 0.021
Background Pk Height (A): 0.019

Mean Conc (ug/L): -0.5 SD: 0.48 RSD(%): 97.77

9513356.0439

GFAA Metals – Selenium

9

ELEMENT: Se METHOD # ASM3233-013 BK# 7 PG# 19A

ANALYST: L. Osborne EMP. # 2826 DATE: 6/22/94

SAMPLES ANALYZED: BATCH # G50435

CDMHN552-X-6

GFAA upload, 6/23/94, [illegible]

INSTRUMENT PARAMETERS:		STANDARDS:		CALIBRATION CURVE:	conc. / abs.
Inst. model	4100ZL-A	1000 ppm stock			
Wavelength	196.0	Manufacturer	Spex	Blank	0.0 / 0.0000
Bandwidth	2.0L	Lot number	3-7058	Std.1	2.5 / 0.0006
EDL/HCL#	333	Date received	1/4/94	Std.2	5.0 / 0.0011
Energy/Watts	60 / ~275	Date expires	12/31/94	Std.3	25.0 / 0.0050
Power Supply	System II-A			Std.4	50.0 / 0.0092
HGA model	4100ZL	Working Standards		Std.5	75.0 / 0.134
Tube type	Transverse	Date prep'ed:		Std.6	100.0 / 0.180
Sample aliq.	20 µl	10 mg/L std.	6/6/94	Std.7	/
Modifier	500 µm Pd (NO3)2	100 ug/L std.	6/22/94	Std.8	/
Modifier aliq.	5 µl	10 ug/L std.	6/22/94	c.c:	0.99958 (linear)
Zeeman type	Transverse	50 ug/L Std	6/22/94	Det. L.	2.5 ppb

HGA KEYBOARD ENTRIES:

STEP	1	2	3	4	5
Temp(C)	130	300	1900	2500	
Ramp (sec)	5	5	0	1	
Hold (sec)	50	15	6	3	
Read Step			X		
Gas (ml/min)	250	250	0	250	

PREVENTATIVE MAINTENANCE/COMMENTS:

READ AND UNDERSTOOD BY: Hank Deizler 6-23-94

Analyst: L. Osburne Date: 6/22/94 Element Se Inst. Hydride Book: 7 Pg: 128

Print #	Sample I. D.	Peak Area	Conc. (ppb)	Target (ppb)	Comments
1	Calib. Blank	0.0007	0		
2	Standard 1	0.0048	2.5		
3	Standard 2	0.0104	5.4		Corr: 0.99958 (linear)
4	Standard 3	0.0485	23.7		
5	Standard 4	0.0920	47.3		
6	Standard 5	0.1336	71.7		
7	Standard 6	0.1790	98.8		
8	ICV*PE-PURE*1	0.0484	26.9	25.0	107.6 %Rec
9	MB*REAGENT*1	0.0025	1.4		
10	MB*QC*1	0.0006	0.3		
11	SP1*QC*1	0.0186	10.3	10.0	103 %Rec
12	CDMHNSS2*6	0.0025	1.4		
13	SPM1*CDMHNSS2*6	0.0152	8.5	10	85 %Rec
14	SPM2*CDMHNSS2*6	0.0195	10.8	10	108 %Rec
15	SPX*CDMHNSS2*6	0.0886	49.2	100	49.2x2=98.4 98.4 %Rec
16	CCV*QC*1	0.0866	48.1	50	96.2 %Rec
17	CCB*QC*1	-0.0005	-0.3		

Element File: SE_FURN.GEL Element: Se Wavelength: 196.0
Date: 06/22/94 Time: 14:58 Slit: 2.00 L
Data File: A:SE_6_22.DAT ID/Wt File: SE.IDW Lamp Current: 0
Technique: HGA Calib. Type: Linear Energy: 60
Remark 1: CDMHNSS2*6
Remark 2: Analyzed by Lula Osborne
Remark 3: June 22, 1994 Data on Lula 2
Remark 4: 4100ZL-A
Remark 5: Lamp No. 333 (EDL-SYS II) Modifier: 500 ppm Pd(NO3)2

3

Se ID: Calib. Blank Seq. No.: 00001 A/S Pos.: 36 Date: 06/22/94

Replicate 1 Time: 14:58
Peak Area (A-s): 0.001 Peak Height (A): 0.008
Background Pk Area (A-s): 0.037 Background Pk Height (A): 0.037
Blank Corrected Pk Area (A-s): 0.001

Replicate 2 Time: 15:01
Peak Area (A-s): 0.000 Peak Height (A): 0.008
Background Pk Area (A-s): 0.037 Background Pk Height (A): 0.035
Blank Corrected Pk Area (A-s): 0.000

Mean Pk Area (A-s): 0.001 SD: 0.0009 RSD(%): 130.64

Auto-zero performed.

Se ID: Standard 1 Seq. No.: 00002 A/S Pos.: 40 Date: 06/22/94

Replicate 1 Time: 15:04
Peak Area (A-s): 0.006 Peak Height (A): 0.013
Background Pk Area (A-s): 0.036 Background Pk Height (A): 0.031
Blank Corrected Pk Area (A-s): 0.005

Replicate 2 Time: 15:06
Peak Area (A-s): 0.005 Peak Height (A): 0.010
Background Pk Area (A-s): 0.036 Background Pk Height (A): 0.033
Blank Corrected Pk Area (A-s): 0.005

Mean Pk Area (A-s): 0.005 SD: 0.0003 RSD(%): 6.96

Standard number 1 applied. [2.5]
Correlation coefficient: 1.00000 Slope: 0.0019

Se ID: Standard 2 Seq. No.: 00003 A/S Pos.: 1 Date: 06/22/94

Replicate 1 Time: 15:09
Peak Area (A-s): 0.011 Peak Height (A): 0.014
Background Pk Area (A-s): 0.037 Background Pk Height (A): 0.034
Blank Corrected Pk Area (A-s): 0.011
Concentration (ug/L): 5.6

Replicate 2 Time: 15:12
Peak Area (A-s): 0.011 Peak Height (A): 0.015
Background Pk Area (A-s): 0.041 Background Pk Height (A): 0.037
Blank Corrected Pk Area (A-s): 0.010

.oncentration (ug/L): 5.2

lean Conc (ug/L): 5.4 SD: 0.30 RSD(%): 5.67

.tandard number 2 applied. [5.0]
'orrelation coefficient: 0.99605 Slope: 0.0020

.e ID: Standard 3 Seq. No.: 00004 A/S Pos.: 2 Date: 06/22/94

:eplicate 1 Time: 15:15
'eak Area (A-s): 0.049 Peak Height (A): 0.055
:ackground Pk Area (A-s): 0.048 Background Pk Height (A): 0.042
:lank Corrected Pk Area (A-s): 0.048
:oncentration (ug/L): 23.4

:eplicate 2 Time: 15:18
'eak Area (A-s): 0.050 Peak Height (A): 0.056
:ackground Pk Area (A-s): 0.048 Background Pk Height (A): 0.043
:lank Corrected Pk Area (A-s): 0.049
:oncentration (ug/L): 24.0

:ean Conc (ug/L): 23.7 SD: 0.43 RSD(%): 1.80

:tandard number 3 applied. [25.0]
:orrelation coefficient: 0.99981 Slope: 0.0019

:e ID: Standard 4 Seq. No.: 00005 A/S Pos.: 2 Date: 06/22/94

:eplicate 1 Time: 15:21
'eak Area (A-s): 0.092 Peak Height (A): 0.100
:ackground Pk Area (A-s): 0.056 Background Pk Height (A): 0.049
:lank Corrected Pk Area (A-s): 0.091
:oncentration (ug/L): 47.0

:eplicate 2 Time: 15:24
'eak Area (A-s): 0.093 Peak Height (A): 0.101
:ackground Pk Area (A-s): 0.055 Background Pk Height (A): 0.050
:lank Corrected Pk Area (A-s): 0.093
:oncentration (ug/L): 47.6

lean Conc (ug/L): 47.3 SD: 0.43 RSD(%): 0.91

:tandard number 4 applied. [50.0]
:orrelation coefficient: 0.99939 Slope: 0.0019

:e ID: Standard 5 Seq. No.: 00006 A/S Pos.: 2 Date: 06/22/94

:eplicate 1 Time: 15:27
'eak Area (A-s): 0.134 Peak Height (A): 0.144
:ackground Pk Area (A-s): 0.062 Background Pk Height (A): 0.057
:lank Corrected Pk Area (A-s): 0.133
:oncentration (ug/L): 71.4

