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2/3

Analytical and Supporting Laboratory

Quality Control Data For

DOE - Hanford North Slope Site H-06-L

LEVEL IV Deliverable for Samples

EA11-1-07 (ESE# CDMHNSS*21)
WA04-4-08 (ESE# CDMHNSS*29)
WSV2-1-01 (ESE# CDMHNSS*30)
EA01-4-14 (ESE# CDMHNSS*36)

VOLUME 2

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

9513355.1717

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Software Version: 4.0<1C29>
Sample Name : HEXANE
Sample Number:
Operator : VIC

Time : 5/16/94 09:01 PM
Study :

Instrument : HP58909
AutoSampler :
Rack/Vial : 0/0

Channel : A A/D mV Range : 1000

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 05:13 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998A095.RAW
Result File : C:\TC4\HP58909\998A095.RST
Inst Method : HP58909 from C:\TC4\HP58909\998A095.RST
Proc Method : C:\TC4\HP58909\DB608 from C:\TC4\HP58909\998A095.RST
Calib Method : C:\TC4\HP58909\998A from C:\TC4\HP58909\998A095.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul
Sample Amount : 1.0000

Area Reject : 6016.000000
Dilution Factor : 1.00

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

Instrument Conditions:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 7

DATA REPORT

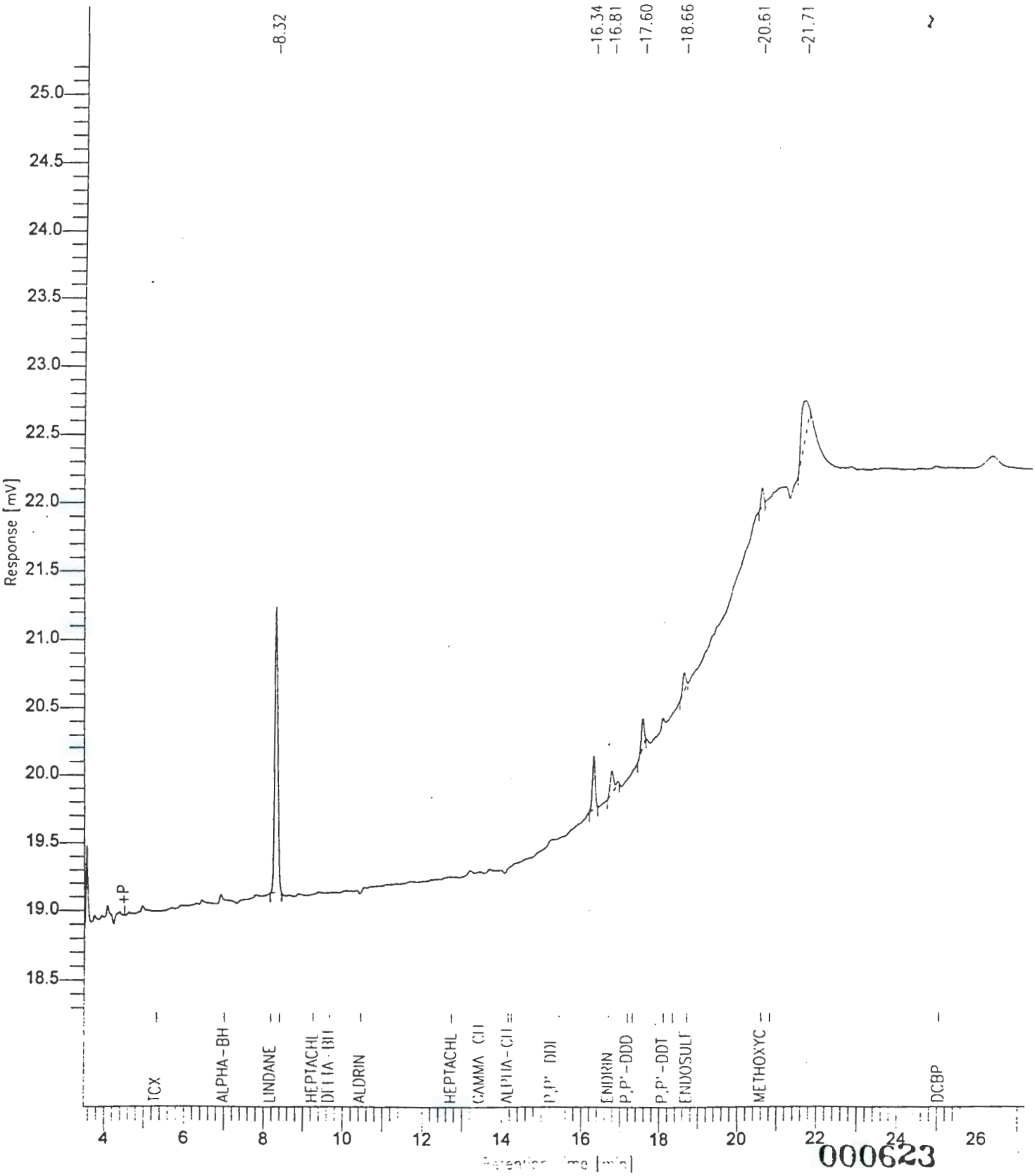
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	8.316		11554	B	2107	-------
			11554		2107	

9513356.1720

Chromatogram

Sample Name : HEXANE
FileName : C:\TC4\HP58909\998A095.RAW
Method :
Start Time : 3.49 min End Time : 27.39 min
Scale Factor: 0.0 Plot Offset: 18 mV

Sample #:
Date : 5/16/94 09:01 PM
Time of Injection: 5/15/94 05:13 AM
Low Point : 18.27 mV High Point : 25.30 mV
Plot Scale: 7.0 mV



000623

9513355.1721

Software Version: 4.0<1C29>
Sample Name : MB*PIBLK*6 Time : 5/15/94 08:08 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 05:50 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998A096.RAW
Result File : C:\TC4\HP58909\998A096.RST
Inst Method : HP58909 from C:\TC4\HP58909\998A096.RST
Proc Method : C:\TC4\HP58909\DB608 from C:\TC4\HP58909\998A096.RST
Calib Method : C:\TC4\HP58909\998A from C:\TC4\HP58909\998A096.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 6016.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 6

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	5.320	TCX	87502	B	25405	0.0480
5	21.671		20314	B	1076	-------
6	25.062	DCBP	107588	B	12329	0.0106
			215404		38810	

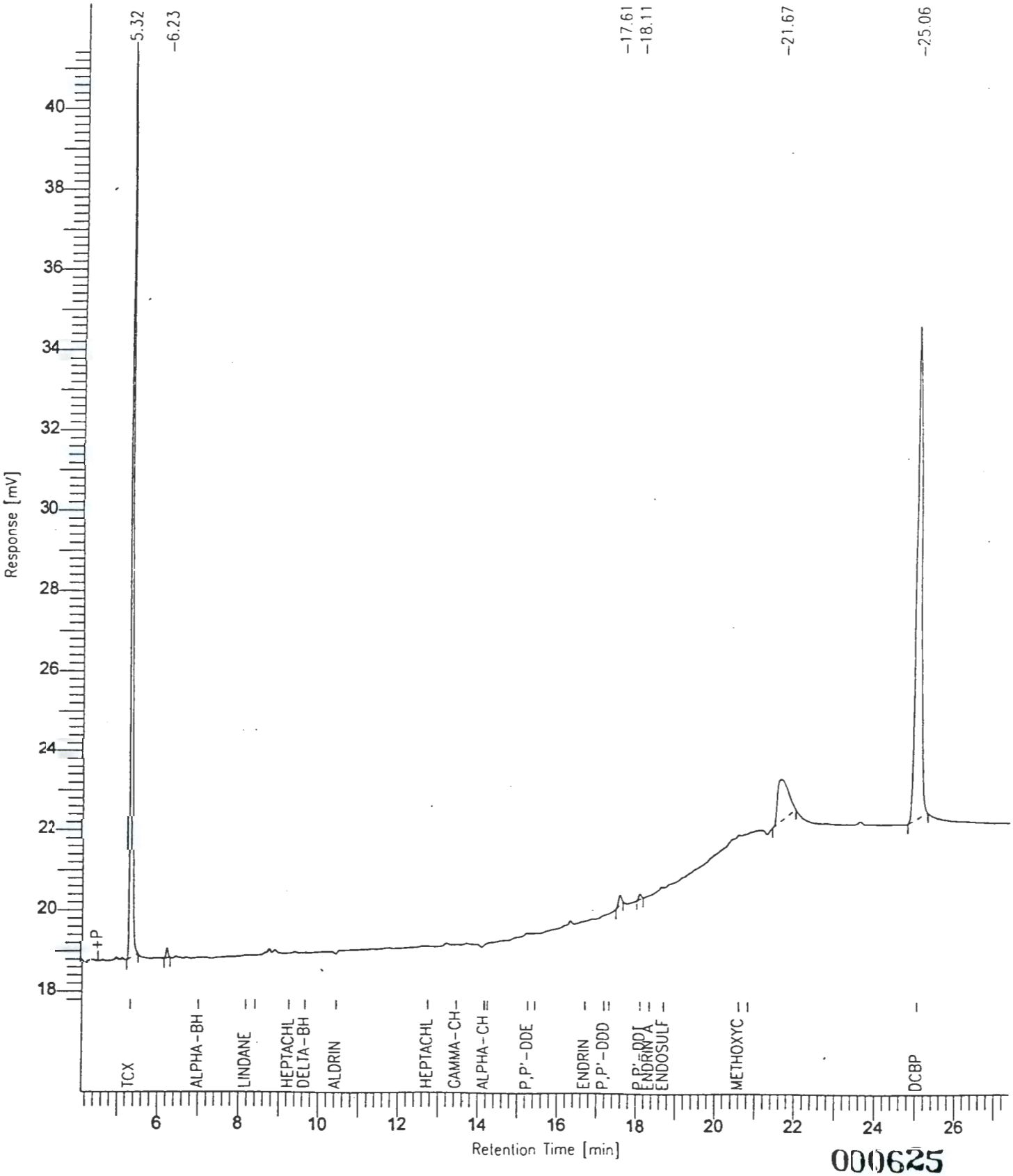
000624

9513355.1722

Chromatogram

Sample Name : MB*PIBLK*6
FileName : C:\TC4\HP58909\998A096.RAW
Method :
Start Time : 4.11 min End Time : 27.40 min
Scale Factor: 0.0 Plot Offset: 18 mV

Sample #:
Date : 5/15/94 08:08 PM
Time of Injection: 5/15/94 05:50 AM
Low Point : 17.80 mV High Point : 41.43 mV
Plot Scale: 23.6 mV



000625

Software Version: 4.0<1C29>
Sample Name : CCS*INDAM*4 Time : 5/15/94 08:36 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 06:26 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998A097.RAW
Result File : C:\TC4\HP58909\998A097.RST
Inst Method : HP58909 from C:\TC4\HP58909\998A097.RST
Proc Method : C:\TC4\HP58909\998AAM.MTH
Calib Method : C:\TC4\HP58909\998AAM.MTH
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 111 Area Threshold : 1111 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 12

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	5.319	TCX	90788	B	26574	7e-15	0.0200
2	7.011	ALPHA-BHC	76750	B	18936	-8e-16	0.0200
3	8.185	LINDANE	77812	B	17061	3e-15	0.0200
4	9.266	HEPTACHLOR	112237	B	18694	4e-15	0.0200
5	14.253	ENDOSULFAN A	78365	B	11864	8e-16	0.0200
6	15.449	DIELDRIN	156202	B	26436	5e-15	0.0400
7	16.716	ENDRIN	141358	B	26327	0.0000	0.0400
8	17.202	P,P'-DDD	116091	B	23004	8e-15	0.0400
9	18.122	P,P'-DDT	151894	B	31156	5e-15	0.0400
11	20.614	METHOXYCHLOR	639832	B	125969	-6e-15	0.2000
12	25.063	DCBP	217065	B	25277	0.0000	0.0400

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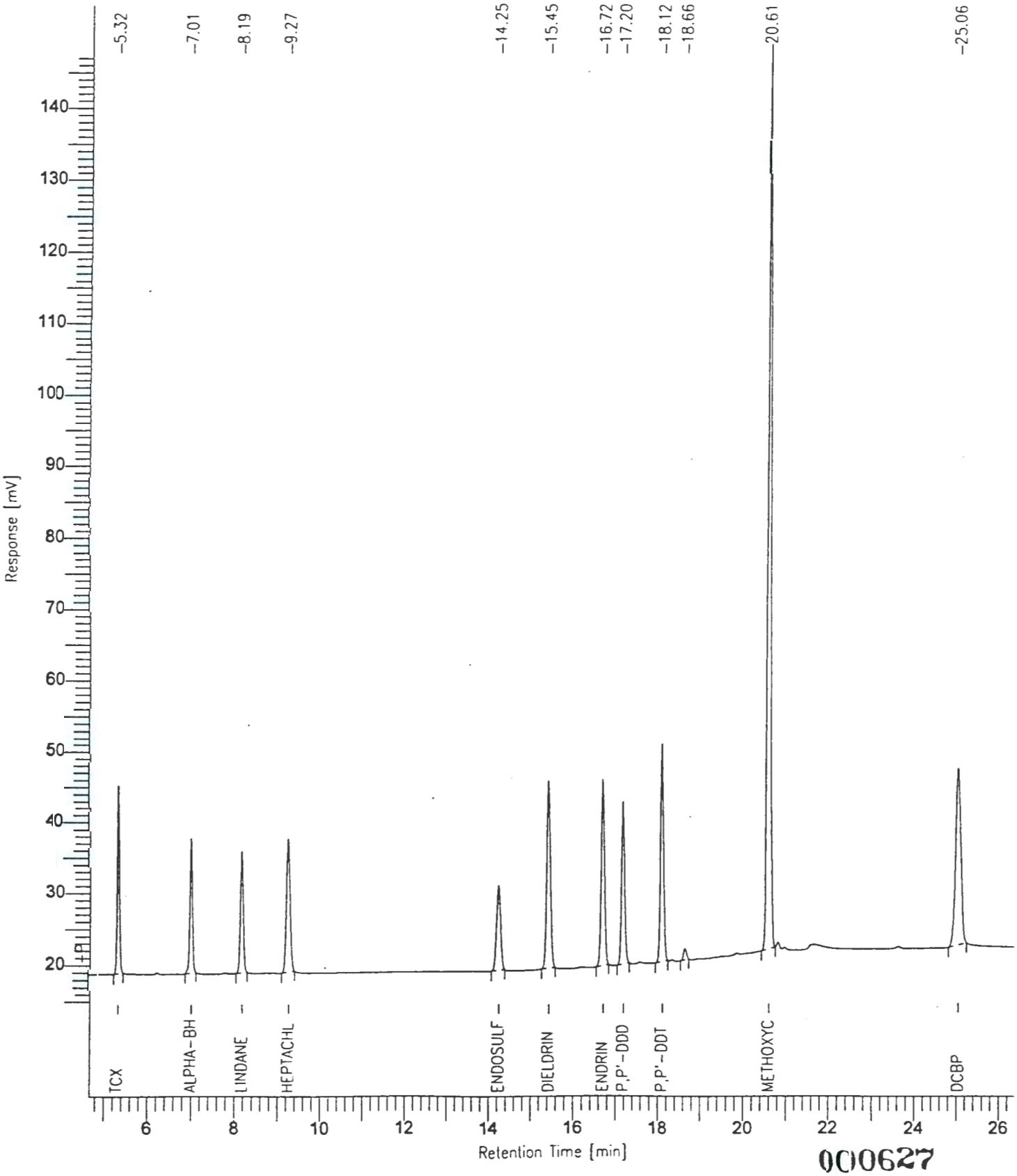
Chromatogram

Sample Name : CCS*INDAM*4
FileName : C:\TC4\HP58909\998A097.RAW
Method : 998AAM.MTH
Start Time : 4.68 min End Time : 26.39 min
Scale Factor: 0.0 Plot Offset: 15 mV

Sample #:
Date : 5/15/94 08:36 PM
Time of Injection: 5/15/94 06:26 AM
Low Point : 14.67 mV High Point : 147.81 mV
Plot Scale: 133.1 mV



000627

Software Version: 4.0<1C29>
Sample Name : CCS*INDBM*4 Time : 5/15/94 08:40 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 07:03 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998A098.RAW
Result File : C:\TC4\HP58909\998A098.RST
Inst Method : HP58909 from C:\TC4\HP58909\998A098.RST
Proc Method : C:\TC4\HP58909\998ABM.MTH
Calib Method : C:\TC4\HP58909\998ABM.MTH
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 111 Area Threshold : 1111 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 14

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	5.319	TCX	89048	B	26303	-6e-15	0.0200
2	8.406	BETA-BHC	53228	B	11524	-1e-14	0.0200
3	9.677	DELTA-BHC	64873	B	13307	6e-15	0.0200
4	10.458	ALDRIN	79104	B	12678	-5e-15	0.0200
5	12.754	HEPTACHLOR EPOXIDE	88008	B	12800	5e-15	0.0200
6	13.465	GAMMA-CHLORDANE	104747	B	14491	-4e-15	0.0200
7	14.171	ALPHA-CHLORDANE	101331	B	15082	-3e-15	0.0200
8	15.273	P,P'-DDE	144791	B	26127	0.0000	0.0400
9	17.325	ENDOSULFAN B	140923	B	27220	7e-15	0.0400
10	18.356	ENDRIN ALDEHYDE	118996	B	23768	-8e-15	0.0400
11	18.720	ENDOSULFAN SULFATE	157238	B	31914	-1e-15	0.0400
13	20.841	ENDRIN KETONE	154380	B	31778	0.0000	0.0400

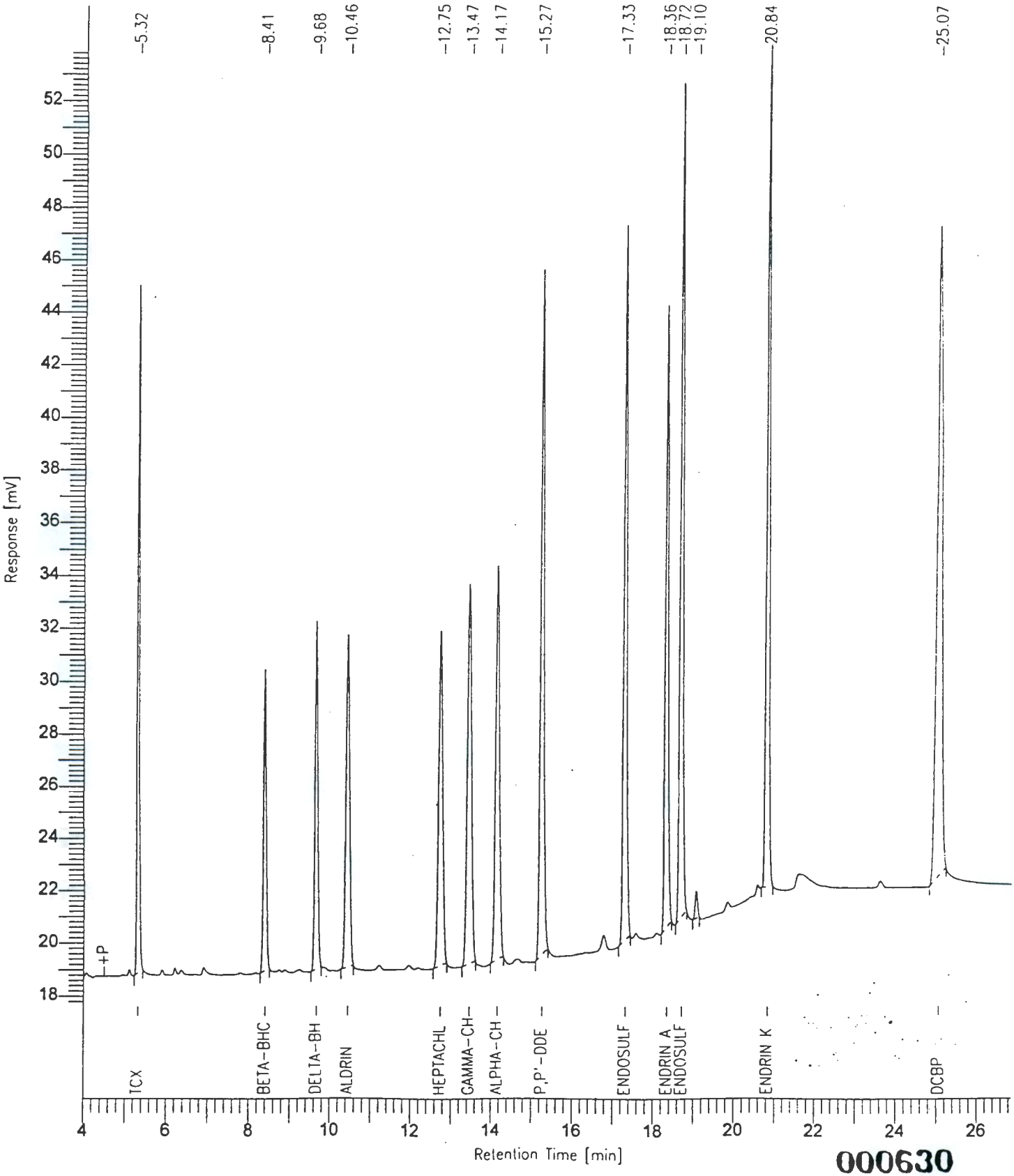
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
14	25.065	DCBP	213540	B	24825	-3e-15	0.0400
			1510208		271818		0.3800

9513355.1727

Chromatogram

Sample Name : CCS*INDBM*4
FileName : C:\TC4\HP58909\998A098.RAW
Method : 998ABM.MTH
Start Time : 4.00 min End Time : 26.88 min
Scale Factor: 0.0 Plot Offset: 18 mV

Sample #:
Date : 5/15/94 08:41 PM
Time of Injection: 5/15/94 07:03 AM
Low Point : 17.65 mV High Point : 53.80 mV
Plot Scale: 36.2 mV



000630

Software Version: 4.0<1C29>
Sample Name : NO SHOT
Time : 5/16/94 09:02 PM
Sample Number:
Study :
Operator : VIC

Instrument : HP58909
Channel : A
A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342
Data Acquisition Time: 5/15/94 07:39 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998A099.RAW
Result File : C:\TC4\HP58909\998A099.RST
Inst Method : HP58909 from C:\TC4\HP58909\998A099.RST
Proc Method : C:\TC4\HP58909\DB608 from C:\TC4\HP58909\998A099.RST
Calib Method : C:\TC4\HP58909\998A from C:\TC4\HP58909\998A099.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul
Area Reject : 6016.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 3

DATA REPORT

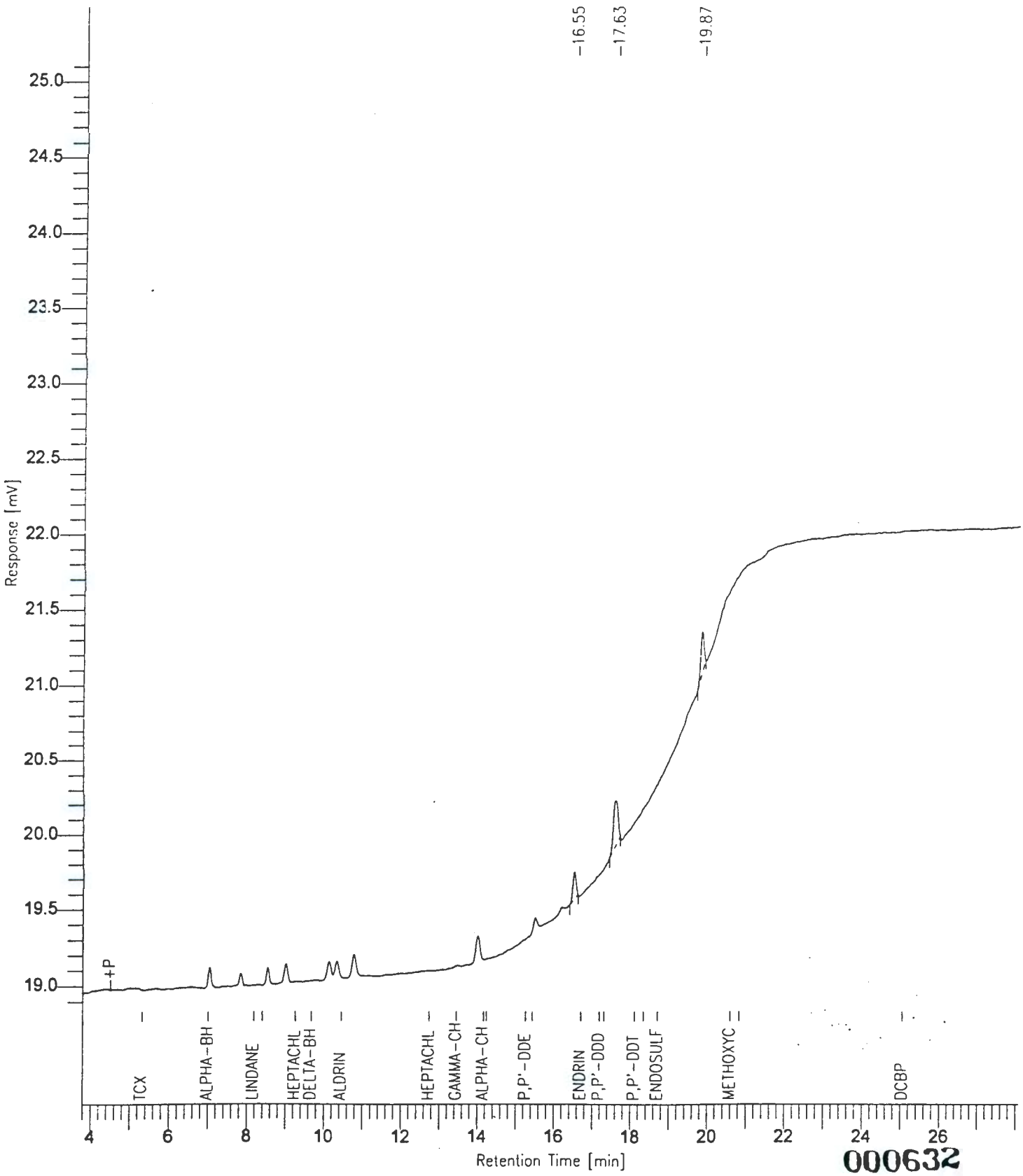
No peaks available to report

9513355.1729

Chromatogram

Sample Name : NO SHOT
FileName : C:\TC4\HP58909\998A099.RAW
Method :
Start Time : 3.79 min End Time : 28.10 min
Scale Factor: 0.0 Plot Offset: 19 mV

Sample #:
Date : 5/16/94 09:02 PM
Time of Injection: 5/15/94 07:39 AM
Low Point : 18.84 mV High Point : 25.18 mV
Plot Scale: 6.3 mV



000632

9513355.1730

Software Version: 4.0<1C29>
Sample Name : HEXANE
Sample Number:
Operator : VIC

Time : 5/16/94 09:03 PM
Study :

Instrument : HP58909
AutoSampler :
Rack/Vial : 0/0

Channel : A A/D mV Range : 1000

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 02:48 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998A100.RAW
Result File : C:\TC4\HP58909\998A100.RST
Inst Method : HP58909 from C:\TC4\HP58909\998A100.RST
Proc Method : C:\TC4\HP58909\DB608 from C:\TC4\HP58909\998A100.RST
Calib Method : C:\TC4\HP58909\998A from C:\TC4\HP58909\998A100.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul
Sample Amount : 1.0000

Area Reject : 6016.000000
Dilution Factor : 1.00

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

Instrument Conditions:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 3

DATA REPORT

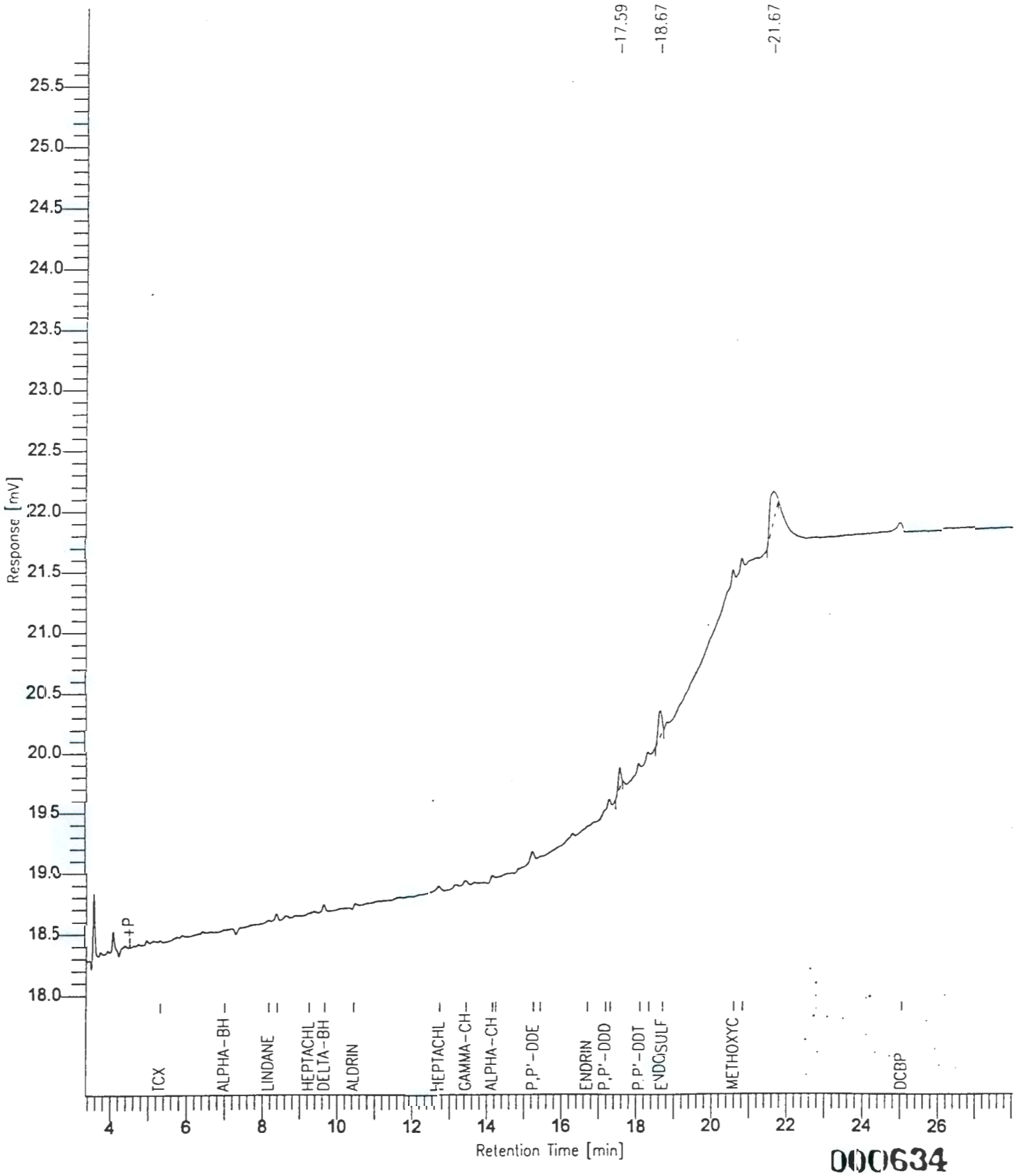
No peaks available to report

9513355.1731

Chromatogram

Sample Name : HEXANE
FileName : C:\TC4\HP58909\998A100.RAW
Method :
Start Time : 3.35 min End Time : 28.07 min
Scale Factor: 0.0 Plot Offset: 18 mV

Sample #:
Date : 5/16/94 09:03 PM
Time of Injection: 5/15/94 02:48 PM
Low Point : 17.94 mV High Point : 25.76 mV
Plot Scale: 7.8 mV



000634

Software Version: 4.0<1C29>
Sample Name : HEXANE
Sample Number:
Operator : VIC

Time : 5/16/94 09:06 PM
Study :

Instrument : HP58909
AutoSampler :
Rack/Vial : 0/0

Channel : A A/D mV Range : 1000

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 04:39 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998A103.RAW
Result File : C:\TC4\HP58909\998A103.RST
Inst Method : HP58909 from C:\TC4\HP58909\998A103.RST
Proc Method : C:\TC4\HP58909\DB608 from C:\TC4\HP58909\998A103.RST
Calib Method : C:\TC4\HP58909\998A from C:\TC4\HP58909\998A103.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul
Sample Amount : 1.0000

Area Reject : 6016.000000
Dilution Factor : 1.00

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

Instrument Conditions:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 8

DATA REPORT

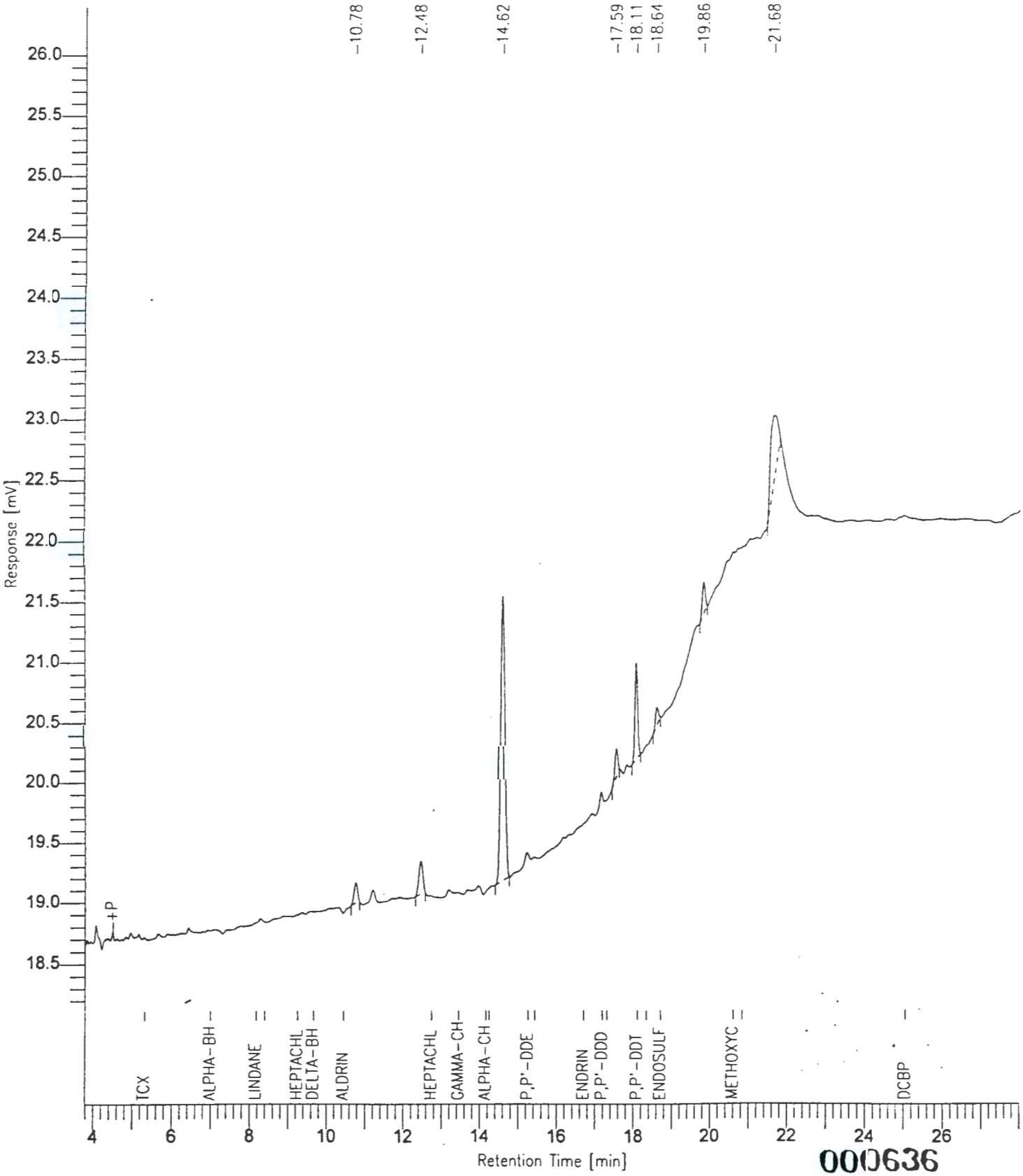
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
3	14.617		18490	B	2362	-------
8	21.681		7202	B	506	-------
			25692		2868	

9513355.1733

Chromatogram

Sample Name : HEXANE
FileName : C:\TC4\HP58909\998A103.RAW
Method :
Start Time : 3.78 min End Time : 28.02 min
Scale Factor: 0.0 Plot Offset: 18 mV

Sample #:
Date : 5/16/94 09:06 PM
Time of Injection: 5/15/94 04:39 PM
Low Point : 18.12 mV High Point : 26.01 mV
Plot Scale: 7.9 mV



000636

9513555.1734

Software Version: 4.0<1C29>
Sample Name : MB*PIBLK*7 Time : 5/16/94 09:06 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 05:16 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998A104.RAW
Result File : C:\TC4\HP58909\998A104.RST
Inst Method : HP58909 from C:\TC4\HP58909\998A104.RST
Proc Method : C:\TC4\HP58909\DB608 from C:\TC4\HP58909\998A104.RST
Calib Method : C:\TC4\HP58909\998A from C:\TC4\HP58909\998A104.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 6016.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 10

DATA REPORT

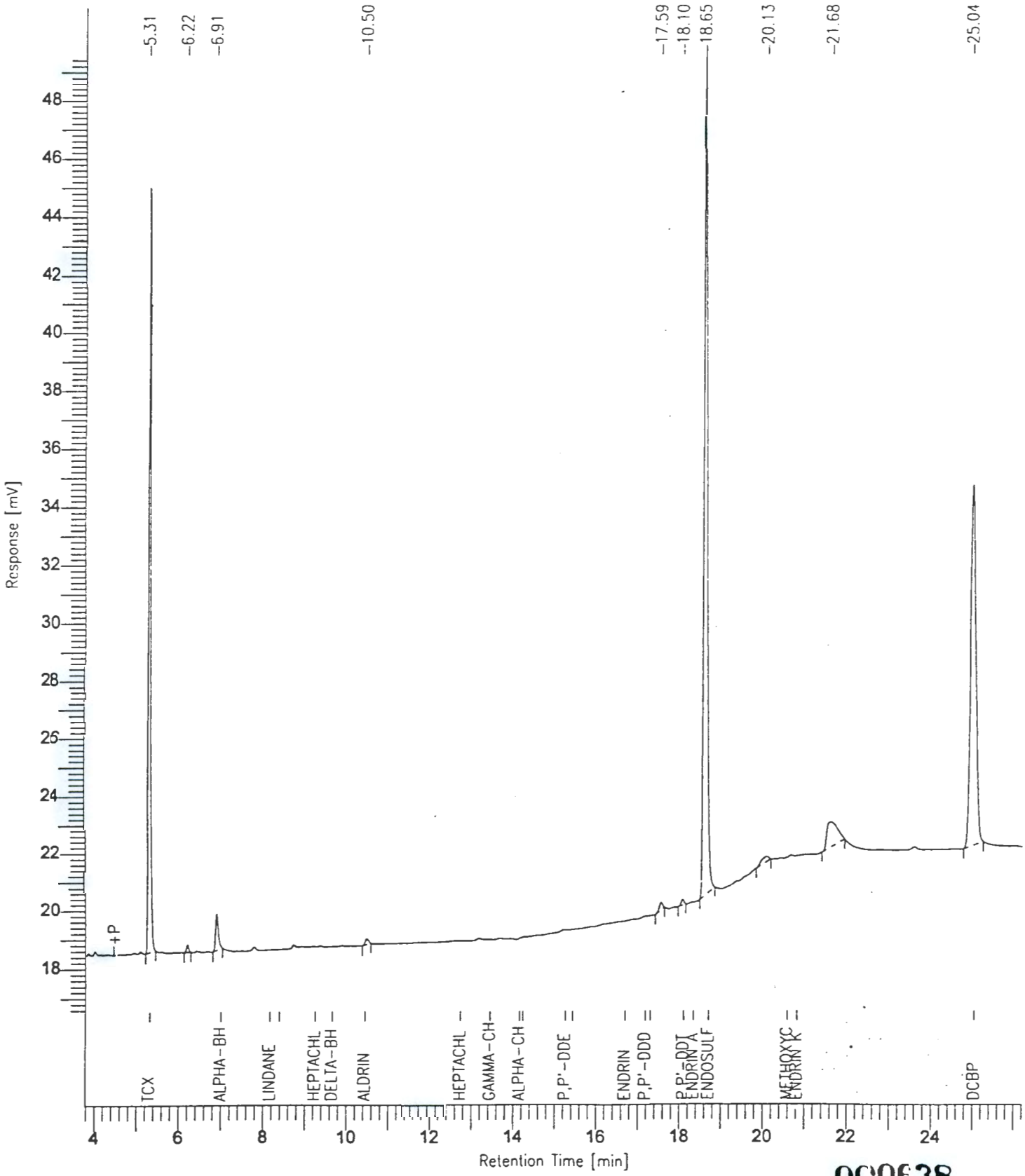
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	5.312	TCX	90736	B	26795	-0.0979
7	18.647	ENDOSULFAN SULFATE RW	162740	B	29292	-0.3833
9	21.675		15273	B	857	-------
10	25.038	DCBP	109988	B	12486	-0.0834
			378737		69430	

9513355.1735

Chromatogram

Sample Name : MB*PIBLK*7
FileName : C:\TC4\HP58909\998A104.RAW
Method :
Start Time : 3.78 min End Time : 26.23 min
Scale Factor: 0.0 Plot Offset: 17 mV

Sample #:
Date : 5/16/94 09:07 PM
Time of Injection: 5/15/94 05:16 PM
Low Point : 16.57 mV High Point : 49.58 mV
Plot Scale: 33.0 mV



000638

Software Version: 4.0<1C29>
Sample Name : CK*PEM*5 Time : 5/16/94 09:07 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 05:52 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998A105.RAW
Result File : C:\TC4\HP58909\998A105.RST
Inst Method : HP58909 from C:\TC4\HP58909\998A105.RST
Proc Method : C:\TC4\HP58909\DB608 from C:\TC4\HP58909\998A105.RST
Calib Method : C:\TC4\HP58909\998APEM from C:\TC4\HP58909\998A105.RST
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 19

DATA REPORT

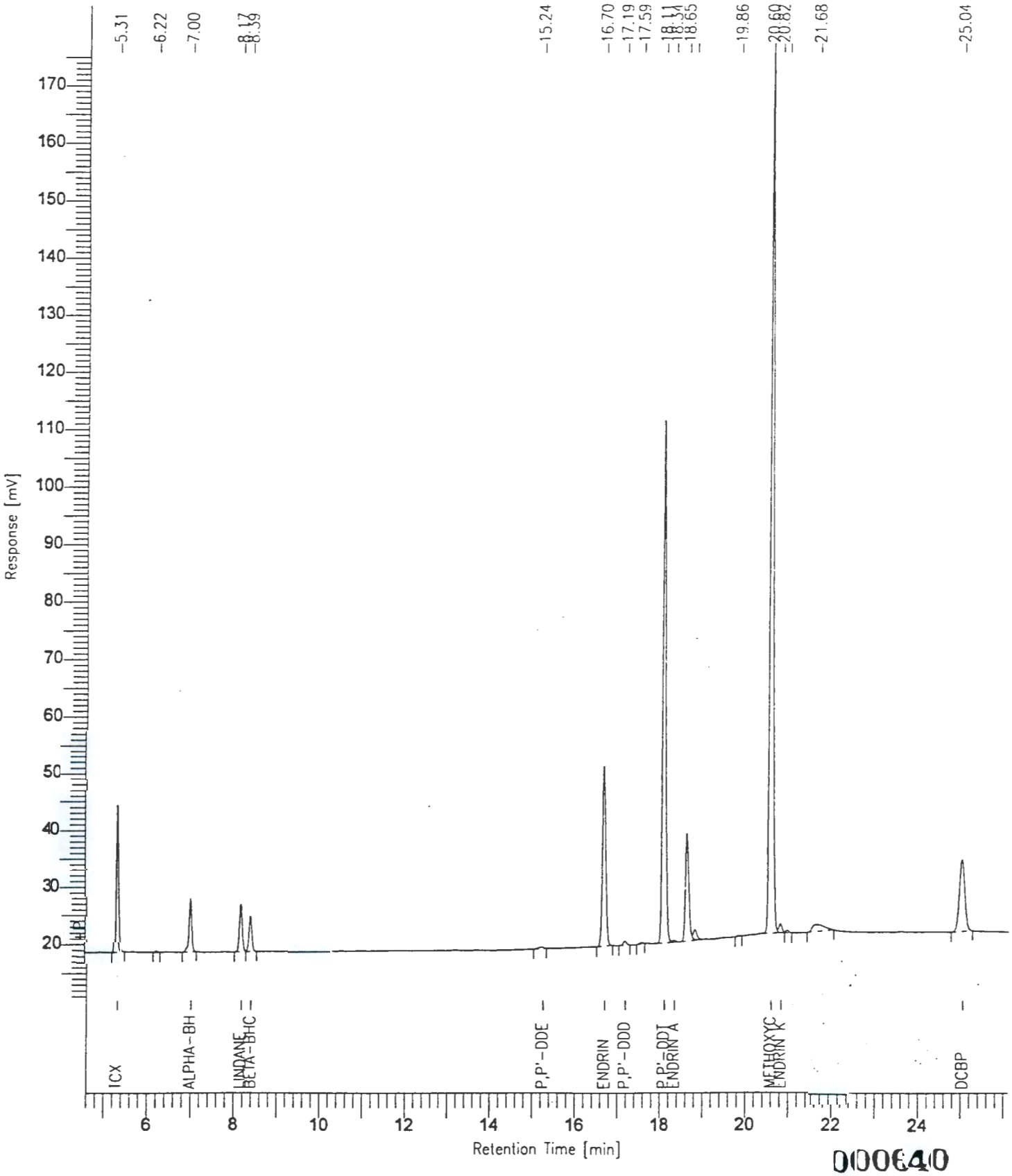
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	5.312	TCX	89266	B	26141	-0.0910
3	7.000	ALPHA-BHC	40448	B	9253	-0.1098
4	8.172	LINDANE	38132	B	8286	-0.0961
5	8.393	BETA-BHC	28549	V	6124	-0.1177
6	15.242	P,P'-DDE	2400	B	281	-0.1855
7	16.704	ENDRIN	172424	B	31896	-0.0670
8	17.191	P,P'-DDD	3997	B	717	-0.0525
10	18.111	P,P'-DDT	440406	B	91755	-0.0443
11	18.339	ENDRIN ALDEHYDE	2250	E	380	-0.0758
15	20.602	METHOXYCHLOR	777412	B	154196	-0.0451
16	20.824	ENDRIN KETONE	8363	E	1606	-0.0836
19	25.038	DCBP	109647	B	12622	-0.0838

9513355.1737

Chromatogram

Sample Name : CK*PEM*5
FileName : C:\TC4\HP58909\998A105.RAW
Method :
Start Time : 4.60 min End Time : 26.13 min
Scale Factor: 0.0 Plot Offset: 10 mV

Sample #:
Date : 5/16/94 09:07 PM
Time of Injection: 5/15/94 05:52 PM
Low Point : 10.39 mV High Point : 175.87 mV
Plot Scale: 165.5 mV



000640

9513355.1738

Software Version: 4.0<1C29>
Sample Name : HEXANE
Sample Number:
Operator : VIC

Time : 5/16/94 09:12 PM
Study :

Instrument : HP58909
AutoSampler :
Rack/Vial : 0/0

Channel : A A/D mV Range : 1000

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 08:24 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998A109.RAW
Result File : C:\TC4\HP58909\998A109.RST
Inst Method : HP58909 from C:\TC4\HP58909\998A109.RST
Proc Method : C:\TC4\HP58909\DB608 from C:\TC4\HP58909\998A109.RST
Calib Method : C:\TC4\HP58909\998A from C:\TC4\HP58909\998A109.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul
Sample Amount : 1.0000

Area Reject : 6016.000000
Dilution Factor : 1.00

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

Instrument Conditions:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 11

DATA REPORT

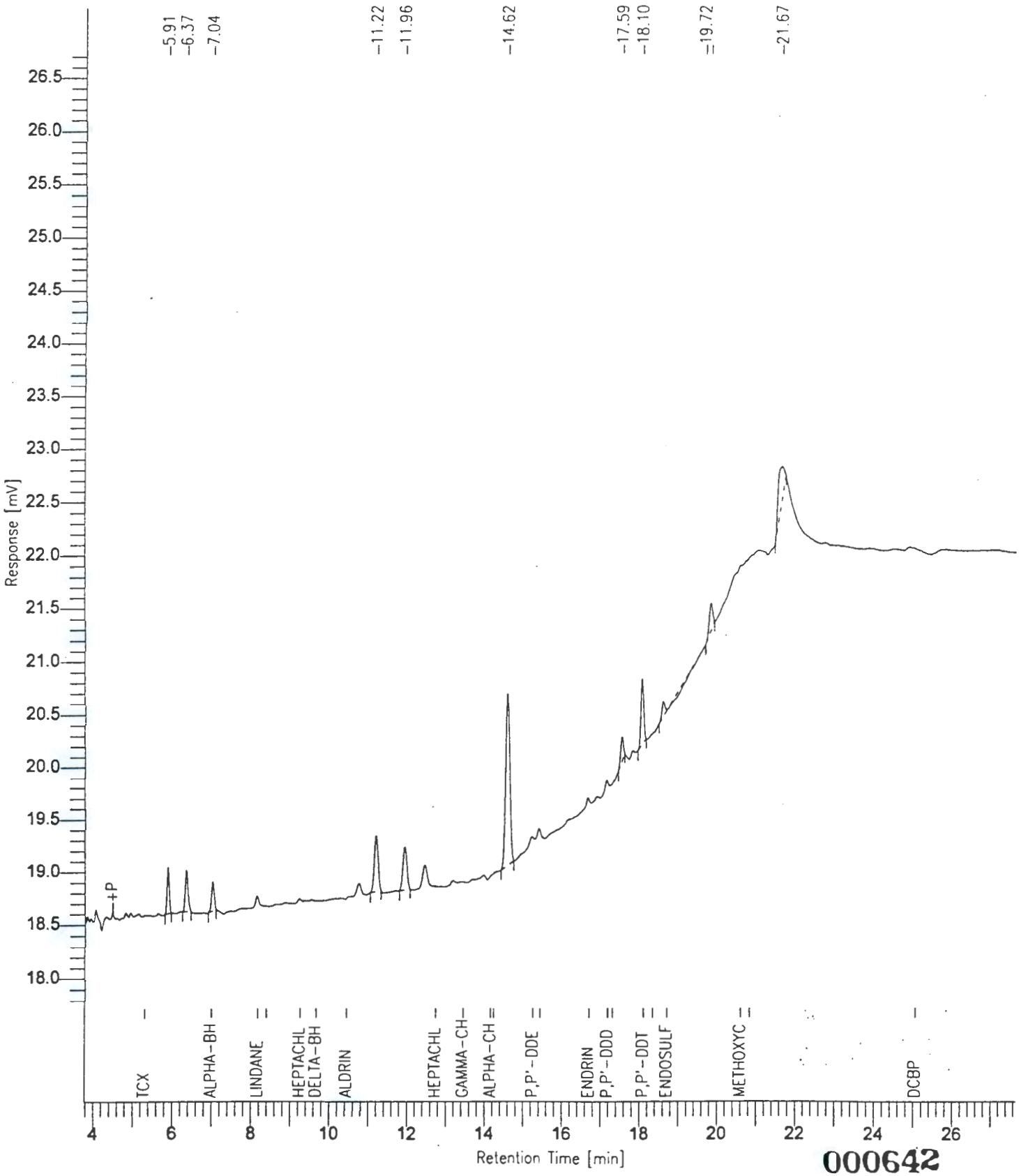
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
6	14.619		12556	B	1639	-------
			12556		1639	

9513355.1739

Chromatogram

Sample Name : HEXANE
FileName : C:\TC4\HP58909\998A109.RAW
Method :
Start Time : 3.78 min End Time : 27.67 min
Scale Factor: 0.0 Plot Offset: 18 mV

Sample #:
Date : 5/16/94 09:12 PM
Time of Injection: 5/15/94 08:24 PM
Low Point : 17.73 mV High Point : 26.72 mV
Plot Scale: 9.0 mV



000642

9513355.1740

Software Version: 4.0<1C29>
Sample Name : MB*PIBLK*8 Time : 5/16/94 09:12 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 09:03 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998A110.RAW
Result File : C:\TC4\HP58909\998A110.RST
Inst Method : HP58909 from C:\TC4\HP58909\998A110.RST
Proc Method : C:\TC4\HP58909\DB608 from C:\TC4\HP58909\998A110.RST
Calib Method : C:\TC4\HP58909\998A from C:\TC4\HP58909\998A110.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 6016.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 7

DATA REPORT

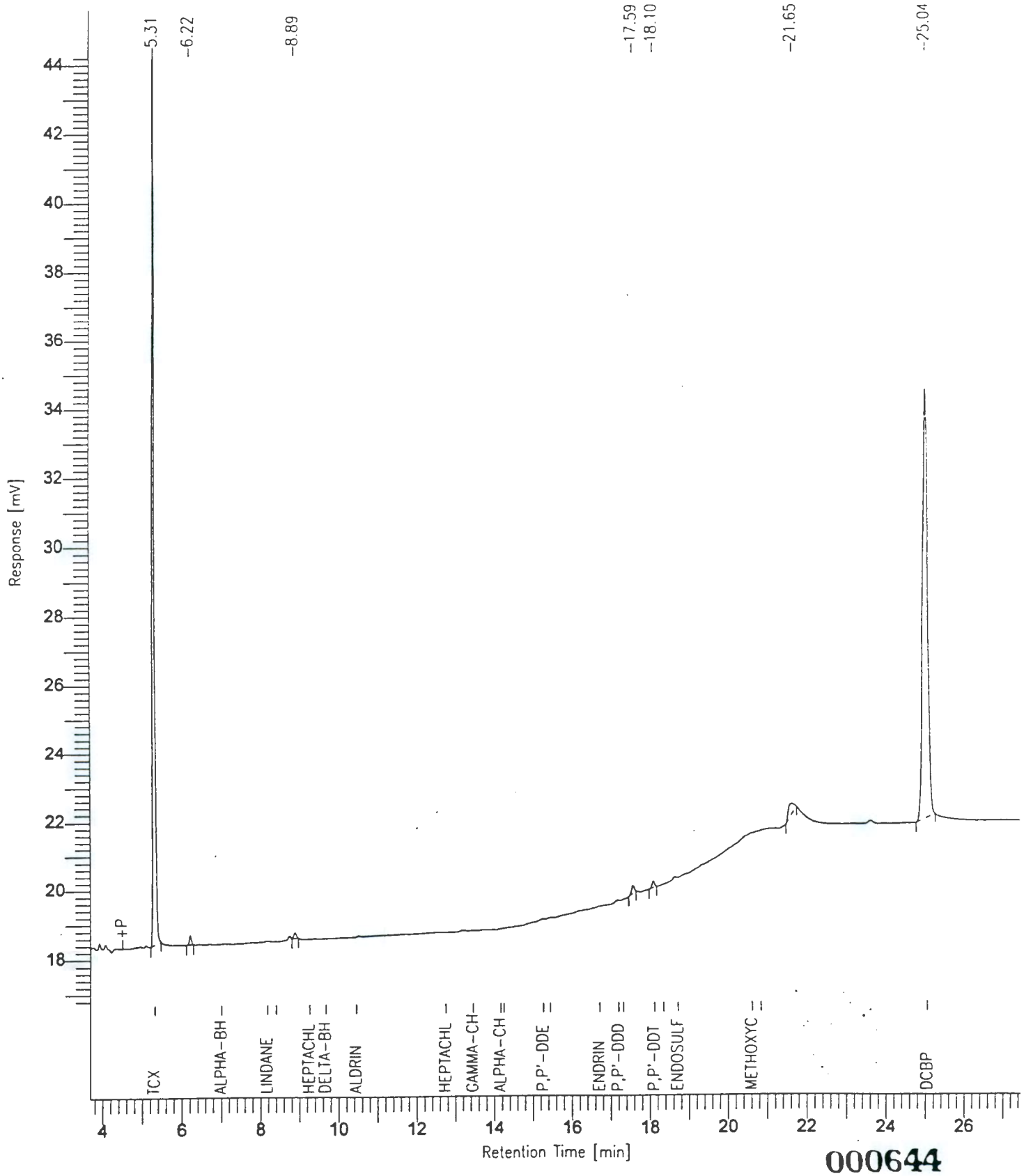
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	5.313	TCX	89826	B	26224	-0.0827
7	25.039	DCBP	109235	B	12449	-0.0789
			199060		38673	

9513555.1741

Chromatogram

Sample Name : MB*PIBLK*8
FileName : C:\TC4\HP58909\998A110.RAW
Method :
Start Time : 3.68 min End Time : 27.48 min
Scale Factor: 0.0 Plot Offset: 17 mV

Sample #:
Date : 5/16/94 09:12 PM
Time of Injection: 5/15/94 09:03 PM
Low Point : 16.71 mV High Point : 44.25 mV
Plot Scale: 27.5 mV



000644

9513355.1742

Software Version: 4.0<1C29>
Sample Name : CCS*INDAM*5 Time : 5/16/94 09:15 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 09:42 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998A111.RAW
Result File : C:\TC4\HP58909\998A111.RST
Inst Method : HP58909 from C:\TC4\HP58909\998A111.RST
Proc Method : C:\TC4\HP58909\998AAM.MTH
Calib Method : C:\TC4\HP58909\998AAM.MTH
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 111 Area Threshold : 1111 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 11

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	5.312	TCX	93132	B	27456	-1e-15	0.0200
2	7.000	ALPHA-BHC	76760	B	19190	-2e-15	0.0200
3	8.172	LINDANE	79436	B	17497	-1e-14	0.0200
4	9.252	HEPTACHLOR	114818	B	19200	9e-15	0.0200
5	14.235	ENDOSULFAN A	79968	B	12046	-3e-15	0.0200
6	15.434	DIELDRIN	158486	B	26811	-8e-16	0.0400
7	16.702	ENDRIN	143380	B	26648	0.0000	0.0400
8	17.189	P,P'-DDD	117412	B	23412	-1e-14	0.0400
9	18.108	P,P'-DDT	154630	B	31686	4e-15	0.0400
10	20.601	METHOXYCHLOR	641671	B	127853	7e-15*	0.2000
11	25.043	DCBP	218422	B	25505	-3e-15	0.0400

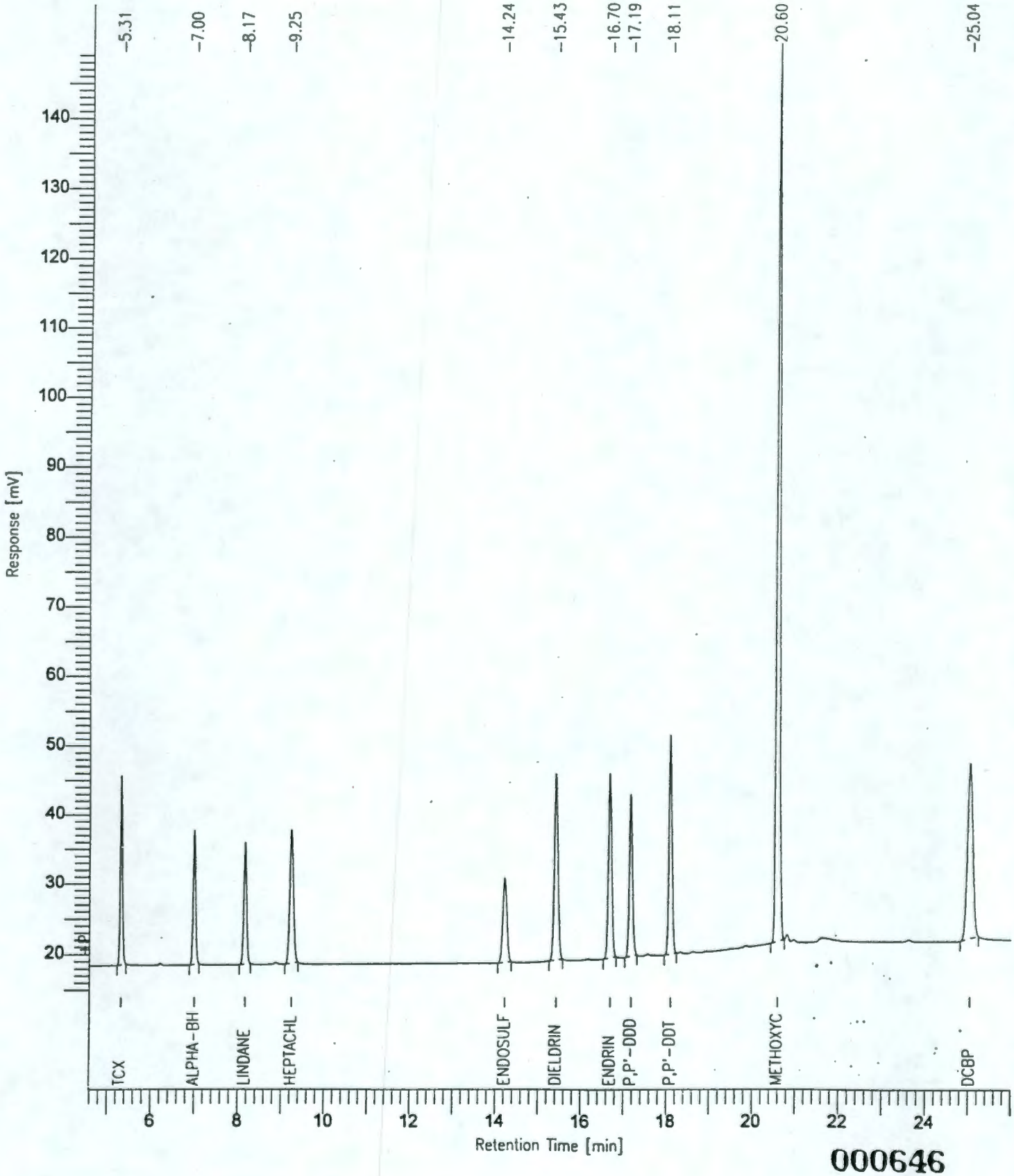
000645

9513355.1743

Chromatogram

Sample Name : CCS*INDAM*5
FileName : C:\TC4\HP58909\998A111.RAW
Method : 998AAM.MTH
Start Time : 4.58 min End Time : 26.01 min
Scale Factor: 0.0 Plot Offset: 14 mV

Sample #:
Date : 5/16/94 09:15 PM
Time of Injection: 5/15/94 09:42 PM
Low Point : 14.03 mV High Point : 149.57 mV
Plot Scale: 135.5 mV



000646

9513355.1744

Software Version: 4.0<1C29>
Sample Name : CCS*INDBM*5 Time : 5/16/94 09:17 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 10:21 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998A112.RAW
Result File : C:\TC4\HP58909\998A112.RST
Inst Method : HP58909 from C:\TC4\HP58909\998A112.RST
Proc Method : C:\TC4\HP58909\998ABM.MTH
Calib Method : C:\TC4\HP58909\998ABM.MTH
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 26

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	5.312	TCX	93088	B	26939	7e-15	0.0200
6	8.392	BETA-BHC	55971	B	11806	-1e-14	0.0200
7	9.661	DELTA-BHC	67064	B	13494	2e-15	0.0200
8	10.441	ALDRIN	83494	B	13005	-6e-15	0.0200
10	12.734	HEPTACHLOR EPOXIDE	91928	B	12906	7e-15	0.0200
11	13.446	GAMMA-CHLORDANE	109229	B	14668	-4e-15	0.0200
12	14.152	ALPHA-CHLORDANE	108574	B	15438	-3e-15	0.0200
13	15.256	P,P'-DDE	152316	B	26638	2e-15	0.0400
15	17.311	ENDOSULFAN B	146319	B	27252	4e-15	0.0400
18	18.342	ENDRIN ALDEHYDE	124183	B	23907	4e-15	0.0400
19	18.707	ENDOSULFAN SULFATE	161727	V	31831	-8e-15	0.0400
23	20.827	ENDRIN KETONE	160159	V	32352	-2e-15	0.0400

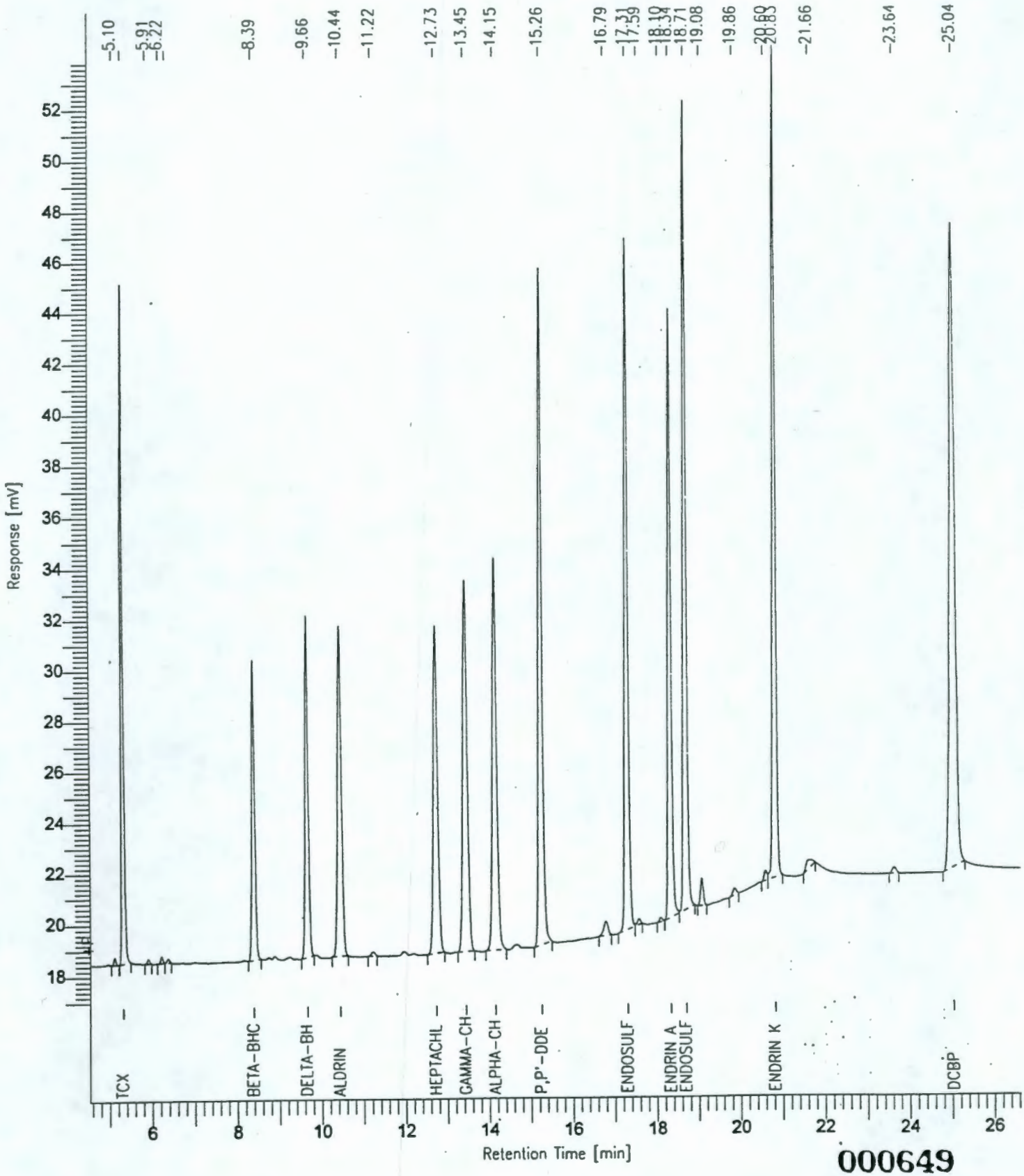
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
26	25.039	DCBP	223673	B	25335	7e-15	0.0400
			1577723		275572		0.3800

9513355.1746

Chromatogram

Sample Name : CCS*INDBM*5
FileName : C:\TC4\HP58909\998A112.RAW
Method : 998ABM.MTH
Start Time : 4.53 min End Time : 26.62 min
Scale Factor: 0.0 Plot Offset: 17 mV

Sample #:
Date : 5/16/94 09:17 PM
Time of Injection: 5/15/94 10:21 PM
Low Point : 16.82 mV High Point : 53.98 mV
Plot Scale: 37.2 mV



000649

9513355.1747

Software Version: 4.0<1C29>
Sample Name : CK*RESC*1 Time : 5/15/94 09:05 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/12/94 07:13 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B006.RAW
Result File : C:\TC4\HP58909\998B006.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B006.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B006.RST
Calib Method : C:\TC4\HP58909\998BRES from C:\TC4\HP58909\998B006.RST
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 18

DATA REPORT

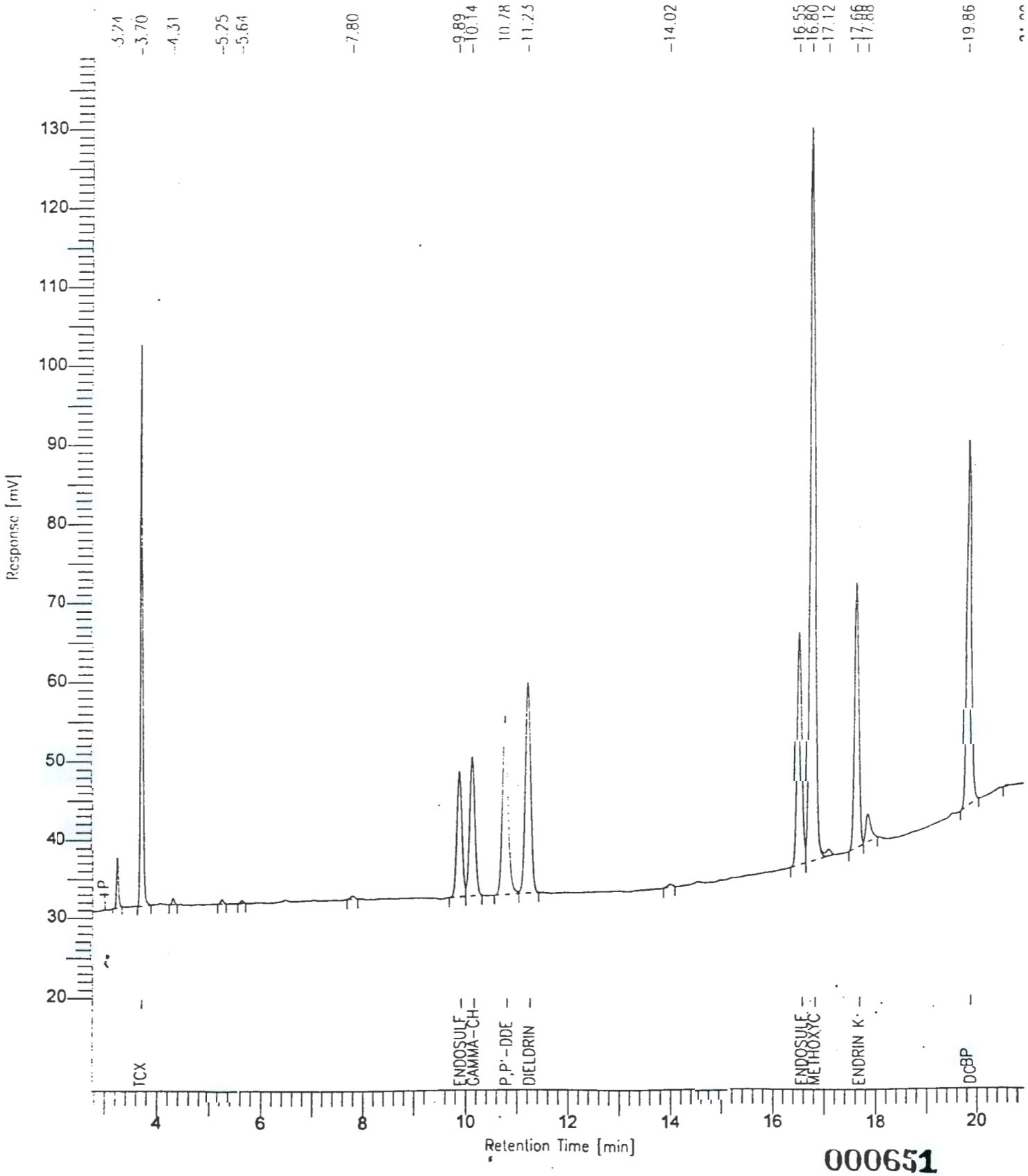
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.701	TCX	197486	B	71402	-0.1962	0.0200
7	9.887	ENDOSULFAN A	110938	B	16024	-0.3108	0.0100
8	10.139	GAMMA-CHLORDANE	127861	V	17768	-0.3187	0.0100
9	10.783	P,P'-DDE	173380	B	22789	-0.3072	0.0200
10	11.228	DIELDRIN	200046	V	26837	-0.3192	0.0200
12	16.551	ENDOSULFAN SULFATE	191600	B	29497	-0.2186	0.0200
13	16.803	METHOXYCHLOR	621127	V	93176	-0.1811	0.1000
15	17.660	ENDRIN KETONE	195707	B	33629	-0.1965	0.0200
17	19.862	DCBP	287075	B	46506	-0.1207	0.0200
			2105220		357629		0.2400

9513355.1748

Chromatogram

Sample Name : CK*RESC*1
FileName : C:\TC4\HP58909\998B006.RAW
Method :
Start Time : 2.76 min End Time : 20.93 min
Scale Factor: 0.0 Plot Offset: 20 mV

Sample #:
Date : 5/15/94 09:05 PM
Time of Injection: 5/12/94 07:13 PM
Low Point : 19.96 mV High Point : 139.40 mV
Plot Scale: 119.4 mV



000651

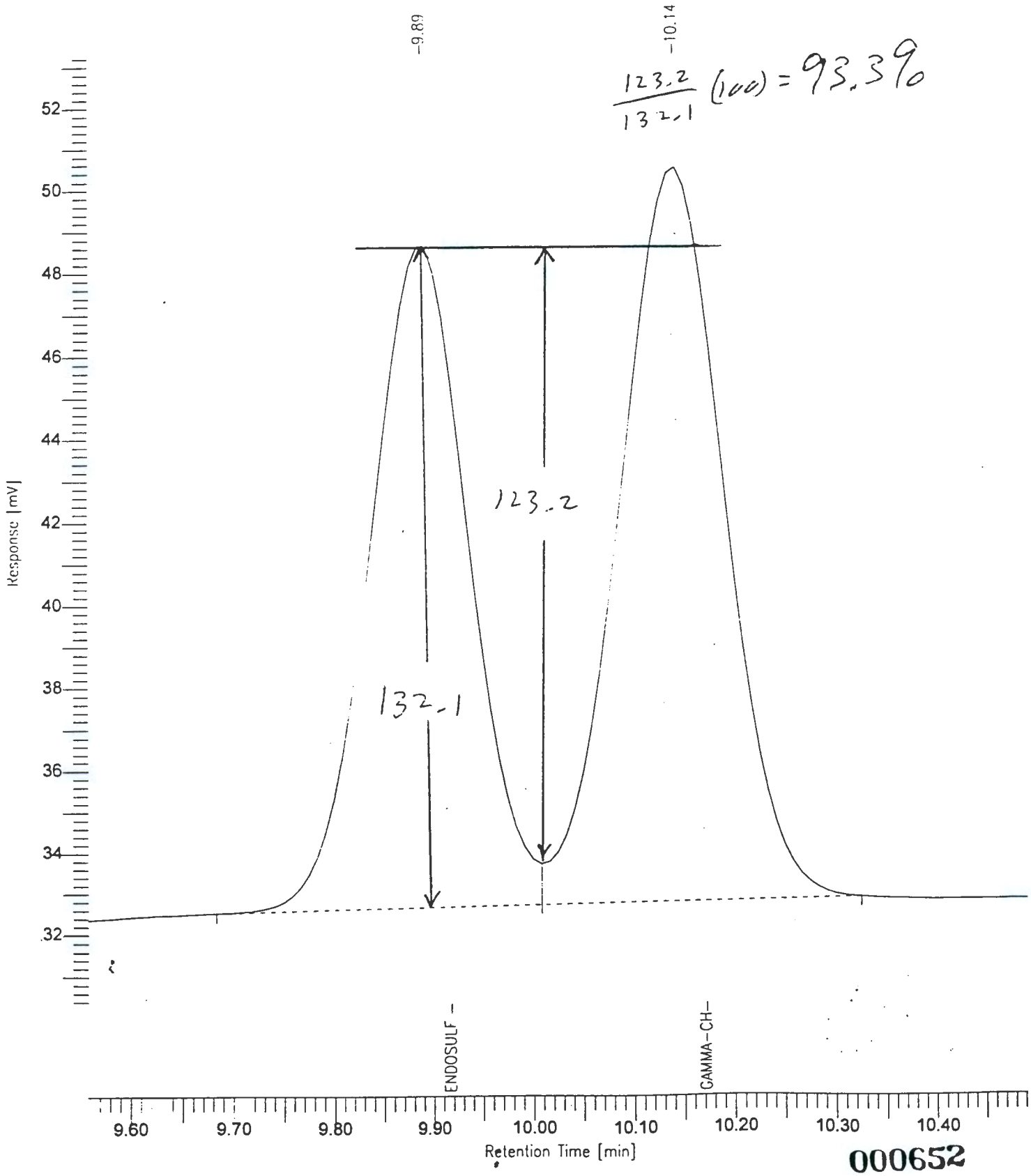
9513355.1749

Chromatogram

Sample Name : CK*RESC*1
FileName : C:\TC4\HP58909\998B006.RAW
Method :
Start Time : 9.56 min End Time : 10.49 min
Scale Factor: 0.0 Plot Offset: 30 mV

Sample #:
Date : 5/15/94 09:25 PM
Time of Injection: 5/12/94 07:13 PM
Low Point : 30.35 mV High Point : 53.24 mV
Plot Scale: 22.9 mV

$\frac{123.2}{132.1}(100) = 93.3\%$



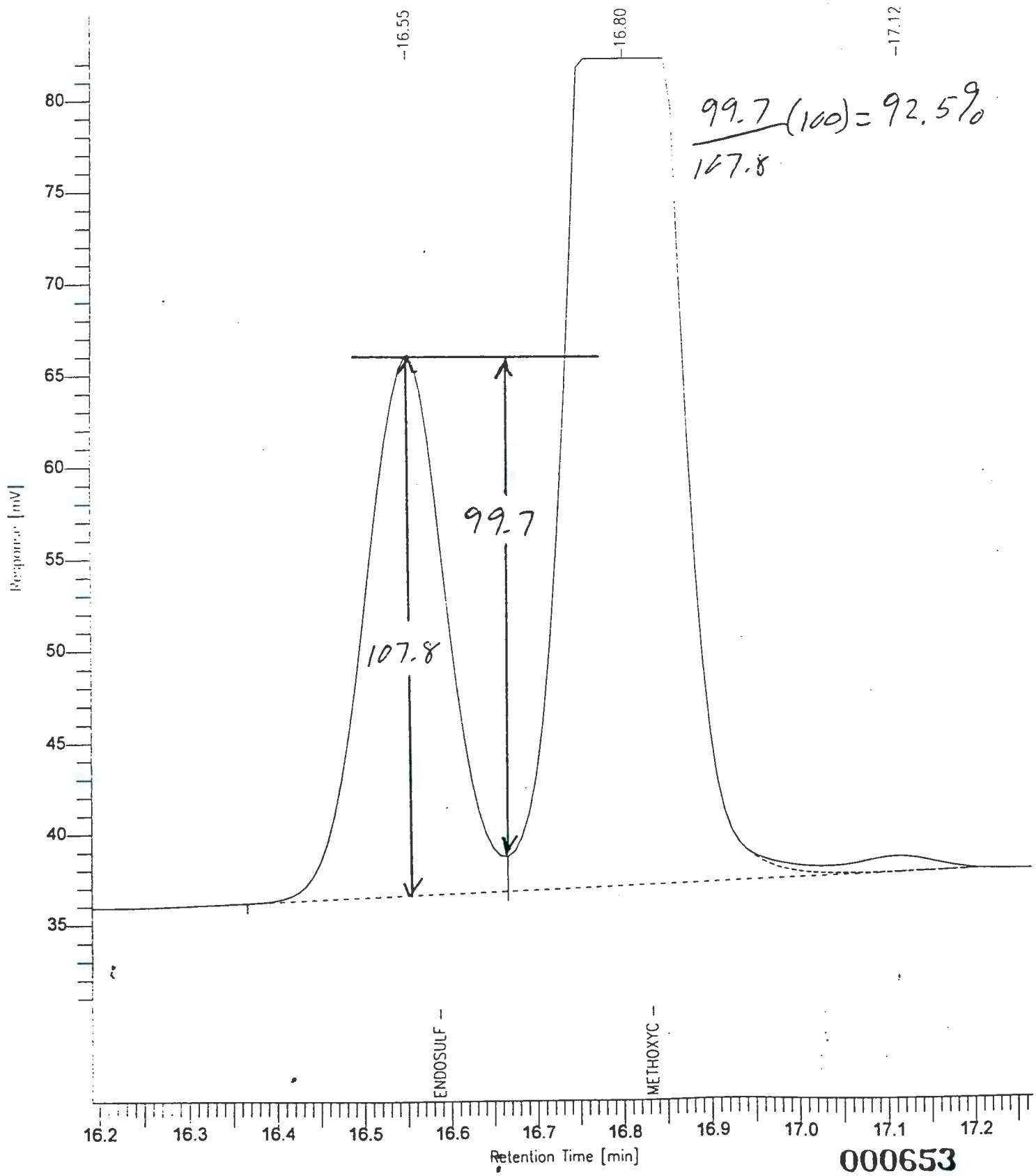
000652

9513555.1750

Chromatogram

Sample Name : CK*RESC*1
FileName : C:\TC4\HP58909\998B006.RAW
Method :
Start Time : 16.19 min End Time : 17.27 min
Scale Factor: 0.0 Plot Offset: 30 mV

Sample #:
Date : 5/15/94 09:25 PM
Time of Injection: 5/12/94 07:13 PM
Low Point : 30.41 mV High Point : 82.10 mV
Plot Scale: 51.7 mV



9513355.1751

Software Version: 4.0<1C29>
Sample Name : CK*PEM*1 Time : 5/15/94 09:07 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/12/94 07:51 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B007.RAW
Result File : C:\TC4\HP58909\998B007.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B007.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B007.RST
Calib Method : C:\TC4\HP58909\998BPEM from C:\TC4\HP58909\998B007.RST
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 19

DATA REPORT

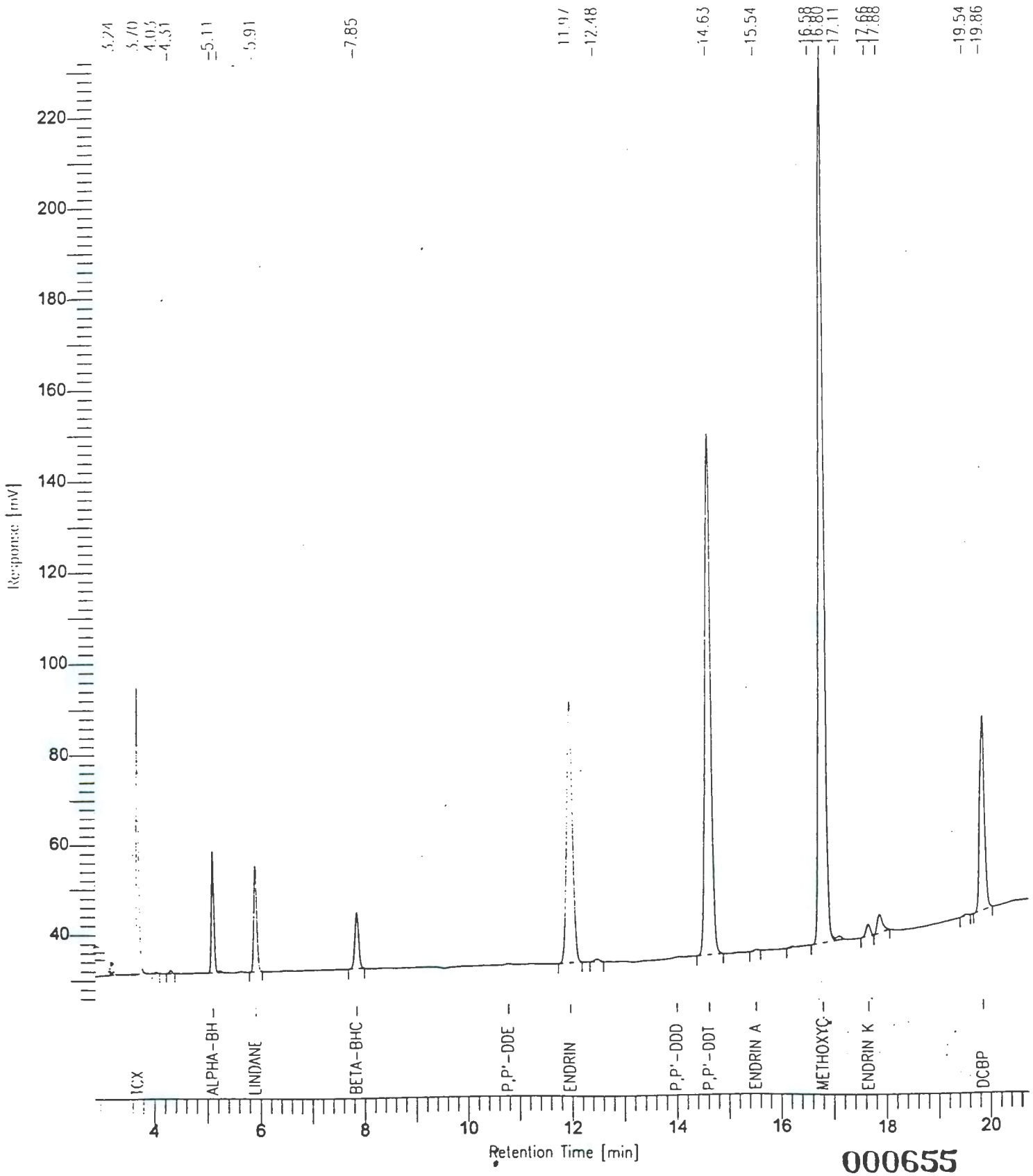
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
2	3.701	TCX	173441	B	63676	0.0055
5	5.108	ALPHA-BHC	86192	B	26648	-0.0121
7	5.910	LINDANE	88735	B	23221	-0.0190
8	7.850	BETA-BHC	63744	B	12261	0.0130
9	11.974	ENDRIN	434954	B	57896	0.0160
11	14.627	P,P'-DDT	854233	B	114911	0.0197
12	15.539	ENDRIN ALDEHYDE	2038	B	291	0.1079
14	16.803	METHOXYCHLOR	1331666	B	195896	0.0030
16	17.658	ENDRIN KETONE	15464	B	2729	-0.0070
19	19.863	DCBP	264412	B	43080	-0.0034
			3314879		540610	

9513355.1752

Chromatogram

Sample Name : CK*PEM*1
FileName : C:\TC4\HP58909\998B007.RAW
Method :
Start Time : 2.90 min End Time : 20.74 min
Scale Factor: 0.0 Plot Offset: 24 mV

Sample #:
Date : 5/15/94 09:07 PM
Time of Injection: 5/12/94 07:51 PM
Low Point : 24.24 mV High Point : 232.45 mV
Plot Scale: 208.2 mV



000655

Software Version: 4.0<1C29>
Sample Name : ICV*AR1660*1 Time : 5/15/94 09:07 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/12/94 08:29 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B008.RAW
Result File : C:\TC4\HP58909\998B008.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B008.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B008.RST
Calib Method : C:\TC4\HP58909\998B1660 from C:\TC4\HP58909\998B008.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 3333.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 50

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	3.235		17596	B	6799	-------	1.7597e-07
2	3.700	TCX	185752	B	68270	-4e-15	0.0200
4	4.229		3821	B	1195	-------	3.8206e-08
6	4.468		4674	B	1459	-------	4.6743e-08
7	4.568		26141	V	7327	-------	2.6141e-07
9	5.237	PCB-1016-1	55974	B	13789	1e-15	0.1000
11	5.618		16116	V	3574	-------	1.6116e-07
12	5.709		20854	V	4887	-------	2.0854e-07
13	5.997		13668	B	2989	-------	1.3668e-07
14	6.190	PCB-1016-2	104840	V	20870	4e-15	0.1000
15	6.487		47743	V	7971	-------	4.7743e-07
16	6.737		29894	B	6088	-------	2.9894e-07

Result File : 998B008.RST, Printed On 5/15/94 09:07 PM

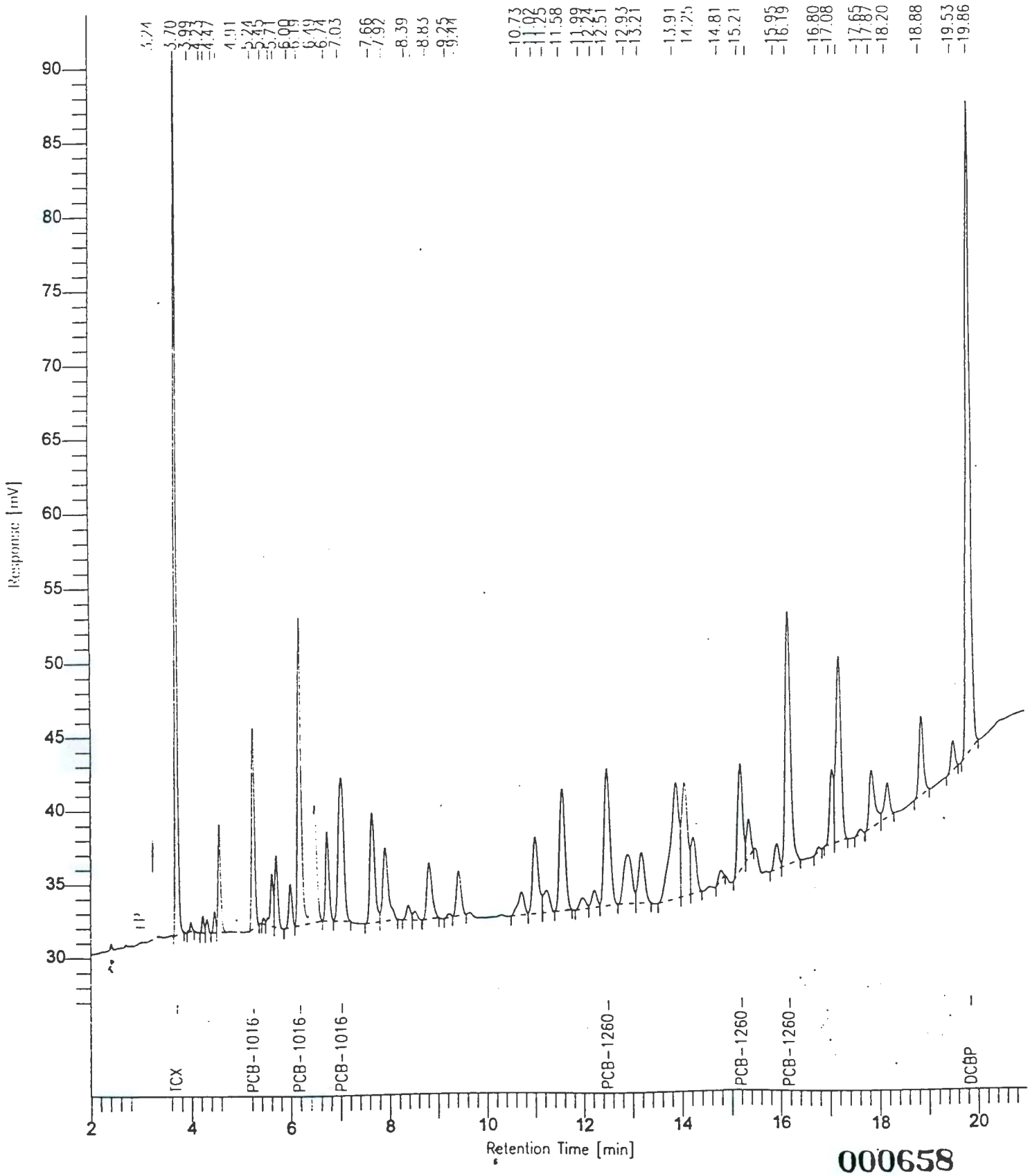
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
17	7.029	PCB-1016-3	77327	V	9791	2e-15	0.1000
18	7.662		50571	B	7506	-------	5.0571e-07
19	7.922		38821	V	5000	-------	3.8821e-07
20	8.392		6309	B	1037	-------	6.3090e-08
21	8.525		3861	V	632	-------	3.8610e-08
22	8.832		29201	B	3857	-------	2.9201e-07
24	9.440		20016	V	3068	-------	2.0016e-07
25	10.734		14880	B	1584	-------	1.4880e-07
26	11.022		43436	V	5217	-------	4.3436e-07
27	11.250		13421	V	1516	-------	1.3421e-07
28	11.580		66536	B	8302	-------	6.6537e-07
29	11.994		7010	B	796	-------	7.0098e-08
30	12.242		8902	V	1176	-------	8.9022e-08
31	12.511	PCB-1260-1	79268	V	9366	4e-15	0.1000
32	12.933		39487	B	3345	-------	3.9487e-07
33	13.208		30110	V	3436	-------	3.0110e-07
34	13.913		97755	B	7918	-------	9.7755e-07
35	14.085		65737	V	7750	-------	6.5737e-07
36	14.254		27897	V	3856	-------	2.7897e-07
37	14.810		4258	B	670	-------	4.2585e-08
38	15.211	PCB-1260-2	51952	B	7312	5e-15	0.1000
39	15.377		15222	V	2594	-------	1.5222e-07
40	15.948		11725	B	1758	-------	1.1725e-07
41	16.187	PCB-1260-3	127364	V	17161	6e-15	0.1000
43	17.076		29426	B	5140	-------	2.9426e-07
44	17.217		90668	V	12571	-------	9.0668e-07
46	17.872		31420	B	4018	-------	3.1420e-07
47	18.196		17119	V	2346	-------	1.7119e-07
48	18.884		32971	B	5374	-------	3.2971e-07
49	19.529		11441	B	2004	-------	1.1441e-07
50	19.862	DCBP	270848	B	43981	7e-15	0.0200
			1942037		335302		0.6400

9513355.1755

Chromatogram

Sample Name : ICV*AR1660*1
FileName : C:\TC4\HP58909\998B008.RAW
Method :
Start Time : 1.98 min End Time : 20.98 min
Scale Factor: 0.0 Plot Offset: 27 mV

Sample #:
Date : 5/15/94 09:07 PM
Time of Injection: 5/12/94 08:29 PM
Low Point : 26.95 mV High Point : 90.54 mV
Plot Scale: 63.6 mV



000658

9513556.1756

Software Version: 4.0<1C29>
Sample Name : ICV*AR1221*1 Time : 5/15/94 09:08 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/12/94 09:07 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B009.RAW
Result File : C:\TC4\HP58909\998B009.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B009.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B009.RST
Calib Method : C:\TC4\HP58909\998B1221 from C:\TC4\HP58909\998B009.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 3333.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

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	3.238	PCB-1221-1	40766	B	13952	5e-15	0.2000
2	3.700	TCX	198594	B	69036	-2e-15	0.0200
4	3.988		7768	V	2179	-------	7.7682e-08
5	4.228	PCB-1221-2	19187	B	6355	-7e-15	0.2000
6	4.469		16802	B	4855	-------	1.6802e-07
7	4.569	PCB-1221-3	60381	V	16514	1e-15	0.2000
8	5.238		15224	B	3787	-------	1.5224e-07
9	5.528		6719	B	1606	-------	6.7189e-08
10	5.622		4357	V	1066	-------	4.3566e-08
11	5.707		4527	V	1142	-------	4.5275e-08
13	6.189		20323	V	4183	-------	2.0323e-07
14	6.487		10160	V	1642	-------	1.0160e-07

Result File : 998B009.RST, Printed On 5/15/94 09:08 PM

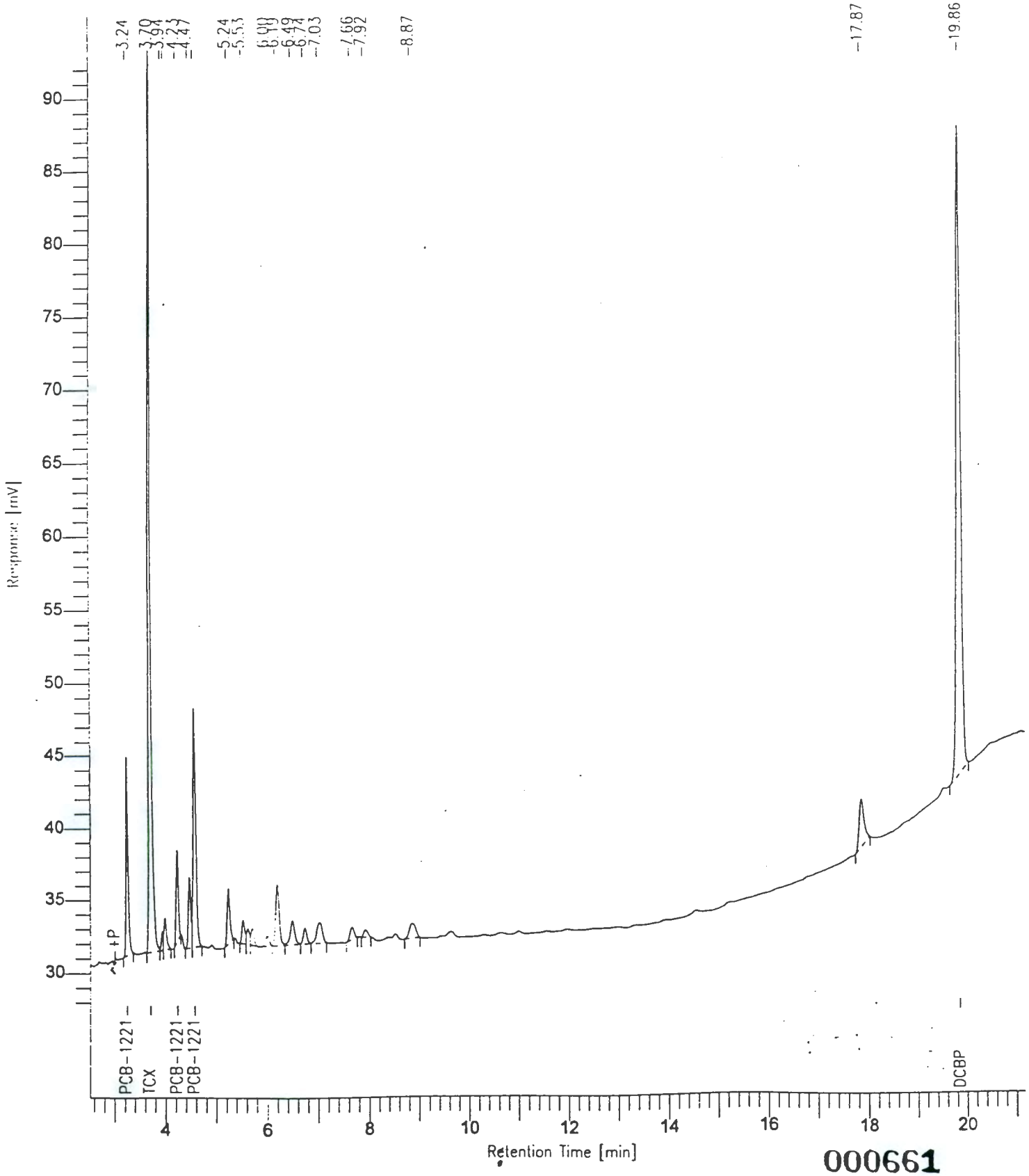
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
15	6.736		5425	V	1082	-------	5.4250e-08
16	7.027		11047	V	1407	-------	1.1047e-07
17	7.661		4701	B	848	-------	4.7008e-08
19	8.866		8748	B	1003	-------	8.7480e-08
20	17.874		23054	B	3319	-------	2.3054e-07
21	19.861	DCBP	275596	B	44421	-4e-15	0.0200
			733378		178396		0.6400

9513355.1758

Chromatogram

Sample Name : ICV*AR1221*1
FileName : C:\TC4\HP58909\998B009.RAW
Method :
Start Time : 2.52 min End Time : 21.17 min
Scale Factor: 0.0 Plot Offset: 28 mV

Sample #:
Date : 5/15/94 09:08 PM
Time of Injection: 5/12/94 09:07 PM
Low Point : 27.85 mV High Point : 92.69 mV
Plot Scale: 64.8 mV



000661

9513355.1759

Software Version: 4.0<1C29>
Sample Name : ICV*AR1232*1 Time : 5/15/94 09:08 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/12/94 09:45 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B010.RAW
Result File : C:\TC4\HP58909\998B010.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B010.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B010.RST
Calib Method : C:\TC4\HP58909\998B1232 from C:\TC4\HP58909\998B010.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 3333.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

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	3.237		23434	B	8490	-------	2.3435e-07
2	3.701	TCX	192942	B	68898	4e-15	0.0200
4	4.229		7974	B	2422	-------	7.9739e-08
6	4.470		6649	B	1951	-------	6.6493e-08
7	4.570	PCB-1232-1	29258	V	8116	8e-15	0.1000
9	5.239	PCB-1232-2	26906	B	6391	-5e-15	0.1000
11	5.621		7217	V	1679	-------	7.2169e-08
12	5.710		8659	V	2143	-------	8.6588e-08
13	5.999		5904	B	1293	-------	5.9041e-08
14	6.191	PCB-1232-3	45294	V	9104	0.0000	0.1000
15	6.488		20586	V	3509	-------	2.0586e-07
16	6.738		12025	B	2528	-------	1.2025e-07

000662

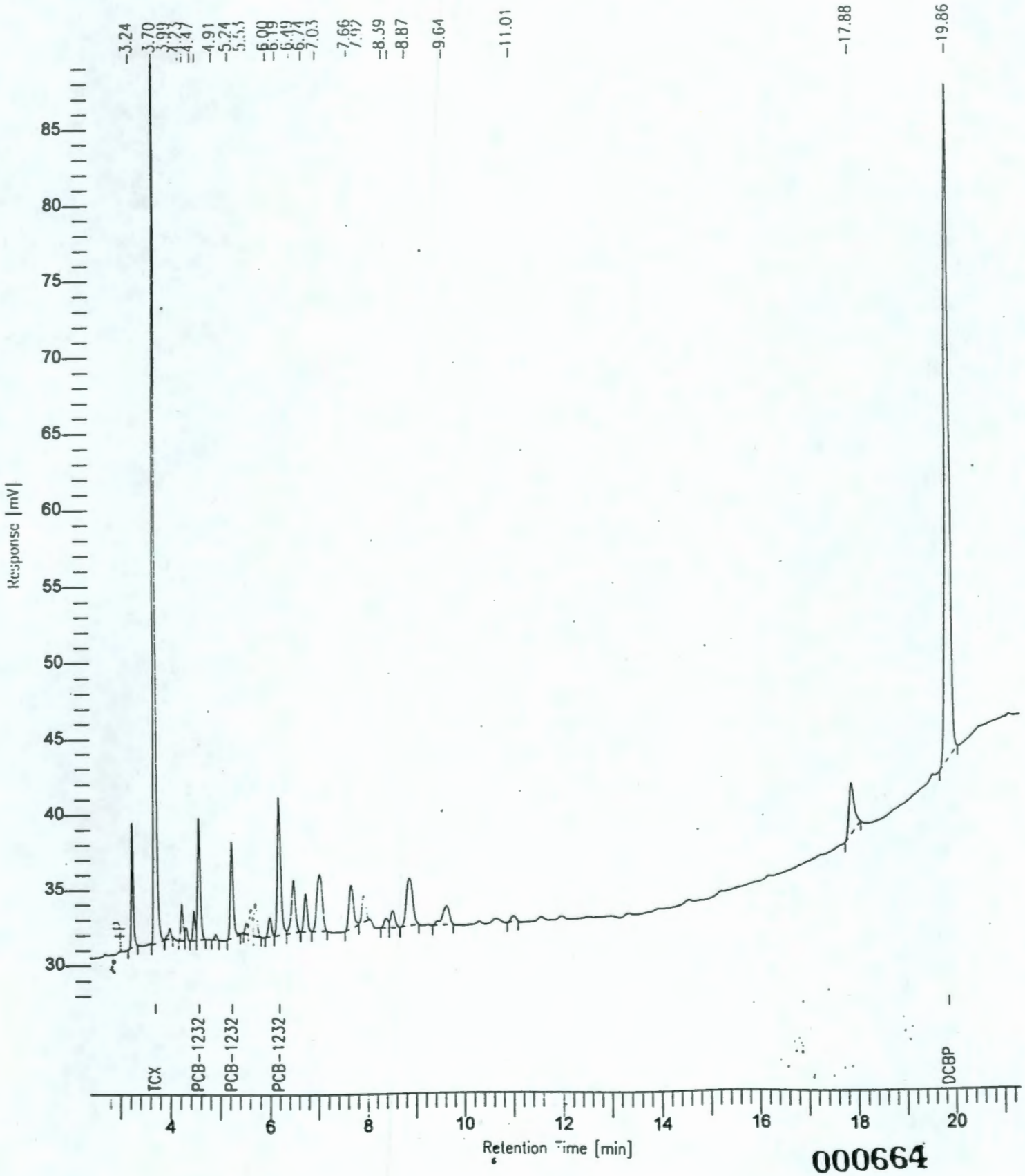
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
17	7.028		29021	V	3760	-------	2.9021e-07
18	7.663		18722	B	2894	-------	1.8722e-07
19	7.922		9917	V	1744	-------	9.9170e-08
20	8.393		3819	B	636	-------	3.8187e-08
21	8.527		7032	V	1136	-------	7.0315e-08
22	8.873		28668	B	3180	-------	2.8668e-07
23	9.637		13039	B	1260	-------	1.3039e-07
25	17.876		25458	B	3425	-------	2.5458e-07
26	19.862	DCBP	275766	B	44423	-1e-15	0.0200
			798289		178982		0.3400

9513355.1761

Chromatogram

Sample Name : ICV*AR1232*1
FileName : C:\TC4\HP58909\998B010.RAW
Method :
Start Time : 2.42 min End Time : 21.32 min
Scale Factor: 0.0 Plot Offset: 28 mV

Sample #:
Date : 5/15/94 09:08 PM
Time of Injection: 5/12/94 09:45 PM
Low Point : 27.55 mV High Point : 89.36 mV
Plot Scale: 61.8 mV



000664

9513355.1762

Software Version: 4.0<1C29>
Sample Name : ICV*AR1242*1 Time : 5/15/94 09:09 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/12/94 10:23 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B011.RAW
Result File : C:\TC4\HP58909\998B011.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B011.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B011.RST
Calib Method : C:\TC4\HP58909\998B1242 from C:\TC4\HP58909\998B011.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 3333.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 31

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	3.235		18443	B	7113	-------	1.8443e-07
2	3.701	TCX	190178	B	69445	8e-16	0.0200
4	4.230		3767	B	1181	-------	3.7673e-08
6	4.469		4438	B	1390	-------	4.4384e-08
7	4.569		24018	V	6713	-------	2.4018e-07
9	5.238	PCB-1242-1	45044	B	11052	-2e-15	0.1000
11	5.619		13141	V	2883	-------	1.3141e-07
12	5.710		17076	V	3960	-------	1.7076e-07
13	5.999		11064	B	2407	-------	1.1065e-07
14	6.191	PCB-1242-2	82037	V	16264	2e-15	0.1000
15	6.487		37706	V	6309	-------	3.7706e-07
16	6.738		22929	B	4717	-------	2.2929e-07

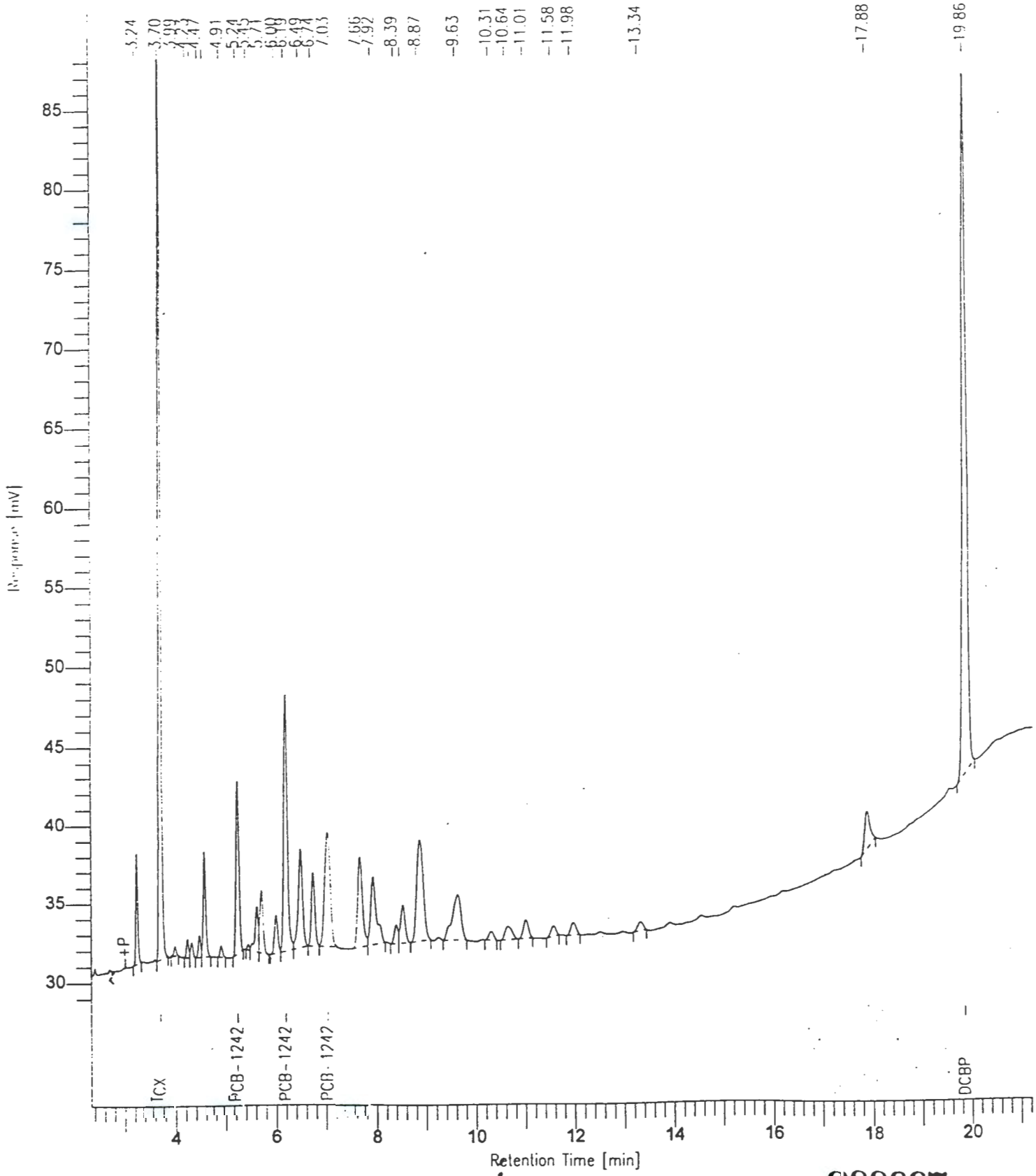
000665

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
17	7.030	PCB-1242-3	57489	V	7286	3e-15	0.1000
18	7.663		39405	B	5773	-------	3.9405e-07
19	7.923		35623	V	4332	-------	3.5623e-07
20	8.392		6509	B	1207	-------	6.5090e-08
21	8.527		15386	V	2420	-------	1.5386e-07
22	8.871		58658	B	6428	-------	5.8658e-07
23	9.633		35838	B	2889	-------	3.5838e-07
24	10.307		3699	B	558	-------	3.6993e-08
25	10.644		8668	B	859	-------	8.6675e-08
26	11.007		8704	B	1196	-------	8.7038e-08
27	11.577		4731	B	656	-------	4.7310e-08
28	11.976		5970	B	797	-------	5.9705e-08
29	13.335		4460	B	570	-------	4.4595e-08
30	17.881		18067	B	2406	-------	1.8067e-07
31	19.862	DCBP	273311	B	44211	4e-15	0.0200
			1046358		215023		0.3400

9513555.1764 Chromatogram

Sample Name : ICV*AR1242*1
FileName : C:\TC4\HP58909\998B011.RAW
Method :
Start Time : 2.33 min End Time : 21.23 min
Scale Factor: 0.0 Plot Offset: 28 mV

Sample #:
Date : 5/15/94 09:09 PM
Time of Injection: 5/12/94 10:23 PM
Low Point : 28.16 mV High Point : 88.27 mV
Plot Scale: 60.1 mV



000667

9513355.1765

Software Version: 4.0<1C29>
Sample Name : ICV*AR1248*1 Time : 5/15/94 09:09 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/12/94 11:00 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B012.RAW
Result File : C:\TC4\HP58909\998B012.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B012.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B012.RST
Calib Method : C:\TC4\HP58909\998B1248 from C:\TC4\HP58909\998B012.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 3333.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 28

DATA REPORT

Peak #	Ret Time (min)	Component Name	Area (uV-sec)	BL	Height (uV)	Delta RT (%)	NG INJECTED
1	3.235		16920	B	6542	-------	1.6921e-07
2	3.700	TCX	188894	B	68938	-2e-15	0.0200
5	5.237		24467	B	5985	-------	2.4467e-07
6	5.621		6908	B	1615	-------	6.9079e-08
7	5.709		5901	V	1450	-------	5.9014e-08
9	6.188	PCB-1248-1	53788	B	10667	7e-15	0.1000
10	6.483		24452	V	3570	-------	2.4452e-07
11	6.738		16468	V	3339	-------	1.6468e-07
12	7.021	PCB-1248-2	99423	V	12411	-3e-15	0.1000
13	7.662		65492	B	9774	-------	6.5492e-07
14	7.920		52884	V	7426	-------	5.2884e-07
15	8.390		11308	B	1958	-------	1.1308e-07

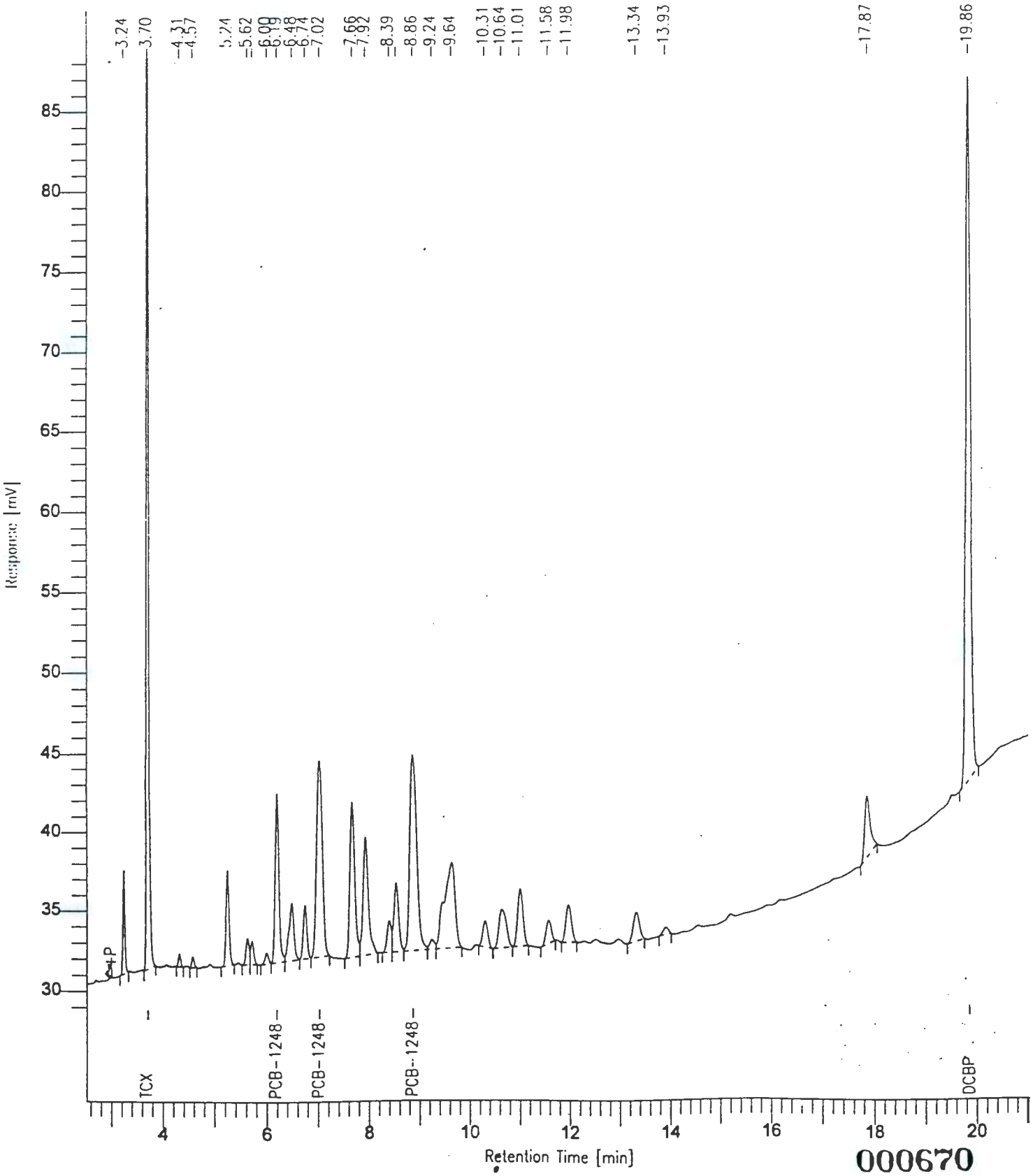
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
16	8.527		28306	V	4320	-------	2.8306e-07
17	8.863	PCB-1248-3	119918	V	12404	-8e-15	0.1000
18	9.242		4112	V	606	-------	4.1121e-08
19	9.640		79965	V	5367	-------	7.9965e-07
20	10.307		11264	B	1648	-------	1.1264e-07
21	10.643		24674	B	2401	-------	2.4674e-07
22	11.007		26574	B	3601	-------	2.6574e-07
23	11.577		10612	B	1437	-------	1.0612e-07
24	11.978		18055	B	2342	-------	1.8055e-07
25	13.335		15459	B	1806	-------	1.5459e-07
26	13.925		3491	B	469	-------	3.4908e-08
27	17.874		28504	B	3863	-------	2.8504e-07
28	19.862	DCBP	273564	B	44152	0.0000	0.0200
			1211402		218094		0.3400

9513355.1767

Chromatogram

Sample Name : ICV*AR1248*1
FileName : C:\TC4\HP58909\998B012.RAW
Method :
Start Time : 2.52 min End Time : 21.03 min
Scale Factor: 0.0 Plot Offset: 29 mV

Sample #:
Date : 5/15/94 09:09 PM
Time of Injection: 5/12/94 11:00 PM
Low Point : 28.92 mV High Point : 88.35 mV
Plot Scale: 59.4 mV



000670

Software Version: 4.0<1C29>
Sample Name : ICV*AR1254*1 Time : 5/15/94 09:10 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/12/94 11:38 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B013.RAW
Result File : C:\TC4\HP58909\998B013.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B013.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B013.RST
Calib Method : C:\TC4\HP58909\998B1254 from C:\TC4\HP58909\998B013.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 3333.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 33

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	3.236		16382	B	6344	-------	1.6383e-07
2	3.701	TCX	189277	B	68949	-2e-15	0.0200
7	6.996		43598	B	6892	-------	4.3599e-07
8	7.658		15278	B	2840	-------	1.5278e-07
9	7.918		4448	B	878	-------	4.4485e-08
10	8.532		5934	B	1004	-------	5.9335e-08
11	8.834	PCB-1254-1	93284	B	11190	4e-15	0.1000
12	9.247		13987	V	2035	-------	1.3987e-07
13	9.444		93439	V	9855	-------	9.3439e-07
14	9.675		25127	V	3655	-------	2.5127e-07
15	10.118		3729	B	583	-------	3.7291e-08
16	10.308		28234	V	2761	-------	2.8234e-07

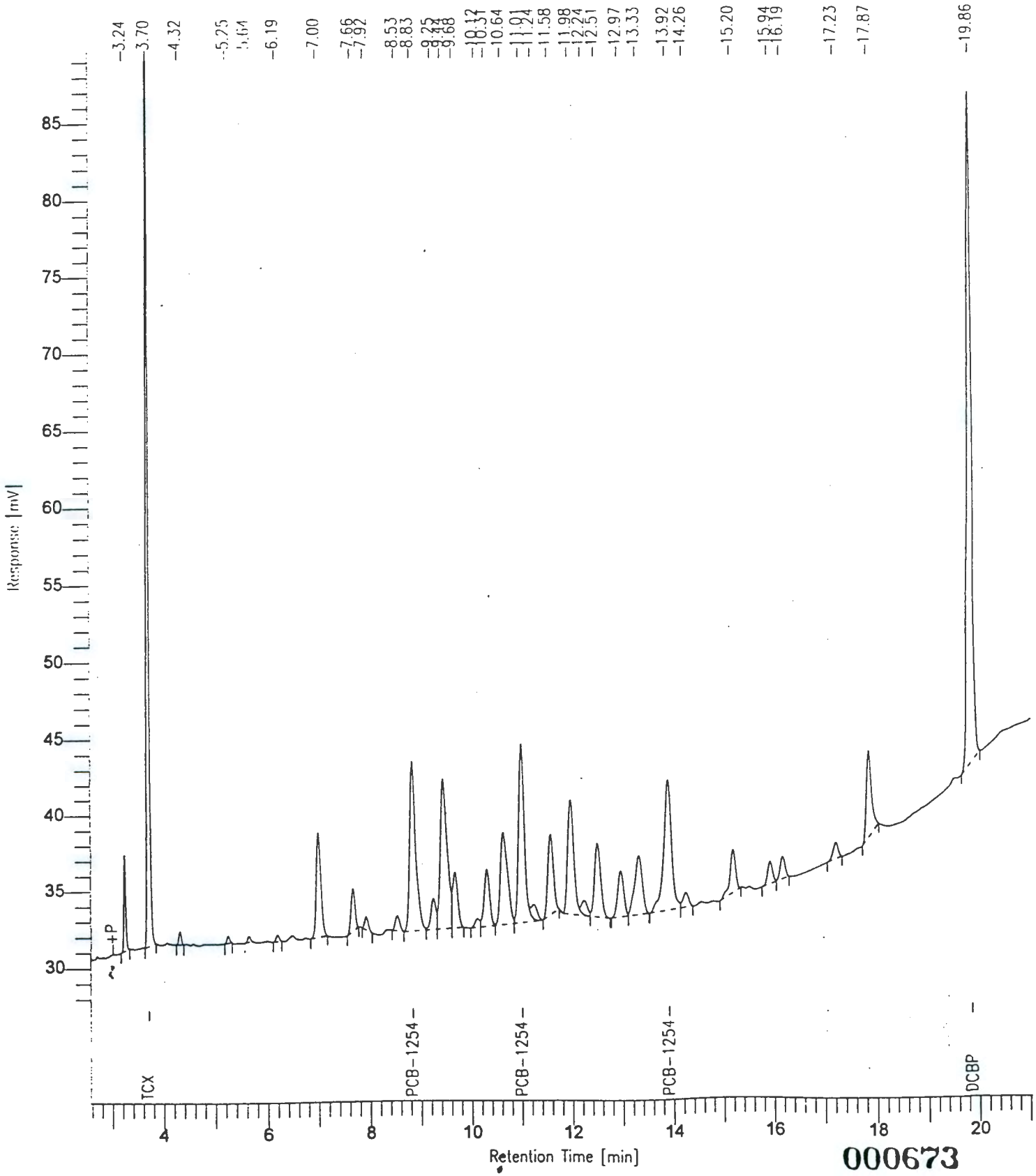
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
17	10.635		60781	V	6071	-------	6.0781e-07
18	11.009	PCB-1254-2	95892	V	11771	5e-15	0.1000
19	11.244		7774	E	929	-------	7.7740e-08
20	11.583		40294	B	5283	-------	4.0295e-07
21	11.979		64383	B	7541	-------	6.4383e-07
22	12.243		7451	E	930	-------	7.4510e-08
23	12.512		41087	V	4845	-------	4.1087e-07
24	12.973		25051	B	3019	-------	2.5051e-07
25	13.332		41089	V	3894	-------	4.1089e-07
26	13.921	PCB-1254-3	93361	B	8587	4e-15	0.1000
27	14.258		7426	V	962	-------	7.4259e-08
28	15.202		22462	B	2856	-------	2.2463e-07
29	15.941		9920	B	1493	-------	9.9196e-08
30	16.186		9950	V	1484	-------	9.9504e-08
31	17.227		7370	B	1082	-------	7.3705e-08
32	17.871		38972	B	5689	-------	3.8972e-07
33	19.863	DCBP	273208	B	43863	0.0000	0.0200
			1379191		228287		0.3400

9513355.1770

Chromatogram

Sample Name : ICV*AR1254*1
FileName : C:\TC4\HP58909\998B013.RAW
Method :
Start Time : 2.57 min End Time : 21.03 min
Scale Factor: 0.0 Plot Offset: 27 mV

Sample #:
Date : 5/15/94 09:10 PM
Time of Injection: 5/12/94 11:38 PM
Low Point : 27.32 mV High Point : 89.10 mV
Plot Scale: 61.8 mV



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9513555.1771

Software Version: 4.0<1C29>
Sample Name : ICV*TOXAPH*1 Time : 5/15/94 09:10 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/13/94 12:16 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B014.RAW
Result File : C:\TC4\HP58909\998B014.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B014.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B014.RST
Calib Method : C:\TC4\HP58909\998BTOX from C:\TC4\HP58909\998B014.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 3333.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 58

DATA REPORT

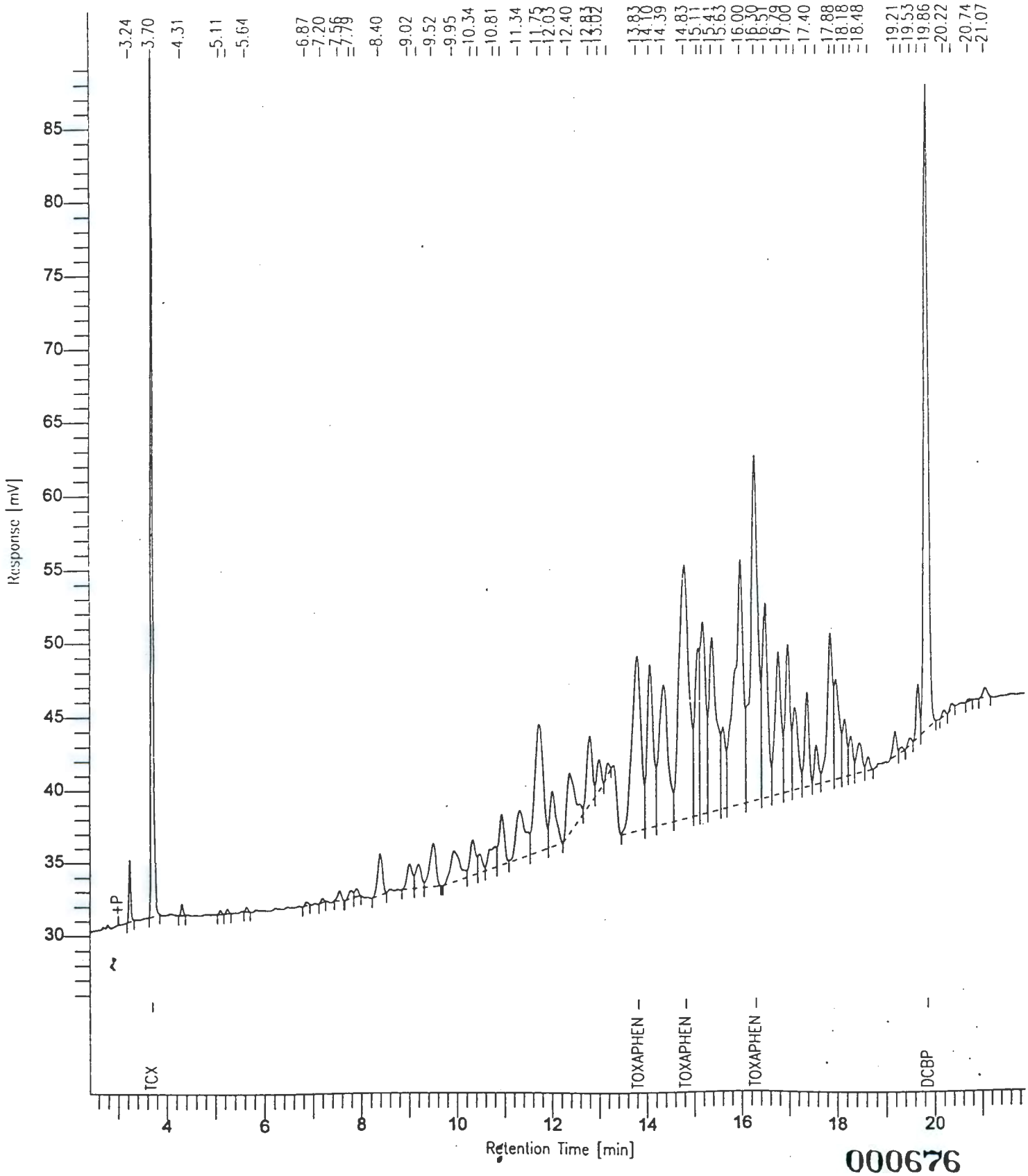
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
1	3.236		11116	B	4319	-------	1.1116e-07
2	3.701	TCX	187782	B	68933	-3e-15	0.0200
9	7.555		3686	B	697	-------	3.6865e-08
10	7.787		3474	B	555	-------	3.4744e-08
12	8.398		20106	B	2856	-------	2.0106e-07
13	9.016		13727	B	1713	-------	1.3727e-07
14	9.202		13575	V	1632	-------	1.3575e-07
15	9.517		27632	V	2982	-------	2.7632e-07
16	9.949		30242	B	2135	-------	3.0242e-07
17	10.343		20634	V	2440	-------	2.0634e-07
18	10.489		8265	V	1324	-------	8.2652e-08
19	10.812		17104	V	1443	-------	1.7104e-07

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
20	10.957		27334	V	3509	-------	2.7334e-07
21	11.338		47314	V	3350	-------	4.7314e-07
22	11.754		112377	V	8724	-------	1.1238e-06
23	12.030		35726	V	3855	-------	3.5726e-07
24	12.396		51176	B	4123	-------	5.1176e-07
25	12.826		39097	V	4676	-------	3.9097e-07
26	13.024		14247	V	2164	-------	1.4247e-07
27	13.213		4490	B	829	-------	4.4895e-08
28	13.830	TOXAPHENE-1	160412	B	11898	5e-15	0.5000
29	14.099		102167	V	11099	-------	1.0217e-06
30	14.385		127179	V	9481	-------	1.2718e-06
31	14.831	TOXAPHENE-2	254043	V	17292	-5e-15	0.5000
32	15.112		75527	V	11333	-------	7.5527e-07
33	15.211		106569	V	13063	-------	1.0657e-06
34	15.405		131490	V	11844	-------	1.3149e-06
35	15.631		36601	V	5595	-------	3.6601e-07
36	16.003		219713	V	16647	-------	2.1971e-06
37	16.296	TOXAPHENE-3	250571	V	23483	-1e-15	0.5000
38	16.512		104551	V	13268	-------	1.0455e-06
39	16.793		88504	V	9675	-------	8.8504e-07
40	16.999		74294	V	9994	-------	7.4294e-07
41	17.146		45293	V	5612	-------	4.5293e-07
42	17.402		40007	V	6403	-------	4.0007e-07
43	17.594		16062	V	2694	-------	1.6062e-07
44	17.884		80018	V	10001	-------	8.0018e-07
45	17.998		49140	V	6746	-------	4.9140e-07
46	18.179		25196	V	3937	-------	2.5196e-07
47	18.302		15664	V	2702	-------	1.5664e-07
48	18.483		16121	V	2061	-------	1.6121e-07
49	18.655		5060	V	986	-------	5.0604e-08
50	19.210		10129	B	1690	-------	1.0129e-07
53	19.687		17298	V	3630	-------	1.7298e-07
54	19.864	DCBP	271366	V	44012	0.0000	0.0200
58	21.073		4177	B	660	-------	4.1773e-08
			3016254		378062		1.5400

Chromatogram

Sample Name : ICV*TOXAPH*1
FileName : C:\TC4\HP58909\998B014.RAW
Method :
Start Time : 2.42 min End Time : 21.90 min
Scale Factor: 0.0 Plot Offset: 26 mV

Sample #:
Date : 5/15/94 09:10 PM
Time of Injection: 5/13/94 12:16 AM
Low Point : 25.62 mV High Point : 89.79 mV
Plot Scale: 64.2 mV



9513355.1774

Software Version: 4.0<1C29>
Sample Name : ICV*INDAL*1 Time : 5/15/94 09:12 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/13/94 12:54 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B015.RAW
Result File : C:\TC4\HP58909\998B015.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B015.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B015.RST
Calib Method : C:\TC4\HP58909\998BAL from C:\TC4\HP58909\998B015.RST
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 17

DATA REPORT

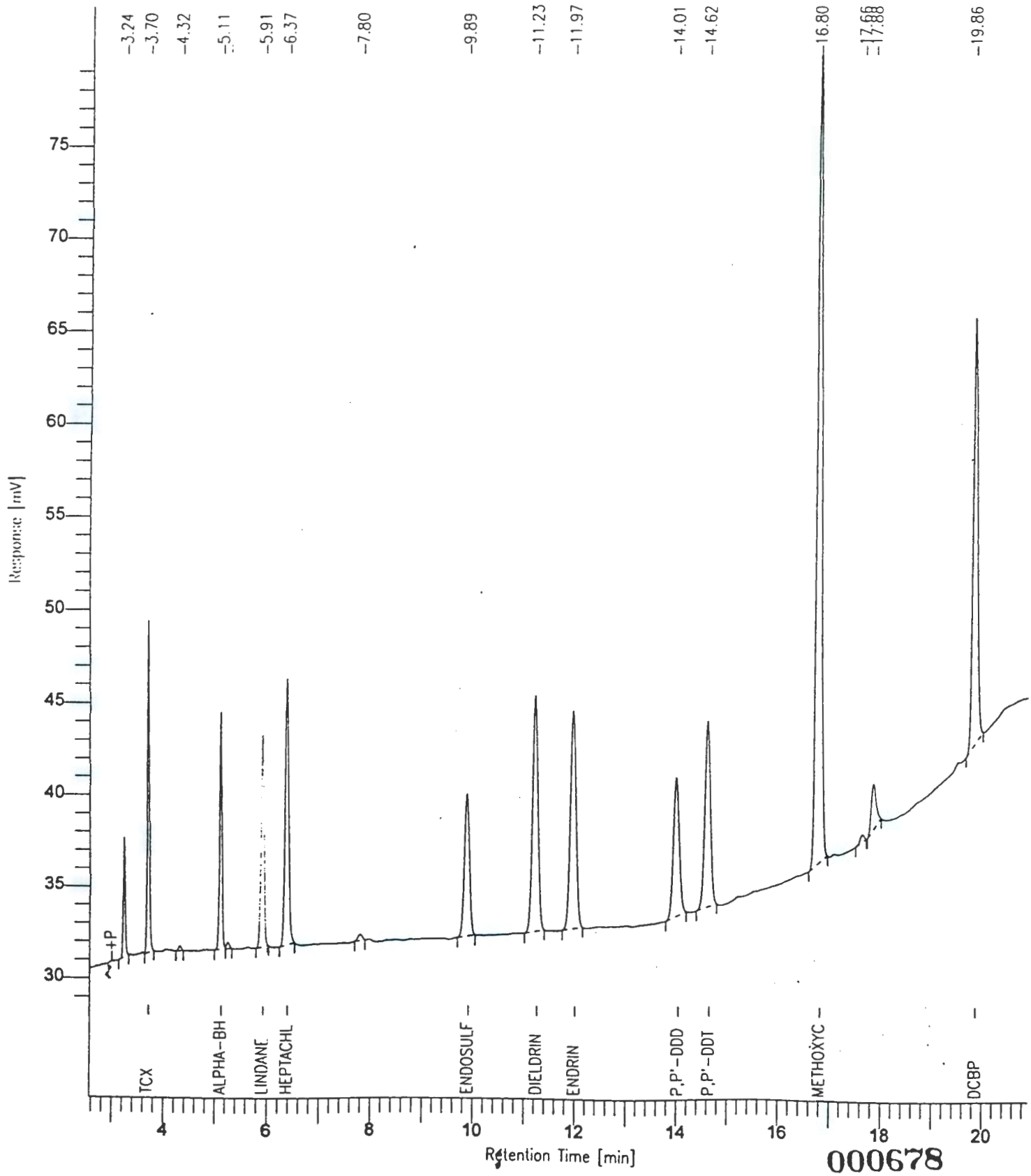
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.700	TCX	48085	B	18012	-0.2024	0.0050
4	5.107	ALPHA-BHC	42344	B	12917	-0.3017	0.0050
6	5.909	LINDANE	44717	B	11523	-0.3164	0.0050
7	6.374	HEPTACHLOR	70303	B	14451	-0.2782	0.0050
9	9.887	ENDOSULFAN A	54032	B	7786	-0.3007	0.0050
10	11.229	DIELDRIN	96124	B	12840	-0.3021	0.0100
11	11.973	ENDRIN	92898	B	11843	-0.2960	0.0100
12	14.007	P,P'-DDD	61234	B	7569	-0.2840	0.0100
13	14.623	P,P'-DDT	77520	B	10117	-0.2460	0.0100
14	16.801	METHOXYCHLOR	290910	B	44970	-0.1822	0.0500
17	19.862	DCBP	140911	B	23075	-0.1219	0.0100

9513355.1775

Chromatogram

Sample Name : ICV*INDAL*1
FileName : C:\TC4\HP58909\998B015.RAW
Method :
Start Time : 2.57 min End Time : 20.93 min
Scale Factor: 0.0 Plot Offset: 29 mV

Sample #:
Date : 5/15/94 09:12 PM
Time of Injection: 5/13/94 12:54 AM
Low Point : 28.60 mV High Point : 79.89 mV
Plot Scale: 51.3 mV



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9513355.1776

Software Version: 4.0<1C29>
Sample Name : ICV*INDBL*1 Time : 5/15/94 09:19 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/13/94 01:32 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B016.RAW
Result File : C:\TC4\HP58909\998B016.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B016.RST
Proc Method : C:\TC4\HP58909\998BBL.MTH
Calib Method : C:\TC4\HP58909\998BBL.MTH
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 5555.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

Noise Threshold: 22 Area Threshold : 111 Bunch Factor: 1
Multiplier : 1.0000 Divisor : 1.0000 Addend : 0.0000

Instrument Conditions:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 20

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
3	3.700	TCX	47690	B	17917	-0.2086	0.0050
6	7.043	ALDRIN	47220	B	9327	-0.2893	0.0050
7	7.847	BETA-BHC	32448	B	6223	-0.4034	0.0050
8	8.545	DELTA-BHC	39120	B	7211	-0.3910	0.0050
9	9.015	HEPTACHLOR EPOXIDE	59019	B	9249	-0.3141	0.0050
10	10.137	GAMMA-CHLORDANE	63221	B	8910	-0.3278	0.0050
11	10.332	ALPHA-CHLORDANE	62761	V	8722	-0.3252	0.0050
12	10.781	P,P'-DDE	78586	B	10273	-0.3151	0.0100
13	14.017	ENDOSULFAN B	101580	B	12970	-0.3064	0.0100
14	15.521	ENDRIN ALDEHYDE	62981	B	7290	-0.2712	0.0100
16	16.547	ENDOSULFAN SULFATE	89707	*B	14057	-0.2250	0.0100
17	17.657	ENDRIN KETONE	85926	B	14837	-0.1985	0.0100

Result File : 998B016.RST, Printed On 5/15/94 09:19 PM

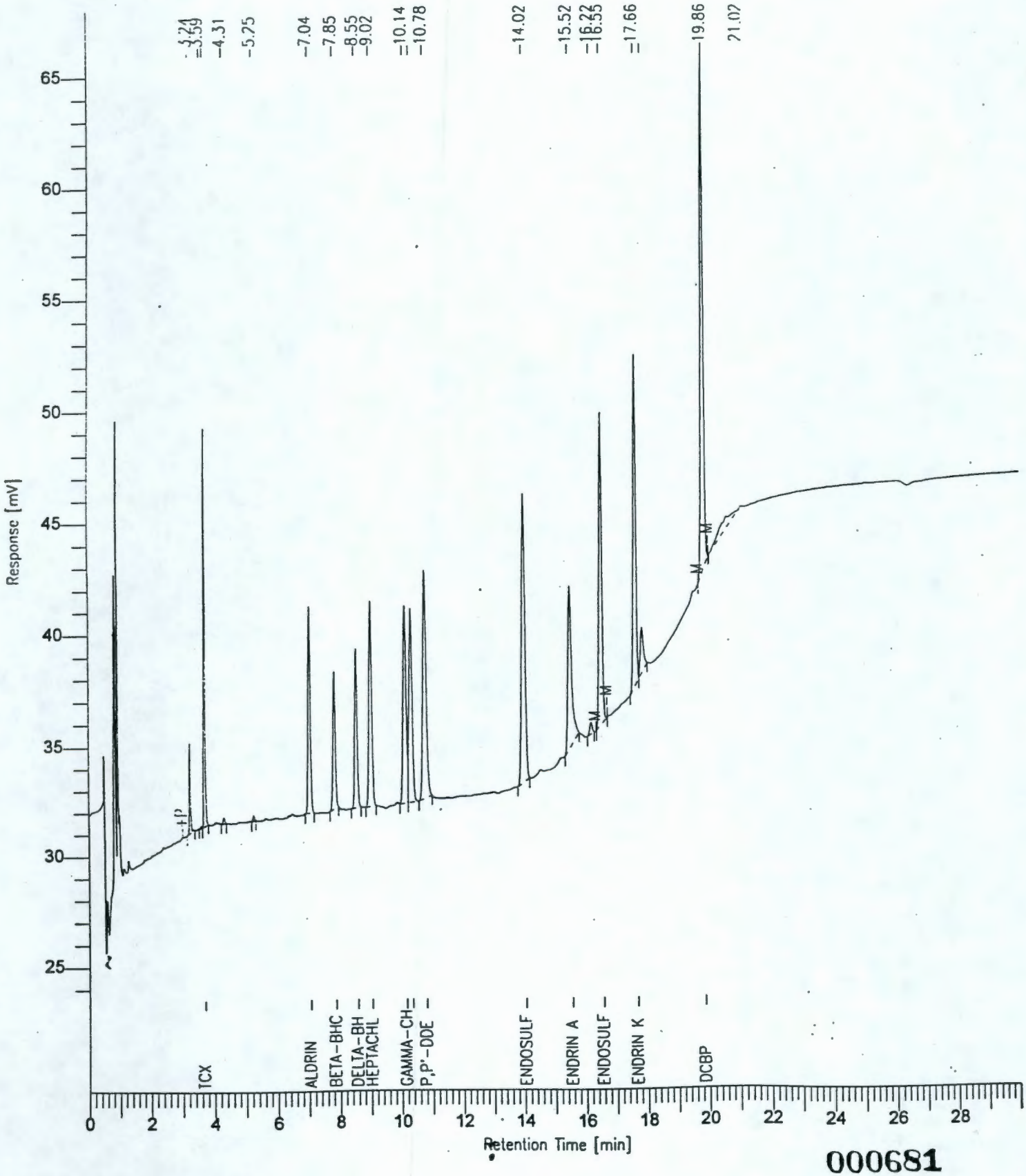
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
19	19.861	DCBP	140659	*B	23242	-0.1234	0.0100
			910918		150228		0.0950

9513355.1778

Chromatogram

Sample Name : ICV*INDBL*1
FileName : C:\TC4\HP58909\998B016.RAW
Method : 998BBL.MTH
Start Time : 0.00 min End Time : 30.00 min
Scale Factor: 0.0 Plot Offset: 24 mV

Sample #:
Date : 5/15/94 09:19 PM
Time of Injection: 5/13/94 01:32 AM
Low Point : 23.56 mV High Point : 65.89 mV
Plot Scale: 42.3 mV



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Software Version: 4.0<1C29>
Sample Name : ICV*INDAM*1 Time : 5/15/94 09:13 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/13/94 02:10 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B017.RAW
Result File : C:\TC4\HP58909\998B017.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B017.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B017.RST
Calib Method : C:\TC4\HP58909\998BAM from C:\TC4\HP58909\998B017.RST
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 18

DATA REPORT

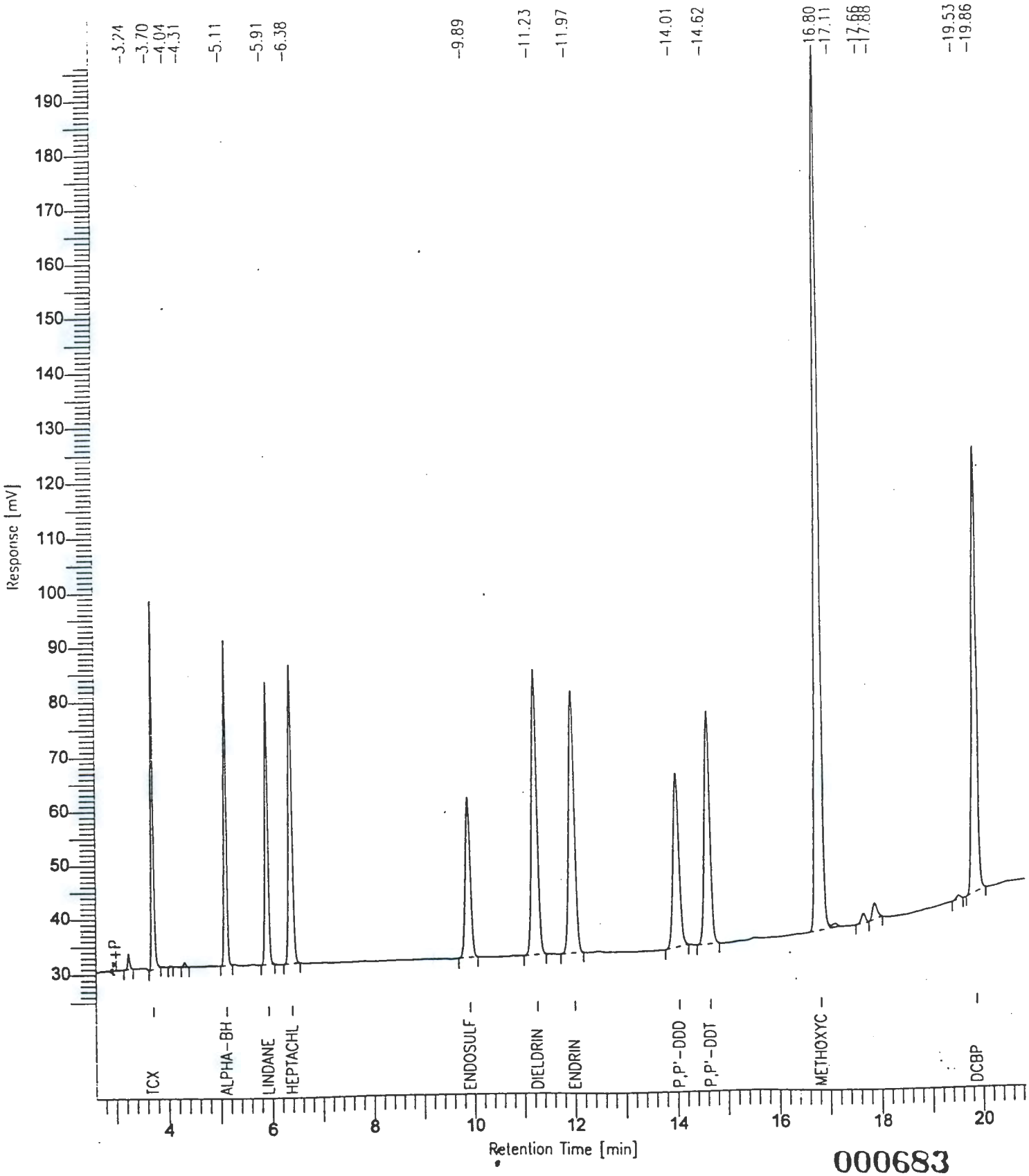
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.701	TCX	186920	B	67685	-0.2005	0.0200
5	5.109	ALPHA-BHC	192935	B	59668	-0.2986	0.0200
6	5.911	LINDANE	198056	B	52096	-0.3183	0.0200
7	6.375	HEPTACHLOR	264451	B	54787	-0.2831	0.0200
8	9.888	ENDOSULFAN A	205766	B	29677	-0.3035	0.0200
9	11.229	DIELDRIN	386275	B	52711	-0.3122	0.0400
10	11.972	ENDRIN	373370	B	48363	-0.3124	0.0400
11	14.006	P,P'-DDD	254764	B	32199	-0.2989	0.0400
12	14.624	P,P'-DDT	324033	B	42980	-0.2523	0.0400
13	16.802	METHOXYCHLOR	1120549	B	164277	-0.1799	0.2000
18	19.864	DCBP	518362	B	81949	-0.1143	0.0400

9513355.1780

Chromatogram

Sample Name : ICV*INDAM*1
FileName : C:\TC4\HP58909\998B017.RAW
Method :
Start Time : 2.61 min End Time : 20.84 min
Scale Factor: 0.0 Plot Offset: 24 mV

Sample #:
Date : 5/15/94 09:13 PM
Time of Injection: 5/13/94 02:10 AM
Low Point : 24.33 mV High Point : 196.90 mV
Plot Scale: 172.6 mV



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9513355.1781

Software Version: 4.0<1C29>
Sample Name : ICV*INDBM*1 Time : 5/15/94 09:13 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/13/94 02:47 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B018.RAW
Result File : C:\TC4\HP58909\998B018.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B018.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B018.RST
Calib Method : C:\TC4\HP58909\998BBM from C:\TC4\HP58909\998B018.RST
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 23

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.700	TCX	189056	B	68195	-0.2137	0.0200
6	7.045	ALDRIN	194806	B	38007	-0.2867	0.0200
7	7.849	BETA-BHC	125766	B	24092	-0.3997	0.0200
8	8.548	DELTA-BHC	170486	B	32053	-0.3801	0.0200
9	9.016	HEPTACHLOR EPOXIDE	227108	B	35408	-0.3175	0.0200
11	10.139	GAMMA-CHLORDANE	242622	V	33542	-0.3186	0.0200
12	10.334	ALPHA-CHLORDANE	243116	V	33272	-0.3214	0.0200
13	10.782	P,P'-DDE	329941	B	43350	-0.3077	0.0400
14	14.019	ENDOSULFAN B	401012	B	50703	-0.3006	0.0400
15	15.522	ENDRIN ALDEHYDE	298208	B	28879	-0.2664	0.0400
17	16.547	ENDOSULFAN SULFATE	354218	B	54886	-0.2322	0.0400
19	17.659	ENDRIN KETONE	376189	B	63998	-0.2015	0.0400

Result File : 998B018.RST, Printed On 5/15/94 09:13 PM

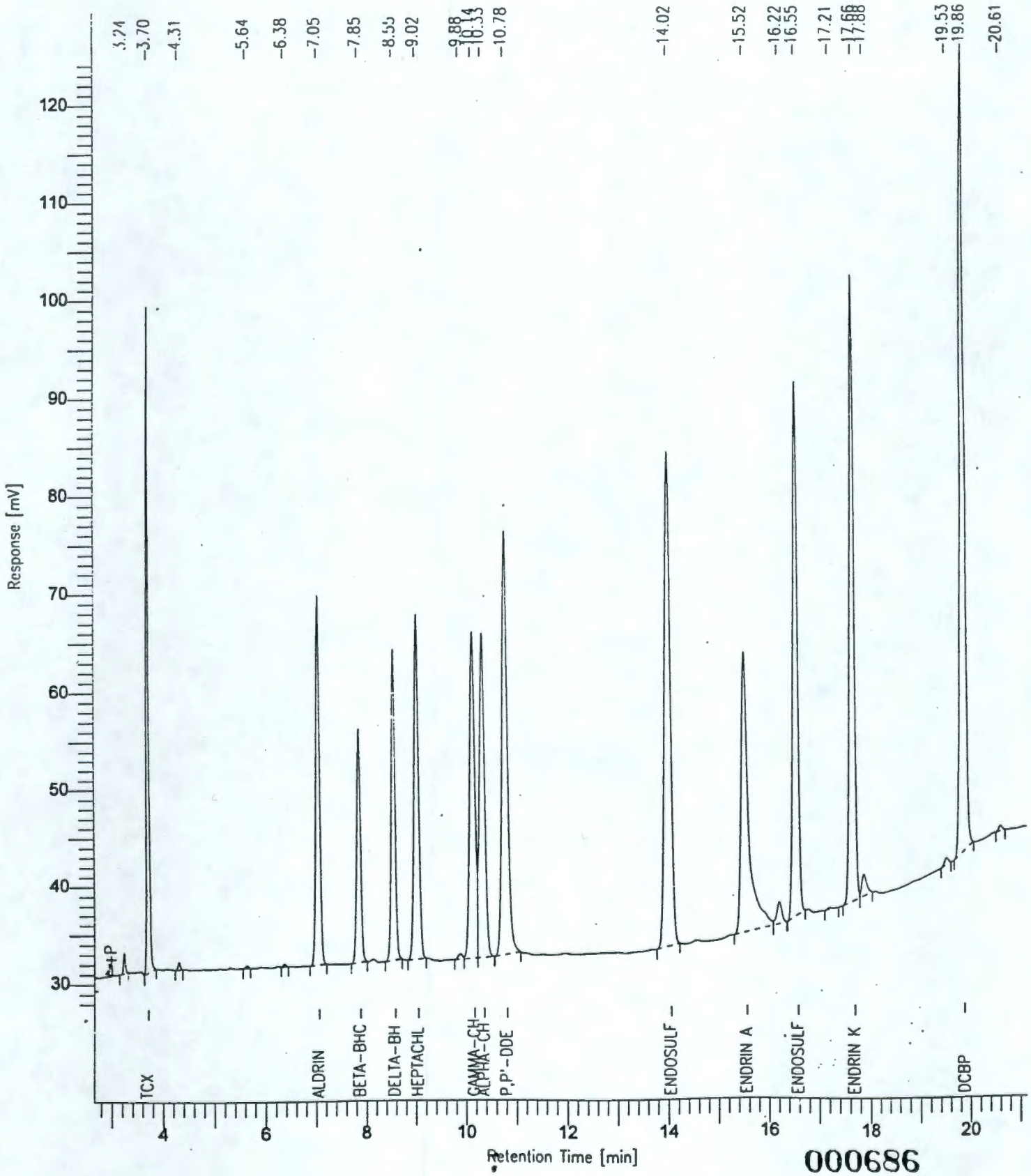
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
22	19.863	DCBP	526077	B	82875	-0.1190	0.0400
			3678603		589260		0.3800

9513355.1783

Chromatogram

Sample Name : ICV*INDBM*1
FileName : C:\TC4\HP58909\998B018.RAW
Method :
Start Time : 2.66 min End Time : 21.12 min
Scale Factor: 0.0 Plot Offset: 28 mV

Sample #:
Date : 5/15/94 09:13 PM
Time of Injection: 5/13/94 02:47 AM
Low Point : 27.56 mV High Point : 124.63 mV
Plot Scale: 97.1 mV



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9513355.1784

Software Version: 4.0<1C29>
Sample Name : ICV*INDAH*1 Time : 5/15/94 09:14 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/13/94 03:25 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B019.RAW
Result File : C:\TC4\HP58909\998B019.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B019.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B019.RST
Calib Method : C:\TC4\HP58909\998BAH from C:\TC4\HP58909\998B019.RST
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 28

DATA REPORT

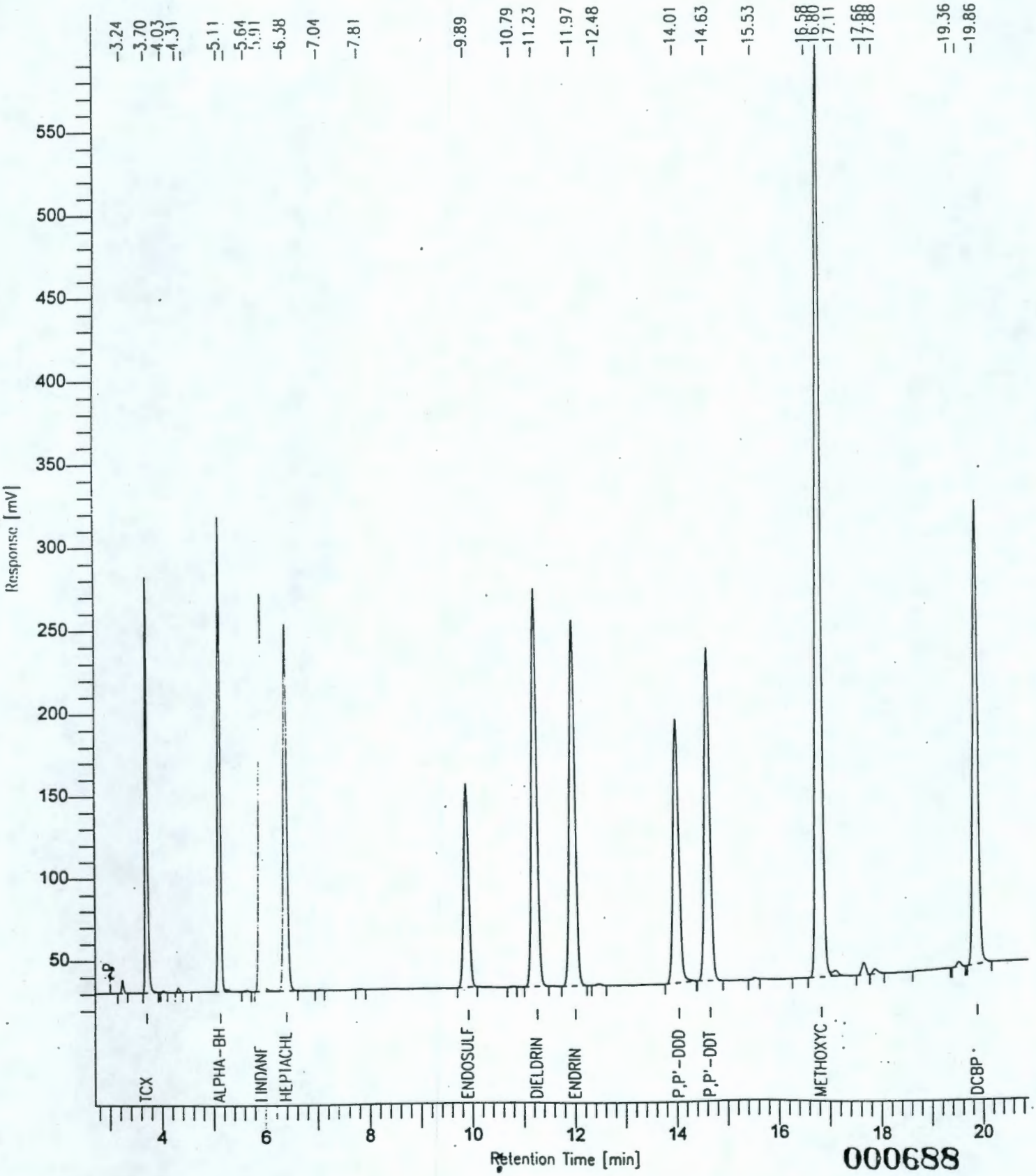
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.701	TCX	730308	B	251373	-0.2020	0.0800
6	5.110	ALPHA-BHC	987324	B	287514	-0.2954	0.0800
9	5.912	LINDANE	964179	B	242293	-0.3180	0.0800
10	6.375	HEPTACHLOR	1070046	B	221656	-0.2775	0.0800
13	9.889	ENDOSULFAN A	844804	B	123785	-0.3078	0.0800
15	11.231	DIELDRIN	1750173	B	240947	-0.3117	0.1600
16	11.974	ENDRIN	1675842	B	221133	-0.3185	0.1600
18	14.010	P,P'-DDD	1256436	B	160209	-0.2996	0.1600
19	14.627	P,P'-DDT	1506625	B	202233	-0.2519	0.1600
22	16.802	METHOXYCHLOR	3996220	B	568646	-0.1859	0.8000
28	19.864	DCBP	1853035	B	281453	-0.1166	0.1600

9513355.1785

Chromatogram

Sample Name : ICV*INDAH*1
FileName : C:\TC4\HP58909\998B019.RAW
Method :
Start Time : 2.71 min End Time : 20.88 min
Scale Factor: 0.0 Plot Offset: 19 mV

Sample #:
Date : 5/15/94 09:14 PM
Time of Injection: 5/13/94 03:25 AM
Low Point : 19.40 mV High Point : 593.33 mV
Plot Scale: 573.9 mV



000688

Software Version: 4.0<1C29>
Sample Name : ICV*INDBH*1 Time : 5/15/94 09:15 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/13/94 04:03 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B020.RAW
Result File : C:\TC4\HP58909\998B020.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B020.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B020.RST
Calib Method : C:\TC4\HP58909\998BBH from C:\TC4\HP58909\998B020.RST
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 32

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.702	TCX	747280	B	256426	-0.2002	0.0800
11	7.050	ALDRIN	895151	B	176790	-0.2731	0.0800
12	7.852	BETA-BHC	523341	B	97514	-0.3916	0.0800
14	8.552	DELTA-BHC	883704	B	167731	-0.3809	0.0800
15	9.019	HEPTACHLOR EPOXIDE	934641	B	146198	-0.3140	0.0800
18	10.142	GAMMA-CHLORDANE	980007	V	135902	-0.3221	0.0800
19	10.339	ALPHA-CHLORDANE	977416	V	137412	-0.3129	0.0800
20	10.788	P,P'-DDE	1587979	B	216010	-0.3013	0.1600
22	14.022	ENDOSULFAN B	1669096	B	211176	-0.3016	0.1600
24	15.525	ENDRIN ALDEHYDE	1149426	V	112069	-0.2633	0.1600
26	16.551	ENDOSULFAN SULFATE	1472054	B	224061	-0.2249	0.1600
28	17.661	ENDRIN KETONE	1635804	B	266699	-0.1991	0.1600

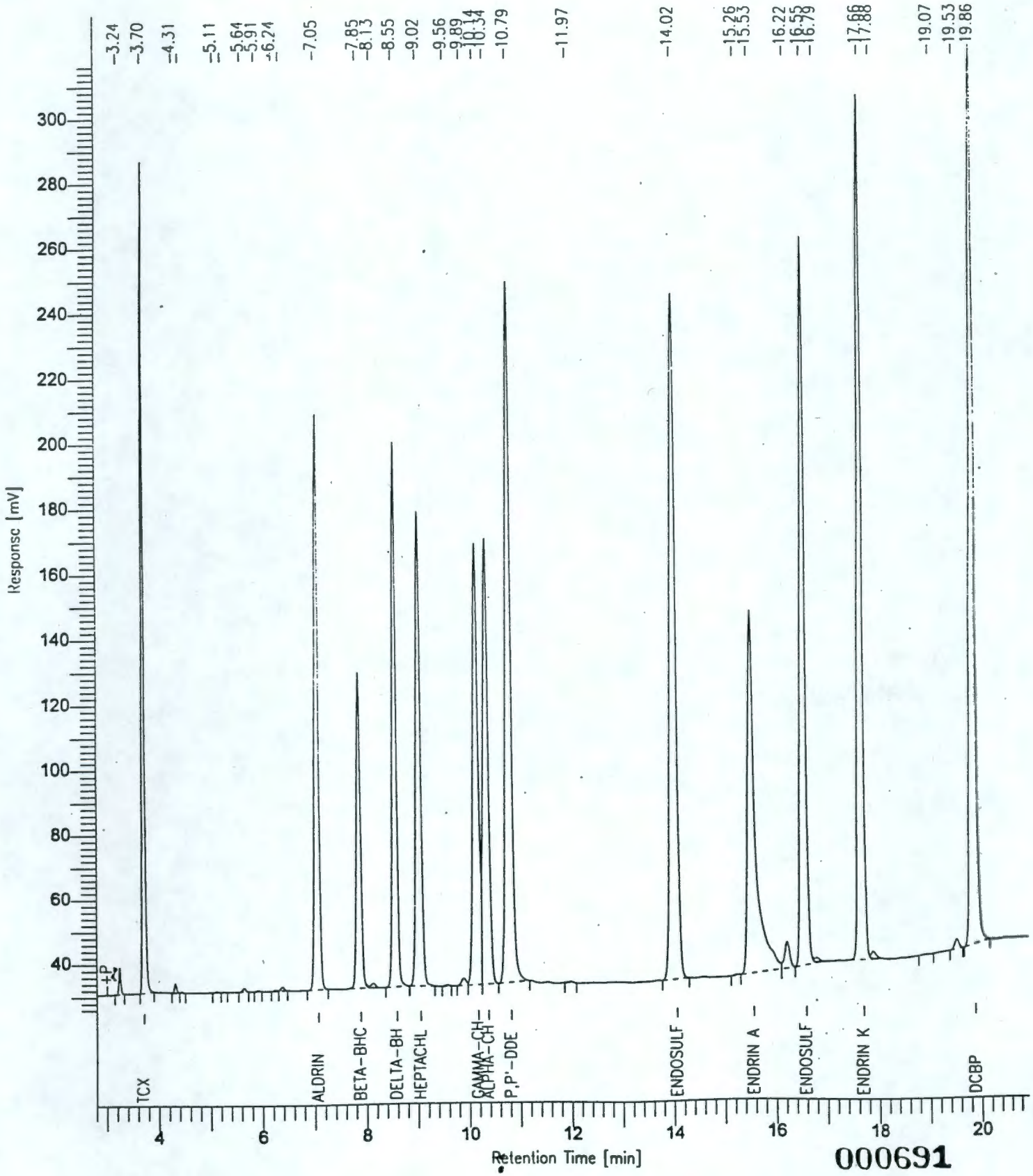
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
32	19.863	DCBP	1872712	B	283473	-0.1197	0.1600
			15328609		2431461		1.5200

9513355.1788

Chromatogram

Sample Name : ICV*INDBH*1
FileName : C:\TC4\HP58909\998B020.RAW
Method :
Start Time : 2.80 min End Time : 20.93 min
Scale Factor: 0.0 Plot Offset: 25 mV

Sample #:
Date : 5/15/94 09:15 PM
Time of Injection: 5/13/94 04:03 AM
Low Point : 25.25 mV High Point : 317.36 mV
Plot Scale: 292.1 mV



000691

Software Version: 4.0<1C29>
Sample Name : MB*PIBLK*1 Time : 5/15/94 09:26 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/13/94 04:41 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B021.RAW
Result File : C:\TC4\HP58909\998B021.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B021.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B021.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B021.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 9593.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 10

DATA REPORT

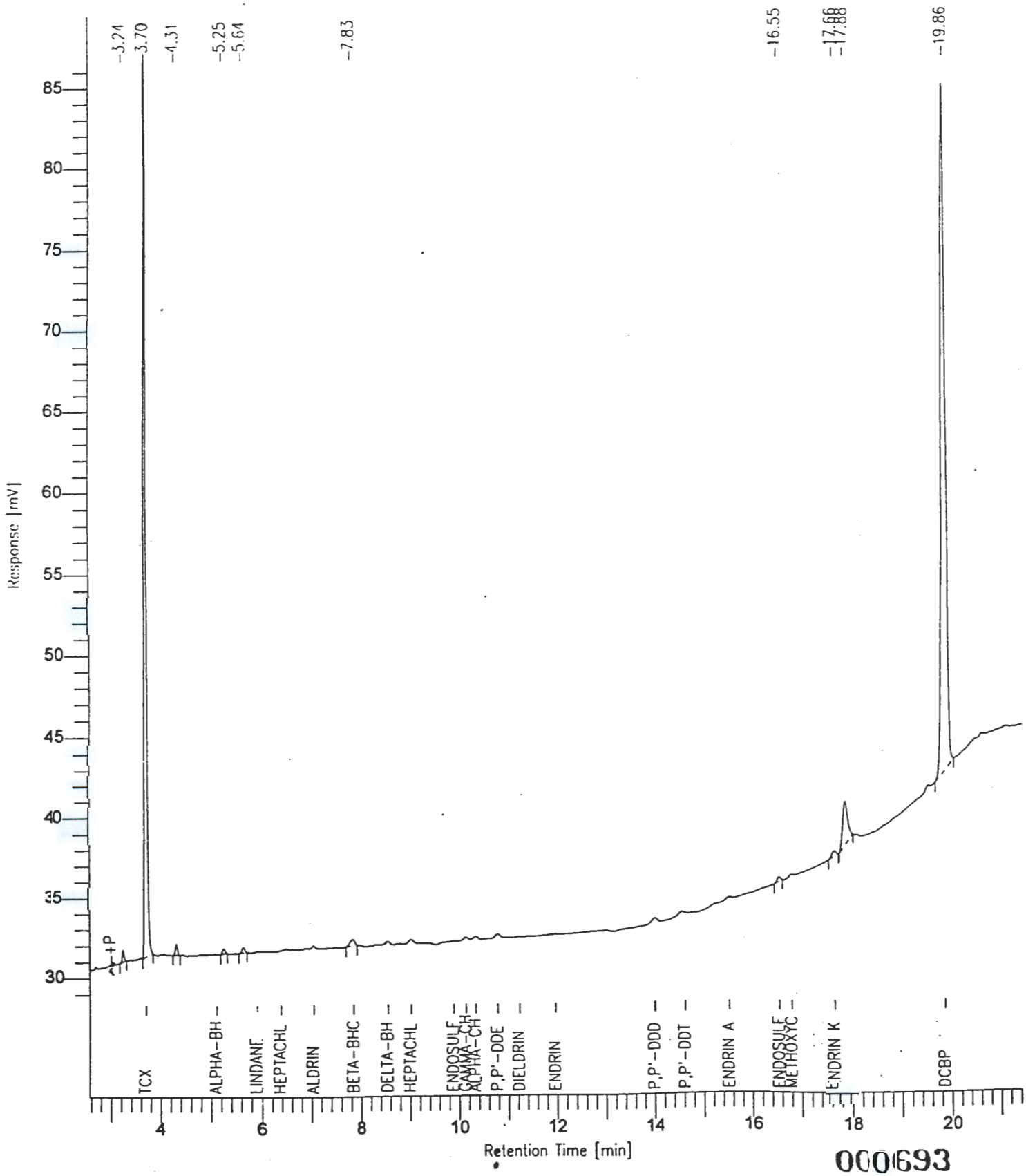
Peak #	Ret Time (min)	Component Name	Area (uV-sec)	BL	Height (uV)	Delta RT (%)
2	3.701	TCX	180304	B	65568	-0.0119
9	17.875		18592	B	2746	-------
10	19.861	DCBP	264718	B	42440	-0.0128
			463614		110754	

9513355.1790

Chromatogram

Sample Name : MB*PIBLK*1
FileName : C:\TC4\HP58909\998B021.RAW
Method :
Start Time : 2.57 min End Time : 21.42 min
Scale Factor: 0.0 Plot Offset: 28 mV

Sample #:
Date : 5/15/94 09:26 PM
Time of Injection: 5/13/94 04:41 AM
Low Point : 28.41 mV High Point : 86.57 mV
Plot Scale: 58.2 mV



000693

Software Version: 4.0<1C29>
Sample Name : CK*PEM*2 Time : 5/15/94 09:27 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/13/94 05:19 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B022.RAW
Result File : C:\TC4\HP58909\998B022.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B022.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B022.RST
Calib Method : C:\TC4\HP58909\998BPEM from C:\TC4\HP58909\998B022.RST
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 19

DATA REPORT

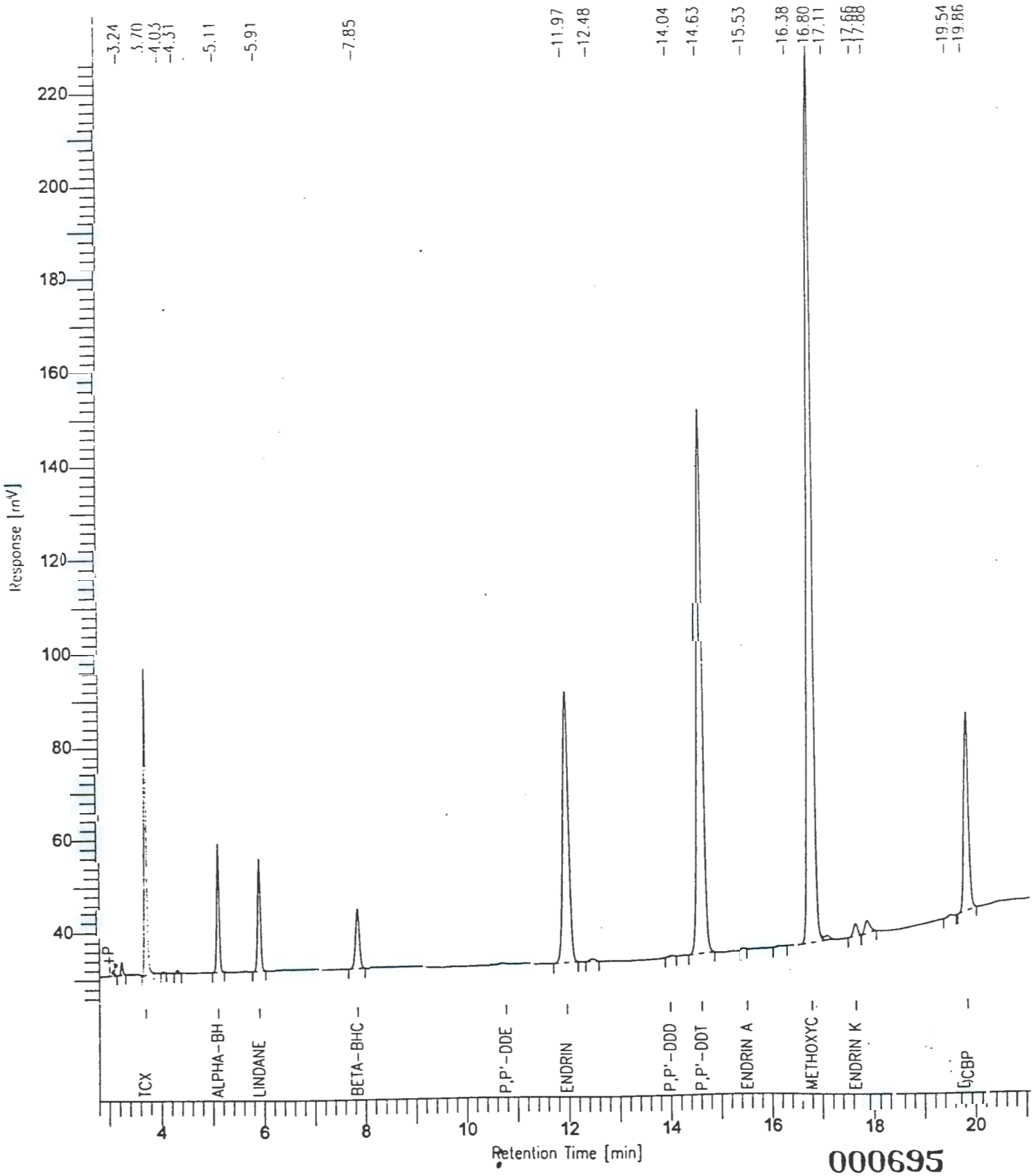
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
2	3.701	TCX	183625	B	66111	-0.0008
5	5.107	ALPHA-BHC	89820	B	27549	-0.0358
6	5.909	LINDANE	92273	B	24085	-0.0336
7	7.848	BETA-BHC	67584	B	12811	-0.0114
8	11.972	ENDRIN	448232	B	58459	-0.0002
10	14.042	P,P'-DDD	1781	B	237	0.2574
11	14.626	P,P'-DDT	871852	B	116930	0.0147
12	15.529	ENDRIN ALDEHYDE	1849	B	294	0.0433
14	16.802	METHOXYCHLOR	1340156	B	194507	0.0007
16	17.657	ENDRIN KETONE	15904	B	2767	-0.0104
19	19.862	DCBP	267116	B	42938	-0.0100

9513555.1792

Chromatogram

Sample Name : CK*PEM*2
FileName : C:\TC4\HP58909\998B022.RAW
Method :
Start Time : 2.80 min End Time : 21.08 min
Scale Factor: 0.0 Plot Offset: 24 mV

Sample #:
Date : 5/15/94 09:27 PM
Time of Injection: 5/13/94 05:19 AM
Low Point : 24.11 mV High Point : 226.50 mV
Plot Scale: 202.4 mV



000695

Software Version: 4.0<1C29>
Sample Name : HEXANE
Time : 5/15/94 09:45 PM
Sample Number:
Study :
Operator : VIC

Instrument : HP58909
Channel : B
A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342
Data Acquisition Time: 5/13/94 03:24 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B038.RAW
Result File : C:\TC4\HP58909\998B038.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B038.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B038.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B038.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul
Area Reject : 9593.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 8

DATA REPORT

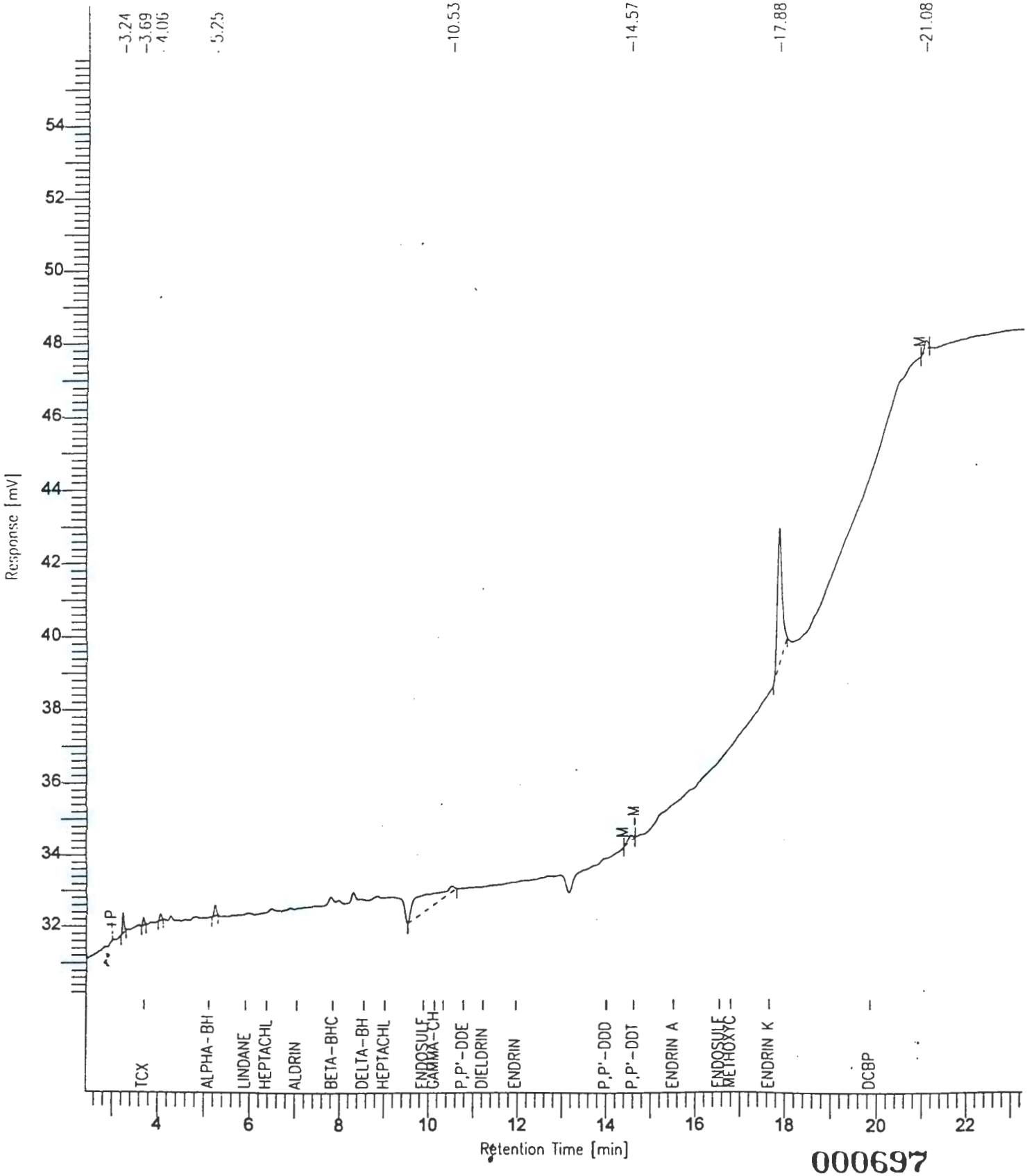
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
5	10.532		20465	B	159	-------
7	17.876		26602	B	3728	-------
			47067		3887	

9513355.1794

Chromatogram

Sample Name : HEXANE
FileName : C:\TC4\HP58909\998B038.RAW
Method :
Start Time : 2.42 min End Time : 23.27 min
Scale Factor: 0.0 Plot Offset: 30 mV

Sample #:
Date : 5/15/94 09:45 PM
Time of Injection: 5/13/94 03:24 PM
Low Point : 30.02 mV High Point : 55.99 mV
Plot Scale: 26.0 mV



000697

Software Version: 4.0<1C29>
Sample Name : MB*PIBLK*2 Time : 5/15/94 09:46 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/13/94 04:02 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B039.RAW
Result File : C:\TC4\HP58909\998B039.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B039.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B039.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B039.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 9593.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 7

DATA REPORT

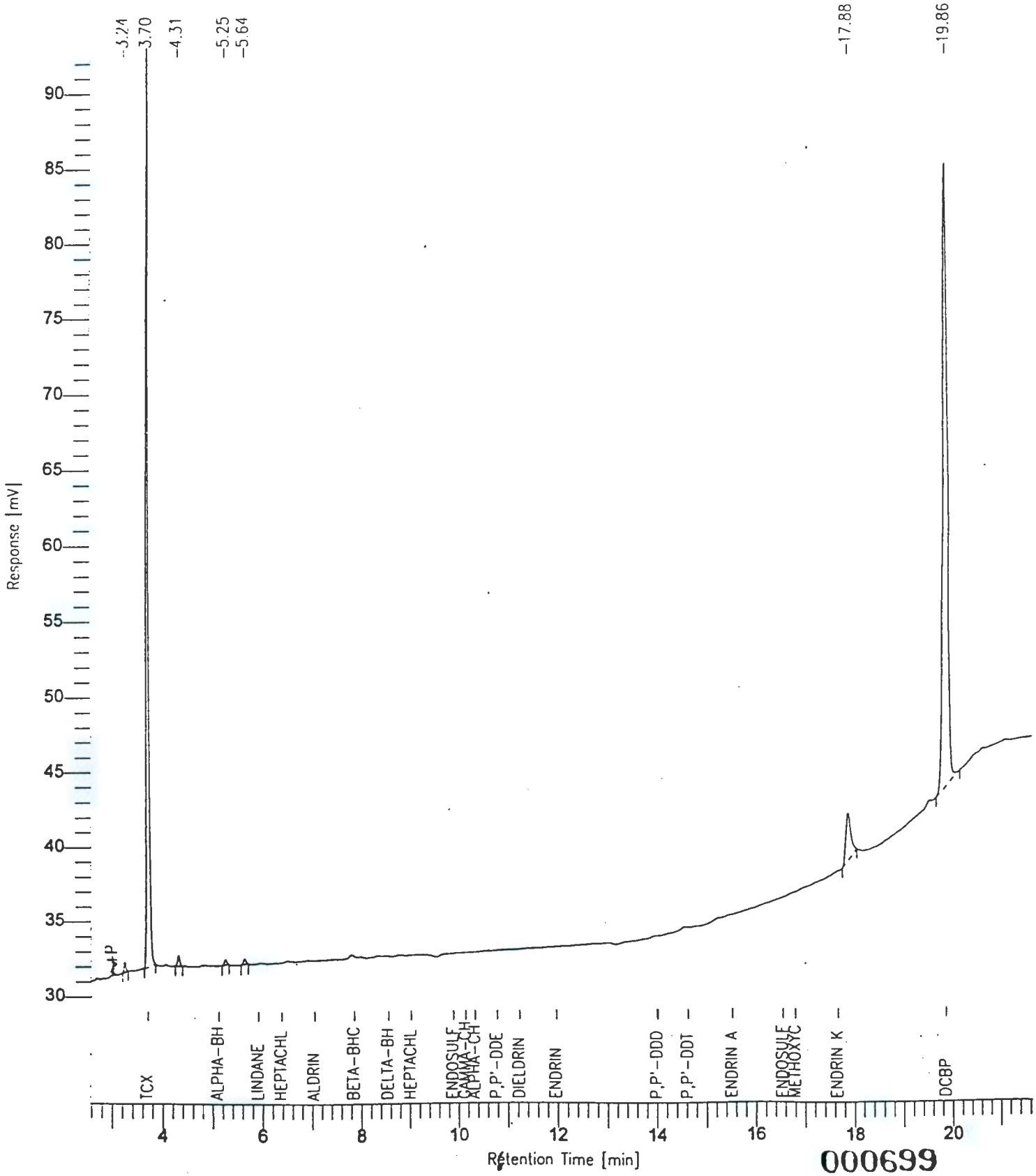
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
2	3.702	TCX	180589	B	65066	0.0254
6	17.878		22940	B	3173	-------
7	19.863	DCBP	261870	B	41456	-0.0045
			465398		109695	

9513355.1796

Chromatogram

Sample Name : MB*PIBLK*2
FileName : C:\TC4\HP58909\998B039.RAW
Method :
Start Time : 2.58 min End Time : 21.63 min
Scale Factor: 0.0 Plot Offset: 29 mV

Sample #:
Date : 5/15/94 09:46 PM
Time of Injection: 5/13/94 04:02 PM
Low Point : 29.11 mV High Point : 92.34 mV
Plot Scale: 63.2 mV



000699

Software Version: 4.0<1C29>
Sample Name : CCS*INDAM*2 Time : 5/15/94 10:31 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/13/94 04:45 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B040.RAW
Result File : C:\TC4\HP58909\998B040.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B040.RST
Proc Method : C:\TC4\HP58909\998BAM.MTH
Calib Method : C:\TC4\HP58909\998BAM.MTH
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 21

DATA REPORT

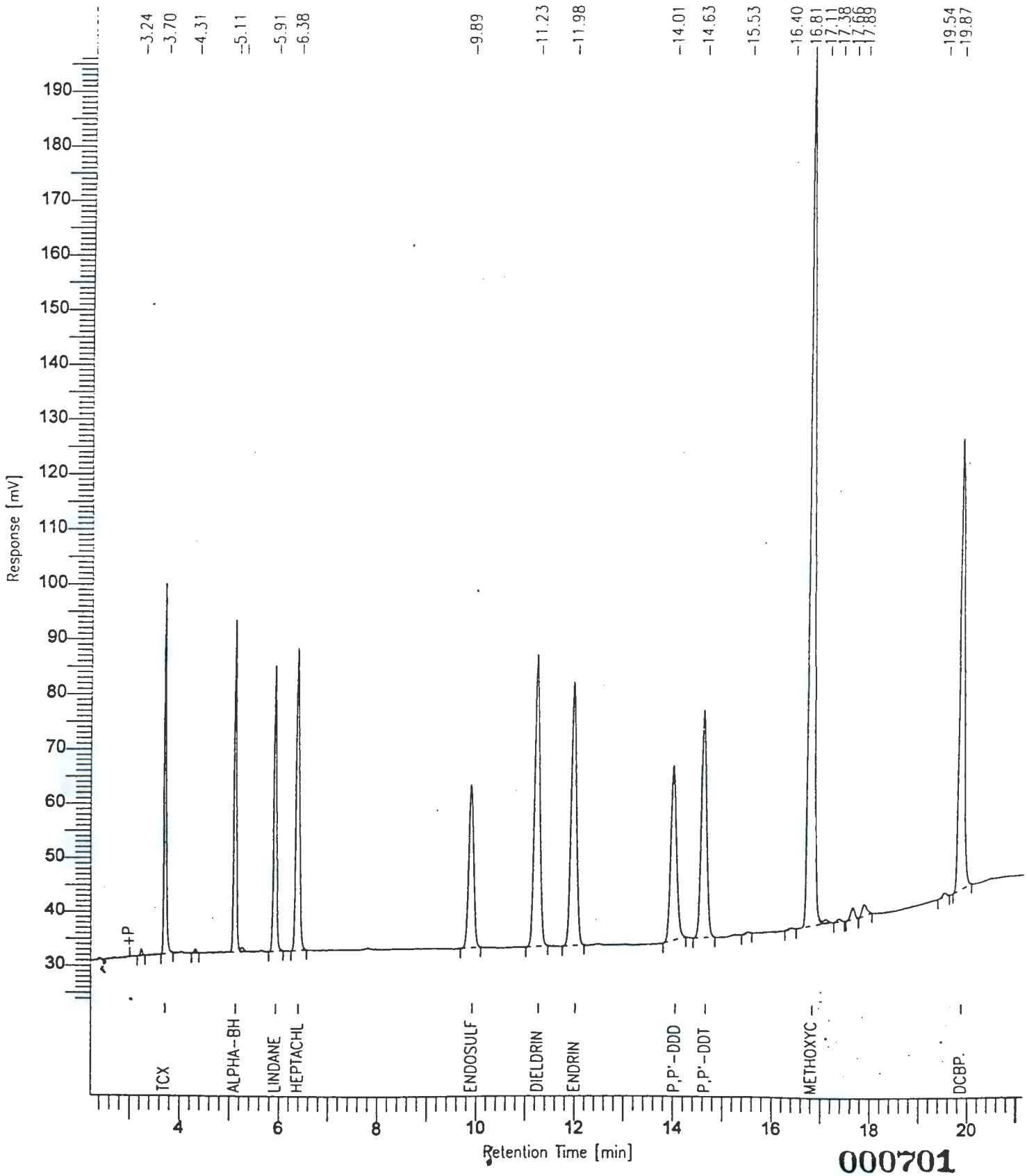
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.702	TCX	190410	B	68331	-0.1879	0.0200
4	5.110	ALPHA-BHC	200124	B	61168	-0.2913	0.0200
6	5.912	LINDANE	204641	B	53028	-0.3133	0.0200
7	6.376	HEPTACHLOR	268872	B	55552	-0.2764	0.0200
8	9.890	ENDOSULFAN A	210218	B	30198	-0.2927	0.0200
9	11.232	DIELDRIN	395998	B	53853	-0.2978	0.0400
10	11.976	ENDRIN	370867	B	48725	-0.2933	0.0400
11	14.013	P,P'-DDD	263301	B	32555	-0.2732	0.0400
12	14.628	P,P'-DDT	314502	B	42143	-0.2372	0.0400
15	16.805	METHOXYCHLOR	1083030	V	159712	-0.1712	0.2000
21	19.866	DCBP	523560	B	82734	-0.1097	0.0400

9513355.1790

Chromatogram

Sample Name : CCS*INDAM*2
FileName : C:\TC4\HP58909\998B040.RAW
Method : 998BAM.MTH
Start Time : 2.22 min End Time : 21.14 min
Scale Factor: 0.0 Plot Offset: 23 mV

Sample #:
Date : 5/15/94 10:31 PM
Time of Injection: 5/13/94 04:45 PM
Low Point : 23.22 mV High Point : 196.79 mV
Plot Scale: 173.6 mV



