N61165.AR.003873
CNC CHARLESTON
5090.3a

PROJECT COMPLETION REPORT CLEARANCE OF UTILITY CORRIDOR AREA OF CONCERN 724 (AOC 724) APPENDIX F VOLUME 2 OF 2 CNC CHARLESTON SC

11/1/2003

KEMRON

Project Completion Report

Revision No. 00

Clearance of Utility Corridor (AOC 724) Appendix F, Volume 2

Charleston Naval Complex Charleston, South Carolina

Contract No. N62467-01-D-0331
Contract Task Order No. 0005

November 2003

PREPARED FOR

Department of the Navy, Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29406

Scan all 4 volumes
Project Completion Reports - Utility = Compliance

Appendix F

Volume 2

Kemron Reports L0303352 and L0304554

KEMRON REPORT L0303352

PREPARED FOR CCI

WORK ID: 177511/RACIV COT-05

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KEMRON
ENVIRONMENTAL SERVICES

109 Starlite Park ▪ Marietta, OH 45750 ▪ Telephone (740) 373-4071 ▪ FAX (740) 373-4835

Laboratory Report Number: **L0303352**

Please find attached the results for samples you submitted to Kemron Environmental Services. Review and compilation of your report was completed by Kemron Team 1 representatives. If you have questions, comments or require further assistance please contact me or any of the team 1 members listed below at 800-373-4071. We can also be reached at the e-mail addresses listed below.

Cindy Arnold-Team Leader
carnold@kemron-lab.com

Stephanie Mossburg-Team Chemist/Data Specialist
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dtornes@kemron-lab.com

Reviewed by: Stephanie Mossburg Date: 3/31/03

Certified by: David E. Vandenberg
David E. Vandenberg
Laboratory Director

This laboratory report shall not be reproduced, except in full, without the written approval of KEMRON Environmental Services

This report contains a total of 930 pages.

NYDOH NELAP Id: 10861

1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0303352

CHAIN OF CUSTODY:

The chain of custody number was 177511-01-031703.

SHIPMENT CONDITIONS:

The chain of custody forms were received sealed in a cooler. The cooler temperature was 1 ° C.

SAMPLE MANAGEMENT:

All samples received were intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

REVIEWED: Stephanie Moosburg DATE: 3/19/03

REPORT NARRATIVE
GC/MS SEMIVOLATILE ORGANICS

KEMRON Report No.: L0303352

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8270C

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied or if the mean % RSD for all analytes was less than 15%, the average response factors were used. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS associated with the sample extraction yielded % recoveries for 3-nitroaniline and indeno(1,2,3-cd)pyrene that were above the upper advisory limit. Neither of these compounds were found in the related sample. All other acceptance criteria were met.
Matrix Spikes: The MS/MSD were not associated with these samples.

SAMPLES

Internal Standards: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

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Analyst: ALT REVIEWED: _____ DATE: 3/27/03

Rev. 6/00

REPORT NARRATIVE
GC PESTICIDES

KEMRON Report No.: L0303352

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8081

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: There were no MS/MSD results associated with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Endrin/ DDT Breakdown : All acceptance criteria were met.
Samples: For all samples which yielded results with an RPD of greater than 40% between the primary and confirmation column the appropriate flag was applied. All results were reported from the primary column. All acceptance criteria were met.

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Analyst: ECL REVIEWED: _____ DATE: 3/5/03

Rev. 7/14/00

REPORT NARRATIVE
GC PCB

KEMRON Report No.: L0303352

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8082

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: There were no MS/MSD results associated with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: For all samples which yielded results with an RPD of greater than 40% between the primary and confirmation column the appropriate flag was applied. All acceptance criteria were met.

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Analyst: BCL REVIEWED: _____ DATE: 3/26/03

Rev. 7/14/00

REPORT NARRATIVE
GC HERBICIDES

KEMRON Report No.: L0303352

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8151

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: Dalapon yielded a difference of greater than 15%. All other acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: There were no MS/MSD results associated with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: For all samples which yielded results with an RPD of greater than 40% between the primary and confirmation column the appropriate flag was applied. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ECL REVIEWED: _____ DATE: 3/26/03

Rev. 7/14/00

REPORT NARRATIVE
FORMALDEHYDE by HPLC

KEMRON Login No.: L0303352

METHOD

Preparation: SW- 846 8315A
Analysis: SW-846 8315A

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: The re-extraction of sample fraction 01 was performed out of holding time.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD were not associated with this sample delivery group.

SAMPLES

Samples: Sample fraction 01 analysis resulted in a reportable amount of formaldehyde at 259 ug/L. Extracted in the same batch, an unrelated MS sample recovered 18% of the nominal spike of 250 ug/L. Due to this unexpected low MS recovery the data appeared suspect in that L0303352-01 recovered near the spike level for the MS. There was some consideration that an error could have occurred in spiking or transposing of samples. In order to validate the reportable level of formaldehyde in L0303352-01 the sample was re-extracted out of holding time and resulted in a reportable amount of formaldehyde at 105 ug/L. Results from both extractions were reported.

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Analyst: RDC REVIEWED: _____ DATE: 3/27/10

Rev. 7/14/00

REPORT NARRATIVE
HPLC-EXPLOSIVE RESIDUES

KEMRON Report No.: L0303352

Note: Tetryl readily decomposes in the presence of methanol/water or heat. False negative results for this analyte are possible.

METHOD

Analysis: SW-846 8330

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS and LCS duplicate associated with the initial extraction of sample fraction 01 yielded a percent recovery for HMX that was below the advisory limit. The LCS and LCS duplicate associated with the re-extraction of sample fraction 01 yielded percent recoveries for 2,4,6-trinitrotoluene, HMX, and tetryl that were below the advisory limit.

Matrix Spikes: An MS/MSD were not associated with this sample delivery group.

SAMPLES

Surrogates: Sample fraction 01 yielded a percent recovery for the surrogate that was below the advisory limit. This sample was re-extracted within holding time and met all acceptance criteria.
Samples: All acceptance criteria were met.

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Analyst: RDC REVIEWED: [signature] DATE: 3-28-03

Rev. 7/14/00

REPORT NARRATIVE
METALS

KEMRON Login No: L0303352

METHOD

Analysis: SW-846 6010/6020/7000

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.

SAMPLES

All acceptance criteria were met.

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Analyst: JYH/SLP REVIEWED: Kathy Albertson DATE: 03/26/03

Rev. 6/00

REPORT NARRATIVE
GENERAL CHEMISTRY

KEMRON Login No: L0303352

METHOD

Analysis: See report for method reference.

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met
Duplicates: All acceptance criteria were met
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Hexane Extractable Material

The sample was received in a non-compatible container. The sample was transferred to another container and analyzed. The result could be biased low.

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Analyst: dih REVIEWED: _____ DATE: 3/26/03

Rev. 6/00

Error Report Summary

- Navy RAC

Error Level	Process Name	Process Description	Number
WARNING	zaqrya_EDD4_Units_F	Units is not like 'L' and <>'PERCENT' or <> '%' where Matrix is like 'W'.	1

Error Report Detail

- Navy RAC

Process	Message	Resolution
-		
	-- Post-import QC Query began at: 4/2/2003 15:48	
	Key: SDG [L0303352]	
	-- Post-import QC Query ended at: 4/2/2003 15:48	
	Key:	
zaqrya_EDD4_Units_F		
	WARNING: Units [UNITS] may be incorrect for the result of a water sample with Matrix [WATER].	
	Key: RecNum [12]: FieldID [177511-DW-031703], AnMth [SW9040], ExMth [NONE], LchMth [NONE], PrmID [CORRTY]	

L0303352

03/25/03 13:51

Submitted By

Kemron Environmental Services
109 Starlite Park
Marietta, Ohio 45750
(740)373-4071

For

Account Name: CH2MHill Constructors, Inc. (CCI)
CH2M HILL Constructors, Inc.
115 Perimeter Center Place NE Suite 700
Atlanta, GA 30346
Attention: Melissa Aycock

Account Number: 207-SC-728
Work ID: 177511/RACIV COT-05
Invoice Number:
P.O. Number:

Sample Summary

Client ID	Lab ID	Date Collected	Date Recieved
177511-DW-031703	L0303352-01	17-MAR-03	18-MAR-03

Report Number:L0303352

Report Date :March 25, 2003

Sample Number:L0303352-01
Client ID:177511-DW-031703
Matrix:Water
Workgroup Number:WG136527
Collect Date:17-MAR-03

Prep Method:1010
Analytical Method:1010
Analyst:JWR
Dilution:1
Units:Degrees C

Instrument:PRECISION
Prep Date:03/18/2003 17:00
Cal Date:
Run Date:03/18/2003 17:00
File ID:

Analyte	CAS. Number	Result	Qual	RL	MDL
Ignitability		95.0	>		

> Greater than

Sample Number:L0303352-01
Client ID:177511-DW-031703
Matrix:Water
Workgroup Number:WG136612
Collect Date:17-MAR-03

Prep Method:1664A
Analytical Method:1664A
Analyst:DLP
Dilution:1
Units:mg/L

Instrument:HORIZON
Prep Date:03/19/2003 08:30
Cal Date:
Run Date:03/19/2003 08:30
File ID:ON.0303190830-05

Analyte	CAS. Number	Result	Qual	RL	MDL
n-Hexane Extractable Material (HEM)			U	6.85	3.42

U This analyte was not detected in the sample.

Sample Number:L0303352-01
Client ID:177511-DW-031703
Matrix:Water
Workgroup Number:WG136804
Collect Date:17-MAR-03

Prep Method:9010B
Analytical Method:9010B
Analyst:JWR
Dilution:1
Units:mg/L

Instrument:UV-120-02
Prep Date:03/20/2003 09:30
Cal Date:18/02/2003 08:30
Run Date:03/20/2003 09:30
File ID:02.0303200930-09

Analyte	CAS. Number	Result	Qual	RL	MDL
Cyanide	57-12-5		U	0.0100	0.00500

U This analyte was not detected in the sample.

Sample Number:L0303352-01
Client ID:177511-DW-031703
Matrix:Water
Workgroup Number:WG136723
Collect Date:17-MAR-03
Sample Tag:01

Prep Method:3005A
Analytical Method:6010B
Analyst:SLP
Dilution:1
Units:mg/L

Instrument:PE-ICP
Prep Date:03/19/2003 08:20
Cal Date:20/03/2003 10:35
Run Date:03/20/2003 12:08
File ID:PE.032003.120831

Analyte	CAS. Number	Result	Qual	RL	MDL
Aluminum, Total	7429-90-5	15.8		0.100	0.0500
Silver, Total	7440-22-4		U	0.0100	0.00500
Arsenic, Total	7440-38-2	0.0155		0.00400	0.00200
Barium, Total	7440-39-3	0.571		0.0100	0.00250
Beryllium, Total	7440-41-7	0.00108	J	0.0100	0.000250
Calcium, Total	7440-70-2	141		0.200	0.100
Cadmium, Total	7440-43-9	0.00256	J	0.0100	0.00250
Cobalt, Total	7440-48-4	0.00650	J	0.0200	0.00250
Chromium, Total	7440-47-3	0.0612		0.0200	0.00250
Copper, Total	7440-50-8	0.415		0.0200	0.00500

Report Number: L0303352

Report Date : March 25, 2003

Sample Number: L0303352-01
Client ID: 177511-DW-031703
Matrix: Water
Workgroup Number: WG136757
Collect Date: 17-MAR-03
Sample Tag: DL01

Prep Method: 3015
Analytical Method: 6020A
Analyst: JYH
Dilution: 2
Units: mg/L

Instrument: ELAN-ICP
Prep Date: 03/19/2003 10:50
Cal Date: 20/03/2003 11:17
Run Date: 03/20/2003 12:32
File ID: EL.032003.123213

Analyte	CAS. Number	Result	Qual	RL	MDL
Antimony, Total	7440-36-0	0.0495		0.00100	0.000500
Selenium, Total	7782-49-2	0.00708		0.00100	0.000500
Thallium, Total	7440-28-0	0.000505		0.000200	0.000100

Sample Number: L0303352-01
Client ID: 177511-DW-031703
Matrix: Water
Workgroup Number: WG136782
Collect Date: 17-MAR-03
Sample Tag: 01

Prep Method: METHOD
Analytical Method: 7470A
Analyst: KHR
Dilution: 1
Units: mg/L

Instrument: PS202
Prep Date: 03/20/2003 11:30
Cal Date: 21/03/2003 15:55
Run Date: 03/21/2003 16:26
File ID: PS.032103.162625

Analyte	CAS. Number	Result	Qual	RL	MDL
Mercury, Total	7439-97-6	0.000991		0.000200	0.0000520

Sample Number: L0303352-01
Client ID: 177511-DW-031703
Matrix: Water
Workgroup Number: WG136668
Collect Date: 17-MAR-03
Sample Tag: 01

Prep Method: 3510C
Analytical Method: 8081A
Analyst: ECL
Dilution: 1
Units: ug/L

Instrument: HP9
Prep Date: 03/18/2003 13:40
Cal Date: 07/02/2003 16:48
Run Date: 03/19/2003 15:33
File ID: 9G22655.R

Analyte	CAS. Number	Result	Qual	RL	MDL
4,4'-DDD	72-54-8		U	0.100	0.0250
4,4'-DDE	72-55-9		U	0.100	0.0250
4,4'-DDT	50-29-3		U	0.100	0.0250
Aldrin	309-00-2		U	0.0500	0.0100
alpha-BHC	319-84-6		U	0.0500	0.0100
beta-BHC	319-85-7		U	0.0500	0.0100
delta-BHC	319-86-8		U	0.0500	0.0100
Dieldrin	60-57-1		U	0.100	0.0250
Endosulfan I	959-98-8		U	0.0500	0.0100
Endosulfan II	33213-65-9		U	0.100	0.0250
Endosulfan sulfate	1031-07-8		U	0.100	0.0250
Endrin	72-20-8		U	0.100	0.0250
Endrin aldehyde	7421-93-4		U	0.100	0.0250
gamma-BHC (Lindane)	58-89-9		U	0.0500	0.0100
Heptachlor	76-44-8		U	0.0500	0.0100
Heptachlor epoxide	1024-57-3		U	0.0500	0.0100
Methoxychlor	72-43-5		U	0.500	0.0250
Endrin ketone	53494-70-5		U	0.100	0.0250
alpha Chlordane	5103-71-9		U	0.0500	0.0100
gamma Chlordane	5103-74-2		U	0.0500	0.0100
Toxaphene	8001-35-2		U	1.00	0.500

Surrogate	% Recovery	Q	Lower	Upper	Qual
2,4,5,6-Tetrachloro-m-xylene	52.4		20	180	
Decachlorobiphenyl	76.4		25	140	

U This analyte was not detected in the sample.

Report Number: L0303352
Report Date : March 25, 2003

Sample Number: L0303352-01
Client ID: 177511-DW-031703
Matrix: Water
Workgroup Number: WG136547
Collect Date: 17-MAR-03
Sample Tag: 01

Prep Method: 3510C
Analytical Method: 8082
Analyst: ECL
Dilution: 1
Units: ug/L

Instrument: HP4
Prep Date: 03/18/2003 13:40
Cal Date:
Run Date: 03/19/2003 13:15
File ID: 4GF17204

Analyte	CAS. Number	Result	Qual	RL	MDL
Aroclor-1016	12674-11-2		U	0.575	0.287
Aroclor-1221	11104-28-2		U	0.575	0.287
Aroclor-1232	11141-16-5		U	0.575	0.287
Aroclor-1242	53469-21-9		U	0.575	0.287
Aroclor-1248	12672-29-6		U	0.575	0.287
Aroclor-1254	11097-69-1		U	0.575	0.287
Aroclor-1260	11096-82-5		U	0.575	0.287

Surrogate	% Recovery	Q	Lower	Upper	Qual
2,4,5,6-Tetrachloro-m-xylene	54.8		30	132	
Decachlorobiphenyl	64.7		36	144	

U This analyte was not detected in the sample.

Sample Number: L0303352-01
Client ID: 177511-DW-031703
Matrix: Water
Workgroup Number: WG136675
Collect Date: 17-MAR-03
Sample Tag: 01

Prep Method: METHOD
Analytical Method: 8151A
Analyst: ECL
Dilution: 1
Units: ug/L

Instrument: HP1
Prep Date: 03/19/2003 07:00
Cal Date:
Run Date: 03/20/2003 13:07
File ID: 1G5680.R

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4-D	94-75-7		U	2.17	1.09
2,4-DB	94-82-6		U	2.17	1.09
2,4,5-T	93-76-5		U	0.217	0.109
2,4,5-TP (Silvex)	93-72-1		U	0.217	0.109
Dalapon	75-99-0		U	5.43	2.72
Dicamba	1918-00-9		U	0.217	0.109
Dichloroprop	120-36-5		U	2.17	1.09
Dinoseb	88-85-7		U	1.09	0.543
MCPA	94-74-6		U	272	109
MCPP	93-65-2		U	272	109
Pentachlorophenol	87-86-5		U	0.217	0.109

Surrogate	% Recovery	Q	Lower	Upper	Qual
2,4-Dichlorophenylacetic acid	69.3		20	144	

U This analyte was not detected in the sample.

Sample Number: L0303352-01
Client ID: 177511-DW-031703
Matrix: Water
Workgroup Number: WG136636
Collect Date: 17-MAR-03
Sample Tag: 01

Prep Method: 3510C
Analytical Method: 8270C
Analyst: ALT
Dilution: 10
Units: ug/L

Instrument: HPMS4
Prep Date: 03/18/2003 09:30
Cal Date: 14/03/2003 11:23
Run Date: 03/20/2003 00:10
File ID: 4M17604

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	53.2	26.6
Bis(2-Chloroethyl)ether	111-44-4		U	53.2	26.6
2-Chlorophenol	95-57-8		U	53.2	26.6
1,3-Dichlorobenzene	541-73-1		U	53.2	26.6
1,4-Dichlorobenzene	106-46-7		U	53.2	26.6
1,2-Dichlorobenzene	95-50-1		U	53.2	26.6
2-Methylphenol	95-48-7		U	53.2	26.6
Bis(2-Chloroisopropyl)ether	108-60-1		U	53.2	26.6
3-,4-Methylphenol	106-44-5		U	53.2	26.6
N-Nitroso-di-n-propylamine	621-64-7		U	53.2	26.6

Sample Number: L0303352-01
Client ID: 177511-DW-031703
Matrix: Water
Workgroup Number: WG136636
Collect Date: 17-MAR-03
Sample Tag: 01

Prep Method: 3510C
Analytical Method: 8270C
Analyst: ALT
Dilution: 10
Units: ug/L

Instrument: HPMS4
Prep Date: 03/18/2003 09:30
Cal Date: 14/03/2003 11:23
Run Date: 03/20/2003 00:10
File ID: 4M17604

Analyte	CAS. Number	Result	Qual	RL	MDL
Hexachloroethane	67-72-1		U	53.2	26.6
Nitrobenzene	98-95-3		U	53.2	26.6
Isophorone	78-59-1		U	53.2	26.6
2-Nitrophenol	88-75-5		U	53.2	26.6
2,4-Dimethylphenol	105-67-9		U	53.2	26.6
Bis(2-Chloroethoxy)Methane	111-91-1		U	53.2	26.6
2,4-Dichlorophenol	120-83-2		U	53.2	26.6
1,2,4-Trichlorobenzene	120-82-1		U	53.2	26.6
Naphthalene	91-20-3		U	53.2	26.6
4-Chloroaniline	106-47-8		U	53.2	26.6
Hexachlorobutadiene	87-68-3		U	53.2	26.6
4-Chloro-3-methylphenol	59-50-7		U	53.2	26.6
2-Methylnaphthalene	91-57-6		U	53.2	26.6
Hexachlorocyclopentadiene	77-47-4		U	53.2	26.6
2,4,6-Trichlorophenol	88-06-2		U	53.2	26.6
2,4,5-Trichlorophenol	95-95-4		U	53.2	26.6
2-Chloronaphthalene	91-58-7		U	53.2	26.6
2-Nitroaniline	88-74-4		U	266	133
Dimethylphthalate	131-11-3		U	53.2	26.6
Acenaphthylene	208-96-8		U	53.2	26.6
2,6-Dinitrotoluene	606-20-2		U	53.2	26.6
3-Nitroaniline	99-09-2		U	266	133
Acenaphthene	83-32-9		U	53.2	26.6
4-Dinitrophenol	51-28-5		U	266	133
itrophenol	100-02-7		U	266	133
benzofuran	132-64-9		U	53.2	26.6
2,4-Dinitrotoluene	121-14-2		U	53.2	26.6
Diethylphthalate	84-66-2		U	53.2	26.6
4-Chlorophenyl-phenyl ether	7005-72-3		U	53.2	26.6
Fluorene	86-73-7		U	53.2	26.6
4-Nitroaniline	100-01-6		U	266	133
4,6-Dinitro-2-methylphenol	534-52-1		U	266	133
N-Nitrosodiphenylamine	86-30-6		U	53.2	26.6
4-Bromophenyl-phenylether	101-55-3		U	53.2	26.6
Hexachlorobenzene	118-74-1		U	53.2	26.6
Pentachlorophenol	87-86-5		U	266	133
Phenanthrene	85-01-8		U	53.2	26.6
Anthracene	120-12-7		U	53.2	26.6
Carbazole	86-74-8		U	53.2	26.6
Di-N-Butylphthalate	84-74-2		U	53.2	26.6
Fluoranthene	206-44-0		U	53.2	26.6
Pyrene	129-00-0		U	53.2	26.6
Butylbenzylphthalate	85-68-7		U	53.2	26.6
3,3'-Dichlorobenzidine	91-94-1		U	106	26.6
Benzo(a)anthracene	56-55-3		U	53.2	26.6
Chrysene	218-01-9		U	53.2	26.6
bis(2-Ethylhexyl)phthalate	117-81-7		U	53.2	26.6
Di-n-octylphthalate	117-84-0	113		53.2	26.6
Benzo(b)fluoranthene	205-99-2		U	53.2	26.6
Benzo(k)fluoranthene	207-08-9		U	53.2	26.6
Benzo(a)pyrene	50-32-8		U	53.2	26.6
Indeno(1,2,3-cd)pyrene	193-39-5		U	53.2	26.6
Dibenzo(a,h)Anthracene	53-70-3		U	53.2	26.6
Benzo(g,h,i)Perylene	191-24-2		U	53.2	26.6

Surrogate	% Recovery	Q	Lower	Upper	Qual
2-Fluorophenol	32.5		21	100	
Phenol-d5	20.4		10	94	
Nitrobenzene-d5	48.4		35	114	
luorobiphenyl	60.8		43	116	

Sample Number: L0303352-01
Client ID: 177511-DW-031703
Matrix: Water
Workgroup Number: WG136636
Collect Date: 17-MAR-03
Sample Tag: 01

Prep Method: 3510C
Analytical Method: 8270C
Analyst: ALT
Dilution: 10
Units: % Recovery

Instrument: HPMS4
Prep Date: 03/18/2003 09:30
Cal Date: 14/03/2003 11:23
Run Date: 03/20/2003 00:10
File ID: 4M17604

2,4,6-Tribromophenol	56.6		10	123	
p-Terphenyl-d14	71.3		33	141	

U This analyte was not detected in the sample.

Sample Number: L0303352-01
Client ID: 177511-DW-031703
Matrix: Water
Workgroup Number: WG136741
Collect Date: 17-MAR-03
Sample Tag: 01

Prep Method: METHOD
Analytical Method: 8315A
Analyst: RDC
Dilution: 1
Units: ug/L

Instrument: HPLC3
Prep Date: 03/19/2003 11:00
Cal Date: 20/03/2003 14:43
Run Date: 03/20/2003 16:47
File ID: 3L002272.F

Analyte	CAS. Number	Result	Qual	RL	MDL
Formaldehyde	50-00-0	259		50.0	25.0

Surrogate	% Recovery	Q	Lower	Upper	Qual

Sample Number: L0303352-01
Client ID: 177511-DW-031703
Matrix: Water
Workgroup Number: WG136886
Collect Date: 17-MAR-03
Sample Tag: RE01

Prep Method: METHOD
Analytical Method: 8315A
Analyst: RDC
Dilution: 1
Units: ug/L

Instrument: HPLC3
Prep Date: 03/24/2003 11:00
Cal Date: 20/03/2003 14:43
Run Date: 03/24/2003 15:35
File ID: 3L002284.F

Analyte	CAS. Number	Result	Qual	RL	MDL
Formaldehyde	50-00-0	105		50.0	25.0

Surrogate	% Recovery	Q	Lower	Upper	Qual

Sample Number: L0303352-01
Client ID: 177511-DW-031703
Matrix: Water
Workgroup Number: WG136562
Collect Date: 17-MAR-03
Sample Tag: 01

Prep Method: 3535
Analytical Method: 8330
Analyst: RDC
Dilution: 1
Units: ug/L

Instrument: HPLC4
Prep Date: 03/19/2003 07:30
Cal Date: 18/02/2003 20:51
Run Date: 03/19/2003 16:48
File ID: 4L004513.F

Analyte	CAS. Number	Result	Qual	RL	MDL
1,3,5-Trinitrobenzene	99-35-4		U	1.04	0.260
1,3-Dinitrobenzene	99-65-0		U	1.04	0.260
2,4,6-Trinitrotoluene	118-96-7		U	1.04	0.260
2,4-Dinitrotoluene	121-14-2		U	1.04	0.260
2,6-Dinitrotoluene	606-20-2		U	1.04	0.260
2-Amino-4,6-dinitrotoluene	35572-78-2		U	1.04	0.260
2-Nitrotoluene	88-72-2		U	1.04	0.260
3-Nitrotoluene	99-08-1		U	1.04	0.260
4-Nitrotoluene	99-99-0		U	1.04	0.260
4-Amino-2,6-dinitrotoluene	19406-51-0		U	1.04	0.260

Sample Number: L0303352-01
Client ID: 177511-DW-031703
Matrix: Water
Workgroup Number: WG136562
Collect Date: 17-MAR-03
Sample Tag: 01

Prep Method: 3535
Analytical Method: 8330
Analyst: RDC
Dilution: 1
Units: ug/L

Instrument: HPLC4
Prep Date: 03/19/2003 07:30
Cal Date: 18/02/2003 20:51
Run Date: 03/19/2003 16:48
File ID: 4L004513.F

Analyte	CAS. Number	Result	Qual	RL	MDL
HMX	2691-41-0		U	1.04	0.260
Nitrobenzene	98-95-3		U	1.04	0.260
RDX	121-82-4		U	1.04	0.260
Tetryl	479-45-8		U	1.04	0.260

Surrogate	% Recovery	Q	Lower	Upper	Qual
3,4-Dinitrotoluene	31.4	*	50	150	*

U This analyte was not detected in the sample.

Sample Number: L0303352-01
Client ID: 177511-DW-031703
Matrix: Water
Workgroup Number: WG136932
Collect Date: 17-MAR-03
Sample Tag: RE01

Prep Method: 3535
Analytical Method: 8330
Analyst: RDC
Dilution: 1
Units: ug/L

Instrument: HPLC4
Prep Date: 03/24/2003 13:00
Cal Date: 18/02/2003 20:51
Run Date: 03/24/2003 20:54
File ID: 4L004529.F

Analyte	CAS. Number	Result	Qual	RL	MDL
1,3,5-Trinitrobenzene	99-35-4		U	1.43	0.357
1,3-Dinitrobenzene	99-65-0		U	1.43	0.357
2,4,6-Trinitrotoluene	118-96-7		U	1.43	0.357
2,4-Dinitrotoluene	121-14-2		U	1.43	0.357
2,6-Dinitrotoluene	606-20-2		U	1.43	0.357
2-Amino-4,6-dinitrotoluene	35572-78-2		U	1.43	0.357
2-Nitrotoluene	88-72-2		U	1.43	0.357
3-Nitrotoluene	99-08-1		U	1.43	0.357
4-Nitrotoluene	99-99-0		U	1.43	0.357
4-Amino-2,6-dinitrotoluene	19406-51-0		U	1.43	0.357
HMX	2691-41-0		U	1.43	0.357
Nitrobenzene	98-95-3		U	1.43	0.357
RDX	121-82-4		U	1.43	0.357
Tetryl	479-45-8		U	1.43	0.357

Surrogate	% Recovery	Q	Lower	Upper	Qual
3,4-Dinitrotoluene	53.7		50	150	

U This analyte was not detected in the sample.

Sample Number: L0303352-01
Client ID: 177511-DW-031703
Matrix: Water
Workgroup Number: WG136521
Collect Date: 17-MAR-03

Prep Method: 9040
Analytical Method: 9040
Analyst: TMM
Dilution: 1
Units: UNITS

Instrument: ORION-710A
Prep Date: 03/18/2003 11:00
Cal Date:
Run Date: 03/18/2003 11:00
File ID:

Analyte	CAS. Number	Result	Qual	RL	MDL
Corrosivity pH		7.95			

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0303352 Run Date: 03/20/2003 Sample ID: WG136599-02
Instrument ID: HPLC3 Run Time: 15:20 Prep Method: METHOD
File ID: 3L002265.F Analyst: RDC Method: 8315A
Workgroup (AAB#): WG136741 Matrix: Water Units: ug/L
Contract #: Cal ID: HPLC3-20-MAR-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Formaldehyde	25.0	50.0	25.0	1	U

KEMRON FORMS - Modified 02/07/2003
Version 1.3
Report generated 03/25/2003 14:02

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0303352 Run Date: 03/24/2003 Sample ID: WG136850-01
Instrument ID: HPLC3 Run Time: 14:58 Prep Method: METHOD
File ID: 3L002281.F Analyst: RDC Method: 8315A
Workgroup (AAB#): WG136886 Matrix: Water Units: ug/L
Contract #: Cal ID: HPLC3-20-MAR-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Formaldehyde	25.0	50.0	25.0	1	U

KEMRON FORMS - Modified 02/07/2003
Version 1.3
Report generated 03/25/2003 14:02

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0303352 Run Date: 03/20/2003 Sample ID: WG136599-03
Instrument ID: HPLC3 Run Time: 15:33 Prep Method: METHOD
File ID: 3L002266.F Analyst: RDC Method: 8315A
Workgroup (AAB#): WG136741 Matrix: Water Units: ug/L
Contract #: Cal ID: HPLC3-20-MAR-2003 14:43

Analytes	Expected	Found	% Rec	LCS Limits	Q
Formaldehyde	250	268	107	39 - 153	

KEMRON FORMS - Modified 01/31/2003
Version 1.3
Report generated 03/25/2003 13:52

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0303352 Run Date: 03/24/2003 Sample ID: WG136850-02
Instrument ID: HPLC3 Run Time: 15:10 Prep Method: METHOD
File ID: 3L002282.F Analyst: RDC Method: 8315A
Workgroup (AAB#): WG136886 Matrix: Water Units: ug/L
Contract #: Cal ID: HPLC3-20-MAR-2003 14:43

Analytes	Expected	Found	% Rec	LCS Limits	Q
Formaldehyde	250	264	106	39 - 153	

KEMRON FORMS - Modified 01/31/2003
Version 1.3
Report generated 03/25/2003 13:52

1.2 Attachments

Kemron Environmental Services
Analyst Listing
Tuesday, April 1 2003

AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
ARS - ANGELINA R. SCOTT
BRF - BRENT F. FOOS
BRG - BRENDA R. GREGORY
CAF - CHERYL A. FLOWERS
CAK - CHERYL A. KOELSCH
CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD
CLK - CARL L. KING
CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEVENS
CRC - CARLA R. COCHRAN
CSH - CHRIS S. HILL
DAD - DAVE A. DAULEY
DAH - DON A. HUNTER
DAS - DALLAS A. SULLIVAN
DAT - DEBBIE A. TORNES
DEL - DON E. LIGHTFRITZ
DEV - DAVID E. VANDENBERG
DGB - DOUGLAS G. BUTCHER
DIH - DEANNA I. HESSON
DLA - DENISE L. ADAMS
DLB - DAVID L. BUMGARNER
DLN - DEANNA L. NORTON
DLP - DOROTHY L. PAYNE
DLR - DIANNA L. RAUCH
DOV - DENISE O. VANDENBERG
DP - DEANNA L. PIERSON
DRB - DOUG R. BARNETT
DSM - DAVID S. MOSSOR
DST - DENNIS S. TEPE
ECL - ERIC C. LAWSON
GSG - GALEN S. GEORGE
HV - HEMA VILASAGAR
JAL - JOHN A. LENT
JEA - JOSH E. ARNOLD
JJG - JAKE J. GREUEY
JKW - JANE K. THOMPSON
JLS - JANICE L. SCHIMMEL
JMM - JARROD M. MARTIN
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
LKN - LINDA K. NEDEFF
LRR - LUCYNDA R. ROBERTS
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MDA - MICHAEL D. ALBERTSON
MDC - MICHAEL D. COCHRAN
MEF - MIKE E. FLANAGAN
MES - MARY E. SCHILLING
MKZ - MARILYN K. ZUMBRO
MLR - MARY L. ROCHOTTE
MLS - MICHAEL L. SCHIMMEL
MMB - MAREN M. BEERY
MSW - MATT S. WILSON
NJB - NATALIE J. BOOTH
OGT - OKEY G. TUCKER
RDC - REBECCA D. CUTLIP
REK - ROBERT E. KYER
RJW - RHONDA J. WITTEKIND
RWC - ROD W. CAMPBELL
SH - SHAUNA M. HYDE
SLM - STEPHANIE L. MOSSBURG
SLP - SHERI L. PFALZGRAF
TJH - TIM J. HOEFLICH
TLT - TIFFINI L. TINGLER
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER
VKL - VICKY K. LAUER

KEMRON FORMS: JUL-25-02
Printed: APR-01-03 14:35:03

KEMRON Environmental Services, Inc
List of Valid Qualifiers
August 5, 2002

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

B	Present in the method blank	NS	Not spiked
C	Confirmed by GC/MS	P	Concentration >40% difference between The two GC columns
CG	Confluent growth		
D	The analyte was quantified at a secondary dilution factor	QNS	Quantity not sufficient to perform analysis
		RA	Re analysis confirms reported results
DL	Surrogate or spike was diluted out	RE	Re analysis confirms sample matrix interference
E	Estimated concentration due to sample matrix interference	S	Analyzed by method of standard addition
		SMI	Sample matrix interference on surrogate
FL	Free liquid	SP	Reported results are for spike compounds only
I	Semi-quantitative result, out of instrument calibration range	TNTC	Too numerous to count
		U	Analyzed for but not detected
J	Present below nominal reporting limit	W	Post-digestion spike for furnace AA out o f control limits
L	Sample reporting limits elevated due to matrix interference		
N	Tentatively Identified Compound (TIC)	X	Exceeds regulatory limit
NA	Not applicable	Z	Can not be resolved from isomer.***
ND	Not detected at or above the reporting limit (RL)	+	Correlation coefficient for the MSA is less than 0.995
NF	Not found		
NFL	No free liquid	<	Less than
NI	Non-ignitable	>	Greater than
		*	Surrogate or spike compound out of range

***** Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene
3. N-nitrosodiphenylamine cannot be separated from diphenylamine
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds
5. m-Xylene and p-Xylene are unresolvable compounds
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

J	The analyte was positively identified, the quantitation is an estimation
U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL
F	The analyte was positively identified but the associated numerical value is below the RL
R	The data is unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
B	The analyte was found in an associated blank, as well as in the sample
M	The matrix effect was present
S	To be applied to all field screening data
T	Tentatively identified compound (using GC/MS)

Constructors, Inc. Fax No: (770) 604-9282

CHAIN OF CUSTODY RECORD

177511-01-031703

1 PROJECT NAME: EXCAVATION OF ADC 224 UTILITY CORRIDOR	2 PROJECT NUMBER: 177511	4 LAB NAME AND CONTACT: KEMRON	11 FAX AND MAIL REPORTS/EDD TO: RECIPIENT 1 (Name and Company) BONNIE HOGUE CH2M Hill constructors	10 RECIPIENT 1 (Address, Tel No., and Fax No.): FAX 678-579-8106 DI 7706049182 115 PERIMETER CTR. PLACE 700 ATLANTA, GA 30346
3 PROJECT PHASE/SITE/TASK: WASTE CHARACTERIZATION	6 CTO OR DO NUMBER: RAC IV CTO-05	8 LAB PO NUMBER:	13 FAX AND MAIL REPORTS/EDD TO: RECIPIENT 2 (Name and Company) MELISSA AYCOCK CH2M Hill constructors	15 RECIPIENT 2 (Address, Tel No., and Fax No.): Phone 770-604-9182 ext 614 115 Perimeter Ctr Place 700 Atlanta GA 30346
4 PROJECT CONTACT: Gwenddyn JORDAN	7 PROJECT TEL NO AND FAX NO: ~~770-313-7571~~ 770-604-9182	10 LAB TEL NO AND FAX NO: 740-373-4071 (P) 740-373-4835 (F)	13 FAX AND MAIL REPORTS/EDD TO: RECIPIENT 3 (Name and Company) GWENDOLYN JORDAN CH2M Hill constructors	16 RECIPIENT 3 (Address, Tel No., and Fax No.): EMAIL: GJORDAN1@CH2M.COM 115 PERIMETER CTR PLACE 700 ATLANTA, GA 30346

17 ITEM	18 SAMPLE IDENTIFIER	19 SAMPLE DESCRIPTION/LOCATION	20 MATRIX (see codes on SOP)	21 DATE COLLECTED	22 TIME COLLECTED	23 DATA PKG LEVEL (see codes on SOP)	24 TAT (calendar days)	25 ANALYSES REQUIRED (Include Method Numbers): TCL VOC 8260B	TCL SEMI-VOC 8270C	TCL PEST 8081A	TCL HERB 8151A	EXPLOSIVES 8330	TAL METALS 6010B/7470A	OIL/GREASE 1664	Formaldehyde 8315	cyanide 335.2	IGNITABILITY Corrosivity	26 SAMPLE TYPE (see codes on SOP)	27 COMMENTS/ SCREENING READINGS	28 LAB ID (for lab's use)
1	177511-DW-031703	Trench Water	W	3/17/03	1851	III C	72	2	2	2	1	2	1	2	2	2	1	Normal		
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

29 SAMPLER(S) AND COMPANY: (please print) CH2M Hill Gwen Jordan	30 COURIER AND SHIPPING NUMBER: 837772903365	31 SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)

32 RELINQUISHED BY	DATE	TIME	33 RECEIVED BY	DATE	TIME
Printed Name and Signature: GWENDOLYN JORDAN	3-17-03	1930	Printed Name and Signature: FEDEX	3/17/03	1900
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CC1001, Rev 06/00

CHAIN-OF-CUSTODY RECORD

PAGE 1 OF 031703

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/BILL TO:	
EXCAVATION OF ROCKDALE UTILITY CORRIDOR	177511	KEMRON	BONNIE HOGUE CH2M HILL CONSTRUCTORS	FAX 678-374-8706 DITTO 049183 115 PERIMETER CTR. PKWY 700 ATLANTA, GA 30346
PROJECT ASSISTANT:	CTO OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/BILL TO:	
WASTE CHARACTERIZATION	EAC IV CTO-05	5259	MELISSA AYCOCK CH2M HILL CONSTRUCTORS	PH 678-374-9182 EXT. 614 115 PERIMETER CTR PKWY 700 ATLANTA GA 30346
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/BILL TO:	
Gwendolyn Jordan	~~770-313-7591~~ 770-604-9182	740-373-4071 (P) 740-373-4835 (F)	GWENDOLYN JORDAN CH2M HILL CONSTRUCTORS	EMAIL: GJORDAN1@CH2M.COM 115 PERIMETER CTR PKWY 700 ATLANTA, GA 30346

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX	DATE COLLECTED	TIME COLLECTED	DATA PKG LEVEL	TAT	ANALYSES REQUIRED: TCL VOC 8260B	TCL SVOC 8270C	TCL PEST 8081A	TCL HERB 8151A	EXPLOSIVES 8330	TAL METALS (SOLID) CN/HG/CR6 (LIQUID)	OIL & GREASE 1664	FERROUS IRON 3500 Fe II B	SULFIDE 376.2	TOTAL NO. OF CONTAINERS	SAMPLE TYPE	COMMENTS/ SCREENING READINGS	LAB ID
1	177511-DW-031703	French Water	W	3/17/03	1951	III C	72	2	2	2	1	2	1	2	2	2	1	GRAB WATER		
2	TRIP BLANK		W	NA	NA	III C	72	2											revision Rdg 031803	
3	Temp Blank		W	NA	NA			TEMP												
4																				
5																				
6																				
7																				
8																				
9																				
10																			Cooler Temp 1	

Cooler Temp 1 1.9

SAMPLER(S) AND COMPANY: (please print)	COURIER AND AIRBILL NUMBER:	SAMPLE TEMPERATURES AND CONDITION UPON RECEIPT:
CH2M HILL Gwendolyn Jordan	83TT2903365	1.9 Cooler Sig w/ tech

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature: GWENDOLYN JORDAN.	3-17-03	1930	Printed Name and Signature: Brenda Gregory Brenda Gregory	3/18/03	1000
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report) [ ] Copy 1 - Project File [ ] Copy 2 - PMO

Form CERCLA, Rev 04/03

*VOAs will be resampled -JCM 3/18/03

-> KEMRON OH VALLEY LAB; Page 2

Received: 3/18/ 3 10:21AM;

KEMRON Internal Laboratory Chain of Custody

Work Order: L0303352 Client: CH2M # of Samples: 01 Due Date: 3/21 Page: ____

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
01A	Post/RCB	EXT	[illegible] 3/18/03 @ 1205	Log-in	SHB	SMH	3-18-03 DCL 1930	crusher	CEB	Disposal
01A	8270	EXT	[illegible] 3/18/03 @ 1210	walkin	SHB	Brg	⊥ ⊥	⊥ ⊥	CEB	⊥ ⊥
01A	8315A	Ext.	RDC 3/18/03 @ 1400	WALKIN	SV	SMH				
01A	8151	EXT	[illegible] 3/19/03 @ 0700	walkin	SHB	CEB	3-20-03 DCL 0715	crusher	[illegible]	disposal
01A	8330	EXT	CEB 3/19/03 @ 0659	WALKIN	EAB	TLT	⊥ ⊥	⊥ ⊥	[illegible]	⊥ ⊥
01	met	dig	TLT 3/19/03 @ 7:00	walkin	met	[illegible]	TLT 3/21/03 @ 17:00	archive	JKT	archive
01A	Hem	Anal	DLP 03-19-03	Walk-In	wet	SMH	DLP 03-21-03	Crusher	SMH	Crusher
01	CN	Analysis	JWR 03/19/1610	WalkIn	WetLab	Brg	JWR 03/24/1115	Archive	SMH	Arch
*01B	8330	REEXT	CEB 3/24/03 @ 1203	WALKIN	ELAB	[illegible]	03-25-03 DCL 0715	crusher	[illegible]	disposal
* 01A						Brg			Brg	
					Report Sent	UR 4/2				

* USED B Bottle from Post/RCB CEB 13/24/03

* SX released to lab prior to logging. SX signed out/in at a later date [illegible] 5/24/03

CLIENT: CH2MHILL BRG Other SMH	DATE: 3-18-03 1000	SHIPPED BY: (X) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL-1314	COOLER ID:	COOLER ID:
INDEX #: 837772903365	INDEX #:	INDEX #:
SEALED (X) YES ( ) NO	SEALED ( ) YES ( ) NO	SEALED ( ) YES ( ) NO
CUSTODY (X) YES ( ) NO	CUSTODY ( ) YES ( ) NO	CUSTODY ( ) YES ( ) NO
TEMP: (D) (E) 1 °C	TEMP: (D) (E) °C	TEMP: (D) (E) °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (X) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO
WET ICE (X) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )
ICE FROZEN (X) MELTED ( )	ICE FROZEN ( ) MELTED ( )	ICE FROZEN ( ) MELTED ( )
RADIATION CHECKED (X) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO
SAMPLE INTACT (X) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO
SALVAGEBLE ( ) YES ( ) NO	SALVAGEBLE ( ) YES ( ) NO	SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (X) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )
LABELS: INTACT (X) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO
LEGIBLE (X) YES ( ) NO	LEGIBLE ( ) YES ( ) NO	LEGIBLE ( ) YES ( ) NO
MATCH COC (X) YES ( ) NO	MATCH COC ( ) YES ( ) NO	MATCH COC ( ) YES ( ) NO
pH IN RANGE (2 - >9 - >12) ( ) YES (X) NO AS APPROPRIATE	pH IN RANGE (2 - >9 - >12) ( ) YES ( ) NO AS APPROPRIATE	pH IN RANGE (2 - >9 - >12) ( ) YES ( ) NO AS APPROPRIATE
SAMPLES FROZEN? ( ) YES (X) NO	SAMPLES FROZEN? ( ) YES ( ) NO	SAMPLES FROZEN? ( ) YES ( ) NO
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS

TSR COMMENTS

CONTACT:	DATE:	TIME:

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

Revised 05/29/02

CRF#4

Sample Receipt Form #2

Client: CH2M Project: _____
Date Received: 3/18/03

_____ Cooler temperature > than 6 degrees Celcius
Reason _____

_____ Samples received not on chain of custody

_____ Samples on chain of custody not received

_____ Information on sample containers different from chain of custody

_____ Sample containers received broken, leaking or not sealed (List sample ID)

✓ pH out (List sample ID, which container, pH prior to adjusting, amount of acid, preservative)
(1) OG Container pH 6 ~ added (1) ml H2SO4 ~ PH 2
(1) OG Container pH 4 ~ " "

_____ Insufficient sample volume

✓ Air bubbles present in Voa vials (List sample ID)
Vials only filled about 3/4 full

Cancel

_____ Hold time expired (List sample ID)

TSR:
Was client notified regarding information: YES NO
Name of person contacted: _____ Company: _____
TSR: _____ Date: _____

CRF #1

COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers 1

PROJECT: 177511/RACIV CTO-05 LIMS# L0303352

USE OTHER SIDE OF THIS FORM TO NOTE DETAILS CONERNING CHECK-IN PROBLEMS

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 3/18/03 C-of-C Number: 177511-01-03103
by (print) SHAUNA HYDE (sign) Shauna Hyde

1. Did cooler come with a shipping slip (air bill, etc.)? ..... (YES) NO
If YES, enter carrier name & air bill number here: fedex - 837772903365
2. Were custody seals on outside of cooler? ..... (YES) NO
How many & where? 1 front, seal date: 3/17/03 seal name: custody
3. Were custody seals unbroken and intact at the data and time of arrival? ..... (YES) NO
4. Did you screen samples for radioactivity using the Geiger Counter? ..... (YES) NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid? ..... YES (NO)
6. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO
7. Did you sign custody papers in the appropriate place? ..... (YES) NO
8. Was project identifiable from custody papers? If yes, enter project name at the top of this form ..... (YES) NO
9. If required, was enough ice used? ..... Type of ice: Wet Temp 1 °C ..... (YES) NO
10. Have designated person initial here to acknowledge receipt of cooler: SMH (date) 3/18/03

B. **LOG-IN PHASE:** Date samples were logged-in: 3-18-03
by (print) Brenda Oregory (sign) Brenda Oregory

11. Describe type of packing in cooler: dividers ; bubble wrap
12. Were all bottles sealed in separate plastic bags? ..... YES (NO)
13. Did all bottles arrive unbroken & were labels in good condition? ..... (YES) NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? ..... (YES) NO
15. Did all bottle labels agree with custody papers? ..... (YES) NO
16. Were correct containers used for the tests indicated? ..... (YES) NO
17. Were correct preservatives added to samples? ..... * (YES) NO
18. Was a sufficient amount of sample sent for tests indicated? ..... (YES) NO
19. Were bubbles absent in volatile samples? If NO, list by Sample # Trench Water YES (NO)
20. Was the project manager called and status discussed? If YES, give details on the back of this form ..... YES NO
21. Who was called? _____ By whom? _____ (date) _____

2.0 Full Sample Data Package

2.2 Semivolatiles

2.2.1 Semivolatiles GC MS Data (8270)

REPORT NARRATIVE
GC/MS SEMIVOLATILE ORGANICS

KEMRON Report No.: L0303352

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8270C

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied or if the mean % RSD for all analytes was less than 15%, the average response factors were used. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS associated with the sample extraction yielded % recoveries for 3-nitroaniline and indeno(1,2,3-cd)pyrene that were above the upper advisory limit. Neither of these compounds were found in the related sample. All other acceptance criteria were met.
Matrix Spikes: The MS/MSD were not associated with these samples.

SAMPLES

Internal Standards: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ALT REVIEWED: _____ DATE: 3/24/07

Rev. 6/00

GC/MS DATA – 8270

Login Number L0303362

A. QC Summary

- ✓ Method Blank Summary
- ✓ Method Blank Results
- ✓ Laboratory Control Sample (LCS)
- ___ Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ✓ Holding Time Summary
- ✓ Surrogate Recovery Summary
- ✓ Instrument Tune Summary
- ✓ Initial Calibration Summary
- ✓ Initial Calibration Verification (ICV) Form (Second Source)
- ✓ Continuing Calibration Verification (CCV)
- ✓ Internal Standard Area Summary
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet

B. Sample Data

- ___ Target compound and surrogate results summary (See Summary Report)
- ___ Tentatively Identified Compounds (TIC) (if requested – See Summary Report)
- ✓ Chromatograms (RIC) and quantitation report
- ✓ Raw and background corrected mass spectra of identified target compounds
- ___ Mass spectra for all reported TICs with three best matches

C. Standards Data

- ✓ Initial calibration (ICAL) summary form
- ✓ Chromatograms and quantitation report for ICAL standards
- ✓ Initial calibration verification (ICV/second source) summary forms
- ✓ Initial calibration verification (ICV/second source) quantitation reports and chromatograms
- ✓ Continuing Calibration Verification (CCV) summary forms
- ✓ Continuing Calibration Verification (CCV) quantitation reports and chromatograms

D. Raw QC Data

- ✓ GC/MS instrument performance check DFTPP
- ✓ Method blank chromatogram and quantitation report
- ✓ LCS chromatogram and quantitation report
- ___ MS/MSD chromatogram and quantitation report
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet
- ✓ Daily Checklist
- ✓ Example Calculations

Checked By: AHJ Date: 3/24/03

2.2.1.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0303352
Blank File ID: 4M17591
Date Analyzed: 03/19/03
Time Analyzed: 16:33
Analyst: ALT

Work Group: WG136636
Blank Sample ID: WG136463-02
Instrument ID: HPMS4
Method: 8270C

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG136463-03	4M17592	03/19/03 17:07	01
LCS2	WG136463-04	4M17593	03/19/03 17:41	01
177511-DW-031703	L0303352-01	4M17604	03/20/03 00:10	01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0303352 Run Date: 03/19/2003 Sample ID: WG136463-02
Instrument ID: HPMS4 Run Time: 16:33 Prep Method: 3510C
File ID: 4M17591 Analyst: ALT Method: 8270C
Workgroup (AAB#): WG136636 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS4-14-MAR-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Phenol	2.50	5.00	2.50	1	U
Bis(2-Chloroethyl)ether	2.50	5.00	2.50	1	U
2-Chlorophenol	2.50	5.00	2.50	1	U
1,3-Dichlorobenzene	2.50	5.00	2.50	1	U
1,4-Dichlorobenzene	2.50	5.00	2.50	1	U
1,2-Dichlorobenzene	2.50	5.00	2.50	1	U
2-Methylphenol	2.50	5.00	2.50	1	U
bis(2-Chloroisopropyl)ether	2.50	5.00	2.50	1	U
3-,4-Methylphenol	2.50	5.00	2.50	1	U
N-Nitroso-di-n-propylamine	2.50	5.00	2.50	1	U
Hexachloroethane	2.50	5.00	2.50	1	U
Nitrobenzene	2.50	5.00	2.50	1	U
Isophorone	2.50	5.00	2.50	1	U
2-Nitrophenol	2.50	5.00	2.50	1	U
2,4-Dimethylphenol	2.50	5.00	2.50	1	U
Bis(2-Chloroethoxy)Methane	2.50	5.00	2.50	1	U
2,4-Dichlorophenol	2.50	5.00	2.50	1	U
1,2,4-Trichlorobenzene	2.50	5.00	2.50	1	U
Naphthalene	2.50	5.00	2.50	1	U
4-Chloroaniline	2.50	5.00	2.50	1	U
Hexachlorobutadiene	2.50	5.00	2.50	1	U
4-Chloro-3-methylphenol	2.50	5.00	2.50	1	U
2-Methylnaphthalene	2.50	5.00	2.50	1	U
Hexachlorocyclopentadiene	2.50	5.00	2.50	1	U
2,4,6-Trichlorophenol	2.50	5.00	2.50	1	U
2,4,5-Trichlorophenol	2.50	5.00	2.50	1	U
2-Chloronaphthalene	2.50	5.00	2.50	1	U
2-Nitroaniline	12.5	25.0	12.5	1	U
Dimethylphthalate	2.50	5.00	2.50	1	U
Acenaphthylene	2.50	5.00	2.50	1	U
2,6-Dinitrotoluene	2.50	5.00	2.50	1	U
3-Nitroaniline	12.5	25.0	12.5	1	U
Acenaphthene	2.50	5.00	2.50	1	U
2,4-Dinitrophenol	12.5	25.0	12.5	1	U
4-Nitrophenol	12.5	25.0	12.5	1	U
Dibenzofuran	2.50	5.00	2.50	1	U
2,4-Dinitrotoluene	2.50	5.00	2.50	1	U
Diethylphthalate	2.50	5.00	2.50	1	U
Fluorene	2.50	5.00	2.50	1	U
4-Chlorophenyl-phenyl ether	2.50	5.00	2.50	1	U
4-Nitroaniline	12.5	25.0	12.5	1	U
4,6-Dinitro-2-methylphenol	12.5	25.0	12.5	1	U

KEMRON FORMS - Modified 02/07/2003
Version 1.3
Report generated 03/24/2003 09:40

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number:L0303352 Run Date:03/19/2003 Sample ID:WG136463-02
Instrument ID:HPMS4 Run Time:16:33 Prep Method:3510C
File ID:4M17591 Analyst:ALT Method:8270C
Workgroup (AAB#):WG136636 Matrix:Water Units:ug/L
Contract #: Cal ID: HPMS4-14-MAR-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
N-Nitrosodiphenylamine	2.50	5.00	2.50	1	U
4-Bromophenyl-phenylether	2.50	5.00	2.50	1	U
Hexachlorobenzene	2.50	5.00	2.50	1	U
Pentachlorophenol	12.5	25.0	12.5	1	U
Phenanthrene	2.50	5.00	2.50	1	U
Anthracene	2.50	5.00	2.50	1	U
Carbazole	2.50	5.00	2.50	1	U
Di-N-Butylphthalate	2.50	5.00	2.50	1	U
Fluoranthene	2.50	5.00	2.50	1	U
Pyrene	2.50	5.00	2.50	1	U
Butylbenzylphthalate	2.50	5.00	2.50	1	U
Benzo(a)anthracene	2.50	5.00	2.50	1	U
3,3'-Dichlorobenzidine	2.50	10.0	2.50	1	U
Chrysene	2.50	5.00	2.50	1	U
bis(2-Ethylhexyl)phthalate	2.50	5.00	2.50	1	U
Di-n-octylphthalate	2.50	5.00	2.50	1	U
Benzo(b)fluoranthene	2.50	5.00	2.50	1	U
Benzo(k)fluoranthene	2.50	5.00	2.50	1	U
Benzo(a)pyrene	2.50	5.00	2.50	1	U
Indeno(1,2,3-cd)pyrene	2.50	5.00	2.50	1	U
Dibenzo(a,h)Anthracene	2.50	5.00	2.50	1	U
Benzo(g,h,i)Perylene	2.50	5.00	2.50	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
2-Fluorophenol	33.7	21	-	100	PASS
Phenol-d5	20.2	10	-	94	PASS
Nitrobenzene-d5	56.8	35	-	114	PASS
2-Fluorobiphenyl	60.2	43	-	116	PASS
2,4,6-Tribromophenol	75.3	10	-	123	PASS
p-Terphenyl-d14	114	33	-	141	PASS

* Analyte detected above RDL
ND Analyte Not detected at or above reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum: L0303352 Worknum: WG136636 Method: 8270C
Instrument ID: HPMS4 Cal ID: HPMS4-14-MAR-2003 11:23 Matrix: Water
Analyst: ALT Contract #: Units: ug/L
Sample ID: WG136463-03 LCS File ID: 4M17592 Run Date: 03/19/2003 17:07
Sample ID: WG136463-04 LCS2 File ID: 4M17593 Run Date: 03/19/2003 17:41

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
Phenol	50.0	10.6	21.3	50.0	11.6	23.3	8.9	10 - 84	21	
Bis(2-Chloroethyl)ether	50.0	29.3	58.5	50.0	32.6	65.2	10.7	30 - 77	45	
2-Chlorophenol	50.0	26.6	53.2	50.0	29.5	59.1	10.4	15 - 78	51	
1,3-Dichlorobenzene	50.0	25.9	51.8	50.0	29.1	58.2	11.7	24 - 62	40	
1,4-Dichlorobenzene	50.0	26.1	52.2	50.0	29.0	58.1	10.6	24 - 62	37	
1,2-Dichlorobenzene	50.0	28.4	56.9	50.0	32.0	64.0	11.9	25 - 66	39	
2-Methylphenol	50.0	27.6	55.1	50.0	30.2	60.4	9.08	15 - 86	50	
bis(2-Chloroisopropyl)ether	50.0	30.9	61.7	50.0	33.8	67.7	9.2	24 - 80	44	
3-,4-Methylphenol	50.0	23.5	46.9	50.0	26.1	52.3	10.7	10 - 90	35	
N-Nitroso-di-n-propylamine	50.0	32.7	65.5	50.0	35.7	71.3	8.55	34 - 86	51	
Hexachloroethane	50.0	25.3	50.6	50.0	28.4	56.8	11.5	21 - 90	47	
Nitrobenzene	50.0	28.5	57.0	50.0	31.5	63.0	9.97	20 - 78	45	
Isophorone	50.0	35.4	70.8	50.0	38.8	77.5	9.01	20 - 99	71	
2-Nitrophenol	50.0	23.1	46.1	50.0	25.4	50.8	9.7	19 - 86	55	
2,4-Dimethylphenol	50.0	31.3	62.7	50.0	34.5	68.9	9.47	20 - 93	58	
Bis(2-Chloroethoxy)Methane	50.0	27.9	55.7	50.0	30.6	61.2	9.38	30 - 79	55	
2,4-Dichlorophenol	50.0	30.8	61.7	50.0	33.6	67.1	8.45	15 - 90	59	
1,2,4-Trichlorobenzene	50.0	27.5	55.0	50.0	30.4	60.8	10	26 - 72	42	
Naphthalene	50.0	29.4	58.9	50.0	32.7	65.4	10.5	25 - 76	45	
4-Chloroaniline	50.0	41.0	81.9	50.0	45.6	91.2	10.7	20 - 85	70	*
Hexachlorobutadiene	50.0	31.5	63.1	50.0	35.8	71.6	12.6	27 - 76	59	
4-Chloro-3-methylphenol	50.0	33.5	66.9	50.0	37.7	75.3	11.8	20 - 113	66	
2-Methylnaphthalene	50.0	28.9	57.8	50.0	31.9	63.8	9.96	27 - 77	49	
Hexachlorocyclopentadiene	50.0	28.8	57.6	50.0	31.6	63.3	9.46	10 - 78	47	
2,4,6-Trichlorophenol	50.0	32.5	64.9	50.0	35.5	70.9	8.87	20 - 103	60	
2,4,5-Trichlorophenol	50.0	34.8	69.6	50.0	38.7	77.4	10.7	20 - 116	62	
2-Chloronaphthalene	50.0	30.4	60.9	50.0	33.2	66.5	8.81	34 - 95	48	
2-Nitroaniline	50.0	34.5	69.0	50.0	40.1	80.2	14.9	21 - 101	52	
Dimethylphthalate	50.0	37.9	75.8	50.0	43.7	87.3	14.1	27 - 107	57	
Acenaphthylene	50.0	33.5	67.0	50.0	36.9	73.8	9.61	31 - 96	55	
2,6-Dinitrotoluene	50.0	35.4	70.8	50.0	41.0	82.0	14.6	28 - 112	56	
3-Nitroaniline	50.0	62.9	126	50.0	73.0	146	14.9	10 - 121	115	*
Acenaphthene	50.0	33.6	67.1	50.0	37.1	74.1	9.88	30 - 92	51	
2,4-Dinitrophenol	50.0	20.6	41.2	50.0	24.0	48.0	15.3	20 - 118	67	
4-Nitrophenol	50.0	20.7	41.4	50.0	23.1	46.2	10.8	10 - 139	29	
Dibenzofuran	50.0	32.1	64.2	50.0	35.7	71.4	10.6	33 - 94	54	
2,4-Dinitrotoluene	50.0	43.4	86.9	50.0	50.2	100	14.5	36 - 126	56	
Diethylphthalate	50.0	44.7	89.5	50.0	51.1	102	13.3	35 - 125	59	
Fluorene	50.0	36.3	72.6	50.0	41.1	82.3	12.4	40 - 104	59	
4-Chlorophenyl-phenyl ether	50.0	33.7	67.3	50.0	39.0	77.9	14.6	38 - 101	55	

KEMRON FORMS - Modified 10/29/2002
Version 1.2
Report generated 03/24/2003 09:40

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum:L0303352 Worknum:WG136636 Method:8270C
Instrument ID:HPMS4 Cal ID: HPMS4 14-MAR-2003 11:23 Matrix:Water
Analyst:ALT Contract #: Units:ug/L
Sample ID:WG136463-03 LCS File ID:4M17592 Run Date:03/19/2003 17:07
Sample ID:WG136463-04 LCS2 File ID:4M17593 Run Date:03/19/2003 17:41

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
4-Nitroaniline	50.0	52.4	105	50.0	58.5	117	11	40 - 136	95	
4,6-Dinitro-2-methylphenol	50.0	39.8	79.6	50.0	46.8	93.6	16.2	30 - 125	70	
N-Nitrosodiphenylamine	50.0	43.0	86.0	50.0	48.3	96.7	11.7	43 - 122	57	
4-Bromophenyl-phenylether	50.0	33.0	66.0	50.0	37.9	75.8	13.8	42 - 101	48	
Hexachlorobenzene	50.0	43.7	87.4	50.0	50.8	102	15	50 - 121	55	
Pentachlorophenol	50.0	36.2	72.5	50.0	40.3	80.6	10.6	30 - 124	60	
Phenanthrene	50.0	45.9	91.8	50.0	51.7	103	11.9	58 - 120	59	
Anthracene	50.0	45.5	91.0	50.0	51.2	102	11.8	59 - 118	65	
Carbazole	50.0	60.5	121	50.0	66.7	133	9.8	51 - 136	109	
Di-N-Butylphthalate	50.0	54.1	108	50.0	59.9	120	10.2	65 - 133	61	
Fluoranthene	50.0	54.6	109	50.0	59.8	120	9.08	63 - 128	68	
Pyrene	50.0	43.2	86.4	50.0	47.6	95.2	9.64	54 - 130	53	
Butylbenzylphthalate	50.0	53.4	107	50.0	58.3	117	8.7	51 - 147	62	
Benzo(a)anthracene	50.0	49.0	97.9	50.0	53.7	107	9.22	54 - 124	55	
3'-Dichlorobenzidine	50.0	62.0	124	50.0	68.6	137	10.2	15 - 142	119	
Chrysene	50.0	49.8	99.6	50.0	54.8	110	9.59	55 - 124	55	
bis(2-Ethylhexyl)phthalate	50.0	50.5	101	50.0	56.4	113	10.9	54 - 140	57	
Di-n-octylphthalate	50.0	53.8	108	50.0	58.5	117	8.4	66 - 138	64	
Benzo(b)fluoranthene	50.0	53.2	106	50.0	55.8	112	4.78	63 - 123	60	
Benzo(k)fluoranthene	50.0	58.8	118	50.0	66.0	132	11.6	62 - 124	60	*
Benzo(a)pyrene	50.0	54.2	108	50.0	59.1	118	8.59	63 - 124	62	
Indeno(1,2,3-cd)pyrene	50.0	61.9	124	50.0	67.4	135	8.47	58 - 123	83	*
Dibenzo(a,h)Anthracene	50.0	61.8	124	50.0	66.9	134	8.02	55 - 130	86	*
Benzo(g,h,i)Perylene	50.0	58.8	118	50.0	63.5	127	7.67	59 - 124	88	*

Surogates	LCS % Recovery	LCS2 % Recovery	Surrogate Limits	Qualifier
2-Fluorophenol	34.1	38.2	21 - 100	PASS
Phenol-d5	21.9	23.9	10 - 94	PASS
Nitrobenzene-d5	59.3	66.6	35 - 114	PASS
2-Fluorobiphenyl	65.9	70.9	43 - 116	PASS
2,4,6-Tribromophenol	99.3	111	10 - 123	PASS
p-Terphenyl-d14	101	109	33 - 141	PASS

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method:8270C AAB#:WG136636

Login Number:L0303352

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
177511-DW-031703	03/17/03	03/18/03	03/18/03	7	0.610	03/20/03	40	1.61	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON FORMS - Modified 12/06/2002
Version 1.2
Report generated 03/24/2003 09:39

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0303352
Instrument Id: HPMS4
Workgroup (AAB#): WG136636

Method: 8270
CAL ID: HPMS4-14-MAR-03
Matrix: WATER

Sample Number	Dilution	Tag	1	2	3	4	5	6
L0303352-01	10.0	01	56.6	60.8	32.5	48.4	71.3	20.4
WG136463-02	1.00	01	75.3	60.2	33.7	56.8	114	20.2
WG136463-03	1.00	01	99.3	65.9	34.1	59.3	101	21.9
WG136463-04	1.00	01	111	70.9	38.2	66.6	109	23.9

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	10	-	123
2 - 2-Fluorobiphenyl	43	-	116
3 - 2-Fluorophenol	21	-	100
4 - Nitrobenzene-d5	35	-	114
5 - p-Terphenyl-d14	33	-	141
6 - Phenol-d5	10	-	94

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

KEMRON ENVIRONMENTAL SERVICES
ORGANIC INSTRUMENT CHECK
DFTPP

Login Number: L0303352
Instrument: HPMS4
Analyst: MDC
Workgroup: WG136152

Tune ID: WG136152-01
Run Date: 03/14/2003
Run Time: 07:37
File ID: 4M17502
Cal ID: HPMS4-14-MAR-03

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	47.8	89165	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	43.5	80976	PASS
70.0	69.0	0	2.00	0.706	572	PASS
127	198	40.0	60.0	54.2	100973	PASS
197	198	0	1.00	0.219	409	PASS
198	198	100	100	100	186347	PASS
199	198	5.00	9.00	6.63	12364	PASS
275	198	10.0	30.0	23.3	43427	PASS
365	198	1.00	100	2.77	5156	PASS
441	443	0.0100	100	79.5	23421	PASS
442	198	40.0	100	81.8	152424	PASS
443	442	17.0	23.0	19.3	29459	PASS

This check relates to the following samples, MS, MSD:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG136152-02	CCV	01	03/14/2003 07:56	
WG136152-03	STD	01	03/14/2003 08:30	
WG136152-04	STD	01	03/14/2003 09:04	
WG136152-05	STD	01	03/14/2003 09:38	
WG136152-06	STD	01	03/14/2003 10:13	
WG136152-07	STD	01	03/14/2003 10:48	
WG136152-08	STD	01	03/14/2003 11:23	
WG136152-09	SSCV	01	03/14/2003 12:30	

* Sample past 12 hour tune limit

KEMRON ENVIRONMENTAL SERVICES
ORGANIC INSTRUMENT CHECK
DFTPP

Login Number: L0303352
Instrument: HPMS4
Analyst: ALT
Workgroup: WG136559

Tune ID: WG136559-01
Run Date: 03/19/2003
Run Time: 13:52
File ID: 4M17586
Cal ID: HPMS4 -14-MAR-03

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	47.2	83896	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	42.1	74912	PASS
70.0	69.0	0	2.00	0.573	429	PASS
127	198	40.0	60.0	55.0	97797	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	177856	PASS
199	198	5.00	9.00	6.67	11859	PASS
275	198	10.0	30.0	23.7	42213	PASS
365	198	1.00	100	3.10	5512	PASS
441	443	0.0100	100	81.4	21306	PASS
442	198	40.0	100	75.3	133931	PASS
443	442	17.0	23.0	19.5	26183	PASS

This check relates to the following samples, MS, MSD:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG136463-02	BLANK	01	03/19/2003 16:33	
WG136463-03	LCS	01	03/19/2003 17:07	
WG136463-04	LCS2	01	03/19/2003 17:41	
L0303352-01	177511-DW-031703	01	03/20/2003 00:10	

* Sample past 12 hour tune limit

Method: BNA.M
Title: M8270/625/Initial cal. 03/14/03
Last Calibration: Sat Mar 15 10:17:20 2003
HPMS4
Calibration Files

Avg. %RSD
9.9

	Compound	3 4M17504.D	10 4M17505.D	20 4M17506.D	50 4M17503.D	80 4M17481.D	100 4M17508.D	120 4M17509.D	Avg	%RSD	R^2 value
I	1,4-Dichlorobenzene-d4	ISTD									
	Pyridine	1.417	1.328	1.275	1.328	1.324	1.315	1.331	1.331	3.2	
	n-Nitrosodimethylamine	0.816	0.739	0.714	0.748	0.757	0.744	0.745	0.751	4.2	
S	2-Fluorophenol	1.383	1.291	1.211	1.270	1.254	1.255	1.257	1.274	4.2	
	Aniline	0.660	0.604	0.571	0.541	0.430	0.525	0.542	0.553	12.9	
S	Phenol-d5	1.597	1.509	1.442	1.527	1.482	1.486	1.478	1.503	3.3	
C	Phenol	1.794	1.665	1.591	1.666	1.638	1.623	1.632	1.658	3.9	
	bis(2-Chloroethyl)ether	1.237	1.110	1.049	1.063	0.999	1.014	1.014	1.069	7.7	
	2-Chlorophenol	1.518	1.433	1.370	1.429	1.392	1.395	1.392	1.419	3.5	
	1,3-Dichlorobenzene	1.741	1.556	1.475	1.489	1.442	1.438	1.444	1.512	7.2	
C	1,4-Dichlorobenzene	1.675	1.664	1.565	1.578	1.521	1.534	1.535	1.610	7.8	
	Benzyl Alcohol	0.869	0.841	0.835	0.895	0.881	0.881	0.885	0.870	2.6	
	1,2-Dichlorobenzene	1.677	1.484	1.390	1.395	1.318	1.340	1.331	1.419	8.9	
	2-Methylphenol	1.181	1.123	1.057	1.102	1.033	1.060	1.058	1.087	4.7	
	bis(2-Chloroisopropyl)ether	2.754	2.473	2.316	2.382	2.231	2.252	2.222	2.378	8.0	
	3-,4-Methylphenol	1.675	1.568	1.516	1.585	1.531	1.551	1.535	1.565	3.4	
P	n-Nitrosodipropylamine	0.889	0.841	0.840	0.891	0.861	0.864	0.858	0.863	2.4	
	Hexachloroethane	0.612	0.560	0.548	0.575	0.555	0.560	0.564	0.568	3.7	
I	Naphthalene-d8	ISTD									
S	Nitrobenzene-d5	0.333	0.324	0.326	0.338	0.322	0.332	0.331	0.329	1.5	
	Nitrobenzene	0.359	0.342	0.337	0.345	0.327	0.336	0.334	0.340	3.0	
	Isophorone	0.559	0.549	0.548	0.566	0.541	0.551	0.548	0.552	1.5	
C	2-Nitrophenol	0.183	0.173	0.197	0.276	0.260	0.317		0.232	26.6	
	2,4-Dimethylphenol	0.342	0.318	0.306	0.316	0.286	0.307	0.307	0.312	5.4	
	bis(2-Chloroethoxy)methane	0.447	0.409	0.395	0.397	0.384	0.391	0.390	0.402	5.3	
	Benzoic Acid			0.055	0.148	0.178	0.172	0.162	0.149	32.4	
C	2,4-Dichlorophenol	0.277	0.275	0.277	0.283	0.274	0.278	0.276	0.277	1.0	
	1,2,4-Trichlorobenzene	0.345	0.304	0.292	0.291	0.277	0.284	0.281	0.296	7.8	
	Naphthalene	1.174	1.064	1.009	1.000	0.944	0.958	0.938	1.012	8.3	
	4-Chloroaniline	0.390	0.368	0.349	0.245	0.222	0.181		0.293	29.9	
C	Hexachlorobutadiene	0.175	0.161	0.155	0.150	0.142	0.147	0.145	0.154	7.5	
C	4-Chloro-3-Methylphenol	0.288	0.290	0.286	0.295	0.285	0.289	0.288	0.289	1.1	
	2-Methylnaphthalene	0.803	0.743	0.707	0.705	0.663	0.674	0.664	0.709	7.1	
I	Acenaphthene-d10	ISTD									
P	Hexachlorocyclopentadiene	0.097	0.143	0.173	0.222	0.233	0.238	0.238	0.192	29.0	
C	2,4,6-Trichlorophenol	0.299	0.318	0.324	0.347	0.337	0.343	0.341	0.330	5.2	
	2,4,5-Trichlorophenol	0.331	0.351	0.355	0.379	0.364	0.373	0.373	0.361	4.6	
S	2-Fluorobiphenyl	1.476	1.335	1.280	1.248	1.174	1.202	1.178	1.270	8.5	
	2-Chloronaphthalene	1.263	1.142	1.098	1.081	1.027	1.042	1.028	1.097	7.7	
	2-Nitroaniline			0.306	0.335	0.318	0.330	0.326	0.323	3.5	
	Dimethylphthalate	1.431	1.338	1.297	1.287	1.216	1.241	1.214	1.289	6.0	
	Acenaphthylene	1.968	1.875	1.833	1.811	1.699	1.731	1.694	1.802	5.6	
	2,6-Dinitrotoluene	0.237	0.263	0.276	0.296	0.287	0.299	0.299	0.280	8.2	
	3-Nitroaniline	0.239	0.265	0.270	0.142	0.097	0.093	0.097	0.172	48.1	
C	Acenaphthene	1.252	1.130	1.104	1.097	1.029	1.049	1.028	1.098	7.1	
P	2,4-Dinitrophenol			0.028	0.069	0.097	0.101	0.110	0.081	41.5	
P	4-Nitrophenol			0.179	0.213	0.199	0.209	0.209	0.202	6.6	
	Dibenzofuran	1.680	1.689	1.630	1.600	1.500	1.520	1.490	1.616	8.5	
	2,4-Dinitrotoluene	0.258	0.315	0.341	0.374	0.365	0.380	0.380	0.348	12.1	
	Diethylphthalate	1.433	1.358	1.314	1.316	1.229	1.260	1.233	1.308	5.6	
	Fluorene	1.483	1.345	1.288	1.279	1.209	1.223	1.203	1.290	7.7	
	4-Chlorophenyl Phenyl Ether	0.704	0.636	0.607	0.602	0.578	0.588	0.581	0.614	7.2	
	4-Nitroaniline			0.228	0.271	0.219	0.254	0.245	0.243	8.5	
	1,2-Diphenylhydrazine	1.357	1.303	1.282	1.315	1.216	1.248	1.221	1.277	4.1	
S	2,4,6-Tribromophenol	0.103	0.118	0.130	0.148	0.148	0.151	0.153	0.136	14.3	
I	Phenanthrene-d10	ISTD									
	4,6-Dinitro-2-Methylphenol			0.064	0.102	0.123	0.131	0.138	0.112	26.9	
C	n-Nitrosodiphenylamine	0.648	0.594	0.574	0.574	0.529	0.543	0.538	0.571	7.2	
	4-Bromophenyl Phenyl Ether	0.244	0.225	0.223	0.221	0.208	0.213	0.213	0.221	5.4	
	Hexachlorobenzene	0.245	0.222	0.214	0.209	0.203	0.206	0.206	0.215	6.8	
C	Pentachlorophenol			0.078	0.116	0.124	0.130	0.135	0.117	19.5	
	Phenanthrene	1.368	1.232	1.175	1.138	1.068	1.081	1.064	1.161	9.5	
	Anthracene	1.365	1.234	1.188	1.174	1.080	1.116	1.096	1.179	8.4	

Method: BNA M
Title: M8270/625/Initial cal, 03/14/03
Last Calibration: Sat Mar 15 10:17:20 2003
HPMS4
Calibration Files

Avg. %RSD
9.9

		3	10	20	50	80	100	120			
		4M17504.D	4M17505.D	4M17506.D	4M17503.D	4M17481.D	4M17508.D	4M17509.D			
	Compound								Avg	%RSD	R^2 value
	Carbazole	1.222	1.123	1.076	0.776	0.509	0.638	0.596	0.849	33.9	
	Di-n-Butyl Phthalate	1.581	1.542	1.521	1.525	1.383	1.416	1.384	1.460	5.4	
C	Fluoranthene	1.460	1.314	1.251	1.223	1.131	1.156	1.134	1.238	9.6	
I	Chrysene-d12	ISTD									
	Benzidine			0.135	0.090	0.077	0.062	0.072	0.087	32.6	
	Pyrene	1.541	1.389	1.300	1.225	1.139	1.144	1.116	1.262	12.2	
S	p-Terphenyl-d14	0.983	0.873	0.835	0.796	0.748	0.757	0.742	0.819	10.6	
	Butyl Benzyl Phthalate	0.677	0.648	0.638	0.641	0.607	0.613	0.603	0.632	4.2	
	Benzo(a)anthracene	1.319	1.171	1.129	1.107	1.055	1.055	1.047	1.126	8.6	
	3,3'-Dichlorobenzidine	0.359	0.301	0.254	0.173	0.213	0.155	0.159	0.230	33.9	
	Chrysene	1.267	1.131	1.093	1.066	1.013	1.019	1.008	1.085	8.5	
	bis(2-Ethylhexyl)phthalate	1.033	0.964	0.957	0.964	0.907	0.919	0.905	0.950	4.7	
I	Perylene-d12	ISTD									
C	Di-n-Octyl Phthalate	2.442	2.428	2.459	2.553	2.294	2.491	2.434	2.443	3.2	
	Benzo[b]fluoranthene	1.928	1.737	1.648	1.687	1.564	1.614	1.595	1.682	7.3	
	Benzo[k]fluoranthene	1.600	1.502	1.497	1.418	1.403	1.466	1.386	1.467	5.0	
C	Benzo[a]pyrene	1.604	1.495	1.468	1.500	1.419	1.483	1.487	1.491	3.8	
	Indeno[1,2,3-cd]pyrene	1.518	1.444	1.427	1.481	1.615	1.478	1.471	1.490	4.2	
	Dibenz[ah]anthracene	1.207	1.186	1.179	1.226	1.345	1.230	1.229	1.229	4.5	
	Benzo(ghi)perylene	1.240	1.155	1.144	1.171	1.357	1.172	1.176	1.202	6.2	

Sat Mar 15 10:19:05 2003

KEMRON ENVIRONMENTAL SERVICES

ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L0303352 | Instrument ID: HPMS4

File ID: 4M17510 | Run Date: 03/14/2003

ALT ID: WG136152-09 | Run Time: 12:30

Units: ug/mL | Analyst: MDC

Cal ID: HPMS4 - 14-MAR-03

Analyte		Expected	Found	RF	%D	Q
Benzo[a]pyrene	CCC	50	49.5	1.48	1.0	
Di-n-Octyl Phthalate	CCC	50	50.9	2.49	1.8	
Fluoranthene	CCC	50	50.1	1.24	0.2	
Pentachlorophenol	CCC	50	48.9	0.114	2.2	
n-Nitrosodiphenylamine	CCC	50	51.6	0.590	3.2	
Acenaphthene	CCC	50	50.6	1.11	1.2	
2,4,6-Trichlorophenol	CCC	50	51.5	0.339	3.0	
4-Chloro-3-Methylphenol	CCC	50	49.6	0.286	0.8	
Hexachlorobutadiene	CCC	50	56.3	0.173	12.6	
2,4-Dichlorophenol	CCC	50	49.8	0.276	0.4	
2-Nitrophenol	CCC	50	66.2	0.307	32.4	*
1,4-Dichlorobenzene	CCC	50	49.3	1.59	1.4	
Phenol	CCC	50	48.7	1.62	2.6	
4-Nitrophenol	SPCC	50	50.9	0.206	1.8	
2,4-Dinitrophenol	SPCC	50	46.7	0.0759	6.6	
Hexachlorocyclopentadiene	SPCC	50	61.3	0.236	22.6	
n-Nitrosodipropylamine	SPCC	50	54.0	0.933	8.0	
Benzo[ghi]perylene		50	49.0	1.18	2.0	
Dibenz[ah]anthracene		50	50.4	1.24	0.8	
Indeno[1,2,3-cd]pyrene		50	49.2	1.47	1.6	
Benzo[k]fluoranthene		50	56.4	1.65	12.8	
Benzo[b]fluoranthene		50	48.0	1.61	4.0	
bis(2-Ethylhexyl)phthalate		50	49.9	0.948	0.2	
Chrysene		50	49.4	1.07	1.2	
3,3'-Dichlorobenzidine		50	39.7	0.183	20.6	
Benzo[a]anthracene		50	49.0	1.10	2.0	
Butyl Benzyl Phthalate		50	53.8	0.681	7.6	
Pyrene		50	48.0	1.21	4.0	
Benzidine		50	1.78	0.00310	96.4	*
Di-n-Butyl Phthalate		50	50.4	1.49	0.8	
Carbazole		50	35.4	0.601	29.2	*
Anthracene		50	49.8	1.17	0.4	
Phenanthrene		50	50.9	1.18	1.8	
Hexachlorobenzene		50	51.4	0.221	2.8	
4-Bromophenyl Phenyl Ether		50	42.7	0.189	14.6	
4,6-Dinitro-2-Methylphenol		50	49.3	0.110	1.4	
1,2-Diphenylhydrazine		50	50.2	1.28	0.4	
4-Nitroaniline		50	43.3	0.211	13.4	
4-Chlorophenyl Phenyl Ether		50	49.3	0.605	1.4	
Fluorene		50	50.8	1.31	1.6	
Diethylphthalate		50	50.8	1.33	1.6	
2,4-Dinitrotoluene		50	58.4	0.404	16.8	
Dibenzofuran		50	49.9	1.61	0.2	
3-Nitroaniline		50	28.6	0.0982	42.8	*

KEMRON ENVIRONMENTAL SERVICES

ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L0303352
File ID: 4M17510
ALT ID: WG136152-09
Units: ug/mL

Instrument ID: HPMS4
Run Date: 03/14/2003
Run Time: 12:30
Analyst: MDC
Cal ID: HPMS4 14-MAR-03

Analyte	Expected	Found	RF	%D	Q
2,6-Dinitrotoluene	50	54.5	0.305	9.0	
Acenaphthylene	50	52.6	1.90	5.2	
Dimethylphthalate	50	50.3	1.30	0.6	
2-Nitroaniline	50	50.9	0.329	1.8	
2-Chloronaphthalene	50	52.1	1.14	4.2	
2,4,5-Trichlorophenol	50	50.6	0.365	1.2	
2-Methylnaphthalene	50	49.9	0.708	0.2	
4-Chloroaniline	50	27.5	0.161	45.0	*
Naphthalene	50	50.0	1.01	0.0	
1,2,4-Trichlorobenzene	50	51.3	0.304	2.6	
Benzoic Acid	50	44.8	0.134	10.4	
bis(2-Chloroethoxy)methane	50	50.0	0.402	0.0	
2,4-Dimethylphenol	50	51.6	0.322	3.2	
Isophorone	50	56.2	0.621	12.4	
Nitrobenzene	50	49.0	0.333	2.0	
Hexachloroethane	50	50.9	0.578	1.8	
3-,4-Methylphenol	50	49.4	1.55	1.2	
bis(2-Chloroisopropyl)ether	50	51.0	2.42	2.0	
2-Methylphenol	50	48.8	1.06	2.4	
1,2-Dichlorobenzene	50	51.5	1.46	3.0	
Benzyl Alcohol	50	50.6	0.879	1.2	
1,3-Dichlorobenzene	50	51.0	1.54	2.0	
2-Chlorophenol	50	48.0	1.36	4.0	
bis(2-Chloroethyl)ether	50	48.3	1.03	3.4	
Aniline	50	41.7	0.462	16.6	
n-Nitrosodimethylamine	50	49.9	0.749	0.2	
Pyridine	50	52.5	1.40	5.0	

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

KEMRON ENVIRONMENTAL SERVICES

CONTINUING CALIBRATION REPORT

Login Number: L0303352
File ID: 4MI7587
CCV ID: WG136559-02
Units: ug/mL

Instrument ID: HPMS4
Run Date: 03/19/2003
Run Time: 14:16
Analyst: ALT
Cal ID: HPMS4 - 14-MAR-03

Analyte		Expected	Found	RF	%D	Q
Benzo[a]pyrene	CCC	50	51.0	1.52	2.0	
Di-n-Octyl Phthalate	CCC	50	50.5	2.47	1.0	
Fluoranthene	CCC	50	54.0	1.34	8.0	
Pentachlorophenol	CCC	50	44.3	0.103	11.4	
n-Nitrosodiphenylamine	CCC	50	50.3	0.575	0.6	
Acenaphthene	CCC	50	54.3	1.19	8.6	
2,4,6-Trichlorophenol	CCC	50	52.7	0.348	5.4	
4-Chloro-3-Methylphenol	CCC	50	51.2	0.296	2.4	
Hexachlorobutadiene	CCC	50	58.3	0.179	16.6	
2,4-Dichlorophenol	CCC	50	51.8	0.287	3.6	
2-Nitrophenol	CCC	50	49.6	0.230	0.8	
1,4-Dichlorobenzene	CCC	50	51.4	1.66	2.8	
Phenol	CCC	50	45.8	1.52	8.4	
4-Nitrophenol	SPCC	50	57.7	0.233	15.4	
2,4-Dinitrophenol	SPCC	50	41.3	0.0671	17.4	
Hexachlorocyclopentadiene	SPCC	50	61.0	0.234	22.0	
n-Nitrosodipropylamine	SPCC	50	48.0	0.828	4.0	
Benzo[ghi]perylene		50	57.8	1.39	15.6	
Dibenz[ah]anthracene		50	62.8	1.54	25.6	
Indeno[1,2,3-cd]pyrene		50	62.5	1.86	25.0	
Benzo[k]fluoranthene		50	51.2	1.50	2.4	
Benzo[b]fluoranthene		50	49.4	1.66	1.2	
bis(2-Ethylhexyl)phthalate		50	49.9	0.948	0.2	
Chrysene		50	48.6	1.05	2.8	
3,3'-Dichlorobenzidine		50	36.1	0.166	27.8	
Benzo[a]anthracene		50	48.6	1.09	2.8	
Butyl Benzyl Phthalate		50	48.9	0.618	2.2	
Pyrene		50	47.4	1.20	5.2	
Benzidine		50	38.5	0.0670	23.0	
Di-n-Butyl Phthalate		50	56.5	1.67	13.0	
Carbazole		50	52.4	0.890	4.8	
Anthracene		50	51.7	1.22	3.4	
Phenanthrene		50	52.0	1.21	4.0	
Hexachlorobenzene		50	53.4	0.230	6.8	
4-Bromophenyl Phenyl Ether		50	53.9	0.238	7.8	
4,6-Dinitro-2-Methylphenol		50	43.0	0.0961	14.0	
1,2-Diphenylhydrazine		50	50.6	1.29	1.2	
4-Nitroaniline		50	50.7	0.247	1.4	
4-Chlorophenyl Phenyl Ether		50	51.7	0.635	3.4	
Fluorene		50	51.3	1.32	2.6	
Diethylphthalate		50	54.8	1.43	9.6	
2,4-Dinitrotoluene		50	49.6	0.344	0.8	

CONTINUING CALIBRATION REPORT

Login Number: L0303352
File ID: 4M17587
CCV ID: WG136559-02
Units: ug/mL

Instrument ID: HPMS4
Run Date: 03/19/2003
Run Time: 14:16
Analyst: ALT
Cal ID: HPMS4 14-MAR-03

Analyte	Expected	Found	RF	%D	Q
Dibenzofuran	50	50.5	1.63	1.0	
3-Nitroaniline	50	50.2	0.173	0.4	
2,6-Dinitrotoluene	50	48.8	0.273	2.4	
Acenaphthylene	50	50.8	1.83	1.6	
Dimethylphthalate	50	52.7	1.36	5.4	
2-Nitroaniline	50	49.7	0.321	0.6	
2-Chloronaphthalene	50	50.4	1.11	0.8	
2,4,5-Trichlorophenol	50	52.5	0.379	5.0	
2-Methylnaphthalene	50	51.1	0.724	2.2	
4-Chloroaniline	50	44.9	0.263	10.2	
Naphthalene	50	50.1	1.01	0.2	
1,2,4-Trichlorobenzene	50	51.6	0.306	3.2	
Benzoic Acid	50	31.8	0.0948	36.4	
bis(2-Chloroethoxy)methane	50	46.0	0.370	8.0	
2,4-Dimethylphenol	50	47.3	0.296	5.4	
Isophorone	50	48.8	0.539	2.4	
Nitrobenzene	50	49.5	0.337	1.0	
Hexachloroethane	50	53.3	0.605	6.6	
3-,4-Methylphenol	50	47.5	1.49	5.0	
bis(2-Chloroisopropyl)ether	50	47.9	2.28	4.2	
2-Methylphenol	50	51.9	1.13	3.8	
1,2-Dichlorobenzene	50	53.3	1.51	6.6	
Benzyl Alcohol	50	46.6	0.810	6.8	
1,3-Dichlorobenzene	50	49.5	1.50	1.0	
2-Chlorophenol	50	47.4	1.34	5.2	
bis(2-Chloroethyl)ether	50	47.3	1.01	5.4	
Aniline	50	44.5	0.493	11.0	
n-Nitrosodimethylamine	50	42.4	0.637	15.2	
Pyridine	50	44.0	1.17	12.0	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

KEMRON ENVIRONMENTAL SERVICES
INTERNAL STANDARD AREA SUMMARY

Login Number:L0303352 CCV Number:WG136559-02
Instrument ID:HPMS4 CAL ID: HPMS4-14-MAR-03
Workgroup (AAB#):WG136636 Matrix:WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG136559-02	NA	NA	168094	374326	672747	666566	431622	570261
Upper Limit	NA	NA	336188	748652	1345494	1333132	863244	1140522
Lower Limit	NA	NA	84047	187163	336374	333283	215811	285131
L0303352-01	10.0	01	131991	292166	491906	508135	324088	444931

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	4M17502.D	1.	WG136152-01 50PPM DFTPP	1,1 SOS64-3	14 Mar 2003 07:37
	2	4M17503.D	1.	WG136152-02 50PPM BNA STD	1,1 SOS63-38-4	14 Mar 2003 07:56
3	3	4M17504.D	1.	WG136152-03 3PPM BNA STD	1,1 SOS63-38-1	14 Mar 2003 08:30
4	4	4M17505.D	1.	WG136152-04 10PPM BNA STD	1,1 SOS63-38-2	14 Mar 2003 09:04
5	5	4M17506.D	1.	WG136152-05 20PPM BNA STD	1,1 SOS63-38-3	14 Mar 2003 09:38
6	6	4M17507.D	1.	WG136152-06 80PPM BNA STD	1,1 SOS63-38-5	14 Mar 2003 10:13
7	7	4M17508.D	1.	WG136152-07 100PPM BNA STD	1,1 SOS63-38-6	14 Mar 2003 10:48
8	8	4M17509.D	1.	WG136152-08 120PPM BNA STD	1,1 SOS63-38-7	14 Mar 2003 11:23
9	9	4M17510.D	1.	WG136152-09 50PPM Alt source BNA STD	1,1 SOS62-28	14 Mar 2003 12:30
10	1	4M17511.D	1.	WG136152-10 50PPM DFTPP	1,1 SOS64-3	14 Mar 2003 12:59
11	2	4M17512.D	1.	WG136152-11 50PPM BNA STD	1,1 SOS63-38-4	14 Mar 2003 13:20
12	3	4M17513.D	1.	WG135950-01 BLK 3/10 V200P49	7,1 SOIL	14 Mar 2003 13:54
13	4	4M17514.D	1.	WG135950-02 LCS 3/10 V200P49	1,1	14 Mar 2003 14:29
14	5	4M17515.D	1.	WG135950-03 LCSDUP 3/10 V200P49	1,1	14 Mar 2003 15:04
15	6	4M17516.D	1.	L0303100-01	1,1	14 Mar 2003 15:38
16	7	4M17517.D	1.	L0303139-01	1,1	14 Mar 2003 16:13
17	8	4M17518.D	1.	L0303139-04	1,1	14 Mar 2003 16:49
18	9	4M17519.D	1.	L0303139-06	1,1	14 Mar 2003 17:24
19	10	4M17520.D	1.	L0303139-08	1,1	14 Mar 2003 18:00
20	11	4M17521.D	1.	L0303139-10	1,1	14 Mar 2003 18:35
21	12	4M17522.D	1.	L0303139-12	1,1	14 Mar 2003 19:11
22	13	4M17523.D	1.	L0303139-13	1,1	14 Mar 2003 19:46
23	14	4M17524.D	1.	L0303139-15	1,1	14 Mar 2003 20:21
24	15	4M17525.D	1.	L0303139-16	1,1	14 Mar 2003 20:56
25	16	4M17526.D	1.	L0303098-01	1,1	14 Mar 2003 21:30
26	17	4M17527.D	1.	L0303098-02	1,1	14 Mar 2003 22:05
27	18	4M17528.D	1.	L0303098-04	1,1	14 Mar 2003 22:39
28	19	4M17529.D	1.	L0303098-06	1,1	14 Mar 2003 23:13
29	20	4M17530.D	1.	L0303098-09	1,1	14 Mar 2003 23:47
	21	4M17531.D	1.	L0303098-11	1,1	15 Mar 2003 00:21
	22	4M17532.D	1.	L0303098-13	1,1	15 Mar 2003 00:55

CLK
3/15/03

KEMRON ENVIRONMENTAL SERVICES

Semivolatile GC/MS Laboratory Maintenance / Runlog

Analysis Date/Time 3/14/03 Instrument ID HP54 Column ID RTX-5MS SOP # MSS01 Rev. # 9 8270C ✓
Analyst Initials CW Data Subdirectory 031403 SOP # MSS02 Rev. # ___ 625 ___
ISTD # B210144 SOP # MSS03 Rev. # ___ PAH 8270C ___

Analysis Date/Time ___ Instrument ID ___ Column ID ___ Data Subdirectory ___

Preventative Maintenance

- ☐ Change o-ring
- ☒ Change liner
- ☐ Change septum
- ☐ Clip column (___ cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases ___

Returned To Control?

Yes ___ No ___

Additional Maintenance

Problem: ___

Action Taken: ___

Comments

Reviewed By: mlc 3/17/03

Directory: C:\HPCHEM\1\DATA\031903

ne	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	4M17581.D	1.	WG136559-01 50PPM DFTPP	1,1 SOS64-3	19 Mar 2003 10:49
2	2	4M17582.D	1.	WG136559-02 50PPM BNA STD	1,1 SOS63-38-4	19 Mar 2003 11:08
3	3	4M17583.D	1.	50ppm 2-Ethoxyethanol	1,1	19 Mar 2003 11:42
4	4	4M17584.D	1.	50ppm Appendix IX STD	1,1 SOS61-35-3	19 Mar 2003 12:16
5	2	4M17585.D	1.	WG136559-02 50PPM BNA STD	1,1 SOS63-38-4	19 Mar 2003 12:50
6	1	4M17586.D	1.	WG136559-01 50PPM DFTPP	1,1 SOS64-3	19 Mar 2003 13:52
7	2	4M17587.D	1.	WG136559-02 50PPM BNA STD	1,1 SOS63-38-4	19 Mar 2003 14:16
8	3	4M17588.D	1.	50PPM 2-Ethoxyethanol	1,1 SOS62-46	19 Mar 2003 14:51
9	4	4M17589.D	1.	50PPM Appendix IX std	1,1 SOS61-35-3	19 Mar 2003 15:25
10	5	4M17590.D	1.	500PPM Hexachlorophene/Kepone	1,1 SOS63-39	19 Mar 2003 15:59
11	6	4M17591.D	1.	WG136463-02 BLK 3/18 V200P87	1,1	19 Mar 2003 16:33
12	7	4M17592.D	1.	WG136463-03 LCS 3/18 V200P87	1,1	19 Mar 2003 17:07
13	8	4M17593.D	1.	WG136463-04 LCS DUP 3/18 V200P87	1,1	19 Mar 2003 17:41
14	9	4M17594.D	1.	WG136440-01 TBLK 3/17	17,1 TCLP	19 Mar 2003 18:17
15	10	4M17595.D	1.	L0303285-01	17,1 TCLP	19 Mar 2003 18:53
16	11	4M17596.D	1.	L0303287-01	17,1 TCLP	19 Mar 2003 19:28
17	12	4M17597.D	1.	L0303185-04 RE	17,1,RE TCLP	19 Mar 2003 20:03
18	13	4M17598.D	1.	L0303238-04	17,1 TCLP	19 Mar 2003 20:38
19	14	4M17599.D	1.	L0303238-05	17,1 TCLP	19 Mar 2003 21:13
20	15	4M17600.D	1.	L0303238-06	17,1 TCLP	19 Mar 2003 21:48
21	16	4M17601.D	1.	L0303296-03	7,1 SOIL	19 Mar 2003 22:24
22	17	4M17602.D	200.	L0303287-01 200X	7,200 SOIL	19 Mar 2003 22:59
23	18	4M17603.D	100.	L0303287-01 100X	7,100 SOIL	19 Mar 2003 23:35
24	19	4M17604.D	10.	L0303352-01 10X	1,10	20 Mar 2003 00:10
25	20	4M17605.D	10.	L0303287-01 10X	7,10 SOIL	20 Mar 2003 00:45
26	21	4M17606.D	30.	WG136463-01 L0303238-02	17,10 TCLP	20 Mar 2003 01:21
27	22	4M17607.D	30.	WG136463-05 L0303238-02 SPK	17,10 TCLP	20 Mar 2003 01:56

* See Comments

WLJ 3/20/03
[illegible] 3/21/03

KEMRON ENVIRONMENTAL SERVICES

Semivolatile GC/MS Laboratory Maintenance / Runlog

Analysis Date/Time 3/18/03 Instrument ID HPMS4 Column ID RE-Sed-MS SOP # MSS01 Rev. # 9 8270C ✓

Analyst Initials ALT Data Subdirectory 031903 SOP # MSS02 Rev. # ___ 625 ___

ISTD # B2100144 SOP # MSS03 Rev. # ___ PAH 8270C ___

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Preventative Maintenance

- ☑ Change o-ring
- ☑ Change liner
- ☐ Change septum
- ☐ Clip column (___ cm)
- ☑ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?

Yes ___ No ___

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

4M17587 CCV #26, #35 + #73, #81 + #82 7 ± 20% DEV

LC-136463-03 LCS #44 + #81 high

-04 LCS Dup ⊥ ⊥ #30, #79, #82 + #83 high

L0303238-04 + 06 SS 5 high

L0303287-01 @ 100x SS DL

-01 @ 10x IS 3 high - SMI SS 4 low

#24, #33, #51, #62, #63 - Need 100x dil

L0303238-02 @ 10x - IS 2 high SMI SS DL - (EFV)

-02 Spk @ 10x ⊥ Needs RR MT

SS + Spk Compounds DL - (EFV)

Reviewed By [signature] 3/21/03

Parameter: BNA H_2O SOP #: EX808 Revision #: 10
Extraction Analyst(s): CAF REK TV/KD Analyst(s): [illegible]
Date/Time Extracted: 3-18-03 @ 09:30 Date TV/KD: 3/18/03
Spike/Surrogate Analyst: [illegible] Witness: CAF / [illegible]
Surrogate #: ESS0043-14 #12,13 Earliest Hold Date: 3-19-03
Spike #: A = ESS0043-38 #2 Spike #: B = —

Extraction Work Group WG 136463
Analytical Work Group WG 136636
Extract Relinquished By: [illegible]
Extract Received By & Date: [illegible] 3/18/03

	Sample ID	Test Code	pH <2	pH N	pH >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions A	Emulsions BN	Emulsions N	Comments
1	Blank		✓		✓	1000 mL	500 ml #13		1 mL	T				WG 136463-02
2	LCS		✓		✓			500 ml		C				WG -03
3	LCS Dup		✓		✓									WG -04
4	03-309-02	625AB	✓		✓	960 mL					✓	✓		
5	03-320-01	8270	✓		✓	1000 mL					✓	✓		
6	-02		✓		✓	950 mL					✓	✓		
7														
8	03-338-01	827-A9	✓		✓	985 mL	500 ml #13				✓	✓		
9	-02		✓		✓	955 mL				O	✓	✓		
10	TBLK 3/17	827-TC	✓		✓	100 mL	500 ml #12			T				WG 136440-01
11	03-238-01		✓		✓					T				
12	-02		✓		✓				3 ml	T				WG 136463-01
13	-02SPK		✓		✓		500 ml #13	500 ml	3 ml	C				WG -05
14	-04		✓		✓				1 ml	T				
15	-05		✓		✓					C	✓			
16	-06		✓		✓					C				
17	03-285-01		✓		✓					T				
18	03-287-01		✓		✓					T				
19	03-316-01		✓		✓					T				
20	03-185-04		✓		✓		500 ml #13			T				RE-EXT W/IN HOLD
21	03-352-01	827-RC	✓		✓	940 mL				O	✓			
22														
23							[illegible] 3/18/03							
24														

Methylene Chloride Lot #: 42351
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: 10N NaOH Lot #: ER 2323
Reagent: Fort Sol. Lot #: ER 2326
Reagent: — Lot #: —
Acid: 1:1 H_2SO_4 Lot #: ER 2372
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 2211

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [illegible] Date: 3/18/03

Extraction Notes For Volume # 200 Page # 87

General Comments: None.

Extraction Anomalies: None.

Concentration Anomalies: Sample 135-02 + 238-02 SPK final concentration is 3 ml.

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

2.2.1.2 Sample Data

Data File : C:\HPCHEM\1\DATA\031903\4M17604.D Vial: 19
Acq On : 20 Mar 2003 00:10 Operator: alt
Sample : L0303352-01 10X Inst : HPMS4
Misc : 1,10 Multiplr: 10.00
MS Integration Params: RTEINT.P
Quant Time: Mar 20 8:22 2003 Quant Results File: BNA.RES

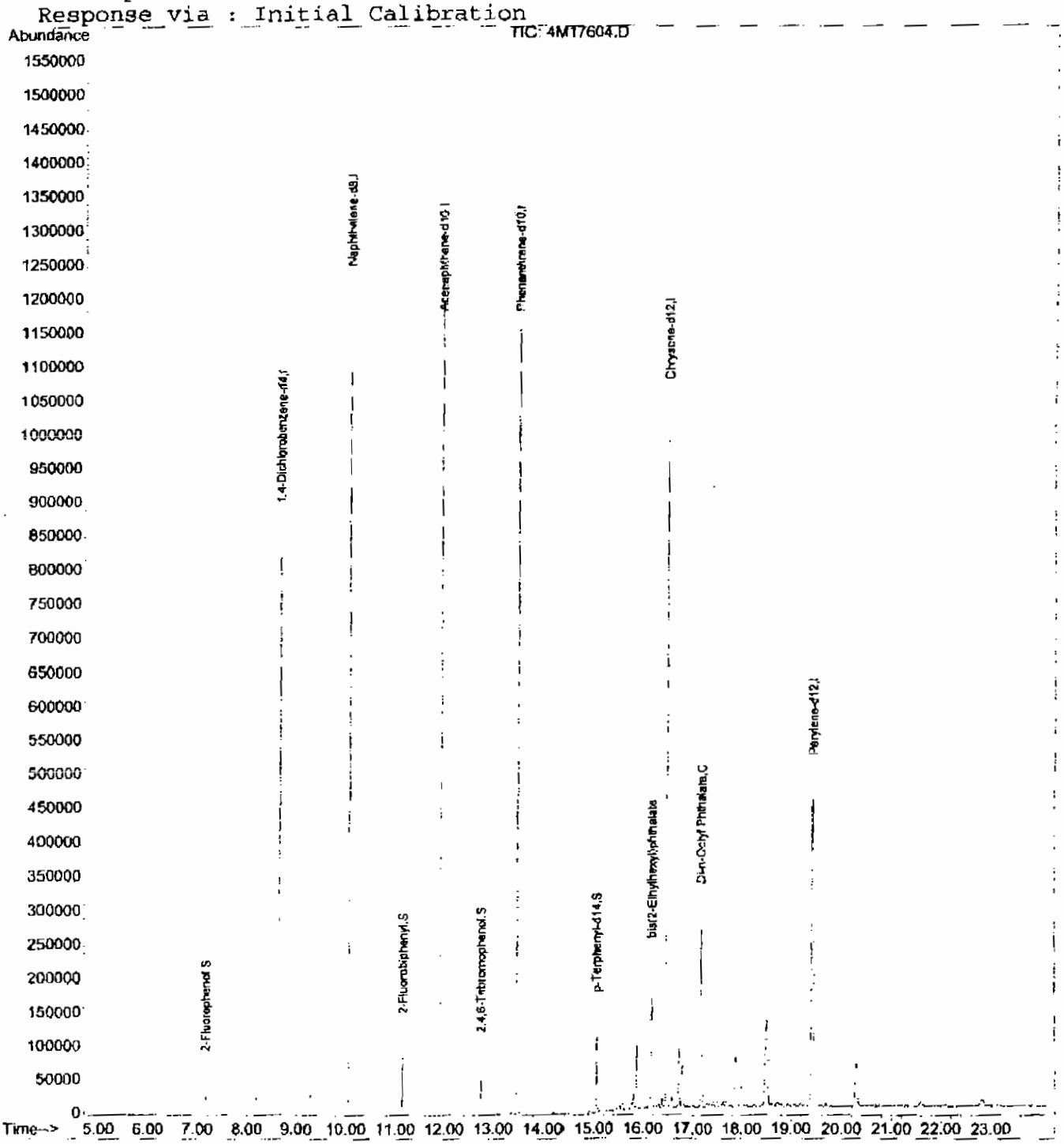
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 08:21:54 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.66	152	131991	40.00 ug/ml	0.00
19) Naphthalene-d8	10.06	136	508135	40.00 ug/ml	0.00
34) Acenaphthene-d10	11.92	164	292166	40.00 ug/ml	0.00
56) Phenanthrene-d10	13.48	188	444931	40.00 ug/ml	0.00
67) Chrysene-d12	16.47	240	491906	40.00 ug/ml	-0.01
76) Perylene-d12	19.42	264	324088	40.00 ug/ml	-0.01
System Monitoring Compounds					
4) 2-Fluorophenol	7.17	112	13669	32.5074 ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 32.51%		
6) Phenol-d5	8.18	99	10117	20.3989 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 20.40%		
20) Nitrobenzene-d5	9.28	82	10109	24.1871 ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 48.38%		
38) 2-Fluorobiphenyl	11.16	172	28186	30.3843 ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 60.76%		
55) 2,4,6-Tribromophenol	12.75	330	5610	56.5544 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 56.55%		
70) p-Terphenyl-d14	15.06	244	35922	35.6634 ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 71.32%		
Target Compounds					Qvalue
75) bis(2-Ethylhexyl)phthalate	16.17	149	115763	9.9082 ug/ml#	53
77) Di-n-Octyl Phthalate	17.17	149	209506	10.5855 ug/ml#	93

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\031903\4M17604.D Vial: 19
Acq On : 20 Mar 2003 00:10 Operator: alt
Sample : L0303352-01 10X Inst : HPMS4
Misc : 1,10 Multiplr: 10.00
MS Integration Params: RTEINT.P
Quant Time: Mar 20 8:22 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 08:21:54 2003
Response via : Initial Calibration

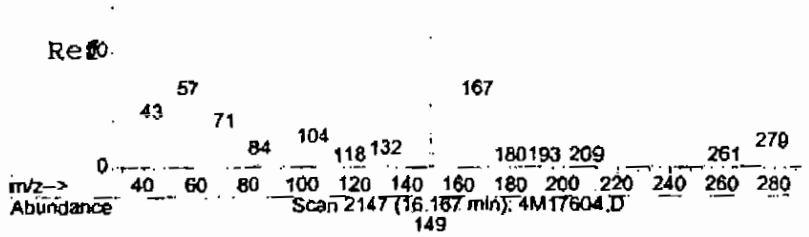


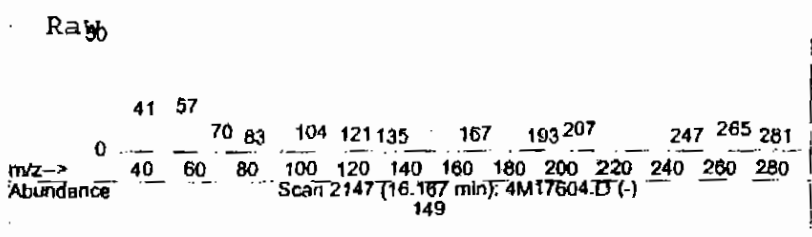
4M17604.D BNA.M Thu Mar 20 08:22:55 2003 HPMS4 Page 2

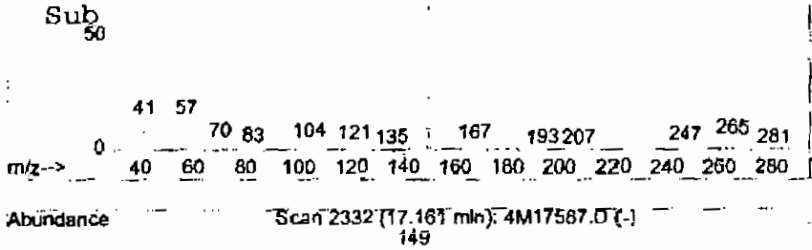
bis(2-Ethylhexyl)phthalate
Concen: 9.91 ug/ml
RT: 16.17 min Scan# 2147
Delta R.T. 0.00 min
Lab File: 4M17604.D
Acq: 20 Mar 2003 00:10

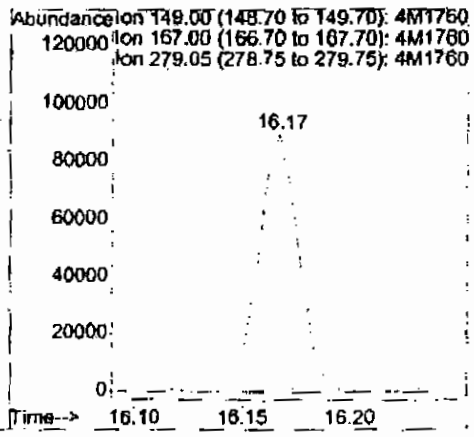
Tgt Ion:149 Resp: 115763

Ion	Ratio	Lower	Upper
149	100		
167	1.8	24.3	36.5#
279	0.0	5.3	7.9#





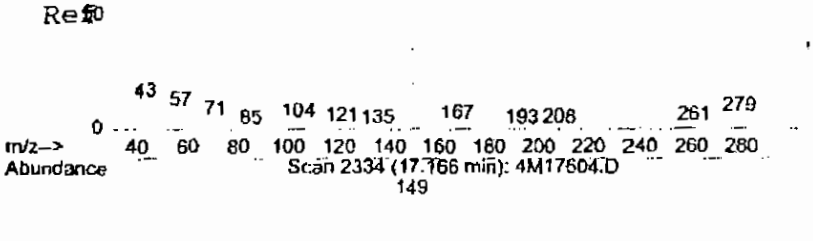


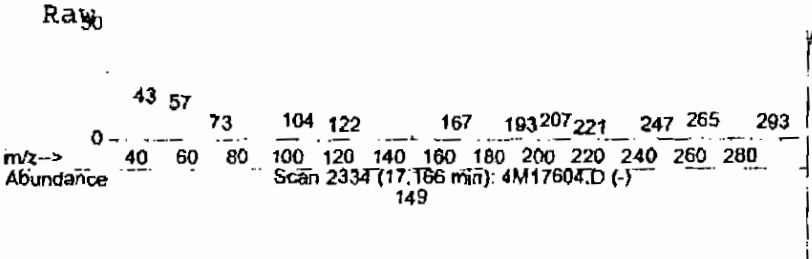


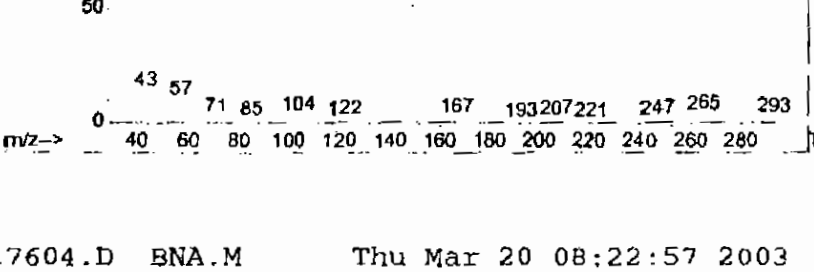
#77
Di-n-Octyl Phthalate
Concen: 10.59 ug/ml
RT: 17.17 min Scan# 2334
Delta R.T. -0.00 min
Lab File: 4M17604.D
Acq: 20 Mar 2003 00:10

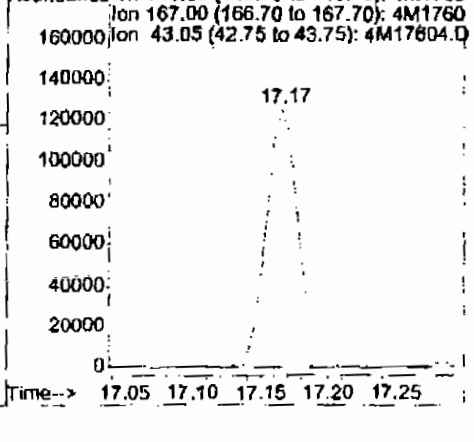
Tgt Ion:149 Resp: 209506

Ion	Ratio	Lower	Upper
149	100		
167	2.0	1.3	1.9#
43	14.8	9.4	14.0#









2.2.1.3 Standards Data

Method: BNA.M
Title: M8270/625/Initial cal. 03/14/03
Last Calibration: Sat Mar 15 10:17:20 2003
HPMS4
Calibration Files

Avg. %RSD
9.9

	Compound	3 4M17504.D	10 4M17505.D	20 4M17506.D	50 4M17503.D	80 4M17481.D	100 4M17508.D	120 4M17509.D	Avg	%RSD	R^2 value
I	1,4-Dichlorobenzene-d4	ISTD									
	Pyridine	1.417	1.328	1.275	1.328	1.324	1.315	1.331	1.331	3.2	
	n-Nitrosodimethylamine	0.816	0.739	0.714	0.746	0.757	0.744	0.745	0.751	4.2	
S	2-Fluorophenol	1.383	1.291	1.211	1.270	1.254	1.255	1.257	1.274	4.2	
	Aniline	0.660	0.604	0.571	0.541	0.430	0.525	0.542	0.553	12.9	
S	Phenol-d5	1.597	1.509	1.442	1.527	1.482	1.486	1.478	1.503	3.3	
C	Phenol	1.794	1.665	1.591	1.666	1.638	1.623	1.632	1.658	3.9	
	bis(2-Chloroethyl)ether	1.237	1.110	1.049	1.063	0.999	1.014	1.014	1.069	7.7	
	2-Chlorophenol	1.518	1.433	1.370	1.429	1.392	1.395	1.392	1.419	3.5	
	1,3-Dichlorobenzene	1.741	1.556	1.475	1.489	1.442	1.438	1.444	1.512	7.2	
C	1,4-Dichlorobenzene	1.875	1.664	1.565	1.578	1.521	1.534	1.535	1.610	7.8	
	Benzyl Alcohol	0.869	0.841	0.835	0.895	0.881	0.881	0.885	0.870	2.6	
	1,2-Dichlorobenzene	1.677	1.484	1.390	1.395	1.318	1.340	1.331	1.419	8.0	
	2-Methylphenol	1.181	1.123	1.057	1.102	1.033	1.060	1.058	1.087	4.7	
	bis(2-Chloroisopropyl)ether	2.754	2.473	2.318	2.382	2.231	2.252	2.222	2.376	8.0	
	3,4-Methylphenol	1.675	1.568	1.516	1.585	1.531	1.551	1.535	1.566	3.4	
P	n-Nitrosodipropylamine	0.889	0.841	0.840	0.891	0.861	0.864	0.858	0.863	2.4	
	Hexachloroethane	0.612	0.560	0.548	0.575	0.555	0.560	0.561	0.568	3.7	
I	Naphthalene-d8	ISTD									
S	Nitrobenzene-d5	0.333	0.324	0.326	0.336	0.322	0.332	0.331	0.329	1.5	
	Nitrobenzene	0.359	0.342	0.337	0.345	0.327	0.336	0.334	0.340	3.0	
	Isophorone	0.559	0.519	0.548	0.566	0.541	0.551	0.548	0.552	1.5	
C	2-Nitrophenol	0.163	0.178	0.197	0.276	0.260	0.317		0.232	25.6	
	2,4-Dimethylphenol	0.342	0.318	0.308	0.316	0.285	0.307	0.307	0.312	5.4	
	bis(2-Chloroethoxy)methane	0.447	0.409	0.395	0.397	0.381	0.391	0.390	0.402	5.3	
	Benzoic Acid			0.066	0.148	0.178	0.172	0.182	0.149	32.4	
C	2,4-Dichlorophenol	0.277	0.275	0.277	0.283	0.274	0.278	0.276	0.277	1.0	
	1,2,4-Trichlorobenzene	0.345	0.304	0.292	0.291	0.277	0.284	0.281	0.296	7.8	
	Naphthalene	1.174	1.064	1.009	1.000	0.944	0.958	0.938	1.012	8.0	
	4-Chloroaniline	0.390	0.368	0.349	0.245	0.222	0.181		0.293	29.9	
C	Hexachlorobutadiene	0.175	0.181	0.155	0.150	0.142	0.147	0.145	0.154	7.5	
C	4-Chloro-3-Methylphenol	0.288	0.290	0.286	0.295	0.285	0.289	0.288	0.289	1.1	
	2-Methylnaphthalene	0.803	0.743	0.707	0.705	0.663	0.674	0.664	0.709	7.1	
I	Acenaphthene-d10	ISTD									
P	Hexachlorocyclopentadiene	0.097	0.143	0.173	0.222	0.233	0.238	0.238	0.192	29.0	
C	2,4,6-Trichlorophenol	0.299	0.318	0.324	0.347	0.337	0.343	0.341	0.330	5.2	
	2,4,5-Trichlorophenol	0.331	0.351	0.355	0.379	0.364	0.373	0.373	0.361	4.6	
S	2-Fluorobiphenyl	1.476	1.335	1.280	1.246	1.174	1.202	1.178	1.270	8.5	
	2-Chloronaphthalene	1.263	1.142	1.098	1.081	1.027	1.042	1.028	1.097	7.7	
	2-Nitroaniline			0.306	0.335	0.318	0.330	0.328	0.323	3.5	
	Dimethylphthalate	1.431	1.338	1.297	1.287	1.218	1.241	1.214	1.289	6.0	
	Acenaphthylene	1.968	1.875	1.833	1.811	1.600	1.731	1.694	1.802	5.6	
	2,6-Dinitrotoluene	0.237	0.263	0.276	0.298	0.287	0.299	0.299	0.280	8.2	
	3-Nitroaniline	0.239	0.265	0.270	0.142	0.097	0.093	0.097	0.172	48.1	
C	Acenaphthene	1.252	1.130	1.104	1.097	1.029	1.049	1.028	1.098	7.1	
P	2,4-Dinitrophenol			0.028	0.069	0.097	0.101	0.110	0.081	41.5	
P	4-Nitrophenol			0.179	0.213	0.199	0.209	0.209	0.202	6.8	
	Dibenzofuran	1.880	1.689	1.630	1.600	1.500	1.520	1.490	1.616	8.5	
	2,4-Dinitrotoluene	0.268	0.315	0.341	0.374	0.365	0.380	0.380	0.346	12.1	
	Diethylphthalate	1.433	1.358	1.314	1.316	1.229	1.260	1.233	1.308	5.6	
	Fluorene	1.483	1.345	1.288	1.279	1.209	1.223	1.203	1.290	7.7	
	4-Chlorophenyl Phenyl Ether	0.704	0.636	0.607	0.602	0.578	0.588	0.581	0.614	7.2	
	4-Nitroaniline			0.226	0.271	0.219	0.254	0.245	0.243	8.5	
	1,2-Diphenylhydrazine	1.357	1.303	1.262	1.315	1.216	1.248	1.221	1.277	4.1	
S	2,4,6-Tribromophenol	0.103	0.118	0.130	0.148	0.148	0.151	0.153	0.136	14.3	
I	Phenanthrene-d10	ISTD									
	4,6-Dinitro-2-Methylphenol			0.064	0.102	0.123	0.131	0.138	0.112	26.8	
C	n-Nitrosodiphenylamine	0.648	0.594	0.574	0.574	0.529	0.543	0.538	0.571	7.2	
	4-Bromophenyl Phenyl Ether	0.244	0.225	0.223	0.221	0.208	0.213	0.213	0.221	5.4	
	Hexachlorobenzene	0.245	0.222	0.214	0.209	0.203	0.206	0.206	0.215	6.8	
	Pentachlorophenol			0.078	0.116	0.124	0.130	0.135	0.117	19.5	
	Phenanthrene	1.368	1.232	1.175	1.138	1.066	1.081	1.064	1.161	9.5	
	Anthracene	1.365	1.234	1.188	1.174	1.080	1.116	1.098	1.179	8.4	

Method: BNA M
Title: M8270/625/Initial cal. 03/14/03
Last Calibration: Sat Mar 15 10:17:20 2003
HPMS4
Calibration Files

Avg %RSD
9.9

		3	10	20	50	80	100	120			
		4M17504.D	4M17505.D	4M17506.D	4M17503.D	4M17481.D	4M17508.D	4M17509.D			
	Compound								Avg	%RSD	R^2 value
	Carbazole	1.222	1.123	1.076	0.776	0.509	0.636	0.596	0.849	33.9	
	Di-n-Butyl Phthalate	1.581	1.542	1.521	1.525	1.393	1.416	1.384	1.480	5.4	
C	Fluoranthene	1.460	1.314	1.251	1.223	1.131	1.156	1.134	1.238	9.6	
I	Chrysene-d12	ISTD									
	Benzidine			0.135	0.090	0.077	0.062	0.072	0.087	32.6	
	Pyrene	1.541	1.369	1.300	1.225	1.139	1.144	1.116	1.262	12.2	
S	p-Terphenyl-d14	0.983	0.873	0.835	0.796	0.748	0.757	0.742	0.819	10.6	
	Butyl Benzyl Phthalate	0.677	0.648	0.638	0.641	0.607	0.613	0.603	0.632	4.2	
	Benzo[a]anthracene	1.319	1.171	1.129	1.107	1.055	1.055	1.047	1.126	8.8	
	3,3'-Dichlorobenzidine	0.359	0.301	0.254	0.173	0.213	0.165	0.159	0.230	33.9	
	Chrysene	1.267	1.131	1.093	1.066	1.013	1.019	1.008	1.085	8.5	
	bis(2-Ethylhexyl)phthalate	1.033	0.984	0.957	0.964	0.907	0.919	0.905	0.950	4.7	
I	Perylene-d12	ISTD									
C	Di-n-Octyl Phthalate	2.442	2.426	2.459	2.553	2.294	2.491	2.434	2.443	3.2	
	Benzo[b]fluoranthene	1.928	1.737	1.648	1.687	1.564	1.614	1.595	1.682	7.3	
	Benzo[k]fluoranthene	1.600	1.502	1.497	1.418	1.403	1.466	1.386	1.467	5.0	
C	Benzo[a]pyrene	1.604	1.495	1.468	1.500	1.419	1.483	1.467	1.491	3.8	
	Indeno[1,2,3-cd]pyrene	1.518	1.444	1.427	1.481	1.615	1.478	1.471	1.490	4.2	
	Dibenz[ah]anthracene	1.207	1.186	1.179	1.226	1.345	1.230	1.229	1.229	4.5	
	Benzo[ghi]perylene	1.240	1.155	1.144	1.171	1.357	1.172	1.176	1.202	5.2	

Sat Mar 15 10:19:05 2003

Data File : C:\HPCHEM\1\DATA\031403\4M17503.D Vial: 2
Acq On : 14 Mar 2003 7:56 Operator: mdc
Sample : WG136152-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:23 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 08:23:39 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.66	152	275107	40.00 ug/ml	0.00
19) Naphthalene-d8	10.06	136	1103319	40.00 ug/ml	0.00
34) Acenaphthene-d10	11.93	164	620881	40.00 ug/ml	0.00
56) Phenanthrene-d10	13.49	188	961760	40.00 ug/ml	0.00
67) Chrysene-d12	16.48	240	1000317	40.00 ug/ml	0.00
76) Perylene-d12	19.43	264	635685	40.00 ug/ml	-0.02
System Monitoring Compounds					
4) 2-Fluorophenol	7.16	112	436851	48.1722 ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 48.17%		
6) Phenol-d5	8.18	99	525034	49.0433 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 49.04%		
20) Nitrobenzene-d5	9.28	82	462996	51.0754 ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 102.16%		
38) 2-Fluorobiphenyl	11.16	172	967022	48.3604 ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 96.72%		
55) 2,4,6-Tribromophenol	12.75	330	114578	52.7688 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 52.77%		
70) p-Terphenyl-d14	15.06	244	994850	47.3116 ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 94.62%		
Target Compounds					Qvalue
2) Pyridine	5.54	79	456847	48.8726 ug/ml	95
3) n-Nitrosodimethylamine	5.50	74	256492	47.4384 ug/ml	86
5) Aniline	8.29	66	186207	51.8330 ug/ml	76
7) Phenol	8.19	94	572958	48.5960 ug/ml	93
8) bis(2-Chloroethyl)ether	8.33	63	365506	49.3949 ug/ml	92
9) 2-Chlorophenol	8.43	128	491569	49.0011 ug/ml	99
10) 1,3-Dichlorobenzene	8.60	146	512124	47.9386 ug/ml	99
11) 1,4-Dichlorobenzene	8.68	146	542501	48.1221 ug/ml	99
12) Benzyl Alcohol	8.78	108	307702	50.2889 ug/ml	93
13) 1,2-Dichlorobenzene	8.86	146	479664	48.3928 ug/ml	99
14) 2-Methylphenol	8.86	107	378833	50.3851 ug/ml	97
15) bis(2-Chloroisopropyl)ethe	8.90	45	819186	49.9220 ug/ml	99
16) 3-,4-Methylphenol	9.02	107	545094	49.9461 ug/ml	98
17) n-Nitrosodipropylamine	9.06	70	306518	50.9406 ug/ml	96
18) Hexachloroethane	9.23	117	197875	50.0023 ug/ml	98
21) Nitrobenzene	9.30	77	475435	50.6521 ug/ml	96
22) Isophorone	9.52	82	781245	50.2494 ug/ml	98
23) 2-Nitrophenol	9.64	139	381001	65.8960 ug/ml	100
24) 2,4-Dimethylphenol	9.61	122	435307	51.9036 ug/ml	96
25) bis(2-Chloroethoxy)methane	9.71	93	547866	48.3442 ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M17503.D BNA.M Sat Mar 15 10:07:51 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\031403\4M17503.D Vial: 2
Acq On : 14 Mar 2003 7:56 Operator: mdc
Sample : WG136152-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:23 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 08:23:39 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26)	Benzoic Acid	9.66	122	203980	44.2572	ug/ml	97
27)	2,4-Dichlorophenol	9.88	162	389862	49.5779	ug/ml	99
28)	1,2,4-Trichlorobenzene	9.98	180	401050	47.7681	ug/ml	99
29)	Naphthalene	10.08	128	1379281	48.1467	ug/ml	99
30)	4-Chloroaniline	10.12	127	337963	37.6322	ug/ml	97
31)	Hexachlorobutadiene	10.18	225	207096	48.5426	ug/ml	99
32)	4-Chloro-3-Methylphenol	10.57	107	406825	50.2775	ug/ml	97
33)	2-Methylnaphthalene	10.80	142	972982	48.7312	ug/ml	99
35)	Hexachlorocyclopentadiene	10.96	237	172681	53.7110	ug/ml	100
36)	2,4,6-Trichlorophenol	11.09	196	269122	50.8162	ug/ml	100
37)	2,4,5-Trichlorophenol	11.13	196	294477	51.6153	ug/ml	98
39)	2-Chloronaphthalene	11.33	162	838993	48.3707	ug/ml	98
40)	2-Nitroaniline	11.43	65	260306	51.9257	ug/ml	93
41)	Dimethylphthalate	11.56	163	998556	48.9763	ug/ml	100
42)	Acenaphthylene	11.78	152	1405650	49.3928	ug/ml	99
43)	2,6-Dinitrotoluene	11.66	165	229677	54.0827	ug/ml	90
44)	3-Nitroaniline	11.86	138	110324	40.1781	ug/ml	96
45)	Acenaphthene	11.96	154	851380	48.8001	ug/ml	99
46)	2,4-Dinitrophenol	11.96	184	53855	38.8719	ug/ml#	45
47)	4-Nitrophenol	11.96	65	165215	53.2764	ug/ml	95
48)	Dibenzofuran	12.13	168	1241460	48.3262	ug/ml	96
49)	2,4-Dinitrotoluene	12.09	165	290350	54.7367	ug/ml	92
50)	Diethylphthalate	12.27	149	1021429	49.5717	ug/ml	99
51)	Fluorene	12.49	166	992394	48.4678	ug/ml	99
52)	4-Chlorophenyl Phenyl Ethe	12.43	204	467100	47.8241	ug/ml	94
53)	4-Nitroaniline	12.51	138	209948	60.6857	ug/ml	96
54)	1,2-Diphenylhydrazine	12.60	77	1020473	50.7011	ug/ml	96
57)	4,6-Dinitro-2-Methylphenol	12.51	198	123037	43.4888	ug/ml#	86
58)	n-Nitrosodiphenylamine	12.56	169	690260	49.5521	ug/ml	99
59)	4-Bromophenyl Phenyl Ether	12.96	248	265627	48.6701	ug/ml	95
60)	Hexachlorobenzene	13.09	284	251729	47.1523	ug/ml	95
61)	Pentachlorophenol	13.27	266	140010	48.4382	ug/ml	99
62)	Phenanthrene	13.51	178	1367542	47.7421	ug/ml	99
63)	Anthracene	13.56	178	1411016	49.1815	ug/ml	100
64)	Carbazole	13.70	167	933300	48.4042	ug/ml	99
65)	Di-n-Butyl Phthalate	13.92	149	1833087	50.6979	ug/ml	99
66)	Fluoranthene	14.76	202	1470159	48.6319	ug/ml	99
68)	Benzidine	14.83	184	112036	56.8015	ug/ml	100
69)	Pyrene	15.01	202	1531326	46.8484	ug/ml	99
71)	Butyl Benzyl Phthalate	15.53	149	801884	49.9102	ug/ml	98
72)	Benzo[a]anthracene	16.46	228	1383631	47.6306	ug/ml	99

(#) = qualifier out of range (m) = manual integration
4M17503.D BNA.M Sat Mar 15 10:07:52 2003 HPMS4 Page 2

Data File : C:\HPCHEM\1\DATA\031403\4M17503.D Vial: 2
Acq On : 14 Mar 2003 7:56 Operator: mdc
Sample : WG136152-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:23 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 08:23:39 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	16.34	252	216091	35.0029	ug/ml	100
74)	Chrysene	16.52	228	1332532	47.5733	ug/ml	99
75)	bis(2-Ethylhexyl)phthalate	16.16	149	1205905	50.0778	ug/ml	99
77)	Di-n-Octyl Phthalate	17.17	149	2028762	53.6526	ug/ml	98
78)	Benzo[b]fluoranthene	18.46	252	1340256	49.6347	ug/ml	99
79)	Benzo[k]fluoranthene	18.52	252	1126360	47.6167	ug/ml	99
80)	Benzo[a]pyrene	19.29	252	1191996	49.3808	ug/ml	99
81)	Indeno[1,2,3-cd]pyrene	22.81	276	1177149	44.7112	ug/ml#	97
82)	Dibenz[ah]anthracene	22.81	278	974275	44.9378	ug/ml	99
83)	Benzo[ghi]perylene	23.90	276	930210	42.3614	ug/ml	98

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\031403\4M17503.D Vial: 2
Acq On : 14 Mar 2003 7:56 Operator: mdc
Sample : WG136152-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:23 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 12:24:05 2003
Response via : Initial Calibration

Data File : C:\HPCHEM\1\DATA\031403\4M17504.D Vial: 3
Acq On : 14 Mar 2003 8:30 Operator: mdc
Sample : WG136152-03 3PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 9:09 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 08:24:01 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.66	152	272689	40.00	ug/ml	0.00
19) Naphthalene-d8	10.06	136	1082511	40.00	ug/ml	0.00
34) Acenaphthene-d10	11.93	164	599556	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.49	188	910772	40.00	ug/ml	0.00
67) Chrysene-d12	16.48	240	904870	40.00	ug/ml	0.00
76) Perylene-d12	19.43	264	566004	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.16	112	28275	3.1573	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery =	3.16%#		
6) Phenol-d5	8.18	99	32671	3.0854	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery =	3.09%#		
20) Nitrobenzene-d5	9.28	82	27026	3.0303	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	6.06%#		
38) 2-Fluorobiphenyl	11.16	172	66380	3.4426	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	6.88%#		
55) 2,4,6-Tribromophenol	12.75	330	4618	2.2064	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery =	2.21%#		
70) p-Terphenyl-d14	15.06	244	66698	3.5190	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	7.04%#		
Target Compounds						Qvalue
2) Pyridine	5.58	79	28977	3.1367	ug/ml	96
3) n-Nitrosodimethylamine	5.51	74	16691	3.1266	ug/ml#	95
5) Aniline	8.30	66	13496	3.7868	ug/ml#	60
7) Phenol	8.19	94	36687	3.1462	ug/ml	99
8) bis(2-Chloroethyl)ether	8.33	63	25293	3.4485	ug/ml#	78
9) 2-Chlorophenol	8.43	128	31054	3.1278	ug/ml	99
10) 1,3-Dichlorobenzene	8.60	146	35613	3.3691	ug/ml	99
11) 1,4-Dichlorobenzene	8.68	146	38344	3.4346	ug/ml	94
12) Benzyl Alcohol	8.78	108	17778	2.9382	ug/ml	99
13) 1,2-Dichlorobenzene	8.86	146	34304	3.4954	ug/ml	98
14) 2-Methylphenol	8.86	107	24149	3.2379	ug/ml	98
15) bis(2-Chloroisopropyl)ethe	8.90	45	56330	3.4598	ug/ml	98
16) 3-,4-Methylphenol	9.02	107	34265	3.1728	ug/ml	99
17) n-Nitrosodipropylamine	9.05	70	18177	3.0507	ug/ml	98
18) Hexachloroethane	9.23	117	12523	3.1910	ug/ml	97
21) Nitrobenzene	9.30	77	29132	3.1531	ug/ml	98
22) Isophorone	9.52	82	45364	2.9793	ug/ml	99
23) 2-Nitrophenol	9.64	139	13213	2.2851	ug/ml#	76
24) 2,4-Dimethylphenol	9.61	122	27795	3.3699	ug/ml	99
25) bis(2-Chloroethoxy)methane	9.71	93	36317	3.2742	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\031403\4M17504.D Vial: 3
Acq On : 14 Mar 2003 8:30 Operator: mdc
Sample : WG136152-03 3PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 9:09 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 08:24:01 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26)	Benzoic Acid	9.64	122	843	0.1871 ug/ml#	1
27)	2,4-Dichlorophenol	9.88	162	22462	2.9177 ug/ml	100
28)	1,2,4-Trichlorobenzene	9.98	180	27978	3.4038 ug/ml	100
29)	Naphthalene	10.08	128	95333	3.3985 ug/ml	100
30)	4-Chloroaniline	10.11	127	31682	3.6556 ug/ml	99
31)	Hexachlorobutadiene	10.17	225	14201	3.3930 ug/ml	99
32)	4-Chloro-3-Methylphenol	10.57	107	23420	2.9550 ug/ml	98
33)	2-Methylnaphthalene	10.80	142	65161	3.3331 ug/ml	100
35)	Hexachlorocyclopentadiene	10.96	237	4377	1.4200 ug/ml#	93
36)	2,4,6-Trichlorophenol	11.09	196	13423	2.6298 ug/ml	97
37)	2,4,5-Trichlorophenol	11.14	196	14896	2.7067 ug/ml	100
39)	2-Chloronaphthalene	11.33	162	56807	3.4024 ug/ml	98
40)	2-Nitroaniline	11.43	65	11470	2.3539 ug/ml	96
41)	Dimethylphthalate	11.55	163	64365	3.2752 ug/ml	99
42)	Acenaphthylene	11.78	152	88474	3.2274 ug/ml	100
43)	2,6-Dinitrotoluene	11.66	165	10672	2.5846 ug/ml	94
44)	3-Nitroaniline	11.86	138	10758	3.9618 ug/ml	94
45)	Acenaphthene	11.96	154	56298	3.3453 ug/ml	96
47)	4-Nitrophenol	11.96	65	4503	1.4889 ug/ml	97
48)	Dibenzofuran	12.13	168	84553	3.4140 ug/ml	99
49)	2,4-Dinitrotoluene	12.09	165	12072	2.3373 ug/ml	92
50)	Diethylphthalate	12.26	149	64426	3.2383 ug/ml	100
51)	Fluorene	12.49	166	66668	3.3780 ug/ml	100
52)	4-Chlorophenyl Phenyl Ethe	12.43	204	31641	3.3639 ug/ml	98
53)	4-Nitroaniline	12.50	138	9677	2.7866 ug/ml	92
54)	1,2-Diphenylhydrazine	12.60	77	61019	3.1382 ug/ml	99
57)	4,6-Dinitro-2-Methylphenol	12.51	198	661	0.2472 ug/ml#	1
58)	n-Nitrosodiphenylamine	12.56	169	44251	3.3609 ug/ml	100
59)	4-Bromophenyl Phenyl Ether	12.95	248	16680	3.2336 ug/ml	95
60)	Hexachlorobenzene	13.09	284	16714	3.3218 ug/ml	98
61)	Pentachlorophenol	13.27	266	1354	0.4937 ug/ml#	86
62)	Phenanthrene	13.51	178	93423	3.4571 ug/ml	99
63)	Anthracene	13.56	178	93260	3.4384 ug/ml	98
64)	Carbazole	13.70	167	83494	4.5063 ug/ml	98
65)	Di-n-Butyl Phthalate	13.92	149	107977	3.1561 ug/ml	100
66)	Fluoranthene	14.75	202	99723	3.4889 ug/ml	98
68)	Benzidine	14.83	184	25795	14.2964 ug/ml	100
69)	Pyrene	15.01	202	104611	3.5516 ug/ml	99
71)	Butyl Benzyl Phthalate	15.52	149	45961	3.1719 ug/ml	98
72)	Benzo[a]anthracene	16.45	228	89494	3.4200 ug/ml	99
73)	3,3'-Dichlorobenzidine	16.34	252	24374	4.4691 ug/ml	100

(#) = qualifier out of range (m) = manual integration

Acq On : 14 Mar 2003 8:30 Operator: mdc
Sample : WG136152-03 3PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 9:09 2003 Quant Results File: BNA.RES

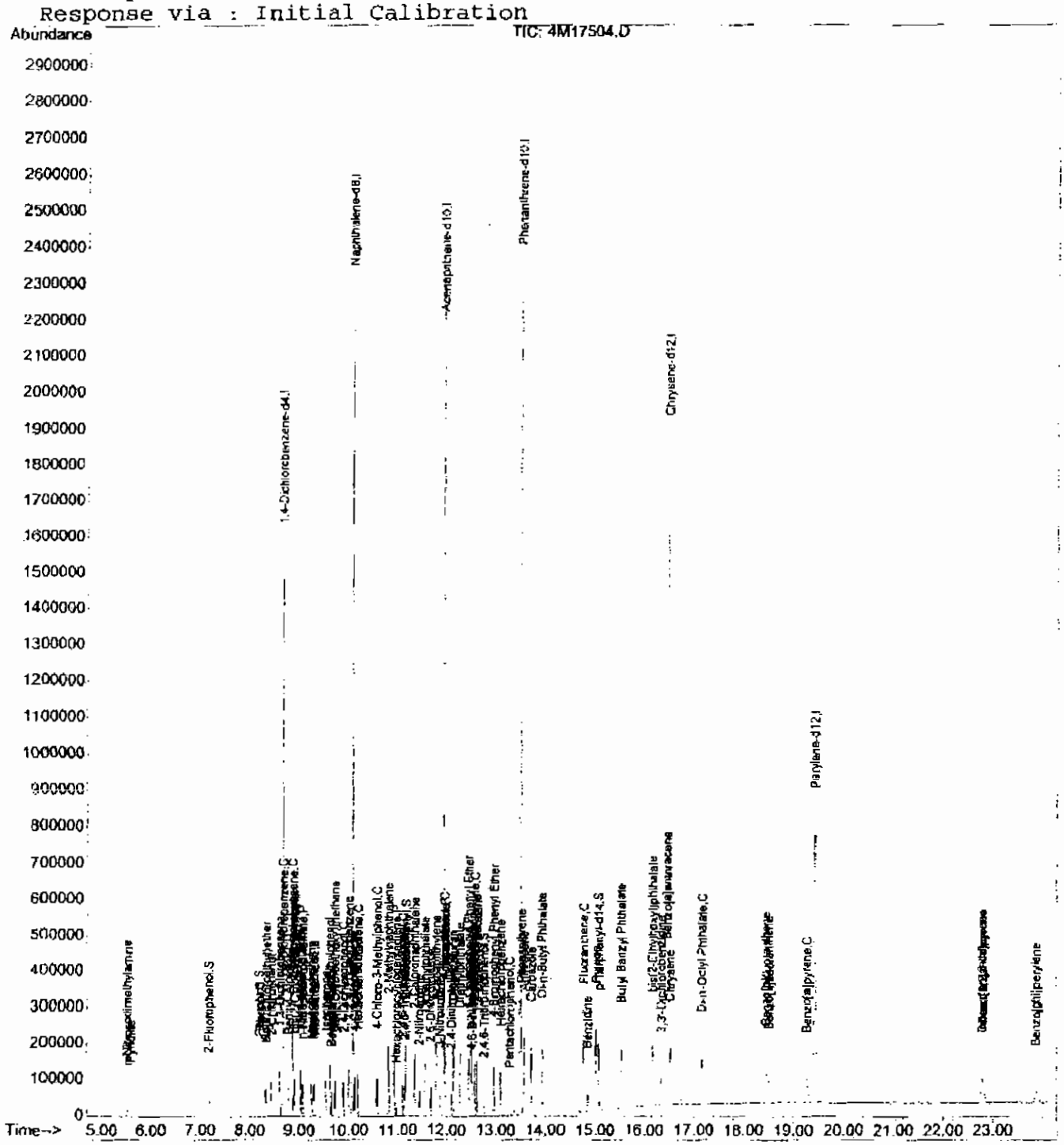
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 08:24:01 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	Chrysene	16.51	228	85969	3.4073	ug/ml	99
75)	bis(2-Ethylhexyl)phthalate	16.16	149	70128	3.2264	ug/ml	98
77)	Di-n-Octyl Phthalate	17.16	149	103660	3.0672	ug/ml#	90
78)	Benzo[b]fluoranthene	18.45	252	81844	3.3965	ug/ml	95
79)	Benzo[k]fluoranthene	18.51	252	67914	3.2448	ug/ml	97
80)	Benzo[a]pyrene	19.28	252	68085	3.1709	ug/ml	95
81)	Indeno[1,2,3-cd]pyrene	22.79	276	64428	2.7901	ug/ml#	95
82)	Dibenz[ah]anthracene	22.79	278	51231	2.6944	ug/ml	98
83)	Benzo[ghi]perylene	23.88	276	52623	2.7504	ug/ml	98

(#) = qualifier out of range (m) = manual integration
4M17504.D BNA.M Sat Mar 15 10:08:01 2003 HPMS4 Page 3

Data File : C:\HPCHEM\1\DATA\031403\4M17504.D Vial: 3
Acq On : 14 Mar 2003 8:30 Operator: mdc
Sample : WG136152-03 3PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 9:09 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 12:24:05 2003
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\031403\4M17505.D Vial: 4
Acq On : 14 Mar 2003 9:04 Operator: mdc
Sample : WG136152-04 10PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 9:38 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 09:09:44 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.66	152	280884	40.00	ug/ml	0.00
19) Naphthalene-d8	10.06	136	1110458	40.00	ug/ml	0.00
34) Acenaphthene-d10	11.93	164	617185	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.49	188	942822	40.00	ug/ml	0.00
67) Chrysene-d12	16.48	240	947670	40.00	ug/ml	0.00
76) Perylene-d12	19.43	264	592138	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.16	112	90653	9.8487	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 9.85%#			
6) Phenol-d5	8.18	99	105965	9.7571	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 9.76%#			
20) Nitrobenzene-d5	9.28	82	90046	9.8005	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 19.60%#			
38) 2-Fluorobiphenyl	11.16	172	205933	10.3820	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 20.76%#			
55) 2,4,6-Tribromophenol	12.75	330	18154	8.4077	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 8.41%#			
70) p-Terphenyl-d14	15.06	244	206856	10.4539	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 20.90%#			
Target Compounds						Qvalue
2) Pyridine	5.56	79	93249	9.7681	ug/ml	98
3) n-Nitrosodimethylamine	5.51	74	51888	9.4467	ug/ml	97
5) Aniline	8.30	66	42387	11.5313	ug/ml	77
7) Phenol	8.19	94	116888	9.7648	ug/ml	99
8) bis(2-Chloroethyl)ether	8.33	63	77916	10.2893	ug/ml	89
9) 2-Chlorophenol	8.43	128	100635	9.8648	ug/ml	99
10) 1,3-Dichlorobenzene	8.60	146	109281	10.0465	ug/ml	99
11) 1,4-Dichlorobenzene	8.68	146	116867	10.1602	ug/ml	98
12) Benzyl Alcohol	8.78	108	59046	9.4444	ug/ml	98
13) 1,2-Dichlorobenzene	8.87	146	104173	10.3003	ug/ml	99
14) 2-Methylphenol	8.87	107	78839	10.2510	ug/ml	98
15) bis(2-Chloroisopropyl)ethe	8.90	45	173674	10.3232	ug/ml	99
16) 3-,4-Methylphenol	9.02	107	110089	9.8581	ug/ml	100
17) n-Nitrosodipropylamine	9.05	70	59045	9.5672	ug/ml	97
18) Hexachloroethane	9.23	117	39351	9.6892	ug/ml	99
21) Nitrobenzene	9.30	77	94995	9.9824	ug/ml	99
22) Isophorone	9.52	82	152479	9.7574	ug/ml	99
23) 2-Nitrophenol	9.64	139	49390	8.3011	ug/ml#	80
24) 2,4-Dimethylphenol	9.60	122	88420	10.3834	ug/ml	98
25) bis(2-Chloroethoxy)methane	9.71	93	113611	10.0052	ug/ml	99

(#) = qualifier out of range (m) = manual integration
4M17505.D BNA.M Sat Mar 15 10:08:12 2003 HPMS4 Page 1

Acq On : 14 Mar 2003 9:04 Operator: mdc
Sample : WG136152-04 10PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 9:38 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 09:09:44 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26) Benzoic Acid	9.63	122	10512	2.2744 ug/ml	83
27) 2,4-Dichlorophenol	9.88	162	76388	9.7325 ug/ml	100
28) 1,2,4-Trichlorobenzene	9.98	180	84373	10.0476 ug/ml	99
29) Naphthalene	10.08	128	295448	10.3143 ug/ml	100
30) 4-Chloroaniline	10.12	127	102285	11.5420 ug/ml	99
31) Hexachlorobutadiene	10.17	225	44758	10.4459 ug/ml	99
32) 4-Chloro-3-Methylphenol	10.57	107	80465	9.9006 ug/ml	97
33) 2-Methylnaphthalene	10.80	142	206306	10.3572 ug/ml	99
35) Hexachlorocyclopentadiene	10.96	237	21998	7.0905 ug/ml	99
36) 2,4,6-Trichlorophenol	11.09	196	49091	9.3968 ug/ml	99
37) 2,4,5-Trichlorophenol	11.13	196	54101	9.5414 ug/ml	99
39) 2-Chloronaphthalene	11.33	162	176217	10.2513 ug/ml	99
40) 2-Nitroaniline	11.43	65	43756	8.7231 ug/ml	99
41) Dimethylphthalate	11.55	163	206466	10.2258 ug/ml	99
42) Acenaphthylene	11.78	152	289301	10.3195 ug/ml	99
43) 2,6-Dinitrotoluene	11.66	165	40607	9.3841 ug/ml	97
44) 3-Nitroaniline	11.86	138	40927	14.5372 ug/ml	96
45) Acenaphthene	11.96	154	174418	10.1164 ug/ml	96
46) 2,4-Dinitrophenol	11.96	184	1353	0.9912 ug/ml#	1
47) 4-Nitrophenol	11.96	65	23579	7.5738 ug/ml	95
48) Dibenzofuran	12.13	168	260664	10.2820 ug/ml	99
49) 2,4-Dinitrotoluene	12.09	165	48528	9.0302 ug/ml	97
50) Diethylphthalate	12.26	149	209577	10.2588 ug/ml	100
51) Fluorene	12.49	166	207480	10.2385 ug/ml	100
52) 4-Chlorophenyl Phenyl Ethe	12.43	204	98078	10.1713 ug/ml	99
53) 4-Nitroaniline	12.50	138	37746	10.5588 ug/ml	95
54) 1,2-Diphenylhydrazine	12.60	77	201013	10.0571 ug/ml	100
57) 4,6-Dinitro-2-Methylphenol	12.51	198	9681	3.4976 ug/ml#	61
58) n-Nitrosodiphenylamine	12.56	169	139922	10.3152 ug/ml	99
59) 4-Bromophenyl Phenyl Ether	12.95	248	52938	9.9560 ug/ml	97
60) Hexachlorobenzene	13.09	284	52400	10.1161 ug/ml	99
61) Pentachlorophenol	13.27	266	12721	4.4804 ug/ml	95
62) Phenanthrene	13.51	178	290505	10.4502 ug/ml	99
63) Anthracene	13.56	178	290919	10.3786 ug/ml	100
64) Carbazole	13.71	167	264682	13.8819 ug/ml	99
65) Di-n-Butyl Phthalate	13.92	149	363570	10.2898 ug/ml	100
66) Fluoranthene	14.75	202	309617	10.4811 ug/ml	98
68) Benzidine	14.83	184	101292	53.6037 ug/ml	100
69) Pyrene	15.01	202	324298	10.5705 ug/ml	99
71) Butyl Benzyl Phthalate	15.52	149	153474	10.0625 ug/ml	100
72) Benzo[a]anthracene	16.45	228	277518	10.1636 ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M17505.D BNA.M Sat Mar 15 10:08:12 2003 HPMS4 Page 2

Acq On : 14 Mar 2003 9:04 Operator: mdc
Sample : WG136152-04 10PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 9:38 2003 Quant Results File: BNA.RES

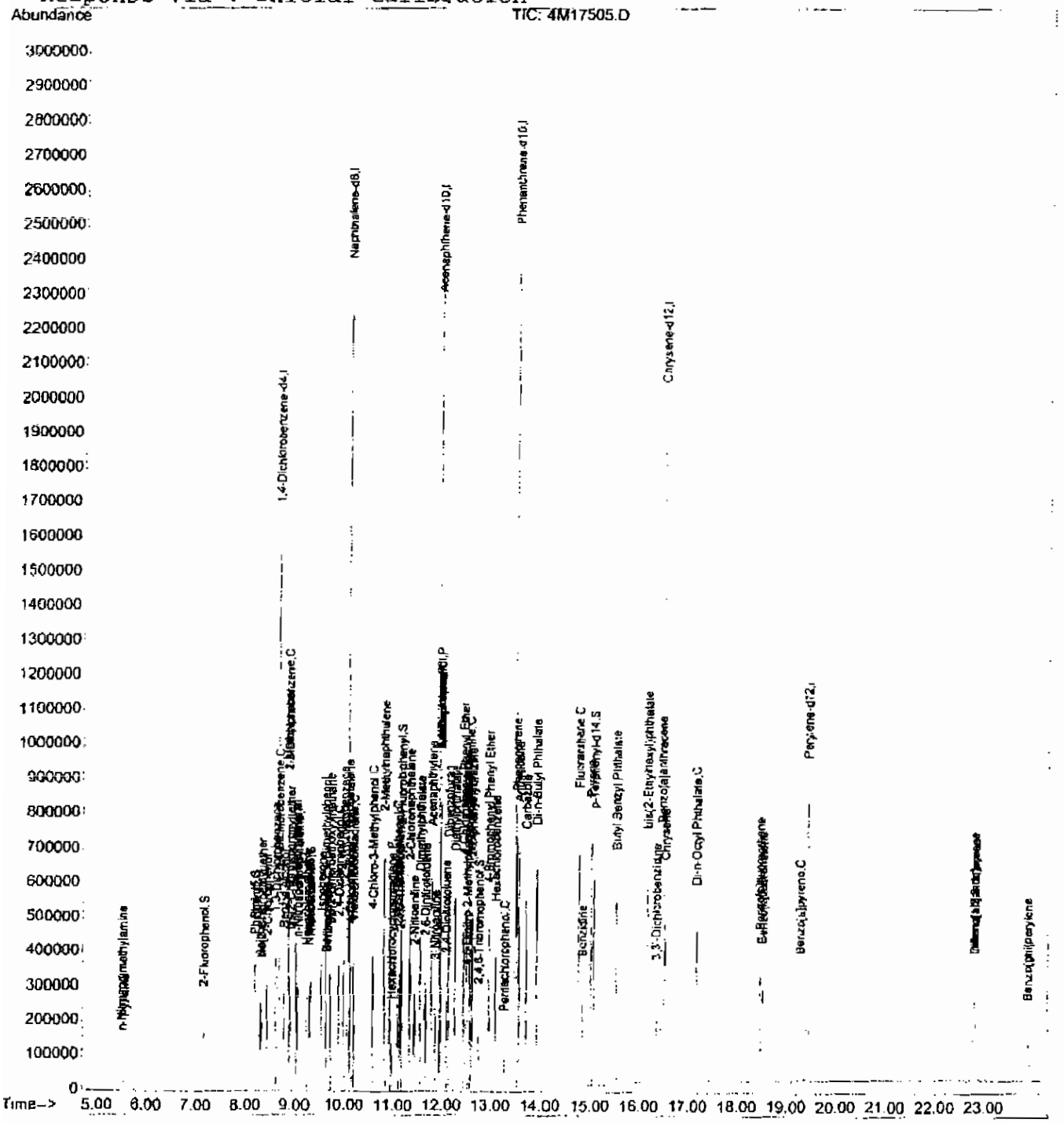
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 09:09:44 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	16.34	252	71348	12.3865	ug/ml	99
74)	Chrysene	16.52	228	268030	10.1891	ug/ml	100
75)	bis(2-Ethylhexyl)phthalate	16.16	149	228400	9.9605	ug/ml	98
77)	Di-n-Octyl Phthalate	17.16	149	359360	10.0629	ug/ml	99
78)	Benzo[b]fluoranthene	18.45	252	257081	10.1393	ug/ml	98
79)	Benzo[k]fluoranthene	18.51	252	222364	10.1705	ug/ml	97
80)	Benzo[a]pyrene	19.28	252	221279	9.8857	ug/ml	97
81)	Indeno[1,2,3-cd]pyrene	22.80	276	213702	8.9473	ug/ml#	98
82)	Dibenz[ah]anthracene	22.80	278	175525	8.9536	ug/ml	99
83)	Benzo[ghi]perylene	23.89	276	170989	8.6783	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Acq On : 14 Mar 2003 9:04 Operator: mdc
Sample : WG136152-04 10PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 9:38 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 12:24:05 2003
Response via : Initial Calibration



4M17505.D BNA.M Sat Mar 15 10:08:14 2003 HPMS4 Page 4

Data File : C:\HPCHEM\1\DATA\031403\4M17506.D Vial: 5
Acq On : 14 Mar 2003 9:38 Operator: mdc
Sample : WG136152-05 20PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 10:17 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 10:05:01 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.66	152	292475	40.00 ug/ml	0.00
19) Naphthalene-d8	10.06	136	1135471	40.00 ug/ml	0.00
34) Acenaphthene-d10	11.93	164	632392	40.00 ug/ml	0.00
56) Phenanthrene-d10	13.48	188	968312	40.00 ug/ml	0.00
67) Chrysene-d12	16.48	240	976881	40.00 ug/ml	0.00
76) Perylene-d12	19.43	264	614102	40.00 ug/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	7.16	112	177106	18.9144 ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 18.91%#		
6) Phenol-d5	8.17	99	210936	19.1638 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 19.16%		
20) Nitrobenzene-d5	9.28	82	184860	19.8985 ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 39.80%		
38) 2-Fluorobiphenyl	11.16	172	404579	20.3263 ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 40.66%#		
55) 2,4,6-Tribromophenol	12.75	330	41261	19.2376 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 19.24%		
70) p-Terphenyl-d14	15.06	244	408029	20.4826 ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 40.96%		
Target Compounds					Qvalue
2) Pyridine	5.55	79	186402	19.0862 ug/ml	99
3) n-Nitrosodimethylamine	5.51	74	104342	18.8189 ug/ml	99
5) Aniline	8.30	66	83572	22.0839 ug/ml	81
7) Phenol	8.19	94	232599	19.1152 ug/ml	99
8) bis(2-Chloroethyl)ether	8.32	63	153371	19.7297 ug/ml	91
9) 2-Chlorophenol	8.43	128	200335	19.2742 ug/ml	100
10) 1,3-Dichlorobenzene	8.60	146	215751	19.5004 ug/ml	100
11) 1,4-Dichlorobenzene	8.68	146	228913	19.4720 ug/ml	99
12) Benzyl Alcohol	8.78	108	122156	19.1548 ug/ml	99
13) 1,2-Dichlorobenzene	8.86	146	203276	19.6972 ug/ml	100
14) 2-Methylphenol	8.86	107	154541	19.5641 ug/ml	99
15) bis(2-Chloroisopropyl)ethe	8.90	45	338637	19.5661 ug/ml	100
16) 3-,4-Methylphenol	9.02	107	221728	19.3891 ug/ml	100
17) n-Nitrosodipropylamine	9.06	70	122794	19.4051 ug/ml	100
18) Hexachloroethane	9.23	117	80115	19.3335 ug/ml	99
21) Nitrobenzene	9.30	77	191061	19.8930 ug/ml	100
22) Isophorone	9.52	82	311312	19.9431 ug/ml	100
23) 2-Nitrophenol	9.64	139	111883	18.5973 ug/ml#	85
24) 2,4-Dimethylphenol	9.61	122	174807	20.0062 ug/ml	98
25) bis(2-Chloroethoxy)methane	9.71	93	223982	19.7099 ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M17506.D BNA.M Sat Mar 15 10:08:22 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\031403\4M17506.D Vial: 5
Acq On : 14 Mar 2003 9:38 Operator: mdc
Sample : WG136152-05 20PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 10:17 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 10:05:01 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26)	Benzoic Acid	9.64	122	37355	8.3181	ug/ml	95
27)	2,4-Dichlorophenol	9.88	162	157018	20.0155	ug/ml	99
28)	1,2,4-Trichlorobenzene	9.98	180	165502	19.7870	ug/ml	99
29)	Naphthalene	10.08	128	572720	20.0259	ug/ml	100
30)	4-Chloroaniline	10.11	127	198056	22.5063	ug/ml	100
31)	Hexachlorobutadiene	10.18	225	88165	20.3891	ug/ml	99
32)	4-Chloro-3-Methylphenol	10.57	107	162327	19.8579	ug/ml	99
33)	2-Methylnaphthalene	10.80	142	401633	20.1106	ug/ml	99
35)	Hexachlorocyclopentadiene	10.96	237	54818	18.0006	ug/ml	100
36)	2,4,6-Trichlorophenol	11.09	196	102397	19.7146	ug/ml	99
37)	2,4,5-Trichlorophenol	11.13	196	112213	19.7362	ug/ml	98
39)	2-Chloronaphthalene	11.33	162	347238	20.1738	ug/ml	99
40)	2-Nitroaniline	11.43	65	96883	19.1701	ug/ml	99
41)	Dimethylphthalate	11.55	163	410233	20.2921	ug/ml	99
42)	Acenaphthylene	11.78	152	579594	20.7132	ug/ml	99
43)	2,6-Dinitrotoluene	11.66	165	87229	19.8010	ug/ml	99
44)	3-Nitroaniline	11.86	138	85271	29.9978	ug/ml	97
45)	Acenaphthene	11.96	154	349112	20.3002	ug/ml	98
46)	2,4-Dinitrophenol	11.96	184	8712	6.5767	ug/ml#	1
47)	4-Nitrophenol	11.96	65	56732	18.1434	ug/ml	96
48)	Dibenzofuran	12.13	168	515552	20.3174	ug/ml	99
49)	2,4-Dinitrotoluene	12.09	165	107723	19.7521	ug/ml	98
50)	Diethylphthalate	12.26	149	415563	20.3081	ug/ml	100
51)	Fluorene	12.49	166	407116	20.1005	ug/ml	100
52)	4-Chlorophenyl Phenyl Ethe	12.43	204	191960	19.9102	ug/ml	100
53)	4-Nitroaniline	12.50	138	71950	19.6768	ug/ml	99
54)	1,2-Diphenylhydrazine	12.60	77	405391	20.2551	ug/ml	99
57)	4,6-Dinitro-2-Methylphenol	12.51	198	30813	11.2672	ug/ml#	87
58)	n-Nitrosodiphenylamine	12.56	169	277965	20.5706	ug/ml	99
59)	4-Bromophenyl Phenyl Ether	12.95	248	107853	20.2577	ug/ml	98
60)	Hexachlorobenzene	13.08	284	103712	20.0210	ug/ml	99
61)	Pentachlorophenol	13.27	266	37680	13.3662	ug/ml	99
62)	Phenanthrene	13.51	178	568774	20.4238	ug/ml	99
63)	Anthracene	13.56	178	574936	20.4191	ug/ml	100
64)	Carbazole	13.70	167	521090	26.8795	ug/ml	98
65)	Di-n-Butyl Phthalate	13.92	149	736430	20.8160	ug/ml	100
66)	Fluoranthene	14.75	202	605489	20.4140	ug/ml	99
68)	Benzidine	14.83	184	65905	27.6788	ug/ml	100
69)	Pyrene	15.01	202	634821	20.6347	ug/ml	100
71)	Butyl Benzyl Phthalate	15.53	149	311796	20.2511	ug/ml	100
72)	Benzo[a]anthracene	16.46	228	551424	20.0562	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Acq On : 14 Mar 2003 9:38 Operator: mdc
Sample : WG136152-05 20PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 10:17 2003 Quant Results File: BNA.RES

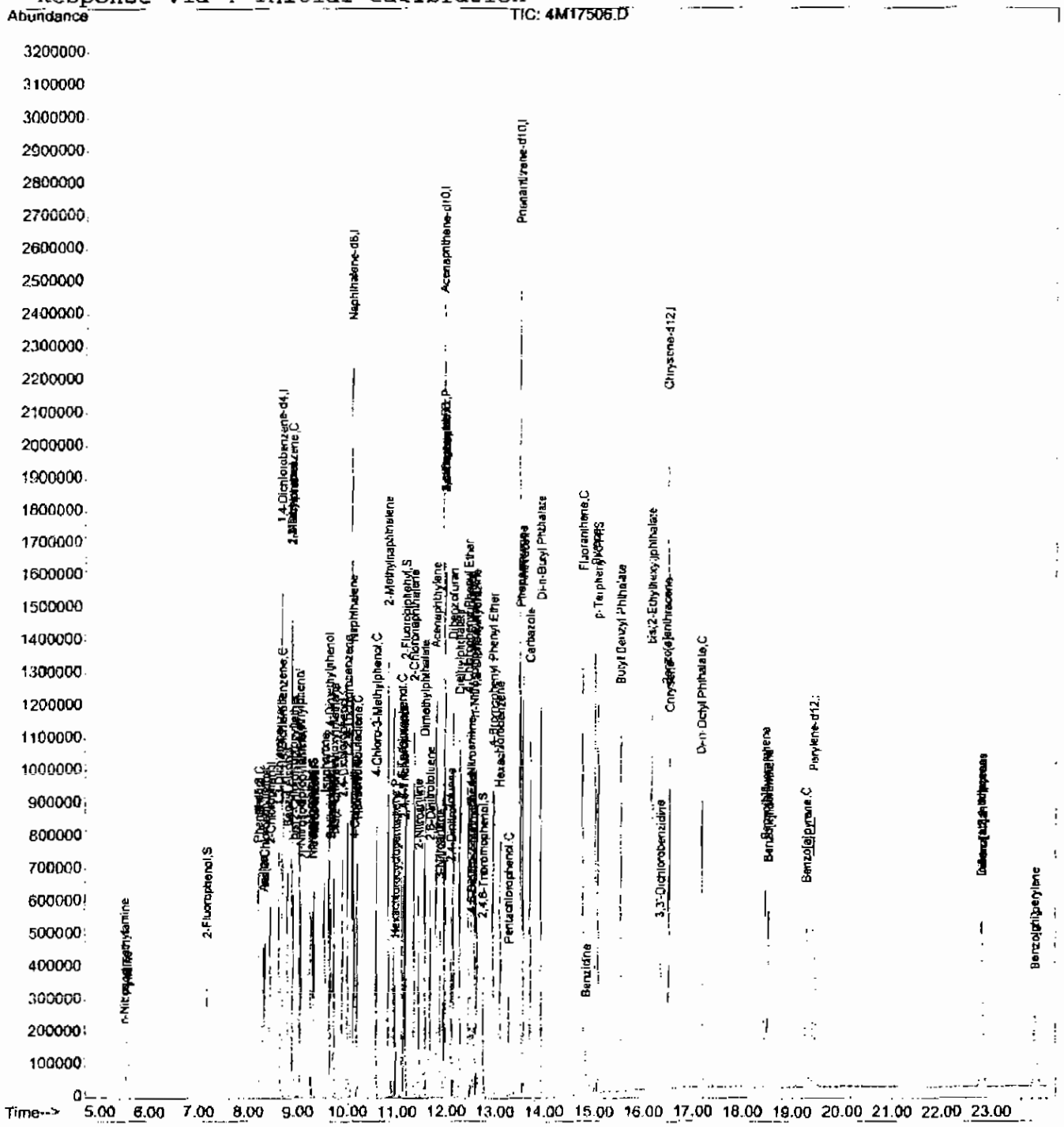
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 10:05:01 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
73) 3,3'-Dichlorobenzidine	16.34	252	124050	20.3613 ug/ml	99
74) Chrysene	16.52	228	534061	20.1496 ug/ml	100
75) bis(2-Ethylhexyl)phthalate	16.16	149	467493	20.2307 ug/ml	99
77) Di-n-Octyl Phthalate	17.17	149	755029	20.5588 ug/ml	98
78) Benzo[b]fluoranthene	18.45	252	505951	19.6181 ug/ml	99
79) Benzo[k]fluoranthene	18.51	252	459592	20.5713 ug/ml	97
80) Benzo[a]pyrene	19.28	252	450837	19.8742 ug/ml	98
81) Indeno[1,2,3-cd]pyrene	22.80	276	438243	18.6001 ug/ml#	99
82) Dibenz[ah]anthracene	22.79	278	362141	18.6859 ug/ml	100
83) Benzo[ghi]perylene	23.89	276	351211	18.2120 ug/ml	99

(#) = qualifier out of range (m) = manual integration
4M17506.D BNA.M Sat Mar 15 10:08:23 2003 HPMS4 Page 3

Data File : C:\HPCHEM\1\DATA\031403\4M17506.D Vial: 5
Acq On : 14 Mar 2003 9:38 Operator: mdc
Sample : WG136152-05 20PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 10:17 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 12:24:05 2003
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\031403\4M17507.D Vial: 6
Acq On : 14 Mar 2003 10:13 Operator: mdc
Sample : WG136152-06 80PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-5 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 11:11 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 10:17:31 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.66	152	292543	40.00	ug/ml	0.00
19) Naphthalene-d8	10.06	136	1166636	40.00	ug/ml	0.00
34) Acenaphthene-d10	11.93	164	653090	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.49	188	1018359	40.00	ug/ml	0.00
67) Chrysene-d12	16.48	240	1060120	40.00	ug/ml	0.00
76) Perylene-d12	19.43	264	667178	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.16	112	728669	77.8015	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 77.80%			
6) Phenol-d5	8.18	99	862782	78.3666	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 78.37%			
20) Nitrobenzene-d5	9.28	82	770333	80.7042	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 161.40%#			
38) 2-Fluorobiphenyl	11.16	172	1575147	76.6284	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 153.26%#			
55) 2,4,6-Tribromophenol	12.75	330	194763	87.9290	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 87.93%			
70) p-Terphenyl-d14	15.06	244	1622690	75.0614	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 150.12%#			
Target Compounds						Qvalue
2) Pyridine	5.54	79	767297	78.5472	ug/ml	100
3) n-Nitrosodimethylamine	5.50	74	430656	77.6543	ug/ml	99
5) Aniline	8.30	66	302676	79.9635	ug/ml	84
7) Phenol	8.20	94	945733	77.7030	ug/ml	100
8) bis(2-Chloroethyl)ether	8.33	63	596031	76.6559	ug/ml	95
9) 2-Chlorophenol	8.43	128	814040	78.3004	ug/ml	100
10) 1,3-Dichlorobenzene	8.60	146	845891	76.4370	ug/ml	100
11) 1,4-Dichlorobenzene	8.68	146	899413	76.4889	ug/ml	100
12) Benzyl Alcohol	8.78	108	509899	79.9368	ug/ml	100
13) 1,2-Dichlorobenzene	8.86	146	789846	76.5175	ug/ml	99
14) 2-Methylphenol	8.87	107	619253	78.3761	ug/ml	99
15) bis(2-Chloroisopropyl)ethe	8.90	45	1327792	76.7007	ug/ml	99
16) 3-,4-Methylphenol	9.02	107	897565	78.4697	ug/ml	99
17) n-Nitrosodipropylamine	9.06	70	501615	79.2516	ug/ml	99
18) Hexachloroethane	9.23	117	327668	79.0549	ug/ml	100
21) Nitrobenzene	9.30	77	784118	79.4605	ug/ml	99
22) Isophorone	9.52	82	1287525	80.2773	ug/ml	99
23) 2-Nitrophenol	9.64	139	708553	114.6304	ug/ml	95
24) 2,4-Dimethylphenol	9.61	122	715054	79.6498	ug/ml	99
25) bis(2-Chloroethoxy)methane	9.71	93	904826	77.4955	ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M17507.D BNA.M Sat Mar 15 10:08:32 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\031403\4M17507.D Vial: 6
Acq On : 14 Mar 2003 10:13 Operator: mdc
Sample : WG136152-06 80PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-5 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 11:11 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 10:17:31 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) Benzoic Acid	9.67	122	360500	78.1311	ug/ml	98
27) 2,4-Dichlorophenol	9.88	162	644732	79.9902	ug/ml	100
28) 1,2,4-Trichlorobenzene	9.98	180	661589	76.9849	ug/ml	100
29) Naphthalene	10.08	128	2244562	76.3875	ug/ml	100
30) 4-Chloroaniline	10.12	127	449970	49.7669	ug/ml	99
31) Hexachlorobutadiene	10.18	225	342558	77.1041	ug/ml	99
32) 4-Chloro-3-Methylphenol	10.57	107	674295	80.2848	ug/ml	100
33) 2-Methylnaphthalene	10.80	142	1582807	77.1372	ug/ml	99
35) Hexachlorocyclopentadiene	10.96	237	295611	93.9935	ug/ml	100
36) 2,4,6-Trichlorophenol	11.09	196	445452	83.0454	ug/ml	100
37) 2,4,5-Trichlorophenol	11.13	196	489169	83.3093	ug/ml	99
39) 2-Chloronaphthalene	11.33	162	1374827	77.3433	ug/ml	100
40) 2-Nitroaniline	11.43	65	430940	82.5672	ug/ml	98
41) Dimethylphthalate	11.56	163	1631912	78.1639	ug/ml	100
42) Acenaphthylene	11.79	152	2283495	79.0199	ug/ml	100
43) 2,6-Dinitrotoluene	11.66	165	386133	84.8744	ug/ml	99
44) 3-Nitroaniline	11.86	138	133970	45.6361	ug/ml	95
45) Acenaphthene	11.96	154	1381835	77.8047	ug/ml	99
46) 2,4-Dinitrophenol	11.96	184	115480	84.4127	ug/ml#	43
47) 4-Nitrophenol	11.96	65	271910	84.2035	ug/ml	98
48) Dibenzofuran	12.13	168	2001872	76.3915	ug/ml	99
49) 2,4-Dinitrotoluene	12.09	165	493273	87.5800	ug/ml	98
50) Diethylphthalate	12.27	149	1673289	79.1803	ug/ml	100
51) Fluorene	12.49	166	1618394	77.3726	ug/ml	100
52) 4-Chlorophenyl Phenyl Ethe	12.43	204	773030	77.6382	ug/ml	99
53) 4-Nitroaniline	12.51	138	337036	89.2511	ug/ml	97
54) 1,2-Diphenylhydrazine	12.60	77	1651995	79.9251	ug/ml	99
57) 4,6-Dinitro-2-Methylphenol	12.51	198	243185	84.5536	ug/ml	94
58) n-Nitrosodiphenylamine	12.56	169	1117741	78.6523	ug/ml	99
59) 4-Bromophenyl Phenyl Ether	12.96	248	433095	77.3491	ug/ml	100
60) Hexachlorobenzene	13.09	284	417313	76.6008	ug/ml	99
61) Pentachlorophenol	13.27	266	249019	83.9934	ug/ml	100
62) Phenanthrene	13.51	178	2222167	75.8731	ug/ml	100
63) Anthracene	13.56	178	2290819	77.3612	ug/ml	100
64) Carbazole	13.70	167	1300317	63.7783	ug/ml	100
65) Di-n-Butyl Phthalate	13.92	149	2921010	78.5079	ug/ml	100
66) Fluoranthene	14.76	202	2364243	75.7930	ug/ml	99
68) Benzidine	14.83	184	164134	63.5204	ug/ml	100
69) Pyrene	15.01	202	2471400	74.0247	ug/ml	100
71) Butyl Benzyl Phthalate	15.53	149	1311237	78.4776	ug/ml	100
72) Benzo[a]anthracene	16.46	228	2259233	75.7201	ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M17507.D BNA.M Sat Mar 15 10:08:32 2003 HPMS4 Page 2

Data File : C:\HPCHEM\1\DATA\031403\4M17507.D Vial: 6
Acq On : 14 Mar 2003 10:13 Operator: mdc
Sample : WG136152-06 80PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-5 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 11:11 2003 Quant Results File: BNA.RES

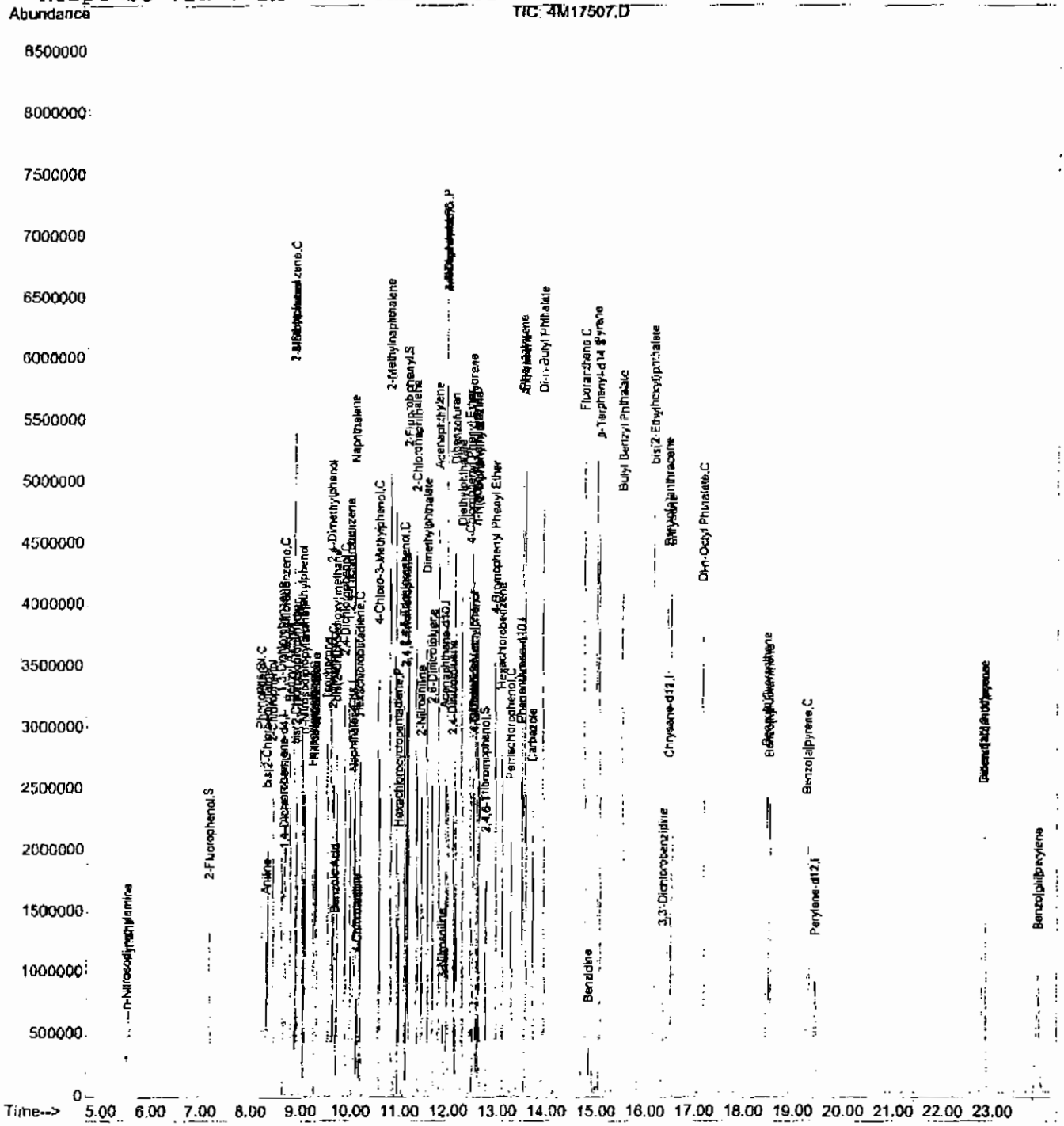
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 10:17:31 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	16.34	252	321485	48.6246	ug/ml	99
74)	Chrysene	16.53	228	2173332	75.5595	ug/ml	100
75)	bis(2-Ethylhexyl)phthalate	16.16	149	1964610	78.3428	ug/ml	100
77)	Di-n-Octyl Phthalate	17.17	149	3326631	83.3751	ug/ml	100
78)	Benzo[b]fluoranthene	18.46	252	2176041	77.6632	ug/ml	99
79)	Benzo[k]fluoranthene	18.52	252	1895852	78.1074	ug/ml	98
80)	Benzo[a]pyrene	19.29	252	1957119	79.4119	ug/ml	100
81)	Indeno[1,2,3-cd]pyrene	22.82	276	1946062	76.0248	ug/ml	99
82)	Dibenz[ah]anthracene	22.82	278	1617561	76.8236	ug/ml	100
83)	Benzo[ghi]perylene	23.91	276	1546827	73.8294	ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M17507.D BNA.M Sat Mar 15 10:08:32 2003 HPMS4 Page 3

Data File : C:\HPCHEM\1\DATA\031403\4M17507.D Vial: 6
Acq On : 14 Mar 2003 10:13 Operator: mdc
Sample : WG136152-06 80PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-5 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 11:11 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 12:24:05 2003
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\031403\4M17508.D Vial: 7
Acq On : 14 Mar 2003 10:48 Operator: mdc
Sample : WG136152-07 100PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-6 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 11:13 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 10:17:31 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.66	152	297983	40.00	ug/ml	0.00
19) Naphthalene-d8	10.06	136	1189069	40.00	ug/ml	0.00
34) Acenaphthene-d10	11.93	164	669694	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.49	188	1040367	40.00	ug/ml	0.00
67) Chrysene-d12	16.48	240	1093316	40.00	ug/ml	0.00
76) Perylene-d12	19.43	264	683044	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.16	112	934565	97.9637	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 97.96%			
6) Phenol-d5	8.18	99	1106878	98.7025	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 98.70%#			
20) Nitrobenzene-d5	9.28	82	985696	101.3185	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 202.64%#			
38) 2-Fluorobiphenyl	11.16	172	2011602	95.4349	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 190.86%#			
55) 2,4,6-Tribromophenol	12.75	330	253472	111.5969	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 111.60%			
70) p-Terphenyl-d14	15.07	244	2068444	92.7756	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 185.56%#			
Target Compounds						Qvalue
2) Pyridine	5.54	79	979870	98.4768	ug/ml	100
3) n-Nitrosodimethylamine	5.50	74	554223	98.1110	ug/ml	98
5) Aniline	8.30	66	390914	101.3896	ug/ml	80
7) Phenol	8.20	94	1208711	97.4967	ug/ml	99
8) bis(2-Chloroethyl)ether	8.33	63	755683	95.4146	ug/ml	93
9) 2-Chlorophenol	8.43	128	1039256	98.1384	ug/ml	100
10) 1,3-Dichlorobenzene	8.60	146	1070909	95.0036	ug/ml	99
11) 1,4-Dichlorobenzene	8.68	146	1142944	95.4250	ug/ml	100
12) Benzyl Alcohol	8.78	108	656343	101.0163	ug/ml	99
13) 1,2-Dichlorobenzene	8.86	146	998505	94.9657	ug/ml	99
14) 2-Methylphenol	8.87	107	789531	98.1032	ug/ml	99
15) bis(2-Chloroisopropyl)ethe	8.90	45	1677753	95.1471	ug/ml	98
16) 3-,4-Methylphenol	9.02	107	1155157	99.1461	ug/ml	100
17) n-Nitrosodipropylamine	9.06	70	643342	99.7878	ug/ml	99
18) Hexachloroethane	9.23	117	417392	98.8637	ug/ml	99
21) Nitrobenzene	9.30	77	998400	99.2665	ug/ml	98
22) Isophorone	9.53	82	1638870	100.2559	ug/ml	99
23) 2-Nitrophenol	9.64	139	943632	149.7816	ug/ml#	90
24) 2,4-Dimethylphenol	9.61	122	913133	99.7948	ug/ml	99
25) bis(2-Chloroethoxy)methane	9.71	93	1161603	97.6107	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\031403\4M17508.D Vial: 7
Acq On : 14 Mar 2003 10:48 Operator: mdc
Sample : WG136152-07 100PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-6 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 11:13 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 10:17:31 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	Benzoic Acid	9.68	122	510414	108.5349	ug/ml		97
27)	2,4-Dichlorophenol	9.88	162	826828	100.6470	ug/ml		100
28)	1,2,4-Trichlorobenzene	9.98	180	843662	96.3195	ug/ml		100
29)	Naphthalene	10.08	128	2846653	95.0503	ug/ml		99
30)	4-Chloroaniline	10.12	127	537191	58.2927	ug/ml		98
31)	Hexachlorobutadiene	10.18	225	435612	96.1992	ug/ml		100
32)	4-Chloro-3-Methylphenol	10.57	107	859065	100.3547	ug/ml		100
33)	2-Methylnaphthalene	10.80	142	2002996	95.7732	ug/ml		99
35)	Hexachlorocyclopentadiene	10.96	237	398767	123.6497	ug/ml		100
36)	2,4,6-Trichlorophenol	11.09	196	574847	104.5114	ug/ml		100
37)	2,4,5-Trichlorophenol	11.13	196	624376	103.6997	ug/ml		98
39)	2-Chloronaphthalene	11.33	162	1744384	95.7003	ug/ml		100
40)	2-Nitroaniline	11.43	65	551722	103.0880	ug/ml		97
41)	Dimethylphthalate	11.56	163	2078176	97.0708	ug/ml		100
42)	Acenaphthylene	11.79	152	2898751	97.8237	ug/ml		99
43)	2,6-Dinitrotoluene	11.66	165	501196	107.4346	ug/ml		98
44)	3-Nitroaniline	11.86	138	155524	51.6649	ug/ml		99
45)	Acenaphthene	11.96	154	1756794	96.4645	ug/ml		99
46)	2,4-Dinitrophenol	11.96	184	169830	121.0632	ug/ml	#	19
47)	4-Nitrophenol	11.96	65	350477	105.8427	ug/ml		96
48)	Dibenzofuran	12.13	168	2545019	94.7101	ug/ml		99
49)	2,4-Dinitrotoluene	12.09	165	636819	110.2631	ug/ml		98
50)	Diethylphthalate	12.27	149	2109535	97.3486	ug/ml		99
51)	Fluorene	12.49	166	2047886	95.4784	ug/ml		99
52)	4-Chlorophenyl Phenyl Ethe	12.44	204	984385	96.4142	ug/ml		98
53)	4-Nitroaniline	12.51	138	425886	109.9834	ug/ml		97
54)	1,2-Diphenylhydrazine	12.60	77	2088971	98.5606	ug/ml		98
57)	4,6-Dinitro-2-Methylphenol	12.51	198	340923	116.0289	ug/ml		91
58)	n-Nitrosodiphenylamine	12.56	169	1412208	97.2710	ug/ml		99
59)	4-Bromophenyl Phenyl Ether	12.96	248	555275	97.0722	ug/ml		99
60)	Hexachlorobenzene	13.09	284	535384	96.1947	ug/ml		98
61)	Pentachlorophenol	13.27	266	337180	111.3240	ug/ml		100
62)	Phenanthrene	13.51	178	2812008	93.9814	ug/ml		100
63)	Anthracene	13.56	178	2901660	95.9165	ug/ml		99
64)	Carbazole	13.70	167	1660555	79.7244	ug/ml		99
65)	Di-n-Butyl Phthalate	13.92	149	3683682	96.9118	ug/ml		99
66)	Fluoranthene	14.76	202	3007234	94.3667	ug/ml		99
68)	Benzidine	14.83	184	170182	63.8613	ug/ml		100
69)	Pyrene	15.01	202	3126247	90.7959	ug/ml		99
71)	Butyl Benzyl Phthalate	15.53	149	1675577	97.2385	ug/ml		100
72)	Benzo[a]anthracene	16.46	228	2883414	93.7058	ug/ml		100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\031403\4M17508.D Vial: 7
Acq On : 14 Mar 2003 10:48 Operator: mdc
Sample : WG136152-07 100PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-6 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 11:13 2003 Quant Results File: BNA.RES

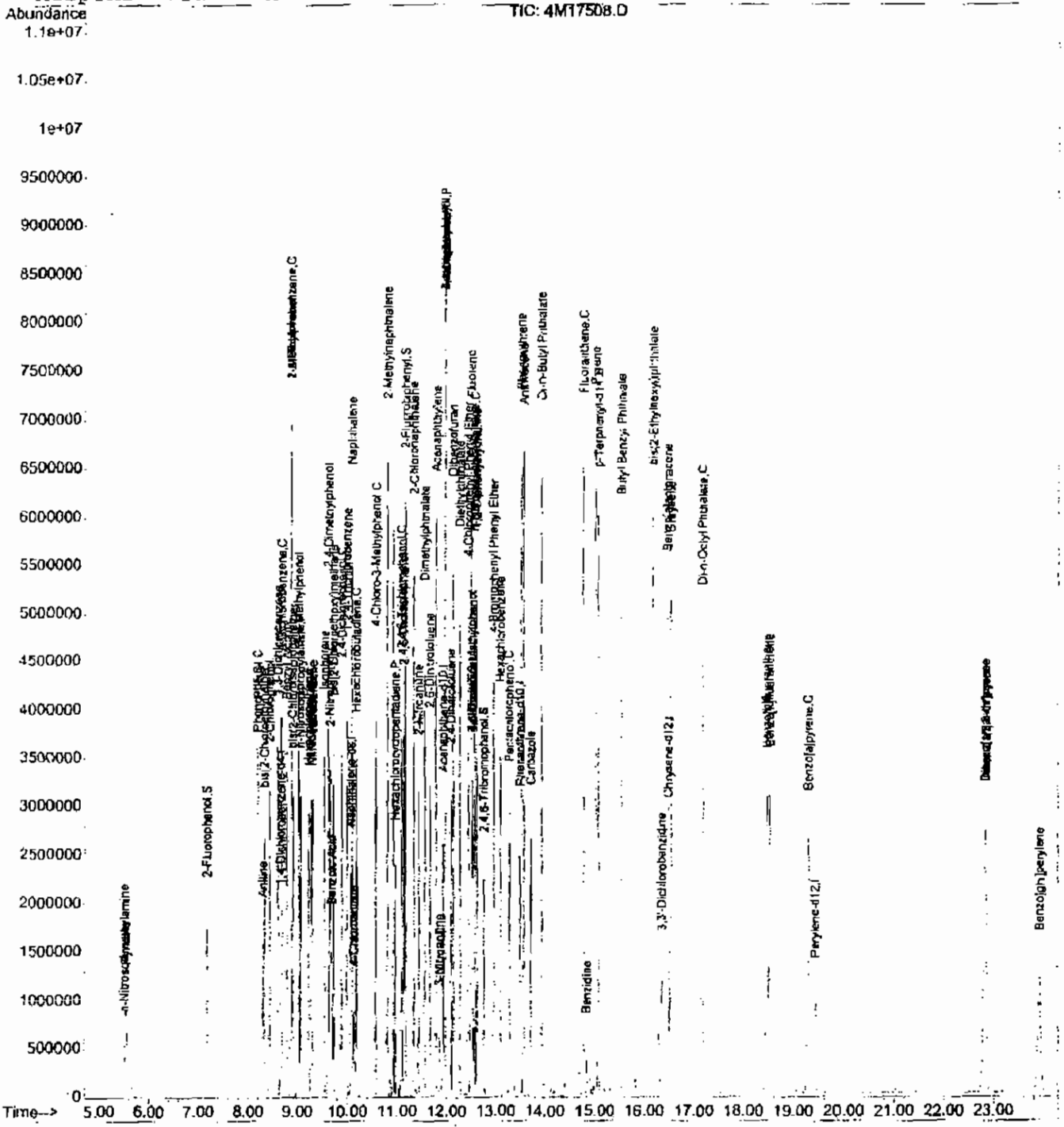
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 10:17:31 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	16.35	252	423007	62.0372	ug/ml	100
74)	Chrysene	16.53	228	2786290	93.9288	ug/ml	99
75)	bis(2-Ethylhexyl)phthalate	16.16	149	2512798	97.1604	ug/ml	100
77)	Di-n-Octyl Phthalate	17.17	149	4252925	104.1149	ug/ml	99
78)	Benzo[b]fluoranthene	18.46	252	2756005	96.0774	ug/ml	98
79)	Benzo[k]fluoranthene	18.52	252	2503535	100.7476	ug/ml	98
80)	Benzo[a]pyrene	19.29	252	2533218	100.4001	ug/ml	100
81)	Indeno[1,2,3-cd]pyrene	22.83	276	2523710	96.3011	ug/ml#	99
82)	Dibenz[ah]anthracene	22.83	278	2100869	97.4600	ug/ml	99
83)	Benzo[ghi]perylene	23.92	276	2001576	93.3153	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\031403\4M17508.D Vial: 7
Acq On : 14 Mar 2003 10:48 Operator: mdc
Sample : WG136152-07 100PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-6 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 11:13 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 12:24:05 2003
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\031403\4M17509.D Vial: 8
Acq On : 14 Mar 2003 11:23 Operator: mdc
Sample : WG136152-08 120PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-7 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 12:21 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 11:13:11 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.66	152	303253	40.00	ug/ml	0.00
19) Naphthalene-d8	10.06	136	1214315	40.00	ug/ml	0.00
34) Acenaphthene-d10	11.92	164	688149	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.48	188	1063290	40.00	ug/ml	0.00
67) Chrysene-d12	16.48	240	1125714	40.00	ug/ml	0.00
76) Perylene-d12	19.43	264	710055	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.16	112	1143492	118.0620	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 118.06%#			
6) Phenol-d5	8.18	99	1344224	117.8481	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 117.85%#			
20) Nitrobenzene-d5	9.28	82	1205349	120.9838	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 241.96%#			
38) 2-Fluorobiphenyl	11.16	172	2432793	111.7042	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 223.40%#			
55) 2,4,6-Tribromophenol	12.75	330	315270	134.9863	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 134.99%#			
70) p-Terphenyl-d14	15.06	244	2505881	108.9508	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 217.90%#			
Target Compounds						Qvalue
2) Pyridine	5.54	79	1210975	120.0669	ug/ml	99
3) n-Nitrosodimethylamine	5.51	74	677935	118.5259	ug/ml	98
5) Aniline	8.29	66	492908	121.7348	ug/ml	84
7) Phenol	8.20	94	1484891	117.9169	ug/ml	99
8) bis(2-Chloroethyl)ether	8.33	63	922834	114.1418	ug/ml	93
9) 2-Chlorophenol	8.43	128	1266737	117.6482	ug/ml	100
10) 1,3-Dichlorobenzene	8.60	146	1313269	114.5353	ug/ml	100
11) 1,4-Dichlorobenzene	8.67	146	1396622	114.4731	ug/ml	99
12) Benzyl Alcohol	8.78	108	804863	121.8111	ug/ml	99
13) 1,2-Dichlorobenzene	8.86	146	1211189	112.8771	ug/ml	99
14) 2-Methylphenol	8.87	107	962106	117.0930	ug/ml	99
15) bis(2-Chloroisopropyl)ethe	8.90	45	2021854	112.3691	ug/ml	98
16) 3-,4-Methylphenol	9.02	107	1396754	117.6151	ug/ml	99
17) n-Nitrosodipropylamine	9.06	70	780810	119.0270	ug/ml	98
18) Hexachloroethane	9.22	117	513009	119.3222	ug/ml	100
21) Nitrobenzene	9.30	77	1216601	118.1818	ug/ml	98
22) Isophorone	9.53	82	1997759	119.4432	ug/ml	99
23) 2-Nitrophenol	9.64	139	882436	127.7365	ug/ml	94
24) 2,4-Dimethylphenol	9.61	122	1119811	118.9588	ug/ml	98
25) bis(2-Chloroethoxy)methane	9.72	93	1420205	116.6930	ug/ml#	97

(#) = qualifier out of range (m) = manual integration
4M17509.D BNA.M Sat Mar 15 10:08:51 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\031403\4M17509.D Vial: 8
Acq On : 14 Mar 2003 11:23 Operator: mdc
Sample : WG136152-08 120PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-7 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 12:21 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 11:13:11 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
26)	Benzoic Acid	9.69	122	662414	142.3384	ug/ml		97
27)	2,4-Dichlorophenol	9.88	162	1006971	119.8227	ug/ml		100
28)	1,2,4-Trichlorobenzene	9.98	180	1023979	114.1442	ug/ml		100
29)	Naphthalene	10.08	128	3418420	111.4604	ug/ml		98
30)	4-Chloroaniline	10.12	127	704741	78.5973	ug/ml		98
31)	Hexachlorobutadiene	10.17	225	529477	114.0300	ug/ml		100
32)	4-Chloro-3-Methylphenol	10.57	107	1049839	119.9934	ug/ml		100
33)	2-Methylnaphthalene	10.80	142	2420262	112.8769	ug/ml		99
35)	Hexachlorocyclopentadiene	10.96	237	491568	148.2203	ug/ml		100
36)	2,4,6-Trichlorophenol	11.09	196	704349	124.3469	ug/ml		100
37)	2,4,5-Trichlorophenol	11.13	196	770162	124.2556	ug/ml		99
39)	2-Chloronaphthalene	11.33	162	2121362	112.7205	ug/ml		99
40)	2-Nitroaniline	11.44	65	673488	121.4813	ug/ml		96
41)	Dimethylphthalate	11.56	163	2506905	113.3961	ug/ml		100
42)	Acenaphthylene	11.78	152	3496967	113.8288	ug/ml		99
43)	2,6-Dinitrotoluene	11.66	165	617224	128.3892	ug/ml		97
44)	3-Nitroaniline	11.86	138	201221	65.9543	ug/ml		96
45)	Acenaphthene	11.96	154	2121489	112.7413	ug/ml		99
46)	2,4-Dinitrophenol	11.96	184	227860	160.5377	ug/ml	#	3
47)	4-Nitrophenol	11.96	65	432463	125.6258	ug/ml		96
48)	Dibenzofuran	12.13	168	3075852	110.9131	ug/ml		99
49)	2,4-Dinitrotoluene	12.09	165	784946	131.8482	ug/ml		97
50)	Diethylphthalate	12.27	149	2544440	113.6224	ug/ml		99
51)	Fluorene	12.49	166	2483418	112.2042	ug/ml		100
52)	4-Chlorophenyl Phenyl Ethe	12.43	204	1199448	113.8730	ug/ml		98
53)	4-Nitroaniline	12.51	138	506019	123.3284	ug/ml		97
54)	1,2-Diphenylhydrazine	12.61	77	2521642	115.1538	ug/ml		98
57)	4,6-Dinitro-2-Methylphenol	12.51	198	441021	147.7765	ug/ml		89
58)	n-Nitrosodiphenylamine	12.56	169	1714923	114.4743	ug/ml		99
59)	4-Bromophenyl Phenyl Ether	12.95	248	678085	115.6659	ug/ml		99
60)	Hexachlorobenzene	13.09	284	655896	114.9911	ug/ml		98
61)	Pentachlorophenol	13.27	266	429964	139.0106	ug/ml		100
62)	Phenanthrene	13.51	178	3394156	110.4682	ug/ml		99
63)	Anthracene	13.56	178	3501845	112.4561	ug/ml		99
64)	Carbazole	13.71	167	1901322	86.5408	ug/ml		99
65)	Di-n-Butyl Phthalate	13.92	149	4415171	112.9217	ug/ml		99
66)	Fluoranthene	14.76	202	3616577	110.3963	ug/ml		98
68)	Benzidine	14.83	184	243890	90.7164	ug/ml		100
69)	Pyrene	15.01	202	3768022	106.2334	ug/ml		99
71)	Butyl Benzyl Phthalate	15.53	149	2035082	114.5502	ug/ml		100
72)	Benzo[a]anthracene	16.46	228	3537206	111.6659	ug/ml		99

(#) = qualifier out of range (m) = manual integration
4M17509.D BNA.M Sat Mar 15 10:08:51 2003 HPMS4 Page 2

Data File : C:\HPCHEM\1\DATA\031403\4M17509.D Vial: 8
Acq On : 14 Mar 2003 11:23 Operator: mdc
Sample : WG136152-08 120PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-7 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 12:21 2003 Quant Results File: BNA.RES

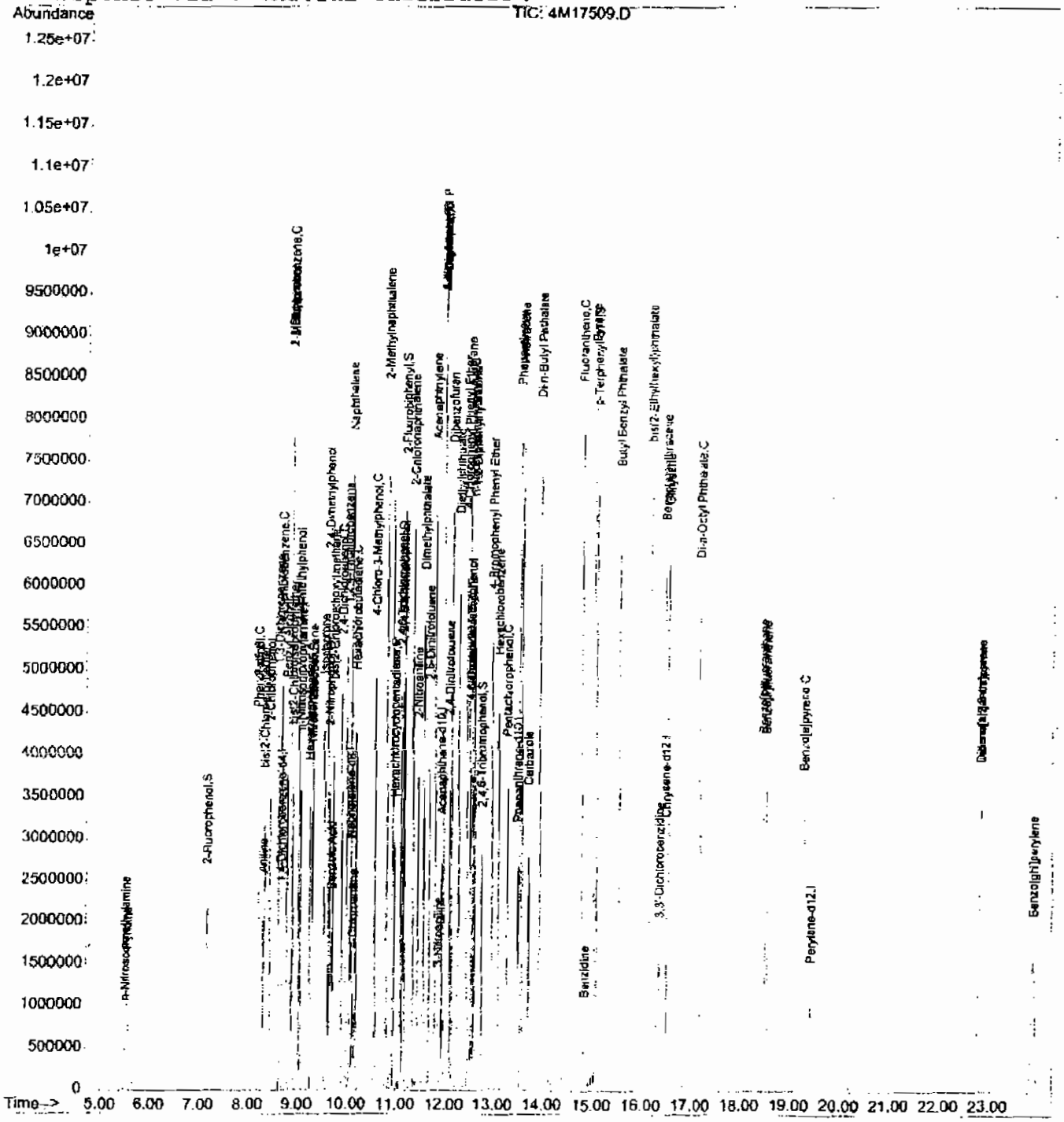
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 11:13:11 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	16.35	252	536373	79.2014	ug/ml	100
74)	Chrysene	16.53	228	3402839	111.3702	ug/ml	99
75)	bis(2-Ethylhexyl)phthalate	16.16	149	3057668	114.7094	ug/ml	100
77)	Di-n-Octyl Phthalate	17.17	149	5183993	120.8021	ug/ml	99
78)	Benzo[b]fluoranthene	18.47	252	3397710	113.8433	ug/ml	98
79)	Benzo[k]fluoranthene	18.52	252	2951788	113.3581	ug/ml	99
80)	Benzo[a]pyrene	19.29	252	3125597	118.5301	ug/ml	99
81)	Indeno[1,2,3-cd]pyrene	22.84	276	3132536	116.4912	ug/ml#	98
82)	Dibenz[ah]anthracene	22.84	278	2617633	118.2135	ug/ml	99
83)	Benzo[ghi]perylene	23.92	276	2504461	114.6645	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\031403\4M17509.D Vial: 8
Acq On : 14 Mar 2003 11:23 Operator: mdc
Sample : WG136152-08 120PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-7 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 14 12:21 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Fri Mar 14 12:24:05 2003
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\031403\4M17510.D Vial: 9
Acq On : 14 Mar 2003 12:30 Operator: mdc
Sample : WG136152-09 50PPM Alt source BNA STD Inst : HPMS4
Misc : 1,1 SOS62-28 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Sat Mar 15 10:17:20 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	106	0.00
2		Pyridine	50.000	52.504	-5.0	111	0.00
3		n-Nitrosodimethylamine	50.000	49.860	0.3	106	0.00
4	S	2-Fluorophenol	50.000	49.388	1.2	105	0.00
5		Aniline	50.000	41.727	16.5	90	0.00
6	S	Phenol-d5	50.000	49.670	0.7	103	0.00
7	C	Phenol	50.000	48.747	2.5	103	0.00
8		bis(2-Chloroethyl)ether	50.000	48.310	3.4	103	0.00
9		2-Chlorophenol	50.000	48.046	3.9	101	0.00
10		1,3-Dichlorobenzene	50.000	51.045	-2.1	110	0.00
11	C	1,4-Dichlorobenzene	50.000	49.346	1.3	107	0.00
12		Benzyl Alcohol	50.000	50.562	-1.1	104	0.00
13	C	1,2-Dichlorobenzene	50.000	51.545	-3.1	111	0.00
14		2-Methylphenol	50.000	48.771	2.5	102	0.00
15		bis(2-Chloroisopropyl)ether	50.000	50.957	-1.9	108	0.00
16		3-,4-Methylphenol	50.000	49.408	1.2	103	0.00
17	P	n-Nitrosodipropylamine	50.000	54.041	-8.1	111	0.00
18		Hexachloroethane	50.000	50.917	-1.8	106	0.00
19	I	Naphthalene-d8	40.000	40.000	0.0	104	0.00
20	S	Nitrobenzene-d5	50.000	51.611	-3.2	106	0.00
21		Nitrobenzene	50.000	48.956	2.1	101	0.00
22		Isophorone	50.000	56.208	-12.4	114	0.00
23	C	2-Nitrophenol	50.000	66.201	-32.4#	116	0.00
24		2,4-Dimethylphenol	50.000	51.565	-3.1	107	0.00
25		bis(2-Chloroethoxy)methane	50.000	50.022	-0.0	106	0.00
26		Benzoic Acid	50.000	44.830	10.3	94	0.00
27	C	2,4-Dichlorophenol	50.000	49.792	0.4	102	0.00
28		1,2,4-Trichlorobenzene	50.000	51.327	-2.7	109	0.00
29		Naphthalene	50.000	49.996	0.0	106	0.00
30		4-Chloroaniline	50.000	27.506	45.0#	69	0.00
31	C	Hexachlorobutadiene	50.000	56.261	-12.5	120	0.00
32	C	4-Chloro-3-Methylphenol	50.000	49.573	0.9	101	0.00
33		2-Methylnaphthalene	50.000	49.950	0.1	105	0.00
34	I	Acenaphthene-d10	40.000	40.000	0.0	104	0.00
35	P	Hexachlorocyclopentadiene	50.000	61.277	-22.6	111	0.00
36	C	2,4,6-Trichlorophenol	50.000	51.459	-2.9	102	0.00
37		2,4,5-Trichlorophenol	50.000	50.585	-1.2	100	0.00
38	S	2-Fluorobiphenyl	50.000	51.941	-3.9	111	0.00
39		2-Chloronaphthalene	50.000	52.067	-4.1	110	0.00

(#)=Out of Range
4M17510.D BNA.M Sat Mar 15 10:26:04 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\031403\4M17510.D Vial: 9
Acq On : 14 Mar 2003 12:30 Operator: mdc
Sample : WG136152-09 50PPM Alt source BNA STD Inst : HPMS4
Misc : 1,1 SOS62-28 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Sat Mar 15 10:17:20 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
40		2-Nitroaniline	50.000	50.861	-1.7	102	0.00
41		Dimethylphthalate	50.000	50.349	-0.7	105	0.00
42		Acenaphthylene	50.000	52.627	-5.3	109	0.00
43		2,6-Dinitrotoluene	50.000	54.516	-9.0	108	0.00
44		3-Nitroaniline	50.000	28.557	42.9#	72	0.00
45	C	Acenaphthene	50.000	50.586	-1.2	106	0.00
46	P	2,4-Dinitrophenol	50.000	46.719	6.6	114	0.00
47	P	4-Nitrophenol	50.000	50.883	-1.8	101	0.00
48		Dibenzofuran	50.000	49.912	0.2	105	0.00
49		2,4-Dinitrotoluene	50.000	58.372	-16.7	113	0.00
50		Diethylphthalate	50.000	50.763	-1.5	105	0.00
51		Fluorene	50.000	50.786	-1.6	107	0.00
52		4-Chlorophenyl Phenyl Ether	50.000	49.291	1.4	105	0.00
53		4-Nitroaniline	50.000	43.311	13.4	81	0.00
54		1,2-Diphenylhydrazine	50.000	50.151	-0.3	102	0.00
55	S	2,4,6-Tribromophenol	50.000	53.312	-6.6	102	0.00
56	I	Phenanthrene-d10	40.000	40.000	0.0	105	0.00
57		4,6-Dinitro-2-Methylphenol	50.000	49.285	1.4	112	0.00
58	C	n-Nitrosodiphenylamine	50.000	51.635	-3.3	107	0.00
59		4-Bromophenyl Phenyl Ether	50.000	42.685	14.6	89	0.00
60		Hexachlorobenzene	50.000	51.449	-2.9	111	0.00
61	C	Pentachlorophenol	50.000	48.947	2.1	102	0.00
62		Phenanthrene	50.000	50.899	-1.8	109	0.00
63		Anthracene	50.000	49.782	0.4	105	0.00
64		Carbazole	50.000	35.396	29.2	81	0.00
65		Di-n-Butyl Phthalate	50.000	50.407	-0.8	102	0.00
66	C	Fluoranthene	50.000	50.139	-0.3	106	0.00
67	I	Chrysene-d12	40.000	40.000	0.0	105	0.00
68		Benzidine	50.000	1.779	96.4#	4	0.00
69		Pyrene	50.000	48.034	3.9	104	0.00
70	S	p-Terphenyl-d14	50.000	50.669	-1.3	109	0.00
71		Butyl Benzyl Phthalate	50.000	53.849	-7.7	111	0.00
72		Benzo[a]anthracene	50.000	48.989	2.0	105	0.00
73		3,3'-Dichlorobenzidine	50.000	39.695	20.6	111	0.00
74		Chrysene	50.000	49.449	1.1	106	0.00
75		bis(2-Ethylhexyl)phthalate	50.000	49.863	0.3	103	0.00
76	I	Perylene-d12	40.000	40.000	0.0	106	0.00
77	C	Di-n-Octyl Phthalate	50.000	50.885	-1.8	103	0.00

(#)=Out of Range

Data File : C:\HPCHEM\1\DATA\031403\4M17510.D Vial: 9
Acq On : 14 Mar 2003 12:30 Operator: mdc
Sample : WG136152-09 50PPM Alt source BNA STD Inst : HPMS4
Misc : 1,1 SOS62-28 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Sat Mar 15 10:17:20 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
78		Benzo[b]fluoranthene	50.000	47.998	4.0	101	0.00
79		Benzo[k]fluoranthene	50.000	56.378	-12.8	123	0.00
80	C	Benzo[a]pyrene	50.000	49.469	1.1	104	0.00
81		Indeno[1,2,3-cd]pyrene	50.000	49.172	1.7	105	0.00
82		Dibenz[ah]anthracene	50.000	50.403	-0.8	107	0.00
83		Benzo[ghi]perylene	50.000	48.977	2.0	106	0.00

Data File : C:\HPCHEM\1\DATA\031403\4M17510.D Vial: 9
Acq On : 14 Mar 2003 12:30 Operator: mdc
Sample : WG136152-09 50PPM Alt source BNA STD Inst : HPMS4
Misc : 1,1 SOS62-28 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Sat Mar 15 10:17:20 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	106	0.00
2		Pyridine	1.331	1.398	-5.0	111	0.00
3		n-Nitrosodimethylamine	0.751	0.749	0.3	106	0.00
4	S	2-Fluorophenol	1.274	1.259	1.2	105	0.00
5		Aniline	0.553	0.462	16.5	90	0.00
6	S	Phenol-d5	1.503	1.493	0.7	103	0.00
7	C	Phenol	1.658	1.617	2.5	103	0.00
8		bis(2-Chloroethyl)ether	1.069	1.033	3.4	103	0.00
9		2-Chlorophenol	1.419	1.363	3.9	101	0.00
10		1,3-Dichlorobenzene	1.512	1.544	-2.1	110	0.00
11	C	1,4-Dichlorobenzene	1.610	1.589	1.3	107	0.00
12		Benzyl Alcohol	0.870	0.879	-1.0	104	0.00
13	C	1,2-Dichlorobenzene	1.419	1.463	-3.1	111	0.00
14		2-Methylphenol	1.087	1.061	2.4	102	0.00
15		bis(2-Chloroisopropyl)ether	2.376	2.421	-1.9	108	0.00
16		3-,4-Methylphenol	1.566	1.547	1.2	103	0.00
17	P	n-Nitrosodipropylamine	0.863	0.933	-8.1	111	0.00
18		Hexachloroethane	0.568	0.578	-1.8	106	0.00
19	I	Naphthalene-d8	1.000	1.000	0.0	104	0.00
20	S	Nitrobenzene-d5	0.329	0.340	-3.3	106	0.00
21		Nitrobenzene	0.340	0.333	2.1	101	0.00
22		Isophorone	0.552	0.620	-12.3	114	0.00
23	C	2-Nitrophenol	0.232	0.307	-32.3#	116	0.00
24		2,4-Dimethylphenol	0.312	0.322	-3.2	107	0.00
25		bis(2-Chloroethoxy)methane	0.402	0.402	0.0	106	0.00
26		Benzoic Acid	0.149	0.134	10.1	94	0.00
27	C	2,4-Dichlorophenol	0.277	0.276	0.4	102	0.00
28		1,2,4-Trichlorobenzene	0.296	0.304	-2.7	109	0.00
29		Naphthalene	1.012	1.012	0.0	106	0.00
30		4-Chloroaniline	0.293	0.161	45.1#	69	0.00
31	C	Hexachlorobutadiene	0.154	0.173	-12.3	120	0.00
32	C	4-Chloro-3-Methylphenol	0.289	0.286	1.0	101	0.00
33		2-Methylnaphthalene	0.709	0.708	0.1	105	0.00
34	I	Acenaphthene-d10	1.000	1.000	0.0	104	0.00
35	P	Hexachlorocyclopentadiene	0.192	0.235	-22.4	111	0.00
36	C	2,4,6-Trichlorophenol	0.330	0.339	-2.7	102	0.00
37		2,4,5-Trichlorophenol	0.361	0.365	-1.1	100	0.00
38	S	2-Fluorobiphenyl	1.270	1.319	-3.9	111	0.00
39		2-Chloronaphthalene	1.097	1.143	-4.2	110	0.00

(#)=Out of Range
4M17510.D BNA.M Sat Mar 15 10:26:11 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\031403\4M17510.D Vial: 9
Acq On : 14 Mar 2003 12:30 Operator: mdc
Sample : WG136152-09 50PPM Alt source BNA STD Inst : HPMS4
Misc : 1,1 SOS62-28 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Sat Mar 15 10:17:20 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40		2-Nitroaniline	0.323	0.329	-1.9	102	0.00
41		Dimethylphthalate	1.289	1.298	-0.7	105	0.00
42		Acenaphthylene	1.802	1.896	-5.2	109	0.00
43		2,6-Dinitrotoluene	0.280	0.305	-8.9	108	0.00
44		3-Nitroaniline	0.172	0.098	43.0#	72	0.00
45	C	Acenaphthene	1.098	1.111	-1.2	106	0.00
46	P	2,4-Dinitrophenol	0.081	0.076	6.2	114	0.00
47	P	4-Nitrophenol	0.202	0.206	-2.0	101	0.00
48		Dibenzofuran	1.616	1.613	0.2	105	0.00
49		2,4-Dinitrotoluene	0.346	0.404	-16.8	113	0.00
50		Diethylphthalate	1.306	1.326	-1.5	105	0.00
51		Fluorene	1.290	1.310	-1.6	107	0.00
52		4-Chlorophenyl Phenyl Ether	0.614	0.605	1.5	105	0.00
53		4-Nitroaniline	0.243	0.211	13.2	81	0.00
54		1,2-Diphenylhydrazine	1.277	1.281	-0.3	102	0.00
55	S	2,4,6-Tribromophenol	0.136	0.145	-6.6	102	0.00
56	I	Phenanthrene-d10	1.000	1.000	0.0	105	0.00
57		4,6-Dinitro-2-Methylphenol	0.112	0.110	1.8	112	0.00
58	C	n-Nitrosodiphenylamine	0.571	0.590	-3.3	107	0.00
59		4-Bromophenyl Phenyl Ether	0.221	0.189	14.5	89	0.00
60		Hexachlorobenzene	0.215	0.221	-2.8	111	0.00
61	C	Pentachlorophenol	0.117	0.114	2.6	102	0.00
62		Phenanthrene	1.161	1.181	-1.7	109	0.00
63		Anthracene	1.179	1.174	0.4	105	0.00
64		Carbazole	0.849	0.601	29.2	81	0.00
65		Di-n-Butyl Phthalate	1.480	1.492	-0.8	102	0.00
66	C	Fluoranthene	1.238	1.242	-0.3	106	0.00
67	I	Chrysene-d12	1.000	1.000	0.0	105	0.00
68		Benzidine	0.087	0.003#	96.6#	4#	0.00
69		Pyrene	1.262	1.212	4.0	104	0.00
70	S	p-Terphenyl-d14	0.819	0.830	-1.3	109	0.00
71		Butyl Benzyl Phthalate	0.632	0.681	-7.8	111	0.00
72		Benzo[a]anthracene	1.126	1.103	2.0	105	0.00
73		3,3'-Dichlorobenzidine	0.230	0.183	20.4	111	0.00
74		Chrysene	1.085	1.073	1.1	106	0.00
75		bis(2-Ethylhexyl)phthalate	0.950	0.947	0.3	103	0.00
76	I	Perylene-d12	1.000	1.000	0.0	106	0.00
77	C	Di-n-Octyl Phthalate	2.443	2.486	-1.8	103	0.00

(#)=Out of Range

Data File : C:\HPCHEM\1\DATA\031403\4M17510.D Vial: 9
Acq On : 14 Mar 2003 12:30 Operator: mdc
Sample : WG136152-09 50PPM Alt source BNA STD Inst : HPMS4
Misc : 1,1 SOS62-28 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Sat Mar 15 10:17:20 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
78		Benzo[b]fluoranthene	1.682	1.614	4.0	101	0.00
79		Benzo[k]fluoranthene	1.467	1.655	-12.8	123	0.00
80	C	Benzo[a]pyrene	1.491	1.475	1.1	104	0.00
81		Indeno[1,2,3-cd]pyrene	1.490	1.466	1.6	105	0.00
82		Dibenz[ah]anthracene	1.229	1.239	-0.8	107	0.00
83		Benzo[ghi]perylene	1.202	1.177	2.1	106	0.00

Data File : C:\HPCHEM\1\DATA\031403\4M17510.D Vial: 9
Acq On : 14 Mar 2003 12:30 Operator: mdc
Sample : WG136152-09 50PPM Alt source BNA STD Inst : HPMS4
Misc : 1,1 SOS62-28 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 15 10:24 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Sat Mar 15 10:17:20 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.66	152	291064	40.00 ug/ml	0.00
19) Naphthalene-d8	10.06	136	1152352	40.00 ug/ml	0.00
34) Acenaphthene-d10	11.93	164	648435	40.00 ug/ml	0.00
56) Phenanthrene-d10	13.49	188	1005666	40.00 ug/ml	0.00
67) Chrysene-d12	16.48	240	1048783	40.00 ug/ml	0.00
76) Perylene-d12	19.43	264	671573	40.00 ug/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	7.16	112	457950	49.3878 ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 49.39%		
6) Phenol-d5	8.18	99	543233	49.6704 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 49.67%		
20) Nitrobenzene-d5	9.28	82	489180	51.6106 ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 103.22%		
38) 2-Fluorobiphenyl	11.16	172	1069383	51.9412 ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 103.88%		
55) 2,4,6-Tribromophenol	12.75	330	117371	53.3123 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 53.31%		
70) p-Terphenyl-d14	15.06	244	1088134	50.6688 ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 101.34%		
Target Compounds					Qvalue
2) Pyridine	5.54	79	508574	52.5042 ug/ml	100
3) n-Nitrosodimethylamine	5.50	74	272633	49.8601 ug/ml	99
5) Aniline	8.29	66	168000	41.7270 ug/ml#	91
7) Phenol	8.19	94	588213	48.7471 ug/ml	100
8) bis(2-Chloroethyl)ether	8.32	63	375943	48.3098 ug/ml	98
9) 2-Chlorophenol	8.43	128	495953	48.0456 ug/ml	100
10) 1,3-Dichlorobenzene	8.60	146	561680	51.0452 ug/ml	100
11) 1,4-Dichlorobenzene	8.67	146	578219	49.3456 ug/ml	100
12) Benzyl Alcohol	8.77	108	319918	50.5623 ug/ml	100
13) 1,2-Dichlorobenzene	8.86	146	532355	51.5453 ug/ml	99
14) 2-Methylphenol	8.86	107	385923	48.7712 ug/ml	100
15) bis(2-Chloroisopropyl)ethe	8.90	45	880949	50.9567 ug/ml	99
16) 3-,4-Methylphenol	9.02	107	563009	49.4082 ug/ml	99
17) n-Nitrosodipropylamine	9.05	70	339516	54.0414 ug/ml	99
18) Hexachloroethane	9.22	117	210423	50.9173 ug/ml	99
21) Nitrobenzene	9.30	77	479401	48.9560 ug/ml	99
22) Isophorone	9.52	82	893784	56.2084 ug/ml	99
23) 2-Nitrophenol	9.64	139	442139	66.2013 ug/ml	93
24) 2,4-Dimethylphenol	9.61	122	463728	51.5653 ug/ml	99
25) bis(2-Chloroethoxy)methane	9.71	93	579177	50.0219 ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\031403\4M17510.D Vial: 9
Acq On : 14 Mar 2003 12:30 Operator: mdc
Sample : WG136152-09 50PPM Alt source BNA STD Inst : HPMS4
Misc : 1,1 SOS62-28 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 15 10:24 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Sat Mar 15 10:17:20 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26)	Benzoic Acid	9.66	122	192371	44.8296 ug/ml	100
27)	2,4-Dichlorophenol	9.88	162	397405	49.7918 ug/ml	100
28)	1,2,4-Trichlorobenzene	9.98	180	437845	51.3273 ug/ml	100
29)	Naphthalene	10.08	128	1458243	49.9955 ug/ml	100
30)	4-Chloroaniline	10.12	127	231870	27.5063 ug/ml	100
31)	Hexachlorobutadiene	10.17	225	248938	56.2613 ug/ml	99
32)	4-Chloro-3-Methylphenol	10.57	107	412382	49.5735 ug/ml	99
33)	2-Methylnaphthalene	10.80	142	1019650	49.9495 ug/ml	100
35)	Hexachlorocyclopentadiene	10.96	237	190870	61.2768 ug/ml	99
36)	2,4,6-Trichlorophenol	11.09	196	275083	51.4586 ug/ml	100
37)	2,4,5-Trichlorophenol	11.13	196	295922	50.5849 ug/ml	98
39)	2-Chloronaphthalene	11.33	162	926169	52.0669 ug/ml	99
40)	2-Nitroaniline	11.43	65	266465	50.8615 ug/ml	99
41)	Dimethylphthalate	11.56	163	1052314	50.3486 ug/ml	100
42)	Acenaphthylene	11.78	152	1536977	52.6269 ug/ml	100
43)	2,6-Dinitrotoluene	11.66	165	247194	54.5157 ug/ml	99
44)	3-Nitroaniline	11.86	138	79628	28.5572 ug/ml	94
45)	Acenaphthene	11.96	154	900785	50.5856 ug/ml	99
46)	2,4-Dinitrophenol	11.96	184	61519	46.7188 ug/ml	82
47)	4-Nitrophenol	11.96	65	166683	50.8833 ug/ml	99
48)	Dibenzofuran	12.13	168	1307288	49.9123 ug/ml	100
49)	2,4-Dinitrotoluene	12.09	165	327576	58.3719 ug/ml	98
50)	Diethylphthalate	12.27	149	1074833	50.7633 ug/ml	100
51)	Fluorene	12.49	166	1061849	50.7859 ug/ml	100
52)	4-Chlorophenyl Phenyl Ethe	12.43	204	490304	49.2907 ug/ml	99
53)	4-Nitroaniline	12.51	138	170805	43.3115 ug/ml	98
54)	1,2-Diphenylhydrazine	12.60	77	1038587	50.1514 ug/ml	99
57)	4,6-Dinitro-2-Methylphenol	12.51	198	138407	49.2853 ug/ml	94
58)	n-Nitrosodiphenylamine	12.56	169	741727	51.6351 ug/ml	99
59)	4-Bromophenyl Phenyl Ether	12.95	248	237130	42.6848 ug/ml	99
60)	Hexachlorobenzene	13.08	284	278165	51.4488 ug/ml	99
61)	Pentachlorophenol	13.27	266	143455	48.9466 ug/ml	100
62)	Phenanthrene	13.51	178	1485074	50.8986 ug/ml	100
63)	Anthracene	13.56	178	1475796	49.7820 ug/ml	100
64)	Carbazole	13.70	167	755293	35.3960 ug/ml	98
65)	Di-n-Butyl Phthalate	13.92	149	1876001	50.4071 ug/ml	100
66)	Fluoranthene	14.75	202	1561041	50.1392 ug/ml	100
68)	Benzidine	14.83	184	4065	1.7786 ug/ml	100
69)	Pyrene	15.01	202	1589229	48.0336 ug/ml	100
71)	Butyl Benzyl Phthalate	15.53	149	892892	53.8486 ug/ml	100
72)	Benzo[a]anthracene	16.46	228	1446526	48.9891 ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M17510.D BNA.M Sat Mar 15 10:24:56 2003 HPMS4 Page 2

Data File : C:\HPCHEM\1\DATA\031403\4M17510.D
Acq On : 14 Mar 2003 12:30 Operator: mdc
Sample : WG136152-09 50PPM Alt source BNA STD Inst : HPMS4
Misc : 1,1 SOS62-28 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 15 10:24 2003 Quant Results File: BNA.RES

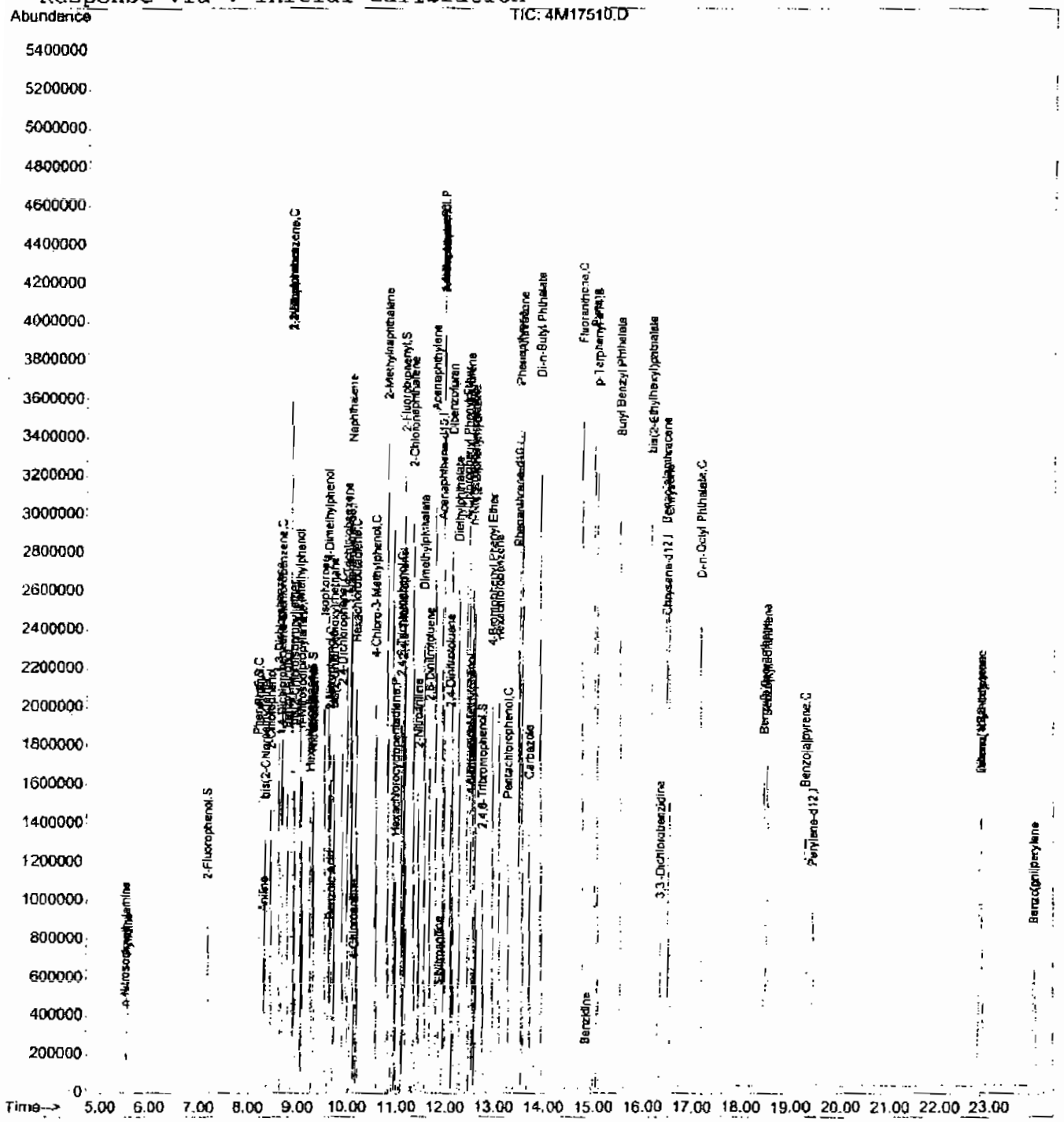
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Sat Mar 15 10:17:20 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	16.34	252	239885	39.6947	ug/ml	99
74)	Chrysene	16.52	228	1407107	49.4488	ug/ml	100
75)	bis(2-Ethylhexyl)phthalate	16.16	149	1242109	49.8632	ug/ml	100
77)	Di-n-Octyl Phthalate	17.17	149	2086890	50.8845	ug/ml	100
78)	Benzo[b]fluoranthene	18.46	252	1355243	47.9981	ug/ml	99
79)	Benzo[k]fluoranthene	18.52	252	1388920	56.3776	ug/ml	98
80)	Benzo[a]pyrene	19.29	252	1238329	49.4687	ug/ml	99
81)	Indeno[1,2,3-cd]pyrene	22.82	276	1230499	49.1721	ug/ml	99
82)	Dibenz[ah]anthracene	22.82	278	1039863	50.4028	ug/ml	100
83)	Benzo[ghi]perylene	23.90	276	988400	48.9771	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\031403\4M17510.D
Acq On : 14 Mar 2003 12:30 Operator: mdc
Sample : WG136152-09 50PPM Alt source BNA STD Inst : HPMS4
Misc : 1,1 SOS62-28 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 15 10:24 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Sat Mar 15 10:17:20 2003
Response via : Initial Calibration