:eplicate 2 Time: 15:30
'eak Area (A-s): 0.135 Peak Height (A): 0.142
:ackground Pk Area (A-s): 0.058 Background Pk Height (A): 0.054

lank Corrected Pk Area (A-s): 0.134
oncentration (ug/L): 72.1

ean Conc (ug/L): 71.7 SD: 0.48 RSD(%): 0.68

tandard number 5 applied. [75.0]
orrelation coefficient: 0.99923 Slope: 0.0018

---

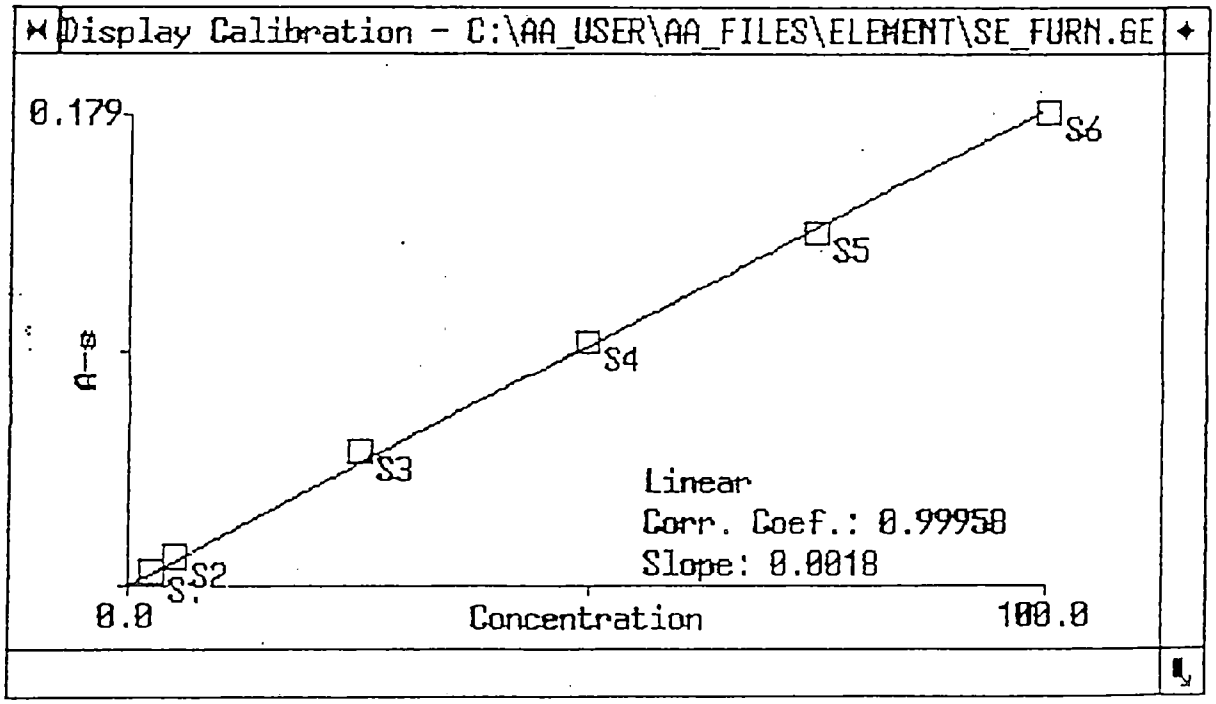
e ID: Standard 6 Seq. No.: 00007 A/S Pos.: 2 Date: 06/22/94

eplicate 1 Time: 15:32
eak Area (A-s): 0.181 Peak Height (A): 0.190
ackground Pk Area (A-s): 0.072 Background Pk Height (A): 0.062
lank Corrected Pk Area (A-s): 0.180
oncentration (ug/L): 99.4

eplicate 2 Time: 15:35
eak Area (A-s): 0.179 Peak Height (A): 0.189
ackground Pk Area (A-s): 0.066 Background Pk Height (A): 0.059
lank Corrected Pk Area (A-s): 0.178
oncentration (ug/L): 98.2

ean Conc (ug/L): 98.8 SD: 0.82 RSD(%): 0.83

tandard number 6 applied. [100.0]
orrelation coefficient: 0.99958 Slope: 0.0018



e ID: ICV*PE-PURE*1 Seq. No.: 00008 A/S Pos.: 3 Date: 06/22/94

eplicate 1 Time: 15:39
eak Area (A-s): 0.044 Peak Height (A): 0.058

Background Pk Area (A-s): 0.052 Background Pk Height (A): 0.033
Blank Corrected Pk Area (A-s): 0.043
Concentration (ug/L): 24.0

Replicate 2 Time: 15:42
Peak Area (A-s): 0.054 Peak Height (A): 0.182
Background Pk Area (A-s): 0.088 Background Pk Height (A): 0.211
Blank Corrected Pk Area (A-s): 0.054
Concentration (ug/L): 29.8

Mean Conc (ug/L): 26.9 SD: 4.10 RSD(%): 15.25

Se ID: MB*REAGENT*1 Seq. No.: 00009 A/S Pos.: 4 Date: 06/22/94

Replicate 1 Time: 15:51
Peak Area (A-s): 0.003 Peak Height (A): 0.008
Background Pk Area (A-s): 0.040 Background Pk Height (A): 0.038
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 1.5

Replicate 2 Time: 15:53
Peak Area (A-s): 0.003 Peak Height (A): 0.009
Background Pk Area (A-s): 0.038 Background Pk Height (A): 0.032
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 1.3

Mean Conc (ug/L): 1.4 SD: 0.18 RSD(%): 13.02

Se ID: MB*QC*1 Seq. No.: 00010 A/S Pos.: 5 Date: 06/22/94

Replicate 1 Time: 15:56
Peak Area (A-s): -0.000 Peak Height (A): 0.006
Background Pk Area (A-s): 0.043 Background Pk Height (A): 0.032
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.4

Replicate 2 Time: 15:59
Peak Area (A-s): 0.003 Peak Height (A): 0.007
Background Pk Area (A-s): 0.039 Background Pk Height (A): 0.037
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 1.1

Mean Conc (ug/L): 0.3 SD: 1.12 RSD(%): 322.42

Se ID: SP1*QC*1 Seq. No.: 00011 A/S Pos.: 6 Date: 06/22/94

Replicate 1 Time: 16:02
Peak Area (A-s): 0.018 Peak Height (A): 0.025
Background Pk Area (A-s): 0.042 Background Pk Height (A): 0.037
Blank Corrected Pk Area (A-s): 0.018
Concentration (ug/L): 9.8

Replicate 2 Time: 16:04
Peak Area (A-s): 0.020 Peak Height (A): 0.024
Background Pk Area (A-s): 0.043 Background Pk Height (A): 0.037
Blank Corrected Pk Area (A-s): 0.020

oncentration (ug/L): 10.9

ean Conc (ug/L): 10.3 SD: 0.80 RSD(%): 7.75

---

e ID: CDMHNSS2*6 Seq. No.: 00012 A/S Pos.: 7 Date: 06/22/94

eplicate 1 Time: 16:07
eak Area (A-s): 0.001 Peak Height (A): 0.008
ackground Pk Area (A-s): 0.230 Background Pk Height (A): 0.116
lank Corrected Pk Area (A-s): 0.000
oncentration (ug/L): 0.2

eplicate 2 Time: 16:10
eak Area (A-s): 0.005 Peak Height (A): 0.009
ackground Pk Area (A-s): 0.227 Background Pk Height (A): 0.115
lank Corrected Pk Area (A-s): 0.005
oncentration (ug/L): 2.6

ean Conc (ug/L): 1.4 SD: 1.69 RSD(%): 122.62

---

e ID: SPM1*CDMHNSS2*6 Seq. No.: 00013 A/S Pos.: 8 Date: 06/22/94

eplicate 1 Time: 16:13
eak Area (A-s): 0.017 Peak Height (A): 0.016
ackground Pk Area (A-s): 0.228 Background Pk Height (A): 0.109
lank Corrected Pk Area (A-s): 0.016
oncentration (ug/L): 8.9