000701

9513355.1799

Software Version: 4.0<1C29>
Sample Name : CCS*INDBM*2 Time : 5/15/94 10:36 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/13/94 05:27 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B041.RAW
Result File : C:\TC4\HP58909\998B041.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B041.RST
Proc Method : C:\TC4\HP58909\998BBM.MTH
Calib Method : C:\TC4\HP58909\998BBM.MTH
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 21

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.702	TCX	183315	B	65423	-0.1889	0.0200
6	7.047	ALDRIN	191132	B	37805	-0.2701	0.0200
7	7.852	BETA-BHC	124600	B	23346	-0.3836	0.0200
8	8.550	DELTA-BHC	165577	B	30866	-0.3670	0.0200
9	9.018	HEPTACHLOR EPOXIDE	222148	B	34496	-0.3057	0.0200
11	10.141	GAMMA-CHLORDANE	239776	V	32907	-0.3070	0.0200
12	10.338	ALPHA-CHLORDANE	235708	V	32724	-0.3008	0.0200
13	10.789	P,P'-DDE	324244	B	41808	-0.2750	0.0400
14	14.024	ENDOSULFAN B	394512	B	50313	-0.2853	0.0400
15	15.527	ENDRIN ALDEHYDE	254634	B	27656	-0.2504	0.0400
17	16.550	ENDOSULFAN SULFATE	349185	B	54404	-0.2211	0.0400
18	17.662	ENDRIN KETONE	368076	B	62930	-0.1916	0.0400

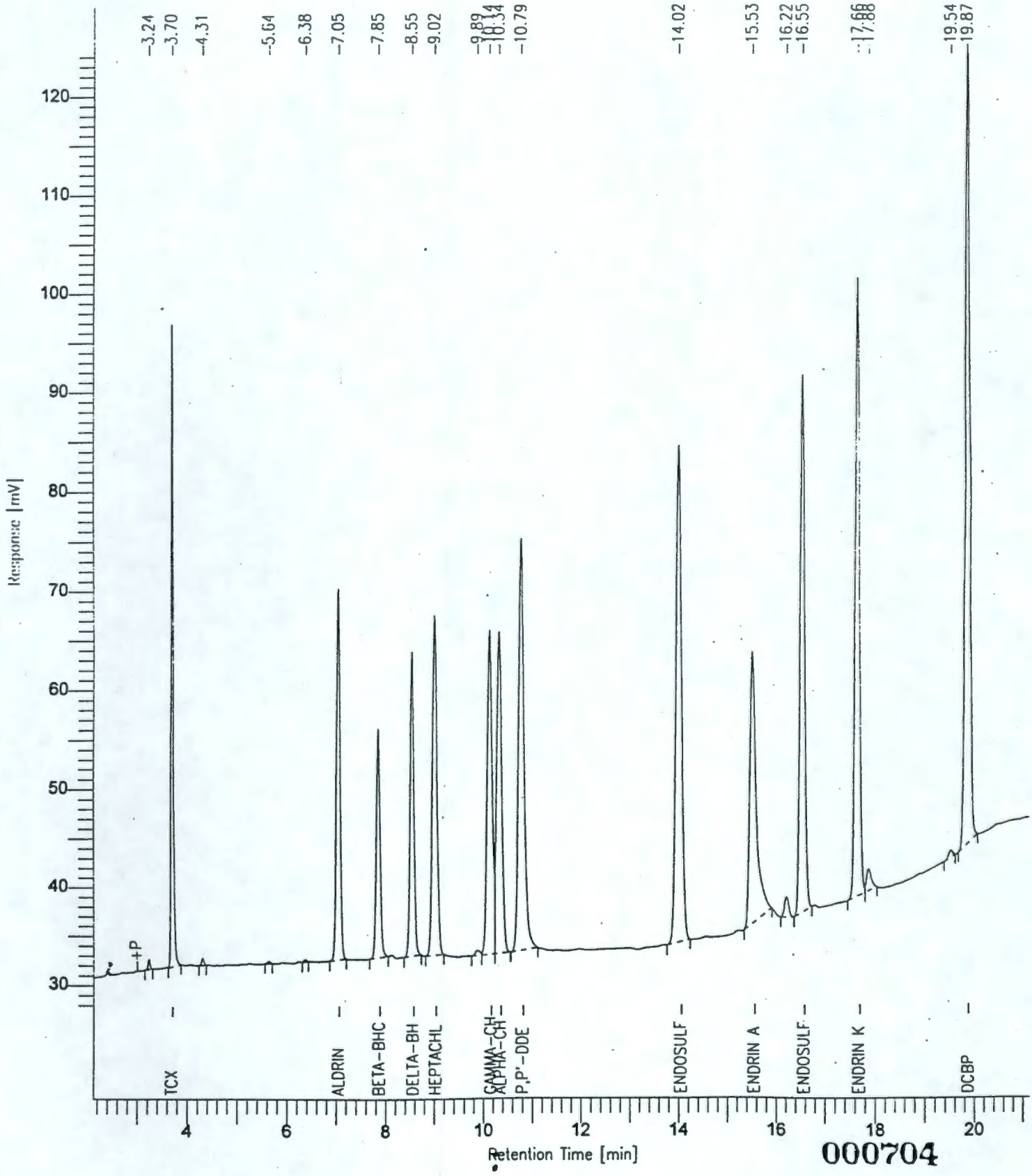
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
21	19.867	DCBP	519251	B	82097	-0.1094	0.0400
			3572158		576775		0.3800

9513355.1801

Chromatogram

Sample Name : CCS*INDBM*2
FileName : C:\TC4\HP58909\998B041.RAW
Method : 998BBM.MTH
Start Time : 2.12 min End Time : 21.14 min
Scale Factor: 0.0 Plot Offset: 28 mV

Sample #:
Date : 5/15/94 10:36 PM
Time of Injection: 5/13/94 05:27 PM
Low Point : 27.98 mV High Point : 124.18 mV
Plot Scale: 96.2 mV



000704

Software Version: 4.0<1C29>
Sample Name : HEXANE
Time : 5/15/94 09:47 PM
Sample Number:
Study :
Operator : VIC

Instrument : HP58909
Channel : B
A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342
Data Acquisition Time: 5/14/94 01:55 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B053.RAW
Result File : C:\TC4\HP58909\998B053.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B053.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B053.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B053.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul
Area Reject : 9593.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 4

DATA REPORT

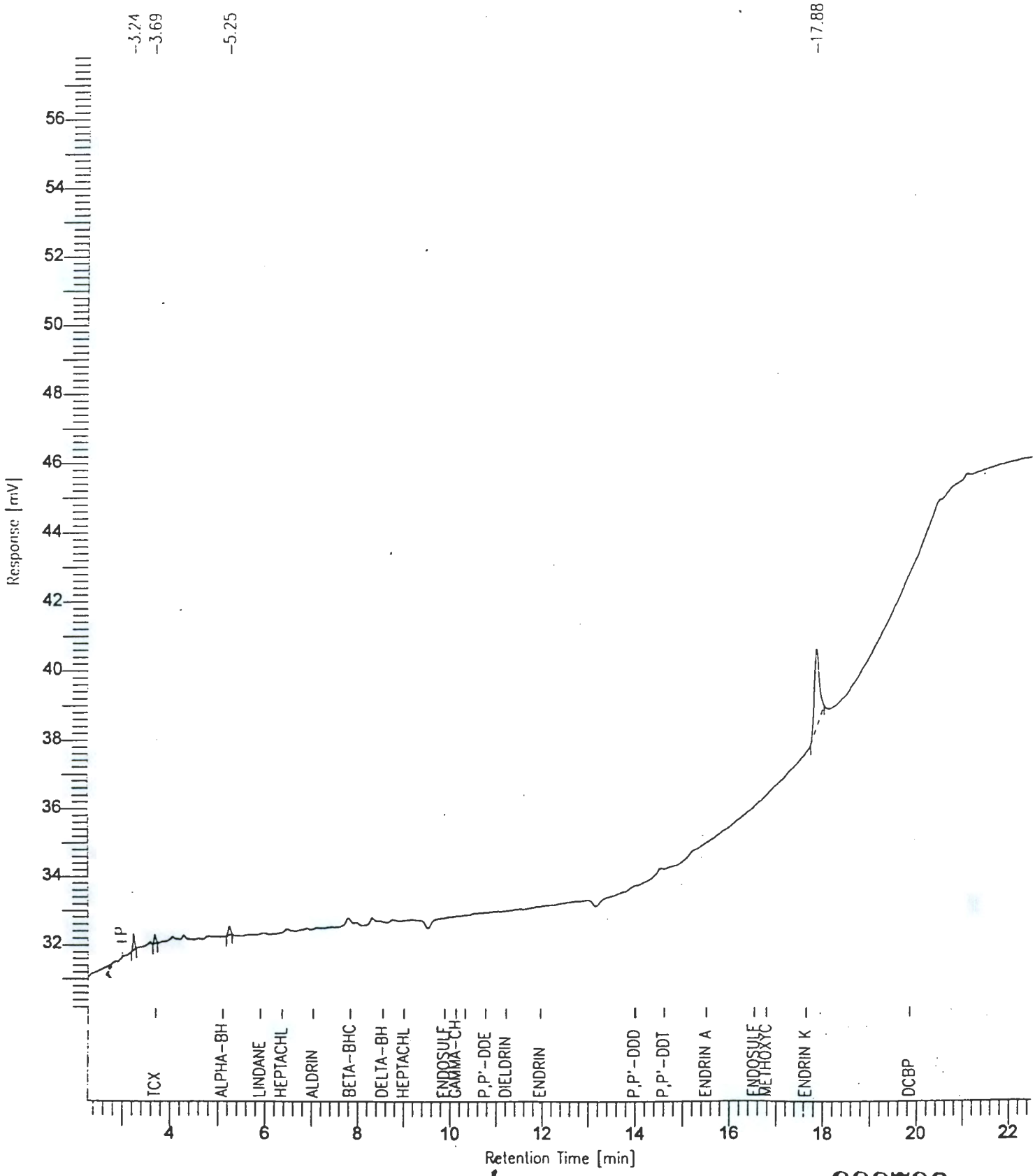
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
4	17.884		16802	B	2282	-------
			16802		2282	

9513355.1803

Chromatogram

Sample Name : HEXANE
FileName : C:\TC4\HP58909\998B053.RAW
Method :
Start Time : 2.28 min End Time : 22.50 min
Scale Factor: 0.0 Plot Offset: 30 mV

Sample #:
Date : 5/15/94 09:47 PM
Time of Injection: 5/14/94 01:55 AM
Low Point : 30.18 mV High Point : 57.90 mV
Plot Scale: 27.7 mV



000706

9513355.1804

Software Version: 4.0<1C29>
Sample Name : MB*PIBLK*3 Time : 5/15/94 09:47 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/14/94 02:37 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B054.RAW
Result File : C:\TC4\HP58909\998B054.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B054.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B054.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B054.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 9593.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 7

DATA REPORT

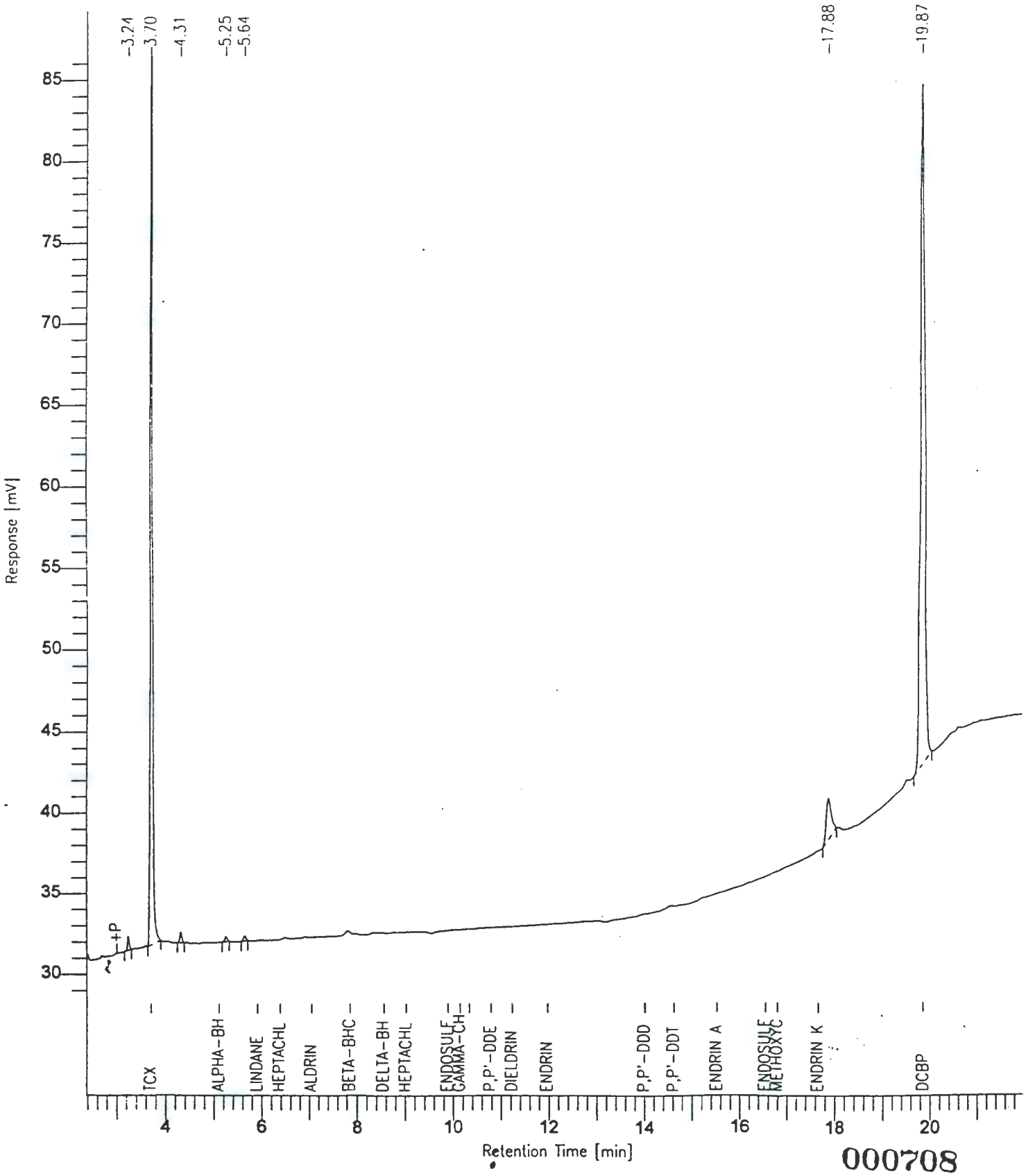
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
2	3.702	TCX	180972	B	63287	0.0185
6	17.884		18881	B	2533	-------
7	19.865	DCBP	259649	B	41799	0.0030
			459503		107619	

9513355.1805

Chromatogram

Sample Name : MB*PIBLK*3
FileName : C:\TC4\HP58909\998B054.RAW
Method :
Start Time : 2.38 min End Time : 21.98 min
Scale Factor: 0.0 Plot Offset: 28 mV

Sample #:
Date : 5/15/94 09:47 PM
Time of Injection: 5/14/94 02:37 AM
Low Point : 28.24 mV High Point : 86.42 mV
Plot Scale: 58.2 mV



000708

Software Version: 4.0<1C29>
Sample Name : CK*PEM*3 Time : 5/15/94 10:13 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/14/94 03:20 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B055.RAW
Result File : C:\TC4\HP58909\998B055.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B055.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B055.RST
Calib Method : C:\TC4\HP58909\998BPEM from C:\TC4\HP58909\998B055.RST
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 20

DATA REPORT

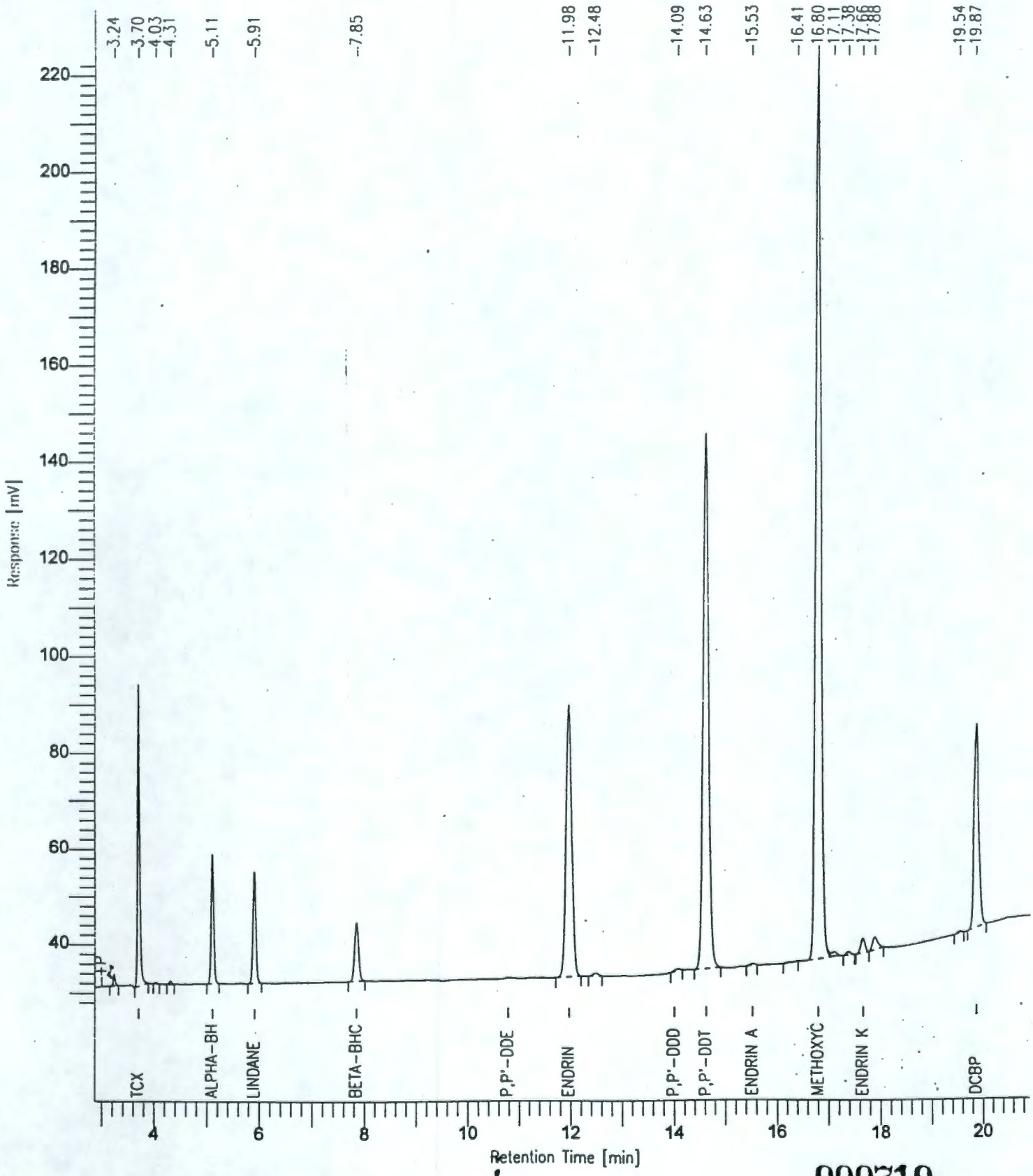
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
2	3.702	TCX	182961	B	63262	0.0311
5	5.109	ALPHA-BHC	88346	B	26855	-0.0027
6	5.911	LINDANE	90956	B	23182	0.0048
7	7.852	BETA-BHC	63760	B	12105	0.0342
8	11.977	ENDRIN	433376	B	56668	0.0406
10	14.086	P,P'-DDD	3298	B	380	0.5700
11	14.629	P,P'-DDT	835458	B	111262	0.0370
12	15.526	ENDRIN ALDEHYDE	2622	B	389	0.0283
14	16.803	METHOXYCHLOR	1290362	B	187558	0.0083
17	17.657	ENDRIN KETONE	17888	B	3033	-0.0140
20	19.866	DCBP	264927	B	42718	0.0105

9513355.1807

Chromatogram

Sample Name : CK*PEM*3
FileName : C:\TC4\HP58909\998B055.RAW
Method :
Start Time : 2.87 min End Time : 20.91 min
Scale Factor: 0.0 Plot Offset: 27 mV

Sample #:
Date : 5/15/94 10:13 PM
Time of Injection: 5/14/94 03:20 AM
Low Point : 26.95 mV High Point : 223.74 mV
Plot Scale: 196.8 mV



000710

9513355.1808

Software Version: 4.0<1C29>
Sample Name : ~~MB*PIBLK*4~~ HEXANE Time : 5/15/94 10:40 PM
Sample Number: Study :
Operator : VIC VSB 5-16-94
THE TURBOCHROM 4.0 DATA SYSTEM SWITCHED
Instrument : HP58909 THE A+B CHANNEL FOR THIS INJECTION Channel : ~~A~~ B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/14/94 01:51 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998A070.RAW
Result File : C:\TC4\HP58909\998A070.RST
Inst Method : HP58909 from C:\TC4\HP58909\998A070.RST
Proc Method : C:\TC4\HP58909\998B.MTH
Calib Method : C:\TC4\HP58909\998B.MTH
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 9593.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 4

DATA REPORT

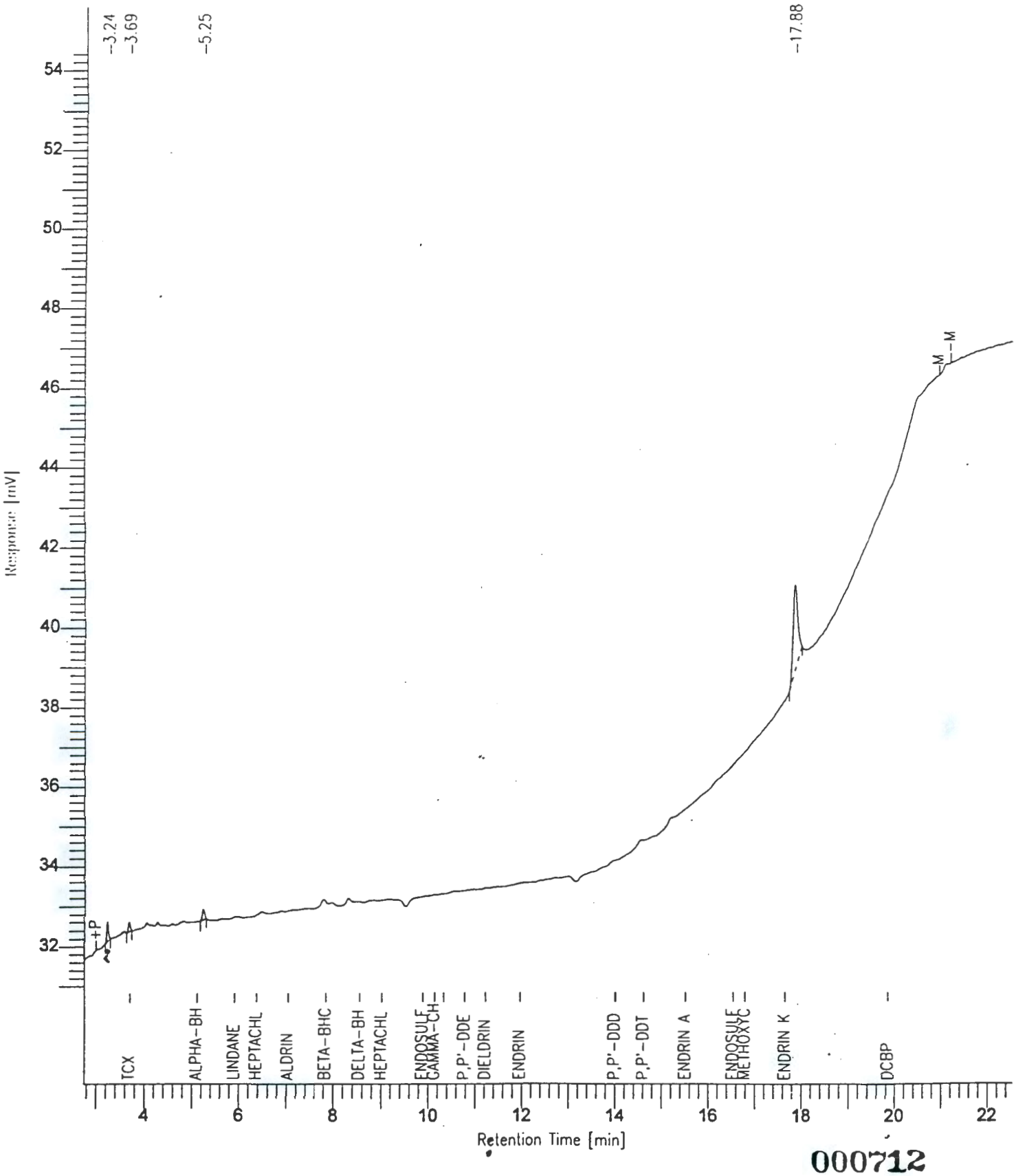
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
4	17.876		15100	B	2156	-------
			15100		2156	

9513355.1809

Chromatogram

Sample Name : ~~MB*PIBLK*~~4 HEXANE VSB 5-16-94 ~I
FileName : C:\TC4\HP58909\998A070.RAW
Method : 998B.MTH
Start Time : 2.75 min End Time : 22.55 min
Scale Factor: 0.0 Plot Offset: 31 mV

Sample #: Page 1 of 1
Date : 5/15/94 10:40 PM
Time of Injection: 5/14/94 01:51 PM
Low Point : 30.83 mV High Point : 54.41 mV
Plot Scale: 23.6 mV



000712

9513355.1810

Software Version: 4.0<1C29>
Sample Name : MB*PIBLK*4 Time : 5/15/94 10:11 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/14/94 02:28 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B071.RAW
Result File : C:\TC4\HP58909\998B071.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B071.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B071.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B071.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 9593.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 7

DATA REPORT

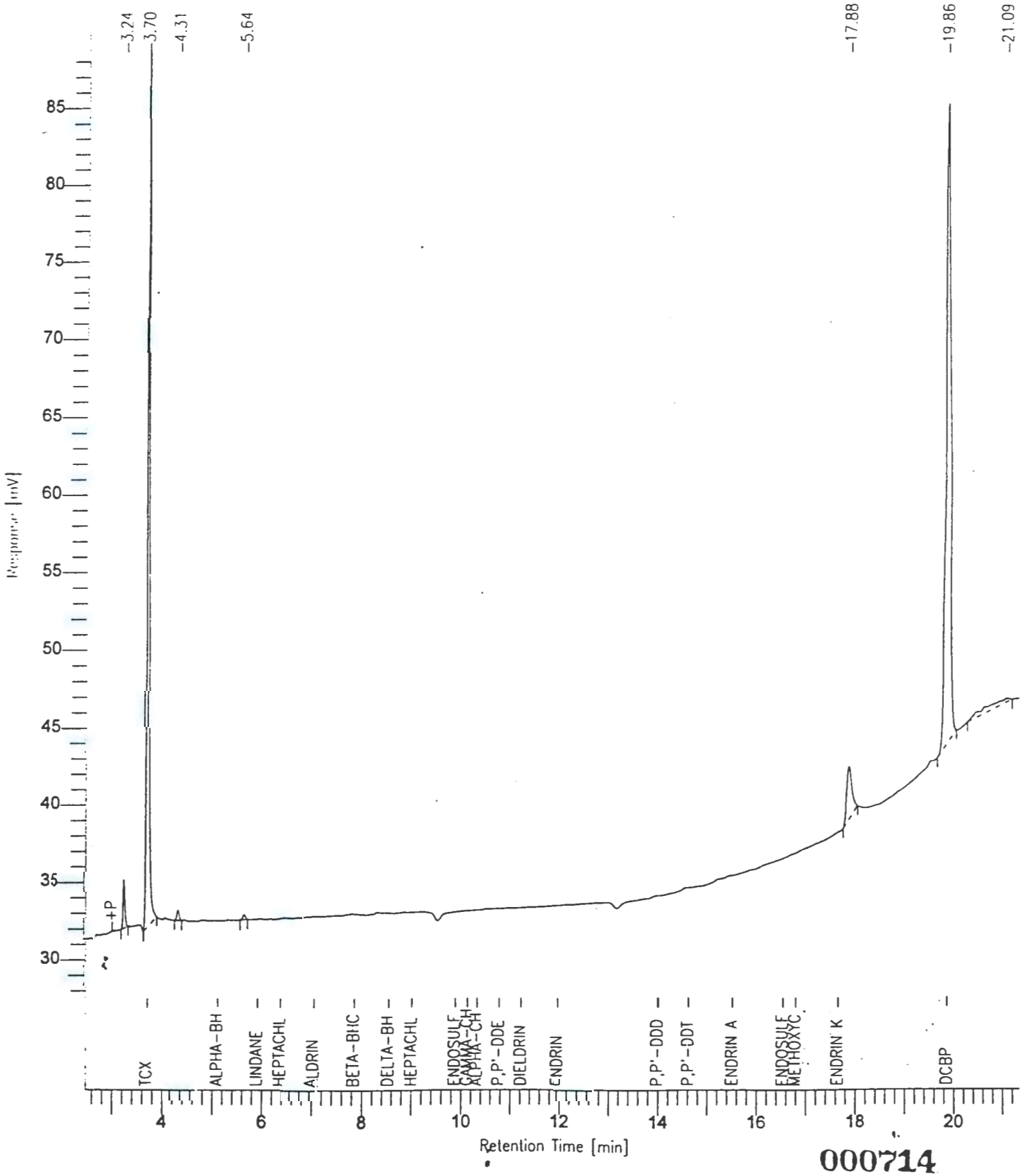
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
2	3.701	TCX	184292	B	62985	0.0132
5	17.880		25530	B	3448	-------
6	19.864	DCBP	261543	B	41378	-0.0019
7	21.087		13712	B	227	-------
			485078		108039	

9513355.1811

Chromatogram

Sample Name : MB*PIBLK*4
FileName : C:\TC4\HP58909\998B071.RAW
Method :
Start Time : 2.47 min End Time : 21.34 min
Scale Factor: 0.0 Plot Offset: 28 mV

Sample #:
Date : 5/15/94 10:11 PM
Time of Injection: 5/14/94 02:28 PM
Low Point : 27.55 mV High Point : 88.58 mV
Plot Scale: 61.0 mV



000714

Software Version: 4.0<1C29>
Sample Name : CCS*INDAM*3 Time : 5/15/94 10:33 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/14/94 03:05 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B072.RAW
Result File : C:\TC4\HP58909\998B072.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B072.RST
Proc Method : C:\TC4\HP58909\998BAM.MTH
Calib Method : C:\TC4\HP58909\998BAM.MTH
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 18

DATA REPORT

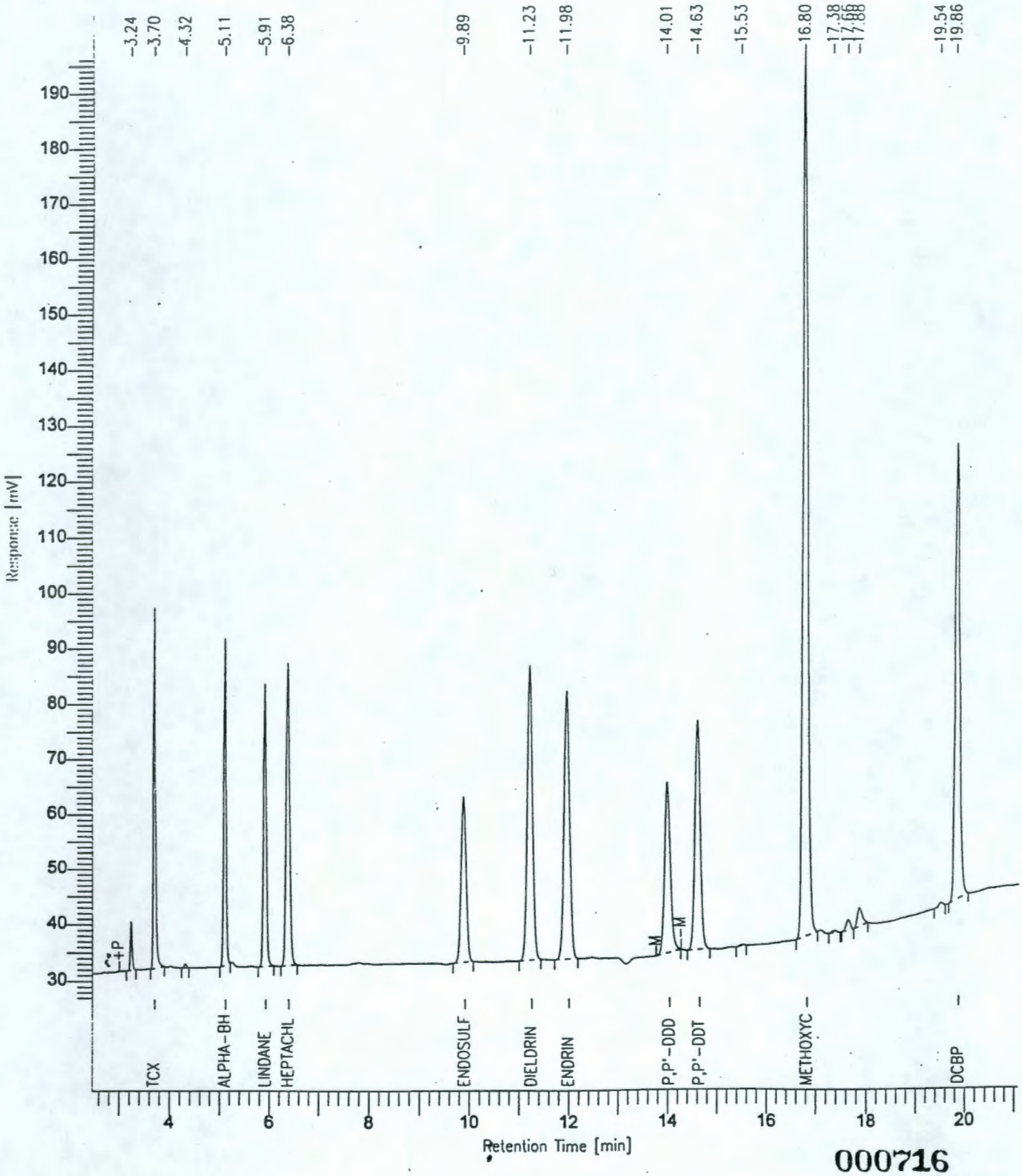
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.702	TCX	188421	B	65657	-0.1840	0.0200
4	5.110	ALPHA-BHC	192112	B	59131	-0.2918	0.0200
5	5.912	LINDANE	201264	B	51478	-0.3135	0.0200
6	6.377	HEPTACHLOR	267751	B	54727	-0.2707	0.0200
7	9.892	ENDOSULFAN A	208490	B	30000	-0.2796	0.0200
8	11.232	DIELDRIN	392654	B	53292	-0.2971	0.0400
9	11.977	ENDRIN	370796	B	48585	-0.2916	0.0400
10	14.011	P,P'-DDD	253102	*B	31111	-0.2789	0.0400
11	14.627	P,P'-DDT	317203	B	41752	-0.2403	0.0400
13	16.804	METHOXYCHLOR	1089708	B	159730	-0.1742	0.2000
18	19.864	DCBP	523613	B	82495	-0.1125	0.0400

9513355.1813

Chromatogram

Sample Name : CCS*INDAM*3
FileName : C:\TC4\HP58909\998B072.RAW
Method : 998BAM.MTH
Start Time : 2.47 min End Time : 21.09 min
Scale Factor: 0.0 Plot Offset: 27 mV

Sample #:
Date : 5/15/94 10:33 PM
Time of Injection: 5/14/94 03:05 PM
Low Point : 26.85 mV High Point : 196.71 mV
Plot Scale: 169.9 mV



000716

9513355.1814

Software Version: 4.0<1C29>
Sample Name : CCS*INDBM*3 Time : 5/15/94 10:35 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/14/94 03:42 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B073.RAW
Result File : C:\TC4\HP58909\998B073.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B073.RST
Proc Method : C:\TC4\HP58909\998BBM.MTH
Calib Method : C:\TC4\HP58909\998BBM.MTH
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

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	3.703	TCX	184765	B	64530	-0.1810	0.0200
7	7.049	ALDRIN	194652	B	38176	-0.2598	0.0200
8	7.852	BETA-BHC	124766	B	23319	-0.3798	0.0200
9	8.551	DELTA-BHC	167457	B	30918	-0.3610	0.0200
10	9.020	HEPTACHLOR EPOXIDE	226010	B	35038	-0.2945	0.0200
12	10.142	GAMMA-CHLORDANE	243141	V	33208	-0.3020	0.0200
13	10.339	ALPHA-CHLORDANE	240241	V	33026	-0.2996	0.0200
14	10.789	P,P'-DDE	323208	B	41174	-0.2788	0.0400
15	14.024	ENDOSULFAN B	399288	B	50083	-0.2835	0.0400
16	15.526	ENDRIN ALDEHYDE	254523	B	27826	-0.2553	0.0400
18	16.551	ENDOSULFAN SULFATE	352224	B	54698	-0.2186	0.0400
19	17.662	ENDRIN KETONE	374868	B	63318	-0.1933	0.0400

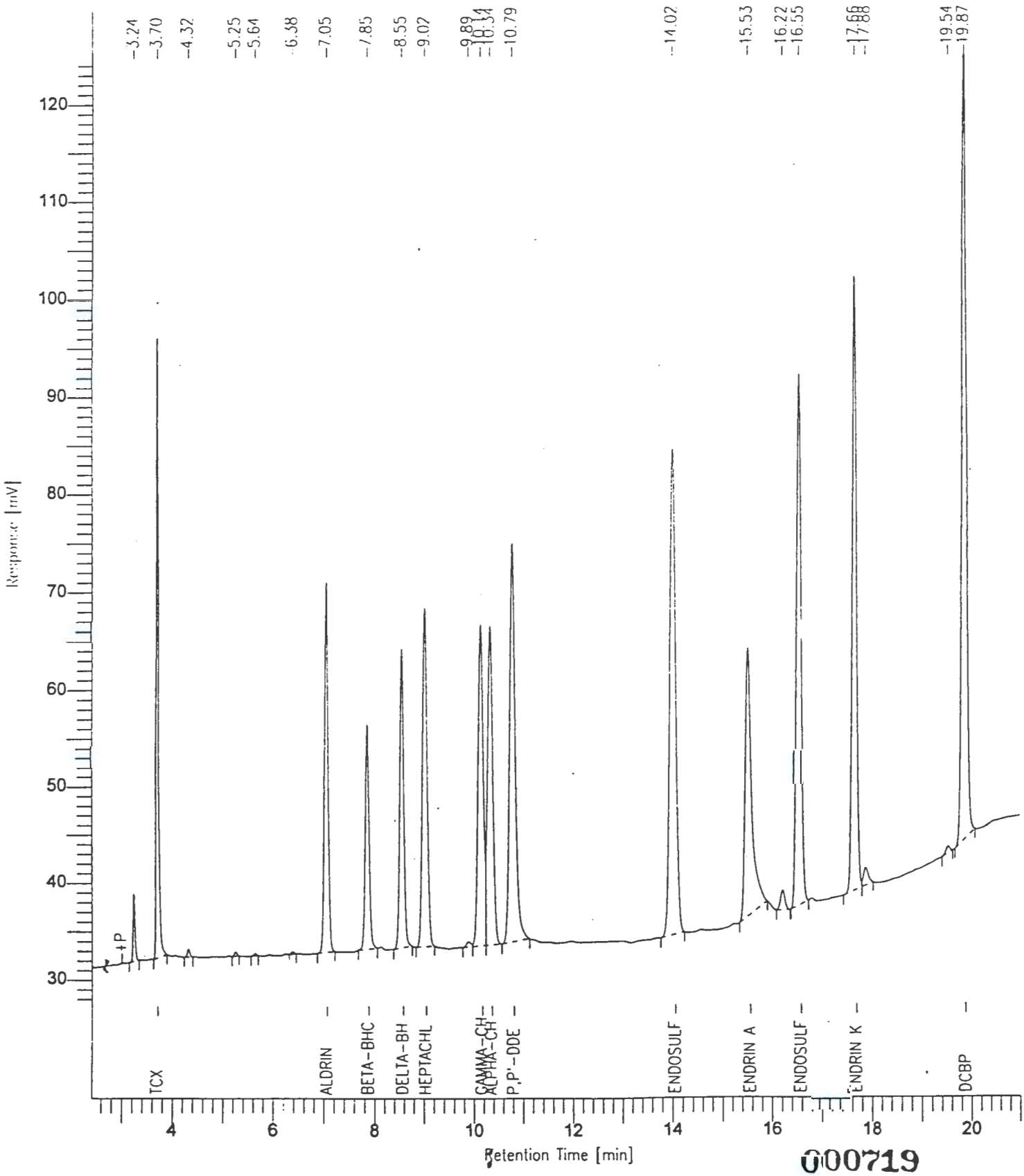
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
22	19.867	DCBP	525788	B	82211	-0.1092	0.0400
			3610929		577525		0.3800

9513355.1816

Chromatogram

Sample Name : CCS*INDBM*3
FileName : C:\TC4\HP58909\998B073.RAW
Method : 998BBM.MTH
Start Time : 2.42 min End Time : 21.00 min
Scale Factor: 0.0 Plot Offset: 27 mV

Sample #:
Date : 5/15/94 10:35 PM
Time of Injection: 5/14/94 03:42 PM
Low Point : 27.37 mV High Point : 124.71 mV
Plot Scale: 97.3 mV



000719

9513355.1817

Software Version: 4.0<1C29>
Sample Name : HEXANE
Sample Number:
Operator : VIC

Time : 5/16/94 09:21 PM
Study :

Instrument : HP58909
AutoSampler :
Rack/Vial : 0/0

Channel : B
A/D mV Range : 1000

Interface Serial # : 9004570342
Data Acquisition Time: 5/15/94 12:55 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B088.RAW
Result File : C:\TC4\HP58909\998B088.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B088.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B088.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B088.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul
Sample Amount : 1.0000

Area Reject : 9593.000000
Dilution Factor : 1.00

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

Instrument Conditions:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 5

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
4	17.882		20899	B	2891	-------
			20899		2891	

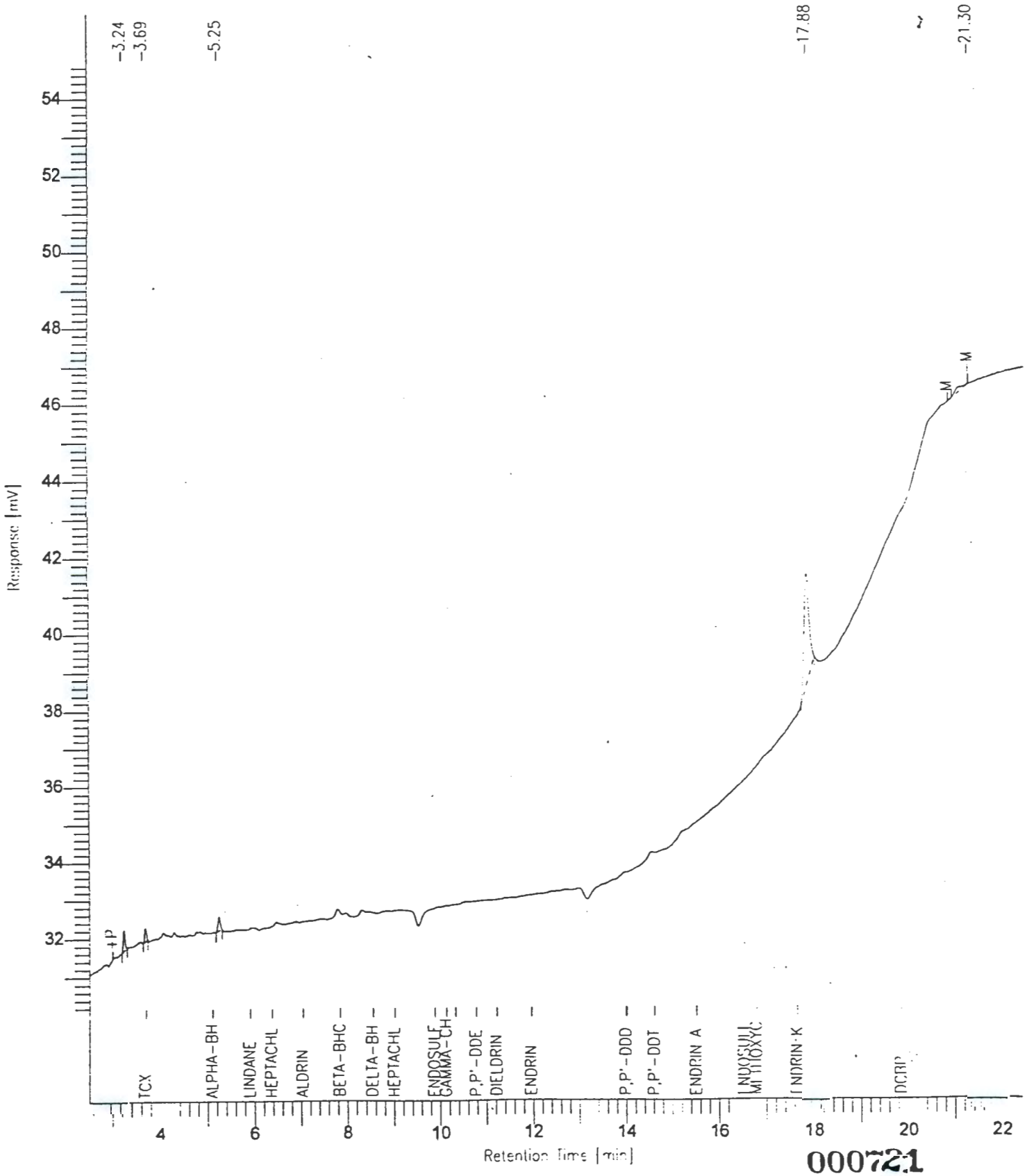
000720

9513355.1818

Chromatogram

Sample Name : HEXANE
FileName : C:\TC4\HP58909\998B088.RAW
Method :
Start Time : 2.52 min End Time : 22.53 min
Scale Factor: 0.0 Plot Offset: 30 mV

Sample #:
Date : 5/16/94 09:21 PM
Time of Injection: 5/15/94 12:55 AM
Low Point : 30.19 mV High Point : 54.99 mV
Plot Scale: 24.8 mV



000721

9513355.1819

Software Version: 4.0<1C29>
Sample Name : MB*PIBLK*5 Time : 5/16/94 09:22 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 01:32 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B089.RAW
Result File : C:\TC4\HP58909\998B089.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B089.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B089.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B089.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 9593.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 7

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	3.237		25844	B	9916	-------
2	3.703	TCX	183481	B	63565	0.0578
6	17.884		22190	B	2981	-------
7	19.866	DCBP	259422	*B	41709	0.0105
			490937		118170	

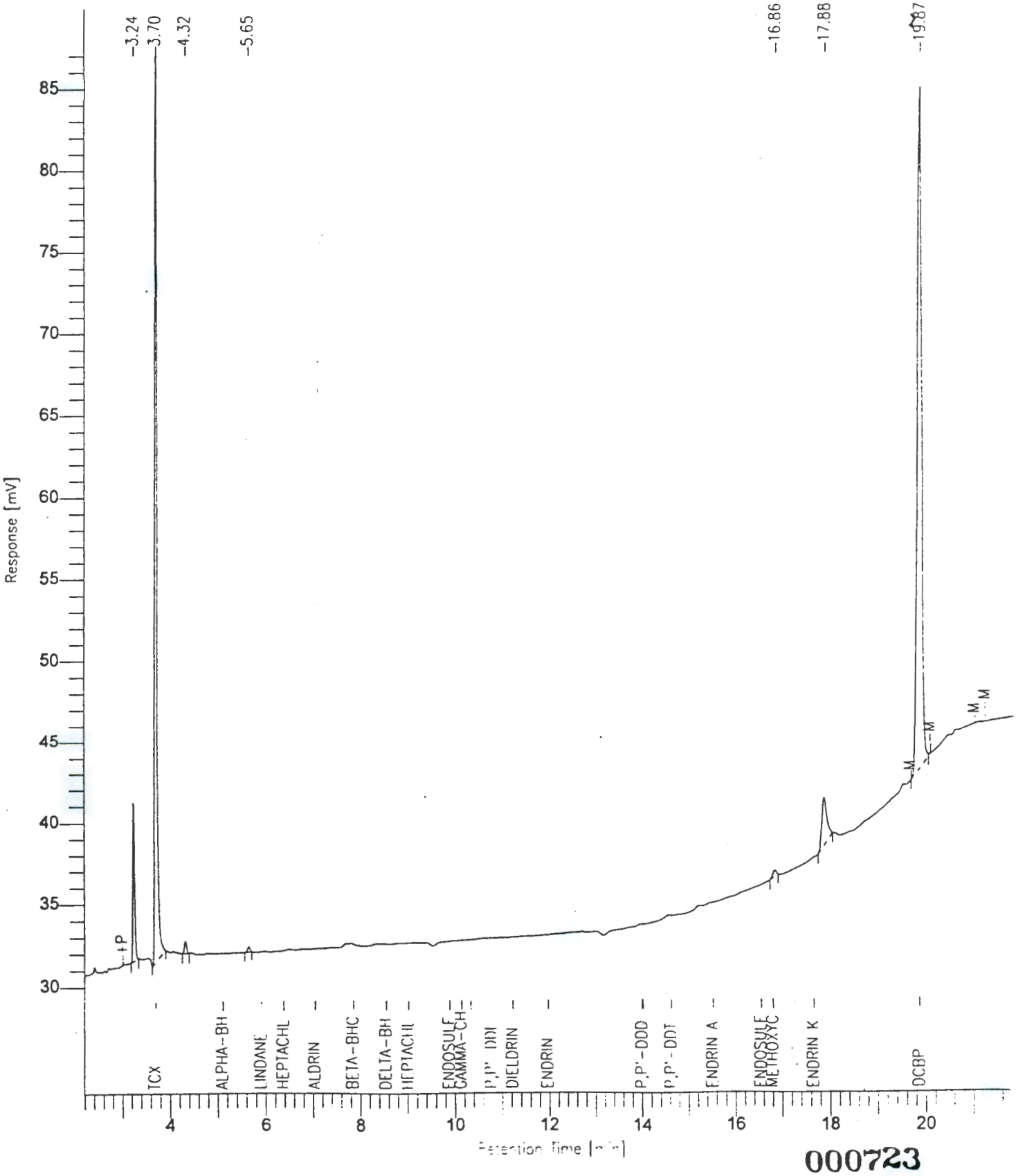
000722

9513355.1820

Chromatogram

Sample Name : MB*PIBLK*5
FileName : C:\TC4\HP58909\998B089.RAW
Method :
Start Time : 2.18 min End Time : 21.92 min
Scale Factor: 0.0 Plot Offset: 29 mV

Sample #:
Date : 5/16/94 09:22 PM
Time of Injection: 5/15/94 01:32 AM
Low Point : 29.14 mV High Point : 87.05 mV
Plot Scale: 57.9 mV



000723

9513355.1821

Software Version: 4.0<1C29>
Sample Name : CK*PEM*4 Time : 5/16/94 09:23 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 02:09 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B090.RAW
Result File : C:\TC4\HP58909\998B090.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B090.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B090.RST
Calib Method : C:\TC4\HP58909\998BPEM from C:\TC4\HP58909\998B090.RST
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 19

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
2	3.702	TCX	176758	B	61710	0.0296
5	5.109	ALPHA-BHC	85550	B	26092	-0.0092
6	5.910	LINDANE	89798	B	22973	-0.0094
7	7.852	BETA-BHC	63806	B	12020	0.0320
8	11.979	ENDRIN	431262	B	56783	0.0590
10	14.068	P,P'-DDD	2446	B	286	0.4459
11	14.632	P,P'-DDT	833816	B	110380	0.0565
12	15.530	ENDRIN ALDEHYDE	1693	B	285	0.0538
13	16.805	METHOXYCHLOR	1292589	B	188213	0.0208
16	17.657	ENDRIN KETONE	16338	B	2837	-0.0096
19	19.866	DCBP	263555	B	42177	0.0105

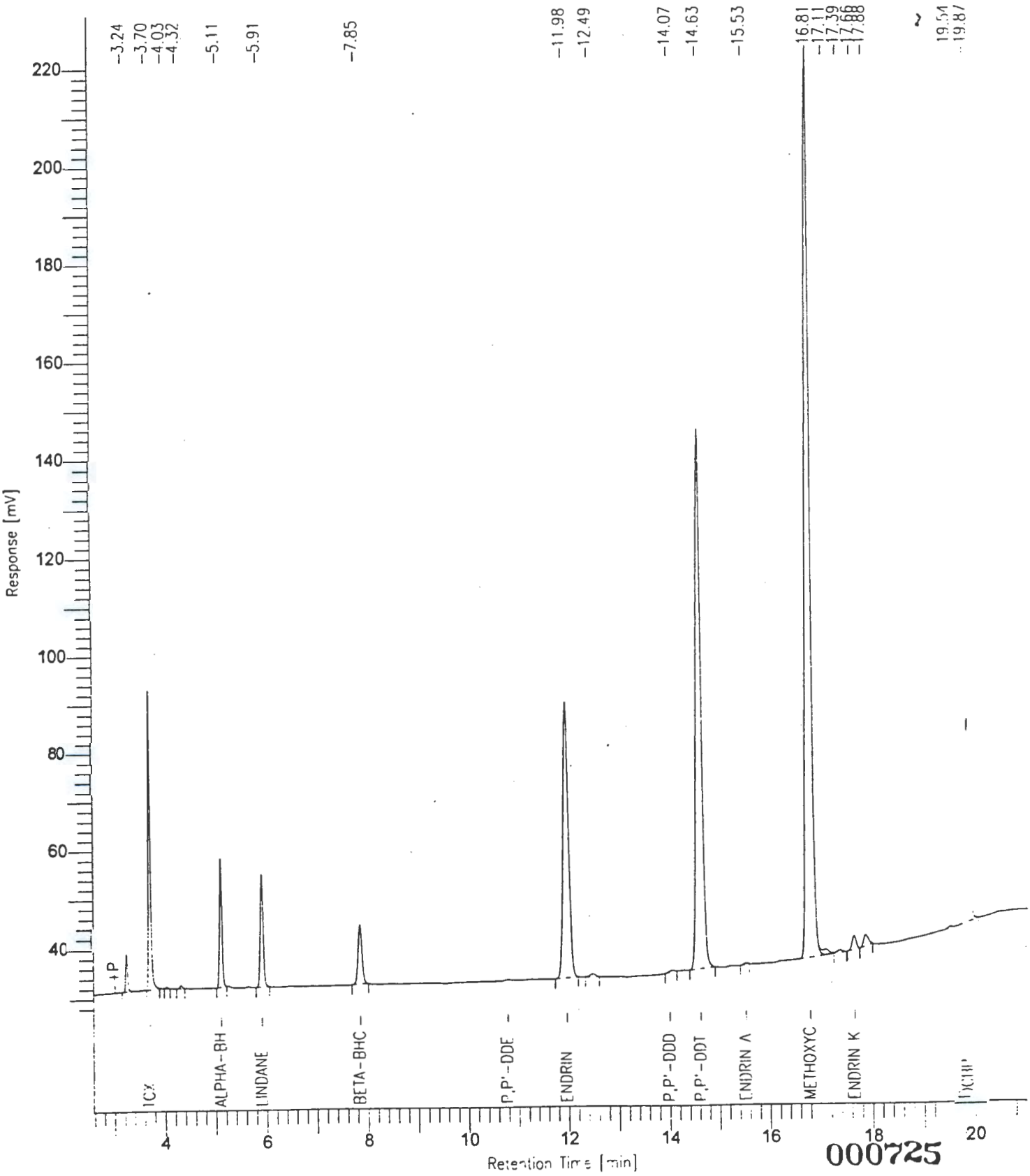
000724

9513555.1822

Chromatogram

Sample Name : CK*PEM*4
FileName : C:\TC4\HP58909\998B090.RAW
Method :
Start Time : 2.58 min End Time : 21.10 min
Scale Factor: 0.0 Plot Offset: 26 mV

Sample #:
Date : 5/16/94 09:23 PM
Time of Injection: 5/15/94 02:09 AM
Low Point : 26.18 mV High Point : 221.34 mV
Plot Scale: 195.2 mV



000725

Software Version: 4.0<1C29>
Sample Name : HEXANE
Sample Number:
Operator : VIC

Time : 5/16/94 09:23 PM
Study :

Instrument : HP58909
AutoSampler :
Rack/Vial : 0/0

Channel : B A/D mV Range : 1000

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 05:50 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B096.RAW
Result File : C:\TC4\HP58909\998B096.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B096.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B096.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B096.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul
Sample Amount : 1.0000

Area Reject : 9593.000000
Dilution Factor : 1.00

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

Instrument Conditions:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 4

DATA REPORT

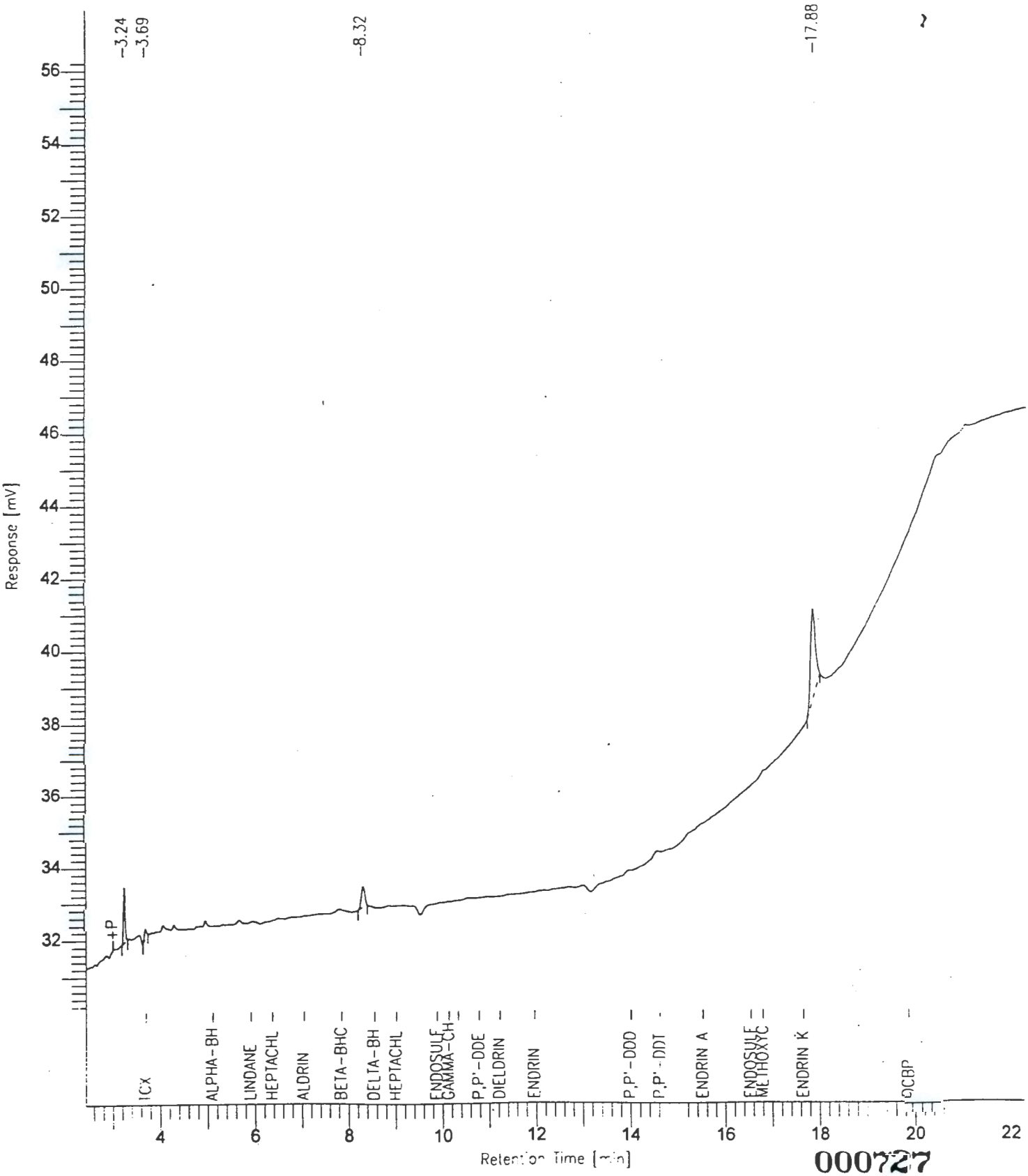
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
4	17.881		17706	B	2458	-------
			17706		2458	

9513355.1824

Chromatogram

Sample Name : HEXANE
FileName : C:\TC4\HP58909\998B096.RAW
Method :
Start Time : 2.42 min End Time : 22.36 min
Scale Factor: 0.0 Plot Offset: 30 mV

Sample #:
Date : 5/16/94 09:23 PM
Time of Injection: 5/15/94 05:50 AM
Low Point : 30.06 mV High Point : 56.39 mV
Plot Scale: 26.3 mV



000727

9513355.1825

Software Version: 4.0<1C29>
Sample Name : MB*PIBLK*6 Time : 5/16/94 09:24 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 06:26 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B097.RAW
Result File : C:\TC4\HP58909\998B097.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B097.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B097.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B097.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 9593.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 6

DATA REPORT

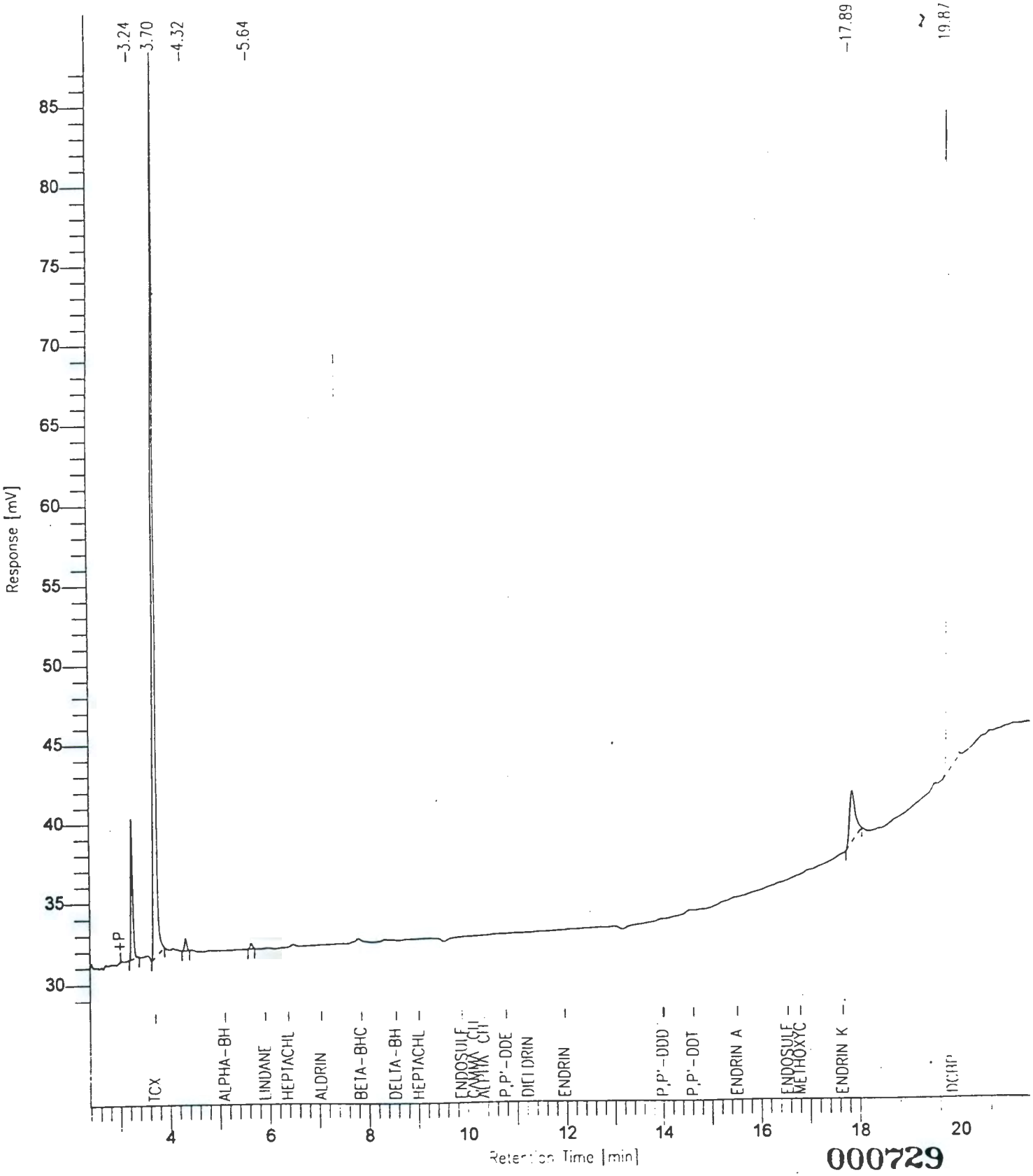
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	3.237		23628	B	8966	-------
2	3.703	TCX	180488	B	62471	0.0471
5	17.886		25996	B	3271	-------
6	19.866	DCBP	256598	B	41207	0.0103
			486709		115915	

9513355.1826

Chromatogram

Sample Name : MB*PIBLK*6
FileName : C:\TC4\HP58909\998B097.RAW
Method :
Start Time : 2.38 min End Time : 21.48 min
Scale Factor: 0.0 Plot Offset: 28 mV

Sample #:
Date : 5/16/94 09:24 PM
Time of Injection: 5/15/94 06:26 AM
Low Point : 28.25 mV High Point : 87.89 mV
Plot Scale: 59.6 mV



000729

Software Version: 4.0<1C29>
Sample Name : CCS*INDAM*4 Time : 5/16/94 09:37 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 07:03 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B098.RAW
Result File : C:\TC4\HP58909\998B098.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B098.RST
Proc Method : C:\TC4\HP58909\998BAM.MTH
Calib Method : C:\TC4\HP58909\998BAM.MTH
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 22

DATA REPORT

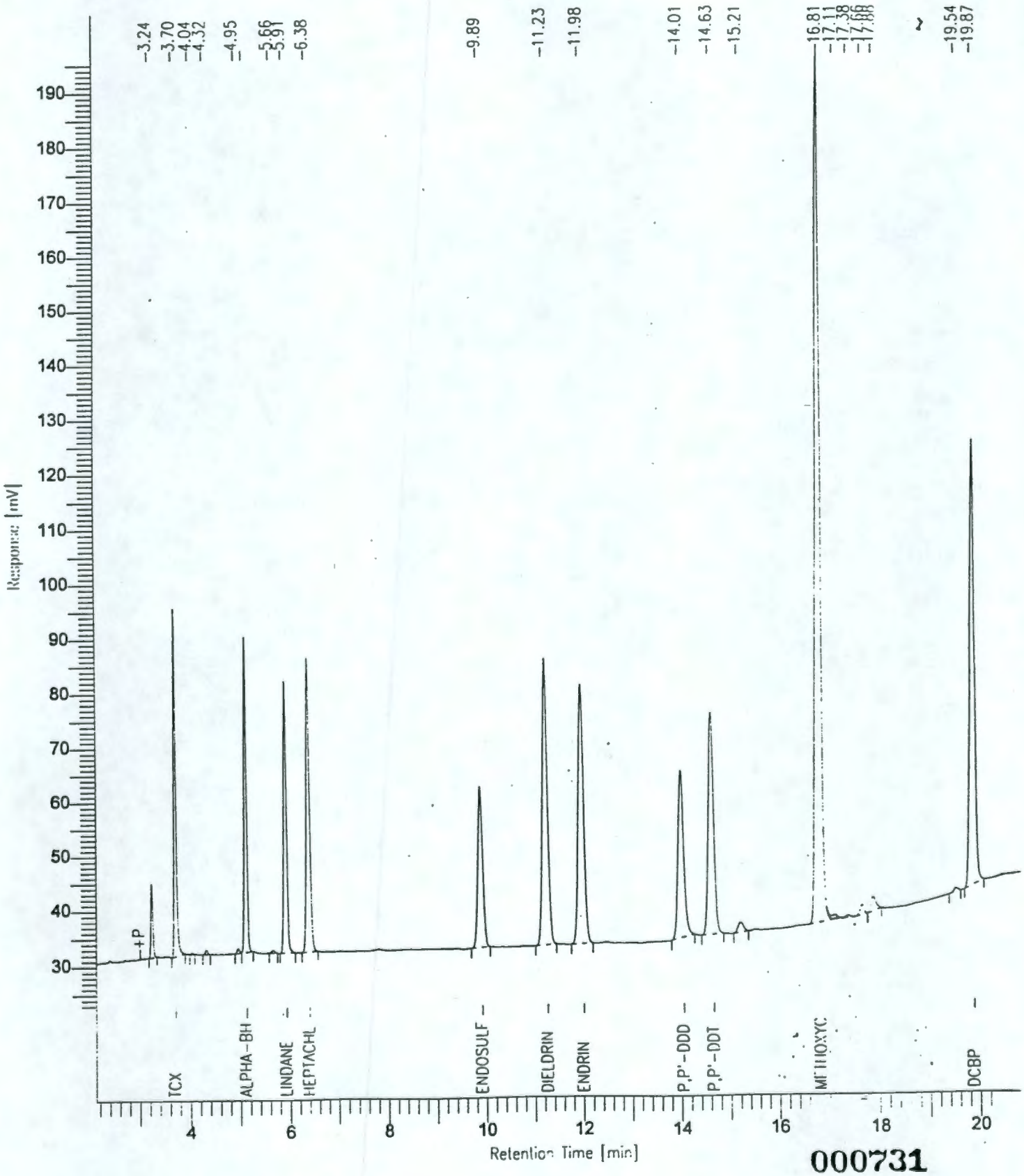
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.702	TCX	185380	B	64579	-0.1802	0.0200
6	5.110	ALPHA-BHC	189929	V	58149	-0.2914	0.0200
8	5.912	LINDANE	197039	B	50467	-0.3139	0.0200
9	6.377	HEPTACHLOR	262491	B	54131	-0.2702	0.0200
10	9.893	ENDOSULFAN A	204841	B	29540	-0.2785	0.0200
11	11.234	DIELDRIN	384914	B	52830	-0.2909	0.0400
12	11.977	ENDRIN	365660	B	47968	-0.2920	0.0400
13	14.012	P,P'-DDD	247846	B	31006	-0.2745	0.0400
14	14.629	P,P'-DDT	313004	B	41127	-0.2319	0.0400
16	16.805	METHOXYCHLOR	1086652	B	159496	-0.1719	0.2000
22	19.866	DCBP	515677	B	81688	-0.1072	0.0400

9513355.1820

Chromatogram

Sample Name : CCS*INDAM*4
FileName : C:\TC4\HP58909\998B098.RAW
Method : 998BAM.MTH
Start Time : 2.12 min End Time : 21.00 min
Scale Factor: 0.0 Plot Offset: 23 mV

Sample #:
Date : 5/16/94 09:37 PM
Time of Injection: 5/15/94 07:03 AM
Low Point : 22.53 mV High Point : 195.82 mV
Plot Scale: 173.3 mV



000731

9513355.1829

Software Version: 4.0<1C29>
Sample Name : CCS*INDBM*4 Time : 5/16/94 09:40 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 07:39 AM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B099.RAW
Result File : C:\TC4\HP58909\998B099.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B099.RST
Proc Method : C:\TC4\HP58909\998BBM.MTH
Calib Method : C:\TC4\HP58909\998BBM.MTH
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

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	3.703	TCX	185679	B	64668	-0.1805	0.0200
7	7.048	ALDRIN	192600	B	37658	-0.2618	0.0200
8	7.851	BETA-BHC	123040	B	23363	-0.3892	0.0200
9	8.549	DELTA-BHC	165694	B	30786	-0.3707	0.0200
10	9.019	HEPTACHLOR EPOXIDE	224686	B	34876	-0.2969	0.0200
12	10.142	GAMMA-CHLORDANE	241445	V	32912	-0.3033	0.0200
13	10.339	ALPHA-CHLORDANE	238638	V	33207	-0.2979	0.0200
14	10.787	P,P'-DDE	318402	B	41263	-0.2837	0.0400
15	14.024	ENDOSULFAN B	395219	B	50092	-0.2836	0.0400
17	15.527	ENDRIN ALDEHYDE	292072	V	28278	-0.2501	0.0400
19	16.551	ENDOSULFAN SULFATE	349401	B	55003	-0.2184	0.0400
21	17.662	ENDRIN KETONE	369726	B	63282	-0.1914	0.0400

9513355.1830

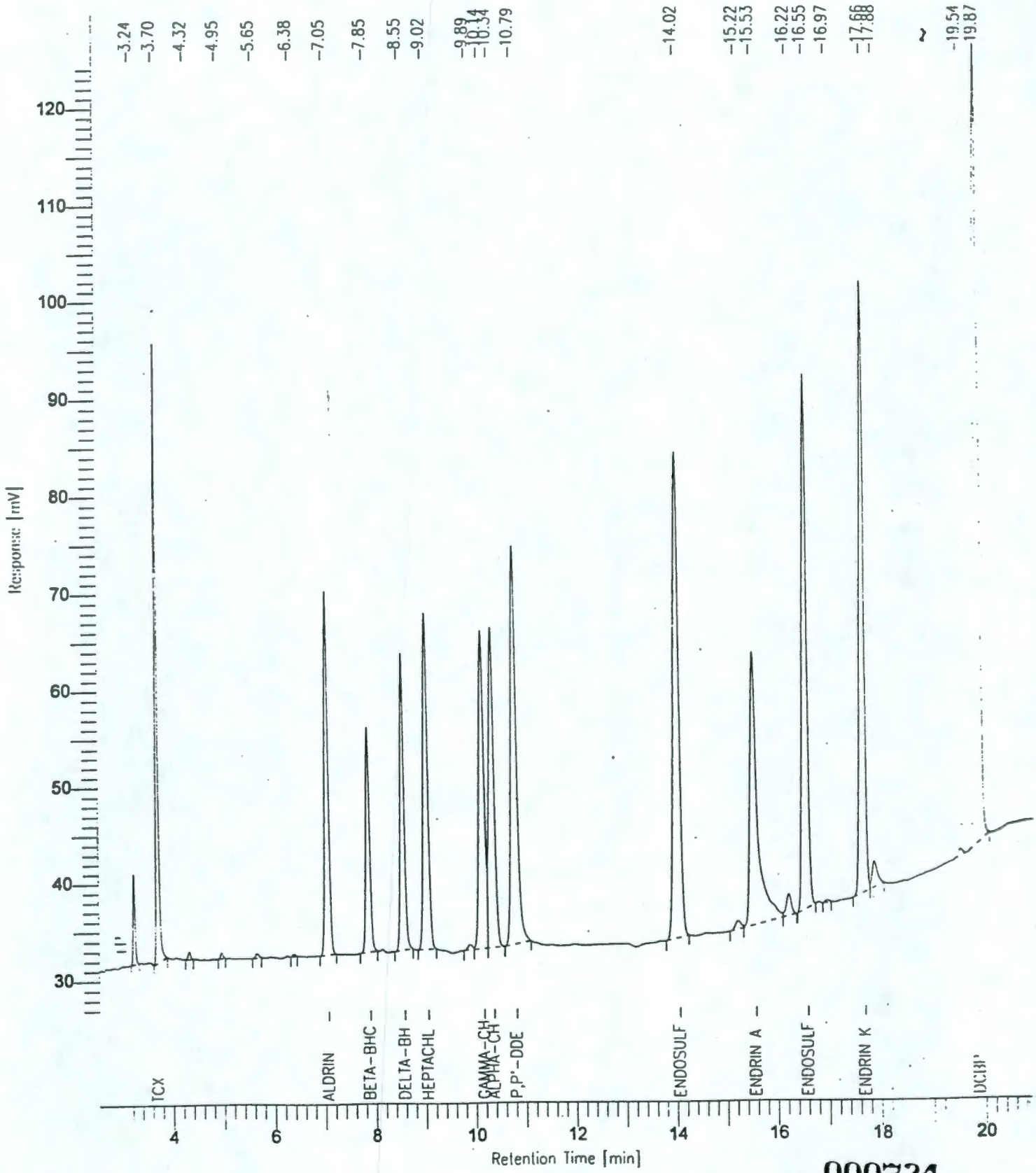
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
24	19.867	DCBP	519709	B	81464	-0.1088	0.0400
			3616312		576851		0.3800

9513355.1831

Chromatogram

Sample Name : CCS*INDBM*4
FileName : C:\TC4\HP58909\998B099.RAW
Method : 998BBM.MTH
Start Time : 2.56 min End Time : 20.95 min
Scale Factor: 0.0 Plot Offset: 27 mV

Sample #:
Date : 5/16/94 09:40 PM
Time of Injection: 5/15/94 07:39 AM
Low Point : 26.83 mV High Point : 124.87 mV
Plot Scale: 98.0 mV



000734

Software Version: 4.0<1C29>
Sample Name : NO SHOT
Time : 5/16/94 09:24 PM
Sample Number:
Study :
Operator : VIC

Instrument : HP58909
Channel : B
A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342
Data Acquisition Time: 5/15/94 02:48 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B100.RAW
Result File : C:\TC4\HP58909\998B100.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B100.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B100.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B100.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul
Area Reject : 9593.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 0

DATA REPORT

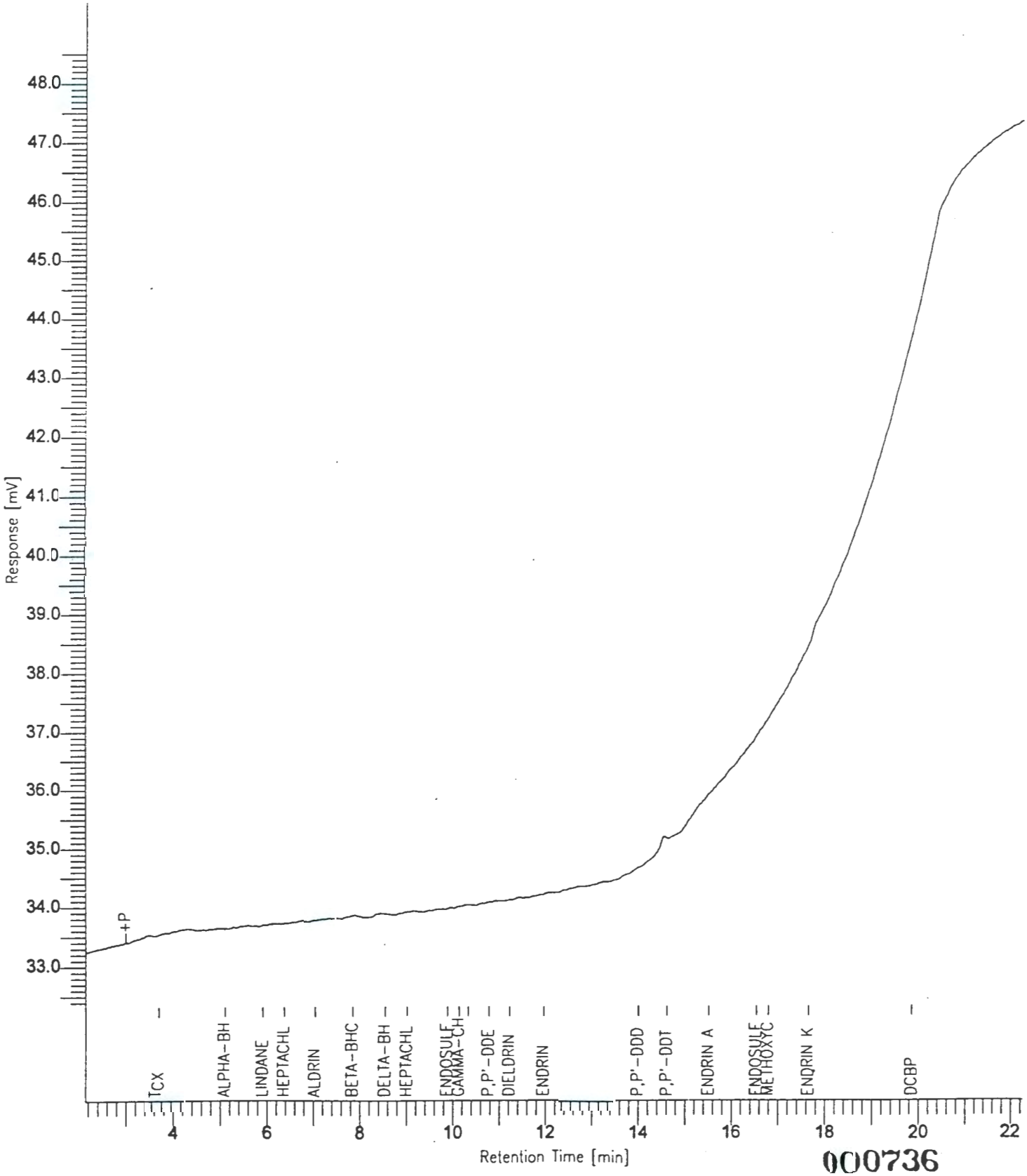
No peaks available to report

9513355.1853

Chromatogram

Sample Name : NO SHOT
FileName : C:\TC4\HP58909\998B100.RAW
Method :
Start Time : 2.14 min End Time : 22.26 min
Scale Factor: 0.0 Plot Offset: 32 mV

Sample #:
Date : 5/16/94 09:24 PM
Time of Injection: 5/15/94 02:48 PM
Low Point : 32.33 mV High Point : 48.57 mV
Plot Scale: 16.2 mV



000736

Software Version: 4.0<1C29>
Sample Name : HEXANE
Time : 5/16/94 09:25 PM
Sample Number:
Study :
Operator : VIC

Instrument : HP58909
Channel : B
A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342
Data Acquisition Time: 5/15/94 03:25 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B101.RAW
Result File : C:\TC4\HP58909\998B101.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B101.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B101.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B101.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul
Area Reject : 9593.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 8

DATA REPORT

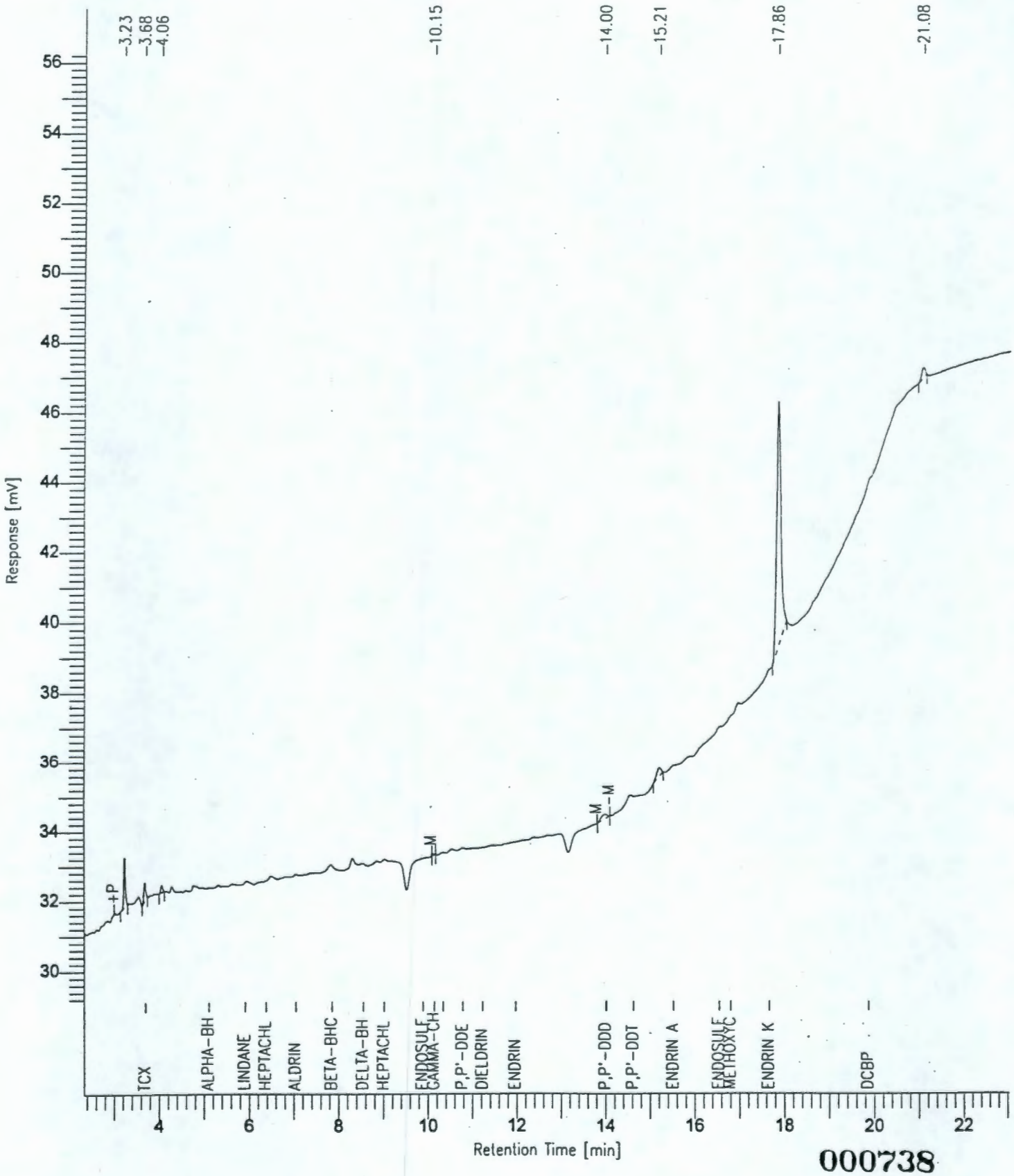
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
7	17.855		46072	B	7018	-------
			46072		7018	

9513355.1836

Chromatogram

Sample Name : HEXANE
FileName : C:\TC4\HP58909\998B101.RAW
Method :
Start Time : 2.33 min End Time : 23.03 min
Scale Factor: 0.0 Plot Offset: 29 mV

Sample #:
Date : 5/16/94 09:25 PM
Time of Injection: 5/15/94 03:25 PM
Low Point : 29.13 mV High Point : 56.20 mV
Plot Scale: 27.1 mV



000738

Software Version: 4.0<1C29>
Sample Name : HEXANE
Time : 5/16/94 09:29 PM
Sample Number:
Study :
Operator : VIC

Instrument : HP58909
Channel : B
A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342
Data Acquisition Time: 5/15/94 05:16 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B104.RAW
Result File : C:\TC4\HP58909\998B104.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B104.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B104.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B104.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul
Area Reject : 9593.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 7

DATA REPORT

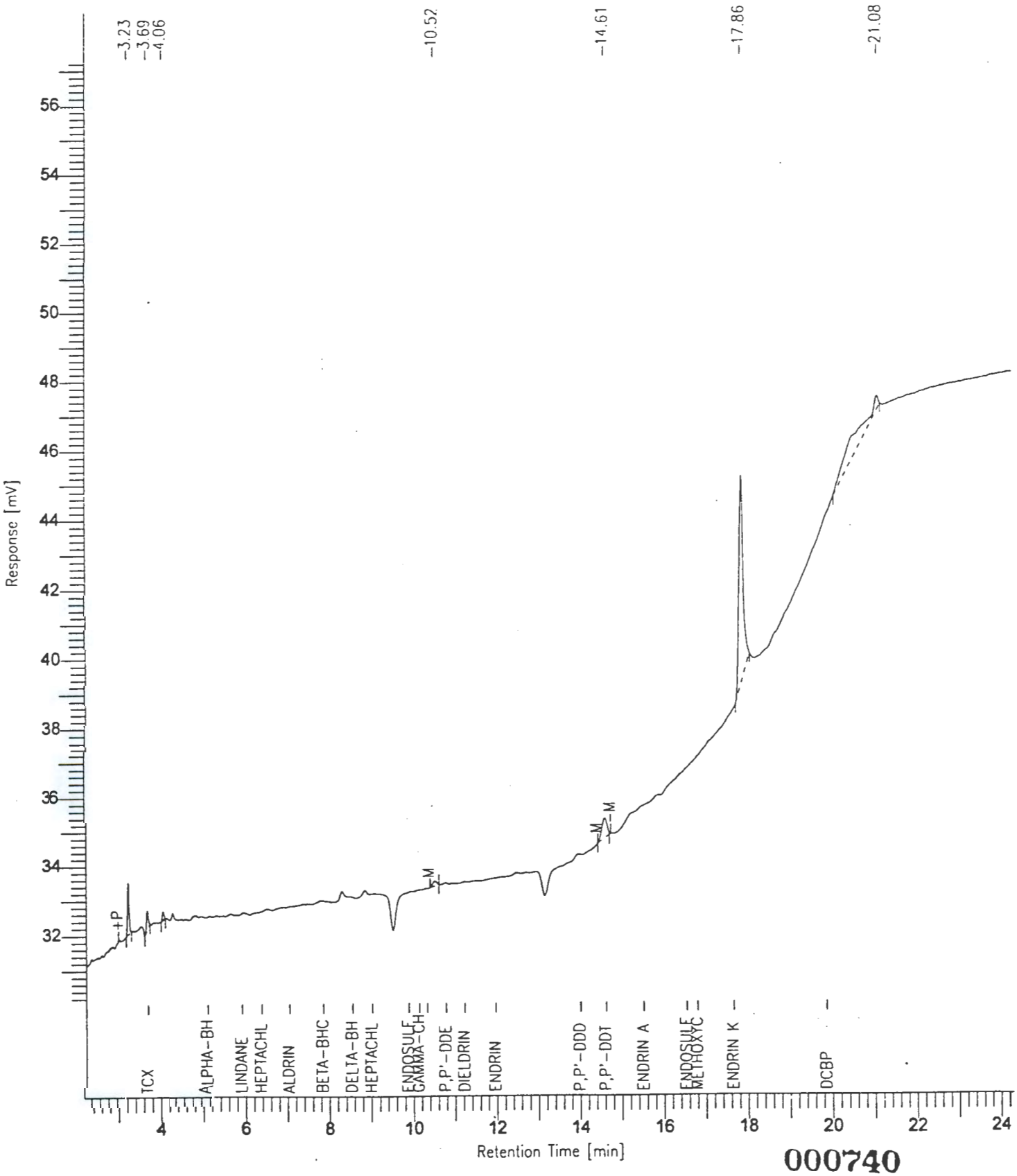
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
6	17.858		41936	B	5973	-------
7	21.081		23354	B	378	-------
			65290		6351	

9513355.1837

Chromatogram

Sample Name : HEXANE
FileName : C:\TC4\HP58909\998B104.RAW
Method :
Start Time : 2.23 min End Time : 24.29 min
Scale Factor: 0.0 Plot Offset: 30 mV

Sample #:
Date : 5/16/94 09:29 PM
Time of Injection: 5/15/94 05:16 PM
Low Point : 30.03 mV High Point : 57.34 mV
Plot Scale: 27.3 mV



000740

Software Version: 4.0<1C29>
Sample Name : MB*PIBLK*7 Time : 5/16/94 09:29 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 05:52 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B105.RAW
Result File : C:\TC4\HP58909\998B105.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B105.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B105.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B105.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 9593.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 9

DATA REPORT

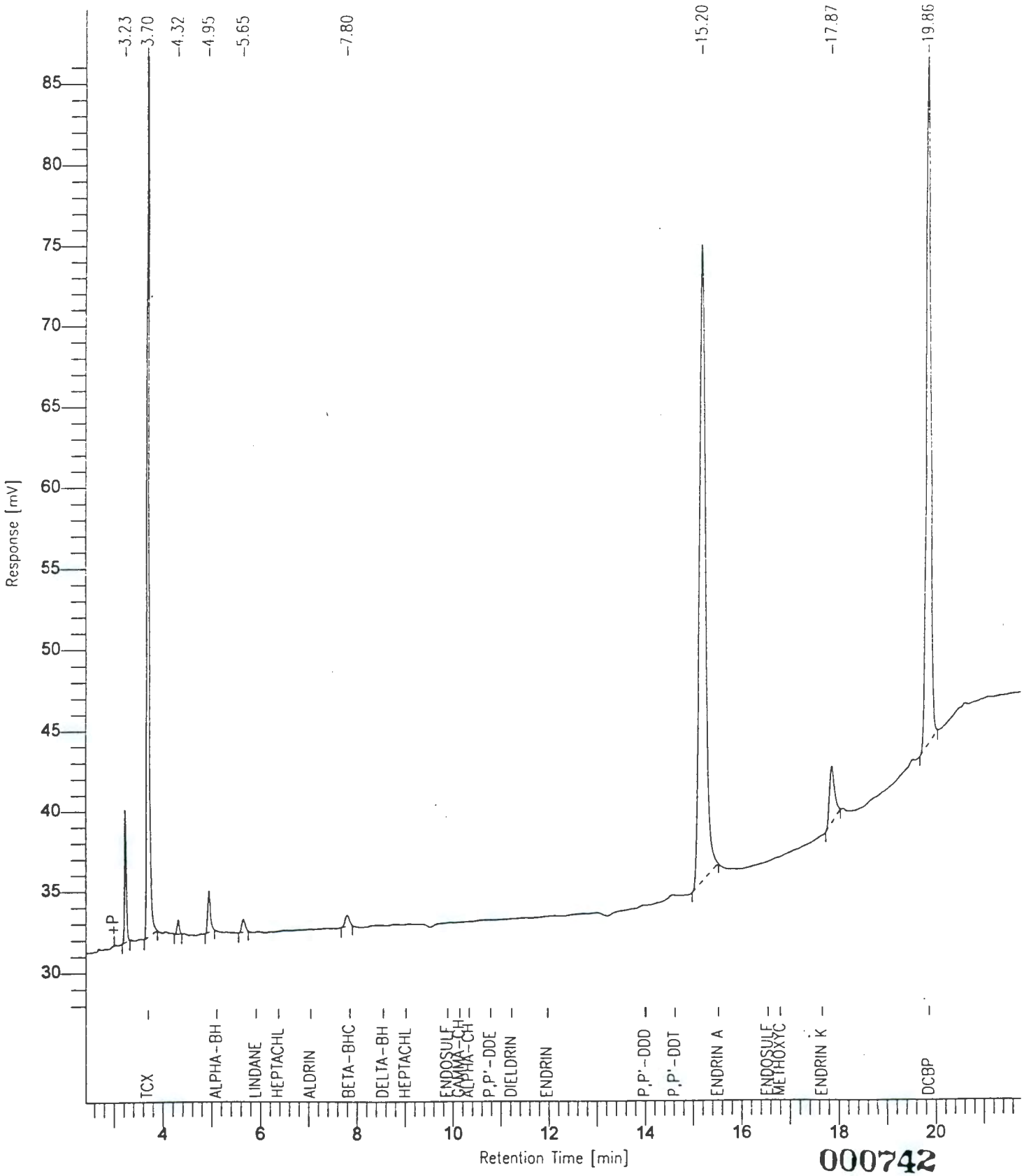
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	3.233		21517	B	8233	-------
2	3.700	TCX	181740	B	63043	-0.0398
4	4.947		9744	B	2568	-------
7	15.196		347062	B	39463	-------
8	17.869		25969	B	3546	-------
9	19.857	DCBP	264466	B	42478	-0.0363
			850498		159331	

9513355.1859

Chromatogram

Sample Name : MB*PIBLK*7
FileName : C:\TC4\HP58909\998B105.RAW
Method :
Start Time : 2.42 min End Time : 21.77 min
Scale Factor: 0.0 Plot Offset: 28 mV

Sample #:
Date : 5/16/94 09:29 PM
Time of Injection: 5/15/94 05:52 PM
Low Point : 27.80 mV High Point : 86.69 mV
Plot Scale: 58.9 mV



000742

Software Version: 4.0<1C29>
Sample Name : CK*PEM*5 Time : 5/16/94 09:30 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 06:29 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B106.RAW
Result File : C:\TC4\HP58909\998B106.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B106.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B106.RST
Calib Method : C:\TC4\HP58909\998BPEM from C:\TC4\HP58909\998B106.RST
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 20

DATA REPORT

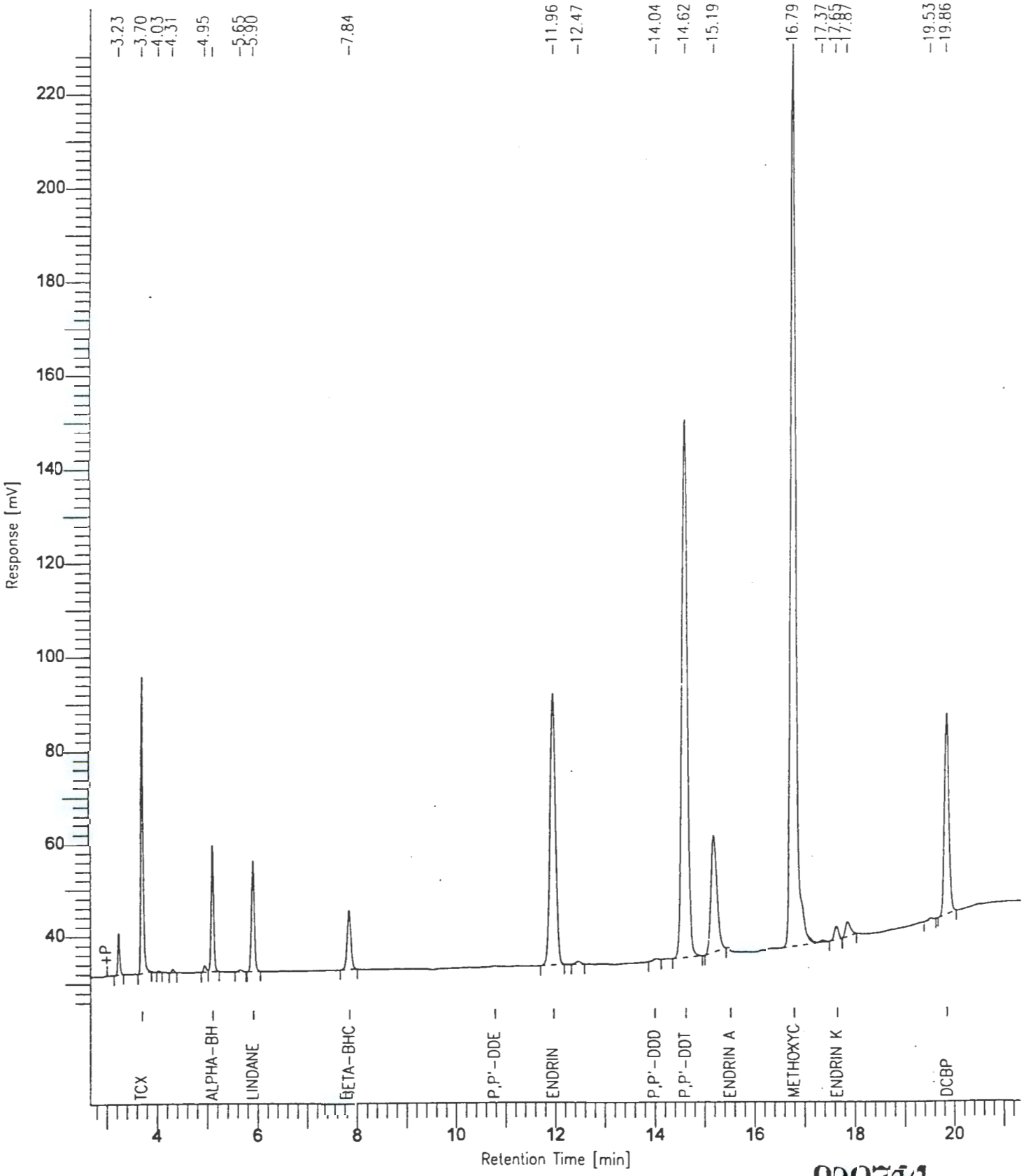
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
2	3.699	TCX	183290	B	63677	-0.0483
6	5.103	ALPHA-BHC	90678	V	27338	-0.1202
8	5.904	LINDANE	93152	B	23878	-0.1255
9	7.840	BETA-BHC	67699	B	12576	-0.1182
10	11.962	ENDRIN	444559	B	58432	-0.0845
12	14.039	P,P'-DDD	2452	B	298	0.2381
13	14.615	P,P'-DDT	867652	B	115054	-0.0644
15	16.793	METHOXYCHLOR	1384426	B	191703	-0.0553
17	17.646	ENDRIN KETONE	16818	B	2838	-0.0746
20	19.856	DCBP	268980	B	43357	-0.0410
			3419707		539151	

9513355.1841

Chromatogram

Sample Name : CK*PEM*5
FileName : C:\TC4\HP58909\998B106.RAW
Method :
Start Time : 2.67 min End Time : 21.34 min
Scale Factor: 0.0 Plot Offset: 24 mV

Sample #:
Date : 5/16/94 09:30 PM
Time of Injection: 5/15/94 06:29 PM
Low Point : 24.43 mV High Point : 228.10 mV
Plot Scale: 203.7 mV



000744

Software Version: 4.0<1C29>
Sample Name : HEXANE
Time : 5/16/94 09:35 PM
Sample Number:
Study :
Operator : VIC

Instrument : HP58909
Channel : B
A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342
Data Acquisition Time: 5/15/94 09:03 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B110.RAW
Result File : C:\TC4\HP58909\998B110.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B110.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B110.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B110.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul
Area Reject : 9593.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 6

DATA REPORT

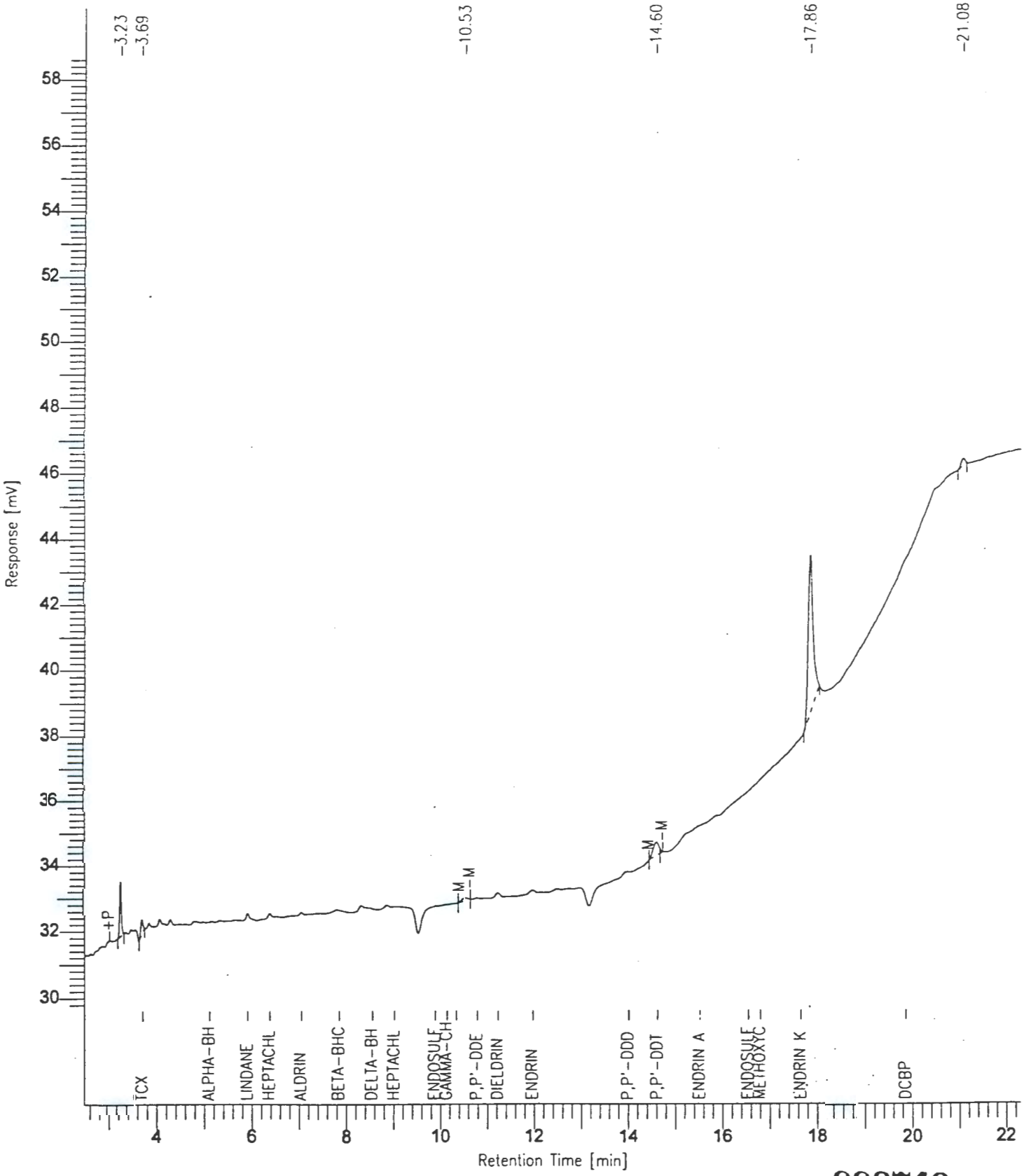
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
5	17.863		34317	B	4822	-------
			34317		4822	

9513355.1841

Chromatogram

Sample Name : HEXANE
FileName : C:\TC4\HP58909\998B110.RAW
Method :
Start Time : 2.47 min End Time : 22.31 min
Scale Factor: 0.0 Plot Offset: 30 mV

Sample #:
Date : 5/16/94 09:35 PM
Time of Injection: 5/15/94 09:03 PM
Low Point : 29.62 mV High Point : 58.75 mV
Plot Scale: 29.1 mV



000746

Software Version: 4.0<1C29>
Sample Name : MB*PIBLK*8 Time : 5/16/94 09:43 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 09:42 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B111.RAW
Result File : C:\TC4\HP58909\998B111.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B111.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B111.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B111.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 9593.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 6

DATA REPORT

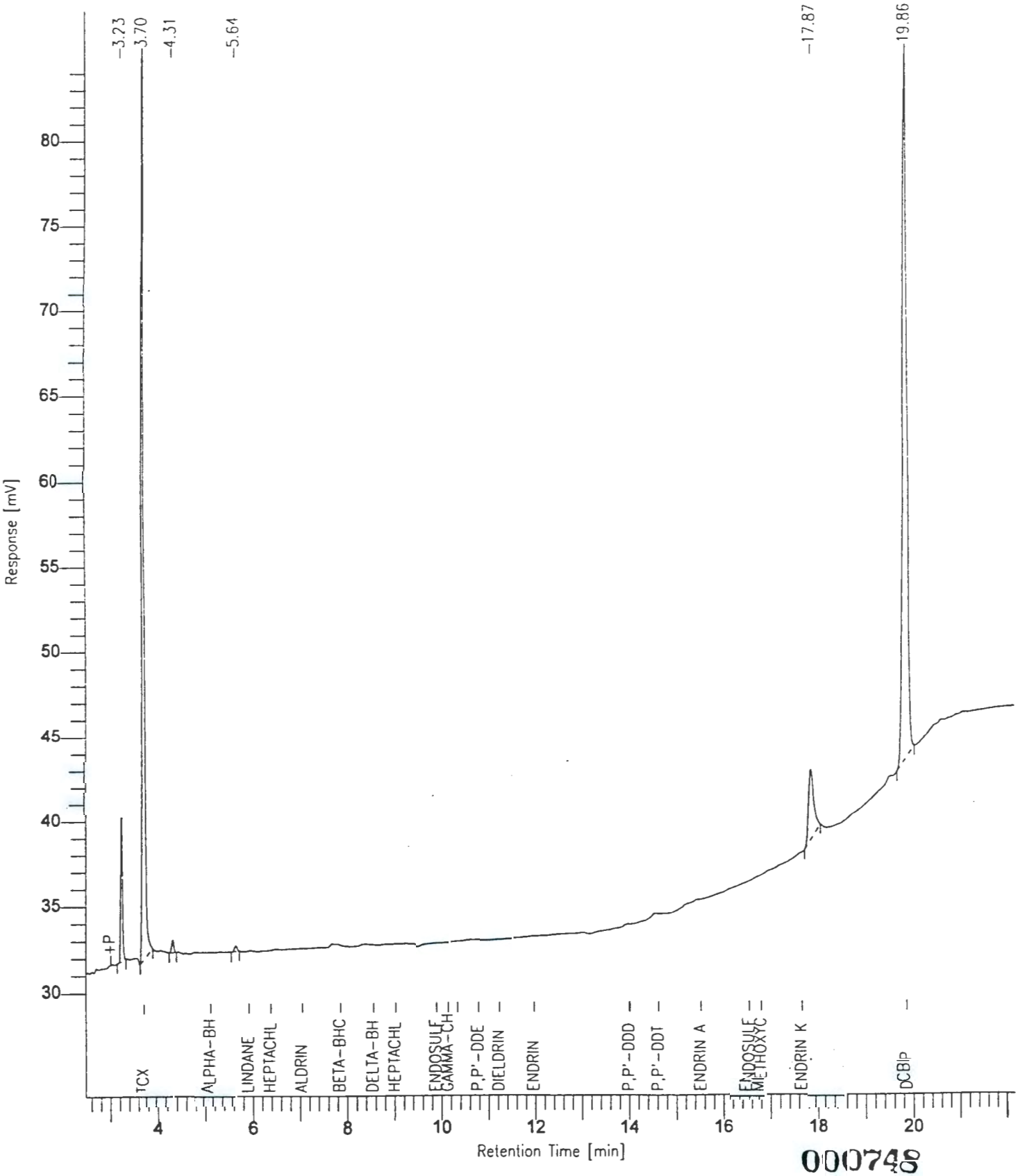
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	3.233		22137	B	8454	-------
2	3.699	TCX	183553	B	62978	-0.0566
5	17.871		32240	B	4141	-------
6	19.856	DCBP	261434	B	41863	-0.0405
			499363		117436	

9513355.1845

Chromatogram

Sample Name : MB*PIBLK*8
FileName : C:\TC4\HP58909\998B111.RAW
Method :
Start Time : 2.47 min End Time : 22.17 min
Scale Factor: 0.0 Plot Offset: 29 mV

Sample #:
Date : 5/16/94 09:43 PM
Time of Injection: 5/15/94 09:42 PM
Low Point : 29.38 mV High Point : 84.92 mV
Plot Scale: 55.5 mV



000748

Software Version: 4.0<1C29>
Sample Name : CCS*INDAM*5 Time : 5/16/94 09:38 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 10:21 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B112.RAW
Result File : C:\TC4\HP58909\998B112.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B112.RST
Proc Method : C:\TC4\HP58909\998BAM.MTH
Calib Method : C:\TC4\HP58909\998BAM.MTH
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 18

DATA REPORT

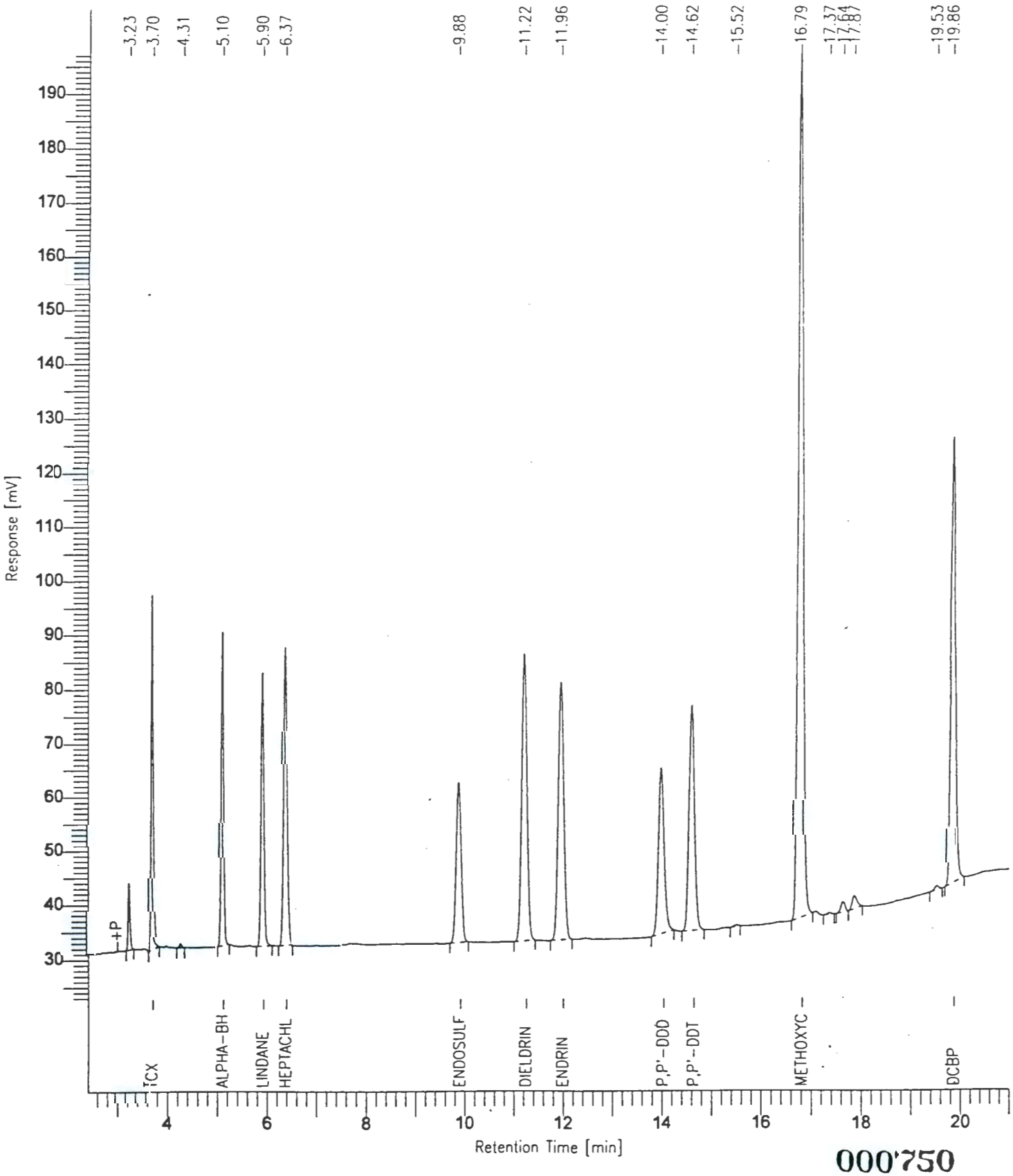
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.699	TCX	190880	B	65684	-0.2205	0.0200
4	5.104	ALPHA-BHC	193922	B	59108	-0.3494	0.0200
5	5.904	LINDANE	201167	B	51228	-0.3760	0.0200
6	6.368	HEPTACHLOR	267732	B	55244	-0.3368	0.0200
7	9.879	ENDOSULFAN A	208382	B	29771	-0.3474	0.0200
8	11.219	DIELDRIN	391972	B	53300	-0.3560	0.0400
9	11.962	ENDRIN	369800	B	47922	-0.3540	0.0400
10	13.998	P,P'-DDD	249695	B	30867	-0.3277	0.0400
11	14.616	P,P'-DDT	318435	B	41921	-0.2782	0.0400
13	16.793	METHOXYCHLOR	1090667	B	160416	-0.2068	0.2000
18	19.856	DCBP	523050	B	82573	-0.1335	0.0400

9513355.1847

Chromatogram

Sample Name : CCS*INDAM*5
FileName : C:\TC4\HP58909\998B112.RAW
Method : 998BAM.MTH
Start Time : 2.42 min End Time : 21.00 min
Scale Factor: 0.0 Plot Offset: 23 mV

Sample #:
Date : 5/16/94 09:38 PM
Time of Injection: 5/15/94 10:21 PM
Low Point : 22.80 mV High Point : 197.01 mV
Plot Scale: 174.2 mV



000750

9513355.1840

Software Version: 4.0<1C29>
Sample Name : CCS*INDBM*5 Time : 5/16/94 09:40 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 11:00 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B113.RAW
Result File : C:\TC4\HP58909\998B113.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B113.RST
Proc Method : C:\TC4\HP58909\998BBM.MTH
Calib Method : C:\TC4\HP58909\998BBM.MTH
Sequence File : C:\TC4\HP58909\998A.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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 21

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
2	3.699	TCX	188262	B	64789	-0.2262	0.0200
6	7.039	ALDRIN	194864	B	38178	-0.3258	0.0200
7	7.841	BETA-BHC	126105	B	23688	-0.4536	0.0200
8	8.539	DELTA-BHC	168061	B	31154	-0.4313	0.0200
9	9.008	HEPTACHLOR EPOXIDE	227182	B	35366	-0.3602	0.0200
11	10.130	GAMMA-CHLORDANE	241634	V	33470	-0.3634	0.0200
12	10.326	ALPHA-CHLORDANE	244197	V	33607	-0.3591	0.0200
13	10.776	P,P'-DDE	323465	B	41577	-0.3359	0.0400
14	14.006	ENDOSULFAN B	401982	B	50866	-0.3480	0.0400
15	15.513	ENDRIN ALDEHYDE	295328	B	28813	-0.2952	0.0400
17	16.538	ENDOSULFAN SULFATE	355117	B	55499	-0.2569	0.0400
18	17.650	ENDRIN KETONE	376514	B	63107	-0.2275	0.0400

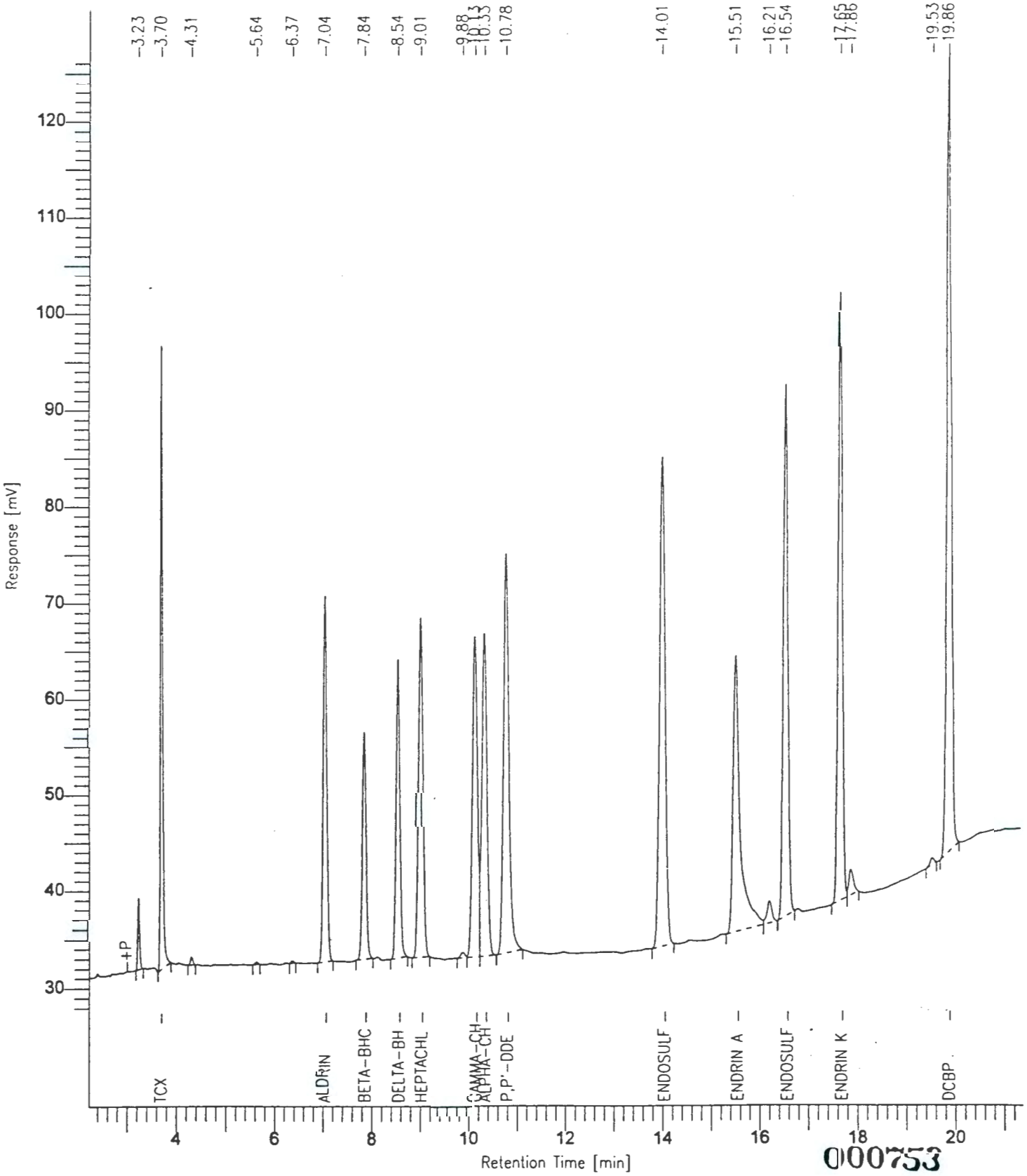
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]	NG INJECTED
21	19.856	DCBP	526341	B	83032	-0.1374	0.0400
			3669051		583149		0.3800

9513355.1850

Chromatogram

Sample Name : CCS*INDBM*5
FileName : C:\TC4\HP58909\998B113.RAW
Method : 998BBM.MTH
Start Time : 2.22 min End Time : 21.38 min
Scale Factor: 0.0 Plot Offset: 27 mV

Sample #:
Date : 5/16/94 09:40 PM
Time of Injection: 5/15/94 11:00 PM
Low Point : 27.50 mV High Point : 126.68 mV
Plot Scale: 99.2 mV



000753

9513355.1851

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.: 49216

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: 05/14/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/15/94

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	5.6	
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 5-14-94 Time : 5/16/94 09:04 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 03:25 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998A101.RAW
Result File : C:\TC4\HP58909\998A101.RST
Inst Method : HP58909 from C:\TC4\HP58909\998A101.RST
Proc Method : C:\TC4\HP58909\DB608 from C:\TC4\HP58909\998A101.RST
Calib Method : C:\TC4\HP58909\998A from C:\TC4\HP58909\998A101.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 6016.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 24

DATA REPORT

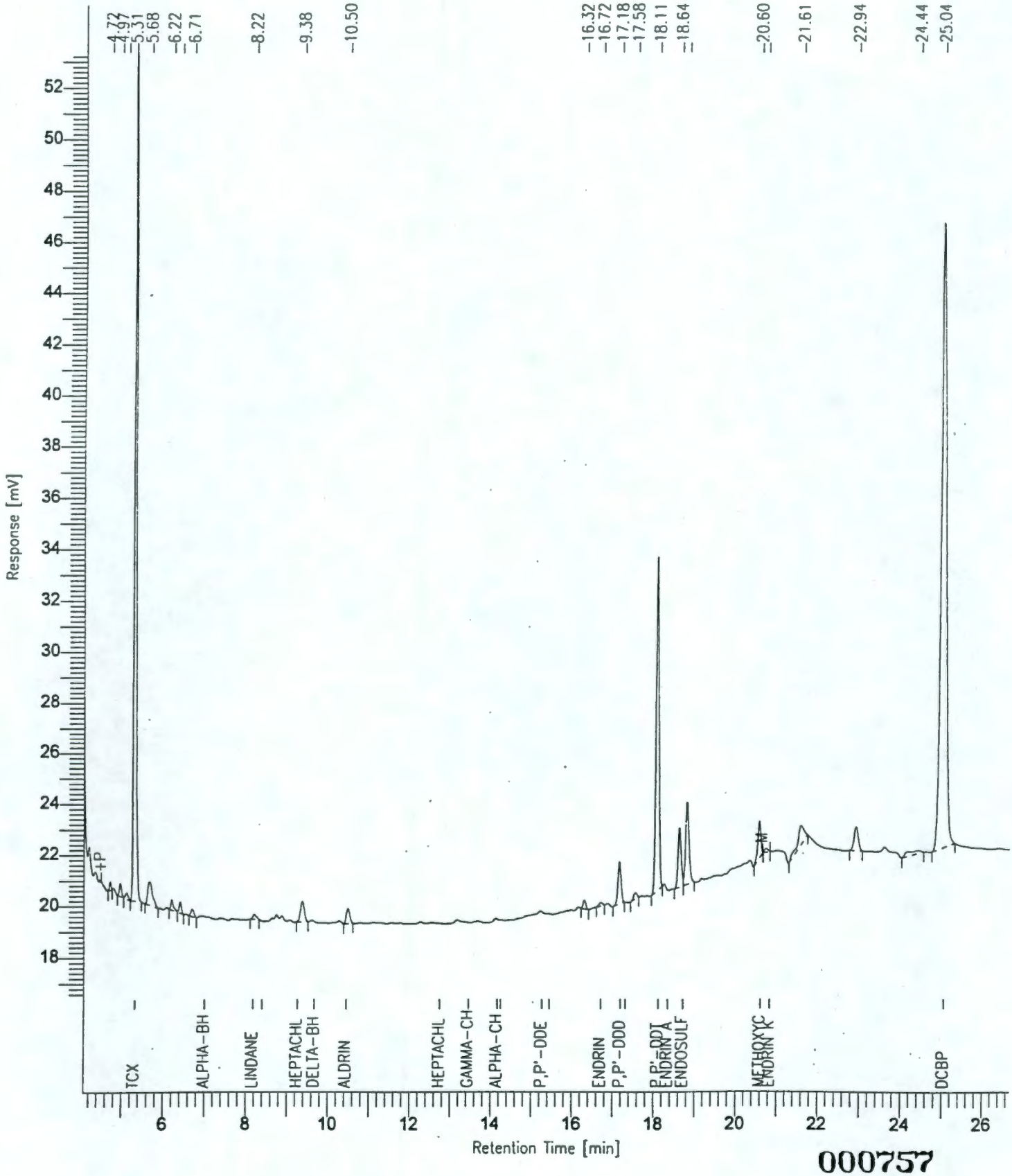
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
4	5.311	TCX	127985	B	36547	-0.1163
5	5.680		7382	B	917	-------
14	17.182	P,P'-DDD	8920	B	1658	-0.1025
16	18.105	P,P'-DDT	64318	B	13187	-0.0790
17	18.644	ENDOSULFAN SULFATE	12429	B	2323	-0.4002
18	18.830		19087	V	3259	-------
19	20.596	METHOXYCHLOR	7529	*B	1456	-0.0749
21	21.607		8603	B	757	-------
22	22.939		6685	B	947	-------
24	25.037	DCBP	215293	B	24496	-0.0885
			478232		85547	

9513355.1854

Chromatogram

Sample Name : MB*QC*1 5-14-94
FileName : C:\TC4\HP58909\998A101.RAW
Method :
Start Time : 4.08 min End Time : 26.71 min
Scale Factor: 0.0 Plot Offset: 16 mV

Sample #:
Date : 5/16/94 09:04 PM
Time of Injection: 5/15/94 03:25 PM
Low Point : 16.41 mV High Point : 53.38 mV
Plot Scale: 37.0 mV



000757

9513355.1855

Software Version: 4.0<1C29>
Sample Name : MB*QC*1 5-14-94 Time : 5/16/94 09:26 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 04:02 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B102.RAW
Result File : C:\TC4\HP58909\998B102.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B102.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B102.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B102.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 9593.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 34

DATA REPORT

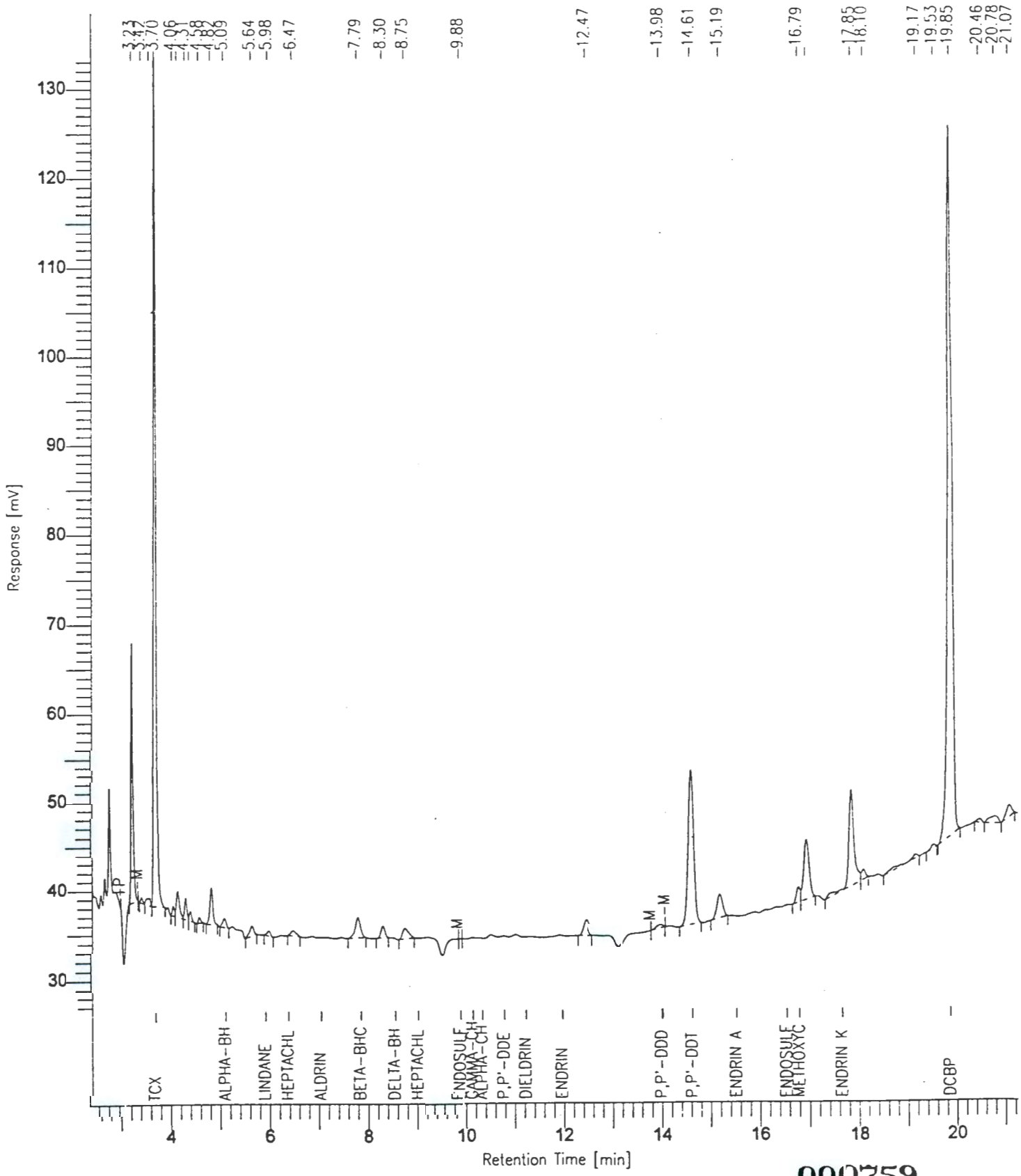
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	3.233		83397	*B	29322	-------
4	3.696	TCX	321694	B	101482	-0.1478
6	4.146		12878	V	2953	-------
10	4.824		17377	B	4145	-------
15	7.788		17608	B	2337	-------
17	8.749		10188	B	1176	-------
19	12.470		13701	B	1723	-------
21	14.609	P,P'-DDT	138352	B	17666	-0.1005
22	15.193		21883	B	2683	-------
24	16.951		51595	V	6749	-------
25	17.851		84554	B	10942	-------
29	19.853	DCBP	524196	B	80048	-0.0531

9513355.1856

Chromatogram

Sample Name : MB*QC*1 5-14-94
FileName : C:\TC4\HP58909\998B102.RAW
Method :
Start Time : 2.42 min End Time : 21.25 min
Scale Factor: 0.0 Plot Offset: 27 mV

Sample #:
Date : 5/16/94 09:26 PM
Time of Injection: 5/15/94 04:02 PM
Low Point : 26.50 mV High Point : 133.22 mV
Plot Scale: 106.7 mV



000759

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AA0104014MS

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 49216

Matrix: (soil/water) SOIL Lab Sample ID: SPM1*CDMHNSS*36

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

% Moisture: 5 decanted: (Y/N) Y Date Received: 05/15/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/14/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/15/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.4 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.8	U
319-85-7	beta-BHC	1.8	U
319-86-8	delta-BHC	1.8	U
58-89-9	gamma-BHC (Lindane)	17.	
76-44-8	Heptachlor	16.	
309-00-2	Aldrin	15.	
1024-57-3	Heptachlor epoxide	1.8	U
959-98-8	Endosulfan I	1.8	U
60-57-1	Dieldrin	50.	
72-55-9	4,4'-DDE	18.	
72-20-8	Endrin	35.	
33213-65-9	Endosulfan II	3.5	U
72-54-8	4,4'-DDD	3.0	J
1031-07-8	Endosulfan sulfate	3.5	U
50-29-3	4,4'-DDT	180.	
72-43-5	Methoxychlor	18.	U
53494-70-5	Endrin ketone	3.5	U
742-93-4	Endrin aldehyde	3.5	U
5103-71-9	alpha-Chlordane	1.8	U
5566-34-7	gamma-Chlordane	1.8	U
8001-35-2	Toxaphene	180.	U
12674-11-2	Aroclor-1016	35.	U
11104-28-2	Aroclor-1221	70.	U
11141-16-5	Aroclor-1232	35.	U
53469-21-9	Aroclor-1242	35.	U
12672-29-6	Aroclor-1248	35.	U
11097-69-1	Aroclor-1254	35.	U
11096-82-5	Aroclor-1260	35.	U

Software Version: 4.0<1C29>
Sample Name : SPM1*CDMHNSS*36 5-14-94 Time : 5/16/94 09:10 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 07:06 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998A107.RAW
Result File : C:\TC4\HP58909\998A107.RST
Inst Method : HP58909 from C:\TC4\HP58909\998A107.RST
Proc Method : C:\TC4\HP58909\DB608 from C:\TC4\HP58909\998A107.RST
Calib Method : C:\TC4\HP58909\998A from C:\TC4\HP58909\998A107.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 6016.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 40

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	4.725		6645	B	863	-------
4	5.312	TCX	157440	V	45470	-0.0952
5	5.671		23624	B	4972	-------
7	6.435		33034	B	8283	-------
8	6.813		16405	B	2932	-------
12	8.172	LINDANE	187705	V	41478	-0.0935
15	9.252	HEPTACHLOR	261962	B	42577	-0.0969
16	10.443	ALDRIN	171869	B	27585	-0.1181
17	12.187		7126	B	992	-------
20	14.327	ENDOSULFAN A	32060	B	4983	0.5491
22	15.256	P,P'-DDE	192885	B	34446	-0.0942
23	15.438	DIELDRIN	610644	V	108028	-0.0660

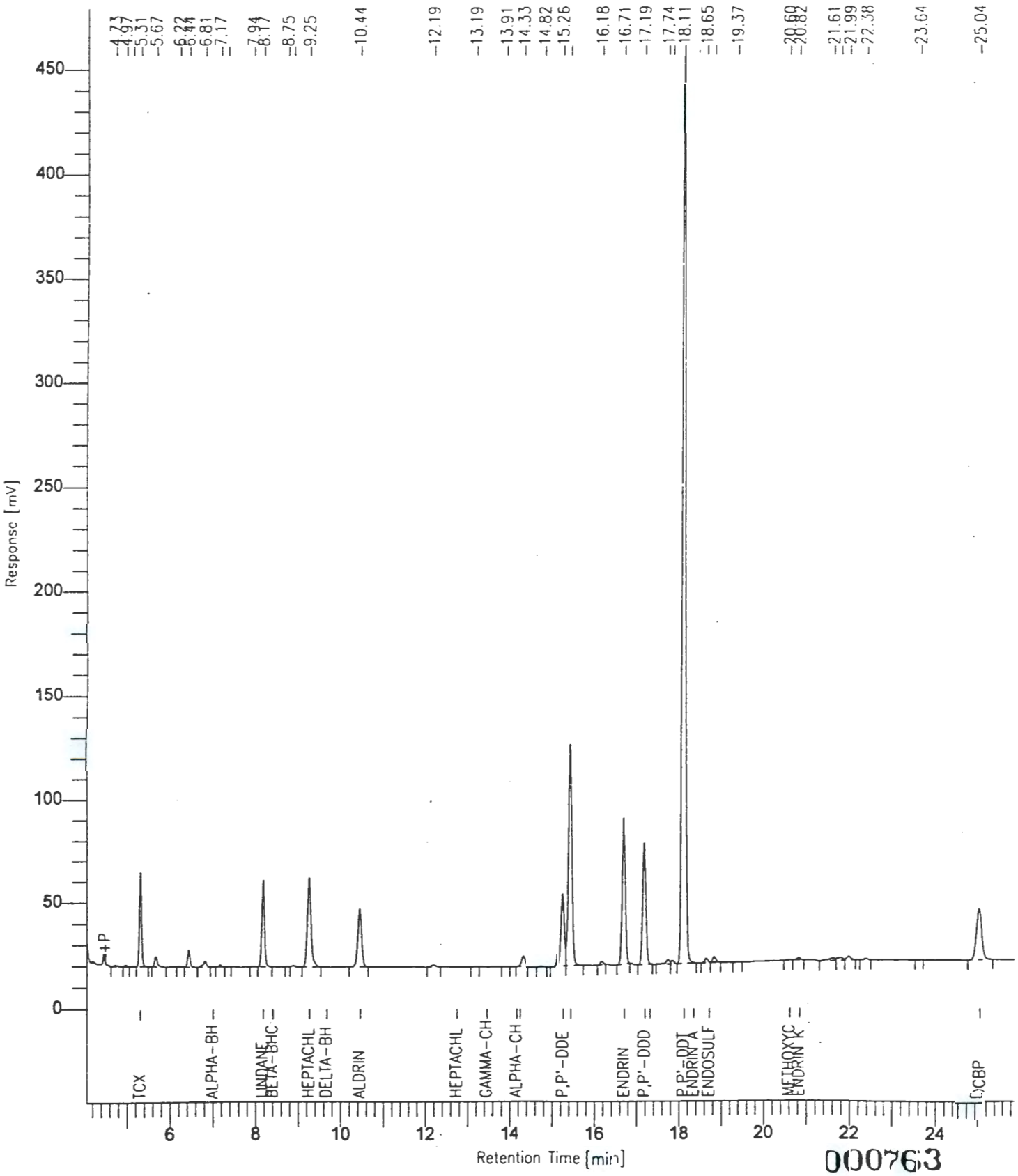
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
24	16.180		8882	B	1775	-------
25	16.705	ENDRIN	362763	B	70580	-0.0590
26	17.188	P,P'-DDD	309883	B	58594	-0.0702
27	17.743		12849	B	2149	-------
28	17.850		8153	V	1709	-------
29	18.112	P,P'-DDT	2343566	B	456200	-0.0405
30	18.647	ENDOSULFAN SULFATE	11357	B	2234	-0.3849
31	18.833		15981	V	2865	-------
34	20.824	ENDRIN KETONE	7332	V	1216	-0.0821
35	21.614		14308	B	1054	-------
36	21.786		12142	V	1400	-------
37	21.985		12215	V	1835	-------
40	25.038	DCBP	212540	B	24084	-0.0825
			5033368		948304	

9513355.1860

Chromatogram

Sample Name : SPM1*CDMHNSS*36 5-14-94
FileName : C:\TC4\HP58909\998A107.RAW
Method :
Start Time : 4.07 min End Time : 25.89 min
Scale Factor: 0.0 Plot Offset: -0 mV

Sample #:
Date : 5/16/94 09:10 PM
Time of Injection: 5/15/94 07:06 PM
Low Point : -0.31 mV High Point : 456.57 mV
Plot Scale: 456.9 mV



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9513355.1861

Software Version: 4.0<1C29>
Sample Name : SPM1*CDMHNSS*36 5-14-94 Time : 5/16/94 09:32 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 07:45 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B108.RAW
Result File : C:\TC4\HP58909\998B108.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B108.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B108.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B108.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 9593.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 45

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	3.166		50908	B	16620	-------
2	3.234		133731	V	45138	-------
6	3.697	TCX	383370	V	122518	-0.1006
7	3.842		38287	V	12876	-------
10	4.146		11382	V	2572	-------
12	4.495		55570	B	19188	-------
13	4.827		16920	B	4047	-------
15	5.167		28756	*B	8941	-------
16	5.651		26564	B	5646	-------
17	5.906	LINDANE	494534	B	123175	-0.0874
18	6.369	HEPTACHLOR	605198	B	119079	-0.0932
19	7.040	ALDRIN	411008	B	80185	-0.0717

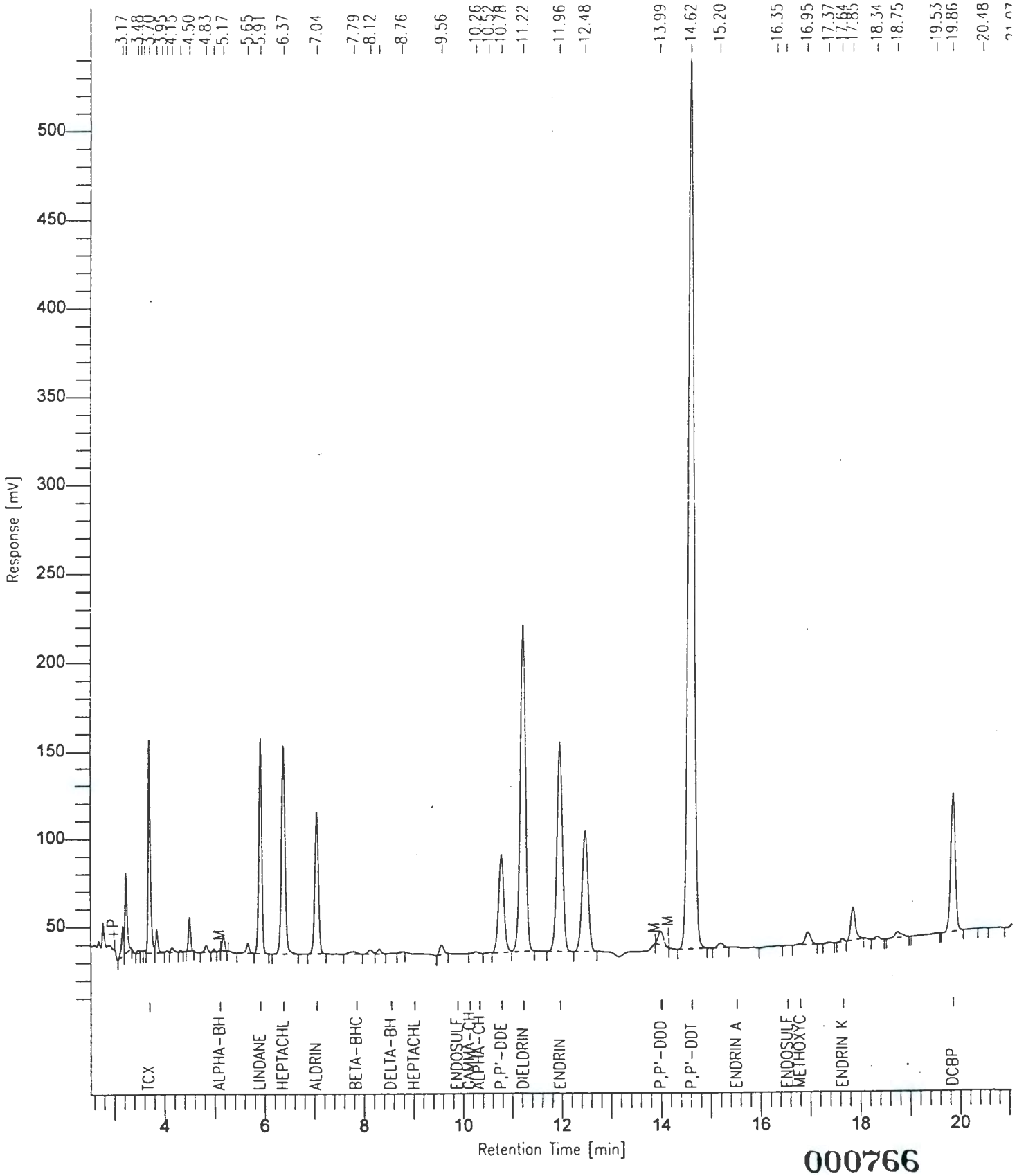
Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
20	7.786		16834	B	1503	-------
21	8.122		15033	V	2447	-------
22	8.299		16275	V	2895	-------
24	9.559		33802	B	5604	-------
27	10.775	P,P'-DDE	419346	V	55598	-0.0658
28	11.219	DIELDRIN	1383256	V	185444	-0.0878
29	11.962	ENDRIN	934924	B	119738	-0.0855
30	12.476		569385	B	68259	-------
31	13.993	P,P'-DDD	54783	*B	7879	-0.0766
32	14.618	P,P'-DDT	4037108	B	503343	-0.0443
33	15.196		21060	B	2654	-------
34	16.351		9611	B	540	-------
36	16.951		58105	V	6992	-------
38	17.643	ENDRIN KETONE BDL	9780	B	1839	-0.0887
39	17.854		120962	B	18918	-------
40	18.344		9896	B	1660	-------
41	18.748		31971	B	3527	-------
43	19.856	DCBP	513116	B	79092	-0.0402
45	21.070		17511	B	2370	-------
			10528991		1630286	

9513355.1861

Chromatogram

Sample Name : SPM1*CDMHNSS*36 5-14-94
FileName : C:\TC4\HP58909\998B108.RAW
Method :
Start Time : 2.53 min End Time : 21.05 min
Scale Factor: 0.0 Plot Offset: 8 mV

Sample #:
Date : 5/16/94 09:32 PM
Time of Injection: 5/15/94 07:45 PM
Low Point : 8.02 mV High Point : 542.99 mV
Plot Scale: 535.0 mV



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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A0104014MSD

Lab Name: ESE Contract: 1944022G

Lab Code: ESE Case No.: 44022 SAS No.: SDG No.: 49216

Matrix: (soil/water) SOIL Lab Sample ID: SPM2*CDMHNSS*36

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

% Moisture: 5 decanted: (Y/N) Y Date Received: 05/15/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/14/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/15/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.4 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.8	U
319-85-7	beta-BHC	1.8	U
319-86-8	delta-BHC	1.8	U
58-89-9	gamma-BHC (Lindane)	17.	
76-44-8	Heptachlor	16.	
309-00-2	Aldrin	14.	
1024-57-3	Heptachlor epoxide	1.8	U
959-98-8	Endosulfan I	1.8	U
60-57-1	Dieldrin	41.	
72-55-9	4,4'-DDE	10.	
72-20-8	Endrin	34.	
33213-65-9	Endosulfan II	3.5	U
72-54-8	4,4'-DDD	2.9	J
1031-07-8	Endosulfan sulfate	3.5	U
50-29-3	4,4'-DDT	160.	P
72-43-5	Methoxychlor	18.	U
53494-70-5	Endrin ketone	3.5	U
742-93-4	Endrin aldehyde	3.5	U
5103-71-9	alpha-Chlordane	1.8	U
5566-34-7	gamma-Chlordane	1.8	U
8001-35-2	Toxaphene	180.	U
12674-11-2	Aroclor-1016	35.	U
11104-28-2	Aroclor-1221	70.	U
11141-16-5	Aroclor-1232	35.	U
53469-21-9	Aroclor-1242	35.	U
12672-29-6	Aroclor-1248	35.	U
11097-69-1	Aroclor-1254	35.	U
11096-82-5	Aroclor-1260	35.	U

9513355.1865

Software Version: 4.0<1C29>
Sample Name : SPM2*CDMHNSS*36 5-14-94 Time : 5/16/94 09:11 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 07:45 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998A108.RAW
Result File : C:\TC4\HP58909\998A108.RST
Inst Method : HP58909 from C:\TC4\HP58909\998A108.RST
Proc Method : C:\TC4\HP58909\DB608 from C:\TC4\HP58909\998A108.RST
Calib Method : C:\TC4\HP58909\998A from C:\TC4\HP58909\998A108.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 6016.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 42

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
4	5.313	TCX	157563	V	45399	-0.0780
5	5.671		21846	B	5251	-------
8	6.436		34993	V	8751	-------
9	6.814		15816	B	2606	-------
12	8.173	LINDANE	192994	V	42399	-0.0803
14	8.887		6833	V	1044	-------
15	9.253	HEPTACHLOR	261409	B	42957	-0.0888
16	10.444	ALDRIN	174220	*B	27922	-0.1070
19	12.190		6754	V	954	-------
21	14.118	ALPHA-CHLORDANE	15472	B	1495	-0.3482
22	14.329	ENDOSULFAN A	24690	V	3689	0.5646
23	14.619		13212	V	1733	-------

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Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
25	15.256	P,P'-DDE	116207	B	20762	-0.0909
26	15.439	DIELDRIN	520251	V	91603	-0.0600
27	16.182		9431	B	1844	-------
28	16.706	ENDRIN	383599	*B	72306	-0.0545
29	17.190	P,P'-DDD	307287	B	57157	-0.0583
30	17.744		15859	V	2231	-------
31	17.851		8409	V	1706	-------
32	18.113	P,P'-DDT	2206044	B	430002	-0.0358
33	18.648	ENDOSULFAN SULFATE	13451	B	2612	-0.3808
34	18.834		16858	V	2975	-------
37	20.824	ENDRIN KETONE	8407	V	1220	-0.0796
38	21.790		30264	B	1468	-------
39	21.985		8032	V	1130	-------
42	25.040	DCBP	218465	B	25156	-0.0777
			4788366		896372	

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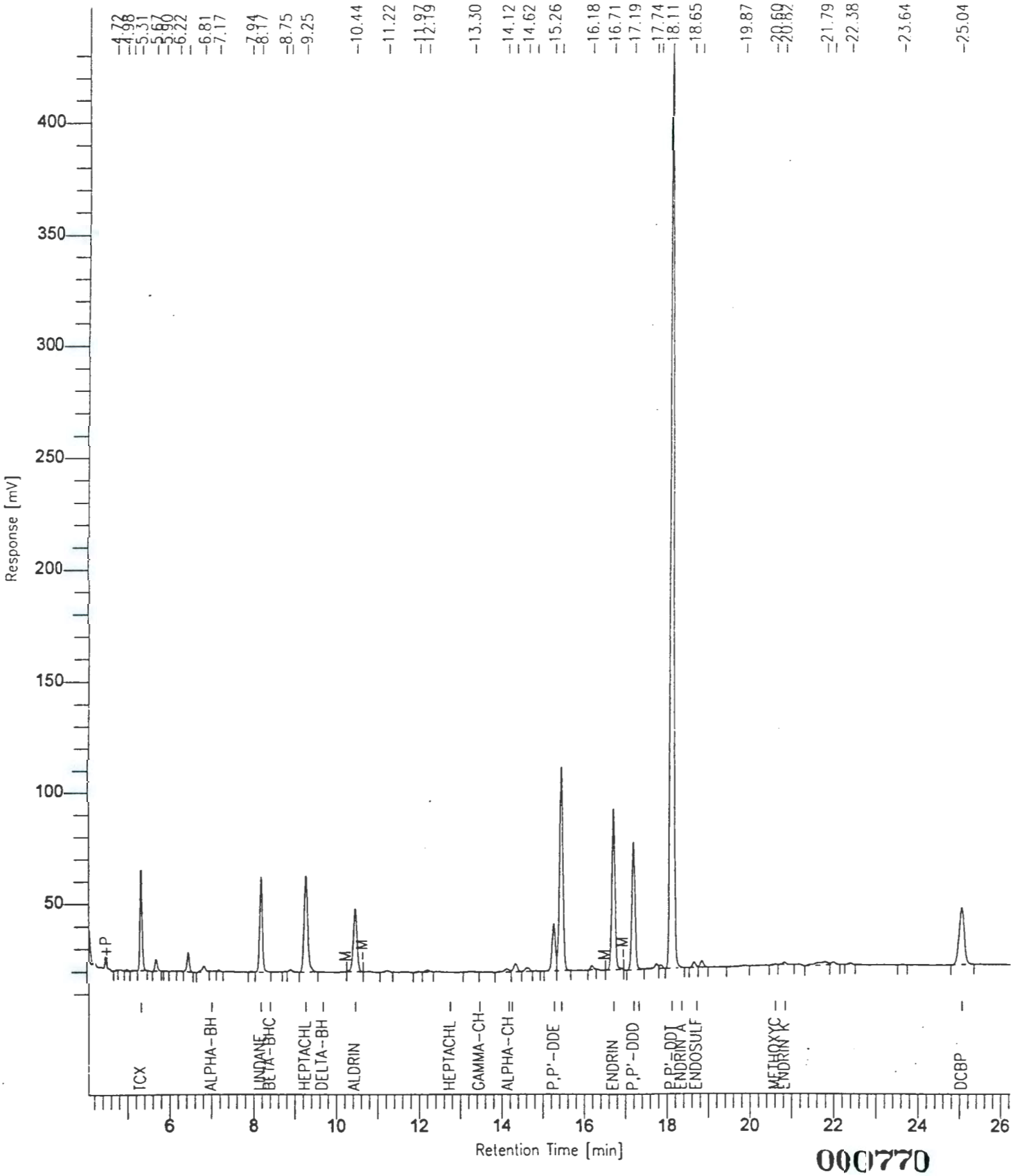
Chromatogram

Sample Name : SPM2*CDMHNSS*36 5-14-94
FileName : C:\TC4\HP58909\998A108.RAW
Method :
Start Time : 4.06 min End Time : 26.25 min
Scale Factor: 0.0 Plot Offset: 6 mV

Sample #:
Date : 5/16/94 09:11 PM
Time of Injection: 5/15/94 07:45 PM
Low Point : 6.42 mV High Point : 430.69 mV
Plot Scale: 424.3 mV



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Software Version: 4.0<1C29>
Sample Name : SPM2*CDMHNSS*36 5-14-94 Time : 5/16/94 09:34 PM
Sample Number: Study :
Operator : VIC

Instrument : HP58909 Channel : B A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9004570342 Data Acquisition Time: 5/15/94 08:24 PM
Delay Time : 0.00 min.
End Time : 30.00 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : C:\TC4\HP58909\998B109.RAW
Result File : C:\TC4\HP58909\998B109.RST
Inst Method : HP58909 from C:\TC4\HP58909\998B109.RST
Proc Method : C:\TC4\HP58909\DB1701 from C:\TC4\HP58909\998B109.RST
Calib Method : C:\TC4\HP58909\998B from C:\TC4\HP58909\998B109.RST
Sequence File : C:\TC4\HP58909\998A.SEQ

Sample Volume : 1 ul Area Reject : 9593.000000
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:
HP58909 GC #3203A40609
CHANNEL A: DB608 30M x 0.53mm ID x 0.83um FILM
CHANNEL B: DB1701 30M x 0.53mm ID x 1.0um FILM

Total number of peaks detected: 49

DATA REPORT

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
1	3.166		37613	B	14300	-------
2	3.234		269768	V	97103	-------
3	3.459		34715	B	9856	-------
5	3.696	TCX	417179	V	132502	-0.1267
6	3.842		70428	V	21556	-------
10	4.306		14397	V	2860	-------
12	4.495		65706	V	20539	-------
13	4.829		22659	B	5372	-------
15	5.168		31858	*B	9719	-------
17	5.653		23854	V	5776	-------
18	5.906	LINDANE	474154	B	121889	-0.0776
19	6.370	HEPTACHLOR	586148	B	118102	-0.0783

Peak #	Ret Time [min]	Component Name	Area [uV-sec]	BL	Height [uV]	Delta RT [%]
20	7.041	ALDRIN	394590	B	79020	-0.0615
23	8.119		13066	B	2360	-------
25	8.827		13343	B	1201	-------
26	9.561		23334	B	3942	-------
29	10.776	P,P'-DDE	236926	*B	32608	-0.0602
30	11.220	DIELDRIN	1129096	B	155423	-0.0812
31	11.963	ENDRIN	904761	B	118194	-0.0735
32	12.477		514702	B	63615	-------
33	13.368		11314	B	764	-------
34	13.996	P,P'-DDD	51945	*B	7669	-0.0562
35	14.618	P,P'-DDT	3623630	B	465625	-0.0407
36	15.195		23037	B	2969	-------
37	16.332		10891	B	707	-------
39	16.952		56841	V	7017	-------
41	17.643	ENDRIN KETONE BDL	13565	V	2268	-0.0913
42	17.854		120394	B	17264	-------
44	18.753		12909	B	1965	-------
48	19.855	DCBP	495812	B	78526	-0.0432
49	21.071		25650	B	2350	-------
			9724286		1603060	

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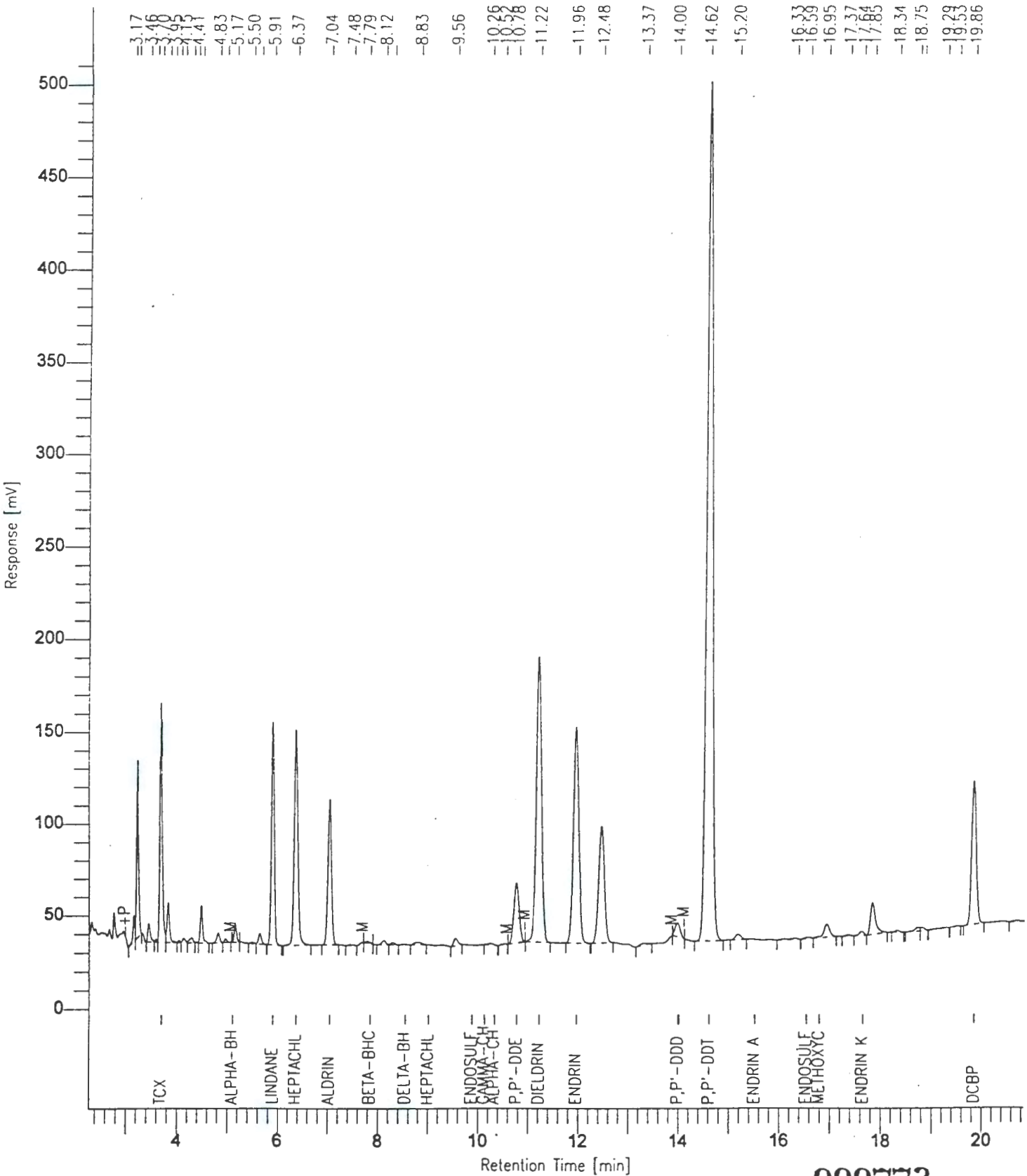
Chromatogram

Sample Name : SPM2*CDMHNSS*36 5-14-94
FileName : C:\TC4\HP58909\998B109.RAW
Method :
Start Time : 2.28 min End Time : 20.86 min
Scale Factor: 0.0 Plot Offset: -3 mV

Sample #:
Date : 5/16/94 09:34 PM
Time of Injection: 5/15/94 08:24 PM
Low Point : -3.05 mV High Point : 516.01 mV
Plot Scale: 519.1 mV



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OTHER RELEVANT DOCUMENTS

9513355.1872

ESE ENVIRONMENTAL SCIENCE AND ENGINEERING, INC. | **CHROMATOGRAPHIC ANALYSIS LOG**

Date 5-12-94
Analyst VIC BAUDER 1781
Project PIM-CARNEL ISLAND
Case No. 79340546 0204
Instrument ID HP5890 G.C
Data System ID TURBOCHROM 4.0
Analysis Type CLP-PEST-3/90

COLUMN A/B
Length 30 M
~~OD~~ 3288225/249524
ID 0.53 mm
Phase DB608/DB170
Thickness 0.83/1.0 µm
Support FUSED SILICA
Loading NA

INJECTOR A/B
Type ON COLUMN
Temp °C 150 4°/min 250
Volume 1. µL
Carrier Gas HELIUM
Type VPC
Flow Rate 7.0/16.0 mL/MIN

DETECTOR A+B
Type EC; N.63
Attn. 0
Range 1
Temp °C 300
Make-up 5% CH_4/Ar

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

Comments:
TURBOCHROM FILES: 998A*.* + 998B*.*

Run No.	Sample No.	Run No.	Sample No.	Run No.	Sample No.
1	RESC 731:73	28	CIHZW3 *13 4-28-94	55	PEM 731:81
2	RESC :73	29	*14	56	GQS1 *BLK AEFB 4-26-94
3	INDAH 80	30	*16	57	*54
4	INDBH 80	31	*18	58	*54MS
5	HEXANE	32	*19	59	*54MSD
6	RESC 731:73	33	*27	60	*50
7	PEM 81	34	*29	61	*51
8	AR1660 73	35	*30	62	*52
9	AR1221	36	*33	63	*53
10	AR1232	37	*69	64	*55
11	AR1242	38	HEXANE	65	CIHZW3 *BLK PEMC 5-2-94
12	AR1248	39	PIBLK 731:73	66	*57
13	AR1254	40	INDAM :80	67	*57MS
14	TOXAPH 73	41	INDBM :80	68	*57MSD
15	INDAL 80	42	CIHZW3 *BLK PEJC 4-29-94	69	*35
16	INDBL	43	*20	70	HEXANE
17	INDAM	44	*20MS	71	PIBLK 731:73
18	INDBM	45	*20MSD	72	INDAM :80
19	INDAH	46	*21	73	INDBM :80
20	INDBH 80	47	*31	74	CIHZW3 *36 5-2-94
21	PIBLK 73	48	*32	75	*38
22	PEM 731 81	49	*34	76	*40
23	CIHZW3 *BLK PEIC 4-25-94	50	*54	77	*42
24	*17	51	*56	78	*44
25	*17MS	52	*77	79	*48
26	*17MSD	53	HEXANE	80	*49
27	*12	54	PIBLK 731:73	81	*50

FORM 87303

000775 BOOK NO: B-0465 ~~000025~~

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ESE ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

CHROMATOGRAPHIC ANALYSIS LOG

Date 5-12-94
Analyst VIC BAUER 1781
Project PAM - CARROLL ISLAND
Case No. 79340546 0204
Instrument ID HP5890 G.C.
Data System ID TURBOCHROM 4.0
Analysis Type CLP-PEST-3/90

COLUMN A/B
Length 30M
~~OD~~ 328225/249546
ID 0.53 mm
Phase DB608/DB1701
Thickness 0.83/1.0 µm
Support FUSED SILICA
Loading N/A
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 1.0 UL
Carrier Gas HELIUM
Type VPC
Flow Rate 7.0/16.0 mL/min

DETECTOR A+B
Type EC; N;63
Attn. 0
Range 1
Temp °C 300
Make-up 5% CH_4/Ar

Comments:
TURBOCHROM FILES: 998A*-* + 998B*-*

Run No.	Sample No.	Run No.	Sample No.	Run No.	Sample No.
82	CIHZW3*52 5-2-94	108	CDMHNSS*36MSD 5-14-94		
83	*53	109	HEXANE		
84	*58	110	PIBLK 731:73		
85	*59	111	INDAM :80		
86	*60	112	INDBM :81		
87	*62				
88	HEXANE				
89	PIBLK 731:73				
90	PEM :81				
91	CIHZW3*64 5-2-94				
92	*71				
93	*75				
94	*76				
95	LICBLK*10026-7 5-13-94				
96	HEXANE				
97	PIBLK 731:73				
98	INDAM :80				
99	INDBM :81				
	NO SHOT				
100	HEXANE				
101	CDMHNSS*BLK 5-14-94				
102	*36				
103	HEXANE				
104	PIBLK 731:73				
105	PEM :81				
106	CDMHNSS*36 1:20 5-14-94				
107	*36MS				

FORM 87303

000776 BOOK NO: B-0465

00002

9513355.1874

ESE ENVIRONMENTAL SCIENCE AND ENGINEERING, INC. | **CHROMATOGRAPHIC ANALYSIS LOG**

Date: 5/14/94
Analyst: AT (2540)
Project: CDM- Hanford
Case No.: NA
Instrument ID: 10028-1
Data System ID: NA
Analysis Type: 3/90 Pest Soils

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: GPC Chk = 1.0ml of 890:25 GPC Chk = 10ml Mell2.
SPIC Chk/END STD are 1.0ml each of 3/90 Pest surrogate 731:87 5/9/94 V.B
+ 1.0ml of 3/90 Pest mix/spk. 731:84 5/6/94 V. Bandi in 10ml/Mell2

Run No.	Sample No.	Run No.	Sample No.	Run No.	Sample No.
1	GPC chk				dump = 32
2	SPIC chk				Collect = 18
3	Mell2				Wash = 10
4	CDMHNJS + BCC				Pressure: 12psi
5	36MS				flow = 5ml/min
6	36MSD				Temp = 19.4°C
7	Mell2				Chart speed = 10cm/h
8	CDMHNJS + 36				Mell2 lot B11701
9	END STD				

FORM 87303

000030

000777

ESE. ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

ORGANIC LABORATORY/EXTRACTION LOG SHEET

BOOK NO: 0042 082

PROJECT: CDM- Hanford N-Slope
PROJECT NO.: 19440226 0201
CASE NO.: NA
EXTRACTOR(S): AT (2540)
CLEAN-UP: GPC/florisil
DATE: 5/14/94
TIME: 5p
EXTRACTION METHOD: 3/40 OCP soils
SAMPLE FRACTION: SS
CHECKED BY: AH
BALANCE USED: #23

SAMPLE NO.	VOLUME-ml MASS-gr.	INITIAL/ FINAL pH	TYPE/DATE OF CLEAN-UP	FINAL VOL. SOLVENT	SURRO-GATE ADDED Y/N	COMMENTS
CDMHNSS.36	30.0g	8.4	GPC/florisil	10.0ml/Hex	y	2.0ml 3/40 Pest surrogate 2ug/ml
36MS						731.87 V. Bauder 5/9/94 exp 11/9/94
36MSD						for all.
36LC						1.0ml 3/40 Pest mixture spk .5-1ug/ml
						731.84 5/6/94 V. Bauder exp
						11/6/94 for 36MS.36MSD
						Spiked: AH Wit: [illegible]
						Hexane lot BH188
						Acetone lot BH095
						MeCl2 lot BH201

CHAIN-OF-CUSTODY RECORD

FORM 87282

000778

9513355.1871

SAMPLES CDMHNSS - 36

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, AT 5/14/94

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

12) Conc extracts off GPC to 10ml using KD-receivers, make copies of GPC chart and include with logsheets AT 5/15/94

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#. 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 1002B-1 AT 5/14/94	Clean to C unclean to B2 AT 5/15/94	from fridge C to V-Bunder	to FRIDGE B2 VSB 5-15-94

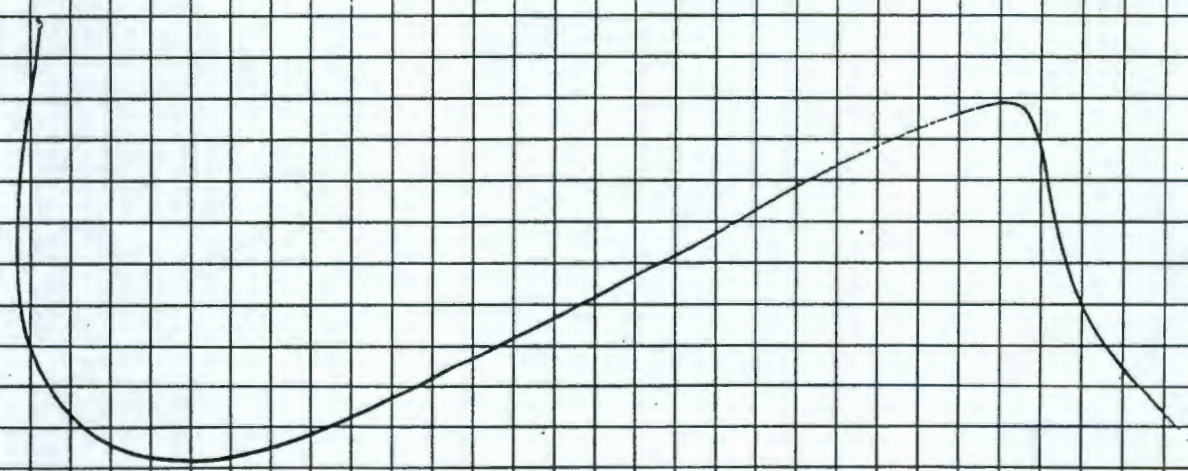
PROJECT CDM-Hanford N-Slope 3/40 Pest soils

Notebook No. 985

Continued From Page

CDM IANJS-34, 36MS/MSD, BLK.

1) Weighed out 50.0g sample into beaker, added 50ml HPLC H2O stirred for 1hr, checked and saturated pH.
2) Weighed out 30.0g sample into teflon beaker. Used buffered Na2SO4 for BLK. Added 60g baked powdered Na2SO4 (DLC 2/21/94) to dry.
3) Added 150ml 50/50 Hexane/Acetone to each. Sonicated each for 3 minutes using probe. Centrifuged at 1KRPM for 5 min. Poured into rotavap flask by buffered Na2SO4.
4) Repeated step 3 two more times with 100ml 50/50 Hexane/Acetone
5) Conc to ~1ml on rotavap with temp set at 65°C.
6) Took to 10.0ml in EtOH. AJ 5/14/94
7) Loaded on 1002B-1. AJ 5/14/94.
1) Pound extracts w/ KDS, conc to ~10ml, solvent exchanged to hexane, took to 5.0ml in shorty vials.
2) Run 2.0ml through florisil cartridge (lot H08556, DSR 5/13/94), eluted with final 10% Acetone in hexane.
3) Concentrated to 20.0ml in amber vials. AJ 5/15/94



Continued on Page

Read and Understood By

AJ	5/14/94		5/15/94
Signed	Date	Signed	Date

Notebook No. 00731

PROJECT STD PREP. FOR CLP-PEST-3/90

Continued From Page

PESTICIDE SURROGATE MIX
RESTEK LOT# A002788 CATALOG# 32000

	UG/ML	0.5 ML →	STOCK UG/ML	1 ML → 100 ML HEXANE	RIBLK NG/ML	20 ML → 200 ML ACETONE	SURROGATE SPIKE UG/ML
TCX	200.	50 ML ACETONE	2.		20.		0.2
DCBP	200.		2.		20.		0.2

TOXAPHENE MIX RESTEK LOT# A000038 CATALOG# 32005

	UG/ML	0.5 ML → 25 ML HEXANE	STOCK UG/ML		UG/ML ①	1 ML → 10 ML TOTAL HEXANE	STOCK UG/ML
TOXAPHENE	1000.		20.	1016	1040		10.
				1260	1000		10.

COMPOUND	STOCK UG/ML	SOURCE NOTEBOOK:PAGE	PREP. DATE	VOLUME ADDED ML	VOLUME ① AR 2 UG/ML TCX+DCBP ADDED ML.	FINAL VOLUME HEXANE ML.	PCB CONC. NG/ML	TCX+DCBP CONC. NG/ML
AR1221	10.	854:77	8-29-93	2.	1.	100	200.	20.
AR1232	10.	854:77	8-29-93	1.	1.	100	100.	20.
AR1242	10.	854:77	8-29-93	1.	1.	100	100.	20.
AR1248	10.	854:77	8-29-93	1.	1.	100	100.	20.
AR1254	10.	854:77	8-29-93	1.	1.	100	100.	20.
AR1016	10.	731:73	11-18-93	1.	1.	100	100.	20.
AR1260	10.						100.	
TOXAPHENE	20.	731:73	11-18-93	2.5	1.	100	500.	20.

PESTICIDE RESOLUTION CHECK MIX
RESTEK LOT# A000056 CATALOG# 32001

	UG/ML	0.5 ML → 50 ML TOTAL HEXANE	RESC NG/ML
GAMMA-CHLORDANE	1.0		10.
ENDOSULFAN I	0.98		9.8
DIELDRIN	1.98		19.8
4,4'-DDE	1.98		19.8
ENDOSULFAN SULFATE	2.0		20.
ENDRIN KETONE	2.02		20.2
METHOXYCHLOR	9.98		99.8
TCX ①	2.	0.5 ML	20.
DCBP	2.		20.

HEXANE USED IS LOT # BF932 B+J BRAND NON-SPECTRO.

ACETONE USED IS LOT # BF929 B+J BRAND

① SEE ABOVE FOR STOCK TCX/DCBP PREP.
② SEE PAGE 82 OF NOTEBOOK 854 (BOB ROBERTSON) FOR STD. PREP.

Continued on Page

Nick S. 11-18-93 Robert M. Robertson 11-19-93

Read and Understood By

Signed Date Signed Date

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 6US 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.
DECACHLORO BIPHENYL	16.	160.	40.	10.

0.5ML → 50. ML HEXANE; 25.ML → 100.ML HEXANE

0.5ML → 200 ML HEXANE

Continued on Page

Neta S. Zuh 3-29-94 Robert R. Robert 4/1/94

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PROJECT STD. PREP. FOR CLP-PEST-3/90

Continued From Page

CLP PESTICIDES/PCB (3/90 SOW)
PERFORMANCE EVALUATION MIX C-180-01
EXP: 4A5, ISO-OCTANE NSI ENVIRONMENTAL SOLUTIONS

~~UG~~ USE LS 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.D. BRAND	20.
DECACHLOROBIPHENYL	2.	NON-SPECIFIC	20.
		LOT# BG656	

4-13-94 VIC BAUDER REMADE PEM AS ABOVE USING PEM C-180-01 AND HEXANE LOT # BG656 Robert R. Roberts 4/15/94

4-19-94 VIC BAUDER REMADE PEM AS ABOVE USING PEM C-180-01 AND HEXANE LOT #BH188 Robert R. Roberts 4/20/94

4-26-94 VIC BAUER REMADE PEM AS ABOVE USING PEM C180-01 AND HEXANE LOT # BH188 Robert R. Roberts 4/26/94

5-3-94 Vic BAUDER REMADE PEM 0.1 ML → USING PEM C-180-01 AND HEXANE LOT # BH188. 10. ML HEXANE TOTAL Robert R. Roberts 5/12/94

5-12-94 VIC BAUDER REMADE PEM 0.1 ML → USING PEM C-180-01 AND HEXANE LOT # BH188. 10. ML HEXANE TOTAL Robert R. Roberts 5/12/94

Continued on Page

Nick S. Eyler 3-30-94 Read and Understood By Robert R. Roberts 4/1/94

Signed Date Signed Date

PROJECT SURROGATE PREP. CLP-PEST-3/90

Continued From Page

PESTICIDE SURROGATE MIX
RESTEK LOT # A 002789 CATALOG # 32000
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 BAUER REMADE SURROGATE SPIKE AS ABOVE ON 5-9-94
USED ACETONE LOT # BH059 B+J BRAND. Robert R. Roberts 5/9/94

Continued on Page

Nick S. Bader 4-26-94 Read and Understood By Robert R. Roberts 5/9/94

Signed Date Signed Date

9513355.1882

Notebook No. 00731

PROJECT MATRIX SPIKE PREP. CLP-PEST-3/90

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 # BA059		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 USB

STOCK MATRIX SPIKE → 5 ML → MATRIX SPIKE

200 ML METHANOL → B+J BRAND LOT # BE686 Robert R. Robertson 5/6/94

Continued on Page

Nat S. [illegible] 4-20-94 Robert R. Robertson 5-6-94

Read and Understood By

Signed Date Signed Date

PROJECT PCB GC standards

Notebook No. 8.52 — 77

Continued From Page

Aroclor 1254 FIII - Chem Service Lot 41-29A 100%

Amount	Volume	Solvent	Conc
25.0 mg	25.0 ml	Hexane BF098	1000 µg/ml

Aroclor 1248 - Chem Service FIIO Lot 67-83A 100%

25.0 mg	25.0 ml	Hexane	1000 µg/ml

Aroclor 1242 Chem Service FIO9 Lot 26-28D 100%

25.0 mg	25.0 ml	Hexane	1000 µg/ml

Aroclor 1221 - Restek Corp Cat# 32007 Lot# A001527
1000 µg/ml in hexane

Amount	Volume	Solvent	Conc.
0.5 ml	50.0 ml	Hexane BF098	10,000 µg/ml

Aroclor 1232 - Restek Corp Cat# 32008 Lot# A001620

0.5 ml	50.0 ml	Hexane	10,000 µg/ml

Aroclor 1254 . 1000 µg/ml	0.5 ml	50 ml	Hexane	10,000 µg/ml
Aroclor 1248 . 1000 µg/ml	0.5 ml	50 ml	Hexane	10,000 µg/ml
Aroclor 1242 . 1000 µg/ml	0.5 ml	50 ml	Hexane	10,000 µg/ml

Continued on Page

Read and Understood By

Signed	Date	Signed	Date
Robert R. Robertson	8/29/97	[illegible]	8/29/97

9513355.1884

PROJECT Spike standards - PCB

Continued From Page

Aroclor 1016 - Chem Service F107 Lot 62136C 100%

Amount	Volume	Solvent	Conc.
25.0 mg	25.0 ml	Acetone	1000 ug/ml

Aroclor 1260 - Chem Service F112 Lot 40-32C

25.0 mg	25.0 ml	Acetone	1000 ug/ml

Continued on Page

Robert R. Robertson 8-29-93

Signed Date

Read and Understood By

Signed Date 8/29/93

9513355.1885

Notebook No. 854

PROJECT PCB-1060 Spike Standard

Continued From Page

Source Robertson 854 79

	Conc	Amount	Volume	Solvent	Conc
PCB-1016	1000 ug/ml	2.5 ml	25.0 ml	Acetone	100 ug/ml
PCB-1260	1000 ug/ml	2.5 ml		BF502	

Spike Standard — Use 1 ml

	Amount	Volume	Solvent	Conc
PCB 1060 · 100 ug/ml	3 ml	100 ml	Acetone KP502	300 ug/ml

Continued on Page

Robert R. Robertson 9-7-93 Read and Understood By Nancy J. Zeh 9-7-93

Signed Date Signed Date

PROJECT OCP PRIMARY STOCKS

Notebook No. 933

Continued From Page

1) AHBHC	A) Chem Serv LOT: 112-86A 98%	B) CHEM SERV LOT 45-95B 98%		
A)	.025 g	→ 25 ml Hexane	= 1,000 µg/ml	
B)	.025 g	→ 25 ml Hexane	= 1,000 µg/ml	
2) LINDANE	A) Chem Serv 99.5% Lot: 89-83B	.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: 89-18B	.025g → 25 ml ACE	= 1000 µg/ml	
3) Δ-BHC	A) Chem Serv 98% Lot: 126-17A	.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: 85-133B	.025g → 25 ml Hex	= 1000 µg/ml	
	B) EPA 99.3% LOT: E06H	.025g → 25 ml Hex	= 1000 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: A379	.025g → 25 ml Hex	= 1,000 µg/ml	
	B) EPA 99% LOT: A501	.025g → 25 ml Hex	= 1,000 µg/ml	
	C) SARM 99.8% LOT: A379	.025g → 25 ml ACE	= 1,000 µg/ml	

Continued on Page

Read and Understood By

Joe Heatherly	April 5, 1994	Mark Mathews	4/14/94
Signed	Date	Signed	Date

PROJECT OCP Primary Stocks

Notebook No. 933

Continued From Page

7) ISODRIN	A) SARM	92.8%	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: B3-100A	.025g	→ 25 ml HEX	=	1,000 µg/ml
	B) CHEM SERV	99%	LOT: [illegible]	.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: 110-96	.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	90%	LOT: 19-13A	.025g	→ 25 ml HEX	=	1,000 µg/ml

Continued on Page

Read and Understood By

Signed: [illegible] Date: April 5, 1994

Signed: [illegible] Date: 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	98.1%	LOT: A400	.025g	→	25 ml Hex	=	1,000 µg/ml
	B) Chem Serv	99%	LOT: 114-116A	.025g	→	25 ml Hex	=	1,000 µg/ml
	C) Sarm	98.1%	LOT: A400	.025g	→	25 ml ACE	=	1,000 µg/ml
16) Endrin Aldehyde	A) Aldrich	99%	LOT: ~~15757~~ [illegible]	.025g	→	25 ml HEX	=	1,000 µg/ml
	B) Accustd	99+	LOT MUB-[illegible]	.025g	→	25 ml Hex	=	1,000 µg/ml
17) Endosulfan Sulf	A) Sarm	98.6%	LOT: A985	.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 30-90	.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) Aldrich	98%	LOT: 15790	.025g	→	25 ml Hex	=	1,000 µg/ml
	B) EPA	95.1%	LOT CDAC	.010g	→	10 ml Hex	=	1,000 µg/ml
20) TCX	A) Aldrich	95.9%	KY-[illegible]	.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
[illegible]	April 5, 1994	[illegible]	4/14/94

9513355.1889

Volatile Organic Compounds
Sample EA11-1-07 (ESE# CDMHNSS*21)

9513355.1890

SDG NARRATIVE

SDG No. 48855

GC/MS Volatile Narrative

1. The samples in this SDG were run by a modified EPA-CLP method 3/90SOW. All samples have passed the specified criteria, and no problems occurred during analysis unless otherwise noted.

2. The GC/MS data system report labels the target reference spectra as PBM reference spectra. These spectra are from a PBM library generated from standards analyzed under the same conditions as the samples were analyzed.

3. All compounds were spiked at 50 ppb. for the Continuing Calibration Standard with the exception of Xylene which was spiked at 25 ppb.

4. In the Initial Calibration Bromomethane had a %RSD of 26.2%. This is a problem compound due to it's coelution with Methanol (which is used to make up the standards). Although the mass spectrometer does not scan low enough to see Methanol, the increase in pressure affects the response factor for Bromomethane. There was no Bromomethane found in this SDG.

5. Several samples have "Background Carbon Dioxide" initially identified as a TIC. This is a chromatographic artifact and not an "unknown".

95T3355.1892

VOLATILES DATA

9513355.1893

QC SUMMARY

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48855

Level: (low/med) LOW

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	OTHER	TOT OUT
01	vblks1	101	100	97		0
02	A1101007	98	98	94		0
03	A1101007MS	98	102	99		0
04	A1101007MSD	95	94	94		0
05						
06						
07						
08						
09						
10						
11						
12						
13						
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27						
28						
29						
30						

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

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: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48855

Matrix Spike - EPA Sample No.: A1101007 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	52	0	54	104	59-172
Trichloroethene	52	0	56	108	62-137
Benzene	52	0	56	108	66-142
Toluene	52	0	53	102	59-139
Chlorobenzene	52	0	58	112	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	52	57	110	6	22	59-172
Trichloroethene	52	57	110	2	24	62-137
Benzene	52	54	104	4	21	66-142
Toluene	52	49	94	8	21	59-139
Chlorobenzene	52	56	108	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: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48855

Lab File ID: V89A03497.D Lab Sample ID: vblks1

Date Analyzed: 05/05/94 Time Analyzed: 1217

GC Column:75m DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: V89INSTL

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	A1101007	COMHNSS*21	V89A03498.D	1254
02	A1101007MS	COMHNSS*21MS	V89A03499.D	1328
03	A1101007MSD	COMHNSS*21MSD	V89A03500.D	1403
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
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27				
28				
29				
30				

COMMENTS:

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48855

Lab File ID: V89A03492.D BFB Injection Date: 05/05/94

Instrument ID: V89INSTL BFB Injection Time: 0902

GC Column:75m DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	25.7
75	30.0 - 66.0% of mass 95	42.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	71.5
175	4.0 - 9.0% of mass 174	5.3 (7.4)1
176	93.0 - 101.0% of mass 174	67.9 (95.1)1
177	5.0 - 9.0% of mass 176	4.5 (6.6)2

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

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	vstd50	vstd50	V89A03493.D	05/05/94	0939
02	vblks1	vblks1	V89A03497.D	05/05/94	1217
03	A1101007	COMHNSS*21	V89A03498.D	05/05/94	1254
04	A1101007MS	COMHNSS*21MS	V89A03499.D	05/05/94	1328
05	A1101007MSD	COMHNSS*21MSD	V89A03500.D	05/05/94	1403
06					
07					
08					
09					
10					
11					
12					
13					
14					
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19					
20					
21					
22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48855

Lab File ID: V89A03480.D BFB Injection Date: 05/04/94

Instrument ID: V89INSTL BFB Injection Time: 0944

GC Column: 75M DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	27.9
75	30.0 - 66.0% of mass 95	44.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	68.7
175	4.0 - 9.0% of mass 174	5.2 (7.6)1
176	93.0 - 101.0% of mass 174	65.3 (95.0)1
177	5.0 - 9.0% of mass 176	4.6 (7.0)2

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

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	vstd50	vstd50	V89A03481.D	05/04/94	1058
02	vstd10	vstd10	V89A03483.D	05/04/94	1236
03	vstd20	vstd20	V89A03484.D	05/04/94	1311
04	vstd100	vstd100	V89A03485.D	05/04/94	1345
05	vstd200	vstd200	V89A03487.D	05/04/94	1458
06					
07					
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21					
22					

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48855

Lab File ID (Standard): V89A03493.D Date Analyzed: 05/05/94

Instrument ID: V89INSTL Time Analyzed: 0939

GC Column:75m 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	154770	8.45	781845	10.14	537743	15.73
	UPPER LIMIT	309540	8.95	1563690	10.64	1075486	16.23
	LOWER LIMIT	77385	7.95	390922	9.64	268872	15.23
	EPA SAMPLE No.						
01	vblks1	142817	8.42	736766	10.13	524913	15.72
02	A1101007	142380	8.44	740855	10.14	527439	15.72
03	A1101007MS	138452	8.42	709232	10.14	500676	15.72
04	A1101007MSD	139265	8.48	708060	10.19	617325	16.01
05							
06							
07							
08							
09							
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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 QC limits with an asterisk.
* Values outside of QC limits.

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SAMPLE DATA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A1101007

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48855

Matrix: (soil/water) SOIL Lab Sample ID: COMHNSS*21

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03498.D

Level: (low/med) LOW Date Received: 04/29/94

% Moisture: not dec. 3.8 Data Analyzed: 05/05/94

GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(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	6	JB
67-64-1	Acetone	10	U
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.

A1101007

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48855

Matrix: (soil/water) SOIL Lab Sample ID: COMHNSS*21

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03498.D

Level: (low/med) LOW Date Received: 04/29/94

% Moisture: not dec. 3.8 Data Analyzed: 05/05/94

GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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.				
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27.				
28.				
29.				
30.				