4M17510.D BNA.M Sat Mar 15 10:24:58 2003 HPMS4 Page 4

Continuing calibration Area and RT check

Instrument: HPMS4
Initial cal date: 14 Mar 2003 7:56
CCV date: 19 Mar 2003 14:16
CCV filename: 4M17587.D

	1,4-Dichlorobenzene-d4		Naphthalene-d8		Acenaphthene-d10	
	Amount	RT	Amount	RT	Amount	RT
InitCal	275107	8.66	1103319	10.06	620881	11.93
CCV	168094	8.66	666566	10.06	374326	11.92

	Phenanthrene-d10		Chrysene-d12		Perylene-d12	
	Amount	RT	Amount	RT	Amount	RT
InitCal	961760	13.49	1000317	16.48	635685	19.43
CCV	570261	13.48	672747	16.48	431622	19.43

...\HPCHEM\1\DATA\031903\4M17587.D Vial: 2
Acq On : 19 Mar 2003 14:16 Operator: alt
Sample : WG136559-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 07:45:59 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	61	0.00
2		Pyridine	50.000	43.968	12.1	54	0.01
3		n-Nitrosodimethylamine	50.000	42.401	15.2	52	0.00
4	S	2-Fluorophenol	50.000	45.354	9.3	56	0.00
5		Aniline	50.000	44.508	11.0	56	0.00
6	S	Phenol-d5	50.000	44.119	11.8	53	0.00
7	C	Phenol	50.000	45.795	8.4	56	0.00
8		bis(2-Chloroethyl)ether	50.000	47.307	5.4	58	0.00
9		2-Chlorophenol	50.000	47.378	5.2	57	0.00
10		1,3-Dichlorobenzene	50.000	49.501	1.0	61	0.00
11	C	1,4-Dichlorobenzene	50.000	51.406	-2.8	64	0.00
12		Benzyl Alcohol	50.000	46.576	6.8	55	0.00
13	C	1,2-Dichlorobenzene	50.000	53.322	-6.6	66	0.00
14		2-Methylphenol	50.000	51.949	-3.9	63	0.00
15		bis(2-Chloroisopropyl)ether	50.000	47.944	4.1	58	0.00
16		3-,4-Methylphenol	50.000	47.510	5.0	57	0.00
17	P	n-Nitrosodipropylamine	50.000	47.964	4.1	57	0.00
18		Hexachloroethane	50.000	53.274	-6.5	64	0.00
19	I	Naphthalene-d8	40.000	40.000	0.0	60	0.00
20	S	Nitrobenzene-d5	50.000	49.345	1.3	58	0.00
21		Nitrobenzene	50.000	49.525	1.0	59	0.00
22		Isophorone	50.000	48.779	2.4	57	0.00
23	C	2-Nitrophenol	50.000	49.639	0.7	50	0.00
24		2,4-Dimethylphenol	50.000	47.349	5.3	57	0.00
25		bis(2-Chloroethoxy)methane	50.000	45.974	8.1	56	0.00
26		Benzoic Acid	50.000	31.825	36.4	39	0.00
27	C	2,4-Dichlorophenol	50.000	51.783	-3.6	61	0.00
28		1,2,4-Trichlorobenzene	50.000	51.594	-3.2	63	0.00
29		Naphthalene	50.000	50.089	-0.2	61	0.00
30		4-Chloroaniline	50.000	44.949	10.1	65	0.00
31	C	Hexachlorobutadiene	50.000	58.287	-16.6	72	0.00
32	C	4-Chloro-3-Methylphenol	50.000	51.182	-2.4	61	0.00
33		2-Methylnaphthalene	50.000	51.095	-2.2	62	0.00
34	I	Acenaphthene-d10	40.000	40.000	0.0	60	0.00
35	P	Hexachlorocyclopentadiene	50.000	60.982	-22.0	64	0.00
36	C	2,4,6-Trichlorophenol	50.000	52.724	-5.4	60	0.00
37		2,4,5-Trichlorophenol	50.000	52.479	-5.0	60	0.00
38	S	2-Fluorobiphenyl	50.000	52.943	-5.9	65	0.00
39		2-Chloronaphthalene	50.000	50.384	-0.8	62	0.00

(#)=Out of Range
4M17587.D BNA.M Thu Mar 20 07:54:24 2003 HPMS4 Page 1

...\...\031903\4M17587.D Vial: 2
Acq On : 19 Mar 2003 14:16 Operator: alt
Sample : WG136559-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 07:45:59 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
40		2-Nitroaniline	50.000	49.676	0.6	58	0.00
41		Dimethylphthalate	50.000	52.659	-5.3	64	0.00
42		Acenaphthylene	50.000	50.812	-1.6	61	0.00
43		2,6-Dinitrotoluene	50.000	48.758	2.5	56	0.00
44		3-Nitroaniline	50.000	50.246	-0.5	73	0.00
45	C	Acenaphthene	50.000	54.311	-8.6	66	0.00
46	P	2,4-Dinitrophenol	50.000	41.288	17.4	58	0.00
47	P	4-Nitrophenol	50.000	57.650	-15.3	66	0.00
48		Dibenzofuran	50.000	50.466	-0.9	61	0.00
49		2,4-Dinitrotoluene	50.000	49.624	0.8	55	0.00
50		Diethylphthalate	50.000	54.758	-9.5	66	0.00
51		Fluorene	50.000	51.310	-2.6	62	0.00
52		4-Chlorophenyl Phenyl Ether	50.000	51.701	-3.4	64	0.00
53		4-Nitroaniline	50.000	50.740	-1.5	55	0.00
54		1,2-Diphenylhydrazine	50.000	50.573	-1.1	59	0.00
55	S	2,4,6-Tribromophenol	50.000	53.563	-7.1	59	0.00
56	I	Phenanthrene-d10	40.000	40.000	0.0	59	0.00
57		4,6-Dinitro-2-Methylphenol	50.000	43.007	14.0	56	0.00
58	C	n-Nitrosodiphenylamine	50.000	50.310	-0.6	59	0.00
59		4-Bromophenyl Phenyl Ether	50.000	53.916	-7.8	64	0.00
60		Hexachlorobenzene	50.000	53.371	-6.7	65	0.00
61	C	Pentachlorophenol	50.000	44.302	11.4	53	0.00
62		Phenanthrene	50.000	52.047	-4.1	63	0.00
63		Anthracene	50.000	51.708	-3.4	62	0.00
64		Carbazole	50.000	52.401	-4.8	68	0.00
65		Di-n-Butyl Phthalate	50.000	56.507	-13.0	65	0.00
66	C	Fluoranthene	50.000	54.002	-8.0	65	0.00
67	I	Chrysene-d12	40.000	40.000	0.0	67	0.00
68		Benzidine	50.000	38.456	23.1	50	0.00
69		Pyrene	50.000	47.412	5.2	66	0.00
70	S	p-Terphenyl-d14	50.000	49.511	1.0	69	0.00
71		Butyl Benzyl Phthalate	50.000	48.875	2.3	65	0.00
72		Benzo(a)anthracene	50.000	48.550	2.9	66	0.00
73		3,3'-Dichlorobenzidine	50.000	36.072	27.9	65	0.00
74		Chrysene	50.000	48.590	2.8	67	0.00
75		bis(2-Ethylhexyl)phthalate	50.000	49.902	0.2	66	0.00
76	I	Perylene-d12	40.000	40.000	0.0	68	0.00
77	C	Di-n-Octyl Phthalate	50.000	50.513	-1.0	66	0.00

#)=Out of Range
4M17587.D BNA.M Thu Mar 20 07:54:24 2003 HPMS4 Page 2

Data File : C:\HPCHEM\1\DATA\031903\4M17587.D Vial: 2
Acq On : 19 Mar 2003 14:16 Operator: alt
Sample : WG136559-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 07:45:59 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
78		Benzo[b]fluoranthene	50.000	49.392	1.2	67	0.00
79		Benzo[k]fluoranthene	50.000	51.188	-2.4	72	0.00
80	C	Benzo[a]pyrene	50.000	51.043	-2.1	69	0.00
81		Indeno[1,2,3-cd]pyrene	50.000	62.523	-25.0	85	0.00
82		Dibenz[ah]anthracene	50.000	62.816	-25.6	85	0.00
83		Benzo[ghi]perylene	50.000	57.833	-15.7	81	0.00

Data File : C:\HPCHEM\1\DATA\031903\4M17587.D Vial: 2
Acq On : 19 Mar 2003 14:16 Operator: alt
Sample : WG136559-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 07:45:59 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	61	0.00
2		Pyridine	1.331	1.171	12.0	54	0.01
3		n-Nitrosodimethylamine	0.751	0.637	15.2	52	0.00
4	S	2-Fluorophenol	1.274	1.156	9.3	56	0.00
5		Aniline	0.553	0.493	10.8	56	0.00
6	S	Phenol-d5	1.503	1.326	11.8	53	0.00
7	C	Phenol	1.658	1.519	8.4	56	0.00
8		bis(2-Chloroethyl)ether	1.069	1.012	5.3	58	0.00
9		2-Chlorophenol	1.419	1.344	5.3	57	0.00
10		1,3-Dichlorobenzene	1.512	1.497	1.0	61	0.00
11	C	1,4-Dichlorobenzene	1.610	1.656	-2.9	64	0.00
12		Benzyl Alcohol	0.870	0.810	6.9	55	0.00
13	C	1,2-Dichlorobenzene	1.419	1.514	-6.7	66	0.00
14		2-Methylphenol	1.087	1.130	-4.0	63	0.00
15		bis(2-Chloroisopropyl)ether	2.376	2.278	4.1	58	0.00
16		3-,4-Methylphenol	1.566	1.488	5.0	57	0.00
17	P	n-Nitrosodipropylamine	0.863	0.828	4.1	57	0.00
18		Hexachloroethane	0.568	0.605	-6.5	64	0.00
19	I	Naphthalene-d8	1.000	1.000	0.0	60	0.00
20	S	Nitrobenzene-d5	0.329	0.325	1.2	58	0.00
21		Nitrobenzene	0.340	0.337	0.9	59	0.00
22		Isophorone	0.552	0.538	2.5	57	0.00
23	C	2-Nitrophenol	0.232	0.230	0.9	50	0.00
24		2,4-Dimethylphenol	0.312	0.296	5.1	57	0.00
25		bis(2-Chloroethoxy)methane	0.402	0.370	8.0	56	0.00
26		Benzoic Acid	0.149	0.095	36.2	39#	0.00
27	C	2,4-Dichlorophenol	0.277	0.287	-3.6	61	0.00
28		1,2,4-Trichlorobenzene	0.296	0.306	-3.4	63	0.00
29		Naphthalene	1.012	1.014	-0.2	61	0.00
30		4-Chloroaniline	0.293	0.263	10.2	65	0.00
31	C	Hexachlorobutadiene	0.154	0.179	-16.2	72	0.00
32	C	4-Chloro-3-Methylphenol	0.289	0.296	-2.4	61	0.00
33		2-Methylnaphthalene	0.709	0.724	-2.1	62	0.00
34	I	Acenaphthene-d10	1.000	1.000	0.0	60	0.00
35	P	Hexachlorocyclopentadiene	0.192	0.234	-21.9	64	0.00
36	C	2,4,6-Trichlorophenol	0.330	0.348	-5.5	60	0.00
37		2,4,5-Trichlorophenol	0.361	0.379	-5.0	60	0.00
38	S	2-Fluorobiphenyl	1.270	1.345	-5.9	65	0.00
39		2-Chloronaphthalene	1.097	1.106	-0.8	62	0.00

#)=Out of Range

Data File : C:\HPCHEM\1\DATA\031903\4M17587.D Vial: 2
Acq On : 19 Mar 2003 14:16 Operator: alt
Sample : WG136559-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 07:45:59 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40		2-Nitroaniline	0.323	0.321	0.6	58	0.00
41		Dimethylphthalate	1.289	1.358	-5.4	64	0.00
42		Acenaphthylene	1.802	1.831	-1.6	61	0.00
43		2,6-Dinitrotoluene	0.280	0.273	2.5	56	0.00
44		3-Nitroaniline	0.172	0.173	-0.6	73	0.00
45	C	Acenaphthene	1.098	1.193	-8.7	66	0.00
46	P	2,4-Dinitrophenol	0.081	0.067	17.3	58	0.00
47	P	4-Nitrophenol	0.202	0.233	-15.3	66	0.00
48		Dibenzofuran	1.616	1.631	-0.9	61	0.00
49		2,4-Dinitrotoluene	0.346	0.344	0.6	55	0.00
50		Diethylphthalate	1.306	1.430	-9.5	66	0.00
51		Fluorene	1.290	1.324	-2.6	62	0.00
52		4-Chlorophenyl Phenyl Ether	0.614	0.634	-3.3	64	0.00
53		4-Nitroaniline	0.243	0.247	-1.6	55	0.00
54		1,2-Diphenylhydrazine	1.277	1.292	-1.2	59	0.00
55	S	2,4,6-Tribromophenol	0.136	0.145	-6.6	59	0.00
56	I	Phenanthrene-d10	1.000	1.000	0.0	59	0.00
57		4,6-Dinitro-2-Methylphenol	0.112	0.096	14.3	56	0.00
58	C	n-Nitrosodiphenylamine	0.571	0.575	-0.7	59	0.00
59		4-Bromophenyl Phenyl Ether	0.221	0.238	-7.7	64	0.00
60		Hexachlorobenzene	0.215	0.230	-7.0	65	0.00
61	C	Pentachlorophenol	0.117	0.103	12.0	53	0.00
62		Phenanthrene	1.161	1.208	-4.0	63	0.00
63		Anthracene	1.179	1.219	-3.4	62	0.00
64		Carbazole	0.849	0.889	-4.7	68	0.00
65		Di-n-Butyl Phthalate	1.480	1.673	-13.0	65	0.00
66	C	Fluoranthene	1.238	1.337	-8.0	65	0.00
67	I	Chrysene-d12	1.000	1.000	0.0	67	0.00
68		Benzidine	0.087	0.067	23.0	50	0.00
69		Pyrene	1.262	1.197	5.2	66	0.00
70	S	p-Terphenyl-d14	0.819	0.811	1.0	69	0.00
71		Butyl Benzyl Phthalate	0.632	0.618	2.2	65	0.00
72		Benzo[a]anthracene	1.126	1.094	2.8	66	0.00
73		3,3'-Dichlorobenzidine	0.230	0.166	27.8	65	0.00
74		Chrysene	1.085	1.055	2.8	67	0.00
75		bis(2-Ethylhexyl)phthalate	0.950	0.948	0.2	66	0.00
76	1	Perylene-d12	1.000	1.000	0.0	68	0.00
77	C	Di-n-Octyl Phthalate	2.443	2.468	-1.0	66	0.00

(#)=Out of Range

Data File : C:\HPCHEM\1\DATA\031903\4M17587.D Vial: 2
Acq On : 19 Mar 2003 14:16 Operator: alt
Sample : WG136559-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 07:45:59 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
78		Benzo[b]fluoranthene	1.682	1.661	1.2	67	0.00
79		Benzo[k]fluoranthene	1.467	1.502	-2.4	72	0.00
80	C	Benzo[a]pyrene	1.491	1.522	-2.1	69	0.00
81		Indeno[1,2,3-cd]pyrene	1.490	1.864	-25.1	85	0.00
82		Dibenz[ah]anthracene	1.229	1.544	-25.6	85	0.00
83		Benzo[ghi]perylene	1.202	1.390	-15.6	81	0.00

...\BNA\031903\4M17587.D Vial: 2
Acq On : 19 Mar 2003 14:16 Operator: alt
Sample : WG136559-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 20 7:53 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 07:45:59 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.66	152	168094	40.00 ug/ml	0.00
19) Naphthalene-d8	10.06	136	666566	40.00 ug/ml	0.00
34) Acenaphthene-d10	11.92	164	374326	40.00 ug/ml	0.00
56) Phenanthrene-d10	13.48	188	570261	40.00 ug/ml	0.00
67) Chrysene-d12	16.48	240	672747	40.00 ug/ml	0.00
76) Perylene-d12	19.43	264	431622	40.00 ug/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	7.16	112	242872	45.3540 ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 45.35%		
6) Phenol-d5	8.18	99	278662	44.1190 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 44.12%		
20) Nitrobenzene-d5	9.28	82	270538	49.3447 ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 98.68%		
38) 2-Fluorobiphenyl	11.16	172	629241	52.9435 ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 105.88%		
55) 2,4,6-Tribromophenol	12.75	330	68074	53.5629 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 53.56%		
70) p-Terphenyl-d14	15.06	244	682036	49.5108 ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 99.02%		
Target Compounds					Qvalue
2) Pyridine	5.55	79	245958	43.9680 ug/ml#	84
3) n-Nitrosodimethylamine	5.51	74	133896	42.4013 ug/ml#	57
5) Aniline	8.30	66	103488	44.5076 ug/ml	97
7) Phenol	8.20	94	319130	45.7950 ug/ml#	85
8) bis(2-Chloroethyl)ether	8.33	63	212607	47.3072 ug/ml	90
9) 2-Chlorophenol	8.43	128	282443	47.3784 ug/ml	100
10) 1,3-Dichlorobenzene	8.60	146	314564	49.5007 ug/ml	99
11) 1,4-Dichlorobenzene	8.68	146	347871	51.4056 ug/ml	99
12) Benzyl Alcohol	8.78	108	170192	46.5761 ug/ml	90
13) 1,2-Dichlorobenzene	8.86	146	318040	53.3219 ug/ml	100
14) 2-Methylphenol	8.87	107	237398	51.9488 ug/ml	95
15) bis(2-Chloroisopropyl)ethe	8.90	45	478685	47.9443 ug/ml	99
16) 3-,4-Methylphenol	9.02	107	312653	47.5097 ug/ml	96
17) n-Nitrosodipropylamine	9.05	70	174027	47.9645 ug/ml#	87
18) Hexachloroethane	9.22	117	127147	53.2739 ug/ml	98
21) Nitrobenzene	9.30	77	280525	49.5245 ug/ml	96
22) Isophorone	9.52	82	448664	48.7789 ug/ml#	98
23) 2-Nitrophenol	9.64	139	191766	49.6388 ug/ml#	82
24) 2,4-Dimethylphenol	9.60	122	246308	47.3494 ug/ml	92
25) bis(2-Chloroethoxy)methane	9.71	93	307910	45.9742 ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M17587.D BNA.M Thu Mar 20 07:53:54 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\031903\4M17587.D Vial: 2
Acq On : 19 Mar 2003 14:16 Operator: alt
Sample : WG136559-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 20 7:53 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 07:45:59 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) Benzoic Acid	9.66	122	78996	31.8253	ug/ml	92
27) 2,4-Dichlorophenol	9.88	162	239066	51.7826	ug/ml	99
28) 1,2,4-Trichlorobenzene	9.98	180	254581	51.5937	ug/ml	99
29) Naphthalene	10.08	128	845084	50.0891	ug/ml	99
30) 4-Chloroaniline	10.12	127	219172	44.9485	ug/ml	97
31) Hexachlorobutadiene	10.17	225	149179	58.2865	ug/ml	100
32) 4-Chloro-3-Methylphenol	10.57	107	246278	51.1820	ug/ml	96
33) 2-Methylnaphthalene	10.80	142	603334	51.0952	ug/ml	98
35) Hexachlorocyclopentadiene	10.96	237	109654	60.9817	ug/ml	98
36) 2,4,6-Trichlorophenol	11.09	196	162703	52.7238	ug/ml	99
37) 2,4,5-Trichlorophenol	11.13	196	177225	52.4789	ug/ml	98
39) 2-Chloronaphthalene	11.33	162	517376	50.3842	ug/ml	98
40) 2-Nitroaniline	11.43	65	150238	49.6758	ug/ml	93
41) Dimethylphthalate	11.55	163	635355	52.6593	ug/ml	100
42) Acenaphthylene	11.78	152	856668	50.8123	ug/ml	100
43) 2,6-Dinitrotoluene	11.66	165	127628	48.7580	ug/ml#	79
44) 3-Nitroaniline	11.86	138	80879	50.2460	ug/ml	98
45) Acenaphthene	11.96	154	558294	54.3107	ug/ml	99
46) 2,4-Dinitrophenol	11.96	184	31385	41.2877	ug/ml	69
47) 4-Nitrophenol	11.96	65	109019	57.6504	ug/ml#	85
48) Dibenzofuran	12.13	168	763042	50.4662	ug/ml	90
49) 2,4-Dinitrotoluene	12.09	165	160761	49.6237	ug/ml#	84
50) Diethylphthalate	12.26	149	669301	54.7579	ug/ml	99
51) Fluorene	12.49	166	619303	51.3098	ug/ml	99
52) 4-Chlorophenyl Phenyl Ethe	12.43	204	296882	51.7011	ug/ml	93
53) 4-Nitroaniline	12.51	138	115513	50.7399	ug/ml#	78
54) 1,2-Diphenylhydrazine	12.60	77	604591	50.5729	ug/ml	99
57) 4,6-Dinitro-2-Methylphenol	12.51	198	68486	43.0072	ug/ml#	81
58) n-Nitrosodiphenylamine	12.56	169	409801	50.3100	ug/ml	99
59) 4-Bromophenyl Phenyl Ether	12.95	248	169845	53.9163	ug/ml	92
60) Hexachlorobenzene	13.09	284	163625	53.3706	ug/ml	94
61) Pentachlorophenol	13.27	266	73627	44.3020	ug/ml	99
62) Phenanthrene	13.51	178	861105	52.0468	ug/ml	100
63) Anthracene	13.56	178	869228	51.7083	ug/ml	100
64) Carbazole	13.71	167	634049	52.4013	ug/ml#	90
65) Di-n-Butyl Phthalate	13.92	149	1192510	56.5068	ug/ml#	99
66) Fluoranthene	14.75	202	953383	54.0021	ug/ml#	95
68) Benzidine	14.83	184	56380	38.4563	ug/ml	100
69) Pyrene	15.01	202	1006233	47.4123	ug/ml	99
71) Butyl Benzyl Phthalate	15.53	149	519852	48.8752	ug/ml	99
72) Benzo[a]anthracene	16.46	228	919571	48.5504	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\031903\4M17587.D Vial: 2
Acq On : 19 Mar 2003 14:16 Operator: alt
Sample : WG136559-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 20 7:53 2003 Quant Results File: BNA.RES

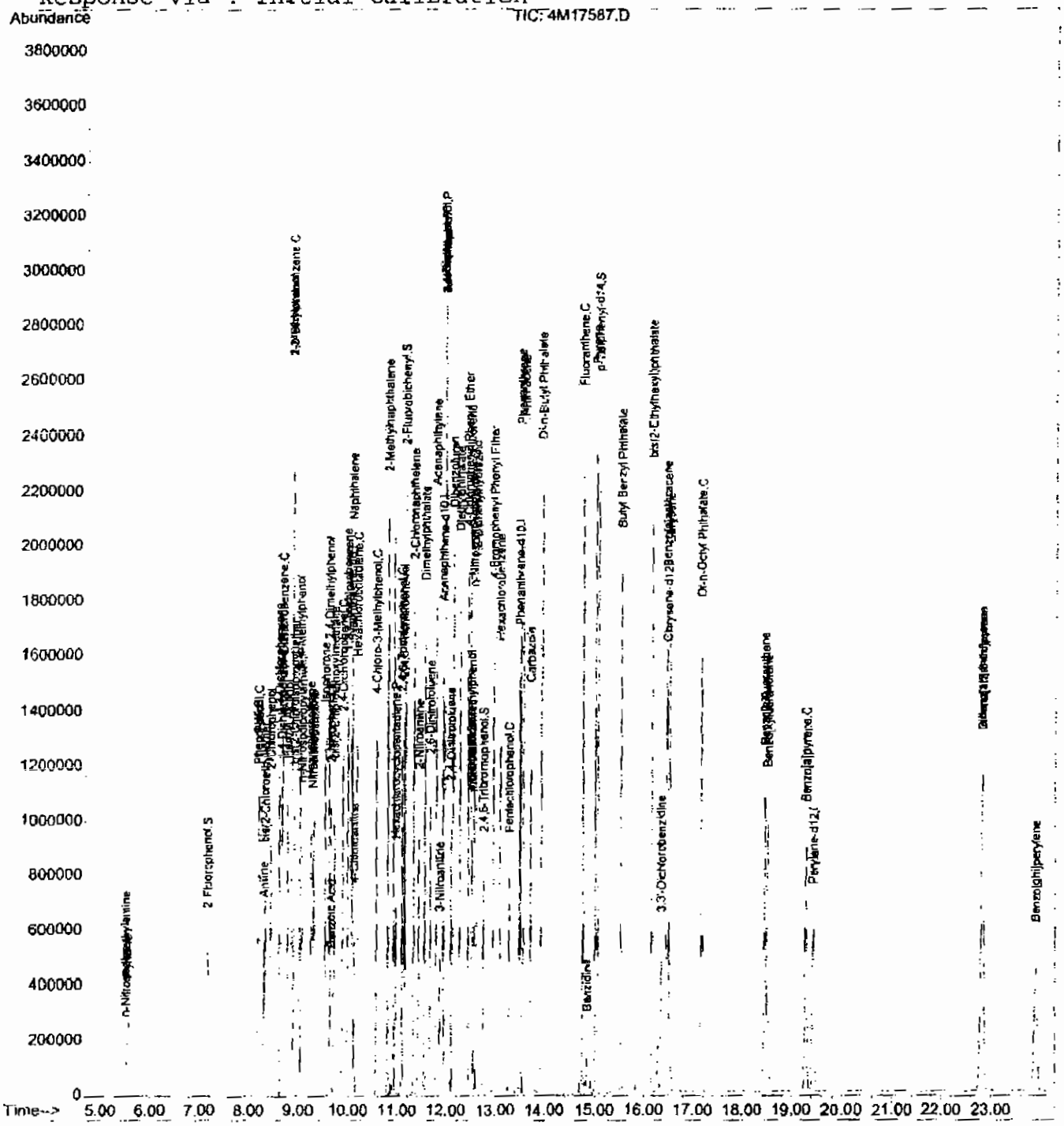
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 07:45:59 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	16.34	252	139833	36.0722	ug/ml	100
74)	Chrysene	16.52	228	886925	48.5903	ug/ml	99
75)	bis(2-Ethylhexyl)phthalate	16.16	149	797381	49.9023	ug/ml	98
77)	Di-n-Octyl Phthalate	17.16	149	1331458	50.5130	ug/ml	97
78)	Benzo[b]fluoranthene	18.46	252	896306	49.3916	ug/ml#	96
79)	Benzo[k]fluoranthene	18.52	252	810489	51.1878	ug/ml#	95
80)	Benzo[a]pyrene	19.29	252	821213	51.0435	ug/ml#	96
81)	Indeno[1,2,3-cd]pyrene	22.81	276	1005577	62.5233	ug/ml#	88
82)	Dibenz[ah]anthracene	22.82	278	832912	62.8156	ug/ml	95
83)	Benzo[ghi]perylene	23.91	276	750117	57.8335	ug/ml	93

(#) = qualifier out of range (m) = manual integration

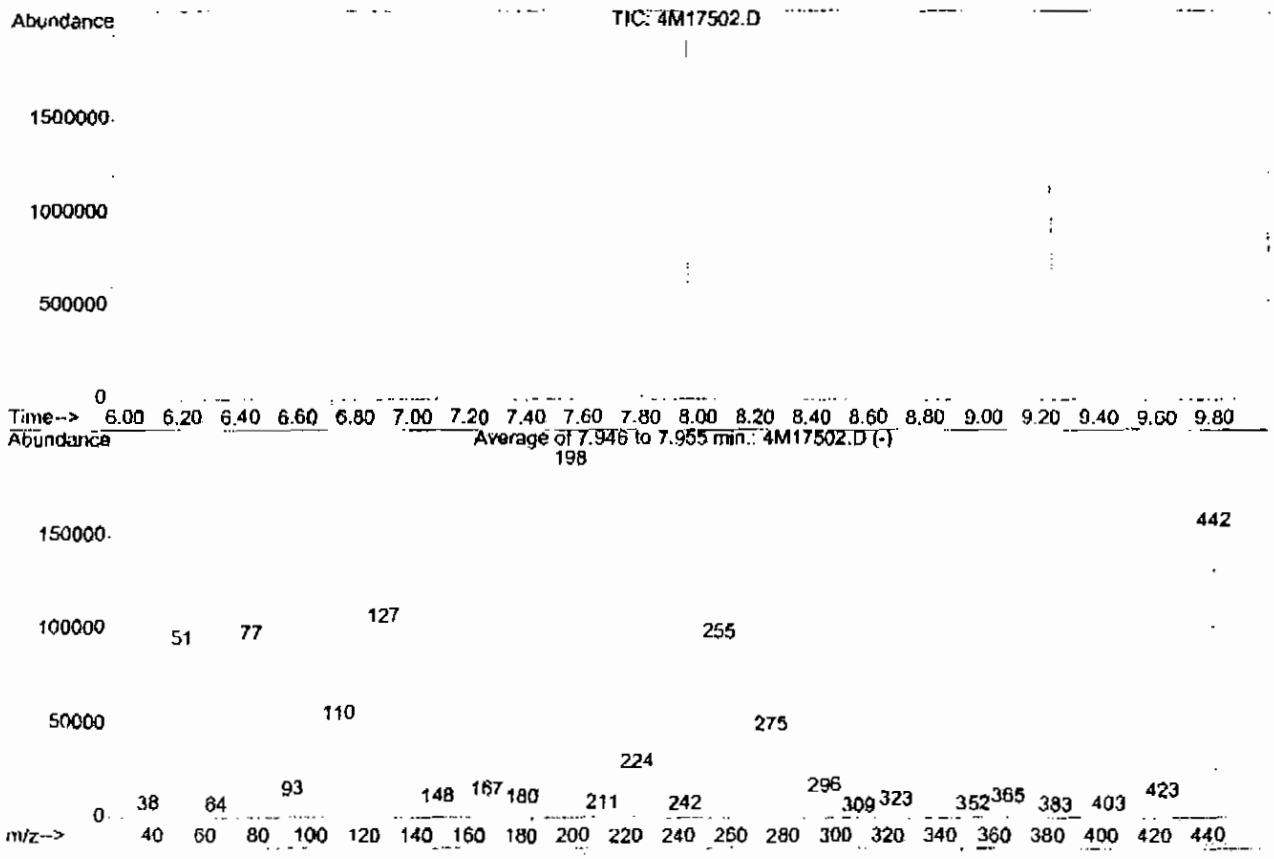
Data File : C:\HPCHEM\1\DATA\031903\4M17587.D Vial: 2
Acq On : 19 Mar 2003 14:16 Operator: alt
Sample : WG136559-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 20 7:53 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 07:45:59 2003
Response via : Initial Calibration



2.2.1.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\031403\4M17502.D Vial: 1
Acq On : 14 Mar 2003 7:37 Operator: mdc
Sample : WG136152-01 50PPM DFTPP Inst : HPMS4
Misc : 1,1 SOS64-3 Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP



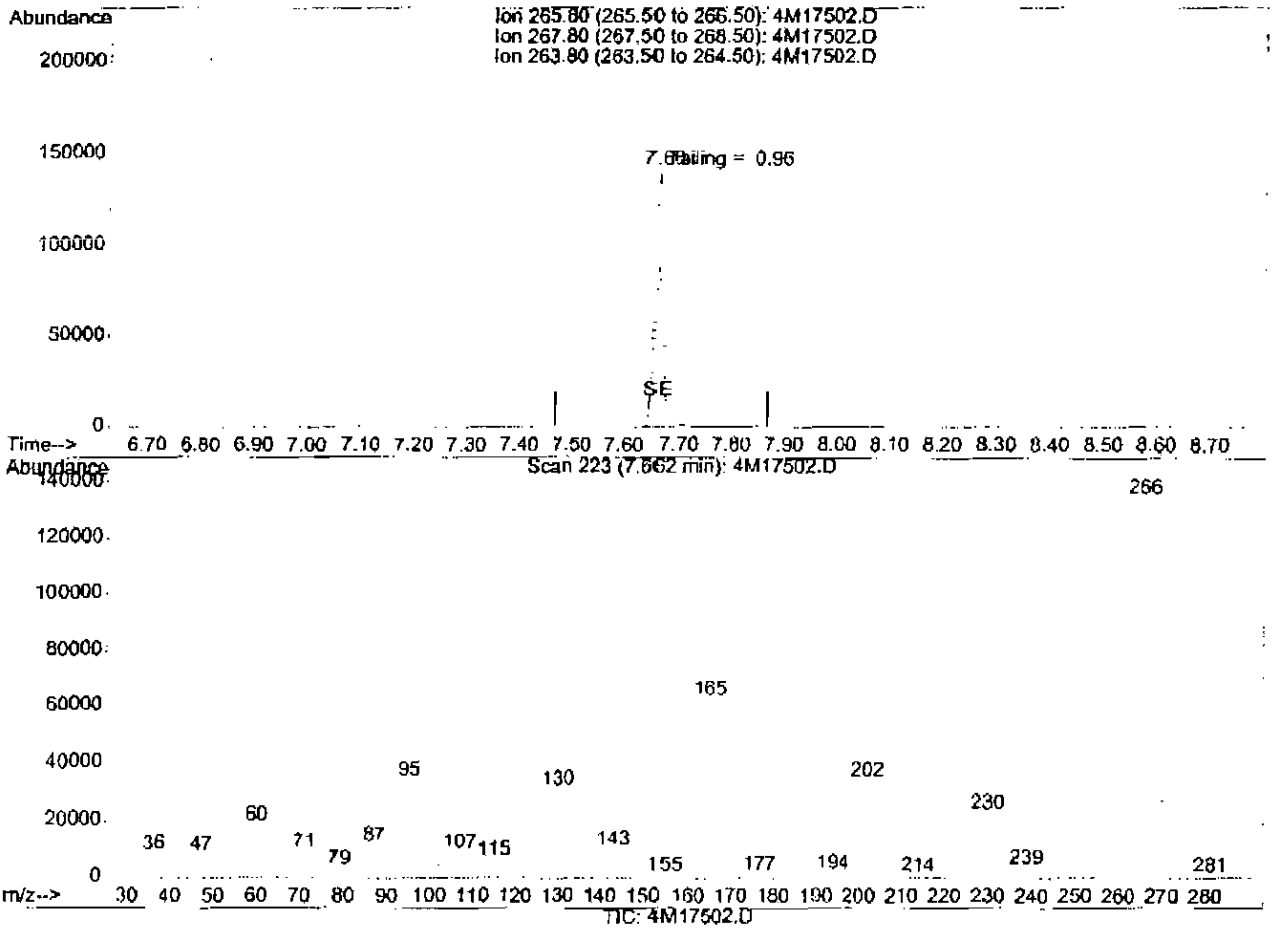
AutoFind: Scans 282, 283, 284; Background Corrected with Scan 276

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	47.8	89165	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	43.5	80976	PASS
70	69	0.00	2	0.7	572	PASS
127	198	40	60	54.2	100973	PASS
197	198	0.00	1	0.2	409	PASS
198	198	100	100	100.0	186347	PASS
199	198	5	9	6.6	12364	PASS
275	198	10	30	23.3	43427	PASS
365	198	1	100	2.8	5156	PASS
441	443	0.01	100	79.5	23421	PASS
442	198	40	100	81.8	152424	PASS
443	442	17	23	19.3	29459	PASS

4M17502.D DFTPP.M Sat Mar 15 10:09:08 2003 HPMS4

Data Path : C:\HPCHEM\1\DATA\031403\4M17502.D Vial: 1
Acq On : 14 Mar 2003 7:37 Operator: mdc
Sample : WG136152-01 50PPM DFTPP Inst : HPMS4
Misc : 1,1 SOS64-3 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 14 7:55 2003 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Mon Feb 24 09:13:48 2003
Response via : Single Level Calibration



(1) PENTACHLOROPHENOL

7.66min 0.00

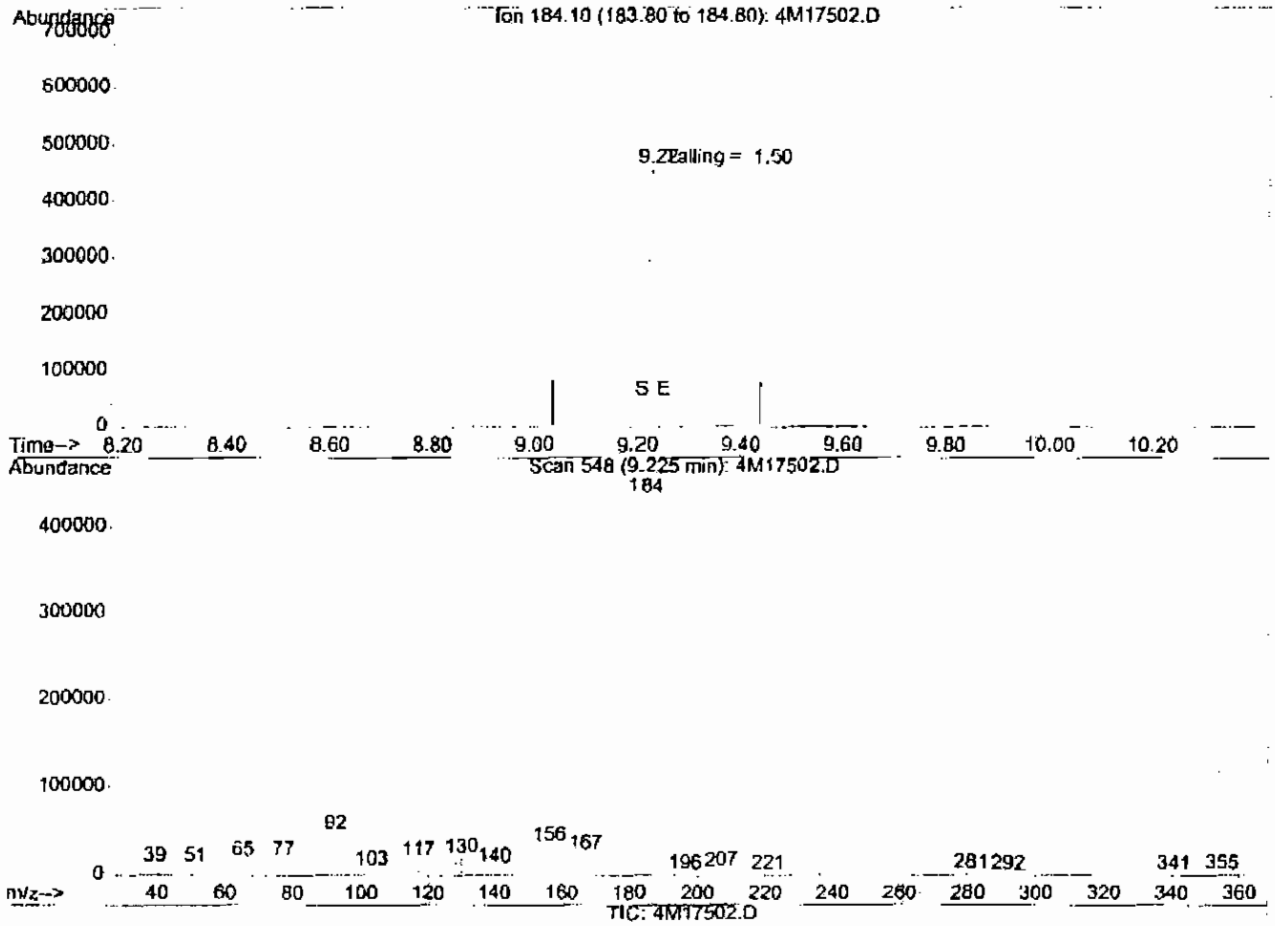
response 139167

Ion	Exp%	Act%
265.80	100	100
267.80	62.80	62.93
263.80	67.10	63.14
0.00	0.00	0.00

4M17502.D DFTPP.M Sat Mar 15 10:09:15 2003 HPMS4

Data File : C:\HPCHEM\1\DATA\031403\4M17502.D Vial: 1
Acq On : 14 Mar 2003 7:37 Operator: mdc
Sample : WG136152-01 50PPM DFTPP Inst : HPMS4
Misc : 1,1 SOS64-3 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 14 7:55 2003 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Mon Feb 24 09:13:48 2003
Response via : Single Level Calibration



(2) BENZIDINE

9.22min 0.00

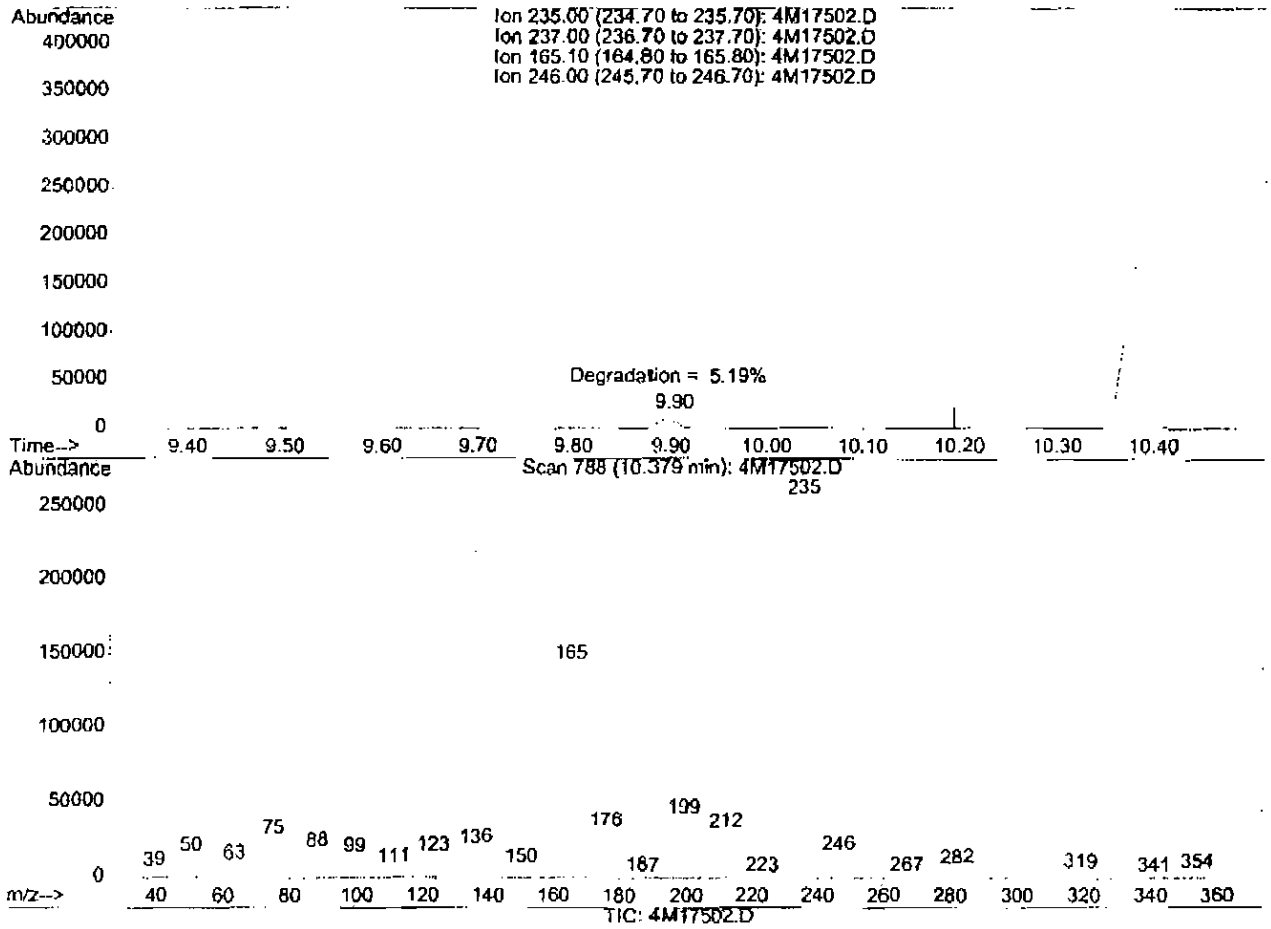
response 618001

Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

4M17502.D DFTPP.M Sat Mar 15 10:09:23 2003 HPMS4

Data File : C:\HPCHEM\1\DATA\031403\4M17502.D Vial: 1
Acq On : 14 Mar 2003 7:37 Operator: mdc
Sample : WG136152-01 50PPM DFTPP Inst : HPMS4
Misc : 1,1 SOS64-3 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 14 7:55 2003 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Mon Feb 24 09:13:48 2003
Response via : Single Level Calibration



(3) 4,4'-DDT

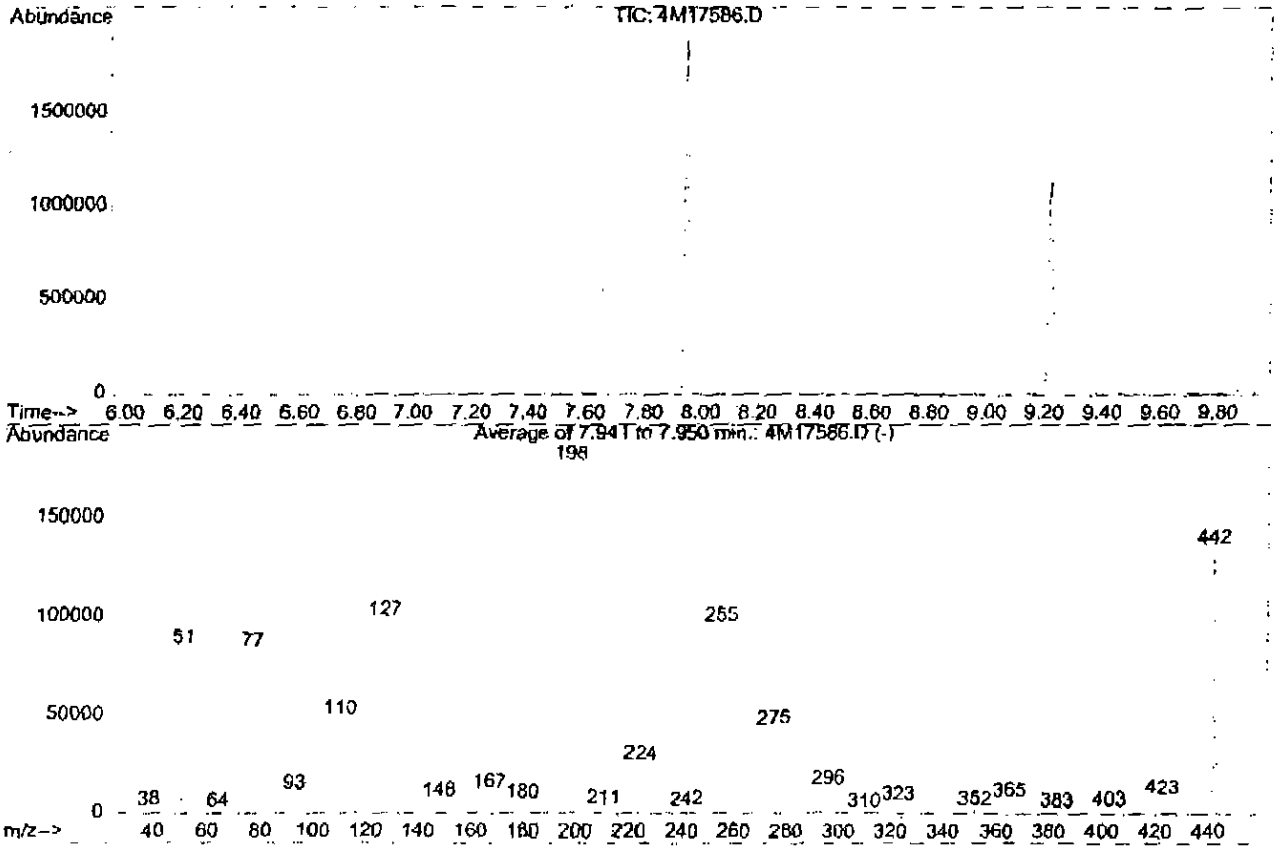
10.38min 0.00

response 407404

Ion	Exp%	Act%
235.00	100	100
237.00	62.90	64.30
165.10	68.70	53.94#
246.00	9.60	5.92#

4M17502.D DFTPP.M Sat Mar 15 10:09:33 2003 HPMS4

Data File : C:\HPCHEM\1\DATA\031903\4M17586.D Vial: 1
Acq On : 19 Mar 2003 13:52 Operator: alt
Sample : WG136559-01 50PPM DFTPP Inst : HPMS4
Misc : 1,1 SOS64-3 Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP



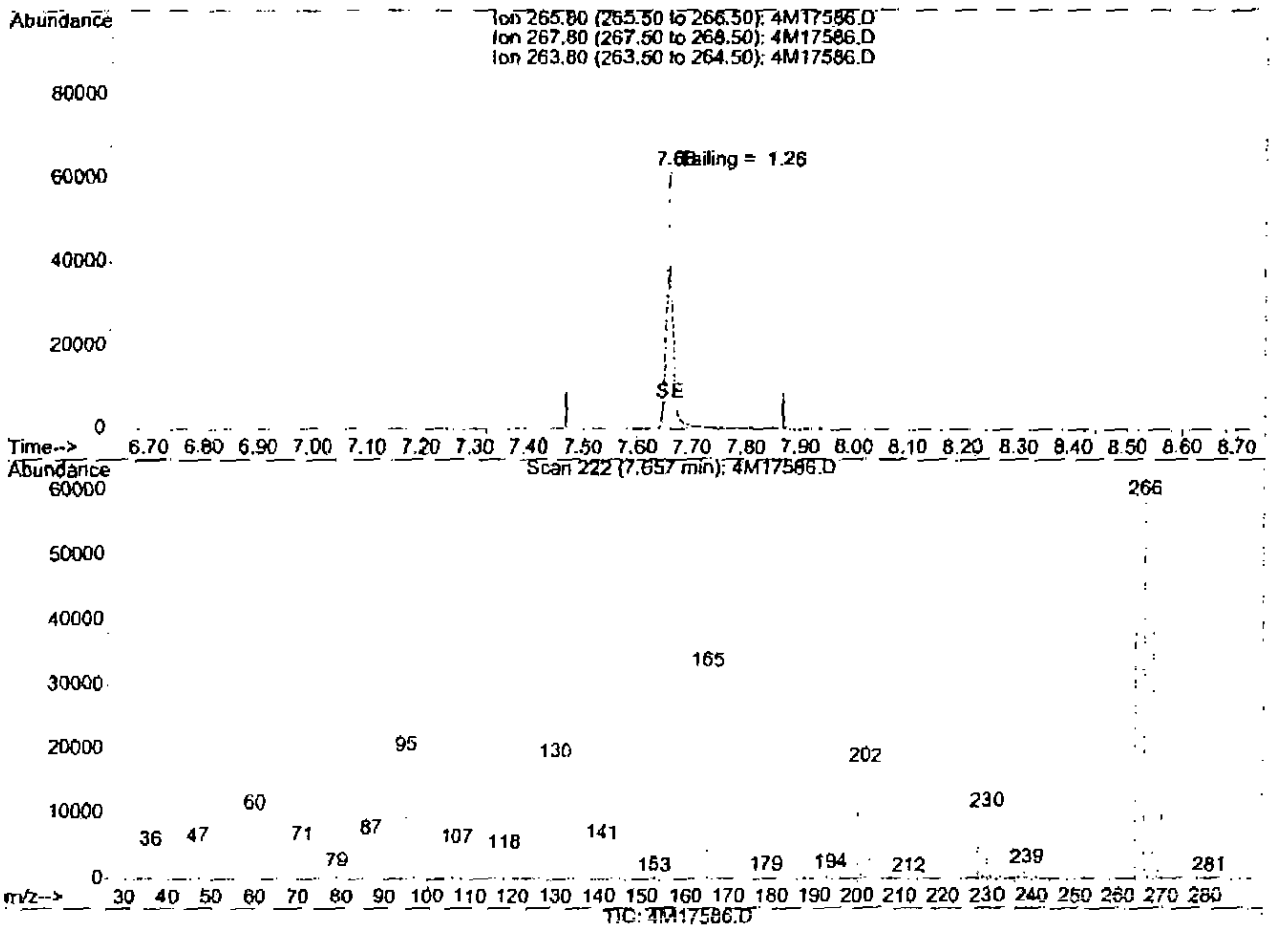
AutoFind: Scans 281, 282, 283; Background Corrected with Scan 275

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	47.2	83896	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	42.1	74912	PASS
70	69	0.00	2	0.6	429	PASS
127	198	40	60	55.0	97797	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	177856	PASS
199	198	5	9	6.7	11859	PASS
275	198	10	30	23.7	42213	PASS
365	198	1	100	3.1	5512	PASS
441	443	0.01	100	81.4	21306	PASS
442	198	40	100	75.3	133931	PASS
443	442	17	23	19.5	26183	PASS

4M17586.D DFTPP.M Thu Mar 20 07:44:03 2003 HPMS4

Data File : C:\HPCHEM\1\DATA\031903\4M17586.D Vial: 1
Acq On : 19 Mar 2003 13:52 Operator: alt
Sample : WG136559-01 50PPM DFTPP Inst : HPMS4
Misc : 1,1 SOS64-3 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 20 7:44 2003 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Mon Feb 24 09:13:48 2003
Response via : Single Level Calibration



(1) PENTACHLOROPHENOL

7.66min 0.00

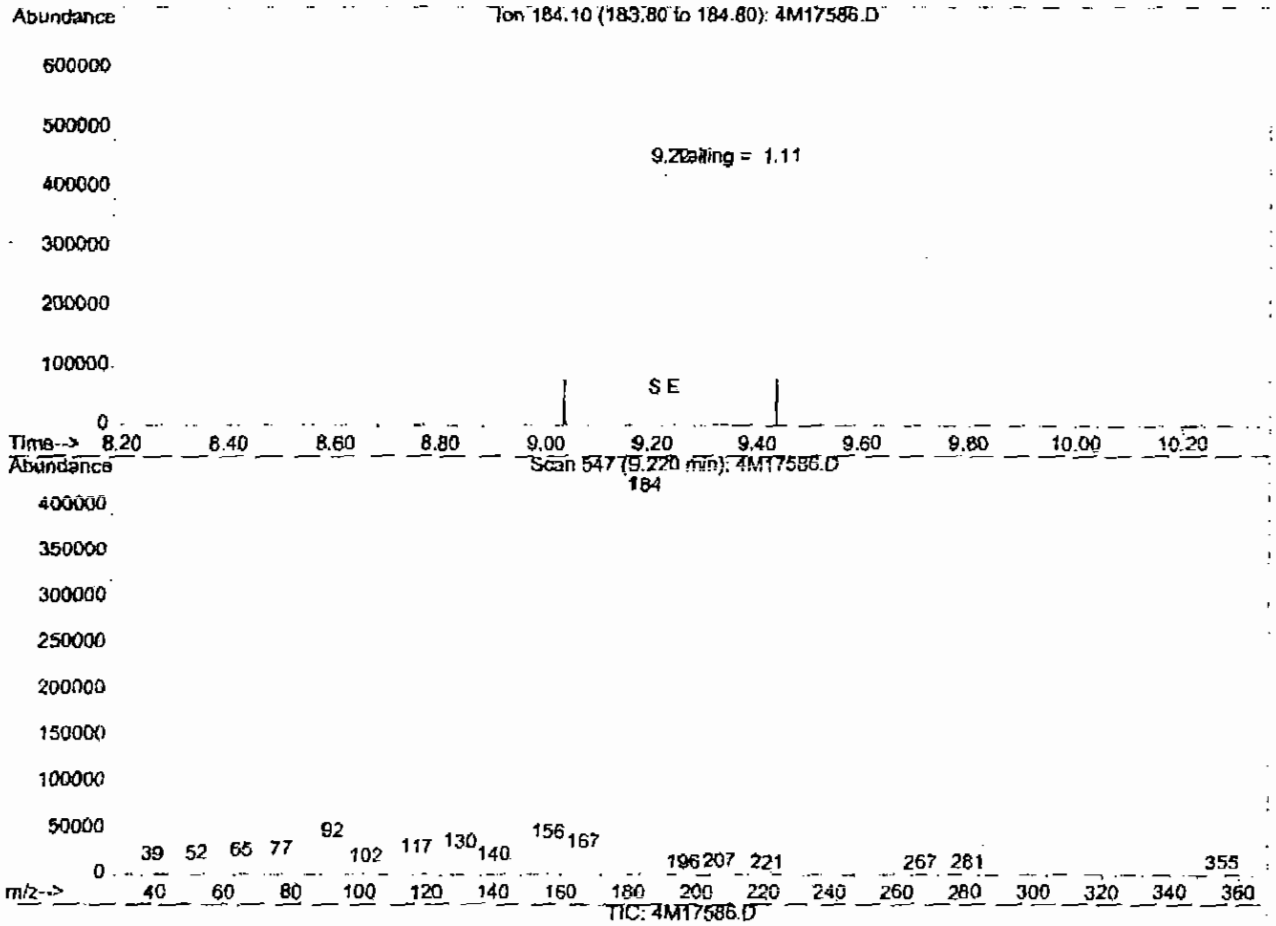
response 57769

Ion	Exp%	Act%
265.80	100	100
267.80	62.80	62.92
263.80	67.10	63.88
0.00	0.00	0.00

4M17586.D DFTPP.M Thu Mar 20 07:44:31 2003 HPMS4

Data File : C:\HPCHEM\1\DATA\031903\4M17586.D Vial: 1
Acq On : 19 Mar 2003 13:52 Operator: alt
Sample : WG136559-01 50PPM DFTPP Inst : HPMS4
Misc : 1,1 SOS64-3 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 20 7:44 2003 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Mon Feb 24 09:13:48 2003
Response via : Single Level Calibration



(2) BENZIDINE

9.22min 0.00

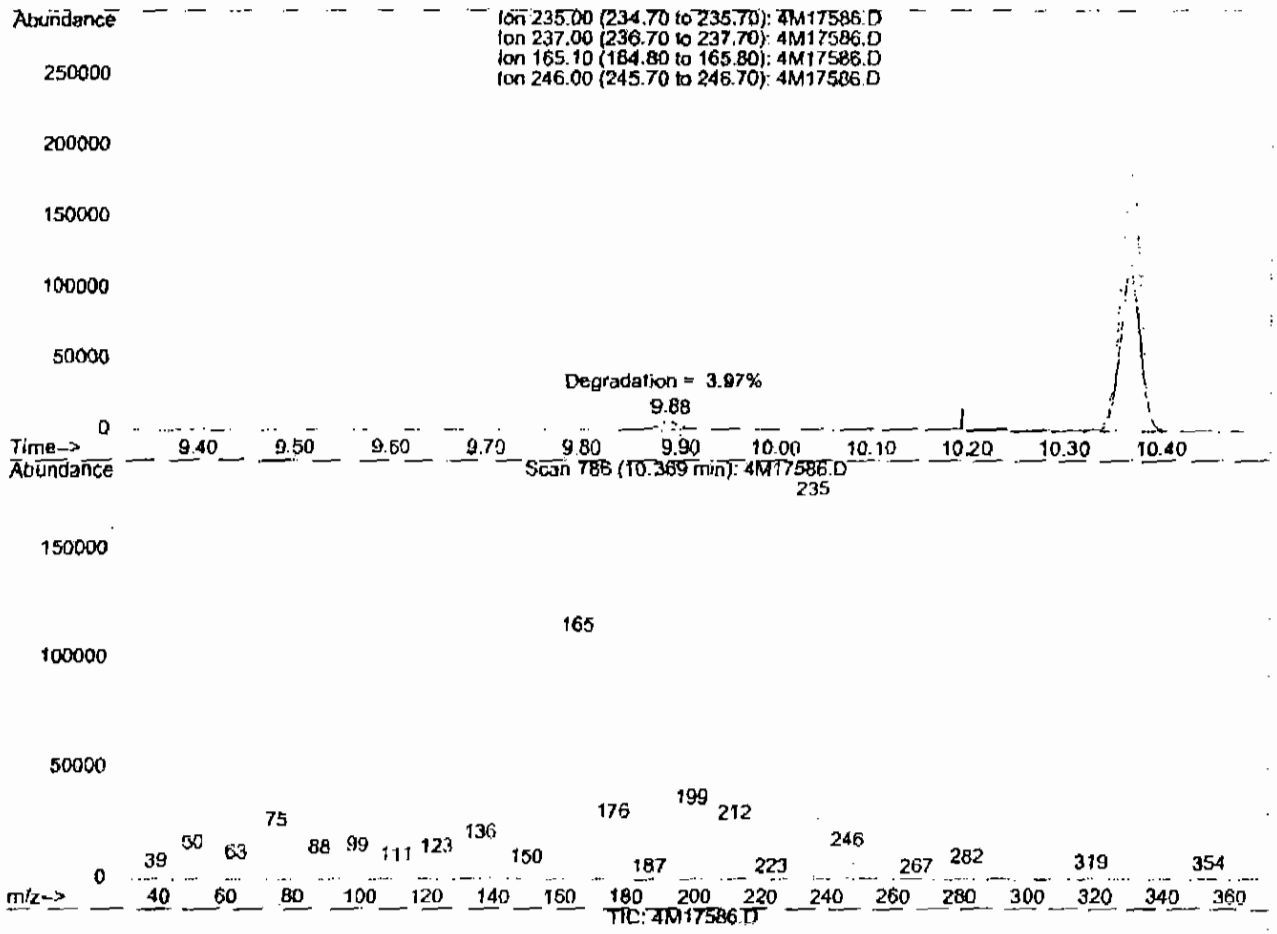
response 525417

Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

4M17586.D DFTPP.M Thu Mar 20 07:44:39 2003 HPMS4

C:\HPCHEM\1\DATA\031903\4M17586.D Vial: 1
Acq On : 19 Mar 2003 13:52 Operator: alt
Sample : WG136559-01 50PPM DFTPP Inst : HPMS4
Misc : 1,1 SOS64-3 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 20 7:44 2003 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Mon Feb 24 09:13:48 2003
Response via : Single Level Calibration



(3) 4,4'-DDT

10.37min 0.00

response 262700

Ion	Exp%	Act%
235.00	100	100
237.00	62.90	64.25
165.10	68.70	62.17
246.00	9.60	7.18#

4M17586.D DFTPP.M Thu Mar 20 07:44:48 2003 HPMS4

Data File : C:\HPCHEM\1\DATA\031903\4M17591.D Vial: 6
Acq On : 19 Mar 2003 16:33 Operator: alt
Sample : WG136463-02 BLK 3/18 V200P87 Inst : HPMS4
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 20 8:22 2003 Quant Results File: BNA.RES

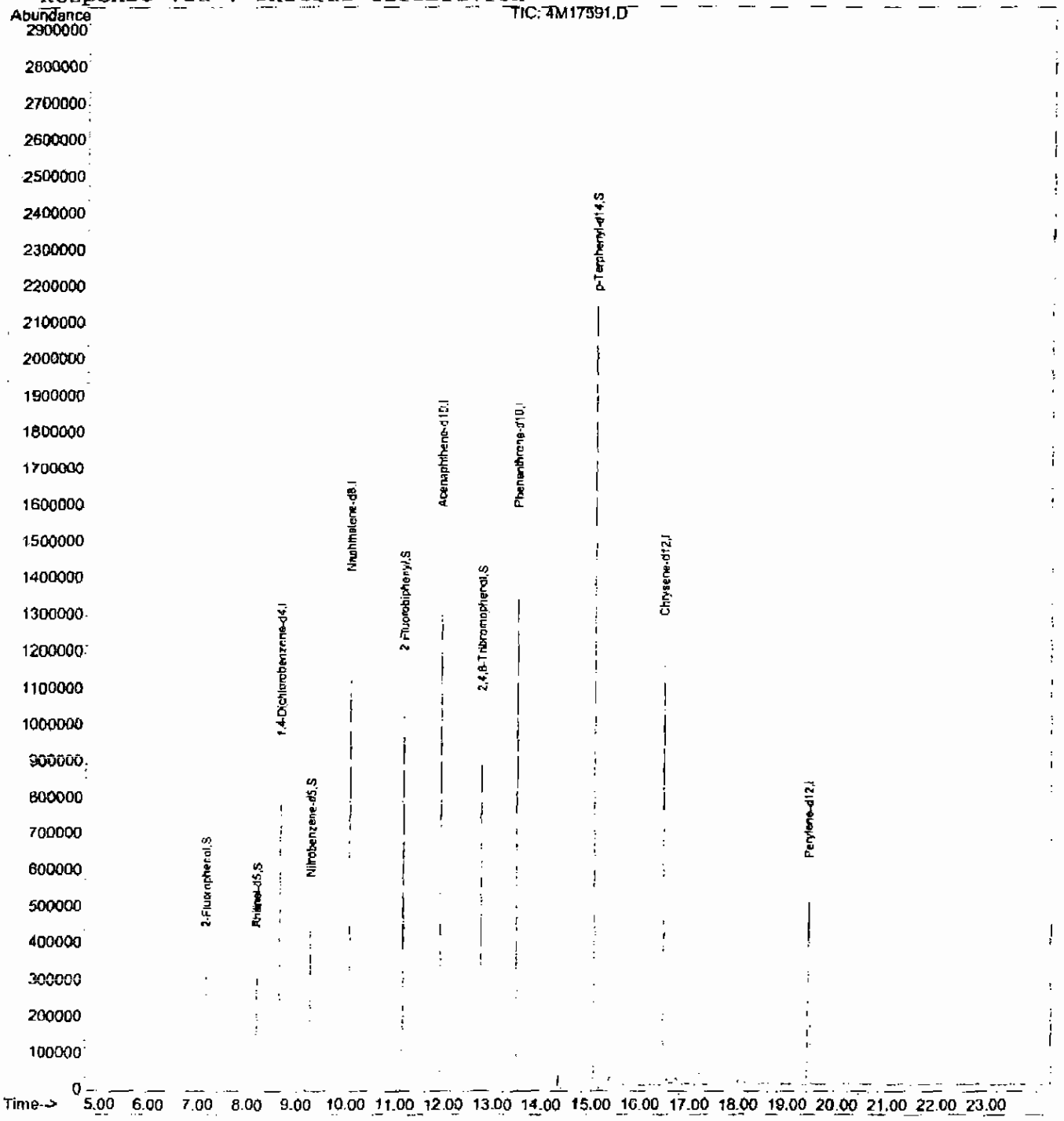
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 08:21:54 2003
Response via : Initial Calibration
DataAcq Meth : BNA

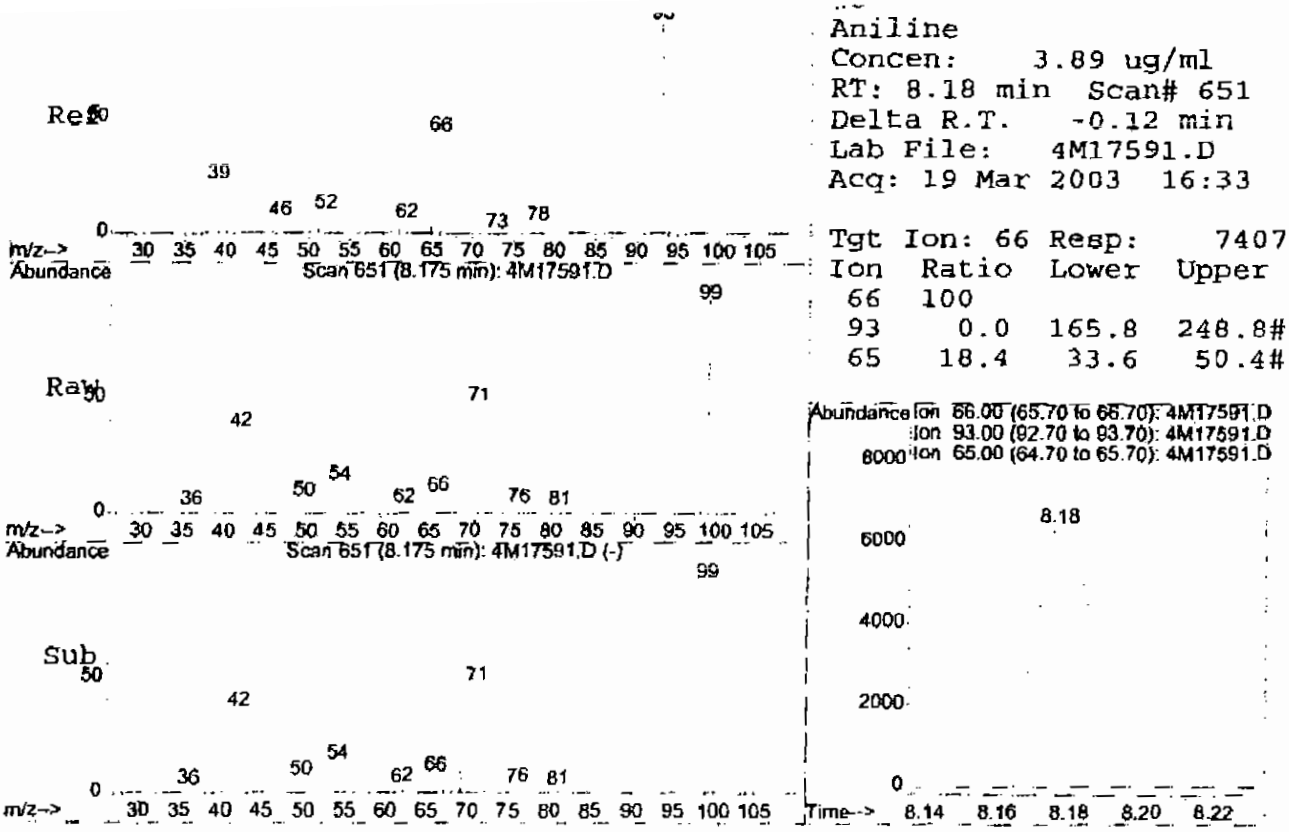
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.66	152	137485	40.00	ug/ml	0.00
19) Naphthalene-d8	10.06	136	561832	40.00	ug/ml	0.00
34) Acenaphthene-d10	11.92	164	325173	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.48	188	498433	40.00	ug/ml	0.00
67) Chrysene-d12	16.47	240	565785	40.00	ug/ml	-0.01
76) Perylene-d12	19.42	264	373349	40.00	ug/ml	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol	7.17	112	147577	33.6941	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 33.69%			
6) Phenol-d5	8.18	99	104415	20.2119	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 20.21%			
20) Nitrobenzene-d5	9.28	82	131215	28.3944	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 56.78%			
38) 2-Fluorobiphenyl	11.16	172	310872	30.1101	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 60.22%			
55) 2,4,6-Tribromophenol	12.75	330	83147	75.3122	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 75.31%			
70) p-Terphenyl-d14	15.06	244	663192	57.2443	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 114.48%			
Target Compounds						Qvalue
5) Aniline	8.18	66	7407	3.8948	ug/ml#	1

(#) = qualifier out of range (m) = manual integration
4M17591.D BNA.M Thu Mar 20 08:22:41 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\031903\4M17591.D Vial: 6
Acq On : 19 Mar 2003 16:33 Operator: alt
Sample : WG136463-02 BLK 3/18 V200P87 Inst : HPMS4
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 20 8:22 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 08:21:54 2003
Response via : Initial Calibration




Aniline
Concen: 3.89 ug/ml
RT: 8.18 min Scan# 651
Delta R.T. -0.12 min
Lab File: 4M17591.D
Acq: 19 Mar 2003 16:33
Tgt Ion: 66 Resp: 7407
Ion Ratio Lower Upper
66 100
93 0.0 165.8 248.8#
65 18.4 33.6 50.4#
Ref
Raw
Sub
m/z-->
Abundance
Scan 651 (8.175 min): 4M17591.D
Scan 651 (8.175 min): 4M17591.D (-)
Abundance
Ion 66.00 (65.70 to 66.70): 4M17591.D
Ion 93.00 (92.70 to 93.70): 4M17591.D
Ion 65.00 (64.70 to 65.70): 4M17591.D
8.18
Time-->

Data File : C:\HPCHEM\1\DATA\031903\4M17592.D Vial: 7
Acq On : 19 Mar 2003 17:07 Operator: alt
Sample : WG136463-03 LCS 3/18 V200P87 Inst : HPMS4
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 20 8:38 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 08:21:54 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.66	152	146200	40.00	ug/ml	0.00
19) Naphthalene-d8	10.06	136	598125	40.00	ug/ml	0.00
34) Acenaphthene-d10	11.92	164	336156	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.48	188	514773	40.00	ug/ml	0.00
67) Chrysene-d12	16.48	240	667753	40.00	ug/ml	0.00
76) Perylene-d12	19.42	264	420842	40.00	ug/ml	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol	7.16	112	158978	34.1334	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 34.13%			
6) Phenol-d5	8.18	99	120225	21.8850	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 21.89%			
20) Nitrobenzene-d5	9.27	82	145959	29.6684	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 59.34%			
38) 2-Fluorobiphenyl	11.16	172	351824	32.9633	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 65.92%			
55) 2,4,6-Tribromophenol	12.75	330	113381	99.3419	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 99.34%			
70) p-Terphenyl-d14	15.06	244	688631	50.3634	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 100.72%			
Target Compounds						Qvalue
2) Pyridine	5.56	79	51204	10.5241	ug/ml#	81
3) n-Nitrosodimethylamine	5.52	74	52777	19.2159	ug/ml#	56
5) Aniline	8.30	66	63969	31.6314	ug/ml#	83
7) Phenol	8.19	94	64529	10.6466	ug/ml#	73
8) bis(2-Chloroethyl)ether	8.33	63	114400	29.2672	ug/ml#	80
9) 2-Chlorophenol	8.43	128	137987	26.6129	ug/ml	99
10) 1,3-Dichlorobenzene	8.60	146	143018	25.8761	ug/ml	100
11) 1,4-Dichlorobenzene	8.67	146	153737	26.1201	ug/ml	99
12) Benzyl Alcohol	8.77	108	80295	25.2649	ug/ml#	86
13) 1,2-Dichlorobenzene	8.86	146	147460	28.4251	ug/ml	99
14) 2-Methylphenol	8.87	107	109523	27.5555	ug/ml	93
15) bis(2-Chloroisopropyl)ethe	8.90	45	267947	30.8561	ug/ml	99
16) 3-,4-Methylphenol	9.02	107	134346	23.4720	ug/ml#	95
17) n-Nitrosodipropylamine	9.05	70	103341	32.7477	ug/ml#	86
18) Hexachloroethane	9.22	117	52562	25.3212	ug/ml	98
21) Nitrobenzene	9.30	77	144816	28.4916	ug/ml	95
22) Isophorone	9.52	82	292286	35.4136	ug/ml#	98
23) 2-Nitrophenol	9.63	139	79918	23.0539	ug/ml#	65
24) 2,4-Dimethylphenol	9.60	122	146291	31.3404	ug/ml	91
25) bis(2-Chloroethoxy)methane	9.71	93	167516	27.8739	ug/ml	99

(#) = qualifier out of range (m) = manual integration
4M17592.D BNA.M Thu Mar 20 08:38:56 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\031903\4M17592.D Vial: 7
Acq On : 19 Mar 2003 17:07 Operator: alt
Sample : WG136463-03 LCS 3/18 V200P87 Inst : HPMS4
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 20 8:38 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 08:21:54 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26) Benzoic Acid	9.64	122	14387	6.4593 ug/ml#	75
27) 2,4-Dichlorophenol	9.87	162	127731	30.8329 ug/ml	98
28) 1,2,4-Trichlorobenzene	9.98	180	121826	27.5145 ug/ml	99
29) Naphthalene	10.08	128	445847	29.4497 ug/ml	100
30) 4-Chloroaniline	10.11	127	179262	40.9703 ug/ml	96
31) Hexachlorobutadiene	10.17	225	72451	31.5468 ug/ml	98
32) 4-Chloro-3-Methylphenol	10.56	107	144501	33.4668 ug/ml	95
33) 2-Methylnaphthalene	10.80	142	306027	28.8824 ug/ml	99
35) Hexachlorocyclopentadiene	10.96	237	46481	28.7846 ug/ml	100
36) 2,4,6-Trichlorophenol	11.08	196	89929	32.4504 ug/ml	100
37) 2,4,5-Trichlorophenol	11.13	196	105480	34.7808 ug/ml	99
39) 2-Chloronaphthalene	11.33	162	280653	30.4346 ug/ml	97
40) 2-Nitroaniline	11.43	65	93747	34.5169 ug/ml	90
41) Dimethylphthalate	11.55	163	410886	37.9218 ug/ml	100
42) Acenaphthylene	11.78	152	507129	33.4953 ug/ml	99
43) 2,6-Dinitrotoluene	11.66	165	83260	35.4198 ug/ml#	77
44) 3-Nitroaniline	11.86	138	90884	62.8727 ug/ml	96
45) Acenaphthene	11.96	154	309848	33.5645 ug/ml	99
46) 2,4-Dinitrophenol	11.95	184	14057	20.5921 ug/ml#	10
47) 4-Nitrophenol	11.96	65	35163	20.7060 ug/ml#	79
48) Dibenzofuran	12.12	168	436036	32.1132 ug/ml	88
49) 2,4-Dinitrotoluene	12.08	165	126396	43.4461 ug/ml#	83
50) Diethylphthalate	12.26	149	490974	44.7293 ug/ml	98
51) Fluorene	12.49	166	393656	36.3181 ug/ml	100
52) 4-Chlorophenyl Phenyl Ethe	12.43	204	173637	33.6719 ug/ml	91
53) 4-Nitroaniline	12.50	138	107103	52.3877 ug/ml#	70
54) 1,2-Diphenylhydrazine	12.60	77	386341	35.9862 ug/ml	99
57) 4,6-Dinitro-2-Methylphenol	12.51	198	57206	39.7959 ug/ml#	79
58) n-Nitrosodiphenylamine	12.56	169	316053	42.9832 ug/ml	99
59) 4-Bromophenyl Phenyl Ether	12.95	248	93794	32.9838 ug/ml#	89
60) Hexachlorobenzene	13.09	284	120971	43.7111 ug/ml	91
61) Pentachlorophenol	13.27	266	54383	36.2500 ug/ml	100
62) Phenanthrene	13.51	178	685744	45.9153 ug/ml	100
63) Anthracene	13.56	178	690383	45.4961 ug/ml	99
64) Carbazole	13.71	167	660886	60.5067 ug/ml#	92
65) Di-n-Butyl Phthalate	13.92	149	1030785	54.1084 ug/ml#	99
66) Fluoranthene	14.75	202	869694	54.5717 ug/ml#	95
68) Benzidine	14.83	184	23409	16.0865 ug/ml	100
69) Pyrene	15.01	202	910088	43.2028 ug/ml	99
71) Butyl Benzyl Phthalate	15.52	149	563775	53.4012 ug/ml	99
72) Benzo[a]anthracene	16.45	228	920527	48.9643 ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\031903\4M17592.D Vial: 7
Acq On : 19 Mar 2003 17:07 Operator: alt
Sample : WG136463-03 LCS 3/18 V200P87 Inst : HPMS4
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 20 8:38 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 08:21:54 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	16.34	252	238464	61.9758	ug/ml	99
74)	Chrysene	16.52	228	902692	49.8240	ug/ml	99
75)	bis(2-Ethylhexyl)phthalate	16.16	149	801330	50.5245	ug/ml	98
77)	Di-n-Octyl Phthalate	17.16	149	1382557	53.7952	ug/ml	97
78)	Benzo[b]fluoranthene	18.45	252	941485	53.2102	ug/ml#	96
79)	Benzo[k]fluoranthene	18.51	252	907914	58.8096	ug/ml#	96
80)	Benzo[a]pyrene	19.28	252	850608	54.2249	ug/ml#	96
81)	Indeno[1,2,3-cd]pyrene	22.81	276	970450	61.8849	ug/ml	88
82)	Dibenz[ah]anthracene	22.81	278	798772	61.7840	ug/ml	95
83)	Benzo[ghi]perylene	23.90	276	743717	58.8088	ug/ml	93

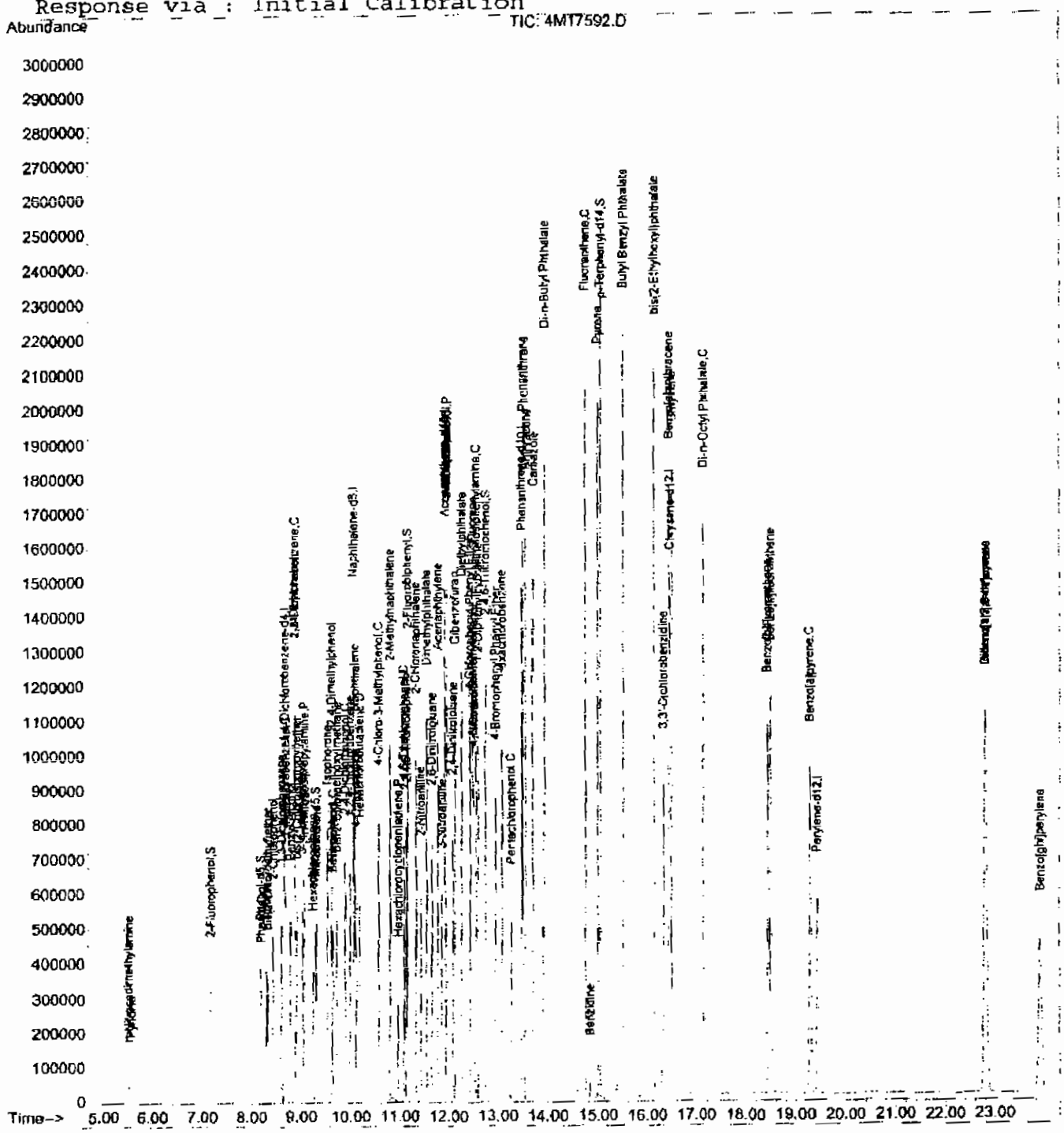
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\031903\4M17592.D
Acq On : 19 Mar 2003 17:07
Sample : WG136463-03 LCS 3/18 V200P87
Misc : 1,1
MS Integration Params: RTEINT.P
Quant Time: Mar 20 8:38 2003

Vial: 7
Operator: alt
Inst : HPMS4
Multiplr: 1.00

Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 08:21:54 2003
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\031903\4M17593.D Vial: 8
Acq On : 19 Mar 2003 17:41 Operator: alt
Sample : WG136463-04 LCS DUP 3/18 V200P87 Inst : HPMS4
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 20 8:39 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 08:21:54 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.66	152	132475	40.00	ug/ml	0.00
19) Naphthalene-d8	10.06	136	537115	40.00	ug/ml	0.00
34) Acenaphthene-d10	11.92	164	304476	40.00	ug/ml	0.00
56) Phenanthrene-d10	13.48	188	465559	40.00	ug/ml	0.00
67) Chrysene-d12	16.48	240	602747	40.00	ug/ml	0.00
76) Perylene-d12	19.42	264	381468	40.00	ug/ml	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol	7.16	112	161203	38.1970	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 38.20%			
6) Phenol-d5	8.18	99	119171	23.9407	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 23.94%			
20) Nitrobenzene-d5	9.27	82	147148	33.3075	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 66.62%			
38) 2-Fluorobiphenyl	11.16	172	342800	35.4596	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 70.92%			
55) 2,4,6-Tribromophenol	12.75	330	114785	111.0364	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 111.04%			
70) p-Terphenyl-d14	15.06	244	672588	54.4952	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 109.00%			
Target Compounds						Qvalue
2) Pyridine	5.57	79	63280	14.3536	ug/ml#	84
3) n-Nitrosodimethylamine	5.52	74	53800	21.6178	ug/ml#	59
5) Aniline	8.30	66	68524	37.3943	ug/ml#	81
7) Phenol	8.19	94	63920	11.6387	ug/ml#	73
8) bis(2-Chloroethyl)ether	8.32	63	115436	32.5919	ug/ml#	80
9) 2-Chlorophenol	8.43	128	138800	29.5432	ug/ml	99
10) 1,3-Dichlorobenzene	8.60	146	145690	29.0905	ug/ml	99
11) 1,4-Dichlorobenzene	8.67	146	154832	29.0316	ug/ml	99
12) Benzyl Alcohol	8.77	108	80098	27.8141	ug/ml	87
13) 1,2-Dichlorobenzene	8.86	146	150457	32.0077	ug/ml	99
14) 2-Methylphenol	8.87	107	108683	30.1772	ug/ml	94
15) bis(2-Chloroisopropyl)ethe	8.90	45	266199	33.8308	ug/ml	100
16) 3-,4-Methylphenol	9.02	107	135524	26.1309	ug/ml#	96
17) n-Nitrosodipropylamine	9.05	70	101999	35.6712	ug/ml#	86
18) Hexachloroethane	9.22	117	53433	28.4077	ug/ml	97
21) Nitrobenzene	9.29	77	143693	31.4819	ug/ml	96
22) Isophorone	9.52	82	287246	38.7561	ug/ml#	99
23) 2-Nitrophenol	9.63	139	79086	25.4053	ug/ml#	66
24) 2,4-Dimethylphenol	9.60	122	144429	34.4561	ug/ml	92
25) bis(2-Chloroethoxy)methane	9.71	93	165228	30.6161	ug/ml	99

(#) = qualifier out of range (m) = manual integration
4M17593.D BNA.M Thu Mar 20 08:39:04 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\031903\4M17593.D Vial: 8
Acq On : 19 Mar 2003 17:41 Operator: alt
Sample : WG136463-04 LCS DUP 3/18 V200P87 Inst : HPMS4
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 20 8:39 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 08:21:54 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26) Benzoic Acid	9.64	122	15122	7.5605 ug/ml#	74
27) 2,4-Dichlorophenol	9.87	162	124820	33.5526 ug/ml	98
28) 1,2,4-Trichlorobenzene	9.98	180	120948	30.4190 ug/ml	98
29) Naphthalene	10.08	128	444749	32.7140 ug/ml	99
30) 4-Chloroaniline	10.11	127	179137	45.5923 ug/ml	96
31) Hexachlorobutadiene	10.17	225	73798	35.7833 ug/ml	98
32) 4-Chloro-3-Methylphenol	10.56	107	146019	37.6597 ug/ml	94
33) 2-Methylnaphthalene	10.80	142	303607	31.9088 ug/ml	99
35) Hexachlorocyclopentadiene	10.96	237	46279	31.6414 ug/ml	99
36) 2,4,6-Trichlorophenol	11.08	196	89015	35.4627 ug/ml	99
37) 2,4,5-Trichlorophenol	11.13	196	106319	38.7051 ug/ml	99
39) 2-Chloronaphthalene	11.33	162	277642	33.2407 ug/ml	97
40) 2-Nitroaniline	11.43	65	98587	40.0757 ug/ml	90
41) Dimethylphthalate	11.55	163	428496	43.6619 ug/ml	100
42) Acenaphthylene	11.78	152	505715	36.8773 ug/ml	100
43) 2,6-Dinitrotoluene	11.66	165	87288	40.9969 ug/ml#	79
44) 3-Nitroaniline	11.86	138	95537	72.9683 ug/ml	98
45) Acenaphthene	11.96	154	309801	37.0512 ug/ml	99
46) 2,4-Dinitrophenol	11.95	184	14838	23.9978 ug/ml#	27
47) 4-Nitrophenol	11.96	65	35501	23.0801 ug/ml#	78
48) Dibenzofuran	12.12	168	439234	35.7146 ug/ml	88
49) 2,4-Dinitrotoluene	12.08	165	132361	50.2302 ug/ml#	84
50) Diethylphthalate	12.26	149	507963	51.0921 ug/ml	99
51) Fluorene	12.49	166	403788	41.1289 ug/ml	99
52) 4-Chlorophenyl Phenyl Ethe	12.43	204	182028	38.9718 ug/ml	92
53) 4-Nitroaniline	12.50	138	108251	58.4585 ug/ml#	70
54) 1,2-Diphenylhydrazine	12.60	77	400696	41.2067 ug/ml	99
57) 4,6-Dinitro-2-Methylphenol	12.51	198	60864	46.8165 ug/ml#	83
58) n-Nitrosodiphenylamine	12.56	169	321460	48.3401 ug/ml	99
59) 4-Bromophenyl Phenyl Ether	12.95	248	97426	37.8827 ug/ml#	89
60) Hexachlorobenzene	13.09	284	127115	50.7865 ug/ml	93
61) Pentachlorophenol	13.27	266	54675	40.2972 ug/ml	99
62) Phenanthrene	13.51	178	698366	51.7035 ug/ml	100
63) Anthracene	13.56	178	702939	51.2204 ug/ml	99
64) Carbazole	13.71	167	659269	66.7392 ug/ml#	91
65) Di-n-Butyl Phthalate	13.92	149	1032185	59.9095 ug/ml#	99
66) Fluoranthene	14.75	202	861363	59.7624 ug/ml#	95
68) Benzidine	14.83	184	21671	16.4983 ug/ml	100
69) Pyrene	15.00	202	904721	47.5799 ug/ml	99
71) Butyl Benzyl Phthalate	15.52	149	555151	58.2555 ug/ml	99
72) Benzo[a]anthracene	16.45	228	911203	53.6957 ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\031903\4M17593.D Vial: 8
Acq On : 19 Mar 2003 17:41 Operator: alt
Sample : WG136463-04 LCS DUP 3/18 V200P87 Inst : HPMS4
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 20 8:39 2003 Quant Results File: BNA.RES

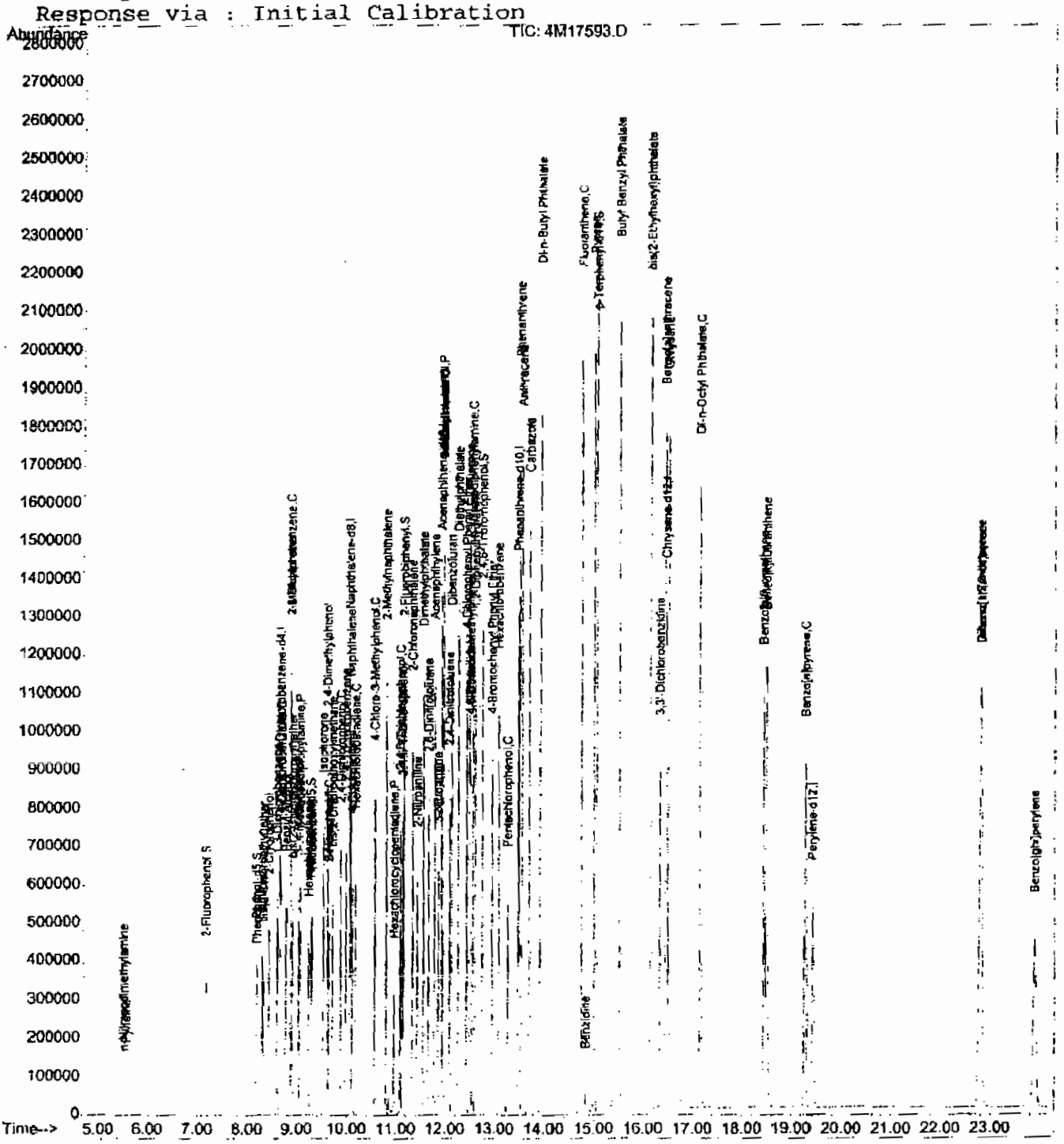
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 08:21:54 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73) 3,3'-Dichlorobenzidine	16.34	252	238270	68.6040	ug/ml	99
74) Chrysene	16.52	228	896907	54.8437	ug/ml	99
75) bis(2-Ethylhexyl)phthalate	16.16	149	806883	56.3614	ug/ml	98
77) Di-n-Octyl Phthalate	17.16	149	1363056	58.5107	ug/ml	98
78) Benzo[b]fluoranthene	18.45	252	895151	55.8134	ug/ml#	96
79) Benzo[k]fluoranthene	18.51	252	924257	66.0476	ug/ml#	95
80) Benzo[a]pyrene	19.28	252	840229	59.0919	ug/ml#	96
81) Indeno[1,2,3-cd]pyrene	22.81	276	957457	67.3584	ug/ml#	87
82) Dibenz[ah]anthracene	22.81	278	784511	66.9442	ug/ml	95
83) Benzo[ghi]perylene	23.89	276	727908	63.4998	ug/ml	93

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\031903\4M17593.D Vial: 8
Acq On : 19 Mar 2003 17:41 Operator: alt
Sample : WG136463-04 LCS DUP 3/18 V200P87 Inst : HPMS4
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 20 8:39 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 03/14/03
Last Update : Thu Mar 20 08:21:54 2003
Response via : Initial Calibration



Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	4M17581.D	1.	WG136559-01 50PPM DFTPP	1,1 SOS64-3	19 Mar 2003 10:[illegible]
2	2	4M17582.D	1.	WG136559-02 50PPM BNA STD	1,1 SOS63-38-4	19 Mar 2003 11:08
3	3	4M17583.D	1.	50ppm 2-Ethoxyethanol	1,1	19 Mar 2003 11:42
4	4	4M17584.D	1.	50ppm Appendix IX STD	1,1 SOS61-35-3	19 Mar 2003 12:16
5	2	4M17585.D	1.	WG136559-02 50PPM BNA STD	1,1 SOS63-38-4	19 Mar 2003 12:50
6	1	4M17586.D	1.	WG136559-01 50PPM DFTPP	1,1 SOS64-3	19 Mar 2003 13:52
7	2	4M17587.D	1.	WG136559-02 50PPM BNA STD	1,1 SOS63-38-4	19 Mar 2003 14:16
8	3	4M17588.D	1.	50PPM 2-Ethoxyethanol	1,1 SOS62-46	19 Mar 2003 14:51
9	4	4M17589.D	1.	50PPM Appendix IX std	1,1 SOS61-35-3	19 Mar 2003 15:25
10	5	4M17590.D	1.	500PPM Hexachlorophene/Kepone	1,1 SOS63-39	19 Mar 2003 15:59
11	6	4M17591.D	1.	WG136463-02 BLK 3/18 V200P87	1,1	19 Mar 2003 16:33
12	7	4M17592.D	1.	WG136463-03 LCS 3/18 V200P87	1,1	19 Mar 2003 17:07
13	8	4M17593.D	1.	WG136463-04 LCS DUP 3/18 V200P87	1,1	19 Mar 2003 17:41
14	9	4M17594.D	1.	WG136440-01 TBLK 3/17	17,1 TCLP	19 Mar 2003 18:17
15	10	4M17595.D	1.	L0303285-01	17,1 TCLP	19 Mar 2003 18:53
16	11	4M17596.D	1.	L0303287-01	17,1 TCLP	19 Mar 2003 19:28
17	12	4M17597.D	1.	L0303185-04 RE	17,1,RE TCLP	19 Mar 2003 20:03
18	13	4M17598.D	1.	L0303238-04	17,1 TCLP	19 Mar 2003 20:38
19	14	4M17599.D	1.	L0303238-05	17,1 TCLP	19 Mar 2003 21:13
20	15	4M17600.D	1.	L0303238-06	17,1 TCLP	19 Mar 2003 21:48
21	16	4M17601.D	1.	L0303296-03	7,1 SOIL	19 Mar 2003 22:24
22	17	4M17602.D	200.	L0303287-01 200X	7,200 SOIL	19 Mar 2003 22:59
23	18	4M17603.D	100.	L0303287-01 100X	7,100 SOIL	19 Mar 2003 23:35
24	19	4M17604.D	10.	L0303352-01 10X	1,10	20 Mar 2003 00:10
25	20	4M17605.D	10.	L0303287-01 10X	7,10 SOIL	20 Mar 2003 00:45
26	21	4M17606.D	30.	WG136463-01 L0303238-02	17,10 TCLP	20 Mar 2003 01:21
27	22	4M17607.D	30.	WG136463-05 L0303238-02 SPK	17,10 TCLP	20 Mar 2003 01:56

* See Comments

ALJ 3/20/03
3/21/03

KEMRON ENVIRONMENTAL SERVICES

Semivolatile GC/MS Laboratory Maintenance / Runlog

Analysis Date/Time 3/18/03 Instrument ID HP054 Column ID RTX-5S1-MS SOP # MSS01 Rev. # 9 8270C ✓
Analyst Initials ALT SC Data Subdirectory 031903 SOP # MSS02 Rev. # ___ 625 ___
ISTD # B2160144 SOP # MSS03 Rev. # ___ PAH 8270C ___

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Preventative Maintenance

- ☑ Change o-ring
- ☑ Change liner
- ☐ Change septum
- ☐ Clip column (___ cm)
- ☑ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?

Yes ___ No ___

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

4M17587 CCV #26, #35 + #73, #81 & #82 > ± 20% DEV

W6-136463-03 LCS #44 + #81 high
-04 LCS Dup ⊥ ⊥ #30, #74, #82 + #83 high

L0303238-04 & 06 SS 5 high

L0303287-01 @ 100x SS DL
-01 @ 10x IS 3 high - SMI SS 4 low
#24, #33, #51, #62, #63 Need 100x dil

L0303238-02 @ 10x - IS 2 high SMI SS DL - (EFV)
-02 Spk @ 10x ⊥ Need RR MT
SS & Spk Compounds DL - (EFV)

Reviewed By: [signature] 3/21/03

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	4M17502.D	1.	✓ WG136152-01 50PPM DFTPP	1,1 SOS64-3	14 Mar 2003 07:37
2	2	4M17503.D	1.	✓ WG136152-02 50PPM BNA STD	1,1 SOS63-38-4	14 Mar 2003 07:5[illegible]
3	3	4M17504.D	1.	✓ WG136152-03 3PPM BNA STD	1,1 SOS63-38-1	14 Mar 2003 08:30
4	4	4M17505.D	1.	WG136152-04 10PPM BNA STD	1,1 SOS63-38-2	14 Mar 2003 09:04
5	5	4M17506.D	1.	WG136152-05 20PPM BNA STD	1,1 SOS63-38-3	14 Mar 2003 09:38
6	6	4M17507.D	1.	WG136152-06 80PPM BNA STD	1,1 SOS63-38-5	14 Mar 2003 10:13
7	7	4M17508.D	1.	WG136152-07 100PPM BNA STD	1,1 SOS63-38-6	14 Mar 2003 10:48
8	8	4M17509.D	1.	WG136152-08 120PPM BNA STD	1,1 SOS63-38-7	14 Mar 2003 11:23
9	9	4M17510.D	1.	WG136152-09 50PPM Alt source BNA STD	1,1 SOS62-28	14 Mar 2003 12:30
10	1	4M17511.D	1.	WG136152-10 50PPM DFTPP	1,1 SOS64-3	14 Mar 2003 12:59
11	2	4M17512.D	1.	WG136152-11 50PPM BNA STD	1,1 SOS63-38-4	14 Mar 2003 13:20
12	3	4M17513.D	1.	WG135950-01 BLK 3/10 V200P49	7,1 SOIL	14 Mar 2003 13:54
13	4	4M17514.D	1.	WG135950-02 LCS 3/10 V200P49	1,1	14 Mar 2003 14:29
14	5	4M17515.D	1.	WG135950-03 LCSDUP 3/10 V200P49	1,1	14 Mar 2003 15:04
15	6	4M17516.D	1.	L0303100-01	1,1	14 Mar 2003 15:38
16	7	4M17517.D	1.	L0303139-01	1,1	14 Mar 2003 16:13
17	8	4M17518.D	1.	L0303139-04	1,1	14 Mar 2003 16:49
18	9	4M17519.D	1.	L0303139-06	1,1	14 Mar 2003 17:24
19	10	4M17520.D	1.	L0303139-08	1,1	14 Mar 2003 18:00
20	11	4M17521.D	1.	L0303139-10	1,1	14 Mar 2003 18:35
21	12	4M17522.D	1.	L0303139-12	1,1	14 Mar 2003 19:11
22	13	4M17523.D	1.	L0303139-13	1,1	14 Mar 2003 19:46
23	14	4M17524.D	1.	L0303139-15	1,1	14 Mar 2003 20:21
24	15	4M17525.D	1.	L0303139-16	1,1	14 Mar 2003 20:56
25	16	4M17526.D	1.	L0303098-01	1,1	14 Mar 2003 21:30
26	17	4M17527.D	1.	L0303098-02	1,1	14 Mar 2003 22:05
27	18	4M17528.D	1	L0303098-04	1,1	14 Mar 2003 22:39
28	19	4M17529.D	1.	L0303098-06	1,1	14 Mar 2003 23:13
29	20	4M17530.D	1.	L0303098-09	1,1	14 Mar 2003 23:47
[illegible]	21	4M17531.D	1.	L0303098-11	1,1	15 Mar 2003 00:21
31	22	4M17532.D	1.	L0303098-13	1,1	15 Mar 2003 00:55

CLK
3/15/03

KEMRON ENVIRONMENTAL SERVICES

Semivolatile GC/MS Laboratory Maintenance / Runlog

Analysis Date/Time 3/14/03 Instrument ID HP84 Column ID RTX-5MS SOP # MSS01 Rev. # 9 8270C ✓
Analyst Initials CK Data Subdirectory 031403 SOP # MSS02 Rev. # ___ 625 ___
ISTD # B210144 SOP # MSS03 Rev. # ___ PAH 8270C ___

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Preventative Maintenance	Additional Maintenance
	Problem:
☐ Change o-ring	
☒ Change liner	
☐ Change septum	
☐ Clip column (___ cm)	
☐ Injection port seal (goldseal)	
☐ Change gases _____	Action Taken:
Returned To Control?	
Yes ___ No ___	

Comments

Reviewed By: 3/17/03

Parameter: BNA H_2O SOP #: EXB08 Revision #: 10
Extraction Analyst(s): CAF REK GTV/KD Analyst(s): AT/KRK
Date/Time Extracted: 3-18-03 @ 09:30 Date TV/KD: 3/19/03
Spike/Surrogate Analyst: AT CAF Witness: CAF / REK
Surrogate #: ESS0043-14 #12,13 Earliest Hold Date: 3-19-03
Spike #: A = ESS0043-38 #2 Spike #: B = —

Extraction Work Group WG 136463
Analytical Work Group WG 136634
Extract Relinquished By: —
Extract Received By & Date: REC 3/18/03

	Sample ID	Test Code	pH <2	pH N	pH >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions A	Emulsions BN	Emulsions N	Comments
1	Blank		✓		✓	1000mL	500uL #13		1mL	T				WG 136463-02
2	LCS		✓		✓			500uL		C				WG 136463-03
3	LCS Dup		✓		✓			1						WG 136463-04
4	03-309-02	625 B3	✓		✓	960mL					✓	✓		
5	03-320-01	8270	✓		✓	1000mL					✓	✓		
6	-02	1	✓		✓	950mL	1				✓	✓		
7														
8	03-338-01	827-A9	✓		✓	985mL	500uL #13			I	✓	✓		
9	-02	1	✓		✓	955mL	1			O	✓	✓		
10	TBLK-3/17	827-TC	✓		✓	100mL	500uL #12			T				WG 136440-01
11	03-238-01		✓		✓				1	T				
12	-02		✓		✓		1		3mL	T				WG 136463-01
13	-02SPK		✓		✓		500uL #13	500uL	3mL	C				WG 1 -05
14	-04		✓		✓				1mL	T				
15	-05		✓		✓					C	✓			
16	-06		✓		✓					C				
17	03-285-01		✓		✓					T				
18	03-287-01		✓		✓					T				
19	03-316-01		✓		✓		1			T				
20	03-185-04	1	✓		✓	1	500uL #13		1	T	✓			RE-EXT W/ID #13
21	03-352-01	827-RC	✓		✓	940mL	1		1	O	✓			
22							3/18/03							
23														
24														

Methylene Chloride Lot #: 42351
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: 10N NaOH Lot #: ER 2373
Reagent: Fort Sol. Lot #: ER 2374
Reagent: — Lot #: —
Acid: 1:1 H_2SO_4 Lot #: ER 2372
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 2211

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 3/18/03

Extraction Notes For Volume # 200 Page # 87

General Comments: None.

Extraction Anomalies: None.

Concentration Anomalies: Sample 235-02 + 238-02 SPK final concentration is 3 ml.

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Semi-Volatile GCMS Checklist

Run Date: 3/14/03

Analyst: CLK

Instrument: HP5964

Workorders:	Due Date:	Priority:
03-100	3/17	—
03-134	1	—
03-098	1	—

		Analyst
System Performance Check:	DFTPP	✓
	Tailing	✓
	DDT Breakdown	✓
Initial Calibration:	ICAL summary	✓
	Average RF	✓
	Linear or quadriatic regression	
	Alt Source Check	✓
Continuing Calibration:	Continuing Calibration	✓
	Client Specific Requirements	✓
	Special Standards	
Blanks:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Library search	
LCS/LCS DUP:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Spike Compounds	✓
	MS/MSD	
	QC forms	✓
Samples:	Quant Reports/Chromatograms	✓
	Spectra of TCL Hits	✓
	Surrogates	✓
	Internal Standards	✓
	Correct Factors	✓
	Library searches	
Data Package:	Manual integrations	
	Run logs	✓
	Bench sheets	✓
	Upload results	✓
	R-flag reports	
	Seedpak workgroups	✓
	Level 2	✓
	Level 4 copies	
	Level x	
	Case narratives	✓

	Supervisor
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

√ = Checked & OK

NA = Not Applicable

Comments:

Primary Reviewer: CLK 3/15/03

Secondary Reviewer: CBC 3/17/03

Supervisor Review: mlc 3/17/03

Semi-Volatile GCMS Checklist

Run Date: 3/19/03

Analyst: ALT

Instrument: HPMS4

Workorders:	Due Date:	Priority:
03285	3/21	A1
03287	3/21	A1
RE03185	3/17	P1
03238	3/21	A1
03296	3/21	
03352	3/21	P1

		Analyst
System Performance Check:	DFTPP	✓
	Tailing	✓
	DDT Breakdown	✓
Initial Calibration:	ICAL summary	
	Average RF	
	Linear or quadriatic regression	
	Alt Source Check	
Continuing Calibration:	Continuing Calibration	✓
	Client Specific Requirements	✓
	Special Standards	✓
Blanks:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Library search	
LCS/LCS DUP:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Spike Compounds	✓
	MS/MSD	✓
	QC forms	✓
Samples:	Quant Reports/Chromatograms	✓
	Spectra of TCL Hits	✓
	Surrogates	✓
	Internal Standards	✓
	Correct Factors	✓
	Library searches	✓
Data Package:	Manual integrations	✓
	Run logs	✓
	Bench sheets	✓
	Upload results	
	R-flag reports	
	Seedpak workgroups	✓
	Level 2	
	Level 4 copies	
	Level x	
	Case narratives	

	Supervisor
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

√ = Checked & OK

NA = Not Applicable

Comments:

03238-02 spk [illegible] RR

Primary Reviewer: ALT/3/20/03

Secondary Reviewer: [illegible] 3/21/03

Supervisor Review: [illegible] 3/21/03

Example 8270 Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

			Example:
	RF = [(Ax)(Cis)] / [(Ais)(Cx)]		
Where:	Ax = Area of the characteristic ion for the compound being measured		10000
	Cis = Concentration of the specific internal standard (ng/ml).		100
	Ais = Area of the characteristic ion for the specific internal standard.		5000
	Cx = Concentration of the compound being measured (ng/ml).		100
		RF	**2**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:*

			Example:
	C = [(Ax)(Cis)(Vf)(D)] / [(Ais)(RF)(Vi)]		
Where:	Ax = Area of the characteristic ion for for the compound being measured		10000
	Cis = Concentration of the specific internal standard in ng/ml (ug/L).		4000
	Vf = Final volume of sample extract (mL). (prep log)		1
	D = Dilution factor for sample as a multiplier (10X = 10).		1
	Ais = Area of the characteristic ion for for the specific internal standard.		5000
	RF = Response factor from ICAL calculated above.		2
	Vi = Initial volume of sample (mL). (prep log)		1000
		C (ug/L)	**4**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report:*

			Example:
	C = [(Ax)(Cis)(Vf)(D)] / [(Ais)(RF)(Wi)]		
Where:	Ax = Area of the characteristic ion for for the compound being measured		10000
	Cis = Concentration of the specific internal standard in ng/ml (ug/L).		4000
	Vf = Final volume of sample extract (mL).		1
	D = Dilution factor for sample as a multiplier (10X = 10).		1
	Ais = Area of the characteristic ion for for the specific internal standard.		5000
	RF = Response factor from ICAL calculated above.		2
	Wi = Initial weight of sample (g).		30
		C (ug/kg)	**133.3333**

* Concentrations appearing on instrument quantitation reports are on-column results and do not take into account initial volume, final volume and dilution factor.

2.2.2 Pesticide GC Data (8081)

REPORT NARRATIVE
GC PESTICIDES

KEMRON Report No.: L0303352

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8081

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: There were no MS/MSD results associated with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Endrin/ DDT Breakdown : All acceptance criteria were met.
Samples: For all samples which yielded results with an RPD of greater than 40% between the primary and confirmation column the appropriate flag was applied. All results were reported from the primary column. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ECL REVIEWED: _____ DATE: 3/5/03

Rev. 7/14/00

Pesticides – GC DATA (8081)

Login Number 03-352

A. QC Summary

- ✓ Method Blank Summary
- ✓ Method Blank Results
- ✓ Laboratory Control Sample (LCS)
- NA Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ✓ Holding Time Summary
- ✓ Surrogate Recovery Summary
- ✓ Initial Calibration Summary
- ✓ Initial Calibration Verification (ICV) Form (Second Source)
- ✓ Continuing Calibration Verification (CCV)
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet

B. Sample Data

- ✓ Target compound and surrogate results summary (See Summary Report)
- ✓ Chromatograms and quantitation report

C. Standards Data

- ✓ Initial calibration (ICAL) summary form
- ✓ Chromatograms and quantitation report for ICAL standards
- ✓ Initial calibration verification (ICV/second source) summary forms
- ✓ Initial calibration verification (ICV/second source) quantitation reports and chromatograms
- ✓ Continuing Calibration Verification (CCV) summary forms
- ✓ Continuing Calibration Verification (CCV) quantitation reports and chromatograms
- ✓ Retention Time Window Summary

D. Raw QC Data

- ✓ Endrin/DDT Breakdown chromatogram and quantitation report
- ✓ Method blank chromatogram and quantitation report
- ✓ LCS chromatogram and quantitation report
- NA MS/MSD chromatogram and quantitation report
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet
- ✓ Daily Checklist
- ✓ Example Calculations

Checked By: EC Date: 3-24-03

2.2.2.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0303352
Work Group: WG136668
Blank File ID: 9G22652.R
Blank Sample ID: WG136479-01
Date Analyzed: 03/19/03
Instrument ID: HP9
Time Analyzed: 14:21
Method: 8081A
Analyst: ECL

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG136479-02	9G22653.R	03/19/03 14:45	01
LCS2	WG136479-03	9G22654.R	03/19/03 15:09	01
177511-DW-031703	L0303352-01	9G22655.R	03/19/03 15:33	01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0303352 | Run Date: 03/19/2003 | Sample ID: WG136479-01
Instrument ID: HP9 | Run Time: 14:21 | Prep Method: 3510C
File ID: 9G22652.R | Analyst: ECL | Method: 8081A
Workgroup (AAB#): WG136668 | Matrix: Water | Units: ug/L
Contract #: | Cal ID: HP9-07-FEB-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
4,4'-DDD	0.0250	0.100	0.0250	1	U
4,4'-DDE	0.0250	0.100	0.0250	1	U
4,4'-DDT	0.0250	0.100	0.0250	1	U
Aldrin	0.0100	0.0500	0.0100	1	U
alpha-BHC	0.0100	0.0500	0.0100	1	U
alpha Chlordane	0.0100	0.0500	0.0100	1	U
beta-BHC	0.0100	0.0500	0.0100	1	U
delta-BHC	0.0100	0.0500	0.0100	1	U
Dieldrin	0.0250	0.100	0.0250	1	U
Endosulfan I	0.0100	0.0500	0.0100	1	U
Endosulfan II	0.0250	0.100	0.0250	1	U
Endosulfan sulfate	0.0250	0.100	0.0250	1	U
Endrin	0.0250	0.100	0.0250	1	U
Endrin aldehyde	0.0250	0.100	0.0250	1	U
Endrin ketone	0.0250	0.100	0.0250	1	U
gamma-BHC (Lindane)	0.0100	0.0500	0.0100	1	U
gamma Chlordane	0.0100	0.0500	0.0100	1	U
Heptachlor	0.0100	0.0500	0.0100	1	U
Heptachlor epoxide	0.0100	0.0500	0.0100	1	U
Methoxychlor	0.0250	0.500	0.0250	1	U
Toxaphene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
Decachlorobiphenyl	113	25 - 140	PASS
2,4,5,6-Tetrachloro-m-xylene	59.9	20 - 180	PASS

* Analyte detected above RDL
ND Analyte Not detected at or above reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0303352 Run Date: 03/19/2003 Sample ID: WG136479-02
Instrument ID: HP9 Run Time: 14:45 Prep Method: 3510C
File ID: 9G22653.R Analyst: ECL Method: 8081A
Workgroup (AAB#): WG136668 Matrix: Water Units: ug/L
Contract #: Cal ID: HP9-07-FEB-2003 16:48

Analytes	Expected	Found	% Rec	LCS Limits	Q
4,4'-DDD	0.500	0.637	127	50 - 145	
4,4'-DDE	0.500	0.588	118	50 - 145	
4,4'-DDT	0.500	0.616	123	45 - 140	
Aldrin	0.500	0.428	85.7	38 - 130	
alpha-BHC	0.500	0.414	82.7	37 - 130	
alpha Chlordane	0.500	0.550	110	60 - 135	
beta-BHC	0.500	0.527	105	61 - 131	
delta-BHC	0.500	0.574	115	47 - 140	
Dieldrin	0.500	0.581	116	60 - 150	
Endosulfan I	0.500	0.350	70.0	50 - 130	
Endosulfan II	0.500	0.373	74.6	30 - 130	
Endosulfan sulfate	0.500	0.369	73.9	30 - 130	
Endrin	0.500	0.588	118	50 - 150	
Endrin aldehyde	0.500	0.338	67.5	30 - 130	
Endrin ketone	0.500	0.432	86.5	31 - 141	
gamma-BHC (Lindane)	0.500	0.444	88.7	43 - 122	
gamma Chlordane	0.500	0.549	110	60 - 135	
Heptachlor	0.500	0.495	99.1	40 - 130	
Heptachlor epoxide	0.500	0.535	107	60 - 132	
Methoxychlor	0.500	0.680	136	60 - 150	

Surrogates	% Recovery	Surrogate Limits	Qualifier
Decachlorobiphenyl	114	25 - 140	PASS
2,4,5,6-Tetrachloro-m-xylene	67.6	20 - 180	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 01/31/2003
Version 1.3
Report generated 03/24/2003 15:50

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method:8081A AAB#:WG136668

Login Number:L0303352

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
177511-DW-031703	03/17/03	03/18/03	03/18/03	7	0.784	03/19/03	40	1.08	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number:L0303352
Instrument Id:HP9
Workgroup (AAB#):WG136668

Method:8081
CAL ID: HP9-07-FEB-03
Matrix:WATER

Sample Number	Dilution	Tag	1	2
L0303352-01	1.00	01	52.4	76.4
WG136479-01	1.00	01	59.9	113
WG136479-02	1.00	01	67.6	114
WG136479-03	1.00	01	63.4	106

Surrogates	Surrogate Limits		
1 - 2,4,5,6-Tetrachloro-m-xylene	20	-	180
2 - Decachlorobiphenyl	25	-	140

Underline = Result out of surrogate limits

DL = surrogate diluted out

ND = surrogate not detected

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1358
Last Update : Mon Feb 10 10:53:44 2003

Calibration Files
2000 =9G22298.D 1000 =9G22299.D 500 =9G22300.D
250 =9G22301.D 100 =9G22302.D

		Compound	2000	1000	500	250	100	Avg		%RSD
1)	L1	Toxaphene-1	4.429	4.391	4.328	4.248	4.304	4.340	E5	1.65
2)	L1	Toxaphene-2	4.489	5.288	4.780	5.597	5.178	5.067	E5	8.60
3)	L1	Toxaphene-3	1.283	1.584	1.525	1.510	1.535	1.487	E6	7.89
4)	L1	Toxaphene-4	1.138	1.123	1.092	1.096	1.092	1.108	E6	1.89
5)	L1	Toxaphene-5	5.587	5.394	5.076	4.963	4.707	5.145	E5	6.78

Signal #2 Calibration Files
2000 =9G22298.D 1000 =9G22299.D 500 =9G22300.D
250 =9G22301.D 100 =9G22302.D

		Compound	2000	1000	500	250	100	Avg		%RSD
1)	L1	Toxaphene-1	4.556	4.345	4.367	4.208	4.461	4.387	E5	2.97
2)	L1	Toxaphene-2	1.295	1.259	1.288	1.290	1.569	1.340	E6	9.60
3)	L1	Toxaphene-3	9.193	8.603	8.391	7.625	7.420	8.247	E5	8.82
4)	L1	Toxaphene-4	6.722	6.366	6.108	5.419	5.157	5.954	E5	10.96
5)	L1	Toxaphene-5	6.272	5.990	5.920	5.505	5.402	5.818	E5	6.18

(#) = Out of Range

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:42:38 2003

Calibration Files
4 =9G22309.D 10 =9G22308.D 20 =9G22307.D
50 =9G22306.D 100 =9G22305.D 200 =9G22304.D

		Compound	4	10	20	50	100	200	Avg		%RSD
1)	S	2,4,5,6-Tetrachloro	7.792	7.716	7.633	7.666	7.577	7.647	7.672	E7	0.97
2)		alpha-BHC	0.967	1.044	1.078	1.111	1.118	1.133	1.075	E8	5.74
3)		gamma-BHC	1.011	1.000	1.006	1.017	1.011	1.019	1.010	E8	0.71
4)		beta-BHC	4.554	4.393	4.292	4.295	4.150	4.282	4.328	E7	3.12
5)		Heptachlor	9.787	9.953	9.856	9.606	9.344	9.071	9.603	E7	3.52
6)		delta-BHC	0.867	0.939	0.993	1.014	0.994	1.025	0.972	E8	6.10
7)		Aldrin	8.698	9.038	9.057	8.927	8.746	8.557	8.837	E7	2.28
8)		Heptachlor Epoxide	7.963	8.040	7.898	7.557	7.545	7.261	7.711	E7	3.94
9)		gamma-Chlordane	7.702	8.004	7.925	7.900	7.744	7.819	7.849	E7	1.47
10)		alpha-Chlordane	7.403	7.496	7.394	7.141	7.234	7.100	7.295	E7	2.19
11)		Endosulfan I	7.525	7.692	7.541	7.329	7.144	7.013	7.374	E7	3.52
12)		4,4'-DDE	6.316	6.705	6.830	6.920	6.934	6.974	6.780	E7	3.64
13)		Dieldrin	7.215	7.521	7.511	7.358	7.444	7.269	7.396	E7	1.72
14)		Endrin	6.634	6.960	6.899	6.908	6.823	6.877	6.850	E7	1.68
15)		4,4'-DDD	5.267	5.555	5.615	5.677	5.667	5.780	5.593	E7	3.16
16)		Endosulfan II	6.183	6.294	6.163	6.071	6.015	6.096	6.137	E7	1.60
17)		4,4'-DDT	5.112	5.398	5.461	5.525	5.573	5.731	5.467	E7	3.80
18)		Endrin Aldehyde	4.693	4.779	4.620	4.460	4.414	4.517	4.581	E7	3.09
19)		Endosulfan Sulfate	4.958	5.034	4.923	4.787	4.824	4.942	4.911	E7	1.85
20)		Methoxychlor	2.593	2.709	2.617	2.570	2.559	2.654	2.617	E7	2.16
21)		Endrin Ketone	5.794	5.889	5.747	5.614	5.604	5.742	5.732	E7	1.90
22)	S	Decachlorobiphenyl	4.766	4.529	4.298	4.003	3.876	3.929	4.233	E7	8.51

Signal #2 Calibration Files
4 =9G22309.D 10 =9G22308.D 20 =9G22307.D
50 =9G22306.D 100 =9G22305.D 200 =9G22304.D

		Compound	4	10	20	50	100	200	Avg		%RSD
1)	S	2,4,5,6-Tetrachloro	4.746	4.862	4.856	5.130	5.162	5.344	5.017	E7	4.58
2)		alpha-BHC	5.852	6.540	6.867	7.527	7.660	7.966	7.069	E7	11.26
3)		gamma-BHC	5.451	5.944	6.190	6.722	6.816	7.083	6.368	E7	9.65
4)		beta-BHC	2.783	2.757	2.723	2.821	2.853	2.974	2.819	E7	3.15
5)		Heptachlor	4.220	4.431	4.534	4.890	5.012	5.271	4.726	E7	8.39
6)		delta-BHC	5.092	5.693	5.992	6.583	6.720	7.039	6.187	E7	11.76
7)		Aldrin	4.774	5.147	5.355	5.898	6.007	6.282	5.577	E7	10.34
8)		Heptachlor Epoxide	4.440	4.683	4.762	5.149	5.239	5.497	4.962	E7	8.00
9)		gamma-Chlordane	4.382	4.602	4.683	5.064	5.175	5.426	4.889	E7	8.09
10)		alpha-Chlordane	4.162	4.340	4.377	4.678	4.775	5.008	4.557	E7	6.95
11)		Endosulfan I	3.963	4.187	4.268	4.615	4.714	4.956	4.450	E7	8.36
12)		4,4'-DDE	3.546	3.922	4.110	4.577	4.722	5.015	4.315	E7	12.74
13)		Dieldrin	3.922	4.280	4.455	4.927	5.078	5.392	4.676	E7	11.76
14)		Endrin	3.385	3.701	3.830	4.218	4.403	4.704	4.040	E7	12.09
15)		4,4'-DDD	2.885	3.166	3.288	3.632	3.783	4.084	3.473	E7	12.67
16)		Endosulfan II	3.451	3.651	3.726	4.012	4.153	4.488	3.914	E7	9.66
17)		4,4'-DDT	2.972	3.290	3.384	3.755	3.888	4.183	3.579	E7	12.38
18)		Endrin Aldehyde	2.759	2.854	2.841	2.988	3.073	3.322	2.973	E7	6.89
19)		Endosulfan Sulfate	3.089	3.235	3.261	3.463	3.600	3.839	3.415	E7	8.06
20)		Methoxychlor	1.703	1.741	1.713	1.802	1.838	1.983	1.797	E7	5.85
21)		Endrin Ketone	3.748	3.938	3.936	4.167	4.257	4.510	4.093	E7	6.68
22)	S	Decachlorobiphenyl	3.729	3.647	3.477	3.427	3.374	3.512	3.528	E7	3.83

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\020703\9G22303.D\ECD1A.CH Vial: 7
Acq On : 7 Feb 2003 14:22 Operator: ECL
Sample : TOX ALT ICV 500 PPB Inst : HP9
Misc : SOS63-05 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\020703\9G22303.D\ECD2B.CH Vial: 7
Acq On : 7 Feb 2003 14:46 Operator: ECL
Sample : TOX ALT ICV 500 PPB Inst : HP9
Misc : SOS63-05 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Februay 7, 2003 @ 1358
Last Update : Mon Feb 10 10:53:44 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	Toxaphene-1	500.000	549.670	-9.9	110	0.00
2	L1	Toxaphene-2	500.000	527.305	-5.5	112	0.00
3	L1	Toxaphene-3	500.000	517.039	-3.4	101	0.00
4	L1	Toxaphene-4	500.000	505.974	-1.2	103	0.00
5	L1	Toxaphene-5	500.000	539.751	-8.0	109	0.00
		Signal #2					
1	L1	Toxaphene-1	500.000	448.068	10.4	90	0.00
2	L1	Toxaphene-2	500.000	482.387	3.5	100	0.00
3	L1	Toxaphene-3	500.000	482.466	3.5	95	0.00
4	L1	Toxaphene-4	500.000	488.702	2.3	95	0.00
5	L1	Toxaphene-5	500.000	504.214	-0.8	99	0.00

Data File : C:\HPCHEM\1\DATA\020703\9G22310.D\ECD1A.CH Vial: 14
Acq On : 7 Feb 2003 17:12 Operator: ECL
Sample : WG134218-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\020703\9G22310.D\ECD2B.CH Vial: 14
Acq On : 7 Feb 2003 17:36 Operator: ECL
Sample : WG134218-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:42:38 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	alpha-BHC	20.000	18.758	6.2	93	0.00
3	gamma-BHC	20.000	18.657	6.7	94	0.00
4	beta-BHC	20.000	18.015	9.9	91	0.00
5	Heptachlor	20.000	18.952	5.2	92	0.00
6	delta-BHC	20.000	18.238	8.8	89	0.00
7	Aldrin	20.000	18.777	6.1	92	0.00
8	Heptachlor Epoxide	20.000	19.171	4.1	94	0.00
9	gamma-Chlordane	20.000	18.879	5.6	93	0.00
10	alpha-Chlordane	20.000	18.986	5.1	94	0.00
11	Endosulfan I	20.000	18.577	7.1	91	0.00
12	4,4'-DDE	20.000	18.895	5.5	94	0.00
13	Dieldrin	20.000	18.935	5.3	93	0.00
14	Endrin	20.000	17.986	10.1	89	0.00
15	4,4'-DDD	20.000	18.549	7.3	92	0.00
16	Endosulfan II	20.000	18.926	5.4	94	0.00
17	4,4'-DDT	20.000	18.802	6.0	94	0.00
18	Endrin Aldehyde	20.000	17.118	14.4	85	0.00
19	Endosulfan Sulfate	20.000	18.301	8.5	91	0.00
20	Methoxychlor	20.000	18.476	7.6	92	0.00
21	Endrin Ketone	20.000	18.409	8.0	92	0.00
	Signal #2					
2	alpha-BHC	20.000	18.829	5.9	97	0.00
3	gamma-BHC	20.000	18.796	6.0	97	0.00
4	beta-BHC	20.000	18.104	9.5	94	0.00
5	Heptachlor	20.000	18.354	8.2	96	0.00
6	delta-BHC	20.000	18.172	9.1	94	0.00
7	Aldrin	20.000	18.229	8.9	95	0.00
8	Heptachlor Epoxide	20.000	18.583	7.1	97	0.00
9	gamma-Chlordane	20.000	18.654	6.7	97	0.00
10	alpha-Chlordane	20.000	18.846	5.8	98	0.00
11	Endosulfan I	20.000	18.089	9.6	94	0.00
12	4,4'-DDE	20.000	18.699	6.5	98	0.00
13	Dieldrin	20.000	18.313	8.4	96	0.00
14	Endrin	20.000	17.655	11.7	93	0.00
15	4,4'-DDD	20.000	18.208	9.0	96	0.00
16	Endosulfan II	20.000	17.919	10.4	94	0.00
17	4,4'-DDT	20.000	18.192	9.0	96	0.00
18	Endrin Aldehyde	20.000	17.596	12.0	92	0.00
19	Endosulfan Sulfate	20.000	18.125	9.4	95	0.00
20	Methoxychlor	20.000	18.403	8.0	96	0.00
21	Endrin Ketone	20.000	18.328	8.4	95	0.00

Data File : C:\HPCHEM\1\DATA\031903\9G22645.D\ECD1B.CH Vial: 2
Acq On : 19 Mar 2003 10:27 Operator: ECL
Sample : WG136550-01 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22645.D\ECD2B.CH Vial: 2
Acq On : 19 Mar 2003 10:51 Operator: ECL
Sample : WG136550-01 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Fri Mar 14 11:22:39 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	20.000	20.798	-4.0	105	0.00
2		alpha-BHC	20.000	20.692	-3.5	103	0.00
3		gamma-BHC	20.000	20.516	-2.6	103	0.00
4		beta-BHC	20.000	20.788	-3.9	105	0.00
5		Heptachlor	20.000	20.512	-2.6	100	0.00
6		delta-BHC	20.000	20.636	-3.2	101	0.00
7		Aldrin	20.000	21.626	-8.1	106	0.00
8		Heptachlor Epoxide	20.000	20.626	-3.1	101	0.00
9		gamma-Chlordane	20.000	21.199	-6.0	105	0.00
10		alpha-Chlordane	20.000	21.362	-6.8	105	0.00
11		Endosulfan I	20.000	21.845	-9.2	107	0.00
12		4,4'-DDE	20.000	21.401	-7.0	106	0.00
13		Dieldrin	20.000	21.476	-7.4	106	0.00
14		Endrin	20.000	18.782	6.1	93	0.00
15		4,4'-DDD	20.000	22.250	-11.3	111	0.00
16		Endosulfan II	20.000	20.869	-4.3	104	0.00
17		4,4'-DDT	20.000	18.592	7.0	93	0.00
18		Endrin Aldehyde	20.000	21.321	-6.6	106	0.00
19		Endosulfan Sulfate	20.000	19.573	2.1	98	0.00
20		Methoxychlor	20.000	17.725	11.4	89	0.00
21		Endrin Ketone	20.000	21.235	-6.2	106	0.00
22	S	Decachlorobiphenyl	20.000	22.277	-11.4	110	0.00
		Signal #2					
1	S	2,4,5,6-Tetrachloro-M-Xyl	20.000	18.640	6.8	96	0.00
2		alpha-BHC	20.000	18.655	6.7	96	-0.01#
3		gamma-BHC	20.000	18.210	8.9	94	-0.01#
4		beta-BHC	20.000	18.486	7.6	96	-0.01#
5		Heptachlor	20.000	20.142	-0.7	105	-0.01#
6		delta-BHC	20.000	18.426	7.9	95	-0.01#
7		Aldrin	20.000	18.403	8.0	96	-0.01#
8		Heptachlor Epoxide	20.000	18.849	5.8	98	-0.02#
9		gamma-Chlordane	20.000	18.620	6.9	97	-0.01#
10		alpha-Chlordane	20.000	18.778	6.1	98	0.00
11		Endosulfan I	20.000	18.847	5.8	98	0.00
12		4,4'-DDE	20.000	18.760	6.2	98	0.00
13		Dieldrin	20.000	18.731	6.3	98	0.00
14		Endrin	20.000	18.211	8.9	96	0.00
15		4,4'-DDD	20.000	19.150	4.3	101	0.00
16		Endosulfan II	20.000	18.429	7.9	97	0.00
17		4,4'-DDT	20.000	18.249	8.8	96	0.00
18		Endrin Aldehyde	20.000	18.985	5.1	99	0.00
19		Endosulfan Sulfate	20.000	18.856	5.7	99	0.00
20		Methoxychlor	20.000	18.395	8.0	96	0.00
21		Endrin Ketone	20.000	19.328	3.4	100	0.00
22	S	Decachlorobiphenyl	20.000	19.904	0.5	101	-0.02#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\031903\9G22646.D\ECD1A.CH Vial: 3
Acq On : 19 Mar 2003 10:51 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\031903\9G22646.D\ECD2B.CH Vial: 3
Acq On : 19 Mar 2003 11:15 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Februay 7, 2003 @ 1358
Last Update : Wed Mar 19 11:51:28 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	Toxaphene-1	500.000	517.888	-3.6	104	0.00
2	L1	Toxaphene-2	500.000	459.399	8.1	97	0.00
3	L1	Toxaphene-3	500.000	515.710	-3.1	101	0.00
4	L1	Toxaphene-4	500.000	491.962	1.6	100	0.00
5	L1	Toxaphene-5	500.000	450.116	10.0	91	0.00
		Signal #2					
1	L1	Toxaphene-1	500.000	467.339	6.5	94	0.00
2	L1	Toxaphene-2	500.000	436.330	12.7	91	0.00
3	L1	Toxaphene-3	500.000	474.407	5.1	93	-0.01
4	L1	Toxaphene-4	500.000	475.290	4.9	93	0.00
5	L1	Toxaphene-5	500.000	478.512	4.3	94	0.00

Data File : C:\HPCHEM\1\DATA\031903\9G22656.D\ECD1A.CH Vial: 13
Acq On : 19 Mar 2003 15:33 Operator: ECL
Sample : WG136550-02 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22656.D\ECD2B.CH Vial: 13
Acq On : 19 Mar 2003 15:58 Operator: ECL
Sample : WG136550-02 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Thu Mar 20 09:32:56 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	50.000	49.583	0.8	99	0.00
2		alpha-BHC	50.000	50.793	-1.6	98	0.00
3		gamma-BHC	50.000	49.687	0.6	99	0.00
4		beta-BHC	50.000	47.375	5.3	95	0.00
5		Heptachlor	50.000	48.636	2.7	97	0.00
6		delta-BHC	50.000	49.826	0.3	96	-0.01#
7		Aldrin	50.000	50.257	-0.5	99	-0.01#
8		Heptachlor Epoxide	50.000	49.725	0.5	101	-0.01#
9		gamma-Chlordane	50.000	48.316	3.4	96	-0.01#
10		alpha-Chlordane	50.000	49.163	1.7	100	0.00
11		Endosulfan I	50.000	48.337	3.3	97	0.00
12		4,4'-DDE	50.000	50.897	-1.8	100	0.00
13		Dieldrin	50.000	50.066	-0.1	101	-0.01#
14		Endrin	50.000	45.333	9.3	90	-0.01#
15		4,4'-DDD	50.000	50.621	-1.2	100	-0.01#
16		Endosulfan II	50.000	47.986	4.0	97	-0.01#
17		4,4'-DDT	50.000	46.774	6.5	93	0.00
18		Endrin Aldehyde	50.000	48.050	3.9	99	-0.01#
19		Endosulfan Sulfate	50.000	46.699	6.6	96	0.00
20		Methoxychlor	50.000	44.593	10.8	91	0.00
21		Endrin Ketone	50.000	48.592	2.8	99	0.00
22	S	Decachlorobiphenyl	50.000	48.817	2.4	103	0.00
		Signal #2					
1	S	2,4,5,6-Tetrachloro-M-Xyl	50.000	47.668	4.7	93	0.00
2		alpha-BHC	50.000	49.670	0.7	93	0.00
3		gamma-BHC	50.000	48.256	3.5	91	0.00
4		beta-BHC	50.000	46.994	6.0	94	0.00
5		Heptachlor	50.000	53.931	-7.9	104	0.00
6		delta-BHC	50.000	49.804	0.4	94	0.00
7		Aldrin	50.000	48.844	2.3	92	-0.01#
8		Heptachlor Epoxide	50.000	49.082	1.8	95	-0.01#
9		gamma-Chlordane	50.000	48.368	3.3	93	0.00
10		alpha-Chlordane	50.000	48.771	2.5	95	0.00
11		Endosulfan I	50.000	49.619	0.8	96	0.00
12		4,4'-DDE	50.000	50.646	-1.3	95	0.00
13		Dieldrin	50.000	50.006	-0.0	95	0.00
14		Endrin	50.000	49.472	1.1	95	0.00
15		4,4'-DDD	50.000	50.591	-1.2	97	0.00
16		Endosulfan II	50.000	49.867	0.3	97	0.00
17		4,4'-DDT	50.000	49.637	0.7	95	0.00
18		Endrin Aldehyde	50.000	48.435	3.1	96	0.00
19		Endosulfan Sulfate	50.000	49.958	0.1	99	0.00
20		Methoxychlor	50.000	48.602	2.8	97	0.00
21		Endrin Ketone	50.000	49.182	1.6	97	0.00
22	S	Decachlorobiphenyl	50.000	47.229	5.5	97	-0.02#

(#) = Out of Range SPCC's out = 0 CCC's out = 0
9G22656.D 8081.M Thu Mar 20 09:33:33 2003 Page 1

Data File : C:\HPCHEM\1\DATA\031903\9G22657.D\ECDIA.CH Vial: 14
Acq On : 19 Mar 2003 15:58 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\031903\9G22657.D\ECD2B.CH Vial: 14
Acq On : 19 Mar 2003 16:22 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1358
Last Update : Wed Mar 19 11:51:28 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	Toxaphene-1	250.000	237.033	5.2	97	0.00
2	L1	Toxaphene-2	250.000	232.726	6.9	84	0.00
3	L1	Toxaphene-3	250.000	246.922	1.2	97	0.00
4	L1	Toxaphene-4	250.000	235.015	6.0	95	0.00
5	L1	Toxaphene-5	250.000	215.300	13.9	89	0.00
		Signal #2					
1	L1	Toxaphene-1	250.000	232.111	7.2	97	-0.02
2	L1	Toxaphene-2	250.000	218.438	12.6	91	-0.02
3	L1	Toxaphene-3	250.000	226.452	9.4	98	-0.02
4	L1	Toxaphene-4	250.000	232.428	7.0	102	-0.01
5	L1	Toxaphene-5	250.000	236.583	5.4	100	-0.02

4,4'-DDT / ENDRIN BREAKDOWN

INSTRUMENT: HP 9

COLUMN: RTx-CLP (FRONT)

Data File Name: 9G22297.D

ENDRIN	ENDRIN KETONE	ENDRIN ALDEHYDE	ENDRIN BREAKDOWN
3298618999	141240946	0	4.11

4,4'-DDT	4,4'-DDE	4,4'-DDD	4,4'-DDT BREAKDOWN
2357327743	0	119239576	4.81

COLUMN: RTx-CLP II (REAR)

Data File Name: 9G22297.D

ENDRIN #2	ENDRIN KETONE #2	ENDRIN ALDEHYDE #2	ENDRIN #2 BREAKDOWN
2146466076	54924470	0	2.49

4,4'-DDT #2	4,4'-DDE #2	4,4'-DDD #2	4,4'-DDT #2 BREAKDOWN
1632553026	0	0	0.00

4,4'-DDT / ENDRIN BREAKDOWN

INSTRUMENT: HP 9

COLUMN: RTx-CLP (FRONT)

Data File Name: 9G22644.D

ENDRIN	ENDRIN KETONE	ENDRIN ALDEHYDE	ENDRIN BREAKDOWN
3620728040	310527701	190620312	12.16

4,4'-DDT	4,4'-DDE	4,4'-DDD	4,4'-DDT BREAKDOWN
2497660895	0	293813244	10.53

COLUMN: RTx-CLP II (REAR)

Data File Name: 9G22644.D

ENDRIN #2	ENDRIN KETONE #2	ENDRIN ALDEHYDE #2	ENDRIN #2 BREAKDOWN
2019077784	101753356	0	4.80

4,4'-DDT #2	4,4'-DDE #2	4,4'-DDD #2	4,4'-DDT #2 BREAKDOWN
1482114871	0	62019678	4.02

Directory: [illegible]

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	9g22297.d	1.	ENDRIN/DDT	SOS58-31	07 Feb 2003 11:57
2	2	9g22298.d	1.	TOX ICAL 2000 PPB	SOS62-45	07 Feb 2003 12:21
3	3	9g22299.d	1.	TOX ICAL 1000 PPB	SOS62-45	07 Feb 2003 12:45
4	4	9g22300.d	1.	TOX ICAL 500 PPB	SOS62-45	07 Feb 2003 13:10
5	5	9g22301.d	1.	TOX ICAL 250 PPB	SOS62-45	07 Feb 2003 13:34
6	6	9g22302.d	1.	TOX ICAL 100 PPB	SOS62-45	07 Feb 2003 13:58
7	7	9g22303.d	1.	TOX ALT ICV 500 PPB	SOS63-05	07 Feb 2003 14:22
8	8	9g22304.d	1.	WG134218-01 PEST ICAL 200 PPB	1,1 SOS63-32	07 Feb 2003 14:46
9	9	9g22305.d	1.	WG134218-02 PEST ICAL 100 PPB	1,1 SOS63-32	07 Feb 2003 15:10
10	10	9g22306.d	1.	WG134218-03 PEST ICAL 50 PPB	1,1 SOS63-32	07 Feb 2003 15:35
11	11	9g22307.d	1.	WG134218-04 PEST ICAL 20 PPB	1,1 SOS63-32	07 Feb 2003 15:59
12	12	9g22308.d	1.	WG134218-05 PEST ICAL 10 PPB	1,1 SOS63-32	07 Feb 2003 16:23
13	13	9g22309.d	1.	WG134218-06 PEST ICAL 4 PPB	1,1 SOS63-32	07 Feb 2003 16:48
14	14	9g22310.d	1.	WG134218-07 PEST ALT ICV 20...	1,1 SOS62-49	07 Feb 2003 17:12
15	15	9g22311.d	1.	WG134089-01 BLANK V197 P129	7,1 SOIL	07 Feb 2003 17:36
16	16	9g22312.d	1.	WG134089-02 LCS V197 P129	7,1 SOIL	07 Feb 2003 18:00
17	17	9g22313.d	1.	WG134089-03 LCS DUP V197 P129	7,1 SOIL	07 Feb 2003 18:24
18	18	9g22314.d	1.	WG134089-04 TOX LCS V197 P129	7,1 SOIL	07 Feb 2003 18:48
19	19	9g22315.d	1.	L0301584-01 RE	7,1,RE SOIL	07 Feb 2003 19:13
20	20	9g22316.d	1.	L0301632-28	7,1 SOIL	07 Feb 2003 19:37
21	21	9g22317.d	10.	L0301632-28 10x	7,10 SOIL	07 Feb 2003 20:01
22	22	9g22318.d	1.	L0301632-34	7,1 SOIL	07 Feb 2003 20:25
23	23	9g22319.d	1.	ENDRIN/DDT	SOS58-31	07 Feb 2003 20:50
24	24	9g22320.d	1.	WG134218-08 PEST CCV 20 PPB	1,1 SOS63-32	07 Feb 2003 21:14
25	25	9g22321.d	1.	TOX CCV 500 PPB	SOS62-45	07 Feb 2003 21:38

EC 2/10/03

mle 2/10/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 2/7/03 Instrument ID HP 9 Column ID RTx-CLP (Front) Data Subdirectory 020703
Analyst Initials EGL

SOP # GCS09 Rev. # 2 8081A ✓
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ____
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____
SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time 2/7/03 Instrument ID HP 9 Column ID RTx-CLP II (Rear) Data Subdirectory 020703

Daily Check
☑ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☐ Change liner
☐ Change septum
☐ Clip column (___cm)
☐ Injection port seal (goldseal)
☐ Change gases _____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: _____

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	9g22644.d	1.	ENDRIN/DDT	SOS64-06	19 Mar 2003 10:(
2	2	9g22645.d	1.	WG136550-01 PEST CCV 20 PPB	1,1 SOS63-32	19 Mar 2003 10:27
3	3	9g22646.d	1.	TOX CCV 500 PPB	SOS62-45	19 Mar 2003 10:51
4	4	9g22647.d	1.	WG136390-01 BLANK V199 P49	7,1 SOIL	19 Mar 2003 11:56
5	5	9g22648.d	1.	WG136390-02 LCS V199 P49	7,1 SOIL	19 Mar 2003 12:20
6	6	9g22649.d	1.	WG136390-03 LCS DUP V199 P49	7,1 SOIL	19 Mar 2003 12:44
7	7	9g22650.d	1.	L0303191-01	7,1 SOIL	19 Mar 2003 13:08
8	8	9g22651.d	1.	L0303191-02	7,1 SOIL	19 Mar 2003 13:32
9	9	9g22652.d	1.	WG136479-01 BLANK V200 P91	1,1 WATER	19 Mar 2003 13:57
10	10	9g22653.d	1.	WG136479-02 LCS V200 P91	1,1 WATER	19 Mar 2003 14:21
11	11	9g22654.d	1.	WG136479-03 LCS DUP V200 P91	1,1 WATER	19 Mar 2003 14:45
12	12	9g22655.d	1.	L0303352-01	1,1 WATER	19 Mar 2003 15:09
13	13	9g22656.d	1.	WG136550-02 PEST CCV 50 PPB	1,1 SOS63-32	19 Mar 2003 15:33
14	14	9g22657.d	1.	TOX CCV 250 PPB	SOS62-45	19 Mar 2003 15:58

EC2 3/21/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 3/19/03 Instrument ID HP9 Column ID RTx-CLP Data Subdirectory 031903
Analyst Initials EJL

SOP # GCS09 Rev. # 2 8081A ✓
SOP # GCS04 Rev. # ___ 8151A ___
SOP # GCS03 Rev. # ___ PRO ___
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ___

SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ___
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time 3/19/03 Instrument ID HP 9 Column ID RTx-CLP II Data Subdirectory 031903

Daily Check
☑ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☐ Change liner
☐ Change septum
☐ Clip column (___cm)
☐ Injection port seal (goldseal)
☐ Change gases ___

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: ___

___

Action Taken: ___

___

___

Comments

Reviewed By: ___ 3/21/03

Parameter: Pest-H2O SOP #: [illegible] Revision #: [illegible]
Extraction Analyst(s): [illegible] TV/KD Analyst(s): [illegible]
Date/Time Extracted: 03/18/03 [illegible] Date TV/KD: 03/18/03
Spike/Surrogate Analyst: [illegible] Witness: [illegible]
Surrogate #: [illegible] Earliest Hold Date: 03/[illegible]/03
Spike #: A = [illegible] Spike #: B = —

Extraction Work Group WG 136479
Analytical Work Group WG ~~136549~~ 136668
Extract Relinquished By: [illegible]
Extract Received By & Date: [illegible]

	Sample ID	Test Code	pH / <2	pH / N	pH / >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	Emulsions / BN	Emulsions / N	Comments
1	Blank			✓		1000 mL	200 uL		10 mL	T				WG 136479-01
2	LCS			✓		↓	↓	250 uL						WG ↓ -02
3	LCS DUP			✓		↓	↓	↓						WG ↓ -03
4	03 352-01	8081		✓			↓						✓	
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

[illegible] 03/18/03

Methylene Chloride Lot #: 42351
Hexane Lot #: 42341
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: 94 C Lot #: CK2316
Reagent: 50 SC Lot #: CK2352
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: YC1 [illegible]
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: CK2341

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B	✓	GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 3/19/03

Extraction Notes For Volume # 200 Page # 091

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

2.2.2.2 Sample Data

Data File : C:\HPCHEM\1\DATA\031903\9G22655.D\ECD1A.CH Vial: 12
Acq On : 19 Mar 2003 15:09 Operator: ECL
Sample : L0303352-01 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22655.D\ECD2B.CH Vial: 12
Acq On : 19 Mar 2003 15:33 Operator: ECL
Sample : L0303352-01 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 20 9:36 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Thu Mar 20 09:32:56 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L	
	System Monitoring Compounds							
1) S	2,4,5,6-Tetrachl	7.41	8.41	923.3E6	525.7E6	12.034	10.479	
	Spiked Amount 20.000	Range 30 - 132		Recovery =		60.17%	52.39%	
22) S	Decachlorobiphen	15.01	16.36f	668.1E6	539.3E6	15.780	15.288	
	Spiked Amount 20.000	Range 36 - 144		Recovery =		78.90%	76.44%	
	Target Compounds							
2)	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.	
3)	gamma-BHC	0.00	0.00	0	0	N.D.	N.D.	
4)	beta-BHC	0.00	0.00	0	0	N.D.	N.D.	
5)	Heptachlor	0.00	0.00	0	0	N.D.	N.D.	
6)	delta-BHC	0.00	0.00	0	0	N.D.	N.D.	
7)	Aldrin	0.00	0.00	0	0	N.D.	N.D.	
8)	Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.	
9)	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
10)	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
11)	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.	
12)	4,4'-DDE	11.64	0.00	72664467	0	1.072	N.D.	#
13)	Dieldrin	0.00	0.00	0	0	N.D.	N.D.	
14)	Endrin	0.00	0.00	0	0	N.D.	N.D.	
15)	4,4'-DDD	12.47	13.69	183.6E6	85663027	3.282	2.466	
16)	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.	
17)	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.	
18)	Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.	
19)	Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.	
20)	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.	
21)	Endrin Ketone	13.95f	0.00	62307304	0	1.087	N.D.	#

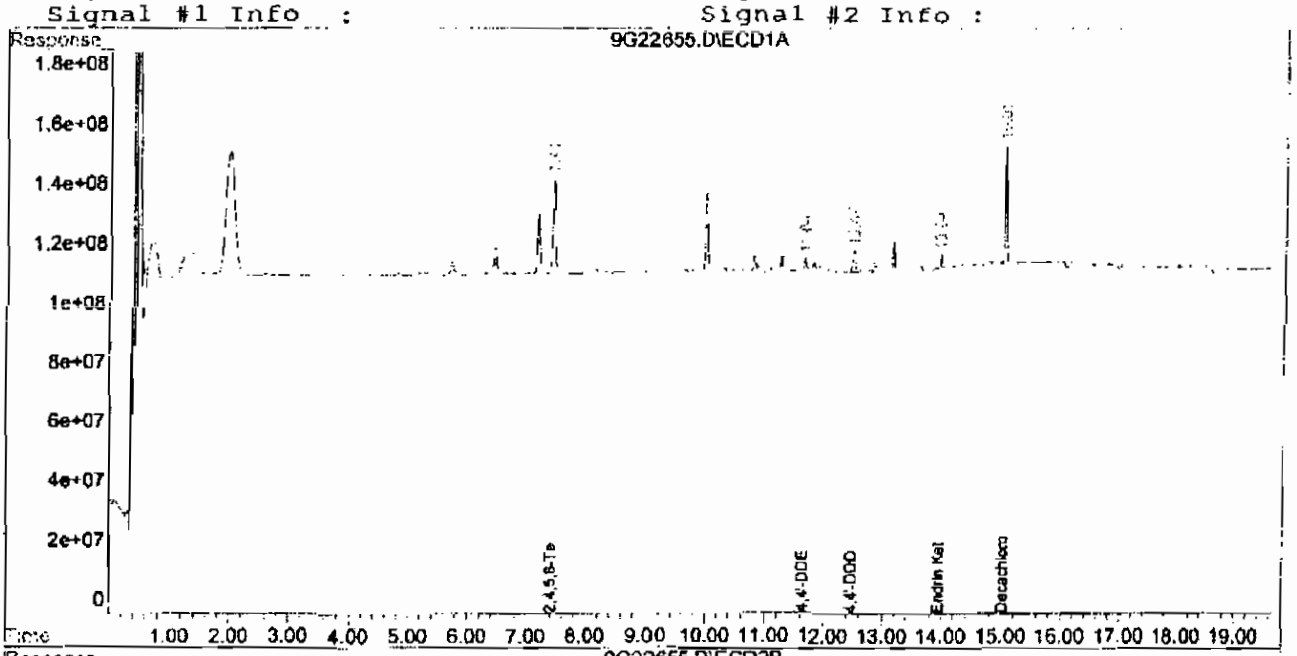
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

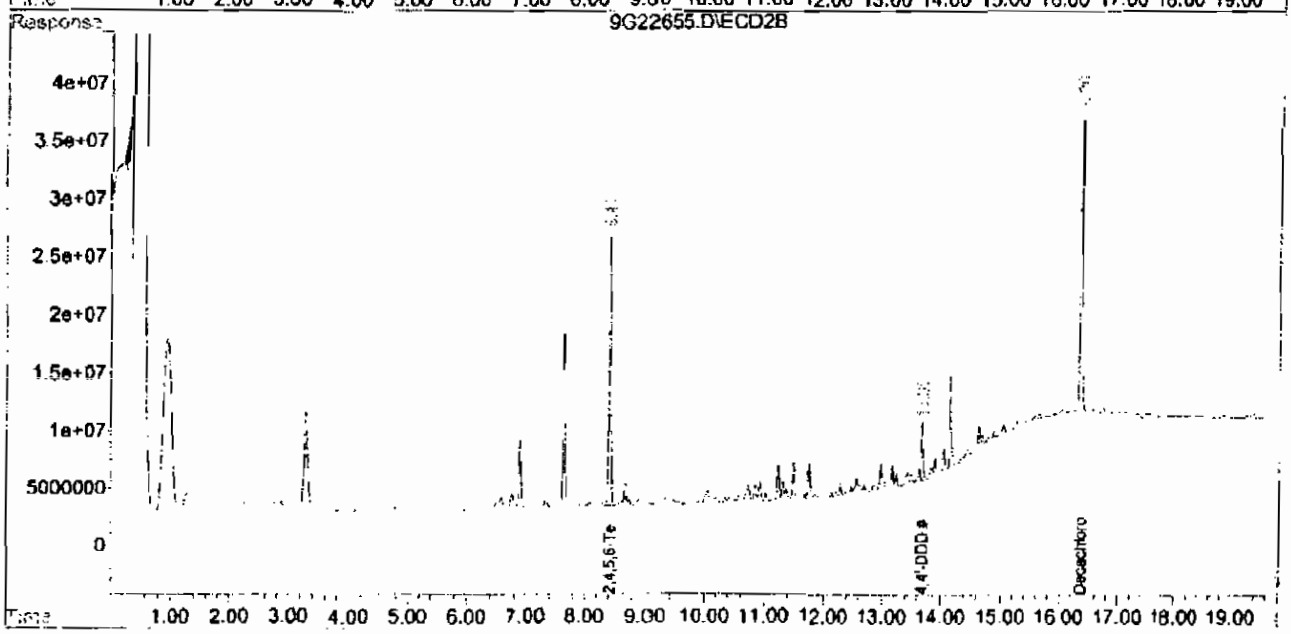
```
Data File : C:\HPCHEM\1\DATA\031903\9G22655.D\ECD1A.CH   Vial: 12
Acq On    : 19 Mar 2003  15:09                          Operator: ECL
Sample    : L0303352-01                                 Inst    : HP9
Misc      : 1,1 WATER                                   Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22655.D\ECD2B.CH   Vial: 12
Acq On    : 19 Mar 2003  15:33                          Operator: ECL
Sample    : L0303352-01                                 Inst    : HP9
Misc      : 1,1 WATER                                   Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  9:36 2003  Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title        : CALIBRATION February 7, 2003 @ 1712
Last Update  : Thu Mar 20 09:32:56 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj.      :
Signal #1 Phase  :                    Signal #2 Phase:
Signal #1 Info   :                    Signal #2 Info :
```

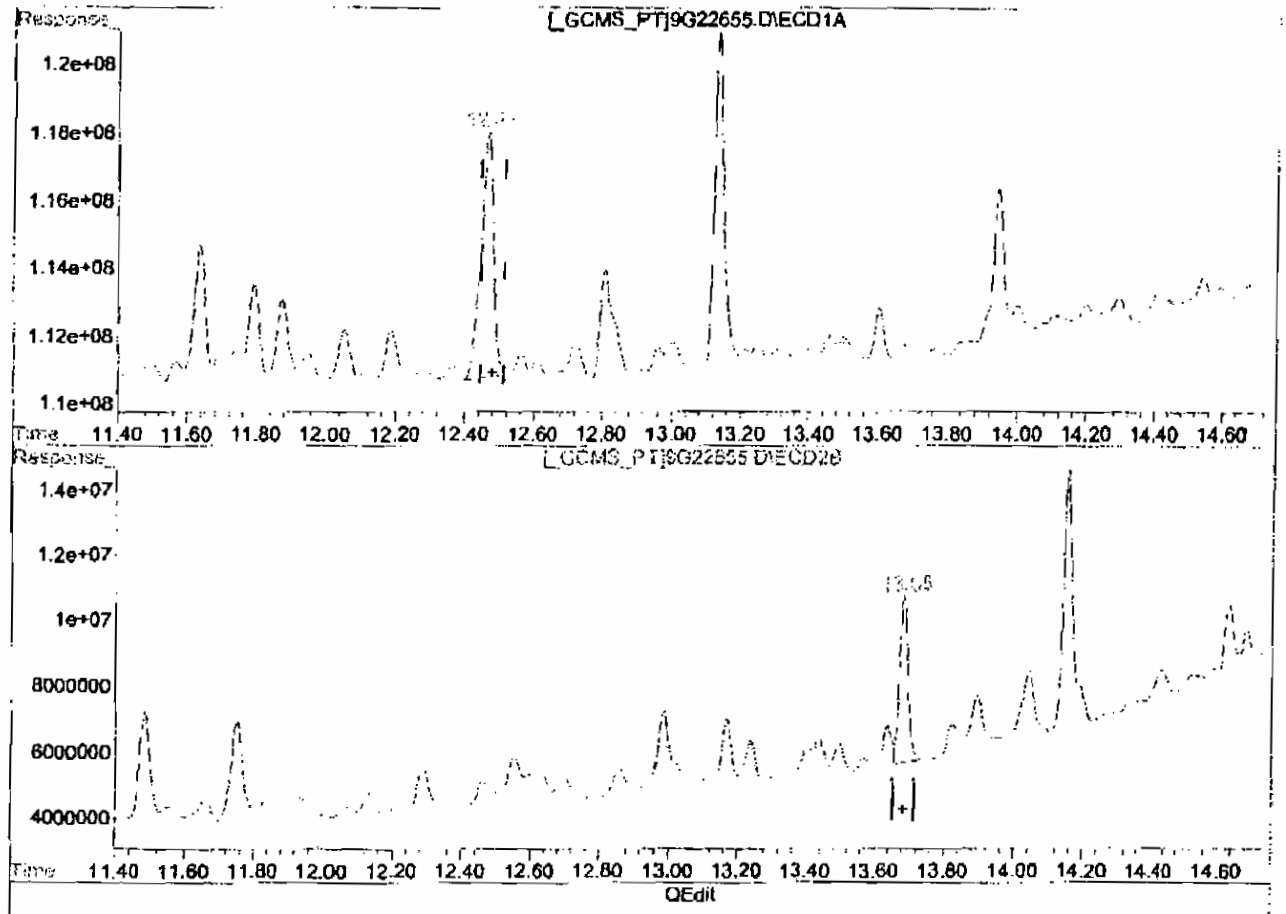




Data File : C:\HPCHEM\1\DATA\031903\9G22655.D\ECD1A.CH Vial: 12
Acq On : 19 Mar 2003 15:09 Operator: ECL
Sample : L0303352-01 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22655.D\ECD2B.CH Vial: 12
Acq On : 19 Mar 2003 15:33 Operator: ECL
Sample : L0303352-01 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 20 9:36 2003 Quant Results File: 8081.RES

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Thu Mar 20 09:32:56 2003
Response via : Multiple Level Calibration



(15) 4,4'-DDD

12.47min 3.282UG/L

response 183600356

(15) 4,4'-DDD #2

13.69min 2.466UG/L

response 85663027

< MDL

(+) = Expected Retention Time

2.2.2.3 Standards Data

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Februay 7, 2003 @ 1358
Last Update : Mon Feb 10 10:53:44 2003

Calibration Files
2000 =9G22298.D 1000 =9G22299.D 500 =9G22300.D
250 =9G22301.D 100 =9G22302.D

		Compound	2000	1000	500	250	100	Avg		%RSD
1)	L1	Toxaphene-1	4.429	4.391	4.328	4.248	4.304	4.340	E5	1.65
2)	L1	Toxaphene-2	4.489	5.288	4.780	5.597	5.178	5.067	E5	8.60
3)	L1	Toxaphene-3	1.283	1.584	1.525	1.510	1.535	1.487	E6	7.89
4)	L1	Toxaphene-4	1.138	1.123	1.092	1.096	1.092	1.108	E6	1.89
5)	L1	Toxaphene-5	5.587	5.394	5.076	4.963	4.707	5.145	E5	6.78

Signal #2 Calibration Files
2000 =9G22298.D 1000 =9G22299.D 500 =9G22300.D
250 =9G22301.D 100 =9G22302.D

		Compound	2000	1000	500	250	100	Avg		%RSD
1)	L1	Toxaphene-1	4.556	4.345	4.367	4.208	4.461	4.387	E5	2.97
2)	L1	Toxaphene-2	1.295	1.259	1.288	1.290	1.569	1.340	E6	9.60
3)	L1	Toxaphene-3	9.193	8.603	8.391	7.625	7.420	8.247	E5	8.82
4)	L1	Toxaphene-4	6.722	6.366	6.108	5.419	5.157	5.954	E5	10.96
5)	L1	Toxaphene-5	6.272	5.990	5.920	5.505	5.402	5.818	E5	6.18

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\020703\9G22298.D\ECD1A.CH Vial: 2
Acq On : 7 Feb 2003 12:21 Operator: ECL
Sample : TOX ICAL 2000 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\020703\9G22298.D\ECD2B.CH Vial: 2
Acq On : 7 Feb 2003 12:45 Operator: ECL
Sample : TOX ICAL 2000 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Feb 10 10:52 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Februay 7, 2003 @ 1358
Last Update : Mon Feb 10 10:51:58 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L	
	Target Compounds							
1)	L1 Toxaphene-1	12.21	13.23	885.9E6	911.2E6	2003.906	2083.851	
2)	L1 Toxaphene-2	12.84	13.96	897.7E6	2590.5E6	1901.456	2102.805	
3)	L1 Toxaphene-3	13.62	14.24	2566.9E6	1838.6E6	1716.645	2351.664	#
4)	L1 Toxaphene-4	14.01	14.81	2275.6E6	1344.4E6	2061.419	2620.143	#
5)	L1 Toxaphene-5	14.17	15.17	1117.4E6	1254.4E6	2133.052	2483.002	
	Sum Toxaphene-1			7743.6E6	7939.1E6	9816.478	11641.465	
Average	Toxaphene-1					1963.296	2328.293	

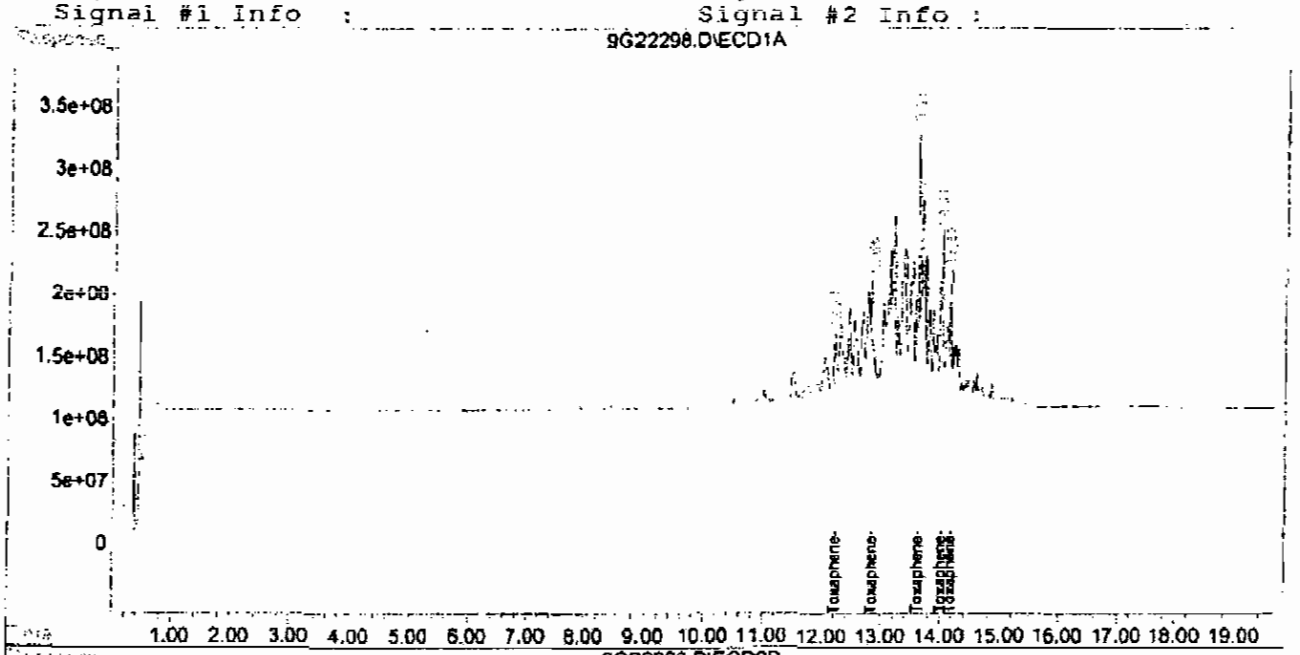
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

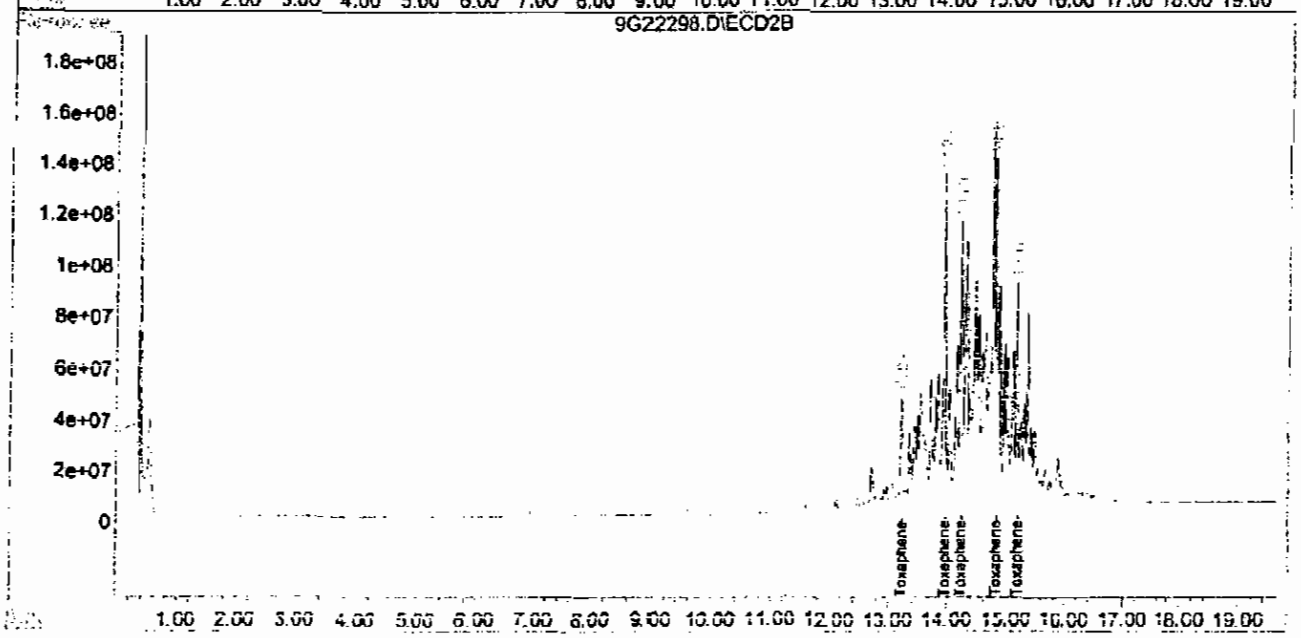
Data File : C:\HPCHEM\1\DATA\020703\9G22298.D\ECD1A.CH Vial: 2
Acq On : 7 Feb 2003 12:21 Operator: ECL
Sample : TOX ICAL 2000 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\020703\9G22298.D\ECD2B.CH Vial: 2
Acq On : 7 Feb 2003 12:45 Operator: ECL
Sample : TOX ICAL 2000 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Feb 10 10:52 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1358
Last Update : Mon Feb 10 10:51:58 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\020703\9G22299.D\ECD1A.CH Vial: 3
Acq On : 7 Feb 2003 12:45 Operator: ECL
Sample : TOX ICAL 1000 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\020703\9G22299.D\ECD2B.CH Vial: 3
Acq On : 7 Feb 2003 13:10 Operator: ECL
Sample : TOX ICAL 1000 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Feb 10 10:52 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1358
Last Update : Mon Feb 10 10:52:42 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
Target Compounds							
1) L1	Toxaphene-1	12.22	13.24	439.1E6	434.5E6	992.564	993.711
2) L1	Toxaphene-2	12.85	13.96	528.8E6	1258.6E6	1122.434	1021.692
3) L1	Toxaphene-3	13.62	14.24	1583.9E6	860.3E6	1059.274	1100.329
4) L1	Toxaphene-4	14.02	14.82	1122.9E6	636.6E6	1017.198	1240.612
5) L1	Toxaphene-5	14.17	15.18	539.4E6	599.0E6	1029.655	1185.731
Sum	Toxaphene-1			4214.1E6	3789.0E6	5221.125	5542.075
Average	Toxaphene-1					1044.225	1108.415

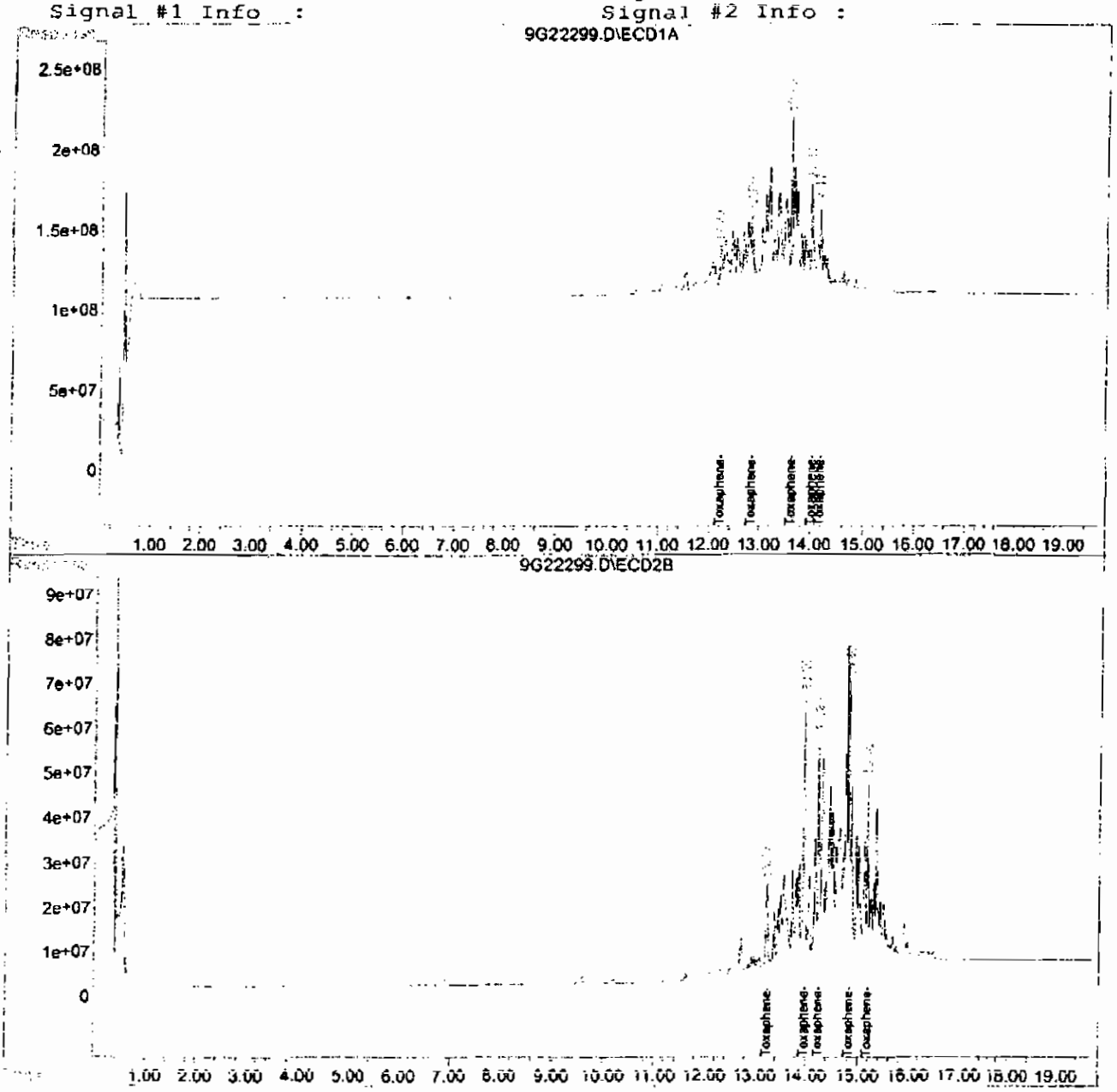
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\020703\9G22299.D\ECD1A.CH Vial: 3
Acq On : 7 Feb 2003 12:45 Operator: ECL
Sample : TOX ICAL 1000 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\020703\9G22299.D\ECD2B.CH Vial: 3
Acq On : 7 Feb 2003 13:10 Operator: ECL
Sample : TOX ICAL 1000 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Feb 10 10:52 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Februay 7, 2003 @ 1358
Last Update : Mon Feb 10 10:52:42 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\020703\9G22300.D\ECD1A.CH Vial: 4
Acq On : 7 Feb 2003 13:10 Operator: ECL
Sample : TOX ICAL 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\020703\9G22300.D\ECD2B.CH Vial: 4
Acq On : 7 Feb 2003 13:34 Operator: ECL
Sample : TOX ICAL 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Feb 10 10:53 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1358
Last Update : Mon Feb 10 10:52:53 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	Target Compounds						
1)	L1 Toxaphene-1	12.23	13.25	216.4E6	218.3E6	486.701	497.630
2)	L1 Toxaphene-2	12.86	13.97	239.0E6	644.0E6	497.926	515.124
3)	L1 Toxaphene-3	13.63	14.25	762.5E6	419.6E6	508.446	531.468
4)	L1 Toxaphene-4	14.03	14.83	546.1E6	305.4E6	493.547	570.338
5)	L1 Toxaphene-5	14.18	15.19	253.8E6	296.0E6	485.987	565.347
	Sum Toxaphene-1			2017.8E6	1883.4E6	2472.607	2679.907
Average	Toxaphene-1					494.521	535.981

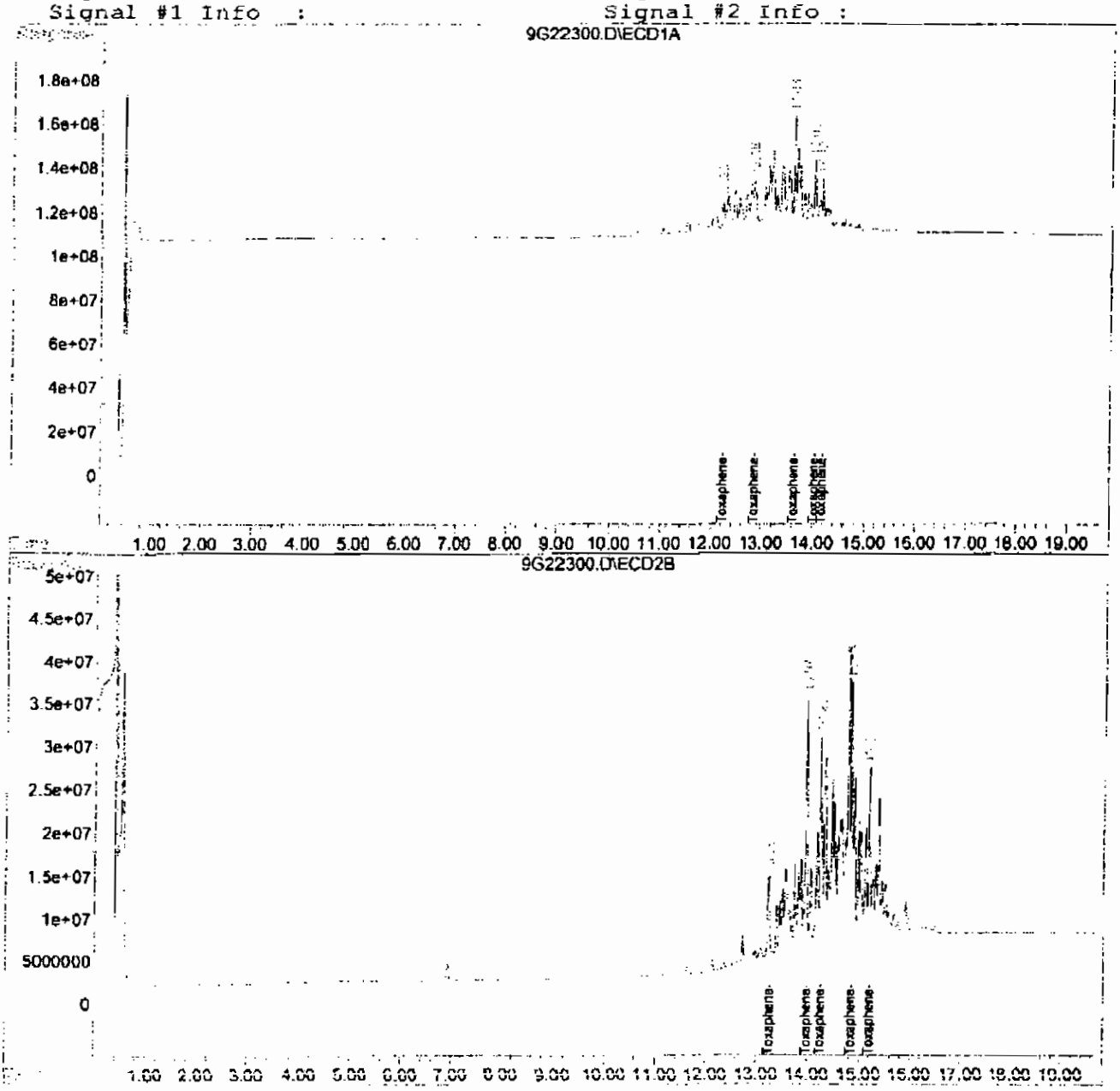
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\020703\9G22300.D\ECD1A.CH Vial: 4
Acq On : 7 Feb 2003 13:10 Operator: ECL
Sample : TOX ICAL 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\020703\9G22300.D\ECD2B.CH Vial: 4
Acq On : 7 Feb 2003 13:34 Operator: ECL
Sample : TOX ICAL 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Feb 10 10:53 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1356
Last Update : Mon Feb 10 10:52:53 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\020703\9G22301.D\ECD1A.CH Vial: 5
Acq On : 7 Feb 2003 13:34 Operator: ECL
Sample : TOX ICAL 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\020703\9G22301.D\ECD2B.CH Vial: 5
Acq On : 7 Feb 2003 13:58 Operator: ECL
Sample : TOX ICAL 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Feb 10 10:53 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1358
Last Update : Mon Feb 10 10:53:09 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

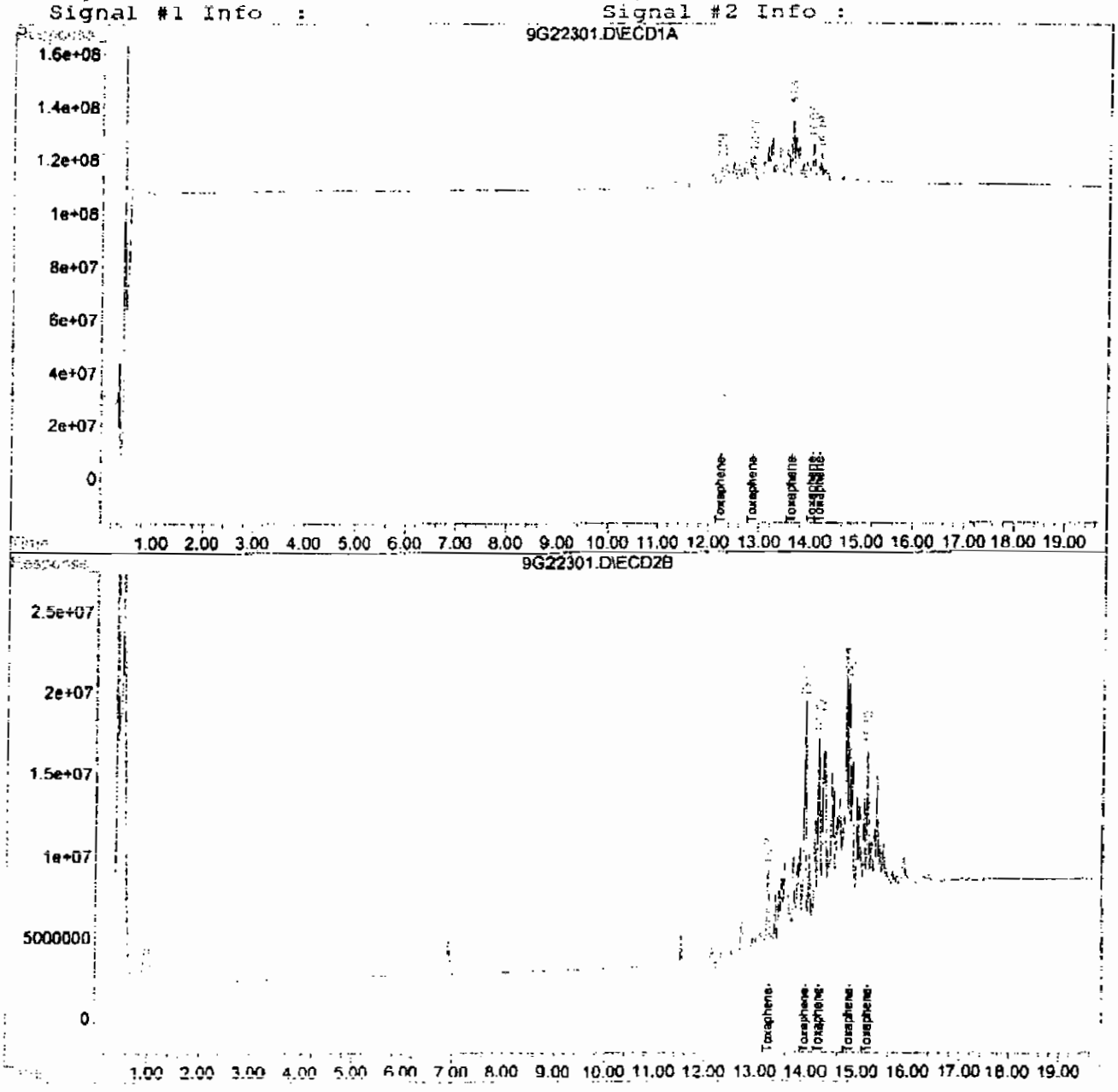
	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	Target Compounds						
1)	L1 Toxaphene-1	12.24	13.25	106.2E6	105.2E6	240.429	238.016
2)	L1 Toxaphene-2	12.87	13.97	139.9E6	322.4E6	287.849	253.104
3)	L1 Toxaphene-3	13.64	14.25	377.5E6	190.6E6	253.342	238.301
4)	L1 Toxaphene-4	14.03	14.82	274.1E6	135.5E6	248.463	243.320
5)	L1 Toxaphene-5	14.19	15.18	124.1E6	137.6E6	239.212	253.264
	Sum Toxaphene-1			1021.7E6	891.4E6	1269.295	1226.005
Average	Toxaphene-1					253.859	245.201

Data File : C:\HPCHEM\1\DATA\020703\9G22301.D\ECD1A.CH Vial: 5
Acq On : 7 Feb 2003 13:34 Operator: ECL
Sample : TOX ICAL 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\020703\9G22301.D\ECD2B.CH Vial: 5
Acq On : 7 Feb 2003 13:58 Operator: ECL
Sample : TOX ICAL 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Feb 10 10:53 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1358
Last Update : Mon Feb 10 10:53:09 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\020703\9G22302.D\ECD1A.CH Vial: 6
Acq On : 7 Feb 2003 13:58 Operator: ECL
Sample : TOX ICAL 100 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\020703\9G22302.D\ECD2B.CH Vial: 6
Acq On : 7 Feb 2003 14:22 Operator: ECL
Sample : TOX ICAL 100 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Feb 10 10:53 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1358
Last Update : Mon Feb 10 10:53:23 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	Target Compounds						
1)	L1 Toxaphene-1	12.25	13.24	43042197	44610432	97.676	101.519
2)	L1 Toxaphene-2	12.87	13.97	51781314	156.9E6	103.600	120.809
3)	L1 Toxaphene-3	13.64	14.24	153.5E6	74195565	103.214	91.400
4)	L1 Toxaphene-4	14.04	14.82	109.2E6	51571053	98.672	89.500
5)	L1 Toxaphene-5	14.19	15.18	47069348	54019227	91.005	96.043
	Sum Toxaphene-1			404.6E6	381.3E6	494.167	499.272
Average	Toxaphene-1					98.833	99.854

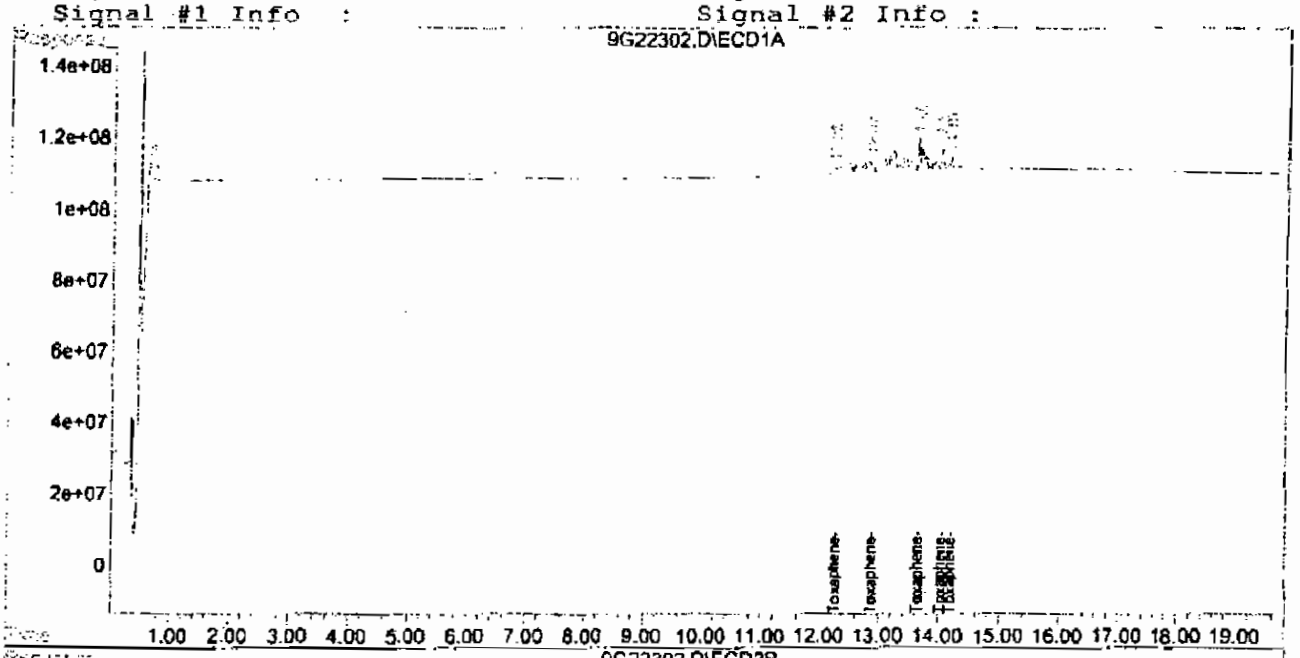
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
9G22302.D TOX.M Mon Feb 10 10:55:09 2003 Page 1

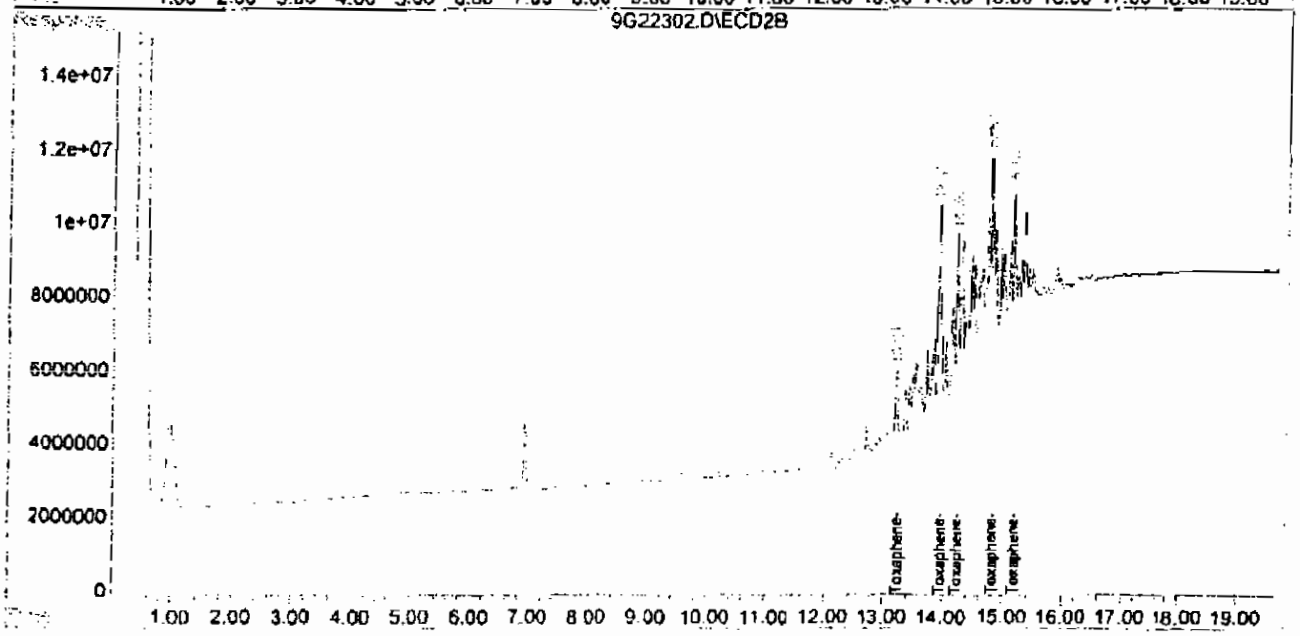
Data File : C:\HPCHEM\1\DATA\020703\9G22302.D\ECD1A.CH Vial: 6
Acq On : 7 Feb 2003 13:58 Operator: ECL
Sample : TOX ICAL 100 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\020703\9G22302.D\ECD2B.CH Vial: 6
Acq On : 7 Feb 2003 14:22 Operator: ECL
Sample : TOX ICAL 100 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Feb 10 10:53 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1358
Last Update : Mon Feb 10 10:53:23 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\020703\9G22303.D\ECD1A.CH Vial: 7
Acq On : 7 Feb 2003 14:22 Operator: ECL
Sample : TOX ALT ICV 500 PPB Inst : HP9
Misc : SOS63-05 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\020703\9G22303.D\ECD2B.CH Vial: 7
Acq On : 7 Feb 2003 14:46 Operator: ECL
Sample : TOX ALT ICV 500 PPB Inst : HP9
Misc : SOS63-05 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1358
Last Update : Mon Feb 10 10:53:44 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	Toxaphene-1	500.000	549.670	-9.9	110	0.00
2	L1	Toxaphene-2	500.000	527.305	-5.5	112	0.00
3	L1	Toxaphene-3	500.000	517.039	-3.4	101	0.00
4	L1	Toxaphene-4	500.000	505.974	-1.2	103	0.00
5	L1	Toxaphene-5	500.000	539.751	-8.0	109	0.00
		Signal #2					
1	L1	Toxaphene-1	500.000	448.068	10.4	90	0.00
2	L1	Toxaphene-2	500.000	482.387	3.5	100	0.00
3	L1	Toxaphene-3	500.000	482.466	3.5	95	0.00
4	L1	Toxaphene-4	500.000	488.702	2.3	95	0.00
5	L1	Toxaphene-5	500.000	504.214	-0.8	99	0.00

Data File : C:\HPCHEM\1\DATA\020703\9G22303.D\ECD1A.CH Vial: 7
Acq On : 7 Feb 2003 14:22 Operator: ECL
Sample : TOX ALT ICV 500 PPB Inst : HP9
Misc : SOS63-05 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\020703\9G22303.D\ECD2B.CH Vial: 7
Acq On : 7 Feb 2003 14:46 Operator: ECL
Sample : TOX ALT ICV 500 PPB Inst : HP9
Misc : SOS63-05 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Feb 10 10:56 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1358
Last Update : Mon Feb 10 10:53:44 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound		RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	Target Compounds							
1)	L1	Toxaphene-1	12.24	13.25	238.6E6	196.6E6	549.670	448.068
2)	L1	Toxaphene-2	12.86	13.97	267.2E6	646.5E6	527.305	482.387
3)	L1	Toxaphene-3	13.63	14.25	769.1E6	397.9E6	517.039	482.466
4)	L1	Toxaphene-4	14.03	14.83	560.7E6	291.0E6	505.974	488.702
5)	L1	Toxaphene-5	14.19	15.19	277.7E6	293.3E6	539.751	504.214
	Sum	Toxaphene-1			2113.2E6	1825.2E6	2639.738	2405.837
Average		Toxaphene-1					527.948	481.167

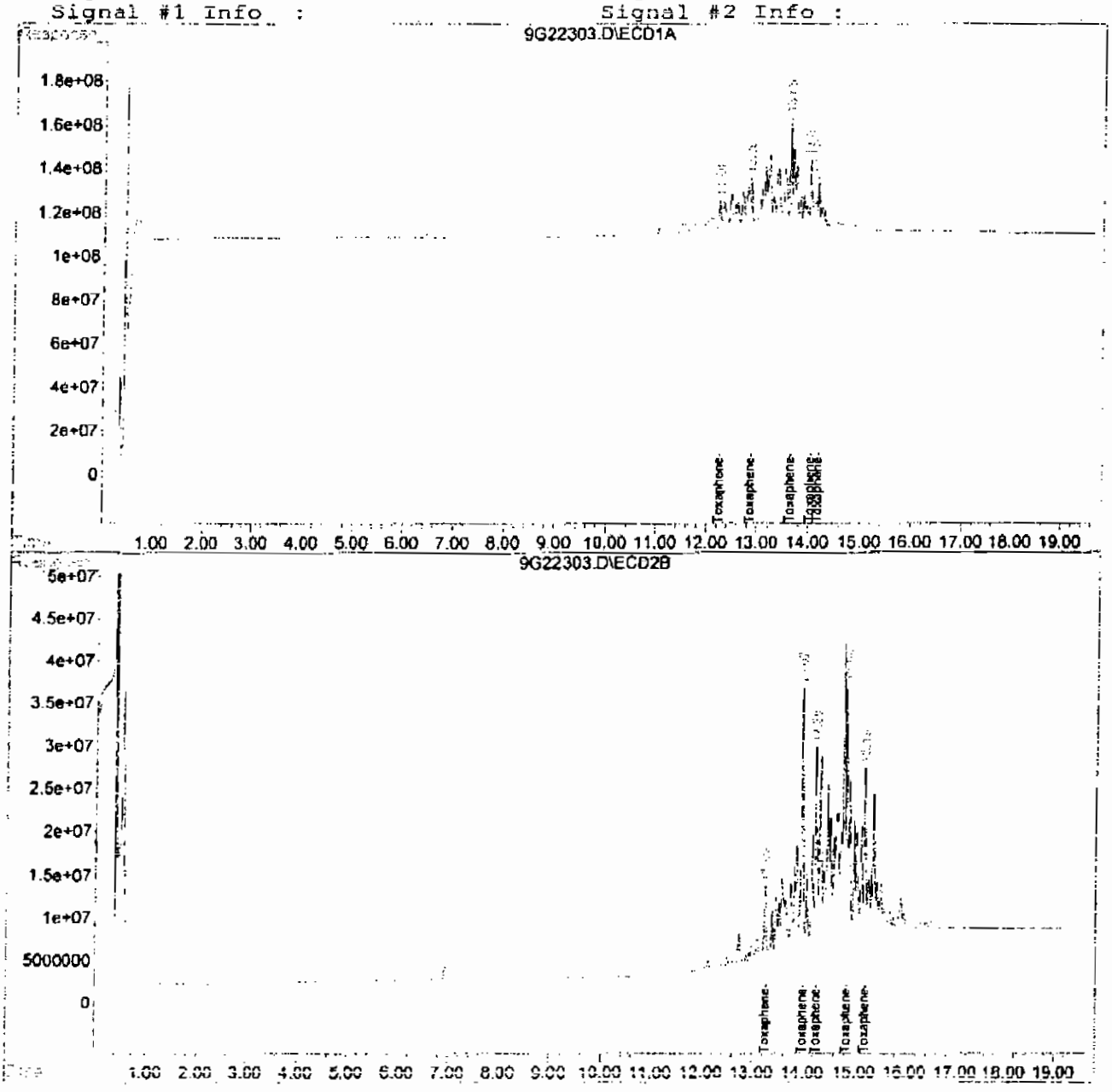
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\020703\9G22303.D\ECD1A.CH Vial: 7
Acq On : 7 Feb 2003 14:22 Operator: ECL
Sample : TOX ALT ICV 500 PPB Inst : HP9
Misc : SOS63-05 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\020703\9G22303.D\ECD2B.CH Vial: 7
Acq On : 7 Feb 2003 14:46 Operator: ECL
Sample : TOX ALT ICV 500 PPB Inst : HP9
Misc : SOS63-05 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Feb 10 10:56 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Februay 7, 2003 @ 1358
Last Update : Mon Feb 10 10:53:44 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:42:38 2003

Calibration Files
4 =9G22309.D 10 =9G22308.D 20 =9G22307.D
50 =9G22306.D 100 =9G22305.D 200 =9G22304.D

		Compound	4	10	20	50	100	200	Avg		%RSD
1)	S	2,4,5,6-Tetrachloro	7.792	7.716	7.633	7.666	7.577	7.647	7.672	E7	0.97
2)		alpha-BHC	0.967	1.044	1.078	1.111	1.118	1.133	1.075	E8	5.74
3)		gamma-BHC	1.011	1.000	1.006	1.017	1.011	1.019	1.010	E8	0.71
4)		beta-BHC	4.554	4.393	4.292	4.295	4.150	4.282	4.328	E7	3.12
5)		Heptachlor	9.787	9.953	9.856	9.606	9.344	9.071	9.603	E7	3.52
6)		delta-BHC	0.867	0.939	0.993	1.014	0.994	1.025	0.972	E8	6.10
7)		Aldrin	8.698	9.038	9.057	8.927	8.746	8.557	8.837	E7	2.28
8)		Heptachlor Epoxide	7.963	8.040	7.898	7.557	7.545	7.261	7.711	E7	3.94
9)		gamma-Chlordane	7.702	8.004	7.925	7.900	7.744	7.819	7.849	E7	1.47
10)		alpha-Chlordane	7.403	7.496	7.394	7.141	7.234	7.100	7.295	E7	2.19
11)		Endosulfan I	7.525	7.692	7.541	7.329	7.144	7.013	7.374	E7	3.52
12)		4,4'-DDE	6.316	6.705	6.830	6.920	6.934	6.974	6.780	E7	3.64
13)		Dieldrin	7.215	7.521	7.511	7.358	7.444	7.269	7.386	E7	1.72
14)		Endrin	6.634	6.960	6.899	6.908	6.823	6.877	6.850	E7	1.68
15)		4,4'-DDD	5.267	5.555	5.615	5.677	5.667	5.780	5.593	E7	3.16
16)		Endosulfan II	6.183	6.294	6.163	6.071	6.015	6.096	6.137	E7	1.60
17)		4,4'-DDT	5.112	5.398	5.461	5.525	5.573	5.731	5.467	E7	3.80
18)		Endrin Aldehyde	4.693	4.779	4.620	4.460	4.414	4.517	4.581	E7	3.09
19)		Endosulfan Sulfate	4.958	5.034	4.923	4.787	4.824	4.942	4.911	E7	1.85
20)		Methoxychlor	2.593	2.709	2.617	2.570	2.559	2.654	2.617	E7	2.16
21)		Endrin Ketone	5.794	5.889	5.747	5.614	5.604	5.742	5.732	E7	1.90
22)	S	Decachlorobiphenyl	4.766	4.529	4.298	4.003	3.876	3.929	4.233	E7	8.51

Signal #2 Calibration Files
4 =9G22309.D 10 =9G22308.D 20 =9G22307.D
50 =9G22306.D 100 =9G22305.D 200 =9G22304.D

		Compound	4	10	20	50	100	200	Avg		%RSD
1)	S	2,4,5,6-Tetrachloro	4.746	4.862	4.856	5.130	5.162	5.344	5.017	E7	4.58
2)		alpha-BHC	5.852	6.540	6.867	7.527	7.660	7.966	7.069	E7	11.26
3)		gamma-BHC	5.451	5.944	6.190	6.722	6.816	7.083	6.368	E7	9.65
4)		beta-BHC	2.783	2.757	2.723	2.821	2.853	2.974	2.819	E7	3.15
5)		Heptachlor	4.220	4.431	4.534	4.890	5.012	5.271	4.726	E7	8.39
6)		delta-BHC	5.092	5.693	5.992	6.583	6.720	7.039	6.187	E7	11.76
7)		Aldrin	4.774	5.147	5.355	5.898	6.007	6.282	5.577	E7	10.34
8)		Heptachlor Epoxide	4.440	4.683	4.762	5.149	5.239	5.497	4.962	E7	8.00
9)		gamma-Chlordane	4.382	4.602	4.683	5.064	5.175	5.426	4.889	E7	8.09
10)		alpha-Chlordane	4.162	4.340	4.377	4.678	4.775	5.008	4.557	E7	6.95
11)		Endosulfan I	3.963	4.187	4.268	4.615	4.714	4.956	4.450	E7	8.36
12)		4,4'-DDE	3.546	3.922	4.110	4.577	4.722	5.015	4.315	E7	12.74
13)		Dieldrin	3.922	4.280	4.455	4.927	5.078	5.392	4.676	E7	11.76
14)		Endrin	3.385	3.701	3.830	4.218	4.403	4.704	4.040	E7	12.09
15)		4,4'-DDD	2.885	3.166	3.288	3.632	3.783	4.084	3.473	E7	12.67
16)		Endosulfan II	3.451	3.651	3.726	4.012	4.153	4.488	3.914	E7	9.66
17)		4,4'-DDT	2.972	3.290	3.384	3.755	3.888	4.183	3.579	E7	12.38
18)		Endrin Aldehyde	2.759	2.854	2.841	2.988	3.073	3.322	2.973	E7	6.89
19)		Endosulfan Sulfate	3.089	3.235	3.261	3.463	3.600	3.839	3.415	E7	8.06
20)		Methoxychlor	1.703	1.741	1.713	1.802	1.838	1.983	1.797	E7	5.85
21)		Endrin Ketone	3.748	3.938	3.936	4.167	4.257	4.510	4.093	E7	6.68
22)	S	Decachlorobiphenyl	3.729	3.647	3.477	3.427	3.374	3.512	3.528	E7	3.83

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\020703\9G22304.D\ECD1A.CH Vial: 8
Acq On : 7 Feb 2003 14:46 Operator: ECL
Sample : WG134218-01 PEST ICAL 200 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\020703\9G22304.D\ECD2B.CH Vial: 8
Acq On : 7 Feb 2003 15:10 Operator: ECL
Sample : WG134218-01 PEST ICAL 200 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 10 10:43 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:42:38 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.46	8.46	15294.6E6	10687.6E6	199.357	213.043
	Spiked Amount 20.000	Range 30 - 132		Recovery =		996.79%#	1065.22%#
22)	S Decachlorobiphen	15.07	16.42	7857.5E6	7023.1E6	185.606	199.092
	Spiked Amount 20.000	Range 36 - 144		Recovery =		928.03%#	995.46%#
	Target Compounds						
2)	alpha-BHC	8.48	9.61	22659.6E6	15932.5E6	210.761	225.399
3)	gamma-BHC	9.02	10.23	20375.7E6	14166.0E6	201.659	222.465
4)	beta-BHC	9.16	10.36	8564.9E6	5948.2E6	197.907	211.025
5)	Heptachlor	9.82	10.97	18141.3E6	10541.5E6	188.912	223.041
6)	delta-BHC	9.45	10.85	20490.4E6	14078.3E6	210.864	227.563
7)	Aldrin	10.29	11.49	17114.8E6	12564.7E6	193.666	225.282
8)	Heptachlor Epoxi	11.19	12.37	14521.2E6	10993.7E6	188.330	221.575
9)	gamma-Chlordane	11.38	12.64	15637.3E6	10852.7E6	199.232	221.992
10)	alpha-Chlordane	11.58	12.84	14199.8E6	10016.7E6	194.657	219.814
11)	Endosulfan I	11.76	12.93	14026.1E6	9912.2E6	190.204	222.723
12)	4,4'-DDE	11.70	13.03	13947.9E6	10029.5E6	205.721	232.425
13)	Dieldrin	12.11	13.28	14537.7E6	10784.6E6	196.821	230.640
14)	Endrin	12.43	13.65	13754.7E6	9408.3E6	200.791	232.874
15)	4,4'-DDD	12.53	13.73	11559.3E6	8168.6E6	206.659	235.190
16)	Endosulfan II	12.72	13.88	12191.1E6	8975.4E6	198.655	229.338
17)	4,4'-DDT	12.90	14.08	11462.5E6	8365.6E6	209.681	233.764
18)	Endrin Aldehyde	13.23	14.24	9034.0E6	6644.5E6	197.222	223.512
19)	Endosulfan Sulfa	13.73	14.52	9883.7E6	7678.2E6	201.243	224.864
20)	Methoxychlor	13.49	14.75	5308.5E6	3965.9E6	202.849	220.722
21)	Endrin Ketone	14.03	15.08	11484.0E6	9019.5E6	200.360	220.371