eplicate 2 Time: 16:15
eak Area (A-s): 0.015 Peak Height (A): 0.014
ackground Pk Area (A-s): 0.230 Background Pk Height (A): 0.117
lank Corrected Pk Area (A-s): 0.014
oncentration (ug/L): 8.0

ean Conc (ug/L): 8.5 SD: 0.68 RSD(%): 7.99

---

e ID: SPM2*CDMHNSS2*6 Seq. No.: 00014 A/S Pos.: 9 Date: 06/22/94

eplicate 1 Time: 16:18
eak Area (A-s): 0.022 Peak Height (A): 0.016
ackground Pk Area (A-s): 0.250 Background Pk Height (A): 0.124
lank Corrected Pk Area (A-s): 0.021
oncentration (ug/L): 11.8

eplicate 2 Time: 16:21
eak Area (A-s): 0.019 Peak Height (A): 0.016
ackground Pk Area (A-s): 0.252 Background Pk Height (A): 0.122
lank Corrected Pk Area (A-s): 0.018
oncentration (ug/L): 9.9

ean Conc (ug/L): 10.8 SD: 1.28 RSD(%): 11.81

---

e ID: SPX*CDMHNSS2*6 Seq. No.: 00015 A/S Pos.: 10 Date: 06/22/94

eplicate 1 Time: 16:24

'eak Area (A-s): 0.088 Peak Height (A): 0.078
ackground Pk Area (A-s): 0.151 Background Pk Height (A): 0.062
lank Corrected Pk Area (A-s): 0.087
.oncentration (ug/L): 48.5

'eplicate 2 Time: 16:26
'eak Area (A-s): 0.091 Peak Height (A): 0.050
.ackground Pk Area (A-s): 0.166 Background Pk Height (A): 0.087
lank Corrected Pk Area (A-s): 0.090
oncentration (ug/L): 50.0

.ean Conc (ug/L): 49.2 SD: 1.10 RSD(%): 2.23

·e ID: CCV*QC*1 Seq. No.: 00016 A/S Pos.: 11 Date: 06/22/94

:eplicate 1 Time: 16:31
'eak Area (A-s): 0.088 Peak Height (A): 0.102
:ackground Pk Area (A-s): 0.056 Background Pk Height (A): 0.040
:lank Corrected Pk Area (A-s): 0.087
oncentration (ug/L): 48.3

:eplicate 2 Time: 16:34
'eak Area (A-s): 0.087 Peak Height (A): 0.099
!ackground Pk Area (A-s): 0.052 Background Pk Height (A): 0.041
:lank Corrected Pk Area (A-s): 0.086
:oncentration (ug/L): 47.9

lean Conc (ug/L): 48.1 SD: 0.27 RSD(%): 0.55

:e ID: CCB*QC*1 Seq. No.: 00017 A/S Pos.: 12 Date: 06/22/9

'eplicate 1 Time: 16:36
'eak Area (A-s): -0.001 Peak Height (A): 0.008
:ackground Pk Area (A-s): 0.039 Background Pk Height (A): 0.032
:lank Corrected Pk Area (A-s): -0.002
:oncentration (ug/L): -1.1

:eplicate 2 Time: 16:39
'eak Area (A-s): 0.002 Peak Height (A): 0.009
!ackground Pk Area (A-s): 0.037 Background Pk Height (A): 0.030
:lank Corrected Pk Area (A-s): 0.001
:oncentration (ug/L): 0.6

lean Conc (ug/L): -0.3 SD: 1.22 RSD(%): 431.18

9513356.0444

Mercury

(2)

MERCURY SAMPLE RUN LOG

BK#: 30 PG#: 182

METHOD: ASM3233-042 MATRIX: SOILS QC TYPE: FDER

ANALYST: CHRIS HORRELL EMP.# 3249 DATE: 06/22/94

SAMPLES ANALYZED: BATCH #, DATE, INITIALS

CDMHNSS2*6 G50437 CAH 6/22/94

INSTRUMENT PARAMETERS:

Inst. model: BUCK-400
Wavelength: 253.7

CALIBRATION CURVE:

C.C.: 0.9995
Det.Limit: 0.2 ppb
Calib. type: QUAD

STANDARDS:

	Std.#1	Std.#2
10 ppm stock Manufacturer:	HI PURITY	HI PURITY
Lot No.:	390524	490126
Exp.date:	6/23/94	6/23/94
Working Stds. made:	CAH	CAH
100 OR 80 ug/l std.	100	

COMMENTS:

Peak No.	Sample I.D.	Peak Ht.	Conc. ug/l	Target	Comments
1	0.0 ppb	0.25			
2	0.1	1.5			
3	0.5	5.5			
4	1.0	10.0			
5	2.0	18.75			
6	5.0	47.0			
7	7.0	59.75			
8	10.0	84.0			
9	12:18 ICV*1	37.25	4.04	5.0	80.8 %
10	MB	0.25	0.0		
11	SP	43.0	4.72	5.0	94.4 %
12	CDMHNSS2*6	0	0.0		
13	SPM1*CDMHNSS2*6	15.25	1.55	5.0	31.0 %
14	SPM2*CDMHNSS2*6	19.0	1.96	5.0	39.2 %
15	CCV*1 12:25	38.0	4.13	5.0	82.6 %

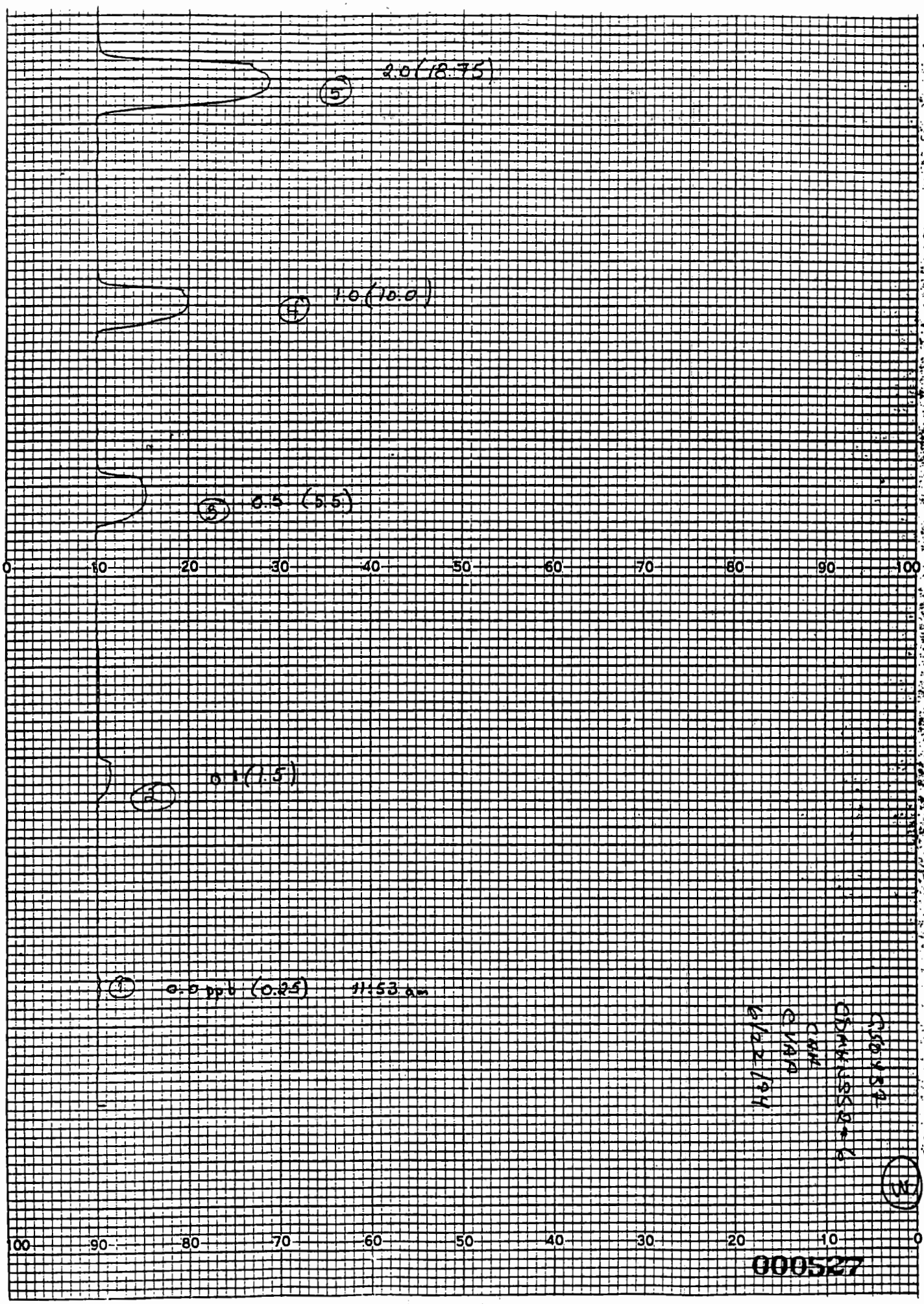
READ AND UNDERSTOOD BY: Keith Steigler DATE: 6/23/94