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

A1101007

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48790

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*21

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NVO501434.D

Level: (low/med) LOW Date Received: 05/03/94

% Moisture: 4 decanted: (Y/N) N Date Extracted: 05/04/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 05/05/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown Aldol Condensate	3.169	84	JAB
2.	Unknown Aldol Condensate	3.937	1100	JAB
3.	Unknown Aldol Condensate	4.495	120	JA
4. 630-03-5	Nonacosane	23.730	92	NJ
5. 630-04-6	Hentriacontane	25.040	74	NJ
6.				
7.				
8.				
9.				
10.				
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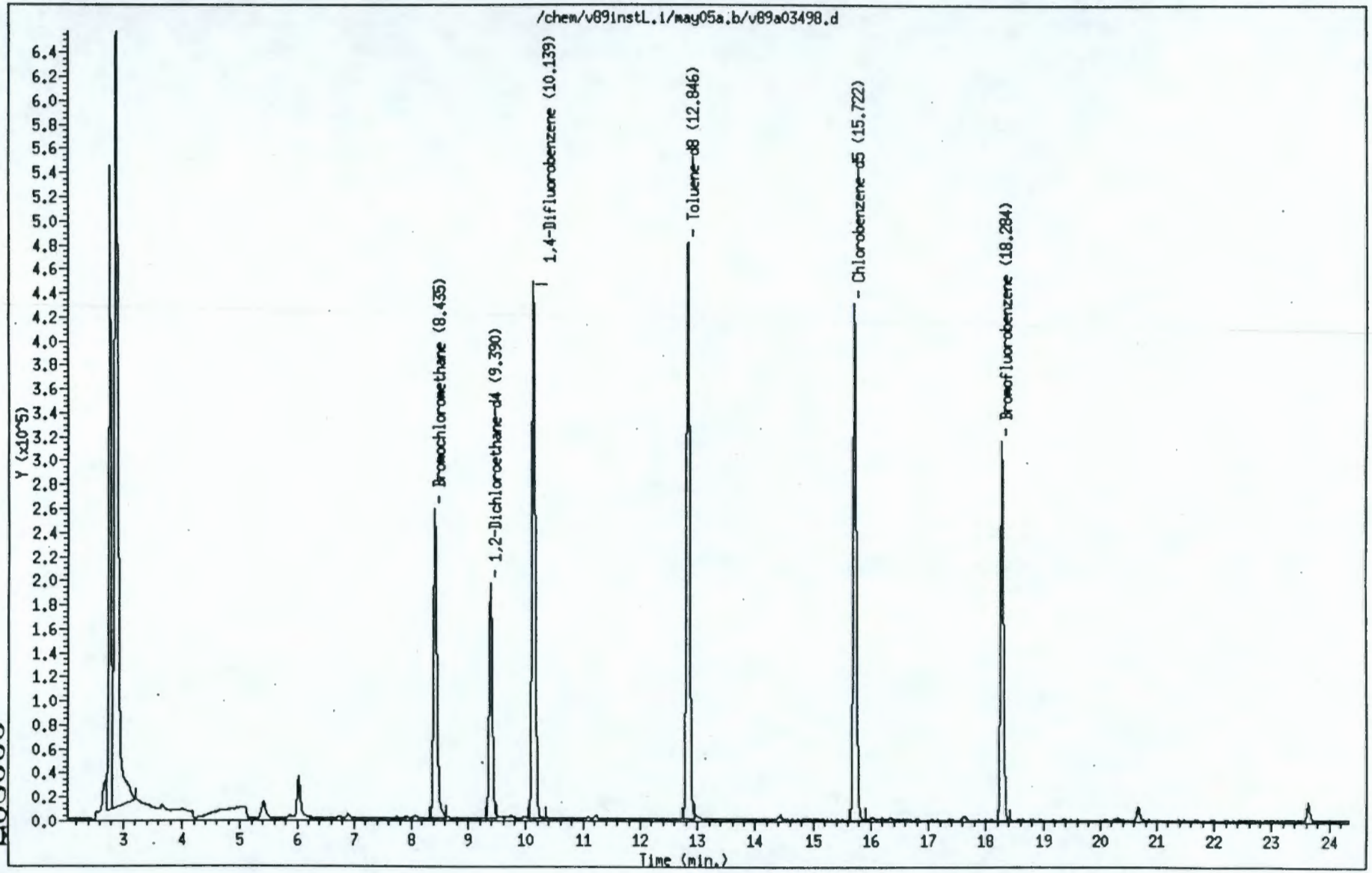
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				

Data File: /chem/v89instL.i/may05a.b/v89a03498.d
Date : 05-MAY-1994 12:54
Instrument : v89instL.i
Sample ID : COMHNSS*21
Column phase :
Volume Injected (uL) : 0.0

Column diameter : 2.00



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008007

Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may05a.b/v89a03498.d
Lab. Id. : COMHNSS*21
Inj Date : 05-MAY-1994 12:54 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : COMHNSS*21
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may05a.b/vmeth390.m
Meth Date : 05-May-1994 10:14
Cal Date : 05-MAY-94 09:39 Cal File: v89a03493.d
Als bottle: 2
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
8 Methylene Chloride	84.00	6.030(0.715)	32745	6	6(a)
* 12 Bromochloromethane	128.00	8.435(1.000)	142380	50	
$ 16 1,2-Dichloroethane-d4	65.00	9.390(1.113)	251066	49	49
* 19 1,4-Difluorobenzene	114.00	10.139(1.000)	740855	50	
$ 25 Toluene-d8	98.00	12.846(0.817)	651684	49	49
* 32 Chlorobenzene-d5	117.00	15.722(1.000)	527439	50	
$ 38 Bromofluorobenzene	95.00	18.284(1.163)	266622	47	47

QC Flag Legend

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

Data File: /chem/v89instL.i/may05a.b/v89a03498.d

Date : 05-MAY-1994 12:54

Instrument : v89instL.i

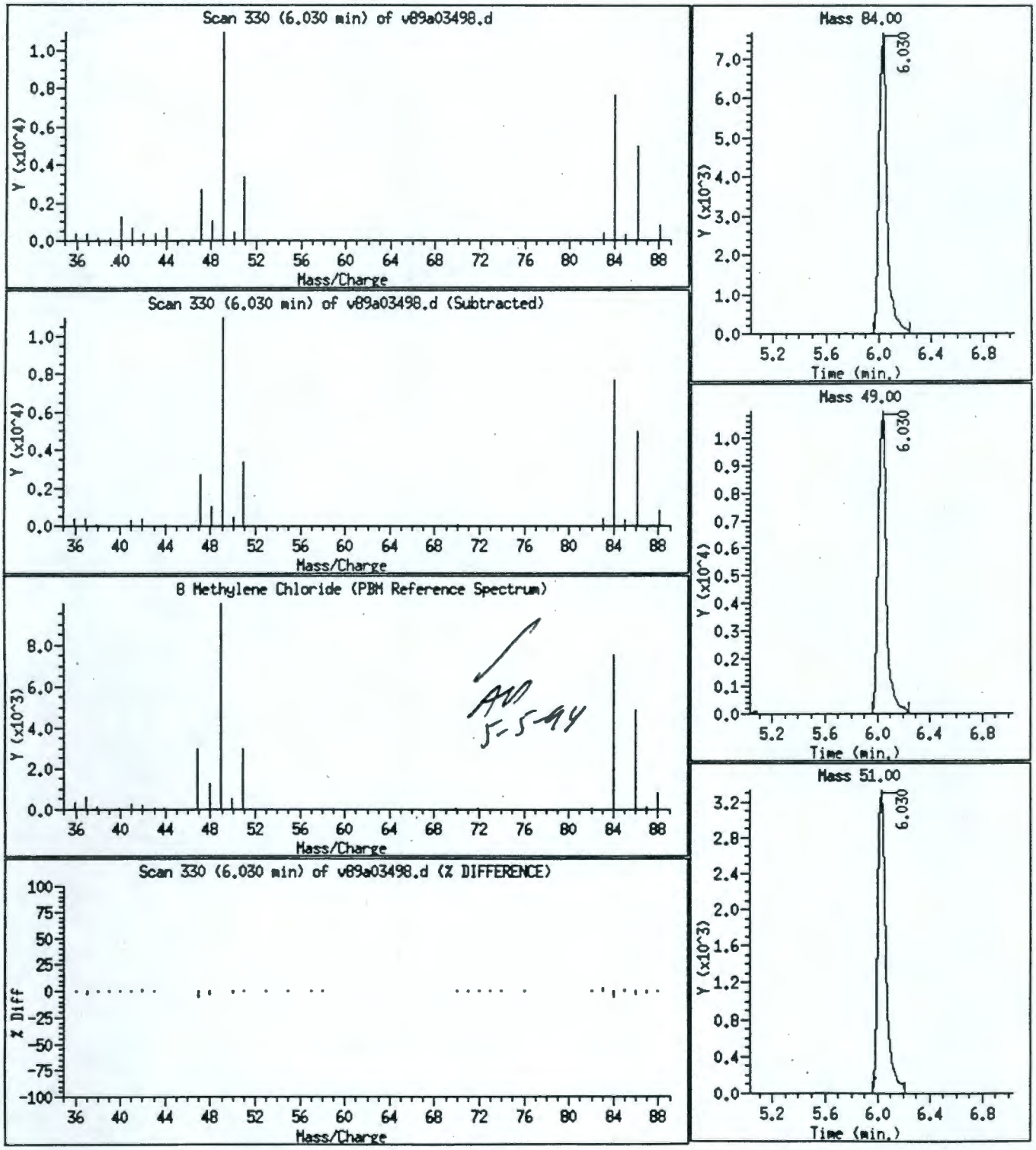
Sample ID : COMMNSS×21

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 0.0

8 Methylene Chloride

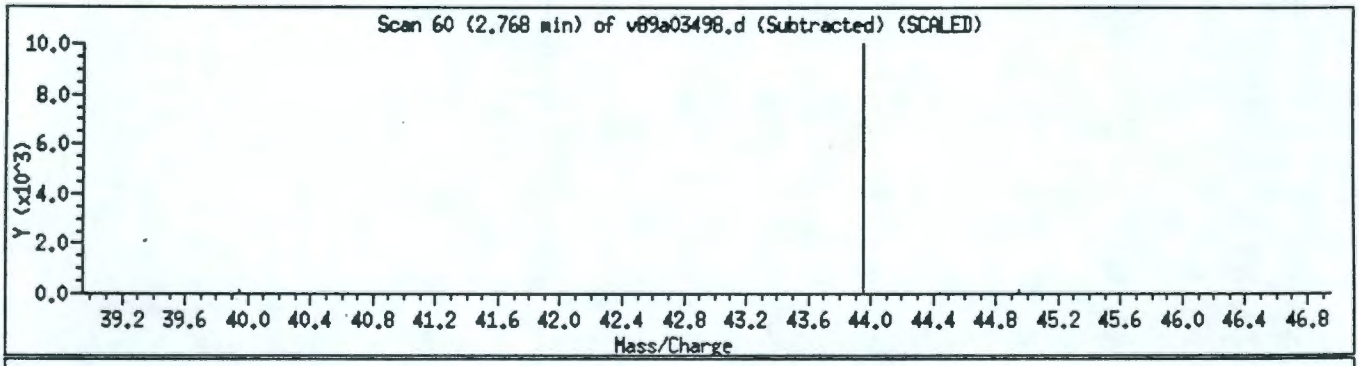


AW 5-5-94

Data File: /chem/v89instL.i/may05a.b/v89a03498.d
Date : 05-MAY-1994 12:54
Instrument : v89instL.i
Sample ID : COMMNSS×21
Column phase :
Volume Injected (uL) : 0.0

Column diameter : 2.00

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				

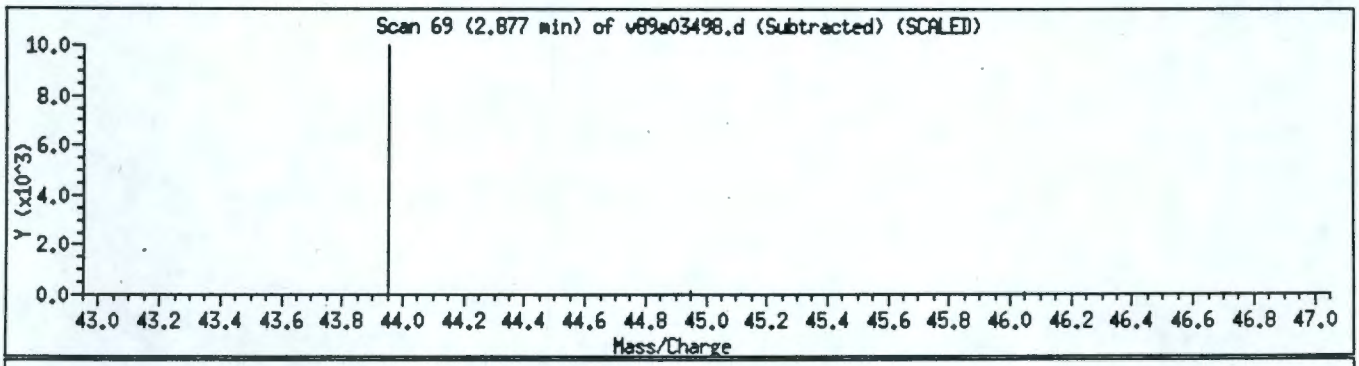


Background Air
AW 5-5-94

Data File: /chem/v89instL.i/may05a.b/v89a03498.d

Date : 05-MAY-1994 12:54
Instrument : v89instL.i
Sample ID : COMHNSS×21
Column phase :
Column diameter : 2.00
Volume Injected (µL) : 0.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



Background CO_2
ps 5-5-94

Environmental Science and Engineering

Unknown Compounds Quantitation Report

Data file : /chem/v89instL.i/may05a.b/v89a03498.d
Lab. Id. : COMHNSS*21
Inj Date : 05-MAY-1994 12:54 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : COMHNSS*21
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may05a.b/vmeth390.m
Meth Date : 05-May-1994 15:46 user1
Cal Date : 05-MAY-94 09:39 Cal File: v89a03493.d
Als bottle: 2
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 12 Bromochloromethane	8.435	1049885	50.000

RT	AREA	CONC(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	QUANT CPND

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A1101007MS

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48855

Matrix: (soil/water) SOIL Lab Sample ID: COMHNSS*21MS

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03499.D

Level: (low/med) LOW Date Received: 04/29/94

% Moisture: not dec. 3.8 Data Analyzed: 05/05/94

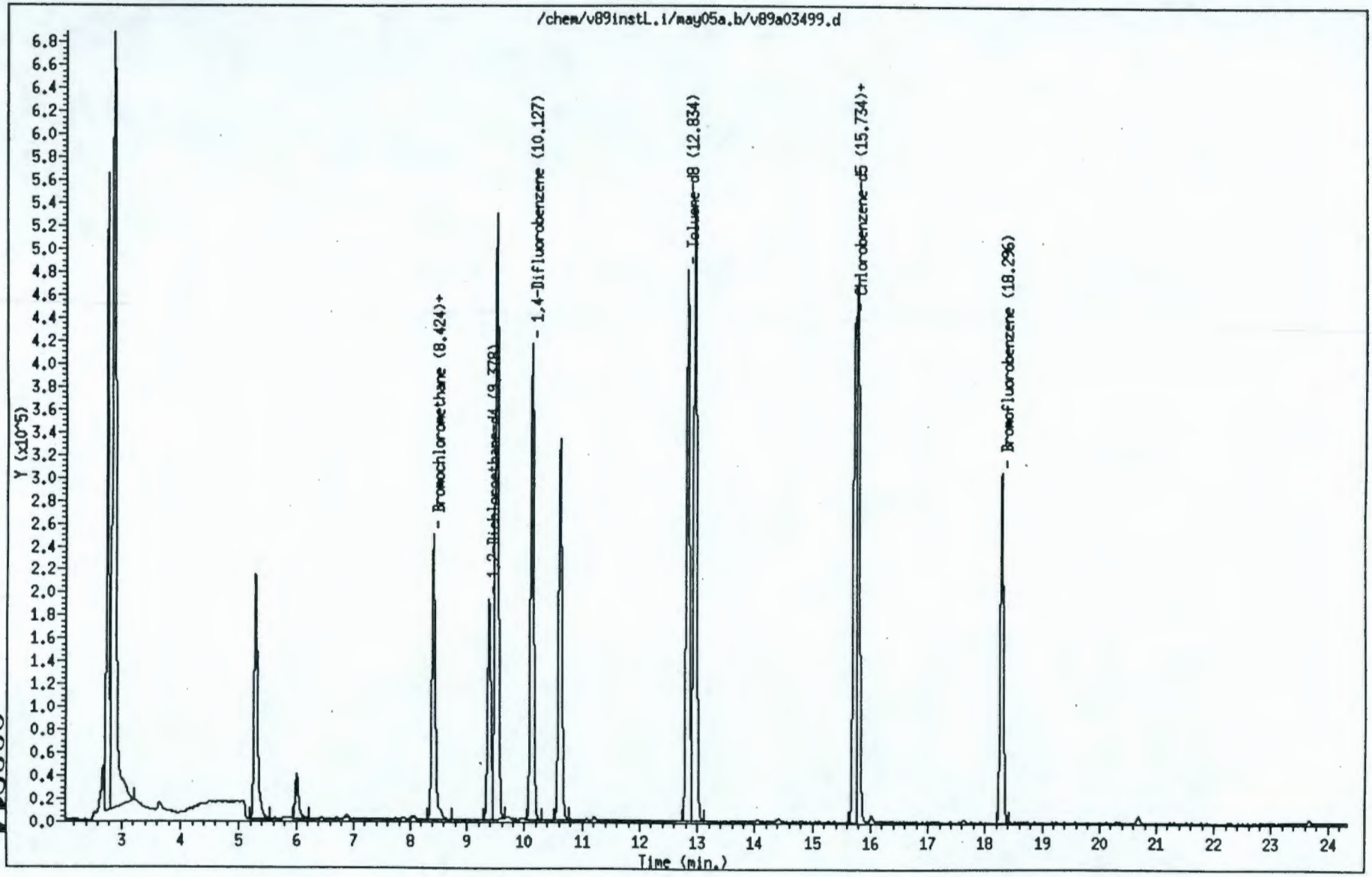
GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(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	8	JB
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	54	
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	56	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	56	
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	53	
108-90-7	Chlorobenzene	58	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

Data File: /chem/v89instL.i/may05a.b/v89a03499.d
Date : 05-MAY-1994 13:28
Instrument : v89instL.i
Sample ID : COMHNSS×21 MS
Column phase :
Volume Injected (uL) : 0.0

Column diameter : 2.00



000814

95133569.1911

Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may05a.b/v89a03499.d
Lab. Id. : COMHNSS*21 MS
Inj Date : 05-MAY-1994 13:28 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : COMHNSS*21 MS
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may05a.b/vmeth390.m
Meth Date : 05-May-1994 10:14
Cal Date : 05-MAY-94 09:39 Cal File: v89a03493.d
Als bottle: 3 QC Sample: MS
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	5 1,1-Dichloroethene	96.00	5.294(0.628)	185261	52	52
	8 Methylene Chloride	84.00	6.019(0.715)	38988	7	7(a)
*	12 Bromochloromethane	128.00	8.424(1.000)	138452	50	
	13 Chloroform	83.00	8.532(1.013)	4086	0.5	0.5(a)
$	16 1,2-Dichloroethane-d4	65.00	9.378(1.113)	245513	49	49
	17 Benzene	78.00	9.511(0.938)	958276	54	54
	18 1,2-Dichloroethane	62.00	9.511(1.129)	7823	1	1(a)
*	19 1,4-Difluorobenzene	114.00	10.139(1.000)	709232	50	
	20 Trichloroethene	130.00	10.623(1.048)	254504	54	54
$	25 Toluene-d8	98.00	12.834(0.816)	638387	51	51
	26 Toluene	91.00	12.955(0.824)	549310	35	35
	27 trans-1,3-Dichloropropene	75.00	12.967(1.279)	5845	0.9	0.9(a)
*	32 Chlorobenzene-d5	117.00	15.722(1.000)	500676	50	
	33 Chlorobenzene	112.00	15.795(1.005)	524556	55	55
$	38 Bromofluorobenzene	95.00	18.296(1.164)	263848	49	49

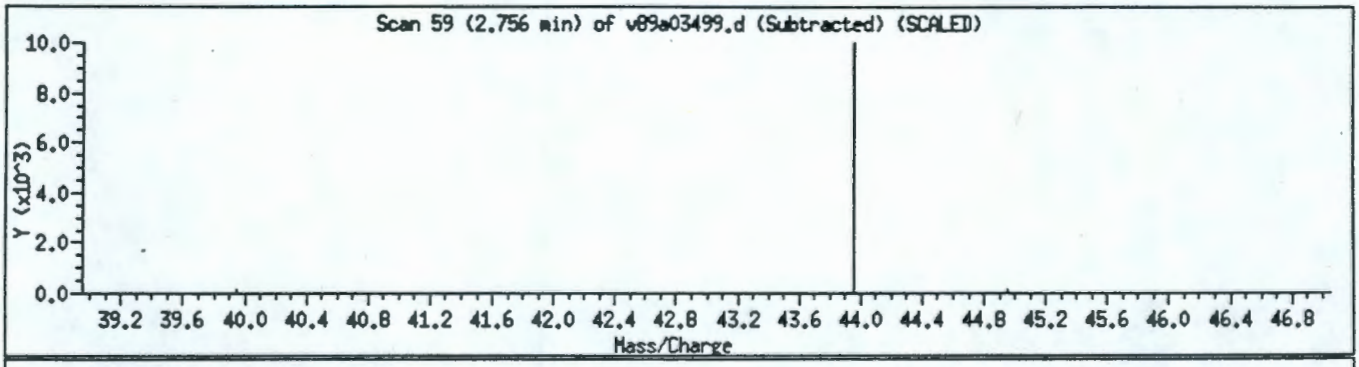
QC Flag Legend

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

Data File: /chem/v89instL.i/may05a.b/v89a03499.d
Date : 05-MAY-1994 13:28
Instrument : v89instL.i
Sample ID : COMMNSS×21 MS
Column phase :
Volume Injected (uL) : 0.0

Column diameter : 2.00

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



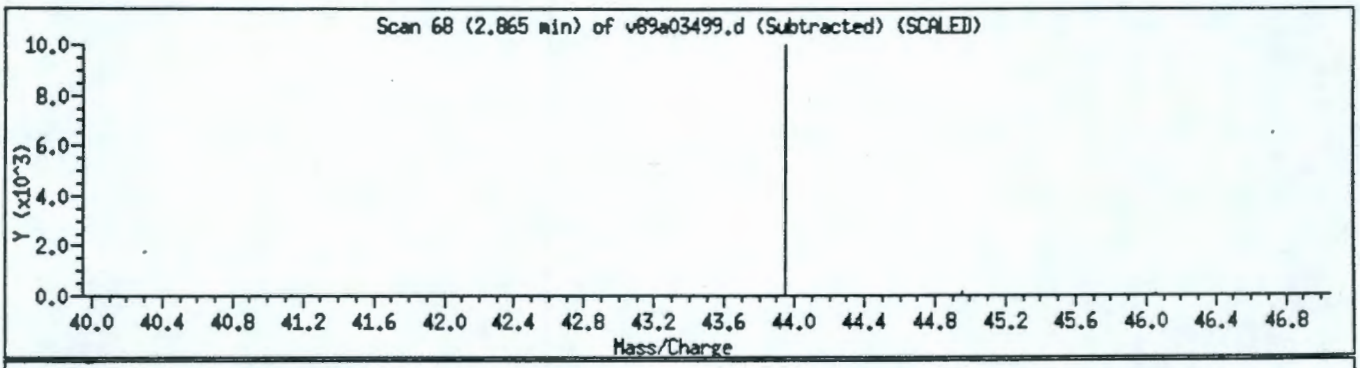
Background
5-5-94

9513355.1914

Data File: /chem/v89instL.i/may05a.b/v89a03499.d

Date : 05-MAY-1994 13:28
Instrument : v89instL.i
Sample ID : COMMSS×21 MS
Column phase :
Column diameter : 2.00
Volume Injected (uL) : 0.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



Background
AGS 5-5-94

000817

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A1101007MSD

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48855

Matrix: (soil/water) SOIL Lab Sample ID: COMHNSS*21MS

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03500.D

Level: (low/med) LOW Date Received: 04/29/94

% Moisture: not dec. 3.8 Data Analyzed: 05/05/94

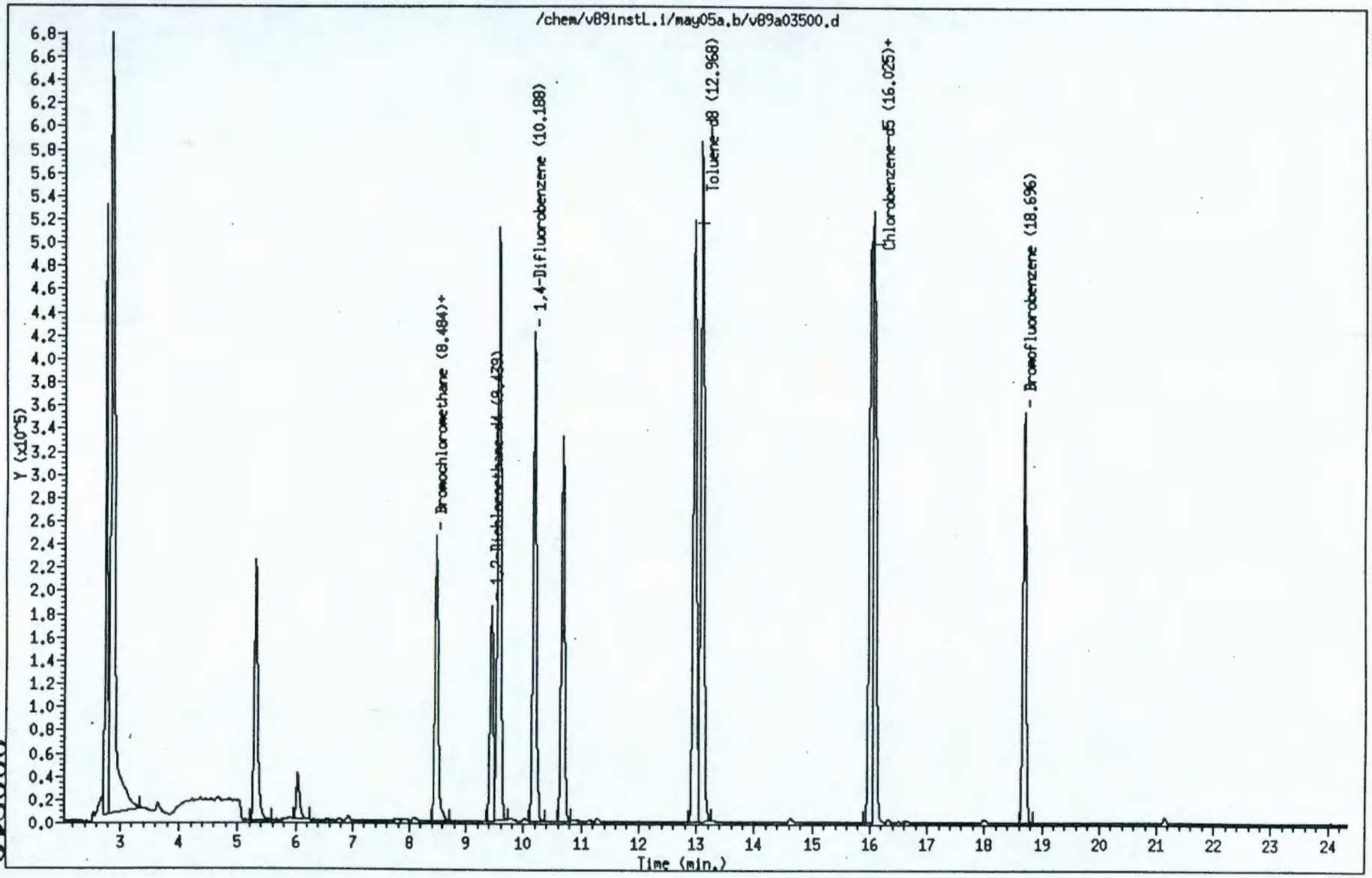
GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(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	8	JB
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	57	
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	57	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	54	
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	49	
108-90-7	Chlorobenzene	56	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

Data File: /chem/v89instL.i/may05a.b/v89a03500.d
Date : 05-MAY-1994 14:03
Instrument : v89instL.i
Sample ID : COMHNSS×21 MSD
Column phase :
Volume Injected (uL) : 0.0

Column diameter : 2.00



000819

9513355.1910

Data File: /chem/v89instL.i/may05a.b/v89a03500.d
Report Date: 05-May-1994 14:49

Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may05a.b/v89a03500.d
Lab. Id. : COMHNSS*21 MSD
Inj Date : 05-MAY-1994 14:03 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : COMHNSS*21 MSD
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may05a.b/vmeth390.m
Meth Date : 05-May-1994 10:14
Cal Date : 05-MAY-94 09:39 Cal File: v89a03493.d
Als bottle: 4 QC Sample: MSD
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	5 1,1-Dichloroethene	96.00	5.306(0.625)	193763	54	54
	8 Methylene Chloride	84.00	6.043(0.712)	39490	7	7(a)
*	12 Bromochloromethane	128.00	8.484(1.000)	139265	50	
	13 Chloroform	83.00	8.593(1.013)	4504	0.6	0.6(a)
$	16 1,2-Dichloroethane-d4	65.00	9.439(1.113)	238222	47	47
	17 Benzene	78.00	9.572(0.939)	931485	52	52
	18 1,2-Dichloroethane	62.00	9.572(1.128)	7284	1	1(a)
*	19 1,4-Difluorobenzene	114.00	10.188(1.000)	708060	50	
	20 Trichloroethene	130.00	10.684(1.049)	258769	55	55
$	25 Toluene-d8	98.00	12.968(0.810)	730694	47	47
	26 Toluene	91.00	13.101(0.818)	628151	33	33
	27 trans-1,3-Dichloropropene	75.00	13.101(1.286)	6170	1.0	1.0(a)
*	32 Chlorobenzene-d5	117.00	16.013(1.000)	617325	50	
	33 Chlorobenzene	112.00	16.086(1.005)	634591	54	54
$	38 Bromofluorobenzene	95.00	18.696(1.167)	309473	47	47

QC Flag Legend

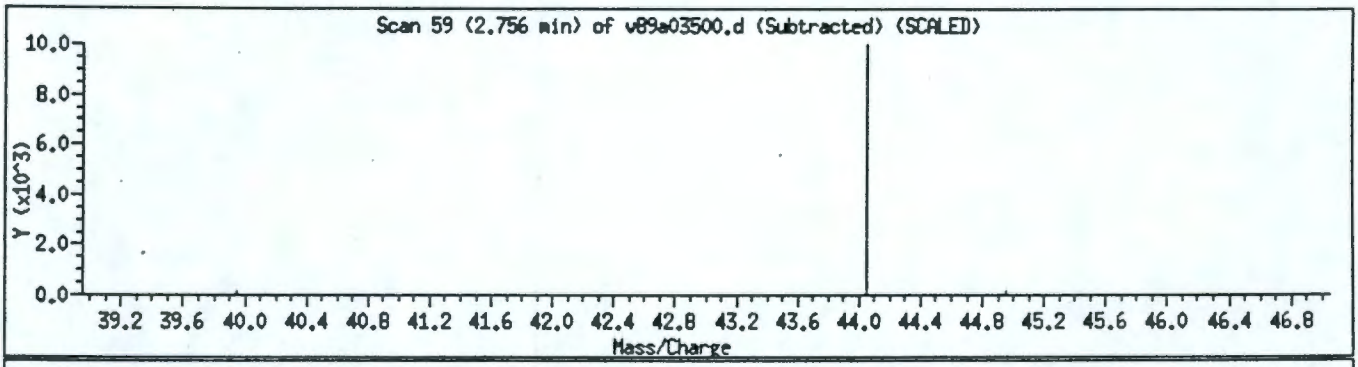
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

9513355.1918

Data File: /chem/v89instL.i/may05a.b/v89a03500.d

Date : 05-MAY-1994 14:03
Instrument : v89instL.i
Sample ID : COMMNSS*21 MSD
Column phase :
Column diameter : 2.00
Volume Injected (uL) : 0.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



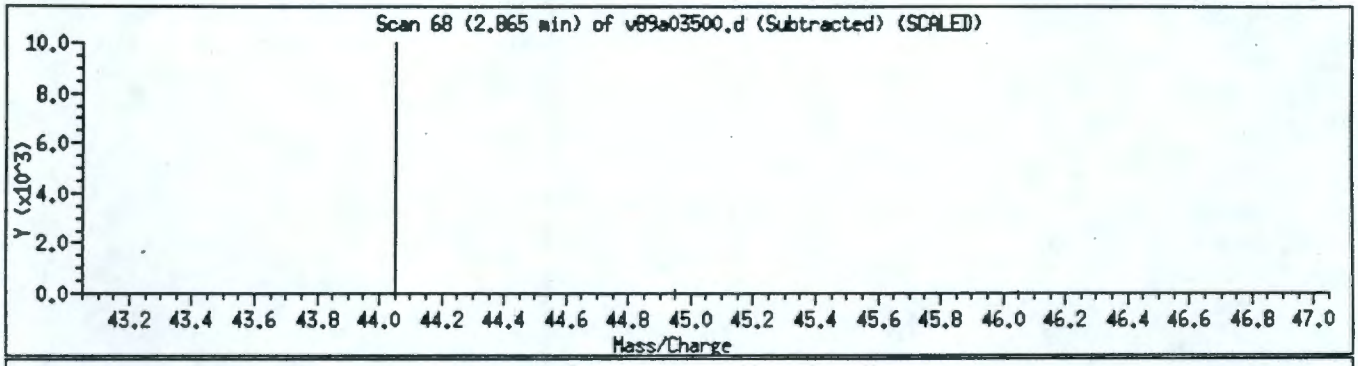
Background
AD 5-5-94

000821

Data File: /chem/v89instL.i/may05a.b/v89a03500.d

Date : 05-MAY-1994 14:03
Instrument : v89instL.i
Sample ID : COMHNSS*21 MSD
Column phase :
Column diameter : 2.00
Volume Injected (uL) : 0.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



Background CO_2
AO 5-5-94

95153555.1920

STANDARDS DATA

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48855

Instrument ID: V89INSTL Calibration Date(s): 04/20/94 05/04/94

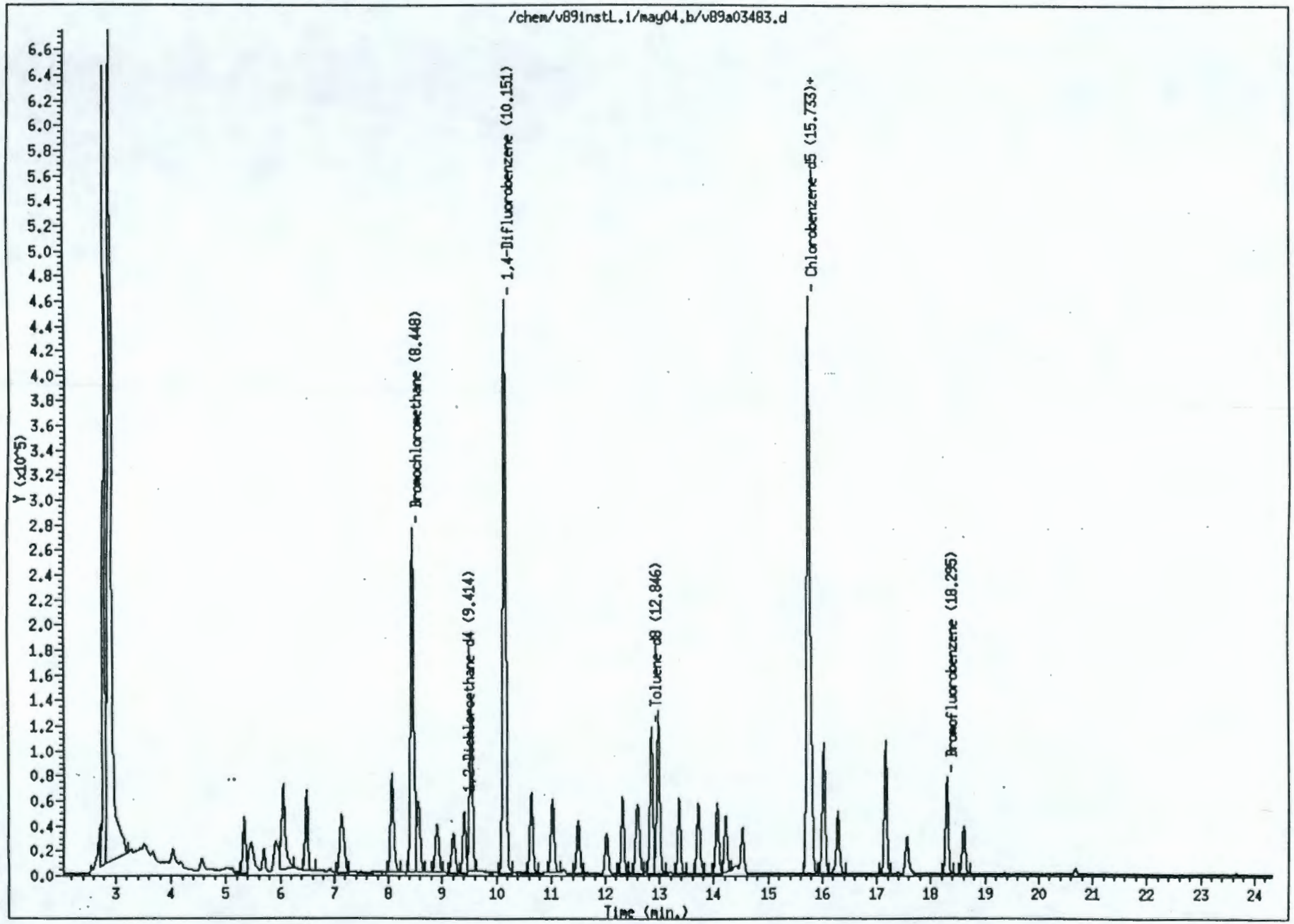
Heated Purge: (Y/N) Y Calibration Times: 1137 1458

GC Column:75m DB-624 ID: 0.53 (mm)

LAB FILE ID: RRF10 =V89A03483.D RRF20 =V89A03484.D
RRF50 =V89A03481.D RRF100=V89A03485.D RRF200=V89A03487.D

COMPOUND		RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Chloromethane		1.198	1.208	1.126	1.102	1.059	1.139	5.6
Bromomethane	*	0.569	0.541	0.426	0.410	0.277	0.445	26.2*<-
Vinyl Chloride	*	0.991	1.120	1.168	1.152	1.108	1.108	6.3*
Chloroethane		0.280	0.095	0.225	0.395	0.217	0.242	44.9
Methylene Chloride		2.121	2.055	1.855	1.733	1.578	1.868	12.0
Acetone		3.042	2.658	2.494	2.258	2.056	2.502	15.1
Carbon Disulfide		1.519	1.749	1.769	1.735	1.631	1.681	6.2
1,1-Dichloroethene	*	1.176	1.291	1.288	1.263	1.158	1.235	5.1*
1,1-Dichloroethane	*	2.944	3.397	3.275	3.218	2.952	3.157	6.4*
1,2-Dichloroethene (total)		1.535	1.802	1.702	1.620	1.412	1.614	9.3
Chloroform	*	2.541	2.915	2.770	2.695	2.514	2.687	6.2*
1,2-Dichloroethane		1.836	2.071	1.898	1.754	1.614	1.835	9.2
2-Butanone		3.409	3.572	3.459	3.319	2.984	3.349	6.7
1,1,1-Trichloroethane	*	0.354	0.405	0.393	0.390	0.363	0.381	5.7*
Carbon Tetrachloride	*	0.280	0.320	0.320	0.316	0.291	0.305	6.2*
Bromodichloromethane		0.360	0.415	0.397	0.392	0.363	0.386	6.1
1,2-Dichloropropane		0.301	0.356	0.340	0.335	0.301	0.327	7.5
cis-1,3-Dichloropropene	*	0.427	0.521	0.513	0.510	0.472	0.488	8.0*
Trichloroethene	*	0.296	0.353	0.332	0.325	0.294	0.320	7.8*
Dibromochloromethane	*	0.264	0.300	0.281	0.275	0.262	0.277	5.5*
1,1,2-Trichloroethane	*	0.247	0.277	0.256	0.248	0.229	0.251	6.9*
Benzene	*	1.159	1.325	1.234	1.174	0.971	1.173	11.1*
trans-1,3-Dichloropropene	*	0.378	0.444	0.436	0.432	0.414	0.421	6.2*
Bromoform	*	0.193	0.222	0.209	0.210	0.193	0.206	6.1*
4-Methyl-2-Pentanone		0.844	0.997	0.976	1.008	0.995	0.964	7.1
2-Hexanone		0.665	0.830	0.907	0.821	0.793	0.803	11.0
Tetrachloroethene	*	0.280	0.327	0.314	0.298	0.265	0.297	8.5*
1,1,2,2-Tetrachloroethane	*	0.458	0.609	0.520	0.574	0.452	0.523	13.2*
Toluene	*	1.602	1.706	1.526	1.477	1.286	1.519	10.3*
Chlorobenzene	*	0.891	1.015	0.954	0.913	0.830	0.921	7.5*
Ethylbenzene	*	0.489	0.582	0.551	0.520	0.455	0.520	9.6*
Styrene	*	0.952	1.149	1.109	1.066	0.926	1.040	9.4*
Xylene (total)	*	0.590	0.725	0.716	0.699	0.646	0.675	8.4*
1,2-Dichloroethane-d4	*	1.910	1.759	1.794	1.769	1.695	1.786	4.4*
Toluene-d8		1.320	1.259	1.261	1.219	1.060	1.224	8.0
Bromofluorobenzene	*	0.539	0.512	0.522	0.510	0.450	0.507	6.6*

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


/chem/v89instL.i/may04.b/v89a03483.d
Y (x10^5)
Time (min.)
- Bromochloromethane (8.448)
- 1,2-Dichloroethane-d4 (9.414)
- 1,4-Difluorobenzene (10.151)
- Toluene-d8 (12.846)
- Chlorobenzene-d5 (15.733)+
- Bromofluorobenzene (18.295)

Data File: /chem/v89instL.i/may04.b/v89a03483.d
Report Date: 13-May-1994 13:04

Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may04.b/v89a03483.d
Lab. Id. : vstd 10
Inj Date : 04-MAY-1994 12:36 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : vstd 10
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may04.b/vmeth390.m
Meth Date : 13-May-1994 13:04 user1
Cal Date : 04-MAY-94 10:58 Cal File: v89a03481.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	1 Chloromethane	50.00	3.457(0.409)	37808	10	10(M)
	2 Vinyl Chloride	62.00	3.530(0.417)	31286	9	9(a)
	3 Bromomethane	94.00	4.025(0.476)	17951	13	13(M)
	4 Chloroethane	64.00	4.170(0.493)	8842	12	12
	5 1,1-Dichloroethene	96.00	5.330(0.630)	37129	10	10
	6 Acetone	43.00	5.463(0.646)	95999	12	12
	7 Carbon Disulfide	76.00	5.693(0.673)	47942	9	9(a)
	8 Methylene Chloride	84.00	6.055(0.716)	66941	11	11
	9 1,2-Dichloroethene (total)	96.00	8.061(0.953)	48447	10	10
	10 1,1-Dichloroethane	63.00	7.131(0.843)	92935	9	9(a)
	11 2-Butanone	43.00	8.085(0.956)	107613	10	10
*	12 Bromochloromethane	128.00	8.460(1.000)	157815	50	
	13 Chloroform	83.00	8.569(1.013)	80208	9	9(a)
	14 1,1,1-Trichloroethane	97.00	8.907(0.876)	56313	9	9(a)
	15 Carbon Tetrachloride	117.00	9.209(0.906)	44477	9	9(a)
$	16 1,2-Dichloroethane-d4	65.00	9.414(1.113)	60301	11	11
	17 Benzene	78.00	9.535(0.938)	184158	10	10
	18 1,2-Dichloroethane	62.00	9.535(1.127)	57951	10	10
*	19 1,4-Difluorobenzene	114.00	10.163(1.000)	794770	50	
	20 Trichloroethene	130.00	10.647(1.048)	47026	9	9(a)
	21 1,2-Dichloropropane	63.00	11.033(1.086)	47858	9	9(a)
	22 Bromodichloromethane	83.00	11.492(1.131)	57240	9	9(a)
	23 cis-1,3-Dichloropropene	75.00	12.314(1.212)	67824	9	9(a)
	24 4-Methyl-2-Pentanone	43.00	12.592(0.800)	94787	9	9(a)
$	25 Toluene-d8	98.00	12.846(0.816)	148330	11	11
	26 Toluene	91.00	12.978(0.825)	179956	10	10
	27 trans-1,3-Dichloropropene	75.00	13.353(1.314)	60148	9	9(a)
	28 1,1,2-Trichloroethane	97.00	13.716(1.349)	39272	10	10
	29 Tetrachloroethene	164.00	14.066(0.894)	31449	9	9(a)
	30 2-Hexanone	43.00	14.223(0.904)	74739	8	8(a)
	31 Dibromochloromethane	129.00	14.525(1.429)	42026	10	10

Data File: /chem/v89instL.i/may04.b/v89a03483.d
Report Date: 13-May-1994 13:04

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
*	32 Chlorobenzene-d5	117.00	15.733(1.000)	561801	50	
	33 Chlorobenzene	112.00	15.793(1.004)	100122	10	10
	34 Ethylbenzene	106.00	16.023(1.018)	54965	9	9(a)
	35 Xylene (total)	106.00	16.277(1.035)	33129	4	4(a)
	36 Styrene	104.00	17.159(1.091)	106934	9	9(a)
	37 Bromoform	173.00	17.558(1.728)	30736	9	9(a)
$	38 Bromofluorobenzene	95.00	18.295(1.163)	60602	11	11
	39 1,1,2,2-Tetrachloroethane	83.00	18.609(1.183)	51504	9	9(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Area: 37808 Retention Time: 3.457

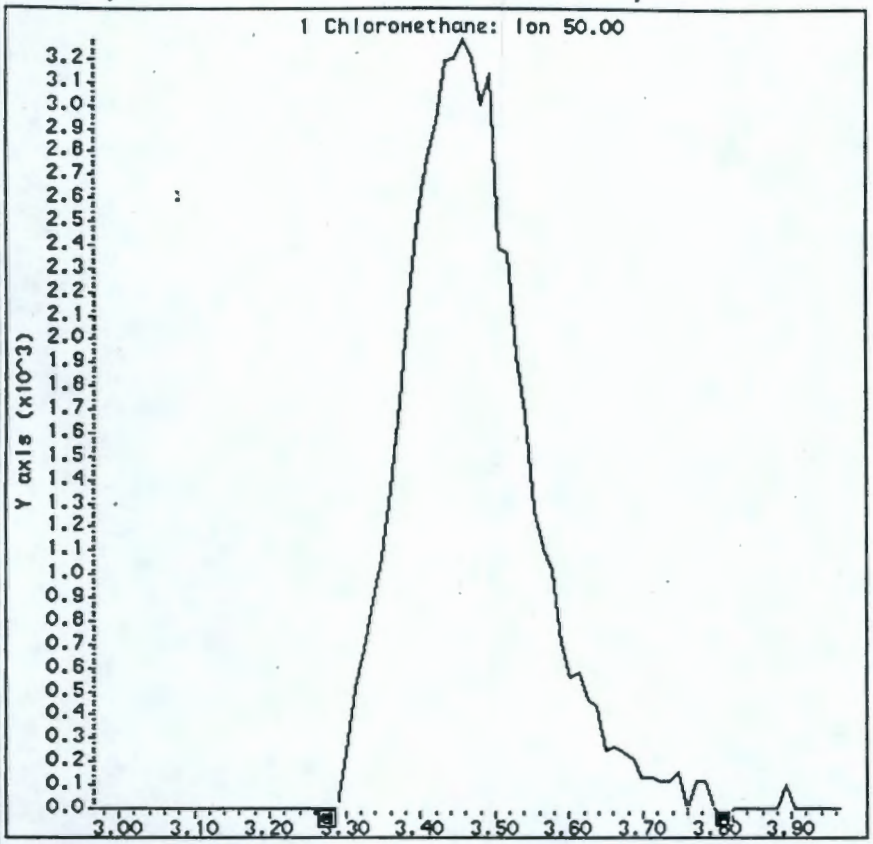
Ok

Cancel

Calculate

Zoom Out

Help



Area: 17951 Retention Time: 4.025

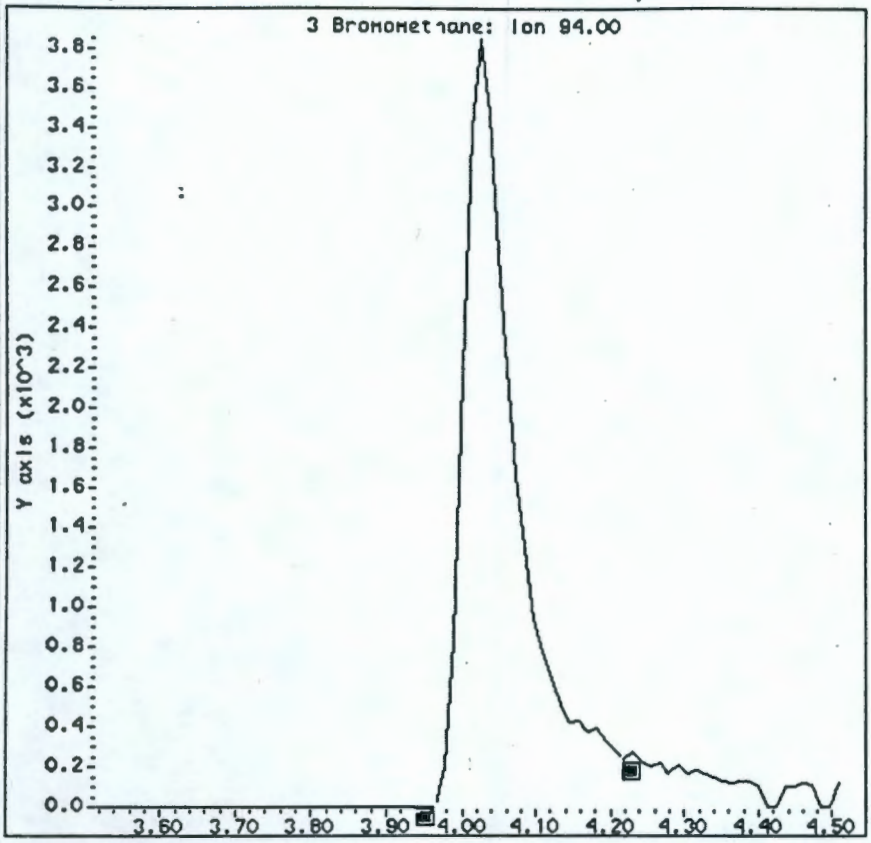
Ok

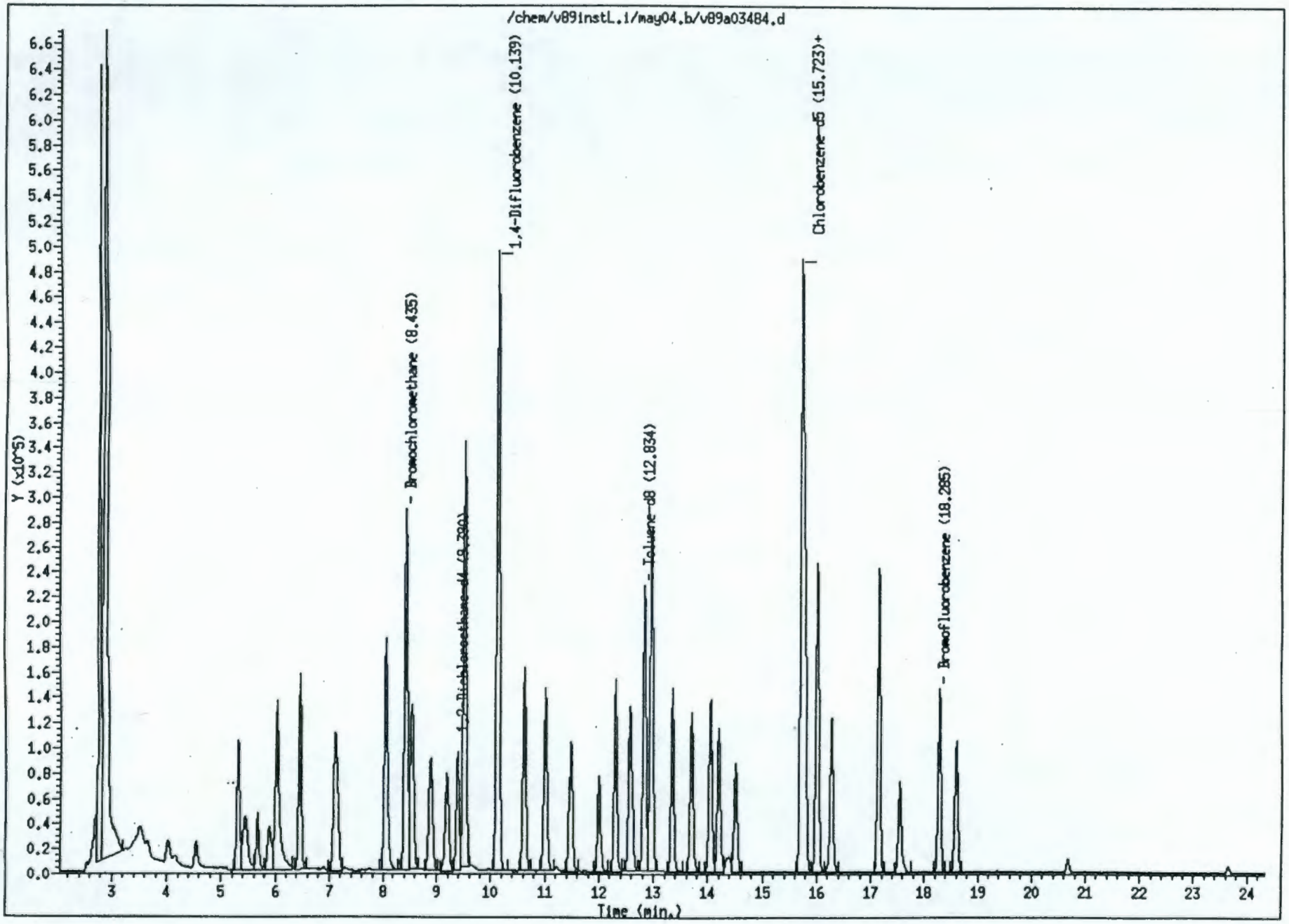
Cancel

Calculate

Zoom Out

Help





9513355.1927

Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may04.b/v89a03484.d
Lab. Id. : vstd 20
Inj Date : 04-MAY-1994 13:11 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : vstd 20
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may04.b/vmeth390.m
Meth Date : 13-May-1994 13:04 user1
Cal Date : 04-MAY-94 10:58 Cal File: v89a03481.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

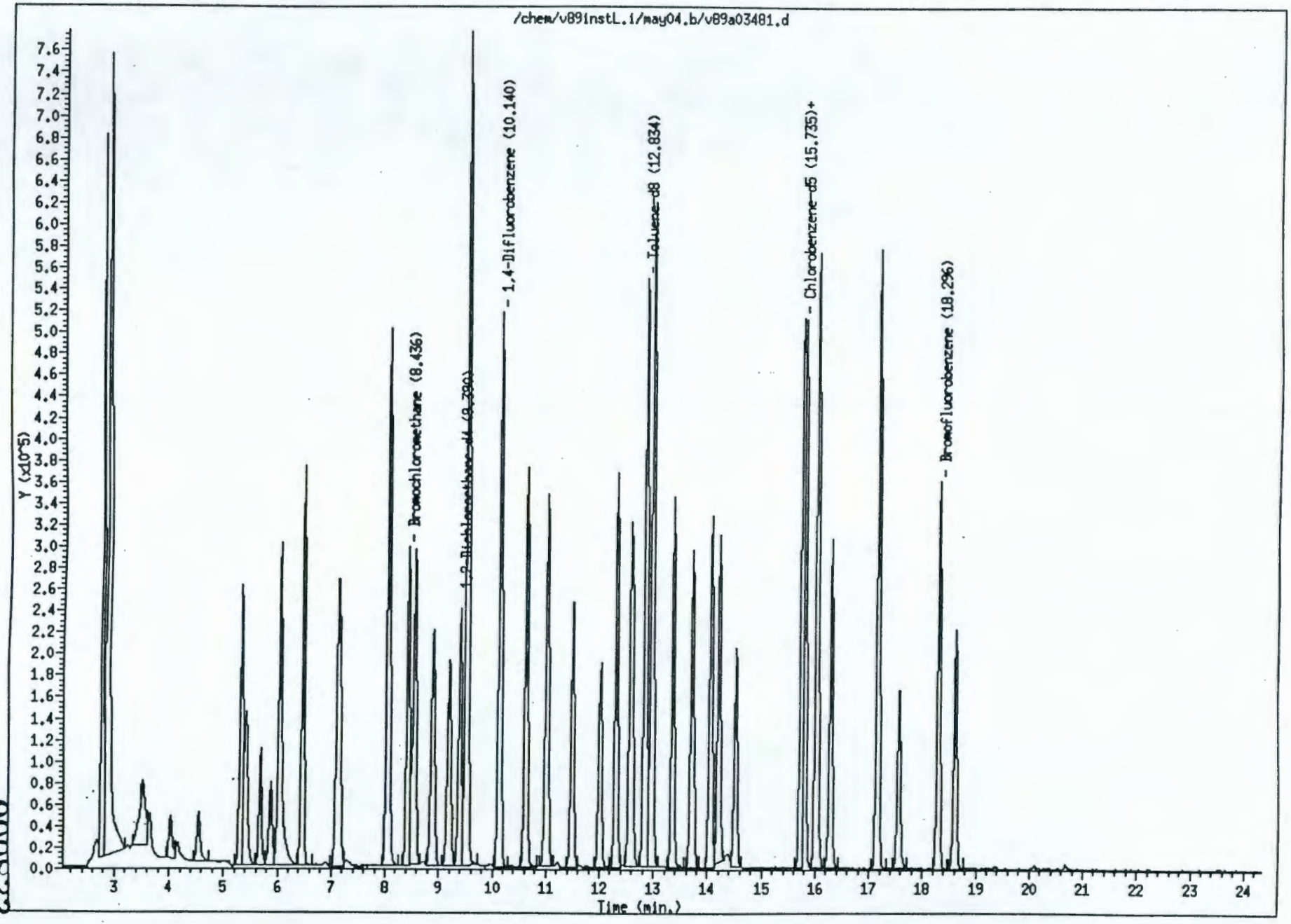
	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	1 Chloromethane	50.00	3.457(0.410)	80911	21	21
	2 Vinyl Chloride	62.00	3.517(0.417)	75000	20	20
	3 Bromomethane	94.00	4.013(0.476)	36258	24	24
	4 Chloroethane	64.00	4.146(0.491)	6368	8	8(a)
	5 1,1-Dichloroethene	96.00	5.306(0.629)	86452	21	21
	6 Acetone	43.00	5.438(0.645)	178074	21	21
	7 Carbon Disulfide	76.00	5.668(0.672)	117143	21	21
	8 Methylene Chloride	84.00	6.031(0.715)	137675	22	22
	9 1,2-Dichloroethene (total)	96.00	8.037(0.953)	120684	22	22
	10 1,1-Dichloroethane	63.00	7.106(0.842)	227553	22	22
	11 2-Butanone	43.00	8.061(0.956)	239319	21	21
*	12 Bromochloromethane	128.00	8.435(1.000)	167474	50	
	13 Chloroform	83.00	8.544(1.013)	195282	22	22
	14 1,1,1-Trichloroethane	97.00	8.894(0.877)	136898	21	21
	15 Carbon Tetrachloride	117.00	9.184(0.906)	108325	21	21
$	16 1,2-Dichloroethane-d4	65.00	9.390(1.113)	117866	20	20
	17 Benzene	78.00	9.523(0.939)	447961	23	23
	18 1,2-Dichloroethane	62.00	9.523(1.129)	138748	22	22
*	19 1,4-Difluorobenzene	114.00	10.139(1.000)	845031	50	
	20 Trichloroethene	130.00	10.623(1.048)	119171	22	22
	21 1,2-Dichloropropane	63.00	11.009(1.086)	120291	22	22
	22 Bromodichloromethane	83.00	11.481(1.132)	140412	22	22
	23 cis-1,3-Dichloropropene	75.00	12.302(1.213)	175994	21	21
	24 4-Methyl-2-Pentanone	43.00	12.581(0.800)	233605	21	21
$	25 Toluene-d8	98.00	12.834(0.816)	294814	20	20
	26 Toluene	91.00	12.967(0.825)	399681	22	22
	27 trans-1,3-Dichloropropene	75.00	13.342(1.316)	150219	21	21
	28 1,1,2-Trichloroethane	97.00	13.704(1.352)	93644	22	22
	29 Tetrachloroethene	164.00	14.055(0.894)	76611	22	22
	30 2-Hexanone	43.00	14.200(0.903)	194442	21	21
	31 Dibromochloromethane	129.00	14.514(1.431)	101439	22	22

Data File: /chem/v89instL.i/may04.b/v89a03484.d
Report Date: 13-May-1994 13:05

Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
* 32 Chlorobenzene-d5	117.00	15.723(1.000)	585605	50	
33 Chlorobenzene	112.00	15.783(1.004)	237742	22	22
34 Ethylbenzene	106.00	16.013(1.018)	136420	22	22
35 Xylene (total)	106.00	16.267(1.035)	84933	11	11
36 Styrene	104.00	17.149(1.091)	269071	22	22
37 Bromoform	173.00	17.547(1.731)	75166	22	22
$ 38 Bromofluorobenzene	95.00	18.285(1.163)	120043	20	20
39 1,1,2,2-Tetrachloroethane	83.00	18.599(1.183)	142651	23	23

QC Flag Legend

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



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9513355.1930

Data File: /chem/v89instL.i/may04.b/v89a03481.d
Report Date: 13-May-1994 13:09

Environmental Science and Engineering

Volatile Sample Report

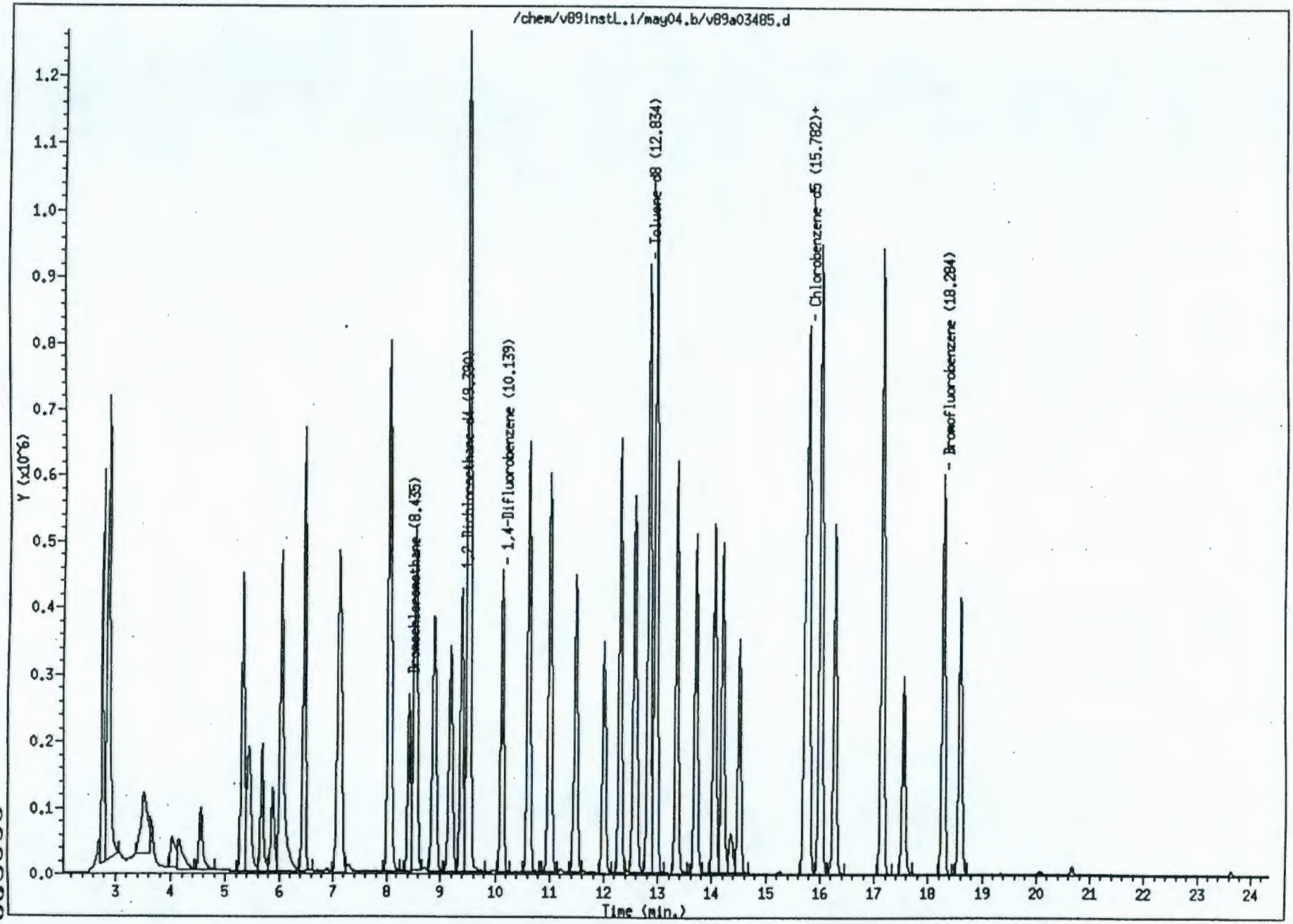
Data file : /chem/v89instL.i/may04.b/v89a03481.d
Lab. Id. : vstd 50
Inj Date : 04-MAY-1994 10:58 Autotune Date: 01-Apr-94 10:45:2
Operator : Shroads Inst ID: v89instL.i
Smp Info : vstd 50
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may04.b/vmeth390.m
Meth Date : 13-May-1994 13:05 user1
Cal Date : 04-MAY-94 10:58 Cal File: v89a03481.d
Als bottle: 1
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	1 Chloromethane	50.00	3.445(0.408)	189144	50	50
	2 Vinyl Chloride	62.00	3.505(0.416)	196237	50	50
	3 Bromomethane	94.00	4.013(0.476)	71525	50	50
	4 Chloroethane	64.00	4.158(0.493)	37735	50	50
	5 1,1-Dichloroethene	96.00	5.306(0.629)	216294	50	50
	6 Acetone	43.00	5.403(0.640)	418886	50	50
	7 Carbon Disulfide	76.00	5.668(0.672)	297141	50	50
	8 Methylene Chloride	84.00	6.031(0.715)	311641	50	50
	9 1,2-Dichloroethene (total)	96.00	8.037(0.953)	285800	50	50
	10 1,1-Dichloroethane	63.00	7.106(0.842)	550056	50	50
	11 2-Butanone	43.00	8.049(0.954)	580962	50	50
*	12 Bromochloromethane	128.00	8.436(1.000)	167961	50	
	13 Chloroform	83.00	8.545(1.013)	465206	50	50
	14 1,1,1-Trichloroethane	97.00	8.895(0.877)	338766	50	50
	15 Carbon Tetrachloride	117.00	9.185(0.906)	275198	50	50
$	16 1,2-Dichloroethane-d4	65.00	9.390(1.113)	301382	50	50
	17 Benzene	78.00	9.523(0.939)	1062880	50	50
	18 1,2-Dichloroethane	62.00	9.523(1.129)	318812	50	50
*	19 1,4-Difluorobenzene	114.00	10.140(1.000)	861088	50	
	20 Trichloroethene	130.00	10.623(1.048)	286086	50	50
	21 1,2-Dichloropropane	63.00	11.010(1.086)	292899	50	50
	22 Bromodichloromethane	83.00	11.481(1.132)	341438	50	50
	23 cis-1,3-Dichloropropene	75.00	12.315(1.214)	441560	50	50
	24 4-Methyl-2-Pentanone	43.00	12.581(0.800)	574095	50	50
$	25 Toluene-d8	98.00	12.834(0.816)	741817	50	50
	26 Toluene	91.00	12.968(0.824)	897790	50	50
	27 trans-1,3-Dichloropropene	75.00	13.354(1.317)	375107	50	50
	28 1,1,2-Trichloroethane	97.00	13.717(1.353)	220051	50	50
	29 Tetrachloroethene	164.00	14.055(0.893)	184881	50	50
	30 2-Hexanone	43.00	14.212(0.903)	533801	50	50
	31 Dibromochloromethane	129.00	14.514(1.431)	242230	50	50

Data File: /chem/v89instL.i/may04.b/v89a03481.d
Report Date: 13-May-1994 13:09

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
*	32 Chlorobenzene-d5	117.00	15.735(1.000)	588406	50	
	33 Chlorobenzene	112.00	15.795(1.004)	561494	50	50
	34 Ethylbenzene	106.00	16.025(1.018)	324200	50	50
	35 Xylene (total)	106.00	16.279(1.035)	210522	25	25
	36 Styrene	104.00	17.160(1.091)	652654	50	50
	37 Bromoform	173.00	17.559(1.732)	179899	50	50
$	38 Bromofluorobenzene	95.00	18.296(1.163)	307374	50	50
	39 1,1,2,2-Tetrachloroethane	83.00	18.610(1.183)	306159	50	50

Data File: /chem/v89instL.i/may04.b/v89a03485.d



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Data File: /chem/v89instL.i/may04.b/v89a03485.d
Report Date: 13-May-1994 13:05

Environmental Science and Engineering

Volatile Sample Report

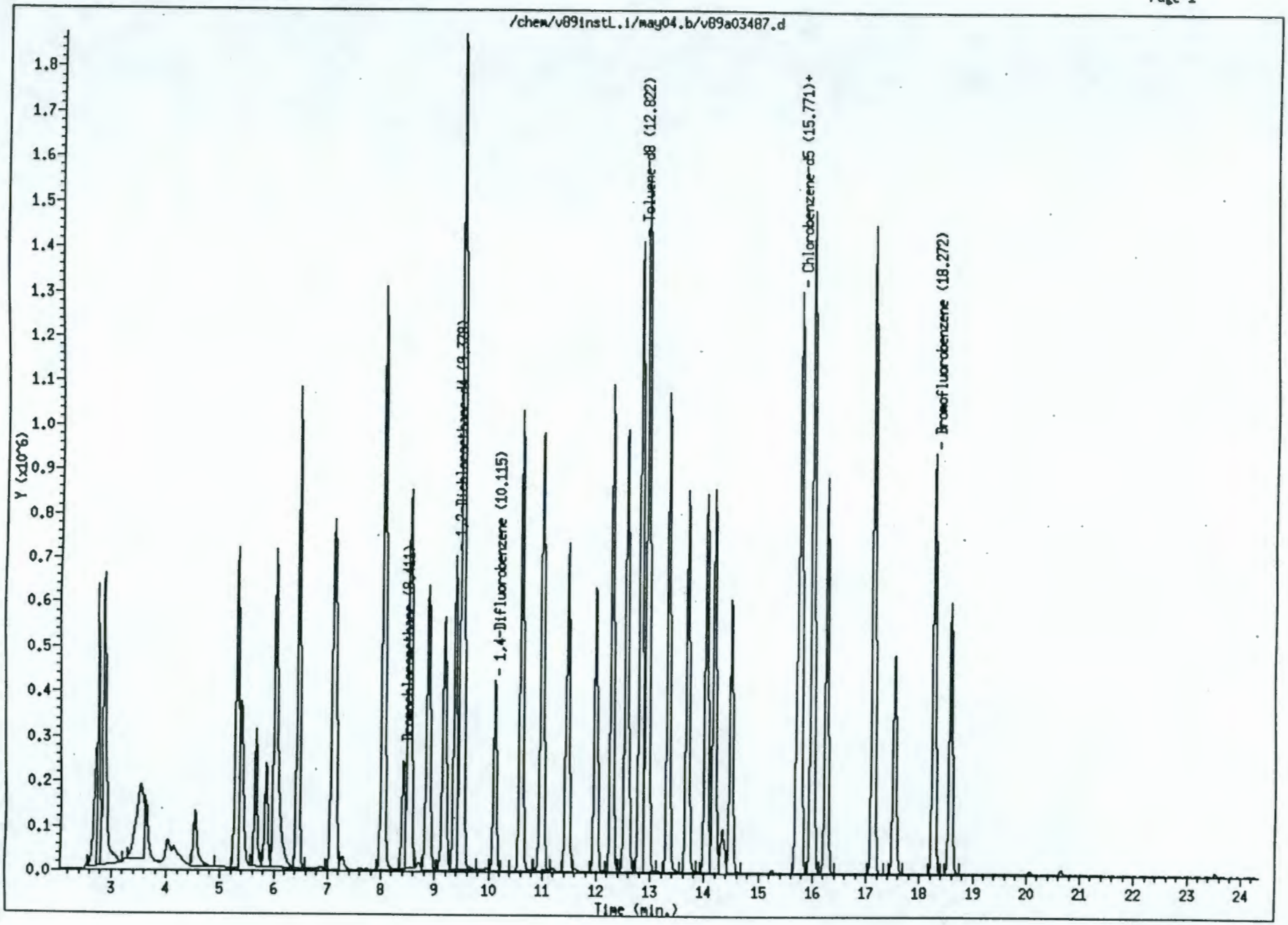
Data file : /chem/v89instL.i/may04.b/v89a03485.d
Lab. Id. : vstd 100
Inj Date : 04-MAY-1994 13:45 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : vstd 100
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may04.b/vmeth390.m
Meth Date : 13-May-1994 13:05 user1
Cal Date : 04-MAY-94 10:58 Cal File: v89a03481.d
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	1 Chloromethane	50.00	3.469(0.411)	344264	97	97
	2 Vinyl Chloride	62.00	3.517(0.417)	359911	100	100
	3 Bromomethane	94.00	4.013(0.476)	128211	92	92
	4 Chloroethane	64.00	4.158(0.493)	123431	160	160
	5 1,1-Dichloroethene	96.00	5.306(0.629)	394354	100	100
	6 Acetone	43.00	5.427(0.643)	705377	90	90
	7 Carbon Disulfide	76.00	5.668(0.672)	542026	100	100
	8 Methylene Chloride	84.00	6.031(0.715)	541180	93	93
	9 1,2-Dichloroethene (total)	96.00	8.037(0.953)	506130	100	100
	10 1,1-Dichloroethane	63.00	7.106(0.842)	1005115	100	100
	11 2-Butanone	43.00	8.061(0.956)	1036758	99	99
*	12 Bromochloromethane	128.00	8.435(1.000)	156165	50	
	13 Chloroform	83.00	8.544(1.013)	841586	100	100
	14 1,1,1-Trichloroethane	97.00	8.894(0.877)	607942	100	100
	15 Carbon Tetrachloride	117.00	9.184(0.906)	493420	100	100
$	16 1,2-Dichloroethane-d4	65.00	9.390(1.113)	552450	99	99
	17 Benzene	78.00	9.511(0.938)	1830575	100	100
	18 1,2-Dichloroethane	62.00	9.511(1.127)	547754	96	96
*	19 1,4-Difluorobenzene	114.00	10.139(1.000)	779673	50	
	20 Trichloroethene	130.00	10.623(1.048)	506950	100	100
	21 1,2-Dichloropropane	63.00	11.009(1.086)	522631	100	100
	22 Bromodichloromethane	83.00	11.480(1.132)	611570	100	100
	23 cis-1,3-Dichloropropene	75.00	12.302(1.213)	794561	100	100
	24 4-Methyl-2-Pentanone	43.00	12.568(0.799)	1061477	100	100
$	25 Toluene-d8	98.00	12.834(0.816)	1282761	100	100
	26 Toluene	91.00	12.967(0.825)	1554668	97	97
	27 trans-1,3-Dichloropropene	75.00	13.341(1.316)	673949	100	100
	28 1,1,2-Trichloroethane	97.00	13.704(1.352)	386872	99	99
	29 Tetrachloroethene	164.00	14.042(0.893)	314225	100	100
	30 2-Hexanone	43.00	14.199(0.903)	864222	100	100
	31 Dibromochloromethane	129.00	14.514(1.431)	428223	99	99

Data File: /chem/v89instL.i/may04.b/v89a03485.d
Report Date: 13-May-1994 13:05

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
*	32 Chlorobenzene-d5	117.00	15.722(1.000)	526340	50	
	33 Chlorobenzene	112.00	15.782(1.004)	961329	99	99
	34 Ethylbenzene	106.00	16.012(1.018)	547683	100	100
	35 Xylene (total)	106.00	16.266(1.035)	368147	52	52
	36 Styrene	104.00	17.148(1.091)	1122290	100	100
	37 Bromoform	173.00	17.547(1.731)	327993	100	100
$	38 Bromofluorobenzene	95.00	18.284(1.163)	536554	100	100
	39 1,1,2,2-Tetrachloroethane	83.00	18.586(1.182)	604468	110	110

Data File: /chem/v89instL.i/may04.b/v89a03487.d



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Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may04.b/v89a03487.d
Lab. Id. : vstd 200
Inj Date : 04-MAY-1994 14:58 — Autotune Date: 01-Apr-94 10:45:2
Operator : Shroads — Inst ID: v89instL.i
Smp Info : vstd 200
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may04.b/vmeth390.m
Meth Date : 04-May-1994 15:33 user1
Cal Date : 04-MAY-94 10:58 — Cal File: v89a03481.d
Als bottle: 1 — Calibration Sample, Level: 5
Dil Factor: 1.000 — Target Version: Target 2.20
Integrator: HP RTE — Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	1 Chloromethane	50.00	3.469(0.412)	602550	190	190
	2 Vinyl Chloride	62.00	3.542(0.420)	630497	200	200(A)
	3 Bromomethane	94.00	4.013(0.476)	157606	120	120
	4 Chloroethane	64.00	4.146(0.492)	123489	180	180
	5 1,1-Dichloroethene	96.00	5.294(0.628)	658751	190	190
	6 Acetone	43.00	5.378(0.638)	1169827	160	160
	7 Carbon Disulfide	76.00	5.656(0.671)	927844	190	190
	8 Methylene Chloride	84.00	6.019(0.715)	897829	170	170
	9 1,2-Dichloroethene (total)	96.00	8.013(0.951)	803336	170	170
	10 1,1-Dichloroethane	63.00	7.094(0.842)	1679664	190	190
	11 2-Butanone	43.00	8.037(0.954)	1697832	180	180
*	12 Bromochloromethane	128.00	8.423(1.000)	142253	50	
	13 Chloroform	83.00	8.532(1.013)	1430523	190	190
	14 1,1,1-Trichloroethane	97.00	8.870(0.877)	1047303	190	190
	15 Carbon Tetrachloride	117.00	9.173(0.907)	839496	190	190
$	16 1,2-Dichloroethane-d4	65.00	9.378(1.113)	964290	190	190
	17 Benzene	78.00	9.499(0.939)	2803611	160	160
	18 1,2-Dichloroethane	62.00	9.511(1.129)	918197	180	180
*	19 1,4-Difluorobenzene	114.00	10.115(1.000)	722056	50	
	20 Trichloroethene	130.00	10.610(1.049)	850367	180	180
	21 1,2-Dichloropropane	63.00	10.997(1.087)	868983	180	180
	22 Bromodichloromethane	83.00	11.469(1.134)	1049251	190	190
	23 cis-1,3-Dichloropropene	75.00	12.290(1.215)	1363282	190	190
	24 4-Methyl-2-Pentanone	43.00	12.568(0.800)	1936914	210	210(A)
$	25 Toluene-d8	98.00	12.822(0.816)	2063141	170	170
	26 Toluene	91.00	12.955(0.825)	2502462	170	170
	27 trans-1,3-Dichloropropene	75.00	13.329(1.318)	1196062	200	200
	28 1,1,2-Trichloroethane	97.00	13.692(1.354)	661565	180	180
	29 Tetrachloroethene	164.00	14.042(0.894)	515387	180	180
	30 2-Hexanone	43.00	14.187(0.903)	1542749	200	200
	31 Dibromochloromethane	129.00	14.490(1.432)	757577	190	190

Data File: /chem/v89instL.i/may04.b/v89a03487.d
Report Date: 04-May-1994 15:33

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
*	32 Chlorobenzene-d5	117.00	15.710(1.000)	486631	50	
	33 Chlorobenzene	112.00	15.771(1.004)	1614827	180	180
	34 Ethylbenzene	106.00	16.000(1.018)	886018	180	180
	35 Xylene (total)	106.00	16.254(1.035)	628726	96	96
	36 Styrene	104.00	17.136(1.091)	1802762	180	180
	37 Bromoform	173.00	17,535(1.734)	556670	190	190
$	38 Bromofluorobenzene	95.00	18.272(1.163)	876293	180	180
	39 1,1,2,2-Tetrachloroethane	83.00	18.574(1.182)	880614	170	170

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48855

Instrument ID: V89INSTL Calibration Date: 05/05/94 Time: 0939

Lab File ID: V89A03493.D Init. Calibration Date(s): 04/20/94 05/04/94

Heated Purge: (Y/N) Y Init. Calibration Times: 1137 1458

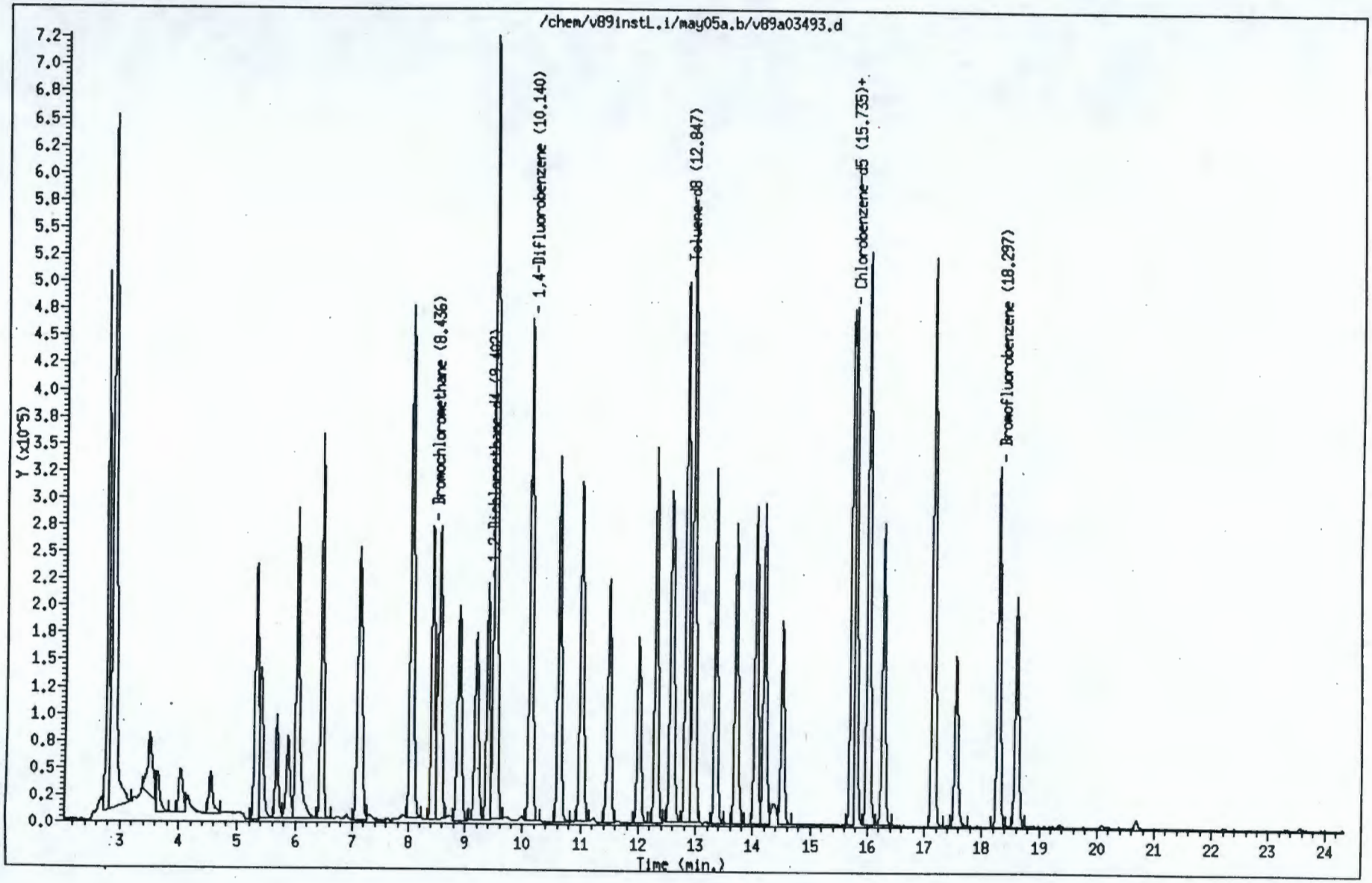
GC Column:75m DB-624 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Chloromethane	1.139	1.147		-0.7	
Bromomethane	0.445	0.485	0.100	-9.0	25.0
Vinyl Chloride	1.108	1.155	0.100	-4.2	25.0
Chloroethane	0.242	0.202		16.6	
Methylene Chloride	1.868	1.892		-1.3	
Acetone	2.502	2.610		-4.3	
Carbon Disulfide	1.681	1.725		-2.7	
1,1-Dichloroethene	1.235	1.276	0.100	-3.3	25.0
1,1-Dichloroethane	3.157	3.291	0.200	-4.2	25.0
1,2-Dichloroethene (total)	1.614	1.696		-5.1	
Chloroform	2.687	2.763	0.200	-2.8	25.0
1,2-Dichloroethane	1.835	1.928		-5.1	
2-Butanone	3.349	3.660		-9.3	
1,1,1-Trichloroethane	0.381	0.396	0.100	-3.9	25.0
Carbon Tetrachloride	0.305	0.313	0.100	-2.5	25.0
Bromodichloromethane	0.386	0.397		-2.9	
1,2-Dichloropropane	0.327	0.344		-5.2	
cis-1,3-Dichloropropene	0.488	0.530	0.200	-8.4	25.0
Trichloroethene	0.320	0.331	0.300	-3.4	25.0
Dibromochloromethane	0.277	0.284	0.100	-2.6	25.0
1,1,2-Trichloroethane	0.251	0.264	0.100	-5.2	25.0
Benzene	1.173	1.262	0.500	-7.6	25.0
trans-1,3-Dichloropropene	0.421	0.446	0.100	-6.1	25.0
Bromoform	0.206	0.216	0.100	-5.1	25.0
4-Methyl-2-Pentanone	0.964	1.026		-6.5	
2-Hexanone	0.803	0.951		-18.4	
Tetrachloroethene	0.297	0.312	0.200	-5.2	25.0
1,1,2,2-Tetrachloroethane	0.523	0.580	0.500	-10.9	25.0
Toluene	1.519	1.557	0.400	-2.5	25.0
Chlorobenzene	0.921	0.945	0.500	-2.7	25.0
Ethylbenzene	0.520	0.555	0.100	-6.9	25.0
Styrene	1.040	1.116	0.300	-7.2	25.0
Xylene (total)	0.675	0.716	0.300	-6.0	25.0
1,2-Dichloroethane-d4	1.786	1.804	0.100	-1.1	20.5
Toluene-d8	1.224	1.256		-2.6	
Bromofluorobenzene	0.507	0.534	0.200	-5.4	25.0

All other compounds must meet a minimum RRF of 0.010.

Data File: /chem/v89instL.i/may05a.b/v89a03493.d
Date : 05-MAY-1994 09:39
Instrument : v89instL.i
Sample ID : vstd 50
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53



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Data File: /chem/v89instL.i/may05a.b/v89a03493.d
Report Date: 06-May-1994 11:01

Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may05a.b/v89a03493.d
Lab. Id. : vstd 50
Inj Date : 05-MAY-1994 09:39 Autotune Date: 01-Apr-94 10:45:2
Operator : Shroads Inst ID: v89instL.i
Smp Info : vstd 50
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may05a.b/vmeth390.m
Meth Date : 05-May-1994 15:46 user1
Cal Date : 05-MAY-94 09:39 Cal File: v89a03493.d
Als bottle: 1
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	1 Chloromethane	50.00	3.457(0.409)	177534	50	50
	2 Vinyl Chloride	62.00	3.505(0.415)	178690	50	50
	3 Bromomethane	94.00	4.025(0.476)	75048	50	50
	4 Chloroethane	64.00	4.158(0.492)	31285	50	50
	5 1,1-Dichloroethene	96.00	5.318(0.629)	197427	50	50
	6 Acetone	43.00	5.403(0.640)	404013	50	50
	7 Carbon Disulfide	76.00	5.668(0.671)	267037	50	50
	8 Methylene Chloride	84.00	6.043(0.715)	292873	50	50
	9 1,2-Dichloroethene (total)	96.00	8.049(0.953)	262477	50	50
	10 1,1-Dichloroethane	63.00	7.119(0.843)	509377	50	50
	11 2-Butanone	43.00	8.049(0.953)	566449	50	50
*	12 Bromochloromethane	128.00	8.448(1.000)	154770	50	
	13 Chloroform	83.00	8.556(1.013)	427692	50	50
	14 1,1,1-Trichloroethane	97.00	8.907(0.878)	309424	50	50
	15 Carbon Tetrachloride	117.00	9.197(0.907)	244825	50	50
$	16 1,2-Dichloroethane-d4	65.00	9.402(1.113)	279257	50	50
	17 Benzene	78.00	9.523(0.939)	986782	50	50
	18 1,2-Dichloroethane	62.00	9.523(1.127)	298322	50	50
*	19 1,4-Difluorobenzene	114.00	10.140(1.000)	781845	50	
	20 Trichloroethene	130.00	10.635(1.049)	258603	50	50
	21 1,2-Dichloropropane	63.00	11.010(1.086)	268717	50	50
	22 Bromodichloromethane	83.00	11.493(1.133)	310082	50	50
	23 cis-1,3-Dichloropropene	75.00	12.315(1.215)	414047	50	50
	24 4-Methyl-2-Pentanone	43.00	12.581(0.800)	551959	50	50
$	25 Toluene-d8	98.00	12.847(0.816)	675358	50	50
	26 Toluene	91.00	12.968(0.824)	837484	50	50
	27 trans-1,3-Dichloropropene	75.00	13.354(1.317)	349050	50	50
	28 1,1,2-Trichloroethane	97.00	13.717(1.353)	206722	50	50
	29 Tetrachloroethene	164.00	14.055(0.893)	167948	50	50
	30 2-Hexanone	43.00	14.212(0.903)	511176	50	50
	31 Dibromochloromethane	129.00	14.514(1.431)	221755	50	50

Data File: /chem/v89instL.i/may05a.b/v89a03493.d
Report Date: 06-May-1994 11:01

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
*	32 Chlorobenzene-d5	117.00	15.735(1.000)	537743	50	
	33 Chlorobenzene	112.00	15.796(1.004)	508374	50	50
	34 Ethylbenzene	106.00	16.025(1.018)	298707	50	50
	35 Xylene (total)	106.00	16.279(1.035)	192432	25	25
	36 Styrene	104.00	17.161(1.091)	599998	50	50
	37 Bromoform	173.00	17.548(1.731)	168981	50	50
$	38 Bromofluorobenzene	95.00	18.297(1.163)	287353	50	50
	39 1,1,2,2-Tetrachloroethane	83.00	18.599(1.182)	311911	50	50

9513355.1943

RAW QC DATA

9513355.1941

Data File: /chem/v89instL.i/may04.b/v89a03480.d

Date : 04-MAY-94 09:44

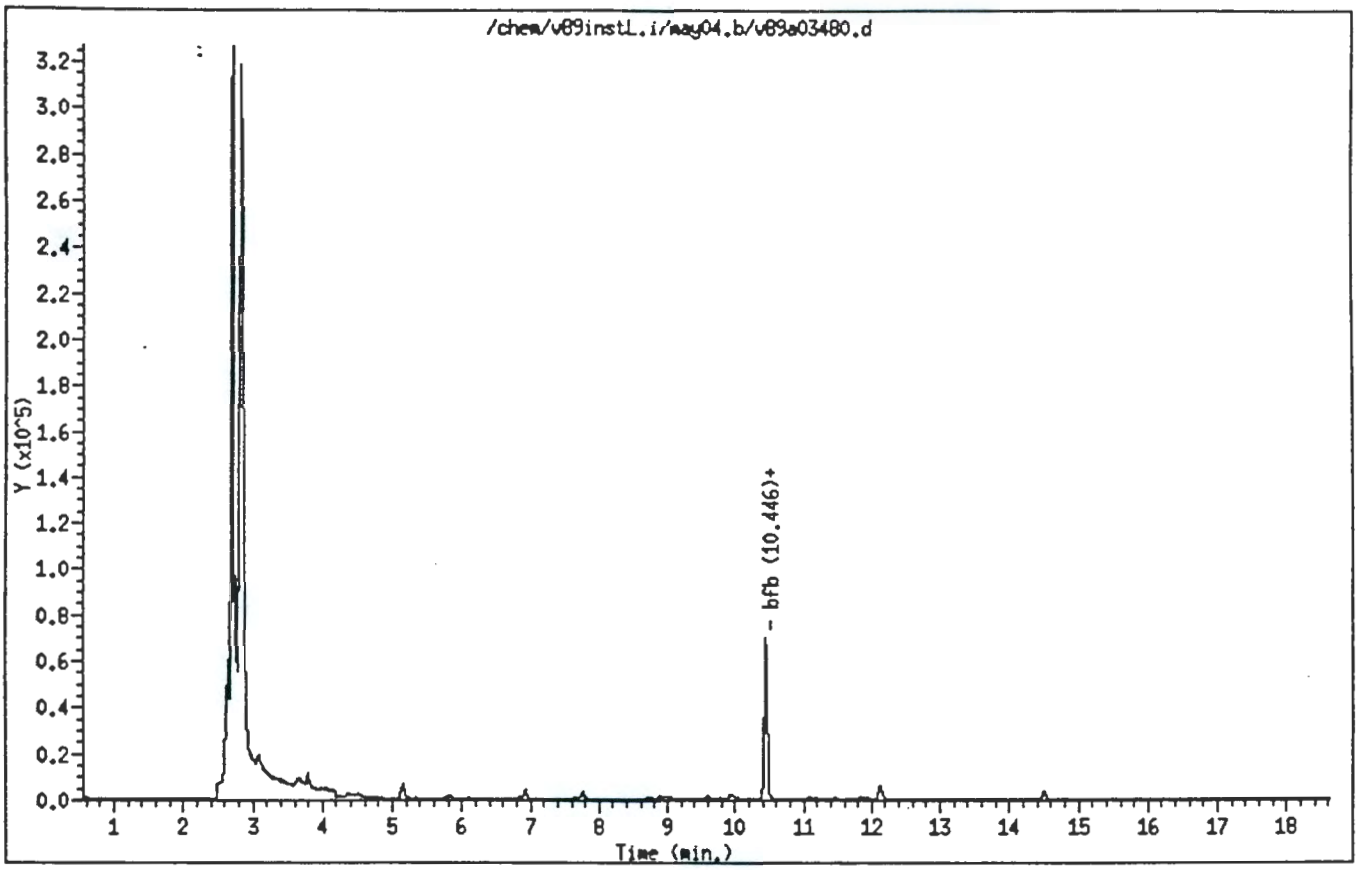
Instrument : v89instL.i

Sample ID : bfb 50 ng purge

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 1.0



Data File: /chem/v89instL.i/may04.b/v89a03480.d

Date : 04-MAY-94 09:44

Instrument : v89instL.i

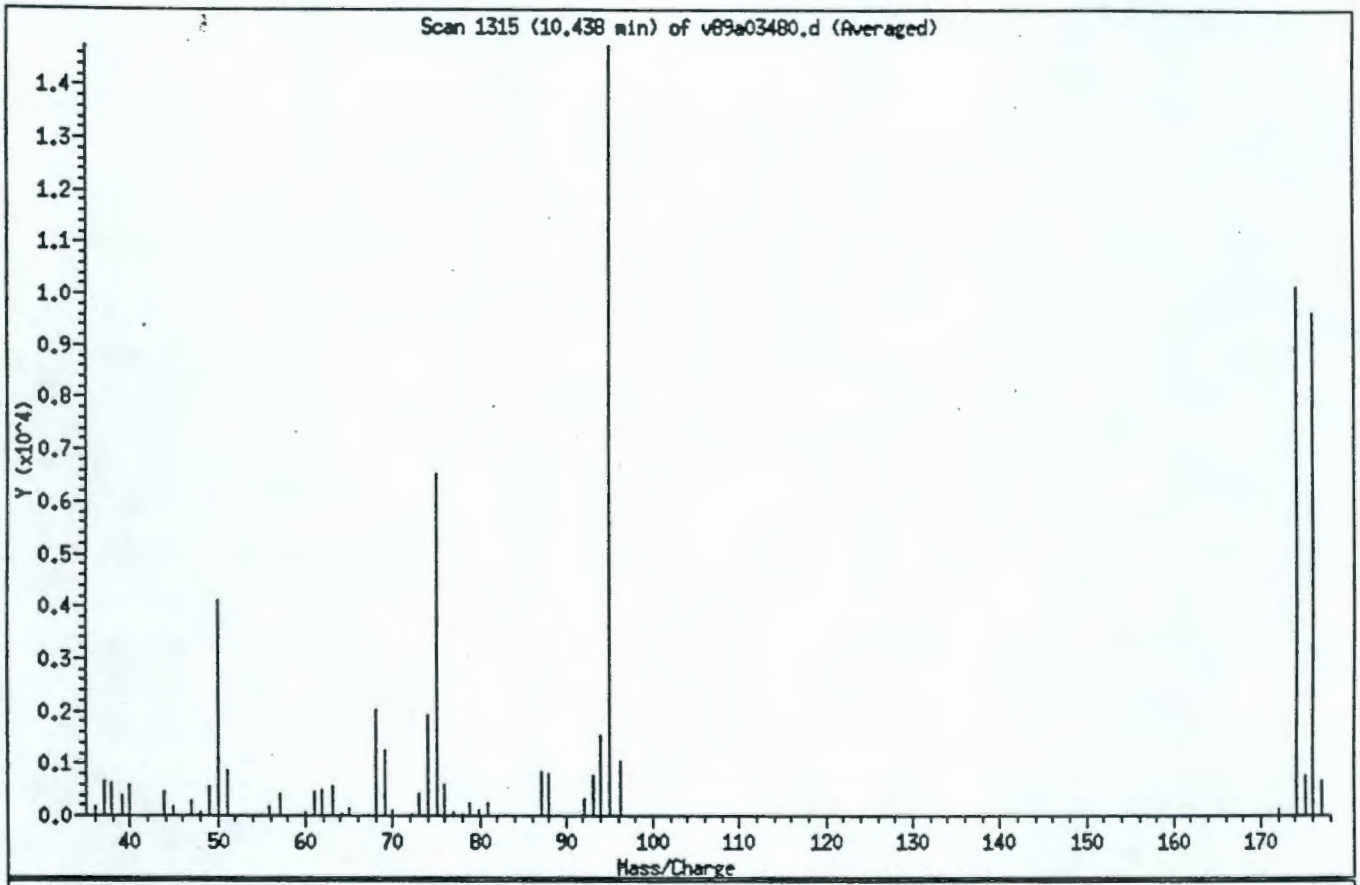
Sample ID : bfb 50 ng purge

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 1.0

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.0
50	8.00 - 40.00% of mass 95	27.9
75	30.00 - 66.00% of mass 95	44.3
96	5.00 - 9.00% of mass 95	7.0
173	Less than 2.00% of mass 174	0.0
174	50.00 - 120.00% of mass 95	68.7
175	4.00 - 9.00% of mass 174	7.6
176	93.00 - 101.00% of mass 174	95.0
177	5.00 - 9.00% of mass 176	7.0

Data File: /chem/v89instL.i/may04.b/v89a03480.d

Date : 04-MAY-94 09:44

Instrument : v89instL.i

Sample ID : bfb 50 ng purge

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 1.0

Spectrum: Scan 1315-1317 (10.438 min) Subtraction Scan 1307

Base Peak: 95.00

Number of mass peaks: 44

Mass	Abund	Mass	Abund	Mass	Abund	Mass	Abund
36.00	161	57.00	407	74.00	1920	94.00	1518
37.00	653	60.00	82	75.00	6532	95.00	14745
38.00	621	61.00	465	76.00	577	96.00	1030
39.00	382	62.00	498	77.00	75	172.00	130
44.00	73	63.00	551	78.00	36	174.00	10132
45.00	176	64.00	39	79.00	233	175.00	770
47.00	281	65.00	151	80.00	113	176.00	9622
48.00	80	68.00	2019	81.00	259	177.00	674
49.00	568	69.00	1242	87.00	821		
50.00	4110	70.00	108	88.00	790		
51.00	878	72.00	38	92.00	313		
56.00	174	73.00	419	93.00	766		

Data File: /chem/v89instL.i/may05a.b/v89a03492.d

Date : 05-MAY-94 09:02

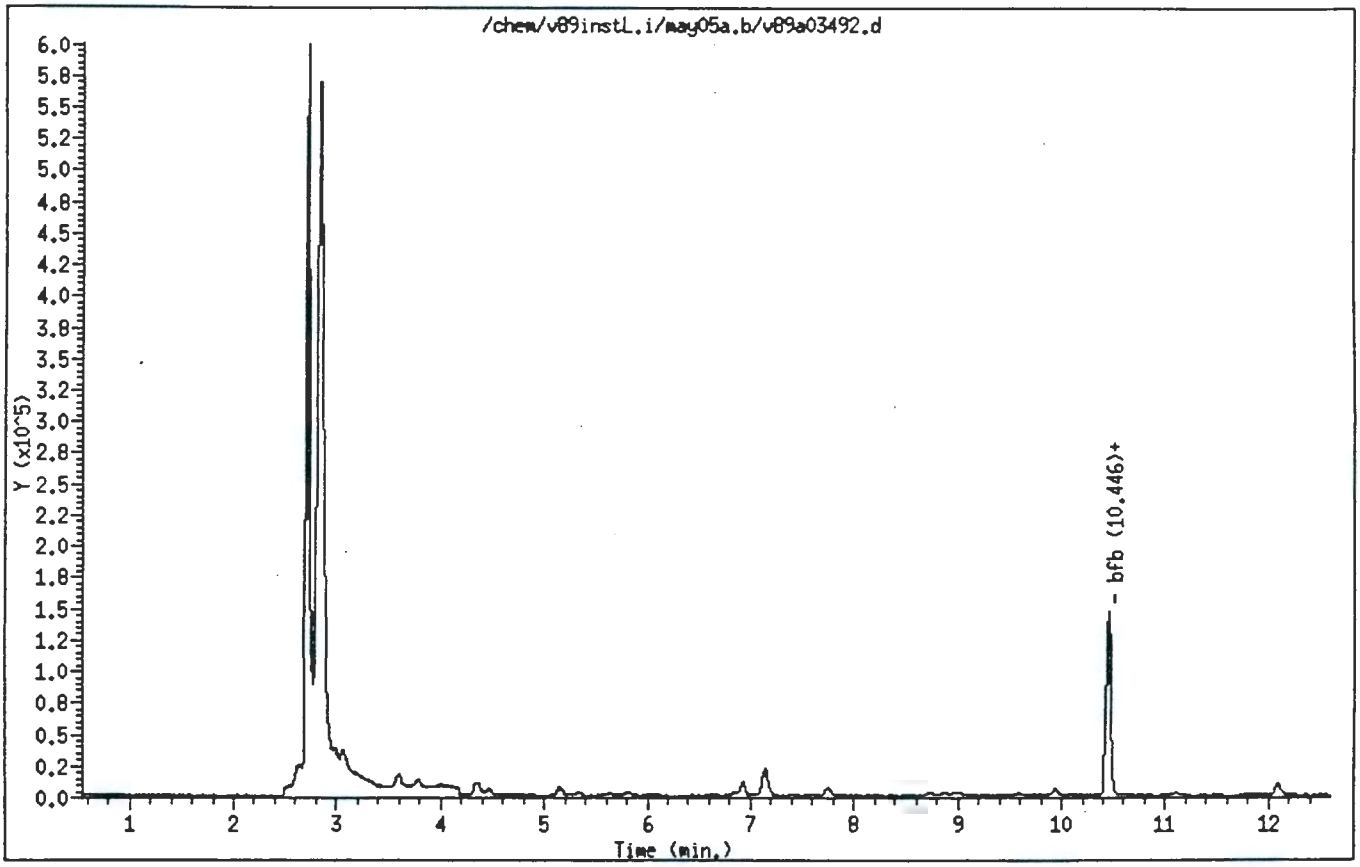
Instrument : v89instL.i

Sample ID : bfb 50 ng purge

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 1.0



Data File: /chem/v89instL.i/may05a.b/v89a03492.d

Date : 05-MAY-94 09:02

Instrument : v89instL.i

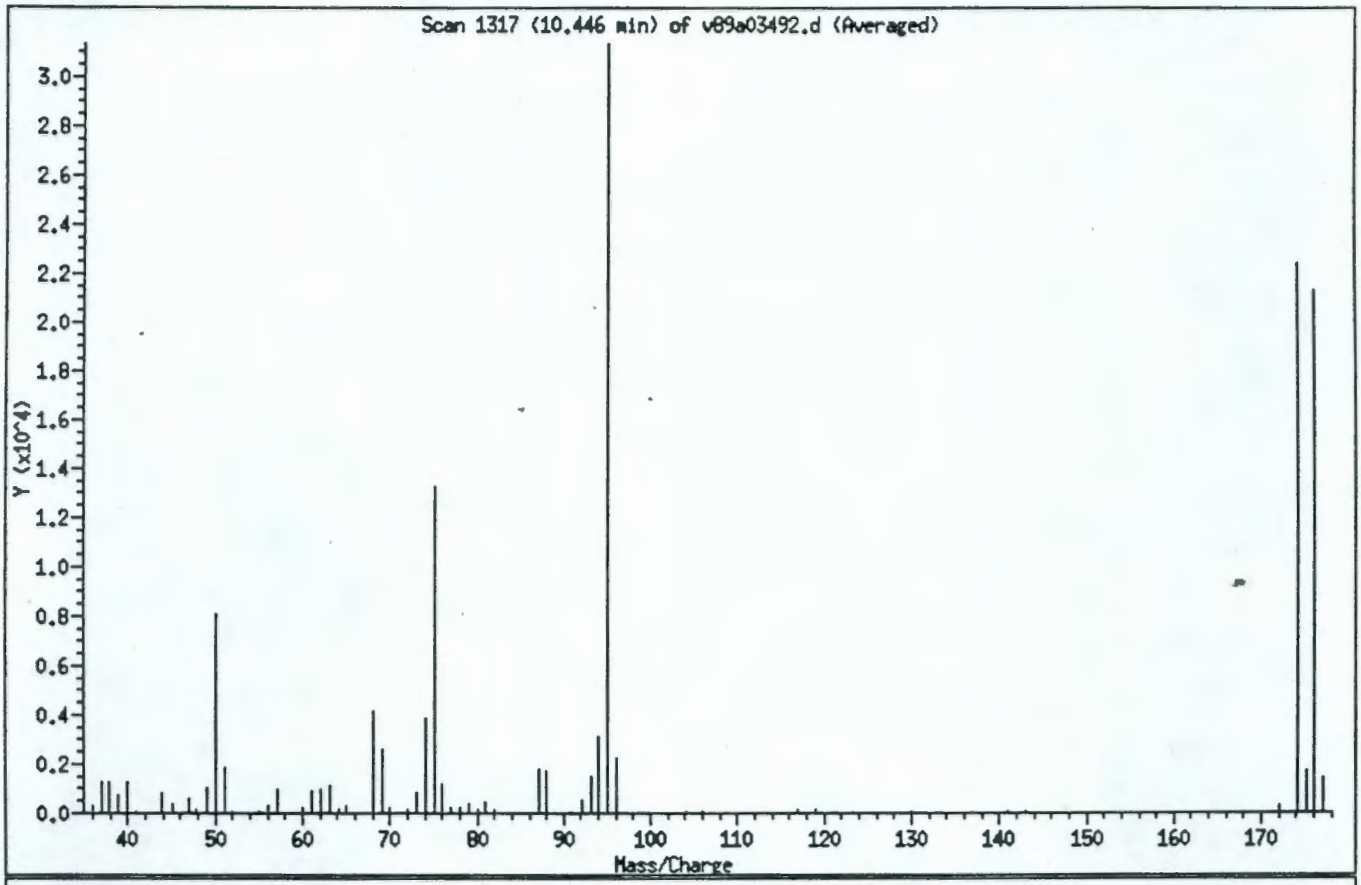
Sample ID : bfb 50 ng purge

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 1.0

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.0
50	8.00 - 40.00% of mass 95	25.7
75	30.00 - 66.00% of mass 95	42.3
96	5.00 - 9.00% of mass 95	7.1
173	Less than 2.00% of mass 174	0.0
174	50.00 - 120.00% of mass 95	71.5
175	4.00 - 9.00% of mass 174	7.4
176	93.00 - 101.00% of mass 174	95.1
177	5.00 - 9.00% of mass 176	6.6

Data File: /chem/v89instL.i/may05a.b/v89a03492.d

Date : 05-MAY-94 09:02

Instrument : v89instL.i

Sample ID : bfb 50 ng purge

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 1.0

Spectrum: Scan 1317-1319 (10.446 min) Subtraction Scan 1307

Base Peak: 95.00

Number of mass peaks: 61

Mass	Abund	Mass	Abund	Mass	Abund	Mass	Abund
36.00	332	60.00	204	78.00	210	106.00	38
37.00	1245	61.00	878	79.00	404	117.00	152
38.00	1238	62.00	966	80.00	160	118.00	33
39.00	774	63.00	1129	81.00	437	119.00	121
44.00	60	64.00	124	82.00	142	128.00	33
45.00	355	65.00	278	86.00	37	130.00	42
46.00	34	67.00	36	87.00	1770	141.00	107
47.00	584	68.00	4135	88.00	1669	143.00	75
48.00	179	69.00	2617	91.00	34	172.00	272
49.00	1020	70.00	240	92.00	525	174.00	22394
50.00	8039	72.00	140	93.00	1513	175.00	1667
51.00	1886	73.00	793	94.00	3082	176.00	21288
52.00	81	74.00	3863	95.00	31333	177.00	1408
55.00	93	75.00	13243	96.00	2215		
56.00	298	76.00	1162	97.00	34		
57.00	935	77.00	228	104.00	39		

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

vblks1

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48855

Matrix: (soil/water) SOIL Lab Sample ID: vblks1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03497.D

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

% Moisture: not dec. 0 Data Analyzed: 05/05/94

GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(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	6	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

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48855

Matrix: (soil/water) SOIL Lab Sample ID: vblks1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03497.D

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

% Moisture: not dec. 3.8 Data Analyzed: 05/05/94

GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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.				
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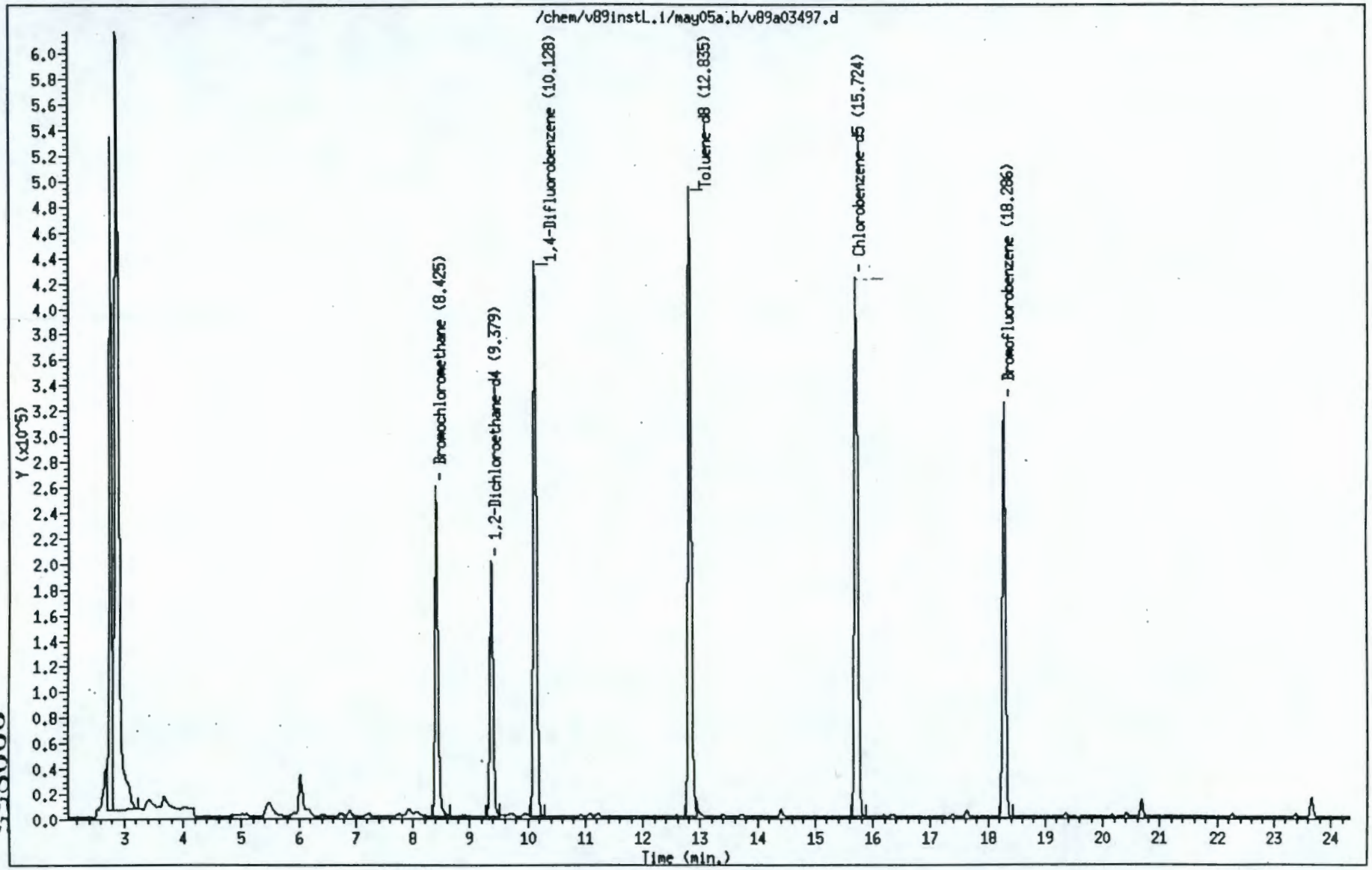
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Data File: /chem/v89instL.i/may05a.b/v89a03497.d
Date : 05-MAY-1994 12:17
Instrument : v89instL.i
Sample ID : vblks1
Column phase :
Volume Injected (uL) : 0.0

Column diameter : 2.00



000855

9513356.1950

Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may05a.b/v89a03497.d
Lab. Id. : vblks1
Inj Date : 05-MAY-1994 12:17 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : vblks1
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may05a.b/vmeth390.m
Meth Date : 05-May-1994 10:14
Cal Date : 05-MAY-94 09:39 Cal File: v89a03493.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	7 Carbon Disulfide	76.00	5.669(0.673)	2516	0.5	0.5(a)
	8 Methylene Chloride	84.00	6.032(0.716)	32241	6	6(a)
*	12 Bromochloromethane	128.00	8.425(1.000)	142817	50	
$	16 1,2-Dichloroethane-d4	65.00	9.379(1.113)	259319	50	50
*	19 1,4-Difluorobenzene	114.00	10.128(1.000)	736766	50	
$	25 Toluene-d8	98.00	12.835(0.816)	660303	50	50
*	32 Chlorobenzene-d5	117.00	15.724(1.000)	524913	50	
$	38 Bromofluorobenzene	95.00	18.286(1.163)	273065	49	49

QC Flag Legend

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

Data File: /chem/v89instL.i/may05a.b/v89a03497.d

Date : 05-MAY-1994 12:17

Instrument : v89instL.i

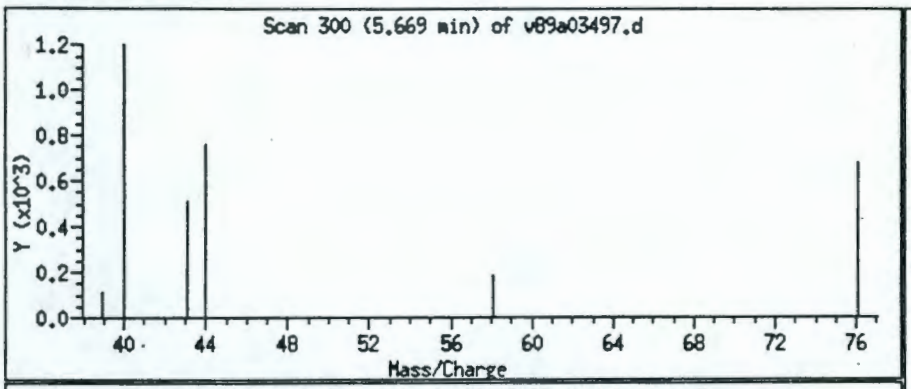
Sample ID : vblks1

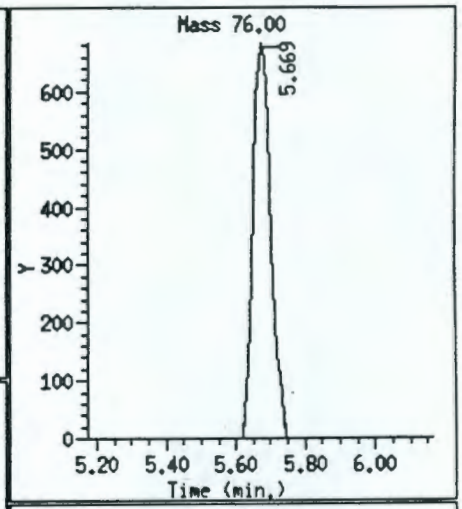
Column phase :

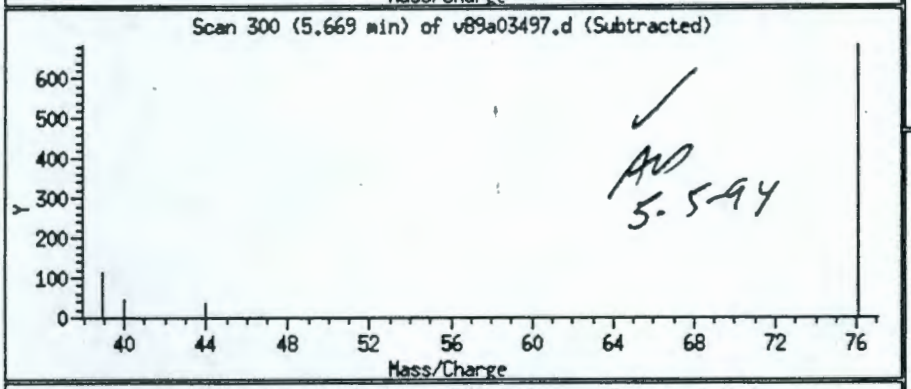
Column diameter : 2.00

Volume Injected (uL) : 0.0

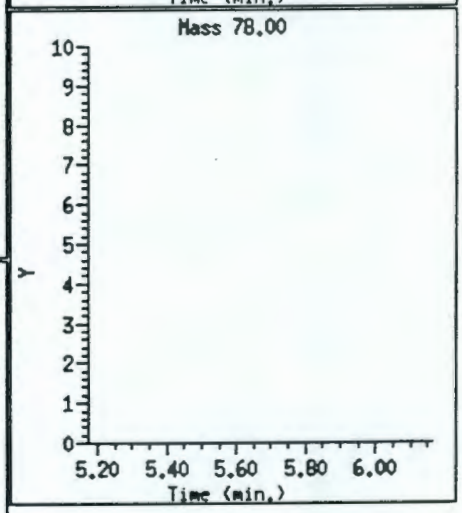
7 Carbon Disulfide

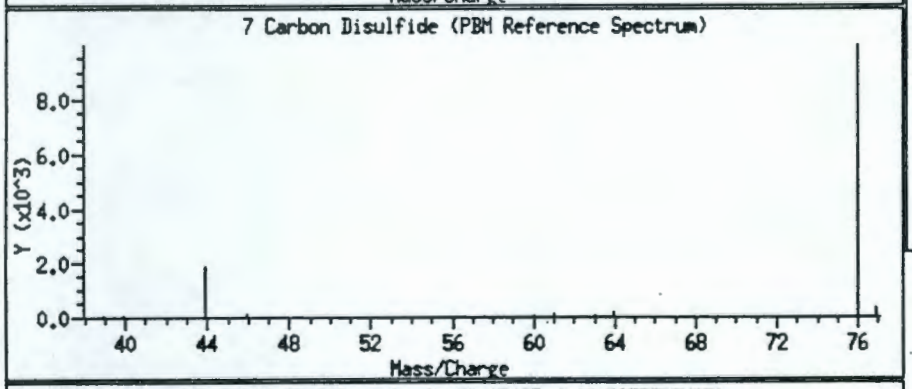


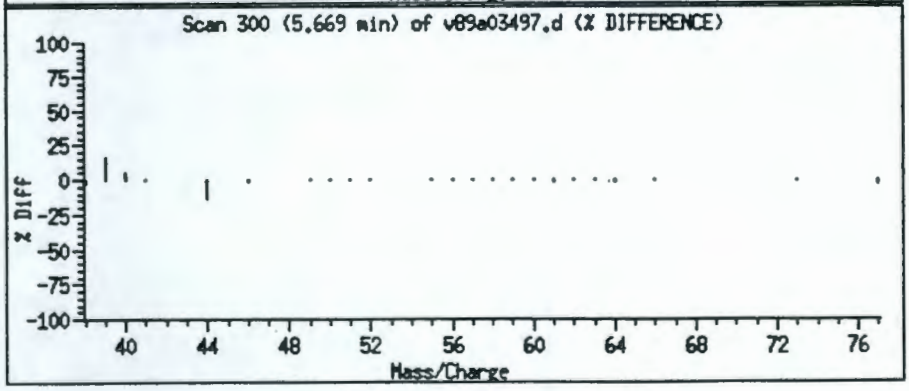




AND 5.594







Data File: /chem/v89instL.i/may05a.b/v89a03497.d

Date : 05-MAY-1994 12:17

Instrument : v89instL.i

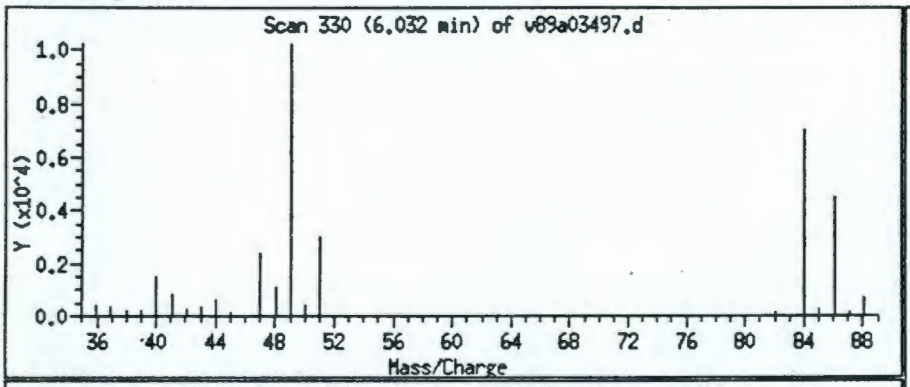
Sample ID : vblks1

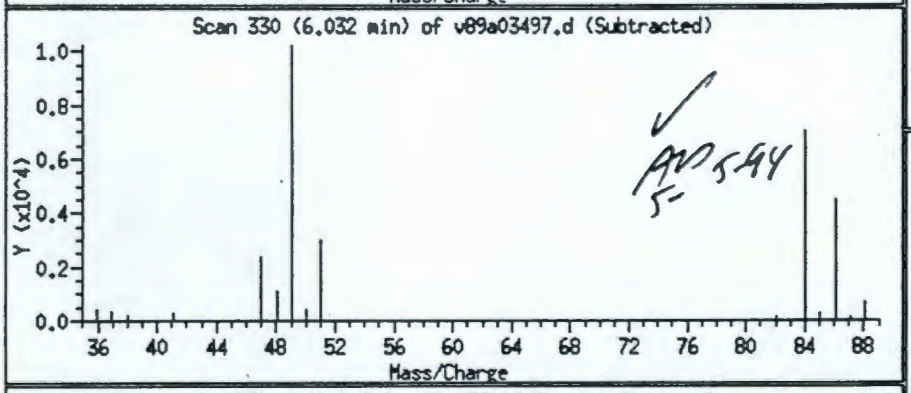
Column phase :

Column diameter : 2.00

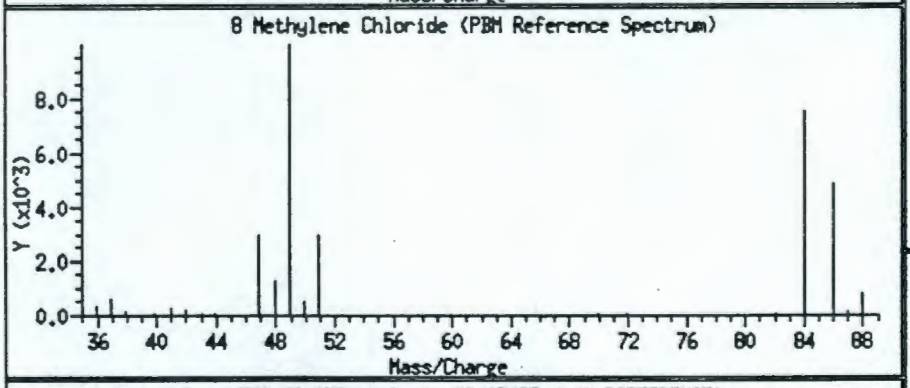
Volume Injected (uL) : 0.0

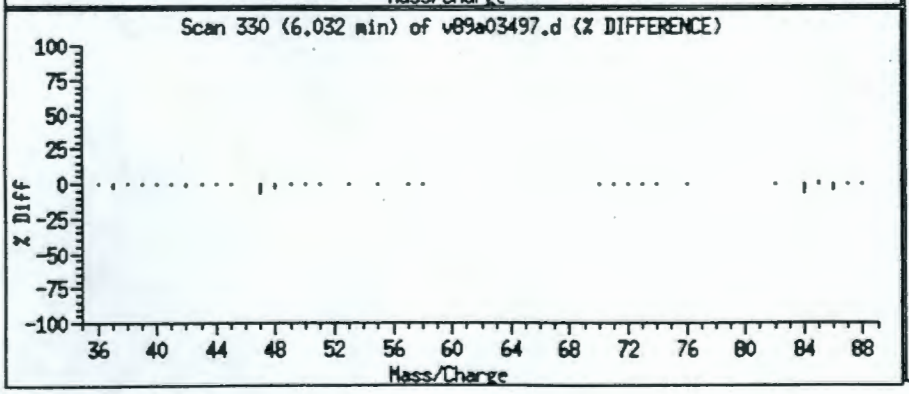
8 Methylene Chloride

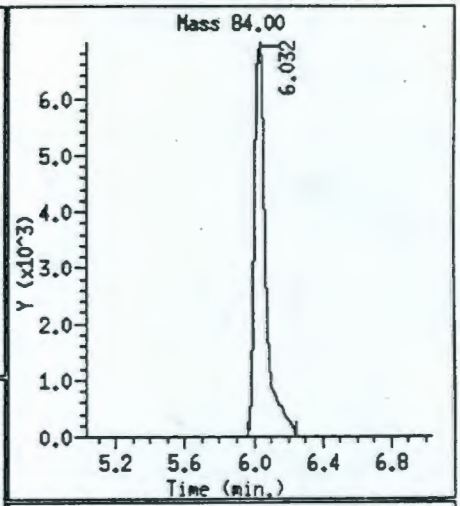


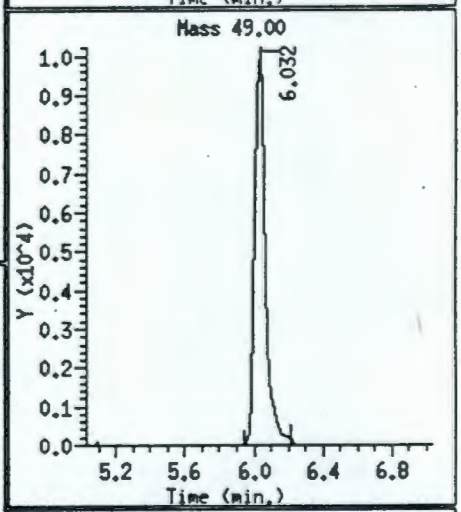


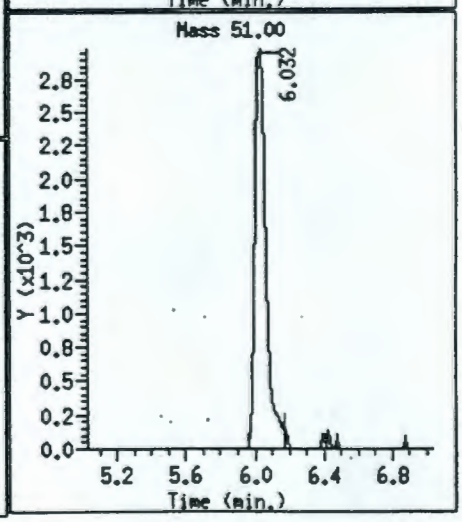
AD 5-94





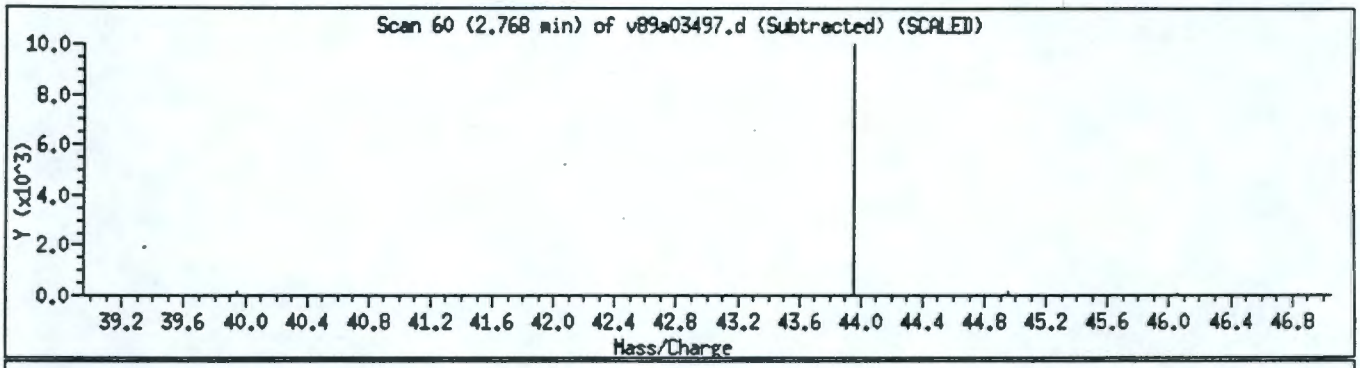






Data File: /chem/v89instL.i/may05a.b/v89a03497.d
Date : 05-MAY-1994 12:17
Instrument : v89instL.i
Sample ID : vblks1
Column phase :
Column diameter : 2.00
Volume Injected (uL) : 0.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				

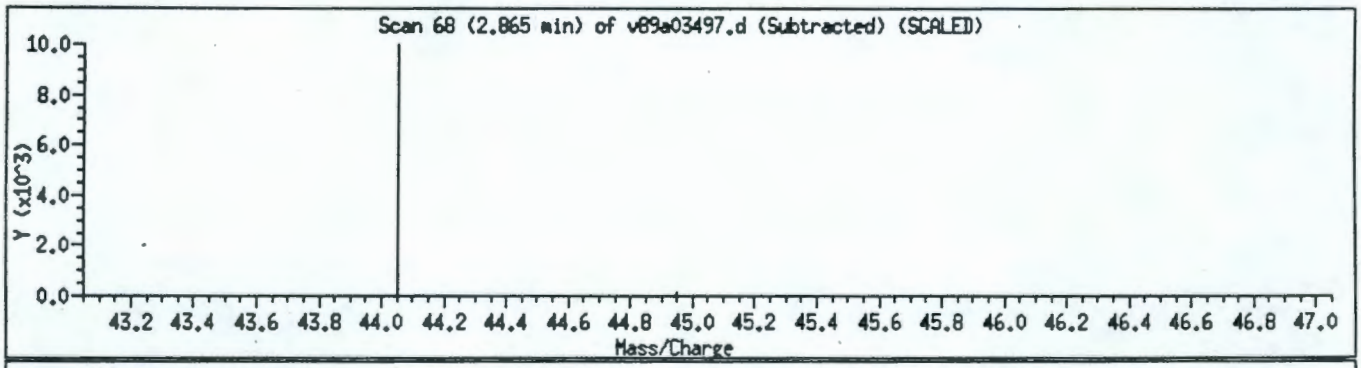


Background CO_2
AM 5-5-94

Data File: /chem/v89instL.i/may05a.b/v89a03497.d

Date : 05-MAY-1994 12:17
Instrument : v89instL.i
Sample ID : vblks1
Column phase :
Column diameter : 2.00
Volume Injected (uL) : 0.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



Background CO_2
AO 5-5-94

9513355.1950

Environmental Science and Engineering

Unknown Compounds Quantitation Report

Data file : /chem/v89instL.i/may05a.b/v89a03497.d
Lab. Id. : vblks1
Inj Date : 05-MAY-1994 12:17 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : vblks1
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may05a.b/vmeth390.m
Meth Date : 05-May-1994 15:46 user1
Cal Date : 05-MAY-94 09:39 Cal File: v89a03493.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 12 Bromochloromethane	8.425	1049860	50.000

RT	AREA	CONC(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	QUANT CPND

9313333.1959

OTHER RELEVANT DOCUMENTS

9513355.1960

Environmental Science & Engineering, Inc.

GC/MS INSTRUMENT LOGSHEET

INSTRUMENT ID _____

DATE 5-5-94 PROJECT NAME /chem/v8941nstL.i/may050.b w.I. Acs

OPERATOR Larry Shrouds CAL FILE ~~may05~~ may04a.b

MASS RANGE 35-300 A/D 2² ID FILE vactb390.m

THRESHOLD 100 E. M. 1740 ID FILE UNITS ug/kg

SCAN DELAY 2.0 SURR 908-26-F DATE UPLOADED _____

TAPE DATE _____ INT STD 908-22-F UPLOAD NAME _____

COLUMN 75m Db-624 STANDARD 908-27-C DATE SIGN _____

GC PROGRAM 35° for 3 min @ 8° min to 175°C

FRN	SAMPLE ID	PURGE VOL	ALS POS	DIL FACT	COMMENTS	SAMPLE CHECK
v89a03492.d	bfb 50ng purge	5g/5ml	1	neat		✓
3493.d	vstd 50		2			✓
3494.d	vstd 50		3			✓
3495.d	vstd 200 extra cmpd.		4			✓
3496.d	vblks1		5			✓
3497.d	vblks1		6			✓
3498.d	COM HNSS #21		7			✓
3499.d	#21 MS		8			✓
3500.d	#21 MSD		9			✓

ok 5-6-94

Read and Understood by

Albert J. Shrouds 5-6-94 Yolanda Gonzalez 5/6/94 PAGE 1 OF 1

SIGNED DATE SIGNED DATE

000863 ~~000041~~

PROJECT Preparation of WA Matrix Spike Sol.

Continued From Page N/A

Supelco Cat # 4-8399, Lot LA 33136 (2500 ug/ml)
Dil 1:5 to yield a 50 ug/ml working mixture.
(5 vials A-E) Used MeOH Baxter B/J Lot # B6767.
Expires 07/14/94

SUPELCO
SEPARATION TECHNOLOGIES
DIVISION OF ROHM AND HAAS

Cat no 4-8399
Storage-REFRIGERATE
Lot no- LA33136

FOR RESEARCH USE ONLY CLP Volatile Matrix Spiking Solution
1ml methanol

CAUTION-IRRITANT IF SWALLOWED
DANGER-EXTREMELY FLAMMABLE
May be fatal if swallowed. May cause headache, nausea, blindness.

INGREDIENTS PER PA. R-T-K: methanol, 1,1-dichloroethylene, benzene, trichloroethylene, toluene, chlorobenzene

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

Continued on Page

Read and Understood By

Signed 01/14/94 Date

Signed 1/14/94 Date

9513355.1962

22

PROJECT Preparation of VOA Internal Standard

Notebook No. 00768

Continued From Page N/A

Supelco Cat # 4-8835, Lot LA32543 (1000 ug/ml)

Dil 1:20 (0.5ml I.S brought to volume in a 10 ml volumetric w/ MeOH, Burdick & Jackson Brand, High Purity, lot # 85707) To yield a 50ug/ml working solution. Aliquot into 2 vials (a → h)

Expires: 07/14/94

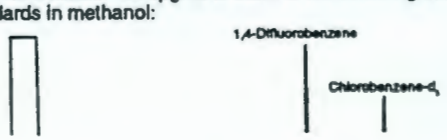
SUPELCO
SEPARATION TECHNOLOGIES
DIVISION OF ROHM AND HAAS

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

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:



Certificate of Analysis

DESCRIPTION: VOA INTERNAL STANDARD MIX

CATALOG NO.: 4-8835 LOT NO.: LA-32543

ANALYTE (1)	PERCENT PURITY (2)	WEIGHT CONCENTRATION (3)

Signed 01/10/94 Date

Read and Understood by

Signed 4/14/94 Date

000865

9513355.1963

26

PROJECT Preparation of VOA Surrogate Mix

Notebook No. 0A101

Continued From Page N/A

Purgeables surrogate std mix - CH2 - Supelco Cat # 4-8876

Lot # : LA36031 (2 vials)

Dilute 1:5 (2 ml surrogate mix + 8 ml meOH; Baxter/B&J Brand, high purity, Cat # 83409) To yield a 50 ug/ml working mix. Aliquot mix solution into 8 vials (A-H)

Expires : 8/14/94

SUPELCO
SEPARATION TECHNOLOGIES
DIVISION OF ROHM AND HAAS

Catalog No. 4-8876
Storage Temperature
Lot No. LA36031

For Research Use Only. Purgeables Surrogate Standard Mix
in methanol
Manufactured by Supelco, Inc. Bellefonte, PA
Manufactured by E. Merck
May be used in mass spectrometry, purge and trap, headspace, purge and trap, blindness.
Temperature: Store at 4°C. Protect from light. Keep tightly closed. Avoid contamination. Flammable. Toxic by inhalation, ingestion and skin absorption. Keep away from heat, sparks and open flame. Avoid breathing vapors. Use only with adequate ventilation.

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:

Certificate of Analysis

DESCRIPTION: PURGEABLES SURROGATE STD MIX 1

CATALOG NO.: 4-8876 LOT NO.: LA-36031

000866

ANALYTE (1)	PERCENT PURITY (2)	WEIGHT CONCENTRATION (3)

Read and Understood By

Signed 2/11/94 Date

Signed 3-23-94 Date

PROJECT Preparation of std mix for VOA

Notebook No. 00901

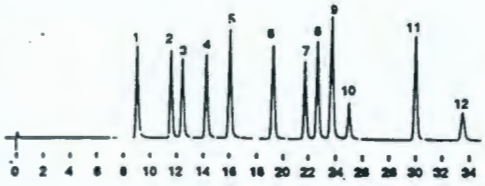
Continued From Page 27

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



60/80 Carbopack™ B/1% SP™-1000, 8' x 1/8" SS, Col. Temp.: hold 3 min. at 50°C, then to 220°C at 8°C/min., Inj. Temp.: 200°C, Det. Temp.: 250°C, Flow Rate: 30ml/min., He, Det.: Hall (halogen mode), Sens.: 20 x 10^{8}, Sample: 1µl of Cat. No. 4-8851.

* Due to the instability of 2-chloroethyl vinyl ether, we cannot guarantee the concentration of this component.

DS13181E
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SUPELCO
Bellefonte, PA

Ce

DESCRIPTION: PU

CATALOG NO.: 4-

LOT NO.: U

SOLVENT: METHA

JUN-93

JUN-94

ANALYTE	(:	T TION (3)
BENZENE	99.0	200.0 +/- 1.0
BROMODICHLOROMETHANE	98.0	200.1 +/- 1.0
BROMOFORM	96.6	207.1 +/- 1.0
CIS 1,3-DICHLOROPROPENE (Z)	98.7	200.1 +/- 1.0
ETHYLBENZENE	99.0	200.1 +/- 1.0
TOLUENE	99.0	200.1 +/- 1.0
TRANS 1,3-DICHLOROPROPENE (E)	98.9	199.9 +/- 1.0
TRANS-1,2-DICHLOROETHYLENE	98.3	200.0 +/- 1.0
1,1,1-TRICHLOROETHANE	99.0	200.1 +/- 1.0
1,1,2,2-TETRACHLOROETHANE	98.4	199.9 +/- 1.0
1,2-DICHLOROETHANE	99.0	200.1 +/- 1.0

Continued on Page 48

Read and Understood By

Signed 3/22/94 Date

Signed 3-23-94 Date

Notebook No. 00902 27

SUBJECT Preparation of STD Mix for VOA

Continued From Page n/a

① Purge A - Cat # 4-8851 Lot # LA36507
② Purge B - Cat # 4-8852 Lot # LA37339
③ Purge C - Cat # 4-8855 Lot # LA36320
④ Purge Protocol - Cat # P-CLPV-D Lot # 0921023C

Dilute ④ 1:5 (200 ml ④ + 800 ml MeOH - Burdick / Bri J Brand, High Purity MeOH, lot # B1233) Take 500 ml of the diluted #4 solution and 400 ml of ①, ②, and ③ to spike a 50 ug/ml daily working std. Aliquot main solution into 4 vials (a-d)

Expires: 09/22/94

SUPELCO
SEPARATION TECHNOLOGIES
DIVISION OF ROHM AND HAAS

Cat No 4-8851
Storage FREEZE
Lot No LA36507

FOR RESEARCH USE ONLY Purge A
Methanol

DANGER-TOXIC IF SWALLOWED
INHALATION OF VAPORS
May be fatal if swallowed. Causes nausea, blindness.
INGREDIENTS FOR PURGE A-T-KIT bromomethane, chloroethane, chloromethane, vinyl chloride.

SUPELCO
Cat No 4-8852
Storage FREEZE
Lot No LA37339

FOR RESEARCH USE ONLY

SUPELCO
SEPARATION TECHNOLOGIES
DIVISION OF ROHM AND HAAS

Cat No 4-8855
Storage FREEZE
Lot No LA36320

FOR RESEARCH USE ONLY Purge C
Methanol

DANGER-TOXIC IF SWALLOWED
INHALATION OF VAPORS
May be fatal if swallowed. Causes nausea, blindness.
INGREDIENTS FOR PURGE A-T-KIT bromomethane, chloroethane, chloromethane, vinyl chloride.

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

Protocol analytical supplies, inc.

CAT# P-CLPV-D
LOT# 0921023C
DATE OPENED____
CLP BLEND D
FOR RESEARCH USE ONLY

Contains 1000 ug/ml of the following in Methanol[67-56-1]:

Acetone	67-64-1
2-Butanone	78-93-3
Carbon Disulfide	75-15-0
cis-1,2-Dichloroethene	156-59-2
2-Hexanone	591-78-6
4-Methyl-2-Pentanone	108-10-1
Styrene	100-42-5
Vinyl Acetate	108-05-4
p-Xylene(500ug/ml)	106-42-3

32 Brier Circle, Greenbrook, NJ 08812 201-968-1522

CONTAINS MATERIALS KNOWN OR SUSPECTED TO CAUSE CANCER
DANGER-FLAMMABLE

Continued on Page n/a

Read and Understood By

Signed: [illegible] Date: 3/22/94

Signed: [illegible] Date: 3-23-94

9513355.1966

Volatile Organic Compounds
Samples WA04-4-08 (ESE# CDMHNSS*29)
WSV2-1-01 (ESE# CDMHNSS*30)

9513355.1967

SDG NARRATIVE

SDG No. 48933

GC/MS Volatile Narrative

1. The samples in this SDG were run by a modified EPA-CLP method 3/90SOW. All samples have passed the specified criteria, and no problems occurred during analysis unless otherwise noted.

2. The GC/MS data system report labels the target reference spectra as PBM reference spectra. These spectra are from a PBM library generated from standards analyzed under the same conditions as the samples were analyzed.

3. All compounds were spiked at 50 ppb. for the Continuing Calibration Standard with the exception of Xylene which was spiked at 25 ppb.

4. In the Initial Calibration Bromomethane had a %RSD of 26.2%. This is a problem compound due to it's coelution with Methanol (which is used to make up the standards). Although the mass spectrometer does not scan low enough to see Methanol, the increase in pressure affects the response factor for Bromomethane. There was no Bromomethane found in this SDG.

5. Several samples have "Background Carbon Dioxide" initially identified as a TIC. This is a chromatographic artifact and not an "unknown".

9513355.1969

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9513355.1971

VOLATILES DATA

9513355.1971

QC SUMMARY

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48933

Level: (low/med) LOW

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	OTHER	TOT OUT
01	vblks1	102	103	102		0
02	A0404008	99	99	96		0
03	SV201001	100	106	101		0
04	A0404008MS	103	104	105		0
05	A0404008MSD	102	101	103		0
06						
07						
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09						
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27						
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29						
30						

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

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: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48933

Matrix Spike - EPA Sample No.: A0404008 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	52	0	60	115	59-172
Trichloroethene	52	0	59	113	62-137
Benzene	52	0	60	115	66-142
Toluene	52	0	59	113	59-139
Chlorobenzene	52	0	59	113	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	52	63	121	5	22	59-172
Trichloroethene	52	59	113	0	24	62-137
Benzene	52	62	119	3	21	66-142
Toluene	52	60	115	2	21	59-139
Chlorobenzene	52	60	115	2	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: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48933

Lab File ID: V89A03523.D Lab Sample ID: vblks1

Date Analyzed: 05/06/94 Time Analyzed: 1247

GC Column:75m DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: V89INSTL

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	A0404008	CDMHNSS*29	V89A03524.D	1450
02	SV201001	CDMHNSS*30	V89A03525.D	1537
03	A0404008MS	CDMHNSS*29MS	V89A03527.D	1648
04	A0404008MSD	CDMHMSS*29MSD	V89A03528.D	1733
05				
06				
07				
08				
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29				
30				

COMMENTS:

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48933

Lab File ID: V89A03480.D BFB Injection Date: 05/04/94

Instrument ID: V89INSTL BFB Injection Time: 0944

GC Column: ID: 2.00 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	27.9
75	30.0 - 66.0% of mass 95	44.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	68.7
175	4.0 - 9.0% of mass 174	5.2 (7.6)1
176	93.0 - 101.0% of mass 174	65.3 (95.0)1
177	5.0 - 9.0% of mass 176	4.6 (7.0)2

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

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	vstd50	vstd50	V89A03481.D	05/04/94	1058
02	vstd10	vstd10	V89A03483.D	05/04/94	1236
03	vstd20	vstd20	V89A03484.D	05/04/94	1311
04	vstd100	vstd100	V89A03485.D	05/04/94	1345
05	vstd200	vstd200	V89A03487.D	05/04/94	1458
06					
07					
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22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48933

Lab File ID: V89A03520.D BFB Injection Date: 05/06/94

Instrument ID: V89INSTL BFB Injection Time: 1037

GC Column: ID: 2.00 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	27.0
75	30.0 - 66.0% of mass 95	43.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	69.4
175	4.0 - 9.0% of mass 174	5.3 (7.6)1
176	93.0 - 101.0% of mass 174	68.2 (98.2)1
177	5.0 - 9.0% of mass 176	4.3 (6.4)2

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

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	vstd50	vstd50	V89A03522.D	05/06/94	1206
02	vblks1	vblks1	V89A03523.D	05/06/94	1247
03	A0404008	CDMHNSS*29	V89A03524.D	05/06/94	1450
04	SV201001	CDMHNSS*30	V89A03525.D	05/06/94	1537
05	A0404008MS	CDMHNSS*29MS	V89A03527.D	05/06/94	1648
06	A0404008MSD	CDMHMSS*29MSD	V89A03528.D	05/06/94	1733
07					
08					
09					
10					
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19					
20					
21					
22					

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48933

Lab File ID (Standard): V89A03522.D Date Analyzed: 05/06/94

Instrument ID: V89INSTL Time Analyzed: 1206

GC Column:75m 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	138559	8.42	715788	10.13	505846	15.72
	UPPER LIMIT	277118	8.92	1431576	10.63	1011692	16.22
	LOWER LIMIT	69280	7.92	357894	9.63	252923	15.22
	EPA SAMPLE No.						
01	vblks1	120649	8.42	627838	10.13	450001	15.72
02	A0404008	120388	8.41	622968	10.13	442470	15.71
03	SV201001	98783	8.42	492289	10.13	339281	15.71
04	A0404008MS	97528	8.42	501565	10.13	359661	15.72
05	A0404008MSD	95398	8.42	501467	10.13	353581	15.72
06							
07							
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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 QC limits with an asterisk.
* Values outside of QC limits.

9513355.1970

SAMPLE DATA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A0404008

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48933

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*29

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03524.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 5 Data Analyzed: 05/06/94

GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(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	10	U
67-64-1	Acetone	6	JB
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.

A0404008

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48933

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*29

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03524.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 5 Data Analyzed: 05/06/94

GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

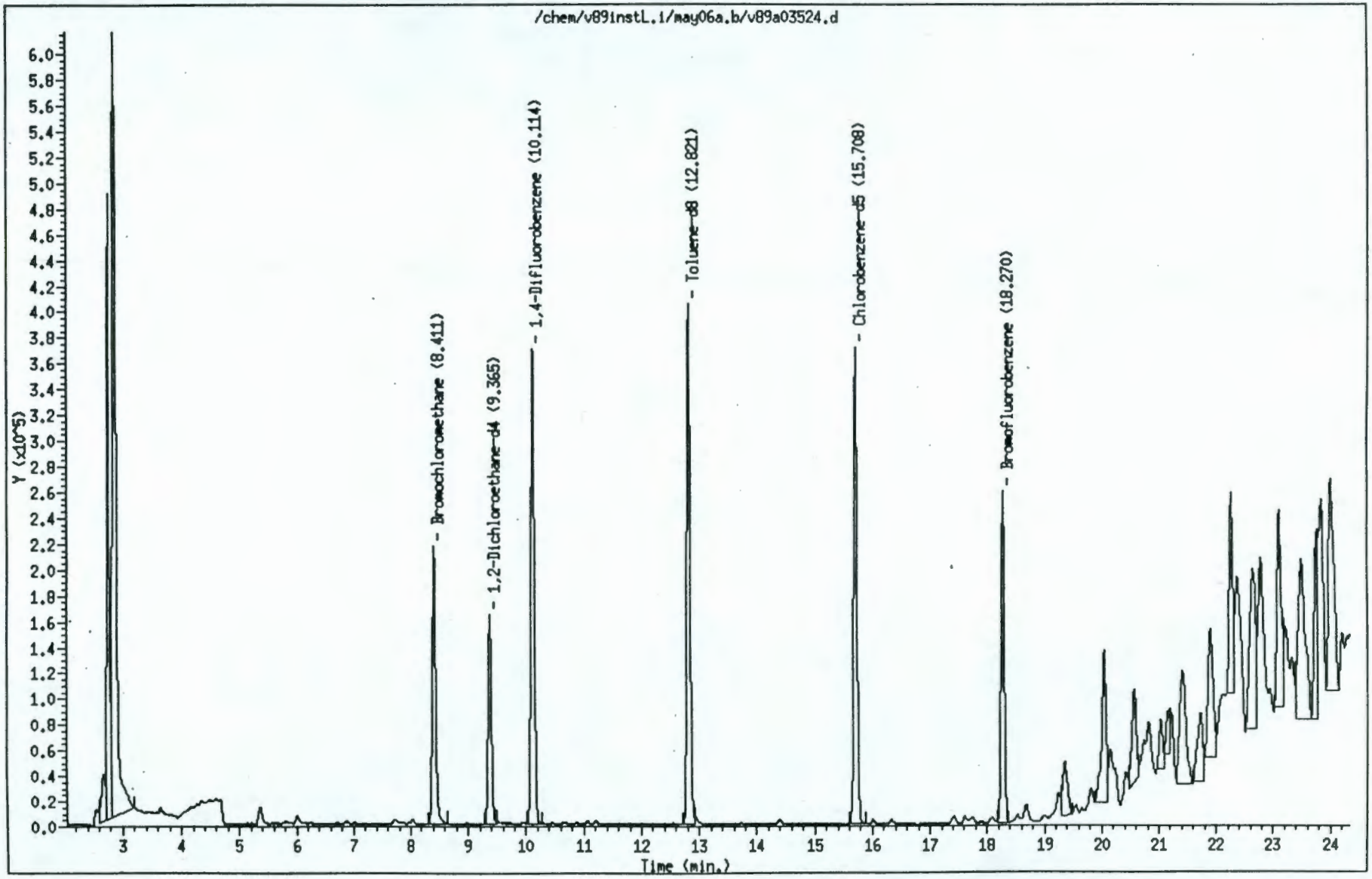
Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 2847-72-5	Decane, 4-methyl-	20.046	24	NJ
2. 81983-71-3	1,1-DIMETHYL-2-PROPYLCYCLOHE	21.412	25	NJ
3. 1120-21-4	Undecane	22.246	26	NJ
4.	UNKNOWN HYDROCARBON	22.645	31	NJ
5. 31081-18-2	Nonane, 3-methyl-5-propyl-	23.105	30	NJ
6. 2958-76-1	Naphthalene, decahydro-2-met	23.492	39	NJ
7. 1678-98-4	Cyclohexane, (2-methylpropyl	23.758	24	NJ
8. 527-53-7	Benzene, 1,2,3,5-tetramethyl	24.000	41	NJ
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/v89instL.i/may06a.b/v89a03524.d
Date : 06-MAY-94 14:50
Instrument : v89instL.i
Sample ID : CDMHNSS×29
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53



9513355.1981

9513355.1982

Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may06a.b/v89a03524.d
Lab. Id. : CDMHNSS*29
Inj Date : 06-MAY-94 14:50 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : CDMHNSS*29
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may06a.b/vmeth390.m
Meth Date : 09-May-1994 11:37 user1
Cal Date : 06-MAY-1994 12:06 Cal File: v89a03522.d
Als bottle: 1
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
6 Acetone	43.00	5.353(0.636)	34358	5	5(a)
* 12 Bromochloromethane	128.00	8.411(1.000)	120388	50	
$ 16 1,2-Dichloroethane-d4	65.00	9.377(1.115)	210578	49	49
* 19 1,4-Difluorobenzene	114.00	10.126(1.000)	622968	50	
$ 25 Toluene-d8	98.00	12.821(0.816)	535055	50	50
* 32 Chlorobenzene-d5	117.00	15.708(1.000)	442470	50	
$ 38 Bromofluorobenzene	95.00	18.270(1.163)	218787	48	48

QC Flag Legend

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

Data File: /chem/v89instL.i/may06a.b/v89a03524.d

Date : 06-MAY-94 14:50

Instrument : v89instL.i

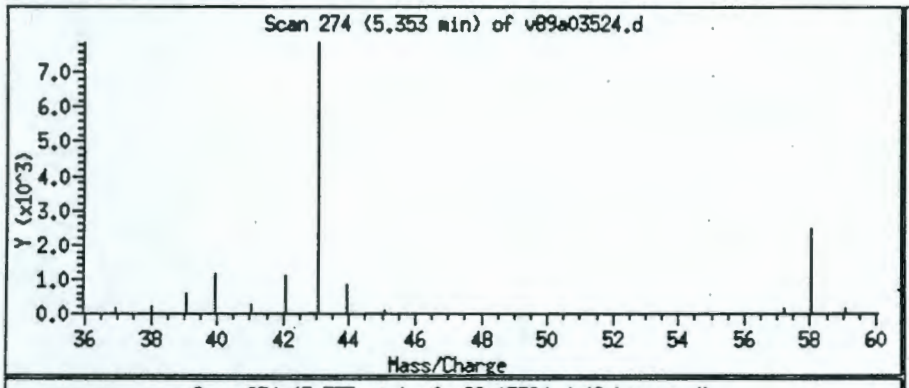
Sample ID : CDMHNSS×29

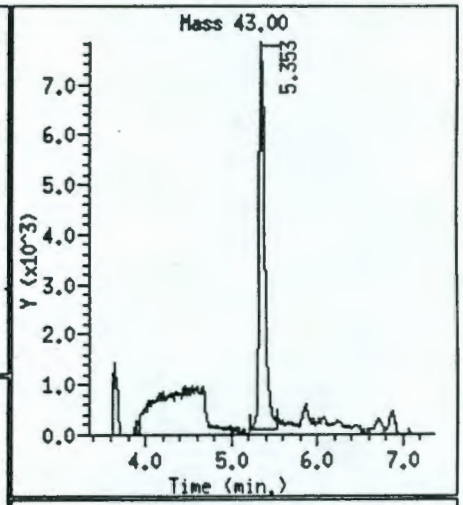
Column phase : 75m DB-624

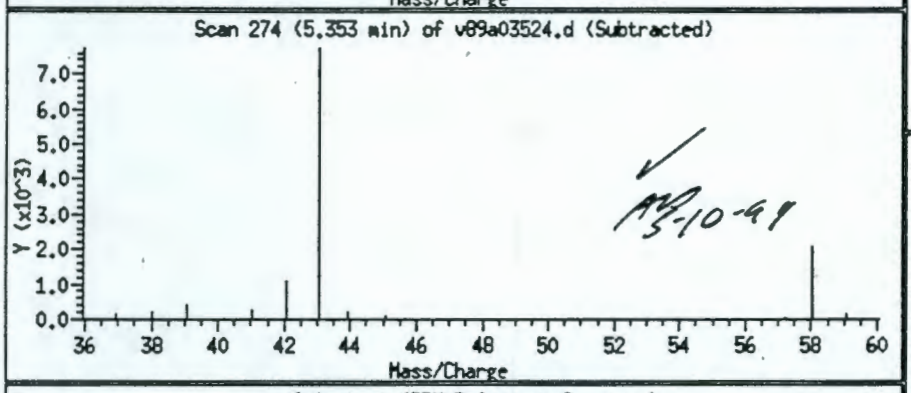
Column diameter : 0.53

Volume Injected (uL) : 0.0

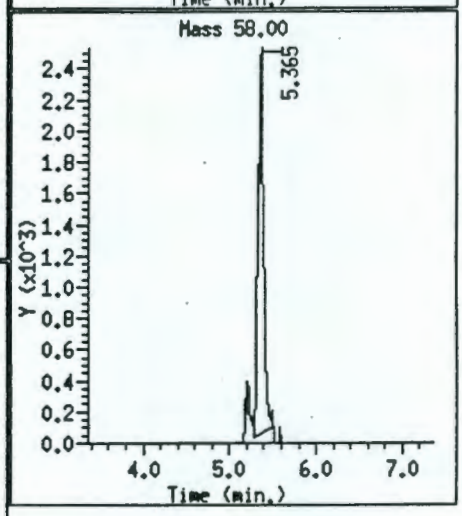
6 Acetone

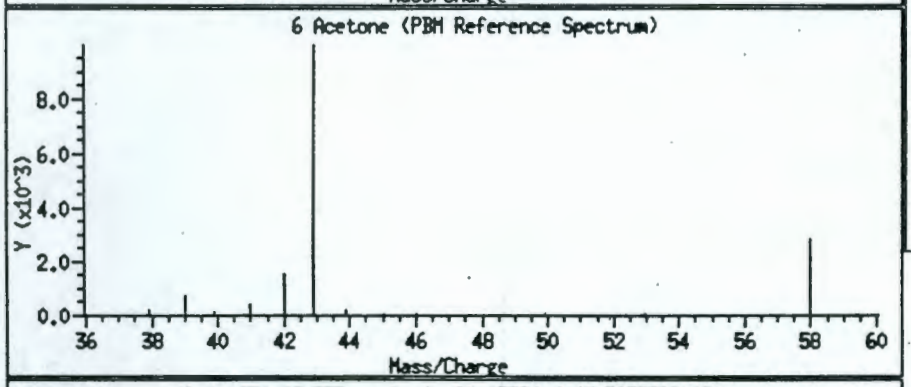


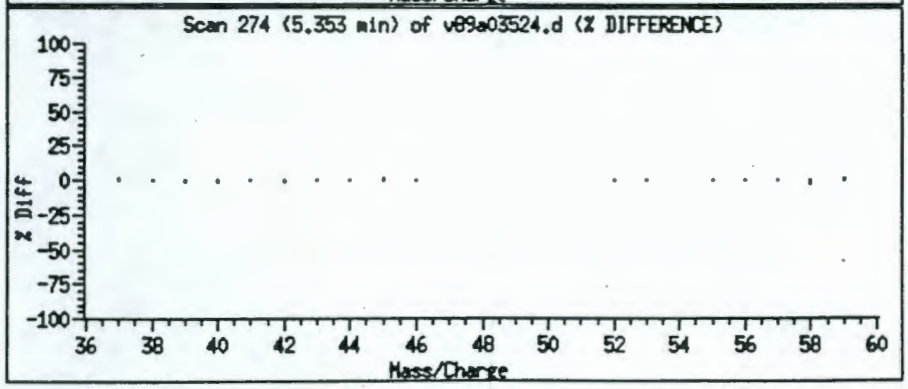




✓ AP 5-10-94





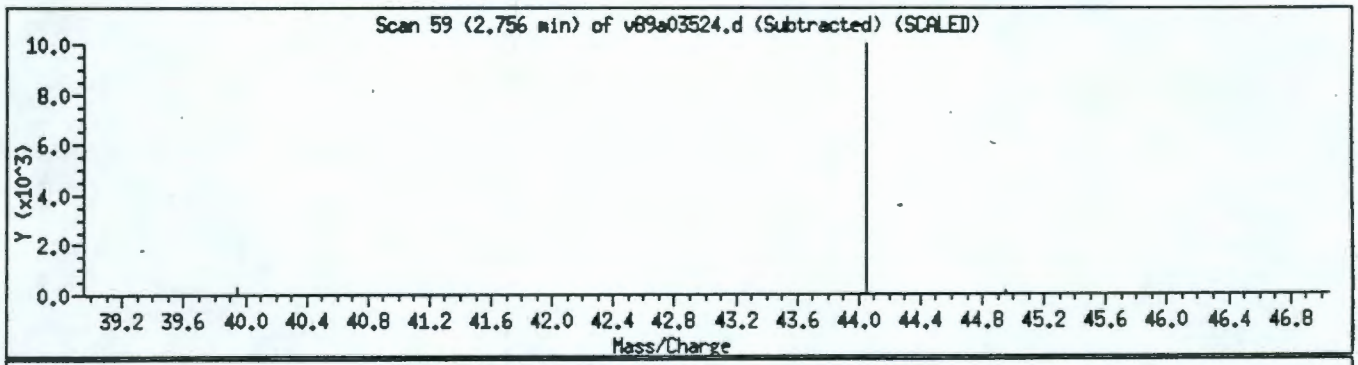


9513355.1984

Data File: /chem/v89instL.i/may06a.b/v89a03524.d

Date : 06-MAY-94 14:50
Instrument : v89instL.i
Sample ID : CDMHNSS*29
Column phase : 75m DB-624 Column diameter : 0.53
Volume Injected (uL) : 0.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				

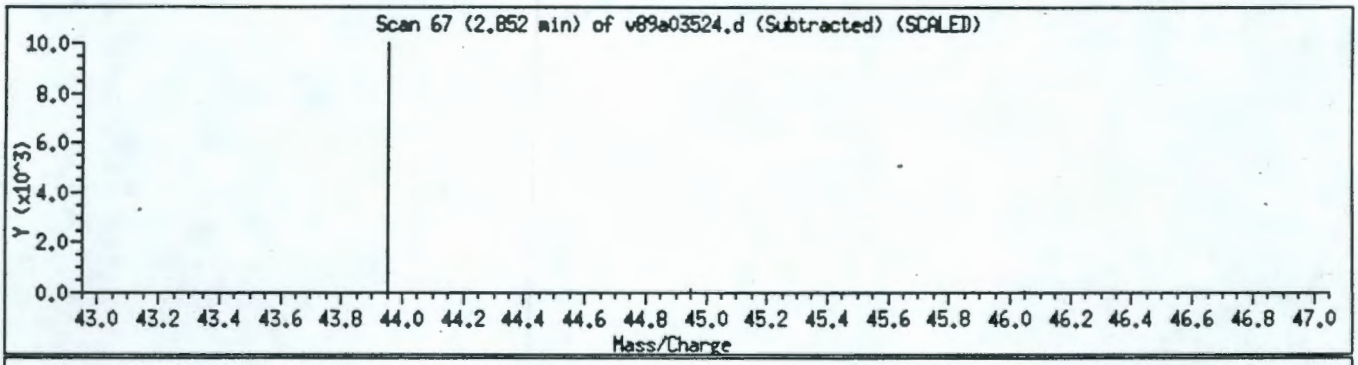


Background CO_2
ARS 5-10-94

Data File: /chem/v89instL.i/may06a.b/v89a03524.d
Date : 06-MAY-94 14:50
Instrument : v89instL.i
Sample ID : CDMHNSS×29
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



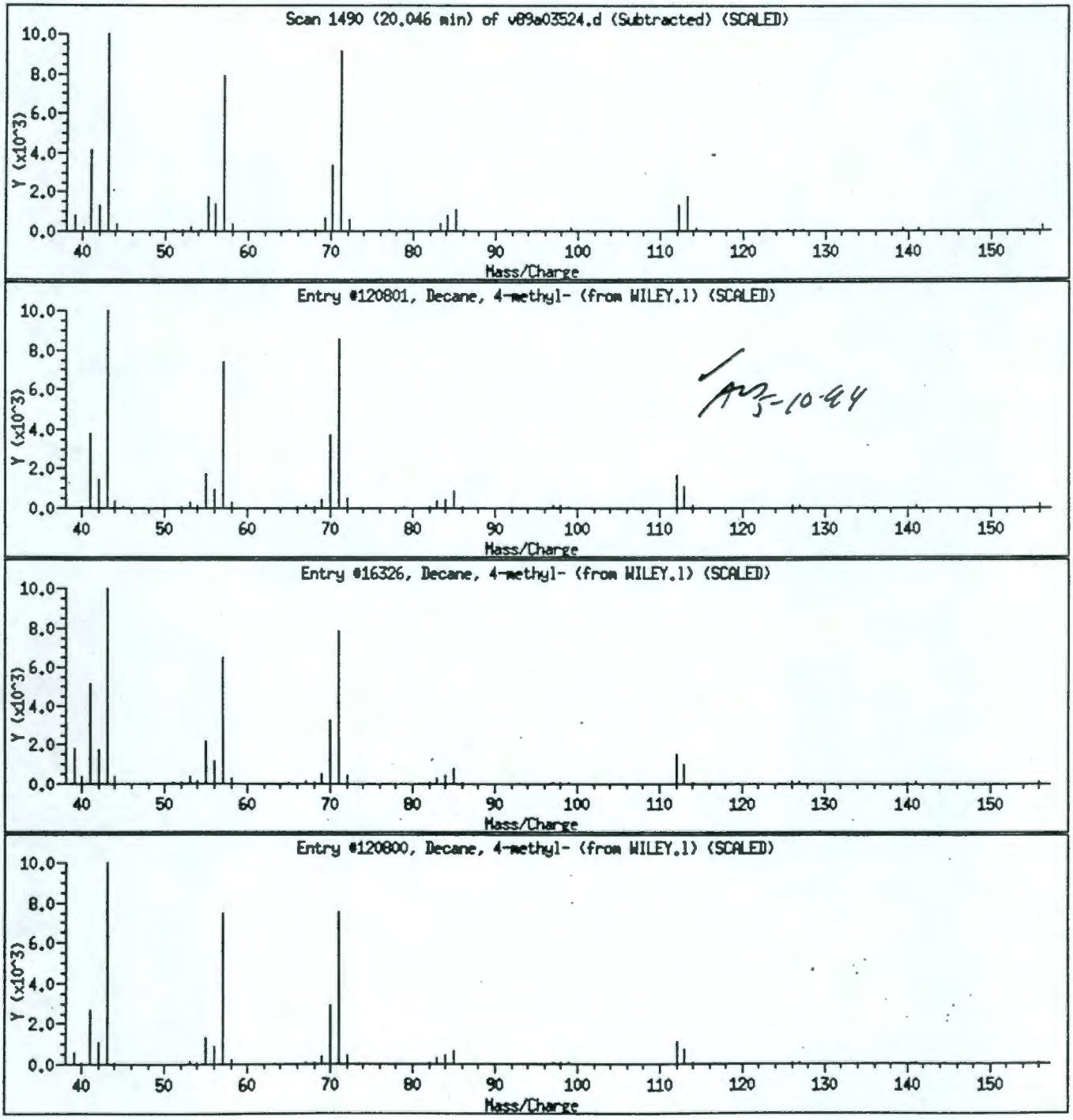
Background W2
MS 5-10-94

9513355.1986

Data File: /chem/v89instL.i/may06a.b/v89a03524.d

Date : 06-MAY-94 14:50
Instrument : v89instL.i
Sample ID : CDMHNSS×29
Column phase : 75m DB-624 Column diameter : 0.53
Volume Injected (uL) : 0.0

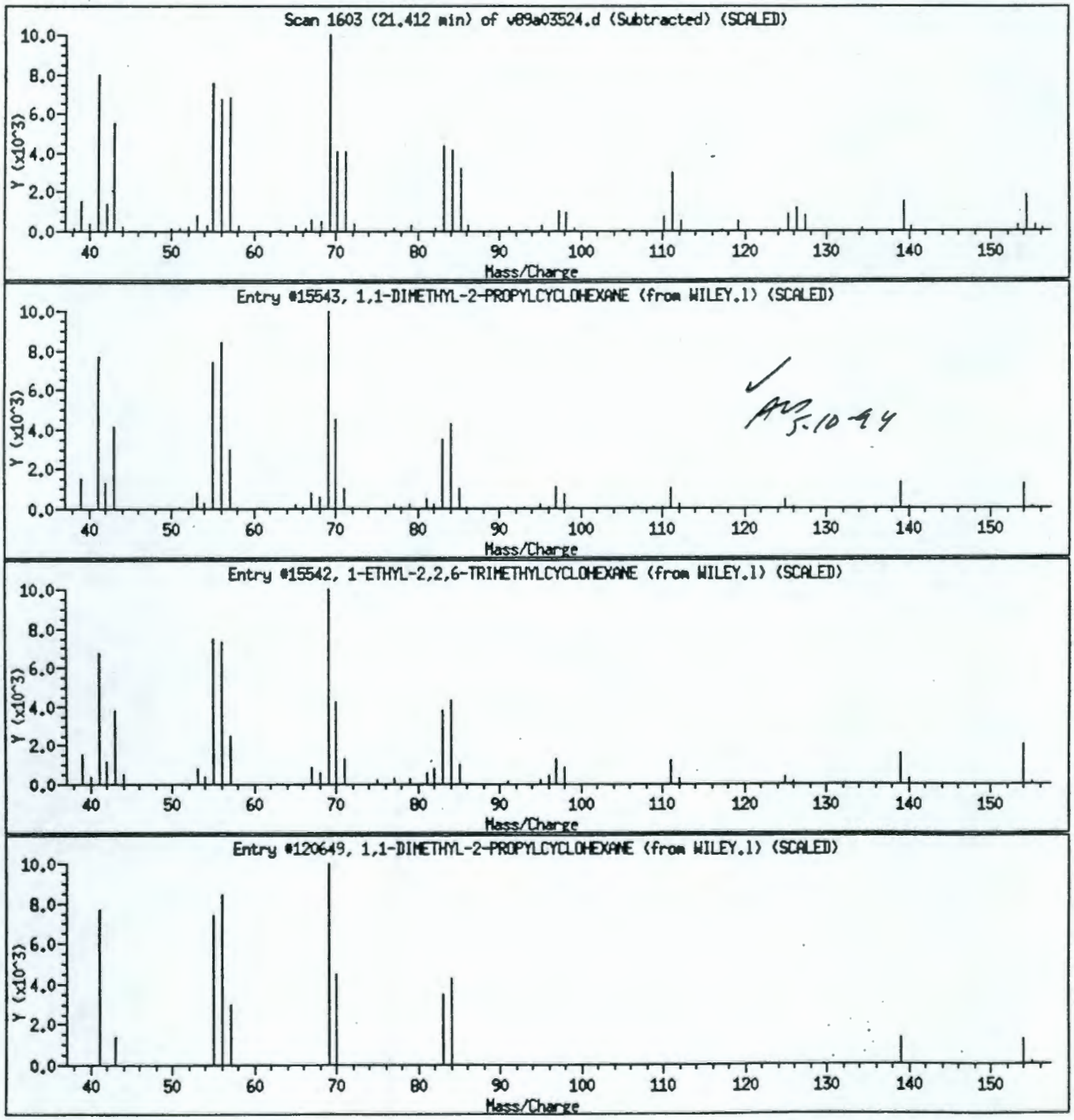
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Decane, 4-methyl-	2847-72-5	WILEY.1	120801	95
Decane, 4-methyl-	2847-72-5	WILEY.1	16326	94
Decane, 4-methyl-	2847-72-5	WILEY.1	120800	91



Data File: /chem/v89instL.i/may06a.b/v89a03524.d

Date : 06-MAY-94 14:50
Instrument : v89instL.i
Sample ID : CDMHNSS*29
Column phase : 75m DB-624 Column diameter : 0.53
Volume Injected (uL) : 0.0

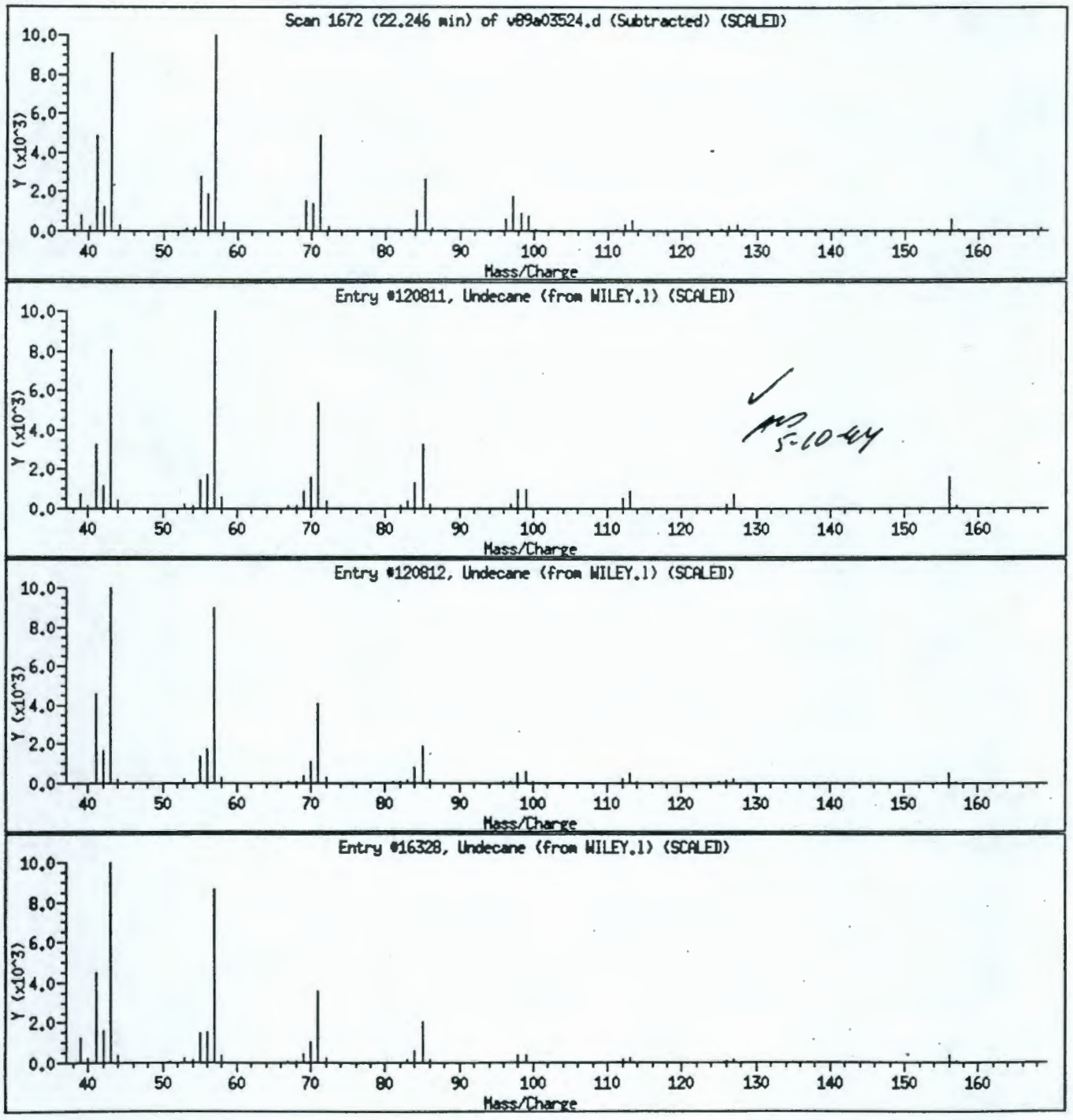
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
1,1-DIMETHYL-2-PROPYLCYCLOHEXANE	81983-71-3	WILEY.1	15543	95
1-ETHYL-2,2,6-TRIMETHYLCYCLOHEXANE	0-00-0	WILEY.1	15542	94
1,1-DIMETHYL-2-PROPYLCYCLOHEXANE	81983-71-3	WILEY.1	120649	76



Data File: /chem/v89instL.i/may06a.b/v89a03524.d
Date : 06-MAY-94 14:50
Instrument : v89instL.i
Sample ID : CDMMNSS×29
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53

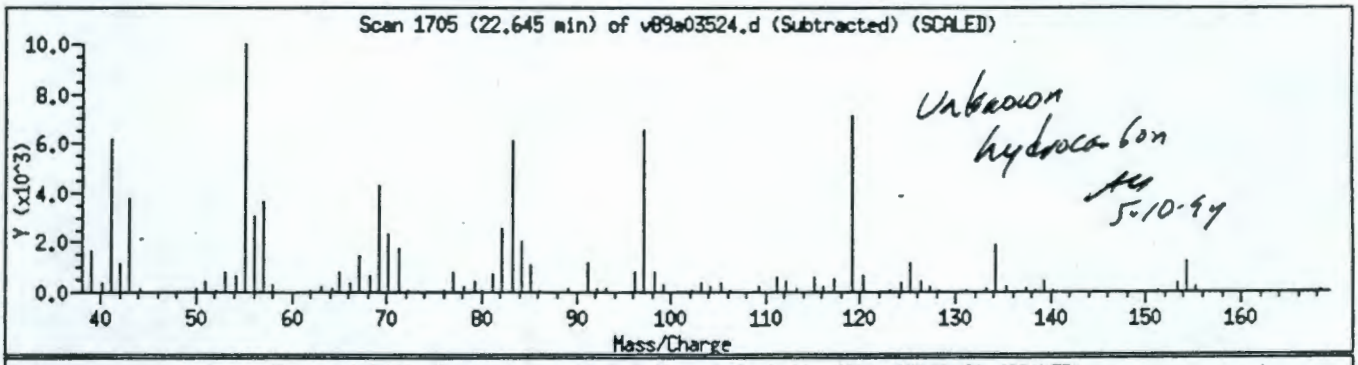
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Undecane	1120-21-4	WILEY.1	120811	94
Undecane	1120-21-4	WILEY.1	120812	94
Undecane	1120-21-4	WILEY.1	16328	87

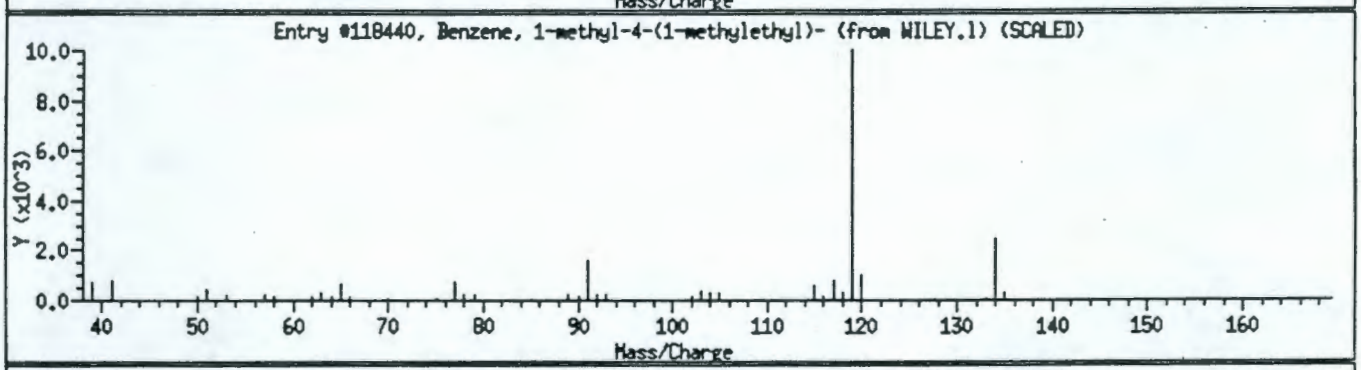


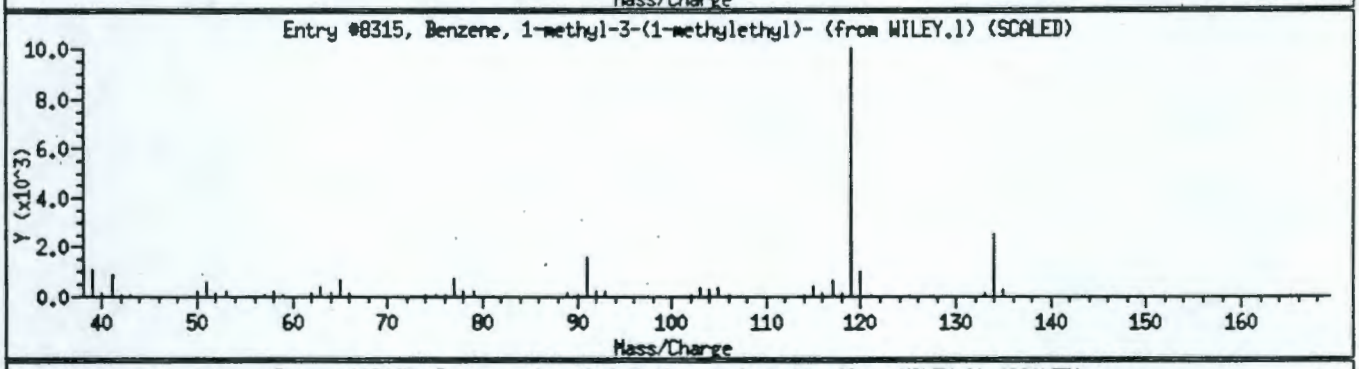
5-10-94

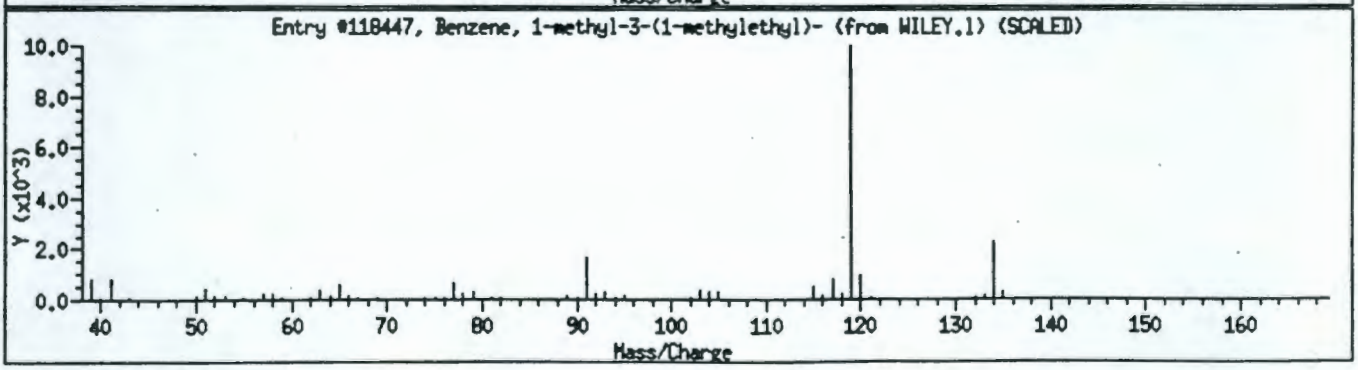
Data File: /chem/v89instL.i/may06a.b/v89a03524.d
Date : 06-MAY-94 14:50
Instrument : v89instL.i
Sample ID : CDMMNSS×29
Column phase : 75m DB-624 Column diameter : 0.53
Volume Injected (uL) : 0.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	WILEY.l	118440	53
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	WILEY.l	8315	53
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	WILEY.l	118447	53







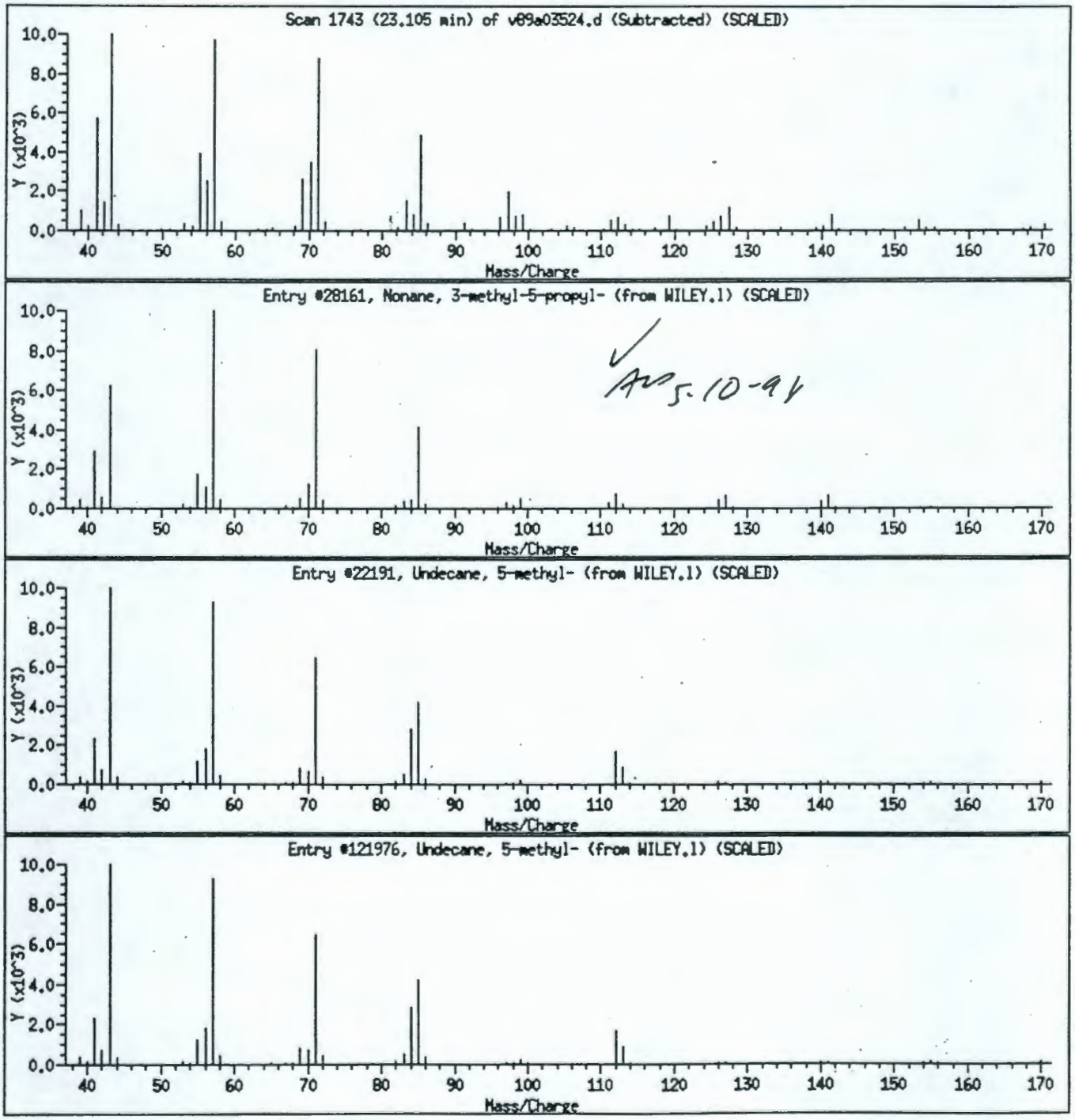


9513355.1991

Data File: /chem/v89instL.i/may06a.b/v89a03524.d

Date : 06-MAY-94 14:50
Instrument : v89instL.i
Sample ID : CDMHNSS×29
Column phase : 75m DB-624 Column diameter : 0.53
Volume Injected (uL) : 0.0

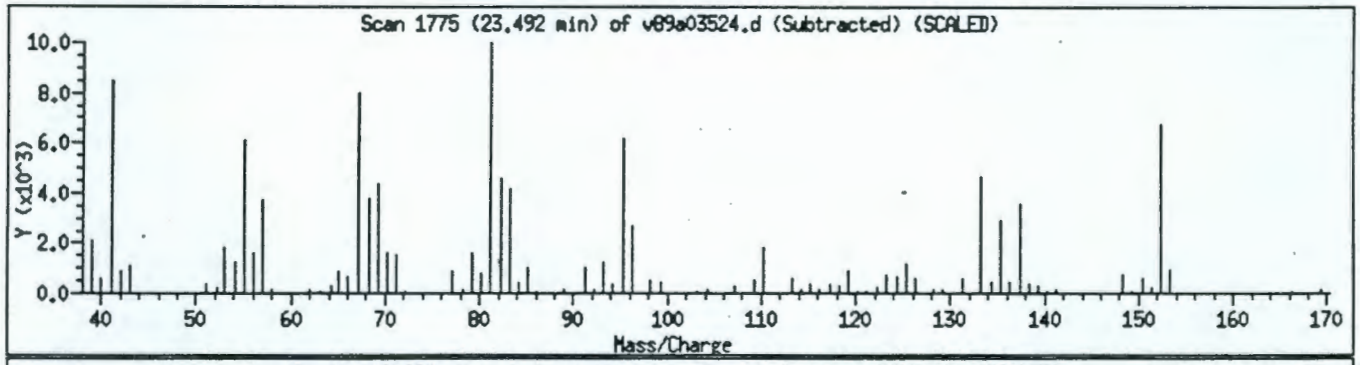
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Nonane, 3-methyl-5-propyl-	31081-18-2	WILEY.1	28161	64
Undecane, 5-methyl-	1632-70-8	WILEY.1	22191	64
Undecane, 5-methyl-	1632-70-8	WILEY.1	121976	62

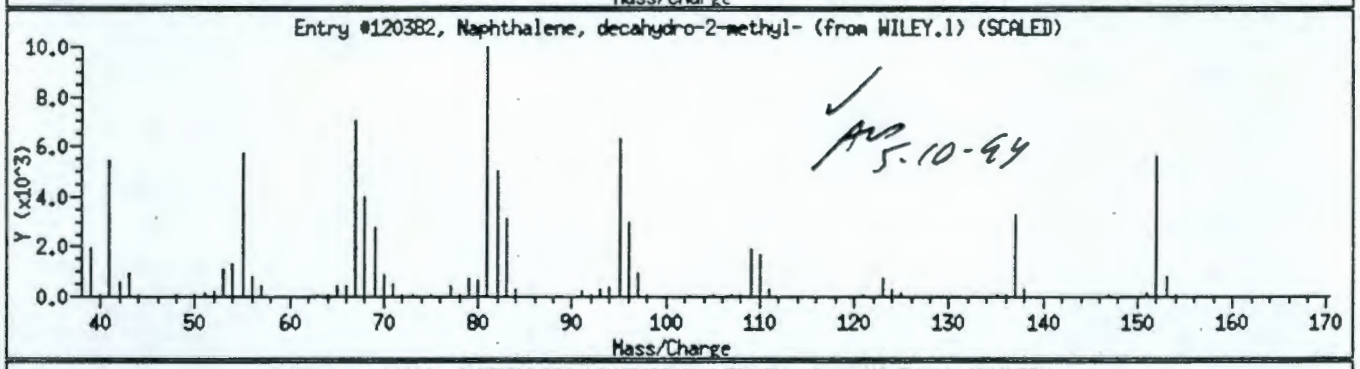


✓ AP 5-10-94

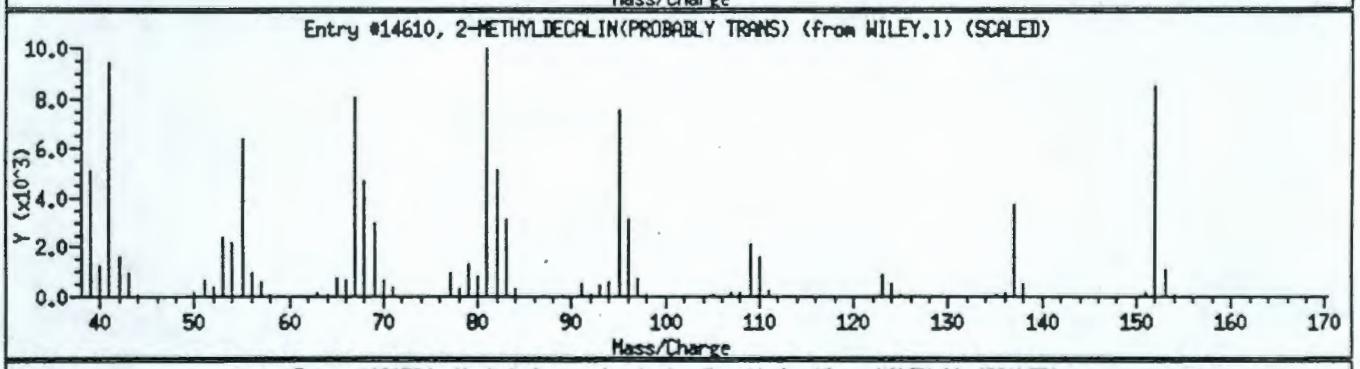
Data File: /chem/v89instL.i/may06a.b/v89a03524.d
Date : 06-MAY-94 14:50
Instrument : v89instL.i
Sample ID : CDMHNSS×29
Column phase : 75m DB-624 Column diameter : 0.53
Volume Injected (uL) : 0.0

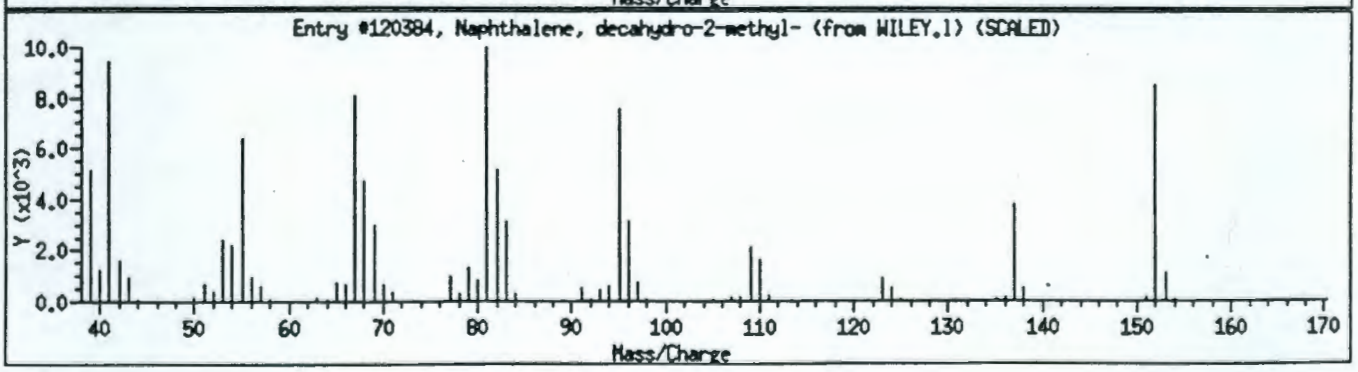
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Naphthalene, decahydro-2-methyl-	2958-76-1	WILEY.1	120382	93
2-METHYLDECALIN(PROBABLY TRANS)	0-00-0	WILEY.1	14610	86
Naphthalene, decahydro-2-methyl-	2958-76-1	WILEY.1	120384	86





✓ AS 5-10-94

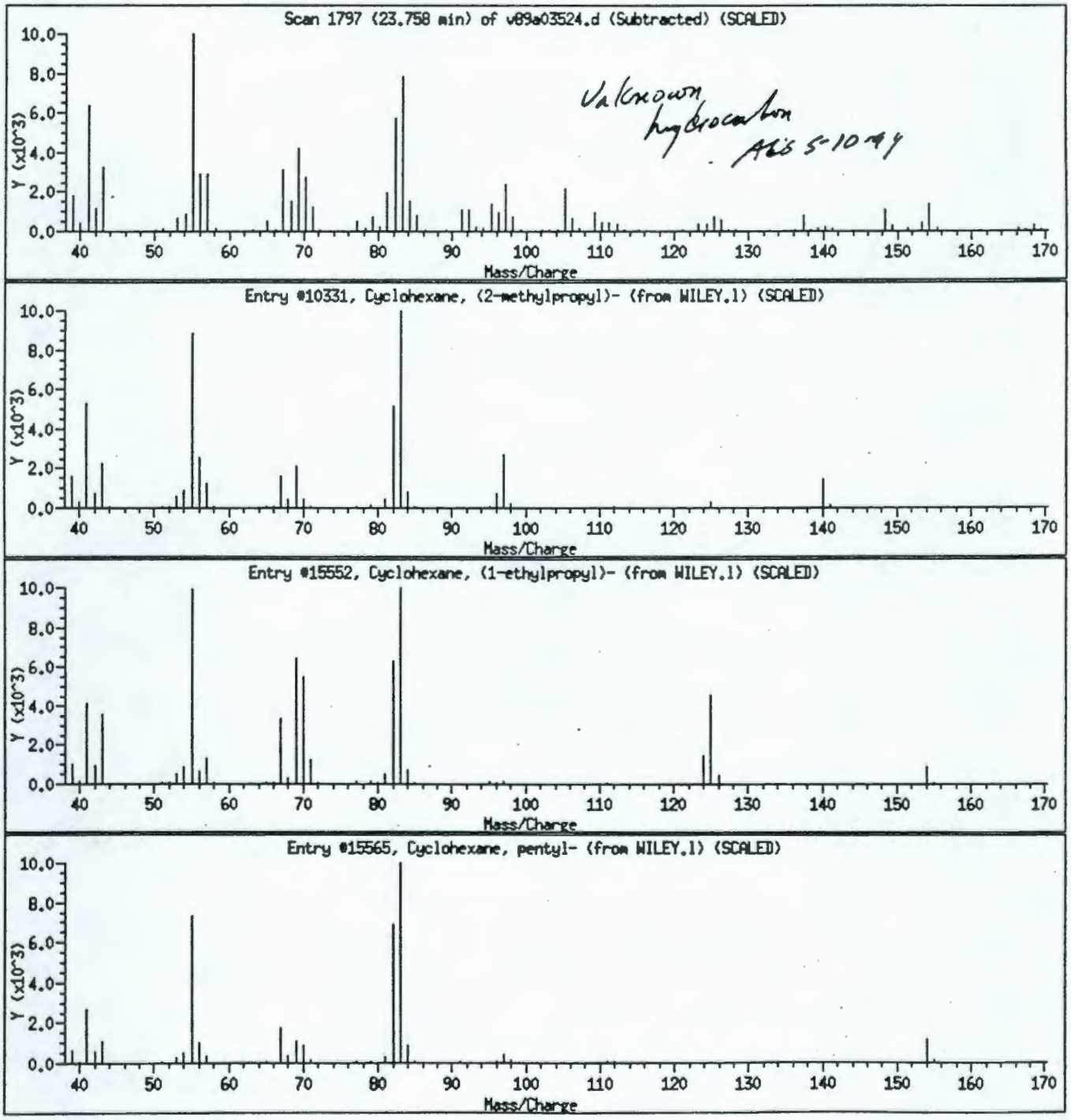




Data File: /chem/v89instL.i/may06a.b/v89a03524.d

Date : 06-MAY-94 14:50
Instrument : v89instL.i
Sample ID : CDMHNSS×29
Column phase : 75m DB-624 Column diameter : 0.53
Volume Injected (uL) : 0.0

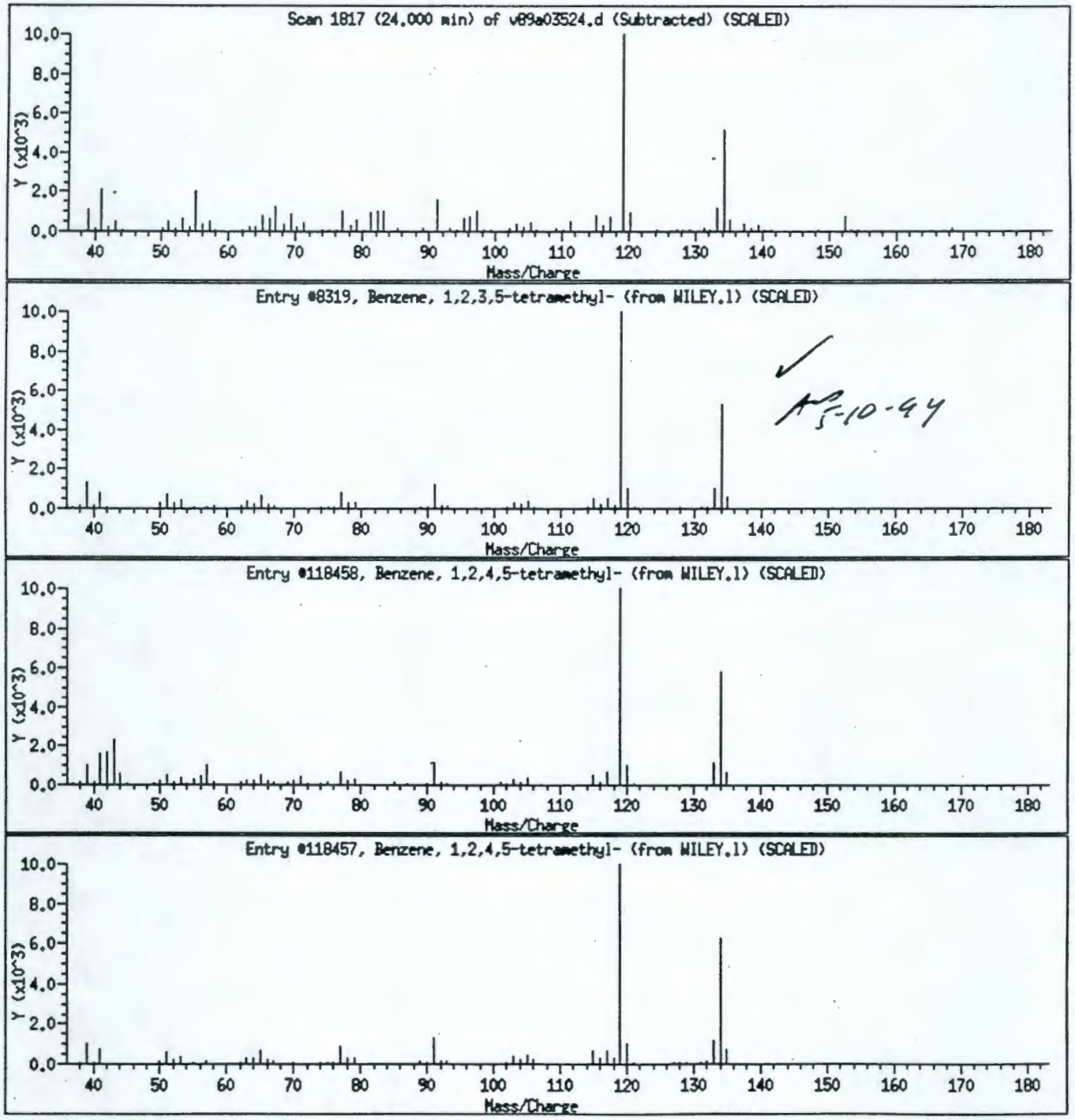
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Cyclohexane, (2-methylpropyl)-	1678-98-4	WILEY.1	10331	50
Cyclohexane, (1-ethylpropyl)-	26321-98-2	WILEY.1	15552	49
Cyclohexane, pentyl-	4292-92-6	WILEY.1	15565	47



Data File: /chem/v89instL.i/may06a.b/v89a03524.d
Date : 06-MAY-94 14:50
Instrument : v89instL.i
Sample ID : CDMMNSS×29
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Benzene, 1,2,3,5-tetramethyl-	527-53-7	WILEY.l	8319	94
Benzene, 1,2,4,5-tetramethyl-	95-93-2	WILEY.l	118458	87
Benzene, 1,2,4,5-tetramethyl-	95-93-2	WILEY.l	118457	87



5-10-94

9513355.1994

Environmental Science and Engineering

Unknown Compounds Quantitation Report

Data file : /chem/v89instL.i/may06a.b/v89a03524.d
Lab. Id. : CDMHNSS*29
Inj Date : 06-MAY-94 14:50 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : CDMHNSS*29
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may06a.b/vmeth390.m
Meth Date : 09-May-1994 11:37 user1
Cal Date : 06-MAY-1994 12:06 Cal File: v89a03522.d
Als bottle: 1
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 12 Bromochloromethane	8.411	892330	50.000
* 32 Chlorobenzene-d5	15.708	1433038	50.000

RT	AREA	CONC(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	QUANT CPND
Decane, 4-methyl-					CAS #: 2847-72-5	
20.046	640844	22	95	WILEY.l	120801	32
1,1-DIMETHYL-2-PROPYLCYCLOHEXANE					CAS #: 81983-71-3	
21.412	683985	24	95	WILEY.l	15543	32
Undecane					CAS #: 1120-21-4	
22.246	710190	25	94	WILEY.l	120811	32
Unknown Hydrocarbon					CAS #:	
22.645	857348	30	53	WILEY.l	118440	32
Nonane, 3-methyl-5-propyl-					CAS #: 31081-18-2	
23.105	814659	28	64	WILEY.l	28161	32
Naphthalene, decahydro-2-methyl-					CAS #: 2958-76-1	
23.492	1056735	37	93	WILEY.l	120382	32
Unknown Hydrocarbon					CAS #:	
23.758	668060	23	50	WILEY.l	10331	32

9513555.1995

RT	AREA	CONC(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	QUANT	CPND
Benzene, 1,2,3,5-tetramethyl-					CAS #: 527-53-7		
24.000	1125991	39	94	WILEY.l	8319	32	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A0404008MS

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48933

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*29MS

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03527.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 5 Data Analyzed: 05/06/94

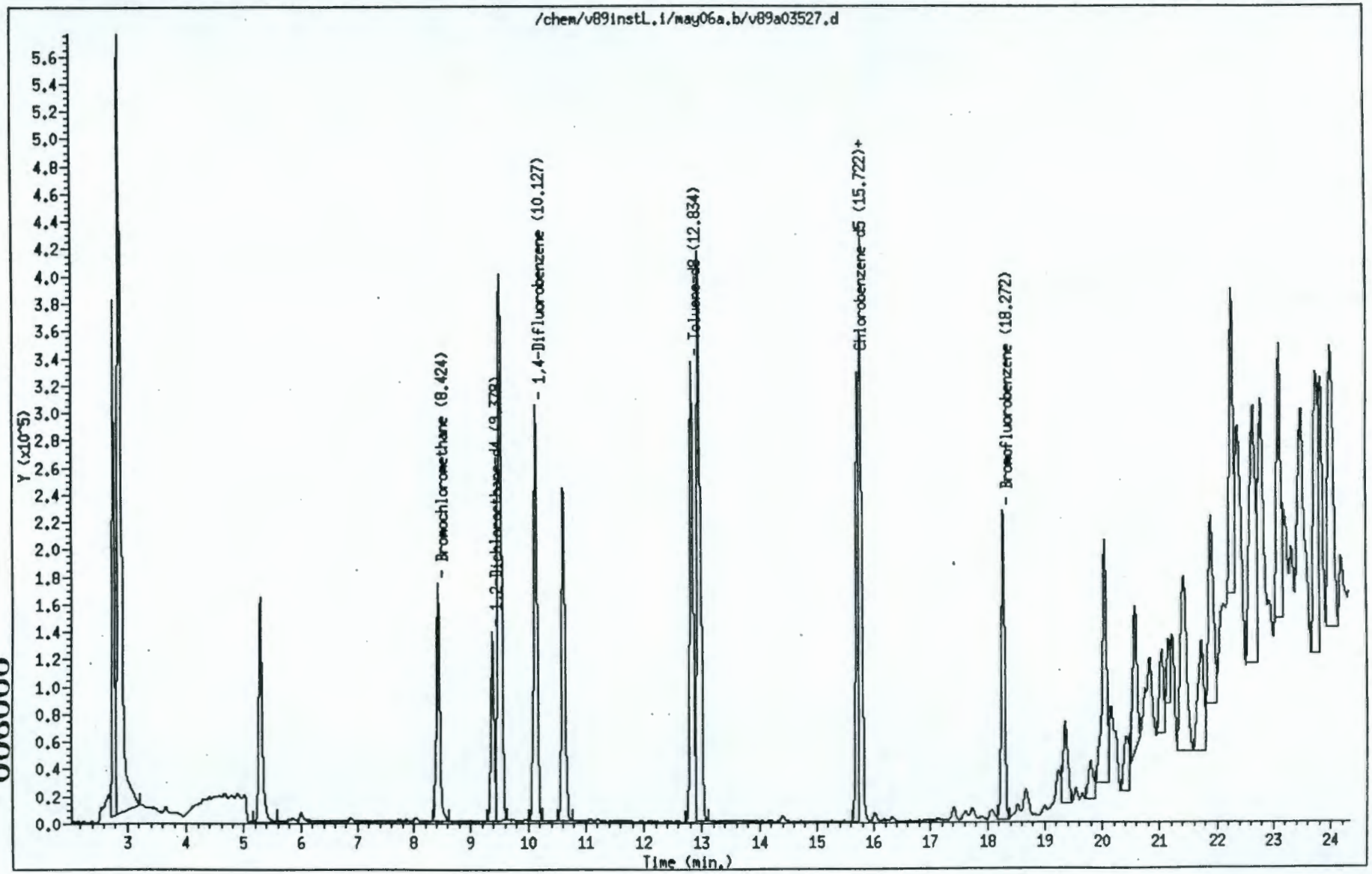
GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(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	10	U
67-64-1	Acetone	4	JB
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	60	
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	59	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	60	
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	59	
108-90-7	Chlorobenzene	59	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

Data File: /chem/v89instL.i/may06a.b/v89a03527.d
Date : 06-MAY-94 16:48
Instrument : v89instL.i
Sample ID : CDMHNSS#29 MS
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53



006000

9513355.1997

Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may06a.b/v89a03527.d
Lab. Id. : CDMHNSS*29 MS
Inj Date : 06-MAY-94 16:48 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : CDMHNSS*29 MS
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may06a.b/vmeth390.m
Meth Date : 09-May-1994 11:37 user1
Cal Date : 06-MAY-1994 12:06 Cal File: v89a03522.d
Als bottle: 1 QC Sample: MS
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	5 1,1-Dichloroethene	96.00	5.294(0.628)	141767	58	58
	6 Acetone	43.00	5.366(0.637)	19483	4	4(a)
*	12 Bromochloromethane	128.00	8.424(1.000)	97528	50	
$	16 1,2-Dichloroethane-d4	65.00	9.378(1.113)	178890	52	52
	17 Benzene	78.00	9.511(0.939)	708394	57	57
*	19 1,4-Difluorobenzene	114.00	10.127(1.000)	501565	50	
	20 Trichloroethene	130.00	10.611(1.048)	186794	56	56
$	25 Toluene-d8	98.00	12.834(0.816)	454611	52	52
	26 Toluene	91.00	12.955(0.824)	605808	56	56
*	32 Chlorobenzene-d5	117.00	15.722(1.000)	359661	50	
	33 Chlorobenzene	112.00	15.782(1.004)	381453	56	56
$	38 Bromofluorobenzene	95.00	18.272(1.162)	193996	52	52

QC Flag Legend

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A0404008MSD

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48933

Matrix: (soil/water) SOIL Lab Sample ID: CDMHMSS*29MS

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03528.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 5 Data Analyzed: 05/06/94

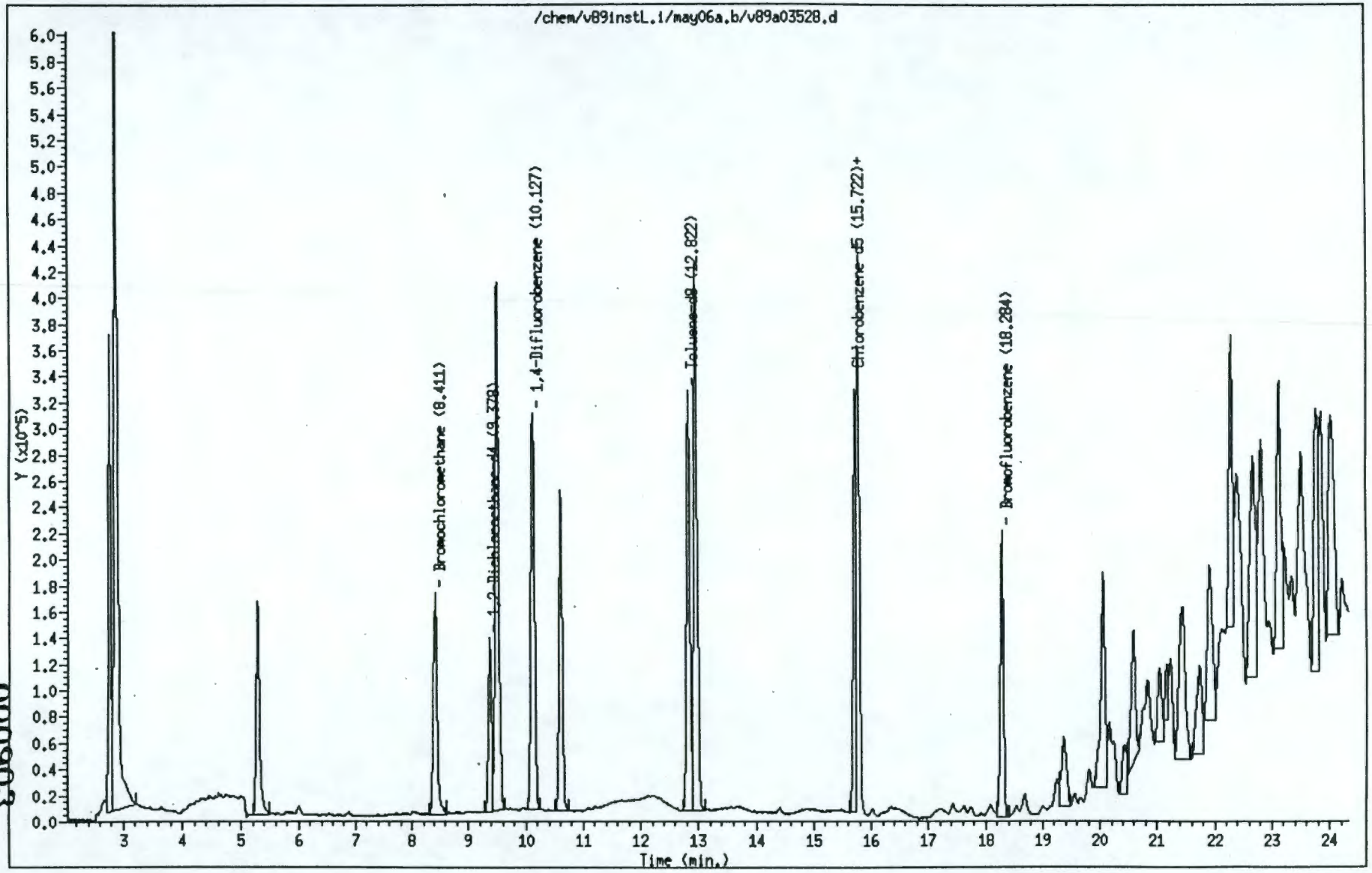
GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(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	10	U
67-64-1	Acetone	3	JB
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	63	
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	59	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	62	
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	60	
108-90-7	Chlorobenzene	60	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

Data File: /chem/v89instL.i/may06a.b/v89a03528.d
Date : 06-MAY-94 17:33
Instrument : v89instL.i
Sample ID : CDMHMSS#29 MSD
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53



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Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may06a.b/v89a03528.d
Lab. Id. : CDMHMSS*29 MSD
Inj Date : 06-MAY-94 17:33 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : CDMHMSS*29 MSD
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may06a.b/vmeth390.m
Meth Date : 09-May-1994 11:37 user1
Cal Date : 06-MAY-1994 12:06 Cal File: v89a03522.d
Als bottle: 2 QC Sample: MSD
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	5 1,1-Dichloroethene	96.00	5.282(0.627)	145254	60	60
	6 Acetone	43.00	5.354(0.636)	12844	2	2(a)
*	12 Bromochloromethane	128.00	8.423(1.000)	95398	50	
$	16 1,2-Dichloroethane-d4	65.00	9.378(1.113)	171774	51	51
	17 Benzene	78.00	9.511(0.939)	728017	58	58
*	19 1,4-Difluorobenzene	114.00	10.127(1.000)	501467	50	
	20 Trichloroethene	130.00	10.610(1.048)	187999	56	56
$	25 Toluene-d8	98.00	12.822(0.816)	436174	51	51
	26 Toluene	91.00	12.955(0.824)	609866	57	57
*	32 Chlorobenzene-d5	117.00	15.722(1.000)	353581	50	
	33 Chlorobenzene	112.00	15.782(1.004)	382132	58	58
$	38 Bromofluorobenzene	95.00	18.284(1.163)	187396	51	51

QC Flag Legend

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SV201001

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48933

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*30

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03525.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 2 Data Analyzed: 05/06/94

GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(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	10	U
67-64-1	Acetone	4	JB
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	4	J
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.