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

```
Data File : C:\HPCHEM\1\DATA\020703\9G22304.D\ECD1A.CH   Vial: 8
Acq On    :  7 Feb 2003  14:46                          Operator: ECL
Sample    : WG134218-01 PEST ICAL 200 PPB               Inst    : HP9
Misc      : 1,1 SOS63-32                                Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\020703\9G22304.D\ECD2B.CH   Vial: 8
Acq On    :  7 Feb 2003  15:10                          Operator: ECL
Sample    : WG134218-01 PEST ICAL 200 PPB               Inst    : HP9
Misc      : 1,1 SOS63-32                                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 10 10:43 2003  Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title        : CALIBRATION February 7, 2003 @ 1712
Last Update  : Mon Feb 10 10:42:38 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
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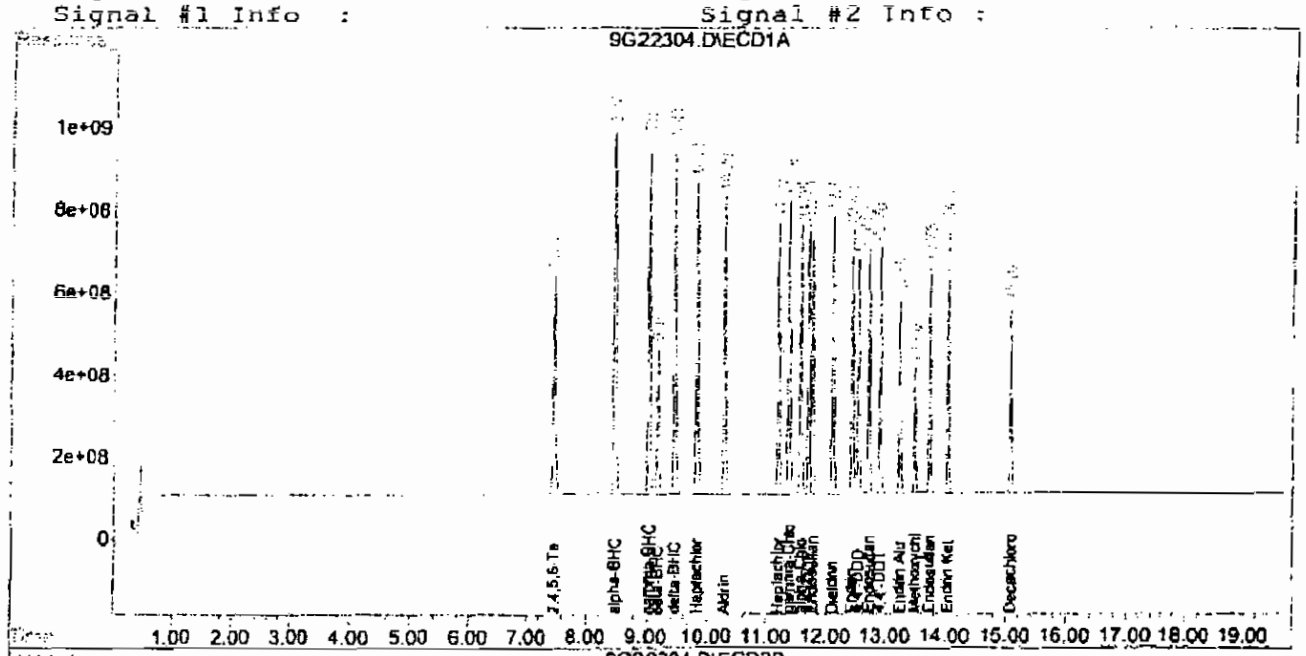
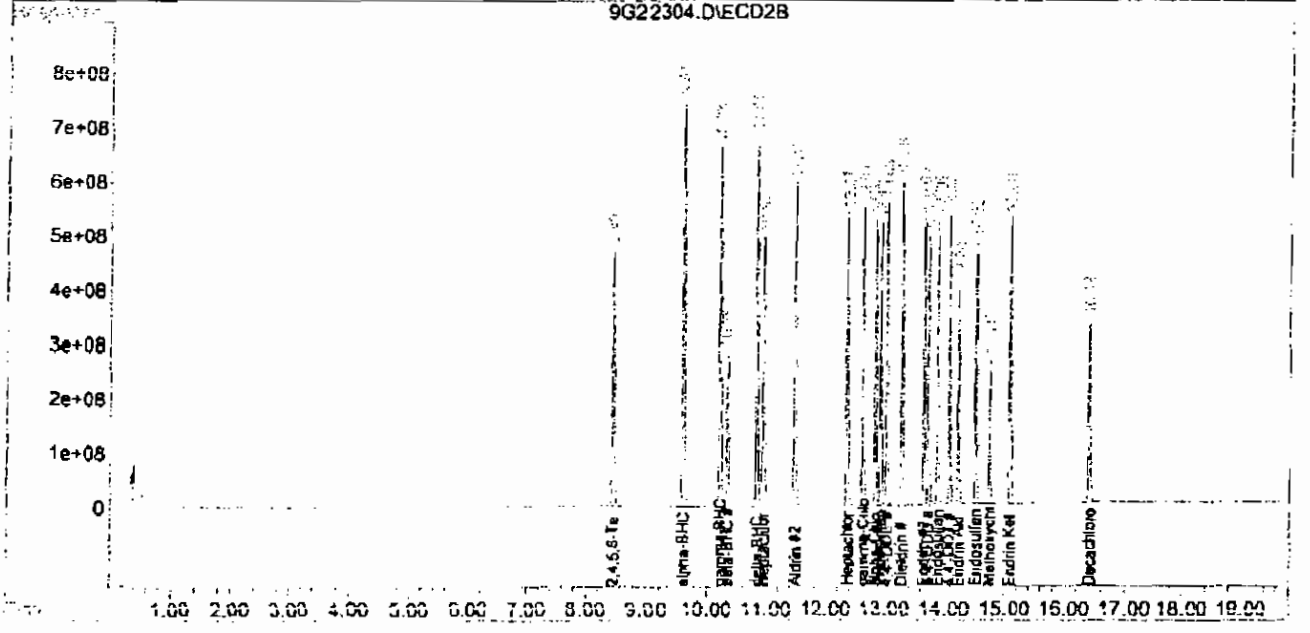




Data File : C:\HPCHEM\1\DATA\020703\9G22305.D\ECD1A.CH Vial: 9
Acq On : 7 Feb 2003 15:10 Operator: ECL
Sample : WG134218-02 PEST ICAL 100 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\020703\9G22305.D\ECD2B.CH Vial: 9
Acq On : 7 Feb 2003 15:35 Operator: ECL
Sample : WG134218-02 PEST ICAL 100 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 10 10:43 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:42:38 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.46	8.45	7576.8E6	5162.1E6	98.760	102.900
	Spiked Amount 20.000	Range 30 - 132			Recovery =	493.80%#	514.50%#
22)	S Decachlorobiphen	15.07	16.41	3875.5E6	3374.1E6	91.546	95.649
	Spiked Amount 20.000	Range 36 - 144			Recovery =	457.73%#	478.25%#
	Target Compounds						
2)	alpha-BHC	8.48	9.59	11175.1E6	7660.5E6	103.942	108.373
3)	gamma-BHC	9.02	10.21	10108.3E6	6815.6E6	100.043	107.033
4)	beta-BHC	9.17	10.35	4150.4E6	2853.2E6	95.902	101.223
5)	Heptachlor	9.82	10.95	9344.4E6	5012.4E6	97.307	106.055
6)	delta-BHC	9.45	10.84	9936.6E6	6719.7E6	102.257	108.618
7)	Aldrin	10.29	11.48	8746.3E6	6007.1E6	98.970	107.706
8)	Heptachlor Epoxi	11.19	12.36	7544.8E6	5239.4E6	97.850	105.599
9)	gamma-Chlordane	11.38	12.63	7743.7E6	5175.0E6	98.660	105.855
10)	alpha-Chlordane	11.58	12.83	7234.5E6	4775.2E6	99.173	104.790
11)	Endosulfan I	11.76	12.92	7144.5E6	4714.0E6	96.884	105.921
12)	4,4'-DDE	11.71	13.02	6934.4E6	4721.7E6	102.278	109.420
13)	Dieldrin	12.11	13.27	7443.7E6	5078.2E6	100.778	108.603
14)	Endrin	12.43	13.64	6822.8E6	4402.7E6	99.599	108.976
15)	4,4'-DDD	12.54	13.72	5667.4E6	3783.2E6	101.322	108.927
16)	Endosulfan II	12.72	13.87	6014.7E6	4153.2E6	98.010	106.123
17)	4,4'-DDT	12.90	14.07	5572.6E6	3888.2E6	101.939	108.650
18)	Endrin Aldehyde	13.23	14.23	4414.1E6	3072.9E6	96.364	103.368
19)	Endosulfan Sulfa	13.73	14.52	4823.9E6	3600.2E6	98.220	105.437
20)	Methoxychlor	13.49	14.74	2558.9E6	1838.4E6	97.780	102.318
21)	Endrin Ketone	14.03	15.07	5604.1E6	4257.2E6	97.774	104.015

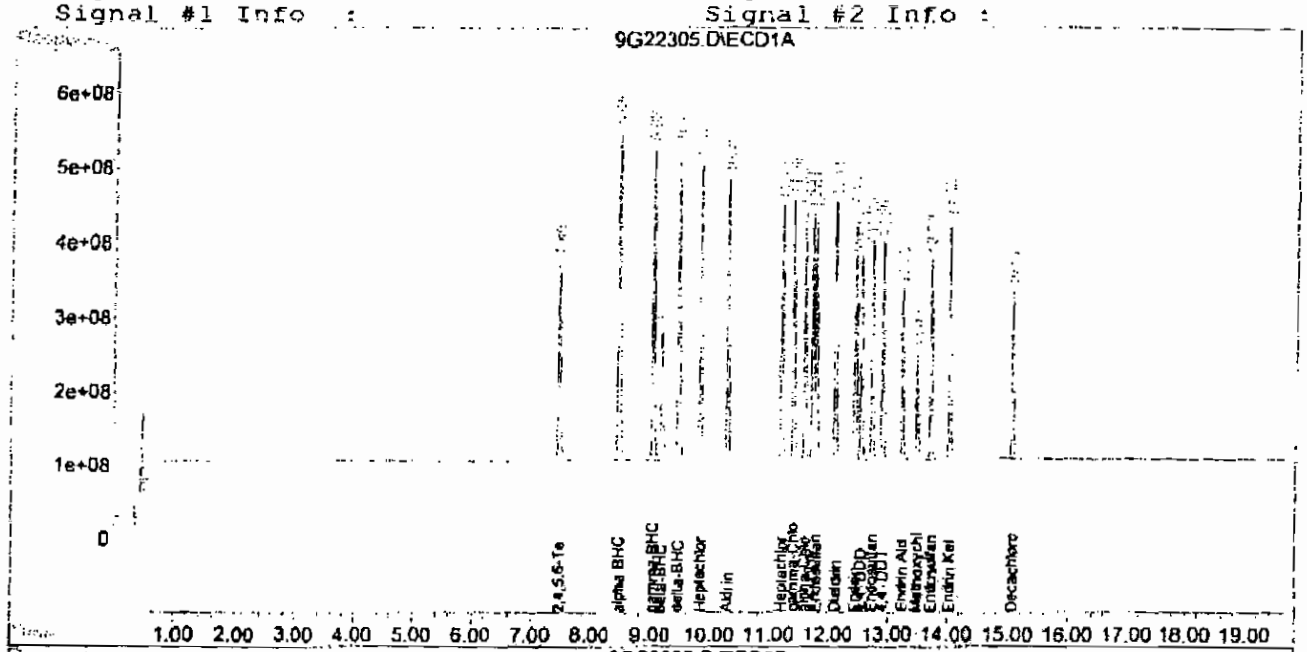
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\020703\9G22305.D\ECD1A.CH Vial: 9
Acq On : 7 Feb 2003 15:10 Operator: ECL
Sample : WG134218-02 PEST ICAL 100 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\020703\9G22305.D\ECD2B.CH Vial: 9
Acq On : 7 Feb 2003 15:35 Operator: ECL
Sample : WG134218-02 PEST ICAL 100 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 10 10:43 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:42:38 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\020703\9G22306.D\ECD1A.CH Vial: 10
Acq On : 7 Feb 2003 15:35 Operator: ECL
Sample : WG134218-03 PEST ICAL 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\020703\9G22306.D\ECD2B.CH Vial: 10
Acq On : 7 Feb 2003 15:59 Operator: ECL
Sample : WG134218-03 PEST ICAL 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 10 10:43 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:42:38 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.45	8.45	3833.0E6	2564.8E6	49.961	51.125
	Spiked Amount 20.000	Range 30 - 132		Recovery =		249.81%#	255.63%#
22)	S Decachlorobiphen	15.06	16.42	2001.5E6	1713.6E6	47.279	48.576
	Spiked Amount 20.000	Range 36 - 144		Recovery =		236.40%#	242.88%#
	Target Compounds						
2)	alpha-BHC	8.47	9.60	5554.1E6	3763.3E6	51.660	53.240
3)	gamma-BHC	9.01	10.22	5085.0E6	3361.1E6	50.327	52.783
4)	beta-BHC	9.15	10.35	2147.4E6	1410.7E6	49.619	50.049
5)	Heptachlor	9.81	10.96	4803.0E6	2444.9E6	50.016	51.731
6)	delta-BHC	9.44	10.84	5069.2E6	3291.5E6	52.166	53.205
7)	Aldrin	10.28	11.49	4463.7E6	2948.9E6	50.510	52.874
8)	Heptachlor Epoxi	11.18	12.36	3778.5E6	2574.3E6	49.004	51.884
9)	gamma-Chlordane	11.37	12.63	3949.8E6	2532.0E6	50.324	51.791
10)	alpha-Chlordane	11.57	12.83	3570.5E6	2339.2E6	48.946	51.333
11)	Endosulfan I	11.75	12.92	3664.6E6	2307.5E6	49.694	51.850
12)	4,4'-DDE	11.69	13.03	3459.9E6	2288.6E6	51.032	53.035
13)	Dieldrin	12.10	13.27	3679.0E6	2463.5E6	49.809	52.685
14)	Endrin	12.42	13.65	3454.0E6	2109.2E6	50.422	52.207
15)	4,4'-DDD	12.52	13.73	2838.3E6	1815.9E6	50.744	52.284
16)	Endosulfan II	12.71	13.88	3035.5E6	2005.9E6	49.464	51.256
17)	4,4'-DDT	12.89	14.08	2762.7E6	1877.3E6	50.537	52.458
18)	Endrin Aldehyde	13.22	14.24	2229.9E6	1493.9E6	48.682	50.252
19)	Endosulfan Sulfa	13.72	14.52	2393.7E6	1731.3E6	48.739	50.704
20)	Methoxychlor	13.48	14.75	1284.9E6	900.9E6	49.101	50.142
21)	Endrin Ketone	14.03	15.08	2806.8E6	2083.6E6	48.970	50.908

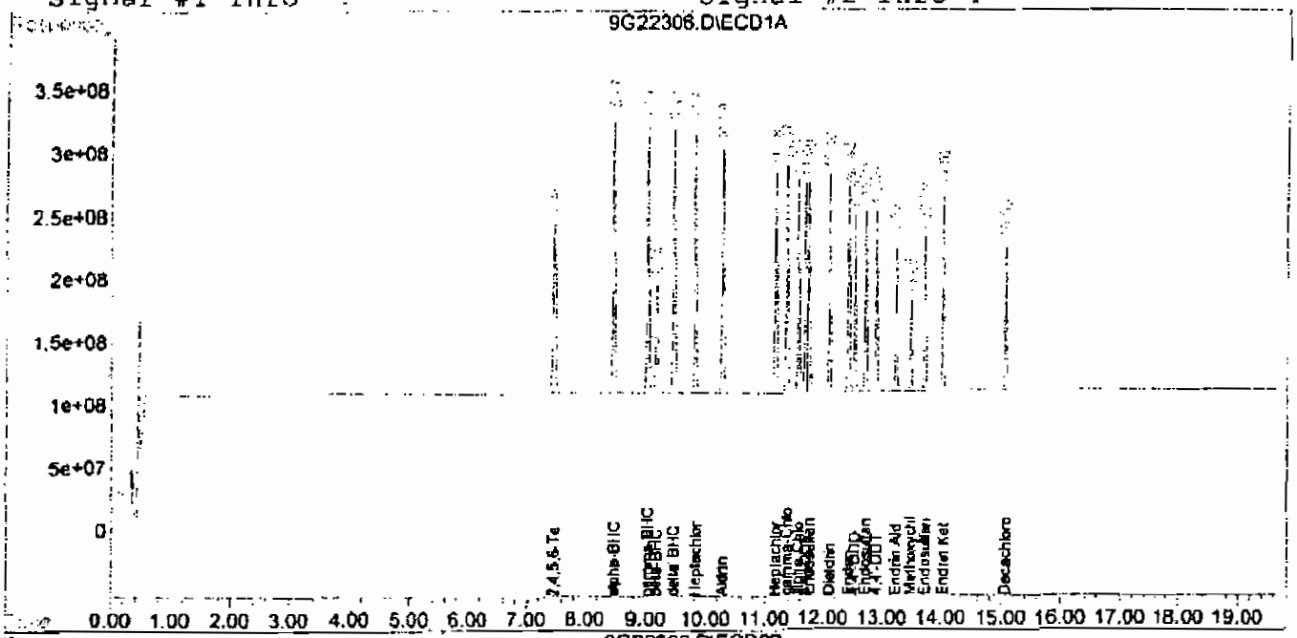
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

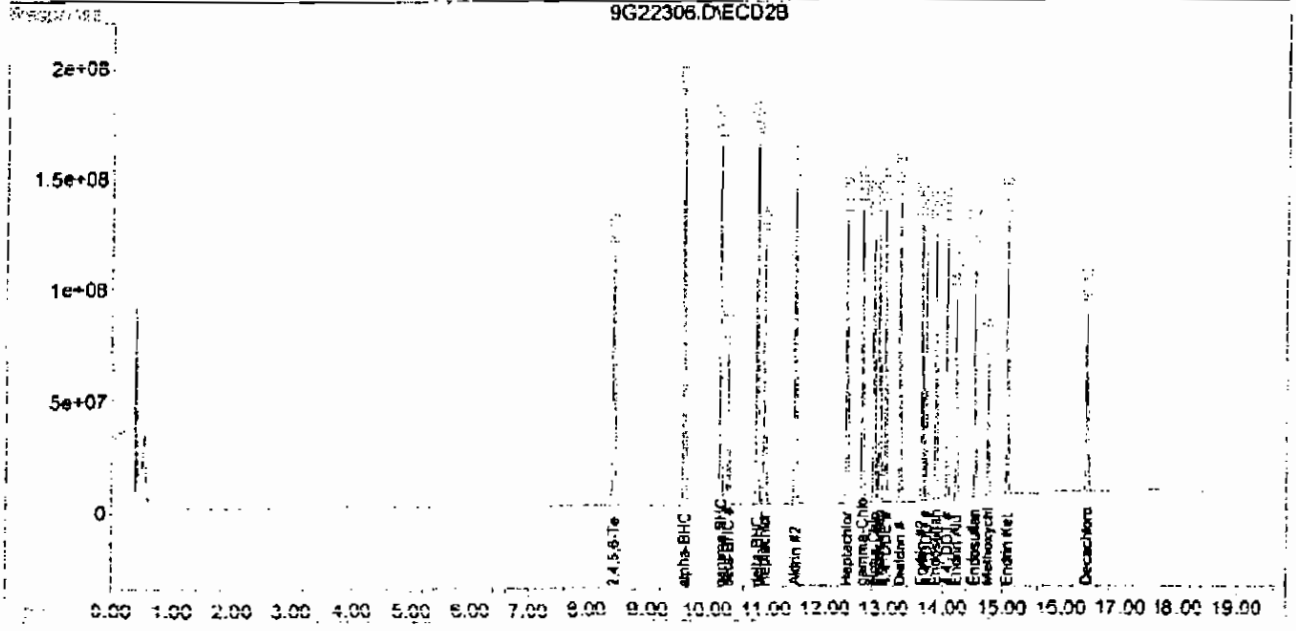
Data File : C:\HPCHEM\1\DATA\020703\9G22306.D\ECD1A.CH Vial: 10
Acq On : 7 Feb 2003 15:35 Operator: ECL
Sample : WG134218-03 PEST ICAL 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\020703\9G22306.D\ECD2B.CH Vial: 10
Acq On : 7 Feb 2003 15:59 Operator: ECL
Sample : WG134218-03 PEST ICAL 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 10 10:43 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:42:38 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\020703\9G22307.D\ECD1A.CH Vial: 11
Acq On : 7 Feb 2003 15:59 Operator: ECL
Sample : WG134218-04 PEST ICAL 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\020703\9G22307.D\ECD2B.CH Vial: 11
Acq On : 7 Feb 2003 16:23 Operator: ECL
Sample : WG134218-04 PEST ICAL 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 10 10:43 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:42:38 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
System Monitoring Compounds						
1) S 2,4,5,6-Tetrachl	7.46	8.45	1526.6E6	971.2E6	19.898	19.359
Spiked Amount 20.000	Range 30 - 132			Recovery =	99.49%	96.80%
22) S Decachlorobiphen	15.07	16.42	859.7E6	695.4E6	20.307	19.714
Spiked Amount 20.000	Range 36 - 144			Recovery =	101.54%	98.57%
Target Compounds						
2) alpha-BHC	8.47	9.60	2157.0E6	1373.3E6	20.062	19.428
3) gamma-BHC	9.02	10.22	2011.5E6	1238.0E6	19.908	19.443
4) beta-BHC	9.16	10.35	858.4E6	544.7E6	19.834	19.324
5) Heptachlor	9.81	10.96	1971.3E6	906.7E6	20.528	19.185
6) delta-BHC	9.44	10.84	1985.3E6	1198.3E6	20.431	19.370
7) Aldrin	10.29	11.48	1811.4E6	1070.9E6	20.497	19.202
8) Heptachlor Epoxi	11.19	12.36	1579.7E6	952.4E6	20.487	19.195
9) gamma-Chlordane	11.38	12.63	1584.9E6	936.6E6	20.193	19.158
10) alpha-Chlordane	11.57	12.83	1478.8E6	875.5E6	20.272	19.212
11) Endosulfan I	11.76	12.92	1508.3E6	853.6E6	20.453	19.179
12) 4,4'-DDE	11.70	13.03	1366.0E6	822.0E6	20.147	19.048
13) Dieldrin	12.10	13.27	1502.1E6	891.1E6	20.337	19.057
14) Endrin	12.43	13.64	1379.9E6	766.0E6	20.143	18.959
15) 4,4'-DDD	12.53	13.73	1122.9E6	657.7E6	20.076	18.936
16) Endosulfan II	12.72	13.88	1232.6E6	745.3E6	20.085	19.043
17) 4,4'-DDT	12.90	14.07	1092.2E6	676.8E6	19.980	18.913
18) Endrin Aldehyde	13.23	14.24	924.1E6	568.3E6	20.174	19.117
19) Endosulfan Sulfa	13.72	14.52	984.6E6	652.2E6	20.047	19.101
20) Methoxychlor	13.48	14.75	523.4E6	342.7E6	20.002	19.071
21) Endrin Ketone	14.03	15.08	1149.5E6	787.3E6	20.055	19.235

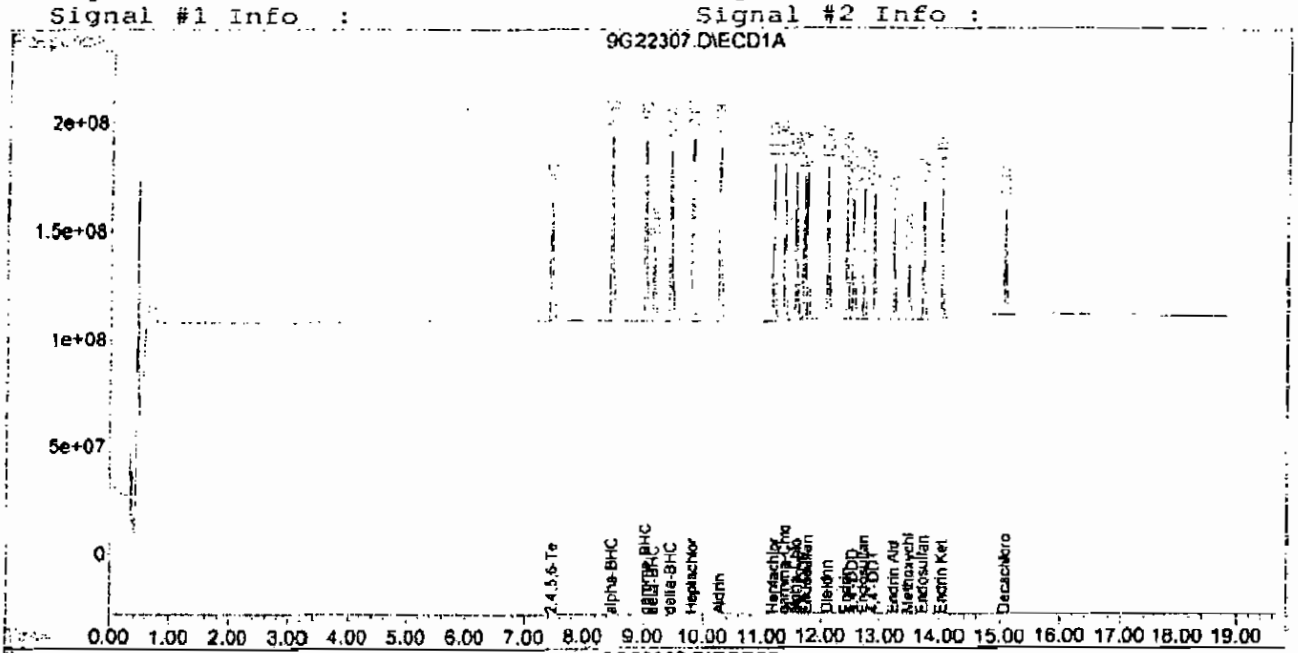
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

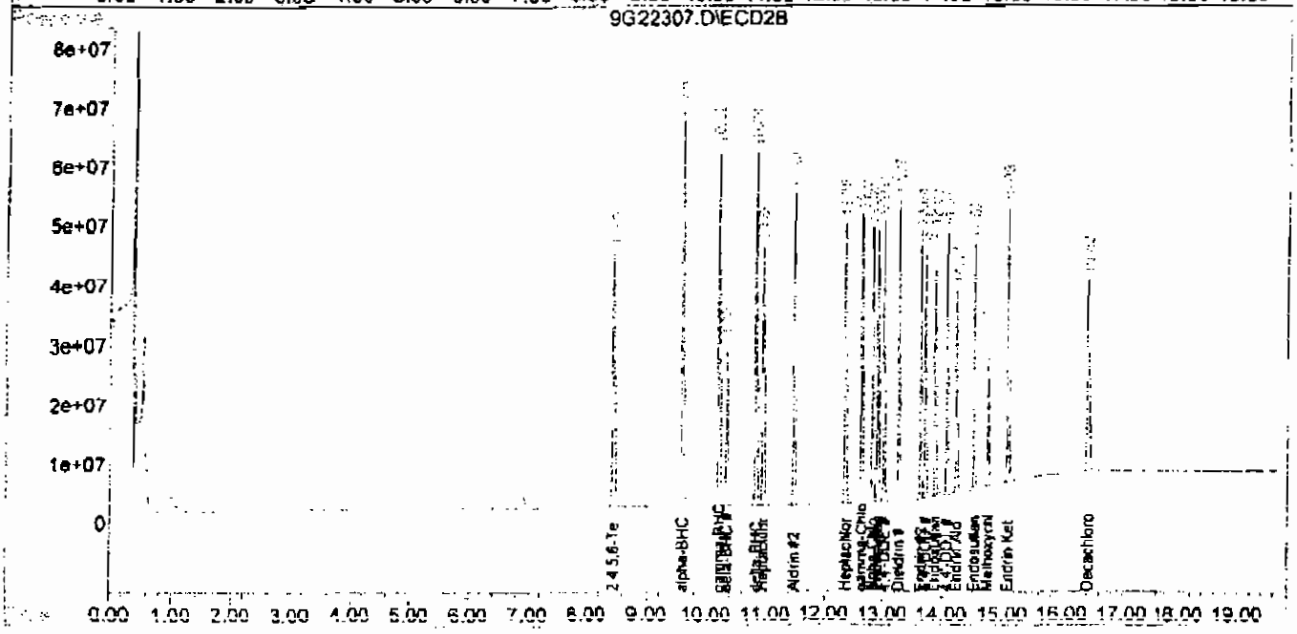
Data File : C:\HPCHEM\1\DATA\020703\9G22307.D\ECD1A.CH Vial: 11
Acq On : 7 Feb 2003 15:59 Operator: ECL
Sample : WG134218-04 PEST ICAL 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\020703\9G22307.D\ECD2B.CH Vial: 11
Acq On : 7 Feb 2003 16:23 Operator: ECL
Sample : WG134218-04 PEST ICAL 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 10 10:43 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:42:38 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\020703\9G22308.D\ECD1A.CH Vial: 12
Acq On : 7 Feb 2003 16:23 Operator: ECL
Sample : WG134218-05 PEST ICAL 10 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\020703\9G22308.D\ECD2B.CH Vial: 12
Acq On : 7 Feb 2003 16:48 Operator: ECL
Sample : WG134218-05 PEST ICAL 10 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 10 10:43 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:42:38 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.46	8.45	771.6E6	486.2E6	10.058	9.693
	Spiked Amount 20.000	Range 30 - 132		Recovery =		50.29%	48.46%
22)	S Decachlorobiphen	15.06	16.41	452.9E6	364.7E6	10.698	10.338
	Spiked Amount 20.000	Range 36 - 144		Recovery =		53.49%	51.69%
	Target Compounds						
2)	alpha-BHC	8.47	9.59	1043.8E6	654.0E6	9.709	9.252
3)	gamma-BHC	9.02	10.21	999.5E6	594.4E6	9.892	9.335
4)	beta-BHC	9.16	10.34	439.3E6	275.7E6	10.151	9.782
5)	Heptachlor	9.81	10.95	995.3E6	443.1E6	10.365	9.375
6)	delta-BHC	9.44	10.84	938.8E6	569.3E6	9.661	9.203
7)	Aldrin	10.28	11.48	903.8E6	514.7E6	10.227	9.229
8)	Heptachlor Epoxi	11.19	12.35	804.0E6	468.3E6	10.427	9.439
9)	gamma-Chlordane	11.38	12.62	800.4E6	460.2E6	10.198	9.414
10)	alpha-Chlordane	11.57	12.83	749.6E6	434.0E6	10.276	9.525
11)	Endosulfan I	11.76	12.91	769.2E6	418.7E6	10.431	9.407
12)	4,4'-DDE	11.70	13.02	670.5E6	392.2E6	9.890	9.088
13)	Dieldrin	12.10	13.27	752.1E6	428.0E6	10.183	9.154
14)	Endrin	12.43	13.64	696.0E6	370.1E6	10.160	9.160
15)	4,4'-DDD	12.53	13.72	555.5E6	316.6E6	9.932	9.116
16)	Endosulfan II	12.72	13.87	629.4E6	365.1E6	10.257	9.329
17)	4,4'-DDT	12.90	14.07	539.8E6	329.0E6	9.874	9.194
18)	Endrin Aldehyde	13.23	14.23	477.9E6	285.4E6	10.433	9.599
19)	Endosulfan Sulfa	13.72	14.51	503.4E6	323.5E6	10.249	9.474
20)	Methoxychlor	13.48	14.74	270.9E6	174.1E6	10.351	9.687
21)	Endrin Ketone	14.03	15.07	588.9E6	393.8E6	10.275	9.622

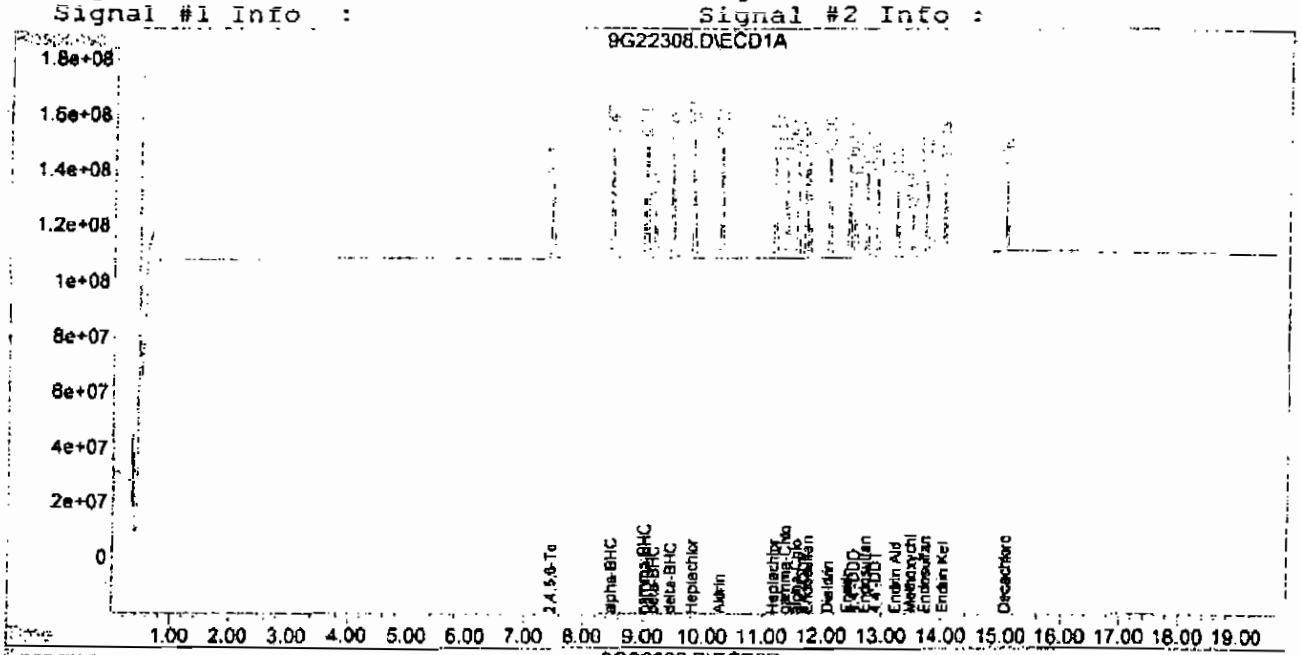
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

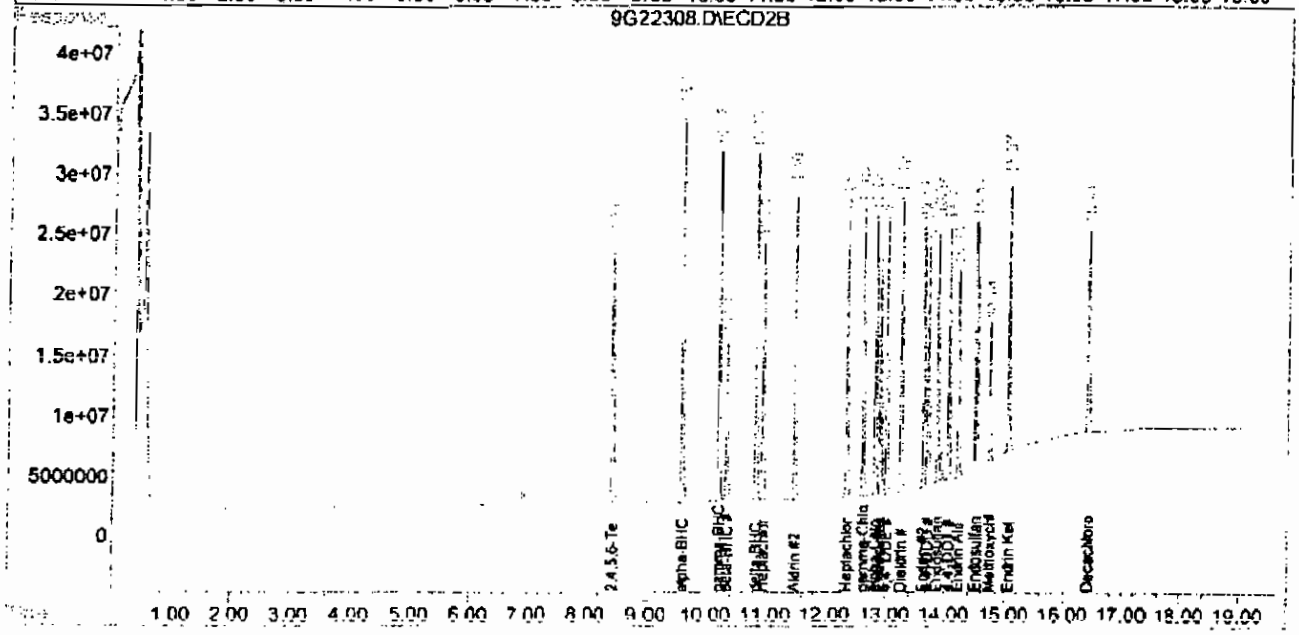
Data File : C:\HPCHEM\1\DATA\020703\9G22308.D\ECD1A.CH Vial: 12
Acq On : 7 Feb 2003 16:23 Operator: ECL
Sample : WG134218-05 PEST ICAL 10 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\020703\9G22308.D\ECD2B.CH Vial: 12
Acq On : 7 Feb 2003 16:48 Operator: ECL
Sample : WG134218-05 PEST ICAL 10 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 10 10:43 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:42:38 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\020703\9G22309.D\ECD1A.CH Vial: 13
Acq On : 7 Feb 2003 16:48 Operator: ECL
Sample : WG134218-06 PEST ICAL 4 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\020703\9G22309.D\ECD2B.CH Vial: 13
Acq On : 7 Feb 2003 17:12 Operator: ECL
Sample : WG134218-06 PEST ICAL 4 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 10 10:43 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:42:38 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
System Monitoring Compounds						
1) S 2,4,5,6-Tetrachl	7.46	8.45	311.7E6	189.8E6	4.063	3.784
Spiked Amount 20.000	Range 30 - 132			Recovery =	20.32%#	18.92%#
22) S Decachlorobiphen	15.06	16.41	190.6E6	149.2E6	4.503	4.228
Spiked Amount 20.000	Range 36 - 144			Recovery =	22.52%#	21.14%#
Target Compounds						
2) alpha-BHC	8.47	9.60	386.9E6	234.1E6	3.598	3.311
3) gamma-BHC	9.01	10.22	404.2E6	218.1E6	4.000	3.424
4) beta-BHC	9.16	10.35	182.2E6	111.3E6	4.209	3.949
5) Heptachlor	9.81	10.96	391.5E6	168.8E6	4.077	3.572
6) delta-BHC	9.44	10.84	346.8E6	203.7E6	3.569	3.292
7) Aldrin	10.28	11.49	347.9E6	191.0E6	3.937	3.424
8) Heptachlor Epoxi	11.18	12.36	318.5E6	177.6E6	4.131	3.579
9) gamma-Chlordane	11.37	12.63	308.1E6	175.3E6	3.925	3.585
10) alpha-Chlordane	11.57	12.83	296.1E6	166.5E6	4.059	3.653
11) Endosulfan I	11.75	12.92	301.0E6	158.5E6	4.082	3.562
12) 4,4'-DDE	11.69	13.03	252.7E6	141.8E6	3.726	3.287
13) Dieldrin	12.09	13.27	288.6E6	156.9E6	3.907	3.355
14) Endrin	12.42	13.64	265.4E6	135.4E6	3.874	3.351
15) 4,4'-DDD	12.52	13.72	210.7E6	115.4E6	3.766	3.323
16) Endosulfan II	12.71	13.88	247.3E6	138.1E6	4.030	3.528
17) 4,4'-DDT	12.89	14.07	204.5E6	118.9E6	3.740	3.322
18) Endrin Aldehyde	13.22	14.24	187.7E6	110.3E6	4.098	3.712
19) Endosulfan Sulfa	13.71	14.52	198.3E6	123.6E6	4.038	3.619
20) Methoxychlor	13.48	14.74	103.7E6	68138528	3.963	3.792
21) Endrin Ketone	14.02	15.07	231.8E6	149.9E6	4.043	3.663

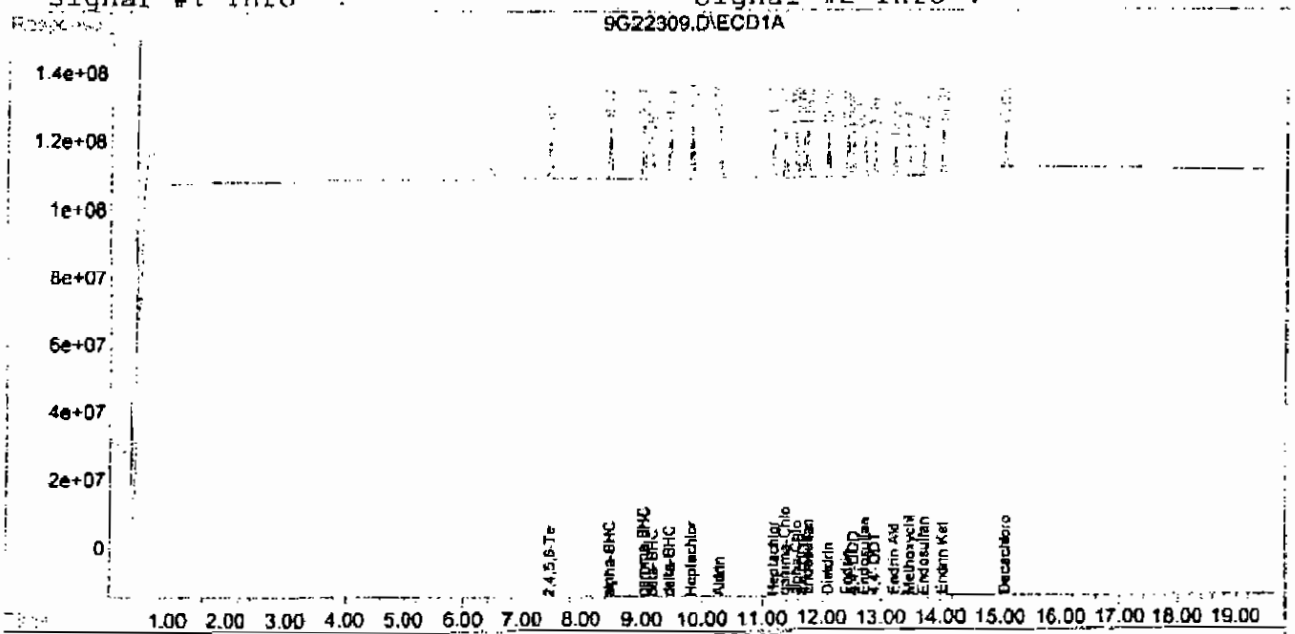
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

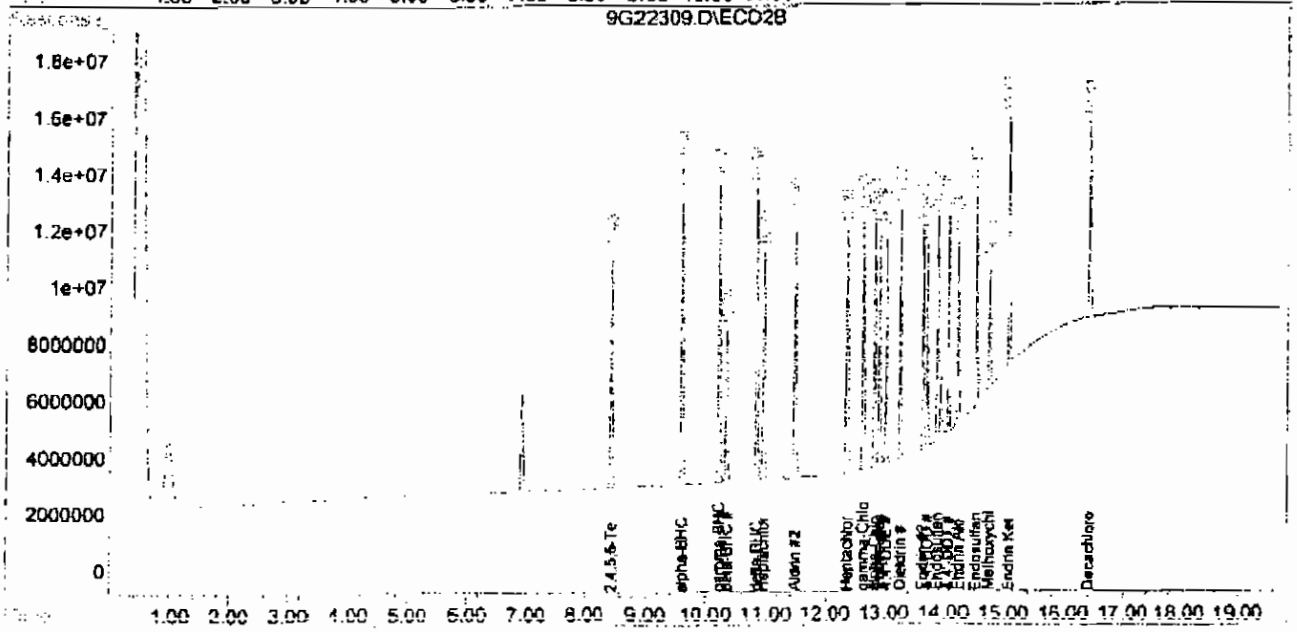
Data File : C:\HPCHEM\1\DATA\020703\9G22309.D\ECD1A.CH Vial: 13
Acq On : 7 Feb 2003 16:48 Operator: ECL
Sample : WG134218-06 PEST ICAL 4 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\020703\9G22309.D\ECD2B.CH Vial: 13
Acq On : 7 Feb 2003 17:12 Operator: ECL
Sample : WG134218-06 PEST ICAL 4 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 10 10:43 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:42:38 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\020703\9G22310.D\ECD1A.CH Vial: 14
Acq On : 7 Feb 2003 17:12 Operator: ECL
Sample : WG134218-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\020703\9G22310.D\ECD2B.CH Vial: 14
Acq On : 7 Feb 2003 17:36 Operator: ECL
Sample : WG134218-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:42:38 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	alpha-BHC	20.000	18.758	6.2	93	0.00
3	gamma-BHC	20.000	18.657	6.7	94	0.00
4	beta-BHC	20.000	18.015	9.9	91	0.00
5	Heptachlor	20.000	18.952	5.2	92	0.00
6	delta-BHC	20.000	18.238	8.8	89	0.00
7	Aldrin	20.000	18.777	6.1	92	0.00
8	Heptachlor Epoxide	20.000	19.171	4.1	94	0.00
9	gamma-Chlordane	20.000	18.879	5.6	93	0.00
10	alpha-Chlordane	20.000	18.986	5.1	94	0.00
11	Endosulfan I	20.000	18.577	7.1	91	0.00
12	4,4'-DDE	20.000	18.895	5.5	94	0.00
13	Dieldrin	20.000	18.935	5.3	93	0.00
14	Endrin	20.000	17.986	10.1	89	0.00
15	4,4'-DDD	20.000	18.549	7.3	92	0.00
16	Endosulfan II	20.000	18.926	5.4	94	0.00
17	4,4'-DDT	20.000	18.802	6.0	94	0.00
18	Endrin Aldehyde	20.000	17.118	14.4	85	0.00
19	Endosulfan Sulfate	20.000	18.301	8.5	91	0.00
20	Methoxychlor	20.000	18.476	7.6	92	0.00
21	Endrin Ketone	20.000	18.409	8.0	92	0.00
	Signal #2					
2	alpha-BHC	20.000	18.829	5.9	97	0.00
3	gamma-BHC	20.000	18.796	6.0	97	0.00
4	beta-BHC	20.000	18.104	9.5	94	0.00
5	Heptachlor	20.000	18.354	8.2	96	0.00
6	delta-BHC	20.000	18.172	9.1	94	0.00
7	Aldrin	20.000	18.229	8.9	95	0.00
8	Heptachlor Epoxide	20.000	18.583	7.1	97	0.00
9	gamma-Chlordane	20.000	18.654	6.7	97	0.00
10	alpha-Chlordane	20.000	18.846	5.8	98	0.00
11	Endosulfan I	20.000	18.089	9.6	94	0.00
12	4,4'-DDE	20.000	18.699	6.5	98	0.00
13	Dieldrin	20.000	18.313	8.4	96	0.00
14	Endrin	20.000	17.655	11.7	93	0.00
15	4,4'-DDD	20.000	18.208	9.0	96	0.00
16	Endosulfan II	20.000	17.919	10.4	94	0.00
17	4,4'-DDT	20.000	18.192	9.0	96	0.00
18	Endrin Aldehyde	20.000	17.596	12.0	92	0.00
19	Endosulfan Sulfate	20.000	18.125	9.4	95	0.00
20	Methoxychlor	20.000	18.403	8.0	96	0.00
21	Endrin Ketone	20.000	18.328	8.4	95	0.00

Data File : C:\HPCHEM\1\DATA\020703\9G22310.D\ECD1A.CH Vial: 14
Acq On : 7 Feb 2003 17:12 Operator: ECL
Sample : WG134218-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\020703\9G22310.D\ECD2B.CH Vial: 14
Acq On : 7 Feb 2003 17:36 Operator: ECL
Sample : WG134218-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 10 10:44 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:42:38 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
System Monitoring Compounds						
1) S 2,4,5,6-Tetrachl	0.00	0.00	0	0	N.D.	N.D.
Spiked Amount 20.000	Range 29 - 133		Recovery =		0.00%#	0.00%#
22) S Decachlorobiphen	0.00	0.00	0	0	N.D.	N.D.
Spiked Amount 20.000	Range 30 - 173		Recovery =		0.00%#	0.00%#
Target Compounds						
2) alpha-BHC	8.48	9.60	2016.7E6	1331.0E6	18.758	18.829
3) gamma-BHC	9.02	10.22	1885.2E6	1196.9E6	18.657	18.796
4) beta-BHC	9.16	10.35	779.6E6	510.3E6	18.015	18.104
5) Heptachlor	9.82	10.96	1819.9E6	867.5E6	18.952	18.354
6) delta-BHC	9.45	10.84	1772.3E6	1124.2E6	18.238	18.172
7) Aldrin	10.29	11.48	1659.4E6	1016.7E6	18.777	18.229
8) Heptachlor Epoxi	11.19	12.36	1478.2E6	922.0E6	19.171	18.583
9) gamma-Chlordane	11.38	12.63	1481.8E6	912.0E6	18.879	18.654
10) alpha-Chlordane	11.57	12.83	1385.0E6	858.8E6	18.986	18.846
11) Endosulfan I	11.76	12.92	1369.9E6	805.1E6	18.577	18.089
12) 4,4'-DDE	11.70	13.02	1281.1E6	806.9E6	18.895	18.699
13) Dieldrin	12.10	13.27	1398.6E6	856.3E6	18.935	18.313
14) Endrin	12.43	13.64	1232.1E6	713.3E6	17.986	17.655
15) 4,4'-DDD	12.53	13.72	1037.5E6	632.4E6	18.549	18.208
16) Endosulfan II	12.72	13.88	1161.5E6	701.3E6	18.926	17.919
17) 4,4'-DDT	12.90	14.07	1027.8E6	651.0E6	18.802	18.192
18) Endrin Aldehyde	13.23	14.24	784.1E6	523.1E6	17.118	17.596
19) Endosulfan Sulfa	13.72	14.52	898.8E6	618.9E6	18.301	18.125
20) Methoxychlor	13.48	14.74	483.5E6	330.7E6	18.476	18.403
21) Endrin Ketone	14.03	15.07	1055.1E6	750.1E6	18.409	18.328

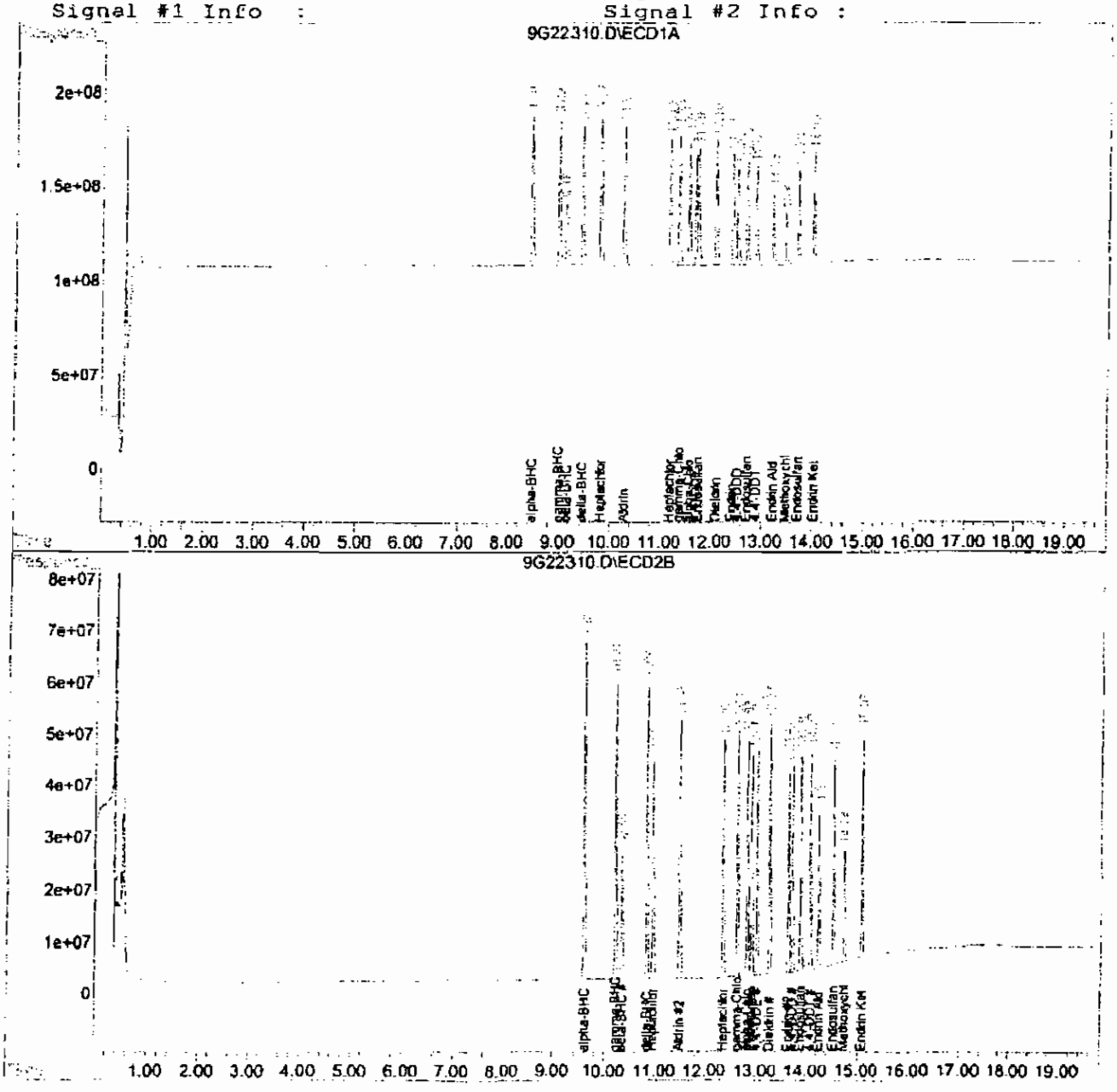
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\020703\9G22310.D\ECD1A.CH Vial: 14
Acq On : 7 Feb 2003 17:12 Operator: ECL
Sample : WG134218-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\020703\9G22310.D\ECD2B.CH Vial: 14
Acq On : 7 Feb 2003 17:36 Operator: ECL
Sample : WG134218-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 10 10:44 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:42:38 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\031903\9G22645.D\ECD1A.CH Vial: 2
Acq On : 19 Mar 2003 10:27 Operator: ECL
Sample : WG136550-01 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22645.D\ECD2B.CH Vial: 2
Acq On : 19 Mar 2003 10:51 Operator: ECL
Sample : WG136550-01 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Fri Mar 14 11:22:39 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	20.000	20.798	-4.0	105	0.00
2		alpha-BHC	20.000	20.692	-3.5	103	0.00
3		gamma-BHC	20.000	20.516	-2.6	103	0.00
4		beta-BHC	20.000	20.788	-3.9	105	0.00
5		Heptachlor	20.000	20.512	-2.6	100	0.00
6		delta-BHC	20.000	20.636	-3.2	101	0.00
7		Aldrin	20.000	21.626	-8.1	106	0.00
8		Heptachlor Epoxide	20.000	20.626	-3.1	101	0.00
9		gamma-Chlordane	20.000	21.199	-6.0	105	0.00
10		alpha-Chlordane	20.000	21.362	-6.8	105	0.00
11		Endosulfan I	20.000	21.845	-9.2	107	0.00
12		4,4'-DDE	20.000	21.401	-7.0	106	0.00
13		Dieldrin	20.000	21.476	-7.4	106	0.00
14		Endrin	20.000	18.782	6.1	93	0.00
15		4,4'-DDD	20.000	22.250	-11.3	111	0.00
16		Endosulfan II	20.000	20.869	-4.3	104	0.00
17		4,4'-DDT	20.000	18.592	7.0	93	0.00
18		Endrin Aldehyde	20.000	21.321	-6.6	106	0.00
19		Endosulfan Sulfate	20.000	19.573	2.1	98	0.00
20		Methoxychlor	20.000	17.725	11.4	89	0.00
21		Endrin Ketone	20.000	21.235	-6.2	106	0.00
22	S	Decachlorobiphenyl	20.000	22.277	-11.4	110	0.00
		Signal #2					
1	S	2,4,5,6-Tetrachloro-M-Xyl	20.000	18.640	6.8	96	0.00
2		alpha-BHC	20.000	18.655	6.7	96	-0.01#
3		gamma-BHC	20.000	18.210	8.9	94	-0.01#
4		beta-BHC	20.000	18.486	7.6	96	-0.01#
5		Heptachlor	20.000	20.142	-0.7	105	-0.01#
6		delta-BHC	20.000	18.426	7.9	95	-0.01#
7		Aldrin	20.000	18.403	8.0	96	-0.01#
8		Heptachlor Epoxide	20.000	18.849	5.8	98	-0.02#
9		gamma-Chlordane	20.000	18.620	6.9	97	-0.01#
10		alpha-Chlordane	20.000	18.778	6.1	98	0.00
11		Endosulfan I	20.000	18.847	5.8	98	0.00
12		4,4'-DDE	20.000	18.760	6.2	98	0.00
13		Dieldrin	20.000	18.731	6.3	98	0.00
14		Endrin	20.000	18.211	8.9	96	0.00
15		4,4'-DDD	20.000	19.150	4.3	101	0.00
16		Endosulfan II	20.000	18.429	7.9	97	0.00
17		4,4'-DDT	20.000	18.249	8.8	96	0.00
18		Endrin Aldehyde	20.000	18.985	5.1	99	0.00
19		Endosulfan Sulfate	20.000	18.856	5.7	99	0.00
20		Methoxychlor	20.000	18.395	8.0	96	0.00
21		Endrin Ketone	20.000	19.328	3.4	100	0.00
22	S	Decachlorobiphenyl	20.000	19.904	0.5	101	-0.02#

(#) = Out of Range SPCC's out = 0 CCC's out = 0
9G22645.D 8081.M Wed Mar 19 11:11:46 2003 Page 1

Data File : C:\HPCHEM\1\DATA\031903\9G22645.D\ECD1A.CH Vial: 2
Acq On : 19 Mar 2003 10:27 Operator: ECL
Sample : WG136550-01 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22645.D\ECD2B.CH Vial: 2
Acq On : 19 Mar 2003 10:51 Operator: ECL
Sample : WG136550-01 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 19 11:11 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Fri Mar 14 11:22:39 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.42	8.41	1595.6E6	935.1E6	20.798	18.640
	Spiked Amount 20.000	Range 30 - 132		Recovery =		103.99%	93.20%
22)	S Decachlorobiphen	15.03	16.36f	943.1E6	702.1E6	22.277	19.904
	Spiked Amount 20.000	Range 36 - 144		Recovery =		111.39%	99.52%
	Target Compounds						
2)	alpha-BHC	8.43	9.56	2224.6E6	1318.6E6	20.692	18.655
3)	gamma-BHC	8.98	10.18	2073.0E6	1159.6E6	20.516	18.210
4)	beta-BHC	9.12	10.31	899.7E6	521.1E6	20.788	18.486
5)	Heptachlor	9.77	10.92	1969.8E6	952.0E6	20.512	20.142
6)	delta-BHC	9.41	10.80	2005.3E6	1139.9E6	20.636	18.426
7)	Aldrin	10.25	11.44	1911.1E6	1026.4E6	21.626	18.403
8)	Heptachlor Epoxi	11.15	12.31f	1590.4E6	935.2E6	20.626	18.849
9)	gamma-Chlordane	11.34	12.59	1663.9E6	910.3E6	21.199	18.620
10)	alpha-Chlordane	11.53	12.79	1558.3E6	855.7E6	21.362	18.778
11)	Endosulfan I	11.71	12.87	1610.9E6	838.8E6	21.845	18.847
12)	4,4'-DDE	11.66	12.98	1451.0E6	809.5E6	21.401	18.760
13)	Dieldrin	12.06	13.23	1586.3E6	875.9E6	21.476	18.731
14)	Endrin	12.39	13.60	1286.6E6	735.7E6	18.782	18.211
15)	4,4'-DDD	12.49	13.69	1244.5E6	665.1E6	22.250	19.150
16)	Endosulfan II	12.68	13.84	1280.7E6	721.2E6	20.869	18.429
17)	4,4'-DDT	12.86	14.04	1016.4E6	653.1E6	18.592	18.249
18)	Endrin Aldehyde	13.19	14.20	976.6E6	564.4E6	21.321	18.985
19)	Endosulfan Sulfa	13.68	14.48	961.3E6	643.9E6	19.573	18.856
20)	Methoxychlor	13.45	14.71	463.9E6	330.5E6	17.725	18.395
21)	Endrin Ketone	13.99	15.03	1217.1E6	791.1E6	21.235	19.328

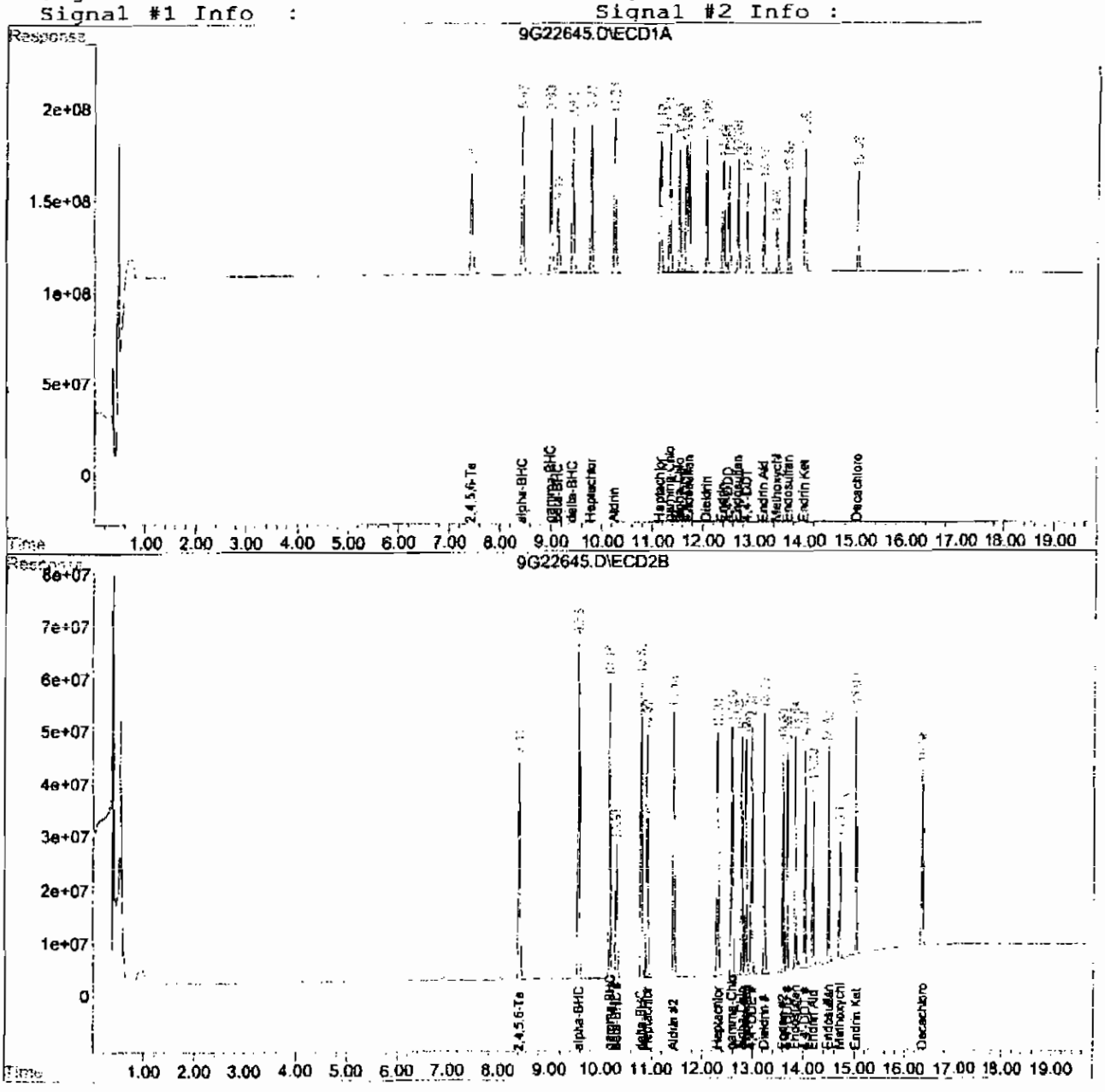
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\031903\9G22645.D\ECD1A.CH Vial: 2
Acq On : 19 Mar 2003 10:27 Operator: ECL
Sample : WG136550-01 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22645.D\ECD2B.CH Vial: 2
Acq On : 19 Mar 2003 10:51 Operator: ECL
Sample : WG136550-01 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 19 11:11 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Fri Mar 14 11:22:39 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\031903\9G22646.D\ECD1A.CH Vial: 3
Acq On : 19 Mar 2003 10:51 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\031903\9G22646.D\ECD2B.CH Vial: 3
Acq On : 19 Mar 2003 11:15 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Februay 7, 2003 @ 1358
Last Update : Wed Mar 19 11:51:28 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	Toxaphene-1	500.000	517.888	-3.6	104	0.00
2	L1	Toxaphene-2	500.000	459.399	8.1	97	0.00
3	L1	Toxaphene-3	500.000	515.710	-3.1	101	0.00
4	L1	Toxaphene-4	500.000	491.962	1.6	100	0.00
5	L1	Toxaphene-5	500.000	450.116	10.0	91	0.00
		Signal #2					
1	L1	Toxaphene-1	500.000	467.339	6.5	94	0.00
2	L1	Toxaphene-2	500.000	436.330	12.7	91	0.00
3	L1	Toxaphene-3	500.000	474.407	5.1	93	-0.01
4	L1	Toxaphene-4	500.000	475.290	4.9	93	0.00
5	L1	Toxaphene-5	500.000	478.512	4.3	94	0.00

Data File : C:\HPCHEM\1\DATA\031903\9G22646.D\ECD1A.CH Vial: 3
Acq On : 19 Mar 2003 10:51 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\031903\9G22646.D\ECD2B.CH Vial: 3
Acq On : 19 Mar 2003 11:15 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 19 11:51 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1358
Last Update : Wed Mar 19 11:51:28 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

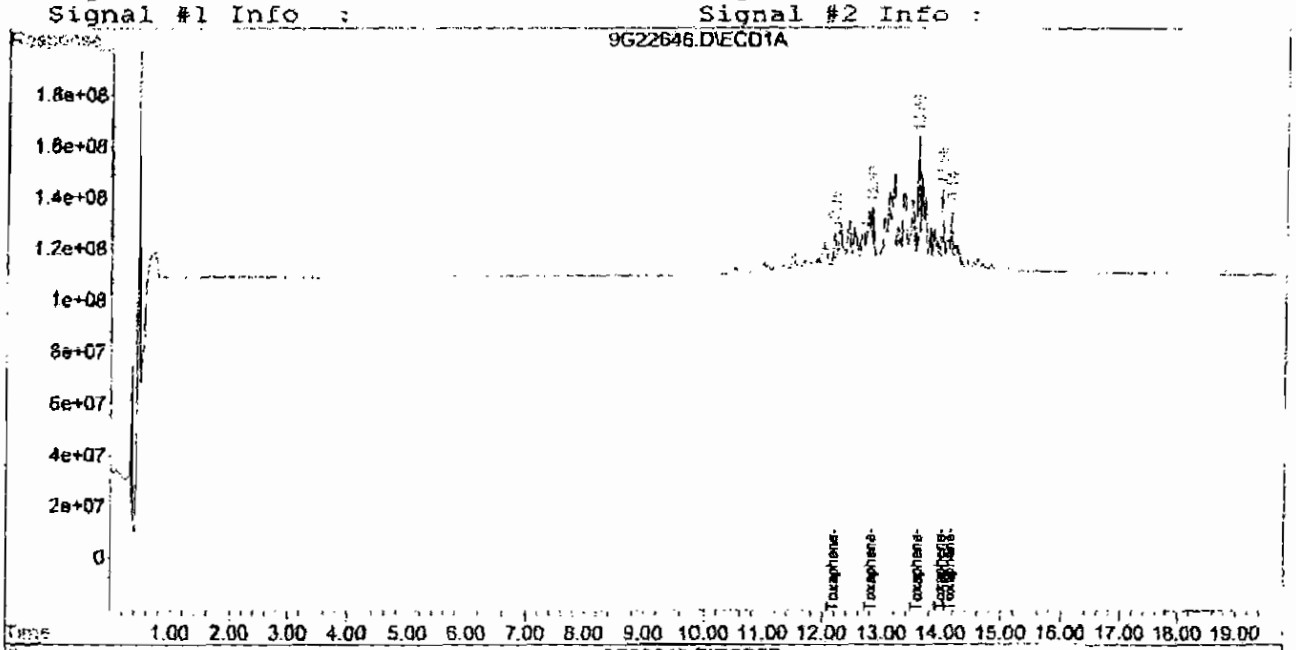
	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	Target Compounds						
1)	L1 Toxaphene-1	12.18	13.21	224.8E6	205.0E6	517.888	467.339
2)	L1 Toxaphene-2	12.81	13.94	232.8E6	584.7E6	459.399	436.330
3)	L1 Toxaphene-3	13.58	14.22	767.1E6	391.2E6	515.710	474.407
4)	L1 Toxaphene-4	13.98	14.80	545.2E6	283.0E6	491.962	475.290
5)	L1 Toxaphene-5	14.14	15.16	231.6E6	278.4E6	450.116	478.512
	Sum Toxaphene-1			2001.4E6	1742.4E6	2435.075	2331.878
Average	Toxaphene-1					487.015	466.376

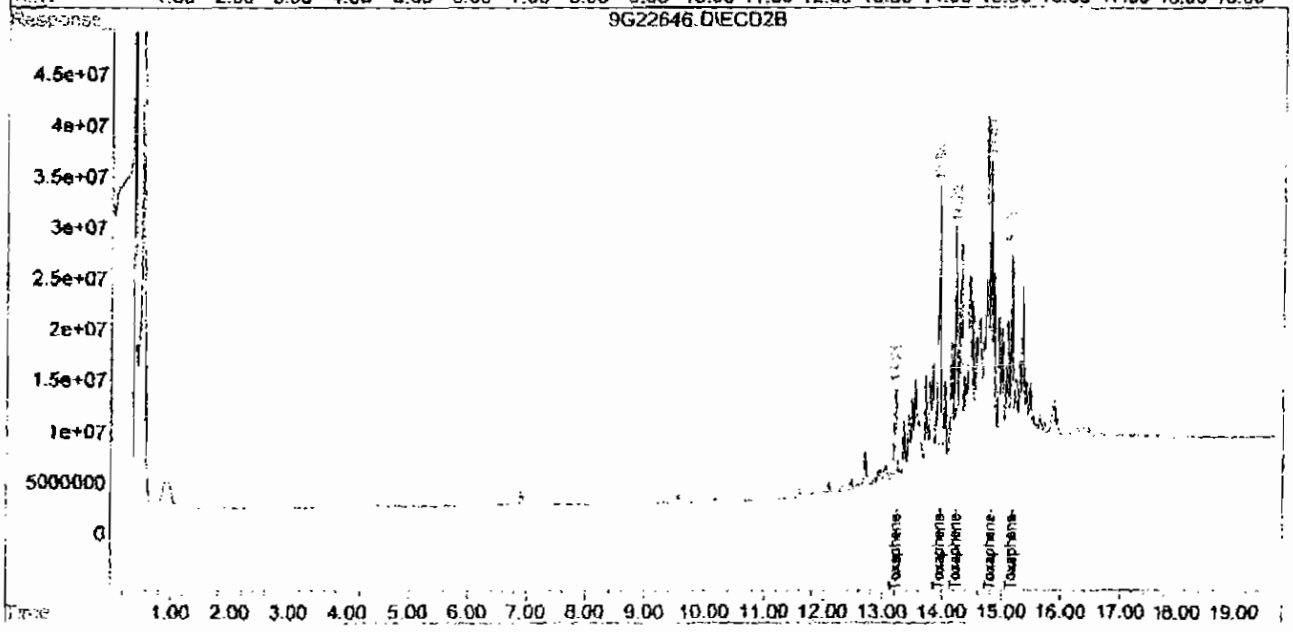
Data File : C:\HPCHEM\1\DATA\031903\9G22646.D\ECD1A.CH Vial: 3
Acq On : 19 Mar 2003 10:51 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\031903\9G22646.D\ECD2B.CH Vial: 3
Acq On : 19 Mar 2003 11:15 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 19 11:51 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION Februay 7, 2003 @ 1358
Last Update : Wed Mar 19 11:51:28 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\031903\9G22656.D\ECD1A.CH Vial: 13
Acq On : 19 Mar 2003 15:33 Operator: ECL
Sample : WG136550-02 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22656.D\ECD2B.CH Vial: 13
Acq On : 19 Mar 2003 15:58 Operator: ECL
Sample : WG136550-02 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Thu Mar 20 09:32:56 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	50.000	49.583	0.8	99	0.00
2		alpha-BHC	50.000	50.793	-1.6	98	0.00
3		gamma-BHC	50.000	49.687	0.6	99	0.00
4		beta-BHC	50.000	47.375	5.3	95	0.00
5		Heptachlor	50.000	48.636	2.7	97	0.00
6		delta-BHC	50.000	49.826	0.3	96	-0.01#
7		Aldrin	50.000	50.257	-0.5	99	-0.01#
8		Heptachlor Epoxide	50.000	49.725	0.5	101	-0.01#
9		gamma-Chlordane	50.000	48.316	3.4	96	-0.01#
10		alpha-Chlordane	50.000	49.163	1.7	100	0.00
11		Endosulfan I	50.000	48.337	3.3	97	0.00
12		4,4'-DDE	50.000	50.897	-1.8	100	0.00
13		Dieldrin	50.000	50.066	-0.1	101	-0.01#
14		Endrin	50.000	45.333	9.3	90	-0.01#
15		4,4'-DDD	50.000	50.621	-1.2	100	-0.01#
16		Endosulfan II	50.000	47.986	4.0	97	-0.01#
17		4,4'-DDT	50.000	46.774	6.5	93	0.00
18		Endrin Aldehyde	50.000	48.050	3.9	99	-0.01#
19		Endosulfan Sulfate	50.000	46.699	6.6	96	0.00
20		Methoxychlor	50.000	44.593	10.8	91	0.00
21		Endrin Ketone	50.000	48.592	2.8	99	0.00
22	S	Decachlorobiphenyl	50.000	48.817	2.4	103	0.00
		Signal #2					
1	S	2,4,5,6-Tetrachloro-M-Xyl	50.000	47.668	4.7	93	0.00
2		alpha-BHC	50.000	49.670	0.7	93	0.00
3		gamma-BHC	50.000	48.256	3.5	91	0.00
4		beta-BHC	50.000	46.994	6.0	94	0.00
5		Heptachlor	50.000	53.931	-7.9	104	0.00
6		delta-BHC	50.000	49.804	0.4	94	0.00
7		Aldrin	50.000	48.844	2.3	92	-0.01#
8		Heptachlor Epoxide	50.000	49.082	1.8	95	-0.01#
9		gamma-Chlordane	50.000	48.368	3.3	93	0.00
10		alpha-Chlordane	50.000	48.771	2.5	95	0.00
11		Endosulfan I	50.000	49.619	0.8	96	0.00
12		4,4'-DDE	50.000	50.646	-1.3	95	0.00
13		Dieldrin	50.000	50.006	-0.0	95	0.00
14		Endrin	50.000	49.472	1.1	95	0.00
15		4,4'-DDD	50.000	50.591	-1.2	97	0.00
16		Endosulfan II	50.000	49.867	0.3	97	0.00
17		4,4'-DDT	50.000	49.637	0.7	95	0.00
18		Endrin Aldehyde	50.000	48.435	3.1	96	0.00
19		Endosulfan Sulfate	50.000	49.958	0.1	99	0.00
20		Methoxychlor	50.000	48.602	2.8	97	0.00
21		Endrin Ketone	50.000	49.182	1.6	97	0.00
22	S	Decachlorobiphenyl	50.000	47.229	5.5	97	-0.02#

(#) = Out of Range SPCC's out = 0 CCC's out = 0
9G22656.D 8081.M Thu Mar 20 09:33:33 2003 Page 1

Data File : C:\HPCHEM\1\DATA\031903\9G22656.D\ECD1A.CH Vial: 13
Acq On : 19 Mar 2003 15:33 Operator: ECL
Sample : WG136550-02 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22656.D\ECD2B.CH Vial: 13
Acq On : 19 Mar 2003 15:58 Operator: ECL
Sample : WG136550-02 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 20 9:33 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Thu Mar 20 09:32:56 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.41	8.42	3804.0E6	2391.4E6	49.583	47.668
	Spiked Amount 20.000	Range 30 - 132			Recovery =	247.91%#	238.34%#
22)	S Decachlorobiphen	15.01	16.36f	2066.6E6	1666.0E6	48.817	47.229
	Spiked Amount 20.000	Range 36 - 144			Recovery =	244.09%#	236.15%#
	Target Compounds						
2)	alpha-BHC	8.42	9.56	5460.9E6	3511.0E6	50.793	49.670
3)	gamma-BHC	8.96	10.18	5020.4E6	3072.8E6	49.687	48.256
4)	beta-BHC	9.10	10.31	2050.3E6	1324.6E6	47.375	46.994
5)	Heptachlor	9.76	10.92	4670.5E6	2548.9E6	48.636	53.931
6)	delta-BHC	9.39	10.80	4841.7E6	3081.1E6	49.826	49.804
7)	Aldrin	10.23	11.44	4441.3E6	2724.2E6	50.257	48.844
8)	Heptachlor Epoxi	11.13	12.32	3834.1E6	2435.3E6	49.725	49.082
9)	gamma-Chlordane	11.32	12.59	3792.2E6	2364.6E6	48.316	48.368
10)	alpha-Chlordane	11.51	12.79	3586.3E6	2222.5E6	49.163	48.771
11)	Endosulfan I	11.69	12.88	3564.5E6	2208.3E6	48.337	49.619
12)	4,4'-DDE	11.64	12.99	3450.8E6	2185.5E6	50.897	50.646
13)	Dieldrin	12.04	13.23	3698.0E6	2338.2E6	50.066	50.006
14)	Endrin	12.36	13.61	3105.5E6	1998.7E6	45.333	49.472
15)	4,4'-DDD	12.47	13.69	2831.4E6	1757.1E6	50.621	50.591
16)	Endosulfan II	12.66	13.84	2944.8E6	1951.6E6	47.986	49.867
17)	4,4'-DDT	12.84	14.04	2556.9E6	1776.3E6	46.774	49.637
18)	Endrin Aldehyde	13.17	14.20	2201.0E6	1439.8E6	48.050	48.435
19)	Endosulfan Sulfa	13.66	14.49	2293.5E6	1705.9E6	46.699	49.958
20)	Methoxychlor	13.43	14.71	1167.0E6	873.3E6	44.593	48.602
21)	Endrin Ketone	13.97	15.04	2785.1E6	2013.0E6	48.592	49.182

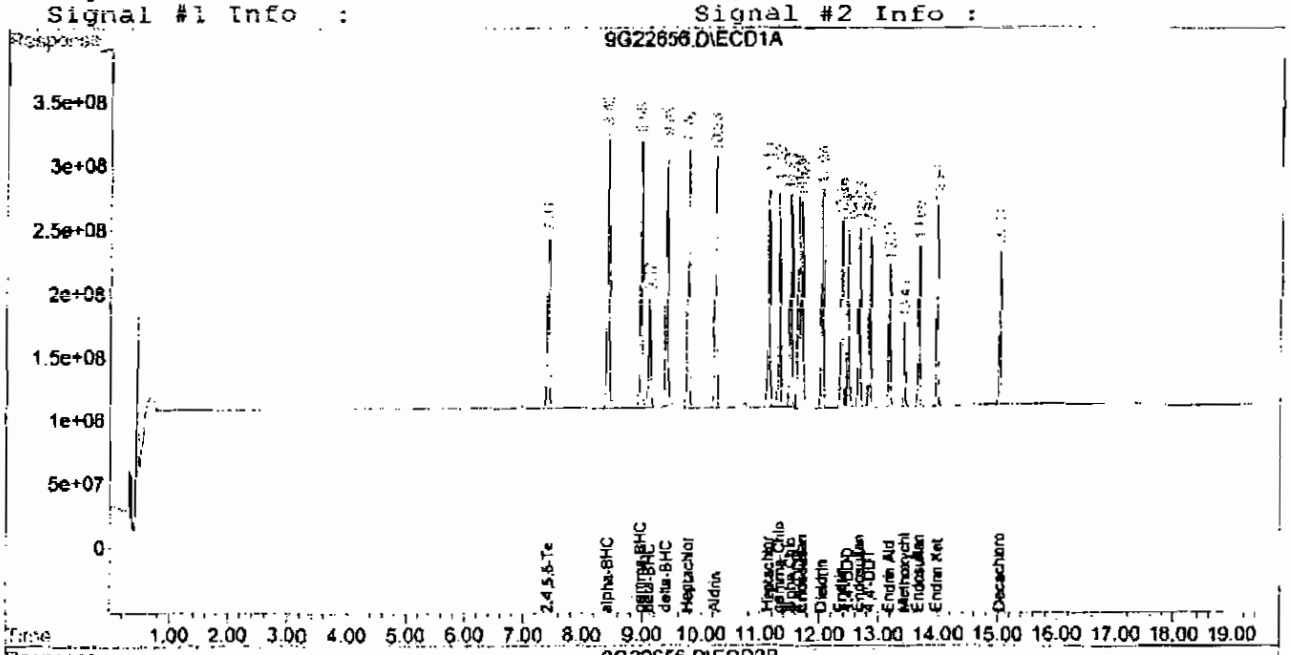
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

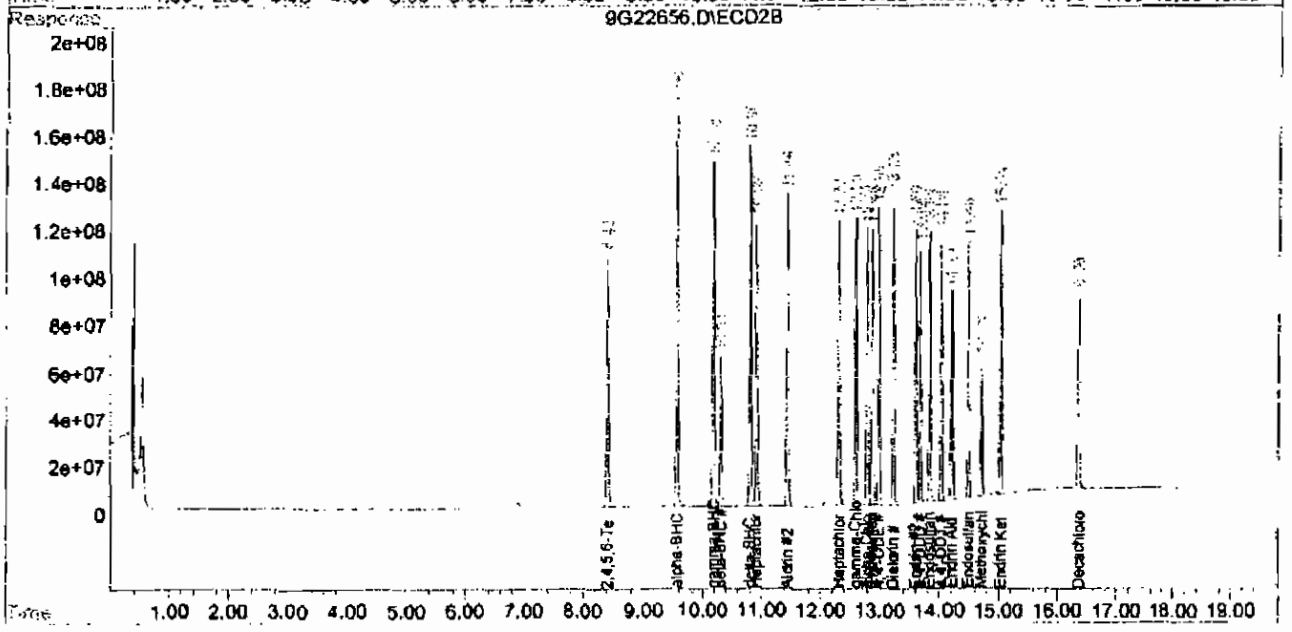
Data File : C:\HPCHEM\1\DATA\031903\9G22656.D\ECD1A.CH Vial: 13
Acq On : 19 Mar 2003 15:33 Operator: ECL
Sample : WG136550-02 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22656.D\ECD2B.CH Vial: 13
Acq On : 19 Mar 2003 15:58 Operator: ECL
Sample : WG136550-02 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 20 9:33 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Thu Mar 20 09:32:56 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\031903\9G22657.D\ECD1A.CH Vial: 14
Acq On : 19 Mar 2003 15:58 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\031903\9G22657.D\ECD2B.CH Vial: 14
Acq On : 19 Mar 2003 16:22 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1358
Last Update : Wed Mar 19 11:51:28 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	Toxaphene-1	250.000	237.033	5.2	97	0.00
2	L1	Toxaphene-2	250.000	232.726	6.9	84	0.00
3	L1	Toxaphene-3	250.000	246.922	1.2	97	0.00
4	L1	Toxaphene-4	250.000	235.015	6.0	95	0.00
5	L1	Toxaphene-5	250.000	215.300	13.9	89	0.00
		Signal #2					
1	L1	Toxaphene-1	250.000	232.111	7.2	97	-0.02
2	L1	Toxaphene-2	250.000	218.438	12.6	91	-0.02
3	L1	Toxaphene-3	250.000	226.452	9.4	98	-0.02
4	L1	Toxaphene-4	250.000	232.428	7.0	102	-0.01
5	L1	Toxaphene-5	250.000	236.583	5.4	100	-0.02

Data File : C:\HPCHEM\1\DATA\031903\9G22657.D\ECD1A.CH Vial: 14
Acq On : 19 Mar 2003 15:58 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\031903\9G22657.D\ECD2B.CH Vial: 14
Acq On : 19 Mar 2003 16:22 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 20 9:27 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1358
Last Update : Wed Mar 19 11:51:28 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	Target Compounds						
1)	L1 Toxaphene-1	12.18	13.20	102.9E6	101.8E6	237.033	232.111
2)	L1 Toxaphene-2	12.81	13.93	117.9E6	292.7E6	232.726	218.438
3)	L1 Toxaphene-3	13.58	14.21	367.3E6	186.7E6	246.922	226.452
4)	L1 Toxaphene-4	13.98	14.79	260.4E6	138.4E6	235.015	232.428
5)	L1 Toxaphene-5	14.14	15.14	110.8E6	137.6E6	215.300	236.583
	Sum Toxaphene-1			959.3E6	857.4E6	1166.996	1146.012
Average	Toxaphene-1					233.399	229.202

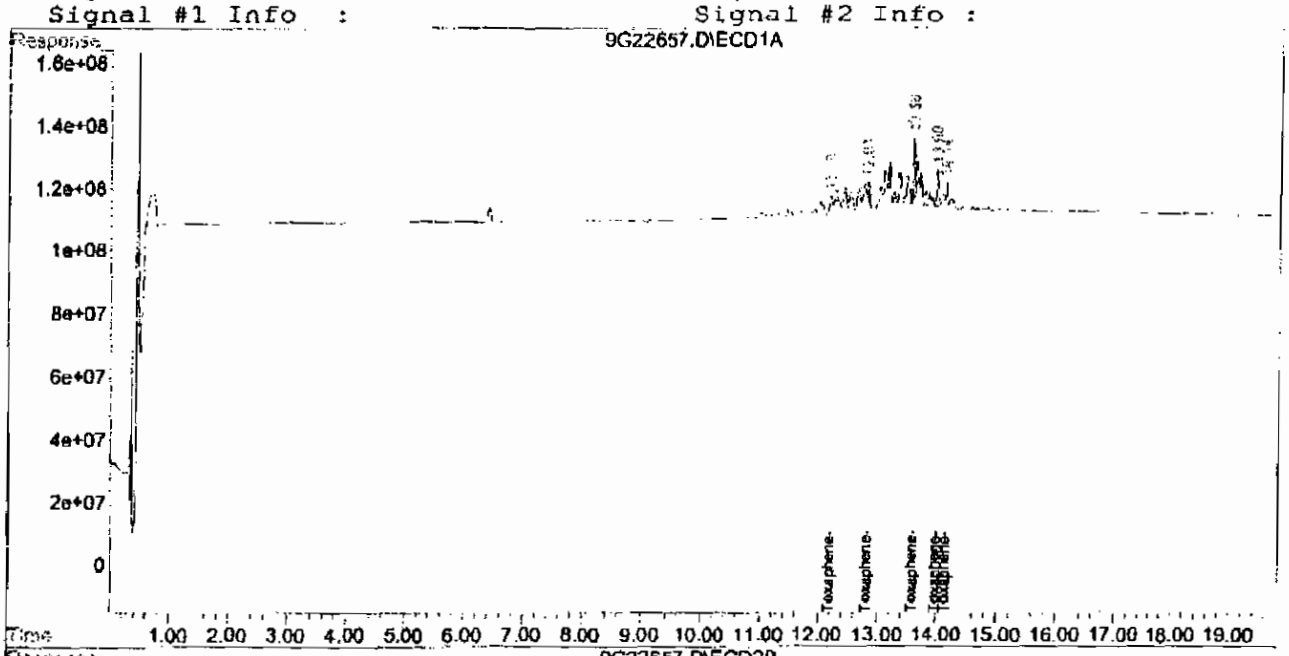
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

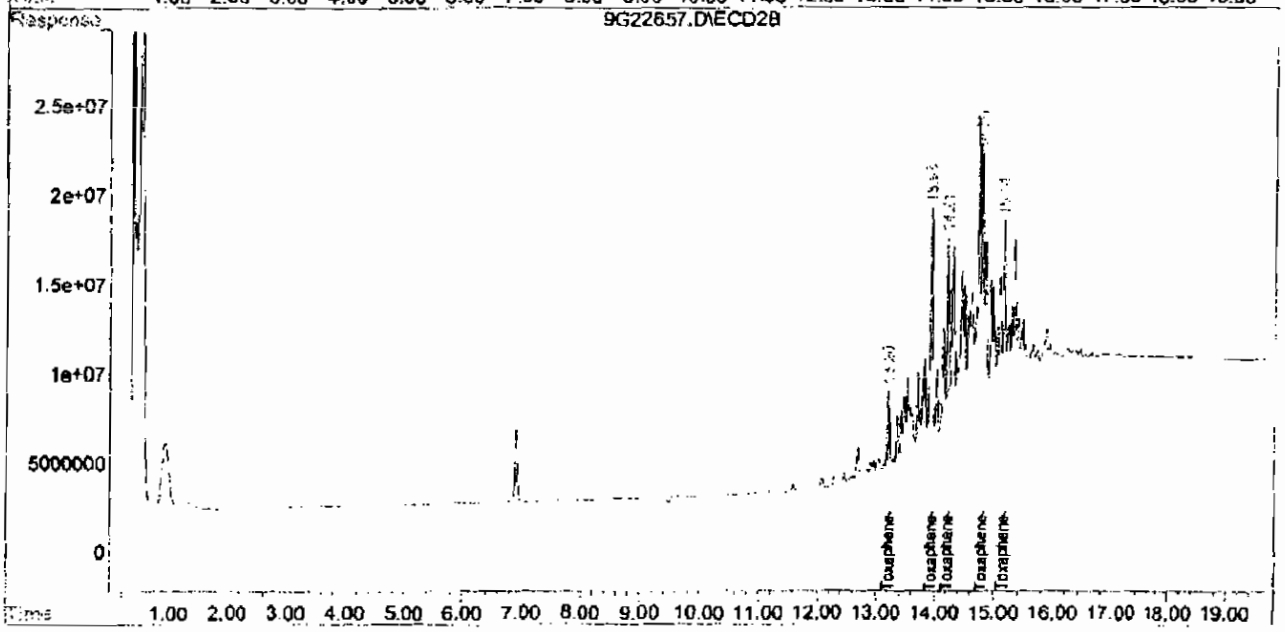
Data File : C:\HPCHEM\1\DATA\031903\9G22657.D\ECD1A.CH Vial: 14
Acq On : 19 Mar 2003 15:58 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\031903\9G22657.D\ECD2B.CH Vial: 14
Acq On : 19 Mar 2003 16:22 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 20 9:27 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1358
Last Update : Wed Mar 19 11:51:28 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

Instrument ID: HP 9

GC Column: RTx-CLP (Front)

	STANDARD #1	STANDARD #2	STANDARD #3
Date Run	7/3/02	7/4/02	7/8/02
File #	9G20336	9G20361	9G20364

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
alpha-BHC	9.08	9.06	9.06	0.035
gamma-BHC	9.62	9.61	9.60	0.030
beta-BHC	9.76	9.75	9.74	0.030
Heptachlor	10.41	10.40	10.39	0.030
delta-BHC	10.05	10.04	10.04	0.017
Aldrin	10.89	10.87	10.87	0.035
Heptachlor Epoxide	11.80	11.78	11.78	0.035
gamma-Chlordane	11.98	11.97	11.96	0.030
alpha-Chlordane	12.18	12.16	12.16	0.035
Endosulfan I	12.37	12.36	12.36	0.017
4,4'-DDE	12.28	12.27	12.27	0.017
Dieldrin	12.70	12.69	12.69	0.017
Endrin	13.00	12.99	12.99	0.017
4,4'-DDD	13.07	13.06	13.06	0.017
Endosulfan II	13.27	13.26	13.26	0.017
4,4'-DDT	13.41	13.4	13.4	0.017
Endrin Aldehyde	13.76	13.75	13.75	0.017
Endosulfan Sulfate	14.23	14.22	14.22	0.017
Methoxychlor	13.95	13.94	13.94	0.017
Endrin Ketone	14.52	14.52	14.51	0.017

RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

Instrument ID: HP 9
GC Column: RTx-CLP II (Rear)

	STANDARD #1	STANDARD #2	STANDARD #3
Date Run	7/3/02	7/4/02	7/8/02
File #	9G20336	9G20361	9G20364

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
alpha-BHC	9.18	9.17	9.17	0.017
gamma-BHC	9.8	9.79	9.79	0.017
beta-BHC	9.95	9.94	9.95	0.017
Heptachlor	10.51	10.51	10.51	0.000
delta-BHC	10.44	10.43	10.43	0.017
Aldrin	11.03	11.02	11.02	0.017
Heptachlor Epoxide	11.92	11.91	11.91	0.017
gamma-Chlordane	12.2	12.19	12.19	0.017
alpha-Chlordane	12.41	12.40	12.40	0.017
Endosulfan I	12.51	12.49	12.50	0.030
4,4'-DDE	12.63	12.62	12.62	0.017
Dieldrin	12.88	12.87	12.87	0.017
Endrin	13.27	13.26	13.26	0.017
4,4'-DDD	13.37	13.36	13.36	0.017
Endosulfan II	13.52	13.51	13.52	0.017
4,4'-DDT	13.73	13.72	13.72	0.017
Endrin Aldehyde	13.9	13.89	13.9	0.017
Endosulfan Sulfate	14.19	14.18	14.19	0.017
Methoxychlor	14.43	14.42	14.43	0.017
Endrin Ketone	14.74	14.73	14.73	0.017

2.2.2.4 Raw QC Data

4,4'-DDT / ENDRIN BREAKDOWN

INSTRUMENT: HP 9

COLUMN: RTx-CLP (FRONT)

Data File Name: 9G22297.D

ENDRIN	ENDRIN KETONE	ENDRIN ALDEHYDE	ENDRIN BREAKDOWN
3298618999	141240946	0	4.11

4,4'-DDT	4,4'-DDE	4,4'-DDD	4,4'-DDT BREAKDOWN
2357327743	0	119239576	4.81

COLUMN: RTx-CLP II (REAR)

Data File Name: 9G22297.D

ENDRIN #2	ENDRIN KETONE #2	ENDRIN ALDEHYDE #2	ENDRIN #2 BREAKDOWN
2146468076	54924470	0	2.49

4,4'-DDT #2	4,4'-DDE #2	4,4'-DDD #2	4,4'-DDT #2 BREAKDOWN
1632553026	0	0	0.00

Data File : C:\HPCHEM\1\DATA\020703\9G22297.D\ECD1A.CH Vial: 1
Acq On : 7 Feb 2003 11:57 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS58-31 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\020703\9G22297.D\ECD2B.CH Vial: 1
Acq On : 7 Feb 2003 12:21 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS58-31 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 10 10:46 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:46:10 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L	
	System Monitoring Compounds							
1)	S 2,4,5,6-Tetrachl	0.00	0.00	0	0	N.D.	N.D.	
	Spiked Amount 20.000	Range	30 - 132	Recovery	=	0.00%#	0.00%#	
22)	S Decachlorobiphen	0.00	0.00	0	0	N.D.	N.D.	
	Spiked Amount 20.000	Range	36 - 144	Recovery	=	0.00%#	0.00%#	
	Target Compounds							
2)	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.	
3)	gamma-BHC	0.00	0.00	0	0	N.D.	N.D.	
4)	beta-BHC	0.00	0.00	0	0	N.D.	N.D.	
5)	Heptachlor	0.00	0.00	0	0	N.D.	N.D.	
6)	delta-BHC	0.00	0.00	0	0	N.D.	N.D.	
7)	Aldrin	0.00	0.00	0	0	N.D.	N.D.	
8)	Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.	
9)	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
10)	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
11)	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.	
13)	Dieldrin	0.00	0.00	0	0	N.D.	N.D.	
14)	Endrin	12.39	13.64	3298.6E6	2146.5E6	48.153	53.129	
15)	4,4'-DDD	12.50	0.00	119.2E6	0	2.132	N.D.	#
16)	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.	
17)	4,4'-DDT	12.87	14.07	2357.3E6	1632.6E6	43.122	45.619	
18)	Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.	
19)	Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.	
20)	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.	
21)	Endrin Ketone	14.00	15.07	141.2E6	54924470	2.464	1.342	#

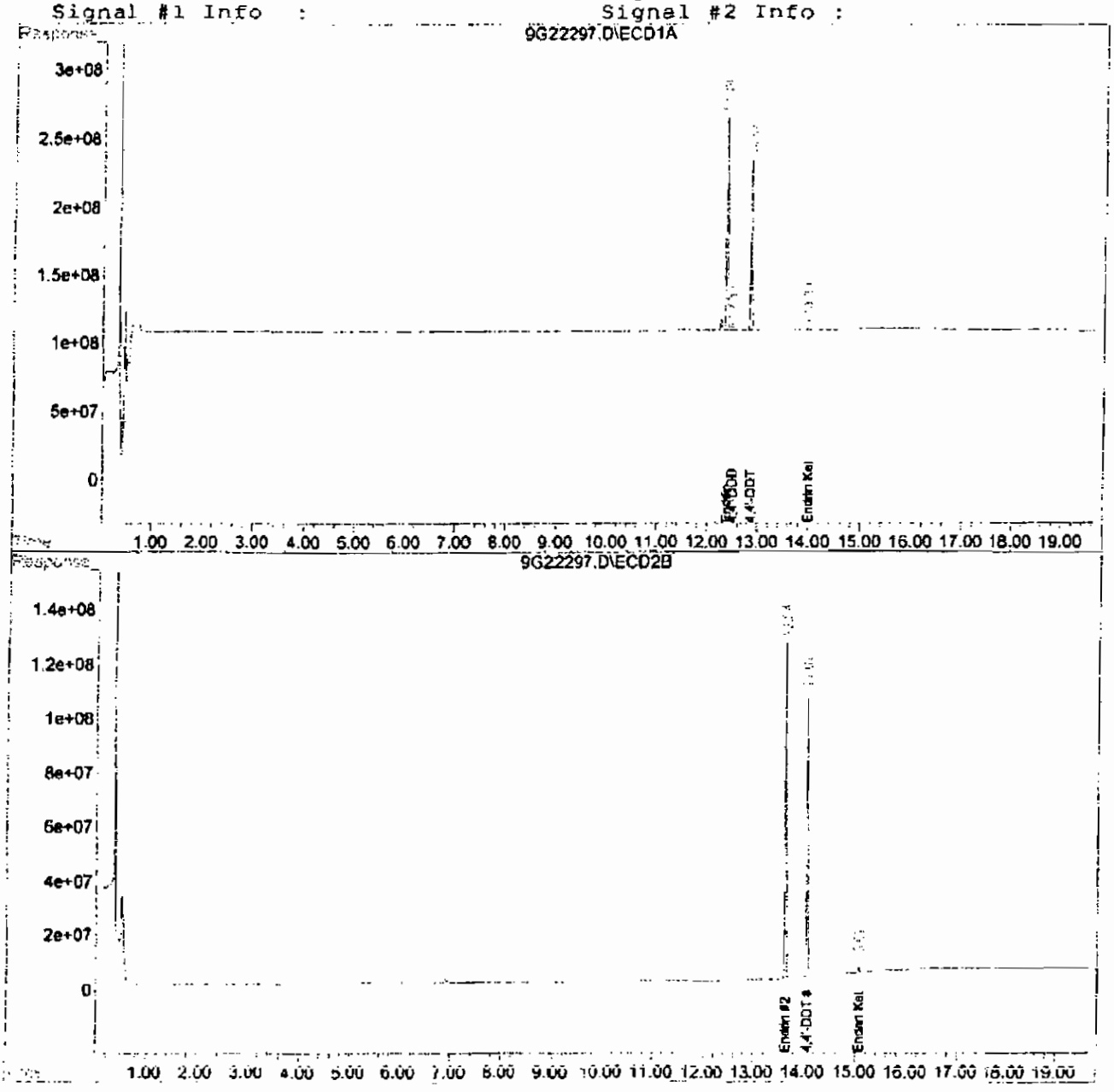
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\020703\9G22297.D\ECD1A.CH Vial: 1
Acq On : 7 Feb 2003 11:57 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS58-31 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\020703\9G22297.D\ECD2B.CH Vial: 1
Acq On : 7 Feb 2003 12:21 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS58-31 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 10 10:46 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Mon Feb 10 10:46:10 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



4,4'-DDT / ENDRIN BREAKDOWN

INSTRUMENT: HP 9

COLUMN: RTx-CLP (FRONT)

Data File Name: 9G22644.D

ENDRIN	ENDRIN KETONE	ENDRIN ALDEHYDE	ENDRIN BREAKDOWN
3620728040	310527701	190620312	12.16

4,4'-DDT	4,4'-DDE	4,4'-DDD	4,4'-DDT BREAKDOWN
2497660895	0	293813244	10.53

COLUMN: RTx-CLP II (REAR)

Data File Name: 9G22644.D

ENDRIN #2	ENDRIN KETONE #2	ENDRIN ALDEHYDE #2	ENDRIN #2 BREAKDOWN
2019077784	101753356	0	4.80

4,4'-DDT #2	4,4'-DDE #2	4,4'-DDD #2	4,4'-DDT #2 BREAKDOWN
1482114871	0	62019678	4.02

Data File : C:\HPCHEM\1\DATA\031903\9G22644.D\ECD1A.CH Vial: 1
Acq On : 19 Mar 2003 10:02 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22644.D\ECD2B.CH Vial: 1
Acq On : 19 Mar 2003 10:27 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 19 11:13 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Wed Mar 19 11:13:42 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

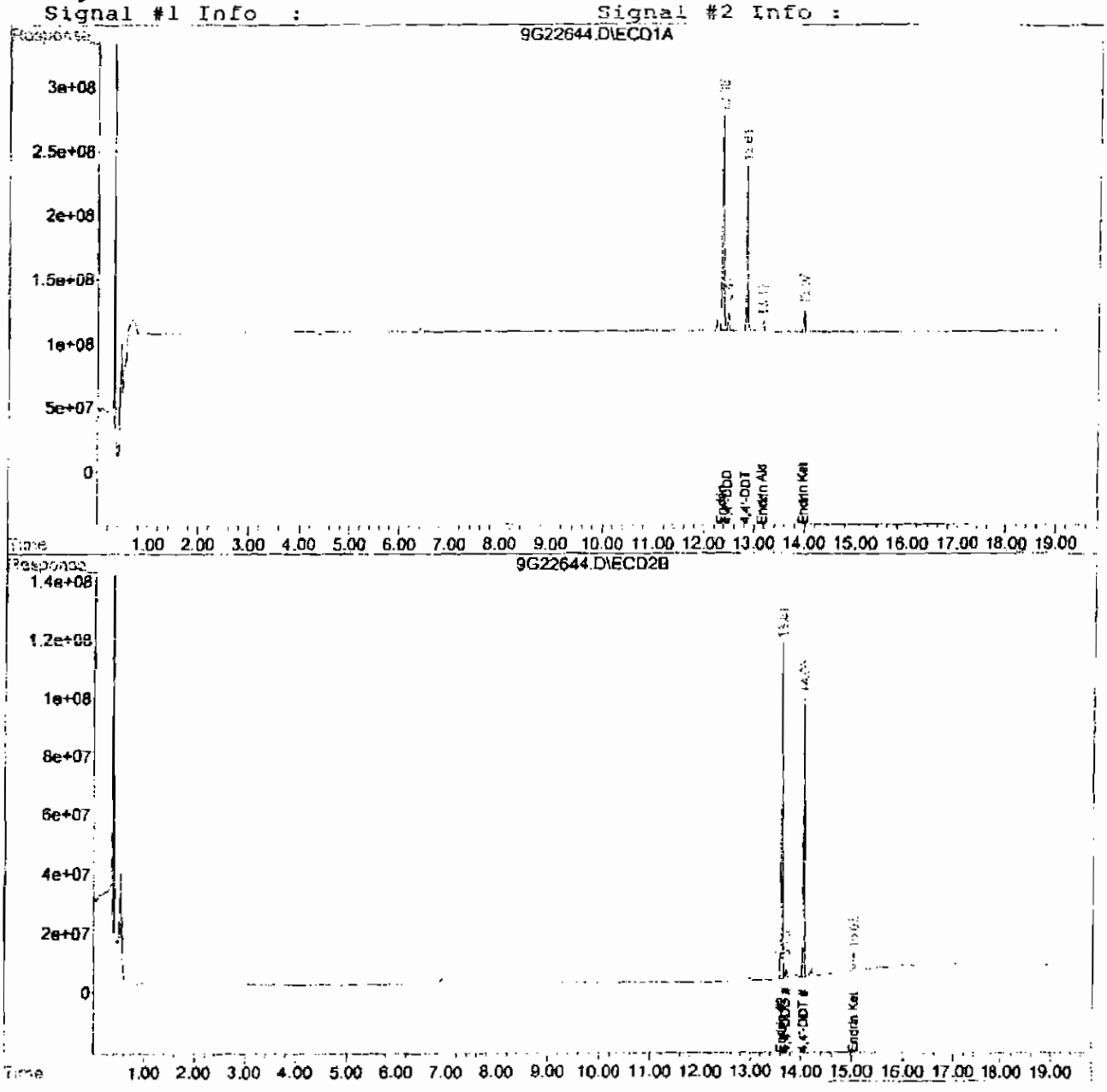
	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L	
	System Monitoring Compounds							
1) S	2,4,5,6-Tetrachl	0.00	0.00	0	0	N.D.	N.D.	
Spiked Amount	20.000	Range	30 - 132	Recovery	=	0.00%#	0.00%#	
22) S	Decachlorobiphen	0.00	0.00	0	0	N.D.	N.D.	
Spiked Amount	20.000	Range	36 - 144	Recovery	=	0.00%#	0.00%#	
	Target Compounds							
2)	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.	
3)	gamma-BHC	0.00	0.00	0	0	N.D.	N.D.	
4)	beta-BHC	0.00	0.00	0	0	N.D.	N.D.	
5)	Heptachlor	0.00	0.00	0	0	N.D.	N.D.	
6)	delta-BHC	0.00	0.00	0	0	N.D.	N.D.	
7)	Aldrin	0.00	0.00	0	0	N.D.	N.D.	
8)	Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.	
9)	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
10)	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
11)	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.	
13)	Dieldrin	0.00	0.00	0	0	N.D.	N.D.	
14)	Endrin	12.36	13.62	3620.7E6	2019.1E6	52.855	49.976	
15)	4,4'-DDD	12.47	13.70	293.8E6	62019678	5.253	1.786	#
16)	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.	
17)	4,4'-DDT	12.84	14.05	2497.7E6	1482.1E6	45.689	41.416	
18)	Endrin Aldehyde	13.17	0.00	190.6E6	0	4.161	N.D.	#
19)	Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.	
20)	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.	
21)	Endrin Ketone	13.97	15.05	310.5E6	101.8E6	5.418	2.486	#

Data File : C:\HPCHEM\1\DATA\031903\9G22644.D\ECD1A.CH Vial: 1
Acq On : 19 Mar 2003 10:02 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22644.D\ECD2B.CH Vial: 1
Acq On : 19 Mar 2003 10:27 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS61-06 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 19 11:13 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Wed Mar 19 11:13:42 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\031903\9G22652.D\ECD1A.CH Vial: 9
Acq On : 19 Mar 2003 13:57 Operator: ECL
Sample : WG136479-01 BLANK V200 P91 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22652.D\ECD2B.CH Vial: 9
Acq On : 19 Mar 2003 14:21 Operator: ECL
Sample : WG136479-01 BLANK V200 P91 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 20 9:36 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Thu Mar 20 09:32:56 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.40	8.41	1003.5E6	600.8E6	13.080	11.976
	Spiked Amount 20.000	Range 30 - 132		Recovery =		65.40%	59.88%
22)	S Decachlorobiphen	15.02	16.37	995.4E6	794.9E6	23.513	22.533
	Spiked Amount 20.000	Range 36 - 144		Recovery =		117.57%	112.67%
	Target Compounds						
2)	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
3)	gamma-BHC	0.00	0.00	0	0	N.D.	N.D.
4)	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
5)	Heptachlor	0.00	0.00	0	0	N.D.	N.D.
6)	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	Aldrin	0.00	0.00	0	0	N.D.	N.D.
8)	Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.
9)	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
10)	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
12)	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	Endrin	0.00	0.00	0	0	N.D.	N.D.
15)	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
16)	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
17)	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.
18)	Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
19)	Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.
20)	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

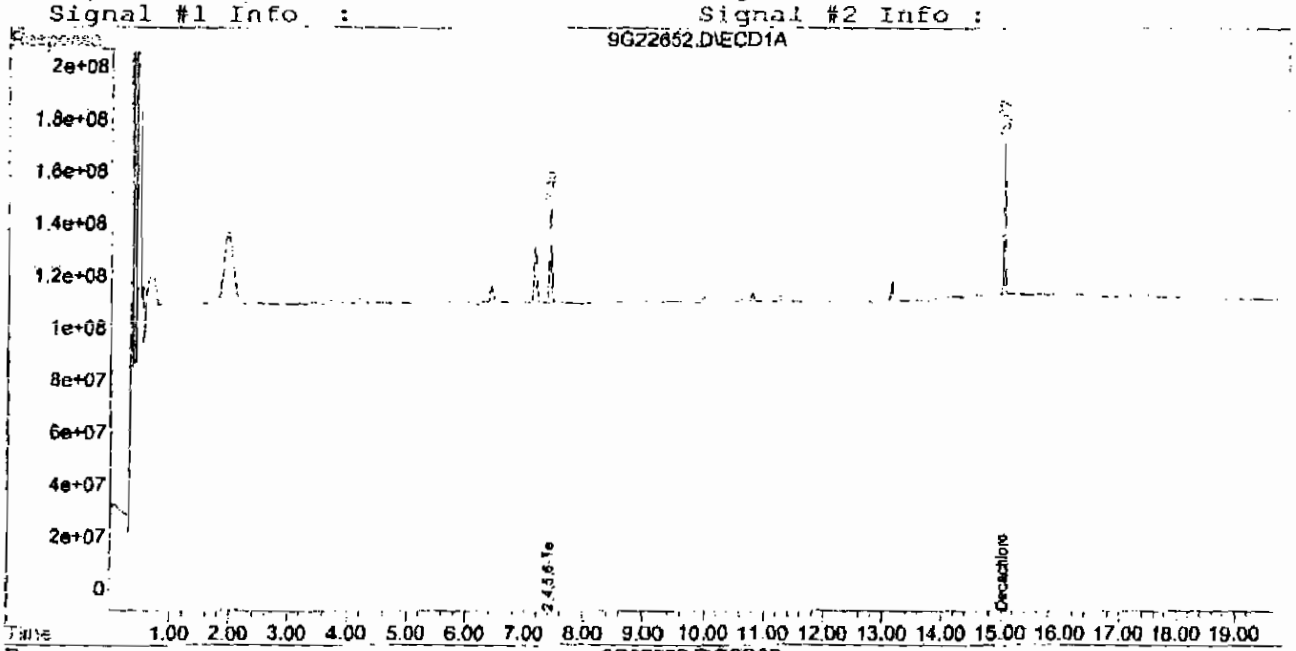
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

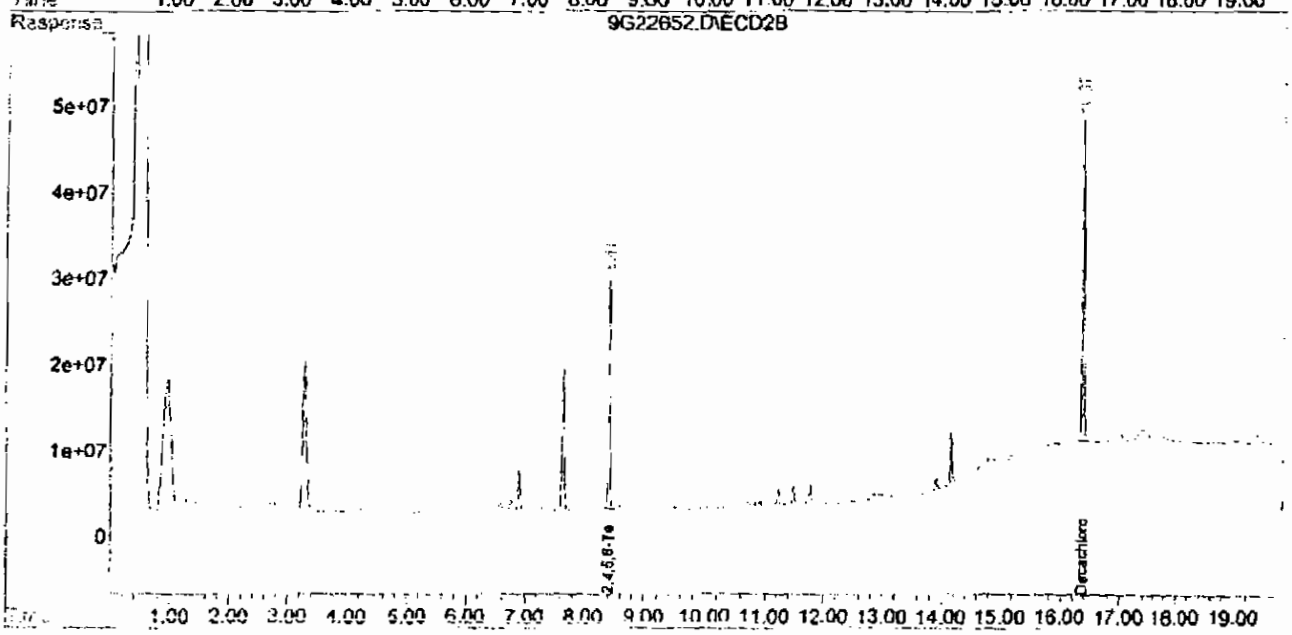
Data File : C:\HPCHEM\1\DATA\031903\9G22652.D\ECD1A.CH Vial: 9
Acq On : 19 Mar 2003 13:57 Operator: ECL
Sample : WG136479-01 BLANK V200 P91 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22652.D\ECD2B.CH Vial: 9
Acq On : 19 Mar 2003 14:21 Operator: ECL
Sample : WG136479-01 BLANK V200 P91 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 20 9:36 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Thu Mar 20 09:32:56 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\031903\9G22653.D\ECD1A.CH Vial: 10
Acq On : 19 Mar 2003 14:21 Operator: ECL
Sample : WG136479-02 LCS V200 P91 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22653.D\ECD2B.CH Vial: 10
Acq On : 19 Mar 2003 14:45 Operator: ECL
Sample : WG136479-02 LCS V200 P91 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 20 9:36 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Thu Mar 20 09:32:56 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.41	8.41	1089.6E6	678.2E6	14.202	13.518
	Spiked Amount 20.000	Range 30 - 132		Recovery =		71.01%	67.59%
22)	S Decachlorobiphen	15.02	16.36f	1016.6E6	801.2E6	24.013	22.713
	Spiked Amount 20.000	Range 36 - 144		Recovery =		120.07%	113.57%
	Target Compounds						
2)	alpha-BHC	8.42	9.55	4530.9E6	2922.9E6	42.143	41.350
3)	gamma-BHC	8.96	10.17f	4573.6E6	2824.9E6	45.266	44.363
4)	beta-BHC	9.10	10.30f	2287.9E6	1486.7E6	52.866	52.745
5)	Heptachlor	9.76	10.91f	1050.9E6	2341.1E6	42.183	49.533
6)	delta-BHC	9.39	10.79f	5399.1E6	3549.0E6	55.561	57.367
7)	Aldrin	10.23	11.43f	3864.4E6	2389.0E6	43.729	42.835
8)	Heptachlor Epoxi	11.12f	12.31f	4155.7E6	2653.4E6	53.896	53.479
9)	gamma-Chlordane	11.31f	12.58f	4394.3E6	2681.5E6	55.987	54.850
10)	alpha-Chlordane	11.51	12.78	4129.7E6	2504.2E6	56.612	54.954
11)	Endosulfan I	11.69	12.87	2603.6E6	1557.2E6	35.307	34.989
12)	4,4'-DDE	11.64	12.98	4201.2E6	2536.8E6	61.964	58.789
13)	Dieldrin	12.04	13.23	4373.5E6	2715.4E6	59.212	58.071
14)	Endrin	12.36	13.60	3906.3E6	2374.2E6	57.024	58.766
15)	4,4'-DDD	12.47	13.68	3464.1E6	2212.8E6	61.933	63.712
16)	Endosulfan II	12.65f	13.84	2303.1E6	1459.1E6	37.529	37.282
17)	4,4'-DDT	12.84	14.03	3358.1E6	2203.3E6	61.429	61.569
18)	Endrin Aldehyde	13.17	14.20	1733.7E6	1003.4E6	37.848	33.752
19)	Endosulfan Sulfa	13.67	14.48	1823.0E6	1261.4E6	37.117	36.943
20)	Methoxychlor	13.43	14.71	1493.4E6	1222.3E6	57.066	68.026
21)	Endrin Ketone	13.98	15.03	2534.5E6	1769.4E6	44.219	43.233

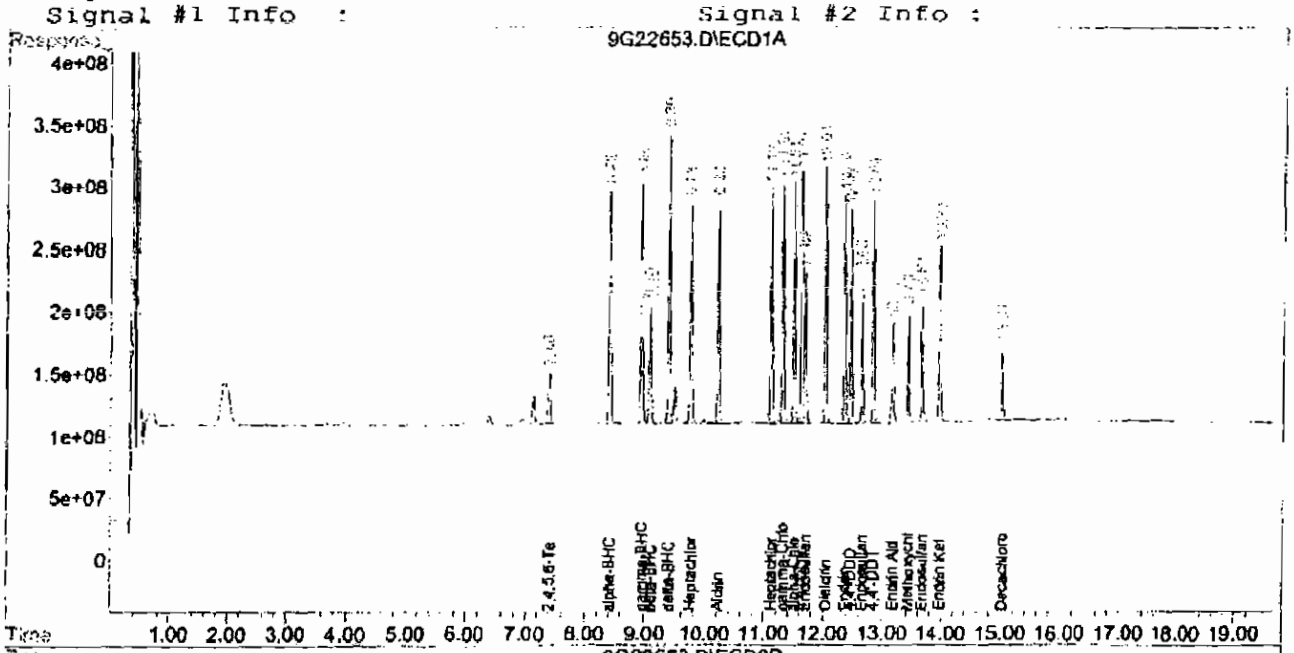
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

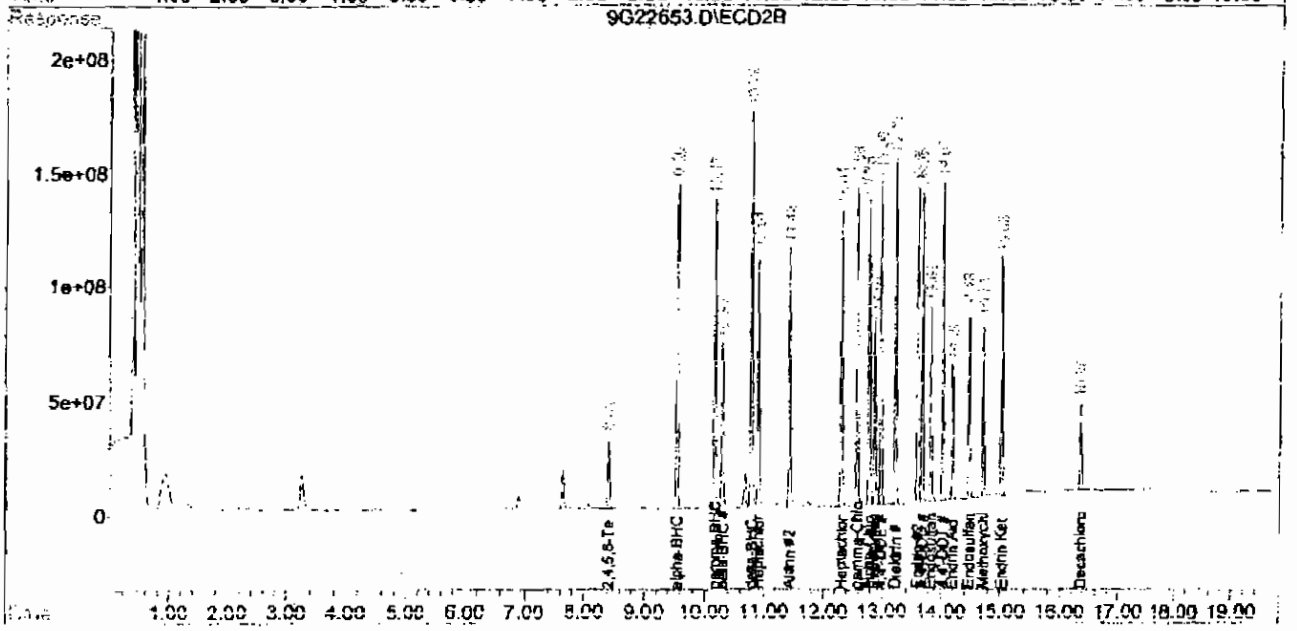
Data File : C:\HPCHEM\1\DATA\031903\9G22653.D\ECD1A.CH Vial: 10
Acq On : 19 Mar 2003 14:21 Operator: ECL
Sample : WG136479-02 LCS V200 P91 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22653.D\ECD2B.CH Vial: 10
Acq On : 19 Mar 2003 14:45 Operator: ECL
Sample : WG136479-02 LCS V200 P91 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 20 9:36 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Thu Mar 20 09:32:56 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\031903\9G22654.D\ECD1A.CH Vial: 11
Acq On : 19 Mar 2003 14:45 Operator: ECL
Sample : WG136479-03 LCS DUP V200 P91 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22654.D\ECD2B.CH Vial: 11
Acq On : 19 Mar 2003 15:09 Operator: ECL
Sample : WG136479-03 LCS DUP V200 P91 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 20 9:36 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Thu Mar 20 09:32:56 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.41	8.41	1031.4E6	636.1E6	13.444	12.680
	Spiked Amount 20.000	Range 30 - 132		Recovery =		67.22%	63.40%
22)	S Decachlorobiphen	15.01	16.37	948.4E6	746.9E6	22.402	21.173
	Spiked Amount 20.000	Range 36 - 144		Recovery =		112.01%	105.86%
	Target Compounds						
2)	alpha-BHC	8.42	9.56	4095.7E6	2617.8E6	38.094	37.035
3)	gamma-BHC	8.96	10.18	4056.7E6	2478.2E6	40.149	38.919
4)	beta-BHC	9.10	10.31	2131.7E6	1366.8E6	49.256	48.490
5)	Heptachlor	9.75	10.91	3688.5E6	2029.1E6	38.410	42.933
6)	delta-BHC	9.39	10.80	4993.1E6	3248.3E6	51.383	52.507
7)	Aldrin	10.22f	11.44f	3449.9E6	2098.5E6	39.038	37.625
8)	Heptachlor Epoxi	11.12f	12.31f	3744.8E6	2369.3E6	48.568	47.753
9)	gamma-Chlordane	11.31f	12.58	4001.3E6	2415.3E6	50.980	49.406
10)	alpha-Chlordane	11.51	12.79	3793.9E6	2269.7E6	52.008	49.809
11)	Endosulfan I	11.69	12.87	2355.5E6	1388.5E6	31.943	31.198
12)	4,4'-DDE	11.64	12.98	3824.2E6	2276.7E6	56.404	52.762
13)	Dieldrin	12.04	13.23	4051.1E6	2484.7E6	54.847	53.138
14)	Endrin	12.36	13.60	3640.9E6	2153.8E6	53.151	53.310
15)	4,4'-DDD	12.47	13.69	3301.5E6	2060.1E6	59.025	59.313
16)	Endosulfan II	12.65f	13.84	2172.8E6	1297.4E6	35.406	33.152
17)	4,4'-DDT	12.84	14.04	3155.2E6	2020.9E6	57.717	56.470
18)	Endrin Aldehyde	13.17	14.20	1577.8E6	893.1E6	34.445	30.041
19)	Endosulfan Sulfa	13.66	14.48	1726.3E6	1185.3E6	35.149	34.714
20)	Methoxychlor	13.43	14.71	1464.7E6	1137.4E6	55.971	63.302
21)	Endrin Ketone	13.97	15.04	2410.6E6	1671.1E6	42.057	40.829

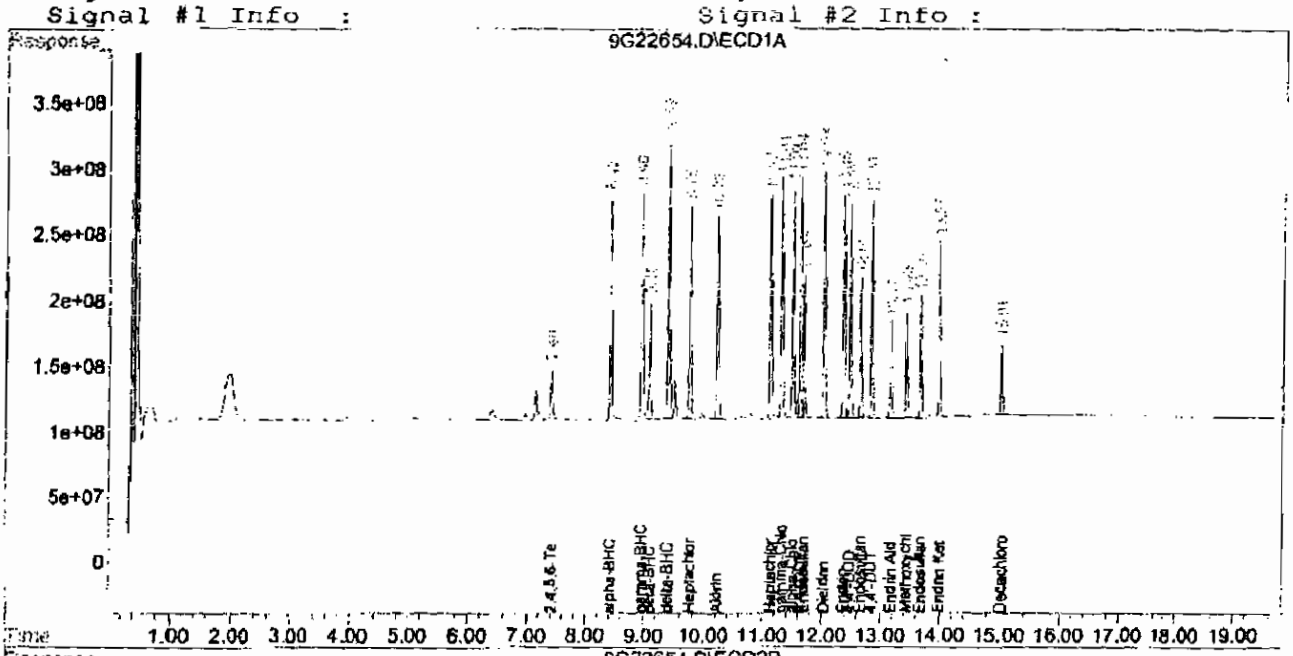
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

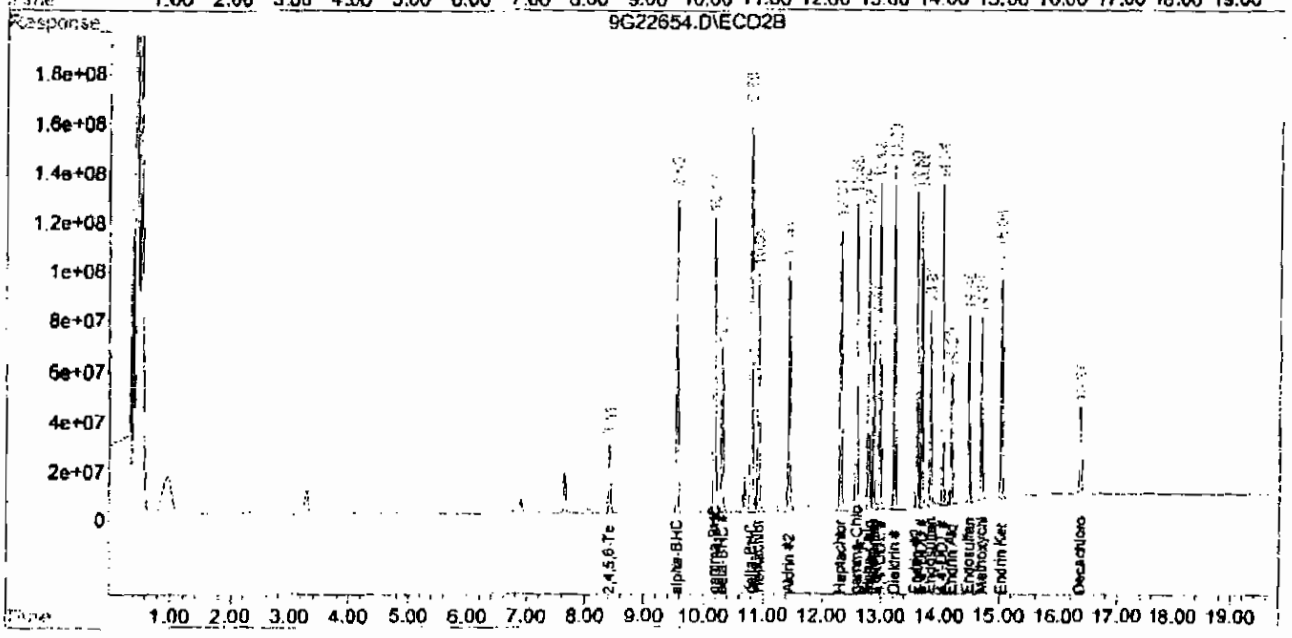
Data File : C:\HPCHEM\1\DATA\031903\9G22654.D\ECD1A.CH Vial: 11
Acq On : 19 Mar 2003 14:45 Operator: ECL
Sample : WG136479-03 LCS DUP V200 P91 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\031903\9G22654.D\ECD2B.CH Vial: 11
Acq On : 19 Mar 2003 15:09 Operator: ECL
Sample : WG136479-03 LCS DUP V200 P91 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 20 9:36 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION February 7, 2003 @ 1712
Last Update : Thu Mar 20 09:32:56 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Directory: C:\HP CHEM\1\DATA\020703

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	9g22297.d	1.	ENDRIN/DDT	SOS58-31	07 Feb 2003 11:57
2	2	9g22298.d	1.	TOX ICAL 2000 PPB	SOS62-45	07 Feb 2003 12:21
3	3	9g22299.d	1.	TOX ICAL 1000 PPB	SOS62-45	07 Feb 2003 12:45
4	4	9g22300.d	1.	TOX ICAL 500 PPB	SOS62-45	07 Feb 2003 13:10
5	5	9g22301.d	1.	TOX ICAL 250 PPB	SOS62-45	07 Feb 2003 13:34
6	6	9g22302.d	1.	TOX ICAL 100 PPB	SOS62-45	07 Feb 2003 13:58
7	7	9g22303.d	1.	TOX ALT ICV 500 PPB	SOS63-05	07 Feb 2003 14:22
8	8	9g22304.d	1.	WG134218-01 PEST ICAL 200 PPB	1,1 SOS63-32	07 Feb 2003 14:46
9	9	9g22305.d	1.	WG134218-02 PEST ICAL 100 PPB	1,1 SOS63-32	07 Feb 2003 15:10
10	10	9g22306.d	1.	WG134218-03 PEST ICAL 50 PPB	1,1 SOS63-32	07 Feb 2003 15:35
11	11	9g22307.d	1.	WG134218-04 PEST ICAL 20 PPB	1,1 SOS63-32	07 Feb 2003 15:59
12	12	9g22308.d	1.	WG134218-05 PEST ICAL 10 PPB	1,1 SOS63-32	07 Feb 2003 16:23
13	13	9g22309.d	1.	WG134218-06 PEST ICAL 4 PPB	1,1 SOS63-32	07 Feb 2003 16:48
14	14	9g22310.d	1.	WG134218-07 PEST ALT ICV 20...	1,1 SOS62-49	07 Feb 2003 17:12
15	15	9g22311.d	1.	WG134089-01 BLANK V197 P129	7,1 SOIL	07 Feb 2003 17:36
16	16	9g22312.d	1.	WG134089-02 LCS V197 P129	7,1 SOIL	07 Feb 2003 18:00
17	17	9g22313.d	1.	WG134089-03 LCS DUP V197 P129	7,1 SOIL	07 Feb 2003 18:24
18	18	9g22314.d	1.	WG134089-04 TOX LCS V197 P129	7,1 SOIL	07 Feb 2003 18:48
19	19	9g22315.d	1.	L0301584-01 RE	7,1,RE SOIL	07 Feb 2003 19:13
20	20	9g22316.d	1.	L0301632-28	7,1 SOIL	07 Feb 2003 19:37
21	21	9g22317.d	10.	L0301632-28 10x	7,10 SOIL	07 Feb 2003 20:01
22	22	9g22318.d	1.	L0301632-34	7,1 SOIL	07 Feb 2003 20:25
23	23	9g22319.d	1.	ENDRIN/DDT	SOS58-31	07 Feb 2003 20:50
24	24	9g22320.d	1.	WG134218-08 PEST CCV 20 PPB	1,1 SOS63-32	07 Feb 2003 21:14
25	25	9g22321.d	1.	TOX CCV 500 PPB	SOS62-45	07 Feb 2003 21:38

EQ 2/10/03

dlc 2/10/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 2/7/03 Instrument ID HP 9 Column ID RTx-CLP Front Data Subdirectory 020703
Analyst Initials EGL

SOP # GCS09 Rev. # 2 8081A ✓
SOP # GCS04 Rev. # ___ 8151A ___
SOP # GCS03 Rev. # ___ PRO ___
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ___
SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ___
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time 2/7/03 Instrument ID HP 9 Column ID RTx-CLP II Rear Data Subdirectory 020703

Daily Check
☑ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☐ Change liner
☐ Change septum
☐ Clip column (___cm)
☐ Injection port seal (goldseal)
☐ Change gases ___

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: ___

Action Taken: ___

Comments

Reviewed By: ___

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	9g22644.d	1.	ENDRIN/DDT	SOS64-06	19 Mar 2003 10:02
2	2	9g22645.d	1.	WG136550-01 PEST CCV 20 PPB	1,1 SOS63-32	19 Mar 2003 10:27
3	3	9g22646.d	1.	TOX CCV 500 PPB	SOS62-45	19 Mar 2003 10:51
4	4	9g22647.d	1.	WG136390-01 BLANK V199 P49	7,1 SOIL	19 Mar 2003 11:55
5	5	9g22648.d	1.	WG136390-02 LCS V199 P49	7,1 SOIL	19 Mar 2003 12:20
6	6	9g22649.d	1.	WG136390-03 LCS DUP V199 P49	7,1 SOIL	19 Mar 2003 12:44
7	7	9g22650.d	1.	L0303191-01	7,1 SOIL	19 Mar 2003 13:08
8	8	9g22651.d	1.	L0303191-02	7,1 SOIL	19 Mar 2003 13:32
9	9	9g22652.d	1.	WG136479-01 BLANK V200 P91	1,1 WATER	19 Mar 2003 13:57
10	10	9g22653.d	1.	WG136479-02 LCS V200 P91	1,1 WATER	19 Mar 2003 14:21
11	11	9g22654.d	1.	WG136479-03 LCS DUP V200 P91	1,1 WATER	19 Mar 2003 14:45
12	12	9g22655.d	1.	L0303352-01	1,1 WATER	19 Mar 2003 15:09
13	13	9g22656.d	1.	WG136550-02 PEST CCV 50 PPB	1,1 SOS63-32	19 Mar 2003 15:33
14	14	9g22657.d	1.	TOX CCV 250 PPB	SOS62-45	19 Mar 2003 15:58

EC2 3/21/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 3/19/03 Instrument ID HP 7 Column ID RTx-CLP Front Data Subdirectory 031903
Analyst Initials EGL

SOP # GCS09 Rev. # 2 8081A ✓
SOP # GCS04 Rev. # ___ 8151A ___
SOP # GCS03 Rev. # ___ PRO ___
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ___
SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ___
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time 3/19/03 Instrument ID HP 7 Column ID RTx-CLP II Rear Data Subdirectory 031903

Daily Check
☑ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☐ Change liner
☐ Change septum
☐ Clip column (___ cm)
☐ Injection port seal (goldseal)
☐ Change gases _____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: [signature] 3/21/03

Parameter: PCSC-H2O SOP #: [illegible] Revision #: 1[illegible]
Extraction Analyst(s): DP [illegible] TV/KD Analyst(s): DP
Date/Time Extracted: 03/18/03 [illegible] Date TV/KD: 03/18/03
Spike/Surrogate Analyst: [illegible] Witness: DP / [illegible]
Surrogate #: [illegible] Earliest Hold Date: 03/24/03
Spike #: A = [illegible] Spike #: B = —

Extraction Work Group WG 136479
Analytical Work Group WG ~~136549~~ 136668
Extract Relinquished By: DP
Extract Received By & Date: [illegible] 3/18/03

	Sample ID	Test Code	pH ✓ <2	pH ✓ N	pH ✓ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions ✓ A	Emulsions ✓ BN	Emulsions ✓ N	Comments
1	Blank			✓		1000 mL	200 uL		10 mL	T				WG 136479-01
2	LCS			✓		↓	↓	250 uL						WG ↓ -02
3	LCS DUP			✓		↓	↓	↓						WG ↓ -03
4	03 352-01	8081		✓			↓						✓	
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 03/18/03

Methylene Chloride Lot #: H2351
Hexane Lot #: H2341
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: 94 [illegible] Lot #: [illegible]
Reagent: [illegible] Lot #: [illegible]
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: [illegible]
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: [illegible]

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B	✓	GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 3/19/03

Extraction Notes For Volume # 200 Page # 091

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

Semi-Volatile GC Checklist

Run Date: 2/7/03

Analyst: ECL

Instrument: HP 9

Method: 8081

Workorders:	Due Date:	Priority:
01-584 RE	2/5	F1
01-632	2/21	-

		Analyst
System Performance Check:	Endrin/DDT Breakdown	✓
Initial Calibration:	Average RF	✓
	Linear or quadriatic regression	
	Alt Source Check	✓
Continuing Calibration:	Continuing Calibration	✓
	Client Specific Requirements	✓
	Ending Standards	✓
	Special Standards	
Blanks:	Quant Report/Chromatogram	✓
	Surrogates	✓
LCS/LCS DUP:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Spike Compounds	✓
	MS/MSD	
Samples:	Quant Reports/Chromatograms	✓
	Surrogates	✓
	Dilution runs	
	Check Sample Histories	
Data Package:	Manual Integrations	
	Run logs	✓
	Bench sheets	✓
	QC sheets	✓
	Upload results	✓
	Seedpak workgroups	✓
	Level 2	
	Level 3	
	Level 4 copies	✓
	Level x	
	Case narratives	

	Supervisor
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

√ = Checked & OK

NA = Not Applicable

Comments:

Primary Reviewer: ECL 2/10/03

Secondary Reviewer: [illegible] 2/10/03

Supervisor Review: [illegible] 2/10/03

Semi-Volatile GC Checklist

Run Date: 3/19/03

Analyst: ECL

Instrument: HP 9

Method: 8081

Workorders:	Due Date:	Priority:
03191	3/25	—
03-352	3/21	P1

		Analyst
System Performance Check:	Endrin/DDT Breakdown	✓
Initial Calibration:	Average RF	
	Linear or quadriatic regression	
	Alt Source Check	
Continuing Calibration:	Continuing Calibration	✓
	Client Specific Requirements	✓
	Ending Standards	✓
	Special Standards	
Blanks:	Quant Report/Chromatogram	✓
	Surrogates	✓
LCS/LCS DUP:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Spike Compounds	✓
	MS/MSD	
Samples:	Quant Reports/Chromatograms	✓
	Surrogates	✓
	Dilution runs	
	Check Sample Histories	
Data Package:	Manual Integrations	
	Run logs	✓
	Bench sheets	✓
	QC sheets	✓
	Upload results	✓
	Seedpak workgroups	✓
	Level 2	
	Level 3	
	Level 4 copies	✓
	Level x	
	Case narratives	

	Supervisor
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

√ = Checked & OK

NA = Not Applicable

Comments:

Primary Reviewer: EC 3/21/03

Secondary Reviewer: mdc 3/21/03

Supervisor Review: mdc 3/21/03

Example 8081 Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

		Example:
	RF = As/ Cs	
Where:	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ng/ml).	100
	RF	**100**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:*

		Example:
	C = [(Ax)(Vf)(D)] / [(RF)(Vi)]	
Where:	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Vi = Initial volume of sample (mL). (prep log)	1000
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report:*

		Example:
	C = [(Ax)(Vf)(D)] / [(RF)(Vi)]	
Where:	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

* Concentrations appearing on instrument quantitation reports are on-column results and do not take into account initial volume, final volume and dilution factor.

2.2.3 PCB GC Data (8082)

REPORT NARRATIVE
GC PCB

KEMRON Report No.: L0303352

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8082

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: There were no MS/MSD results associated with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: For all samples which yielded results with an RPD of greater than 40% between the primary and confirmation column the appropriate flag was applied. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ECL REVIEWED: _____ DATE: 3/26/03

Rev. 7/14/00

PCB – GC DATA (8082)

Login Number 03-352

A. QC Summary

- ✓ Method Blank Summary
- ✓ Method Blank Results
- ✓ Laboratory Control Sample (LCS)
- NA Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ✓ Holding Time Summary
- ✓ Surrogate Recovery Summary
- ✓ Initial Calibration Summary
- ✓ Initial Calibration Verification (ICV) Form (Second Source)
- ✓ Continuing Calibration Verification (CCV)
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet

B. Sample Data

- ✓ Target compound and surrogate results summary (See Summary Report)
- ✓ Chromatograms and quantitation report

C. Standards Data

- ✓ Initial calibration (ICAL) summary form
- ✓ Chromatograms and quantitation report for ICAL standards
- ✓ Initial calibration verification (ICV/second source) summary forms
- ✓ Initial calibration verification (ICV/second source) quantitation reports and chromatograms
- ✓ Continuing Calibration Verification (CCV) summary forms
- ✓ Continuing Calibration Verification (CCV) quantitation reports and chromatograms
- ✓ Retention Time Window Summary

D. Raw QC Data

- ✓ Method blank chromatogram and quantitation report
- ✓ LCS chromatogram and quantitation report
- NA MS/MSD chromatogram and quantitation report
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet
- ✓ Daily Checklist
- ✓ Example Calculations

Checked By: EC2 Date: 3-26-03

2.2.3.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0303352
Blank File ID: 4GF17200
Date Analyzed: 03/19/03
Time Analyzed: 12:01
Analyst: ECL

Work Group: WG136547
Blank Sample ID: WG136480-01
Instrument ID: HP4
Method: 8082

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG136480-02	4GF17201	03/19/03 12:20	01
LCS2	WG136480-03	4GF17202	03/19/03 12:38	01
177511-DW-031703	L0303352-01	4GF17204	03/19/03 13:15	01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0303352 | Run Date: 03/19/2003 | Sample ID: WG136480-01
Instrument ID: HP4 | Run Time: 12:01 | Prep Method: 3510C
File ID: 4GF17200 | Analyst: ECL | Method: 8082
Workgroup (AAB#): WG136547 | Matrix: Water | Units: ug/L
Contract #: | Cal ID: HP4-17-MAR-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Aroclor-1016	0.250	0.500	0.250	1	U
Aroclor-1221	0.250	0.500	0.250	1	U
Aroclor-1232	0.250	0.500	0.250	1	U
Aroclor-1242	0.250	0.500	0.250	1	U
Aroclor-1248	0.250	0.500	0.250	1	U
Aroclor-1254	0.250	0.500	0.250	1	U
Aroclor-1260	0.250	0.500	0.250	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
2,4,5,6-Tetrachloro-m-xylene	64.0	30	-	132	PASS
Decachlorobiphenyl	97.0	36	-	144	PASS

* Analyte detected above RDL
ND Analyte Not detected at or above reporting limit

KEMRON FORMS - Modified 02/07/2003
Version 1.3
Report generated 03/26/2003 15:04

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0303352 | Run Date: 03/19/2003 | Sample ID: WG136480-02
Instrument ID: HP4 | Run Time: 12:20 | Prep Method: 3510C
File ID: 4GF17201 | Analyst: ECL | Method: 8082
Workgroup (AAB#): WG136547 | Matrix: Water | Units: ug/L
Contract #: | Cal ID: HP4-17-MAR-2003 17:05

Analytes	Expected	Found	% Rec	LCS Limits	Q
Aroclor-1016	2.50	2.14	85.4	32 - 137	
Aroclor-1260	2.50	2.60	104	37 - 149	

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,5,6-Tetrachloro-m-xylene	64.6	30 - 132	PASS
Decachlorobiphenyl	81.8	36 - 144	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum: L0303352 Worknum: WG136547 Method: 8082
Instrument ID: HP4 Cal ID: HP4-17-MAR-2003 17:05 Matrix: Water
Analyst: ECL Contract #: Units: ug/L
Sample ID: WG136480-02 LCS File ID: 4GF17201 Run Date: 03/19/2003 12:20
Sample ID: WG136480-03 LCS2 File ID: 4GF17202 Run Date: 03/19/2003 12:38

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
Aroclor-1016	2.50	2.14	85.4	2.50	2.24	89.4	4.54	32 - 137	40	
Aroclor-1260	2.50	2.60	104	2.50	2.79	112	6.92	37 - 149	40	

Surogates	LCS % Recovery	LCS2 % Recovery	Surrogate Limits	Qualifier
2,4,5,6-Tetrachloro-m-xylene	64.6	65.7	30 - 132	PASS
Decachlorobiphenyl	81.8	98.3	36 - 144	PASS

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON FORMS - Modified 10/29/2002
Version 1.2
Report generated 03/26/2003 15:04

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method:8082 AAB#:WG136547

Login Number:L0303352

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
177511-DW-031703	03/17/03	03/18/03	03/18/03	7	0.784	03/19/03	40	0.983	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON FORMS - Modified 12/06/2002
Version 1.2
Report generated 03/26/2003 15:03

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0303352
Instrument Id: HP4
Workgroup (AAB#): WG136547

Method: 8082
CAL ID: HP4-17-MAR-03
Matrix: WATER

Sample Number	Dilution	Tag	1	2
L0303352-01	1.00	01	54.8	64.7
WG136480-01	1.00	01	64.0	97.0
WG136480-02	1.00	01	64.6	81.8
WG136480-03	1.00	01	65.7	98.3

Surrogates	Surrogate Limits		
1 - 2,4,5,6-Tetrachloro-m-xylene	30	-	132
2 - Decachlorobiphenyl	36	-	144

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

KEMRON FORMS - Modified 01/22/2003
Version 1.2
Report generated 03/26/2003 15:03

Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Tue Mar 18 11:50:53 2003

Calibration Files
2000 =4GF17142.D 1000 =4GF17143.D 500 =4GF17144.D
250 =4GF17145.D 100 =4GF17146.D 50 =4GF17147.D

		Compound	2000	1000	500	250	100	50	Avg	%RSD
1)	S	2,4,5,6-Tetrachloro	6.404	6.476	6.323	6.424	6.335	6.078	6.340#E3	2.21
2)	L1	Aroclor-1016-1	1.226	1.372	1.477	1.612	1.703	1.593	1.497#E2	11.74
3)	L1	Aroclor-1016-2	2.429	2.746	2.982	3.365	3.578	3.513	3.102#E2	14.83
4)	L1	Aroclor-1016-3	5.035	5.420	5.692	5.994	6.209	6.042	5.732#E2	7.71
5)	L1	Aroclor-1016-4	2.151	2.313	2.435	2.577	2.639	2.564	2.447#E2	7.61
6)	L1	Aroclor-1016-5	1.401	1.441	1.465	1.502	1.492	1.408	1.451#E2	2.91
7)	L2	Aroclor-1260-1	3.199	3.519	3.799	4.098	4.422	4.487	3.921#E2	13.01
8)	L2	Aroclor-1260-2	3.245	3.473	3.637	3.809	3.963	3.930	3.676#E2	7.63
9)	L2	Aroclor-1260-3	5.305	5.669	5.789	6.804	7.053	7.054	6.279#E2	12.41
10)	L2	Aroclor-1260-4	6.403	6.768	6.993	7.588	7.818	7.629	7.200#E2	7.81
11)	L2	Aroclor-1260-5	1.976	2.063	2.124	2.160	2.191	2.177	2.115#E2	3.88
12)	S	Decachlorobiphenyl	6.748	7.198	7.423	7.722	7.867	7.623	7.430#E3	5.49

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\031703\4GF17148.D Vial: 7
Acq On : 17 Mar 2003 17:05 Operator: ECL
Sample : WG136401-07 1660 ALT ICV 500 PPB Inst : HP4
Misc : 1,1 SOS63-14 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Tue Mar 18 11:50:53 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	25.000	24.530	1.9	98	0.00
2	L1	Aroclor-1016-1	500.000	461.551	7.7	94	0.00
3	L1	Aroclor-1016-2	500.000	456.504	8.7	95	0.00
4	L1	Aroclor-1016-3	500.000	467.121	6.6	94	-0.01
5	L1	Aroclor-1016-4	500.000	470.486	5.9	95	0.00
6	L1	Aroclor-1016-5	500.000	467.212	6.6	93	-0.01
7	L2	Aroclor-1260-1	500.000	478.926	4.2	99	-0.01
8	L2	Aroclor-1260-2	500.000	498.979	0.2	101	-0.01
9	L2	Aroclor-1260-3	500.000	472.134	5.6	102	-0.01
10	L2	Aroclor-1260-4	500.000	430.567	13.9	89	0.00
11	L2	Aroclor-1260-5	500.000	405.167	19.0#	81	0.00
12	S	Decachlorobiphenyl	25.000	25.143	-0.6	101	0.00

CONTINUING CALIBRATION REPORT

Login Number: L0303352
File ID: 4GF17199
CCV ID: WG136558-01
Units: ug/L

Instrument ID: HP4
Run Date: 03/19/2003
Run Time: 11:43
Analyst: BCL
Cal ID: HP4 - 17-MAR-03

Analyte	Expected	Found	RF	%D	Q
Aroclor-1260-5	500	461	195	7.8	
Aroclor-1260-4	500	459	661	8.2	
Aroclor-1260-3	500	504	633	0.8	
Aroclor-1260-2	500	480	353	4.0	
Aroclor-1260-1	500	474	372	5.2	
Aroclor-1016-5	500	510	148	2.0	
Aroclor-1016-4	500	496	243	0.8	
Aroclor-1016-3	500	496	568	0.8	
Aroclor-1016-2	500	457	284	8.6	
Aroclor-1016-1	500	492	147	1.6	

* Exceeds %D Limit

CONTINUING CALIBRATION REPORT

Login Number: L0303352
File ID: 4GF17205
CCV ID: WG136558-02
Units: ug/L

Instrument ID: HP4
Run Date: 03/19/2003
Run Time: 13:34
Analyst: ECL
Cal ID: HP4 - 17-MAR-03

Analyte	Expected	Found	RF	%D	Q
Aroclor-1260-5	250	237	200	5.2	
Aroclor-1260-4	250	238	685	4.8	
Aroclor-1260-3	250	230	579	8.0	
Aroclor-1260-2	250	251	369	0.4	
Aroclor-1260-1	250	254	398	1.6	
Aroclor-1016-5	250	261	152	4.4	
Aroclor-1016-4	250	262	256	4.8	
Aroclor-1016-3	250	260	596	4.0	
Aroclor-1016-2	250	248	308	0.8	
Aroclor-1016-1	250	265	159	6.0	

* Exceeds %D Limit

Directory: C:\HP CHEM\DATA\...

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	4gf17142.d	1.	WG136401-01 1660 ICAL 2000 PPB	1,1 SOS63-02	17 Mar 2003 15:14
2	2	4gf17143.d	1.	WG136401-02 1660 ICAL 1000 PPB	1,1 SOS63-02	17 Mar 2003 15:32
3	3	4gf17144.d	1.	WG136401-03 1660 ICAL 500 PPB	1,1 SOS63-02	17 Mar 2003 15:51
4	4	4gf17145.d	1.	WG136401-04 1660 ICAL 250 PPB	1,1 SOS63-02	17 Mar 2003 16:10
5	5	4gf17146.d	1.	WG136401-05 1660 ICAL 100 PPB	1,1 SOS63-02	17 Mar 2003 16:28
6	6	4gf17147.d	1.	WG136401-06 1660 ICAL 50 PPB	1,1 SOS63-02	17 Mar 2003 16:47
7	7	4gf17148.d	1.	WG136401-07 1660 ALT ICV 50...	1,1 SOS63-14	17 Mar 2003 17:05
8	8	4gf17149.d	1.	1254 ICAL 2000 PPB	SOS63-41	17 Mar 2003 17:24
9	9	4gf17150.d	1.	1254 ICAL 1000 PPB	SOS63-41	17 Mar 2003 17:42
10	10	4gf17151.d	1.	1254 ICAL 500 PPB	SOS63-41	17 Mar 2003 18:01
11	11	4gf17152.d	1.	1254 ICAL 250 PPB	SOS63-41	17 Mar 2003 18:19
12	12	4gf17153.d	1.	1254 ICAL 100 PPB	SOS63-41	17 Mar 2003 18:38
13	13	4gf17154.d	1.	1254 ICAL 50 PPB	SOS63-41	17 Mar 2003 18:56
14	14	4gf17155.d	1.	1254 ALT ICV 500 PPB	SOS63-08	17 Mar 2003 19:14
15	15	4gf17156.d	1.	1248 500 PPB	SOS61-40	17 Mar 2003 19:32
16	16	4gf17157.d	1.	1248 ALT 500 PPB	SOS64-08	17 Mar 2003 19:51
17	17	4gf17158.d	1.	1242 500 PPB	SOS61-41	17 Mar 2003 20:09
18	18	4gf17159.d	1.	1242 ALT 500 PPB	SOS63-09	17 Mar 2003 20:27
19	19	4gf17160.d	1.	1232 500 PPB	SOS64-09	17 Mar 2003 20:45
20	20	4gf17161.d	1.	1232 ALT 500 PPB	SOS64-10	17 Mar 2003 21:04
21	21	4gf17162.d	1.	1221 500 PPB	SOS64-07	17 Mar 2003 21:22
22	22	4gf17163.d	1.	1221 ALT 500 PPB	SOS61-43	17 Mar 2003 21:40
23	23	4gf17164.d	1.	WG136401-08 1660 CCV 500 PPB	1,1 SOS63-02	17 Mar 2003 21:58
24	24	4gf17165.d	1.	WG136235-01 BLANK V199 P43	11,1 OIL	17 Mar 2003 22:16
25	25	4gf17166.d	1.	WG136235-02 LCS V199 P43	11,1 OIL	17 Mar 2003 22:34
26	26	4gf17167.d	1.	WG136235-03 LCS DUP V199 P43	11,1 OIL	17 Mar 2003 22:53
7	27	4gf17168.d	5.	L0303171-01 5x	11,5 OIL	17 Mar 2003 23:11
28	28	4gf17169.d	5.	L0303171-02 5x	11,5 OIL	17 Mar 2003 23:29
29	29	4gf17170.d	1.	L0303185-06 CF	7,1 SOIL CF	17 Mar 2003 23:47
30	30	4gf17171.d	1.	WG136391-01 BLANK V199 P51	7,1 SOIL	18 Mar 2003 00:05
31	31	4gf17172.d	1.	WG136391-02 LCS V199 P51	7,1 SOIL	18 Mar 2003 00:23
32	32	4gf17173.d	1.	WG136391-03 LCS DUP V199 P51	7,1 SOIL	18 Mar 2003 00:42
33	33	4gf17174.d	1.	WG136401-09 1660 CCV 250 PPB	1,1 SOS63-02	18 Mar 2003 01:00
34	34	4gf17175.d	1.	L0303285-01	10,1 SOIL	18 Mar 2003 01:18
35	35	4gf17176.d	1.	L0303287-01 – 100X	10,1 SOIL	18 Mar 2003 01:36
36	36	4gf17177.d	1.	L0303191-01	7,1 SOIL	18 Mar 2003 01:54
37	37	4gf17178.d	1.	L0303191-02	7,1 SOIL	18 Mar 2003 02:12
38	38	4gf17179.d	1.	WG136401-10 1660 CCV 500 PPB	1,1 SOS63-02	18 Mar 2003 02:31
39	100	4gf17180.d	1.	HEXANE		18 Mar 2003 04:20

ECL 3/18/03
nkc 3/18/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 3/17/03 Instrument ID HP 4 Column ID Rtx-CLPII Front Data Subdirectory 031703
Analyst Initials EGL

SOP # GCS09 Rev. # __ 8081A ____
SOP # GCS04 Rev. # __ 8151A ____
SOP # GCS03 Rev. # __ PRO ____
SOP # GCS02 Rev. # __ 8015B Mod (Alcohol) ____
SOP # GCS10 Rev. # 5 8082 ✓
SOP # GCS01 Rev. # __ 8100 ____
SOP # GCS02 Rev. # __ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # __ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
☑ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☐ Change liner
☐ Change septum
☐ Clip column (___cm)
☐ Injection port seal (goldseal)
☐ Change gases _____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

CC - DCB surrogate failed low.

RR - Sample need rerun

Reviewed By: _____

Directory: [illegible]

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	4gf17197.d	1.	1254 CCV 250 PPB	SOS63-41	19 Mar 2003 11:05
2	2	4gf17198.d	1.	ELAB 1254 250 PPB	ESS44-02	19 Mar 2003 11:24
3	3	4gf17199.d	1.	WG136558-01 1660 CCV 500 PPB	1,1 SOS63-02	19 Mar 2003 11:43
4	4	4gf17200.d	1.	WG136480-01 BLANK V200 P93	1,1 WATER	19 Mar 2003 12:01
5	5	4gf17201.d	1.	WG136480-02 LCS V200 P93	1,1 WATER	19 Mar 2003 12:20
6	6	4gf17202.d	1.	WG136480-03 LCS DUP V200 P93	1,1 WATER	19 Mar 2003 12:38
7	7	4gf17203.d	1.	L0303304-01 - CF, *	1,1 WATER	19 Mar 2003 12:57
8	8	4gf17204.d	1.	L0303352-01	1,1 WATER	19 Mar 2003 13:15
9	9	4gf17205.d	1.	WG136558-02 1660 CCV 250 PPB	1,1 SOS63-02	19 Mar 2003 13:34
10	10	4gf17206.d	1.	1232 CCV 500 PPB	SOS64-09	19 Mar 2003 13:52
11	11	4gf17207.d	1.	INST. BLANK	SOS62-07	19 Mar 2003 14:11
12	12	4gf17208.d	1.	L0303318-06 CF	1,1 WATER CF	19 Mar 2003 14:29
13	13	4gf17209.d	1.	L0303318-08 CF	1,1 WATER CF	19 Mar 2003 14:48
14	14	4gf17210.d	1.	1232 CCV 500 PPB	SOS64-09	19 Mar 2003 15:06
15	15	4gf17211.d	1.	INST. BLANK	SOS62-07	19 Mar 2003 15:24

EC 3/20/03

RPC 3/20/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 3/19/03 Instrument ID HP4 Column ID RTx-CLPII Front Data Subdirectory 031903
Analyst Initials EC

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ____
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____
SOP # GCS10 Rev. # 5 8082 ✓
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ☐ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☐ Change liner
- ☐ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☑ Change gases Argon Methane

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

CF - need confirmed

X - T-N-X surrogate failed high due to SMI.

Reviewed By: [illegible] 3/20/03

Parameter: PCB Hg SOP #: 3540C Revision #: C
Extraction Analyst(s): DF CH TV/KD Analyst(s): DF
Date/Time Extracted: 03/15/03 1240 Date TV/KD: 3/18/03
Spike/Surrogate Analyst: KH / DF Witness: DF / DH
Surrogate #: 1532 43 25 Earliest Hold Date: 03/22/03
Spike #: A = 2556-3,-5 Spike #: B = —

Extraction Work Group WG 136458
Analytical Work Group WG 136547

Extract Relinquished By: DF
Extract Received By & Date: CH 3/18/03

	Sample ID	Test Code	pH / <2	pH / N	pH / >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	Emulsions / BN	Emulsions / N	Comments
1	Blank			✓		1000mL	200uL		1mL	T				WG 136458-01
2	LCS			✓		1	1	100uL	1	1				WG 1 -02
3	LCS Dup			✓		1	1	1	1	1				WG 1 -03
4	[illegible]	8252		✓		1	1		1	1			✓	
5	[illegible]	1		✓		975mL	1		1	1			✓	
6														
7														
8														
9														
10														
11														
12														
13														
14							DF							
15														
16														
17							03/18/03							
18														
19														
20														
21														
22														
23														
24														

Methylene Chloride Lot #: 42351
Hexane Lot #: 42341
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: KOH Lot #: 02326
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: Conc. H2SO4 Lot #: X43027
Florisil Lot #: 40459
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: EC 2911

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B	✓	GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A	✓	N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 3/18/03

Extraction Notes For Volume # 200 Page # 093

General Comments:

Extraction Anomalies: None

Concentration Anomalies:

Clean-Up Anomalies:

Supervisor Review: _____ Date: _____

2.2.3.2 Sample Data

Data File : C:\HPCHEM\2\DATA\031903\4GF17204.D Vial: 8
Acq On : 19 Mar 2003 13:15 Operator: ECL
Sample : L0303352-01 Inst : HP4
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 20 8:44 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Thu Mar 20 08:43:58 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

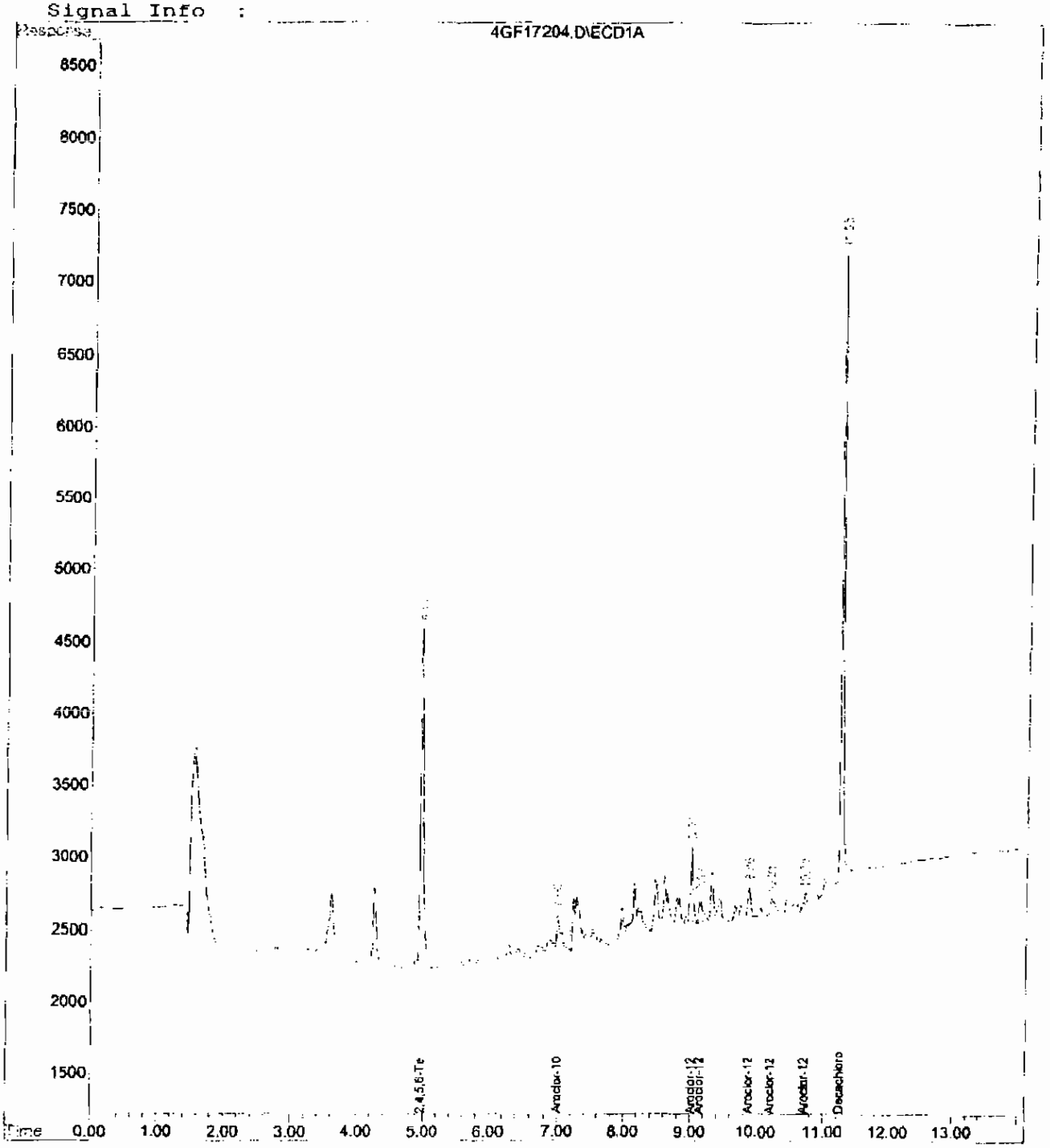
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.96	69524	10.966 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	54.83%
12) S Decachlorobiphenyl	11.25	96167	12.942 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	64.71%
Target Compounds			
2) L1 Aroclor-1016-1	0.00	0	N.D. UG/L
3) L1 Aroclor-1016-2	0.00	0	N.D. UG/L
4) L1 Aroclor-1016-3	0.00	0	N.D. UG/L
5) L1 Aroclor-1016-4	7.00	2098	8.576 UG/L
6) L1 Aroclor-1016-5	0.00	0	N.D. UG/L
Sum Aroclor-1016-1		2098	8.576 UG/L
Average Aroclor-1016-1			8.576 UG/L (1254?)
7) L2 Aroclor-1260-1	9.02f	15198	38.766 UG/L
8) L2 Aroclor-1260-2	9.14	6544	17.802 UG/L
9) L2 Aroclor-1260-3	9.88	6098	9.712 UG/L
10) L2 Aroclor-1260-4	10.22	4138	5.748 UG/L
11) L2 Aroclor-1260-5	10.72	2367	11.191 UG/L
Sum Aroclor-1260-1		34346	83.219 UG/L
Average Aroclor-1260-1			16.644 ~~UG/L~~ CMIL

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031903\4GF17204.D Vial: 8
Acq On : 19 Mar 2003 13:15 Operator: ECL
Sample : L0303352-01 Inst : HP4
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 20 8:44 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Thu Mar 20 08:43:58 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031903\4GF17204.D Vial: 8
Acq On : 19 Mar 2003 13:15 Operator: ECL
Sample : L0303352-01 Inst : HP4
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 20 8:52 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1856
Last Update : Thu Mar 20 08:51:17 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.96	74058	11.031 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	55.16%
7) S Decachlorobiphenyl	11.25	95201	13.831 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	69.16%
Target Compounds			
2) L1 Aroclor-1254-1	7.23	3170	13.481 UG/L
3) L1 Aroclor-1254-2	8.16	5248	25.596 UG/L
4) L1 Aroclor-1254-3	8.61	4317	11.801 UG/L
5) L1 Aroclor-1254-4	9.01	7198	40.797 UG/L
6) L1 Aroclor-1254-5	9.31	8181	21.680 UG/L
Sum Aroclor-1254-1		28114	113.354 UG/L
Average Aroclor-1254-1			22.671 UG/L

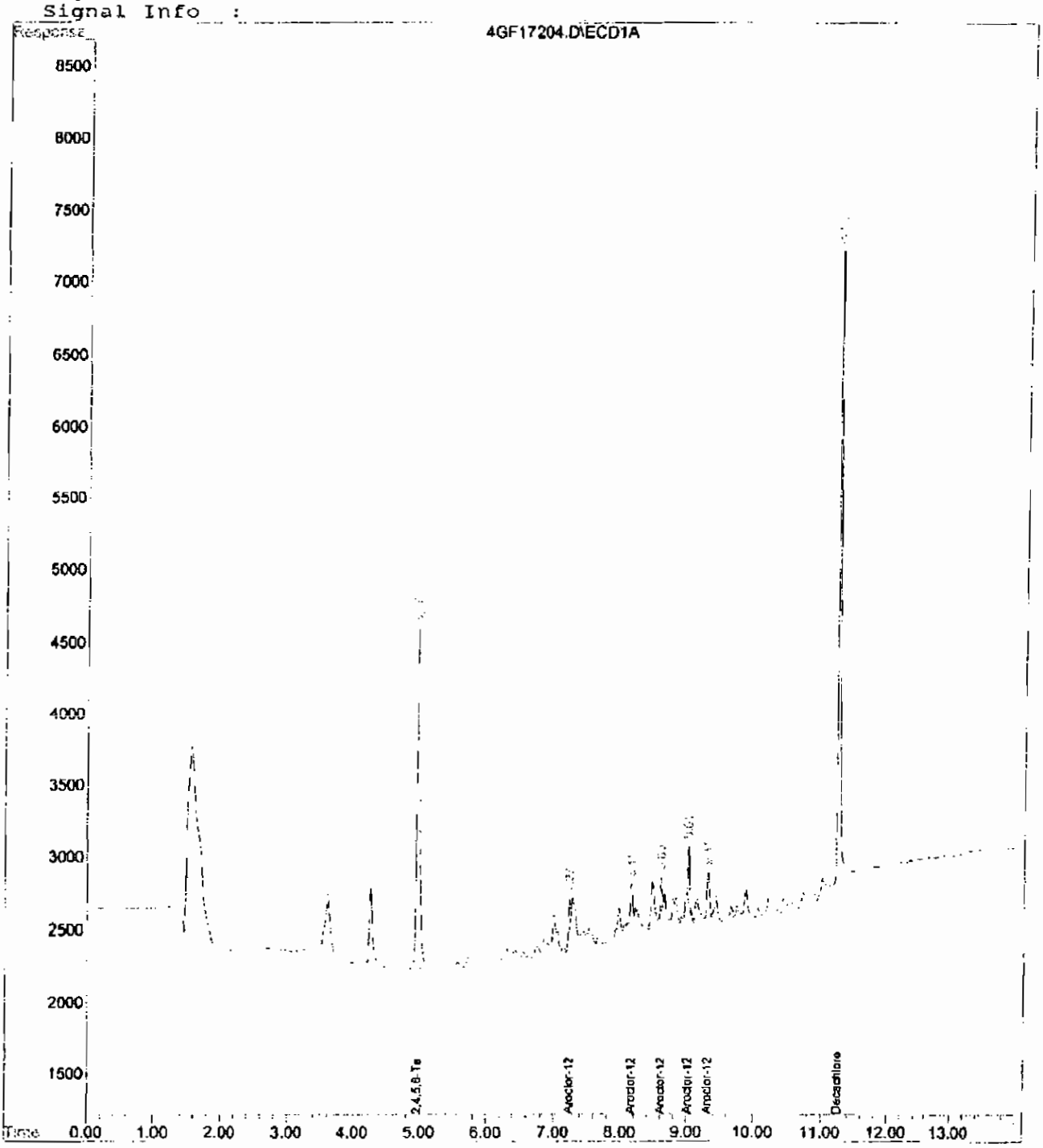
CMDL

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031903\4GF17204.D Vial: 8
Acq On : 19 Mar 2003 13:15 Operator: ECL
Sample : L0303352-01 Inst : HP4
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 20 8:52 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1856
Last Update : Thu Mar 20 08:51:17 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.3.3 Standards Data

Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Tue Mar 18 11:50:53 2003

Calibration Files
2000 =4GF17142.D 1000 =4GF17143.D 500 =4GF17144.D
250 =4GF17145.D 100 =4GF17146.D 50 =4GF17147.D

		Compound	2000	1000	500	250	100	50	Avg	%RSD
1)	S	2,4,5,6-Tetrachloro	6.404	6.476	6.323	6.424	6.335	6.078	6.340#E3	2.21
2)	L1	Aroclor-1016-1	1.226	1.372	1.477	1.612	1.703	1.593	1.497#E2	11.74
3)	L1	Aroclor-1016-2	2.429	2.746	2.982	3.365	3.578	3.513	3.102#E2	14.83
4)	L1	Aroclor-1016-3	5.035	5.420	5.692	5.994	6.209	6.042	5.732#E2	7.71
5)	L1	Aroclor-1016-4	2.151	2.313	2.435	2.577	2.639	2.564	2.447#E2	7.61
6)	L1	Aroclor-1016-5	1.401	1.441	1.465	1.502	1.492	1.408	1.451#E2	2.91
7)	L2	Aroclor-1260-1	3.199	3.519	3.799	4.098	4.422	4.487	3.921#E2	13.01
8)	L2	Aroclor-1260-2	3.245	3.473	3.637	3.809	3.963	3.930	3.676#E2	7.63
9)	L2	Aroclor-1260-3	5.305	5.669	5.789	6.804	7.053	7.054	6.279#E2	12.41
10)	L2	Aroclor-1260-4	6.403	6.768	6.993	7.588	7.818	7.629	7.200#E2	7.81
11)	L2	Aroclor-1260-5	1.976	2.063	2.124	2.160	2.191	2.177	2.115#E2	3.88
12)	S	Decachlorobiphenyl	6.748	7.198	7.423	7.722	7.867	7.623	7.430#E3	5.49

Data File : C:\HPCHEM\2\DATA\031703\4GF17142.D Vial: 1
Acq On : 17 Mar 2003 15:14 Operator: ECL
Sample : WG136401-01 1660 ICAL 2000 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:49 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Tue Mar 18 11:49:29 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

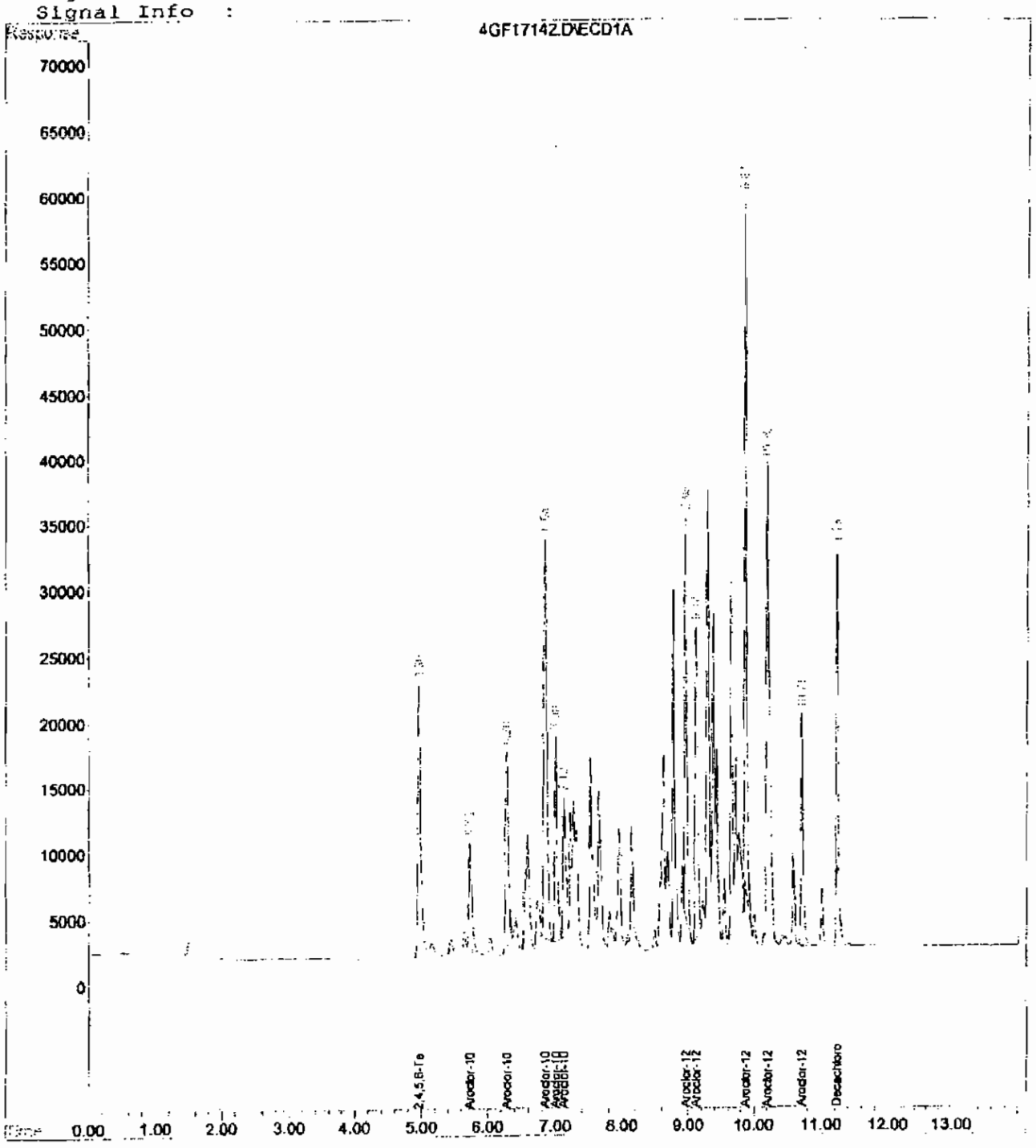
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.96	640428	113.815 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	569.07%#
12) S Decachlorobiphenyl	11.24	674760	89.539 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	447.70%#
Target Compounds			
2) L1 Aroclor-1016-1	5.73	245123	1902.607 UG/L
3) L1 Aroclor-1016-2	6.28	485839	1727.521 UG/L
4) L1 Aroclor-1016-3	6.85	1007030	2249.907 UG/L
5) L1 Aroclor-1016-4	7.01	430109	2359.248 UG/L
6) L1 Aroclor-1016-5	7.13	280166	2721.528 UG/L
Sum Aroclor-1016-1		2448268	10960.811 UG/L
Average Aroclor-1016-1			2192.162 UG/L
7) L2 Aroclor-1260-1	8.97	639765	1774.706 UG/L
8) L2 Aroclor-1260-2	9.12	648954	1951.781 UG/L
9) L2 Aroclor-1260-3	9.87	1060974	1769.098 UG/L
10) L2 Aroclor-1260-4	10.20	1280546	1812.509 UG/L
11) L2 Aroclor-1260-5	10.71	395277	1903.057 UG/L
Sum Aroclor-1260-1		4025517	9211.151 UG/L
Average Aroclor-1260-1			1842.230 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703\4GF17142.D Vial: 1
Acq On : 17 Mar 2003 15:14 Operator: ECL
Sample : WG136401-01 1660 ICAL 2000 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:49 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Tue Mar 18 11:49:29 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703\4GF17143.D Vial: 2
Acq On : 17 Mar 2003 15:32 Operator: ECL
Sample : WG136401-02 1660 ICAL 1000 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:49 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Tue Mar 18 11:49:45 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

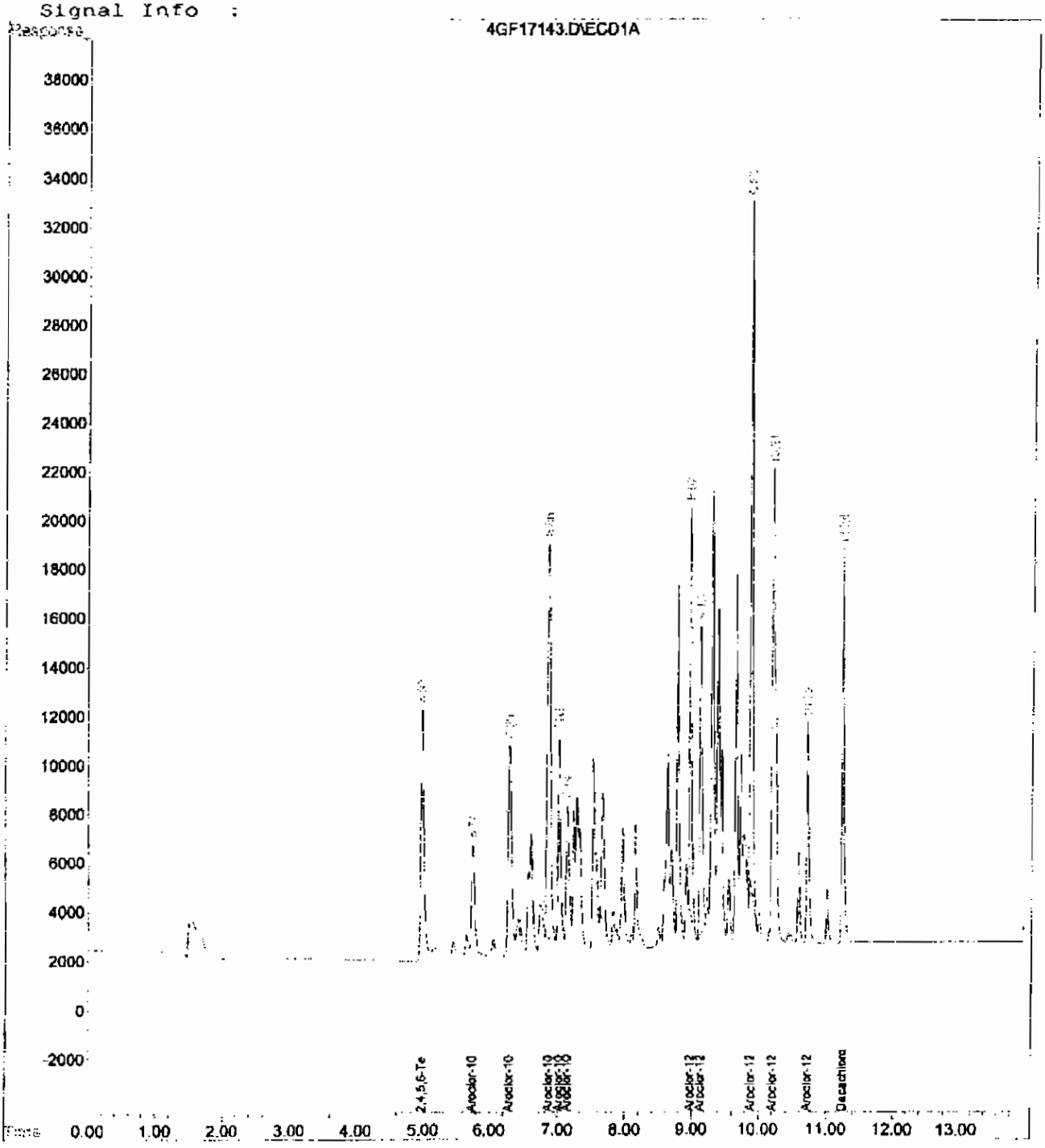
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.97	323780	55.935 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery = 279.68%#	
12) S Decachlorobiphenyl	11.24	359912	47.797 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery = 238.99%#	
Target Compounds			
2) L1 Aroclor-1016-1	5.74	137165	1035.033 UG/L
3) L1 Aroclor-1016-2	6.29	274594	963.888 UG/L
4) L1 Aroclor-1016-3	6.86	542046	1164.555 UG/L
5) L1 Aroclor-1016-4	7.02	231328	1213.335 UG/L
6) L1 Aroclor-1016-5	7.14	144074	1313.769 UG/L
Sum Aroclor-1016-1		1329206	5690.580 UG/L
Average Aroclor-1016-1			1138.116 UG/L
7) L2 Aroclor-1260-1	8.98	351920	963.595 UG/L
8) L2 Aroclor-1260-2	9.13	347282	1028.420 UG/L
9) L2 Aroclor-1260-3	9.88	566868	952.058 UG/L
10) L2 Aroclor-1260-4	10.21	676786	960.841 UG/L
11) L2 Aroclor-1260-5	10.72	206259	988.394 UG/L
Sum Aroclor-1260-1		2149114	4893.307 UG/L
Average Aroclor-1260-1			978.661 UG/L

(f) RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703\4GF17143.D Vial: 2
Acq On : 17 Mar 2003 15:32 Operator: ECL
Sample : WG136401-02 1660 ICAL 1000 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:49 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Tue Mar 18 11:49:45 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703\4GF17144.D Vial: 3
Acq On : 17 Mar 2003 15:51 Operator: ECL
Sample : WG136401-03 1660 ICAL 500 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:50 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Tue Mar 18 11:49:58 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

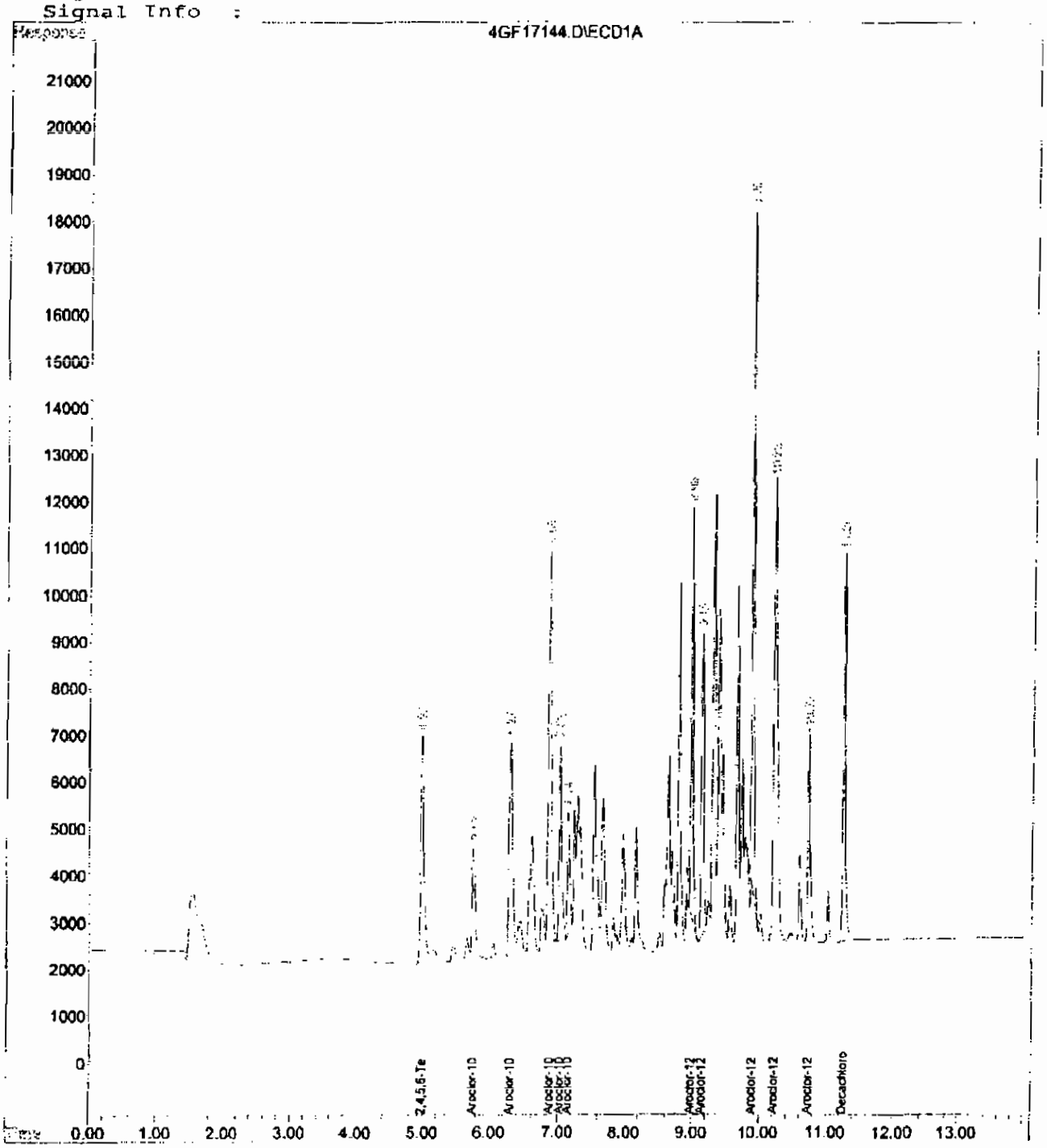
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.98	158072	27.308 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	136.54%#
12) S Decachlorobiphenyl	11.25	185576	24.645 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	123.23%
Target Compounds			
2) L1 Aroclor-1016-1	5.75	73854	557.299 UG/L
3) L1 Aroclor-1016-2	6.30	149097	523.367 UG/L
4) L1 Aroclor-1016-3	6.86	284594	611.433 UG/L
5) L1 Aroclor-1016-4	7.02	121762	638.656 UG/L
6) L1 Aroclor-1016-5	7.15	73264	668.074 UG/L
Sum Aroclor-1016-1		702572	2998.829 UG/L
Average Aroclor-1016-1			599.766 UG/L
7) L2 Aroclor-1260-1	8.98	189934	520.061 UG/L
8) L2 Aroclor-1260-2	9.14	181834	538.473 UG/L
9) L2 Aroclor-1260-3	9.89	289446	486.126 UG/L
10) L2 Aroclor-1260-4	10.22	349668	496.428 UG/L
11) L2 Aroclor-1260-5	10.73	106193	508.877 UG/L
Sum Aroclor-1260-1		1117076	2549.965 UG/L
Average Aroclor-1260-1			509.993 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703\4GF17144.D Vial: 3
Acq On : 17 Mar 2003 15:51 Operator: ECL
Sample : WG136401-03 1660 ICAL 500 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:50 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Tue Mar 18 11:49:58 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703\4GF17145.D Vial: 4
Acq On : 17 Mar 2003 16:10 Operator: ECL
Sample : WG136401-04 1660 ICAL 250 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:50 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Tue Mar 18 11:50:19 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

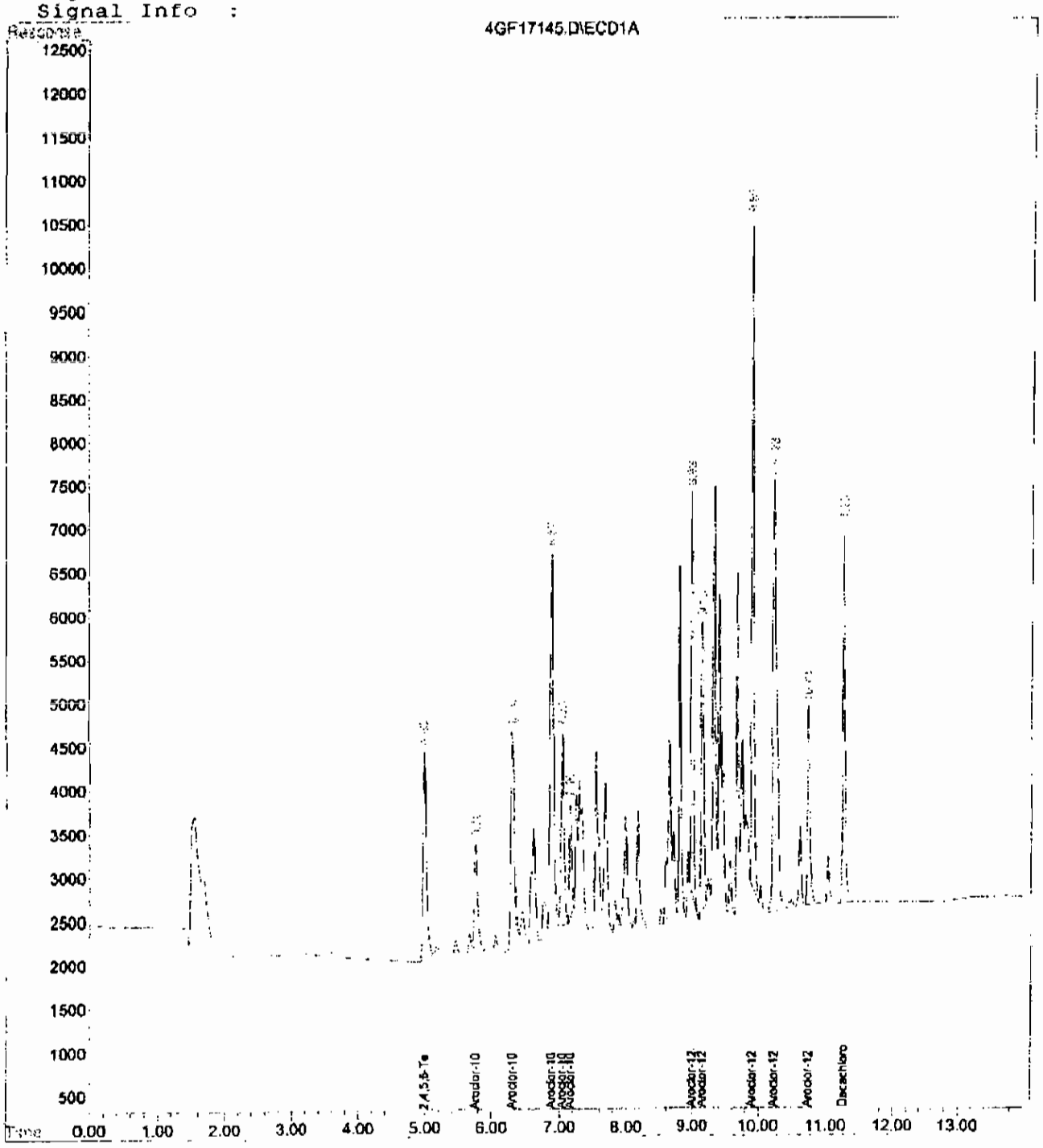
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.99	80304	13.143 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	65.72%
12) S Decachlorobiphenyl	11.26	96531	12.845 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	64.22%
Target Compounds			
2) L1 Aroclor-1016-1	5.76	40294	284.959 UG/L
3) L1 Aroclor-1016-2	6.31	84136	283.468 UG/L
4) L1 Aroclor-1016-3	6.88	149854	291.730 UG/L
5) L1 Aroclor-1016-4	7.03	64415	301.551 UG/L
6) L1 Aroclor-1016-5	7.16	37551	297.052 UG/L
Sum Aroclor-1016-1		376251	1458.760 UG/L
Average Aroclor-1016-1			291.752 UG/L
7) L2 Aroclor-1260-1	8.99	102445	271.110 UG/L
8) L2 Aroclor-1260-2	9.15	95237	270.638 UG/L
9) L2 Aroclor-1260-3	9.89	170095	283.679 UG/L
10) L2 Aroclor-1260-4	10.23	189696	266.879 UG/L
11) L2 Aroclor-1260-5	10.73	53996	255.961 UG/L
Sum Aroclor-1260-1		611469	1348.268 UG/L
Average Aroclor-1260-1			269.654 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703\4GF17145.D Vial: 4
Acq On : 17 Mar 2003 16:10 Operator: ECL
Sample : WG136401-04 1660 ICAL 250 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:50 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Tue Mar 18 11:50:19 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703\4GF17146.D Vial: 5
Acq On : 17 Mar 2003 16:28 Operator: ECL
Sample : WG136401-05 1660 ICAL 100 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:50 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Tue Mar 18 11:50:33 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

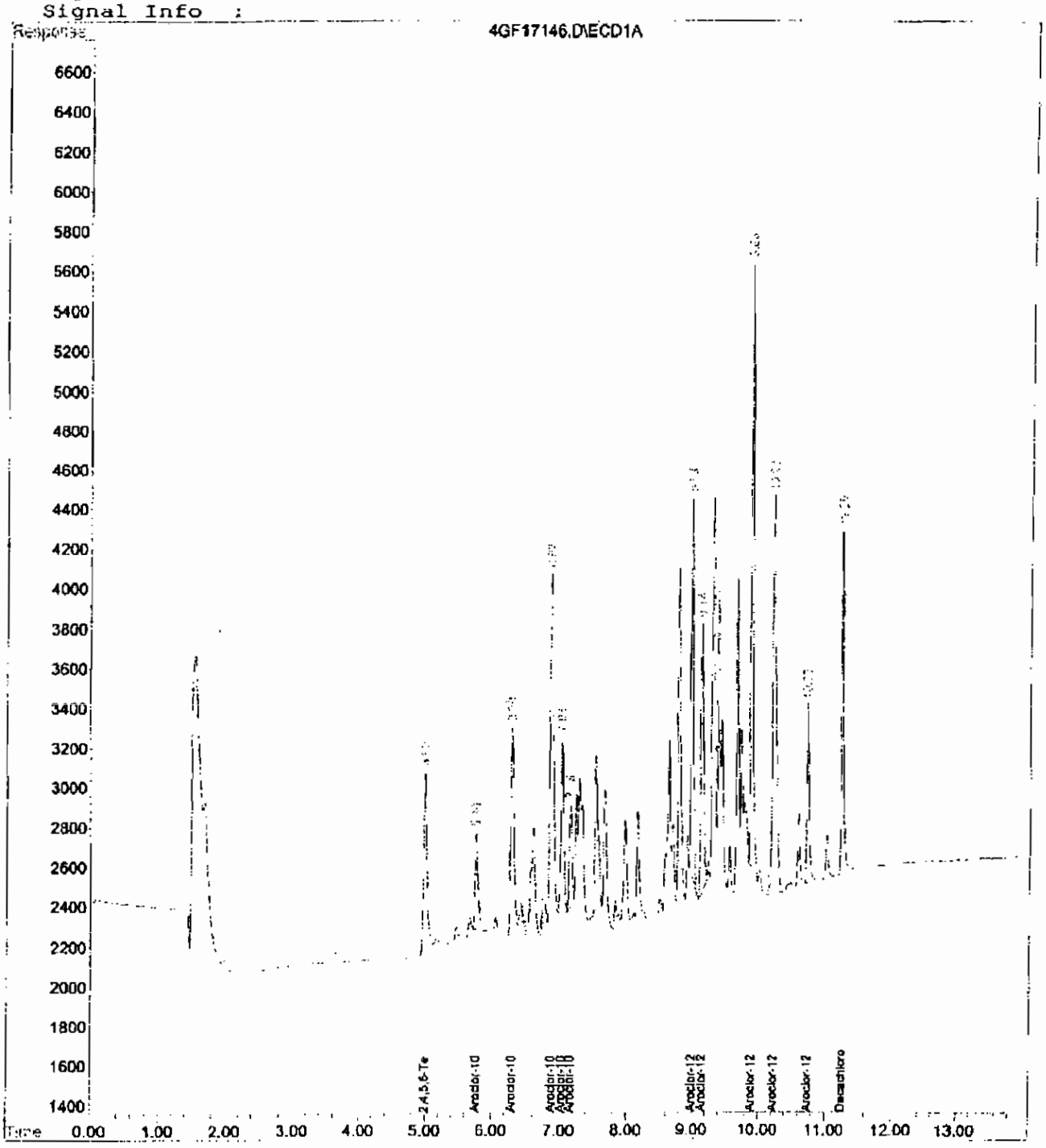
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.99	31676	5.060 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	25.30%#
12) S Decachlorobiphenyl	11.25	39336	5.245 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	26.22%#
Target Compounds			
2) L1 Aroclor-1016-1	5.76	17030	115.126 UG/L
3) L1 Aroclor-1016-2	6.31	35776	117.201 UG/L
4) L1 Aroclor-1016-3	6.88	62092	114.007 UG/L
5) L1 Aroclor-1016-4	7.03	26395	115.566 UG/L
6) L1 Aroclor-1016-5	7.16	14918	109.592 UG/L
Sum Aroclor-1016-1		156211	571.492 UG/L
Average Aroclor-1016-1			114.298 UG/L
7) L2 Aroclor-1260-1	8.99	44222	114.514 UG/L
8) L2 Aroclor-1260-2	9.14	39631	109.900 UG/L
9) L2 Aroclor-1260-3	9.89	70535	115.324 UG/L
10) L2 Aroclor-1260-4	10.22	78177	108.797 UG/L
11) L2 Aroclor-1260-5	10.73	21914	103.459 UG/L
Sum Aroclor-1260-1		254479	551.994 UG/L
Average Aroclor-1260-1			110.399 UG/L

Data File : C:\HPCHEM\2\DATA\031703\4GF17146.D Vial: 5
Acq On : 17 Mar 2003 16:28 Operator: ECL
Sample : WG136401-05 1660 ICAL 100 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:50 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Tue Mar 18 11:50:33 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703\4GF17147.D Vial: 6
Acq On : 17 Mar 2003 16:47 Operator: ECL
Sample : WG136401-06 1660 ICAL 50 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:50 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Tue Mar 18 11:50:33 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

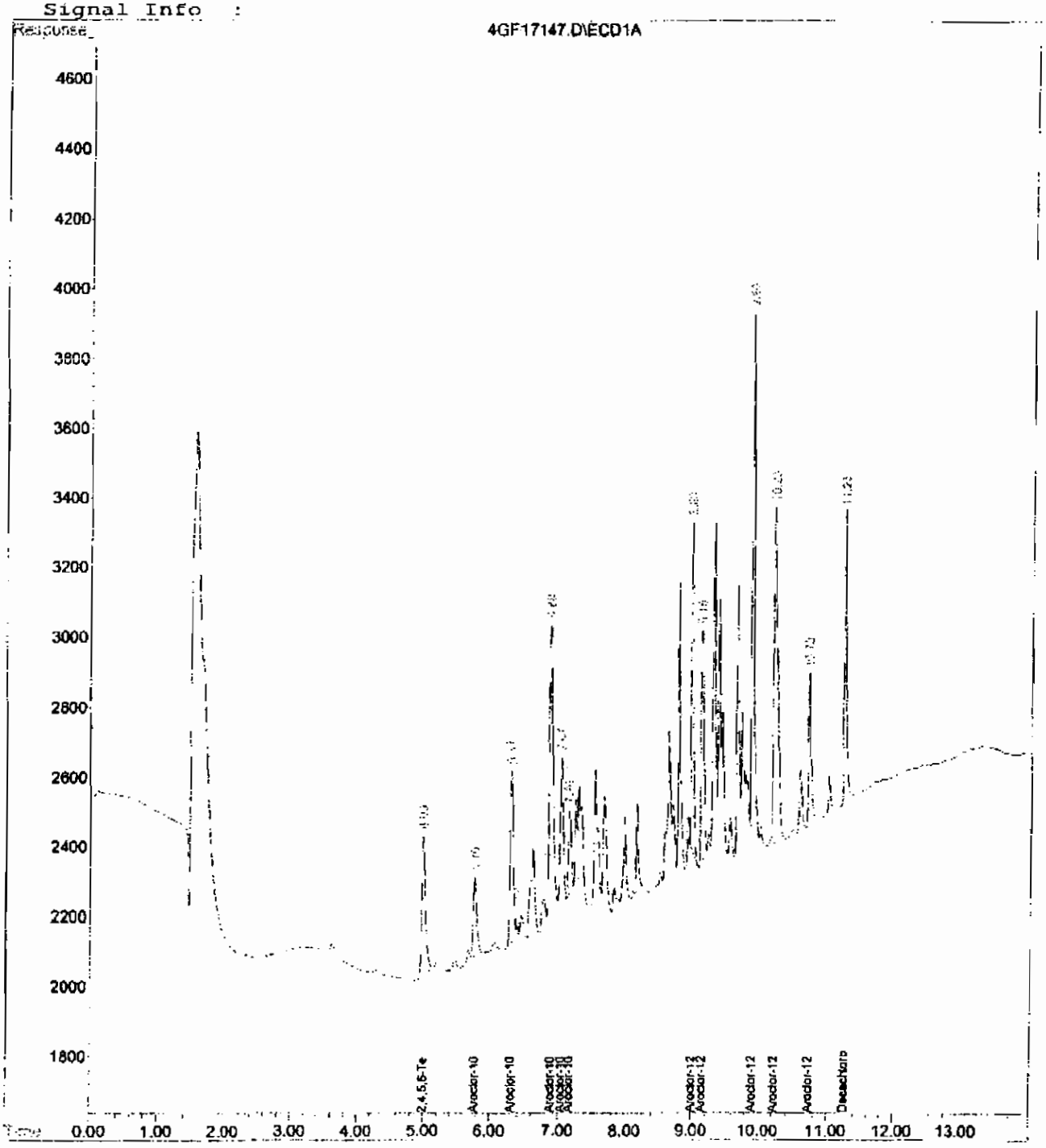
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.99	15196	2.427 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	12.14%#
12) S Decachlorobiphenyl	11.26	19059	2.541 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	12.71%#
Target Compounds			
2) L1 Aroclor-1016-1	5.77	7963	53.835 UG/L
3) L1 Aroclor-1016-2	6.31	17564	57.539 UG/L
4) L1 Aroclor-1016-3	6.88	30211	55.471 UG/L
5) L1 Aroclor-1016-4	7.04	12819	56.127 UG/L
6) L1 Aroclor-1016-5	7.16	7040	51.721 UG/L
Sum Aroclor-1016-1		75598	274.693 UG/L
Average Aroclor-1016-1			54.939 UG/L
7) L2 Aroclor-1260-1	8.99	22434	58.093 UG/L
8) L2 Aroclor-1260-2	9.15	19651	54.495 UG/L
9) L2 Aroclor-1260-3	9.90	35268	57.663 UG/L
10) L2 Aroclor-1260-4	10.23	38145	53.085 UG/L
11) L2 Aroclor-1260-5	10.73	10886	51.395 UG/L
Sum Aroclor-1260-1		126384	274.730 UG/L
Average Aroclor-1260-1			54.946 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703\4GF17147.D Vial: 6
Acq On : 17 Mar 2003 16:47 Operator: ECL
Sample : WG136401-06 1660 ICAL 50 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:50 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Tue Mar 18 11:50:33 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703\4GF17148.D Vial: 7
Acq On : 17 Mar 2003 17:05 Operator: ECL
Sample : WG136401-07 1660 ALT ICV 500 PPB Inst : HP4
Misc : 1,1 SQS63-14 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Tue Mar 18 11:50:53 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	25.000	24.530	1.9	98	0.00
2	L1	Aroclor-1016-1	500.000	461.551	7.7	94	0.00
3	L1	Aroclor-1016-2	500.000	456.504	8.7	95	0.00
4	L1	Aroclor-1016-3	500.000	467.121	6.6	94	-0.01
5	L1	Aroclor-1016-4	500.000	470.486	5.9	95	0.00
6	L1	Aroclor-1016-5	500.000	467.212	6.6	93	-0.01
7	L2	Aroclor-1260-1	500.000	478.926	4.2	99	-0.01
8	L2	Aroclor-1260-2	500.000	498.979	0.2	101	-0.01
9	L2	Aroclor-1260-3	500.000	472.134	5.6	102	-0.01
10	L2	Aroclor-1260-4	500.000	430.567	13.9	89	0.00
11	L2	Aroclor-1260-5	500.000	405.167	19.0#	81	0.00
12	S	Decachlorobiphenyl	25.000	25.143	-0.6	101	0.00

Data File : C:\HPCHEM\2\DATA\031703\4GF17148.D Vial: 7
Acq On : 17 Mar 2003 17:05 Operator: ECL
Sample : WG136401-07 1660 ALT ICV 500 PPB Inst : HP4
Misc : 1,1 SOS63-14 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:52 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Tue Mar 18 11:50:53 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

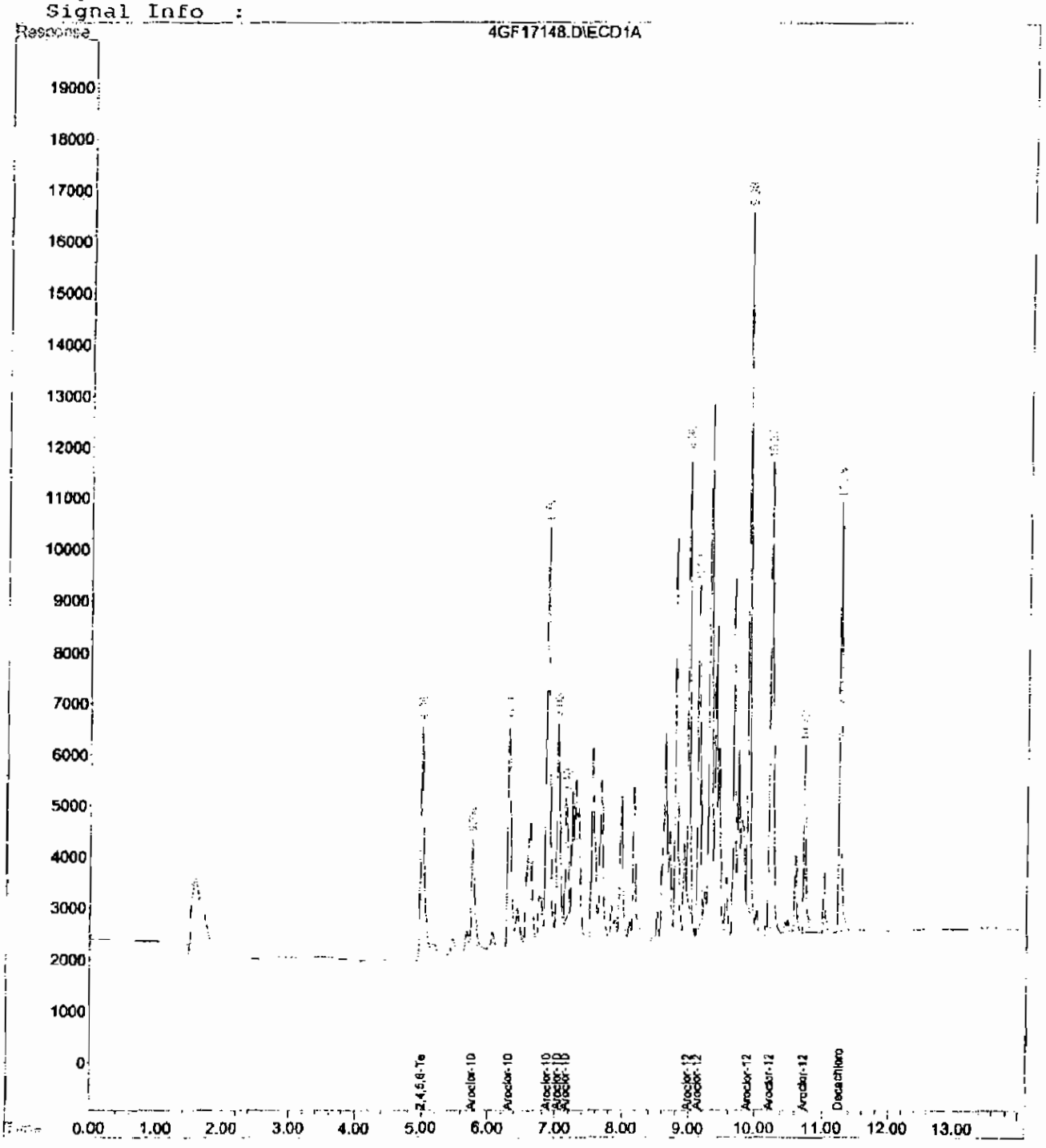
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.99	155523	24.530 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery = 122.65%	
12) S Decachlorobiphenyl	11.25	186820	25.143 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery = 125.72%	
Target Compounds			
2) L1 Aroclor-1016-1	5.76	69092	461.551 UG/L
3) L1 Aroclor-1016-2	6.30	141615	456.504 UG/L
4) L1 Aroclor-1016-3	6.87	267762	467.121 UG/L
5) L1 Aroclor-1016-4	7.03	115105	470.486 UG/L
6) L1 Aroclor-1016-5	7.15	67814	467.212 UG/L
Sum Aroclor-1016-1		661388	2322.874 UG/L
Average Aroclor-1016-1			464.575 UG/L
7) L2 Aroclor-1260-1	8.98	187767	478.926 UG/L
8) L2 Aroclor-1260-2	9.14	183434	498.979 UG/L
9) L2 Aroclor-1260-3	9.88	296448	472.134 UG/L
10) L2 Aroclor-1260-4	10.22	309997	430.567 UG/L
11) L2 Aroclor-1260-5	10.72	85701	405.167 UG/L
Sum Aroclor-1260-1		1063347	2285.773 UG/L
Average Aroclor-1260-1			457.155 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703\4GF17148.D Vial: 7
Acq On : 17 Mar 2003 17:05 Operator: ECL
Sample : WG136401-07 1660 ALT ICV 500 PPB Inst : HP4
Misc : 1,1 SOS63-14 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:52 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Tue Mar 18 11:50:53 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1856
Last Update : Tue Mar 18 11:58:38 2003

Calibration Files
2000 =4GF17149.D 1000 =4GF17150.D 500 =4GF17151.D
250 =4GF17152.D 100 =4GF17153.D 50 =4GF17154.D

		Compound	2000	1000	500	250	100	50	Avg		%RSD
1)	S	2,4,5,6-Tetrachloro	6.733	6.738	6.981	6.779	6.734	6.316	6.714	E3	3.23
2)	L1	Aroclor-1254-1	1.917	2.125	2.316	2.466	2.639	2.646	2.351	E2	12.39
3)	L1	Aroclor-1254-2	1.692	1.851	2.059	2.145	2.242	2.313	2.050	E2	11.60
4)	L1	Aroclor-1254-3	3.195	3.422	3.711	3.761	3.872	3.987	3.658	E2	8.08
5)	L1	Aroclor-1254-4	1.434	1.567	1.749	1.834	1.962	2.040	1.764	E2	13.14
6)	L1	Aroclor-1254-5	3.351	3.543	3.827	3.873	3.976	4.071	3.773	E2	7.25
7)	S	Decachlorobiphenyl	6.123	6.486	6.992	7.105	7.253	7.341	6.883	E3	6.94

Data File : C:\HPCHEM\2\DATA\031703\4GF17149.D Vial: 8
Acq On : 17 Mar 2003 17:24 Operator: ECL
Sample : 1254 ICAL 2000 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:57 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1856
Last Update : Fri Feb 07 08:20:25 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

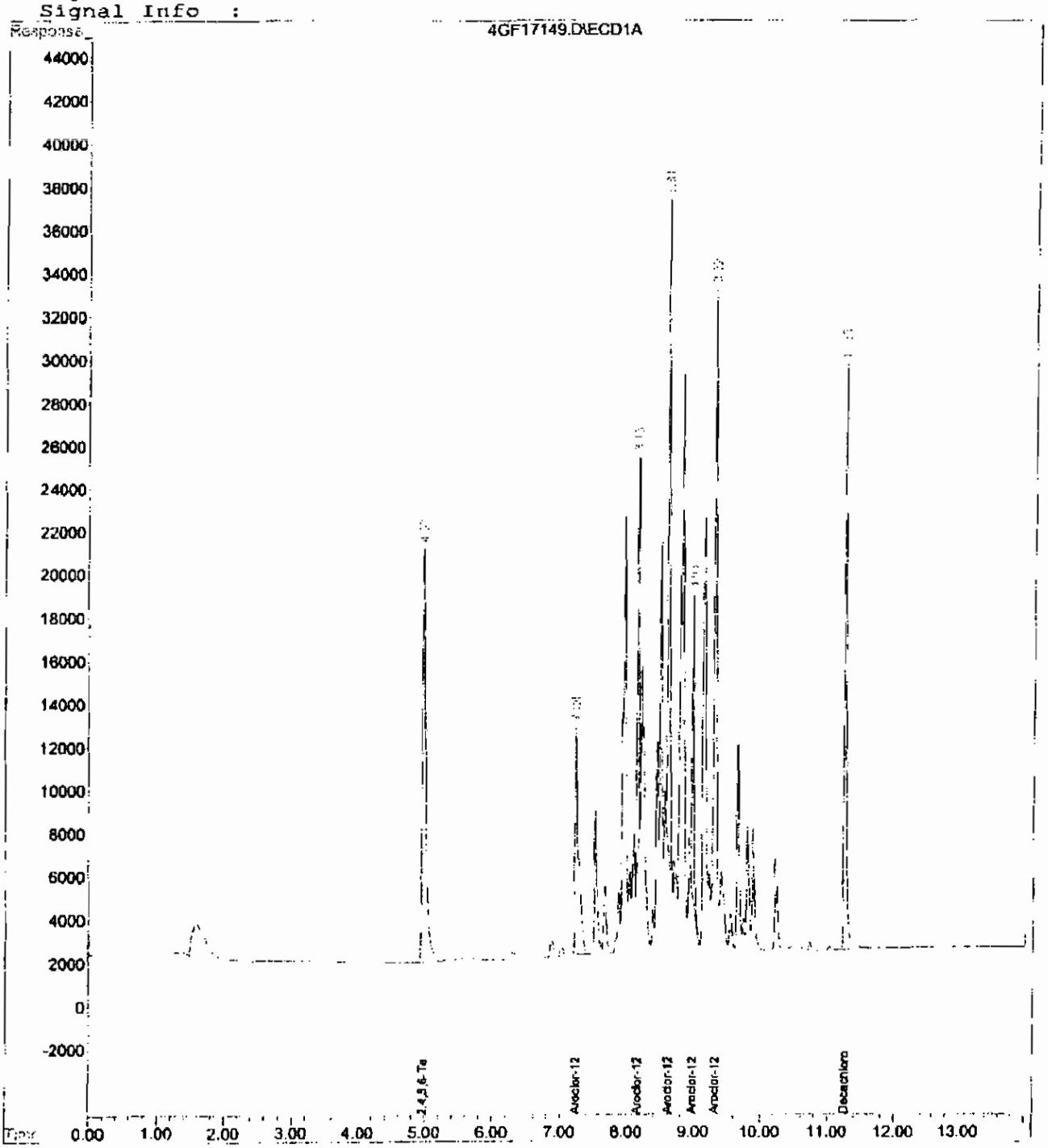
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.98f	673256	104.150 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery = 520.75%#	
7) S Decachlorobiphenyl	11.25	612313	81.917 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery = 409.59%#	
Target Compounds			
2) L1 Aroclor-1254-1	7.24	383306	1758.061 UG/L
3) L1 Aroclor-1254-2	8.16	338473	1915.591 UG/L
4) L1 Aroclor-1254-3	8.61	639098	1955.836 UG/L
5) L1 Aroclor-1254-4	8.98	286715	1720.425 UG/L
6) L1 Aroclor-1254-5	9.32	670208	1910.185 UG/L
Sum Aroclor-1254-1		2317800	9260.098 UG/L
Average Aroclor-1254-1			1852.020 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703\4GF17149.D Vial: 8
Acq On : 17 Mar 2003 17:24 Operator: ECL
Sample : 1254 ICAL 2000 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:57 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1856
Last Update : Fri Feb 07 08:20:25 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703\4GF17150.D Vial: 9
Acq On : 17 Mar 2003 17:42 Operator: ECL
Sample : 1254 ICAL 1000 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:57 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1856
Last Update : Tue Mar 18 11:57:32 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

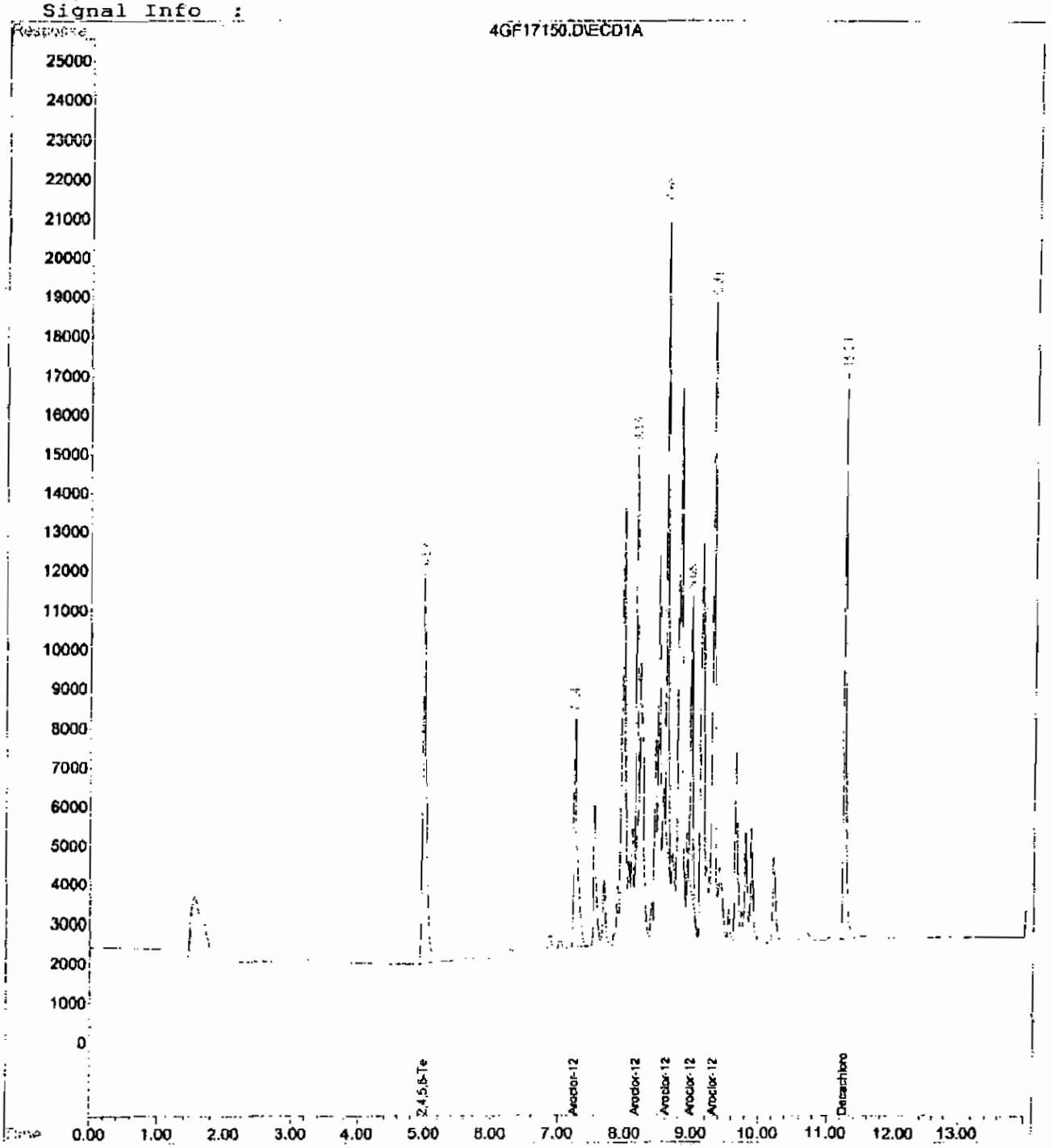
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.97	336911	52.004 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	260.02%#
7) S Decachlorobiphenyl	11.24	324322	44.503 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	222.52%#
Target Compounds			
2) L1 Aroclor-1254-1	7.24	212506	960.523 UG/L
3) L1 Aroclor-1254-2	8.15	185094	1016.760 UG/L
4) L1 Aroclor-1254-3	8.61	342165	1021.285 UG/L
5) L1 Aroclor-1254-4	8.98	156719	936.204 UG/L
6) L1 Aroclor-1254-5	9.32	354301	990.188 UG/L
Sum Aroclor-1254-1		1250785	4924.960 UG/L
Average Aroclor-1254-1			984.992 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703\4GF17150.D Vial: 9
Acq On : 17 Mar 2003 17:42 Operator: ECL
Sample : 1254 ICAL 1000 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:57 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1856
Last Update : Tue Mar 18 11:57:32 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703\4GF17151.D Vial: 10
Acq On : 17 Mar 2003 18:01 Operator: ECL
Sample : 1254 ICAL 500 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:57 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1856
Last Update : Tue Mar 18 11:57:45 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

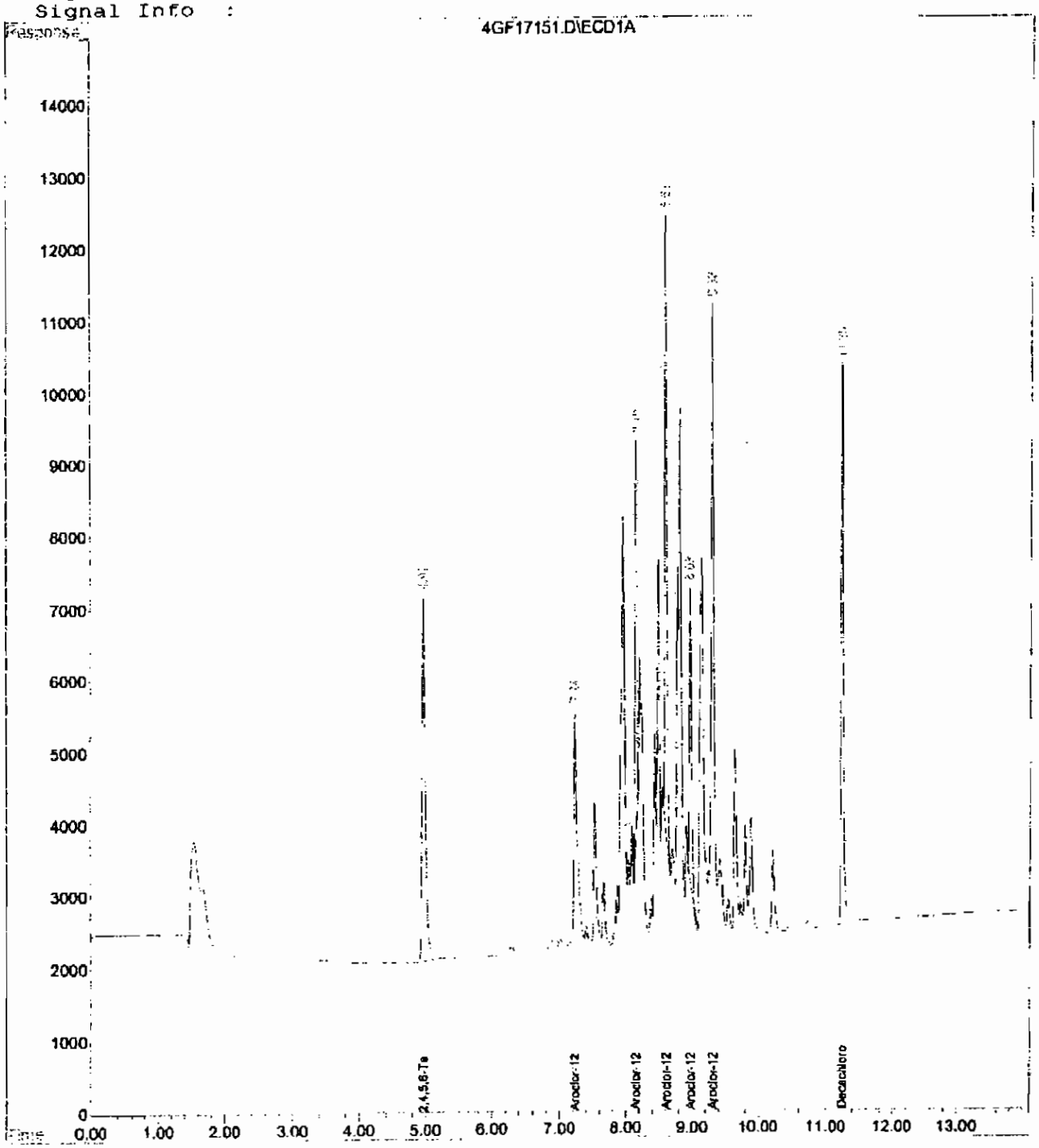
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.97	174530	26.624 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery = 133.12%#	
7) S Decachlorobiphenyl	11.25	174796	24.214 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery = 121.07%	
Target Compounds			
2) L1 Aroclor-1254-1	7.24	115793	519.129 UG/L
3) L1 Aroclor-1254-2	8.16	102946	550.096 UG/L
4) L1 Aroclor-1254-3	8.61	185574	541.337 UG/L
5) L1 Aroclor-1254-4	8.98	87466	517.316 UG/L
6) L1 Aroclor-1254-5	9.32	191339	524.433 UG/L
Sum Aroclor-1254-1		683117	2652.310 UG/L
Average Aroclor-1254-1			530.462 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703\4GF17151.D Vial: 10
Acq On : 17 Mar 2003 18:01 Operator: ECL
Sample : 1254 ICAL 500 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:57 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1856
Last Update : Tue Mar 18 11:57:45 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703\4GF17152.D Vial: 11
Acq On : 17 Mar 2003 18:19 Operator: ECL
Sample : 1254 ICAL 250 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:57 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1856
Last Update : Tue Mar 18 11:57:45 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

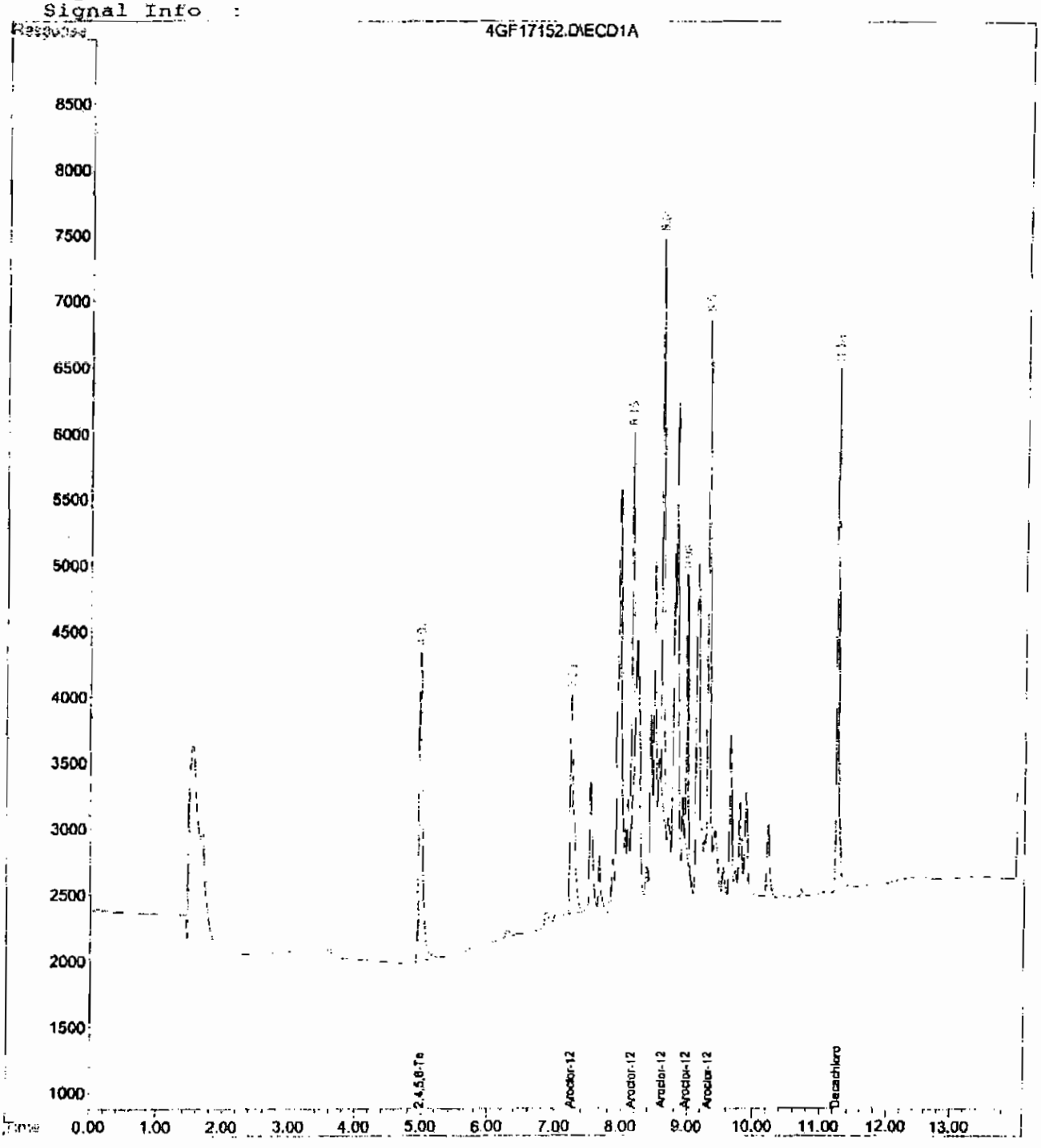
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.97	84744	12.928 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	64.64%
7) S Decachlorobiphenyl	11.24	88810	12.303 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	61.52%
Target Compounds			
2) L1 Aroclor-1254-1	7.24	61661	276.442 UG/L
3) L1 Aroclor-1254-2	8.15	53615	286.496 UG/L
4) L1 Aroclor-1254-3	8.61	94032	274.300 UG/L
5) L1 Aroclor-1254-4	8.98	45843	271.137 UG/L
6) L1 Aroclor-1254-5	9.31	96816	265.359 UG/L
Sum Aroclor-1254-1		351967	1373.734 UG/L
Average Aroclor-1254-1			274.747 UG/L

Data File : C:\HPCHEM\2\DATA\031703\4GF17152.D Vial: 11
Acq On : 17 Mar 2003 18:19 Operator: ECL
Sample : 1254 ICAL 250 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:57 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1856
Last Update : Tue Mar 18 11:57:45 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703\4GF17153.D Vial: 12
Acq On : 17 Mar 2003 18:38 Operator: ECL
Sample : 1254 ICAL 100 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:58 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1856
Last Update : Tue Mar 18 11:58:02 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

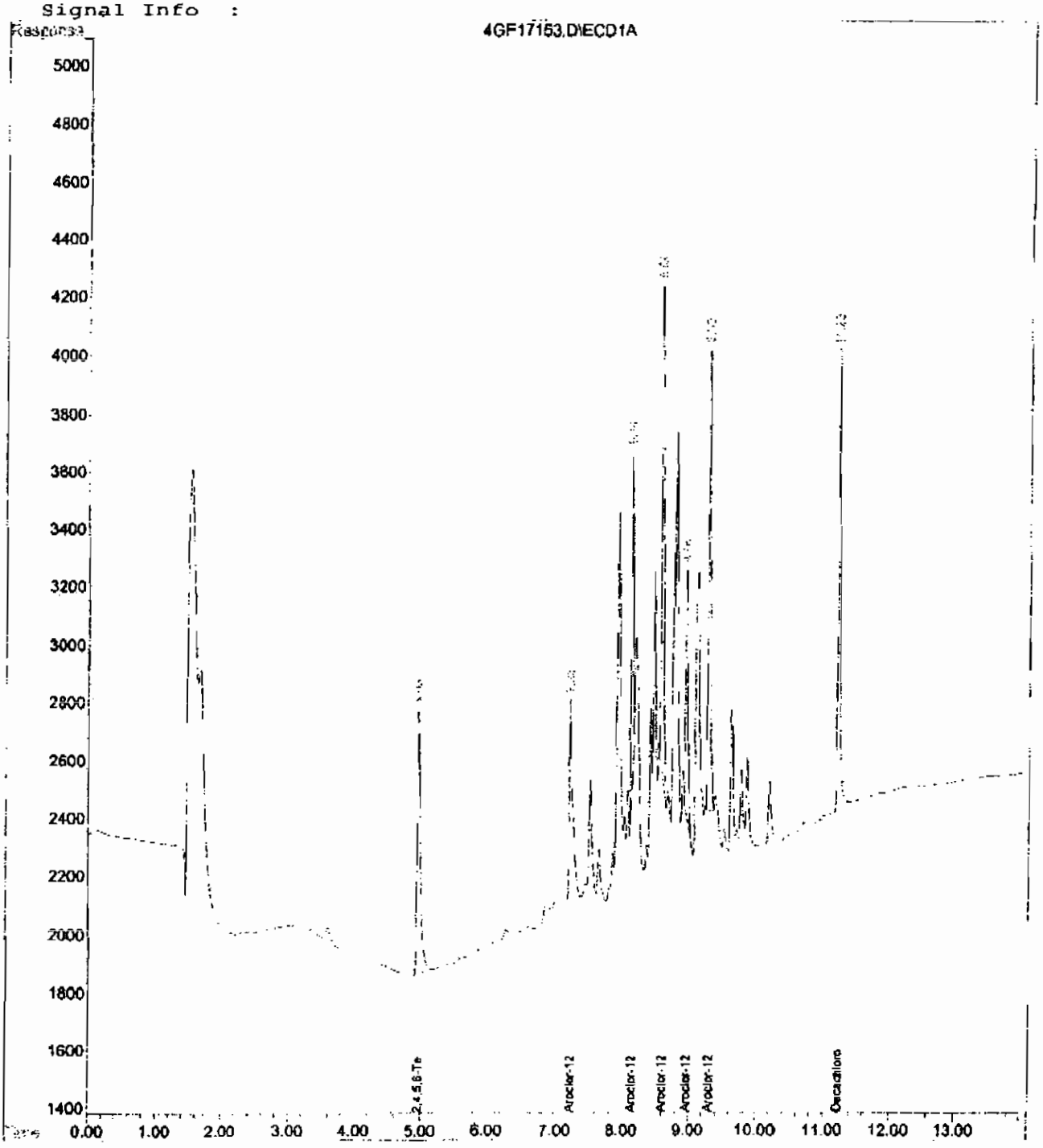
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.96	33669	5.102 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	25.51%#
7) S Decachlorobiphenyl	11.22	36264	5.093 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	25.47%#
Target Compounds			
2) L1 Aroclor-1254-1	7.22	26392	117.531 UG/L
3) L1 Aroclor-1254-2	8.14	22419	116.611 UG/L
4) L1 Aroclor-1254-3	8.59	38723	110.686 UG/L
5) L1 Aroclor-1254-4	8.96	19624	115.113 UG/L
6) L1 Aroclor-1254-5	9.30	39764	107.233 UG/L
Sum Aroclor-1254-1		146922	567.174 UG/L
Average Aroclor-1254-1			113.435 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703\4GF17153.D Vial: 12
Acq On : 17 Mar 2003 18:38 Operator: ECL
Sample : 1254 ICAL 100 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:58 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1856
Last Update : Tue Mar 18 11:58:02 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703\4GF17154.D Vial: 13
Acq On : 17 Mar 2003 18:56 Operator: ECL
Sample : 1254 ICAL 50 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:58 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1856
Last Update : Tue Mar 18 11:58:12 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

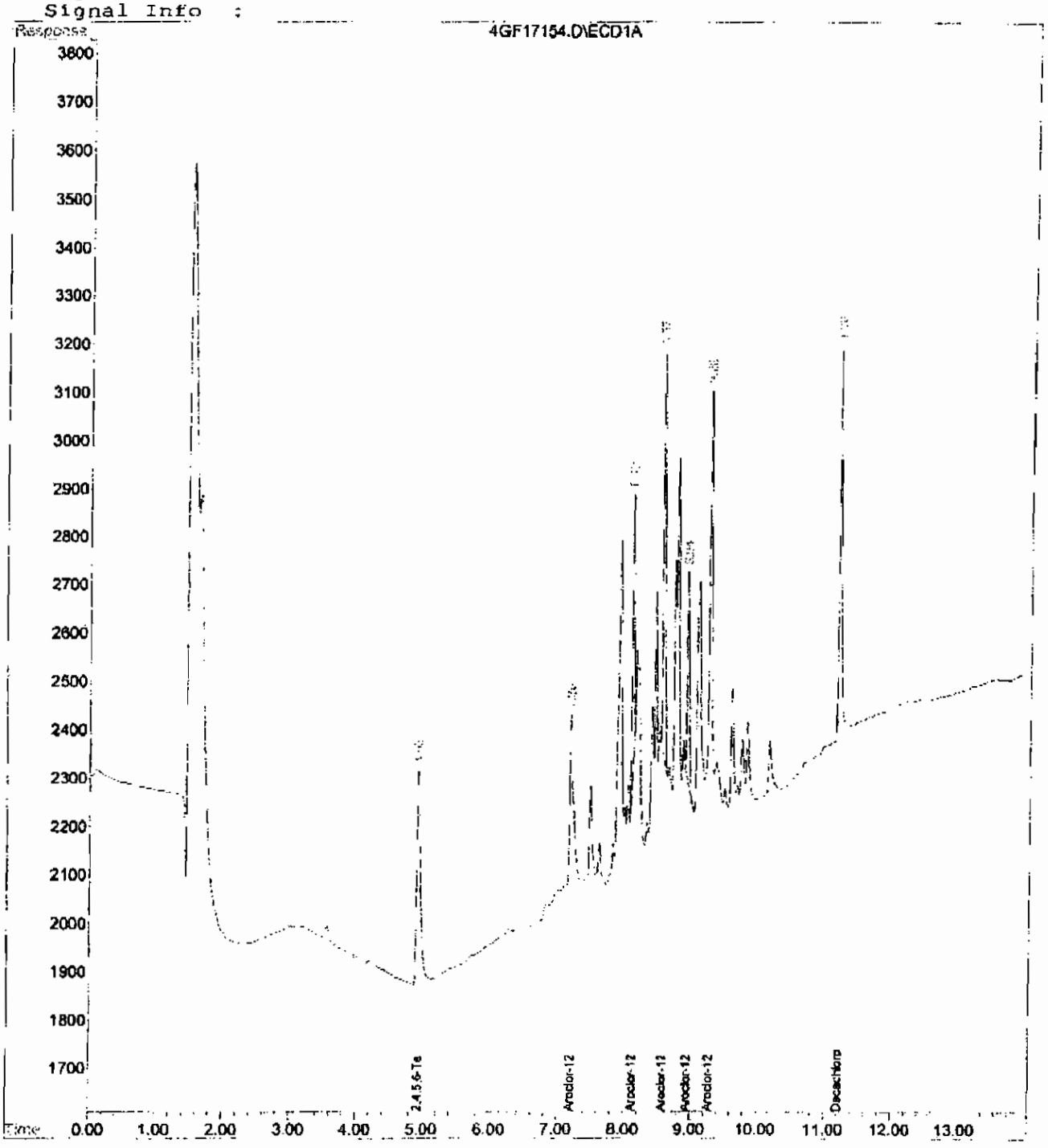
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.93	15791	2.373 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	11.87%#
7) S Decachlorobiphenyl	11.20	18353	2.622 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	13.11%#
Target Compounds			
2) L1 Aroclor-1254-1	7.20	13228	57.812 UG/L
3) L1 Aroclor-1254-2	8.12	11566	58.427 UG/L
4) L1 Aroclor-1254-3	8.57	19933	55.852 UG/L
5) L1 Aroclor-1254-4	8.94	10202	59.234 UG/L
6) L1 Aroclor-1254-5	9.28	20355	54.135 UG/L
Sum Aroclor-1254-1		75283	285.461 UG/L
Average Aroclor-1254-1			57.092 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703\4GF17154.D Vial: 13
Acq On : 17 Mar 2003 18:56 Operator: ECL
Sample : 1254 ICAL 50 PPB Inst : HP4
Misc : SQ563-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:58 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1856
Last Update : Tue Mar 18 11:58:12 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703\4GF17155.D Vial: 14
Acq On : 17 Mar 2003 19:14 Operator: ECL
Sample : 1254 ALT TCV 500 PPB Inst : HP4
Misc : SOS63-08 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1856
Last Update : Tue Mar 18 11:58:38 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	L1	Aroclor-1254-1	500.000	494.733	1.1	100	0.00
3	L1	Aroclor-1254-2	500.000	496.090	0.8	99	0.00
4	L1	Aroclor-1254-3	500.000	506.174	-1.2	100	0.00
5	L1	Aroclor-1254-4	500.000	473.281	5.3	95	0.00
6	L1	Aroclor-1254-5	500.000	489.865	2.0	97	0.00

Data File : C:\HPCHEM\2\DATA\031703\4CF17155.D Vial: 14
Acq On : 17 Mar 2003 19:14 Operator: ECL
Sample : 1254 ALT ICV 500 PPB Inst : HP4
Misc : SOS63-08 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:59 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1856
Last Update : Tue Mar 18 11:58:38 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

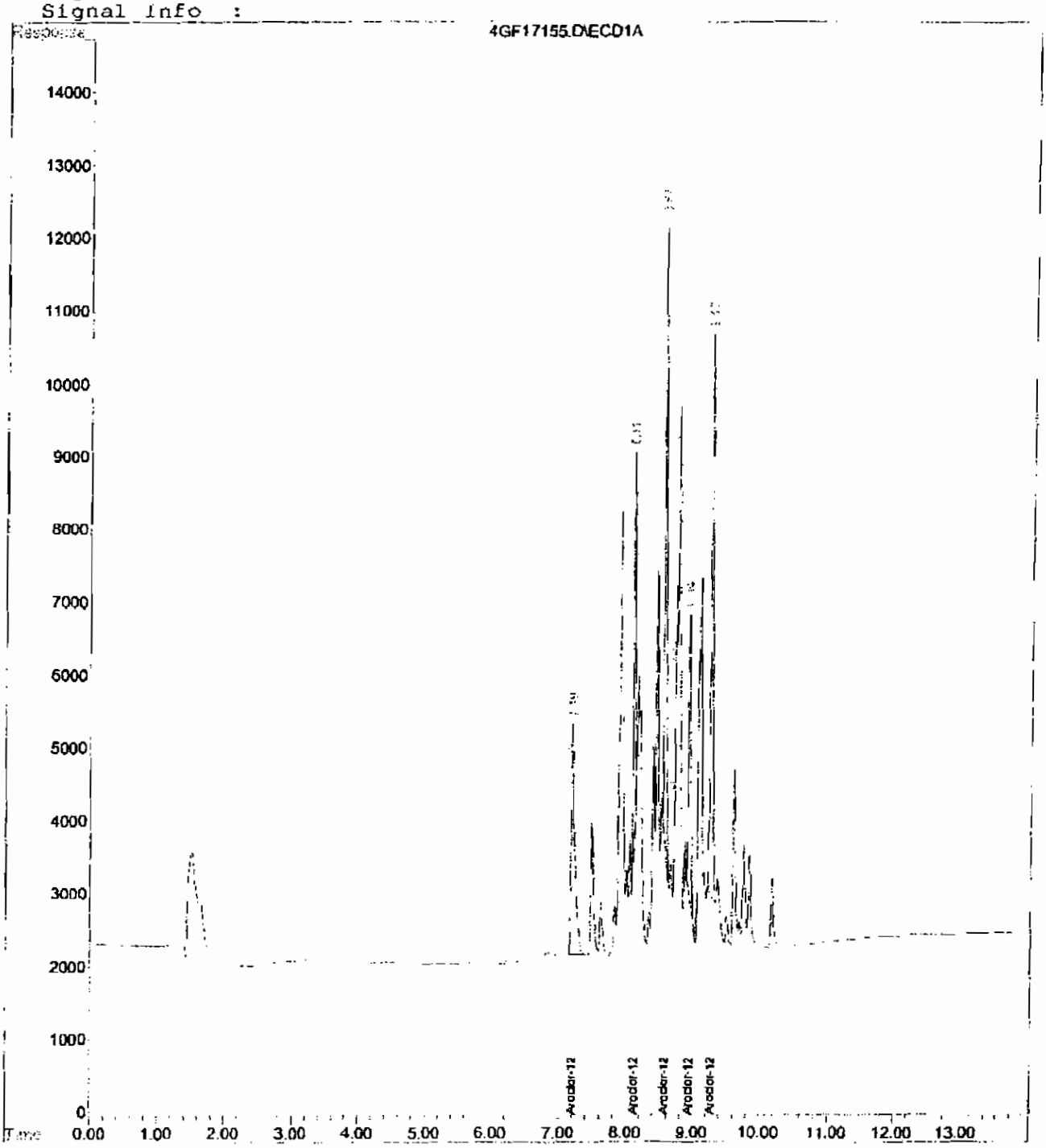
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	0.00	0	N.D. UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	0.00%#
7) S Decachlorobiphenyl	0.00	0	N.D. UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	0.00%#
Target Compounds			
2) L1 Aroclor-1254-1	7.20	116334	494.733 UG/L
3) L1 Aroclor-1254-2	8.11	101714	496.090 UG/L
4) L1 Aroclor-1254-3	8.57	185166	506.174 UG/L
5) L1 Aroclor-1254-4	8.94	83507	473.281 UG/L
6) L1 Aroclor-1254-5	9.28	184848	489.865 UG/L
Sum Aroclor-1254-1		671569	2460.143 UG/L
Average Aroclor-1254-1			492.029 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703\4GF17155.D Vial: 14
Acq On : 17 Mar 2003 19:14 Operator: ECL
Sample : 1254 ALT ICV 500 PPB Inst : HP4
Misc : SOS63-08 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 11:59 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1856
Last Update : Tue Mar 18 11:58:38 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\2\METHODS\1248SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:02:23 2003

Calibration Files
500 =4GF17156.D = =

		Compound	500	Avg	%RSD
1)	S	2,4,5,6-Tetrachloro-M	6.638	6.638#E3	0.00
2)	L1	Aroclor-1248-1	1.337	1.337#E2	0.00
3)	L1	Aroclor-1248-2	3.739	3.739#E2	0.00
4)	L1	Aroclor-1248-3	2.509	2.509#E2	0.00
5)	L1	Aroclor-1248-4	2.824	2.824#E2	0.00
6)	L1	Aroclor-1248-5	8.729	8.729#E1	0.00
7)	S	Decachlorobiphenyl	7.149	7.149#E3	0.00

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\031703\4GF17156.D Vial: 15
Acq On : 17 Mar 2003 19:32 Operator: ECL
Sample : 1248 500 PPB Inst : HP4
Misc : SOS61-40 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 12:02 2003 Quant Results File: 1248SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1248SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:02:23 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.91	165949	25.000	UG/L
Spiked Amount 20.000	Recovery	=	125.00%	
7) S Decachlorobiphenyl	11.19	178730	25.000	UG/L
Spiked Amount 20.000	Recovery	=	125.00%	
Target Compounds				
2) L1 Aroclor-1248-1	6.24	66846	500.000	UG/L
3) L1 Aroclor-1248-2	6.81	186929	500.000	UG/L
4) L1 Aroclor-1248-3	7.61	125439	500.000	UG/L
5) L1 Aroclor-1248-4	8.16	141223	500.000	UG/L
6) L1 Aroclor-1248-5	8.56	43644	500.000	UG/L
Sum Aroclor-1248-1		564081	2500.000	UG/L
Average Aroclor-1248-1			500.000	UG/L

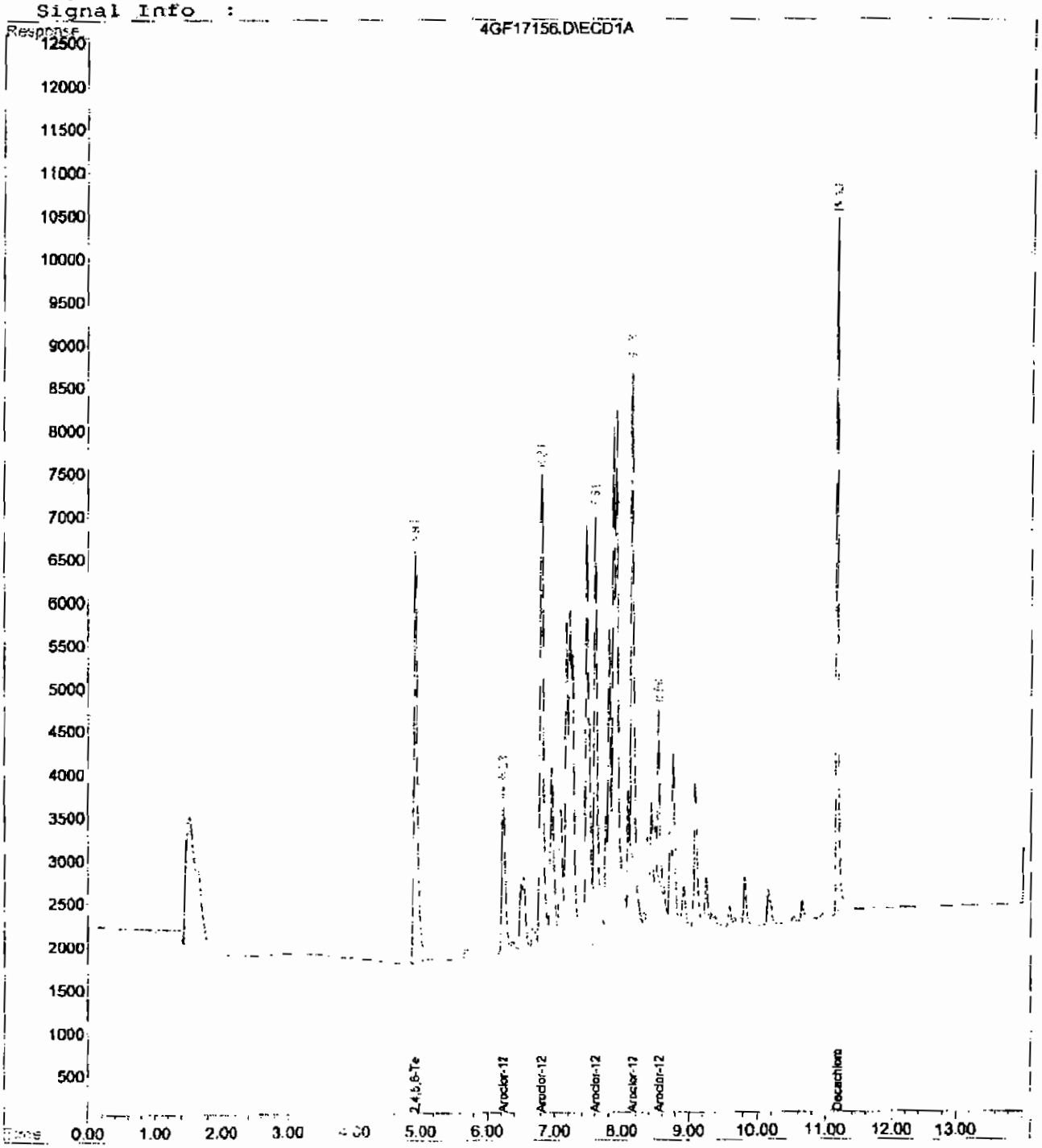
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\[illegible]
Acq On : 17 Mar 2003 19:32
Sample : 1248 500 PPB
Misc : SOS61-40
IntFile : events.e
Quant Time: Mar 18 12:02 2003 Quant Results File: 1248SF.RES

Operator: ECL
Inst : HP4
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\1248SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:02:23 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\4GF17157.D

Acq On : 17 Mar 2003 19:51 Operator: ECL
Sample : 1248 ALT 500 PPB Inst : HP4
Misc : SOS64-08 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1248SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:02:23 2003
Response via : Single Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	L1 Aroclor-1248-1	500.000	482.619	3.5	97	-0.01
3	L1 Aroclor-1248-2	500.000	387.996	22.4#	78	-0.01
4	L1 Aroclor-1248-3	500.000	503.790	-0.8	101	0.00
5	L1 Aroclor-1248-4	500.000	471.977	5.6	94	-0.01
6	L1 Aroclor-1248-5	500.000	607.119	-21.4#	121	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\2\DATA\[illegible]
Acq On : 17 Mar 2003 19:51 Operator: ECL
Sample : 1248 ALT 500 PPB Inst : HP4
Misc : SOS64-08 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 12:02 2003 Quant Results File: 1248SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1248SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:02:23 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

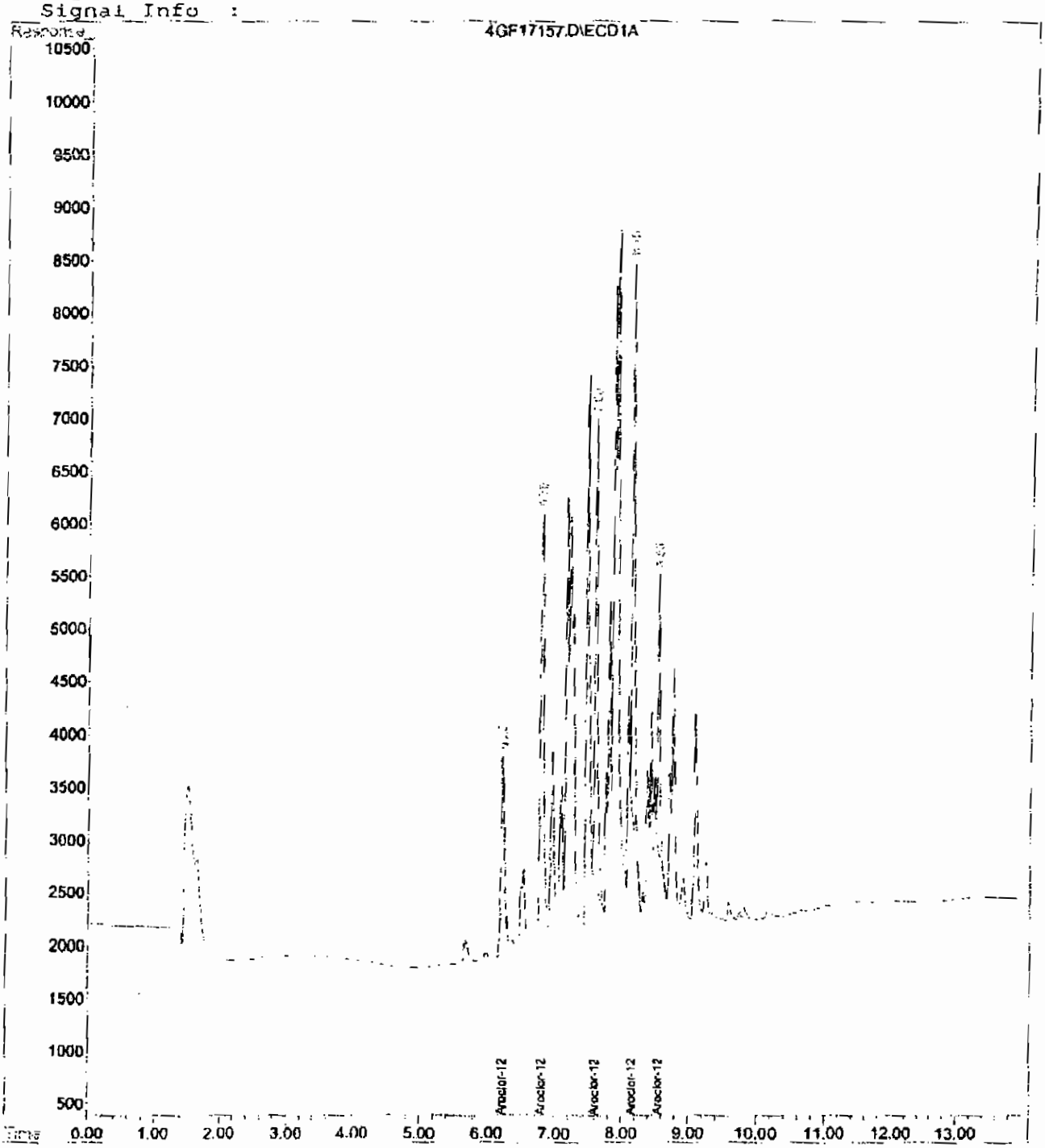
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5,6-Tetrachloro-M-Xyle	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
7) S Decachlorobiphenyl	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
Target Compounds				
2) L1 Aroclor-1248-1	6.22	64522	482.619	UG/L
3) L1 Aroclor-1248-2	6.79	145055	387.996	UG/L
4) L1 Aroclor-1248-3	7.60	126390	503.790	UG/L
5) L1 Aroclor-1248-4	8.15	133308	471.977	UG/L
6) L1 Aroclor-1248-5	8.55	52994	607.119	UG/L
Sum Aroclor-1248-1		522270	2453.501	UG/L
Average Aroclor-1248-1			490.700	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
4GF17157.D 1248SF.M Tue Mar 18 12:02:46 2003 Page 1

Data File : C:\HPCHEM\2\DATA\[illegible]
Acq On : 17 Mar 2003 19:51 Operator: ECL
Sample : 1248 ALT 500 PPB Inst : HP4
Misc : SOS64-08 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 12:02 2003 Quant Results File: 1248SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1248SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:02:23 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\2\METHODS\1242SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:05:24 2003

Calibration Files
500 =4GF17158.D = =
=

	Compound	500	Avg	%RSD
1) S	2,4,5,6-Tetrachloro-M	6.233	6.233#E3	0.00
2) L1	Aroclor-1242-1	1.239	1.239#E2	0.00
3) L1	Aroclor-1242-2	2.347	2.347#E2	0.00
4) L1	Aroclor-1242-3	4.393	4.393#E2	0.00
5) L1	Aroclor-1242-4	1.888	1.888#E2	0.00
6) L1	Aroclor-1242-5	1.648	1.648#E2	0.00
7) S	Decachlorobiphenyl	7.312	7.312#E3	0.00

(#) = Out of Range
1242SF.M Tue Mar 18 12:05:34 2003 Page 1

Data File : C:\HPCHEM\2\DATA\031703\4GF17158.D Vial: 17
Acq On : 17 Mar 2003 20:09 Operator: ECL
Sample : 1242 500 PPB Inst : HP4
Misc : SOS61-41 Multipir: 1.00
IntFile : events.e
Quant Time: Mar 18 12:05 2003 Quant Results File: 1242SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1242SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:05:24 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

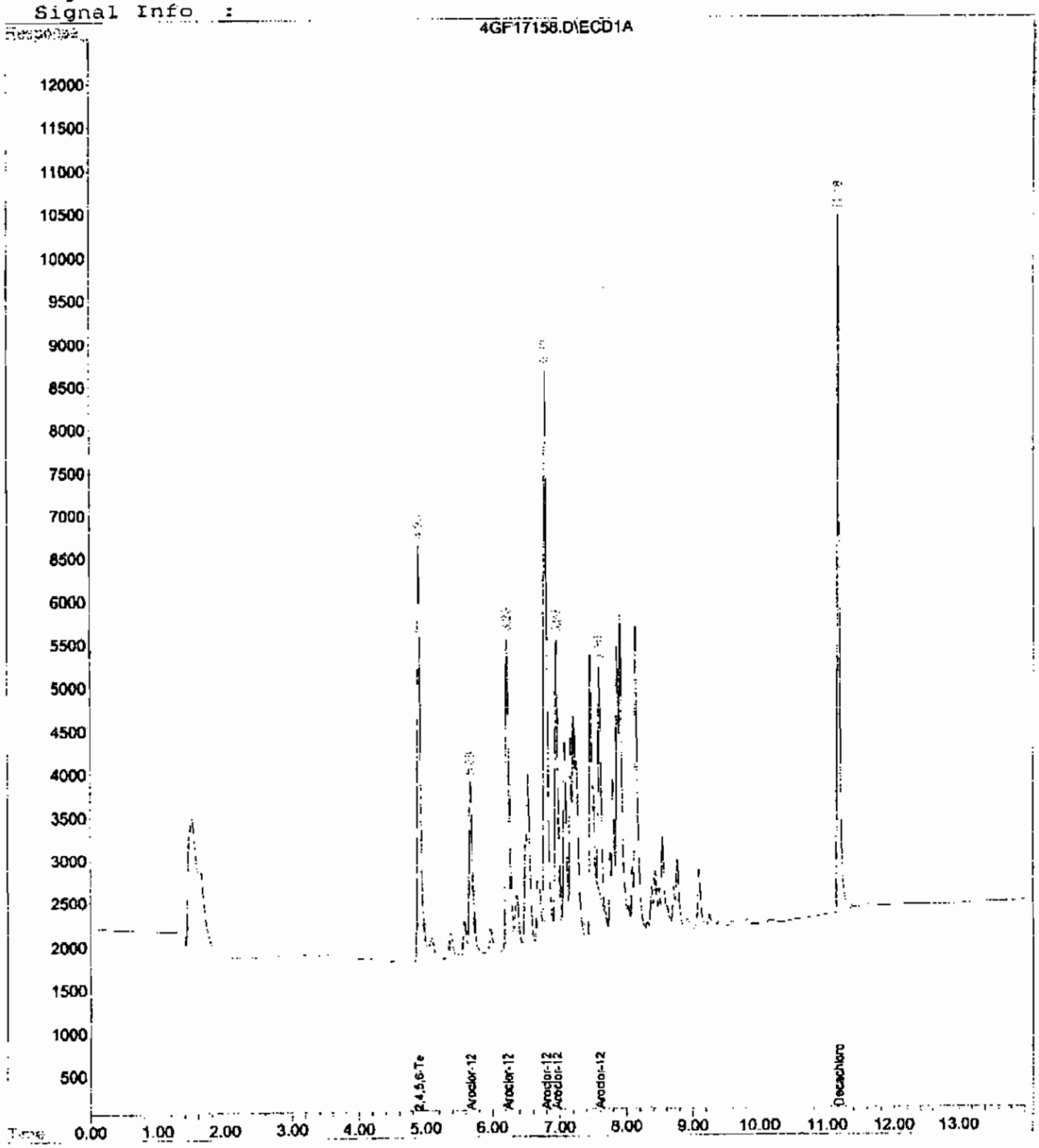
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.90	155817	25.000	UG/L
Spiked Amount 20.000		Recovery =	125.00%	
7) S Decachlorobiphenyl	11.18	182800	25.000	UG/L
Spiked Amount 20.000		Recovery =	125.00%	
Target Compounds				
2) L1 Aroclor-1242-1	5.68	61954	500.000	UG/L
3) L1 Aroclor-1242-2	6.23	117372	500.000	UG/L
4) L1 Aroclor-1242-3	6.80	219636	500.000	UG/L
5) L1 Aroclor-1242-4	6.96	94411	500.000	UG/L
6) L1 Aroclor-1242-5	7.61	82412	500.000	UG/L
Sum Aroclor-1242-1		575786	2500.000	UG/L
Average Aroclor-1242-1			500.000	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703\4GF17158.D Vial: 17
Acq On : 17 Mar 2003 20:09 Operator: ECL
Sample : 1242 500 PPB Inst : HP4
Misc : SOS61-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 12:05 2003 Quant Results File: 1242SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1242SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:05:24 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703\4GF17159.D Vial: 18
Acq On : 17 Mar 2003 20:27 Operator: ECL
Sample : 1242 ALT 500 PPB Inst : HP4
Misc : SQS63-09 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1242SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:05:24 2003
Response via : Single Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	L1	Aroclor-1242-1	500.000	488.857	2.2	98	0.00
3	L1	Aroclor-1242-2	500.000	500.738	-0.1	100	0.00
4	L1	Aroclor-1242-3	500.000	493.278	1.3	99	0.00
5	L1	Aroclor-1242-4	500.000	493.741	1.3	99	0.00
6	L1	Aroclor-1242-5	500.000	495.759	0.8	99	0.00

Data File : C:\HPCHEM\2\DATA\031703\4GF17159.D Vial: 18
Acq On : 17 Mar 2003 20:27 Operator: ECL
Sample : 1242 ALT 500 PPB Inst : HP4
Misc : SOS63-09 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 12:05 2003 Quant Results File: 1242SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1242SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:05:24 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

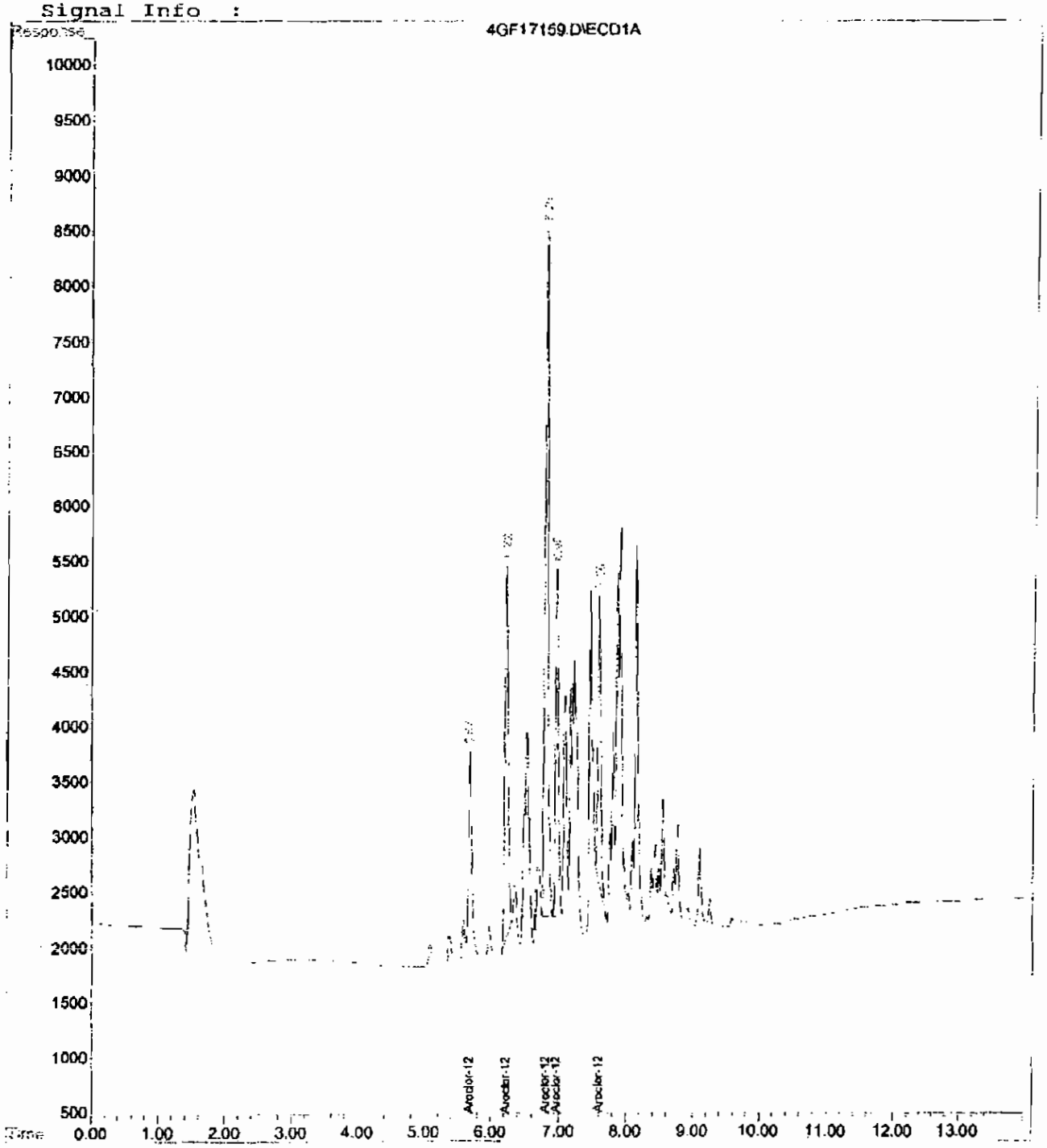
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5,6-Tetrachloro-M-Xyle	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
7) S Decachlorobiphenyl	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
Target Compounds				
2) L1 Aroclor-1242-1	5.68	60573	488.857	UG/L
3) L1 Aroclor-1242-2	6.22	117546	500.738	UG/L
4) L1 Aroclor-1242-3	6.79	216684	493.278	UG/L
5) L1 Aroclor-1242-4	6.95	93230	493.741	UG/L
6) L1 Aroclor-1242-5	7.60	81713	495.759	UG/L
Sum Aroclor-1242-1		569744	2472.373	UG/L
Average Aroclor-1242-1			494.475	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703\4GF17159.D Vial: 18
Acq On : 17 Mar 2003 20:27 Operator: ECL
Sample : 1242 ALT 500 PPB Inst : HP4
Misc : SOS63-09 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 12:05 2003 Quant Results File: 1242SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1242SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:05:24 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\2\METHODS\1232SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:11:21 2003

Calibration Files
500 =4GF17160.D = =
= =

		Compound	500	Avg	%RSD
1)	S	2,4,5,6-Tetrachloro-M	6.088	6.088#E3	0.00
2)	L1	Aroclor-1232-1	4.828	4.828#E1	0.00
3)	L1	Aroclor-1232-2	1.314	1.314#E2	0.00
4)	L1	Aroclor-1232-3	1.245	1.245#E2	0.00
5)	L1	Aroclor-1232-4	2.268	2.268#E2	0.00
6)	L1	Aroclor-1232-5	9.053	9.053#E1	0.00
7)	S	Decachlorobiphenyl	6.854	6.854#E3	0.00

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\031703\4GF17160.D Vial: 19
Acq On : 17 Mar 2003 20:45 Operator: ECL
Sample : 1232 500 PPB Inst : HP4
Misc : SQ564-09 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 12:11 2003 Quant Results File: 1232SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1232SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:11:21 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

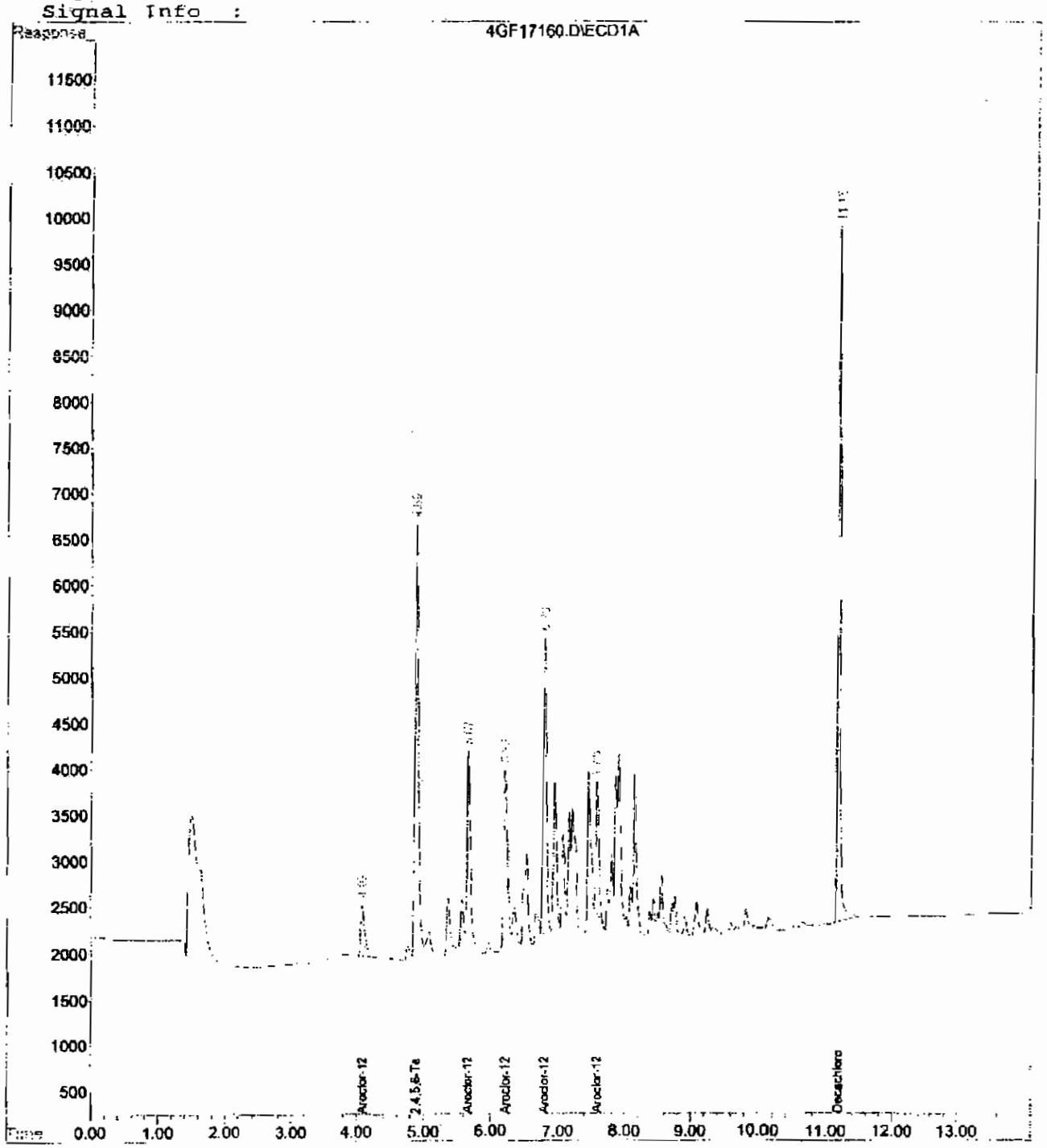
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.89	152190	25.000 UG/L
Spiked Amount 20.000	Recovery	=	125.00%
7) S Decachlorobiphenyl	11.18	171339	25.000 UG/L
Spiked Amount 20.000	Recovery	=	125.00%
Target Compounds			
2) L1 Aroclor-1232-1	4.09	24140	500.000 UG/L
3) L1 Aroclor-1232-2	5.67	65724	500.000 UG/L
4) L1 Aroclor-1232-3	6.22	62226	500.000 UG/L
5) L1 Aroclor-1232-4	6.79	113423	500.000 UG/L
6) L1 Aroclor-1232-5	7.60	45266	500.000 UG/L
Sum Aroclor-1232-1		310778	2500.000 UG/L
Average Aroclor-1232-1			500.000 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703\4GF17160.D Vial: 19
Acq On : 17 Mar 2003 20:45 Operator: ECL
Sample : 1232 500 PPB Inst : HP4
Misc : SOS64-09 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 12:11 2003 Quant Results File: 1232SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1232SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:11:21 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703\4GF17161.D Vial: 20
Acq On : 17 Mar 2003 21:04 Operator: ECL
Sample : 1232 ALT 500 PPB Inst : HP4
Misc : SOS64-10 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1232SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:11:21 2003
Response via : Single Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	L1	Aroclor-1232-1	500.000	564.292	-12.9	113	0.01
3	L1	Aroclor-1232-2	500.000	636.468	-27.3#	127	0.00
4	L1	Aroclor-1232-3	500.000	525.319	-5.1	105	0.00
5	L1	Aroclor-1232-4	500.000	537.605	-7.5	108	0.00
6	L1	Aroclor-1232-5	500.000	480.486	3.9	96	0.00

Data File : C:\HPCHEM\2\DATA\031703\4GF17161.D Vial: 20
Acq On : 17 Mar 2003 21:04 Operator: ECL
Sample : 1232 ALT 500 PPB Inst : HP4
Misc : SOS64-10 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 12:11 2003 Quant Results File: 1232SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1232SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:11:21 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

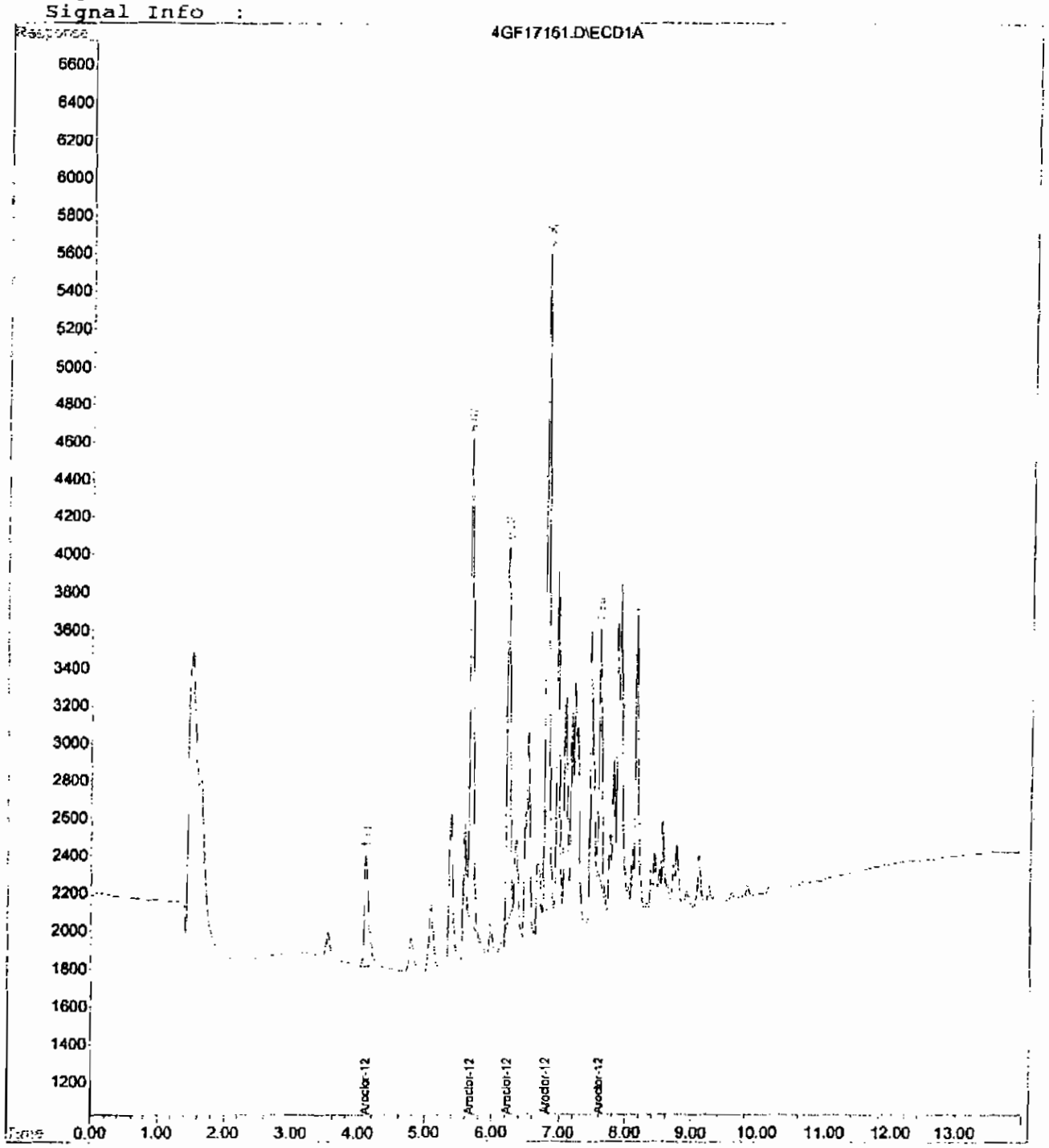
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5,6-Tetrachloro-M-Xyle	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
7) S Decachlorobiphenyl	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
Target Compounds				
2) L1 Aroclor-1232-1	4.11	27244	564.292	UG/L
3) L1 Aroclor-1232-2	5.67	83662	636.468	UG/L
4) L1 Aroclor-1232-3	6.23	65377	525.319	UG/L
5) L1 Aroclor-1232-4	6.80	121953	537.605	UG/L
6) L1 Aroclor-1232-5	7.60	43499	480.486	UG/L
Sum Aroclor-1232-1		341735	2744.170	UG/L
Average Aroclor-1232-1			548.834	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703\4GF17161.D Vial: 20
Acq On : 17 Mar 2003 21:04 Operator: ECL
Sample : 1232 ALT 500 PPB Inst : HP4
Misc : SOS64-10 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 12:11 2003 Quant Results File: 1232SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1232SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:11:21 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\2\METHODS\1221SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:13:50 2003

Calibration Files
500 =4GF17162.D = =
= =

		Compound	500	Avg	%RSD
1)	S	2,4,5,6-Tetrachloro-M	6.018	6.018#E3	0.00
2)	L1	Aroclor-1221-1	9.071	9.071#E1	0.00
3)	L1	Aroclor-1221-2	7.745	7.745#E1	0.00
4)	L1	Aroclor-1221-3	3.146	3.146#E1	0.00
5)	L1	Aroclor-1221-4	1.864	1.864#E2	0.00
6)	L1	Aroclor-1221-5	3.215	3.215#E1	0.00
7)	S	Decachlorobiphenyl	6.838	6.838#E3	0.00

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\031703\4GF17162.D Vial: 21
Acq On : 17 Mar 2003 21:22 Operator: ECL
Sample : 1221 500 PPB Inst : HP4
Misc : SQ564-07 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 12:13 2003 Quant Results File: 1221SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1221SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:13:50 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

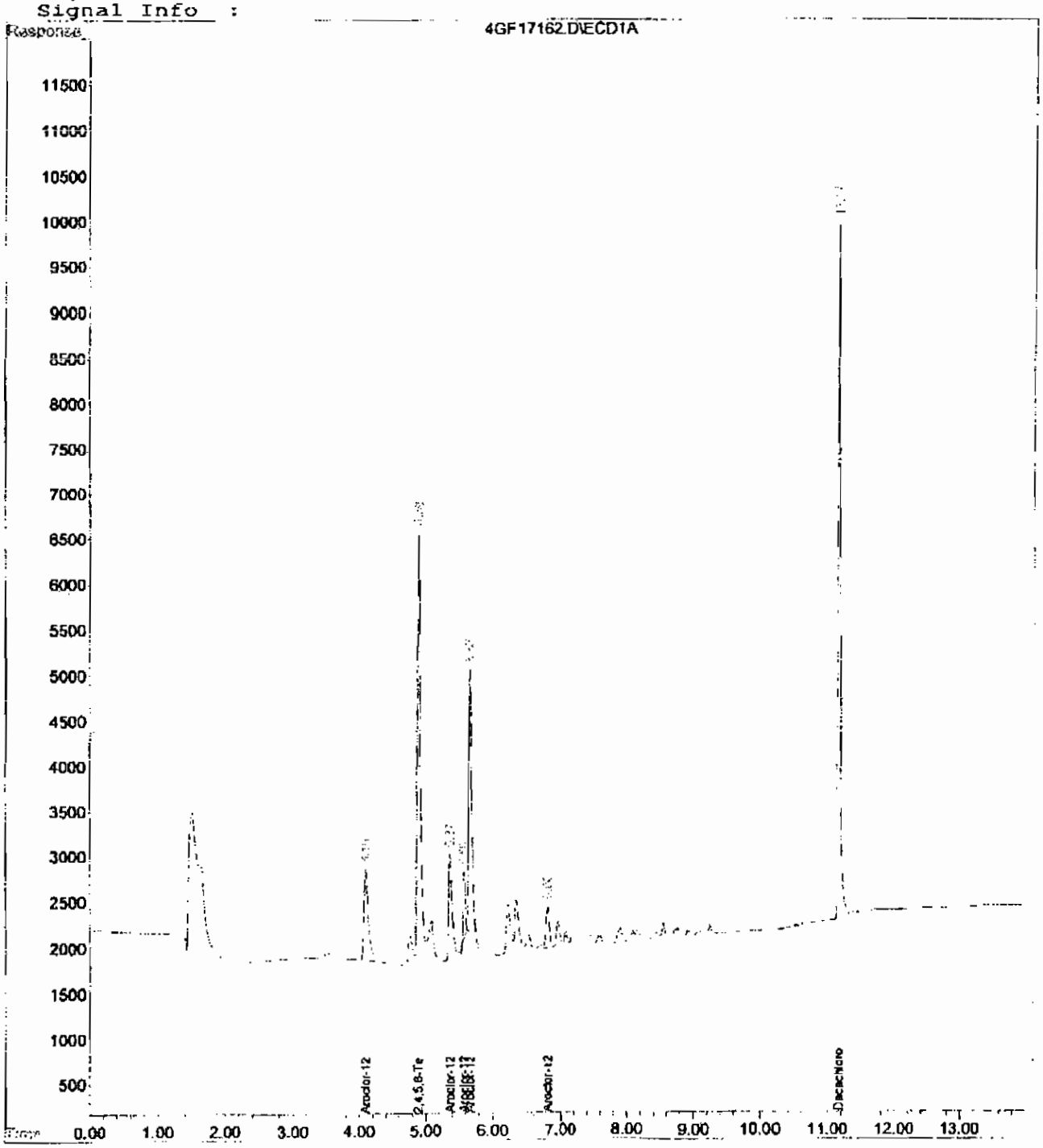
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.89	150444	25.000 UG/L
Spiked Amount 20.000		Recovery =	125.00%
7) S Decachlorobiphenyl	11.17	170952	25.000 UG/L
Spiked Amount 20.000		Recovery =	125.00%
Target Compounds			
2) L1 Aroclor-1221-1	4.10	45355	500.000 UG/L
3) L1 Aroclor-1221-2	5.37	38726	500.000 UG/L
4) L1 Aroclor-1221-3	5.58	15732	500.000 UG/L
5) L1 Aroclor-1221-4	5.67	93188	500.000 UG/L
6) L1 Aroclor-1221-5	6.80	16074	500.000 UG/L
Sum Aroclor-1221-1		209076	2500.000 UG/L
Average Aroclor-1221-1			500.000 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703\4GF17162.D Vial: 21
Acq On : 17 Mar 2003 21:22 Operator: ECL
Sample : 1221 500 PPB Inst : HP4
Misc : SOS64-07 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 12:13 2003 Quant Results File: 1221SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1221SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:13:50 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703\4GF17163.D Vial: 22
Acq On : 17 Mar 2003 21:40 Operator: ECL
Sample : 1221 ALT 500 PPB Inst : HP4
Misc : SOS61-43 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1221SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:13:50 2003
Response via : Single Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	L1	Aroclor-1221-1	500.000	497.489	0.5	99	0.00
3	L1	Aroclor-1221-2	500.000	556.592	-11.3	111	0.00
4	L1	Aroclor-1221-3	500.000	626.548	-25.3#	125	0.00
5	L1	Aroclor-1221-4	500.000	507.234	-1.4	101	0.00
6	L1	Aroclor-1221-5	500.000	496.825	0.6	99	0.00

Data File : C:\HPCHEM\2\DATA\031703\4GF17163.D Vial: 22
Acq On : 17 Mar 2003 21:40 Operator: ECL
Sample : 1221 ALT 500 PPB Inst : HP4
Misc : SOS61-43 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 12:14 2003 Quant Results File: 1221SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1221SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:13:50 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

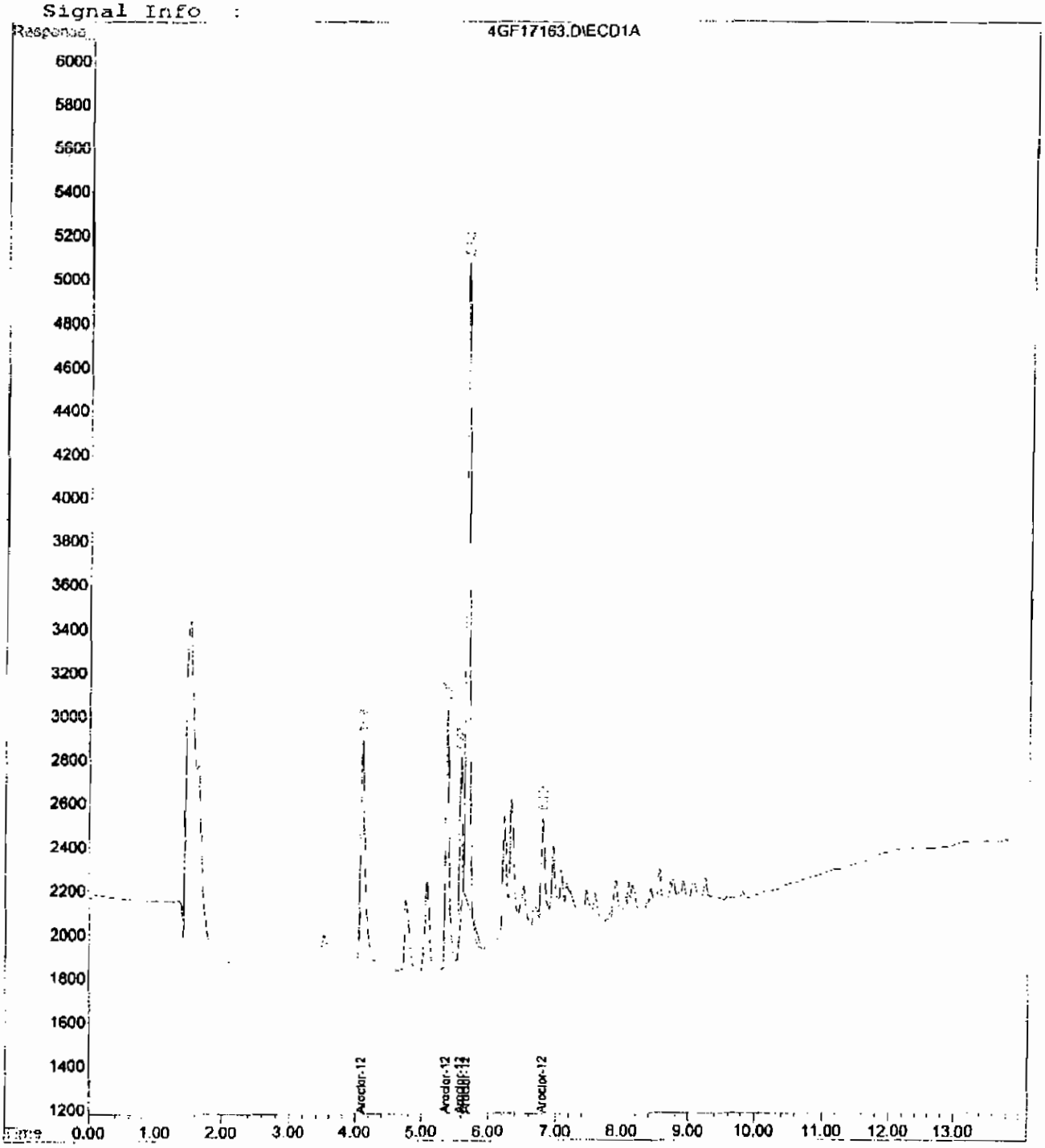
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5,6-Tetrachloro-M-Xyle	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