MERCURY SAMPLE RUN LOG

BK#: 30 PG#: 183

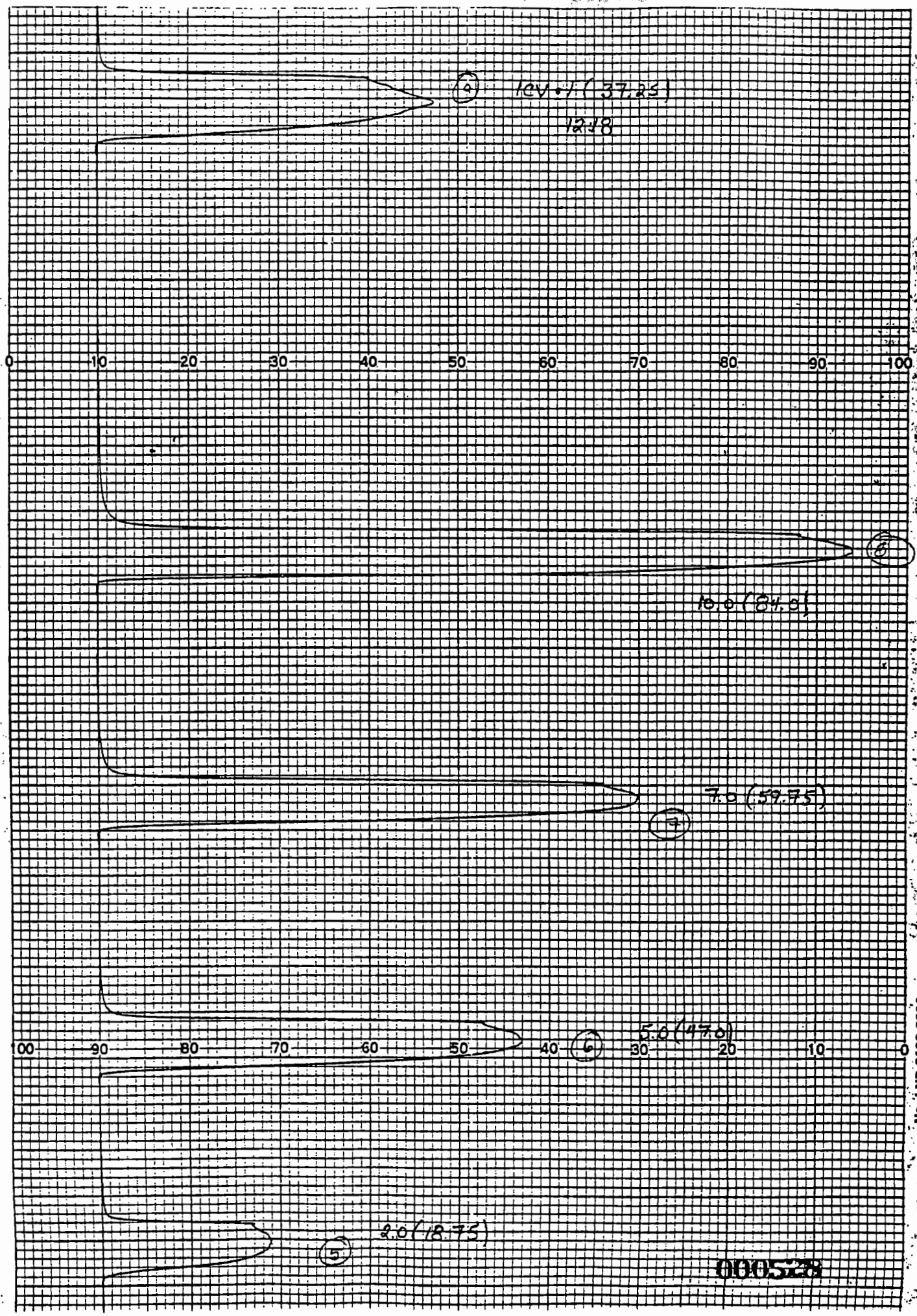
Peak No.	Sample I.D.	Peak Ht.	Conc. ug/l	Target	Comments
16	CCB*1	0	0		
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					
51					
52					
53					
54					
55					
56					
57					