SV201001

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48933

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*30

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03525.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 2 Data Analyzed: 05/06/94

GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

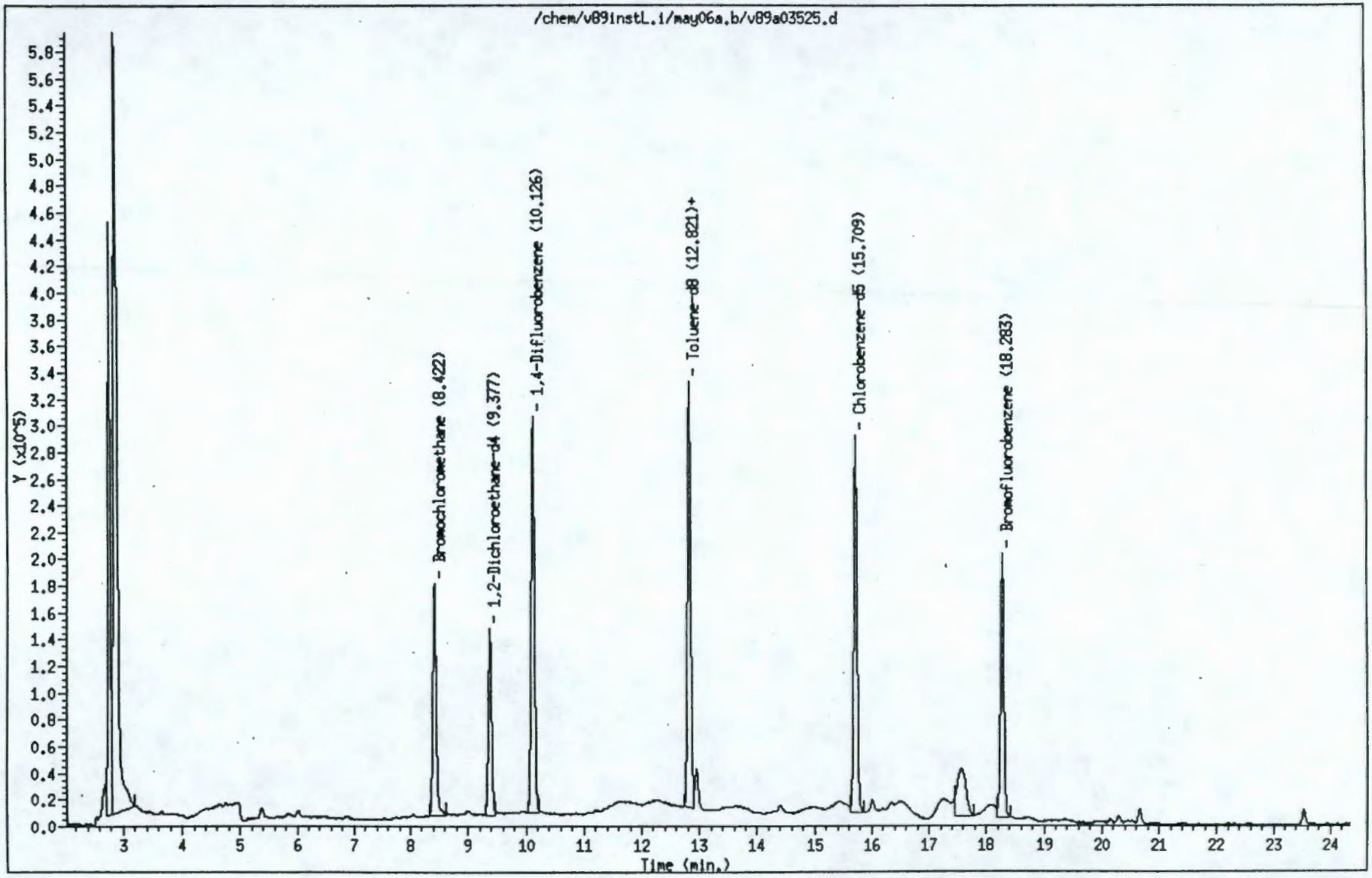
Number TICs found: 0

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/v89instL.i/may06a.b/v89a03525.d
Date : 06-MAY-94 15:37
Instrument : v89instL.i
Sample ID : CDMHNSS*30
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53



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9513355.2004

Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may06a.b/v89a03525.d
Lab. Id. : CDMHNSS*30
Inj Date : 06-MAY-94 15:37 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : CDMHNSS*30
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may06a.b/vmeth390.m
Meth Date : 09-May-1994 11:37 user1
Cal Date : 06-MAY-1994 12:06 Cal File: v89a03522.d
Als bottle: 2
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
6 Acetone	43.00	5.366(0.637)	20164	4	4(a)
* 12 Bromochloromethane	128.00	8.422(1.000)	98783	50	
$ 16 1,2-Dichloroethane-d4	65.00	9.377(1.113)	175903	50	50
* 19 1,4-Difluorobenzene	114.00	10.126(1.000)	492289	50	
$ 25 Toluene-d8	98.00	12.821(0.816)	436745	53	53
26 Toluene	91.00	12.954(0.825)	37820	4	4(a)
* 32 Chlorobenzene-d5	117.00	15.709(1.000)	339281	50	
$ 38 Bromofluorobenzene	95.00	18.271(1.163)	176534	50	50

QC Flag Legend

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

Data File: /chem/v89instL.i/may06a.b/v89a03525.d

Date : 06-MAY-94 15:37

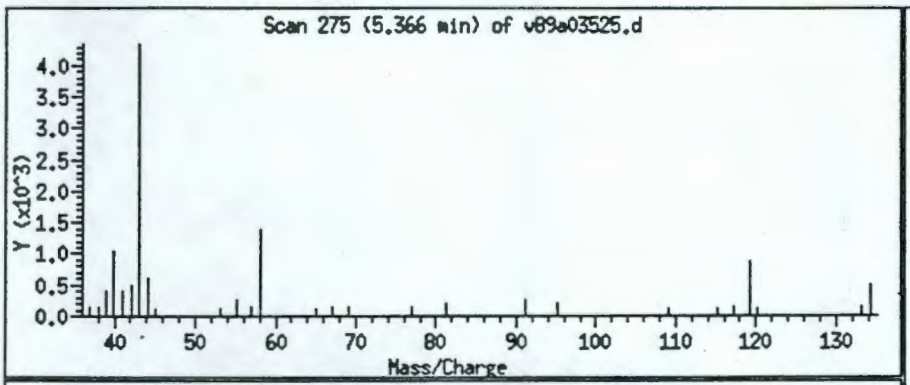
Instrument : v89instL.i

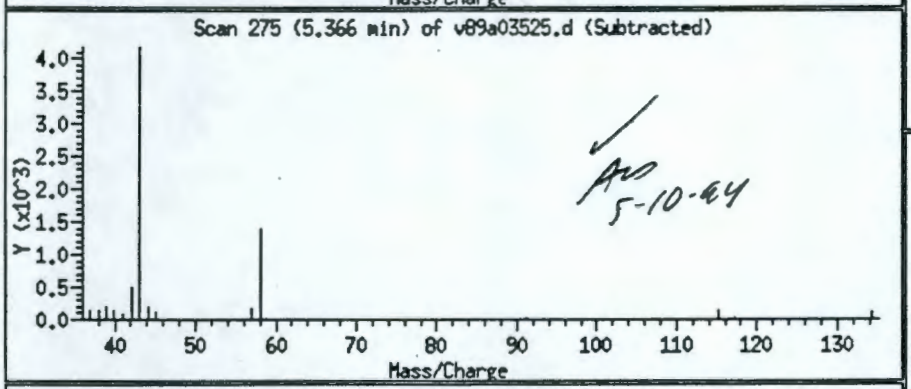
Sample ID : CDMHNSS×30

Column phase : 75m DB-624 Column diameter : 0.53

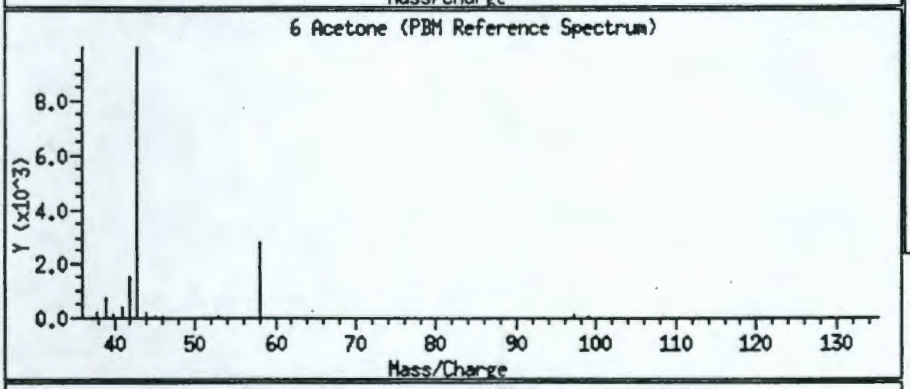
Volume Injected (uL) : 0.0

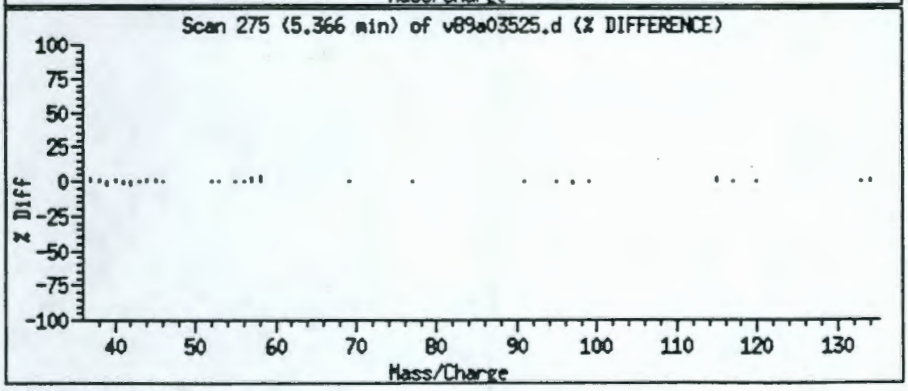
6 Acetone

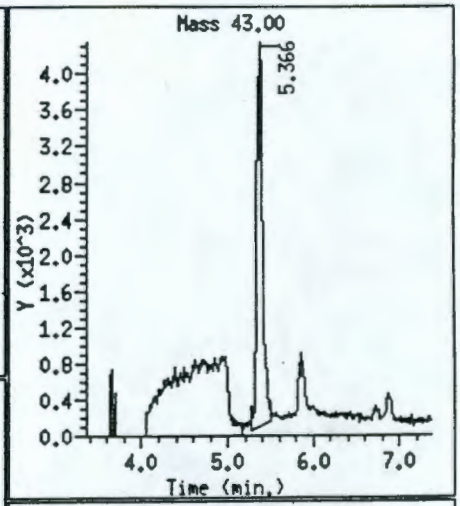


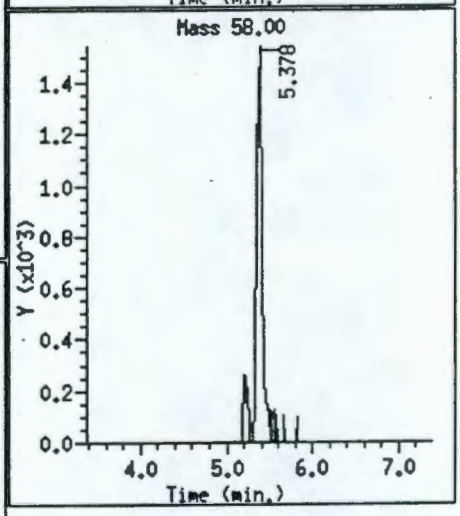


AD 5-10-94









Data File: /chem/v89instL.i/may06a.b/v89a03525.d

Date : 06-MAY-94 15:37

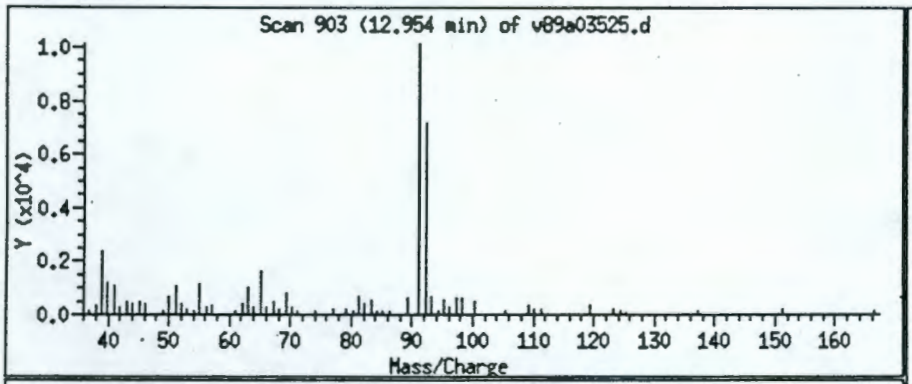
Instrument : v89instL.i

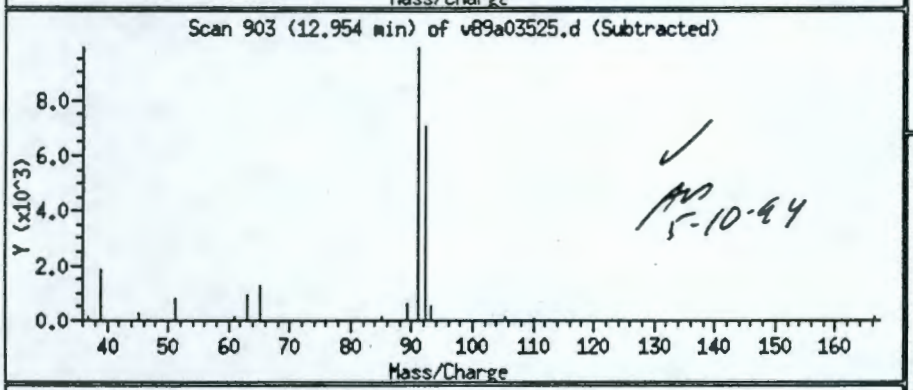
Sample ID : CDMHNSS×30

Column phase : 75m DB-624 Column diameter : 0.53

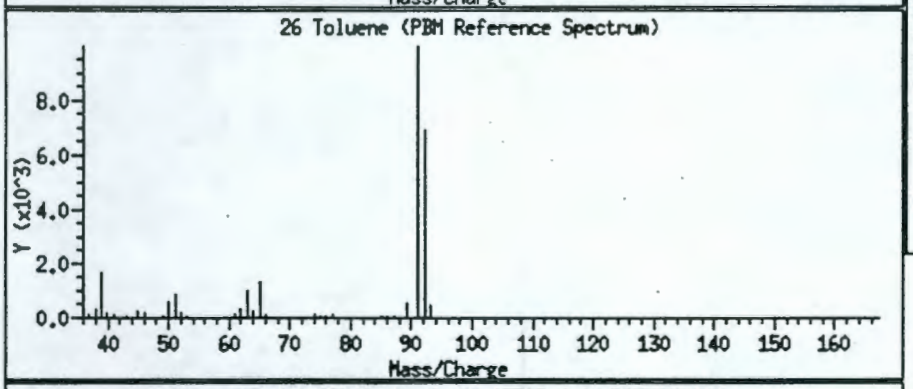
Volume Injected (uL) : 0.0

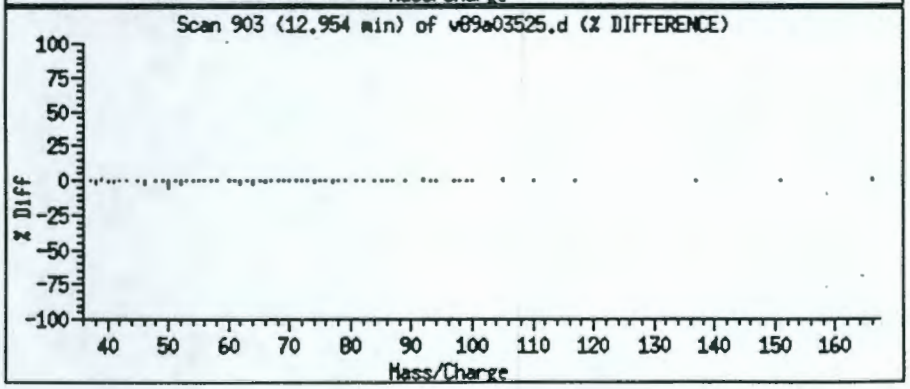
26 Toluene

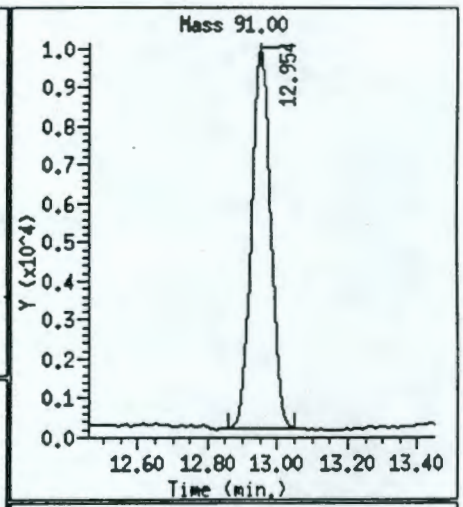


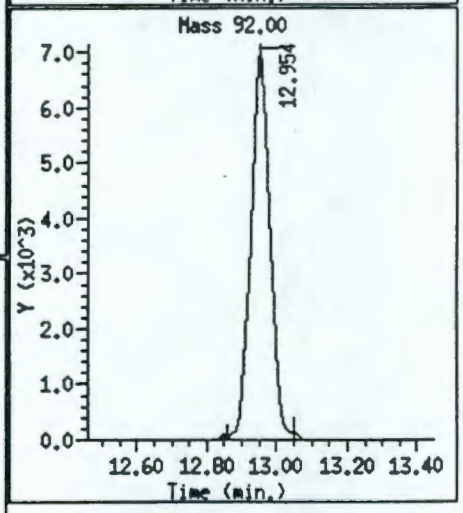


✓ AS 5-10-94





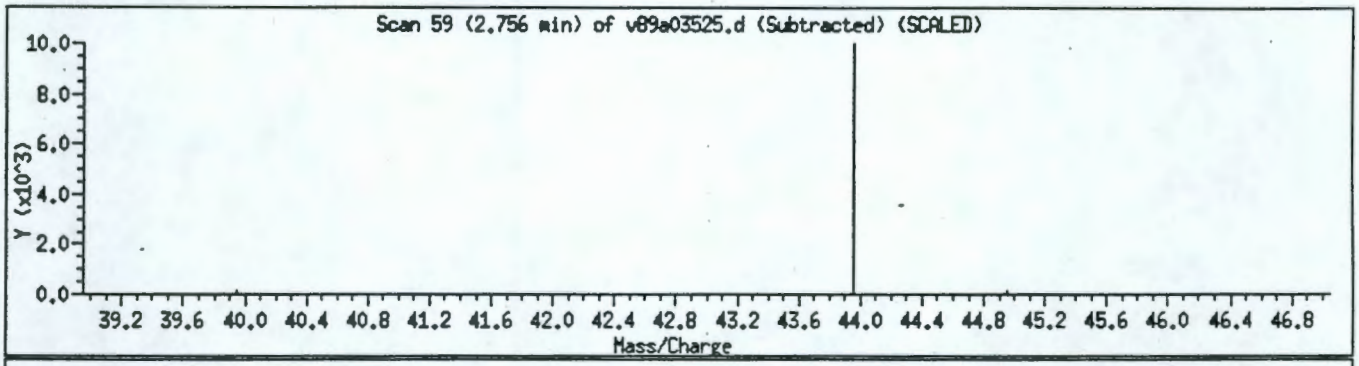




Data File: /chem/v89instL.i/may06a.b/v89a03525.d
Date : 06-MAY-94 15:37
Instrument : v89instL.i
Sample ID : CDMHNSS*30
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				

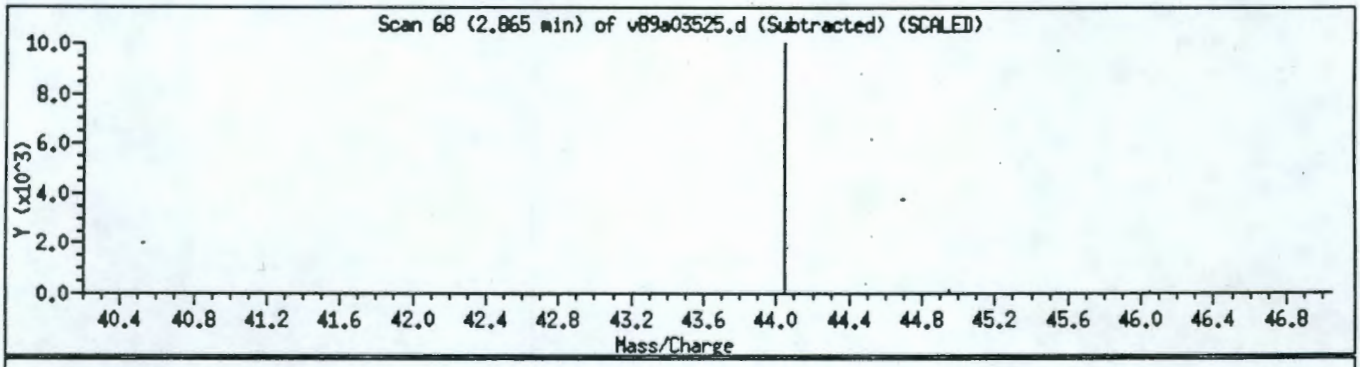


Background CO_2
AMS 5-10-94

Data File: /chem/v89instL.i/may06a.b/v89a03525.d
Date : 06-MAY-94 15:37
Instrument : v89instL.i
Sample ID : CDMMNSS×30
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



Background CO_2
5-10-94

Environmental Science and Engineering

Unknown Compounds Quantitation Report

Data file : /chem/v89instL.i/may06a.b/v89a03525.d
Lab. Id. : CDMHNSS*30
Inj Date : 06-MAY-94 15:37 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : CDMHNSS*30
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may06a.b/vmeth390.m
Meth Date : 09-May-1994 11:37 user1
Cal Date : 06-MAY-1994 12:06 Cal File: v89a03522.d
Als bottle: 2
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 12 Bromochloromethane	8.422	732047	50.000
* 32 Chlorobenzene-d5	15.709	1134336	50.000

RT	AREA	CONC(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	QUANT CPND

9513355.2011

STANDARDS DATA

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48933

Instrument ID: V89INSTL Calibration Date(s): 04/20/94 05/04/94

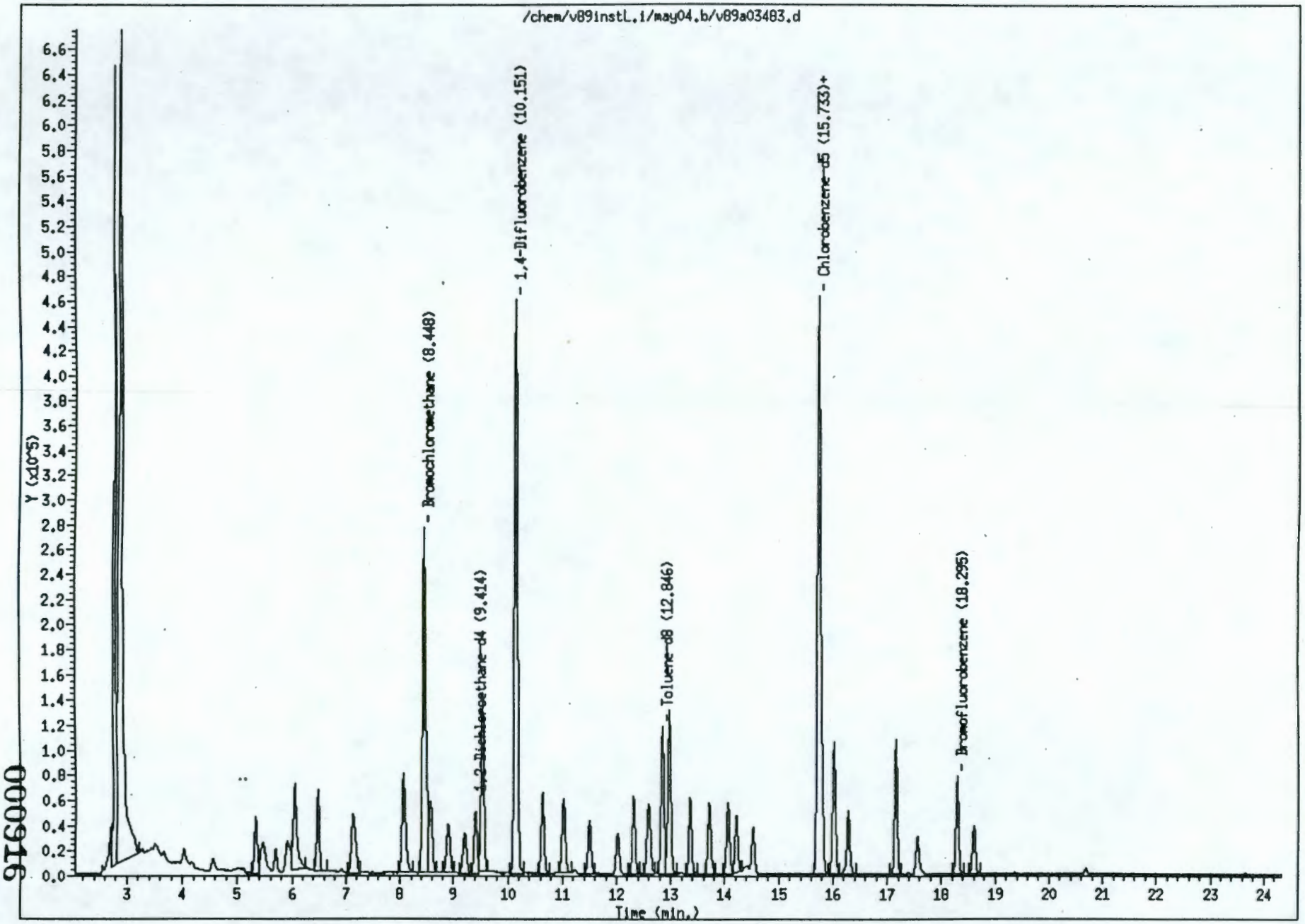
Heated Purge: (Y/N) Y Calibration Times: 1137 1345

GC Column:75m DB-624 ID: 0.53 (mm)

LAB FILE ID: RRF10 =V89A03483.D RRF20 =V89A03484.D
RRF50 =V89A03481.D RRF100=V89A03485.D RRF200=V89A03487.D

COMPOUND		RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
Chloromethane		1.198	1.208	1.126	1.102	1.059	1.139	5.6	
Bromomethane	*	0.569	0.541	0.426	0.410	0.277	0.445	26.2*	<-
Vinyl Chloride	*	0.991	1.120	1.168	1.152	1.108	1.108	6.3*	
Chloroethane		0.280	0.095	0.225	0.395	0.217	0.242	44.9	
Methylene Chloride		2.121	2.055	1.855	1.733	1.578	1.868	12.0	
Acetone		3.042	2.658	2.494	2.258	2.056	2.502	15.1	
Carbon Disulfide		1.519	1.749	1.769	1.735	1.631	1.681	6.2	
1,1-Dichloroethene	*	1.176	1.291	1.288	1.263	1.158	1.235	5.1*	
1,1-Dichloroethane	*	2.944	3.397	3.275	3.218	2.952	3.157	6.4*	
1,2-Dichloroethene (total)		1.535	1.802	1.702	1.620	1.412	1.614	9.3	
Chloroform	*	2.541	2.915	2.770	2.695	2.514	2.687	6.2*	
1,2-Dichloroethane		1.836	2.071	1.898	1.754	1.614	1.835	9.2	
2-Butanone		3.409	3.572	3.459	3.319	2.984	3.349	6.7	
1,1,1-Trichloroethane	*	0.354	0.405	0.393	0.390	0.363	0.381	5.7*	
Carbon Tetrachloride	*	0.280	0.320	0.320	0.316	0.291	0.305	6.2*	
Bromodichloromethane		0.360	0.415	0.397	0.392	0.363	0.386	6.1	
1,2-Dichloropropane		0.301	0.356	0.340	0.335	0.301	0.327	7.5	
cis-1,3-Dichloropropene	*	0.427	0.521	0.513	0.510	0.472	0.488	8.0*	
Trichloroethene	*	0.296	0.353	0.332	0.325	0.294	0.320	7.8*	
Dibromochloromethane	*	0.264	0.300	0.281	0.275	0.262	0.277	5.5*	
1,1,2-Trichloroethane	*	0.247	0.277	0.256	0.248	0.229	0.251	6.9*	
Benzene	*	1.159	1.325	1.234	1.174	0.971	1.173	11.1*	
trans-1,3-Dichloropropene	*	0.378	0.444	0.436	0.432	0.414	0.421	6.2*	
Bromoform	*	0.193	0.222	0.209	0.210	0.193	0.206	6.1*	
4-Methyl-2-Pentanone		0.844	0.997	0.976	1.008	0.995	0.964	7.1	
2-Hexanone		0.665	0.830	0.907	0.821	0.793	0.803	11.0	
Tetrachloroethene	*	0.280	0.327	0.314	0.298	0.265	0.297	8.5*	
1,1,2,2-Tetrachloroethane	*	0.458	0.609	0.520	0.574	0.452	0.523	13.2*	
Toluene	*	1.602	1.706	1.526	1.477	1.286	1.519	10.3*	
Chlorobenzene	*	0.891	1.015	0.954	0.913	0.830	0.921	7.5*	
Ethylbenzene	*	0.489	0.582	0.551	0.520	0.455	0.520	9.6*	
Styrene	*	0.952	1.149	1.109	1.066	0.926	1.040	9.4*	
Xylene (total)	*	0.590	0.725	0.716	0.699	0.646	0.675	8.4*	
1,2-Dichloroethane-d4	*	1.910	1.759	1.794	1.769	1.695	1.786	4.4*	
Toluene-d8		1.320	1.259	1.261	1.219	1.060	1.224	8.0	
Bromofluorobenzene	*	0.539	0.512	0.522	0.510	0.450	0.507	6.6*	

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



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Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may04.b/v89a03483.d
Lab. Id. : vstd 10
Inj Date : 04-MAY-1994 12:36 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : vstd 10
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may04.b/vmeth390.m
Meth Date : 13-May-1994 13:04 user1
Cal Date : 04-MAY-94 10:58 Cal File: v89a03481.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	1 Chloromethane	50.00	3.457(0.409)	37808	10	10(M)
	2 Vinyl Chloride	62.00	3.530(0.417)	31286	9	9(a)
	3 Bromomethane	94.00	4.025(0.476)	17951	13	13(M)
	4 Chloroethane	64.00	4.170(0.493)	8842	12	12
	5 1,1-Dichloroethene	96.00	5.330(0.630)	37129	10	10
	6 Acetone	43.00	5.463(0.646)	95999	12	12
	7 Carbon Disulfide	76.00	5.693(0.673)	47942	9	9(a)
	8 Methylene Chloride	84.00	6.055(0.716)	66941	11	11
	9 1,2-Dichloroethene (total)	96.00	8.061(0.953)	48447	10	10
	10 1,1-Dichloroethane	63.00	7.131(0.843)	92935	9	9(a)
	11 2-Butanone	43.00	8.085(0.956)	107613	10	10
*	12 Bromochloromethane	128.00	8.460(1.000)	157815	50	
	13 Chloroform	83.00	8.569(1.013)	80208	9	9(a)
	14 1,1,1-Trichloroethane	97.00	8.907(0.876)	56313	9	9(a)
	15 Carbon Tetrachloride	117.00	9.209(0.906)	44477	9	9(a)
$	16 1,2-Dichloroethane-d4	65.00	9.414(1.113)	60301	11	11
	17 Benzene	78.00	9.535(0.938)	184158	10	10
	18 1,2-Dichloroethane	62.00	9.535(1.127)	57951	10	10
*	19 1,4-Difluorobenzene	114.00	10.163(1.000)	794770	50	
	20 Trichloroethene	130.00	10.647(1.048)	47026	9	9(a)
	21 1,2-Dichloropropane	63.00	11.033(1.086)	47858	9	9(a)
	22 Bromodichloromethane	83.00	11.492(1.131)	57240	9	9(a)
	23 cis-1,3-Dichloropropene	75.00	12.314(1.212)	67824	9	9(a)
	24 4-Methyl-2-Pentanone	43.00	12.592(0.800)	94787	9	9(a)
$	25 Toluene-d8	98.00	12.846(0.816)	148330	11	11
	26 Toluene	91.00	12.978(0.825)	179956	10	10
	27 trans-1,3-Dichloropropene	75.00	13.353(1.314)	60148	9	9(a)
	28 1,1,2-Trichloroethane	97.00	13.716(1.349)	39272	10	10
	29 Tetrachloroethene	164.00	14.066(0.894)	31449	9	9(a)
	30 2-Hexanone	43.00	14.223(0.904)	74739	8	8(a)
	31 Dibromochloromethane	129.00	14.525(1.429)	42026	10	10

Data File: /chem/v89instL.i/may04.b/v89a03483.d
Report Date: 13-May-1994 13:04

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
*	32 Chlorobenzene-d5	117.00	15.733(1.000)	561801	50	
	33 Chlorobenzene	112.00	15.793(1.004)	100122	10	10
	34 Ethylbenzene	106.00	16.023(1.018)	54965	9	9(a)
	35 Xylene (total)	106.00	16.277(1.035)	33129	4	4(a)
	36 Styrene	104.00	17.159(1.091)	106934	9	9(a)
	37 Bromoform	173.00	17.558(1.728)	30736	9	9(a)
$	38 Bromofluorobenzene	95.00	18.295(1.163)	60602	11	11
	39 1,1,2,2-Tetrachloroethane	83.00	18.609(1.183)	51504	9	9(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Area: 37808 Retention Time: 3.457

Ok

Cancel

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Zoom Out

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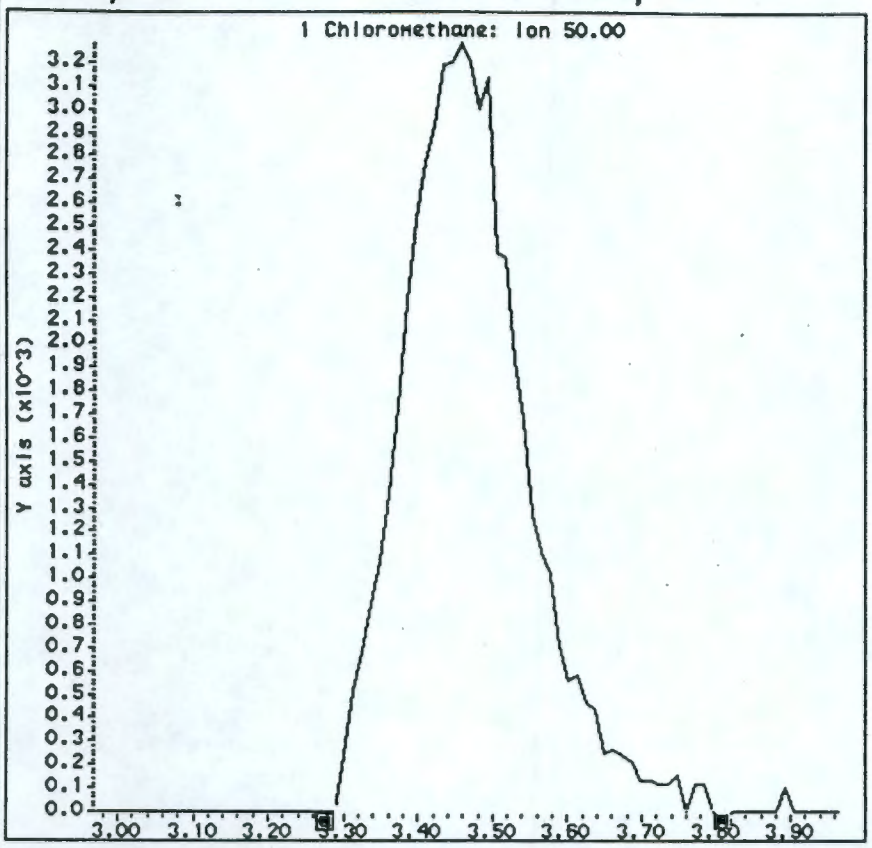

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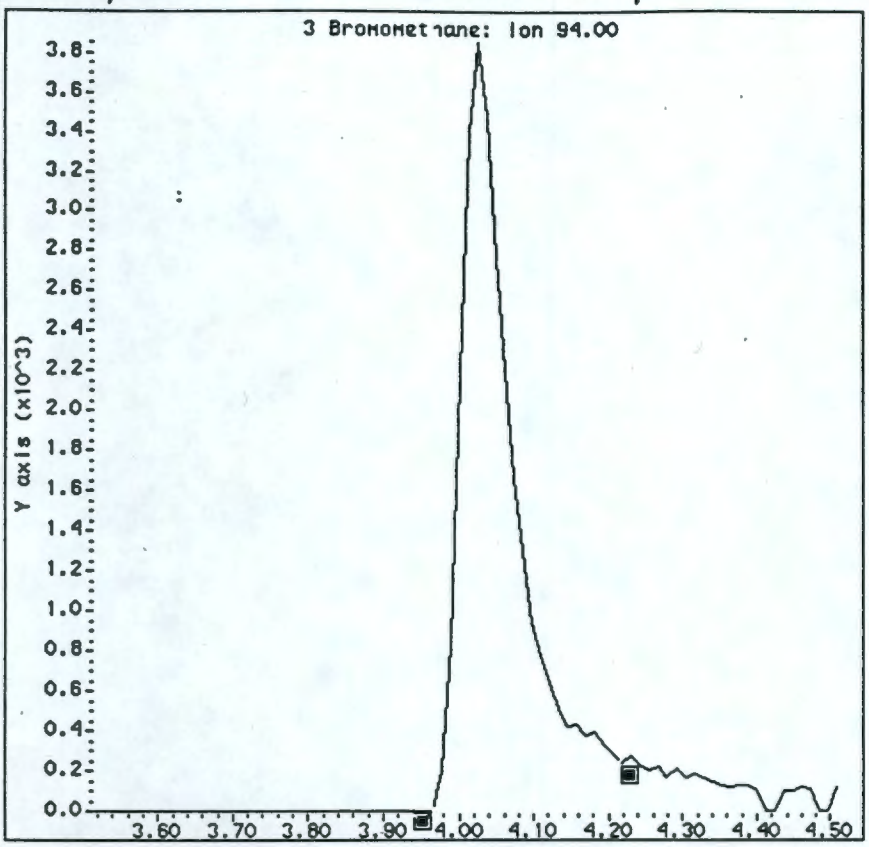

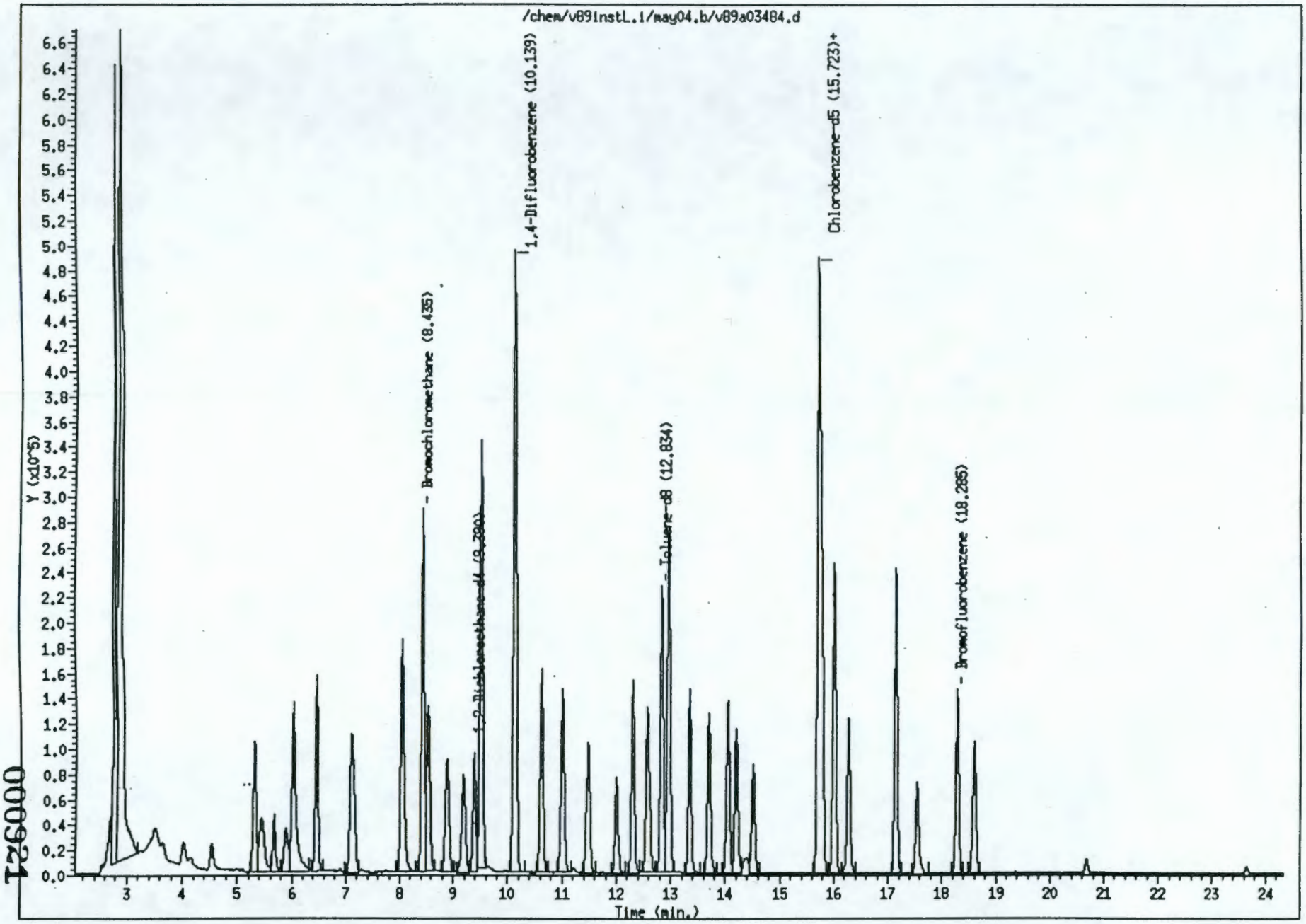

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Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may04.b/v89a03484.d
Lab. Id. : vstd 20
Inj Date : 04-MAY-1994 13:11 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : vstd 20
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may04.b/vmeth390.m
Meth Date : 13-May-1994 13:04 user1
Cal Date : 04-MAY-94 10:58 Cal File: v89a03481.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	1 Chloromethane	50.00	3.457(0.410)	80911	21	21
	2 Vinyl Chloride	62.00	3.517(0.417)	75000	20	20
	3 Bromomethane	94.00	4.013(0.476)	36258	24	24
	4 Chloroethane	64.00	4.146(0.491)	6368	8	8(a)
	5 1,1-Dichloroethene	96.00	5.306(0.629)	86452	21	21
	6 Acetone	43.00	5.438(0.645)	178074	21	21
	7 Carbon Disulfide	76.00	5.668(0.672)	117143	21	21
	8 Methylene Chloride	84.00	6.031(0.715)	137675	22	22
	9 1,2-Dichloroethene (total)	96.00	8.037(0.953)	120684	22	22
	10 1,1-Dichloroethane	63.00	7.106(0.842)	227553	22	22
	11 2-Butanone	43.00	8.061(0.956)	239319	21	21
*	12 Bromochloromethane	128.00	8.435(1.000)	167474	50	
	13 Chloroform	83.00	8.544(1.013)	195282	22	22
	14 1,1,1-Trichloroethane	97.00	8.894(0.877)	136898	21	21
	15 Carbon Tetrachloride	117.00	9.184(0.906)	108325	21	21
$	16 1,2-Dichloroethane-d4	65.00	9.390(1.113)	117866	20	20
	17 Benzene	78.00	9.523(0.939)	447961	23	23
	18 1,2-Dichloroethane	62.00	9.523(1.129)	138748	22	22
*	19 1,4-Difluorobenzene	114.00	10.139(1.000)	845031	50	
	20 Trichloroethene	130.00	10.623(1.048)	119171	22	22
	21 1,2-Dichloropropane	63.00	11.009(1.086)	120291	22	22
	22 Bromodichloromethane	83.00	11.481(1.132)	140412	22	22
	23 cis-1,3-Dichloropropene	75.00	12.302(1.213)	175994	21	21
	24 4-Methyl-2-Pentanone	43.00	12.581(0.800)	233605	21	21
$	25 Toluene-d8	98.00	12.834(0.816)	294814	20	20
	26 Toluene	91.00	12.967(0.825)	399681	22	22
	27 trans-1,3-Dichloropropene	75.00	13.342(1.316)	150219	21	21
	28 1,1,2-Trichloroethane	97.00	13.704(1.352)	93644	22	22
	29 Tetrachloroethene	164.00	14.055(0.894)	76611	22	22
	30 2-Hexanone	43.00	14.200(0.903)	194442	21	21
	31 Dibromochloromethane	129.00	14.514(1.431)	101439	22	22

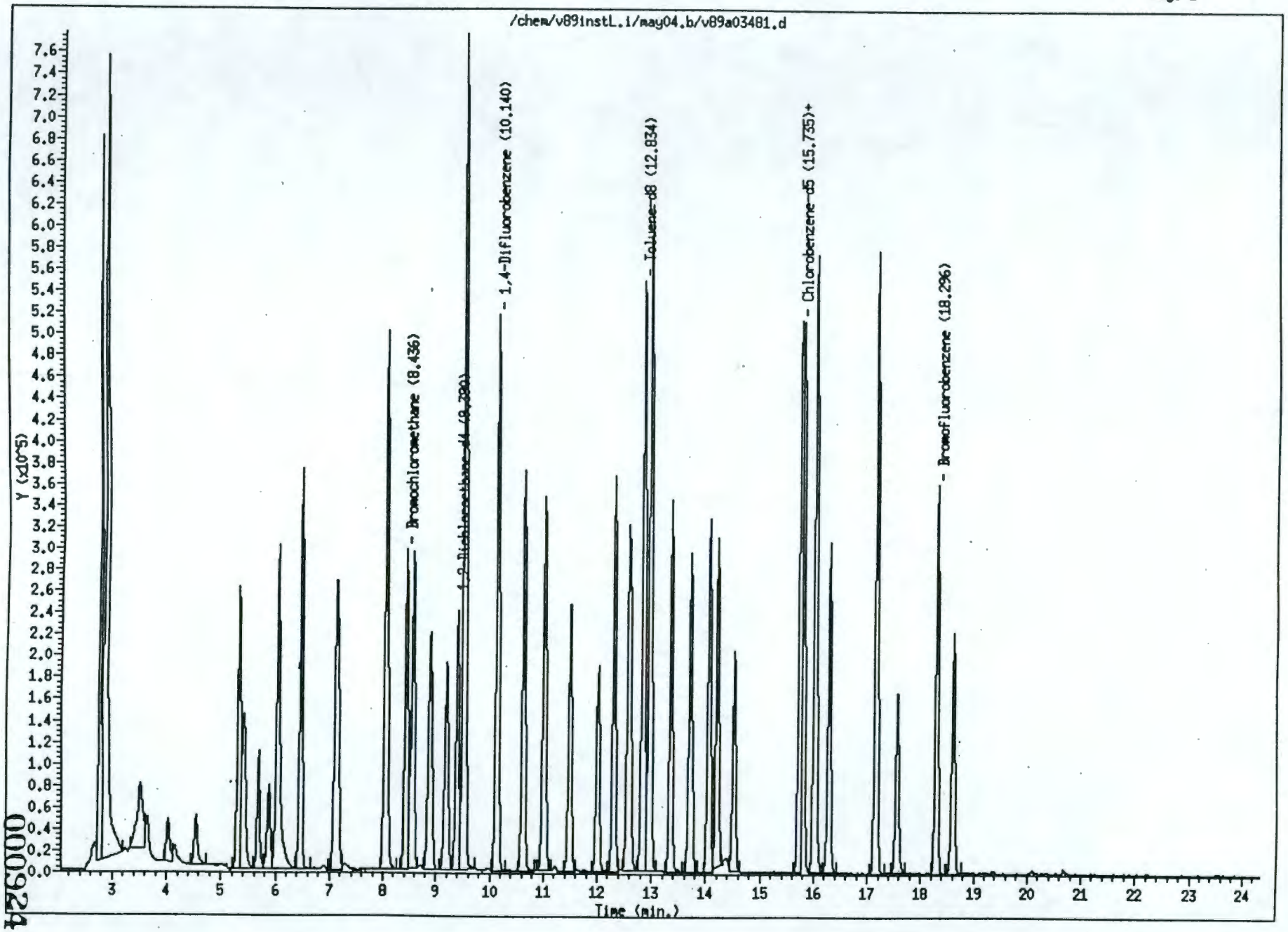
Data File: /chem/v89instL.i/may04.b/v89a03484.d
Report Date: 13-May-1994 13:05

Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
* 32 Chlorobenzene-d5	117.00	15.723(1.000)	585605	50	
33 Chlorobenzene	112.00	15.783(1.004)	237742	22	22
34 Ethylbenzene	106.00	16.013(1.018)	136420	22	22
35 Xylene (total)	106.00	16.267(1.035)	84933	11	11
36 Styrene	104.00	17.149(1.091)	269071	22	22
37 Bromoform	173.00	17.547(1.731)	75166	22	22
$ 38 Bromofluorobenzene	95.00	18.285(1.163)	120043	20	20
39 1,1,2,2-Tetrachloroethane	83.00	18.599(1.183)	142651	23	23

QC Flag Legend

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

Data File: /chem/v89instL.i/may04.b/v89a03481.d



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Data File: /chem/v89instL.i/may04.b/v89a03481.d
Report Date: 13-May-1994 13:09

Environmental Science and Engineering

Volatile Sample Report

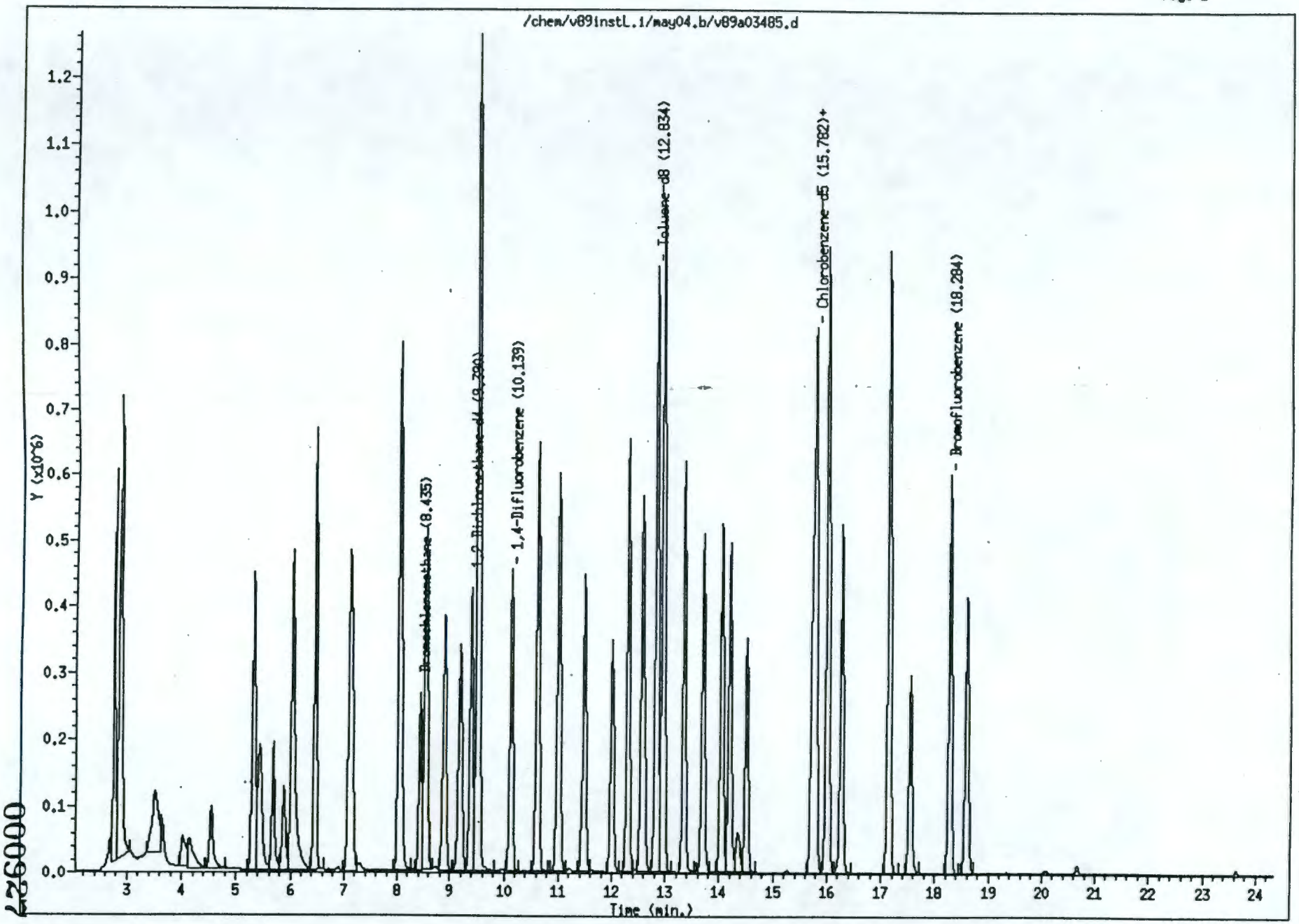
Data file : /chem/v89instL.i/may04.b/v89a03481.d
Lab. Id. : vstd 50
Inj Date : 04-MAY-1994 10:58 Autotune Date: 01-Apr-94 10:45:2
Operator : Shroads Inst ID: v89instL.i
Smp Info : vstd 50
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may04.b/vmeth390.m
Meth Date : 13-May-1994 13:05 user1
Cal Date : 04-MAY-94 10:58 Cal File: v89a03481.d
Als bottle: 1
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	1 Chloromethane	50.00	3.445(0.408)	189144	50	50
	2 Vinyl Chloride	62.00	3.505(0.416)	196237	50	50
	3 Bromomethane	94.00	4.013(0.476)	71525	50	50
	4 Chloroethane	64.00	4.158(0.493)	37735	50	50
	5 1,1-Dichloroethene	96.00	5.306(0.629)	216294	50	50
	6 Acetone	43.00	5.403(0.640)	418886	50	50
	7 Carbon Disulfide	76.00	5.668(0.672)	297141	50	50
	8 Methylene Chloride	84.00	6.031(0.715)	311641	50	50
	9 1,2-Dichloroethene (total)	96.00	8.037(0.953)	285800	50	50
	10 1,1-Dichloroethane	63.00	7.106(0.842)	550056	50	50
	11 2-Butanone	43.00	8.049(0.954)	580962	50	50
*	12 Bromochloromethane	128.00	8.436(1.000)	167961	50	
	13 Chloroform	83.00	8.545(1.013)	465206	50	50
	14 1,1,1-Trichloroethane	97.00	8.895(0.877)	338766	50	50
	15 Carbon Tetrachloride	117.00	9.185(0.906)	275198	50	50
$	16 1,2-Dichloroethane-d4	65.00	9.390(1.113)	301382	50	50
	17 Benzene	78.00	9.523(0.939)	1062880	50	50
	18 1,2-Dichloroethane	62.00	9.523(1.129)	318812	50	50
*	19 1,4-Difluorobenzene	114.00	10.140(1.000)	861088	50	
	20 Trichloroethene	130.00	10.623(1.048)	286086	50	50
	21 1,2-Dichloropropane	63.00	11.010(1.086)	292899	50	50
	22 Bromodichloromethane	83.00	11.481(1.132)	341438	50	50
	23 cis-1,3-Dichloropropene	75.00	12.315(1.214)	441560	50	50
	24 4-Methyl-2-Pentanone	43.00	12.581(0.800)	574095	50	50
$	25 Toluene-d8	98.00	12.834(0.816)	741817	50	50
	26 Toluene	91.00	12.968(0.824)	897790	50	50
	27 trans-1,3-Dichloropropene	75.00	13.354(1.317)	375107	50	50
	28 1,1,2-Trichloroethane	97.00	13.717(1.353)	220051	50	50
	29 Tetrachloroethene	164.00	14.055(0.893)	184881	50	50
	30 2-Hexanone	43.00	14.212(0.903)	533801	50	50
	31 Dibromochloromethane	129.00	14.514(1.431)	242230	50	50

Data File: /chem/v89instL.i/may04.b/v89a03481.d
Report Date: 13-May-1994 13:09

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
*	32 Chlorobenzene-d5	117.00	15.735(1.000)	588406	50	
	33 Chlorobenzene	112.00	15.795(1.004)	561494	50	50
	34 Ethylbenzene	106.00	16.025(1.018)	324200	50	50
	35 Xylene (total)	106.00	16.279(1.035)	210522	25	25
	36 Styrene	104.00	17.160(1.091)	652654	50	50
	37 Bromoform	173.00	17.559(1.732)	179899	50	50
$	38 Bromofluorobenzene	95.00	18.296(1.163)	307374	50	50
	39 1,1,2,2-Tetrachloroethane	83.00	18.610(1.183)	306159	50	50

Data File: /chem/v89instL.i/may04.b/v89a03485.d



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Data File: /chem/v89instL.i/may04.b/v89a03485.d
Report Date: 13-May-1994 13:05

Environmental Science and Engineering

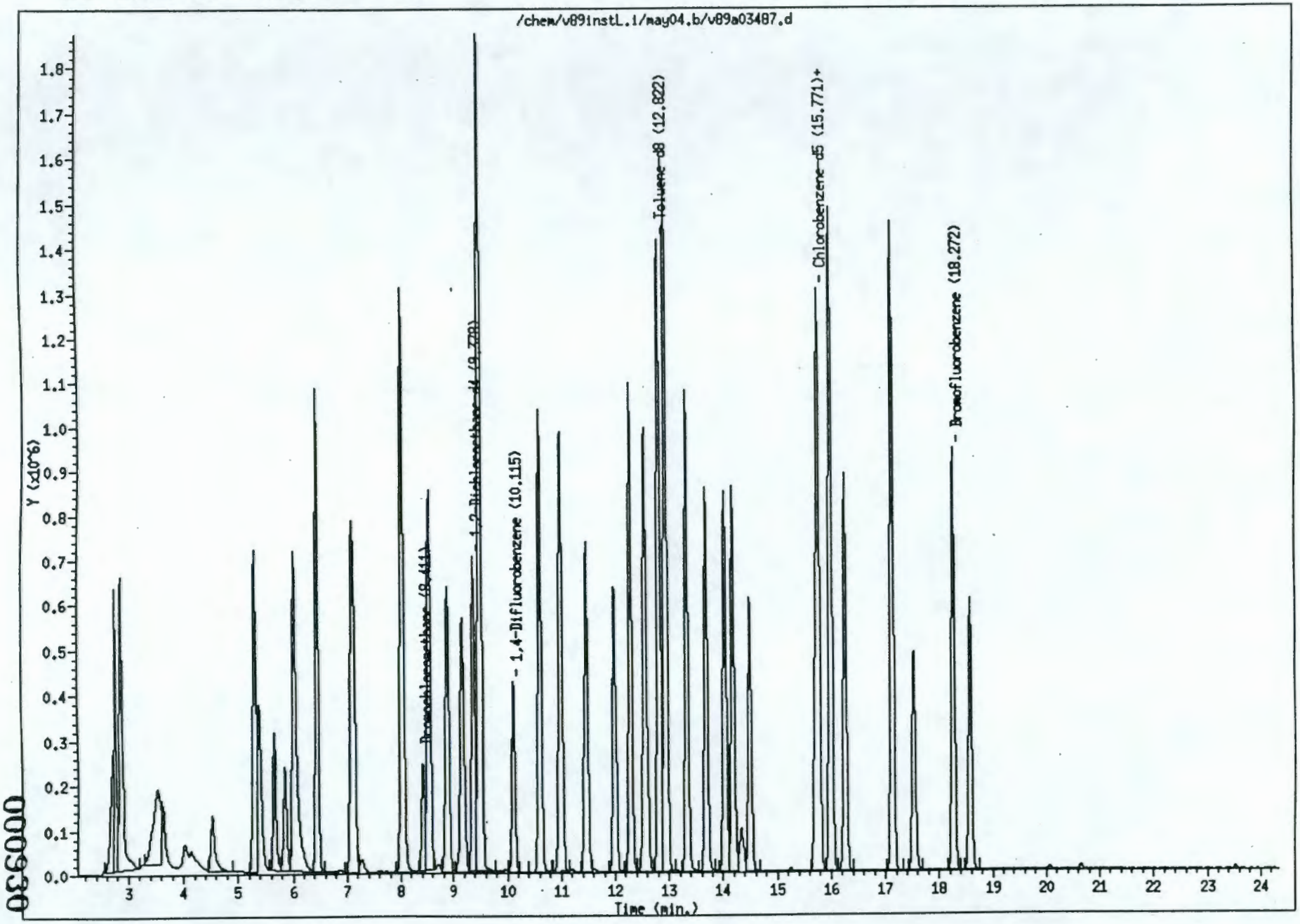
Volatile Sample Report

Data file : /chem/v89instL.i/may04.b/v89a03485.d
Lab. Id. : vstd 100
Inj Date : 04-MAY-1994 13:45 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : vstd 100
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may04.b/vmeth390.m
Meth Date : 13-May-1994 13:05 user1
Cal Date : 04-MAY-94 10:58 Cal File: v89a03481.d
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	1 Chloromethane	50.00	3.469(0.411)	344264	97	97
	2 Vinyl Chloride	62.00	3.517(0.417)	359911	100	100
	3 Bromomethane	94.00	4.013(0.476)	128211	92	92
	4 Chloroethane	64.00	4.158(0.493)	123431	160	160
	5 1,1-Dichloroethene	96.00	5.306(0.629)	394354	100	100
	6 Acetone	43.00	5.427(0.643)	705377	90	90
	7 Carbon Disulfide	76.00	5.668(0.672)	542026	100	100
	8 Methylene Chloride	84.00	6.031(0.715)	541180	93	93
	9 1,2-Dichloroethene (total)	96.00	8.037(0.953)	506130	100	100
	10 1,1-Dichloroethane	63.00	7.106(0.842)	1005115	100	100
	11 2-Butanone	43.00	8.061(0.956)	1036758	99	99
*	12 Bromochloromethane	128.00	8.435(1.000)	156165	50	
	13 Chloroform	83.00	8.544(1.013)	841586	100	100
	14 1,1,1-Trichloroethane	97.00	8.894(0.877)	607942	100	100
	15 Carbon Tetrachloride	117.00	9.184(0.906)	493420	100	100
$	16 1,2-Dichloroethane-d4	65.00	9.390(1.113)	552450	99	99
	17 Benzene	78.00	9.511(0.938)	1830575	100	100
	18 1,2-Dichloroethane	62.00	9.511(1.127)	547754	96	96
*	19 1,4-Difluorobenzene	114.00	10.139(1.000)	779673	50	
	20 Trichloroethene	130.00	10.623(1.048)	506950	100	100
	21 1,2-Dichloropropane	63.00	11.009(1.086)	522631	100	100
	22 Bromodichloromethane	83.00	11.480(1.132)	611570	100	100
	23 cis-1,3-Dichloropropene	75.00	12.302(1.213)	794561	100	100
	24 4-Methyl-2-Pentanone	43.00	12.568(0.799)	1061477	100	100
$	25 Toluene-d8	98.00	12.834(0.816)	1282761	100	100
	26 Toluene	91.00	12.967(0.825)	1554668	97	97
	27 trans-1,3-Dichloropropene	75.00	13.341(1.316)	673949	100	100
	28 1,1,2-Trichloroethane	97.00	13.704(1.352)	386872	99	99
	29 Tetrachloroethene	164.00	14.042(0.893)	314225	100	100
	30 2-Hexanone	43.00	14.199(0.903)	864222	100	100
	31 Dibromochloromethane	129.00	14.514(1.431)	428223	99	99

Data File: /chem/v89instL.i/may04.b/v89a03485.d
Report Date: 13-May-1994 13:05

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
*	32 Chlorobenzene-d5	117.00	15.722(1.000)	526340	50	
	33 Chlorobenzene	112.00	15.782(1.004)	961329	99	99
	34 Ethylbenzene	106.00	16.012(1.018)	547683	100	100
	35 Xylene (total)	106.00	16.266(1.035)	368147	52	52
	36 Styrene	104.00	17.148(1.091)	1122290	100	100
	37 Bromoform	173.00	17.547(1.731)	327993	100	100
$	38 Bromofluorobenzene	95.00	18.284(1.163)	536554	100	100
	39 1,1,2,2-Tetrachloroethane	83.00	18.586(1.182)	604468	110	110



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9513355.2027

Data File: /chem/v89instL.i/may04.b/v89a03487.d
Report Date: 04-May-1994 15:33

Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may04.b/v89a03487.d
Lab. Id. : vstd 200
Inj Date : 04-MAY-1994 14:58 Autotune Date: 01-Apr-94 10:45:2
Operator : Shroads Inst ID: v89instL.i
Smp Info : vstd 200
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may04.b/vmeth390.m
Meth Date : 04-May-1994 15:33 user1
Cal Date : 04-MAY-94 10:58 Cal File: v89a03481.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	1 Chloromethane	50.00	3.469(0.412)	602550	190	190
	2 Vinyl Chloride	62.00	3.542(0.420)	630497	200	200(A)
	3 Bromomethane	94.00	4.013(0.476)	157606	120	120
	4 Chloroethane	64.00	4.146(0.492)	123489	180	180
	5 1,1-Dichloroethene	96.00	5.294(0.628)	658751	190	190
	6 Acetone	43.00	5.378(0.638)	1169827	160	160
	7 Carbon Disulfide	76.00	5.656(0.671)	927844	190	190
	8 Methylene Chloride	84.00	6.019(0.715)	897829	170	170
	9 1,2-Dichloroethene (total)	96.00	8.013(0.951)	803336	170	170
	10 1,1-Dichloroethane	63.00	7.094(0.842)	1679664	190	190
	11 2-Butanone	43.00	8.037(0.954)	1697832	180	180
*	12 Bromochloromethane	128.00	8.423(1.000)	142253	50	
	13 Chloroform	83.00	8.532(1.013)	1430523	190	190
	14 1,1,1-Trichloroethane	97.00	8.870(0.877)	1047303	190	190
	15 Carbon Tetrachloride	117.00	9.173(0.907)	839496	190	190
$	16 1,2-Dichloroethane-d4	65.00	9.378(1.113)	964290	190	190
	17 Benzene	78.00	9.499(0.939)	2803611	160	160
	18 1,2-Dichloroethane	62.00	9.511(1.129)	918197	180	180
*	19 1,4-Difluorobenzene	114.00	10.115(1.000)	722056	50	
	20 Trichloroethene	130.00	10.610(1.049)	850367	180	180
	21 1,2-Dichloropropane	63.00	10.997(1.087)	868983	180	180
	22 Bromodichloromethane	83.00	11.469(1.134)	1049251	190	190
	23 cis-1,3-Dichloropropene	75.00	12.290(1.215)	1363282	190	190
	24 4-Methyl-2-Pentanone	43.00	12.568(0.800)	1936914	210	210(A)
$	25 Toluene-d8	98.00	12.822(0.816)	2063141	170	170
	26 Toluene	91.00	12.955(0.825)	2502462	170	170
	27 trans-1,3-Dichloropropene	75.00	13.329(1.318)	1196062	200	200
	28 1,1,2-Trichloroethane	97.00	13.692(1.354)	661565	180	180
	29 Tetrachloroethene	164.00	14.042(0.894)	515387	180	180
	30 2-Hexanone	43.00	14.187(0.903)	1542749	200	200
	31 Dibromochloromethane	129.00	14.490(1.432)	757577	190	190

Data File: /chem/v89instL.i/may04.b/v89a03487.d
Report Date: 04-May-1994 15:33

Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
* 32 Chlorobenzene-d5	117.00	15.710(1.000)	486631	50	
33 Chlorobenzene	112.00	15.771(1.004)	1614827	180	180
34 Ethylbenzene	106.00	16.000(1.018)	886018	180	180
35 Xylene (total)	106.00	16.254(1.035)	628726	96	96
36 Styrene	104.00	17.136(1.091)	1802762	180	180
37 Bromoform	173.00	17.535(1.734)	556670	190	190
$ 38 Bromofluorobenzene	95.00	18.272(1.163)	876293	180	180
39 1,1,2,2-Tetrachloroethane	83.00	18.574(1.182)	880614	170	170

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48933

Instrument ID: V89INSTL Calibration Date: 05/06/94 Time: 1206

Lab File ID: V89A03522.D Init. Calibration Date(s): 04/20/94 05/04/94

Heated Purge: (Y/N) Y Init. Calibration Times: 1137 1458

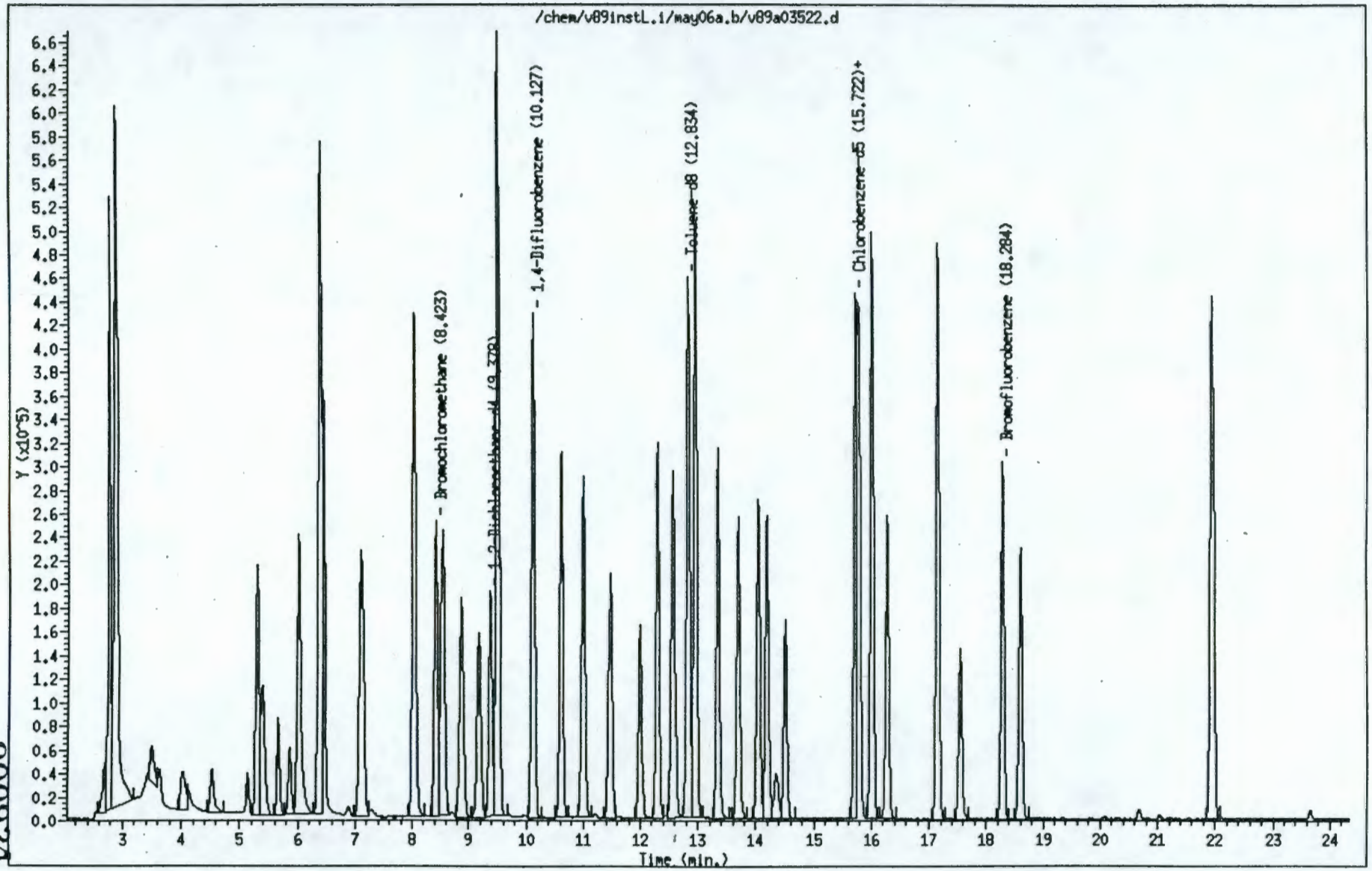
GC Column:75m DB-624 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Chloromethane	1.139	1.061		6.8	
Bromomethane	0.445	0.548	0.100	-23.3	25.0
Vinyl Chloride	1.108	1.099	0.100	0.8	25.0
Chloroethane	0.242	0.243		-0.3	
Methylene Chloride	1.868	1.813		3.0	
Acetone	2.502	2.596		-3.8	
Carbon Disulfide	1.681	1.656		1.5	
1,1-Dichloroethene	1.235	1.261	0.100	-2.1	25.0
1,1-Dichloroethane	3.157	3.277	0.200	-3.8	25.0
1,2-Dichloroethene (total)	1.614	1.718		-6.4	
Chloroform	2.687	2.781	0.200	-3.5	25.0
1,2-Dichloroethane	1.835	1.963		-7.0	
2-Butanone	3.349	3.970		-18.5	
1,1,1-Trichloroethane	0.381	0.391	0.100	-2.5	25.0
Carbon Tetrachloride	0.305	0.311	0.100	-2.0	25.0
Bromodichloromethane	0.386	0.393		-2.0	
1,2-Dichloropropane	0.327	0.343		-5.2	
cis-1,3-Dichloropropene	0.488	0.527	0.200	-7.8	25.0
Trichloroethene	0.320	0.333	0.300	-4.2	25.0
Dibromochloromethane	0.277	0.282	0.100	-1.9	25.0
1,1,2-Trichloroethane	0.251	0.263	0.100	-4.6	25.0
Benzene	1.173	1.241	0.500	-5.8	25.0
trans-1,3-Dichloropropene	0.421	0.446	0.100	-5.9	25.0
Bromoform	0.206	0.215	0.100	-4.5	25.0
4-Methyl-2-Pentanone	0.964	1.050		-8.9	
2-Hexanone	0.803	0.870		-8.3	
Tetrachloroethene	0.297	0.305	0.200	-2.6	25.0
1,1,2,2-Tetrachloroethane	0.523	0.631	0.500	-20.7	25.0
Toluene	1.519	1.500	0.400	1.3	25.0
Chlorobenzene	0.921	0.939	0.500	-2.0	25.0
Ethylbenzene	0.520	0.543	0.100	-4.5	25.0
Styrene	1.040	1.099	0.300	-5.6	25.0
Xylene (total)	0.675	0.707	0.300	-4.7	25.0
1,2-Dichloroethane-d4	1.786	1.774	0.100	0.7	20.5
Toluene-d8	1.224	1.217		0.5	
Bromofluorobenzene	0.507	0.515	0.200	-1.7	25.0

All other compounds must meet a minimum RRF of 0.010.

Data File: /chem/v89instL.i/may06a.b/v89a03522.d
Date : 06-MAY-1994 12:06
Instrument : v89instL.i
Sample ID : vstd 50
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53



000934

9513355.2061

Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may06a.b/v89a03522.d
Lab. Id. : vstd 50
Inj Date : 06-MAY-1994 12:06 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : vstd 50
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may06a.b/vmeth390.m
Meth Date : 09-May-1994 11:37 user1
Cal Date : 06-MAY-94 12:06 Cal File: v89a03522.d
Als bottle: 1
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	1 Chloromethane	50.00	3.445(0.409)	147058	50	50
	2 Vinyl Chloride	62.00	3.517(0.418)	152326	50	50
	3 Bromomethane	94.00	4.037(0.479)	75992	50	50
	4 Chloroethane	64.00	4.146(0.492)	33706	50	50
	5 1,1-Dichloroethene	96.00	5.306(0.630)	174785	50	50
	6 Acetone	43.00	5.390(0.640)	359731	50	50
	7 Carbon Disulfide	76.00	5.656(0.671)	229445	50	50
	8 Methylene Chloride	84.00	6.019(0.715)	251144	50	50
	9 1,2-Dichloroethene (total)	96.00	8.024(0.953)	237998	50	50
	10 1,1-Dichloroethane	63.00	7.094(0.842)	454057	50	50
	11 2-Butanone	43.00	8.037(0.954)	550043	50	50
*	12 Bromochloromethane	128.00	8.423(1.000)	138559	50	
	13 Chloroform	83.00	8.532(1.013)	385370	50	50
	14 1,1,1-Trichloroethane	97.00	8.883(0.877)	279588	50	50
	15 Carbon Tetrachloride	117.00	9.184(0.907)	222863	50	50
$	16 1,2-Dichloroethane-d4	65.00	9.378(1.113)	245781	50	50
	17 Benzene	78.00	9.511(0.939)	887983	50	50
	18 1,2-Dichloroethane	62.00	9.511(1.129)	271949	50	50
*	19 1,4-Difluorobenzene	114.00	10.127(1.000)	715788	50	
	20 Trichloroethene	130.00	10.622(1.049)	238610	50	50
	21 1,2-Dichloropropane	63.00	10.997(1.086)	245861	50	50
	22 Bromodichloromethane	83.00	11.480(1.134)	281555	50	50
	23 cis-1,3-Dichloropropene	75.00	12.302(1.215)	376928	50	50
	24 4-Methyl-2-Pentanone	43.00	12.568(0.799)	530925	50	50
$	25 Toluene-d8	98.00	12.834(0.816)	615611	50	50
	26 Toluene	91.00	12.954(0.824)	758867	50	50
	27 trans-1,3-Dichloropropene	75.00	13.341(1.317)	319094	50	50
	28 1,1,2-Trichloroethane	97.00	13.704(1.353)	188167	50	50
	29 Tetrachloroethene	164.00	14.042(0.893)	154069	50	50
	30 2-Hexanone	43.00	14.199(0.903)	440221	50	50
	31 Dibromochloromethane	129.00	14.501(1.432)	201764	50	50

Data File: /chem/v89instL.i/may06a.b/v89a03522.d
Report Date: 10-May-1994 10:50

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
*	32 Chlorobenzene-d5	117.00	15.722(1.000)	505846	50	
	33 Chlorobenzene	112.00	15.782(1.004)	474959	50	50
	34 Ethylbenzene	106.00	16.012(1.018)	274570	50	50
	35 Xylene (total)	106.00	16.266(1.035)	178866	25	25
	36 Styrene	104.00	17.148(1.091)	555825	50	50
	37 Bromoform	173.00	17.547(1.733)	153787	50	50
$	38 Bromofluorobenzene	95.00	18.284(1.163)	260753	50	50
	39 1,1,2,2-Tetrachloroethane	83.00	18.598(1.183)	319364	50	50

9513355.2034

RAW QC DATA

Data File: /chem/v89instL.i/may04.b/v89a03480.d

Date : 04-MAY-94 09:44

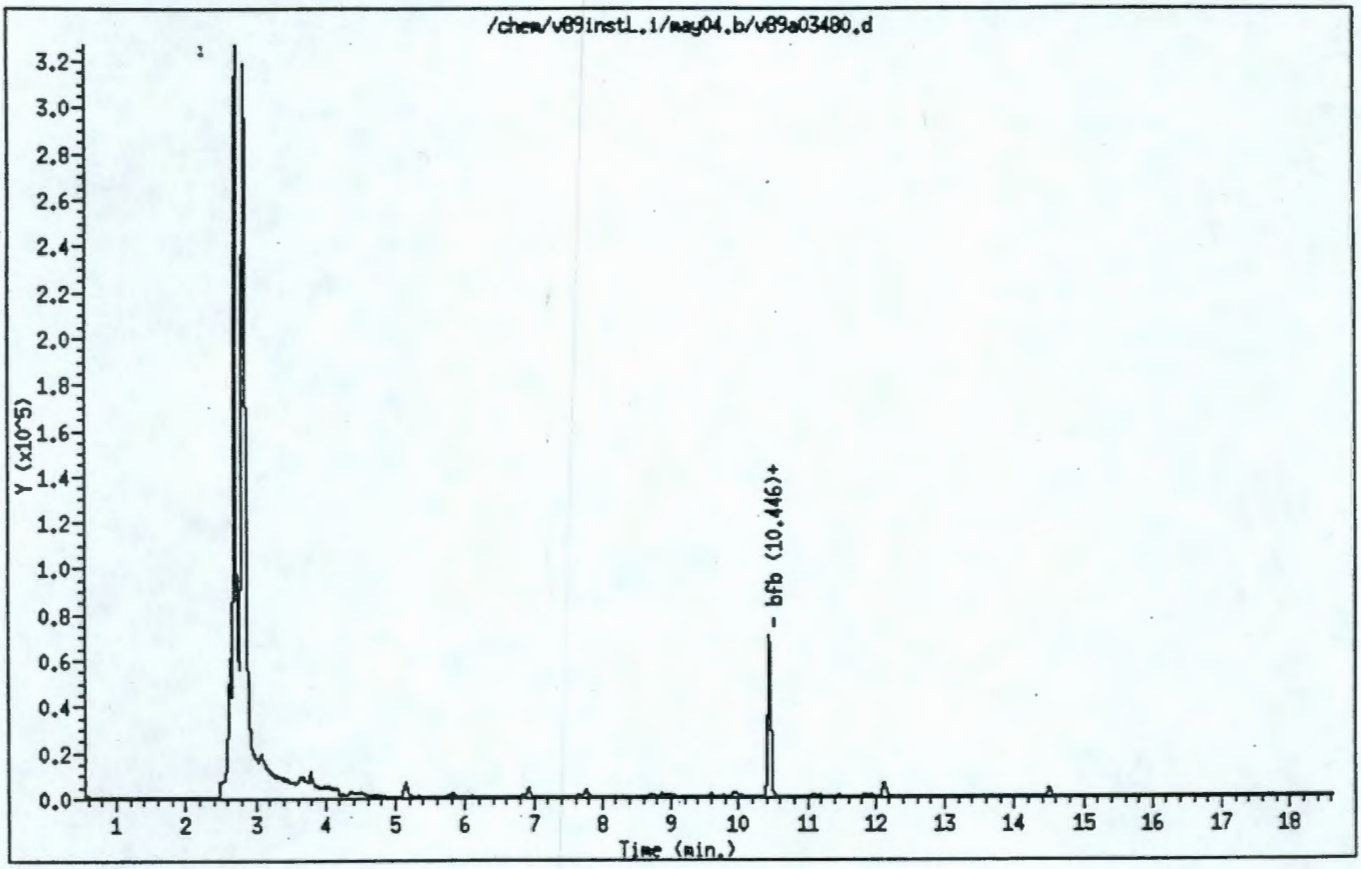
Instrument : v89instL.i

Sample ID : bfb 50 ng purge

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 1.0



Data File: /chem/v89instL.i/may04.b/v89a03480.d

Date : 04-MAY-94 09:44

Instrument : v89instL.i

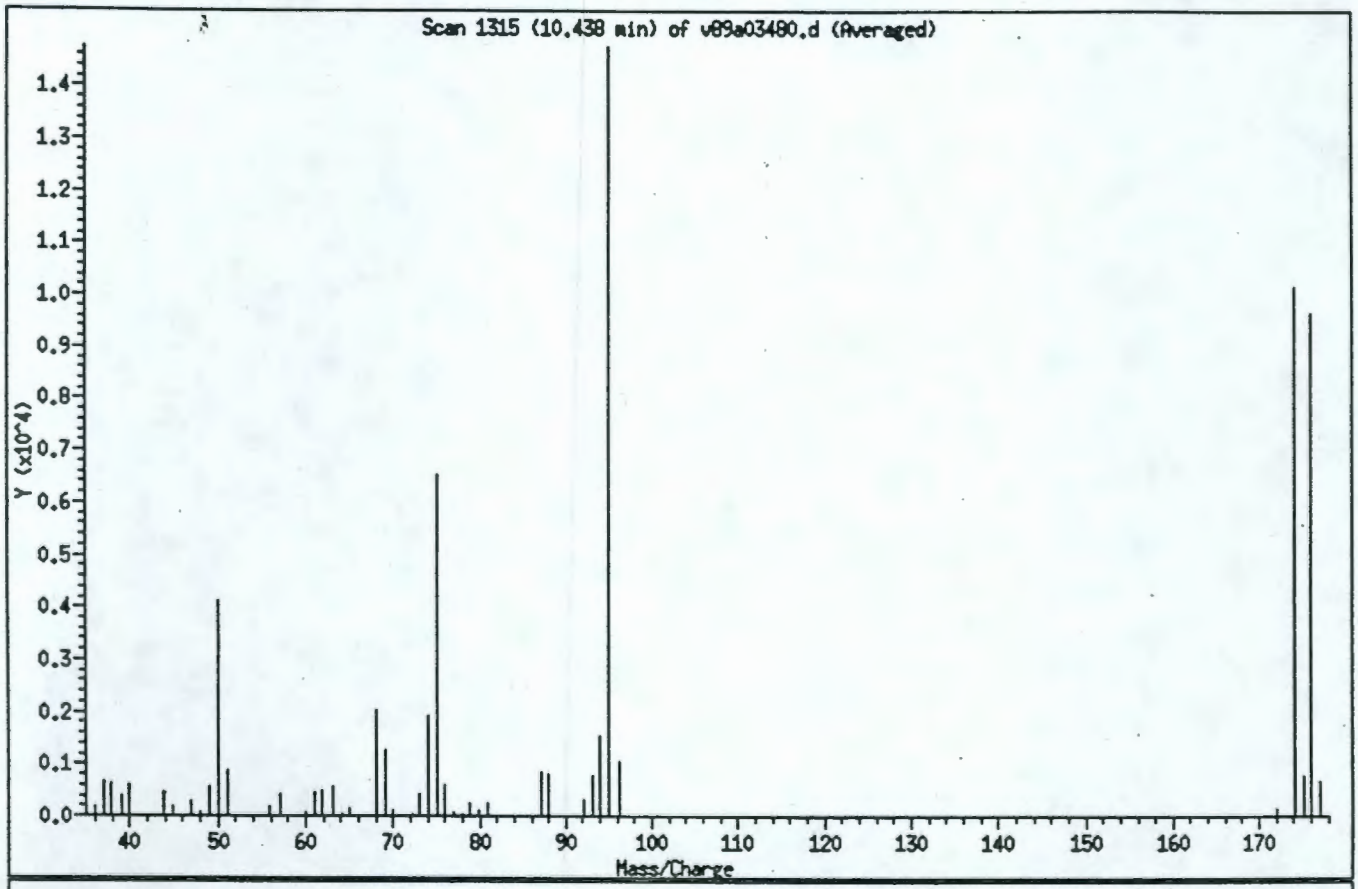
Sample ID : bfb 50 ng purge

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 1.0

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.0
50	8.00 - 40.00% of mass 95	27.9
75	30.00 - 66.00% of mass 95	44.3
96	5.00 - 9.00% of mass 95	7.0
173	Less than 2.00% of mass 174	0.0
174	50.00 - 120.00% of mass 95	68.7
175	4.00 - 9.00% of mass 174	7.6
176	93.00 - 101.00% of mass 174	95.0
177	5.00 - 9.00% of mass 176	7.0

Data File: /chem/v89instL.i/may04.b/v89a03480.d

Date : 04-MAY-94 09:44

Instrument : v89instL.i

Sample ID : bfb 50 ng purge

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 1.0

Spectrum: Scan 1315-1317 (10.438 min) Subtraction Scan 1307

Base Peak: 95.00

Number of mass peaks: 44

Mass	Abund	Mass	Abund	Mass	Abund	Mass	Abund
36.00	161	57.00	407	74.00	1920	94.00	1518
37.00	653	60.00	82	75.00	6532	95.00	14745
38.00	621	61.00	465	76.00	577	96.00	1030
39.00	382	62.00	498	77.00	75	172.00	130
44.00	73	63.00	551	78.00	36	174.00	10132
45.00	176	64.00	39	79.00	233	175.00	770
47.00	281	65.00	151	80.00	113	176.00	9622
48.00	80	68.00	2019	81.00	259	177.00	674
49.00	568	69.00	1242	87.00	821		
50.00	4110	70.00	108	88.00	790		
51.00	878	72.00	38	92.00	313		
56.00	174	73.00	419	93.00	766		

Data File: /chem/v89instL.i/may06a.b/v89a03520.d

Date : 06-MAY-94 10:37

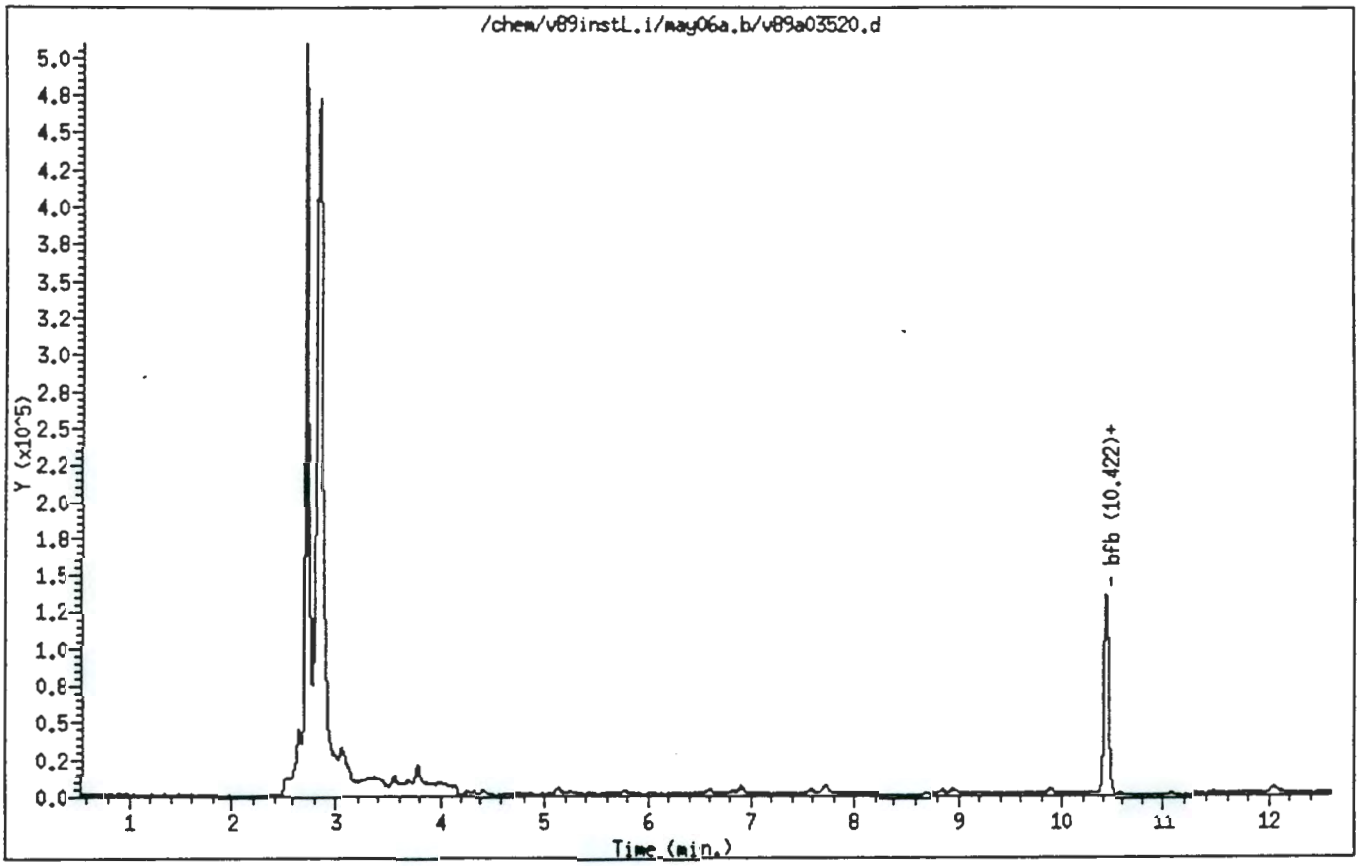
Instrument : v89instL.i

Sample ID : bfb 50 ng purge

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 1.0



Data File: /chem/v89instL.i/may06a.b/v89a03520.d

Date : 06-MAY-94 10:37

Instrument : v89instL.i

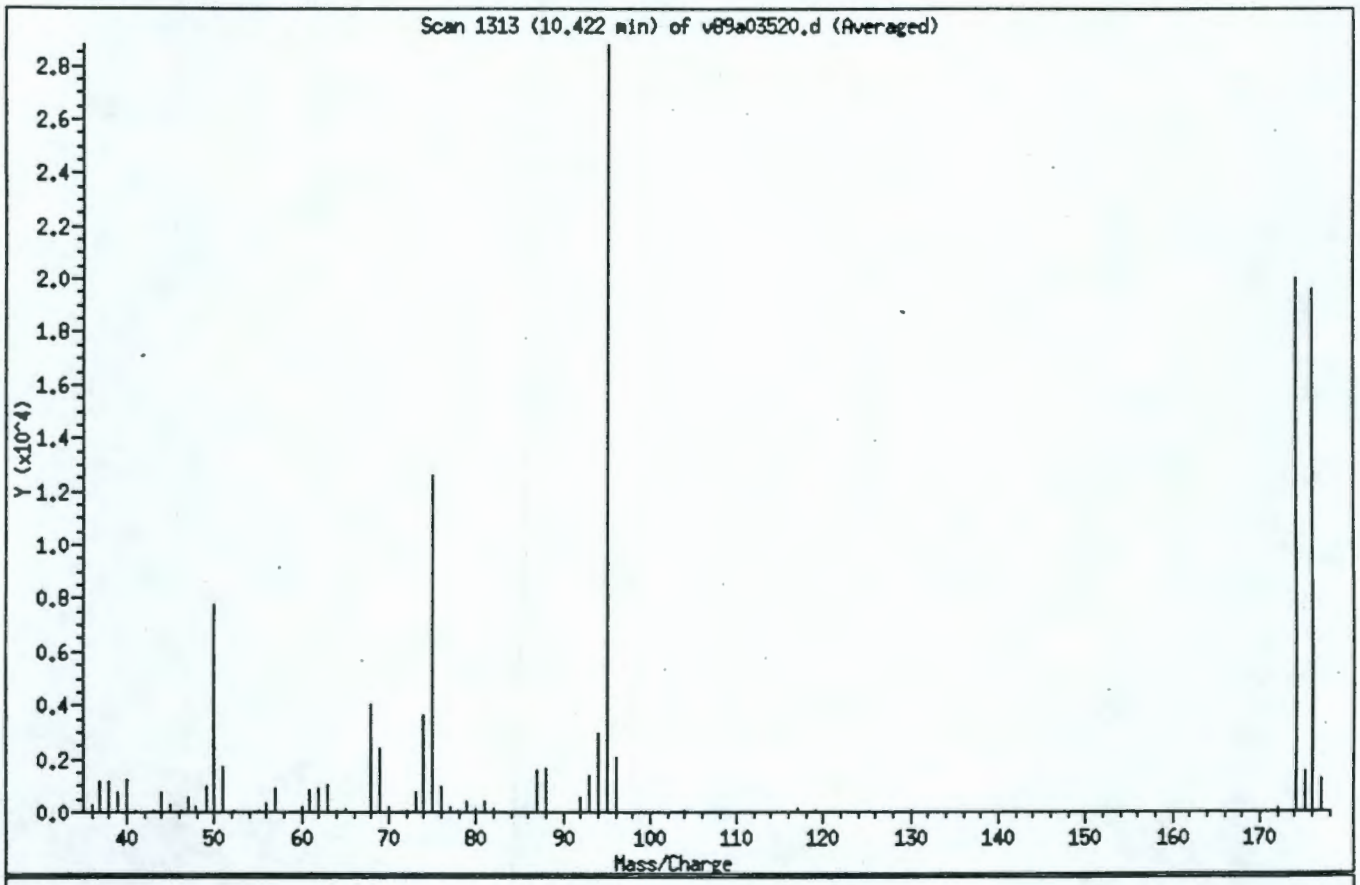
Sample ID : bfb 50 ng purge

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 1.0

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.0
50	8.00 - 40.00% of mass 95	27.0
75	30.00 - 66.00% of mass 95	43.6
96	5.00 - 9.00% of mass 95	7.1
173	Less than 2.00% of mass 174	0.0
174	50.00 - 120.00% of mass 95	69.4
175	4.00 - 9.00% of mass 174	7.6
176	93.00 - 101.00% of mass 174	98.2
177	5.00 - 9.00% of mass 176	6.4

Data File: /chem/v89instL.i/may06a.b/v89a03520.d

Date : 06-MAY-94 10:37

Instrument : v89instL.i

Sample ID : bfb 50 ng purge

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 1.0

Spectrum: Scan 1313-1315 (10.422 min) Subtraction Scan 1304
Base Peak: 95.00
Number of mass peaks: 54

Mass	Abund	Mass	Abund	Mass	Abund	Mass	Abund
36.00	300	52.00	93	73.00	778	94.00	2942
37.00	1135	55.00	92	74.00	3634	95.00	28786
38.00	1155	56.00	361	75.00	12565	96.00	2054
39.00	774	57.00	863	76.00	953	104.00	87
41.00	75	60.00	198	77.00	185	117.00	145
43.00	36	61.00	822	78.00	102	119.00	68
44.00	16	62.00	873	79.00	378	130.00	43
45.00	306	63.00	1011	80.00	156	172.00	135
46.00	38	64.00	84	81.00	398	174.00	19981
47.00	569	65.00	138	82.00	159	175.00	1513
48.00	192	68.00	3983	87.00	1568	176.00	19629
49.00	967	69.00	2370	88.00	1604	177.00	1248
50.00	7771	70.00	224	92.00	557		
51.00	1698	72.00	85	93.00	1359		

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

vblks1

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48933

Matrix: (soil/water) SOIL Lab Sample ID: vblks1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03523.D

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

% Moisture: not dec. 0 Data Analyzed: 05/06/94

GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(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	4	J
67-64-1	Acetone	5	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

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48933

Matrix: (soil/water) SOIL Lab Sample ID: vblks1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03523.D

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

% Moisture: not dec. 0 Data Analyzed: 05/06/94

GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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.				
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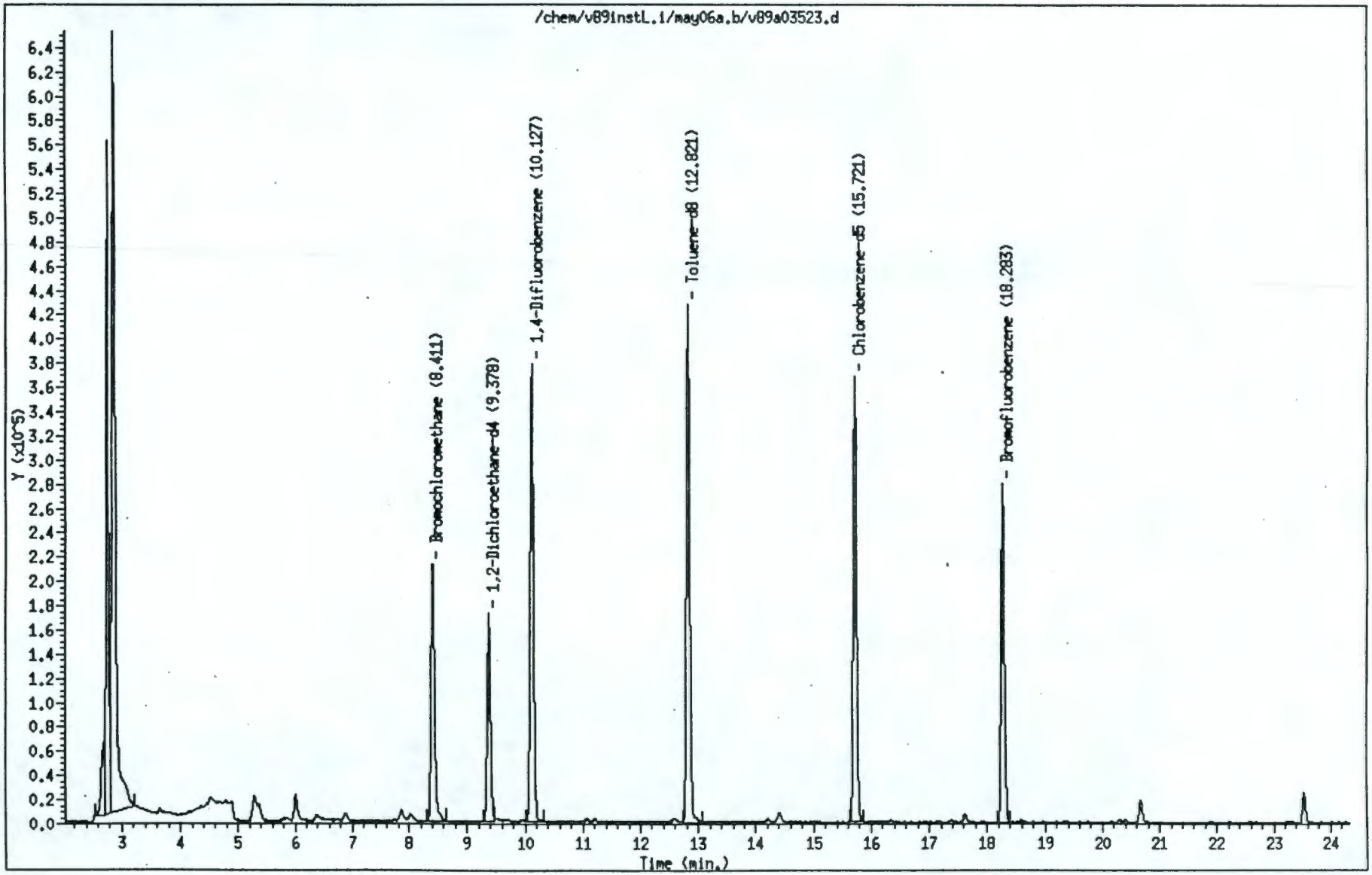
30.				

Data File: /chem/v89instL.i/may06a.b/v89a03523.d
Date : 06-MAY-94 12:47
Instrument : v89instL.i
Sample ID : mb*thama*0506
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53



000946

95133355.2043

Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may06a.b/v89a03523.d
Lab. Id. : mb*thama*0506
Inj Date : 06-MAY-94 12:47 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : mb*thama*0506
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may06a.b/vmeth390.m
Meth Date : 09-May-1994 11:37 user1
Cal Date : 06-MAY-1994 12:06 Cal File: v89a03522.d
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	6 Acetone	43.00	5.366(0.637)	34076	5	5(a)
	8 Methylene Chloride	84.00	6.018(0.714)	19749	4	4(a)
*	12 Bromochloromethane	128.00	8.423(1.000)	120649	50	
$	16 1,2-Dichloroethane-d4	65.00	9.378(1.113)	218147	51	51
*	19 1,4-Difluorobenzene	114.00	10.127(1.000)	627838	50	
$	25 Toluene-d8	98.00	12.821(0.816)	564985	52	52
*	32 Chlorobenzene-d5	117.00	15.721(1.000)	450001	50	
$	38 Bromofluorobenzene	95.00	18.283(1.163)	236400	51	51

QC Flag Legend

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

Data File: /chem/v89instL.i/may06a.b/v89a03523.d

Date : 06-MAY-94 12:47

Instrument : v89instL.i

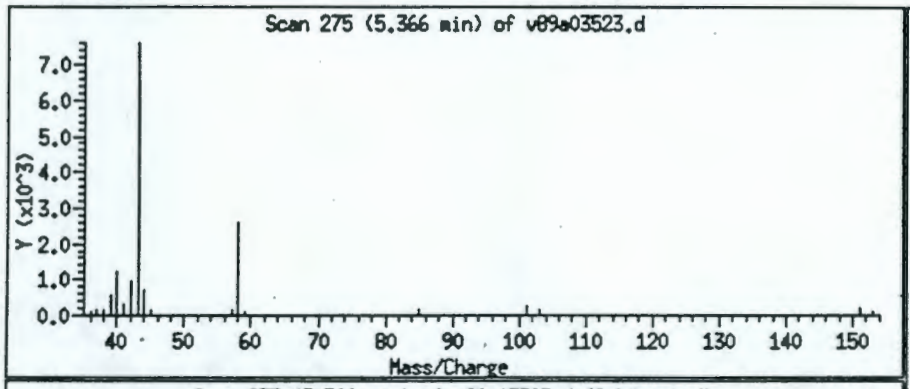
Sample ID : mb*thama*0506

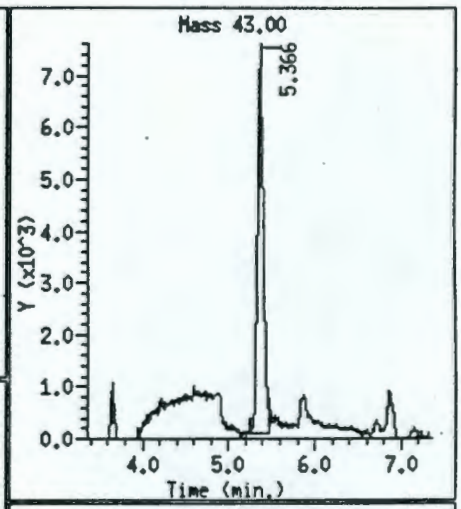
Column phase : 75m DB-624

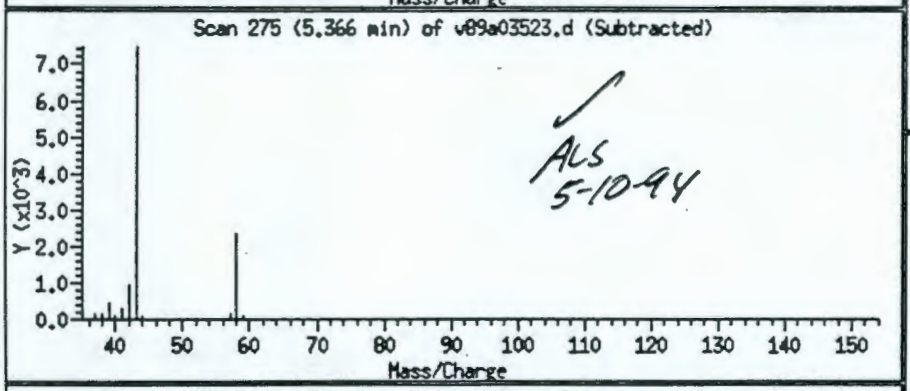
Column diameter : 0.53

Volume Injected (uL) : 0.0

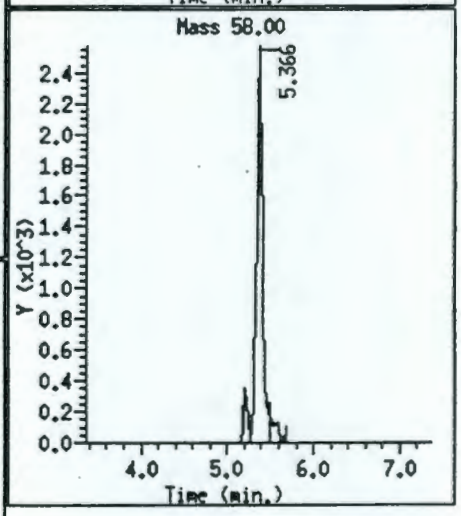
6 Acetone

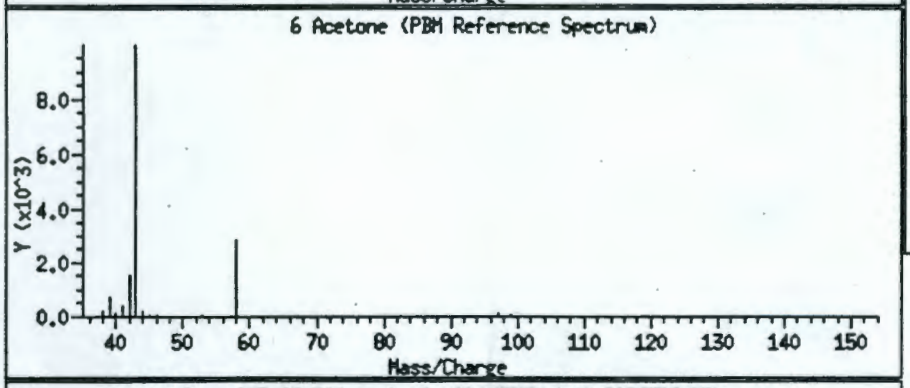


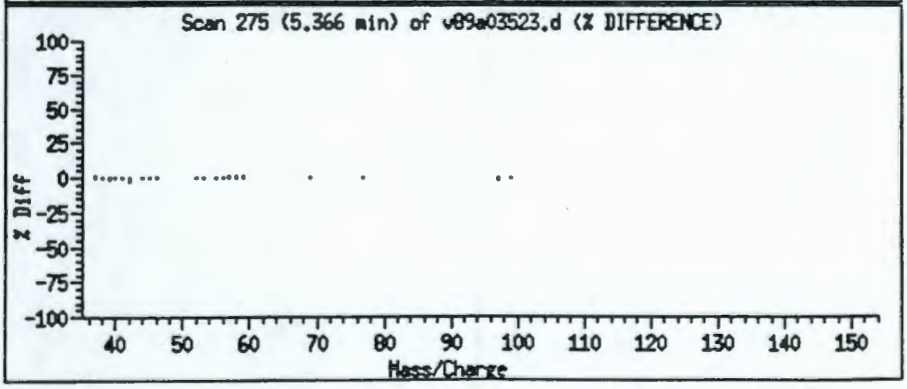




ALS 5-10-94







Data File: /chem/v89instL.i/may06a.b/v89a03523.d

Date : 06-MAY-94 12:47

Instrument : v89instL.i

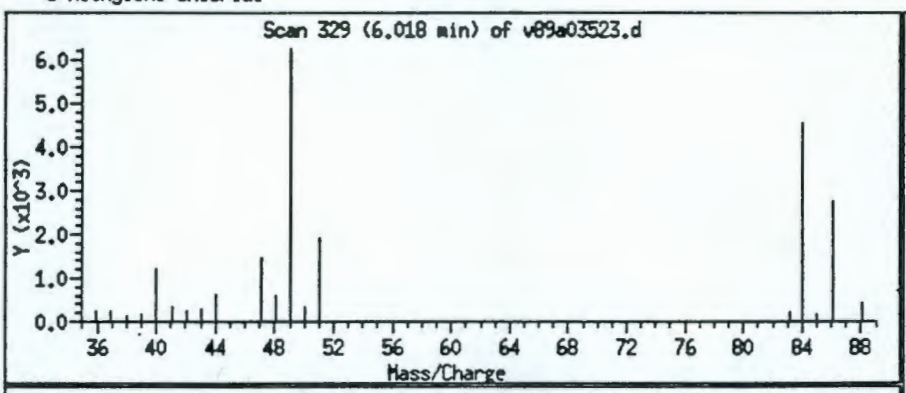
Sample ID : mb*thama*0506

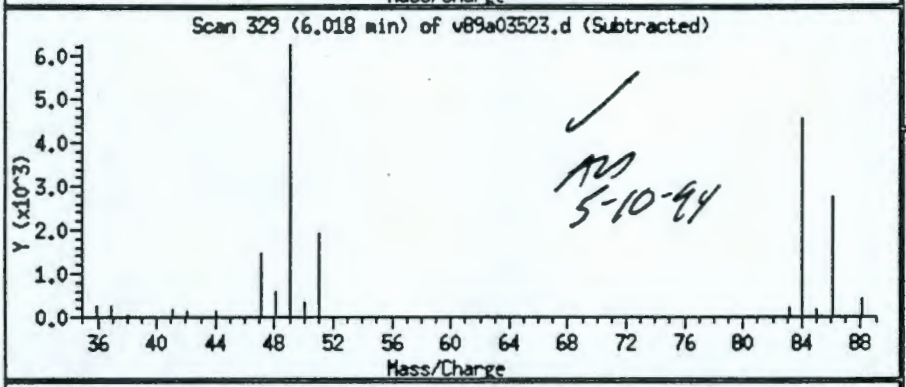
Column phase : 75m DB-624

Column diameter : 0.53

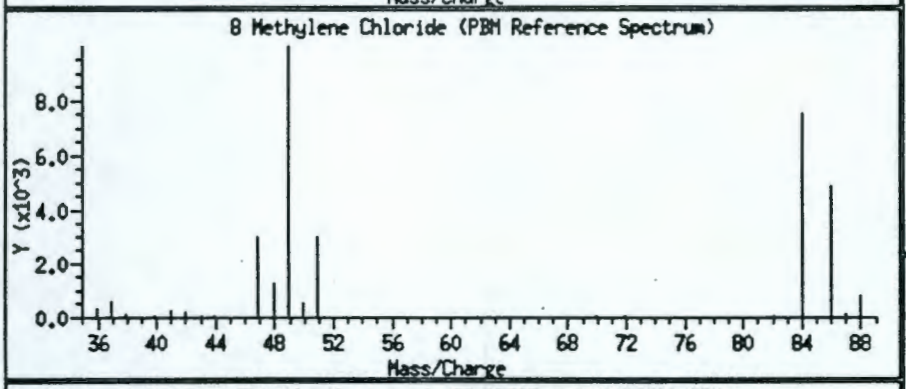
Volume Injected (uL) : 0.0

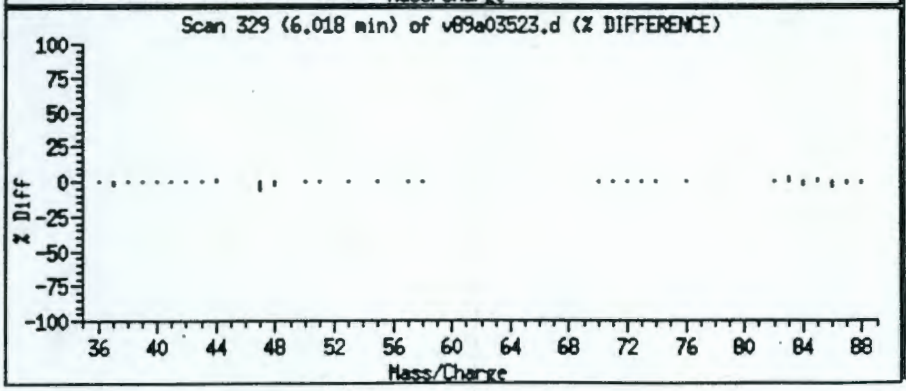
8 Methylene Chloride

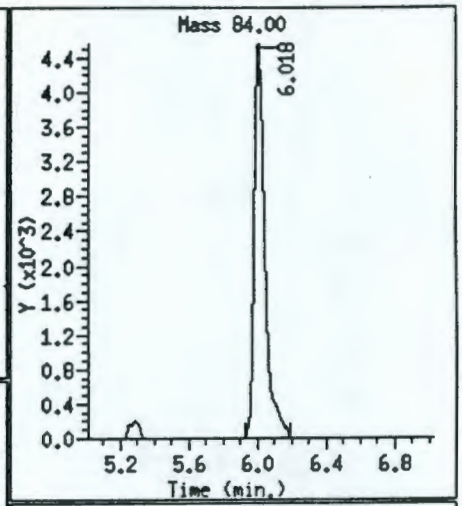


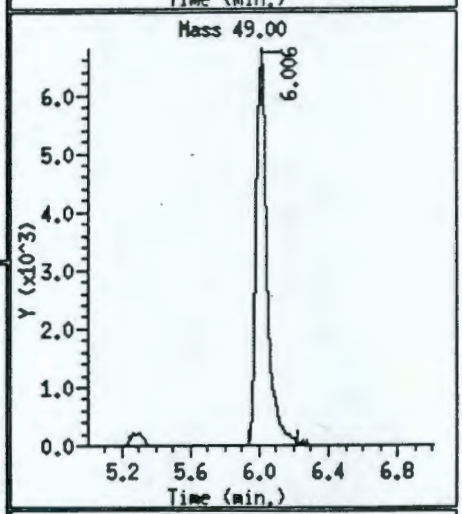


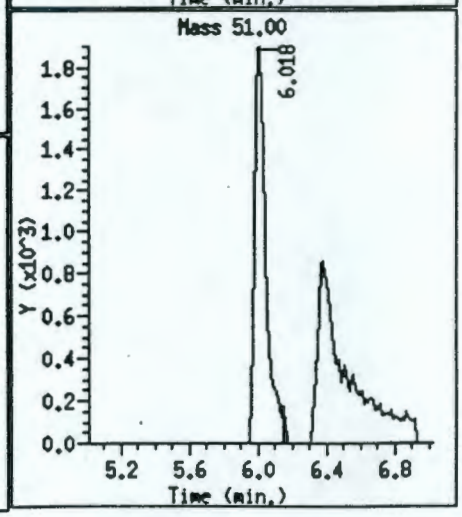
✓ AD 5-10-94







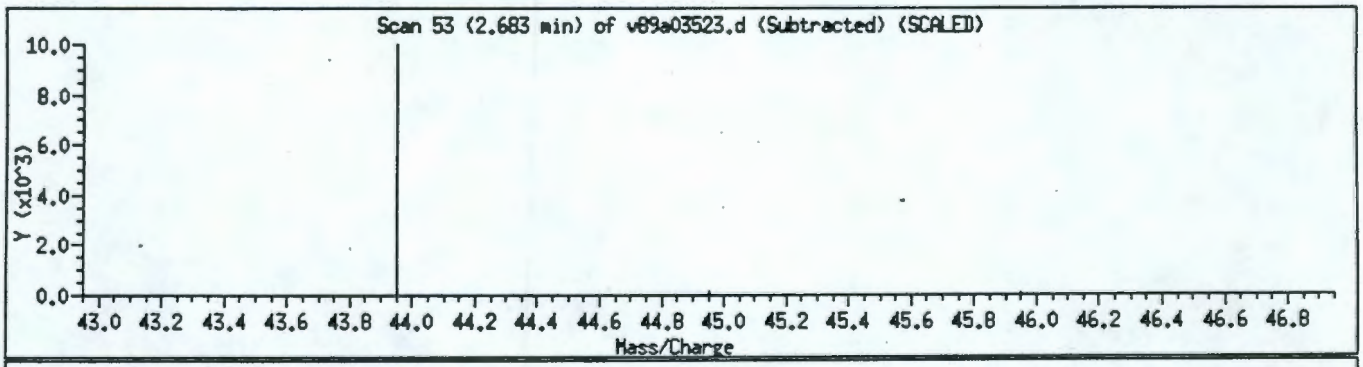




Data File: /chem/v89instL.i/may06a.b/v89a03523.d

Date : 06-MAY-94 12:47
Instrument : v89instL.i
Sample ID : mb*thama*0506
Column phase : 75m DB-624 Column diameter : 0.53
Volume Injected (uL) : 0.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				

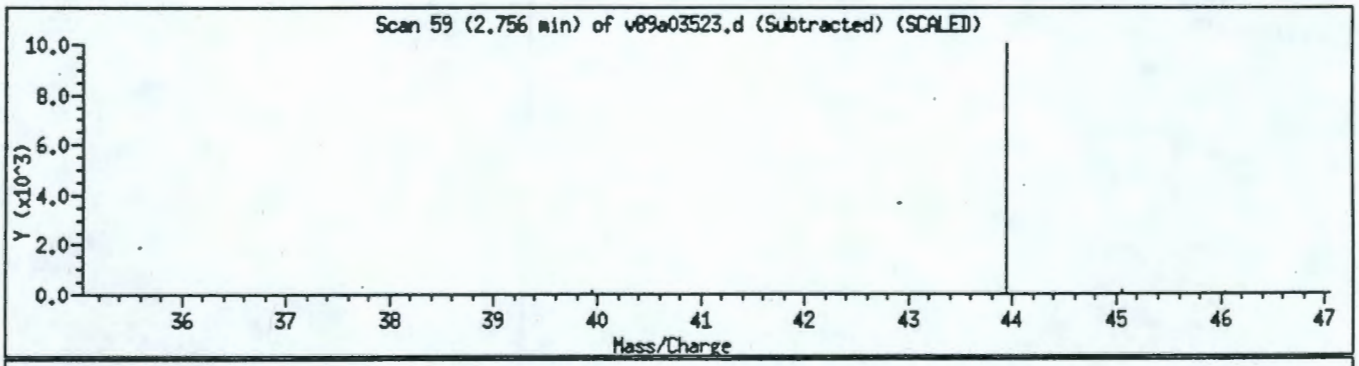


Background CO_2
AO 5-10-94

Data File: /chem/v89instL.i/may06a.b/v89a03523.d

Date : 06-MAY-94 12:47
Instrument : v89instL.i
Sample ID : mb*thama*0506
Column phase : 75m DB-624 Column diameter : 0.53
Volume Injected (uL) : 0.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				

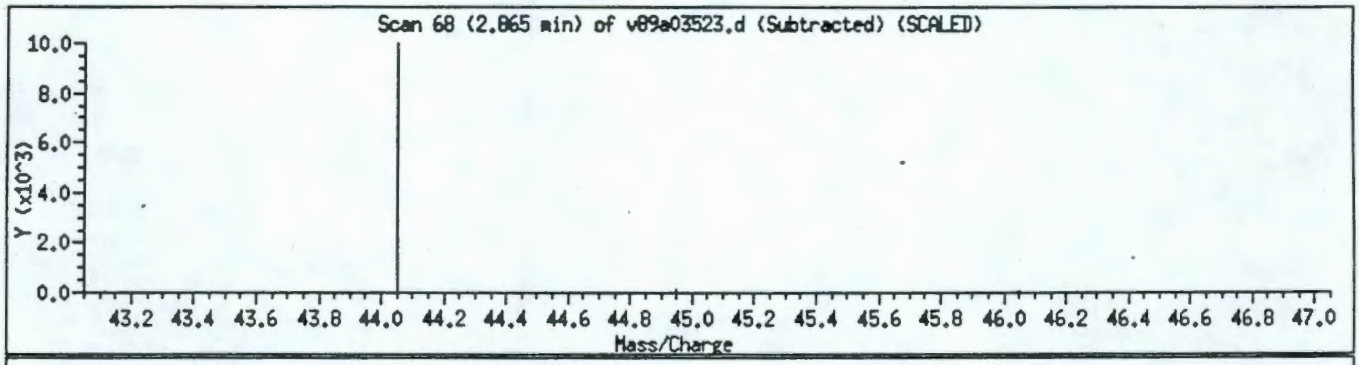


Background CO_2
AEO 5-10-94

Data File: /chem/v89instL.i/may06a.b/v89a03523.d

Date : 06-MAY-94 12:47
Instrument : v89instL.i
Sample ID : mb*thama*0506
Column phase : 75m DB-624 Column diameter : 0.53
Volume Injected (uL) : 0.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



Background CO_2
AS 5-10-94

Environmental Science and Engineering

Unknown Compounds Quantitation Report

Data file : /chem/v89instL.i/may06a.b/v89a03523.d
Lab. Id. : mb*thama*0506
Inj Date : 06-MAY-94 12:47 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : mb*thama*0506
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may06a.b/vmeth390.m
Meth Date : 09-May-1994 11:37 user1
Cal Date : 06-MAY-1994 12:06 Cal File: v89a03522.d
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 12 Bromochloromethane	8.423	905431	50.000

RT	AREA	CONC(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	QUANT CPND

9513355.2051

OTHER RELEVANT DOCUMENTS

9513355.2052

Environmental Science & Engineering, Inc.

GC/MS INSTRUMENT LOGSHEET

INSTRUMENT ID _____

DATE 5-6-94 PROJECT NAME _____

OPERATOR Larry Shrands

MASS RANGE 35→300 | A/D 2^2 | CAL FILE _____

THRESHOLD 100 | E. M. 1740 | ID FILE _____

SCAN DELAY 2.0 | SURR 908-26-F | ID FILE UNITS _____

TAPE DATE _____ | INT STD 908-22-F | DATE UPLOADED _____

COLUMN 75m DB-624 | STANDARD 908-27-C | UPLOAD NAME _____

GC PROGRAM _____ | DATE SIGN _____

FRN	SAMPLE ID	PURGE VOL	ALS POS	DIL FACT	COMMENTS	SAMPLE CHECK
3520.d	btb50ng purge	5g/5ml	1	Neat	10:37	✓
3521.d	vstd50		1			✓
3522.d	vstd50 extra cmpds		2			✓
3523.d	mb+thana+0506		3			✓
3524.d	CDMHNSS#29		4			✓
3525.d	#30		5			✓
3526.d	btb50ng purge		6			✓
3527.d	CDMHNSS#29 MS		7			✓
3528.d	#29 MSD		8			✓
3529.d	GQS1#56		9			✓
3530.d	#58		10			✓
3531.d	#59		11			✓
3532.d	#60		12			✓
3533.d	#60MS		13			✓
3534.d	#60MSD		14		20:59	✓
3535.d	DXSE#41		15			✓
3536.d	DXLS#75		16		Sample out run twice	✓
3537.d	DXSE#42		1			✓
3538.d	#43		2			✓
3539.d	vstd50		3			✓
3540.d	vstd50		4			
					als 5-6-94	

Read and Understood by

Albert L. Shrands 5-6-94 SIGNED DATE

Peter Rodriguez 5/6/94 SIGNED DATE

PAGE 1 OF 1

000045

000955

22

Notebook No. 00708

PROJECT Preparation of VOA Internal Standard

Continued From Page N/A

Supelco Cat # 4-8835, Lot LA32543 (1000 µg/ml)

Dil 1:20 (0.5 ml I.S. brought to volume in a 10 ml volumetric w/ MeOH, Baxter B+J Brand, High Purity, Cat # 8-707) to yield a 50 µg/ml working solution. Aliquot into 2 vials (a → h).

Expires: 07/14/94

SUPELCO
SEPARATION TECHNOLOGIES
DIVISION OF ROHM AND HAAS

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

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:

1,4-Difluorobenzene

Chlorobenzene-d_5

Certificate of Analysis

DESCRIPTION: VOA INTERNAL STANDARD MIX

CATALOG NO.: 4-8835 LOT NO.: LA-32543

ANALYTE (1)	PERCENT PURITY (2)	WEIGHT CONCENTRATION (3)

Read and Understood By

Signed 01/10/94 Date

Signed 4/14/94 Date

PROJECT Preparation of WA Matrix Spike Sol. Continued From Page N/A

Supelco Cat # 4-8399, Lot LA 33136 (250 ug/ml)
Dil 1:5 to yield a 50 ug/ml working mixture.
(5 vials A-E) Used MeOH Baxter B/J Lot # 86767.
Expires 07/14/94

SUPELCO
SEPARATION TECHNOLOGIES
DIVISION OF ROHM AND HAAS

Cat no 4-8399
Storage-REFRIGERATE
Lot no- LA33136

FOR RESEARCH USE ONLY CLP Volatile Matrix Spiking Solution
1ml methanol

CAUTION-IRRITANT IF SWALLOWED
DANGER-EXTREMELY FLAMMABLE
May be fatal if swallowed. May cause headache, nausea, blindness.

INGREDIENTS PER PA. R-T-K: methanol, 1,1-dichloroethylene, benzene, trichloroethylene, toluene, chlorobenzene

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

Continued on Page

Read and Understood By

Signed 01/14/94 Date Signed 1/14/94 Date

9513355.2055

26

PROJECT Preparation of VOA Surrogate Mix

Notebook No. 00701

Continued From Page N/A

Purgeables surrogate std mix - CLP - Supelco Cat # 4-8876

Lot#: LA36031 (2 vials)

Dilute 1:5 (2 ml surrogate mix + 8 ml MeOH; Baxter/B&J Brand, high purity, Cat # 86409) To yield a 50 ug/ml working mix. Aliquot main solution into 8 vials (A-H)

Expires: 8/14/94

SUPELCO
SEPARATION TECHNOLOGIES
DIVISION OF ROHM AND HAAS

Cat no 4-8876
Storage-REFRIGERATE
Lot no - LA36031

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:

Certificate of Analysis

DESCRIPTION: PURGEABLES SURROGATE STD MIX 1

CATALOG NO.: 4-8876 LOT NO.: LA-36031

000958

ANALYTE (1)	PERCENT PURITY (2)	WEIGHT CONCENTRATION (3)

Read and Understood By

Signed 2/11/94 Date

Signed 3-23-94 Date

SUBJECT Preparation of STD Mix for VOA

Continued From Page 26

① Purge A - Cat # 4-8851 Lot # LA 36607
② Purge B - Cat # 4-8852 Lot # LA 37339
③ Purge C - Cat # 4-8853 Lot # LA 36320
④ Purge Protocol - Cat # P-CLPV-D Lot # 0921023C

Dilute ④ 1:5 (200 ml ④ + 800 ml MeOH - Burdick / Bri J Brand, High Purity MeOH, lot # BH233) Take 400 ml of the diluted #4 solution and 900 ml of ①, ②, and ③ to yield a 50 ug/ml daily working std. Aliquot main solution into 4 vials (a-d)

Expires: 09/22/94

SUPELCO
SEPARATION TECHNOLOGIES
DIVISION OF ROHM AND HAAS

SUPELCO

SUPELCO
SEPARATION TECHNOLOGIES
DIVISION OF ROHM AND HAAS

Protocol
analytical supplies, Inc.

CAT# P-CLPV-D
LOT# 0921023C
DATE OPENED
CLP BLEND D
FOR RESEARCH USE ONLY

Contains 1000 ug/ml of the following in Methanol 67-56-1:

Acetone	67-64-1
2-Butanone	78-93-3
Carbon Disulfide	75-15-0
cis-1,2-Dichloroethene	156-59-2
2-Hexanone	591-78-6
4-Methyl-2-Pentanone	108-10-1
Styrene	100-42-5
Vinyl Acetate	108-05-4
p-Xylene(500ug/ml)	106-42-3

32 Briar Circle, Greenbrook, NJ 08812 201-968-1522

CONTAINS MATERIALS KNOWN OR SUSPECTED TO CAUSE CANCER
DANGER-FLAMMABLE

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

Continued on Page 28

Read and Understood By

Signed 3/22/94 Date

Signed 3-23-94 Date

9513355.2057

PROJECT Preparation of std mix for VOA

Notebook No. 00401

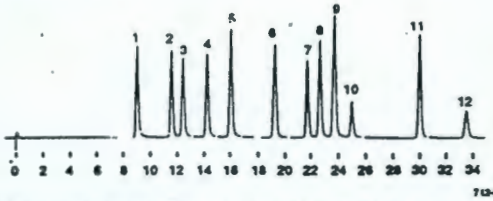
Continued From Page 27

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



60/80 Carbopack™ B/1% SP™-1000, 8' x 1/8" SS, Col. Temp.: hold 3 min. at 50°C, then to 220°C at 8°C/min., Inj. Temp.: 200°C, Det. Temp.: 250°C, Flow Rate: 30ml/min., He, Det.: Hall (halogen mode), Sens.: 20 x 10⁸, Sample: 1µl of Cat. No. 4-8851.

* Due to the instability of 2-chloroethyl vinyl ether, we cannot guarantee the concentration of this component.

DS13181E
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SUPELCO
Bellefonte, PA

Ce

DESCRIPTION: Pl

CATALOG NO.: 4-

LOT NO.: U

SOLVENT: METHA

JUN-93

JUN-94

ANALYTE	(:		T TION (3)
BENZENE	99.0	200.0 +/-	1.0
BROMODICHLOROMETHANE	98.0	200.1 +/-	1.0
BROMOFORM	96.6	207.1 +/-	1.0
CIS 1,3-DICHLOROPROPENE (Z)	98.7	200.1 +/-	1.0
ETHYLBENZENE	99.0	200.1 +/-	1.0
TOLUENE	99.0	200.1 +/-	1.0
TRANS 1,3-DICHLOROPROPENE (E)	98.9	199.9 +/-	1.0
TRANS-1,2-DICHLOROETHYLENE	98.3	200.0 +/-	1.0
1,1,1-TRICHLOROETHANE	99.0	200.1 +/-	1.0
1,1,2,2-TETRACHLOROETHANE	98.4	199.9 +/-	1.0
1,2-DICHLOROETHANE	99.0	200.1 +/-	1.0

Continued on Page 48

Read and Understood By

Signed 3/22/94 Date

Signed 3-23-94 Date

9513355.2058

Volatile Organic Compounds
Sample EA01-4-14 (ESE# CDMHNSS*36)

9513355.2059

SDG NARRATIVE

SDG No. 49194

GC/MS Volatile Narrative

1. The samples in this SDG were run by a modified EPA-CLP method 3/90SOW. All samples have passed the specified criteria, and no problems occurred during analysis unless otherwise noted.

2. The GC/MS data system report labels the target reference spectra as PBM reference spectra. These spectra are from a PBM library generated from standards analyzed under the same conditions as the samples were analyzed.

3. All compounds were spiked at 50 ppb. for the Continuing Calibration Standard with the exception of Xylene which was spiked at 25 ppb.

4. In the Initial Calibration Bromomethane had a %RSD of 26.2%. This is a problem compound due to it's coelution with Methanol (which is used to make up the standards). Although the mass spectrometer does not scan low enough to see Methanol, the increase in pressure affects the response factor for Bromomethane. There was no Bromomethane found in this SDG.

5. Several samples have "Background Carbon Dioxide" initially identified as a TIC. This is a chromatographic artifact and not an "unknown".

6. In the Continuing Calibration Check 1,1,2,2-Tetrachloroethane had a percent difference from the Initial Calibration of 29.2%. It is unknown why this response factor was higher. There was no 1,1,2,2-Tetrachloroethane found in samples of this SDG.

9513355.2061

VOLATILES DATA

9513355.2062

QC SUMMARY

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 49194

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	OTHER	TOT OUT
01	vblks1	95	95	95		0
02	sp1*none*1	97	100	99		0
03	A0104014	96	98	96		0
04	A0104014MS	95	99	95		0
05	A0104014MSD	94	98	96		0
06						
07						
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		QC LIMITS
SMC1	= 1,2-Dichloroethane-d4	(70-121)
SMC2	= Toluene-d8	(84-138)
SMC3	= Bromofluorobenzene	(59-113)

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: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 49194

Matrix Spike - EPA Sample No.: A0104014 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	53	0	67	126	59-172
Trichloroethene	53	0	55	104	62-137
Benzene	53	0	55	104	66-142
Toluene	53	0	54	102	59-139
Chlorobenzene	53	0	55	104	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	53	56	106	17	22	59-172
Trichloroethene	53	51	96	8	24	62-137
Benzene	53	51	96	8	21	66-142
Toluene	53	50	94	8	21	59-139
Chlorobenzene	53	51	96	8	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: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 49194

Lab File ID: V89A03617.D Lab Sample ID: vblks1

Date Analyzed: 05/16/94 Time Analyzed: 1151

GC Column:75m DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: V89INSTL

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	sp1*none*1	sp1*none*1	V89A03618.D	1225
02	A0104014	CDMHNSS*36	V89A03619.D	1340
03	A0104014MS	CDMHNSS*36MS	V89A03620.D	1419
04	A0104014MSD	CDMHNSS*36MSD	V89A03621.D	1454
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
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21				
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27				
28				
29				
30				

COMMENTS:

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 49194

Lab File ID: V89A03480.D BFB Injection Date: 05/04/94

Instrument ID: V89INSTL BFB Injection Time: 0944

GC Column: ID: 2.00 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	27.9
75	30.0 - 66.0% of mass 95	44.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	68.7
175	4.0 - 9.0% of mass 174	5.2 (7.6)1
176	93.0 - 101.0% of mass 174	65.3 (95.0)1
177	5.0 - 9.0% of mass 176	4.6 (7.0)2

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

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	vstd50	vstd50	V89A03481.D	05/04/94	1058
02	vstd10	vstd10	V89A03483.D	05/04/94	1236
03	vstd20	vstd20	V89A03484.D	05/04/94	1311
04	vstd100	vstd100	V89A03485.D	05/04/94	1345
05	vstd200	vstd200	V89A03487.D	05/04/94	1458
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)

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 49194

Lab File ID: V89A03614.D BFB Injection Date: 05/16/94

Instrument ID: V89INSTL BFB Injection Time: 0935

GC Column: ID: 2.00 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	27.2
75	30.0 - 66.0% of mass 95	42.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	68.3
175	4.0 - 9.0% of mass 174	5.2 (7.6)1
176	93.0 - 101.0% of mass 174	66.0 (96.6)1
177	5.0 - 9.0% of mass 176	4.0 (6.1)2

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

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	vstd50	vstd50	V89A03616.D	05/16/94	1118
02	vblks1	vblks1	V89A03617.D	05/16/94	1151
03	sp1*none*1	sp1*none*1	V89A03618.D	05/16/94	1225
04	A0104014	CDMHNSS*36	V89A03619.D	05/16/94	1340
05	A0104014MS	CDMHNSS*36MS	V89A03620.D	05/16/94	1419
06	A0104014MSD	CDMHNSS*36MSD	V89A03621.D	05/16/94	1454
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: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 49194

Lab File ID (Standard): V89A03616.D Date Analyzed: 05/16/94

Instrument ID: V89INSTL Time Analyzed: 1118

GC Column: 75m 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	121955	8.39	643145	10.09	464080	15.70
	UPPER LIMIT	243910	8.89	1286290	10.59	928160	16.20
	LOWER LIMIT	60978	7.89	321572	9.59	232040	15.20
	EPA SAMPLE No.						
01	vblks1	126139	8.39	667537	10.09	483832	15.68
02	spl*none*1	127516	8.39	659082	10.09	472463	15.67
03	A0104014	114684	8.37	614411	10.08	442577	15.67
04	A0104014MS	95483	8.36	510039	10.07	360817	15.66
05	A0104014MSD	97918	8.35	517490	10.07	370707	15.65
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 QC limits with an asterisk.
* Values outside of QC limits.

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SAMPLE DATA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A0104014

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 49194

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*36

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03619.D

Level: (low/med) LOW Date Received: 05/15/94

% Moisture: not dec. 5.4 Data Analyzed: 05/16/94

GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(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	5	J
67-64-1	Acetone	10	U
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.

A0104014

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 49194

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*36

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03619.D

Level: (low/med) LOW Date Received: 05/15/94

% Moisture: not dec. 5.4 Data Analyzed: 05/16/94

GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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.				
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17.				
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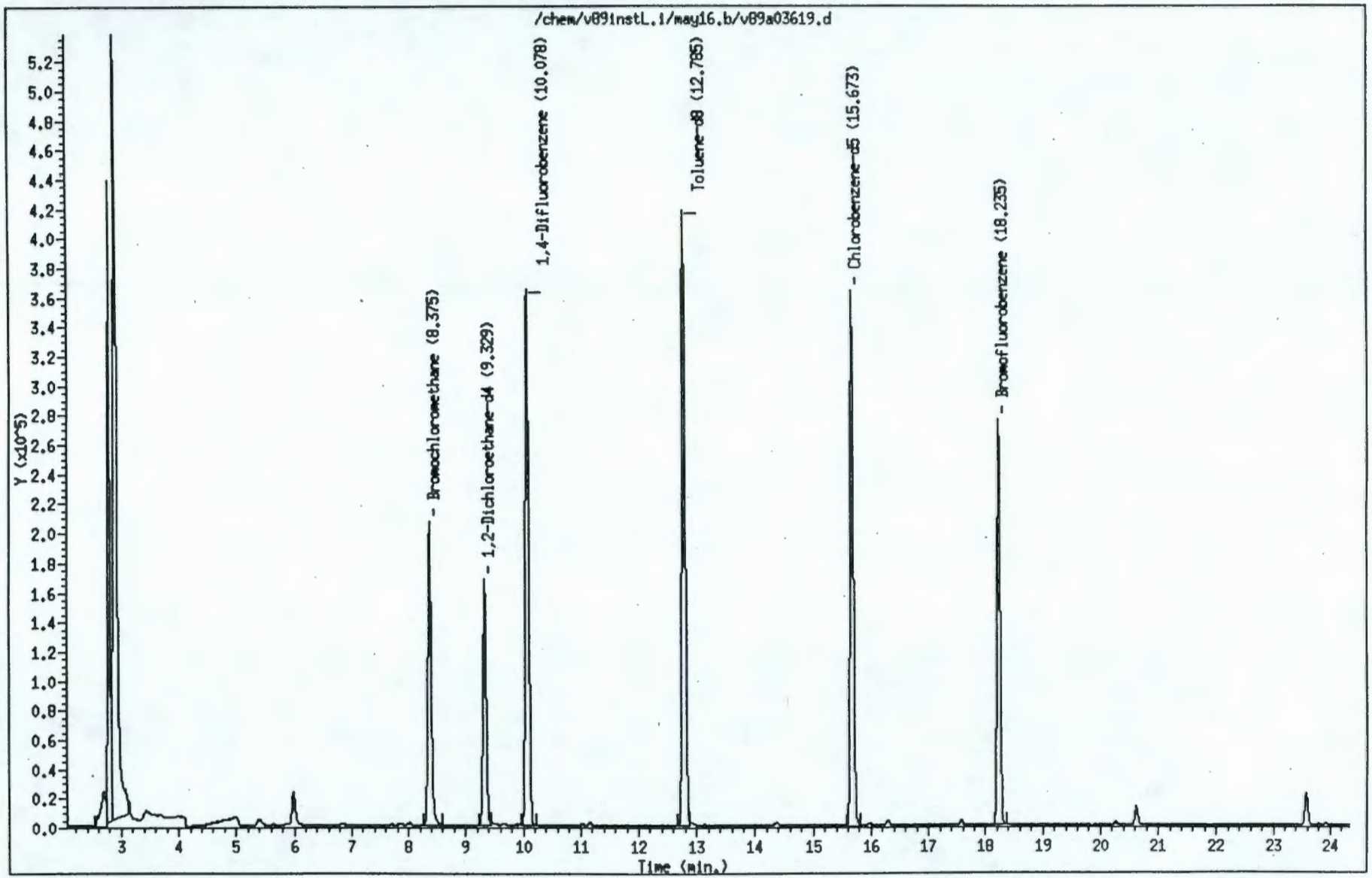
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Data File: /chem/v89instL.1/may16.b/v89a03619.d
Date : 16-MAY-1994 13:40
Instrument : v89instL.1
Sample ID : CDMHNSS*36
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53



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Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may16.b/v89a03619.d
Lab. Id. : CDMHNSS*36
Inj Date : 16-MAY-1994 13:40 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : CDMHNSS*36
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may16.b/vmeth390.m
Meth Date : 16-May-1994 13:23
Cal Date : 16-MAY-94 11:18 Cal File: v89a03616.d
Als bottle: 1
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	8 Methylene Chloride	84.00	5.994(0.716)	19875	5	5(a)
*	12 Bromochloromethane	128.00	8.375(1.000)	114684	50	
$	16 1,2-Dichloroethane-d4	65.00	9.329(1.114)	212172	48	48
*	19 1,4-Difluorobenzene	114.00	10.078(1.000)	614411	50	
$	25 Toluene-d8	98.00	12.773(0.815)	561907	49	49
*	32 Chlorobenzene-d5	117.00	15.673(1.000)	442577	50	
$	38 Bromofluorobenzene	95.00	18.235(1.163)	232839	48	48

QC Flag Legend

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

Data File: /chem/v89instL.i/may16.b/v89a03619.d
Report Date: 16-May-1994 16:12

Environmental Science and Engineering

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: v89instL.i
Lab File ID: v89a03619.d
Lab Sample ID: CDMHNSS*36
Analysis Type: VOA
Method File: /chem/v89instL.i/may16.b/vmeth390.m
Misc Info:

Calibration Date: 05/16/94
Calibration Time: 1323
Sample Type: SOIL
Level: LOW

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
12 Bromochloromethane	121955	60977	243910	114684	-5.96
19 1,4-Difluorobenzene	643145	321572	1286290	614411	-4.47
32 Chlorobenzene-d5	464080	232040	928160	442577	-4.63

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
12 Bromochloromethane	8.39	7.89	8.89	8.37	-0.15
19 1,4-Difluorobenzene	10.09	9.59	10.59	10.08	-0.13
32 Chlorobenzene-d5	15.70	15.20	16.20	15.67	-0.16

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.

Data File: /chem/v89instL.i/may16.b/v89a03619.d

Date : 16-MAY-1994 13:40

Instrument : v89instL.i

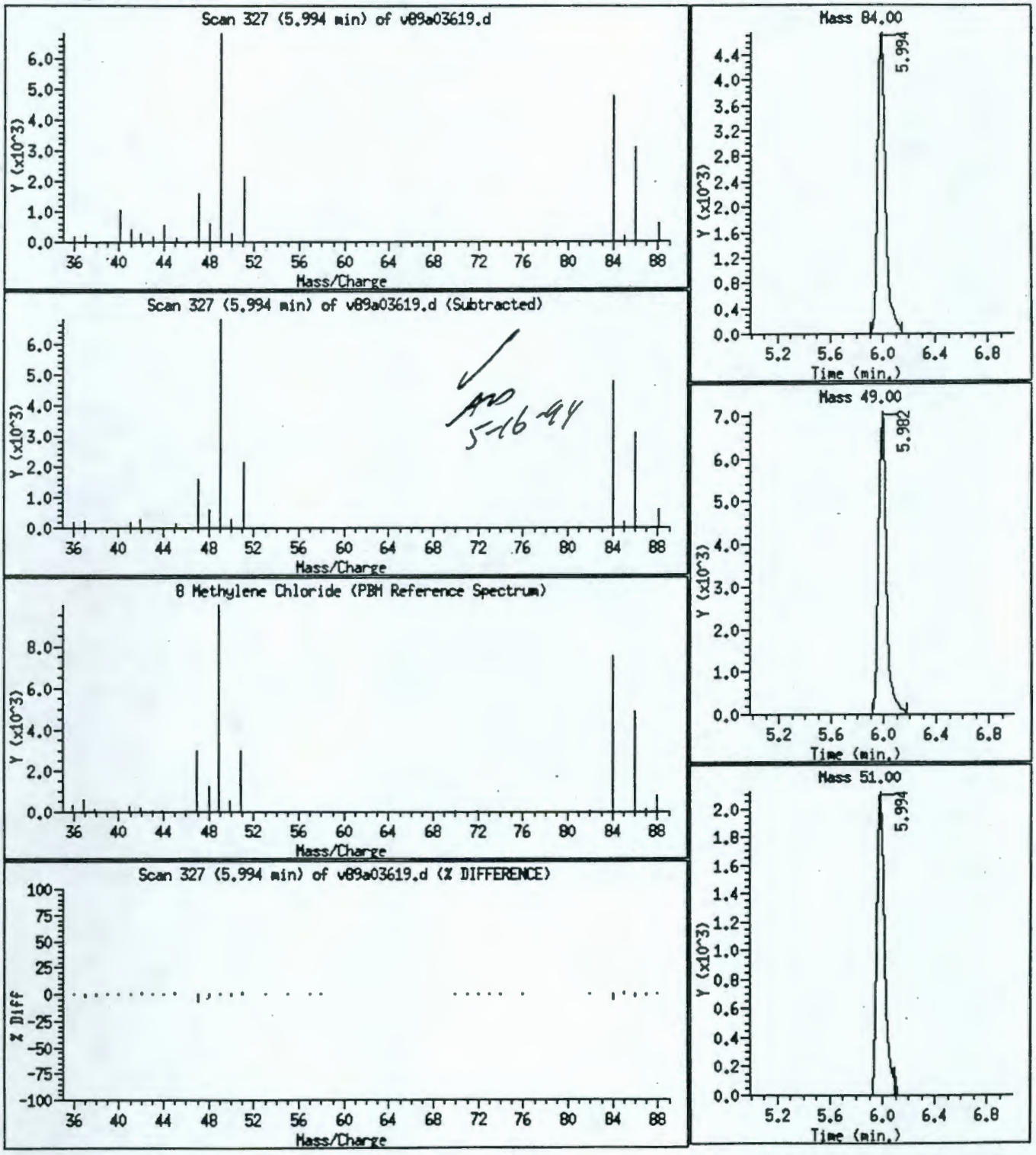
Sample ID : CDMHNSS×36

Column phase : 75m DB-624

Column diameter : 0.53

Volume Injected (uL) : 0.0

8 Methylene Chloride



Environmental Science and Engineering

Unknown Compounds Quantitation Report

Data file : /chem/v89instL.i/may16.b/v89a03619.d
Lab. Id. : CDMHNSS*36
Inj Date : 16-MAY-1994 13:40 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : CDMHNSS*36
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may16.b/vmeth390.m
Meth Date : 18-May-1994 16:38 user1
Cal Date : 16-MAY-94 11:18 Cal File: v89a03616.d
Als bottle: 1
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL
Quantitative Mode : Use RF of Nearest Std

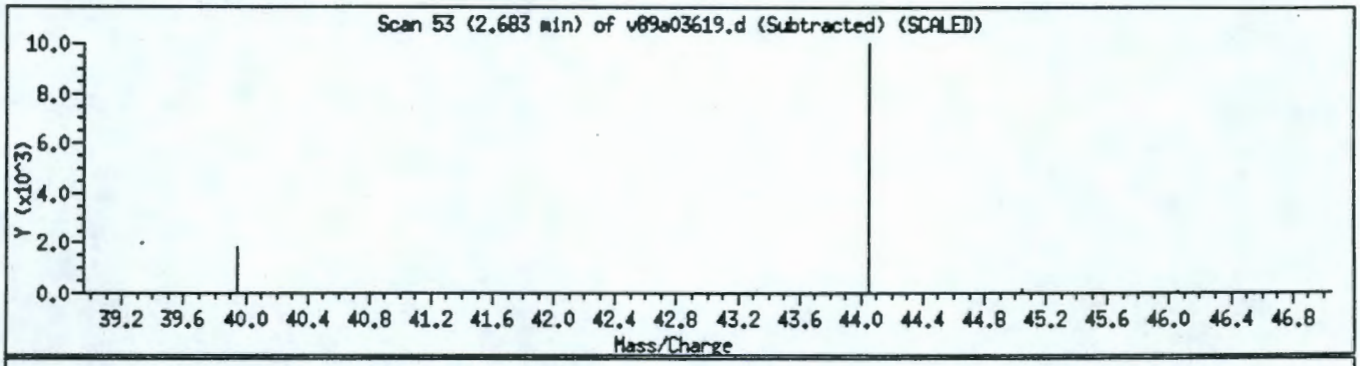
ISTD	RT	AREA	AMOUNT
* 12 Bromochloromethane	8.375	846828	50.000

RT	AREA	CONC(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	QUANT CPND

Data File: /chem/v89instL.i/may16.b/v89a03619.d

Date : 16-MAY-1994 13:40
Instrument : v89instL.i
Sample ID : CDMHNSS×36
Column phase : 75m DB-624 Column diameter : 0.53
Volume Injected (uL) : 0.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				

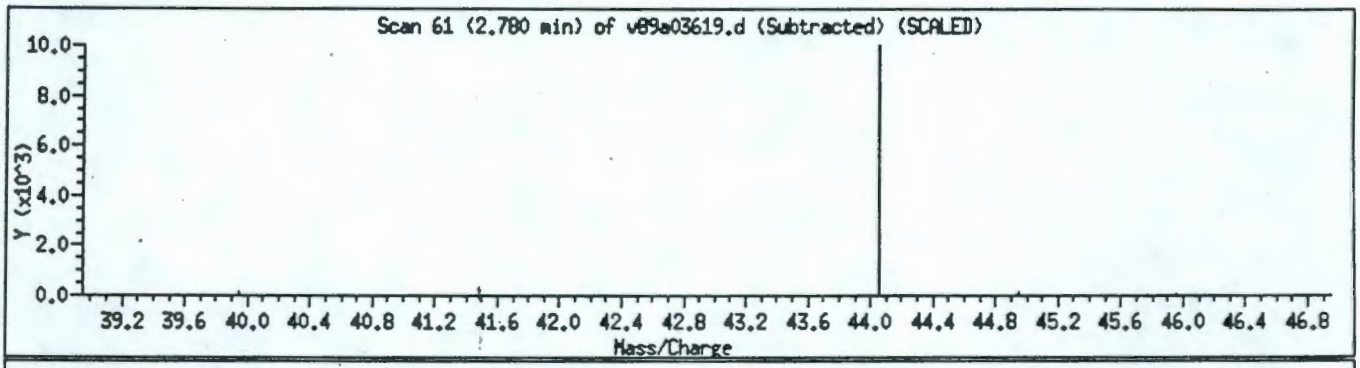


Background N_2
5-16-94

Data File: /chem/v89instL.i/may16.b/v89a03619.d
Date : 16-MAY-1994 13:40
Instrument : v89instL.i
Sample ID : CDMHNSS*36
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53

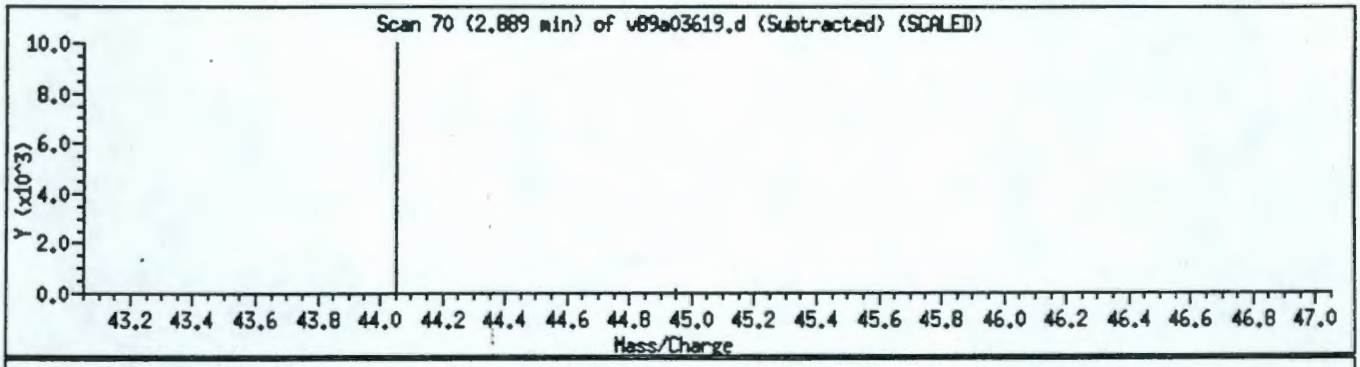
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



Background CO_2
AW 5-16-94

Data File: /chem/v89instL.i/may16.b/v89a03619.d
Date : 16-MAY-1994 13:40
Instrument : v89instL.i
Sample ID : CDMHNSS×36
Column phase : 75m DB-624 Column diameter : 0.53
Volume Injected (uL) : 0.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



Background W2
AS 5-16-94

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A0104014MS

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 49194

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*36MS

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03620.D

Level: (low/med) LOW Date Received: 05/15/94

% Moisture: not dec. 5.4 Data Analyzed: 05/16/94

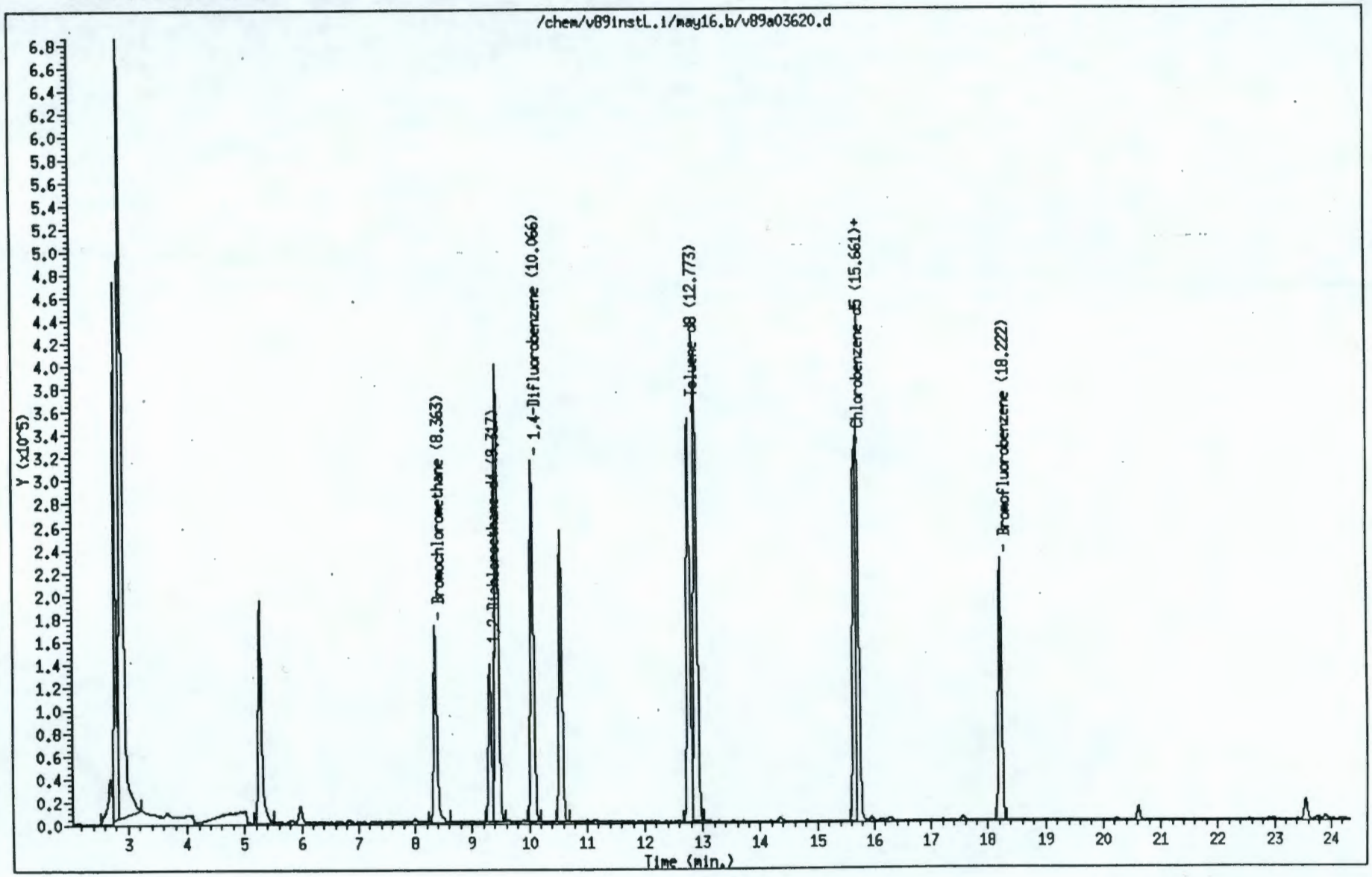
GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(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	4	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	67	
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	55	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	55	
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	54	
108-90-7	Chlorobenzene	55	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

Data File: /chem/v89instL.i/may16.b/v89a03620.d
Date : 16-MAY-1994 14:19
Instrument : v89instL.i
Sample ID : CDMHNSS×36 MS
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53



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Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may16.b/v89a03620.d
Lab. Id. : CDMHNSS*36 MS
Inj Date : 16-MAY-1994 14:19 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : CDMHNSS*36 MS
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may16.b/vmeth390.m
Meth Date : 16-May-1994 13:23
Cal Date : 16-MAY-94 11:18 Cal File: v89a03616.d
Als bottle: 2 QC Sample: MS
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	5 1,1-Dichloroethene	96.00	5.269(0.630)	169924	63	63
	8 Methylene Chloride	84.00	5.970(0.714)	12138	3	3(a)
*	12 Bromochloromethane	128.00	8.363(1.000)	95483	50	
$	16 1,2-Dichloroethane-d4	65.00	9.317(1.114)	175254	47	47
	17 Benzene	78.00	9.450(0.939)	718808	52	52
*	19 1,4-Difluorobenzene	114.00	10.066(1.000)	510039	50	
	20 Trichloroethene	130.00	10.550(1.048)	192922	52	52
$	25 Toluene-d8	98.00	12.773(0.816)	463307	49	49
	26 Toluene	91.00	12.894(0.823)	596317	51	51
*	32 Chlorobenzene-d5	117.00	15.661(1.000)	360817	50	
	33 Chlorobenzene	112.00	15.721(1.004)	382208	52	52
$	38 Bromofluorobenzene	95.00	18.222(1.164)	189332	48	48

QC Flag Legend

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

Data File: /chem/v89instL.i/may16.b/v89a03620.d
Report Date: 16-May-1994 16:12

Environmental Science and Engineering

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: v89instL.i
Lab File ID: v89a03620.d
Lab Sample ID: CDMHNSS*36 MS
Analysis Type: VOA
Method File: /chem/v89instL.i/may16.b/vmeth390.m
Misc Info:

Calibration Date: 05/16/94
Calibration Time: 1323
Sample Type: SOIL
Level: LOW

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
12 Bromochloromethane	121955	60977	243910	95483	-21.71
19 1,4-Difluorobenzene	643145	321572	1286290	510039	-20.70
32 Chlorobenzene-d5	464080	232040	928160	360817	-22.25

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
12 Bromochloromethane	8.39	7.89	8.89	8.36	-0.30
19 1,4-Difluorobenzene	10.09	9.59	10.59	10.07	-0.25
32 Chlorobenzene-d5	15.70	15.20	16.20	15.66	-0.24

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.

9513355.2084

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A0104014MSD

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 49194

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*36MS

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03621.D

Level: (low/med) LOW Date Received: 05/15/94

% Moisture: not dec. 5.4 Data Analyzed: 05/16/94

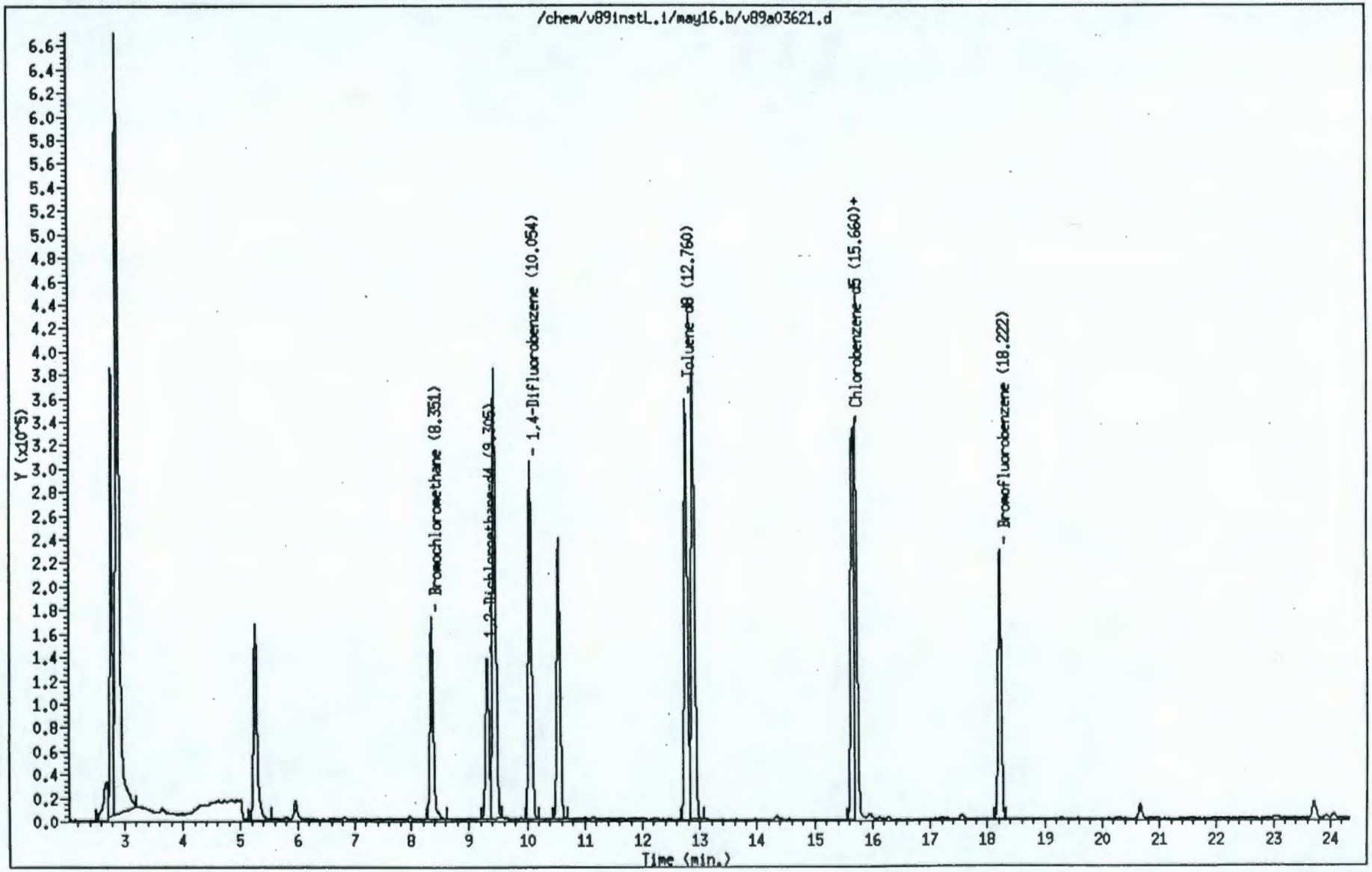
GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(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	4	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	56	
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	51	
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	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	50	
108-90-7	Chlorobenzene	51	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

Data File: /chem/v89instL.i/may16.b/v89a03621.d
Date : 16-MAY-1994 14:54
Instrument : v89instL.i
Sample ID : CDMHNSS×36 MSD
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53



000988

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Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may16.b/v89a03621.d
Lab. Id. : CDMHNSS*36 MSD
Inj Date : 16-MAY-1994 14:54 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : CDMHNSS*36 MSD
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may16.b/vmeth390.m
Meth Date : 16-May-1994 13:23
Cal Date : 16-MAY-94 11:18 Cal File: v89a03616.d
Als bottle: 3 QC Sample: MSD
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	5 1,1-Dichloroethene	96.00	5.257(0.630)	145763	53	53
	8 Methylene Chloride	84.00	5.958(0.714)	13562	4	4(a)
*	12 Bromochloromethane	128.00	8.351(1.000)	97918	50	
$	16 1,2-Dichloroethane-d4	65.00	9.305(1.114)	178130	47	47
	17 Benzene	78.00	9.438(0.938)	679938	48	48
*	19 1,4-Difluorobenzene	114.00	10.066(1.000)	517490	50	
	20 Trichloroethene	130.00	10.550(1.048)	179512	48	48
$	25 Toluene-d8	98.00	12.760(0.815)	473199	49	49
	26 Toluene	91.00	12.894(0.824)	566970	47	47
*	32 Chlorobenzene-d5	117.00	15.648(1.000)	370707	50	
	33 Chlorobenzene	112.00	15.721(1.005)	363236	48	48
$	38 Bromofluorobenzene	95.00	18.222(1.164)	195438	48	48

QC Flag Legend

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

Data File: /chem/v89instL.i/may16.b/v89a03621.d
Report Date: 16-May-1994 16:13

Environmental Science and Engineering

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: v89instL.i
Lab File ID: v89a03621.d
Lab Sample ID: CDMHNSS*36 MSD
Analysis Type: VOA
Method File: /chem/v89instL.i/may16.b/vmeth390.m
Misc Info:

Calibration Date: 05/16/94
Calibration Time: 1323
Sample Type: SOIL
Level: LOW

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
12 Bromochloromethane	121955	60977	243910	97918	-19.71
19 1,4-Difluorobenzene	643145	321572	1286290	517490	-19.54
32 Chlorobenzene-d5	464080	232040	928160	370707	-20.12

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
12 Bromochloromethane	8.39	7.89	8.89	8.35	-0.44
19 1,4-Difluorobenzene	10.09	9.59	10.59	10.07	-0.25
32 Chlorobenzene-d5	15.70	15.20	16.20	15.65	-0.32

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.