7) S Decachlorobiphenyl	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
Target Compounds				
2) L1 Aroclor-1221-1	4.09	45128	497.489	UG/L
3) L1 Aroclor-1221-2	5.36	43109	556.592	UG/L
4) L1 Aroclor-1221-3	5.57	19714	626.548	UG/L
5) L1 Aroclor-1221-4	5.66	94537	507.234	UG/L
6) L1 Aroclor-1221-5	6.80	15972	496.825	UG/L
Sum Aroclor-1221-1		218459	2684.690	UG/L
Average Aroclor-1221-1			536.938	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703\4GF17163.D Vial: 22
Acq On : 17 Mar 2003 21:40 Operator: ECL
Sample : 1221 ALT 500 PPB Inst : HP4
Misc : SOS61-43 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 12:14 2003 Quant Results File: 1221SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1221SF.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 12:13:50 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031903\4GF17199.D Vial: 3
Acq On : 19 Mar 2003 11:43 Operator: ECL
Sample : WG136558-01 1660 CCV 500 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Wed Mar 19 14:42:06 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	25.000	24.531	1.9	98	0.00
2	L1	Aroclor-1016-1	500.000	492.148	1.6	100	0.00
3	L1	Aroclor-1016-2	500.000	457.413	8.5	95	0.00
4	L1	Aroclor-1016-3	500.000	495.832	0.8	100	0.00
5	L1	Aroclor-1016-4	500.000	495.781	0.8	100	0.00
6	L1	Aroclor-1016-5	500.000	510.024	-2.0	101	0.00
7	L2	Aroclor-1260-1	500.000	473.896	5.2	98	0.00
8	L2	Aroclor-1260-2	500.000	480.436	3.9	97	0.00
9	L2	Aroclor-1260-3	500.000	503.855	-0.8	109	0.00
10	L2	Aroclor-1260-4	500.000	459.320	8.1	95	0.00
11	L2	Aroclor-1260-5	500.000	460.840	7.8	92	0.00
12	S	Decachlorobiphenyl	25.000	22.043	11.8	88	0.00

Data File : C:\HPCHEM\2\DATA\031903\4GF17199.D Vial: 3
Acq On : 19 Mar 2003 11:43 Operator: ECL
Sample : WG136558-01 1660 CCV 500 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 19 14:42 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Wed Mar 19 14:42:06 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

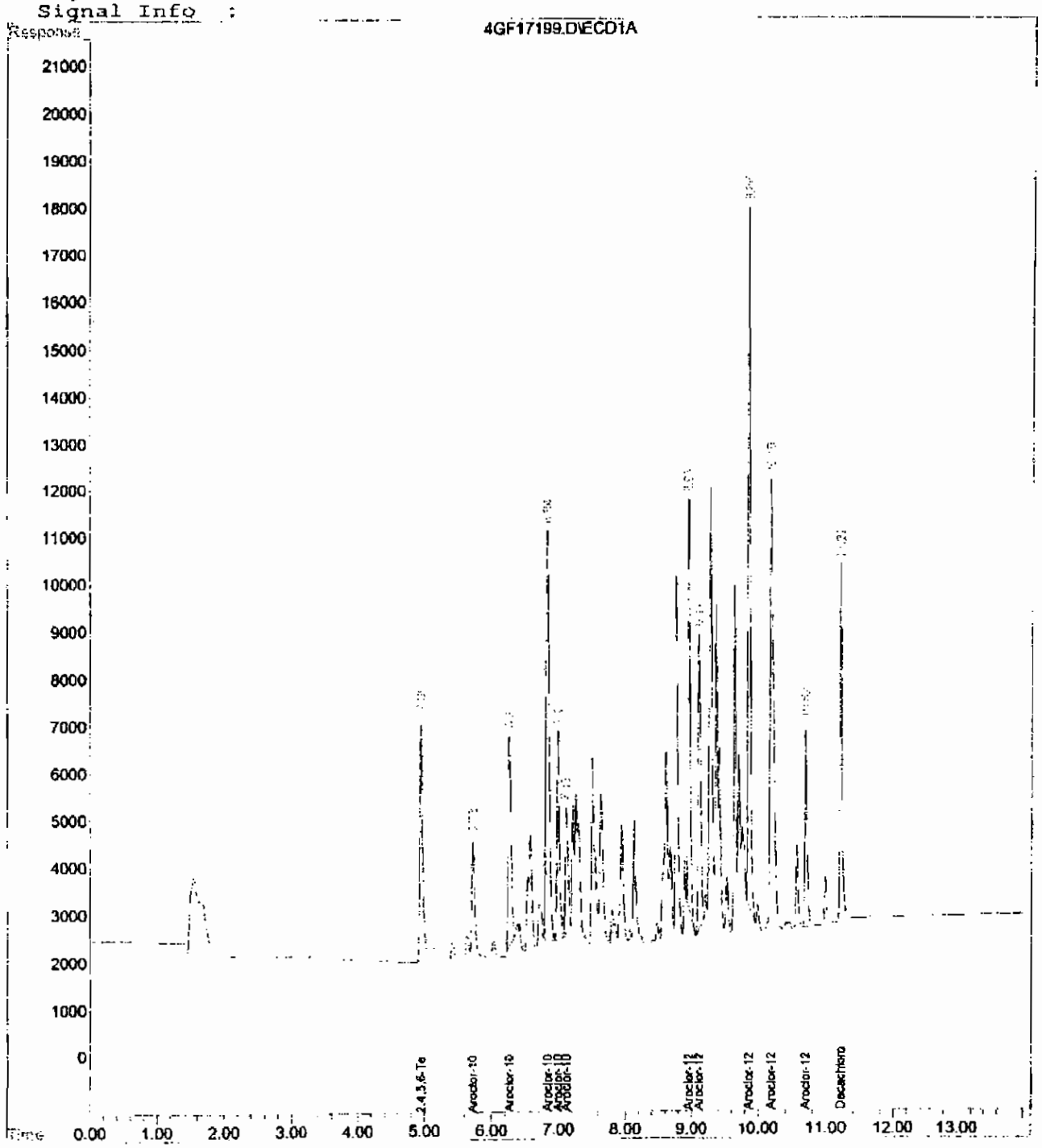
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.95	155531	24.531 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	122.66%
12) S Decachlorobiphenyl	11.22	163784	22.043 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	110.22%
Target Compounds			
2) L1 Aroclor-1016-1	5.72	73673	492.148 UG/L
3) L1 Aroclor-1016-2	6.27	141897	457.413 UG/L
4) L1 Aroclor-1016-3	6.84	284220	495.832 UG/L
5) L1 Aroclor-1016-4	7.00	121293	495.781 UG/L
6) L1 Aroclor-1016-5	7.12	74028	510.024 UG/L
Sum Aroclor-1016-1		695110	2451.198 UG/L
Average Aroclor-1016-1			490.240 UG/L
7) L2 Aroclor-1260-1	8.96	185795	473.896 UG/L
8) L2 Aroclor-1260-2	9.11	176617	480.436 UG/L
9) L2 Aroclor-1260-3	9.86	316365	503.855 UG/L
10) L2 Aroclor-1260-4	10.19	330698	459.320 UG/L
11) L2 Aroclor-1260-5	10.70	97477	460.840 UG/L
Sum Aroclor-1260-1		1106953	2378.347 UG/L
Average Aroclor-1260-1			475.669 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031903\4GF17199.D Vial: 3
Acq On : 19 Mar 2003 11:43 Operator: ECL
Sample : WG136558-01 1660 CCV 500 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 19 14:42 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Wed Mar 19 14:42:06 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031903\4GF17205.D Vial: 9
Acq On : 19 Mar 2003 13:34 Operator: ECL
Sample : WG136558-02 1660 CCV 250 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Wed Mar 19 14:42:40 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	12.500	12.344	1.2	97	0.00
2	L1	Aroclor-1016-1	250.000	265.404	-6.2	99	0.00
3	L1	Aroclor-1016-2	250.000	248.454	0.6	92	0.01
4	L1	Aroclor-1016-3	250.000	259.813	-3.9	99	0.00
5	L1	Aroclor-1016-4	250.000	261.728	-4.7	99	0.00
6	L1	Aroclor-1016-5	250.000	261.050	-4.4	101	0.00
7	L2	Aroclor-1260-1	250.000	253.814	-1.5	97	0.00
8	L2	Aroclor-1260-2	250.000	251.117	-0.4	97	0.00
9	L2	Aroclor-1260-3	250.000	230.405	7.8	85	0.00
10	L2	Aroclor-1260-4	250.000	237.780	4.9	90	0.00
11	L2	Aroclor-1260-5	250.000	236.655	5.3	93	0.00
12	S	Decachlorobiphenyl	12.500	11.612	7.1	89	0.00

Data File : C:\HPCHEM\2\DATA\031903\4GF17205.D Vial: 9
Acq On : 19 Mar 2003 13:34 Operator: ECL
Sample : WG136558-02 1660 CCV 250 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 19 14:42 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Wed Mar 19 14:42:40 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

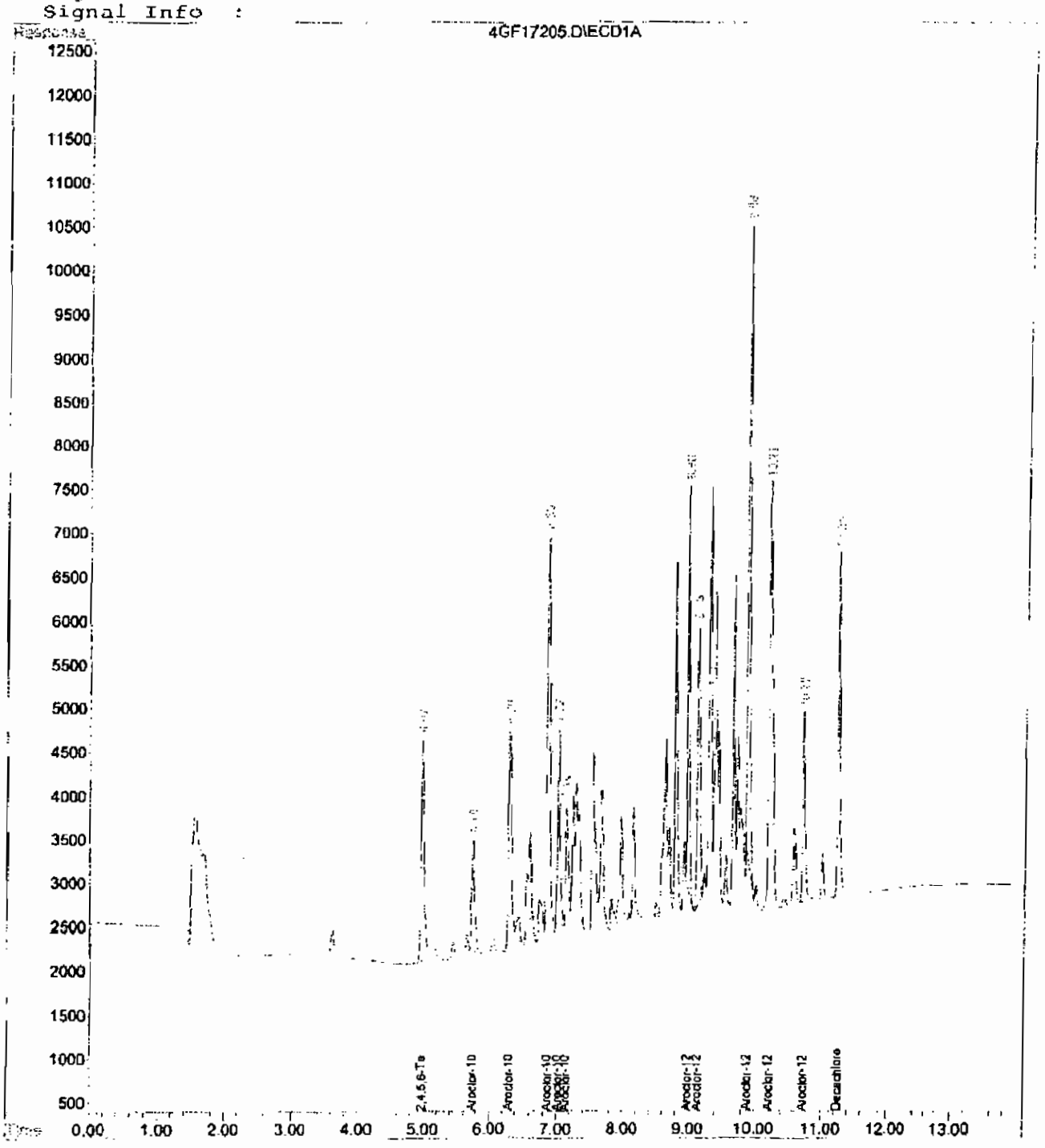
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.97	78261	12.344 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	61.72%
12) S Decachlorobiphenyl	11.24	86278	11.612 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	58.06%
Target Compounds			
2) L1 Aroclor-1016-1	5.74	39730	265.404 UG/L
3) L1 Aroclor-1016-2	6.30	77074	248.454 UG/L
4) L1 Aroclor-1016-3	6.86	148929	259.813 UG/L
5) L1 Aroclor-1016-4	7.02	64032	261.728 UG/L
6) L1 Aroclor-1016-5	7.14	37890	261.050 UG/L
Sum Aroclor-1016-1		367656	1296.448 UG/L
Average Aroclor-1016-1			259.290 UG/L
7) L2 Aroclor-1260-1	8.98	99510	253.814 UG/L
8) L2 Aroclor-1260-2	9.13	92315	251.117 UG/L
9) L2 Aroclor-1260-3	9.88	144669	230.405 UG/L
10) L2 Aroclor-1260-4	10.21	171195	237.780 UG/L
11) L2 Aroclor-1260-5	10.72	50057	236.655 UG/L
Sum Aroclor-1260-1		557747	1209.771 UG/L
Average Aroclor-1260-1			241.954 UG/L

Data File : C:\HPCHEM\2\DATA\031903\4GF17205.D Vial: 9
Acq On : 19 Mar 2003 13:34 Operator: ECL
Sample : WG136558-02 1660 CCV 250 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 19 14:42 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Wed Mar 19 14:42:40 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

Instrument ID: HP-4 Front Column

GC Column: RTx-CLP II

	STANDARD #1	STANDARD #2	STANDARD #3
Date Run	6/24/2002	6/26/2002	6/27/2002
File #	4GF15023	4GF15060	4GF15088

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
AR 1016 #1	6.03	6.01	6.00	0.046
AR 1016 #2	6.57	6.55	6.54	0.046
AR 1016 #3	7.13	7.11	7.10	0.046
AR 1016 #4	7.29	7.27	7.25	0.060
AR 1016 #5	7.41	7.39	7.38	0.046
AR 1260 #1	9.05	9.03	9.02	0.046
AR 1260 #2	9.24	9.22	9.21	0.046
AR 1260 #3	9.40	9.38	9.36	0.060
AR 1260 #4	10.15	10.13	10.11	0.060
AR 1260 #5	11.00	10.98	10.96	0.060

2.2.3.4 Raw QC Data

Data File : C:\HPCHEM\2\DATA\031903\4GF17200.D Vial: 4
Acq On : 19 Mar 2003 12:01 Operator: ECL
Sample : WG136480-01 BLANK V200 P93 Inst : HP4
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 20 8:43 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Thu Mar 20 08:42:25 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

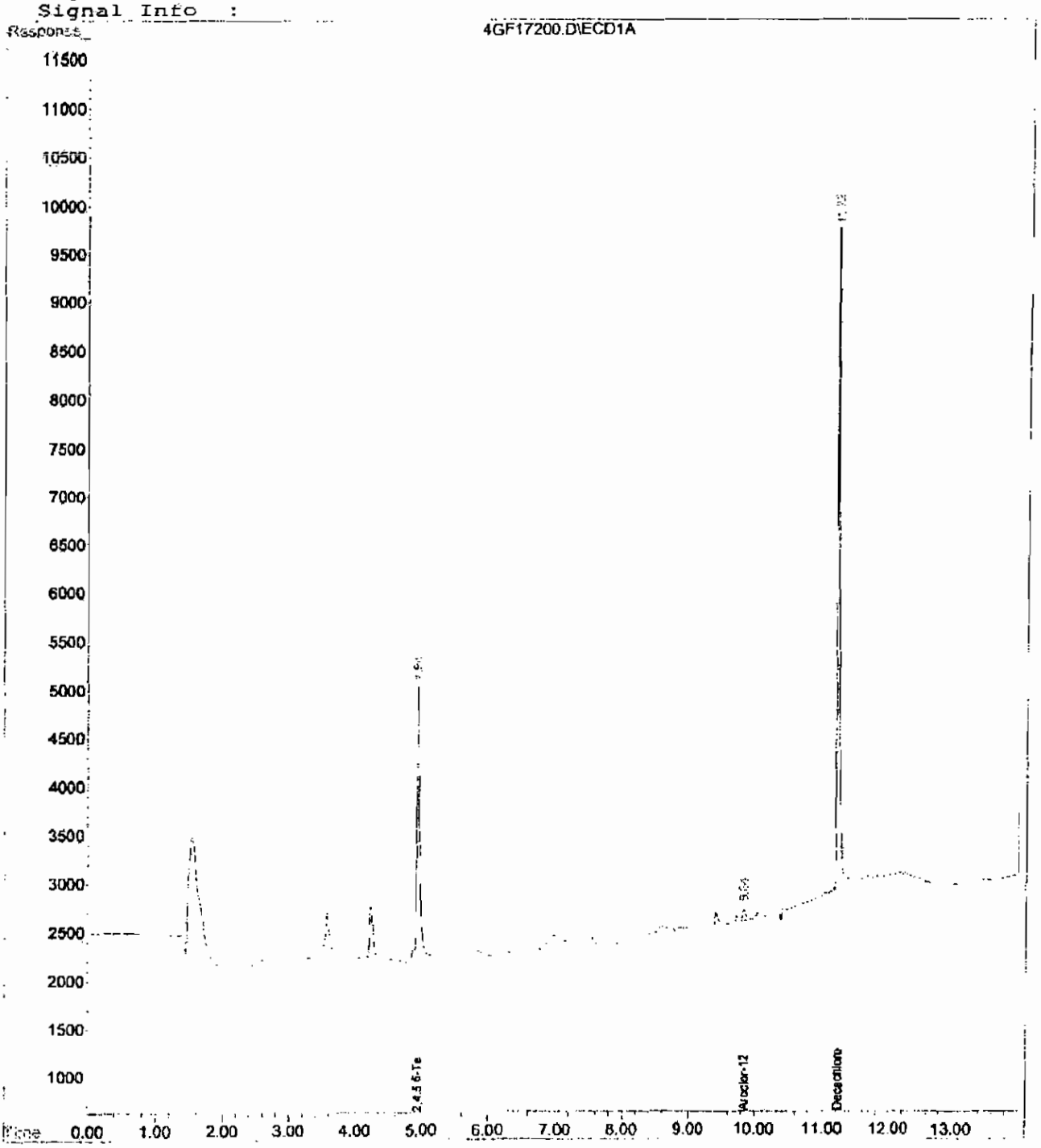
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.94	81174	12.803 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	64.02%
12) S Decachlorobiphenyl	11.22	144077	19.390 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	96.95%
Target Compounds			
2) L1 Aroclor-1016-1	0.00	0	N.D. UG/L
3) L1 Aroclor-1016-2	0.00	0	N.D. UG/L
4) L1 Aroclor-1016-3	0.00	0	N.D. UG/L
5) L1 Aroclor-1016-4	0.00	0	N.D. UG/L
6) L1 Aroclor-1016-5	0.00	0	N.D. UG/L
Sum Aroclor-1016-1		0	N.D. UG/L
Average Aroclor-1016-1			0.000 UG/L
7) L2 Aroclor-1260-1	0.00	0	N.D. UG/L
8) L2 Aroclor-1260-2	0.00	0	N.D. UG/L
9) L2 Aroclor-1260-3	9.84	3831	6.101 UG/L
10) L2 Aroclor-1260-4	0.00	0	N.D. UG/L
11) L2 Aroclor-1260-5	0.00	0	N.D. UG/L
Sum Aroclor-1260-1		3831	6.101 UG/L
Average Aroclor-1260-1			6.101 UG/L

(f)=RT Delta > 1/2 window (m) manual int.

Data File : C:\HPCHEM\2\DATA\031903\4GF17200.D Vial: 4
Acq On : 19 Mar 2003 12:01 Operator: ECL
Sample : WG136480-01 BLANK V200 P93 Inst : HP4
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 20 8:43 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Thu Mar 20 08:42:25 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031903\4GF17201.D Vial: 5
Acq On : 19 Mar 2003 12:20 Operator: ECL
Sample : WG136480-02 LCS V200 P93 Inst : HP4
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 20 8:43 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Thu Mar 20 08:42:25 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

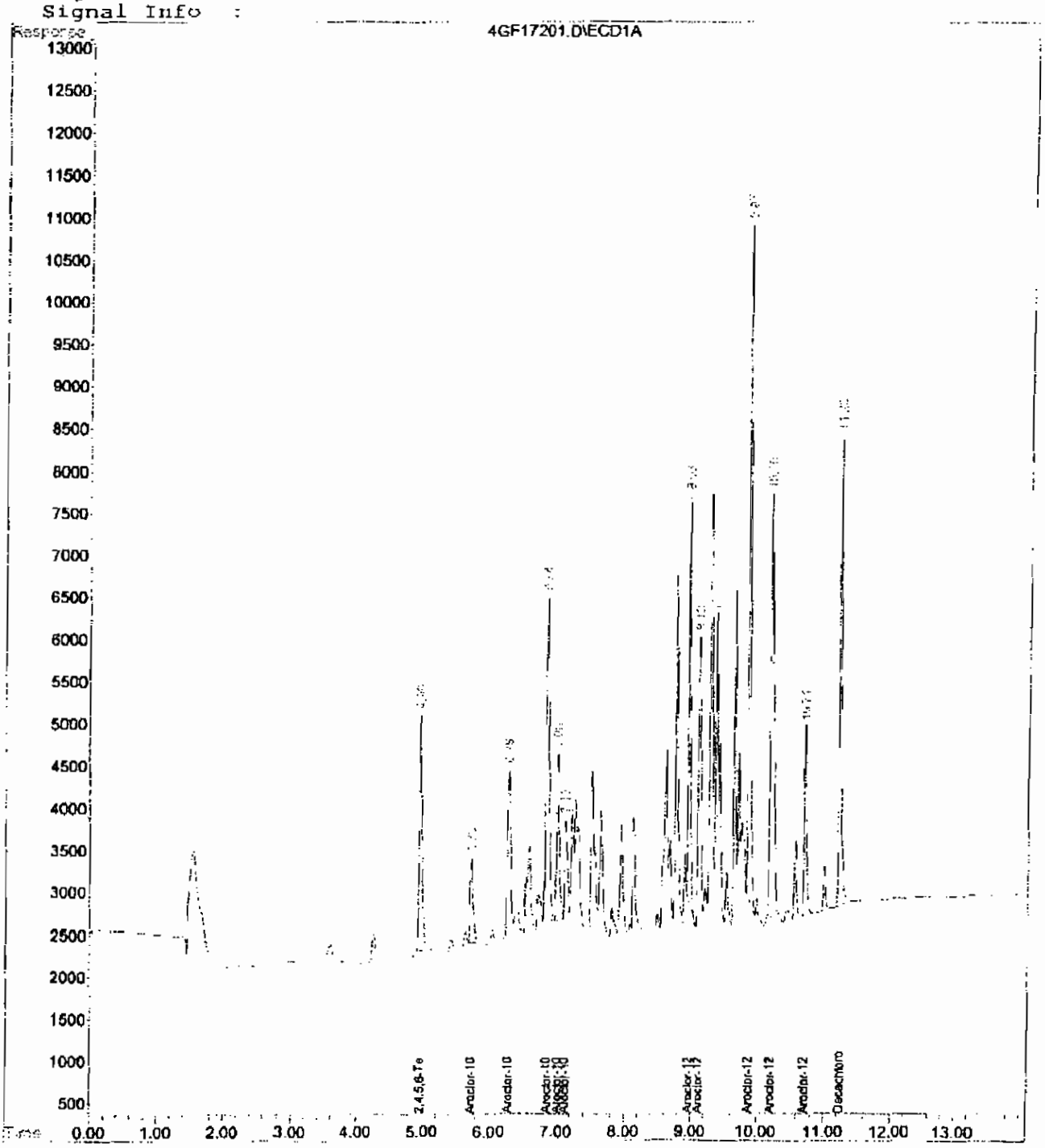
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.96	81962	12.928 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	64.64%
12) S Decachlorobiphenyl	11.23	121549	16.358 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	81.79%
Target Compounds			
2) L1 Aroclor-1016-1	5.73	30262	202.158 UG/L
3) L1 Aroclor-1016-2	6.28	60067	193.631 UG/L
4) L1 Aroclor-1016-3	6.84	125408	218.779 UG/L
5) L1 Aroclor-1016-4	7.00	55620	227.344 UG/L
6) L1 Aroclor-1016-5	7.12	32814	226.078 UG/L
Sum Aroclor-1016-1		304172	1067.990 UG/L
Average Aroclor-1016-1			213.598 UG/L
7) L2 Aroclor-1260-1	8.96	104855	267.447 UG/L
8) L2 Aroclor-1260-2	9.12	96569	262.688 UG/L
9) L2 Aroclor-1260-3	9.87	172278	274.376 UG/L
10) L2 Aroclor-1260-4	10.20	180398	250.562 UG/L
11) L2 Aroclor-1260-5	10.71	51950	245.600 UG/L
Sum Aroclor-1260-1		606049	1300.673 UG/L
Average Aroclor-1260-1			260.135 UG/L

(f) RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031903\4GF17201.D Vial: 5
Acq On : 19 Mar 2003 12:20 Operator: ECL
Sample : WG136480-02 LCS V200 P93 Inst : HP4
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 20 8:43 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Thu Mar 20 08:42:25 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031903\4GF17202.D Vial: 6
Acq On : 19 Mar 2003 12:38 Operator: ECL
Sample : WG136480-03 LCS DUP V200 P93 Inst : HP4
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 20 8:44 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Thu Mar 20 08:43:58 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
1) S	2,4,5,6-Tetrachloro-M-Xyle		4.96	83253	13.131 UG/L
Spiked Amount	20.000	Range	30 - 132	Recovery =	65.66%
12) S	Decachlorobiphenyl		11.24	146036	19.654 UG/L
Spiked Amount	20.000	Range	36 - 144	Recovery =	98.27%
Target Compounds					
2) L1	Aroclor-1016-1		5.73	32421	216.575 UG/L
3) L1	Aroclor-1016-2		6.28	61264	197.490 UG/L
4) L1	Aroclor-1016-3		6.85	131343	229.134 UG/L
5) L1	Aroclor-1016-4		7.01	58368	238.577 UG/L
6) L1	Aroclor-1016-5		7.13	34224	235.788 UG/L
Sum	Aroclor-1016-1			317620	1117.563 UG/L
Average	Aroclor-1016-1				223.513 UG/L
7) L2	Aroclor-1260-1		8.98	109422	279.096 UG/L
8) L2	Aroclor-1260-2		9.13	100829	274.276 UG/L
9) L2	Aroclor-1260-3		9.88	182048	289.936 UG/L
10) L2	Aroclor-1260-4		10.21	205028	284.772 UG/L
11) L2	Aroclor-1260-5		10.72	56240	265.883 UG/L
Sum	Aroclor-1260-1			653566	1393.963 UG/L
Average	Aroclor-1260-1				278.793 UG/L

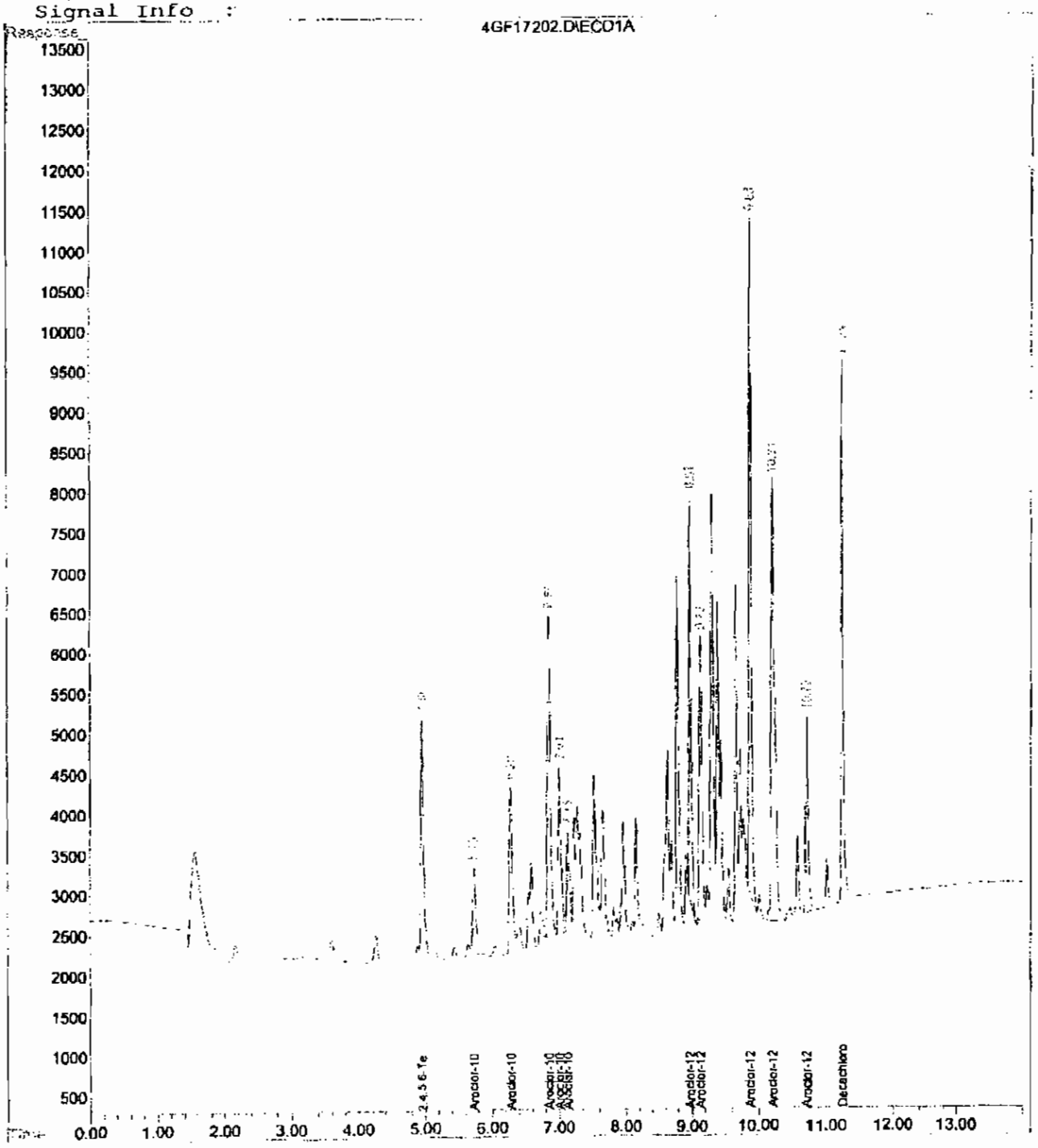
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031903\4GF17202.D
Acq On : 19 Mar 2003 12:38
Sample : WG136480-03 LCS DUP V200 P93
Misc : 1,1 WATER
IntFile : events.e
Quant Time: Mar 20 8:44 2003 Quant Results File: 1660F.RES

Vial: 6
Operator: ECL
Inst : HP4
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1647
Last Update : Thu Mar 20 08:43:58 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Directory: C:\HPCHEM\2\DATA\031703

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	4gf17142.d	1.	WG136401-01 1660 ICAL 2000 PPB	1,1 SOS63-02	17 Mar 2003 15:14
2	2	4gf17143.d	1.	WG136401-02 1660 ICAL 1000 PPB	1,1 SOS63-02	17 Mar 2003 15:32
3	3	4gf17144.d	1.	WG136401-03 1660 ICAL 500 PPB	1,1 SOS63-02	17 Mar 2003 15:51
4	4	4gf17145.d	1.	WG136401-04 1660 ICAL 250 PPB	1,1 SOS63-02	17 Mar 2003 16:10
5	5	4gf17146.d	1.	WG136401-05 1660 ICAL 100 PPB	1,1 SOS63-02	17 Mar 2003 16:28
6	6	4gf17147.d	1.	WG136401-06 1660 ICAL 50 PPB	1,1 SOS63-02	17 Mar 2003 16:47
7	7	4gf17148.d	1.	WG136401-07 1660 ALT ICV 50...	1,1 SOS63-14	17 Mar 2003 17:05
8	8	4gf17149.d	1.	1254 ICAL 2000 PPB	SOS63-41	17 Mar 2003 17:24
9	9	4gf17150.d	1.	1254 ICAL 1000 PPB	SOS63-41	17 Mar 2003 17:42
10	10	4gf17151.d	1.	1254 ICAL 500 PPB	SOS63-41	17 Mar 2003 18:01
11	11	4gf17152.d	1.	1254 ICAL 250 PPB	SOS63-41	17 Mar 2003 18:19
12	12	4gf17153.d	1.	1254 ICAL 100 PPB	SOS63-41	17 Mar 2003 18:38
13	13	4gf17154.d	1.	1254 ICAL 50 PPB	SOS63-41	17 Mar 2003 18:56
14	14	4gf17155.d	1.	1254 ALT ICV 500 PPB	SOS63-08	17 Mar 2003 19:14
15	15	4gf17156.d	1.	1248 500 PPB	SOS61-40	17 Mar 2003 19:32
16	16	4gf17157.d	1.	1248 ALT 500 PPB	SOS64-08	17 Mar 2003 19:51
17	17	4gf17158.d	1.	1242 500 PPB	SOS61-41	17 Mar 2003 20:09
18	18	4gf17159.d	1.	1242 ALT 500 PPB	SOS63-09	17 Mar 2003 20:27
19	19	4gf17160.d	1.	1232 500 PPB	SOS64-09	17 Mar 2003 20:45
20	20	4gf17161.d	1.	1232 ALT 500 PPB	SOS64-10	17 Mar 2003 21:04
21	21	4gf17162.d	1.	1221 500 PPB	SOS64-07	17 Mar 2003 21:22
22	22	4gf17163.d	1.	1221 ALT 500 PPB	SOS61-43	17 Mar 2003 21:40
23	23	4gf17164.d	1.	WG136401-08 1660 CCV 500 PPB	1,1 SOS63-02	17 Mar 2003 21:58
24	24	4gf17165.d	1.	WG136235-01 BLANK V199 P43	11,1 OIL	17 Mar 2003 22:16
25	25	4gf17166.d	1.	WG136235-02 LCS V199 P43	11,1 OIL	17 Mar 2003 22:34
26	26	4gf17167.d	1.	WG136235-03 LCS DUP V199 P43	11,1 OIL	17 Mar 2003 22:53
27	27	4gf17168.d	5.	L0303171-01 5x	11,5 OIL	17 Mar 2003 23:11
28	28	4gf17169.d	5.	L0303171-02 5x	11,5 OIL	17 Mar 2003 23:29
29	29	4gf17170.d	1.	L0303185-06 CF	7,1 SOIL CF	17 Mar 2003 23:47
30	30	4gf17171.d	1.	WG136391-01 BLANK V199 P51	7,1 SOIL	18 Mar 2003 00:05
31	31	4gf17172.d	1.	WG136391-02 LCS V199 P51	7,1 SOIL	18 Mar 2003 00:23
32	32	4gf17173.d	1.	WG136391-03 LCS DUP V199 P51	7,1 SOIL	18 Mar 2003 00:42
33	33	4gf17174.d	1.	WG136401-09 1660 CCV 250 PPB	1,1 SOS63-02	18 Mar 2003 01:00
34	34	4gf17175.d	1.	L0303285-01	10,1 SOIL	18 Mar 2003 01:18
35	35	4gf17176.d	1.	L0303287-01 – 100X	10,1 SOIL	18 Mar 2003 01:36
36	36	4gf17177.d	1.	L0303191-01	7,1 SOIL	18 Mar 2003 01:54
37	37	4gf17178.d	1.	L0303191-02	7,1 SOIL	18 Mar 2003 02:12
38	38	4gf17179.d	1.	WG136401-10 1660 CCV 500 PPB	1,1 SOS63-02	18 Mar 2003 02:31
39	100	4gf17180.d	1.	HEXANE		18 Mar 2003 04:20

EC 3/18/03
mlc 3/18/03

18 Mar 2003 08:04

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 3/17/03 Instrument ID HP 4 Column ID RTx-CLP II Front Data Subdirectory 031703
Analyst Initials EdL

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ____
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____

SOP # GCS10 Rev. # 5 8082 ✓
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
☑ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☐ Change liner
☐ Change septum
☐ Clip column (___cm)
☐ Injection port seal (goldseal)
☐ Change gases _____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

CC - DCB surrogate failed low.

RR - samples need rerun.

Reviewed By: _____

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	4gf17197.d	1.	1254 CCV 250 PPB	SOS63-41	19 Mar 2003 11:05
2	2	4gf17198.d	1.	ELAB 1254 250 PPB	ESS44-02	19 Mar 2003 11:24
3	3	4gf17199.d	1.	WG136558-01 1660 CCV 500 PPB	1,1 SOS63-02	19 Mar 2003 11:43
4	4	4gf17200.d	1.	WG136480-01 BLANK V200 P93	1,1 WATER	19 Mar 2003 12:01
5	5	4gf17201.d	1.	WG136480-02 LCS V200 P93	1,1 WATER	19 Mar 2003 12:20
6	6	4gf17202.d	1.	WG136480-03 LCS DUP V200 P93	1,1 WATER	19 Mar 2003 12:38
7	7	4gf17203.d	1.	L0303304-01 CF, *	1,1 WATER	19 Mar 2003 12:57
8	8	4gf17204.d	1.	L0303352-01	1,1 WATER	19 Mar 2003 13:15
9	9	4gf17205.d	1.	WG136558-02 1660 CCV 250 PPB	1,1 SOS63-02	19 Mar 2003 13:34
10	10	4gf17206.d	1.	1232 CCV 500 PPB	SOS64-09	19 Mar 2003 13:52
11	11	4gf17207.d	1.	INST. BLANK	SOS62-07	19 Mar 2003 14:11
12	12	4gf17208.d	1.	L0303318-06 CF	1,1 WATER CF	19 Mar 2003 14:29
13	13	4gf17209.d	1.	L0303318-08 CF	1,1 WATER CF	19 Mar 2003 14:48
14	14	4gf17210.d	1.	1232 CCV 500 PPB	SOS64-09	19 Mar 2003 15:06
15	15	4gf17211.d	1.	INST. BLANK	SOS62-07	19 Mar 2003 15:24

EC 3/20/03

RPC 3/20/03

20 Mar 2003 08:12

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 3/19/03 Instrument ID HP4 Column ID Rtx-CLPII Front Data Subdirectory 031903
Analyst Initials EC

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ____
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____
SOP # GCS10 Rev. # 5 8082 ✓
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ☐ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☐ Change liner
- ☐ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☑ Change gases Argon Methane

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

CF- need confirmed

X- T-n-X surrogate failed high due to SMI

Reviewed By: ZAC 3/24/03

Parameter: PCB Aroc SOP #: EXP01 Revision #: 12
Extraction Analyst(s): DC CH TV/KD Analyst(s): DP
Date/Time Extracted: 03/18/03 1340 Date TV/KD: 3/19/03
Spike/Surrogate Analyst: KK/DC Witness: DP/ DP
Surrogate #: 030243-25 Earliest Hold Date: 03/24/03
Spike #: A = 030243-03 Spike #: B = —

Extraction Work Group WG 136458
Analytical Work Group WG 136547

Extract Relinquished By: DP
Extract Received By & Date: CH 3/19/03

	Sample ID	Test Code	pH <2	pH N	pH >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions A	Emulsions BN	Emulsions N	Comments
1	Blank			✓		1000mL	200uL		10mL	T				WG 136450-01
2	LCS			✓		1	1	100uL	1	1				WG 1 -02
3	LCS DUP			✓		1	1	1	1	1				WG 1 -03
4	03-304-01	3550		✓		1	1		1	1			✓	
5	03-312-01	1		✓		970mL	1		1	1			✓	
6														
7														
8														
9														
10														
11														
12														
13														
14							DP							
15														
16														
17							03/18/03							
18														
19														
20														
21														
22														
23														
24														

Methylene Chloride Lot #: 42351
Hexane Lot #: 42341
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: 9N6 Lot #: SF23HC
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: Con. H2SO4 Lot #: X43C27
Florisil Lot #: [illegible]
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: EK2331

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B	✓	GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A	✓	N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 3/19/03

Extraction Notes For Volume # 200 Page # 073

General Comments:

Extraction Anomalies: None

Concentration Anomalies:

Clean-Up Anomalies:

Supervisor Review: _____ Date: _____

Semi-Volatile GC Checklist

Run Date: 3/17/03

Analyst: ECL

Instrument: HP4 Front

Method: 8082

Workorders:	Due Date:	Priority:
03-171	3/17	A1

		Analyst
System Performance Check:	Endrin/DDT Breakdown	
Initial Calibration:	Average RF	✓
	Linear or quadratic regression	
	Alt Source Check	✓
Continuing Calibration:	Continuing Calibration	✓
	Client Specific Requirements	✓
	Ending Standards	✓
	Special Standards	
Blanks:	Quant Report/Chromatogram	✓
	Surrogates	✓
LCS/LCS DUP:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Spike Compounds	✓
	MS/MSD	
Samples:	Quant Reports/Chromatograms	✓
	Surrogates	✓
	Dilution runs	✓
	Check Sample Histories	✓
Data Package:	Manual Integrations	
	Run logs	✓
	Bench sheets	✓
	QC sheets	✓
	Upload results	✓
	Seedpak workgroups	✓
	Level 2	
	Level 3	
	Level 4 copies	✓
	Level x	✓
	Case narratives	✓

	Supervisor
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

√ = Checked & OK

NA = Not Applicable

Comments:

Primary Reviewer: ECL 3/18/03

Secondary Reviewer: [illegible] 3/18/03

Supervisor Review: [illegible] 3/18/03

Semi-Volatile GC Checklist

Run Date: 3/19/03

Analyst: ECL

Instrument: HP4 Front

Method: 8082

Workorders:	Due Date:	Priority:
03-354	3/21	A1
03-352	3/21	A1

		Analyst
System Performance Check:	Endrin/DDT Breakdown	
Initial Calibration:	Average RF	
	Linear or quadratic regression	
	Alt Source Check	
Continuing Calibration:	Continuing Calibration	✓
	Client Specific Requirements	✓
	Ending Standards	✓
	Special Standards	
Blanks:	Quant Report/Chromatogram	✓
	Surrogates	✓
LCS/LCS DUP:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Spike Compounds	✓
	MS/MSD	
Samples:	Quant Reports/Chromatograms	✓
	Surrogates	✓
	Dilution runs	
	Check Sample Histories	✓
Data Package:	Manual Integrations	
	Run logs	✓
	Bench sheets	✓
	QC sheets	✓
	Upload results	✓
	Seedpak workgroups	✓
	Level 2	✓
	Level 3	
	Level 4 copies	✓
	Level x	
	Case narratives	✓

	Supervisor
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

√ = Checked & OK

NA = Not Applicable

Comments:

Primary Reviewer: ECL 3/20/03

Secondary Reviewer: mlc 3/20/03

Supervisor Review: mlc 3/20/03

Example 8082 Calculations

1.0 Calulating the Response Factor (RF) from the initial callbration (ICAL) data:

		Example:
	RF = As/ Cs	
Where:	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ng/ml).	100
	RF	**100**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:*

		Example:
	C = [(Ax)(Vf)(D)] / [(RF)(Vi)]	
Where:	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Vi = Initial volume of sample (mL). (prep log)	1000
	C (ug/L)	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report:*

		Example:
	C = [(Ax)(Vf)(D)] / [(RF)(Vi)]	
Where:	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

* Concentrations appearing on instrument quantitation reports are on-column results and do not take into account initial volume, final volume and dilution factor.

2.2.4 Herbicide GC Data (8151)

REPORT NARRATIVE
GC HERBICIDES

KEMRON Report No.: L0303352

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8151

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: Dalapon yielded a difference of greater than 15%. All other acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: There were no MS/MSD results associated with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: For all samples which yielded results with an RPD of greater than 40% between the primary and confirmation column the appropriate flag was applied. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ECL REVIEWED: _____ DATE: 2/26/03

Rev. 7/14/00

Herbicides – GC DATA (8151)

Login Number 03-352

A. QC Summary

- ✓ Method Blank Summary
- ✓ Method Blank Results
- ✓ Laboratory Control Sample (LCS)
- NA Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ✓ Holding Time Summary
- ✓ Surrogate Recovery Summary
- ✓ Initial Calibration Summary
- ✓ Initial Calibration Verification (ICV) Form (Second Source)
- ✓ Continuing Calibration Verification (CCV)
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet

B. Sample Data

- ✓ Target compound and surrogate results summary (See Summary Report)
- ✓ Chromatograms and quantitation report

C. Standards Data

- ✓ Initial calibration (ICAL) summary form
- ✓ Chromatograms and quantitation report for ICAL standards
- ✓ Initial calibration verification (ICV/second source) summary forms
- ✓ Initial calibration verification (ICV/second source) quantitation reports and chromatograms
- ✓ Continuing Calibration Verification (CCV) summary forms
- ✓ Continuing Calibration Verification (CCV) quantitation reports and chromatograms
- ✓ Retention Time Window Summary

D. Raw QC Data

- ✓ Method blank chromatogram and quantitation report
- ✓ LCS chromatogram and quantitation report
- NA MS/MSD chromatogram and quantitation report
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet
- ✓ Daily Checklist
- ✓ Example Calculations

Checked By: EC2 Date: 3-26-03

2.2.4.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0303352
Blank File ID: 1G5677.R
Date Analyzed: 03/20/03
Time Analyzed: 11:21
Analyst: ECL

Work Group: WG136675
Blank Sample ID: WG136529-01
Instrument ID: HP1
Method: 8151A

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG136529-02	1G5678.R	03/20/03 11:56	01
LCS2	WG136529-03	1G5679.R	03/20/03 12:32	01
177511-DW-031703	L0303352-01	1G5680.R	03/20/03 13:07	01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0303352 Run Date: 03/20/2003 Sample ID: WG136529-01
Instrument ID: HP1 Run Time: 11:21 Prep Method: METHOD
File ID: 1G5677.R Analyst: ECL Method: 8151A
Workgroup (AAB#): WG136675 Matrix: Water Units: ug/L
Contract #: Cal ID: HP1-

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
2,4-D	1.00	2.00	1.00	1	U
2,4-DB	1.00	2.00	1.00	1	U
2,4,5-T	0.100	0.200	0.100	1	U
2,4,5-TP (Silvex)	0.100	0.200	0.100	1	U
Dalapon	2.50	5.00	2.50	1	U
Dicamba	0.100	0.200	0.100	1	U
Dichloroprop	1.00	2.00	1.00	1	U
Dinoseb	0.500	1.00	0.500	1	U
MCPA	100	250	100	1	U
MCPP	100	250	100	1	U
Pentachlorophenol	0.100	0.200	0.100	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4-Dichlorophenylacetic acid	82.7	20 - 144	PASS

* Analyte detected above RDL
ND Analyte Not detected at or above reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0303352 | Run Date: 03/20/2003 | Sample ID: WG136529-02
Instrument ID: HP1 | Run Time: 11:56 | Prep Method: METHOD
File ID: 1G5678.R | Analyst: ECL | Method: 8151A
Workgroup (AAB#): WG136675 | Matrix: Water | Units: ug/L
Contract #: | Cal ID: HP1-

Analytes	Expected	Found	% Rec	LCS Limits	Q
2,4-D	5.00	3.64	72.8	29 - 133	
2,4-DB	5.00	3.58	71.5	29 - 133	
2,4,5-T	0.500	0.472	94.4	24 - 133	
2,4,5-TP (Silvex)	0.500	0.380	76.0	38 - 130	
Dalepon	12.5	4.04	32.3	13 - 101	
Dicamba	0.500	0.424	84.8	43 - 129	
Dichloroprop	5.00	4.67	93.5	42 - 118	
Dinoseb	2.50	1.50	60.1	28 - 92	
MCPA	500	403	80.6	26 - 114	
MCPP	500	320	64.1	32 - 119	
Pentachlorophenol	0.500	0.301	60.1	38 - 130	

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4-Dichlorophenylacetic acid	80.0	20 - 144	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum: L0303352 Worknum: WG136675 Method: 8151A
Instrument ID: HP1 Cal ID: HP1- Matrix: Water
Analyst: ECL Contract #: Units: ug/L
Sample ID: WG136529-02 LCS File ID: 1G5678.R Run Date: 03/20/2003 11:56
Sample ID: WG136529-03 LCS2 File ID: 1G5679.R Run Date: 03/20/2003 12:32

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
2,4-D	5.00	3.64	72.8	5.00	3.51	70.2	3.7	29 - 133	51	
2,4-DB	5.00	3.58	71.5	5.00	3.53	70.6	1.31	29 - 123	52	
2,4,5-T	0.500	0.472	94.4	0.500	0.417	83.4	12.4	24 - 133	44	
2,4,5-TP (Silvex)	0.500	0.380	76.0	0.500	0.361	72.2	5.14	38 - 130	44	
Dalapon	12.5	4.04	32.3	12.5	3.87	31.0	4.15	13 - 101	23	
Dicamba	0.500	0.424	84.8	0.500	0.406	81.2	4.34	43 - 129	46	
Dichloroprop	5.00	4.67	93.5	5.00	4.60	91.9	1.66	42 - 118	36	
Dinoseb	2.50	1.50	60.1	2.50	1.45	57.9	3.77	28 - 92	73	
MCPA	500	403	80.6	500	409	81.7	1.36	26 - 114	47	
MCPP	500	320	64.1	500	365	73.0	13	32 - 119	44	
Pentachlorophenol	0.500	0.301	60.1	0.500	0.295	59.0	1.9	38 - 130	0	#

Surogates	LCS % Recovery	LCS2 % Recovery	Surrogate Limits	Qualifier
2,4-Dichlorophenylacetic acid	80.0	76.5	20 - 144	PASS

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON FORMS - Modified 10/29/2002
Version 1.2
Report generated 03/26/2003 14:57

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method:8151A

AAB#:WG136675

Login Number:L0303352

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
177511-DW-031703	03/17/03	03/18/03	03/19/03	7	1.51	03/20/03	40	1.25	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON FORMS - Modified 12/06/2002
Version 1.2
Report generated 03/26/2003 14:56

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0303352
Instrument Id: HP1
Workgroup (AAB#): WG136675

Method: 8151
CAL ID: HP1-
Matrix: WATER

Sample Number	Dilution	Tag	1
L0303352-01	1.00	01	69.3
WG136529-01	1.00	01	82.7
WG136529-02	1.00	01	80.0
WG136529-03	1.00	01	76.5

Surrogates	Surrogate Limits
1 - 2,4-Dichlorophenylacetic acid	20 - 144

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

KEMRON FORMS - Modified 01/22/2003
Version 1.2
Report generated 03/26/2003 14:56

Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Wed Feb 12 10:34:46 2003

Calibration Files
5 =1G5558.D 4 =1G5559.D 3 =1G5560.D
2 =1G5561.D 1 =1G5562.D

		Compound	5	4	3	2	1	Avg	%RSD
1)		Dalapon	1.433	1.577	1.694	1.816	2.020	1.708#E3	13.15
2)	S	2,4-Dichlorophenylace	6.973	7.615	8.287	8.772	9.463	8.222#E2	11.81
3)		MCPA	2.524	2.668	2.767	2.767	2.724	2.690#E3	3.77
4)		Dicamba	4.040	3.995	4.130	4.125	3.890	4.036#E3	2.47
5)		MCPP	1.785	1.765	1.824	1.745	1.588	1.741#E3	5.21
6)		Dichloroprop	0.905	1.001	1.080	1.104	1.233	1.064#E3	11.49
7)		2,4-D	1.007	1.122	1.203	1.229	1.359	1.184#E3	11.01
8)		Pentachlorophenol	1.537	1.622	1.634	1.546	1.522	1.572#E4	3.30
9)		Silvex	5.866	6.080	5.471	5.542	5.795	5.751#E3	4.31
10)		2,4,5-T	5.431	5.874	5.711	5.302	5.013	5.466#E3	6.20
11)		Dinoseb	4.477	4.849	5.160	5.291	5.548	5.065#E3	8.17
12)		2,4-DB	5.357	5.795	5.955	5.783	5.236	5.625#E2	5.52

Signal #2 Calibration Files
5 =1G5558.D 4 =1G5559.D 3 =1G5560.D
2 =1G5561.D 1 =1G5562.D

		Compound	5	4	3	2	1	Avg	%RSD
1)		Dalapon	1.389	1.557	1.646	1.797	2.041	1.686#E3	14.68
2)	S	2,4-Dichlorophenylace	0.805	0.935	1.004	1.141	1.301	1.037#E3	18.44
3)		MCPA	3.093	3.549	3.878	4.315	4.551	3.877#E3	15.09
4)		Dicamba	4.399	4.890	4.968	5.274	5.663	5.039#E3	9.32
5)		MCPP	2.167	2.432	2.422	2.539	2.289	2.370#E3	6.07
6)		Dichloroprop	1.050	1.210	1.348	1.550	1.697	1.371#E3	18.86
7)		2,4-D	1.239	1.419	1.567	1.768	1.986	1.596#E3	18.30
8)		Pentachlorophenol	1.903	2.096	2.183	2.207	2.274	2.133#E4	6.72
9)		Silvex	7.897	8.602	8.703	8.853	9.805	8.772#E3	7.80
10)		2,4,5-T	7.183	7.926	7.857	7.934	7.404	7.661#E3	4.51
11)		Dinoseb	4.974	5.672	6.172	6.780	7.171	6.154#E3	14.19
12)		2,4-DB	7.758	8.653	8.977	9.132	8.174	8.539#E2	6.68

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\021203\1G5573.D\ECD1A.CH Vial: 2
Acq On : 12 Feb 2003 12:37 Operator: ECL
Sample : WG134404-06 HERB ALT ICV Inst : HP1
Misc : 1,1 SOS61-01 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\021203\1G5573.D\ECD2B.CH Vial: 2
Acq On : 12 Feb 2003 13:12 Operator: ECL
Sample : WG134458-01 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e

Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Wed Feb 12 10:34:46 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Dalapon	1250.000	913.682	26.9#	74	0.02
3	MCPA	50.000	53.701	-7.4	104	0.01
4	Dicamba	50.000	43.799	12.4	86	0.01
5	MCPP	50.000	57.227	-14.5	109	0.01
6	Dichloroprop	500.000	530.843	-6.2	105	0.00
7	2,4-D	500.000	500.743	-0.1	99	0.00
9	Silvex	50.000	56.187	-12.4	118	0.00
10	2,4,5-T	50.000	52.303	-4:6	100	-0.02
11	Dinoseb	250.000	272.018	-8.8	107	0.01
12	2,4-DB	500.000	547.840	-9.6	104	-0.03
	Signal #2					
1	Dalapon	1250.000	902.630	27.8#	74	0.01
3	MCPA	50.000	49.916	0.2	100	0.01
4	Dicamba	50.000	44.768	10.5	91	0.00
5	MCPP	50.000	51.953	-3.9	102	0.01
6	Dichloroprop	500.000	560.242	-12.0	114	0.00
7	2,4-D	500.000	573.777	-14.8	117	0.00
9	Silvex	50.000	52.220	-4.4	105	-0.01
10	2,4,5-T	50.000	55.270	-10.5	108	-0.04
11	Dinoseb	250.000	253.772	-1.5	101	0.00
12	2,4-DB	500.000	510.258	-2.1	97	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G5573.D 8151.M Wed Feb 12 13:43:46 2003 Page 1

Data File : C:\HPCHEM\1\DATA\032003\1G5676.D\ECD1A.CH Vial: 1
Acq On : 20 Mar 2003 9:27 Operator: ECL
Sample : WG136646-01 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\032003\1G5676.D\ECD2B.CH Vial: 1
Acq On : 20 Mar 2003 10:03 Operator: ECL
Sample : WG136646-01 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e

Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Fri Mar 07 08:53:15 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Dalapon	1250.000	1415.297	-13.2	114	0.00
2	S	2,4-Dichlorophenylacetic ac	500.000	550.579	-10.1	109	0.00
3		MCPA	50.000	57.056	-14.1	111	0.00
4		Dicamba	50.000	54.158	-8.3	106	0.00
5		MCPP	50.000	56.303	-12.6	108	0.00
6		Dichloroprop	500.000	557.953	-11.6	110	0.00
7		2,4-D	500.000	551.294	-10.3	109	0.00
8		Pentachlorophenol	50.000	53.196	-6.4	102	0.00
9		Silvex	50.000	55.266	-10.5	116	0.00
10		2,4,5-T	50.000	53.551	-7.1	103	-0.01
11		Dinoseb	250.000	284.822	-13.9	112	0.00
12		2,4-DB	500.000	540.391	-8.1	102	-0.01

Signal #2

1		Dalapon	1250.000	1237.263	1.0	101	0.00
2	S	2,4-Dichlorophenylacetic	500.000	499.091	0.2	103	0.00
3		MCPA	50.000	51.449	-2.9	103	0.00
4		Dicamba	50.000	50.939	-1.9	103	0.00
5		MCPP	50.000	52.690	-5.4	103	0.00
6		Dichloroprop	500.000	503.282	-0.7	102	0.00
7		2,4-D	500.000	498.789	0.2	102	0.00
8		Pentachlorophenol	50.000	51.253	-2.5	100	0.00
9		Silvex	50.000	48.112	3.8	97	0.00
10		2,4,5-T	50.000	53.203	-6.4	104	0.00
11		Dinoseb	250.000	248.370	0.7	99	0.00
12		2,4-DB	500.000	498.404	0.3	95	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G5676.D 8151.M Thu Mar 20 10:42:34 2003 Page 1

Data File : C:\HPCHEM\1\DATA\032003\1G5681.D\ECD1A.CH Vial: 6
Acq On : 20 Mar 2003 13:07 Operator: ECL
Sample : WG136646-02 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\032003\1G5681.D\ECD2B.CH Vial: 6
Acq On : 20 Mar 2003 13:42 Operator: ECL
Sample : L0303352-01 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e

Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Fri Mar 07 08:53:15 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Dalapon	1250.000	1408.566	-12.7	114	0.00
2	S	2,4-Dichlorophenylacetic ac	500.000	544.377	-8.9	108	0.00
3		MCPA	50.000	55.841	-11.7	109	0.00
4		Dicamba	50.000	53.135	-6.3	104	0.00
5		MCPP	50.000	55.042	-10.1	105	0.00
6		Dichloroprop	500.000	553.770	-10.8	109	0.00
7		2,4-D	500.000	552.805	-10.6	109	0.00
8		Pentachlorophenol	50.000	52.521	-5.0	101	0.00
9		Silvex	50.000	55.118	-10.2	116	0.00
10		2,4,5-T	50.000	55.533	-11.1	106	0.00
11		Dinoseb	250.000	282.352	-12.9	111	0.00
12		2,4-DB	500.000	554.510	-10.9	105	0.00

Signal #2

1		Dalapon	1250.000	1254.800	-0.4	103	0.00
2	S	2,4-Dichlorophenylacetic	500.000	497.353	0.5	103	0.00
3		MCPA	50.000	50.674	-1.3	101	0.00
4		Dicamba	50.000	50.636	-1.3	103	-0.01
5		MCPP	50.000	51.418	-2.8	101	0.00
6		Dichloroprop	500.000	506.233	-1.2	103	-0.01
7		2,4-D	500.000	504.628	-0.9	103	-0.01
8		Pentachlorophenol	50.000	51.503	-3.0	101	0.00
9		Silvex	50.000	48.971	2.1	99	0.00
10		2,4,5-T	50.000	54.503	-9.0	106	-0.01
11		Dinoseb	250.000	251.148	-0.5	100	-0.01
12		2,4-DB	500.000	534.924	-7.0	102	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G5681.D 8151.M Thu Mar 20 15:00:03 2003 Page 1

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1g5558.d	1.	WG134404-01 HERB ICAL #5	1,1 SOS63-10	11 Feb 103 12::(
2	2	1g5559.d	1.	WG134404-02 HERB ICAL #4	1,1 SOS63-10	11 Feb 103 12::;
3	3	1g5560.d	1.	WG134404-03 HERB ICAL #3	1,1 SOS63-10	11 Feb 103 12::'
4	4	1g5561.d	1.	WG134404-04 HERB ICAL #2	1,1 SOS63-10	11 Feb 103 12::4
5	5	1g5562.d	1.	WG134404-05 HERB ICAL #1	1,1 SOS63-10	11 Feb 103 12::2
6	6	1g5563.d	1.	WG134404-06 HERB ALT ICV -A	1,1 SOS61-01	11 Feb 103 12::(
7	7	1g5564.d	1.	WG134283-01 BLANK V198 P109	1,1 WATER	11 Feb 103 12::3
8	8	1g5565.d	1.	WG134283-02 LCS V198 P109	1,1 WATER	11 Feb 103 12::0
9	9	1g5566.d	1.	WG134283-03 LCS DUP V198 P109	1,1 WATER	11 Feb 103 12::4
10	10	1g5567.d	1.	L0301632-23	1,1 WATER	11 Feb 103 13::1
11	11	1g5568.d	10.	L0301632-23 10x	1,10 WATER	11 Feb 103 13::5
12	12	1g5569.d	1.	WG134182-01 TCLP BLANK 2/6	17,1 WATER	11 Feb 103 13::2
13	13	1g5570.d	1.	L0302095-01	17,1 WATER	12 Feb 103 13::0
14	14	1g5571.d	1.	WG134404-07 HERB CCV	1,1 SOS63-10	12 Feb 103 13::3

ECR 2/13/03

mk 2/13/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 2/11/03 Instrument ID HP I Column ID Rtx-CLP Data Subdirectory 021103
Analyst Initials ECL (Front)

SOP # GCS09 Rev. # ___ 8081A ___
SOP # GCS04 Rev. # 2 8151A ✓
SOP # GCS03 Rev. # ___ PRO ___
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ___
SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ___
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time 2/11/03 Instrument ID HP I Column ID Rtx-CLP II (Rear) Data Subdirectory 021103

Daily Check
☑ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☐ Change liner
☐ Change septum
☐ Clip column (___cm)
☐ Injection port seal (goldseal)
☐ Change gases _____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

A - wrong concentration Not used

Reviewed By: ECL 2/11/03

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	1g5572.d	1.	WG134458-01 HERB CCV	1,1 SOS63-10	12 Feb 103 13::0
2	2	1g5573.d	1.	WG134404-06 HERB ALT ICV -A	1,1 SOS61-01	12 Feb 103 13::3
3	3	1g5574.d	1.	WG134383-01 BLANK V197 P149	7,1 SOIL	12 Feb 103 12::4
4	4	1g5575.d	1.	WG134383-02 LCS V197 P149	7,1 SOIL	12 Feb 103 12::2
5	5	1g5576.d	1.	WG134383-03 LCS DUP V197 P149	7,1 SOIL	12 Feb 103 12::5
6	6	1g5577.d	1.	L0302182-01	7,1 SOIL	12 Feb 103 12::3
7	7	1g5578.d	1.	L0302182-02	7,1 SOIL	12 Feb 103 12::0
8	8	1g5579.d	1.	WG134458-02 HERB CCV	1,1 SOS63-10	12 Feb 103 12::4

ECZ 2/13/03

odc 2/13/03

13 Feb 03 08:24

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 2/12/03 Instrument ID HP I Column ID RTx-CLP Front Data Subdirectory 021203
Analyst Initials ECL

SOP # GCS09 Rev. # ___ 8081A ___
SOP # GCS04 Rev. # 2 8151A ✓
SOP # GCS03 Rev. # ___ PRO ___
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ___
SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ___
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time 2/12/03 Instrument ID HP I Column ID RTx-CLP II Rear Data Subdirectory 021203

Daily Check
☑ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☐ Change liner
☐ Change septum
☐ Clip column (___cm)
☐ Injection port seal (goldseal)
☐ Change gases _____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

A - Dalapon was out of range

Reviewed By: [illegible] 2/13/03

Directory: c:\hpchem\1\data\032003

Ine	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1g5676.d	1.	WG136646-01 HERB CCV	1,1 SOS63-10	20 Mar 103 12::3
2	2	1g5677.d	1.	WG136529-01 BLANK V200 P97	1,1 WATER	20 Mar 103 13::4
3	3	1g5678.d	1.	WG136529-02 LCS V200 P97	1,1 WATER	20 Mar 103 13::1
4	4	1g5679.d	1.	WG136529-03 LCS DUP V200 P97	1,1 WATER	20 Mar 103 13::5
5	5	1g5680.d	1.	L0303352-01	1,1 WATER	20 Mar 103 13::3
6	6	1g5681.d	1.	WG136646-02 HERB CCV	1,1 SOS63-10	20 Mar 103 12::(

EC2 3/21/03

mle 3/21/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 3/20/03 Instrument ID HP I Column ID Rtx-CLP Front Data Subdirectory 032003
Analyst Initials ECL

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # 2 8151A ✓
SOP # GCS03 Rev. # ___ PRO ____
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____
SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time 3/20/03 Instrument ID HP I Column ID Rtx-CLP II Front Data Subdirectory 032003

Daily Check
- ☑ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☐ Change liner
- ☐ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases ____ ____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

_____

_____

Action Taken: _____

_____

_____

Comments

Reviewed By: _____

Parameter: Herb H_2O SOP #: Ex401 Revision #: 12
Extraction Analyst(s): RCK TV/KD Analyst(s): RCK
Date/Time Extracted: 3/19/03 @ 0700 Date TV/KD: 3/19/03
Spike/Surrogate Analyst: RCK Witness: CEB
Surrogate #: ESS0043-46 Earliest Hold Date: 3/24
Spike #: A = ESS0043-24 Spike #: B = –

Extraction Work Group WG 136529
Analytical Work Group WG ~~136647~~ 136675
Extract Relinquished By: RCK
Extract Received By & Date: ECZ 3/19/03

	Sample ID	Test Code	pH / <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	BN	N	Comments
1	Blank		✓		✓	1000 mL	1 mL		10 mL	T				WG 136529-01
2	LCS		✓		✓			1 mL		T				WG -02
3	LCS DUP		✓		✓					T				-03
4	03-352-01	8151	✓		✓	920 mL				C	✓			
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

RCK 3/19/03

Methylene Chloride Lot #: 42351
Hexane Lot #: 42341
Ether Lot #: 42203
Methanol Lot #: 42247236
Solvent: – Lot #: –
Reagent: 6N NaOH Lot #: ER2385
Reagent: ISO-octane Lot #: ~~V0616~~ V04616
Reagent: – Lot #: –
Acid: 12N H_2SO_4 Lot #: ER2390
Florisil Lot #: –
Silica Gel Lot #: –
IR Analyst / Date / Time: –
Dried Na_2SO_4 Lot #: ER2793
Calcined

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 3/19/03

Extraction Notes For Volume # 200 Page # 97

General Comments: NIC

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

2.2.4.2 Sample Data

Data File : C:\HPCHEM\1\DATA\032003\1G5680.D\ECD1A.CH Vial: 5
Acq On : 20 Mar 2003 12:32 Operator: ECL
Sample : L0303352-01 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\032003\1G5680.D\ECD2B.CH Vial: 5
Acq On : 20 Mar 2003 13:07 Operator: ECL
Sample : WG136529-03 LCS DUP V200 P97 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: Mar 20 15:55 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Thu Mar 20 15:51:39 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
2)	S 2,4-Dichlorophen	9.91	10.41	361579	359482	439.771	346.628	
	Spiked Amount 500.000	Range 20 - 144			Recovery =	87.95%	69.33%	
	Target Compounds							
1)	Dalapon	0.00	0.00	0	0	N.D.	N.D.	
3)	MCPA	10.70	0.00	102644	0	38.156	N.D.	#
4)	Dicamba	0.00	0.00	0	0	N.D.	N.D.	
5)	MCPP	0.00	10.83f	0	52631	N.D.	22.210	#
6)	Dichloroprop	11.20	0.00	256934	0	241.399	N.D.	#
7)	2,4-D	0.00	12.08	0	121100	N.D.	75.885	#
8)	Pentachloropheno	0.00	0.00	0	0	N.D.	N.D.	
9)	Silvex	12.62f	13.08f	56316	8032	9.793	0.916	#
10)	2,4,5-T	0.00	13.64f	0	1188145	N.D.	155.093	#
11)	Dinoseb	0.00	14.59	0	105644	N.D.	17.167	#
12)	2,4-DB	0.00	14.19f	0	101658	N.D.	119.055	#

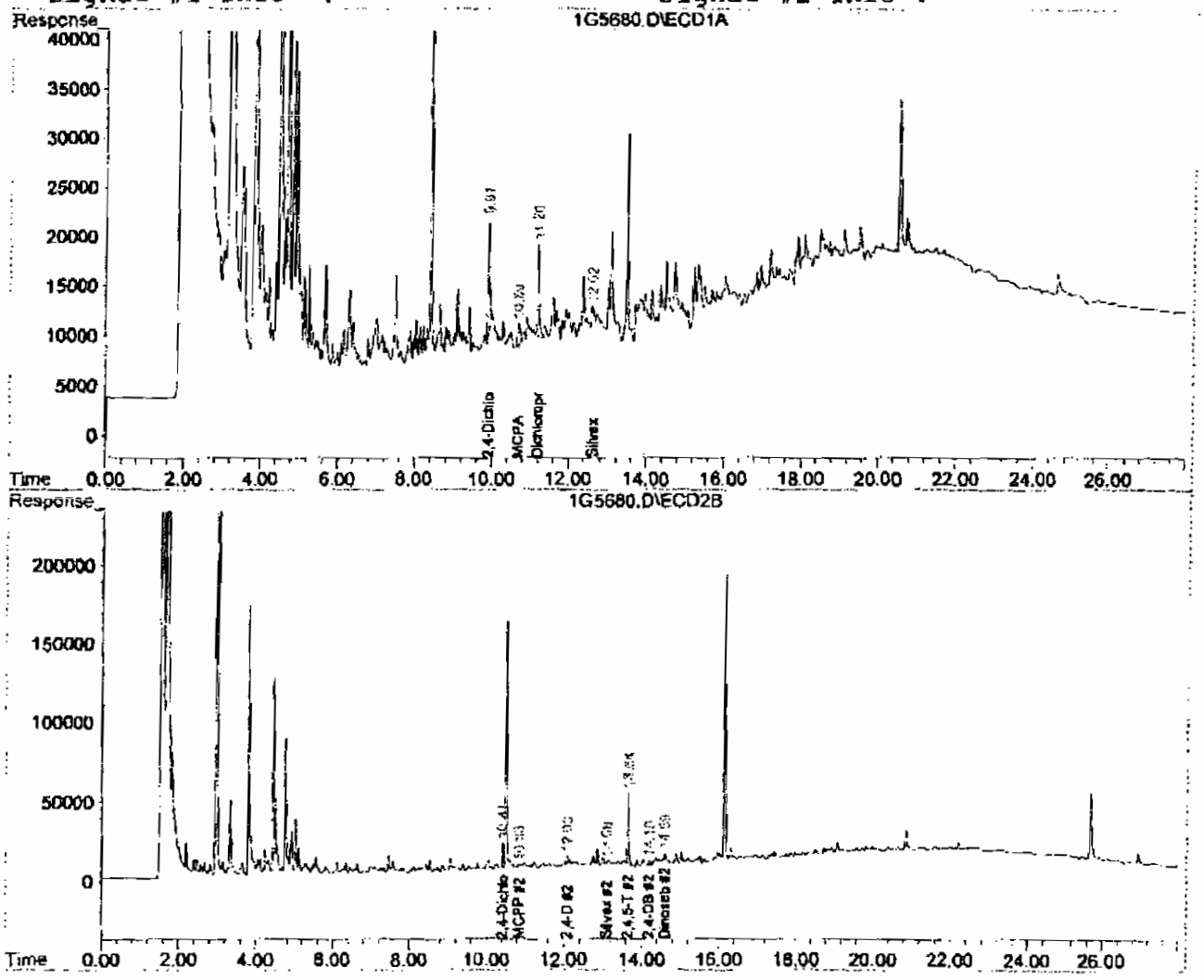
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032003\1G5680.D\ECD1A.CH Vial: 5
Acq On : 20 Mar 2003 12:32 Operator: ECL
Sample : L0303352-01 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\032003\1G5680.D\ECD2B.CH Vial: 5
Acq On : 20 Mar 2003 13:07 Operator: ECL
Sample : WG136529-03 LCS DUP V200 P97 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: Mar 20 15:55 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Thu Mar 20 15:51:39 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



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Data File : C:\HPCHEM\1\DATA\032003\1G5680.D\ECD1A.CH    Vial: 5
Acq On    : 20 Mar 2003  12:32                         Operator: ECL
Sample    : L0303352-01                                Inst    : HP1
Misc      : 1,1 WATER                                  Multiplr: 1.00
IntFile   : events.e

Data File : C:\HPCHEM\1\DATA\032003\1G5680.D\ECD2B.CH    Vial: 5
Acq On    : 20 Mar 2003  13:07                         Operator: ECL
Sample    : WG136529-03 LCS DUP V200 P97               Inst    : HP1
Misc      : 1,1 WATER                                  Multiplr: 1.00
IntFile   : events2.e
Quant Time: Mar 20 15:55 2003  Quant Results File: 8151.RES

Method        : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title         : CALIBRATION February 11, 2003 @ 1958
Last Update   : Fri Mar 07 08:53:15 2003
Response via  : Multiple Level Calibration
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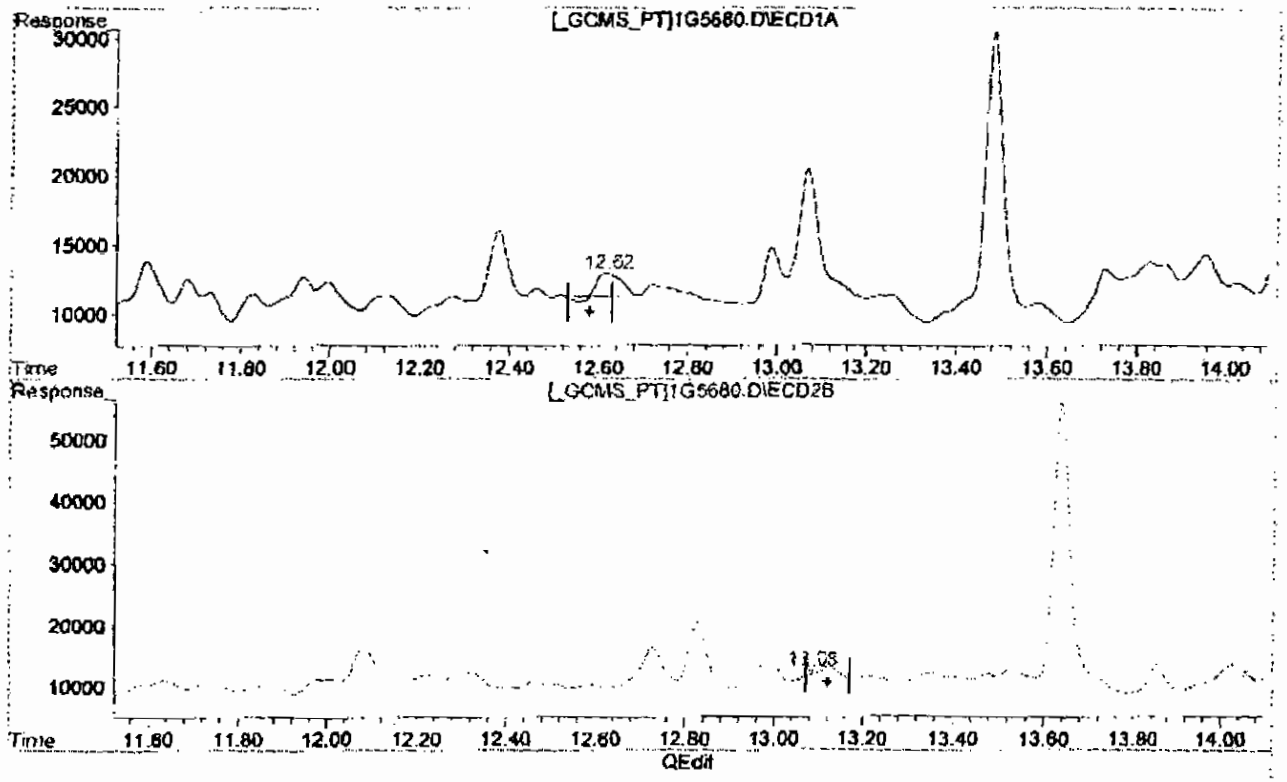


(9) Silvex
12.62min 9.793ug/L
response 56316

(9) Silvex #2
13.08min 0.916ug/L
response 8032

C MDL

(+) = Expected Retention Time
1G5680.D 8151.M Thu Mar 20 15:59:17 2003

2.2.4.3 Standards Data

Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Wed Feb 12 10:34:46 2003

Calibration Files
5 =1G5558.D 4 =1G5559.D 3 =1G5560.D
2 =1G5561.D 1 =1G5562.D

		Compound	5	4	3	2	1	Avg	%RSD
1)		Dalapon	1.433	1.577	1.694	1.816	2.020	1.708#E3	13.15
2)	S	2,4-Dichlorophenylace	6.973	7.615	8.287	8.772	9.463	8.222#E2	11.81
3)		MCPA	2.524	2.668	2.767	2.767	2.724	2.690#E3	3.77
4)		Dicamba	4.040	3.995	4.130	4.125	3.890	4.036#E3	2.47
5)		MCPP	1.785	1.765	1.824	1.745	1.588	1.741#E3	5.21
6)		Dichloroprop	0.905	1.001	1.080	1.104	1.233	1.064#E3	11.49
7)		2,4-D	1.007	1.122	1.203	1.229	1.359	1.184#E3	11.01
8)		Pentachlorophenol	1.537	1.622	1.634	1.546	1.522	1.572#E4	3.30
9)		Silvex	5.866	6.080	5.471	5.542	5.795	5.751#E3	4.31
10)		2,4,5-T	5.431	5.874	5.711	5.302	5.013	5.466#E3	6.20
11)		Dinoseb	4.477	4.849	5.160	5.291	5.548	5.065#E3	8.17
12)		2,4-DB	5.357	5.795	5.955	5.783	5.236	5.625#E2	5.52

Signal #2 Calibration Files
5 =1G5558.D 4 =1G5559.D 3 =1G5560.D
2 =1G5561.D 1 =1G5562.D

		Compound	5	4	3	2	1	Avg	%RSD
1)		Dalapon	1.389	1.557	1.646	1.797	2.041	1.686#E3	14.68
2)	S	2,4-Dichlorophenylace	0.805	0.935	1.004	1.141	1.301	1.037#E3	18.44
3)		MCPA	3.093	3.549	3.878	4.315	4.551	3.877#E3	15.09
4)		Dicamba	4.399	4.890	4.968	5.274	5.663	5.039#E3	9.32
5)		MCPP	2.167	2.432	2.422	2.539	2.289	2.370#E3	6.07
6)		Dichloroprop	1.050	1.210	1.348	1.550	1.697	1.371#E3	18.86
7)		2,4-D	1.239	1.419	1.567	1.768	1.986	1.596#E3	18.30
8)		Pentachlorophenol	1.903	2.096	2.183	2.207	2.274	2.133#E4	6.72
9)		Silvex	7.897	8.602	8.703	8.853	9.805	8.772#E3	7.80
10)		2,4,5-T	7.183	7.926	7.857	7.934	7.404	7.661#E3	4.51
11)		Dinoseb	4.974	5.672	6.172	6.780	7.171	6.154#E3	14.19
12)		2,4-DB	7.758	8.653	8.977	9.132	8.174	8.539#E2	6.68

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\021103\1G5558.D\ECD1A.CH Vial: 1
Acq On : 11 Feb 2003 17:04 Operator: ECL
Sample : WG134404-01 HERB ICAL #5 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\021103\1G5558.D\ECD2B.CH Vial: 1
Acq On : 11 Feb 2003 17:39 Operator: ECL
Sample : WG134404-01 HERB ICAL #5 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Feb 12 10:17 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Wed Feb 12 09:20:42 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
2) S	2,4-Dichlorophen	9.98	10.45	1394664	1609130	1548.175	1549.320
	Spiked Amount 500.000	Range 20 - 144		Recovery =		309.64%#	309.86%#
	Target Compounds						
1)	Dalapon	3.73	3.49	7166788	6946907	3717.365	3971.859
3)	MCPA	10.77	11.24	504826	618577	162.566	154.839
4)	Dicamba	10.23	10.70	808078	879702	184.872	168.815
5)	MCPP	10.55	10.91	357053	433447	170.638	174.622
6)	Dichloroprop	11.26	11.69	1809417	2100290	1546.940	1547.145
7)	2,4-D	11.56	12.11	2014948	2478709	1577.480	1602.544
8)	Pentachloropheno	11.80	12.57	3073558	3805595	198.474	180.680
9)	Silvex	12.64	13.14	1173217	1579368	184.215	185.075
10)	2,4,5-T	12.98	13.62	1086270	1436601	178.524	185.435
11)	Dinoseb	14.82	14.59	4477011	4973869	770.619	840.746
12)	2,4-DB	13.64	14.24	1071455	1551550	1767.932	1856.018

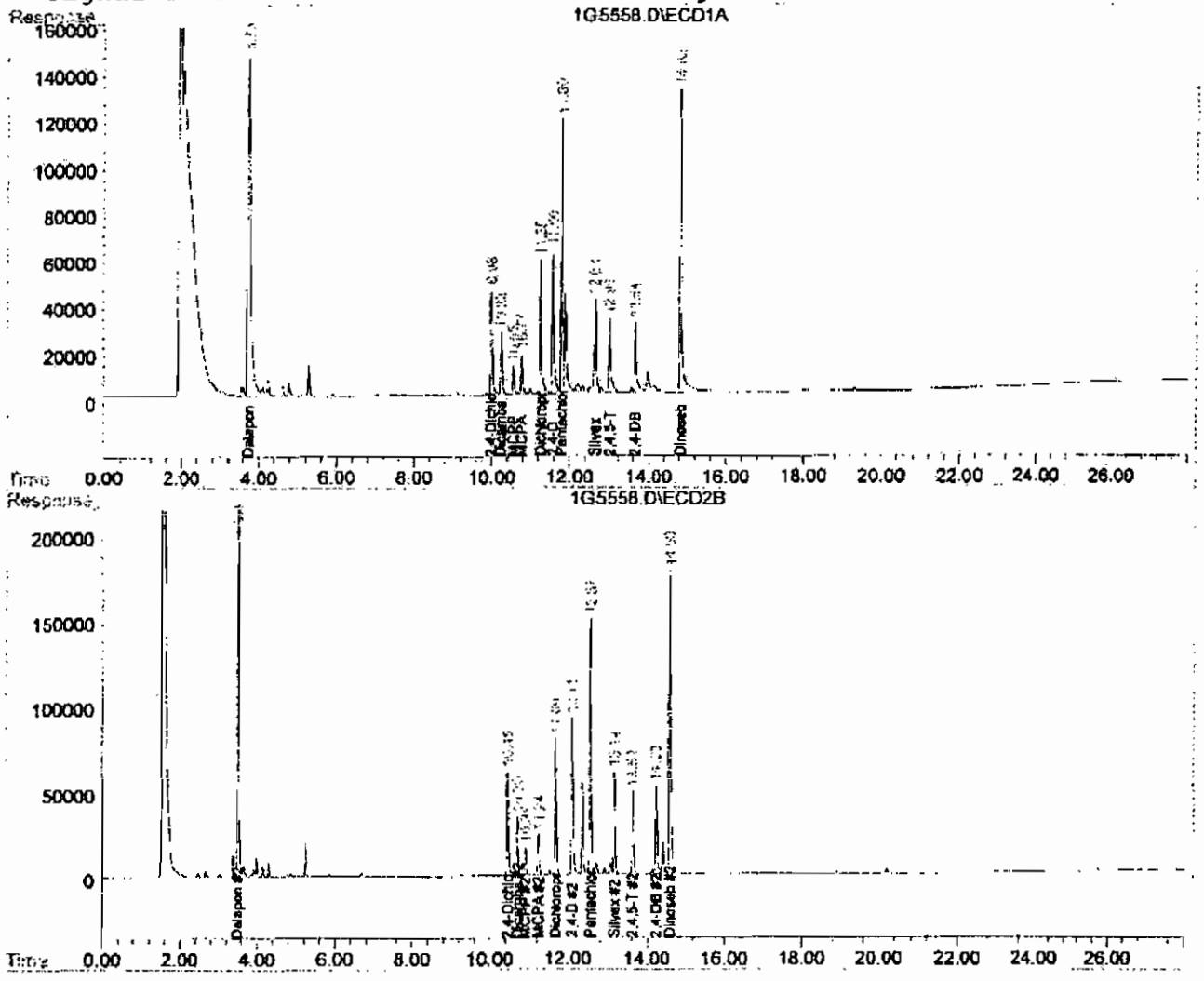
(f)=RT Delta > 1/2 Window (#)-Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\021103\1G5558.D\ECD1A.CH Vial: 1
Acq On : 11 Feb 2003 17:04 Operator: ECL
Sample : WG134404-01 HERB ICAL #5 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\021103\1G5558.D\ECD2B.CH Vial: 1
Acq On : 11 Feb 2003 17:39 Operator: ECL
Sample : WG134404-01 HERB ICAL #5 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Feb 12 10:17 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Wed Feb 12 09:20:42 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\021103\1G5559.D\ECD1A.CH Vial: 2
Acq On : 11 Feb 2003 17:39 Operator: ECL
Sample : WG134404-02 HERB ICAL #4 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\021103\1G5559.D\ECD2B.CH Vial: 2
Acq On : 11 Feb 2003 18:14 Operator: ECL
Sample : WG134404-01 HERB ICAL #5 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Feb 12 10:24 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Wed Feb 12 09:20:42 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
System Monitoring Compounds						
2) S 2,4-Dichlorophen	9.97	10.45	761518	935148	856.262	899.633
Spiked Amount 500.000	Range 20 - 144			Recovery =	171.25%#	179.93%#
Target Compounds						
1) Dalapon	3.72	3.49	3942025	3891506	2075.819	2237.154
3) MCPA	10.74f	11.23	266827	354851	86.825	89.154
4) Dicamba	10.21	10.69	399546	488981	91.947	93.802
5) MCPP	10.53	10.90	176511	243190	85.030	97.572
6) Dichloroprop	11.24	11.68	1000555	1210299	869.039	888.928
7) 2,4-D	11.55	12.10	1122292	1419323	885.865	912.723
8) Pentachloropheno	11.78	12.56	1621879	2096097	103.606	99.020
9) Silvex	12.62	13.14	608017	860202	96.868	100.374
10) 2,4,5-T	12.97	13.62	587419	792586	98.674	101.675
11) Dinoseb	14.81	14.58	2424314	2836139	429.391	476.902
12) 2,4-DB	13.63	14.23	579509	865277	970.995	1023.996

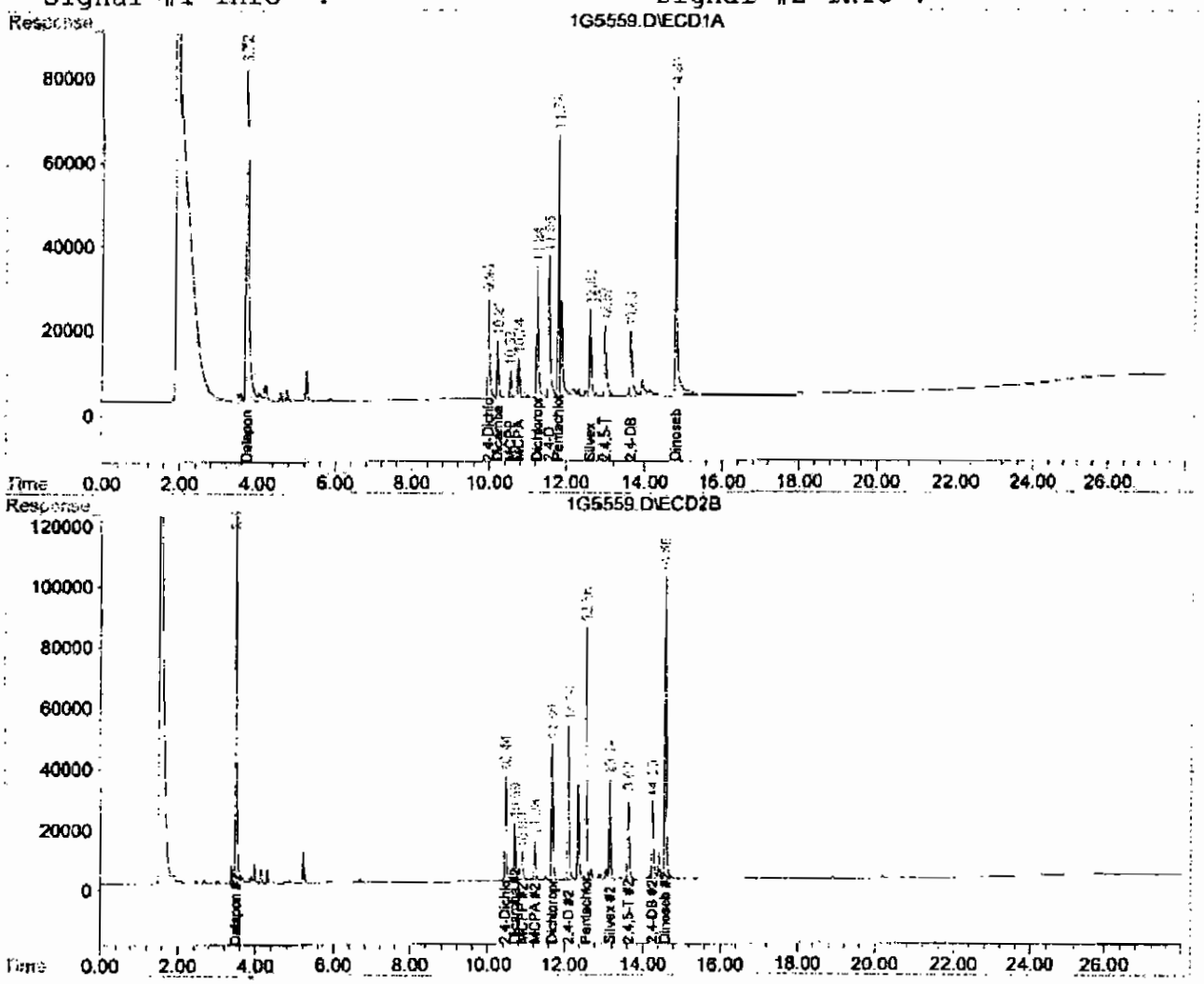
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\021103\1G5559.D\ECD1A.CH Vial: 2
Acq On : 11 Feb 2003 17:39 Operator: ECL
Sample : WG134404-02 HERB ICAL #4 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\021103\1G5559.D\ECD2B.CH Vial: 2
Acq On : 11 Feb 2003 18:14 Operator: ECL
Sample : WG134404-01 HERB ICAL #5 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Feb 12 10:24 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Wed Feb 12 09:20:42 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\021103\1G5560.D\ECD1A.CH Vial: 3
Acq On : 11 Feb 2003 18:14 Operator: ECL
Sample : WG134404-03 HERB ICAL #3 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\021103\1G5560.D\ECD2B.CH Vial: 3
Acq On : 11 Feb 2003 18:49 Operator: ECL
Sample : WG134404-02 HERB ICAL #4 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Feb 12 10:25 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Wed Feb 12 09:20:42 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
2) S	2,4-Dichlorophen	9.94	10.45	414347	501756	478.556	482.301
	Spiked Amount 500.000	Range 20 - 144		Recovery =		95.71%	96.46%
	Target Compounds						
1)	Dalapon	3.70	3.48	2117962	2057969	1149.193	1191.588
3)	MCPA	10.71f	11.22	138347	193898	46.542	49.017
4)	Dicamba	10.18	10.69	206518	248407	48.963	47.881
5)	MCPP	10.50f	10.89	91205	121100	45.744	48.641
6)	Dichloroprop	11.22	11.68	539857	674038	480.844	494.902
7)	2,4-D	11.53	12.10	601661	783255	485.450	501.871
8)	Pentachloropheno	11.76f	12.56	816997	1091591	52.274	51.327
9)	Silvex	12.60	13.14	273555	435125	44.910	50.740
10)	2,4,5-T	12.95	13.62	285572	392846	49.845	50.169
11)	Dinoseb	14.79	14.58	1290015	1542997	237.227	257.872
12)	2,4-DB	13.61	14.24	297743	448845	514.625	524.847

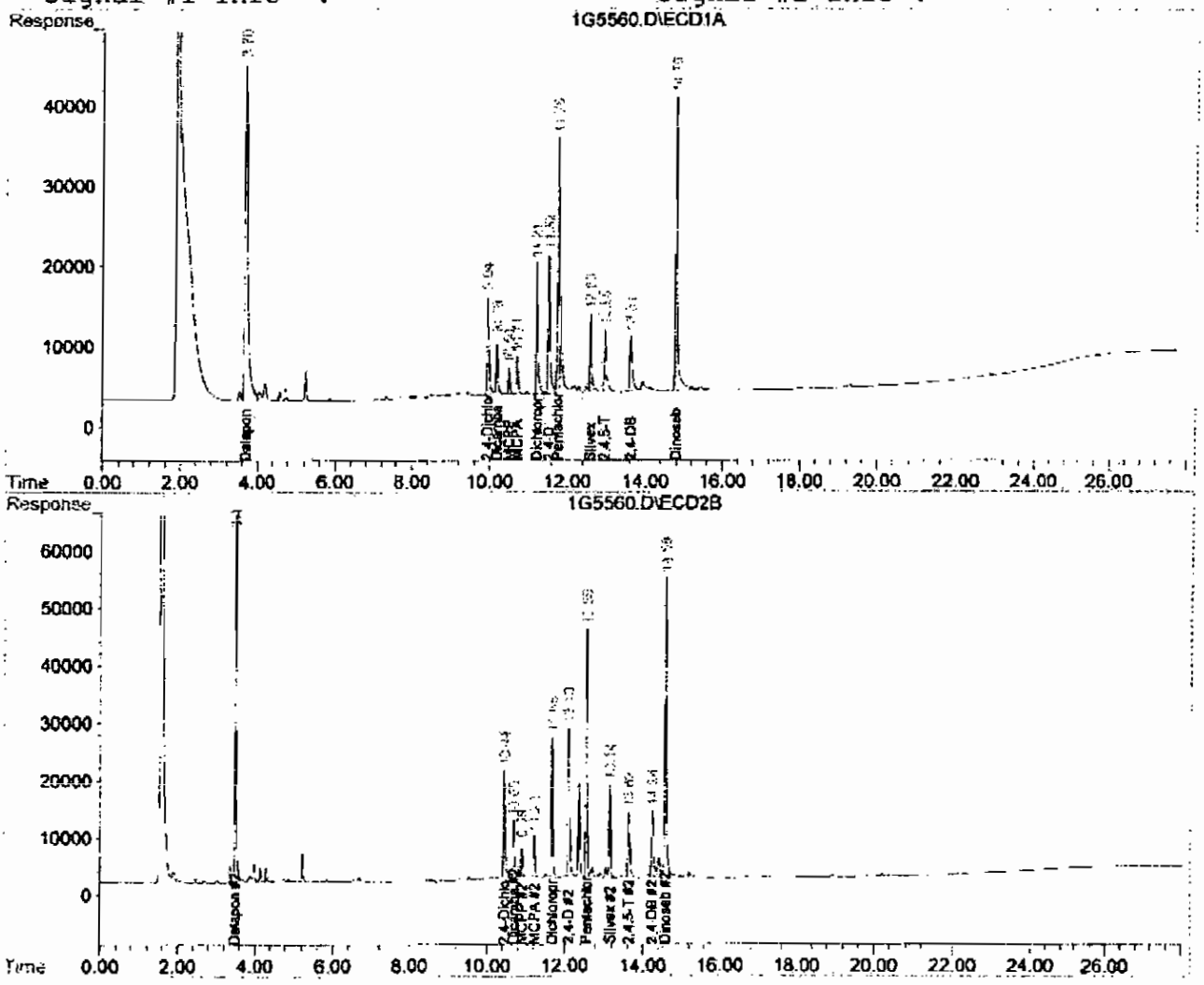
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)-manual int.

Data File : C:\HPCHEM\1\DATA\021103\1G5560.D\ECD1A.CH Vial: 3
Acq On : 11 Feb 2003 18:14 Operator: ECL
Sample : WG134404-03 HERB ICAL #3 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\021103\1G5560.D\ECD2B.CH Vial: 3
Acq On : 11 Feb 2003 18:49 Operator: ECL
Sample : WG134404-02 HERB ICAL #4 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Feb 12 10:25 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Wed Feb 12 09:20:42 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\021103\1G5561.D\ECD1A.CH Vial: 4
Acq On : 11 Feb 2003 18:49 Operator: ECL
Sample : WG134404-04 HERB ICAL #2 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\021103\1G5561.D\ECD2B.CH Vial: 4
Acq On : 11 Feb 2003 19:23 Operator: ECL
Sample : WG134404-03 HERB ICAL #3 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Feb 12 10:31 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Wed Feb 12 10:31:44 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

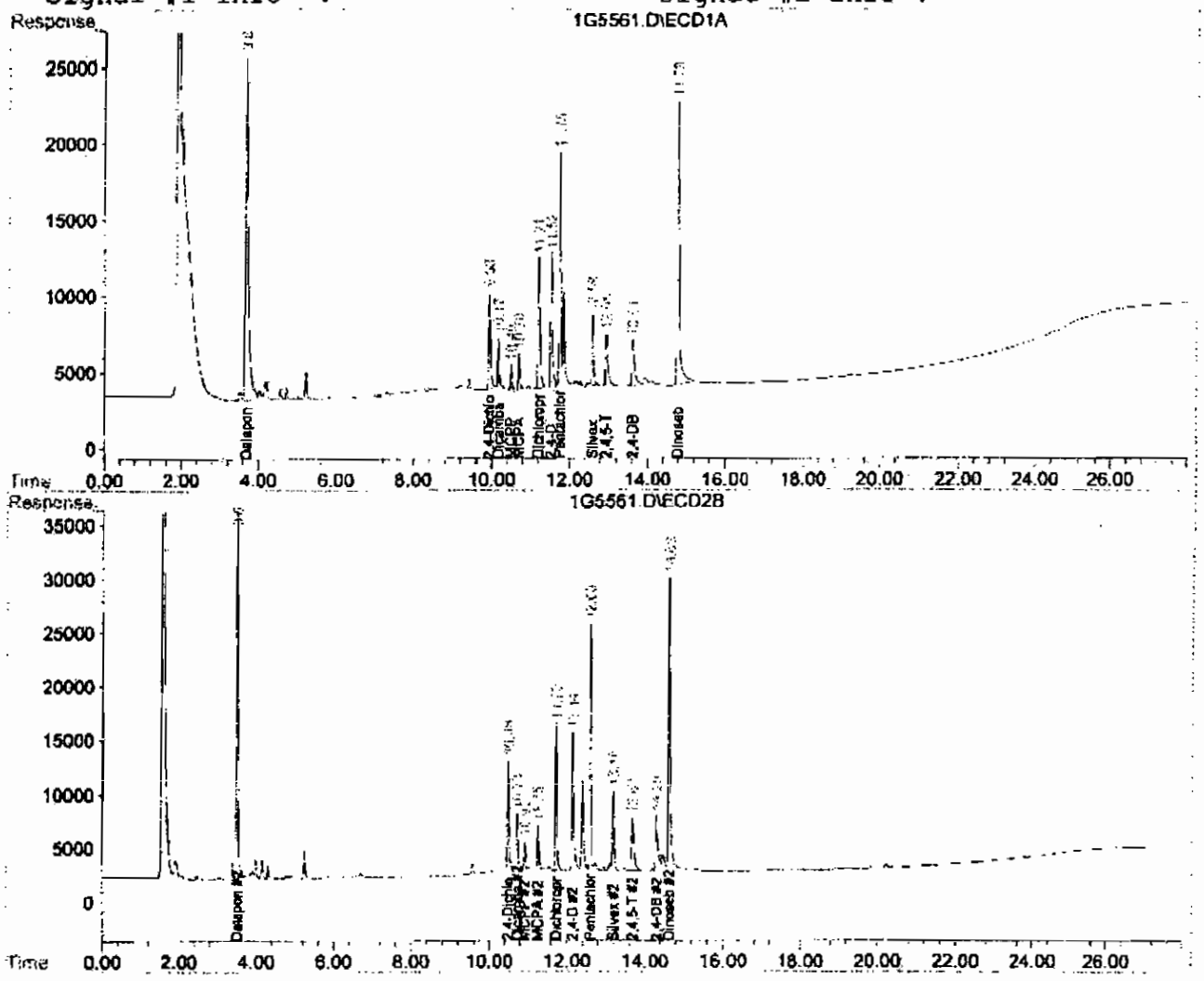
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
2)	S 2,4-Dichlorophen	9.94	10.48	219290	285177	257.013	274.015
	Spiked Amount 500.000	Range 20 - 144		Recovery =		51.40%	54.80%
	Target Compounds						
1)	Dalapon	3.69	3.50	1134822	1123419	630.505	655.927
3)	MCPA	10.70	11.26	69185	107873	23.817	27.366
4)	Dicamba	10.18	10.73	103121	131841	24.829	25.613
5)	MCPP	10.49	10.93	43621	63465	22.505	25.800
6)	Dichloroprop	11.21	11.72	275940	387624	248.599	283.353
7)	2,4-D	11.52	12.14	307345	441990	250.106	280.904
8)	Pentachloropheno	11.75	12.60	386447	551825	24.585	25.752
9)	Silvex	12.59	13.18	138542	221321	23.447	25.736
10)	2,4,5-T	12.95	13.67	132562	198354	23.665	25.314
11)	Dinoseb	14.78	14.62	661424	847453	125.037	139.979
12)	2,4-DB	13.61	14.29	144587	228304	255.169	264.913

Data File : C:\HPCHEM\1\DATA\021103\1G5561.D\ECD1A.CH Vial: 4
Acq On : 11 Feb 2003 18:49 Operator: ECL
Sample : WG134404-04 HERB ICAL #2 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\021103\1G5561.D\ECD2B.CH Vial: 4
Acq On : 11 Feb 2003 19:23 Operator: ECL
Sample : WG134404-03 HERB ICAL #3 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Feb 12 10:31 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Wed Feb 12 10:31:44 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\021103\1G5562.D\ECD1A.CH Vial: 5
Acq On : 11 Feb 2003 19:23 Operator: ECL
Sample : WG134404-05 HERB ICAL #1 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\021103\1G5562.D\ECD2B.CH Vial: 5
Acq On : 11 Feb 2003 19:58 Operator: ECL
Sample : WG134404-04 HERB ICAL #2 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Feb 12 10:36 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Wed Feb 12 10:34:46 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

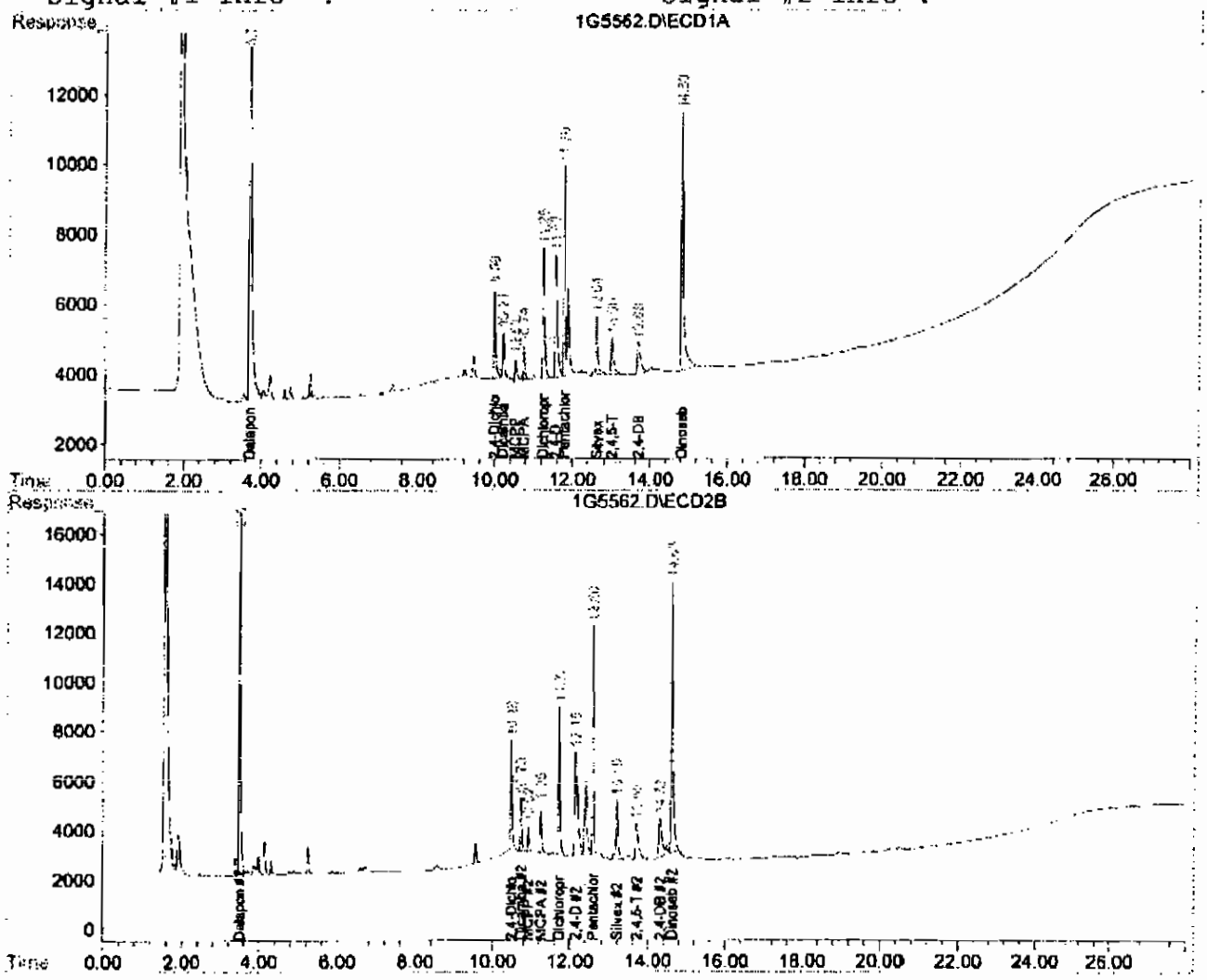
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
2) S	2,4-Dichlorophen	9.98	10.48	94628	130149	115.092	125.495
	Spiked Amount 500.000	Range 20 - 144		Recovery =		23.02%	25.10%
	Target Compounds						
1)	Dalapon	3.71	3.50	504976	510364	295.648	302.661
3)	MCPA	10.74	11.26	27239	45509	10.126	11.738
4)	Dicamba	10.21	10.73	38902	56632	9.638	11.239
5)	MCPP	10.53	10.93	15879	22887	9.118	9.658
6)	Dichloroprop	11.25	11.72	123302	169667	115.847	121.058
7)	2,4-D	11.57	12.15	135894	198608	114.748	124.453
8)	Pentachloropheno	11.79	12.60	152166	227388	9.680	10.662
9)	Silvex	12.64	13.19	57946	98054	10.076	11.178
10)	2,4,5-T	13.01	13.70	50129	74044	9.170	9.665
11)	Dinoseb	14.83	14.63	277382	358546	54.765	58.265
12)	2,4-DB	13.68	14.32	52359	81742	93.077	95.731

Data File : C:\HPCHEM\1\DATA\021103\1G5562.D\ECD1A.CH Vial: 5
Acq On : 11 Feb 2003 19:23 Operator: ECL
Sample : WG134404-05 HERB ICAL #1 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\021103\1G5562.D\ECD2B.CH Vial: 5
Acq On : 11 Feb 2003 19:58 Operator: ECL
Sample : WG134404-04 HERB ICAL #2 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Feb 12 10:36 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Wed Feb 12 10:34:46 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\021203\1G5573.D\ECD1A.CH Vial: 2
Acq On : 12 Feb 2003 12:37 Operator: ECL
Sample : WG134404-06 HERB ALT ICV Inst : HP1
Misc : 1,1 SOS61-01 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\021203\1G5573.D\ECD2B.CH Vial: 2
Acq On : 12 Feb 2003 13:12 Operator: ECL
Sample : WG134458-01 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e

Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Wed Feb 12 10:34:46 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Dalapon	1250.000	913.682	26.9#	74	0.02
3	MCPA	50.000	53.701	-7.4	104	0.01
4	Dicamba	50.000	43.799	12.4	86	0.01
5	MCPP	50.000	57.227	-14.5	109	0.01
6	Dichloroprop	500.000	530.843	-6.2	105	0.00
7	2,4-D	500.000	500.743	-0.1	99	0.00
9	Silvex	50.000	56.187	-12.4	118	0.00
10	2,4,5-T	50.000	52.303	-4.6	100	-0.02
11	Dinoseb	250.000	272.018	-8.8	107	0.01
12	2,4-DB	500.000	547.840	-9.6	104	-0.03
	Signal #2					
1	Dalapon	1250.000	902.630	27.8#	74	0.01
3	MCPA	50.000	49.916	0.2	100	0.01
4	Dicamba	50.000	44.768	10.5	91	0.00
5	MCPP	50.000	51.953	-3.9	102	0.01
6	Dichloroprop	500.000	560.242	-12.0	114	0.00
7	2,4-D	500.000	573.777	-14.8	117	0.00
9	Silvex	50.000	52.220	-4.4	105	-0.01
10	2,4,5-T	50.000	55.270	-10.5	108	-0.04
11	Dinoseb	250.000	253.772	-1.5	101	0.00
12	2,4-DB	500.000	510.258	-2.1	97	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G5573.D 8151.M Wed Feb 12 13:43:46 2003 Page 1

Data File : C:\HPCHEM\1\DATA\021203\1G5573.D\ECD1A.CH Vial: 2
Acq On : 12 Feb 2003 12:37 Operator: ECL
Sample : WG134404-06 HERB ALT ICV Inst : HP1
Misc : 1,1 SOS61-01 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\021203\1G5573.D\ECD2B.CH Vial: 2
Acq On : 12 Feb 2003 13:12 Operator: ECL
Sample : WG134458-01 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Feb 12 13:43 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Wed Feb 12 13:36:31 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
2)	S 2,4-Dichlorophen	0.00	0.00	0	0	N.D.	N.D.
	Spiked Amount 500.000	Range 20 - 144		Recovery =		0.00%#	0.00%#
	Target Compounds						
1)	Dalapon	3.70	3.49	1560598	1522066	913.682	902.630
3)	MCPA	10.73	11.24	144464	193526	53.701	49.916
4)	Dicamba	10.20	10.71	176784	225573	43.799	44.768
5)	MCPP	10.52	10.91	99657	123112	57.227	51.953
6)	Dichloroprop	11.23	11.70	565004	768169	530.843	560.242
7)	2,4-D	11.54	12.12	593021	915659	500.743	573.777
8)	Pentachloropheno	0.00	0.00	0	0	N.D.	N.D.
9)	Silvex	12.62	13.16	323117	458073	56.187	52.220
10)	2,4,5-T	12.96	13.64f	285912	423413	52.303	55.270
11)	Dinoseb	14.81	14.60	1377754	1561646	272.018	253.772
12)	2,4-DB	13.63f	14.25	308178	435697	547.840	510.258

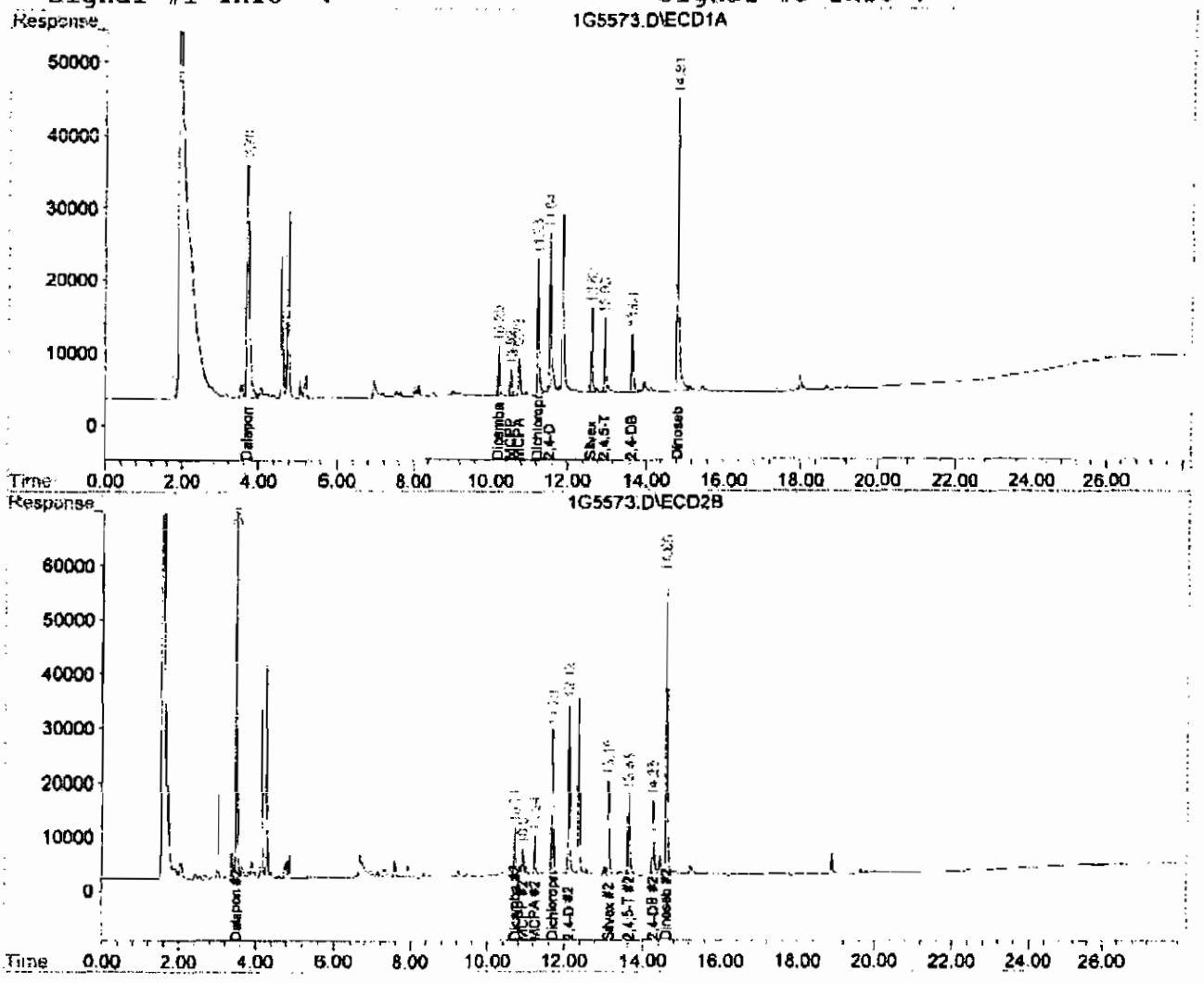
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\021203\1G5573.D\ECD1A.CH Vial: 2
Acq On : 12 Feb 2003 12:37 Operator: ECL
Sample : WG134404-06 HERB ALT ICV Inst : HP1
Misc : 1,1 SOS61-01 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\021203\1G5573.D\ECD2B.CH Vial: 2
Acq On : 12 Feb 2003 13:12 Operator: ECL
Sample : WG134458-01 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Feb 12 13:43 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Wed Feb 12 13:36:31 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\032003\1G5676.D\ECD1A.CH Vial: 1
Acq On : 20 Mar 2003 9:27 Operator: ECL
Sample : WG136646-01 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\032003\1G5676.D\ECD2B.CH Vial: 1
Acq On : 20 Mar 2003 10:03 Operator: ECL
Sample : WG136646-01 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e

Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Fri Mar 07 08:53:15 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Dalapon	1250.000	1415.297	-13.2	114	0.00
2	S	2,4-Dichlorophenylacetic ac	500.000	550.579	-10.1	109	0.00
3		MCPA	50.000	57.056	-14.1	111	0.00
4		Dicamba	50.000	54.158	-8.3	106	0.00
5		MCPP	50.000	56.303	-12.6	108	0.00
6		Dichloroprop	500.000	557.953	-11.6	110	0.00
7		2,4-D	500.000	551.294	-10.3	109	0.00
8		Pentachlorophenol	50.000	53.196	-6.4	102	0.00
9		Silvex	50.000	55.266	-10.5	116	0.00
10		2,4,5-T	50.000	53.551	-7.1	103	-0.01
11		Dinoseb	250.000	284.822	-13.9	112	0.00
12		2,4-DB	500.000	540.391	-8.1	102	-0.01
	Signal #2						
1		Dalapon	1250.000	1237.263	1.0	101	0.00
2	S	2,4-Dichlorophenylacetic	500.000	499.091	0.2	103	0.00
3		MCPA	50.000	51.449	-2.9	103	0.00
4		Dicamba	50.000	50.939	-1.9	103	0.00
5		MCPP	50.000	52.690	-5.4	103	0.00
6		Dichloroprop	500.000	503.282	-0.7	102	0.00
7		2,4-D	500.000	498.789	0.2	102	0.00
8		Pentachlorophenol	50.000	51.253	-2.5	100	0.00
9		Silvex	50.000	48.112	3.8	97	0.00
10		2,4,5-T	50.000	53.203	-6.4	104	0.00
11		Dinoseb	250.000	248.370	0.7	99	0.00
12		2,4-DB	500.000	498.404	0.3	95	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G5676.D 8151.M Thu Mar 20 10:42:34 2003 Page 1

Data File : C:\HPCHEM\1\DATA\032003\1G5676.D\ECD1A.CH Vial: 1
Acq On : 20 Mar 2003 9:27 Operator: ECL
Sample : WG136646-01 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\032003\1G5676.D\ECD2B.CH Vial: 1
Acq On : 20 Mar 2003 10:03 Operator: ECL
Sample : WG136646-01 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Mar 20 10:42 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Thu Mar 20 10:40:26 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

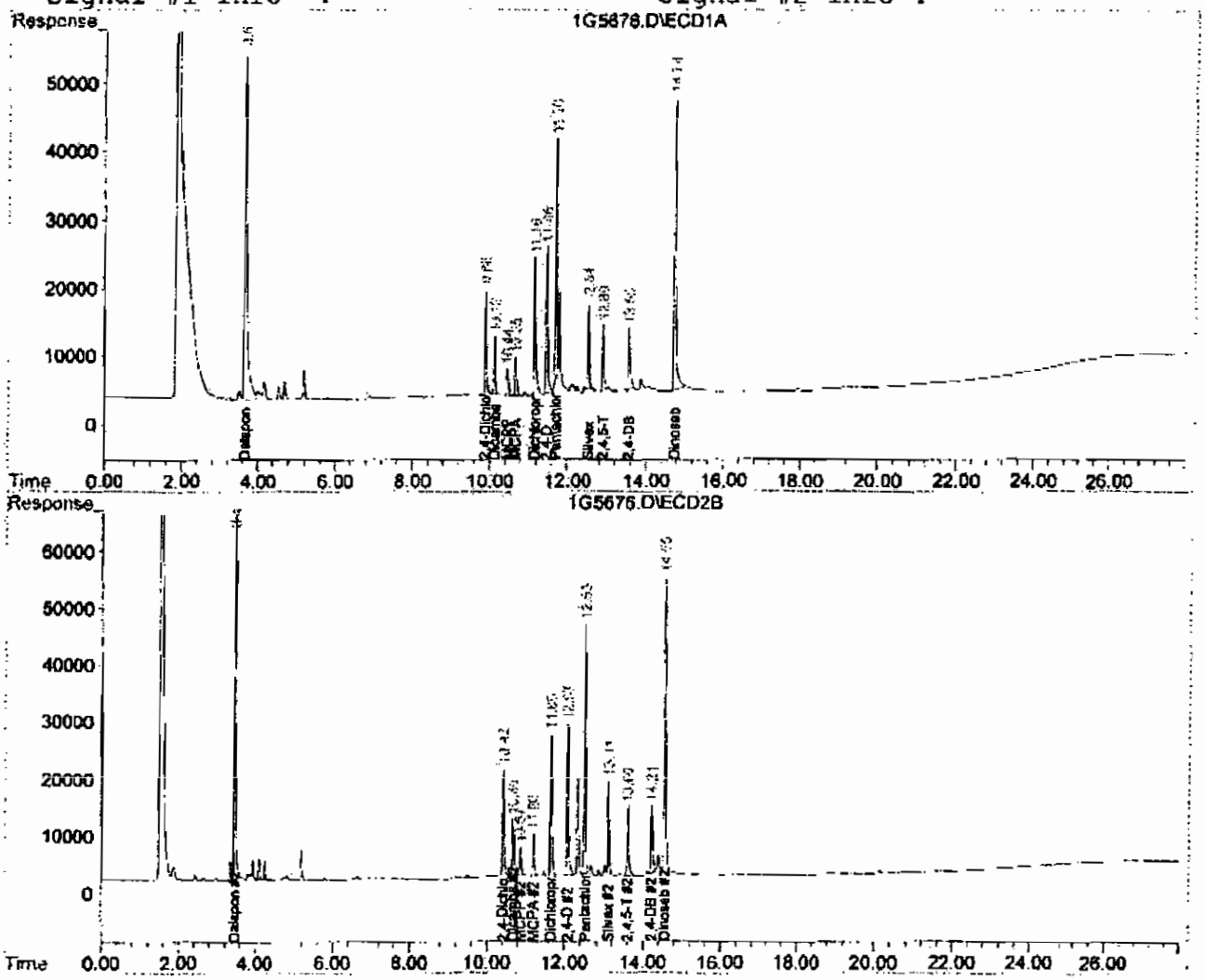
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
2) S	2,4-Dichlorophen	9.88	10.42	452685	517599	550.579	499.091
	Spiked Amount 500.000	Range 20 - 144		Recovery =		110.12%	99.82%
	Target Compounds						
1)	Dalapon	3.65	3.45	2417372	2086343	1415.297	1237.263
3)	MCPA	10.66	11.20	153488	199469	57.056	51.449
4)	Dicamba	10.12	10.67	218595	256665	54.158	50.939
5)	MCPP	10.44	10.87	98048	124859	56.303	52.690
6)	Dichloroprop	11.16	11.66	593858	690069	557.953	503.282
7)	2,4-D	11.46	12.08	652887	795990	551.294	498.789
8)	Pentachloropheno	11.70	12.53	836254	1093039	53.196	51.253
9)	Silvex	12.54	13.11	317818	422031	55.266	48.112
10)	2,4,5-T	12.89	13.60	292733	407578	53.551	53.203
11)	Dinoseb	14.74	14.55	1442609	1528404	284.822	248.370
12)	2,4-DB	13.55	14.21	303987	425575	540.391	498.404

Data File : C:\HPCHEM\1\DATA\032003\1G5676.D\ECD1A.CH Vial: 1
Acq On : 20 Mar 2003 9:27 Operator: ECL
Sample : WG136646-01 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\032003\1G5676.D\ECD2B.CH Vial: 1
Acq On : 20 Mar 2003 10:03 Operator: ECL
Sample : WG136646-01 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Mar 20 10:42 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Thu Mar 20 10:40:26 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\032003\1G5681.D\ECD1A.CH Vial: 6
Acq On : 20 Mar 2003 13:07 Operator: ECL
Sample : WG136646-02 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\032003\1G5681.D\ECD2B.CH Vial: 6
Acq On : 20 Mar 2003 13:42 Operator: ECL
Sample : L0303352-01 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e

Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Fri Mar 07 08:53:15 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Dalapon	1250.000	1408.566	-12.7	114	0.00
2	S	2,4-Dichlorophenylacetic ac	500.000	544.377	-8.9	108	0.00
3		MCPA	50.000	55.841	-11.7	109	0.00
4		Dicamba	50.000	53.135	-6.3	104	0.00
5		MCPP	50.000	55.042	-10.1	105	0.00
6		Dichloroprop	500.000	553.770	-10.8	109	0.00
7		2,4-D	500.000	552.805	-10.6	109	0.00
8		Pentachlorophenol	50.000	52.521	-5.0	101	0.00
9		Silvex	50.000	55.118	-10.2	116	0.00
10		2,4,5-T	50.000	55.533	-11.1	106	0.00
11		Dinoseb	250.000	282.352	-12.9	111	0.00
12		2,4-DB	500.000	554.510	-10.9	105	0.00

Signal #2

1		Dalapon	1250.000	1254.800	-0.4	103	0.00
2	S	2,4-Dichlorophenylacetic	500.000	497.353	0.5	103	0.00
3		MCPA	50.000	50.674	-1.3	101	0.00
4		Dicamba	50.000	50.636	-1.3	103	-0.01
5		MCPP	50.000	51.418	-2.8	101	0.00
6		Dichloroprop	500.000	506.233	-1.2	103	-0.01
7		2,4-D	500.000	504.628	-0.9	103	-0.01
8		Pentachlorophenol	50.000	51.503	-3.0	101	0.00
9		Silvex	50.000	48.971	2.1	99	0.00
10		2,4,5-T	50.000	54.503	-9.0	106	-0.01
11		Dinoseb	250.000	251.148	-0.5	100	-0.01
12		2,4-DB	500.000	534.924	-7.0	102	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G5681.D 8151.M Thu Mar 20 15:06:03 2003 Page 1

Data File : C:\HPCHEM\1\DATA\032003\1G5681.D\ECD1A.CH Vial: 6
Acq On : 20 Mar 2003 13:07 Operator: ECL
Sample : WG136646-02 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\032003\1G5681.D\ECD2B.CH Vial: 6
Acq On : 20 Mar 2003 13:42 Operator: ECL
Sample : L0303352-01 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: Mar 20 15:05 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Thu Mar 20 15:04:56 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
2)	S 2,4-Dichlorophen	9.91	10.41	447586	515797	544.377	497.353
	Spiked Amount 500.000	Range 20 - 144		Recovery =		108.88%	99.47%
	Target Compounds						
1)	Dalapon	3.68	3.46	2405876	2115915	1408.566	1254.800
3)	MCPA	10.69	11.19	150219	196464	55.841	50.674
4)	Dicamba	10.16	10.66	214464	255137	53.135	50.636
5)	MCPP	10.48	10.86	95853	121845	55.042	51.418
6)	Dichloroprop	11.19	11.65	589406	694115	553.770	506.233
7)	2,4-D	11.50	12.07	654677	805308	552.805	504.628
8)	Pentachlorophenol	11.74	12.53	825644	1098377	52.521	51.503
9)	Silvex	12.57	13.10	316972	429571	55.118	48.971
10)	2,4,5-T	12.92	13.59	303568	417544	55.533	54.503
11)	Dinoseb	14.77	14.55	1430095	1545500	282.352	251.148
12)	2,4-DB	13.58	14.20	311930	456758	554.510	534.924

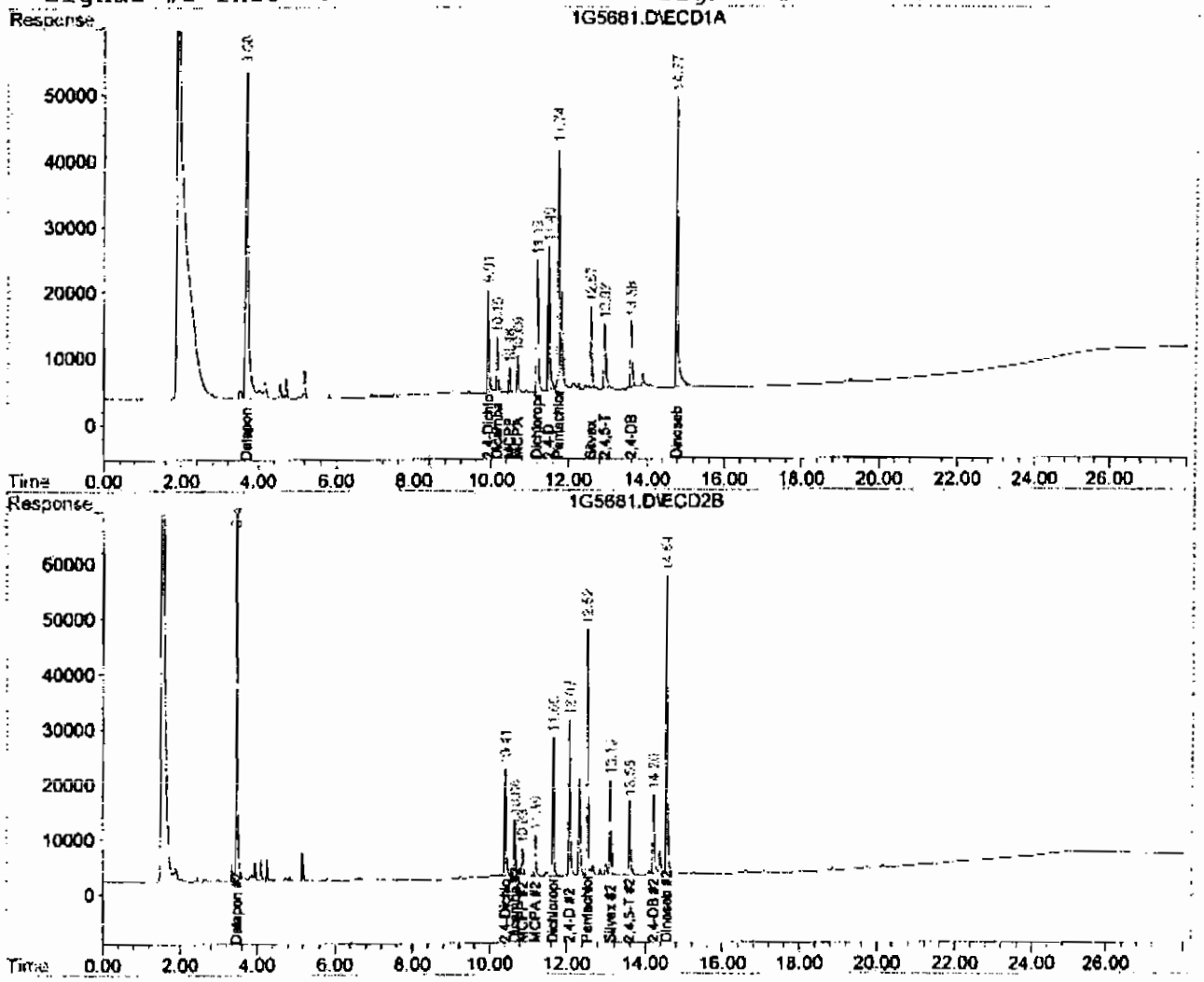
(f)=RT Delta > 1/2 Window (#)-Amounts differ by > 25% (m)-manual int.

Data File : C:\HPCHEM\1\DATA\032003\1G5681.D\ECD1A.CH Vial: 6
Acq On : 20 Mar 2003 13:07 Operator: ECL
Sample : WG136646-02 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\032003\1G5681.D\ECD2B.CH Vial: 6
Acq On : 20 Mar 2003 13:42 Operator: ECL
Sample : L0303352-01 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: Mar 20 15:05 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Thu Mar 20 15:04:56 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

Instrument ID: HP 1

GC Column: RTx-CLP (Front)

	STANDARD #1	STANDARD #2	STANDARD #3
Date Run	6/4/2002	6/6/02	6/12/02
File #	1G4958	1G4971	1G4992

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
Dalapon	3.86	3.81	3.82	0.079
MCPA	11.05	10.97	10.99	0.125
Dicamba	10.52	10.44	10.47	0.121
MCPP	10.84	10.76	10.78	0.125
Dichloroprop	11.56	11.48	11.50	0.125
2,4-D	11.88	11.80	11.82	0.125
Pentachlorophenol	12.12	12.03	12.06	0.137
Silvex	12.96	12.88	12.90	0.125
2,4,5-T	13.33	13.26	13.26	0.121
Dinoseb	15.18	15.08	15.12	0.151
2,4-DB	13.99	13.92	13.93	0.114

RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

Instrument ID: HP 1
GC Column: RTx-CLP II (Rear)

	STANDARD #1	STANDARD #2	STANDARD #3
Date Run	6/4/2002	6/6/02	6/12/02
File #	1G4958	1G4971	1G4992

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
Dalapon	3.61	3.57	3.58	0.062
MCPA	11.49	11.41	11.43	0.125
Dicamba	10.96	10.88	10.90	0.125
MCPP	11.16	11.08	11.10	0.125
Dichloroprop	11.95	11.87	11.89	0.125
2,4-D	12.37	12.30	12.32	0.108
Pentachlorophenol	12.85	12.76	12.78	0.142
Silvex	13.42	13.34	13.36	0.125
2,4,5-T	13.91	13.84	13.85	0.114
Dinoseb	14.87	14.79	14.80	0.131
2,4-DB	14.53	14.45	14.46	0.131

2.2.4.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\032003\1G5677.D\ECD1A.CH Vial: 2
Acq On : 20 Mar 2003 10:46 Operator: ECL
Sample : WG136529-01 BLANK V200 P97 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\032003\1G5677.D\ECD2B.CH Vial: 2
Acq On : 20 Mar 2003 11:21 Operator: ECL
Sample : WG136529-01 BLANK V200 P97 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: Mar 20 15:51 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Thu Mar 20 15:51:39 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
?)	S 2,4-Dichlorophen	9.93	10.42	332942	428700	404.942	413.371	
	Spiked Amount 500.000	Range 20 - 144		Recovery =		80.99%	82.67%	
	Target Compounds							
1)	Dalapon	0.00	0.00	0	0	N.D.	N.D.	
3)	MCPA	0.00	0.00	0	0	N.D.	N.D.	
4)	Dicamba	0.00	0.00	0	0	N.D.	N.D.	
5)	MCPP	0.00	0.00	0	0	N.D.	N.D.	
6)	Dichloroprop	0.00	11.64f	0	64103	N.D.	46.751	#
7)	2,4-D	0.00	0.00	0	0	N.D.	N.D.	
8)	Pentachlorophenо	0.00	0.00	0	0	N.D.	N.D.	
9)	Silvex	0.00	0.00	0	0	N.D.	N.D.	
10)	2,4,5-T	0.00	0.00	0	0	N.D.	N.D.	
11)	Dinoseb	0.00	14.61f	0	111928	N.D.	18.189	#
12)	2,4-DB	0.00	0.00	0	0	N.D.	N.D.	

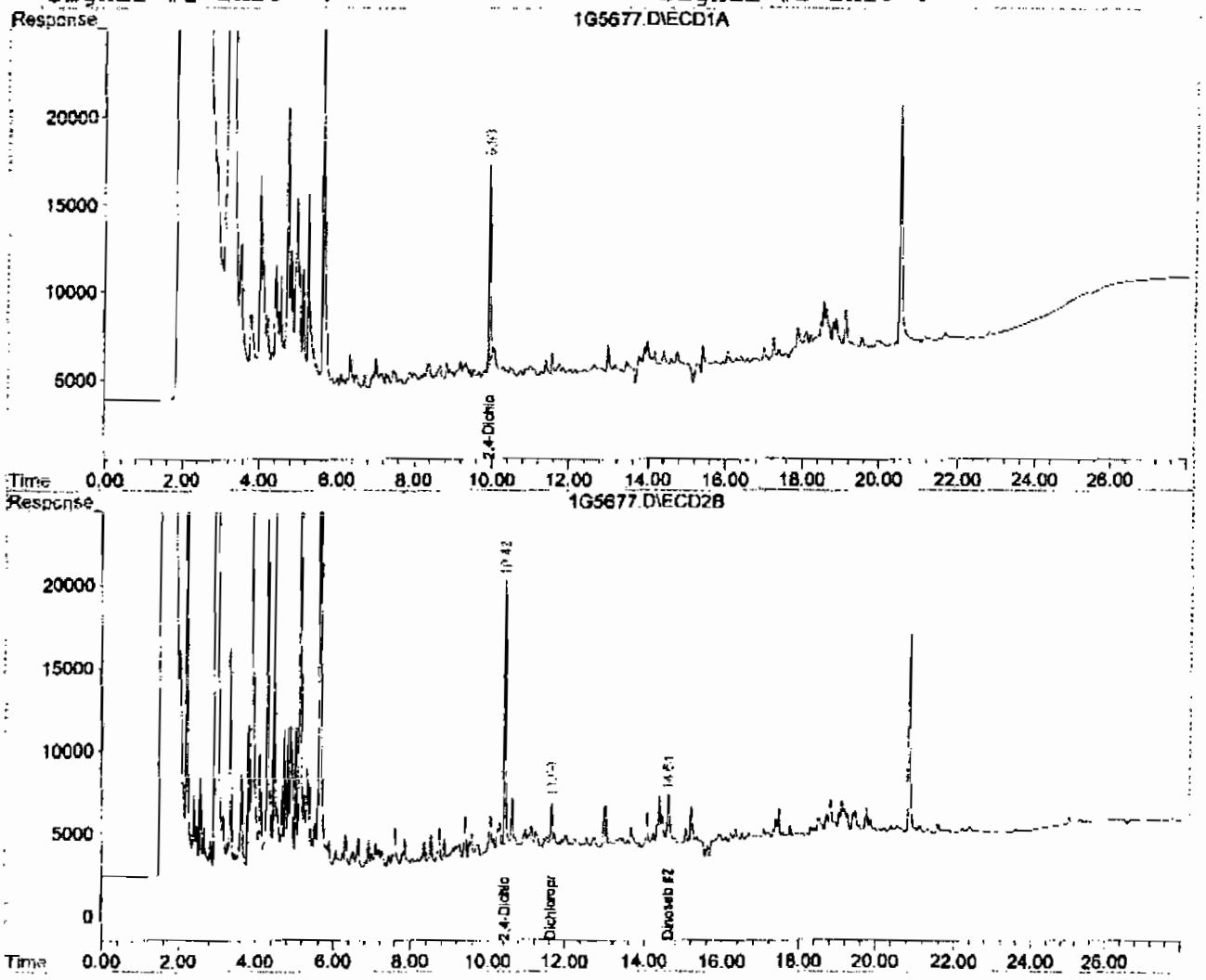
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032003\1G5677.D\ECD1A.CH Vial: 2
Acq On : 20 Mar 2003 10:46 Operator: ECL
Sample : WG136529-01 BLANK V200 P97 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\032003\1G5677.D\ECD2B.CH Vial: 2
Acq On : 20 Mar 2003 11:21 Operator: ECL
Sample : WG136529-01 BLANK V200 P97 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: Mar 20 15:51 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Thu Mar 20 15:51:39 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\032003\1G5678.D\ECD1A.CH Vial: 3
Acq On : 20 Mar 2003 11:21 Operator: ECL
Sample : WG136529-02 LCS V200 P97 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\032003\1G5678.D\ECD2B.CH Vial: 3
Acq On : 20 Mar 2003 11:56 Operator: ECL
Sample : WG136529-01 BLANK V200 P97 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: Mar 20 15:53 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Thu Mar 20 15:51:39 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
2)	S 2,4-Dichlorophen	9.92	10.41	360321	415007	438.241	400.167	
	Spiked Amount 500.000	Range 20 - 144			Recovery =	87.65%	80.03%	
	Target Compounds							
1)	Dalapon	3.68	3.46	486240	680524	284.679	403.571	#
3)	MCPA	10.69	11.19	124206	156324	46.171	40.321	
4)	Dicamba	10.17	10.66	195527	213729	48.443	42.418	
5)	MCPP	10.48	10.86	75619	75898	43.423	32.029	#
6)	Dichloroprop	11.20	11.65	494756	640672	464.842	467.256	
7)	2,4-D	11.50	12.07	496688	581102	419.400	364.134	
8)	Pentachloropheno	11.74	12.53	547059	641169	34.800	30.064	
9)	Silvex	12.58	13.11	273994	333260	47.645	37.992	
10)	2,4,5-T	12.93	13.59	215756	361696	39.469	47.213	
11)	Dinoseb	14.78	14.55	626708	924751	123.735	150.275	
12)	2,4-DB	13.59	14.20	207994	305307	369.745	357.555	

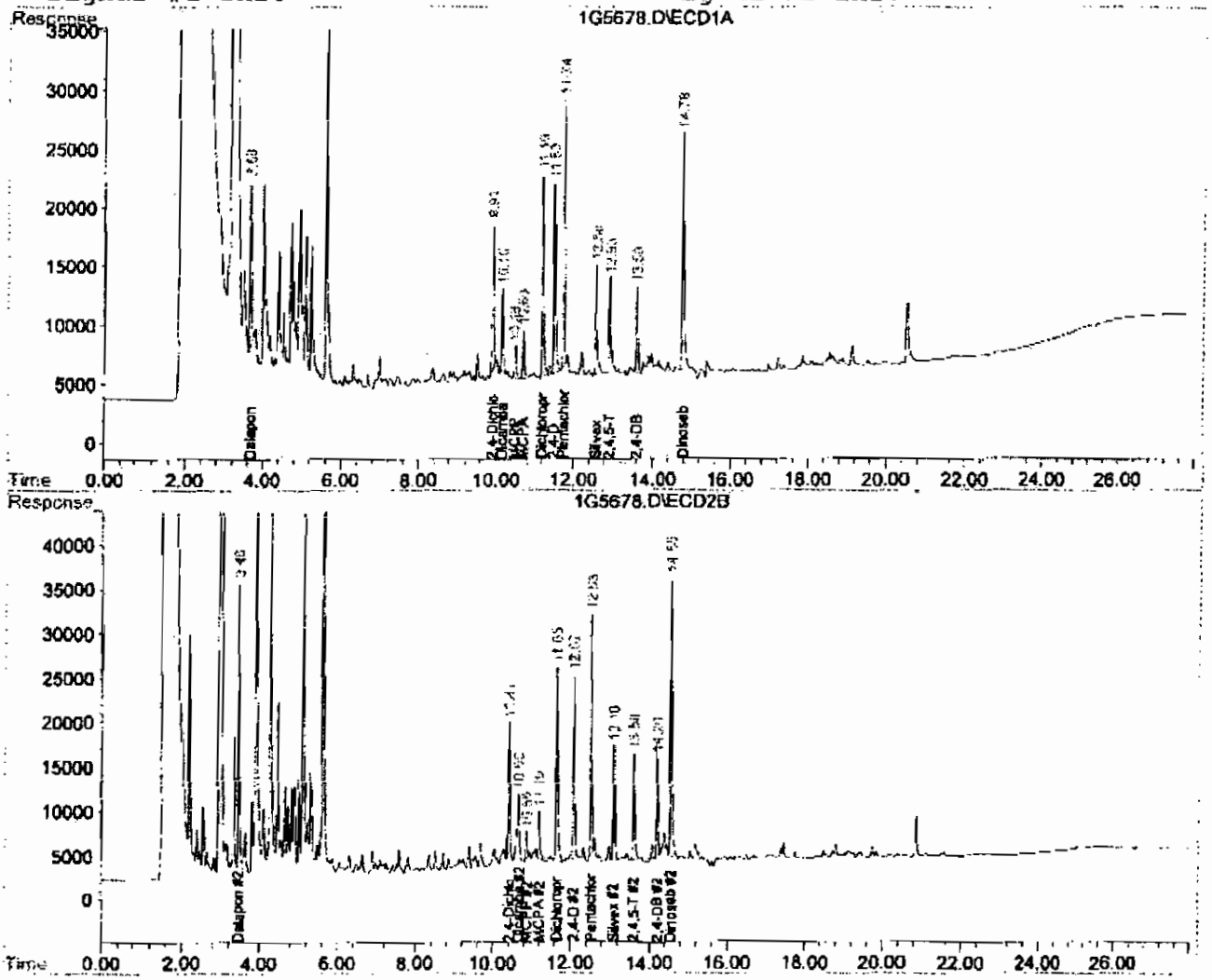
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\032003\1G5678.D\ECD1A.CH Vial: 3
Acq On : 20 Mar 2003 11:21 Operator: ECL
Sample : WG136529-02 LCS V200 P97 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\032003\1G5678.D\ECD2B.CH Vial: 3
Acq On : 20 Mar 2003 11:56 Operator: ECL
Sample : WG136529-01 BLANK V200 P97 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: Mar 20 15:53 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Thu Mar 20 15:51:39 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\032003\1G5679.D\ECD1A.CH Vial: 4
Acq On : 20 Mar 2003 11:56 Operator: ECL
Sample : WG136529-03 LCS DUP V200 P97 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\032003\1G5679.D\ECD2B.CH Vial: 4
Acq On : 20 Mar 2003 12:32 Operator: ECL
Sample : WG136529-02 LCS V200 P97 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: Mar 20 15:54 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Thu Mar 20 15:51:39 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
System Monitoring Compounds							
?) S 2,4-Dichlorophen	9.91	10.41	345315	396916	419.990	382.723	
Spiked Amount 500.000	Range 20 - 144			Recovery =	84.00%	76.54%	
Target Compounds							
1) Dalapon	3.68	3.46	450650	652830	263.842	387.147	#
3) MCPA	10.69	11.19	124699	158471	46.354	40.874	
4) Dicamba	10.17	10.65f	209308	204662	51.857	40.618	
5) MCPP	10.48	10.86	82656	86453	47.464	36.483	
6) Dichloroprop	11.19	11.65	484272	630148	454.992	459.580	
7) 2,4-D	11.50	12.07	475757	559991	401.726	350.906	
8) Pentachloropheno	11.74	12.52	536963	629096	34.158	29.498	
9) Silvex	12.58	13.10	273480	316563	47.556	36.088	
10) 2,4,5-T	12.93	13.58f	200402	319317	36.660	41.681	
11) Dinoseb	14.78	14.54f	611288	890543	120.690	144.716	
12) 2,4-DB	13.59	14.19f	208146	301337	370.016	352.905	

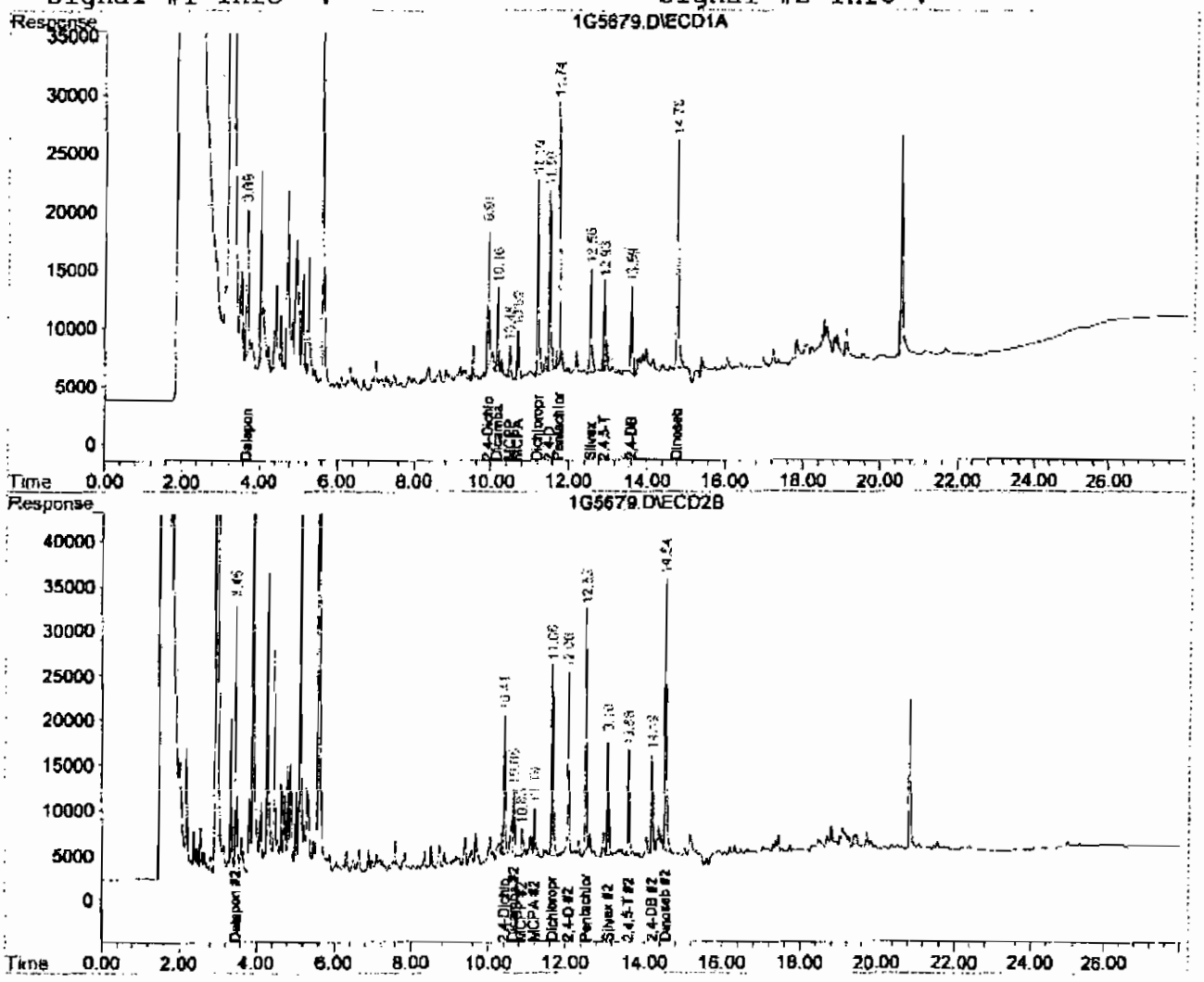
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)-manual int.

Data File : C:\HPCHEM\1\DATA\032003\1G5679.D\ECD1A.CH Vial: 4
Acq On : 20 Mar 2003 11:56 Operator: ECL
Sample : WG136529-03 LCS DUP V200 P97 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\032003\1G5679.D\ECD2B.CH Vial: 4
Acq On : 20 Mar 2003 12:32 Operator: ECL
Sample : WG136529-02 LCS V200 P97 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: Mar 20 15:54 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION February 11, 2003 @ 1958
Last Update : Thu Mar 20 15:51:39 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1g5558.d	1.	WG134404-01 HERB ICAL #5	1,1 SOS63-10	11 Feb 103 12::0
2	2	1g5559.d	1.	WG134404-02 HERB ICAL #4	1,1 SOS63-10	11 Feb 103 12::3
3	3	1g5560.d	1.	WG134404-03 HERB ICAL #3	1,1 SOS63-10	11 Feb 103 12::1
4	4	1g5561.d	1.	WG134404-04 HERB ICAL #2	1,1 SOS63-10	11 Feb 103 12::4
5	5	1g5562.d	1.	WG134404-05 HERB ICAL #1	1,1 SOS63-10	11 Feb 103 12::2
6	6	1g5563.d	1.	RR— WG134404-06 HERB ALT ICV -A	1,1 SOS61-01	11 Feb 103 12::5
7	7	1g5564.d	1.	WG134283-01 BLANK V198 P109	1,1 WATER	11 Feb 103 12::3
8	8	1g5565.d	1.	WG134283-02 LCS V198 P109	1,1 WATER	11 Feb 103 12::0
9	9	1g5566.d	1.	WG134283-03 LCS DUP V198 P109	1,1 WATER	11 Feb 103 12::4
10	10	1g5567.d	1.	L0301632-23	1,1 WATER	11 Feb 103 13::1
11	11	1g5568.d	10.	L0301632-23 10x	1,10 WATER	11 Feb 103 13::5
12	12	1g5569.d	1.	WG134182-01 TCLP BLANK 2/6	17,1 WATER	11 Feb 103 13::2
13	13	1g5570.d	1.	L0302095-01	17,1 WATER	12 Feb 103 13::0
14	14	1g5571.d	1.	WG134404-07 HERB CCV	1,1 SOS63-10	12 Feb 103 13::3

ECR 2/13/03

wk 2/13/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 2/11/03 Instrument ID HPI Column ID Rtx-CLP Front Data Subdirectory 021103
Analyst Initials ECL

SOP # GCS09 Rev. # ___ 8081A ___
SOP # GCS04 Rev. # 2 8151A ✓
SOP # GCS03 Rev. # ___ PRO ___
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ___
SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ___
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time 2/11/03 Instrument ID HPI Column ID Rtx-CLP II Rear Data Subdirectory 021103

Daily Check
☑ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☐ Change liner
☐ Change septum
☐ Clip column (___cm)
☐ Injection port seal (goldseal)
☐ Change gases ___

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: ___

Action Taken: ___

Comments

A - wrong concentration Not used

Reviewed By: ___ 2/11/03

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	1g5572.d	1.	WG134458-01 HERB CCV	1,1 SOS63-10	12 Feb 103 13::0
2	2	1g5573.d	1.	WG134404-06 HERB ALT ICV -A	1,1 SOS61-01	12 Feb 103 13::3
3	3	1g5574.d	1.	WG134383-01 BLANK V197 P149	7,1 SOIL	12 Feb 103 12::4
4	4	1g5575.d	1.	WG134383-02 LCS V197 P149	7,1 SOIL	12 Feb 103 12::2
5	5	1g5576.d	1.	WG134383-03 LCS DUP V197 P149	7,1 SOIL	12 Feb 103 12::5
6	6	1g5577.d	1.	L0302182-01	7,1 SOIL	12 Feb 103 12::3
7	7	1g5578.d	1.	L0302182-02	7,1 SOIL	12 Feb 103 12::0
8	8	1g5579.d	1.	WG134458-02 HERB CCV	1,1 SOS63-10	12 Feb 103 12::4

ECZ 2/13/03

odc. 2/13/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 2/12/03 Instrument ID HP I Column ID Rtx-CLP Front Data Subdirectory 021203
Analyst Initials EGL

SOP # GCS09 Rev. # ___ 8081A ___
SOP # GCS04 Rev. # 2 8151A ✓
SOP # GCS03 Rev. # ___ PRO ___
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ___
SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ___
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time 2/12/03 Instrument ID HP I Column ID Rtx-CLP II Rear Data Subdirectory 021203

Daily Check
☑ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☐ Change liner
☐ Change septum
☐ Clip column (___cm)
☐ Injection port seal (goldseal)
☐ Change gases ___

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: ___

Action Taken: ___

Comments

A - Balafon was out of range

Reviewed By: mk 2/18/03

Directory: [illegible]

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1g5676.d	1.	WG136646-01 HERB CCV	1,1 SOS63-10	20 Mar 103 12::2
2	2	1g5677.d	1.	WG136529-01 BLANK V200 P97	1,1 WATER	20 Mar 103 13::4
3	3	1g5678.d	1.	WG136529-02 LCS V200 P97	1,1 WATER	20 Mar 103 13::2
4	4	1g5679.d	1.	WG136529-03 LCS DUP V200 P97	1,1 WATER	20 Mar 103 13::5
5	5	1g5680.d	1.	L0303352-01	1,1 WATER	20 Mar 103 13::3
6	6	1g5681.d	1.	WG136646-02 HERB CCV	1,1 SOS63-10	20 Mar 103 12::0

EC2 3/21/03

mde 3/21/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 3/20/03 Instrument ID HFI Column ID Rtx-CLP Front Data Subdirectory 032003
Analyst Initials ECL

SOP # GCS09 Rev. # ___ 8081A ___
SOP # GCS04 Rev. # 2 8151A ✓
SOP # GCS03 Rev. # ___ PRO ___
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ___
SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ___
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time 3/20/03 Instrument ID HFI Column ID Rtx-CLP II Front Data Subdirectory 032003

Daily Check
- ✓ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☐ Change liner
- ☐ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: [signature] 3/21/03

Parameter: Herb H_2O SOP #: Ex401 Revision #: 12
Extraction Analyst(s): BCL TV/KD Analyst(s): BCL
Date/Time Extracted: 3/14/03 0700 Date TV/KD: 3/19/03
Spike/Surrogate Analyst: BCL Witness: CEB
Surrogate #: ES50043-46 Earliest Hold Date: 3/24
Spike #: A = ES50043-24 Spike #: B = –

Extraction Work Group WG 136529
Analytical Work Group WG 136647 136675
Extract Relinquished By: BCL
Extract Received By & Date: EC 3/19/03

	Sample ID	Test Code	pH / <2	pH / N	pH / >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	Emulsions / BN	Emulsions / N	Comments
1	Blank		✓		✓	1000 mL	1mL		10mL	T				WG 136529-01
2	LCS		✓		✓	〃	〃	1mL	〃	T				WG 〃 -02
3	LCS Dup		✓		✓	〃	〃	〃	〃	T				〃 -03
4	03-352-01	8151	✓		✓	920 mL	〃		〃	C	✓			
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

Methylene Chloride Lot #: 4235
Hexane Lot #: 42241
Ether Lot #: 42203
Methanol Lot #: 4224/7236
Solvent: – Lot #: –
Reagent: 6N NaOH Lot #: ER2785
Reagent: ISO-acetone Lot #: V04616 V04616
Reagent: – Lot #: –
Acid: 12N H_2SO_4 Lot #: EA2790
Florisil Lot #: –
Silica Gel Lot #: –
IR Analyst / Date / Time: –
Dried Na_2SO_4 Lot #: ER2793

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 3/19/03

Extraction Notes For Volume # 200 Page # 97

General Comments: NIL

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

Semi-Volatile GC Checklist

Run Date: 2/11/03

Analyst: ECL

Instrument: HP I

Method: 8151

Workorders:	Due Date:	Priority:
02-095	2/13	P1
01-623	2/21	-

		Analyst
System Performance Check:	Endrin/DDT Breakdown	
Initial Calibration:	Average RF	
	Linear or quadriatic regression	
	Alt Source Check	
Continuing Calibration:	Continuing Calibration	✓
	Client Specific Requirements	✓
	Ending Standards	✓
	Special Standards	
Blanks:	Quant Report/Chromatogram	✓
	Surrogates	✓
LCS/LCS DUP:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Spike Compounds	✓
	MS/MSD	
Samples:	Quant Reports/Chromatograms	✓
	Surrogates	✓
	Dilution runs	✓
	Check Sample Histories	
Data Package:	Manual Integrations	1
	Run logs	✓
	Bench sheets	✓
	QC sheets	✓
	Upload results	✓
	Seedpak workgroups	✓
	Level 2	
	Level 3	
	Level 4 copies	✓
	Level x	
	Case narratives	

	Supervisor
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

√ = Checked & OK

NA = Not Applicable

Comments:

Primary Reviewer: ECL 2/13/03

Secondary Reviewer: adc 2/18/03

Supervisor Review: adc 2/18/03

Semi-Volatile GC Checklist

Run Date: 2/12/03

Analyst: ECL

Instrument: HPI

Method: 8151

Workorders:	Due Date:	Priority:
02-182	1/14	FIT

		Analyst
System Performance Check:	Endrin/DDT Breakdown	
Initial Calibration:	Average RF	
	Linear or quadratic regression	
	Alt Source Check	✓
Continuing Calibration:	Continuing Calibration	✓
	Client Specific Requirements	✓
	Ending Standards	✓
	Special Standards	
Blanks:	Quant Report/Chromatogram	✓
	Surrogates	✓
LCS/LCS DUP:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Spike Compounds	✓
	MS/MSD	
Samples:	Quant Reports/Chromatograms	✓
	Surrogates	✓
	Dilution runs	
	Check Sample Histories	
Data Package:	Manual Integrations	✓
	Run logs	✓
	Bench sheets	✓
	QC sheets	✓
	Upload results	✓
	Seedpak workgroups	✓
	Level 2	
	Level 3	
	Level 4 copies	
	Level x	
	Case narratives	

	Supervisor
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

√ = Checked & OK

NA = Not Applicable

Comments:

Primary Reviewer: ECL 2/13/03.

Secondary Reviewer: mlc 2/14/03

Supervisor Review: mlc 2/14/03

Semi-Volatile GC Checklist

Run Date: 3/20/03

Analyst: ECL

Instrument: HPI

Method: 8151

Workorders:	Due Date:	Priority:
03-352	3/21	P1

		Analyst
System Performance Check:	Endrin/DDT Breakdown	
Initial Calibration:	Average RF	
	Linear or quadratic regression	
	Alt Source Check	
Continuing Calibration:	Continuing Calibration	✓
	Client Specific Requirements	✓
	Ending Standards	✓
	Special Standards	
Blanks:	Quant Report/Chromatogram	✓
	Surrogates	✓
LCS/LCS DUP:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Spike Compounds	✓
	MS/MSD	
Samples:	Quant Reports/Chromatograms	✓
	Surrogates	✓
	Dilution runs	
	Check Sample Histories	
Data Package:	Manual Integrations	
	Run logs	✓
	Bench sheets	✓
	QC sheets	✓
	Upload results	✓
	Seedpak workgroups	✓
	Level 2	
	Level 3	
	Level 4 copies	✓
	Level x	
	Case narratives	

	Supervisor
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

✓ = Checked & OK

NA = Not Applicable

Comments:

Primary Reviewer: EC2 3/21/03

Secondary Reviewer: mdc 3/21/03

Supervisor Review: mdc 3/21/03

Example 8151 Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

		Example:
	RF = As/ Cs	
Where:	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ng/ml).	100
	RF	**100**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:*

		Example:
	C = [(Ax)(Vf)(D)] / [(RF)(Vi)]	
Where:	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Vi = Initial volume of sample (mL). (prep log)	1000
	C (ug/L)	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report:*

		Example:
	C = [(Ax)(Vf)(D)] / [(RF)(Vi)]	
Where:	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

* Concentrations appearing on instrument quantitation reports are on-column results and do not take into account initial volume, final volume and dilution factor.

2.2.9 Explosives (8330)

REPORT NARRATIVE
HPLC-EXPLOSIVE RESIDUES

KEMRON Report No.: L0303352

Note: Tetryl readily decomposes in the presence of methanol/water or heat. False negative results for this analyte are possible.

METHOD

Analysis: SW-846 8330

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS and LCS duplicate associated with the initial extraction of sample fraction 01 yielded a percent recovery for HMX that was below the advisory limit. The LCS and LCS duplicate associated with the re-extraction of sample fraction 01 yielded percent recoveries for 2,4,6-trinitrotoluene, HMX, and tetryl that were below the advisory limit.

Matrix Spikes: An MS/MSD were not associated with this sample delivery group.

SAMPLES

Surrogates: Sample fraction 01 yielded a percent recovery for the surrogate that was below the advisory limit. This sample was re-extracted within holding time and met all acceptance criteria.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC REVIEWED: Eric Larson DATE: 3-28-03

Rev. 7/14/00

EXPLOSIVES HPLC DATA (8330)

Login Number L0303352

A. QC Summary

- ✓ Method Blank Summary
- ✓ Method Blank Results
- ✓ Laboratory Control Sample (LCS)
- NA Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ✓ Holding Time Summary
- ✓ Surrogate Recovery Summary
- ✓ Initial Calibration Summary
- ✓ Initial Calibration Verification (ICV) Form (Second Source)
- ✓ Continuing Calibration Verification (CCV)
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet

B. Sample Data

- ___ Target compound and surrogate results summary (See Summary Report)
- ✓ Chromatograms and quantitation report

C. Standards Data

- ✓ Initial calibration (ICAL) summary form
- ✓ Chromatograms and quantitation report for ICAL standards
- ✓ Initial calibration verification (ICV/second source) summary forms
- ✓ Initial calibration verification (ICV/second source) quantitation reports and chromatograms
- ✓ Continuing Calibration Verification (CCV) summary forms
- ✓ Continuing Calibration Verification (CCV) quantitation reports and chromatograms
- ✓ Retention Time Window Summary

D. Raw QC Data

- ✓ Method blank chromatogram and quantitation report
- ✓ LCS chromatogram and quantitation report
- NA MS/MSD chromatogram and quantitation report
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet
- ✓ Daily Checklist
- ✓ Example Calculations

Checked By: RDC **Date:** 3/28/03

2.2.9.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0303352
Work Group: WG136562
Blank File ID: 4L004510.F
Blank Sample ID: WG136531-01
Date Analyzed: 03/19/03
Instrument ID: HPLC4
Time Analyzed: 13:58
Method: 8330
Analyst: RDC

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG136531-02	4L004511.F	03/19/03 15:03	01
LCS2	WG136531-03	4L004512.F	03/19/03 15:56	01
177511-DW-031703	L0303352-01	4L004513.F	03/19/03 16:48	01

KEMRON FORMS - Modified 03/21/2003
Version 1.2
Report generated 03/28/2003 09:04

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number:L0303352 Work Group:WG136932
Blank File ID:4L004526.F Blank Sample ID:WG136864-01
Date Analyzed:03/24/03 Instrument ID:HPLC4
Time Analyzed:18:18 Method:8330
Analyst:RDC

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG136864-02	4L004527.F	03/24/03 19:10	01
LCS2	WG136864-03	4L004528.F	03/24/03 20:02	01
177511-DW-031703	L0303352-01	4L004529.F	03/24/03 20:54	RE01

RMS - Modified 03/21/2003
.2
erated 03/28/2003 09:04

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0303352 Run Date: 03/19/2003 Sample ID: WG136531-01
Instrument ID: HPLC4 Run Time: 13:58 Prep Method: 3535
File ID: 4L004510.F Analyst: RDC Method: 8330
Workgroup (AAB#): WG136562 Matrix: Water Units: ug/L
Contract #: Cal ID: HPLC4-18-FEB-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
1,3-Dinitrobenzene	0.250	1.00	0.250	1	U
2,4,6-Trinitrotoluene	0.250	1.00	0.250	1	U
2,4-Dinitrotoluene	0.250	1.00	0.250	1	U
2,6-Dinitrotoluene	0.250	1.00	0.250	1	U
2-Amino-4,6-dinitrotoluene	0.250	1.00	0.250	1	U
2-Nitrotoluene	0.250	1.00	0.250	1	U
3-Nitrotoluene	0.250	1.00	0.250	1	U
4-Amino-2,6-dinitrotoluene	0.250	1.00	0.250	1	U
4-Nitrotoluene	0.250	1.00	0.250	1	U
HMX	0.250	1.00	0.250	1	U
Nitrobenzene	0.250	1.00	0.250	1	U
RDX	0.250	1.00	0.250	1	U
1,3,5-Trinitrobenzene	0.250	1.00	0.250	1	U
Tetryl	0.250	1.00	0.250	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
3,4-Dinitrotoluene	111	50 - 150	PASS

\+ Analyte detected above RDL
ND Analyte Not detected at or above reporting limit

KEMRON FORMS - Modified 02/07/2003
Version 1.3
Report generated 03/28/2003 09:04

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0303352 Run Date: 03/24/2003 Sample ID: WG136864-01
Instrument ID: HPLC4 Run Time: 18:18 Prep Method: 3535
File ID: 4L004526.F Analyst: RDC Method: 8330
Workgroup (AAB#): WG136932 Matrix: Water Units: ug/L
Contract #: Cal ID: HPLC4-18-FEB-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
1,3-Dinitrobenzene	0.250	1.00	0.250	1	U
2,4,6-Trinitrotoluene	0.250	1.00	0.250	1	U
2,4-Dinitrotoluene	0.250	1.00	0.250	1	U
2,6-Dinitrotoluene	0.250	1.00	0.250	1	U
2-Amino-4,6-dinitrotoluene	0.250	1.00	0.250	1	U
2-Nitrotoluene	0.250	1.00	0.250	1	U
3-Nitrotoluene	0.250	1.00	0.250	1	U
4-Amino-2,6-dinitrotoluene	0.250	1.00	0.250	1	U
4-Nitrotoluene	0.250	1.00	0.250	1	U
HMX	0.250	1.00	0.250	1	U
Nitrobenzene	0.250	1.00	0.250	1	U
RDX	0.250	1.00	0.250	1	U
1,3,5-Trinitrobenzene	0.250	1.00	0.250	1	U
Tetryl	0.250	1.00	0.250	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
3,4-Dinitrotoluene	97.7	50 - 150	PASS

* Analyte detected above RDL
ND Analyte Not detected at or above reporting limit

KEMRON FORMS - Modified 02/07/2003
Version 1.3
Report generated 03/28/2003 09:04

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum: L0303352 Worknum: WG136562 Method: 8330
Instrument ID: HPLC4 Cal ID: HPLC4-18-FEB-2003 20:51 Matrix: Water
Analyst: RDC Contract #: Units: ug/L
Sample ID: WG136531-02 LCS File ID: 4L004511.F Run Date: 03/19/2003 15:03
Sample ID: WG136531-03 LCS2 File ID: 4L004512.F Run Date: 03/19/2003 15:56

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
1,3-Dinitrobenzene	1.00	0.964	96.4	1.00	0.926	92.6	3.99	47 - 158	40	
2,4,6-Trinitrotoluene	1.00	0.646	64.6	1.00	0.612	61.2	5.38	52 - 143	40	
2,4-Dinitrotoluene	1.00	0.878	87.8	1.00	0.836	83.6	4.91	61 - 135	40	
2,6-Dinitrotoluene	1.00	0.845	84.5	1.00	0.821	82.1	2.86	60 - 137	40	
2-Amino-4,6-dinitrotoluene	1.00	0.894	89.4	1.00	0.870	87.0	2.74	50 - 153	40	
2-Nitrotoluene	1.00	0.916	91.6	1.00	0.868	86.8	5.4	43 - 133	40	
3-Nitrotoluene	1.00	0.927	92.7	1.00	0.833	83.3	10.7	48 - 132	40	
4-Amino-2,6-dinitrotoluene	1.00	0.946	94.6	1.00	0.924	92.4	2.35	55 - 154	40	
4-Nitrotoluene	1.00	0.856	85.6	1.00	0.836	83.6	2.35	48 - 132	40	
HMX	1.00	0.727	72.7	1.00	0.710	71.0	2.38	81 - 116	40	*
Nitrobenzene	1.00	1.03	103	1.00	0.980	98.0	4.94	49 - 138	40	
RDX	1.00	0.847	84.7	1.00	0.840	84.0	.904	51 - 161	40	
1,3,5-Trinitrobenzene	1.00	0.856	85.6	1.00	0.817	81.7	4.66	64 - 139	40	
Tetryl	1.00	0.337	33.7	1.00	0.326	32.6	3.24	22 - 174	40	

Surrogates	LCS % Recovery	LCS2 % Recovery	Surrogate Limits	Qualifier
3,4-Dinitrotoluene	99.1	95.9	50 - 150	PASS

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON FORMS - Modified 10/29/2002
Version 1.2
Report generated 03/28/2003 09:04

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum:L0303352 Worknum:WG136932 Method:8330
Instrument ID:HPLC4 Cal ID: HPLC4-18-FEB-2003 20:51 Matrix:Water
Analyst:RDC Contract #: Units:ug/L
Sample ID:WG136864-02 LCS File ID:4L004527.F Run Date:03/24/2003 19:10
Sample ID:WG136864-03 LCS2 File ID:4L004528.F Run Date:03/24/2003 20:02

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
1,3-Dinitrobenzene	1.00	0.963	96.3	1.00	1.00	100	4.02	47 - 158	40	
2,4,6-Trinitrotoluene	1.00	0.491	49.1	1.00	0.514	51.4	4.5	52 - 143	40	*
2,4-Dinitrotoluene	1.00	0.840	84.0	1.00	0.907	90.7	7.72	61 - 135	40	
2,6-Dinitrotoluene	1.00	0.843	84.3	1.00	0.873	87.3	3.54	60 - 137	40	
2-Amino-4,6-dinitrotoluene	1.00	0.889	88.9	1.00	0.926	92.6	4.11	50 - 153	40	
2-Nitrotoluene	1.00	0.913	91.3	1.00	0.965	96.5	5.61	43 - 133	40	
3-Nitrotoluene	1.00	0.886	88.6	1.00	0.974	97.4	9.5	48 - 132	40	
4-Amino-2,6-dinitrotoluene	1.00	0.934	93.4	1.00	1.00	100	6.77	55 - 154	40	
4-Nitrotoluene	1.00	0.870	87.0	1.00	0.909	90.9	4.39	48 - 132	40	
HMX	1.00	0.746	74.6	1.00	0.760	76.0	1.75	81 - 116	40	*
Nitrobenzene	1.00	1.07	107	1.00	1.11	111	3.94	49 - 138	40	
RDX	1.00	0.826	82.6	1.00	0.830	83.0	.473	51 - 161	40	
1,3,5-Trinitrobenzene	1.00	0.853	85.3	1.00	0.889	88.9	4.07	64 - 139	40	
Tetryl	1.00	0.141	14.1	1.00	0.152	15.2	8.05	22 - 174	40	*

Surogates	LCS % Recovery	LCS2 % Recovery	Surrogate Limits	Qualifier
3,4-Dinitrotoluene	99.7	103		

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON FORMS - Modified 10/29/2002
Version 1.2
Report generated 03/28/2003 09:04

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8330 AAB#: WG136562

Login Number: L0303352

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
177511-DW-031703	03/17/03	03/18/03	03/19/03	7	1.53	03/19/03	40	0.388	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON FORMS - Modified 12/06/2002
Version 1.2
Report generated 03/28/2003 09:04

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method:8330 _____ AAB#:WG136932

Login Number:L0303352

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
177511-DW-031703	03/17/03	03/18/03	03/24/03	7	6.76	03/24/03	40	0.330	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON FORMS - Modified 12/06/2002
Version 1.2
Report generated 03/28/2003 09:04

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number:L0303352
Instrument Id:HPLC4
Workgroup (AAB#):WG136562

Method:8330
CAL ID: HPLC4-18-FEB-03
Matrix:WATER

Sample Number	Dilution	Tag	1
L0303352-01	1.00	01	31.4
WG136531-01	1.00	01	111
WG136531-02	1.00	01	99.1
WG136531-03	1.00	01	95.9

Surrogates	Surrogate Limits		
1 - 3,4-Dinitrotoluene	50	-	150

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

KEMRON FORMS - Modified 01/22/2003
Version 1.2
Report generated 03/28/2003 09:04

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number:L0303352
Instrument Id:HPLC4
Workgroup (AAB#):WG136932

Method:8330
CAL ID:__HPLC4-18-FEB-03
Matrix:WATER

Sample Number	Dilution	Tag	1
L0303352-01	1.00	RE01	53.7
WG136864-01	1.00	01	97.7
WG136864-02	1.00	01	99.7
WG136864-03	1.00	01	103

Surrogates	Surrogate Limits
1 - 3,4-Dinitrotoluene	50 - 150

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

KEMRON FORMS - Modified 01/22/2003
Version 1.2
Report generated 03/28/2003 09:04

Calibration Table

8330 HPLC4

Calib. Data Modified : Thursday, February 20, 2003 11:35:47 AM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.000 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.500 min
Uncalibrated Peaks : using compound Nitrobenzene #6
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: Yes, even for non-identified peaks

Curve Type : Linear
Origin : Ignored
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
4.680	1	1	10.00000	1.62629	6.14897			HMX #1
		2	25.00000	3.87222	6.45625			
		3	50.00000	7.87880	6.34614			
		4	100.00000	16.55455	6.04064			
		5	500.00000	81.65133	6.12360			
		6	1000.00000	163.84424	6.10336			
7.374	1	1	10.00000	1.25013	7.99916			RDX #2
		2	25.00000	3.51806	7.10619			
		3	50.00000	8.24241	6.06619			
		4	100.00000	18.10244	5.52412			
		5	500.00000	93.93399	5.32289			
		6	1000.00000	193.70641	5.16245			
10.045	1	1	10.00000	3.97026	2.51873			1,3,5-Trinitrobenzene
		2	25.00000	9.82855	2.54361			
		3	50.00000	20.23009	2.47157			
		4	100.00000	42.77443	2.33785			
		5	500.00000	209.43938	2.38733			
		6	1000.00000	424.78473	2.35413			
12.356	1	1	10.00000	5.48968	1.82160			1,3-Dinitrobenzene #4
		2	25.00000	13.00616	1.92217			

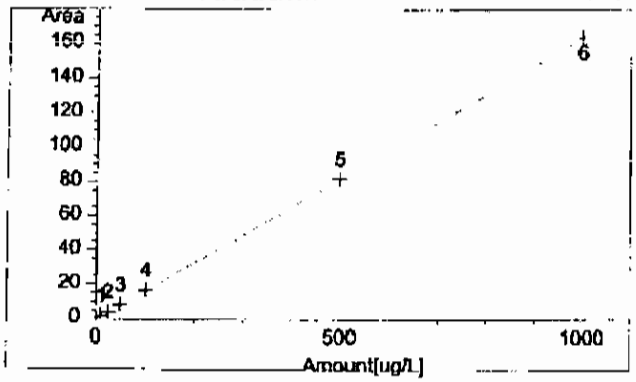
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	50.00000	27.80810	1.79804			
		4	100.00000	57.52754	1.73830			
		5	500.00000	278.18909	1.79734			
		6	1000.00000	563.20715	1.77555			
13.429	1	1	10.00000	2.26809	4.40900			Tetryl #5
		2	25.00000	5.17884	4.82733			
		3	50.00000	10.96593	4.55958			
		4	100.00000	23.13531	4.32240			
		5	500.00000	112.16416	4.45775			
		6	1000.00000	228.33476	4.37953			
14.066	1	1	10.00000	3.61898	2.76321			Nitrobenzene #6
		2	25.00000	7.37362	3.39047			
		3	50.00000	15.25095	3.27848			
		4	100.00000	32.28315	3.09759			
		5	500.00000	155.47395	3.21597			
		6	1000.00000	316.40430	3.16051			
15.308	1	1	10.00000	1.73188	5.77406			3,4-Dinitrotoluene #7
		2	25.00000	4.26109	5.86704			
		3	50.00000	9.02714	5.53885			
		4	100.00000	18.47825	5.41177			
		5	500.00000	88.70387	5.63673			
		6	1000.00000	181.76370	5.50165			
16.099	1	1	10.00000	3.25076	3.07621			2,4,6-Trinitrotoluene
		2	25.00000	7.92469	3.15470			
		3	50.00000	16.65866	3.00144			
		4	100.00000	34.96862	2.85971			
		5	500.00000	167.88934	2.97815			
		6	1000.00000	341.65164	2.92696			
16.995	1	1	10.00000	1.90637	5.24557			4-Amino-2,6-Dinitrotol
		2	25.00000	4.86699	5.13665			
		3	50.00000	10.14995	4.92613			
		4	100.00000	21.00739	4.76023			
		5	500.00000	100.24944	4.98756			
		6	1000.00000	202.83643	4.93008			
17.959	1	1	10.00000	2.98225	3.35318			2-Amino-4,6-Dinitrotol
		2	25.00000	6.92072	3.61234			
		3	50.00000	14.34515	3.48550			
		4	100.00000	30.07975	3.32450			
		5	500.00000	146.07620	3.42287			
		6	1000.00000	297.03616	3.36659			
18.897	1	1	10.00000	1.68916	5.92010			2,6-Dinitrotoluene #11
		2	25.00000	3.93634	6.35107			
		3	50.00000	7.95253	6.28731			
		4	100.00000	16.82861	5.94226			
		5	500.00000	80.64670	6.19988			
		6	1000.00000	163.62827	6.11141			
19.524	1	1	10.00000	4.03158	2.48042			2,4-Dinitrotoluene #12
		2	25.00000	9.14182	2.73468			
		3	50.00000	19.14354	2.61185			
		4	100.00000	40.60501	2.46275			
		5	500.00000	196.67857	2.54222			
		6	1000.00000	400.27075	2.49831			
23.040	1	1	10.00000	1.70798	5.85487			2-Nitrotoluene #13
		2	25.00000	4.87716	5.12594			
		3	50.00000	9.84604	5.07818			
		4	100.00000	21.42023	4.66849			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref Grp	Name
		5	500.00000	103.19198	4.84534		
		6	1000.00000	209.52986	4.77259		
24.747	1	1	10.00000	1.46642	6.81934		4-Nitrotoluene #14
		2	25.00000	3.77656	6.61977		
		3	50.00000	7.37045	6.78385		
		4	100.00000	16.73236	5.97644		
		5	500.00000	81.92500	6.10314		
		6	1000.00000	166.17581	6.01772		
26.643	1	1	10.00000	2.11656	4.72465		3-Nitrotoluene #15
		2	25.00000	4.88135	5.12153		
		3	50.00000	10.80696	4.62665		
		4	100.00000	23.31541	4.28901		
		5	500.00000	115.22002	4.33952		
		6	1000.00000	234.90714	4.25700		

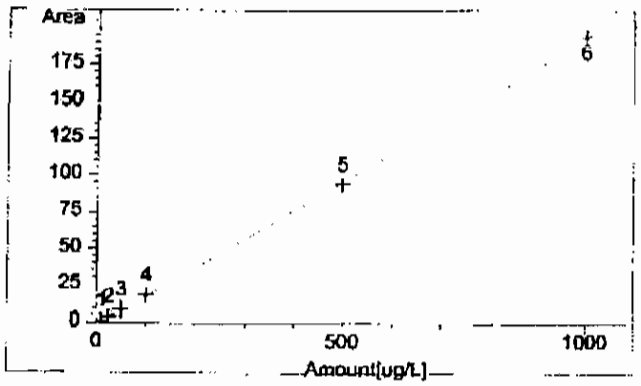
Peak Sum Table

No Entries in table

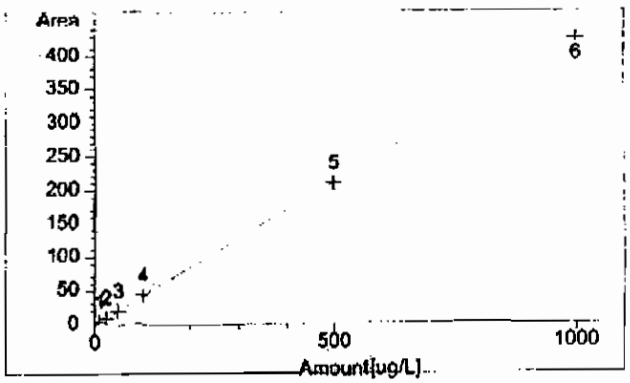
Calibration Curves



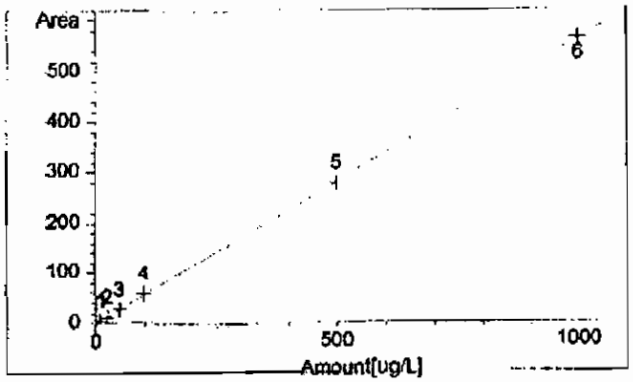
HMX #1 at exp. RT: 4.680
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 1.00000
Residual Std. Dev.: 0.21095
Formula: y = mx + b
m: 1.63898e-1
b: -1.23569e-1
x: Amount [ug/L]
y: Area



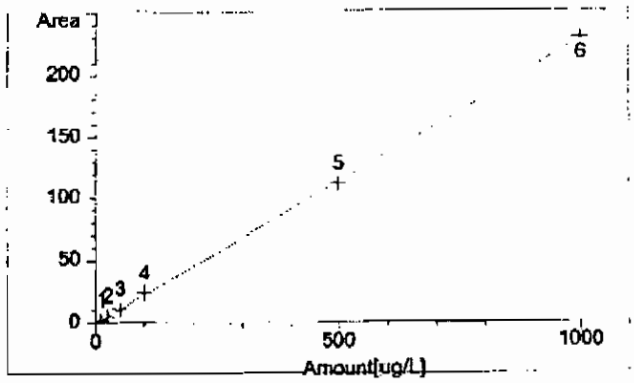
RDX #2 at exp. RT: 7.374
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99993
Residual Std. Dev.: 1.05499
Formula: y = mx + b
m: 1.94273e-1
b: -1.43273
x: Amount [ug/L]
y: Area



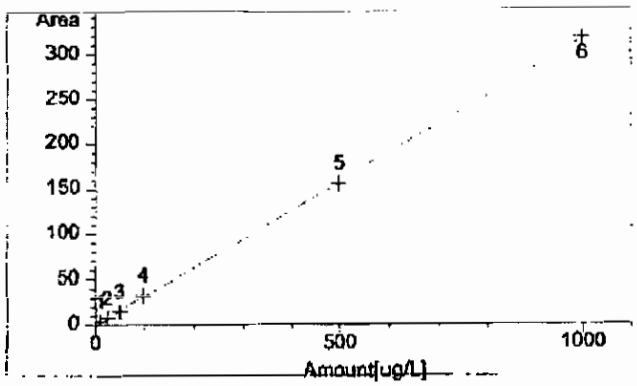
1,3,5-Trinitrobenzene #3 at exp. RT: 10.0
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99998
Residual Std. Dev.: 1.29872
Formula: y = mx + b
m: 4.24544e-1
b: -7.21523e-1
x: Amount [ug/L]
y: Area



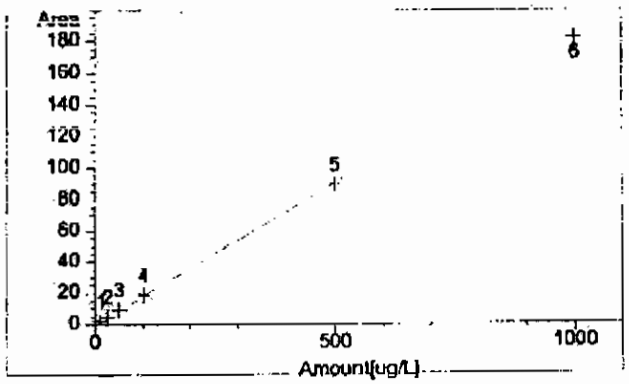
1,3-Dinitrobenzene #4 at exp. RT: 12.356
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99998
Residual Std. Dev.: 1.70457
Formula: y = mx + b
m: 5.62483e-1
b: -4.26082e-1
x: Amount [ug/L]
y: Area



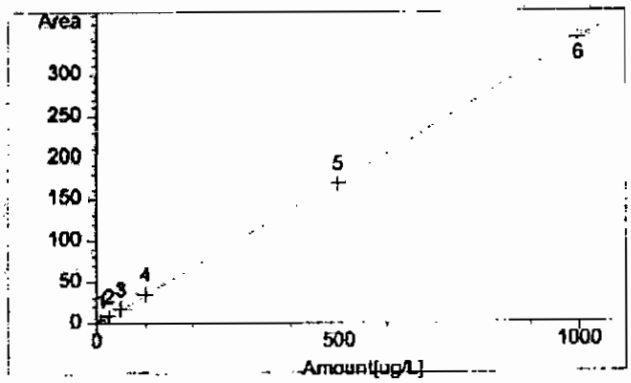
Tetryl #5 at exp. RT: 13.429
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99996
Residual Std. Dev.: 0.90781
Formula: y = mx + b
m: 2.28018e-1
b: -3.60644e-1
x: Amount [ug/L]
y: Area



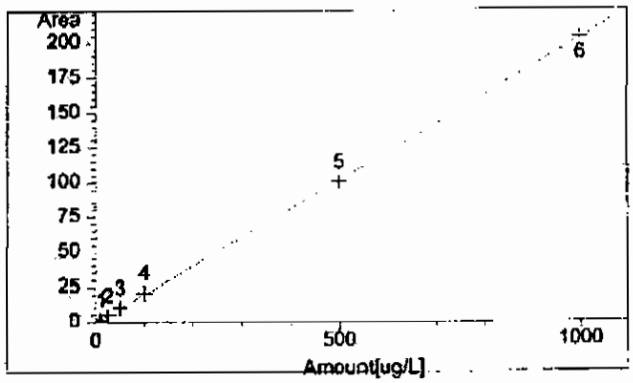
Nitrobenzene #6 at exp. RT: 14.066
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99996
Residual Std. Dev.: 1.32455
Formula: y = mx + b
m: 3.15684e-1
b: -2.53885e-1
x: Amount [ug/L]
y: Area



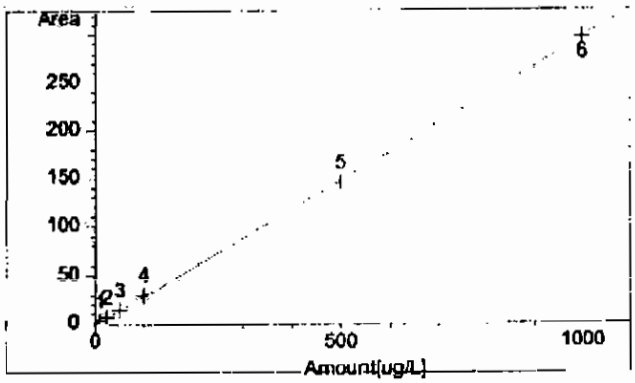
3,4-Dinitrotoluene #7 * at exp. RT: 15.3
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99993
Residual Std. Dev.: 0.97648
Formula: y = mx + b
m: 1.81229e-1
b: -2.34231e-1
x: Amount [ug/L]
y: Area



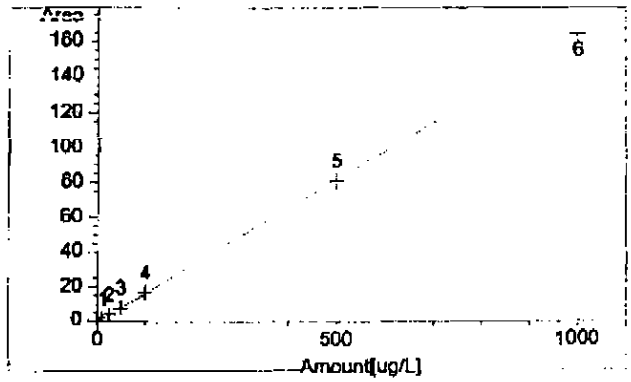
2,4,6-Trinitrotoluene #8 at exp. RT: 16.0
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99996
Residual Std. Dev.: 1.38703
Formula: y = mx + b
m: 3.41033e-1
b: -3.82944e-1
x: Amount [ug/L]
y: Area



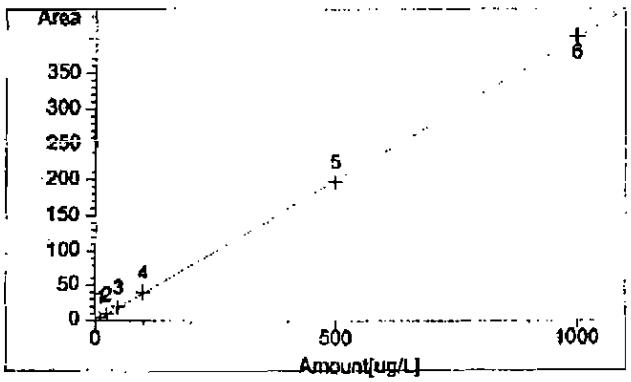
4-Amino-2,6-Dinitrotoluene #9 at exp. RT:
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99997
Residual Std. Dev.: 0.65815
Formula: y = mx + b
m: 2.02452e-1
b: -1.91785e-2
x: Amount [ug/L]
y: Area



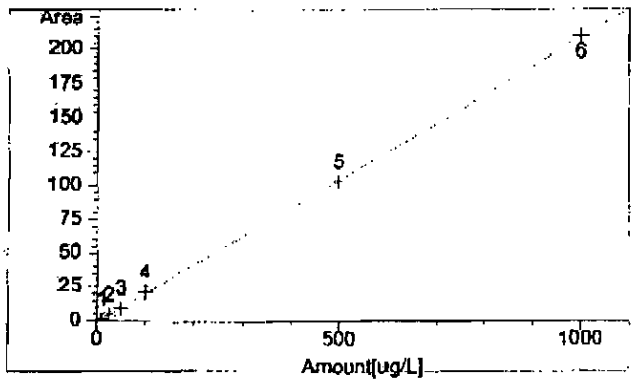
2-Amino-4,6-Dinitrotoluene #10 at exp. RT
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99996
Residual Std. Dev.: 1.10517
Formula: y = mx + b
m: 2.96580e-1
b: -3.82901e-1
x: Amount [ug/L]
y: Area



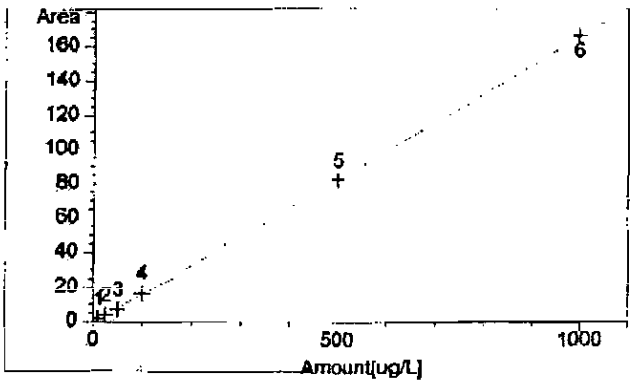
2,6-Dinitrotoluene #11 at exp. RT: 18.897
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99997
Residual Std. Dev.: 0.59043
Formula: y = mx + b
m: 1.63297e-1
b: -7.88362e-2
x: Amount [ug/L]
y: Area



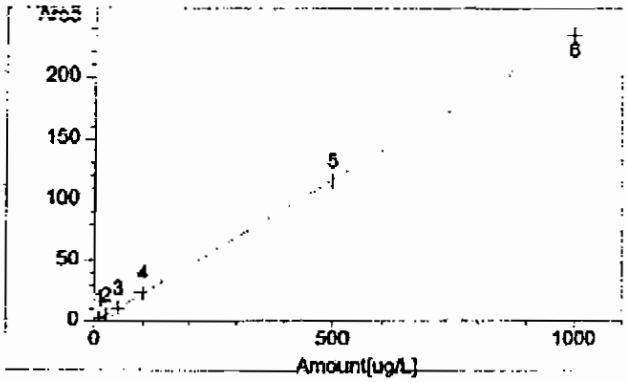
2,4-Dinitrotoluene #12 at exp. RT: 19.524
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99996
Residual Std. Dev.: 1.58366
Formula: y = mx + b
m: 3.99704e-1
b: -6.04961e-1
x: Amount [ug/L]
y: Area



2-Nitrotoluene #13 at exp. RT: 23.040
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99997
Residual Std. Dev.: 0.76355
Formula: y = mx + b
m: 2.09420e-1
b: -3.83375e-1
x: Amount [ug/L]
y: Area



4-Nitrotoluene #14 at exp. RT: 24.747
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99997
Residual Std. Dev.: 0.57545
Formula: y = mx + b
m: 1.66290e-1
b: -4.58792e-1
x: Amount [ug/L]
y: Area



3-Nitrotoluene #15 at exp. RT: 26.643
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99996
Residual Std. Dev.: 0.92833
Formula: y = mx + b
m: 2.35003e-1
b: -7.88646e-1
x: Amount [ug/L]
y: Area

Check Standard Report

Data File C:\HPCHEM\2\DATA\021903\4L004244.D Sample Name: WG134632-07 ALT
HPLC4 2/20/2003 2:06:16 PM RDC

1,1 SOS63-29 50 ppb (remade from int.)

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

Compound	RT	Known Conc.	Cal. Conc.	%D
HMX #1	4.663	50.0	49.123	-1.8
RDX #2	7.346	50.0	49.442	-1.1
1,3,5-Trinitrobenzene #3	10.014	50.0	48.688	-2.6
1,3-Dinitrobenzene #4	12.324	50.0	49.492	-1.0
Tetryl #5	13.388	50.0	56.532	13.1
Nitrobenzene #6	14.040	50.0	50.614	1.2
3,4-Dinitrotoluene #7 *	15.284	50.0	48.345	-3.3
2,4,6-Trinitrotoluene #8	16.076	50.0	49.433	-1.1
4-Amino-2,6-Dinitrotolue	16.989	50.0	48.806	-2.4
2-Amino-4,6-Dinitrotolue	17.931	50.0	48.793	-2.4
2,6-Dinitrotoluene #11	18.874	50.0	50.056	0.1
2,4-Dinitrotoluene #12	19.526	50.0	50.338	0.7
2-Nitrotoluene #13	23.052	50.0	49.033	-1.9
4-Nitrotoluene #14	24.683	50.0	50.131	0.3
3-Nitrotoluene #15	26.619	50.0	49.353	-1.3

= Failed 15.0% Criteria

Check Standard Report

Data File C:\HPCHEM\2\DATA\031903\4L004509.D Sample Name: WG136561-01 CCV
HPLC4 3/20/2003 8:30:31 AM RDC

1,1 SOS64-02 50 ppb

Injection Date : 3/19/2003 12:50:28 PM Seq. Line : 2

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

Compound	RT	Known Conc.	Cal. Conc.	%D
HMX #1	4.650	50.0	49.092	-1.8
RDX #2	7.308	50.0	48.657	-2.7
1,3,5-Trinitrobenzene #3	9.907	50.0	50.075	0.1
1,3-Dinitrobenzene #4	12.181	50.0	49.738	-0.5
Tetryl #5	13.209	50.0	49.669	-0.7
Nitrobenzene #6	13.866	50.0	51.615	3.2
3,4-Dinitrotoluene #7 *	15.062	50.0	50.641	1.3
2,4,6-Trinitrotoluene #8	15.833	50.0	50.542	1.1
4-Amino-2,6-Dinitrotolue	16.875	50.0	50.894	1.8
2-Amino-4,6-Dinitrotolue	17.749	50.0	48.314	-3.4
2,6-Dinitrotoluene #11	18.579	50.0	48.699	-2.6
2,4-Dinitrotoluene #12	19.205	50.0	50.320	0.6
2-Nitrotoluene #13	22.681	50.0	50.195	0.4
4-Nitrotoluene #14	24.266	50.0	51.225	2.4
-Nitrotoluene #15	26.166	50.0	49.985	0.0

= Failed 15.0% Criteria

Check Standard Report

Data File C:\HPCHEM\2\DATA\031903\4L004516.D Sample Name: WG136561-02 CCV
HPLC4 3/20/2003 8:44:26 AM RDC

1,1 SOS64-02 50 ppb

Injection Date : 3/19/2003 7:24:50 PM Seq. Line : 9

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

Compound	RT	Known Conc.	Cal. Conc.	%D
HMX #1	4.673	50.0	47.359	-5.3
RDX #2	7.360	50.0	47.895	-4.2
1,3,5-Trinitrobenzene #3	9.984	50.0	50.464	0.9
1,3-Dinitrobenzene #4	12.288	50.0	50.312	0.6
Tetryl #5	13.375	50.0	43.844	-12.3
Nitrobenzene #6	13.999	50.0	52.184	4.4
3,4-Dinitrotoluene #7 *	15.259	50.0	51.620	3.2
2,4,6-Trinitrotoluene #8	16.018	50.0	47.392	-5.2
4-Amino-2,6-Dinitrotolue	17.112	50.0	50.313	0.6
2-Amino-4,6-Dinitrotolue	17.998	50.0	46.714	-6.6
2,6-Dinitrotoluene #11	18.820	50.0	47.072	-5.9
2,4-Dinitrotoluene #12	19.451	50.0	49.370	-1.3
2-Nitrotoluene #13	22.970	50.0	52.309	4.6
4-Nitrotoluene #14	24.560	50.0	48.650	-2.7
3-Nitrotoluene #15	26.496	50.0	50.105	0.2

= Failed 15.0% Criteria

Check Standard Report

Data File C:\HPCHEM\2\DATA\032403\4L004525.D Sample Name: WG136885-01 CCV
HPLC4 3/25/2003 11:06:20 AM RDC

1,1 SOS64-02 50 ppb

Injection Date : 3/24/2003 5:26:09 PM Seq. Line : 2

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

Compound	RT	Known Conc.	Cal. Conc.	%D
HMX #1	4.648	50.0	48.617	-2.8
RDX #2	7.289	50.0	48.107	-3.8
1,3,5-Trinitrobenzene #3	9.886	50.0	50.638	1.3
1,3-Dinitrobenzene #4	12.152	50.0	49.837	-0.3
Tetryl #5	13.173	50.0	48.304	-3.4
Nitrobenzene #6	13.841	50.0	51.652	3.3
3,4-Dinitrotoluene #7 *	15.034	50.0	50.543	1.1
2,4,6-Trinitrotoluene #8	15.804	50.0	49.440	-1.1
4-Amino-2,6-Dinitrotolue	16.841	50.0	49.193	-1.6
2-Amino-4,6-Dinitrotolue	17.703	50.0	47.553	-4.9
2,6-Dinitrotoluene #11	18.543	50.0	46.871	-6.3
2,4-Dinitrotoluene #12	19.170	50.0	48.379	-3.2
2-Nitrotoluene #13	22.624	50.0	48.693	-2.6
4-Nitrotoluene #14	24.196	50.0	51.708	3.4
3-Nitrotoluene #15	26.100	50.0	49.751	-0.5

= Failed 15.0% Criteria

Check Standard Report

Data File C:\HPCHEM\2\DATA\032403\4L004530.D Sample Name: WG136885-02 CCV
HPLC4 3/25/2003 11:10:41 AM RDC

1,1 SOS64-02 50 ppb

Injection Date : 3/24/2003 9:47:06 PM Seq. Line : 7

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

Compound	RT	Known Conc.	Cal. Conc.	%D
HMX #1	4.659	50.0	48.090	-3.8
RDX #2	7.321	50.0	47.989	-4.0
1,3,5-Trinitrobenzene #3	9.915	50.0	50.142	0.3
1,3-Dinitrobenzene #4	12.194	50.0	50.011	0.0
Tetryl #5	13.245	50.0	45.833	-8.3
Nitrobenzene #6	13.877	50.0	51.328	2.7
3,4-Dinitrotoluene #7 *	15.094	50.0	50.548	1.1
2,4,6-Trinitrotoluene #8	15.856	50.0	48.244	-3.5
4-Amino-2,6-Dinitrotolue	16.942	50.0	49.671	-0.7
2-Amino-4,6-Dinitrotolue	17.812	50.0	46.773	-6.5
2,6-Dinitrotoluene #11	18.608	50.0	47.484	-5.0
2,4-Dinitrotoluene #12	19.240	50.0	50.012	0.0
2-Nitrotoluene #13	22.688	50.0	47.333	-5.3
4-Nitrotoluene #14	24.281	50.0	51.221	2.4
3-Nitrotoluene #15	26.185	50.0	49.850	-0.3

= Failed 15.0% Criteria

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	Blank Me/AcCN/Wa	8330	1	Sample		
2	2	WG134632-01 STD6	8330	1	Sample		
3	3	WG134632-02 STD5	8330	1	Sample		
4	4	WG134632-03 STD4	8330	1	Sample		
5	5	WG134632-04 STD3	8330	1	Sample		
6	6	WG134632-05 STD2	8330	1	Sample		
7	7	WG134632-06 STD1	8330	1	Sample		
8	8	WG134632-07 ALT	8330	1	Sample		

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8330	4L004235	01:01		Blank Me/AcCN/
No	2	2	8330	4L004236	02:01	DIL'N OF 50563-40	WG134632-01 ST
No	3	3	8330	4L004237	03:01		WG134632-02 ST
No	4	4	8330	4L004238	04:01		WG134632-03 ST
No	5	5	8330	4L004239	05:01		WG134632-04 ST
No	6	6	8330	4L004240	06:01		WG134632-05 ST
No	7	7	8330	4L004241	07:01		WG134632-06 ST
No	8	8	8330	4L004242	08:01 CC	DIL'N OF 50563-29	WG134632-07 AL

TBQC
2/20/03
[illegible] 2/24/03

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Feb 13 2003 Instrument ID HPLC4 Column ID Ultracarb 5 ODS Data Subdirectory 021303
Analyst Initials BK SOP # HPLC01 Rev. # 4 8310 SOP # HPLC02 Rev. # 3 8330

Daily Check
- ✓ Mobile phase reservoir
- ✓ System pressure 221 bar
- ✓ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

HLCC 4242 alt source fails low. Std. appears to be mixed poorly and will require a remix from the intermediate SOS 03-29.

Reviewed By: Eric Lam 2/24/03

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	Blank Me/AcCN/Wa	8330	1	Sample		
2	2	WG134632-07 ALT	8330	1	Sample		
3	3	WG134517-01 BLK	8330	1	Sample		
4	4	WG134517-02 LCS	8330	1	Sample		
5	5	WG134517-03 LCS	8330	1	Sample		
6	6	L0302199-02 833W	8330	1	Sample		
7	7	L0302199-03 833W	8330	1	Sample		
8	8	L0302199-04 833W	8330	1	Sample		
9	9	L0302199-05 833W	8330	1	Sample		
10	10	L0302199-06 833W	8330	1	Sample		
11	11	L0302199-07 833W	8330	1	Sample		
12	12	L0302199-08 833W	8330	1	Sample		
13	13	WG134632-08 CCV	8330	1	Sample		
14	14	L0302199-09 833W	8330	1	Sample		
15	15	L0302199-10 833W	8330	1	Sample		
16	16	L0302199-11 833W	8330	1	Sample		
17	17	L0302199-12 833W	8330	1	Sample		
18	18	L0302199-13 833W	8330	1	Sample		
19	19	L0302199-14 833W	8330	1	Sample		
20	20	L0302199-15 833W	8330	1	Sample		
21	21	L0302199-16 833W	8330	1	Sample		
22	22	L0302199-17 833W	8330	1	Sample		
23	23	L0302199-18 833W	8330	1	Sample		
24	24	WG134632-09 CCV	8330	1	Sample		
25	25	L0302199-19 833W	8330	1	Sample		
26	26	L0302199-20 833W	8330	1	Sample		
27	27	L0302199-21 833W	8330	1	Sample		
28	24	WG134632-10 CCV	8330	1	Sample		

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8330	4L004243	01:01 ✓		Blank Me/AcCN/
No	2	2	8330	4L004244	02:01 ✓	DIL'N OF 50603-39	WG134632-07 AL
No	3	3	8330	4L004245	03:01 ✓		WG134517-01 BL
No	4	4	8330	4L004246	04:01 ✓		WG134517-02 LC
No	5	5	8330	4L004247	05:01 ✓		WG134517-03 LC
No	6	6	8330	4L004248	06:01 ✓		L0302199-02 83
No	7	7	8330	4L004249	07:01 ✓		L0302199-03 83
No	8	8	8330	4L004250	08:01 ✓		L0302199-04 83
No	9	9	8330	4L004251	09:01 ✓		L0302199-05 83
No	10	10	8330	4L004252	10:01 ✓		L0302199-06 83
No	11	11	8330	4L004253	11:01 ✓		L0302199-07 83
No	12	12	8330	4L004254	12:01 ✓		L0302199-08 83
No	13	13	8330	4L004255	13:01 ✓	DIL'N OF 50563-40	WG134632-08 CC
No	14	14	8330	4L004256	14:01 ✓		L0302199-09 83
No	15	15	8330	4L004257	15:01 ✓		L0302199-10 83
No	16	16	8330	4L004258	16:01 ✓		L0302199-11 83
No	17	17	8330	4L004259	17:01 ✓		L0302199-12 83
No	18	18	8330	4L004260	18:01 ✓		L0302199-13 83
No	19	19	8330	4L004261	19:01 ✓		L0302199-14 83
No	20	20	8330	4L004262	20:01 ✓	*	L0302199-15 83
No	21	21	8330	4L004263	21:01 ✓		L0302199-16 83
No	22	22	8330	4L004264	22:01 ✓		L0302199-17 83
No	23	23	8330	4L004265	23:01 ✓		L0302199-18 83
No	24	24	8330	4L004266	24:01 ✓	DIL'N OF 50563-40	WG134632-09 CC
No	25	25	8330	4L004267	25:01 ✓		L0302199-19 83
No	26	26	8330	4L004268	26:01 ✓		L0302199-20 83
No	27	27	8330	4L004269	27:01 ✓		L0302199-21 83
No	28	24	8330	4L004270	28:01 ✓	DIL'N OF 50563-40	WG134632-10 CC

BDC 2-20-03

EC 2/24/03

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Feb. 19, 2003 Instrument ID HPLC4 Column ID Ultracarb 5 CDS Data Subdirectory 021903
Analyst Initials [illegible] SOP # HPLC01 Rev. # 4 8310 SOP # HPLC02 Rev. # 3 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 226 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Re: L0302199-13 re-int. for HMX/ as integrated by the standard chromatography software results were still less than RL of 2.2 mg/Kg @ 0.79 mg/Kg. [illegible] 2/20/03

* L0302199-15 not reported with this WG, client requested MS/MSD & this Ref will be re-ext.

Reviewed By: ECZ 2/24/03

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	Blank Me/AcCN/Wa	8330	1	Sample		
2	2	WG136561-01 CCV	8330	1	Sample		
3	3	WG136531-01 BLK	8330	1	Sample		
4	4	WG136531-02 LCS	8330	1	Sample		
5	5	WG136531-03 LCS2	8330	1	Sample		
6	6	L0303352-01 833W	8330	1	Sample		
7	7	L0303355-02 833W	8330	1	Sample		
8	8	L0303266-01 RE	8330	1	Sample		
9	9	WG136561-02 CCV	8330	1	Sample		
10	10	WG136482-01 BLK	8330	1	Sample		
11	11	WG136482-02 LCS	8330	1	Sample		
12	12	WG136482-03 LCS2	8330	1	Sample		
13	13	L0303354-01 833S	8330	1	Sample		
14	14	L0303354-02 833S	8330	1	Sample		
15	15	L0303355-01 833S	8330	1	Sample		
16	9	WG136561-03 CCV	8330	1	Sample		

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8330	4L004508	01:01 ✓		Blank Me/AcCN,
No	2	2	8330	4L004509	02:01 ✓	DIL'N 5026 4-02	WG136561-01 CC
No	3	3	8330	4L004510	03:01 ✓		WG136531-01 BL
No	4	4	8330	4L004511	04:01 ✓		WG136531-02 LC
No	5	5	8330	4L004512	05:01 ✓		WG136531-03 LC
No	6	6	8330	4L004513	06:01 RE		L0303352-01 83
No	7	7	8330	4L004514	07:01 ✓		L0303355-02 83
No	8	8	8330	4L004515	08:01 ✓		L0303266-01 RE
No	9	9	8330	4L004516	09:01 ✓	5026 4-02 DIL'N.	WG136561-02 CC
No	10	10	8330	4L004517	10:01 ✓		WG136482-01 BL
No	11	11	8330	4L004518	11:01 ✓		WG136482-02 LC
No	12	12	8330	4L004519	12:01 ✓		WG136482-03 LC
No	13	13	8330	4L004520	13:01 ✓		L0303354-01 83
No	14	14	8330	4L004521	14:01 ✓		L0303354-02 83
No	15	15	8330	4L004522	15:01 ✓		L0303355-01 83
No	16	9	8330	4L004523	16:01 ✓	5026 4-02 (DIL'N.)	WG136561-03 CC

RPD
3/20/03

ECZ 3/20/03

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Mar. 19 2003 Instrument ID HPLC4 Column ID Ultrasorb 5 ODS Data Subdirectory 031903
Analyst Initials CAC SOP # HPLC01 Rev. # 4 8310 SOP # HPLC02 Rev. # 3 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 227 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

L0303352-01 Surr @ 31.4% (50-150)

Reviewed By: EC 3/20/03

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	Blank Me/AcCN/Wa	8330	1	Sample		
2	2	WG136885-01 CCV	8330	1	Sample		
3	3	WG136864-01 BLK	8330	1	Sample		
4	4	WG136864-02 LCS	8330	1	Sample		
5	5	WG136864-03 LCS2	8330	1	Sample		
6	6	L0303352-01 RE	8330	1	Sample		
7	2	WG136885-02 CCV	8330	1	Sample		

PAC 3/26/03

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8330	4L004524	01:01		Blank Me/AcCN/
No	2	2	8330	4L004525	02:01		WG136885-01 CC
No	3	3	8330	4L004526	03:01		WG136864-01 BL
No	4	4	8330	4L004527	04:01		WG136864-02 LC
No	5	5	8330	4L004528	05:01		WG136864-03 LC
No	6	6	8330	4L004529	06:01		L0303352-01 RE
No	7	2	8330	4L004530	07:01		WG136885-02 CC

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time 032403 Instrument ID HPLC4 Column ID Ultrasolis ODS Data Subdirectory 032403
Analyst Initials [illegible] SOP # HPLC01 Rev. # 4 8310 SOP # HPLC02 Rev. # 3 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 228 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

L0303352-9 is a re-ext. in hold with acceptable surr. recovery.

* WG136864-02 & 03 (LCS & LCS DUP) yielded % recoveries for HMX, tetryl, & 2,4,6-TNT that were below the advisory limit...

Reviewed By: [illegible] 3/25/03

Sample Extraction Log Sheet – Method 8330 / Explosives

Analyst: CEB
Date: 3-19-03 @ 0730
SOP#: EXTNT1 REV 4
Spike Analyst: CEB Witness: JRC
Sample Matrix: H_2O
Ext Solvent: CH_3CN Lot#: 42269
Ext Solvent: MeOH Lot#: 42247236
Ext Disk: SDB-RPS Lot#: 760082
Other: HPLC H_2O Lot#: 42269

Extract Relinquished By: CEB
Extract Received By: EDC
Date Extract Received: 3/11/03

Matrix Spike # / Conc: WG ES30043-48 @ 1.0ppm
Surrogate Spike # / Conc: W ES30043-44 @ 1.0ppm
CEB 3/19/03
Extraction Work Group: WG136531
Analytical Work Group: LCC-136562

Sonic Bath On – Date:	N/A
Time (1) N/A	Temp (1) N/A
Time (2) N/A	Temp (2) N/A
Sonic Bath Off – Date:	N/A
Time (3) N/A	Temp (3) N/A

	Project ID	Sample ID	Sample Wt (g) / Vol (mL)	Surrogate Amount (uL)	Matrix Spike Amount (uL)	Extract F. Volume (mL)	Comments
1		BLK	1L	1000uL		10.0mL	WG136531-01
2		LCS	〃	〃	1000uL	〃	〃 -02
3		LCS DUP	〃	〃	〃	〃	〃 -03
4	CCI	03-352-01	960mL	〃		〃	
5	SHAW	03-355-02	1L	〃		〃	
6	〃	03-286-01	950mL	〃		〃	REEXT IN HOLD
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

CEB 3-19-03

All soil samples are air dried to a constant weight prior to extraction
*All extracts are filtered through a 0.45 um teflon **ACRODISC** prior to analysis*

Reviewed by: _____

Analyst: CEB
Date: 3-24-03 @ 1330
SOP#: EXTNT1 REV 4
Spike Analyst: CEB Witness:
Sample Matrix: H2O
Ext Solvent: CH2Cl2 Lot#: 42269
Ext Solvent: MEOH Lot#: 42247236
Ext Disk: SDB-RPS Lot#: 760082
Other: HPLC H2O Lot#: 42269

Extract Relinquished By: CEB
Extract Received By:
Date Extract Received: 3/24/03

Matrix Spike # / Conc: ES0043-48 @1.0ppm
Surrogate Spike # / Conc: ES0043-44 @1.0ppm

Extraction Work Group: WG136864
Analytical Work Group: WG-136893

Sonic Bath On – Date:	N/A
Time (1) N/A	Temp (1) N/A
Time (2) N/A	Temp (2) N/A
Sonic Bath Off – Date:	N/A
Time (3) N/A	Temp (3) N/A

	Project ID	Sample ID	Sample Wt (g) / Vol (mL)	Surrogate Amount (uL)	Matrix Spike Amount (uL)	Extract F. Volume (mL)	Comments
1		BLK	1L	1000uL		10.0mL	WG136864-01
2		LCS	1	1	1000uL	1	1 -02
3		LCS DUP	1	1	1	1	1 -03
4		03-352-01	700mL	1		1	REEXT IN HOLD VERY SLOW, YELLOW EXTRACT
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

CEB 3-24-03

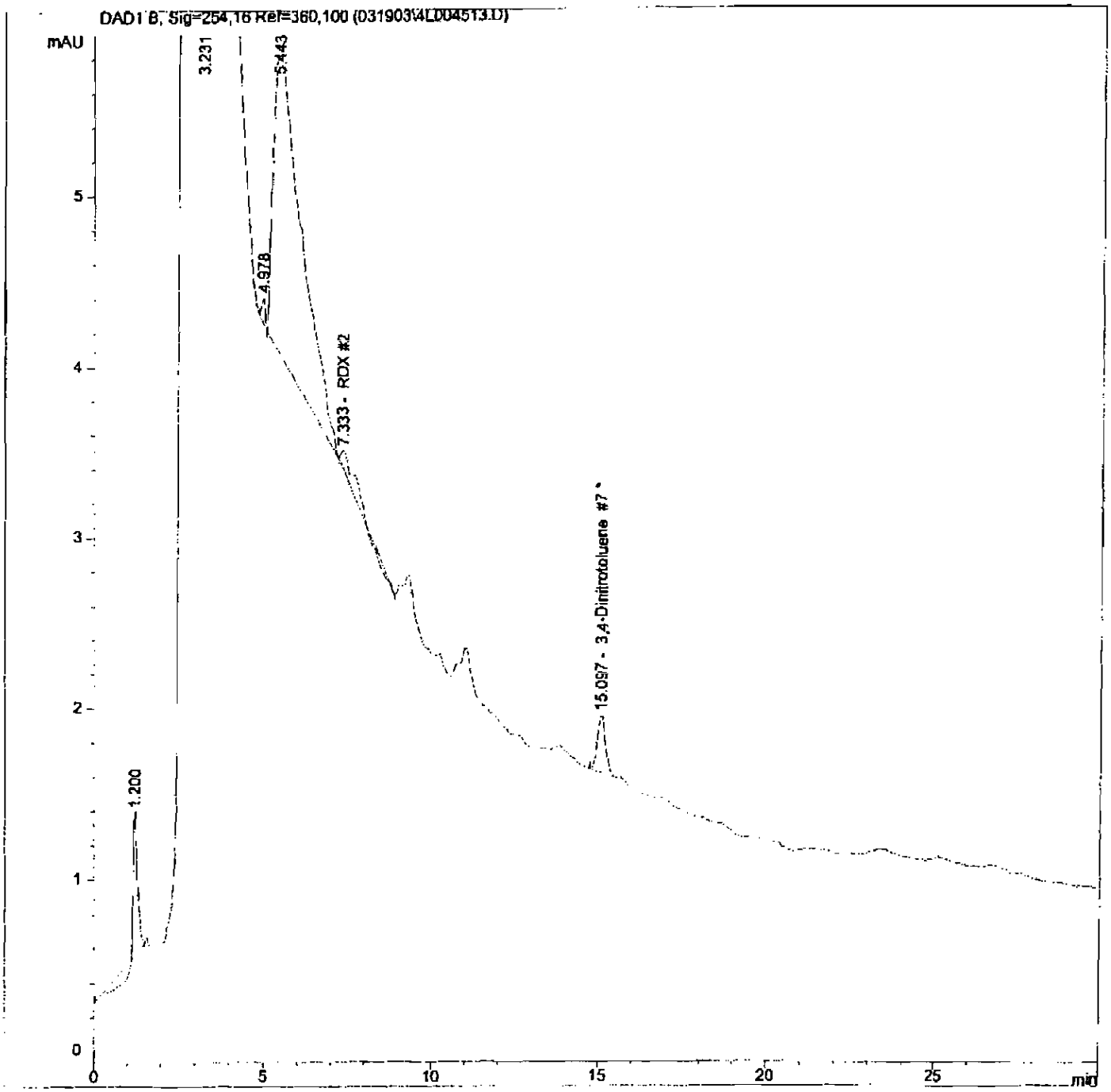
All soil samples are air dried to a constant weight prior to extraction
*All extracts are filtered through a 0.45 um teflon **ACRODISC** prior to analysis*

Reviewed by: _____

2.2.9.2 Sample Data