READ AND UNDERSTOOD BY: Keith Leigh DATE: 6/23/94

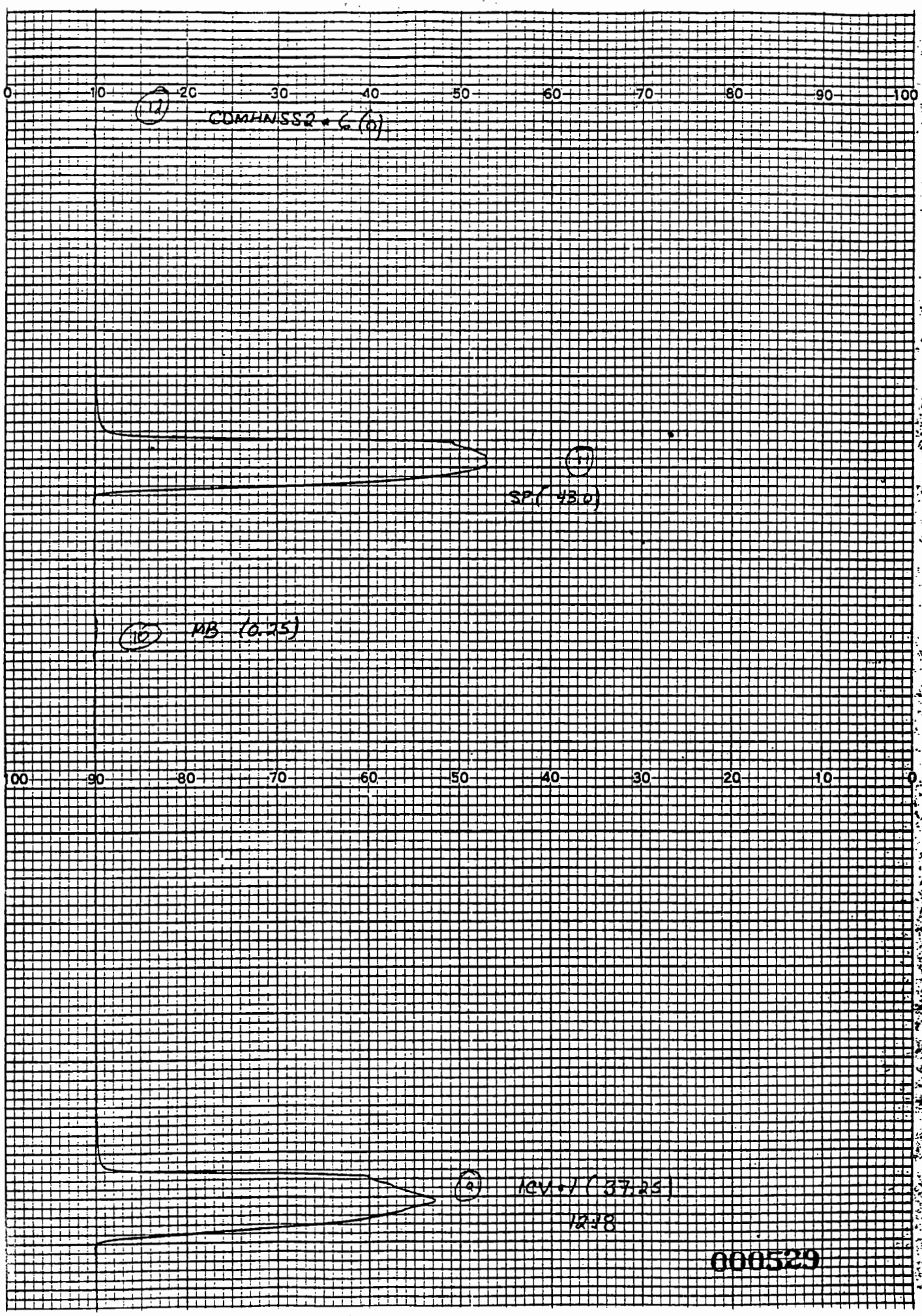


000527

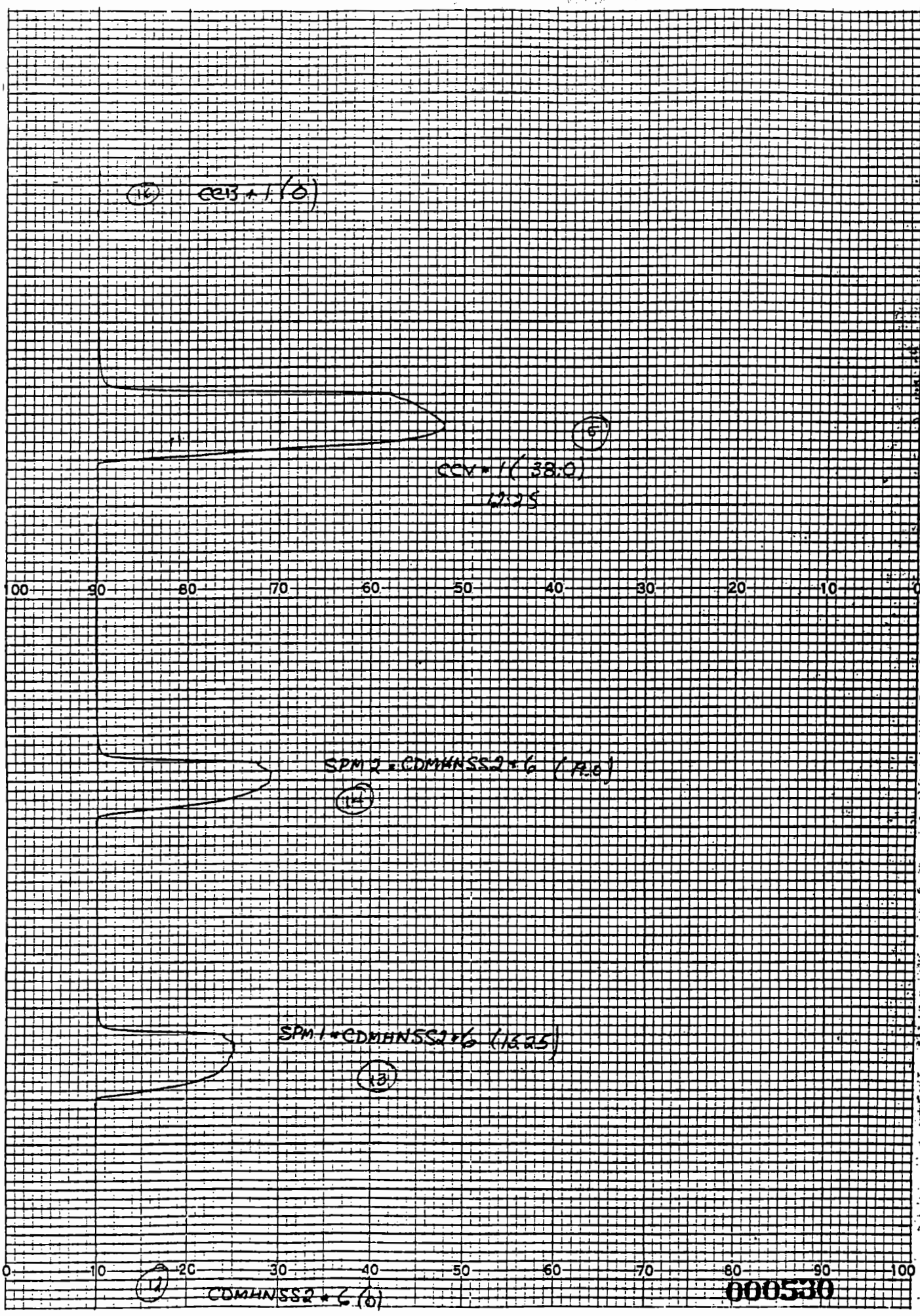
GRAPHIC CONTROLS CORPORATION BUFFALO, NEW YORK PRINTED IN U.S.A.
LNR 0100-0026



PRINTED IN U.S.A.
GRAPHIC CONTROLS CORPORATION BUFFALO, NEW YORK
No. LNR 0100-0026



GRAPHIC CONTROLS CORPORATION · BUFFALO, NEW YORK
NO. LNR 0100-0026
PRINTED IN U.S.A.


(16) CC13 * 1 (0)
(6)
CCV * 1 (38.0)
42.25
100 90 80 70 60 50 40 30 20 10 0
SPM 2 * CDMHNSS2 * 6 (14.0)
(14)
SPM 1 * CDMHNSS2 * 6 (16.25)
(13)
0 10 20 30 40 50 60 70 80 90 100
(12)
CDMHNSS2 * 6 (0)

5. SAMPLE PREP LOGSHEETS

95133356.0448

ICAP Metals

ATOMIC SPECTROSCOPY SAMPLE PREP

000250

Book No. 23 Pg. No.

Matrix SOILS Method/QC Type ICAP/FDER

SOP No. ASM 3233-004 Lot No.(s) NA

Spike Solutions Used	Prep Date	Prep'd by	Exp. Date
1. ICAP/CLP SPKSOLN	6-3-94	DVN	7-6-94
2.			

Final Vol. (mL) 100 Pipets Used 10ml CLASS "A" VOL. PIPET

Balance No. 23 Hood No. 5 Hotplate No. 1

Sample No.	Weight (g)/ Init.Vol.(mL)	Spike Information
RE-BLANK	—	
MB	1.0150	
SP1	1.0075	
CDMHNSS2* 6	1.0418	
6spm1	1.0500	
6spm2	1.0499	

David V. Acosta 6-21-94
Signed Date

[illegible] 6/22/94
Read & Understood By Date

000533

ICAP SPIKE SOLUTION
(CLP/FDER/USAEC MATRIX)

Notebook: 12 Page: 10

Element	Manufacturer	Lot No.	Exp. Date	Stock Conc. (ppm)	Volume Used (mL)	Final Conc. (ppm)
Al	High Purity	390505	07/94	10000	2.0	20.0
Sb	SPEX	3-86SB	02/95	1000	5.0	5.0
As	SPEX	3-105AS	01/95	1000	20.0	20.0
Ba	SPEX	3-107BA	10/94	1000	20.0	20.0
Be	High Purity	390223	10/94	1000	0.5	0.5
B	High Purity	390812	10/94	1000	10.0	10.0
Cd	High Purity	390818	10/94	1000	0.5	0.5
Ca	SPEX	H-12CA	12/94	10000	10.0	100.0
Cr	SPEX	3-124CR	02/95	1000	2.0	2.0
Co	SPEX	3-100CO	03/95	1000	5.0	5.0
Cu	High Purity	390813	10/94	1000	2.5	2.5
Fe	High Purity	490222	04/95	10000	1.0	10.0
Pb	SPEX	3-106PB	10/94	1000	5.0	5.0
Li	SPEX	2-252LI	10/94	1000	5.0	5.0
Mg	SPEX	G-245MG	01/95	10000	10.0	100.0
Mn	SPEX	3-112MN	02/95	1000	5.0	5.0
Mo	High Purity	390706	10/94	1000	5.0	5.0
Ni	SPEX	2-266NI	10/94	1000	5.0	5.0
K	SPEX	H-274K	02/95	10000	10.0	100.0
Se	SPEX	3-70SE	12/94	1000	20.0	20.0
Ag	High Purity	390511	09/94	1000	0.5	0.5
Na	SPEX	G-64NA	03/95	10000	10.0	100.0
Sr	High Purity	390520	10/94	1000	5.0	5.0
Tl	High Purity	390707	10/94	1000	20.0	20.0
Sn	High Purity	390106	03/94	1000	10.0	10.0
Ti	High Purity	291217	03/94	1000	5.0	5.0
V	High Purity	390719	10/94	1000	5.0	5.0
Zn	SPEX	3-502ZN	10/94	1000	5.0	5.0

ICAP CLP/FDER/USAEC spike solution made to a final acid concentration of 20%(v/v) HCl, and to a final volume of 1000 mL.