9513355.2088

STANDARDS DATA

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 49194

Instrument ID: V89INSTL Calibration Date(s): 04/20/94 05/04/94

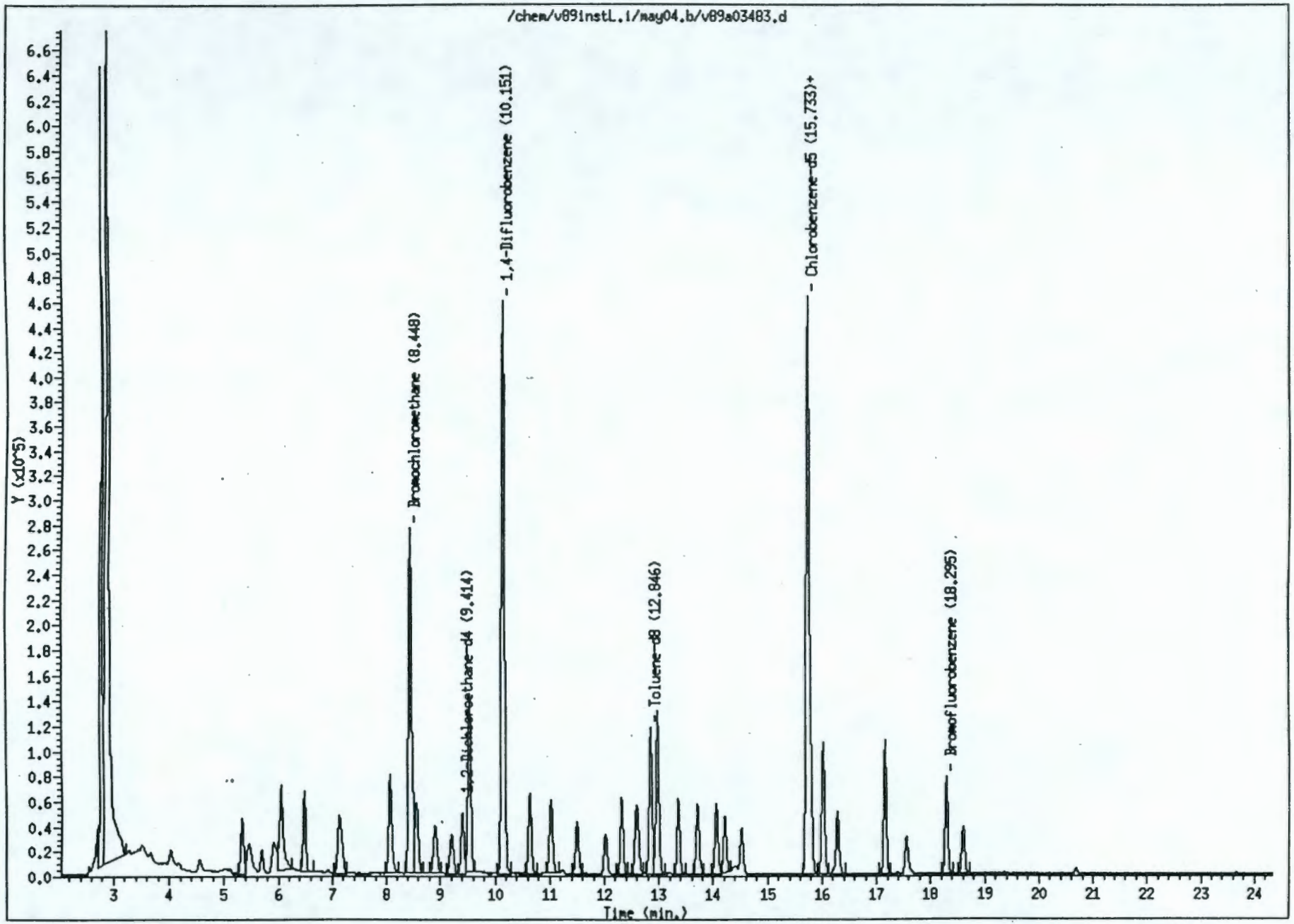
Heated Purge: (Y/N) Y Calibration Times: 1137 1345

GC Column:75m DB-624 ID: 0.53 (mm)

LAB FILE ID: RRF10 =V89A03483.D RRF20 =V89A03484.D
RRF50 =V89A03481.D RRF100=V89A03485.D RRF200=V89A03487.D

COMPOUND	RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Chloromethane	1.198	1.208	1.126	1.102	1.059	1.139	5.6
Bromomethane *	0.569	0.541	0.426	0.410	0.277	0.445	26.2*<-
Vinyl Chloride *	0.991	1.120	1.168	1.152	1.108	1.108	6.3*
Chloroethane	0.280	0.095	0.225	0.395	0.217	0.242	44.9
Methylene Chloride	2.121	2.055	1.855	1.733	1.578	1.868	12.0
Acetone	3.042	2.658	2.494	2.258	2.056	2.502	15.1
Carbon Disulfide	1.519	1.749	1.769	1.735	1.631	1.681	6.2
1,1-Dichloroethene *	1.176	1.291	1.288	1.263	1.158	1.235	5.1*
1,1-Dichloroethane *	2.944	3.397	3.275	3.218	2.952	3.157	6.4*
1,2-Dichloroethene (total)	1.535	1.802	1.702	1.620	1.412	1.614	9.3
Chloroform *	2.541	2.915	2.770	2.695	2.514	2.687	6.2*
1,2-Dichloroethane	1.836	2.071	1.898	1.754	1.614	1.835	9.2
2-Butanone	3.409	3.572	3.459	3.319	2.984	3.349	6.7
1,1,1-Trichloroethane *	0.354	0.405	0.393	0.390	0.363	0.381	5.7*
Carbon Tetrachloride *	0.280	0.320	0.320	0.316	0.291	0.305	6.2*
Bromodichloromethane	0.360	0.415	0.397	0.392	0.363	0.386	6.1
1,2-Dichloropropane	0.301	0.356	0.340	0.335	0.301	0.327	7.5
cis-1,3-Dichloropropene *	0.427	0.521	0.513	0.510	0.472	0.488	8.0*
Trichloroethene *	0.296	0.353	0.332	0.325	0.294	0.320	7.8*
Dibromochloromethane *	0.264	0.300	0.281	0.275	0.262	0.277	5.5*
1,1,2-Trichloroethane *	0.247	0.277	0.256	0.248	0.229	0.251	6.9*
Benzene *	1.159	1.325	1.234	1.174	0.971	1.173	11.1*
trans-1,3-Dichloropropene *	0.378	0.444	0.436	0.432	0.414	0.421	6.2*
Bromoform *	0.193	0.222	0.209	0.210	0.193	0.206	6.1*
4-Methyl-2-Pentanone	0.844	0.997	0.976	1.008	0.995	0.964	7.1
2-Hexanone	0.665	0.830	0.907	0.821	0.793	0.803	11.0
Tetrachloroethene *	0.280	0.327	0.314	0.298	0.265	0.297	8.5*
1,1,2,2-Tetrachloroethane *	0.458	0.609	0.520	0.574	0.452	0.523	13.2*
Toluene *	1.602	1.706	1.526	1.477	1.286	1.519	10.3*
Chlorobenzene *	0.891	1.015	0.954	0.913	0.830	0.921	7.5*
Ethylbenzene *	0.489	0.582	0.551	0.520	0.455	0.520	9.6*
Styrene *	0.952	1.149	1.109	1.066	0.926	1.040	9.4*
Xylene (total) *	0.590	0.725	0.716	0.699	0.646	0.675	8.4*
1,2-Dichloroethane-d4 *	1.910	1.759	1.794	1.769	1.695	1.786	4.4*
Toluene-d8	1.320	1.259	1.261	1.219	1.060	1.224	8.0
Bromofluorobenzene *	0.539	0.512	0.522	0.510	0.450	0.507	6.6*

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



95135555.2091

Data File: /chem/v89instL.i/may04.b/v89a03483.d
Report Date: 13-May-1994 13:04

Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may04.b/v89a03483.d
Lab. Id. : vstd 10
Inj Date : 04-MAY-1994 12:36 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : vstd 10
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may04.b/vmeth390.m
Meth Date : 13-May-1994 13:04 user1
Cal Date : 04-MAY-94 10:58 Cal File: v89a03481.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	1 Chloromethane	50.00	3.457(0.409)	37808	10	10(M)
	2 Vinyl Chloride	62.00	3.530(0.417)	31286	9	9(a)
	3 Bromomethane	94.00	4.025(0.476)	17951	13	13(M)
	4 Chloroethane	64.00	4.170(0.493)	8842	12	12
	5 1,1-Dichloroethene	96.00	5.330(0.630)	37129	10	10
	6 Acetone	43.00	5.463(0.646)	95999	12	12
	7 Carbon Disulfide	76.00	5.693(0.673)	47942	9	9(a)
	8 Methylene Chloride	84.00	6.055(0.716)	66941	11	11
	9 1,2-Dichloroethene (total)	96.00	8.061(0.953)	48447	10	10
	10 1,1-Dichloroethane	63.00	7.131(0.843)	92935	9	9(a)
	11 2-Butanone	43.00	8.085(0.956)	107613	10	10
*	12 Bromochloromethane	128.00	8.460(1.000)	157815	50	
	13 Chloroform	83.00	8.569(1.013)	80208	9	9(a)
	14 1,1,1-Trichloroethane	97.00	8.907(0.876)	56313	9	9(a)
	15 Carbon Tetrachloride	117.00	9.209(0.906)	44477	9	9(a)
$	16 1,2-Dichloroethane-d4	65.00	9.414(1.113)	60301	11	11
	17 Benzene	78.00	9.535(0.938)	184158	10	10
	18 1,2-Dichloroethane	62.00	9.535(1.127)	57951	10	10
*	19 1,4-Difluorobenzene	114.00	10.163(1.000)	794770	50	
	20 Trichloroethene	130.00	10.647(1.048)	47026	9	9(a)
	21 1,2-Dichloropropane	63.00	11.033(1.086)	47858	9	9(a)
	22 Bromodichloromethane	83.00	11.492(1.131)	57240	9	9(a)
	23 cis-1,3-Dichloropropene	75.00	12.314(1.212)	67824	9	9(a)
	24 4-Methyl-2-Pentanone	43.00	12.592(0.800)	94787	9	9(a)
$	25 Toluene-d8	98.00	12.846(0.816)	148330	11	11
	26 Toluene	91.00	12.978(0.825)	179956	10	10
	27 trans-1,3-Dichloropropene	75.00	13.353(1.314)	60148	9	9(a)
	28 1,1,2-Trichloroethane	97.00	13.716(1.349)	39272	10	10
	29 Tetrachloroethene	164.00	14.066(0.894)	31449	9	9(a)
	30 2-Hexanone	43.00	14.223(0.904)	74739	8	8(a)
	31 Dibromochloromethane	129.00	14.525(1.429)	42026	10	10

Data File: /chem/v89instL.i/may04.b/v89a03483.d
Report Date: 13-May-1994 13:04

Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
* 32 Chlorobenzene-d5	117.00	15.733(1.000)	561801	50	
33 Chlorobenzene	112.00	15.793(1.004)	100122	10	10
34 Ethylbenzene	106.00	16.023(1.018)	54965	9	9(a)
35 Xylene (total)	106.00	16.277(1.035)	33129	4	4(a)
36 Styrene	104.00	17.159(1.091)	106934	9	9(a)
37 Bromoform	173.00	17.558(1.728)	30736	9	9(a)
$ 38 Bromofluorobenzene	95.00	18.295(1.163)	60602	11	11
39 1,1,2,2-Tetrachloroethane	83.00	18.609(1.183)	51504	9	9(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Area: 37808 Retention Time: 3.457

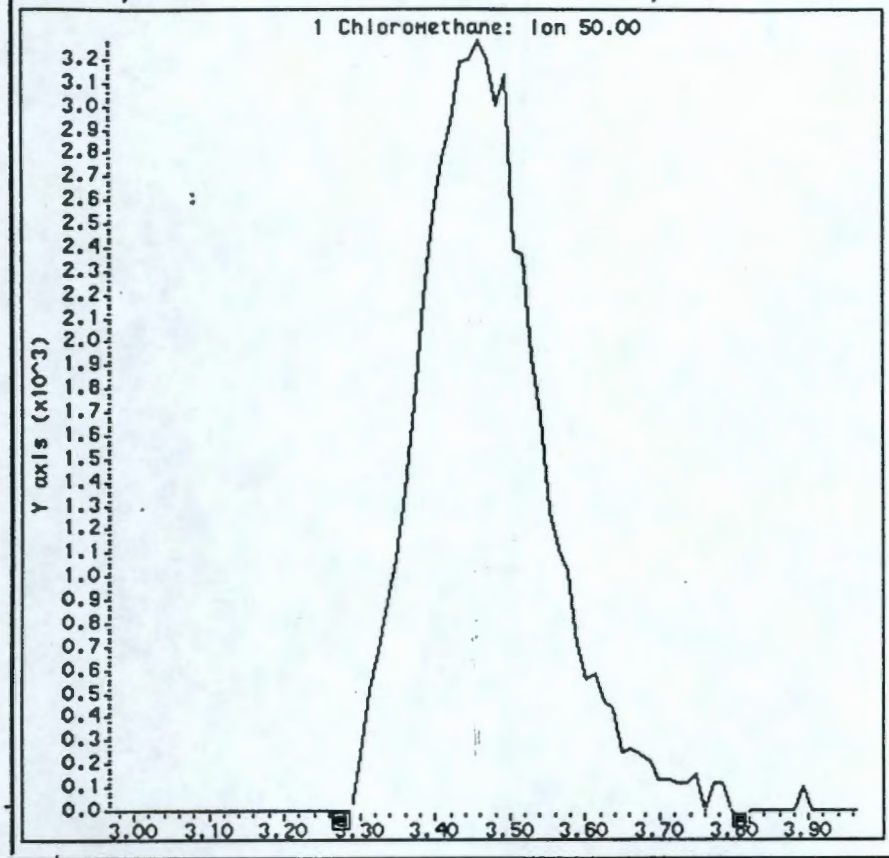
Ok

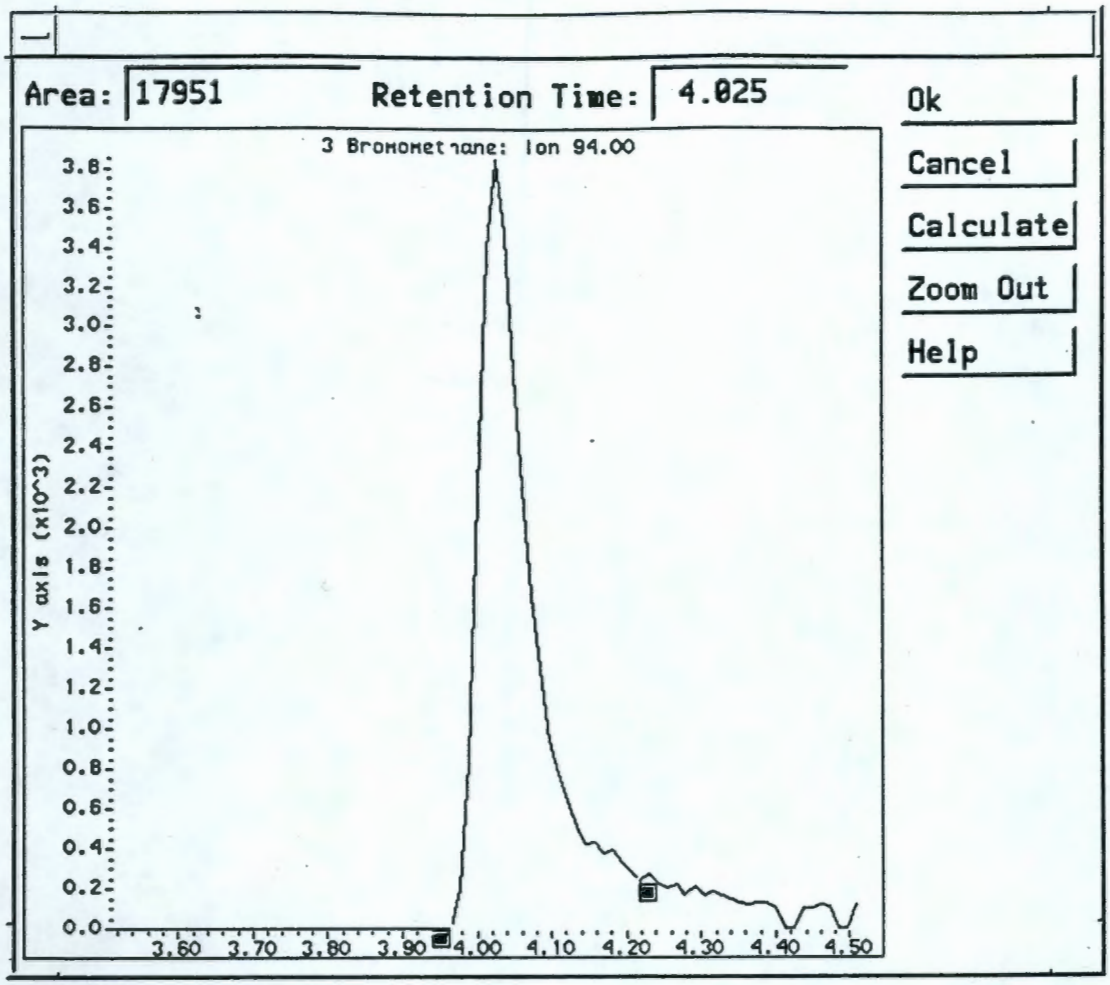
Cancel

Calculate

Zoom Out

Help

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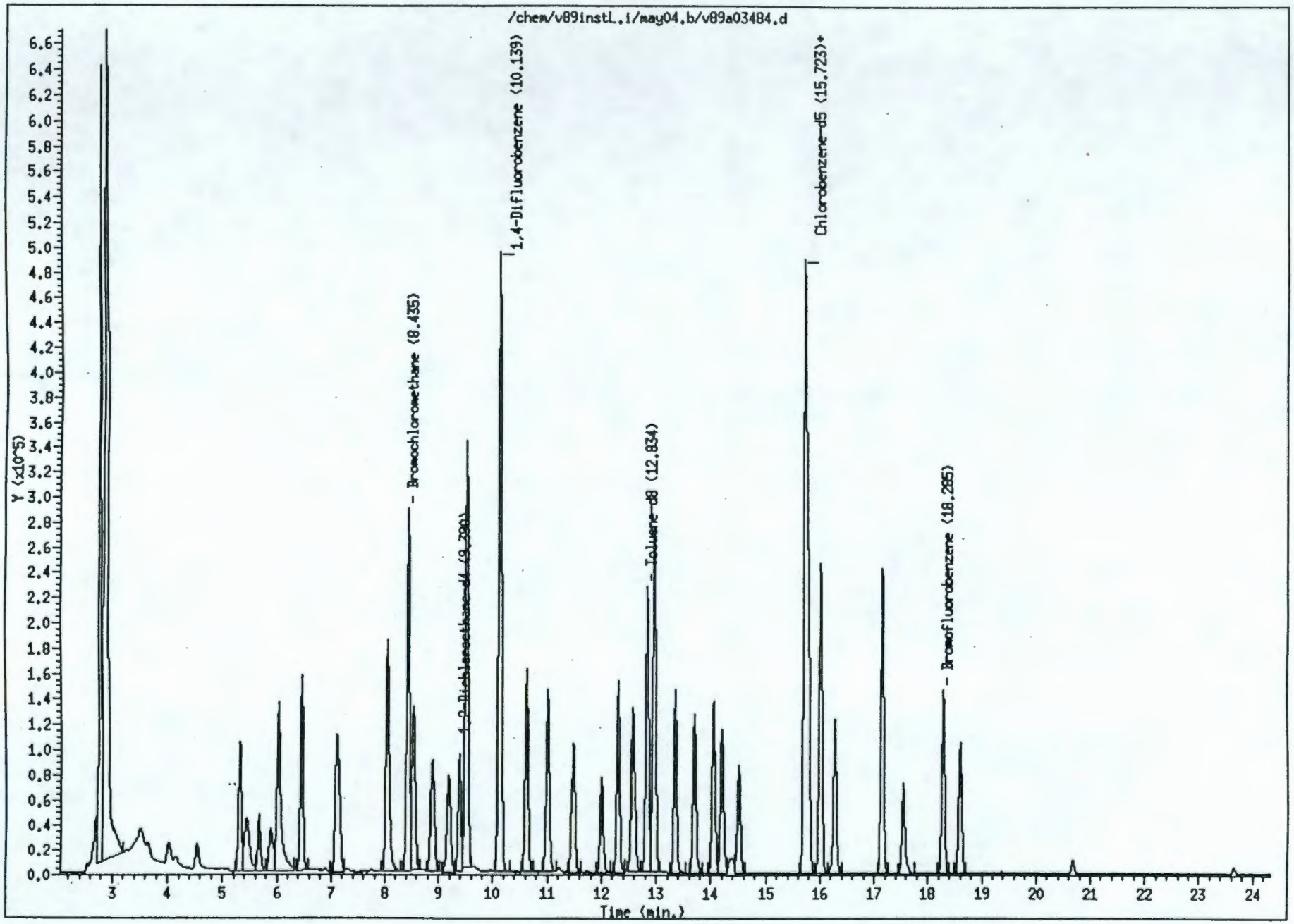

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Data File: /chem/v89instL.i/may04.b/v89a03484.d
Report Date: 13-May-1994 13:04

Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may04.b/v89a03484.d
Lab. Id. : vstd 20
Inj Date : 04-MAY-1994 13:11 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : vstd 20
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may04.b/vmeth390.m
Meth Date : 13-May-1994 13:04 user1
Cal Date : 04-MAY-94 10:58 Cal File: v89a03481.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	1 Chloromethane	50.00	3.457(0.410)	80911	21	21
	2 Vinyl Chloride	62.00	3.517(0.417)	75000	20	20
	3 Bromomethane	94.00	4.013(0.476)	36258	24	24
	4 Chloroethane	64.00	4.146(0.491)	6368	8	8(a)
	5 1,1-Dichloroethene	96.00	5.306(0.629)	86452	21	21
	6 Acetone	43.00	5.438(0.645)	178074	21	21
	7 Carbon Disulfide	76.00	5.668(0.672)	117143	21	21
	8 Methylene Chloride	84.00	6.031(0.715)	137675	22	22
	9 1,2-Dichloroethene (total)	96.00	8.037(0.953)	120684	22	22
	10 1,1-Dichloroethane	63.00	7.106(0.842)	227553	22	22
	11 2-Butanone	43.00	8.061(0.956)	239319	21	21
*	12 Bromochloromethane	128.00	8.435(1.000)	167474	50	
	13 Chloroform	83.00	8.544(1.013)	195282	22	22
	14 1,1,1-Trichloroethane	97.00	8.894(0.877)	136898	21	21
	15 Carbon Tetrachloride	117.00	9.184(0.906)	108325	21	21
$	16 1,2-Dichloroethane-d4	65.00	9.390(1.113)	117866	20	20
	17 Benzene	78.00	9.523(0.939)	447961	23	23
	18 1,2-Dichloroethane	62.00	9.523(1.129)	138748	22	22
*	19 1,4-Difluorobenzene	114.00	10.139(1.000)	845031	50	
	20 Trichloroethene	130.00	10.623(1.048)	119171	22	22
	21 1,2-Dichloropropane	63.00	11.009(1.086)	120291	22	22
	22 Bromodichloromethane	83.00	11.481(1.132)	140412	22	22
	23 cis-1,3-Dichloropropene	75.00	12.302(1.213)	175994	21	21
	24 4-Methyl-2-Pentanone	43.00	12.581(0.800)	233605	21	21
$	25 Toluene-d8	98.00	12.834(0.816)	294814	20	20
	26 Toluene	91.00	12.967(0.825)	399681	22	22
	27 trans-1,3-Dichloropropene	75.00	13.342(1.316)	150219	21	21
	28 1,1,2-Trichloroethane	97.00	13.704(1.352)	93644	22	22
	29 Tetrachloroethene	164.00	14.055(0.894)	76611	22	22
	30 2-Hexanone	43.00	14.200(0.903)	194442	21	21
	31 Dibromochloromethane	129.00	14.514(1.431)	101439	22	22

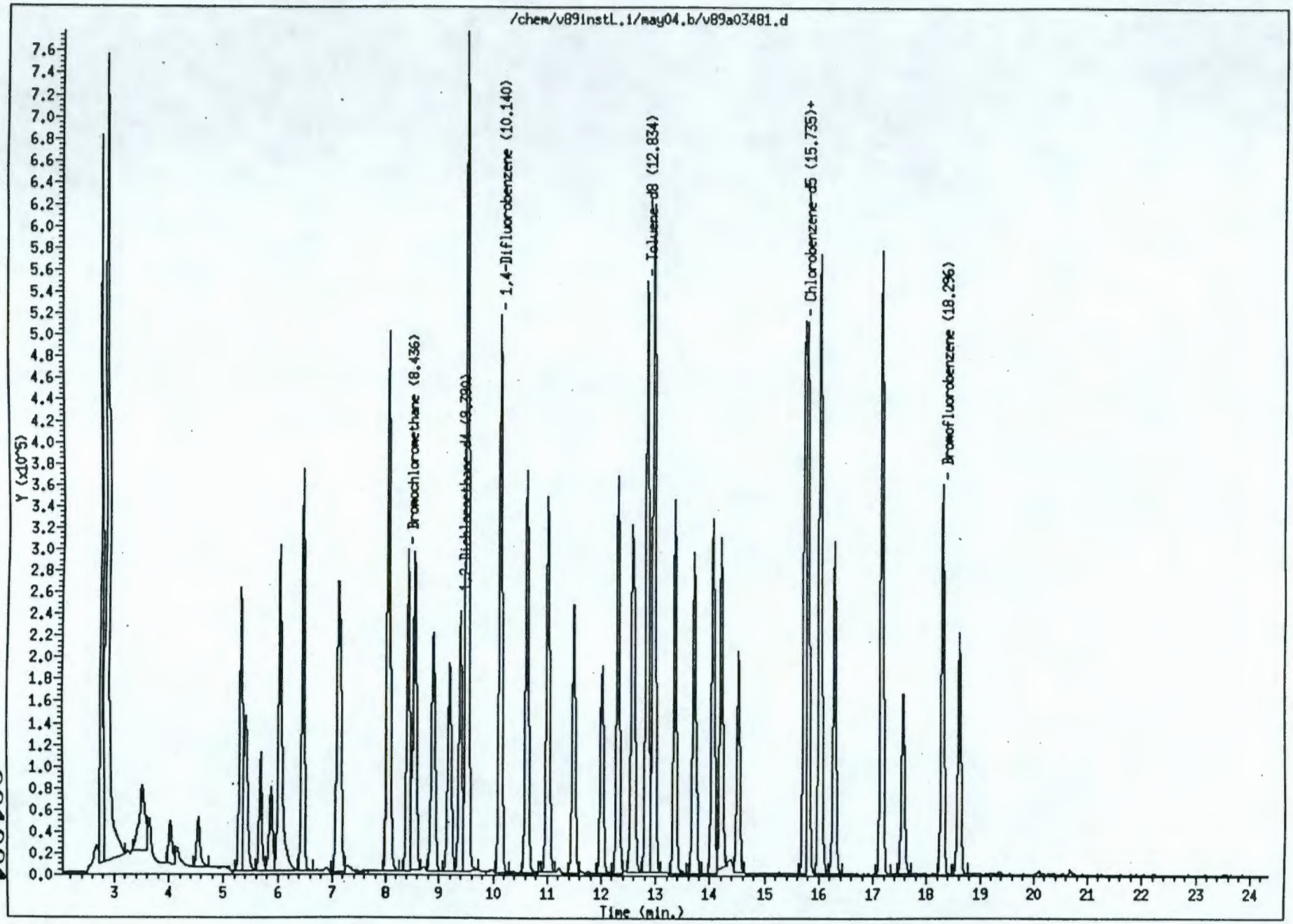
Data File: /chem/v89instL.i/may04.b/v89a03484.d
Report Date: 13-May-1994 13:05

Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
* 32 Chlorobenzene-d5	117.00	15.723(1.000)	585605	50	
33 Chlorobenzene	112.00	15.783(1.004)	237742	22	22
34 Ethylbenzene	106.00	16.013(1.018)	136420	22	22
35 Xylene (total)	106.00	16.267(1.035)	84933	11	11
36 Styrene	104.00	17.149(1.091)	269071	22	22
37 Bromoform	173.00	17.547(1.731)	75166	22	22
$ 38 Bromofluorobenzene	95.00	18.285(1.163)	120043	20	20
39 1,1,2,2-Tetrachloroethane	83.00	18.599(1.183)	142651	23	23

QC Flag Legend

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

Data File: /chem/v89instL.i/may04.b/v89a03481.d



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9513355.2098

Data File: /chem/v89instL.i/may04.b/v89a03481.d
Report Date: 13-May-1994 13:09

Environmental Science and Engineering

Volatile Sample Report

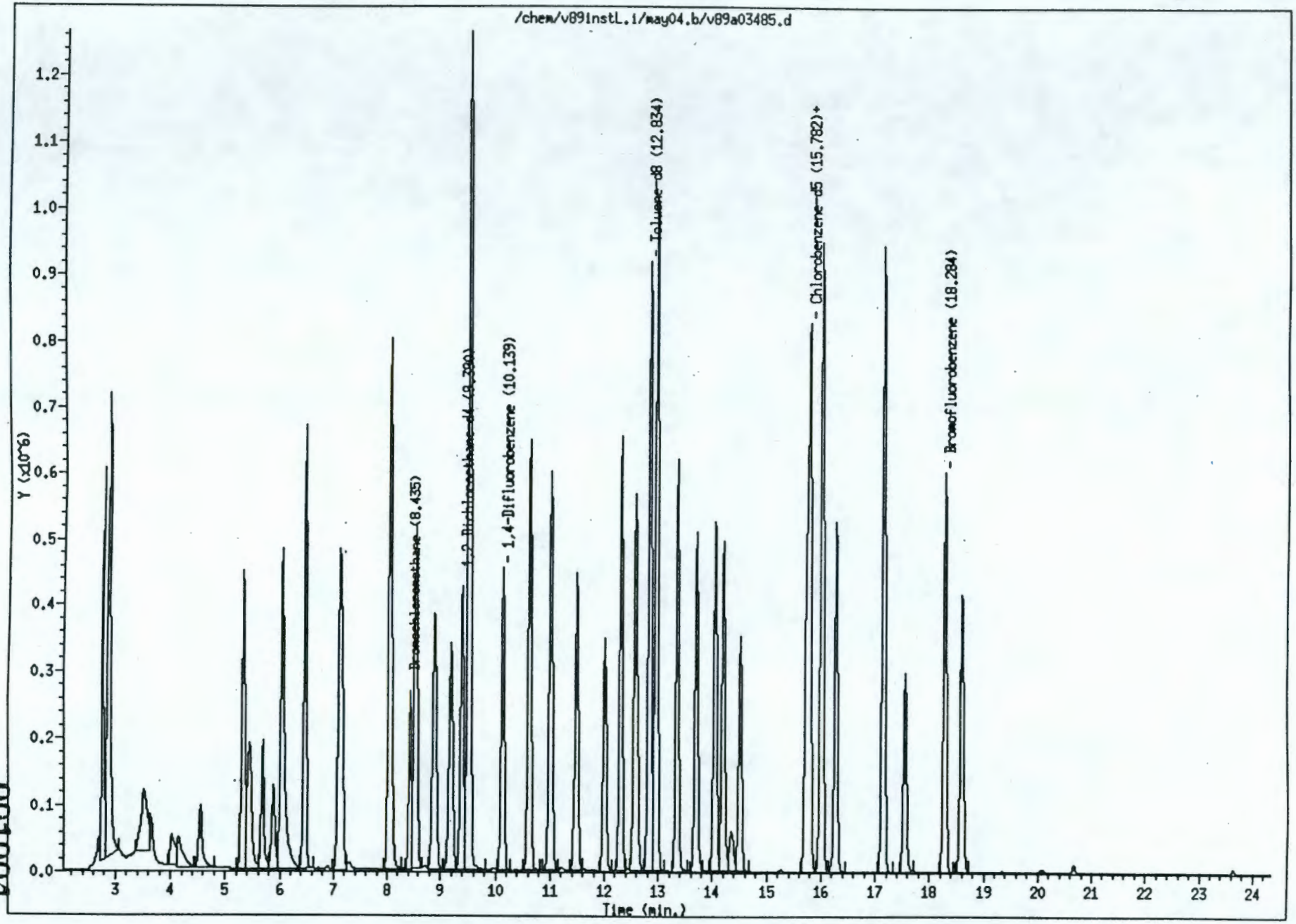
Data file : /chem/v89instL.i/may04.b/v89a03481.d
Lab. Id. : vstd 50
Inj Date : 04-MAY-1994 10:58 Autotune Date: 01-Apr-94 10:45:2
Operator : Shroads Inst ID: v89instL.i
Smp Info : vstd 50
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may04.b/vmeth390.m
Meth Date : 13-May-1994 13:05 user1
Cal Date : 04-MAY-94 10:58 Cal File: v89a03481.d
Als bottle: 1
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	1 Chloromethane	50.00	3.445(0.408)	189144	50	50
	2 Vinyl Chloride	62.00	3.505(0.416)	196237	50	50
	3 Bromomethane	94.00	4.013(0.476)	71525	50	50
	4 Chloroethane	64.00	4.158(0.493)	37735	50	50
	5 1,1-Dichloroethene	96.00	5.306(0.629)	216294	50	50
	6 Acetone	43.00	5.403(0.640)	418886	50	50
	7 Carbon Disulfide	76.00	5.668(0.672)	297141	50	50
	8 Methylene Chloride	84.00	6.031(0.715)	311641	50	50
	9 1,2-Dichloroethene (total)	96.00	8.037(0.953)	285800	50	50
	10 1,1-Dichloroethane	63.00	7.106(0.842)	550056	50	50
	11 2-Butanone	43.00	8.049(0.954)	580962	50	50
*	12 Bromochloromethane	128.00	8.436(1.000)	167961	50	
	13 Chloroform	83.00	8.545(1.013)	465206	50	50
	14 1,1,1-Trichloroethane	97.00	8.895(0.877)	338766	50	50
	15 Carbon Tetrachloride	117.00	9.185(0.906)	275198	50	50
$	16 1,2-Dichloroethane-d4	65.00	9.390(1.113)	301382	50	50
	17 Benzene	78.00	9.523(0.939)	1062880	50	50
	18 1,2-Dichloroethane	62.00	9.523(1.129)	318812	50	50
*	19 1,4-Difluorobenzene	114.00	10.140(1.000)	861088	50	
	20 Trichloroethene	130.00	10.623(1.048)	286086	50	50
	21 1,2-Dichloropropane	63.00	11.010(1.086)	292899	50	50
	22 Bromodichloromethane	83.00	11.481(1.132)	341438	50	50
	23 cis-1,3-Dichloropropene	75.00	12.315(1.214)	441560	50	50
	24 4-Methyl-2-Pentanone	43.00	12.581(0.800)	574095	50	50
$	25 Toluene-d8	98.00	12.834(0.816)	741817	50	50
	26 Toluene	91.00	12.968(0.824)	897790	50	50
	27 trans-1,3-Dichloropropene	75.00	13.354(1.317)	375107	50	50
	28 1,1,2-Trichloroethane	97.00	13.717(1.353)	220051	50	50
	29 Tetrachloroethene	164.00	14.055(0.893)	184881	50	50
	30 2-Hexanone	43.00	14.212(0.903)	533801	50	50
	31 Dibromochloromethane	129.00	14.514(1.431)	242230	50	50

Data File: /chem/v89instL.i/may04.b/v89a03481.d
Report Date: 13-May-1994 13:09

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
*	32 Chlorobenzene-d5	117.00	15.735(1.000)	588406	50	
	33 Chlorobenzene	112.00	15.795(1.004)	561494	50	50
	34 Ethylbenzene	106.00	16.025(1.018)	324200	50	50
	35 Xylene (total)	106.00	16.279(1.035)	210522	25	25
	36 Styrene	104.00	17.160(1.091)	652654	50	50
	37 Bromoform	173.00	17.559(1.732)	179899	50	50
$	38 Bromofluorobenzene	95.00	18.296(1.163)	307374	50	50
	39 1,1,2,2-Tetrachloroethane	83.00	18.610(1.183)	306159	50	50

Data File: /chem/v89instL.i/may04.b/v89a03485.d



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Data File: /chem/v89instL.i/may04.b/v89a03485.d
Report Date: 13-May-1994 13:05

Environmental Science and Engineering

Volatile Sample Report

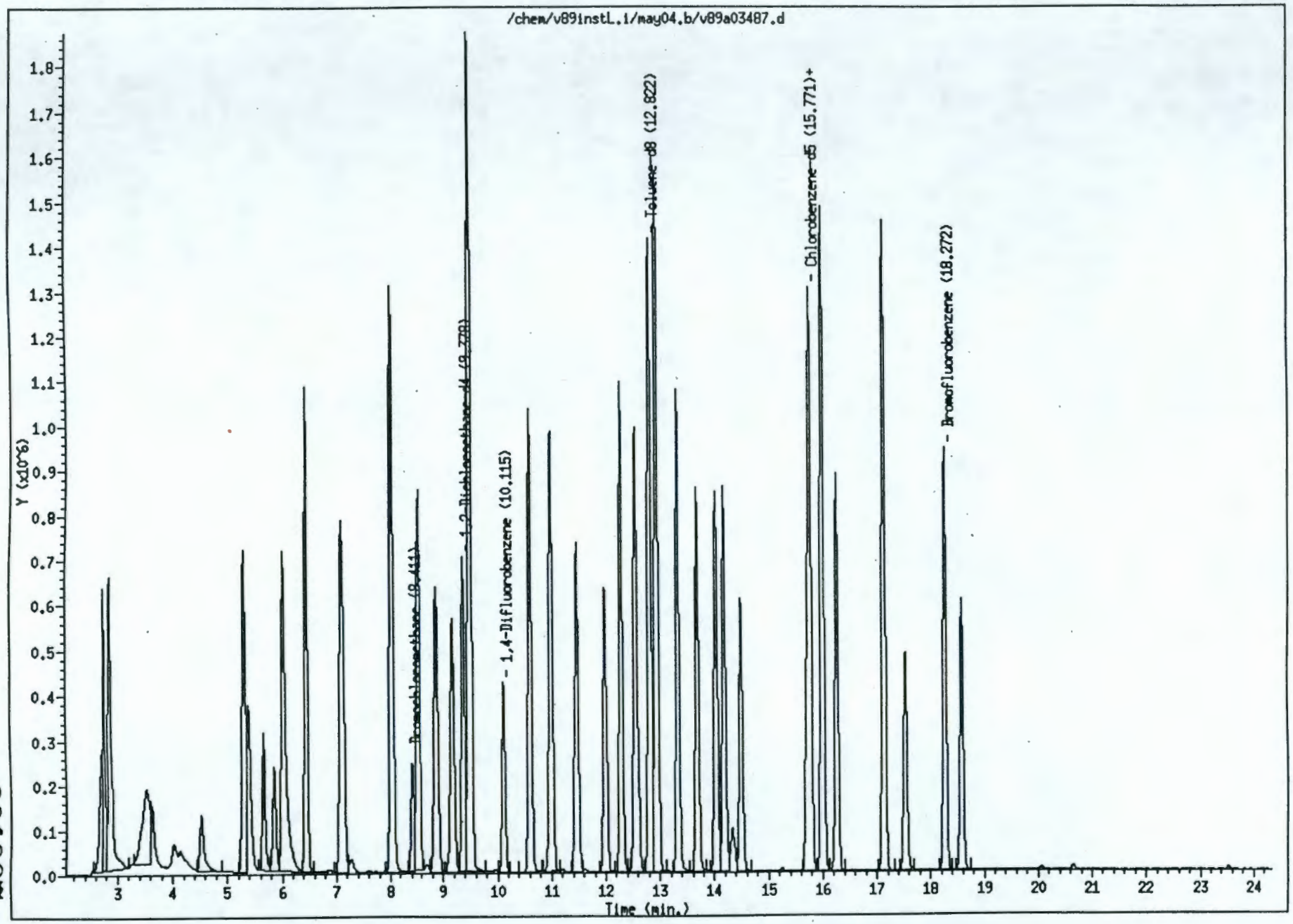
Data file : /chem/v89instL.i/may04.b/v89a03485.d
Lab. Id. : vstd 100
Inj Date : 04-MAY-1994 13:45 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : vstd 100
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may04.b/vmeth390.m
Meth Date : 13-May-1994 13:05 user1
Cal Date : 04-MAY-94 10:58 Cal File: v89a03481.d
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	1 Chloromethane	50.00	3.469(0.411)	344264	97	97
	2 Vinyl Chloride	62.00	3.517(0.417)	359911	100	100
	3 Bromomethane	94.00	4.013(0.476)	128211	92	92
	4 Chloroethane	64.00	4.158(0.493)	123431	160	160
	5 1,1-Dichloroethene	96.00	5.306(0.629)	394354	100	100
	6 Acetone	43.00	5.427(0.643)	705377	90	90
	7 Carbon Disulfide	76.00	5.668(0.672)	542026	100	100
	8 Methylene Chloride	84.00	6.031(0.715)	541180	93	93
	9 1,2-Dichloroethene (total)	96.00	8.037(0.953)	506130	100	100
	10 1,1-Dichloroethane	63.00	7.106(0.842)	1005115	100	100
	11 2-Butanone	43.00	8.061(0.956)	1036758	99	99
*	12 Bromochloromethane	128.00	8.435(1.000)	156165	50	
	13 Chloroform	83.00	8.544(1.013)	841586	100	100
	14 1,1,1-Trichloroethane	97.00	8.894(0.877)	607942	100	100
	15 Carbon Tetrachloride	117.00	9.184(0.906)	493420	100	100
$	16 1,2-Dichloroethane-d4	65.00	9.390(1.113)	552450	99	99
	17 Benzene	78.00	9.511(0.938)	1830575	100	100
	18 1,2-Dichloroethane	62.00	9.511(1.127)	547754	96	96
*	19 1,4-Difluorobenzene	114.00	10.139(1.000)	779673	50	
	20 Trichloroethene	130.00	10.623(1.048)	506950	100	100
	21 1,2-Dichloropropane	63.00	11.009(1.086)	522631	100	100
	22 Bromodichloromethane	83.00	11.480(1.132)	611570	100	100
	23 cis-1,3-Dichloropropene	75.00	12.302(1.213)	794561	100	100
	24 4-Methyl-2-Pentanone	43.00	12.568(0.799)	1061477	100	100
$	25 Toluene-d8	98.00	12.834(0.816)	1282761	100	100
	26 Toluene	91.00	12.967(0.825)	1554668	97	97
	27 trans-1,3-Dichloropropene	75.00	13.341(1.316)	673949	100	100
	28 1,1,2-Trichloroethane	97.00	13.704(1.352)	386872	99	99
	29 Tetrachloroethene	164.00	14.042(0.893)	314225	100	100
	30 2-Hexanone	43.00	14.199(0.903)	864222	100	100
	31 Dibromochloromethane	129.00	14.514(1.431)	428223	99	99

Data File: /chem/v89instL.i/may04.b/v89a03485.d
Report Date: 13-May-1994 13:05

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
*	32 Chlorobenzene-d5	117.00	15.722(1.000)	526340	50	
	33 Chlorobenzene	112.00	15.782(1.004)	961329	99	99
	34 Ethylbenzene	106.00	16.012(1.018)	547683	100	100
	35 Xylene (total)	106.00	16.266(1.035)	368147	52	52
	36 Styrene	104.00	17.148(1.091)	1122290	100	100
	37 Bromoform	173.00	17.547(1.731)	327993	100	100
$	38 Bromofluorobenzene	95.00	18.284(1.163)	536554	100	100
	39 1,1,2,2-Tetrachloroethane	83.00	18.586(1.182)	604468	110	110

Data File: /chem/v89instL.i/may04.b/v89a03487.d



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Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may04.b/v89a03487.d
Lab. Id. : vstd 200
Inj Date : 04-MAY-1994 14:58 Autotune Date: 01-Apr-94 10:45:2
Operator : Shroads Inst ID: v89instL.i
Smp Info : vstd 200
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may04.b/vmeth390.m
Meth Date : 04-May-1994 15:33 user1
Cal Date : 04-MAY-94 10:58 Cal File: v89a03481.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	1 Chloromethane	50.00	3.469(0.412)	602550	190	190
	2 Vinyl Chloride	62.00	3.542(0.420)	630497	200	200(A)
	3 Bromomethane	94.00	4.013(0.476)	157606	120	120
	4 Chloroethane	64.00	4.146(0.492)	123489	180	180
	5 1,1-Dichloroethene	96.00	5.294(0.628)	658751	190	190
	6 Acetone	43.00	5.378(0.638)	1169827	160	160
	7 Carbon Disulfide	76.00	5.656(0.671)	927844	190	190
	8 Methylene Chloride	84.00	6.019(0.715)	897829	170	170
	9 1,2-Dichloroethene (total)	96.00	8.013(0.951)	803336	170	170
	10 1,1-Dichloroethane	63.00	7.094(0.842)	1679664	190	190
	11 2-Butanone	43.00	8.037(0.954)	1697832	180	180
*	12 Bromochloromethane	128.00	8.423(1.000)	142253	50	
	13 Chloroform	83.00	8.532(1.013)	1430523	190	190
	14 1,1,1-Trichloroethane	97.00	8.870(0.877)	1047303	190	190
	15 Carbon Tetrachloride	117.00	9.173(0.907)	839496	190	190
$	16 1,2-Dichloroethane-d4	65.00	9.378(1.113)	964290	190	190
	17 Benzene	78.00	9.499(0.939)	2803611	160	160
	18 1,2-Dichloroethane	62.00	9.511(1.129)	918197	180	180
*	19 1,4-Difluorobenzene	114.00	10.115(1.000)	722056	50	
	20 Trichloroethene	130.00	10.610(1.049)	850367	180	180
	21 1,2-Dichloropropane	63.00	10.997(1.087)	868983	180	180
	22 Bromodichloromethane	83.00	11.469(1.134)	1049251	190	190
	23 cis-1,3-Dichloropropene	75.00	12.290(1.215)	1363282	190	190
	24 4-Methyl-2-Pentanone	43.00	12.568(0.800)	1936914	210	210(A)
$	25 Toluene-d8	98.00	12.822(0.816)	2063141	170	170
	26 Toluene	91.00	12.955(0.825)	2502462	170	170
	27 trans-1,3-Dichloropropene	75.00	13.329(1.318)	1196062	200	200
	28 1,1,2-Trichloroethane	97.00	13.692(1.354)	661565	180	180
	29 Tetrachloroethene	164.00	14.042(0.894)	515387	180	180
	30 2-Hexanone	43.00	14.187(0.903)	1542749	200	200
	31 Dibromochloromethane	129.00	14.490(1.432)	757577	190	190

Data File: /chem/v89instL.i/may04.b/v89a03487.d
Report Date: 04-May-1994 15:33

Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
* 32 Chlorobenzene-d5	117.00	15.710(1.000)	486631	50	
33 Chlorobenzene	112.00	15.771(1.004)	1614827	180	180
34 Ethylbenzene	106.00	16.000(1.018)	886018	180	180
35 Xylene (total)	106.00	16.254(1.035)	628726	96	96
36 Styrene	104.00	17.136(1.091)	1802762	180	180
37 Bromoform	173.00	17.535(1.734)	556670	190	190
$ 38 Bromofluorobenzene	95.00	18.272(1.163)	876293	180	180
39 1,1,2,2-Tetrachloroethane	83.00	18.574(1.182)	880614	170	170

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

9513355.210

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 49194

Instrument ID: V89INSTL Calibration Date: 05/16/94 Time: 1118

Lab File ID: V89A03616.D Init. Calibration Date(s): 04/20/94 05/04/94

Heated Purge: (Y/N) Y Init. Calibration Times: 1137 1458

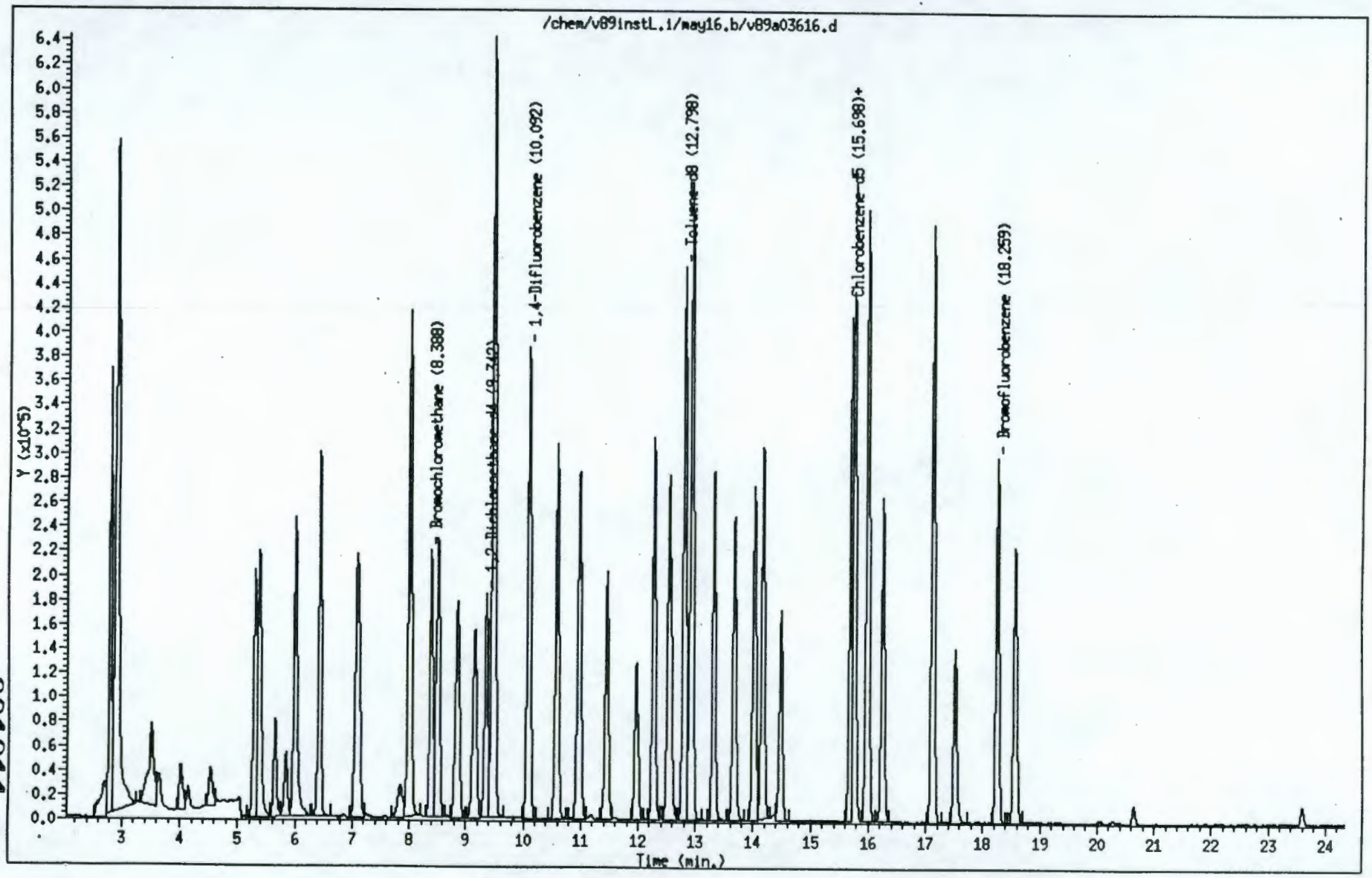
GC Column:75m DB-624 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D	
Chloromethane	1.139	1.082		4.9		
Bromomethane	0.445	0.522	0.100	-17.4	25.0	
Vinyl Chloride	1.108	1.228	0.100	-10.8	25.0	
Chloroethane	0.242	0.306		-26.3		
Methylene Chloride	1.868	1.854		0.8		
Acetone	2.502	4.831		-93.1		
Carbon Disulfide	1.681	1.845		-9.8		
1,1-Dichloroethene	1.235	1.402	0.100	-13.5	25.0	
1,1-Dichloroethane	3.157	3.637	0.200	-15.2	25.0	
1,2-Dichloroethene (total)	1.614	1.845		-14.3		
Chloroform	2.687	2.996	0.200	-11.5	25.0	
1,2-Dichloroethane	1.835	2.171		-18.3		
2-Butanone	3.349	4.077		-21.8		
1,1,1-Trichloroethane	0.381	0.423	0.100	-11.0	25.0	
Carbon Tetrachloride	0.305	0.345	0.100	-13.1	25.0	
Bromodichloromethane	0.386	0.431		-11.9		
1,2-Dichloropropane	0.327	0.378		-15.7		
cis-1,3-Dichloropropene	0.488	0.572	0.200	-17.0	25.0	
Trichloroethene	0.320	0.362	0.300	-13.0	25.0	
Dibromochloromethane	0.277	0.320	0.100	-15.7	25.0	
1,1,2-Trichloroethane	0.251	0.288	0.100	-14.6	25.0	
Benzene	1.173	1.357	0.500	-15.7	25.0	
trans-1,3-Dichloropropene	0.421	0.494	0.100	-17.4	25.0	
Bromoform	0.206	0.237	0.100	-15.3	25.0	
4-Methyl-2-Pentanone	0.964	1.099		-14.0		
2-Hexanone	0.803	1.131		-40.8		
Tetrachloroethene	0.297	0.337	0.200	-13.6	25.0	
1,1,2,2-Tetrachloroethane	0.523	0.675	0.500	-29.2	25.0	<-
Toluene	1.519	1.632	0.400	-7.4	25.0	
Chlorobenzene	0.921	1.018	0.500	-10.6	25.0	
Ethylbenzene	0.520	0.592	0.100	-14.0	25.0	
Styrene	1.040	1.190	0.300	-14.4	25.0	
Xylene (total)	0.675	0.769	0.300	-14.0	25.0	
1,2-Dichloroethane-d4	1.786	1.936	0.100	-8.4	20.5	
Toluene-d8	1.224	1.299		-6.2		
Bromofluorobenzene	0.507	0.551	0.200	-8.7	25.0	

All other compounds must meet a minimum RRF of 0.010.

Data File: /chem/v89instL.i/may16.b/v89a03616.d
Date : 16-MAY-1994 11:18
Instrument : v89instL.i
Sample ID : vstd 50
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53



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Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may16.b/v89a03616.d
Lab. Id. : vstd 50
Inj Date : 16-MAY-1994 11:18 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : vstd 50
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may16.b/vmeth390.m
Meth Date : 16-May-1994 13:23
Cal Date : 16-MAY-94 11:18 Cal File: v89a03616.d
Als bottle: 1
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	1 Chloromethane	50.00	3.445(0.411)	131999	50	50
	2 Vinyl Chloride	62.00	3.505(0.418)	149732	50	50
	3 Bromomethane	94.00	4.001(0.477)	63689	50	50
	4 Chloroethane	64.00	4.146(0.494)	37332	50	50
	5 1,1-Dichloroethene	96.00	5.282(0.630)	171007	50	50
	6 Acetone	43.00	5.366(0.640)	589220	50	50
	7 Carbon Disulfide	76.00	5.632(0.671)	224989	50	50
	8 Methylene Chloride	84.00	5.995(0.715)	226045	50	50
	9 1,2-Dichloroethene (total)	96.00	7.989(0.952)	225008	50	50
	10 1,1-Dichloroethane	63.00	7.071(0.843)	443594	50	50
	11 2-Butanone	43.00	8.001(0.954)	497246	50	50
*	12 Bromochloromethane	128.00	8.388(1.000)	121955	50	
	13 Chloroform	83.00	8.497(1.013)	365397	50	50
	14 1,1,1-Trichloroethane	97.00	8.847(0.877)	271899	50	50
	15 Carbon Tetrachloride	117.00	9.149(0.907)	222084	50	50
$	16 1,2-Dichloroethane-d4	65.00	9.354(1.115)	236112	50	50
	17 Benzene	78.00	9.475(0.939)	872454	50	50
	18 1,2-Dichloroethane	62.00	9.475(1.130)	264781	50	50
*	19 1,4-Difluorobenzene	114.00	10.092(1.000)	643145	50	
	20 Trichloroethene	130.00	10.587(1.049)	232514	50	50
	21 1,2-Dichloropropane	63.00	10.974(1.087)	242977	50	50
	22 Bromodichloromethane	83.00	11.445(1.134)	277510	50	50
	23 cis-1,3-Dichloropropene	75.00	12.267(1.216)	367606	50	50
	24 4-Methyl-2-Pentanone	43.00	12.544(0.799)	510196	50	50
$	25 Toluene-d8	98.00	12.798(0.815)	603015	50	50
	26 Toluene	91.00	12.931(0.824)	757258	50	50
	27 trans-1,3-Dichloropropene	75.00	13.306(1.318)	317928	50	50
	28 1,1,2-Trichloroethane	97.00	13.680(1.356)	185224	50	50
	29 Tetrachloroethene	164.00	14.018(0.893)	156463	50	50
	30 2-Hexanone	43.00	14.163(0.902)	524706	50	50
	31 Dibromochloromethane	129.00	14.478(1.435)	205777	50	50

Data File: /chem/v89instL.i/may16.b/v89a03616.d
Report Date: 16-May-1994 16:30

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
*	32 Chlorobenzene-d5	117.00	15.698(1.000)	464080	50	
	33 Chlorobenzene	112.00	15.758(1.004)	472326	50	50
	34 Ethylbenzene	106.00	15.988(1.018)	274928	50	50
	35 Xylene (total)	106.00	16.241(1.035)	178532	25	25
	36 Styrene	104.00	17.124(1.091)	552132	50	50
	37 Bromoform	173.00	17.522(1.736)	152381	50	50
$	38 Bromofluorobenzene	95.00	18.259(1.163)	255552	50	50
	39 1,1,2,2-Tetrachloroethane	83.00	18.561(1.182)	313456	50	50

9513355.2111

RAW QC DATA

Data File: /chem/v89instL.i/may04.b/v89a03480.d

Date : 04-MAY-94 09:44

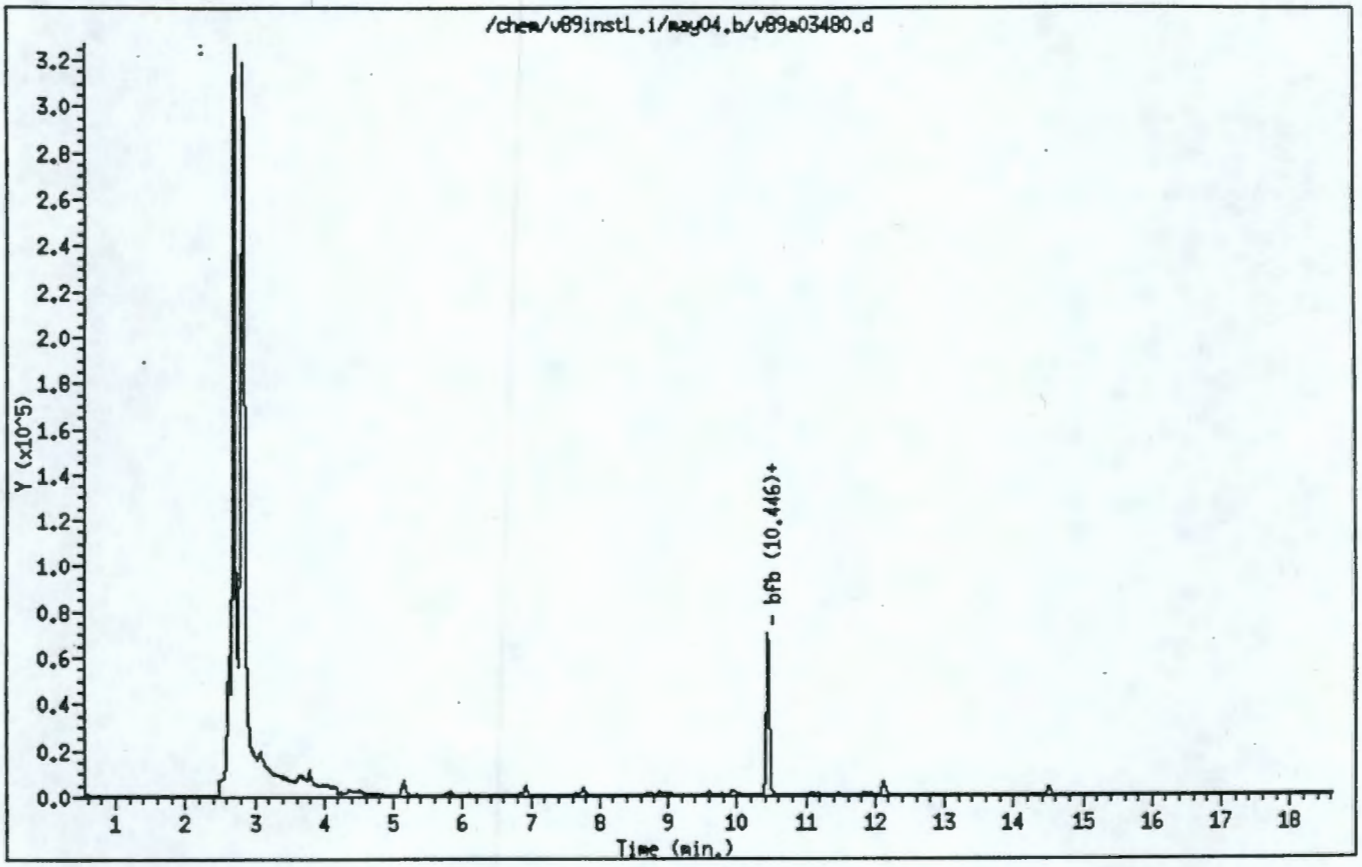
Instrument : v89instL.i

Sample ID : bfb 50 ng purge

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 1.0



Data File: /chem/v89instL.i/may04.b/v89a03480.d

Date : 04-MAY-94 09:44

Instrument : v89instL.i

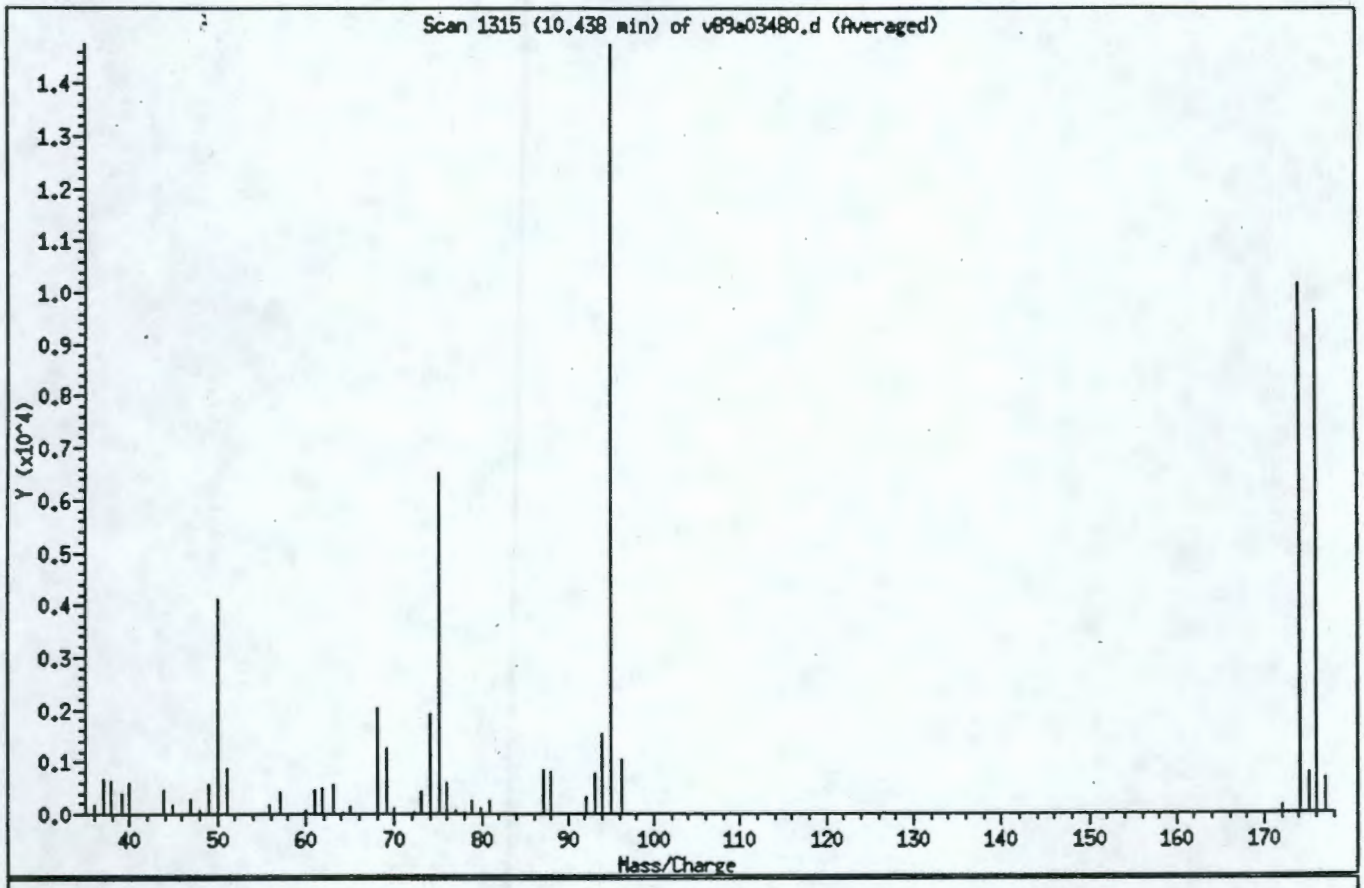
Sample ID : bfb 50 ng purge

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 1.0

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.0
50	8.00 - 40.00% of mass 95	27.9
75	30.00 - 66.00% of mass 95	44.3
96	5.00 - 9.00% of mass 95	7.0
173	Less than 2.00% of mass 174	0.0
174	50.00 - 120.00% of mass 95	68.7
175	4.00 - 9.00% of mass 174	7.6
176	93.00 - 101.00% of mass 174	95.0
177	5.00 - 9.00% of mass 176	7.0

Data File: /chem/v89instL.i/may04.b/v89a03480.d

Date : 04-MAY-94 09:44

Instrument : v89instL.i

Sample ID : bfb 50 ng purge

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 1.0

Spectrum: Scan 1315-1317 (10.438 min) Subtraction Scan 1307

Base Peak: 95.00

Number of mass peaks: 44

Mass	Abund	Mass	Abund	Mass	Abund	Mass	Abund
36.00	161	57.00	407	74.00	1920	94.00	1518
37.00	653	60.00	82	75.00	6532	95.00	14745
38.00	621	61.00	465	76.00	577	96.00	1030
39.00	382	62.00	498	77.00	75	172.00	130
44.00	73	63.00	551	78.00	36	174.00	10132
45.00	176	64.00	39	79.00	233	175.00	770
47.00	281	65.00	151	80.00	113	176.00	9622
48.00	80	68.00	2019	81.00	259	177.00	674
49.00	568	69.00	1242	87.00	821		
50.00	4110	70.00	108	88.00	790		
51.00	878	72.00	38	92.00	313		
56.00	174	73.00	419	93.00	766		

Data File: /chem/v89instL.i/may16.b/v89a03614.d

Date : 16-MAY-94 09:35

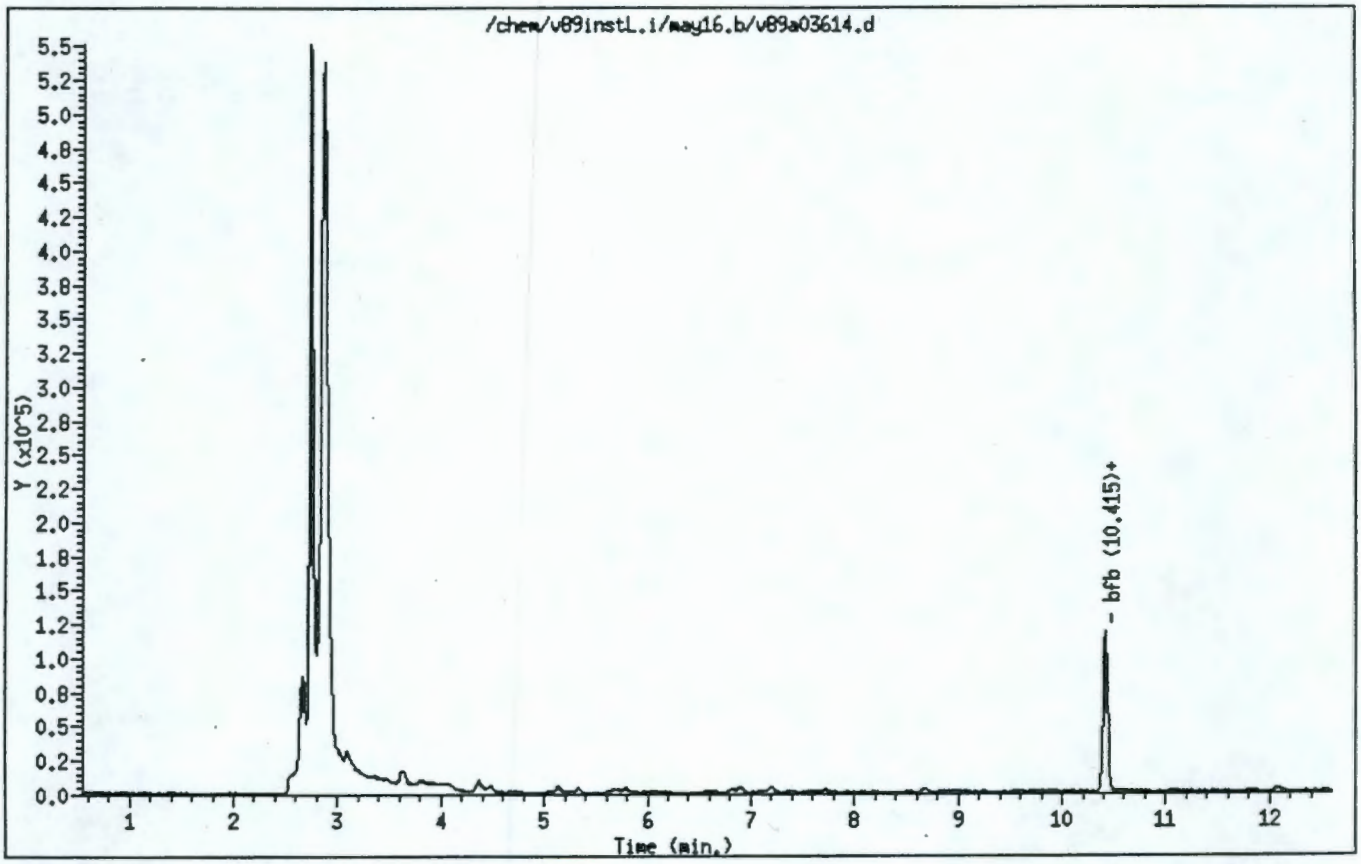
Instrument : v89instL.i

Sample ID : bfb 50 ng purge

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 1.0



Data File: /chem/v89instL.i/may16.b/v89a03614.d

Date : 16-MAY-94 09:35

Instrument : v89instL.i

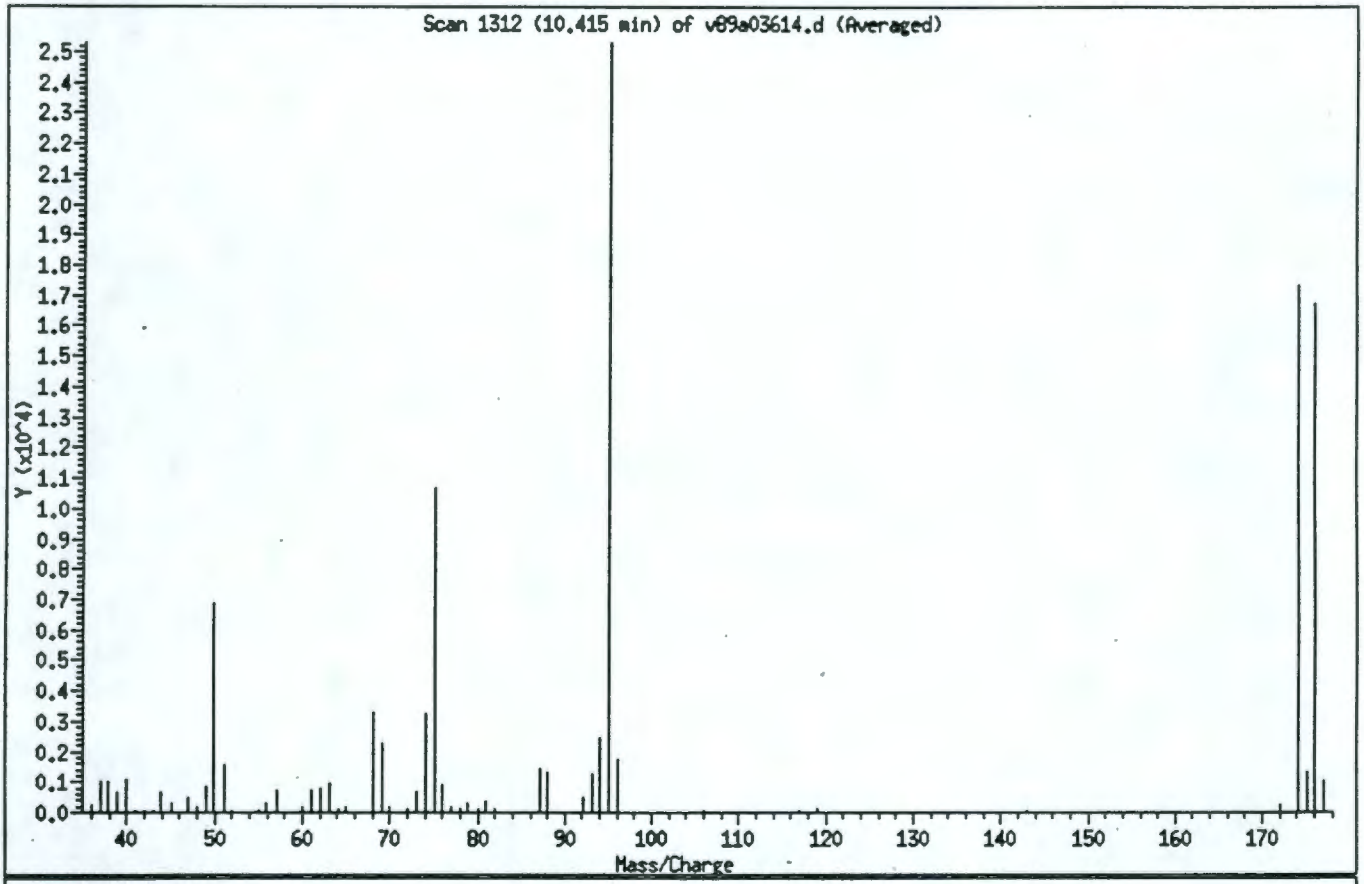
Sample ID : bfb 50 ng purge

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 1.0

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.0
50	8.00 - 40.00% of mass 95	27.2
75	30.00 - 66.00% of mass 95	42.0
96	5.00 - 9.00% of mass 95	6.8
173	Less than 2.00% of mass 174	0.0
174	50.00 - 120.00% of mass 95	68.3
175	4.00 - 9.00% of mass 174	7.6
176	93.00 - 101.00% of mass 174	96.6
177	5.00 - 9.00% of mass 176	6.1

Data File: /chem/v89instL.i/may16.b/v89a03614.d

Date : 16-MAY-94 09:35

Instrument : v89instL.i

Sample ID : bfb 50 ng purge

Column phase :

Column diameter : 2.00

Volume Injected (uL) : 1.0

Spectrum: Scan 1312-1314 (10.415 min) Subtraction Scan 1303

Base Peak: 95.00

Number of mass peaks: 53

Mass	Abund	Mass	Abund	Mass	Abund	Mass	Abund
36.00	255	55.00	33	74.00	3229	95.00	25298
37.00	1042	56.00	321	75.00	10619	96.00	1710
38.00	995	57.00	726	76.00	903	106.00	36
39.00	636	60.00	185	77.00	190	117.00	81
41.00	78	61.00	707	78.00	148	119.00	122
42.00	34	62.00	795	79.00	328	143.00	41
44.00	30	63.00	965	80.00	144	172.00	224
45.00	288	64.00	134	81.00	336	174.00	17272
47.00	495	65.00	162	82.00	142	175.00	1320
48.00	155	68.00	3261	87.00	1452	176.00	16692
49.00	834	69.00	2262	88.00	1337	177.00	1013
50.00	6889	70.00	200	92.00	454		
51.00	1528	72.00	96	93.00	1238		
52.00	75	73.00	680	94.00	2472		

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

sp1*none*1

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 49194

Matrix: (soil/water) SOIL Lab Sample ID: sp1*none*1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03618.D

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

% Moisture: not dec. 0 Data Analyzed: 05/16/94

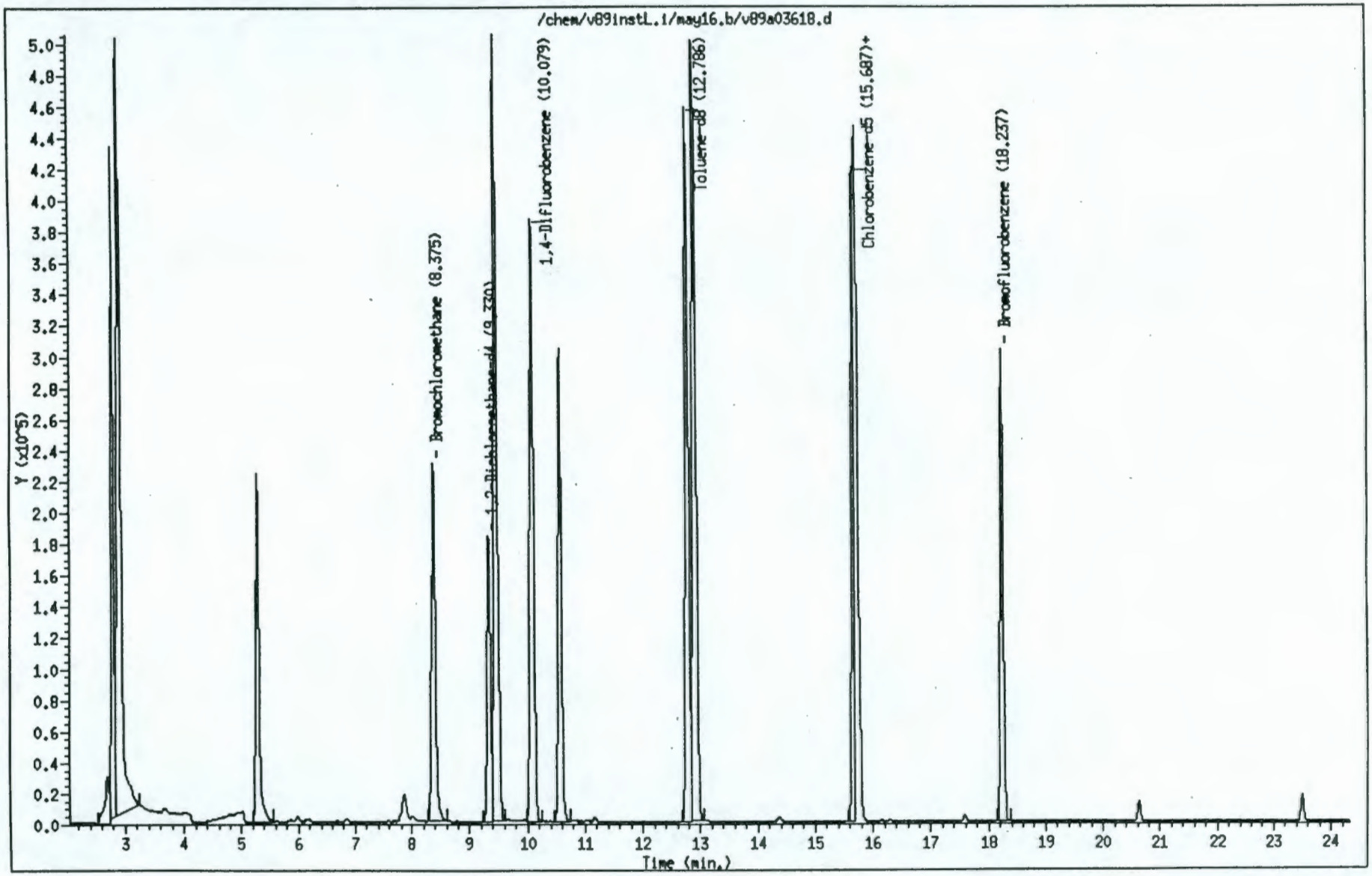
GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(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	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	53	
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	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	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	48	
108-90-7	Chlorobenzene	50	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

Data File: /chem/v89instL.i/may16.b/v89a03618.d
Date : 16-MAY-1994 12:25
Instrument : v89instL.i
Sample ID : sp1*none*1
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53



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Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may16.b/v89a03618.d
Lab. Id. : spl*none*1
Inj Date : 16-MAY-1994 12:25 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : spl*none*1
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may16.b/vmeth390.m
Meth Date : 16-May-1994 13:23
Cal Date : 16-MAY-94 11:18 Cal File: v89a03616.d
Als bottle: 3 QC Sample: MS
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	5 1,1-Dichloroethene	96.00	5.282(0.630)	189197	53	53
*	12 Bromochloromethane	128.00	8.387(1.000)	127516	50	
$	16 1,2-Dichloroethane-d4	65.00	9.342(1.114)	239435	48	48
	17 Benzene	78.00	9.463(0.938)	901296	50	50
*	19 1,4-Difluorobenzene	114.00	10.091(1.000)	659082	50	
	20 Trichloroethene	130.00	10.575(1.048)	232332	49	49
$	25 Toluene-d8	98.00	12.786(0.816)	615058	50	50
	26 Toluene	91.00	12.919(0.824)	745593	48	48
*	32 Chlorobenzene-d5	117.00	15.675(1.000)	472463	50	
	33 Chlorobenzene	112.00	15.735(1.004)	482131	50	50
$	38 Bromofluorobenzene	95.00	18.237(1.163)	257475	49	49

Data File: /chem/v89instL.i/may16.b/v89a03618.d
Report Date: 16-May-1994 16:11

Environmental Science and Engineering

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: v89instL.i
Lab File ID: v89a03618.d
Lab Sample ID: sp1*none*1
Analysis Type: VOA
Method File: /chem/v89instL.i/may16.b/vmeth390.m
Misc Info:

Calibration Date: 05/16/94
Calibration Time: 1323
Sample Type: SOIL
Level: LOW

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
12 Bromochloromethane	121955	60977	243910	127516	4.56
19 1,4-Difluorobenzene	643145	321572	1286290	659082	2.48
32 Chlorobenzene-d5	464080	232040	928160	472463	1.81

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
12 Bromochloromethane	8.39	7.89	8.89	8.39	0.00
19 1,4-Difluorobenzene	10.09	9.59	10.59	10.09	0.00
32 Chlorobenzene-d5	15.70	15.20	16.20	15.67	-0.15

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.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

vblks1

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 49194

Matrix: (soil/water) SOIL Lab Sample ID: vblks1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03617.D

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

% Moisture: not dec. 0 Data Analyzed: 05/16/94

GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	3	J
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
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

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 49194

Matrix: (soil/water) SOIL Lab Sample ID: vblks1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V89A03617.D

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

% Moisture: not dec. 5.4 Data Analyzed: 05/16/94

GC Column:75m DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

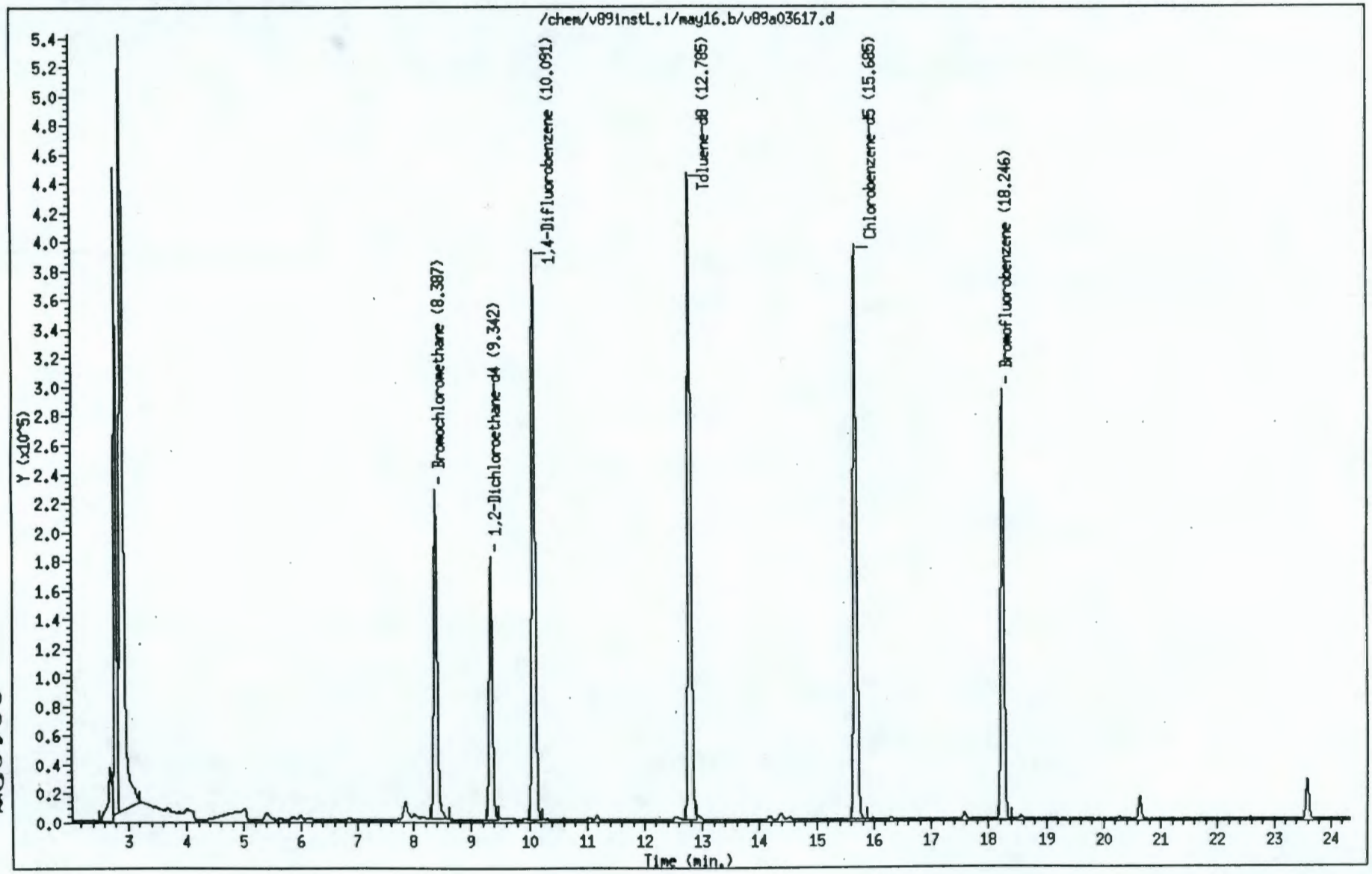
Number TICs found: 0

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/v89instL.i/may16.b/v89a03617.d
Date : 16-MAY-1994 11:51
Instrument : v89instL.i
Sample ID : vblks1
Column phase : 75m DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53



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Environmental Science and Engineering

Volatile Sample Report

Data file : /chem/v89instL.i/may16.b/v89a03617.d
Lab. Id. : vblks1
Inj Date : 16-MAY-1994 11:51 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : vblks1
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may16.b/vmeth390.m
Meth Date : 16-May-1994 13:23
Cal Date : 16-MAY-94 11:18 Cal File: v89a03616.d
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

Compounds	QUANT SIG MASS	RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
3 Bromomethane	94.00	4.001(0.477)	3509	3	3(a)
* 12 Bromochloromethane	128.00	8.387(1.000)	126139	50	
$ 16 1,2-Dichloroethane-d4	65.00	9.342(1.114)	231573	47	47
* 19 1,4-Difluorobenzene	114.00	10.091(1.000)	667537	50	
$ 25 Toluene-d8	98.00	12.797(0.816)	598706	48	48
* 32 Chlorobenzene-d5	117.00	15.685(1.000)	483832	50	
$ 38 Bromofluorobenzene	95.00	18.246(1.163)	252540	47	47

QC Flag Legend

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

Data File: /chem/v89instL.i/may16.b/v89a03617.d
Report Date: 16-May-1994 16:11

Environmental Science and Engineering

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: v89instL.i
Lab File ID: v89a03617.d
Lab Sample ID: vblks1
Analysis Type: VOA
Method File: /chem/v89instL.i/may16.b/vmeth390.m
Misc Info:

Calibration Date: 05/16/94
Calibration Time: 1323
Sample Type: SOIL
Level: LOW

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
12 Bromochloromethane	121955	60977	243910	126139	3.43
19 1,4-Difluorobenzene	643145	321572	1286290	667537	3.79
32 Chlorobenzene-d5	464080	232040	928160	483832	4.26

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
12 Bromochloromethane	8.39	7.89	8.89	8.39	-0.01
19 1,4-Difluorobenzene	10.09	9.59	10.59	10.09	-0.01
32 Chlorobenzene-d5	15.70	15.20	16.20	15.68	-0.08

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.

Data File: /chem/v89instL.i/may16.b/v89a03617.d

Date : 16-MAY-1994 11:51

Instrument : v89instL.i

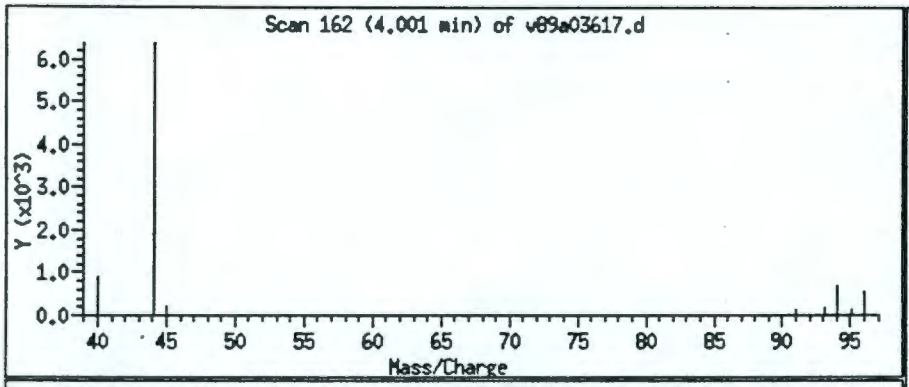
Sample ID : vblks1

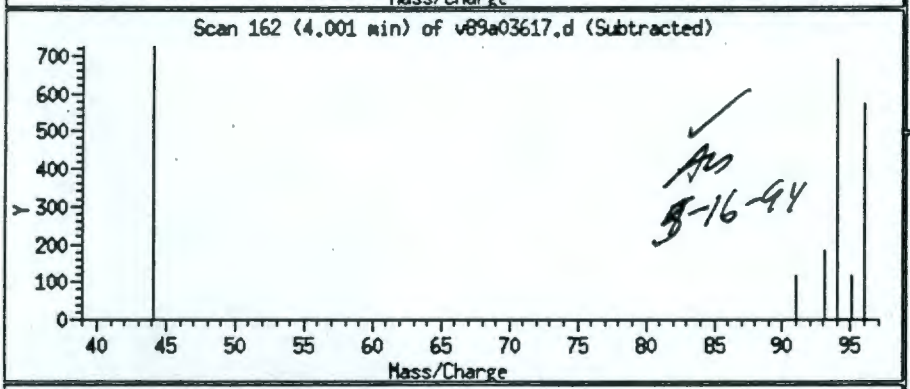
Column phase : 75m DB-624

Column diameter : 0.53

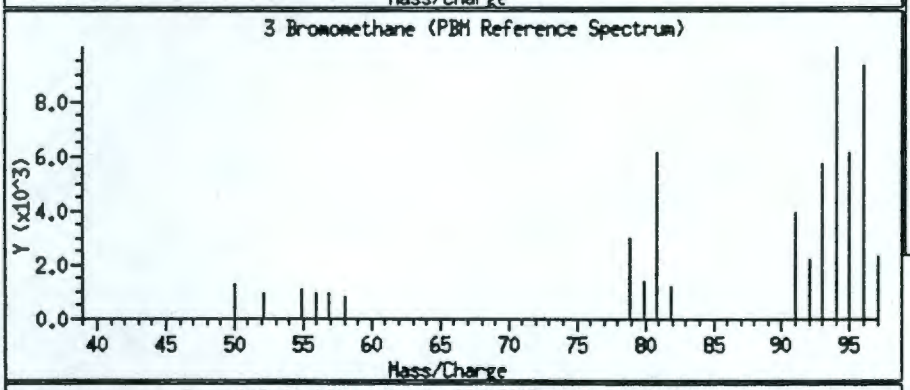
Volume Injected (uL) : 0.0

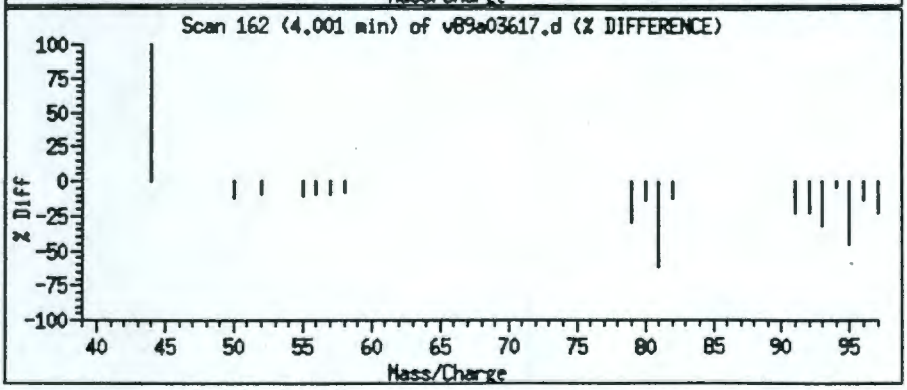
3 Bromomethane

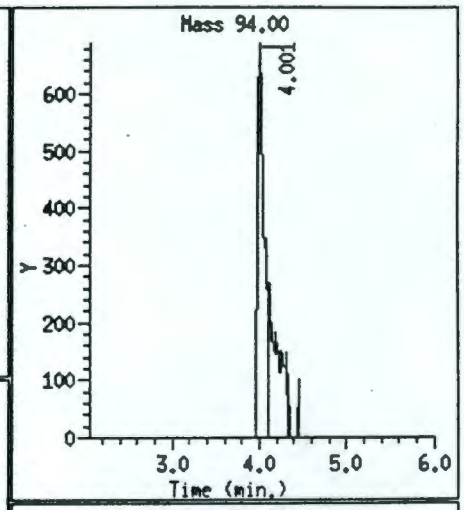


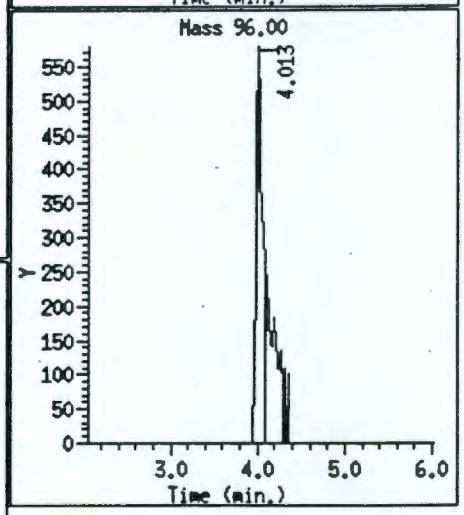


AS 5-16-94









Environmental Science and Engineering

Unknown Compounds Quantitation Report

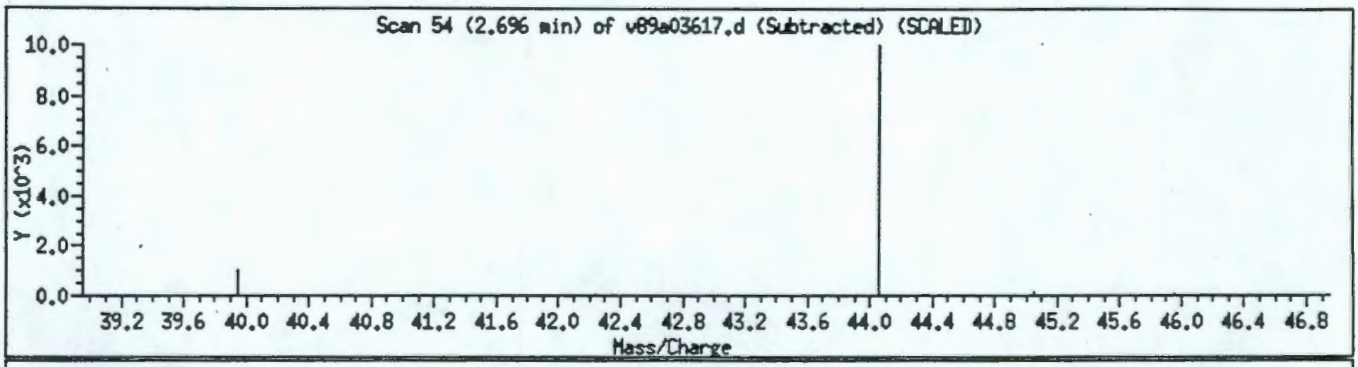
Data file : /chem/v89instL.i/may16.b/v89a03617.d
Lab. Id. : vblks1
Inj Date : 16-MAY-1994 11:51 Autotune Date: 01-Apr-94 10:45:2
Operator : Larry Shroads Inst ID: v89instL.i
Smp Info : vblks1
Misc Info :
Comment : Detv24 Survs24
Method : /chem/v89instL.i/may16.b/vmeth390.m
Meth Date : 16-May-1994 13:23
Cal Date : 16-MAY-94 11:18 Cal File: v89a03616.d
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.000 Target Version: Target 2.20
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 12 Bromochloromethane	8.387	930981	50.000

RT	AREA	CONC(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	QUANT CPND

Data File: /chem/v89instL.i/may16.b/v89a03617.d
Date : 16-MAY-1994 11:51
Instrument : v89instL.i
Sample ID : vblks1
Column phase : 75m DB-624 Column diameter : 0.53
Volume Injected (uL) : 0.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				

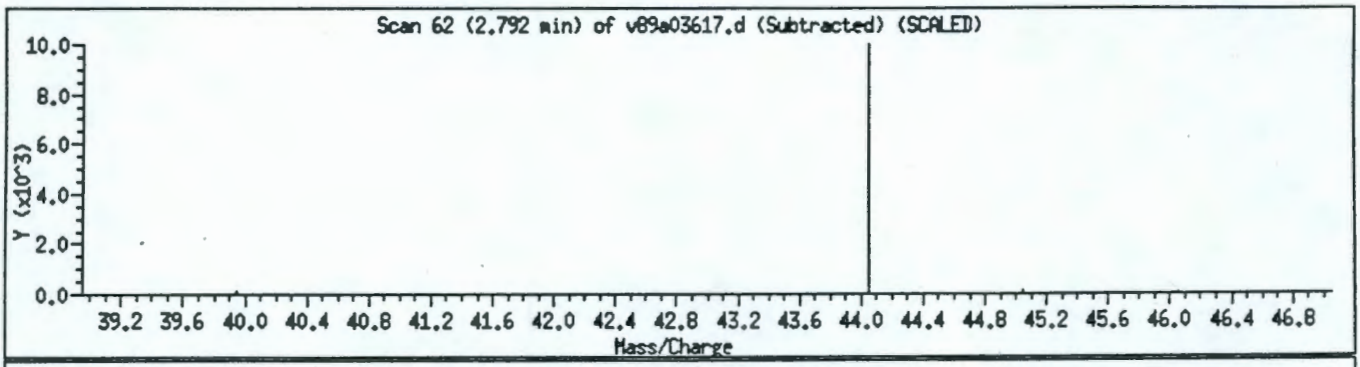


Background CO_2
AS 5-16-94

Data File: /chem/v89instL.i/may16.b/v89a03617.d

Date : 16-MAY-1994 11:51
Instrument : v89instL.i
Sample ID : vblks1
Column phase : 75m DB-624 Column diameter : 0.53
Volume Injected (uL) : 0.0

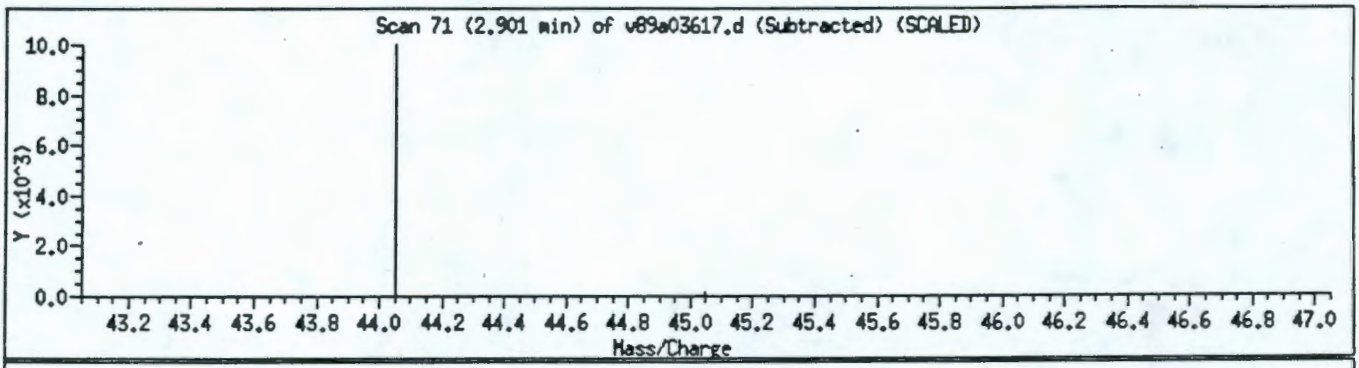
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



Background CO_2
AS 5-16-94

Data File: /chem/v89instL.i/may16.b/v89a03617.d
Date : 16-MAY-1994 11:51
Instrument : v89instL.i
Sample ID : vblks1
Column phase : 75m DB-624 Column diameter : 0.53
Volume Injected (uL) : 0.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



Background N_2
Aug 5-16-94

9513355.2132

OTHER RELEVANT DOCUMENTS

9513355.2133

Environmental Science & Engineering, Inc.

GC/MS INSTRUMENT LOGSHEET

INSTRUMENT ID _____

DATE 5-16-94 PROJECT NAME _____

OPERATOR Larry Shrouds

MASS RANGE 35 → 300 A/D 22

THRESHOLD 100 E. M. 1740

SCAN DELAY 2.0 SURR 908-26-6

TAPE DATE _____ INT STD 908-22-4

COLUMN 75m DB-624 STANDARD 908-27-0

GC PROGRAM 35°C for 4min @ 8°min to 175°C

CAL FILE _____

ID FILE vmch390.m

ID FILE UNITS ug/Kg

DATE UPLOADED 5-17-94

UPLOAD NAME als ϕ 516

DATE SIGN _____

FRN	SAMPLE ID	PURGE VOL	ALS POS	DIL FACT	COMMENTS	SAMPLE CHECK
v89a03614.d	bfb 50ng purge	5g/5ml	1	neat		✓
3616.d	vstd 50		2	neat		✓
3617.d	vblks1		3	neat		✓
3618.d	Spl tune #1		4	neat		✓
3619.d	CDMHNSS#36		5	neat		✓
3620.d	CDMHNSS#36 MS		6	neat		✓
3621.d	CDMHNSS#36 MSD		7	neat		✓
			als 5-17-94			

Read and Understood by

Albert J. Shrouds 5-17-94 SIGNED DATE

Nadia Sahmoud 5/18/94 SIGNED DATE

PAGE 1 OF ___

001036 ~~000051~~

PROJECT Preparation of WA Matrix Spike Sol. Continued From Page N/A

Supelco Cat # 4-8399, Lot LA 33136 (250 ug/ml)
Dil 1:5 to yield a 50 ug/ml working mixture.
(5 vials A-E) Used MeOH Baxter B/J Lot # 8 6767.
Expires 07/14/94

SUPELCO
SEPARATION TECHNOLOGIES
DIVISION OF ROHM AND HAAS

Cat no 4-8399
Storage-REFRIGERATE
Lot no- LA33136

FOR RESEARCH USE ONLY CLP Volatile Matrix Spiking Solution
1ml methanol
CAUTION-IRRITANT IF SWALLOWED
DANGER-EXTREMELY FLAMMABLE
May be fatal if swallowed. May cause headache, nausea, blindness.

INGREDIENTS PER PA. R-T-K: methanol, 1,1-dichloroethylene, benzene, trichloroethylene, toluene, chlorobenzene

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

Continued on Page

Read and Understood By

Signed 01/14/94 Date

Signed 1/14/94 Date

22

PROJECT Preparation of VOA Internal Standard

Notebook No. 00708

Continued From Page N/A

Supelco Cat # 4-8835, Lot LA32543 (1000 µg/ml)

Dil 1:20 (0.5 ml IS brought to volume in a 10 ml volumetric w/ MeOH, Burdick & Jackson Brand, High Purity, Lot # B-767) to yield a 50 µg/ml working solution. Aliquot into 2 vials (a → A)

Expires: 07/14/94

SUPELCO
SEPARATION TECHNOLOGIES
DIVISION OF ROHM AND HAAS

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

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:

1,4-Difluorobenzene

Chlorobenzene-d_5

Certificate of Analysis

DESCRIPTION: VOA INTERNAL STANDARD MIX

CATALOG NO.: 4-8835 LOT NO.: LA-32543

ANALYTE (1)	PERCENT PURITY (2)	WEIGHT CONCENTRATION (3)

Read and Understood By

Signed 01/10/94 Date

Signed 1/4/94 Date

001038

9513355.2136

26

PROJECT Preparation of VOA Surrogate Mix

Notebook No. DA401

Continued From Page N/A

Purgeables surrogate std mix - CLP - Supelco Cat # 4-8876.
Lot # LA36031 (2 vials)
Dilute 1:5 (2 ml surrogate mix + 8 ml meOH; Baxter/B&J Brand, high purity, Cat # 86409) to yield a 50 ug/ml working mix. Aliquot mix solution into 8 vials (A-H).
Expires: 8/14/94

SUPELCO
SEPARATION TECHNOLOGIES
DIVISION OF ROHM AND HAAS

Cat no 4-8876
Storage-REFRIGERATE
Lot no LA36031

FOR RESEARCH USE ONLY

Purgeables Surrogate Standard Mix
in methanol

DANGER-FLAMMABLE LIQUID AND VAPOR
DANGER-POISON
May be fatal if swallowed. Causes severe irritation, burns, blindness.
Toxic by ingestion, inhalation and absorption through skin.
Methanol affects the central nervous system.

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:

Certificate of Analysis

DESCRIPTION: PURGEABLES SURROGATE STD MIX 1

CATALOG NO.: 4-8876 LOT NO.: LA-36031

001039

ANALYTE (1)	PERCENT PURITY (2)	WEIGHT CONCENTRATION (2)

Read and Understood By

Signed 2/11/94 Date

Signed 3-23-94 Date

PROJECT Preparation of std mix for VOA

Notebook No. 00901

Continued From Page 27

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

713-6221

60/80 Carbopack™ B/1% SP™-1000, 8' x 1/8" SS, Col. Temp.: hold 3 min. at 50°C, then to 220°C at 8°C/min., Inj. Temp.: 200°C, Det. Temp.: 250°C, Flow Rate: 30ml/min., He, Det.: Hall (halogen mode), Sens.: 20 x 10^4, Sample: 1µl of Cat. No. 4-8851.

* Due to the instability of 2-chloroethyl vinyl ether, we cannot guarantee the concentration of this component.

DS13181E
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SUPELCO
Bellefonte, PA

DESCRIPTION: PU

CATALOG NO.: 4-

LOT NO.: U

SOLVENT: METHAI

JUN-93

JUN-94

ANALYTE	(	T TION (3)
BENZENE	99.0	200.0 +/- 1.0
BROMODICHLOROMETHANE	98.0	200.1 +/- 1.0
BROMOFORM	96.6	207.1 +/- 1.0
CIS 1,3-DICHLOROPROPENE (Z)	98.7	200.1 +/- 1.0
ETHYLBENZENE	99.0	200.1 +/- 1.0
TOLUENE	99.0	200.1 +/- 1.0
TRANS 1,3-DICHLOROPROPENE (E)	98.9	199.9 +/- 1.0
TRANS-1,2-DICHLOROETHYLENE	98.3	200.0 +/- 1.0
1,1,1-TRICHLOROETHANE	99.0	200.1 +/- 1.0
1,1,2,2-TETRACHLOROETHANE	98.4	199.9 +/- 1.0
1,2-DICHLOROETHANE	99.0	200.1 +/- 1.0

Continued on Page 4/8

Read and Understood By

Signed 3/22/94 Date

Signed 3-23-94 Date

Notebook No. 00902 27

SUBJECT Preparation of STD Mix for VOA

Continued From Page 7/8

① Purge A - Cat # 4-8851 Lot # LA 30407
② Purge B - Cat # 4-8852 Lot # LA 37337
③ Purge C - Cat # 4-8853 Lot # LA 30370
④ Purge Protocol - Cat # P-CLPV-D Lot # 0921023C

Dilute ④ 1:5 (200 ul ④ + 800 ul MeOH - Burdick / Br J Brand, High Purity MeOH, lot # BM233 NL 4/APR) Take 500 ul of the diluted #4 solution and 900 ul of ①, ②, and ③ to yield a 50 ug/ml daily working std. Aliquot main solution into 4 vials (a-d)

Expires: 09/22/94

SUPELCO
SEPARATION TECHNOLOGIES
DIVISION OF ROHM AND HAAS

SUPELCO

SUPELCO
SEPARATION TECHNOLOGIES
DIVISION OF ROHM AND HAAS
Storage-FREEZE
Lot No- LA37309
FOR RESEARCH USE ONLY
Purgeable Mix in methanol
DANGER-FLAMMABLE
May be fatal if swallowed. Causes nonfatal, reversible blindness.
INGREDIENTS PER GAL: 0.7-KG bromomethane, chloroethane, chloromethane

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

Protocol
analytical supplies, inc.

CAT# P-CLPV-D
LOT# 0921023C
DATE OPENED
CLP BLEND D
FOR RESEARCH USE ONLY

Contains 1000 ug/ml of the following in Methanol[67-56-1]:

Acetone	67-64-1
2-Butanone	78-93-3
Carbon Disulfide	75-15-0
cis-1,2-Dichloroethene	156-59-2
2-Hexanone	591-78-6
4-Methyl-2-Pentanone	108-10-1
Styrene	100-42-5
Vinyl Acetate	108-05-4
p-Xylene(500ug/ml)	106-42-3

32 Briar Circle, Greenbrook, NJ 08812 201-968-1522

CONTAINS MATERIALS KNOWN OR SUSPECTED TO CAUSE CANCER
DANGER-FLAMMABLE

Continued on Page 7/8

Read and Understood By

Yadira Santiago 3/22/94 Albert J. Sirola 3-23-94
Signed Date Signed Date

9513355.2139

Semivolatile Organic Compounds
Sample EA11-1-07 (ESE# CDMHNSS*21)

9513355.2140

SDG NARRATIVE

SDG No. 48790

GC/MS Semivolatiles Narrative

1. The matrix spike and recoveries were above the upper limit for phenol and 2,4-dinitrotoluene . These recoveries are very good for this method. The recoveries were all a little low for the matrix spike duplicate causing the %RPD to be high for 1,4-dichlorobenzene, N-nitrosodi-n-propylamine, and 1,2,4-trichlorobenzene. Following the CLP 3/90 SOW matrix spike recoveries are only advisory and their failure does not indicate a QC problem.

9513355.2142

SEMIVOLATILES DATA

9513355.2143

QC SUMMARY

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48790

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	SBKLS1	72	64	67	63	57	67	60	64	0
02	A1101007	79	70	72	69	62	73	66	70	0
03	A1101007MS	97	78	78	94	85	90	91	96	0
04	A1101007MSD	73	67	72	65	60	70	63	66	0
05										
06										
07										
08										
09										
10										
11										
12										
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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.: 48790

Matrix Spike - EPA Sample No.: A1101007 Level(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	2600	0	2700	104*	26- 90
2-Chlorophenol	2600	0	2600	100	25-102
1,4-Dichlorobenzene	1700	0	1600	94	28-104
N-Nitroso-di-n-prop.(1)	1700	0	1400	82	41-126
1,2,4-Trichlorobenzene	1700	0	1600	94	38-107
4-Chloro-3-methylphenol	2600	0	2600	100	26-103
Acenaphthene	1700	0	1400	82	31-137
4-Nitrophenol	2600	0	2200	85	11-114
2,4-Dinitrotoluene	1700	0	1700	100*	28- 89
Pentachlorophenol	2600	0	2100	81	17-109
Pyrene	1700	0	1300	76	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	2600	1900	73	35	35	26- 90
2-Chlorophenol	2600	1800	69	37	50	25-102
1,4-Dichlorobenzene	1700	1100	65	36*	27	28-104
N-Nitroso-di-n-prop.(1)	1700	1000	59	33	38	41-126
1,2,4-Trichlorobenzene	1700	1200	70	29*	23	38-107
4-Chloro-3-methylphenol	2600	2000	77	26	33	26-103
Acenaphthene	1700	1200	70	16	19	31-137
4-Nitrophenol	2600	1700	65	27	50	11-114
2,4-Dinitrotoluene	1700	1400	82	20	47	28- 89
Pentachlorophenol	2600	1800	69	16	47	17-109
Pyrene	1700	1200	70	8	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: 2 out of 11 outside limits
Spike Recovery: 2 out of 22 outside limits

COMMENTS: _____

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBKLS1

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48790

Lab File ID: NVO501433.D Lab Sample ID: SBKLS1

Instrument ID: NVO5 Date Extracted: 05/04/94

Matrix: (soil/water) SOIL Date Analyzed: 05/05/94

Level:(low/med) LOW Time Analyzed: 1145

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	A1101007	CDMHNSS*21	NVO501434.D	05/05/94
02	A1101007MS	CDMHNSS*21MS	NVO501435.D	05/05/94
03	A1101007MSD	CDMHNSS*21MSD	NVO501436.D	05/05/94
04				
05				
06				
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08				
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COMMENTS:

9513355.2147

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48790

Lab File ID: NVO501305.D DFTPP Injection Date: 03/29/94

Instrument ID: NVO5 DFTPP Injection Time: 0928

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	48.2
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	57.3
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	25.0 - 75.0% of mass 198	45.2
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	6.6
275	10.0 - 30.0% of mass 198	21.4
365	Greater than 0.75% of mass 198	2.56
441	Present, but less than mass 443	11.1
442	40.0 - 110.0% of mass 198	73.3
443	15.0 - 24.0% of mass 442	14.4 (19.6)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	NVO501306.D	03/29/94	0952
02	SSTD50	SSTD50	NVO501307.D	03/29/94	1027
03	SSTD80	SSTD80	NVO501308.D	03/29/94	1104
04	SSTD120	SSTD120	NVO501309.D	03/29/94	1142
05	SSTD160	SSTD160	NVO501310.D	03/29/94	1218
06					
07					
08					
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9513355.2148

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48790

Lab File ID: NVO501431.D DFTPP Injection Date: 05/05/94

Instrument ID: NVO5 DFTPP Injection Time: 1027

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	50.7
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	59.9
70	Less than 2.0% of mass 69	0.1 (0.2)1
127	25.0 - 75.0% of mass 198	45.9
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	6.8
275	10.0 - 30.0% of mass 198	21.8
365	Greater than 0.75% of mass 198	2.50
441	Present, but less than mass 443	10.9
442	40.0 - 110.0% of mass 198	70.2
443	15.0 - 24.0% of mass 442	13.6 (19.3)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	NVO501432.D	05/05/94	1051
02	SBKLS1	SBKLS1	NVO501433.D	05/05/94	1145
03	A1101007	CDMHNSS*21	NVO501434.D	05/05/94	1216
04	A1101007MS	CDMHNSS*21MS	NVO501435.D	05/05/94	1253
05	A1101007MSD	CDMHNSS*21MSD	NVO501436.D	05/05/94	1330
06					
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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.: 48790

Lab File ID (Standard): NVO501432.D Date Analyzed: 05/05/94

Instrument ID: NVO5 Time Analyzed: 1051

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	589858	5.54	1890818	7.66	954991	11.14
	UPPER LIMIT	1179716	6.04	3781636	8.16	1909982	11.64
	LOWER LIMIT	294929	5.04	945409	7.16	477496	10.64
	EPA SAMPLE No.						
01	SBKLS1	735072	5.56	2383525	7.66	1289351	11.14
02	A1101007	819155	5.56	2650820	7.65	1425007	11.15
03	A1101007MS	613423	5.56	2200892	7.66	1320488	11.14
04	A1101007MSD	711779	5.56	2326269	7.66	1187304	11.14
05							
06							
07							
08							
09							
10							
11							
12							
13							
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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.: 48790

Lab File ID (Standard): NVO501432.D Date Analyzed: 05/05/94

Instrument ID: NVO5 Time Analyzed: 1051

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	1515158	14.51	1295219	20.78	1462940	23.91
	UPPER LIMIT	3030316	15.01	2590438	21.28	2925880	24.41
	LOWER LIMIT	757579	14.01	647610	20.28	731470	23.41
	EPA SAMPLE No.						
01	SBKLS1	2166953	14.51	2033943	20.78	2578998	23.92
02	A1101007	2331592	14.51	2142272	20.77	2601693	23.91
03	A1101007MS	2212230	14.51	2149709	20.77	2666590	23.91
04	A1101007MSD	1841384	14.51	1637894	20.77	1999886	23.91
05							
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07							
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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.

9513355.2191

SAMPLE DATA

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A1101007

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48790

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*21

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NV0501434.D

Level: (low/med) LOW Date Received: 05/03/94

% Moisture: 4 decanted: (Y/N) N Date Extracted: 05/04/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/05/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	340	U
111-44-4	Bis(2-Chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	2,2'-oxybis(1-Chloropropane)	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-di-n-propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethyphenol	340	U
111-91-1	Bis(2-Chloroethoxy)methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	830	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	830	U
131-11-3	Dimethyl phthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U
99-09-2	3-Nitroaniline	830	U
83-32-9	Acenaphthene	340	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A1101007

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48790

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*21

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NV0501434.D

Level: (low/med) LOW Date Received: 05/03/94

% Moisture: 4 decanted: (Y/N) N Date Extracted: 05/04/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/05/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	830	U
100-02-7	4-Nitrophenol	830	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethyl phthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	830	U
534-52-1	4,6-Dinitro-2-methylphenol	830	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	830	U
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
86-74-8	Carbazole	340	U
84-74-2	Di-n-butylphthalate	180	J
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	340	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
117-81-7	bis(2-Ethylhexyl)phthalate	44	JB
117-84-0	Di-n-octylphthalate	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenzo(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

A1101007

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48790

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*21

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NV0501434.D

Level: (low/med) LOW Date Received: 05/03/94

% Moisture: 4 decanted: (Y/N) N Date Extracted: 05/04/94

Concentrated Extract Volume: 500 (uL) Date Analyzed: 05/05/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown Aldol Condensate	3.169	84	JAB
2.	Unknown Aldol Condensate	3.937	1100	JAB
3.	Unknown Aldol Condensate	4.495	120	JA
4. 630-03-5	Nonacosane	23.730	92	NJ
5. 630-04-6	Hentriacontane	25.040	74	NJ
6.				
7.				
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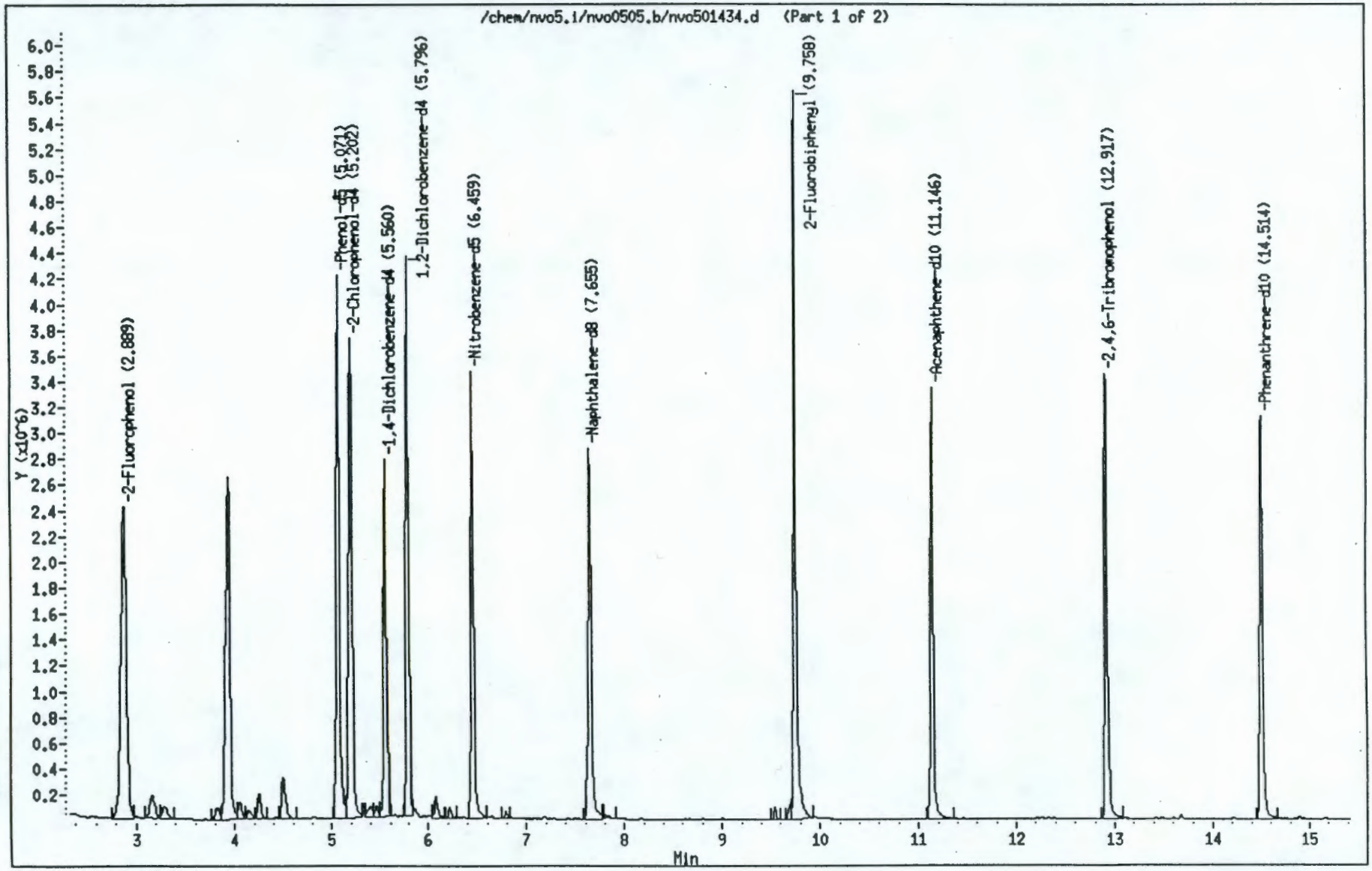
29.				
30.				

Data File: /chem/nvo5.i/nvo0505.b/nvo501434.d
Date : 05-MAY-1994 12:16
Client ID: A1101007
Sample Info: CDMHNSS×21
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



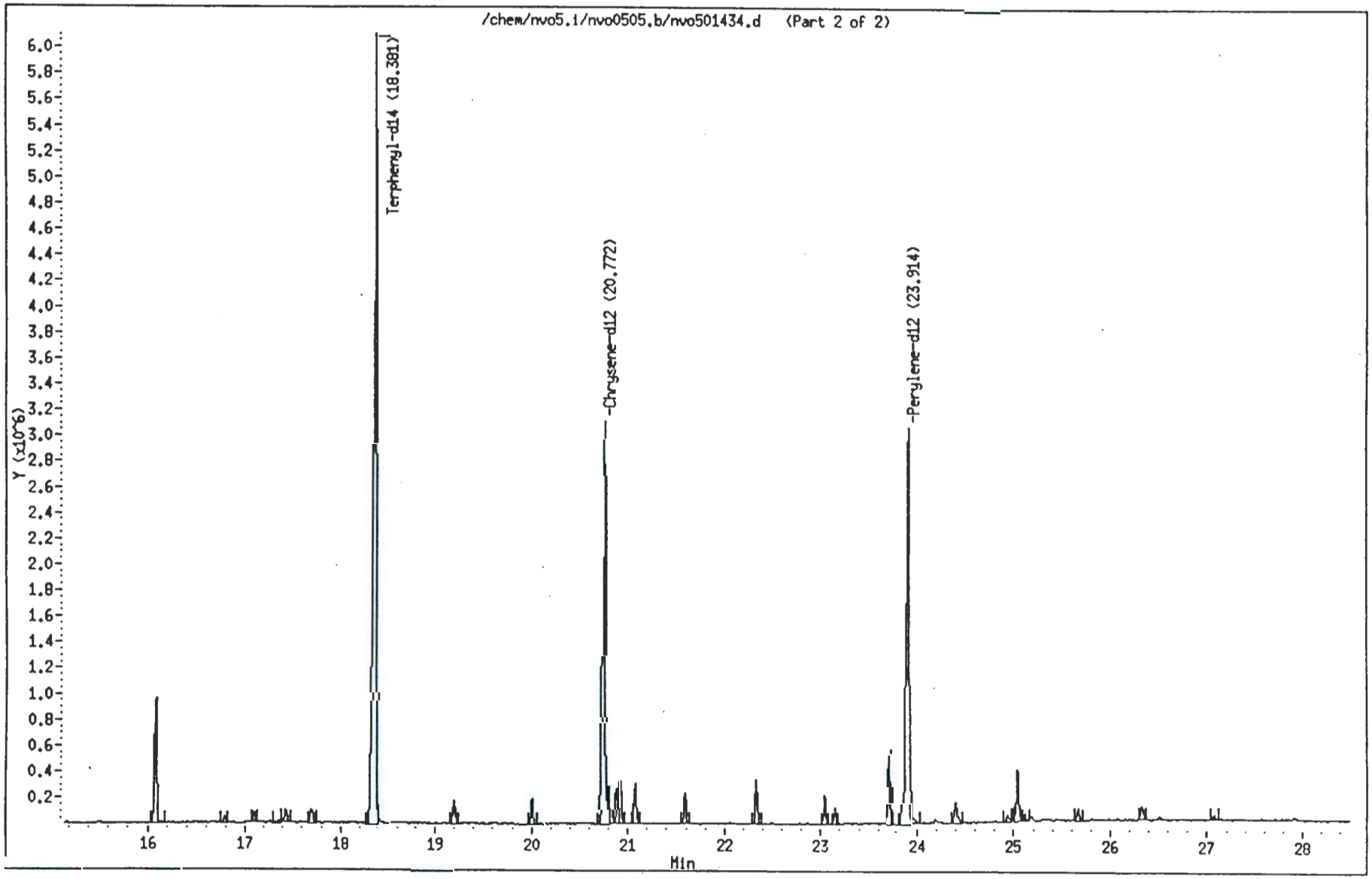
001058

9513355.2155

Data File: /chem/nvo5.i/nvo0505.b/nvo501434.d
Date : 05-MAY-1994 12:16
Client ID: A1101007
Sample Info: CDMHNSSM21
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



001059

95395.2 9

Data File: /chem/nvo5.i/nvo0505.b/nvo501434.d
Report Date: 05-May-1994 14:16

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0505.b/nvo501434.d
Lab Smp Id: CDMHNSS*21 Client Smp ID: A1101007
Inj Date : 05-MAY-1994 12:16 Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : CDMHNSS*21
Misc Info : CDM Hanford N. Slope
Comment :
Method : /chem/nvo5.i/nvo0505.b/clp390epc.m
Meth Date : 05-May-1994 11:26 Quant Type: ISTD
Cal Date : 05-MAY-94 10:51 Cal File: nvo501432.d
Als bottle: 2
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

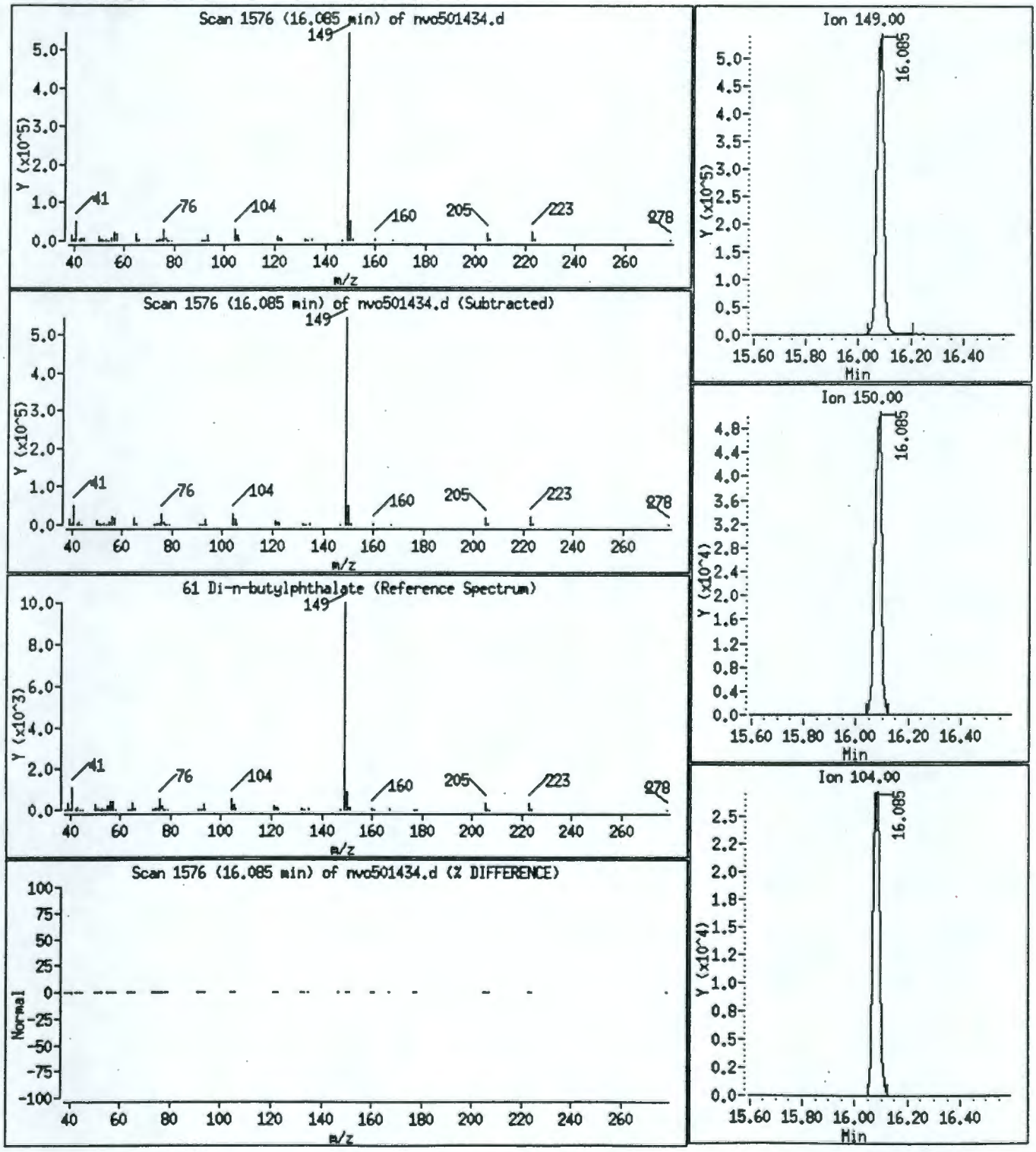
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
* 1 1,4-Dichlorobenzene-d4	152.00	5.560	5.541	(1.000)	819155	40	
$ 2 2-Fluorophenol	112.00	2.889	2.670	(0.520)	2576233	93	1600
$ 3 Phenol-d5	99.00	5.071	5.043	(0.912)	3024503	100	1700
$ 6 2-Chlorophenol-d4	132.00	5.202	5.174	(0.936)	2271474	100	1700
$ 10 1,2-Dichlorobenzene-d4	152.00	5.796	5.785	(1.042)	1217435	70	1200
* 17 Naphthalene-d8	136.00	7.655	7.662	(1.000)	2650820	40	
$ 18 Nitrobenzene-d5	82.00	6.459	6.448	(0.844)	2093403	79	1300
* 31 Acenaphthene-d10	164.00	11.146	11.144	(1.000)	1425007	40	
$ 35 2-Fluorobiphenyl	172.00	9.758	9.756	(0.875)	3665415	70	1200
$ 51 2,4,6-Tribromophenol	330.00	12.926	12.924	(1.160)	987228	110	1800
* 52 Phenanthrene-d10	188.00	14.514	14.513	(1.000)	2331592	40	
61 Di-n-butylphthalate	149.00	16.085	16.092	(1.108)	926498	11	180(a)
* 63 Chrysene-d12	240.00	20.772	20.779	(1.000)	2142272	40	
$ 65 Terphenyl-d14	244.00	18.381	18.370	(0.885)	4094337	72	1200
70 bis(2-Ethylhexyl)phthalate	149.00	21.077	21.084	(1.015)	134963	2	42(a)
* 71 Perylene-d12	264.00	23.914	23.912	(1.000)	2601693	40	

QC Flag Legend

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

Data File: /chem/nvo5.i/nvo0505.b/nvo501434.d
Date : 05-MAY-1994 12:16
Client ID: A1101007 Instrument: nvo5.i
Sample Info: CDMHNSS*21
Volume Injected (uL): 2.0 Operator: WAV/AT
Column phase: DB-5MS Column diameter: 0.25

61 Di-n-butylphthalate



Data File: /chem/nvo5.i/nvo0505.b/nvo501434.d

Date : 05-MAY-1994 12:16

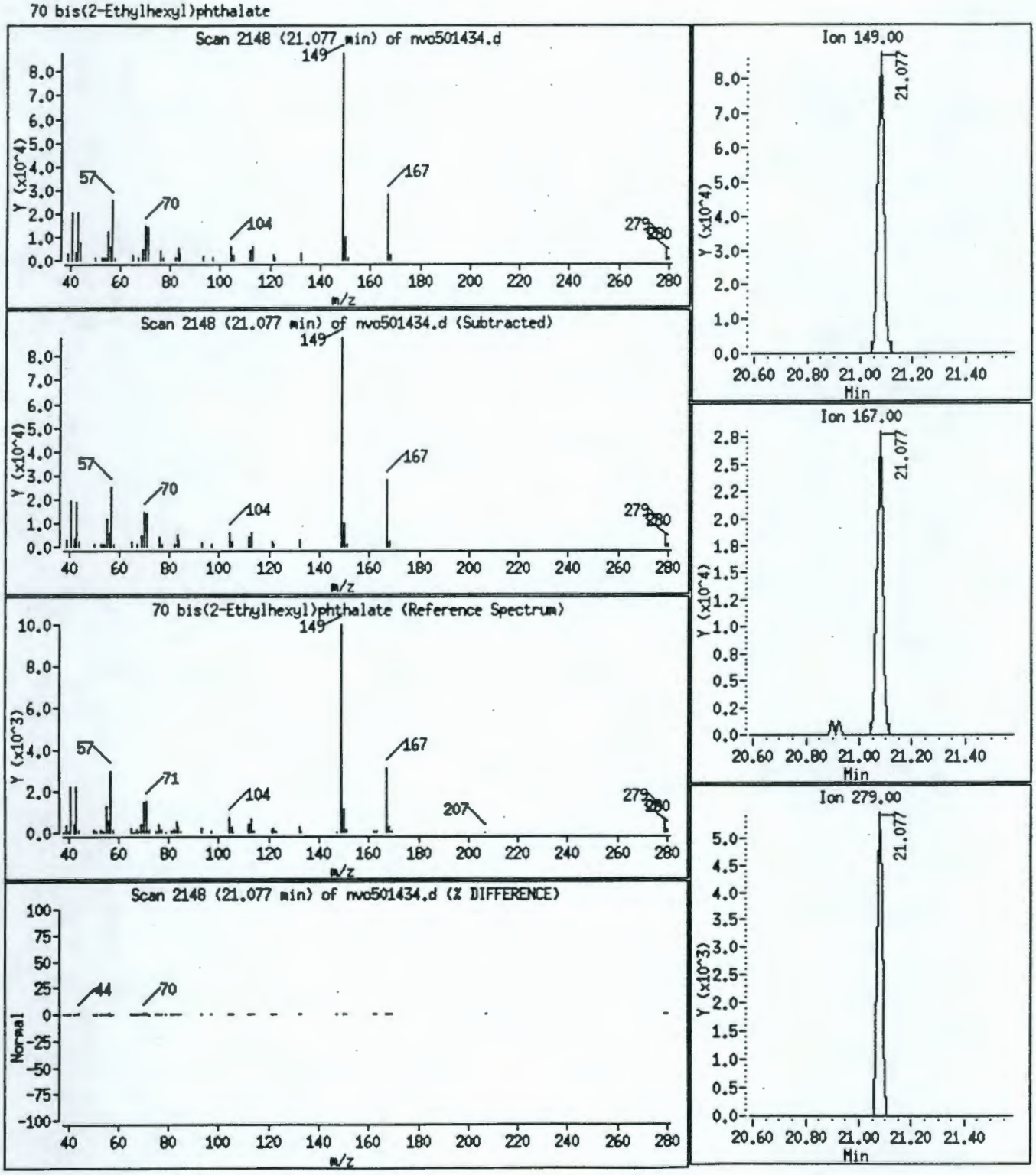
Client ID: A1101007 Instrument: nvo5.i

Sample Info: CDMHNSS×21

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

Column phase: DB-5MS Column diameter: 0.25

70 bis(2-Ethylhexyl)phthalate



Data File: /chem/nvo5.i/nvo0505.b/nvo501434.d
Report Date: 05-May-1994 15:33

Environmental Science and Engineering

Unknown Compounds Quantitation Report

Data file : /chem/nvo5.i/nvo0505.b/nvo501434.d
Lab Smp Id: CDMHNSS*21 Client Smp ID: A1101007
Inj Date : 05-MAY-1994 12:16 Autotune Date: 08-Feb-94 09:58:2
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : CDMHNSS*21
Misc Info : CDM Hanford N. Slope
Comment :
Method : /chem/nvo5.i/nvo0505.b/clp390epc.m
Meth Date : 05-May-1994 11:26
Cal Date : 05-MAY-94 10:51 Cal File: nvo501432.d
Als bottle: 2
Dil Factor: 1.000 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
* 1 1,4-Dichlorobenzene-d4	5.560	5257233	40.000
* 71 Perylene-d12	23.914	6811239	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.169	634029	5	80	59	WILEY.1	114944	1
Unknown Aldol Condensate					CAS #:		
3.937	8358216	64	1000	25	WILEY.1	116565	1
Unknown Aldol Condensate					CAS #:		
4.495	928888	7	120	40	WILEY.1	1586	1
Nonacosane					CAS #: 630-03-5		
23.730	901377	5	88	91	WILEY.1	129560	71(L)
Hentriacontane					CAS #: 630-04-6		
25.040	725761	4	71	91	WILEY.1	130188	71

QC Flag Legend

L - Operator selected an alternate library search match.

9513355.2161

Data File: /chem/nvo5.i/nvo0505.b/nvo501434.d

Date : 05-MAY-1994 12:16

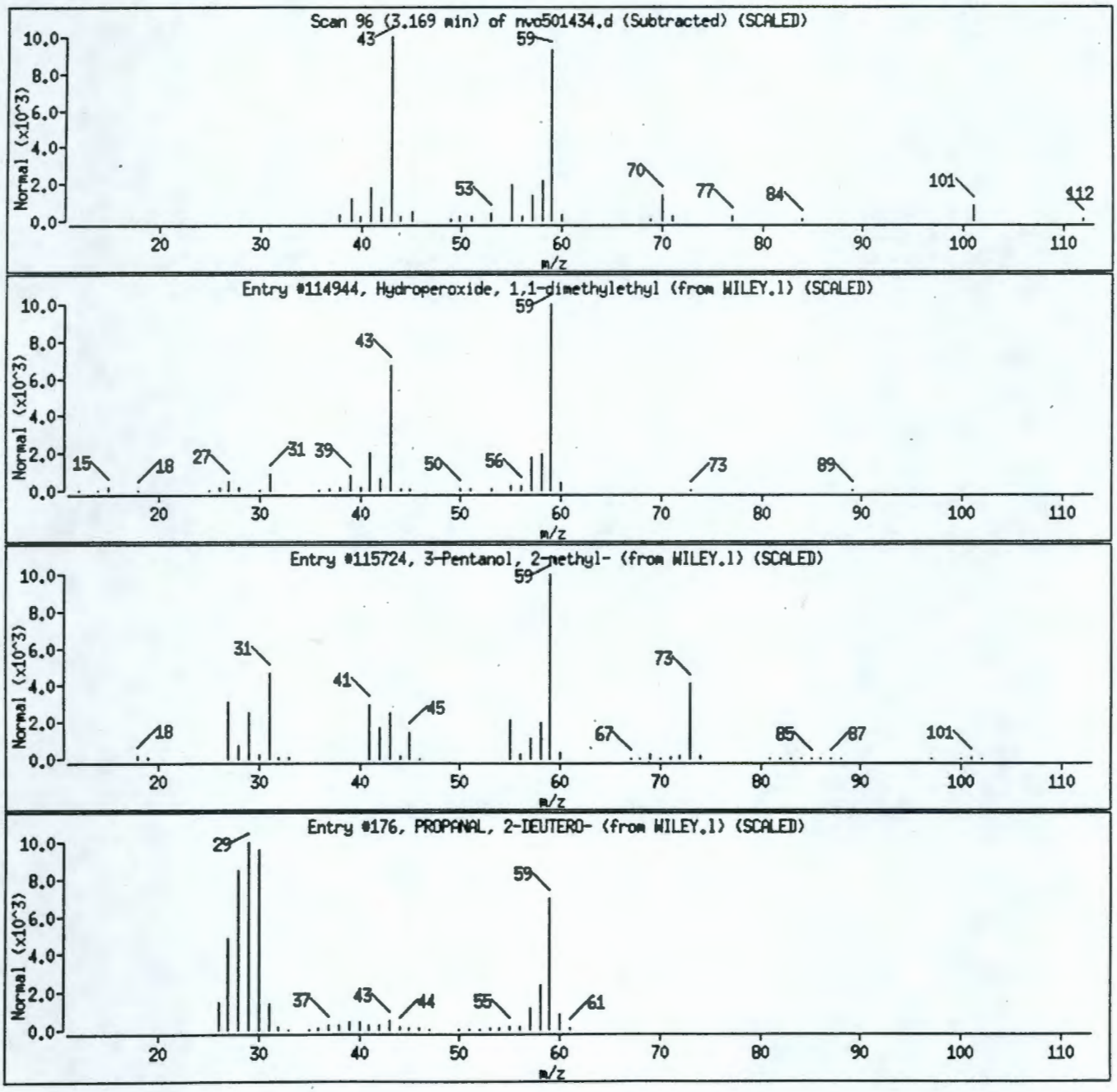
Client ID: A1101007 Instrument: nvo5.i

Sample Info: CDMHNSS×21

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
Hydroperoxide, 1,1-dimethylethyl	75-91-2	WILEY.l	114944	59	C4H10O2	90
3-Pentanol, 2-methyl-	565-67-3	WILEY.l	115724	42	C6H14O	102
PROPANAL, 2-DEUTERO-	0-00-0	WILEY.l	176	42	C3H5DO	58



001064

Data File: /chem/nvo5.i/nvo0505.b/nvo501434.d

Date : 05-MAY-1994 12:16

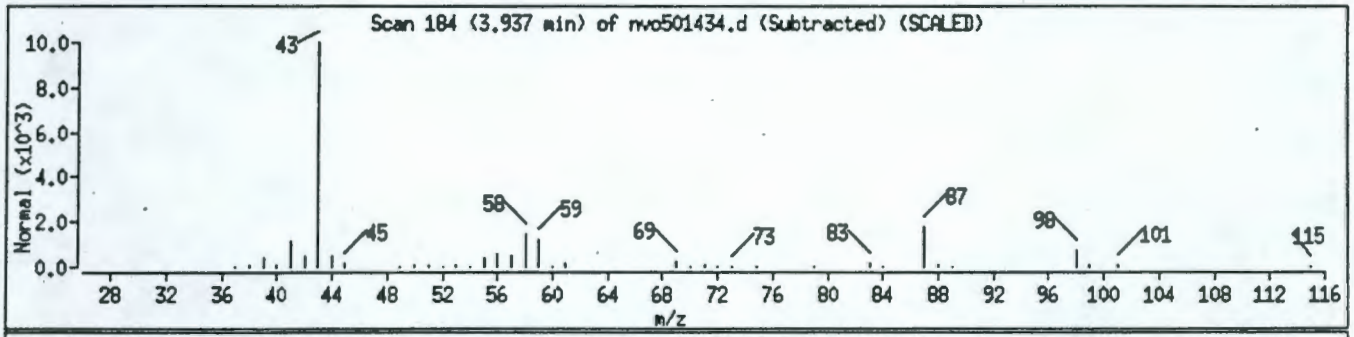
Client ID: A1101007 Instrument: nvo5.i

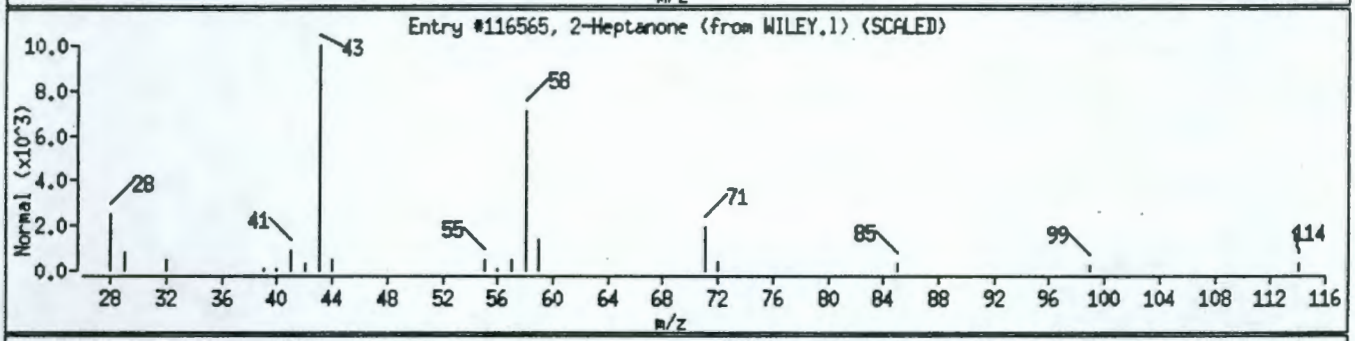
Sample Info: CDMHNSS×21

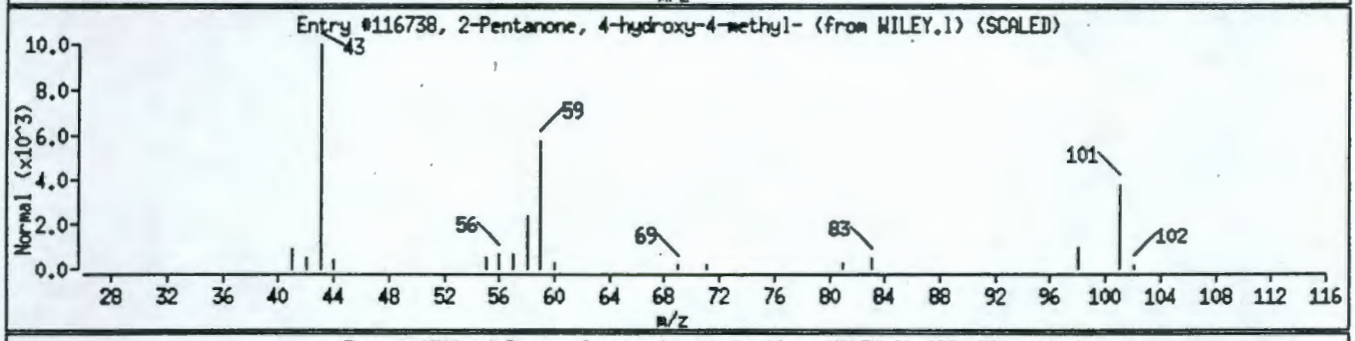
Volume Injected (uL): 2.0 Operator: WAV/AT

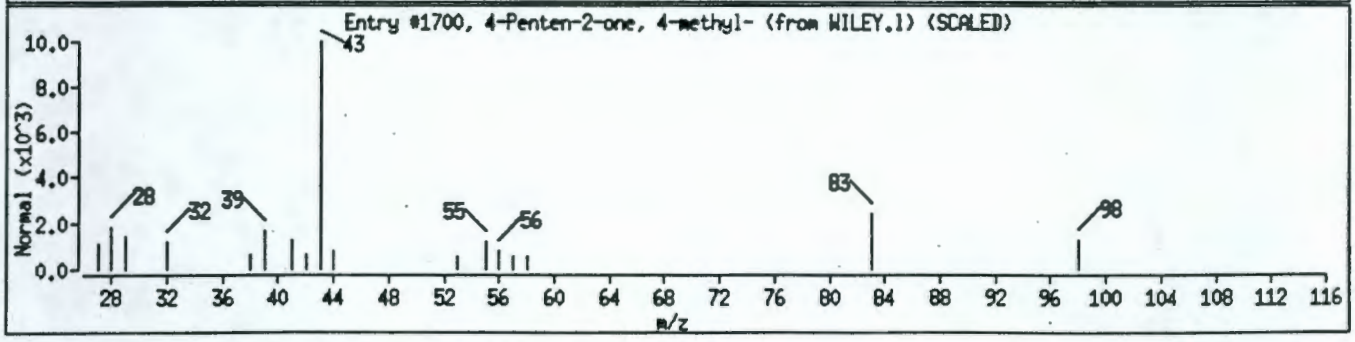
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Heptanone	110-43-0	WILEY.1	116565	25	C7H14O	114
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	WILEY.1	116738	25	C6H12O2	116
4-Penten-2-one, 4-methyl-	3744-02-3	WILEY.1	1700	16	C6H10O	98



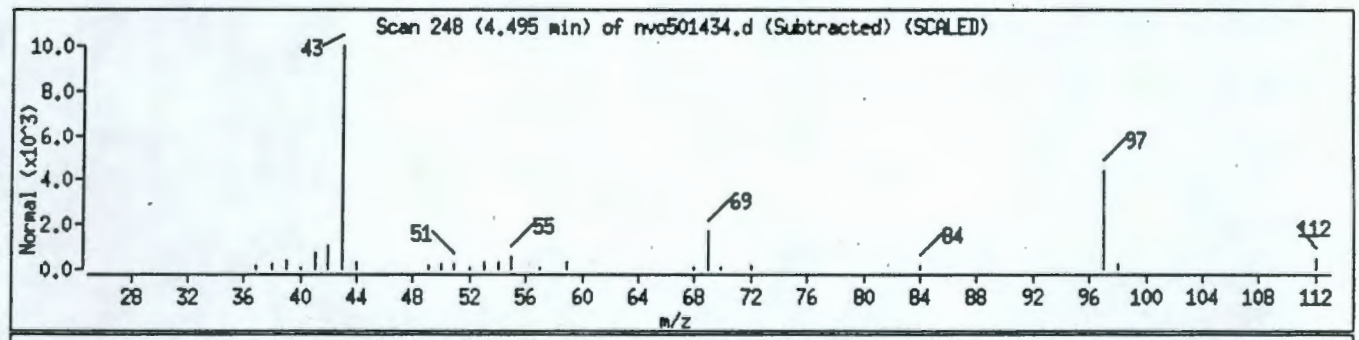


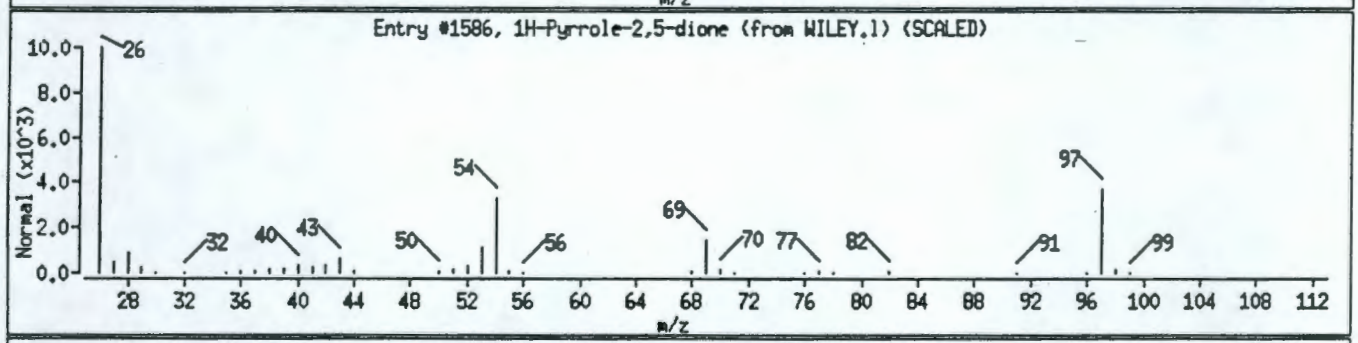


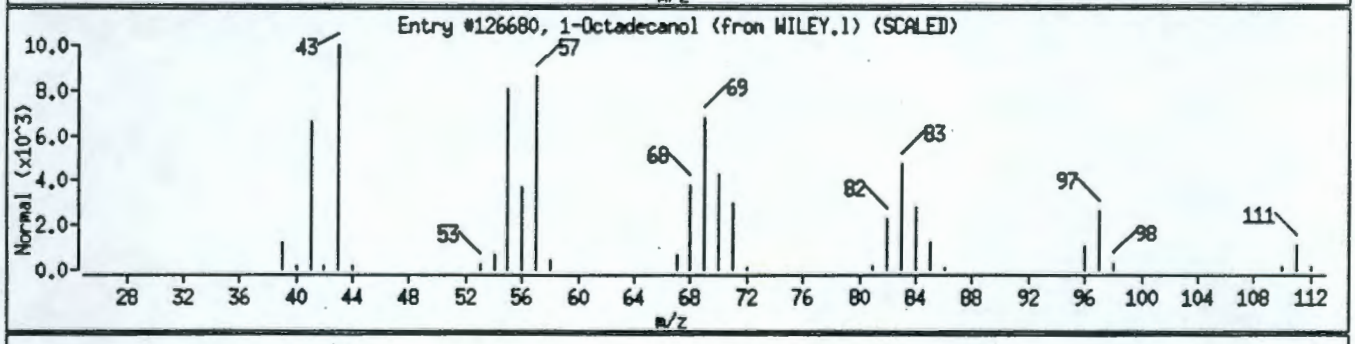


Data File: /chem/nvo5.i/nvo0505.b/nvo501434.d
Date : 05-MAY-1994 12:16
Client ID: A1101007 Instrument: nvo5.i
Sample Info: CDMHNSS×21
Volume Injected (uL): 2.0 Operator: WAV/AT
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1H-Pyrrole-2,5-dione	541-59-3	WILEY.l	1586	40	C4H3NO2	97
1-Octadecanol	112-92-5	WILEY.l	126680	10	C18H38O	270







9513355.2164

Data File: /chem/nvo5.i/nvo0505.b/nvo501434.d

Date : 05-MAY-1994 12:16

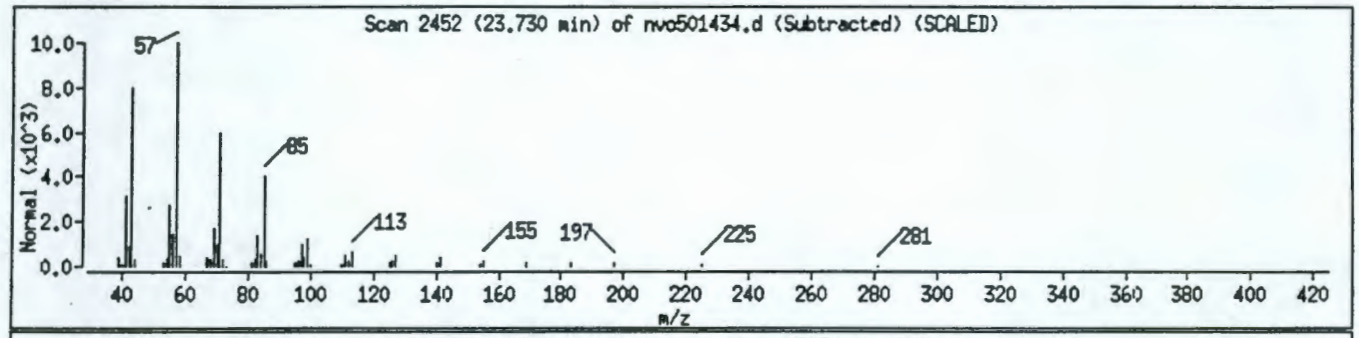
Client ID: A1101007 Instrument: nvo5.i

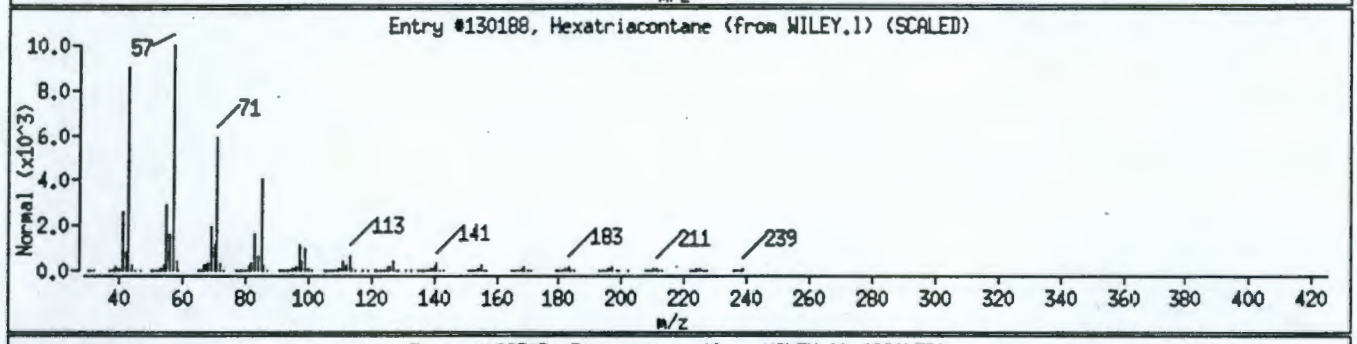
Sample Info: CDMHNSS*21

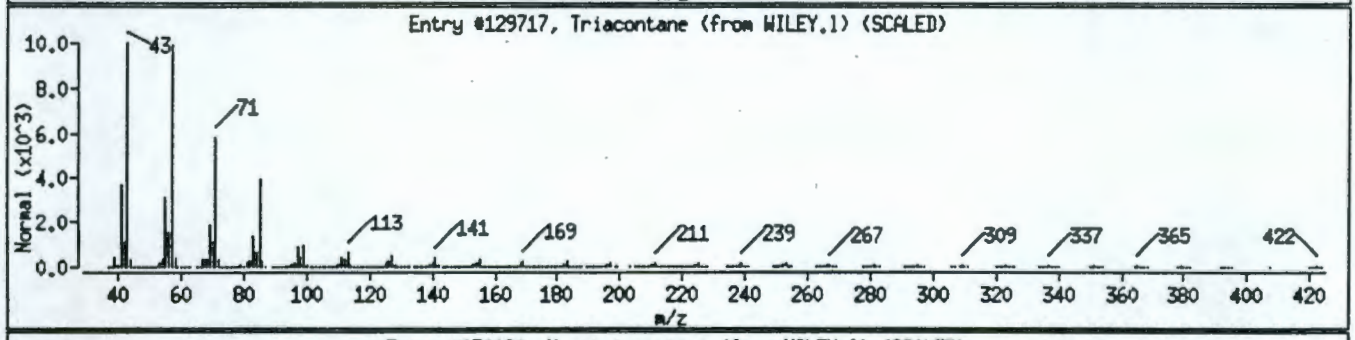
Volume Injected (uL): 2.0 Operator: WAV/AT

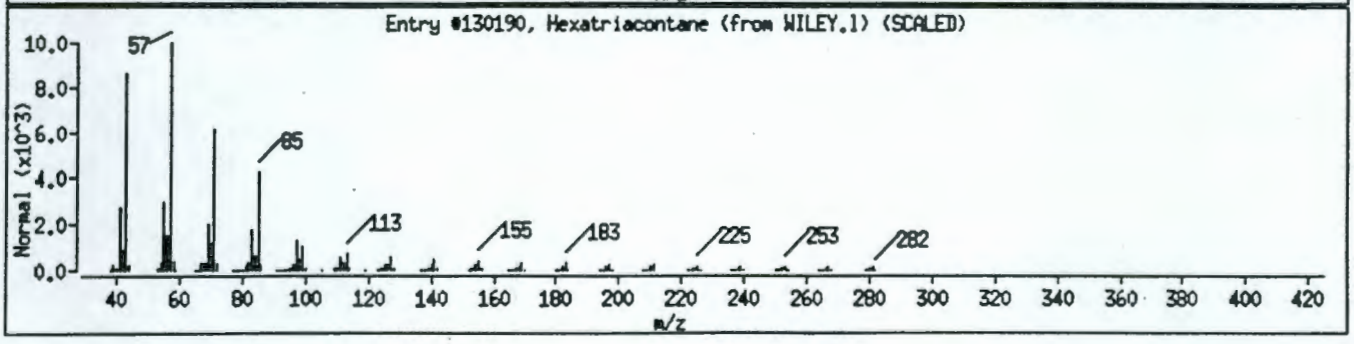
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexatriacontane	630-06-8	WILEY.1	130188	95	C36H74	507
Triacontane	638-68-6	WILEY.1	129717	91	C30H62	422
Hexatriacontane	630-06-8	WILEY.1	130190	91	C36H74	507









Data File: /chem/nvo5.i/nvo0505.b/nvo501434.d

Date : 05-MAY-1994 12:16

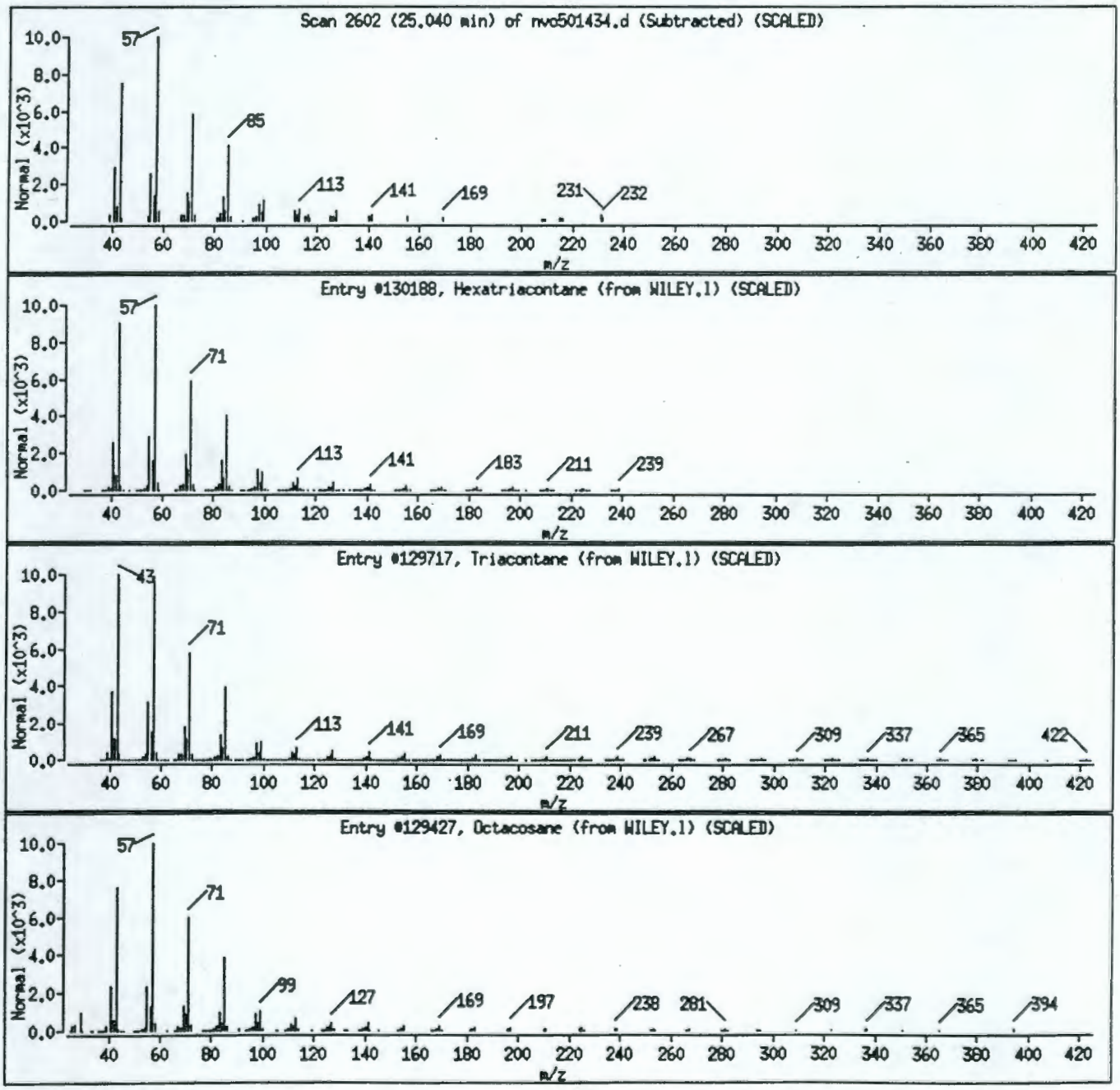
Client ID: A1101007 Instrument: nvo5.i

Sample Info: CDMHNSS×21

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
Hexatriacontane	630-06-8	WILEY.1	130188	91	C36H74	507
Triacontane	638-68-6	WILEY.1	129717	91	C30H62	422
Octacosane	630-02-4	WILEY.1	129427	91	C28H58	394



1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A1101007MS

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48790

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*21MS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NV0501435.D

Level: (low/med) LOW Date Received: 05/03/94

% Moisture: 4 decanted: (Y/N) N Date Extracted: 05/04/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/05/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	2700	
111-44-4	Bis(2-Chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	2600	
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	1600	
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	2,2'-oxybis(1-Chloropropane)	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-di-n-propylamine	1400	
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethyphenol	340	U
111-91-1	Bis(2-Chloroethoxy)methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	1600	
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-methylphenol	2600	
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	830	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	830	U
131-11-3	Dimethyl phthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U
99-09-2	3-Nitroaniline	830	U
83-32-9	Acenaphthene	1400	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A1101007MS

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48790

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*21MS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NVO501435.D

Level: (low/med) LOW Date Received: 05/03/94

% Moisture: 4 decanted: (Y/N) N Date Extracted: 05/04/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/05/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

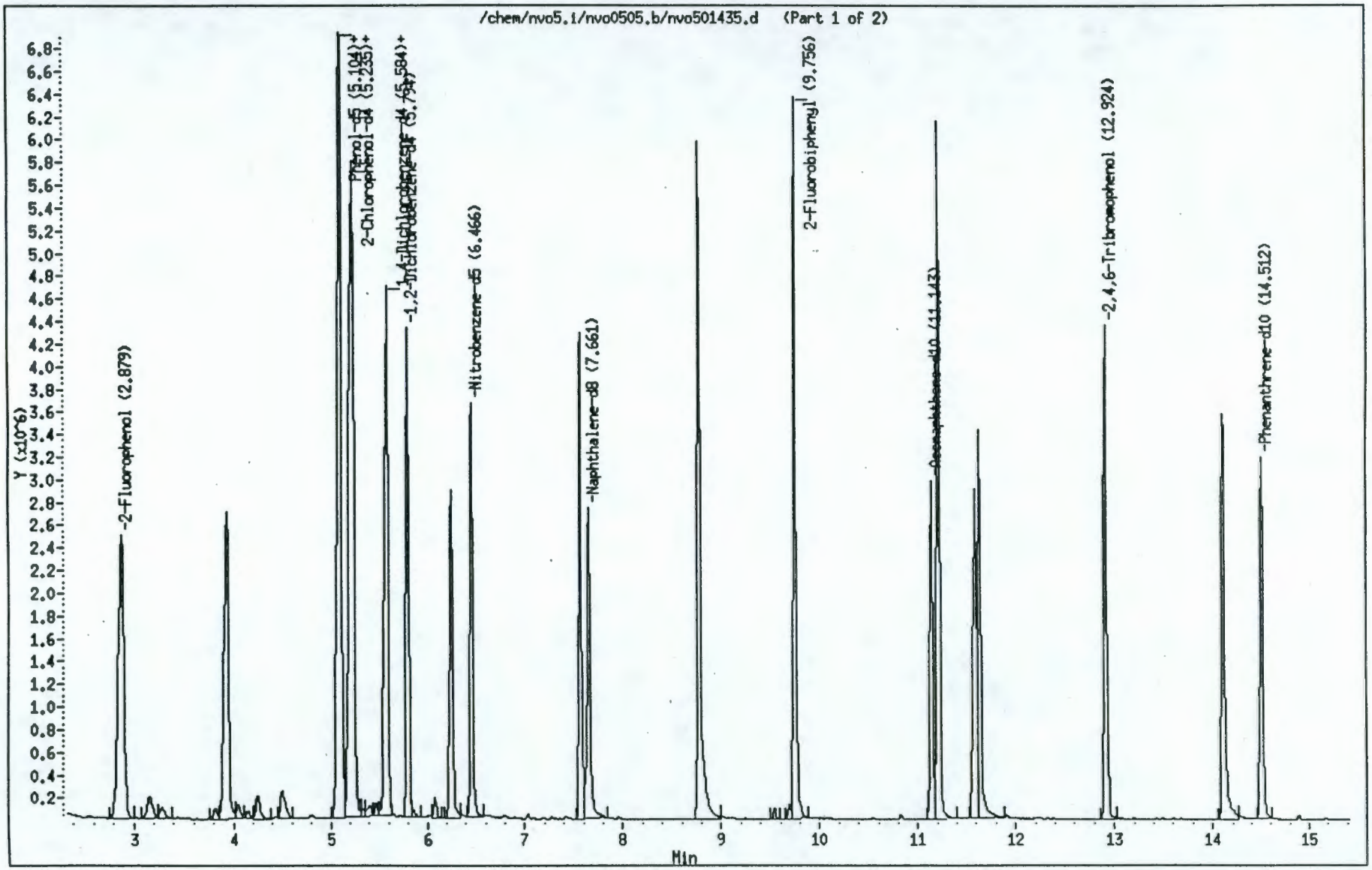
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	830	U
100-02-7	4-Nitrophenol	2200	
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	1700	
84-66-2	Diethyl phthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	830	U
534-52-1	4,6-Dinitro-2-methylphenol	830	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	2100	
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
86-74-8	Carbazole	340	U
84-74-2	Di-n-butylphthalate	91	J
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	1300	
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	340	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
117-81-7	bis(2-Ethylhexyl)phthalate	52	JB
117-84-0	Di-n-octylphthalate	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenzo(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) - Cannot be separated from Diphenylamine

Data File: /chem/nvo5.i/nvo0505.b/nvo501435.d
Date : 05-MAY-1994 12:53
Client ID: A1101007MS
Sample Info: CDMHNSS*21MS
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAY/AT
Column diameter: 0.25



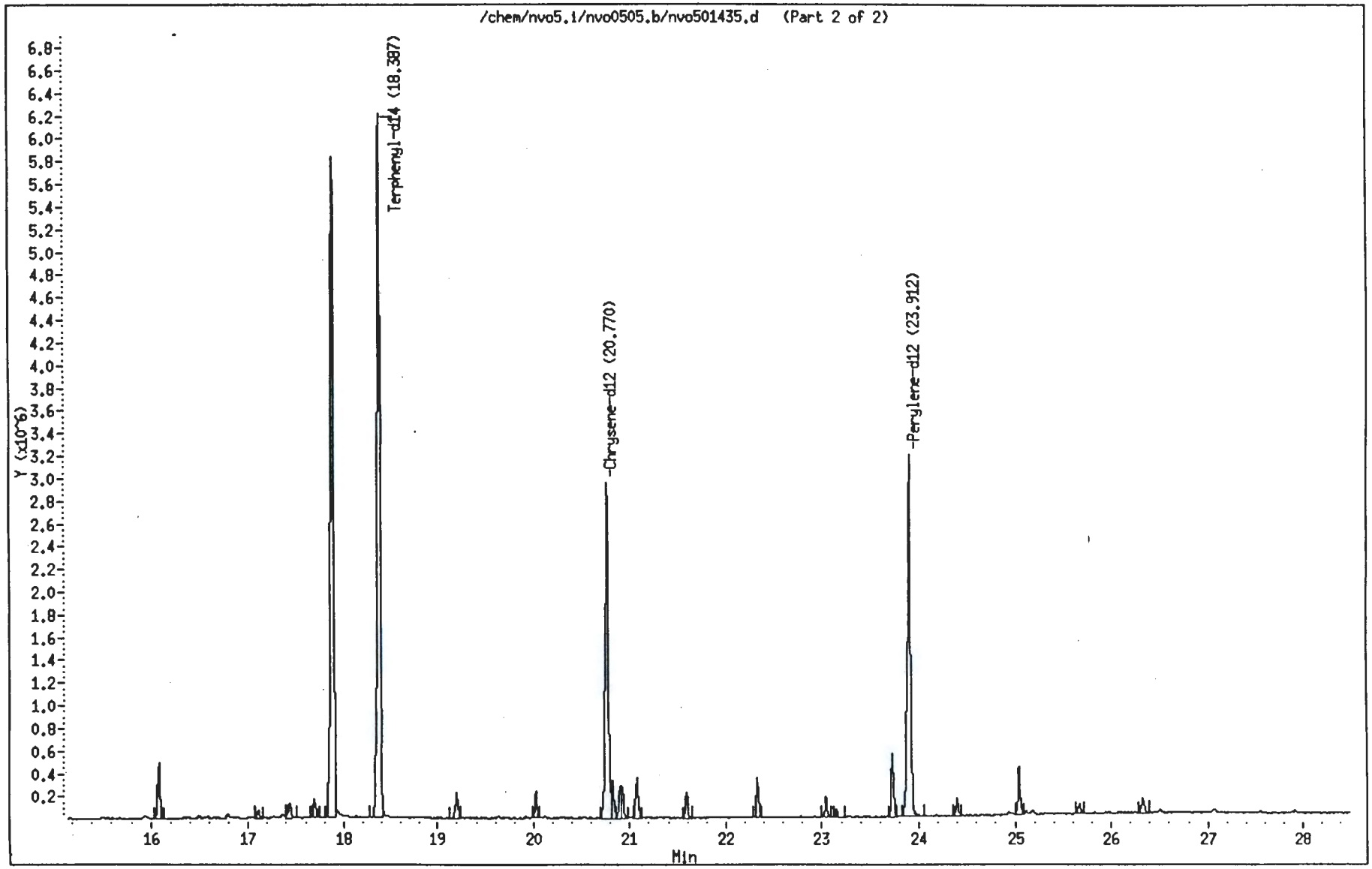
001071

95133555.2161

Data File: /chem/nvo5.i/nvo0505.b/nvo501435.d
Date : 05-MAY-1994 12:53
Client ID: A1101007MS
Sample Info: CDMHNSS*21MS
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



001072

Data File: /chem/nvo5.i/nvo0505.b/nvo501435.d
Report Date: 05-May-1994 14:17

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0505.b/nvo501435.d
Lab Smp Id: CDMHNSS*21MS — Client Smp ID: A1101007MS
Inj Date : 05-MAY-1994 12:53 — Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT — Inst ID: nvo5.i
Smp Info : CDMHNSS*21MS
Misc Info : CDM Hanford N. Slope
Comment :
Method : /chem/nvo5.i/nvo0505.b/clp390epc.m
Meth Date : 05-May-1994 11:26 — Quant Type: ISTD
Cal Date : 05-MAY-94 10:51 — Cal File: nvo501432.d
Als bottle: 3 — QC Sample: MS
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	5.558	5.541	(1.000)	613423	40	
$ 2 2-Fluorophenol	112.00	2.879	2.670	(0.518)	2631715	130	2100
$ 3 Phenol-d5	99.00	5.087	5.043	(0.915)	3080849	140	2300
4 Phenol	94.00	5.113	5.061	(0.920)	3663213	150	2600(R)
$ 6 2-Chlorophenol-d4	132.00	5.209	5.174	(0.937)	2329447	140	2300
7 2-Chlorophenol	128.00	5.235	5.200	(0.942)	2990615	150	2500
9 1,4-Dichlorobenzene	146.00	5.584	5.567	(1.005)	1962880	91	1500
$ 10 1,2-Dichlorobenzene-d4	152.00	5.794	5.785	(1.042)	1239454	96	1600
15 N-Nitroso-di-n-propylamine	70.00	6.256	6.248	(1.126)	1154833	83	1400
* 17 Naphthalene-d8	136.00	7.661	7.662	(1.000)	2200892	40	
$ 18 Nitrobenzene-d5	82.00	6.466	6.448	(0.844)	2122724	97	1600
25 1,2,4-Trichlorobenzene	180.00	7.574	7.566	(0.989)	1658188	90	1500
29 4-Chloro-3-methylphenol	107.00	8.778	8.779	(1.146)	2561423	150	2500
* 31 Acenaphthene-d10	164.00	11.143	11.144	(1.000)	1320488	40	
$ 35 2-Fluorobiphenyl	172.00	9.756	9.756	(0.875)	3763829	78	1300
42 Acenaphthene	153.00	11.222	11.222	(1.007)	2930495	80	1300
44 4-Nitrophenol	109.00	11.597	11.598	(1.041)	842094	130	2100
46 2,4-Dinitrotoluene	165.00	11.641	11.633	(1.045)	1306191	98	1600(R)
$ 51 2,4,6-Tribromophenol	330.00	12.924	12.924	(1.160)	1127824	140	2200
* 52 Phenanthrene-d10	188.00	14.512	14.513	(1.000)	2212230	40	
57 Pentachlorophenol	266.00	14.120	14.111	(0.973)	1011696	120	2000
61 Di-n-butylphthalate	149.00	16.083	16.092	(1.108)	433205	5	88(a)
* 63 Chrysene-d12	240.00	20.770	20.779	(1.000)	2149709	40	
64 Pyrene	202.00	17.890	17.881	(0.861)	5547959	76	1200
$ 65 Terphenyl-d14	244.00	18.387	18.370	(0.885)	4440589	78	1300
70 bis(2-Ethylhexyl)phthalate	149.00	21.075	21.084	(1.015)	160991	3	50(a)
* 71 Perylene-d12	264.00	23.912	23.912	(1.000)	2666590	40	

Data File: /chem/nvo5.i/nvo0505.b/nvo501435.d
Report Date: 05-May-1994 14:17

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A1101007MSD

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48790

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*21MS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NVO501436.D

Level: (low/med) LOW Date Received: 05/03/94

% Moisture: 4 decanted: (Y/N) N Date Extracted: 05/04/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/05/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1900	
111-44-4	Bis(2-Chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	1800	
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	1100	
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	2,2'-oxybis(1-Chloropropane)	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-di-n-propylamine	1000	
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethyphenol	340	U
111-91-1	Bis(2-Chloroethoxy)methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	1200	
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-methylphenol	2000	
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	830	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	830	U
131-11-3	Dimethyl phthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U
99-09-2	3-Nitroaniline	830	U
83-32-9	Acenaphthene	1200	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A1101007MSD

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48790

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*21MS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NV0501436.D

Level: (low/med) LOW Date Received: 05/03/94

% Moisture: 4 decanted: (Y/N) N Date Extracted: 05/04/94

Concentrated Extract Volume: 500 (UL) Date Analyzed: 05/05/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

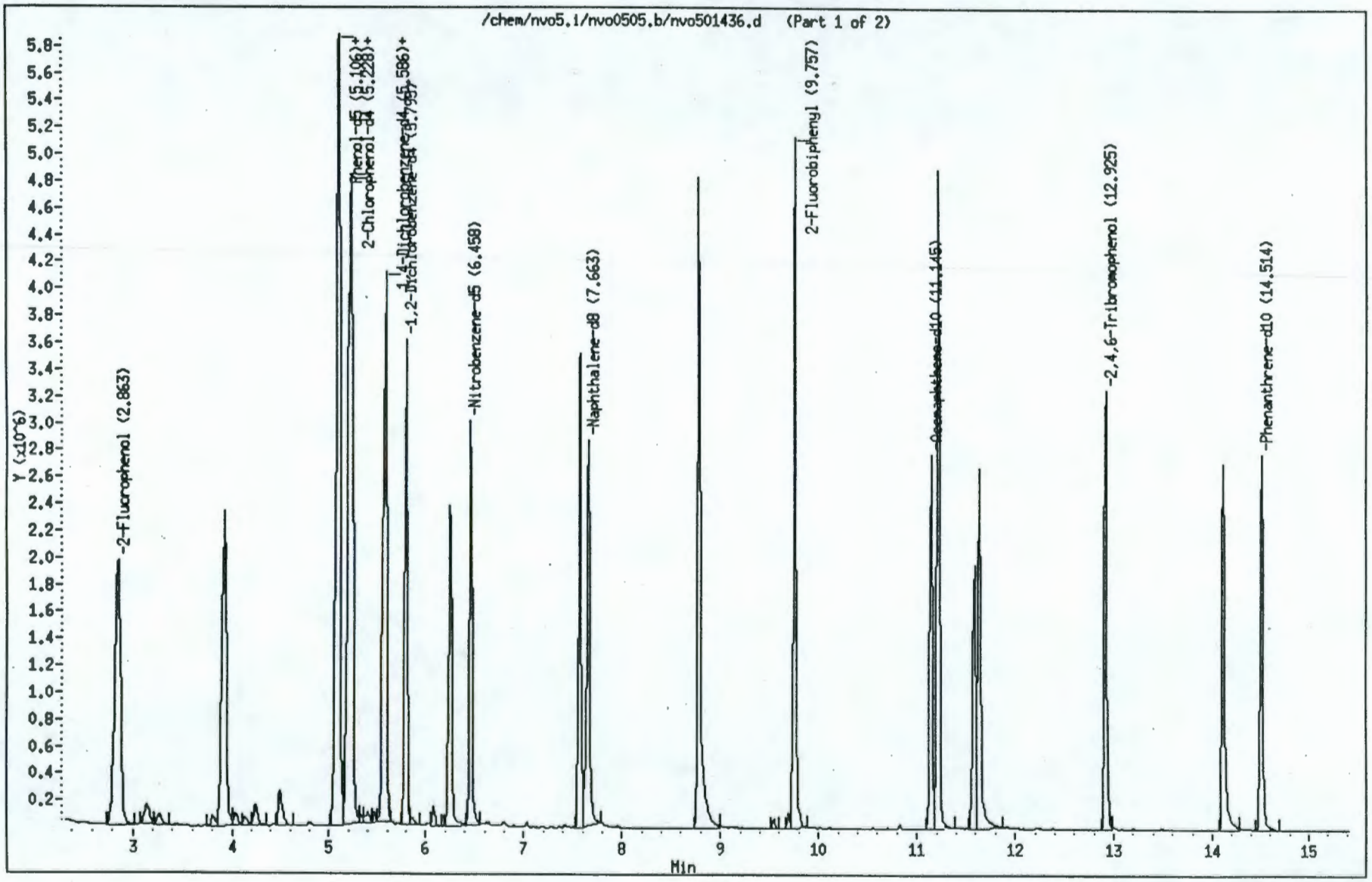
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	830	U
100-02-7	4-Nitrophenol	1700	
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	1400	
84-66-2	Diethyl phthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	830	U
534-52-1	4,6-Dinitro-2-methylphenol	830	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	1800	
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
86-74-8	Carbazole	340	U
84-74-2	Di-n-butylphthalate	340	U
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	1200	
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	340	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
117-81-7	bis(2-Ethylhexyl)phthalate	46	JB
117-84-0	Di-n-octylphthalate	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenzo(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) - Cannot be separated from Diphenylamine

Data File: /chem/nvo5.i/nvo0505.b/nvo501436.d
Date : 05-MAY-1994 13:30
Client ID: A1101007MSD
Sample Info: CDMHNSS×21MSD
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



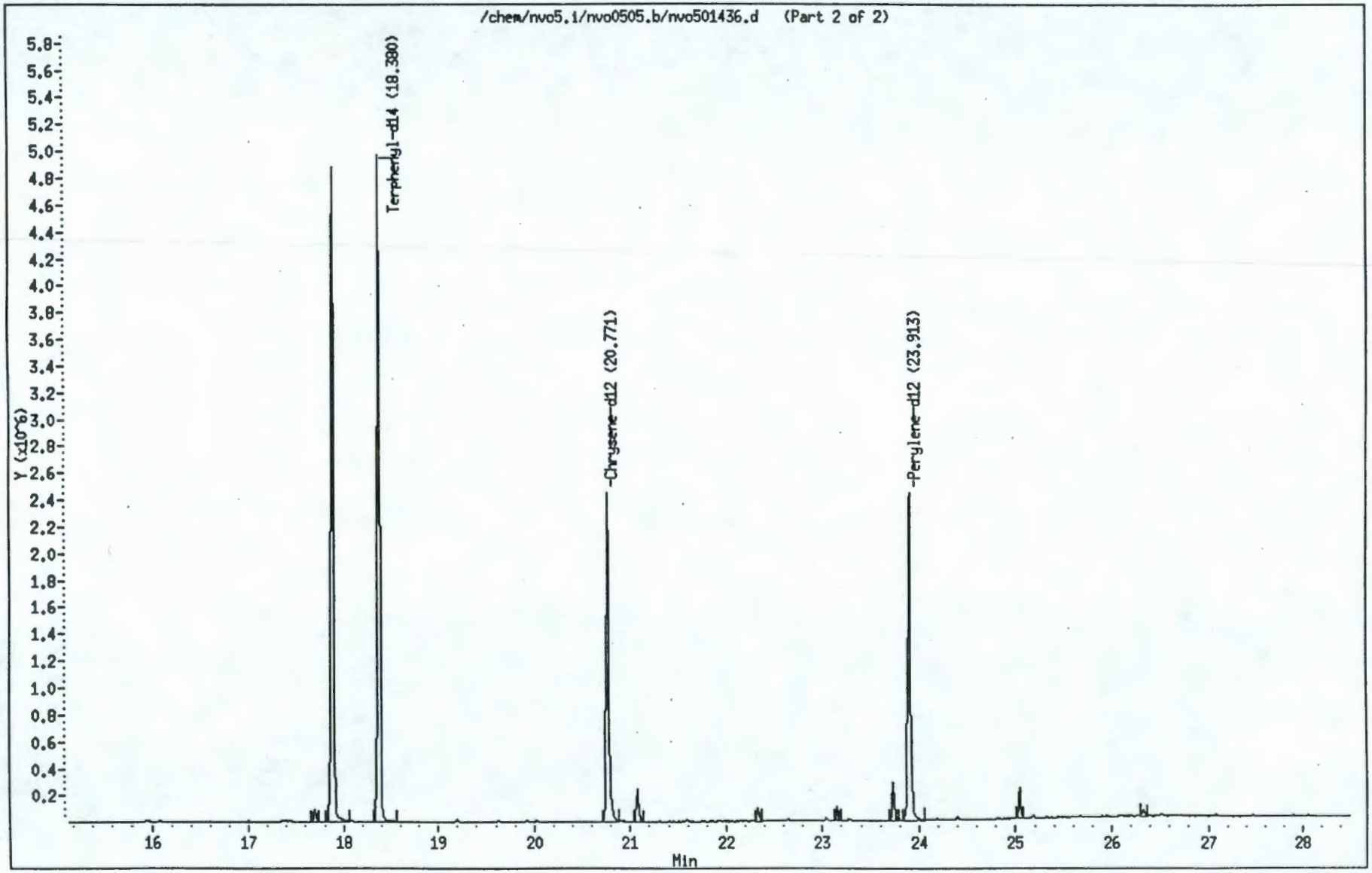
001077

9513355.2174

Data File: /chem/nvo5.i/nvo0505.b/nvo501436.d
Date : 05-MAY-1994 13:30
Client ID: A1101007MSD
Sample Info: CDMHNSS*21MSD
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



001078

9513355.2175

Data File: /chem/nvo5.i/nvo0505.b/nvo501436.d
Report Date: 05-May-1994 14:18

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0505.b/nvo501436.d
Lab Smp Id: CDMHNSS*21MSD — Client Smp ID: A1101007MSD
Inj Date : 05-MAY-1994 13:30 — Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT — Inst ID: nvo5.i
Smp Info : CDMHNSS*21MSD
Misc Info : CDM Hanford N. Slope
Comment :
Method : /chem/nvo5.i/nvo0505.b/clp390epc.m
Meth Date : 05-May-1994 11:26 — Quant Type: ISTD
Cal Date : 05-MAY-94 10:51 — Cal File: nvo501432.d
Als bottle: 4 — QC Sample: MSD
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	5.559	5.541	(1.000)	711779	40	
$ 2 2-Fluorophenol	112.00	2.863	2.670	(0.515)	2143472	89	1500
$ 3 Phenol-d5	99.00	5.079	5.043	(0.914)	2486124	98	1600
4 Phenol	94.00	5.106	5.061	(0.918)	3058476	110	1800
$ 6 2-Chlorophenol-d4	132.00	5.202	5.174	(0.936)	1876528	95	1600
7 2-Chlorophenol	128.00	5.236	5.200	(0.942)	2442001	100	1700
9 1,4-Dichlorobenzene	146.00	5.586	5.567	(1.005)	1627149	65	1100
$ 10 1,2-Dichlorobenzene-d4	152.00	5.795	5.785	(1.042)	999182	66	1100
15 N-Nitroso-di-n-propylamine	70.00	6.249	6.248	(1.124)	946266	59	980
* 17 Naphthalene-d8	136.00	7.663	7.662	(1.000)	2326269	40	
$ 18 Nitrobenzene-d5	82.00	6.458	6.448	(0.843)	1698987	73	1200
25 1,2,4-Trichlorobenzene	180.00	7.575	7.566	(0.989)	1340942	69	1100
29 4-Chloro-3-methylphenol	107.00	8.780	8.779	(1.146)	2049399	120	1900
* 31 Acenaphthene-d10	164.00	11.145	11.144	(1.000)	1187304	40	
$ 35 2-Fluorobiphenyl	172.00	9.757	9.756	(0.875)	2921843	67	1100
42 Acenaphthene	153.00	11.223	11.222	(1.007)	2294346	69	1200
44 4-Nitrophenol	109.00	11.590	11.598	(1.040)	583709	98	1600
46 2,4-Dinitrotoluene	165.00	11.642	11.633	(1.045)	979767	82	1400
$ 51 2,4,6-Tribromophenol	330.00	12.925	12.924	(1.160)	790455	100	1800
* 52 Phenanthrene-d10	188.00	14.514	14.513	(1.000)	1841384	40	
57 Pentachlorophenol	266.00	14.112	14.111	(0.972)	709008	100	1700
* 63 Chrysene-d12	240.00	20.771	20.779	(1.000)	1637894	40	
64 Pyrene	202.00	17.891	17.881	(0.861)	4040101	72	1200
$ 65 Terphenyl-d14	244.00	18.380	18.370	(0.885)	3099810	72	1200
70 bis(2-Ethylhexyl)phthalate	149.00	21.077	21.084	(1.015)	107542	3	44(a)
* 71 Perylene-d12	264.00	23.913	23.912	(1.000)	1999886	40	

Data File: /chem/nvo5.i/nvo0505.b/nvo501436.d
Report Date: 05-May-1994 14:18

QC Flag Legend

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

9513355.2170

STANDARDS DATA

6B
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48790

Instrument ID: NVO5 Calibration Date(s): 03/29/94

Calibration Times: 0952 1218

LAB FILE ID: RRF20 =NVO501306.D RRF50 =NVO501307.D
RRF80 =NVO501308.D RRF120=NVO501309.D RRF160=NVO501310.D

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Phenol *	1.497	1.682	1.872	1.714	1.718	1.697	7.9*
Bis(2-Chloroethyl)ether *	1.163	1.297	1.455	1.330	1.352	1.319	8.0*
2-Chlorophenol *	1.161	1.288	1.481	1.355	1.347	1.326	8.8*
1,3-Dichlorobenzene *	1.244	1.385	1.633	1.490	1.500	1.451	10.0*
1,4-Dichlorobenzene *	1.241	1.430	1.669	1.500	1.525	1.473	10.6*
1,2-Dichlorobenzene *	1.126	1.290	1.491	1.373	1.383	1.333	10.2*
2-Methylphenol *	1.041	1.081	1.236	1.154	1.146	1.132	6.6*
2,2'-oxybis(1-Chloropropane)	1.251	1.380	1.562	1.446	1.540	1.436	8.8
4-Methylphenol *	1.048	1.132	1.259	1.160	1.186	1.157	6.6*
N-Nitroso-di-n-propylamine *	0.809	0.861	0.998	0.953	0.946	0.913	8.4*
Hexachloroethane *	0.495	0.567	0.663	0.599	0.612	0.587	10.5*
Nitrobenzene *	0.335	0.385	0.431	0.400	0.400	0.390	8.9*
Isophorone *	0.607	0.659	0.759	0.709	0.717	0.690	8.5*
2-Nitrophenol *	0.206	0.247	0.283	0.263	0.268	0.253	11.6*
2,4-Dimethyphenol *	0.294	0.349	0.397	0.366	0.372	0.356	10.9*
Bis(2-Chloroethoxy)methane *	0.342	0.379	0.442	0.406	0.407	0.395	9.4*
2,4-Dichlorophenol *	0.260	0.291	0.332	0.310	0.315	0.302	9.1*
1,2,4-Trichlorobenzene *	0.289	0.334	0.381	0.346	0.355	0.341	9.9*
Naphthalene *	0.875	0.991	1.131	1.029	1.048	1.015	9.2*
4-Chloroaniline	0.324	0.359	0.402	0.364	0.360	0.362	7.6
Hexachlorobutadiene	0.181	0.204	0.241	0.214	0.222	0.213	10.5
4-Chloro-3-methylphenol *	0.261	0.278	0.320	0.304	0.310	0.295	8.2*
2-Methylnaphthalene *	0.577	0.616	0.725	0.665	0.677	0.652	8.7*
Hexachlorocyclopentadiene	0.101	0.144	0.171	0.155	0.167	0.148	19.0
2,4,6-Trichlorophenol *	0.353	0.420	0.479	0.429	0.461	0.428	11.2*
2,4,5-Trichlorophenol *	0.407	0.451	0.529	0.474	0.516	0.475	10.4*
2-Chloronaphthalene *	1.009	1.189	1.329	1.207	1.240	1.195	9.8*
2-Nitroaniline	0.340	0.388	0.451	0.417	0.438	0.407	10.9
Dimethyl phthalate	1.192	1.338	1.540	1.383	1.443	1.379	9.4
Acenaphthylene *	1.141	1.332	1.514	1.395	1.430	1.363	10.3*
2,6-Dinitrotoluene *	0.261	0.315	0.365	0.332	0.354	0.326	12.5*
3-Nitroaniline	0.264	0.326	0.375	0.334	0.339	0.327	12.3
Acenaphthene *	0.969	1.110	1.249	1.145	1.167	1.128	9.1*
2,4-Dinitrophenol	0.166	0.237	0.286	0.276	0.300	0.253	21.3
4-Nitrophenol	0.160	0.194	0.234	0.208	0.216	0.203	13.8
Dibenzofuran *	1.489	1.692	1.903	1.730	1.787	1.720	8.8*
2,4-Dinitrotoluene *	0.324	0.373	0.432	0.391	0.412	0.387	10.7*

* 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.: 48790

Instrument ID: NVO5 Calibration Date(s): 03/29/94

Calibration Times: 0952 1218

LAB FILE ID: RRF20 =NVO501306.D RRF50 =NVO501307.D
RRF80 =NVO501308.D RRF120=NVO501309.D RRF160=NVO501310.D

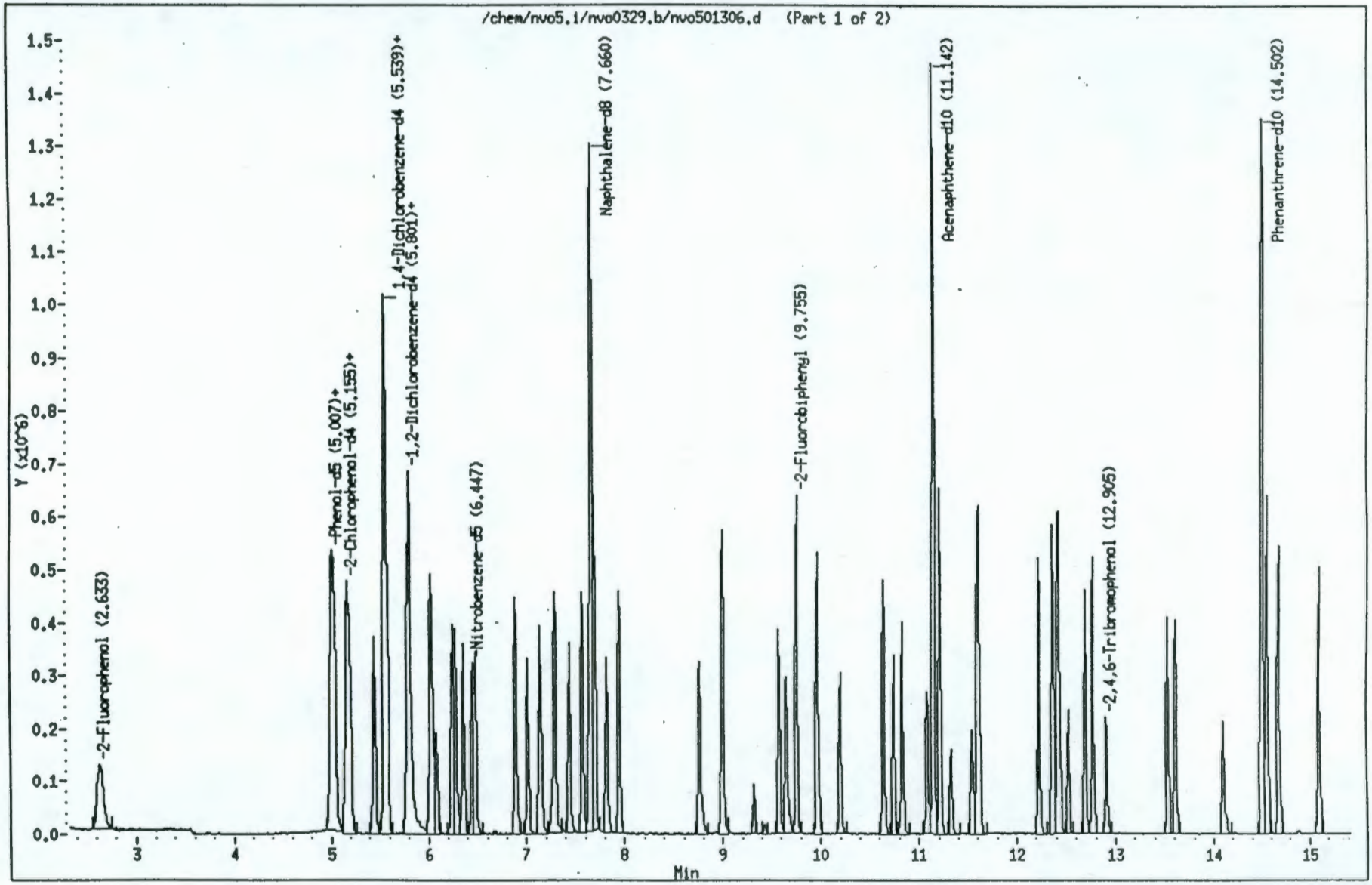
COMPOUND		RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Diethyl phthalate		1.207	1.363	1.556	1.399	1.460	1.397	9.2
4-Chlorophenyl-phenylether	*	0.565	0.640	0.708	0.645	0.669	0.646	8.1*
Fluorene	*	1.091	1.238	1.392	1.264	1.286	1.254	8.6*
4-Nitroaniline		0.272	0.337	0.379	0.339	0.350	0.335	11.7
4,6-Dinitro-2-methylphenol		0.141	0.187	0.223	0.216	0.226	0.198	17.9
N-Nitrosodiphenylamine (1)		0.465	0.534	0.617	0.572	0.588	0.555	10.6
4-Bromophenyl-phenylether	*	0.196	0.237	0.267	0.255	0.260	0.243	11.7*
Hexachlorobenzene	*	0.242	0.279	0.316	0.294	0.301	0.286	9.9*
Pentachlorophenol	*	0.132	0.169	0.195	0.189	0.199	0.177	15.6*
Phenanthrene	*	0.986	1.125	1.246	1.168	1.174	1.140	8.5*
Anthracene	*	0.908	1.055	1.209	1.094	1.117	1.077	10.2*
Carbazole		0.849	1.024	1.113	1.045	1.023	1.011	9.6
Di-n-butylphthalate		1.206	1.479	1.686	1.557	1.590	1.504	12.1
Fluoranthene	*	0.909	1.136	1.262	1.155	1.152	1.123	11.5*
Pyrene	*	1.155	1.237	1.427	1.355	1.384	1.312	8.6*
Butylbenzylphthalate		0.569	0.640	0.761	0.709	0.749	0.686	11.7
3,3'-Dichlorobenzidine		0.279	0.319	0.381	0.338	0.345	0.332	11.3
Benzo(a)anthracene	*	0.936	1.079	1.229	1.132	1.168	1.109	10.0*
Chrysene	*	0.891	0.989	1.120	1.034	1.048	1.017	8.3*
bis(2-Ethylhexyl)phthalate		0.765	0.842	1.045	0.971	1.019	0.928	12.9
Di-n-octylphthalate		1.079	1.252	1.536	1.466	1.454	1.357	13.9
Benzo(b)fluoranthene	*	0.764	0.920	1.076	0.997	0.959	0.943	12.3*
Benzo(k)fluoranthene	*	0.787	0.935	1.068	1.002	0.999	0.958	11.1*
Benzo(a)pyrene	*	0.700	0.826	0.971	0.898	0.905	0.860	12.0*
Indeno(1,2,3-cd)pyrene	*	0.646	0.731	0.856	0.824	0.849	0.781	11.6*
Dibenzo(a,h)anthracene	*	0.635	0.718	0.844	0.811	0.837	0.769	11.7*
Benzo(g,h,i)perylene	*	0.705	0.761	0.871	0.853	0.869	0.812	9.2*
Nitrobenzene-d5	*	0.336	0.393	0.452	0.413	0.417	0.402	10.6*
2-Fluorobiphenyl	*	1.253	1.474	1.667	1.501	1.540	1.487	10.1*
Terphenyl-d14	*	0.882	0.965	1.096	1.024	1.066	1.007	8.5*
Phenol-d5	*	1.287	1.426	1.582	1.470	1.455	1.444	7.4*
2-Fluorophenol	*	1.139	1.317	1.505	1.358	1.353	1.335	9.8*
2,4,6-Tribromophenol		0.203	0.233	0.274	0.249	0.266	0.245	11.5
2-Chlorophenol-d4	*	0.992	1.132	1.278	1.167	1.175	1.149	9.0*
1,2-Dichlorobenzene-d4	*	0.736	0.817	0.964	0.861	0.874	0.851	9.8*

(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.