```
Injection Date  : 3/19/2003 4:48:18 PM          Seq. Line :   6
Sample Name     : L0303352-01 833W                  Vial :   6
Acq. Operator   : RDC                               Inj :   1
                                                Inj Volume : 100 µl

Acq. Method     : C:\HPCHEM\2\METHODS\8330.M
Last changed    : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed    : 3/20/2003 8:33:14 AM by RDC
                  (modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51
```



Injection Date : 3/19/2003 4:48:18 PM Seq. Line : 6
Sample Name : L0303352-01 833W Vial : 6
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl

Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 3/20/2003 8:33:14 AM by RDC
(modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51

External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/20/2003 8:33:13 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.680		-	-	-		HMX #1
7.333	BB	2.77891	7.80125	21.67898		RDX #2
9.907		-	-	-		1,3,5-Trinitrobenzene #3
12.191		-	-	-		1,3-Dinitrobenzene #4
13.209		-	-	-		Tetryl #5
13.866		-	-	-		Nitrobenzene #6
15.097	BBA	5.46259	5.75447	31.43435		3,4-Dinitrotoluene #7 *
15.804		-	-	-		2,4,6-Trinitrotoluene #8
16.875		-	-	-		4-Amino-2,6-Dinitrotoluen
17.749		-	-	-		2-Amino-4,6-Dinitrotoluen
18.579		-	-	-		2,6-Dinitrotoluene #11
19.205		-	-	-		2,4-Dinitrotoluene #12
22.681		-	-	-		2-Nitrotoluene #13
24.266		-	-	-		4-Nitrotoluene #14
26.166		-	-	-		3-Nitrotoluene #15

Totals : 4623.29432

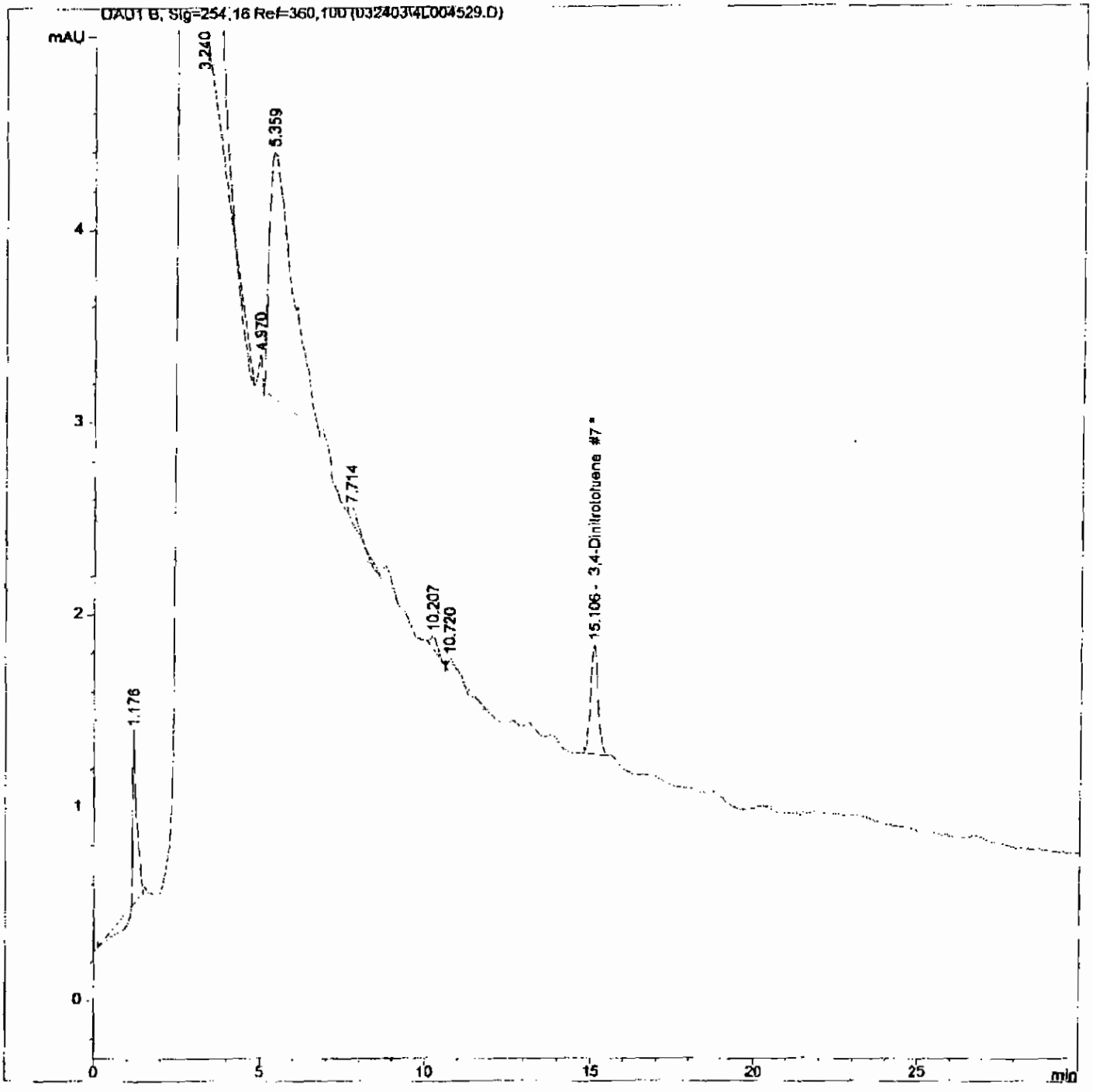
Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

*** End of Report ***

Injection Date	: 3/24/2003 8:54:57 PM	Seq. Line :	6
Sample Name	: L0303352-01 RE	Vial :	6
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	100 µl

Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 3/20/2003 9:05:10 AM by RDC
8330 CALIBRATION 02/18/2003 @ 20:51



1,1,RE

Injection Date : 3/24/2003 8:54:57 PM Seq. Line : 6
Sample Name : L0303352-01 RE Vial : 6
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl
Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 3/20/2003 9:05:10 AM by RDC
8330 CALIBRATION 02/18/2003 @ 20:51

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 20, 2003 8:50:28 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.680		-	-	-		HMX #1
7.374		-	-	-		RDX #2
9.907		-	-	-		1,3,5-Trinitrobenzene #3
12.191		-	-	-		1,3-Dinitrobenzene #4
13.209		-	-	-		Tetryl #5
13.866		-	-	-		Nitrobenzene #6
15.106	BBA	9.49313	5.65402	53.67433		3,4-Dinitrotoluene #7 *
15.804		-	-	-		2,4,6-Trinitrotoluene #8
16.875		-	-	-		4-Amino-2,6-Dinitrotoluen
17.749		-	-	-		2-Amino-4,6-Dinitrotoluen
18.579		-	-	-		2,6-Dinitrotoluene #11
19.205		-	-	-		2,4-Dinitrotoluene #12
22.681		-	-	-		2-Nitrotoluene #13
24.266		-	-	-		4-Nitrotoluene #14
26.166		-	-	-		3-Nitrotoluene #15

53.7 %

Totals : 3226.13550

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

*** End of Report ***

2.2.9.3 Standards Data

Calibration Table

8330 HPLC4

Calib. Data Modified : Thursday, February 20, 2003 11:35:47 AM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.000 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.500 min
Uncalibrated Peaks : using compound Nitrobenzene #6
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: Yes, even for non-identified peaks

Curve Type : Linear
Origin : Ignored
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
4.680	1	1	10.00000	1.62629	6.14897			HMX #1
		2	25.00000	3.87222	6.45625			
		3	50.00000	7.87880	6.34614			
		4	100.00000	16.55455	6.04064			
		5	500.00000	81.65133	6.12360			
		6	1000.00000	163.84424	6.10336			
7.374	1	1	10.00000	1.25013	7.99916			RDX #2
		2	25.00000	3.51806	7.10619			
		3	50.00000	8.24241	6.06619			
		4	100.00000	18.10244	5.52412			
		5	500.00000	93.93399	5.32289			
		6	1000.00000	193.70641	5.16245			
10.045	1	1	10.00000	3.97026	2.51873			1,3,5-Trinitrobenzene
		2	25.00000	9.82855	2.54361			
		3	50.00000	20.23009	2.47157			
		4	100.00000	42.77443	2.33785			
		5	500.00000	209.43938	2.38733			
		6	1000.00000	424.78473	2.35413			
12.356	1	1	10.00000	5.48968	1.82160			1,3-Dinitrobenzene #4
		2	25.00000	13.00616	1.92217			

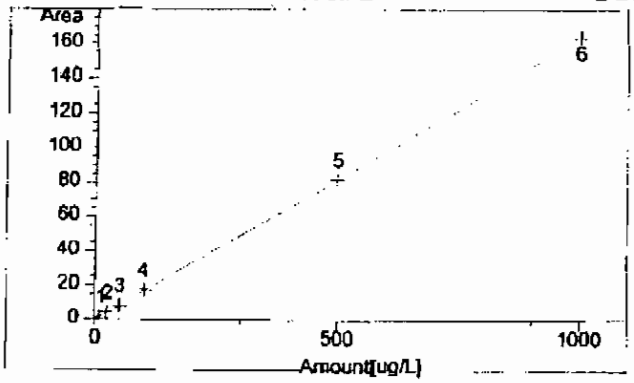
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	50.00000	27.80810	1.79804			
		4	100.00000	57.52754	1.73830			
		5	500.00000	278.18909	1.79734			
		6	1000.00000	563.20715	1.77555			
13.429	1	1	10.00000	2.26809	4.40900			Tetryl #5
		2	25.00000	5.17884	4.82733			
		3	50.00000	10.96593	4.55958			
		4	100.00000	23.13531	4.32240			
		5	500.00000	112.16416	4.45775			
		6	1000.00000	228.33476	4.37953			
14.066	1	1	10.00000	3.61898	2.76321			Nitrobenzene #6
		2	25.00000	7.37362	3.39047			
		3	50.00000	15.25095	3.27848			
		4	100.00000	32.28315	3.09759			
		5	500.00000	155.47395	3.21597			
		6	1000.00000	316.40430	3.16051			
15.308	1	1	10.00000	1.73188	5.77406			3,4-Dinitrotoluene #7
		2	25.00000	4.26109	5.86704			
		3	50.00000	9.02714	5.53885			
		4	100.00000	18.47825	5.41177			
		5	500.00000	88.70387	5.63673			
		6	1000.00000	181.76370	5.50165			
16.099	1	1	10.00000	3.25076	3.07621			2,4,6-Trinitrotoluene
		2	25.00000	7.92469	3.15470			
		3	50.00000	16.65866	3.00144			
		4	100.00000	34.96862	2.85971			
		5	500.00000	167.88934	2.97815			
		6	1000.00000	341.65164	2.92696			
16.995	1	1	10.00000	1.90637	5.24557			4-Amino-2,6-Dinitrotol
		2	25.00000	4.86699	5.13665			
		3	50.00000	10.14995	4.92613			
		4	100.00000	21.00739	4.76023			
		5	500.00000	100.24944	4.98756			
		6	1000.00000	202.83643	4.93008			
17.959	1	1	10.00000	2.98225	3.35318			2-Amino-4,6-Dinitrotol
		2	25.00000	6.92072	3.61234			
		3	50.00000	14.34515	3.48550			
		4	100.00000	30.07975	3.32450			
		5	500.00000	146.07620	3.42287			
		6	1000.00000	297.03616	3.36659			
18.897	1	1	10.00000	1.68916	5.92010			2,6-Dinitrotoluene #11
		2	25.00000	3.93634	6.35107			
		3	50.00000	7.95253	6.28731			
		4	100.00000	16.82861	5.94226			
		5	500.00000	80.64670	6.19988			
		6	1000.00000	163.62827	6.11141			
19.524	1	1	10.00000	4.03158	2.48042			2,4-Dinitrotoluene #12
		2	25.00000	9.14182	2.73468			
		3	50.00000	19.14354	2.61185			
		4	100.00000	40.60501	2.46275			
		5	500.00000	196.67857	2.54222			
		6	1000.00000	400.27075	2.49831			
23.040	1	1	10.00000	1.70798	5.85487			2-Nitrotoluene #13
		2	25.00000	4.87716	5.12594			
		3	50.00000	9.84604	5.07818			
		4	100.00000	21.42023	4.66849			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref Grp	Name
		5	500.00000	103.19198	4.84534		
		6	1000.00000	209.52986	4.77259		
24.747	1	1	10.00000	1.46642	6.81934		4-Nitrotoluene #14
		2	25.00000	3.77656	6.61977		
		3	50.00000	7.37045	6.78385		
		4	100.00000	16.73236	5.97644		
		5	500.00000	81.92500	6.10314		
		6	1000.00000	166.17581	6.01772		
26.643	1	1	10.00000	2.11656	4.72465		3-Nitrotoluene #15
		2	25.00000	4.88135	5.12153		
		3	50.00000	10.80696	4.62665		
		4	100.00000	23.31541	4.28901		
		5	500.00000	115.22002	4.33952		
		6	1000.00000	234.90714	4.25700		

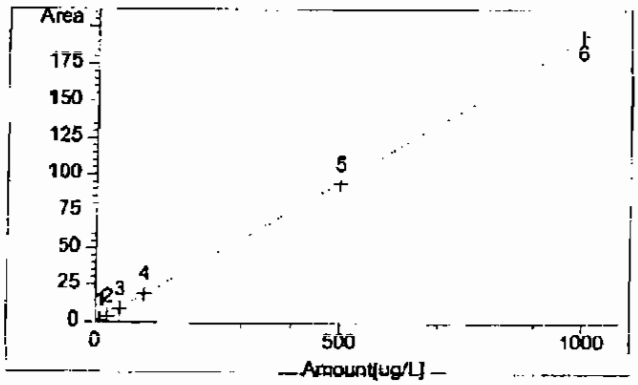
Peak Sum Table

No Entries in table

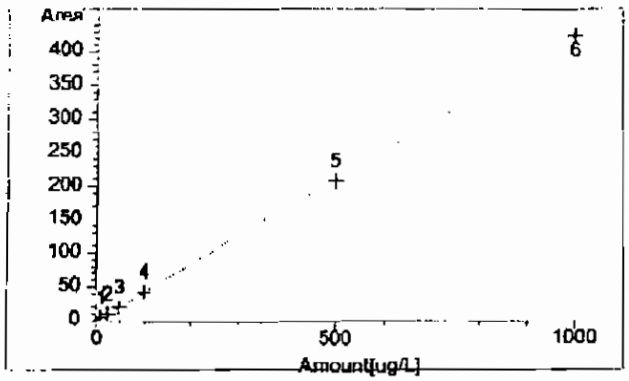
Calibration Curves



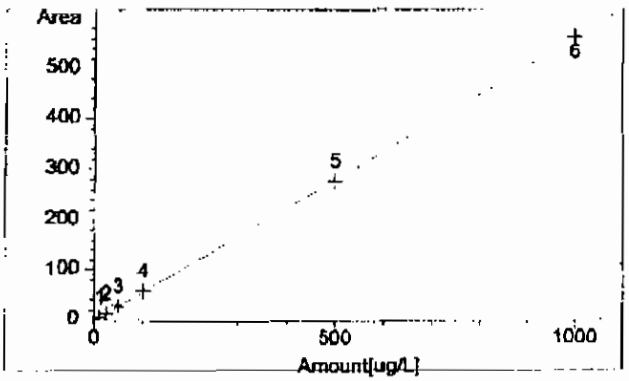
HMX #1 at exp. RT: 4.680
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 1.00000
Residual Std. Dev.: 0.21095
Formula: y = mx + b
m: 1.63898e-1
b: -1.23569e-1
x: Amount [ug/L]
y: Area



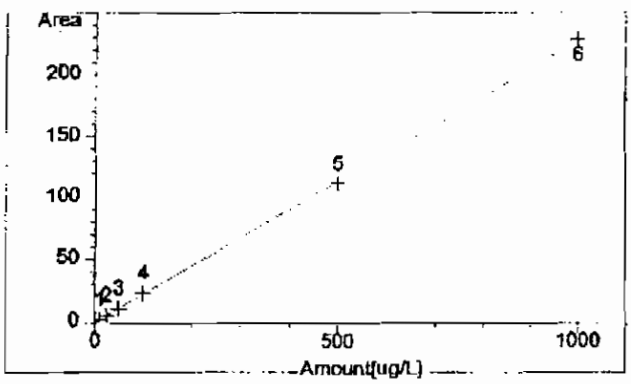
RDX #2 at exp. RT: 7.374
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99993
Residual Std. Dev.: 1.05499
Formula: y = mx + b
m: 1.94273e-1
b: -1.43273
x: Amount [ug/L]
y: Area



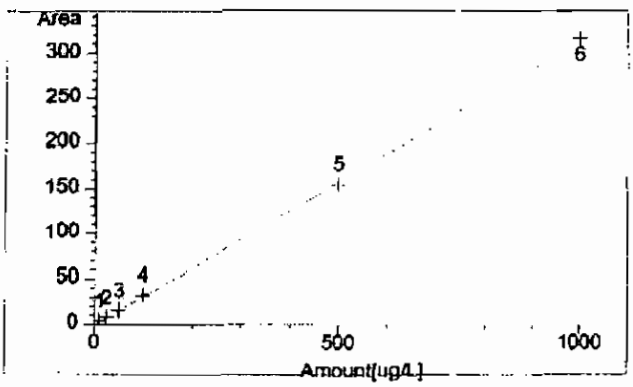
1,3,5-Trinitrobenzene #3 at exp. RT: 10.0
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99998
Residual Std. Dev.: 1.29872
Formula: y = mx + b
m: 4.24544e-1
b: -7.21523e-1
x: Amount [ug/L]
y: Area



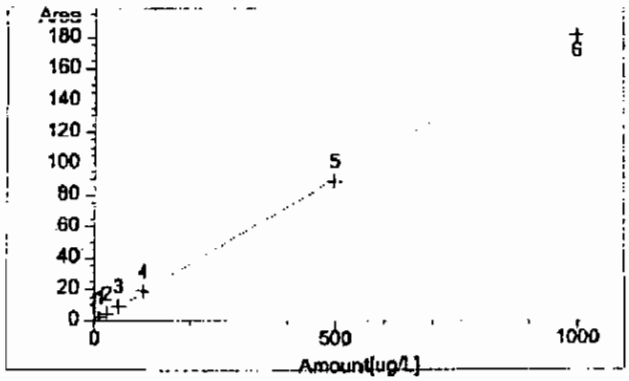
1,3-Dinitrobenzene #4 at exp. RT: 12.356
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99998
Residual Std. Dev.: 1.70457
Formula: y = mx + b
m: 5.62483e-1
b: -4.26082e-1
x: Amount [ug/L]
y: Area



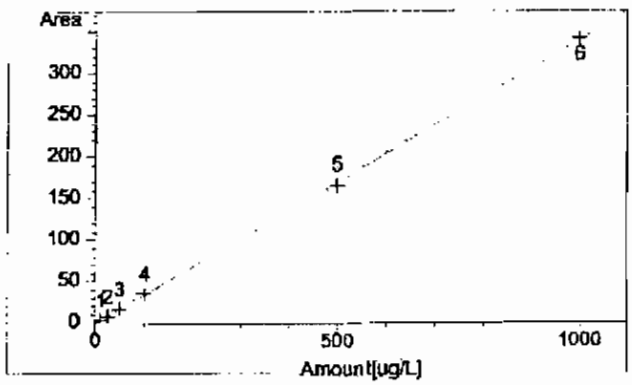
Tetryl #5 at exp. RT: 13.429
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99996
Residual Std. Dev.: 0.90781
Formula: y = mx + b
m: 2.28018e-1
b: -3.60644e-1
x: Amount [ug/L]
y: Area



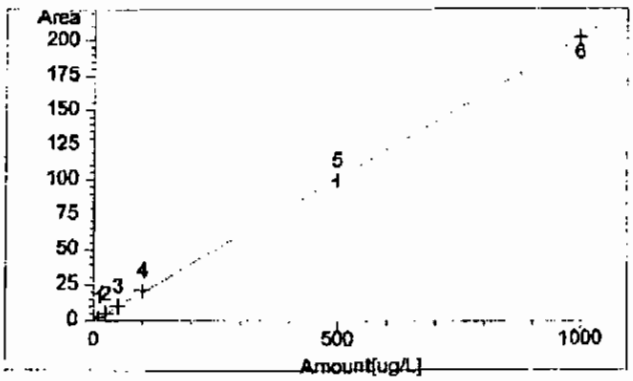
Nitrobenzene #6 at exp. RT: 14.066
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99996
Residual Std. Dev.: 1.32455
Formula: y = mx + b
m: 3.15684e-1
b: -2.53885e-1
x: Amount [ug/L]
y: Area



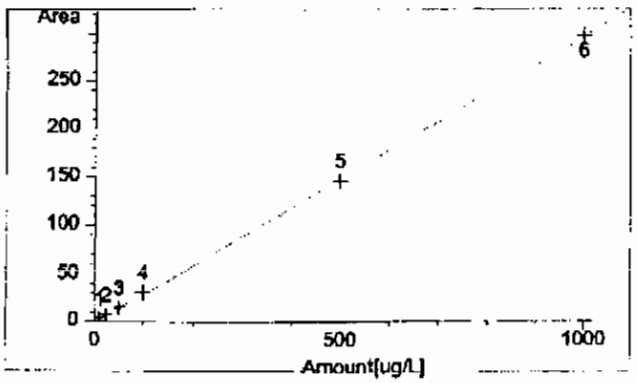
3,4-Dinitrotoluene #7 * at exp. RT: 15.3
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99993
Residual Std. Dev.: 0.97648
Formula: y = mx + b
m: 1.81229e-1
b: -2.34231e-1
x: Amount[ug/L]
y: Area



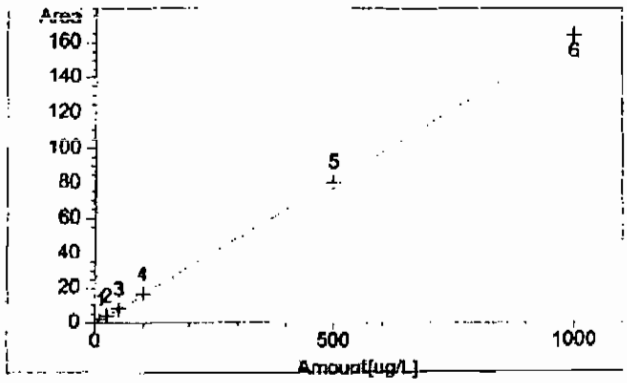
2,4,6-Trinitrotoluene #8 at exp. RT: 16.0
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99996
Residual Std. Dev.: 1.38703
Formula: y = mx + b
m: 3.41033e-1
b: -3.82944e-1
x: Amount[ug/L]
y: Area



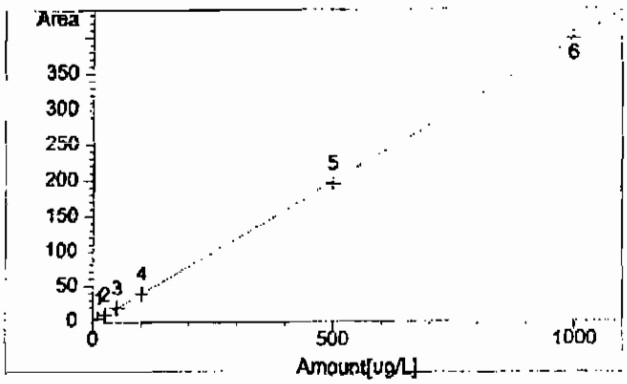
4-Amino-2,6-Dinitrotoluene #9 at exp. RT:
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99997
Residual Std. Dev.: 0.65815
Formula: y = mx + b
m: 2.02452e-1
b: -1.91785e-2
x: Amount[ug/L]
y: Area



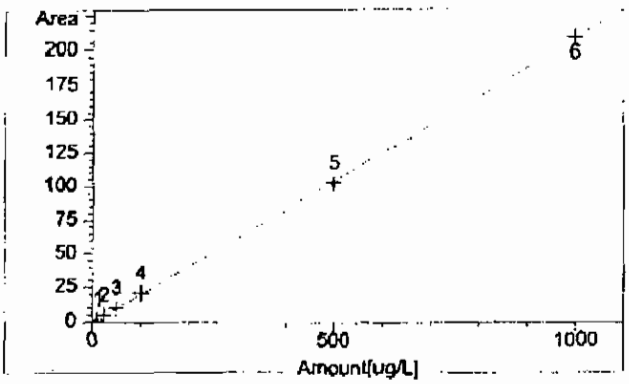
2-Amino-4,6-Dinitrotoluene #10 at exp. RT
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99996
Residual Std. Dev.: 1.10517
Formula: y = mx + b
m: 2.96580e-1
b: -3.82901e-1
x: Amount[ug/L]
y: Area



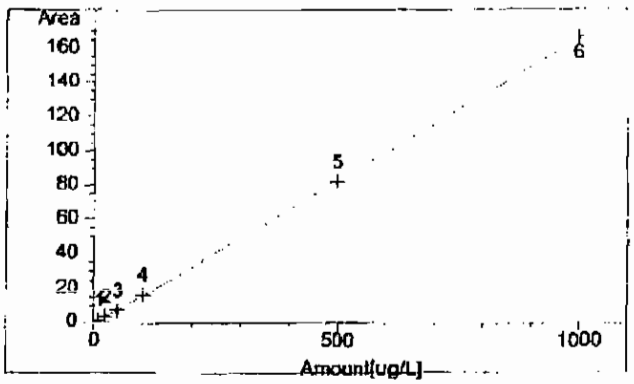
2,6-Dinitrotoluene #11 at exp. RT: 18.897
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99997
Residual Std. Dev.: 0.59043
Formula: y = mx + b
m: 1.63297e-1
b: -7.88362e-2
x: Amount [ug/L]
y: Area



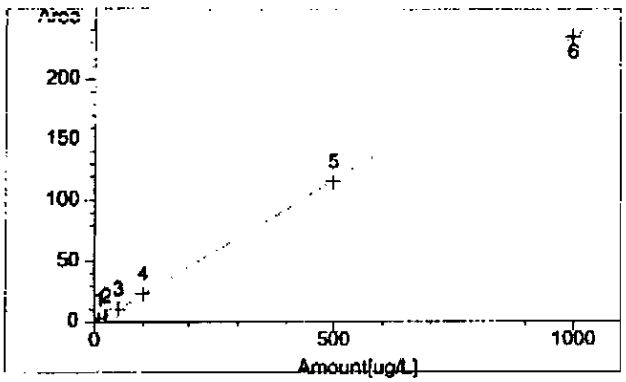
2,4-Dinitrotoluene #12 at exp. RT: 19.524
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99996
Residual Std. Dev.: 1.58366
Formula: y = mx + b
m: 3.99704e-1
b: -6.04961e-1
x: Amount [ug/L]
y: Area



2-Nitrotoluene #13 at exp. RT: 23.040
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99997
Residual Std. Dev.: 0.76355
Formula: y = mx + b
m: 2.09420e-1
b: -3.83375e-1
x: Amount [ug/L]
y: Area



4-Nitrotoluene #14 at exp. RT: 24.747
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99997
Residual Std. Dev.: 0.57545
Formula: y = mx + b
m: 1.66290e-1
b: -4.58792e-1
x: Amount [ug/L]
y: Area

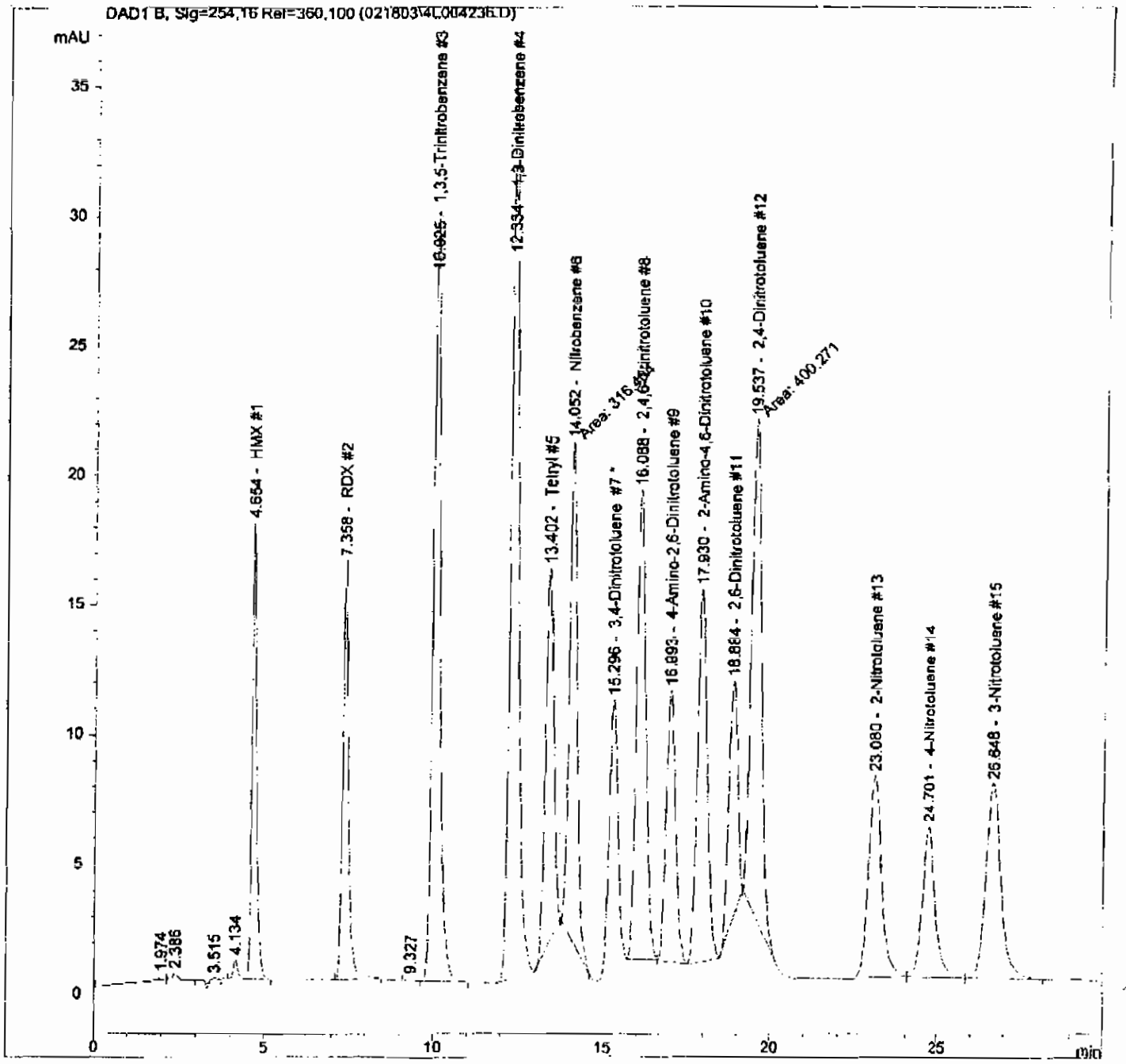


3-Nitrotoluene #15 at exp. RT: 26.643
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99996
Residual Std. Dev.: 0.92833
Formula: y = mx + b
m: 2.35003e-1
b: -7.88646e-1
x: Amount[ug/L]
y: Area

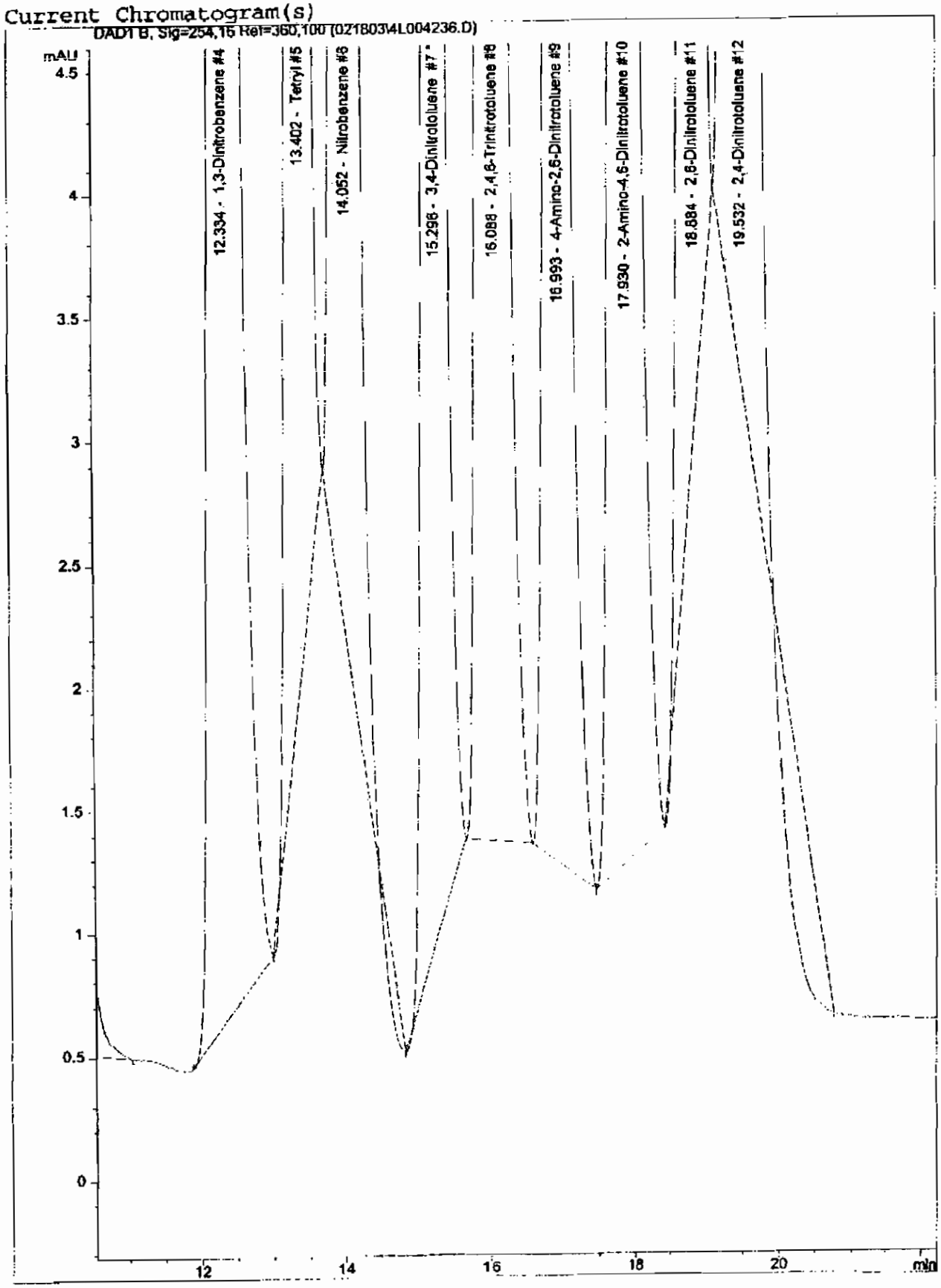
1,1 SOS63-40 1000 ppb

```
================================================================================
Injection Date   : 2/18/2003 4:30:40 PM              Seq. Line :   2
Sample Name      : WG134632-01 STD6                      Vial :   2
Acq. Operator    : RDC                                    Inj :   1
                                                  Inj Volume : 100 µl

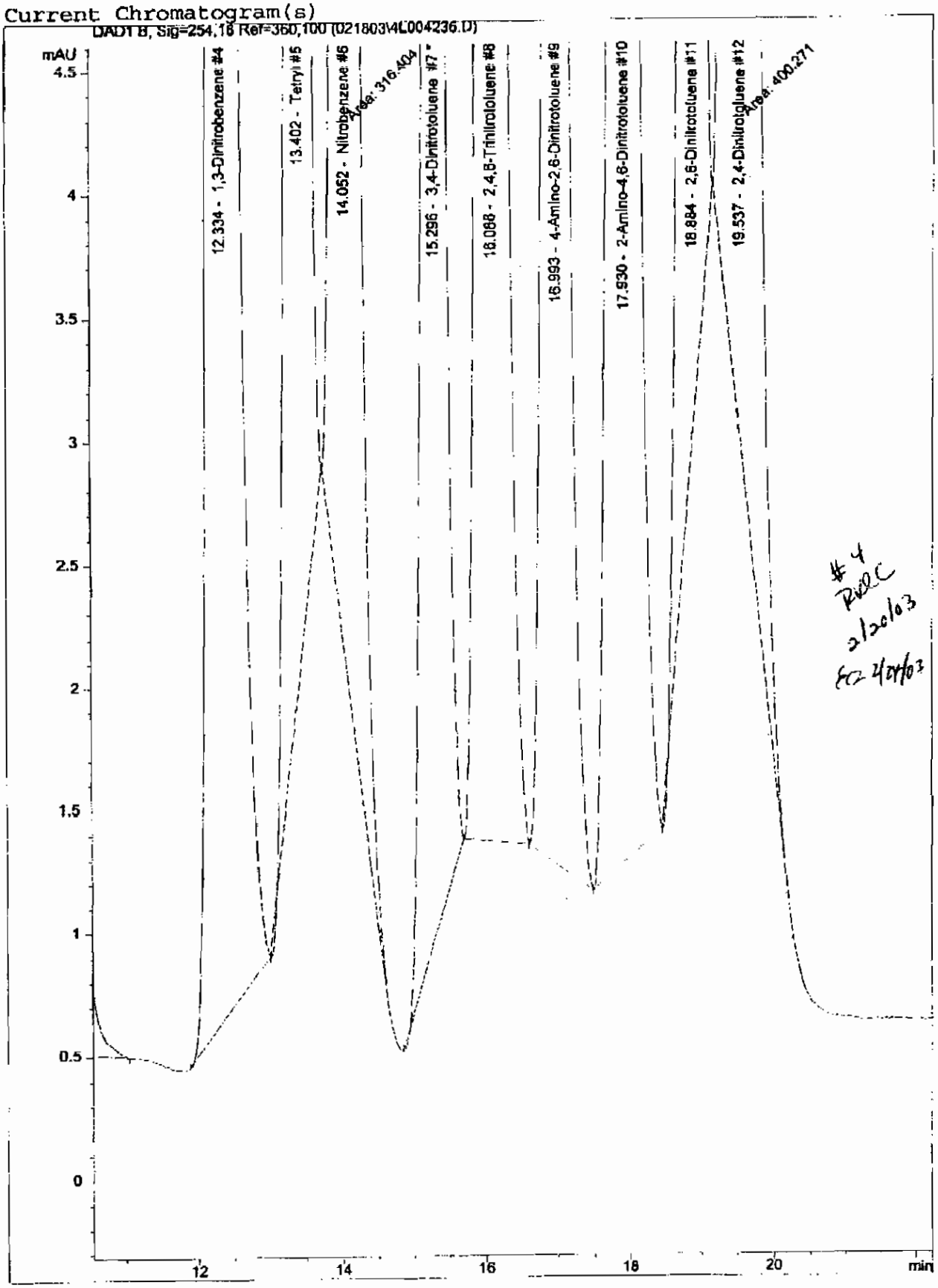
Acq. Method      : C:\HPCHEM\2\METHODS\8330.M
Last changed     : 2/18/2003 12:04:02 PM by RDC
Analysis Method  : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed     : 2/20/2003 11:28:35 AM by RDC
                   (modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51
================================================================================
```



Current Chromatogram(s)



Current Chromatogram(s)



1,1 SOS63-40 1000 ppb

```
==========================================================================
Injection Date  : 2/18/2003 4:30:40 PM          Seq. Line :   2
Sample Name     : WG134632-01 STD6                    Vial :   2
Acq. Operator   : RDC                                  Inj :   1
                                                Inj Volume : 100 µl
Acq. Method     : C:\HPCHEM\2\METHODS\8330.M
Last changed    : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed    : 2/20/2003 11:28:35 AM by RDC
                  (modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51
==========================================================================

==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, February 20, 2003 11:28:25 AM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]           [mAU*s]                [ug/L]
-------|------|----------|----------|----------|--|------------------
  4.654 BBA     163.84424    6.10587 1000.41193    HMX #1
  7.358 BBA     193.70641    5.18547 1004.45893    RDX #2
 10.025 BBA     424.78473    2.35882 1001.98938    1,3,5-Trinitrobenzene #3
 12.334 PB      563.20715    1.77162  997.79063    1,3-Dinitrobenzene #4
 13.402 BB      228.33476    4.19225  957.23639    Tetryl #5
 14.052 MM      316.40430    3.04475  963.37254    Nitrobenzene #6
 15.296 BB      181.76370    5.36779  975.66908    3,4-Dinitrotoluene  #7 *
 16.088 BB      341.65164    2.85545  975.56872    2,4,6-Trinitrotoluene #8
 16.993 BB      202.83643    4.75127  963.73011    4-Amino-2,6-Dinitrotoluen
 17.930 BB      297.03616    3.27699  973.38350    2-Amino-4,6-Dinitrotoluen
 18.884 BB      163.62827    5.52488  904.02589    2,6-Dinitrotoluene #11
 19.537 MM      400.27075    2.35906  944.26399    2,4-Dinitrotoluene #12
 23.080 PB      209.52986    4.77468 1000.43818    2-Nitrotoluene #13
 24.701 BB      166.17581    6.02084 1000.51849    4-Nitrotoluene #14
 26.648 BBA     234.90714    4.26924 1002.87599    3-Nitrotoluene #15

Totals :                              1.47587e4

 Results obtained with enhanced integrator!
10 Warnings or Errors :

Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
```

1,1 SOS63-40 1000 ppb

Injection Date	: 2/18/2003 4:30:40 PM	Seq. Line :	2
Sample Name	: WG134632-01 STD6	Vial :	2
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	100 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8330.M		
Last changed	: 2/18/2003 12:04:02 PM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\833GRDDA.M		
Last changed	: 2/20/2003 11:28:35 AM by RDC (modified after loading)		

8330 CALIBRATION 02/18/2003 @ 20:51

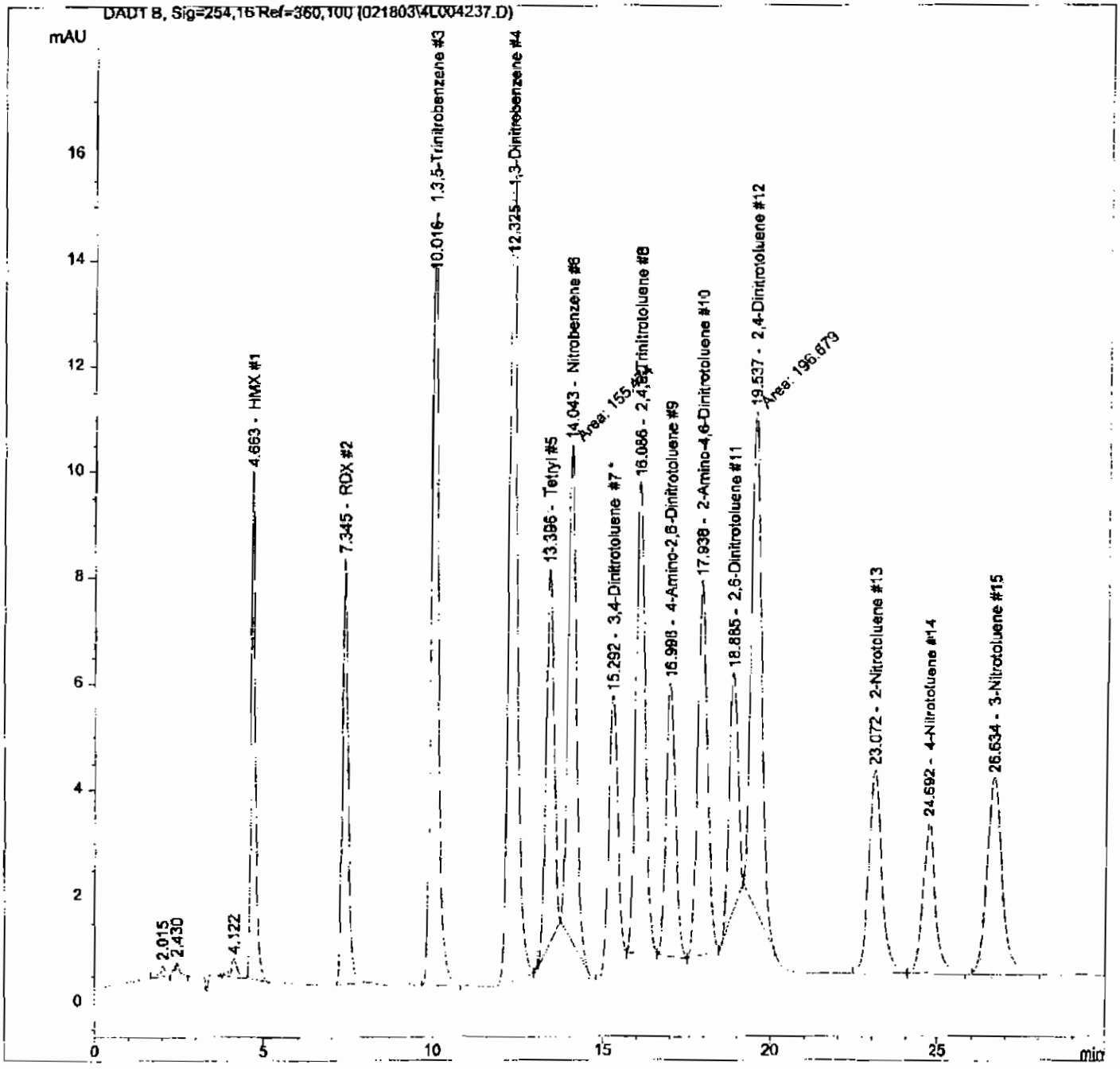
Warning : Negative results set to zero (cal. curve intercept)

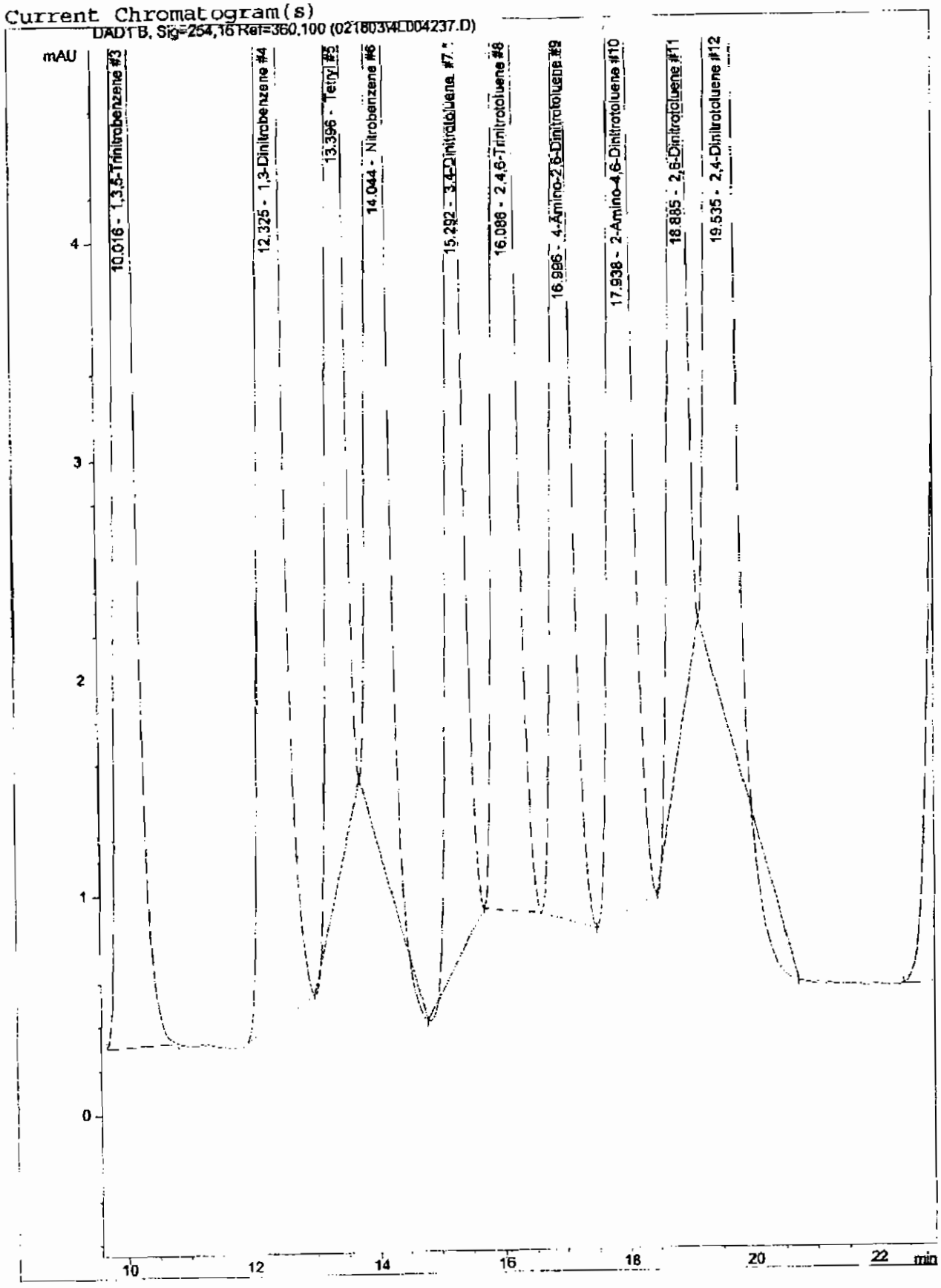
*** End of Report ***

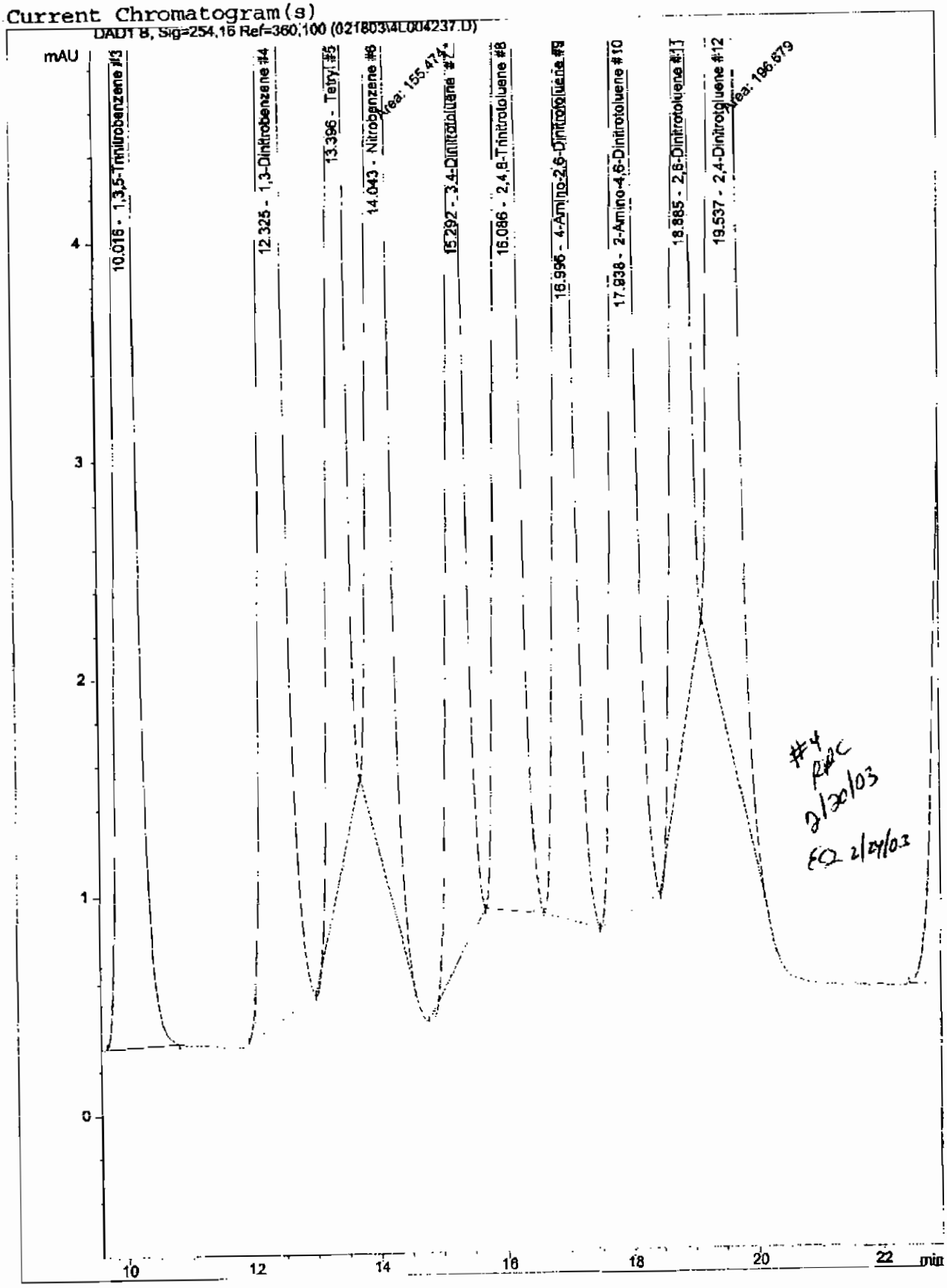
1,1 SOS63-40 500 ppb

```
================================================================================
Injection Date   : 2/18/2003 5:22:48 PM              Seq. Line :   3
Sample Name      : WG134632-02 STD5                       Vial :   3
Acq. Operator    : RDC                                    Inj :   1
                                                  Inj Volume : 100 µl

Acq. Method      : C:\HPCHEM\2\METHODS\8330.M
Last changed     : 2/18/2003 12:04:02 PM by RDC
Analysis Method  : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed     : 2/20/2003 11:30:12 AM by RDC
                   (modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51
================================================================================
```




Current Chromatogram(s)
DAD1 B, Sig=254,16 Ref=360,100 (021803\4LD04237.D)
mAU
10.016 - 1,3,5-Trinitrobenzene #3
12.325 - 1,3-Dinitrobenzene #4
13.396 - Tetryl #5
14.044 - Nitrobenzene #6
15.282 - 3,4-Dinitrotoluene #7
16.086 - 2,4,6-Trinitrotoluene #8
16.986 - 4-Amino-2,6-Dinitrotoluene #9
17.938 - 2-Amino-4,6-Dinitrotoluene #10
18.885 - 2,6-Dinitrotoluene #11
19.535 - 2,4-Dinitrotoluene #12
4
3
2
1
0
10
12
14
16
18
20
22
min


Current Chromatogram(s)
DAD1 B, Sig=254,16 Ref=360,100 (021803\4L004237.D)
mAU
10.016 - 1,3,5-Trinitrobenzene #3
12.325 - 1,3-Dinitrobenzene #4
13.396 - Tetryl #5
14.043 - Nitrobenzene #6
Area: 155,477
15.292 - 3,4-Dinitrotoluene #7
16.086 - 2,4,6-Trinitrotoluene #8
16.996 - 4-Amino-2,6-Dinitrotoluene #9
17.938 - 2-Amino-4,6-Dinitrotoluene #10
18.885 - 2,6-Dinitrotoluene #11
19.537 - 2,4-Dinitrotoluene #12
Area: 186,679
#4 RDC 2/20/03
EQ 2/24/03
min

Injection Date : 2/18/2003 5:22:48 PM Seq. Line : 3
Sample Name : WG134632-02 STD5 Vial : 3
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl

Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 2/20/2003 11:30:12 AM by RDC
(modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, February 20, 2003 11:30:11 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.663	BB	81.65133	6.10943	498.84328		HMX #1
7.345	BBA	93.93399	5.22591	490.89053		RDX #2
10.016	BBA	209.43938	2.36269	494.83966		1,3,5-Trinitrobenzene #3
12.325	PB	278.18909	1.77774	494.54881		1,3-Dinitrobenzene #4
13.396	BB	112.16416	4.34376	487.21443		Tetryl #5
14.043	MM	155.47395	3.13946	488.10375		Nitrobenzene #6
15.292	BB	88.70387	5.49514	487.43987		3,4-Dinitrotoluene #7 *
16.086	BB	167.88934	2.91822	489.93779		2,4,6-Trinitrotoluene #8
16.996	BB	100.24944	4.89458	490.67861		4-Amino-2,6-Dinitrotoluen
17.938	BB	146.07620	3.35270	489.75024		2-Amino-4,6-Dinitrotoluen
18.885	BB	80.64670	5.97399	481.78259		2,6-Dinitrotoluene #11
19.537	MM	196.67857	2.47482	486.74413		2,4-Dinitrotoluene #12
23.072	BB	103.19198	4.78752	494.03343		2-Nitrotoluene #13
24.692	BBA	81.92500	6.03867	494.71843		4-Nitrotoluene #14
26.634	BBA	115.22002	4.28035	493.18149		3-Nitrotoluene #15

Totals : 7541.33627

Results obtained with enhanced integrator!
4 Warnings or Errors :

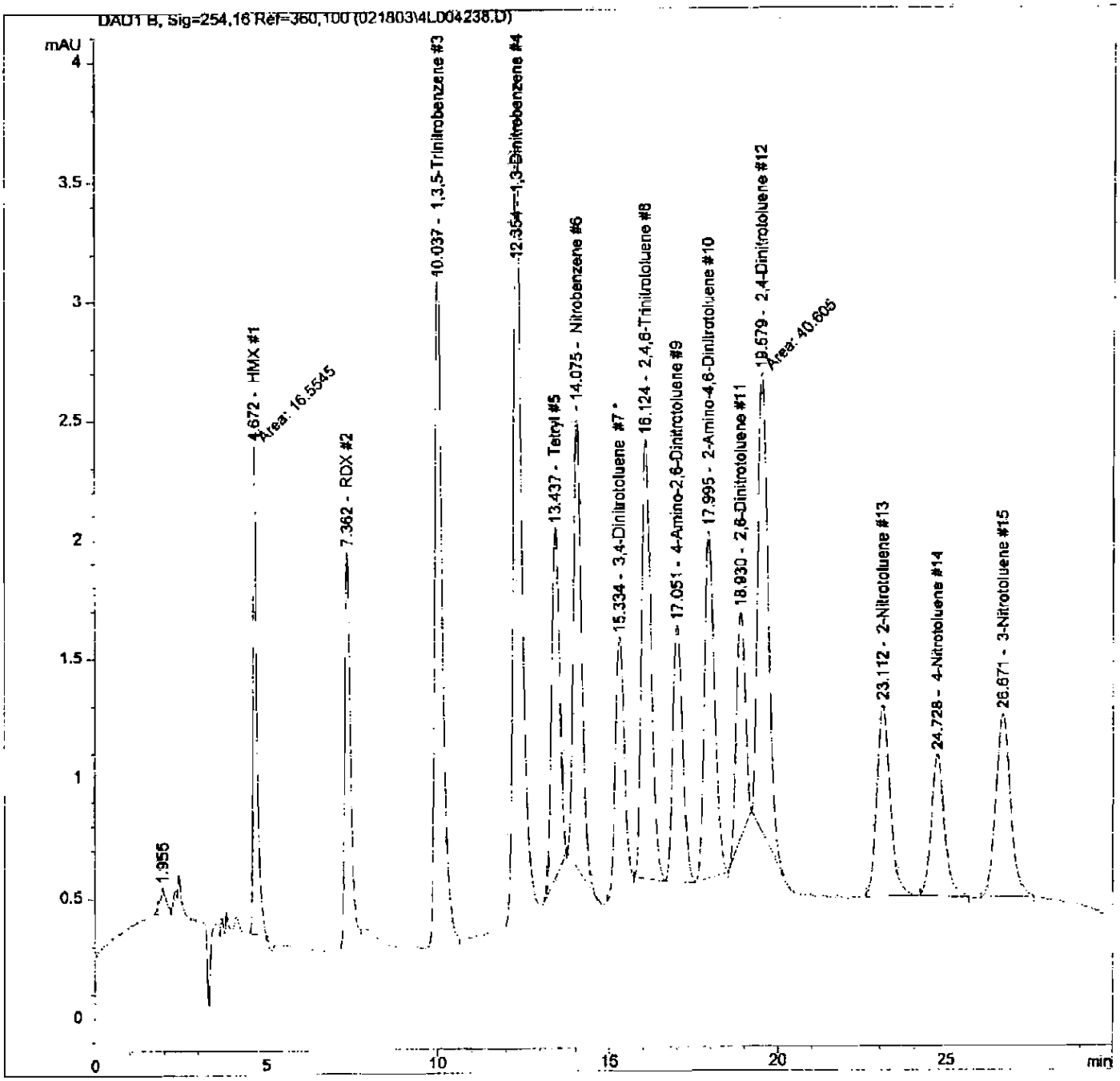
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)

*** End of Report ***

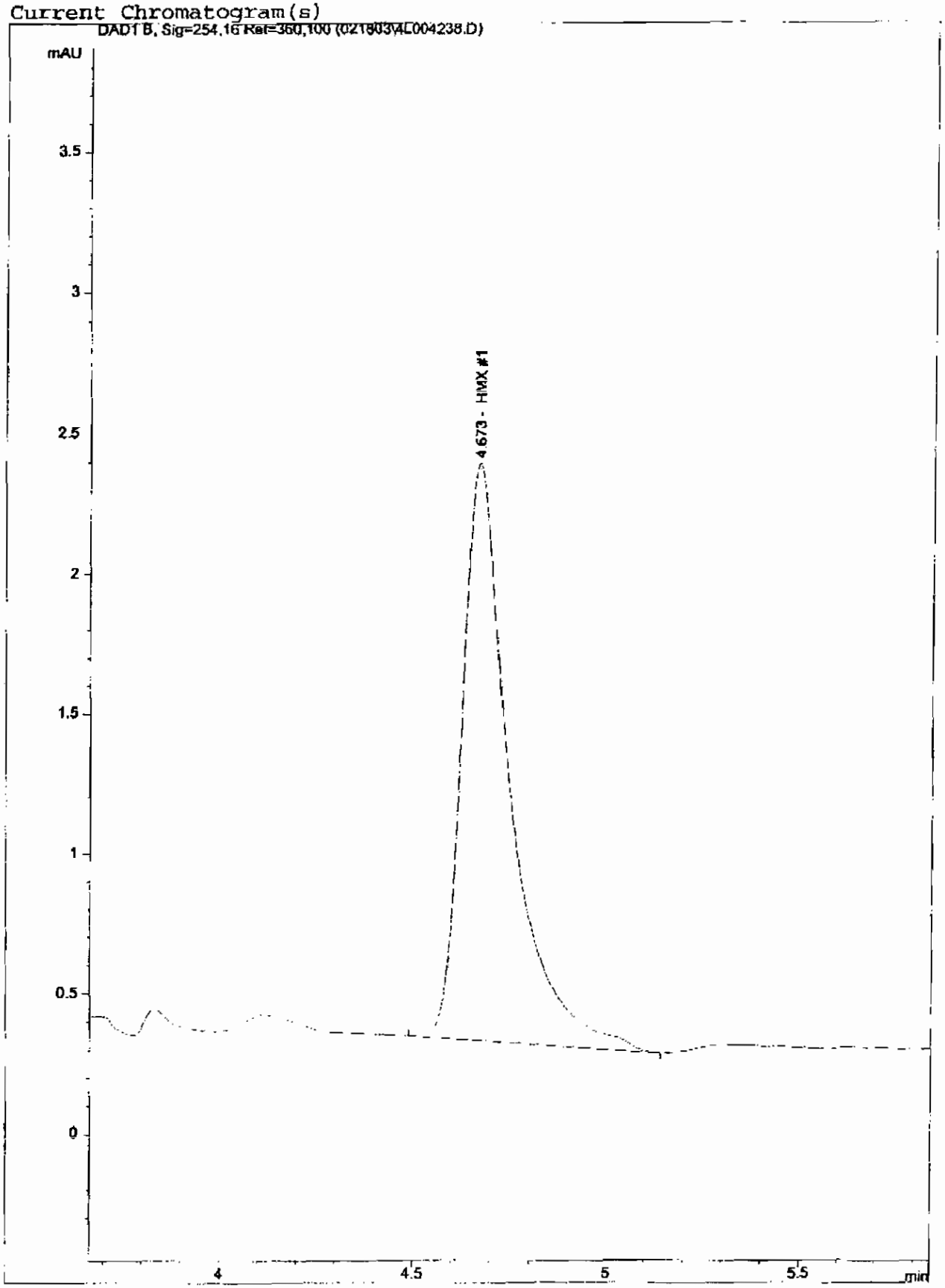
1,1 SOS63-40 100 ppb

```
================================================================================
Injection Date   : 2/18/2003 6:14:59 PM                Seq. Line :   4
Sample Name      : WG134632-03 STD4                         Vial :   4
Acq. Operator    : RDC                                       Inj :   1
                                                    Inj Volume : 100 µl

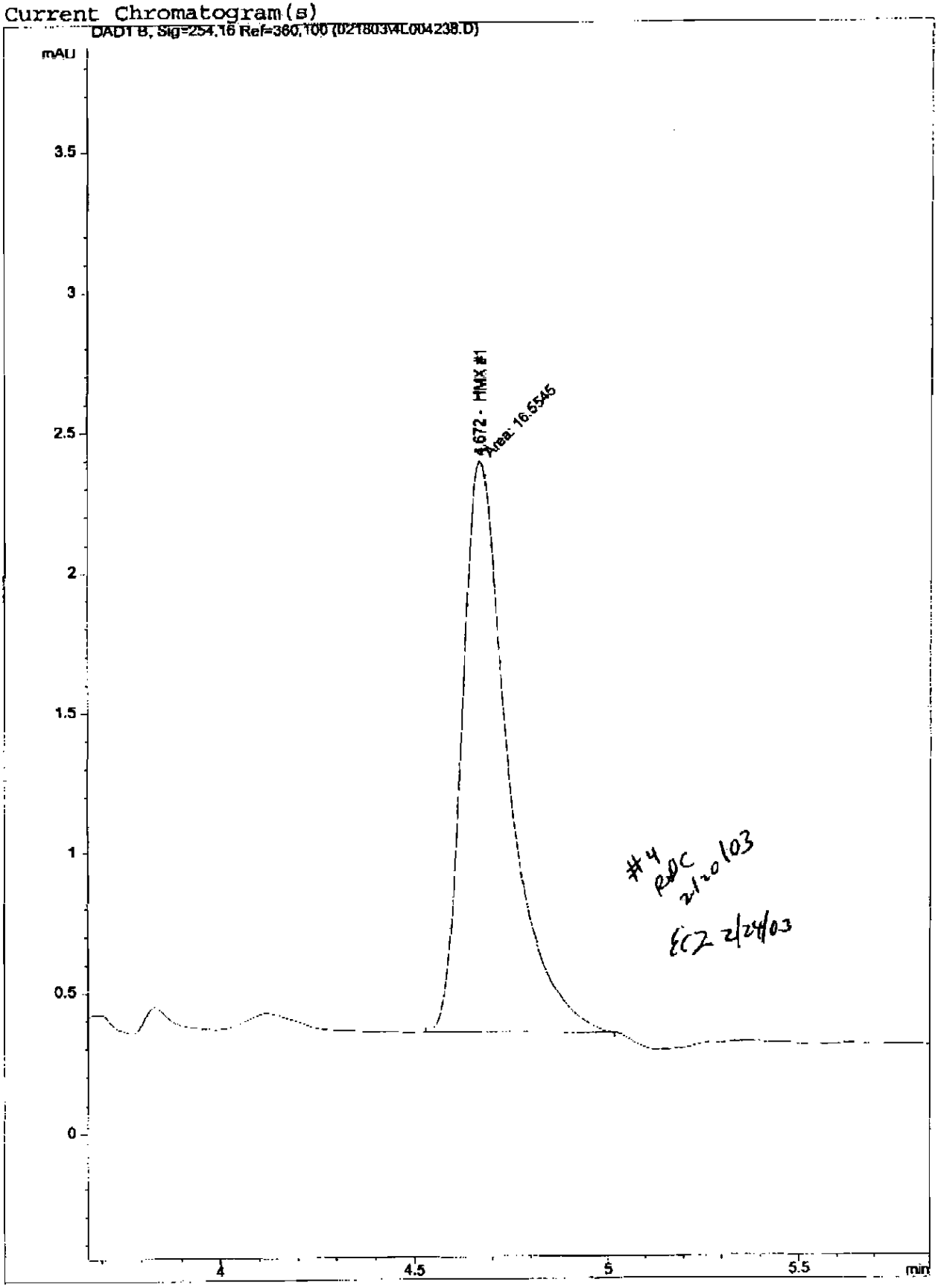
Acq. Method      : C:\HPCHEM\2\METHODS\8330.M
Last changed     : 2/18/2003 12:04:02 PM by RDC
Analysis Method  : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed     : 2/20/2003 11:31:42 AM by RDC
                   (modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51
================================================================================
```



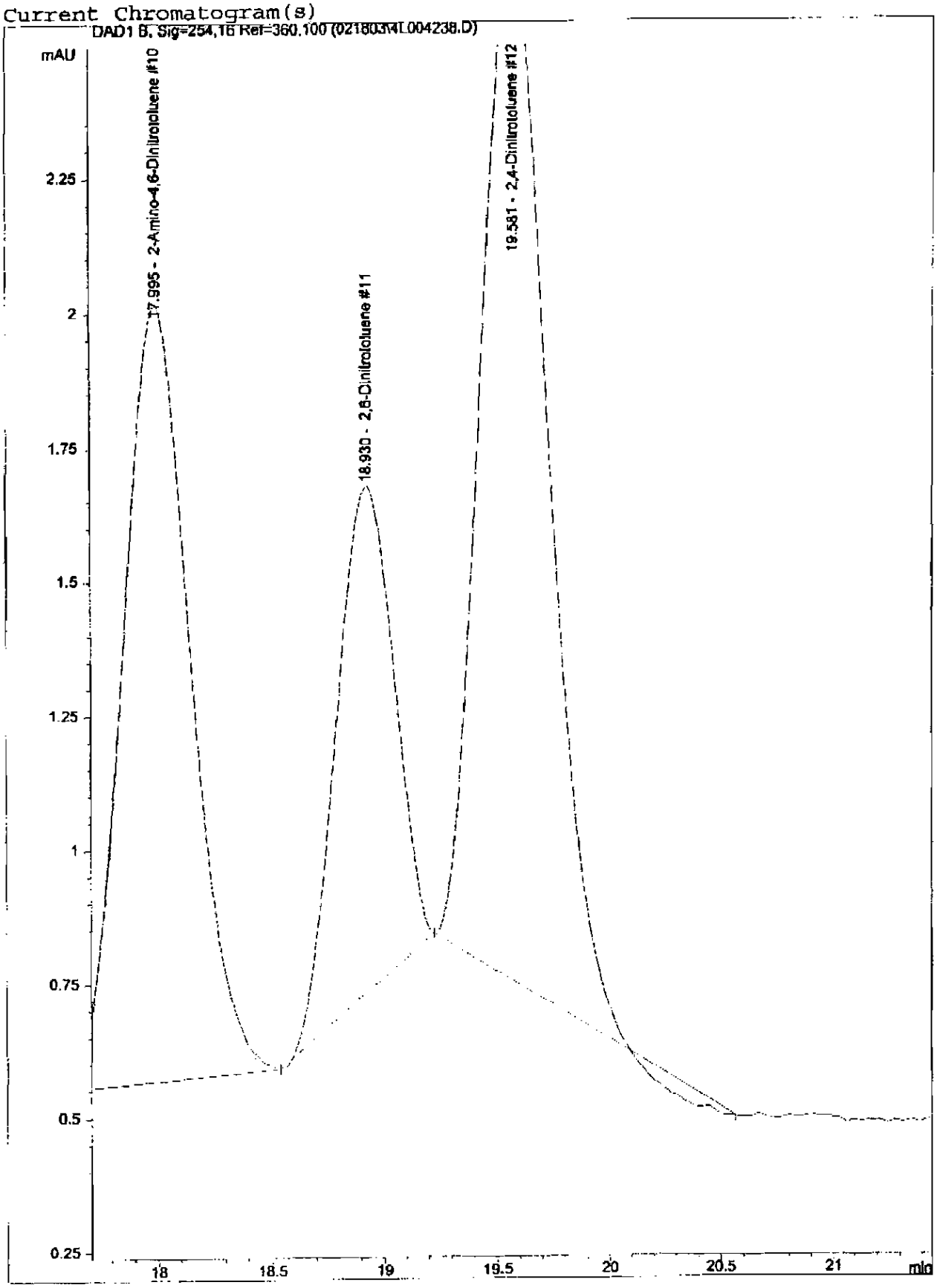
Current Chromatogram(s)



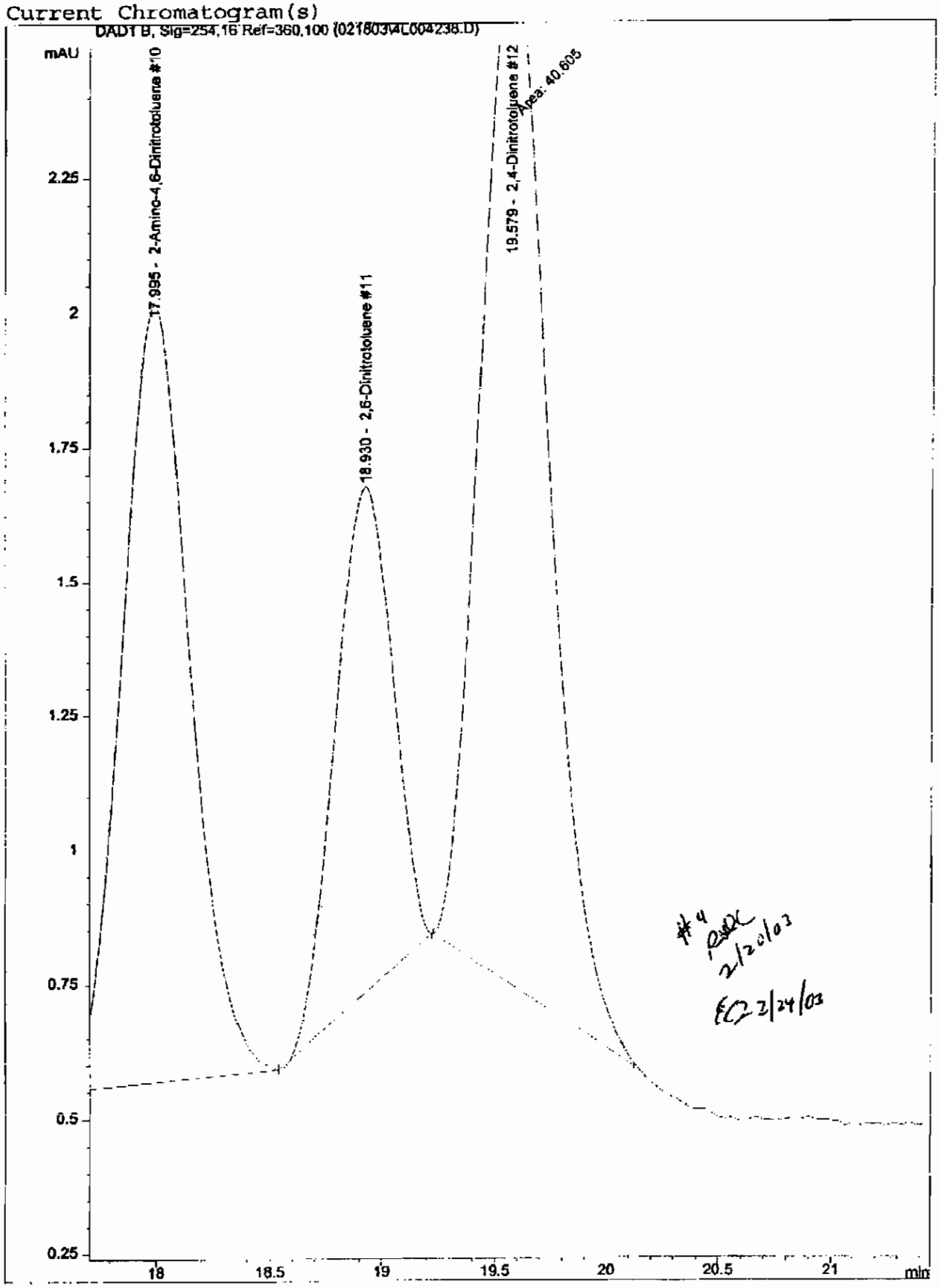
Current Chromatogram(s)



Current Chromatogram(s)



Current Chromatogram(s)



Injection Date	: 2/18/2003 6:14:59 PM	Seq. Line :	4
Sample Name	: WG134632-03 STD4	Vial :	4
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	100 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8330.M		
Last changed	: 2/18/2003 12:04:02 PM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\833GRDDA.M		
Last changed	: 2/20/2003 11:31:42 AM by RDC (modified after loading)		

8330 CALIBRATION 02/18/2003 @ 20:51

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Thursday, February 20, 2003 11:31:41 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.672	MM	16.55455	6.14800	101.77742		HMX #1
7.362	PBA	18.10244	5.55479	100.55532		RDX #2
10.037	BBA	42.77443	2.38799	102.14489		1,3,5-Trinitrobenzene #3
12.354	BBA	57.52754	1.77653	102.19948		1,3-Dinitrobenzene #4
13.437	PB	23.13531	4.19725	97.10462		Tetryl #5
14.075	BBA	32.28315	3.04642	98.34816		Nitrobenzene #6
15.334	PB	18.47825	5.41924	100.13800		3,4-Dinitrotoluene #7 *
16.124	BB	34.96862	2.86607	100.22259		2,4,6-Trinitrotoluene #8
17.051	BB	21.00739	4.72858	99.33522		4-Amino-2,6-Dinitrotoluen
17.995	BB	30.07975	3.26866	98.32062		2-Amino-4,6-Dinitrotoluen
18.930	BB	16.82861	5.45802	91.85091		2,6-Dinitrotoluene #11
19.579	MM	40.60501	2.38621	96.89201		2,4-Dinitrotoluene #12
23.112	BBA	21.42023	4.83394	103.54402		2-Nitrotoluene #13
24.728	BBA	16.73236	6.15076	102.91677		4-Nitrotoluene #14
26.671	BBA	23.31541	4.39909	102.56651		3-Nitrotoluene #15
Totals :				1855.97220		

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Negative results set to zero (cal. curve intercept)

*** End of Report ***

1,1 30383-40 50 ppb

```
================================================================================
Injection Date  : 2/18/2003 7:07:10 PM                Seq. Line :   5
Sample Name     : WG134632-04 STD3                        Vial :   5
Acq. Operator   : RDC                                      Inj :   1
                                                   Inj Volume : 100 µl

Acq. Method     : C:\HPCHEM\2\METHODS\8330.M
Last changed    : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed    : 2/20/2003 11:33:23 AM by RDC
                  (modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51
================================================================================
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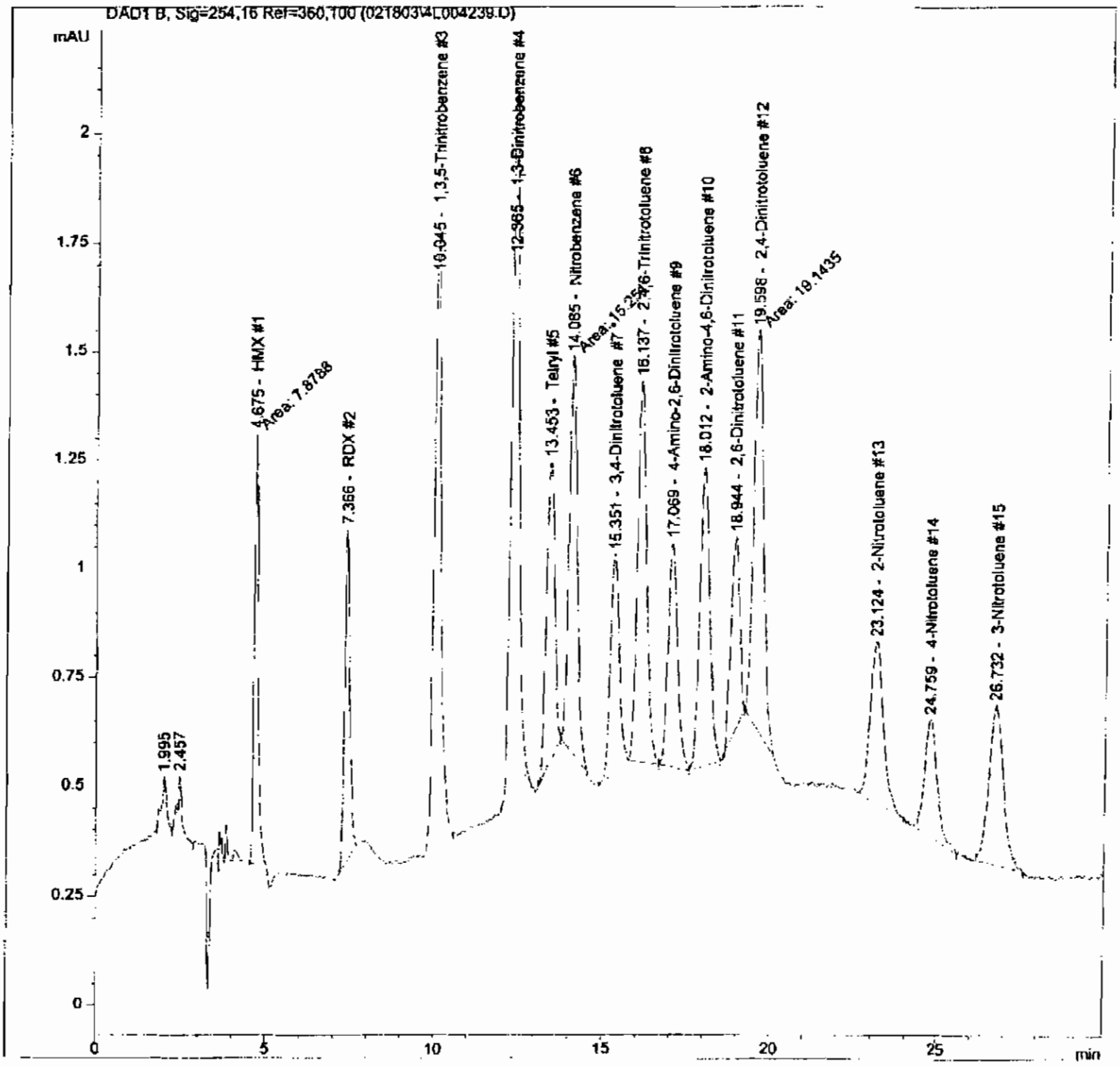
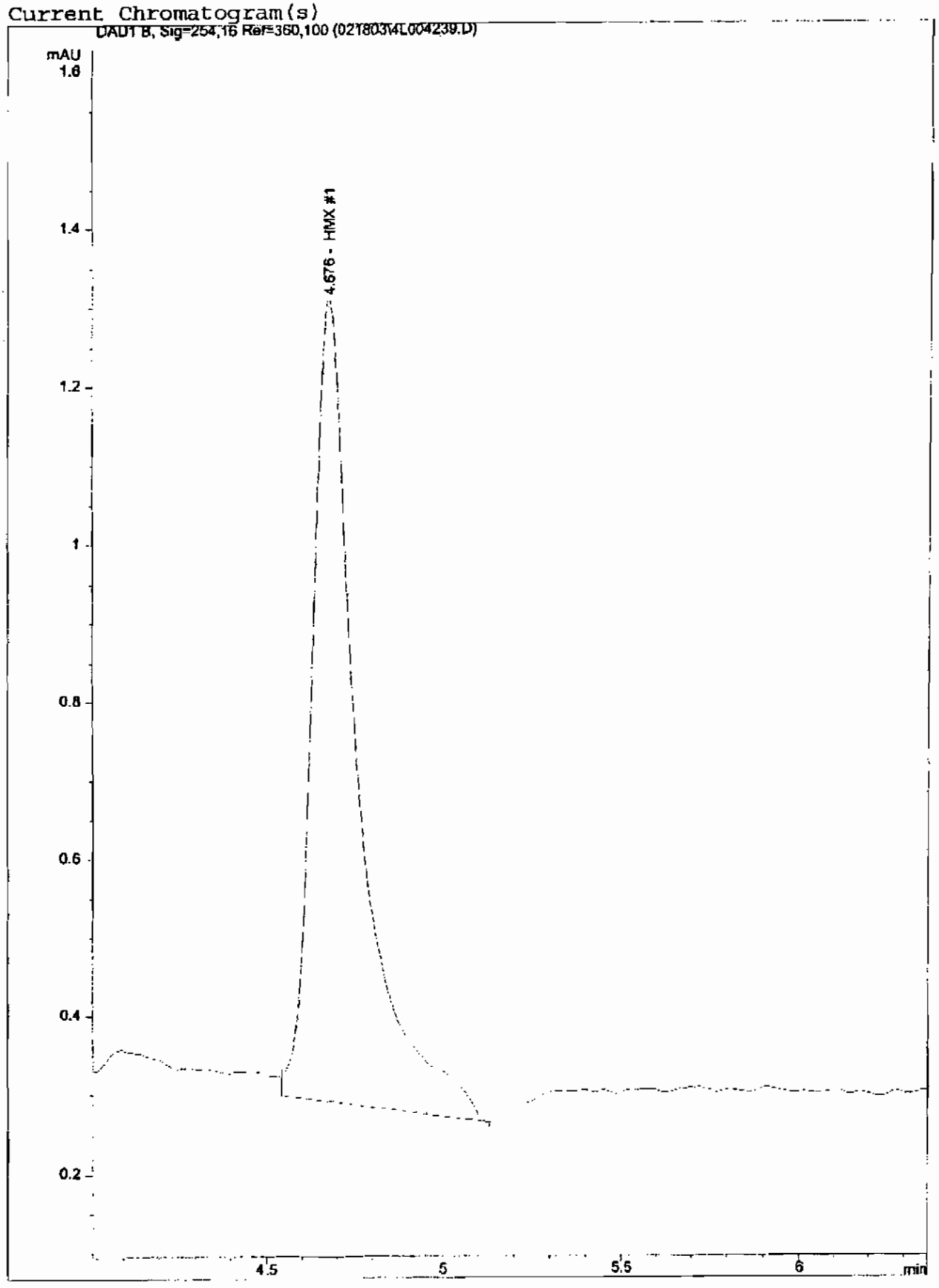
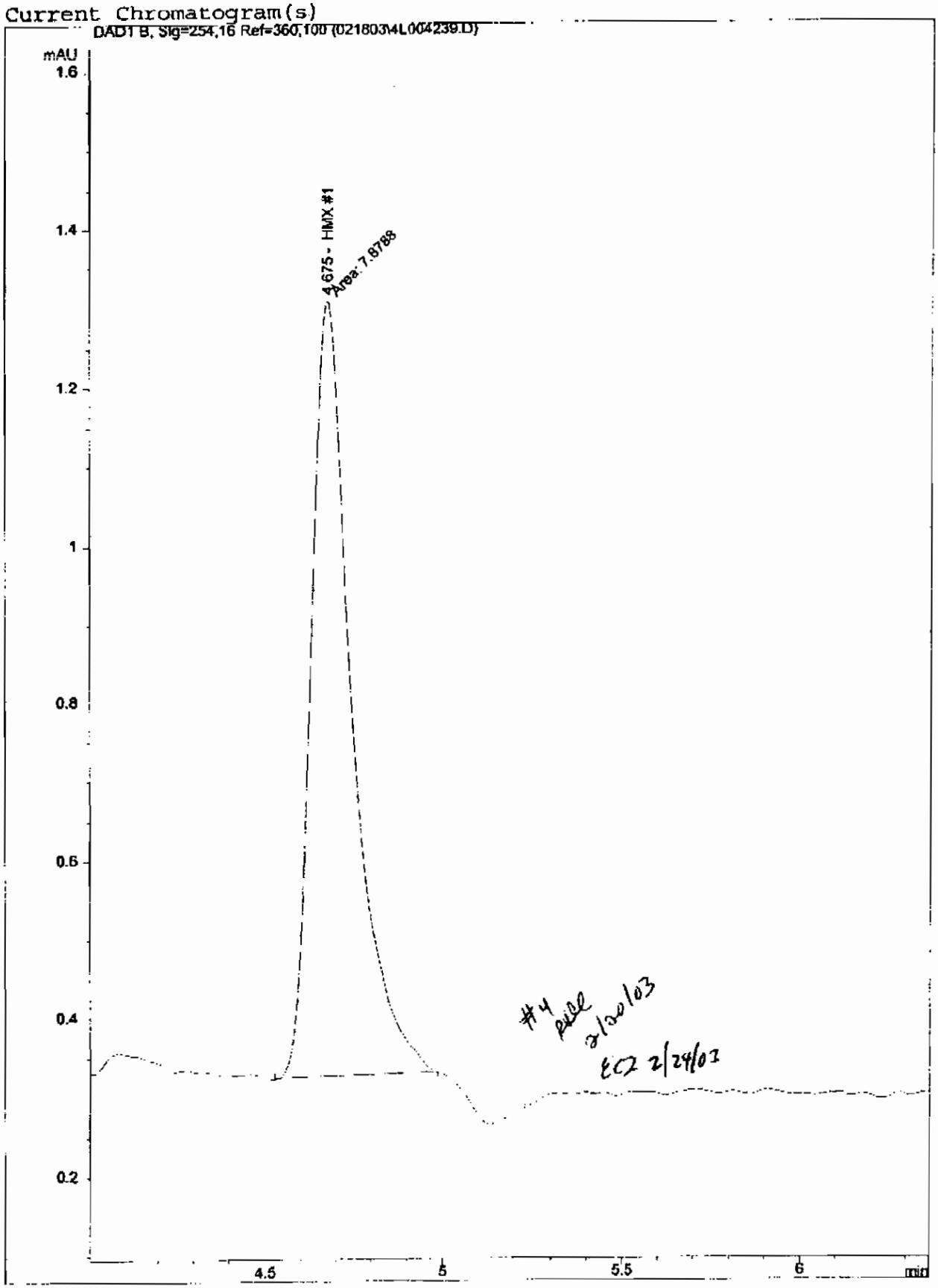


Current Chromatogram(s)

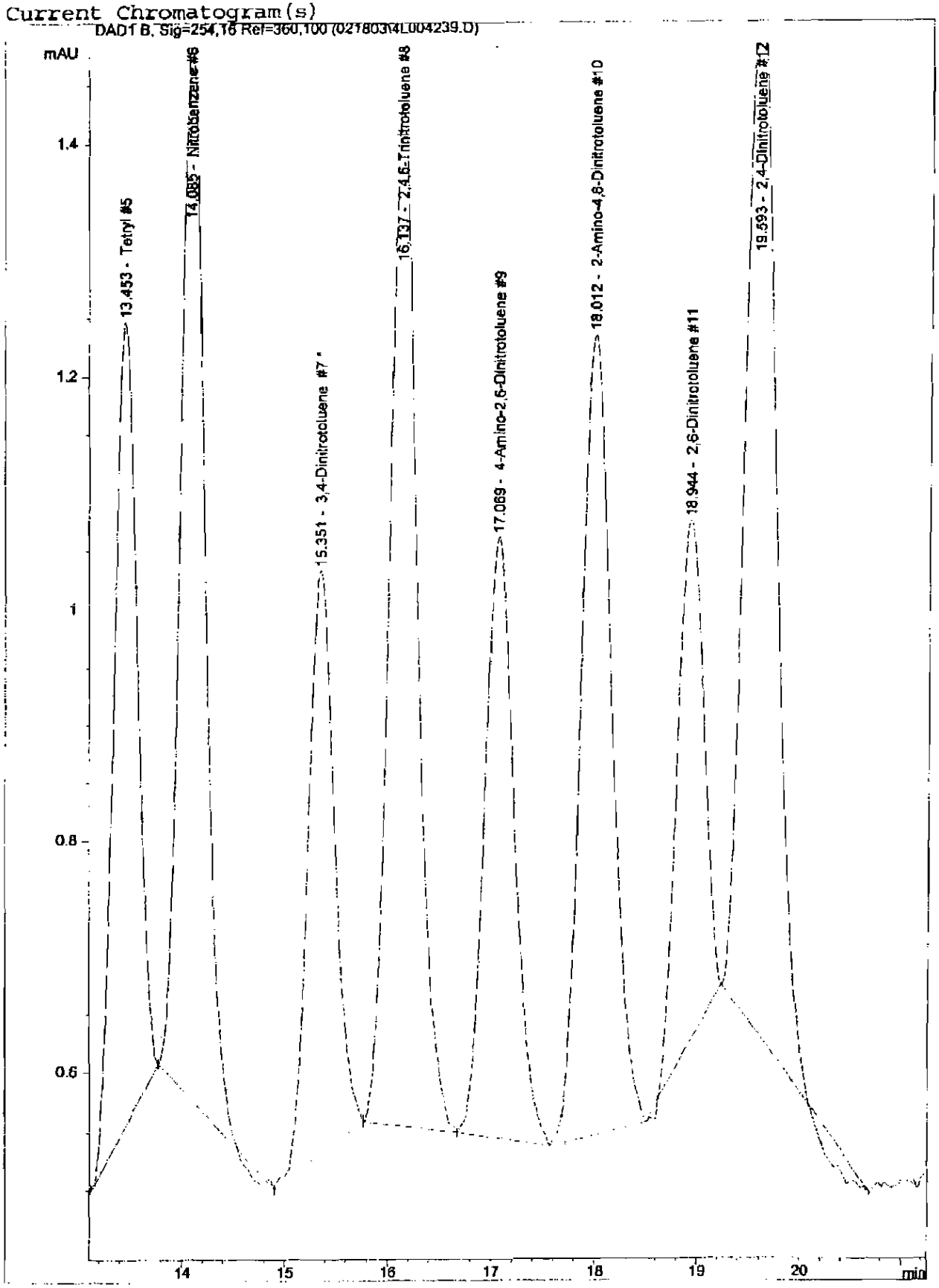


Current Chromatogram(s)

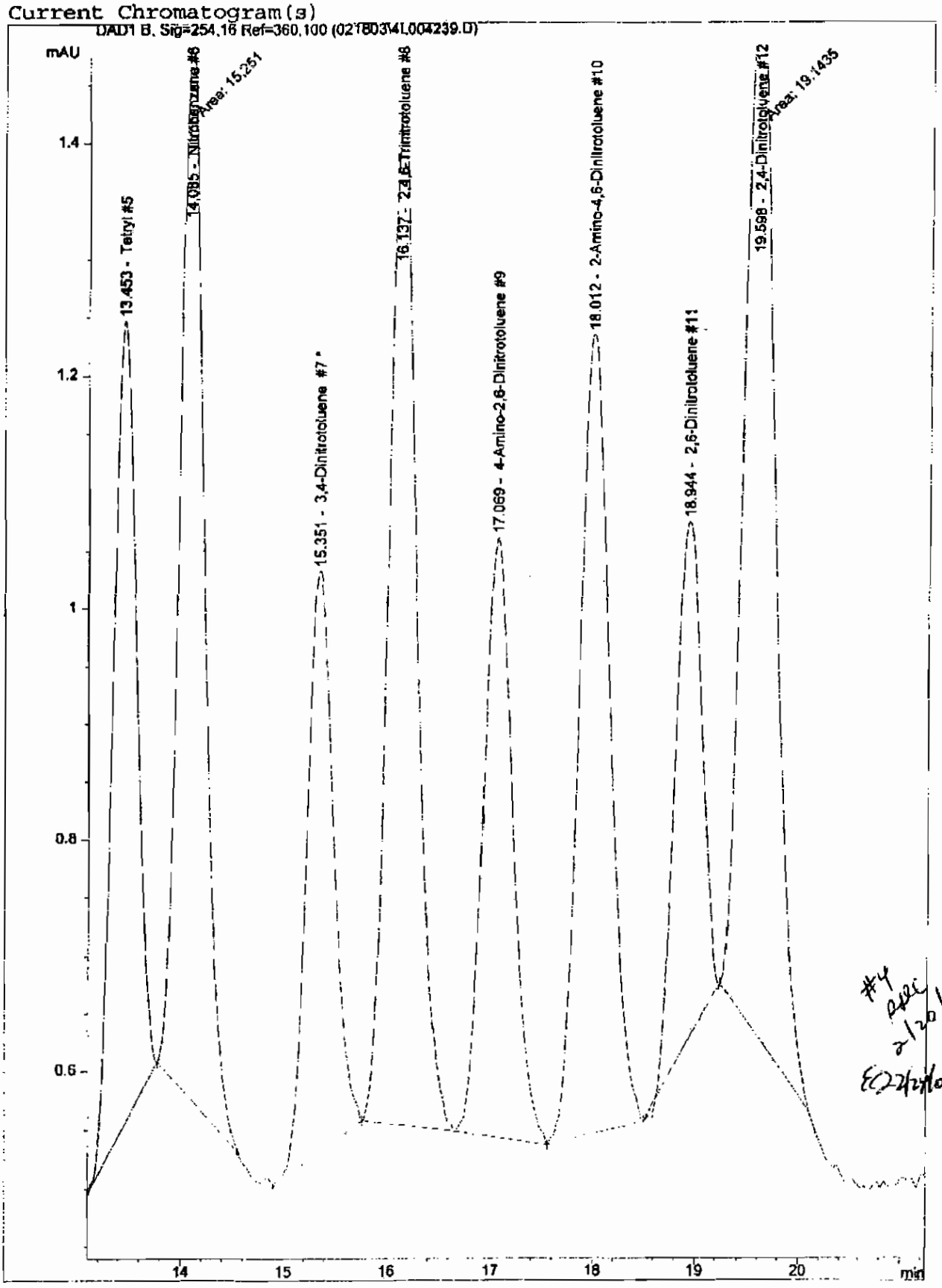


HPLC4 2/20/2003 11:32:17 AM RDC

Current Chromatogram(s)



Current Chromatogram(s)



#4 RDC 2/20/03 EQ2/24/03

HPLC4 2/20/2003 11:33:10 AM RDC

Page 1 of 1

1,1 30505 40 50 ppb

Injection Date : 2/18/2003 7:07:10 PM Seq. Line : 5
Sample Name : WG134632-04 STD3 Vial : 5
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl
Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 2/20/2003 11:33:23 AM by RDC
(modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, February 20, 2003 11:33:22 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

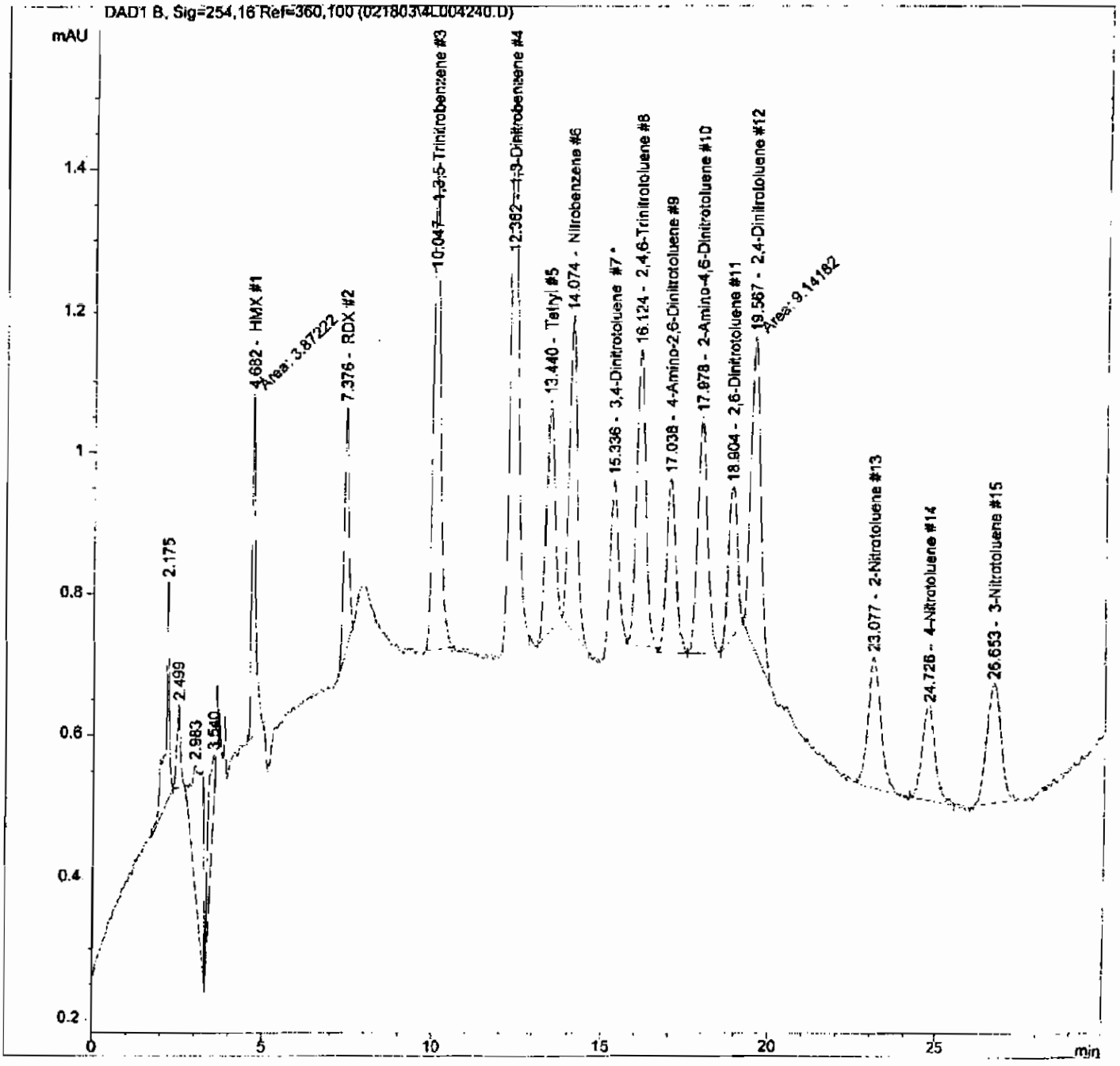
RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.675	MM	7.87880	6.20512	48.88889		HMX #1
7.366	PBA	8.24241	6.04214	49.80180		RDX #2
10.045	BBA	20.23009	2.43061	49.17151		1,3,5-Trinitrobenzene #3
12.365	BBA	27.80810	1.78428	49.61735		1,3-Dinitrobenzene #4
13.453	BB	10.96593	4.26713	46.79303		Tetryl #5
14.085	MM	15.25095	3.07992	46.97172		Nitrobenzene #6
15.351	BB	9.02714	5.51389	49.77469		3,4-Dinitrotoluene #7 *
16.137	BB	16.65866	2.89627	48.24794		2,4,6-Trinitrotoluene #8
17.069	BB	10.14995	4.71257	47.83231		4-Amino-2,6-Dinitrotoluen
18.012	BB	14.34515	3.27374	46.96226		2-Amino-4,6-Dinitrotoluen
18.944	BB	7.95253	5.48637	43.63056		2,6-Dinitrotoluene #11
19.598	MM	19.14354	2.43765	46.66516		2,4-Dinitrotoluene #12
23.124	BBA	9.84604	4.94460	48.68475		2-Nitrotoluene #13
24.759	BBA	7.37045	6.34328	46.75280		4-Nitrotoluene #14
26.732	BBA	10.80696	4.57619	49.45471		3-Nitrotoluene #15
Totals :				1088.58517		

Results obtained with enhanced integrator!

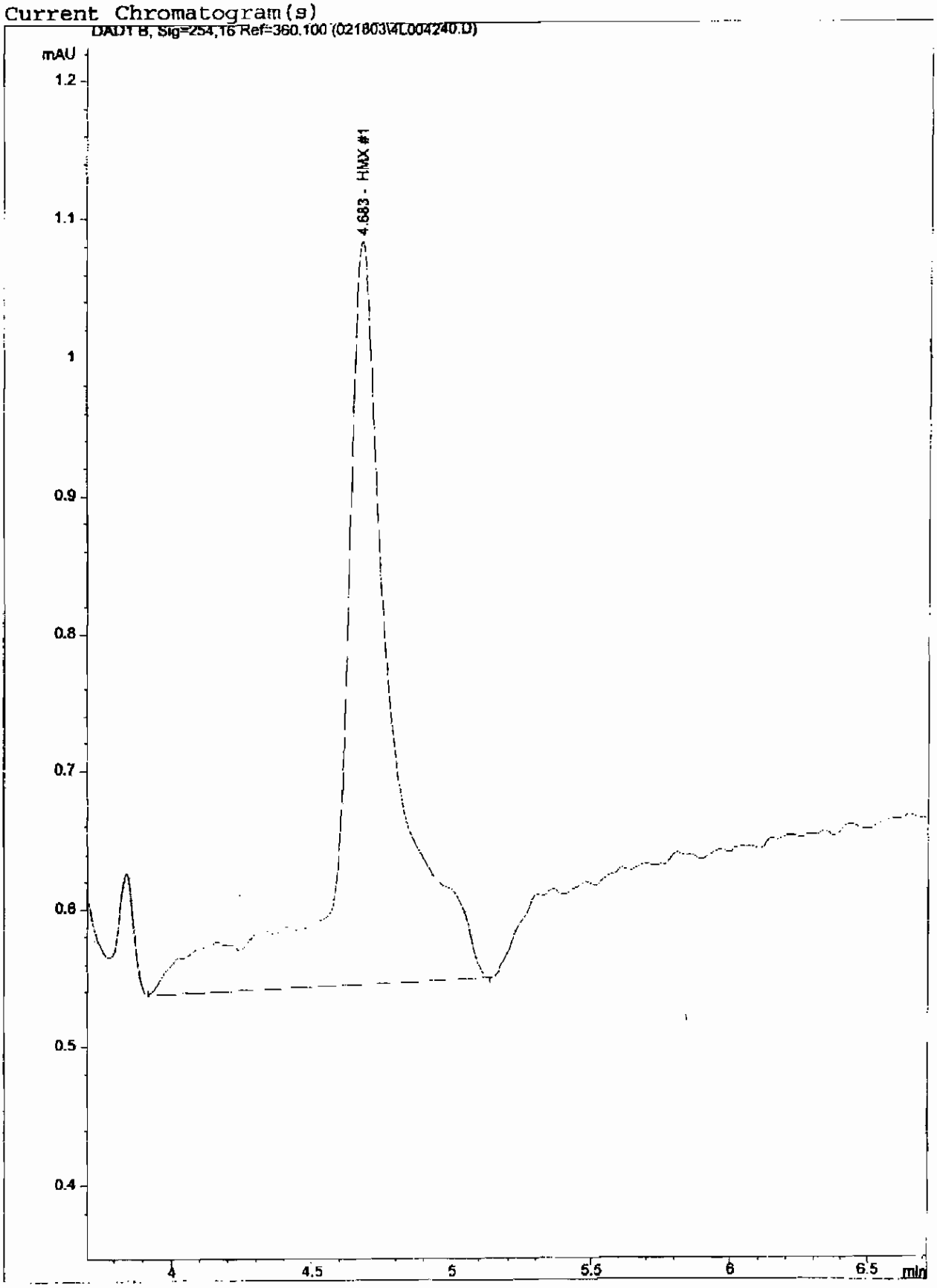
*** End of Report ***

Injection Date	: 2/18/2003 7:59:22 PM	Seq. Line	: 6
Sample Name	: WG134632-05 STD2	Vial	: 6
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 100 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8330.M		
Last changed	: 2/18/2003 12:04:02 PM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\833GRDDA.M		
Last changed	: 2/20/2003 11:34:48 AM by RDC (modified after loading)		

8330 CALIBRATION 02/18/2003 @ 20:51

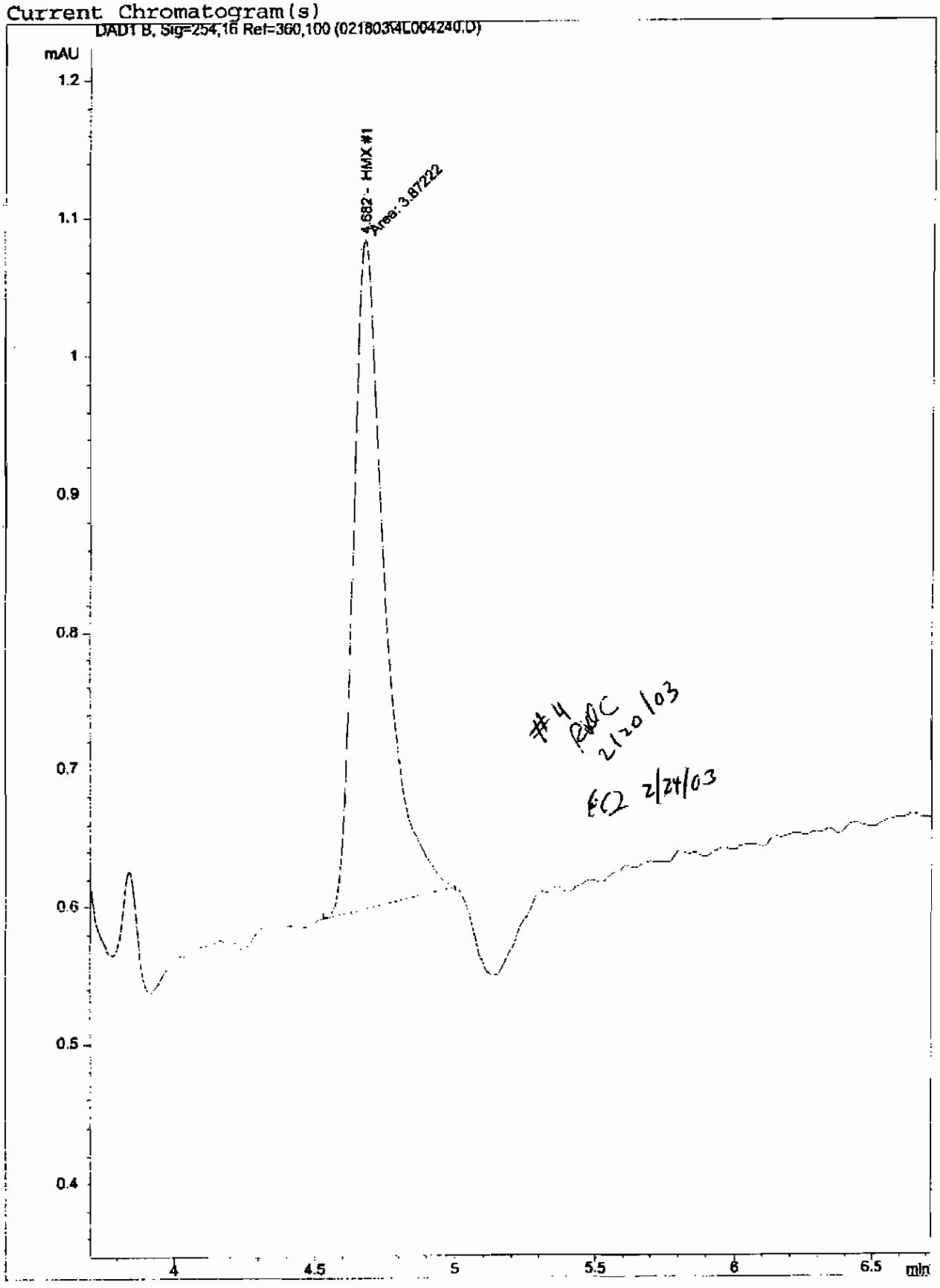


Current Chromatogram(s)



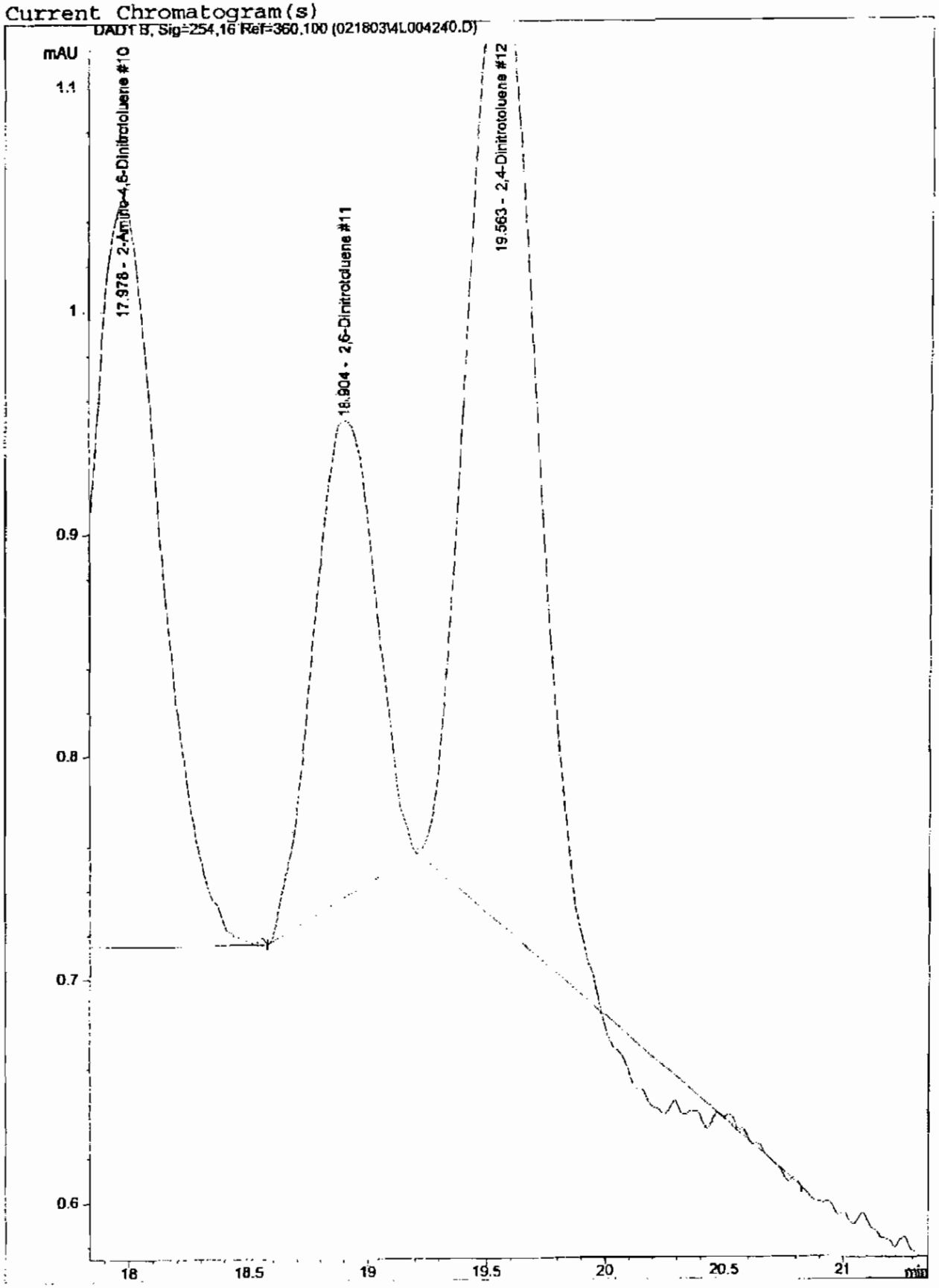
HPLC4 2/20/2003 11:33:45 AM RDC

Current Chromatogram(s)

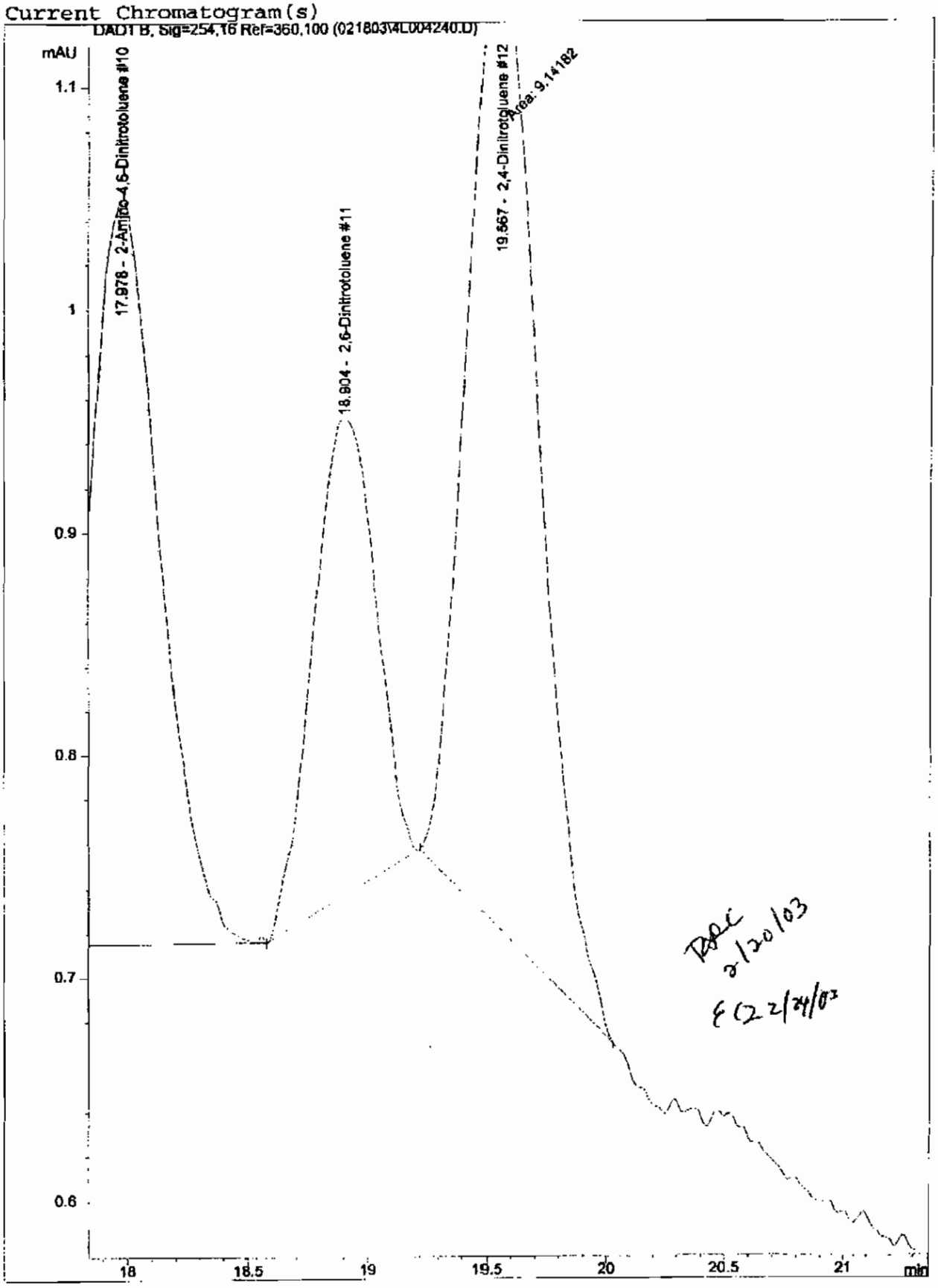


HPLC4 2/20/2003 11:34:03 AM RDC

Current Chromatogram(s)



Current Chromatogram(s)



HPLC4 2/20/2003 11:34:35 AM RDC

1,1 [illegible] 25 ppb

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Injection Date : 2/18/2003 7:59:22 PM Seq. Line : 6
Sample Name : WG134632-05 STD2 Vial : 6
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl

Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 2/20/2003 11:34:48 AM by RDC
(modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51

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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Thursday, February 20, 2003 11:34:47 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.682	MM	3.87222	6.29799	24.38717		HMX #1
7.376	PB	3.51806	7.24367	25.48368		RDX #2
10.047	BBA	9.82855	2.51880	24.75619		1,3,5-Trinitrobenzene #3
12.362	BBA	13.00616	1.81766	23.64075		1,3-Dinitrobenzene #4
13.440	PB	5.17884	4.43722	22.97966		Tetryl #5
14.074	BBA	7.37362	3.15223	23.24338		Nitrobenzene #6
15.336	PB	4.26109	5.76761	24.57630		3,4-Dinitrotoluene #7 *
16.124	BBA	7.92469	3.05359	24.19879		2,4,6-Trinitrotoluene #8
17.038	PB	4.86699	4.97218	24.19952		4-Amino-2,6-Dinitrotoluen
17.978	BB	6.92072	3.55748	24.62033		2-Amino-4,6-Dinitrotoluen
18.904	BB	3.93634	6.06611	23.87827		2,6-Dinitrotoluene #11
19.567	MM	9.14182	2.61760	23.92962		2,4-Dinitrotoluene #12
23.077	PBA	4.87716	5.13603	25.04922		2-Nitrotoluene #13
24.726	BBA	3.77656	6.68417	25.24318		4-Nitrotoluene #14
26.653	BBA	4.88135	4.94796	24.15274		3-Nitrotoluene #15

Totals : 735.34504

Results obtained with enhanced integrator!

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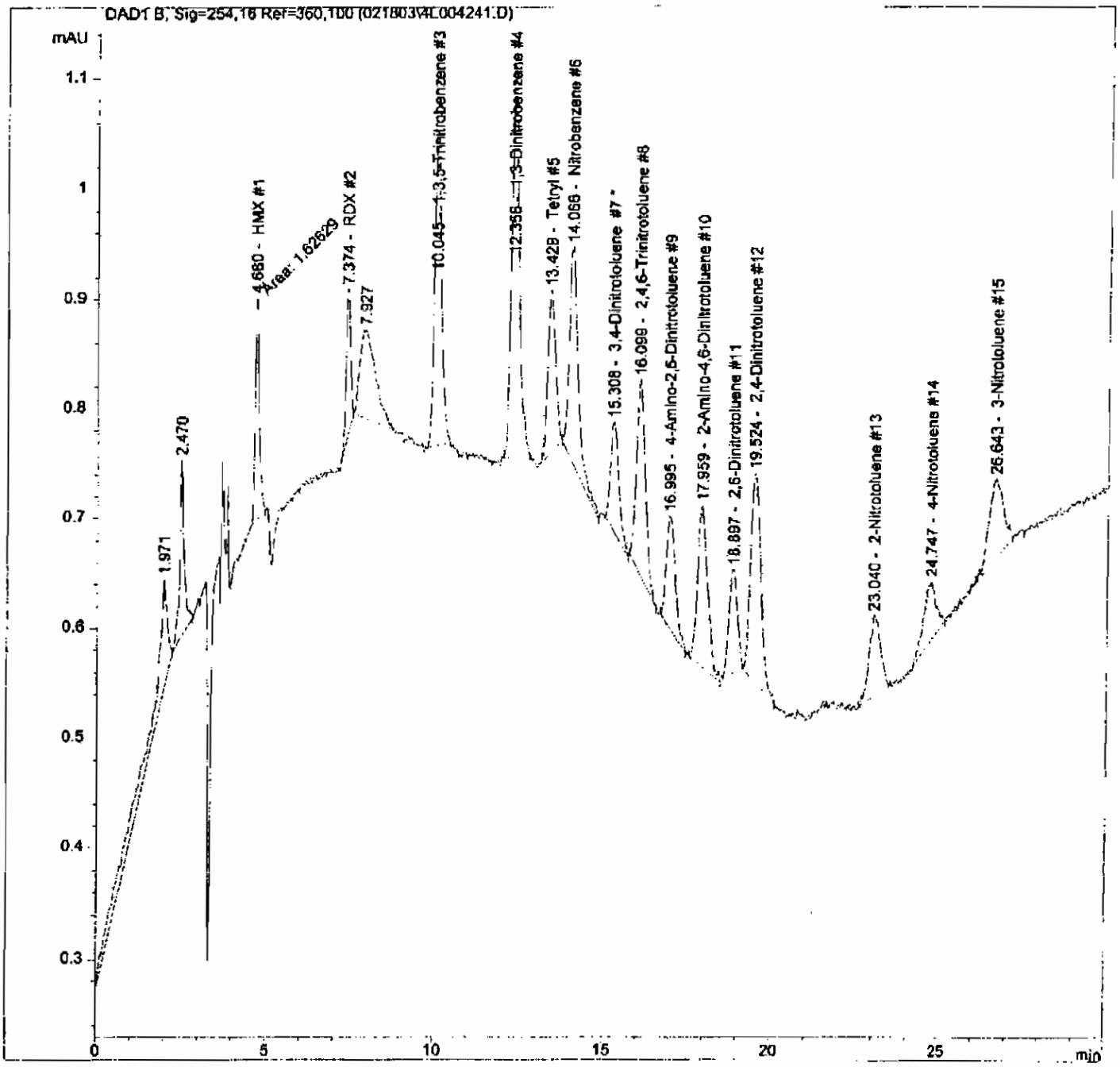
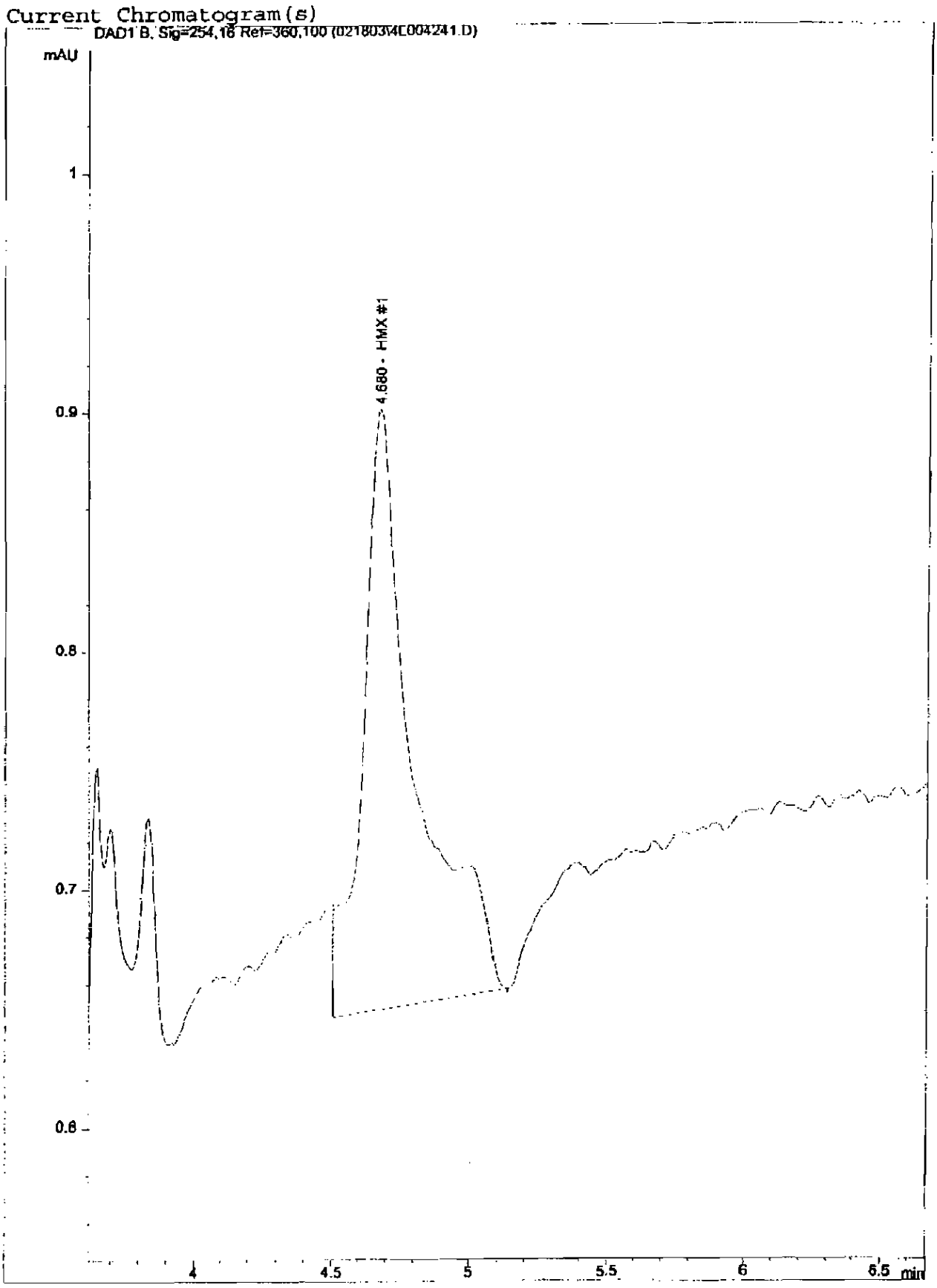
*** End of Report ***

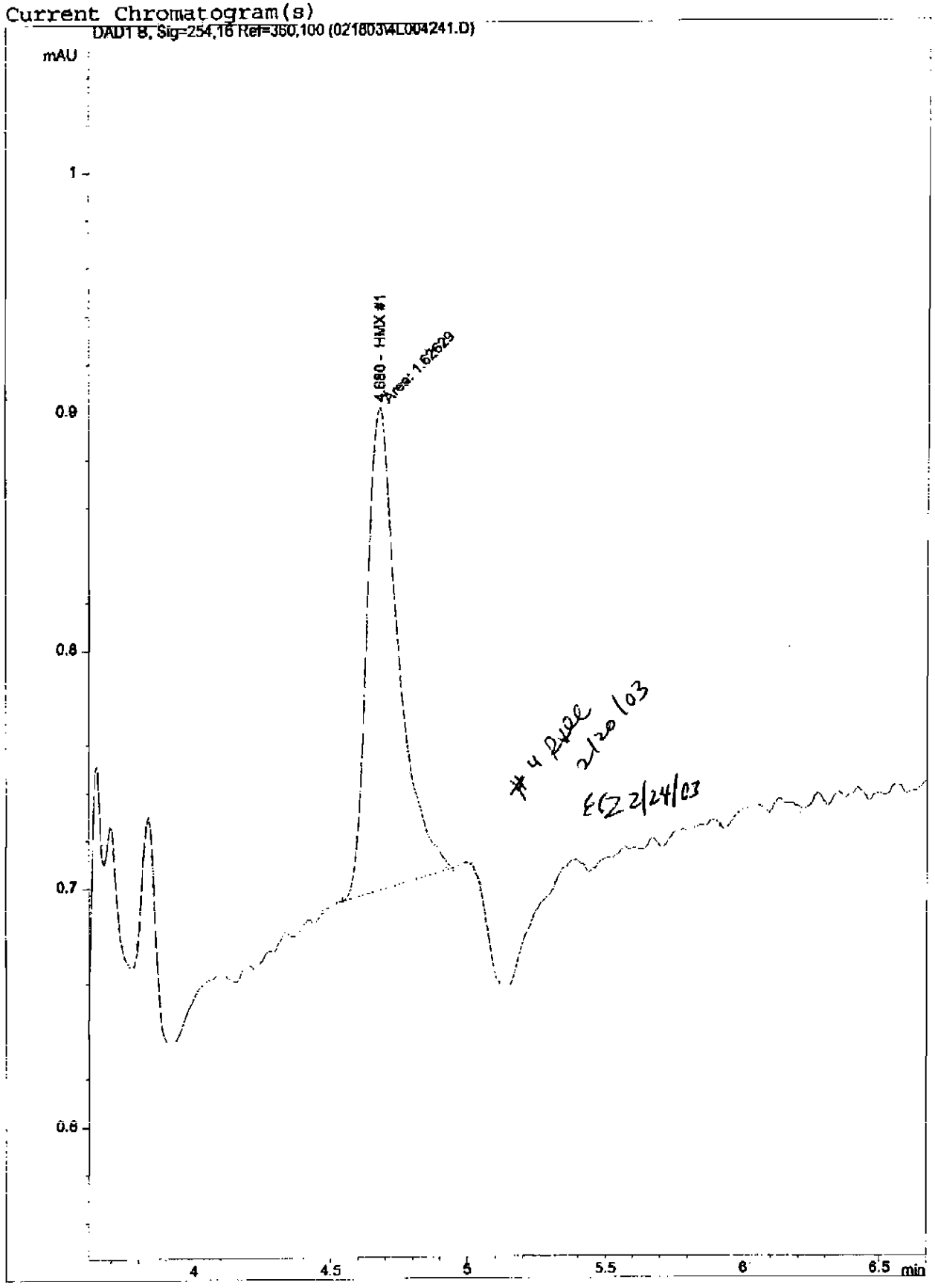
Injection Date	: 2/18/2003 8:51:33 PM	Seq. Line :	7
Sample Name	: WG134632-06 STD1	Vial :	7
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	100 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8330.M		
Last changed	: 2/18/2003 12:04:02 PM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\833GRDDA.M		
Last changed	: 2/20/2003 11:35:48 AM by RDC (modified after loading)		

8330 CALIBRATION 02/18/2003 @ 20:51




Current Chromatogram(s)
DAD1 B, Sig=254,16 Ref=360,100 (021803\4L004241.D)
mAU
1
0.9
0.8
0.7
0.6
4.680 - HMX #1
4
4.5
5
5.5
6
6.5 min

Current Chromatogram(s)



Injection Date : 2/18/2003 8:51:33 PM Seq. Line : 7
Sample Name : WG134632-06 STD1 Vial : 7
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl

Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 2/20/2003 11:35:48 AM by RDC
(modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, February 20, 2003 11:35:47 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.680	MM	1.62629	6.56493	10.67648		HMX #1
7.374	PB	1.25013	11.04664	13.80975		RDX #2
10.045	PBA	3.97026	2.78353	11.05135		1,3,5-Trinitrobenzene #3
12.356	BBA	5.48968	1.91582	10.51723		1,3-Dinitrobenzene #4
13.429	PB	2.26809	5.08296	11.52859		Tetryl #5
14.066	BBA	3.61898	3.38995	12.26817		Nitrobenzene #6
15.308	BBA	1.73188	6.26414	10.84876		3,4-Dinitrotoluene #7 *
16.099	BBA	3.25076	3.27769	10.65497		2,4,6-Trinitrotoluene #8
16.995	BBA	1.90637	4.98913	9.51115		4-Amino-2,6-Dinitrotoluen
17.959	BBA	2.98225	3.80468	11.34650		2-Amino-4,6-Dinitrotoluen
18.897	BB	1.68916	6.40964	10.82692		2,6-Dinitrotoluene #11
19.524	BBA	4.03158	2.87727	11.59993		2,4-Dinitrotoluene #12
23.040	PBA	1.70798	5.84690	9.98639		2-Nitrotoluene #13
24.747	BBA	1.46642	7.89502	11.57739		4-Nitrotoluene #14
26.643	BBA	2.11656	5.84082	12.36243		3-Nitrotoluene #15
Totals :				581.22760		

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

Data File C:\HPCHEM\2\DATA\021903\4L004244.D Sample Name: WG134632-07 ALT
HPLC4 2/20/2003 2:06:16 PM RDC

1,1 SOS63-29 50 ppb (remade from int.)

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

Compound	RT	Known Conc.	Cal. Conc.	%D
HMX #1	4.663	50.0	49.123	-1.8
RDX #2	7.346	50.0	49.442	-1.1
1,3,5-Trinitrobenzene #3	10.014	50.0	48.688	-2.6
1,3-Dinitrobenzene #4	12.324	50.0	49.492	-1.0
Tetryl #5	13.388	50.0	56.532	13.1
Nitrobenzene #6	14.040	50.0	50.614	1.2
3,4-Dinitrotoluene #7 *	15.284	50.0	48.345	-3.3
2,4,6-Trinitrotoluene #8	16.076	50.0	49.433	-1.1
4-Amino-2,6-Dinitrotolue	16.989	50.0	48.806	-2.4
2-Amino-4,6-Dinitrotolue	17.931	50.0	48.793	-2.4
2,6-Dinitrotoluene #11	18.874	50.0	50.056	0.1
2,4-Dinitrotoluene #12	19.526	50.0	50.338	0.7
2-Nitrotoluene #13	23.052	50.0	49.033	-1.9
4-Nitrotoluene #14	24.683	50.0	50.131	0.3
3-Nitrotoluene #15	26.619	50.0	49.353	-1.3

= Failed 15.0% Criteria

```
Injection Date  : 2/19/2003 11:00:59 AM          Seq. Line :   2
Sample Name     : WG134632 07 ALT                    Vial :   2
Acq. Operator   : RDC                                Inj :   1
                                                Inj Volume : 100 µl
Acq. Method     : C:\HPCHEM\2\METHODS\8330.M
Last changed    : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed    : 2/20/2003 11:35:48 AM by RDC
8330 CALIBRATION 02/18/2003 @ 20:51
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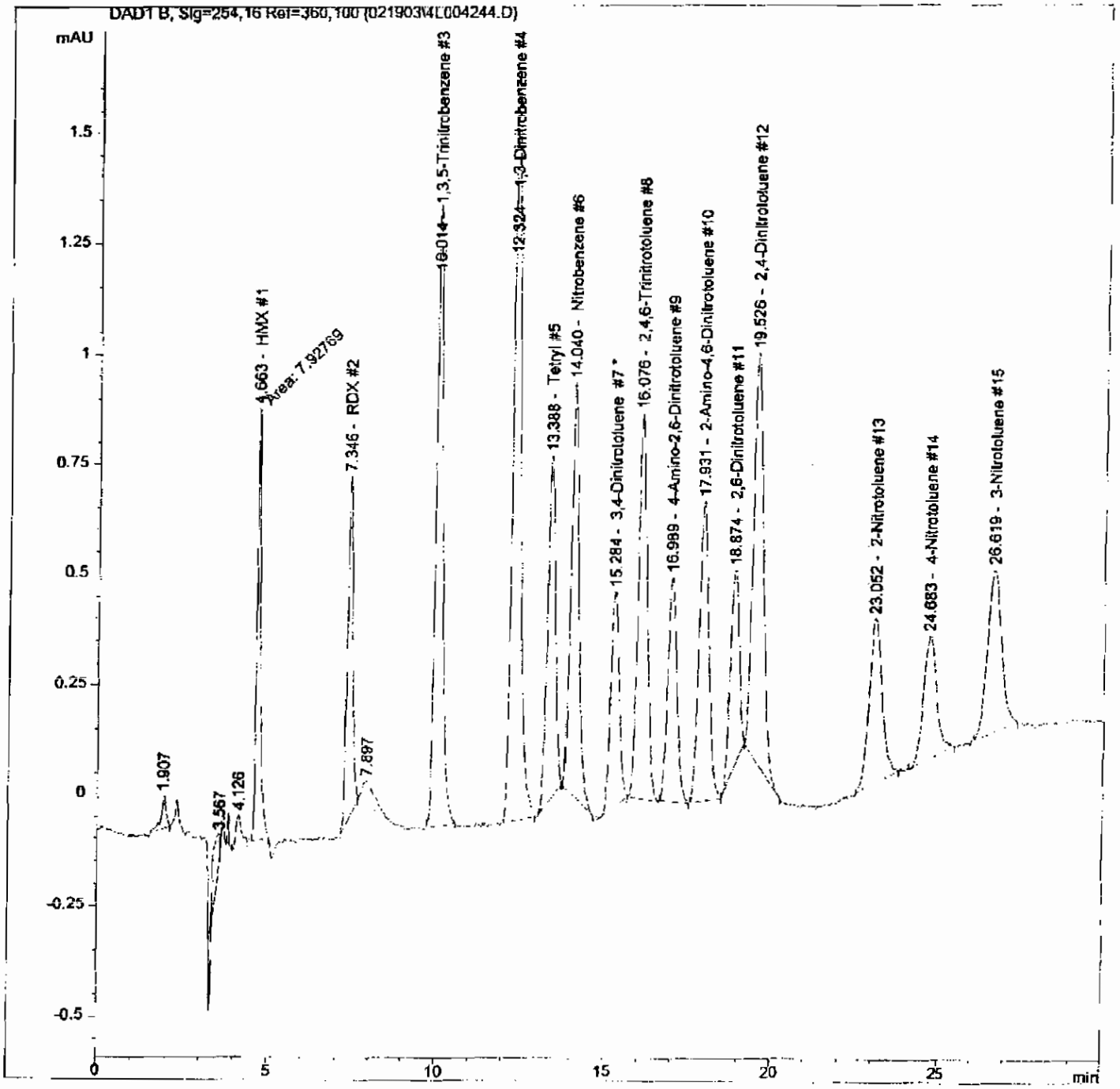
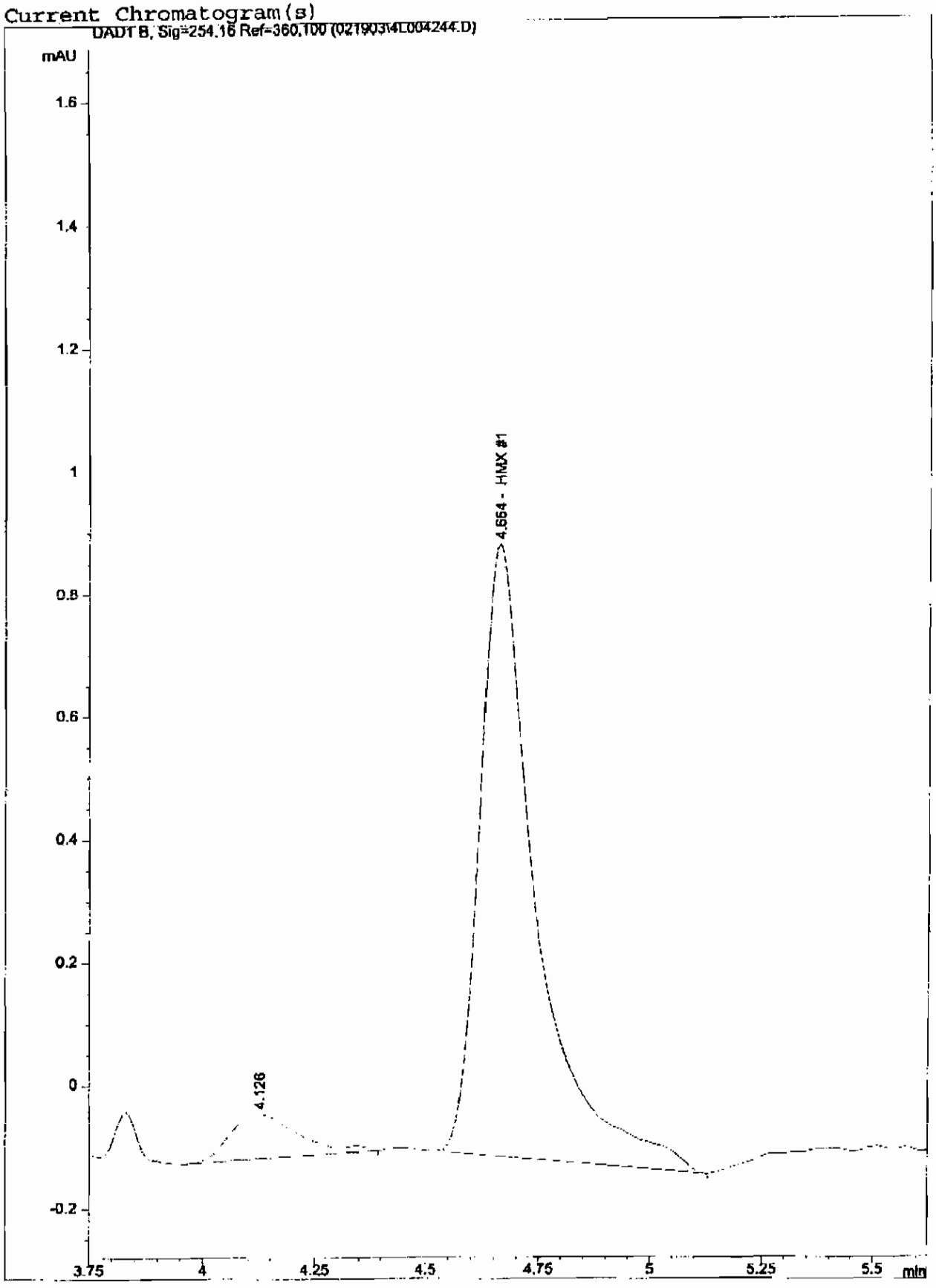
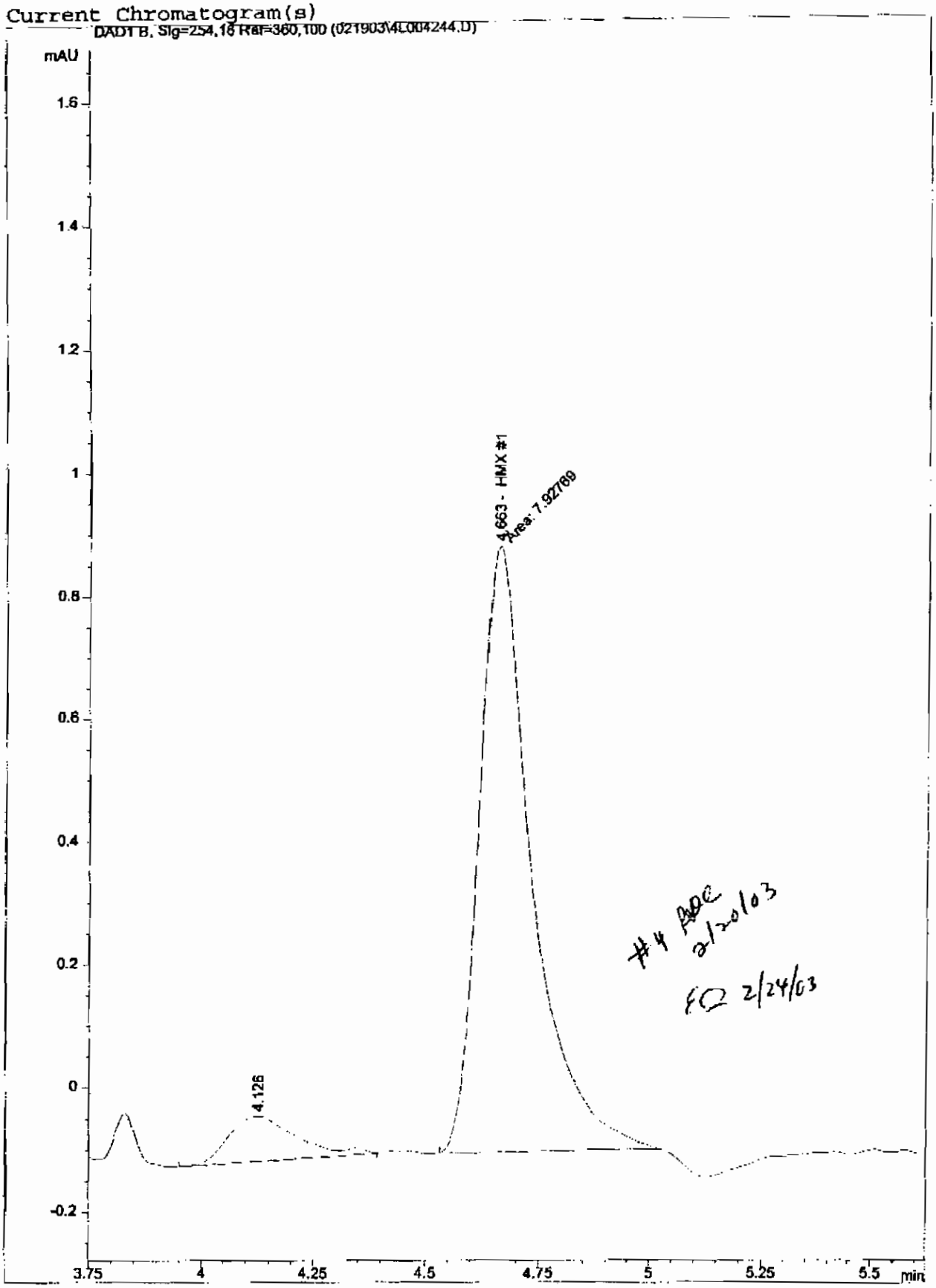


Current Chromatogram(s)



HPLC4 2/20/2003 2:05:53 PM RDC

Current Chromatogram(s)



#4 RDC 2/20/03

FO 2/24/03

HPLC4 2/20/2003 2:06:12 PM RDC

1,1 SOS63-29 50 ppb (remade from Int.)

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Injection Date : 2/19/2003 11:00:59 AM Seq. Line : 2
Sample Name : WG134632-07 ALT Vial : 2
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl

Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 2/20/2003 11:35:48 AM by RDC
8330 CALIBRATION 02/18/2003 @ 20:51

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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Thursday, February 20, 2003 11:35:47 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.663	MM	7.92769	6.19644	49.12349		HMX #1
7.346	PB	8.17246	6.04980	49.44174		RDX #2
10.014	BBA	19.94851	2.44066	48.68762		1,3,5-Trinitrobenzene #3
12.324	BBA	27.41241	1.80546	49.49212		1,3-Dinitrobenzene #4
13.388	BB	12.52979	4.51184	56.53242		Tetryl #5
14.040	BBA	15.72407	3.21887	50.61371		Nitrobenzene #6
15.284	PB	8.52731	5.66944	48.34504		3,4-Dinitrotoluene #7 *
16.076	BBA	16.47541	3.00042	49.43313		2,4,6-Trinitrotoluene #8
16.989	BBA	9.86163	4.94905	48.80570		4-Amino-2,6-Dinitrotoluen
17.931	BB	14.08814	3.46341	48.79303		2-Amino-4,6-Dinitrotoluen
18.874	BB	8.09520	6.18347	50.05642		2,6-Dinitrotoluene #11
19.526	BBA	19.51551	2.57941	50.33845		2,4-Dinitrotoluene #12
23.052	PBA	9.88504	4.96028	49.03250		2-Nitrotoluene #13
24.683	PBA	7.87748	6.36381	50.13077		4-Nitrotoluene #14
26.619	BBA	10.80950	4.56573	49.35328		3-Nitrotoluene #15

Totals : 1156.82242

Results obtained with enhanced integrator!

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*** End of Report ***

Check Standard Report

Data File C:\HPCHEM\2\DATA\031903\4L004509.D Sample Name: WG136561-01 CCV
HPLC4 3/20/2003 8:30:31 AM RDC

1,1 SOS64-02 50 ppb

Injection Date : 3/19/2003 12:50:28 PM Seq. Line : 2

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

Compound	RT	Known Conc.	Cal. Conc.	%D
HMX #1	4.650	50.0	49.092	-1.8
RDX #2	7.308	50.0	48.657	-2.7
1,3,5-Trinitrobenzene #3	9.907	50.0	50.075	0.1
1,3-Dinitrobenzene #4	12.181	50.0	49.738	-0.5
Tetryl #5	13.209	50.0	49.669	-0.7
Nitrobenzene #6	13.866	50.0	51.615	3.2
3,4-Dinitrotoluene #7 *	15.062	50.0	50.641	1.3
2,4,6-Trinitrotoluene #8	15.833	50.0	50.542	1.1
4-Amino-2,6-Dinitrotolue	16.875	50.0	50.894	1.8
2-Amino-4,6-Dinitrotolue	17.749	50.0	48.314	-3.4
2,6-Dinitrotoluene #11	18.579	50.0	48.699	-2.6
2,4-Dinitrotoluene #12	19.205	50.0	50.320	0.6
2-Nitrotoluene #13	22.681	50.0	50.195	0.4
4-Nitrotoluene #14	24.266	50.0	51.225	2.4
3-Nitrotoluene #15	26.166	50.0	49.985	0.0

= Failed 15.0% Criteria

1,1 SOS64-02 50 ppb

```
Injection Date   : 3/19/2003 12:50:28 PM          Seq. Line :   2
Sample Name      : WG136561-01 CCV                     Vial :   2
Acq. Operator    : RDC                                  Inj :   1
                                                Inj Volume : 100 µl

Acq. Method      : C:\HPCHEM\2\METHODS\8330.M
Last changed     : 2/18/2003 12:04:02 PM by RDC
Analysis Method  : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed     : 3/17/2003 9:43:48 AM by RDC
                   (modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51
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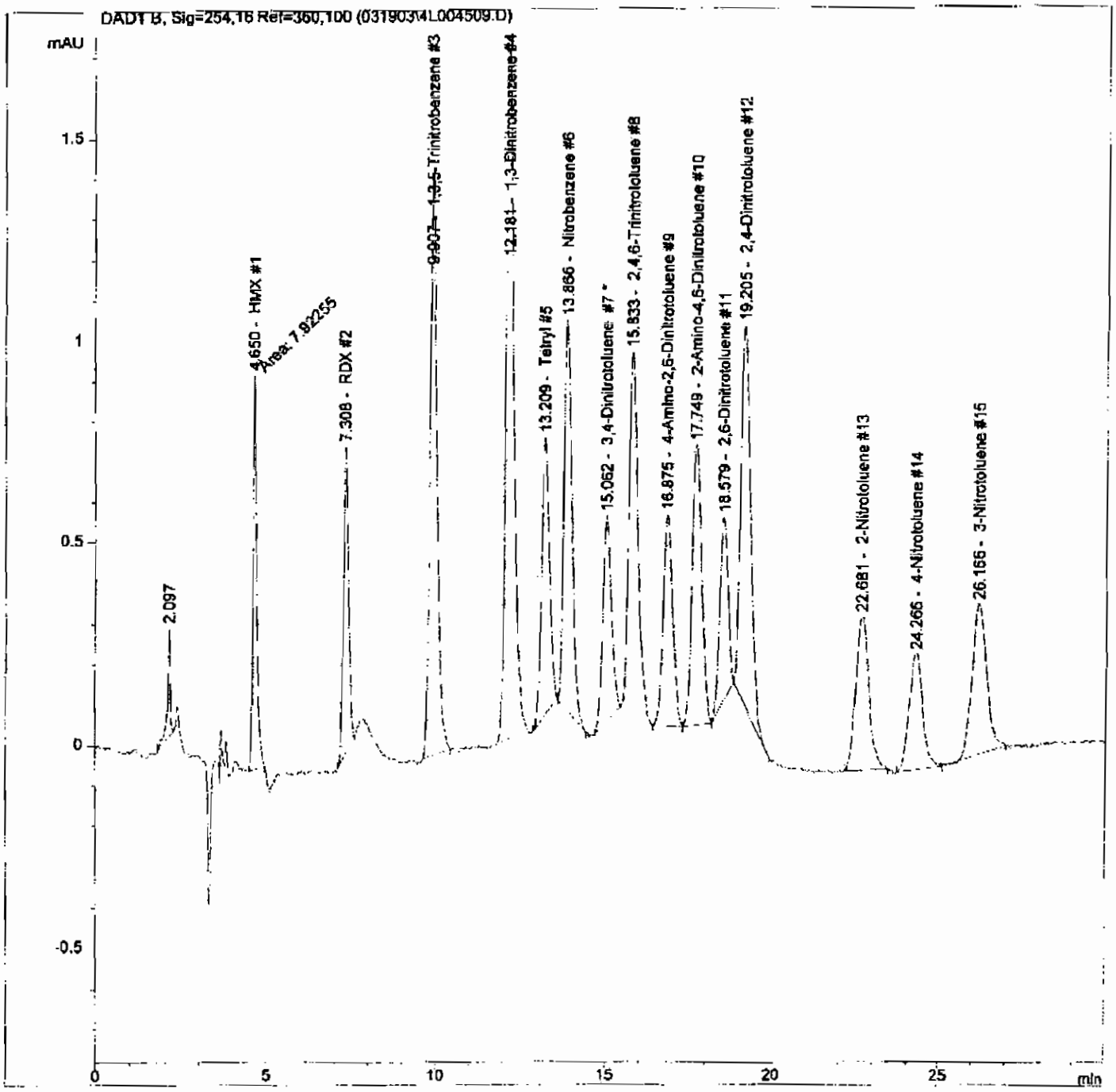
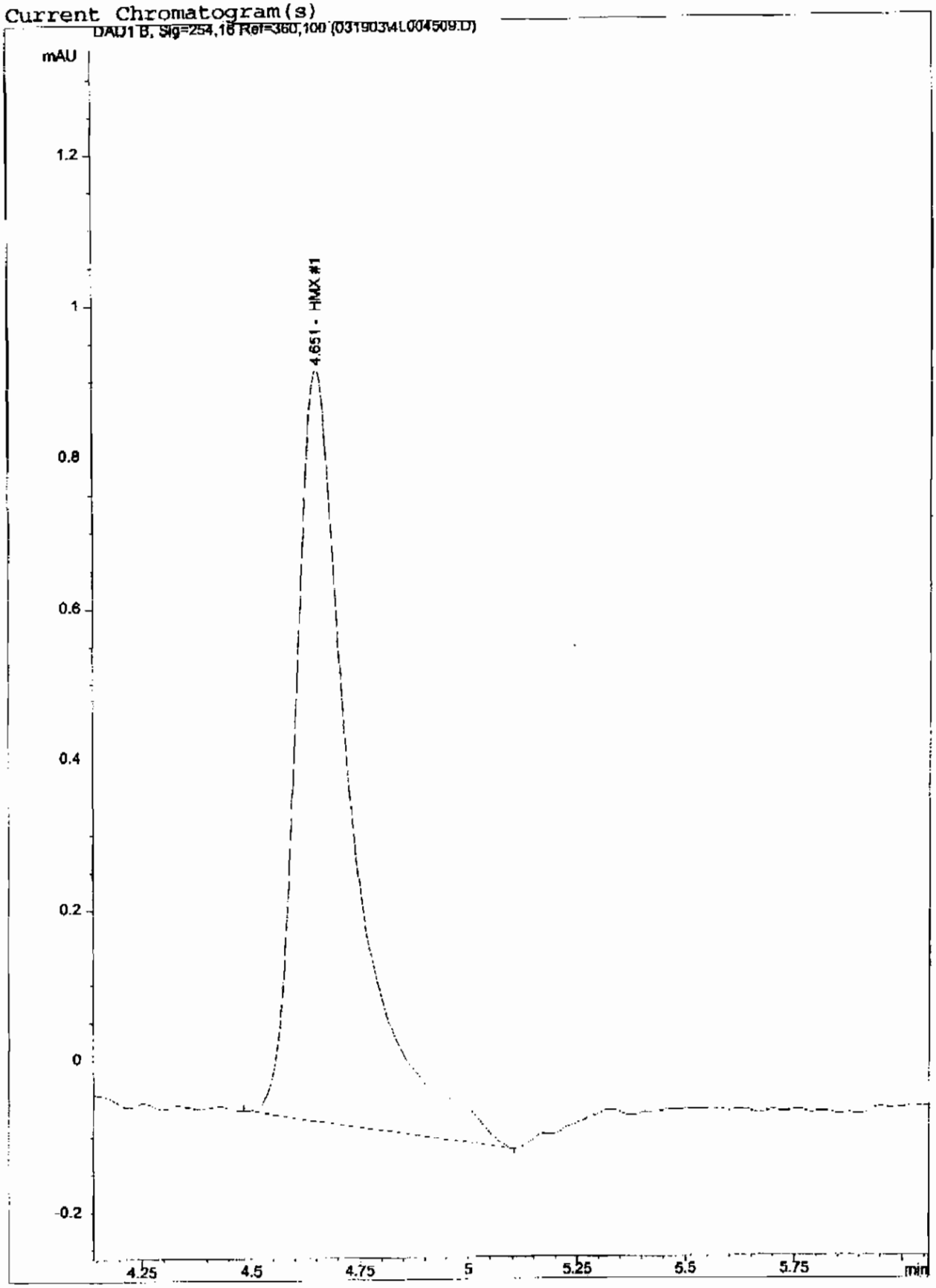
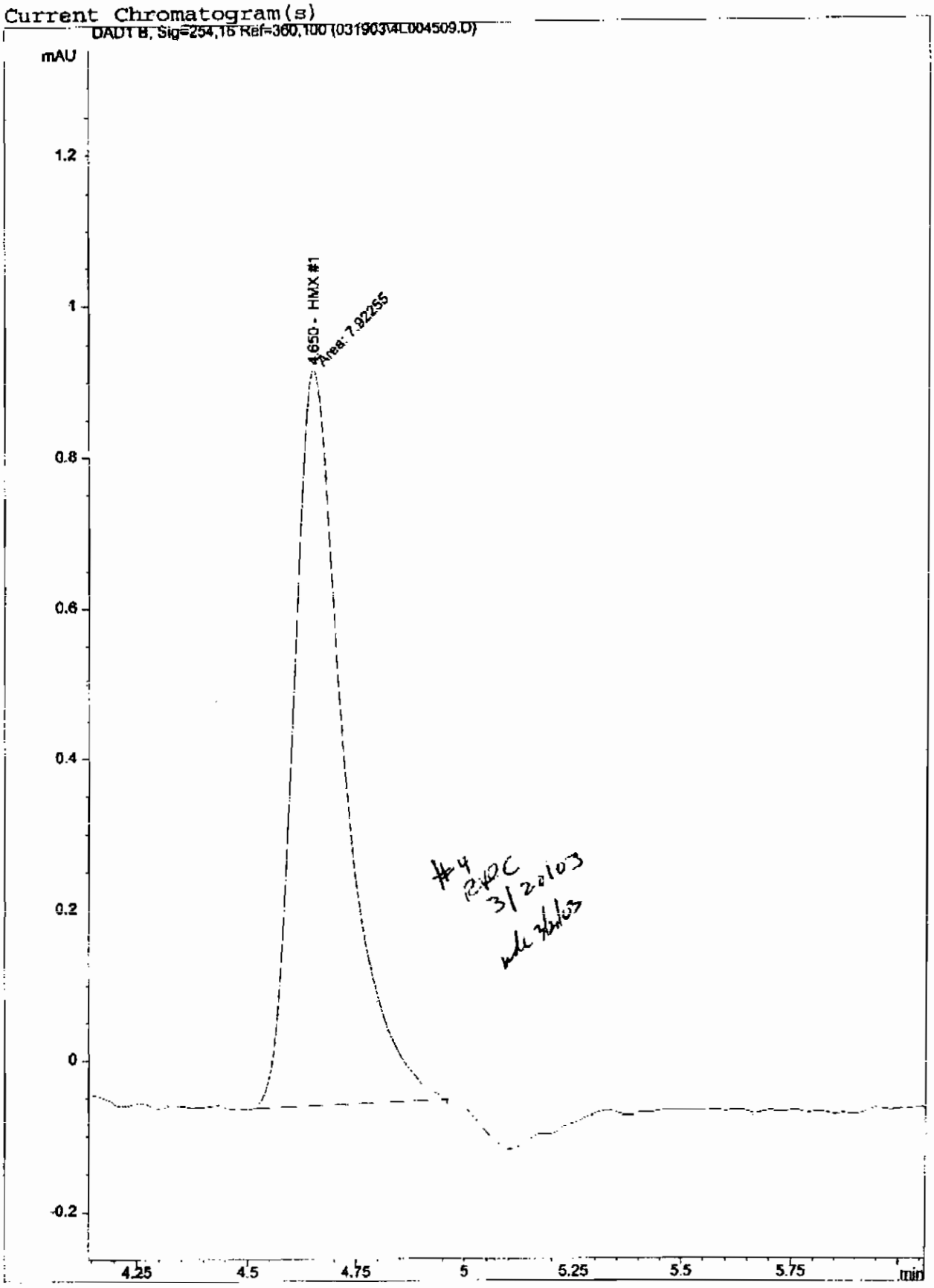


Current Chromatogram(s)



Current Chromatogram(s)



HPLC4 3/20/2003 8:30:24 AM RDC

1,1 30564-02 50 ppb

Injection Date : 3/19/2003 12:50:28 PM Seq. Line : 2
Sample Name : WG136561-01 CCV Vial : 2
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl

Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 3/17/2003 9:43:48 AM by RDC
(modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51

External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, March 17, 2003 9:43:48 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.650	MM	7.92255	6.19650	49.09214		HMX #1
7.308	PB	8.02008	6.06694	48.65740		RDX #2
9.907	BBA	20.53738	2.43822	50.07468		1,3,5-Trinitrobenzene #3
12.181	BBA	27.55051	1.80533	49.73765		1,3-Dinitrobenzene #4
13.209	BB	10.96481	4.52986	49.66906		Tetryl #5
13.866	BBA	16.04010	3.21786	51.61479		Nitrobenzene #6
15.062	PB	8.94345	5.66239	50.64126		3,4-Dinitrotoluene #7 *
15.833	BBA	16.85365	2.99889	50.54222		2,4,6-Trinitrotoluene #8
16.875	BB	10.28441	4.94865	50.89398		4-Amino-2,6-Dinitrotoluen
17.749	BB	13.94593	3.46434	48.31352		2-Amino-4,6-Dinitrotoluen
18.579	BB	7.87362	6.18515	48.69948		2,6-Dinitrotoluene #11
19.205	BBA	19.50808	2.57944	50.31985		2,4-Dinitrotoluene #12
22.681	BBA	10.12848	4.95582	50.19498		2-Nitrotoluene #13
24.266	PBA	8.05940	6.35591	51.22478		4-Nitrotoluene #14
26.166	BBA	10.95806	4.56152	49.98544		3-Nitrotoluene #15

Totals : 1038.19404

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

Data File C:\HPCHEM\2\DATA\031903\4L004516.D Sample Name: WG136561-02 CCV
HPLC4 3/20/2003 8:44:26 AM RDC

1,1 SOS64-02 50 ppb

Injection Date : 3/19/2003 7:24:50 PM Seq. Line : 9

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

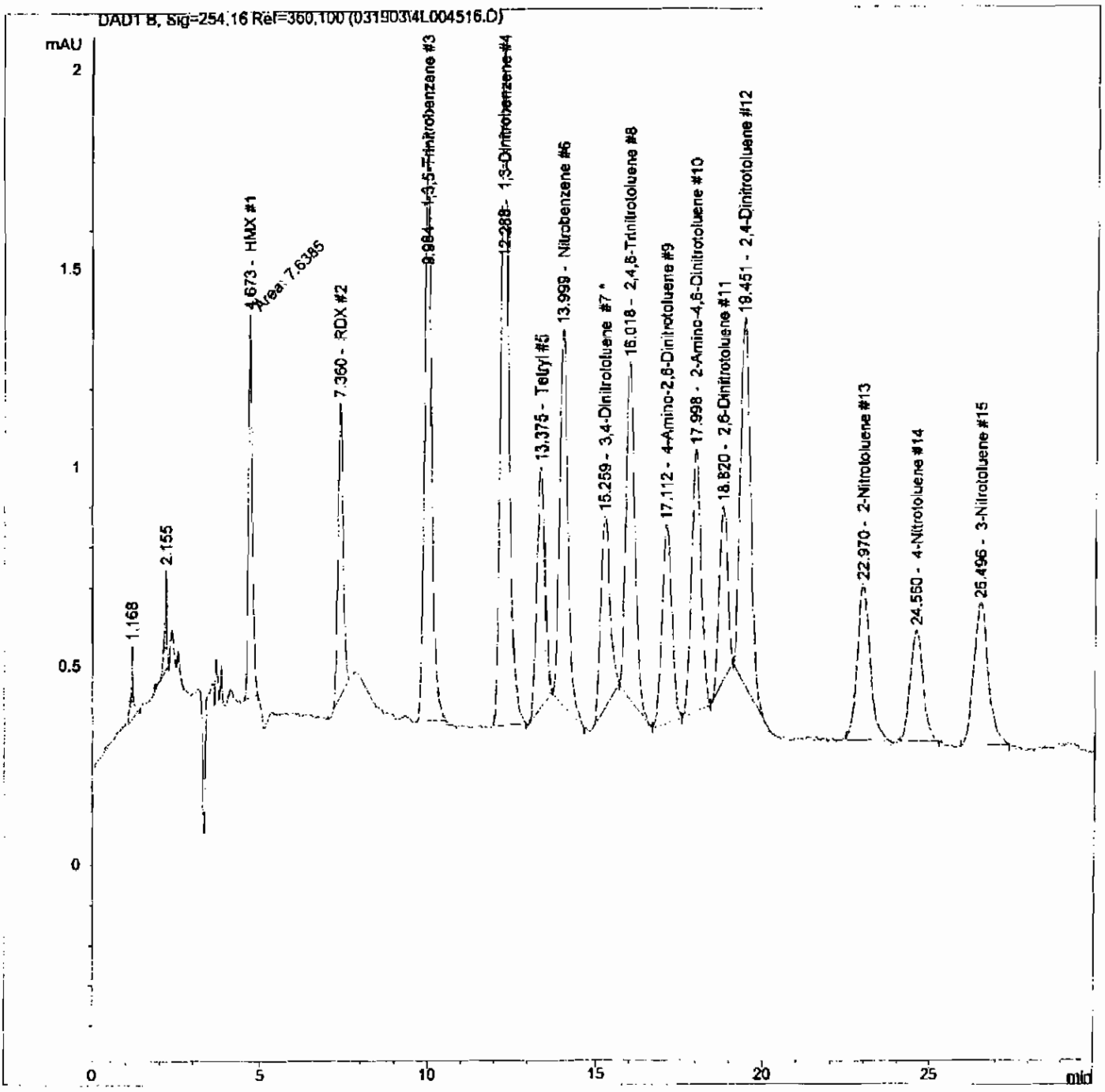
Compound	RT	Known Conc.	Cal. Conc.	%D
HMX #1	4.673	50.0	47.359	-5.3
RDX #2	7.360	50.0	47.895	-4.2
1,3,5-Trinitrobenzene #3	9.984	50.0	50.464	0.9
1,3-Dinitrobenzene #4	12.288	50.0	50.312	0.6
Tetryl #5	13.375	50.0	43.844	-12.3
Nitrobenzene #6	13.999	50.0	52.184	4.4
3,4-Dinitrotoluene #7 *	15.259	50.0	51.620	3.2
2,4,6-Trinitrotoluene #8	16.018	50.0	47.392	-5.2
4-Amino-2,6-Dinitrotolue	17.112	50.0	50.313	0.6
2-Amino-4,6-Dinitrotolue	17.998	50.0	46.714	-6.6
2,6-Dinitrotoluene #11	18.820	50.0	47.072	-5.9
2,4-Dinitrotoluene #12	19.451	50.0	49.370	-1.3
2-Nitrotoluene #13	22.970	50.0	52.309	4.6
4-Nitrotoluene #14	24.560	50.0	48.650	-2.7
-Nitrotoluene #15	26.496	50.0	50.105	0.2

= Failed 15.0% Criteria

1,1 30304 02 50 ppb

Injection Date	: 3/19/2003 7:24:50 PM	Seq. Line	: 9
Sample Name	: WG136561-02 CCV	Vial	: 9
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 100 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8330.M		
Last changed	: 2/18/2003 12:04:02 PM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\833GRDDA.M		
Last changed	: 3/20/2003 8:40:59 AM by RDC (modified after loading)		

8330 CALIBRATION 02/18/2003 @ 20:51



1,1 SOS64-02 50 ppb

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Injection Date   : 3/19/2003 7:24:50 PM                Seq. Line :    9
Sample Name      : WG136561-02 CCV                         Vial :    9
Acq. Operator    : RDC                                      Inj :    1
                                                    Inj Volume : 100 µl

Acq. Method      : C:\HPCHEM\2\METHODS\8330.M
Last changed     : 2/18/2003 12:04:02 PM by RDC
Analysis Method  : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed     : 3/20/2003 8:40:59 AM by RDC
                   (modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51
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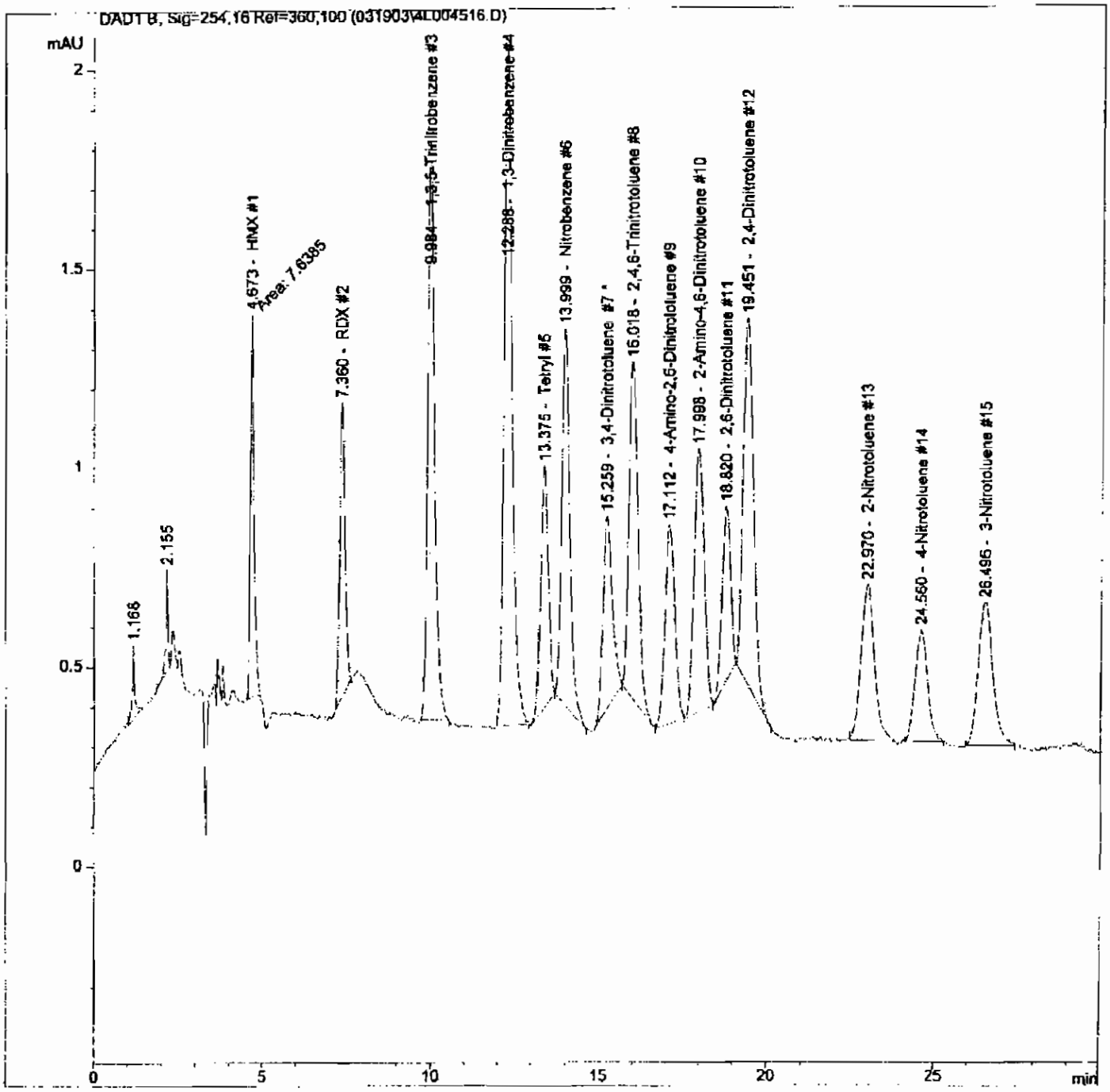
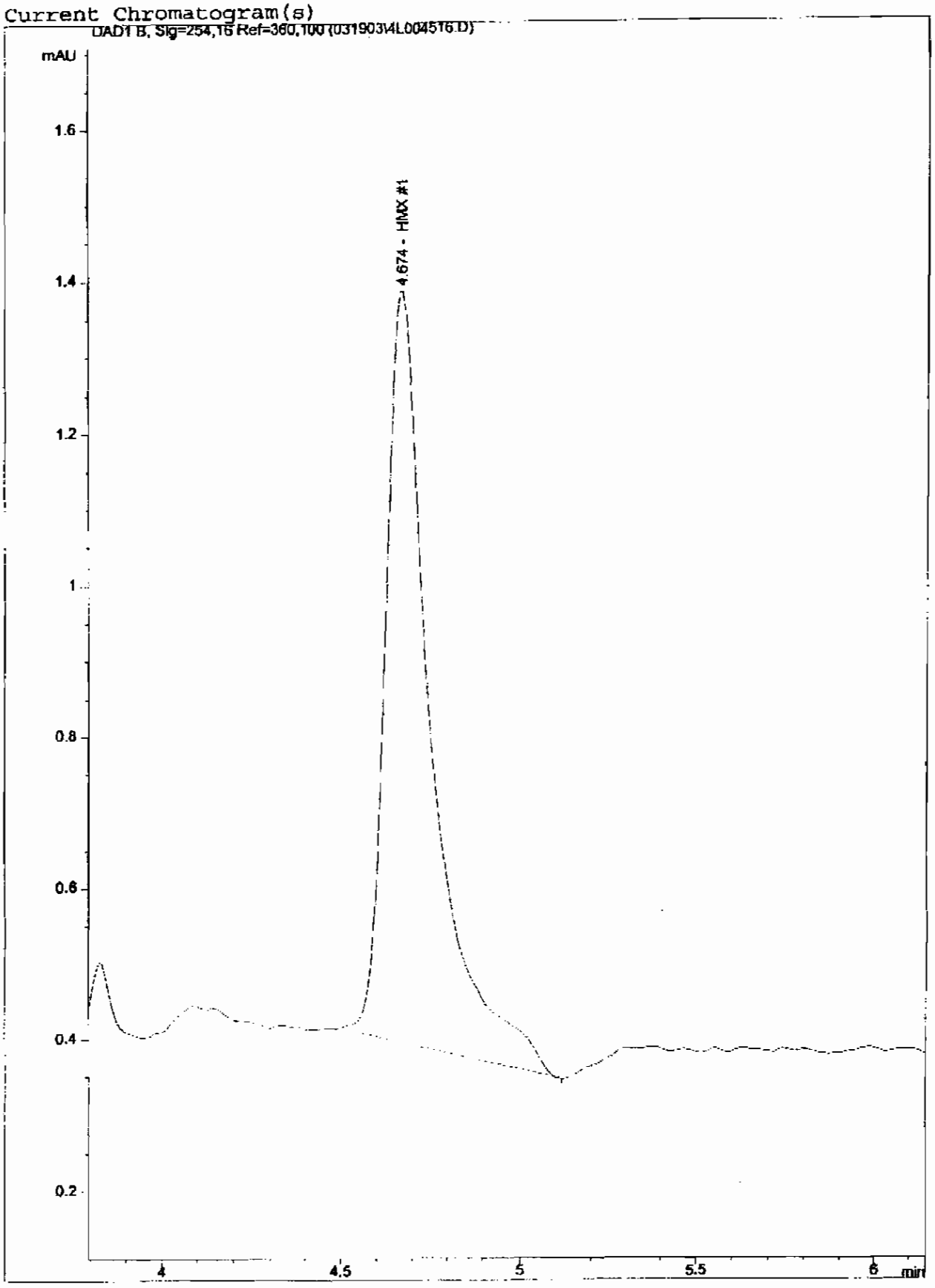
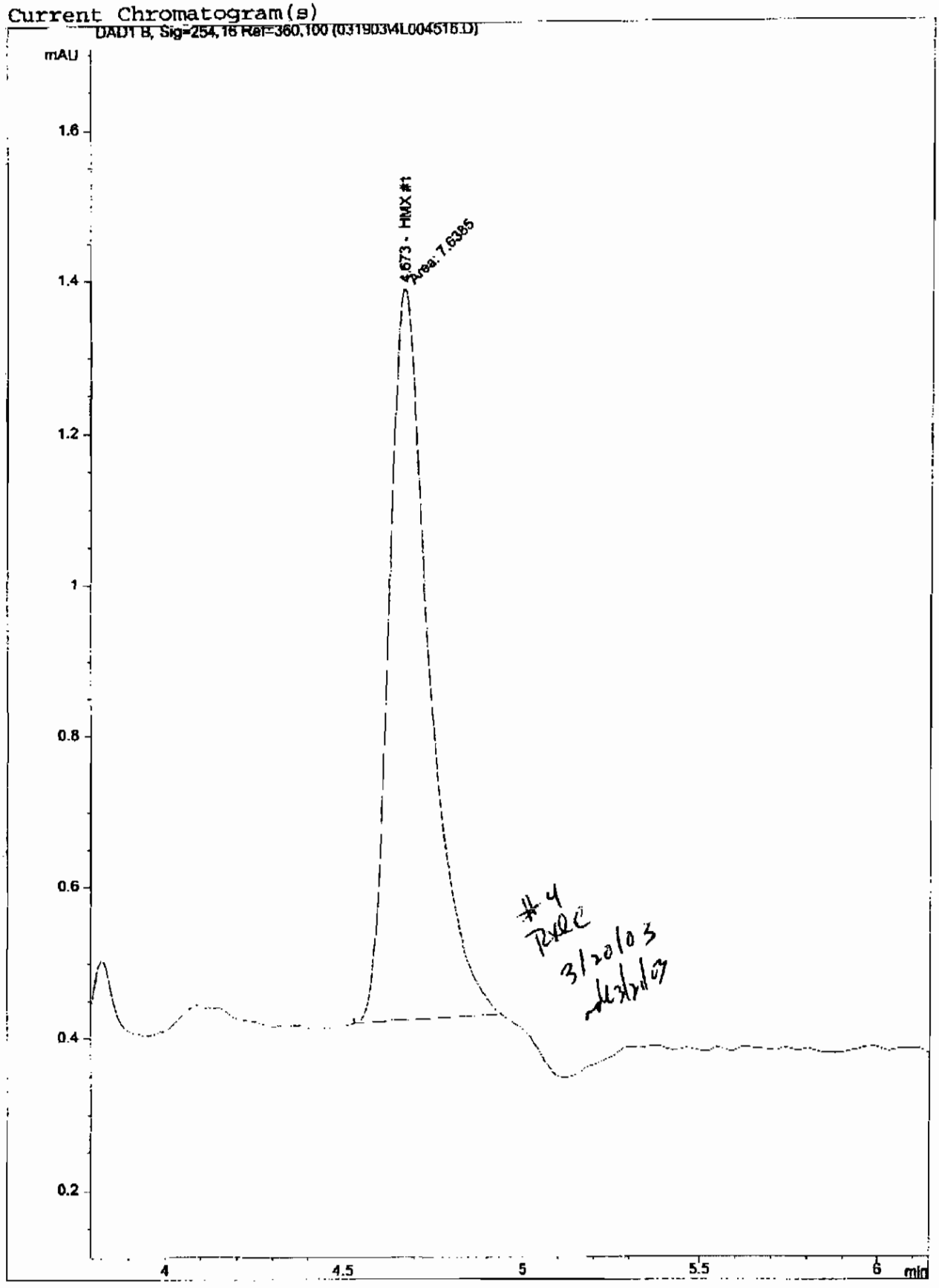


Current Chromatogram(s)



Current Chromatogram(s)



HPLC4 3/20/2003 8:40:26 AM RDC

1,1 66564-02 50 ppb

Injection Date	: 3/19/2003 7:24:50 PM	Seq. Line :	9
Sample Name	: WG136561-02 CCV	Vial :	9
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	100 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8330.M		
Last changed	: 2/18/2003 12:04:02 PM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\833GRDDA.M		
Last changed	: 3/20/2003 8:40:59 AM by RDC (modified after loading)		

8330 CALIBRATION 02/18/2003 @ 20:51

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Thursday, March 20, 2003 8:40:59 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.673	MM	7.63850	6.20004	47.35905		HMX #1
7.360	PBA	7.87194	6.08425	47.89483		RDX #2
9.984	BBA	20.70252	2.43756	50.46367		1,3,5-Trinitrobenzene #3
12.288	BBA	27.87381	1.80501	50.31241		1,3-Dinitrobenzene #4
13.375	PB	9.63664	4.54974	43.84419		Tetryl #5
13.999	BBA	16.21974	3.21730	52.18383		Nitrobenzene #6
15.259	PB	9.12088	5.65958	51.62030		3,4-Dinitrotoluene #7 *
16.018	BB	15.77945	3.00343	47.39241		2,4,6-Trinitrotoluene #8
17.112	BB	10.16672	4.94876	50.31267		4-Amino-2,6-Dinitrotoluen
17.998	BB	13.47164	3.46760	46.71432		2-Amino-4,6-Dinitrotoluen
18.820	BB	7.60792	6.18729	47.07238		2,6-Dinitrotoluene #11
19.451	BBA	19.12857	2.58098	49.37037		2,4-Dinitrotoluene #12
22.970	BBA	10.57110	4.94826	52.30852		2-Nitrotoluene #13
24.560	PBA	7.63129	6.37511	48.65034		4-Nitrotoluene #14
26.496	PBA	10.98612	4.56074	50.10485		3-Nitrotoluene #15

Totals : 1019.02816

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

*** End of Report ***

Check Standard Report

Data File C:\HPCHEM\2\DATA\032403\4L004525.D Sample Name: WG136885-01 CCV
HPLC4 3/25/2003 11:06:20 AM RDC

1,1 SOS64-02 50 ppb

Injection Date : 3/24/2003 5:26:09 PM Seq. Line : 2

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

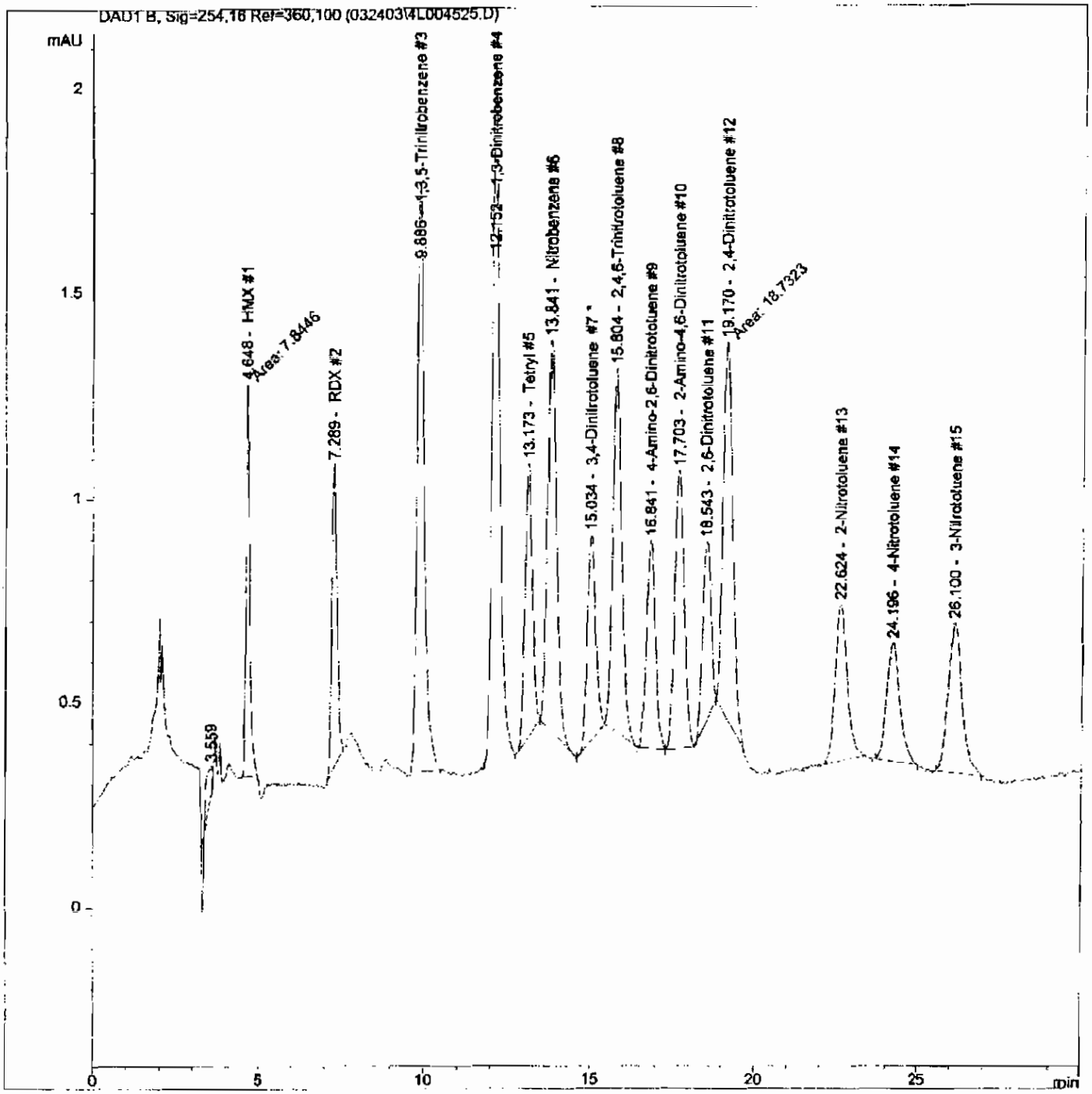
Compound	RT	Known Conc.	Cal. Conc.	%D
HMX #1	4.648	50.0	48.617	-2.8
RDX #2	7.289	50.0	48.107	-3.8
1,3,5-Trinitrobenzene #3	9.886	50.0	50.638	1.3
1,3-Dinitrobenzene #4	12.152	50.0	49.837	-0.3
Tetryl #5	13.173	50.0	48.304	-3.4
Nitrobenzene #6	13.841	50.0	51.652	3.3
3,4-Dinitrotoluene #7 *	15.034	50.0	50.543	1.1
2,4,6-Trinitrotoluene #8	15.804	50.0	49.440	-1.1
4-Amino-2,6-Dinitrotolue	16.841	50.0	49.193	-1.6
2-Amino-4,6-Dinitrotolue	17.703	50.0	47.553	-4.9
2,6-Dinitrotoluene #11	18.543	50.0	46.871	-6.3
2,4-Dinitrotoluene #12	19.170	50.0	48.379	-3.2
2-Nitrotoluene #13	22.624	50.0	48.693	-2.6
4-Nitrotoluene #14	24.196	50.0	51.708	3.4
Nitrotoluene #15	26.100	50.0	49.751	-0.5

= Failed 15.0% Criteria

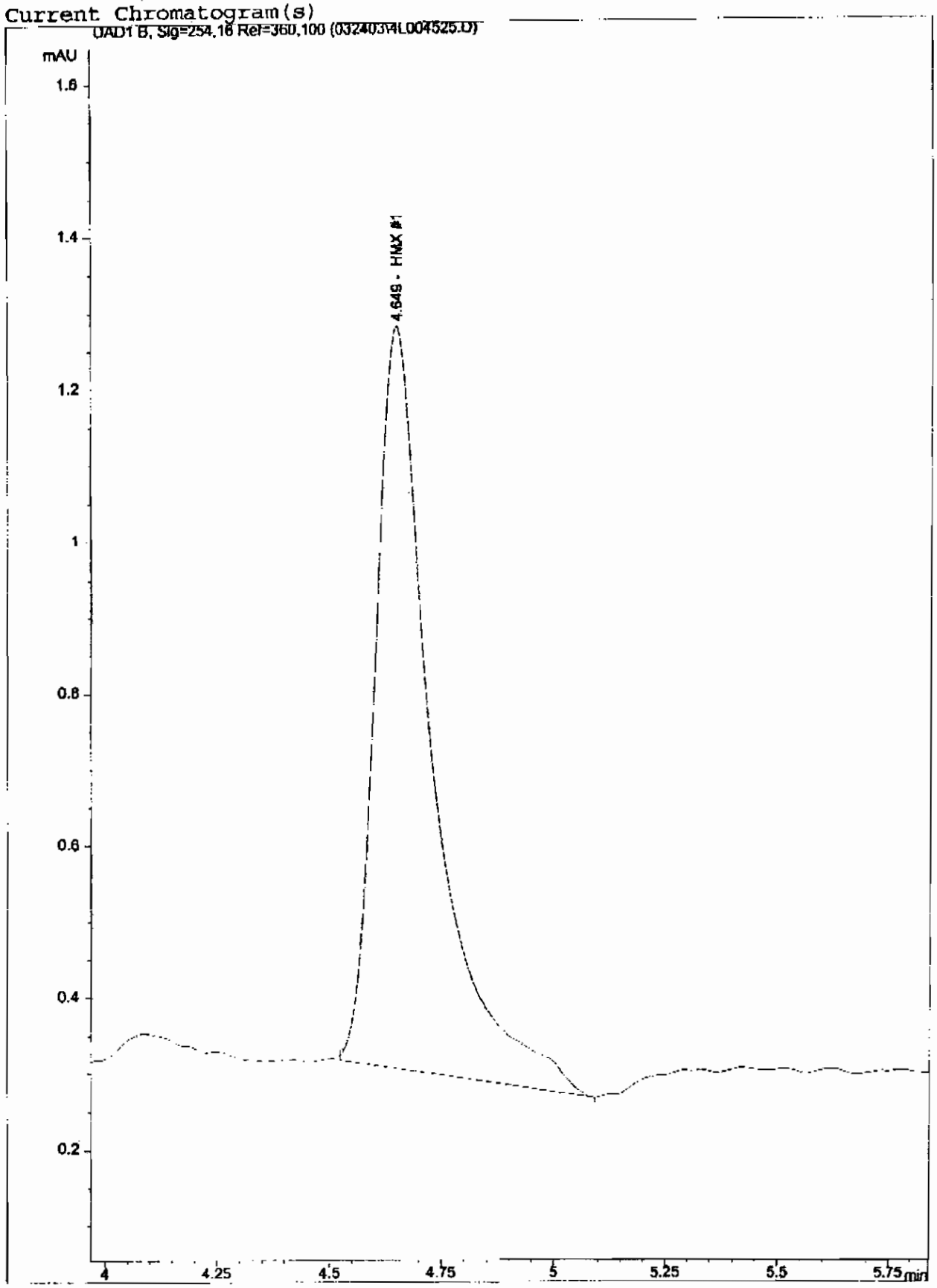
Injection Date : 3/24/2003 5:26:09 PM
Sample Name : WG136885-01 CCV
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 100 µl

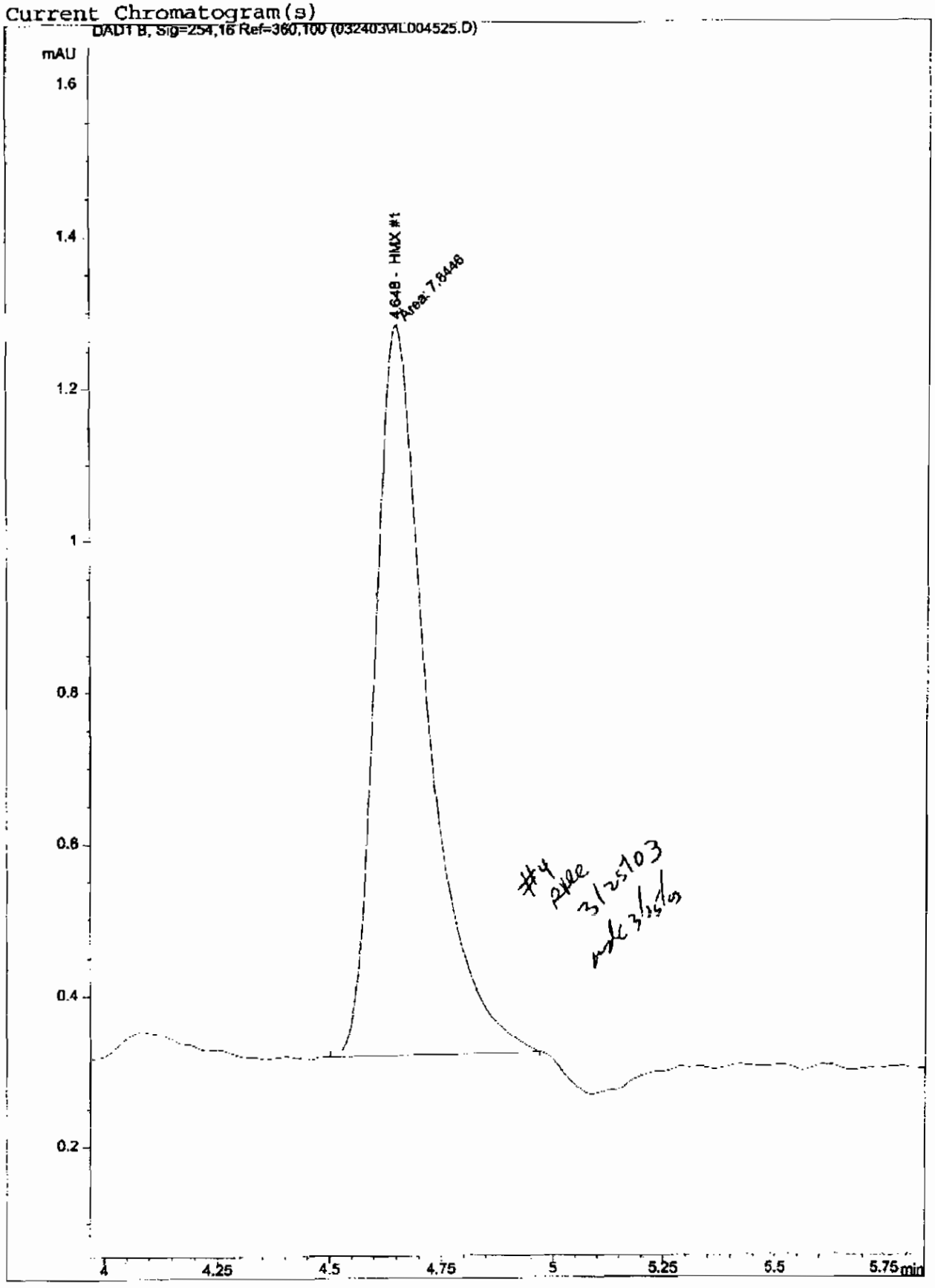
Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 3/20/2003 9:05:10 AM by RDC
8330 CALIBRATION 02/18/2003 @ 20:51



Current Chromatogram(s)

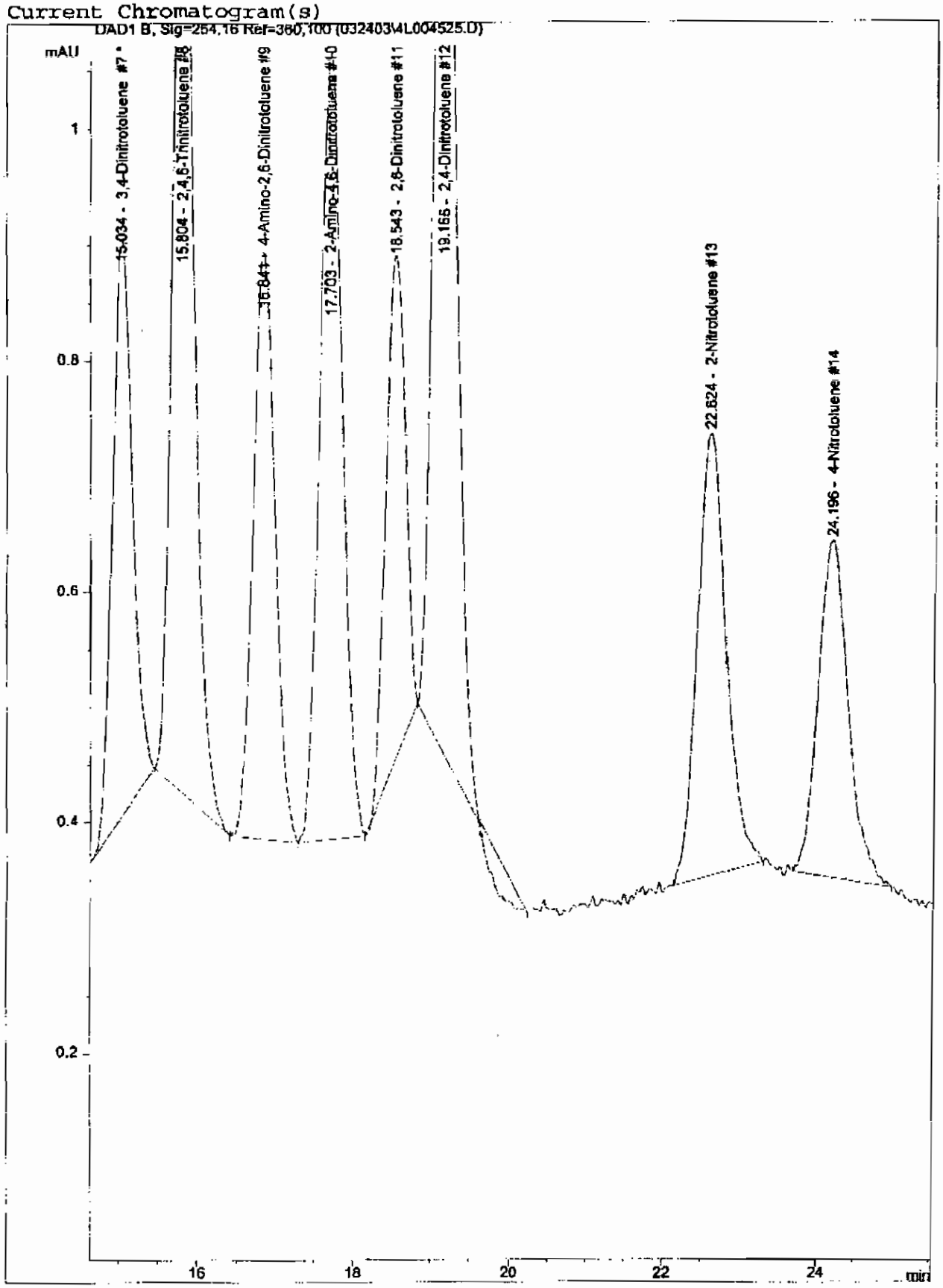


Current Chromatogram(s)

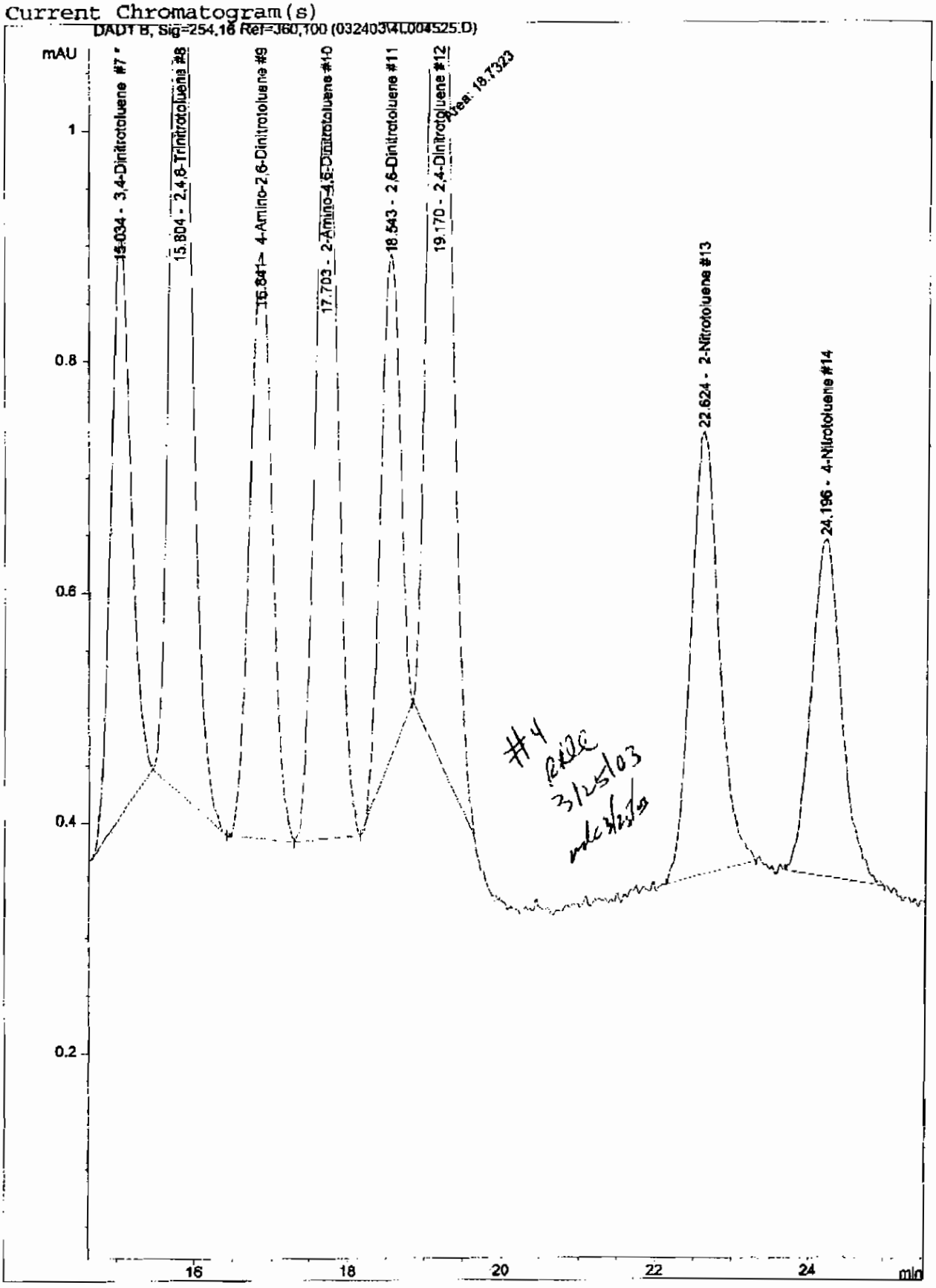


HPLC4 3/25/2003 11:05:28 AM RDC

Current Chromatogram(s)



Current Chromatogram(s)



HPLC4 3/25/2003 11:06:12 AM RDC

1,1 30304-02 50 ppb

Injection Date	: 3/24/2003 5:26:09 PM	Seq. Line :	2
Sample Name	: WG136885-01 CCV	Vial :	2
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	100 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8330.M		
Last changed	: 2/18/2003 12:04:02 PM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\833GRDDA.M		
Last changed	: 3/20/2003 9:05:10 AM by RDC		
8330 CALIBRATION 02/18/2003 @ 20:51			

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Thursday, March 20, 2003 8:50:28 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.648	MM	7.84460	6.19745	48.61653		HMX #1
7.289	PBA	7.91324	6.07936	48.10743		RDX #2
9.886	BBA	20.77637	2.43727	50.63762		1,3,5-Trinitrobenzene #3
12.152	BBA	27.60654	1.80527	49.83725		1,3-Dinitrobenzene #4
13.173	BB	10.65359	4.53407	48.30414		Tetryl #5
13.841	BB	16.05175	3.21782	51.65168		Nitrobenzene #6
15.034	BB	8.92567	5.66267	50.54318		3,4-Dinitrotoluene #7 *
15.804	BB	16.47766	3.00041	49.43974		2,4,6-Trinitrotoluene #8
16.841	BB	9.94004	4.94897	49.19298		4-Amino-2,6-Dinitrotoluen
17.703	BB	13.72041	3.46587	47.55311		2-Amino-4,6-Dinitrotoluen
18.543	BB	7.57510	6.18756	46.87140		2,6-Dinitrotoluene #11
19.170	MM	18.73234	2.58265	48.37906		2,4-Dinitrotoluene #12
22.624	BBA	9.81390	4.96162	48.69284		2-Nitrotoluene #13
24.196	PBA	8.13975	6.35253	51.70799		4-Nitrotoluene #14
26.100	BBA	10.90305	4.56307	49.75137		3-Nitrotoluene #15
Totals :				1020.04877		

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

Data File C:\HPCHEM\2\DATA\032403\4L004530.D Sample Name: WG136885-02 CCV
HPLC4 3/25/2003 11:10:41 AM RDC

1,1 SOS64-02 50 ppb

Injection Date : 3/24/2003 9:47:06 PM Seq. Line : 7

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

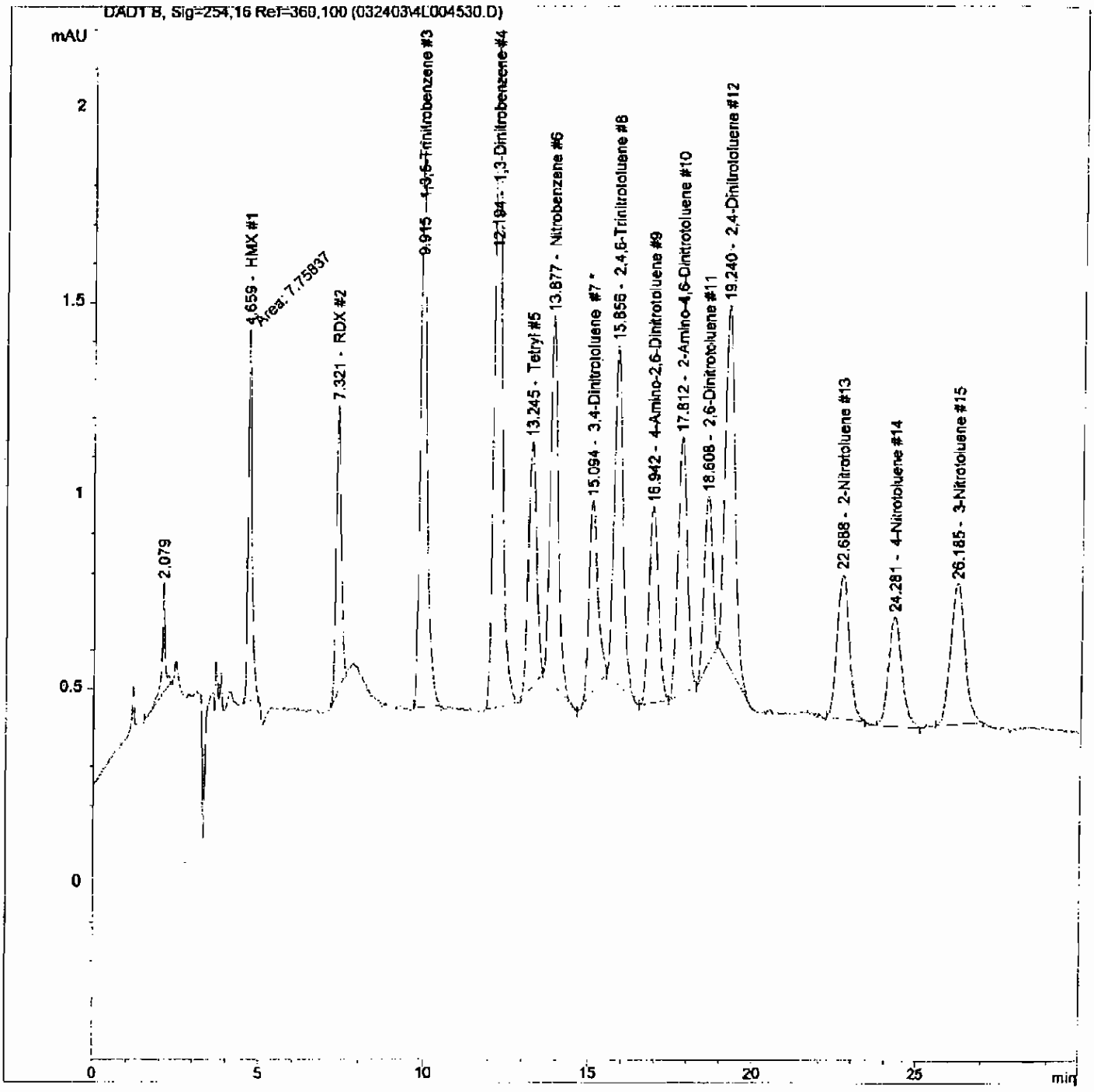
Compound	RT	Known Conc.	Cal. Conc.	%D
HMX #1	4.659	50.0	48.090	-3.8
RDX #2	7.321	50.0	47.989	-4.0
1,3,5-Trinitrobenzene #3	9.915	50.0	50.142	0.3
1,3-Dinitrobenzene #4	12.194	50.0	50.011	0.0
Tetryl #5	13.245	50.0	45.833	-8.3
Nitrobenzene #6	13.877	50.0	51.328	2.7
3,4-Dinitrotoluene #7 *	15.094	50.0	50.548	1.1
2,4,6-Trinitrotoluene #8	15.856	50.0	48.244	-3.5
4-Amino-2,6-Dinitrotolue	16.942	50.0	49.671	-0.7
2-Amino-4,6-Dinitrotolue	17.812	50.0	46.773	-6.5
2,6-Dinitrotoluene #11	18.608	50.0	47.484	-5.0
2,4-Dinitrotoluene #12	19.240	50.0	50.012	0.0
2-Nitrotoluene #13	22.688	50.0	47.333	-5.3
4-Nitrotoluene #14	24.281	50.0	51.221	2.4
3-Nitrotoluene #15	26.185	50.0	49.850	-0.3

= Failed 15.0% Criteria

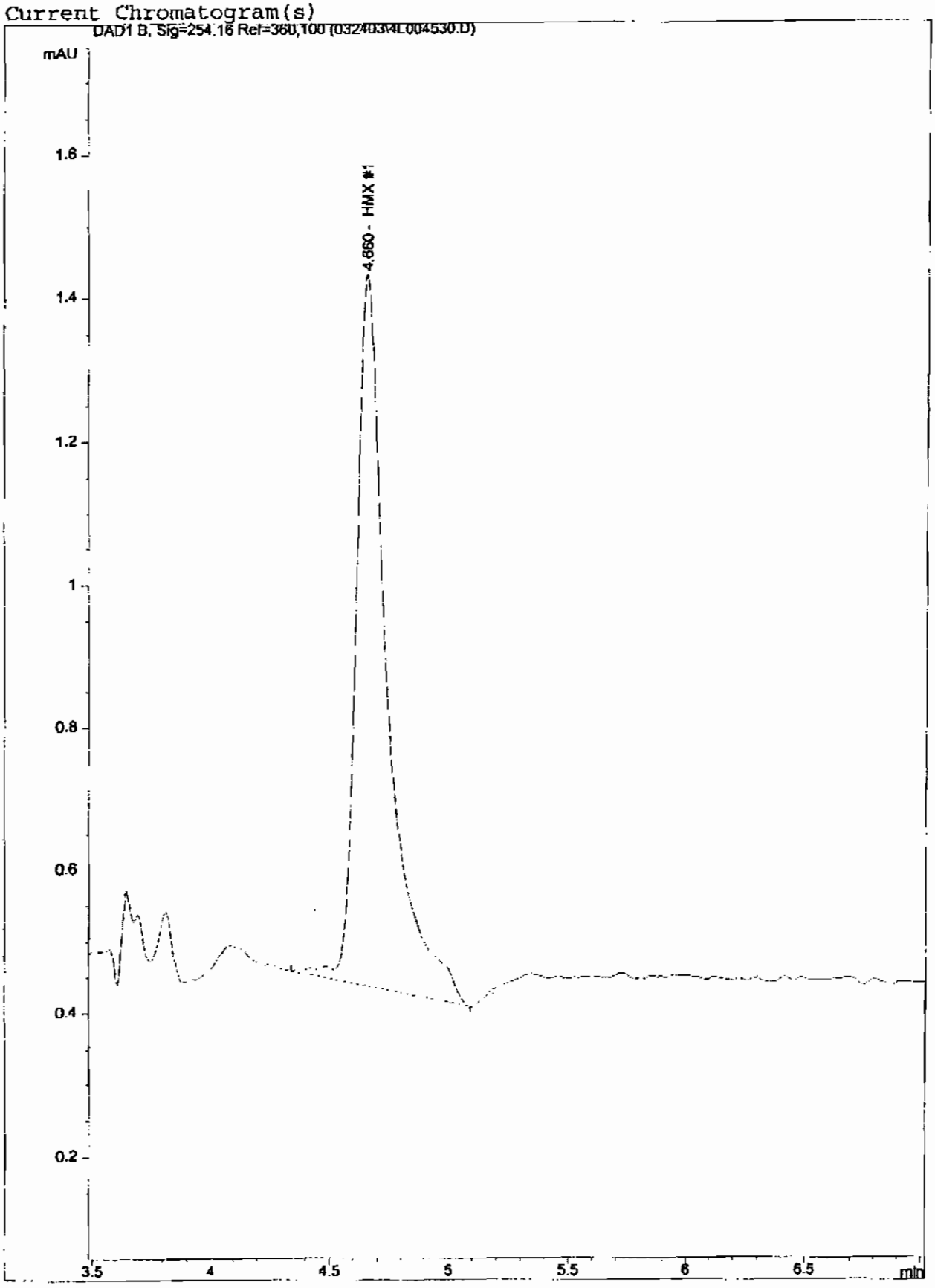
Injection Date : 3/24/2003 9:47:06 PM
Sample Name : WG136885-02 CCV
Acq. Operator : RDC

Seq. Line : 7
Vial : 2
Inj : 1
Inj Volume : 100 µl

Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 3/20/2003 9:05:10 AM by RDC
8330 CALIBRATION 02/18/2003 @ 20:51

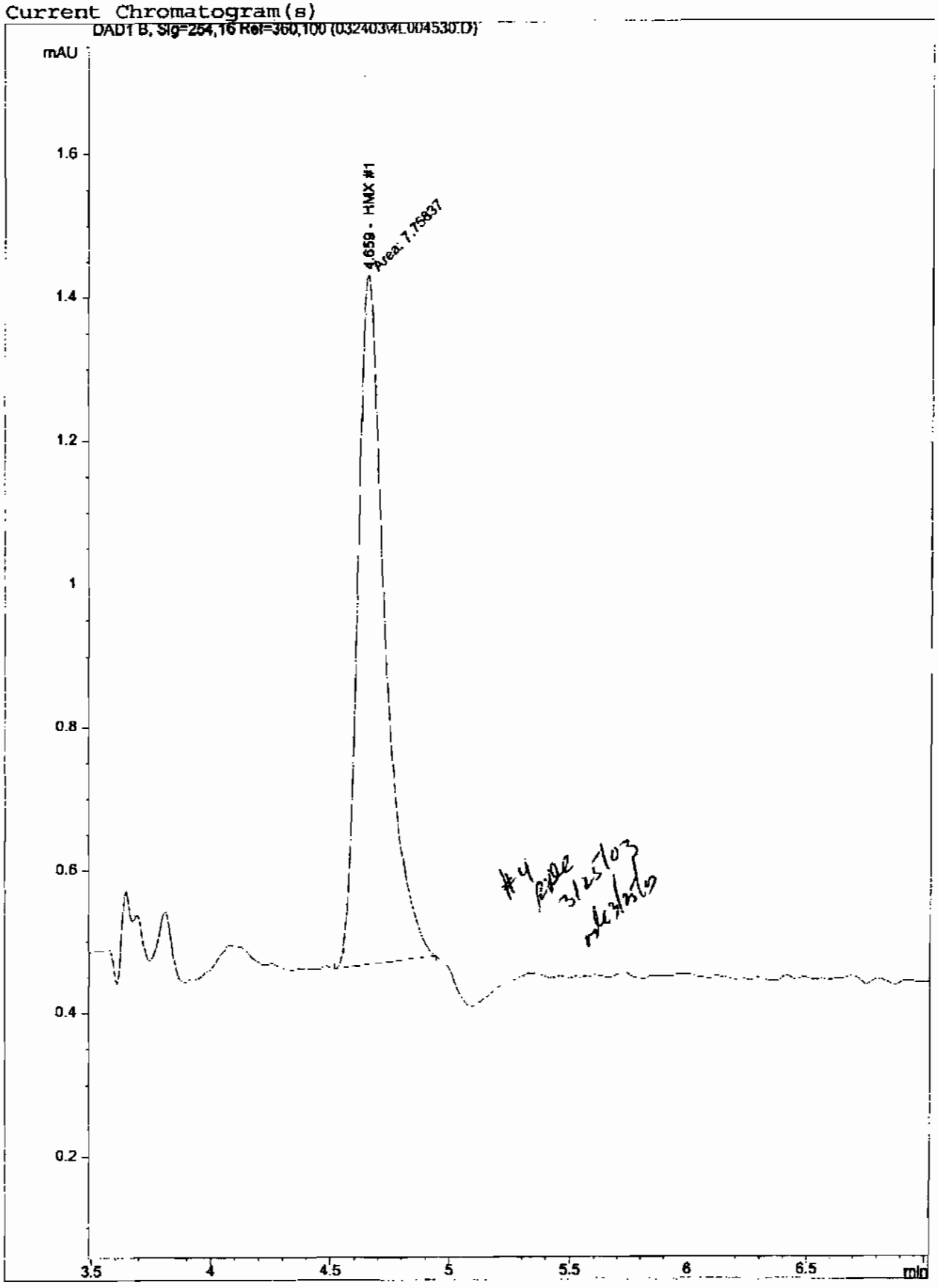


Current Chromatogram(s)



HPLC4 3/25/2003 11:09:54 AM RDC

Current Chromatogram(s)



HPLC4 3/25/2003 11:10:31 AM RDC

Injection Date : 3/24/2003 9:47:06 PM Seq. Line : 7
Sample Name : WG136885-02 CCV Vial : 2
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl
Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 3/20/2003 9:05:10 AM by RDC
8330 CALIBRATION 02/18/2003 @ 20:51

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 20, 2003 8:50:28 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.659	MM	7.75837	6.19852	48.09040		HMX #1
7.321	PBA	7.89019	6.08208	47.98877		RDX #2
9.915	BBA	20.56576	2.43811	50.14152		1,3,5-Trinitrobenzene #3
12.194	BBA	27.70434	1.80517	50.01113		1,3-Dinitrobenzene #4
13.245	PB	10.09015	4.54236	45.83313		Tetryl #5
13.877	BB	15.94965	3.21814	51.32827		Nitrobenzene #6
15.094	BB	8.92656	5.66266	50.54808		3,4-Dinitrotoluene #7 *
15.856	BB	16.06982	3.00214	48.24385		2,4,6-Trinitrotoluene #8
16.942	BB	10.03685	4.94888	49.67117		4-Amino-2,6-Dinitrotoluen
17.812	BB	13.48891	3.46748	46.77255		2-Amino-4,6-Dinitrotoluen
18.608	BB	7.67520	6.18673	47.48439		2,6-Dinitrotoluene #11
19.240	BBA	19.38502	2.57993	50.01198		2,4-Dinitrotoluene #12
22.688	PBA	9.52913	4.96719	47.33300		2-Nitrotoluene #13
24.281	PBA	8.05873	6.35594	51.22074		4-Nitrotoluene #14
26.185	BBA	10.92633	4.56241	49.85043		3-Nitrotoluene #15

Totals : 1014.31383

Results obtained with enhanced integrator!