This solution expires: 07/06/94 (Good for 33 days).

Stored at room temperature.

Prepared by: David V. Richard Date: 6-3-94

Read and understood by: C. Hall Date: 6/3/94

Page 1 of 1

CLPFDER.ICP

ICAP - CALIBRATION STANDARDS

Notebook: 2 Page: 5

Standard 2

Element	Manufacturer	Lot No.	Exp. Date	Stock Conc.(ppm)	Volume Used(mL)	Final Conc.(ppm)
As	SPEX	3-105AS	01/95	1000	1.0	1.0
Se	SPEX	3-70SE	12/94	1000	1.0	1.0
Tl	SPEX	3-21TL	02/95	1000	1.0	1.0
Sb	SPEX	3-86SB	02/95	1000	1.0	1.0
Ba	SPEX	3-107BA	04/95	1000	1.0	1.0
Be	SPEX	3-56BE	02/95	1000	1.0	1.0
Cd	SPEX	3-131CD	04/95	1000	1.0	1.0
Co	SPEX	3-100CO	03/95	1000	1.0	1.0
Cr	SPEX	3-124CR	02/95	1000	1.0	1.0
Cu	High Purity	390813	10/94	1000	1.0	1.0
Pb	SPEX	4-9PB	03/95	1000	1.0	1.0
Mn	SPEX	3-112MN	02/95	1000	1.0	1.0
Ni	SPEX	2-266NI	10/94	1000	1.0	1.0
V	High Purity	390719	10/94	1000	1.0	1.0
Zn	SPEX	3-50ZN	10/94	1000	1.0	1.0

Standard 3

Al	High Purity	390505	07/94	10000	1.0	10.0
Ca	SPEX	H-12CA	12/94	10000	1.0	10.0
Fe	High Purity	490222	04/95	10000	1.0	10.0
Mg	SPEX	G-245MG	01/95	10000	1.0	10.0
K	SPEX	H-274K	02/95	10000	10.0	100.0
Na	SPEX	G-64NA	03/95	10000	1.0	10.0

Standard 4

Ag	High Purity	390511	09/94	1000	1.0	1.0

Standard 5

B	High Purity	390812	10/94	1000	1.0	1.0
La	SPEX	3-71LA	10/94	1000	1.0	1.0
Li	SPEX	2-252LI	10/94	1000	1.0	1.0
Mo	High Purity	390706	10/94	1000	1.0	1.0
P	High Purity	390819	10/94	1000	1.0	1.0
Si	SPEX	3-11SI	10/94	1000	1.0	1.0
Sr	High Purity	390520	10/94	1000	1.0	1.0
Sn	High Purity	390526	10/94	1000	1.0	1.0
Ti	SPEX	3-38TI	02/95	1000	1.0	1.0

Standards made to a final acid concentration of 5% (v/v) HCl and 5% (v/v) HNO_3, and to a final volume of 1000 mL.

This solution expires: 07/13/94 (Good for 33 days).
Stored at room temperature.

Prepared by: Elizabeth A. Nez Date: 6-10-94

Read and understood by: Kent Brakefield Date: 6-10-94

ICAP - CCV SOLUTION

Notebook: 2 Page: 6

Element	Manufacturer	Lot No.	Exp. Date	Stock Conc.(ppm)	Volume Used(mL)	Final Conc.(ppm)
As	SPEX	3-105AS	01/95	1000	1.4	0.7
Se	SPEX	3-70SE	12/94	1000	1.4	0.7
Tl	SPEX	3-21TL	02/95	1000	1.4	0.7
Sb	SPEX	3-86SB	02/95	1000	1.0	0.5
Ba	SPEX	3-107BA	04/95	1000	1.0	0.5
Be	SPEX	3-56BE	02/95	1000	1.0	0.5
Cd	SPEX	3-131CD	04/95	1000	1.0	0.5
Co	SPEX	3-100CO	03/95	1000	1.0	0.5
Cr	SPEX	3-124CR	02/95	1000	1.0	0.5
Cu	High Purity	390813	10/94	1000	1.0	0.5
Pb	SPEX	4-9PB	03/95	1000	1.0	0.5
Mn	SPEX	3-112MN	02/95	1000	1.0	0.5
Ni	SPEX	2-266NI	10/94	1000	1.0	0.5
V	High Purity	390719	10/94	1000	1.0	0.5
Zn	SPEX	3-50ZN	10/94	1000	1.0	0.5
Ag	High Purity	390511	09/94	1000	1.0	0.5
B	High Purity	390812	10/94	1000	1.0	0.5
Mo	High Purity	390706	10/94	1000	1.0	0.5
Sr	High Purity	390520	10/94	1000	1.0	0.5
Sn	High Purity	390526	10/94	1000	1.0	0.5
Ti	SPEX	3-38TI	02/95	1000	1.0	0.5
Al	High Purity	390505	07/94	10000	1.0	5.0
Ca	SPEX	H-12CA	12/94	10000	1.0	5.0
Fe	High Purity	490222	04/95	10000	1.0	5.0
Mg	SPEX	G-245MG	01/95	10000	1.0	5.0
K	SPEX	H-274K	02/95	10000	1.0	5.0
Na	SPEX	G-64NA	03/95	10000	1.0	5.0
Li	SPEX	2-252LI	10/94	1000	1.0	5.0

ICAP - CCV solution made to a final acid concentration of 5% (v/v) HCl and 5% (v/v) HNO_3, and to a final volume of 2000 mL.

This solution expires: 07/13/94 (Good for 33 days).

Stored at room temperature.

Prepared by: Date: Read and understood by: Date:

Kent Brakefield 6-10-94 [illegible] 6-10-94

Page 1 of 1

CCVSOLN.ICP

ICAP - ICV 19 & 7 SOLUTIONS

Notebook: 2 Page: 7

ICV 19

Solution	Manufacturer	Lot No.	Exp. Date	Volume Used(mL)
QC19	SPEX	5-181 AS	08/94	5.0

ICV 7

Solution	Manufacturer	Lot No.	Exp. Date	Volume Used(mL)
QC 7	SPEX	5-129 AS	08/94	5.0

ICV Solutions made to a final acid concentration of 5% (v/v) HCl and 5% (v/v) HNO_3, and to a final volume of 500 mL.

This solution expires: 07/15/94 (Good for 33 days).

Stored at room temperature.

Prepared by: Date: Read and understood by: Date:

6/13/94 6/13/94

ICAPICV.ICP

ICAP - ICS A & AB SOLUTIONS

Notebook: 2 Page: 8

ICS A

Solution	Manufacturer	Lot No.	Exp. Date	Volume Used(mL)
AS STD, (Interferents A)	PE-Pure	6-22AS	12/94	50.0

ICS AB

Solution	Manufacturer	Lot No.	Exp. Date	Volume Used(mL)
AS STD, (Interferents A)	PE-Pure	6-22AS	12/94	50.0
AS STD, (Analytes B)	PE-Pure	5-81AS	09/94	5.0

ICS Solutions made to a final acid concentration of 6%(v/v) HCl, and to a final volume of 500 mL.

This solution expires: 07/15/94 (Good for 33 days).

Stored at room temperature.

Prepared by: Date: Read and understood by: Date:

6/13/94 6/13/94

ICSSOLNS.ICP

GFAA Metals – Arsenic

ATOMIC SPECTROSCOPY SAMPLE PREP

Book No. 23 Pg. No. 000278

Matrix SOILS Method/QC Type GFAA/FDER

SOP No. ASM3233-003 Lot No.(s) NA

Spike Solutions Used	Prep Date	Prep'd by	Exp. Date
1. ASM3233-007 SOLN "A"	5-31-94	DDZ	7-2-94
2.			