Data File: /chem/nvo5.i/nvo0329.b/nvo501306.d
Date : 29-MAR-1994 09:52
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

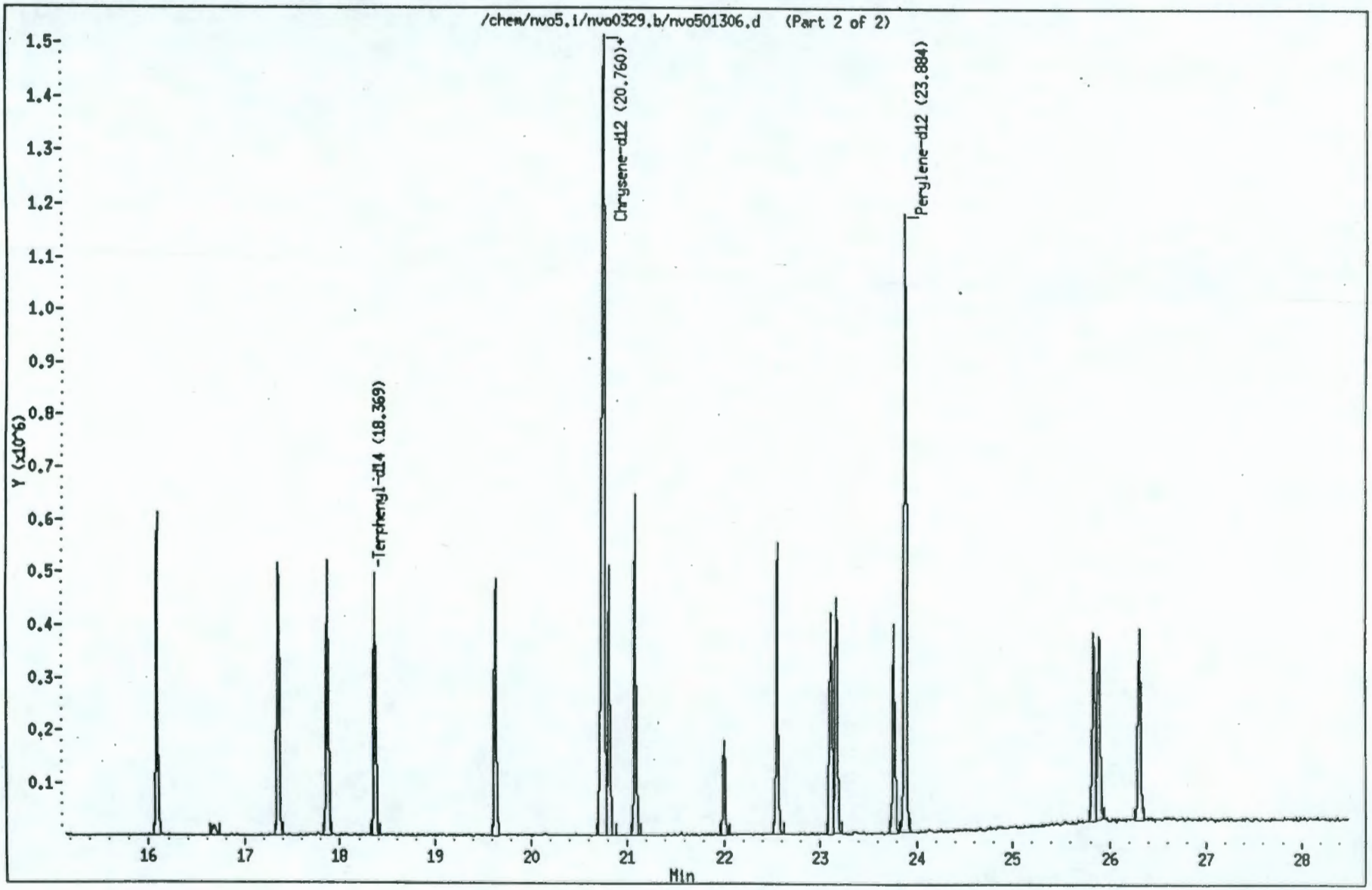


9513355.2181

Data File: /chem/nvo5.i/nvo0329.b/nvo501306.d
Date : 29-MAR-1994 09:52
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



001085

9513355.2183

Data File: /chem/nvo5.i/nvo0329.b/nvo501306.d
Report Date: 31-Mar-1994 11:13

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0329.b/nvo501306.d
Lab Smp Id: SSTD20 Client Smp ID: SSTD20
Inj Date : 29-MAR-1994 09:52 Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : SSTD20 20ng on col
Misc Info : 10ug/ml CLP STD 1000-1-1
Comment :
Method : /chem/nvo5.i/nvo0329.b/clp390epc.m
Meth Date : 31-Mar-1994 11:13 user2 Quant Type: ISTD
Cal Date : 29-MAR-1994 09:52 Cal File: nvo501306.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)	ON-COL (ng)
*	1 1,4-Dichlorobenzene-d4	152.00	5.539	5.539	(1.000)	310119	40	
$	2 2-Fluorophenol	112.00	2.633	2.633	(0.475)	176567	20	20
$	3 Phenol-d5	99.00	5.007	5.007	(0.904)	199497	20	20
	4 Phenol	94.00	5.033	5.033	(0.909)	232166	20	20
	5 Bis(2-Chloroethyl)ether	93.00	5.147	5.147	(0.929)	180319	20	20
$	6 2-Chlorophenol-d4	132.00	5.164	5.164	(0.932)	153854	20	20
	7 2-Chlorophenol	128.00	5.190	5.190	(0.937)	180088	20	20
	8 1,3-Dichlorobenzene	146.00	5.443	5.443	(0.983)	192913	20	20
	9 1,4-Dichlorobenzene	146.00	5.566	5.566	(1.005)	192407	20	20
$	10 1,2-Dichlorobenzene-d4	152.00	5.784	5.784	(1.044)	114134	20	20
	11 1,2-Dichlorobenzene	146.00	5.801	5.801	(1.047)	174660	20	20
	12 2-Methylphenol	108.00	6.019	6.019	(1.087)	161456	20	20
	13 4-Methylphenol	108.00	6.273	6.273	(1.132)	162570	20	20
	14 2,2'-oxybis(1-Chloropropane)	45.00	6.037	6.037	(1.090)	193992	20	20
	15 N-Nitroso-di-n-propylamine	70.00	6.238	6.238	(1.126)	125379	20	20
	16 Hexachloroethane	117.00	6.351	6.351	(1.147)	76827	20	20
*	17 Naphthalene-d8	136.00	7.660	7.660	(1.000)	1037257	40	
$	18 Nitrobenzene-d5	82.00	6.447	6.447	(0.842)	174386	20	20
	19 Nitrobenzene	77.00	6.473	6.473	(0.845)	173945	20	20
	20 Isophorone	82.00	6.883	6.883	(0.899)	314985	20	20
	21 2-Nitrophenol	139.00	7.006	7.006	(0.915)	106625	20	20
	22 2,4-Dimethyphenol	107.00	7.137	7.137	(0.932)	152347	20	20
	23 Bis(2-Chloroethoxy)methane	93.00	7.285	7.285	(0.951)	177371	20	20
	24 2,4-Dichlorophenol	162.00	7.433	7.433	(0.970)	134777	20	20
	25 1,2,4-Trichlorobenzene	180.00	7.564	7.564	(0.987)	150064	20	20
	26 Naphthalene	128.00	7.695	7.695	(1.005)	453778	20	20
	27 4-Chloroaniline	127.00	7.817	7.817	(1.020)	168091	20	20
	28 Hexachlorobutadiene	225.00	7.939	7.939	(1.036)	93879	20	20
	29 4-Chloro-3-methylphenol	107.00	8.760	8.760	(1.144)	135573	20	20

Data File: /chem/nvo5.i/nvo0329.b/nvo501306.d
Report Date: 31-Mar-1994 11:13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	CONCENTRATIONS ON-COL (ng)
	30 2-Methylnaphthalene	142.00	8.995	8.995	(1.174)	299300	20	20
*	31 Acenaphthene-d10	164.00	11.142	11.142	(1.000)	529696	40	
	32 Hexachlorocyclopentadiene	237.00	9.318	9.318	(0.836)	26794	20	20
	33 2,4,6-Trichlorophenol	196.00	9.571	9.571	(0.859)	93615	20	20
	34 2,4,5-Trichlorophenol	196.00	9.650	9.650	(0.866)	107800	20	20(a)
$	35 2-Fluorobiphenyl	172.00	9.755	9.755	(0.875)	331957	20	20
	36 2-Chloronaphthalene	162.00	9.964	9.964	(0.894)	267241	20	20
	37 2-Nitroaniline	65.00	10.200	10.200	(0.915)	90025	20	20(a)
	38 Dimethyl phthalate	163.00	10.636	10.636	(0.955)	315829	20	20
	39 Acenaphthylene	152.00	10.828	10.828	(0.972)	302254	20	20
	40 2,6-Dinitrotoluene	165.00	10.741	10.741	(0.964)	69191	20	20
	41 3-Nitroaniline	138.00	11.081	11.081	(0.995)	69862	20	20(a)
	42 Acenaphthene	153.00	11.212	11.212	(1.006)	256539	20	20
	43 2,4-Dinitrophenol	184.00	11.326	11.326	(1.016)	43954	20	20(a)
	44 4-Nitrophenol	109.00	11.535	11.535	(1.035)	42381	20	20(a)
	45 Dibenzofuran	168.00	11.596	11.596	(1.041)	394432	20	20
	46 2,4-Dinitrotoluene	165.00	11.614	11.614	(1.042)	85816	20	20
	47 Diethyl phthalate	149.00	12.225	12.225	(1.097)	319687	20	20
	48 4-Chlorophenyl-phenylether	204.00	12.417	12.417	(1.114)	149692	20	20
	49 Fluorene	166.00	12.364	12.364	(1.110)	289016	20	20
	50 4-Nitroaniline	138.00	12.434	12.434	(1.116)	72079	20	20(a)
$	51 2,4,6-Tribromophenol	330.00	12.914	12.914	(1.159)	53816	20	20
*	52 Phenanthrene-d10	188.00	14.502	14.502	(1.000)	843177	40	
	53 4,6-Dinitro-2-methylphenol	198.00	12.521	12.521	(0.863)	59569	20	20(a)
	54 N-Nitrosodiphenylamine	169.00	12.696	12.696	(0.875)	195888	20	20
	55 4-Bromophenyl-phenylether	248.00	13.534	13.534	(0.933)	82806	20	20
	56 Hexachlorobenzene	284.00	13.612	13.612	(0.939)	101919	20	20
	57 Pentachlorophenol	266.00	14.101	14.101	(0.972)	55773	20	20(a)
	58 Phenanthrene	178.00	14.555	14.555	(1.004)	415694	20	20
	59 Anthracene	178.00	14.677	14.677	(1.012)	382853	20	20
	60 Carbazole	167.00	15.096	15.096	(1.041)	358029	20	20
	61 Di-n-butylphthalate	149.00	16.091	16.091	(1.110)	508234	20	20
	62 Fluoranthene	202.00	17.348	17.348	(1.196)	383140	20	20
*	63 Chrysene-d12	240.00	20.760	20.760	(1.000)	685272	40	
	64 Pyrene	202.00	17.871	17.871	(0.861)	395858	20	20
$	65 Terphenyl-d14	244.00	18.369	18.369	(0.885)	302172	20	20
	66 Butylbenzylphthalate	149.00	19.634	19.634	(0.946)	194992	20	20
	67 3,3'-Dichlorobenzidine	252.00	20.760	20.760	(1.000)	95445	20	20
	68 Benzo(a)anthracene	228.00	20.734	20.734	(0.999)	320822	20	20
	69 Chrysene	228.00	20.812	20.812	(1.003)	305365	20	20
	70 bis(2-Ethylhexyl)phthalate	149.00	21.083	21.083	(1.016)	262167	20	20
*	71 Perylene-d12	264.00	23.884	23.884	(1.000)	786605	40	
	72 Di-n-octylphthalate	149.00	22.558	22.558	(0.944)	424218	20	20
	73 Benzo(b)fluoranthene	252.00	23.116	23.116	(0.968)	300310	20	20
	74 Benzo(k)fluoranthene	252.00	23.169	23.169	(0.970)	309503	20	20
	75 Benzo(a)pyrene	252.00	23.762	23.762	(0.995)	275447	20	20
	76 Indeno(1,2,3-cd)pyrene	276.00	25.839	25.839	(1.082)	254260	20	20
	77 Dibenzo(a,h)anthracene	278.00	25.900	25.900	(1.084)	249926	20	20
	78 Benzo(g,h,i)perylene	276.00	26.311	26.311	(1.102)	277451	20	20

Data File: /chem/nvo5.i/nvo0329.b/nvo501306.d
Report Date: 31-Mar-1994 11:13

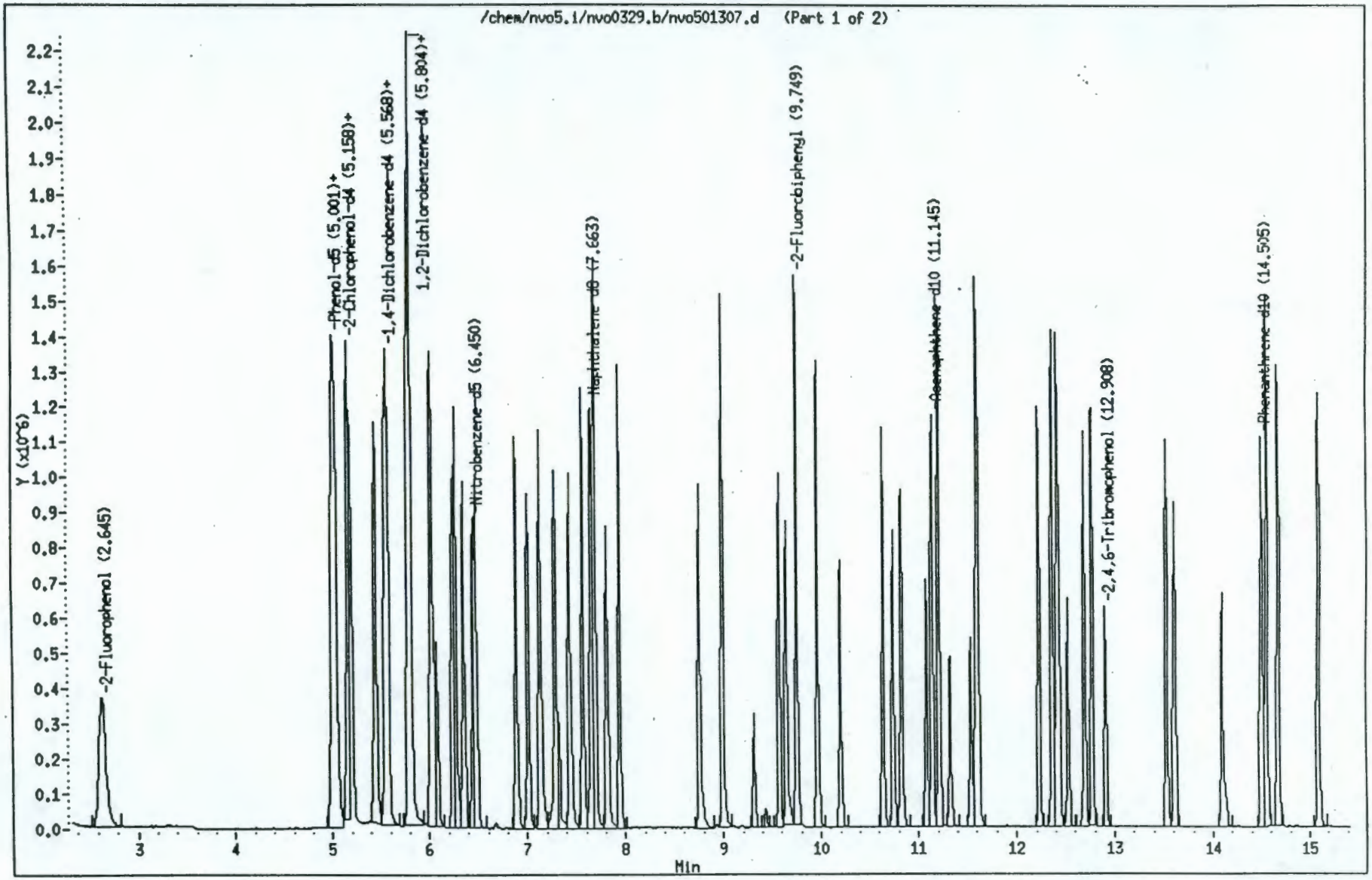
QC Flag Legend

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

Data File: /chem/nvo5.i/nvo0329.b/nvo501307.d
Date : 29-MAR-94 10:27
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



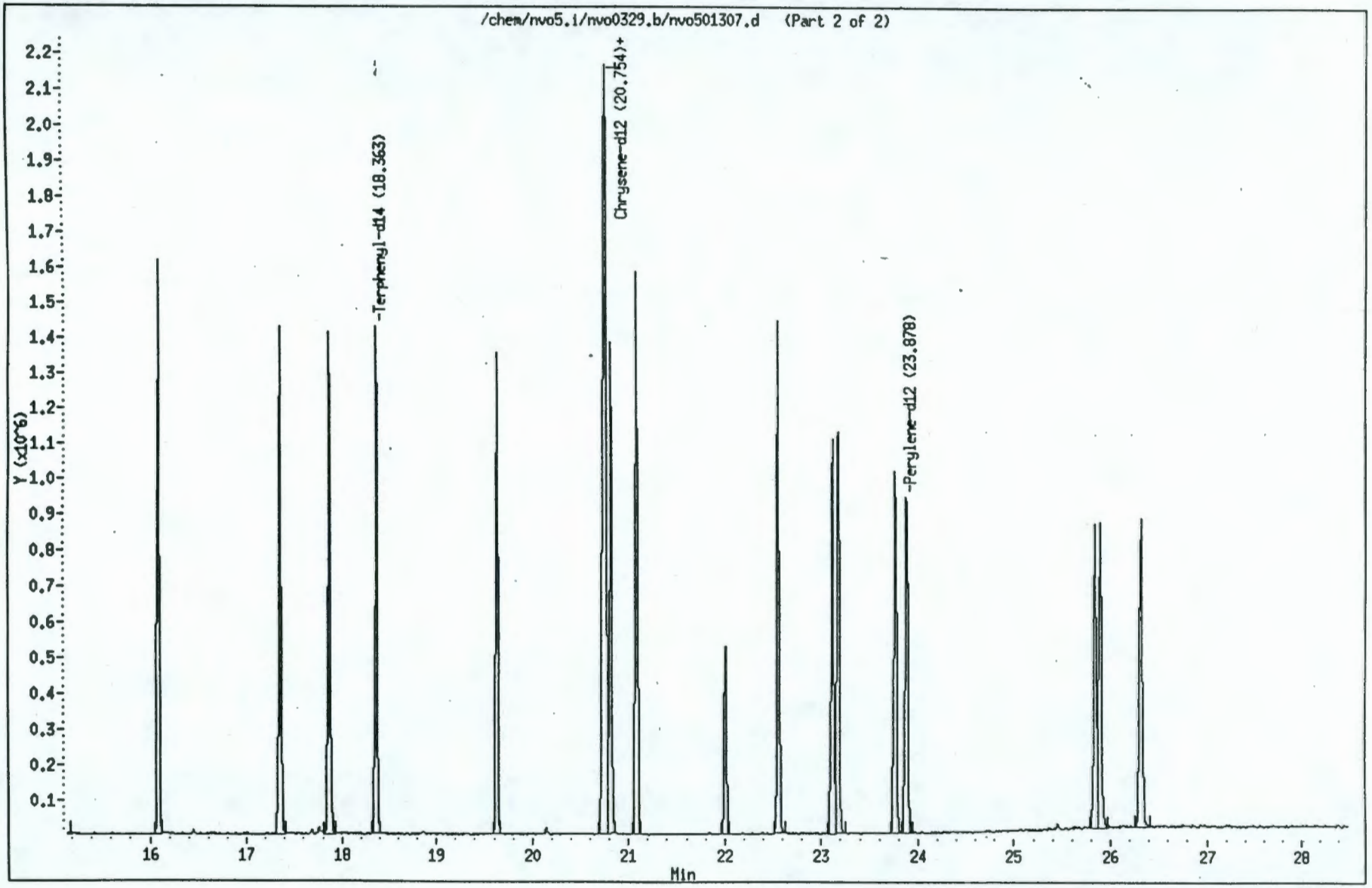
001089

9513355.2180

Data File: /chem/nvo5.i/nvo0329.b/nvo501307.d
Date : 29-MAR-94 10:27
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



001090

95133552187

Data File: /chem/nvo5.i/nvo0329.b/nvo501307.d
Report Date: 31-Mar-1994 11:13

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0329.b/nvo501307.d
Lab Smp Id: SSTD50 — Client Smp ID: SSTD50
Inj Date : 29-MAR-1994 10:27 — Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT — Inst ID: nvo5.i
Smp Info : SSTD50 50ng on col
Misc Info : 25ug/ml CLP STD 1000-2-1
Comment :
Method : /chem/nvo5.i/nvo0329.b/clp390epc.m
Meth Date : 31-Mar-1994 11:13 user2 — Quant Type: ISTD
Cal Date : 29-MAR-1994 10:27 — Cal File: nvo501307.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)	CONCENTRATIONS ON-COL (ng)
* 1	1,4-Dichlorobenzene-d4	152.00	5.542	5.542	(1.000)	310219	40	
$ 2	2-Fluorophenol	112.00	2.636	2.636	(0.476)	510883	50	54
$ 3	Phenol-d5	99.00	5.010	5.010	(0.904)	552837	50	52
4	Phenol	94.00	5.036	5.036	(0.909)	652330	50	53
5	Bis(2-Chloroethyl)ether	93.00	5.149	5.149	(0.929)	502770	50	53
$ 6	2-Chlorophenol-d4	132.00	5.167	5.167	(0.932)	438769	50	53
7	2-Chlorophenol	128.00	5.193	5.193	(0.937)	499400	50	52
8	1,3-Dichlorobenzene	146.00	5.437	5.437	(0.981)	537178	50	53
9	1,4-Dichlorobenzene	146.00	5.568	5.568	(1.005)	554541	50	54
$ 10	1,2-Dichlorobenzene-d4	152.00	5.787	5.787	(1.044)	316790	50	53
11	1,2-Dichlorobenzene	146.00	5.804	5.804	(1.047)	500241	50	53
12	2-Methylphenol	108.00	6.013	6.013	(1.085)	419377	50	51
13	4-Methylphenol	108.00	6.275	6.275	(1.132)	438842	50	52
14	2,2'-oxybis(1-Chloropropane)	45.00	6.040	6.040	(1.090)	535318	50	52
15	N-Nitroso-di-n-propylamine	70.00	6.240	6.240	(1.126)	333738	50	52
16	Hexachloroethane	117.00	6.354	6.354	(1.146)	219917	50	53
* 17	Naphthalene-d8	136.00	7.663	7.663	(1.000)	979791	40	
$ 18	Nitrobenzene-d5	82.00	6.450	6.450	(0.842)	480889	50	54
19	Nitrobenzene	77.00	6.476	6.476	(0.845)	471648	50	53
20	Isophorone	82.00	6.886	6.886	(0.899)	806564	50	52
21	2-Nitrophenol	139.00	7.008	7.008	(0.915)	302588	50	54
22	2,4-Dimethyphenol	107.00	7.131	7.131	(0.931)	427595	50	54
23	Bis(2-Chloroethoxy)methane	93.00	7.288	7.288	(0.951)	464759	50	52
24	2,4-Dichlorophenol	162.00	7.436	7.436	(0.970)	356572	50	53
25	1,2,4-Trichlorobenzene	180.00	7.567	7.567	(0.987)	409209	50	54
26	Naphthalene	128.00	7.698	7.698	(1.005)	1213230	50	53
27	4-Chloroaniline	127.00	7.811	7.811	(1.019)	440096	50	52
28	Hexachlorobutadiene	225.00	7.942	7.942	(1.036)	250117	50	53
29	4-Chloro-3-methylphenol	107.00	8.754	8.754	(1.142)	340620	50	52

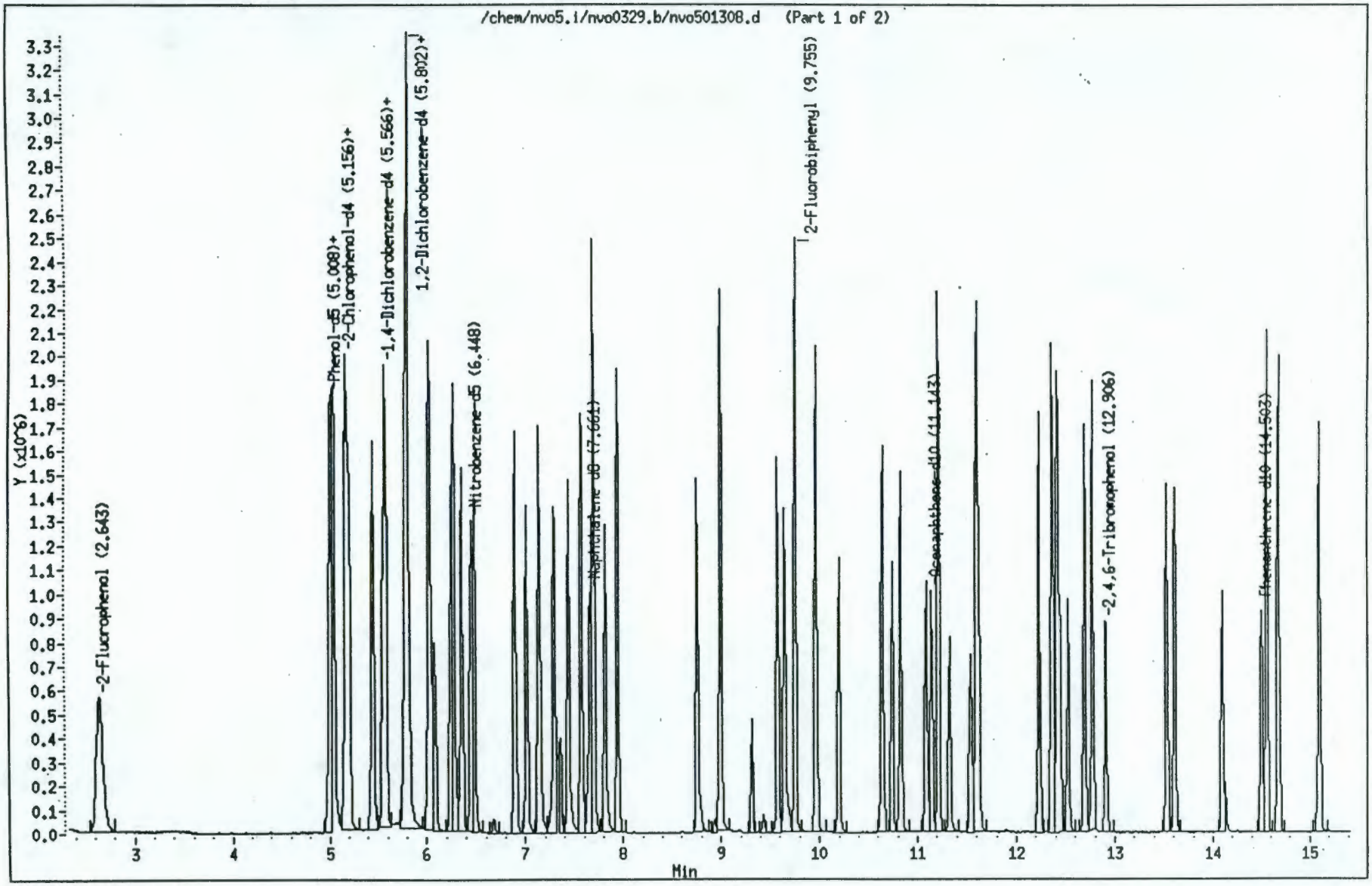
Data File: /chem/nvo5.i/nvo0329.b/nvo501307.d
Report Date: 31-Mar-1994 11:13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	CONCENTRATIONS ON-COL (ng)
	30 2-Methylnaphthalene	142.00	8.990	8.990	(1.173)	754576	50	52
*	31 Acenaphthene-d10	164.00	11.145	11.145	(1.000)	452062	40	
	32 Hexachlorocyclopentadiene	237.00	9.312	9.312	(0.836)	81498	50	59
	33 2,4,6-Trichlorophenol	196.00	9.574	9.574	(0.859)	237286	50	54
	34 2,4,5-Trichlorophenol	196.00	9.644	9.644	(0.865)	254831	50	52
$	35 2-Fluorobiphenyl	172.00	9.749	9.749	(0.875)	833112	50	54
	36 2-Chloronaphthalene	162.00	9.967	9.967	(0.894)	671901	50	54
	37 2-Nitroaniline	65.00	10.203	10.203	(0.915)	219206	50	53
	38 Dimethyl phthalate	163.00	10.639	10.639	(0.955)	755987	50	53
	39 Acenaphthylene	152.00	10.831	10.831	(0.972)	752933	50	54
	40 2,6-Dinitrotoluene	165.00	10.744	10.744	(0.964)	177950	50	55
	41 3-Nitroaniline	138.00	11.084	11.084	(0.995)	183977	50	55
	42 Acenaphthene	153.00	11.215	11.215	(1.006)	627064	50	53
	43 2,4-Dinitrophenol	184.00	11.328	11.328	(1.016)	133774	50	59
	44 4-Nitrophenol	109.00	11.538	11.538	(1.035)	109842	50	55
	45 Dibenzofuran	168.00	11.599	11.599	(1.041)	956207	50	53
	46 2,4-Dinitrotoluene	165.00	11.616	11.616	(1.042)	210836	50	54
	47 Diethyl phthalate	149.00	12.227	12.227	(1.097)	769987	50	53
	48 4-Chlorophenyl-phenylether	204.00	12.419	12.419	(1.114)	361732	50	53
	49 Fluorene	166.00	12.367	12.367	(1.110)	699483	50	53
	50 4-Nitroaniline	138.00	12.446	12.446	(1.117)	190590	50	55
$	51 2,4,6-Tribromophenol	330.00	12.908	12.908	(1.158)	131741	50	53
*	52 Phenanthrene-d10	188.00	14.505	14.505	(1.000)	704333	40	
	53 4,6-Dinitro-2-methylphenol	198.00	12.524	12.524	(0.863)	164372	50	57
	54 N-Nitrosodiphenylamine	169.00	12.690	12.690	(0.875)	470370	50	53
	55 4-Bromophenyl-phenylether	248.00	13.528	13.528	(0.933)	208831	50	55
	56 Hexachlorobenzene	284.00	13.615	13.615	(0.939)	245350	50	54
	57 Pentachlorophenol	266.00	14.095	14.095	(0.972)	148588	50	56
	58 Phenanthrene	178.00	14.558	14.558	(1.004)	990457	50	53
	59 Anthracene	178.00	14.671	14.671	(1.011)	929063	50	54
	60 Carbazole	167.00	15.099	15.099	(1.041)	901256	50	55
	61 Di-n-butylphthalate	149.00	16.085	16.085	(1.109)	1302401	50	55
	62 Fluoranthene	202.00	17.350	17.350	(1.196)	1000212	50	56
*	63 Chrysene-d12	240.00	20.754	20.754	(1.000)	667221	40	
	64 Pyrene	202.00	17.865	17.865	(0.861)	1031639	50	52
$	65 Terphenyl-d14	244.00	18.363	18.363	(0.885)	804759	50	52
	66 Butylbenzylphthalate	149.00	19.628	19.628	(0.946)	534009	50	53
	67 3,3'-Dichlorobenzidine	252.00	20.763	20.763	(1.000)	265729	50	53
	68 Benzo(a)anthracene	228.00	20.737	20.737	(0.999)	899596	50	54
	69 Chrysene	228.00	20.815	20.815	(1.003)	825207	50	53
	70 bis(2-Ethylhexyl)phthalate	149.00	21.086	21.086	(1.016)	702152	50	52
*	71 Perylene-d12	264.00	23.887	23.887	(1.000)	685513	40	
	72 Di-n-octylphthalate	149.00	22.552	22.552	(0.944)	1072572	50	54
	73 Benzo(b)fluoranthene	252.00	23.119	23.119	(0.968)	787971	50	55
	74 Benzo(k)fluoranthene	252.00	23.180	23.180	(0.970)	801616	50	54
	75 Benzo(a)pyrene	252.00	23.765	23.765	(0.995)	708166	50	54
	76 Indeno(1,2,3-cd)pyrene	276.00	25.851	25.851	(1.082)	626084	50	53
	77 Dibenzo(a,h)anthracene	278.00	25.903	25.903	(1.084)	615379	50	53
	78 Benzo(g,h,i)perylene	276.00	26.322	26.322	(1.102)	652101	50	52

Data File: /chem/nvo5.i/nvo0329.b/nvo501308.d
Date : 29-MAR-94 11:04
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



001093

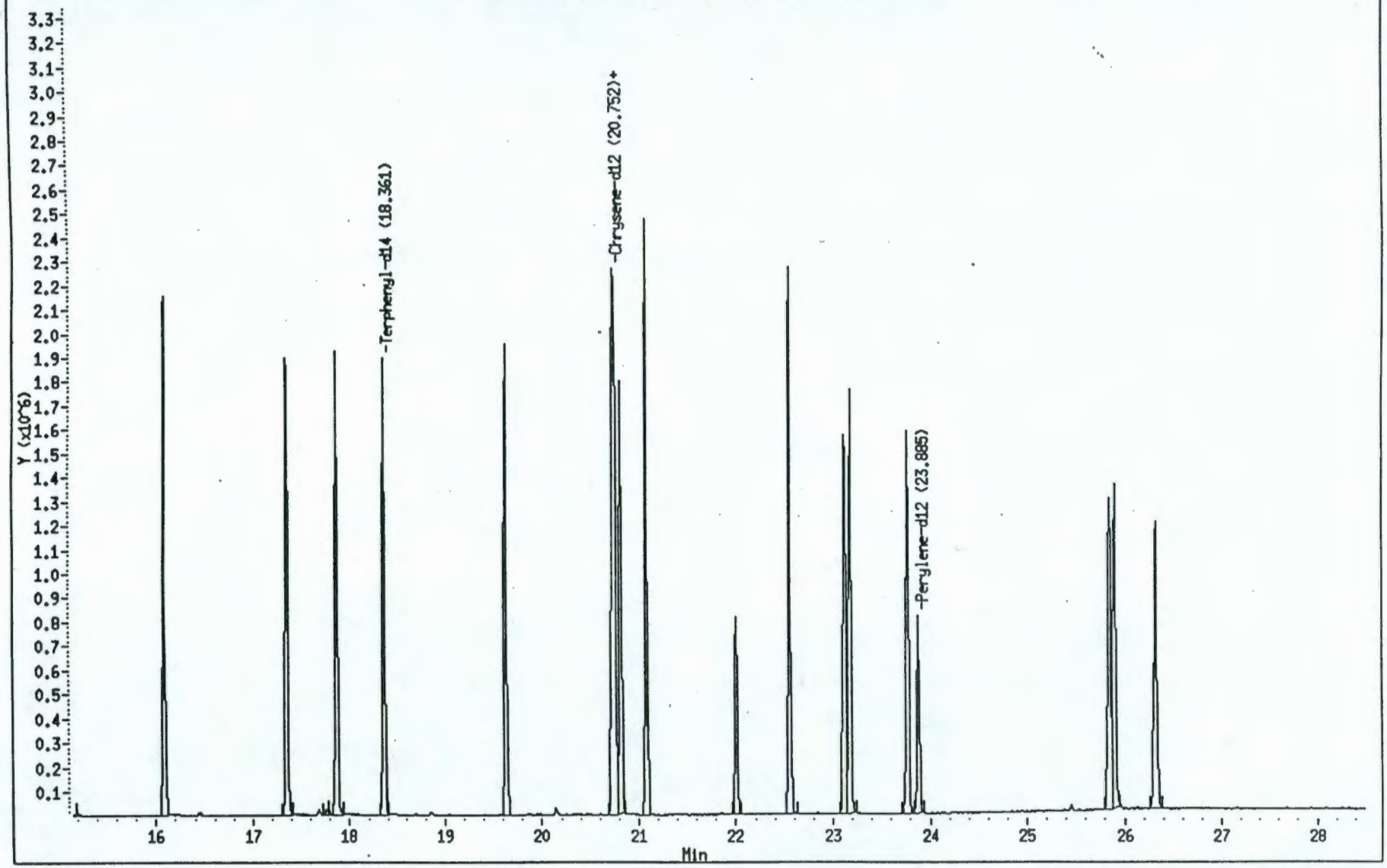
9513355.21911

Data File: /chem/nvo5.i/nvo0329.b/nvo501308.d
Date : 29-MAR-94 11:04
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

/chem/nvo5.i/nvo0329.b/nvo501308.d (Part 2 of 2)



001094

9513355.2191

Data File: /chem/nvo5.i/nvo0329.b/nvo501308.d
Report Date: 31-Mar-1994 11:13

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0329.b/nvo501308.d
Lab Smp Id: SSTD80 — Client Smp ID: SSTD80
Inj Date : 29-MAR-1994 11:04 — Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT — Inst ID: nvo5.i
Smp Info : SSTD80 80ng on col
Misc Info : 40ug/ml CLP STD 1000-1-2
Comment :
Method : /chem/nvo5.i/nvo0329.b/clp390epc.m
Meth Date : 31-Mar-1994 11:13 user2 — Quant Type: ISTD
Cal Date : 29-MAR-1994 10:27 — Cal File: nvo501307.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)	CONCENTRATIONS ON-COL (ng)
* 1	1,4-Dichlorobenzene-d4	152.00	5.540	5.540	(1.000)	248460	40	
$ 2	2-Fluorophenol	112.00	2.643	2.643	(0.477)	748095	80	91
$ 3	Phenol-d5	99.00	5.017	5.017	(0.905)	786325	80	88
4	Phenol	94.00	5.043	5.043	(0.910)	930024	80	89
5	Bis(2-Chloroethyl)ether	93.00	5.156	5.156	(0.931)	723219	80	89
$ 6	2-Chlorophenol-d4	132.00	5.165	5.165	(0.932)	635142	80	90
7	2-Chlorophenol	128.00	5.200	5.200	(0.939)	736086	80	90
8	1,3-Dichlorobenzene	146.00	5.444	5.444	(0.983)	811467	80	92
9	1,4-Dichlorobenzene	146.00	5.566	5.566	(1.005)	829581	80	92
$ 10	1,2-Dichlorobenzene-d4	152.00	5.785	5.785	(1.044)	478953	80	92
11	1,2-Dichlorobenzene	146.00	5.811	5.811	(1.049)	740909	80	92
12	2-Methylphenol	108.00	6.020	6.020	(1.087)	614440	80	88
13	4-Methylphenol	108.00	6.273	6.273	(1.132)	625654	80	88
14	2,2'-oxybis(1-Chloropropane)	45.00	6.038	6.038	(1.090)	776081	80	89
15	N-Nitroso-di-n-propylamine	70.00	6.247	6.247	(1.128)	495812	80	90
16	Hexachloroethane	117.00	6.352	6.352	(1.147)	329215	80	92
* 17	Naphthalene-d8	136.00	7.661	7.661	(1.000)	782807	40	
$ 18	Nitrobenzene-d5	82.00	6.448	6.448	(0.842)	707148	80	92
19	Nitrobenzene	77.00	6.483	6.483	(0.846)	674088	80	90
20	Isophorone	82.00	6.893	6.893	(0.900)	1188985	80	90
21	2-Nitrophenol	139.00	7.006	7.006	(0.915)	442596	80	92
22	2,4-Dimethyphenol	107.00	7.137	7.137	(0.932)	622174	80	92
23	Bis(2-Chloroethoxy)methane	93.00	7.286	7.286	(0.951)	692494	80	91
24	2,4-Dichlorophenol	162.00	7.434	7.434	(0.970)	519201	80	90
25	1,2,4-Trichlorobenzene	180.00	7.574	7.574	(0.989)	596794	80	91
26	Naphthalene	128.00	7.696	7.696	(1.005)	1770640	80	90
27	4-Chloroaniline	127.00	7.818	7.818	(1.020)	628851	80	89
28	Hexachlorobutadiene	225.00	7.940	7.940	(1.036)	377628	80	92
29	4-Chloro-3-methylphenol	107.00	8.752	8.752	(1.142)	500517	80	89

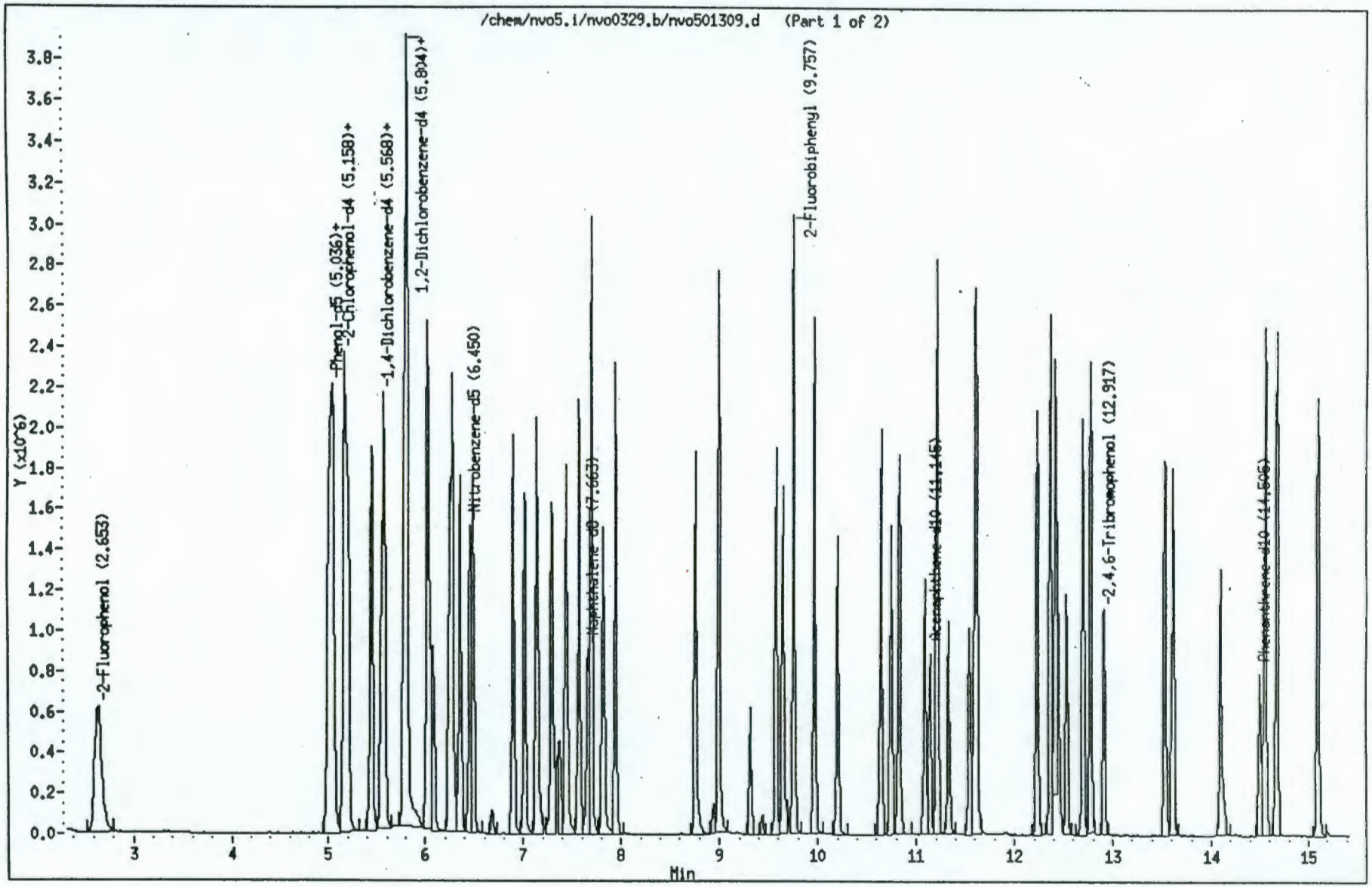
Data File: /chem/nvo5.i/nvo0329.b/nvo501308.d
Report Date: 31-Mar-1994 11:13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	CONCENTRATIONS ON-COL (ng)
	30 2-Methylnaphthalene	142.00	8.996	8.996	(1.174)	1134547	80	91
*	31 Acenaphthene-d10	164.00	11.143	11.143	(1.000)	366660	40	
	32 Hexachlorocyclopentadiene	237.00	9.310	9.310	(0.836)	125313	80	98
	33 2,4,6-Trichlorophenol	196.00	9.572	9.572	(0.859)	351001	80	92
	34 2,4,5-Trichlorophenol	196.00	9.642	9.642	(0.865)	388134	80	92
$	35 2-Fluorobiphenyl	172.00	9.755	9.755	(0.875)	1222496	80	91
	36 2-Chloronaphthalene	162.00	9.965	9.965	(0.894)	974539	80	90
	37 2-Nitroaniline	65.00	10.201	10.201	(0.915)	330666	80	92
	38 Dimethyl phthalate	163.00	10.646	10.646	(0.955)	1129581	80	91
	39 Acenaphthylene	152.00	10.829	10.829	(0.972)	1110248	80	91
	40 2,6-Dinitrotoluene	165.00	10.750	10.750	(0.965)	267728	80	93
	41 3-Nitroaniline	138.00	11.091	11.091	(0.995)	274739	80	93
	42 Acenaphthene	153.00	11.213	11.213	(1.006)	916158	80	90
	43 2,4-Dinitrophenol	184.00	11.326	11.326	(1.016)	209730	80	100
	44 4-Nitrophenol	109.00	11.545	11.545	(1.036)	171903	80	96
	45 Dibenzofuran	168.00	11.606	11.606	(1.042)	1395732	80	90
	46 2,4-Dinitrotoluene	165.00	11.623	11.623	(1.043)	317127	80	92
	47 Diethyl phthalate	149.00	12.234	12.234	(1.098)	1141261	80	90
	48 4-Chlorophenyl-phenylether	204.00	12.417	12.417	(1.114)	519342	80	89
	49 Fluorene	166.00	12.365	12.365	(1.110)	1020875	80	90
	50 4-Nitroaniline	138.00	12.452	12.452	(1.117)	277742	80	92
$	51 2,4,6-Tribromophenol	330.00	12.915	12.915	(1.159)	200784	80	92
*	52 Phenanthrene-d10	188.00	14.503	14.503	(1.000)	564012	40	
	53 4,6-Dinitro-2-methylphenol	198.00	12.531	12.531	(0.864)	251245	80	97
	54 N-Nitrosodiphenylamine	169.00	12.697	12.697	(0.875)	696435	80	92
	55 4-Bromophenyl-phenylether	248.00	13.534	13.534	(0.933)	301485	80	92
	56 Hexachlorobenzene	284.00	13.613	13.613	(0.939)	356499	80	91
	57 Pentachlorophenol	266.00	14.093	14.093	(0.972)	219595	80	94
	58 Phenanthrene	178.00	14.556	14.556	(1.004)	1406017	80	89
	59 Anthracene	178.00	14.678	14.678	(1.012)	1363936	80	91
	60 Carbazole	167.00	15.097	15.097	(1.041)	1255492	80	89
	61 Di-n-butylphthalate	149.00	16.092	16.092	(1.110)	1902376	80	92
	62 Fluoranthene	202.00	17.357	17.357	(1.197)	1423411	80	92
*	63 Chrysene-d12	240.00	20.761	20.761	(1.000)	503434	40	
	64 Pyrene	202.00	17.872	17.872	(0.861)	1436921	80	90
$	65 Terphenyl-d14	244.00	18.369	18.369	(0.885)	1103462	80	89
	66 Butylbenzylphthalate	149.00	19.635	19.635	(0.946)	766515	80	93
	67 3,3'-Dichlorobenzidine	252.00	20.761	20.761	(1.000)	383473	80	93
	68 Benzo(a)anthracene	228.00	20.735	20.735	(0.999)	1237226	80	91
	69 Chrysene	228.00	20.822	20.822	(1.003)	1127616	80	90
	70 bis(2-Ethylhexyl)phthalate	149.00	21.084	21.084	(1.016)	1051796	80	94
*	71 Perylene-d12	264.00	23.885	23.885	(1.000)	560132	40	
	72 Di-n-octylphthalate	149.00	22.559	22.559	(0.944)	1720590	80	95
	73 Benzo(b)fluoranthene	252.00	23.126	23.126	(0.968)	1205250	80	94
	74 Benzo(k)fluoranthene	252.00	23.178	23.178	(0.970)	1196408	80	92
	75 Benzo(a)pyrene	252.00	23.772	23.772	(0.995)	1087879	80	93
	76 Indeno(1,2,3-cd)pyrene	276.00	25.849	25.849	(1.082)	958523	80	92
	77 Dibenzo(a,h)anthracene	278.00	25.901	25.901	(1.084)	945512	80	92
	78 Benzo(g,h,i)perylene	276.00	26.329	26.329	(1.102)	975597	80	89

Data File: /chem/nvo5.i/nvo0329.b/nvo501309.d
Date : 29-MAR-94 11:42
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



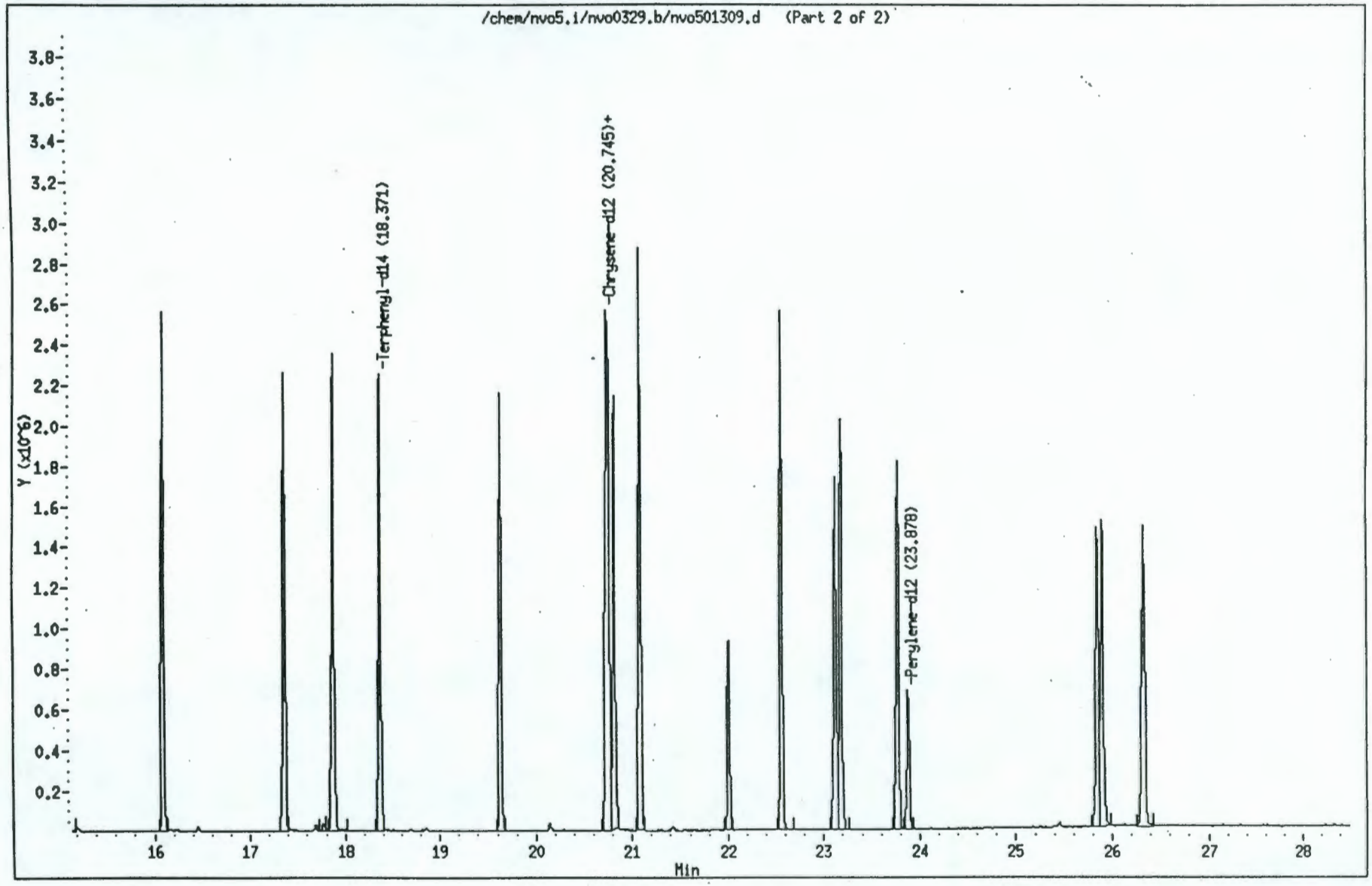
001097

9513355.2194

Data File: /chem/nvo5.i/nvo0329.b/nvo501309.d
Date : 29-MAR-94 11:42
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



001098

9513356.21915

9513355.2196

Data File: /chem/nvo5.i/nvo0329.b/nvo501309.d
Report Date: 31-Mar-1994 11:13

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0329.b/nvo501309.d
Lab Smp Id: SSTD120 Client Smp ID: SSTD120
Inj Date : 29-MAR-1994 11:42 Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : SSTD120 120ng on col
Misc Info : 60ug/ml CLP STD 1000-1-3
Comment :
Method : /chem/nvo5.i/nvo0329.b/clp390epc.m
Meth Date : 31-Mar-1994 11:13 user2 Quant Type: ISTD
Cal Date : 29-MAR-1994 10:27 Cal File: nvo501307.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	5.542	5.542	(1.000)	213132	40	
$	2 2-Fluorophenol	112.00	2.653	2.653	(0.479)	868116	120	120
$	3 Phenol-d5	99.00	5.018	5.018	(0.905)	939913	120	120
	4 Phenol	94.00	5.045	5.045	(0.910)	1096206	120	120
	5 Bis(2-Chloroethyl)ether	93.00	5.158	5.158	(0.931)	850221	120	120
$	6 2-Chlorophenol-d4	132.00	5.167	5.167	(0.932)	745877	120	120
	7 2-Chlorophenol	128.00	5.202	5.202	(0.939)	866081	120	120
	8 1,3-Dichlorobenzene	146.00	5.437	5.437	(0.981)	952828	120	120
	9 1,4-Dichlorobenzene	146.00	5.568	5.568	(1.005)	959365	120	120
$	10 1,2-Dichlorobenzene-d4	152.00	5.786	5.786	(1.044)	550791	120	120
	11 1,2-Dichlorobenzene	146.00	5.804	5.804	(1.047)	877743	120	120
	12 2-Methylphenol	108.00	6.022	6.022	(1.087)	738073	120	120
	13 4-Methylphenol	108.00	6.275	6.275	(1.132)	741614	120	120
	14 2,2'-oxybis(1-Chloropropane)	45.00	6.040	6.040	(1.090)	924877	120	120
	15 N-Nitroso-di-n-propylamine	70.00	6.249	6.249	(1.128)	609051	120	130
	16 Hexachloroethane	117.00	6.354	6.354	(1.146)	383273	120	120
*	17 Naphthalene-d8	136.00	7.663	7.663	(1.000)	692458	40	
$	18 Nitrobenzene-d5	82.00	6.450	6.450	(0.842)	858604	120	120
	19 Nitrobenzene	77.00	6.485	6.485	(0.846)	830637	120	120
	20 Isophorone	82.00	6.895	6.895	(0.900)	1473820	120	120
	21 2-Nitrophenol	139.00	7.017	7.017	(0.916)	546365	120	130
	22 2,4-Dimethyphenol	107.00	7.139	7.139	(0.932)	759727	120	120
	23 Bis(2-Chloroethoxy)methane	93.00	7.288	7.288	(0.951)	842712	120	120
	24 2,4-Dichlorophenol	162.00	7.436	7.436	(0.970)	643640	120	120
	25 1,2,4-Trichlorobenzene	180.00	7.567	7.567	(0.987)	718195	120	120
	26 Naphthalene	128.00	7.698	7.698	(1.005)	2137067	120	120
	27 4-Chloroaniline	127.00	7.820	7.820	(1.020)	755300	120	120
	28 Hexachlorobutadiene	225.00	7.942	7.942	(1.036)	445496	120	120
	29 4-Chloro-3-methylphenol	107.00	8.754	8.754	(1.142)	630716	120	120

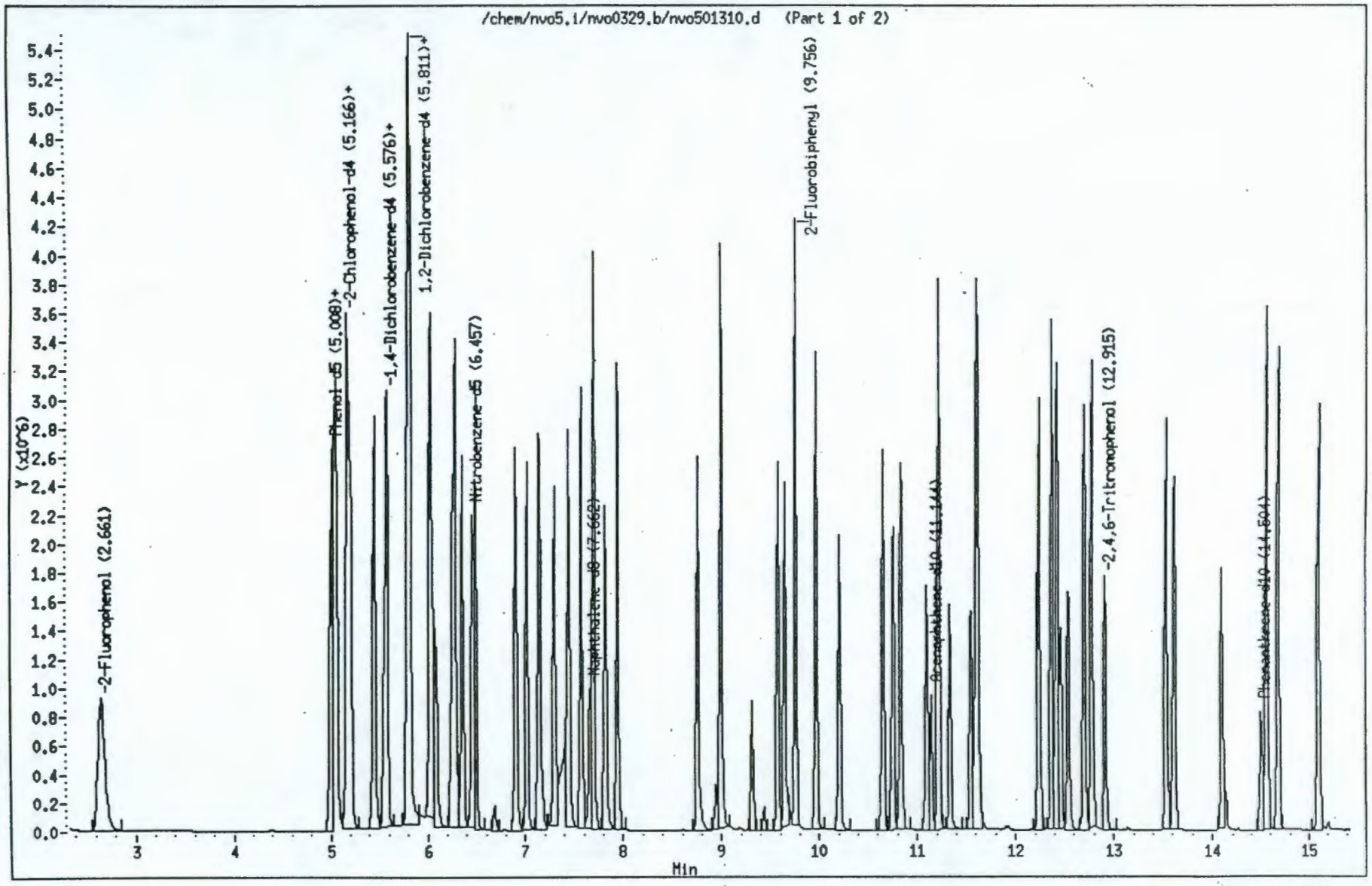
Data File: /chem/nvo5.i/nvo0329.b/nvo501309.d
Report Date: 31-Mar-1994 11:13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	CONCENTRATIONS ON-COL (ng)
	30 2-Methylnaphthalene	142.00	8.998	8.998	(1.174)	1381484	120	120
*	31 Acenaphthene-d10	164.00	11.145	11.145	(1.000)	333899	40	
	32 Hexachlorocyclopentadiene	237.00	9.312	9.312	(0.836)	155412	120	130
	33 2,4,6-Trichlorophenol	196.00	9.574	9.574	(0.859)	430169	120	120
	34 2,4,5-Trichlorophenol	196.00	9.644	9.644	(0.865)	474770	120	120
$	35 2-Fluorobiphenyl	172.00	9.757	9.757	(0.875)	1503090	120	120
	36 2-Chloronaphthalene	162.00	9.967	9.967	(0.894)	1209316	120	120
	37 2-Nitroaniline	65.00	10.203	10.203	(0.915)	417833	120	120
	38 Dimethyl phthalate	163.00	10.648	10.648	(0.955)	1385299	120	120
	39 Acenaphthylene	152.00	10.831	10.831	(0.972)	1397781	120	120
	40 2,6-Dinitrotoluene	165.00	10.752	10.752	(0.965)	333017	120	120
	41 3-Nitroaniline	138.00	11.093	11.093	(0.995)	334432	120	120
	42 Acenaphthene	153.00	11.215	11.215	(1.006)	1146485	120	120
	43 2,4-Dinitrophenol	184.00	11.328	11.328	(1.016)	276348	120	140
	44 4-Nitrophenol	109.00	11.547	11.547	(1.036)	208403	120	120
	45 Dibenzofuran	168.00	11.599	11.599	(1.041)	1733078	120	120
	46 2,4-Dinitrotoluene	165.00	11.625	11.625	(1.043)	391765	120	120
	47 Diethyl phthalate	149.00	12.236	12.236	(1.098)	1401415	120	120
	48 4-Chlorophenyl-phenylether	204.00	12.419	12.419	(1.114)	646584	120	120
	49 Fluorene	166.00	12.367	12.367	(1.110)	1266627	120	120
	50 4-Nitroaniline	138.00	12.454	12.454	(1.117)	339324	120	120
$	51 2,4,6-Tribromophenol	330.00	12.917	12.917	(1.159)	249174	120	120
*	52 Phenanthrene-d10	188.00	14.505	14.505	(1.000)	494429	40	
	53 4,6-Dinitro-2-methylphenol	198.00	12.533	12.533	(0.864)	319845	120	140
	54 N-Nitrosodiphenylamine	169.00	12.699	12.699	(0.875)	847727	120	120
	55 4-Bromophenyl-phenylether	248.00	13.536	13.536	(0.933)	377956	120	130
	56 Hexachlorobenzene	284.00	13.615	13.615	(0.939)	436302	120	120
	57 Pentachlorophenol	266.00	14.095	14.095	(0.972)	280390	120	130
	58 Phenanthrene	178.00	14.557	14.557	(1.004)	1732637	120	120
	59 Anthracene	178.00	14.680	14.680	(1.012)	1622809	120	120
	60 Carbazole	167.00	15.099	15.099	(1.041)	1550362	120	120
	61 Di-n-butylphthalate	149.00	16.094	16.094	(1.109)	2308816	120	130
	62 Fluoranthene	202.00	17.359	17.359	(1.197)	1712911	120	120
*	63 Chrysene-d12	240.00	20.763	20.763	(1.000)	431473	40	
	64 Pyrene	202.00	17.874	17.874	(0.861)	1754541	120	120
$	65 Terphenyl-d14	244.00	18.371	18.371	(0.885)	1325463	120	120
	66 Butylbenzylphthalate	149.00	19.637	19.637	(0.946)	917490	120	130
	67 3,3'-Dichlorobenzidine	252.00	20.763	20.763	(1.000)	437272	120	120
	68 Benzo(a)anthracene	228.00	20.736	20.736	(0.999)	1465725	120	120
	69 Chrysene	228.00	20.824	20.824	(1.003)	1338755	120	120
	70 bis(2-Ethylhexyl)phthalate	149.00	21.086	21.086	(1.016)	1256737	120	130
*	71 Perylene-d12	264.00	23.878	23.878	(1.000)	460780	40	
	72 Di-n-octylphthalate	149.00	22.561	22.561	(0.945)	2026644	120	130
	73 Benzo(b)fluoranthene	252.00	23.119	23.119	(0.968)	1378566	120	130
	74 Benzo(k)fluoranthene	252.00	23.180	23.180	(0.971)	1384596	120	130
	75 Benzo(a)pyrene	252.00	23.774	23.774	(0.996)	1240774	120	130
	76 Indeno(1,2,3-cd)pyrene	276.00	25.851	25.851	(1.083)	1138695	120	130
	77 Dibenzo(a,h)anthracene	278.00	25.903	25.903	(1.085)	1121688	120	130
	78 Benzo(g,h,i)perylene	276.00	26.331	26.331	(1.103)	1179178	120	130

Data File: /chem/nvo5.i/nvo0329.b/nvo501310.d
Date : 29-MAR-94 12:18
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



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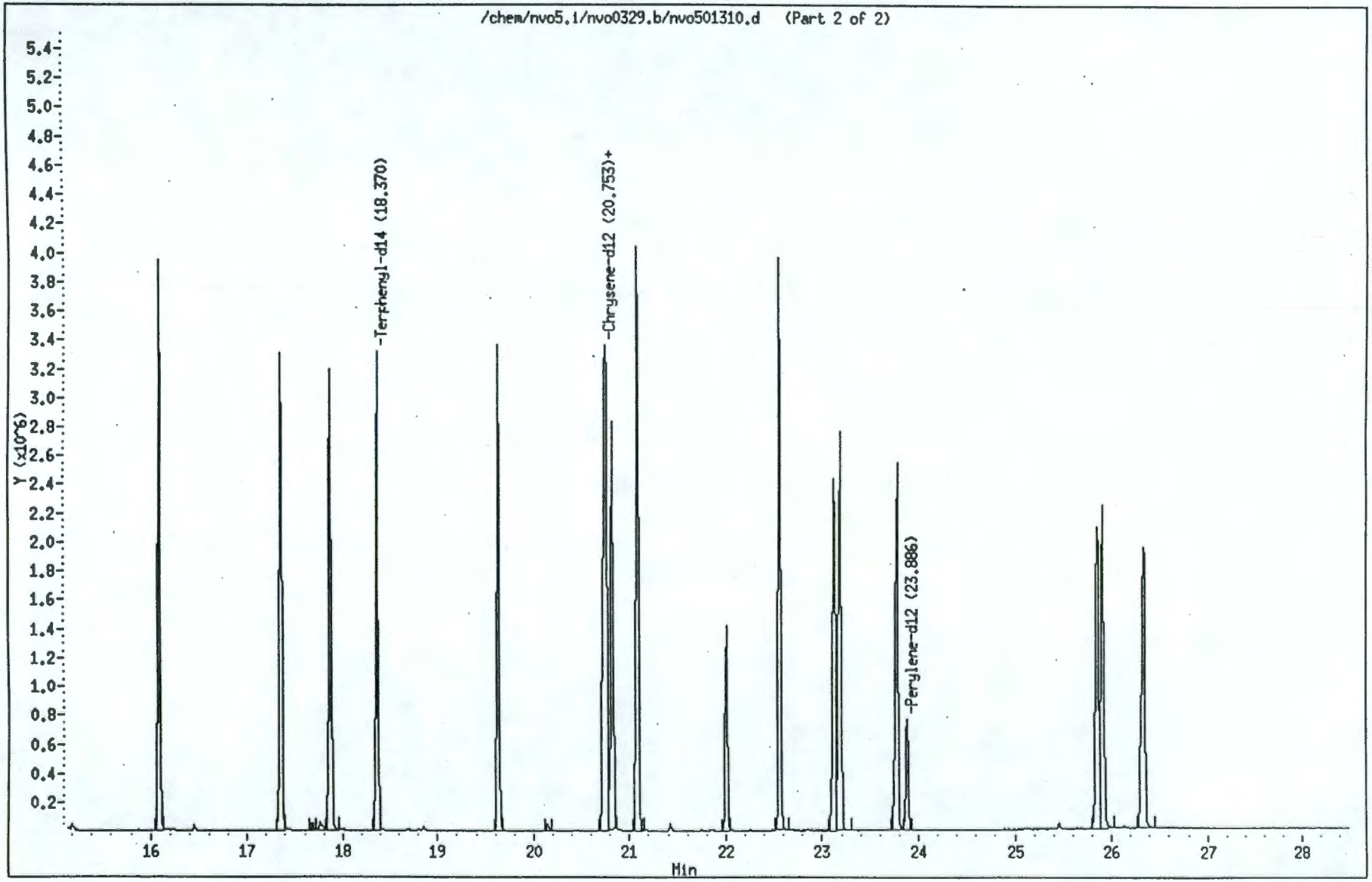
Data File: /chem/nvo5.i/nvo0329.b/nvo501310.d
Date : 29-MAR-94 12:18
Client ID: SSTD160
Sample Info: SSTD160 160ng on col
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



001102

95I3355.2191

Data File: /chem/nvo5.i/nvo0329.b/nvo501310.d
Report Date: 31-Mar-1994 11:13

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0329.b/nvo501310.d
Lab Smp Id: SSTD160 Client Smp ID: SSTD160
Inj Date : 29-MAR-1994 12:18 Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : SSTD160 160ng on col
Misc Info : 80ug/ml CLP STD 1000-1-4
Comment :
Method : /chem/nvo5.i/nvo0329.b/clp390epc.m
Meth Date : 31-Mar-1994 11:13 user2 Quant Type: ISTD
Cal Date : 29-MAR-1994 10:27 Cal File: nvo501307.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	5.541	5.541	(1.000)	229387	40	
$ 2 2-Fluorophenol	112.00	2.661	2.661	(0.480)	1241739	160	160(A)
$ 3 Phenol-d5	99.00	5.026	5.026	(0.907)	1334605	160	160(A)
4 Phenol	94.00	5.052	5.052	(0.912)	1576610	160	160(A)
5 Bis(2-Chloroethyl)ether	93.00	5.166	5.166	(0.932)	1240098	160	160(A)
$ 6 2-Chlorophenol-d4	132.00	5.174	5.174	(0.934)	1078360	160	160(A)
7 2-Chlorophenol	128.00	5.200	5.200	(0.939)	1236171	160	160(A)
8 1,3-Dichlorobenzene	146.00	5.445	5.445	(0.983)	1376408	160	160(A)
9 1,4-Dichlorobenzene	146.00	5.576	5.576	(1.006)	1398934	160	160(A)
$ 10 1,2-Dichlorobenzene-d4	152.00	5.785	5.785	(1.044)	802362	160	160(A)
11 1,2-Dichlorobenzene	146.00	5.811	5.811	(1.049)	1268580	160	170(A)
12 2-Methylphenol	108.00	6.021	6.021	(1.087)	1051310	160	160(A)
13 4-Methylphenol	108.00	6.283	6.283	(1.134)	1088278	160	160(A)
14 2,2'-oxybis(1-Chloropropane)	45.00	6.047	6.047	(1.091)	1413136	160	170(A)
15 N-Nitroso-di-n-propylamine	70.00	6.256	6.256	(1.129)	867773	160	160(A)
16 Hexachloroethane	117.00	6.352	6.352	(1.146)	561147	160	170(A)
* 17 Naphthalene-d8	136.00	7.662	7.662	(1.000)	734391	40	
$ 18 Nitrobenzene-d5	82.00	6.457	6.457	(0.843)	1223906	160	160(A)
19 Nitrobenzene	77.00	6.492	6.492	(0.847)	1174477	160	160(A)
20 Isophorone	82.00	6.902	6.902	(0.901)	2105120	160	170(A)
21 2-Nitrophenol	139.00	7.016	7.016	(0.916)	787009	160	170(A)
22 2,4-Dimethyphenol	107.00	7.138	7.138	(0.932)	1094056	160	170(A)
23 Bis(2-Chloroethoxy)methane	93.00	7.295	7.295	(0.952)	1196145	160	160(A)
24 2,4-Dichlorophenol	162.00	7.443	7.443	(0.972)	925504	160	170(A)
25 1,2,4-Trichlorobenzene	180.00	7.574	7.574	(0.989)	1042826	160	170(A)
26 Naphthalene	128.00	7.705	7.705	(1.006)	3079918	160	160(A)
27 4-Chloroaniline	127.00	7.819	7.819	(1.020)	1056809	160	160
28 Hexachlorobutadiene	225.00	7.941	7.941	(1.036)	652272	160	170(A)
29 4-Chloro-3-methylphenol	107.00	8.761	8.761	(1.144)	909764	160	170(A)

Data File: /chem/nvo5.i/nvo0329.b/nvo501310.d
Report Date: 31-Mar-1994 11:13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	CONCENTRATIONS ON-COL (ng)
	30 2-Methylnaphthalene	142.00	8.997	8.997	(1.174)	1988609	160	170(A)
*	31 Acenaphthene-d10	164.00	11.144	11.144	(1.000)	349562	40	
	32 Hexachlorocyclopentadiene	237.00	9.320	9.320	(0.836)	233915	160	180(A)
	33 2,4,6-Trichlorophenol	196.00	9.582	9.582	(0.860)	644120	160	170(A)
	34 2,4,5-Trichlorophenol	196.00	9.651	9.651	(0.866)	721836	160	170(A)
$	35 2-Fluorobiphenyl	172.00	9.756	9.756	(0.875)	2153178	160	160(A)
	36 2-Chloronaphthalene	162.00	9.974	9.974	(0.895)	1734270	160	170(A)
	37 2-Nitroaniline	65.00	10.210	10.210	(0.916)	611759	160	170(A)
	38 Dimethyl phthalate	163.00	10.655	10.655	(0.956)	2017575	160	170(A)
	39 Acenaphthylene	152.00	10.830	10.830	(0.972)	1999796	160	170(A)
	40 2,6-Dinitrotoluene	165.00	10.760	10.760	(0.966)	494862	160	170(A)
	41 3-Nitroaniline	138.00	11.100	11.100	(0.996)	474067	160	160(A)
	42 Acenaphthene	153.00	11.222	11.222	(1.007)	1631597	160	160(A)
	43 2,4-Dinitrophenol	184.00	11.336	11.336	(1.017)	419308	160	190(A)
	44 4-Nitrophenol	109.00	11.554	11.554	(1.037)	302143	160	170(A)
	45 Dibenzofuran	168.00	11.606	11.606	(1.042)	2498427	160	170(A)
	46 2,4-Dinitrotoluene	165.00	11.633	11.633	(1.044)	576144	160	170(A)
	47 Diethyl phthalate	149.00	12.243	12.243	(1.099)	2041818	160	170(A)
	48 4-Chlorophenyl-phenylether	204.00	12.427	12.427	(1.115)	935490	160	160(A)
	49 Fluorene	166.00	12.374	12.374	(1.110)	1797782	160	160(A)
	50 4-Nitroaniline	138.00	12.470	12.470	(1.119)	490048	160	170(A)
$	51 2,4,6-Tribromophenol	330.00	12.915	12.915	(1.159)	371903	160	170(A)
*	52 Phenanthrene-d10	188.00	14.504	14.504	(1.000)	526969	40	
	53 4,6-Dinitro-2-methylphenol	198.00	12.549	12.549	(0.865)	475817	160	180(A)
	54 N-Nitrosodiphenylamine	169.00	12.706	12.706	(0.876)	1240348	160	170(A)
	55 4-Bromophenyl-phenylether	248.00	13.535	13.535	(0.933)	548131	160	170(A)
	56 Hexachlorobenzene	284.00	13.622	13.622	(0.939)	634777	160	170(A)
	57 Pentachlorophenol	266.00	14.102	14.102	(0.972)	420345	160	180(A)
	58 Phenanthrene	178.00	14.565	14.565	(1.004)	2475682	160	160(A)
	59 Anthracene	178.00	14.687	14.687	(1.013)	2353570	160	160(A)
	60 Carbazole	167.00	15.106	15.106	(1.042)	2156477	160	160(A)
	61 Di-n-butylphthalate	149.00	16.092	16.092	(1.109)	3351839	160	170(A)
	62 Fluoranthene	202.00	17.358	17.358	(1.197)	2427785	160	160(A)
*	63 Chrysene-d12	240.00	20.761	20.761	(1.000)	439653	40	
	64 Pyrene	202.00	17.873	17.873	(0.861)	2433633	160	170(A)
$	65 Terphenyl-d14	244.00	18.370	18.370	(0.885)	1874496	160	170(A)
	66 Butylbenzylphthalate	149.00	19.636	19.636	(0.946)	1316579	160	170(A)
	67 3,3'-Dichlorobenzidine	252.00	20.770	20.770	(1.000)	606641	160	170(A)
	68 Benzo(a)anthracene	228.00	20.744	20.744	(0.999)	2053617	160	170(A)
	69 Chrysene	228.00	20.831	20.831	(1.003)	1842595	160	160(A)
	70 bis(2-Ethylhexyl)phthalate	149.00	21.084	21.084	(1.016)	1792390	160	180(A)
*	71 Perylene-d12	264.00	23.886	23.886	(1.000)	501295	40	
	72 Di-n-octylphthalate	149.00	22.559	22.559	(0.944)	2915992	160	170(A)
	73 Benzo(b)fluoranthene	252.00	23.127	23.127	(0.968)	1922420	160	160(A)
	74 Benzo(k)fluoranthene	252.00	23.188	23.188	(0.971)	2003616	160	170(A)
	75 Benzo(a)pyrene	252.00	23.781	23.781	(0.996)	1814804	160	170(A)
	76 Indeno(1,2,3-cd)pyrene	276.00	25.858	25.858	(1.083)	1702685	160	170(A)
	77 Dibenzo(a,h)anthracene	278.00	25.911	25.911	(1.085)	1677404	160	170(A)
	78 Benzo(g,h,i)perylene	276.00	26.347	26.347	(1.103)	1741537	160	170(A)

Data File: /chem/nvo5.i/nvo0329.b/nvo501310.d
Report Date: 31-Mar-1994 11:13

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48790

Instrument ID: NV05 Calibration Date: 05/05/94 Time: 1051

Lab File ID: NV0501432.D Init. Calibration Date(s): 03/29/94

Init. Calibration Times: 0952 1218

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	1.697	1.550	0.800	8.6	25.0
Bis(2-Chloroethyl)ether	1.319	1.298	0.700	1.6	25.0
2-Chlorophenol	1.326	1.320	0.800	0.5	25.0
1,3-Dichlorobenzene	1.451	1.397	0.600	3.7	25.0
1,4-Dichlorobenzene	1.473	1.410	0.500	4.3	25.0
1,2-Dichlorobenzene	1.333	1.312	0.400	1.5	25.0
2-Methylphenol	1.132	1.103	0.700	2.6	25.0
2,2'-oxybis(1-Chloropropane)	1.436	1.455		-1.3	
4-Methylphenol	1.157	1.144	0.600	1.1	25.0
N-Nitroso-di-n-propylamine	0.913	0.907	0.500	0.7	25.0
Hexachloroethane	0.587	0.571	0.300	2.7	25.0
Nitrobenzene	0.390	0.398	0.200	-2.1	25.0
Isophorone	0.690	0.686	0.400	0.6	25.0
2-Nitrophenol	0.253	0.255	0.100	-0.8	25.0
2,4-Dimethyphenol	0.356	0.356	0.200	-0.1	25.0
Bis(2-Chloroethoxy)methane	0.395	0.387	0.300	2.1	25.0
2,4-Dichlorophenol	0.302	0.296	0.200	1.8	25.0
1,2,4-Trichlorobenzene	0.341	0.336	0.200	1.5	25.0
Naphthalene	1.015	0.988	0.700	2.7	25.0
4-Chloroaniline	0.362	0.363		-0.2	
Hexachlorobutadiene	0.213	0.211		0.6	
4-Chloro-3-methylphenol	0.295	0.306	0.200	-4.0	25.0
2-Methylnaphthalene	0.652	0.659	0.400	-1.1	25.0
Hexachlorocyclopentadiene	0.148	0.134		9.3	
2,4,6-Trichlorophenol	0.428	0.413	0.200	3.6	25.0
2,4,5-Trichlorophenol	0.475	0.478	0.200	-0.5	25.0
2-Chloronaphthalene	1.195	1.166	0.800	2.4	25.0
2-Nitroaniline	0.407	0.407		0.0	
Dimethyl phthalate	1.379	1.395		-1.1	
Acenaphthylene	1.363	1.346	1.300	1.2	25.0
2,6-Dinitrotoluene	0.326	0.333	0.200	-2.4	25.0
3-Nitroaniline	0.327	0.351		-7.3	
Acenaphthene	1.128	1.113	0.800	1.3	25.0
2,4-Dinitrophenol	0.253	0.269		-6.5	
4-Nitrophenol	0.203	0.200		1.2	
Dibenzofuran	1.720	1.708	0.800	0.7	25.0
2,4-Dinitrotoluene	0.387	0.403	0.200	-4.2	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.: 48790

Instrument ID: NV05 Calibration Date: 05/05/94 Time: 1051

Lab File ID: NV0501432.D Init. Calibration Date(s): 03/29/94

Init. Calibration Times: 0952 1218

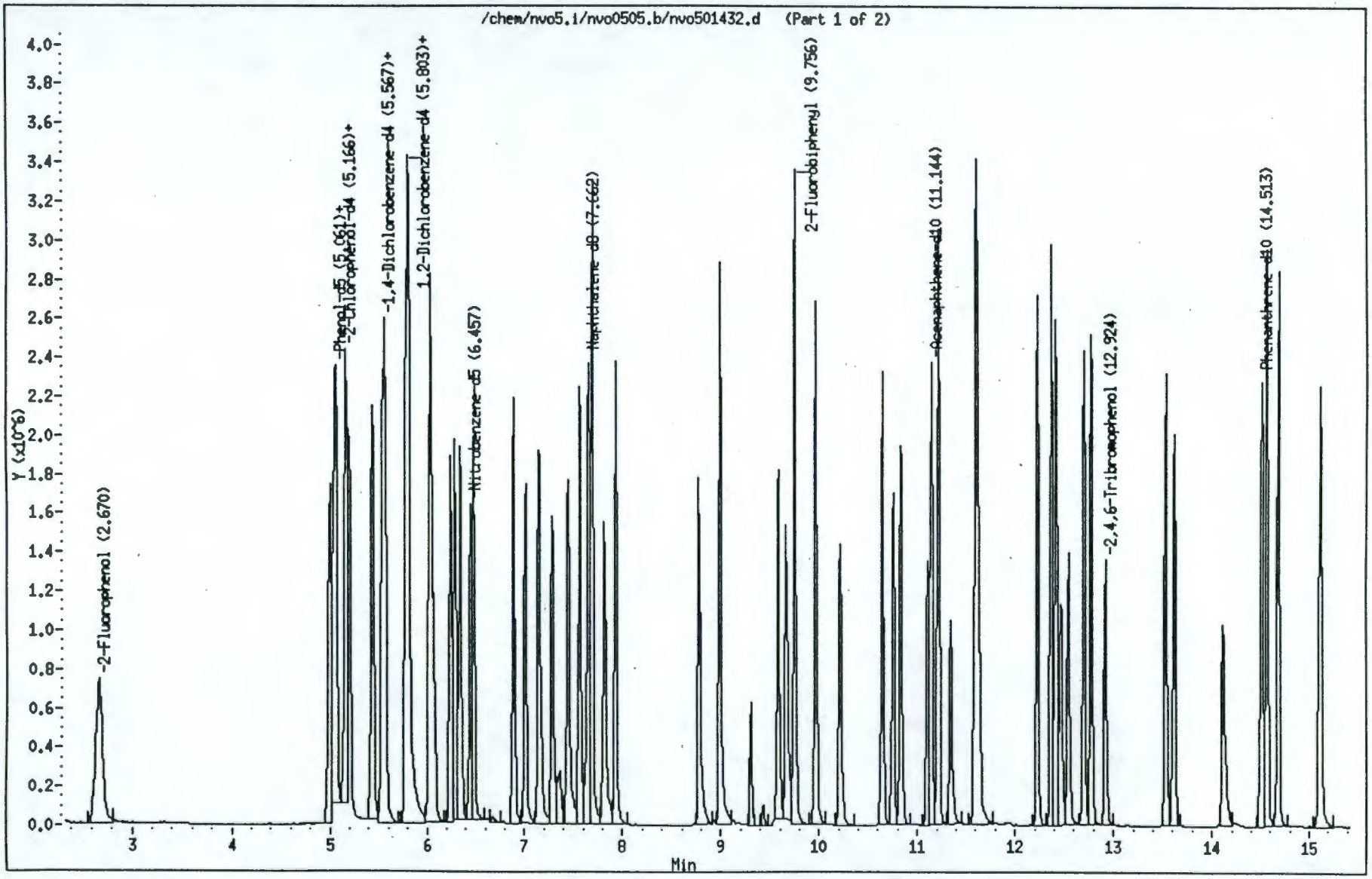
COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Diethyl phthalate	1.397	1.416		-1.3	
4-Chlorophenyl-phenylether	0.646	0.642	0.400	0.6	25.0
Fluorene	1.254	1.263	0.900	-0.7	25.0
4-Nitroaniline	0.335	0.349		-4.0	
4,6-Dinitro-2-methylphenol	0.198	0.204		-3.1	
N-Nitrosodiphenylamine (1)	0.555	0.538		3.1	
4-Bromophenyl-phenylether	0.243	0.240	0.100	1.1	25.0
Hexachlorobenzene	0.286	0.278	0.100	2.8	25.0
Pentachlorophenol	0.177	0.150	0.050	15.2	25.0
Phenanthrene	1.140	1.091	0.700	4.3	25.0
Anthracene	1.077	1.057	0.700	1.8	25.0
Carbazole	1.011	1.027		-1.6	
Di-n-butylphthalate	1.504	1.484		1.3	
Fluoranthene	1.123	1.146	0.600	-2.0	25.0
Pyrene	1.312	1.367	0.600	-4.2	25.0
Butylbenzylphthalate	0.686	0.729		-6.4	
3,3'-Dichlorobenzidine	0.332	0.371		-11.7	
Benzo(a)anthracene	1.109	1.131	0.800	-2.0	25.0
Chrysene	1.017	1.014	0.700	0.2	25.0
bis(2-Ethylhexyl)phthalate	0.928	0.998		-7.5	
Di-n-octylphthalate	1.357	1.405		-3.5	
Benzo(b)fluoranthene	0.943	0.915	0.700	3.0	25.0
Benzo(k)fluoranthene	0.958	0.922	0.700	3.8	25.0
Benzo(a)pyrene	0.860	0.842	0.700	2.1	25.0
Indeno(1,2,3-cd)pyrene	0.781	0.819	0.500	-4.8	25.0
Dibenzo(a,h)anthracene	0.769	0.816	0.400	-6.0	25.0
Benzo(g,h,i)perylene	0.812	0.839	0.500	-3.3	25.0
Nitrobenzene-d5	0.402	0.399	0.200	0.8	25.0
2-Fluorobiphenyl	1.487	1.461	0.700	1.7	25.0
Terphenyl-d14	1.007	1.055	0.500	-4.8	25.0
Phenol-d5	1.444	1.427	0.800	1.2	25.0
2-Fluorophenol	1.335	1.349	0.600	-1.1	25.0
2,4,6-Tribromophenol	0.245	0.253		-3.2	
2-Chlorophenol-d4	1.149	1.113	0.800	3.1	25.0
1,2-Dichlorobenzene-d4	0.851	0.843	0.400	0.8	25.0

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

Data File: /chem/nvo5.i/nvo0505.b/nvo501432.d
Date : 05-MAY-94 10:51
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



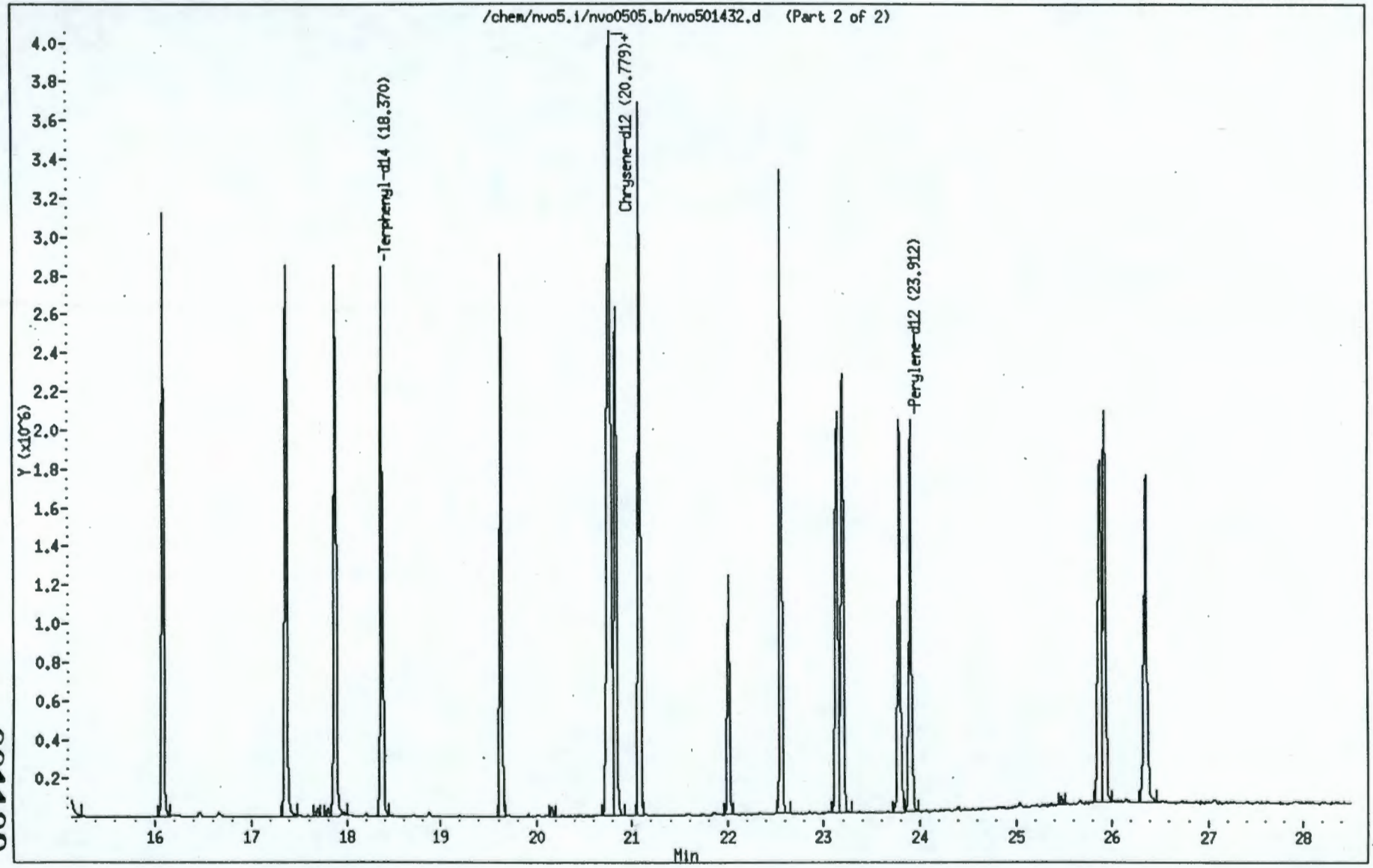
001108

9513355.2201

Data File: /chem/nvo5.i/nvo0505.b/nvo501432.d
Date : 05-MAY-94 10:51
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



95133555.2201

Data File: /chem/nvo5.i/nvo0505.b/nvo501432.d
Report Date: 05-May-1994 11:27

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0505.b/nvo501432.d
Lab Smp Id: SSTD50 Client Smp ID: SSTD50
Inj Date : 05-MAY-94 10:51 Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : SSTD50 50ng on col
Misc Info : 25ug/ml CLP STD 1000-2-1
Comment :
Method : /chem/nvo5.i/nvo0505.b/clp390epc.m
Meth Date : 05-May-1994 11:26 Quant Type: ISTD
Cal Date : 05-MAY-94 10:51 Cal File: nvo501432.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	5.541	5.541	(1.000)	589858	40	
$	2 2-Fluorophenol	112.00	2.670	2.670	(0.482)	994357	50	50
$	3 Phenol-d5	99.00	5.043	5.043	(0.910)	1052040	50	49
	4 Phenol	94.00	5.061	5.061	(0.913)	1143090	50	46
	5 Bis(2-Chloroethyl)ether	93.00	5.157	5.157	(0.931)	957300	50	49
$	6 2-Chlorophenol-d4	132.00	5.174	5.174	(0.934)	820697	50	48
	7 2-Chlorophenol	128.00	5.200	5.200	(0.939)	973147	50	50
	8 1,3-Dichlorobenzene	146.00	5.436	5.436	(0.981)	1030276	50	48
	9 1,4-Dichlorobenzene	146.00	5.567	5.567	(1.005)	1039624	50	48
$	10 1,2-Dichlorobenzene-d4	152.00	5.785	5.785	(1.044)	621889	50	50
	11 1,2-Dichlorobenzene	146.00	5.803	5.803	(1.047)	967599	50	49
	12 2-Methylphenol	108.00	6.038	6.038	(1.090)	813259	50	49
	13 4-Methylphenol	108.00	6.291	6.291	(1.135)	843502	50	49
	14 2,2'-oxybis(1-Chloropropane)	45.00	6.038	6.038	(1.090)	1072657	50	51
	15 N-Nitroso-di-n-propylamine	70.00	6.248	6.248	(1.128)	668553	50	50
	16 Hexachloroethane	117.00	6.344	6.344	(1.145)	421234	50	49
*	17 Naphthalene-d8	136.00	7.662	7.662	(1.000)	1890818	40	
$	18 Nitrobenzene-d5	82.00	6.448	6.448	(0.842)	942648	50	50
	19 Nitrobenzene	77.00	6.483	6.483	(0.846)	941393	50	51
	20 Isophorone	82.00	6.894	6.894	(0.900)	1621847	50	50
	21 2-Nitrophenol	139.00	7.016	7.016	(0.916)	603428	50	50
	22 2,4-Dimethyphenol	107.00	7.155	7.155	(0.934)	841256	50	50
	23 Bis(2-Chloroethoxy)methane	93.00	7.286	7.286	(0.951)	914856	50	49
	24 2,4-Dichlorophenol	162.00	7.452	7.452	(0.973)	699831	50	49
	25 1,2,4-Trichlorobenzene	180.00	7.566	7.566	(0.987)	794109	50	49
	26 Naphthalene	128.00	7.696	7.696	(1.005)	2334060	50	49
	27 4-Chloroaniline	127.00	7.819	7.819	(1.020)	856910	50	50
	28 Hexachlorobutadiene	225.00	7.941	7.941	(1.036)	499402	50	50
	29 4-Chloro-3-methylphenol	107.00	8.779	8.779	(1.146)	723761	50	52

Data File: /chem/nvo5.i/nvo0505.b/nvo501432.d
Report Date: 05-May-1994 11:27

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	CONCENTRATIONS ON-COL (ng)
	30 2-Methylnaphthalene	142.00	8.997	8.997	(1.174)	1557621	50	50
*	31 Acenaphthene-d10	164.00	11.144	11.144	(1.000)	954991	40	
	32 Hexachlorocyclopentadiene	237.00	9.311	9.311	(0.836)	160027	50	45
	33 2,4,6-Trichlorophenol	196.00	9.590	9.590	(0.861)	493127	50	48
	34 2,4,5-Trichlorophenol	196.00	9.669	9.669	(0.868)	570367	50	50
$	35 2-Fluorobiphenyl	172.00	9.756	9.756	(0.875)	1744630	50	49
	36 2-Chloronaphthalene	162.00	9.966	9.966	(0.894)	1392071	50	49
	37 2-Nitroaniline	65.00	10.219	10.219	(0.917)	485302	50	50
	38 Dimethyl phthalate	163.00	10.646	10.646	(0.955)	1664868	50	50
	39 Acenaphthylene	152.00	10.830	10.830	(0.972)	1607291	50	49
	40 2,6-Dinitrotoluene	165.00	10.760	10.760	(0.966)	397955	50	51
	41 3-Nitroaniline	138.00	11.109	11.109	(0.997)	419210	50	54
	42 Acenaphthene	153.00	11.222	11.222	(1.007)	1328256	50	49
	43 2,4-Dinitrophenol	184.00	11.345	11.345	(1.018)	321526	50	53
	44 4-Nitrophenol	109.00	11.598	11.598	(1.041)	238854	50	49
	45 Dibenzofuran	168.00	11.606	11.606	(1.042)	2038943	50	50
	46 2,4-Dinitrotoluene	165.00	11.633	11.633	(1.044)	480630	50	52
	47 Diethyl phthalate	149.00	12.235	12.235	(1.098)	1690020	50	51
	48 4-Chlorophenyl-phenylether	204.00	12.418	12.418	(1.114)	765950	50	50
	49 Fluorene	166.00	12.374	12.374	(1.110)	1507189	50	50
	50 4-Nitroaniline	138.00	12.479	12.479	(1.120)	416605	50	52
$	51 2,4,6-Tribromophenol	330.00	12.924	12.924	(1.160)	301776	50	52
*	52 Phenanthrene-d10	188.00	14.513	14.513	(1.000)	1515158	40	
	53 4,6-Dinitro-2-methylphenol	198.00	12.549	12.549	(0.865)	387293	50	52
	54 N-Nitrosodiphenylamine	169.00	12.706	12.706	(0.875)	1019096	50	48
	55 4-Bromophenyl-phenylether	248.00	13.535	13.535	(0.933)	455253	50	49
	56 Hexachlorobenzene	284.00	13.622	13.622	(0.939)	527008	50	48
	57 Pentachlorophenol	266.00	14.111	14.111	(0.972)	284051	50	42
	58 Phenanthrene	178.00	14.565	14.565	(1.004)	2066079	50	48
	59 Anthracene	178.00	14.687	14.687	(1.012)	2002207	50	49
	60 Carbazole	167.00	15.115	15.115	(1.041)	1945263	50	51
	61 Di-n-butylphthalate	149.00	16.092	16.092	(1.109)	2809988	50	49
	62 Fluoranthene	202.00	17.366	17.366	(1.197)	2169813	50	51
*	63 Chrysene-d12	240.00	20.779	20.779	(1.000)	1295219	40	
	64 Pyrene	202.00	17.881	17.881	(0.861)	2213494	50	52
$	65 Terphenyl-d14	244.00	18.370	18.370	(0.884)	1708486	50	52
	66 Butylbenzylphthalate	149.00	19.636	19.636	(0.945)	1180542	50	53
	67 3,3'-Dichlorobenzidine	252.00	20.779	20.779	(1.000)	600503	50	56
	68 Benzo(a)anthracene	228.00	20.753	20.753	(0.999)	1831613	50	51
	69 Chrysene	228.00	20.840	20.840	(1.003)	1641883	50	50
	70 bis(2-Ethylhexyl)phthalate	149.00	21.084	21.084	(1.015)	1615416	50	54
*	71 Perylene-d12	264.00	23.912	23.912	(1.000)	1462940	40	
	72 Di-n-octylphthalate	149.00	22.559	22.559	(0.943)	2569429	50	52
	73 Benzo(b)fluoranthene	252.00	23.144	23.144	(0.968)	1672458	50	48
	74 Benzo(k)fluoranthene	252.00	23.205	23.205	(0.970)	1685665	50	48
	75 Benzo(a)pyrene	252.00	23.790	23.790	(0.995)	1539608	50	49
	76 Indeno(1,2,3-cd)pyrene	276.00	25.884	25.884	(1.082)	1497578	50	52
	77 Dibenzo(a,h)anthracene	278.00	25.928	25.928	(1.084)	1491428	50	53
	78 Benzo(g,h,i)perylene	276.00	26.364	26.364	(1.103)	1533811	50	52

9513355.2209

RAW QC DATA

9513355.2210

Data File: /chem/nvo5.i/nvo0329.b/nvo501305.d

Date : 29-MAR-94 09:28

Client ID: DFTPP

Instrument: nvo5.i

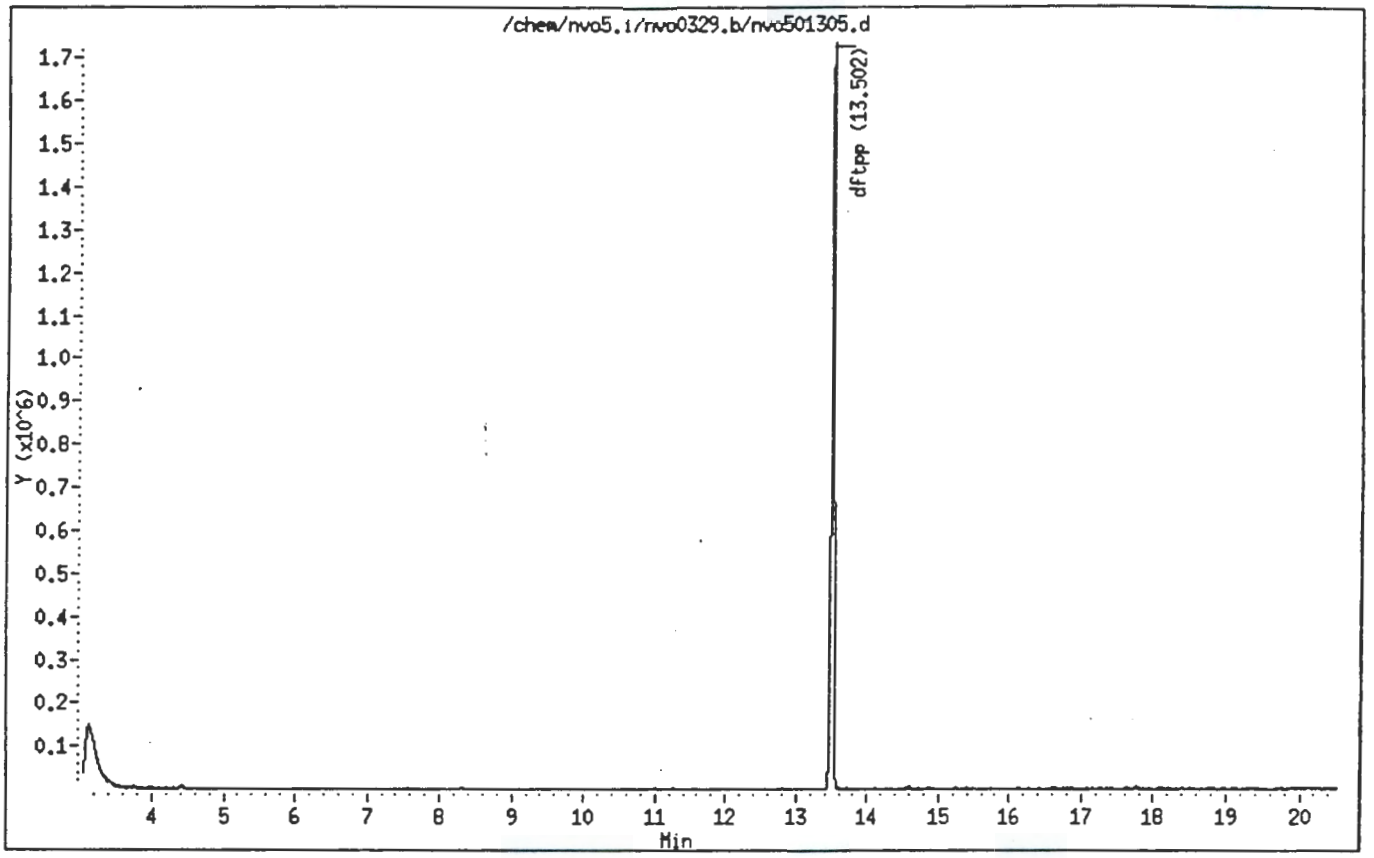
Sample Info: DFTPP 50ng

Volume Injected (uL): 1.0

Operator: WAV/AT

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/nvo5.i/nvo0329.b/nvo501305.d

Date : 29-MAR-94 09:28

Client ID: DFTPP

Instrument: nvo5.i

Sample Info: DFTPP 50ng

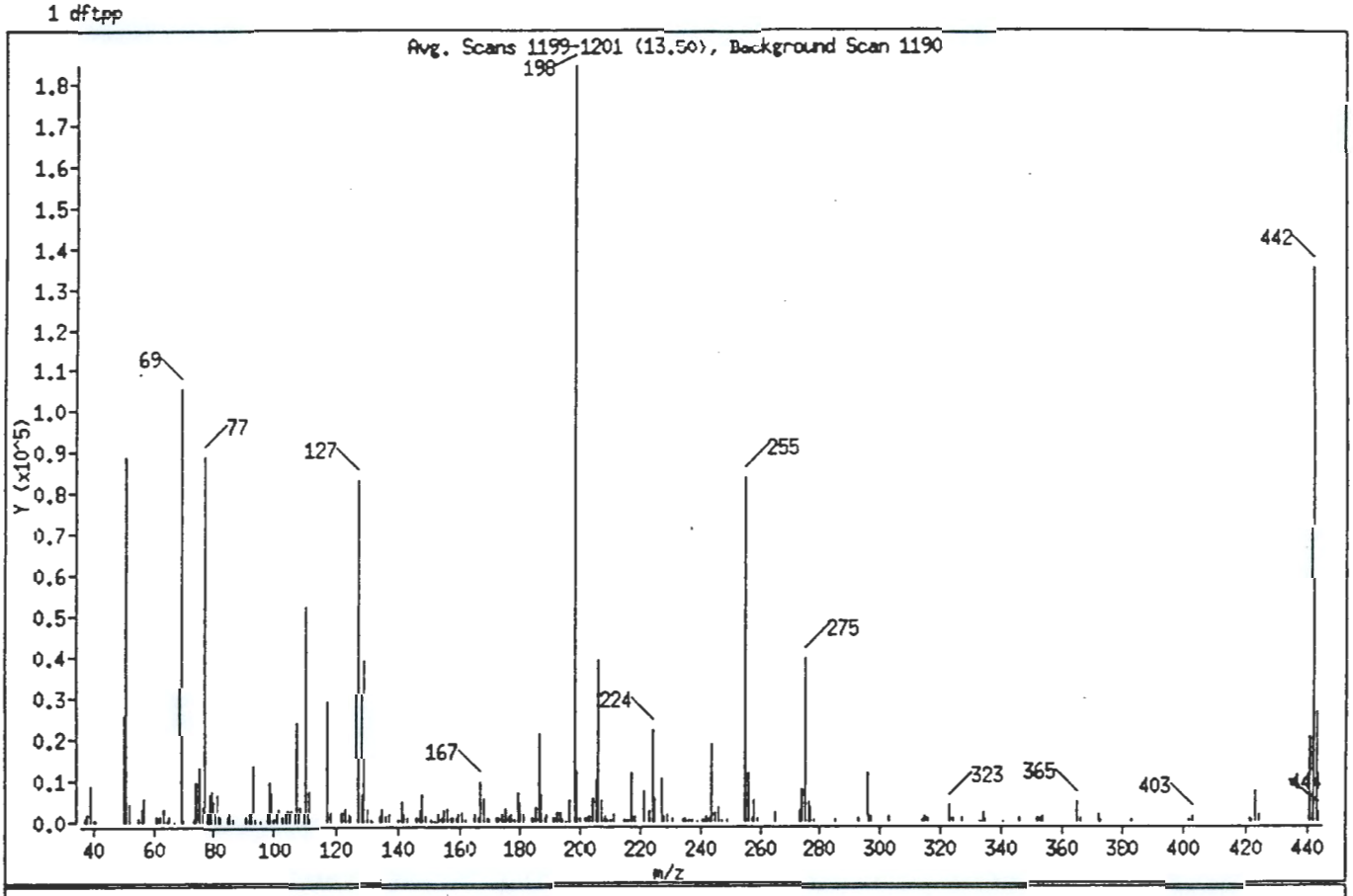
Volume Injected (uL): 1.0

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	48.18
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	57.27
70	Less than 2.00% of mass 69	0.23 (0.40)
127	25.00 - 75.00% of mass 198	45.24
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.60
275	10.00 - 30.00% of mass 198	21.43
365	Greater than 0.75% of mass 198	2.56
441	Present, but less than mass 443	11.11
442	40.00 - 110.00% of mass 198	73.31
443	15.00 - 24.00% of mass 442	14.36 (19.58)

Data File: /chem/nvo5.i/nvo0329.b/nvo501305.d

Date : 29-MAR-94 09:28

Client ID: DFTPP

Instrument: nvo5.i

Sample Info: DFTPP 50ng

Volume Injected (uL): 1.0

Operator: WAV/AT

Column phase: DB-5

Column diameter: 0.25

Data File: nvo501305.d

Spectrum : Avg. Scans 1199-1201 (13.50), Background Scan 1190

Largest m/z: 197.90

Number of peaks: 198

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.90	660	116.90	29056	179.90	4526	246.90	651
37.90	1611	117.90	2141	180.90	1840	248.90	386
39.00	8711	121.90	2207	183.90	784	254.95	83544
39.90	493	122.95	2903	185.00	3325	255.95	11912
40.90	382	123.85	1651	186.00	21480	256.95	925
49.95	25856	124.95	1169	187.00	6577	257.95	5252
50.90	88792	126.95	83376	187.95	669	258.95	880
51.90	4493	128.05	6671	188.85	1652	264.90	2275
54.90	739	128.95	39392	190.95	862	272.95	2671
55.90	2965	129.95	3189	191.95	2077	273.95	7628
56.90	5816	130.95	598	193.05	2217	274.95	39488
60.95	1144	132.00	177	194.05	365	275.90	4871
61.95	1401	133.90	1147	194.95	187	276.90	3613
62.95	3262	134.90	2901	196.00	5402	277.90	359
64.05	420	135.90	1176	197.90	184256	284.85	371
65.05	1514	137.00	1739	198.90	12163	292.90	787
66.90	194	139.85	448	199.90	807	295.90	11660
68.90	105552	140.95	4979	201.50	982	297.00	1392
69.90	425	141.95	1931	202.90	1235	302.95	1166
73.00	627	142.95	1088	203.95	5873	313.90	369
74.00	9384	145.95	866	204.95	9837	314.90	1292
74.95	13260	146.95	2547	205.95	39024	315.95	757
75.95	3386	147.90	6386	206.95	5352	322.95	3889
76.95	88952	148.80	1293	207.85	1522	323.90	682
77.95	6508	151.00	410	208.95	439	326.90	853
78.95	7436	151.90	193	209.95	526	332.95	176
79.95	4955	153.00	1631	210.95	1654	333.95	2047
80.95	6537	154.00	1069	214.90	625	334.85	374
82.05	1637	155.00	2458	216.00	448	340.90	183
82.90	1100	155.95	3093	216.90	11633	345.90	811
84.90	1518	157.05	782	217.90	1441	351.95	1051
85.90	2152	157.85	874	220.95	7450	352.95	817
86.90	833	158.95	738	222.95	2778	353.95	1106
90.95	1522	159.85	1694	223.95	22184	364.85	4724
91.95	1989	160.95	2125	224.95	5491	365.85	846

9513355.2215

Data File: /chem/nvo5.i/nvo0329.b/nvo501305.d

Date : 29-MAR-94 09:28

Client ID: DFTPP

Instrument: nvo5.i

Sample Info: DFTPP 50ng

Volume Injected (uL): 1.0

Operator: WAY/AT

Column phase: DB-5

Column diameter: 0.25

Data File: nvo501305.d

Spectrum : Avg. Scans 1199-1201 (13.50), Background Scan 1190

Largest m/z: 197.90

Number of peaks: 198

m/z	Y	m/z	Y	m/z	Y	m/z	Y
92.95	13302	161.85	619	226.95	10489	371.90	1706
93.95	878	164.90	1630	227.90	1381	372.90	239
95.95	633	166.00	1033	228.90	1800	382.85	271
97.95	9677	166.90	9494	230.90	898	401.85	479
98.90	6834	167.90	5812	233.90	515	402.95	1103
99.90	818	169.00	736	234.90	803	420.90	952
100.90	3265	169.90	227	235.85	251	422.00	554
102.90	1344	171.85	900	236.95	506	422.90	7210
103.90	2717	172.85	908	239.05	186	423.90	1609
105.00	2524	173.95	1634	240.95	480	441.00	20472
106.95	24048	174.95	3107	241.95	1359	442.00	135104
107.95	3660	176.05	1182	243.05	1012	443.00	26456
109.95	52416	176.85	1718	243.90	18648	443.85	2337
110.95	7581	178.05	405	245.00	2260		
111.85	818	178.95	7148	245.90	3506		

Data File: /chem/nvo5.i/nvo0505.b/nvo501431.d

Date : 05-MAY-94 10:27

Client ID: DFTPP

Instrument: nvo5.i

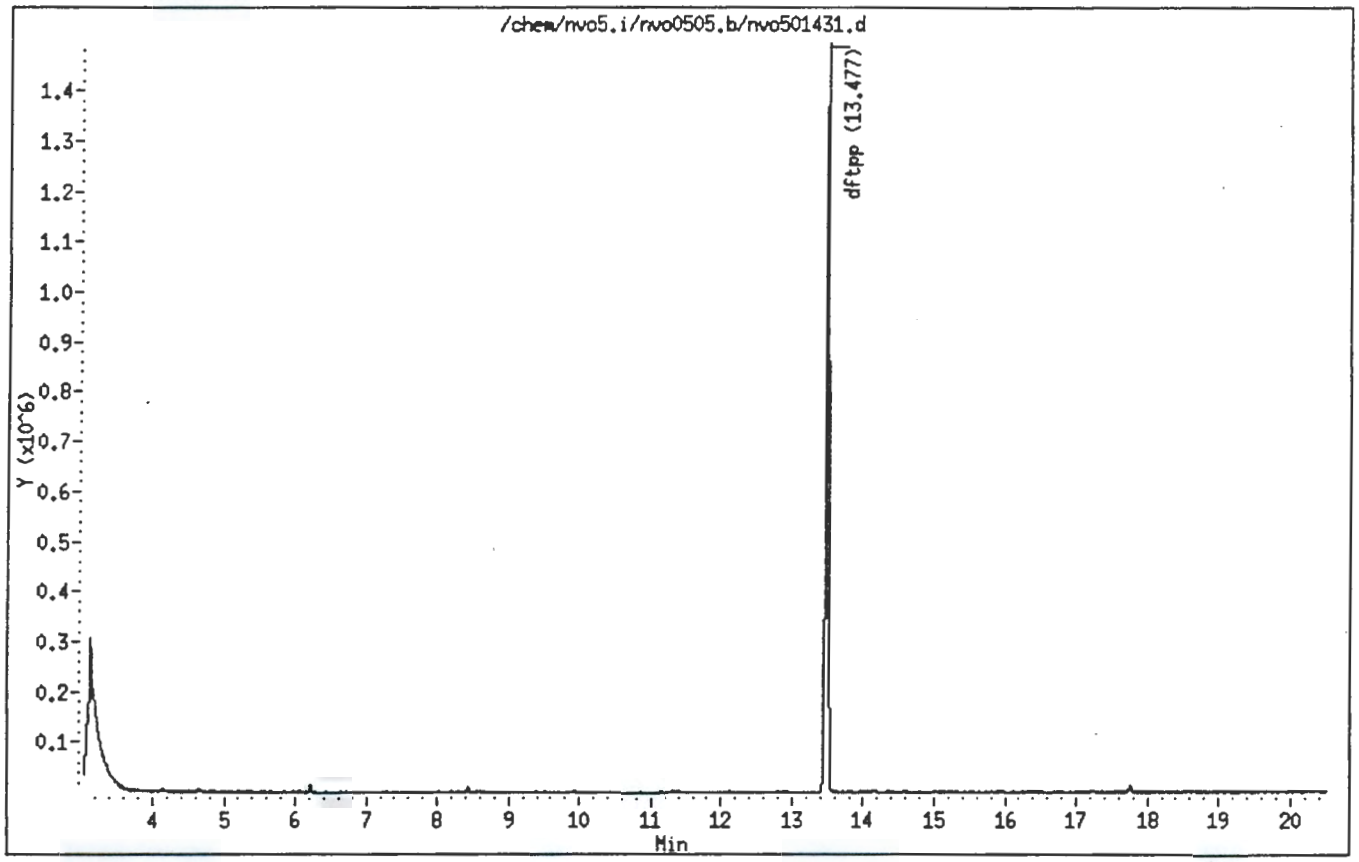
Sample Info: DFTPP

Volume Injected (uL): 1.0

Operator: WAV/AT

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/nvo5.i/nvo0505.b/nvo501431.d

Date : 05-MAY-94 10:27

Client ID: DFTPP

Instrument: nvo5.i

Sample Info: DFTPP

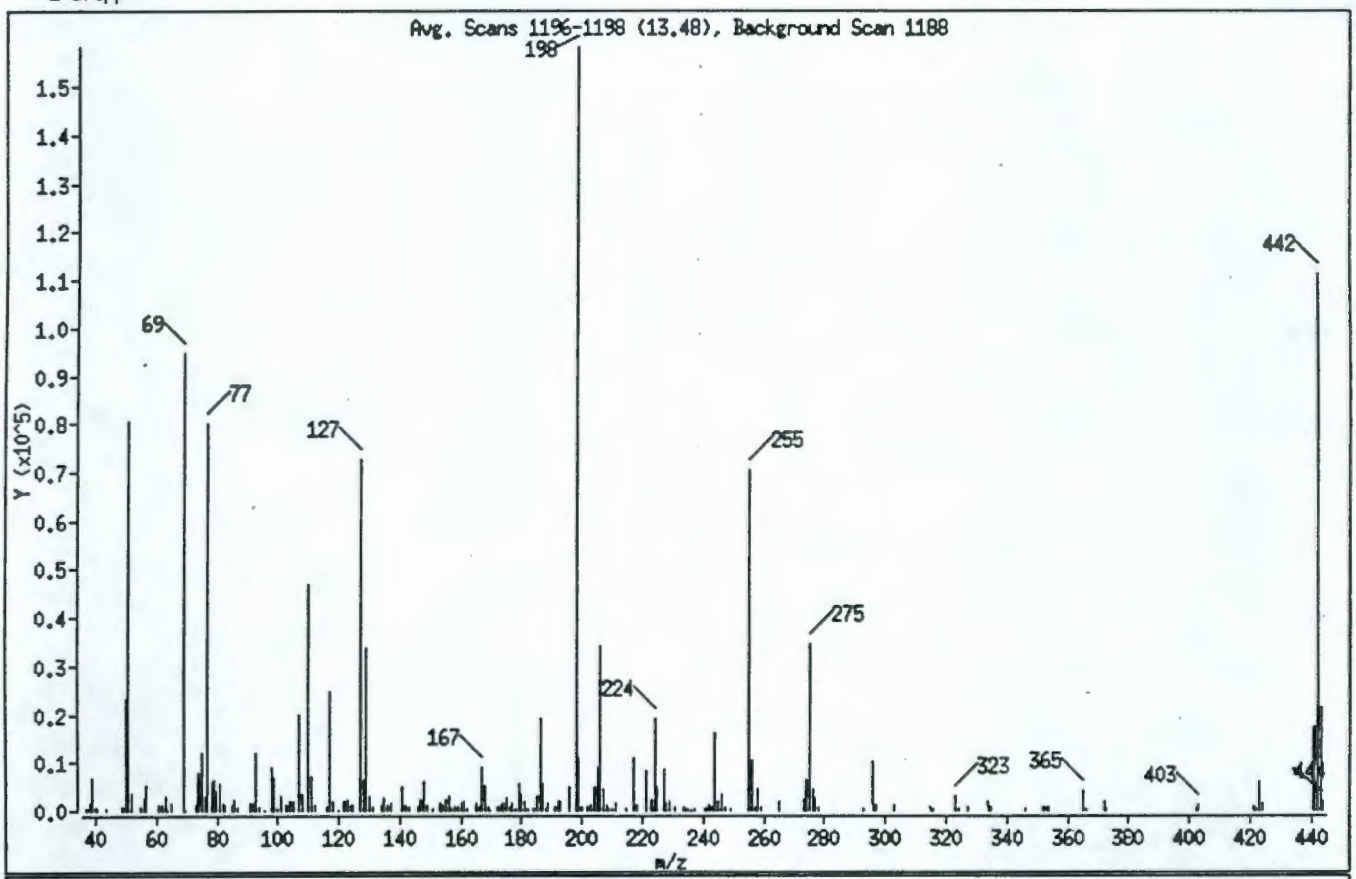
Volume Injected (uL): 1.0

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	50.73
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	59.90
70	Less than 2.00% of mass 69	0.11 (0.18)
127	25.00 - 75.00% of mass 198	45.92
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.80
275	10.00 - 30.00% of mass 198	21.84
365	Greater than 0.75% of mass 198	2.50
441	Present, but less than mass 443	10.86
442	40.00 - 110.00% of mass 198	70.18
443	15.00 - 24.00% of mass 442	13.57 (19.33)

Data File: /chem/nvo5.i/nvo0505.b/nvo501431.d

Date : 05-MAY-94 10:27

Client ID: DFTPP | Instrument: nvo5.i

Sample Info: DFTPP

Volume Injected (uL): 1.0 | Operator: WAV/AT

Column phase: DB-5 | Column diameter: 0.25

Data File: nvo501431.d

Spectrum : Avg. Scans 1196-1198 (13.48), Background Scan 1188

Largest m/z: 197.90

Number of peaks: 190

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.90	547	109.95	46936	175.95	764	243.90	15994
38.00	1596	110.95	7223	176.85	1382	244.90	2054
39.00	6665	111.95	1182	177.85	214	245.90	3227
39.90	735	115.90	573	178.95	5763	246.90	589
40.90	413	116.90	24632	179.90	3477	248.90	408
43.85	533	117.90	1861	180.90	1900	254.95	70280
49.05	689	120.00	181	181.90	393	255.85	10408
49.95	23312	121.90	1952	183.80	224	256.95	851
50.90	80336	122.90	2384	185.00	2903	257.85	4529
51.90	3829	123.85	1147	186.00	18952	258.95	757
55.00	817	124.85	1039	187.00	5744	264.90	2010
55.90	2778	126.95	72712	187.95	283	272.95	2195
56.90	5137	127.95	6326	188.85	1419	273.95	6387
60.95	979	128.95	33632	190.85	682	274.95	34584
61.95	1003	129.95	2957	191.95	1701	275.90	4535
62.95	2937	130.95	615	192.95	1971	276.80	2761
63.95	178	133.90	1055	195.90	5020	277.90	648
64.95	1364	134.90	2594	197.90	158336	292.90	434
68.90	94848	135.90	1206	198.90	10766	295.90	9959
69.90	173	137.00	1645	200.00	908	297.00	1196
72.90	992	140.85	4734	201.50	832	302.85	1078
74.00	7833	141.95	1255	202.90	1163	314.90	718
74.95	12073	142.85	888	203.95	4887	315.85	457
75.95	3152	145.95	722	204.95	8991	322.95	2975
76.95	80032	146.85	2144	205.95	33992	323.90	407
77.95	5842	147.90	5943	206.95	4471	326.90	756
78.95	6508	148.80	1069	207.85	1250	333.85	1817
79.95	4159	151.00	530	208.95	350	334.85	585
80.95	5721	152.90	1431	209.85	474	345.80	509
81.85	1455	153.90	1119	210.95	1652	351.95	837
82.90	1284	155.00	2286	214.80	445	352.85	600
84.80	1252	155.95	2859	216.90	10698	353.95	888
85.90	2090	156.85	260	217.90	1242	364.85	3964
87.00	812	157.85	727	220.95	8240	365.85	296
90.85	1678	158.95	657	222.95	2197	371.90	1777

Data File: /chem/nvo5.i/nvo0505.b/nvo501431.d
Date : 05-MAY-94 10:27
Client ID: DFTPP
Instrument: nvo5.i
Sample Info: DFTPP
Volume Injected (uL): 1.0
Operator: WAV/AT
Column phase: DB-5
Column diameter: 0.25

Data File: nvo501431.d
Spectrum : Avg. Scans 1196-1198 (13.48), Background Scan 1188
Largest m/z: 197.90
Number of peaks: 190

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.95	1655	159.95	1414	223.95	18904	372.90	202
92.85	11898	160.85	1771	224.95	4756	401.95	491
93.85	676	161.95	425	226.95	8714	402.95	1010
95.95	182	164.90	1648	227.80	1317	420.90	868
97.95	9022	166.10	564	228.80	1764	422.00	513
98.90	6731	166.90	9037	230.90	814	422.90	5851
99.90	400	167.90	5411	233.80	564	423.90	1394
100.90	3044	169.00	794	234.90	202	441.00	17184
102.90	1199	169.90	172	235.75	176	442.00	111136
103.90	1911	171.95	672	236.95	444	443.00	21480
104.90	1824	172.95	1033	240.95	428	443.85	1945
106.90	19912	173.95	1495	241.95	1002		
107.85	3498	174.95	2743	242.95	852		

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBKLS1

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48790

Matrix: (soil/water) SOIL Lab Sample ID: SBKLS1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NVO501433.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted: 05/04/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/05/94

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	330	U
111-44-4	Bis(2-Chloroethyl)ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethyphenol	330	U
111-91-1	Bis(2-Chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethyl phthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBKLS1

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48790

Matrix: (soil/water) SOIL Lab Sample ID: SBKLS1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NV0501433.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted: 05/04/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/05/94

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	800	U
100-02-7	4-Nitrophenol	800	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethyl phthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	800	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	49	J
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

(1) - Cannot be separated from Diphenylamine

9513355.2220

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBKLS1

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48790

Matrix: (soil/water) SOIL Lab Sample ID: SBKLS1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NVO501433.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:05/04/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 05/05/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 2

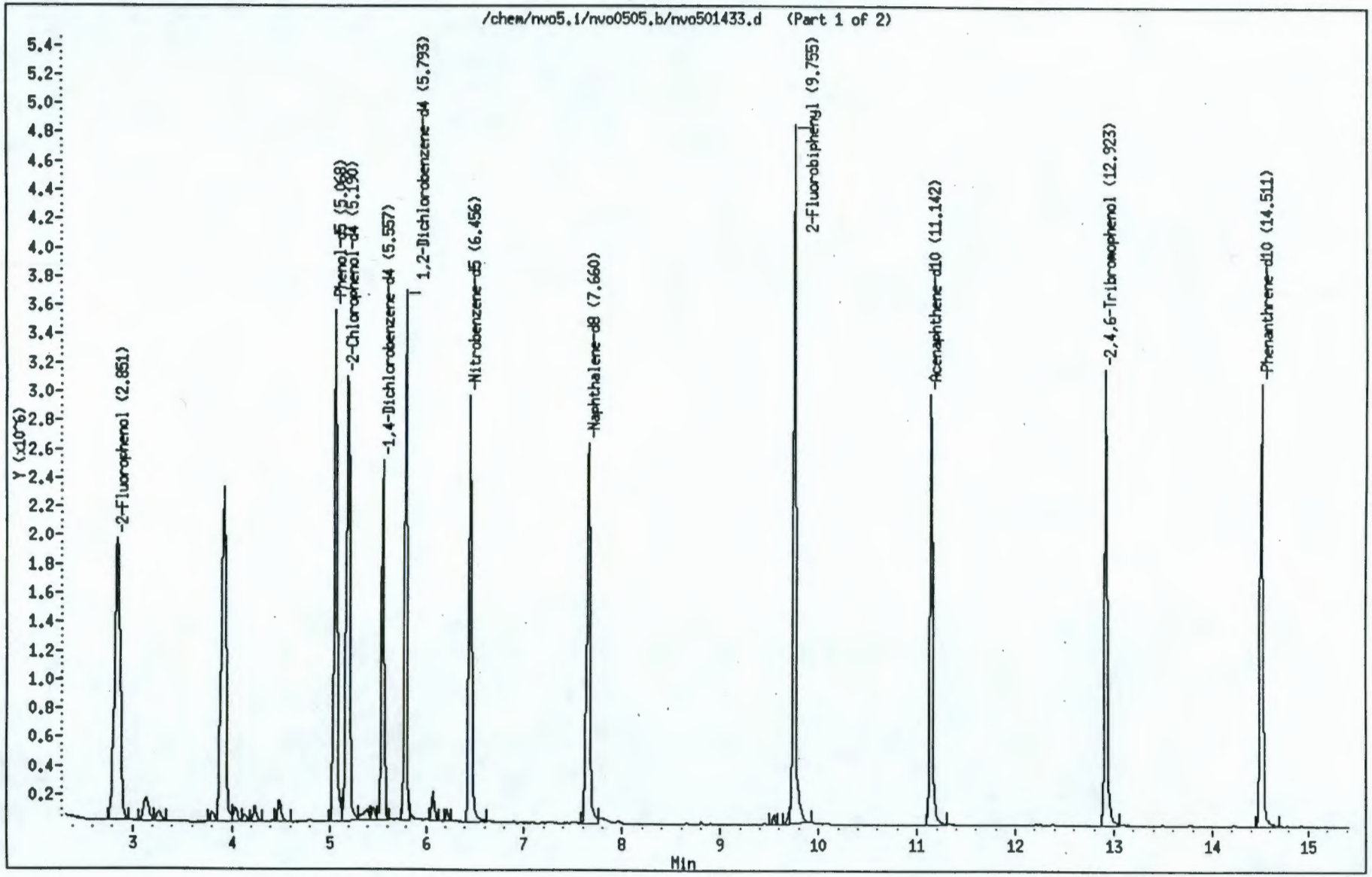
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown Aldol Condensate	3.139	83	JA
2.	Unknown Aldol Condensate	3.925	1000	JA
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/nvo0505.b/nvo501433.d
Date : 05-MAY-1994 11:45
Client ID: SBKLS1
Sample Info: SBKLS1
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



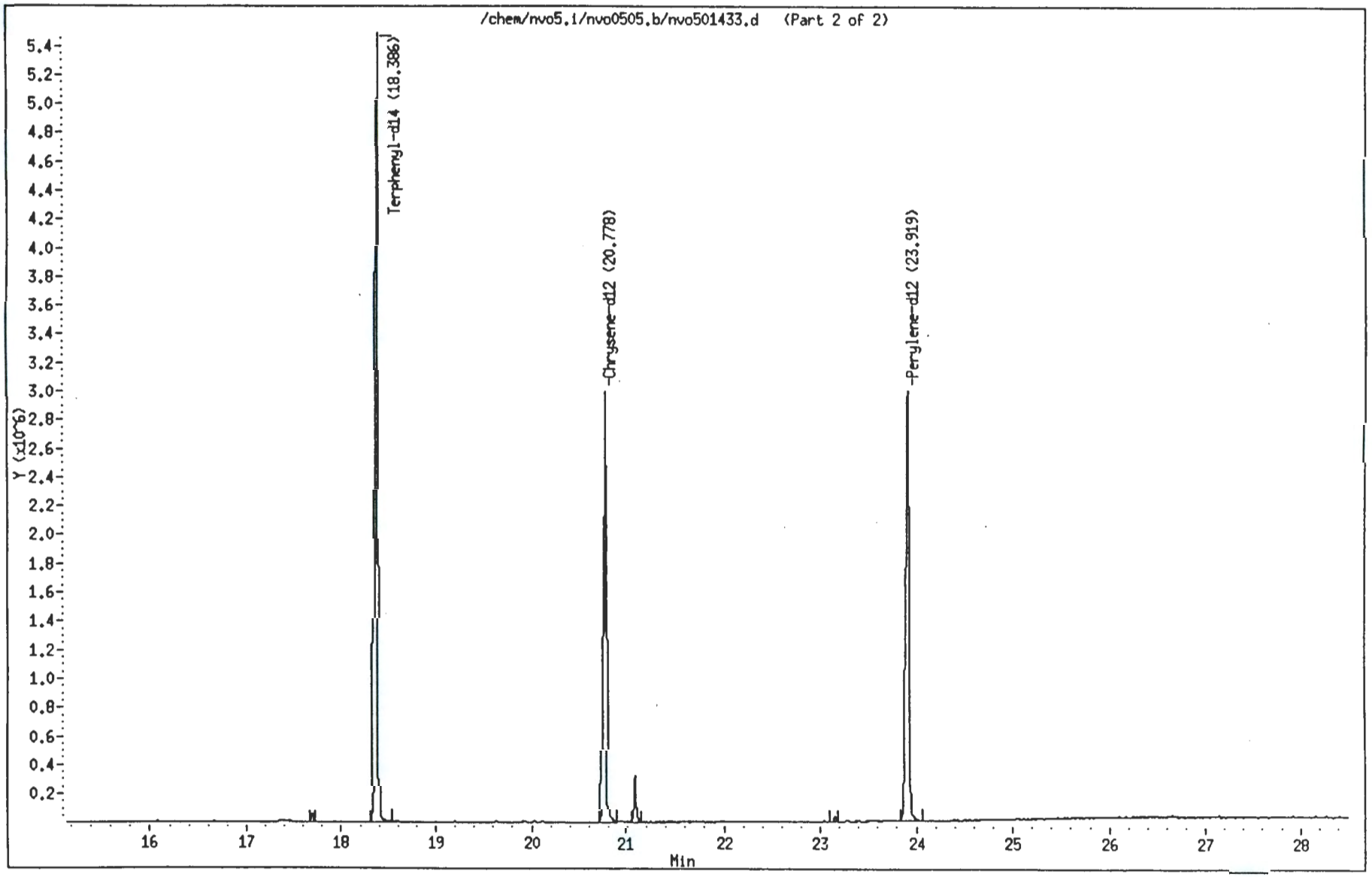
001124

95155222

Data File: /chem/nvo5.i/nvo0505.b/nvo501433.d
Date : 05-MAY-1994 11:45
Client ID: SBKLS1
Sample Info: SBKLS1
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



001125

Data File: /chem/nvo5.i/nvo0505.b/nvo501433.d
Report Date: 05-May-1994 14:16

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0505.b/nvo501433.d
Lab Smp Id: SBKLS1 Client Smp ID: SBKLS1
Inj Date : 05-MAY-1994 11:45 Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : SBKLS1
Misc Info : CDM Hanford N. Slope
Comment :
Method : /chem/nvo5.i/nvo0505.b/clp390epc.m
Meth Date : 05-May-1994 11:26 Quant Type: ISTD
Cal Date : 05-MAY-94 10:51 Cal File: nvo501432.d
Als bottle: 1 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	5.557	5.541	(1.000)	735072	40	
$ 2 2-Fluorophenol	112.00	2.851	2.670	(0.513)	2112697	85	1400
$ 3 Phenol-d5	99.00	5.068	5.043	(0.912)	2486778	95	1600
$ 6 2-Chlorophenol-d4	132.00	5.199	5.174	(0.936)	1853743	91	1500
$ 10 1,2-Dichlorobenzene-d4	152.00	5.793	5.785	(1.042)	988205	64	1100
* 17 Naphthalene-d8	136.00	7.660	7.662	(1.000)	2383525	40	
$ 18 Nitrobenzene-d5	82.00	6.456	6.448	(0.843)	1707934	72	1200
* 31 Acenaphthene-d10	164.00	11.142	11.144	(1.000)	1289351	40	
$ 35 2-Fluorobiphenyl	172.00	9.755	9.756	(0.875)	3012657	64	1100
$ 51 2,4,6-Tribromophenol	330.00	12.923	12.924	(1.160)	821334	100	1700
* 52 Phenanthrene-d10	188.00	14.511	14.513	(1.000)	2166953	40	
* 63 Chrysene-d12	240.00	20.778	20.779	(1.000)	2033943	40	
$ 65 Terphenyl-d14	244.00	18.386	18.370	(0.885)	3601051	67	1100
70 bis(2-Ethylhexyl)phthalate	149.00	21.083	21.084	(1.015)	149171	3	49(a)
* 71 Perylene-d12	264.00	23.919	23.912	(1.000)	2578998	40	

QC Flag Legend

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

Data File: /chem/nvo5.i/nvo0505.b/nvo501433.d

Date : 05-MAY-1994 11:45

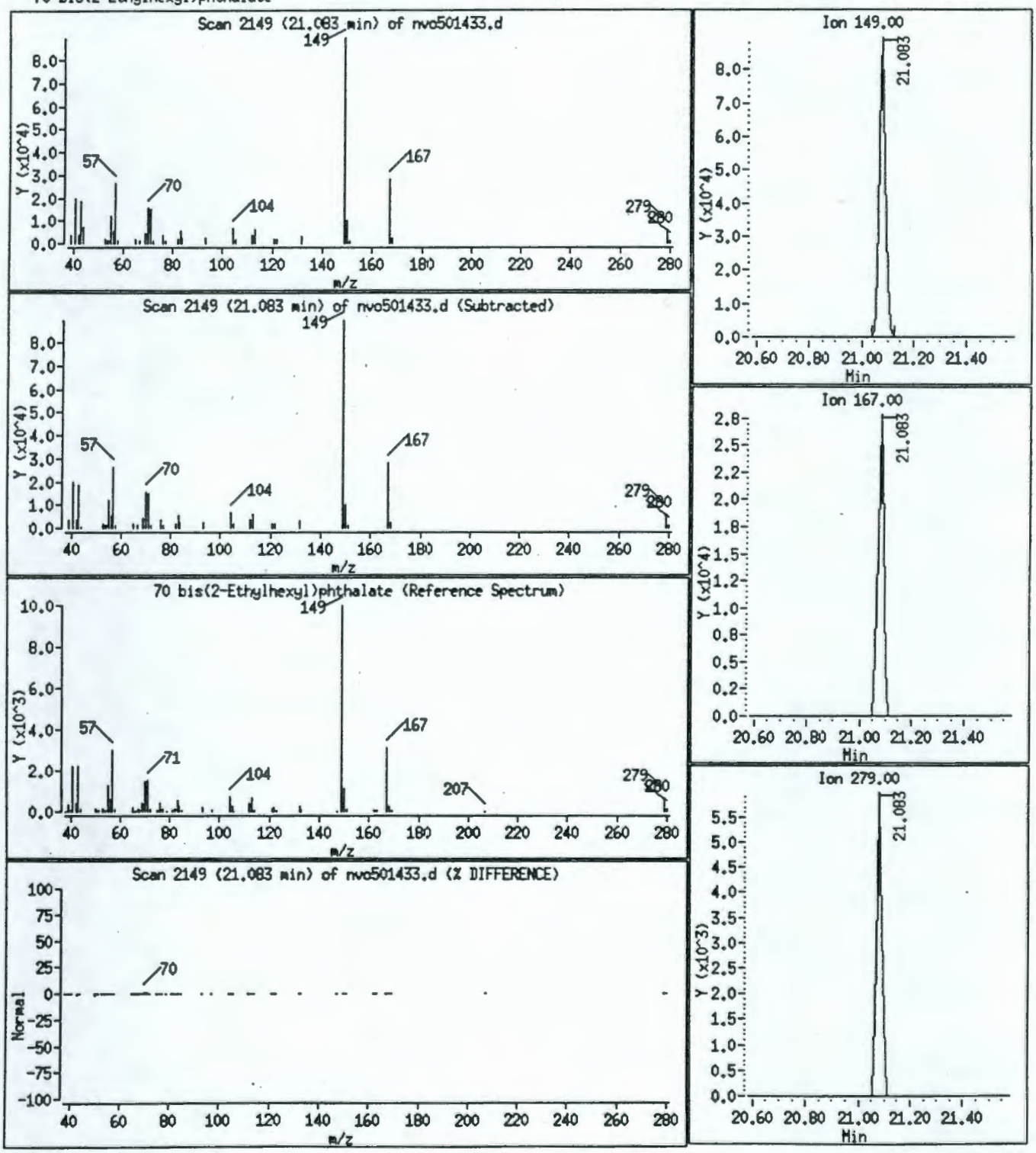
Client ID: SBKLS1 Instrument: nvo5.i

Sample Info: SBKLS1

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

Column phase: DB-5MS Column diameter: 0.25

70 bis(2-Ethylhexyl)phthalate



Data File: /chem/nvo5.i/nvo0505.b/nvo501433.d
Report Date: 05-May-1994 15:32

Environmental Science and Engineering

Unknown Compounds Quantitation Report

Data file : /chem/nvo5.i/nvo0505.b/nvo501433.d
Lab Smp Id: SBKLS1 Client Smp ID: SBKLS1
Inj Date : 05-MAY-1994 11:45 Autotune Date: 08-Feb-94 09:58:2
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : SBKLS1
Misc Info : CDM Hanford N. Slope
Comment :
Method : /chem/nvo5.i/nvo0505.b/clp390epc.m
Meth Date : 05-May-1994 11:26
Cal Date : 05-MAY-94 10:51 Cal File: nvo501432.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.000 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
* 1 1,4-Dichlorobenzene-d4	5.557	4757489	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.139	591402	5	83	45	WILEY.1	114944	1
Unknown Aldol Condensate					CAS #:		
3.925	7455433	63	1000	25	WILEY.1	116738	1

Data File: /chem/nvo5.i/nvo0505.b/nvo501433.d

Date : 05-MAY-1994 11:45

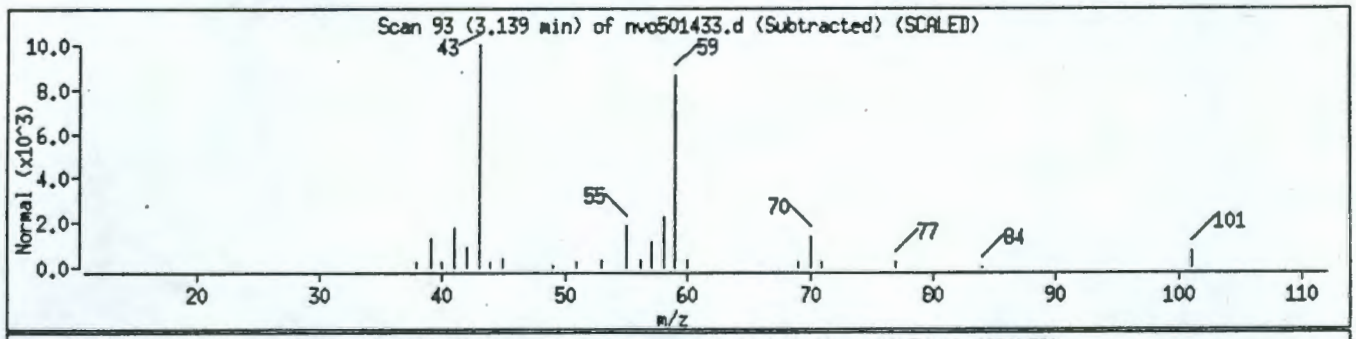
Client ID: SBKLS1 Instrument: nvo5.i

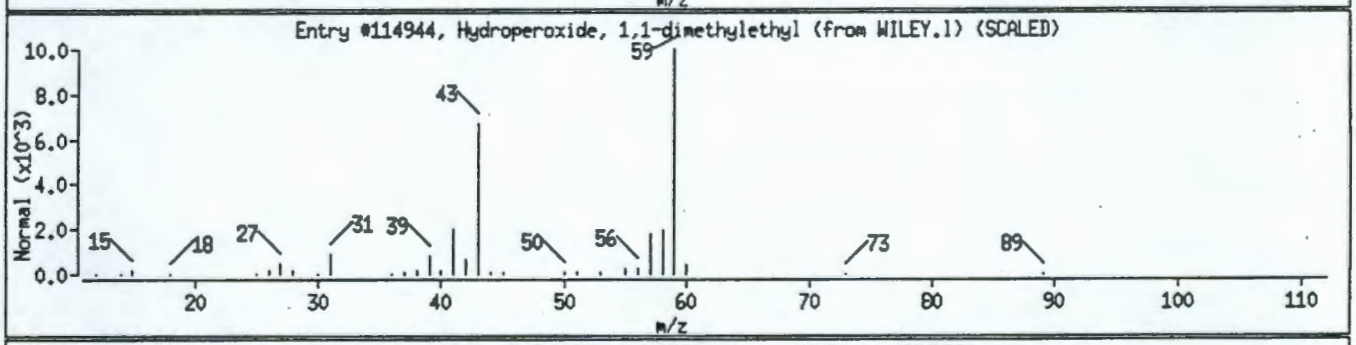
Sample Info: SBKLS1

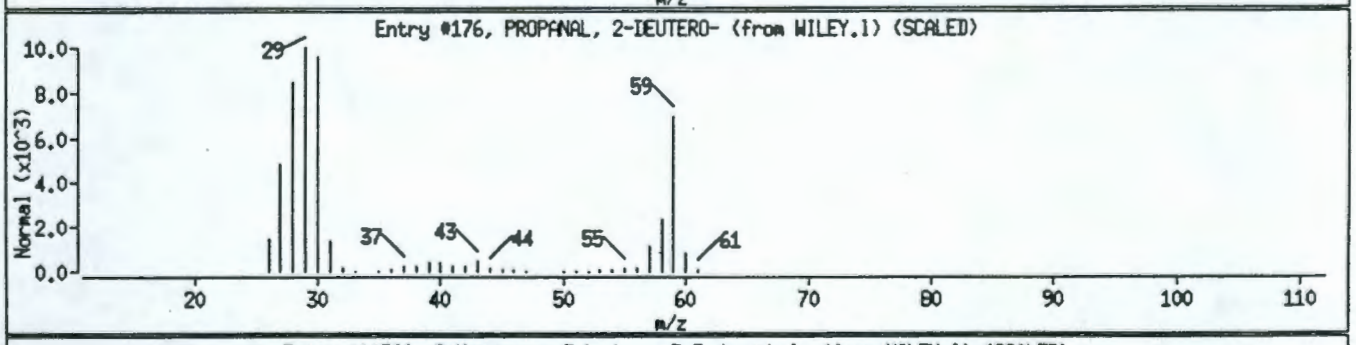
Volume Injected (uL): 2.0 Operator: WAV/AT

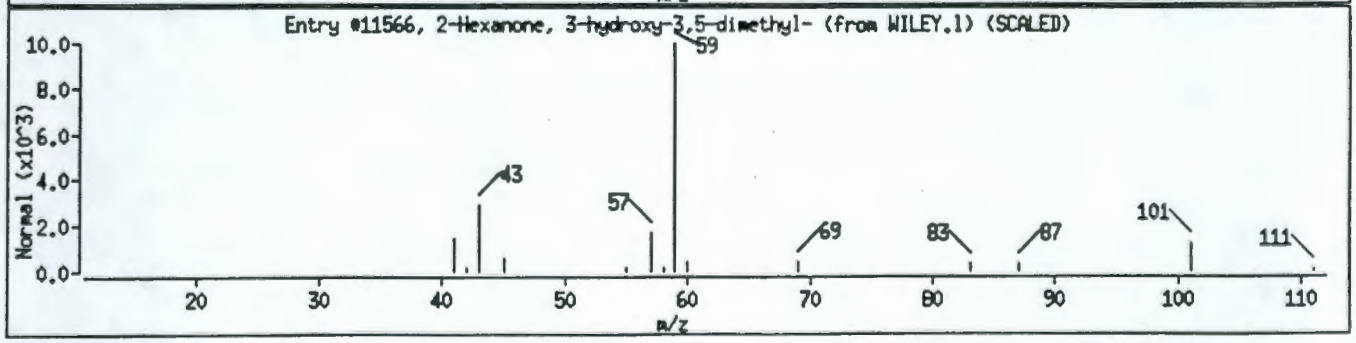
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hydroperoxide, 1,1-dimethylethyl	75-91-2	WILEY.1	114944	45	C4H10O2	90
PROPANAL, 2-DEUTERO-	0-00-0	WILEY.1	176	42	C3H5DO	58
2-Hexanone, 3-hydroxy-3,5-dimethyl-	6321-14-8	WILEY.1	11566	40	C8H16O2	144









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Data File: /chem/nvo5.i/nvo0505.b/nvo501433.d

Date : 05-MAY-1994 11:45

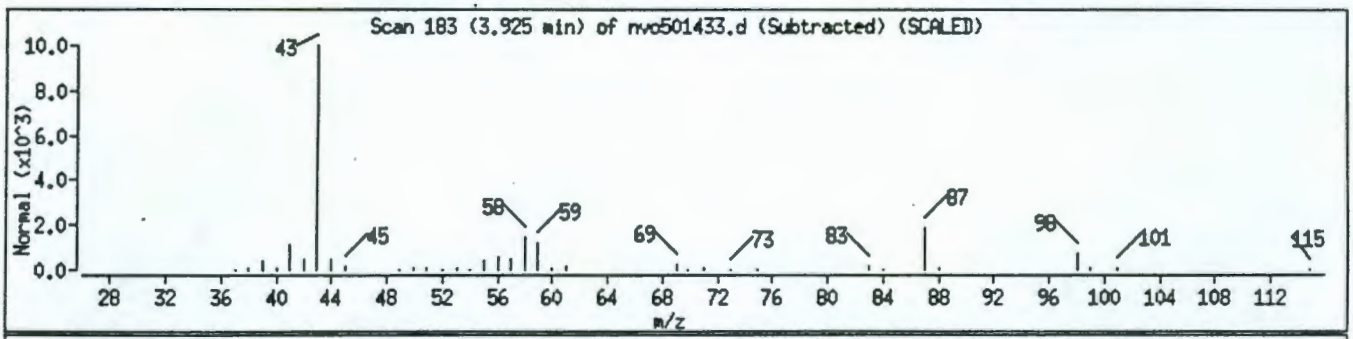
Client ID: SBKLS1 Instrument: nvo5.i

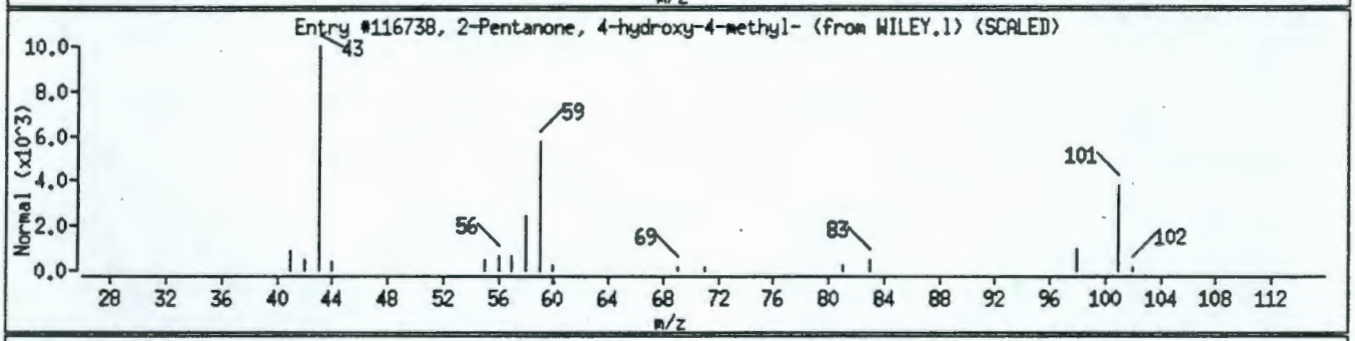
Sample Info: SBKLS1

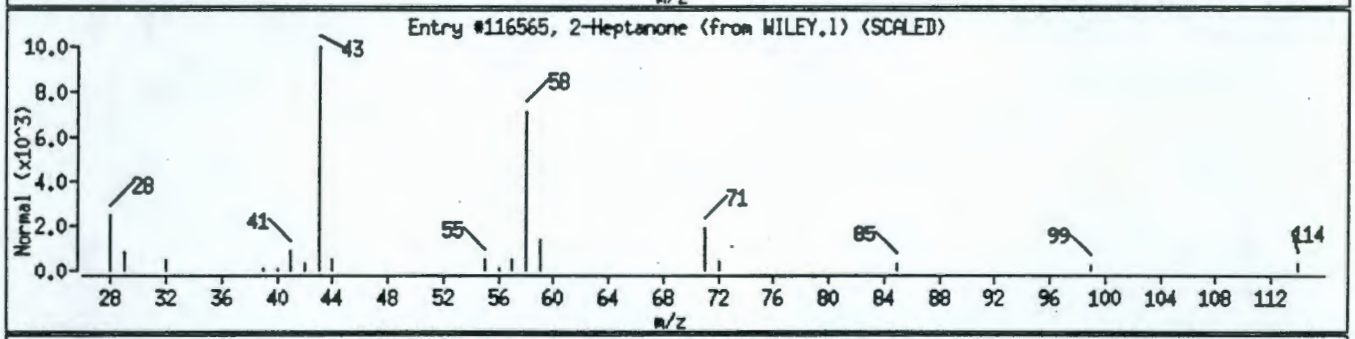
Volume Injected (uL): 2.0 Operator: WAV/AT

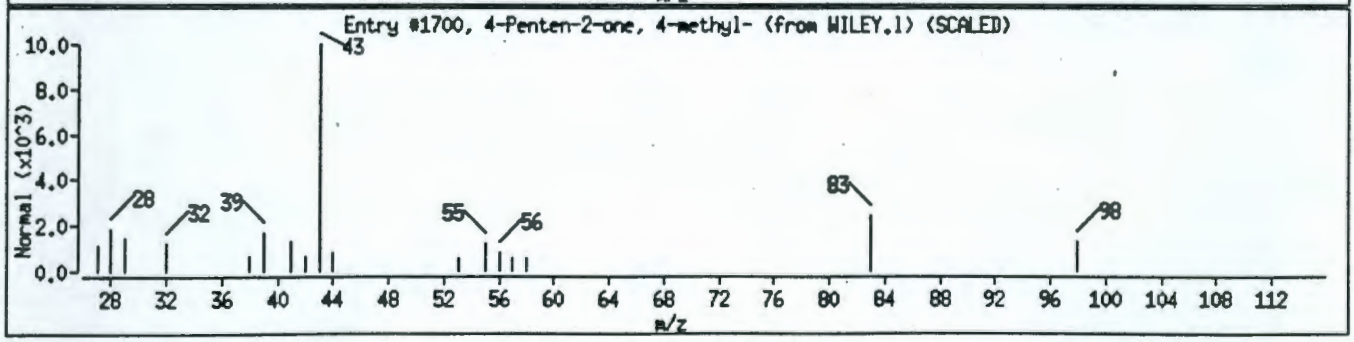
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	WILEY.1	116738	25	C6H12O2	116
2-Heptanone	110-43-0	WILEY.1	116565	25	C7H14O	114
4-Penten-2-one, 4-methyl-	3744-02-3	WILEY.1	1700	16	C6H10O	98









9513355.2221

OTHER RELEVANT DOCUMENTS

9513355.2229

ESE ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

CHROMATOGRAPHIC ANALYSIS LOG

Date: 5/4/94 1
Analyst: FF(27-90)
Project: 1012B
Case No.: N/A
Instrument ID: 1002B
Data System ID: N/A
Analysis Type: 3/90 BNA

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: GPC chk = 1.0 ml 3/90 SOW GPC chk 880:25 FF in 10 ml hexane Spk chk/Smd BH = 0.5 ml 3/90 SVOA 1005-3.1 + 0.5 ml 3/90 matrix (671-53-1) in 10 ml M

Run No.	Sample No.	Run No.	Sample No.	Run No.	Sample No.
1	GPC chk		d = 27		
2	Spk chk		c = 23		gage = 0.5
3	mech		w = 10	with SVOA	fuse = 0.5
4	COMMNS BLK		B4198		Sensitivity 1
5	21		mech 10A		
6	21MS				
7	21MSD		Chart speed = 100 cm/hr		
8	end std		flowrate = 5 ml/min		

FORM 87303

9513355.2231

Environmental Science & Engineering, Inc.

GC/MS INSTRUMENT LOGSHEET

INSTRUMENT ID NV05

DATE 5/5/94 PROJECT NAME CDM Hanford N. Slope CLP 3/90 SOW Lot

OPERATOR WAV/AT

MASS RANGE 35-500

THRESHOLD 1000

SCAN DELAY 2.3 min

PURGE DELAY 1.0 min

INJ VOL 2.0 µL

A/D 2²

E. M. 1776

SURR —

INT STD CLP mix Protocol Lot 0930929B

SPK CONC 20 µg/mL

CAL FILE clp 390 epc. 3/29/94

METH FILE clp 390 epc.

ID FILE ↓

DATE UPLOADED

UPLOAD NAME WAVHANN1

DATE SIGN

GC PROG 50° x 2 min, 50° → 120° @ 20°/min, 120° → 320° @ 15°/min, ts=3 COL DB5 MS 0.25 mm i.d.

FRN	SAMPLE ID	EXT DATE	WT/ VOL	DIL FACT	COMMENTS	TAPE DATE
NV0501431	DFTPP					
1432	SSTD50 50ng mix			1.00	25µg/mL CLP STD 1000-2-1	
1433	SBLKS1	5-4-94	30gm.	1.00		
1434	CDMHNSS x 21	↓	↓	↓		
1435	↓ x21MS					
1436	↓ x21MSD					
	AT 5/6/94					

Read and Understood by

SIGNED 5/6/94 DATE SIGNED 5/6/94 DATE PAGE 1 OF 1

BOOK NO: 0616

HHUG39

001133

ESE. ENVIRONMENTAL SCIENCE AND ENGINEERING, INC. | **ORGANIC LABORATORY/EXTRACTION LOG SHEET**

PROJECT: CDM HANford N. Slope
PROJECT NO.: 1944022G 0201 CASE NO.: N/A
EXTRACTOR(S): JSC CLEAN-UP: GPC
DATE: 5-4-94 TIME: 1:30pm

EXTRACTION METHOD: 3/90 CLP BNA Soil
SAMPLE FRACTION: SS
CHECKED BY: CAM
BALANCE USED: #23

BOOK NO: 435 087

SAMPLE NO.	VOLUME-ml MASS-gr.	INITIAL/ FINAL pH	TYPE/DATE OF CLEAN-UP	FINAL VOL. SOLVENT	SURRO-GATE ADDED?	COMMENTS
CDMHNSS+01	30.0g	8.48	GPC	1.0ml CH_2Cl_2	yes	All samples received 0.5ml 3/90 CLP
01MS	↓	↓	↓	↓	↓	Surrogate 1005-3-1 150ug/ml Acids 100ug/ml
01MSD	↓	↓	↓	↓	↓	B/N's WAY 5-2-94 exp. 5-2-95
BLK	↓	↓	↓	↓	↓	
						01MS, 01MSD received. 0.5ml 3/90 CLP
						MATrix 6076-73-1 150ug/ml Acids 100ug/ml
						B/N WAY 11-4-93 exp. 11-4-94
						Spiked: JSC witnessed: CAM

CHAIN-OF-CUSTODY RECORD

001134

9513355.2231

[redacted]

Notebook No. 964 77

SUBJECT CDM - HANFORD N. SLOPE

Continued From Page

PO # 194402206 0201 Method: 3/90 CLP BNA Soil Sem.

Samples: CDMHNSS# 21, 21MS/MSD, BLK

1) Weighed out 30.0g of soil. Added 60.0g of Anhydrous Na_2SO_4 to dry.
2) Add Spike Samples
Add 150ml 50/50 CH_2Cl_2/Acetone to each.
Sonicate for 1.5min
Cent. for 5min at 1000RPm
Perc extract into KD/receiver through CH_2Cl_2 cleaned glassware and Baked Na_2SO_4
Repeat Steps 3-6 but only add 100ml 50/50
Concentrate to ~10ml CH_2Cl_2
Concentrate to ~1.2ml CH_2Cl_2. Bring to 10.0ml CH_2Cl_2 in CT. JSC 5-4-94

JS 100 LB 5/4/94

If BRC Poured up into KD/receiver
Conc to ~10ml
To BMD DLC 5-05-94
Conc to <0.5ml and quantitatively transferred to auto-sampler vials, blew down to 0.5ml with N2. BMD 5/5/94

Continued on Page

Read and Understood By

Frank Cleinshaw 5-4-94 B. Medina 5-5-94
Signed Date

001135

SAMPLES CDmtWSS+21, 21ms/msd, Blk

3/90 CLP BNA 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, — SC 5-4-94
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) Add 100ml of 50/50 MeCl/Acetone, spike samples
7) Sonicate for 1.5 minutes with 3/4 inch horn at 50% duty cycle and output control at 10.
   Centrifuge at 1000 RPM for 5 minutes, decant extract into KD-receiver through funnels packed with MeCl cleaned glasswool and baked sodium sulfate
8) Repeat steps (7) two more times
9) **Pipette out 5.0ml into receiver, conc. to <1ml, quantitatively transfer to autosampler vial, top to 1.0ml with MeCl, to GCMS labelled SCREEN, make up screen folder and include screen check sheet** — N/A
10) Conc. remaining samples to 10mls with snyder attachment at 60-80 °C
11) If screen ok'd by analyst, combine **with** extract, file screen check sheet
12) Conc. to 1ml with microsnyder attachment, take to 10.0ml with MeCl in GCT.
13) Load on GPC, check if gpc check peaks shifted <5% from previous run — EF 5/4/94
14) Conc extracts off GPC to 10ml using KD-receivers, make copies of GPC chart and include with logsheets — DLC 5/5/94
15) Conc to <1ml using microsnyders — BMD 5/5/94
14) Quantitatively transfer to autosampler vials marked at 0.5ml, blow down extract volume to 0.5ml under N_2, to GCMS

QC Required: MS ✓ MSD ✓ BLANK ✓ 5/4/94

Chain of Custody	TO FF Sec 5-4-94 / to LA02-B	FROM GPC to BMD DLC 5/5/94
To GCMS BMD 5/5/94	/ rec'd GCMS 5/6/94 AT	

Notebook No. 1000

PROJECT CLP 3/90 SOW BNA Calibration Curve Continued From Page —

Standards were prepared at 4 levels by dilution of the CLP 3/90 SOW stock standard (676-97-1) with methylene chloride using 5 mL volumetric flasks.

1000-1-1 10 µg/mL

$$\frac{(0.25\,mL)(200\,\mu g/mL)}{5\,mL} = 10\,\mu g/mL$$

1000-1-2 40 µg/mL

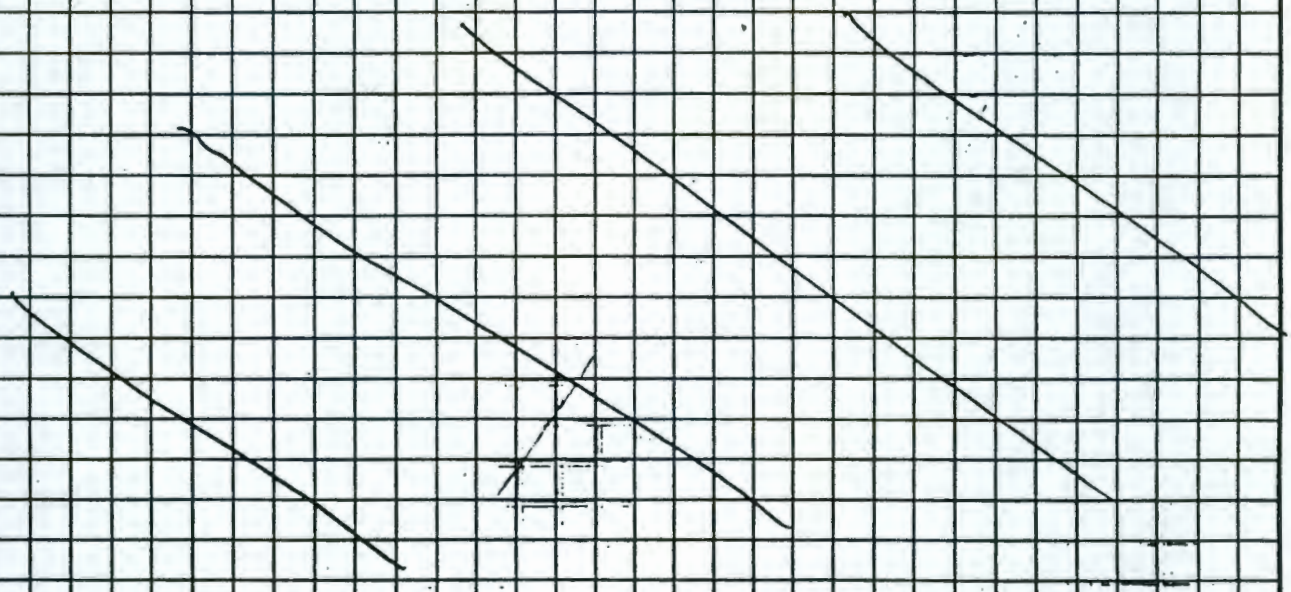
$$\frac{(1.0\,mL)(200\,\mu g/mL)}{5\,mL} = 40\,\mu g/mL$$

1000-1-3 60 µg/mL

$$\frac{(1.5\,mL)(200\,\mu g/mL)}{5\,mL} = 60\,\mu g/mL$$

1000-1-4 80 µg/mL

$$\frac{(2.0\,mL)(200\,\mu g/mL)}{5\,mL} = 80\,\mu g/mL$$



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Signed [illegible] Date 12/21/94

Read and Understood By [illegible] Signed Date 12/21/94

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PROJECT CLP 3/90 SOW Daily Calibration Standard

Notebook No. 1000

Continued From Page —

1000-2-1

4 daily calibration standards were prepared by pipeting 1.25 mL of the 200 µg/mL stock standard (676-94-1) into a 10 mL volumetric flask and diluting to the mark with methylene chloride.

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

Continued on Page

Signed

2/13/94

Date

Read and Understood By

Signed

2/23/94

Date

001138

PROJECT CLP 3/90 SOW matrix spiking solution

Continued From Page -

676-93-1

The CLP 3/90 SOW matrix spiking solution was prepared by pipetting 3.25 ml of the Protocol CLP Acid Spike Solution and 5 ml of the Protocol B/N Spike Solution listed below into a 50 ml volumetric flask and diluting to the mark with MeOH.

Acid Conc

$\frac{(3.25\ ml)(2000\ ug/ml)}{50\ ml}$ = 130 ug/ml

B/N Conc

$\frac{(5\ ml)(1000\ ug/ml)}{50\ ml}$ = 100 ug/ml

Protocol analytical supplies, inc.

CAT# CLPS-MSA5
LOT# 0920826B
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

32 Briar Circle, Greenbrook, NJ 08812 201-968-1522

CONTAINS MATERIALS KNOWN OR SUSPECTED TO CAUSE CANCER
DANGER-FLAMMABLE

Protocol analytical supplies, inc.

CAT# CLPS-MSB5
LOT# 0930520F
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

32 Briar Circle, Greenbrook, NJ 08812 201-968-1522

CONTAINS MATERIALS KNOWN OR SUSPECTED TO CAUSE CANCER
DANGER-FLAMMABLE

Continued on Page

Read and Understood By

Signed	Date	Signed	Date
[signature]	11/4/93	[signature]	12/7/93

PROJECT 3150 CLP Stock Calibration Standard (Protocol)

Continued From Page —

676-97-1

The indicated volume of each of the following Protocol Standards was pipetted into a 20-ml volumetric flask and diluted to the mark with Methanol.

Expires 1/10/94

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

Standard	Conc	Volume	Lot
ESG-PSA-2000	2000 µg/ml	2-ml	0630604A
HL CAL-ACIDS	↓	↓	0520602B
BSQ-GV-X	↓	↓	0630623B
CLP90-SA5	↓	↓	0630317A
CLP90-GB5	100 µg/ml	4-ml	0630637B

Continued on Page

Read and Understood By

Signed 1/10/94 Date

Signed 1/11/94 Date

9513355.2230

Notebook No. 1005

PROJECT CLP 3/90 SOW Surrogate Spiking Solution

Continued From Page

1005-3-1

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 listed below into a 100 ml flask and diluted to the mark with MeOH.

Acid Conc

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

B/N Conc

$$\frac{(10\ ml)(1000\ mg/ml)}{100\ ml} = 100\ mg/l$$

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 5/5/94 Date

Signed 5/5/9 Date

9513355.2239

Semivolatile Organic Compounds
Samples WA04-4-08 (ESE# CDMHNSS*29)
WSV2-1-01 (ESE# CDMHNSS*30)

9513355.2240

SDG NARRATIVE

SDG No. 48916

GC/MS Semivolatiles Narrative

1. The matrix spike and recoveries were above the upper limit for pentachlorophenol. This recovery is very good for this method. Following the CLP 3/90 SOW matrix spike recoveries are only advisory and their failure does not indicate a QC problem.

2. The continuing calibration, file NVO501465.D, had a percent differences greater than the required 25% for pentachlorophenol. Following the 3/90 SOW up to four failures for continuing calibration controls are allowed.

3. Sample A0404008MSD failed the perylene-d12 internal standard area. Following the CLP 3/90 SOW reanalysis is not required for matrix spike or matrx spike duplicates.

9513355.2242

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SEMIVOLATILES DATA

9513355.2244

SEMIVOLATILES DATA

9513355.2245

QC SUMMARY

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48916

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	SBLKS1	89	91	110	78	74	80	76	90	0
02	A0404008	69	74	103	63	57	70	60	69	0
03	A0404008MS	78	84	111	74	70	89	73	83	0
04	A0404008MSD	76	82	114	71	64	81	69	77	0
05	SV201001	72	75	99	67	61	69	65	74	0
06										
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		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.: 48916

Matrix Spike - EPA Sample No.: A0404008 Level(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	2600	0	2200	85	26- 90
2-Chlorophenol	2600	0	2100	81	25-102
1,4-Dichlorobenzene	1800	0	1400	78	28-104
N-Nitroso-di-n-prop.(1)	1800	0	1300	72	41-126
1,2,4-Trichlorobenzene	1800	0	1500	83	38-107
4-Chloro-3-methylphenol	2600	0	2200	85	26-103
Acenaphthene	1800	0	1500	83	31-137
4-Nitrophenol	2600	0	2000	77	11-114
2,4-Dinitrotoluene	1800	0	1600	89	28- 89
Pentachlorophenol	2600	0	3200	123*	17-109
Pyrene	1800	0	1700	94	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	2600	2300	88	3	35	26- 90
2-Chlorophenol	2600	2000	77	5	50	25-102
1,4-Dichlorobenzene	1800	1300	72	8	27	28-104
N-Nitroso-di-n-prop.(1)	1800	1300	72	0	38	41-126
1,2,4-Trichlorobenzene	1800	1400	78	6	23	38-107
4-Chloro-3-methylphenol	2600	2200	85	0	33	26-103
Acenaphthene	1800	1500	83	0	19	31-137
4-Nitrophenol	2600	1600	62	22	50	11-114
2,4-Dinitrotoluene	1800	1500	83	7	47	28- 89
Pentachlorophenol	2600	2700	104	17	47	17-109
Pyrene	1800	1700	94	0	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: 1 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.: 48916

Lab File ID: NVO501466.D Lab Sample ID: SBLKS1

Instrument ID: NVO5 Date Extracted: 05/06/94

Matrix: (soil/water) SOIL Date Analyzed: 05/09/94

Level:(low/med) LOW Time Analyzed: 1121

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	A0404008	CDMHNSS*29	NVO501467.D	05/09/94
02	A0404008MS	CDMHNSS*29MS	NVO501468.D	05/09/94
03	A0404008MSD	CDMHNSS*29MSD	NVO501469.D	05/09/94
04	SV201001	CDMHNSS*30	NVO501470.D	05/09/94
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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.: 48916

Lab File ID: NVO501305.D DFTPP Injection Date: 03/29/94

Instrument ID: NVO5 DFTPP Injection Time: 0928

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	48.2
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	57.3
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	25.0 - 75.0% of mass 198	45.2
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	6.6
275	10.0 - 30.0% of mass 198	21.4
365	Greater than 0.75% of mass 198	2.56
441	Present, but less than mass 443	11.1
442	40.0 - 110.0% of mass 198	73.3
443	15.0 - 24.0% of mass 442	14.4 (19.6)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	NVO501306.D	03/29/94	0952
02	SSTD50	SSTD50	NVO501307.D	03/29/94	1027
03	SSTD80	SSTD80	NVO501308.D	03/29/94	1104
04	SSTD120	SSTD120	NVO501309.D	03/29/94	1142
05	SSTD160	SSTD160	NVO501310.D	03/29/94	1218
06					
07					
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5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48916

Lab File ID: NVO501464.D DFTPP Injection Date: 05/09/94

Instrument ID: NVO5 DFTPP Injection Time: 0922

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	60.1
70	Less than 2.0% of mass 69	0.1 (0.2)1
127	25.0 - 75.0% of mass 198	46.1
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	6.8
275	10.0 - 30.0% of mass 198	21.8
365	Greater than 0.75% of mass 198	3.01
441	Present, but less than mass 443	11.2
442	40.0 - 110.0% of mass 198	74.3
443	15.0 - 24.0% of mass 442	13.9 (18.7)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	NVO501465.D	05/09/94	1029
02	SBLKS1	SBLKS1	NVO501466.D	05/09/94	1121
03	A0404008	CDMHNSS*29	NVO501467.D	05/09/94	1152
04	A0404008MS	CDMHNSS*29MS	NVO501468.D	05/09/94	1232
05	A0404008MSD	CDMHNSS*29MSD	NVO501469.D	05/09/94	1308
06	SV201001	CDMHNSS*30	NVO501470.D	05/09/94	1345
07					
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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.: 48916

Lab File ID (Standard): NV0501465.D Date Analyzed: 05/09/94

Instrument ID: NV05 Time Analyzed: 1029

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	680897	5.55	2217292	7.67	1120150	11.16
	UPPER LIMIT	1361794	6.05	4434584	8.17	2240300	11.66
	LOWER LIMIT	340448	5.05	1108646	7.17	560075	10.66
	EPA SAMPLE No.						
01	SBLKS1	565501	5.56	1805377	7.67	937495	11.15
02	A0404008	743666	5.56	2397585	7.67	1237438	11.17
03	A0404008MS	814279	5.57	2690338	7.67	1322407	11.17
04	A0404008MSD	456452	5.56	1529477	7.66	783681	11.16
05	SV201001	893597	5.57	2943812	7.66	1571451	11.15
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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.: 48916

Lab File ID (Standard): NVO501465.D Date Analyzed: 05/09/94

Instrument ID: NVO5 Time Analyzed: 1029

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	1899119	14.53	1822240	20.81	2202934	23.94
	UPPER LIMIT	3798238	15.03	3644480	21.31	4405868	24.44
	LOWER LIMIT	949560	14.03	911120	20.31	1101467	23.44
	EPA SAMPLE No.						
01	SBLKS1	1554308	14.53	1527243	20.79	1874718	23.93
02	A0404008	1733032	14.53	1398308	20.79	1604843	23.92
03	A0404008MS	1962755	14.54	1570715	20.79	1788993	23.93
04	A0404008MSD	1223515	14.52	947344	20.78	1020471*	23.91
05	SV201001	2409249	14.52	2059941	20.79	2615187	23.93
06							
07							
08							
09							
10							
11							
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13							
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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.