*** End of Report ***

Lab Name: Kemron Environmental Services

Instrument ID: HPLC4 Method: 8330

Column: Ultracarb 5 ODS 20

	STD #1	STD #2	STD #3
Date Run	7/23/2002	7/25/2002	7/26/2002
File #	4L003294	4L003317	4L003330
Time	21:06	17:22	22:58

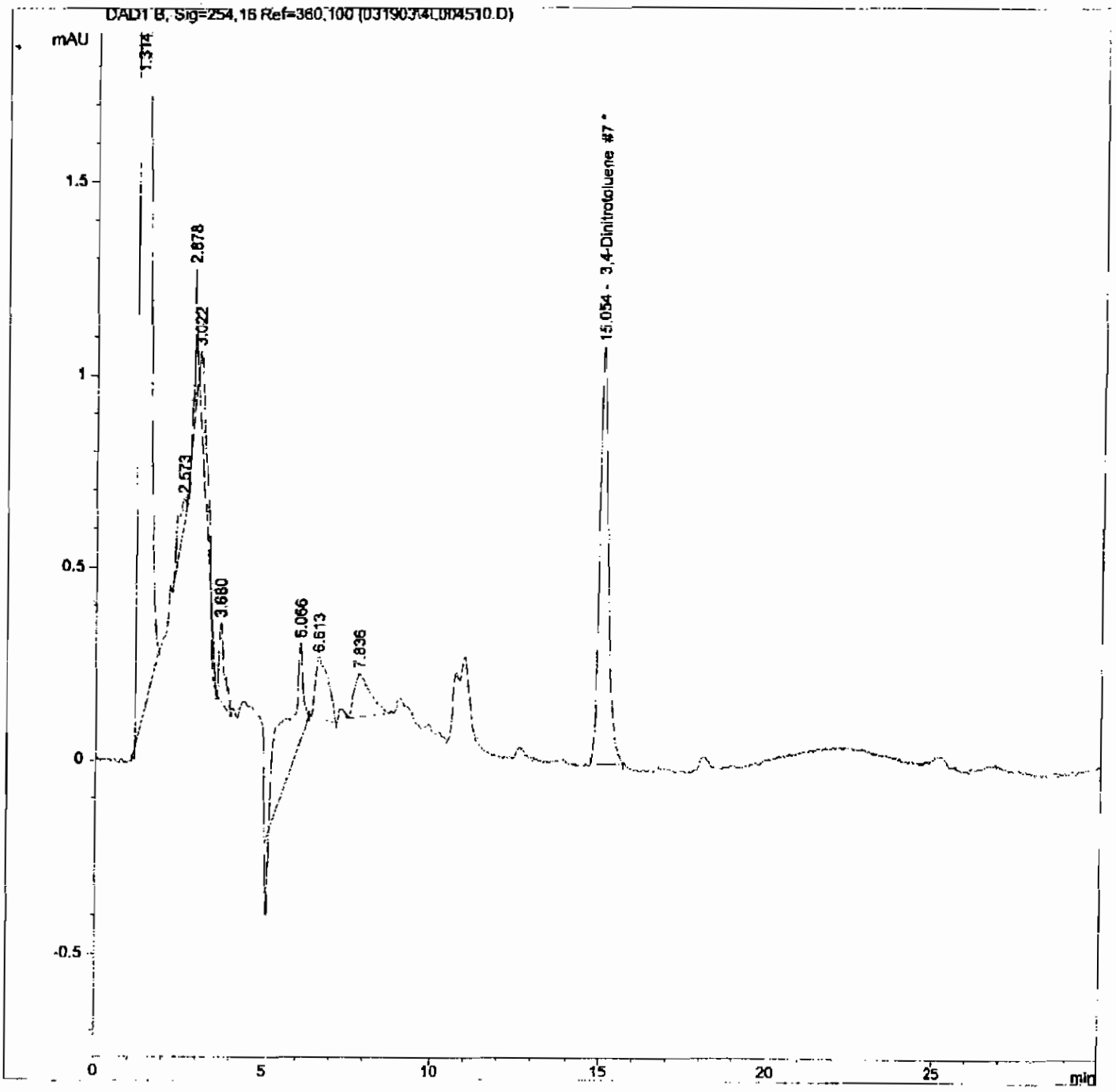
COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
HMX	4.639	4.667	4.669	0.050
RDX	7.311	7.372	7.388	0.122
1,3,5-Trinitrobenzene	9.930	9.990	9.989	0.103
1,3-Dinitrobenzene	12.229	12.309	12.320	0.149
Tetryl	13.237	13.386	13.400	0.271
Nitrobenzene	13.911	14.018	14.030	0.197
3,4-Dinitrotoluene (Surr.)	15.075	15.284	15.304	0.381
2,4,6-Trinitrotoluene	15.868	16.015	16.019	0.258
4-Amino-2,6-Dinitrotoluene	16.855	17.073	17.198	0.521
2-Amino-4,6-Dinitrotoluene	17.775	17.996	18.096	0.493
2,6-Dinitrotoluene	18.622	18.825	18.849	0.374
2,4-Dinitrotoluene	19.282	19.471	19.489	0.344
2-Nitrotoluene	22.703	22.981	22.982	0.482
Nitrotoluene	24.294	24.580	24.579	0.495
3-Nitrotoluene	26.204	26.483	26.531	0.530

2.2.9.4 Raw QC Data

Injection Date : 3/19/2003 1:58:40 PM
Sample Name : WG136531-01 BLK
Acq. Operator : RDC

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 100 µl

Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 3/20/2003 8:33:14 AM by RDC
(modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51



HPLC4 3/20/2003 8:33:20 AM RDC

Page 1 of 2

Injection Date : 3/19/2003 1:58:40 PM Seq. Line : 3
Sample Name : WG136531-01 BLK Vial : 3
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl

Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 3/20/2003 8:33:14 AM by RDC
(modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51

External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/20/2003 8:33:13 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.680		-	-	-		HMX #1
7.374		-	-	-		RDX #2
9.907		-	-	-		1,3,5-Trinitrobenzene #3
12.191		-	-	-		1,3-Dinitrobenzene #4
13.209		-	-	-		Tetryl #5
13.866		-	-	-		Nitrobenzene #6
15.054	BBA	19.91014	5.58279	111.15405		3,4-Dinitrotoluene #7 *
15.804		-	-	-		2,4,6-Trinitrotoluene #8
16.875		-	-	-		4-Amino-2,6-Dinitrotoluen
17.749		-	-	-		2-Amino-4,6-Dinitrotoluen
18.579		-	-	-		2,6-Dinitrotoluene #11
19.205		-	-	-		2,4-Dinitrotoluene #12
22.681		-	-	-		2-Nitrotoluene #13
24.266		-	-	-		4-Nitrotoluene #14
26.166		-	-	-		3-Nitrotoluene #15

Totals : 818.97117

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

*** End of Report ***

```
==========================================================================
Injection Date  : 3/24/2003 6:18:20 PM          Seq. Line :   3
Sample Name     : WG136864-01 BLK                   Vial :   3
Acq. Operator   : RDC                               Inj :   1
                                                Inj Volume : 100 µl

Acq. Method     : C:\HPCHEM\2\METHODS\8330.M
Last changed    : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed    : 3/20/2003 9:05:10 AM by RDC
8330 CALIBRATION 02/18/2003 @ 20:51
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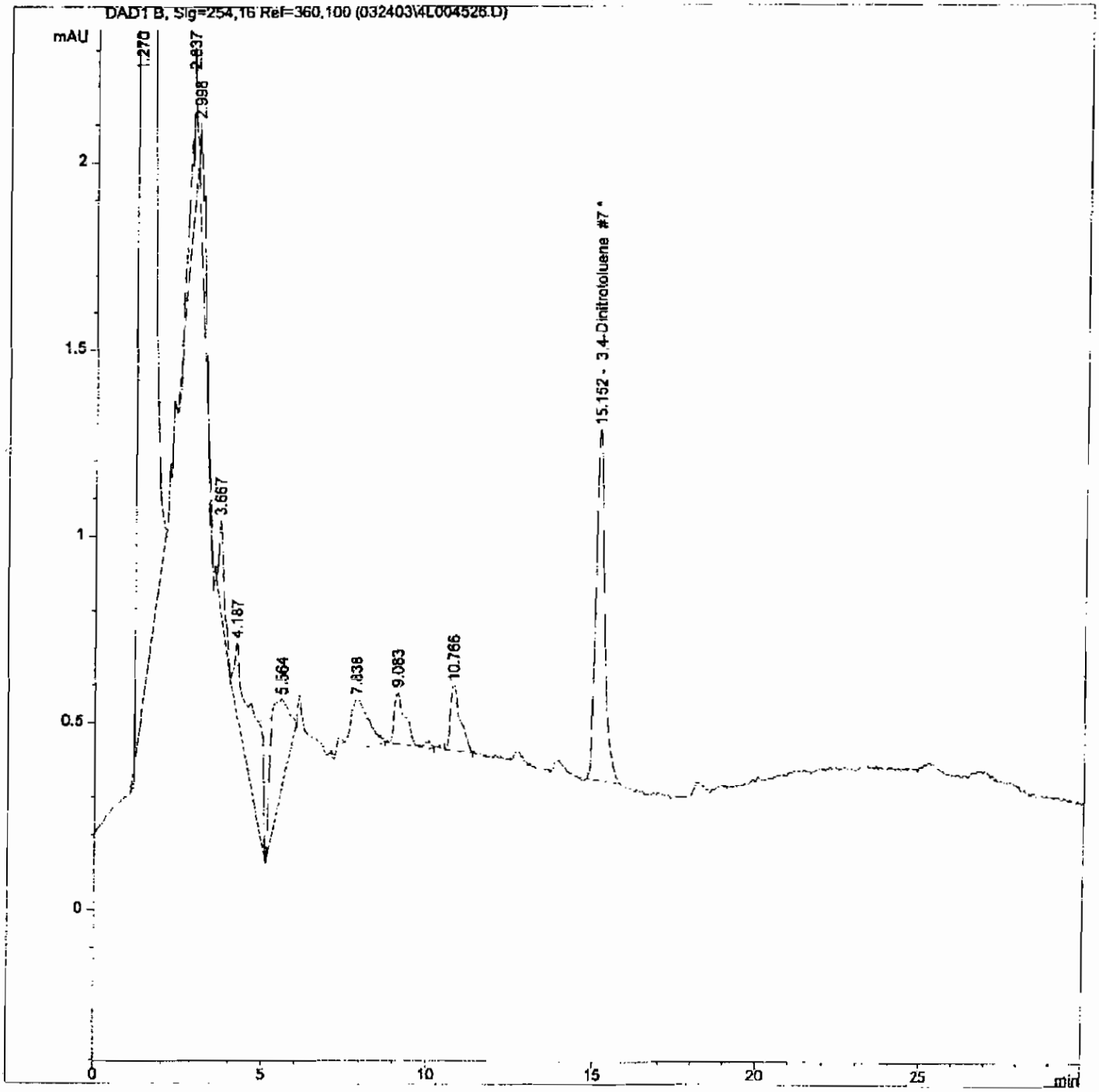


Injection Date : 3/24/2003 6:18:20 PM Seq. Line : 3
Sample Name : WG136864-01 BLK Vial : 3
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl
Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 3/20/2003 9:05:10 AM by RDC
8330 CALIBRATION 02/18/2003 @ 20:51

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 20, 2003 8:50:28 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.680		-	-	-		HMX #1
7.374		-	-	-		RDX #2
9.907		-	-	-		1,3,5-Trinitrobenzene #3
12.191		-	-	-		1,3-Dinitrobenzene #4
13.209		-	-	-		Tetryl #5
13.866		-	-	-		Nitrobenzene #6
15.152	BBA	17.47859	5.59182	97.73709		3,4-Dinitrotoluene #7 *
15.804		-	-	-		2,4,6-Trinitrotoluene #8
16.875		-	-	-		4-Amino-2,6-Dinitrotoluen
17.749		-	-	-		2-Amino-4,6-Dinitrotoluen
18.579		-	-	-		2,6-Dinitrotoluene #11
19.205		-	-	-		2,4-Dinitrotoluene #12
22.681		-	-	-		2-Nitrotoluene #13
24.266		-	-	-		4-Nitrotoluene #14
26.166		-	-	-		3-Nitrotoluene #15

97.7 ✓

Totals : 2274.21387

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

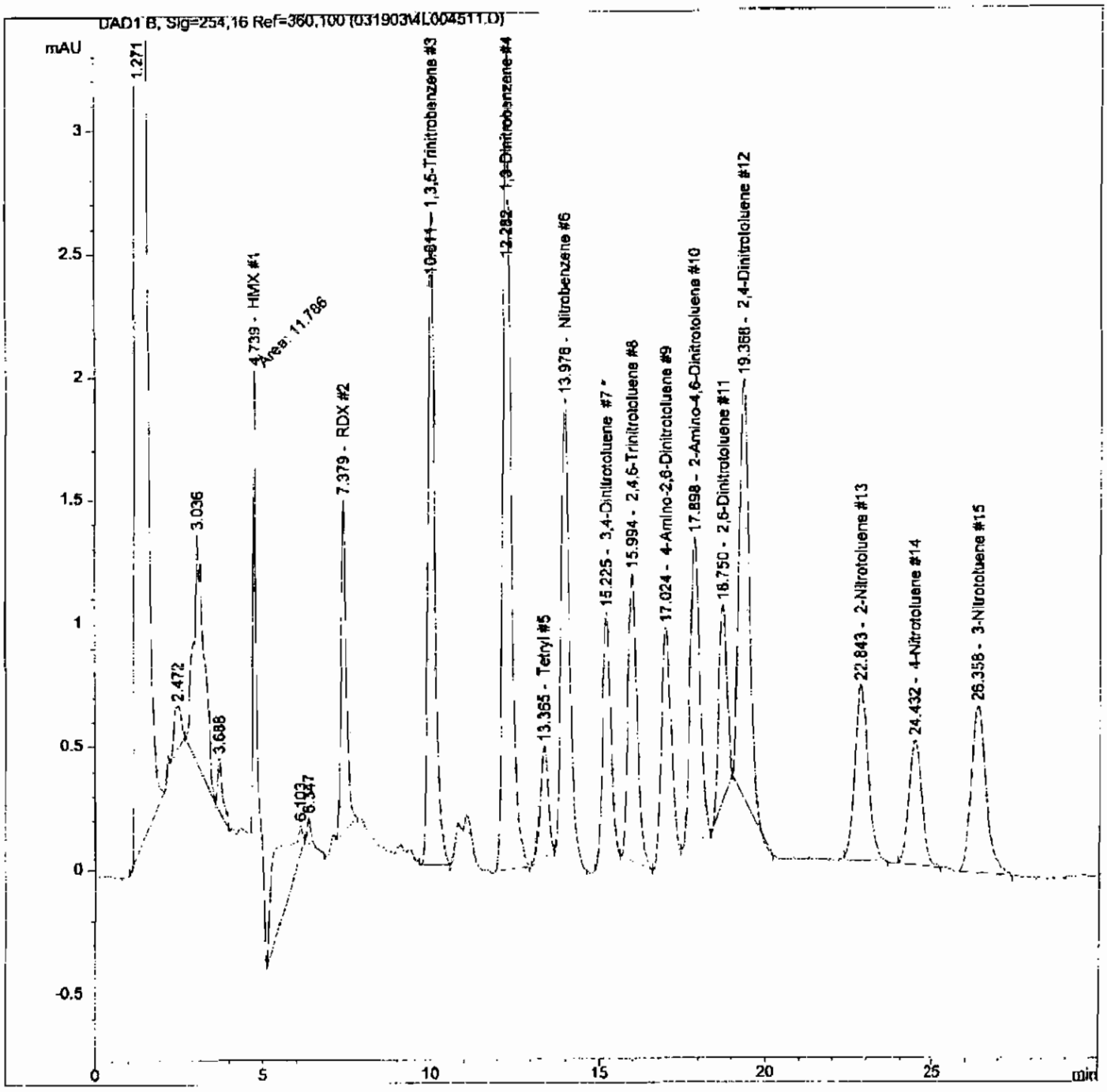
*** End of Report ***

Injection Date : 3/19/2003 3:03:55 PM
Sample Name : WG136531-02 LCS
Acq. Operator : RDC

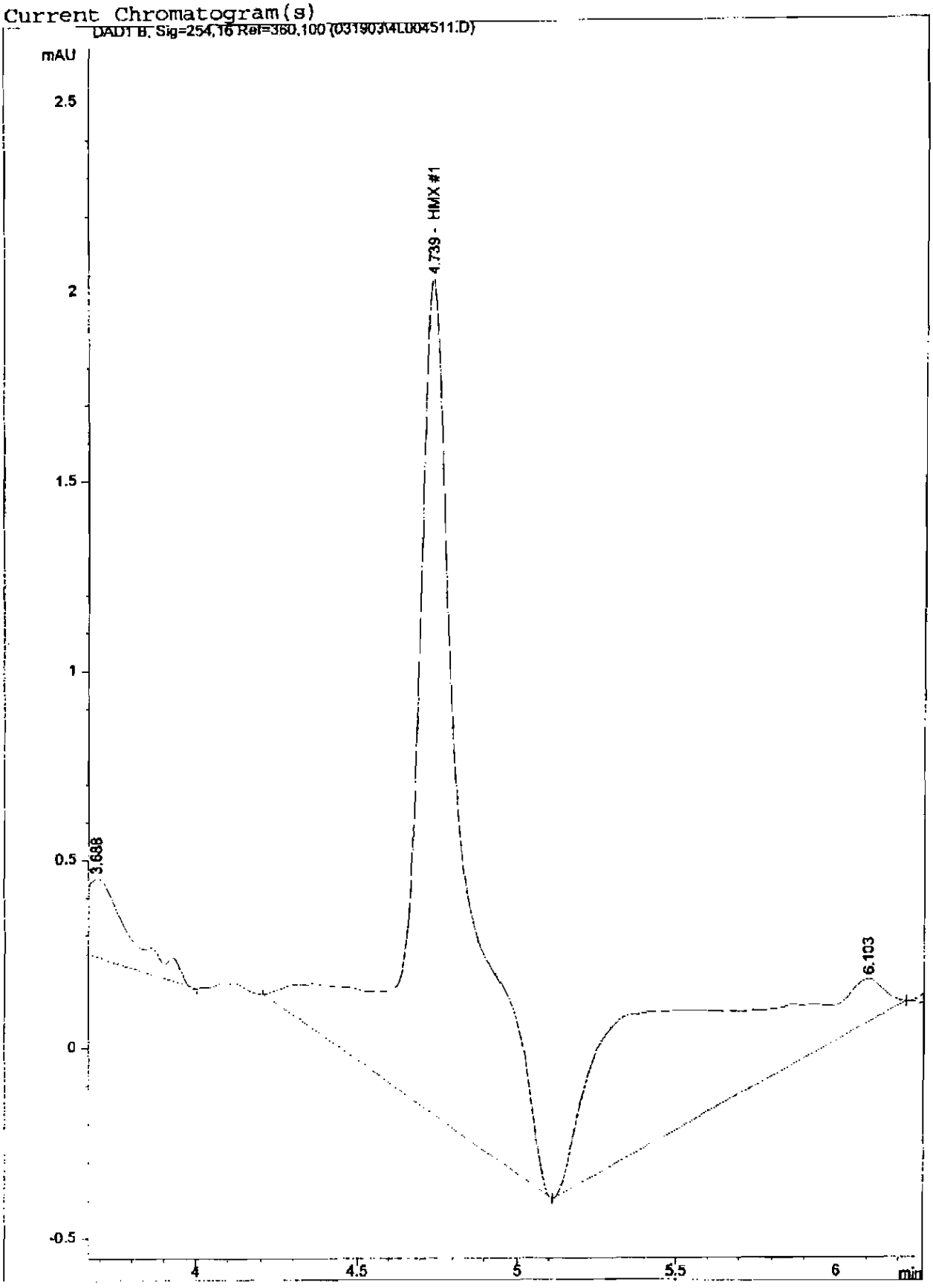
Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 100 µl

Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 3/20/2003 8:33:14 AM by RDC
(modified after loading)

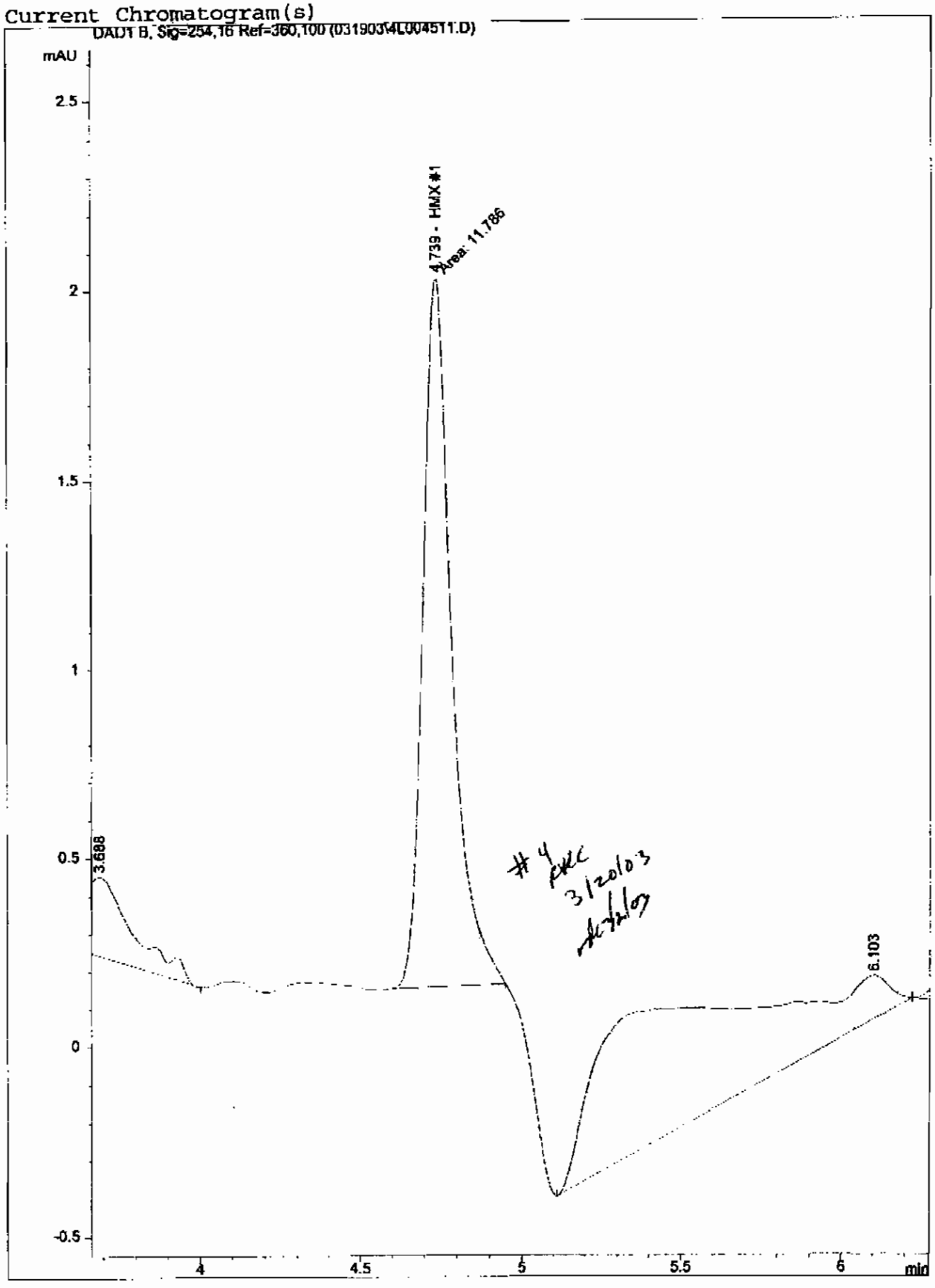
8330 CALIBRATION 02/18/2003 @ 20:51



Current Chromatogram(s)



Current Chromatogram(s)



Injection Date : 3/19/2003 3:03:55 PM Seq. Line : 4
Sample Name : WG136531-02 LCS Vial : 4
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl

Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 3/20/2003 8:33:14 AM by RDC
(modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51

External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/20/2003 8:33:13 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.739	MM	11.78602	6.16531	72.66445		HMX #1
7.379	BBA	15.02591	5.63821	84.71920		RDX #2
10.011	BB	35.60625	2.40320	85.56893		1,3,5-Trinitrobenzene #3
12.282	BBA	53.76976	1.79192	96.35105		1,3-Dinitrobenzene #4
13.365	BB	7.32302	4.60159	33.69755		Tetryl #5
13.976	BBA	32.26545	3.19265	103.01215		Nitrobenzene #6
15.225	BB	17.73464	5.59075	99.14994		3,4-Dinitrotoluene #7 *
15.994	BB	21.65546	2.98412	64.62242		2,4,6-Trinitrotoluene #8
17.024	BB	19.13085	4.94439	94.59045		4-Amino-2,6-Dinitrotoluen
17.898	BB	26.13744	3.42116	89.42047		2-Amino-4,6-Dinitrotoluen
18.750	BB	13.71852	6.15902	84.49267		2,6-Dinitrotoluene #11
19.368	BBA	34.48979	2.54574	87.80187		2,4-Dinitrotoluene #12
22.843	BBA	18.79832	4.87247	91.59416		2-Nitrotoluene #13
24.432	BBA	13.76826	6.21396	85.55547		4-Nitrotoluene #14
26.358	PBA	20.98917	4.41516	92.67057		3-Nitrotoluene #15

Totals : 2724.41400

99.1%

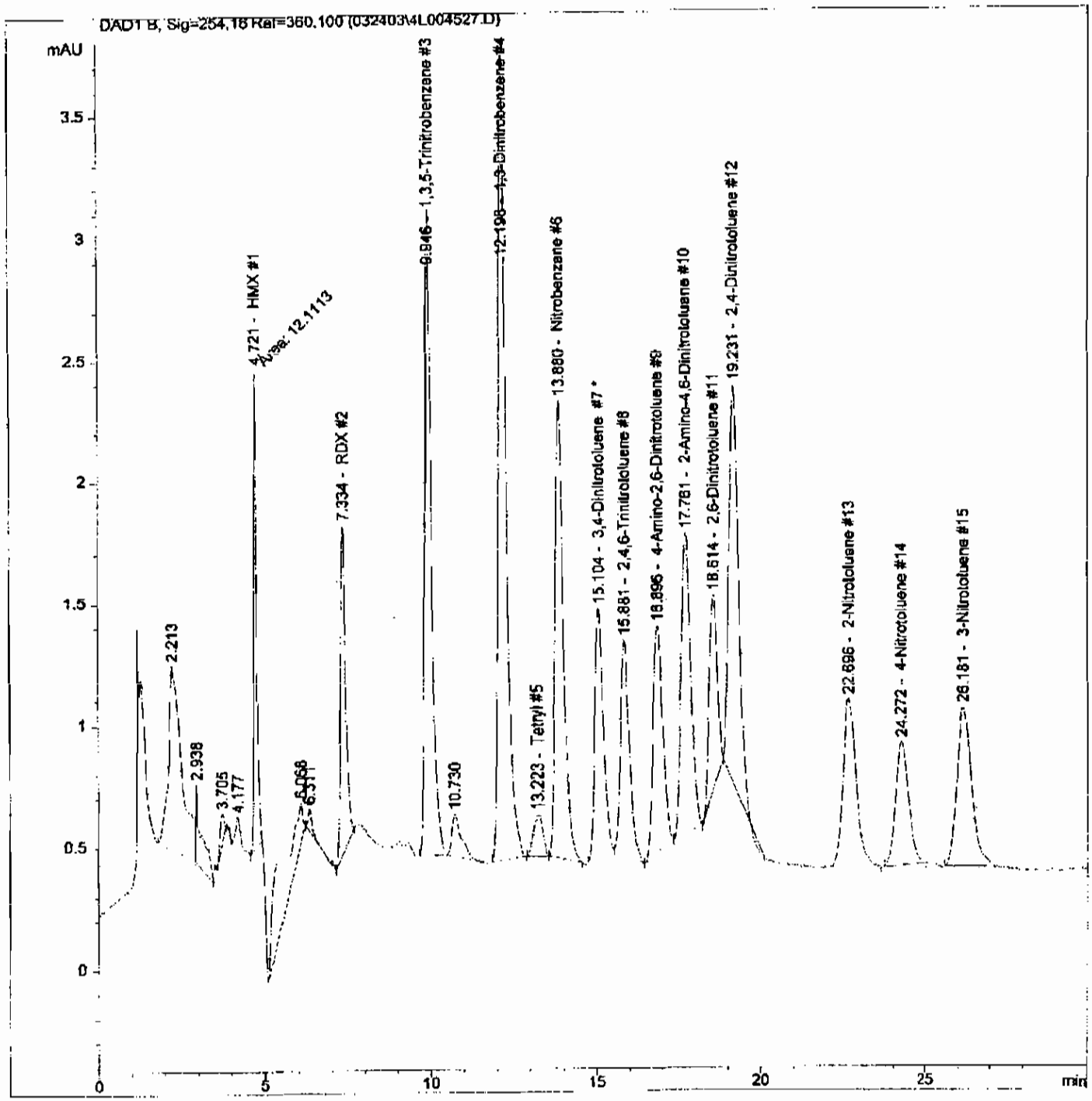
Results obtained with enhanced integrator!

*** End of Report ***

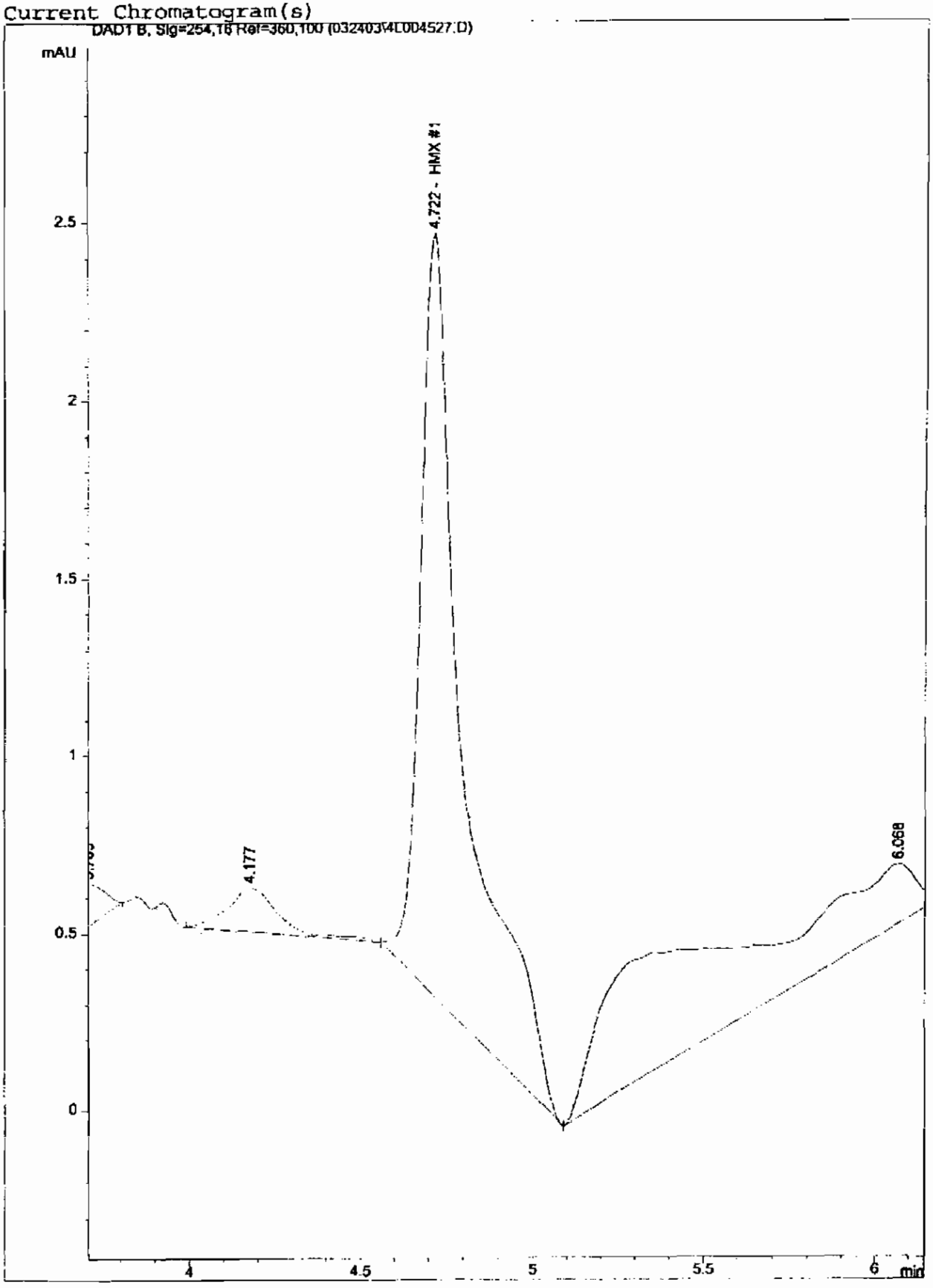
Injection Date : 3/24/2003 7:10:33 PM
Sample Name : WG136864-02 LCS
Acq. Operator : RDC

Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 100 µl

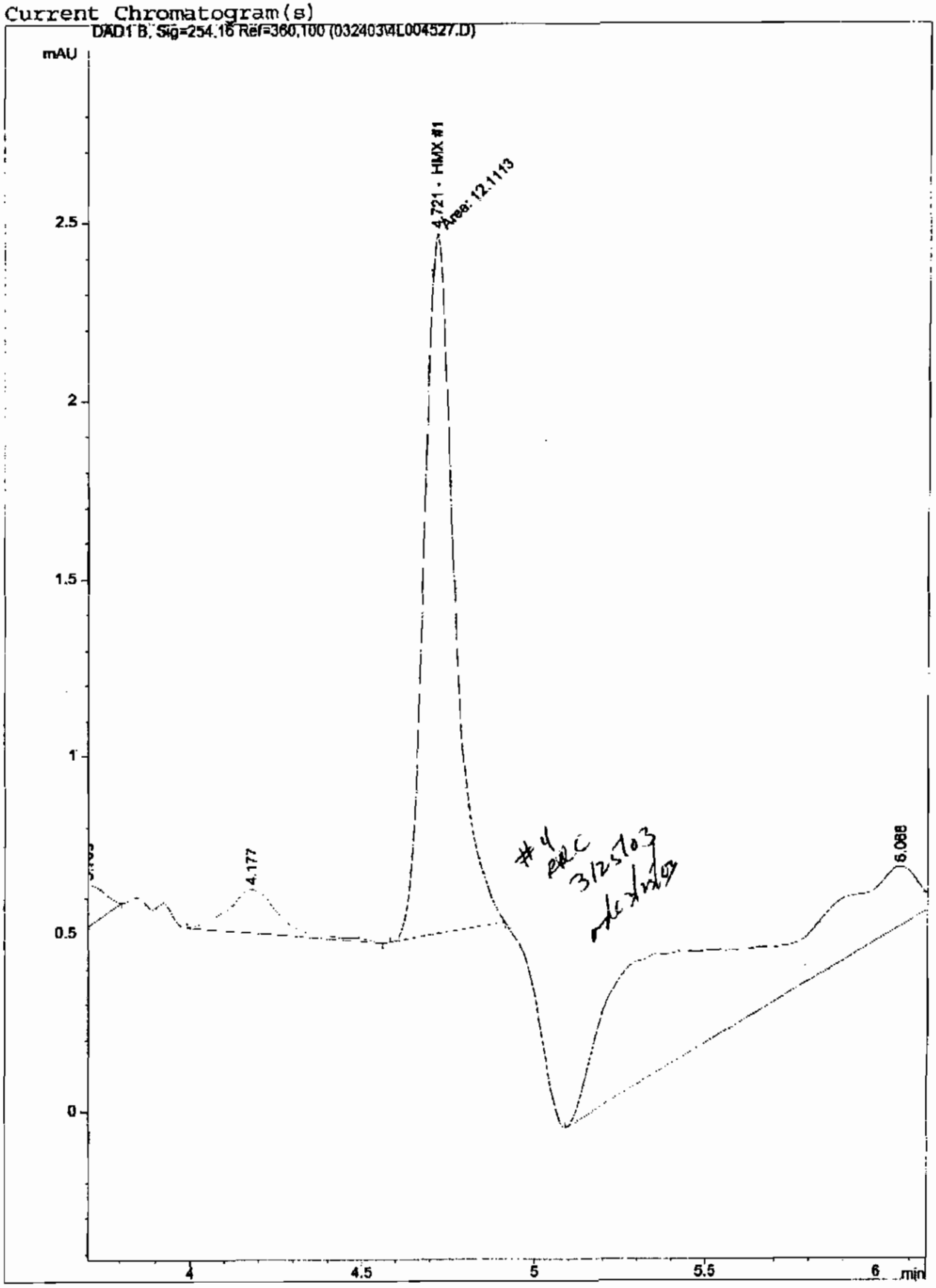
Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 3/20/2003 9:05:10 AM by RDC
8330 CALIBRATION 02/18/2003 @ 20:51



Current Chromatogram(s)



Current Chromatogram(s)



HPLC4 3/25/2003 11:08:31 AM RDC

Injection Date : 3/24/2003 7:10:33 PM Seq. Line : 4
Sample Name : WG136864-02 LCS Vial : 4
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl
Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 3/20/2003 9:05:10 AM by RDC
8330 CALIBRATION 02/18/2003 @ 20:51

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 20, 2003 8:50:28 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.721	MM	12.11131	6.16359	74.64919		HMX #1
7.334	BB	14.61481	5.65201	82.60308		RDX #2
9.946	PB	35.49847	2.40334	85.31505		1,3,5-Trinitrobenzene #3
12.198	BBA	53.76703	1.79192	96.34618		1,3-Dinitrobenzene #4
13.223	BB	2.84443	4.94166	14.05621		Tetryl #5
13.880	BBA	33.50425	3.19172	106.93633		Nitrobenzene #6
15.104	BB	17.82531	5.59038	99.65024		3,4-Dinitrotoluene #7 *
15.881	BB	16.35956	3.00090	49.09343		2,4,6-Trinitrotoluene #8
16.896	BB	18.89773	4.94446	93.43896		4-Amino-2,6-Dinitrotoluen
17.761	BB	25.98116	3.42146	88.89351		2-Amino-4,6-Dinitrotoluen
18.614	BB	13.68345	6.15911	84.27787		2,6-Dinitrotoluene #11
19.231	BBA	32.96632	2.54776	83.99039		2,4-Dinitrotoluene #12
22.696	BBA	18.73079	4.87282	91.27174		2-Nitrotoluene #13
24.272	BBA	14.00156	6.21062	86.95840		4-Nitrotoluene #14
26.181	PBA	20.02280	4.42288	88.55837		3-Nitrotoluene #15

Totals : 1674.02574

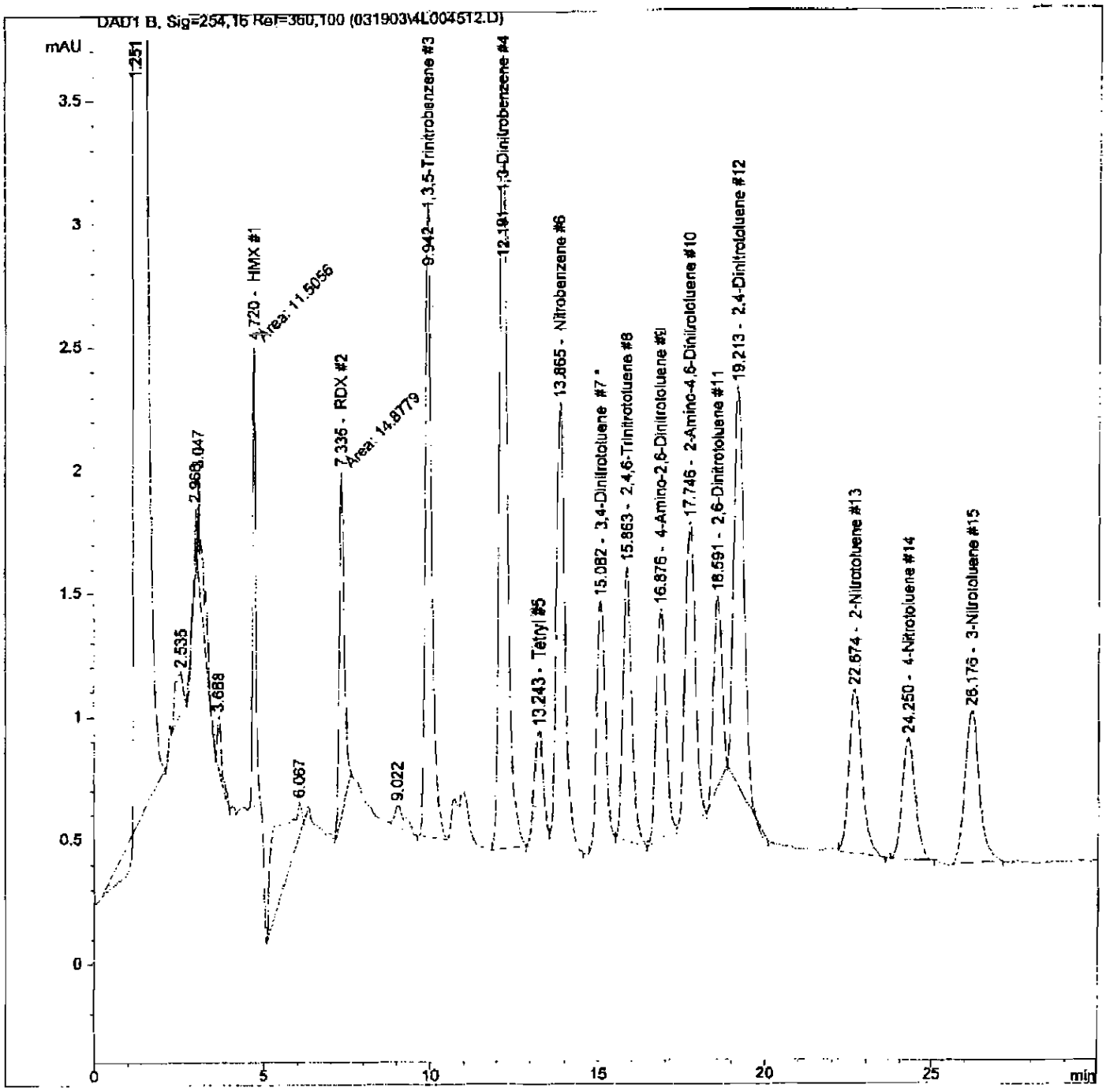
Results obtained with enhanced integrator!

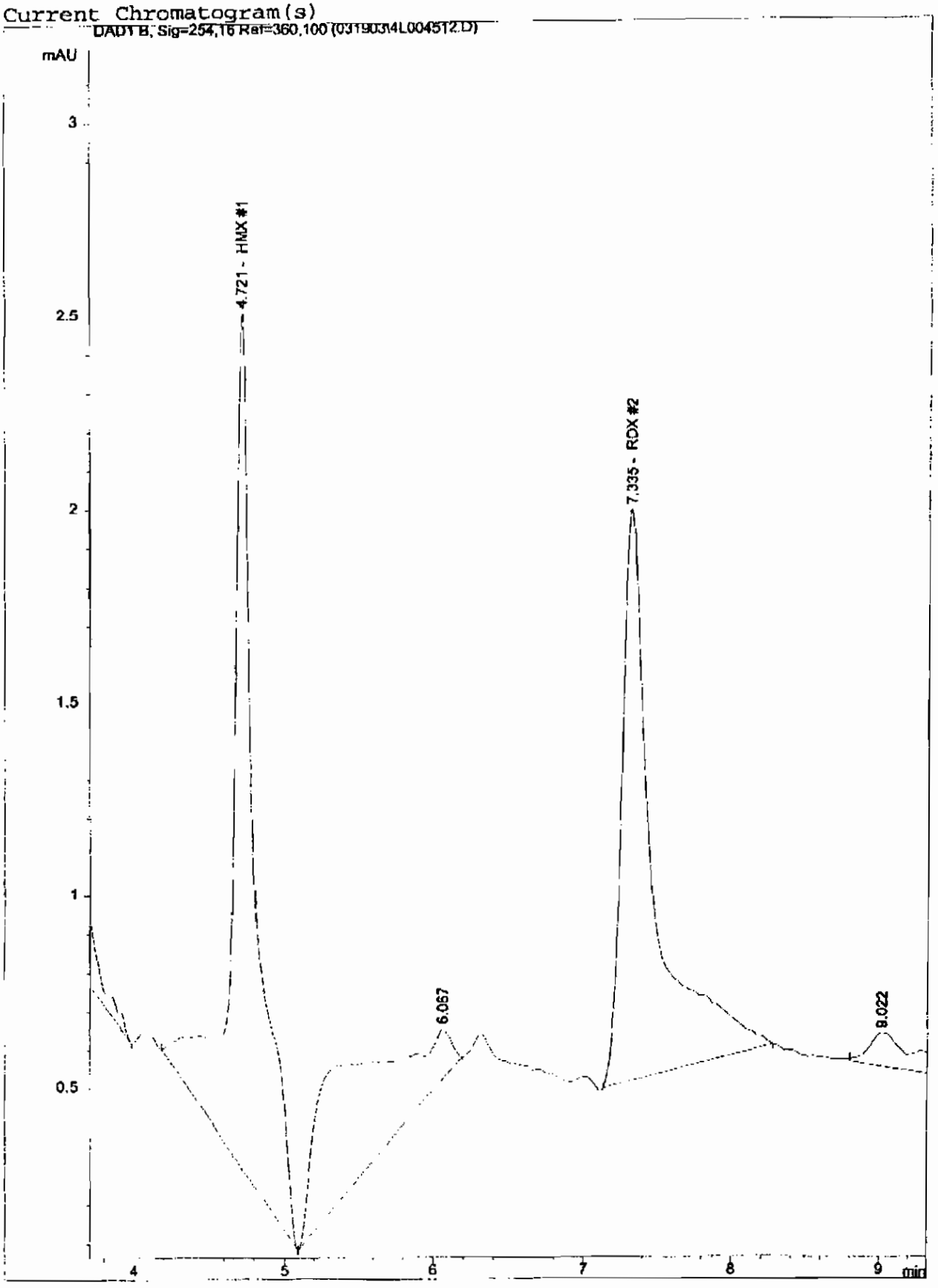
*** End of Report ***

Injection Date : 3/19/2003 3:56:06 PM
Sample Name : WG136531-03 LCS2
Acq. Operator : RDC

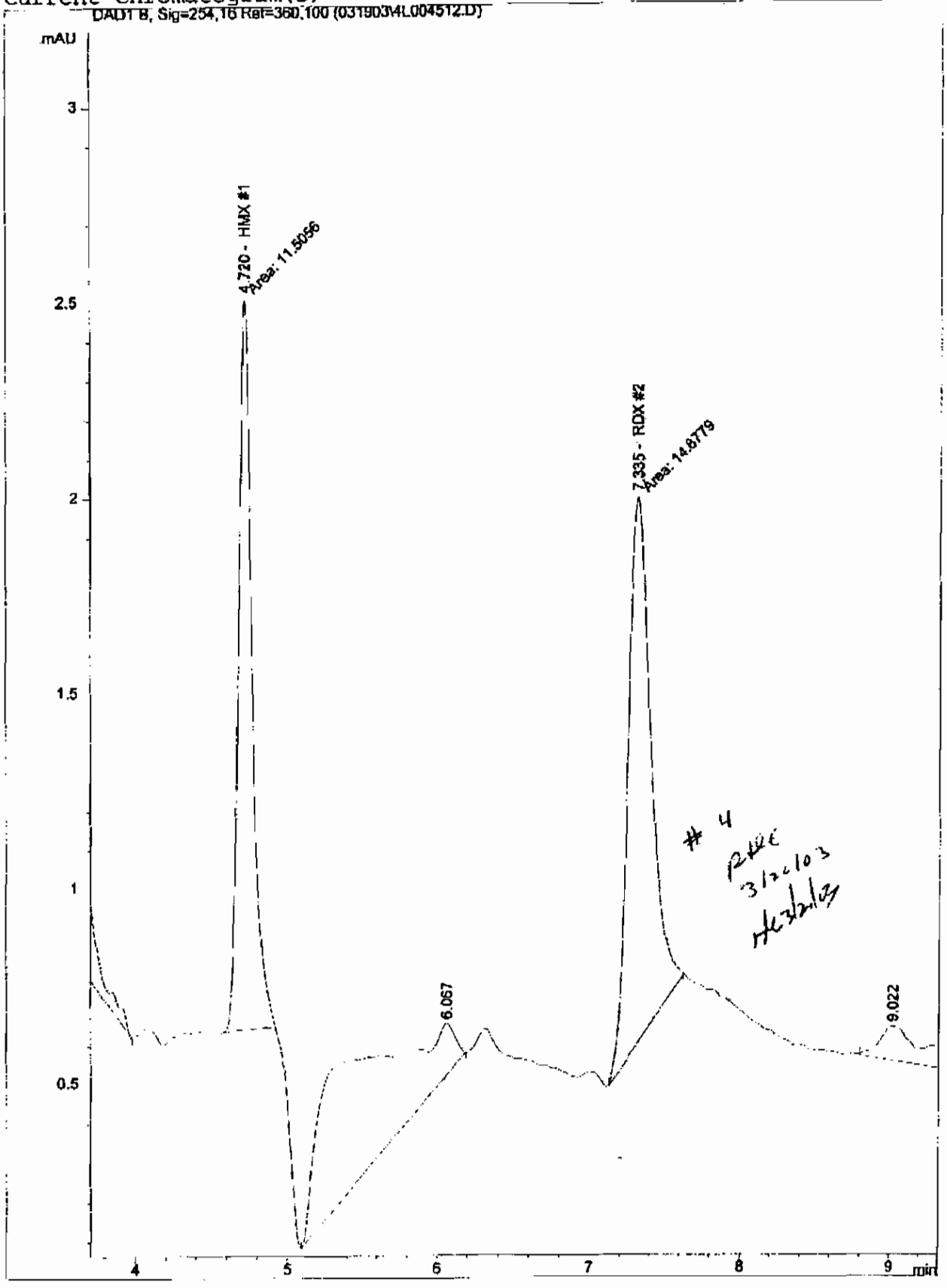
Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 100 µl

Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 3/20/2003 8:33:14 AM by RDC
(modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51




Current Chromatogram(s)
DAD1 B, Sig=254,16 Ref=360,100 (03190314L004512.D)
mAU
3
2.5
2
1.5
1
0.5
4.721 - HMX #1
7.335 - RDX #2
6.057
8.022
4
5
6
7
8
9
min

Current Chromatogram(s)



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Injection Date   : 3/19/2003 3:56:06 PM          Seq. Line :   5
Sample Name      : WG136531-03 LCS2                   Vial :   5
Acq. Operator    : RDC                                Inj :   1
                                                Inj Volume : 100 µl
Acq. Method      : C:\HPCHEM\2\METHODS\8330.M
Last changed     : 2/18/2003 12:04:02 PM by RDC
Analysis Method  : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed     : 3/20/2003 8:33:14 AM by RDC
                   (modified after loading)
8330 CALIBRATION 02/18/2003 @ 20:51
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External Standard Report

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Sorted By             :      Signal
Calib. Data Modified  :      3/20/2003 8:33:13 AM
Multiplier            :      1.0000
Dilution              :      1.0000
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Signal 1: DAD1 B, Sig=254,16 Ref=360,100

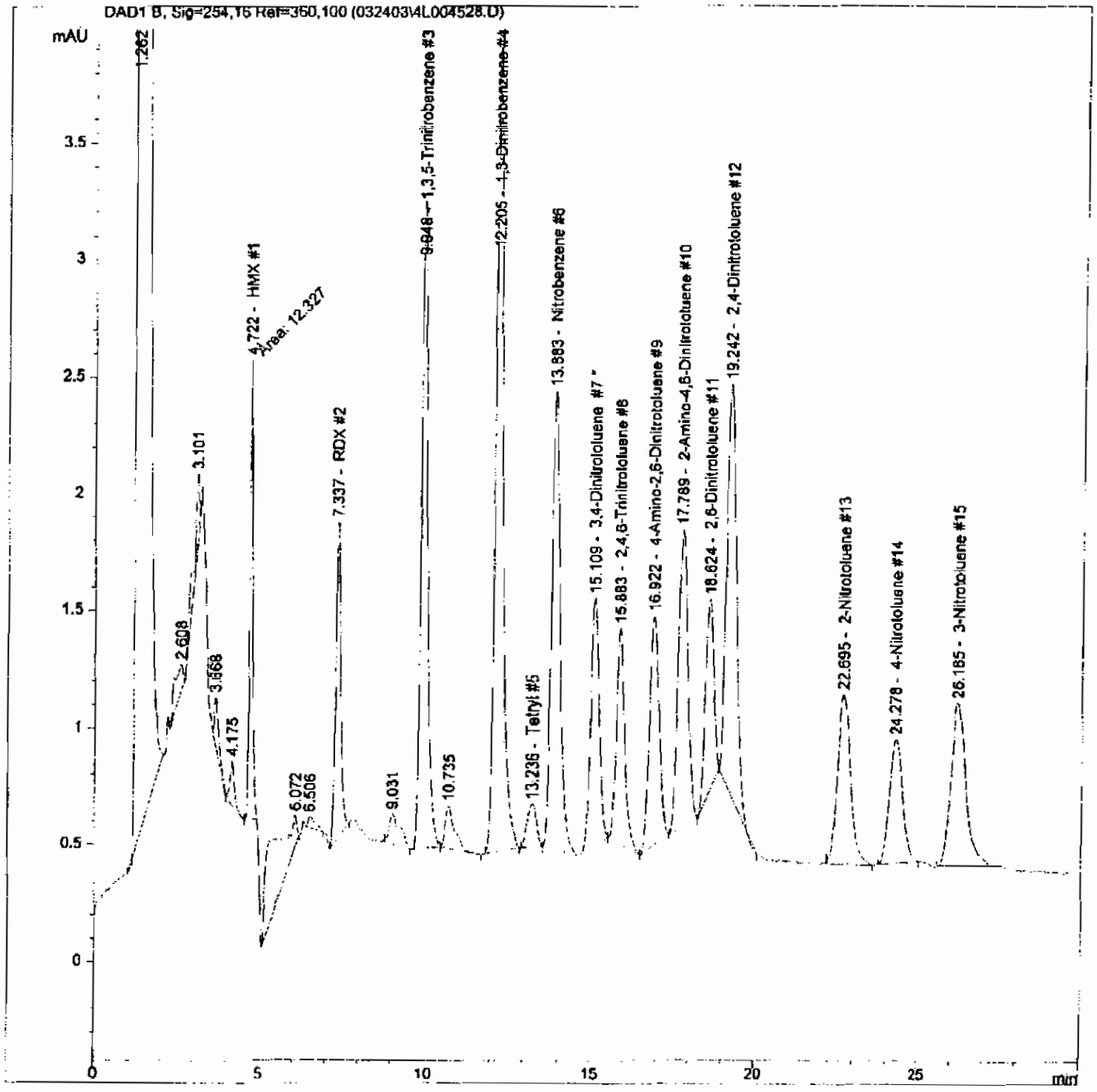
RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.720	MM	11.50556	6.16687	70.95330		HMX #1
7.335	MM	14.87787	5.64309	83.95714		RDX #2
9.942	BB	33.95262	2.40552	81.67385		1,3,5-Trinitrobenzene #3
12.191	BB	51.65208	1.79250	92.58616		1,3-Dinitrobenzene #4
13.243	BB	7.07806	4.60907	32.62328		Tetryl #5
13.865	BBA	30.69759	3.19392	98.04562		Nitrobenzene #6
15.082	BB	17.14156	5.59327	95.87738		3,4-Dinitrotoluene #7 *
15.863	BB	20.50114	2.98704	61.23763		2,4,6-Trinitrotoluene #8
16.876	BB	18.68673	4.94451	92.39676		4-Amino-2,6-Dinitrotoluen
17.746	BB	25.42061	3.42256	87.00348		2-Amino-4,6-Dinitrotoluen
18.591	BB	13.32963	6.16005	82.11113		2,6-Dinitrotoluene #11
19.213	BBA	32.80954	2.54798	83.59814		2,4-Dinitrotoluene #12
22.674	BBA	17.78992	4.87799	86.77900		2-Nitrotoluene #13
24.250	PBA	13.43742	6.21890	83.56593		4-Nitrotoluene #14
26.176	PBA	18.77616	4.43401	83.25357		3-Nitrotoluene #15

Totals : 3172.97390

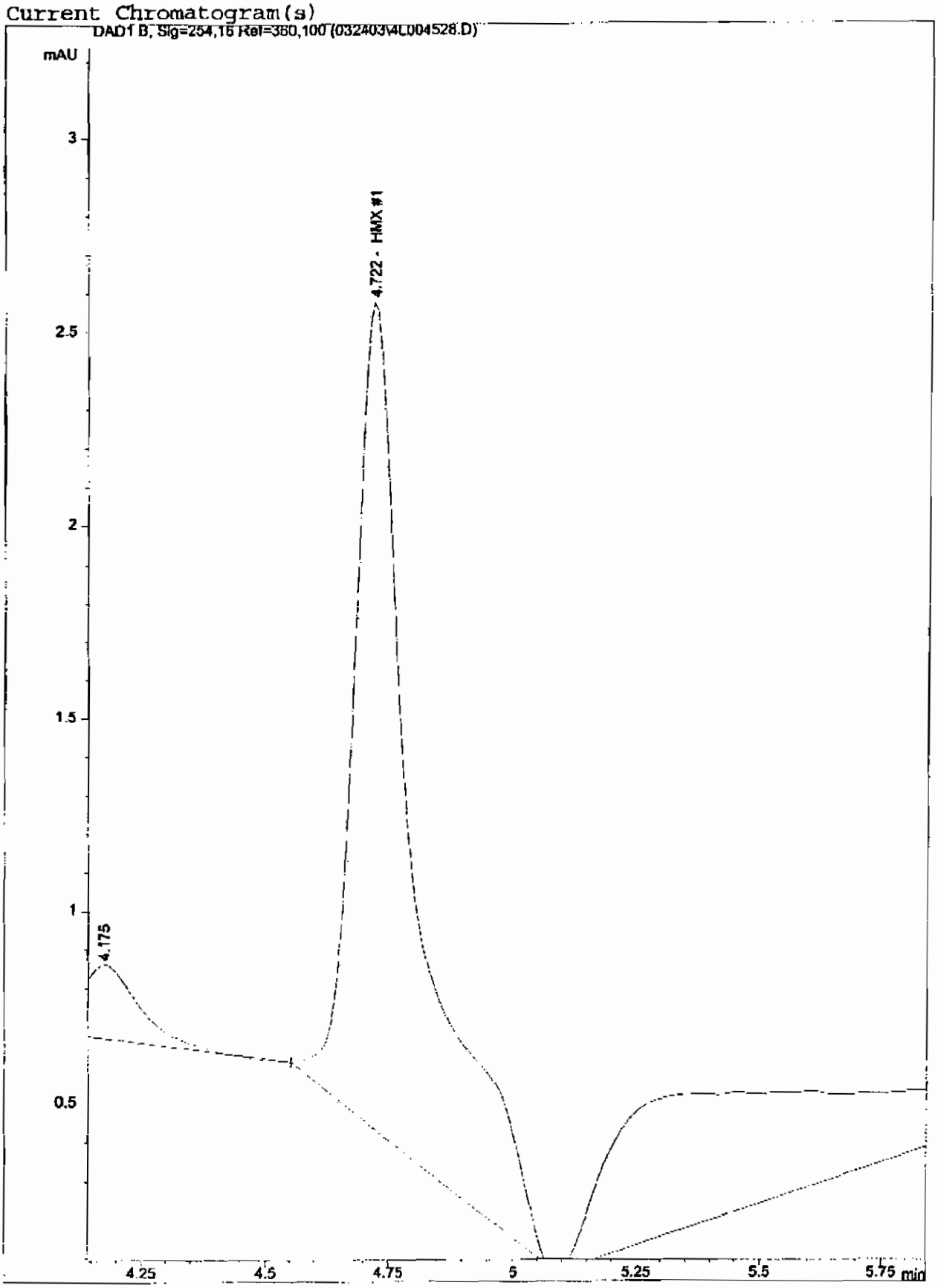
Results obtained with enhanced integrator!

*** End of Report ***

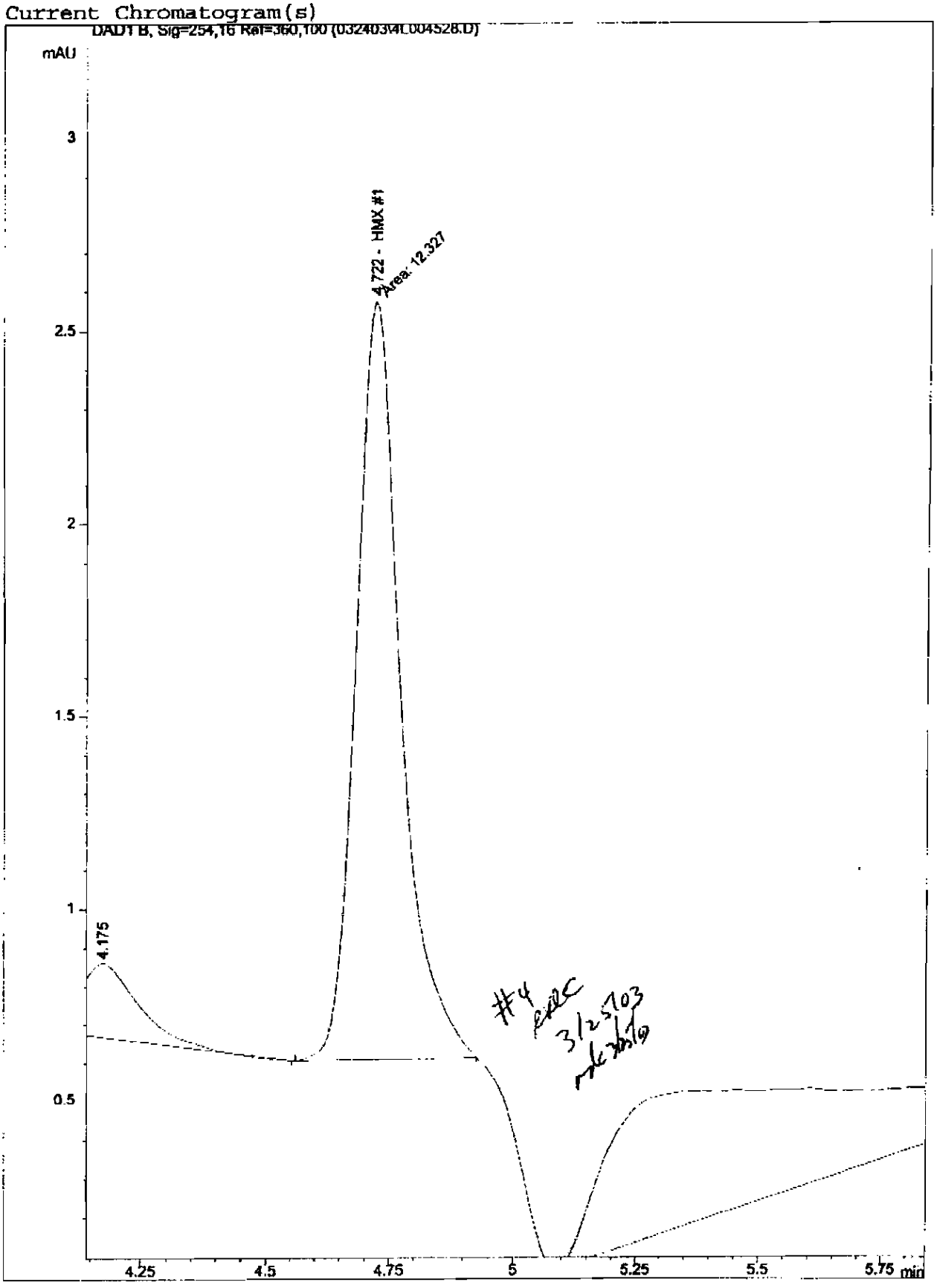
```
Injection Date  : 3/24/2003 8:02:46 PM          Seq. Line :   5
Sample Name     : WG136864-03 LCS2                  Vial :   5
Acq. Operator   : RDC                               Inj :   1
                                                Inj Volume : 100 µl
Acq. Method     : C:\HPCHEM\2\METHODS\8330.M
Last changed    : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed    : 3/20/2003 9:05:10 AM by RDC
8330 CALIBRATION 02/18/2003 @ 20:51
```



Current Chromatogram(s)



Current Chromatogram(s)



HPLC4 3/25/2003 11:09:24 AM RDC

Injection Date : 3/24/2003 8:02:46 PM Seq. Line : 5
Sample Name : WG136864-03 LCS2 Vial : 5
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl

Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 2/18/2003 12:04:02 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 3/20/2003 9:05:10 AM by RDC
8330 CALIBRATION 02/18/2003 @ 20:51

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, March 20, 2003 8:50:28 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.722	MM	12.32703	6.16250	75.96537		HMX #1
7.337	PBA	14.69090	5.64940	82.99476		RDX #2
9.948	BB	37.00147	2.40140	88.85532		1,3,5-Trinitrobenzene #3
12.205	BBA	55.99164	1.79136	100.30116		1,3-Dinitrobenzene #4
13.236	BB	3.11322	4.89365	15.23502		Tetryl #5
13.883	BBA	34.86228	3.19079	111.23820		Nitrobenzene #6
15.109	BB	18.47276	5.58784	103.22282		3,4-Dinitrotoluene #7 *
15.883	BB	17.13107	2.99781	51.35571		2,4,6-Trinitrotoluene #8
16.922	BB	20.22247	4.94413	99.98245		4-Amino-2,6-Dinitrotoluen
17.789	BB	27.08703	3.41943	92.62228		2-Amino-4,6-Dinitrotoluen
18.624	BB	14.17901	6.15788	87.31261		2,6-Dinitrotoluene #11
19.242	BBA	35.66219	2.54429	90.73506		2,4-Dinitrotoluene #12
22.695	BBA	19.83422	4.86738	96.54067		2-Nitrotoluene #13
24.278	BBA	14.65117	6.20189	90.86487		4-Nitrotoluene #14
26.185	PBA	22.09833	4.40714	97.39031		3-Nitrotoluene #15

Totals : 3325.22094

Results obtained with enhanced integrator!

*** End of Report ***

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	Blank Me/AcCN/Wa	8330	1	Sample		
2	2	WG134632-01 STD6	8330	1	Sample		
3	3	WG134632-02 STD5	8330	1	Sample		
4	4	WG134632-03 STD4	8330	1	Sample		
5	5	WG134632-04 STD3	8330	1	Sample		
6	6	WG134632-05 STD2	8330	1	Sample		
7	7	WG134632-06 STD1	8330	1	Sample		
8	8	WG134632-07 ALT	8330	1	Sample		

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8330	4L004235	01:01		Blank Me/AcCN/
No	2	2	8330	4L004236	02:01	DILN OF SO563-40	WG134632-01 ST
No	3	3	8330	4L004237	03:01		WG134632-02 ST
No	4	4	8330	4L004238	04:01		WG134632-03 ST
No	5	5	8330	4L004239	05:01		WG134632-04 ST
No	6	6	8330	4L004240	06:01		WG134632-05 ST
No	7	7	8330	4L004241	07:01		WG134632-06 ST
No	8	8	8330	4L004242	08:01CC	DILN OF SO563-41	WG134632-07 AL

BBC
2/20/03

CC 2/24/03

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Feb.13 2003 Instrument ID HPLC4 Column ID Ultracarb 5 ODS Data Subdirectory 021803
Analyst Initials ACC SOP # HPLC01 Rev. # 4 ____ 8310 SOP # HPLC02 Rev. # 3 ✓ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 2.21 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

4L004242 alt source fails low. Std. appears to be mixed poorly and will require a remix from the intermediate SOS 03-29.

Reviewed By: Eric Lam 2/21/03

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	Blank Me/AcCN/Wa	8330	1	Sample		
2	2	WG134632-07 ALT	8330	1	Sample		
3	3	WG134517-01 BLK	8330	1	Sample		
4	4	WG134517-02 LCS	8330	1	Sample		
5	5	WG134517-03 LCS	8330	1	Sample		
6	6	L0302199-02 833W	8330	1	Sample		
7	7	L0302199-03 833W	8330	1	Sample		
8	8	L0302199-04 833W	8330	1	Sample		
9	9	L0302199-05 833W	8330	1	Sample		
10	10	L0302199-06 833W	8330	1	Sample		
11	11	L0302199-07 833W	8330	1	Sample		
12	12	L0302199-08 833W	8330	1	Sample		
13	13	WG134632-08 CCV	8330	1	Sample		
14	14	L0302199-09 833W	8330	1	Sample		
15	15	L0302199-10 833W	8330	1	Sample		
16	16	L0302199-11 833W	8330	1	Sample		
17	17	L0302199-12 833W	8330	1	Sample		
18	18	L0302199-13 833W	8330	1	Sample		
19	19	L0302199-14 833W	8330	1	Sample		
20	20	L0302199-15 833W	8330	1	Sample		
21	21	L0302199-16 833W	8330	1	Sample		
22	22	L0302199-17 833W	8330	1	Sample		
23	23	L0302199-18 833W	8330	1	Sample		
24	24	WG134632-09 CCV	8330	1	Sample		
25	25	L0302199-19 833W	8330	1	Sample		
26	26	L0302199-20 833W	8330	1	Sample		
27	27	L0302199-21 833W	8330	1	Sample		
28	24	WG134632-10 CCV	8330	1	Sample		

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8330	4L004243	01:01 ✓		Blank Me/AcCN/
No	2	2	8330	4L004244	02:01 ✓	Dil'n of SO563-39	WG134632-07 AL
No	3	3	8330	4L004245	03:01 ✓		WG134517-01 BL
No	4	4	8330	4L004246	04:01 ✓		WG134517-02 LC
No	5	5	8330	4L004247	05:01 ✓		WG134517-03 LC
No	6	6	8330	4L004248	06:01 ✓		L0302199-02 83
No	7	7	8330	4L004249	07:01 ✓		L0302199-03 83
No	8	8	8330	4L004250	08:01 ✓		L0302199-04 83
No	9	9	8330	4L004251	09:01 ✓		L0302199-05 83
No	10	10	8330	4L004252	10:01 ✓		L0302199-06 83
No	11	11	8330	4L004253	11:01 ✓		L0302199-07 83
No	12	12	8330	4L004254	12:01 ✓		L0302199-08 83
No	13	13	8330	4L004255	13:01 ✓	Dil'n of SO563-40	WG134632-08 CC
No	14	14	8330	4L004256	14:01 ✓		L0302199-09 83
No	15	15	8330	4L004257	15:01 ✓		L0302199-10 83
No	16	16	8330	4L004258	16:01 ✓		L0302199-11 83
No	17	17	8330	4L004259	17:01 ✓		L0302199-12 83
No	18	18	8330	4L004260	18:01 ✓		L0302199-13 83
No	19	19	8330	4L004261	19:01 ✓		L0302199-14 83
No	20	20	8330	4L004262	20:01 ✓	*	L0302199-15 83
No	21	21	8330	4L004263	21:01 ✓		L0302199-16 83
No	22	22	8330	4L004264	22:01 ✓		L0302199-17 83
No	23	23	8330	4L004265	23:01 ✓		L0302199-18 83
No	24	24	8330	4L004266	24:01 ✓	Dil'n of SO563-40	WG134632-09 CC
No	25	25	8330	4L004267	25:01 ✓		L0302199-19 83
No	26	26	8330	4L004268	26:01 ✓		L0302199-20 83
No	27	27	8330	4L004269	27:01 ✓		L0302199-21 83
No	28	24	8330	4L004270	28:01 ✓	Dil'n of SO563-40	WG134632-10 CC

TRC 2/20/03

EC 2/24/03

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Feb-19-2003 Instrument ID HPLC4 Column ID Ultracarb 5 ODS Data Subdirectory 021903
Analyst Initials DWC SOP # HPLC01 Rev. # 4 8310 SOP # HPLC02 Rev. # 3 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 220 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Re: L0302199-13 re-int. for HMX/ Cis integrated by the standard chromatography software results were still less than RL of 2.2 mg/kg @ 0.79 mg/kg. DWC 2/20/03

* L0302199-15 not reported with this WG, client requested MS/MSD at this Ref will be re-ext

Reviewed By: EC2 2/24/03

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	Blank Me/AcCN/Wa	8330	1	Sample		
2	2	WG136561-01 CCV	8330	1	Sample		
3	3	WG136531-01 BLK	8330	1	Sample		
4	4	WG136531-02 LCS	8330	1	Sample		
5	5	WG136531-03 LCS2	8330	1	Sample		
6	6	L0303352-01 833W	8330	1	Sample		
7	7	L0303355-02 833W	8330	1	Sample		
8	8	L0303266-01 RE	8330	1	Sample		
9	9	WG136561-02 CCV	8330	1	Sample		
10	10	WG136482-01 BLK	8330	1	Sample		
11	11	WG136482-02 LCS	8330	1	Sample		
12	12	WG136482-03 LCS2	8330	1	Sample		
13	13	L0303354-01 833S	8330	1	Sample		
14	14	L0303354-02 833S	8330	1	Sample		
15	15	L0303355-01 833S	8330	1	Sample		
16	9	WG136561-03 CCV	8330	1	Sample		

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8330	4L004508	01:01		Blank Me/AcCN/
No	2	2	8330	4L004509	02:01	DIL'N 505 64-02	WG136561-01 CC
No	3	3	8330	4L004510	03:01		WG136531-01 BL
No	4	4	8330	4L004511	04:01		WG136531-02 LC
No	5	5	8330	4L004512	05:01		WG136531-03 LC
No	6	6	8330	4L004513	06:01	RE	L0303352-01 83
No	7	7	8330	4L004514	07:01		L0303355-02 83
No	8	8	8330	4L004515	08:01		L0303266-01 RE
No	9	9	8330	4L004516	09:01	505 64-03 DIL'N	WG136561-02 CC
No	10	10	8330	4L004517	10:01		WG136482-01 BL
No	11	11	8330	4L004518	11:01		WG136482-02 LC
No	12	12	8330	4L004519	12:01		WG136482-03 LC
No	13	13	8330	4L004520	13:01		L0303354-01 83
No	14	14	8330	4L004521	14:01		L0303354-02 83
No	15	15	8330	4L004522	15:01		L0303355-01 83
No	16	9	8330	4L004523	16:01	505 64-02 (DIL'N.)	WG136561-03 CC

RQ
3/20/03

EC 3/20/03

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Mar. 19, 2003 Instrument ID HPLC4 Column ID Ultracarb 5 ODS Data Subdirectory 031903
Analyst Initials CRC SOP # HPLC01 Rev. # 4 8310 SOP # HPLC02 Rev. # 3 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 227 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

_____

_____

Action Taken: _____

_____

_____

Comments

L0303352-01 SURR @ 31.4% (50-150)

Reviewed By: ECZ 3/20/03

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	Blank Me/AcCN/Wa	8330	1	Sample		
2	2	WG136885-01 CCV	8330	1	Sample		
3	3	WG136864-01 BLK	8330	1	Sample		
4	4	WG136864-02 LCS	8330	1	Sample		
5	5	WG136864-03 LCS2	8330	1	Sample		
6	6	L0303352-01 RE	8330	1	Sample		
7	2	WG136885-02 CCV	8330	1	Sample		

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8330	4L004524	01:01		Blank Me/AcCN/
No	2	2	8330	4L004525	02:01		WG136885-01 CC
No	3	3	8330	4L004526	03:01		WG136864-01 BL
No	4	4	8330	4L004527	04:01		WG136864-02 LC
No	5	5	8330	4L004528	05:01		WG136864-03 LC
No	6	6	8330	4L004529	06:01		L0303352-01 RE
No	7	2	8330	4L004530	07:01		WG136885-02 CC

3/25/03
3/25/03

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time 032403 Instrument ID HPLC4 Column ID Ultracarbs ODS Data Subdirectory 032403
Analyst Initials [illegible] SOP # HPLC01 Rev. # 4 ____ 8310 SOP # HPLC02 Rev. # 3 ✓ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 228 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

L0303352-9 is a re-ext. in hold with acceptable surr. recovery —

* WG136864-02 & 03 (LCS & LCS DUP) yielded % recoveries for HMX, tetryl, & 2,4,6-TNT that were below the advisory limit...

Reviewed By: [illegible] 3/25/03

Sample Extraction Log Sheet – Method 8330 / Explosives

Analyst: CEB
Date: 3-19-03 @ 0730
SOP#: EXTNT1 REV 4
Spike Analyst: CEB Witness: NA
Sample Matrix: H_2O
Ext Solvent: CH_3CN Lot#: Y2269
Ext Solvent: MeOH Lot#: 42247236
Ext Disk: SDB-RPS Lot#: 760082
Other: HPLC H_2O Lot#: Y2269

Extract Relinquished By: CEB
Extract Received By: ROC
Date Extract Received: 3/19/03

Matrix Spike # / Conc: WG ES30043-48 @ 1.0 ppm
Surrogate Spike # / Conc: WG ES30043-44 @ 1.0 ppm
CEB 3/19/03
Extraction Work Group: WG136531
Analytical Work Group: WG-136562

Sonic Bath On – Date:	N/A
Time (1) N/A	Temp (1) N/A
Time (2) N/A	Temp (2) N/A
Sonic Bath Off – Date:	N/A
Time (3) N/A	Temp (3) N/A

	Project ID	Sample ID	Sample Wt (g) / Vol (mL)	Surrogate Amount (uL)	Matrix Spike Amount (uL)	Extract F. Volume (mL)	Comments
1		BLK	1L	1000uL		10.0mL	WG136531-01
2		LCS	1	1	1000uL	1	-02
3		LCS DUP	1	1	1	1	-03
4	CCI	03-352-01	960mL	1	1	1	
5	SHAW	03-355-02	1L	1	1	1	
6	1	03-266-01	950mL	1	1	1	REEXT IN HOLD
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

CEB 3-19-03

All soil samples are air dried to a constant weight prior to extraction
*All extracts are filtered through a 0.45 um teflon **ACRODISC** prior to analysis*

Reviewed by: _____

Sample Extraction Log Sheet – Method 8330 / Explosives

Analyst: CEB
Date: 3-24-03 @ 1330
SOP#: EXTNT1 Rev 4
Spike Analyst: CEB Witness: [illegible]
Sample Matrix: H2O
Ext Solvent: CH3CN Lot#: 42269
Ext Solvent: MeOH Lot#: 42247236
Ext Disk: SDB-RPS Lot#: 760082
Other: HPLC H2O Lot#: 42269

Extract Relinquished By: CEB
Extract Received By: [illegible]
Date Extract Received: 3/24/03

Matrix Spike # / Conc: ES50043-48 @ 1.0 ppm
Surrogate Spike # / Conc: ES50043-44 @ 1.0 ppm

Extraction Work Group: WG136864
Analytical Work Group: WG136932

Sonic Bath On – Date: N/A
Time (1) N/A Temp (1) N/A
Time (2) N/A Temp (2) N/A
Sonic Bath Off – Date: N/A
Time (3) N/A Temp (3) N/A

	Project ID	Sample ID	Sample Wt (g) / Vol (mL)	Surrogate Amount (uL)	Matrix Spike Amount (uL)	Extract F. Volume (mL)	Comments
1		BLK	1L	1000uL		10.0mL	WG136864 -01
2		LCS	1	1	1000uL	1	1 -02
3		LCS DUP	1	1	1	1	1 -03
4		03-352-01	700mL	1		1	REEXT IN HOLD VERY SLOW, yellow extract
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

CEB 3-24-03

All soil samples are air dried to a constant weight prior to extraction
All extracts are filtered through a 0.45 um teflon ACRODISC prior to analysis

Reviewed by: _____

Semi-Volatile 8330 Checklist

Run Date: 02/18/03 and 02/19/03

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
02-199	2/26/2003	

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	NA
	QC Forms	√
mples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Manual Re-Integrations	√
	Level 2/2 (X)	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

L0302199-15 not reported here. Sample was pulled from this WG and re-extracted as parent for MS/MSD at the request of the client.

Primary Reviewer: [illegible] 2/21/03

Secondary Reviewer: EC 2/24/03

Supervisor Review: EC 2/24/03

√ NA

Semi-Volatile 8330 Checklist

Run Date: 19-Mar-03

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
03-266 RE	3/18/2003	P1
03-352	3/21/2003	P1
03-354	3/25/2003	P1
03-355	3/21/2003	P1

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	NA
	All Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	NA
	QC Forms	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	√
Data Package:	Manual Re-integrations	√
	Level 2/2 (X)	√
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

L0303266-01 RE met all acceptance criteria for the surrogate. This re-ext. within holding time was reported.

LCS/LCS dup associated with the soil fractions yielded %recovery for tetryl that was below the advisory limit.

LCS/LCS dup associated with the water fractions yielded % recovery for HMX that was below the advisory limit.

L0303352-01 sent for re-extract due to surr. recovery < LCL.

Primary Reviewer: RDC 3/21/03

Secondary Reviewer: [illegible] 3/21/03

Supervisor Review: [illegible] 3/21/03

√
NA

Semi-Volatile 8330 Checklist

Run Date: 24-Mar-03 (re-ext.)

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
03-352	3/21/2003	p1

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadratic regression	NA
	Alt Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	NA
	QC Forms	√
mples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Manual Re-integrations	√
	Level 2/2 (X)	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

L0303352-01 was re-extracted within holding time and the surrogate met all acceptance criteria. The LCS/LCS dup yielded %recoveries for HMX, tetryl, and 2,4,6-TNT that were below advisory limits. Both the initial extraction and this set of data have been uploaded.

Primary Reviewer: RDC 3/25/03

Secondary Reviewer: [signature] 3/25/03

Supervisor Review: [signature] 3/25/03

√ NA

Example 8330 Calculations

1.0 Calulating the Calibration Factor (CF) from the initial calibration (ICAL) data:

CF = Cs/As

		Example:
Where:	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ng/ml).	100
	CF	**0.01**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:*

C = [(Ax)(Vf)(D)(CF)] / Vi

		Example:
Where:	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	**0.01**
	Vi = Initial volume of sample (mL). (prep log)	1000
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report:*

C = [(Ax)(Vf)(D)(CF)] / Vi

		Example:
Where:	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	0.01
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

* Concentrations appearing on instrument quantitation reports are on-column results and do not take into account initial volume, final volume and dilution factor.

2.2.15 Formaldehyde (8315A)

REPORT NARRATIVE
FORMALDEHYDE by HPLC

KEMRON Login No.: L0303352

METHOD

Preparation: SW- 846 8315A
Analysis: SW-846 8315A

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: The re-extraction of sample fraction 01 was performed out of holding time.

PREPARATION

Sample preparation proceeded nonnally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD were not associated with this sample delivery group.

SAMPLES

Samples: Sample fraction 01 analysis resulted in a reportable amount of formaldehyde at 259 ug/L. Extracted in the same batch, an unrelated MS sample recovered 18% of the nominal spike of 250 ug/L. Due to this unexpected low MS recovery the data appeared suspect in that L0303352-01 recovered near the spike level for the MS. There was some consideration that an error could have occurred in spiking or transposing of samples. In order to validate the reportable level of formaldehyde in L0303352-01 the sample was re-extracted out of holding time and resulted in a reportable amount of formaldehyde at 105 ug/L. Results from both extractions were reported.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC REVIEWED: _____ DATE: 3/20/03

Rev. 7/14/00

FORMALDEHYDE (8315A)

Login Number L0303352

A. QC Summary

- ✓ Method Blank Summary
- ✓ Method Blank Results
- ✓ Laboratory Control Sample (LCS)
- NA Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- NA Sample Duplicate
- ✓ Holding Time Summary
- ✓ Initial Calibration Summary
- ✓ Initial Calibration Verification (ICV) Form (Second Source)
- ✓ Continuing Calibration Verification (CCV)
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet

B. Sample Data

- ✓ Target analyte results summary (See Summary Report)
- ✓ Chromatograms and quantitation report

C. Standards Data

- ✓ Initial calibration (ICAL) summary form
- ✓ Chromatograms and quantitation report for ICAL standards
- ✓ Initial calibration verification (ICV/second source) summary forms
- ✓ Initial calibration verification (ICV/second source) quantitation reports and chromatograms
- ✓ Continuing Calibration Verification (CCV) summary forms
- ✓ Continuing Calibration Verification (CCV) quantitation reports and chromatograms
- NA Retention Time Window Summary

D. Raw QC Data

- ✓ Method blank chromatogram and quantitation report
- ✓ LCS chromatogram and quantitation report
- NA MS/MSD chromatogram and quantitation report
- NA Duplicate chromatogram and quantitation report
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet
- ✓ Daily Checklist
- ✓ Example Calculations

Checked By: TRC **Date:** 3/27/03

2.2.15.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0303352
Work Group: WG136741
Blank File ID: 3L002265.F
Blank Sample ID: WG136599-02
Date Analyzed: 03/20/03
Instrument ID: HPLC3
Time Analyzed: 15:20
Method: 8315A
Analyst: RDC

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG136599-03	3L002266.F	03/20/03 15:33	01
LCS2	WG136599-04	3L002267.F	03/20/03 15:45	01
177511-DW-031703	L0303352-01	3L002272.F	03/20/03 16:47	01

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0303352
Blank File ID: 3L002281.F
Date Analyzed: 03/24/03
Time Analyzed: 14:58
Analyst: RDC

Work Group: WG136886
Blank Sample ID: WG136850-01
Instrument ID: HPLC3
Method: 8315A

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG136850-02	3L002282.F	03/24/03 15:10	01
LCS2	WG136850-03	3L002283.F	03/24/03 15:23	01
177511-DW-031703	L0303352-01	3L002284.F	03/24/03 15:35	RE01

KEMRON FORMS - Modified 03/21/2003
Version 1.2
Report generated 03/27/2003 15:42

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0303352 Run Date: 03/20/2003 Sample ID: WG136599-02
Instrument ID: HPLC3 Run Time: 15:20 Prep Method: METHOD
File ID: 3L002265.F Analyst: RDC Method: 8315A
Workgroup (AAB#): WG136741 Matrix: Water Units: ug/L
Contract #: Cal ID: HPLC3-20-MAR-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Formaldehyde	25.0	50.0	25.0	1	U

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number:L0303352 Run Date:03/24/2003 Sample ID:WG136850-01
Instrument ID:HPLC3 Run Time:14:58 Prep Method:METHOD
File ID:3LQ02281.F Analyst:RDC Method:8315A
Workgroup (AAB#):WG136886 Matrix:Water Units:ug/L
Contract #: Cal ID:HPLC3-20-MAR-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Formaldehyde	25.0	50.0	25.0	1	U

KEMRON FORMS - Modified 02/07/2003
Version 1.3
Report generated 03/27/2003 15:42

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum:L0303352 Worknum:WG136741 Method:8315A
Instrument ID:HPLC3 Cal ID: HPLC3-20-MAR-2003 14:43 Matrix:Water
Analyst:RDC Contract #: Units:ug/L
Sample ID:WG136599-03 LCS File ID:3L002266.F Run Date:03/20/2003 15:33
Sample ID:WG136599-04 LCS2 File ID:3L002267.F Run Date:03/20/2003 15:45

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
Formaldehyde	250	268	107	250	284	114	5.56	39 - 153	30	

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum:L0303352 Worknum:WG136886 Method:8315A
Instrument ID:HPLC3 Cal ID: HPLC3-20-MAR-2003 14:43 Matrix:Water
Analyst:RDC Contract #: Units:ug/L
Sample ID:WG136850-02 LCS File ID:3L002282.F Run Date:03/24/2003 15:10
Sample ID:WG136850-03 LCS2 File ID:3L002283.F Run Date:03/24/2003 15:23

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
Formaldehyde	250	264	106	250	261	104	1.12	39 - 153	30	

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON FORMS - Modified 10/29/2002
Version 1.2
Report generated 03/27/2003 15:42

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method:8315A

AAB#:WG136741

Login Number:L0303352

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
177511-DW-031703	03/17/03	03/18/03	03/19/03	3	1.67	03/20/03	3	1.24	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON FORMS - Modified 12/06/2002
Version 1.2
Report generated 03/27/2003 15:42

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8315A

AAB#: WG136886

Login Number: L0303352

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
177511-DW-031703	03/17/03	03/18/03	03/24/03	3	6.67	03/24/03	3	0.191	*EXT

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON FORMS - Modified 12/06/2002
Version 1.2
Report generated 03/27/2003 15:42

Calibration Table

8315A formaldehyde

Calib. Data Modified : 3/20/03 3:08:55 PM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 3.000 %
Abs. Reference Window : 0.000 min
Rel. Non-ref. Window : 3.000 %
Abs. Non-ref. Window : 0.500 min
Uncalibrated Peaks : using compound Formaldehyde
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Ignored
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: VWD1 A, Wavelength=360 nm

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
5.166	1	1	500.00000	786.40509	6.35805e-1			Formaldehyde
		2	1000.00000	1318.24670	7.58583e-1			
		3	5000.00000	6056.20947	8.25599e-1			
		4	1.00000e4	1.11572e4	8.96280e-1			
		5	2.00000e4	2.23778e4	8.93742e-1			
6.282	1	1	5000.00000	4848.69531	1.03121			Acetaldehyde

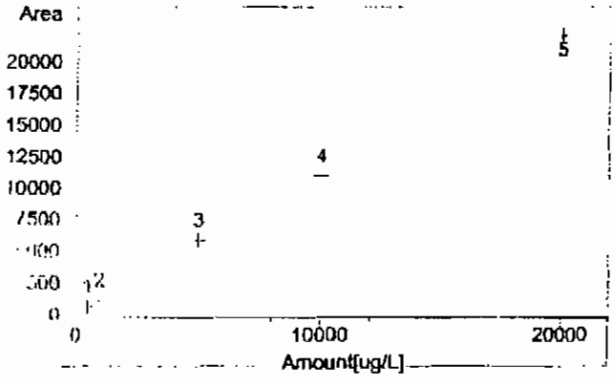
Warnings or Errors :

Warning : Curve requires more calibration points., (Acetaldehyde)

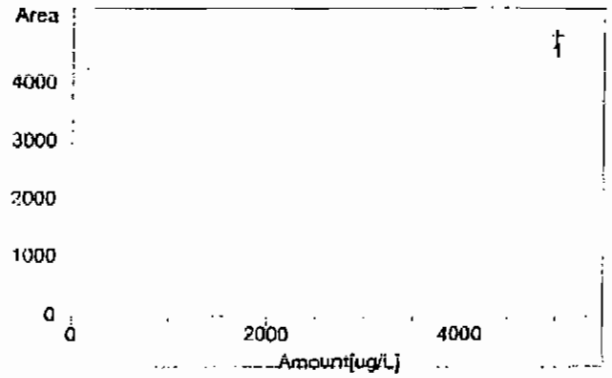
Peak Sum Table

No Entries in table

Calibration Curves



Formaldehyde at exp. RT: 5.166
VWD1 A, Wavelength=360 nm
Correlation: 0.99984
Residual Std. Dev.: 181.50729
Formula: y = mx + b
m: 1.10370
b: 282.17765
x: Amount [ug/L]
y: Area



Acetaldehyde at exp. RT: 6.282
VWD1 A, Wavelength=360 nm
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx + b
m: 9.69739e-1
b: 0.00000
x: Amount [ug/L]
y: Area

Check Standard Report

Data File C:\HPCHEM\1\DATA\032003\3L002263.D Sample Name: WG136746-06 ALT.
HPLC3 3/20/03 3:12:06 PM RDC

1,1 80264-11 200 ug/L

Injection Date : 3/20/03 2:55:39 PM Seq. Line : 7

Signal 1: VWD1 A, Wavelength=360 nm

Compound	RT	Known Conc.	Cal. Conc.	%D
Formaldehyde	5.167	5,000.0	5,408.709	8.2
Acetaldehyde	6.282	5,000.0	5,000.000	0.0

* Failed 15.0% Criteria

Check Standard Report

Data File C:\HPCHEM\1\DATA\032003\3L002273.D Sample Name: WG136746-07 CCV
HPLC3 3/21/03 8:55:40 AM RDC

[illegible] @ 250 ug/L

Injection Date : 3/20/03 5:00:24 PM Seq. Line : 17

Signal 1: VWDI A, Wavelength=360 nm

Compound	RT	Known Conc.	Cal. Conc.	%D
Formaldehyde	5.170	5,000.0	5,304.363	6.1
Acetaldehyde	6.286	5,000.0	367.405	-92.7 #

= Failed 15.0% Criteria

Check Standard Report

Data File C:\HPCHEM\1\DATA\032103\3L0C2275.D Sample Name: WG13674-08 CCV
HPLC3 3/21/03 10:56:45 AM RDC

[illegible]-01 @ 250 ng/L

Injection Date : 3/21/03 10:11:49 AM Seq. Line : 2

Signal 1: VWD1 A, Wavelength=360 nm

Compound	RT	Known Conc.	Cal. Conc.	%D
Formaldehyde	5.167	5,000.0	5,233.730	4.7
Acetaldehyde	6.277	5,000.0	386.526	-92.3 #

Failed 15.0% Criteria

Check Standard Report

Data File C:\HPCHEM\1\DATA\032103\3L002278.D Sample Name: WG136746-09 CCV
HPLC3 3/21/03 1:31:35 PM RDC

1,1 SOS63-01 @ 250 ug/L

Injection Date : 3/21/03 10:49:11 AM Seq. Line : 5

Signal 1: VWD1 A, Wavelength=360 nm

Name	RT	Known Conc.	Cal. Conc.	%D
Formaldehyde	5.184	5,000.0	5,237.986	4.8
Acetaldehyde	6.297	5,000.0	378.785	-92.4 #

= Failed 15.0% Criteria

Check Standard Report

Data File C:\HPCHEM\1\DATA\032403\3L002280.D Sample Name: WG136863-01 CCV
HPLC3 3/24/03 2:55:13 PM RDC

L1 WG136863-01 @ 250 ug/L

Injection Date : 3/24/03 2:40:27 PM Seq. Line : 2

Signal 1: VWD1 A, Wavelength=360 nm

Compound	RT	Known Conc.	Cal. Conc.	%D
Formaldehyde	5.168	5,000.0	5,258.988	5.2
Acetaldehyde	6.266	5,000.0	742.075	-85.2 #

: Failed 15.0% Criteria

Check Standard Report

Data File C:\HPCHEM\1\DATA\032403\3L002286.D Sample Name: WG136863-02 CCV
HPLC3 3/24/03 4:19:34 PM RDC

[illegible] WG363-01 @ 250 ug/L

[illegible] Date : 3/24/03 4:00:32 PM Seq. Line : 8

Signal 1: VWD1 A, Wavelength=360 nm

Compound	RT	Known Conc.	Cal. Conc.	%D
Formaldehyde	5.159	5,000.0	5,317.489	6.3
Acetaldehyde	6.259	5,000.0	696.135	-86.1 #

= Failed 15.0% Criteria

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	AcCN blank	8315	1	Sample		
2	2	WG136746-01 STD5	8315	1	Sample		
3	3	WG136___-02 STD4	8315	1	Sample		
4	4	WG136___-03 STD3	8315	1	Sample		
5	5	WG136___-04 STD2	8315	1	Sample		
6	6	WG136___-05 STD1	8315	1	Sample		
7	7	WG136___-06 ALT.	8315	1	Sample		
8	8	8315 MDL	8315	1	Sample		
9	9	WG136599-02 BLK	8315	1	Sample		
10	10	WG136599-03 LCS	8315	1	Sample		
11	11	WG136599-04 LCS2	8315	1	Sample		
12	12	L0303332-01 8315	8315	1	Sample		
13	13	L0303333-01 8315	8315	1	Sample		
14	14	WG136599-01 REF	8315	1	Sample		
15	15	WG136599-05 MS	8315	1	Sample		
16	16	L0303352-01 8315	8315	1	Sample		
17	4	WG136746-07 CCV	8315	1	Sample		

							Sample Name
No	1	1	8315	3L002257	01:01 ✓		AcCN blank
No	2	2	8315	3L002258	02:01 ✓	DIL'N SOS 63-01	WG136 746-01 [illegible]
No	3	3	8315	3L002259	03:01 ✓		WG136 [illegible]-02 [illegible]
No	4	4	8315	3L002260	04:01 ✓		WG136 [illegible]-03 [illegible]
No	5	5	8315	3L002261	05:01 ✓		WG136 [illegible]-04 ST
No	6	6	8315	3L002262	06:01 ✓		WG136 [illegible]-05 ST
No	7	7	8315	3L002263	07:01 ✓	DIL'N SOS 64-11	WG136 [illegible]-06 AL
No	8	8	8315	3L002264	08:01 ✓	DIL'N SOS 63-01	8315 MDL
No	9	9	8315	3L002265	09:01 ✓		WG136599-02 BL
No	10	10	8315	3L002266	10:01 ✓		WG136599-03 LC
No	11	11	8315	3L002267	11:01 ✓		WG136599-04 LC
No	12	12	8315	3L002268	12:01 ✓		L0303332-01 83
No	13	13	8315	3L002269	13:01 ✓		L0303333-01 83
No	14	14	8315	3L002270	14:01 ✓		WG136599-01 RE
No	15	15	8315	3L002271	15:01 RR		WG136599-05 MS
No	16	16	8315	3L002272	RR 16:01 RE		L0303352-01 83
No	17	4	8315	3L002273	17:01 ✓	DIL'N SOS 63-01	WG136 746-07 [illegible]

[illegible]
3/21/03
[illegible] 3/21/03

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Mar 29 05 Instrument ID HPLC3 Column ID LC-PAH Data Subdirectory 032003
Analyst Initials RM SOP # HPLC01 Rev. # 4 8310 SOP # HPLC02 Rev. # 3 8330
8315A ✓

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 40 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

WG136599-05 MS (L0303333-02MS) 50.9 ug/L (20.4%)
L0303352-01 258.8 ug/L formaldehyde

* Samples may have been transposed, will RR (after dispensing from E-lab vials)

Reviewed By: _____

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	AcCN blank	8315	1	Sample		
2	2	WG136746-08 CCV	8315	1	Sample		
3	3	WG136599-05 MS/R	8315	1	Sample		
4	4	L0303352-01 RR	8315	1	Sample		
5	2	WG136746-09 CCV	8315	1	Sample		

RDC 3/21/03 2

Cl	Run	Vial	Method	Datafile	Seqlable	Calib:RF:RT	Sample Name
No	1	1	8315	3L002274	01:01 ✓		AcCN blank
No	2	2	8315	3L002275	02:01 ✓	S0563-01	WG136746-08 CC
No	3	3	8315	3L002276	03:01 ✓		WG136599-05 MS
No	4	4	8315	3L002277	RE 04:01 ✓		L0303352-01 RR
No	5	2	8315	3L002278	05:01 ✓	S0563-01	WG136746-09 CC

RFee
3/21/03
[illegible]

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Mar. 4, 03 Instrument ID HPLC3 Column ID LC-PAH Data Subdirectory 030403
Analyst Initials RDC SOP # HPLC01 Rev. # 4 8310 SOP # HPLC02 Rev. # 3 8330
8315A ✓

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 40 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

LO303352-01 RC has a qty of formaldehyde @ the MS Spike level

LO30333-02 MS has a qty of formaldehyde equal to 20% recovery

* samples may have been transposed 03352-01 will be re-extracted to verify results. RDC

Reviewed By: _____

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	AcCN blank	8315	1	Sample		
2	2	WG136863-01 CCV	8315	1	Sample		
3	3	WG136850-01 BLK	8315	1	Sample		
4	4	WG136850-02 LCS	8315	1	Sample		
5	5	WG136850-03 LCS2	8315	1	Sample		
6	6	L0303352-01 RE	8315	1	Sample		
7	7	8315 MDL	8315	1	Sample		
8	2	WG136863-02 CCV	8315	1	Sample		

Sel	Run	Vial	Method	Datafile	Seqtable	Calib:RF:RT	Sample Name
No	1	1	8315	3L002279	01:01 ✓		AcCN blank
No	2	2	8315	3L002280	02:01 ✓	DUP 305463-01	WG136863-01 DUP
No	3	3	8315	3L002281	03:01 ✓		WG136850-01 LCS
No	4	4	8315	3L002282	04:01 ✓		WG136850-02 LCSD
No	5	5	8315	3L002283	05:01 ✓		WG136850-03 MB
No	6	6	8315	3L002284	06:01 ✓		L0303352-01 MB
No	7	7	8315	3L002285	07:01 ✓		8315 MDL
No	8	2	8315	3L002286	08:01 ✓	305463-01 DUP.	WG136863-02 MS

TMC 3/24/03 3/25/03

KEMRON ENVIRONMENTAL SERVICES

HPLC Laboratory Maintenance Log

Analysis Date/Time March 24, 2003 Instrument ID HPLC 3 Column ID LC-PAH Data Subdirectory 03.3403
Analyst Initials CLK SOP # HPLC01 Rev. # 4 8310 SOP # HPLC02 Rev. # 3 8330

8315A ✓

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 41 bar
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

_____

_____

Action Taken: _____

_____

_____

Comments

Reviewed By: _____

Parameter: 8315 H_2O SOP #: EXFORM Revision #: 0
Extraction Analyst(s): CEB TV/KD Analyst(s): CEB
Date/Time Extracted: 3-19-03 @ 1100 Date TV/KD: 3-19-03
Spike/Surrogate Analyst: RDC Witness: CEB
Surrogate #: — Earliest Hold Date: 3-20-03
Spike #: A = 50563-01 Spike #: B = 50564-11

Extraction Work Group WG 136599
Analytical Work Group WG 136741

Extract Relinquished By: CEB
Extract Received By & Date: RAC 3/19/03

CEB 3/19/03

	Sample ID	Test Code	5.0 pH ±0.1 #2	#1	#12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	BN	N	Comments
1	Blank				4.99	100mL	N/A		5.0mL	C				WG 136599-02
2	LCS				5.03			250ul A						WG 136599-03
3	LCS Dup				4.95			1						WG 136599-04
4	03-332-01	8315 Form			5.03									
5	03-333-01				5.01									
6	-02				5.07									WG 136599-01
7	-02MS				5.09			350ul A						WG 136599-05
8	03-352-01	8315 Form			5.04									
9	STD #5				5.05			1000ul A						
10	#4				5.06			500ul A						
11	#3				5.06			250ul A						
12	#2				5.02			50ul A						
13	#1				5.02			25 ul A						
14	ALT Source				4.99			250ul B						
15	MDL ✓				5.07			25ul A						
16														
17														
18														
19														
20														
21														
22														
23														
24														

CEB 3-19-03

Methylene Chloride Lot #: 42351
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: CH_2Cl_2 Lot #: X32823
Reagent: DNPH Lot #: ER2397
Reagent: ACETATE BUFFER Lot #: ER2369
Reagent: 6M NaOH Lot #: ER2145
Acid: 6M HCl Lot #: ER2147
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: _____
Dried Na_2SO_4 Lot #: ER2371

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C					
Sonication	3550B					
Waste	3580A					

SW-846 8315A ✓

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: _____ Date: 3/19/03

Extraction Notes For Volume # 200 Page # 101

General Comments: pH calibration 4 → LOT 2160
7 → LOT 2240

SONIC BATH SET @ 40°C, POWER SET @ 1
ON → 1130
OFF → 1230
ON → 1312
OFF → 1412
ON → 1415
OFF → 1515

Extraction Anomalies: NONE

Concentration Anomalies: NONE

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Parameter: 8315 H2O SOP #: EXFORM Revision #: 0
Extraction Analyst(s): CEB TV/KD Analyst(s): DH
Date/Time Extracted: 3-24-03 @ 1100 Date TV/KD: 7/24/03
Spike/Surrogate Analyst: R-OC Witness: CEB
Surrogate #: — Earliest Hold Date: OUT
Spike #: A = 50563-1 Spike #: B = —

Extraction Work Group WG 136850
Analytical Work Group WG 136226
Extract Relinquished By: [illegible]
Extract Received By & Date: [illegible] 3/24/03

CEB 3/24/03

	Sample ID	Test Code	5.0 pH ± 0.1 <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank				5.03	100mL	N/A		5.0mL					WG 136850-01
2	LCS				4.94			250ul						WG 1 -02
3	LCS DUP				4.90			1						WG 1 -03
4	03-352-01	8315Form			5.03									REEXT OUT HOLD
5	MDL ✓				4.93			25ul						
6	CCV				4.99			250ul						
7														
8														
9														
10														
11														
12														
13														
14														
15						CEB								
16														
17														
18														
19														
20														
21														
22														
23														
24														

Methylene Chloride Lot #: 42351
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: CH3CN Lot #: X32823
Reagent: DNPH Lot #: ER2397
Reagent: ACETATE Buffer Lot #: ER2369
Reagent: 6M NaOH Lot #: ER2146
Acid: 6M HCL Lot #: ER2147
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER2371

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method		On	Off	On	Off
Continuous	3520C				
Soxhlet	3540C				
ASE*	3545				
Sep Funnel	3510C				
Sonication	3550B				
Waste	3580A				

SW-846
8315A ☑

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 7/24/03

Extraction Notes For Volume # 200 Page # 121

General Comments: pH calibration 4 → 2160
7 → 2240

SONIC BATH SET @ 40°C, POWER SET @ 1
ON → 1115
off → 1215

Extraction Anomalies: none

Concentration Anomalies: none

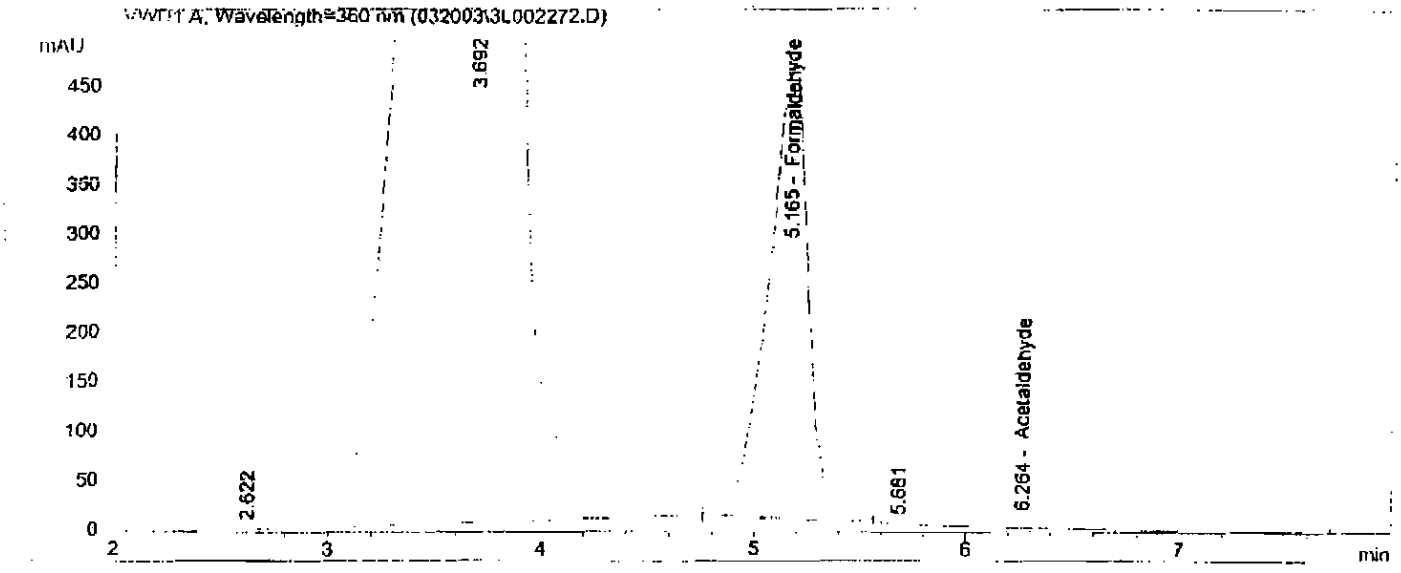
Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

2.2.15.2 Sample Data

Injection Date : 3/20/03 4:47:52 PM Seq. Line : 16
Sample Name : L0303352-01 8315 Vial : 16
Acq. Operator : RDC Inj : 1
Inj Volume : 15 µl

Acq. Method : C:\HPCHEM\1\METHODS\8315.M
Last changed : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43



External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/20/03 3:08:55 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: VWD1 A, Wavelength=360 nm

RetTime [min]	Type	Area mAU *s	Amt/Area	Amount [ug/L]	Grp	Name
5.165	BB	5994.00195	8.63390e-1	5175.16368		Formaldehyde
6.264	BBA	163.98822	1.03121	169.10551		Acetaldehyde

Totals : 8.47723e4

Results obtained with enhanced integrator!
4 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)

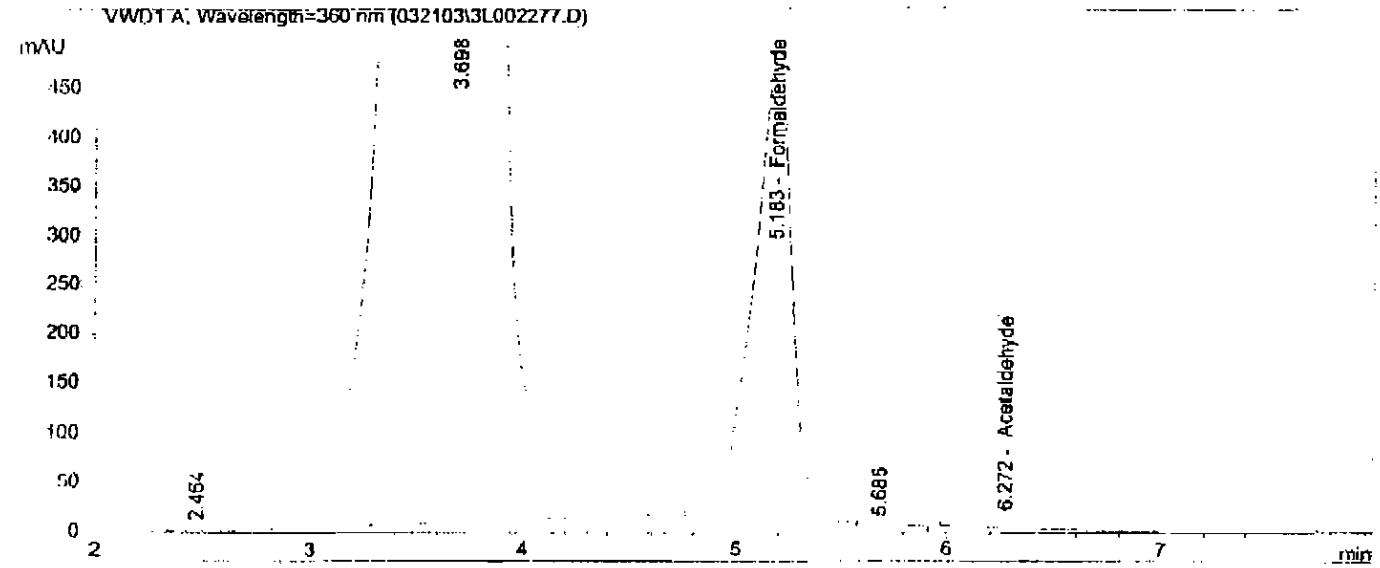
RC to check for pass. sample transpositioning RDC 3/21/03

Injection Date	: 3/20/03 4:47:52 PM	Seq. Line :	16
Sample Name	: L0303352-01 8315	Vial :	16
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	15 µl

Acq. Method : C:\HPCHEM\1\METHODS\8315.M
Last changed : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43

*** End of Report ***

```
Injection Date   : 3/21/03 10:36:42 AM              Seq. Line :   4
Sample Name      : L0303352-01 RR                       Vial :   4
Acq. Operator    : RDC                                   Inj :   1
                                                 Inj Volume : 15 µl
Acq. Method      : C:\HPCHEM\1\METHODS\8315.M
Last changed     : 3/6/03 1:44:46 PM by RDC
Analysis Method  : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed     : 3/20/03 3:09:00 PM by RDC
3315A calibrated 032003 @ 14:43
```



External Standard Report

```
Sorted By             :      Signal
Calib. Data Modified  :      3/20/03 3:08:55 PM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: VWD1 A, Wavelength=360 nm

RetTime  Type      Area      Amt/Area     Amount    Grp   Name
 [min]           mAU   *s                [ug/L]
-------|------|----------|----------|----------|--|------------------
  5.183 BB     5951.14404 8.63083e-1 5136.33253  ✓  Formaldehyde
  6.272 BBA     185.68623    1.03121  191.48062     Acetaldehyde

Totals :                                8.52458e4

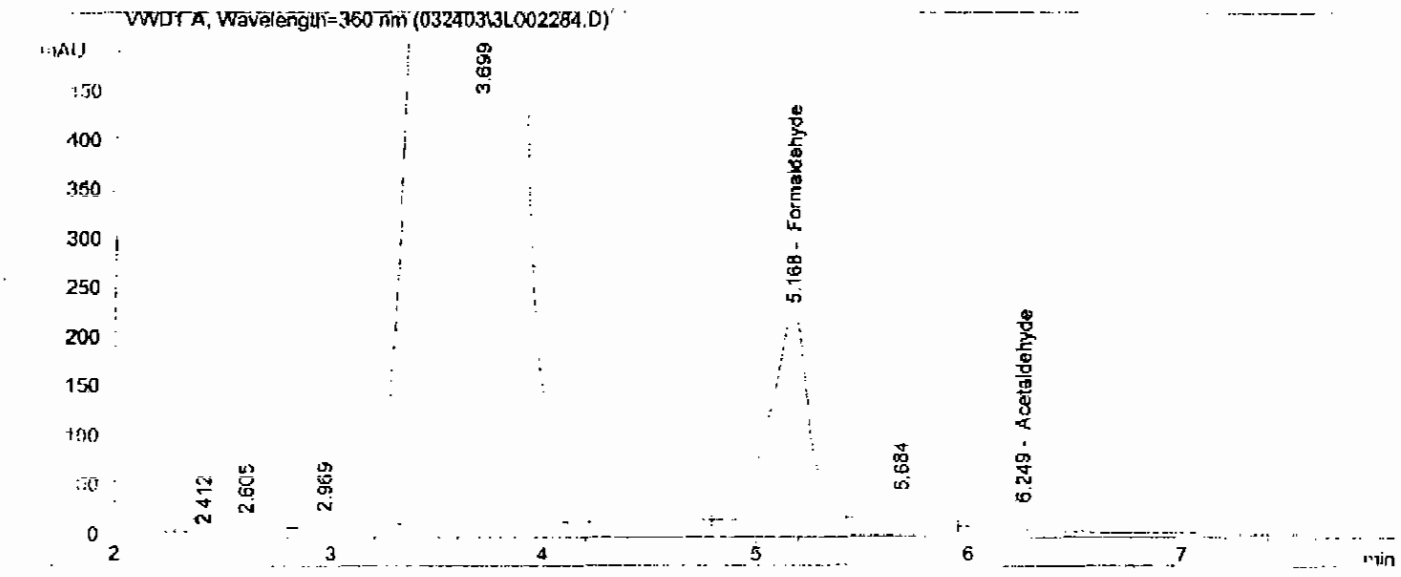
Results obtained with enhanced integrator!
No Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
```

Injection Date	: 3/21/03 10:36:42 AM	Seq. Line :	4
Sample Name	: L0303352-01 RR	Vial :	4
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	15 µl
Acq. Method	: C:\HPCHEM\1\METHODS\8315.M		
Last changed	: 3/6/03 1:44:46 PM by RDC		
Analysis Method	: C:\HPCHEM\1\METHODS\8315DATA.M		
Last changed	: 3/20/03 3:09:00 PM by RDC		
8315A calibrated 032003 @ 14:43			

*** End of Report ***

```
Injection Date  : 3/24/03 3:35:38 PM                Seq. Line :   6
Sample Name     : L0303352-01 RE                       Vial :   6
Acq. Operator   : RDC                                   Inj :   1
                                                  Inj Volume : 15 µl
Acq. Method     : C:\HPCHEM\1\METHODS\8315.M
Last changed    : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed    : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
```




```
                        External Standard Report

Sorted By             :      Signal
Calib. Data Modified  :      3/20/03 3:08:55 PM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: VWD1 A, Wavelength=360 nm

RetTime  Type      Area      Amt/Area     Amount    Grp   Name
 [min]          mAU   *s                 [ug/L]
-------|------|----------|----------|----------|--|------------------
  5.168 BB     2592.30933 8.07419e-1 2093.08076     Formaldehyde
  6.249 BBA     319.51370    1.03121  329.48420     Acetaldehyde

Totals :                                8.27620e4

  Results obtained with enhanced integrator!
  Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
```

```
Injection Date  : 3/24/03 3:35:38 PM              Seq. Line :   6
Sample Name     : L0303352-01 RE                     Vial :   6
Acq. Operator   : RDC                                 Inj :   1
                                                 Inj Volume : 15 µl
Acq. Method     : C:\HPCHEM\1\METHODS\8315.M
Last changed    : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed    : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
```

Warning : Negative results set to zero (cal. curve intercept)

*** End of Report ***

2.2.15.3 Standards Data

Calibration Table

8315A formaldehyde

Calib. Data Modified : 3/20/03 3:08:55 PM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 3.000 %
Abs. Reference Window : 0.000 min
Rel. Non-ref. Window : 3.000 %
Abs. Non-ref. Window : 0.500 min
Uncalibrated Peaks : using compound Formaldehyde
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Ignored
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: VWD1 A, Wavelength=360 nm

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
5.166	1	1	500.00000	786.40509	6.35805e-1			Formaldehyde
		2	1000.00000	1318.24670	7.58583e-1			
		3	5000.00000	6056.20947	8.25599e-1			
		4	1.00000e4	1.11572e4	8.96280e-1			
		5	2.00000e4	2.23778e4	8.93742e-1			
6.282	1	1	5000.00000	4848.69531	1.03121			Acetaldehyde

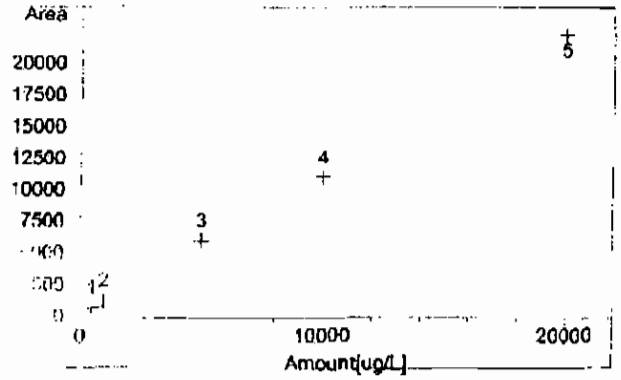
Warnings or Errors :

Warning : Curve requires more calibration points., (Acetaldehyde)

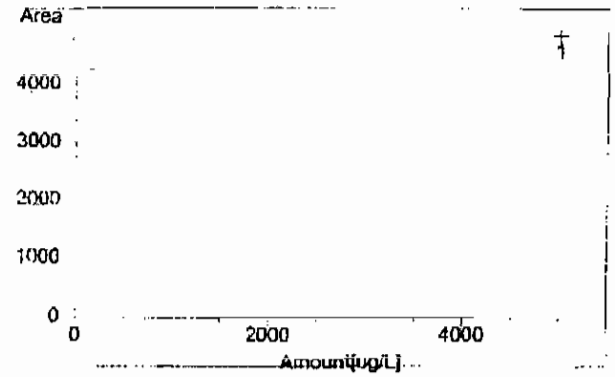
Peak Sum Table

No Entries in table

Calibration Curves



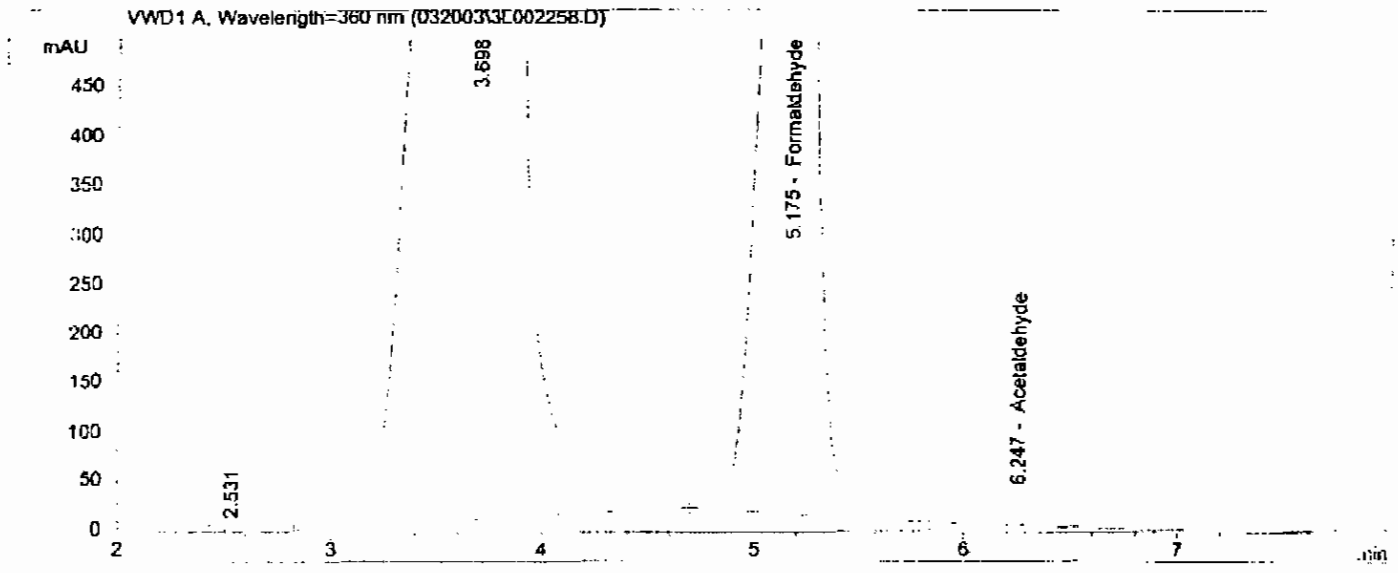
Formaldehyde at exp. RT: 5.166
VWD1 A, Wavelength=360 nm
Correlation: 0.99984
Residual Std. Dev.: 181.50729
Formula: y = mx + b
m: 1.10370
b: 282.17765
x: Amount [ug/L]
y: Area



Acetaldehyde at exp. RT: 6.282
VWD1 A, Wavelength=360 nm
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx + b
m: 9.69739e-1
b: 0.00000
x: Amount [ug/L]
y: Area

```
Injection Date   : 3/20/03 1:53:23 PM              Seq. Line :   2
Sample Name      : WG136746-01 STD5                    Vial :   2
Acq. Operator    : RDC                                  Inj :   1
                                                 Inj Volume : 15 µl

Acq. Method      : C:\HPCHEM\1\METHODS\8315.M
Last changed     : 3/6/03 1:44:46 PM by RDC
Analysis Method  : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed     : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
```



External Standard Report

```
Sorted By             :      Signal
Calib. Data Modified  :      3/20/03 3:08:55 PM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: VWD1 A, Wavelength=360 nm
```

RetTime [min]	Type	Area mAU *s	Amt/Area	Amount [ug/L]	Grp	Name
5.175	BB	2.23778e4	8.94619e-1	2.00196e4		Formaldehyde
6.247	BBA	541.16260	1.03121	558.04970		Acetaldehyde

```
Totals :                                  9.38644e4

 Results obtained with enhanced integrator!
* Warnings or Errors :

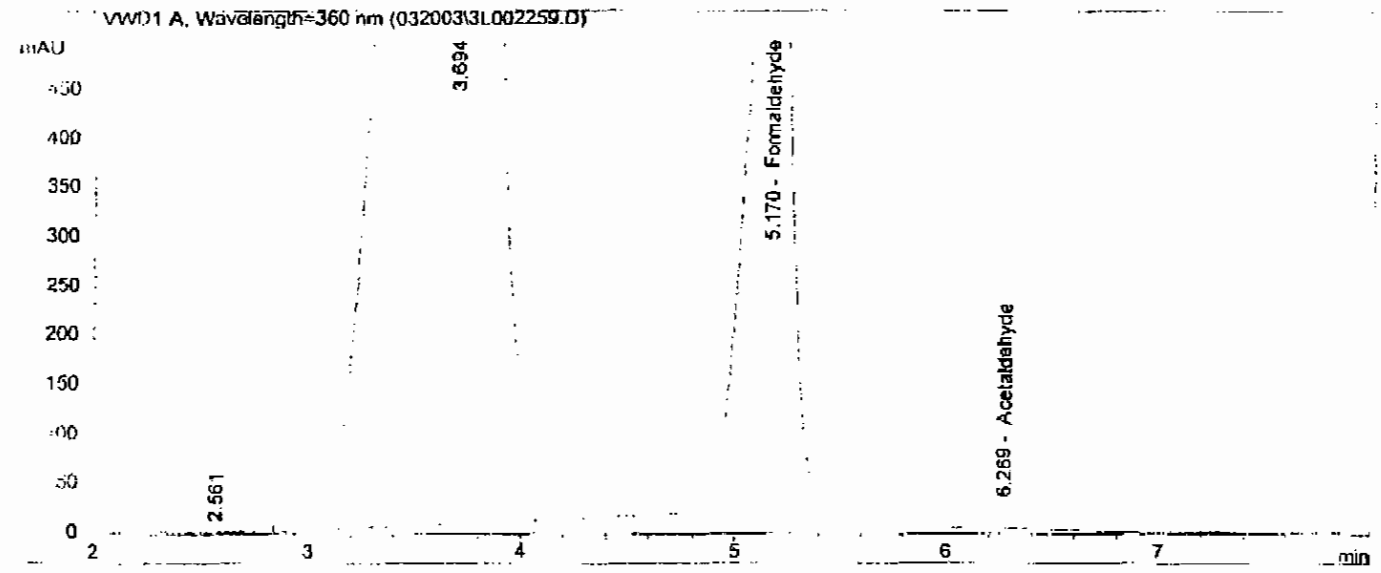
Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
```

Injection Date	: 3/20/03 1:53:23 PM	Seq. Line :	2
Sample Name	: WG136746-01 STD5	Vial :	2
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	15 µl

Acq. Method : C:\HPCHEM\1\METHODS\8315.M
Last changed : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43

*** End of Report ***

```
Injection Date  : 3/20/03 2:05:51 PM                Seq. Line :   3
Sample Name     : WG136796-02 STD4                      Vial :   3
Acq. Operator   : RDC                                   Inj :   1
                                                  Inj Volume : 15 µl
Acq. Method     : C:\HPCHEM\1\METHODS\8315.M
Last changed    : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed    : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
```



External Standard Report

```
Sorted By             :      Signal
Calib. Data Modified  :      3/20/03 3:08:55 PM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: VWD1 A, Wavelength=360 nm

RetTime  Type      Area      Amt/Area     Amount    Grp   Name
 [min]           mAU   *s                [ug/L]
--------|------|----------|----------|----------|--|------------------
   5.170 BBA    1.11572e4  8.83129e-1 9853.27283    Formaldehyde
   6.269 PBA     386.93060    1.03121  399.00486    Acetaldehyde

Totals :                                8.76916e4

 Results obtained with enhanced integrator!
3 Warnings or Errors :

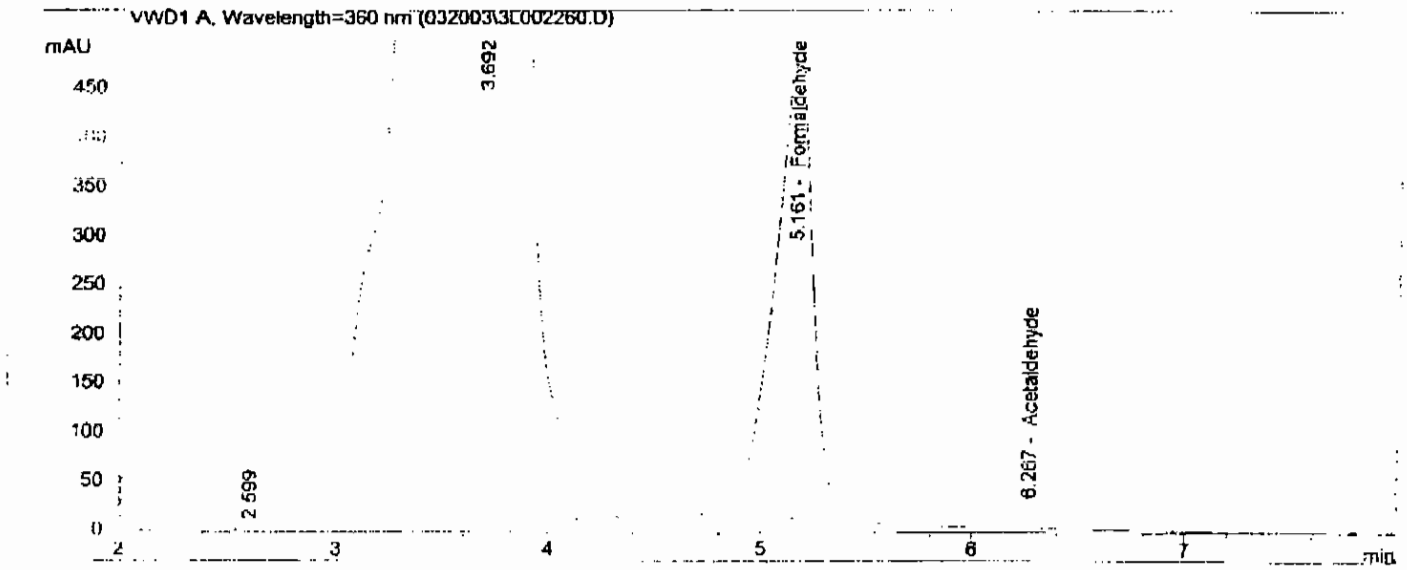
Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
```

Injection Date	: 3/20/03 2:05:51 PM	Seq. Line :	3
Sample Name	: WG136746-02 STD4	Vial :	3
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	15 µl
Acq. Method	: C:\HPCHEM\1\METHODS\8315.M		
Last changed	: 3/6/03 1:44:46 PM by RDC		
Analysis Method	: C:\HPCHEM\1\METHODS\8315DATA.M		
Last changed	: 3/20/03 3:09:00 PM by RDC		

8315A calibrated 032003 @ 14:43

*** End of Report ***

```
Injection Date   : 3/20/03 2:18:15 PM                Seq. Line :   4
Sample Name      : WG136746-03 STD3                       Vial :   4
Acq. Operator    : RDC                                    Inj :   1
                                                  Inj Volume : 15 µl
Acq. Method      : C:\HPCHEM\1\METHODS\8315.M
Last changed     : 3/6/03 1:44:46 PM by RDC
Analysis Method  : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed     : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
```



External Standard Report

```
Sorted By             :      Signal
Calib. Data Modified  :      3/20/03 3:08:55 PM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: VWD1 A, Wavelength=360 nm

RetTime  Type      Area      Amt/Area     Amount    Grp   Name
 [min]           mAU   *s                [ug/L]
-------|------|----------|----------|----------|--|------------------
  5.161 BBA    6056.20947 8.63829e-1 5231.52643    Formaldehyde
  6.267 PBA     362.37549    1.03121  373.68350    Acetaldehyde

Totals :                                8.97148e4

 Results obtained with enhanced integrator!
 Warnings or Errors :

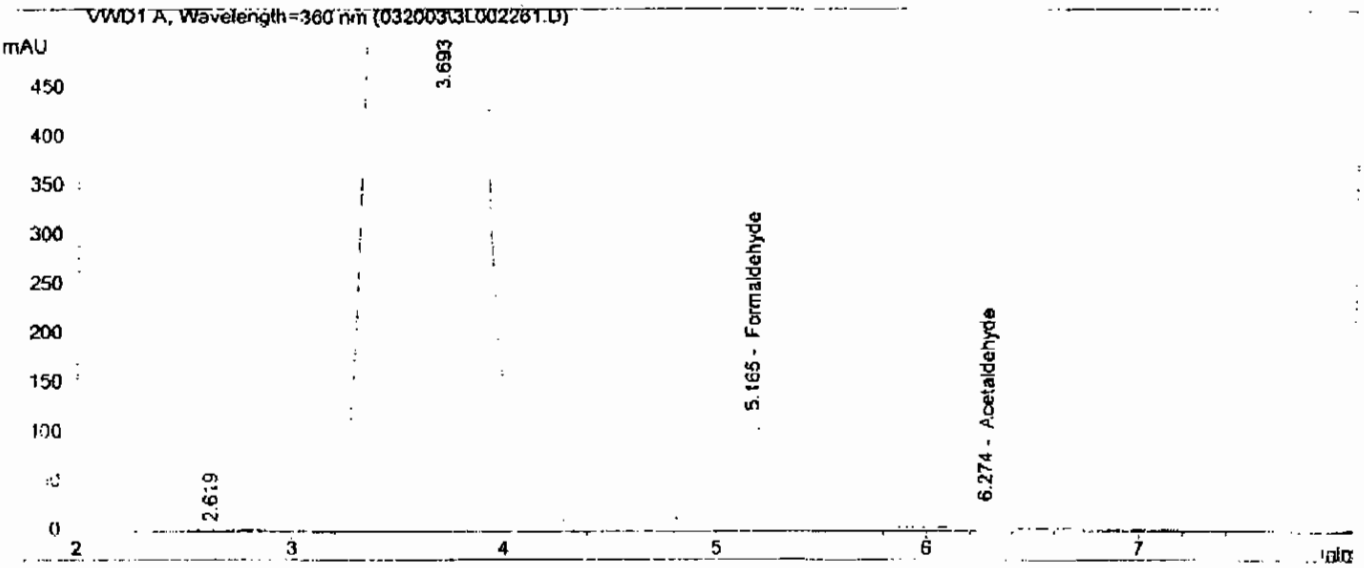
Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
```

Injection Date	: 3/20/03 2:18:15 PM	Seq. Line :	4
Sample Name	: WG136746-03 STD3	Vial :	4
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	15 µl
Acq. Method	: C:\HPCHEM\1\METHODS\8315.M		
Last changed	: 3/6/03 1:44:46 PM by RDC		
Analysis Method	: C:\HPCHEM\1\METHODS\8315DATA.M		
Last changed	: 3/20/03 3:09:00 PM by RDC		

8315A calibrated 032003 @ 14:43

*** End of Report ***

```
Injection Date   : 3/20/03 2:30:44 PM                    Seq. Line :   5
Sample Name      : WG136746-04 STD2                          Vial :   5
Acq. Operator    : RDC                                        Inj :   1
                                                      Inj Volume : 15 µl
Acq. Method      : C:\HPCHEM\1\METHODS\8315.M
Last changed     : 3/6/03 1:44:46 PM by RDC
Analysis Method  : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed     : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
```



External Standard Report

```
Sorted By             :      Signal
Calib. Data Modified  :      3/20/03 3:08:55 PM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: VWD1 A, Wavelength=360 nm

RetTime  Type      Area      Amt/Area     Amount    Grp   Name
 [min]          mAU   *s                 [ug/L]
-------|------|----------|----------|----------|--|------------------
  5.165 BBA    1318.24670 7.12100e-1  938.72407     Formaldehyde
  6.274 PBA     315.32248    1.03121  325.16219     Acetaldehyde

Totals :                                7.61674e4

 Results obtained with enhanced integrator!
* Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
```

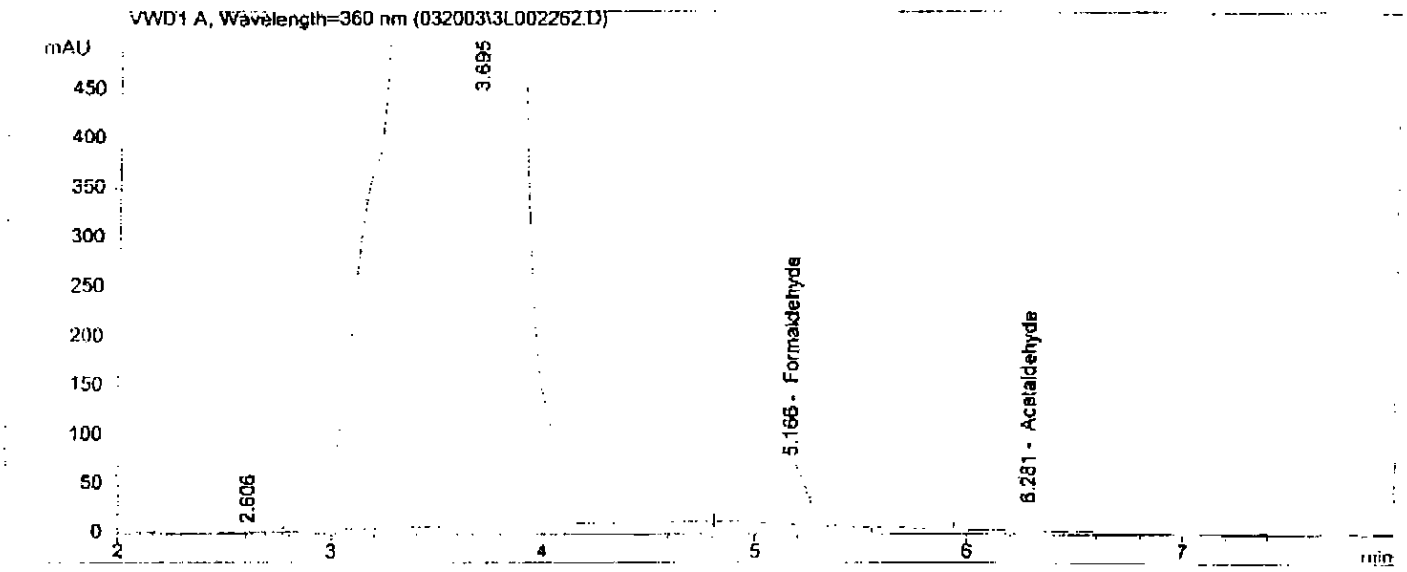
Injection Date	: 3/20/03 2:30:44 PM	Seq. Line :	5
Sample Name	: WG136706-04 STD2	Vial :	5
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	15 µl
Acq. Method	: C:\HPCHEM\1\METHODS\8315.M		
Last changed	: 3/6/03 1:44:46 PM by RDC		
Analysis Method	: C:\HPCHEM\1\METHODS\8315DATA.M		
Last changed	: 3/20/03 3:09:00 PM by RDC		

8315A calibrated 032003 @ 14:43

*** End of Report ***

Injection Date	: 3/20/03 2:43:12 PM	Seq. Line :	6
Sample Name	: WG136746-05 STD1	Vial :	6
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	15 µl
Acq. Method	: C:\HPCHEM\1\METHODS\8315.M		
Last changed	: 3/6/03 1:44:46 PM by RDC		
Analysis Method	: C:\HPCHEM\1\METHODS\8315DATA.M		
Last changed	: 3/20/03 3:09:00 PM by RDC		

8315A calibrated 032003 @ 14:43



External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	3/20/03 3:08:55 PM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: VWD1 A, Wavelength=360 nm

RetTime [min]	Type	Area mAU *s	Amt/Area	Amount [ug/L]	Grp	Name
5.166	BBA	786.40509	5.80937e-1	456.85221		Formaldehyde
6.281	PBA	329.55750	1.03121	339.84141		Acetaldehyde

Totals : 8.63394e4

Results obtained with enhanced integrator!
4 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)

Injection Date	: 3/20/03 2:43:12 PM	Seq. Line :	6
Sample Name	: WG136746-05 STD1	Vial :	6
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	15 µl
Acq. Method	: C:\HPCHEM\1\METHODS\8315.M		
Last changed	: 3/6/03 1:44:46 PM by RDC		
Analysis Method	: C:\HPCHEM\1\METHODS\8315DATA.M		
Last changed	: 3/20/03 3:09:00 PM by RDC		
8315A calibrated 032003 @ 14:43			

*** End of Report ***

Check Standard Report

Data File C:\HPCHEM\1\DATA\032003\3L002263.D Sample Name: WG136746-06 ALT.
HPLC3 3/20/03 3:12:06 PM RDC

1,1 SOS64-11 250 ug/L

Injection Date : 3/20/03 2:55:39 PM Seq. Line : 7

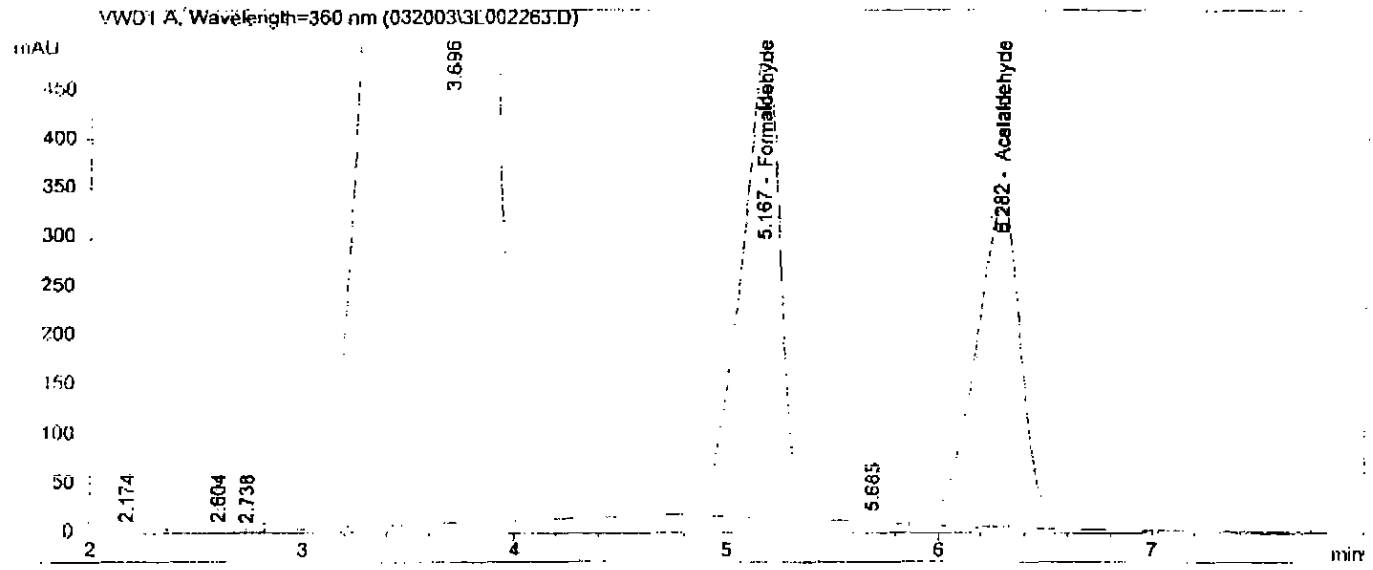
Signal 1: VWD1 A, Wavelength=360 nm

Compound	RT	Known Conc.	Cal. Conc.	%D
Formaldehyde	5.167	5,000.0	5,408.709	8.2
Acetaldehyde	6.282	5,000.0	5,000.000	0.0

= Failed 15.0% Criteria

Injection Date : 3/20/03 2:55:39 PM Seq. Line : 7
Sample Name : WG136746-06 ALT. Vial : 7
Acq. Operator : RDC Inj : 1
Inj Volume : 15 µl

Acq. Method : C:\HPCHEM\1\METHODS\8315.M
Last changed : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43



External Standard Report

Printed By : Signal
Calib. Data Modified : 3/20/03 3:08:55 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: VWD1 A, Wavelength=360 nm

RetTime [min]	Type	Area mAU *s	Amt/Area	Amount [ug/L]	Grp	Name
5.167	BB	6251.76563	8.65149e-1	5408.70889		Formaldehyde
6.282	BBA	4848.69531	1.03121	5000.00000		Acetaldehyde

Totals : 9.48846e4

Results obtained with enhanced integrator!
5 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)

```
Injection Date   : 3/20/03 2:55:39 PM                Seq. Line :   7
Sample Name      : WG136746-06 ALT.                       Vial :   7
Acq. Operator    : RDC                                    Inj :   1
                                                  Inj Volume : 15 µl
Acq. Method      : C:\HPCHEM\1\METHODS\8315.M
Last changed     : 3/6/03 1:44:46 PM by RDC
Analysis Method  : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed     : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
```

Warning : Negative results set to zero (cal. curve intercept)

*** End of Report ***

Check Standard Report

Data File C:\EPCHEM\1\DATA\032003\3L002273.D Sample Name: WG136~~746~~-07 CCV
HPLC3 3/21/03 8:55:48 AM RDC

1,1 SO563-01 @ 250 ug/L

Injection Date : 3/20/03 5:00:24 PM Seq. Line : 17

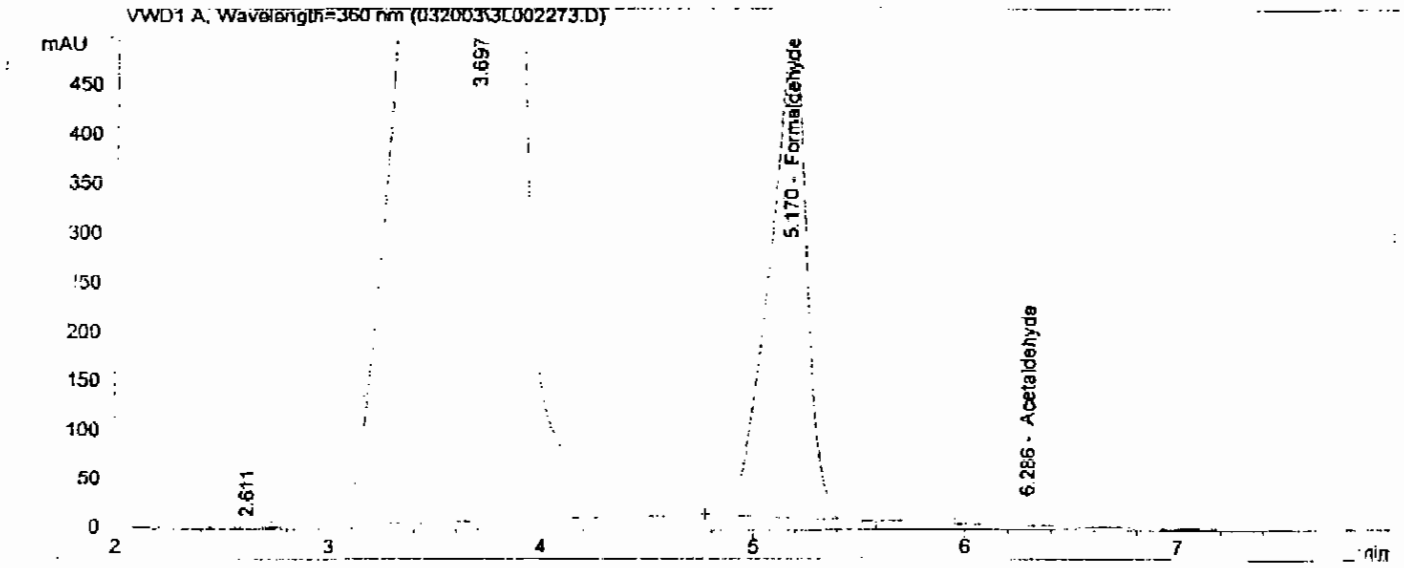
Signal 1: VWD1 A, Wavelength=360 nm

Compound	RT	Known Conc.	Cal. Conc.	%D
Formaldehyde	5.170	5,000.0	5,304.363	6.1
Acetaldehyde	6.286	5,000.0	367.105	-92.7 #

= Failed 15.0% Criteria

Injection Date	: 3/20/03 5:00:24 PM	Seq. Line :	17
Sample Name	: WG136744-07 CCV	Vial :	4
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	15 µl

Acq. Method : C:\HPCHEM\1\METHODS\8315.M
Last changed : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43



External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	3/20/03 3:08:55 PM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: VWD1 A, Wavelength=360 nm

RetTime [min]	Type	Area mAU *s	Amt/Area	Amount [ug/L]	Grp	Name
5.170	BBA	6136.59961	8.64382e-1	5304.36342		Formaldehyde
6.286	PBA	356.28720	1.03121	367.40523		Acetaldehyde

Totals : 8.42455e4

Results obtained with enhanced integrator!
4 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)

Injection Date	: 3/20/03 5:00:24 PM	Seq. Line :	17
Sample Name	: WG136746-07 CCV	Vial :	4
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	15 µl
Acq. Method	: C:\HPCHEM\1\METHODS\8315.M		
Last changed	: 3/6/03 1:44:46 PM by RDC		
Analysis Method	: C:\HPCHEM\1\METHODS\8315DATA.M		
Last changed	: 3/20/03 3:09:00 PM by RDC		

8315A calibrated 032003 @ 14:43

*** End of Report ***

Check Standard Report

Data File C:\HPCHEM\1\DATA\032103\3L002275.D Sample Name: WG13674408 CCV
HPLC3 3/21/03 10:56:45 AM RDC

1,1 SOS63-01 @ 250 ug/L

Injection Date : 3/21/03 10:11:49 AM Seq. Line : 2

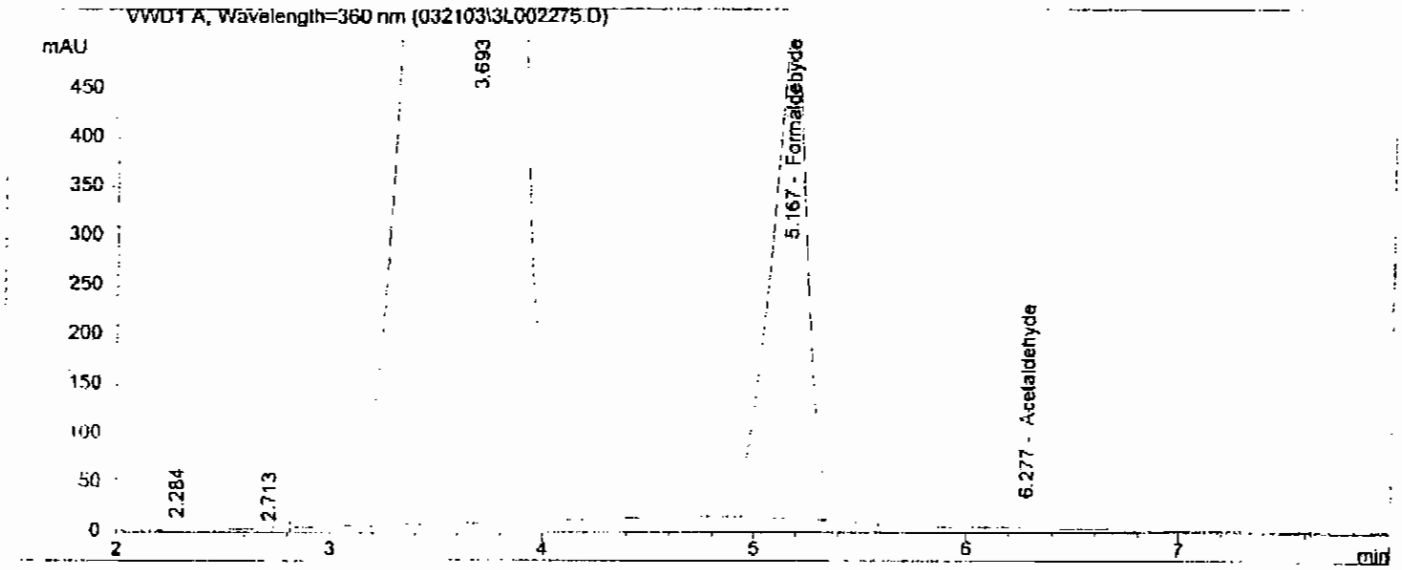
Signal 1: VWD1 A, Wavelength=360 nm

Analyte	RT	Known Conc.	Cal. Conc.	%D
Formaldehyde	5.167	5,000.0	5,233.730	4.7
Acetaldehyde	6.277	5,000.0	386.526	-92.3 #

= Failed 15.0% Criteria

```
Injection Date  : 3/21/03 10:11:49 AM            Seq. Line :   2
Sample Name     : WG136746-08 CCV                    Vial :   2
Acq. Operator   : RDC                                Inj :   1
                                                 Inj Volume : 15 µl

Acq. Method     : C:\HPCHEM\1\METHODS\8315.M
Last changed    : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed    : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
```



External Standard Report

```
Sorted By             :      Signal
Calib. Data Modified  :      3/20/03 3:08:55 PM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: VWD1 A, Wavelength=360 nm
```

RetTime [min]	Type	Area mAU *s	Amt/Area	Amount [ug/L]	Grp	Name
5.167	BBA	6058.64111	8.63845e-1	5233.72960		Formaldehyde
6.277	PBA	374.82910	1.03121	386.52573		Acetaldehyde

Totals : 8.26855e4

```
 Results obtained with enhanced integrator!
4 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
```

```
==========================================================================
Injection Date  : 3/21/03 10:11:49 AM              Seq. Line :   2
Sample Name     : WG136746-08 CCV                      Vial :   2
Acq. Operator   : RDC                                  Inj :   1
                                                 Inj Volume : 15 µl
Acq. Method     : C:\HPCHEM\1\METHODS\8315.M
Last changed    : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed    : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
==========================================================================

==========================================================================
                          *** End of Report ***
```

Check Standard Report

==========

Data File C:\HPCHEM\1\DATA\032103\3L002278.D Sample Name: WG136746-09 CCV
[illegible] 3/21/03 1:31:35 PM RDC

[illegible]63-01 @ 250 ug/L

==========

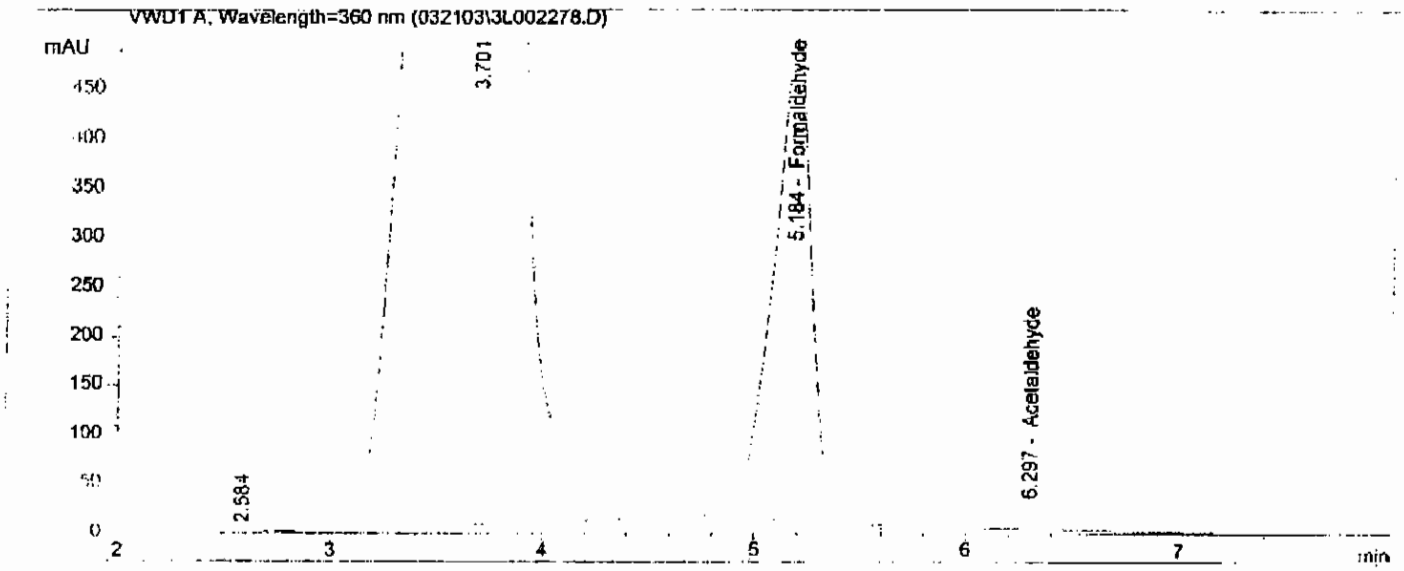
Injection Date : 3/21/03 10:49:11 AM Seq. Line : 5

Signal 1: VWD1 A, Wavelength=360 nm

Compound	RT	Known Conc.	Cal. Conc.	%D
Formaldehyde	5.184	5,000.0	5,237.986	4.8
Acetaldehyde	6.297	5,000.0	378.785	-92.4 #

= Failed 15.0% Criteria

```
Injection Date  : 3/21/03 10:49:11 AM              Seq. Line :   5
Sample Name     : WG136746-09 CCV                      Vial :   2
Acq. Operator   : RDC                                  Inj :   1
                                                 Inj Volume : 15 µl
Acq. Method     : C:\HPCHEM\1\METHODS\8315.M
Last changed    : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed    : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
```



External Standard Report

```
Sorted By             :      Signal
Calib. Data Modified  :      3/20/03 3:08:55 PM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: VWD1 A, Wavelength=360 nm
```

RetTime [min]	Type	Area mAU *s	Amt/Area	Amount [ug/L]	Grp	Name
5.184	BBA	6063.33936	8.63878e-1	5237.98641		Formaldehyde
6.297	PBA	367.32230	1.03121	378.78468		Acetaldehyde

```
Totals :                                  8.26417e4

Results obtained with enhanced integrator!
Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
```

Injection Date	: 3/21/03 10:49:11 AM	Seq. Line :	5
Sample Name	: WG136746-09 CCV	Vial :	2
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	15 µl
Acq. Method	: C:\HPCHEM\1\METHODS\8315.M		
Last changed	: 3/6/03 1:44:46 PM by RDC		
Analysis Method	: C:\HPCHEM\1\METHODS\8315DATA.M		
Last changed	: 3/20/03 3:09:00 PM by RDC		
DLSA calibrated 032003 @ 14:43			

*** End of Report ***

Check Standard Report

Data File C:\HPCHEM\1\DATA\032403\3L002280.D Sample Name: WG136863-01 CCV
APIC3 3/24/03 2:55:13 PM RDC

L1 80363-01 @ 250 ug/L

Injection Date : 3/24/03 2:40:27 PM Seq. Line : 2

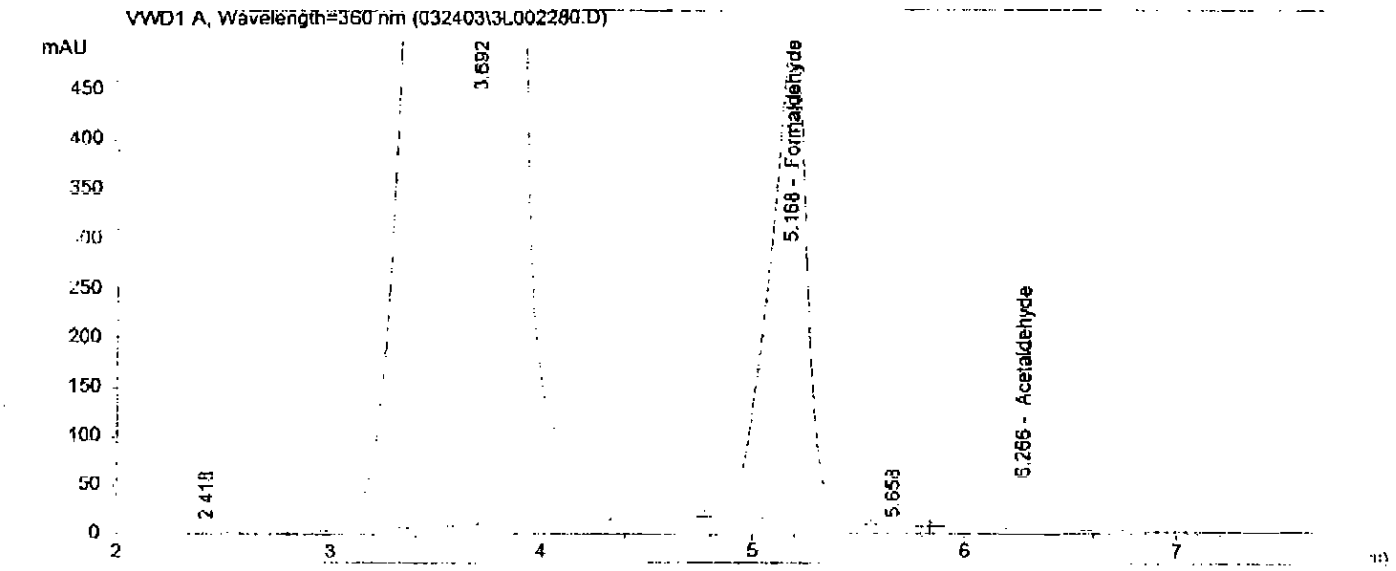
Channel : VWD1 A, Wavelength=360 nm

Compound	RT	Known Conc.	Col. Conc.	%D
Formaldehyde	5.168	5,000.0	5,258.988	5.2
Acetaldehyde	6.266	5,000.0	742.075	-85.2 #

= Failed 15.0% Criteria

Injection Date	: 3/24/03 2:40:27 PM	Seq. Line :	2
Sample Name	: WG136863-01 CCV	Vial :	2
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	15 µl

Acq. Method : C:\HPCHEM\1\METHODS\8315.M
Last changed : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43



External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	3/20/03 3:08:55 PM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: VWD1 A, Wavelength=360 nm

RtTime [min]	Type	Area mAU *s	Amt/Area	Amount [ug/L]	Grp	Name
5.168	BB	6086.51855	8.64039e-1	5258.98779		Formaldehyde
6.266	BBA	719.61896	1.03121	742.07484		Acetaldehyde

Totals : 8.34858e4

Results obtained with enhanced integrator!
3 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)

```
Injection Date   : 3/24/03 2:40:27 PM              Seq. Line :   2
Sample Name      : WG136863-01 CCV                      Vial :   2
Acq. Operator    : RDC                                   Inj :   1
                                                 Inj Volume : 15 µl
Acq. Method      : C:\HPCHEM\1\METHODS\8315.M
Last changed     : 3/6/03 1:44:46 PM by RDC
Analysis Method  : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed     : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
```

*** End of Report ***

Check Standard Report

Data File C:\H2CHEM\1\DATA\032403\3L002286.D Sample Name: WG136863-02 CCV
[illegible] 3/24/03 4:19:34 PM RDC

[illegible]WG136863-01 @ 250 ug/L

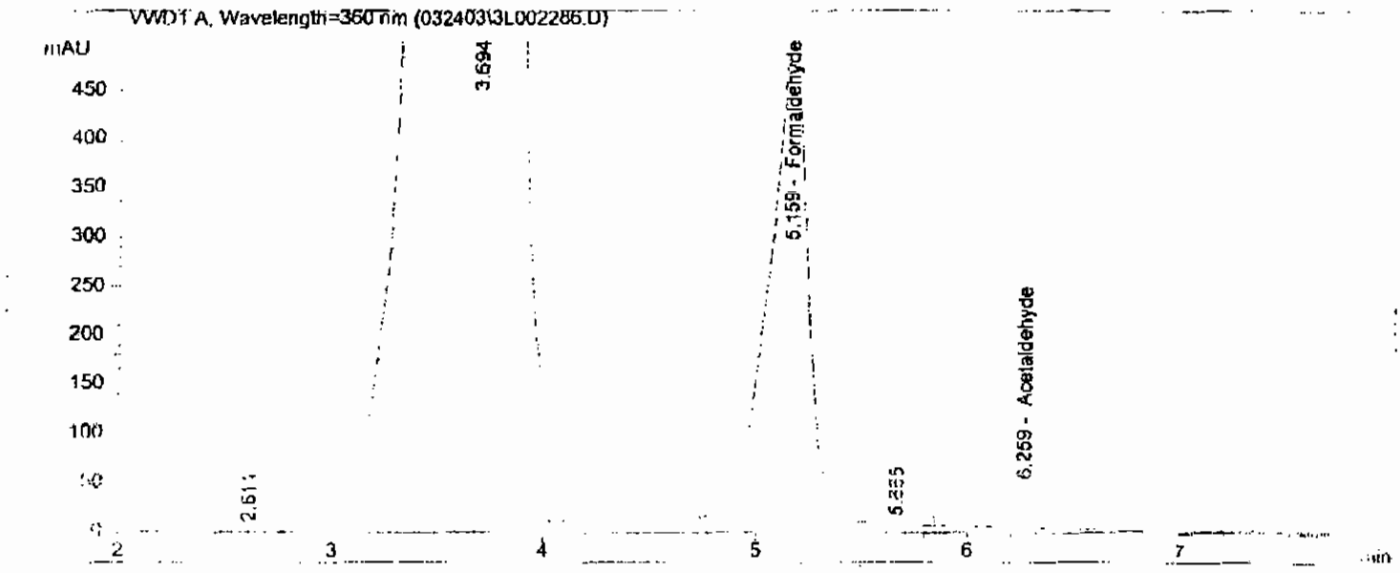
Injection Date : 3/24/03 4:00:32 PM Seq. Line : 8

Signal 1: VWD1 A, Wavelength=360 nm

Compound	RT	Known Conc.	Cal. Conc.	%D
Formaldehyde	5.159	5,000.0	5,317.489	6.3
Acetaldehyde	6.259	5,000.0	696.135	-86.1 #

= Failed 15.0% Criteria

```
Injection Date  : 3/24/03 4:00:32 PM                    Seq. Line :   8
Sample Name     : WG136863-02 CCV                          Vial :   2
Acq. Operator   : RDC                                       Inj :   1
                                                      Inj Volume : 15 µl
Acq. Method     : C:\HPCHEM\1\METHODS\8315.M
Last changed    : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed    : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
```



External Standard Report

```
Sorted By             :      Signal
Calib. Data Modified  :      3/20/03 3:08:55 PM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: VWD1 A, Wavelength=360 nm

RetTime  Type      Area      Amt/Area     Amount    Grp   Name
 [min]          mAU   *s                 [ug/L]
-------|------|----------|----------|----------|--|-----------------
  5.159 BB     6151.08643 8.64480e-1 5317.48911     Formaldehyde
  6.259 BBA     675.06897    1.03121  696.13466     Acetaldehyde

Totals :                                8.82489e4

  Results obtained with enhanced integrator!
  Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
```

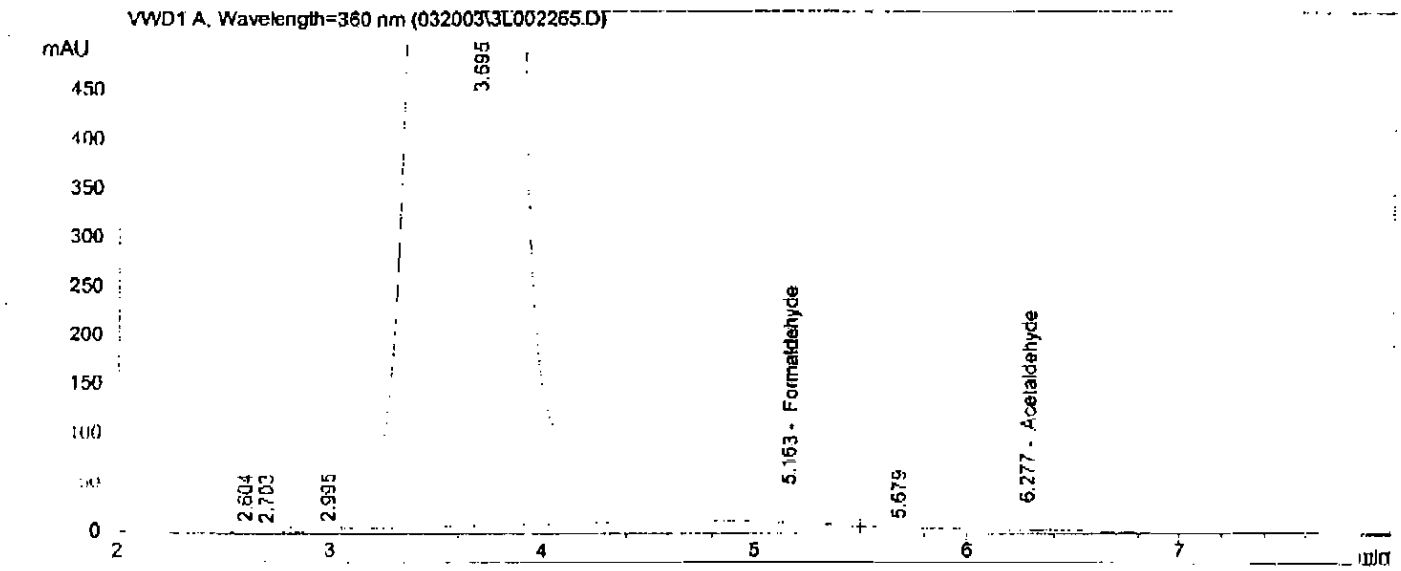
```
==========================================================================
Injection Date  : 3/24/03 4:00:32 PM              Seq. Line :   8
Sample Name     : WG136863-02 CCV                     Vial :   2
Acq. Operator   : RDC                                  Inj :   1
                                                 Inj Volume : 15 µl
Acq. Method     : C:\HPCHEM\1\METHODS\8315.M
Last changed    : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed    : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
==========================================================================

Warning : Negative results set to zero (cal. curve intercept)

==========================================================================
                        *** End of Report ***
```

2.2.15.4 Raw Data

```
Injection Date  : 3/20/03 3:20:31 PM                Seq. Line :   9
Sample Name     : WG136599-02 BLK                      Vial :   9
Acq. Operator   : RDC                                  Inj :   1
                                                   Inj Volume : 15 µl
Acq. Method     : C:\HPCHEM\1\METHODS\8315.M
Last changed    : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed    : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
```



External Standard Report

```
Sorted By             :      Signal
Calib. Data Modified  :      3/20/03 3:08:55 PM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: VWD1 A, Wavelength=360 nm
```

RetTime [min]	Type	Area mAU *s	Amt/Area	Amount [ug/L]	Grp	Name
5.163	BB	401.30640	2.68961e-1	107.93587		Formaldehyde
6.277	BBA	324.09778	1.03121	334.21133		Acetaldehyde
Totals :				7.51276e4		

```
Results obtained with enhanced integrator!
Warnings or Errors :

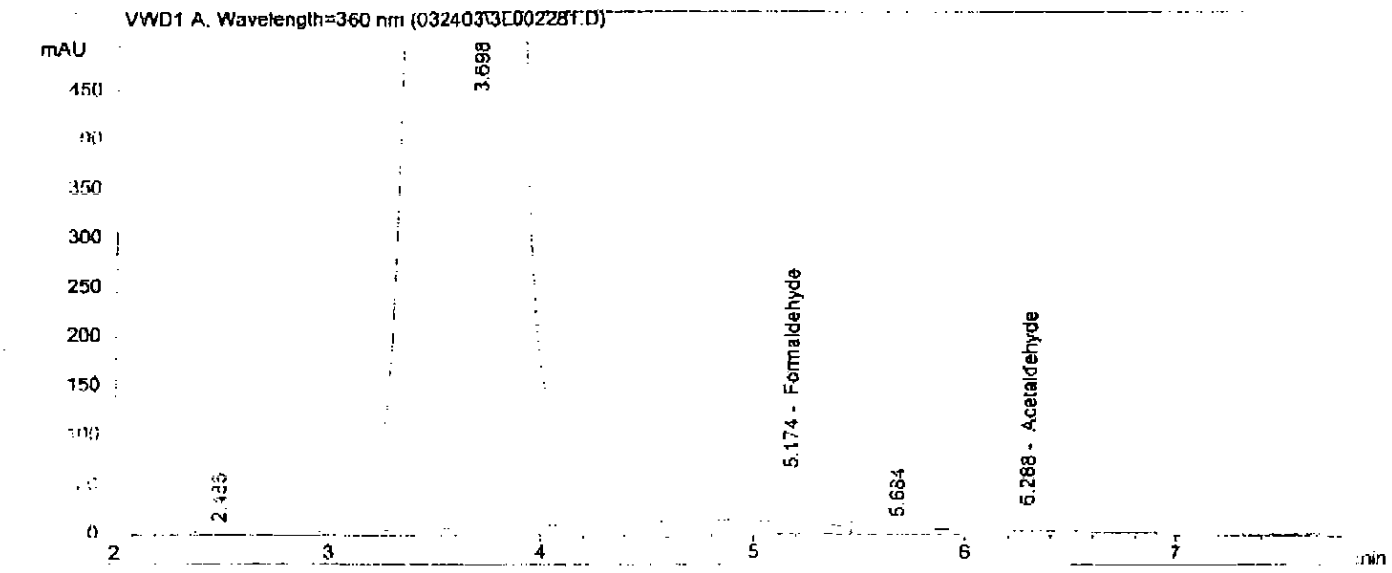
Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
```

```
=================================================================
Injection Date  : 3/20/03 3:20:31 PM              Seq. Line :   9
Sample Name     : WG136599-02 BLK                      Vial :   9
Acq. Operator   : RDC                                   Inj :   1
                                                 Inj Volume : 15 µl
Acq. Method     : C:\HPCHEM\1\METHODS\8315.M
Last changed    : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed    : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
=================================================================

Warning : Negative results set to zero (cal. curve intercept)

=================================================================
                        *** End of Report ***
```

```
Injection Date   : 3/24/03 2:58:14 PM              Seq. Line :   3
Sample Name      : WG136850-01 BLK                    Vial :   3
Operator         : RDC                                Inj :   1
                                                  Inj Volume : 15 µl
Acq. Method      : C:\HPCHEM\1\METHODS\8315.M
Last changed     : 3/6/03 1:44:46 PM by RDC
Analysis Method  : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed     : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
```



External Standard Report

```
Sorted By             :      Signal
Calib. Data Modified  :      3/20/03 3:08:55 PM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: VWD1 A, Wavelength=360 nm
```

RetTime [min]	Type	Area mAU *s	Amt/Area	Amount [ug/L]	Grp	Name
5.174	BB	586.17261	4.69883e-1	275.43278		Formaldehyde
6.288	BBA	290.12326	1.03121	299.17663		Acetaldehyde
Totals :				7.88618e4		

```
Results obtained with enhanced integrator!
Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
```

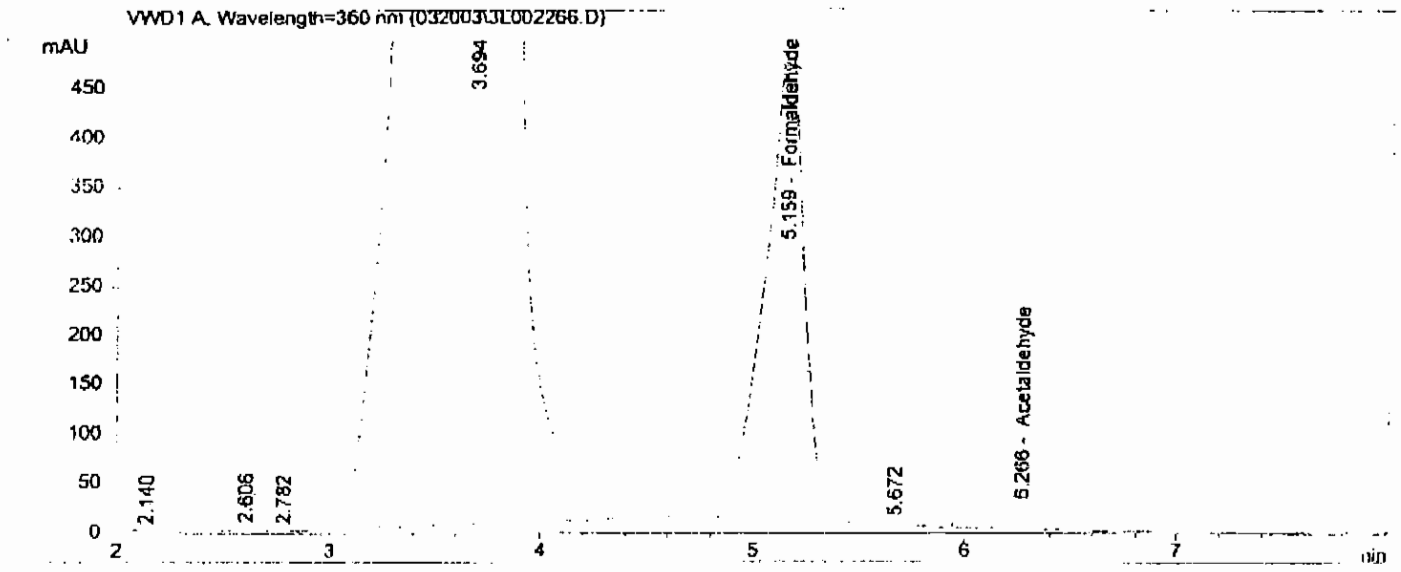
Injection Date	: 3/24/03 2:58:14 PM	Seq. Line :	3
Sample Name	: WG136850-01 BLK	Vial :	3
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	15 µl

Acq. Method : C:\HPCHEM\1\METHODS\8315.M
Last changed : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43

*** End of Report ***

```
Injection Date   : 3/20/03 3:33:02 PM                Seq. Line :  10
Sample Name      : WG136599-03 LCS                       Vial :  10
Acq. Operator    : RDC                                   Inj :   1
                                                  Inj Volume : 15 µl

Acq. Method      : C:\HPCHEM\1\METHODS\8315.M
Last changed     : 3/6/03 1:44:46 PM by RDC
Analysis Method  : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed     : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
```



External Standard Report

```
Sorted By              :      Signal
Calib. Data Modified   :      3/20/03 3:08:55 PM
Multiplier             :      1.0000
Dilution               :      1.0000

Signal 1: VWD1 A, Wavelength=360 nm

RetTime  Type      Area      Amt/Area     Amount    Grp   Name
 [min]           mAU   *s                [ug/L]
-------|------|----------|----------|----------|--|------------------
  5.159 BB     6207.32520 8.64856e-1 5368.44391      Formaldehyde
  6.266 BBA     358.75049    1.03121  369.94538      Acetaldehyde

Totals :                                8.85724e4

 Results obtained with enhanced integrator!
5 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
```

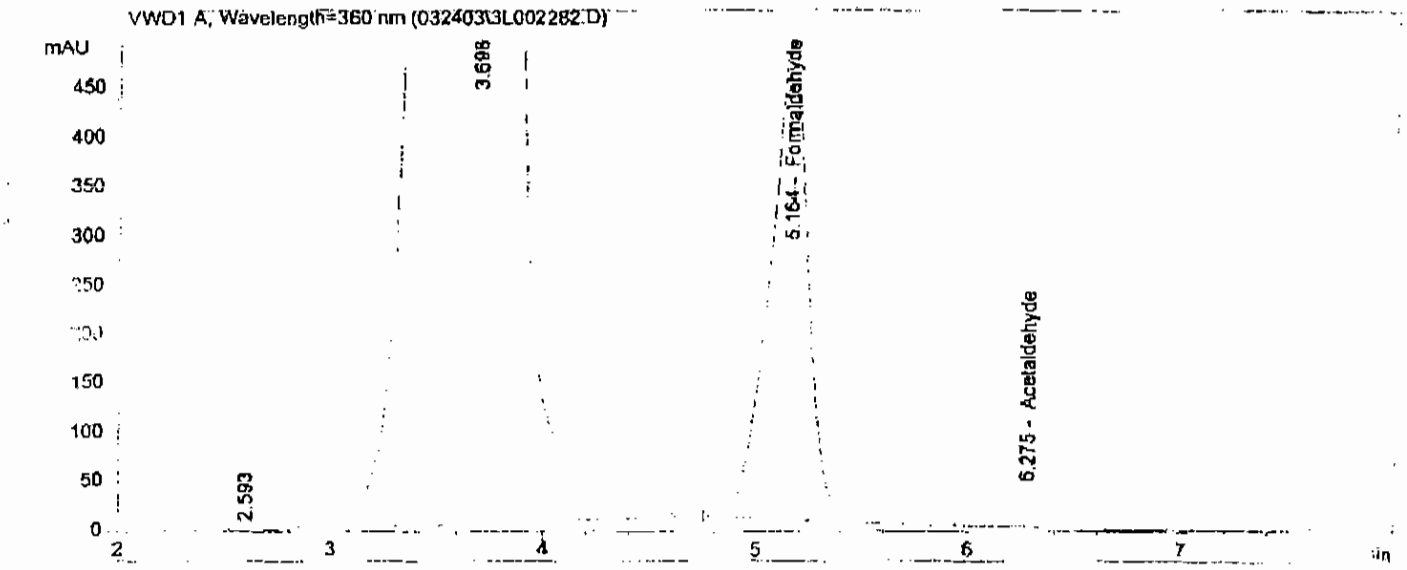
```
================================================================================
Injection Date   : 3/20/03 3:33:02 PM                Seq. Line :  10
Sample Name      : WG136599-03 LCS                       Vial :  10
Acq. Operator    : RDC                                    Inj :   1
                                                  Inj Volume : 15 µl
Acq. Method      : C:\HPCHEM\1\METHODS\8315.M
Last changed     : 3/6/03 1:44:46 PM by RDC
Analysis Method  : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed     : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
================================================================================

Warning : Negative results set to zero (cal. curve intercept)

================================================================================
                          *** End of Report ***
```

Injection Date : 3/24/03 3:10:44 PM Seq. Line : 4
Sample Name : WG136850-02 LCS Vial : 4
Acq. Operator : RDC Inj : 1
Inj Volume : 15 µl

Acq. Method : C:\HPCHEM\1\METHODS\8315.M
Last changed : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed : 3/20/03 3:09:00 PM by RDC
Calibrated 032003 @ 14:43



External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/20/03 3:08:55 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: VWD1 A, Wavelength=360 nm

RetTime [min]	Type	Area mAU *s	Amt/Area	Amount [ug/L]	Grp	Name
5.164	BBA	6112.47363	8.64217e-1	5282.50423		Formaldehyde
6.275	PBA	588.00702	1.03121	606.35592		Acetaldehyde

Totals : 8.09130e4

Results obtained with enhanced integrator!
3 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)

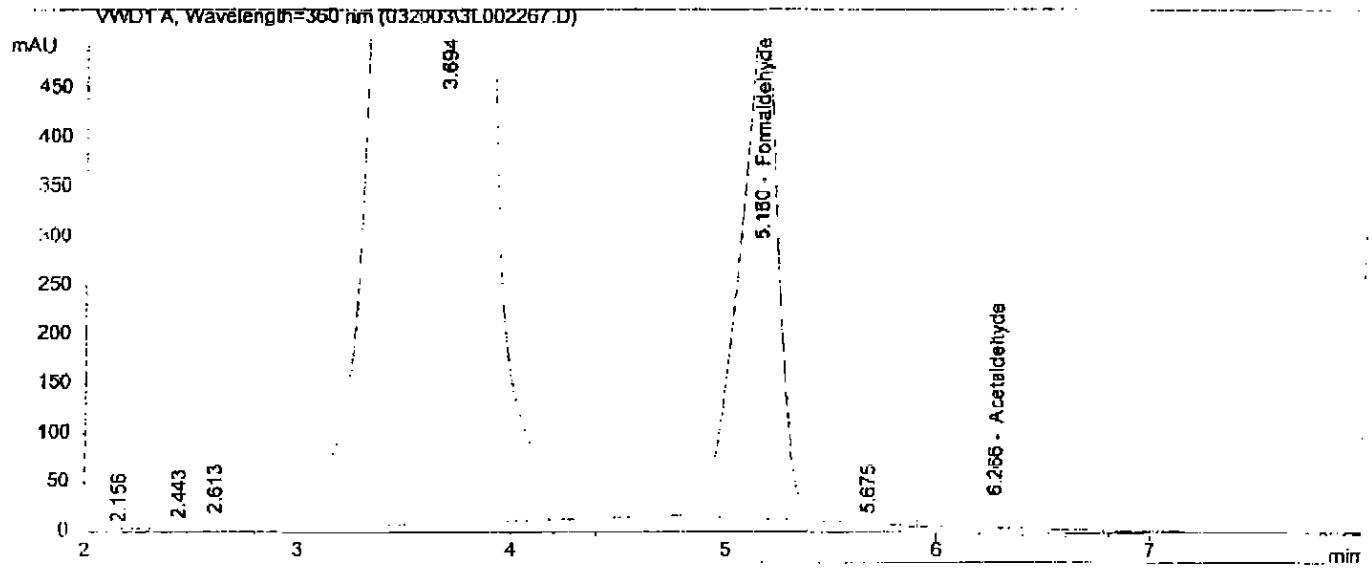
Acquisition Date	: 3/24/03 3:10:44 PM	Seq. Line	: 4
Sample Name	: WG136850-02 LCS	Vial	: 4
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 15 µl
Acq. Method	: C:\HPCHEM\1\METHODS\8315.M		
Last changed	: 3/6/03 1:44:46 PM by RDC		
Analysis Method	: C:\HPCHEM\1\METHODS\8315DATA.M		
Last changed	: 3/20/03 3:09:00 PM by RDC		

8315A calibrated 032003 @ 14:43

*** End of Report ***

```
Injection Date  : 3/20/03 3:45:34 PM              Seq. Line :  11
Sample Name     : WG136599-04 LCS2                    Vial :  11
Acq. Operator   : RDC                                  Inj :   1
                                                Inj Volume : 15 µl

Acq. Method     : C:\HPCHEM\1\METHODS\8315.M
Last changed    : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed    : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43
```



External Standard Report

```
Sorted By             :      Signal
Calib. Data Modified  :      3/20/03 3:08:55 PM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: VWD1 A, Wavelength=360 nm

RetTime  Type      Area      Amt/Area     Amount    Grp   Name
 [min]          mAU   *s                 [ug/L]
--------|------|----------|----------|----------|--|------------------
  5.160 BB     6545.94629 8.66987e-1 5675.24949      Formaldehyde
  6.266 BBA     394.81210    1.03121  407.13231      Acetaldehyde

Totals :                                8.53754e4

 Results obtained with enhanced integrator!
5 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
```

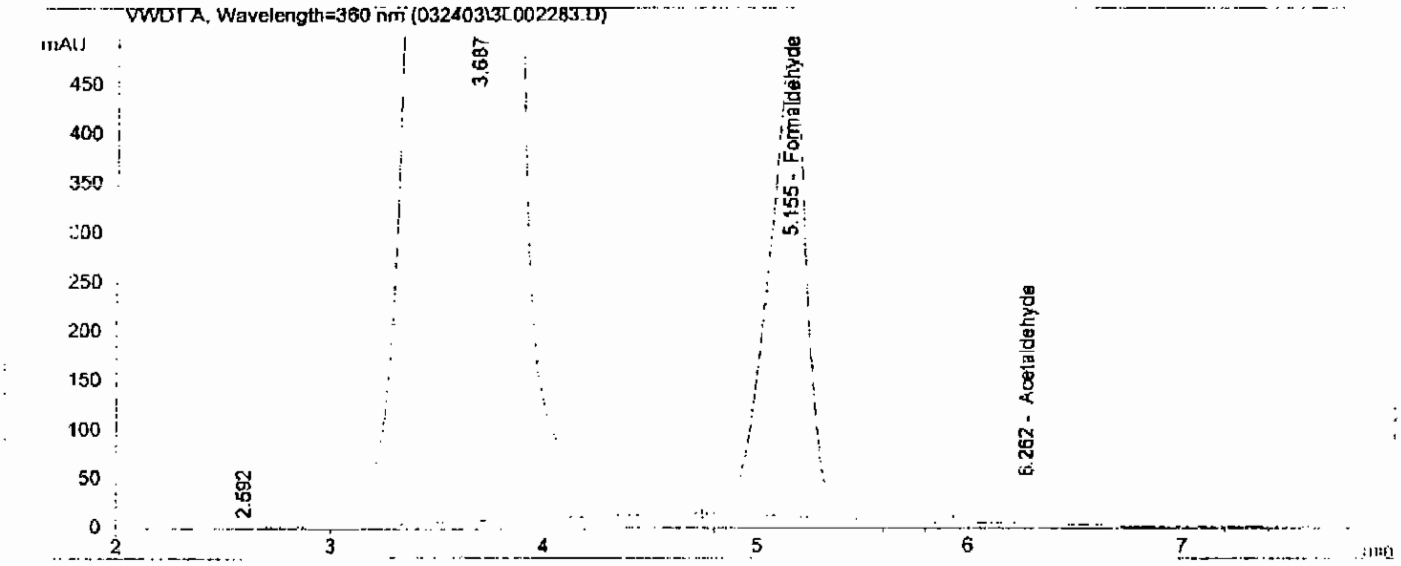
Injection Date	: 3/20/03 3:45:34 PM	Seq. Line :	11
Sample Name	: WG136599-04 LCS2	Vial :	11
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	15 µl
Acq. Method	: C:\HPCHEM\1\METHODS\8315.M		
Last changed	: 3/6/03 1:44:46 PM by RDC		
Analysis Method	: C:\HPCHEM\1\METHODS\8315DATA.M		
Last changed	: 3/20/03 3:09:00 PM by RDC		
8315A calibrated 032003 @ 14:43			

Warning : Negative results set to zero (cal. curve intercept)

*** End of Report ***

```
Injection Date  : 3/24/03 3:23:07 PM                Seq. Line :   5
Sample Name     : WG136850-03 LCS2                      Vial :   5
Acq. Operator   : RDC                                    Inj :   1
                                                  Inj Volume : 15 µl

Acq. Method     : C:\HPCHEM\1\METHODS\8315.M
Last changed    : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
 Last changed   : 3/20/03 3:09:00 PM by RDC
 8315A calibrated 032003 @ 14:43
```



External Standard Report

```
Sorted By             :      Signal
Calib. Data Modified  :      3/20/03 3:08:55 PM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: VWD1 A, Wavelength=360 nm

RetTime  Type     Area      Amt/Area     Amount    Grp   Name
 [min]          mAU   *s                [ug/L]
------|------|----------|----------|----------|--|------------------
  5.155 BBA    6047.40283 8.63767e-1 5223.54722 ✓ Formaldehyde
  6.262 BBA     625.05988    1.03121  644.56502    Acetaldehyde