Final Vol. (mL) 100 Pipets Used BIOHIT 1000 #2

Balance No. 13 Hood No. 5 Hotplate No. 1

Sample No.	Weight (g)/ Init.Vol.(mL)	Spike Information
RE BLANK	—	
MB	1.0221	
Spl	1.0166	1ml #1
CDMHNSS2 #6	1.0085	
6spm1	1.0401	1ml #1
6spm2	1.0406	1ml #1

David V. Rocho 6-21-94
Signed Date

Read & Understood By Date 6/22/94

ASM 3233-007 Solution "A"

Element	Stock Conc. (ppm)	Mls. Used	Final Conc. (ppb)	Target (ppb)	Manufacturer	Lot Number	Date Expires
As	1000	4.0	4000	40	Spex	3-105AS	1/95
Cr	1000	2.0	2000	20	Spex	3-124CR	4/95
Pb	1000	2.0	2000	20	Spex	3-106PB	10/94
Mo	1000	2.0	2000	20	High Purity	390706	10/94
Se	1000	1.0	1000	10	Spex	3-70SE	12/94
Tl	1000	5.0	5000	50	Spex	3-21TL	2/95
V	1000	2.0	2000	20	High Purity	390719	10/94

Pipets Used: 2,4,5 mls Class "A" volumetrics; Eppendorf #120565

Final Volume = 1000 mls

Note: Solution is 1% conc. HNO_3

Solution Expires: 7/02/94

5-31-94 — Made by — Date

David V. Nichols — Read & Understood by — 5-31-94 Date

Book No. 2 Page No. 3

As, Se, Tl, Pb--10 ppm solution and working standards

1000 ppm Stock Solutions:

Element	Manufacturer	Lot Number	Date Received	Date Expires
As	Fisher	925266-24	7/93	7/94
Se	Spex	3-70SE	1/4/94	12/31/94
Tl	Mallinckrodt	H584 KJSG-P	4/93	10/94
Pb	Mallinckrodt	H544 KLBY-P	11/93	2/95

10 ppm solution: 2.0 ml of each stock solution was transferred to a 200 ml volumetric flask containing 10 ml conc. HNO_3, and was brought up to volume with DI water. (Expires: 7/9/94)

Keith Geisler — 6-6-94 — Marlene Barnes — 6/6/94

Made by — Date — Read & Understood by — Date

****

Daily Working Standards:

100 ppb - 2.0 ml of the 10 ppm solution was transferred to a 200 ml volumetric flask containing 10 ml conc. HNO_3 and was brought up to volume with DI water.

50 ppb - 0.5 ml of the 10 ppm solution was transferred to a 100 ml volumetric flask containing 5.0 ml conc. HNO_3 and was brought up to volume with DI water.

10 ppb - 10 ml of the 100 ppb working standard was transferred to a 100 ml volumetric flask containing 5.0 ml conc. HNO_3 and was brought up to volume with DI water.

4.0 ppb - 4 ml of the 100 ppb working standard was transferred to a 100 ml volumetric flask containing 5.0 ml conc. HNO_3 and was brought up to volume with DI water.

NOTE: All standards and solutions are 5% conc. HNO_3 and are stored at room temperature.

Signed	Date	Witnessed by	Date
Keith Geisler	6-6-94	Marlene Barnes	6/6/94
Keith Geisler	6-7-94	Lulamae T. Osborne	6/7/94
Keith Geisler	6-8-94	Lisa Swayze	6/8/94
Lisa Swayze	6-9-94	L. McCoy	6/9/94
Keith Geisler	6-10-94	Lulamae T. Osborne	6/10/94
Lisa Swayze	6/13/94	Lulamae T. Osborne	6/13/94
Lisa Swayze for Keith Geisler	6/14/94	Lulamae T. Osborne	6/15/94
Marlene Barnes	6/15/94	Lisa Swayze	6/15/94
Lisa Swayze	6/16/94	Keith Geisler	6-16-94
Lisa Swayze	6/17/94	Lulamae T. Osborne	6/20/94
Keith Geisler	6/20/94	Lisa Swayze	6/20/94
Keith Geisler	6/21/94	Lisa Swayze	6/21/94
Lisa Swayze	6/22/94	Keith Geisler	6/22/94

(Continued on back side)

PROJECT ICV - SPEX primarily for CLP

Notebook No. 1

Continued From Page

STOCK SOLN: SPEX (100 PPM) LOT 5-181 As
Rec 8/93 EXP 8/94

Transferred 0.25 ml of Stock Soln into a 500 ml CLASS A VOLUMETRIC Flask containing 25 ml Conc HNO_3 and 10 ml H_2O_2 and DI water. The solution was then brought to volume with DI water

ELEMENT	STOCK CONC (PPM)	ICV SOLN CONC (PPb)
Sb	100	50
As		
Be		
Cd		
Co		
Cr		
Co		
Cu		
Fe		
Pb		
Mg		
Mn		
Mo		
Ni		
Se		
Tl		
Ti		
V		
Zn		

PIPETS USED: BOHIT 1000 #2

SOL EXP 10-18-94

Continued on Page

Read and Understood By

Signed	Date	Signed	Date
[illegible]	4-18-94	[illegible]	4/18/94

The SPX was prepared by adding one part high standard to one part sample. A dilution factor of 2 is entered in the data batch and the target will equal the high standard concentration.

GFAA Metals – Selenium

ATOMIC SPECTROSCOPY SAMPLE PREP

000278 4

Book No. 23 Pg. No.

Matrix SOILS Method/QC Type GFAA/FDER

SOP No. ASM3233-003 Lot No.(s) NA

Spike Solutions Used	Prep Date	Prep'd by	Exp. Date
1. ASM3233-007 SOLN "A"	5-31-94	DDZ	7-2-94
2.			

Final Vol. (mL) 100 Pipets Used BIOHIT 1000 #2

Balance No. 13 Hood No. 5 Hotplate No. 1

Sample No.	Weight (g)/ Init.Vol.(mL)	Spike Information
RE BLANK	—	
MB	1.0221	
Spl	1.0166	1ml #1
CDMHNSS2 x 6	1.0085	
6spm1	1.0401	1ml #1
6spm2	1.0406	1ml #1

David V. Richard 6-21-94
Signed Date

Read & Understood By 6/22/94
Date

ASM 3233-007 Solution "A"

Element	Stock Conc. (ppm)	Mls. Used	Final Conc. (ppb)	Target (ppb)	Manufacturer	Lot Number	Date Expires
As	1000	4.0	4000	40	Spex	3-105AS	1/95
Cr	1000	2.0	2000	20	Spex	3-124CR	4/95
Pb	1000	2.0	2000	20	Spex	3-106PB	10/94
Mo	1000	2.0	2000	20	High Purity	390706	10/94
Se	1000	1.0	1000	10	Spex	3-70SE	12/94
Tl	1000	5.0	5000	50	Spex	3-21TL	2/95
V	1000	2.0	2000	20	High Purity	390719	10/94

Pipets Used: 2,4,5 mls Class "A" volumetrics; Eppendorf #120565

Final Volume = 1000 mls

Note: Solution is 1% conc. HNO_3

Solution Expires: 7/02/94

5-31-94 — Made by — Date

David V. Nichols — Read & Understood by

5-31-94 — Date

Book No. 2 Page No. 3

As, Se, Tl, Pb--10 ppm solution and working standards

1000 ppm Stock Solutions:

Element	Manufacturer	Lot Number	Date Received	Date Expires
As	Fisher	925266-24	7/93	7/94
Se	Spex	3-70SE	1/4/94	12/31/94
Tl	Mallinckrodt	H584 KJSG-P	4/93	10/94
Pb	Mallinckrodt	H544 KLBY-P	11/93	2/95

10 ppm solution: 2.0 ml of each stock solution was transferred to a 200 ml volumetric flask containing 10 ml conc. HNO_3, and was brought up to volume with DI water. (Expires: 7/9/94)

Keith Geisler 6-6-94 Marlene Barnes 6/6/94

Made by Date Read & Understood by Date

****

Daily Working Standards:

100 ppb - 2.0 ml of the 10 ppm solution was transferred to a 200 ml volumetric flask containing 10 ml conc. HNO_3 and was brought up to volume with DI water.