9513355.2251

SAMPLE DATA

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A0404008

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48916

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*29

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NVO501467.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 5 decanted: (Y/N) N Date Extracted: 05/06/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/09/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350	U
111-44-4	Bis(2-Chloroethyl)ether	350	U
95-57-8	2-Chlorophenol	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
95-50-1	1,2-Dichlorobenzene	350	U
95-48-7	2-Methylphenol	350	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350	U
106-44-5	4-Methylphenol	350	U
621-64-7	N-Nitroso-di-n-propylamine	350	U
67-72-1	Hexachloroethane	350	U
98-95-3	Nitrobenzene	350	U
78-59-1	Isophorone	350	U
88-75-5	2-Nitrophenol	350	U
105-67-9	2,4-Dimethyphenol	350	U
111-91-1	Bis(2-Chloroethoxy)methane	350	U
120-83-2	2,4-Dichlorophenol	350	U
120-82-1	1,2,4-Trichlorobenzene	350	U
91-20-3	Naphthalene	29	J
106-47-8	4-Chloroaniline	350	U
87-68-3	Hexachlorobutadiene	350	U
59-50-7	4-Chloro-3-methylphenol	350	U
91-57-6	2-Methylnaphthalene	150	J
77-47-4	Hexachlorocyclopentadiene	350	U
88-06-2	2,4,6-Trichlorophenol	350	U
95-95-4	2,4,5-Trichlorophenol	840	U
91-58-7	2-Chloronaphthalene	350	U
88-74-4	2-Nitroaniline	840	U
131-11-3	Dimethyl phthalate	350	U
208-96-8	Acenaphthylene	350	U
606-20-2	2,6-Dinitrotoluene	350	U
99-09-2	3-Nitroaniline	840	U
83-32-9	Acenaphthene	350	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A0404008

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48916

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*29

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NV0501467.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 5 decanted: (Y/N) N Date Extracted: 05/06/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/09/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	840	U
100-02-7	4-Nitrophenol	840	U
132-64-9	Dibenzofuran	54	J
121-14-2	2,4-Dinitrotoluene	350	U
84-66-2	Diethyl phthalate	350	U
7005-72-3	4-Chlorophenyl-phenylether	350	U
86-73-7	Fluorene	350	U
100-01-6	4-Nitroaniline	840	U
534-52-1	4,6-Dinitro-2-methylphenol	840	U
86-30-6	N-Nitrosodiphenylamine (1)	350	U
101-55-3	4-Bromophenyl-phenylether	350	U
118-74-1	Hexachlorobenzene	350	U
87-86-5	Pentachlorophenol	840	U
85-01-8	Phenanthrene	90	J
120-12-7	Anthracene	350	U
86-74-8	Carbazole	350	U
84-74-2	Di-n-butylphthalate	350	U
206-44-0	Fluoranthene	350	U
129-00-0	Pyrene	350	U
85-68-7	Butylbenzylphthalate	350	U
91-94-1	3,3'-Dichlorobenzidine	350	U
56-55-3	Benzo(a)anthracene	350	U
218-01-9	Chrysene	350	U
117-81-7	bis(2-Ethylhexyl)phthalate	150	JB
117-84-0	Di-n-octylphthalate	350	U
205-99-2	Benzo(b)fluoranthene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
50-32-8	Benzo(a)pyrene	350	U
193-39-5	Indeno(1,2,3-cd)pyrene	350	U
53-70-3	Dibenzo(a,h)anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

A0404008

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48916

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*29

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NVO501467.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 5 decanted: (Y/N) N Date Extracted:05/06/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 05/09/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

Number TICs found: 20

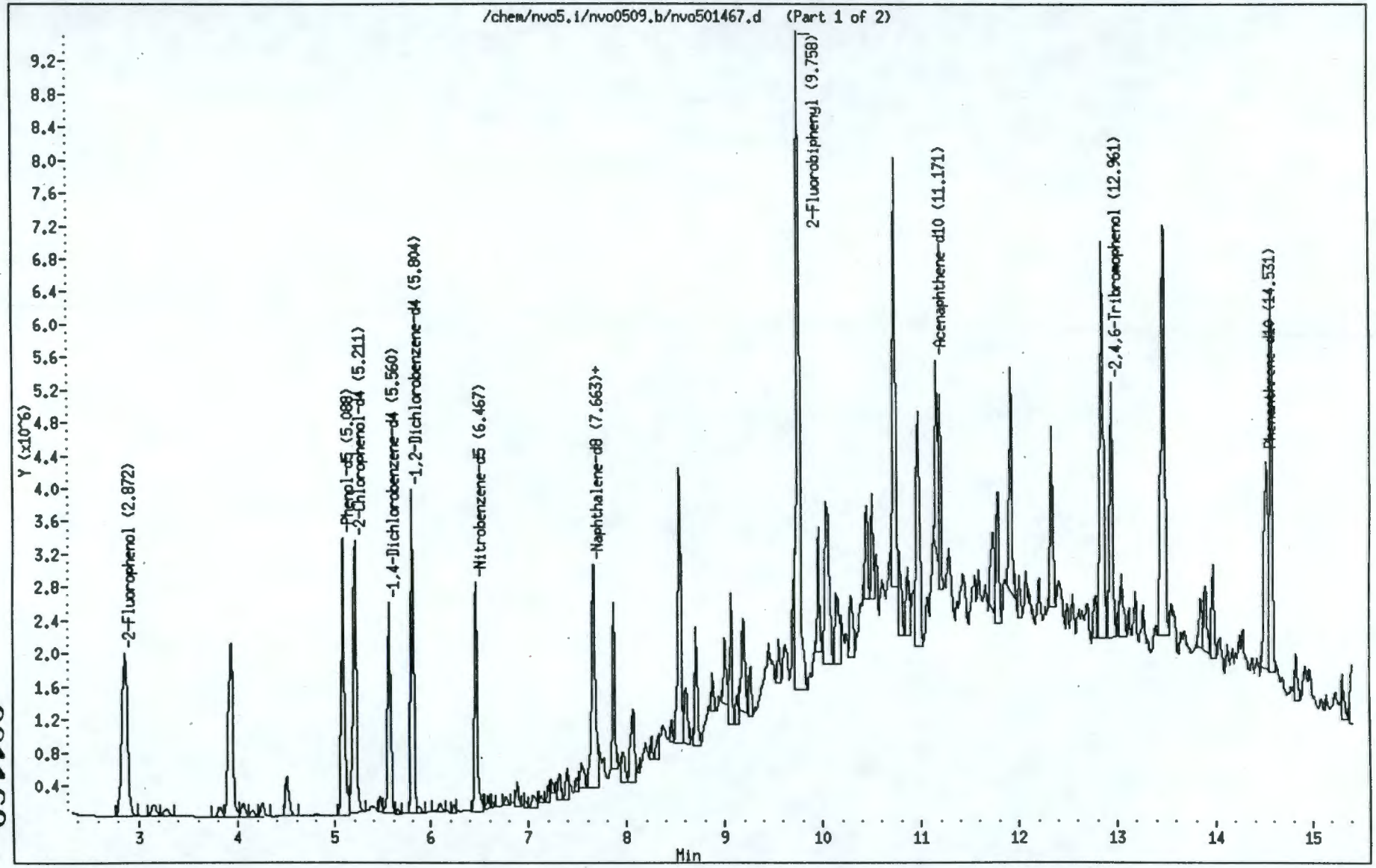
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown Aldol Condensate	3.936	950	JAB
2.	Unknown Alkane	7.872	300	J
3. 54676-39-0	Cyclohexane, 2-butyl-1,1,3-t	8.064	250	NJ
4.	Unknown Alkane	8.544	700	J
5.	Unknown	8.710	260	J
6.	Unknown Alkane	9.068	280	J
7. 90-12-0	Naphthalene, 1-methyl-	9.190	280	NJ
8.	Unknown	9.967	380	J
9.	Unknown	10.142	440	J
10. 575-43-9	Naphthalene, 1,6-dimethyl-	10.456	330	NJ
11.	Unknown Alkane	10.744	1500	J
12.	Unknown	10.787	380	J
13.	Unknown	10.979	1100	J
14. 629-62-9	Pentadecane	11.206	610	NJ
15.	Unknown Alkane	11.791	500	J
16.	Unknown Alkane	11.931	860	J
17. 544-76-3	Hexadecane	12.341	580	NJ
18.	Unknown Alkane	12.865	1100	J
19.	Unknown	13.048	190	J
20.	Unknown Alkane	13.484	1300	J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d
Date : 09-MAY-1994 11:52
Client ID: A0404008
Sample Info: CDMHNSS*29
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



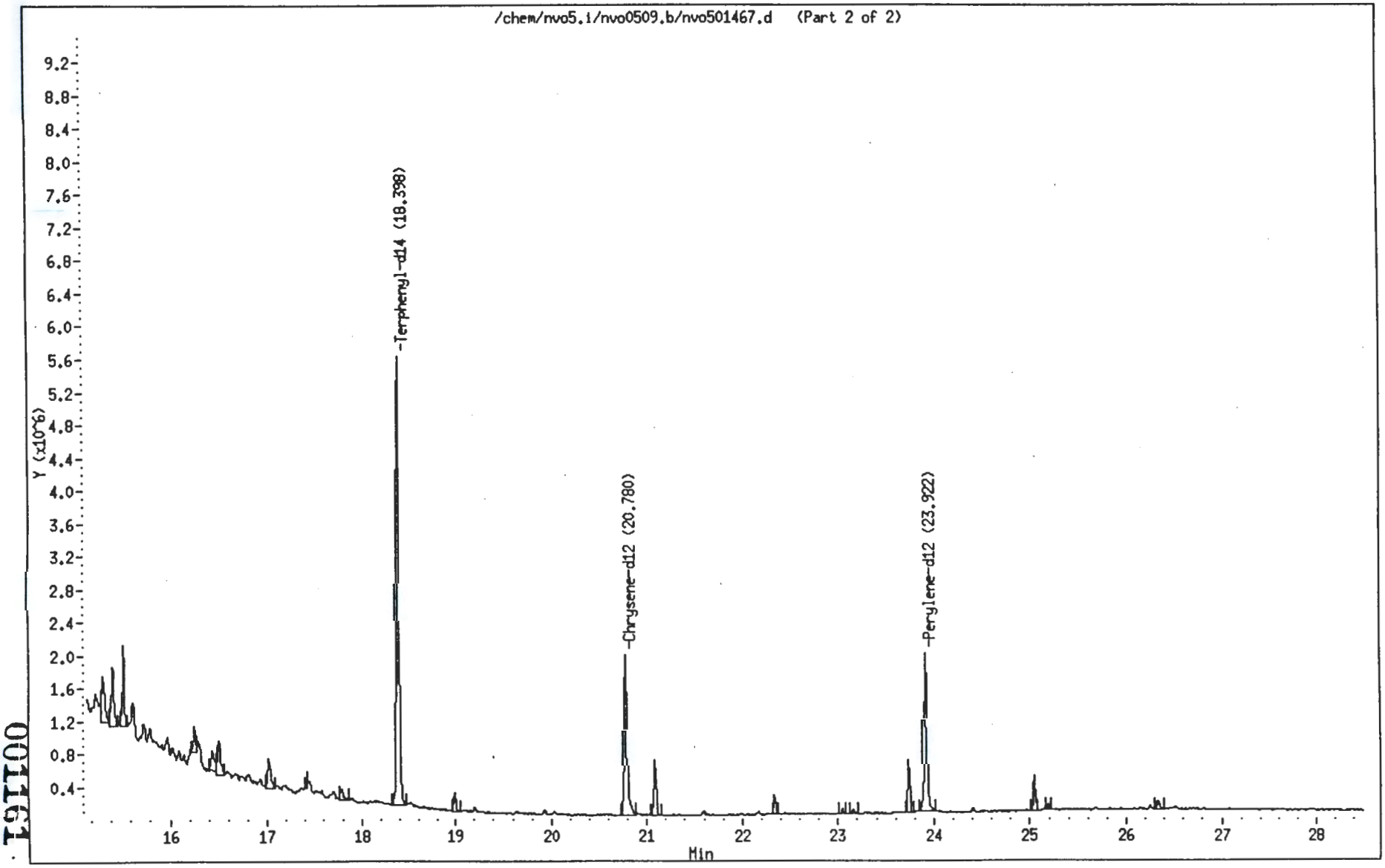
001160

95136556.225

Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d
Date : 09-MAY-1994 11:52
Client ID: A0404008
Sample Info: CDMHNSS*29
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



001161

95 1355 2251

Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d
Report Date: 10-May-1994 08:40

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0509.b/nvo501467.d
Lab Smp Id: CDMHNSS*29 Client Smp ID: A0404008
Inj Date : 09-MAY-1994 11:52 Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : CDMHNSS*29
Misc Info : CDM Hanford N.Slope
Comment :
Method : /chem/nvo5.i/nvo0509.b/clp390epc.m
Meth Date : 09-May-1994 11:01 Quant Type: ISTD
Cal Date : 09-MAY-94 10:29 Cal File: nvo501465.d
Als bottle: 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 ON-COLUMN (ng)	FINAL (ug/Kg)
* 1 1,4-Dichlorobenzene-d4	152.00	5.560	5.552	(1.000)	743666	40	
$ 2 2-Fluorophenol	112.00	2.872	2.689	(0.516)	2139120	85	1400
$ 3 Phenol-d5	99.00	5.088	5.063	(0.915)	2574151	95	1600
$ 6 2-Chlorophenol-d4	132.00	5.211	5.185	(0.937)	1905425	90	1500
$ 10 1,2-Dichlorobenzene-d4	152.00	5.804	5.787	(1.044)	1070097	69	1200
* 17 Naphthalene-d8	136.00	7.672	7.672	(1.000)	2397585	40	
$ 18 Nitrobenzene-d5	82.00	6.467	6.468	(0.843)	1736616	69	1200
26 Naphthalene	128.00	7.707	7.707	(1.005)	99591	2	28(a)
30 2-Methylnaphthalene	142.00	9.007	9.008	(1.174)	345965	9	140(a)
* 31 Acenaphthene-d10	164.00	11.171	11.163	(1.000)	1237438	40	
$ 35 2-Fluorobiphenyl	172.00	9.775	9.767	(0.875)	3225873	74	1200
45 Dibenzofuran	168.00	11.625	11.626	(1.041)	162232	3	51(a)
$ 51 2,4,6-Tribromophenol	330.00	12.961	12.944	(1.160)	826324	100	1700
* 52 Phenanthrene-d10	188.00	14.531	14.532	(1.000)	1733032	40	
58 Phenanthrene	178.00	14.584	14.593	(1.004)	247189	5	86(a)
* 63 Chrysene-d12	240.00	20.789	20.807	(1.000)	1398308	40	
$ 65 Terphenyl-d14	244.00	18.398	18.398	(0.885)	3443460	100	1700
70 bis(2-Ethylhexyl)phthalate	149.00	21.086	21.104	(1.014)	295051	9	140(a)
* 71 Perylene-d12	264.00	23.922	23.940	(1.000)	1604843	40	

QC Flag Legend

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

Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

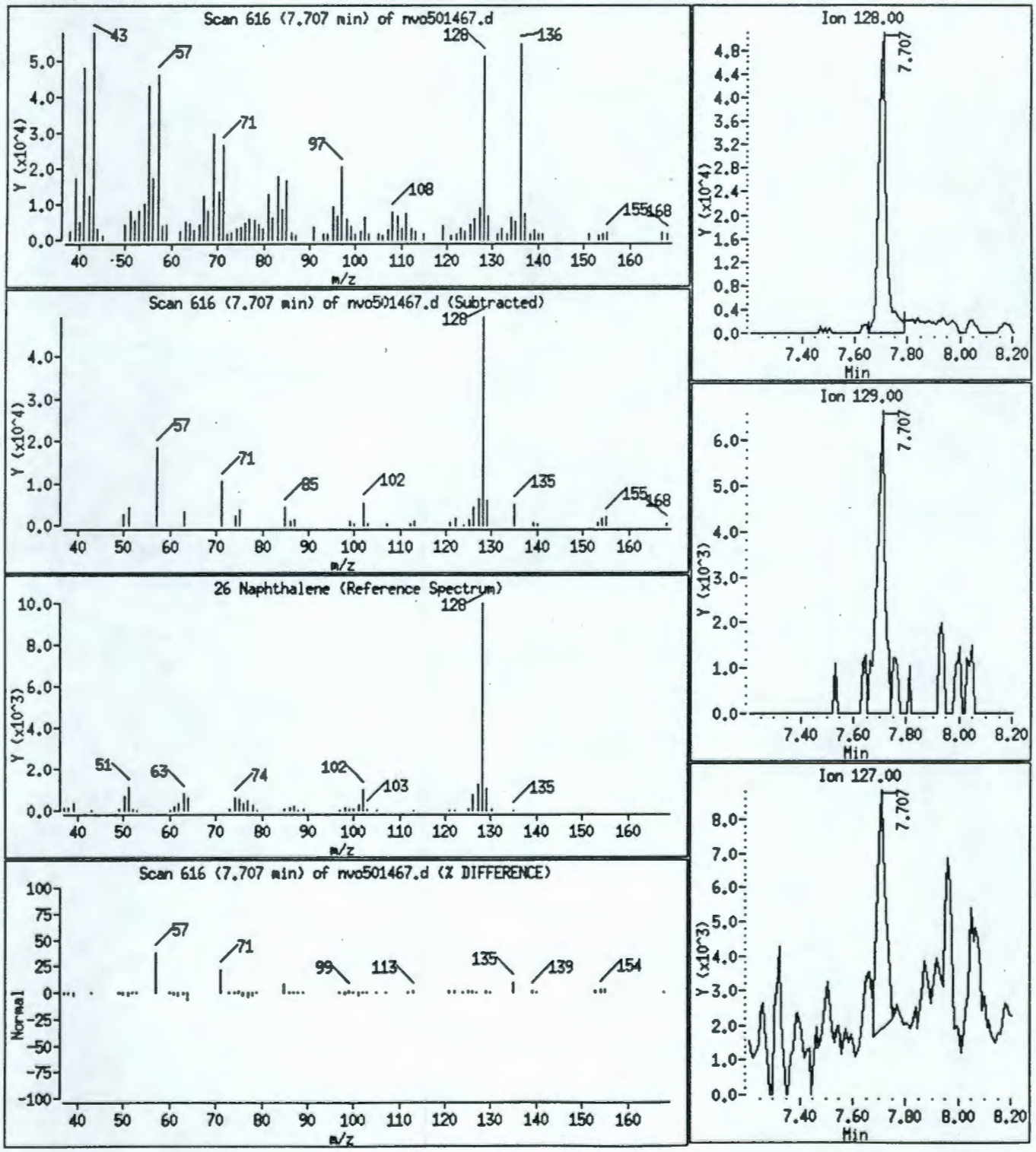
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMHNSS×29

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

Column phase: DB-5MS Column diameter: 0.25

26 Naphthalene



Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

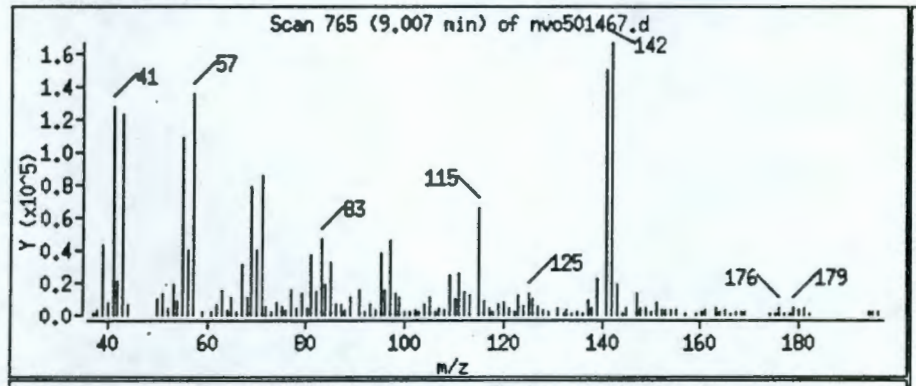
Client ID: A0404008 Instrument: nvo5.i

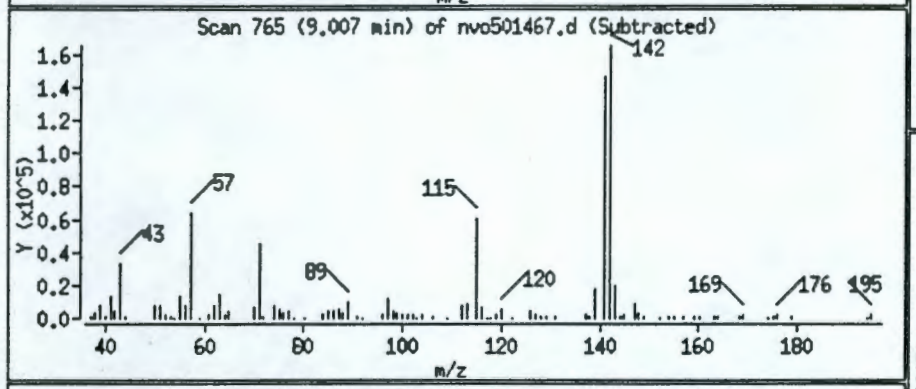
Sample Info: CDMHNSS×29

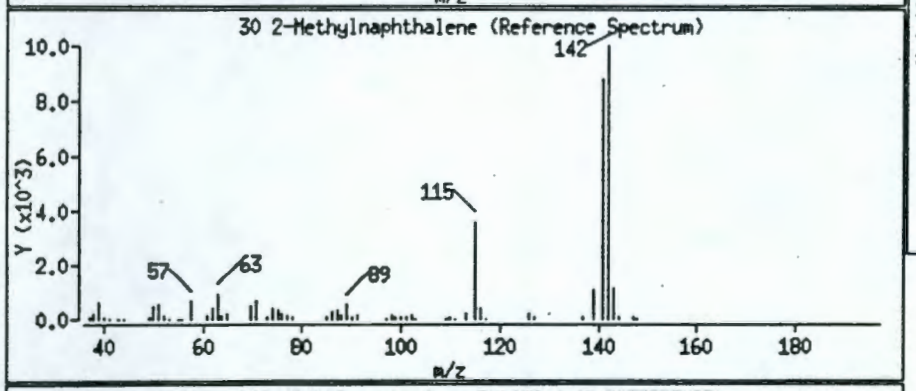
Volume Injected (uL): 2.0 Operator: WAV/AT

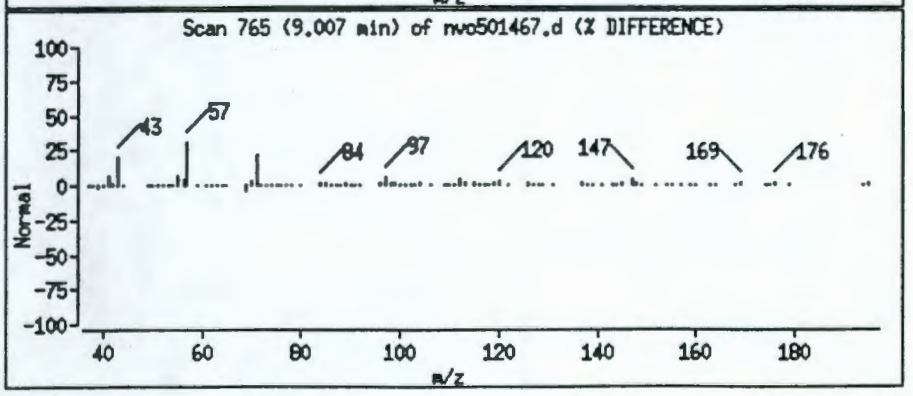
Column phase: DB-5MS Column diameter: 0.25

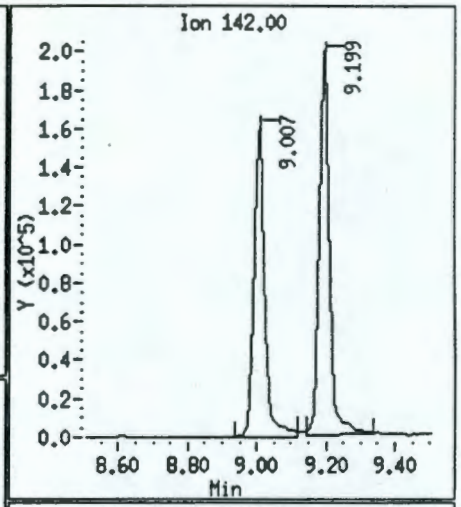
30 2-Methylnaphthalene

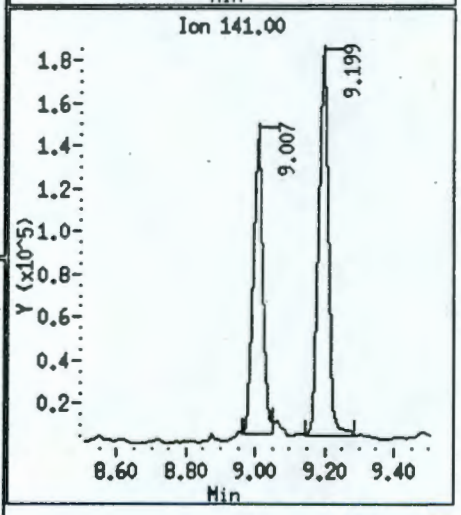






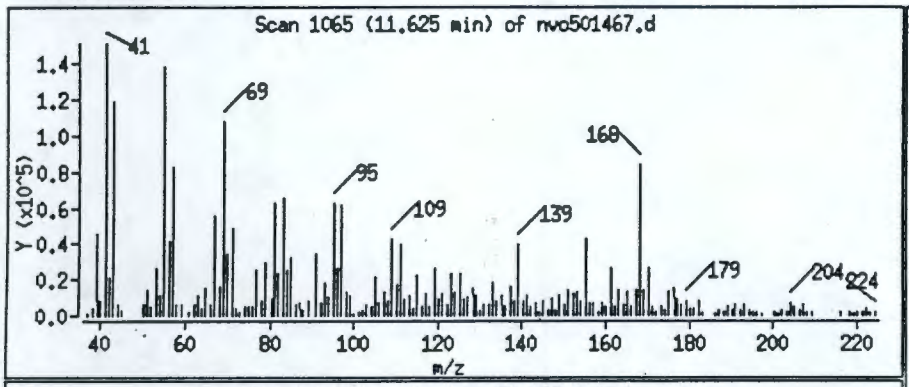


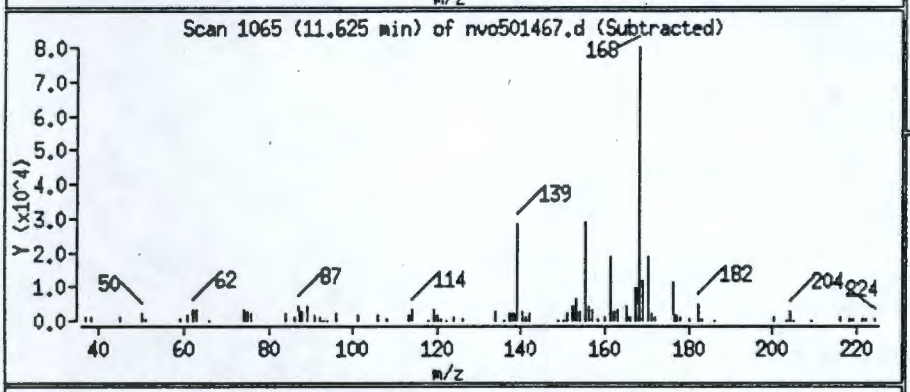


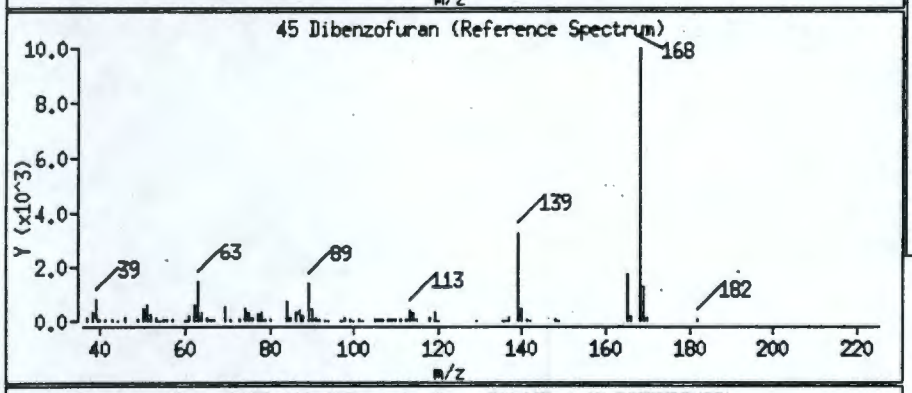


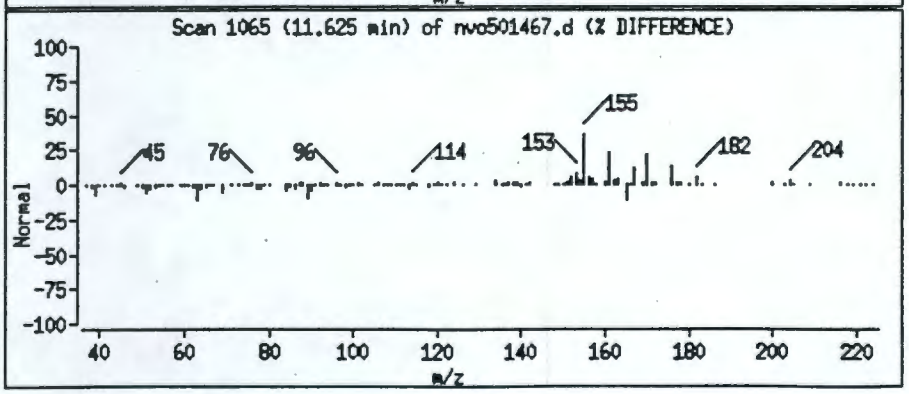
Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d
Date : 09-MAY-1994 11:52
Client ID: A0404008 Instrument: nvo5.i
Sample Info: CDMHNSS*29
Volume Injected (uL): 2.0 Operator: WAV/AT
Column phase: DB-5MS Column diameter: 0.25

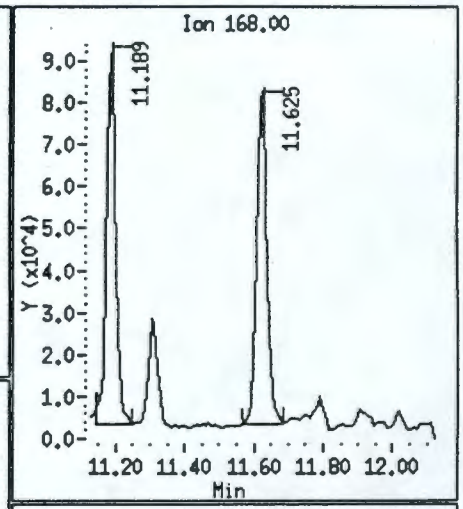
45 Dibenzofuran

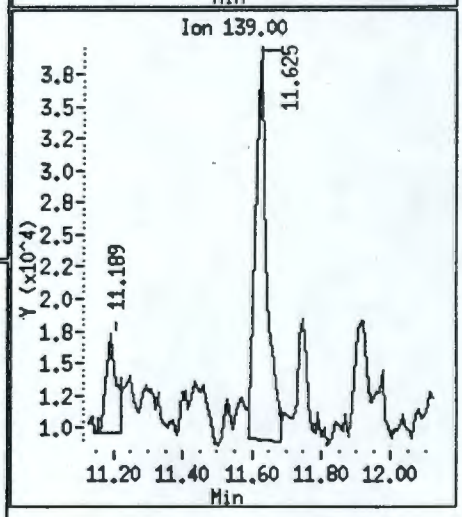








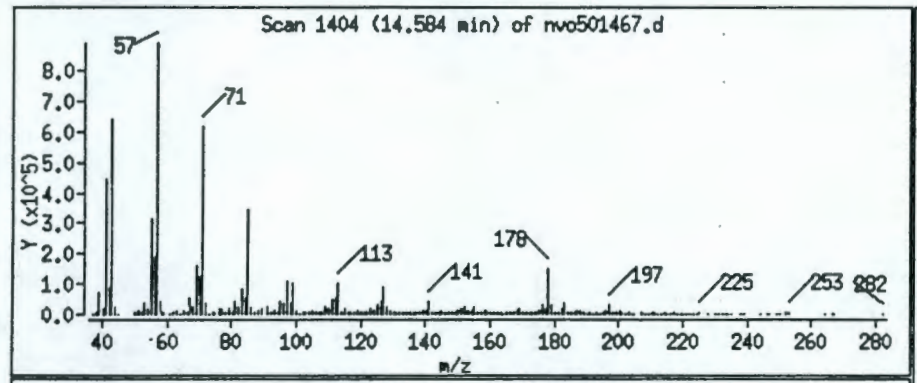


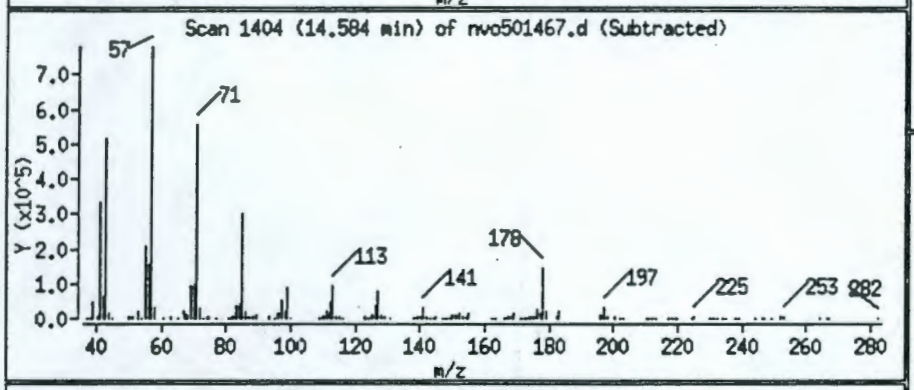


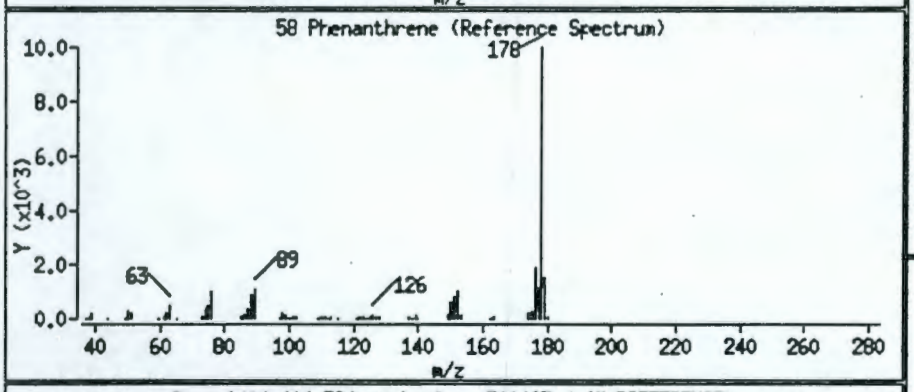
Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d
Date : 09-MAY-1994 11:52
Client ID: A0404008
Sample Info: CDMHNSS*29
Volume Injected (uL): 2.0
Column phase: DB-5MS

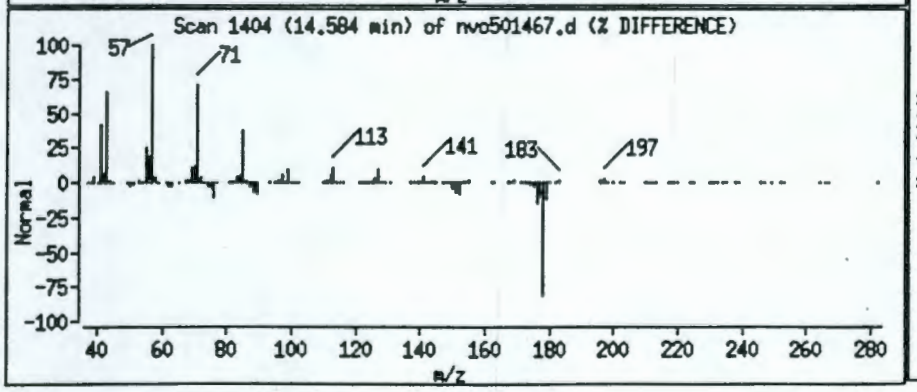
Instrument: nvo5.i
Operator: WAV/AT
Column diameter: 0.25

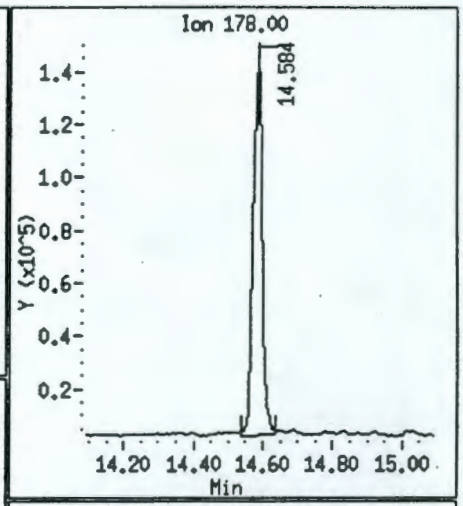
58 Phenanthrene

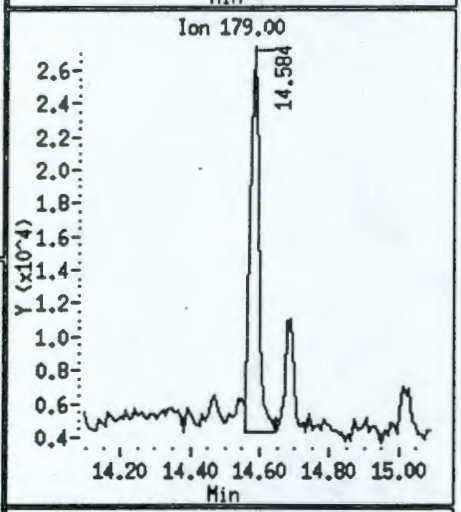


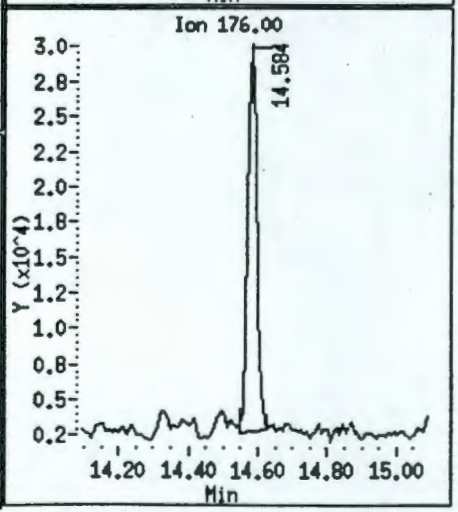












Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

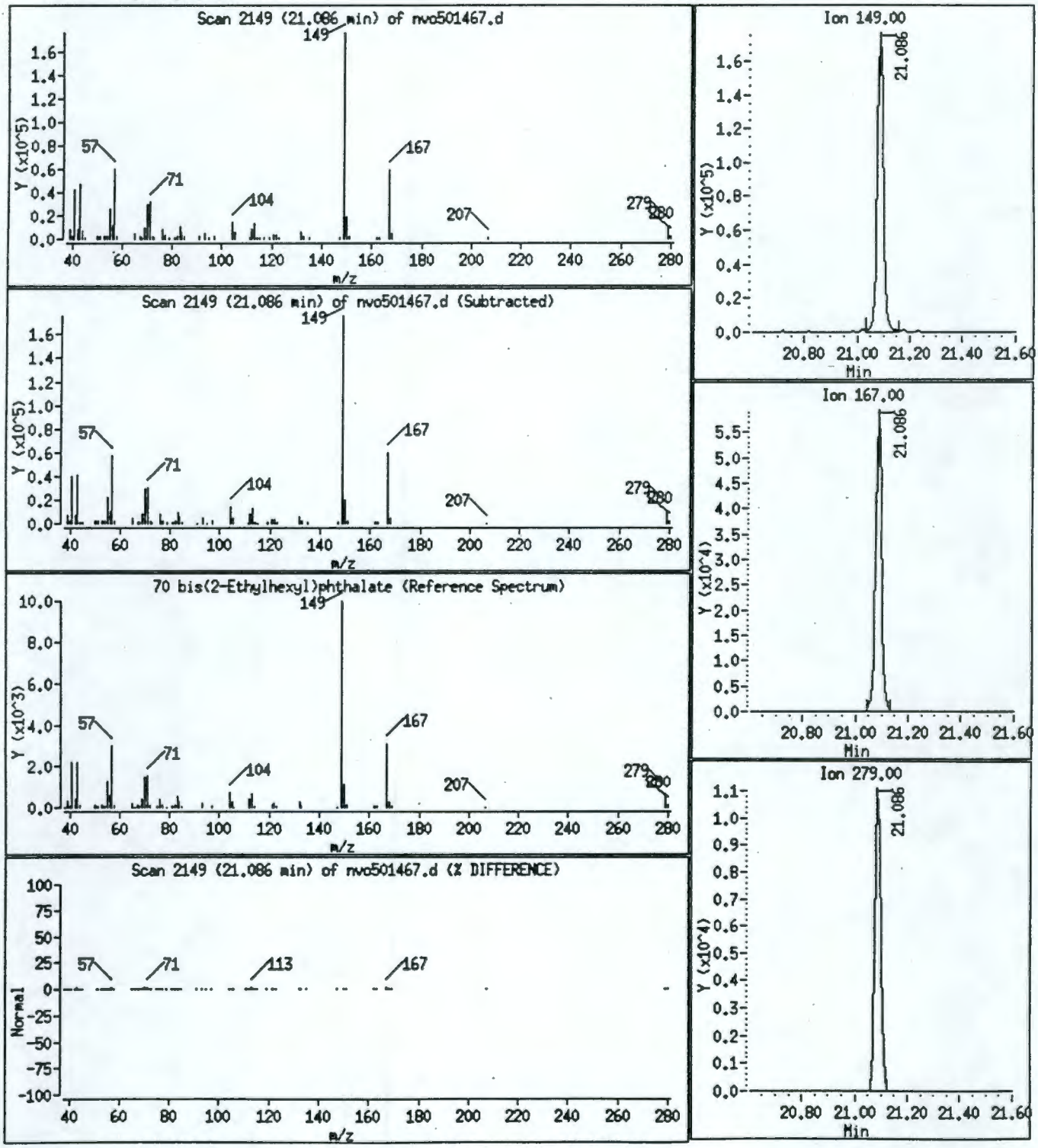
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMHNSS*29

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

Column phase: DB-5MS Column diameter: 0.25

70 bis(2-Ethylhexyl)phthalate



Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d
Report Date: 10-May-1994 11:01

Environmental Science and Engineering

Unknown Compounds Quantitation Report

Data file : /chem/nvo5.i/nvo0509.b/nvo501467.d
Lab Smp Id: CDMHNSS*29 Client Smp ID: A0404008
Inj Date : 09-MAY-1994 11:52 Autotune Date: 08-Feb-94 09:58:2
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : CDMHNSS*29
Misc Info : CDM Hanford N.Slope
Comment :
Method : /chem/nvo5.i/nvo0509.b/clp390epc.m
Meth Date : 09-May-1994 11:01
Cal Date : 09-MAY-94 10:29 Cal File: nvo501465.d
Als bottle: 2
Dil Factor: 1.000 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
* 1 1,4-Dichlorobenzene-d4	5.560	4931106	40.000
* 17 Naphthalene-d8	7.672	7331250	40.000
* 31 Acenaphthene-d10	11.171	4501604	40.000
* 52 Phenanthrene-d10	14.531	7168079	40.000

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.936	6683545	54	900	33	WILEY.1	115784	1
Unknown Alkane					CAS #:		
7.872	3183939	17	290	90	WILEY.1	28123	17
Cyclohexane, 2-butyl-1,1,3-trimethyl-					CAS #: 54676-39-0		
8.064	2575066	14	230	98	WILEY.1	27243	17
Unknown Alkane					CAS #:		
8.544	7352788	40	670	78	WILEY.1	126571	17

Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d
Report Date: 10-May-1994 11:01

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
8.710	2700062	15	240	70	WILEY.1	33333	17
Unknown Alkane					CAS #:		
9.068	2876266	16	260	90	WILEY.1	34251	17
Naphthalene, 1-methyl-					CAS #: 90-12-0		
9.190	2928810	16	270	90	WILEY.1	11127	17(L)
Unknown					CAS #:		
9.967	2462717	22	360	68	WILEY.1	39614	31
Unknown					CAS #:		
10.142	2834172	25	420	58	WILEY.1	43216	31
Naphthalene, 1,6-dimethyl-					CAS #: 575-43-9		
10.456	2104912	19	310	96	WILEY.1	16353	31(L)
Unknown Alkane					CAS #:		
10.744	9416516	84	1400	90	WILEY.1	46565	31
Unknown					CAS #:		
10.787	2415002	21	360	35	WILEY.1	102343	31
Unknown					CAS #:		
10.979	7134319	63	1000	50	WILEY.1	21265	31
Pentadecane					CAS #: 629-62-9		
11.206	3948984	35	580	95	WILEY.1	124388	31
Unknown Alkane					CAS #:		
11.791	3215895	28	480	86	WILEY.1	129427	31
Unknown Alkane					CAS #:		
11.931	5542476	49	820	87	WILEY.1	130188	31
Hexadecane					CAS #: 544-76-3		
12.341	3720732	33	550	96	WILEY.1	125054	31
Unknown Alkane					CAS #:		
12.865	11131037	62	1000	94	WILEY.1	57384	52
Unknown					CAS #:		
13.048	1977159	11	180	47	WILEY.1	61812	52
Unknown Alkane					CAS #:		
13.484	13057011	73	1200	98	WILEY.1	126572	52

QC Flag Legend

L - Operator selected an alternate library search match.

9513355.2267

Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

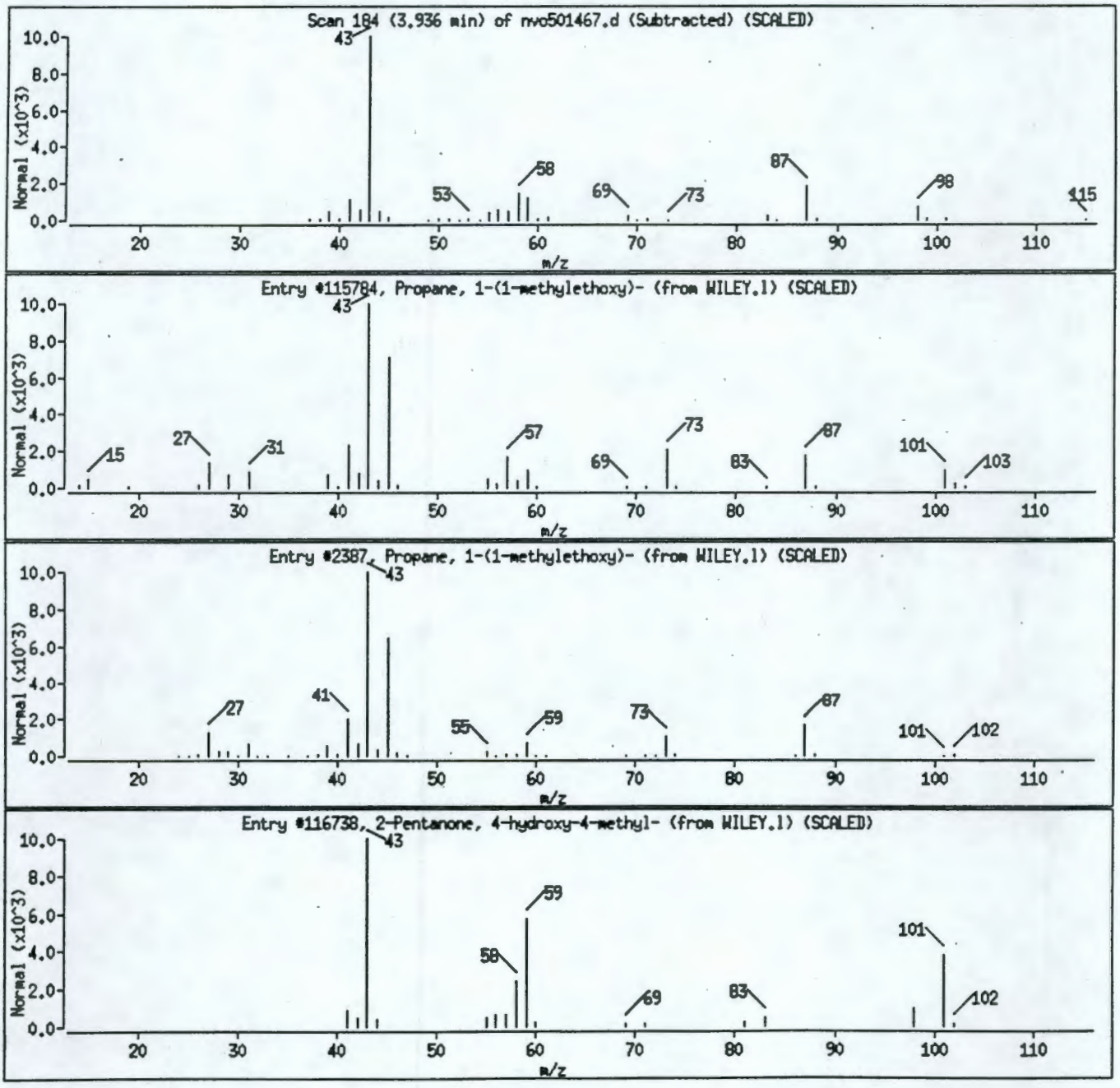
Client ID: A0404008 | Instrument: nvo5.i

Sample Info: CDMHNSS×29

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
Propane, 1-(1-methylethoxy)-	627-08-7	WILEY.1	115784	33	C6H14O	102
Propane, 1-(1-methylethoxy)-	627-08-7	WILEY.1	2387	33	C6H14O	102
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	WILEY.1	116738	25	C6H12O2	116



001170

Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

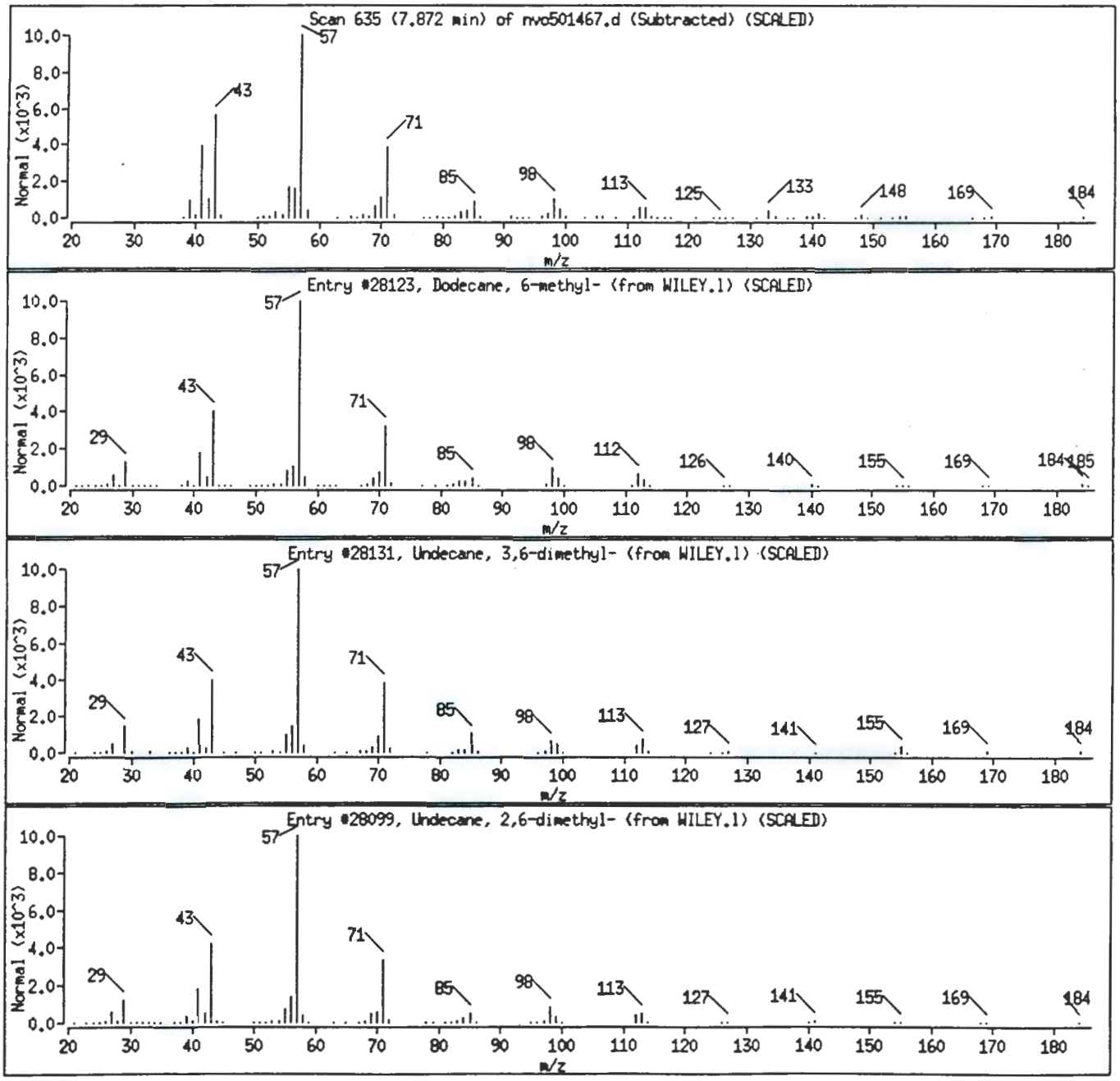
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMHNSS*29

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, 6-methyl-	6044-71-9	WILEY.1	28123	90	C13H28	184
Undecane, 3,6-dimethyl-	17301-28-9	WILEY.1	28131	90	C13H28	184
Undecane, 2,6-dimethyl-	17301-23-4	WILEY.1	28099	89	C13H28	184



9513355.2269

Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

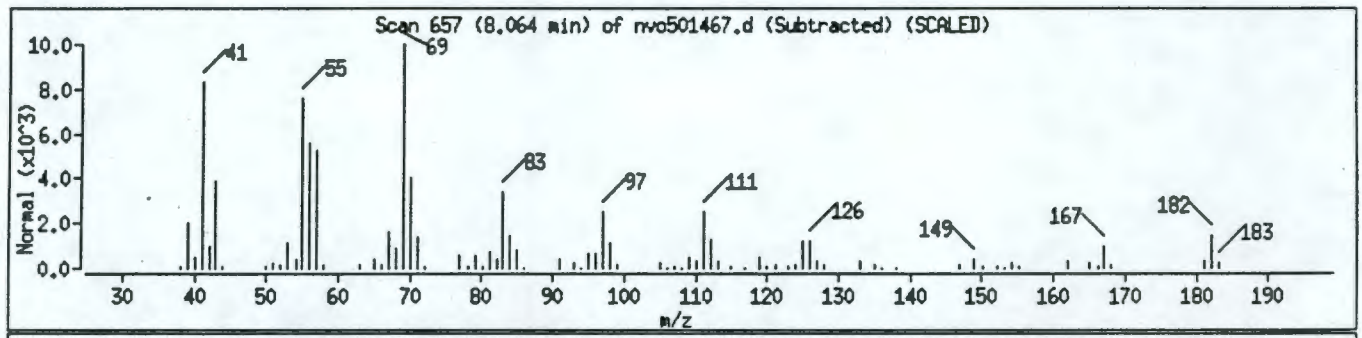
Client ID: A0404008 Instrument: nvo5.i

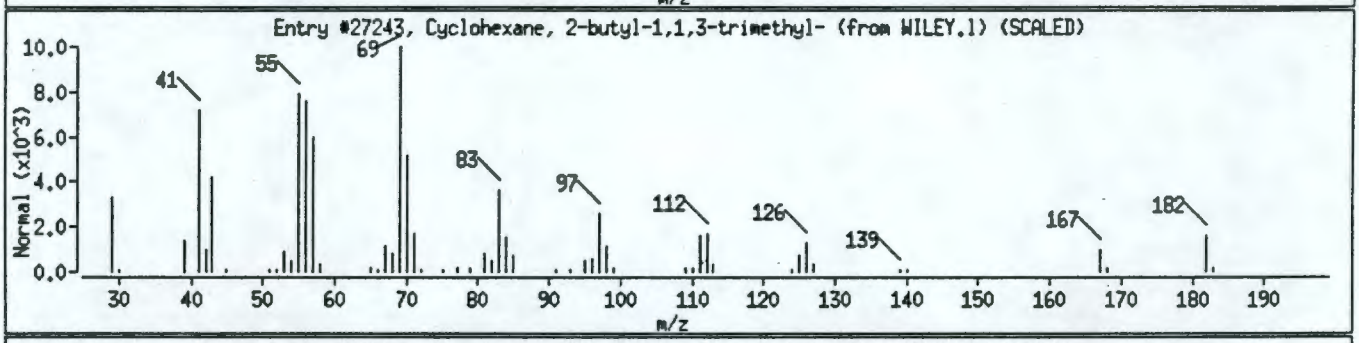
Sample Info: CDMHNSS*29

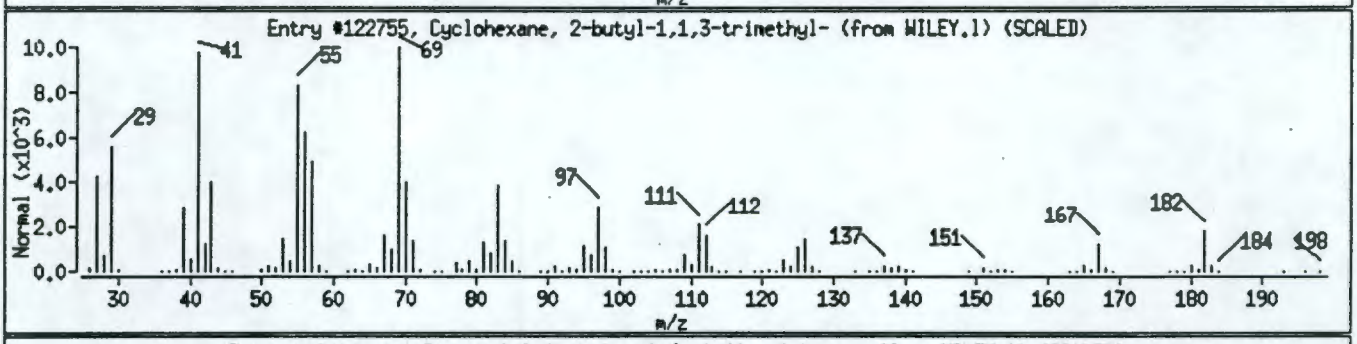
Volume Injected (uL): 2.0 Operator: WAY/AT

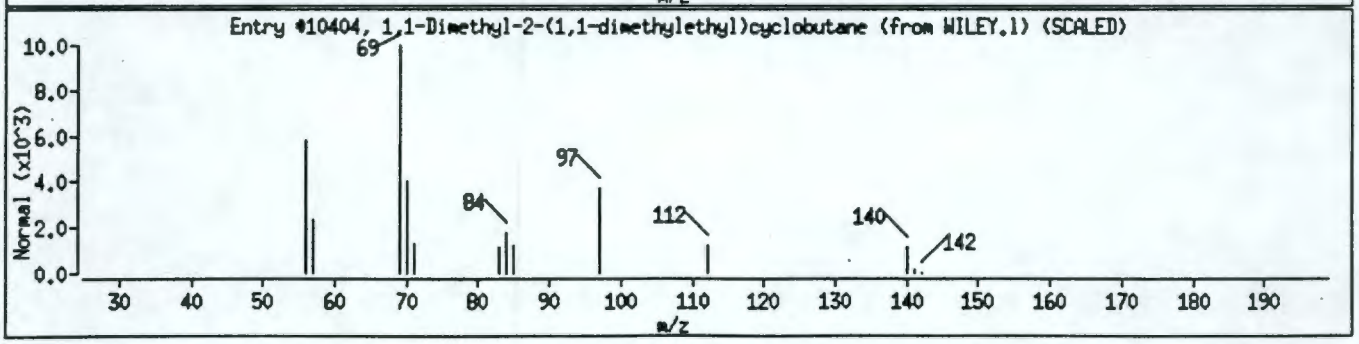
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexane, 2-butyl-1,1,3-trimethyl-	54676-39-0	WILEY.l	27243	98	C13H26	182
Cyclohexane, 2-butyl-1,1,3-trimethyl-	54676-39-0	WILEY.l	122755	74	C13H26	182
1,1-Dimethyl-2-(1,1-dimethylethyl)cyclob	79802-53-2	WILEY.l	10404	53	C10H20	140









001172

9513355.2270

Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

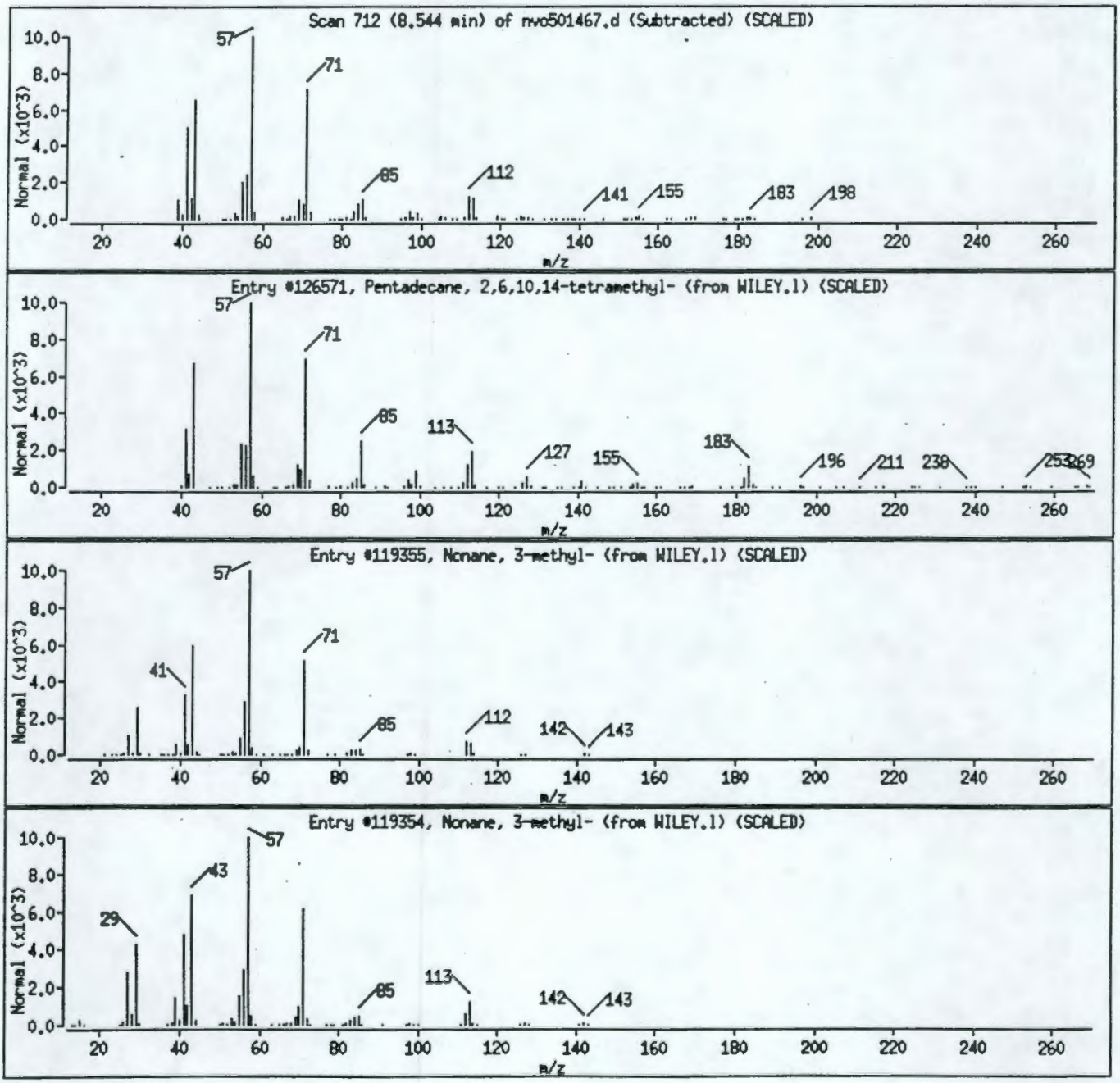
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMHNSS*29

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
Pentadecane, 2,6,10,14-tetramethyl-	1921-70-6	WILEY.l	126571	78	C19H40	268
Nonane, 3-methyl-	5911-04-6	WILEY.l	119355	72	C10H22	142
Nonane, 3-methyl-	5911-04-6	WILEY.l	119354	72	C10H22	142



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Date : 09-MAY-1994 11:52

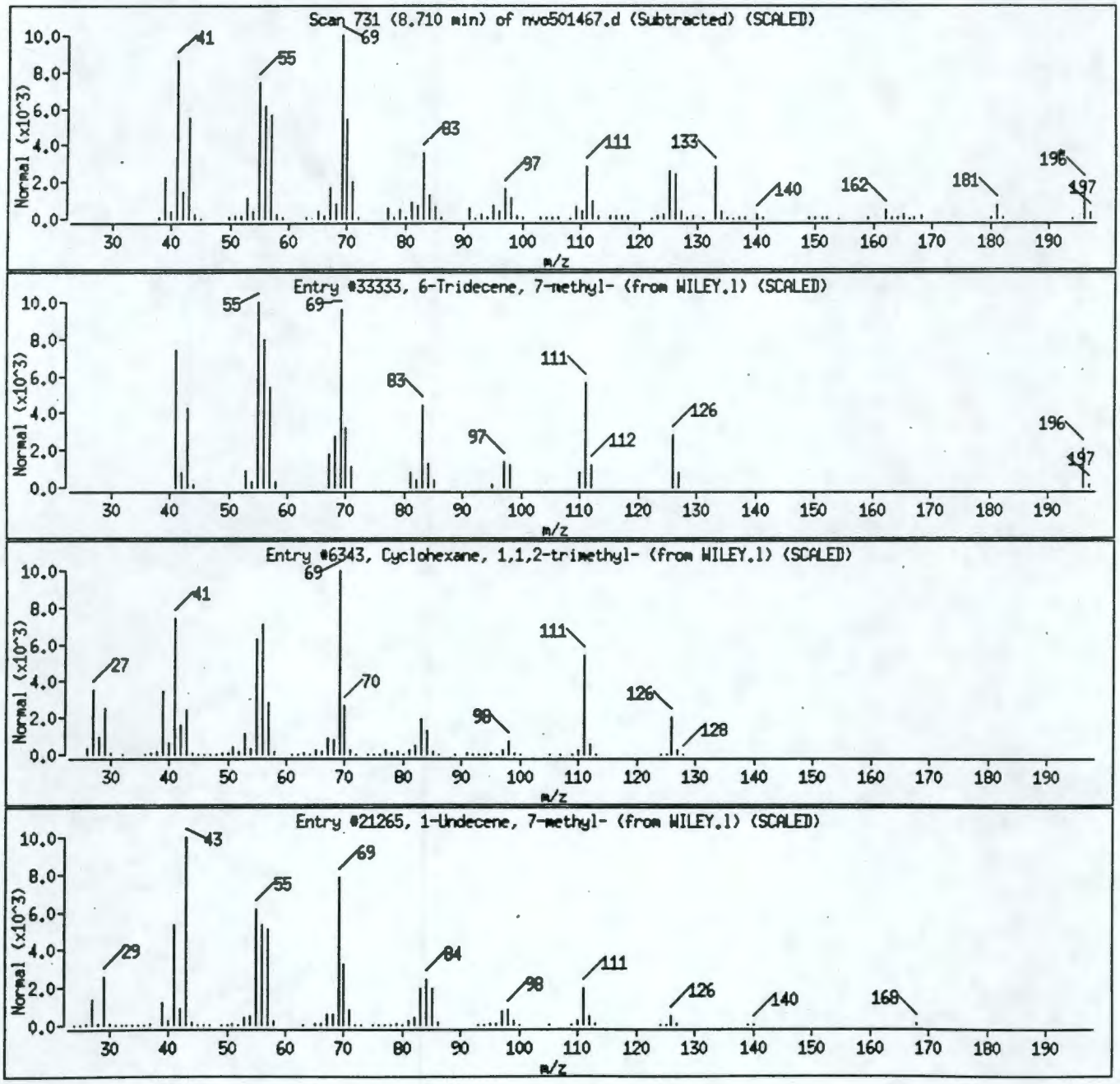
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMHNSS*29

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
6-Tridecene, 7-methyl-	24949-42-6	WILEY.1	33333	70	C14H28	196
Cyclohexane, 1,1,2-trimethyl-	7094-26-0	WILEY.1	6343	64	C9H18	126
1-Undecene, 7-methyl-	74630-42-5	WILEY.1	21265	58	C12H24	168



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Date : 09-MAY-1994 11:52

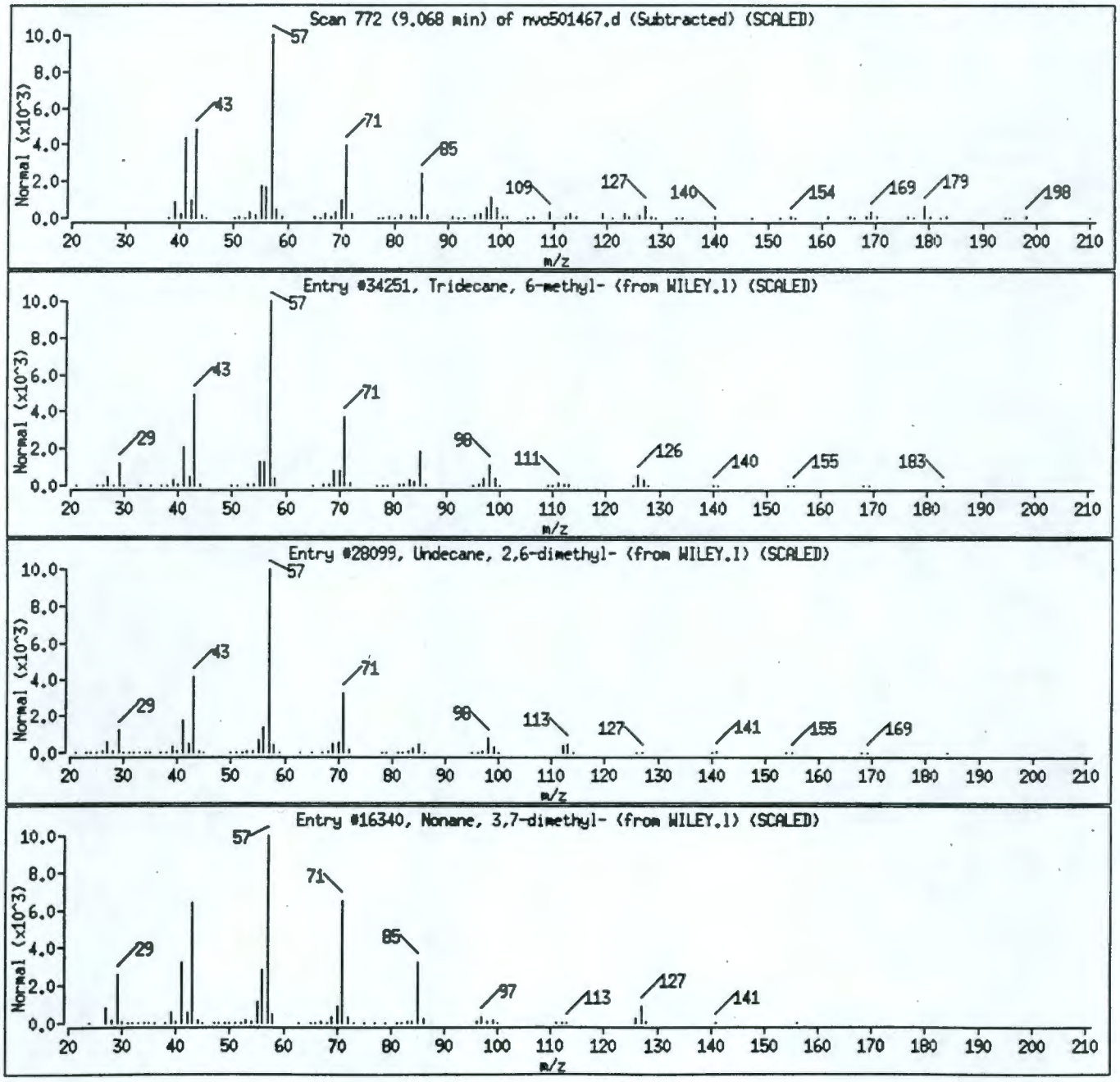
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMHNSS*29

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
Tridecane, 6-methyl-	13287-21-3	WILEY.1	34251	90	C14H30	198
Undecane, 2,6-dimethyl-	17301-23-4	WILEY.1	28099	59	C13H28	184
Nonane, 3,7-dimethyl-	17302-32-8	WILEY.1	16340	59	C11H24	156



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Date : 09-MAY-1994 11:52

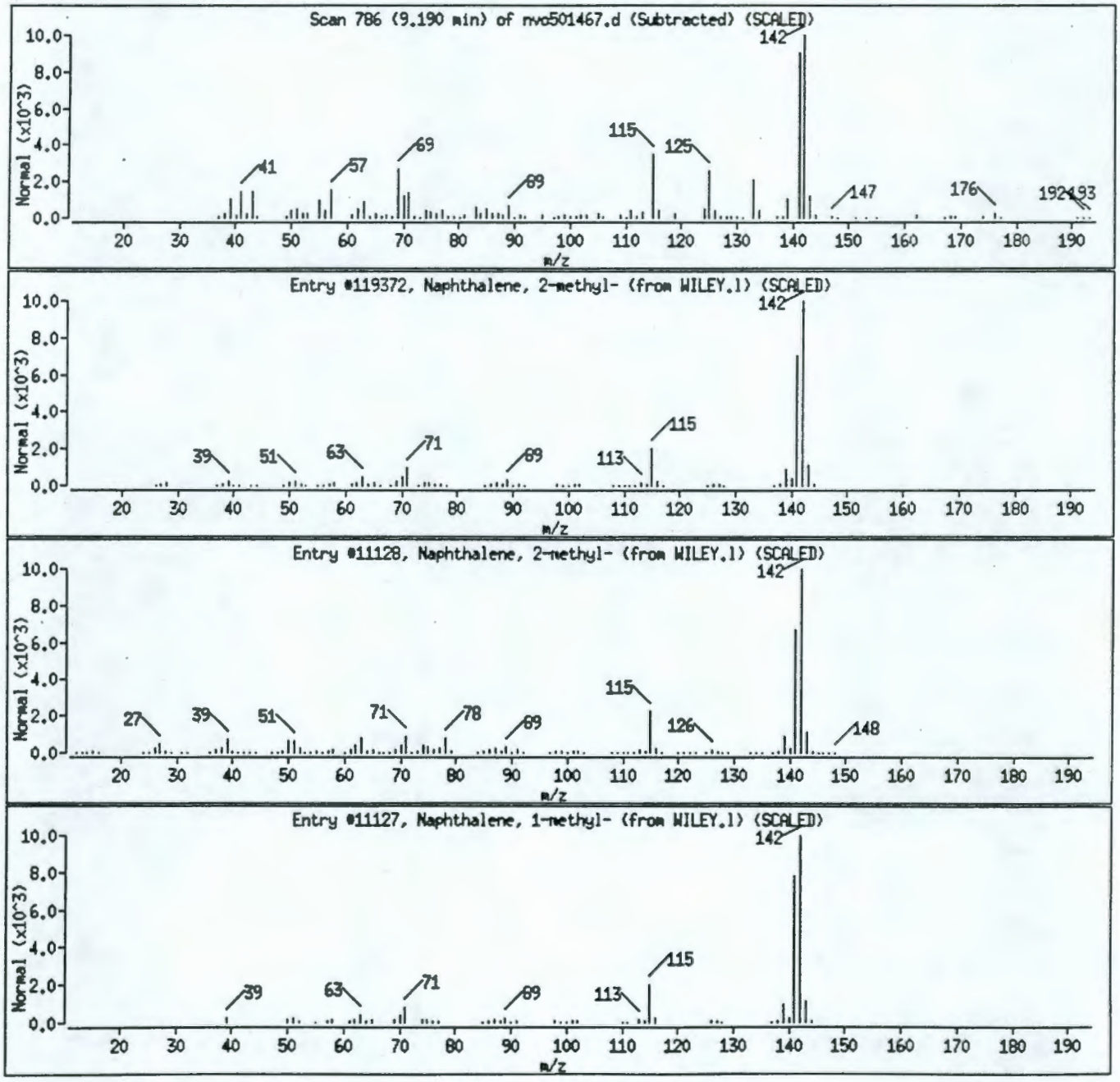
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMHNSS×29

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
Naphthalene, 2-methyl-	91-57-6	WILEY.I	119372	93	C11H10	142
Naphthalene, 2-methyl-	91-57-6	WILEY.1	11128	90	C11H10	142
Naphthalene, 1-methyl-	90-12-0	WILEY.1	11127	90	C11H10	142



9513355.2274

Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

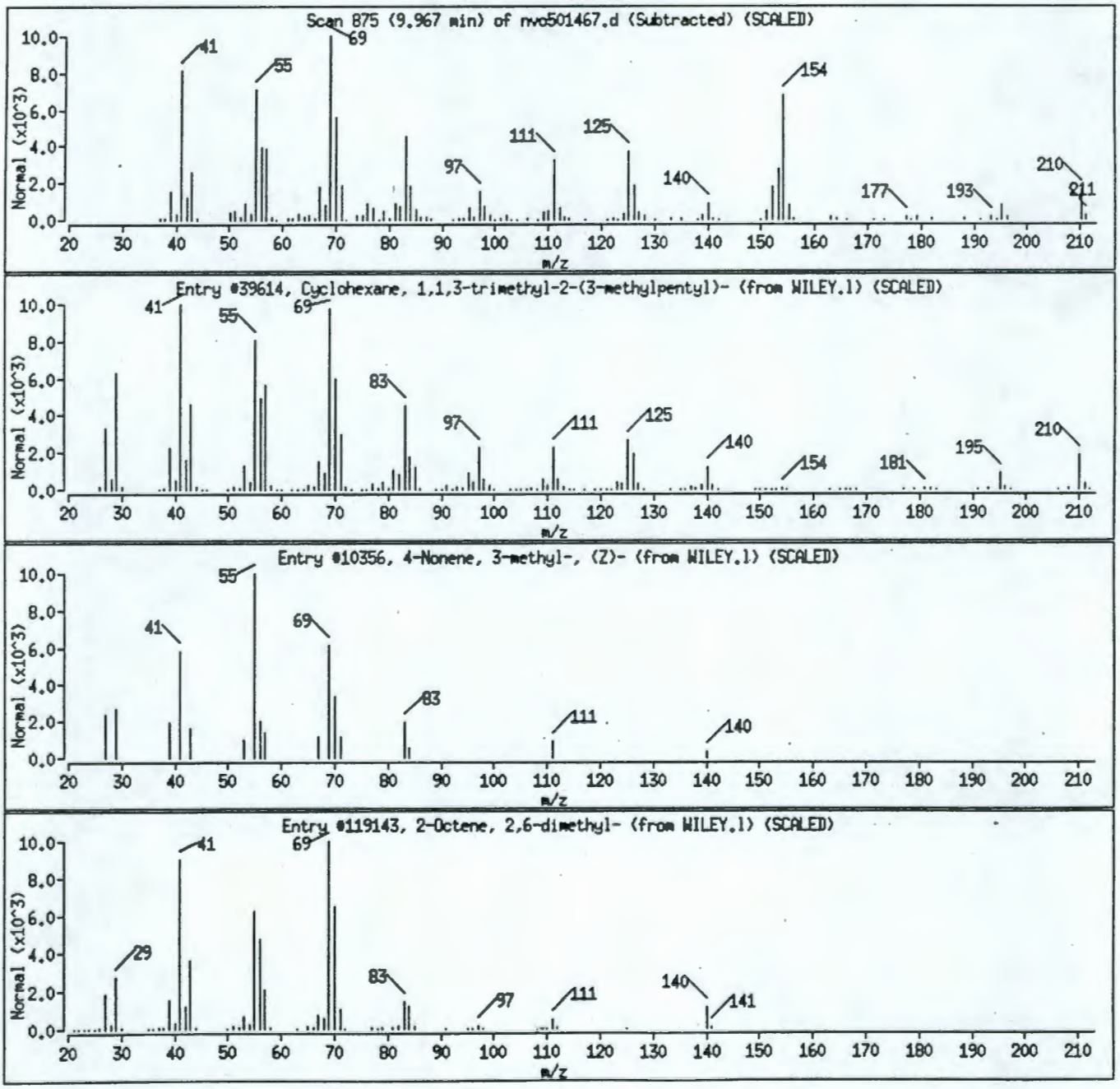
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMHNSS×29

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, 1,1,3-trimethyl-2-(3-methyl	54965-05-8	WILEY.l	39614	68	C15H30	210
4-Nonene, 3-methyl-, (Z)-	63830-69-3	WILEY.l	10356	52	C10H20	140
2-Octene, 2,6-dimethyl-	4057-42-5	WILEY.l	119143	49	C10H20	140



001177

Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

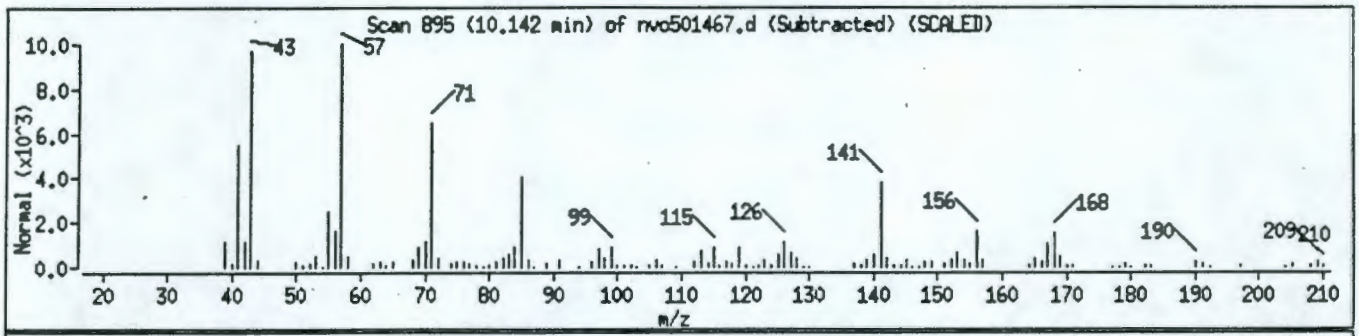
Client ID: A0404008 Instrument: nvo5.i

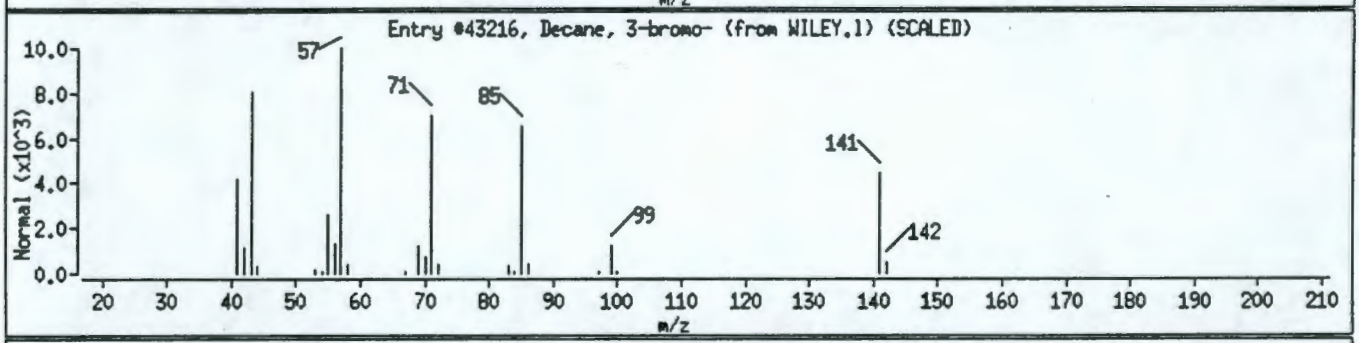
Sample Info: CDMHNSS*29

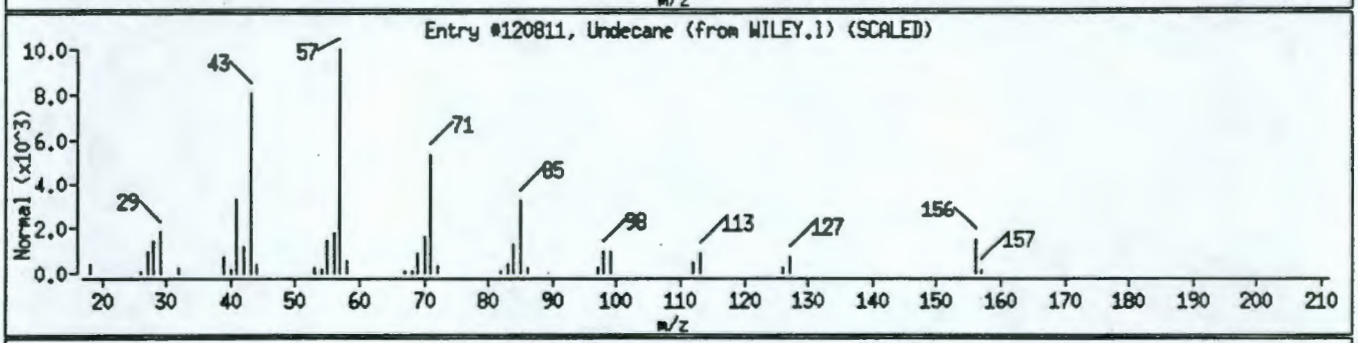
Volume Injected (uL): 2.0 Operator: WAY/AT

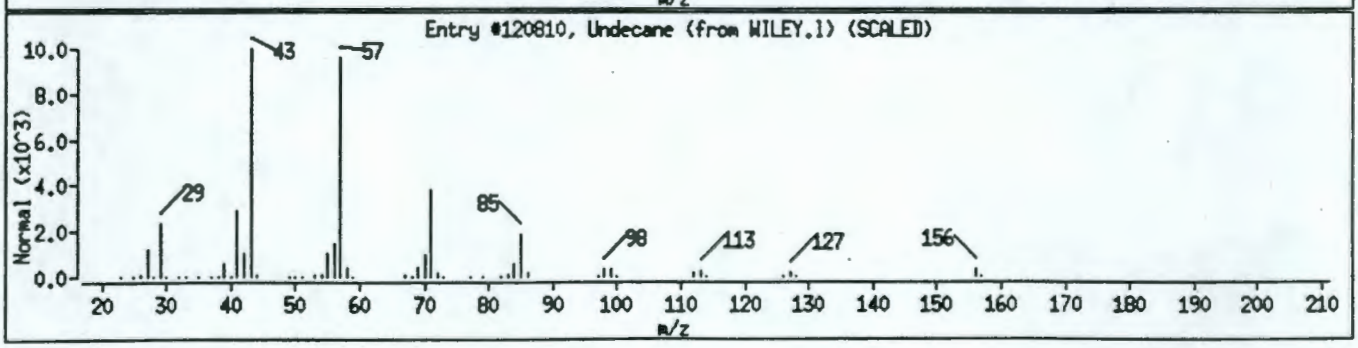
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Decane, 3-bromo-	30571-71-2	WILEY.1	43216	58	C10H21Br	220
Undecane	1120-21-4	WILEY.1	120811	55	C11H24	156
Undecane	1120-21-4	WILEY.1	120810	55	C11H24	156









Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

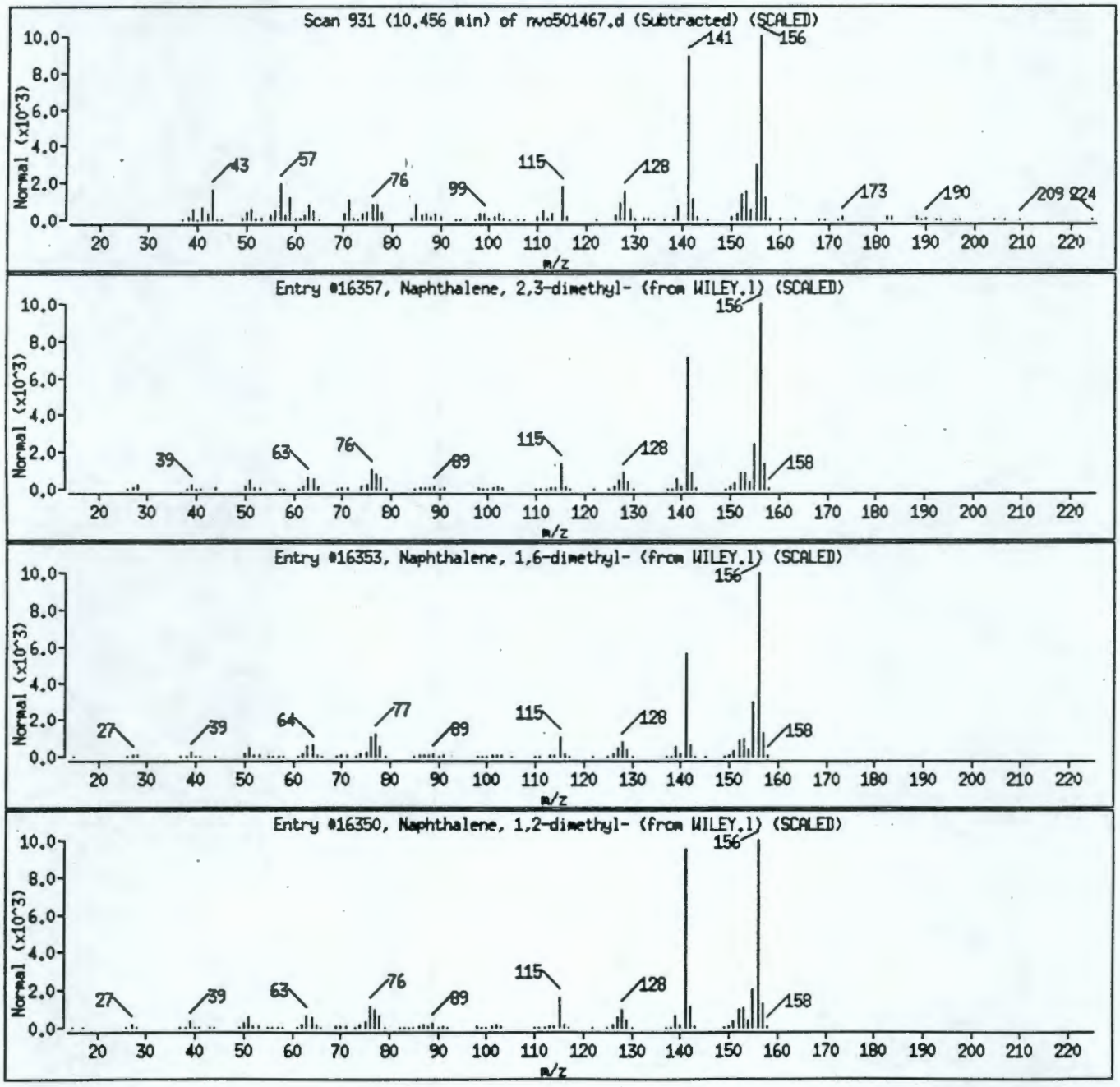
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMHNSS*29

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
Naphthalene, 2,3-dimethyl-	581-40-8	WILEY.1	16357	97	C12H12	156
Naphthalene, 1,6-dimethyl-	575-43-9	WILEY.1	16353	96	C12H12	156
Naphthalene, 1,2-dimethyl-	573-98-8	WILEY.1	16350	96	C12H12	156



9513355.2277

Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

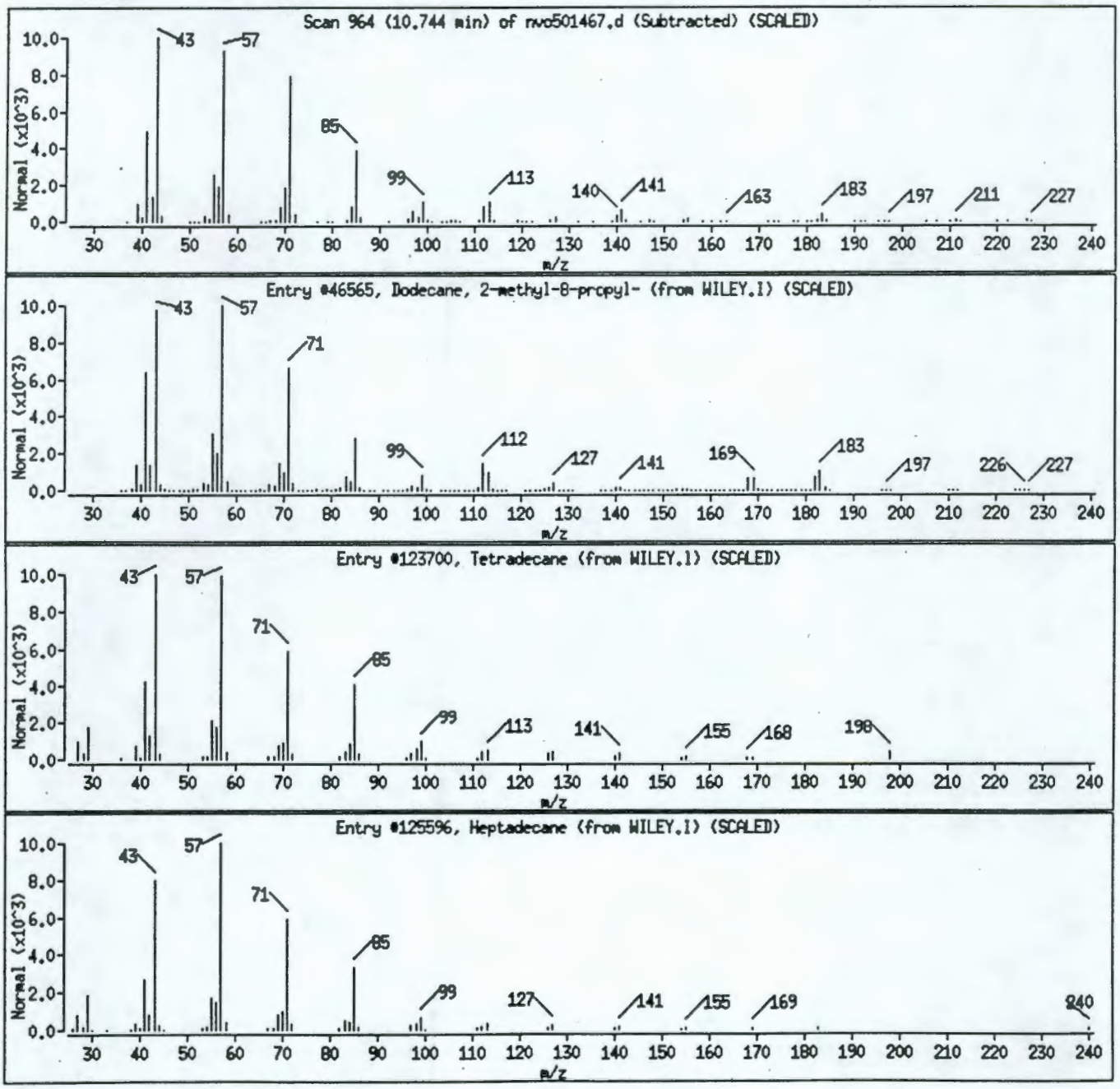
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMHNSS*29

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-8-propyl-	55045-07-3	WILEY.1	46565	90	C16H34	226
Tetradecane	629-59-4	WILEY.1	123700	90	C14H30	198
Heptadecane	629-78-7	WILEY.1	125596	86	C17H36	240



001180

9513355.2271

Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

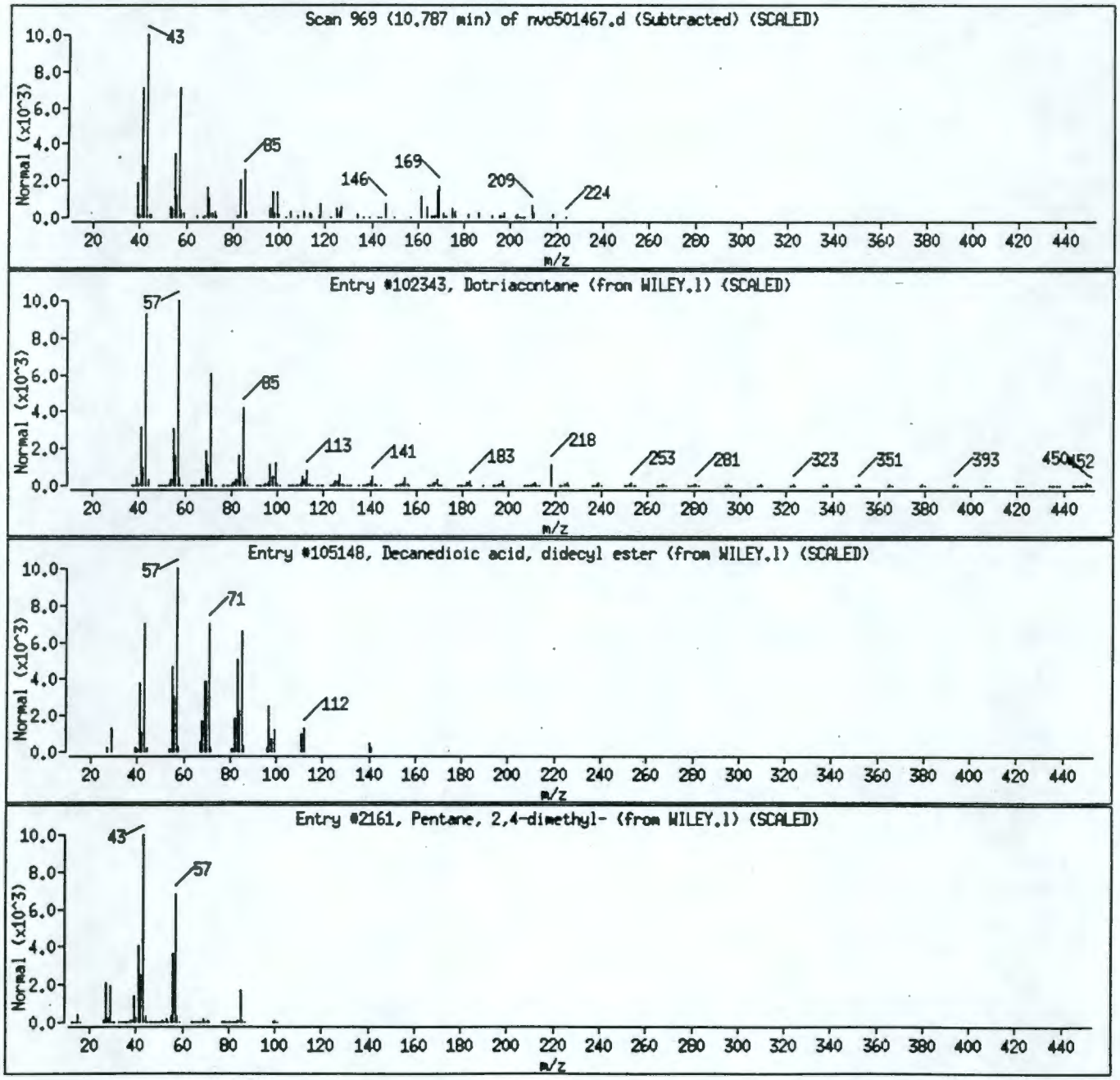
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMHNSS×29

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
Dotriacontane	544-85-4	WILEY.l	102343	35	C32H66	451
Decanedioic acid, didecyl ester	2432-89-5	WILEY.l	105148	35	C30H5804	482
Pentane, 2,4-dimethyl-	108-08-7	WILEY.l	2161	25	C7H16	100



9513355.2279

Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

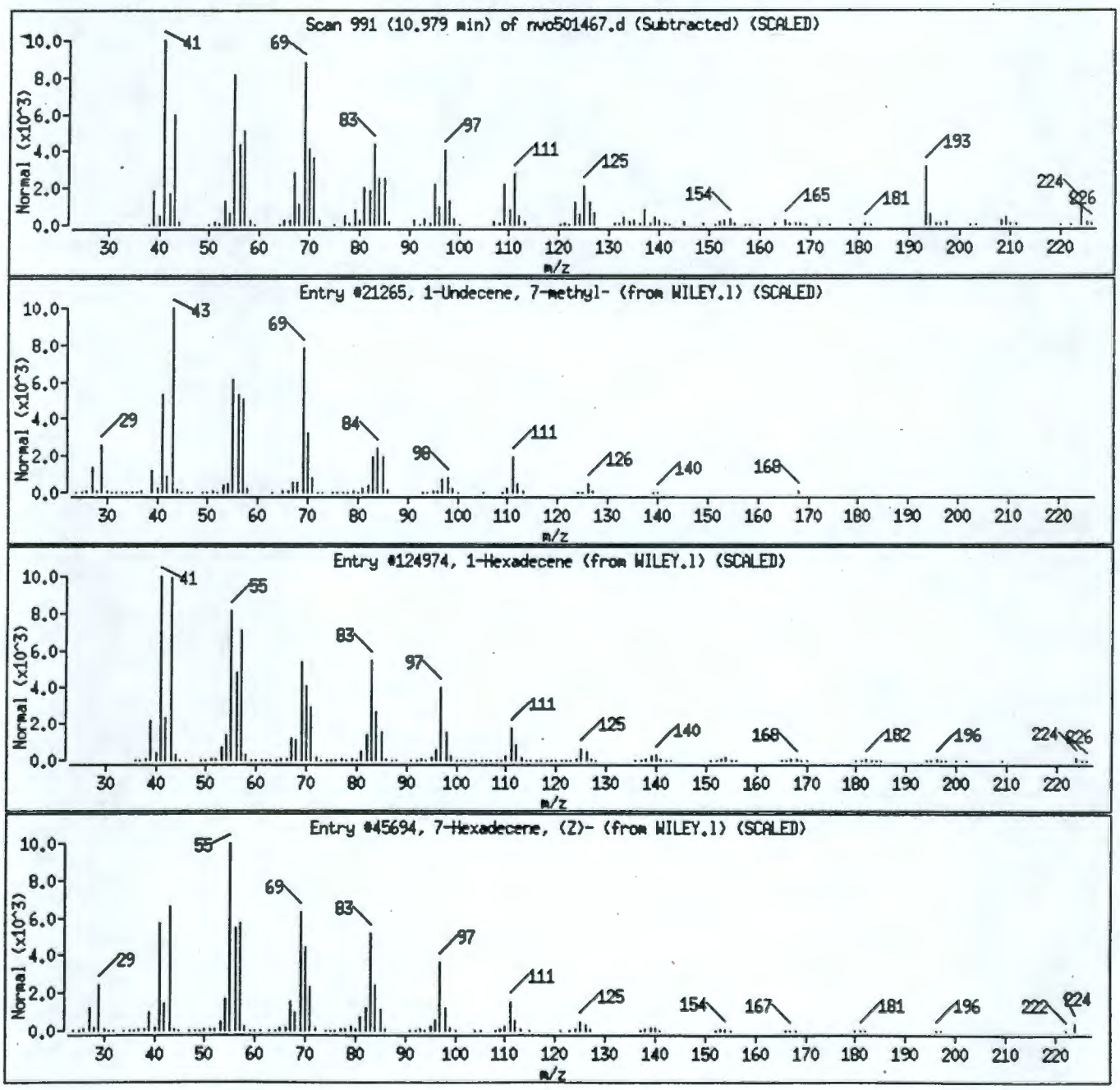
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMHNSS×29

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-Undecene, 7-methyl-	74630-42-5	WILEY.l	21265	50	C12H24	168
1-Hexadecene	629-73-2	WILEY.l	124974	47	C16H32	224
7-Hexadecene, (Z)-	35507-09-6	WILEY.l	45694	47	C16H32	224



001182

9513355.2280

Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

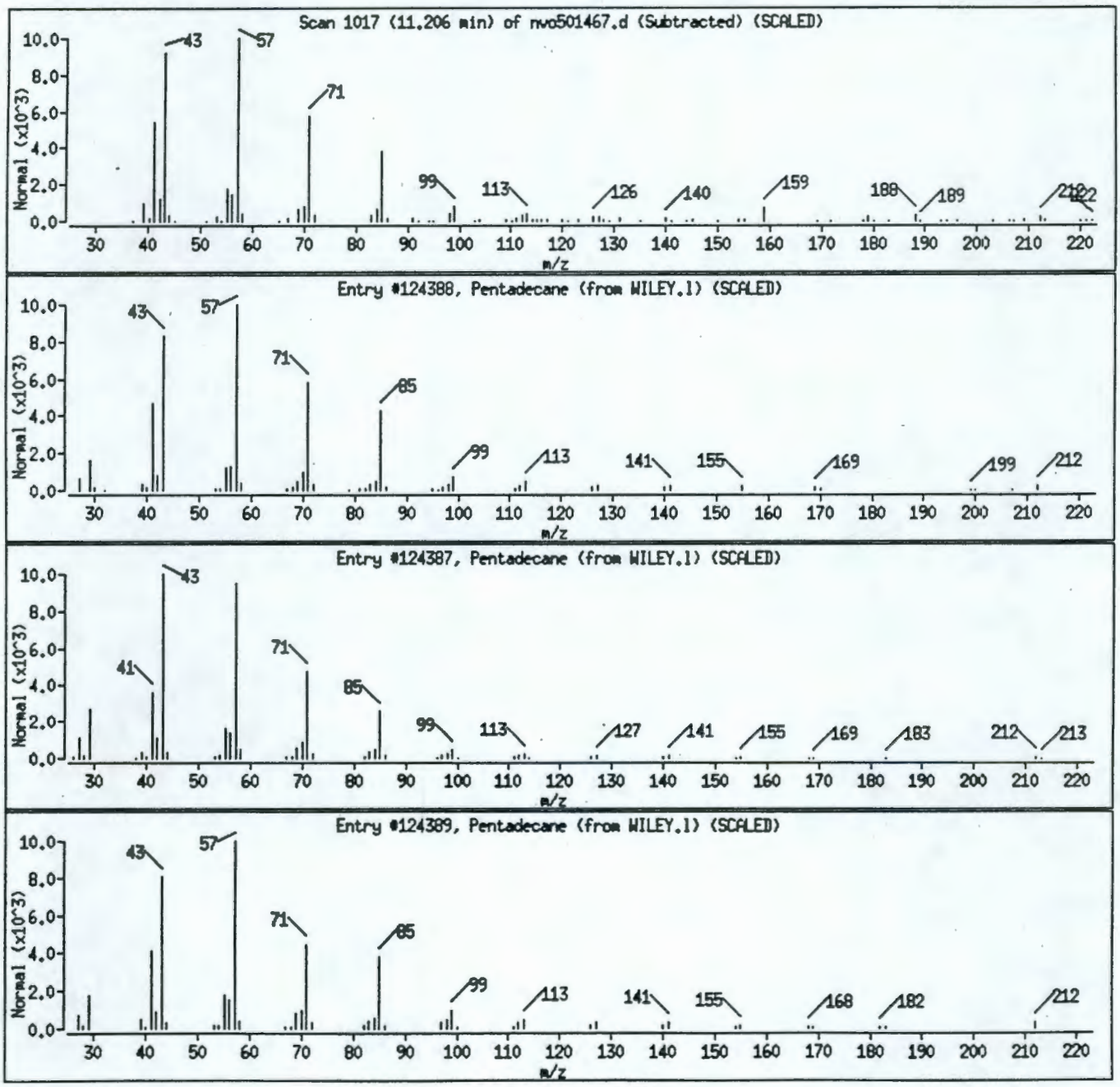
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMHNSS*29

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
Pentadecane	629-62-9	WILEY.1	124388	95	C15H32	212
Pentadecane	629-62-9	WILEY.1	124387	91	C15H32	212
Pentadecane	629-62-9	WILEY.1	124389	89	C15H32	212



Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

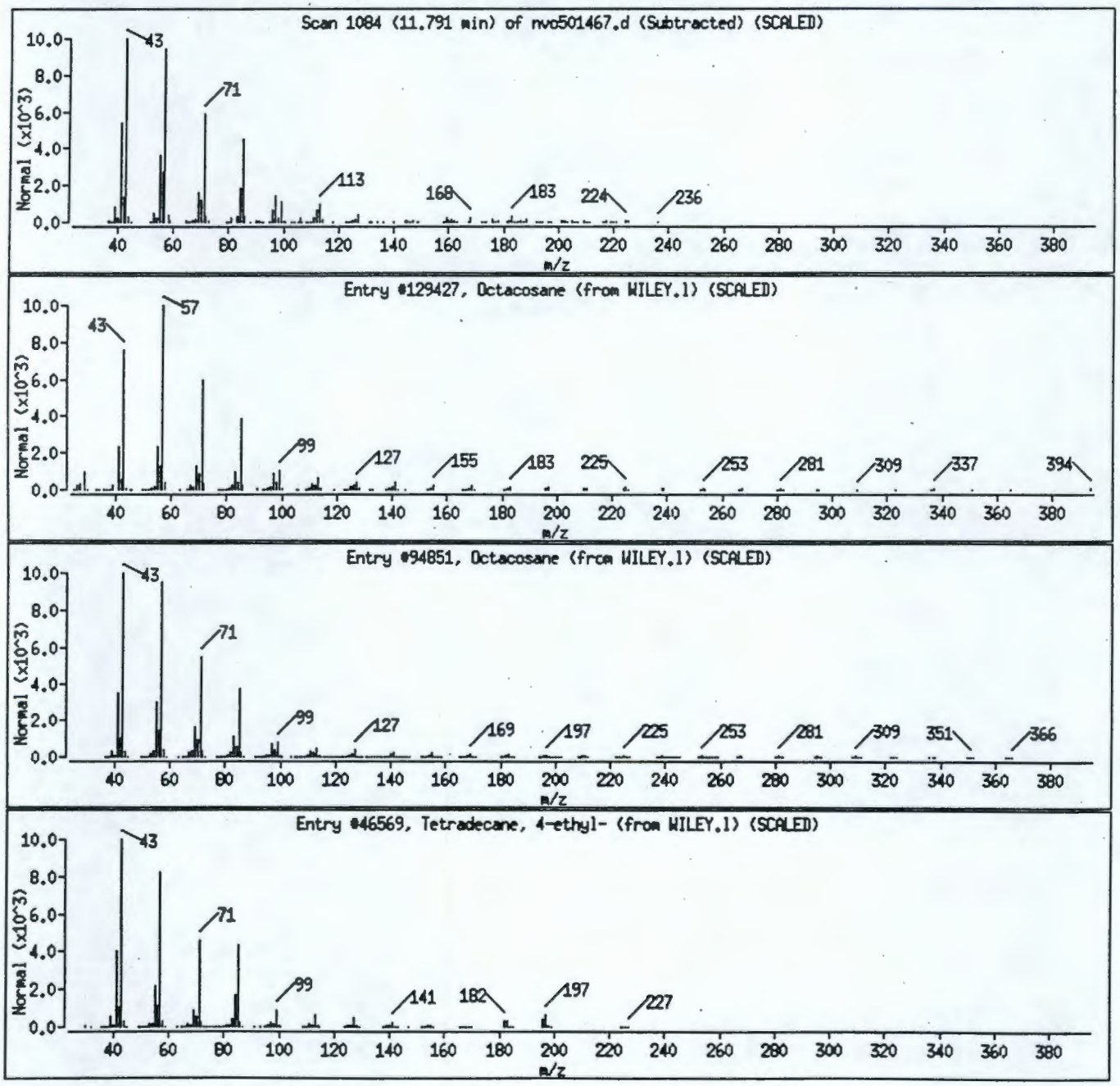
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMHNSS*29

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
Octacosane	630-02-4	WILEY.1	129427	86	C28H58	394
Octacosane	630-02-4	WILEY.1	94851	86	C28H58	394
Tetradecane, 4-ethyl-	55045-14-2	WILEY.1	46569	80	C16H34	226



Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

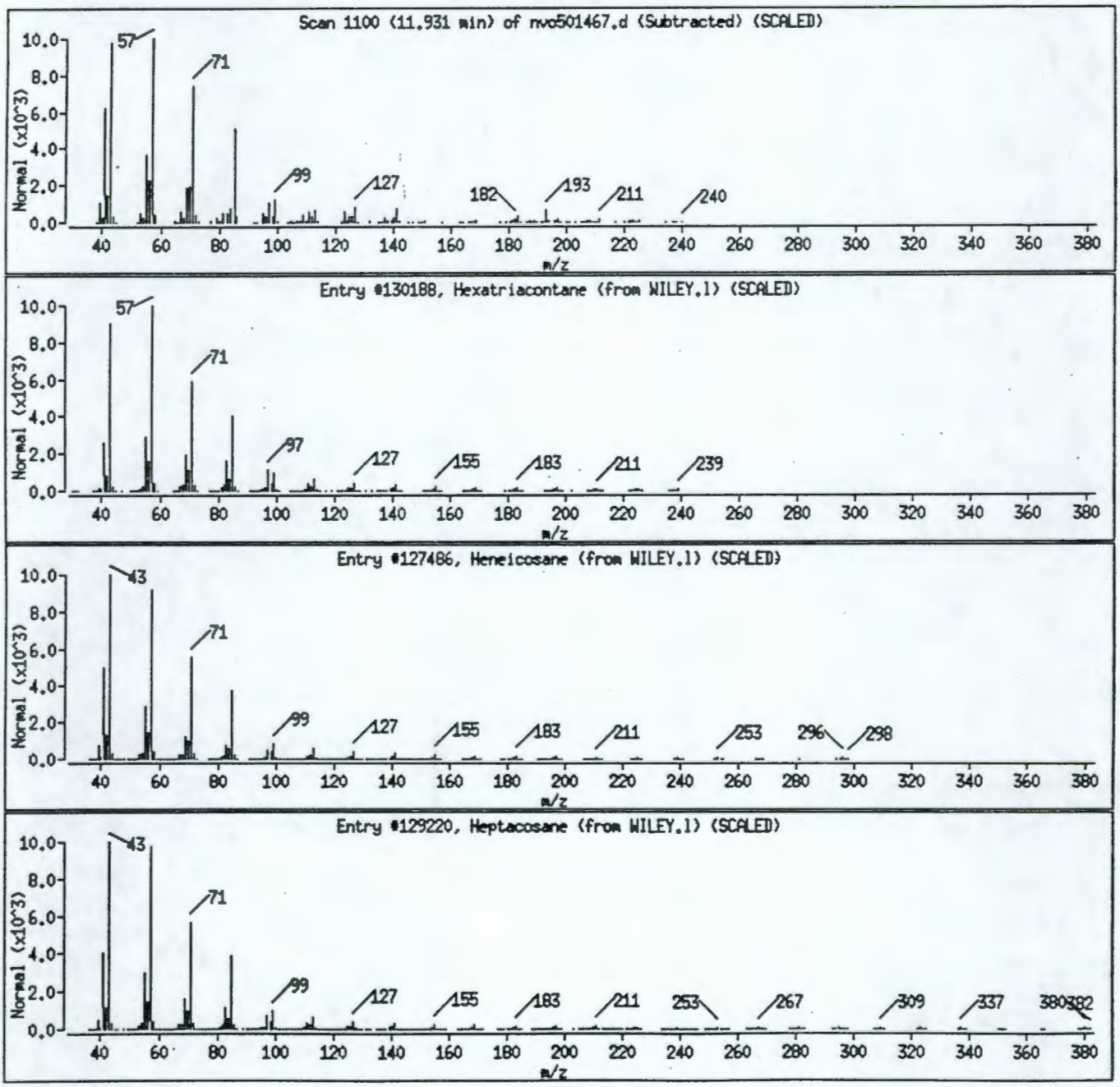
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMHNSS*29

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
Hexatriacontane	630-06-8	WILEY.1	130188	87	C36H74	507
Heneicosane	629-94-7	WILEY.1	127486	86	C21H44	296
Heptacosane	593-49-7	WILEY.1	129220	83	C27H56	380



Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

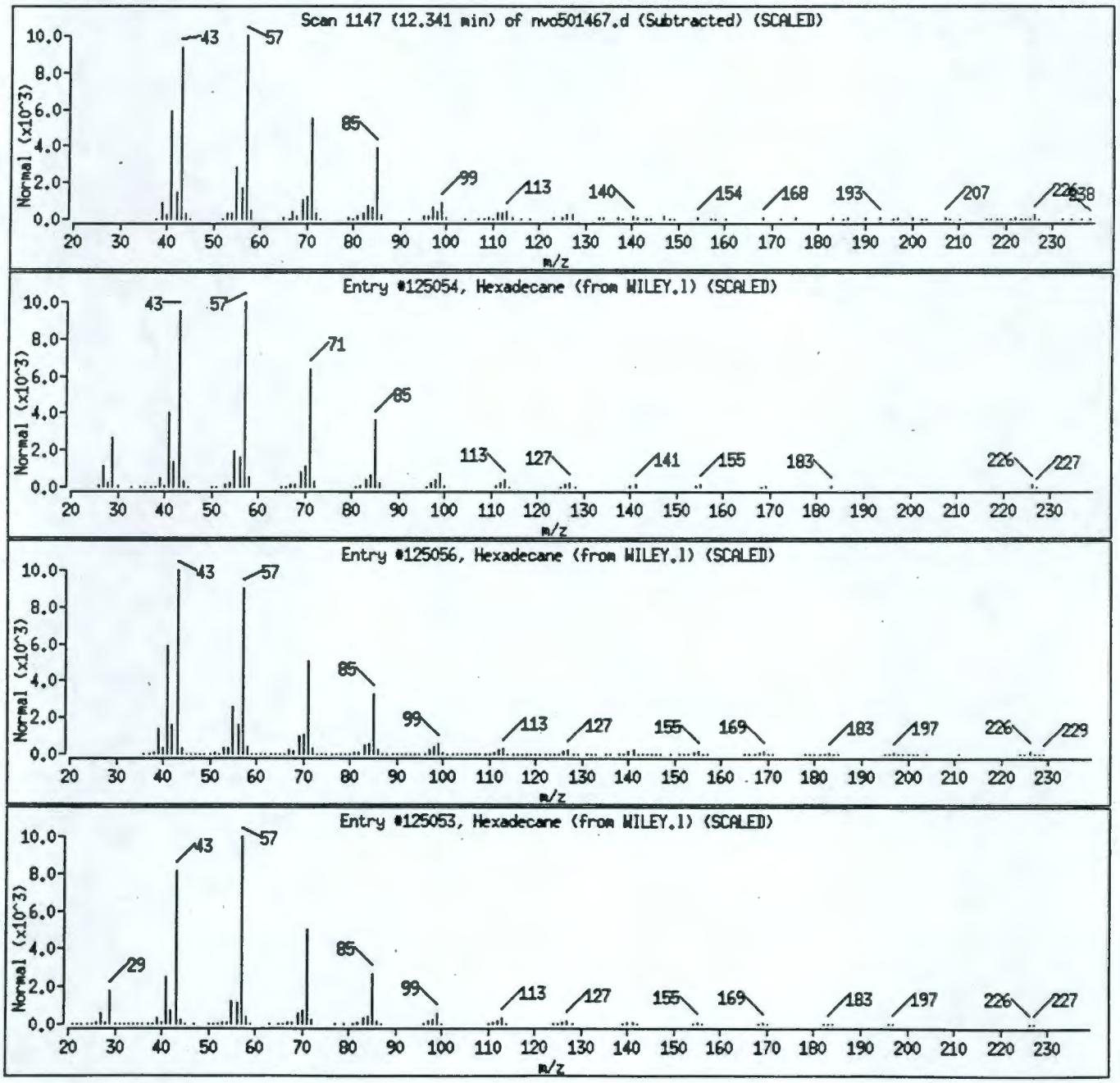
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMMNSS*29

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
Hexadecane	544-76-3	WILEY.1	125054	96	C16H34	226
Hexadecane	544-76-3	WILEY.1	125056	94	C16H34	226
Hexadecane	544-76-3	WILEY.1	125053	91	C16H34	226



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Date : 09-MAY-1994 11:52

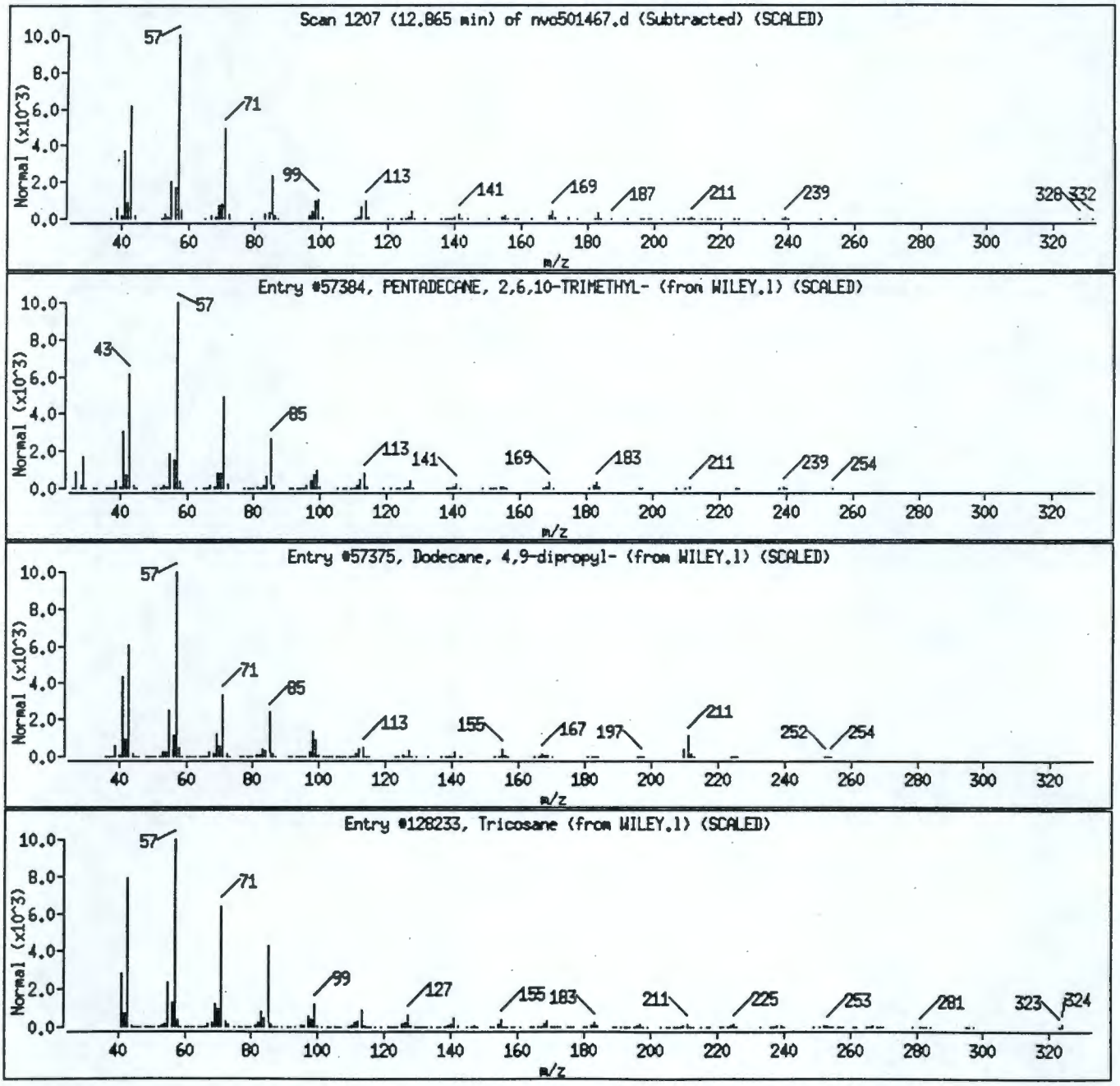
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMHNSS×29

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
PENTADECANE, 2,6,10-TRIMETHYL-	0-00-0	WILEY.1	57384	94	C18H38	254
Dodecane, 4,9-dipropyl-	3054-63-5	WILEY.1	57375	80	C18H38	254
Tricosane	638-67-5	WILEY.1	128233	64	C23H48	324



Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

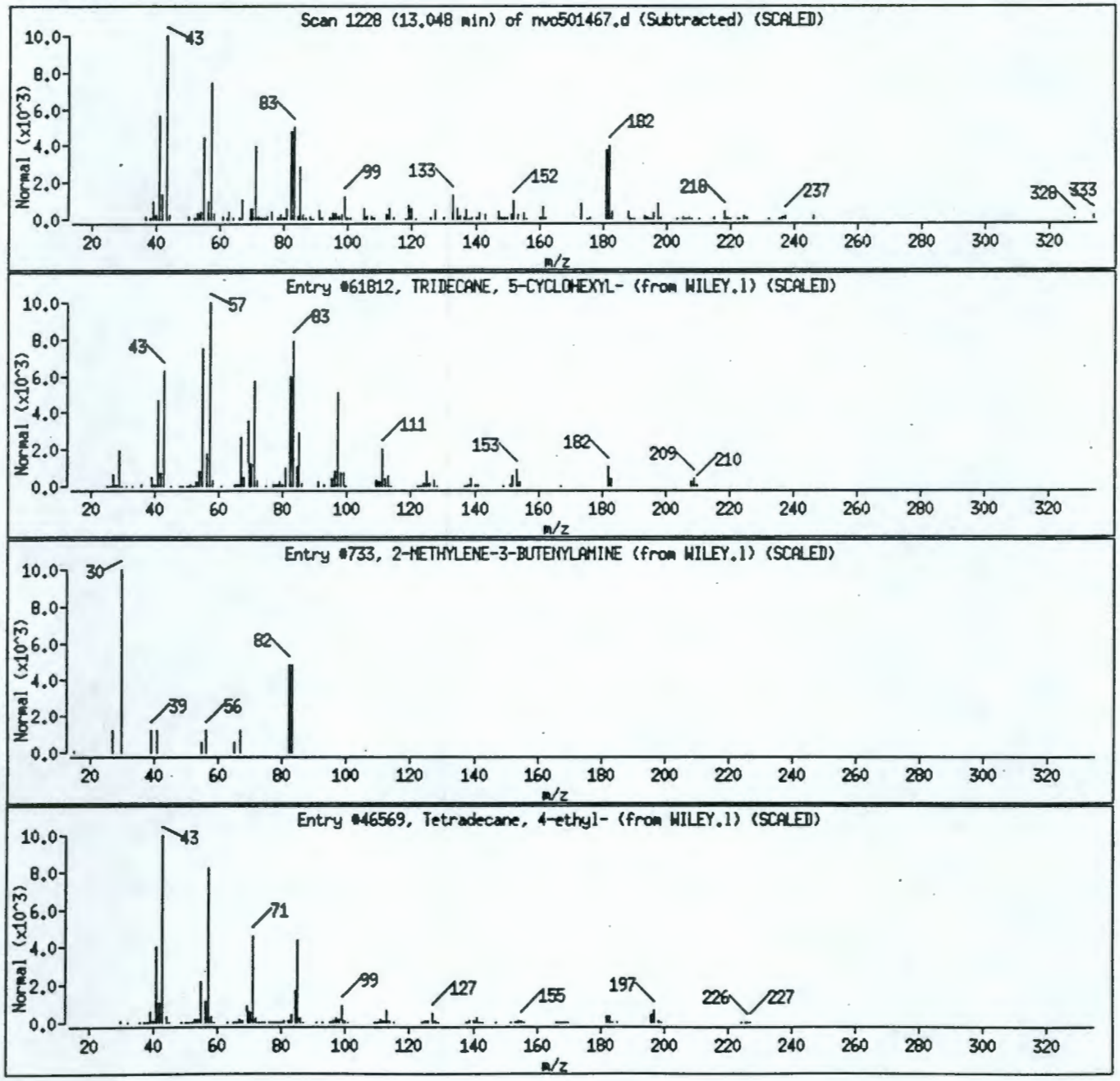
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMMNSS×29

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
TRIDECANE, 5-CYCLOHEXYL-	13151-90-1	WILEY.1	61812	47	C19H38	266
2-METHYLENE-3-BUTENYLAMINE	0-00-0	WILEY.1	733	22	C5H9N	83
Tetradecane, 4-ethyl-	55045-14-2	WILEY.1	46569	18	C16H34	226



Data File: /chem/nvo5.i/nvo0509.b/nvo501467.d

Date : 09-MAY-1994 11:52

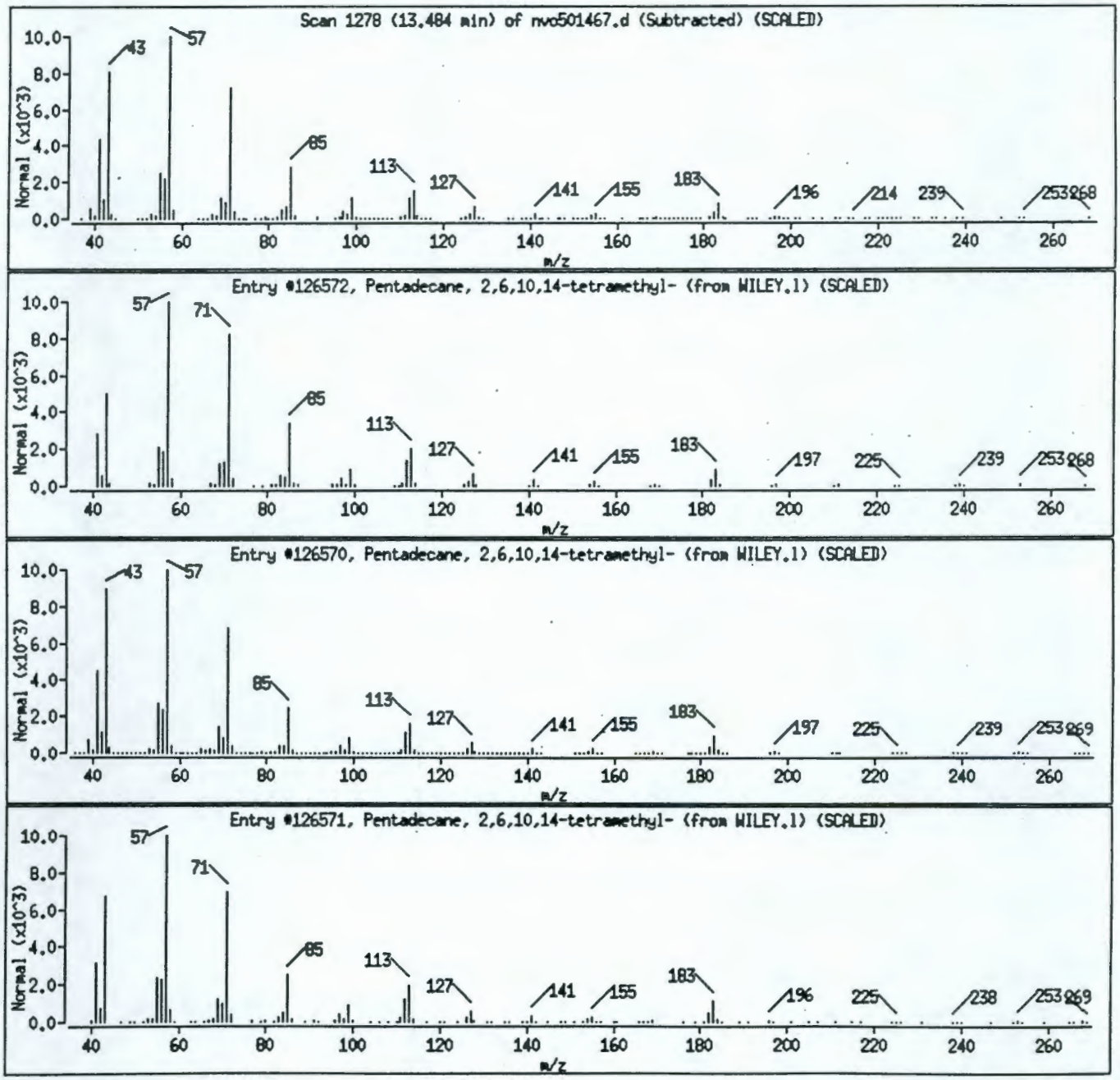
Client ID: A0404008 Instrument: nvo5.i

Sample Info: CDMHNSS×29

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
Pentadecane, 2,6,10,14-tetramethyl-	1921-70-6	WILEY.1	126572	98	C19H40	268
Pentadecane, 2,6,10,14-tetramethyl-	1921-70-6	WILEY.1	126570	98	C19H40	268
Pentadecane, 2,6,10,14-tetramethyl-	1921-70-6	WILEY.1	126571	97	C19H40	268



1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A0404008MS

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48916

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*29MS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NVO501468.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 5 decanted: (Y/N) N Date Extracted:05/06/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/09/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	2200	
111-44-4	Bis(2-Chloroethyl)ether	350	U
95-57-8	2-Chlorophenol	2100	
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	1400	
95-50-1	1,2-Dichlorobenzene	350	U
95-48-7	2-Methylphenol	350	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350	U
106-44-5	4-Methylphenol	350	U
621-64-7	N-Nitroso-di-n-propylamine	1300	
67-72-1	Hexachloroethane	350	U
98-95-3	Nitrobenzene	350	U
78-59-1	Isophorone	350	U
88-75-5	2-Nitrophenol	350	U
105-67-9	2,4-Dimethyphenol	350	U
111-91-1	Bis(2-Chloroethoxy)methane	350	U
120-83-2	2,4-Dichlorophenol	350	U
120-82-1	1,2,4-Trichlorobenzene	1500	
91-20-3	Naphthalene	23	J
106-47-8	4-Chloroaniline	350	U
87-68-3	Hexachlorobutadiene	350	U
59-50-7	4-Chloro-3-methylphenol	2200	
91-57-6	2-Methylnaphthalene	130	J
77-47-4	Hexachlorocyclopentadiene	350	U
88-06-2	2,4,6-Trichlorophenol	350	U
95-95-4	2,4,5-Trichlorophenol	840	U
91-58-7	2-Chloronaphthalene	350	U
88-74-4	2-Nitroaniline	840	U
131-11-3	Dimethyl phthalate	350	U
208-96-8	Acenaphthylene	350	U
606-20-2	2,6-Dinitrotoluene	350	U
99-09-2	3-Nitroaniline	840	U
83-32-9	Acenaphthene	1500	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A0404008MS

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48916

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*29MS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NV0501468.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 5 decanted: (Y/N) N Date Extracted: 05/06/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/09/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

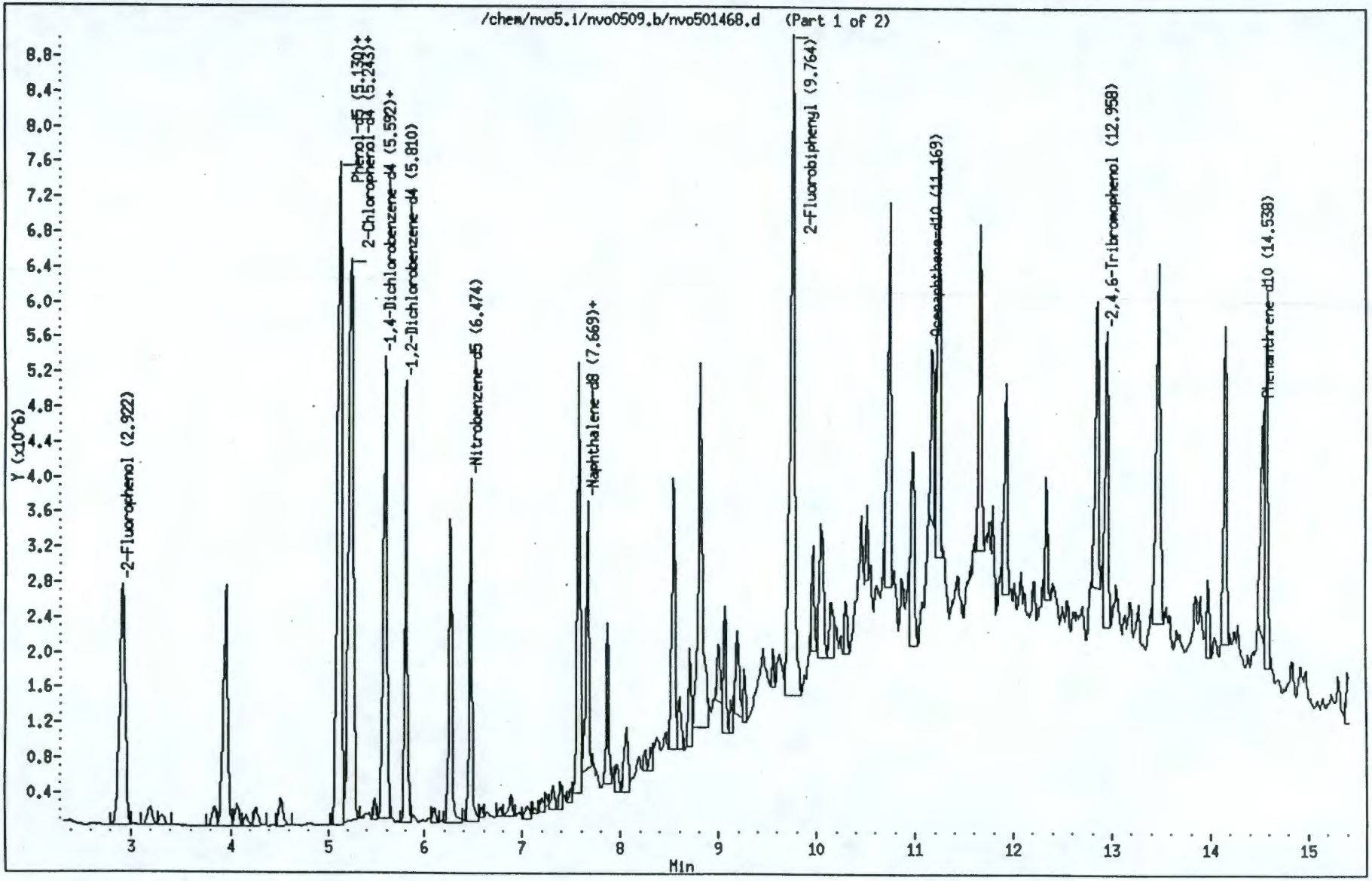
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	840	U
100-02-7	4-Nitrophenol	2000	
132-64-9	Dibenzofuran	56	J
121-14-2	2,4-Dinitrotoluene	1600	
84-66-2	Diethyl phthalate	350	U
7005-72-3	4-Chlorophenyl-phenylether	350	U
86-73-7	Fluorene	350	U
100-01-6	4-Nitroaniline	840	U
534-52-1	4,6-Dinitro-2-methylphenol	840	U
86-30-6	N-Nitrosodiphenylamine (1)	350	U
101-55-3	4-Bromophenyl-phenylether	350	U
118-74-1	Hexachlorobenzene	350	U
87-86-5	Pentachlorophenol	3200	E
85-01-8	Phenanthrene	85	J
120-12-7	Anthracene	350	U
86-74-8	Carbazole	350	U
84-74-2	Di-n-butylphthalate	23	J
206-44-0	Fluoranthene	44	J
129-00-0	Pyrene	1700	
85-68-7	Butylbenzylphthalate	18	J
91-94-1	3,3'-Dichlorobenzidine	350	U
56-55-3	Benzo(a)anthracene	350	U
218-01-9	Chrysene	350	U
117-81-7	bis(2-Ethylhexyl)phthalate	940	B
117-84-0	Di-n-octylphthalate	350	U
205-99-2	Benzo(b)fluoranthene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
50-32-8	Benzo(a)pyrene	350	U
193-39-5	Indeno(1,2,3-cd)pyrene	350	U
53-70-3	Dibenzo(a,h)anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U

(1) - Cannot be separated from Diphenylamine

Data File: /chem/nvo5.i/nvo0509.b/nvo501468.d
Date : 09-MAY-1994 12:32
Client ID: A0404008MS
Sample Info: CDMHNSS*29MS
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



001192

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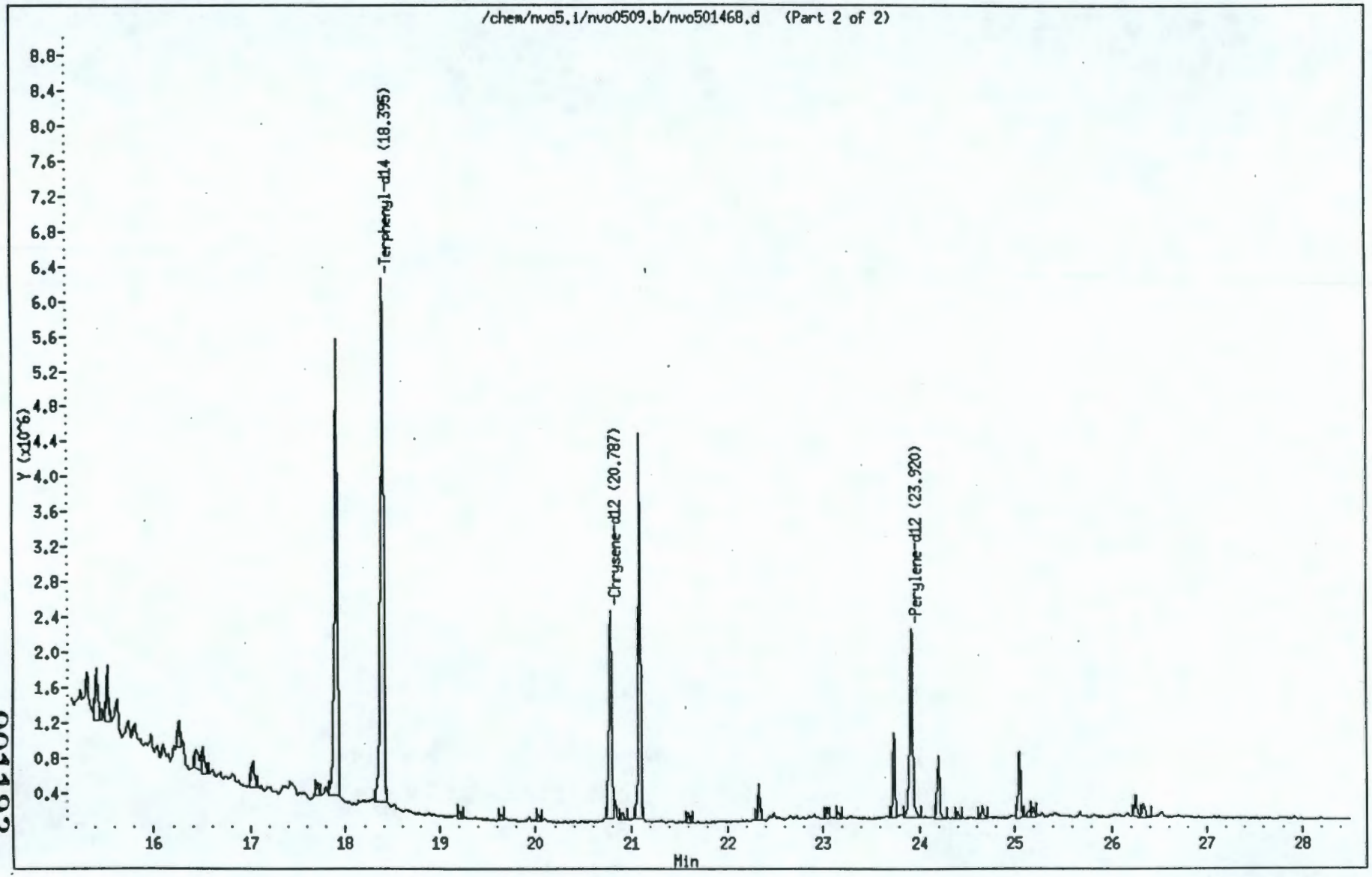
Data File: /chem/nvo5.i/nvo0509.b/nvo501468.d
Date : 09-MAY-1994 12:32
Client ID: A0404008MS
Sample Info: CDMHNSS×29MS
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



001193.

95133355.22911

Data File: /chem/nvo5.i/nvo0509.b/nvo501468.d
Report Date: 10-May-1994 08:41

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0509.b/nvo501468.d
Lab Smp Id: CDMHNSS*29MS
Client Smp ID: A0404008MS
Inj Date : 09-MAY-1994 12:32
Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT
Inst ID: nvo5.i
Smp Info : CDMHNSS*29MS
Misc Info : CDM Hanford N.Slope
Comment :
Method : /chem/nvo5.i/nvo0509.b/clp390epc.m
Meth Date : 09-May-1994 11:01
Quant Type: ISTD
Cal Date : 09-MAY-94 10:29
Cal File: nvo501465.d
Als bottle: 3
QC Sample: MS
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	5.566	5.552	(1.000)	814279	40	
$ 2 2-Fluorophenol	112.00	2.922	2.689	(0.525)	2878879	100	1700
$ 3 Phenol-d5	99.00	5.103	5.063	(0.917)	3281303	110	1800
4 Phenol	94.00	5.130	5.080	(0.922)	4138598	130	2100
$ 6 2-Chlorophenol-d4	132.00	5.217	5.185	(0.937)	2547740	110	1800
7 2-Chlorophenol	128.00	5.252	5.211	(0.944)	3236540	120	2000
9 1,4-Dichlorobenzene	146.00	5.601	5.578	(1.006)	2243917	77	1300
$ 10 1,2-Dichlorobenzene-d4	152.00	5.810	5.787	(1.044)	1412642	83	1400
15 N-Nitroso-di-n-propylamine	70.00	6.264	6.259	(1.125)	1476293	76	1300
* 17 Naphthalene-d8	136.00	7.669	7.672	(1.000)	2690338	40	
$ 18 Nitrobenzene-d5	82.00	6.474	6.468	(0.844)	2205625	78	1300
25 1,2,4-Trichlorobenzene	180.00	7.582	7.576	(0.989)	1878842	84	1400
26 Naphthalene	128.00	7.704	7.707	(1.005)	88927	1	22(a)
29 4-Chloro-3-methylphenol	107.00	8.813	8.807	(1.149)	2691912	130	2100
30 2-Methylnaphthalene	142.00	9.005	9.008	(1.174)	333156	7	120(a)
* 31 Acenaphthene-d10	164.00	11.169	11.163	(1.000)	1322407	40	
$ 35 2-Fluorobiphenyl	172.00	9.773	9.767	(0.875)	3905627	84	1400
42 Acenaphthene	153.00	11.247	11.233	(1.007)	3102002	84	1400
44 4-Nitrophenol	109.00	11.666	11.635	(1.045)	795112	110	1900
45 Dibenzofuran	168.00	11.623	11.626	(1.041)	179257	3	53(a)
46 2,4-Dinitrotoluene	165.00	11.666	11.661	(1.045)	1270462	91	1500(R)
$ 51 2,4,6-Tribromophenol	330.00	12.958	12.944	(1.160)	1125410	130	2200
* 52 Phenanthrene-d10	188.00	14.538	14.532	(1.000)	1962755	40	
57 Pentachlorophenol	266.00	14.154	14.139	(0.974)	1193313	180	3100(AR)
58 Phenanthrene	178.00	14.581	14.593	(1.003)	264095	5	81(a)
61 Di-n-butylphthalate	149.00	16.100	16.103	(1.107)	93432	1	22(a)
62 Fluoranthene	202.00	17.802	17.386	(1.225)	148127	2	42(a)
* 63 Chrysene-d12	240.00	20.787	20.807	(1.000)	1570715	40	
64 Pyrene	202.00	17.915	17.910	(0.862)	4777582	96	1600

Data File: /chem/nvo5.i/nvo0509.b/nvo501468.d
Report Date: 10-May-1994 08:41

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 65 Terphenyl-d14	244.00	18.395	18.398	(0.885)	4173978	110	1800
66 Butylbenzylphthalate	149.00	19.634	19.655	(0.945)	28243	1	17(a)
70 bis(2-Ethylhexyl)phthalate	149.00	21.092	21.104	(1.015)	2043473	54	890
* 71 Perylene-d12	264.00	23.928	23.940	(1.000)	1788993	40	

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A0404008MSD

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48916

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*29MS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NVO501469.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 5 decanted: (Y/N) N Date Extracted: 05/06/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/09/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	2300	
111-44-4	Bis(2-Chloroethyl)ether	350	U
95-57-8	2-Chlorophenol	2000	
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	1300	
95-50-1	1,2-Dichlorobenzene	350	U
95-48-7	2-Methylphenol	350	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350	U
106-44-5	4-Methylphenol	350	U
621-64-7	N-Nitroso-di-n-propylamine	1300	
67-72-1	Hexachloroethane	350	U
98-95-3	Nitrobenzene	350	U
78-59-1	Isophorone	350	U
88-75-5	2-Nitrophenol	350	U
105-67-9	2,4-Dimethyphenol	350	U
111-91-1	Bis(2-Chloroethoxy)methane	350	U
120-83-2	2,4-Dichlorophenol	350	U
120-82-1	1,2,4-Trichlorobenzene	1400	
91-20-3	Naphthalene	24	J
106-47-8	4-Chloroaniline	350	U
87-68-3	Hexachlorobutadiene	350	U
59-50-7	4-Chloro-3-methylphenol	2200	
91-57-6	2-Methylnaphthalene	160	J
77-47-4	Hexachlorocyclopentadiene	350	U
88-06-2	2,4,6-Trichlorophenol	350	U
95-95-4	2,4,5-Trichlorophenol	840	U
91-58-7	2-Chloronaphthalene	350	U
88-74-4	2-Nitroaniline	840	U
131-11-3	Dimethyl phthalate	350	U
208-96-8	Acenaphthylene	350	U
606-20-2	2,6-Dinitrotoluene	350	U
99-09-2	3-Nitroaniline	840	U
83-32-9	Acenaphthene	1500	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A0404008MSD

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48916

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*29MS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NVO501469.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 5 decanted: (Y/N) N Date Extracted: 05/06/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/09/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

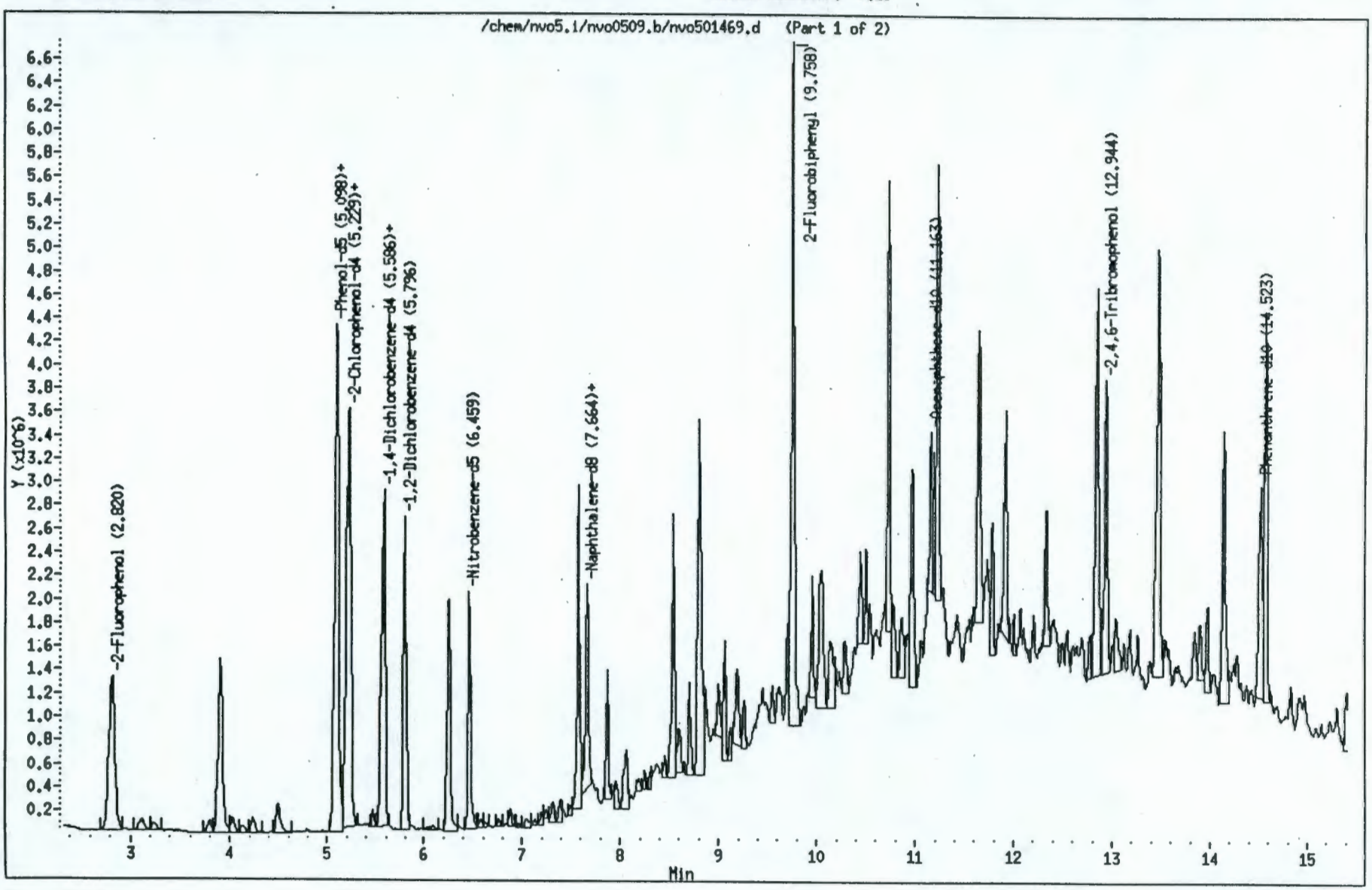
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	840	U
100-02-7	4-Nitrophenol	1600	
132-64-9	Dibenzofuran	55	J
121-14-2	2,4-Dinitrotoluene	1500	
84-66-2	Diethyl phthalate	350	U
7005-72-3	4-Chlorophenyl-phenylether	350	U
86-73-7	Fluorene	350	U
100-01-6	4-Nitroaniline	840	U
534-52-1	4,6-Dinitro-2-methylphenol	840	U
86-30-6	N-Nitrosodiphenylamine (1)	350	U
101-55-3	4-Bromophenyl-phenylether	350	U
118-74-1	Hexachlorobenzene	350	U
87-86-5	Pentachlorophenol	2700	
85-01-8	Phenanthrene	87	J
120-12-7	Anthracene	350	U
86-74-8	Carbazole	350	U
84-74-2	Di-n-butylphthalate	350	U
206-44-0	Fluoranthene	350	U
129-00-0	Pyrene	1700	
85-68-7	Butylbenzylphthalate	350	U
91-94-1	3,3'-Dichlorobenzidine	350	U
56-55-3	Benzo(a)anthracene	350	U
218-01-9	Chrysene	350	U
117-81-7	bis(2-Ethylhexyl)phthalate	120	JB
117-84-0	Di-n-octylphthalate	350	U
205-99-2	Benzo(b)fluoranthene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
50-32-8	Benzo(a)pyrene	350	U
193-39-5	Indeno(1,2,3-cd)pyrene	350	U
53-70-3	Dibenzo(a,h)anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U

(1) - Cannot be separated from Diphenylamine

Data File: /chem/nvo5.i/nvo0509.b/nvo501469.d
Date : 09-MAY-1994 13:08
Client ID: A0404008MSD
Sample Info: CIMHNSS*29MSD
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAY/AT
Column diameter: 0.25



001198

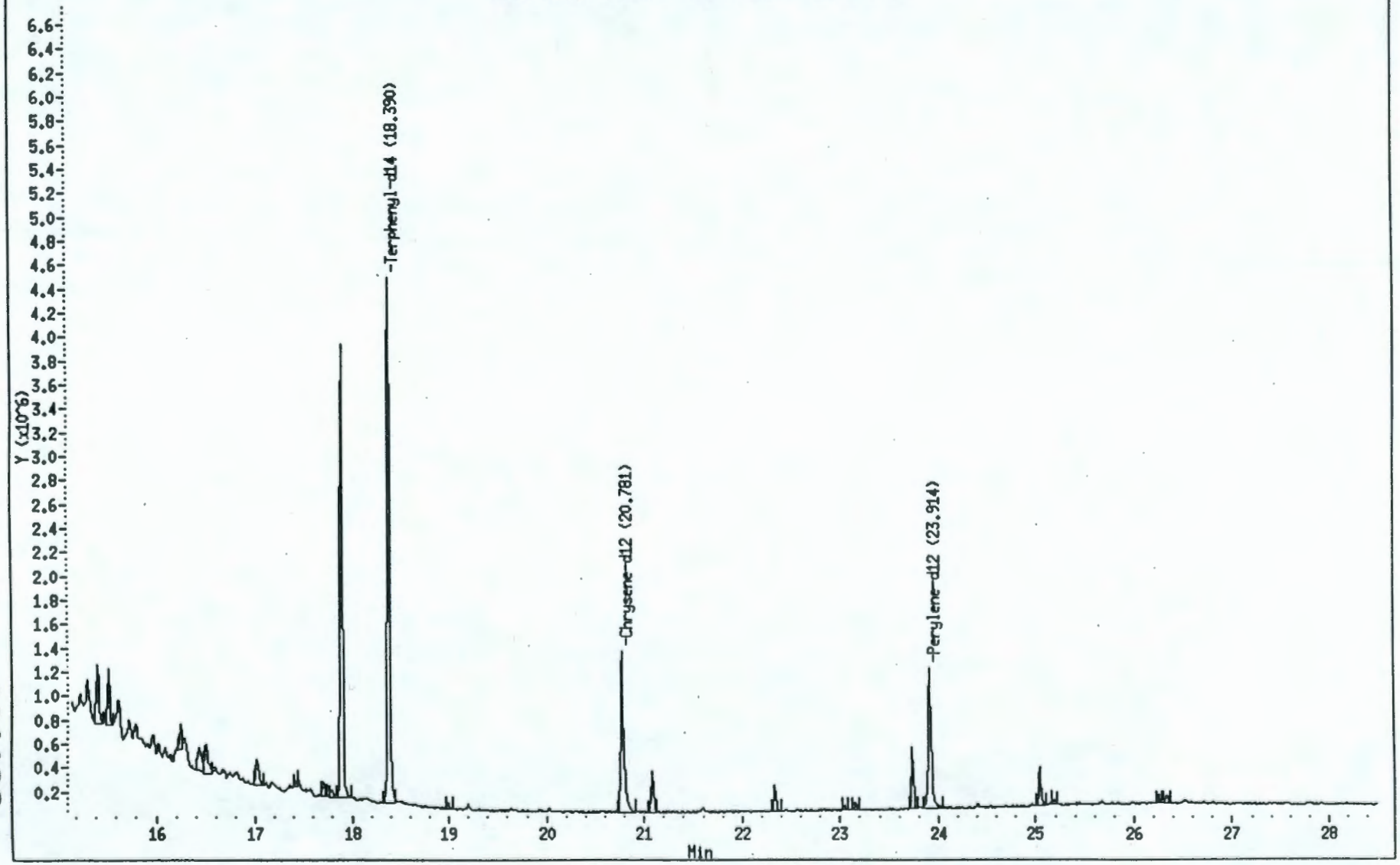
9513355.2291

Data File: /chem/nvo5.i/nvo0509.b/nvo501469.d
Date : 09-MAY-1994 13:08
Client ID: A0404008MSD
Sample Info: CDMHNSS*29MSD
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25

/chem/nvo5.i/nvo0509.b/nvo501469.d (Part 2 of 2)



001199

95133355.229

Data File: /chem/nvo5.i/nvo0509.b/nvo501469.d
Report Date: 10-May-1994 08:41

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0509.b/nvo501469.d
Lab Smp Id: CDMHNSS*29MSD
Client Smp ID: A0404008MSD
Inj Date : 09-MAY-1994 13:08
Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT
Inst ID: nvo5.i
Smp Info : CDMHNSS*29MSD
Misc Info : CDM Hanford N.Slope
Comment :
Method : /chem/nvo5.i/nvo0509.b/clp390epc.m
Meth Date : 09-May-1994 11:01
Quant Type: ISTD
Cal Date : 09-MAY-94 10:29
Cal File: nvo501465.d
Als bottle: 4
QC Sample: MSD
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	5.560	5.552	(1.000)	456452	40	
$ 2 2-Fluorophenol	112.00	2.820	2.689	(0.507)	1494727	97	1600
$ 3 Phenol-d5	99.00	5.080	5.063	(0.914)	1779772	110	1800
4 Phenol	94.00	5.106	5.080	(0.918)	2341606	130	2200
$ 6 2-Chlorophenol-d4	132.00	5.202	5.185	(0.936)	1343882	100	1700
7 2-Chlorophenol	128.00	5.229	5.211	(0.940)	1768460	120	2000
9 1,4-Dichlorobenzene	146.00	5.586	5.578	(1.005)	1177212	72	1200
$ 10 1,2-Dichlorobenzene-d4	152.00	5.796	5.787	(1.042)	729822	77	1300
15 N-Nitroso-di-n-propylamine	70.00	6.258	6.259	(1.126)	816616	75	1200
* 17 Naphthalene-d8	136.00	7.664	7.672	(1.000)	1529477	40	
$ 18 Nitrobenzene-d5	82.00	6.459	6.468	(0.843)	1211800	76	1200
25 1,2,4-Trichlorobenzene	180.00	7.576	7.576	(0.989)	991281	78	1300
26 Naphthalene	128.00	7.698	7.707	(1.005)	52519	1	23(a)
29 4-Chloro-3-methylphenol	107.00	8.807	8.807	(1.149)	1539467	130	2100
30 2-Methylnaphthalene	142.00	8.999	9.008	(1.174)	230818	9	150(a)
* 31 Acenaphthene-d10	164.00	11.163	11.163	(1.000)	783681	40	
$ 35 2-Fluorobiphenyl	172.00	9.767	9.767	(0.875)	2252091	82	1400
42 Acenaphthene	153.00	11.233	11.233	(1.006)	1846755	84	1400
44 4-Nitrophenol	109.00	11.643	11.635	(1.043)	384683	92	1500
45 Dibenzofuran	168.00	11.617	11.626	(1.041)	105754	3	53(a)
46 2,4-Dinitrotoluene	165.00	11.661	11.661	(1.045)	702019	85	1400
$ 51 2,4,6-Tribromophenol	330.00	12.944	12.944	(1.159)	611047	120	2000
* 52 Phenanthrene-d10	188.00	14.523	14.532	(1.000)	1223515	40	
57 Pentachlorophenol	266.00	14.139	14.139	(0.974)	614306	150	2500
58 Phenanthrene	178.00	14.576	14.593	(1.004)	168813	5	83(a)
* 63 Chrysene-d12	240.00	20.781	20.807	(1.000)	947344	40	
64 Pyrene	202.00	17.901	17.910	(0.861)	2964989	99	1600
$ 65 Terphenyl-d14	244.00	18.390	18.398	(0.885)	2591583	110	1900
70 bis(2-Ethylhexyl)phthalate	149.00	21.086	21.104	(1.015)	151259	6	110(a)

Data File: /chem/nvo5.i/nvo0509.b/nvo501469.d
Report Date: 10-May-1994 08:41

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
* 71 Perylene-d12	264.00	23.914	23.940	(1.000)	1020471	40	

QC Flag Legend

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

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SV201001

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48916

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*30

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NVO501470.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 2 decanted: (Y/N) N Date Extracted: 05/06/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/09/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	340	U
111-44-4	Bis(2-Chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	2,2'-oxybis(1-Chloropropane)	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-di-n-propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethyphenol	340	U
111-91-1	Bis(2-Chloroethoxy)methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	820	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	820	U
131-11-3	Dimethyl phthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U
99-09-2	3-Nitroaniline	820	U
83-32-9	Acenaphthene	340	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SV201001

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48916

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*30

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NVO501470.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 2 decanted: (Y/N) N Date Extracted: 05/06/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/09/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	820	U
100-02-7	4-Nitrophenol	820	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethyl phthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	820	U
534-52-1	4,6-Dinitro-2-methylphenol	820	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	820	U
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
86-74-8	Carbazole	340	U
84-74-2	Di-n-butylphthalate	340	U
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	340	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
117-81-7	bis(2-Ethylhexyl)phthalate	84	JB
117-84-0	Di-n-octylphthalate	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenzo(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) - Cannot be separated from Diphenylamine

9513355.2301

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SV201001

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48916

Matrix: (soil/water) SOIL Lab Sample ID: CDMHNSS*30

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NVO501470.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 2 decanted: (Y/N) N Date Extracted: 05/06/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 05/09/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.8

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown Aldol Condensate	3.194	81	JAB
2.	Unknown Aldol Condensate	3.962	980	JAB
3.	Unknown Aldol Condensate	4.512	110	JAB
4. 593-49-7	Heptacosane	22.334	190	NJ
5. 630-03-5	Nonacosane	23.748	490	NJ
6. 630-04-6	Hentriacontane	25.048	250	NJ
7. 83-47-6	Stigmast-5-en-3-ol, (3.beta.	26.689	100	NJ
8.				
9.				
10.				
11.				
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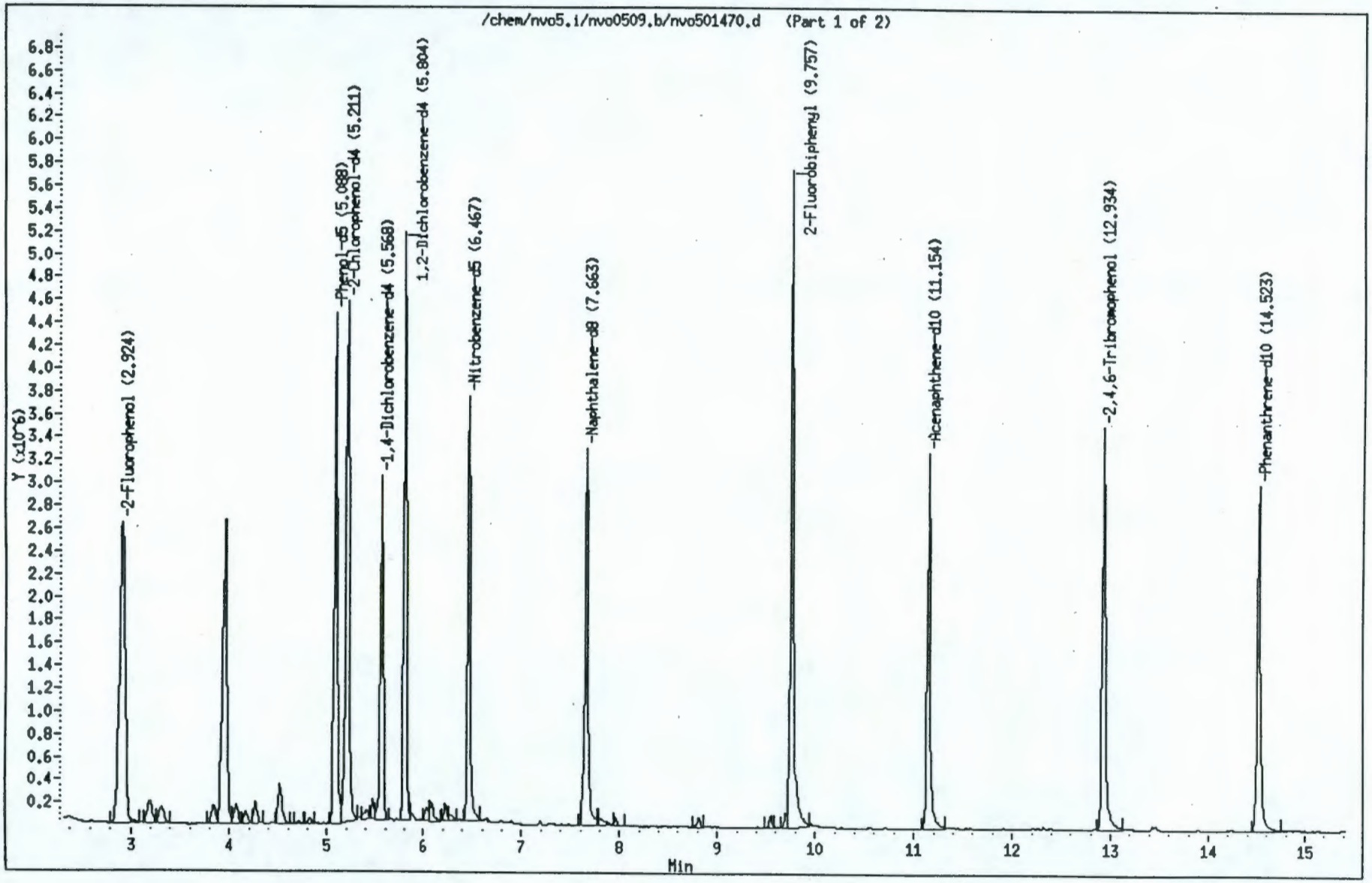
30.				

Data File: /chem/nvo5.i/nvo0509.b/nvo501470.d
Date : 09-MAY-1994 13:45
Client ID: SV201001
Sample Info: CDMHNSS*30
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



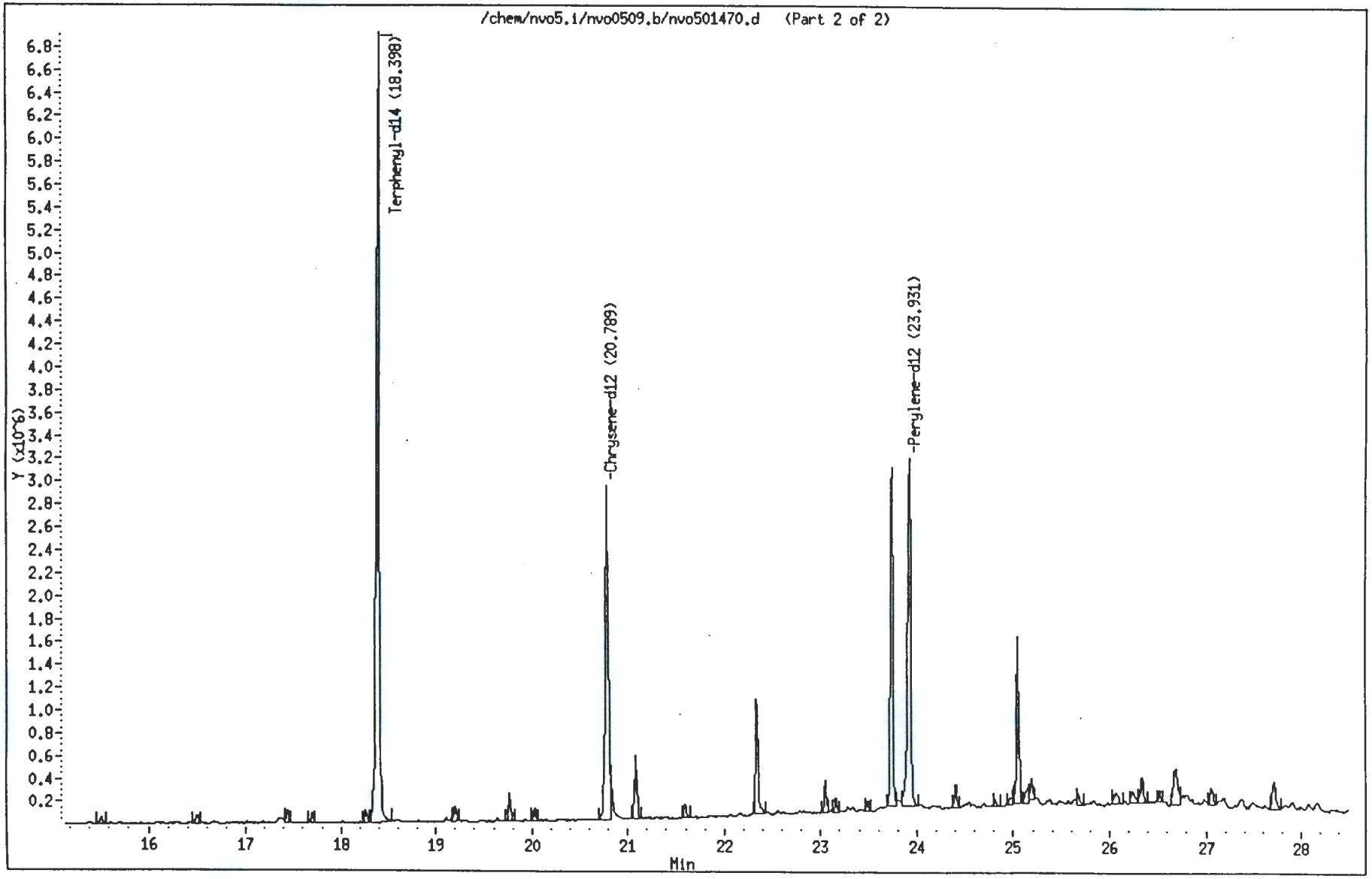
001205

95153553.250P

Data File: /chem/nvo5.i/nvo0509.b/nvo501470.d
Date : 09-MAY-1994 13:45
Client ID: SV201001
Sample Info: CDMHNSS*30
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25



001206

Data File: /chem/nvo5.i/nvo0509.b/nvo501470.d
Report Date: 10-May-1994 08:42

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0509.b/nvo501470.d
Lab Smp Id: CDMHNSS*30 Client Smp ID: SV201001
Inj Date : 09-MAY-1994 13:45 Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : CDMHNSS*30
Misc Info : CDM Hanford N.Slope
Comment :
Method : /chem/nvo5.i/nvo0509.b/clp390epc.m
Meth Date : 09-May-1994 11:01 Quant Type: ISTD
Cal Date : 09-MAY-94 10:29 Cal File: nvo501465.d
Als bottle: 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 ON-COLUMN (ng)	FINAL (ug/Kg)
* 1 1,4-Dichlorobenzene-d4	152.00	5.568	5.552	(1.000)	893597	40	
$ 2 2-Fluorophenol	112.00	2.924	2.689	(0.525)	2770527	92	1500
$ 3 Phenol-d5	99.00	5.088	5.063	(0.914)	3262927	100	1700
$ 6 2-Chlorophenol-d4	132.00	5.211	5.185	(0.936)	2496740	98	1600
$ 10 1,2-Dichlorobenzene-d4	152.00	5.804	5.787	(1.042)	1386690	74	1200
* 17 Naphthalene-d8	136.00	7.663	7.672	(1.000)	2943812	40	
$ 18 Nitrobenzene-d5	82.00	6.467	6.468	(0.844)	2209973	72	1200
* 31 Acenaphthene-d10	164.00	11.154	11.163	(1.000)	1571451	40	
$ 35 2-Fluorobiphenyl	172.00	9.766	9.767	(0.876)	4149715	75	1200
$ 51 2,4,6-Tribromophenol	330.00	12.934	12.944	(1.160)	1045701	100	1700
* 52 Phenanthrene-d10	188.00	14.523	14.532	(1.000)	2409249	40	
* 63 Chrysene-d12	240.00	20.789	20.807	(1.000)	2059941	40	
$ 65 Terphenyl-d14	244.00	18.398	18.398	(0.885)	4899679	99	1600
70 bis(2-Ethylhexyl)phthalate	149.00	21.086	21.104	(1.014)	247049	5	82(a)
* 71 Perylene-d12	264.00	23.931	23.940	(1.000)	2615187	40	

QC Flag Legend

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

Data File: /chem/nvo5.i/nvo0509.b/nvo501470.d

Date : 09-MAY-1994 13:45

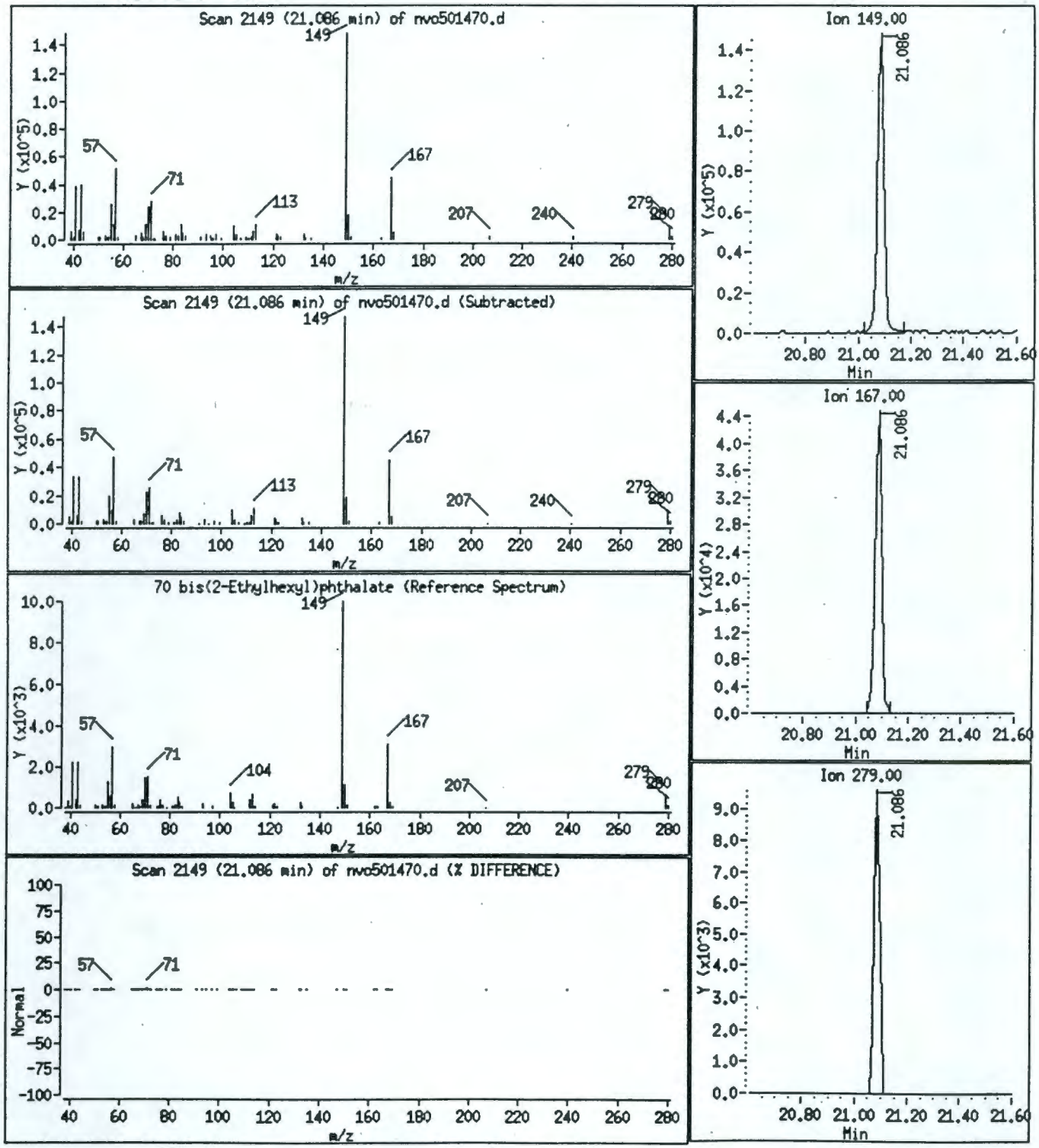
Client ID: SV201001 Instrument: nvo5.i

Sample Info: CDMHNSS*30

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

Column phase: DB-5MS Column diameter: 0.25

70 bis(2-Ethylhexyl)phthalate



Data File: /chem/nvo5.i/nvo0509.b/nvo501470.d
Report Date: 10-May-1994 11:03

Environmental Science and Engineering

Unknown Compounds Quantitation Report

Data file : /chem/nvo5.i/nvo0509.b/nvo501470.d
Lab Smp Id: CDMHNSS*30 Client Smp ID: SV201001
Inj Date : 09-MAY-1994 13:45 Autotune Date: 08-Feb-94 09:58:2
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : CDMHNSS*30
Misc Info : CDM Hanford N.Slope
Comment :
Method : /chem/nvo5.i/nvo0509.b/clp390epc.m
Meth Date : 09-May-1994 11:01
Cal Date : 09-MAY-94 10:29 Cal File: nvo501465.d
Als bottle: 5
Dil Factor: 1.000 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
* 1 1,4-Dichlorobenzene-d4	5.568	6014860	40.000
* 63 Chrysene-d12	20.789	6419282	40.000
* 71 Perylene-d12	23.931	6945246	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
3.194	716507	5	79	53	WILEY.1	114833	1
Unknown Aldol Condensate				CAS #:			
3.962	8589014	57	950	33	WILEY.1	2387	1
Unknown Aldol Condensate				CAS #:			
4.512	934272	6	100	10	WILEY.1	126680	1
Heptacosane				CAS #: 593-49-7			
22.334	1767475	11	180	91	WILEY.1	92512	63(L)
Nonacosane				CAS #: 630-03-5			
23.748	4979940	29	480	96	WILEY.1	129561	71

Data File: /chem/nvo5.i/nvo0509.b/nvo501470.d
Report Date: 10-May-1994 11:03

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Hentriacontane					CAS #: 630-04-6		
25.048	2540261	15	240	95	WILEY.1	130188	71
Stigmast-5-en-3-ol, (3.beta.,24S)-					CAS #: 83-47-6		
26.689	1046836	6	100	97	WILEY.1	97999	71

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/nvo5.i/nvo0509.b/nvo501470.d

Date : 09-MAY-1994 13:45

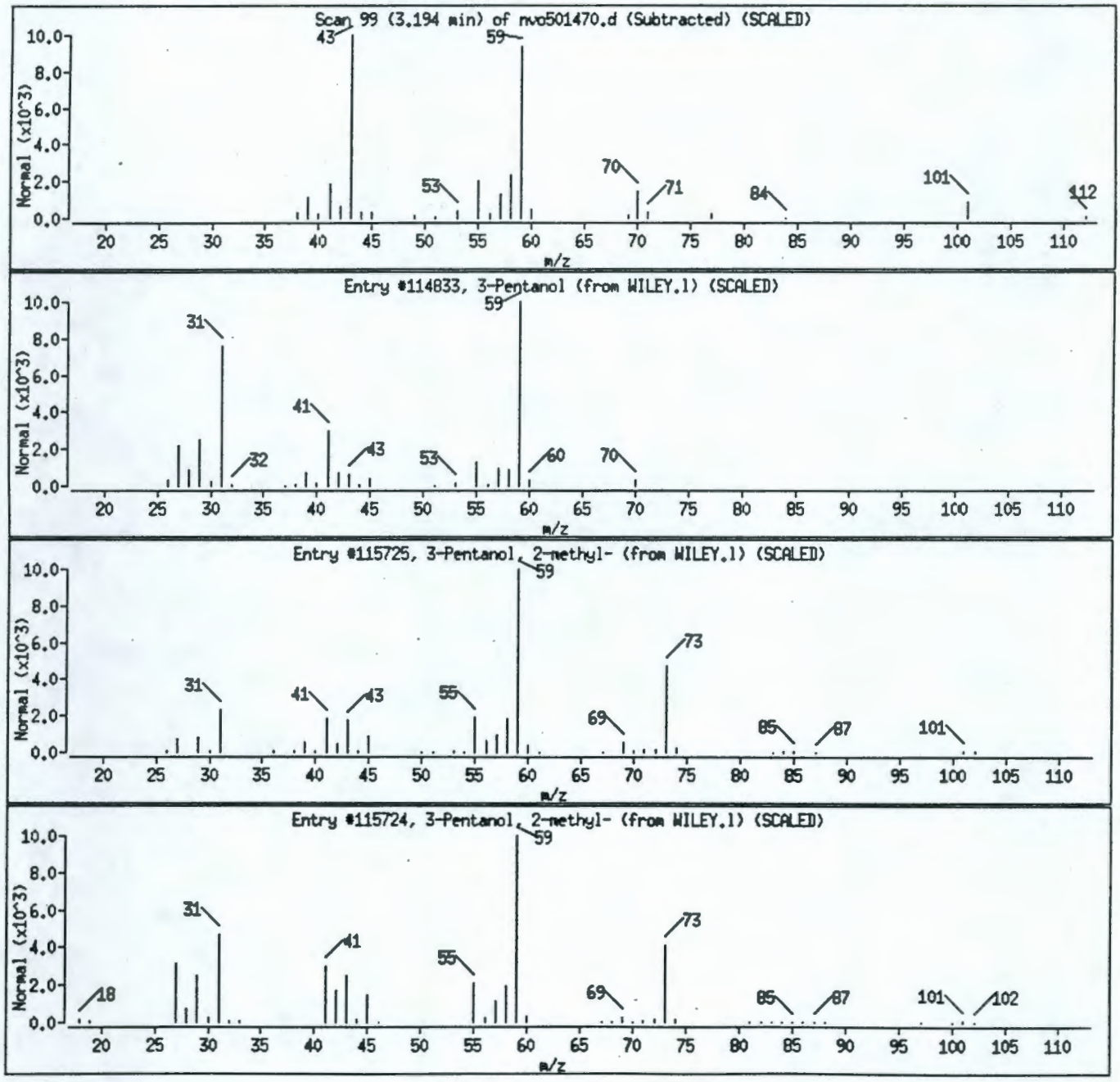
Client ID: SV201001 Instrument: nvo5.i

Sample Info: CDMMNSS×30

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
3-Pentanol	584-02-1	WILEY.1	114833	53	C5H12O	88
3-Pentanol, 2-methyl-	565-67-3	WILEY.1	115725	42	C6H14O	102
3-Pentanol, 2-methyl-	565-67-3	WILEY.1	115724	42	C6H14O	102



9513355.2309

Data File: /chem/nvo5.i/nvo0509.b/nvo501470.d

Date : 09-MAY-1994 13:45

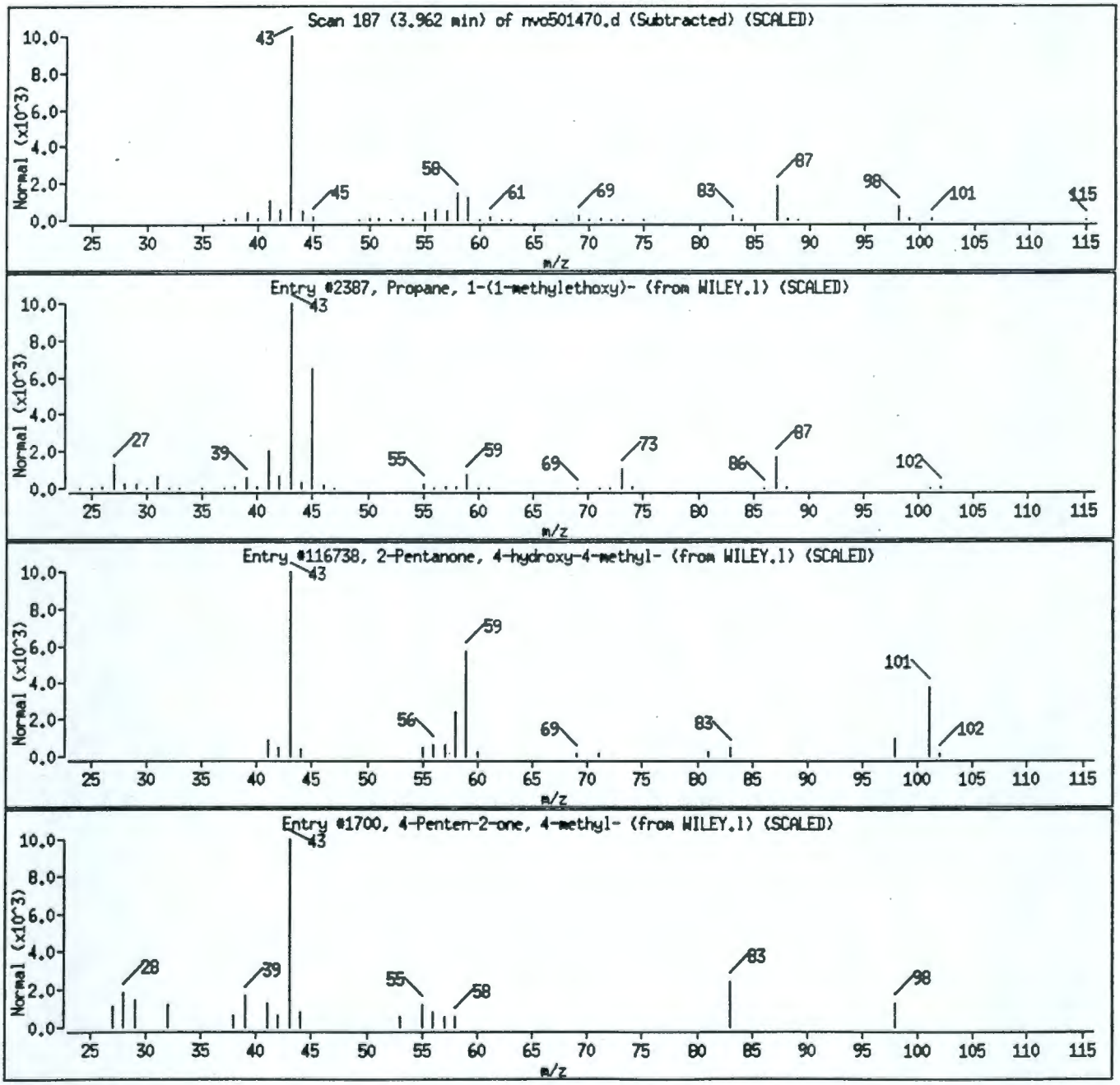
Client ID: SV201001 Instrument: nvo5.i

Sample Info: CDMHNSS*30

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

Column phase: DB-5MS Column diameter: 0.25

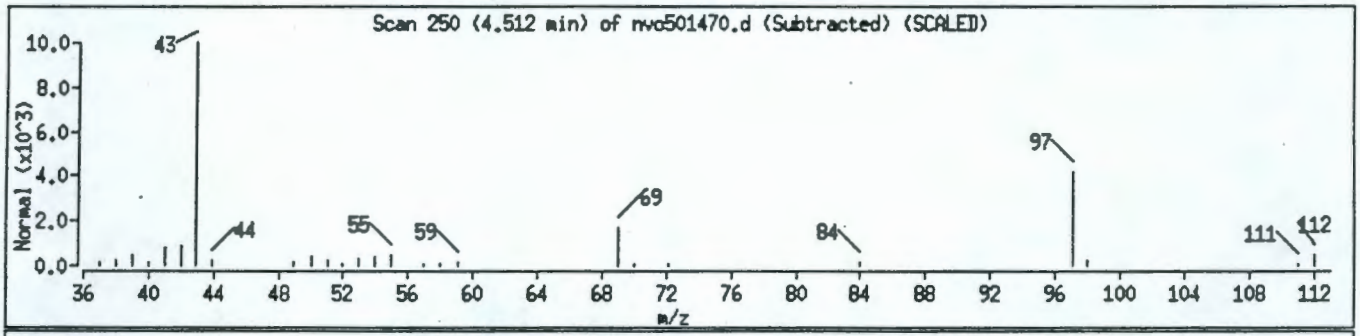
Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Propane, 1-(1-methylethoxy)-	627-08-7	WILEY.1	2387	33	C6H140	102
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	WILEY.1	116738	25	C6H1202	116
4-Penten-2-one, 4-methyl-	3744-02-3	WILEY.1	1700	16	C6H100	98

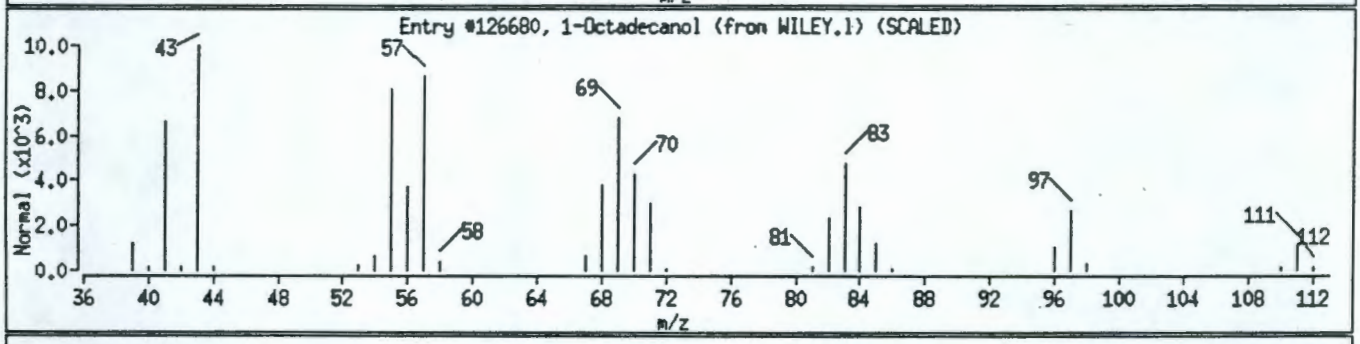


001212

Data File: /chem/nvo5.i/nvo0509.b/nvo501470.d
Date : 09-MAY-1994 13:45
Client ID: SV201001 Instrument: nvo5.i
Sample Info: CDMHNSS*30
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-Octadecanol	112-92-5	WILEY.l	126680	10	C18H38O	270





9513355.2311

Data File: /chem/nvo5.i/nvo0509.b/nvo501470.d

Date : 09-MAY-1994 13:45

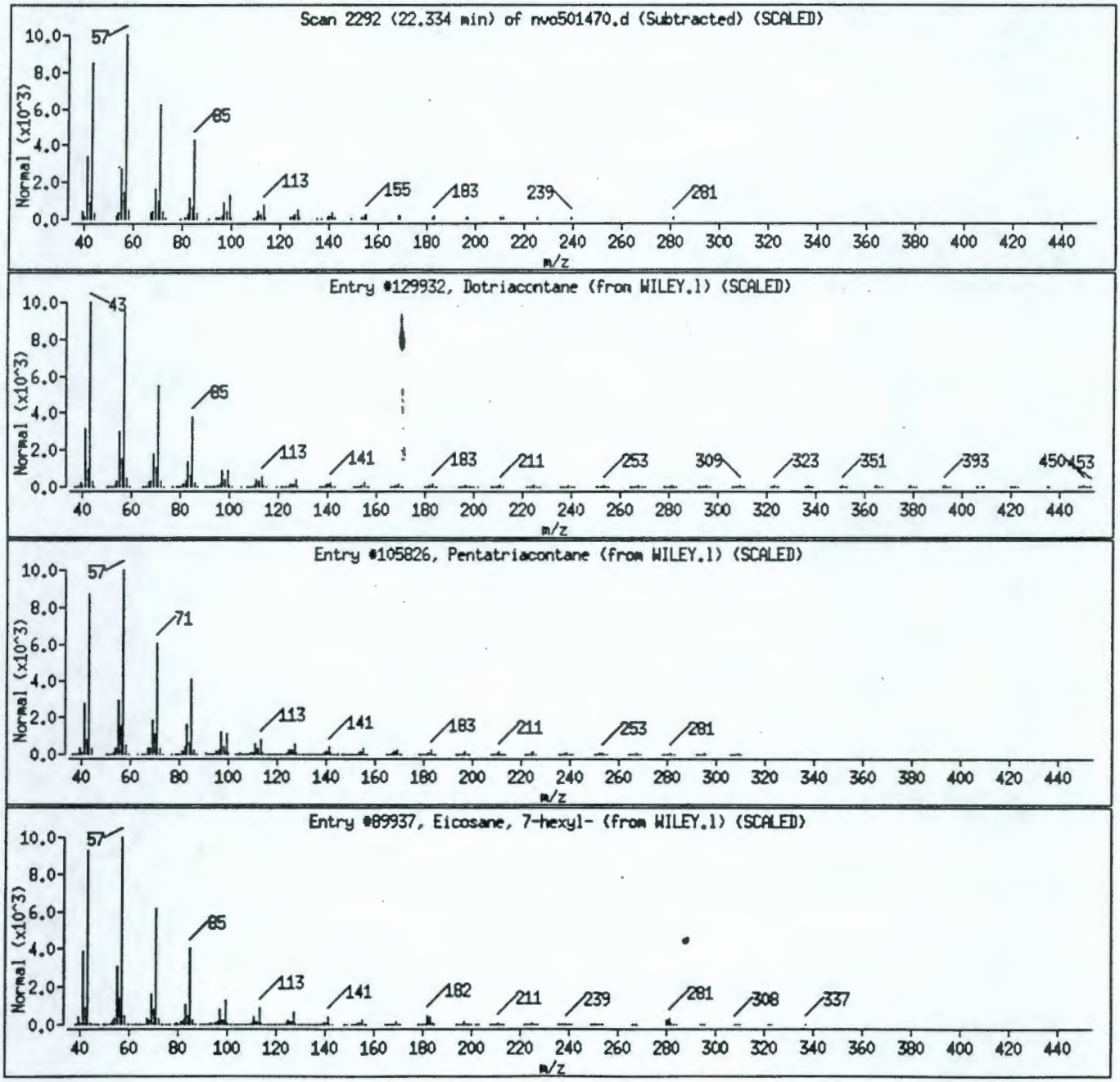
Client ID: SV201001 Instrument: nvo5.i

Sample Info: CDMHNSS*30

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
Dotriacontane	544-85-4	WILEY.1	129932	91	C32H66	451
Pentatriacontane	630-07-9	WILEY.1	105826	91	C35H72	493
Eicosane, 7-hexyl-	55333-99-8	WILEY.1	89937	91	C26H54	366



Data File: /chem/nvo5.i/nvo0509.b/nvo501470.d

Date : 09-MAY-1994 13:45

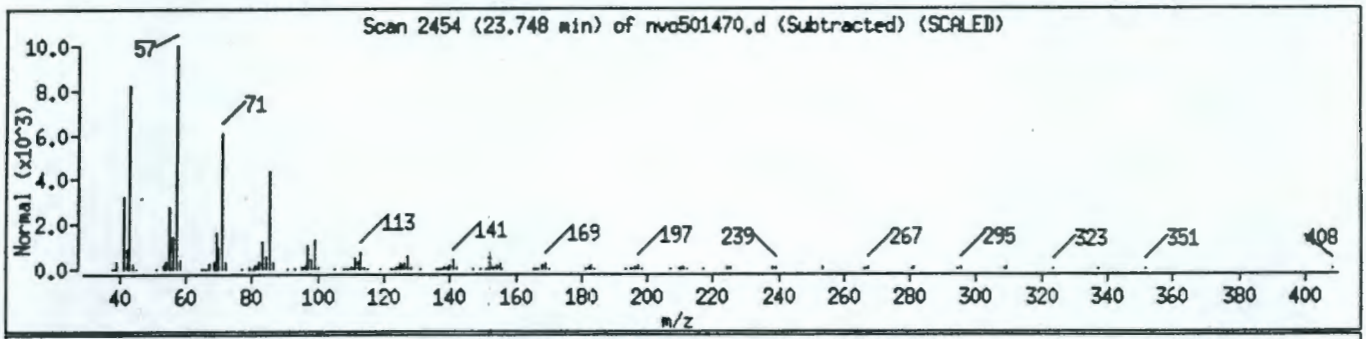
Client ID: SV201001 Instrument: nvo5.i

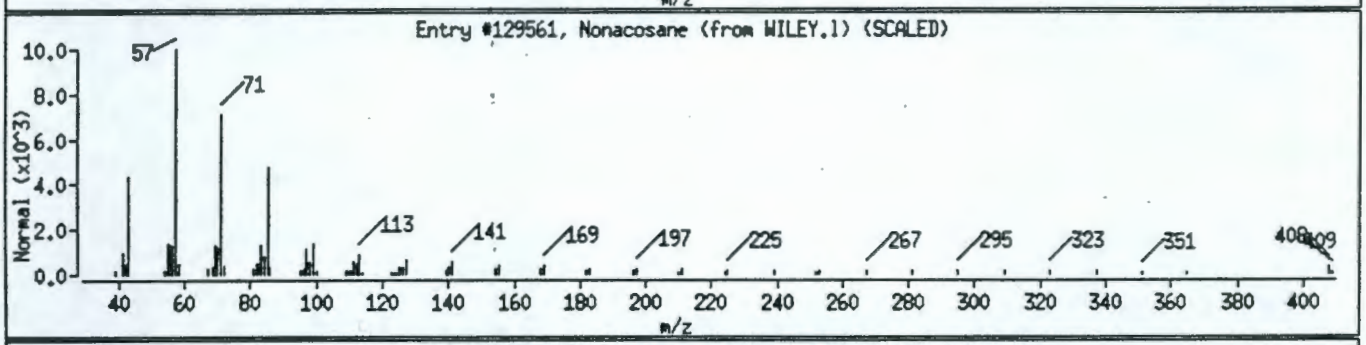
Sample Info: CDMHNSS*30

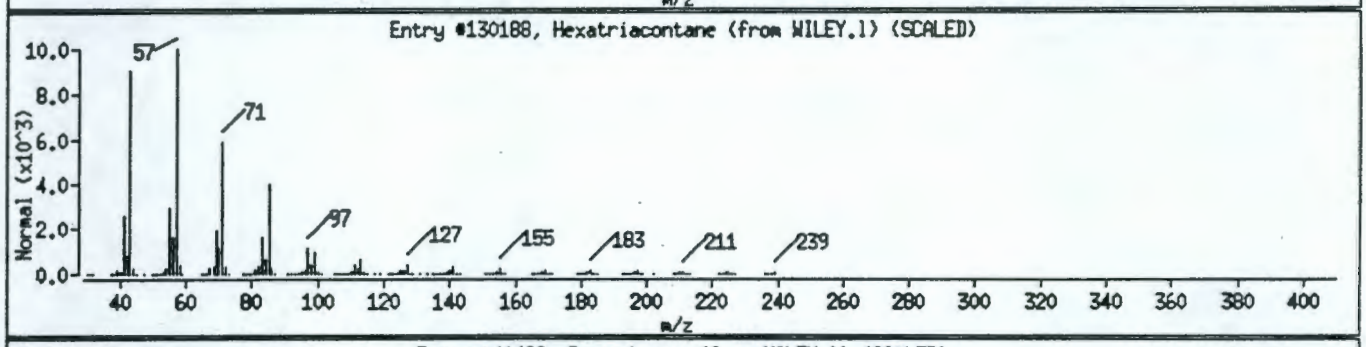
Volume Injected (uL): 2.0 Operator: WAV/AT

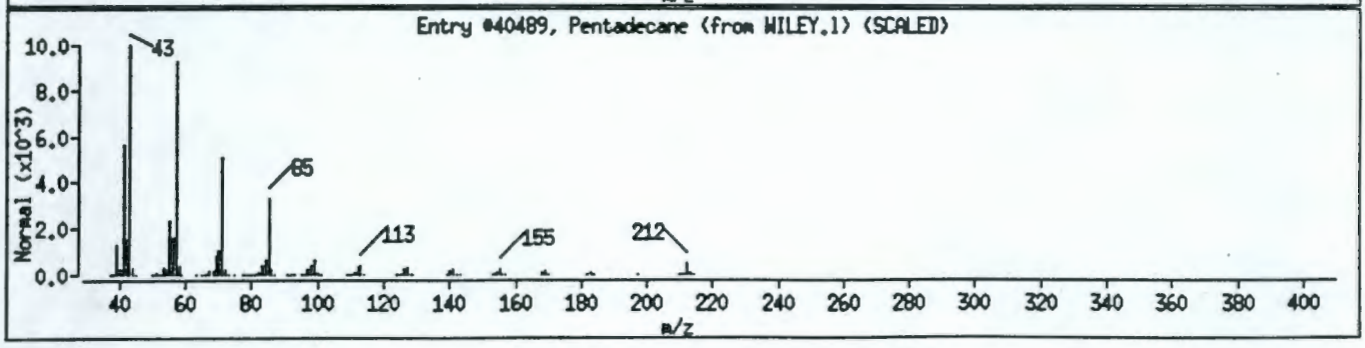
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Nonacosane	630-03-5	WILEY.1	129561	96	C29H60	408
Hexatriacontane	630-06-8	WILEY.1	130188	95	C36H74	507
Pentadecane	629-62-9	WILEY.1	40489	93	C15H32	212









Data File: /chem/nvo5.i/nvo0509.b/nvo501470.d

Date : 09-MAY-1994 13:45

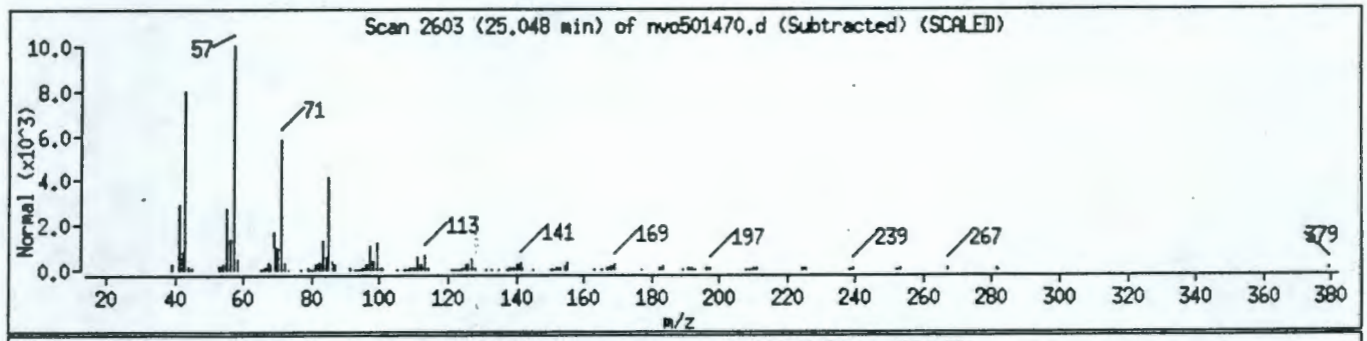
Client ID: SV201001 Instrument: nvo5.i

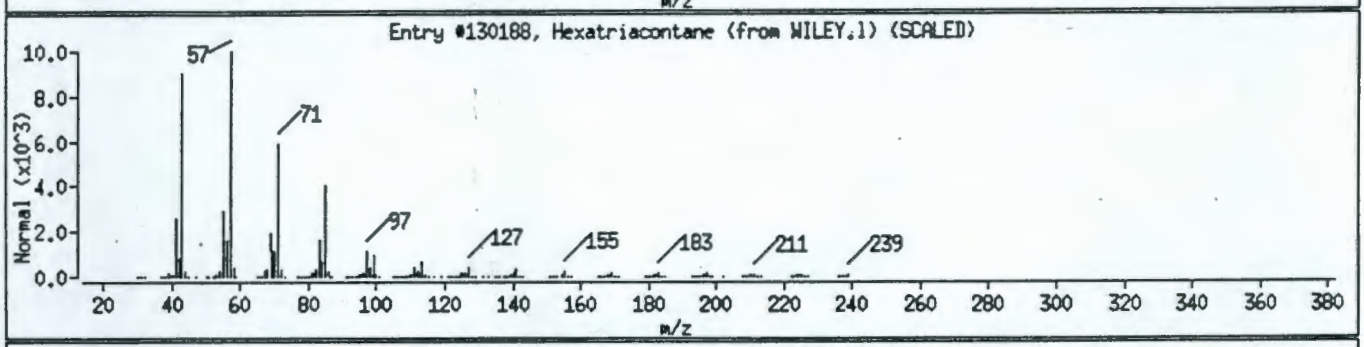
Sample Info: CDMHNSS*30

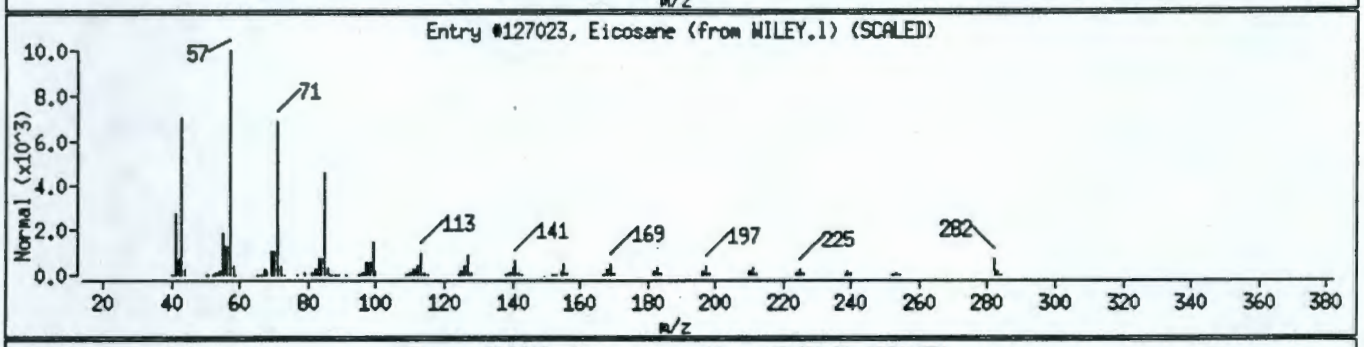
Volume Injected (uL): 2.0 Operator: WAV/AT

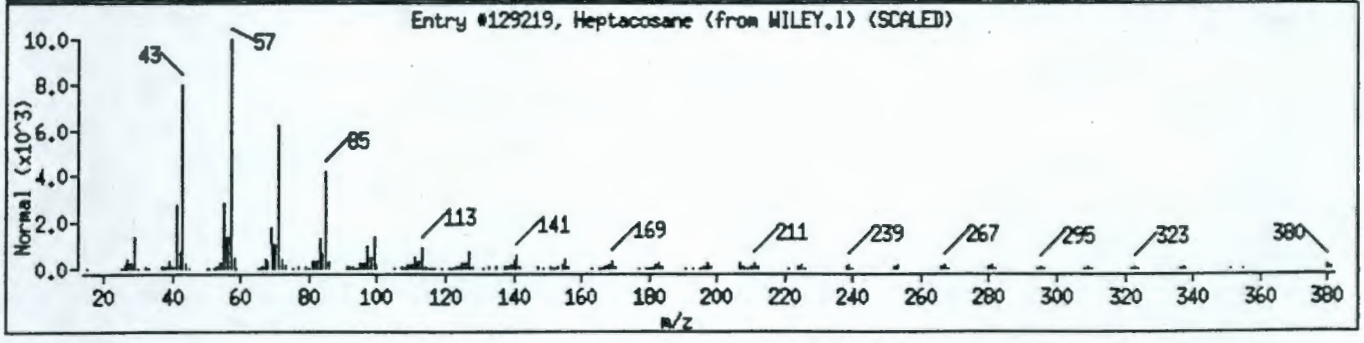
Column phase: DB-5MS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexatriacontane	630-06-8	WILEY.l	130188	95	C36H74	507
Eicosane	112-95-8	WILEY.l	127023	93	C20H42	282
Heptacosane	593-49-7	WILEY.l	129219	91	C27H56	380









9513355.2314

Data File: /chem/nvo5.i/nvo0509.b/nvo501470.d

Date : 09-MAY-1994 13:45

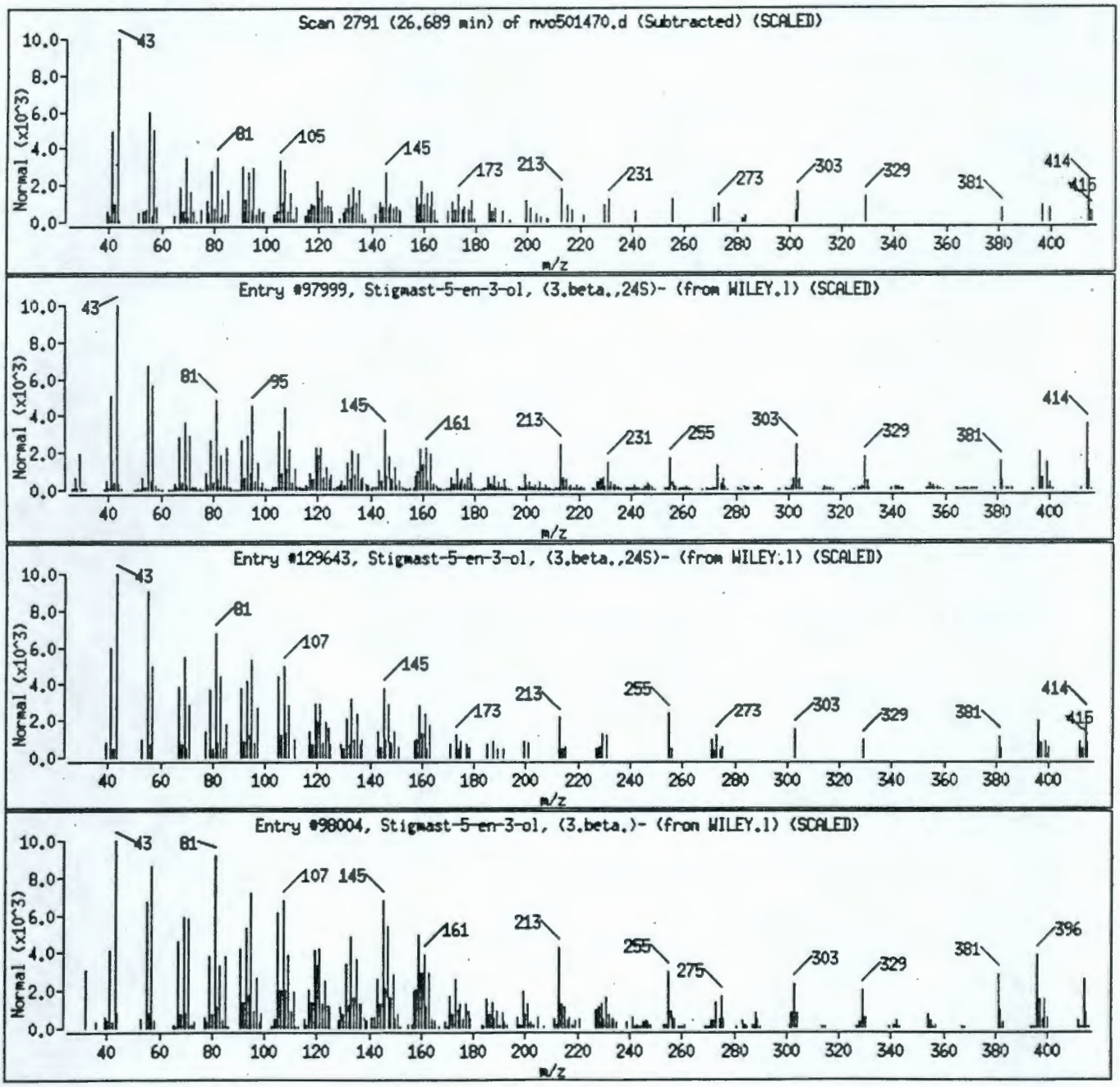
Client ID: SV201001 Instrument: nvo5.i

Sample Info: CDMHNSS×30

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
Stigmast-5-en-3-ol, (3.beta.,24S)-	83-47-6	WILEY.1	97999	97	C29H500	414
Stigmast-5-en-3-ol, (3.beta.,24S)-	83-47-6	WILEY.1	129643	68	C29H500	414
Stigmast-5-en-3-ol, (3.beta.)-	83-46-5	WILEY.1	98004	49	C29H500	414



9513355.2315

STANDARDS DATA

6B
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48916

Instrument ID: NVO5 Calibration Date(s): 03/29/94

Calibration Times: 0952 1218

LAB FILE ID: RRF20 =NVO501306.D RRF50 =NVO501307.D
RRF80 =NVO501308.D RRF120=NVO501309.D RRF160=NVO501310.D

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Phenol *	1.497	1.682	1.872	1.714	1.718	1.697	7.9*
Bis(2-Chloroethyl)ether *	1.163	1.297	1.455	1.330	1.352	1.319	8.0*
2-Chlorophenol *	1.161	1.288	1.481	1.355	1.347	1.326	8.8*
1,3-Dichlorobenzene *	1.244	1.385	1.633	1.490	1.500	1.451	10.0*
1,4-Dichlorobenzene *	1.241	1.430	1.669	1.500	1.525	1.473	10.6*
1,2-Dichlorobenzene *	1.126	1.290	1.491	1.373	1.383	1.333	10.2*
2-Methylphenol *	1.041	1.081	1.236	1.154	1.146	1.132	6.6*
2,2'-oxybis(1-Chloropropane)	1.251	1.380	1.562	1.446	1.540	1.436	8.8
4-Methylphenol *	1.048	1.132	1.259	1.160	1.186	1.157	6.6*
N-Nitroso-di-n-propylamine *	0.809	0.861	0.998	0.953	0.946	0.913	8.4*
Hexachloroethane *	0.495	0.567	0.663	0.599	0.612	0.587	10.5*
Nitrobenzene *	0.335	0.385	0.431	0.400	0.400	0.390	8.9*
Isophorone *	0.607	0.659	0.759	0.709	0.717	0.690	8.5*
2-Nitrophenol *	0.206	0.247	0.283	0.263	0.268	0.253	11.6*
2,4-Dimethyphenol *	0.294	0.349	0.397	0.366	0.372	0.356	10.9*
Bis(2-Chloroethoxy)methane *	0.342	0.379	0.442	0.406	0.407	0.395	9.4*
2,4-Dichlorophenol *	0.260	0.291	0.332	0.310	0.315	0.302	9.1*
1,2,4-Trichlorobenzene *	0.289	0.334	0.381	0.346	0.355	0.341	9.9*
Naphthalene *	0.875	0.991	1.131	1.029	1.048	1.015	9.2*
4-Chloroaniline	0.324	0.359	0.402	0.364	0.360	0.362	7.6
Hexachlorobutadiene	0.181	0.204	0.241	0.214	0.222	0.213	10.5
4-Chloro-3-methylphenol *	0.261	0.278	0.320	0.304	0.310	0.295	8.2*
2-Methylnaphthalene *	0.577	0.616	0.725	0.665	0.677	0.652	8.7*
Hexachlorocyclopentadiene	0.101	0.144	0.171	0.155	0.167	0.148	19.0
2,4,6-Trichlorophenol *	0.353	0.420	0.479	0.429	0.461	0.428	11.2*
2,4,5-Trichlorophenol *	0.407	0.451	0.529	0.474	0.516	0.475	10.4*
2-Chloronaphthalene *	1.009	1.189	1.329	1.207	1.240	1.195	9.8*
2-Nitroaniline	0.340	0.388	0.451	0.417	0.438	0.407	10.9
Dimethyl phthalate	1.192	1.338	1.540	1.383	1.443	1.379	9.4
Acenaphthylene *	1.141	1.332	1.514	1.395	1.430	1.363	10.3*
2,6-Dinitrotoluene *	0.261	0.315	0.365	0.332	0.354	0.326	12.5*
3-Nitroaniline	0.264	0.326	0.375	0.334	0.339	0.327	12.3
Acenaphthene *	0.969	1.110	1.249	1.145	1.167	1.128	9.1*
2,4-Dinitrophenol	0.166	0.237	0.286	0.276	0.300	0.253	21.3
4-Nitrophenol	0.160	0.194	0.234	0.208	0.216	0.203	13.8
Dibenzofuran *	1.489	1.692	1.903	1.730	1.787	1.720	8.8*
2,4-Dinitrotoluene *	0.324	0.373	0.432	0.391	0.412	0.387	10.7*

* 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.: 48916

Instrument ID: NVO5 Calibration Date(s): 03/29/94

Calibration Times: 0952 1218

LAB FILE ID: RRF20 =NVO501306.D RRF50 =NVO501307.D
RRF80 =NVO501308.D RRF120=NVO501309.D RRF160=NVO501310.D

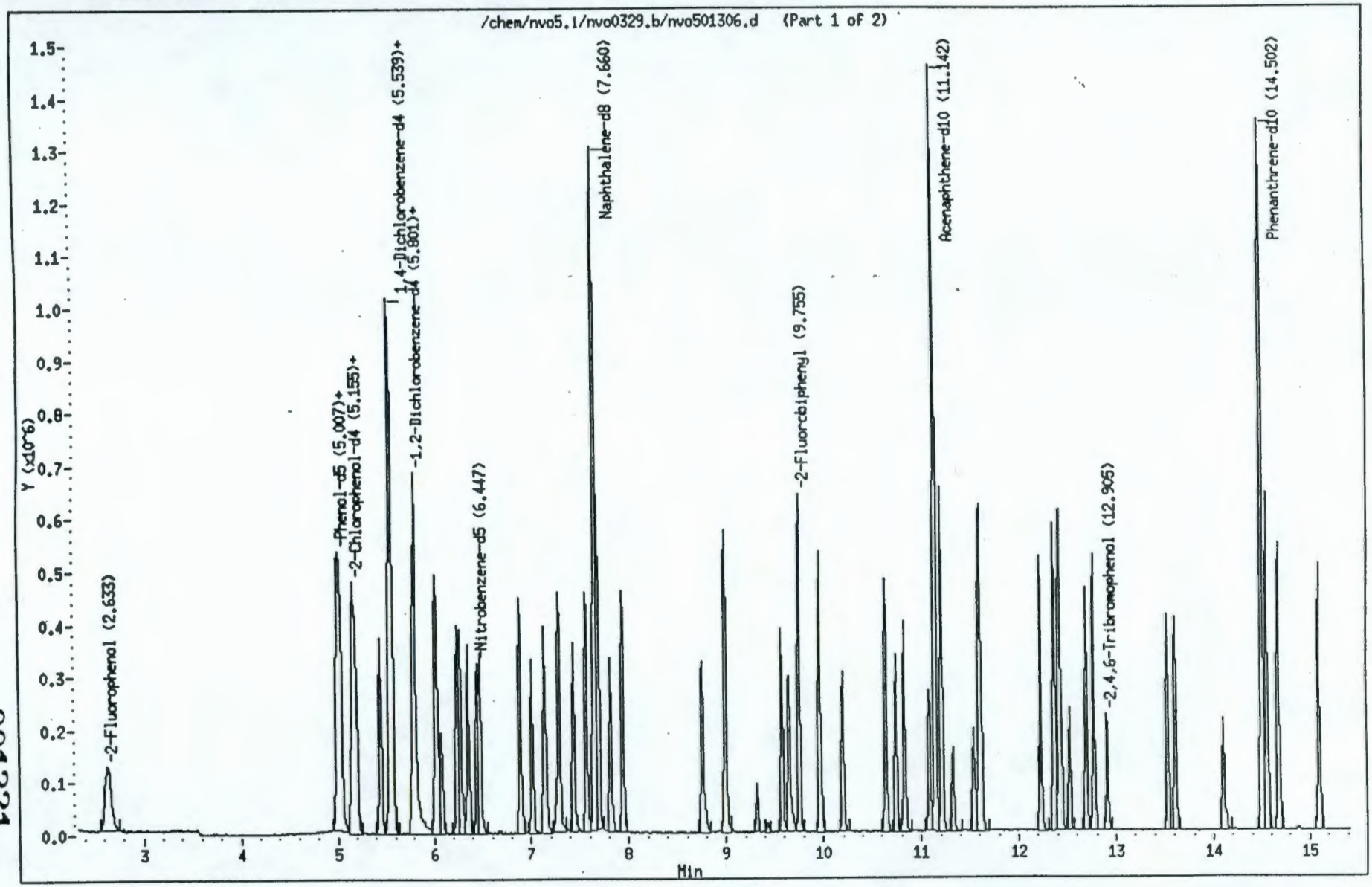
COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Diethyl phthalate	1.207	1.363	1.556	1.399	1.460	1.397	9.2
4-Chlorophenyl-phenylether *	0.565	0.640	0.708	0.645	0.669	0.646	8.1*
Fluorene *	1.091	1.238	1.392	1.264	1.286	1.254	8.6*
4-Nitroaniline	0.272	0.337	0.379	0.339	0.350	0.335	11.7
4,6-Dinitro-2-methylphenol	0.141	0.187	0.223	0.216	0.226	0.198	17.9
N-Nitrosodiphenylamine (1)	0.465	0.534	0.617	0.572	0.588	0.555	10.6
4-Bromophenyl-phenylether *	0.196	0.237	0.267	0.255	0.260	0.243	11.7*
Hexachlorobenzene *	0.242	0.279	0.316	0.294	0.301	0.286	9.9*
Pentachlorophenol *	0.132	0.169	0.195	0.189	0.199	0.177	15.6*
Phenanthrene *	0.986	1.125	1.246	1.168	1.174	1.140	8.5*
Anthracene *	0.908	1.055	1.209	1.094	1.117	1.077	10.2*
Carbazole	0.849	1.024	1.113	1.045	1.023	1.011	9.6
Di-n-butylphthalate	1.206	1.479	1.686	1.557	1.590	1.504	12.1
Fluoranthene *	0.909	1.136	1.262	1.155	1.152	1.123	11.5*
Pyrene *	1.155	1.237	1.427	1.355	1.384	1.312	8.6*
Butylbenzylphthalate	0.569	0.640	0.761	0.709	0.749	0.686	11.7
3,3'-Dichlorobenzidine	0.279	0.319	0.381	0.338	0.345	0.332	11.3
Benzo(a)anthracene *	0.936	1.079	1.229	1.132	1.168	1.109	10.0*
Chrysene *	0.891	0.989	1.120	1.034	1.048	1.017	8.3*
bis(2-Ethylhexyl)phthalate	0.765	0.842	1.045	0.971	1.019	0.928	12.9
Di-n-octylphthalate	1.079	1.252	1.536	1.466	1.454	1.357	13.9
Benzo(b)fluoranthene *	0.764	0.920	1.076	0.997	0.959	0.943	12.3*
Benzo(k)fluoranthene *	0.787	0.935	1.068	1.002	0.999	0.958	11.1*
Benzo(a)pyrene *	0.700	0.826	0.971	0.898	0.905	0.860	12.0*
Indeno(1,2,3-cd)pyrene *	0.646	0.731	0.856	0.824	0.849	0.781	11.6*
Dibenzo(a,h)anthracene *	0.635	0.718	0.844	0.811	0.837	0.769	11.7*
Benzo(g,h,i)perylene *	0.705	0.761	0.871	0.853	0.869	0.812	9.2*
Nitrobenzene-d5 *	0.336	0.393	0.452	0.413	0.417	0.402	10.6*
2-Fluorobiphenyl *	1.253	1.474	1.667	1.501	1.540	1.487	10.1*
Terphenyl-d14 *	0.882	0.965	1.096	1.024	1.066	1.007	8.5*
Phenol-d5 *	1.287	1.426	1.582	1.470	1.455	1.444	7.4*
2-Fluorophenol *	1.139	1.317	1.505	1.358	1.353	1.335	9.8*
2,4,6-Tribromophenol	0.203	0.233	0.274	0.249	0.266	0.245	11.5
2-Chlorophenol-d4 *	0.992	1.132	1.278	1.167	1.175	1.149	9.0*
1,2-Dichlorobenzene-d4 *	0.736	0.817	0.964	0.861	0.874	0.851	9.8*

(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.