Totals :                                8.11549e4

 Results obtained with enhanced integrator!
4 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
Warning : Negative results set to zero (cal. curve intercept)
```

Injection Date : 3/24/03 3:23:07 PM Seq. Line : 5
Sample Name : WG136850-03 LCS2 Vial : 5
Acq. Operator : RDC Inj : 1
Inj Volume : 15 µl

Acq. Method : C:\HPCHEM\1\METHODS\8315.M
Last changed : 3/6/03 1:44:46 PM by RDC
Analysis Method : C:\HPCHEM\1\METHODS\8315DATA.M
Last changed : 3/20/03 3:09:00 PM by RDC
8315A calibrated 032003 @ 14:43

*** End of Report ***

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	AcCN blank	8315	1	Sample		
2	2	WG136746-01 STD5	8315	1	Sample		
3	3	WG136 -02 STD4	8315	1	Sample		
4	4	WG136 -03 STD3	8315	1	Sample		
5	5	WG136 -04 STD2	8315	1	Sample		
6	6	WG136 -05 STD1	8315	1	Sample		
7	7	WG136 -06 ALT.	8315	1	Sample		
8	8	8315 MDL	8315	1	Sample		
9	9	WG136599-02 BLK	8315	1	Sample		
10	10	WG136599-03 LCS	8315	1	Sample		
11	11	WG136599-04 LCS2	8315	1	Sample		
12	12	L0303332-01 8315	8315	1	Sample		
13	13	L0303333-01 8315	8315	1	Sample		
14	14	WG136599-01 REF	8315	1	Sample		
15	15	WG136599-05 MS	8315	1	Sample		
16	16	L0303352-01 8315	8315	1	Sample		
17	4	WG136746-07 CCV	8315	1	Sample		

Sel	Run	Vial	Method	Datafile	Seqtable	Calib:Rf:Rt	Sample Name
No	1	1	8315	3L002257	01:01 ✓		AcCN blank
No	2	2	8315	3L002258	02:01 ✓	DIL'N SOS 63-01	WG136746-01 [illegible]
No	3	3	8315	3L002259	03:01 ✓		WG136 -02 [illegible]
No	4	4	8315	3L002260	04:01 ✓		WG136 -03 [illegible]
No	5	5	8315	3L002261	05:01 ✓		WG136 -04 [illegible]
No	6	6	8315	3L002262	06:01 ✓		WG136 -05 ST
No	7	7	8315	3L002263	07:01 ✓	DIL'N SOS 64-11	WG136 -06 AL
No	8	8	8315	3L002264	08:01 ✓	DIL'N SOS 63-01	8315 MDL
No	9	9	8315	3L002265	09:01 ✓		WG136599-02 BL
No	10	10	8315	3L002266	10:01 ✓		WG136599-03 LC
No	11	11	8315	3L002267	11:01 ✓		WG136599-04 LC
No	12	12	8315	3L002268	12:01 ✓		L0303332-01 83
No	13	13	8315	3L002269	13:01 ✓		L0303333-01 83
No	14	14	8315	3L002270	14:01 ✓		WG136599-01 RE
No	15	15	8315	3L002271	15:01 RR		WG136599-05 [illegible]
No	16	16	8315	3L002272	RR 16:01 RE		L0303352-01 83
No	17	4	8315	3L002273	17:01 ✓	DIL'N SOS 63-01	WG136746-07 [illegible]

RDL
3/21/03
[illegible] 3/21/03

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Mar 20 2003 Instrument ID HPLC3 Column ID LC-PAH Data Subdirectory 032003
Analyst Initials PdC SOP # HPLC01 Rev. # 4 8310 SOP # HPLC02 Rev. # 3 8330
8315A ✓

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 40 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

(WG136599-05 MS (L0303333-02MS) 50.9 ug/L (20.4%)
* L0303352-01 258.8 ug/L formaldehyde

* Samples may have been transposed, will RR (after dispensing from E-lab vials)

Reviewed By: _____

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	AcCN blank	8315	1	Sample		
2	2	WG136746-08 CCV	8315	1	Sample		
3	3	WG136599-05 MS/R	8315	1	Sample		
4	4	L0303352-01 RR	8315	1	Sample		
5	2	WG136746-09 CCV	8315	1	Sample		

RDC 3/21/03

Del	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8315	3L002274	01:01 ✓		AcCN blank
No	2	2	8315	3L002275	02:01 ✓	50563-01	WG136746-08 CC
No	3	3	8315	3L002276	03:01 ✓		WG136599-05 MS
No	4	4	8315	3L002277	RE 04:01 ✓		L0303352-01 RR
No	5	2	8315	3L002278	05:01 ✓	50563-01	WG136746-09 CC

RFee
3/21/03
[illegible]

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Mar. 4, 2003 Instrument ID HPLC3 Column ID LC-PAH Data Subdirectory 03403
Analyst Initials [illegible] SOP # HPLC01 Rev. # 4 8310 SOP # HPLC02 Rev. # 3 8330
8315a ✓

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 40 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

L0303352-01 RE has a qty of formaldehyde @ the MS spike level

* L030333-02 MS has a qty of formaldehyde equal to 20% recovery

* samples may have been transposed 03-352-01 will be re-extracted to verify results. RRC

Reviewed By: [illegible] 3/4/03

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	AcCN blank	8315	1	Sample		
2	2	WG136863-01 CCV	8315	1	Sample		
3	3	WG136850-01 BLK	8315	1	Sample		
4	4	WG136850-02 LCS	8315	1	Sample		
5	5	WG136850-03 LCS2	8315	1	Sample		
6	6	L0303352-01 RE	8315	1	Sample		
7	7	8315 MDL	8315	1	Sample		
8	2	WG136863-02 CCV	8315	1	Sample		

Sel	Run	Vial	Method	Datafile	Seqtable	Calib:RF:RT	Sample Name
No	1	1	8315	3L002279	01:01 ✓		AcCN blank
No	2	2	8315	3L002280	02:01 ✓	DIL'N SOS 63-01	WG136863-01 CC
No	3	3	8315	3L002281	03:01 ✓		WG136850-01 BL
No	4	4	8315	3L002282	04:01 ✓		WG136850-02 LC
No	5	5	8315	3L002283	05:01 ✓		WG136850-03 LC
No	6	6	8315	3L002284	06:01 ✓		L0303352-01 RE
No	7	7	8315	3L002285	07:01 ✓		8315 MDL
No	8	2	8315	3L002286	08:01 ✓	SOS 63-01 DIL'N.	WG136863-02 [illegible]

TDEC
3/24/03
[illegible] 3/25/03

KEMRON ENVIRONMENTAL SERVICES

HPLC Laboratory Maintenance Log

Analysis Date/Time March 24 2003 Instrument ID HPLC 3 Column ID LC-PAH Data Subdirectory 03 3403
Analyst Initials CLC SOP # HPLC01 Rev. # 4 8310 SOP # HPLC02 Rev. # 3 8330

83154 ✓

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 41 bar
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: _____

Parameter: 8315 H_2O SOP #: EXFORM Revision #: 0
Extraction Analyst(s): CEB TV/KD Analyst(s): CEB
Date/Time Extracted: 3-19-03 @ 1100 Date TV/KD: 3-19-03
Spike/Surrogate Analyst: RDC Witness: CEB
Surrogate #: — Earliest Hold Date: 3-20-03
Spike #: A = 50563-01 Spike #: B = 50564-11

Extraction Work Group WG 136599
Analytical Work Group WG 136741

Extract Relinquished By: CEB
Extract Received By & Date: KAC 3/19/03

CEB 3/19/03

	Sample ID	Test Code	5.0 pH ±0.1 <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank				4.99	100mL	N/A		5.0mL	C				WG 136599-02
2	LCS				5.03			250ul A						WG 136599-03
3	LCS DUP				4.95			1						WG 136599-04
4	03-332-01	8315 FORM			5.03									
5	03-333-01				5.01									
6	-02				5.07									WG 136599-01
7	-02MS				5.09			250ul A						WG 136599-05
8	03-332-01	8315 FORM			5.04									
9	STD #5				5.05			1000ul A						
10	#4				5.06			500ul A						
11	#3				5.06			250ul A						
12	#2				5.02			50ul A						
13	#1				5.02			25ul A						
14	ALT SOURCE				4.99			250ul B						
15	MDL ✓				5.07			25ul A						
16														
17														
18														
19														
20														
21														
22														
23														
24														

CEB 3-19-03

Methylene Chloride Lot #: 42351
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: CH_3CN Lot #: X32823
Reagent: DNPH Lot #: EX2397
Reagent: ACETATE BUFFER Lot #: EX2369
Reagent: 6M NaOH Lot #: EX2214
Acid: 6M HCL Lot #: EX2214
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: EX2371

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C					
Sonication	3550B					
Waste	3580A					

SW-846
8315A ☑

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: _____ Date: 3/19/03

Extraction Notes For Volume # 200 Page # 101

General Comments: pH calibration 4 → Lot 2160
7 → LOT 2240

SONIC BATH SET @ 40°C POWER SET @ 1
ON → 1130
OFF → 1230
ON → 1312
OFF → 1412
ON → 1415
OFF → 1515

Extraction Anomalies: NONE

Concentration Anomalies: NONE

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Parameter: 8315 H_2O SOP #: EXTFORM Revision #: 0
Extraction Analyst(s): CEB TV/KD Analyst(s): [illegible]
Date/Time Extracted: 3-24-03/1100 Date TV/KD: 3/24/03
Spike/Surrogate Analyst: ROC Witness: CEB
Surrogate #: — Earliest Hold Date: 30T
Spike #: A = 50563-8 Spike #: B = —

Extraction Work Group WG 136850
Analytical Work Group WG 136816

Extract Relinquished By: [illegible]
Extract Received By & Date: CEB 3/24/03

CEB 3/24/03

	Sample ID	Test Code	5.0 pH I 0.1 <2 2-12 >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions A	Emulsions BN	Emulsions N	Comments
1	Blank		5.03	100mL	N/A		5.0mL					WG 136850-01
2	LCS		4.94			250ul						WG -02
3	LCS DUP		4.90			"						WG -03
4	03-352-01	8315FORM	5.03									REEXT out hold
5	MDL ✓		4.93			25ul						
6	CCV		4.99	"	"	250ul	"					
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												

CEB

Methylene Chloride Lot #: 42351
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: CH_3CN Lot #: X32823
Reagent: DNPH Lot #: ER2397
Reagent: Acetate Buffer Lot #: ER2365
Reagent: 6M NaOH Lot #: ER2146
Acid: 6M HCl Lot #: ER2147
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER2371

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C					
Sonication	3550B					
Waste	3580A					

SW-846
8315A ☑

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 3/24/03

Extraction Notes For Volume # 200 Page # 121

General Comments: pH calibration 4 → 2160
7 → 2240

SONIC BATH SET @ 40°C, POWER SET @ 1
ON → 1115
OFF → 1215

Extraction Anomalies: none

Concentration Anomalies: none

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Semi-Volatile 8315A Checklist

Run Date: 03/20/03 & 03/21/03

Analyst: RDC

Instrument: HPLC3

Workorders:	Due Date:	Priority:
03-332	3/31/2003	
03-333	3/31/2003	
03-352	3/21/2003	P1

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadratic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	NA
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	NA
	Spike Compounds	√
	MS/MSD	√
	Kemron Forms	√
Samples:	TCL Hits	√
	Surrogates	NA
	Correct Factors	√
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	√
Data Package:	Manual re-integrations	NA
	Level 2	√
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

WG136599-05 MS recovered 18.5% of spike. L0303352-01 analysis resulted in a qty. of formaldehyde which was equal to the MS spike amt. of approx. 250 ppb. Reanalysis yielded the same results. L0303352-01 will be re-extracted out of hold to validate this result.

Primary Reviewer: RDC 3/21/03

Secondary Reviewer: mdl 3/24/03

Supervisor Review: mdl 3/24/03

√
NA

Semi-Volatile 8315A Checklist

Run Date: 24-Mar-03

Analyst: RDC

Instrument: HPLC3

Workorders:	Due Date:	Priority:
03-352	3/31/2003	P1

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	NA
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	NA
	Spike Compounds	√
	MS/MSD	√
	Kemron Forms	√
Samples:	TCL Hits	√
	Surrogates	NA
	Correct Factors	√
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	√
Data Package:	Manual re-integrations	NA
	Level 2	
	Level 3	
	Level 4	√
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

This is a re-extract out of holding time for L0303352-01. All criteria were met for the blank, LCS, and LCS dup. Data from this re-extraction and the original extraction will be reported.

Primary Reviewer: RRC 3/25/03

Secondary Reviewer: [illegible] 3/25/03

Supervisor Review: [illegible] 3/31/03

√
NA

Example 8315 Calculations

1.0 Calulating the Calibration Factor (CF) from the initial calibration (ICAL) data:

		Example:
	CF = Cs/As	
Where:	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ug/ml).	100
	CF	**0.01**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:*

		Example:
	C = [(Ax)(Vf)(D)(CF)(1000)] / Vi	
Where:	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	5
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	**0.01**
	Vi = Initial volume of sample (mL). (prep log)	100
	C (ug/L) =	**5**

* Concentrations appearing on instrument quantitation reports are on-column results and do not take into account initial volume, final volume and dilution factor.

2.3 Metals

2.3.1 Metals I C P Data

REPORT NARRATIVE
METALS

KEMRON Login No: L0303352

METHOD

Analysis: SW-846 6010/6020/7000

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.

SAMPLES

All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: JYH/SLP REVIEWED: Kathy Albertsen DATE: 03/24/03

Rev. 6/00

METALS - ICP DATA
Login Number: L0303352

A. QC Summary

✓ Batch QC Summary Form

B. Raw Data

✓ Analyst checksheet

✓ Analysis runlog

✓ Instrument data: (actual order may vary)

- Initial and continuing calibration standards
- Initial and continuing calibration blanks
- Preparation blank
- Laboratory control sample
- Sample data
- Matrix spike
- Matrix spike duplicate
- Duplicate
- ICP Interference check sample
- ICP Serial dilutions (as needed)
- Post digestion spike sample (if applicable)
- Standard addition results (as needed)

C. Preparation log(s)

D. Sample Calculations

Checked By: KRA Date: 3/24/03

2.3.1.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0303352 Run Date: 03/20/2003 Sample ID: WG136608-03
Instrument ID: PE-ICP Run Time: 11:09 Prep Method: 3005A
File ID: PE.032003.110936 Analyst: SLP Method: 6010B
Workgroup (AAB#): WG136723 Matrix: Water Units: mg/L
Contract #: Cal ID: PE-ICP-20-MAR-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Aluminum	0.0500	0.100	0.0500	1	U
Arsenic	0.00200	0.00400	0.00200	1	U
Barium	0.00250	0.0100	0.00250	1	U
Beryllium	0.000250	0.0100	0.000250	1	U
Cadmium	0.00250	0.0100	0.00250	1	U
Calcium	0.100	0.200	0.100	1	U
Chromium	0.00250	0.0200	0.00250	1	U
Cobalt	0.00250	0.0200	0.00250	1	U
Copper	0.00500	0.0200	0.00500	1	U
Iron	0.0200	0.0400	0.0200	1	U
Lead	0.00250	0.00500	0.00250	1	U
Magnesium	0.250	0.500	0.250	1	U
Manganese	0.00100	0.0100	0.00124	1	J
Nickel	0.00500	0.0400	0.00500	1	U
Potassium	0.250	1.00	0.250	1	U
Silver	0.00500	0.0100	0.00500	1	U
Sodium	0.250	0.500	0.250	1	U
Vanadium	0.00500	0.0100	0.00500	1	U
Zinc	0.00500	0.0200	0.00500	1	U

KEMRON FORMS - Modified 02/07/2003
Version 1.3
Report generated 03/24/2003 13:18

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0303352 Run Date: 03/20/2003 Sample ID: WG136608-04
Instrument ID: PE-ICP Run Time: 11:14 Prep Method: 3005A
File ID: PE.032003.111427 Analyst: SLP Method: 6010B
Workgroup (AAB#): WG136723 Matrix: Water Units: mg/L
Contract #: Cal ID: PE-ICP-20-MAR-2003 10:35

Analytes	Expected	Found	% Rec	LCS Limits	Q
Aluminum	10.0	10.6	106	80 - 120	
Arsenic	1.00	1.04	104	80 - 120	
Barium	10.0	9.93	99.3	80 - 120	
Beryllium	1.00	1.05	105	80 - 120	
Cadmium	1.00	1.02	102	80 - 120	
Calcium	10.0	10.7	107	80 - 120	
Chromium	1.00	1.04	104	80 - 120	
Cobalt	1.00	1.05	105	80 - 120	
Copper	1.00	1.05	105	80 - 120	
Iron	1.00	1.08	108	80 - 120	
Lead	1.00	1.07	107	80 - 120	
Magnesium	10.0	10.4	104	80 - 120	
Manganese	1.00	1.04	104	80 - 120	
Nickel	1.00	1.05	105	80 - 120	
Potassium	50.0	51.9	104	80 - 120	
Silver	0.200	0.209	104	80 - 120	
Sodium	50.0	51.8	104	80 - 120	
Vanadium	1.00	1.05	105	80 - 120	
Zinc	1.00	1.05	105	80 - 120	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number:L0303352 Run Date:03/20/2003 Sample ID:WG136593-03
Instrument ID:ELAN-ICP Run Time:11:51 Prep Method:3015
File ID:EL_032003.115136 Analyst:JYH Method:6020A
Workgroup (AAB#):WG136757 Matrix:Water Units:mg/L
Contract #: Cal ID:ELAN-I-20-MAR-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Antimony	0.000500	0.00100	0.000500	2	U
Selenium	0.000500	0.00100	0.000613	2	J
Thallium	0.000100	0.000200	0.000100	2	U

KEMRON FORMS - Modified 02/07/2003
Version 1.3
Report generated 03/24/2003 14:42

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number:L0303352 Run Date:03/20/2003 Sample ID:WG136593-04
Instrument ID:ELAN-ICP Run Time:11:56 Prep Method:3015
File ID:EL.032003.115639 Analyst:JYH Method:6020A
Workgroup (AAB#):WG136757 Matrix:Water Units:mg/L
Contract #: Cal ID:ELAN-I-20-MAR-2003 11:17

Analytes	Expected	Found	% Rec	LCS Limits	Q
Antimony	0.125	0.140	112	80 - 120	
Selenium	0.125	0.124	99.3	80 - 120	
Thallium	0.125	0.142	113	80 - 120	

KEMRON FORMS - Modified 01/31/2003
Version 1.3
Report generated 03/24/2003 14:42

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 8

Analytical Method: 6010B
Login Number: L0303352

AAB#: MG136723
Contract #: Bonnie Hogue

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
177511-DW-031703	03/17/03	03/18/03	03/19/03	180	1.56	03/20/03	180	2.72	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON FORMS - Modified 05/28/2002
Version 1.1
Report generated 03/26/2003 13:47

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 8

Analytical Method: 6020A
Login Number: L0303352

AAB#: MG136757
Contract #: Bonnie Hogue

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
177511-DW-031703	03/17/03	03/18/03	03/19/03	180	1.67	03/20/03	180	2.74	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON FORMS - Modified 05/28/2002
Version 1.1
Report generated 03/26/2003 13:47

2.3.1.2 Raw Data

Metals

Date: 3/20/03
Analyst: SLP
Method: 6010B
Instrument: PE-ICP
Work Group: 136723, 136728, 136730

	Analyst
Calibration/Linearity	✓
ICV/CCV	✓
ICB/CCB	✓
icsa/icsab/cri	✓
Blank/LCS	✓
MS/MSD	✓
Postspike/Serial Dilution	✓
Duplicate	✓
Record Results	✓
Excel Spreadsheets	✓
Results Reporting / Data Qualifiers	
Calculations & Correct Factors	
Reanalysis Assign	
Instrument Failure/Reassign	
Case Narrative	
QA Approval - Seedpak 3	
Check for Completeness	
Level IV Data 03-352	✓
03-300	✓

Primary Reviewer Initials & Date Checked SLP 3/20/03

Secondary Reviewer Initials & Date Checked JA 3.24.03

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
✓ • Check the information for the report narrative
✓ • Check the reasonableness of results

Supervisory Review Initials & Date Checked SLP 3/24/03

Comments: _____

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

KEMRON ENVIRONMENTAL SERVICES
ICP (ICP/MS) RUN LOGBOOK

ANALYST SLP DATE 03/20/03 TIME 1021
METHOD # 6010B SOP # ME6006 Rev # 3 WORK GROUP # 136723 136728, 136730
CAL STD SOURCE MI-16-48A ICV/CCV SOURCE MI-16-47B
ICS AB SOURCE MI16-48B ICS A SOURCE MI-16-50A POST SPK SOURCE ~~MI-16-DSS-5~~ 7
Instrument ID: TJA IRIS: Data File: 032003A Perkin Elmer Optima: ✓ Perkin Elmer ELAN:

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
					27.	L0303305-01			
			3/20/03		28.	02			CCV/CCB
					29.	L0303331-02			
					30.	02PS	0.9		CCV/CCB
					31.	PBW 74			WG136421-03
					32.	LCSW 74			04
					33.	L0303244-01			02
					34.	01DP			07
1.	SO				35.	L0303256-01			01
2.	S1 1/50				36.	01S			05
3.	S2 1/				37.	01SD			06
4.	S3				38.	L0303246-01			
5.	ICV				39.	01SDL	0.2		
6.	ICB				40.	01PS	0.9		CCV/CCB
7.	ICSA				41.	L0303247-01			
8.	ICSAB			CCV/CCB	42.	02			
9.	PBW E5			WG136608-03	43.	L0303256-8-04			
10.	LCSW E5			04	44.	L0303263-01			
11.	L0303258-05			02	45.	02			
12.	05DP			07	46.	L0303267-02			
13.	L0303265-18			01	47.	L0303299-02			
14.	18SDL	0.2			48.	L0303301-02			CCV/CCB
15.	18PS	0.9			49.	PBW V4			WG136589-03
16.	20S			05	50.	LCSW V4			04
17.	22SD			06	51.	L0303238-01		5/50	02
18.	L0303360-01			CCV/CCB	52.	01DP			07
19.	L0303352-01				53.	06			01
20.	L0303311-01				54.	06S			05
21.	02				55.	06SD			06
22.	L0303312-01				56.	02			
23.	02				57.	02PS	0.9		
24.	L0303360-01				58.	TC BLK F 3/18	0.1		CCV/CCB
25.	02				59.	L0303238-04		5/60	
26.	L0303303-01				60.	05			

Cont'd

Reviewed by: _____

Comments: _____

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:
CCV - Continuing Calibration Verification
CCB = Continuing Calibration Blank
FRS = Full Recalibration Sequence
R = Analyst Rerun

KEMRON ENVIRONMENTAL SERVICES
ICP (ICP/MS) RUN LOGBOOK

ANALYST SP DATE 03/20/03 TIME 1021
METHOD # 6010B SOP # ME600E Rev # 3 WORK GROUP # 136723, 136728, 136730
CAL STD SOURCE MI16-48A ICV/CCV SOURCE MI-16-47B
ICS AB SOURCE MI-16-48B ICS A SOURCE MI-16-50A POST SPK SOURCE DSS-51-73
Instrument ID: TJA IRIS: ____ Data File: 0320031 Perkin Elmer Optima: ✓ Perkin Elmer ELAN: ____

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
					27.				
					28.				
					29.				
					30.				
					31.				
					32.				
					33.				
					34.				
1.	L0303238-07		5/60		35.				
2.	L0303285-01				36.				
3.	L0303287-01				37.				
4.	L0303316-01			CCV/CCB	38.				
5. *	L0303268-02				39.				
6. *	025				40.				
7. *	03		—		41.				
8.	L0303238-08		5/60	CCV/CCB	42.				
9.					43.				
10.					44.				
11.					45.				
12.					46.				
13.					47.				
14.					48.				
15.					49.				
16.					50.				
17.					51.				
18.					52.				
19.					53.				
20.					54.				
21.					55.				
22.					56.				
23.					57.				
24.					58.				
25.					59.				
26.					60.				

Reviewed by: ____

Comments: * Analyzed L0303268-02, -025, -03 (cups 65-67) before L0303238-04 (cup 59).

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key: CCV - Continuing Calibration Verification; CCB = Continuing Calibration Blank; FRS = Full Recalibration Sequence; R = Analyst Rerun

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INORGANIC ANALYSES DATA SHEET
INITIAL MULTIPOINT CALIBRATION

Analytical Method: 6010B AAB#:

Lab Name: KEMRON ENVIRONMENTAL SERVICES Contract #:

Date of Initial Calibration: 20-Mar-03 Initial Calibration ID: PE-ICP 20-MAR-2003

Instrument ID: PE-ICP Concentration Units (mg/L or mg/kg dry weight): mg/L

Analyte	Std 1	RF 1	Std 2	RF 2	Std 3	RF 3	Std 4	RF 4			r	Q
Aluminum	0.00	694.9	0.100	2707.1	10	309303	20.000	618264			1.00000	
Arsenic	0	-60.2	0.004	34.5	0.4	3987	0.8	7951.7			0.99988	
Barium	0	-891.3	0.01	1757.7	1	191476	2	369143			0.99980	
Beryllium	0	29.4	0.0005	322.3	0.05	34862	0.1	69237			0.99999	
Cadmium	0	103.9	0.0005	133.2	0.05	14717	0.1	29057			0.99998	
Calcium	0	-73.1	0.1	76.2	10	9370.3	20	18097			0.99981	
Chromium	0	-1084	0.005	918.5	0.5	97881	1	191612			0.99991	
Cobalt	0	56.6	0.002	223.7	0.2	23996	0.4	47208			0.99996	
Copper	0	695.8	0.005	1079.6	0.5	142460	1	279421			0.99995	
Iron	0	-895.7	0.04	284.5	4	51486	8	101175			0.99991	
Lead	0	95.1	0.005	85.3	0.5	9677	1	18886			0.99992	
Magnesium	0	-1179	0.1	2978.5	10	342200	20	685058			1.00000	
Manganese	0	-1106	0.01	4794.2	0.5	512861	1	984023			0.99972	
Nickel	0	-404.7	0.005	547.4	0.5	60980	1	118897			0.99990	
Potassium	0	1458	0.5	6829.4	50	794473	100	1610001			0.99998	
Silver	0	1120.5	0.004	1437.6	0.4	175089	0.8	348003			0.99999	
Sodium	0	2146.7	0.5	21517	50	2385356	100	4815753			0.99999	
Vanadium	0	-341.4	0.01	1426.6	1	175769	2	344852			0.99995	
Zinc	0	346.8	0.01	1451	1	166273	2	328046			0.99997	

Comments:

AFCEE FORM I-3A

KEMRON ENVIRONMENTAL SERVICES
FORM 2A - INITIAL AND CONTINUING CALIBRATION VERIFICATION

INSTRUMENT: PE - Optima 3000
METHOD: 6010B
ANALYST: Slp
DATE: 3/20/03

UNITS: ug/L

ICV Time: 10:40 AM
CCV1 Time: 10:59 AM
CCV2 Time: 11:58 AM

	Initial Calibration Verification			Continuing Calibration Verification CCV1			CCV2		Q
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Aluminum	10000	10100	101.0	10000	10300	103.0	10300	103.0	
Antimony	1200	1240	103.3	1200	1260	105.0	1260	105.0	
Arsenic	400	401	100.3	400	406	101.5	407	101.8	
Barium	1000	1050	105.0	1000	1080	108.0	1080	108.0	
Beryllium	50	50.5	101.0	50	52.3	104.6	52.7	105.4	
Cadmium	50	50.4	100.8	50	51.1	102.2	51.1	102.2	
Calcium	10000	10300	103.0	10000	10500	105.0	10500	105.0	
Chromium	500	515	103.0	500	529	105.8	525	105.0	
Cobalt	200	208	104.0	200	211	105.5	212	106.0	
Copper	500	511	102.2	500	527	105.4	527	105.4	
Iron	4000	4150	103.8	4000	4330	108.3	4230	105.8	
Lead	500	526	105.2	500	533	106.6	530	106.0	
Magnesium	10000	10200	102.0	10000	10500	105.0	10400	104.0	
Manganese	500	520	104.0	500	533	106.6	531	106.2	
Nickel	500	524	104.8	500	538	107.6	532	106.4	
Potassium	50000	49800	99.6	50000	49800	99.6	50000	100.0	
Selenium	400	419	104.8	400	426	106.5	432	108.0	
Silver	400	405	101.3	400	416	104.0	416	104.0	
Sodium	50000	50600	101.2	50000	50200	100.4	50600	101.2	
Thallium	500	524	104.8	500	550	110.0	512	102.4	
Vanadium	1000	1030	103.0	1000	1060	106.0	1060	106.0	
Zinc	1000	1030	103.0	1000	1050	105.0	1050	105.0	

(1) Control Limits: 90-110%

KEMRON ENVIRONMENTAL SERVICES
FORM 2A - INITIAL AND CONTINUING CALIBRATION VERIFICATION

INSTRUMENT:	PE - Optima 3000
METHOD:	6010B
ANALYST:	Slp
DATE:	3/20/03
UNITS:	ug/L
ICV Time:	10:40 AM
CCV1 Time:	12:57 PM
CCV2 Time:	1:20 PM

	Initial Calibration Verification			Continuing Calibration Verification					Q
				CCV1			CCV2		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Aluminum	10000	10100	101.0	10000	10200	102.0	10200	102.0	
Antimony	1200	1240	103.3	1200	1250	104.2	1260	105.0	
Arsenic	400	401	100.3	400	402	100.5	404	101.0	
Barium	1000	1050	105.0	1000	1070	107.0	1080	108.0	
Beryllium	50	50.5	101.0	50	52.9	105.8	53.6	107.2	
Cadmium	50	50.4	100.8	50	50.4	100.8	50.6	101.2	
Calcium	10000	10300	103.0	10000	10400	104.0	10400	104.0	
Chromium	500	515	103.0	500	517	103.4	522	104.4	
Cobalt	200	208	104.0	200	211	105.5	213	106.5	
Copper	500	511	102.2	500	519	103.8	521	104.2	
Iron	4000	4150	103.8	4000	4160	104.0	4170	104.3	
Lead	500	526	105.2	500	525	105.0	529	105.8	
Magnesium	10000	10200	102.0	10000	10200	102.0	10300	103.0	
Manganese	500	520	104.0	500	525	105.0	530	106.0	
Nickel	500	524	104.8	500	525	105.0	530	106.0	
Potassium	50000	49800	99.6	50000	49000	98.0	48400	96.8	
Selenium	400	419	104.8	400	425	106.3	425	106.3	
Silver	400	405	101.3	400	412	103.0	414	103.5	
Sodium	50000	50600	101.2	50000	49800	99.6	48400	96.8	
Thallium	500	524	104.8	500	498	99.6	521	104.2	
Vanadium	1000	1030	103.0	1000	1050	105.0	1060	106.0	
Zinc	1000	1030	103.0	1000	1030	103.0	1060	106.0	

(1) Control Limits: 90-110%

KEMRON ENVIRONMENTAL SERVICES
FORM 3 - BLANKS

INSTRUMENT:	PE - Optima 3000
METHOD:	6010B
ANALYST:	Slp
DATE:	3/20/03
UNITS:	ug/L
ICB Time:	10:45 AM
CCB1 Time:	11:04 AM
CCB2 Time:	12:03 PM
CCB3 Time:	1:02 PM

	Initial Calibration Blank(ug/L)	Continuing Calibration Blank (ug/L)		
		CCB1	CCB2	CCB3
Analyte		1	2	3
Aluminum	0.368	0.49	0.409	2.3
Antimony	-0.0786	0.0122	-0.0358	0.439
Arsenic	0.333	-0.0867	0.0405	0.46
Barium	-0.000286	0.0272	-0.0469	0.0517
Beryllium	-0.00276	0.00104	-0.00881	0.0124
Cadmium	-0.0209	0.0126	0.184	0.0149
Calcium	-3.93	4.46	-0.717	4.59
Chromium	0.0719	0.111	0.163	-0.0771
Cobalt	-0.0839	-0.0484	-0.067	-0.0395
Copper	-0.0142	-0.00539	-0.116	0.136
Iron	0.699	10.8	5.30	1.87
Lead	-0.0928	-0.337	0.0749	0.385
Magnesium	0.412	0.34	0.304	-2.17
Manganese	0.0188	0.012	0.0144	0.0493
Nickel	0.0618	0.0272	-0.0244	-0.009
Potassium	0.206	-10.7	54.0	132
Selenium	-0.485	-0.443	-0.142	-0.572
Silver	-0.232	-0.226	-0.165	-0.0285
Sodium	-5.97	-21.5	63.9	144
Thallium	7.13	6.48	16.2	6.41
Vanadium	-0.00615	0.0315	0.106	0.0943
Zinc	-0.114	-0.258	-0.179	0.124

KEMRON ENVIRONMENTAL SERVICES
FORM 3 - BLANKS

INSTRUMENT:	PE - Optima 3000
METHOD:	6010B
ANALYST:	Slp
DATE:	3/20/03
UNITS:	ug/L
ICB Time:	10:45 AM
CCB1 Time:	1:25 PM
CCB2 Time:	
CCB3 Time:	

Analyte	Initial Calibration Blank(ug/L)	Continuing Calibration Blank (ug/L) CCB1 1	CCB2 2	CCB3 3
Aluminum	0.368	1.46		
Antimony	-0.0786	0.383		
Arsenic	0.333	0.197		
Barium	-0.000286	-0.0234		
Beryllium	-0.00276	-0.00655		
Cadmium	-0.0209	0.0548		
Calcium	-3.93	-2.85		
Chromium	0.0719	-0.05		
Cobalt	-0.0839	-0.0808		
Copper	-0.0142	0.0789		
Iron	0.699	-0.344		
Lead	-0.0928	0.193		
Magnesium	0.412	-0.186		
Manganese	0.0188	0.0156		
Nickel	0.0618	-0.0379		
Potassium	0.206	10.3		
Selenium	-0.485	-0.216		
Silver	-0.232	-0.174		
Sodium	-5.97	18.7		
Thallium	7.13	13.1		
Vanadium	-0.00615	0.017		
Zinc	-0.114	-0.296		

KEMRON ENVIRONMENTAL SERVICES
FORM 4A - INTERFERENCE CHECK SAMPLE

INSTRUMENT ID: PE - Optima 3000
METHOD: 6010B
ANALYST: Slp
DATE: 3/20/03

UNITS: ug/L

Initial ICSA Time: 10:50 AM
Initial ICSAB Time: 10:55 AM
Final ICSA Time:
Final ICSAB Time:

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R	Q
Aluminum	250000	250000	257000	281000	112.4				
Antimony	0	500	1.02	519	103.8				
Arsenic	0	250	1.91	270	108.0				
Barium	0	250	-2.89	265	106.0				
Beryllium	0	250	0.791	298	119.2				
Cadmium	0	500	0.0247	555	111.0				
Calcium	250000	250000	263000	280000	112.0				
Chromium	0	250	1.91	273	109.2				
Cobalt	0	250	6.20	252	100.8				
Copper	0	250	-2.73	295	118.0				
Iron	100000	100000	96600	102000	102.0				
Lead	0	500	-3.44	525	105.0				
Magnesium	250000	250000	259000	280000	112.0				
Manganese	0	250	-0.455	263	105.2				
Nickel	0	500	-0.365	502	100.4				
Potassium	0	5000	-369	5420	108.4				
Selenium	0	250	6.91	281	112.4				
Silver	0	500	1.12	592	118.4				
Sodium	0	5000	53.7	5660	113.2				
Thallium	0	500	145	522	104.4				
Vanadium	0	250	-3.03	270	108.0				
Zinc	0	500	2.8	509	101.8				

(1) Control Limits: 80-120%

ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Instrument ID: PE - Optima 3000

Date: 4/1/2002

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	As
Aluminum	237.31	0.0000000	0.0000000	-0.1000000	-0.1400000	0.0000000
Antimony	206.83	0.0500000	0.0000000	0.1000000	0.0000000	0.0000000
Arsenic	193.69	-0.0430000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	233.53	-0.0040000	0.0000000	-0.0700000	0.0000000	0.0000000
Beryllium	234.86	0.0070000	0.0000000	0.0500000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	-0.0010000	0.0000000	0.0000000
Calcium	317.93	0.1000000	0.0000000	10.0000000	0.0000000	0.0000000
Chromium	267.72	0.0050000	0.0000000	-0.0430000	0.0000000	0.0000000
Cobalt	228.61	-0.0020000	0.0000000	0.0200000	-0.0005000	0.0000000
Copper	327.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	259.94	-0.2600000	-0.0040000	0.0000000	-0.2250000	0.0000000
Lead	220.35	-0.0727500	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.1170000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.60	0.0050000	0.0000000	0.0020000	0.0200000	0.0000000
Molybdenum	202.03	0.0020000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	-0.0130000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.09	0.7060000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	-0.5700000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.10	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.60	0.0000000	0.0000000	-0.5000000	0.0000000	0.0000000
Strontium	407.80	-0.2100000	0.0000000	-4.7000000	0.3600000	0.0000000
Thallium	190.80	0.0000000	0.0000000	-7.3000000	0.0000000	0.0000000
Tin	189.99	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	337.28	-0.0400000	0.0000000	-0.0400000	0.0240000	0.0000000
Vanadium	292.40	0.0060000	0.0010000	-0.0500000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	-0.0430000	0.0200000	0.0000000

Comments:

ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Instrument ID: PE - Optima 3000

Date: 4/1/2002

Analyte	Wavelength (nm)	Interelement Correction Factors for: Fe	Be	Cd	Co	Cr
Aluminum	396.15	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.83	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.69	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	233.52	0.0000000	-0.0040000	0.0000000	0.0000000	0.0000000
Beryllium	234.86	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	2.3000000	0.0008100	0.0000000	0.0000000	0.0000000
Calcium	227.55	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000000	0.0000000	-100
Copper	327.39	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	259.94	0.0000000	0.0000000	0.0000000	0.00000	0.0000000
Lead	220.35	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.79	0.0000000	0.1050000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0004000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	-0.5000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	407.77	0.0000000	0.1300000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Tin	189.99	0.0000000	-0.5200000	0.0000000	0.0000000	0.0000000
Titanium	334.94	0.0000000	-0.0400000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

COMMENTS:

ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Instrument ID: PE - Optima 3000

Date: 4/1/2002

Analyte	Wave-length (nm)	Interelement Correction Factors for: Cu	Mn	Mo	Ti	V
Aluminum	[illegible]	0.0000000	0.0000000	0.0000000	4.0000000	0.0000000
Antimony	[illegible]	[illegible]	0.3700000	-4.9800000	3.2000000	-0.6600000
Arsenic	[illegible]	-4.9900000	0.0025000	4.0400000	1.1600000	0.1000000
Barium	[illegible]	0.0000000	0.0000000	3.9500000	1.0000000	0.0000000
Beryllium	[illegible]	0.0000000	0.0000000	0.1200000	-0.0010000	0.0000000
Cadmium	[illegible]	[illegible]	0.0000000	0.0000000	0.3000000	0.1900000
Calcium	[illegible]	0.0000000	0.0000000	0.0000000	[illegible]	40.0000000
Chromium	[illegible]	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	[illegible]	0.0750000	0.0000000	-3.5200000	0.3000000	-0.0700000
Copper	[illegible]	0.0000000	0.0000000	0.0000000	0.3000000	0.0000000
Iron	[illegible]	0.0000000	-5.0000000	0.0000000	0.0000000	-3.3000000
Lead	[illegible]	0.0660000	0.0000000	-3.2600000	-0.7100000	-0.2000000
Magnesium	[illegible]	0.0000000	0.0000000	0.0000000	5.0000000	4.0000000
Manganese	[illegible]	0.0800000	0.0000000	0.0900000	0.0700000	-0.0200000
Molybdenum	[illegible]	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	[illegible]	0.0200000	0.0000000	0.0000000	-0.1600000	0.0700000
Potassium	[illegible]	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	[illegible]	0.0000000	0.0000000	0.0000000	-0.2000000	0.9400000
Silicon	[illegible]	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	[illegible]	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	[illegible]	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	[illegible]	0.0000000	0.0000000	165.0000000	0.0000000	0.0000000
Thallium	[illegible]	0.0000000	0.0000000	0.0000000	2.6500000	-10.0000000
Tin	[illegible]	0.0000000	0.0000000	0.0000000	-3.0000000	0.0000000
Titanium	[illegible]	0.0000000	-4.7000000	0.0000000	0.0000000	0.0000000
Vanadium	[illegible]	-9.9900000	0.0000000	0.0000000	0.5000000	0.0000000
Zinc	[illegible]	-3.5000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

ICP-AES AND ICP-MS LINEAR RANGES (QUARTERLY)

Instrument ID: PE - Optima 3000

Date: 3/22/02 - 5/13/02

Analyte	Integ. Time (Sec.)	Concentration (ug/L)
Aluminum	10.00	500000.0
Antimony	10.00	5000.0
Arsenic	10.00	2000.0
Barium	10.00	10000.0
Beryllium	10.00	2000.0
Cadmium	10.00	1000.0
Calcium	10.00	1000000.0
Chromium	10.00	10000.0
Cobalt	10.00	10000.0
Copper	10.00	5000.0
Iron	10.00	50000.0
Lead	10.00	10000.0
Magnesium	10.00	500000.0
Manganese	10.00	10000.0
Molybdenum	10.00	10000.0
Nickel	10.00	10000.0
Potassium	10.00	250000.0
Selenium	10.00	1000.0
Silicon	10.00	10000.0
Silver	10.00	1000.0
Sodium	10.00	200000.0
Strontium	10.00	2000.0
Thallium	10.00	10000.0
Tin	10.00	10000.0
Vanadium	10.00	10000.0
Zinc	10.00	10000.0

Comments:

Method : PE1300

Seq.	Loc.	Sample ID
1	1	S0
2	2	S1
3	3	S2
4	4	S3
5	5	ICV 2nd Vendor
6	1	ICB
7	6	ICSA
8	7	ICSAB
9	5	CCV
10	1	CCB
11	9	PBW E5 WG136608-03
12	10	LCSW E5 WG136608-04
13	11	L030325805 WG136608-02
14	12	L030325805DP WG136608-07
15	13	L030326518 WG136608-01
16	14	L030326518SDL 0.2
17	15	L030326518PS 0.9
18	16	L030326520S WG136608-05
19	17	L030326522SD WG136608-06
20	18	L030336001
21	5	CCV
22	1	CCB
23	19	L030335201
24	20	L030331101
25	21	L030331102
26	22	L030331201
27	23	L030331202
28	24	L030330001
29	25	L030330002
30	26	L030330301
31	27	L030330501
32	28	L030330502
33	5	CCV
34	1	CCB
35	29	L030333102
36	5	CCV
37	1	CCB

Steve L Pobanz
3/20/03

Analysis Begun

Start Time: 3/20/2003 10:21:11 AM
Logged In Analyst: Administrator
Spectrometer Model: Optima 3000 DV
Plasma On Time: 3/20/2003 8:57:49 AM
Technique: ICP Continuous
Autosampler Model: AS-90

Sample Information File: C:\pe\Administrator\Sample Information\032003A.sif
Results Data Set: 032003A
Results Library: C:\pe\Administrator\Results\Results.mdb

Sequence No.: 1
Sample ID: S0
Analyst:
Sample Wt:
Dilution:
Autosampler Location: 1
Date Collected: 3/20/2003 10:21:12 AM
Sample Prep Volume:
Data Type: Original

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	3653871.7	144341.24	3.95%		
Ag 328.068	1120.5	23.01	2.05%	[0.00]	mg/L
Al 237.312	694.9	8.35	1.20%	[0.00]	mg/L
As 188.979	-60.2	2.19	3.64%	[0.00]	mg/L
Ba 230.424	-891.3	3.78	0.42%	[0.00]	mg/L
Be 234.861	29.4	2.46	8.39%	[0.00]	mg/L
Ca 227.549	-73.1	3.78	5.18%	[0.00]	mg/L
Cd 228.802	103.9	1.95	1.88%	[0.00]	mg/L
Co 228.616	56.6	4.57	8.09%	[0.00]	mg/L
Cr 267.716	-1084.3	11.38	1.05%	[0.00]	mg/L
Cu 327.396	695.8	48.23	6.93%	[0.00]	mg/L
Fe 261.387	-895.7	3.40	0.38%	[0.00]	mg/L
Mg 279.079	-1178.9	4.88	0.41%	[0.00]	mg/L
Mn 257.610	-1106.1	7.30	0.66%	[0.00]	mg/L
Mo 202.030	19.5	0.68	3.49%	[0.00]	mg/L
Ni 231.604	-404.7	6.25	1.55%	[0.00]	mg/L
Pb 220.353	95.1	2.65	2.79%	[0.00]	mg/L
Sb 206.833	29.2	2.76	9.46%	[0.00]	mg/L
Se 196.026	-62.7	3.88	6.19%	[0.00]	mg/L
Si 288.158	1113.3	5.78	0.52%	[0.00]	mg/L
Sn 189.933	81.1	0.88	1.08%	[0.00]	mg/L
Ti 337.280	-620.2	0.39	0.06%	[0.00]	mg/L
Tl 190.800	0.1	1.06	>999.9%	[0.00]	mg/L
V 292.402	-341.4	15.75	4.61%	[0.00]	mg/L
Zn 206.200	346.8	2.02	0.58%	[0.00]	mg/L
K 766.490	1458.0	262.36	17.99%	[0.00]	mg/L
Na 589.592	2146.7	32.24	1.50%	[0.00]	mg/L
Sr 407.771	86.1	6.14	7.14%	[0.00]	mg/L

Sequence No.: 2
Sample ID: S1
Analyst:
Sample Wt:
Dilution:
Autosampler Location: 2
Date Collected: 3/20/2003 10:26:03 AM
Sample Prep Volume:
Data Type: Original

Mean Data: S1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	3757152.7	137399.51	3.66%		
Ag 328.068	1437.6	36.17	2.52%	[0.0040]	mg/L
Al 237.312	2707.1	45.34	1.67%	[0.10]	mg/L
As 188.979	34.5	2.80	8.12%	[0.0040]	mg/L
Ba 230.424	1757.7	5.49	0.31%	[0.010]	mg/L
Be 234.861	322.3	20.56	6.38%	[0.00050]	mg/L
Ca 227.549	76.2	7.25	9.51%	[0.10]	mg/L
Cd 228.802	133.2	3.41	2.56%	[0.00050]	mg/L
Co 228.616	223.7	7.56	3.38%	[0.0020]	mg/L

Cr 267.716	918.5	0.79	0.09%	[0.0050]	mg/L
Cu 327.396	1079.6	40.38	3.74%	[0.0050]	mg/L
Fe 261.387	284.5	3.40	1.20%	[0.040]	mg/L
Mg 279.079	2978.5	51.52	1.73%	[0.10]	mg/L
Mn 257.610	4794.2	175.72	3.67%	[0.0050]	mg/L
Mo 202.030	639.0	3.31	0.52%	[0.010]	mg/L
Ni 231.604	547.4	0.51	0.09%	[0.0050]	mg/L
Pb 220.353	85.3	0.96	1.12%	[0.0050]	mg/L
Sb 206.833	221.8	1.53	0.69%	[0.012]	mg/L
Se 196.026	18.9	3.05	16.11%	[0.0040]	mg/L
Si 288.158	2895.1	125.77	4.34%	[0.050]	mg/L
Sn 189.933	81.0	1.23	1.52%	[0.010]	mg/L
Ti 337.280	10187.4	223.33	2.19%	[0.010]	mg/L
Tl 190.800	1.9	1.16	60.77%	[0.0050]	mg/L
V 292.402	1426.6	72.20	5.06%	[0.010]	mg/L
Zn 206.200	1451.0	3.02	0.21%	[0.010]	mg/L
K 766.490	6829.4	132.38	1.94%	[0.50]	mg/L
Na 589.592	21517.3	173.82	0.81%	[0.50]	mg/L
Sr 407.771	18972.0	289.87	1.53%	[0.010]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	359400	0.00000	1.000000	
Al 237.312	1	Lin Thru 0	0.0	27070	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	8634	0.00000	1.000000	
Ba 230.424	1	Lin Thru 0	0.0	175800	0.00000	1.000000	
Be 234.861	1	Lin Thru 0	0.0	644600	0.00000	1.000000	
Ca 227.549	1	Lin Thru 0	0.0	762.0	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	266400	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	111900	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	183700	0.00000	1.000000	
Cu 327.396	1	Lin Thru 0	0.0	215900	0.00000	1.000000	
Fe 261.387	1	Lin Thru 0	0.0	7112	0.00000	1.000000	
Mg 279.079	1	Lin Thru 0	0.0	29780	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	958800	0.00000	1.000000	
Mo 202.030	1	Lin Thru 0	0.0	63900	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	109500	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	17060	0.00000	1.000000	
Sb 206.833	1	Lin Thru 0	0.0	18480	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	4731	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	57900	0.00000	1.000000	
Sn 189.933	1	Lin Thru 0	0.0	8098	0.00000	1.000000	
Ti 337.280	1	Lin Thru 0	0.0	1019000	0.00000	1.000000	
Tl 190.800	1	Lin Thru 0	0.0	382.1	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	142700	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	145100	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	13660	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	43030	0.00000	1.000000	
Sr 407.771	1	Lin, Calc Int	0.0	1897000	0.00000	1.000000	

==========

Sequence No.: 3
Sample ID: S2
Analyst:
Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/20/2003 10:30:55 AM

Sample Prep Volume:
Data Type: Original

Mean Data: S2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	4342426.2	26253.54	0.60%		
Ag 328.068	175088.8	1508.63	0.86%	[0.40]	mg/L
Al 237.312	309302.6	1815.92	0.59%	[10.00]	mg/L
As 188.979	3987.0	22.08	0.55%	[0.40]	mg/L
Ba 230.424	191476.3	835.60	0.44%	[1.00]	mg/L
Be 234.861	34862.0	318.70	0.91%	[0.05]	mg/L
Ca 227.549	9379.3	61.03	0.65%	[10.00]	mg/L
Cd 228.802	14717.0	134.43	0.91%	[0.05]	mg/L
Co 228.616	23995.5	150.40	0.63%	[0.20]	mg/L

Cr 267.716	97881.2	374.39	0.38%	[0.50]	mg/L
Cu 327.396	142460.1	1133.70	0.80%	[0.50]	mg/L
Fe 261.387	51485.8	452.60	0.88%	[4.00]	mg/L
Mg 279.079	342200.1	1105.92	0.32%	[10.00]	mg/L
Mn 257.610	512860.6	2378.24	0.46%	[0.50]	mg/L
Mo 202.030	78456.3	389.59	0.50%	[1.00]	mg/L
Ni 231.604	60980.0	145.54	0.24%	[0.50]	mg/L
Pb 220.353	9677.0	56.70	0.59%	[0.50]	mg/L
Sb 206.833	23860.2	181.14	0.76%	[1.20]	mg/L
Se 196.026	3495.1	18.20	0.52%	[0.40]	mg/L
Si 288.158	354453.8	2200.40	0.62%	[5.00]	mg/L
Sn 189.933	15647.4	80.78	0.52%	[1.00]	mg/L
Ti 337.280	1143299.9	7160.91	0.63%	[1.00]	mg/L
Tl 190.800	75.2	0.15	0.20%	[0.50]	mg/L
V 292.402	175768.6	1130.61	0.64%	[1.00]	mg/L
Zn 206.200	166272.8	139.44	0.08%	[1.00]	mg/L
K 766.490	794473.0	7976.47	1.00%	[50.00]	mg/L
Na 589.592	2385355.9	23803.87	1.00%	[50.00]	mg/L
Sr 407.771	2124122.3	24586.13	1.16%	[1.00]	mg/L

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S3 **Date Collected: 3/20/2003 10:35:47 AM**
Analyst:
Sample Wt: **Sample Prep Volume:**
Dilution: **Data Type: Original**

Mean Data: S3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	4250373.7	68304.14	1.61%		
Ag 328.068	348002.7	6043.36	1.74%	[0.80]	mg/L
Al 237.312	618264.4	9897.72	1.60%	[20.00]	mg/L
As 188.979	7951.7	22.33	0.28%	[0.80]	mg/L
Ba 230.424	369142.8	3400.84	0.92%	[2.00]	mg/L
Be 234.861	69236.8	806.80	1.17%	[0.10]	mg/L
Ca 227.549	18096.8	60.15	0.33%	[20.00]	mg/L
Cd 228.802	29057.0	47.68	0.16%	[0.10]	mg/L
Co 228.616	47207.9	436.67	0.92%	[0.40]	mg/L
Cr 267.716	191612.4	1908.01	1.00%	[1.00]	mg/L
Cu 327.396	279420.6	4865.83	1.74%	[1.00]	mg/L
Fe 261.387	101174.9	1358.35	1.34%	[8.00]	mg/L
Mg 279.079	685058.0	6211.57	0.91%	[20.00]	mg/L
Mn 257.610	984022.7	10796.15	1.10%	[1.00]	mg/L
Mo 202.030	153135.2	1276.84	0.83%	[2.00]	mg/L
Ni 231.604	118897.3	756.08	0.64%	[1.00]	mg/L
Pb 220.353	18886.4	40.14	0.21%	[1.00]	mg/L
Sb 206.833	47413.7	457.92	0.97%	[2.40]	mg/L
Se 196.026	6784.9	24.69	0.36%	[0.80]	mg/L
Si 288.158	671884.2	8267.45	1.23%	[10.00]	mg/L
Sn 189.933	32959.9	215.36	0.65%	[2.00]	mg/L
Ti 337.280	2223468.9	32457.10	1.46%	[2.00]	mg/L
Tl 190.800	152.5	3.08	2.02%	[1.00]	mg/L
V 292.402	344851.7	3929.17	1.14%	[2.00]	mg/L
Zn 206.200	328046.1	350.59	0.11%	[2.00]	mg/L
K 766.490	1610001.0	5608.70	0.35%	[100.00]	mg/L
Na 589.592	4815753.1	65164.76	1.35%	[100.00]	mg/L
Sr 407.771	4254935.1	41068.39	0.97%	[2.00]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	435500	0.00000	0.999997	
Al 237.312	3	Lin Thru 0	0.0	30920	0.00000	1.000000	
As 188.979	3	Lin Thru 0	0.0	9945	0.00000	0.999999	
Ba 230.424	3	Lin Thru 0	0.0	186000	0.00000	0.999890	
Be 234.861	3	Lin Thru 0	0.0	693300	0.00000	0.999996	
Ca 227.549	3	Lin Thru 0	0.0	911.3	0.00000	0.999900	
Cd 228.802	3	Lin Thru 0	0.0	291300	0.00000	0.999987	
Co 228.616	3	Lin Thru 0	0.0	118400	0.00000	0.999978	

Cr 267.716	3	Lin Thru 0	0.0	192400	0.00000	0.999963
Cu 327.396	3	Lin Thru 0	0.0	280500	0.00000	0.999969
Fe 261.387	3	Lin Thru 0	0.0	12690	0.00000	0.999973
Mg 279.079	3	Lin Thru 0	0.0	34250	0.00000	1.000000
Mn 257.610	3	Lin Thru 0	0.0	992400	0.00000	0.999859
Mo 202.030	3	Lin Thru 0	0.0	76950	0.00000	0.999952
Ni 231.604	3	Lin Thru 0	0.0	119500	0.00000	0.999947
Pb 220.353	3	Lin Thru 0	0.0	18980	0.00000	0.999951
Sb 206.833	3	Lin Thru 0	0.0	19780	0.00000	0.999997
Se 196.026	3	Lin Thru 0	0.0	8532	0.00000	0.999926
Si 288.158	3	Lin Thru 0	0.0	67930	0.00000	0.999762
Sn 189.933	3	Lin Thru 0	0.0	16310	0.00000	0.999789
Ti 337.280	3	Lin Thru 0	0.0	1118000	0.00000	0.999936
Tl 190.800	3	Lin Thru 0	0.0	152.1	0.00000	0.999961
V 292.402	3	Lin Thru 0	0.0	173100	0.00000	0.999970
Zn 206.200	3	Lin Thru 0	0.0	164500	0.00000	0.999985
K 766.490	3	Lin Thru 0	0.0	16060	0.00000	0.999986
Na 589.592	3	Lin Thru 0	0.0	48070	0.00000	0.999993
Sr 407.771	3	Lin, Calc Int	-1654.6	2128000	0.00000	1.000000

Sequence No.: 5 **Autosampler Location:** 5
Sample ID: ICV 2nd Vendor **Date Collected:** 3/20/2003 10:40:45 AM
Analyst:
Sample Wt: **Sample Prep Volume:**
Dilution: **Data Type:** Original

Mean Data: ICV 2nd Vendor

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	4338206.7						75120.74	1.73%
Ag 328.068	176381.6	0.405	mg/L	0.0081	0.405	mg/L	0.0081	2.00%
QC value within limits for Ag 328.068 Recovery = 101.24%								
Al 237.312	310208.3	10.1	mg/L	0.19	10.1	mg/L	0.19	1.85%
QC value within limits for Al 237.312 Recovery = 100.70%								
As 188.979	4016.3	0.401	mg/L	0.0067	0.401	mg/L	0.0067	1.68%
QC value within limits for As 188.979 Recovery = 100.14%								
Ba 230.424	195932.8	1.05	mg/L	0.014	1.05	mg/L	0.014	1.34%
QC value greater than the upper limit for Ba 230.424 Recovery = 105.11%								
Be 234.861	35162.5	0.0505	mg/L	0.00076	0.0505	mg/L	0.00076	1.51%
QC value within limits for Be 234.861 Recovery = 100.94%								
Ca 227.549	9506.7	10.3	mg/L	0.19	10.3	mg/L	0.19	1.85%
QC value within limits for Ca 227.549 Recovery = 103.10%								
Cd 228.802	15148.2	0.0504	mg/L	0.00097	0.0504	mg/L	0.00097	1.93%
QC value within limits for Cd 228.802 Recovery = 100.88%								
Co 228.616	24758.9	0.208	mg/L	0.0032	0.208	mg/L	0.0032	1.53%
QC value within limits for Co 228.616 Recovery = 103.91%								
Cr 267.716	99030.3	0.515	mg/L	0.0073	0.515	mg/L	0.0073	1.42%
QC value within limits for Cr 267.716 Recovery = 103.00%								
Cu 327.396	143343.1	0.511	mg/L	0.0107	0.511	mg/L	0.0107	2.09%
QC value within limits for Cu 327.396 Recovery = 102.14%								
Fe 261.387	52198.0	4.15	mg/L	0.074	4.15	mg/L	0.074	1.79%
QC value within limits for Fe 261.387 Recovery = 103.64%								
Mg 279.079	349123.5	10.2	mg/L	0.15	10.2	mg/L	0.15	1.48%
QC value within limits for Mg 279.079 Recovery = 101.89%								
Mn 257.610	516063.8	0.520	mg/L	0.0079	0.520	mg/L	0.0079	1.52%
QC value within limits for Mn 257.610 Recovery = 103.92%								
Mo 202.030	78606.5	1.02	mg/L	0.014	1.02	mg/L	0.014	1.40%
QC value within limits for Mo 202.030 Recovery = 102.67%								
Ni 231.604	62632.6	0.524	mg/L	0.0045	0.524	mg/L	0.0045	0.86%
QC value within limits for Ni 231.604 Recovery = 104.88%								
Pb 220.353	9904.1	0.526	mg/L	0.0080	0.526	mg/L	0.0080	1.53%
QC value greater than the upper limit for Pb 220.353 Recovery = 105.20%								
Sb 206.833	24546.9	1.24	mg/L	0.021	1.24	mg/L	0.021	1.73%
QC value within limits for Sb 206.833 Recovery = 103.13%								
Se 196.026	3591.4	0.419	mg/L	0.0075	0.419	mg/L	0.0075	1.78%
QC value within limits for Se 196.026 Recovery = 104.79%								
Si 288.158	356056.9	5.25	mg/L	0.094	5.25	mg/L	0.094	1.79%
QC value greater than the upper limit for Si 288.158 Recovery = 105.01%								
Sn 189.933	16859.2	1.04	mg/L	0.009	1.04	mg/L	0.009	0.84%
QC value within limits for Sn 189.933 Recovery = 104.03%								

Ti 337.280	1120244.6	1.01 mg/L	0.018	1.01 mg/L	0.018	1.77%
QC value within limits for Ti 337.280 Recovery = 100.57%						
Tl 190.800	76.9	0.524 mg/L	0.0096	0.524 mg/L	0.0096	1.84%
QC value within limits for Tl 190.800 Recovery = 104.85%						
V 292.402	178100.8	1.03 mg/L	0.015	1.03 mg/L	0.015	1.50%
QC value within limits for V 292.402 Recovery = 103.43%						
Zn 206.200	169031.7	1.03 mg/L	0.004	1.03 mg/L	0.004	0.43%
QC value within limits for Zn 206.200 Recovery = 102.92%						
K 766.490	800425.9	49.8 mg/L	0.57	49.8 mg/L	0.57	1.14%
QC value within limits for K 766.490 Recovery = 99.66%						
Na 589.592	2431136.5	50.6 mg/L	0.66	50.6 mg/L	0.66	1.30%
QC value within limits for Na 589.592 Recovery = 101.16%						
Sr 407.771	2138063.2	1.01 mg/L	0.011	1.01 mg/L	0.011	1.06%
QC value within limits for Sr 407.771 Recovery = 100.56%						

QC Failed. Continue with analysis.

Sequence No.: 6 **Autosampler Location: 1**
Sample ID: ICB **Date Collected: 3/20/2003 10:45:39 AM**
Analyst:
Sample Wt: **Sample Prep Volume:**
Dilution: **Data Type: Original**

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	3756907.9						1572.32	0.04%
Ag 328.068	-100.9	-0.00023	mg/L	0.000082	-0.00023	mg/L	0.000082	35.28%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 237.312	11.2	0.00037	mg/L	0.000173	0.00037	mg/L	0.000173	47.09%
QC value within limits for Al 237.312 Recovery = Not calculated								
As 188.979	3.4	0.00033	mg/L	0.000092	0.00033	mg/L	0.000092	27.64%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 230.424	0.8	0.00000	mg/L	0.000093	0.00000	mg/L	0.000093	>999.9%
QC value within limits for Ba 230.424 Recovery = Not calculated								
Be 234.861	-2.0	0.00000	mg/L	0.000009	0.00000	mg/L	0.000009	314.11%
QC value within limits for Be 234.861 Recovery = Not calculated								
Ca 227.549	-3.6	-0.00393	mg/L	0.003651	-0.00393	mg/L	0.003651	92.92%
QC value within limits for Ca 227.549 Recovery = Not calculated								
Cd 228.802	-5.9	-0.00002	mg/L	0.000019	-0.00002	mg/L	0.000019	91.25%
QC value within limits for Cd 228.802 Recovery = Not calculated								
Co 228.616	-10.0	-0.00008	mg/L	0.000005	-0.00008	mg/L	0.000005	5.86%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716	13.8	0.00007	mg/L	0.000027	0.00007	mg/L	0.000027	37.82%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.396	-4.0	-0.00001	mg/L	0.000048	-0.00001	mg/L	0.000048	336.71%
QC value within limits for Cu 327.396 Recovery = Not calculated								
Fe 261.387	9.0	0.00070	mg/L	0.000324	0.00070	mg/L	0.000324	46.39%
QC value within limits for Fe 261.387 Recovery = Not calculated								
Mg 279.079	14.1	0.00041	mg/L	0.000611	0.00041	mg/L	0.000611	148.45%
QC value within limits for Mg 279.079 Recovery = Not calculated								
Mn 257.610	18.8	0.00002	mg/L	0.000006	0.00002	mg/L	0.000006	32.63%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.030	90.4	0.00118	mg/L	0.000030	0.00118	mg/L	0.000030	2.55%
QC value within limits for Mo 202.030 Recovery = Not calculated								
Ni 231.604	7.4	0.00006	mg/L	0.000086	0.00006	mg/L	0.000086	139.69%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353	-1.8	-0.00009	mg/L	0.000167	-0.00009	mg/L	0.000167	179.53%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.833	-1.7	-0.00008	mg/L	0.000060	-0.00008	mg/L	0.000060	76.84%
QC value within limits for Sb 206.833 Recovery = Not calculated								
Se 196.026	-4.1	-0.00048	mg/L	0.000791	-0.00048	mg/L	0.000791	163.20%
QC value within limits for Se 196.026 Recovery = Not calculated								
Si 288.158	300.3	0.00442	mg/L	0.000968	0.00442	mg/L	0.000968	21.90%
QC value within limits for Si 288.158 Recovery = Not calculated								
Sn 189.933	123.6	0.00758	mg/L	0.000575	0.00758	mg/L	0.000575	7.59%
QC value within limits for Sn 189.933 Recovery = Not calculated								
Ti 337.280	79.0	0.00007	mg/L	0.000016	0.00007	mg/L	0.000016	22.75%
QC value within limits for Ti 337.280 Recovery = Not calculated								
Tl 190.800	1.1	0.00713	mg/L	0.008359	0.00713	mg/L	0.008359	117.19%
QC value within limits for Tl 190.800 Recovery = Not calculated								

V 292.402	-1.4	-0.00001 mg/L	0.000035	-0.00001 mg/L	0.000035	563.26%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200	-18.8	-0.00011 mg/L	0.000088	-0.00011 mg/L	0.000088	76.82%
QC value within limits for Zn 206.200 Recovery = Not calculated						
K 766.490	3.3	0.00021 mg/L	0.009358	0.00021 mg/L	0.009358	>999.9%
QC value within limits for K 766.490 Recovery = Not calculated						
Na 589.592	-286.9	-0.00597 mg/L	0.000609	-0.00597 mg/L	0.000609	10.21%
QC value within limits for Na 589.592 Recovery = Not calculated						
Sr 407.771	67.0	0.00081 mg/L	0.000010	0.00081 mg/L	0.000010	1.29%
QC value within limits for Sr 407.771 Recovery = Not calculated						

All analytes passed QC.

Sequence No.: 7 **Autosampler Location:** 6
Sample ID: ICSA **Date Collected:** 3/20/2003 10:50:30 AM
Analyst:
Sample Wt: **Sample Prep Volume:**
Dilution: **Data Type:** Original

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	4175550.6						3710.19	0.09%
Ag 328.068	486.9	0.00112	mg/L	0.000299	0.00112	mg/L	0.000299	26.74%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 237.312	7905808.3	257	mg/L	0.5	257	mg/L	0.5	0.18%
QC value within limits for Al 237.312 Recovery = 102.67%								
As 188.979	-107.7	0.00191	mg/L	0.000332	0.00191	mg/L	0.000332	17.36%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 230.424	-2180.9	-0.00289	mg/L	0.000294	-0.00289	mg/L	0.000294	10.18%
QC value within limits for Ba 230.424 Recovery = Not calculated								
Be 234.861	6667.4	0.00079	mg/L	0.000131	0.00079	mg/L	0.000131	16.61%
QC value within limits for Be 234.861 Recovery = Not calculated								
Ca 227.549	240961.0	263	mg/L	1.0	263	mg/L	1.0	0.40%
QC value within limits for Ca 227.549 Recovery = 105.05%								
Cd 228.802	-18.7	0.00002	mg/L	0.000060	0.00002	mg/L	0.000060	242.56%
QC value within limits for Cd 228.802 Recovery = Not calculated								
Co 228.616	587.3	0.00620	mg/L	0.000052	0.00620	mg/L	0.000052	0.85%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716	-1657.0	0.00191	mg/L	0.000360	0.00191	mg/L	0.000360	18.83%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.396	-765.5	-0.00273	mg/L	0.000042	-0.00273	mg/L	0.000042	1.54%
QC value within limits for Cu 327.396 Recovery = Not calculated								
Fe 261.387	1223896.4	96.6	mg/L	1.05	96.6	mg/L	1.05	1.08%
QC value within limits for Fe 261.387 Recovery = 96.59%								
Mg 279.079	8877996.5	259	mg/L	2.2	259	mg/L	2.2	0.83%
QC value within limits for Mg 279.079 Recovery = 103.74%								
Mn 257.610	-892.0	-0.00046	mg/L	0.000076	-0.00046	mg/L	0.000076	16.70%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.030	-81.5	-0.00172	mg/L	0.000136	-0.00172	mg/L	0.000136	7.88%
QC value within limits for Mo 202.030 Recovery = Not calculated								
Ni 231.604	-193.4	-0.00036	mg/L	0.000206	-0.00036	mg/L	0.000206	56.46%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353	-210.7	-0.00344	mg/L	0.000002	-0.00344	mg/L	0.000002	0.05%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.833	512.2	0.00102	mg/L	0.000220	0.00102	mg/L	0.000220	21.56%
QC value within limits for Sb 206.833 Recovery = Not calculated								
Se 196.026	277.0	0.00691	mg/L	0.002377	0.00691	mg/L	0.002377	34.40%
QC value within limits for Se 196.026 Recovery = Not calculated								
Si 288.158	11967.8	0.398	mg/L	0.0023	0.398	mg/L	0.0023	0.58%
QC value within limits for Si 288.158 Recovery = Not calculated								
Sn 189.933	60.8	-0.0141	mg/L	0.00040	-0.0141	mg/L	0.00040	2.85%
QC value within limits for Sn 189.933 Recovery = Not calculated								
Ti 337.280	5291.2	0.0232	mg/L	0.00002	0.0232	mg/L	0.00002	0.08%
QC value within limits for Ti 337.280 Recovery = Not calculated								
Tl 190.800	3.0	0.145	mg/L	0.0054	0.145	mg/L	0.0054	3.74%
QC value within limits for Tl 190.800 Recovery = Not calculated								
V 292.402	-1747.1	-0.00303	mg/L	0.000020	-0.00303	mg/L	0.000020	0.65%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200	1573.3	0.00280	mg/L	0.000224	0.00280	mg/L	0.000224	8.02%
QC value within limits for Zn 206.200 Recovery = Not calculated								

K 766.490	1571.0	-0.369 mg/L	0.0055	-0.369 mg/L	0.0055	1.50%
QC value within limits for K 766.490 Recovery = Not calculated						
Na 589.592	2581.3	0.0537 mg/L	0.00236	0.0537 mg/L	0.00236	4.39%
QC value within limits for Na 589.592 Recovery = Not calculated						
Sr 407.771	9566.4	0.00527 mg/L	0.000026	0.00527 mg/L	0.000026	0.49%
QC value within limits for Sr 407.771 Recovery = Not calculated						

All analytes passed QC.

Sequence No.: 8 **Autosampler Location: 7**
Sample ID: ICSAB **Date Collected: 3/20/2003 10:55:28 AM**
Analyst:
Sample Wt: **Sample Prep Volume:**
Dilution: **Data Type: Original**

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	4078464.7						50230.15	1.23%
Ag 328.068	257830.1	0.592	mg/L	0.0092	0.592	mg/L	0.0092	1.55%
QC value within limits for Ag 328.068 Recovery = 118.39%								
Al 237.312	8667220.5	281	mg/L	3.3	281	mg/L	3.3	1.17%
QC value within limits for Al 237.312 Recovery = 112.55%								
As 188.979	2530.0	0.270	mg/L	0.0054	0.270	mg/L	0.0054	2.01%
QC value within limits for As 188.979 Recovery = 107.88%								
Ba 230.424	47532.3	0.265	mg/L	0.0006	0.265	mg/L	0.0006	0.21%
QC value within limits for Ba 230.424 Recovery = 106.01%								
Be 234.861	213382.6	0.298	mg/L	0.0038	0.298	mg/L	0.0038	1.27%
QC value within limits for Be 234.861 Recovery = 119.33%								
Ca 227.549	256642.8	280	mg/L	4.0	280	mg/L	4.0	1.44%
QC value within limits for Ca 227.549 Recovery = 111.88%								
Cd 228.802	161799.4	0.555	mg/L	0.0074	0.555	mg/L	0.0074	1.33%
QC value within limits for Cd 228.802 Recovery = 110.95%								
Co 228.616	29630.7	0.252	mg/L	0.0012	0.252	mg/L	0.0012	0.48%
QC value within limits for Co 228.616 Recovery = 100.63%								
Cr 267.716	50353.5	0.273	mg/L	0.0001	0.273	mg/L	0.0001	0.02%
QC value within limits for Cr 267.716 Recovery = 109.22%								
Cu 327.396	82760.9	0.295	mg/L	0.0053	0.295	mg/L	0.0053	1.79%
QC value within limits for Cu 327.396 Recovery = 118.01%								
Fe 261.387	1295408.7	102	mg/L	1.2	102	mg/L	1.2	1.16%
QC value within limits for Fe 261.387 Recovery = 102.26%								
Mg 279.079	9594113.4	280	mg/L	2.4	280	mg/L	2.4	0.85%
QC value within limits for Mg 279.079 Recovery = 112.10%								
Mn 257.610	260539.0	0.263	mg/L	0.0029	0.263	mg/L	0.0029	1.08%
QC value within limits for Mn 257.610 Recovery = 105.19%								
Mo 202.030	-87.9	-0.00187	mg/L	0.000566	-0.00187	mg/L	0.000566	30.26%
QC value within limits for Mo 202.030 Recovery = Not calculated								
Ni 231.604	59880.0	0.502	mg/L	0.0019	0.502	mg/L	0.0019	0.37%
QC value within limits for Ni 231.604 Recovery = 100.48%								
Pb 220.353	9796.4	0.525	mg/L	0.0028	0.525	mg/L	0.0028	0.53%
QC value within limits for Pb 220.353 Recovery = 104.95%								
Sb 206.833	10888.2	0.519	mg/L	0.0027	0.519	mg/L	0.0027	0.52%
QC value within limits for Sb 206.833 Recovery = 103.82%								
Se 196.026	2640.6	0.281	mg/L	0.0052	0.281	mg/L	0.0052	1.85%
QC value within limits for Se 196.026 Recovery = 112.48%								
Si 288.158	2724.2	0.279	mg/L	0.0020	0.279	mg/L	0.0020	0.70%
QC value within limits for Si 288.158 Recovery = Not calculated								
Sn 189.933	-30.1	-0.0214	mg/L	0.00186	-0.0214	mg/L	0.00186	8.68%
QC value within limits for Sn 189.933 Recovery = Not calculated								
Ti 337.280	5602.9	0.0261	mg/L	0.00019	0.0261	mg/L	0.00019	0.74%
QC value within limits for Ti 337.280 Recovery = Not calculated								
Tl 190.800	58.9	0.522	mg/L	0.0339	0.522	mg/L	0.0339	6.48%
QC value within limits for Tl 190.800 Recovery = 104.47%								
V 292.402	44960.3	0.270	mg/L	0.0028	0.270	mg/L	0.0028	1.03%
QC value within limits for V 292.402 Recovery = 107.84%								
Zn 206.200	84698.9	0.509	mg/L	0.0001	0.509	mg/L	0.0001	0.02%
QC value within limits for Zn 206.200 Recovery = 101.74%								
K 766.490	95064.9	5.42	mg/L	0.019	5.42	mg/L	0.019	0.35%
QC value within limits for K 766.490 Recovery = 108.32%								
Na 589.592	272065.1	5.66	mg/L	0.003	5.66	mg/L	0.003	0.06%
QC value within limits for Na 589.592 Recovery = 113.20%								

Sr 407.771	10177.2	0.00556 mg/L	0.000024	0.00556 mg/L	0.000024	0.43%

QC value within limits for Sr 407.771 Recovery = Not calculated
All analytes passed QC.

Sequence No.: 9 **Autosampler Location: 5**
Sample ID: CCV **Date Collected: 3/20/2003 10:59:50 AM**
Analyst:
Sample Wt: **Sample Prep Volume:**
Dilution: **Data Type: Original**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	4454972.7						42843.39	0.96%
Ag 328.068	181272.8	0.416	mg/L	0.0041	0.416	mg/L	0.0041	0.99%
QC value within limits for Ag 328.068 Recovery = 104.05%								
Al 237.312	318750.1	10.3	mg/L	0.11	10.3	mg/L	0.11	1.05%
QC value within limits for Al 237.312 Recovery = 103.48%								
As 188.979	4073.8	0.406	mg/L	0.0015	0.406	mg/L	0.0015	0.38%
QC value within limits for As 188.979 Recovery = 101.56%								
Ba 230.424	201445.7	1.08	mg/L	0.013	1.08	mg/L	0.013	1.18%
QC value within limits for Ba 230.424 Recovery = 108.07%								
Be 234.861	36470.8	0.0523	mg/L	0.00090	0.0523	mg/L	0.00090	1.73%
QC value within limits for Be 234.861 Recovery = 104.69%								
Ca 227.549	9648.0	10.5	mg/L	0.00	10.5	mg/L	0.00	0.04%
QC value within limits for Ca 227.549 Recovery = 104.60%								
Cd 228.802	15356.8	0.0511	mg/L	0.00021	0.0511	mg/L	0.00021	0.42%
QC value within limits for Cd 228.802 Recovery = 102.25%								
Co 228.616	25147.6	0.211	mg/L	0.0009	0.211	mg/L	0.0009	0.41%
QC value within limits for Co 228.616 Recovery = 105.53%								
Cr 267.716	101661.9	0.529	mg/L	0.0064	0.529	mg/L	0.0064	1.21%
QC value within limits for Cr 267.716 Recovery = 105.74%								
Cu 327.396	147945.0	0.527	mg/L	0.0049	0.527	mg/L	0.0049	0.94%
QC value within limits for Cu 327.396 Recovery = 105.42%								
Fe 261.387	54564.4	4.33	mg/L	0.042	4.33	mg/L	0.042	0.97%
QC value within limits for Fe 261.387 Recovery = 108.32%								
Mg 279.079	359239.0	10.5	mg/L	0.14	10.5	mg/L	0.14	1.35%
QC value within limits for Mg 279.079 Recovery = 104.84%								
Mn 257.610	529844.9	0.533	mg/L	0.0059	0.533	mg/L	0.0059	1.11%
QC value within limits for Mn 257.610 Recovery = 106.70%								
Mo 202.030	80499.3	1.05	mg/L	0.012	1.05	mg/L	0.012	1.12%
QC value within limits for Mo 202.030 Recovery = 105.14%								
Ni 231.604	64260.1	0.538	mg/L	0.0080	0.538	mg/L	0.0080	1.49%
QC value within limits for Ni 231.604 Recovery = 107.61%								
Pb 220.353	10030.3	0.533	mg/L	0.0028	0.533	mg/L	0.0028	0.52%
QC value within limits for Pb 220.353 Recovery = 106.55%								
Sb 206.833	24944.7	1.26	mg/L	0.005	1.26	mg/L	0.005	0.39%
QC value within limits for Sb 206.833 Recovery = 104.80%								
Se 196.026	3652.1	0.426	mg/L	0.0025	0.426	mg/L	0.0025	0.58%
QC value within limits for Se 196.026 Recovery = 106.55%								
Si 288.158	365210.8	5.39	mg/L	0.047	5.39	mg/L	0.047	0.88%
QC value within limits for Si 288.158 Recovery = 107.71%								
Sn 189.933	16333.3	1.01	mg/L	0.011	1.01	mg/L	0.011	1.10%
QC value within limits for Sn 189.933 Recovery = 100.82%								
Ti 337.280	1150094.0	1.03	mg/L	0.012	1.03	mg/L	0.012	1.12%
QC value within limits for Ti 337.280 Recovery = 103.24%								
Tl 190.800	80.8	0.550	mg/L	0.0147	0.550	mg/L	0.0147	2.67%
QC value greater than the upper limit for Tl 190.800 Recovery = 110.03%								
V 292.402	182960.4	1.06	mg/L	0.012	1.06	mg/L	0.012	1.09%
QC value within limits for V 292.402 Recovery = 106.25%								
Zn 206.200	173013.3	1.05	mg/L	0.020	1.05	mg/L	0.020	1.87%
QC value within limits for Zn 206.200 Recovery = 105.35%								
K 766.490	799977.9	49.8	mg/L	1.09	49.8	mg/L	1.09	2.18%
QC value within limits for K 766.490 Recovery = 99.60%								
Na 589.592	2412944.0	50.2	mg/L	1.12	50.2	mg/L	1.12	2.24%
QC value within limits for Na 589.592 Recovery = 100.40%								
Sr 407.771	2129294.8	1.00	mg/L	0.022	1.00	mg/L	0.022	2.19%
QC value within limits for Sr 407.771 Recovery = 100.15%								

QC Failed. Continue with analysis.

Sequence No.: 10 Autosampler Location: 1
Sample ID: CCB Date Collected: 3/20/2003 11:04:45 AM
Analyst:
Sample Wt: Sample Prep Volume:
Dilution: Data Type: Original

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	3561916.7						29500.55	0.83%
Ag 328.068	-98.4	-0.00023	mg/L	0.000068	-0.00023	mg/L	0.000068	30.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 237.312	12.1	0.00049	mg/L	0.000058	0.00049	mg/L	0.000058	11.80%
QC value within limits for Al 237.312 Recovery = Not calculated								
As 188.979	-0.8	-0.00009	mg/L	0.000214	-0.00009	mg/L	0.000214	246.48%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 230.424	5.5	0.00003	mg/L	0.000002	0.00003	mg/L	0.000002	8.80%
QC value within limits for Ba 230.424 Recovery = Not calculated								
Be 234.861	1.2	0.00000	mg/L	0.000002	0.00000	mg/L	0.000002	152.14%
QC value within limits for Be 234.861 Recovery = Not calculated								
Ca 227.549	4.2	0.00446	mg/L	0.000189	0.00446	mg/L	0.000189	4.23%
QC value within limits for Ca 227.549 Recovery = Not calculated								
Cd 228.802	3.6	0.00001	mg/L	0.000002	0.00001	mg/L	0.000002	12.26%
QC value within limits for Cd 228.802 Recovery = Not calculated								
Co 228.616	-5.8	-0.00005	mg/L	0.000022	-0.00005	mg/L	0.000022	46.19%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716	21.2	0.00011	mg/L	0.000038	0.00011	mg/L	0.000038	34.61%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.396	-1.5	-0.00001	mg/L	0.000165	-0.00001	mg/L	0.000165	>999.9%
QC value within limits for Cu 327.396 Recovery = Not calculated								
Fe 261.387	137.7	0.0108	mg/L	0.00025	0.0108	mg/L	0.00025	2.30%
QC value within limits for Fe 261.387 Recovery = Not calculated								
Mg 279.079	11.7	0.00034	mg/L	0.000033	0.00034	mg/L	0.000033	9.76%
QC value within limits for Mg 279.079 Recovery = Not calculated								
Mn 257.610	12.2	0.00001	mg/L	0.000000	0.00001	mg/L	0.000000	0.67%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.030	60.0	0.00078	mg/L	0.000062	0.00078	mg/L	0.000062	7.93%
QC value within limits for Mo 202.030 Recovery = Not calculated								
Ni 231.604	3.2	0.00003	mg/L	0.000070	0.00003	mg/L	0.000070	256.76%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353	-6.4	-0.00034	mg/L	0.000049	-0.00034	mg/L	0.000049	14.51%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.833	0.2	0.00001	mg/L	0.000588	0.00001	mg/L	0.000588	>999.9%
QC value within limits for Sb 206.833 Recovery = Not calculated								
Se 196.026	-3.8	-0.00044	mg/L	0.001466	-0.00044	mg/L	0.001466	330.60%
QC value within limits for Se 196.026 Recovery = Not calculated								
Si 288.158	93.0	0.00137	mg/L	0.000189	0.00137	mg/L	0.000189	13.78%
QC value within limits for Si 288.158 Recovery = Not calculated								
Sn 189.933	78.9	0.00484	mg/L	0.000411	0.00484	mg/L	0.000411	8.49%
QC value within limits for Sn 189.933 Recovery = Not calculated								
Ti 337.280	59.2	0.00005	mg/L	0.000051	0.00005	mg/L	0.000051	95.10%
QC value within limits for Ti 337.280 Recovery = Not calculated								
Tl 190.800	1.0	0.00648	mg/L	0.008550	0.00648	mg/L	0.008550	131.87%
QC value within limits for Tl 190.800 Recovery = Not calculated								
V 292.402	5.0	0.00003	mg/L	0.000029	0.00003	mg/L	0.000029	92.27%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200	-42.4	-0.00026	mg/L	0.000031	-0.00026	mg/L	0.000031	12.21%
QC value within limits for Zn 206.200 Recovery = Not calculated								
K 766.490	-171.4	-0.0107	mg/L	0.00819	-0.0107	mg/L	0.00819	76.77%
QC value within limits for K 766.490 Recovery = Not calculated								
Na 589.592	-1033.0	-0.0215	mg/L	0.00144	-0.0215	mg/L	0.00144	6.69%
QC value within limits for Na 589.592 Recovery = Not calculated								
Sr 407.771	-23.5	0.00077	mg/L	0.000029	0.00077	mg/L	0.000029	3.84%
QC value within limits for Sr 407.771 Recovery = Not calculated								

All analytes passed QC.

Sequence No.: 11 Autosampler Location: 9
Sample ID: PBW E5 MG136608-03 Date Collected: 3/20/2003 11:09:36 AM
Analyst: SLP

Sample Wt: Sample Prep Volume:
Dilution: Data Type: Original

Mean Data: PBW E5 WG136608-03

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	3889571.2						70412.26	1.81%
Ag 328.068	-24.9	-0.00006	mg/L	0.000034	-0.00006	mg/L	0.000034	59.33%
Al 237.312	25.2	0.00099	mg/L	0.000004	0.00099	mg/L	0.000004	0.36%
As 188.979	-2.2	-0.00022	mg/L	0.000282	-0.00022	mg/L	0.000282	128.35%
Ba 230.424	-7.0	-0.00004	mg/L	0.000031	-0.00004	mg/L	0.000031	81.74%
Be 234.861	2.4	0.00000	mg/L	0.000013	0.00000	mg/L	0.000013	561.80%
Ca 227.549	6.2	0.00647	mg/L	0.004418	0.00647	mg/L	0.004418	68.30%
Cd 228.802	8.5	0.00003	mg/L	0.000009	0.00003	mg/L	0.000009	29.38%
Co 228.616	-8.1	-0.00007	mg/L	0.000051	-0.00007	mg/L	0.000051	74.56%
Cr 267.716	13.6	0.00007	mg/L	0.000052	0.00007	mg/L	0.000052	72.69%
Cu 327.396	75.8	0.00027	mg/L	0.000082	0.00027	mg/L	0.000082	30.32%
Fe 261.387	242.1	0.0191	mg/L	0.00075	0.0191	mg/L	0.00075	3.91%
Mg 279.079	12.6	0.00037	mg/L	0.000278	0.00037	mg/L	0.000278	75.51%
Mn 257.610	1226.6	0.00124	mg/L	0.000016	0.00124	mg/L	0.000016	1.28%
Mo 202.030	42.1	0.00055	mg/L	0.000027	0.00055	mg/L	0.000027	4.86%
Ni 231.604	-5.1	-0.00004	mg/L	0.000044	-0.00004	mg/L	0.000044	103.31%
Pb 220.353	-3.1	-0.00016	mg/L	0.000180	-0.00016	mg/L	0.000180	109.79%
Sb 206.833	4.0	0.00020	mg/L	0.000213	0.00020	mg/L	0.000213	104.89%
Se 196.026	-4.8	-0.00056	mg/L	0.000662	-0.00056	mg/L	0.000662	117.22%
Si 288.158	-246.9	-0.00363	mg/L	0.000014	-0.00363	mg/L	0.000014	0.38%
Sn 189.933	60.6	0.00371	mg/L	0.000048	0.00371	mg/L	0.000048	1.30%
Ti 337.280	41.9	0.00004	mg/L	0.000072	0.00004	mg/L	0.000072	163.40%
Tl 190.800	2.2	0.0148	mg/L	0.00533	0.0148	mg/L	0.00533	36.12%
V 292.402	5.9	0.00004	mg/L	0.000017	0.00004	mg/L	0.000017	46.85%
Zn 206.200	-44.6	-0.00027	mg/L	0.000015	-0.00027	mg/L	0.000015	5.44%
K 766.490	-136.9	-0.00853	mg/L	0.000909	-0.00853	mg/L	0.000909	10.66%
Na 589.592	-985.9	-0.0205	mg/L	0.00008	-0.0205	mg/L	0.00008	0.38%
Sr 407.771	113.0	0.00083	mg/L	0.000014	0.00083	mg/L	0.000014	1.74%

Sequence No.: 12 Autosampler Location: 10
Sample ID: LCSW E5 WG136608-04 Date Collected: 3/20/2003 11:14:27 AM
Analyst: SLP
Sample Wt: Sample Prep Volume:
Dilution: Data Type: Original

Mean Data: LCSW E5 WG136608-04

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	4401454.1						89541.43	2.03%
Ag 328.068	90996.0	0.209	mg/L	0.0045	0.209	mg/L	0.0045	2.16%
Al 237.312	327464.5	10.6	mg/L	0.22	10.6	mg/L	0.22	2.11%
As 188.979	10350.9	1.04	mg/L	0.015	1.04	mg/L	0.015	1.46%
Ba 230.424	1847460.4	9.93	mg/L	0.214	9.93	mg/L	0.214	2.15%
Be 234.861	730664.2	1.05	mg/L	0.023	1.05	mg/L	0.023	2.15%
Ca 227.549	9843.4	10.7	mg/L	0.11	10.7	mg/L	0.11	1.05%
Cd 228.802	297049.4	1.02	mg/L	0.022	1.02	mg/L	0.022	2.15%
Co 228.616	124154.1	1.05	mg/L	0.024	1.05	mg/L	0.024	2.26%
Cr 267.716	200988.7	1.04	mg/L	0.024	1.04	mg/L	0.024	2.26%
Cu 327.396	294190.3	1.05	mg/L	0.022	1.05	mg/L	0.022	2.13%
Fe 261.387	12205.8	1.08	mg/L	0.011	1.08	mg/L	0.011	0.99%
Mg 279.079	357831.7	10.4	mg/L	0.24	10.4	mg/L	0.24	2.29%
Mn 257.610	1035701.8	1.04	mg/L	0.023	1.04	mg/L	0.023	2.23%
Mo 202.030	77454.9	1.01	mg/L	0.019	1.01	mg/L	0.019	1.87%
Ni 231.604	125966.7	1.05	mg/L	0.025	1.05	mg/L	0.025	2.36%
Pb 220.353	20163.0	1.07	mg/L	0.014	1.07	mg/L	0.014	1.31%
Sb 206.833	21230.1	1.06	mg/L	0.010	1.06	mg/L	0.010	0.96%
Se 196.026	8835.6	1.03	mg/L	0.015	1.03	mg/L	0.015	1.47%
Si 288.158	707916.4	10.4	mg/L	0.20	10.4	mg/L	0.20	1.91%
Sn 189.933	-142.3	-0.00307	mg/L	0.000128	-0.00307	mg/L	0.000128	4.18%
Ti 337.280	1190821.3	1.07	mg/L	0.023	1.07	mg/L	0.023	2.12%
Tl 190.800	137.6	0.919	mg/L	0.0363	0.919	mg/L	0.0363	3.95%
V 292.402	180460.5	1.05	mg/L	0.022	1.05	mg/L	0.022	2.05%
Zn 206.200	171333.4	1.05	mg/L	0.027	1.05	mg/L	0.027	2.55%

K 766.490	833750.2	51.9	mg/L	0.11	51.9	mg/L	0.11	0.21%
Na 589.592	2488410.0	51.8	mg/L	0.04	51.8	mg/L	0.04	0.07%
Sr 407.771	2207756.8	1.04	mg/L	0.004	1.04	mg/L	0.004	0.43%

Recovery Check: LCSW E5 WG136608-04

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Tl 190.800	1.01	0.919	0.036	mg/L	90.4
K 766.490	50.0	51.9	0.109	mg/L	103.8
Na 589.592	50.0	51.8	0.036	mg/L	103.6
Sr 407.771	1.00	1.04	0.004	mg/L	103.8
Ag 328.068	0.200	0.209	0.005	mg/L	104.5
Al 237.312	10.0	10.6	0.224	mg/L	106.0
As 188.979	1.000	1.04	0.015	mg/L	104.0
Ba 230.424	10.00	9.93	0.214	mg/L	99.3
Be 234.861	1.00	1.05	0.023	mg/L	105.4
Ca 227.549	10.0	10.7	0.112	mg/L	107.3
Cd 228.802	1.00	1.02	0.022	mg/L	101.6
Co 228.616	1.000	1.05	0.024	mg/L	104.7
Cr 267.716	1.00	1.04	0.024	mg/L	104.5
Cu 327.396	1.00	1.05	0.022	mg/L	104.8
Fe 261.387	1.02	1.08	0.011	mg/L	106.2
Mg 279.079	10.0	10.4	0.239	mg/L	104.4
Mn 257.610	1.00	1.04	0.023	mg/L	104.2
Mo 202.030	0.996	1.01	0.019	mg/L	101.1
Ni 231.604	1.000	1.05	0.025	mg/L	105.4
Pb 220.353	1.000	1.07	0.014	mg/L	106.7
Sb 206.833	1.00	1.06	0.010	mg/L	106.3
Se 196.026	0.999	1.03	0.015	mg/L	103.4
Si 288.158	10.00	10.4	0.199	mg/L	104.3
Sn 189.933	1.00	-0.00307	0.000	mg/L	-0.7
Ti 337.280	1.000	1.07	0.023	mg/L	107.1
V 292.402	1.00	1.05	0.022	mg/L	105.2
Zn 206.200	1.000	1.05	0.027	mg/L	104.5

Sequence No.: 13
Sample ID: L030325805 WG136608-02
Analyst: SLP
Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 3/20/2003 11:19:20 AM

Sample Prep Volume:
Data Type: Original

Mean Data: L030325805 WG136608-02

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	4211435.5						20637.95	0.49%
Ag 328.068	150.5	0.00035	mg/L	0.000079	0.00035	mg/L	0.000079	22.99%
Al 237.312	1009.6	0.0434	mg/L	0.00064	0.0434	mg/L	0.00064	1.48%
As 188.979	35.8	0.00358	mg/L	0.000141	0.00358	mg/L	0.000141	3.95%
Ba 230.424	1140.1	0.00621	mg/L	0.000017	0.00621	mg/L	0.000017	0.27%
Be 234.861	67.1	0.00009	mg/L	0.000005	0.00009	mg/L	0.000005	5.06%
Ca 227.549	19806.7	21.7	mg/L	0.38	21.7	mg/L	0.38	1.74%
Cd 228.802	93.3	0.00027	mg/L	0.000037	0.00027	mg/L	0.000037	13.52%
Co 228.616	13.7	0.00014	mg/L	0.000012	0.00014	mg/L	0.000012	8.53%
Cr 267.716	-13.2	-0.00021	mg/L	0.000187	-0.00021	mg/L	0.000187	89.40%
Cu 327.396	804.2	0.00287	mg/L	0.000052	0.00287	mg/L	0.000052	1.80%
Fe 261.387	1144.3	0.0994	mg/L	0.00013	0.0994	mg/L	0.00013	0.13%
Mg 279.079	998028.0	29.1	mg/L	0.34	29.1	mg/L	0.34	1.16%
Mn 257.610	85349.4	0.0854	mg/L	0.00137	0.0854	mg/L	0.00137	1.61%
Mo 202.030	247.8	0.00322	mg/L	0.000069	0.00322	mg/L	0.000069	2.14%
Ni 231.604	259.3	0.00217	mg/L	0.000000	0.00217	mg/L	0.000000	0.00%
Pb 220.353	47.5	0.00251	mg/L	0.000156	0.00251	mg/L	0.000156	6.21%
Sb 206.833	28.6	0.00144	mg/L	0.000169	0.00144	mg/L	0.000169	11.75%
Se 196.026	16.9	0.00198	mg/L	0.000551	0.00198	mg/L	0.000551	27.86%
Si 288.158	797923.7	11.8	mg/L	0.11	11.8	mg/L	0.11	0.94%
Sn 189.933	-104.8	-0.00621	mg/L	0.000377	-0.00621	mg/L	0.000377	6.08%
Ti 337.280	143.6	0.00071	mg/L	0.000068	0.00071	mg/L	0.000068	9.58%
Tl 190.800	7.7	0.0510	mg/L	0.00259	0.0510	mg/L	0.00259	5.08%
V 292.402	478.7	0.00278	mg/L	0.000033	0.00278	mg/L	0.000033	1.18%
Zn 206.200	2693.6	0.0161	mg/L	0.00034	0.0161	mg/L	0.00034	2.09%

K 766.490	177473.0	11.0 mg/L	0.16	11.0 mg/L	0.16	1.41%
Na 589.592	Saturated2					
Saturated in preshot (code 2)						
Sr 407.771	781477.9	0.368 mg/L	0.0047	0.368 mg/L	0.0047	1.28%

Sequence No.: 14
Sample ID: L030325805DP WG136608-07
Analyst: SLP
Sample Wt:
Dilution:

Autosampler Location: 12
Date Collected: 3/20/2003 11:24:13 AM
Sample Prep Volume:
Data Type: Original

Mean Data: L030325805DP WG136608-07

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	4210805.7						15361.75	0.36%
Ag 328.068	120.1	0.00028	mg/L	0.000060	0.00028	mg/L	0.000060	21.82%
Al 237.312	905.4	0.0389	mg/L	0.00030	0.0389	mg/L	0.00030	0.78%
As 188.979	35.1	0.00351	mg/L	0.000267	0.00351	mg/L	0.000267	7.62%
Ba 230.424	1091.3	0.00594	mg/L	0.000054	0.00594	mg/L	0.000054	0.91%
Be 234.861	78.7	0.00011	mg/L	0.000012	0.00011	mg/L	0.000012	10.64%
Ca 227.549	19096.8	21.0	mg/L	0.02	21.0	mg/L	0.02	0.11%
Cd 228.802	57.9	0.00015	mg/L	0.000002	0.00015	mg/L	0.000002	1.47%
Co 228.616	12.5	0.00013	mg/L	0.000009	0.00013	mg/L	0.000009	6.82%
Cr 267.716	-7.2	-0.00017	mg/L	0.000075	-0.00017	mg/L	0.000075	43.34%
Cu 327.396	515.3	0.00184	mg/L	0.000090	0.00184	mg/L	0.000090	4.90%
Fe 261.387	401.5	0.0403	mg/L	0.00076	0.0403	mg/L	0.00076	1.89%
Mg 279.079	940247.1	27.5	mg/L	0.30	27.5	mg/L	0.30	1.11%
Mn 257.610	82269.6	0.0823	mg/L	0.00005	0.0823	mg/L	0.00005	0.06%
Mo 202.030	214.9	0.00279	mg/L	0.000012	0.00279	mg/L	0.000012	0.44%
Ni 231.604	247.0	0.00207	mg/L	0.000042	0.00207	mg/L	0.000042	2.05%
Pb 220.353	49.6	0.00262	mg/L	0.000373	0.00262	mg/L	0.000373	14.22%
Sb 206.833	23.4	0.00118	mg/L	0.000190	0.00118	mg/L	0.000190	16.09%
Se 196.026	14.9	0.00174	mg/L	0.000061	0.00174	mg/L	0.000061	3.50%
Si 288.158	754944.6	11.1	mg/L	0.04	11.1	mg/L	0.04	0.38%
Sn 189.933	-123.0	-0.00733	mg/L	0.000125	-0.00733	mg/L	0.000125	1.71%
Ti 337.280	-1.1	0.00057	mg/L	0.000025	0.00057	mg/L	0.000025	4.34%
Tl 190.800	2.7	0.0181	mg/L	0.03220	0.0181	mg/L	0.03220	177.52%
V 292.402	454.4	0.00263	mg/L	0.000030	0.00263	mg/L	0.000030	1.12%
Zn 206.200	2516.4	0.0150	mg/L	0.00032	0.0150	mg/L	0.00032	2.11%
K 766.490	167596.8	10.4	mg/L	0.01	10.4	mg/L	0.01	0.10%
Na 589.592	Saturated2							
Saturated in preshot (code 2)								
Sr 407.771	728974.6	0.343	mg/L	0.0012	0.343	mg/L	0.0012	0.36%

Duplicate Check: L030325805DP WG136608-07

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Tl 190.800	0.0510	0.0181	0.032	mg/L	95.1
K 766.490	11.0	10.4	0.010	mg/L	5.7
Na 589.592			0.000	mg/L	Not calculated
Sr 407.771	0.368	0.343	0.001	mg/L	6.9
Y 360.073			0.000	mg/L	Not calculated
Ag 328.068	0.00035	0.00028	0.000	mg/L	22.5
Al 237.312	0.0434	0.0389	0.000	mg/L	10.9
As 188.979	0.00358	0.00351	0.000	mg/L	2.0
Ba 230.424	0.00621	0.00594	0.000	mg/L	4.4
Be 234.861	0.00009	0.00011	0.000	mg/L	20.3
Ca 227.549	21.7	21.0	0.023	mg/L	3.6
Cd 228.802	0.00027	0.00015	0.000	mg/L	56.4
Co 228.616	0.00014	0.00013	0.000	mg/L	8.6
Cr 267.716	-0.00021	-0.00017	0.000	mg/L	-19.5
Cu 327.396	0.00287	0.00184	0.000	mg/L	43.8
Fe 261.387	0.0994	0.0403	0.001	mg/L	84.6
Mg 279.079	29.1	27.5	0.304	mg/L	6.0
Mn 257.610	0.0854	0.0823	0.000	mg/L	3.7
Mo 202.030	0.00322	0.00279	0.000	mg/L	14.2
Ni 231.604	0.00217	0.00207	0.000	mg/L	4.9
Pb 220.353	0.00251	0.00262	0.000	mg/L	4.2
Sb 206.833	0.00144	0.00118	0.000	mg/L	19.7

Se 196.026	0.00198	0.00174	0.000	mg/L	13.0
Si 288.158	11.8	11.1	0.042	mg/L	5.5
Sn 189.933	-0.00621	-0.00733	0.000	mg/L	-16.6
Ti 337.280	0.00071	0.00057	0.000	mg/L	21.5
V 292.402	0.00278	0.00263	0.000	mg/L	5.4
Zn 206.200	0.0161	0.0150	0.000	mg/L	6.8

Sequence No.: 15 **Autosampler Location: 13**
Sample ID: L030326518 WG136608-01 **Date Collected: 3/20/2003 11:29:08 AM**
Analyst: SLP
Sample Wt: **Sample Prep Volume:**
Dilution: **Data Type: Original**

Mean Data: L030326518 WG136608-01

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	3926265.6						12810.52	0.33%
Ag 328.068	202.3	0.00046	mg/L	0.000104	0.00046	mg/L	0.000104	22.34%
Al 237.312	426.9	0.0157	mg/L	0.00073	0.0157	mg/L	0.00073	4.65%
As 188.979	124.2	0.0124	mg/L	0.00011	0.0124	mg/L	0.00011	0.91%
Ba 230.424	140589.3	0.756	mg/L	0.0076	0.756	mg/L	0.0076	1.01%
Be 234.861	48.7	0.00007	mg/L	0.000002	0.00007	mg/L	0.000002	2.43%
Ca 227.549	13495.1	14.8	mg/L	0.14	14.8	mg/L	0.14	0.97%
Cd 228.802	150.7	0.00047	mg/L	0.000015	0.00047	mg/L	0.000015	3.20%
Co 228.616	21.3	0.00020	mg/L	0.000058	0.00020	mg/L	0.000058	29.13%
Cr 267.716	-47.1	-0.00027	mg/L	0.000046	-0.00027	mg/L	0.000046	17.18%
Cu 327.396	833.5	0.00297	mg/L	0.000075	0.00297	mg/L	0.000075	2.52%
Fe 261.387	562.7	0.0459	mg/L	0.00093	0.0459	mg/L	0.00093	2.03%
Mg 279.079	154196.4	4.50	mg/L	0.051	4.50	mg/L	0.051	1.14%
Mn 257.610	25601.7	0.0257	mg/L	0.00020	0.0257	mg/L	0.00020	0.79%
Mo 202.030	804.7	0.0105	mg/L	0.00046	0.0105	mg/L	0.00046	4.43%
Ni 231.604	84.0	0.00070	mg/L	0.000046	0.00070	mg/L	0.000046	6.58%
Pb 220.353	33.4	0.00179	mg/L	0.000024	0.00179	mg/L	0.000024	1.32%
Sb 206.833	57.2	0.00299	mg/L	0.000346	0.00299	mg/L	0.000346	11.55%
Se 196.026	47.7	0.00559	mg/L	0.000660	0.00559	mg/L	0.000660	11.80%
Si 288.158	46832.0	0.697	mg/L	0.0048	0.697	mg/L	0.0048	0.69%
Sn 189.933	-102.5	-0.00614	mg/L	0.000246	-0.00614	mg/L	0.000246	4.02%
Ti 337.280	-104.2	0.00051	mg/L	0.000029	0.00051	mg/L	0.000029	5.61%
Tl 190.800	2.9	0.0191	mg/L	0.00555	0.0191	mg/L	0.00555	29.02%
V 292.402	525.9	0.00305	mg/L	0.000041	0.00305	mg/L	0.000041	1.35%
Zn 206.200	1791.8	0.0108	mg/L	0.00005	0.0108	mg/L	0.00005	0.45%
K 766.490	203696.6	12.7	mg/L	0.53	12.7	mg/L	0.53	4.15%
Na 589.592	Saturated3							
Saturated in preshot (code 3)								
Sr 407.771	3026104.0	1.42	mg/L	0.015	1.42	mg/L	0.015	1.05%

Sequence No.: 16 **Autosampler Location: 14**
Sample ID: L030326518SDL 0.2 **Date Collected: 3/20/2003 11:34:05 AM**
Analyst: SLP
Sample Wt: **Sample Prep Volume:**
Dilution: **Data Type: Original**

Mean Data: L030326518SDL 0.2

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	4318935.6						104326.73	2.42%
Ag 328.068	11.5	0.00003	mg/L	0.000059	0.00003	mg/L	0.000059	224.19%
Al 237.312	181.4	0.00656	mg/L	0.000239	0.00656	mg/L	0.000239	3.64%
As 188.979	25.4	0.00255	mg/L	0.000025	0.00255	mg/L	0.000025	0.98%
Ba 230.424	31751.7	0.171	mg/L	0.0047	0.171	mg/L	0.0047	2.77%
Be 234.861	24.1	0.00003	mg/L	0.000004	0.00003	mg/L	0.000004	12.22%
Ca 227.549	2804.1	3.08	mg/L	0.044	3.08	mg/L	0.044	1.44%
Cd 228.802	52.4	0.00017	mg/L	0.000002	0.00017	mg/L	0.000002	1.06%
Co 228.616	7.1	0.00006	mg/L	0.000004	0.00006	mg/L	0.000004	6.87%
Cr 267.716	-2.3	-0.00001	mg/L	0.000050	-0.00001	mg/L	0.000050	341.21%
Cu 327.396	270.6	0.00096	mg/L	0.000005	0.00096	mg/L	0.000005	0.49%
Fe 261.387	495.0	0.0393	mg/L	0.00079	0.0393	mg/L	0.00079	2.02%
Mg 279.079	33518.2	0.978	mg/L	0.0220	0.978	mg/L	0.0220	2.25%

Mn 257.610	5783.4	0.00581	mg/L	0.000180	0.00581	mg/L	0.000180	3.10%
Mo 202.030	110.4	0.00144	mg/L	0.000071	0.00144	mg/L	0.000071	4.97%
Ni 231.604	16.4	0.00014	mg/L	0.000030	0.00014	mg/L	0.000030	21.57%
Pb 220.353	11.2	0.00059	mg/L	0.000264	0.00059	mg/L	0.000264	44.49%
Sb 206.833	9.1	0.00047	mg/L	0.000288	0.00047	mg/L	0.000288	61.26%
Se 196.026	6.1	0.00072	mg/L	0.000969	0.00072	mg/L	0.000969	135.46%
Si 288.158	4992.2	0.0750	mg/L	0.00947	0.0750	mg/L	0.00947	12.62%
Sn 189.933	-43.1	-0.00261	mg/L	0.000112	-0.00261	mg/L	0.000112	4.30%
Ti 337.280	-49.4	0.00008	mg/L	0.000020	0.00008	mg/L	0.000020	23.75%
Tl 190.800	3.0	0.0197	mg/L	0.01357	0.0197	mg/L	0.01357	68.85%
V 292.402	75.2	0.00044	mg/L	0.000022	0.00044	mg/L	0.000022	4.92%
Zn 206.200	1340.6	0.00814	mg/L	0.000035	0.00814	mg/L	0.000035	0.43%
K 766.490	39605.8	2.46	mg/L	0.017	2.46	mg/L	0.017	0.71%
Na 589.592	Saturated2							
Saturated in preshot (code 2)								
Sr 407.771	618161.8	0.291	mg/L	0.0023	0.291	mg/L	0.0023	0.80%

Sequence No.: 17 **Autosampler Location: 15**
Sample ID: L030326518PS 0.9 **Date Collected: 3/20/2003 11:39:01 AM**
Analyst: SLP
Sample Wt: **Sample Prep Volume:**
Dilution: **Data Type: Original**

Mean Data: L030326518PS 0.9

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	3898471.5						28117.73	0.72%
Ag 328.068	87752.5	0.201	mg/L	0.0021	0.201	mg/L	0.0021	1.02%
Al 237.312	328576.9	10.6	mg/L	0.11	10.6	mg/L	0.11	1.06%
As 188.979	10135.4	1.02	mg/L	0.001	1.02	mg/L	0.001	0.14%
Ba 230.424	1700439.9	9.14	mg/L	0.037	9.14	mg/L	0.037	0.41%
Be 234.861	710532.6	1.02	mg/L	0.009	1.02	mg/L	0.009	0.84%
Ca 227.549	20571.1	22.5	mg/L	0.18	22.5	mg/L	0.18	0.79%
Cd 228.802	287249.4	0.983	mg/L	0.0094	0.983	mg/L	0.0094	0.96%
Co 228.616	108690.9	0.917	mg/L	0.0037	0.917	mg/L	0.0037	0.41%
Cr 267.716	174418.4	0.907	mg/L	0.0042	0.907	mg/L	0.0042	0.46%
Cu 327.396	279805.7	0.997	mg/L	0.0086	0.997	mg/L	0.0086	0.87%
Fe 261.387	11275.9	0.995	mg/L	0.0035	0.995	mg/L	0.0035	0.35%
Mg 279.079	445453.0	13.0	mg/L	0.06	13.0	mg/L	0.06	0.43%
Mn 257.610	914543.9	0.921	mg/L	0.0047	0.921	mg/L	0.0047	0.51%
Mo 202.030	61934.0	0.805	mg/L	0.0037	0.805	mg/L	0.0037	0.46%
Ni 231.604	113399.4	0.949	mg/L	0.0044	0.949	mg/L	0.0044	0.47%
Pb 220.353	18231.5	0.964	mg/L	0.0038	0.964	mg/L	0.0038	0.40%
Sb 206.833	19851.0	0.994	mg/L	0.0016	0.994	mg/L	0.0016	0.16%
Se 196.026	6894.7	0.806	mg/L	0.0002	0.806	mg/L	0.0002	0.02%
Si 288.158	659546.8	9.72	mg/L	0.152	9.72	mg/L	0.152	1.56%
Sn 189.933	-219.5	-0.00853	mg/L	0.000303	-0.00853	mg/L	0.000303	3.55%
Ti 337.280	1032876.5	0.929	mg/L	0.0059	0.929	mg/L	0.0059	0.63%
Tl 190.800	162.2	1.08	mg/L	0.028	1.08	mg/L	0.028	2.62%
V 292.402	154294.8	0.900	mg/L	0.0063	0.900	mg/L	0.0063	0.70%
Zn 206.200	172669.4	1.05	mg/L	0.004	1.05	mg/L	0.004	0.34%
K 766.490	1041497.2	64.8	mg/L	0.23	64.8	mg/L	0.23	0.36%
Na 589.592	Saturated3							
Saturated in preshot (code 3)								
Sr 407.771	4888611.8	2.30	mg/L	0.009	2.30	mg/L	0.009	0.39%

Recovery Check: L030326518PS 0.9

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Tl 190.800	1.02	1.08	0.028	mg/L	106.0
K 766.490	62.7	64.8	0.232	mg/L	104.3
Sr 407.771	2.42	2.30	0.009	mg/L	87.5
Ag 328.068	0.200	0.201	0.002	mg/L	100.5
Al 237.312	10.0	10.6	0.113	mg/L	106.2
As 188.979	1.01	1.02	0.001	mg/L	100.7
Ba 230.424	10.8	9.14	0.037	mg/L	83.9
Be 234.861	1.00	1.02	0.009	mg/L	102.5
Ca 227.549	24.8	22.5	0.179	mg/L	77.1
Cd 228.802	1.00	0.983	0.009	mg/L	98.2

Co 228.616	1.00	0.917	0.004	mg/L	91.6
Cr 267.716	1.000	0.907	0.004	mg/L	90.7
Cu 327.396	1.00	0.997	0.009	mg/L	99.4
Fe 261.387	1.05	0.995	0.003	mg/L	94.9
Mg 279.079	14.5	13.0	0.056	mg/L	85.0
Mn 257.610	1.03	0.921	0.005	mg/L	89.5
Mo 202.030	1.01	0.805	0.004	mg/L	79.8
Ni 231.604	1.00	0.949	0.004	mg/L	94.8
Pb 220.353	1.00	0.964	0.004	mg/L	96.3
Sb 206.833	1.00	0.994	0.002	mg/L	99.1
Se 196.026	1.01	0.806	0.000	mg/L	80.1
Si 288.158	10.7	9.72	0.152	mg/L	90.3
Sn 189.933	0.992	-0.00853	0.000	mg/L	-0.2
Ti 337.280	1.00	0.929	0.006	mg/L	92.9
V 292.402	1.00	0.900	0.006	mg/L	89.7
Zn 206.200	1.01	1.05	0.004	mg/L	104.2

Sequence No.: 18 **Autosampler Location:** 16
Sample ID: L0303265205 WG136608-05 **Date Collected:** 3/20/2003 11:44:00 AM
Analyst: SLP
Sample Wt: **Sample Prep Volume:**
Dilution: **Data Type:** Original

Mean Data: L0303265205 WG136608-05

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	3923524.3						26806.12	0.68%
Ag 328.068	73801.0	0.169	mg/L	0.0024	0.169	mg/L	0.0024	1.41%
Al 237.312	275060.1	8.90	mg/L	0.090	8.90	mg/L	0.090	1.01%
As 188.979	8500.1	0.855	mg/L	0.0004	0.855	mg/L	0.0004	0.04%
Ba 230.424	1444244.2	7.77	mg/L	0.025	7.77	mg/L	0.025	0.33%
Be 234.861	596740.5	0.861	mg/L	0.0041	0.861	mg/L	0.0041	0.48%
Ca 227.549	19718.7	21.6	mg/L	0.19	21.6	mg/L	0.19	0.90%
Cd 228.802	241384.5	0.826	mg/L	0.0034	0.826	mg/L	0.0034	0.41%
Co 228.616	90708.2	0.765	mg/L	0.0063	0.765	mg/L	0.0063	0.83%
Cr 267.716	145983.3	0.759	mg/L	0.0023	0.759	mg/L	0.0023	0.31%
Cu 327.396	234154.5	0.834	mg/L	0.0107	0.834	mg/L	0.0107	1.29%
Fe 261.387	9252.9	0.818	mg/L	0.0031	0.818	mg/L	0.0031	0.38%
Mg 279.079	398608.0	11.6	mg/L	0.07	11.6	mg/L	0.07	0.59%
Mn 257.610	763051.1	0.768	mg/L	0.0003	0.768	mg/L	0.0003	0.04%
Mo 202.030	50132.9	0.652	mg/L	0.0012	0.652	mg/L	0.0012	0.18%
Ni 231.604	94802.6	0.794	mg/L	0.0071	0.794	mg/L	0.0071	0.90%
Pb 220.353	15266.9	0.807	mg/L	0.0007	0.807	mg/L	0.0007	0.09%
Sb 206.833	16662.3	0.834	mg/L	0.0034	0.834	mg/L	0.0034	0.41%
Se 196.026	5498.3	0.643	mg/L	0.0017	0.643	mg/L	0.0017	0.26%
Si 288.158	565547.7	8.34	mg/L	0.084	8.34	mg/L	0.084	1.01%
Sn 189.933	-193.5	-0.00772	mg/L	0.000120	-0.00772	mg/L	0.000120	1.56%
Ti 337.280	863660.3	0.777	mg/L	0.0046	0.777	mg/L	0.0046	0.59%
Tl 190.800	134.8	0.897	mg/L	0.0251	0.897	mg/L	0.0251	2.80%
V 292.402	127720.0	0.745	mg/L	0.0048	0.745	mg/L	0.0048	0.65%
Zn 206.200	144358.3	0.880	mg/L	0.0192	0.880	mg/L	0.0192	2.18%
K 766.490	922717.7	57.4	mg/L	0.17	57.4	mg/L	0.17	0.30%
Na 589.592	Saturated3							
Saturated in preshot (code 3)								
Sr 407.771	4512110.5	2.12	mg/L	0.004	2.12	mg/L	0.004	0.19%

Recovery Check: L0303265205 WG136608-05

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Tl 190.800	1.02	0.897	0.025	mg/L	87.8
K 766.490	62.7	57.4	0.171	mg/L	89.5
Sr 407.771	2.42	2.12	0.004	mg/L	69.8
Ag 328.068	0.200	0.169	0.002	mg/L	84.5
Al 237.312	10.0	8.90	0.090	mg/L	88.9
As 188.979	1.01	0.855	0.000	mg/L	84.2
Ba 230.424	10.8	7.77	0.025	mg/L	70.1
Be 234.861	1.00	0.861	0.004	mg/L	86.1
Ca 227.549	24.8	21.6	0.194	mg/L	67.8
Cd 228.802	1.00	0.826	0.003	mg/L	82.6

Co 228.616	1.00	0.765	0.006	mg/L	76.5
Cr 267.716	1.000	0.759	0.002	mg/L	75.9
Cu 327.396	1.00	0.834	0.011	mg/L	83.2
Fe 261.387	1.05	0.818	0.003	mg/L	77.2
Mg 279.079	14.5	11.6	0.068	mg/L	71.3
Mn 257.610	1.03	0.768	0.000	mg/L	74.3
Mo 202.030	1.01	0.652	0.001	mg/L	64.4
Ni 231.604	1.00	0.794	0.007	mg/L	79.3
Pb 220.353	1.00	0.807	0.001	mg/L	80.6
Sb 206.833	1.00	0.834	0.003	mg/L	83.1
Se 196.026	1.01	0.643	0.002	mg/L	63.7
Si 288.158	10.7	8.34	0.084	mg/L	76.4
Sn 189.933	0.992	-0.00772	0.000	mg/L	-0.2
Ti 337.280	1.00	0.777	0.005	mg/L	77.7
V 292.402	1.00	0.745	0.005	mg/L	74.2
Zn 206.200	1.01	0.880	0.019	mg/L	86.9

Sequence No.: 19
Sample ID: L0303265225D WG136608-06
Analyst: SLP
Sample Wt:
Dilution:

Autosampler Location: 17
Date Collected: 3/20/2003 11:49:01 AM
Sample Prep Volume:
Data Type: Original

Mean Data: L0303265225D WG136608-06

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	3936366.2						57033.48	1.45%
Ag 328.068	83795.8	0.192	mg/L	0.0023	0.192	mg/L	0.0023	1.17%
Al 237.312	309940.9	10.0	mg/L	0.15	10.0	mg/L	0.15	1.47%
As 188.979	9585.2	0.964	mg/L	0.0062	0.964	mg/L	0.0062	0.65%
Ba 230.424	1601226.1	8.61	mg/L	0.154	8.61	mg/L	0.154	1.79%
Be 234.861	671065.5	0.968	mg/L	0.0156	0.968	mg/L	0.0156	1.61%
Ca 227.549	19581.9	21.4	mg/L	0.02	21.4	mg/L	0.02	0.10%
Cd 228.802	272408.3	0.932	mg/L	0.0158	0.932	mg/L	0.0158	1.69%
Co 228.616	102392.1	0.863	mg/L	0.0198	0.863	mg/L	0.0198	2.30%
Cr 267.716	164757.2	0.856	mg/L	0.0159	0.856	mg/L	0.0159	1.85%
Cu 327.396	265033.9	0.945	mg/L	0.0128	0.945	mg/L	0.0128	1.35%
Fe 261.387	10370.7	0.917	mg/L	0.0041	0.917	mg/L	0.0041	0.44%
Mg 279.079	422611.9	12.3	mg/L	0.26	12.3	mg/L	0.26	2.09%
Mn 257.610	858346.9	0.864	mg/L	0.0150	0.864	mg/L	0.0150	1.73%
Mo 202.030	58028.5	0.754	mg/L	0.0138	0.754	mg/L	0.0138	1.83%
Ni 231.604	106869.3	0.895	mg/L	0.0206	0.895	mg/L	0.0206	2.30%
Pb 220.353	17311.7	0.916	mg/L	0.0070	0.916	mg/L	0.0070	0.76%
Sb 206.833	18866.6	0.944	mg/L	0.0012	0.944	mg/L	0.0012	0.13%
Se 196.026	6683.4	0.782	mg/L	0.0049	0.782	mg/L	0.0049	0.63%
Si 288.158	623174.7	9.19	mg/L	0.134	9.19	mg/L	0.134	1.46%
Sn 189.933	-203.2	-0.00780	mg/L	0.000137	-0.00780	mg/L	0.000137	1.76%
Ti 337.280	977707.5	0.880	mg/L	0.0123	0.880	mg/L	0.0123	1.40%
Tl 190.800	153.7	1.02	mg/L	0.051	1.02	mg/L	0.051	4.99%
V 292.402	145559.8	0.849	mg/L	0.0132	0.849	mg/L	0.0132	1.55%
Zn 206.200	161447.4	0.984	mg/L	0.0271	0.984	mg/L	0.0271	2.76%
K 766.490	993995.5	61.9	mg/L	0.38	61.9	mg/L	0.38	0.61%
Na 589.592	Saturated3							
Saturated in preshot (code 3)								
Sr 407.771	4550653.8	2.14	mg/L	0.005	2.14	mg/L	0.005	0.22%

Recovery Check: L0303265225D WG136608-06

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Tl 190.800	1.02	1.02	0.051	mg/L	100.4
K 766.490	62.7	61.9	0.377	mg/L	98.4
Sr 407.771	2.42	2.14	0.005	mg/L	71.6
Ag 328.068	0.200	0.192	0.002	mg/L	96.0
Al 237.312	10.0	10.0	0.147	mg/L	100.2
As 188.979	1.01	0.964	0.006	mg/L	95.1
Ba 230.424	10.8	8.61	0.154	mg/L	78.5
Be 234.861	1.00	0.968	0.016	mg/L	96.8
Ca 227.549	24.8	21.4	0.022	mg/L	66.3
Cd 228.802	1.00	0.932	0.016	mg/L	93.2

Co 228.616	1.00	0.863	0.020	mg/L	86.3
Cr 267.716	1.000	0.856	0.016	mg/L	85.7
Cu 327.396	1.00	0.945	0.013	mg/L	94.2
Fe 261.387	1.05	0.917	0.004	mg/L	87.2
Mg 279.079	14.5	12.3	0.258	mg/L	78.3
Mn 257.610	1.03	0.864	0.015	mg/L	83.9
Mo 202.030	1.01	0.754	0.014	mg/L	74.7
Ni 231.604	1.00	0.895	0.021	mg/L	89.4
Pb 220.353	1.00	0.916	0.007	mg/L	91.4
Sb 206.833	1.00	0.944	0.001	mg/L	94.1
Se 196.026	1.01	0.782	0.005	mg/L	77.6
Si 288.158	10.7	9.19	0.134	mg/L	84.9
Sn 189.933	0.992	-0.00780	0.000	mg/L	-0.2
Ti 337.280	1.00	0.880	0.012	mg/L	87.9
V 292.402	1.00	0.849	0.013	mg/L	84.6
Zn 206.200	1.01	0.984	0.027	mg/L	97.4

Sequence No.: 20
Sample ID: L030336001
Analyst: SLP
Sample Wt:
Dilution:

Autosampler Location: 18
Date Collected: 3/20/2003 11:53:54 AM

Sample Prep Volume:
Data Type: Original

Mean Data: L030336001

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	4156270.7						13336.50	0.32%
Ag 328.068	606.5	0.00139	mg/L	0.000153	0.00139	mg/L	0.000153	10.99%
Al 237.312	4912.1	0.321	mg/L	0.0001	0.321	mg/L	0.0001	0.04%
As 188.979	-7.5	-0.00077	mg/L	0.000446	-0.00077	mg/L	0.000446	57.76%
Ba 230.424	18525.4	0.101	mg/L	0.0006	0.101	mg/L	0.0006	0.57%
Be 234.861	1095.1	0.00045	mg/L	0.000060	0.00045	mg/L	0.000060	13.33%
Ca 227.549	109784.8	120	mg/L	0.2	120	mg/L	0.2	0.16%
Cd 228.802	70.6	0.00016	mg/L	0.000021	0.00016	mg/L	0.000021	13.39%
Co 228.616	847.4	0.00731	mg/L	0.000078	0.00731	mg/L	0.000078	1.07%
Cr 267.716	83.5	0.00113	mg/L	0.000043	0.00113	mg/L	0.000043	3.84%
Cu 327.396	1224.4	0.00436	mg/L	0.000098	0.00436	mg/L	0.000098	2.24%
Fe 261.387	221032.5	17.4	mg/L	0.13	17.4	mg/L	0.13	0.75%
Mg 279.079	390393.0	11.4	mg/L	0.03	11.4	mg/L	0.03	0.31%
Mn 257.610	2173504.0	2.19	mg/L	0.006	2.19	mg/L	0.006	0.25%
Mo 202.030	457.0	0.00594	mg/L	0.000122	0.00594	mg/L	0.000122	2.06%
Ni 231.604	7621.5	0.0640	mg/L	0.00053	0.0640	mg/L	0.00053	0.83%
Pb 220.353	89.6	0.00474	mg/L	0.000070	0.00474	mg/L	0.000070	1.47%
Sb 206.833	29.1	-0.00105	mg/L	0.000088	-0.00105	mg/L	0.000088	8.41%
Se 196.026	139.2	0.0163	mg/L	0.00005	0.0163	mg/L	0.00005	0.30%
Si 288.158	330988.1	4.93	mg/L	0.032	4.93	mg/L	0.032	0.65%
Sn 189.933	-263.8	-0.0150	mg/L	0.00017	-0.0150	mg/L	0.00017	1.14%
Ti 337.280	40.1	0.0156	mg/L	0.00001	0.0156	mg/L	0.00001	0.09%
Tl 190.800	2.2	0.0372	mg/L	0.00437	0.0372	mg/L	0.00437	11.75%
V 292.402	-249.4	0.00013	mg/L	0.000054	0.00013	mg/L	0.000054	40.35%
Zn 206.200	5209.4	0.0308	mg/L	0.00039	0.0308	mg/L	0.00039	1.27%
K 766.490	57229.4	3.54	mg/L	0.061	3.54	mg/L	0.061	1.73%
Na 589.592	4996267.4	104	mg/L	1.5	104	mg/L	1.5	1.49%
Sr 407.771	524180.5	0.247	mg/L	0.0041	0.247	mg/L	0.0041	1.68%

Sequence No.: 21
Sample ID: CCV
Analyst:
Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/20/2003 11:58:45 AM

Sample Prep Volume:
Data Type: Original

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	4394558.7						56644.03	1.29%
Ag 328.068	181341.4	0.416	mg/L	0.0038	0.416	mg/L	0.0038	0.91%
QC value within limits for Ag 328.068 Recovery = 104.09%								
Al 237.312	316674.0	10.3	mg/L	0.13	10.3	mg/L	0.13	1.22%

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   QC value within limits for Al 237.312  Recovery = 102.80%
As 188.979          4076.7       0.407 mg/L        0.0008      0.407 mg/L        0.0008    0.19%
   QC value within limits for As 188.979  Recovery = 101.64%
Ba 230.424        200688.4        1.08 mg/L         0.020       1.08 mg/L         0.020    1.85%
   QC value within limits for Ba 230.424  Recovery = 107.67%
Be 234.861         36727.5      0.0527 mg/L       0.00069     0.0527 mg/L       0.00069    1.30%
   QC value within limits for Be 234.861  Recovery = 105.44%
Ca 227.549          9685.6        10.5 mg/L          0.08        10.5 mg/L          0.08    0.80%
   QC value within limits for Ca 227.549  Recovery = 105.03%
Cd 228.802         15337.7      0.0511 mg/L       0.00032     0.0511 mg/L       0.00032    0.63%
   QC value within limits for Cd 228.802  Recovery = 102.12%
Co 228.616         25244.3       0.212 mg/L        0.0004      0.212 mg/L        0.0004    0.17%
   QC value within limits for Co 228.616  Recovery = 105.94%
Cr 267.716        100995.4       0.525 mg/L        0.0083      0.525 mg/L        0.0083    1.58%
   QC value within limits for Cr 267.716  Recovery = 105.05%
Cu 327.396        147835.2       0.527 mg/L        0.0047      0.527 mg/L        0.0047    0.89%
   QC value within limits for Cu 327.396  Recovery = 105.34%
Fe 261.387         53198.2        4.23 mg/L         0.072       4.23 mg/L         0.072    1.69%
   QC value within limits for Fe 261.387  Recovery = 105.63%
Mg  279.079       356543.8        10.4 mg/L          0.20        10.4 mg/L          0.20    1.92%
   QC value within limits for Mg  279.079  Recovery = 104.05%
Mn 257.610         527187.4       0.531 mg/L        0.0084      0.531 mg/L        0.0084    1.58%
   QC value within limits for Mn 257.610  Recovery = 106.16%
Mo 202.030          79834.2        1.04 mg/L         0.017       1.04 mg/L         0.017    1.69%
   QC value within limits for Mo 202.030  Recovery = 104.27%
Ni 231.604         63560.3       0.532 mg/L        0.0104      0.532 mg/L        0.0104    1.95%
   QC value within limits for Ni 231.604  Recovery = 106.44%
Pb 220.353          9976.7       0.530 mg/L        0.0004      0.530 mg/L        0.0004    0.08%
   QC value within limits for Pb 220.353  Recovery = 105.98%
Sb 206.833         24991.2        1.26 mg/L         0.004       1.26 mg/L         0.004    0.32%
   QC value within limits for Sb 206.833  Recovery = 105.00%
Se 196.026          3699.2       0.432 mg/L        0.0002      0.432 mg/L        0.0002    0.04%
   QC value within limits for Se 196.026  Recovery = 107.93%
Si 288.158        359898.9        5.31 mg/L          0.056       5.31 mg/L          0.056    1.06%
   QC value within limits for Si 288.158  Recovery = 106.14%
Sn 189.933         15775.8       0.972 mg/L        0.0131      0.972 mg/L        0.0131    1.35%
   QC value within limits for Sn 189.933  Recovery = 97.39%
Ti 337.280       1143696.5        1.03 mg/L         0.014       1.03 mg/L         0.014    1.32%
   QC value within limits for Ti 337.280  Recovery = 102.67%
Tl 190.800            75.0       0.512 mg/L        0.0147      0.512 mg/L        0.0147    2.87%
   QC value within limits for Tl 190.800  Recovery = 102.36%
V 292.402          182481.4        1.06 mg/L         0.015       1.06 mg/L         0.015    1.44%
   QC value within limits for V 292.402  Recovery = 105.97%
Zn 206.200         171864.4        1.05 mg/L         0.032       1.05 mg/L         0.032    3.04%
   QC value within limits for Zn 206.200  Recovery = 104.65%
K 766.490          803290.7        50.0 mg/L          1.51        50.0 mg/L          1.51    3.01%
   QC value within limits for K 766.490  Recovery = 100.01%
Na 589.592        2432522.1        50.6 mg/L          1.55        50.6 mg/L          1.55    3.06%
   QC value within limits for Na 589.592  Recovery = 101.21%
Sr 407.771        2108716.7       0.992 mg/L        0.0274      0.992 mg/L        0.0274    2.76%
   QC value within limits for Sr 407.771  Recovery = 99.18%
All analytes passed QC.
```

Sequence No.: 22 **Autosampler Location:** 1
Sample ID: CCB **Date Collected:** 3/20/2003 12:03:40 PM
Analyst:
Sample Wt: **Sample Prep Volume:**
Dilution: **Data Type:** Original

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	3564126.5						39104.78	1.10%
Ag 328.068	-71.9	-0.00016	mg/L	0.000202	-0.00016	mg/L	0.000202	122.21%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 237.312	11.2	0.00041	mg/L	0.000007	0.00041	mg/L	0.000007	1.71%
QC value within limits for Al 237.312 Recovery = Not calculated								
As 188.979	0.5	0.00004	mg/L	0.000596	0.00004	mg/L	0.000596	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 230.424	-7.5	-0.00005	mg/L	0.000039	-0.00005	mg/L	0.000039	83.06%

QC value within limits for Ba 230.424 Recovery = Not calculated

Be 234.861	-6.0	-0.00001 mg/L	0.000001	-0.00001 mg/L	0.000001	12.85%
QC value within limits for Be 234.861 Recovery = Not calculated							
Ca 227.549	-0.6	-0.00072 mg/L	0.001312	-0.00072 mg/L	0.001312	182.95%
QC value within limits for Ca 227.549 Recovery = Not calculated							
Cd 228.802	53.6	0.00018 mg/L	0.000012	0.00018 mg/L	0.000012	6.68%
QC value within limits for Cd 228.802 Recovery = Not calculated							
Co 228.616	-8.1	-0.00007 mg/L	0.000083	-0.00007 mg/L	0.000083	124.54%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716	31.3	0.00016 mg/L	0.000008	0.00016 mg/L	0.000008	4.70%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 327.396	-32.6	-0.00012 mg/L	0.000011	-0.00012 mg/L	0.000011	9.38%
QC value within limits for Cu 327.396 Recovery = Not calculated							
Fe 261.387	67.4	0.00530 mg/L	0.000475	0.00530 mg/L	0.000475	8.95%
QC value within limits for Fe 261.387 Recovery = Not calculated							
Mg 279.079	10.4	0.00030 mg/L	0.000223	0.00030 mg/L	0.000223	73.47%
QC value within limits for Mg 279.079 Recovery = Not calculated							
Mn 257.610	14.6	0.00001 mg/L	0.000004	0.00001 mg/L	0.000004	24.95%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.030	139.4	0.00181 mg/L	0.000018	0.00181 mg/L	0.000018	0.97%
QC value within limits for Mo 202.030 Recovery = Not calculated							
Ni 231.604	-2.9	-0.00002 mg/L	0.000003	-0.00002 mg/L	0.000003	13.53%
QC value within limits for Ni 231.604 Recovery = Not calculated							
Pb 220.353	1.3	0.00007 mg/L	0.000024	0.00007 mg/L	0.000024	32.01%
QC value within limits for Pb 220.353 Recovery = Not calculated							
Sb 206.833	-1.0	-0.00004 mg/L	0.000400	-0.00004 mg/L	0.000400	>999.9%
QC value within limits for Sb 206.833 Recovery = Not calculated							
Se 196.026	-1.2	-0.00014 mg/L	0.000380	-0.00014 mg/L	0.000380	267.89%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 288.158	444.2	0.00654 mg/L	0.000205	0.00654 mg/L	0.000205	3.13%
QC value within limits for Si 288.158 Recovery = Not calculated							
Sn 189.933	110.5	0.00677 mg/L	0.000430	0.00677 mg/L	0.000430	6.34%
QC value within limits for Sn 189.933 Recovery = Not calculated							
Ti 337.280	5.5	0.00001 mg/L	0.000029	0.00001 mg/L	0.000029	563.85%
QC value within limits for Ti 337.280 Recovery = Not calculated							
Tl 190.800	2.5	0.0162 mg/L	0.00084	0.0162 mg/L	0.00084	5.19%
QC value within limits for Tl 190.800 Recovery = Not calculated							
V 292.402	17.7	0.00011 mg/L	0.000004	0.00011 mg/L	0.000004	3.42%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 206.200	-29.5	-0.00018 mg/L	0.000028	-0.00018 mg/L	0.000028	15.68%
QC value within limits for Zn 206.200 Recovery = Not calculated							
K 766.490	867.6	0.0540 mg/L	0.00095	0.0540 mg/L	0.00095	1.76%
QC value within limits for K 766.490 Recovery = Not calculated							
Na 589.592	3072.1	0.0639 mg/L	0.00230	0.0639 mg/L	0.00230	3.60%
QC value within limits for Na 589.592 Recovery = Not calculated							
Sr 407.771	126.1	0.00084 mg/L	0.000023	0.00084 mg/L	0.000023	2.71%
QC value within limits for Sr 407.771 Recovery = Not calculated							

All analytes passed QC.

Sequence No.: 23 **Autosampler Location: 19**
Sample ID: L030335201 **Date Collected: 3/20/2003 12:08:31 PM**
Analyst: SLP
Sample Wt: **Sample Prep Volume:**
Dilution: **Data Type: Original**

Mean Data: L030335201

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	4340331.1						61264.50	1.41%
Ag 328.068	1108.2	0.00254	mg/L	0.000002	0.00254	mg/L	0.000002	0.10%
Al 237.312	482915.6	15.8	mg/L	0.21	15.8	mg/L	0.21	1.33%
As 188.979	147.2	0.0155	mg/L	0.00108	0.0155	mg/L	0.00108	6.96%
Ba 230.424	105772.8	0.571	mg/L	0.0035	0.571	mg/L	0.0035	0.62%
Be 234.861	1545.2	0.00108	mg/L	0.000042	0.00108	mg/L	0.000042	3.84%
Ca 227.549	129116.2	141	mg/L	0.7	141	mg/L	0.7	0.50%
Cd 228.802	814.5	0.00256	mg/L	0.000020	0.00256	mg/L	0.000020	0.79%
Co 228.616	803.5	0.00650	mg/L	0.000076	0.00650	mg/L	0.000076	1.16%
Cr 267.716	11599.7	0.0612	mg/L	0.00008	0.0612	mg/L	0.00008	0.13%
Cu 327.396	116311.4	0.415	mg/L	0.0024	0.415	mg/L	0.0024	0.59%
Fe 261.387	193738.3	15.3	mg/L	0.11	15.3	mg/L	0.11	0.75%

Mg 279.079	1385112.1	40.4	mg/L	0.78	40.4	mg/L	0.78	1.93%
Mn 257.610	193916.9	0.195	mg/L	0.0008	0.195	mg/L	0.0008	0.42%
Mo 202.030	1673.2	0.0217	mg/L	0.00010	0.0217	mg/L	0.00010	0.45%
Ni 231.604	4631.3	0.0390	mg/L	0.00023	0.0390	mg/L	0.00023	0.60%
Pb 220.353	4164.5	0.220	mg/L	0.0025	0.220	mg/L	0.0025	1.14%
Sb 206.833	1418.5	0.0680	mg/L	0.00034	0.0680	mg/L	0.00034	0.50%
Se 196.026	64.4	0.00595	mg/L	0.002257	0.00595	mg/L	0.002257	37.91%
Si 288.158	2367086.8	34.9	mg/L	0.54	34.9	mg/L	0.54	1.53%
Sn 189.933	35.9	0.00368	mg/L	0.000399	0.00368	mg/L	0.000399	10.84%
Ti 337.280	244057.6	0.225	mg/L	0.0007	0.225	mg/L	0.0007	0.33%
Tl 190.800	3.2	0.0425	mg/L	0.01911	0.0425	mg/L	0.01911	44.96%
V 292.402	13822.5	0.0816	mg/L	0.00090	0.0816	mg/L	0.00090	1.10%
Zn 206.200	113696.6	0.690	mg/L	0.0067	0.690	mg/L	0.0067	0.97%
K 766.490	371671.0	23.1	mg/L	0.27	23.1	mg/L	0.27	1.18%
Na 589.592	9016223.4	188	mg/L	2.3	188	mg/L	2.3	1.25%
Sr 407.771	1948365.9	0.916	mg/L	0.0049	0.916	mg/L	0.0049	0.53%

Sequence No.: 24
Sample ID: L0303311101
Analyst: SLP
Sample Wt:
Dilution:

Autosampler Location: 20
Date Collected: 3/20/2003 12:13:26 PM

Sample Prep Volume:
Data Type: Original

Mean Data: L0303311101

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	4373222.3						3182.34	0.07%
Ag 328.068	624.7	0.00143	mg/L	0.000013	0.00143	mg/L	0.000013	0.92%
Al 237.312	2131.2	0.0795	mg/L	0.00116	0.0795	mg/L	0.00116	1.46%
As 188.979	12.3	0.00126	mg/L	0.000140	0.00126	mg/L	0.000140	11.07%
Ba 230.424	7205.8	0.0394	mg/L	0.00028	0.0394	mg/L	0.00028	0.71%
Be 234.861	123.8	0.00016	mg/L	0.000050	0.00016	mg/L	0.000050	31.46%
Ca 227.549	137957.0	151	mg/L	1.3	151	mg/L	1.3	0.85%
Cd 228.802	330.1	0.00099	mg/L	0.000007	0.00099	mg/L	0.000007	0.69%
Co 228.616	43.5	0.00046	mg/L	0.000005	0.00046	mg/L	0.000005	1.16%
Cr 267.716	1175.9	0.00601	mg/L	0.000031	0.00601	mg/L	0.000031	0.51%
Cu 327.396	512.8	0.00183	mg/L	0.000030	0.00183	mg/L	0.000030	1.66%
Fe 261.387	3828.0	0.310	mg/L	0.0022	0.310	mg/L	0.0022	0.70%
Mg 279.079	787456.5	23.0	mg/L	0.01	23.0	mg/L	0.01	0.05%
Mn 257.610	184181.3	0.185	mg/L	0.0014	0.185	mg/L	0.0014	0.74%
Mo 202.030	195.0	0.00253	mg/L	0.000029	0.00253	mg/L	0.000029	1.13%
Ni 231.604	9125.3	0.0764	mg/L	0.00059	0.0764	mg/L	0.00059	0.77%
Pb 220.353	69.0	0.00365	mg/L	0.000184	0.00365	mg/L	0.000184	5.04%
Sb 206.833	17.2	0.00068	mg/L	0.000181	0.00068	mg/L	0.000181	26.81%
Se 196.026	74.2	0.00868	mg/L	0.000372	0.00868	mg/L	0.000372	4.28%
Si 288.158	998929.7	14.8	mg/L	0.00	14.8	mg/L	0.00	0.00%
Sn 189.933	-235.1	-0.0129	mg/L	0.00022	-0.0129	mg/L	0.00022	1.70%
Ti 337.280	208.0	0.00658	mg/L	0.000077	0.00658	mg/L	0.000077	1.18%
Tl 190.800	0.9	0.00609	mg/L	0.012317	0.00609	mg/L	0.012317	202.33%
V 292.402	224.0	0.00138	mg/L	0.000023	0.00138	mg/L	0.000023	1.69%
Zn 206.200	32817.5	0.199	mg/L	0.0000	0.199	mg/L	0.0000	0.02%
K 766.490	85013.9	5.25	mg/L	0.004	5.25	mg/L	0.004	0.08%
Na 589.592	2548021.8	53.0	mg/L	0.35	53.0	mg/L	0.35	0.66%
Sr 407.771	1602217.1	0.754	mg/L	0.0017	0.754	mg/L	0.0017	0.22%

Sequence No.: 25
Sample ID: L0303311102
Analyst: SLP
Sample Wt:
Dilution:

Autosampler Location: 21
Date Collected: 3/20/2003 12:18:19 PM

Sample Prep Volume:
Data Type: Original

Mean Data: L0303311102

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	4189843.1						22520.04	0.54%
Ag 328.068	142.4	0.00033	mg/L	0.000091	0.00033	mg/L	0.000091	27.97%
Al 237.312	917.9	0.0346	mg/L	0.00063	0.0346	mg/L	0.00063	1.83%
As 188.979	7.3	0.00073	mg/L	0.000033	0.00073	mg/L	0.000033	4.55%

Ba 230.424	7442.9	0.0402 mg/L	0.00110	0.0402 mg/L	0.00110	2.73%
Be 234.861	54.6	0.00007 mg/L	0.000014	0.00007 mg/L	0.000014	18.42%
Ca 227.549	45822.3	50.3 mg/L	1.53	50.3 mg/L	1.53	3.05%
Cd 228.802	119.9	0.00036 mg/L	0.000030	0.00036 mg/L	0.000030	8.26%
Co 228.616	93.0	0.00082 mg/L	0.000021	0.00082 mg/L	0.000021	2.58%
Cr 267.716	-1.6	-0.00007 mg/L	0.000031	-0.00007 mg/L	0.000031	46.27%
Cu 327.396	1119.4	0.00399 mg/L	0.000107	0.00399 mg/L	0.000107	2.67%
Fe 261.387	894.1	0.0743 mg/L	0.00145	0.0743 mg/L	0.00145	1.95%
Mg 279.079	429805.3	12.5 mg/L	0.19	12.5 mg/L	0.19	1.48%
Mn 257.610	4957.9	0.00473 mg/L	0.000126	0.00473 mg/L	0.000126	2.66%
Mo 202.030	127.9	0.00166 mg/L	0.000078	0.00166 mg/L	0.000078	4.67%
Ni 231.604	125.0	0.00105 mg/L	0.000130	0.00105 mg/L	0.000130	12.44%
Pb 220.353	39.9	0.00211 mg/L	0.000134	0.00211 mg/L	0.000134	6.38%
Sb 206.833	12.7	0.00065 mg/L	0.000117	0.00065 mg/L	0.000117	17.89%
Se 196.026	46.4	0.00543 mg/L	0.001266	0.00543 mg/L	0.001266	23.30%
Si 288.158	169868.4	2.53 mg/L	0.023	2.53 mg/L	0.023	0.92%
Sn 189.933	-181.2	-0.0106 mg/L	0.00076	-0.0106 mg/L	0.00076	7.14%
Ti 337.280	141.1	0.00186 mg/L	0.000103	0.00186 mg/L	0.000103	5.54%
Tl 190.800	0.7	0.00450 mg/L	0.003471	0.00450 mg/L	0.003471	77.15%
V 292.402	163.3	0.00095 mg/L	0.000023	0.00095 mg/L	0.000023	2.38%
Zn 206.200	4982.0	0.0302 mg/L	0.00053	0.0302 mg/L	0.00053	1.76%
K 766.490	26886.4	1.65 mg/L	0.038	1.65 mg/L	0.038	2.33%
Na 589.592	812929.3	16.9 mg/L	0.29	16.9 mg/L	0.29	1.73%
Sr 407.771	421514.8	0.199 mg/L	0.0030	0.199 mg/L	0.0030	1.51%

Sequence No.: 26
Sample ID: L030331201
Analyst: SLP
Sample Wt:
Dilution:

Autosampler Location: 22
Date Collected: 3/20/2003 12:23:11 PM

Sample Prep Volume:
Data Type: Original

Mean Data: L030331201

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	4350915.6						12150.85	0.28%
Ag 328.068	396.6	0.00091	mg/L	0.000038	0.00091	mg/L	0.000038	4.15%
Al 237.312	601.5	0.0245	mg/L	0.00044	0.0245	mg/L	0.00044	1.81%
As 188.979	10.6	0.00106	mg/L	0.000024	0.00106	mg/L	0.000024	2.26%
Ba 230.424	13501.0	0.0729	mg/L	0.00054	0.0729	mg/L	0.00054	0.73%
Be 234.861	64.3	0.00009	mg/L	0.000011	0.00009	mg/L	0.000011	12.52%
Ca 227.549	75414.3	82.8	mg/L	1.67	82.8	mg/L	1.67	2.02%
Cd 228.802	15511.4	0.0532	mg/L	0.00089	0.0532	mg/L	0.00089	1.68%
Co 228.616	2.8	0.00007	mg/L	0.000023	0.00007	mg/L	0.000023	31.74%
Cr 267.716	63.0	0.00027	mg/L	0.000085	0.00027	mg/L	0.000085	31.86%
Cu 327.396	839.9	0.00299	mg/L	0.000075	0.00299	mg/L	0.000075	2.52%
Fe 261.387	1072.8	0.0884	mg/L	0.00193	0.0884	mg/L	0.00193	2.19%
Mg 279.079	435121.5	12.7	mg/L	0.03	12.7	mg/L	0.03	0.23%
Mn 257.610	1764.7	0.00149	mg/L	0.000026	0.00149	mg/L	0.000026	1.77%
Mo 202.030	124.4	0.00162	mg/L	0.000013	0.00162	mg/L	0.000013	0.80%
Ni 231.604	702.1	0.00588	mg/L	0.000078	0.00588	mg/L	0.000078	1.33%
Pb 220.353	46.1	0.00243	mg/L	0.000064	0.00243	mg/L	0.000064	2.64%
Sb 206.833	10.7	0.00055	mg/L	0.000173	0.00055	mg/L	0.000173	31.60%
Se 196.026	42.7	0.00500	mg/L	0.000480	0.00500	mg/L	0.000480	9.60%
Si 288.158	285085.4	4.24	mg/L	0.091	4.24	mg/L	0.091	2.15%
Sn 189.933	-231.9	-0.0134	mg/L	0.00004	-0.0134	mg/L	0.00004	0.29%
Ti 337.280	-120.6	0.00291	mg/L	0.000043	0.00291	mg/L	0.000043	1.47%
Tl 190.800	1.3	0.00847	mg/L	0.001282	0.00847	mg/L	0.001282	15.14%
V 292.402	301.6	0.00175	mg/L	0.000049	0.00175	mg/L	0.000049	2.79%
Zn 206.200	396073.1	2.41	mg/L	0.002	2.41	mg/L	0.002	0.07%
K 766.490	68442.1	4.24	mg/L	0.045	4.24	mg/L	0.045	1.07%
Na 589.592	10122935.2	211	mg/L	1.5	211	mg/L	1.5	0.74%
Sr 407.771	1024833.2	0.482	mg/L	0.0031	0.482	mg/L	0.0031	0.64%

Sequence No.: 27
Sample ID: L030331202
Analyst: SLP
Sample Wt:
Dilution:

Autosampler Location: 23
Date Collected: 3/20/2003 12:28:07 PM

Sample Prep Volume:
Data Type: Original

Mean Data: L030331202

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	4399148.2						92197.91	2.10%
Ag 328.068	343.6	0.00079	mg/L	0.000255	0.00079	mg/L	0.000255	32.35%
Al 237.312	1896.4	0.0675	mg/L	0.00095	0.0675	mg/L	0.00095	1.41%
As 188.979	7.6	0.00076	mg/L	0.000181	0.00076	mg/L	0.000181	23.81%
Ba 230.424	9456.2	0.0512	mg/L	0.00184	0.0512	mg/L	0.00184	3.60%
Be 234.861	67.6	0.00009	mg/L	0.000063	0.00009	mg/L	0.000063	71.58%
Ca 227.549	67233.5	73.8	mg/L	2.11	73.8	mg/L	2.11	2.86%
Cd 228.802	18244.7	0.0626	mg/L	0.00189	0.0626	mg/L	0.00189	3.02%
Co 228.616	39.2	0.00038	mg/L	0.000090	0.00038	mg/L	0.000090	23.93%
Cr 267.716	123.4	0.00058	mg/L	0.000084	0.00058	mg/L	0.000084	14.57%
Cu 327.396	453.9	0.00162	mg/L	0.000087	0.00162	mg/L	0.000087	5.38%
Fe 261.387	1779.8	0.146	mg/L	0.0011	0.146	mg/L	0.0011	0.76%
Mg 279.079	490046.9	14.3	mg/L	0.26	14.3	mg/L	0.26	1.80%
Mn 257.610	304000.7	0.306	mg/L	0.0056	0.306	mg/L	0.0056	1.85%
Mo 202.030	162.2	0.00211	mg/L	0.000128	0.00211	mg/L	0.000128	6.05%
Ni 231.604	1178.7	0.00986	mg/L	0.000107	0.00986	mg/L	0.000107	1.09%
Pb 220.353	55.8	0.00295	mg/L	0.000185	0.00295	mg/L	0.000185	6.27%
Sb 206.833	11.0	0.00044	mg/L	0.000181	0.00044	mg/L	0.000181	40.75%
Se 196.026	36.2	0.00423	mg/L	0.000070	0.00423	mg/L	0.000070	1.64%
Si 288.158	232499.1	3.46	mg/L	0.090	3.46	mg/L	0.090	2.60%
Sn 189.933	-220.1	-0.0128	mg/L	0.00050	-0.0128	mg/L	0.00050	3.95%
Ti 337.280	387.7	0.00440	mg/L	0.000013	0.00440	mg/L	0.000013	0.30%
Tl 190.800	1.1	0.00741	mg/L	0.008171	0.00741	mg/L	0.008171	110.22%
V 292.402	523.7	0.00305	mg/L	0.000062	0.00305	mg/L	0.000062	2.03%
Zn 206.200	300533.1	1.83	mg/L	0.022	1.83	mg/L	0.022	1.18%
K 766.490	58425.5	3.61	mg/L	0.022	3.61	mg/L	0.022	0.62%
Na 589.592	6835671.7	142	mg/L	2.2	142	mg/L	2.2	1.56%
Sr 407.771	745349.6	0.351	mg/L	0.0012	0.351	mg/L	0.0012	0.34%

Sequence No.: 28
Sample ID: L030330001
Analyst: SLP
Sample Wt:
Dilution:

Autosampler Location: 24
Data Collected: 3/20/2003 12:33:03 PM

Sample Prep Volume:
Data Type: Original

Mean Data: L030330001

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	3997873.1						29874.90	0.75%
Ag 328.068	1841.5	0.00423	mg/L	0.000047	0.00423	mg/L	0.000047	1.12%
Al 237.312	1935.3	0.0626	mg/L	0.00113	0.0626	mg/L	0.00113	1.81%
As 188.979	70.8	0.00699	mg/L	0.000644	0.00699	mg/L	0.000644	9.21%
Ba 230.424	32748.9	0.179	mg/L	0.0019	0.179	mg/L	0.0019	1.04%
Be 234.861	227.0	0.00033	mg/L	0.000019	0.00033	mg/L	0.000019	5.77%
Ca 227.549	735639.3	807	mg/L	3.5	807	mg/L	3.5	0.43%
Cd 228.802	40.2	-0.00053	mg/L	0.000036	-0.00053	mg/L	0.000036	6.77%
Co 228.616	494.4	0.00461	mg/L	0.000017	0.00461	mg/L	0.000017	0.36%
Cr 267.716	1086.4	0.00565	mg/L	0.000044	0.00565	mg/L	0.000044	0.79%
Cu 327.396	21996.4	0.0784	mg/L	0.00002	0.0784	mg/L	0.00002	0.03%
Fe 261.387	-39.8	-0.00270	mg/L	0.004228	-0.00270	mg/L	0.004228	156.66%
Mg 279.079	156.7	-0.0801	mg/L	0.00120	-0.0801	mg/L	0.00120	1.50%
Mn 257.610	-460.2	-0.00079	mg/L	0.000017	-0.00079	mg/L	0.000017	2.09%
Mo 202.030	2517.2	0.0327	mg/L	0.00014	0.0327	mg/L	0.00014	0.43%
Ni 231.604	5567.8	0.0466	mg/L	0.00061	0.0466	mg/L	0.00061	1.31%
Pb 220.353	976.7	0.0515	mg/L	0.00063	0.0515	mg/L	0.00063	1.23%
Sb 206.833	13.9	0.00091	mg/L	0.000144	0.00091	mg/L	0.000144	15.81%
Se 196.026	64.6	0.00756	mg/L	0.000151	0.00756	mg/L	0.000151	1.99%
Si 288.158	26622.3	0.796	mg/L	0.0165	0.796	mg/L	0.0165	2.07%
Sn 189.933	-438.4	-0.0188	mg/L	0.00017	-0.0188	mg/L	0.00017	0.91%
Ti 337.280	-1068.8	0.0313	mg/L	0.00012	0.0313	mg/L	0.00012	0.39%
Tl 190.800	1.7	0.0109	mg/L	0.00925	0.0109	mg/L	0.00925	84.70%
V 292.402	-13.0	0.00001	mg/L	0.000026	0.00001	mg/L	0.000026	439.35%
Zn 206.200	1293.5	0.00788	mg/L	0.000127	0.00788	mg/L	0.000127	1.61%
K 766.490	1310274.6	81.6	mg/L	2.07	81.6	mg/L	2.07	2.54%
Na 589.592	6658664.8	139	mg/L	1.3	139	mg/L	1.3	0.95%
Sr 407.771	Saturated2							

Saturated in preshot (code 2)

Sequence No.: 29
Sample ID: L030330002
Analyst: SLP
Sample Wt:
Dilution:
Autosampler Location: 25
Date Collected: 3/20/2003 12:37:59 PM
Sample Prep Volume:
Data Type: Original

Mean Data: L030330002

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	3892191.9						2001.92	0.05%
Ag 328.068	1862.6	0.00428	mg/L	0.000070	0.00428	mg/L	0.000070	1.64%
Al 237.312	3238.5	0.106	mg/L	0.0005	0.106	mg/L	0.0005	0.45%
As 188.979	73.2	0.00722	mg/L	0.000128	0.00722	mg/L	0.000128	1.78%
Ba 230.424	32550.6	0.178	mg/L	0.0004	0.178	mg/L	0.0004	0.25%
Be 234.861	223.5	0.00032	mg/L	0.000014	0.00032	mg/L	0.000014	4.24%
Ca 227.549	744178.3	817	mg/L	2.0	817	mg/L	2.0	0.25%
Cd 228.802	38.4	-0.00054	mg/L	0.000025	-0.00054	mg/L	0.000025	4.60%
Co 228.616	657.5	0.00599	mg/L	0.000108	0.00599	mg/L	0.000108	1.81%
Cr 267.716	1056.8	0.00549	mg/L	0.000038	0.00549	mg/L	0.000038	0.69%
Cu 327.396	21923.6	0.0782	mg/L	0.00051	0.0782	mg/L	0.00051	0.66%
Fe 261.387	1260.9	0.101	mg/L	0.0014	0.101	mg/L	0.0014	1.43%
Mg 279.079	72172.5	2.02	mg/L	0.007	2.02	mg/L	0.007	0.37%
Mn 257.610	28012.0	0.0279	mg/L	0.00004	0.0279	mg/L	0.00004	0.14%
Mo 202.030	2644.4	0.0344	mg/L	0.00031	0.0344	mg/L	0.00031	0.89%
Ni 231.604	8135.8	0.0681	mg/L	0.00062	0.0681	mg/L	0.00062	0.91%
Pb 220.353	2855.7	0.151	mg/L	0.0016	0.151	mg/L	0.0016	1.05%
Sb 206.833	21.8	0.00130	mg/L	0.000091	0.00130	mg/L	0.000091	6.98%
Se 196.026	74.1	0.00867	mg/L	0.000201	0.00867	mg/L	0.000201	2.32%
Si 288.158	28709.7	0.831	mg/L	0.0051	0.831	mg/L	0.0051	0.62%
Sn 189.933	-445.7	-0.0192	mg/L	0.00062	-0.0192	mg/L	0.00062	3.26%
Ti 337.280	480.6	0.0332	mg/L	0.00020	0.0332	mg/L	0.00020	0.59%
Tl 190.800	3.1	0.0207	mg/L	0.00678	0.0207	mg/L	0.00678	32.75%
V 292.402	2.8	0.00011	mg/L	0.000101	0.00011	mg/L	0.000101	95.92%
Zn 206.200	542.8	0.00329	mg/L	0.000115	0.00329	mg/L	0.000115	3.50%
K 766.490	1306007.1	81.3	mg/L	3.26	81.3	mg/L	3.26	4.01%
Na 589.592	7899468.9	164	mg/L	0.1	164	mg/L	0.1	0.05%
Sr 407.771	Saturated2							

Saturated in preshot (code 2)

Sequence No.: 30
Sample ID: L030330301
Analyst: SLP
Sample Wt:
Dilution:
Autosampler Location: 26
Date Collected: 3/20/2003 12:42:56 PM
Sample Prep Volume:
Data Type: Original

Mean Data: L030330301

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	4257832.7						29637.10	0.70%
Ag 328.068	428.8	0.00098	mg/L	0.000150	0.00098	mg/L	0.000150	15.22%
Al 237.312	396581.7	13.0	mg/L	0.08	13.0	mg/L	0.08	0.64%
As 188.979	85.1	0.00902	mg/L	0.000471	0.00902	mg/L	0.000471	5.22%
Ba 230.424	16973.9	0.0931	mg/L	0.00047	0.0931	mg/L	0.00047	0.50%
Be 234.861	1657.7	0.00112	mg/L	0.000080	0.00112	mg/L	0.000080	7.10%
Ca 227.549	99156.7	108	mg/L	0.8	108	mg/L	0.8	0.71%
Cd 228.802	173.9	0.00045	mg/L	0.000031	0.00045	mg/L	0.000031	7.04%
Co 228.616	1000.3	0.00826	mg/L	0.000083	0.00826	mg/L	0.000083	1.00%
Cr 267.716	3041.6	0.0168	mg/L	0.00015	0.0168	mg/L	0.00015	0.87%
Cu 327.396	8472.2	0.0302	mg/L	0.00040	0.0302	mg/L	0.00040	1.33%
Fe 261.387	223119.5	17.6	mg/L	0.04	17.6	mg/L	0.04	0.21%
Mg 279.079	966075.4	28.2	mg/L	0.15	28.2	mg/L	0.15	0.54%
Mn 257.610	289648.1	0.291	mg/L	0.0010	0.291	mg/L	0.0010	0.33%
Mo 202.030	910.9	0.0118	mg/L	0.00003	0.0118	mg/L	0.00003	0.28%
Ni 231.604	2794.0	0.0236	mg/L	0.00006	0.0236	mg/L	0.00006	0.25%
Pb 220.353	2194.3	0.116	mg/L	0.0003	0.116	mg/L	0.0003	0.29%
Sb 206.833	216.6	0.00785	mg/L	0.000487	0.00785	mg/L	0.000487	6.21%

Se 196.026	80.3	0.00814	mg/L	0.000713	0.00814	mg/L	0.000713	8.76%
Si 288.158	1707445.7	25.2	mg/L	0.14	25.2	mg/L	0.14	0.54%
Sn 189.933	-241.9	-0.0138	mg/L	0.00009	-0.0138	mg/L	0.00009	0.64%
Ti 337.280	183957.4	0.171	mg/L	0.0012	0.171	mg/L	0.0012	0.70%
Tl 190.800	2.0	0.0369	mg/L	0.00179	0.0369	mg/L	0.00179	4.86%
V 292.402	4584.5	0.0281	mg/L	0.00023	0.0281	mg/L	0.00023	0.80%
Zn 206.200	17476.5	0.105	mg/L	0.0003	0.105	mg/L	0.0003	0.33%
K 766.490	207056.7	12.8	mg/L	0.05	12.8	mg/L	0.05	0.36%
Na 589.592	1641295.7	34.1	mg/L	0.17	34.1	mg/L	0.17	0.49%
Sr 407.771	654726.4	0.308	mg/L	0.0002	0.308	mg/L	0.0002	0.06%

Sequence No.: 31
Sample ID: L030330501
Analyst: SLP
Sample Wt:
Dilution:

Autosampler Location: 27
Date Collected: 3/20/2003 12:47:51 PM

Sample Prep Volume:
Data Type: Original

Mean Data: L030330501

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	4274477.0						85890.35	2.01%
Ag 328.068	393.5	0.00090	mg/L	0.000034	0.00090	mg/L	0.000034	3.73%
Al 237.312	2825.2	0.101	mg/L	0.0001	0.101	mg/L	0.0001	0.06%
As 188.979	14.4	0.00148	mg/L	0.000042	0.00148	mg/L	0.000042	2.87%
Ba 230.424	9192.7	0.0497	mg/L	0.00057	0.0497	mg/L	0.00057	1.15%
Be 234.861	80.6	0.00008	mg/L	0.000002	0.00008	mg/L	0.000002	1.93%
Ca 227.549	56711.3	62.2	mg/L	0.62	62.2	mg/L	0.62	0.99%
Cd 228.802	63.5	0.00015	mg/L	0.000018	0.00015	mg/L	0.000018	12.00%
Co 228.616	34.1	0.00033	mg/L	0.000039	0.00033	mg/L	0.000039	11.95%
Cr 267.716	1647.9	0.00852	mg/L	0.000089	0.00852	mg/L	0.000089	1.05%
Cu 327.396	3016.8	0.0108	mg/L	0.00004	0.0108	mg/L	0.00004	0.37%
Fe 261.387	6960.9	0.553	mg/L	0.0003	0.553	mg/L	0.0003	0.05%
Mg 279.079	470098.7	13.7	mg/L	0.33	13.7	mg/L	0.33	2.38%
Mn 257.610	34052.9	0.0340	mg/L	0.00036	0.0340	mg/L	0.00036	1.06%
Mo 202.030	188.1	0.00244	mg/L	0.000122	0.00244	mg/L	0.000122	5.00%
Ni 231.604	428.7	0.00360	mg/L	0.000064	0.00360	mg/L	0.000064	1.77%
Pb 220.353	109.2	0.00577	mg/L	0.000137	0.00577	mg/L	0.000137	2.38%
Sb 206.833	3.8	-0.00002	mg/L	0.000557	-0.00002	mg/L	0.000557	>999.9%
Se 196.026	15.0	0.00174	mg/L	0.000935	0.00174	mg/L	0.000935	53.63%
Si 288.158	104381.3	1.57	mg/L	0.018	1.57	mg/L	0.018	1.14%
Sn 189.933	-243.0	-0.0143	mg/L	0.00024	-0.0143	mg/L	0.00024	1.66%
Ti 337.280	1521.5	0.00371	mg/L	0.000021	0.00371	mg/L	0.000021	0.58%
Tl 190.800	0.4	0.00340	mg/L	0.008003	0.00340	mg/L	0.008003	235.47%
V 292.402	58.4	0.00046	mg/L	0.000011	0.00046	mg/L	0.000011	2.43%
Zn 206.200	26146.5	0.159	mg/L	0.0018	0.159	mg/L	0.0018	1.12%
K 766.490	54566.6	3.37	mg/L	0.033	3.37	mg/L	0.033	0.98%
Na 589.592	5127201.6	127	mg/L	0.9	127	mg/L	0.9	0.72%
Sr 407.771	325382.9	0.154	mg/L	0.0025	0.154	mg/L	0.0025	1.60%

Sequence No.: 32
Sample ID: L030330502
Analyst: SLP
Sample Wt:
Dilution:

Autosampler Location: 28
Date Collected: 3/20/2003 12:52:48 PM

Sample Prep Volume:
Data Type: Original

Mean Data: L030330502

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	4251136.9						10791.79	0.25%
Ag 328.068	423.6	0.00097	mg/L	0.000090	0.00097	mg/L	0.000090	9.22%
Al 237.312	2604.2	0.0922	mg/L	0.00049	0.0922	mg/L	0.00049	0.53%
As 188.979	41.1	0.00410	mg/L	0.000245	0.00410	mg/L	0.000245	5.97%
Ba 230.424	13826.4	0.0747	mg/L	0.00009	0.0747	mg/L	0.00009	0.12%
Be 234.861	88.8	0.00010	mg/L	0.000009	0.00010	mg/L	0.000009	8.84%
Ca 227.549	80281.4	88.1	mg/L	1.18	88.1	mg/L	1.18	1.34%
Cd 228.802	126.4	0.00034	mg/L	0.000001	0.00034	mg/L	0.000001	0.17%
Co 228.616	20.7	0.00023	mg/L	0.000005	0.00023	mg/L	0.000005	1.95%
Cr 267.716	249.1	0.00125	mg/L	0.000036	0.00125	mg/L	0.000036	2.86%

Cu 327.396	2414.5	0.00861 mg/L	0.000083	0.00861 mg/L	0.000083	0.96%
Fe 261.387	4991.9	0.397 mg/L	0.0019	0.397 mg/L	0.0019	0.48%
Mg 279.079	445484.2	13.0 mg/L	0.10	13.0 mg/L	0.10	0.74%
Mn 257.610	25055.7	0.0250 mg/L	0.00037	0.0250 mg/L	0.00037	1.47%
Mo 202.030	520.3	0.00676 mg/L	0.000040	0.00676 mg/L	0.000040	0.59%
Ni 231.604	571.2	0.00479 mg/L	0.000117	0.00479 mg/L	0.000117	2.45%
Pb 220.353	95.6	0.00506 mg/L	0.000228	0.00506 mg/L	0.000228	4.51%
Sb 206.833	26.5	0.00133 mg/L	0.000045	0.00133 mg/L	0.000045	3.38%
Se 196.026	37.8	0.00442 mg/L	0.001196	0.00442 mg/L	0.001196	27.06%
Si 288.158	357137.4	5.30 mg/L	0.084	5.30 mg/L	0.084	1.58%
Sn 189.933	-271.4	-0.0158 mg/L	0.00005	-0.0158 mg/L	0.00005	0.33%
Ti 337.280	1085.3	0.00432 mg/L	0.000142	0.00432 mg/L	0.000142	3.28%
Tl 190.800	1.4	0.00943 mg/L	0.000575	0.00943 mg/L	0.000575	6.10%
V 292.402	90.3	0.00057 mg/L	0.000020	0.00057 mg/L	0.000020	3.49%
Zn 206.200	19643.4	0.119 mg/L	0.0001	0.119 mg/L	0.0001	0.12%
K 766.490	95437.0	5.92 mg/L	0.115	5.92 mg/L	0.115	1.93%
Na 589.592	12199781.5	254 mg/L	1.1	254 mg/L	1.1	0.44%
Sr 407.771	991096.3	0.467 mg/L	0.0090	0.467 mg/L	0.0090	1.92%

Sequence No.: 33
Sample ID: CCV
Analyst:
Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/20/2003 12:57:47 PM

Sample Prep Volume:
Data Type: Original

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	4255141.8						20332.04	0.48%
Ag 328.068	179376.7	0.412	mg/L	0.0026	0.412	mg/L	0.0026	0.64%
QC value within limits for Ag 328.068 Recovery = 102.96%								
Al 237.312	313092.7	10.2	mg/L	0.06	10.2	mg/L	0.06	0.59%
QC value within limits for Al 237.312 Recovery = 101.63%								
As 188.979	4035.1	0.402	mg/L	0.0005	0.402	mg/L	0.0005	0.13%
QC value within limits for As 188.979 Recovery = 100.61%								
Ba 230.424	199367.5	1.07	mg/L	0.003	1.07	mg/L	0.003	0.29%
QC value within limits for Ba 230.424 Recovery = 106.96%								
Be 234.861	36865.2	0.0529	mg/L	0.00020	0.0529	mg/L	0.00020	0.38%
QC value within limits for Be 234.861 Recovery = 105.85%								
Ca 227.549	9592.4	10.4	mg/L	0.04	10.4	mg/L	0.04	0.37%
QC value within limits for Ca 227.549 Recovery = 104.03%								
Cd 228.802	15133.4	0.0504	mg/L	0.00013	0.0504	mg/L	0.00013	0.25%
QC value within limits for Cd 228.802 Recovery = 100.76%								
Co 228.616	25168.2	0.211	mg/L	0.0003	0.211	mg/L	0.0003	0.14%
QC value within limits for Co 228.616 Recovery = 105.63%								
Cr 267.716	99444.6	0.517	mg/L	0.0028	0.517	mg/L	0.0028	0.53%
QC value within limits for Cr 267.716 Recovery = 103.44%								
Cu 327.396	145705.0	0.519	mg/L	0.0030	0.519	mg/L	0.0030	0.58%
QC value within limits for Cu 327.396 Recovery = 103.82%								
Fe 261.387	52330.8	4.16	mg/L	0.022	4.16	mg/L	0.022	0.53%
QC value within limits for Fe 261.387 Recovery = 103.92%								
Mg 279.079	351079.1	10.2	mg/L	0.02	10.2	mg/L	0.02	0.23%
QC value within limits for Mg 279.079 Recovery = 102.46%								
Mn 257.610	521705.6	0.525	mg/L	0.0021	0.525	mg/L	0.0021	0.39%
QC value within limits for Mn 257.610 Recovery = 105.06%								
Mo 202.030	78721.5	1.02	mg/L	0.002	1.02	mg/L	0.002	0.20%
QC value within limits for Mo 202.030 Recovery = 102.82%								
Ni 231.604	62731.0	0.525	mg/L	0.0032	0.525	mg/L	0.0032	0.61%
QC value within limits for Ni 231.604 Recovery = 105.05%								
Pb 220.353	9887.9	0.525	mg/L	0.0011	0.525	mg/L	0.0011	0.20%
QC value within limits for Pb 220.353 Recovery = 105.03%								
Sb 206.833	24748.5	1.25	mg/L	0.004	1.25	mg/L	0.004	0.28%
QC value within limits for Sb 206.833 Recovery = 103.98%								
Se 196.026	3638.3	0.425	mg/L	0.0005	0.425	mg/L	0.0005	0.12%
QC value within limits for Se 196.026 Recovery = 106.15%								
Si 288.158	360057.4	5.31	mg/L	0.031	5.31	mg/L	0.031	0.59%
QC value within limits for Si 288.158 Recovery = 106.19%								
Sn 189.933	16191.8	0.998	mg/L	0.0048	0.998	mg/L	0.0048	0.48%
QC value within limits for Sn 189.933 Recovery = 99.94%								
Ti 337.280	1128129.6	1.01	mg/L	0.006	1.01	mg/L	0.006	0.55%

QC value within limits for Ti 337.280 Recovery = 101.27%

Tl 190.800	72.9	0.498 mg/L	0.0123	0.498 mg/L	0.0123	2.47%

QC value within limits for Tl 190.800 Recovery = 99.51%

V 292.402	181051.6	1.05 mg/L	0.004	1.05 mg/L	0.004	0.43%

QC value within limits for V 292.402 Recovery = 105.14%

Zn 206.200	169785.7	1.03 mg/L	0.003	1.03 mg/L	0.003	0.25%

QC value within limits for Zn 206.200 Recovery = 103.38%

K 766.490	787294.9	49.0 mg/L	0.79	49.0 mg/L	0.79	1.61%

QC value within limits for K 766.490 Recovery = 98.02%

Na 589.592	2393523.3	49.8 mg/L	0.49	49.8 mg/L	0.49	0.98%

QC value within limits for Na 589.592 Recovery = 99.59%

Sr 407.771	2059261.0	0.969 mg/L	0.0161	0.969 mg/L	0.0161	1.67%

QC value within limits for Sr 407.771 Recovery = 96.86%

All analytes passed QC.

Sequence No.: 34 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 3/20/2003 1:02:42 PM**
Analyst:
Sample Wt: **Sample Prep Volume:**
Dilution: **Data Type: Original**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	3590220.8						99933.41	2.78%
Ag 328.068	-12.4	-0.00003	mg/L	0.000108	-0.00003	mg/L	0.000108	376.87%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 237.312	70.6	0.00230	mg/L	0.000353	0.00230	mg/L	0.000353	15.37%
QC value within limits for Al 237.312 Recovery = Not calculated								
As 188.979	4.7	0.00046	mg/L	0.000156	0.00046	mg/L	0.000156	34.00%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 230.424	11.3	0.00005	mg/L	0.000023	0.00005	mg/L	0.000023	43.86%
QC value within limits for Ba 230.424 Recovery = Not calculated								
Be 234.861	8.5	0.00001	mg/L	0.000037	0.00001	mg/L	0.000037	301.07%
QC value within limits for Be 234.861 Recovery = Not calculated								
Ca 227.549	4.2	0.00459	mg/L	0.003457	0.00459	mg/L	0.003457	75.35%
QC value within limits for Ca 227.549 Recovery = Not calculated								
Cd 228.802	4.7	0.00001	mg/L	0.000001	0.00001	mg/L	0.000001	8.73%
QC value within limits for Cd 228.802 Recovery = Not calculated								
Co 228.616	-4.9	-0.00004	mg/L	0.000001	-0.00004	mg/L	0.000001	1.86%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716	-14.9	-0.00008	mg/L	0.000012	-0.00008	mg/L	0.000012	15.42%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.396	38.2	0.00014	mg/L	0.000015	0.00014	mg/L	0.000015	11.04%
QC value within limits for Cu 327.396 Recovery = Not calculated								
Fe 261.387	23.8	0.00187	mg/L	0.000110	0.00187	mg/L	0.000110	5.89%
QC value within limits for Fe 261.387 Recovery = Not calculated								
Mg 279.079	-74.1	-0.00217	mg/L	0.000657	-0.00217	mg/L	0.000657	30.33%
QC value within limits for Mg 279.079 Recovery = Not calculated								
Mn 257.610	49.0	0.00005	mg/L	0.000020	0.00005	mg/L	0.000020	40.66%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.030	190.4	0.00247	mg/L	0.000240	0.00247	mg/L	0.000240	9.69%
QC value within limits for Mo 202.030 Recovery = Not calculated								
Ni 231.604	-1.1	-0.00001	mg/L	0.000019	-0.00001	mg/L	0.000019	208.56%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353	7.2	0.00038	mg/L	0.000025	0.00038	mg/L	0.000025	6.49%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.833	8.2	0.00044	mg/L	0.000571	0.00044	mg/L	0.000571	130.20%
QC value within limits for Sb 206.833 Recovery = Not calculated								
Se 196.026	-4.9	-0.00057	mg/L	0.000870	-0.00057	mg/L	0.000870	152.15%
QC value within limits for Se 196.026 Recovery = Not calculated								
Si 288.158	476.7	0.00702	mg/L	0.000532	0.00702	mg/L	0.000532	7.57%
QC value within limits for Si 288.158 Recovery = Not calculated								
Sn 189.933	77.3	0.00474	mg/L	0.000205	0.00474	mg/L	0.000205	4.33%
QC value within limits for Sn 189.933 Recovery = Not calculated								
Ti 337.280	210.3	0.00019	mg/L	0.000130	0.00019	mg/L	0.000130	68.62%
QC value within limits for Ti 337.280 Recovery = Not calculated								
Tl 190.800	1.0	0.00641	mg/L	0.005513	0.00641	mg/L	0.005513	85.96%
QC value within limits for Tl 190.800 Recovery = Not calculated								
V 292.402	16.0	0.00009	mg/L	0.000133	0.00009	mg/L	0.000133	140.87%

QC value within limits for V 292.402 Recovery = Not calculated

Zn 206.200	20.4	0.00012	mg/L	0.000021	0.00012	mg/L	0.000021	17.10%

QC value within limits for Zn 206.200 Recovery = Not calculated

K 766.490	2127.3	0.132	mg/L	0.0785	0.132	mg/L	0.0785	59.23%

QC value within limits for K 766.490 Recovery = Not calculated

Na 589.592	6902.6	0.144	mg/L	0.0890	0.144	mg/L	0.0890	61.96%

QC value within limits for Na 589.592 Recovery = Not calculated

Sr 407.771	4628.2	0.00295	mg/L	0.001654	0.00295	mg/L	0.001654	56.03%

QC value within limits for Sr 407.771 Recovery = Not calculated

All analytes passed QC.

Sequence No.: 35 **Autosampler Location: 29**
Sample ID: L030333102 **Date Collected: 3/20/2003 1:07:34 PM**
Analyst: SLP
Sample Wt: **Sample Prep Volume:**
Dilution: **Data Type: Original**

Mean Data: L030333102

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	4119568.3						61565.60	1.49%
Ag 328.068	184.5	0.00042	mg/L	0.000043	0.00042	mg/L	0.000043	10.17%
Al 237.312	1436.4	0.0566	mg/L	0.00011	0.0566	mg/L	0.00011	0.20%
As 188.979	50.0	0.00502	mg/L	0.000178	0.00502	mg/L	0.000178	3.55%
Ba 230.424	3214.7	0.0175	mg/L	0.00001	0.0175	mg/L	0.00001	0.05%
Be 234.861	63.3	0.00004	mg/L	0.000045	0.00004	mg/L	0.000045	104.85%
Ca 227.549	40698.9	44.6	mg/L	0.93	44.6	mg/L	0.93	2.08%
Cd 228.802	41.3	0.00009	mg/L	0.000004	0.00009	mg/L	0.000004	4.99%
Co 228.616	27.8	0.00027	mg/L	0.000001	0.00027	mg/L	0.000001	0.32%
Cr 267.716	221.8	0.00114	mg/L	0.000036	0.00114	mg/L	0.000036	3.17%
Cu 327.396	2720.3	0.00970	mg/L	0.000280	0.00970	mg/L	0.000280	2.89%
Fe 261.387	9447.1	0.748	mg/L	0.0180	0.748	mg/L	0.0180	2.41%
Mg 279.079	342298.8	9.99	mg/L	0.150	9.99	mg/L	0.150	1.50%
Mn 257.610	32080.5	0.0321	mg/L	0.00072	0.0321	mg/L	0.00072	2.24%
Mo 202.030	189.6	0.00246	mg/L	0.000002	0.00246	mg/L	0.000002	0.08%
Ni 231.604	236.5	0.00199	mg/L	0.000107	0.00199	mg/L	0.000107	5.38%
Pb 220.353	29.5	0.00156	mg/L	0.000174	0.00156	mg/L	0.000174	11.17%
Sb 206.833	0.0	-0.00009	mg/L	0.000672	-0.00009	mg/L	0.000672	772.73%
Se 196.026	25.5	0.00298	mg/L	0.000843	0.00298	mg/L	0.000843	28.25%
Si 288.158	99294.6	1.48	mg/L	0.032	1.48	mg/L	0.032	2.14%
Sn 189.933	-174.1	-0.0102	mg/L	0.00014	-0.0102	mg/L	0.00014	1.33%
Ti 337.280	693.2	0.00235	mg/L	0.000033	0.00235	mg/L	0.000033	1.39%
Tl 190.800	1.9	0.0138	mg/L	0.00564	0.0138	mg/L	0.00564	40.99%
V 292.402	77.0	0.00052	mg/L	0.000054	0.00052	mg/L	0.000054	10.30%
Zn 206.200	13886.9	0.0843	mg/L	0.00161	0.0843	mg/L	0.00161	1.91%
K 766.490	55981.5	3.47	mg/L	0.140	3.47	mg/L	0.140	4.03%
Na 589.592	1087017.0	22.6	mg/L	0.72	22.6	mg/L	0.72	3.17%
Sr 407.771	287796.2	0.136	mg/L	0.0046	0.136	mg/L	0.0046	3.35%

Analysis Begun

Start Time: 3/20/2003 1:15:36 PM
Logged In Analyst: Administrator
Spectrometer Model: Optima 3000 DV
Plasma On Time: 3/20/2003 8:57:49 AM
Technique: ICP Continuous
Autosampler Model: AS-90

Sample Information File: C:\pe\Administrator\Sample Information\032003A.sif
Results Data Set: 032003A
Results Library: C:\pe\Administrator\Results\Results.mdb

Sequence No.: 1
Sample ID: L030333102PS 0.9
Analyst: SLP
Sample Wt:
Dilution:
Autosampler Location: 30
Date Collected: 3/20/2003 1:15:36 PM
Sample Prep Volume:
Data Type: Original

Mean Data: L030333102PS 0.9

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	4296466.2						26534.11	0.62%
Ag 328.068	93024.9	0.214	mg/L	0.0010	0.214	mg/L	0.0010	0.46%
Al 237.312	336534.6	10.9	mg/L	0.05	10.9	mg/L	0.05	0.49%
As 188.979	10307.6	1.04	mg/L	0.000	1.04	mg/L	0.000	0.04%
Ba 230.424	1789955.1	9.62	mg/L	0.028	9.62	mg/L	0.028	0.29%
Be 234.861	754858.1	1.09	mg/L	0.003	1.09	mg/L	0.003	0.30%
Ca 227.549	47377.5	51.9	mg/L	0.32	51.9	mg/L	0.32	0.63%
Cd 228.802	295951.6	1.01	mg/L	0.003	1.01	mg/L	0.003	0.34%
Co 228.616	119343.7	1.01	mg/L	0.002	1.01	mg/L	0.002	0.23%
Cr 267.716	196188.3	1.02	mg/L	0.003	1.02	mg/L	0.003	0.29%
Cu 327.396	296560.2	1.06	mg/L	0.006	1.06	mg/L	0.006	0.53%
Fe 261.387	19494.9	1.65	mg/L	0.007	1.65	mg/L	0.007	0.44%
Mg 279.079	677303.9	19.8	mg/L	0.09	19.8	mg/L	0.09	0.44%
Mn 257.610	1038726.8	1.05	mg/L	0.004	1.05	mg/L	0.004	0.38%
Mo 202.030	74776.2	0.972	mg/L	0.0009	0.972	mg/L	0.0009	0.09%
Ni 231.604	119520.1	1.00	mg/L	0.005	1.00	mg/L	0.005	0.45%
Pb 220.353	19324.6	1.02	mg/L	0.001	1.02	mg/L	0.001	0.06%
Sb 206.833	21065.8	1.05	mg/L	0.002	1.05	mg/L	0.002	0.18%
Se 196.026	8113.0	0.949	mg/L	0.0001	0.949	mg/L	0.0001	0.01%
Si 288.158	778718.3	11.5	mg/L	0.00	11.5	mg/L	0.00	0.03%
Sn 189.933	-318.7	-0.0135	mg/L	0.00042	-0.0135	mg/L	0.00042	3.10%
Ti 337.280	1181672.0	1.06	mg/L	0.006	1.06	mg/L	0.006	0.54%
Tl 190.800	147.4	0.984	mg/L	0.0212	0.984	mg/L	0.0212	2.16%
V 292.402	178565.2	1.04	mg/L	0.003	1.04	mg/L	0.003	0.28%
Zn 206.200	176260.9	1.07	mg/L	0.001	1.07	mg/L	0.001	0.10%
K 766.490	888524.1	55.3	mg/L	0.47	55.3	mg/L	0.47	0.85%
Na 589.592	3518203.3	73.2	mg/L	0.63	73.2	mg/L	0.63	0.86%
Sr 407.771	2406122.0	1.13	mg/L	0.005	1.13	mg/L	0.005	0.40%

Sequence No.: 2
Sample ID: CCV
Analyst:
Sample Wt:
Dilution:
Autosampler Location: 5
Date Collected: 3/20/2003 1:20:34 PM
Sample Prep Volume:
Data Type: Original

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	4309750.8						4735.14	0.11%
Ag 328.068	180244.2	0.414	mg/L	0.0002	0.414	mg/L	0.0002	0.04%
QC value within limits for Ag 328.068 Recovery = 103.46%								
Al 237.312	314728.8	10.2	mg/L	0.02	10.2	mg/L	0.02	0.17%
QC value within limits for Al 237.312 Recovery = 102.17%								
As 188.979	4052.7	0.404	mg/L	0.0027	0.404	mg/L	0.0027	0.68%
QC value within limits for As 188.979 Recovery = 101.04%								
Ba 230.424	201418.1	1.08	mg/L	0.003	1.08	mg/L	0.003	0.28%
QC value within limits for Ba 230.424 Recovery = 108.06%								

Be 234.861	37328.6	0.0536 mg/L	0.00020	0.0536 mg/L	0.00020	0.38%
QC value within limits for Be 234.861 Recovery = 107.19%						
Ca 227.549	9616.7	10.4 mg/L	0.05	10.4 mg/L	0.05	0.43%
QC value within limits for Ca 227.549 Recovery = 104.29%						
Cd 228.802	15202.3	0.0506 mg/L	0.00019	0.0506 mg/L	0.00019	0.37%
QC value within limits for Cd 228.802 Recovery = 101.21%						
Co 228.616	25372.0	0.213 mg/L	0.0010	0.213 mg/L	0.0010	0.47%
QC value within limits for Co 228.616 Recovery = 106.48%						
Cr 267.716	100343.2	0.522 mg/L	0.0026	0.522 mg/L	0.0026	0.49%
QC value within limits for Cr 267.716 Recovery = 104.37%						
Cu 327.396	146296.0	0.521 mg/L	0.0005	0.521 mg/L	0.0005	0.10%
QC value within limits for Cu 327.396 Recovery = 104.24%						
Fe 261.387	52524.6	4.17 mg/L	0.018	4.17 mg/L	0.018	0.43%
QC value within limits for Fe 261.387 Recovery = 104.31%						
Mg 279.079	354578.9	10.3 mg/L	0.05	10.3 mg/L	0.05	0.53%
QC value within limits for Mg 279.079 Recovery = 103.48%						
Mn 257.610	525896.3	0.530 mg/L	0.0017	0.530 mg/L	0.0017	0.32%
QC value within limits for Mn 257.610 Recovery = 105.90%						
Mo 202.030	79333.6	1.03 mg/L	0.002	1.03 mg/L	0.002	0.18%
QC value within limits for Mo 202.030 Recovery = 103.62%						
Ni 231.604	63263.9	0.530 mg/L	0.0047	0.530 mg/L	0.0047	0.89%
QC value within limits for Ni 231.604 Recovery = 105.94%						
Pb 220.353	9951.4	0.529 mg/L	0.0026	0.529 mg/L	0.0026	0.48%
QC value within limits for Pb 220.353 Recovery = 105.71%						
Sb 206.833	24875.8	1.26 mg/L	0.005	1.26 mg/L	0.005	0.39%
QC value within limits for Sb 206.833 Recovery = 104.52%						
Se 196.026	3645.0	0.425 mg/L	0.0031	0.425 mg/L	0.0031	0.72%
QC value within limits for Se 196.026 Recovery = 106.35%						
Si 288.158	359305.0	5.30 mg/L	0.001	5.30 mg/L	0.001	0.01%
QC value within limits for Si 288.158 Recovery = 105.97%						
Sn 189.933	16396.3	1.01 mg/L	0.011	1.01 mg/L	0.011	1.07%
QC value within limits for Sn 189.933 Recovery = 101.20%						
Ti 337.280	1136272.4	1.02 mg/L	0.001	1.02 mg/L	0.001	0.13%
QC value within limits for Ti 337.280 Recovery = 102.00%						
Tl 190.800	76.4	0.521 mg/L	0.0133	0.521 mg/L	0.0133	2.55%
QC value within limits for Tl 190.800 Recovery = 104.23%						
V 292.402	182729.1	1.06 mg/L	0.005	1.06 mg/L	0.005	0.42%
QC value within limits for V 292.402 Recovery = 106.11%						
Zn 206.200	173395.0	1.06 mg/L	0.013	1.06 mg/L	0.013	1.24%
QC value within limits for Zn 206.200 Recovery = 105.58%						
K 766.490	776718.4	48.4 mg/L	0.61	48.4 mg/L	0.61	1.26%
QC value within limits for K 766.490 Recovery = 96.70%						
Na 589.592	2326911.6	48.4 mg/L	0.65	48.4 mg/L	0.65	1.34%
QC value within limits for Na 589.592 Recovery = 96.82%						
Sr 407.771	2038845.5	0.959 mg/L	0.0100	0.959 mg/L	0.0100	1.04%
QC value within limits for Sr 407.771 Recovery = 95.90%						

All analytes passed QC.

Sequence No.: 3
Sample ID: CCB
Analyst:
Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/20/2003 1:25:29 PM

Sample Prep Volume:
Data Type: Original

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	3485496.9						11955.44	0.34%
Ag 328.068	-75.6	-0.00017	mg/L	0.000108	-0.00017	mg/L	0.000108	62.47%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 237.312	45.2	0.00146	mg/L	0.000428	0.00146	mg/L	0.000428	29.37%
QC value within limits for Al 237.312 Recovery = Not calculated								
As 188.979	2.0	0.00020	mg/L	0.000312	0.00020	mg/L	0.000312	157.85%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 230.424	-3.2	-0.00002	mg/L	0.000059	-0.00002	mg/L	0.000059	252.99%
QC value within limits for Ba 230.424 Recovery = Not calculated								
Be 234.861	-4.7	-0.00001	mg/L	0.000006	-0.00001	mg/L	0.000006	86.00%
QC value within limits for Be 234.861 Recovery = Not calculated								
Ca 227.549	-2.6	-0.00285	mg/L	0.001308	-0.00285	mg/L	0.001308	45.96%
QC value within limits for Ca 227.549 Recovery = Not calculated								

Cd 228.802		16.1	0.00005 mg/L		0.000001	0.00005 mg/L	0.000001	1.17%
QC value within limits for Cd 228.802 Recovery = Not calculated								
Co 228.616		-9.7	-0.00008 mg/L		0.000015	-0.00008 mg/L	0.000015	18.91%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716		-9.6	-0.00005 mg/L		0.000053	-0.00005 mg/L	0.000053	105.81%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.396		22.1	0.00008 mg/L		0.000018	0.00008 mg/L	0.000018	22.78%
QC value within limits for Cu 327.396 Recovery = Not calculated								
Fe 261.387		-4.3	-0.00034 mg/L		0.000095	-0.00034 mg/L	0.000095	27.79%
QC value within limits for Fe 261.387 Recovery = Not calculated								
Mg 279.079		-6.4	-0.00019 mg/L		0.000014	-0.00019 mg/L	0.000014	7.58%
QC value within limits for Mg 279.079 Recovery = Not calculated								
Mn 257.610		15.6	0.00002 mg/L		0.000006	0.00002 mg/L	0.000006	37.96%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.030		119.2	0.00155 mg/L		0.000005	0.00155 mg/L	0.000005	0.31%
QC value within limits for Mo 202.030 Recovery = Not calculated								
Ni 231.604		-4.5	-0.00004 mg/L		0.000083	-0.00004 mg/L	0.000083	219.30%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353		3.6	0.00019 mg/L		0.000034	0.00019 mg/L	0.000034	17.42%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.833		7.3	0.00038 mg/L		0.000054	0.00038 mg/L	0.000054	14.09%
QC value within limits for Sb 206.833 Recovery = Not calculated								
Se 196.026		-1.8	-0.00022 mg/L		0.000271	-0.00022 mg/L	0.000271	125.16%
QC value within limits for Se 196.026 Recovery = Not calculated								
Si 288.158		437.1	0.00643 mg/L		0.000196	0.00643 mg/L	0.000196	3.05%
QC value within limits for Si 288.158 Recovery = Not calculated								
Sn 189.933		66.0	0.00405 mg/L		0.000497	0.00405 mg/L	0.000497	12.29%
QC value within limits for Sn 189.933 Recovery = Not calculated								
Ti 337.280		63.6	0.00006 mg/L		0.000017	0.00006 mg/L	0.000017	29.06%
QC value within limits for Ti 337.280 Recovery = Not calculated								
Tl 190.800		2.0	0.0131 mg/L		0.00246	0.0131 mg/L	0.00246	18.70%
QC value within limits for Tl 190.800 Recovery = Not calculated								
V 292.402		2.8	0.00002 mg/L		0.000022	0.00002 mg/L	0.000022	132.30%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200		-48.7	-0.00030 mg/L		0.000044	-0.00030 mg/L	0.000044	14.74%
QC value within limits for Zn 206.200 Recovery = Not calculated								
K 766.490		165.5	0.0103 mg/L		0.00622	0.0103 mg/L	0.00622	60.30%
QC value within limits for K 766.490 Recovery = Not calculated								
Na 589.592		899.3	0.0187 mg/L		0.00037	0.0187 mg/L	0.00037	2.00%
QC value within limits for Na 589.592 Recovery = Not calculated								
Sr 407.771		242.9	0.00089 mg/L		0.000024	0.00089 mg/L	0.000024	2.68%
QC value within limits for Sr 407.771 Recovery = Not calculated								

All analytes passed QC.

Metals

Date: 3/20/03
Analyst: JYH
Method: 6020A
Instrument: Elan
Work Group: 136038, 136757, 136755

	Analyst
Calibration/Linearity	
ICV/CCV	
ICB/CCB	
icsa/icsab/cri	
Blank/LCS	
MS/MSD	
Postspike/Serial Dilution	
Duplicate	
Record Results	
Excel Spreadsheets	
Results Reporting / Data Qualifiers	
Calculations & Correct Factors	
Reanalysis Assign	
Instrument Failure/Reassign	
Case Narrative	
QA Approval - Seedpak 3	
Check for Completeness	
Level IV Data	02478 03296
	03323
	03352
	03353

Primary Reviewer Initials & Date Checked JYH 3/20/03

Secondary Reviewer Initials & Date Checked DAS 3-24-03

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
NIF • Check the information for the report narrative
✓ • Check the reasonableness of results

Supervisory Review Initials & Date Checked MB 3/24

Comments: _____

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

KEMRON ENVIRONMENTAL SERVICES
ICP (ICP/MS) RUN LOGBOOK

ANALYST JYM DATE 3/20/03 TIME 11:08
METHOD # 6020A SOP # ME700 Rev # 1 WORK GROUP # 136757, 136755, 136038
CAL STD SOURCE MI-16-46A ICV/CCV SOURCE MI-16-39B
ICS AB SOURCE MI-17-~~MI-16-37B~~ ICS A SOURCE MI-16-42A POST SPK SOURCE MS-1-13-20
Instrument ID: TJA IRIS: JYM3/20/03 Data File: 032003 Perkin Elmer Optima: _____ Perkin Elmer ELAN: —

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
	S0				27.	L030335201PS	50		
	1 1/20				28.	L030335201	50		
	2 1/5				29.	L030335201025	10		CCV/CCB
	3				30.	IDL1-1			
	ICV				31.	2			
	ICB				32.	3			
	ICSA				33.	4			
	ICSAB			CCV/CCB	34.	5			
1.	PBWR3	2		WG136593-03	35.	6			
2.	LCSWR3	4		04	36.	7			CCV/CCB
3.	L030332302	2		01	37.				
4.	02S			05	38.				
5.	02SD			06	39.				
6.	01			02	40.				
7.	01DP			07	41.				
8.	L030247801				42.				
9.	L030335201				43.				
10.	01SDL	10		CCV/CCB	44.				
11.	01PS	2			45.				
12.	L030332303				46.				
13.	04				47.				
14.	L030335301				48.				
15.	02				49.				
16.	03				50.				
17.	PBS F5	4		WG136583-03	51.				
18.	LCSS F5			04	52.				
19.	L030329601			02	53.				
20.	01DP			CCV/CCB 07	54.				
21.	02			01	55.				
22.	02S			05	56.				
23.	02SD			06	57.				
24.	03				58.				
25.	03PS				59.				
26.	03SDL	20			60.				JYM 3/20/03

Reviewed by: _____

Comments: _____

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:
CCV - Continuing Calibration Verification
CCB - Continuing Calibration Blank
FRS - Full Recalibration Sequence
R = Analyst Rerun

KEMRON ENVIRONMENTAL SERVICES
FORM 2A - INITIAL AND CONTINUING CALIBRATION VERIFICATION

INSTRUMENT: PE - ICP/MS
METHOD: 6020A
ANALYST: Jyh
DATE: Thursday, March 20, 2003

UNITS: ug/L

ICV Time: 11:20 AM
CCV1 Time: 11:41 AM
CCV2 Time: 12:42 PM

	Initial Calibration Verification			Continuing Calibration Verification CCV1			CCV2		Q
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Aluminum	50	48.0	96.0	50	47.2	94.4	50.6	101.2	
Antimony	50	49.2	98.4	50	53.6	107.2	52.4	104.8	
Arsenic	50	48.8	97.6	50	51.9	103.8	50.3	100.6	
Barium	50	50.3	100.6	50	46.0	92.0	51.0	102.0	
Beryllium	50	30.1	60.2	50	38.8	77.6	44.8	89.6	*
Cadmium	50	48.1	96.2	50	53.6	107.2	52.9	105.8	
Calcium	5000	3520	70.4	5000	4270	85.4	4480	89.6	*
Chromium	50	51.2	102.4	50	51.6	103.2	51.9	103.8	
Cobalt	50	49.8	99.6	50	51.4	102.8	52.2	104.4	
Copper	50	55.2	110.4	50	57.0	114.0	58.3	116.6	*
Iron	5000	2890	57.8	5000	2930	58.6	2810	56.2	*
Lead	50	50.6	101.2	50	53.2	106.4	53.1	106.2	
Magnesium	5000	4310	86.2	5000	4620	92.4	4840	96.8	*
Manganese	50	52.2	104.4	50	58.4	116.8	57.1	114.2	*
Nickel	50	44.4	88.8	50	50.3	100.6	52.4	104.8	*
Potassium	5000	4090	81.8	5000	4610	92.2	4770	95.4	*
Selenium	50	49.3	98.6	50	52.9	105.8	50.2	100.4	
Silver	50	48.8	97.6	50	53.5	107.0	50.9	101.8	
Sodium	5000	4100	82.0	5000	4450	89.0	4600	92.0	*
Thallium	50	49.5	99.0	50	51.6	103.2	51.9	103.8	
Vanadium	50	51.1	102.2	50	64.5	129.0	60.3	120.6	*
Zinc	50	50.0	100.0	50	56.8	113.6	54.1	108.2	*

(1) Control Limits: 90-110%

KEMRON ENVIRONMENTAL SERVICES
FORM 2A - INITIAL AND CONTINUING CALIBRATION VERIFICATION

INSTRUMENT: PE - ICP/MS
METHOD: 6020A
ANALYST: Jyh
DATE: Thursday, March 20, 2003

UNITS: ug/L

ICV Time: 11:20 AM
CCV1 Time: 1:43 PM
CCV2 Time: 3:12 PM

	Initial Calibration Verification			Continuing Calibration Verification CCV1			CCV2		Q
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Aluminum	50	48.0	96.0	50	45.5	91.0	48.5	97.0	
Antimony	50	49.2	98.4	50	46.7	93.4	51.8	103.6	
Arsenic	50	48.8	97.6	50	45.8	91.6	51.4	102.8	
Barium	50	50.3	100.6	50	49.1	98.2	61.0	122.0	*
Beryllium	50	30.1	60.2	50	29.2	58.4	39.0	78.0	*
Cadmium	50	48.1	96.2	50	47.4	94.8	52.6	105.2	
Calcium	5000	3520	70.4	5000	4200	84.0	4050	81.0	*
Chromium	50	51.2	102.4	50	42.6	85.2	52.2	104.4	*
Cobalt	50	49.8	99.6	50	50.4	100.8	51.6	103.2	
Copper	50	55.2	110.4	50	49.0	98.0	58.7	117.4	*
Iron	5000	2890	57.8	5000	2770	55.4	2720	54.4	*
Lead	50	50.6	101.2	50	51.5	103.0	52.1	104.2	
Magnesium	5000	4310	86.2	5000	4620	92.4	4440	88.8	*
Manganese	50	52.2	104.4	50	51.1	102.2	64.2	128.4	*
Nickel	50	44.4	88.8	50	41.8	83.6	50.2	100.4	*
Potassium	5000	4090	81.8	5000	4790	95.8	4760	95.2	*
Selenium	50	49.3	98.6	50	46.9	93.8	52.0	104.0	
Silver	50	48.8	97.6	50	47.5	95.0	51.3	102.6	
Sodium	5000	4100	82.0	5000	4340	86.8	4110	82.2	*
Thallium	50	49.5	99.0	50	50.4	100.8	50.8	101.6	
Vanadium	50	51.1	102.2	50	52.7	105.4	68.0	136.0	*
Zinc	50	50.0	100.0	50	49.4	98.8	54.6	109.2	

(1) Control Limits: 90-110%

KEMRON ENVIRONMENTAL SERVICES
FORM 3 - BLANKS

INSTRUMENT:	PE - ICP/MS
METHOD:	6020A
ANALYST:	Jyh
DATE:	Thursday, March 20, 2003
UNITS:	ug/L
ICB Time:	11:25 AM
CCB1 Time:	11:46 AM
CCB2 Time:	12:47 PM
CCB3 Time:	1:48 PM

Analyte	Initial Calibration Blank (ug/L)	Continuing Calibration Blank (ug/L) CCB1 1	CCB2 2	CCB3 3
Aluminum	0.335	-0.263	0.0784	-0.158
Antimony	0.125	0.0589	0.0531	0.0444
Arsenic	-0.0154	-0.0288	0.0848	0.0336
Barium	0	0	0	0
Beryllium	0	0	0	0
Cadmium	0.0002	-0.0013	0.0001	0.0033
Calcium	34.5	27.8	0	0
Chromium	-1.15	-0.513	-0.831	-1.15
Cobalt	0.0356	0.0276	0	0
Copper	0	0	0	0
Iron	5.00	-7.10	2.00	2.7
Lead	0.0073	0.003	0.0062	0.0076
Magnesium	0	0	0.10	0.1
Manganese	-0.0299	0.0362	0.105	0.158
Nickel	0	0	0	0
Potassium	8.20	6.40	12.2	1.8
Selenium	-0.0899	-0.0742	0.206	0.0416
Silver	0.0068	0.282	0.0219	0.0061
Sodium	0.80	0	0.50	0
Thallium	0.0001	0.0065	0.0012	0.0008
Vanadium	-0.127	-0.0948	-0.147	-0.197
Zinc	0.808	0.418	0.85	0

KEMRON ENVIRONMENTAL SERVICES
FORM 3 - BLANKS

INSTRUMENT:	PE - ICP/MS
METHOD:	6020A
ANALYST:	Jyh
DATE:	Thursday, March 20, 2003
UNITS:	ug/L
ICB Time:	11:25 AM
CCB1 Time:	3:17 PM
CCB2 Time:	
CCB3 Time:	

Analyte	Initial Calibration Blank(ug/L)	Continuing Calibration Blank (ug/L) CCB1 1	CCB2 2	CCB3 3
Aluminum	0.335	0.0829		
Antimony	0.125	0.074		
Arsenic	-0.0154	0.0395		
Barium	0	0		
Beryllium	0	0		
Cadmium	0.0002	-0.0019		
Calcium	34.5	0		
Chromium	-1.15	-0.19		
Cobalt	0.0356	0.0559		
Copper	0	0		
Iron	5.00	-3.80		
Lead	0.0073	0.0051		
Magnesium	0	0		
Manganese	-0.0299	0.121		
Nickel	0	0		
Potassium	8.20	0.50		
Selenium	-0.0899	0.106		
Silver	0.0068	0.0611		
Sodium	0.80	0		
Thallium	0.0001	-0.0001		
Vanadium	-0.127	0.051		
Zinc	0.808	0.212		

KEMRON ENVIRONMENTAL SERVICES
FORM 4B - INTERFERENCE CHECK SAMPLE (ICP/MS)

INSTRUMENT ID: PE - ICP/MS
METHOD: 6020A
ANALYST: Jyh
DATE: Thursday, March 20, 2003

UNITS: ug/L

ICSA Time: 11:31:03
ICSAB Time: 11:36:10

Analyte	True Sol. A	True Sol. AB	Found Sol. A	Found Sol. AB	%R	Q
Aluminum	10000	10000	13300	13600.0	136.0	*
Antimony	0	100	0	105.0	105.0	
Arsenic	0	100	0	102.0	102.0	
Barium	0	100	0	100.0	100.0	
Beryllium	0	100	0	94.3	94.3	
Cadmium	0	100	0	104.0	104.0	
Calcium	30000	30000	25600	27000.0	90.0	
Chromium	0	100	0	113.0	113.0	
Cobalt	0	100	0	90.9	90.9	
Copper	0	100	0	104.0	104.0	
Iron	25000	25000	20100	21600.0	86.4	
Lead	0	100	0	101.0	101.0	
Magnesium	10000	10000	11200	9950.0	99.5	
Manganese	0	100	1	105.0	105.0	
Nickel	0	100	1	103.0	103.0	
Potassium	10000	10000	8530	9340.0	93.4	
Selenium	0	100	0	98.7	98.7	
Silver	0	100	0	43.3	43.3	*
Sodium	25000	25000	22700	24500.0	98.0	
Thallium	0	100	0	99.9	99.9	
Vanadium	0	100	0	118.0	118.0	
Zinc	0	100	13	113.0	113.0	

(1) Control Limits: 80-120%

KEMRON ENVIRONMENTAL SERVICES
11-IN
ICP-AES AND ICP-MS LINEAR RANGES (QUARTERLY)

Instrument ID: PE - ICP/MS

Date: 9/21/01

Analyte	Integ. Time (Sec.)	Concentration (ug/L)
Antimony	40.00	100.0
Arsenic	40.00	100.0
Barium	10.00	100.0
Beryllium	10.00	100.0
Cadmium	40.00	100.0
Chromium	40.00	100.0
Cobalt	40.00	100.0
Copper	10.00	100.0
Lead	40.00	100.0
Manganese	40.00	100.0
Nickel	40.00	100.0
Selenium	40.00	100.0
Silver	10.00	100.0
Thallium	40.00	100.0
Vanadium	40.00	100.0
Zinc	40.00	100.0

Comments:

Forms by Chem6W(707)864-0845;jp/n11014;v5.3;5/1/00;m/d 110163351

FORM XI-IN ILM05.0

Instrument Tuning Report

File Name: 060501.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
He	3.016	2.977	582	2064	0.701	
Li	7.016	7.029	1572	2060	0.684	
Co	58.933	58.978	14263	1950	0.720	
In	114.904	114.878	27899	1939	0.744	
Tl	204.975	204.925	49673	2242	0.723	

Relative Std. Dev.

Mass	Meas. Intens. RSD
2.000	1.513
3.000	1.919
4.000	29.397
5.000	54.149
6.000	2.481
7.000	1.368
8.000	69.722
9.000	3.816
58.000	0.935
59.000	1.110
60.000	3.409
114.000	2.928
115.000	1.918
116.000	15.970
204.000	2.066
205.000	2.356
206.000	1.581

Instrument Tuning Report

File Name: 060501.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
He	3.016	2.977	575	2064	0.687	
Li	7.016	6.979	1554	2060	0.677	
Co	58.933	58.929	14247	1950	0.724	
In	114.904	114.829	27898	1939	0.745	
Tl	204.975	204.976	49685	2242	0.724	

Relative Std. Dev.

Mass	Meas. Intens. RSD
2.000	2.589
3.000	1.910
4.000	43.745
5.000	68.670
6.000	2.311
7.000	2.741
8.000	40.825
9.000	1.749
58.000	1.242
59.000	1.184
60.000	8.790
114.000	2.338
115.000	0.892
116.000	12.810
204.000	1.544
205.000	0.693
206.000	1.780

Instrument Tuning Report

File Name: 060501.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
He	3.016	3.028	577	2064	0.690	
Li	7.016	7.029	1556	2060	0.663	
Co	58.933	59.028	14269	1950	0.723	
In	114.904	114.978	27916	1939	0.740	
Tl	204.975	204.975	49685	2242	0.718	

Relative Std. Dev.

Mass	Meas. Intens. RSD
2.000	1.348
3.000	2.025
4.000	35.475
5.000	85.131
6.000	1.923
7.000	2.614
8.000	50.000
9.000	3.401
58.000	1.732
59.000	1.001
60.000	38.091
114.000	3.188
115.000	1.205
116.000	21.062
204.000	2.593
205.000	1.354
206.000	1.075

Instrument Tuning Report

File Name: 060501.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
He	3.016	3.026	580	2064	0.693	
Li	7.016	6.979	1562	2060	0.675	
Co	58.933	58.928	14263	1950	0.716	
In	114.904	114.829	27896	1939	0.744	
Tl	204.975	204.975	49685	2242	0.725	

Relative Std. Dev.

Mass	Meas. Intens. RSD
2.000	1.963
3.000	1.886
4.000	20.228
5.000	85.512
6.000	1.144
7.000	4.168
8.000	62.828
9.000	2.758
58.000	1.232
59.000	1.525
60.000	15.900
114.000	3.052
115.000	1.533
116.000	7.498
204.000	2.684
205.000	0.513
206.000	0.498

Instrument Tuning Report

File Name: 060501.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
He	3.016	3.028	582	2064	0.696	
Li	7.016	7.029	1564	2060	0.674	
Co	58.933	58.879	14249	1950	0.721	
In	114.904	114.928	27901	1939	0.738	
Tl	204.975	204.975	49685	2242	0.720	

Relative Std. Dev.