50 ppb - 0.5 ml of the 10 ppm solution was transferred to a 100 ml volumetric flask containing 5.0 ml conc. HNO_3 and was brought up to volume with DI water.

10 ppb - 10 ml of the 100 ppb working standard was transferred to a 100 ml volumetric flask containing 5.0 ml conc. HNO_3 and was brought up to volume with DI water.

4.0 ppb - 4 ml of the 100 ppb working standard was transferred to a 100 ml volumetric flask containing 5.0 ml conc. HNO_3 and was brought up to volume with DI water.

NOTE: All standards and solutions are 5% conc. HNO_3 and are stored at room temperature.

Signed	Date	Witnessed by	Date
Keith Geisler	6-6-94	Marlene Barnes	6/6/94
Keith Geisler	6-7-94	Julianne Osborne	6/7/94
Keith Geisler	6-8-94	Lisa Swayze	6/8/94
Lisa Swayze	6-9-94	L. McCoy	6/9/94
Keith Geisler	6-10-94	Julianne Osborne	6/10/94
Lisa Swayze	6/13/94	Julianne Osborne	6/13/94
Lisa Swayze for Keith Geisler	6/14/94	Julianne Osborne	6/15/94
Marlene Barnes	6/15/94	Lisa Swayze	6/15/94
Lisa Swayze	6/16/94	Keith Geisler	6-16-94
Lisa Swayze	6/17/94	Julianne Osborne	6/20/94
Keith Geisler	6/20/94	Lisa Swayze	6/20/94
Keith Geisler	6/21/94	Lisa Swayze	6/21/94
Lisa Swayze	6/22/94	Keith Geisler	6/22/94

(Continued on back side)

PROJECT Se, Cd 25 ppb ICV Solution

Notebook No. 1

Continued From Page —

Stock: PE - Pure lot # 5-227 AS Rec'd 12-03-93 Exp. 1-12-95

Transfer 10 ml of above Stock Solution into a Class A 1000 ml volumetric Containing 50 ml Conc. HNO_3 and D.I. Water brought to volume with D.I. Water

Biohit 1000 used to transfer 1.0 ml aliquot.

Element	Stock Solu. Conc. (ppm)	ICV Solu. Conc. (ppb)
Cd	25	25
Se	25	25
As	100	100
Be	↓	↓
Cr		
Co		
Cu		
Fe		
Pb		
Mn		
Ni		
Zn		
V	250	250
Al	500	500
Hg	5.0	5.0

Solution expires 7-5-94

Continued on Page —

Read and Understood By

Signed	Date	Signed	Date
[illegible]	1-5-94	Jerry D. Rogers	1/5/94

The SPX was prepared by adding one part high standard to one part sample. A dilution factor of 2 is entered in the data batch and the target will equal the high standard concentration.

Mercury

(4)

ATOMIC SPECTROSCOPY SAMPLE PREP

MERCURY Book No.: 13 Pg.No.: 98

Matrix: SOILS
SOP No.: ASM3233-042

Method/QC Type: CVAA/FDER
Lot No.(s): NA

	Spike Solutions Used	Prep Date	Prep'd by	Exp. Date
1.	5.0 ppb ICV PEPURE SOL"N	6/22/94	CAH	7/25/94
2.	100 ppb Hg STD	6/22/94	CAH	6/23/94

Final Vol.(ml): 100

Pipets Used: BIOHIT 1000 #2

Balance No.: 13 Hood No.: NA Hotplate No.: NA

SAMPLE NO.	WEIGHT(g) OR Init.Vol.(ml)	SPIKE INFO./COMMENT
ICV*1	----	100 mL #1
MB	0.2003 g	
SP	0.2053 g	5.0 mL #2
CDMHNSS2*6	0.2132 g	
SPM1*CDMHNSS2*6	0.2102 g	5.0 mL #2
SPM2*CDMHNSS2*6	0.2033 g	5.0 mL #2

C. Hall 6/22/94
Signed Date

Keith Hughes 6/23/94
Read and Understood By Date

PROJECT 5.0 µg/L Hg ICV SOL'N

Continued From Page —

NEAT SOLN: PE PURE LOT # 5-227AS REC'D 4/94 EXP 5/22/95

TRANSFERRED 1.0 mL OF 5.0 µg/mL Hg NEAT SOL'N TO 1000 mL VOLUMETRIC FLASK. ADDED 10 mL CONC. HNO_3. DILUTED TO VOLUME

SOL'N GOOD FOR SIX MONTHS
FINAL CONC = 5.0 µg/L Hg
USED BIOHIT 1000 # 2

REMADE

DATE	INITIALS
5/16/94	CAH
5/20/94	CMS
5/25/94	MSS
5/30/94	MSS
6/5/94	MSS
6/8/94	BC
6/17/94	KNG
6/22/94	CAH

Continued on Page —

Read and Understood By

Signed	Date	Signed	Date
Cl. Hall	5/12/94	Pent Bakefield	5-12-94

Notebook No. 8

PROJECT 100 PPb Hg SOLUTIONS

Continued From Page —

#1 High - Purity LOT # 390574 rec'D 2-16-94 Exp 8/94

Transfer 1mL of 10 ppm stock soln. into 100 mL Volumetric flask. add 1 mL conc. HNO_3 and bring up to volume with D.I.

#2 High Purity LOT # 490126 rec'D 2-16-94 Exp 8/94

Solution is made same as above

Final Volume = 100 mL 1% HNO_3

Standards remade daily

Initials	Date
KNG	6-9-94
KNG	6-13-94
BC	6-14-94
LMS	6/20/94
KSB	6/17/94
KNG	6/17/94
KSB	6/20/94
LMS	6/21/94
CAH	6/22/94
LMS	6/23/94

Continued on Page —

Read and Understood By

Kevin Gerzik — Signed — 6-9-94 — Date

Lisa Swayne — Signed — 6-9-94 — Date

Dilution Factor Report

SAMPLE.....SITE ID.....ANALYTE.....DIL.....BATCH

data points with dilution > 1.

Chain–of–Custody Forms

6/20/94 F6260

CH..N OF CUSTODY RECORD

CDM Federal Programs Corporation SAMPLE LOG BOOK

PROJECT NAME HANFORD NORTH SLOPE (H-83L) PROJECT NUMBER 6110-C03

Field Log Book Reference No. 1

SAMPLE NUMBER			DATE	TIME	SAMPLE LOCATION	SAMPLE TYPE	ANALYSES								NUMBER OF CONTAINERS	LOG. BOOK PG. NO.	REMARKS ESE F6 8#(s)
94H-83L	A03-01-	005	6/20/94	0930	H-83L	SOIL			X						2x125ml	14	CDMHNSS2 x6
94H-83L	A03-01-	005	6/20/94	0930	H-83L	SOIL				X					1x250ml	14	
94H-83L	A03-01-	005	6/20/94	0930	H-83L	SOIL					X				1x250ml	14	
94H-83L	A03-01-	TB1	6/20/94	1000	H-83L	WATER			X						3x40ml	14	CDMHNSW x10

ESE SAMPLE RECEIVING

LDD: 6/23

Field Group(s): CDMHNSS2 x6 / CDMHNSW x10

Stored List: CDMHNSS2.2 / CDMHNSW.2

Custody Seal(s) Intact?: Y N N.A.

Cooler Temp. (°C): 6

Preservation Verified? Y N N.A.

SAMPLED BY (SIGN) Randall Roberts

RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)
① Randall Roberts	②	③	④	⑤
DATE/TIME 6/20/94 1430	DATE/TIME (/)	DATE/TIME (/)	DATE/TIME (/)	DATE/TIME (/)
RECEIVED BY (SIGN)	**RECEIVED BY (SIGN)**	**RECEIVED BY (SIGN)**	**RECEIVED BY (SIGN)**	**RECEIVED BY (SIGN)**
①	②	③	④	⑤
DATE/TIME (/)	DATE/TIME (/)	DATE/TIME (/)	DATE/TIME (/)	DATE/TIME (/)

METHOD OF SHIPMENT	SHIPPED BY (SIGN)	RECEIVED FOR LABORATORY BY (SIGN)	DATE/TIME
FED EX AIRBILL # 9501619621	Randall Roberts	[signature]	6/21/94 1200

(...) EH 6-21-94

000558

9513596.0761

THIS PAGE INTENTIONALLY
LEFT BLANK