Data File: /chem/nvo5.i/nvo0329.b/nvo501306.d
Date : 29-MAR-1994 09:52
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



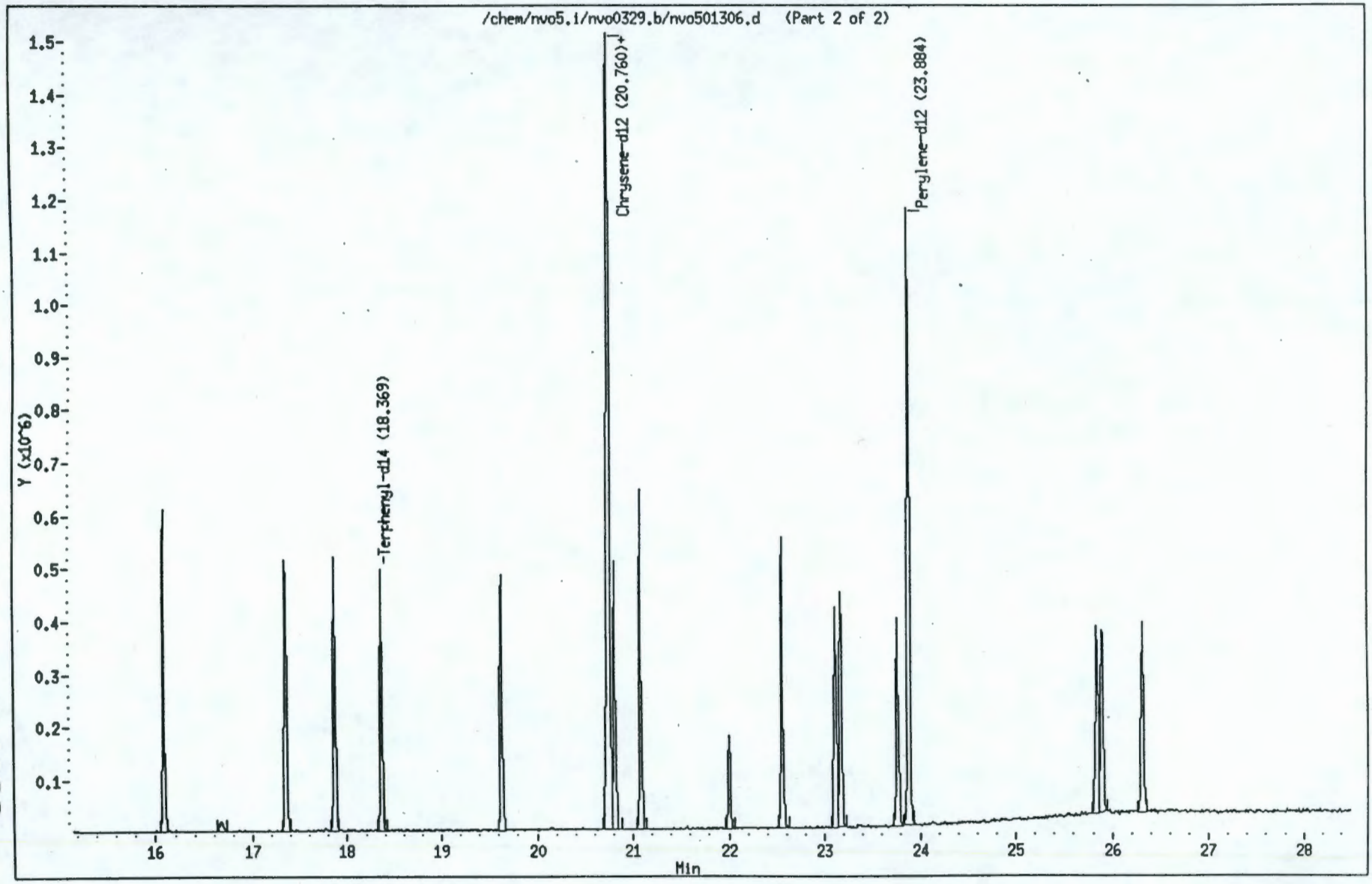
001221

95133355.23118

Data File: /chem/nvo5.i/nvo0329.b/nvo501306.d
Date : 29-MAR-1994 09:52
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



001222

9513355.2319

Data File: /chem/nvo5.i/nvo0329.b/nvo501306.d
Report Date: 31-Mar-1994 11:13

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0329.b/nvo501306.d
Lab Smp Id: SSTD20 Client Smp ID: SSTD20
Inj Date : 29-MAR-1994 09:52 Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : SSTD20 20ng on col
Misc Info : 10ug/ml CLP STD 1000-1-1
Comment :
Method : /chem/nvo5.i/nvo0329.b/clp390epc.m
Meth Date : 31-Mar-1994 11:13 user2 Quant Type: ISTD
Cal Date : 29-MAR-1994 09:52 Cal File: nvo501306.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)	ON-COL (ng)
*	1 1,4-Dichlorobenzene-d4	152.00	5.539	5.539	(1.000)	310119	40	
$	2 2-Fluorophenol	112.00	2.633	2.633	(0.475)	176567	20	20
$	3 Phenol-d5	99.00	5.007	5.007	(0.904)	199497	20	20
	4 Phenol	94.00	5.033	5.033	(0.909)	232166	20	20
	5 Bis(2-Chloroethyl)ether	93.00	5.147	5.147	(0.929)	180319	20	20
$	6 2-Chlorophenol-d4	132.00	5.164	5.164	(0.932)	153854	20	20
	7 2-Chlorophenol	128.00	5.190	5.190	(0.937)	180088	20	20
	8 1,3-Dichlorobenzene	146.00	5.443	5.443	(0.983)	192913	20	20
	9 1,4-Dichlorobenzene	146.00	5.566	5.566	(1.005)	192407	20	20
$	10 1,2-Dichlorobenzene-d4	152.00	5.784	5.784	(1.044)	114134	20	20
	11 1,2-Dichlorobenzene	146.00	5.801	5.801	(1.047)	174660	20	20
	12 2-Methylphenol	108.00	6.019	6.019	(1.087)	161456	20	20
	13 4-Methylphenol	108.00	6.273	6.273	(1.132)	162570	20	20
	14 2,2'-oxybis(1-Chloropropane)	45.00	6.037	6.037	(1.090)	193992	20	20
	15 N-Nitroso-di-n-propylamine	70.00	6.238	6.238	(1.126)	125379	20	20
	16 Hexachloroethane	117.00	6.351	6.351	(1.147)	76827	20	20
*	17 Naphthalene-d8	136.00	7.660	7.660	(1.000)	1037257	40	
$	18 Nitrobenzene-d5	82.00	6.447	6.447	(0.842)	174386	20	20
	19 Nitrobenzene	77.00	6.473	6.473	(0.845)	173945	20	20
	20 Isophorone	82.00	6.883	6.883	(0.899)	314985	20	20
	21 2-Nitrophenol	139.00	7.006	7.006	(0.915)	106625	20	20
	22 2,4-Dimethyphenol	107.00	7.137	7.137	(0.932)	152347	20	20
	23 Bis(2-Chloroethoxy)methane	93.00	7.285	7.285	(0.951)	177371	20	20
	24 2,4-Dichlorophenol	162.00	7.433	7.433	(0.970)	134777	20	20
	25 1,2,4-Trichlorobenzene	180.00	7.564	7.564	(0.987)	150064	20	20
	26 Naphthalene	128.00	7.695	7.695	(1.005)	453778	20	20
	27 4-Chloroaniline	127.00	7.817	7.817	(1.020)	168091	20	20
	28 Hexachlorobutadiene	225.00	7.939	7.939	(1.036)	93879	20	20
	29 4-Chloro-3-methylphenol	107.00	8.760	8.760	(1.144)	135573	20	20

Data File: /chem/nvo5.i/nvo0329.b/nvo501306.d
Report Date: 31-Mar-1994 11:13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	CONCENTRATIONS ON-COL (ng)
	30 2-Methylnaphthalene	142.00	8.995	8.995	(1.174)	299300	20	20
*	31 Acenaphthene-d10	164.00	11.142	11.142	(1.000)	529696	40	
	32 Hexachlorocyclopentadiene	237.00	9.318	9.318	(0.836)	26794	20	20
	33 2,4,6-Trichlorophenol	196.00	9.571	9.571	(0.859)	93615	20	20
	34 2,4,5-Trichlorophenol	196.00	9.650	9.650	(0.866)	107800	20	20(a)
$	35 2-Fluorobiphenyl	172.00	9.755	9.755	(0.875)	331957	20	20
	36 2-Chloronaphthalene	162.00	9.964	9.964	(0.894)	267241	20	20
	37 2-Nitroaniline	65.00	10.200	10.200	(0.915)	90025	20	20(a)
	38 Dimethyl phthalate	163.00	10.636	10.636	(0.955)	315829	20	20
	39 Acenaphthylene	152.00	10.828	10.828	(0.972)	302254	20	20
	40 2,6-Dinitrotoluene	165.00	10.741	10.741	(0.964)	69191	20	20
	41 3-Nitroaniline	138.00	11.081	11.081	(0.995)	69862	20	20(a)
	42 Acenaphthene	153.00	11.212	11.212	(1.006)	256539	20	20
	43 2,4-Dinitrophenol	184.00	11.326	11.326	(1.016)	43954	20	20(a)
	44 4-Nitrophenol	109.00	11.535	11.535	(1.035)	42381	20	20(a)
	45 Dibenzofuran	168.00	11.596	11.596	(1.041)	394432	20	20
	46 2,4-Dinitrotoluene	165.00	11.614	11.614	(1.042)	85816	20	20
	47 Diethyl phthalate	149.00	12.225	12.225	(1.097)	319687	20	20
	48 4-Chlorophenyl-phenylether	204.00	12.417	12.417	(1.114)	149692	20	20
	49 Fluorene	166.00	12.364	12.364	(1.110)	289016	20	20
	50 4-Nitroaniline	138.00	12.434	12.434	(1.116)	72079	20	20(a)
$	51 2,4,6-Tribromophenol	330.00	12.914	12.914	(1.159)	53816	20	20
*	52 Phenanthrene-d10	188.00	14.502	14.502	(1.000)	843177	40	
	53 4,6-Dinitro-2-methylphenol	198.00	12.521	12.521	(0.863)	59569	20	20(a)
	54 N-Nitrosodiphenylamine	169.00	12.696	12.696	(0.875)	195888	20	20
	55 4-Bromophenyl-phenylether	248.00	13.534	13.534	(0.933)	82806	20	20
	56 Hexachlorobenzene	284.00	13.612	13.612	(0.939)	101919	20	20
	57 Pentachlorophenol	266.00	14.101	14.101	(0.972)	55773	20	20(a)
	58 Phenanthrene	178.00	14.555	14.555	(1.004)	415694	20	20
	59 Anthracene	178.00	14.677	14.677	(1.012)	382853	20	20
	60 Carbazole	167.00	15.096	15.096	(1.041)	358029	20	20
	61 Di-n-butylphthalate	149.00	16.091	16.091	(1.110)	508234	20	20
	62 Fluoranthene	202.00	17.348	17.348	(1.196)	383140	20	20
*	63 Chrysene-d12	240.00	20.760	20.760	(1.000)	685272	40	
	64 Pyrene	202.00	17.871	17.871	(0.861)	395858	20	20
$	65 Terphenyl-d14	244.00	18.369	18.369	(0.885)	302172	20	20
	66 Butylbenzylphthalate	149.00	19.634	19.634	(0.946)	194992	20	20
	67 3,3'-Dichlorobenzidine	252.00	20.760	20.760	(1.000)	95445	20	20
	68 Benzo(a)anthracene	228.00	20.734	20.734	(0.999)	320822	20	20
	69 Chrysene	228.00	20.812	20.812	(1.003)	305365	20	20
	70 bis(2-Ethylhexyl)phthalate	149.00	21.083	21.083	(1.016)	262167	20	20
*	71 Perylene-d12	264.00	23.884	23.884	(1.000)	786605	40	
	72 Di-n-octylphthalate	149.00	22.558	22.558	(0.944)	424218	20	20
	73 Benzo(b)fluoranthene	252.00	23.116	23.116	(0.968)	300310	20	20
	74 Benzo(k)fluoranthene	252.00	23.169	23.169	(0.970)	309503	20	20
	75 Benzo(a)pyrene	252.00	23.762	23.762	(0.995)	275447	20	20
	76 Indeno(1,2,3-cd)pyrene	276.00	25.839	25.839	(1.082)	254260	20	20
	77 Dibenzo(a,h)anthracene	278.00	25.900	25.900	(1.084)	249926	20	20
	78 Benzo(g,h,i)perylene	276.00	26.311	26.311	(1.102)	277451	20	20

Data File: /chem/nvo5.i/nvo0329.b/nvo501306.d
Report Date: 31-Mar-1994 11:13

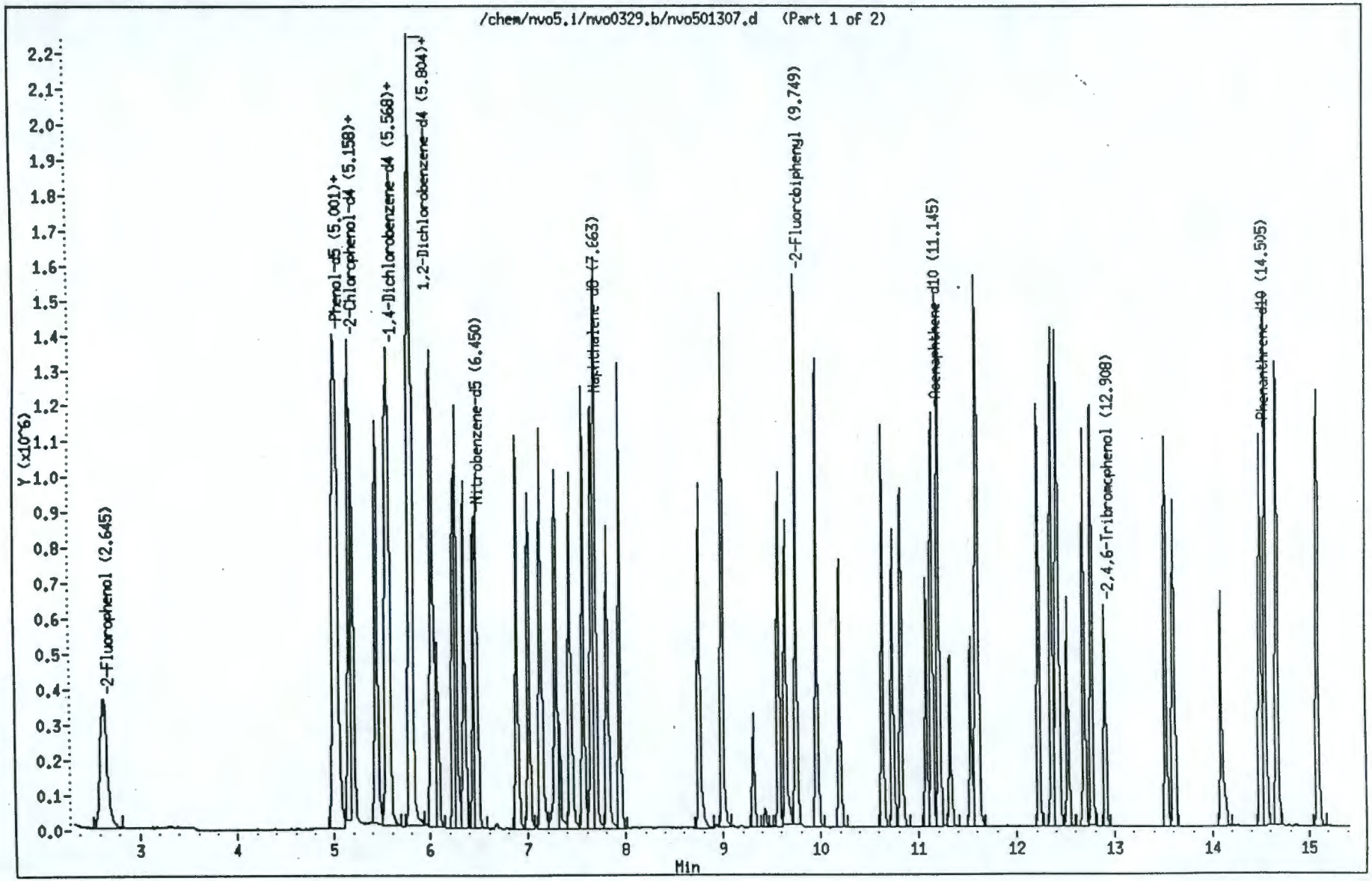
QC Flag Legend

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

Data File: /chem/nvo5.i/nvo0329.b/nvo501307.d
Date : 29-MAR-94 10:27
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



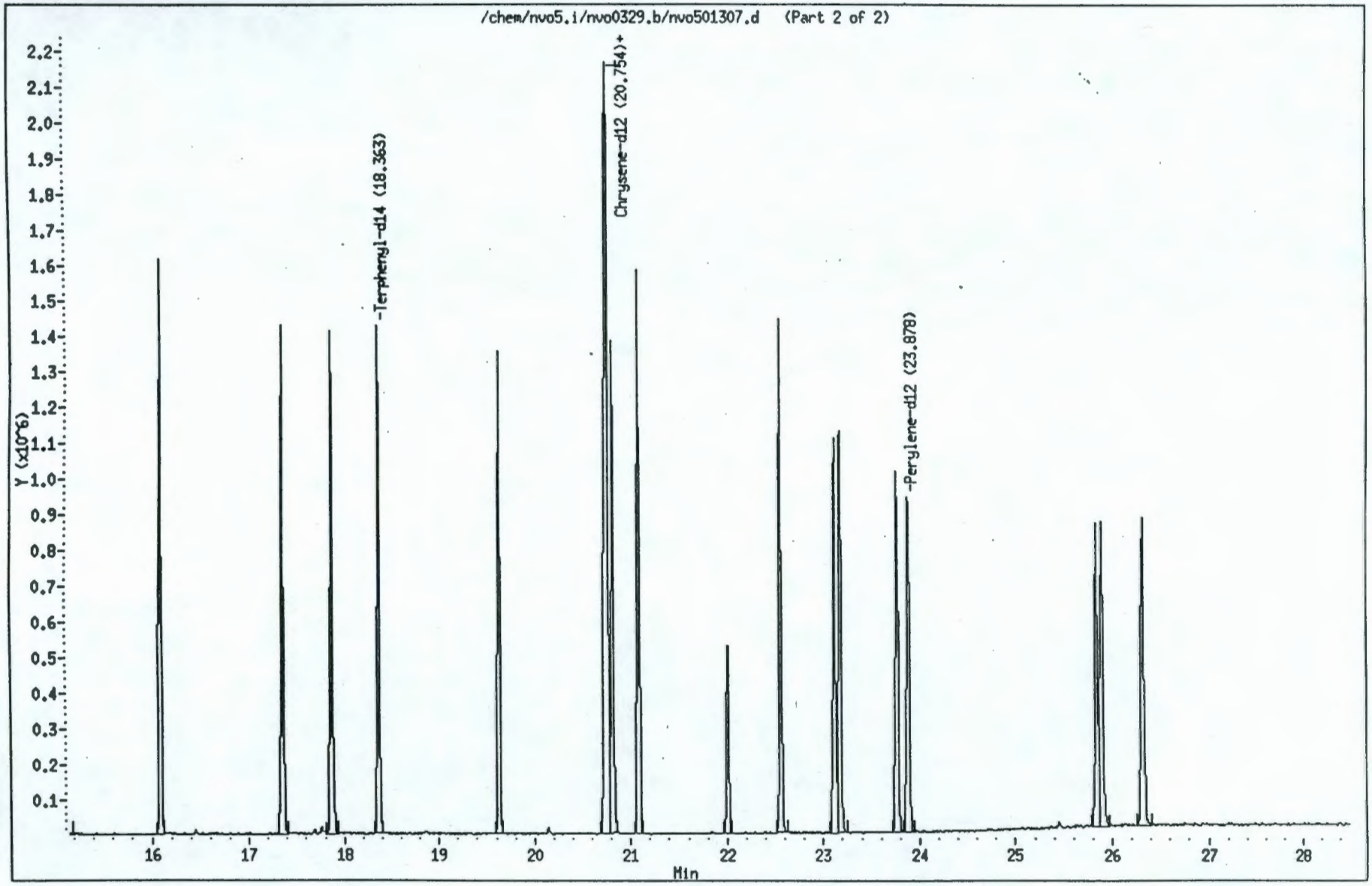
001226

95133355.2321

Data File: /chem/nvo5.i/nvo0329.b/nvo501307.d
Date : 29-MAR-94 10:27
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



001227

95133555.2324

Data File: /chem/nvo5.i/nvo0329.b/nvo501307.d
Report Date: 31-Mar-1994 11:13

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0329.b/nvo501307.d
Lab Smp Id: SSTD50 — Client Smp ID: SSTD50
Inj Date : 29-MAR-1994 10:27 — Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT — Inst ID: nvo5.i
Smp Info : SSTD50 50ng on col
Misc Info : 25ug/ml CLP STD 1000-2-1
Comment :
Method : /chem/nvo5.i/nvo0329.b/clp390epc.m
Meth Date : 31-Mar-1994 11:13 user2 — Quant Type: ISTD
Cal Date : 29-MAR-1994 10:27 — Cal File: nvo501307.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)	CONCENTRATIONS ON-COL (ng)
* 1	1,4-Dichlorobenzene-d4	152.00	5.542	5.542	(1.000)	310219	40	
$ 2	2-Fluorophenol	112.00	2.636	2.636	(0.476)	510883	50	54
$ 3	Phenol-d5	99.00	5.010	5.010	(0.904)	552837	50	52
4	Phenol	94.00	5.036	5.036	(0.909)	652330	50	53
5	Bis(2-Chloroethyl)ether	93.00	5.149	5.149	(0.929)	502770	50	53
$ 6	2-Chlorophenol-d4	132.00	5.167	5.167	(0.932)	438769	50	53
7	2-Chlorophenol	128.00	5.193	5.193	(0.937)	499400	50	52
8	1,3-Dichlorobenzene	146.00	5.437	5.437	(0.981)	537178	50	53
9	1,4-Dichlorobenzene	146.00	5.568	5.568	(1.005)	554541	50	54
$ 10	1,2-Dichlorobenzene-d4	152.00	5.787	5.787	(1.044)	316790	50	53
11	1,2-Dichlorobenzene	146.00	5.804	5.804	(1.047)	500241	50	53
12	2-Methylphenol	108.00	6.013	6.013	(1.085)	419377	50	51
13	4-Methylphenol	108.00	6.275	6.275	(1.132)	438842	50	52
14	2,2'-oxybis(1-Chloropropane)	45.00	6.040	6.040	(1.090)	535318	50	52
15	N-Nitroso-di-n-propylamine	70.00	6.240	6.240	(1.126)	333738	50	52
16	Hexachloroethane	117.00	6.354	6.354	(1.146)	219917	50	53
* 17	Naphthalene-d8	136.00	7.663	7.663	(1.000)	979791	40	
$ 18	Nitrobenzene-d5	82.00	6.450	6.450	(0.842)	480889	50	54
19	Nitrobenzene	77.00	6.476	6.476	(0.845)	471648	50	53
20	Isophorone	82.00	6.886	6.886	(0.899)	806564	50	52
21	2-Nitrophenol	139.00	7.008	7.008	(0.915)	302588	50	54
22	2,4-Dimethyphenol	107.00	7.131	7.131	(0.931)	427595	50	54
23	Bis(2-Chloroethoxy)methane	93.00	7.288	7.288	(0.951)	464759	50	52
24	2,4-Dichlorophenol	162.00	7.436	7.436	(0.970)	356572	50	53
25	1,2,4-Trichlorobenzene	180.00	7.567	7.567	(0.987)	409209	50	54
26	Naphthalene	128.00	7.698	7.698	(1.005)	1213230	50	53
27	4-Chloroaniline	127.00	7.811	7.811	(1.019)	440096	50	52
28	Hexachlorobutadiene	225.00	7.942	7.942	(1.036)	250117	50	53
29	4-Chloro-3-methylphenol	107.00	8.754	8.754	(1.142)	340620	50	52

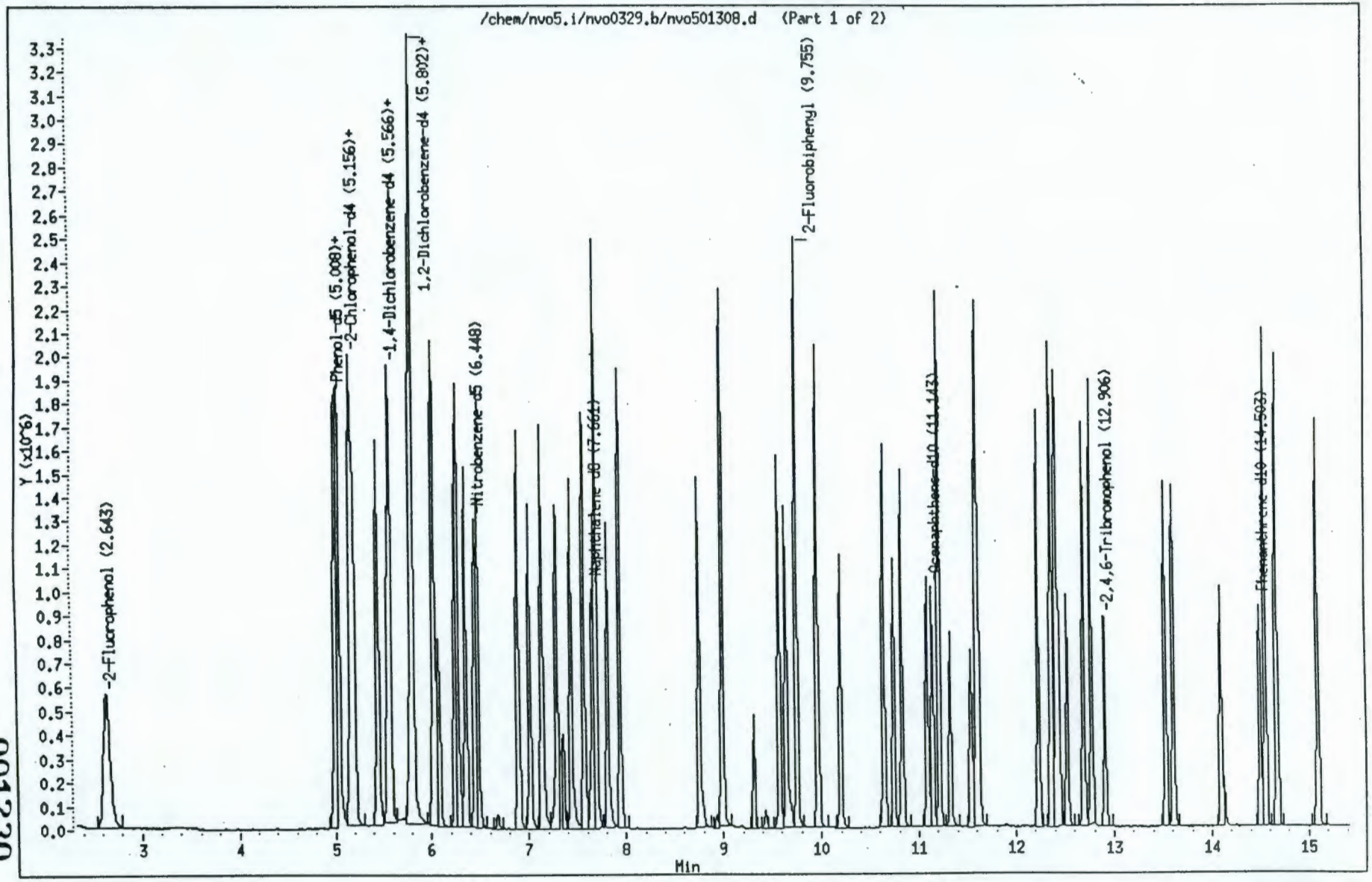
Data File: /chem/nvo5.i/nvo0329.b/nvo501307.d
Report Date: 31-Mar-1994 11:13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	CONCENTRATIONS ON-COL (ng)
	30 2-Methylnaphthalene	142.00	8.990	8.990	(1.173)	754576	50	52
*	31 Acenaphthene-d10	164.00	11.145	11.145	(1.000)	452062	40	
	32 Hexachlorocyclopentadiene	237.00	9.312	9.312	(0.836)	81498	50	59
	33 2,4,6-Trichlorophenol	196.00	9.574	9.574	(0.859)	237286	50	54
	34 2,4,5-Trichlorophenol	196.00	9.644	9.644	(0.865)	254831	50	52
$	35 2-Fluorobiphenyl	172.00	9.749	9.749	(0.875)	833112	50	54
	36 2-Chloronaphthalene	162.00	9.967	9.967	(0.894)	671901	50	54
	37 2-Nitroaniline	65.00	10.203	10.203	(0.915)	219206	50	53
	38 Dimethyl phthalate	163.00	10.639	10.639	(0.955)	755987	50	53
	39 Acenaphthylene	152.00	10.831	10.831	(0.972)	752933	50	54
	40 2,6-Dinitrotoluene	165.00	10.744	10.744	(0.964)	177950	50	55
	41 3-Nitroaniline	138.00	11.084	11.084	(0.995)	183977	50	55
	42 Acenaphthene	153.00	11.215	11.215	(1.006)	627064	50	53
	43 2,4-Dinitrophenol	184.00	11.328	11.328	(1.016)	133774	50	59
	44 4-Nitrophenol	109.00	11.538	11.538	(1.035)	109842	50	55
	45 Dibenzofuran	168.00	11.599	11.599	(1.041)	956207	50	53
	46 2,4-Dinitrotoluene	165.00	11.616	11.616	(1.042)	210836	50	54
	47 Diethyl phthalate	149.00	12.227	12.227	(1.097)	769987	50	53
	48 4-Chlorophenyl-phenylether	204.00	12.419	12.419	(1.114)	361732	50	53
	49 Fluorene	166.00	12.367	12.367	(1.110)	699483	50	53
	50 4-Nitroaniline	138.00	12.446	12.446	(1.117)	190590	50	55
$	51 2,4,6-Tribromophenol	330.00	12.908	12.908	(1.158)	131741	50	53
*	52 Phenanthrene-d10	188.00	14.505	14.505	(1.000)	704333	40	
	53 4,6-Dinitro-2-methylphenol	198.00	12.524	12.524	(0.863)	164372	50	57
	54 N-Nitrosodiphenylamine	169.00	12.690	12.690	(0.875)	470370	50	53
	55 4-Bromophenyl-phenylether	248.00	13.528	13.528	(0.933)	208831	50	55
	56 Hexachlorobenzene	284.00	13.615	13.615	(0.939)	245350	50	54
	57 Pentachlorophenol	266.00	14.095	14.095	(0.972)	148588	50	56
	58 Phenanthrene	178.00	14.558	14.558	(1.004)	990457	50	53
	59 Anthracene	178.00	14.671	14.671	(1.011)	929063	50	54
	60 Carbazole	167.00	15.099	15.099	(1.041)	901256	50	55
	61 Di-n-butylphthalate	149.00	16.085	16.085	(1.109)	1302401	50	55
	62 Fluoranthene	202.00	17.350	17.350	(1.196)	1000212	50	56
*	63 Chrysene-d12	240.00	20.754	20.754	(1.000)	667221	40	
	64 Pyrene	202.00	17.865	17.865	(0.861)	1031639	50	52
$	65 Terphenyl-d14	244.00	18.363	18.363	(0.885)	804759	50	52
	66 Butylbenzylphthalate	149.00	19.628	19.628	(0.946)	534009	50	53
	67 3,3'-Dichlorobenzidine	252.00	20.763	20.763	(1.000)	265729	50	53
	68 Benzo(a)anthracene	228.00	20.737	20.737	(0.999)	899596	50	54
	69 Chrysene	228.00	20.815	20.815	(1.003)	825207	50	53
	70 bis(2-Ethylhexyl)phthalate	149.00	21.086	21.086	(1.016)	702152	50	52
*	71 Perylene-d12	264.00	23.887	23.887	(1.000)	685513	40	
	72 Di-n-octylphthalate	149.00	22.552	22.552	(0.944)	1072572	50	54
	73 Benzo(b)fluoranthene	252.00	23.119	23.119	(0.968)	787971	50	55
	74 Benzo(k)fluoranthene	252.00	23.180	23.180	(0.970)	801616	50	54
	75 Benzo(a)pyrene	252.00	23.765	23.765	(0.995)	708166	50	54
	76 Indeno(1,2,3-cd)pyrene	276.00	25.851	25.851	(1.082)	626084	50	53
	77 Dibenzo(a,h)anthracene	278.00	25.903	25.903	(1.084)	615379	50	53
	78 Benzo(g,h,i)perylene	276.00	26.322	26.322	(1.102)	652101	50	52

Data File: /chem/nvo5.i/nvo0329.b/nvo501308.d
Date : 29-MAR-94 11:04
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



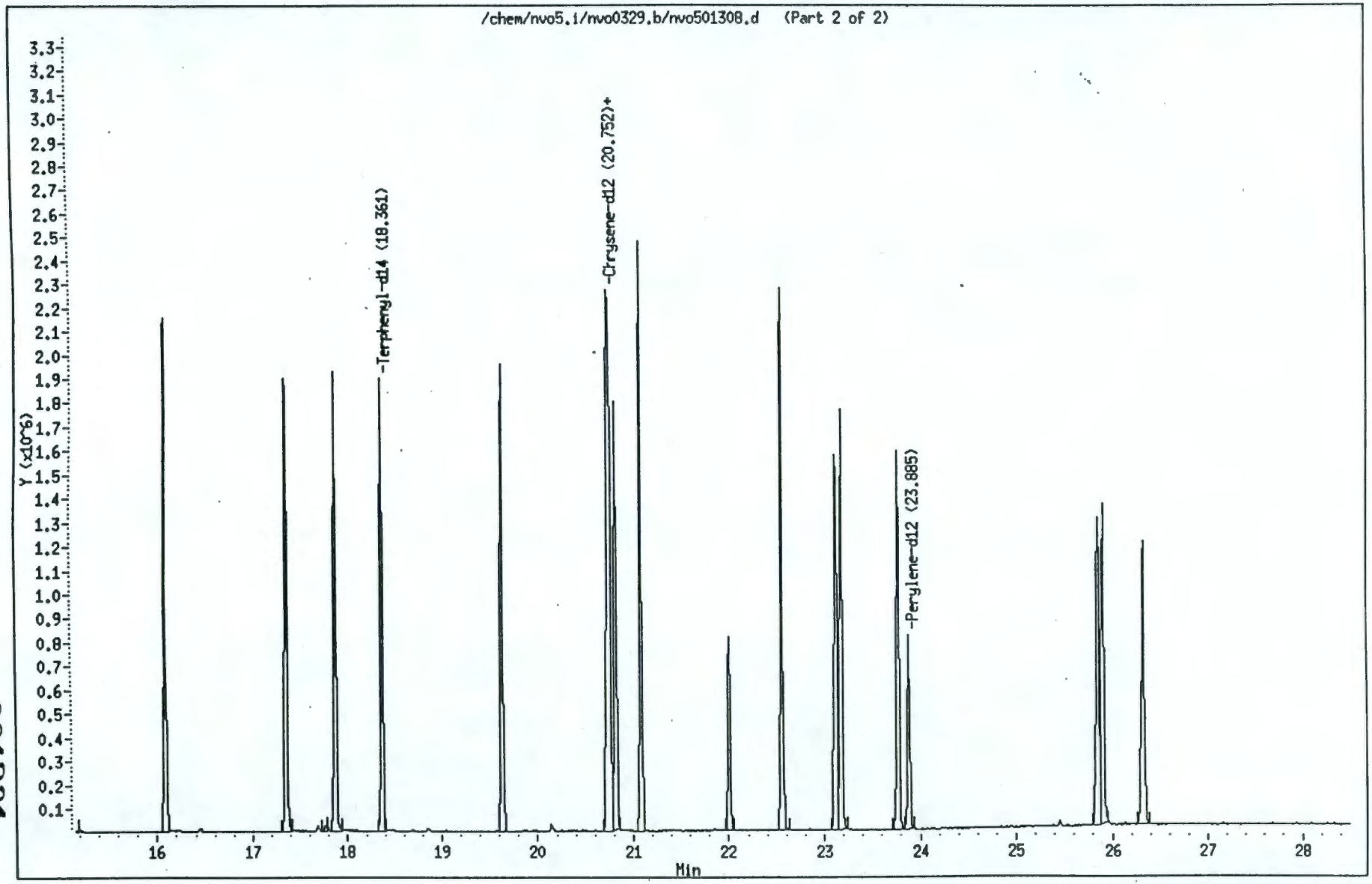
001230

9513355.2327

Data File: /chem/nvo5.i/nvo0329.b/nvo501308.d
Date : 29-MAR-94 11:04
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



001231

95133553.2321B

Data File: /chem/nvo5.i/nvo0329.b/nvo501308.d
Report Date: 31-Mar-1994 11:13

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0329.b/nvo501308.d
Lab Smp Id: SSTD80 — Client Smp ID: SSTD80
Inj Date : 29-MAR-1994 11:04 — Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT — Inst ID: nvo5.i
Smp Info : SSTD80 80ng on col
Misc Info : 40ug/ml CLP STD 1000-1-2
Comment :
Method : /chem/nvo5.i/nvo0329.b/clp390epc.m
Meth Date : 31-Mar-1994 11:13 user2 — Quant Type: ISTD
Cal Date : 29-MAR-1994 10:27 — Cal File: nvo501307.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)	CONCENTRATIONS ON-COL (ng)
*	1 1,4-Dichlorobenzene-d4	152.00	5.540	5.540	(1.000)	248460	40	
$	2 2-Fluorophenol	112.00	2.643	2.643	(0.477)	748095	80	91
$	3 Phenol-d5	99.00	5.017	5.017	(0.905)	786325	80	88
	4 Phenol	94.00	5.043	5.043	(0.910)	930024	80	89
	5 Bis(2-Chloroethyl)ether	93.00	5.156	5.156	(0.931)	723219	80	89
$	6 2-Chlorophenol-d4	132.00	5.165	5.165	(0.932)	635142	80	90
	7 2-Chlorophenol	128.00	5.200	5.200	(0.939)	736086	80	90
	8 1,3-Dichlorobenzene	146.00	5.444	5.444	(0.983)	811467	80	92
	9 1,4-Dichlorobenzene	146.00	5.566	5.566	(1.005)	829581	80	92
$	10 1,2-Dichlorobenzene-d4	152.00	5.785	5.785	(1.044)	478953	80	92
	11 1,2-Dichlorobenzene	146.00	5.811	5.811	(1.049)	740909	80	92
	12 2-Methylphenol	108.00	6.020	6.020	(1.087)	614440	80	88
	13 4-Methylphenol	108.00	6.273	6.273	(1.132)	625654	80	88
	14 2,2'-oxybis(1-Chloropropane)	45.00	6.038	6.038	(1.090)	776081	80	89
	15 N-Nitroso-di-n-propylamine	70.00	6.247	6.247	(1.128)	495812	80	90
	16 Hexachloroethane	117.00	6.352	6.352	(1.147)	329215	80	92
*	17 Naphthalene-d8	136.00	7.661	7.661	(1.000)	782807	40	
$	18 Nitrobenzene-d5	82.00	6.448	6.448	(0.842)	707148	80	92
	19 Nitrobenzene	77.00	6.483	6.483	(0.846)	674088	80	90
	20 Isophorone	82.00	6.893	6.893	(0.900)	1188985	80	90
	21 2-Nitrophenol	139.00	7.006	7.006	(0.915)	442596	80	92
	22 2,4-Dimethyphenol	107.00	7.137	7.137	(0.932)	622174	80	92
	23 Bis(2-Chloroethoxy)methane	93.00	7.286	7.286	(0.951)	692494	80	91
	24 2,4-Dichlorophenol	162.00	7.434	7.434	(0.970)	519201	80	90
	25 1,2,4-Trichlorobenzene	180.00	7.574	7.574	(0.989)	596794	80	91
	26 Naphthalene	128.00	7.696	7.696	(1.005)	1770640	80	90
	27 4-Chloroaniline	127.00	7.818	7.818	(1.020)	628851	80	89
	28 Hexachlorobutadiene	225.00	7.940	7.940	(1.036)	377628	80	92
	29 4-Chloro-3-methylphenol	107.00	8.752	8.752	(1.142)	500517	80	89

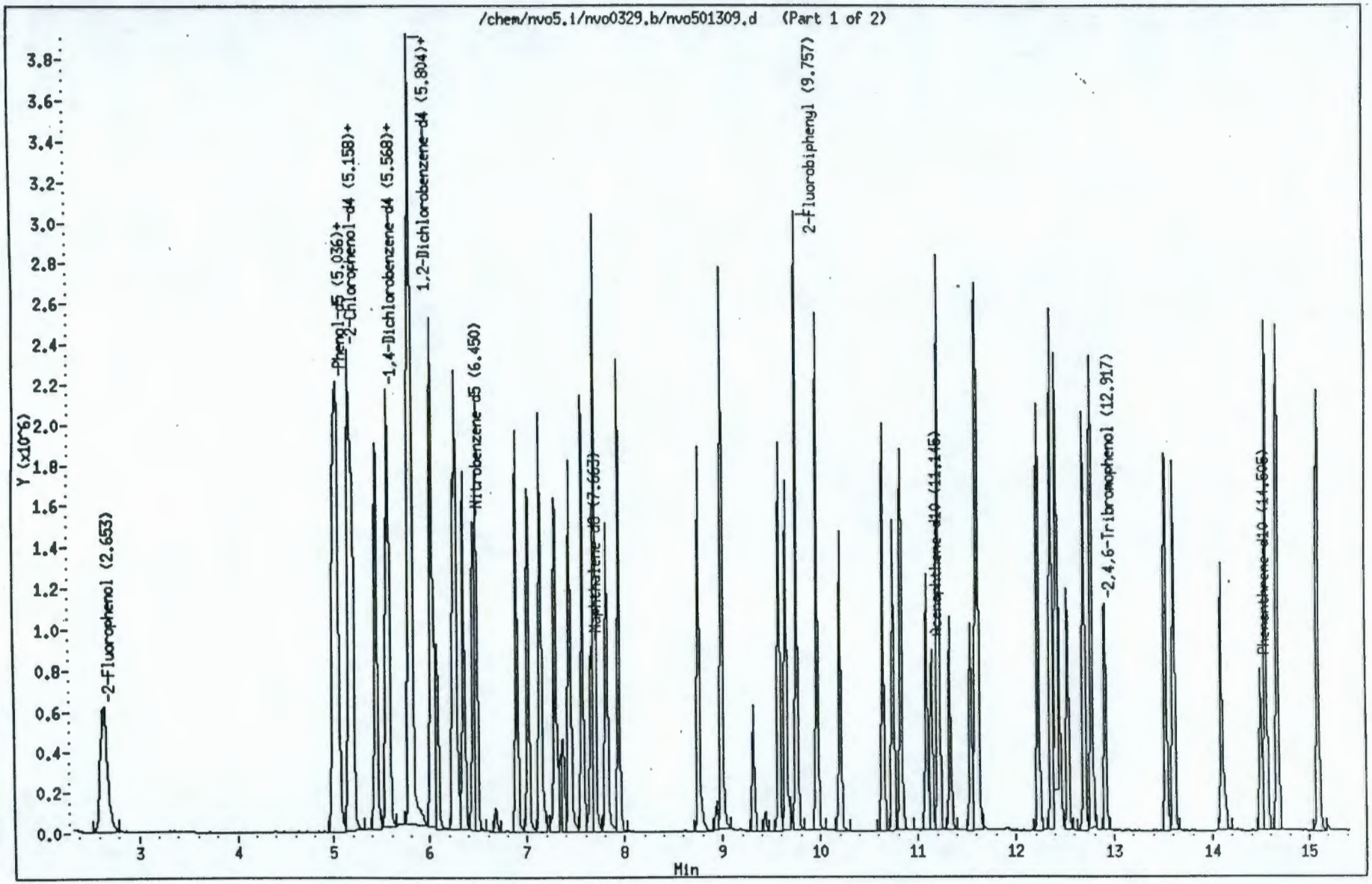
Data File: /chem/nvo5.i/nvo0329.b/nvo501308.d
Report Date: 31-Mar-1994 11:13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	CONCENTRATIONS ON-COL (ng)
	30 2-Methylnaphthalene	142.00	8.996	8.996	(1.174)	1134547	80	91
*	31 Acenaphthene-d10	164.00	11.143	11.143	(1.000)	366660	40	
	32 Hexachlorocyclopentadiene	237.00	9.310	9.310	(0.836)	125313	80	98
	33 2,4,6-Trichlorophenol	196.00	9.572	9.572	(0.859)	351001	80	92
	34 2,4,5-Trichlorophenol	196.00	9.642	9.642	(0.865)	388134	80	92
$	35 2-Fluorobiphenyl	172.00	9.755	9.755	(0.875)	1222496	80	91
	36 2-Chloronaphthalene	162.00	9.965	9.965	(0.894)	974539	80	90
	37 2-Nitroaniline	65.00	10.201	10.201	(0.915)	330666	80	92
	38 Dimethyl phthalate	163.00	10.646	10.646	(0.955)	1129581	80	91
	39 Acenaphthylene	152.00	10.829	10.829	(0.972)	1110248	80	91
	40 2,6-Dinitrotoluene	165.00	10.750	10.750	(0.965)	267728	80	93
	41 3-Nitroaniline	138.00	11.091	11.091	(0.995)	274739	80	93
	42 Acenaphthene	153.00	11.213	11.213	(1.006)	916158	80	90
	43 2,4-Dinitrophenol	184.00	11.326	11.326	(1.016)	209730	80	100
	44 4-Nitrophenol	109.00	11.545	11.545	(1.036)	171903	80	96
	45 Dibenzofuran	168.00	11.606	11.606	(1.042)	1395732	80	90
	46 2,4-Dinitrotoluene	165.00	11.623	11.623	(1.043)	317127	80	92
	47 Diethyl phthalate	149.00	12.234	12.234	(1.098)	1141261	80	90
	48 4-Chlorophenyl-phenylether	204.00	12.417	12.417	(1.114)	519342	80	89
	49 Fluorene	166.00	12.365	12.365	(1.110)	1020875	80	90
	50 4-Nitroaniline	138.00	12.452	12.452	(1.117)	277742	80	92
$	51 2,4,6-Tribromophenol	330.00	12.915	12.915	(1.159)	200784	80	92
*	52 Phenanthrene-d10	188.00	14.503	14.503	(1.000)	564012	40	
	53 4,6-Dinitro-2-methylphenol	198.00	12.531	12.531	(0.864)	251245	80	97
	54 N-Nitrosodiphenylamine	169.00	12.697	12.697	(0.875)	696435	80	92
	55 4-Bromophenyl-phenylether	248.00	13.534	13.534	(0.933)	301485	80	92
	56 Hexachlorobenzene	284.00	13.613	13.613	(0.939)	356499	80	91
	57 Pentachlorophenol	266.00	14.093	14.093	(0.972)	219595	80	94
	58 Phenanthrene	178.00	14.556	14.556	(1.004)	1406017	80	89
	59 Anthracene	178.00	14.678	14.678	(1.012)	1363936	80	91
	60 Carbazole	167.00	15.097	15.097	(1.041)	1255492	80	89
	61 Di-n-butylphthalate	149.00	16.092	16.092	(1.110)	1902376	80	92
	62 Fluoranthene	202.00	17.357	17.357	(1.197)	1423411	80	92
*	63 Chrysene-d12	240.00	20.761	20.761	(1.000)	503434	40	
	64 Pyrene	202.00	17.872	17.872	(0.861)	1436921	80	90
$	65 Terphenyl-d14	244.00	18.369	18.369	(0.885)	1103462	80	89
	66 Butylbenzylphthalate	149.00	19.635	19.635	(0.946)	766515	80	93
	67 3,3'-Dichlorobenzidine	252.00	20.761	20.761	(1.000)	383473	80	93
	68 Benzo(a)anthracene	228.00	20.735	20.735	(0.999)	1237226	80	91
	69 Chrysene	228.00	20.822	20.822	(1.003)	1127616	80	90
	70 bis(2-Ethylhexyl)phthalate	149.00	21.084	21.084	(1.016)	1051796	80	94
*	71 Perylene-d12	264.00	23.885	23.885	(1.000)	560132	40	
	72 Di-n-octylphthalate	149.00	22.559	22.559	(0.944)	1720590	80	95
	73 Benzo(b)fluoranthene	252.00	23.126	23.126	(0.968)	1205250	80	94
	74 Benzo(k)fluoranthene	252.00	23.178	23.178	(0.970)	1196408	80	92
	75 Benzo(a)pyrene	252.00	23.772	23.772	(0.995)	1087879	80	93
	76 Indeno(1,2,3-cd)pyrene	276.00	25.849	25.849	(1.082)	958523	80	92
	77 Dibenzo(a,h)anthracene	278.00	25.901	25.901	(1.084)	945512	80	92
	78 Benzo(g,h,i)perylene	276.00	26.329	26.329	(1.102)	975597	80	89

Data File: /chem/nvo5.i/nvo0329.b/nvo501309.d
Date : 29-MAR-94 11:42
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



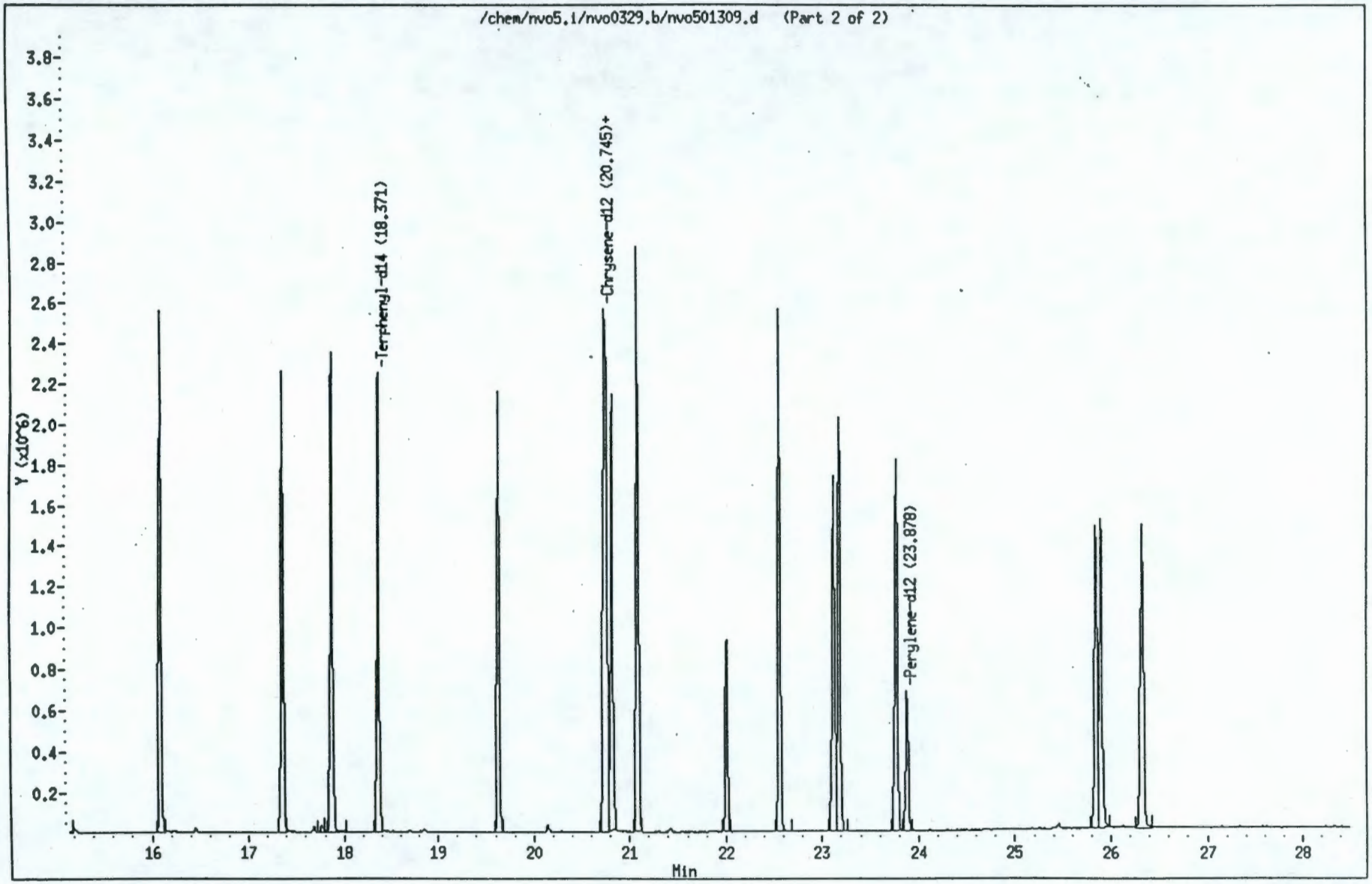
001234

9513355.2331

Data File: /chem/nvo5.i/nvo0329.b/nvo501309.d
Date : 29-MAR-94 11:42
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



001235

9513355.2330

Data File: /chem/nvo5.i/nvo0329.b/nvo501309.d
Report Date: 31-Mar-1994 11:13

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0329.b/nvo501309.d
Lab Smp Id: SSTD120 Client Smp ID: SSTD120
Inj Date : 29-MAR-1994 11:42 Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : SSTD120 120ng on col
Misc Info : 60ug/ml CLP STD 1000-1-3
Comment :
Method : /chem/nvo5.i/nvo0329.b/clp390epc.m
Meth Date : 31-Mar-1994 11:13 user2 Quant Type: ISTD
Cal Date : 29-MAR-1994 10:27 Cal File: nvo501307.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	5.542	5.542	(1.000)	213132	40	
$	2 2-Fluorophenol	112.00	2.653	2.653	(0.479)	868116	120	120
$	3 Phenol-d5	99.00	5.018	5.018	(0.905)	939913	120	120
	4 Phenol	94.00	5.045	5.045	(0.910)	1096206	120	120
	5 Bis(2-Chloroethyl)ether	93.00	5.158	5.158	(0.931)	850221	120	120
$	6 2-Chlorophenol-d4	132.00	5.167	5.167	(0.932)	745877	120	120
	7 2-Chlorophenol	128.00	5.202	5.202	(0.939)	866081	120	120
	8 1,3-Dichlorobenzene	146.00	5.437	5.437	(0.981)	952828	120	120
	9 1,4-Dichlorobenzene	146.00	5.568	5.568	(1.005)	959365	120	120
$	10 1,2-Dichlorobenzene-d4	152.00	5.786	5.786	(1.044)	550791	120	120
	11 1,2-Dichlorobenzene	146.00	5.804	5.804	(1.047)	877743	120	120
	12 2-Methylphenol	108.00	6.022	6.022	(1.087)	738073	120	120
	13 4-Methylphenol	108.00	6.275	6.275	(1.132)	741614	120	120
	14 2,2'-oxybis(1-Chloropropane)	45.00	6.040	6.040	(1.090)	924877	120	120
	15 N-Nitroso-di-n-propylamine	70.00	6.249	6.249	(1.128)	609051	120	130
	16 Hexachloroethane	117.00	6.354	6.354	(1.146)	383273	120	120
*	17 Naphthalene-d8	136.00	7.663	7.663	(1.000)	692458	40	
$	18 Nitrobenzene-d5	82.00	6.450	6.450	(0.842)	858604	120	120
	19 Nitrobenzene	77.00	6.485	6.485	(0.846)	830637	120	120
	20 Isophorone	82.00	6.895	6.895	(0.900)	1473820	120	120
	21 2-Nitrophenol	139.00	7.017	7.017	(0.916)	546365	120	130
	22 2,4-Dimethyphenol	107.00	7.139	7.139	(0.932)	759727	120	120
	23 Bis(2-Chloroethoxy)methane	93.00	7.288	7.288	(0.951)	842712	120	120
	24 2,4-Dichlorophenol	162.00	7.436	7.436	(0.970)	643640	120	120
	25 1,2,4-Trichlorobenzene	180.00	7.567	7.567	(0.987)	718195	120	120
	26 Naphthalene	128.00	7.698	7.698	(1.005)	2137067	120	120
	27 4-Chloroaniline	127.00	7.820	7.820	(1.020)	755300	120	120
	28 Hexachlorobutadiene	225.00	7.942	7.942	(1.036)	445496	120	120
	29 4-Chloro-3-methylphenol	107.00	8.754	8.754	(1.142)	630716	120	120

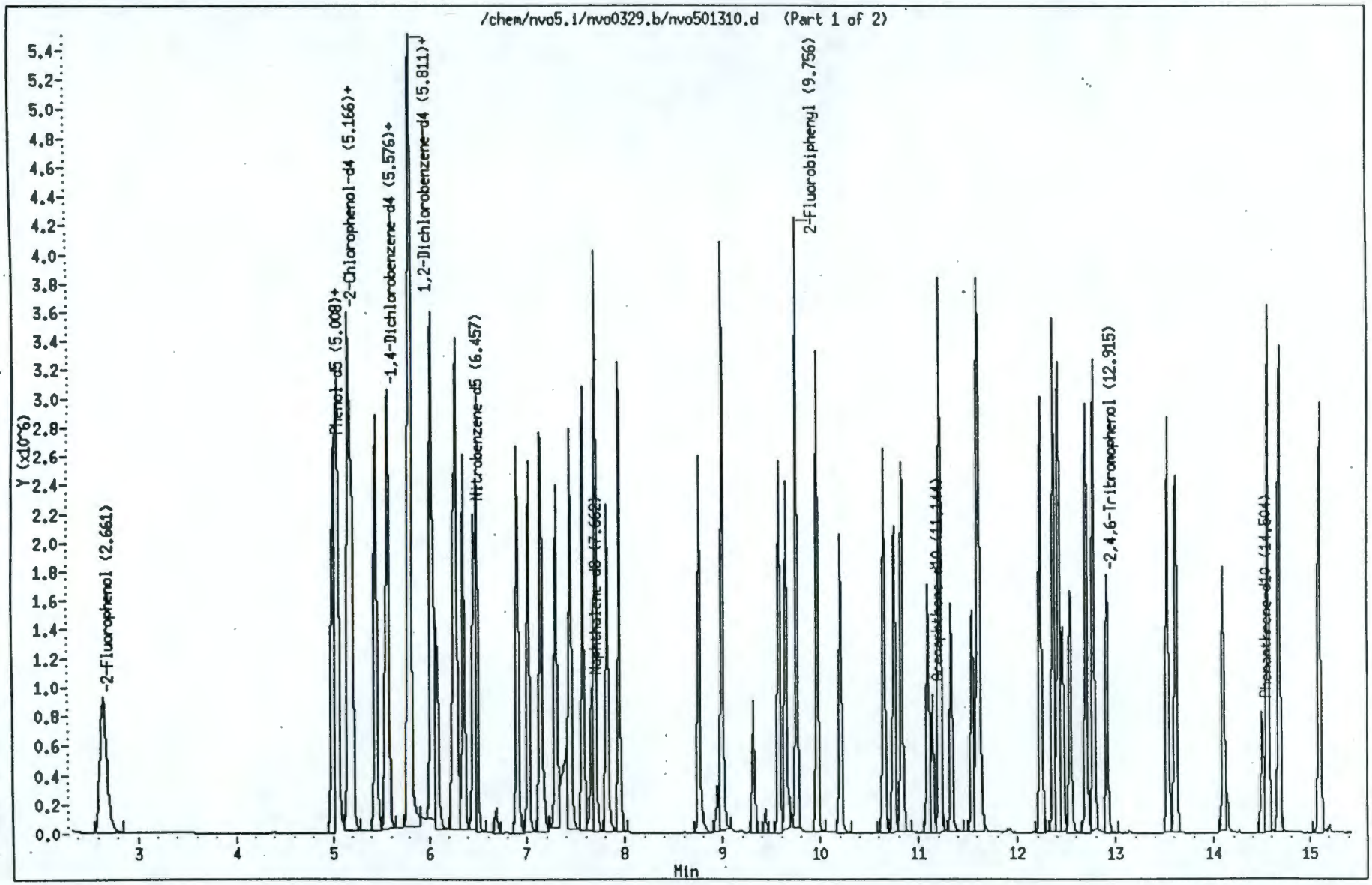
Data File: /chem/nvo5.i/nvo0329.b/nvo501309.d
Report Date: 31-Mar-1994 11:13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	ON-COL (ng)
	30 2-Methylnaphthalene	142.00	8.998	8.998	(1.174)	1381484	120	120
*	31 Acenaphthene-d10	164.00	11.145	11.145	(1.000)	333899	40	
	32 Hexachlorocyclopentadiene	237.00	9.312	9.312	(0.836)	155412	120	130
	33 2,4,6-Trichlorophenol	196.00	9.574	9.574	(0.859)	430169	120	120
	34 2,4,5-Trichlorophenol	196.00	9.644	9.644	(0.865)	474770	120	120
$	35 2-Fluorobiphenyl	172.00	9.757	9.757	(0.875)	1503090	120	120
	36 2-Chloronaphthalene	162.00	9.967	9.967	(0.894)	1209316	120	120
	37 2-Nitroaniline	65.00	10.203	10.203	(0.915)	417833	120	120
	38 Dimethyl phthalate	163.00	10.648	10.648	(0.955)	1385299	120	120
	39 Acenaphthylene	152.00	10.831	10.831	(0.972)	1397781	120	120
	40 2,6-Dinitrotoluene	165.00	10.752	10.752	(0.965)	333017	120	120
	41 3-Nitroaniline	138.00	11.093	11.093	(0.995)	334432	120	120
	42 Acenaphthene	153.00	11.215	11.215	(1.006)	1146485	120	120
	43 2,4-Dinitrophenol	184.00	11.328	11.328	(1.016)	276348	120	140
	44 4-Nitrophenol	109.00	11.547	11.547	(1.036)	208403	120	120
	45 Dibenzofuran	168.00	11.599	11.599	(1.041)	1733078	120	120
	46 2,4-Dinitrotoluene	165.00	11.625	11.625	(1.043)	391765	120	120
	47 Diethyl phthalate	149.00	12.236	12.236	(1.098)	1401415	120	120
	48 4-Chlorophenyl-phenylether	204.00	12.419	12.419	(1.114)	646584	120	120
	49 Fluorene	166.00	12.367	12.367	(1.110)	1266627	120	120
	50 4-Nitroaniline	138.00	12.454	12.454	(1.117)	339324	120	120
$	51 2,4,6-Tribromophenol	330.00	12.917	12.917	(1.159)	249174	120	120
*	52 Phenanthrene-d10	188.00	14.505	14.505	(1.000)	494429	40	
	53 4,6-Dinitro-2-methylphenol	198.00	12.533	12.533	(0.864)	319845	120	140
	54 N-Nitrosodiphenylamine	169.00	12.699	12.699	(0.875)	847727	120	120
	55 4-Bromophenyl-phenylether	248.00	13.536	13.536	(0.933)	377956	120	130
	56 Hexachlorobenzene	284.00	13.615	13.615	(0.939)	436302	120	120
	57 Pentachlorophenol	266.00	14.095	14.095	(0.972)	280390	120	130
	58 Phenanthrene	178.00	14.557	14.557	(1.004)	1732637	120	120
	59 Anthracene	178.00	14.680	14.680	(1.012)	1622809	120	120
	60 Carbazole	167.00	15.099	15.099	(1.041)	1550362	120	120
	61 Di-n-butylphthalate	149.00	16.094	16.094	(1.109)	2308816	120	130
	62 Fluoranthene	202.00	17.359	17.359	(1.197)	1712911	120	120
*	63 Chrysene-d12	240.00	20.763	20.763	(1.000)	431473	40	
	64 Pyrene	202.00	17.874	17.874	(0.861)	1754541	120	120
$	65 Terphenyl-d14	244.00	18.371	18.371	(0.885)	1325463	120	120
	66 Butylbenzylphthalate	149.00	19.637	19.637	(0.946)	917490	120	130
	67 3,3'-Dichlorobenzidine	252.00	20.763	20.763	(1.000)	437272	120	120
	68 Benzo(a)anthracene	228.00	20.736	20.736	(0.999)	1465725	120	120
	69 Chrysene	228.00	20.824	20.824	(1.003)	1338755	120	120
	70 bis(2-Ethylhexyl)phthalate	149.00	21.086	21.086	(1.016)	1256737	120	130
*	71 Perylene-d12	264.00	23.878	23.878	(1.000)	460780	40	
	72 Di-n-octylphthalate	149.00	22.561	22.561	(0.945)	2026644	120	130
	73 Benzo(b)fluoranthene	252.00	23.119	23.119	(0.968)	1378566	120	130
	74 Benzo(k)fluoranthene	252.00	23.180	23.180	(0.971)	1384596	120	130
	75 Benzo(a)pyrene	252.00	23.774	23.774	(0.996)	1240774	120	130
	76 Indeno(1,2,3-cd)pyrene	276.00	25.851	25.851	(1.083)	1138695	120	130
	77 Dibenzo(a,h)anthracene	278.00	25.903	25.903	(1.085)	1121688	120	130
	78 Benzo(g,h,i)perylene	276.00	26.331	26.331	(1.103)	1179178	120	130

Data File: /chem/nvo5.i/nvo0329.b/nvo501310.d
Date : 29-MAR-94 12:18
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



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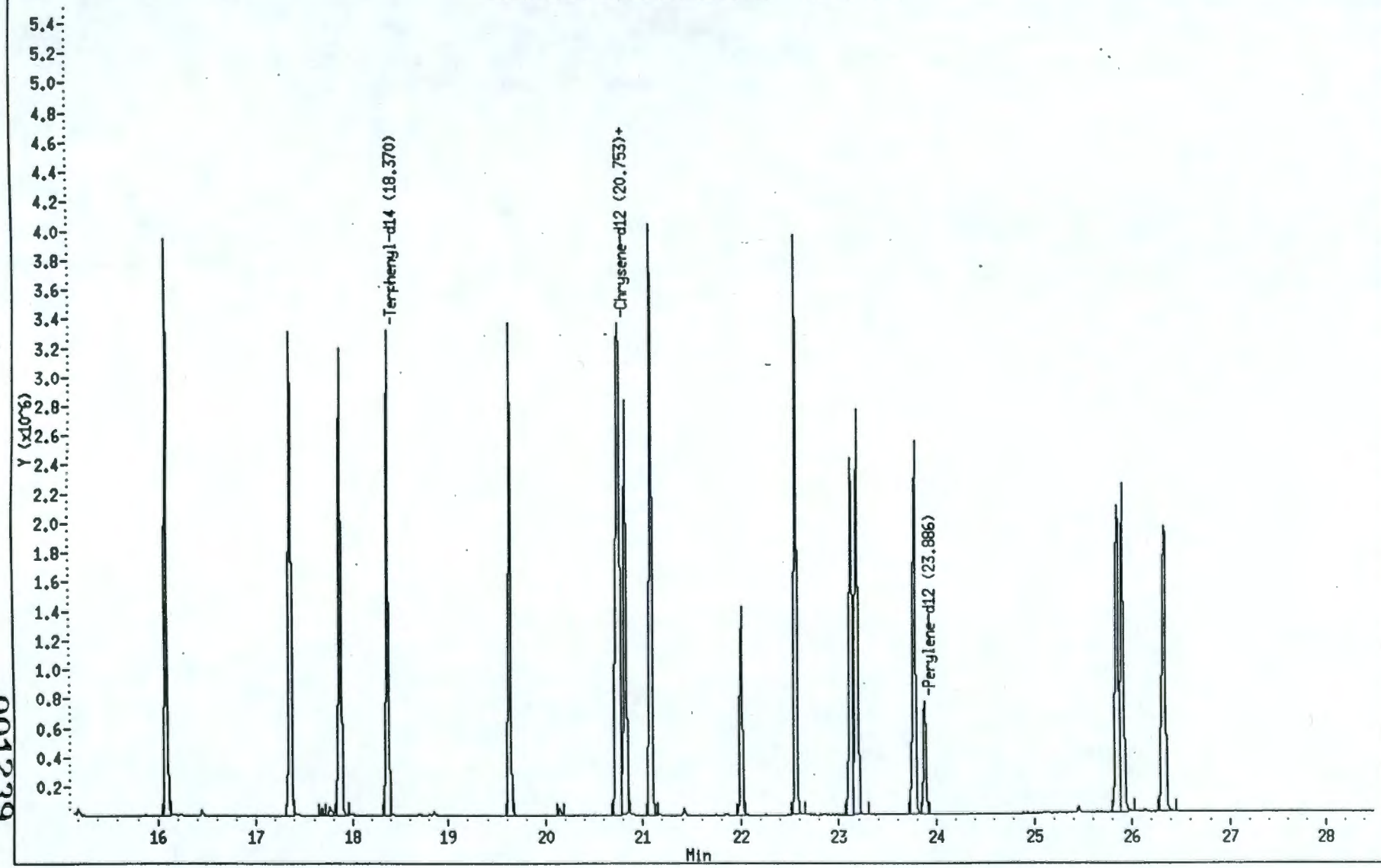
Data File: /chem/nvo5.i/nvo0329.b/nvo501310.d
Date : 29-MAR-94 12:18
Client ID: SSTD160
Sample Info: SSTD160 160ng on col
Volume Injected (uL): 2.0
Column phase: DB-5MS

Instrument: nvo5.i

Operator: WAV/AT
Column diameter: 0.25

/chem/nvo5.i/nvo0329.b/nvo501310.d (Part 2 of 2)



001239

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Data File: /chem/nvo5.i/nvo0329.b/nvo501310.d
Report Date: 31-Mar-1994 11:13

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0329.b/nvo501310.d
Lab Smp Id: SSTD160 Client Smp ID: SSTD160
Inj Date : 29-MAR-1994 12:18 Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : SSTD160 160ng on col
Misc Info : 80ug/ml CLP STD 1000-1-4
Comment :
Method : /chem/nvo5.i/nvo0329.b/clp390epc.m
Meth Date : 31-Mar-1994 11:13 user2 Quant Type: ISTD
Cal Date : 29-MAR-1994 10:27 Cal File: nvo501307.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)	CONCENTRATIONS ON-COL (ng)
* 1 1,4-Dichlorobenzene-d4	152.00	5.541	5.541	(1.000)	229387	40	
$ 2 2-Fluorophenol	112.00	2.661	2.661	(0.480)	1241739	160	160(A)
$ 3 Phenol-d5	99.00	5.026	5.026	(0.907)	1334605	160	160(A)
4 Phenol	94.00	5.052	5.052	(0.912)	1576610	160	160(A)
5 Bis(2-Chloroethyl)ether	93.00	5.166	5.166	(0.932)	1240098	160	160(A)
$ 6 2-Chlorophenol-d4	132.00	5.174	5.174	(0.934)	1078360	160	160(A)
7 2-Chlorophenol	128.00	5.200	5.200	(0.939)	1236171	160	160(A)
8 1,3-Dichlorobenzene	146.00	5.445	5.445	(0.983)	1376408	160	160(A)
9 1,4-Dichlorobenzene	146.00	5.576	5.576	(1.006)	1398934	160	160(A)
$ 10 1,2-Dichlorobenzene-d4	152.00	5.785	5.785	(1.044)	802362	160	160(A)
11 1,2-Dichlorobenzene	146.00	5.811	5.811	(1.049)	1268580	160	170(A)
12 2-Methylphenol	108.00	6.021	6.021	(1.087)	1051310	160	160(A)
13 4-Methylphenol	108.00	6.283	6.283	(1.134)	1088278	160	160(A)
14 2,2'-oxybis(1-Chloropropane)	45.00	6.047	6.047	(1.091)	1413136	160	170(A)
15 N-Nitroso-di-n-propylamine	70.00	6.256	6.256	(1.129)	867773	160	160(A)
16 Hexachloroethane	117.00	6.352	6.352	(1.146)	561147	160	170(A)
* 17 Naphthalene-d8	136.00	7.662	7.662	(1.000)	734391	40	
$ 18 Nitrobenzene-d5	82.00	6.457	6.457	(0.843)	1223906	160	160(A)
19 Nitrobenzene	77.00	6.492	6.492	(0.847)	1174477	160	160(A)
20 Isophorone	82.00	6.902	6.902	(0.901)	2105120	160	170(A)
21 2-Nitrophenol	139.00	7.016	7.016	(0.916)	787009	160	170(A)
22 2,4-Dimethyphenol	107.00	7.138	7.138	(0.932)	1094056	160	170(A)
23 Bis(2-Chloroethoxy)methane	93.00	7.295	7.295	(0.952)	1196145	160	160(A)
24 2,4-Dichlorophenol	162.00	7.443	7.443	(0.972)	925504	160	170(A)
25 1,2,4-Trichlorobenzene	180.00	7.574	7.574	(0.989)	1042826	160	170(A)
26 Naphthalene	128.00	7.705	7.705	(1.006)	3079918	160	160(A)
27 4-Chloroaniline	127.00	7.819	7.819	(1.020)	1056809	160	160
28 Hexachlorobutadiene	225.00	7.941	7.941	(1.036)	652272	160	170(A)
29 4-Chloro-3-methylphenol	107.00	8.761	8.761	(1.144)	909764	160	170(A)

Data File: /chem/nvo5.i/nvo0329.b/nvo501310.d
Report Date: 31-Mar-1994 11:13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	ON-COL (ng)
	30 2-Methylnaphthalene	142.00	8.997	8.997	(1.174)	1988609	160	170(A)
*	31 Acenaphthene-d10	164.00	11.144	11.144	(1.000)	349562	40	
	32 Hexachlorocyclopentadiene	237.00	9.320	9.320	(0.836)	233915	160	180(A)
	33 2,4,6-Trichlorophenol	196.00	9.582	9.582	(0.860)	644120	160	170(A)
	34 2,4,5-Trichlorophenol	196.00	9.651	9.651	(0.866)	721836	160	170(A)
$	35 2-Fluorobiphenyl	172.00	9.756	9.756	(0.875)	2153178	160	160(A)
	36 2-Chloronaphthalene	162.00	9.974	9.974	(0.895)	1734270	160	170(A)
	37 2-Nitroaniline	65.00	10.210	10.210	(0.916)	611759	160	170(A)
	38 Dimethyl phthalate	163.00	10.655	10.655	(0.956)	2017575	160	170(A)
	39 Acenaphthylene	152.00	10.830	10.830	(0.972)	1999796	160	170(A)
	40 2,6-Dinitrotoluene	165.00	10.760	10.760	(0.966)	494862	160	170(A)
	41 3-Nitroaniline	138.00	11.100	11.100	(0.996)	474067	160	160(A)
	42 Acenaphthene	153.00	11.222	11.222	(1.007)	1631597	160	160(A)
	43 2,4-Dinitrophenol	184.00	11.336	11.336	(1.017)	419308	160	190(A)
	44 4-Nitrophenol	109.00	11.554	11.554	(1.037)	302143	160	170(A)
	45 Dibenzofuran	168.00	11.606	11.606	(1.042)	2498427	160	170(A)
	46 2,4-Dinitrotoluene	165.00	11.633	11.633	(1.044)	576144	160	170(A)
	47 Diethyl phthalate	149.00	12.243	12.243	(1.099)	2041818	160	170(A)
	48 4-Chlorophenyl-phenylether	204.00	12.427	12.427	(1.115)	935490	160	160(A)
	49 Fluorene	166.00	12.374	12.374	(1.110)	1797782	160	160(A)
	50 4-Nitroaniline	138.00	12.470	12.470	(1.119)	490048	160	170(A)
$	51 2,4,6-Tribromophenol	330.00	12.915	12.915	(1.159)	371903	160	170(A)
*	52 Phenanthrene-d10	188.00	14.504	14.504	(1.000)	526969	40	
	53 4,6-Dinitro-2-methylphenol	198.00	12.549	12.549	(0.865)	475817	160	180(A)
	54 N-Nitrosodiphenylamine	169.00	12.706	12.706	(0.876)	1240348	160	170(A)
	55 4-Bromophenyl-phenylether	248.00	13.535	13.535	(0.933)	548131	160	170(A)
	56 Hexachlorobenzene	284.00	13.622	13.622	(0.939)	634777	160	170(A)
	57 Pentachlorophenol	266.00	14.102	14.102	(0.972)	420345	160	180(A)
	58 Phenanthrene	178.00	14.565	14.565	(1.004)	2475682	160	160(A)
	59 Anthracene	178.00	14.687	14.687	(1.013)	2353570	160	160(A)
	60 Carbazole	167.00	15.106	15.106	(1.042)	2156477	160	160(A)
	61 Di-n-butylphthalate	149.00	16.092	16.092	(1.109)	3351839	160	170(A)
	62 Fluoranthene	202.00	17.358	17.358	(1.197)	2427785	160	160(A)
*	63 Chrysene-d12	240.00	20.761	20.761	(1.000)	439653	40	
	64 Pyrene	202.00	17.873	17.873	(0.861)	2433633	160	170(A)
$	65 Terphenyl-d14	244.00	18.370	18.370	(0.885)	1874496	160	170(A)
	66 Butylbenzylphthalate	149.00	19.636	19.636	(0.946)	1316579	160	170(A)
	67 3,3'-Dichlorobenzidine	252.00	20.770	20.770	(1.000)	606641	160	170(A)
	68 Benzo(a)anthracene	228.00	20.744	20.744	(0.999)	2053617	160	170(A)
	69 Chrysene	228.00	20.831	20.831	(1.003)	1842595	160	160(A)
	70 bis(2-Ethylhexyl)phthalate	149.00	21.084	21.084	(1.016)	1792390	160	180(A)
*	71 Perylene-d12	264.00	23.886	23.886	(1.000)	501295	40	
	72 Di-n-octylphthalate	149.00	22.559	22.559	(0.944)	2915992	160	170(A)
	73 Benzo(b)fluoranthene	252.00	23.127	23.127	(0.968)	1922420	160	160(A)
	74 Benzo(k)fluoranthene	252.00	23.188	23.188	(0.971)	2003616	160	170(A)
	75 Benzo(a)pyrene	252.00	23.781	23.781	(0.996)	1814804	160	170(A)
	76 Indeno(1,2,3-cd)pyrene	276.00	25.858	25.858	(1.083)	1702685	160	170(A)
	77 Dibenzo(a,h)anthracene	278.00	25.911	25.911	(1.085)	1677404	160	170(A)
	78 Benzo(g,h,i)perylene	276.00	26.347	26.347	(1.103)	1741537	160	170(A)

Data File: /chem/nvo5.i/nvo0329.b/nvo501310.d
Report Date: 31-Mar-1994 11:13

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

9513355.2340

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48916

Instrument ID: NV05 Calibration Date: 05/09/94 Time: 1029

Lab File ID: NV0501465.D Init. Calibration Date(s): 03/29/94

Init. Calibration Times: 0952 1218

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	1.697	1.581	0.800	6.8	25.0
Bis(2-Chloroethyl)ether	1.319	1.350	0.700	-2.4	25.0
2-Chlorophenol	1.326	1.320	0.800	0.5	25.0
1,3-Dichlorobenzene	1.451	1.387	0.600	4.4	25.0
1,4-Dichlorobenzene	1.473	1.430	0.500	2.9	25.0
1,2-Dichlorobenzene	1.333	1.318	0.400	1.1	25.0
2-Methylphenol	1.132	1.124	0.700	0.7	25.0
2,2'-oxybis(1-Chloropropane)	1.436	1.437		-0.1	
4-Methylphenol	1.157	1.160	0.600	-0.3	25.0
N-Nitroso-di-n-propylamine	0.913	0.951	0.500	-4.2	25.0
Hexachloroethane	0.587	0.592	0.300	-0.8	25.0
Nitrobenzene	0.390	0.408	0.200	-4.5	25.0
Isophorone	0.690	0.697	0.400	-1.0	25.0
2-Nitrophenol	0.253	0.259	0.100	-2.1	25.0
2,4-Dimethyphenol	0.356	0.355	0.200	0.3	25.0
Bis(2-Chloroethoxy)methane	0.395	0.394	0.300	0.2	25.0
2,4-Dichlorophenol	0.302	0.283	0.200	6.1	25.0
1,2,4-Trichlorobenzene	0.341	0.331	0.200	2.9	25.0
Naphthalene	1.015	0.988	0.700	2.6	25.0
4-Chloroaniline	0.362	0.363		-0.4	
Hexachlorobutadiene	0.213	0.205		3.4	
4-Chloro-3-methylphenol	0.295	0.315	0.200	-6.8	25.0
2-Methylnaphthalene	0.652	0.663	0.400	-1.6	25.0
Hexachlorocyclopentadiene	0.148	0.123		16.7	
2,4,6-Trichlorophenol	0.428	0.406	0.200	5.3	25.0
2,4,5-Trichlorophenol	0.475	0.478	0.200	-0.5	25.0
2-Chloronaphthalene	1.195	1.174	0.800	1.7	25.0
2-Nitroaniline	0.407	0.455		-11.9	
Dimethyl phthalate	1.379	1.408		-2.1	
Acenaphthylene	1.363	1.357	1.300	0.4	25.0
2,6-Dinitrotoluene	0.326	0.345	0.200	-6.1	25.0
3-Nitroaniline	0.327	0.378		-15.3	
Acenaphthene	1.128	1.120	0.800	0.7	25.0
2,4-Dinitrophenol	0.253	0.269		-6.5	
4-Nitrophenol	0.203	0.212		-4.7	
Dibenzofuran	1.720	1.709	0.800	0.7	25.0
2,4-Dinitrotoluene	0.387	0.421	0.200	-9.0	25.0

All other compounds must meet a minimum RRF of 0.010.

9513355.2341

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ESE Contract: NA

Lab Code: ESE Case No.: NA SAS No.: NA SDG No.: 48916

Instrument ID: NV05 Calibration Date: 05/09/94 Time: 1029

Lab File ID: NV0501465.D Init. Calibration Date(s): 03/29/94

Init. Calibration Times: 0952 1218

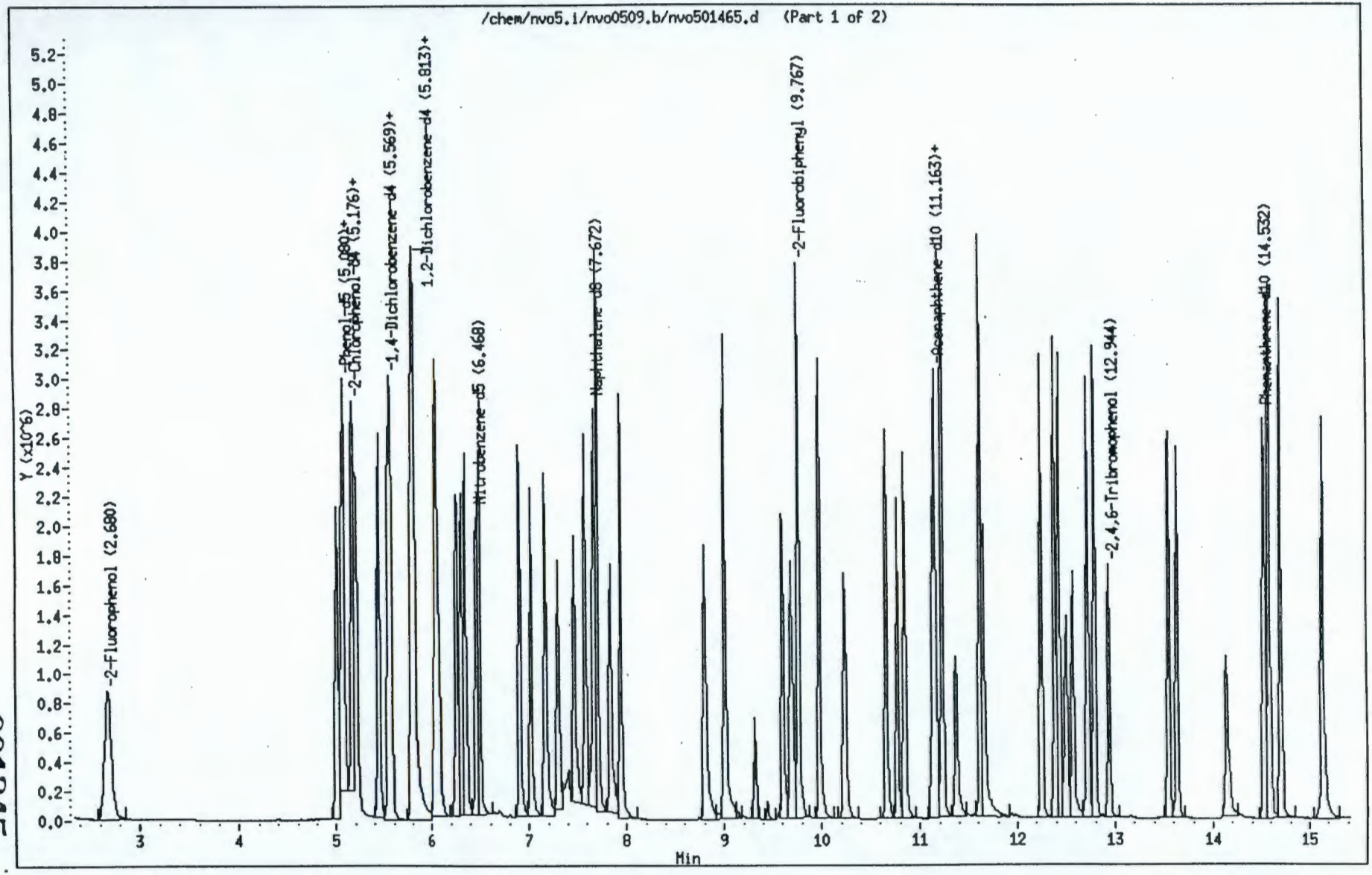
COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D	
Diethyl phthalate	1.397	1.436		-2.8		
4-Chlorophenyl-phenylether	0.646	0.642	0.400	0.6	25.0	
Fluorene	1.254	1.290	0.900	-2.8	25.0	
4-Nitroaniline	0.335	0.390		-16.3		
4,6-Dinitro-2-methylphenol	0.198	0.198		0.3		
N-Nitrosodiphenylamine (1)	0.555	0.534		3.8		
4-Bromophenyl-phenylether	0.243	0.226	0.100	7.2	25.0	
Hexachlorobenzene	0.286	0.269	0.100	6.1	25.0	
Pentachlorophenol	0.177	0.132	0.050	25.4	25.0	<-
Phenanthrene	1.140	1.108	0.700	2.8	25.0	
Anthracene	1.077	1.060	0.700	1.5	25.0	
Carbazole	1.011	1.049		-3.8		
Di-n-butylphthalate	1.504	1.471		2.2		
Fluoranthene	1.123	1.190	0.600	-6.0	25.0	
Pyrene	1.312	1.268	0.600	3.3	25.0	
Butylbenzylphthalate	0.686	0.697		-1.7		
3,3'-Dichlorobenzidine	0.332	0.367		-10.6		
Benzo(a)anthracene	1.109	1.129	0.800	-1.8	25.0	
Chrysene	1.017	1.010	0.700	0.6	25.0	
bis(2-Ethylhexyl)phthalate	0.928	0.970		-4.5		
Di-n-octylphthalate	1.357	1.371		-1.0		
Benzo(b)fluoranthene	0.943	0.887	0.700	5.9	25.0	
Benzo(k)fluoranthene	0.958	0.907	0.700	5.3	25.0	
Benzo(a)pyrene	0.860	0.836	0.700	2.9	25.0	
Indeno(1,2,3-cd)pyrene	0.781	0.774	0.500	0.9	25.0	
Dibenzo(a,h)anthracene	0.769	0.813	0.400	-5.7	25.0	
Benzo(g,h,i)perylene	0.812	0.817	0.500	-0.7	25.0	
Nitrobenzene-d5	0.402	0.420	0.200	-4.4	25.0	
2-Fluorobiphenyl	1.487	1.402	0.700	5.7	25.0	
Terphenyl-d14	1.007	0.959	0.500	4.7	25.0	
Phenol-d5	1.444	1.455	0.800	-0.7	25.0	
2-Fluorophenol	1.335	1.353	0.600	-1.4	25.0	
2,4,6-Tribromophenol	0.245	0.256		-4.4		
2-Chlorophenol-d4	1.149	1.139	0.800	0.8	25.0	
1,2-Dichlorobenzene-d4	0.851	0.832	0.400	2.1	25.0	

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

Data File: /chem/nvo5.i/nvo0509.b/nvo501465.d
Date : 09-MAY-1994 10:29
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



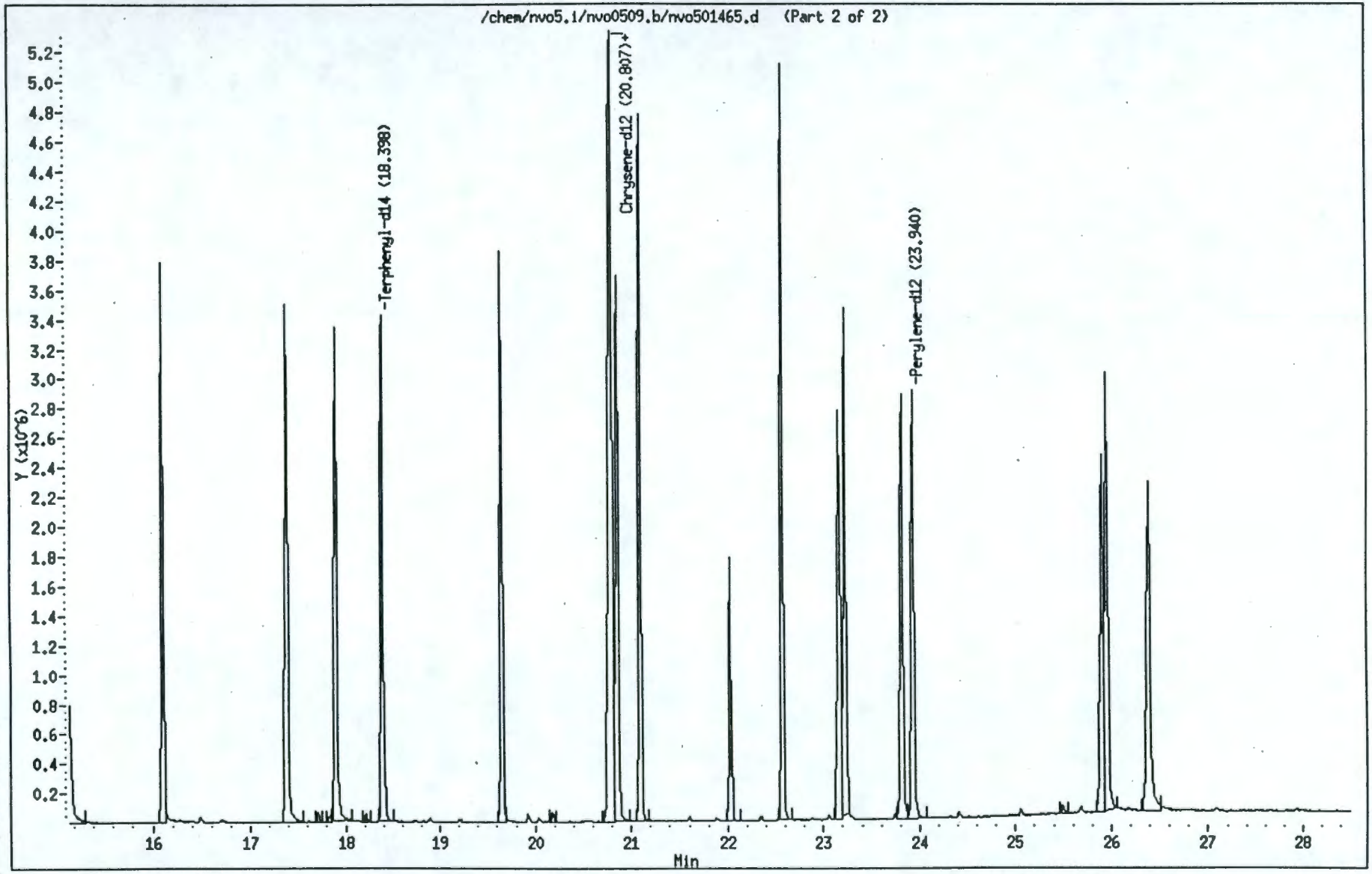
001245

951555.234

Data File: /chem/nvo5.i/nvo0509.b/nvo501465.d
Date : 09-MAY-1994 10:29
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



001246

95I3355.2341

Data File: /chem/nvo5.i/nvo0509.b/nvo501465.d
Report Date: 09-May-1994 11:01

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0509.b/nvo501465.d
Lab Smp Id: SSTD50 — Client Smp ID: SSTD50
Inj Date : 09-MAY-94 10:29 — Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT — Inst ID: nvo5.i
Smp Info : SSTD50 50ng on col
Misc Info : 25ug/ml CLP STD 1000-2-1
Comment :
Method : /chem/nvo5.i/nvo0509.b/clp390epc.m
Meth Date : 09-May-1994 11:01 — Quant Type: ISTD
Cal Date : 09-MAY-94 10:29 — Cal File: nvo501465.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)	CONCENTRATIONS ON-COL (ng)
*	1 1,4-Dichlorobenzene-d4	152.00	5.552	5.552	(1.000)	680897	40	
$	2 2-Fluorophenol	112.00	2.689	2.689	(0.484)	1151748	50	51
$	3 Phenol-d5	99.00	5.063	5.063	(0.912)	1237967	50	50
	4 Phenol	94.00	5.080	5.080	(0.915)	1345994	50	47
	5 Bis(2-Chloroethyl)ether	93.00	5.168	5.168	(0.931)	1149404	50	51
$	6 2-Chlorophenol-d4	132.00	5.185	5.185	(0.934)	969747	50	50
	7 2-Chlorophenol	128.00	5.211	5.211	(0.939)	1123737	50	50
	8 1,3-Dichlorobenzene	146.00	5.447	5.447	(0.981)	1180462	50	48
	9 1,4-Dichlorobenzene	146.00	5.578	5.578	(1.005)	1217506	50	48
$	10 1,2-Dichlorobenzene-d4	152.00	5.787	5.787	(1.042)	708325	50	49
	11 1,2-Dichlorobenzene	146.00	5.813	5.813	(1.047)	1121502	50	49
	12 2-Methylphenol	108.00	6.049	6.049	(1.090)	956887	50	50
	13 4-Methylphenol	108.00	6.311	6.311	(1.137)	987318	50	50
	14 2,2'-oxybis(1-Chloropropane)	45.00	6.040	6.040	(1.088)	1223124	50	50
	15 N-Nitroso-di-n-propylamine	70.00	6.259	6.259	(1.127)	809814	50	52
	16 Hexachloroethane	117.00	6.355	6.355	(1.145)	503716	50	50
*	17 Naphthalene-d8	136.00	7.672	7.672	(1.000)	2217292	40	
$	18 Nitrobenzene-d5	82.00	6.468	6.468	(0.843)	1163123	50	52
	19 Nitrobenzene	77.00	6.494	6.494	(0.846)	1129718	50	52
	20 Isophorone	82.00	6.904	6.904	(0.900)	1932890	50	50
	21 2-Nitrophenol	139.00	7.027	7.027	(0.916)	716612	50	51
	22 2,4-Dimethyphenol	107.00	7.166	7.166	(0.934)	983154	50	50
	23 Bis(2-Chloroethoxy)methane	93.00	7.306	7.306	(0.952)	1093097	50	50
	24 2,4-Dichlorophenol	162.00	7.472	7.472	(0.974)	784398	50	47
	25 1,2,4-Trichlorobenzene	180.00	7.576	7.576	(0.987)	917930	50	48
	26 Naphthalene	128.00	7.707	7.707	(1.005)	2739154	50	49
	27 4-Chloroaniline	127.00	7.838	7.838	(1.022)	1006639	50	50
	28 Hexachlorobutadiene	225.00	7.943	7.943	(1.035)	569272	50	48
	29 4-Chloro-3-methylphenol	107.00	8.807	8.807	(1.148)	871880	50	53

Data File: /chem/nvo5.i/nvo0509.b/nvo501465.d
Report Date: 09-May-1994 11:02

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS CAL-AMT (ng)	CONCENTRATIONS ON-COL (ng)
	30 2-Methylnaphthalene	142.00	9.008	9.008	(1.174)	1836806	50	51
*	31 Acenaphthene-d10	164.00	11.163	11.163	(1.000)	1120150	40	
	32 Hexachlorocyclopentadiene	237.00	9.322	9.322	(0.835)	172243	50	42
	33 2,4,6-Trichlorophenol	196.00	9.610	9.610	(0.861)	567805	50	47
	34 2,4,5-Trichlorophenol	196.00	9.688	9.688	(0.868)	669441	50	50
$	35 2-Fluorobiphenyl	172.00	9.767	9.767	(0.875)	1963510	50	47
	36 2-Chloronaphthalene	162.00	9.985	9.985	(0.894)	1644462	50	49
	37 2-Nitroaniline	65.00	10.238	10.238	(0.917)	637191	50	56
	38 Dimethyl phthalate	163.00	10.666	10.666	(0.955)	1971656	50	51
	39 Acenaphthylene	152.00	10.849	10.849	(0.972)	1900748	50	50
	40 2,6-Dinitrotoluene	165.00	10.779	10.779	(0.966)	483485	50	53
	41 3-Nitroaniline	138.00	11.137	11.137	(0.998)	528614	50	58
	42 Acenaphthene	153.00	11.233	11.233	(1.006)	1567978	50	50
	43 2,4-Dinitrophenol	184.00	11.373	11.373	(1.019)	377123	50	53
	44 4-Nitrophenol	109.00	11.635	11.635	(1.042)	297100	50	52
	45 Dibenzofuran	168.00	11.626	11.626	(1.041)	2392817	50	50
	46 2,4-Dinitrotoluene	165.00	11.661	11.661	(1.045)	589680	50	54
	47 Diethyl phthalate	149.00	12.254	12.254	(1.098)	2010282	50	51
	48 4-Chlorophenyl-phenylether	204.00	12.438	12.438	(1.114)	898328	50	50
	49 Fluorene	166.00	12.394	12.394	(1.110)	1805933	50	51
	50 4-Nitroaniline	138.00	12.507	12.507	(1.120)	546262	50	58
$	51 2,4,6-Tribromophenol	330.00	12.944	12.944	(1.159)	358204	50	52
*	52 Phenanthrene-d10	188.00	14.532	14.532	(1.000)	1899119	40	
	53 4,6-Dinitro-2-methylphenol	198.00	12.577	12.577	(0.865)	469704	50	50
	54 N-Nitrosodiphenylamine	169.00	12.726	12.726	(0.876)	1268625	50	48
	55 4-Bromophenyl-phenylether	248.00	13.555	13.555	(0.933)	535454	50	46
	56 Hexachlorobenzene	284.00	13.642	13.642	(0.939)	638383	50	47
	57 Pentachlorophenol	266.00	14.139	14.139	(0.973)	313132	50	37
	58 Phenanthrene	178.00	14.593	14.593	(1.004)	2630199	50	48
	59 Anthracene	178.00	14.707	14.707	(1.012)	2517022	50	49
	60 Carbazole	167.00	15.143	15.143	(1.042)	2491349	50	52
	61 Di-n-butylphthalate	149.00	16.103	16.103	(1.108)	3492447	50	49
	62 Fluoranthene	202.00	17.386	17.386	(1.196)	2823927	50	53
*	63 Chrysene-d12	240.00	20.807	20.807	(1.000)	1822240	40	
	64 Pyrene	202.00	17.910	17.910	(0.861)	2888143	50	48
$	65 Terphenyl-d14	244.00	18.398	18.398	(0.884)	2184457	50	48
	66 Butylbenzylphthalate	149.00	19.655	19.655	(0.945)	1588588	50	51
	67 3,3'-Dichlorobenzidine	252.00	20.807	20.807	(1.000)	836869	50	55
	68 Benzo(a)anthracene	228.00	20.781	20.781	(0.999)	2571240	50	51
	69 Chrysene	228.00	20.868	20.868	(1.003)	2301441	50	50
	70 bis(2-Ethylhexyl)phthalate	149.00	21.104	21.104	(1.014)	2209405	50	52
*	71 Perylene-d12	264.00	23.940	23.940	(1.000)	2202934	40	
	72 Di-n-octylphthalate	149.00	22.579	22.579	(0.943)	3775505	50	50
	73 Benzo(b)fluoranthene	252.00	23.172	23.172	(0.968)	2442585	50	47
	74 Benzo(k)fluoranthene	252.00	23.233	23.233	(0.970)	2498663	50	47
	75 Benzo(a)pyrene	252.00	23.827	23.827	(0.995)	2300921	50	48
	76 Indeno(1,2,3-cd)pyrene	276.00	25.913	25.913	(1.082)	2132483	50	50
	77 Dibenzo(a,h)anthracene	278.00	25.965	25.965	(1.085)	2238411	50	53
	78 Benzo(g,h,i)perylene	276.00	26.401	26.401	(1.103)	2250144	50	50

9513355.2396

RAW QC DATA

9513355.2347

Data File: /chem/nvo5.i/nvo0329.b/nvo501305.d

Date : 29-MAR-94 09:28

Client ID: DFTPP

Instrument: nvo5.i

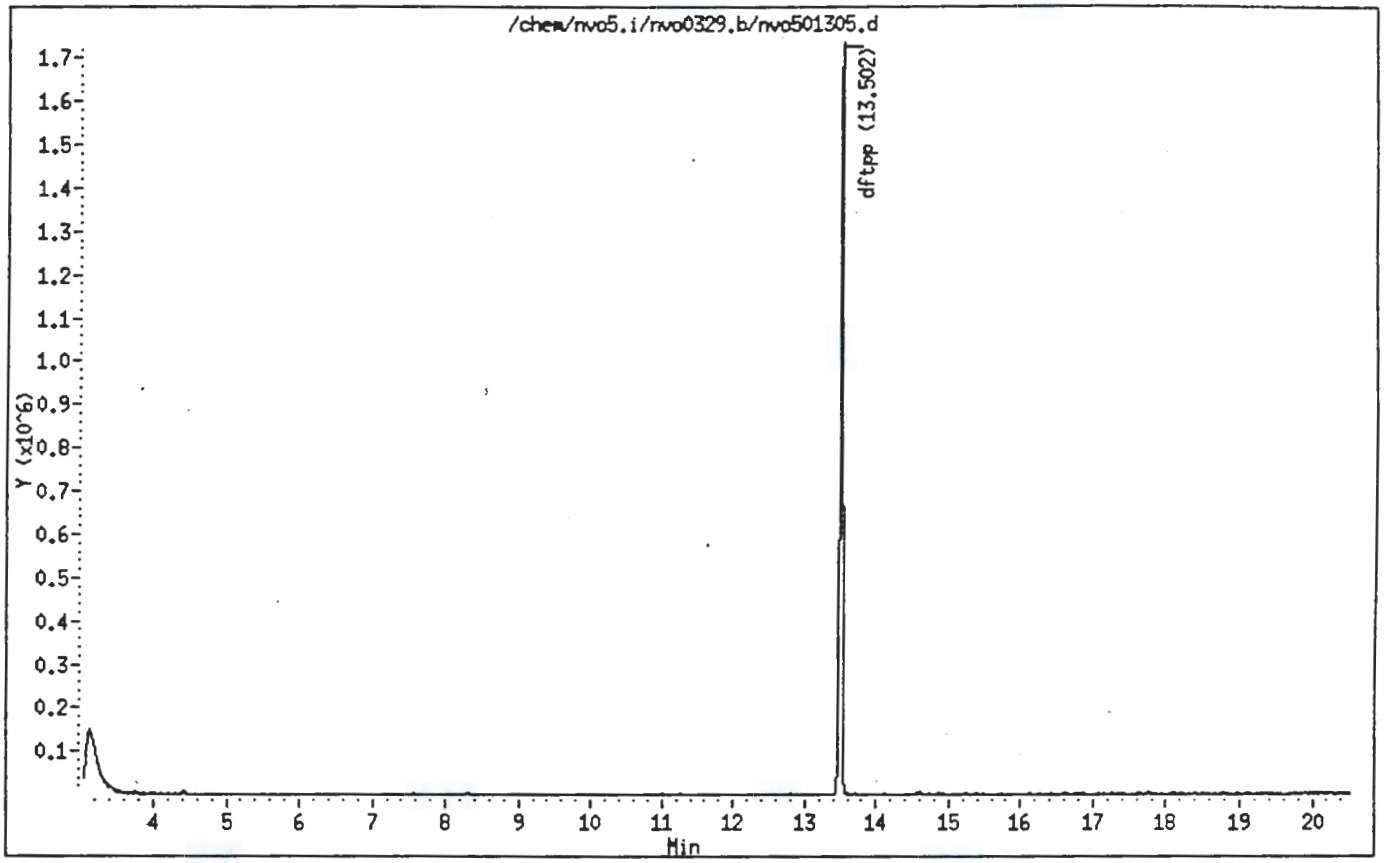
Sample Info: DFTPP 50ng

Volume Injected (uL): 1.0

Operator: WAY/AT

Column phase: DB-5

Column diameter: 0.25



9513355.2348

Data File: /chem/nvo5.i/nvo0329.b/nvo501305.d

Date : 29-MAR-94 09:28

Client ID: DFTPP

Instrument: nvo5.i

Sample Info: DFTPP 50ng

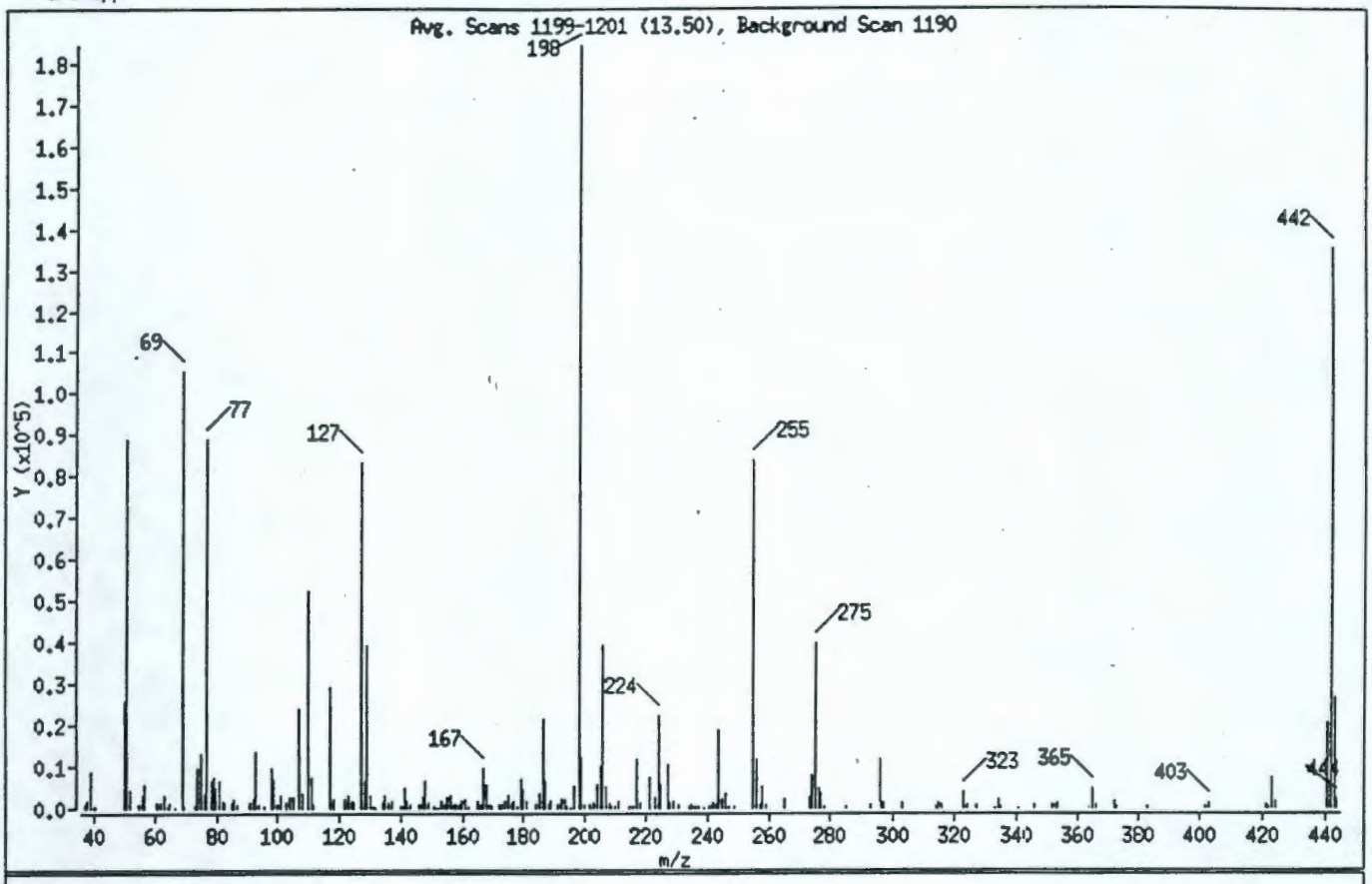
Volume Injected (uL): 1.0

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	48.18
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	57.27
70	Less than 2.00% of mass 69	0.23 (0.40)
127	25.00 - 75.00% of mass 198	45.24
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.60
275	10.00 - 30.00% of mass 198	21.43
365	Greater than 0.75% of mass 198	2.56
441	Present, but less than mass 443	11.11
442	40.00 - 110.00% of mass 198	73.31
443	15.00 - 24.00% of mass 442	14.36 (19.58)

Data File: /chem/nvo5.i/nvo0329.b/nvo501305.d

Date : 29-MAR-94 09:28

Client ID: DFTPP

Instrument: nvo5.i

Sample Info: DFTPP 50ng

Volume Injected (uL): 1.0

Operator: WAV/AT

Column phase: DB-5

Column diameter: 0.25

Data File: nvo501305.d

Spectrum : Avg. Scans 1199-1201 (13.50), Background Scan 1190

Largest m/z: 197.90

Number of peaks: 198

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.90	660	116.90	29056	179.90	4526	246.90	651
37.90	1611	117.90	2141	180.90	1840	248.90	386
39.00	8711	121.90	2207	183.90	784	254.95	83544
39.90	493	122.95	2903	185.00	3325	255.95	11912
40.90	382	123.85	1651	186.00	21480	256.95	925
49.95	25856	124.95	1169	187.00	6577	257.95	5252
50.90	88792	126.95	83376	187.95	669	258.95	880
51.90	4493	128.05	6671	188.85	1652	264.90	2275
54.90	739	128.95	39392	190.95	862	272.95	2671
55.90	2965	129.95	3189	191.95	2077	273.95	7628
56.90	5816	130.95	598	193.05	2217	274.95	39488
60.95	1144	132.00	177	194.05	365	275.90	4871
61.95	1401	133.90	1147	194.95	187	276.90	3613
62.95	3262	134.90	2901	196.00	5402	277.90	359
64.05	420	135.90	1176	197.90	184256	284.85	371
65.05	1514	137.00	1739	198.90	12163	292.90	787
66.90	194	139.85	448	199.90	807	295.90	11660
68.90	105552	140.95	4979	201.50	982	297.00	1392
69.90	425	141.95	1931	202.90	1235	302.95	1166
73.00	627	142.95	1088	203.95	5873	313.90	369
74.00	9384	145.95	866	204.95	9837	314.90	1292
74.95	13260	146.95	2547	205.95	39024	315.95	757
75.95	3386	147.90	6386	206.95	5352	322.95	3889
76.95	88952	148.80	1293	207.85	1522	323.90	682
77.95	6508	151.00	410	208.95	439	326.90	853
78.95	7436	151.90	193	209.95	526	332.95	176
79.95	4955	153.00	1631	210.95	1654	333.95	2047
80.95	6537	154.00	1069	214.90	625	334.85	374
82.05	1637	155.00	2458	216.00	448	340.90	183
82.90	1100	155.95	3093	216.90	11633	345.90	811
84.90	1518	157.05	782	217.90	1441	351.95	1051
85.90	2152	157.85	874	220.95	7450	352.95	817
86.90	833	158.95	738	222.95	2778	353.95	1106
90.95	1522	159.85	1694	223.95	22184	364.85	4724
91.95	1989	160.95	2125	224.95	5491	365.85	846

Data File: /chem/nvo5.i/nvo0329.b/nvo501305.d
Date : 29-MAR-94 09:28
Client ID: DFTPP
Instrument: nvo5.i
Sample Info: DFTPP 50ng
Volume Injected (uL): 1.0
Operator: WAV/AT
Column phase: DB-5
Column diameter: 0.25

Data File: nvo501305.d
Spectrum : Avg. Scans 1199-1201 (13.50), Background Scan 1190
Largest m/z: 197.90
Number of peaks: 198

m/z	Y	m/z	Y	m/z	Y	m/z	Y
92.95	13302	161.85	619	226.95	10489	371.90	1706
93.95	878	164.90	1630	227.90	1381	372.90	239
95.95	633	166.00	1033	228.90	1800	382.85	271
97.95	9677	166.90	9494	230.90	898	401.85	479
98.90	6834	167.90	5812	233.90	515	402.95	1103
99.90	818	169.00	736	234.90	803	420.90	952
100.90	3265	169.90	227	235.85	251	422.00	554
102.90	1344	171.85	900	236.95	506	422.90	7210
103.90	2717	172.85	908	239.05	186	423.90	1609
105.00	2524	173.95	1634	240.95	480	441.00	20472
106.95	24048	174.95	3107	241.95	1359	442.00	135104
107.95	3660	176.05	1182	243.05	1012	443.00	26456
109.95	52416	176.85	1718	243.90	18648	443.85	2337
110.95	7581	178.05	405	245.00	2260		
111.85	818	178.95	7148	245.90	3506		

Data File: /chem/nvo5.i/nvo0509.b/nvo501464.d

Date : 09-MAY-94 09:22

Client ID: DFTPP

Instrument: nvo5.i

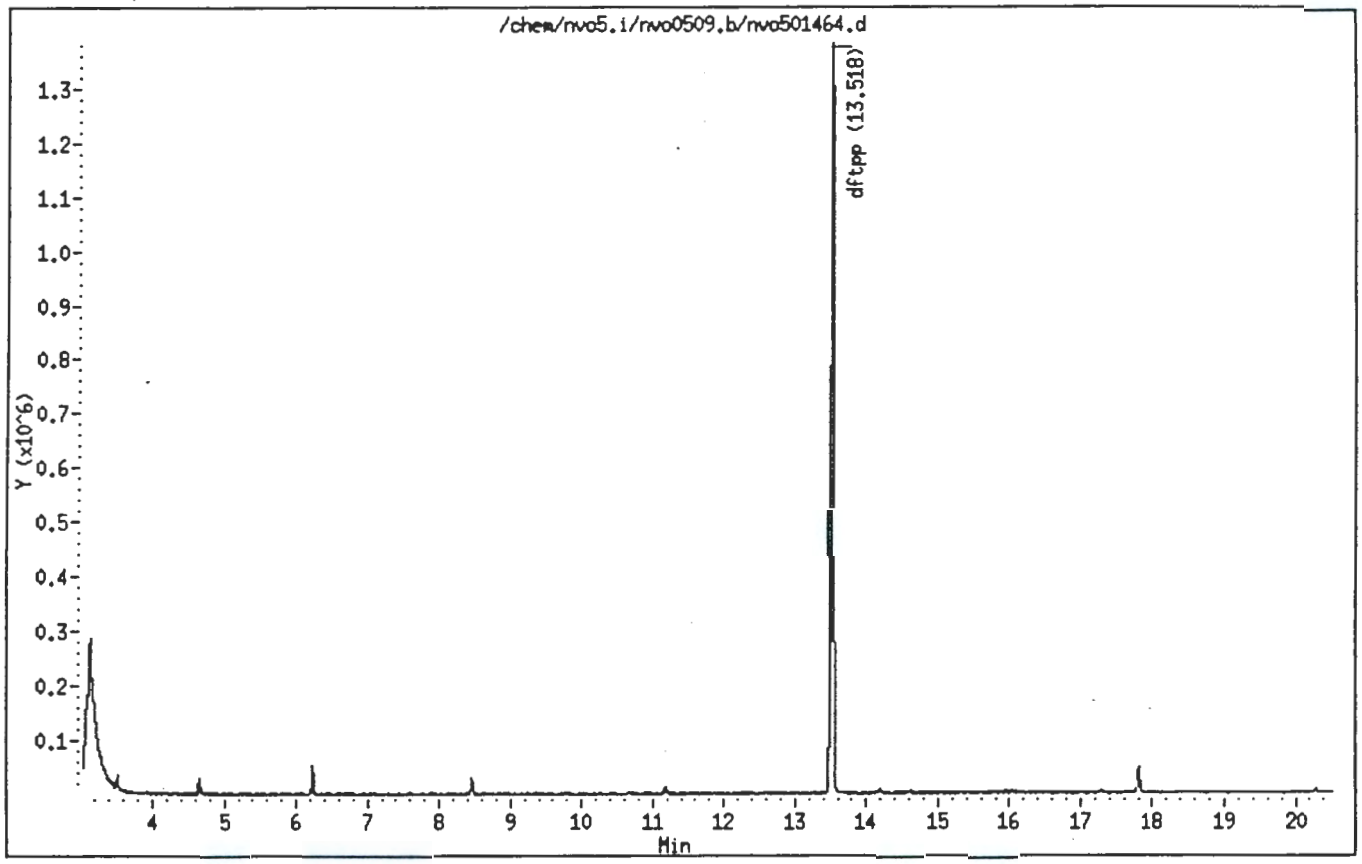
Sample Info: DFTPP

Volume Injected (uL): 1.0

Operator: WAV/AT

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/nvo5.i/nvo0509.b/nvo501464.d

Date : 09-MAY-94 09:22

Client ID: DFTPP

Instrument: nvo5.i

Sample Info: DFTPP

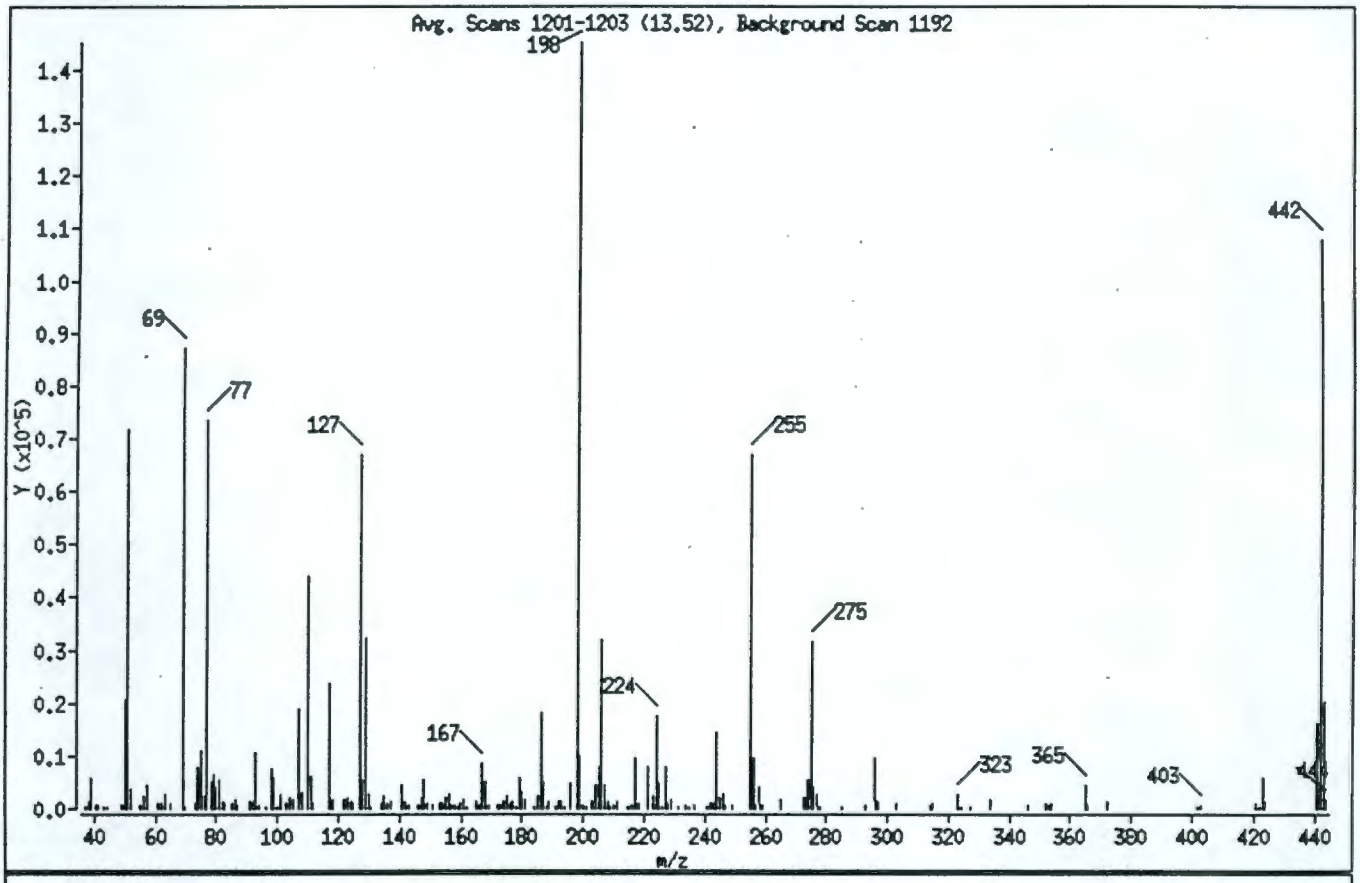
Volume Injected (uL): 1.0

Operator: WAY/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	49.51
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	60.08
70	Less than 2.00% of mass 69	0.14 (0.23)
127	25.00 - 75.00% of mass 198	46.11
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.84
275	10.00 - 30.00% of mass 198	21.84
365	Greater than 0.75% of mass 198	3.01
441	Present, but less than mass 443	11.20
442	40.00 - 110.00% of mass 198	74.34
443	15.00 - 24.00% of mass 442	13.93 (18.74)

Data File: /chem/nvo5.i/nvo0509.b/nvo501464.d

Date : 09-MAY-94 09:22

Client ID: DFTPP

Instrument: nvo5.i

Sample Info: DFTPP

Volume Injected (uL): 1.0

Operator: WAV/AT

Column phase: DB-5

Column diameter: 0.25

Data File: nvo501464.d

Spectrum : Avg. Scans 1201-1203 (13.52), Background Scan 1192

Largest m/z: 197.90

Number of peaks: 187

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.90	478	107.95	3164	176.85	1437	242.95	1126
38.00	1411	109.95	43992	177.95	341	243.90	14542
39.00	5819	110.95	6280	178.95	5772	245.00	1939
40.00	663	111.95	971	179.90	3214	245.90	2609
41.00	776	116.90	23824	180.90	1616	246.90	598
42.85	357	117.90	1817	184.00	209	248.80	536
43.95	326	122.00	1579	185.00	2424	254.95	66904
48.95	518	122.90	2186	186.00	18328	255.95	9510
49.95	20680	123.85	1411	187.00	5143	256.95	783
50.90	71864	124.95	884	187.85	409	257.85	4171
52.00	3716	126.95	66928	188.85	1349	258.95	694
55.00	651	127.95	5590	190.85	478	264.90	1839
55.90	2344	128.95	32384	191.85	1499	272.95	2045
57.00	4589	129.95	2626	192.95	1502	273.95	5498
60.95	1014	130.85	209	193.95	368	274.95	31704
61.95	993	133.90	1058	196.00	4784	275.90	4188
62.95	2676	134.90	2407	197.90	145152	276.90	2897
64.95	1138	135.90	922	198.90	9934	277.80	400
68.90	87208	137.00	1379	199.90	778	284.95	183
69.90	198	140.95	4482	201.30	460	292.90	616
72.90	968	141.95	1444	202.90	1266	295.90	9761
74.00	7722	142.85	698	203.95	4517	296.90	1283
74.95	11066	145.95	633	204.95	8006	302.85	875
76.05	2508	146.95	2067	205.95	31832	313.90	576
76.95	73520	147.90	5430	206.95	4303	314.90	931
77.95	5077	148.90	1045	207.95	1253	322.95	2842
78.95	6411	151.00	584	208.95	191	323.90	384
79.95	4068	152.90	1117	210.05	530	326.90	349
80.95	5438	153.90	924	210.85	1326	333.95	1746
81.95	1340	155.00	2072	214.90	185	345.90	723
82.90	1143	155.95	2878	215.90	584	351.95	894
84.90	1034	156.85	568	216.90	9622	352.95	634
86.00	1880	157.85	675	218.00	1190	353.95	969
87.00	558	158.95	464	220.95	7837	364.85	4368
90.95	1420	159.85	1046	222.95	2258	365.85	673

Data File: /chem/nvo5.i/nvo0509.b/nvo501464.d

Date : 09-MAY-94 09:22

Client ID: DFTPP | Instrument: nvo5.i

Sample Info: DFTPP

Volume Injected (uL): 1.0 | Operator: WAV/AT

Column phase: DB-5 | Column diameter: 0.25

Data File: nvo501464.d

Spectrum : Avg. Scans 1201-1203 (13.52), Background Scan 1192

Largest m/z: 197.90

Number of peaks: 187

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.95	1464	160.95	1693	223.95	17568	371.90	1422
92.95	10648	161.85	412	224.95	4777	401.85	384
93.75	663	164.80	1384	225.95	215	402.95	849
96.05	348	166.00	808	226.85	7936	420.90	868
97.95	7591	167.00	8516	227.90	995	422.00	448
98.90	5778	168.00	5069	228.80	1552	423.00	5737
100.00	230	169.00	544	231.00	397	423.90	1293
100.90	2743	171.85	673	233.90	549	441.00	16255
102.90	1104	172.85	792	234.90	374	442.00	107904
103.90	1930	173.85	1469	236.85	591	443.00	20224
104.90	1761	174.95	2430	240.75	243	443.95	1851
106.95	19032	175.95	930	241.85	916		

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.: 48916

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

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NV0501466.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:05/06/94

Concentrated Extract Volume: 500(mL) Date Analyzed: 05/09/94

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	330	U
111-44-4	Bis(2-Chloroethyl)ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethyphenol	330	U
111-91-1	Bis(2-Chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethyl phthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	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.: 48916

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

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NV0501466.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted: 05/06/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/09/94

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	800	U
100-02-7	4-Nitrophenol	800	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethyl phthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	800	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	98	J
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	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.: 48916

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

Sample wt/vol: 30.0 (g/mL) G Lab File ID: NVO501466.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:05/06/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 05/09/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 3

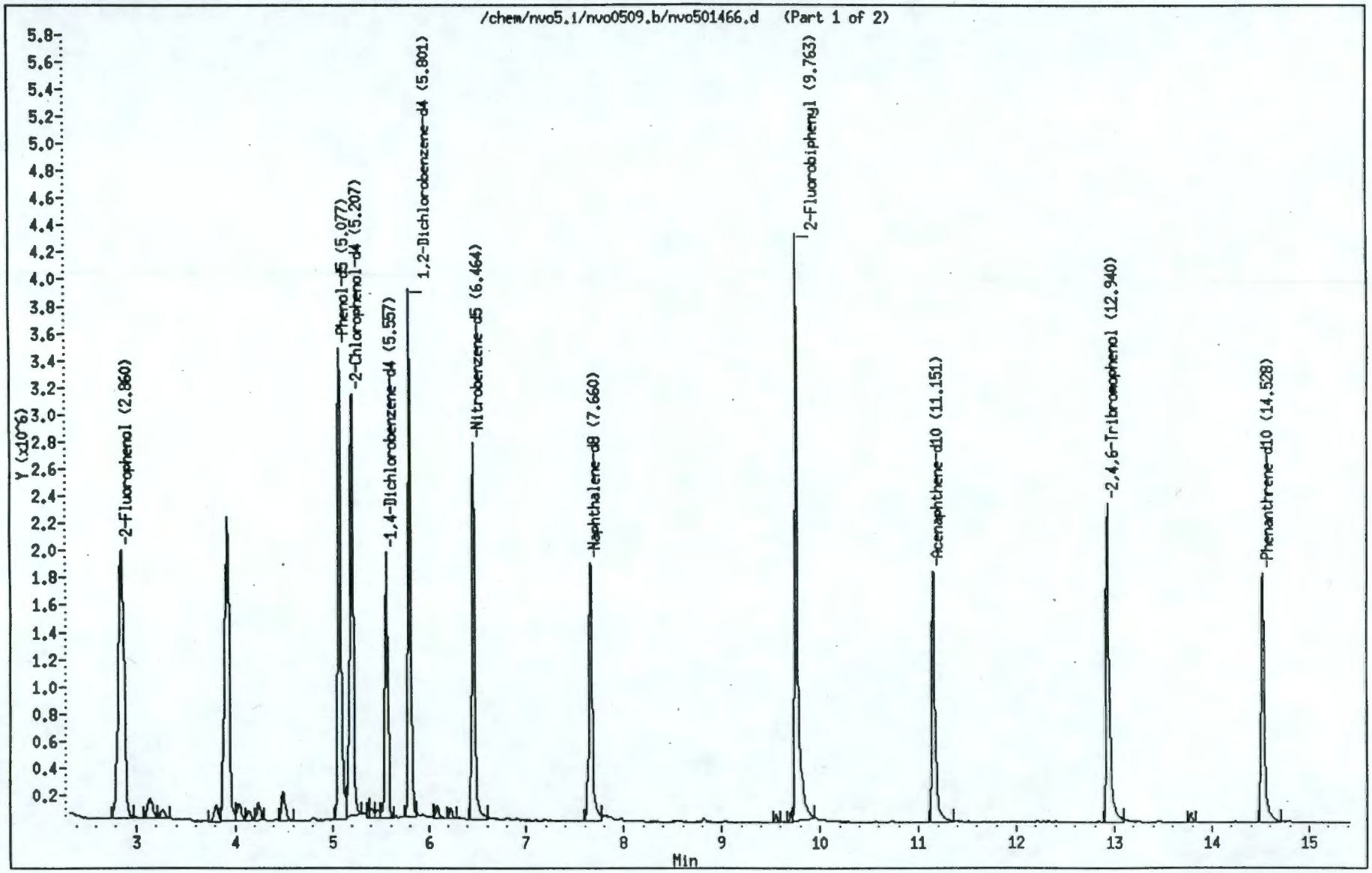
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown Aldol Condensate	3.139	88	JA
2.	Unknown Aldol Condensate	3.925	1200	JA
3.	Unknown Aldol Condensate	4.492	100	JA
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/nvo0509.b/nvo501466.d
Date : 09-MAY-1994 11:21
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



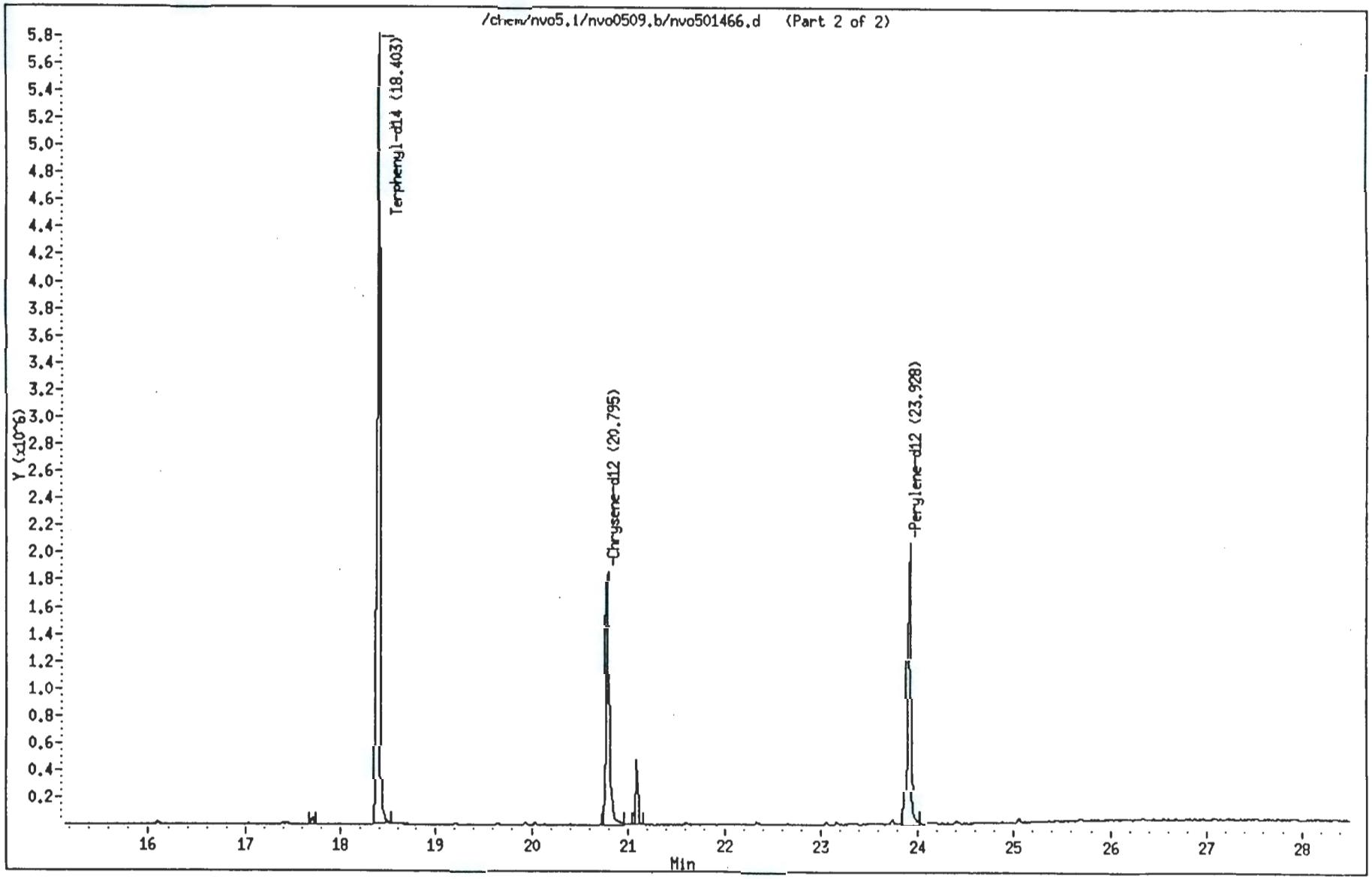
001261

95133595.23518

Data File: /chem/nvo5.i/nvo0509.b/nvo501466.d
Date : 09-MAY-1994 11:21
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



001262

Data File: /chem/nvo5.i/nvo0509.b/nvo501466.d
Report Date: 10-May-1994 08:39

Environmental Science and Engineering

Semivolatile CLP 3/90 SOW

Data file : /chem/nvo5.i/nvo0509.b/nvo501466.d
Lab Smp Id: SBLKS1 Client Smp ID: SBLKS1
Inj Date : 09-MAY-1994 11:21 Autotune Date: 08-Feb-94 09:58
Operator : WAV/AT Inst ID: nvo5.i
Smp Info : SBLKS1
Misc Info : CDM Hanford N.Slope
Comment :
Method : /chem/nvo5.i/nvo0509.b/clp390epc.m
Meth Date : 09-May-1994 11:01 Quant Type: ISTD
Cal Date : 09-MAY-94 10:29 Cal File: nvo501465.d
Als bottle: 1 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	5.557	5.552	(1.000)	565501	40	
$ 2 2-Fluorophenol	112.00	2.860	2.689	(0.515)	2139348	110	1900
$ 3 Phenol-d5	99.00	5.077	5.063	(0.914)	2392791	120	1900
$ 6 2-Chlorophenol-d4	132.00	5.207	5.185	(0.937)	1831846	110	1900
$ 10 1,2-Dichlorobenzene-d4	152.00	5.801	5.787	(1.044)	1056762	90	1500
* 17 Naphthalene-d8	136.00	7.669	7.672	(1.000)	1805377	40	
$ 18 Nitrobenzene-d5	82.00	6.464	6.468	(0.843)	1691060	89	1500
* 31 Acenaphthene-d10	164.00	11.151	11.163	(1.000)	937495	40	
$ 35 2-Fluorobiphenyl	172.00	9.763	9.767	(0.876)	2987621	91	1500
$ 51 2,4,6-Tribromophenol	330.00	12.940	12.944	(1.160)	715437	120	2000
* 52 Phenanthrene-d10	188.00	14.528	14.532	(1.000)	1554308	40	
* 63 Chrysene-d12	240.00	20.795	20.807	(1.000)	1527243	40	
$ 65 Terphenyl-d14	244.00	18.403	18.398	(0.885)	4010054	110	1800
70 bis(2-Ethylhexyl)phthalate	149.00	21.091	21.104	(1.014)	217091	6	98(a)
* 71 Perylene-d12	264.00	23.928	23.940	(1.000)	1874718	40	

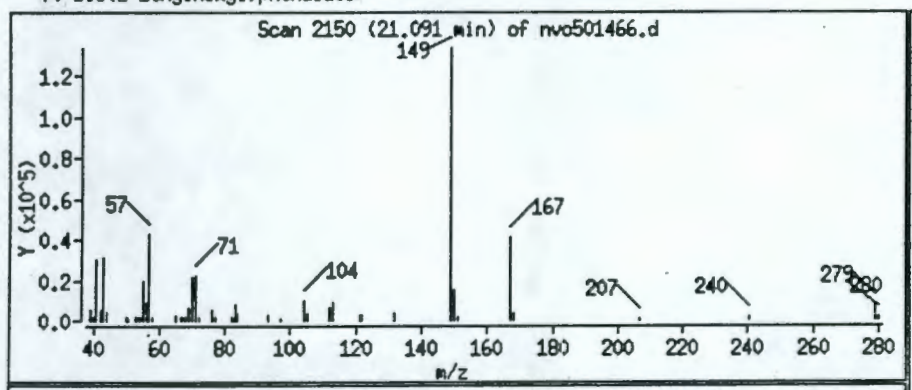
QC Flag Legend

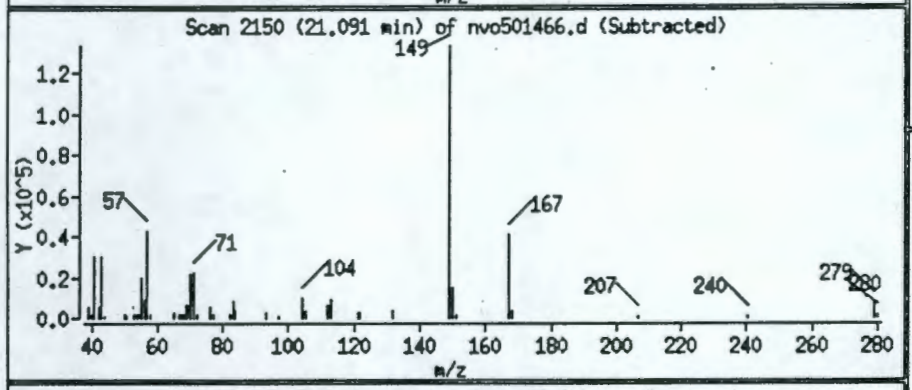
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

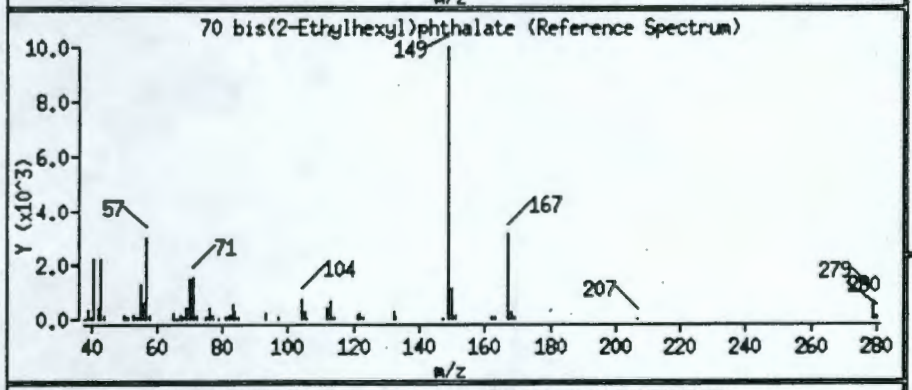
Data File: /chem/nvo5.i/nvo0509.b/nvo501466.d
Date : 09-MAY-1994 11:21
Client ID: SBLKS1
Sample Info: SBLKS1
Volume Injected (uL): 2.0
Column phase: DB-5MS

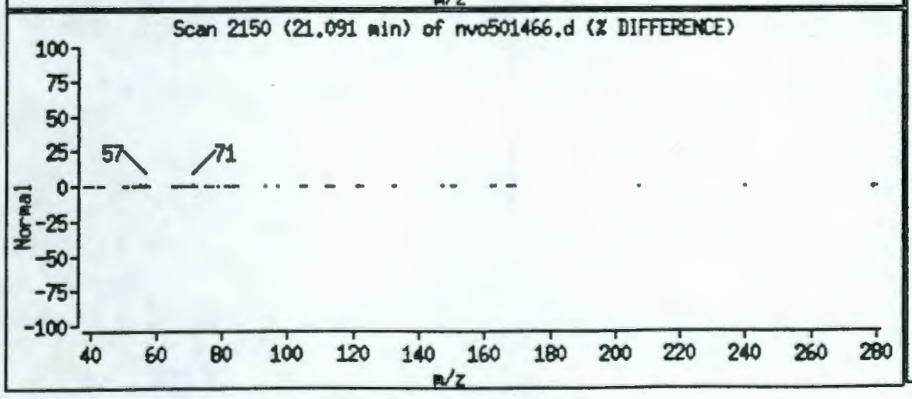
Instrument: nvo5.i
Operator: WAV/AT
Column diameter: 0.25

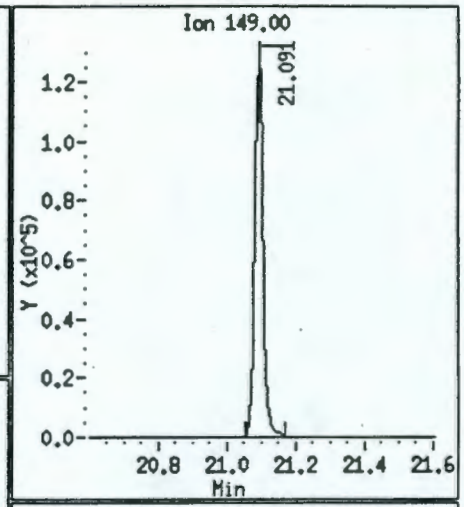
70 bis(2-Ethylhexyl)phthalate

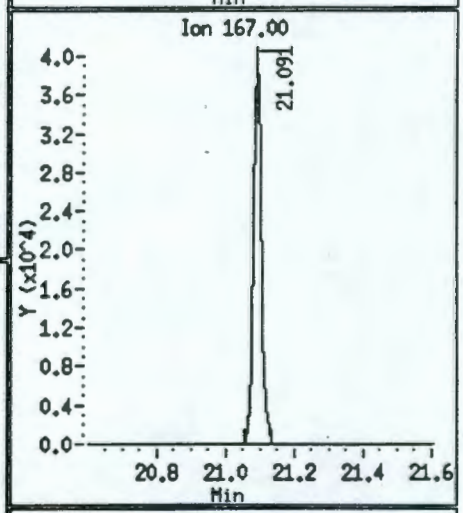


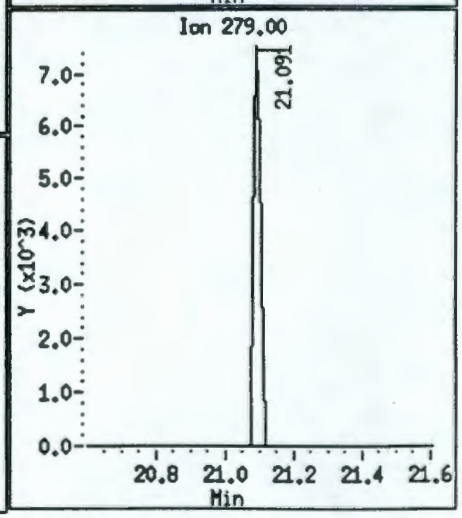












9513355.2362

Data File: /chem/nvo5.i/nvo0509.b/nvo501466.d
Report Date: 10-May-1994 10:55

Environmental Science and Engineering

Unknown Compounds Quantitation Report

Data file : /chem/nvo5.i/nvo0509.b/nvo501466.d
Lab Smp Id: SBLKS1 — Client Smp ID: SBLKS1
Inj Date : 09-MAY-1994 11:21 — Autotune Date: 08-Feb-94 09:58:2
Operator : WAV/AT — Inst ID: nvo5.i
Smp Info : SBLKS1
Misc Info : CDM Hanford N.Slope
Comment :
Method : /chem/nvo5.i/nvo0509.b/clp390epc.m
Meth Date : 09-May-1994 11:01
Cal Date : 09-MAY-94 10:29 — Cal File: nvo501465.d
Als bottle: 1 — QC Sample: BLANK
Dil Factor: 1.000 — 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
* 1 1,4-Dichlorobenzene-d4	5.557	3817879	40.000

	RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:			
	3.139	506618	5	88	56	WILEY.1	116729	1
Unknown Aldol Condensate					CAS #:			
	3.925	7083956	74	1200	33	WILEY.1	115784	1
Unknown Aldol Condensate					CAS #:			
	4.492	600051	6	100	40	WILEY.1	1586	1

Data File: /chem/nvo5.i/nvo0509.b/nvo501466.d

Date : 09-MAY-1994 11:21

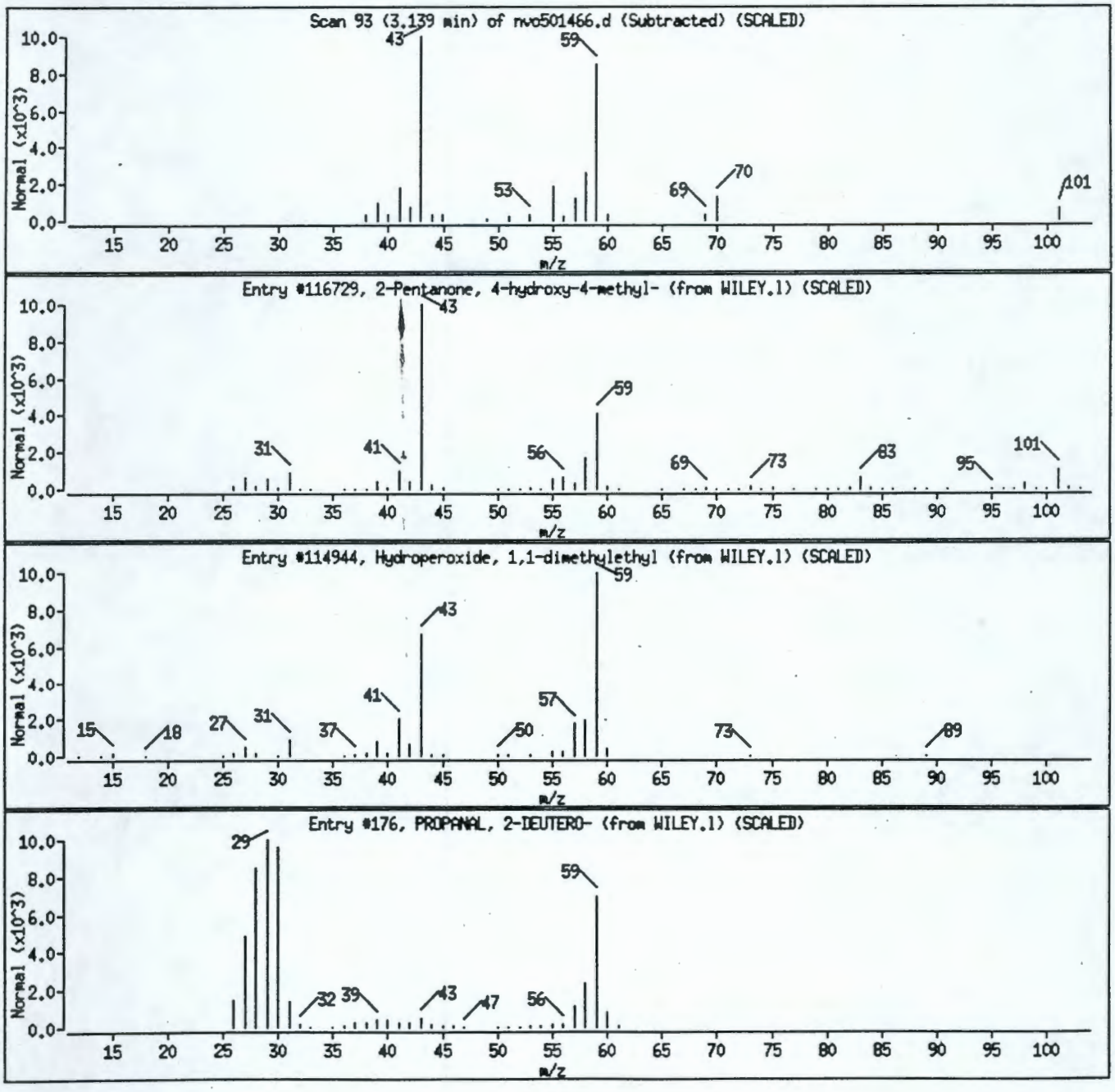
Client ID: SBLKS1 Instrument: nvo5.i

Sample Info: SBLKS1

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-Pentanone, 4-hydroxy-4-methyl-	123-42-2	WILEY.1	116729	56	C6H12O2	116
Hydroperoxide, 1,1-dimethylethyl	75-91-2	WILEY.1	114944	42	C4H10O2	90
PROPANAL, 2-DEUTERO-	0-00-0	WILEY.1	176	42	C3H5DO	58



9513355.2364

Data File: /chem/nvo5.i/nvo0509.b/nvo501466.d

Date : 09-MAY-1994 11:21

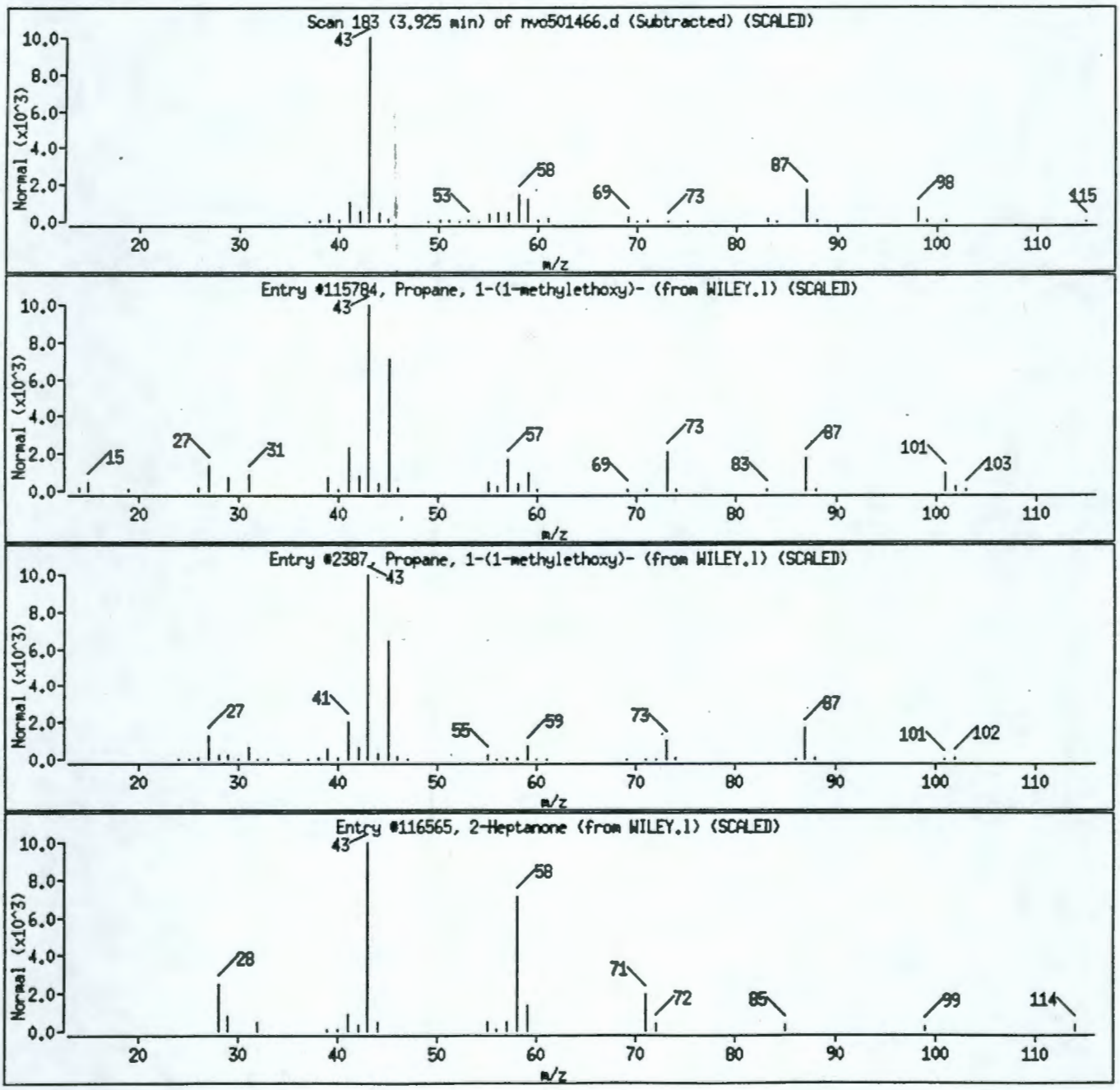
Client ID: SBLKS1 Instrument: nvo5.i

Sample Info: SBLKS1

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

Column phase: DB-5MS Column diameter: 0.25

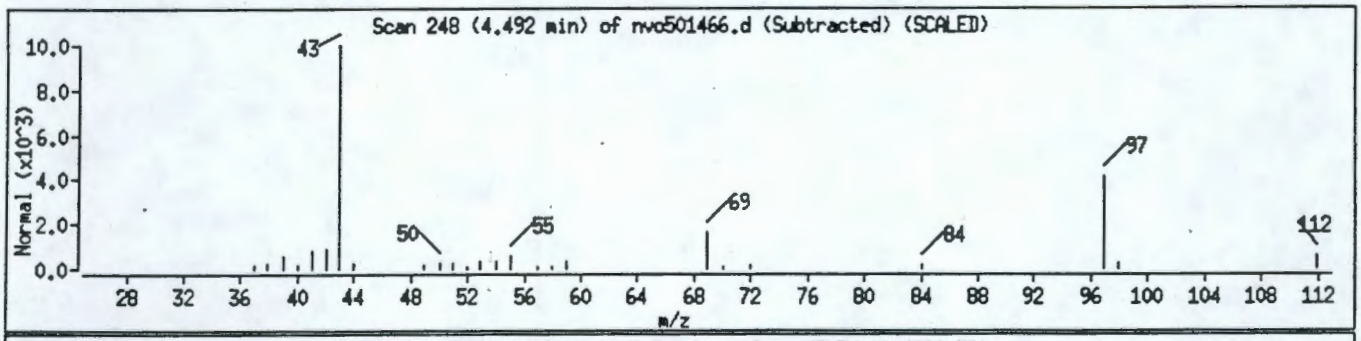
Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Propane, 1-(1-methylethoxy)-	627-08-7	WILEY.1	115784	33	C6H14O	102
Propane, 1-(1-methylethoxy)-	627-08-7	WILEY.1	2387	33	C6H14O	102
2-Heptanone	110-43-0	WILEY.1	116565	25	C7H14O	114

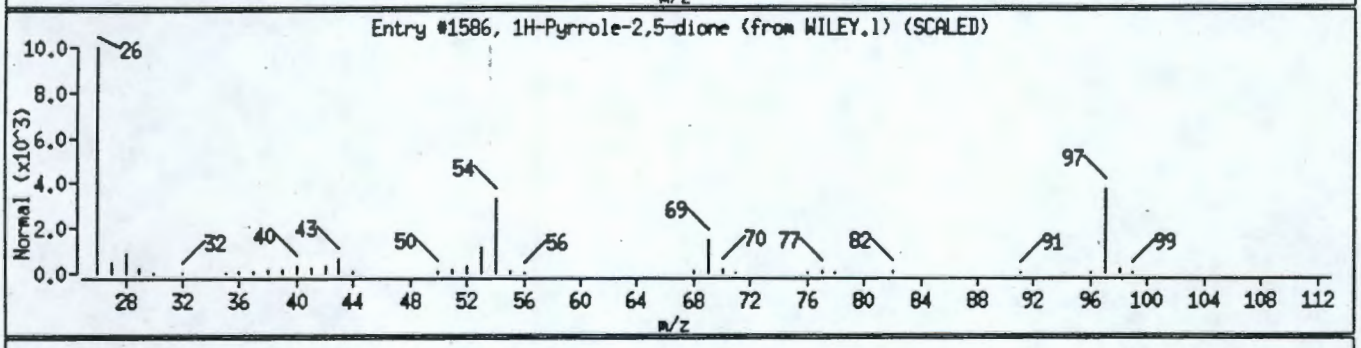


001267

Data File: /chem/nvo5.i/nvo0509.b/nvo501466.d
Date : 09-MAY-1994 11:21
Client ID: SBLKS1 Instrument: nvo5.i
Sample Info: SBLKS1
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
1H-Pyrrole-2,5-dione	541-59-3	WILEY.l	1586	40	C4H3NO2	97





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OTHER RELEVANT DOCUMENTS

9513355.2367

ESE ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

CHROMATOGRAPHIC ANALYSIS LOG

Date: 5/6/94
Analyst: AJ (2540)
Project: CDM-Hanford
Case No.: NA
Instrument ID: 1002B-1
Data System ID: NA
Analysis Type: 3/90 LLP BNA S.

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 AJ 5/6/94 EO	Final B °C		for		Min.

Comments: GPC chk is 1.0 ml 3/90 ~~LLP~~ GPC chk 8-40-25 is 10 ml Mell2
SPIC chk/END STD are 0.5 ml each of 3/90 surrogate 676-98 and 3/90 Matrix
SPIC 676-100-1 is 10 ml Mell2.

Run No.	Sample No.	Run No.	Sample No.	Run No.	Sample No.
1	GPC chk				dump = 27
2	SPIC chk				collect = 23
3	Mell2				Wash = 10
4	CDMHNSS • BLK				Temp = 20.0°C
5	↓ 29MS				Pressure = 12
6	↓ 29MSD				Range = 0.5
7	Mell2				Sens = 0.5
8	CDMHNSS • 29				Mell2 BH201
9	↓ 30				flow = 5 ml/min.
10	END STD				

FORM 67303

9513355.2361

Environmental Science & Engineering, Inc.

GC/MS INSTRUMENT LOGSHEET

INSTRUMENT ID NV05

DATE 5/9/94 PROJECT NAME CDM Hanford N. Slope CLP 3/90 SOW

OPERATOR WAV/AT CAL FILE clp390epc 3/29/94

MASS RANGE 35-500 A/D 2² METH FILE clp390epc

THRESHOLD 1000 E. M. 1776 ID FILE ↓

SCAN DELAY 2.3 min SURR — DATE UPLOADED

PURGE DELAY 1.0 min INT STD CLP MIX Protocol Lot 07309290 UPLOAD NAME WAVHAN 2

INJ VOL 2.0 µL SPK CONC 20 µg/mL DATE SIGN

GC PROG 50°C x 2 min, 50°C → 120°C @ 20°/min, 120°C → 320°C @ 10°/min, ts = 3 min COL DB5 MS 0.25 mm id.

FRN	SAMPLE ID	EXT DATE	WT/ VOL	DIL FACT	COMMENTS	TAPE DATE
NV05 01464	DFTPP 50ng					
1465	SSTD 50 50ng mcol			1.00	25µg/mL CLP STD 1000-24	
1466	SBLKS1	5-6-94	30gm.	1.00		
1467	CDMHNSS * 29	↓	↓	↓		
1468	* 29MS					
1469	* 29MSD					
1470	* 30					

AT 5/10/94

Read and Understood by

SIGNED 5/10/94 DATE SIGNED 10 WAV 5/10/94 DATE PAGE 1 OF 1

001271

BOOK NO: 0616

~~001043~~

ESE. ENVIRONMENTAL SCIENCE AND ENGINEERING, INC. | **ORGANIC LABORATORY/EXTRACTION LOG SHEET**

PROJECT: CDM-HANFORD N-SLOPE
PROJECT NO.: 1944022G 0201
CASE NO.: NA
EXTRACTOR(S): NM
CLEAN-UP: GPC
DATE: 5/6/94
TIME: 8:30 AM
EXTRACTION METHOD: 3/90 CLP BNA SOX
SAMPLE FRACTION: SS
CHECKED BY: CDG
BALANCE USED: #26

BOOK NO: 089

SAMPLE NO.	VOLUME-ml MASS-gr.	INITIAL/ FINAL pH	TYPE/DATE OF CLEAN-UP	FINAL VOL. SOLVENT	SURRO-GATE ADDED Y/N	COMMENTS
CDMHN55*29	30gr	8.59	GPC	1.0ml MeCl2	yes	All samples receives 0.5ml
30	↓	8.78	↓	↓	↓	3/90 CLP surrogate spiking
29MS		—				solution 676-99-1 150ug/ml ACIDS
29MSD		—				100ug/ml BN's WAV 3/9/94
BLK		—				exp. 3/9/95
						29MS, 29MSD receives 0.5ml
						CLP MATRIX SPIKING solution
						676-100-1 150ug/ml ACIDS
						100ug/ml BN's WAV 3/9/94
						3/9/95
						SPIKED: [illegible]
						WIT: [illegible]

CHAIN-OF-CUSTODY RECORD

FORM 87202

001272

95133555.2360

SAMPLES COMHNSS# 29, 30

3/90 CLP BNA 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, NM
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) Add 100ml of 50/50 MeCl/Acetone, spike samples
7) Sonicate for 1.5 minutes with 3/4 inch horn at 50% duty cycle and output control at 10.
Centrifuge at 1000 RPM for 5 minutes, decant extract into KD-receiver through funnels packed with MeCl cleaned glasswool and baked sodium sulfate
8) Repeat steps (7) two more times
9) Pipette out 5.0ml into receiver, conc. to <1ml, quantitatively transfer to autosampler vial, top to 1.0ml with MeCl, to GCMS labelled SCREEN, make up screen folder and include screen check sheet NA
10) Conc. remaining samples to 10mls with snyder attachment at 60-80 °C
11) If screen ok'd by analyst, combine with extract, file screen check sheet NA
12) Conc. to 1ml with microsnyder attachment, take to 10.0ml with MeCl in GCT. NM 5/6/94
13) Load on GPC, check if gpc check peaks shifted <5% from previous run AT 5/6/94
14) Conc extracts off GPC to 10ml using KD-receivers, make copies of GPC chart and include with logsheets DLC 5.07.94
15) Conc to <1ml using microsnyders
14) Quantitatively transfer to autosampler vials marked at 0.5ml, blow down extract volume to 0.5ml under N_2, to GCMS

QC Required: MS ✓
MSD ✓
BLANK ✓

Chain of Custody	TO AJ NM 5/6/94	to 1002B-1 AT 5/6/94	TO GCMS DLC 5-07-94	Rec'd GCMS AT 5/9/94

PROJECT ~~D+M~~ NM CDM - HARTFORD - N. SLOPE

Notebook No.

Continued From Page

19940226 0701 3/90 BNA Son
NM SS

CDMHNSS+ 29, 30, 29MS, 29MSD, BLK

1. Weighed up 30gr. sample w/ Powered Na2SO4 to dry
2. Added 150ml 50/50
3. Spiked samples
4. Sonicated for 1:30 min
5. Extracted 3x with 50/50 and centrifuged
6. Conc to ~ 10ml NM 5/6/94
7. Added micro-snyders w/ Brins Conc to ~ 1.0ml brought to 10ml in GCT w/ Methe

1) Loaded on 10023-F NT 5/6/94
Came off GPC ~ 9:00 AM
Conc to 1ml
Placed micro snyder with Hexane Conc to ~ ~~2.5ml~~ ~~2.5ml~~ 2.5ml 5/7/94
.5ml transfer to vial Sample vial brought up to 1ml
Save good sense on receiver blown down to .5ml To GCMS
DLC 5-07-94

Continued on Page

Read and Understood By

Nicole Mack 5/6/94 Signed Date

Signed 5-07-94 Date