Mass	Meas. Intens. RSD
2.000	1.829
3.000	1.763
4.000	33.290
5.000	60.858
6.000	7.734
7.000	4.554
8.000	46.566
9.000	3.329
58.000	2.973
59.000	1.757
60.000	17.691
114.000	1.978
115.000	0.833
116.000	9.783
204.000	2.556
205.000	1.030
206.000	1.311

Report Date/Time: Thursday, March 20, 2003 10:12:34
Page 1

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, March 20, 2003 10:20:14
Sample Description:
Method File: C:\elandata\Method\Service\6020 methods\6020 daily.mth
Dataset File: c:\elandata\dataset\031603\Sample.009
Tuning File: c:\elandata\Tuning\060501.tun
Optimization File: c:\elandata\Optimize\6020.dac
Dual Detector Mode: Dual
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Mg	24.0	35119.6	35119.602	1137.427	3.2
Rh	102.9	317619.2	317619.202	1510.404	0.5
Pb	208.0	221384.2	221384.180	1195.812	0.5
> Ba	137.9	288122.2	288122.166	2177.942	0.8
Ba++	69.0	8311.0	0.029	0.000	1.2
> Ce	139.9	351924.2	351924.183	2176.839	0.6
CeO	155.9	10060.1	0.029	0.000	1.3
Bkgd	220.0	3.6	3.550	1.081	30.5

Current Optimization File Data

Current Value	Description
0.98	Nebulizer Gas Flow
8.00	Lens Voltage
1500.00	ICP RF Power
-1900.00	Analog Stage Voltage
1350.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-6.00	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	37	9.0	6080.8
Co	59	37	10.0	134702.1
Rh	103	37	11.3	305569.5
Pb	208	37	13.8	195410.9

Method 6020 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, March 20, 2003 11:08:35
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 1
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description:
User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	9003.640					ug/L
Be	9	0.000					ug/L
Al	27	1666.795					ug/L
Sc-1	45	201749.956					ug/L
V	51	2849.320					ug/L
Cr	52	4667.554					ug/L
Cr	53	1000.105					ug/L
Mn	55	1000.035					ug/L
Co	59	0.000					ug/L
Ni	60	0.000					ug/L
Cu	65	0.000					ug/L
Zn	66	0.000					ug/L
Ge	72	580860.080					ug/L
As	75	1118.977					ug/L
Se	77	94.667					ug/L
Se	82	410.483					ug/L
Y	89	665227.742					ug/L
Rh	103	0.000					ug/L
Ag	107	0.000					ug/L
Cd	114	38.246					ug/L
In	115	881916.252					ug/L
Sb	123	200.119					ug/L
Ba	135	0.000					ug/L
Ce	140	0.000					ug/L
Tb	159	653079.042					ug/L
Ho	165	0.000					ug/L
Tl	203	25.667					ug/L
Tl	205	26.669					ug/L
Pb	206	236.692					ug/L
Pb	207	193.354					ug/L
Pb	208	957.728					ug/L
Bi	209	548406.945					ug/L
Na	23	3000.408					mg/L
Mg	24	333.345					mg/L
K	39	351956.139					mg/L
Ca	43	0.000					mg/L
Fe	54	21218.144					mg/L
Fe	57	8335.796					mg/L

Sc	45	201749.956	mg/L
Cl	35	9002.929	mg/L
Kr	83	537.683	mg/L
U	238	0.000	mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
Sc-1	45					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72					
As	75					
[illegible]	77					
[illegible]	82					
[illegible]	89					
Rh	103					
Ag	107					
Cd	114					
In	115					
Sb	123					
Ba	135					
Ce	140					
Tb	159					
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209					
Na	23					
Mg	24					
K	39					
Ca	43					
[illegible]	54					
[illegible]	57					
Sc	45					
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Method 6020 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Thursday, March 20, 2003 11:11:39
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 2
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	7669.059	-1334.78				ug/L
Be	9	666.690	0.00	5.0000	4.332	86.632	ug/L
Al	27	20347.916	0.09	5.0000	0.571	11.428	ug/L
Sc-1	45	201748.336	201748.34				ug/L
V	51	45103.358	0.07	5.0000	0.945	18.907	ug/L
Cr	52	43400.194	0.07	5.0000	0.884	17.687	ug/L
Cr	53	5667.822	0.01	5.0000	1.225	24.502	ug/L
Mn	55	60126.547	0.10	5.0000	0.320	6.402	ug/L
Co	59	56446.415	0.10	5.0000	0.802	16.037	ug/L
Ni	60	9002.929	0.02	5.0000	1.134	22.689	ug/L
Cu	65	10670.705	0.02	5.0000	0.718	14.356	ug/L
Zn	66	9003.677	0.02	5.0000	3.323	66.469	ug/L
Ge	72	584650.519	584650.52				ug/L
As	75	10828.444	0.02	5.0000	0.176	3.523	ug/L
Se	77	907.362	0.00	5.0000	0.428	8.557	ug/L
Se	82	1489.738	0.00	5.0000	0.419	8.354	ug/L
Y	89	643197.070	-22030.67				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	57539.856	0.08	5.0000	0.077	1.548	ug/L
Cd	114	29919.787	0.04	5.0000	0.167	3.333	ug/L
In	115	684850.433	684850.43				ug/L
Sb	123	27520.287	0.04	5.0000	0.142	2.848	ug/L
Ba	135	9002.836	0.01	5.0000	0.222	4.436	ug/L
Ce	140	666.690	0.00				ug/L
Tb	159	635164.014	635184.01				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	46008.094	45982.43	5.0000	0.018	0.364	ug/L
Tl	205	111685.881	111639.21	5.0000	0.053	1.065	ug/L
Pb	206	38886.764	38650.07	5.0000	0.138	2.757	ug/L
Pb	207	33916.936	33723.58	5.0000	0.018	0.355	ug/L
Pb	208	153498.463	152540.73	5.0000	0.009	0.176	ug/L
Bi	209	564873.947	564873.95				ug/L
Na	23	1404128.855	6.94	0.5000	0.058	11.570	mg/L
Mg	24	936500.160	4.64	0.5000	0.077	15.353	mg/L
K	39	4826616.678	22.15	0.5000	0.076	15.107	mg/L
Ca	43	6334.792	0.03	0.5000	0.122	24.312	mg/L
Fe	54	317297.288	1.47	0.5000	0.028	5.685	mg/L
Fe	57	135978.841	0.63	0.5000	0.021	4.292	mg/L

> Sc	45	201748.336	201748.34		mg/L
Cl	35	10337.220	1334.29		mg/L
Kr	83	422.677	-115.01		mg/L
U	238	0.000	0.00		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
[illegible]	6					
Be	9					
Al	27					
> Sc-1	45					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
> Ge	72					
As	75					
Se	77					
Se	82					
Y	89					
Rh	103					
Ag	107					
Cd	114					
> [illegible]	115					
[illegible]	123					
[illegible]	135					
Ce	140					
> Tb	159					
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
> Bi	209					
Na	23					
Mg	24					
K	39					
Ca	43					
Fe	54					
Fe	57					
> Sc	45					
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Method 6020 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Thursday, March 20, 2003 11:14:43
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 3
Method File: C:\elandata\Method\Sarvice\6020 methods\6020A.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	9336.858	333.02				ug/L
Be	9	3333.753	0.02	20.2865	7.723	38.069	ug/L
Al	27	70842.266	0.35	19.9480	1.862	9.333	ug/L
Sc-1	45	195666.589	195666.59				ug/L
V	51	153561.600	0.25	19.8098	1.400	7.065	ug/L
Cr	52	153829.132	0.25	19.9143	2.105	10.569	ug/L
Cr	53	20682.195	0.03	20.0221	4.887	24.406	ug/L
Mn	55	223062.876	0.37	19.8834	0.856	4.303	ug/L
Co	59	229168.737	0.38	19.9779	1.616	8.086	ug/L
Ni	60	47080.467	0.08	20.2484	4.722	23.319	ug/L
Cu	65	49087.299	0.08	20.1179	4.346	21.600	ug/L
Zn	66	37382.398	0.06	20.0078	1.994	9.964	ug/L
Ge	72	603699.250	603699.25				ug/L
As	75	40173.031	0.06	19.9678	0.190	0.951	ug/L
Se	77	3337.057	0.01	19.9581	0.402	2.012	ug/L
Se	82	4840.938	0.01	19.9911	0.397	1.984	ug/L
Y	89	627173.408	-38054.33				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	227558.510	0.32	19.9407	0.602	3.019	ug/L
Cd	114	117217.489	0.16	19.9294	0.456	2.286	ug/L
In	115	711441.446	711441.45				ug/L
Sb	123	108728.469	0.15	19.9453	0.191	0.957	ug/L
Ba	135	33373.306	0.05	19.9122	5.791	29.085	ug/L
Ce	140	0.000	0.00				ug/L
Tb	159	642549.197	642549.20				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	181475.823	181450.16	19.9839	0.392	1.962	ug/L
Tl	205	433546.310	433519.64	19.9647	0.556	2.786	ug/L
Pb	206	150338.681	150101.99	19.9648	0.328	1.645	ug/L
Pb	207	129346.043	129152.69	19.9478	0.501	2.509	ug/L
Pb	208	590863.418	589905.69	19.9597	0.137	0.684	ug/L
Bi	209	594008.642	594008.64				ug/L
Na	23	6967203.077	35.70	2.0266	0.337	16.614	mg/L
Mg	24	4961466.266	25.47	2.0324	0.279	13.734	mg/L
K	39	16382772.013	82.15	1.9908	0.323	16.235	mg/L
Ca	43	18347.450	0.10	1.9629	1.097	55.871	mg/L
Fe	54	1159618.534	5.82	1.9991	0.063	3.130	mg/L
Fe	57	508271.226	2.57	2.0017	0.280	13.991	mg/L

Sc	45	195666.589	195666.59		mg/L
Cl	35	10671.055	1668.13		mg/L
Kr	83	514.349	-23.33		mg/L
U	238	0.000	0.00		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
Sc-1	45					
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72					
As	75					
Se	77					
Se	82					
Y	89					
Rh	103					
Ag	107					
Cd	114					
In	115					
Sb	123					
Ba	135					
Ce	140					
Tb	159					
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209					
Na	23					
Mg	24					
K	39					
Ca	43					
Fe	54					
Fe	57					
Sc	45					
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Standard 2
Report Date/Time: Thursday, March 20, 2003 11:15:29

Method 6020 - Summary Report

Sample ID: Standard 3

Sample Date/Time: Thursday, March 20, 2003 11:17:48
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 4
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	6668.931	-2334.91				ug/L
Be	9	18676.800	0.10	100.4303	24.222	24.118	ug/L
Al	27	271270.263	1.53	99.3510	13.159	13.245	ug/L
Sc-1	45	175405.307	175405.31				ug/L
V	51	743222.218	1.25	99.9654	8.319	8.322	ug/L
Cr	52	701999.470	1.18	99.7838	10.302	10.324	ug/L
Cr	53	89613.910	0.15	99.6587	1.880	1.886	ug/L
Mn	55	1028636.653	1.73	99.7283	6.893	6.912	ug/L
Co	59	1002068.628	1.69	99.4988	11.275	11.332	ug/L
Ni	60	221373.811	0.37	99.8851	5.488	5.494	ug/L
Cu	65	221033.029	0.37	99.6864	8.105	8.131	ug/L
Zn	66	130934.293	0.22	98.3867	6.436	6.542	ug/L
Ge	72	591684.902	591684.90				ug/L
As	75	186337.726	0.31	99.8624	1.196	1.198	ug/L
Se	77	14869.076	0.02	99.6889	3.315	3.325	ug/L
Se	82	21026.940	0.03	99.7979	2.295	2.299	ug/L
Y	89	649784.681	-15443.06				ug/L
Rh	103	333.345	0.00				ug/L
Ag	107	1063976.910	1.52	99.7687	3.840	3.849	ug/L
Cd	114	561895.729	0.80	99.8722	2.231	2.234	ug/L
In	115	701267.415	701267.42				ug/L
Sb	123	534986.386	0.76	99.9886	1.001	1.001	ug/L
Ba	135	179794.772	0.28	100.2179	10.035	10.014	ug/L
Ce	140	333.345	0.00				ug/L
Tb	159	644626.931	644626.93				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	894046.880	894021.21	99.9364	1.573	1.574	ug/L
Tl	205	3340976.938	3340950.27	101.4477	3.155	3.110	ug/L
Pb	206	746959.172	746722.48	99.9721	1.410	1.410	ug/L
Pb	207	625695.077	625501.72	99.8571	1.470	1.472	ug/L
Pb	208	2854167.610	2853209.88	99.8541	0.736	0.737	ug/L
Bi	209	616287.530	616287.53				ug/L
Na	23	36400081.380	207.09	10.0613	1.622	16.161	mg/L
Mg	24	24917929.072	141.37	10.0465	1.575	15.673	mg/L
K	39	74201355.088	420.15	10.0073	0.990	9.893	mg/L
Ca	43	100020.184	0.57	10.0633	1.768	17.565	mg/L
Fe	54	7635770.220	43.29	10.1351	0.998	9.847	mg/L
Fe	57	3595989.385	20.46	10.1544	0.358	3.522	mg/L

>	Sc	45	175405.307	175405.31		mg/L
	Cl	35	7668.732	-1334.20		mg/L
	Kr	83	546.350	8.67		mg/L
	U	238	0.000	0.00		mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
	Li	6					
	Be	9					
	Al	27					
>	[illegible]	45					
	[illegible]	51					
	[illegible]	52					
	Cr	53					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72					
	As	75					
	Se	77					
	Se	82					
	Y	89					
	Rh	103					
	Ag	107					
	Cd	114					
>	In	115					
	Sb	123					
	Ba	135					
	Ce	140					
>	Tb	159					
	[illegible]	165					
	[illegible]	203					
	[illegible]	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209					
	Na	23					
	Mg	24					
	K	39					
	Ca	43					
	Fe	54					
	Fe	57					
>	Sc	45					
	Cl	35					
	Kr	83					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Method 6020 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Thursday, March 20, 2003 11:20:54
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 5
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	13006.922	4003.08				ug/L
Be	9	5667.939	0.03	30.0811	12.330	40.990	ug/L
Al	27	149809.657	0.74	47.9967	6.693	13.944	ug/L
Sc-1	45	198376.346	198376.35				ug/L
Y	51	385593.603	0.64	51.1270	4.208	8.230	ug/L
Cr	52	358537.338	0.59	50.0118	8.220	16.435	ug/L
Cr	53	47079.412	0.08	51.2380	10.214	19.935	ug/L
Mn	55	544535.236	0.91	52.2122	2.597	4.974	ug/L
Co	59	506519.230	0.85	49.8056	2.892	5.807	ug/L
Ni	60	99345.100	0.17	44.3786	3.876	8.734	ug/L
Cu	65	123874.563	0.21	55.1655	7.674	13.910	ug/L
Zn	66	67157.578	0.11	49.9988	3.076	6.153	ug/L
Ge	72	598754.072	598754.07				ug/L
As	75	92706.137	0.15	48.8063	1.305	2.673	ug/L
Se	77	7453.945	0.01	49.0998	2.489	5.069	ug/L
Se	82	10729.146	0.02	49.3277	1.582	3.206	ug/L
Y	89	641069.814	-24157.93				ug/L
Rh	103	333.345	0.00				ug/L
Ag	107	527664.346	0.74	48.7747	1.642	3.367	ug/L
Cd	114	274310.236	0.39	48.0799	0.952	1.980	ug/L
In	115	711188.839	711188.84				ug/L
Sb	123	266918.118	0.38	49.1923	1.384	2.813	ug/L
Ba	135	91626.946	0.14	50.3323	5.605	11.136	ug/L
Ce	140	1000.105	0.00				ug/L
Tb	159	654009.761	654009.76				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	443150.990	443125.32	49.5339	1.270	2.564	ug/L
Tl	205	1081544.306	1081517.64	32.8402	0.837	2.547	ug/L
Pb	206	399804.038	399567.35	53.4946	0.712	1.331	ug/L
Pb	207	303256.383	303063.03	48.3820	1.268	2.621	ug/L
Pb	208	1447726.799	1446769.07	50.6327	0.942	1.861	ug/L
Bi	209	648126.681	648126.68				ug/L
Na	23	16757480.647	84.41	4.1008	0.405	9.881	mg/L
Mg	24	12003713.355	60.60	4.3064	0.241	5.587	mg/L
K	39	34277799.905	171.86	4.0934	0.323	7.894	mg/L
Ca	43	39722.853	0.20	3.5174	0.435	12.376	mg/L
Fe	54	3926099.092	19.72	4.6155	0.183	3.957	mg/L
Fe	57	1161825.142	5.83	2.8937	0.117	4.033	mg/L

> Sc	45	198376.346	198376.35		mg/L
Cl	35	5334.384	-3668.55		mg/L
Kr	83	685.357	147.67		mg/L
U	238	0.000	0.00		mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
	Li	6					
	[illegible]	9	60.162				
	[illegible]	27	95.993				
>	[illegible]	45		98.328			
	V	51	102.254				
	Cr	52	100.024				
	Cr	53	102.476				
	Mn	55	104.424				
	Co	59	99.611				
	Ni	60	88.757				
	Cu	65	110.331				
	Zn	66	99.998				
>	Ge	72		103.081			
	As	75	97.613				
	Se	77	98.200				
	Se	82	98.655				
	Y	89					
	Rh	103					
	Ag	107	97.549				
	Cd	114	96.160				
>	In	115		104.293			
	Sb	123	98.385				
	Ba	135	100.665				
	Ce	140					
>	[illegible]	159		100.143			
	[illegible]	165					
	Tl	203	99.068				
	Tl	205	65.680				
	Pb	206	106.989				
	Pb	207	96.764				
	Pb	208	101.265				
>	Bi	209		118.184			
	Na	23	82.017				
	Mg	24	86.128				
	K	39	81.868				
	Ca	43	70.347				
	Fe	54	92.310				
	Fe	57	57.874				
>	Sc	45		98.328			
	Cl	35					
	Kr	83					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Std 1	Be	9	ICV is out of limits (+/-10%)
QC Std 1	Ni	60	ICV is out of limits (+/-10%)
QC Std 1	Cu	65	ICV is out of limits (+/-10%)
QC Std 1	Tl	205	ICV is out of limits (+/-10%)
QC Std 1	Ca	43	ICV is out of limits (+/-10%)
QC Std 1	Fe	57	ICV is out of limits (+/-10%)

Method 6020 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Thursday, March 20, 2003 11:25:58
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 1
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description:
User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	9003.580	-0.28				ug/L
[	Be	9	0.000	0.00	0.0000	0.000		ug/L
|	Al	27	2333.532	0.01	0.3352	0.237	70.564	ug/L
L>	Sc-1	45	174391.648	174391.65				ug/L
[	V	51	1647.234	-0.00	-0.1266	0.377	298.084	ug/L
|	Cr	52	6668.324	0.00	0.3432	0.322	93.797	ug/L
|	Cr	53	0.000	-0.00	-1.1462	0.000	0.000	ug/L
|	Mn	55	666.713	-0.00	-0.0299	0.120	400.656	ug/L
|	Co	59	333.345	0.00	0.0356	0.062	173.205	ug/L
|	Ni	60	0.000	0.00	0.0000	0.000		ug/L
|	Cu	65	0.000	0.00	0.0000	0.000		ug/L
L	Zn	66	1000.058	0.00	0.8085	0.808	99.991	ug/L
	Ge	72	552004.802	552004.80				ug/L
[	As	75	1036.085	-0.00	-0.0154	0.170	1107.044	ug/L
|	Se	77	102.667	0.00	0.0919	0.020	21.489	ug/L
[	Se	82	372.575	-0.00	-0.0899	0.455	506.491	ug/L
	Y	89	616731.497	-48496.25				ug/L
[	Rh	103	0.000	0.00				ug/L
|	Ag	107	66.734	0.00	0.0068	0.006	86.603	ug/L
L	Cd	114	37.246	0.00	0.0002	0.001	574.953	ug/L
I>	In	115	647903.347	647903.35				ug/L
L	Sb	123	808.104	0.00	0.1250	0.025	19.662	ug/L
[	Ba	135	0.000	0.00	0.0000	0.000		ug/L
|	Ce	140	333.345	0.00				ug/L
L>	Tb	159	642821.623	642821.62				ug/L
[	Ho	165	0.000	0.00				ug/L
|	Tl	203	27.000	1.33	0.0001	0.000	150.000	ug/L
|	Tl	205	63.340	36.67	0.0011	0.001	62.984	ug/L
|	Pb	206	326.703	90.01	0.0121	0.010	83.395	ug/L
|	Pb	207	263.362	70.01	0.0112	0.009	78.680	ug/L
|	Pb	208	1166.083	208.35	0.0073	0.000	6.804	ug/L
L>	Bi	209	527986.849	527986.85				ug/L
[	Na	23	5334.384	0.02	0.0008	0.000	55.013	mg/L
|	Mg	24	333.345	0.00	0.0000	0.000	1100.797	mg/L
|	K	39	363943.830	0.34	0.0082	0.005	61.398	mg/L
|	Ca	43	333.345	0.00	0.0345	0.060	173.205	mg/L
|	Fe	54	26169.648	0.04	0.0105	0.004	38.273	mg/L
[	Fe	57	9002.999	0.01	0.0050	0.007	141.301	mg/L

> Sc	45	174391.648	174391.65		mg/L
Cl	35	7001.879	-2001.05		mg/L
Kr	83	498.014	-39.67		mg/L
U	238	0.000	0.00		mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
	Li	6					
	Be	9					
	Al	27					
>	Sc-1	45		86.439			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	[illegible]	72		95.032			
	[illegible]	75					
	[illegible]	77					
	Se	82					
	Y	89					
	Rh	103					
	Ag	107					
	Cd	114					
>	In	115		95.012			
	Sb	123					
	Ba	135					
	Ce	140					
>	Tb	159		98.429			
	Ho	165					
	Tl	203					
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		96.276			
	Na	23					
	Mg	24					
	[illegible]	39					
	[illegible]	43					
	Fe	54					
	Fe	57					
>	Sc	45		86.439			
	Cl	35					
	Kr	83					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Method 6020 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Thursday, March 20, 2003 11:31:03
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 6
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	13007.390	4003.55				ug/L
Be	9	0.000	0.00	0.0000	0.000		ug/L
Al	27	46310258.543	205.80	13338.6848	1386.925	10.398	ug/L
Sc-1	45	224096.008	224096.01				ug/L
V	51	3957.014	0.00	0.1167	0.266	228.237	ug/L
Cr	52	9669.946	0.01	0.5620	0.080	14.305	ug/L
Cr	53	1333.450	0.00	0.1976	1.531	775.097	ug/L
Mn	55	8669.351	0.01	0.6575	0.139	21.150	ug/L
Co	59	666.690	0.00	0.0597	0.052	86.612	ug/L
Ni	60	2333.565	0.00	0.9462	0.471	49.748	ug/L
Cu	65	1000.105	0.00	0.4019	0.696	173.205	ug/L
Zn	66	18679.392	0.03	12.6286	3.328	26.352	ug/L
Ge	72	659577.085	659577.08				ug/L
As	75	1428.613	0.00	0.0758	0.103	135.482	ug/L
Se	77	302.670	0.00	1.1811	0.072	6.104	ug/L
Se	82	512.756	0.00	0.2033	0.340	167.095	ug/L
Y	89	672825.519	7597.78				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	233.569	0.00	0.0207	0.010	50.382	ug/L
Cd	114	1025.600	0.00	0.1644	0.002	1.080	ug/L
In	115	745652.208	745652.21				ug/L
Sb	123	609.462	0.00	0.0687	0.010	14.479	ug/L
Ba	135	0.000	0.00	0.0000	0.000		ug/L
Ce	140	666.690	0.00				ug/L
Tb	159	657952.212	657952.21				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	321.674	296.01	0.0331	0.003	9.706	ug/L
Tl	205	766.764	740.09	0.0225	0.000	2.064	ug/L
Pb	206	1266.850	1030.16	0.1379	0.003	2.443	ug/L
Pb	207	926.789	733.44	0.1171	0.007	6.149	ug/L
Pb	208	4562.526	3604.60	0.1262	0.002	1.694	ug/L
Bi	209	616379.090	616379.09				ug/L
Na	23	104732961.427	466.32	22.6552	0.591	2.607	mg/L
Mg	24	35226667.689	158.03	11.2308	0.714	6.357	mg/L
K	39	80452012.717	358.26	8.5331	1.311	15.359	mg/L
Ca	43	326401.569	1.46	25.6025	1.533	5.989	mg/L
Fe	54	20613949.972	92.36	21.6220	1.496	6.921	mg/L
Fe	57	9055775.445	40.57	20.1364	1.834	9.106	mg/L

Sc	45	224096.008	224096.01		mg/L
Cl	35	3635099.463	3626096.53		mg/L
Kr	83	676.023	138.34		mg/L
U	238	333.345	333.35		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27	133.387				
Sc-1	45		111.076			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		113.552			
As	75					
Se	77					
Se	82					
Y	89					
[illegible]	103					
[illegible]	107					
[illegible]	114					
[illegible]	115		109.347			
Sb	123					
Ba	135					
Ce	140					
Tb	159		100.746			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		112.394			
Na	23	90.621				
Mg	24	112.308				
K	39	85.331				
Ca	43	85.342				
Fe	54	86.488				
Fe	57	80.546				
Sc	45		111.076			
Cl	35					
[illegible]	83					
[illegible]	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 4
Report Date/Time: Thursday, March 20, 2003 11:31:50

QC Std 4	Al	27	ICSA is out of limits (+/-20%)

Method 6020 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Thursday, March 20, 2003 11:36:10
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 7
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description:
User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	11004.681	2000.84				ug/L
Be	9	21015.891	0.09	94.2933	20.274	21.500	ug/L
Al	27	49215330.112	210.36	13834.7154	2391.627	17.541	ug/L
Sc-1	45	236281.301	236281.30				ug/L
V	51	994278.141	1.47	117.6664	4.348	3.695	ug/L
Cr	52	869152.935	1.28	108.7297	11.139	10.245	ug/L
Cr	53	115801.192	0.17	113.3053	4.137	3.651	ug/L
Mn	55	1229637.320	1.82	104.8720	9.072	8.650	ug/L
Co	59	1040278.731	1.54	90.9393	4.625	5.086	ug/L
Ni	60	260359.700	0.39	103.2179	7.751	7.509	ug/L
Cu	65	261715.713	0.39	103.5238	7.180	6.936	ug/L
Zn	66	171363.478	0.25	113.2330	12.339	10.897	ug/L
Ge	72	673588.604	673588.60				ug/L
As	75	217411.335	0.32	102.3559	1.738	1.698	ug/L
Se	77	17393.916	0.03	102.4432	0.513	0.501	ug/L
Se	82	23700.700	0.03	98.7491	1.550	1.569	ug/L
Y	89	646645.090	-18582.65				ug/L
Rh	103	666.713	0.00				ug/L
Ag	107	474587.100	0.66	43.3000	5.094	11.764	ug/L
Cd	111	598932.671	0.83	103.5775	1.421	1.372	ug/L
In	115	720718.904	720718.90				ug/L
Sb	123	580105.851	0.80	105.4972	0.849	0.805	ug/L
Ba	135	176759.690	0.28	100.1754	12.882	12.860	ug/L
Ce	140	1666.818	0.00				ug/L
Tb	159	633427.594	633427.59				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	893854.707	893829.04	99.9149	2.007	2.009	ug/L
Tl	205	3418060.264	3418033.59	103.7884	2.202	2.122	ug/L
Pb	206	797070.053	796833.36	106.6810	2.320	2.175	ug/L
Pb	207	609759.334	609565.98	97.3131	1.390	1.428	ug/L
Pb	208	2893703.523	2892745.80	101.2377	1.129	1.115	ug/L
Bi	209	622635.307	622635.31				ug/L
Na	23	117638444.825	504.84	24.5268	5.902	24.065	mg/L
Mg	24	32757508.739	139.96	9.9466	1.629	16.379	mg/L
K	39	92550059.743	392.14	9.3401	1.091	11.680	mg/L
Ca	43	359477.704	1.53	26.9754	3.963	14.690	mg/L
Fe	54	22176663.375	94.37	22.0931	2.455	11.114	mg/L
Fe	57	10151289.521	43.45	21.5856	5.400	25.042	mg/L

Sc	45	236281.301	236281.30	mg/L
Cl	35	5263909.361	5254906.43	mg/L
Kr	83	688.691	151.01	mg/L
U	238	0.000	0.00	mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27	136.347				
> Sc-1	45		117.116			
V	51	117.666				
Cr	52	108.730				
Cr	53	113.305				
Mn	55	104.872				
Co	59	90.939				
Ni	60	103.218				
Cu	65	103.524				
Zn	66	113.233				
> Ge	72		115.964			
As	75	102.356				
[illegible]	77	102.443				
[illegible]	82	98.749				
[illegible]	89					
Rh	103					
Ag	107	43.300				
Cd	114	103.577				
> In	115		105.690			
Sb	123	105.497				
Ba	135					
Ce	140					
> Tb	159		96.991			
Ho	165					
Tl	203	99.915				
Tl	205	103.788				
Pb	206	106.681				
Pb	207	97.313				
Pb	208	101.238				
> Bi	209		113.635			
Na	23	98.107				
Mg	24	99.466				
K	39	93.401				
Ca	43	89.918				
[illegible]	54	88.373				
[illegible]	57	86.263				
> [illegible]	45		117.116			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 5
Report Date/Time: Thursday, March 20, 2003 11:36:58

QC Std 5	Al	27	ICSAB is out of limits (+/-20%)
QC Std 5	Ag	107	ICSAB is out of limits (+/-20%)
QC Std 5	Na	23	ICSAB is out of limits (+/-20%)
QC Std 5	Fe	57	ICSAB is out of limits (+/-20%)

Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, March 20, 2003 11:41:17
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 5
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	10004.155	1000.32				ug/L
	Be	9	9670.974	0.04	38.7618	22.711	58.592	ug/L
	Al	27	185872.521	0.73	47.1820	5.907	12.520	ug/L
	Sc-1	45	254261.214	254261.21				ug/L
	V	51	537222.319	0.81	64.4682	8.268	12.825	ug/L
	Cr	52	473741.872	0.71	59.9177	2.884	4.813	ug/L
	Cr	53	52433.526	0.08	51.5502	13.560	26.305	ug/L
	Mn	55	674294.373	1.02	58.3687	4.321	7.402	ug/L
	Co	59	579638.925	0.87	51.4345	5.307	10.317	ug/L
	Ni	60	124545.637	0.19	50.2725	6.981	13.886	ug/L
	Cu	65	142040.138	0.21	57.0415	4.200	7.364	ug/L
	Zn	66	84584.650	0.13	56.7675	4.548	8.012	ug/L
>	Ge	72	662705.028	662705.03				ug/L
	As	75	109158.251	0.16	51.9426	0.624	1.202	ug/L
	Se	77	8944.801	0.01	53.2315	0.520	0.976	ug/L
	Se	82	12714.610	0.02	52.9448	1.375	2.598	ug/L
	Y	89	662714.836	-2512.91				ug/L
	Rh	103	0.000	0.00				ug/L
	Ag	107	581990.983	0.81	53.4901	1.459	2.728	ug/L
	Cd	114	307619.363	0.43	53.6002	1.519	2.834	ug/L
>	In	115	715508.428	715508.43				ug/L
	Sb	123	292489.496	0.41	53.5738	1.112	2.076	ug/L
	Ba	135	91630.408	0.13	45.9767	4.329	9.417	ug/L
	Ce	140	566.713	0.00				ug/L
	Tb	159	710623.087	710623.09				ug/L
	Ho	165	0.000	0.00				ug/L
	Tl	203	461777.192	461751.52	51.6160	0.096	0.187	ug/L
	Tl	205	1092890.019	1092863.35	33.1847	0.164	0.493	ug/L
	Pb	206	415926.337	415689.65	55.6530	0.769	1.382	ug/L
	Pb	207	320697.264	320503.91	51.1663	1.693	3.308	ug/L
	Pb	208	1521976.017	1521018.29	53.2312	0.952	1.789	ug/L
>	Bi	209	618800.594	618800.59				ug/L
	Na	23	23184370.016	91.64	4.4521	0.319	7.170	mg/L
	Mg	24	16563941.291	64.94	4.6152	0.220	4.774	mg/L
	K	39	49803626.920	193.49	4.6085	0.219	4.743	mg/L
	Ca	43	61131.735	0.24	4.2741	0.822	19.233	mg/L
	Fe	54	4694977.132	18.34	4.2941	0.055	1.284	mg/L
	Fe	57	1504438.885	5.90	2.9263	0.140	4.771	mg/L

Sc	45	254261.214	254261.21		mg/L
Cl	35	22018.380	13015.45		mg/L
Kr	83	640.355	102.67		mg/L
U	238	0.000	0.00		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9	77.524				
Al	27	94.364				
[illegible]	45		126.028			
[illegible]	51	128.936				
[illegible]	52	119.835				
Cr	53	103.100				
Mn	55	116.737				
Co	59	102.869				
Ni	60	100.545				
Cu	65	114.083				
Zn	66	113.535				
Ge	72		114.090			
As	75	103.885				
Se	77	106.463				
Se	82	105.890				
Y	89					
Rh	103					
Ag	107	106.980				
Cd	114	107.200				
In	115		104.926			
Sb	123	107.148				
Ba	135	91.953				
Ce	140					
Tb	159		108.811			
[illegible]	165					
[illegible]	203	103.232				
[illegible]	205	66.369				
Pb	206	111.306				
Pb	207	102.333				
Pb	208	106.462				
Bi	209		112.836			
Na	23	89.041				
Mg	24	92.304				
K	39	92.171				
Ca	43	85.482				
Fe	54	85.882				
Fe	57	58.527				
Sc	45		126.028			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Std 6	Be	9	CCV is out of limits (+/-10%)
Sc 45 Int Std for QC Std		45	
QC Std 6	V	51	CCV is out of limits (+/-10%)
QC Std 6	Cr	52	CCV is out of limits (+/-10%)
QC Std 6	Cr	53	CCV is out of limits (+/-10%)
QC Std 6	Mn	55	CCV is out of limits (+/-10%)
QC Std 6	Cu	65	CCV is out of limits (+/-10%)
QC Std 6	Zn	66	CCV is out of limits (+/-10%)
QC Std 6	Tl	205	CCV is out of limits (+/-10%)
QC Std 6	Pb	206	CCV is out of limits (+/-10%)
Sc 45 Int Std for QC Std		45	

Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, March 20, 2003 11:46:22
Number of Replicates: 3
Aliquot Volume (mL):
Diluted To Volume (mL):
Autosampler Position: 1
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description:
User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	7668.826	-1335.01				ug/L
⌈	Be	9	0.000	0.00	0.0000	0.000		ug/L
|	Al	27	1000.058	-0.00	-0.2629	0.257	97.673	ug/L
|>	Sc-1	45	246805.400	246805.40				ug/L
⌈	V	51	2411.610	-0.00	-0.0948	0.175	184.207	ug/L
|	Cr	52	6001.330	0.00	0.0359	0.217	605.757	ug/L
|	Cr	53	666.713	-0.00	-0.5129	1.097	213.905	ug/L
|	Mn	55	1666.818	0.00	0.0362	0.125	344.900	ug/L
|	Co	59	333.345	0.00	0.0276	0.048	173.205	ug/L
|	Ni	60	0.000	0.00	0.0000	0.000		ug/L
⌊	Cu	65	0.000	0.00	0.0000	0.000		ug/L
	Zn	66	666.690	0.00	0.4175	0.362	86.630	ug/L
	Ge	72	711337.477	711337.48				ug/L
⌈	As	75	1305.558	-0.00	-0.0288	0.048	167.609	ug/L
|	Se	77	115.334	-0.00	-0.0036	0.035	990.663	ug/L
⌊	Se	82	484.117	-0.00	-0.0742	0.115	154.965	ug/L
	Y	89	705706.826	40479.08				ug/L
⌈	Rh	103	0.000	0.00				ug/L
|	Ag	107	3370.447	0.00	0.2819	0.063	22.305	ug/L
|	Cd	114	35.986	-0.00	-0.0013	0.001	40.369	ug/L
|>	In	115	786554.831	786554.83				ug/L
⌊	Sb	123	584.715	0.00	0.0589	0.011	19.319	ug/L
⌈	Ba	135	0.000	0.00	0.0000	0.000		ug/L
|	Ce	140	0.000	0.00				ug/L
|>	Tb	159	735896.454	735896.45				ug/L
⌈	Ho	165	0.000	0.00				ug/L
|	Tl	203	83.668	58.00	0.0065	0.001	8.148	ug/L
|	Tl	205	270.030	243.36	0.0074	0.002	28.472	ug/L
|	Pb	206	240.026	3.33	0.0004	0.004	793.727	ug/L
|	Pb	207	250.027	56.67	0.0090	0.007	76.922	ug/L
|	Pb	208	1042.736	85.01	0.0030	0.004	135.402	ug/L
|>	Bi	209	643238.157	643238.16				ug/L
⌈	Na	23	4000.723	0.00	0.0000	0.000	916.798	mg/L
|	Mg	24	333.345	-0.00	-0.0000	0.000	3975.375	mg/L
|	K	39	493052.216	0.27	0.0064	0.005	77.285	mg/L
|	Ca	43	333.345	0.00	0.0278	0.048	173.205	mg/L
|	Fe	54	26189.270	0.00	0.0009	0.009	1069.363	mg/L
⌊	Fe	57	6668.324	-0.01	-0.0071	0.003	46.166	mg/L

Sc	45	246805.400	246805.40		mg/L
Cl	35	14674.675	5671.75		mg/L
Kr	83	606.019	68.34		mg/L
U	238	0.000	0.00		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
Sc-1	45		122.332			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		122.463			
As	75					
Se	77					
[illegible]	82					
Y	89					
Rh	103					
Ag	107					
Cd	114					
In	115		115.345			
Sb	123					
Ba	135					
Ce	140					
Tb	159		112.681			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		117.292			
Na	23					
Mg	24					
K	39					
Ca	43					
[illegible]	54					
[illegible]	57					
Sc	45		122.332			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc-1 45 Int Std for QC Std		45	
QC Std 7	V	51	CCB is out of limits (+/-3*IDL)
QC Std 7	Co	59	CCB is out of limits (+/-3*IDL)
Ge 72 Int Std for QC Std		72	RERUN FOR AFCEE QC
QC Std 7	Ag	107	CCB is out of limits (+/-3*IDL)
Sc 45 Int Std for QC Std		45	

Sample ID: QC Std 7
Report Date/Time: Thursday, March 20, 2003 11:47:18
Page:

Method 6020 - Summary Report

Sample ID: PBW R3 WG136593-03

Sample Date/Time: Thursday, March 20, 2003 11:51:36
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 11
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 2

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	9870.974	667.13				ug/L
	Be	9	0.000	0.00	0.0000	0.000		ug/L
	Al	27	44405.614	0.17	10.9303	1.790	16.375	ug/L
	Sc-1	45	248507.777	248507.78				ug/L
	V	51	-817.013	-0.01	-0.4591	0.348	75.857	ug/L
	Cr	52	10671.265	0.01	0.6328	0.624	98.600	ug/L
	Cr	53	0.000	-0.00	-1.1462	0.000	0.000	ug/L
	Mn	55	15008.253	0.02	1.1603	0.347	29.919	ug/L
	Co	59	8335.866	0.01	0.7150	0.177	24.809	ug/L
	Ni	60	3334.127	0.00	1.2877	1.605	124.644	ug/L
	Cu	65	1000.058	0.00	0.3871	0.385	99.394	ug/L
	Zn	66	25690.314	0.04	16.6424	3.073	18.467	ug/L
>	Ge	72	686506.341	686506.34				ug/L
	As	75	1581.381	0.00	0.1209	0.140	115.553	ug/L
	Se	77	141.334	0.00	0.1716	0.063	36.702	ug/L
	Se	82	543.555	0.00	0.2452	0.317	129.332	ug/L
	Y	89	747527.370	82299.63				ug/L
	Rh	103	0.000	0.00				ug/L
	Ag	107	2369.247	0.00	0.1990	0.065	32.659	ug/L
	Cd	114	112.235	0.00	0.0109	0.002	18.201	ug/L
>	In	115	779989.810	779989.81				ug/L
	Sb	123	1103.254	0.00	0.1470	0.009	6.345	ug/L
	Ba	135	666.713	0.00	0.3945	0.683	173.205	ug/L
	Ce	140	1000.058	0.00				ug/L
	Tb	159	690060.120	690060.12				ug/L
	Ho	165	0.000	0.00				ug/L
	Tl	203	181.336	155.67	0.0174	0.001	7.390	ug/L
	Tl	205	443.385	416.72	0.0127	0.001	11.342	ug/L
	Pb	206	2853.905	2617.21	0.3504	0.035	9.947	ug/L
	Pb	207	2443.788	2250.43	0.3593	0.036	10.110	ug/L
	Pb	208	11057.246	10099.52	0.3535	0.022	6.128	ug/L
>	Bi	209	645545.962	645545.96				ug/L
	Na	23	122864.820	0.49	0.0238	0.005	22.279	mg/L
	Mg	24	16677.758	0.06	0.0045	0.002	37.141	mg/L
	K	39	1250640.723	3.33	0.0794	0.012	15.035	mg/L
	Ca	43	9336.871	0.04	0.6694	0.245	36.627	mg/L
	Fe	54	144436.851	0.49	0.1154	0.041	35.158	mg/L
	Fe	57	14674.324	0.02	0.0088	0.000	2.873	mg/L

Sc	45	248507.777	248507.78		mg/L
Cl	35	21349.867	12346.94		mg/L
Kr	83	675.356	137.67		mg/L
U	238	0.000	0.00		mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
	Li	6					
	Be	9					
	[illegible]	27					
>	[illegible]	45		123.176			
	[illegible]	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		118.188			
	As	75					
	Se	77					
	Se	82					
	Y	89					
	Rh	103					
	Ag	107					
	Cd	114					
>	In	115		114.382			
	Sb	123					
	Ba	135					
	Ce	140					
>	[illegible]	159		105.663			
	[illegible]	165					
	[illegible]	203					
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		117.713			
	Na	23					
	Mg	24					
	K	39					
	Ca	43					
	Fe	54					
	Fe	57					
>	Sc	45		123.176			
	Cl	35					
	Kr	83					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

S[illegible]45 Int Std for sample	45
S[illegible]45 Int Std for sample	45

Method 6020 - Summary Report

Sample ID: LCSW R3 WG136593-04

Sample Date/Time: Thursday, March 20, 2003 11:56:39
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 12
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 4

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	10671.265	1667.43				ug/L
Be	9	5000.969	0.02	22.3925	9.739	43.491	ug/L
Al	27	124209.330	0.51	33.2900	4.266	12.814	ug/L
Sc-1	45	238306.430	238306.43				ug/L
V	51	255120.640	0.39	31.1485	3.069	9.854	ug/L
Cr	52	272602.690	0.41	35.0203	4.412	12.600	ug/L
Cr	53	28027.490	0.04	27.6839	1.144	4.134	ug/L
Mn	55	394079.914	0.61	34.9166	4.344	12.440	ug/L
Co	59	318514.799	0.49	28.9813	1.149	3.966	ug/L
Ni	60	64479.239	0.10	26.6008	2.277	8.560	ug/L
Cu	65	72852.173	0.11	29.9813	1.142	3.807	ug/L
Zn	66	40726.561	0.06	27.9976	6.147	21.955	ug/L
Ge	72	647271.595	647271.60				ug/L
As	75	55699.877	0.08	26.8389	0.412	1.536	ug/L
Se	77	4310.650	0.01	25.9376	0.187	0.720	ug/L
Se	82	6068.985	0.01	24.8207	0.375	1.510	ug/L
Y	89	660259.588	-4968.15				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	323680.713	0.44	29.2370	1.134	3.879	ug/L
Cd	114	160943.507	0.22	27.5494	0.735	2.668	ug/L
In	115	728078.444	728078.44				ug/L
Sb	123	156062.824	0.21	28.0697	0.480	1.710	ug/L
Ba	135	59457.142	0.09	32.8645	1.995	6.071	ug/L
Ce	140	666.713	0.00				ug/L
Tb	159	650270.926	650270.93				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	253835.273	253809.61	28.3716	0.287	1.012	ug/L
Tl	205	602544.200	602517.53	18.2954	0.152	0.833	ug/L
Pb	206	231823.390	231586.70	31.0051	0.983	3.169	ug/L
Pb	207	174574.521	174361.17	27.8388	0.589	2.116	ug/L
Pb	208	840799.541	839841.81	29.3920	0.486	1.654	ug/L
Bi	209	628003.350	628003.35				ug/L
Na	23	19680.829	0.07	0.0033	0.001	32.774	mg/L
Mg	24	1333.403	0.00	0.0003	0.000	67.269	mg/L
K	39	897434.321	2.02	0.0481	0.005	9.911	mg/L
Ca	43	0.000	0.00	0.0000	0.000		mg/L
Fe	54	62144.028	0.16	0.0363	0.006	17.368	mg/L
Fe	57	8336.053	-0.01	-0.0033	0.007	206.699	mg/L

Sc	45	238306.430	238306.43			mg/L
Cl	35	15342.159	6339.23			mg/L
Kr	83	610.353	72.67			mg/L
U	238	0.000	0.00			mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
[redacted]	6					
Be	9					
Al	27					
Sc-1	45		118.120			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		111.433			
As	75					
Se	77					
Se	82					
Y	89					
Rh	103					
Ag	107					
Cd	114					
[redacted]	115		106.769			
[redacted]	123					
[redacted]	135					
Ce	140					
Tb	159		99.570			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		114.514			
Na	23					
Mg	24					
K	39					
Ca	43					
Fe	54					
Fe	57					
Sc	45		118.120			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Method 6020 - Summary Report

Sample ID: L030332302 WG136593-01

Sample Date/Time: Thursday, March 20, 2003 12:01:43
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 13
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 2

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	11671.534	2667.69				ug/L
⌈	Be	9	0.000	0.00	0.0000	0.000		ug/L
|	Al	27	56110.281	0.22	14.4009	1.252	8.697	ug/L
|>	Sc-1	45	244073.163	244073.16				ug/L
⌈	V	51	1757.884	-0.00	-0.1483	0.226	152.641	ug/L
|	Cr	52	15008.043	0.01	1.2662	0.340	26.864	ug/L
|	Cr	53	0.000	-0.00	-1.1462	0.000	0.000	ug/L
|	Mn	55	529677.226	0.81	46.5105	3.229	6.942	ug/L
|	Co	59	3000.338	0.00	0.2709	0.092	34.012	ug/L
|	Ni	60	1686.795	0.00	0.6798	0.467	68.749	ug/L
⌊	Cu	65	1333.450	0.00	0.5467	0.629	115.111	ug/L
	Zn	66	1666.772	0.00	1.1373	0.398	35.008	ug/L
	Ge	72	653255.379	653255.38				ug/L
|	As	75	1133.512	-0.00	-0.0605	0.113	186.754	ug/L
|	Se	77	141.334	0.00	0.2128	0.074	34.931	ug/L
⌊	Se	82	412.186	-0.00	-0.2151	0.344	159.968	ug/L
	Y	89	686113.529	20885.79				ug/L
⌈	Rh	103	333.345	0.00				ug/L
|	Ag	107	867.581	0.00	0.0772	0.014	17.621	ug/L
|	Cd	114	78.237	0.00	0.0062	0.002	32.701	ug/L
|>	In	115	739012.181	739012.18				ug/L
⌊	Sb	123	731.724	0.00	0.0913	0.008	8.893	ug/L
⌈	Ba	135	20682.008	0.03	11.2565	1.503	13.354	ug/L
|	Ce	140	668.713	0.00				ug/L
|>	Tb	159	654792.321	654792.32				ug/L
⌈	Ho	165	0.000	0.00				ug/L
	Tl	203	710.025	684.36	0.0765	0.006	7.965	ug/L
	Tl	205	1580.248	1553.58	0.0472	0.003	6.142	ug/L
|	Pb	206	726.758	490.07	0.0656	0.008	11.958	ug/L
|	Pb	207	673.417	480.06	0.0766	0.005	6.365	ug/L
|	Pb	208	3172.302	2214.57	0.0775	0.002	2.010	ug/L
|>	Bi	209	617415.936	617415.94				ug/L
⌈	Na	23	38054630.534	156.67	7.5630	0.254	3.361	mg/L
|	Mg	24	5388425.001	22.06	1.5680	0.060	3.840	mg/L
|	K	39	7072946.763	27.22	0.6484	0.031	4.706	mg/L
|	Ca	43	365284.724	1.50	26.3380	1.103	4.187	mg/L
|	Fe	54	665466.369	2.62	0.6138	0.032	5.210	mg/L
	Fe	57	280820.313	1.11	0.5525	0.134	24.276	mg/L

Sc	45	244073.183	244073.16		mg/L
Cl	35	178441.197	169438.27		mg/L
Kr	83	469.346	-68.34		mg/L
U	238	0.000	0.00		mg/L

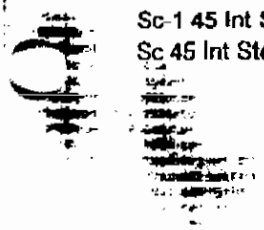
QC Calculated Values

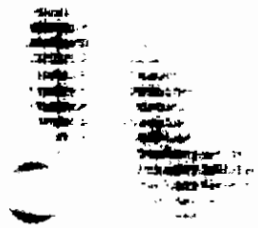
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
Sc-1	45		120.978			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		112.463			
As	75					
Se	77					
Se	82					
Y	89					
Rh	103					
Ag	107					
Cd	114					
In	115		108.373			
Sb	123					
Ba	135					
Ce	140					
Tb	159		100.262			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		112.584			
Na	23					
Mg	24					
K	39					
Ca	43					
Fe	54					
Fe	57					
Sc	45		120.978			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc-1 45 Int Std for sample	45
Sc 45 Int Std for sample	45





Method 6020 - Summary Report

Sample ID: L030332302S WG136593-05

Sample Date/Time: Thursday, March 20, 2003 12:06:47
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 14
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 2

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	6668.441	-2335.40				ug/L
	Be	9	9336.438	0.04	40.7841	5.528	13.555	ug/L
	Al	27	263098.995	1.08	69.7785	5.468	7.836	ug/L
	Sc-1	45	241699.923	241699.92				ug/L
	V	51	473287.450	0.73	58.6341	6.108	10.417	ug/L
	Cr	52	442757.075	0.68	57.8600	0.635	1.097	ug/L
	Cr	53	54439.443	0.08	56.4570	11.554	20.835	ug/L
	Mn	55	1153430.965	1.80	103.3408	1.432	1.386	ug/L
	Co	59	581950.530	0.91	53.4490	0.475	0.889	ug/L
	Ni	60	123870.898	0.19	51.6083	4.940	9.572	ug/L
	Cu	65	137663.772	0.21	57.1627	4.677	8.183	ug/L
	Zn	66	72183.239	0.11	50.1366	5.498	10.965	ug/L
>	Ge	72	641222.646	641222.65				ug/L
	As	75	99670.978	0.15	48.9762	0.323	0.659	ug/L
	Se	77	7273.852	0.01	44.6372	0.487	1.092	ug/L
	Se	82	10119.549	0.02	43.1758	1.050	2.432	ug/L
	Y	89	721475.620	56247.88				ug/L
	Rh	103	0.000	0.00				ug/L
	Ag	107	591863.262	0.81	53.2444	2.276	4.275	ug/L
	Cd	114	295906.811	0.40	50.4335	0.235	0.467	ug/L
>	In	115	731185.399	731185.40				ug/L
	Sb	123	291990.688	0.40	52.3140	0.207	0.396	ug/L
	Ba	135	110092.679	0.17	62.5000	13.730	21.968	ug/L
	Ce	140	1333.427	0.00				ug/l
	Tb	159	641556.340	641556.34				ug/L
	Ho	165	0.000	0.00				ug/L
	Tl	203	486727.507	486701.84	54.4050	0.860	1.580	ug/L
	Tl	205	1163577.201	1163550.53	35.3311	0.353	1.000	ug/L
	Pb	206	440437.121	440200.43	58.9346	0.740	1.256	ug/L
	Pb	207	332583.693	332390.34	53.0639	0.833	1.570	ug/L
	Pb	208	1590642.707	1589684.98	55.6344	0.673	1.209	ug/L
>	Bi	209	618264.558	618264.56				ug/L
	Na	23	36234626.465	149.77	7.2761	0.221	3.031	mg/L
	Mg	24	5306119.702	21.97	1.5612	0.052	3.300	mg/L
	K	39	6802000.919	26.40	0.6288	0.017	2.649	mg/L
	Ca	43	310709.404	1.29	22.6937	3.409	15.024	mg/L
	Fe	54	623780.561	2.49	0.5818	0.078	13.468	mg/L
	Fe	57	258700.237	1.04	0.5142	0.115	22.459	mg/L

Sc	45	241699.923	241699.92		mg/L
Cl	35	184520.086	175517.16		mg/L
Kr	83	594.018	56.34		mg/L
U	238	0.000	0.00		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
[illegible]	6					
[illegible]	9					
[illegible]	27					
> Sc [illegible]	45		119.802			
V [illegible]	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
> Ge	72		110.392			
As	75					
Se	77					
Se	82					
Y	89					
Rh	103					
Ag	107					
Cd	114					
> In	115		107.225			
Sb	123					
[illegible]	135					
[illegible]	140					
> [illegible]	159		98.236			
Ho [illegible]	165					
Tl [illegible]	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
> Bi	209		112.738			
Na	23					
Mg	24					
K	39					
Ca	43					
Fe	54					
Fe	57					
> Sc	45		119.802			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Method 6020 - Summary Report

Sample ID: L030332302SD WG136593-06

Sample Date/Time: Thursday, March 20, 2003 12:11:52
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 15
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 2

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	7669.012	-1334.83				ug/L
Be	9	11672.001	0.05	50.2763	20.704	41.180	ug/L
Al	27	270539.107	1.10	71.3108	0.939	1.317	ug/L
Sc-1	45	244068.279	244068.28				ug/L
V	51	493631.537	0.76	60.5098	5.181	8.563	ug/L
Cr	52	478268.295	0.73	61.7950	5.985	9.686	ug/L
Cr	53	58789.075	0.09	59.3033	9.649	16.271	ug/L
Mn	55	1224335.634	1.89	108.4604	1.593	1.468	ug/L
Co	59	565650.456	0.87	51.3842	1.513	2.945	ug/L
Ni	60	117157.601	0.18	48.3199	10.044	20.786	ug/L
Cu	65	117819.209	0.18	48.3825	3.308	6.837	ug/L
Zn	66	67158.401	0.10	46.0795	3.731	8.097	ug/L
Ge	72	648437.256	648437.26				ug/L
As	75	98559.385	0.15	47.8805	0.614	1.282	ug/L
Se	77	7171.800	0.01	43.5050	0.162	0.372	ug/L
Se	82	9938.922	0.01	41.8779	0.331	0.789	ug/L
Y	89	679449.196	14221.45				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	561513.312	0.76	50.2307	1.854	3.691	ug/L
Cd	114	290834.501	0.40	49.3125	0.900	1.824	ug/L
In	115	735088.878	735088.88				ug/L
Sb	123	289788.966	0.39	51.6637	1.459	2.824	ug/L
Ba	135	94651.721	0.16	56.4005	9.509	16.859	ug/L
Ce	140	1333.450	0.00				ug/L
Tb	159	600355.387	600355.39				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	485913.398	485887.73	54.3140	0.362	0.667	ug/L
Tl	205	1148479.956	1148453.29	34.8727	0.271	0.776	ug/L
Pb	206	436568.138	436331.45	58.4166	1.094	1.872	ug/L
Pb	207	327010.175	326816.82	52.1741	0.940	1.802	ug/L
Pb	208	1580652.830	1579695.10	55.2848	0.764	1.382	ug/L
Bi	209	626977.317	626977.32				ug/L
Na	23	34745532.227	142.39	6.9179	0.152	2.202	mg/L
Mg	24	5679065.585	23.22	1.6501	0.204	12.388	mg/L
K	39	6868162.113	26.37	0.6280	0.037	5.966	mg/L
Ca	43	319243.483	1.31	22.9556	2.866	12.486	mg/L
Fe	54	633567.867	2.49	0.5828	0.046	7.820	mg/L
Fe	57	248477.770	0.98	0.4847	0.006	1.263	mg/L

Sc	45	244068.279	244068.28		mg/L
Cl	35	179792.347	170789.42		mg/L
Kr	83	572.684	35.00		mg/L
U	238	0.000	0.00		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
[redacted]	6					
Be	9					
Al	27					
Sc-1	45		120.976			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		111.634			
As	75					
Se	77					
Se	82					
Y	89					
Rh	103					
Ag	107					
Cd	114					
[redacted]	115		107.798			
Sb	123					
[redacted]	135					
Ce	140					
Tb	159		91.927			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		114.327			
Na	23					
Mg	24					
K	39					
Ca	43					
Fe	54					
Fe	57					
Sc	45		120.976			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc-1 45 Int Std for sample	45
Sc 45 Int Std for sample	45

Method 6020 - Summary Report

Sample ID: L030332301 WG136593-02

Sample Date/Time: Thursday, March 20, 2003 12:16:57
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosamples Position: 16
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 2

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	15342.346	6338.51				ug/L
⌈	Be	9	0.000	0.00	0.0000	0.000		ug/L
|	Al	27	44068.990	0.17	10.6947	1.683	15.736	ug/L
>	Sc-1	45	254245.510	254245.51				ug/L
⌈	V	51	405.722	-0.00	-0.3184	0.462	145.124	ug/L
|	Cr	52	12005.065	0.01	0.8396	0.135	16.093	ug/L
|	Cr	53	1000.058	-0.00	-0.1521	0.998	655.915	ug/L
|	Mn	55	2654085.808	3.96	227.8170	14.194	6.230	ug/L
|	Co	59	15675.270	0.02	1.3792	0.060	4.359	ug/L
|	Ni	60	3000.385	0.00	1.2000	0.697	58.042	ug/L
|	Cu	65	1000.058	0.00	0.3995	0.399	99.957	ug/L
|	Zn	66	1333.403	0.00	0.8850	0.376	42.529	ug/L
|	Ge	72	669442.742	669442.74				ug/L
|	As	75	4113.164	0.00	1.3453	0.067	5.000	ug/L
|	Se	77	153.334	0.00	0.2635	0.108	40.929	ug/L
⌊	Se	82	677.585	0.00	0.8738	0.240	27.486	ug/L
	Y	89	706390.297	41162.55				ug/L
⌈	Rh	103	333.345	0.00				ug/L
|	Ag	107	400.407	0.00	0.0353	0.018	49.579	ug/L
|	Cd	114	40.033	-0.00	-0.0003	0.001	264.767	ug/L
>	In	115	745045.412	745045.41				ug/L
⌊	Sb	123	377.961	0.00	0.0280	0.002	7.542	ug/L
⌈	Ba	135	117817.791	0.18	64.2281	4.401	6.852	ug/L
|	Ce	140	333.345	0.00				ug/L
>	Tb	159	659313.450	659313.45				ug/L
⌈	Ho	165	0.000	0.00				ug/L
|	Tl	203	402.676	377.01	0.0421	0.001	2.786	ug/L
|	Tl	205	953.461	926.79	0.0281	0.003	10.810	ug/L
|	Pb	206	466.721	230.03	0.0308	0.008	24.723	ug/L
|	Pb	207	360.041	166.69	0.0266	0.011	41.569	ug/L
|	Pb	208	1643.127	685.40	0.0240	0.004	16.501	ug/L
|	Bi	209	616001.110	616001.11				ug/L
⌈	Na	23	62211048.178	244.21	11.8647	0.737	6.212	mg/L
|	Mg	24	9223337.495	36.26	2.5770	0.099	3.843	mg/L
|	K	39	4618681.495	16.40	0.3906	0.020	5.198	mg/L
|	Ca	43	251875.006	0.99	17.4599	1.845	10.569	mg/L
|	Fe	54	5447283.331	21.29	4.9847	0.223	4.483	mg/L
⌊	Fe	57	1530736.866	5.98	2.9657	0.093	3.120	mg/L

L>	Sc	45	254245.510	254245.51		mg/L
	Cl	35	108074.523	99071.59		mg/L
	Kr	83	603.686	66.00		mg/L
	U	238	0.000	0.00		mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
	Li	6					
⌈	Be	9					
|	Al	27					
L>	Sc-1	45		126.020			
⌈	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Co	59					
|	Ni	60					
|	Cu	65					
|	Zn	66					
L>	Ge	72		115.250			
|	As	75					
|	Se	77					
L	Se	82					
	Y	89					
⌈	Rh	103					
|	Ag	107					
|	Cd	114					
L>	In	115		109.258			
L	Sb	123					
⌈	Ba	135					
|	Ce	140					
L>	Tb	159		100.955			
⌈	Ho	165					
|	Tl	203					
|	Tl	205					
|	Pb	206					
|	Pb	207					
|	Pb	208					
L>	Bi	209		112.326			
⌈	Na	23					
|	Mg	24					
|	K	39					
|	Ca	43					
|	Fe	54					
|	Fe	57					
L>	Sc	45		126.020			
	Cl	35					
	Kr	83					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc-1 45 Int Std for sample	45
Sc 45 Int Std for sample	45

Method 6020 - Summary Report

Sample ID: L030332301DP WG136593-07

Sample Date/Time: Thursday, March 20, 2003 12:22:02
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 17
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 2

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	14674.698	5670.86				ug/L
[	Be	9	0.000	0.00	0.0000	0.000		ug/L
|	Al	27	45405.525	0.17	10.9456	1.180	10.785	ug/L
L>	Sc-1	45	257302.795	257302.80				ug/L
[	V	51	1803.643	-0.00	-0.1578	0.183	115.848	ug/L
|	Cr	52	11004.307	0.01	0.6535	0.216	32.988	ug/L
|	Cr	53	0.000	-0.00	-1.1462	0.000	0.000	ug/L
|	Mn	55	2535024.680	3.62	208.2948	38.421	18.445	ug/L
|	Co	59	18345.680	0.03	1.5465	0.389	25.131	ug/L
|	Ni	60	5334.570	0.01	2.0392	1.237	60.651	ug/L
|	Cu	65	333.345	0.00	0.1260	0.218	173.205	ug/L
|	Zn	66	1666.958	0.00	1.0655	1.846	173.205	ug/L
| >	Ge	72	699269.223	699269.22				ug/L
|	As	75	4117.876	0.00	1.2642	0.018	1.423	ug/L
|	Se	77	137.334	0.00	0.1338	0.114	85.126	ug/L
L	Se	82	631.248	0.00	0.5615	0.107	19.076	ug/L
	Y	89	727112.439	61884.70				ug/L
[	Rh	103	333.345	0.00				ug/L
|	Ag	107	533.877	0.00	0.0468	0.006	12.646	ug/L
|	Cd	114	38.078	-0.00	-0.0007	0.002	272.179	ug/L
| >	In	115	750493.521	750493.52				ug/L
L	Sb	123	252.745	0.00	0.0056	0.006	102.198	ug/L
[	Ba	135	118489.810	0.17	61.4208	1.358	2.212	ug/L
|	Ce	140	1000.035	0.00				ug/L
L>	Tb	159	690304.320	690304.32				ug/L
[	Ho	165	0.000	0.00				ug/L
|	Tl	203	384.676	359.01	0.0401	0.004	8.885	ug/L
|	Tl	205	886.783	860.11	0.0261	0.002	6.404	ug/L
|	Pb	206	396.712	160.02	0.0214	0.010	45.214	ug/L
|	Pb	207	366.708	173.35	0.0277	0.005	17.625	ug/L
|	Pb	208	1618.121	660.39	0.0231	0.004	15.327	ug/L
L>	Bi	209	627103.399	627103.40				ug/L
[	Na	23	61880138.347	240.52	11.6852	0.746	6.387	mg/L
|	Mg	24	9483113.593	36.86	2.6198	0.124	4.723	mg/L
|	K	39	4832917.744	17.06	0.4064	0.014	3.450	mg/L
|	Ca	43	244069.068	0.95	16.7011	0.793	4.747	mg/L
|	Fe	54	5585309.245	21.69	5.0773	0.477	9.386	mg/L
|	Fe	57	1574555.729	6.08	3.0161	0.121	3.996	mg/L

Sc	45	257302.795	257302.80		mg/L
Cl	35	122530.004	113527.08		mg/L
Kr	83	603.686	66.00		mg/L
U	238	333.345	333.35		mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
	Li	6					
	Be	9					
	Al	27					
>	Sc-1	45		127.535			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		120.385			
	As	75					
	Se	77					
	Se	82					
	Y	89					
	Rh	103					
	Ag	107					
	Cd	114					
>	In	115		110.057			
	Sb	123					
	Ba	135					
	Ce	140					
>	Tb	159		105.700			
	Ho	165					
	Tl	203					
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		114.350			
	Na	23					
	Mg	24					
	K	39					
	Ca	43					
	Fe	54					
	Fe	57					
>	Sc	45		127.535			
	Cl	35					
	Kr	83					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc-1 45 Int Std for sample	45	
Ge 72 Int Std for sample	72	RERUN FOR AFCEE SAMPLE
Sc 45 Int Std for sample	45	

Method 6020 - Summary Report

Sample ID: L030247801

Sample Date/Time: Thursday, March 20, 2003 12:27:07
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 18
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 2

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	7001.809	-2002.03				ug/L
Be	9	1333.520	0.00	3.5920	6.222	173.205	ug/L
Al	27	88348353.014	236.13	15304.5884	701.848	4.586	ug/L
Sc-1	45	374175.841	374175.84				ug/L
V	51	486127.272	0.68	54.4079	1.124	2.066	ug/L
Cr	52	374182.831	0.52	44.0080	2.582	5.866	ug/L
Cr	53	47412.684	0.07	43.3147	5.353	12.358	ug/L
Mn	55	49361459.129	69.55	3999.4075	343.066	8.578	ug/L
Co	59	391988.285	0.55	32.5252	2.099	6.454	ug/L
Ni	60	121179.987	0.17	45.6039	3.264	7.157	ug/L
Cu	65	75868.209	0.11	28.4852	2.079	7.299	ug/L
Zn	66	324663.127	0.46	203.6358	15.909	7.812	ug/L
Ge	72	709747.340	709747.34				ug/L
As	75	23857.226	0.03	10.1116	0.384	3.794	ug/L
Se	77	587.345	0.00	2.6536	0.075	2.813	ug/L
Se	82	998.277	0.00	2.0059	0.234	11.666	ug/L
Y	89	1293365.206	628137.46				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	500.511	0.00	0.0443	0.022	50.456	ug/L
Cd	114	3062.052	0.00	0.5104	0.005	0.927	ug/L
In	115	737701.761	737701.76				ug/L
Sb	123	1696.120	0.00	0.2629	0.002	0.592	ug/L
Ba	135	573294.473	0.84	301.8482	27.208	9.014	ug/L
Ce	140	1593577.221	2.35				ug/L
Tb	159	682321.311	682321.31				ug/L
Ho	165	24689.018	24689.02				ug/L
Tl	203	3376.766	3351.10	0.3746	0.009	2.458	ug/L
Tl	205	8173.156	8146.49	0.2474	0.008	3.303	ug/L
Pb	206	252697.205	252460.51	33.7997	0.318	0.941	ug/L
Pb	207	207000.123	206806.77	33.0153	0.847	2.565	ug/L
Pb	208	969224.026	968266.30	33.8865	0.229	0.675	ug/L
Bi	209	592561.044	592561.04				ug/L
Na	23	330413465.985	880.50	42.7774	4.747	11.097	mg/L
Mg	24	96297199.058	257.36	18.2893	0.357	1.953	mg/L
K	39	50206895.154	132.24	3.1498	0.162	5.155	mg/L
Ca	43	523440.322	1.40	24.5751	0.476	1.939	mg/L
Fe	54	33634583.782	89.87	21.0387	0.811	3.854	mg/L
Fe	57	14718302.746	39.30	19.5057	0.286	1.467	mg/L

Sc	45	374175.841	374175.84		mg/L
Cl	35	4755649.338	4746646.41		mg/L
Kr	83	741.693	204.01		mg/L
U	238	32704.441	32704.44		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
> Sc-1	45		185.465			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
> Ge	72		122.189			
As	75					
Se	77					
[illegible]	82					
[illegible]	89					
[illegible]	103					
[illegible]	107					
Cd	114					
> In	115		108.181			
Sb	123					
Ba	135					
Ce	140					
> Tb	159		104.478			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
> Bi	209		108.051			
Na	23					
Mg	24					
K	39					
Ca	43					
Fe	54					
[illegible]	57					
> [illegible]	45		185.465			
[illegible]	35					
[illegible]	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc-1 45 Int Std for sample	45	
Ge 72 Int Std for sample	72	RERUN FOR AFCEE SAMPLE
Sc 45 Int Std for sample	45	

Method 6020 - Summary Report

Sample ID: L030335201

Sample Date/Time: Thursday, March 20, 2003 12:32:13
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 19
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 2

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	10671.265	1667.43				ug/L
⌈	Be	9	0.000	0.00	0.0000	0.000		ug/L
|	Al	27	10624338.027	36.70	2378.9064	260.079	10.933	ug/L
|>	Sc-1	45	290259.719	290259.72				ug/L
	V	51	242449.328	0.34	27.2496	2.733	10.030	ug/L
	Cr	52	138672.545	0.19	16.0642	1.314	8.180	ug/L
	Cr	53	17677.932	0.02	15.6166	3.592	23.004	ug/L
	Mn	55	1187494.190	1.69	97.1654	5.949	6.123	ug/L
	Co	59	26692.382	0.04	2.2390	0.493	22.005	ug/L
	Ni	60	33038.253	0.05	12.5664	0.766	6.093	ug/L
	Cu	65	384103.062	0.55	145.7497	7.078	4.856	ug/L
	Zn	66	414941.716	0.59	263.1266	5.782	2.197	ug/L
|>	Ge	72	702065.627	702065.63				ug/L
	As	75	36964.141	0.05	18.1822	0.323	1.994	ug/L
	Se	77	324.870	0.00	1.1956	0.171	14.262	ug/L
⌊	Se	82	1190.179	0.00	2.8313	0 171	6.032	ug/L
	Y	89	795597.162	130369.42				ug/L
⌈	Rh	103	666.713	0.00				ug/L
|	Ag	107	4505.216	0.01	0.3945	0.022	5.534	ug/L
|	Cd	114	5553.435	0.01	0.9150	0.013	1.474	ug/L
|>	In	115	750673.394	750673.39				ug/L
⌊	Sb	123	113679.815	0.15	19.7987	0.196	0.991	ug/L
⌈	Ba	135	451360.576	0.63	224.1537	10.173	4.538	ug/L
|	Ce	140	149110.870	0.21				ug/L
|>	Tb	159	721859.724	721859.72				ug/L
⌈	Ho	165	3333.753	3333.75				ug/L
	Tl	203	1833.136	1807.47	0.2020	0.007	3.702	ug/L
	Tl	205	4611.209	4584.54	0.1392	0.012	8.519	ug/L
	Pb	206	644494.390	644257.70	86.2540	1.815	2.105	ug/L
	Pb	207	546072.693	545879.34	87.1460	3.043	3.491	ug/L
	Pb	208	2498204.945	2497247.22	87.3964	1.529	1.750	ug/L
|>	Bi	209	592219.170	592219.17				ug/L
⌈	Na	23	379623377.142	1310.30	63.6583	7.137	11.211	mg/L
|	Mg	24	54815328.694	189.08	13.4371	0.703	5.229	mg/L
|	K	39	89525547.986	307.03	7.3129	0.729	9.965	mg/L
|	Ca	43	831904.979	2.88	50.5959	5.405	10.683	mg/L
|	Fe	54	3731879.813	12.80	2.9961	0.323	10.776	mg/L
|	Fe	57	1154242.389	3.95	1.9598	0.198	10.089	mg/L

Sc	45	290259.719	290259.72		mg/L
Cl	35	1761076.222	1752073.29		mg/L
Kr	83	653.666	116.01		mg/L
U	238	61130.819	61130.82		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
> Sc-1	45		143.871			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
> Ge	72		120.867			
As	75					
Se	77					
Se	82					
Y	89					
Rh	103					
Ag	107					
Cd	114					
> In	115		110.083			
Sb	123					
Ba	135					
Ce	140					
> Tb	159		110.532			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
> Bi	209		107.989			
Na	23					
Mg	24					
K	39					
Ca	43					
Fe	54					
Fe	57					
> Sc	45		143.871			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc-1 45 Int Std for sample	45	
Ge 72 Int Std for sample	72	RERUN FOR AFCEE SAMPLE
Sc-45 Int Std for sample	45	

Method 6020 - Summary Report

Sample ID: L030335201SDL

Sample Date/Time: Thursday, March 20, 2003 12:37:19
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 20
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 10

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	9336.601	332.76				ug/L
Be	9	0.000	0.00	0.0000	0.000		ug/L
Al	27	1699158.015	7.03	455.7485	41.581	9.124	ug/L
Sc-1	45	240681.532	240681.53				ug/L
V	51	51829.345	0.07	5.5484	0.349	6.299	ug/L
Cr	52	35377.466	0.04	3.5989	0.449	12.481	ug/L
Cr	53	1333.403	0.00	0.1283	0.579	450.801	ug/L
Mn	55	255664.329	0.36	20.8891	4.260	20.393	ug/L
Co	59	5667.845	0.01	0.4769	0.129	27.028	ug/L
Ni	60	8669.304	0.01	3.3074	0.254	7.687	ug/L
Cu	65	78885.044	0.11	29.9815	2.230	7.438	ug/L
Zn	66	118830.131	0.17	75.5483	8.965	11.866	ug/L
Ge	72	700373.855	700373.85				ug/L
As	75	10078.616	0.01	3.9773	0.113	2.834	ug/L
Se	77	166.668	0.00	0.2993	0.039	13.061	ug/L
Se	82	653.438	0.00	0.6476	0.114	17.560	ug/L
Y	89	628531.879	-36695.86				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	1201.253	0.00	0.1100	0.023	20.902	ug/L
Cd	114	1341.998	0.00	0.2264	0.008	3.667	ug/L
In	115	716937.749	716937.75				ug/L
Sb	123	26352.197	0.04	4.7819	0.092	1.916	ug/L
Ba	135	91969.467	0.15	53.3969	11.919	22.321	ug/L
Ce	140	37718.740	0.06				ug/L
Tb	159	620632.122	620632.12				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	1215.397	1189.73	0.1330	0.005	4.115	ug/L
Tl	205	2983.944	2957.27	0.0898	0.005	5.911	ug/L
Pb	206	142939.755	142703.06	19.1053	0.710	3.718	ug/L
Pb	207	120605.648	120412.29	19.2230	0.112	0.585	ug/L
Pb	208	559537.498	558579.77	19.5487	0.298	1.524	ug/L
Bi	209	591792.795	591792.79				ug/L
Na	23	90834748.536	377.35	18.3329	4.183	22.816	mg/L
Mg	24	12029433.760	50.01	3.5537	0.381	10.708	mg/L
K	39	20925840.714	85.07	2.0262	0.295	14.544	mg/L
Ca	43	165968.551	0.69	12.1309	1.443	11.894	mg/L
Fe	54	569929.028	2.26	0.5294	0.040	7.616	mg/L
Fe	57	244750.646	0.98	0.4851	0.038	7.871	mg/L

Sc	45	240681.532	240681.53	mg/L
Cl	35	453424.532	444421.60	mg/L
Kr	83	631.687	94.00	mg/L
U	238	13005.941	13005.94	mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
Sc-1	45		119.297			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		120.575			
As	75					
Se	77					
[illegible]	82					
[illegible]	89					
[illegible]	103					
Ag	107					
Cd	114					
In	115		105.136			
Sb	123					
Ba	135					
Ce	140					
Tb	159		95.032			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		107.911			
Na	23					
Mg	24					
K	39					
Ca	43					
Fe	54					
Fe	57					
Sc	45		119.297			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Ge 72 Int Std for sample 72 RERUN FOR AFCEE SAMPLE

Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, March 20, 2003 12:42:25
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 5
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description:
User ID: YH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	10337.313	1333.47				ug/L
Be	9	11337.885	0.04	44.8490	6.176	13.771	ug/L
Al	27	207835.228	0.78	50.5806	10.944	21.636	ug/L
Sc-1	45	270249.164	270249.16				ug/L
V	51	543035.847	0.75	60.2960	4.775	7.919	ug/L
Cr	52	481653.227	0.66	56.3490	0.738	1.309	ug/L
Cr	53	57116.125	0.08	51.9132	8.607	16.580	ug/L
Mn	55	712690.645	0.99	57.1308	1.432	2.506	ug/L
Co	59	634554.501	0.89	52.2032	5.706	10.930	ug/L
Ni	60	140699.486	0.20	52.4303	7.339	13.997	ug/L
Cu	65	156529.120	0.22	58.2596	7.767	13.331	ug/L
Zn	66	86931.988	0.12	54.0542	5.186	9.595	ug/L
Ge	72	716000.553	716000.55				ug/L
As	75	114334.324	0.16	50.3317	0.593	1.179	ug/L
Se	77	9391.756	0.01	51.7086	1.774	3.430	ug/L
Se	82	13062.778	0.02	50.2308	0.799	1.591	ug/L
Y	89	698004.315	32776.57				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	579736.793	0.77	50.8809	1.051	2.065	ug/L
Cd	114	317728.600	0.42	52.8663	0.374	0.707	ug/L
In	115	748963.282	748963.28				ug/L
Sb	123	299613.817	0.40	52.4135	0.858	1.256	ug/L
Ba	135	94647.574	0.14	51.0156	3.684	7.222	ug/L
Ce	140	666.713	0.00				ug/L
Tb	159	663043.992	663043.99				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	464138.087	464112.42	51.8799	1.024	1.974	ug/L
Tl	205	1109547.600	1109520.93	33.6905	0.376	1.115	ug/L
Pb	206	415322.205	415085.51	55.5721	0.652	1.174	ug/L
Pb	207	317881.126	317687.77	50.7167	1.468	2.895	ug/L
Pb	208	1518642.777	1517685.05	53.1146	0.776	1.461	ug/L
Bi	209	625015.290	625015.29				ug/L
Na	23	25314602.051	94.73	4.6021	0.575	12.485	mg/L
Mg	24	18094305.432	68.06	4.8365	0.699	14.442	mg/L
K	39	54239577.496	200.35	4.7719	0.305	6.395	mg/L
Ca	43	68163.448	0.25	4.4784	0.436	9.741	mg/L
Fe	54	5276315.423	19.69	4.6094	0.547	11.659	mg/L
Fe	57	1509078.285	5.66	2.8095	0.543	19.340	mg/L

Sc	[illegible]45	270249.164	270249.16	mg/L
Cl	[illegible]35	18679.112	9676.18	mg/L
Kr	83	636.021	98.34	mg/L
U	238	0.000	0.00	mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9	89.698				
Al	27	101.161				
Sc-1	45		133.953			
V	51	120.592				
Cr	52	112.698				
Cr	53	103.826				
Mn	55	114.262				
Co	59	104.406				
Ni	60	104.861				
Cu	65	116.519				
[illegible]	66	108.108				
[illegible]	72		123.266			
[illegible]	75	100.663				
Se	77	103.417				
Se	82	100.462				
Y	89					
Rh	103					
Ag	107	101.762				
Cd	114	105.733				
In	115		109.832			
Sb	123	104.827				
Ba	135	102.031				
Ce	140					
Tb	159		101.526			
Ho	165					
Tl	203	103.760				
Tl	205	67.381				
Pb	206	111.144				
Pb	207	101.433				
Pb	208	106.229				
Bi	209		113.969			
Na	23	92.042				
[illegible]	24	96.731				
[illegible]	39	95.437				
[illegible]	43	89.568				
Fe	54	92.187				
Fe	57	56.190				
Sc	45		133.953			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
Report Date/Time: Thursday, March 20, 2003 12:43:12

QC Std 6	Be	9	CCV is out of limits (+/-10%)
QC Std 6	Al	27	CCV is out of limits (+/-10%)
Sc-1 45 Int Std for QC Std		45	
QC Std 6	V	51	CCV is out of limits (+/-10%)
QC Std 6	Cr	52	CCV is out of limits (+/-10%)
QC Std 6	Mn	55	CCV is out of limits (+/-10%)
QC Std 6	Cu	65	CCV is out of limits (+/-10%)
Ge 72 Int Std for QC Std		72	RERUN FOR AFCEE QC
QC Std 6	Tl	205	CCV is out of limits (+/-10%)
QC Std 6	Pb	206	CCV is out of limits (+/-10%)
Sc-45 Int Std for QC Std		45	

Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, March 20, 2003 12:47:30
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 1
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	11338.212	2334.37				ug/L
Be	9	0.000	0.00	0.0000	0.000		ug/L
Al	27	2000.233	0.00	0.0784	0.619	789.341	ug/L
Sc-1	45	220696.927	220696.93				ug/L
V	51	1978.563	-0.00	-0.1468	0.499	339.946	ug/L
Cr	52	8669.398	0.00	0.4093	0.237	57.866	ug/L
Cr	53	333.345	-0.00	-0.8306	0.547	65.830	ug/L
Mn	55	2333.625	0.00	0.1046	0.186	178.053	ug/L
Co	59	0.000	0.00	0.0000	0.000		ug/L
Ni	60	0.000	0.00	0.0000	0.000		ug/L
Cu	65	0.000	0.00	0.0000	0.000		ug/L
Zn	66	1333.450	0.00	0.8503	0.968	113.562	ug/L
Ge	72	672221.291	672221.29				ug/L
As	75	1467.793	0.00	0.0848	0.104	122.961	ug/L
Se	77	104.000	-0.00	-0.0307	0.117	380.906	ug/L
Se	82	521.633	0.00	0.2065	0.248	120.155	ug/L
Y	89	682341.316	17113.57				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	233.569	0.00	0.0219	0.005	23.731	ug/L
Cd	114	39.513	0.00	0.0001	0.001	1162.373	ug/L
In	115	699521.915	699521.92				ug/L
Sb	123	490.214	0.00	0.0531	0.010	18.145	ug/L
Ba	135	0.000	0.00	0.0000	0.000		ug/L
Ce	140	0.000	0.00				ug/L
Tb	159	595889.064	595889.06				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	36.334	10.67	0.0012	0.001	75.777	ug/L
Tl	205	106.678	80.01	0.0024	0.001	38.188	ug/L
Pb	206	260.028	23.34	0.0031	0.009	281.032	ug/L
Pb	207	263.362	70.01	0.0112	0.005	43.644	ug/L
Pb	208	1134.410	176.68	0.0062	0.003	44.391	ug/L
Bi	209	547257.622	547257.62				ug/L
Na	23	5334.430	0.01	0.0005	0.001	108.639	mg/L
Mg	24	666.713	0.00	0.0001	0.000	369.960	mg/L
K	39	495818.467	0.51	0.0122	0.007	54.705	mg/L
Ca	43	0.000	0.00	0.0000	0.000		mg/L
Fe	54	26447.025	0.01	0.0035	0.003	83.335	mg/L
Fe	57	10003.525	0.00	0.0020	0.001	50.708	mg/L

Sc	45	220696.927	220696.93	mg/L
Cl	35	16676.543	7673.61	mg/L
Kr	83	601.685	64.00	mg/L
U	238	0.000	0.00	mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
Sc-1	45		109.391			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		115.729			
As	75					
Se	77					
Se	82					
[illegible]	89					
[illegible]	103					
[illegible]	107					
Cd	114					
In	115		102.582			
Sb	123					
Ba	135					
Ce	140					
Tb	159		91.243			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		99.790			
Na	23					
Mg	24					
K	39					
Ca	43					
Fe	54					
Fe	57					
Sc	45		109.391			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Std 7	V	51	CCB is out of limits (+/-3*IDL)
QC Std 7	Mn	55	CCB is out of limits (+/-3*IDL)
QC Std 7	Zn	66	CCB is out of limits (+/-3*IDL)

Method 6020 - Summary Report

Sample ID: L030335201PS

Sample Date/Time: Thursday, March 20, 2003 12:52:35
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 21
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 2
User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	9670.273	666.43				ug/L
[	Be	9	10670.752	0.04	42.5783	6.961	16.348	ug/L
|	Al	27	12237079.964	46.35	3004.0196	311.829	10.380	ug/L
|>	Sc-1	45	264089.668	264089.67				ug/L
[	V	51	849560.465	1.22	97.8715	5.019	5.128	ug/L
|	Cr	52	628885.780	0.90	76.4079	1.737	2.274	ug/L
|	Cr	53	80897.515	0.12	76.7004	9.482	12.363	ug/L
|	Mn	55	2346688.146	3.39	194.8831	25.797	13.237	ug/L
|	Co	59	664441.603	0.96	56.5995	2.259	3.992	ug/L
|	Ni	60	162253.118	0.23	62.6225	4.122	6.583	ug/L
|	Cu	65	532438.248	0.77	205.1145	14.458	7.049	ug/L
|	Zn	66	499585.473	0.72	321.6541	5.000	1.555	ug/L
|	Ge	72	691557.453	691557.45				ug/L
|	As	75	143117.010	0.21	65.4140	0.835	1.276	ug/L
|	Se	77	7814.804	0.01	44.4688	0.673	1.513	ug/L
|	Se	82	11153.058	0.02	44.1758	1.223	2.768	ug/L
|	Y	89	782957.813	117730.07				ug/L
[	Rh	103	0.000	0.00				ug/L
|	Ag	107	516586.705	0.70	46.1760	1.728	3.738	ug/L
|	Cd	114	300792.179	0.41	50.9574	0.707	1.388	ug/L
|>	In	115	735602.182	735602.18				ug/L
|	Sb	123	415206.642	0.56	73.9680	0.762	1.030	ug/L
[	Ba	135	571277.477	0.90	322.6716	23.841	7.389	ug/L
|	Ce	140	178450.037	0.28				ug/L
|>	Tb	159	632369.576	632369.58				ug/L
[	Ho	165	2000.233	2000.23				ug/L
|	Tl	203	474124.421	474098.75	52.9962	0.887	1.673	ug/L
|	Tl	205	1133169.573	1133142.90	34.4078	0.508	1.477	ug/L
|	Pb	206	1077464.823	1077228.13	144.2206	1.213	0.841	ug/L
|	Pb	207	883661.242	883467.89	141.0397	1.585	1.124	ug/L
|	Pb	208	5360508.525	5359650.80	187.5687	0.833	0.444	ug/L
|>	Bi	209	612266.509	612266.51				ug/L
[	Na	23	401823710.419	1521.35	73.9117	2.241	3.032	mg/L
|	Mg	24	57942930.031	219.41	15.5924	0.933	5.982	mg/L
|	K	39	94969669.148	358.19	8.5314	0.223	2.612	mg/L
|	Ca	43	859317.801	3.25	57.0656	4.211	7.380	mg/L
|	Fe	54	3668758.173	13.82	3.2345	0.395	12.197	mg/L
|	Fe	57	1053466.564	3.95	1.9621	0.080	4.099	mg/L

Sc	45	264089.668	264089.67		mg/L
Cl	35	1734678.081	1725675.15		mg/L
Kr	83	680.690	143.01		mg/L
U	238	67158.917	67158.92		mg/L

QC Calculated Values

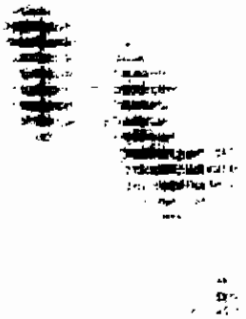
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
Sc-1	45		130.899			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
[illegible]	72		119.057			
[illegible]	75					
[illegible]	77					
Se	82					
Y	89					
Rh	103					
Ag	107					
Cd	114					
In	115		107.873			
Sb	123					
Ba	135					
Ce	140					
Tb	159		96.829			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		111.645			
Na	23					
Mg	24					
[illegible]	39					
[illegible]	43					
[illegible]	54					
[illegible]	57					
Sc	45		130.899			
Cl	35					
Kr	83					
U	238					

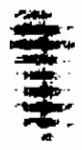
QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L030335201PS
Report Date/Time: Thursday, March 20, 2003 12:53:22
Page 2

Sc-1 45 Int Std for sample	45
Pb 206 Upper, S, EEEPb	206
Pb 207 Upper, S, EEEPb	207
Pb 208 Upper, S, EEEPb	208
Sc 45 Int Std for sample	45





Sample ID: L030335201PS
Report Date/Time: Thursday, March 20, 2003 12:53:22
Page 3

Method 6020 - Summary Report

Sample ID: L030332303

Sample Date/Time: Thursday, March 20, 2003 12:57:42
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 22
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 2

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	12339.135	3336.29				ug/L
Be	9	0.000	0.00	0.0000	0.000		ug/L
Al	27	83580.732	0.32	20.5629	1.480	7.197	ug/L
Sc-1	45	255952.930	255952.93				ug/L
V	51	1330.400	-0.00	-0.2106	0.161	76.618	ug/L
Cr	52	11671.580	0.01	0.7605	0.296	38.976	ug/L
Cr	53	0.000	-0.00	-1.1462	0.000	0.000	ug/L
Mn	55	335220.833	0.49	28.0339	0.434	1.547	ug/L
Co	59	2000.210	0.00	0.1711	0.147	85.804	ug/L
Ni	60	666.713	0.00	0.2631	0.456	173.205	ug/L
Cu	65	666.713	0.00	0.2625	0.455	173.205	ug/L
Zn	66	1333.450	0.00	0.8669	0.988	113.982	ug/L
Ge	72	685274.347	685274.35				ug/L
As	75	1438.764	0.00	0.0549	0.050	91.635	ug/L
Se	77	115.334	0.00	0.0212	0.074	349.533	ug/L
Se	82	509.118	0.00	0.1031	0.102	98.596	ug/L
Y	89	651207.700	-14020.04				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	667.353	0.00	0.0586	0.034	58.382	ug/L
Cd	114	33.290	-0.00	-0.0014	0.002	121.671	ug/L
In	115	742207.387	742207.39				ug/L
Sb	123	1116.001	0.00	0.1586	0.004	2.382	ug/L
Ba	135	49418.858	0.08	27.4344	0.382	1.391	ug/L
Ce	140	1000.058	0.00				ug/L
Tb	159	644230.172	644230.17				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	1242.400	1216.73	0.1360	0.011	8.336	ug/L
Tl	205	2977.275	2950.61	0.0896	0.002	2.257	ug/L
Pb	206	783.433	546.74	0.0732	0.007	10.075	ug/L
Pb	207	563.401	370.05	0.0591	0.008	13.603	ug/L
Pb	208	2905.935	1948.21	0.0682	0.002	3.574	ug/L
Bi	209	608944.451	608944.45				ug/L
Na	23	40867364.095	160.57	7.8009	0.811	10.399	mg/L
Mg	24	5030911.361	19.77	1.4050	0.214	15.236	mg/L
K	39	8203988.139	30.56	0.7278	0.095	13.057	mg/L
Ca	43	333181.259	1.31	23.0558	3.018	13.094	mg/L
Fe	54	413927.053	1.52	0.3564	0.039	11.060	mg/L
Fe	57	171692.772	0.63	0.3151	0.042	13.482	mg/L

> Sc	45	255952.930	255952.93		mg/L
Cl	35	197026.521	188023.69		mg/L
Kr	83	575.351	37.67		mg/L
U	238	0.000	0.00		mg/L

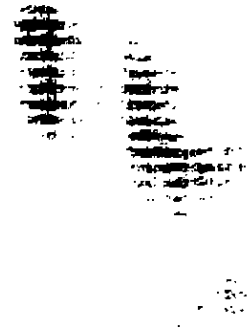
QC Calculated Values

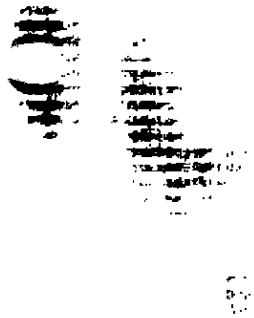
	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
	Li	6					
[	Be	9					
|	Al	27					
>	Sc-1	45		126.866			
[	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Co	59					
|	[illegible]	60					
|	[illegible]	65					
|	[illegible]	66					
>	Ge	72		117.976			
|	As	75					
|	Se	77					
[	Se	82					
	Y	89					
[	Rh	103					
|	Ag	107					
|	Cd	114					
>	In	115		108.841			
[	Sb	123					
[	Ba	135					
|	Ce	140					
>	Tb	159		98.645			
[	Ho	165					
|	Tl	203					
|	Tl	205					
|	Pb	206					
|	Pb	207					
|	Pb	208					
>	[illegible]	209		111.039			
[	Na	23					
|	[illegible]	24					
|	K	39					
|	Ca	43					
|	Fe	54					
|	Fe	57					
>	Sc	45		126.866			
	Cl	35					
	Kr	83					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc-1 45 Int Std for sample	45
Sc 45 Int Std for sample	45





Method 6020 - Summary Report

Sample ID: L030332304

Sample Date/Time: Thursday, March 20, 2003 13:02:48
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 23
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 2

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	13339.566	4335.73				ug/L
Be	9	0.000	0.00	0.0000	0.000		ug/L
Al	27	44403.504	0.17	10.7294	1.303	12.144	ug/L
Sc-1	45	254589.392	254589.39				ug/L
V	51	3652.716	0.00	0.0727	0.149	204.907	ug/L
Cr	52	10337.360	0.01	0.6312	0.447	70.808	ug/L
Cr	53	0.000	-0.00	-1.1462	0.000	0.000	ug/L
Mn	55	345809.628	0.52	29.6793	1.431	4.821	ug/L
Co	59	3667.145	0.01	0.3233	0.050	15.408	ug/L
Ni	60	5334.734	0.01	2.1270	1.649	77.512	ug/L
Cu	65	333.345	0.00	0.1321	0.229	173.205	ug/L
Zn	66	3000.315	0.00	2.0006	0.012	0.596	ug/L
Ge	72	667678.882	667678.88				ug/L
As	75	1441.493	0.00	0.0745	0.092	123.495	ug/L
Se	77	106.667	-0.00	-0.0124	0.111	896.223	ug/L
Se	82	513.597	0.00	0.1801	0.260	144.252	ug/L
Y	89	659210.607	6017.14				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	166.835	0.00	0.0152	0.014	91.757	ug/L
Cd	114	34.644	-0.00	-0.0010	0.000	27.757	ug/L
In	115	720390.855	720390.85				ug/L
Sb	123	434.460	0.00	0.0405	0.011	28.093	ug/L
Ba	135	38384.935	0.06	22.3127	2.033	9.112	ug/L
Ce	140	1666.772	0.00				ug/L
Tb	159	617798.631	617798.63				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	1028.381	1002.71	0.1121	0.010	9.010	ug/L
Tl	205	2543.814	2517.14	0.0764	0.001	1.277	ug/L
Pb	206	573.402	336.71	0.0451	0.004	9.075	ug/L
Pb	207	506.727	313.37	0.0500	0.018	36.714	ug/L
Pb	208	2150.513	1192.78	0.0417	0.002	4.747	ug/L
Bi	209	602703.301	602703.30				ug/L
Na	23	42687368.164	167.41	8.1334	0.257	3.157	mg/L
Mg	24	4593684.464	18.05	1.2829	0.036	2.837	mg/L
K	39	7904687.498	29.29	0.6975	0.031	4.416	mg/L
Ca	43	332834.041	1.31	23.0744	2.058	8.921	mg/L
Fe	54	391012.015	1.43	0.3350	0.010	2.883	mg/L
Fe	57	150456.348	0.55	0.2731	0.008	2.909	mg/L

Sc	45	254589.392	254589.39		mg/L
Cl	35	186886.704	177883.77		mg/L
Kr	83	578.018	40.33		mg/L
U	238	0.000	0.00		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
[redacted]	6					
Be	9					
Al	27					
Sc-1	45		126.191			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		114.947			
As	75					
Se	77					
Se	82					
Y	89					
Rh	103					
Ag	107					
[redacted]	114					
[redacted]	115		105.642			
[redacted]	123					
[redacted]	135					
Ce	140					
Tb	159		94.598			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		109.901			
Na	23					
Mg	24					
K	39					
Ca	43					
Fe	54					
Fe	57					
Sc	45		126.191			
Cl	35					
Kr	83					
[redacted]	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc-1 45 Int Std for sample	45
Sc 45 Int Std for sample	45

Method 6020 - Summary Report

Sample ID: L030335301

Sample Date/Time: Thursday, March 20, 2003 13:07:52
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 24
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 2

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	10671.359	1667.52				ug/L
Be	9	0.000	0.00	0.0000	0.000		ug/L
Al	27	164276.182	0.62	40.2333	1.350	3.356	ug/L
Sc-1	45	261381.283	261381.28				ug/L
V	51	6047.116	0.00	0.3674	0.301	82.047	ug/L
Cr	52	13339.963	0.01	1.0289	0.555	53.978	ug/L
Cr	53	333.345	-0.00	-0.8099	0.583	71.945	ug/L
Mn	55	688538.768	1.04	59.6204	1.467	2.460	ug/L
Co	59	2666.947	0.00	0.2359	0.098	41.671	ug/L
Ni	60	1666.958	0.00	0.6792	1.176	173.205	ug/L
Cu	65	666.690	0.00	0.2672	0.231	86.629	ug/L
Zn	66	3000.338	0.00	2.0131	0.671	33.335	ug/L
Ge	72	663116.016	663116.02				ug/L
As	75	1384.203	0.00	0.0505	0.087	171.928	ug/L
Se	77	112.667	0.00	0.0270	0.138	512.623	ug/L
Se	82	482.269	0.00	0.0573	0.189	329.473	ug/L
Y	89	725044.322	59816.58				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	300.304	0.00	0.0264	0.015	56.542	ug/L
Cd	114	41.835	0.00	0.0000	0.002	7175.277	ug/L
In	115	743915.896	743915.90				ug/L
Sb	123	403.210	0.00	0.0326	0.004	12.375	ug/L
Ba	135	29363.511	0.04	15.8646	0.275	1.752	ug/L
Ce	140	1333.403	0.00				ug/L
Tb	159	670373.918	670373.92				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	815.365	789.70	0.0883	0.007	8.113	ug/L
Tl	205	2017.011	1990.34	0.0604	0.002	2.901	ug/L
Pb	206	1516.899	1280.21	0.1714	0.017	9.643	ug/L
Pb	207	1250.180	1056.83	0.1687	0.016	9.321	ug/L
Pb	208	5774.426	4816.70	0.1686	0.002	1.343	ug/L
Bi	209	606432.919	606432.92				ug/L
Na	23	36069171.550	137.97	6.7032	0.057	0.847	mg/L
Mg	24	7248010.335	27.83	1.9778	0.126	6.374	mg/L
K	39	7413204.336	26.74	0.6369	0.066	10.312	mg/L
Ca	43	305231.470	1.17	20.6416	2.205	10.684	mg/L
Fe	54	388175.467	1.39	0.3251	0.038	11.818	mg/L
Fe	57	152143.583	0.54	0.2683	0.004	1.412	mg/L

Sc	45	261381.283	261381.28		mg/L
Cl	35	137664.837	128661.91		mg/L
Kr	83	549.016	11.33		mg/L
U	238	333.345	333.35		mg/L

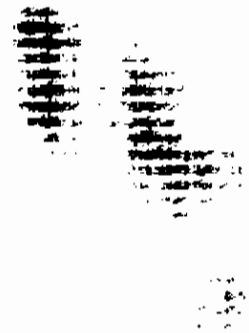
QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
Sc-1	45		129.557			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		114.161			
As	75					
Se	77					
[illegible]	82					
[illegible]	89					
[illegible]	103					
Ag	107					
Cd	114					
In	115		109.092			
Sb	123					
Ba	135					
Ce	140					
Tb	159		102.648			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		110.581			
Na	23					
Mg	24					
K	39					
Ca	43					
Fe	54					
[illegible]	57					
[illegible]	45		129.557			
[illegible]	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc-1 45 Int Std for sample	45
Sc 45 Int Std for sample	45



Method 6020 - Summary Report

Sample ID: L030335302

Sample Date/Time: Thursday, March 20, 2003 13:12:56
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 25
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 2
User ID: YH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	13006.198	4002.36				ug/L
Be	9	0.000	0.00	0.0000	0.000		ug/L
Al	27	88260.984	0.34	21.9335	3.745	17.073	ug/L
> Sc-1	45	251203.509	251203.51				ug/L
V	51	3037.663	0.00	0.0050	0.386	7710.468	ug/L
Cr	52	13673.776	0.01	1.0874	0.635	58.359	ug/L
Cr	53	333.345	-0.00	-0.8071	0.587	72.766	ug/L
Mn	55	2931970.860	4.47	257.2830	19.252	7.483	ug/L
Co	59	9670.320	0.01	0.8686	0.361	41.574	ug/L
Ni	60	1000.058	0.00	0.4065	0.406	99.808	ug/L
Cu	65	333.345	0.00	0.1357	0.235	173.205	ug/L
Zn	66	3000.408	0.00	2.0413	1.367	66.973	ug/L
Ge	72	654917.230	654917.23				ug/L
As	75	3904.316	0.00	1.2874	0.030	2.312	ug/L
Se	77	142.667	0.00	0.2196	0.188	85.719	ug/L
Se	82	873.657	0.00	1.7967	0.011	0.587	ug/L
Y	89	706738.922	41511.18				ug/L
Rh	103	666.690	0.00				ug/L
Ag	107	6374.466	0.01	0.5700	0.042	7.294	ug/L
Cd	114	32.684	-0.00	-0.0015	0.002	109.163	ug/L
> In	115	735283.879	735283.88				ug/L
Sb	123	238.950	0.00	0.0041	0.003	70.350	ug/L
Ba	135	276993.151	0.44	158.8411	11.082	6.977	ug/L
Ce	140	2666.923	0.00				ug/L
> Tb	159	626151.652	626151.65				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	1111.721	1086.05	0.1214	0.014	11.446	ug/L
Tl	205	2593.829	2567.16	0.0780	0.005	6.041	ug/L
Pb	206	566.735	330.04	0.0442	0.003	7.626	ug/L
Pb	207	433.383	240.03	0.0383	0.006	14.633	ug/L
Pb	208	2036.499	1078.77	0.0378	0.001	3.598	ug/L
> Bi	209	604306.583	604306.58				ug/L
Na	23	96294760.743	388.57	18.8777	3.852	20.403	mg/L
Mg	24	32757508.739	131.43	9.3403	1.171	12.541	mg/L
K	39	80250378.600	319.22	7.6033	0.752	9.894	mg/L
Ca	43	525871.663	2.11	37.1214	5.363	14.446	mg/L
Fe	54	3968689.798	15.84	3.7092	0.545	14.700	mg/L
Fe	57	1175485.929	4.66	2.3145	0.199	8.594	mg/L

Sc	45	251203.509	251203.51		mg/L
Cl	35	278722.548	269719.62		mg/L
Kr	83	586.351	48.67		mg/L
U	238	666.890	666.69		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
Sc-1	45		124.512			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
[illegible]	65					
[illegible]	66					
[illegible]	72		112.750			
[illegible]	75					
Se	77					
Se	82					
Y	89					
Rh	103					
Ag	107					
Cd	114					
In	115		107.826			
Sb	123					
Ba	135					
Ce	140					
Tb	159		95.877			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		110.193			
[illegible]	23					
[illegible]	24					
[illegible]	39					
[illegible]	43					
Fe	54					
Fe	57					
Sc	45		124.512			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc-1 45 Int Std for sample	45
Sc 45 Int Std for sample	45

Method 6020 - Summary Report

Sample ID: L030335303

Sample Date/Time: Thursday, March 20, 2003 13:18:01
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 26
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 2
User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12672.479	3668.64				ug/L
⌈	Be	9	0.000	0.00	0.0000	0.000		ug/L
|	Al	27	140695.084	0.61	39.7767	3.070	7.718	ug/L
L>	Sc-1	45	227148.722	227148.72				ug/L
⌈	V	51	3236.527	0.00	0.0447	0.395	884.990	ug/L
|	Cr	52	8335.819	0.01	0.4699	0.193	41.171	ug/L
|	Cr	53	666.690	-0.00	-0.4090	0.640	156.418	ug/L
|	Mn	55	357456.475	0.58	33.5632	5.436	16.197	ug/L
|	Co	59	3667.192	0.01	0.3478	0.133	38.196	ug/L
|	Ni	60	1333.403	0.00	0.5761	0.230	39.939	ug/L
|	Cu	65	333.345	0.00	0.1421	0.246	173.205	ug/L
|	Zn	66	3000.408	0.00	2.1440	1.398	65.206	ug/L
	Ge	72	613576.663	613576.66				ug/L
|	As	75	1477.498	0.00	0.1558	0.076	48.608	ug/L
|	Se	77	128.001	0.00	0.1840	0.064	34.695	ug/L
L	Se	82	518.945	0.00	0.4072	0.298	73.258	ug/L
	Y	89	654053.890	-11173.85				ug/L
⌈	Rh	103	0.000	0.00				ug/L
|	Ag	107	333.671	0.00	0.0317	0.007	22.971	ug/L
|	Cd	114	40.314	0.00	0.0002	0.001	509.170	ug/L
|	In	115	696844.770	696844.77				ug/L
L	Sb	123	427.957	0.00	0.0426	0.016	36.649	ug/L
⌈	Ba	135	24354.878	0.04	13.6772	2.572	18.808	ug/L
|	Ce	140	5334.477	0.01				ug/L
L>	Tb	159	633083.889	633083.89				ug/L
⌈	Ho	165	333.345	333.35				ug/L
|	Tl	203	1247.087	1221.40	0.1365	0.010	7.279	ug/L
|	Tl	205	3087.312	3060.64	0.0929	0.011	11.676	ug/L
|	Pb	206	676.751	440.06	0.0589	0.013	22.765	ug/L
|	Pb	207	656.748	463.39	0.0740	0.011	14.691	ug/L
|	Pb	208	3064.287	2106.56	0.0737	0.005	7.356	ug/L
|	Bi	209	584095.875	584095.88				ug/L
⌈	Na	23	60887408.855	270.44	13.1387	1.750	13.321	mg/L
|	Mg	24	4868872.805	21.84	1.5519	0.365	23.503	mg/L
|	K	39	29640215.212	130.80	3.1154	0.516	16.578	mg/L
|	Ca	43	385829.757	1.73	30.3452	5.619	18.516	mg/L
|	Fe	54	463513.596	1.97	0.4607	0.081	17.484	mg/L
L	Fe	57	186568.125	0.78	0.3871	0.045	11.624	mg/L

Sc	45	227146.722	227148.72			mg/L
Cl	35	317152.294	306149.37			mg/L
Kr	83	566.017	28.33			mg/L
U	238	0.000	0.00			mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
Sc-1	45		112.589			
V	51					
Cr	52					
[illegible]	53					
[illegible]	55					
[illegible]	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		105.632			
As	75					
Se	77					
Se	82					
Y	89					
Rh	103					
Ag	107					
Cd	114					
In	115		102.189			
Sb	123					
Ba	135					
Ce	140					
Tb	159		96.938			
Ho	165					
Tl	203					
Tl	205					
[illegible]	206					
[illegible]	207					
[illegible]	208					
[illegible]	209		106.508			
Na	23					
Mg	24					
K	39					
Ca	43					
Fe	54					
Fe	57					
Sc	45		112.589			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Method 6020 - Summary Report

Sample ID: PBS F5 WG136583-03

Sample Date/Time: Thursday, March 20, 2003 13:23:06
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 27
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 4
User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	12672.760	3668.92				ug/L
Be	9	0.000	0.00	0.0000	0.000		ug/L
Al	27	63474.042	0.26	17.0301	0.166	0.972	ug/L
Sc-1	45	234238.494	234238.49				ug/L
V	51	3704.752	0.00	0.1105	0.433	392.237	ug/L
Cr	52	13674.009	0.01	1.1944	0.791	66.198	ug/L
Cr	53	0.000	-0.00	-1.1462	0.000	0.000	ug/L
Mn	55	8335.819	0.01	0.6792	0.150	22.097	ug/L
Co	59	8002.311	0.01	0.7624	0.150	19.668	ug/L
Ni	60	666.713	0.00	0.2908	0.504	173.205	ug/L
Cu	65	666.690	0.00	0.2871	0.249	86.643	ug/L
Zn	66	8335.959	0.01	6.0113	2.061	34.288	ug/L
Ge	72	616655.634	616655.63				ug/L
As	75	1320.443	0.00	0.0685	0.061	88.466	ug/L
Se	77	64.667	-0.00	-0.1027	0.026	24.049	ug/L
Se	82	461.065	0.00	0.1180	0.221	187.670	ug/L
Y	89	683678.158	18450.42				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	600.614	0.00	0.0526	0.015	28.121	ug/L
Cd	114	40.305	-0.00	-0.0003	0.001	468.288	ug/L
In	115	750315.061	750315.06				ug/L
Sb	123	190.246	-0.00	-0.0053	0.002	47.124	ug/L
Ba	135	1000.035	0.00	0.5318	0.047	8.805	ug/L
Ce	140	1333.427	0.00				ug/L
Tb	159	676030.580	676030.58				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	42.667	17.00	0.0019	0.001	32.397	ug/L
Tl	205	126.680	100.01	0.0030	0.001	45.093	ug/L
Pb	206	703.421	466.73	0.0625	0.008	12.556	ug/L
Pb	207	563.401	370.05	0.0591	0.020	34.436	ug/L
Pb	208	2650.570	1692.84	0.0592	0.005	9.191	ug/L
Bi	209	593296.931	593296.93				ug/L
Na	23	52097.229	0.21	0.0101	0.002	22.000	mg/L
Mg	24	7668.779	0.03	0.0022	0.000	19.933	mg/L
K	39	468907.577	0.26	0.0061	0.001	21.914	mg/L
Ca	43	1666.818	0.01	0.1262	0.115	91.447	mg/L
Fe	54	167597.768	0.61	0.1428	0.006	4.052	mg/L
Fe	57	14674.418	0.02	0.0107	0.007	65.553	mg/L

> Sc	45	234238.494	234238.49		mg/L
Cl	35	17010.191	8007.26		mg/L
Kr	83	579.018	41.33		mg/L
U	238	0.000	0.00		mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
	Li	6					
	Be	9					
	Al	27					
>	Sc-1	45		116.103			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		106.163			
	As	75					
	Se	77					
	Sr	82					
	Y	89					
	Rh	103					
	Ag	107					
	Cd	114					
>	In	115		110.030			
	Sb	123					
	Ba	135					
	Ce	140					
>	Tb	159		103.514			
	Ho	165					
	Tl	203					
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		108.186			
	Na	23					
	Mg	24					
	K	39					
	Ca	43					
	Mn	54					
	Fe	57					
>	Sc	45		116.103			
	Cl	35					
	Kr	83					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Method 6020 - Summary Report

Sample ID: LCSS F5 WG136583-04

Sample Date/Time: Thursday, March 20, 2003 13:28:11
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 28
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 4

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	11338.072	2334.23				ug/L
Be	9	3334.290	0.01	14.4615	20.833	144.060	ug/L
Al	27	242750.347	1.04	67.3965	14.027	20.813	ug/L
Sc-1	45	233570.642	233570.64				ug/L
V	51	243016.231	0.38	30.4496	2.349	7.715	ug/L
Cr	52	224417.436	0.35	29.4871	1.075	3.645	ug/L
Cr	53	32704.113	0.05	33.3762	1.482	4.440	ug/L
Mn	55	372489.194	0.59	33.8736	3.356	9.906	ug/L
Co	59	275298.313	0.44	25.7119	1.360	5.289	ug/L
Ni	60	68183.448	0.11	28.8576	2.968	10.286	ug/L
Cu	65	64144.692	0.10	27.1014	2.817	10.394	ug/L
Zn	66	46075.328	0.07	32.5235	4.906	15.083	ug/L
Ge	72	630601.630	630601.63				ug/L
As	75	47953.977	0.07	23.6467	0.449	1.898	ug/L
Se	77	3470.422	0.01	21.3191	0.520	2.437	ug/L
Se	82	5051.147	0.01	20.9179	0.456	2.179	ug/L
Y	89	670065.297	4837.55				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	278771.040	0.39	25.6135	0.664	2.594	ug/L
Cd	114	143564.069	0.20	24.9989	0.277	1.108	ug/L
In	115	715491.167	715491.17				ug/L
Sb	123	140610.467	0.20	25.7258	0.262	1.019	ug/L
Ba	135	48415.806	0.07	26.8227	1.359	5.065	ug/L
Ce	140	1666.795	0.00				ug/L
Tb	159	647499.795	647499.79				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	236883.177	236857.51	26.4766	0.741	2.798	ug/L
Tl	205	560922.993	560896.32	17.0316	0.218	1.280	ug/L
Pb	206	214456.050	214219.38	28.6799	0.554	1.933	ug/L
Pb	207	162707.550	162514.20	25.9443	0.202	0.777	ug/L
Pb	208	781115.400	780157.67	27.3033	0.356	1.304	ug/L
Bi	209	614898.683	614898.68				ug/L
Na	23	37383.359	0.15	0.0072	0.002	31.285	mg/L
Mg	24	18011.791	0.08	0.0054	0.001	20.961	mg/L
K	39	424915.071	0.08	0.0020	0.005	237.117	mg/L
Ca	43	0.000	0.00	0.0000	0.000		mg/L
Fe	54	76581.297	0.23	0.0534	0.025	47.179	mg/L
Fe	57	14674.418	0.02	0.0108	0.007	60.856	mg/L

>	Sc	45	233570.642	233570.64		mg/L
	Cl	35	8335.983	-666.95		mg/L
	Kr	83	559.683	22.00		mg/L
	U	238	0.000	0.00		mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
	Li	6					
	Be	9					
	Al	27					
>	Sc-1	45		115.772			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		108.563			
	As	75					
	Se	77					
	Se	82					
	Y	89					
	Rh	103					
	Ag	107					
	In	114					
>	In	115		104.924			
	Sb	123					
	Ba	135					
	Ce	140					
>	Tb	159		99.146			
	Ho	165					
	Tl	203					
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		112.125			
	Na	23					
	Mg	24					
	K	39					
	Ca	43					
	Fe	54					
	Fe	57					
>	Sc	45		115.772			
	Cl	35					
	Kr	83					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: LCSS F5 WG136583-04
Report Date/Time: Thursday, March 20, 2003 13:28:58

Method 6020 - Summary Report

Sample ID: L030329601 WG136583-02

Sample Date/Time: Thursday, March 20, 2003 13:33:17
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 29
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 4

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	9002.929	-0.91				ug/L
Be	9	0.000	0.00	0.0000	0.000		ug/L
Al	27	32126673.823	126.90	8224.8353	866.116	10.530	ug/L
Sc-1	45	252885.849	252885.85				ug/L
V	51	113743.106	0.17	13.6037	1.278	9.394	ug/L
Cr	52	76203.428	0.11	9.2345	0.724	7.843	ug/L
Cr	53	7669.690	0.01	6.7527	6.734	99.721	ug/L
Mn	55	8379085.003	12.86	739.3599	10.071	1.362	ug/L
Co	59	91626.617	0.14	8.2851	0.470	5.673	ug/L
Ni	60	40725.905	0.06	16.7199	3.281	19.624	ug/L
Cu	65	30365.767	0.05	12.4057	1.018	8.204	ug/L
Zn	66	77878.515	0.12	53.2314	2.402	4.513	ug/L
Ge	72	651586.948	651586.95				ug/L
As	75	18489.470	0.03	8.4406	0.274	3.240	ug/L
Se	77	303.337	0.00	1.2113	0.393	32.463	ug/L
Se	82	637.314	0.00	0.7810	0.433	55.435	ug/L
Y	89	883565.262	218337.52				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	1167.882	0.00	0.1041	0.007	6.644	ug/L
Cd	114	1801.446	0.00	0.2972	0.002	0.668	ug/L
In	115	737957.666	737957.67				ug/L
Sb	123	178.192	-0.00	-0.0068	0.003	44.867	ug/L
Ba	135	169340.055	0.25	91.1601	15.343	16.831	ug/L
Ce	140	558746.760	0.84				ug/L
Tb	159	668304.952	668304.95				ug/L
Ho	165	11004.891	11004.89				ug/L
Tl	203	1077.051	1051.38	0.1175	0.003	2.887	ug/L
Tl	205	2633.840	2607.17	0.0792	0.003	3.218	ug/L
Pb	206	77319.919	77083.23	10.3200	0.390	3.778	ug/L
Pb	207	63430.490	63237.14	10.0954	0.593	5.870	ug/L
Pb	208	299230.567	298272.84	10.4387	0.277	2.654	ug/L
Bi	209	639810.970	639810.97				ug/L
Na	23	491414.727	1.93	0.0937	0.013	13.685	mg/L
Mg	24	5686781.707	22.48	1.5972	0.061	3.817	mg/L
K	39	5217282.780	18.88	0.4497	0.017	3.705	mg/L
Ca	43	78214.676	0.31	5.4328	0.418	7.693	mg/L
Fe	54	22396184.692	88.44	20.7037	0.390	1.885	mg/L
Fe	57	10570999.459	41.74	20.7153	0.929	4.482	mg/L

> Sc	45	252885.849	252885.85		mg/L
Cl	35	10003.525	1000.60		mg/L
Kr	83	588.018	50.34		mg/L
U	238	6668.441	6668.44		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
> [illegible]	45		125.346			
[illegible]	51					
[illegible]	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
> Ge	72		112.176			
As	75					
Se	77					
Se	82					
Y	89					
Rh	103					
Ag	107					
Cd	114					
> In	115		108.218			
Sb	123					
Ba	135					
Ce	140					
> [illegible]	159		102.331			
[illegible]	165					
[illegible]	203					
[illegible]	205					
Pb	206					
Pb	207					
Pb	208					
> Bi	209		116.667			
Na	23					
Mg	24					
K	39					
Ca	43					
Fe	54					
Fe	57					
> Sc	45		125.346			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Se-1 45 Int Std for sample	45
Se-2 45 Int Std for sample	45

Method 6020 - Summary Report

Sample ID: L030329601DP WG136583-07

Sample Date/Time: Thursday, March 20, 2003 13:38:23
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 30
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 4
[redacted]ID: JYH
[redacted]lative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	15009.024	6005.18				ug/L
⌈	Be	9	0.000	0.00	0.0000	0.000		ug/L
|	Al	27	27170963.499	114.96	7450.9164	682.047	9.154	ug/L
L>	Sc-1	45	236615.675	236615.67				ug/L
⌈	V	51	96312.845	0.14	11.5899	2.094	18.066	ug/L
|	Cr	52	78885.092	0.11	9.7045	0.810	8.350	ug/L
|	Cr	53	4667.483	0.01	3.6694	1.520	41.434	ug/L
|	Mn	55	7848634.953	12.19	700.9282	41.886	5.976	ug/L
|	Co	59	97335.741	0.15	8.8963	1.257	14.125	ug/L
|	Ni	60	35712.191	0.06	14.7982	2.425	16.386	ug/L
|	Cu	65	23018.974	0.04	9.5478	1.927	20.185	ug/L
|	Zn	66	60126.758	0.09	41.5999	3.169	7.618	ug/L
|>	Ge	72	643488.666	643488.67				ug/L
⌈	As	75	16726.945	0.02	7.6799	0.182	2.365	ug/L
|	Se	77	264.669	0.00	0.9910	0.079	7.936	ug/L
|	Se	82	580.484	0.00	0.5603	0.300	53.496	ug/L
|	Y	89	833297.362	168069.62				ug/L
⌈	Rh	103	0.000	0.00				ug/L
|	Ag	107	10280.646	0.01	0.9296	0.025	2.664	ug/L
|	Cd	114	1195.565	0.00	0.1981	0.003	1.285	ug/L
|>	In	115	726793.543	726793.54				ug/L
L	Sb	123	176.852	-0.00	-0.0062	0.001	16.534	ug/L
⌈	Ba	136	145742.779	0.22	80.2189	2.487	3.100	ug/L
|	Ce	140	617541.882	0.80				ug/L
L>	Tb	159	649468.785	649468.79				ug/L
⌈	Ho	165	11337.862	11337.86				ug/L
|	Tl	203	758.361	732.69	0.0819	0.003	4.234	ug/L
|	Tl	205	1936.993	1910.32	0.0580	0.006	10.606	ug/L
|	Pb	206	79066.124	78829.43	10.5538	0.181	1.714	ug/L
|	Pb	207	65265.345	85071.99	10.3883	0.311	2.994	ug/L
|	Pb	208	304534.392	303576.66	10.6243	0.156	1.462	ug/L
L>	Bi	209	607383.632	607383.63				ug/L
⌈	Na	23	562242.513	2.36	0.1146	0.003	2.854	mg/L
|	Mg	24	4971754.428	21.07	1.4972	0.129	8.622	mg/L
|	K	39	4955788.534	19.25	0.4584	0.027	5.917	mg/L
|	Ca	43	83242.123	0.35	6.2042	0.537	8.653	mg/L
|	Fe	54	19800438.597	83.87	19.6350	2.001	10.193	mg/L
|	Fe	57	8382186.988	35.44	17.5913	1.660	9.436	mg/L

Sc	45	236615.675	236615.67	mg/L
Cl	35	14006.887	5003.96	mg/L
Kr	83	582.018	44.33	mg/L
U	238	7001.879	7001.88	mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
Sc-1	45		117.282			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		110.782			
[illegible]	75					
[illegible]	77					
[illegible]	82					
Y	89					
Rh	103					
Ag	107					
Cd	114					
In	115		106.581			
Sb	123					
Ba	135					
Ce	140					
Tb	159		99.447			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		110.754			
Na	23					
Mg	24					
K	39					
[illegible]	43					
[illegible]	54					
[illegible]	57					
Sc	45		117.282			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, March 20, 2003 13:43:29
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 5
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	14007.027	5003.19				ug/L
Be	9	6668.978	0.03	29.1883	24.572	84.186	ug/L
Al	27	170029.993	0.70	45.5057	8.675	19.064	ug/L
Sc-1	45	239321.686	239321.69				ug/L
V	51	462681.067	0.66	52.7394	4.179	7.925	ug/L
Cr	52	428341.089	0.61	51.4644	2.368	4.601	ug/L
Cr	53	45740.180	0.06	42.5674	3.420	8.034	ug/L
Mn	55	619975.822	0.89	51.0640	5.937	11.626	ug/L
Co	59	595843.059	0.86	50.4090	1.067	2.118	ug/L
Ni	60	109086.977	0.16	41.7920	5.200	12.441	ug/L
Cu	65	127903.387	0.18	48.9521	0.506	1.033	ug/L
Zn	66	77209.228	0.11	49.3561	4.026	8.156	ug/L
Ge	72	696126.501	696126.50				ug/L
As	75	101242.147	0.14	45.7844	0.170	0.371	ug/L
Se	77	8428.486	0.01	47.6963	0.982	2.058	ug/L
Se	82	11878.198	0.02	46.8503	0.475	1.015	ug/L
Y	89	712818.208	47590.47				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	561613.331	0.72	47.4799	2.210	4.655	ug/L
Cd	114	295670.118	0.38	47.3819	1.373	2.898	ug/L
In	115	777876.375	777876.37				ug/L
Sb	123	277422.263	0.36	46.7383	1.324	2.832	ug/L
Ba	135	87938.660	0.14	49.1205	7.044	14.340	ug/L
Ce	140	0.000	0.00				ug/L
Tb	159	642481.114	642481.11				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	450641.677	450616.01	50.3712	0.345	0.686	ug/L
Tl	205	1068506.444	1068479.77	32.4443	0.203	0.625	ug/L
Pb	208	399811.781	399575.09	53.4956	1.095	2.046	ug/L
Pb	207	308281.567	308088.21	49.1842	0.544	1.106	ug/L
Pb	208	1471732.169	1470774.44	51.4728	0.051	0.099	ug/L
Bi	209	673797.045	673797.04				ug/L
Na	23	21385047.811	89.36	4.3412	0.446	10.268	mg/L
Mg	24	15555701.386	65.00	4.6194	0.392	8.484	mg/L
K	39	48593822.218	201.21	4.7926	0.411	8.567	mg/L
Ca	43	57117.064	0.24	4.2000	0.876	20.852	mg/L
Fe	54	4531975.678	18.83	4.4088	0.286	6.483	mg/L
Fe	57	1345987.839	5.58	2.7716	0.302	10.886	mg/L

Sc	45	239321.686	239321.69		mg/L
Cl	35	8335.796	-667.13		mg/L
Kr	83	579.018	41.33		mg/L
U	238	0.000	0.00		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
[redacted]	6					
Be	9	58.377				
Al	27	91.011				
Sc-1	45		118.623			
V	51	105.479				
Cr	52	102.929				
Cr	53	85.135				
Mn	55	102.128				
Co	59	100.818				
Ni	60	83.584				
Cu	65	97.904				
Zn	66	98.712				
Ge	72		119.844			
As	75	91.569				
Se	77	95.393				
Se	82	93.701				
Y	89					
Rh	103					
Ag	107	94.960				
Cd	114	94.764				
In	115		114.072			
[redacted]	123	93.477				
[redacted]	135	98.241				
Ce	140					
Tb	159		98.377			
Ho	165					
Tl	203	100.742				
Tl	205	64.889				
Pb	206	106.991				
Pb	207	98.368				
Pb	208	102.946				
Bi	209		122.864			
Na	23	86.825				
Mg	24	92.387				
K	39	95.851				
Ca	43	83.999				
Fe	54	88.177				
Fe	57	55.432				
Sc	45		118.623			
Cl	35					
Kr	83					
[redacted]	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
Report Date/Time: Thursday, March 20, 2003 13:44:16

QC Std 6	Be	9	CCV is out of limits (+/-10%)
QC Std 6	Ni	60	CCV is out of limits (+/-10%)
QC Std 6	Tl	205	CCV is out of limits (+/-10%)
Bi 209 Int Std for QC	Bi	209	RERUN FOR AFCEE QC
QC Std 6	Ca	43	CCV is out of limits (+/-10%)

Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, March 20, 2003 13:48:34
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 1
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12005.206	3001.37				ug/L
⌈	Be	9	0.000	0.00	0.0000	0.000		ug/L
|	Al	27	1333.427	-0.00	-0.1580	0.329	208.071	ug/L
L>	Sc-1	45	224760.682	224760.68				ug/L
⌈	V	51	1411.560	-0.00	-0.1973	0.084	42.668	ug/L
|	Cr	52	6001.354	0.00	0.0751	0.257	341.689	ug/L
|	Cr	53	0.000	-0.00	-1.1462	0.000	0.000	ug/L
|	Mn	55	3000.385	0.00	0.1577	0.149	94.432	ug/L
	Co	59	0.000	0.00	0.0000	0.000		ug/L
	Ni	60	0.000	0.00	0.0000	0.000		ug/L
	Cu	65	0.000	0.00	0.0000	0.000		ug/L
	Zn	66	0.000	0.00	0.0000	0.000		ug/L
	Ge	72	673690.932	673690.93				ug/L
⌈	As	75	1367.757	0.00	0.0336	0.109	324.680	ug/L
|	Se	77	92.000	-0.00	-0.1053	0.080	75.538	ug/L
L	Se	82	485.588	0.00	0.0416	0.290	695.678	ug/L
	Y	89	879168.556	13938.81				ug/L
⌈	Rh	103	0.000	0.00				ug/L
|	Ag	107	66.734	0.00	0.0061	0.011	173.205	ug/L
|	Cd	114	60.915	0.00	0.0033	0.002	70.917	ug/L
| >	In	115	743533.148	743533.15				ug/L
L	Sb	123	470.334	0.00	0.0444	0.006	13.818	ug/L
⌈	Ba	135	0.000	0.00	0.0000	0.000		ug/L
|	Ce	140	333.345	0.00				ug/L
L>	Tb	159	682632.100	682632.10				ug/L
⌈	Ho	165	0.000	0.00				ug/L
|	Tl	203	33.000	7.33	0.0008	0.001	70.857	ug/L
|	Tl	205	46.671	20.00	0.0006	0.001	104.083	ug/L
|	Pb	206	313.368	76.68	0.0103	0.007	71.838	ug/L
|	Pb	207	270.030	76.68	0.0122	0.010	79.340	ug/L
	Pb	208	1175.083	217.35	0.0076	0.002	26.364	ug/L
	Bi	209	608021.051	608021.05				ug/L
	Na	23	3333.730	-0.00	-0.0000	0.000	1288.924	mg/L
	Mg	24	666.713	0.00	0.0001	0.000	371.959	mg/L
	K	39	407056.918	0.08	0.0018	0.005	257.424	mg/L
	Ca	43	0.000	0.00	0.0000	0.000		mg/L
	Fe	54	24519.998	0.00	0.0007	0.007	958.943	mg/L
	Fe	57	10670.985	0.01	0.0027	0.006	233.194	mg/L

> Sc	45	224760.682	224760.68		mg/L
Cl	35	12338.994	3336.07		mg/L
Kr	83	576.351	38.67		mg/L
U	238	0.000	0.00		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
> Sc-1	45		111.406			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
[illegible]	60					
[illegible]	65					
Zn	66					
> Ge	72		115.982			
As	75					
Se	77					
Se	82					
Y	89					
Rh	103					
Ag	107					
Cd	114					
> In	115		109.036			
Sb	123					
Ba	135					
Ce	140					
> Tb	159		104.525			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
> Bi	209		110.870			
[illegible]	23					
Mg	24					
K	39					
Ca	43					
Fe	54					
Fe	57					
> Sc	45		111.406			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Std 7	V	51	CCB is out of limits (+/-3*IDL)
QC Std 7	Mn	55	CCB is out of limits (+/-3*IDL)

Method 6020 - Summary Report

Sample ID: L030329602 WG136583-01

Sample Date/Time: Thursday, March 20, 2003 13:53:39
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 31
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 4

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	11337.838	2334.00				ug/L
Be	9	0.000	0.00	0.0000	0.000		ug/L
Al	27	85101508.319	322.36	20893.5839	2339.245	11.196	ug/L
Sc-1	45	264767.533	264767.53				ug/L
V	51	295572.268	0.46	36.5700	0.901	2.456	ug/L
Cr	52	253225.608	0.39	33.0181	2.599	7.871	ug/L
Cr	53	30031.978	0.05	30.0936	3.416	11.353	ug/L
Mn	55	20328142.262	31.91	1834.6802	137.541	7.497	ug/L
Co	59	225093.533	0.35	20.7734	0.583	2.806	ug/L
Ni	60	115803.720	0.18	48.4253	4.122	8.513	ug/L
Cu	65	99680.673	0.16	41.6236	2.640	6.343	ug/L
Zn	66	182156.157	0.29	126.9566	0.781	0.615	ug/L
Ge	72	638679.209	638679.21				ug/L
As	75	34820.409	0.05	16.8161	1.140	6.780	ug/L
Se	77	356.671	0.00	1.5816	0.111	7.006	ug/L
Se	82	646.300	0.00	0.8877	0.422	47.489	ug/L
Y	89	1241084.646	575856.90				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	1101.154	0.00	0.1036	0.059	56.851	ug/L
Cd	114	776.110	0.00	0.1316	0.010	7.605	ug/L
In	115	700501.418	700501.42				ug/L
Sb	123	401.503	0.00	0.0369	0.004	11.977	ug/L
Ba	135	368359.150	0.53	189.5710	22.759	12.005	ug/L
Ce	140	900196.849	1.30				ug/L
Tb	159	700545.957	700545.96				ug/L
Ho	165	21349.516	21349.52				ug/L
Tl	203	3093.366	3067.70	0.3429	0.004	1.303	ug/L
Tl	205	7195.866	7169.20	0.2177	0.009	3.911	ug/L
Pb	206	200957.892	200721.20	26.8728	0.900	3.350	ug/L
Pb	207	167088.294	166894.94	26.6437	0.490	1.839	ug/L
Pb	208	779181.949	779224.22	27.2356	0.652	2.394	ug/L
Bi	209	639862.347	639862.35				ug/L
Na	23	577144.443	2.17	0.1056	0.014	12.957	mg/L
Mg	24	19385469.800	73.34	5.2121	0.324	6.209	mg/L
K	39	16688373.722	61.40	1.4623	0.105	7.207	mg/L
Ca	43	55442.237	0.21	3.6973	0.684	18.493	mg/L
Fe	54	47726902.585	180.73	42.3105	4.573	10.808	mg/L
Fe	57	21184681.285	80.05	39.7319	1.886	4.747	mg/L

>	Sc	45	264767.533	264767.53		mg/L
	Cl	35	9670.320	667.39		mg/L
	Kr	83	676.690	139.01		mg/L
	U	238	21349.422	21349.42		mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
	Li	6					
	Be	9					
	Al	27					
>	Sc-1	45		131.235			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		109.954			
	As	75					
	Se	77					
	Se	82					
	Y	89					
	Rh	103					
	Ag	107					
	In	114					
>	In	115		102.725			
	Sb	123					
	Ba	135					
	Ce	140					
>	Tb	159		107.268			
	Ho	165					
	Tl	203					
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		116.677			
	Na	23					
	Mg	24					
	K	39					
	Ca	43					
	Fe	54					
	Fe	57					
>	Sc	45		131.235			
	Cl	35					
	Kr	83					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L030329602 WG136583-01
Report Date/Time: Thursday, March 20, 2003 13:54:26
Page 2

Sc-1 45 Int Std for sample	45
Sc 45 Int Std for sample	45

Method 6020 - Summary Report

Sample ID: L030329602S WG136583-05

Sample Date/Time: Thursday, March 20, 2003 13:58:46
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Dilution Volume (mL): 1.000
Autosampler Position: 32
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 4

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	17010.215	8005.37				ug/L
Be	9	4000.653	0.01	13.1918	6.468	49.038	ug/L
Al	27	100823072.105	317.84	20600.8876	1020.455	4.953	ug/L
> Sc-1	45	317839.167	317839.17				ug/L
V	51	563607.578	0.83	66.7558	3.431	5.140	ug/L
Cr	52	519621.023	0.77	64.9267	2.827	4.354	ug/L
Cr	53	60136.151	0.09	58.3133	19.749	33.867	ug/L
Mn	55	27039916.949	40.24	2314.2135	92.456	3.995	ug/L
Co	59	467201.637	0.70	40.9543	2.228	5.441	ug/L
Ni	60	177766.003	0.26	70.6753	0.884	1.251	ug/L
Cu	65	161240.861	0.24	63.9306	3.725	5.826	ug/L
Zn	66	253241.142	0.38	167.7427	15.904	9.481	ug/L
Ge	72	671671.866	671671.87				ug/L
As	75	84182.789	0.12	39.3729	0.417	1.060	ug/L
Se	77	3295.047	0.00	18.9336	0.276	1.458	ug/L
Se	82	4886.654	0.01	17.9648	0.628	3.494	ug/L
Y	89	1306121.964	640894.22				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	275096.058	0.37	24.6396	0.467	1.895	ug/L
Cd	114	144095.741	0.20	24.4608	0.404	1.651	ug/L
> In	115	734074.466	734074.47				ug/L
Sb	123	8638.722	0.01	1.5050	0.066	4.419	ug/L
Ba	135	437267.597	0.65	233.8456	27.357	11.699	ug/L
Ce	140	1140106.519	1.70				ug/L
> Tb	159	673971.491	673971.49				ug/L
Ho	165	28695.606	28695.61				ug/L
Tl	203	231235.973	231210.31	25.8454	0.371	1.436	ug/L
Tl	205	557183.863	557157.19	16.9180	0.222	1.310	ug/L
Pb	206	433498.415	433261.72	58.0056	0.307	0.529	ug/L
Pb	207	340582.490	340389.14	54.3408	0.363	0.668	ug/L
Pb	208	1630919.842	1629962.11	57.0440	0.566	0.993	ug/L
Bi	209	616843.393	616843.39				ug/L
Na	23	725784.907	2.27	0.1101	0.007	6.720	mg/L
Mg	24	32428287.546	101.94	7.2443	0.208	2.876	mg/L
K	39	18660607.430	57.05	1.3588	0.051	3.729	mg/L
Ca	43	230869.766	0.73	12.8653	2.366	18.389	mg/L
Fe	54	50242769.218	158.33	37.0663	4.560	12.303	mg/L
Fe	57	23261889.792	73.23	36.3427	3.303	9.089	mg/L

>	Sc	45	317839.167	317839.17		mg/L
	Cl	35	15007.973	6005.04		mg/L
	Kr	83	674.023	136.34		mg/L
	U	238	25024.164	25024.16		mg/L

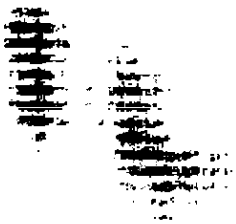
QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
	Li	6					
⌈	Be	9					
|	Al	27					
>	Sc-1	45		157.541			
⌈	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	[illegible]	59					
|	[illegible]	60					
|	[illegible]	65					
|	Zn	66					
>	Ge	72		115.634			
|	As	75					
|	Se	77					
⌊	Se	82					
	Y	89					
⌈	Rh	103					
|	Ag	107					
|	Cd	114					
>	In	115		107.649			
⌊	Sb	123					
⌈	Ba	135					
|	Ce	140					
>	Tb	159		103.199			
⌈	Ho	165					
|	Tl	203					
|	Tl	205					
|	Pb	206					
|	Pb	207					
|	[illegible]	208					
>	[illegible]	209		112.479			
⌈	[illegible]	23					
|	Mg	24					
|	K	39					
|	Ca	43					
|	Fe	54					
|	Fe	57					
>	Sc	45		157.541			
	Cl	35					
	Kr	83					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc-1 45 Int Std for sample	45
Sc 45 Int Std for sample	45



Method 6020 - Summary Report

Sample ID: L030329602SD WG136583-06

Sample Date/Time: Thursday, March 20, 2003 14:29:41
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 33
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 4
User ID: [redacted]
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	10003.805	999.96				ug/L
Be	9	5667.985	0.02	19.0068	10.811	56.879	ug/L
Al	27	107829421.183	335.08	21718.5456	566.451	2.608	ug/L
Sc-1	45	321587.066	321587.07				ug/L
V	51	592741.808	0.83	66.5072	4.520	6.796	ug/L
Cr	52	507886.587	0.71	60.0910	3.455	5.750	ug/L
Cr	53	62474.138	0.09	57.5915	13.339	23.161	ug/L
Mn	55	22321542.179	31.48	1810.4715	219.016	12.097	ug/L
Co	59	514156.286	0.73	42.7341	4.662	10.909	ug/L
Ni	60	203110.047	0.29	76.5599	8.072	10.543	ug/L
Cu	65	196679.392	0.28	73.9320	2.564	3.496	ug/L
Zn	66	244749.208	0.35	153.7943	8.816	5.732	ug/L
Ge	72	708624.170	708624.17				ug/L
As	75	87356.875	0.12	38.7138	0.247	0.637	ug/L
Se	77	3723.152	0.01	20.3266	0.435	2.138	ug/L
Se	82	5211.284	0.01	19.0394	0.230	1.207	ug/L
Y	89	1295571.824	630344.08				ug/L
Rh	103	333.345	0.00				ug/L
Ag	107	303151.316	0.40	26.2672	0.514	1.958	ug/L
Cd	114	155144.142	0.20	25.4831	0.199	0.782	ug/L
In	115	758593.474	758593.47				ug/L
Sb	123	9938.490	0.01	1.6790	0.033	1.976	ug/L
Ba	135	424562.916	0.59	210.5208	7.842	3.725	ug/L
Ce	140	1040971.578	1.45				ug/L
Tb	159	721090.617	721090.62				ug/L
Ho	165	23019.395	23019.40				ug/L
Tl	203	250190.678	250165.01	27.9642	0.625	2.235	ug/L
Tl	205	599551.899	599525.23	18.2045	0.405	2.226	ug/L
Pb	206	420689.810	420453.12	56.2908	0.696	1.237	ug/L
Pb	207	332552.906	332359.55	53.0590	0.777	1.465	ug/L
Pb	208	1574421.122	1573463.39	55.0667	0.680	1.235	ug/L
Bi	209	630194.717	630194.72				ug/L
Na	23	845492.140	2.61	0.1269	0.021	16.176	mg/L
Mg	24	35885110.076	111.63	7.9328	0.074	0.935	mg/L
K	39	19867261.599	59.95	1.4278	0.055	3.884	mg/L
Ca	43	333174.255	1.04	18.2542	1.185	6.491	mg/L
Fe	54	53187050.663	166.84	38.8257	3.428	8.828	mg/L
Fe	57	22870634.765	71.12	35.2955	0.516	1.463	mg/L

Sc	45	321587.066	321587.07		mg/L
Cl	35	14006.957	5004.03		mg/L
Kr	83	743.360	205.68		mg/L
U	238	21349.516	21349.52		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
Sc-1	45		159.399			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
[illegible]	66					
[illegible]	72		121.996			
[illegible]	75					
Se	77					
Se	82					
Y	89					
Rh	103					
Ag	107					
Cd	114					
In	115		111.244			
Sb	123					
Ba	135					
Ce	140					
Tb	159		110.414			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		114.914			
Na	23					
[illegible]	24					
[illegible]	39					
[illegible]	43					
Fe	54					
Fe	57					
Sc	45		159.399			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc-1 45 Int Std for sample	45	
Ge 72 Int Std for sample	72	RERUN FOR AFCEE SAMPLE
Sc 45 Int Std for sample	45	

Method 6020 - Summary Report

Sample ID: L030329603

Sample Date/Time: Thursday, March 20, 2003 14:34:48
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 34
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 4

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	16343.174	7339.33				ug/L
⌈	Be	9	333.345	0.00	0.8795	1.523	173.205	ug/L
|	Al	27	158702978.170	426.47	27641.7101	3841.269	13.897	ug/L
|	Sc-1	45	370095.785	370095.78				ug/L
|	V	51	517376.101	0.69	55.5021	3.476	6.264	ug/L
|	Cr	52	358127.561	0.48	40.3117	3.970	9.848	ug/L
|	Cr	53	40390.734	0.05	35.1578	3.600	10.238	ug/L
|	Mn	55	35569286.725	48.02	2761.2013	314.944	11.406	ug/L
|	Co	59	442768.417	0.60	35.2040	1.741	4.945	ug/L
|	Ni	60	141703.620	0.19	51.0787	4.735	9.269	ug/L
|	Cu	65	136662.194	0.18	49.1711	8.183	16.642	ug/L
⌊	Zn	66	260354.302	0.35	156.5018	7.190	4.594	ug/L
	Ge	74	740631.321	740631.32				ug/L
⌈	As	75	86472.687	0.11	36.6347	0.519	1.417	ug/L
|	Se	77	560.678	0.00	2.3713	0.257	10.820	ug/L
⌊	Se	82	769.497	0.00	0.9520	0.110	11.523	ug/L
	Y	89	1498459.734	833231.99				ug/L
⌈	Rh	103	0.000	0.00				ug/L
|	Ag	107	1267.993	0.00	0.1083	0.026	24.325	ug/L
|	Cd	114	306.132	0.00	0.0427	0.001	2.517	ug/L
| >	In	115	767805.977	767805.98				ug/L
⌊	Sb	123	140.695	-0.00	-0.0145	0.005	35.033	ug/L
⌈	Ba	135	622263.946	0.88	316.4514	24.486	7.738	ug/L
|	Ce	140	2327477.730	3.35				ug/L
⌊ >	Tb	159	706456.803	706456.80				ug/L
⌈	Ho	165	24355.580	24355.58				ug/L
|	Tl	203	4747.837	4722.17	0.5279	0.012	2.240	ug/L
|	Tl	205	11302.267	11275.60	0.3424	0.007	1.913	ug/L
|	Pb	206	347392.324	347155.63	46.4776	1.114	2.397	ug/L
|	Pb	207	286312.788	286119.43	45.6770	0.710	1.555	ug/L
|	Pb	208	1332231.843	1331274.12	46.5907	0.838	1.799	ug/L
⌊ >	Bi	209	629246.378	629246.38				ug/L
⌈	Na	23	865967.778	2.34	0.1137	0.016	13.768	mg/L
|	Mg	24	24526978.905	67.00	4.7613	0.847	17.796	mg/L
|	K	39	17567372.451	46.06	1.0971	0.130	11.851	mg/L
|	Ca	43	33372.322	0.09	1.6006	0.239	14.954	mg/L
|	Fe	54	89570091.297	244.87	57.3273	11.002	19.191	mg/L
⌊	Fe	57	39381596.908	106.53	52.8713	2.731	5.165	mg/L

> Sc	45	370095.785	370095.78		mg/L
Cl	35	7335.247	-1687.88		mg/L
Kr	83	781.363	243.68		mg/L
U	238	36045.581	36045.58		mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
	Li	6					
	Be	9					
	Al	27					
>	Sc	45		183.443			
	[illegible]	51					
	[illegible]	52					
	[illegible]	53					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		127.506			
	As	75					
	Se	77					
	Se	82					
	Y	89					
	Rh	103					
	Ag	107					
	Cd	114					
>	In	115		112.595			
	Sb	123					
	Ba	135					
	Ce	140					
>	Tb	159		108.173			
	Hg	165					
	[illegible]	203					
	[illegible]	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		114.741			
	Na	23					
	Mg	24					
	K	39					
	Ca	43					
	Fe	54					
	Fe	57					
>	Sc	45		183.443			
	Cl	35					
	Kr	83					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc-1 45 Int Std for sample	45	
Ge-72 Int Std for sample	72	RERUN FOR AFCEE SAMPLE
Sc-45 Int Std for sample	45	

Method 6020 - Summary Report

Sample ID: L030329603PS

Sample Date/Time: Thursday, March 20, 2003 14:39:54
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 35
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 4
User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12672.666	3668.83				ug/L
[	Be	9	11004.540	0.03	35.0863	15.719	44.801	ug/L
|	Al	27	138759889.068	409.23	26524.0489	4820.145	18.173	ug/L
[>	Sc-1	45	344833.291	344833.29				ug/L
[	V	51	1026045.674	1.43	113.9784	11.110	9.748	ug/L
|	Cr	52	829812.813	1.15	97.1290	2.730	2.811	ug/L
|	Cr	53	111097.698	0.15	101.8043	5.310	5.216	ug/L
|	Mn	55	31395339.813	43.76	2516.4396	226.480	9.000	ug/L
|	Co	59	939684.156	1.31	77.1629	8.204	10.629	ug/L
|	Ni	60	254251.139	0.35	94.3415	2.994	3.174	ug/L
|	Cu	65	246103.169	0.34	91.3028	4.756	5.209	ug/L
|	Zn	66	288243.938	0.40	177.8812	13.037	7.329	ug/L
[>	Ge	72	719405.965	719405.97				ug/L
|	As	75	185752.287	0.26	81.9372	4.385	5.352	ug/L
|	Se	77	8162.999	0.01	44.7283	2.030	4.539	ug/L
|	Se	82	11219.651	0.01	42.7848	3.473	8.117	ug/L
|	Y	89	1356863.504	691635.76				ug/L
[>	Rh	103	333.345	0.00				ug/L
|	Ag	107	588887.277	0.79	51.7813	4.217	8.143	ug/L
|	Cd	111	313838.627	0.42	52.2889	2.938	5.619	ug/L
[>	In	115	749081.002	749081.00				ug/L
[	Sb	123	310577.231	0.41	54.3956	2.793	5.134	ug/L
[	Ba	135	659265.218	0.94	337.6384	25.496	7.551	ug/L
|	Ce	140	1659280.297	2.39				ug/L
[>	Tb	159	702366.418	702366.42				ug/L
[	Ho	165	27693.585	27693.58				ug/L
|	Tl	203	498257.389	498231.72	55.6938	1.056	1.895	ug/L
|	Tl	205	1160671.502	1160644.83	35.2429	0.056	0.159	ug/L
|	Pb	206	721520.429	721283.74	96.5663	1.105	1.144	ug/L
|	Pb	207	584816.010	584622.66	93.3311	1.443	1.546	ug/L
|	Pb	208	2709381.600	2708423.87	94.7870	1.053	1.111	ug/L
[>	Bi	209	620836.382	620836.38				ug/L
[	Na	23	791822.513	2.31	0.1123	0.019	16.792	mg/L
|	Mg	24	23374704.729	68.68	4.8809	0.736	15.076	mg/L
|	K	39	16228395.892	46.24	1.1013	0.235	21.363	mg/L
|	Ca	43	37048.563	0.11	1.9361	0.511	26.404	mg/L
|	Fe	54	79673516.029	232.88	54.5193	4.776	8.760	mg/L
|	Fe	57	33462975.407	97.73	48.5048	3.854	7.946	mg/L

Sc	45	344833.291	344833.29		mg/L
Cl	35	15007.903	6004.97		mg/L
Kr	83	800.697	263.01		mg/L
U	238	27025.843	27025.84		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
> Sc-1	45		170.921			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
> Ge	72		123.852			
As	75					
[illegible]	77					
[illegible]	82					
[illegible]	89					
[illegible]	103					
Ag	107					
Cd	114					
> In	115		109.849			
Sb	123					
Ba	135					
Ce	140					
> Tb	159		107.547			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
> Bi	209		113.207			
Na	23					
Mg	24					
K	39					
Ca	43					
[illegible]	54					
[illegible]	57					
> [illegible]	45		170.921			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc-1 45 Int Std for sample	45	
Ge 72 Int Std for sample	72	RERUN FOR AFCEE SAMPLE
Sc 45 Int Std for sample	45	

Method 6020 - Summary Report

Sample ID: L030329603SDL

Sample Date/Time: Thursday, March 20, 2003 14:44:58
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 36
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 20

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	7668.779	-1335.06				ug/L
Be	9	0.000	0.00	0.0000	0.000		ug/L
Al	27	25803870.996	90.99	5897.2767	600.177	10.177	ug/L
Sc-1	45	283115.508	283115.51				ug/L
V	51	87748.702	0.12	9.8755	2.086	21.126	ug/L
Cr	52	58787.901	0.08	6.5929	0.597	9.052	ug/L
Cr	53	7668.826	0.01	6.3040	2.021	32.066	ug/L
Mn	55	5529345.433	8.07	463.9106	26.935	5.808	ug/L
Co	59	89279.326	0.13	7.6737	0.636	8.282	ug/L
Ni	60	31034.116	0.05	12.0927	1.688	13.956	ug/L
Cu	65	23018.530	0.03	8.9493	0.015	0.165	ug/L
Zn	66	58118.637	0.08	37.7644	3.508	9.290	ug/L
Ge	72	685216.400	685216.40				ug/L
As	75	18304.578	0.02	7.9079	0.225	2.846	ug/L
Se	77	193.335	0.00	0.4757	0.122	25.645	ug/L
Se	82	598.449	0.00	0.4777	0.368	77.072	ug/L
Y	89	859105.700	193877.96				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	300.304	0.00	0.0275	0.016	58.473	ug/L
Cd	114	139.323	0.00	0.0171	0.002	14.495	ug/L
In	115	722331.895	722331.89				ug/L
Sb	123	482.487	0.00	0.0491	0.005	10.513	ug/L
Ba	135	105065.106	0.18	62.8656	13.815	21.975	ug/L
Ce	140	338308.172	0.57				ug/L
Tb	159	596886.630	596886.63				ug/L
Ho	165	5001.155	5001.16				ug/L
Tl	203	702.691	677.02	0.0757	0.007	9.687	ug/L
Tl	205	1676.933	1650.26	0.0501	0.003	6.481	ug/L
Pb	206	57792.460	57555.77	7.7056	0.151	1.963	ug/L
Pb	207	47744.508	47551.15	7.5912	0.315	4.154	ug/L
Pb	208	225280.994	224323.27	7.8507	0.152	1.939	ug/L
Bi	209	591403.915	591403.91				ug/L
Na	23	152162.513	0.52	0.0263	0.004	16.528	mg/L
Mg	24	4326172.244	15.29	1.0863	0.080	7.345	mg/L
K	39	4070488.739	12.61	0.3004	0.016	5.418	mg/L
Ca	43	8002.614	0.03	0.5017	0.268	53.466	mg/L
Fe	54	16137496.389	56.83	13.3043	1.212	9.108	mg/L
Fe	57	6551743.272	23.09	11.4621	0.130	1.133	mg/L

> Sc	45	283115.508	283115.51		mg/L
Cl	35	12005.533	3002.60		mg/L
Kr	83	665.689	128.01		mg/L
U	238	5001.039	5001.04		mg/L

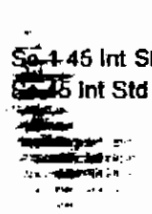
QC Calculated Values

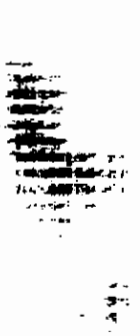
	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
	Li	6					
	Be	9					
	Al	27					
>	Sc	45		140.330			
	[illegible]	51					
	[illegible]	52					
	Cr	53					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		117.966			
	As	75					
	Se	77					
	Se	82					
	Y	89					
	Rh	103					
	Ag	107					
	Cd	114					
>	In	115		105.927			
	Sb	123					
	Ba	135					
	Ce	140					
>	[illegible]	159		91.396			
	[illegible]	165					
	[illegible]	203					
	[illegible]	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		107.840			
	Na	23					
	Mg	24					
	K	39					
	Ca	43					
	Fe	54					
	Fe	57					
>	Sc	45		140.330			
	Cl	35					
	Kr	83					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc-1 45 Int Std for sample	Sdef	45
Sc-45 Int Std for sample	Sc	45





Method 6020 - Summary Report

Sample ID: L030335201 PS JYH 3/20/03

Sample Date/Time: Thursday, March 20, 2003 14:50:03
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 37
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 50 ppb
User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	8002.614	-1001.23				ug/L
	Be	9	1668.885	0.01	6.6622	8.147	122.286	ug/L
	Al	27	1516038.617	5.77	373.7336	30.503	8.162	ug/L
>	Sc-1	45	262730.437	262730.44				ug/L
	V	51	173330.363	0.25	19.8394	1.761	8.877	ug/L
	Cr	52	154500.009	0.22	18.4143	1.370	7.438	ug/L
	Cr	53	13339.847	0.02	11.7920	3.396	28.800	ug/L
	Mn	55	390603.000	0.57	32.6416	1.001	3.066	ug/L
	Co	59	144400.905	0.21	12.3854	1.506	12.157	ug/L
	Ni	60	40056.149	0.06	15.5890	0.669	4.293	ug/L
	Cu	65	133628.611	0.19	51.8500	6.141	11.845	ug/L
	Zn	66	115802.326	0.17	75.1679	5.891	7.837	ug/L
>	Ge	72	686151.746	686151.75				ug/L
	As	75	33993.416	0.05	15.1916	0.265	1.742	ug/L
	Se	77	2059.482	0.00	11.3339	0.367	3.241	ug/L
	Se	82	3226.032	0.00	11.4443	0.496	4.331	ug/L
	Y	89	700344.330	35116.59				ug/L
	Rh	103	0.000	0.00				ug/L
	Ag	107	114235.734	0.16	10.3555	0.309	2.986	ug/L
	Cd	114	68792.532	0.09	11.8171	0.115	0.969	ug/L
>	In	115	725140.012	725140.01				ug/L
	Sb	123	90126.676	0.12	16.2555	0.240	1.474	ug/L
	Ba	135	107072.620	0.16	56.3516	9.272	16.454	ug/L
	Ce	140	32370.020	0.05				ug/L
	Tb	159	680501.819	680501.82				ug/L
	Ho	165	1000.035	1000.04				ug/L
	Tl	205	104339.057	104313.39	11.6605	0.144	1.237	ug/L
	Tl	205	251260.639	251233.97	7.6287	0.288	3.775	ug/L
	Pb	206	228363.931	228127.24	30.5420	0.625	2.045	ug/L
	Pb	207	189379.653	189186.30	30.2023	0.753	2.495	ug/L
	Pb	208	875292.894	874335.17	30.5992	0.324	1.059	ug/L
>	Bi	209	618906.915	618906.92				ug/L
	Na	23	78921994.629	301.73	14.6588	2.245	15.316	mg/L
	Mg	24	11129219.560	42.49	3.0197	0.344	11.401	mg/L
	K	39	18833886.749	70.26	1.6736	0.269	16.071	mg/L
	Ca	43	159566.336	0.61	10.7103	1.869	17.453	mg/L
	Fe	54	571746.737	2.08	0.4869	0.068	14.029	mg/L
	Fe	57	255618.094	0.93	0.4628	0.053	11.515	mg/L

Sc	45	262730.437	262730.44		mg/L
Cl	35	399538.334	390535.40		mg/L
Kr	83	646.021	108.34		mg/L
U	238	11338.306	11338.31		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
[redacted]	6					
[redacted]	9					
[redacted]	27					
Sc-[redacted]	45		130.226			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		118.127			
As	75					
Se	77					
Se	82					
Y	89					
Rh	103					
Ag	107					
Cd	114					
In	115		106.339			
[redacted]	123					
[redacted]	135					
[redacted]	140					
Tb	159		104.199			
Ho [redacted]	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		112.855			
Na	23					
Mg	24					
K	39					
Ca	43					
Fe	54					
Fe	57					
Sc	45		130.226			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc 45 Int Std for sample	45
Sc 45 Int Std for sample	45

Method 6020 - Summary Report

Sample ID: L030335201

Sample Date/Time: Thursday, March 20, 2003 14:57:01
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 37
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 50

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13673.262	4669.42				ug/L
⌈	Be	9	0.000	0.00	0.0000	0.000		ug/L
|	Al	27	350604.781	1.27	82.5279	10.947	13.264	ug/L
⌊>	Sc-1	45	274618.242	274618.24				ug/L
⌈	V	51	14694.497	0.01	1.1869	0.422	35.531	ug/L
|	Cr	52	16343.455	0.01	1.1485	0.649	56.511	ug/L
|	Cr	53	1000.105	-0.00	-0.2692	1.519	564.398	ug/L
|	Mn	55	50758.090	0.07	3.7553	0.598	15.935	ug/L
|	Co	59	1000.058	0.00	0.0778	0.078	100.115	ug/L
|	Ni	60	1666.818	0.00	0.5875	0.539	91.733	ug/L
|	Cu	65	15008.790	0.02	5.2780	2.197	41.635	ug/L
|	Zn	66	24021.323	0.03	14.1242	4.143	29.333	ug/L
	Ge	72	757435.962	757435.96				ug/L
	As	75	3177.289	0.00	0.7235	0.132	18.277	ug/L
|	Se	77	112.000	-0.00	-0.0603	0.028	45.611	ug/L
⌊	Se	82	583.789	0.00	0.1831	0.336	183.779	ug/L
	Y	89	731966.705	66738.96				ug/L
	Rh	103	0.000	0.00				ug/L
⌈	Ag	107	233.569	0.00	0.0189	0.004	22.944	ug/L
|	Cd	114	324.744	0.00	0.0431	0.002	3.956	ug/L
⌊>	In	115	808416.706	808416.71				ug/L
⌊	Sb	123	4945.185	0.01	0.7637	0.023	3.052	ug/L
⌈	Ba	135	16676.449	0.02	8.3784	1.393	16.624	ug/L
|	Ce	140	6668.511	0.01				ug/L
⌊>	Tb	159	718009.265	718009.27				ug/L
⌈	Ho	165	0.000	0.00				ug/L
|	Tl	203	191.003	165.34	0.0185	0.003	14.853	ug/L
|	Tl	205	476.723	450.05	0.0137	0.003	24.478	ug/L
|	Pb	206	25692.316	25455.62	3.4080	0.015	0.434	ug/L
|	Pb	207	21758.735	21565.38	3.4428	0.058	1.689	ug/L
|	Pb	208	101323.993	100366.26	3.5125	0.036	1.030	ug/L
⌊>	Bi	209	612548.743	612548.74				ug/L
⌈	Na	23	14174832.827	51.86	2.5197	0.416	16.520	mg/L
|	Mg	24	1282876.190	4.69	0.3335	0.053	15.946	mg/L
|	K	39	4458004.307	14.53	0.3461	0.034	9.704	mg/L
|	Ca	43	39723.368	0.15	2.5629	0.657	25.637	mg/L
|	Fe	54	113325.006	0.31	0.0721	0.008	11.578	mg/L
|	Fe	57	56114.412	0.16	0.0817	0.030	36.412	mg/L

Sc	45	274618.242	274618.24		mg/L
Cl	35	86259.924	77256.99		mg/L
Kr	83	652.022	114.34		mg/L
U	238	3000.408	3000.41		mg/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
Sc-1	45		136.118			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		130.399			
As	75					
Se	77					
Se	82					
Y	89					
Rh	103					
[illegible]	107					
[illegible]	114					
In	115		118.551			
Sb	123					
Ba	135					
Ce	140					
Tb	159		109.942			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		111.696			
Na	23					
Mg	24					
K	39					
Ca	43					
Fe	54					
Fe	57					
Sc	45		136.118			
[illegible]	35					
[illegible]	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc-1 45 Int Std for sample	45	
Ge 72 Int Std for sample	72	RERUN FOR AFCEE SAMPLE
Sc 45 Int Std for sample	45	

Method 6020 - Summary Report

Sample ID: L030335201PS

Sample Date/Time: Thursday, March 20, 2003 15:07:16
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 38
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description: 10

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	11671.487	2667.65				ug/L
[	Be	9	13340.314	0.05	53.1896	21.647	40.698	ug/L
|	Al	27	1644389.136	6.22	403.0159	12.487	3.098	ug/L
L>	Sc-1	45	264436.458	264436.46				ug/L
[	V	51	583754.317	0.80	64.0449	11.376	17.763	ug/L
|	Cr	52	495814.348	0.68	57.3192	3.488	6.086	ug/L
|	Cr	53	57786.446	0.08	51.9724	10.903	20.979	ug/L
|	Mn	55	947473.959	1.31	75.1063	4.567	6.080	ug/L
|	Co	59	626913.212	0.87	50.9420	5.877	11.537	ug/L
|	Ni	60	141026.511	0.19	51.9811	1.991	3.831	ug/L
|	Cu	65	221034.343	0.31	81.2882	5.437	6.689	ug/L
|	Zn	66	200410.722	0.28	123.1181	15.400	12.508	ug/L
L>	Ge	72	724570.333	724570.33				ug/L
|	As	75	126557.411	0.17	55.1107	1.243	2.255	ug/L
|	Se	77	9679.278	0.01	52.6823	0.234	0.445	ug/L
L	Se	82	13444.127	0.02	51.1211	1.340	2.620	ug/L
	Y	89	768478.454	103250.71				ug/L
[	Rh	103	0.000	0.00				ug/L
|	Ag	107	559895.511	0.74	48.4012	7.157	14.787	ug/L
|	Cd	114	321774.665	0.42	52.7349	0.708	1.342	ug/L
L>	In	115	760429.671	760429.67				ug/L
L	Sb	123	332955.061	0.44	57.3675	0.684	1.192	ug/L
[	Ba	135	197353.919	0.31	111.5781	0.551	0.494	ug/L
|	Ce	140	32705.331	0.05				ug/L
L>	Tb	159	632706.507	632708.51				ug/L
[	Ho	165	333.345	333.35				ug/L
|	Tl	203	468673.961	468648.29	52.3869	0.297	0.566	ug/L
|	Tl	205	1098319.182	1098292.51	33.3496	0.739	2.215	ug/L
|	Pb	206	529964.314	529727.62	70.9206	1.902	2.682	ug/L
|	Pb	207	427137.448	426944.09	68.1588	0.728	1.067	ug/L
|	Pb	208	2007708.295	2006750.57	70.2305	0.161	0.229	ug/L
L>	Bi	209	645755.826	645755.83				ug/L
[	Na	23	68663789.877	258.68	12.5674	1.263	10.049	mg/L
|	Mg	24	10661108.176	40.48	2.8769	0.258	8.955	mg/L
|	K	39	17970640.685	66.40	1.5816	0.109	6.904	mg/L
|	Ca	43	155189.770	0.59	10.2903	1.322	12.846	mg/L
|	Fe	54	552006.220	1.99	0.4670	0.054	11.459	mg/L
|	Fe	57	211562.112	0.76	0.3769	0.017	4.583	mg/L

> Sc	45	264436.458	264436.46		mg/L
Cl	35	404654.772	395651.84		mg/L
Kr	83	648.021	110.34		mg/L
U	238	9003.116	9003.12		mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
	Li	6					
	Be	9					
	Al	27					
>	Sc-1	45		131.071			
	V	51					
	[illegible]	52					
	[illegible]	53					
	[illegible]	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		124.741			
	As	75					
	Se	77					
	Se	82					
	Y	89					
	Rh	103					
	Ag	107					
	Cd	114					
>	In	115		111.514			
	Sb	123					
	Ba	135					
	Ce	140					
>	Tb	159		96.881			
	Ho	165					
	Tl	203					
	[illegible]	205					
	[illegible]	206					
	[illegible]	207					
	Pb	208					
>	Bi	209		117.751			
	Na	23					
	Mg	24					
	K	39					
	Ca	43					
	Fe	54					
	Fe	57					
>	Sc	45		131.071			
	Cl	35					
	Kr	83					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L030335201PS
Report Date/Time: Thursday, March 20, 2003 15:08:03
Page 2

Sc-1 45 Int Std for sample	45	
Ge 72 Int Std for sample	72	RERUN FOR AFCEE SAMPLE
Sc 45 Int Std for sample	45	

Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, March 20, 2003 15:12:22
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 5
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description:

User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
Li	6	7669.129	-1334.71				ug/L
Be	9	10003.595	0.04	39.0279	5.161	13.224	ug/L
Al	27	202439.240	0.75	48.4805	8.467	17.464	ug/L
Sc-1	45	269531.786	269531.79				ug/L
Y	51	588637.377	0.85	68.0424	4.412	6.484	ug/L
Cr	52	483729.819	0.70	58.9742	2.200	3.730	ug/L
Cr	53	55109.741	0.08	52.1905	11.745	22.504	ug/L
Mn	55	769213.212	1.12	64.2128	2.729	4.250	ug/L
Co	59	602458.810	0.88	51.6031	1.907	3.696	ug/L
Ni	60	129253.123	0.19	50.1517	4.418	8.809	ug/L
Cu	65	151468.271	0.22	58.6642	3.356	5.721	ug/L
Zn	66	84253.785	0.12	54.5951	10.545	19.315	ug/L
Ge	72	687446.283	687446.28				ug/L
As	75	111946.525	0.16	51.3505	1.031	2.007	ug/L
Se	77	9311.036	0.01	53.4142	0.837	1.568	ug/L
Se	82	12954.428	0.02	51.9629	1.215	2.338	ug/L
Y	89	705385.655	40157.91				ug/L
Rh	103	0.000	0.00				ug/L
Ag	107	585399.133	0.78	51.2918	2.072	4.039	ug/L
Cd	114	316516.582	0.42	52.5577	0.938	1.784	ug/L
In	115	750554.614	750554.61				ug/L
Sb	123	296606.417	0.39	51.7828	1.176	2.271	ug/L
Ba	135	106731.359	0.17	61.0231	5.344	8.757	ug/L
Ce	140	0.000	0.00				ug/L
Tb	159	626797.512	626797.51				ug/L
Ho	165	0.000	0.00				ug/L
Tl	203	454043.533	454017.87	50.7515	0.680	1.340	ug/L
Tl	205	1078967.439	1078940.77	32.7620	0.552	1.684	ug/L
Pb	206	412478.278	412241.59	55.1914	0.828	1.500	ug/L
Pb	207	309579.642	309386.29	49.3914	0.814	1.648	ug/L
Pb	208	1488316.600	1487358.77	52.0532	0.338	0.649	ug/L
Bi	209	617531.339	617531.34				ug/L
Na	23	22853460.185	84.58	4.1091	0.300	7.307	mg/L
Mg	24	16849437.794	62.54	4.4445	0.181	4.063	mg/L
K	39	54441211.613	199.92	4.7617	0.249	5.235	mg/L
Ca	43	61801.563	0.23	4.0517	0.661	16.320	mg/L
Fe	54	5049546.356	18.65	4.3665	0.227	5.205	mg/L
Fe	57	1490474.430	5.47	2.7156	0.147	5.404	mg/L

> Sc	45	269531.786	269531.79		mg/L
Cl	35	17344.237	8341.31		mg/L
Kr	83	625.353	87.67		mg/L
U	238	0.000	0.00		mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
	Li	6					
	Be	9	78.056				
	[illegible]	27	96.961				
>	[illegible]	45		133.597			
	[illegible]	51	136.085				
	Cr	52	117.948				
	Cr	53	104.381				
	Mn	55	128.426				
	Co	59	103.206				
	Ni	60	100.303				
	Cu	65	117.328				
	Zn	66	109.190				
>	Ge	72		118.350			
	As	75	102.701				
	Se	77	106.828				
	Se	82	103.926				
	Y	89					
	Rh	103					
	Ag	107	102.584				
	Cd	114	105.115				
>	In	115		110.066			
	Sb	123	103.566				
	Ba	135	122.046				
	Ce	140					
>	[illegible]	159		95.976			
	[illegible]	165					
	[illegible]	203	101.503				
	Tl	205	65.524				
	Pb	206	110.383				
	Pb	207	98.783				
	Pb	208	104.106				
>	Bi	209		112.605			
	Na	23	82.182				
	Mg	24	88.890				
	K	39	95.235				
	Ca	43	81.035				
	Fe	54	87.329				
	Fe	57	54.312				
>	Sc	45		133.597			
	Cl	35					
	Kr	83					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Std 6	Be	9	CCV is out of limits (+/-10%)
Sc 45 Int Std for QC Std		45	
QC Std 6	V	51	CCV is out of limits (+/-10%)
QC Std 6	Cr	52	CCV is out of limits (+/-10%)
QC Std 6	Cr	53	CCV is out of limits (+/-10%)
QC Std 6	Mn	55	CCV is out of limits (+/-10%)
QC Std 6	Cu	65	CCV is out of limits (+/-10%)
QC Std 6	Ba	135	CCV is out of limits (+/-10%)
QC Std 6	Tl	205	CCV is out of limits (+/-10%)
QC Std 6	Pb	206	CCV is out of limits (+/-10%)
Sc 45 Int Std for QC Std		45	

Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, March 20, 2003 15:17:26
Number of Replicates: 3
Aliquot Volume (mL): 1.000
Diluted To Volume (mL): 1.000
Autosampler Position: 1
Method File: C:\elandata\Method\Service\6020 methods\6020A.mth
Sample Description:
User ID: JYH
Cumulative Autodilution Factor: 1

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Conc. Mean	Conc. SD	Conc. RSD	Sample Unit
	Li	6	11338.586	2334.75				ug/L
[	Be	9	0.000	0.00	0.0000	0.000		ug/L
|	Al	27	2666.923	0.00	0.0829	0.063	76.100	ug/L
>	Sc-1	45	277710.271	277710.27				ug/L
[	V	51	3632.385	0.00	0.0510	0.081	157.931	ug/L
|	Cr	52	9336.438	0.01	0.4527	0.194	42.754	ug/L
|	Cr	53	1000.058	-0.00	-0.1902	0.962	505.926	ug/L
|	Mn	55	2666.947	0.00	0.1211	0.097	80.372	ug/L
|	Co	59	666.690	0.00	0.0559	0.048	86.606	ug/L
|	Ni	60	0.000	0.00	0.0000	0.000		ug/L
|	Cu	65	0.000	0.00	0.0000	0.000		ug/L
|	Zn	66	333.345	0.00	0.2125	0.368	173.205	ug/L
	Ge	72	698518.212	698518.21				ug/L
[	As	75	1432.905	0.00	0.0395	0.109	276.655	ug/L
|	Se	77	132.001	0.00	0.1033	0.083	80.720	ug/L
|	Se	82	519.807	0.00	0.1065	0.264	247.816	ug/L
	Y	89	720813.329	55585.59				ug/L
[	Rh	103	0.000	0.00				ug/L
|	Ag	107	700.719	0.00	0.0611	0.017	28.118	ug/L
|	Cd	114	30.486	-0.00	-0.0019	0.001	49.738	ug/L
>	In	115	753160.896	753160.90				ug/L
[	Sb	123	647.422	0.00	0.0740	0.011	14.825	ug/L
[	Ba	135	0.000	0.00	0.0000	0.000		ug/L
|	Ce	140	666.713	0.00				ug/L
>	Tb	159	701501.498	701501.50				ug/L
[	Ho	165	0.000	0.00				ug/L
|	Tl	203	24.334	-1.33	-0.0001	0.001	708.873	ug/L
|	Tl	205	73.341	46.67	0.0014	0.000	32.733	ug/L
|	Pb	206	290.032	53.34	0.0071	0.010	141.559	ug/L
|	Pb	207	230.025	36.67	0.0059	0.011	188.951	ug/L
|	Pb	208	1103.741	146.01	0.0051	0.002	30.938	ug/L
>	Bi	209	587762.670	587762.67				ug/L
[	Na	23	4000.583	-0.00	-0.0000	0.000	258.484	mg/L
|	Mg	24	333.345	-0.00	-0.0000	0.000	1086.932	mg/L
	K	39	484474.438	0.02	0.0005	0.007	1385.819	mg/L
	Ca	43	0.000	0.00	0.0000	0.000		mg/L
[	Fe	54	28433.152	0.00	0.0003	0.010	3154.832	mg/L
|	Fe	57	9003.490	-0.01	-0.0038	0.011	297.981	mg/L

Sc	45	277710.271	277710.27		mg/L
Cl	35	8335.913	-667.02		mg/L
Kr	83	560.351	42.67		mg/L
U	238	0.000	0.00		mg/L

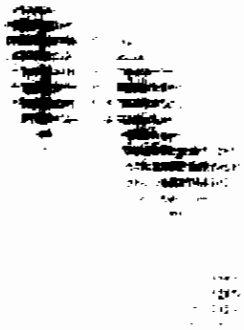
QC Calculated Values

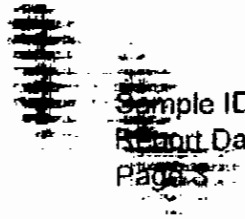
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Dif
Li	6					
Be	9					
Al	27					
Sc-1	45		137.651			
V	51					
Cr	52					
Cr	53					
Mn	55					
Co	59					
Ni	60					
Cu	65					
Zn	66					
Ge	72		120.256			
As	75					
Se	77					
Sr	82					
Y	89					
Rh	103					
Ag	107					
Cd	114					
In	115		110.448			
Sb	123					
Ba	135					
Ce	140					
Tb	159		107.414			
Ho	165					
Tl	203					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		107.176			
Na	23					
Mg	24					
K	39					
Ca	43					
Fe	54					
Co	57					
Sc	45		137.651			
Cl	35					
Kr	83					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sc-1 45 Int Std for QC	Std	45	
QC Std 7	Mn	55	CCB is out of limits (+/-3*IDL)
QC Std 7	Co	59	CCB is out of limits (+/-3*IDL)
Ge 72 Int Std for QC	Std	72	RERUN FOR AFCEE QC
QC Std 7	Ag	107	CCB is out of limits (+/-3*IDL)
Sc 45 Int Std for QC	Std	45	





Sample ID: QC Std 7
Report Date/Time: Thursday, March 20, 2003 15:18:11
Page 3

2.3.1.3 Preparation Log (s)

Metals Digestion Log

Analyst(s): TLT
Date: 3-19-03 08:20
LCS: 5ml DSS0051-73
MS/MSD: 5ml DSS0051-73
Witness: VC
HNO_3 Lot #: N33
HCl Lot #: H25
H_2O_2 Lot #: —
Earliest Sample Due Date: 3/20/03

Box: ES

Digestion Work Group: WG136608
Analytical Work Group: WG

General Digestion
ME401 Revision # 9 - Method 3005A-Water [X]
ME403 Revision # ____ - Method 3050B-Soil [ ]

Furnace Digestion
ME402 Revision # ____ - Method 3020A-Water [ ]
ME403 Revision # ____ - Method 3050B-Soil [ ]

AS/SE Digestion
ME410 Revision # ____ - Method 7060/7740-Water [ ]

	KEMRON #	Initial WT/Vol	Final Volume	Comments	Due Date
1	PBW	50ml	50ml	WG136608 -03	
2	LCSW			-04	
3	03-265-18			-01	3/24
4	-20MS			-05	〃
5	-22MSD			-06	〃
6	03-360-01			NPDES	3/21
7	03-352-01			L4	3/21
8	03-311-01			NPDES	3/24
9	-02			〃	〃
10	03-312-01			NPDES	3/24
11	-02			〃	〃
12	03-300-01			L4	3/21
13	-02			〃	〃
14	03-303-01				3/24
15	03-305-01			NPDES	3/24
16	-02			〃	〃
17	03-258-05			NPDES -02	3/24
18	ASdup			〃 -07	〃
19	03-331-02	〃	〃	NPDES	3/20
20					
21					
22					
23			3-19-03		
24		〃			
25					
26					
27					
28					

Comments: _____

Peer Review By: Vicki Collins 3/19/03 Supervisor Review: _____

Microwave Digestion Log

Volume # 58
Page 9

Analyst(s): VC
Date: 3/19/03 10:50
LCS: 0.5 mL MS 1.1320
MS/MSD: 0.5 mL MS 1.1320
Witness: HH
Earliest Sample Due Date: 3/21

Box: R3
HNO_3 Lot #: V33
HCl Lot #: —

Digestion Work Group: WG 136593
Analytical Work Group: WG

ME407 - Method 3015-Water
ME406 - Method 3051-Soil-Oil

7

	KEMRON #	Initial Wt/Vol	Final Volume	Initial Weight	Final Weight	Comments	Due Date
1	PBW	40 mL	50 mL	27263p	27263n	03	
2	LCSW			26.06	26.02	04	
3	03 323-01 A			25.57	25.53	WG136593 02	3/31
4	Dilt			20.27	20.45	07	
5	02			23.35	23.51	WG 136593 01	
6	02 MS			22.27	22.49	05	
7	02 MSD			23.16	23.14	06	
8	03			25.96	25.94		
9	04			24.67	24.44		
10	352 01 A			22.60	22.56		3/21
11	353 01 A			24.66	24.60		4/1
12	02			22.03	24.55		
13	03			24.04	24.03		
14							
15							
16							
17							
18							
19							
20			VC 3/19/03				
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

Comments: _____

Peer Review By: [signature] 3-19-03 Supervisor Review: _____

2.3.1.4 Sample Calculations

Example 6010 Calculations
Perkin Elmer Optima 3000 (PE-ICP)

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and three standards:

The equation is in the form of $I = mC + b$,

Where: I = Mean emission intensity at the element's measured wavelength.
C = Concentration of the element in mg/L
m = Slope of the ICAL curve computed by system
b = Intercept of the ICAL curve computed by system

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$C = [(I - b) / (m)]] [(Qs) / (Vp)] [D]$$

Where:		Example:
I =	Mean adjusted intensity at the element's measured wavelength.	307088.8
b =	Intercept of the ICAL curve computed by system	373.4
m =	Slope of the ICAL curve computed by system	780569.9
Qs =	Sample quantity digested (defaults to 1)_	1
Vp =	Prep volume (defaults to 1)	1
D =	Dilution factor as a multplier (10X = 10)	1
C =	Concentration of element in ppm (mg/L):	**0.39293778**

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$C = [(I - b) / m]] [(Vp) / (Qs)] [D]$$

Where:		Example:
I =	Mean emission intensity at the element's measured wavelength.	307088.8
b =	Intercept of the ICAL curve computed by system	373.4
m =	Slope of the ICAL curve computed by system	780569.9
Qs =	Sample quantity digested (g)	2
Vp =	Prep volume (mL)	100
D =	Dilution factor as a multplier (10X = 10)	1
C =	Concentration of element in ppm (mg/kg):	**19.6488888**

5.0 Adjusting the concentration to dry weight:

$$Cdry = [(Cx)(100)] / Px$$

Where:			
Cx =	Concentration calculated as received (wet basis):		19.646889
Px =	Percent solids of sample (%wt)		80
		C(mg/kg)	**24.5586113**

Example 6010 Calculations
TJA - Iris

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and three standards:

2.0 Calculating the concentration (C) of an element in water using data from run log and quantitation report (note: this calculation is performed automatically by the data system when correction factors have been entered):

Cx = (Cs) (Fc) (D)

	Example:
Where:	
Cs = Concentration computed by the data system (mg/L)(ppm)	0.1
Fc = Correction factor for the preparation data, = Final volume/ initial volume	1
D = Dilution factor as a multplier (10X = 10)	1
Cx = Concentration of element in ppm (mg/L):	**0.1**

3.0 Calculating the concentration (C) of an element in soil using data from prep log and quantitation report (note: this calculation is performed automatically by the data system when correction factors have been entered):

Cx = (Cs) (Fc) (D)

	Example:
Where:	
Cs = Concentration computed by the data system (mg/L)(ppm)	0.1
Fc = Correction factor for the preparation data, = Final volume(mL)/ initial weight (g)	50
D = Dilution factor as a multplier (10X = 10)	1
Cx = Concentration of element in ppm (mg/kg):	**5**

4.0 Adjusting the concentration to dry weight:

Cdry = [(Cx)(100)] / Px

Where:		
Cx = Concentration calculated as received (wet basis):		125
Px = Percent solids of sample (%wt)		80
	C(mg/kg)	156.25

Example 6020 Calculations
Perkin Elmer ELAN ICP/MS

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and three standards:

2.0 Calculating the concentration (C) of an element in water using data from run log and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = [Cs]\ [(Vf / Vi)]\ [D]$$

	Example:
Where:	
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Diluted To Volume (mL)	50
Vi = Aliquot Volume (mL)	40
D = Manual dilution factor, if required (10X = 10)	1
Cx = Concentration of element in ppb (ug/L)	**0.125**

3.0 Calculating the concentration (C) of an element in soil using data from prep log and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = [Cs]\ [(Vf / Ws)]\ [D]$$

	Example:
Where:	
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Diluted To Volume (mL)	50
Ws = Aliquot weight (g)	0.5
D = Manual dilution factor	1
Cx = Concentration of element in ug/kg	**10**

4.0 Adjusting the concentration to dry weight:

$$Cdry = [(Cx)(100)] / Px$$

Where:		
Cx = Concentration calculated as received (wet basis):		10
Px = Percent solids of sample (%wt)		80
	C(ug/kg)	**12.5**

12.5 ug/kg = 0.0125 mg/kg

2.3.3 Metals CVAA (Mercury) Data

METALS - CVAA (MERCURY) DATA
Login Number: L0303352

A. QC Summary

✓ Batch QC Summary Form

B. Raw Data

✓ Analyst checksheet

✓ Analysis run log

✓ Instrument data: (actual order may vary)

- Initial and continuing calibration standards
- Initial and continuing calibration blanks
- Preparation blank data
- Laboratory control sample
- Sample data
- Matrix spike
- Matrix spike duplicate
- Duplicate
- Post digestion spike (if applicable)
- Serial dilution (as needed)
- Standard additions results (as needed)

C. Preparation Log(s)

D. Sample Calculations

Checked by: KKA Date: 3/26/03

2.3.3.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number:L0303352 Run Date:03/21/2003 Sample ID:WG136703-03
Instrument ID:PS202 Run Time:16:06 Prep Method:METHOD
File ID:PS.032103.160615 Analyst:KHR Method:7470A
Workgroup (AAB#):WG136782 Matrix:Water Units:mg/L
Contract #: Cal ID: PS202-21-MAR-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Mercury	0.0000520	0.000200	0.0000520	1	U

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number:L0303352 Run Date:03/21/2003 Sample ID:WG136703-04
Instrument ID:PS202 Run Time:16:07 Prep Method:METHOD
File ID:PS.032103.160720 Analyst:KHR Method:7470A
Workgroup (AAB#):WG136782 Matrix:Water Units:mg/L
Contract #: Cal ID: PS202-21-MAR-2003 15:55

Analytes	Expected	Found	% Rec	LCS Limits			D
Mercury	0.00100	0.00105	105	80	-	120	

KEMRON FORMS - Modified 01/31/2003
Version 1.3
Report generated 03/24/2003 14:24

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO APCEE FORM 8

Analytical Method: 7470A
Login Number: L0303352

AAB#: MG136782
Contract #: Bonnie Hogue

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
177511-DW-031703	03/17/03	03/18/03	03/20/03	28	2.69	03/21/03	28	3.9	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON FORMS - Modified 05/28/2002
Version 1.1
Report generated 03/26/2003 13:47

2.3.3.2 Raw Data

Metals

Date: 3/21/03
Analyst: ICP
Method: 7470A
Instrument: ICP2
Work Group: 136782

	Analyst
Calibration/Linearity	✓
ICV/CCV	✓
ICB/CCB	✓
icsa/icsab/cri	NA
Blank/LCS	✓
MS/MSD	✓
Postspike/Serial Dilution	✓
Duplicate	✓
Record Results	✓
Excel Spreadsheets	✓
Results Reporting / Data Qualifiers	
Calculations & Correct Factors	
Reanalysis Assign	
Instrument Failure/Reassign	
Case Narrative	
QA Approval - Seedpak 3	
Check for Completeness	
Level IV Data	03-352-
	03-352

Primary Reviewer Initials & Date Checked KM 3/21/03

Secondary Reviewer Initials & Date Checked MM3 3/24/03

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
NA • Check the information for the report narrative
✓ • Check the reasonableness of results

Supervisory Review Initials & Date Checked MB 3/24

Comments: _____

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

KEMRON ENVIRONMENTAL SERVICES
MERCURY RUN LOGBOOK

ANALYST [signature] DATE 3/21/03 TIME 1457
METHOD # 7470A SOP # ME404 REV. # 6 WORK GROUP # 136782
CAL STD SOURCE DS0053-70 ICV/CCV SOURCE DS0053-71
POST SPK SOURCE DS0053-70 (10PPB Std)

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
	50				27.				
	50.2				28.				
	51.0				29.				
	52.0				30.				
	55.0				31.				
	510				32.				
	ICV ~~#~~ 3/21/03				33.				
	ICB			CCV/CCB	34.				
	PBW J2			WG136703-03	35.				
	LCSWJ2			-04	36.				
	03-256-02				37.				
	03-228-01				38.				
	02				39.				
	03-301-02				40.				
	03-309-07				41.				
	03-320-01				42.				
	02				43.				
	03-327-06			CCV/CCB	44.				
	14				45.				
	53				46.				
	62				47.				
	71				48.				
	75				49.				
	03-352-01				50.				
	03-250-01			-02	51.				
	01DP			-07	52.				
	02				53.				
	03			CCV/CCB-01	54.				
	03PS	0.9			55.				
	04S			-05	56.				
	05SD			CCV/CCB-06	57.				
	03-228-02	0.1		~~Vol~~ ERROR*	58.				
	03-301-02			3/21/03 CCV	59.				
				CCB	60.				

KR 3/21/03

Comments: * added after line was made.

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:

CCV - Continuing Calibration Verfication
CCB = Continuing Calibration Blank
% D = Automatic Instrument Rerun due to % RSD > 20%
FRS = Rull Recalibration Sequence

ID = Automatic Instrument Dilution
R = Analyst Rerun
BLK = Blank Rerun

Reviewed By: _____

INORGANIC ANALYSES DATA SHEET
INITIAL MULTIPOINT CALIBRATION

Analytical Method: 7470 AA8#:

Lab Name: KEMRON ENVIRONMENTAL SERVICES Contract #:

Date of Initial Calibration: 21-Mar-03 Initial Calibration ID:

Instrument ID: PS202 Concentration Units (mg/L or mg/kg dry weight): ug/L

Analyte	Std 1	RF 1	Std 2	RF 2	Std 3	RF 3	Std 4	RF 4	Std 5	RF 5	Std 6	RF 6	r	Q
Mercury	0.00	568	0.20	9698	1.00	40089	2.0	87997	5.0	207081	10.0	388537	0.99932	

r = correlation coefficient

Comments:

Forms by ChemSw(TM) 854-0845 v1.0; 12/1/97

AFCEE FORM I-3B

KEMRON ENVIRONMENTAL SERVICES
FORM 2A - INITIAL AND CONTINUING CALIBRATION VERIFICATION

INSTRUMENT: PS202
METHOD: 7470
ANALYST: Khr
DATE: 3/21/03

UNITS: ug/L

ICV Time: 15:59
CCV1 Time: 4:03 PM
CCV2 Time: 4:17 PM

	Initial Calibration Verification			Continuing Calibration Verification CCV1			CCV2		Q
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury	1.0	.989	98.9	1.0	.995	99.5	.995	99.5	

(1) Control Limits: 80-120%

KEMRON ENVIRONMENTAL SERVICES
FORM 2A - INITIAL AND CONTINUING CALIBRATION VERIFICATION

INSTRUMENT:	PS202
METHOD:	7470
ANALYST:	Khr
DATE:	3/21/03
UNITS:	ug/L
ICV Time:	15:59
CCV1 Time:	4:32 PM
CCV2 Time:	4:38 PM

	Initial Calibration Verification			Continuing Calibration Verification CCV1			CCV2		Q
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury	1.0	.989	98.9	1.0	.987	98.7	.968	96.8	

(1) Control Limits: 80-120%

KEMRON ENVIRONMENTAL SERVICE
FORM 3 - BLANKS

INSTRUMENT:	PS202
METHOD:	7470
ANALYST:	KHR
DATE:	3/21/03
UNITS:	ug/L
ICB Time:	4:00 PM
CCB1 Time:	4:05 PM
CCB2 Time:	4:19 PM
CCB3 Time:	4:33 PM

	Initial Calibration Blank(ug/L)	Continuing Calibration Blank (ug/L)		
		CCB1	CCB2	CCB3
Analyte		1	2	3
Mercury	-.114	-.120	-.118	-.128

KEMRON ENVIRONMENTAL SERVICE
FORM 3 - BLANKS

INSTRUMENT:	PS202
METHOD:	7470
ANALYST:	KHR
DATE:	3/21/03
UNITS:	ug/L
ICB Time:	4:00 PM
CCB1 Time:	4:39 PM
CCB2 Time:	
CCB3 Time:	

	Initial Calibration Blank(ug/L)	Continuing Calibration Blank (ug/L)		
		CCB1	CCB2	CCB3
Analyte		1	2	3
Mercury	-.114	-.132		

*** Standard: 1 Rep: 1 Seq: 131 15:49:28 21 Mar 2003 HG

Hg .000 ppb 586

*** Standard: 2 Rep: 1 Seq: 132 15:50:38 21 Mar 2003 HG

Hg .200 ppb 9698

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Standard: 3 Rep: 1				Seq: 133		15:51:51 21 Mar 2003 HG		
Hg	1.00	ppb	40089					
*** Standard: 4 Rep: 1				Seq: 134		15:53:02 21 Mar 2003 HG		
Hg	2.00	ppb	87997					
*** Standard: 5 Rep: 1				Seq: 135		15:54:17 21 Mar 2003 HG		
Hg	5.00	ppb	207081					
*** Standard: 6 Rep: 1				Seq: 136		15:55:30 21 Mar 2003 HG		
Hg	10.0	ppb	388537					

RunProt: CLP2 Hg analysis in the ppb range

RunFold: 032003 Seq: 137 Batch:

Prnt: R/T On Pump: On

Rev: 4.2 15:56:02 21 Mar 2003 Xmit: Off Gas: 0.70 LPM

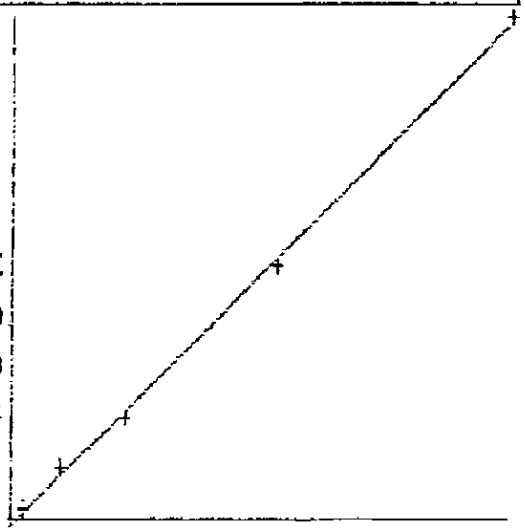
State: Idle User: KHR A/S: On

CALIBRATION: Line proto: CLP2

	Hg Conc.	Calc.	Dev.	Accepted ->linear
S1	.000	-.091	-.091	Quadratic
S2	.200	.143	-.057	Wtdlinear
S3	1.00	.923	-.077	
S4	2.00	2.15	.152	Accept
S5	5.00	5.21	.208	
S6	10.0	9.86	-.136	

A .0000000 r .999316

B 2.56593e-5 C -1.05521e-1



	Mean		SD	
S1	566	0	SD	566
S2	9698	0	%RSD	9698
S3	40089	0	%RSD	40089
S4	87997	0	%RSD	87997
S5	207081	0	%RSD	207081
S6	388537	0	%RSD	388537

New cal coefficients stored

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Check Standard: 2 Ck2ICV Seq: 137 15:59:00 21 Mar 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		98.9	.989	1.00	ppb	.000 %

*** Check Standard: 3 Ck3ICB Seq: 138 16:00:24 21 Mar 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-56.8	-.114	.200	ppb	.000 %

*** Check Standard: 2 Ck2CCV Seq: 139 16:03:58 21 Mar 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		99.5	.995	1.00	ppb	.000 %

*** Check Standard: 3 Ck3CCB Seq: 140 16:05:05 21 Mar 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-59.9	-.120	.200	ppb	.000 %

*** Sample ID: WG13670303 Seq: 141 16:06:15 21 Mar 2003 HG

PBW J2

Hg	-.092	ppb	.000	%	-.092

*** Sample ID: WG13670304 Seq: 142 16:07:20 21 Mar 2003 HG

LCSW J2

Hg	1.05	ppb	.000	%	1.05

*** Sample ID: L030325602 Seq: 143 16:08:24 21 Mar 2003 HG

Hg	-.088	ppb	.000	%	-.088

*** Sample ID: L030322801 Seq: 144 16:09:31 21 Mar 2003 HG

Hg	.231	ppb	.000	%	.231

*** Sample ID: L030322802 Seq: 145 16:10:36 21 Mar 2003 HG

Hg	21.6	ppb	.000	%	21.6

Rerun at 10X

*** Sample ID: L030330102 Seq: 146 16:11:46 21 Mar 2003 HG

Hg	-.409	ppb	.000	%	-.409

Rerun to verify

*** Sample ID: L030330907 Seq: 147 16:13:14 21 Mar 2003 HG

Hg	-.033	ppb	.000	%	-.033

*** Sample ID: L030332001 Seq: 148 16:14:30 21 Mar 2003 HG

Hg	.157	ppb	.000	%	.157

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: L030332002 Seq: 149 16:15:41 21 Mar 2003 HG

Hg -.118 ppb .000 % -.118

*** Sample ID: L030332706 Seq: 150 16:16:47 21 Mar 2003 HG

Hg -.090 ppb .000 % -.090

*** Check Standard: 2 Ck2CCV Seq: 151 16:17:56 21 Mar 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		99.5	.995	1.00	ppb	.000 %

*** Check Standard: 3 Ck3CCB Seq: 152 16:19:14 21 Mar 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-58.8	-.118	.200	ppb	.000 %

*** Sample ID: L030332714 Seq: 153 16:20:25 21 Mar 2003 HG

Hg -.101 ppb .000 % -.101

*** Sample ID: L030332753 Seq: 154 16:21:30 21 Mar 2003 HG

Hg -.107 ppb .000 % -.107

*** Sample ID: L030332762 Seq: 155 16:22:46 21 Mar 2003 HG

Hg -.107 ppb .000 % -.107

*** Sample ID: L030332771 Seq: 156 16:23:56 21 Mar 2003 HG

Hg -.045 ppb .000 % -.045

*** Sample ID: L030332775 Seq: 157 16:25:16 21 Mar 2003 HG

Hg -.067 ppb .000 % -.067

*** Sample ID: L030335201 Seq: 158 16:26:25 21 Mar 2003 HG

Hg .991 ppb .000 % .991

*** Sample ID: WG13670302 Seq: 159 16:27:33 21 Mar 2003 HG
L030325001

Hg -.054 ppb .000 % -.054

*** Sample ID: WG13670307 Seq: 160 16:28:50 21 Mar 2003 HG
L030325001DP

Hg -.044 ppb .000 % -.044

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: L030325002 Seq: 161 16:29:56 21 Mar 2003 HG
L030325001DP
Hg -.074 ppb .000 % -.074

*** Sample ID: WG13670301 Seq: 162 16:31:04 21 Mar 2003 HG
L030325003
Hg -.095 ppb .000 % -.095

*** Check Standard: 2 Ck2CCV Seq: 163 16:32:21 21 Mar 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		98.7	.987	1.00	ppb	.000 %

*** Check Standard: 3 Ck3CCB Seq: 164 16:33:29 21 Mar 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-64.1	-.128	.200	ppb	.000 %

*** Sample ID: PS03 0.9 Seq: 165 16:34:49 21 Mar 2003 HG

Hg .917 ppb .000 % .917

*** Sample ID: WG13670305 Seq: 166 16:35:58 21 Mar 2003 HG
L030325004S
Hg .985 ppb .000 % .985

*** Sample ID: WG13670306 Seq: 167 16:37:06 21 Mar 2003 HG
L030325005SD
Hg 1.01 ppb .000 % 1.01

*** Check Standard: 2 Ck2CCV Seq: 168 16:38:23 21 Mar 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		96.8	.968	1.00	ppb	.000 %

*** Check Standard: 3 Ck3CCB Seq: 169 16:39:44 21 Mar 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-66.0	-.132	.200	ppb	.000 %

*** Sample ID: L030322802 Seq: 170 16:41:50 21 Mar 2003 HG
10X
Hg 2.94 ppb .000 % 2.94

*** Sample ID: L030330102 Seq: 171 16:42:58 21 Mar 2003 HG

Hg -.113 ppb .000 % -.113

*** Check Standard: 2 Ck2CCV Seq: 172 16:45:23 21 Mar 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		103.	1.03	1.00	ppb	.000 %

2.3.3.3 Preparation Log (s)

Analyst(s): TLT Box: J2 Digestion Work Group: WG 136703

Date: 3-20-03 @ 11:30

LCS: 0.5 ml DSS0053-68 Analytical Work Group: WG

MS/MSD: 0.5ml DSS0053-68

Witness: VC ME404 Revision # 6 - Method 7470A-Water

H_2SO_4 Lot #: S09 ME405 Revision # ____ - Method 7471A-Soil

K_2SO_4 Lot #: PS52

$KMNO_4$ Lot #: PM72 Bath Temperature @ start: *

HNO_3 Lot #: N33 Bath Temperature @ end: *

Earliest Sample Due Date: 3/21 Pressure & Time: ——

ICV / CCV: DSS0053-71 Stds: 0, 0.2, 1, 2, 5, 10: DSS0053-70

TLT 3/20/03

*NOTE: All Hg standards are digested

	KEMRON #	Initial Wt/Vol	Final Volume	Comments	Due Date
1	P.BIK W	50ml	50ml	WG 136703 -03	
2	LCSW			-04	
3	03-~~33~~ 256-02			NPDES	3/24
4	03-228-01			NPDES	3/24
5	-02				
6	301-02			L4	3/21
7	309-07			NPDES	3/24
8	320-01				3/24
9	-02				
10	327-06			NPDES	3/25
11	-14				
12	-53				
13	-62				
14	-71				
15	-75				
16	352-01			L4	3/21
17	250-01			L4 -02	3/27
18	-01dup			-07	
19	-02				
20	-03			-01	
21	-04MS			-05	
22	-05 MSD			-06	
23					
24					
25					
26					
27					
28					

BATH 1 95.0°C @ 15:00 95.4°C @ 17:00

BATH 2 95.0°C @ 15:00 95.0°C @ 17:00

Comments:

Peer Review By: [signature] 3/20/03 Supervisor Review:

2.3.3.4 Sample Calculations

Example Cold Vapor Mercury Calculations
Leeman PS202 Mercury Analyzer

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and five standards:

2.0 Calculating the concentration (C) of an element in water using data from run log and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = [\,Cs\,]\ [(Vf / Vi)]\ [D]$$

	Example:
Where:	
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Diluted To Volume (mL)	50
Vi = Aliquot Volume (mL)	40
D = Manual dilution factor, if required (10X = 10)	1
Cx = Concentration of element in ppb (ug/L)	**0.125**

3.0 Calculating the concentration (C) of an element in soil using data from prep log and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = [\,Cs\,]\ [(Vf / Ws)]\ [D]$$

	Example:
Where:	
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Diluted To Volume (mL)	50
Ws = Aliquot weight (g)	0.5
D = Manual dilution factor	1
Cx = Concentration of element in ug/kg	**10**

4.0 Adjusting the concentration to dry weight:

$$Cdry = [(Cx)(100)] / Px$$

Where:		
Cx = Concentration calculated as received (wet basis):		10
Px = Percent solids of sample (%wt)		80
	C(ug/kg)	**12.5**

12.5 ug/kg = 0.0125 mg/kg

2.4 General Chemistry Data

REPORT NARRATIVE
GENERAL CHEMISTRY

KEMRON Login No: L0303352

METHOD

Analysis: See report for method reference.

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met
Duplicates: All acceptance criteria were met
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Hexane Extractable Material

The sample was received in a non-compatible container. The sample was transferred to another container and analyzed. The result could be biased low.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: dih REVIEWED: dlh DATE: 3/26/03

Rev. 6/00

GENERAL CHEMISTRY - CYANIDE DATA

Login Number: L0303352

A. QC Summary

✓ Batch QC Summary Form(s)

B. Raw Data

✓ Cover Page
✓ Analysis Benchsheet
✓ Calculation Spreadsheet
✓ Calibration Data
✓ Example Calculation
(at end of package)

Checked By: dlh **Date:** 3/25/03

A. QC SUMMARY

KEMRON ENVIRONMENTAL SERVICES
OHIO VALLEY LABORATORY
QUALITY CONTROL SUMMARY

WORKGROUP: WG136804 RUN DATE: 3/20/00
METHOD: 335.4/9010 ANALYST: JWR
MATRIX: water DUPLICATE: 00-372-02
UNITS: mg/L SPIKE: 03 362-01

			CONCENTRATION PPM							PERCENT RECOVERY						PERCENT RPD	
ANALYTE	MDL	Blank	T-LCS	LCS	REP1	REP2	SAMPLE RESULT	T-MS	MS	LCS	LCS LCL	LCS UCL	MS	MS LCL	MS UCL	REP RPD	RPD UCL
Cyanide	0.0050	ND	0.44	0.418	0.24	0.24	0.00	0.22	0.217	94.98	90.90	110.00	97.33	83.00	107.00	0.00	15.00

NOTES & DEFINITIONS :
RDL = REPORTING DETECTION LIMIT
DL = DILUTED OUT
NA = NOT APPLICABLE
ND = NOT DETECTED
NR = NOT REQUIRED
J = RDL > BLANK >/= BLANK
LA = LAB ACCIDENT

LCS = LABORATORY CONTROL SAMPLE
T-LCS = TRUE VALUE OF LCS
REP1 = UNSPIKED SAMPLE REPLICATE 1
REP2 = UNSPIKED SAMPLE REPLICATE 2
SAMPLE RESULT = CONCENTRATION OF UNSPIKED MATRIX
T-MS = TRUE VALUE OF MATRIX SPIKE
MS = MATRIX SPIKE
LCL = LOWER CONTROL LIMIT
UCL = UPPER CONTROL LIMIT

REP RPD = RELATIVE PERCENT DIFFERENCE OF SAMPLE REPLICATES

B. RAW DATA

Wet Lab

Parameter: CN
Analyst/Date/Time: JWR 03/20/03 1030
SOP: K-3354 Revision: 8
Work Group(s): WG136804
Preservation Check: Yes ✓ No ____

	Analyst	
Calibration/Linearity	NA	Date: 02/18/03
Second Source Check	NA	
ICV/CCV (std)	✓	
ICB/CCB	✓	
Blank	✓	
LCS	✓	
MS/MSD	✓	
Duplicate	✓	
Record On ACS Benchsheet	NA	
Data Upload	✓	
EXCEL QC Sheet	✓	
QC Violation Sheet	NA	
Signed Raw Data	✓	
STD/LCS On Benchsheet	✓	

Primary Reviewer Initials & Date Checked JWR 03/24/03

Secondary Reviewer Initials & Date Checked dlh 3/24/03

- 4/4 • Check for compliance with Method and project-specific requirements
- 4/4 • Check the completeness of the reported information
- 4/4 • Check the information for the report narrative
- ____ • Check the reasonableness of results

Supervisory Review Initials & Date Checked dlh 3/24/03

Comments: _____

√- Checked & OK
NA - Not Applicable
DL - Diluted Out

CYANIDE

Workgroup: 136804

Spec: (#1 (UV-0120-02)) or #2 (UV-120-IV) (circle)

Matrix: (Liquid) Soil
(mg/L) (mg/Kg)

Method EPA 335.2 / 335.4 / 9010B / 9014
SOP #: K3354 Revision 8

CS-03-35-10
CCV(Cal STDs): ____ TRUE VALUE: 1120
Daily dilution: 5(1120)/250 = 22.40
10(22.4)/100 = 2.24
5(2.24)/50 = 0.224
1(2.24)/50 = 0.0448

CS-03-48-01A
LCS STOCK: ____ TRUE VALUE: 1104
Daily dilution: 5(1104)/250 = 22.08
10(22.09)/100 = 2.21
10(2.21)/50 = 0.442
1(2.21)/50 = 0.0442
SPIKE: (daily dilution) 5(2.21)/50 = 0.221
(same stock as LCS)

curve reference: CU-0006 p.33
(02/18/03)

Sample	Volume mL/grams	pH>12	Sulfide Presence	Dilution	Cell Size (cm)	Apparatus	Absorbance λ = 578 nm
CCV (high): 0.224 ppm	50ml			1	1		0.361
CCV (low): 0.0448 ppm	↓			1	5		0.382
Blank	↓			1	5		0.003
LCS: 0.0442 ppm	↓			1	5		0.373
LCS: 0.442 ppm	↓			1	1		0.690
03-357-01	10ml/50ml	yes	No	1	1		0.330
02	50ml	↓	↓	1	5		0.197
03	50ml	↓	↓	1	1		0.373
03-352-01	50ml	↓	↓	1	5		0.017
03-372-01	10ml/50ml	↓	↓	1	1		0.312
02	50ml	↓	↓	1	1		0.390
03-358-01 WC	50ml	↓	↓	1	5		0.157
04 WC	50ml	↓	↓	1	5		0.143
07 WC	50ml	↓	↓	1	5		0.124
Duplicate: 03-372-02	50ml	yes	No	1	1		0.390
MS: (0.221 ppm) 352-01	↓	↓	↓	1	1		0.360
MSD: (0.221 ppm) 352-01	↓	↓	↓	1	1		0.359
CCV high: (0.224 ppm)	50ml			1	1		0.365
CCV (low): (0.0448 ppm)	↓			1	5		0.386

ANALYST: John Richards DATE/TIME: 03/20/03/0930

APPROVAL: dlh 3/24/03

KEMRON ENVIRONMENTAL SERVICES
SAMPLE REPORT

Workgroup: WG136804
Analyte: CYANIDE

Analyst: JWR
Date: 03/20/2003

Sample ID	Int Vol	Fnl Vol	Response	Slope	Y Intercept	Anal. Conc.	Rep. Conc.	Dil	Units
WG136804-01	50	50	0.00300	8.777	0.00003413	0.00033790	0.00033790	1	mg/L
WG136804-02	50	50	0.373	8.777	0.00003413	0.042491	0.042491	1	mg/L
WG136804-03	50	50	0.690	1.660	-0.0001721	0.41588	0.41588	1	mg/L
L0303357-01	10	50	0.330	1.660	-0.0001721	0.19895	0.99477	1	mg/L
L0303357-02	50	50	0.197	8.777	0.00003413	0.022440	0.022440	1	mg/L
L0303357-03	50	50	0.373	1.660	-0.0001721	0.22486	0.22486	1	mg/L
L0303352-01	50	50	0.0170	8.777	0.00003413	0.0019329	ND	1	mg/L
WG136804-06	50	50	0.0170	8.777	0.00003413	0.0019329	0.0019329	1	mg/L
L0303372-01	10	50	0.312	1.660	-0.0001721	0.18811	0.94054	1	mg/L
L0303372-02	50	50	0.390	1.660	-0.0001721	0.23511	0.23511	1	mg/L
WG136804-04	50	50	0.390	1.660	-0.0001721	0.23511	0.23511	1	mg/L
L0303358-01	50	50	0.157	8.777	0.00003413	0.017883	0.017883	1	mg/L
L0303358-04	50	50	0.143	8.777	0.00003413	0.016288	0.016288	1	mg/L
L0303358-07	50	50	0.124	8.777	0.00003413	0.014123	0.014123	1	mg/L
WG136804-05	50	50	0.390	1.660	-0.0001721	0.23511	0.23511	1	mg/L
WG136804-07	50	50	0.360	1.660	-0.0001721	0.21703	0.21703	1	mg/L
WG136804-08	50	50	0.359	1.660	-0.0001721	0.21643	0.21643	1	mg/L

CONTINUING CALIBRATION REPORT

Workgroup #: WG136825
File ID: 02_0303200930-01
CCV ID: WG136825-01
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-02
Run Date: 03/20/2003
Run Time: 09:30
Analyst: JWR
Cal ID: UV-120 - 18-FEB-03

Analyte	Expected	Found	RF	%D	Q
Cyanide	.224	0.218	1.61	2.7	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

KEMRON FORMS - Modified 12/23/2002
Version 1.2
Report generated

CONTINUING CALIBRATION REPORT

Workgroup #: WG136825
File ID: 02_0303200930-02
CCV ID: WG136825-02
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-02
Run Date: 03/20/2003
Run Time: 09:30
Analyst: JWR
Cal ID: UV-120 - 18-FEB-03

Analyte	Expected	Found	RF	%D	Q
Cyanida	.0448	0.0435	8.53	2.9	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

KEMRON FORMS - Modified 12/23/2002
Version 1.2
Report generated

CONTINUING CALIBRATION REPORT

Workgroup #: WG136825
File ID: 02.0303200930-18
CCV ID: WG136825-03
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-02
Run Date: 03/20/2003
Run Time: 09:30
Analyst: JWR
Cal ID: UV-120 - 18-FEB-03

Analyte	Expected	Found	RF	%D	Q
Cyanide	.224	0.220	1.63	1.8	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

CONTINUING CALIBRATION REPORT

Workgroup #: WG136825
File ID: 02.0303200930-19
CCV ID: WG136825-04
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-02
Run Date: 03/20/2003
Run Time: 09:30
Analyst: JWR
Cal ID: UV-120 - 18-FEB-03

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0448	0.0440	8.62	1.8	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

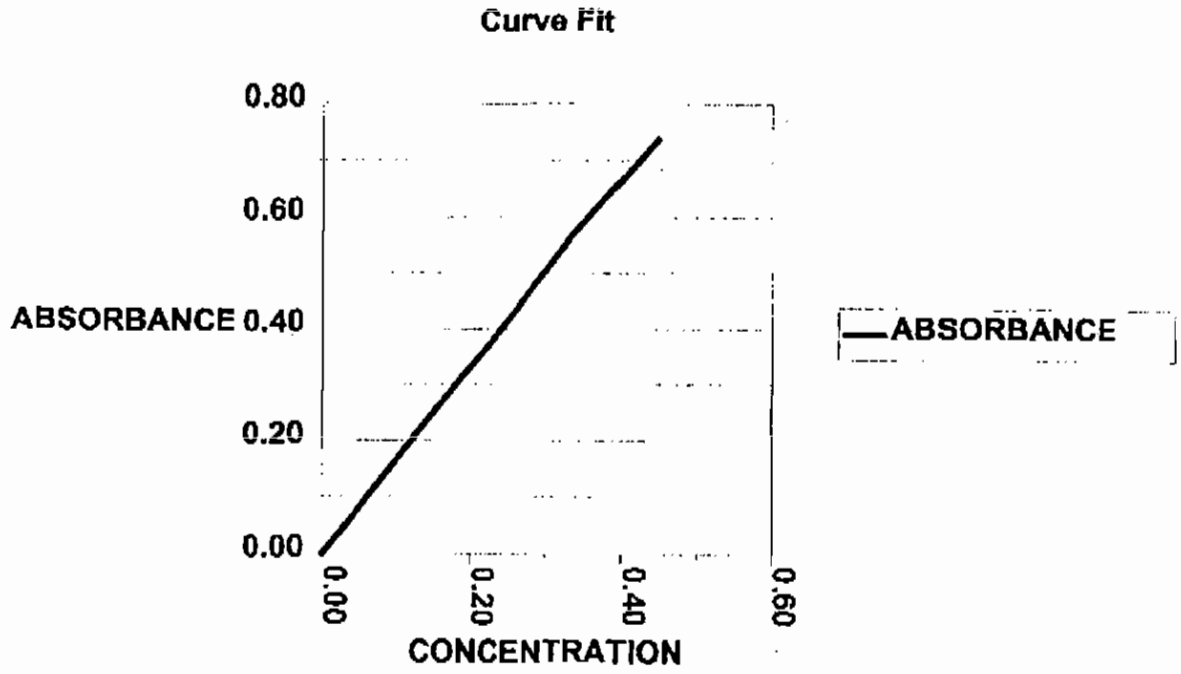
KEMRON FORMS - Modified 12/23/2002
Version 1.2
Report generated

KEMRON ENVIRONMENTAL SERVICES
INITIAL CALIBRATION

Workgroup:WG134742
Analytical Method:300
Instrument ID:UV-120-02
Analyst:JWR
Initial Calibration Date:02/18/2003

Analyte: CYANIDE (Lem)
Number of Points: 7
Slope: 1.65954
Y-Intercept: -0.000172052
Coef. Of Correlation (R^2): 0.999771
Coef. Of Correlation (R): 0.999885

Concentration X	Absorbance Y	X^2	X * Y	Y-Fitted (mX^2+B)
0.00	0.00	0.00	0.00	-0.000172052
0.0224	0.0360	0.000502	0.000806	0.0370016
0.0448	0.0730	0.00201	0.00327	0.0741753
0.112	0.187	0.0125	0.0209	0.185696
0.224	0.369	0.0502	0.0827	0.371565
0.336	0.566	0.113	0.190	0.557433
0.448	0.738	0.201	0.331	0.743301



KEMRON FORMS - Modified 01/29/2003
Version 1.0
Report generated

ALTERNATE SOURCE REPORT

Workgroup #: WG134742 Instrument ID: UV-120-02

File ID: 02.0302180835-08 Run Date: 02/18/2003

CCV ID: WG134742-08 Run Time: 08:35

Units: mg/L Analyst: JWR

Analyte: CYANIDE Cal ID: UV-120 - 18-FEB-03 08:35:07

Analyte	Expected	Found	RF	%D	Q
Cyanide	.221	0.232	1.74	5.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

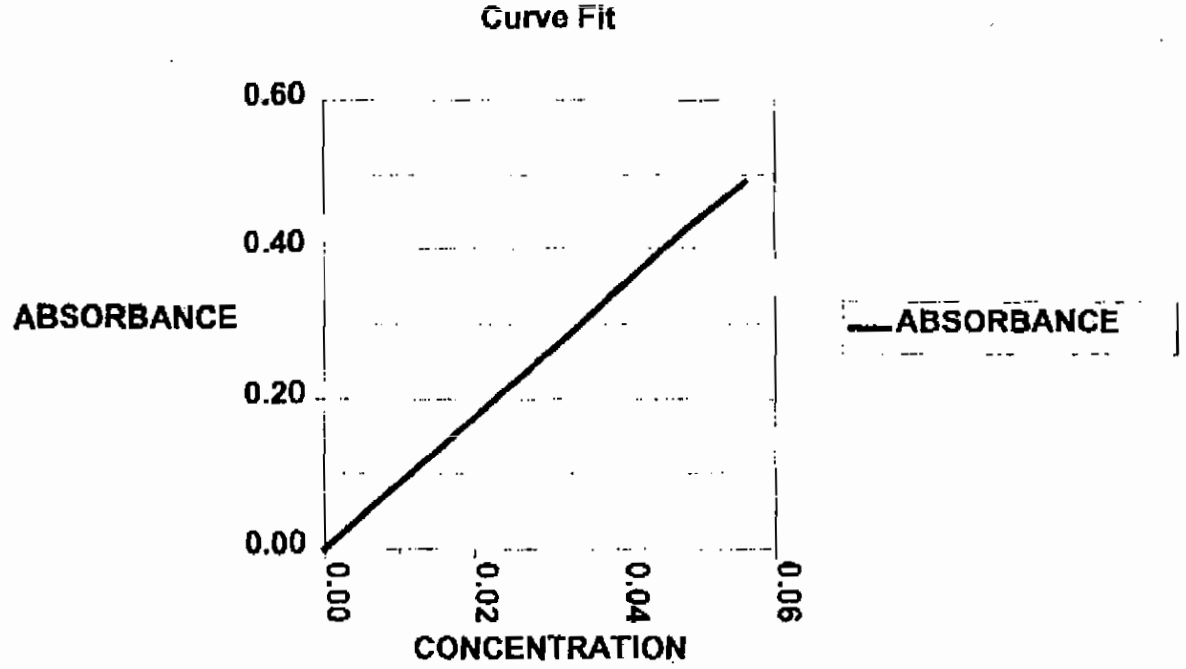
KEMRON FORMS - Modified 12/23/2002
Version 1.2
Report generated

KEMRON ENVIRONMENTAL SERVICES
INITIAL CALIBRATION

Workgroup:WG134740
Analyst:JWR
Analytical Method:300
Initial Calibration Date:02/18/2003
Instrument ID:UV-120-02

Analyte: CYANIDE (5 cm)
Number of Points: 7
Slope: 8.77743
Y-Intercept: 0.0000341297
Coef. Of Correlation (R^2): 0.999894
Coef. Of Correlation (R): 0.999947

Concentration X	Absorbance Y	X^2	X * Y	Y-Fitted (mX^2+B)
0.00	0.00	0.00	0.00	0.0000341297
0.00560	0.0500	0.0000314	0.000280	0.0491877
0.0112	0.0980	0.000125	0.00110	0.0983413
0.0224	0.196	0.000502	0.00439	0.196648
0.0336	0.293	0.00113	0.00984	0.294956
0.0448	0.397	0.00201	0.0178	0.393263
0.0560	0.490	0.00314	0.0274	0.491570



KEMRON FORMS - Modified 01/29/2003
Version 1.0
Report generated

Workgroup #: WG134740 Instrument ID: UV-120-02
File ID: 02_0302180830-08 Run Date: 02/18/2003
CCV ID: WG134740-08 Run Time: 08:30
Units: mg/L Analyst: JWR
Analyte: CYANIDE Cal ID: UV-120 -18-FEB-03 08:30:07

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0221	0.0214	8.51	3.2	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

KEMRON FORMS - Modified 12/23/2002
Version 1.2
Report generated

Parameter: Cyanide

Spectrophotometer: UV-120-02

Calibration (Curve) standard stock: CS-03-35-10

Concentration: 1120 mg/L

Recipe for preparation of curve standards found in:
SOP: K3354 Revision: 8 Page: 9

Second Source Stock: CS-03-48-01A (concentration: JWR ~~1103~~ 1104 mg/L)

5(1103)/250 = 22.08

Daily Preparation: 10(22.08)/100 = 2.21

10(2.21)/100 = 0.221

concentration = 10(0.221)/100 = 0.0221

Calibration Standards (mg/L)	Volume	Cell Size	Wavelength	Absorbance
Low Level				
0.000	50ml	5cm	578nm	0.000
0.0056	↓	↓	↓	0.050
0.0112	↓	↓	↓	0.098
0.0224	↓	↓	↓	0.196
0.0336	↓	↓	↓	0.293
0.0448	↓	↓	↓	0.397
0.0560	↓	↓	↓	0.490
2nd (0.0221)	↓	↓	↓	0.188
High Level				
0.000	50ml	1cm	578nm	0.000
0.0224	↓	↓	↓	0.036
0.0448	↓	↓	↓	0.073
0.112	↓	↓	↓	0.187
0.224	↓	↓	↓	0.369
0.336	↓	↓	↓	0.566
0.448	↓	↓	↓	0.738
2nd (0.221)	↓	↓	↓	0.385

wg 134740

wg 134742

Analyst: John Richards

Date/Time: 02/~~18~~ JWR 03/0830

Approved by: dwh 2/19/03

GENERAL CHEMISTRY DATA

Login Number: L0303352

Analyte: pH

A. QC Summary

NA Batch QC Summary Form(s)

B. Raw Data

✓ Cover Page
✓ Analysis benchsheet
NA Calculation spreadsheet
NA Calibration data
✓ Example calculation
(at end of package)

Checked By: dlh Date: 3/25/03

B. RAW DATA

Wet Lab

Parameter: PH
Analyst/Date/Time: TMM 3/18/03 @ 1100
SOP: K-1501 Revision: 9
Work Group(s): 136521
Preservation Check: Yes ____ No ____

	Analyst	
Calibration/Linearity	meter	Date: 3/18/03
Second Source Check		
ICV/CCV (std)		
ICB/CCB		
Blank		
LCS	✓	
MS/MSD		
Duplicate	✓	
Record On ACS Benchsheet	✓	
Data Upload		
EXCEL QC Sheet		
QC Violation Sheet		
Signed Raw Data	✓	
STD/LCS On Benchsheet	✓	

Primary Reviewer Initials & Date Checked TMM 3/19/03

Secondary Reviewer Initials & Date Checked JWR 03/19/03

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
✓ • Check the information for the report narrative
✓ • Check the reasonableness of results

Supervisory Review Initials & Date Checked JWR 03/19/03

Comments:

X1

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

Sample	Calibration buffers	Water Misc. Liquid	50 % Slurry Of Solid	50% Water Org.Liq. Mix
LCS 6 CS-03-40-12	7, 4, 10	5.989		
03-300-01		12.164		
-07		12.383		
03-303-01		7.780		
03-320-01		10.142		
-02		7.067		
03-237-01	DUP	6.650	6.650	
03-285-01		8.761	8.761	
03-287-01			8.127	
LCS12 CS-03-47-17		12.529		
DUP 03-303-01		7.773		
LCS 9 CS-03-48-03		8.992		

EPA 150.1
SW846 9040B/9045C

SOP K1501 Rev 9

ADT DUP 03-14 03/16 30

WORKGROUP 136313

APPROVAL 3/15/03

Circle Instrument
(Orion 710A #1)
Orion 710A #2
Sargent - Welch

Sample	Calibration buffers	Water Misc. Liquid	50 % Slurry Of Solid	50% Water Org.Liq. Mix
LCS 6 CS-03-40-12	7, 4, 10	5.981		
03-342-01		6.688		
02		7.245		
03		7.092		
04		5.229		
05		8.628		
06		6.760		
07		7.200		
08		8.977 DUP		
09		7.333		
10		7.728		
11		7.021		
12		6.294		
03343-01		7.530		
03-344-01		7.237		
02		7.479		
03-348-02		6.466		
01		6.856		
* 03-356-01A		7.138		
03-356-01B		7.126		
03-352-01A		7.953		
DUP 03-342-07		7.206		
LCS 9 CS-03-48-03		9.066		
LCS " " "		9.031		

EPA 150.1
SW846 9040B/9045C

SOP K1501 Rev 9

ADT Imm 3/18/03 @ 1100

WORKGROUP 136521

APPROVAL 3/19/03

Circle Instrument
(Orion 710A #1)
Orion 710A #2
Sargent - Welch

Reviewed by: 3/19/03

* Client sent 2 bottles - page, P14 A

GENERAL CHEMISTRY DATA

Login Number: L0303352

Analyte: Flashpoint

A. QC Summary

NA Batch QC Summary Form(s)

B. Raw Data

✓ Cover Page
✓ Analysis benchsheet
NA Calculation spreadsheet
NA Calibration data
✓ Example calculation
(at end of package)

Checked By: dlh Date: 3/25/03

B. RAW DATA

Wet Lab

Parameter: Flash
Analyst/Date/Time: JWR 03/18/03/1700
SOP: K- 1010 Revision: 9
Work Group(s): WG136527
Preservation Check: Yes ____ No ✓

	Analyst	
Calibration/Linearity	NA	Date:
Second Source Check	NA	
ICV/CCV (std)	NA	
ICB/CCB	NA	
Blank	NA	
LCS	✓	
MS/MSD	NA	
Duplicate	✓	
Record On ACS Benchsheet	✓	
Data Upload	NA	
EXCEL QC Sheet	NA	
QC Violation Sheet	NA	
Signed Raw Data	✓	
STD/LCS On Benchsheet	✓	

Primary Reviewer Initials & Date Checked JWR 03/18/03

Secondary Reviewer Initials & Date Checked dln 3/19/03

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
✓ • Check the information for the report narrative
✓ • Check the reasonableness of results

Supervisory Review Initials & Date Checked JWR 03/19/03

Comments:

X

√- Checked & OK
NA - Not Applicable
DL - Diluted Out

FLASHPOINT

LCS: CS-03-41-10 {2.47 2.41 Workgroup: 136527
TEMPERATURE: 20°C PRESSURE: 741.8 mm Hg

SOP K1010 Revision #: 9 Method SW846 1010

SAMPLE	DESCRIPTION	INITIAL TEMP(C)	COMMENTS or FLASHPOINT	FINAL RESULT (C)
LCS	p-Xylene	13°	flashed	28°
LCS DUP	p-Xylene	15°	flashed	28°
03-175-01	Clear Liquid-Organic Odor	-3°	flashed	25°
* 238-09	Clear Liquid - Bottom Layer	< -5°	no flash	Non Ignit.
352-01	Cloudy Liquid, water	20°	no flash	>95°
*	Test flame cannot be directed down into the sample cup compartment. A dome of flame is noticed above the opening to the sample cup compartment, indicating vapors are emitted from the sample. The flashpoint cannot be determined due to the test flames inability to enter the sample compartment.			
DUP: 175-01	" "	-1°	flashed	25°

ANALYST: John Richards DATE: 03/18/03 1700

REVIEWED BY: dlm 3/19/03

18: 'CORRECTION FOR FLASH: SHEET

OBSERVED BAROMETRIC PRESSURE:	741.8	
LOWEST PRESSURE IN BRACKET:	740	ADT:JWR/03/18/03/1700
TEMP CORR. 1:	2.47	
TEMP CORR. 2:	2.41	WRKGRP:WG136527
LOWEST PRESSURE IN BRACKET:	700	
GRAV CORR 1:	0.48	
GRAV CORR 2:	0.42	

TMP COR: 2.4154

GRAV COR: 0.44508

CORRECTED BAROMETRIC PRESSURE:	755.3795
CORRECTION FOR FLASH:	0.152475

MAIN

8-Mar-03 07:18 PM ONLINE CAPSNUM [?]

dln 3/19/03

GENERAL CHEMISTRY DATA

Login Number: L0303352

Analyte: HEM

A. QC Summary

✓ Batch QC Summary Form(s)

B. Raw Data

✓ Cover Page
✓ Analysis benchsheet
✓ Calculation spreadsheet
NA Calibration data
✓ Example calculation
(at end of package)

Checked By: dlh Date: 3/25/03

A. QC SUMMARY

QUALITY CONTROL SUMMARY
OHIO VALLEY LABORATORY
QUALITY CONTROL SUMMARY

WORKGROUP: WG136612
METHOD: EPA 1664
MATRIX: WATER
UNITS: MGL

RUN DATE: 5/19/2000
ANALYST: DLP
DUPLICATE: LCS
SPIKE: ONS

ANALYTE	MDL	Blank	CONCENTRATION PPM T-LCS	LCS	REP1	REP2	SAMPLE RESULT	T-MS	MS	PERCENT RECOVERY LCS	LCS LCL	LCS UCL	MS	MS LCL	MS UCL	PERCENT RPD REP RPD	RPD UCL
OG-HEM	2.00	ND	25.00	22.60	22.60	25.40	ONS	15.00	ONS	90.40	78.00	114.00	ONS	78.00	114.00	11.67	18.00

NOTES & DEFINITIONS:
RDL = REPORTING DETECTION LIMIT
OL = DILUTED OUT
NA = NOT APPLICABLE
ND = DETECTED
J = RDL > BLANK >= MDL

LCS = LABORATORY CONTROL SAMPLE
T- LCS = TRUE VALUE OF LCS
REP1 = UNSPIKED SAMPLE REPLICATE 1
REP2 = UNSPIKED SAMPLE REPLICATE 2
SAMPLE RESULT = CONCENTRATION OF UNSPIKED MATRIX
T-MS = TRUE VALUE OF MATRIX SPIKE
MS = MATRIX SPIKE
LCL = LOWER CONTROL LIMIT
UCL = UPPER CONTROL LIMIT

REP RPD = RELATIVE PERCENT DIFFERENCE OF SAMPLE REPLICATES

B. RAW DATA

Wet Lab

Parameter: Hem #046
Analyst/Date/Time: DLP 03-19-03 / 0830
SOP: K-1664 Revision: 1
Work Group(s): 13661
Preservation Check: Yes ____ No ____

	Analyst	
Calibration/Linearity		Date:
Second Source Check		
ICV/CCV (std)		
ICB/CCB		
Blank	✓	
LCS	✓	
MS/MSD		
Duplicate		
Record On ACS Benchsheet		
Data Upload	✓	
EXCEL QC Sheet	✓	
QC Violation Sheet		
Signed Raw Data	✓	
STD/LCS On Benchsheet	✓	

Primary Reviewer Initials & Date Checked DLP 03-19-03

Secondary Reviewer Initials & Date Checked JWR 03/19/03

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
✓ • Check the information for the report narrative
✓ • Check the reasonableness of results

Supervisory Review Initials & Date Checked JWR 03/19/03

Comments: _____

X

√ - Checked & OK
NA - Not Applicable
DL - Diluted Out

Hexane Extractable Material

SOP K1664 Revision #: 1
☒ EPA Method 1664

Speed Vap Temperature: 35

Workgroup #: 136613
LCS: CS-03-99-17
Daily Dilution: 5(5000)/1000 = 25
Matrix Spike: _____
Daily Dilution: QNS

All results are mg/L

Sample	Disk Type	pH Check	EXT. #	Volume (mL)	Initial Weight WT1 (g)	Dry Weight WT2 (g)	Comments
1 BLANK	WH	✓	1	1000	2.5871	2.5871	
2 LCS: 25 mg/L			2	1000	2.6013	2.6239	
LCSDUP: 25 mg/L			1	1000	2.5729	2.5783	
03-331-01			2	940	2.5638	2.5639	
* 03-352-01			1	730	2.6040	2.6050	
03-267-01			1	830	2.5585	2.5657	yellow film layer
-02			2	950	2.5534	2.5534	
03-299-01			2	970	2.5607	2.5863	yellow film layer
03-309-05			1	970	2.5738	2.5769	yellow film
NPM -05			1	960	2.5535	2.5585	yellow film
03-311-01			2	986	2.5586	2.5586	
-02	↓	↓	2	990	2.5626	2.5626	
* This sample was received in a bottle that wouldn't adapt to the Hem extractor, so the sample was poured into a different bottle for extraction.							
MS (_____ mg/L)							
MSD (_____ mg/L)							

Beginning weight check: 2 mg 0.0020; 1 g 1.0001

Ending weight check: 2 mg 0.0020; 1 g 1.0001

Disk Type: (WH) Whatman SPE, (3M) 3M Empore, (CPI) CPI SPE

Analyst: Quentin Ryan Date / Time: 03-19-03 / 0830

Reviewed by: JAR 03/19/03

KEMRON ENVIRONMENTAL SERVICES
GRAVIMETRIC REPORT

Workgroup (AAB#):WG136612 Analyst:DLP

Product:1664A\METHOD Run Date:03/19/2003 08:30

Analyte:OIL_&_GREASE

SAMPLE NUMBER	INITIAL VOL	INITIAL WT	FINAL WT	Anal. Conc	Rep. Conc.	Units
WG136612-01	1000	2.5871	2.5871	0	0	mg/L
WG136612-02	1000	2.6013	2.6239	22.60	22.60	mg/L
WG136612-03	1000	2.5729	2.5983	25.40	25.40	mg/L
L0303331-01	940	2.5638	2.5639	0.1064	ND	mg/L
L0303352-01	730	2.604	2.605	1.370	ND	mg/L
L0303267-01	880	2.5585	2.5657	8.675	8.675	mg/L
L0303267-02	950	2.5534	2.5534	0	ND	mg/L
L0303299-01	970	2.5607	2.5863	26.39	26.39	mg/L
L0303309-05	970	2.5738	2.5769	3.196	ND	mg/L
L0303309-08	960	2.5535	2.5585	5.208	ND	mg/L
L0303311-01	980	2.5586	2.5586	0	ND	mg/L
L0303311-02	990	2.5626	2.5626	0	ND	mg/L

KEMRON FORMS - Modified 03/11/2003
Version 1.3
Report generated

EXAMPLE CALCULATION

Cyanide (total and weak-dissociable)

[(absorbance - intercept)/(slope * dilution)/(volume)] * 50 = mg/L or mg/kg CN

where: absorbance = reading from the spectrophotometer
intercept = calculated from calibration standard absorbencies
slope = calculated from calibration standard absorbencies
dilution = dilution of the distillate in decimal form (ex. 1/5 dilution = 0.2)
volume = grams or mL of sample used in the distillation
50 = total volume (mL) in the distillation flask

Cyanide (amenable to chlorination)

The cyanide calculation is used to calculate the cyanide in the total and treated portion of the sample

(Y - X) = mg/L of mg/kg CN amenable to chlorination

where: Y = result for the total sample
X = result for the treated sample

Spectrophotometric (excluding all forms of cyanide)

(absorbance - intercept)/(slope * dilution) = mg/L

where: absorbance = reading from the spectrophotometer
intercept = calculated from calibration standard absorbencies (unique to each parameter)
slope = calculated from calibration standard absorbencies (unique to each parameter)
dilution = dilution factor in decimal form (ex. 1/5 dilution = 0.2)

Direct Readout Parameters (includes pH, fluoride, turbidity, color, residual chlorine, automated procedures)

(Readout)/(dilution) = mg/L

where: readout = direct readout from the instrument
dilution = dilution in decimal form (ex. 1/5 dilution = 0.2)

KEMRON ENVIRONMENTAL SERVICES
CALCULATIONS REVISION 0

Reactive cyanide

(absorbance - intercept)/(slope * dilution) = A
(volume NaOH)/(grams of sample) = B

[A * B] = mg/kg reactive cyanide

where: absorbance = reading from the spectrophotometer
intercept = calculated from calibration standard absorbencies
slope = calculated from calibration standard absorbencies
dilution = dilution of the distillate in decimal form (ex. 1/5 dilution = 0.2)
volume NaOH = mL of NaOH in the scrubber
grams sample = grams of the sample used for analysis

Flashpoint

C + 0.033(760 - P) = flashpoint, corrected for barometric pressure

where: C = observed flashpoint (Celsius)
P = ambient barometric pressure(mm Hg) corrected for temperature and gravity

Specific gravity

Liquids, sludges
[(S - W)/(R - W)] * F = specific gravity (water = 1.00)

Solids, rocks
(P - W) = A
[(R - W) - (Q - P) = B
(A/B) * F = specific gravity (water = 1.00)

where: W = weight of container
S = weight of container & sample
R = weight of container & water
P = weight of container & solid sample
Q = weight of container, sample & water
F = temperature factor

BTU

[(D * 1.8 * A) - (C * 11373)]/B = heat of combustion (BTU/lb)

where: B = sample weight (grams)
C = benzoic acid weight if used (grams)
D = net temperature rise(corrected)
1.8 = constant to get units in BTU/lb
11373 = BTU/lb of benzoic acid
A = calibration constant of the bomb used

KEMRON ENVIRONMENTAL SERVICES
CALCULATIONS REVISION 0

Titrimetric (excludes sulfide, bromide, TX, acidity(H202))

[(A - B) * N * Q]/(volume * dilution) = mg/L

where: A = mL of titrant used for the sample
B = mL of titrant used for the blank
N = normality of the titrant
volume = volume of sample titrated
dilution = dilution in decimal form (ex. 1/5 dilution = 0.2)
Q = equivalent weight (different for each analysis)
Chloride = 35450
Hardness = 50000
Alkalinity = 50000
Acidity = 50000
Ammonia = 14000
Sulfite = 40000
TX (total halide) = 40000
Iodide = 21150

Gravimetric (excludes volatile solids, ash, oil & grease)

[(WT2 - WT1) * 1000000]/volume = mg/L

where: WT1 = weight (grams) of empty container
WT2 = weight (grams) of dried sample and container
1000000 = factor to get to mg/L
volume = mL of sample used

Oil and Grease

Using the gravimetric calculation, a blank is calculated, and all sample results are blank corrected.

Hexane Extractable Material

Use the gravimetric calculation. The samples are not blank corrected.

2.3.3.4 Sample Calculations

Example Cold Vapor Mercury Calculations
Leeman PS202 Mercury Analyzer

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and five standards:

2.0 Calculating the concentration (C) of an element in water using data from run log and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = [\,Cs\,]\ [(Vf / Vi)]\ [D]$$

	Example:
Where:	
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Diluted To Volume (mL)	50
Vi = Aliquot Volume (mL)	40
D = Manual dilution factor, if required (10X = 10)	1
Cx = Concentration of element in ppb (ug/L)	0.125

3.0 Calculating the concentration (C) of an element in soil using data from prep log and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = [\,Cs\,]\ [(Vf / Ws)]\ [D]$$

	Example:
Where:	
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Diluted To Volume (mL)	50
Ws = Aliquot weight (g)	0.5
D = Manual dilution factor	1
Cx = Concentration of element in ug/kg	10

4.0 Adjusting the concentration to dry weight:

$$Cdry = [(Cx)(100)] / Px$$

Where:		
Cx = Concentration calculated as received (wet basis):		10
Px = Percent solids of sample (%wt)		80
	C(ug/kg)	**12.5**

12.5 ug/kg = 0.0125 mg/kg

2.4 General Chemistry Data

REPORT NARRATIVE
GENERAL CHEMISTRY

KEMRON Login No: L0304554

METHOD

Analysis: See report for method reference.

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Duplicates: All acceptance criteria were met
Matrix Spikes: All acceptance criteria were met.

SAMPLES

There were no technical difficulties with this sample group

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: dih REVIEWED: dlh DATE: 5/2/03

Rev. 6/00

GENERAL CHEMISTRY DATA

Login Number: L0304554

Analyte: pH

A. QC Summary

NA Batch QC Summary Form(s)

B. Raw Data

✓ Cover Page
✓ Analysis benchsheet
NA Calculation spreadsheet
NA Calibration data
NA Example calculation
(at end of package)

Checked By: dlh Date: 5/2/03

B. RAW DATA

Wet Lab

Parameter: pH
Analyst/Date/Time: Tmm 4/28/03 0815
SOP: K-1501 Revision: 9
Work Group(s): 139255
Preservation Check: Yes ____ No ____

	Analyst	
Calibration/Linearity		Date:
Second Source Check		
ICV/CCV (std)		
ICB/CCB		
Blank		
LCS		
MS/MSD		
Duplicate	✓	
Record On ACS Benchsheet	✓	
Data Upload		
EXCEL QC Sheet		
QC Violation Sheet		
Signed Raw Data	✓	
STD/LCS On Benchsheet		

Primary Reviewer Initials & Date Checked Tmm 4/28/03

Secondary Reviewer Initials & Date Checked dwh 4/28/03

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
✓ • Check the information for the report narrative
✓ • Check the reasonableness of results

Supervisory Review Initials & Date Checked dwh 4/28/03

Comments: 2

√ - Checked & OK
NA - Not Applicable
DL - Diluted Out

	Sample	Calibration buffers	Water Misc. Liquid	50 % Slurry Of Solid	50% Water Org.Liq. Mix
	LCS 6 CS-03-40-12	7,4,10	6.020		
	04-575-08		6.098		
El Dupont	LSol 04-582-03		6.69		
MS	LSol -05		6.70		
MSD	LSol -07		6.72		
	G-MW-1-A -12		6.53		
	G-MW-8-B -14		12.580		
K-E	Blk-GW -09		6.64		
G-MW-13	A -16		7.30		
W-LSO	-01		7.97		
	LCS 12.95 CS-03-47-17		12.48		
LSol	DUP 04-582-03		6.70		
	LCS 9 CS-03-48-03		9.031		

EPA 150.1
SW846 9040B/9045C

SOP K1501 Rev 9

ADT DW 04-26-03 | 1240

WORKGROUP 139174

APPROVAL _____

Circle Instrument
Orion 710A #1
Orion 710A #2
Sargent - Welch

	Sample	Calibration buffers	Water Misc. Liquid	50 % Slurry Of Solid	50% Water Org.Liq. Mix
	LCS 6 CS-03-40-12	7,4,10	6.044		
	04-605-01		2.554		✓
	04-594-01		7.380		✓
	-02		7.679		✓
	04-536-01			8.612	✓
	04-554-01			8.562	✓
	04-594-03			8.524	✓
	04-575-01			6.943	✓
	02			6.927	✓
	03			7.163	✓
	04			7.267	✓
	05-06-07			7.269	✓
	~~04-594-01mm~~				
	04-501-01			14.176	✓
	02		10.115		✓
	06		14.060		✓
	04-498-01			6.875	✓
	04-500-02			7.012	✓
	04-543-09			7.831	✓
12.45	10			7.630	✓
LCS-	CS-04-03-07		12.436		
	DUP 04-594-01		7.379		
	LCS 9 CS-03-48-03	7,4,10	8.999		

EPA 150.1
SW846 9040B/9045C

SOP K1501 Rev 9

ADT Tmm 4/28/03 @ 1545

WORKGROUP 139251

APPROVAL dwh 4/28/03

~~Circle Instrument~~
Orion 710A #1
Orion 710A #2
Sargent - Welch

Reviewed by: _____

GENERAL CHEMISTRY DATA

Login Number: L03045554

Analyte: Flashpoint

A. QC Summary

NA Batch QC Summary Form(s)

B. Raw Data

✓ Cover Page
✓ Analysis benchsheet
✓ Calculation spreadsheet
NA Calibration data
✓ Example calculation
(at end of package)

Checked By: dwh Date: 5/2/03

B. RAW DATA

Wet Lab

Parameter: Flash
Analyst/Date/Time: DH 4/29/03
SOP: K-1010 Revision: 10
Work Group(s): 139297
Preservation Check: Yes _____ No _____

	Analyst	
Calibration/Linearity		Date: —
Second Source Check		
ICV/CCV (std)		
ICB/CCB		
Blank		
LCS	✓	
MS/MSD		
Duplicate	✓	
Record On ACS Benchsheet	✓	
Data Upload		
EXCEL QC Sheet		
QC Violation Sheet		
Signed Raw Data	✓	
STD/LCS On Benchsheet	✓	

Primary Reviewer Initials & Date Checked dlh 4/30/03

Secondary Reviewer Initials & Date Checked _____

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
✓ • Check the information for the report narrative
✓ • Check the reasonableness of results

Supervisory Review Initials & Date Checked dlh 4/30/03

Comments: _____

2

√ - Checked & OK
NA - Not Applicable
DL - Diluted Out

FLASHPOINT

LCS: CS-03-41-10 Workgroup: 139297
TEMPERATURE: 21 PRESSURE: 746.4

SOP K1010 Revision #: 10 Method SW846 1010

SAMPLE	DESCRIPTION	INITIAL TEMP(C)	COMMENTS or FLASHPOINT	FINAL RESULT (C)
LCS	p-xylene	15	flashed 28	28
LCS DUP	↓	16	flashed 28.5	28.5
✓ 04-457-01	clear solvent	14	flashed 64	64
✓ 04-500-01	black thick liq "oil"	20	no flash	>95
✓ 04-458-01	red liquid "oil"	19	no flash	>95
✓ 04-543-06	thick oil	24	no flash	>95
04-594-01	water	17	no flash	>95
02	water	21	no flash	>95
✓ 04-548-01	~~soil~~ water/mud	15	no flash	>95
✓ 04-544-01	brown liq "dead fish"	14	no flash	>95
04-594-03	soil	24	no flash	>95
✓ 04-536-01	soil "fruity"	27	no flash	>95
✓ 04-554-01	soil	24	no flash	>95
✓ 04-572-01	soil	26	no flash	>95
DUP: 04-457-01	clear liq	24	flashed 63	63

ANALYST: Deanna Olson DATE: 4/29/03/0745

REVIEWED BY: _____

[?]

G5: 139297 SHEET

1	OBSERVED BAROMETRIC PRESSURE:	746.4		
2				
3	LOWEST PRESSURE IN BRACKET:	740	ADT:DIH/4/29/03	
4	TEMP CORR. 1:	2.72		
5	TEMP CORR. 2:	2.65	WRKGRP: 139297	
6				
7	LOWEST PRESSURE IN BRACKET:	700		
8	GRAV CORR 1:	0.48		
9	GRAV CORR 2:	0.42		
10				
11				
12	TMP COR: 2.6724			
13				
14	GRAV COR: 0.44784			
15				
16	CORRECTED BAROMETRIC PRESSURE:	759.7197		
17				
18	CORRECTION FOR FLASH:	0.009247		
19				
20				

MAIN

30-Apr-03 04:01 PM ONLINE CAPSNUM [?]

EXAMPLE CALCULATION

KEMRON ENVIRONMENTAL SERVICES
CALCULATIONS REVISION 0

Reactive cyanide

(absorbance - intercept)/(slope * dilution) = A
(volume NaOH)/(grams of sample) = B

[A * B] = mg/kg reactive cyanide

where: absorbance = reading from the spectrophotometer
intercept = calculated from calibration standard absorbencies
slope = calculated from calibration standard absorbencies
dilution = dilution of the distillate in decimal form (ex. 1/5 dilution = 0.2)
volume NaOH = mL of NaOH in the scrubber
grams sample = grams of the sample used for analysis

Flashpoint

C + 0.033(760 - P) = flashpoint, corrected for barometric pressure

where: C = observed flashpoint (Celsius)
P = ambient barometric pressure(mm Hg) corrected for temperature and gravity

Specific gravity

Liquids, sludges
[(S - W)/(R - W)] * F = specific gravity (water = 1.00)

Solids, rocks
(P - W) = A
[(R - W) - (Q - P) = B
(A/B) * F = specific gravity (water = 1.00)

where: W = weight of container
S = weight of container & sample
R = weight of container & water
P = weight of container & solid sample
Q = weight of container, sample & water
F = temperature factor

BTU

[(D * 1.8 * A) - (C * 11373)]/B = heat of combustion (BTU/lb)

where: B = sample weight (grams)
C = benzoic acid weight if used (grams)
D = net temperature rise(corrected)
1.8 = constant to get units in BTU/lb
11373 = BTU/lb of benzoic acid
A = calibration constant of the bomb used

PERCENT SOLIDS DATA

Login Number: L0304554

✓ **Analysis benchsheet**

✓ **Calculation spreadsheet**

Example calculation:

[(WT3 - WT1)/(WT2 - WT1)] * 100 = % solids

100 - (% solids) = % moisture

where: WT1 = Weight (grams) of empty container
WT2 = Weight (grams) of container and wet sample
WT3 = Weight (grams) of container and dry sample
100 = factor to get units as percent weight

Checked By: dlh Date: 5/2/03

PERCENT SOLIDS

Workgroup: 139244 ADT (on): Tmm 4/28/03 @ 1055
SOP K0003 Rev: 9 ADT (off): Tmm 4/29/03 @ 940 Approval: mm 4/30/03

Sample	Empty Pan WT 1	WET WT 2	DRY WT 3A	WET WT 3B	DRY WT 3C
04-595-01	1.24	21.53	17.23		
02	1.24	23.73	18.55		
03	1.24	20.12	15.55		
04	1.24	19.13	13.93		
05	1.24	28.53	23.92		
04-596-01	1.25	19.66	16.65		
02	1.25	28.67	22.29		
03	1.24	18.60	13.13		
04	1.23	24.14	19.59		
05	1.24	29.40	23.57		
06	1.23	18.32	13.67		
07	1.24	23.13	19.30		
04-597-01	1.24	30.53	27.26		
02	1.24	25.56	21.29		
04-554-01	1.23	26.93	23.31		
04-572-01	1.24	31.47	28.78		
04-594-03	1.24	28.73	21.40		
04-536-01	1.24	28.26	22.79		
04-484-01	1.24	20.85	11.51		
02	1.24	27.38	21.96		
plicate 04-596-02	1.26	21.61	16.68		

Workgroup: 139246 ADT (on): Tmm 4/28/03 @ 1435
SOP K0003 Rev: 9 ADT (off): Tmm 4/29/03 @ 945 Approval: mm 4/30/03

Sample	Empty Pan WT 1	WET WT 2	DRY WT 3A	WET WT 3B	DRY WT 3C
04-488-03	1.22	26.53	15.46		
04	1.24	35.14	22.60		
05	1.24	18.32	5.78		
06	1.24	37.66	30.44		
07	1.21	25.71	21.30		
08	1.21	23.81	14.43		
04-575-01	1.24	22.82	1.90	Samples Worthy water	
02	1.24	23.70	1.93		
03	1.24	25.56	2.31		
04	1.24	24.15	3.33		
05-06-07	1.24	32.76	11.31		
plicate 04-488-04	1.28	22.14	13.94		

KEMRON ENVIRONMENTAL SERVICES
PERCENT SOLID REPORT

Workgroup (AAB#): WG139244 Run Date: 04/28/2003
Method: D2216-90 Run Time: 10:55
Analyst: TMM

SAMPLE NUMBER	Pan WT.	Int WT.	Fnl WT.	% Solid	UNITS
L0304488-01	1.240	20.85	11.51	52.37	%
L0304488-02	1.240	27.28	21.96	79.57	%
L0304536-01	1.240	28.26	22.79	79.76	%
L0304554-01	1.230	26.93	22.31	82.02	%
L0304572-01	1.240	31.47	28.78	91.10	%
L0304594-03	1.240	28.73	21.40	73.34	%
L0304595-01	1.240	21.53	17.23	78.81	%
L0304595-02	1.240	23.73	18.55	76.97	%
L0304595-03	1.240	20.12	15.55	75.79	%
L0304595-04	1.240	19.13	13.24	67.08	%
L0304595-05	1.260	28.53	23.92	83.09	%
L0304596-01	1.250	19.66	16.65	83.65	%
L0304596-02	1.250	28.67	22.29	76.73	%
L0304596-03	1.240	18.60	13.13	68.49	%
L0304596-04	1.230	24.14	19.59	80.14	%
L0304596-05	1.240	29.40	23.57	79.30	%
L0304596-06	1.230	18.32	13.67	72.79	%
L0304596-07	1.240	23.13	19.30	82.50	%
L0304597-01	1.240	30.53	27.26	88.84	%
L0304597-02	1.240	25.56	21.29	82.44	%
WG139244-01	1.250	28.67	22.29	76.73	%
WG139244-02	1.260	21.61	16.68	75.77	%

KEMRON FORMS - Modified 03/05/2002
Version 1.2
Report generated 04/29/2003 17:17

KEMRON REPORT L0304554

PREPARED FOR CCI

WORK ID: CTO-05

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KEMRON
ENVIRONMENTAL SERVICES

109 Starlite Park ■ Marietta, OH 45750 ■ Telephone (740) 373-4071 ■ FAX (740) 373-4835

Laboratory Report Number: **L0304554**

Please find attached the results for samples you submitted to Kemron Environmental Services. Review and compilation of your report was completed by Kemron Team 1 representatives. If you have questions, comments or require further assistance please contact me or any of the team 1 members listed below at 800-373-4071. We can also be reached at the e-mail addresses listed below.

Cindy Arnold-Team Leader
carnold@kemron-lab.com

Stephanie Mossburg-Team Chemist/Data Specialist
smossburg@kemron-lab.com

Debbie Tornes-Customer Service/Invoicing Specialist
dtornes@kemron-lab.com

Reviewed by: Stephanie Mossburg Date: 5/13/03

Certified by: David E. Vandenberg
David E. Vandenberg
Laboratory Director

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This report contains a total of 947 pages.

NYDOH NELAP Id: 10861

1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

L0304554

05/08/03 14:46

Submitted By

Kemron Environmental Services
109 Starlite Park
Marietta, Ohio 45750
(740)373-4071

For

Account Name: CH2MHill Constructors, Inc. (CCI)
CH2M HILL Constructors, Inc.
115 Perimeter Center Place NE Suite 700
Atlanta, GA 30346
Attention: Melissa Aycock

Account Number: 207-SC-728
Work ID: CTO 05

Sample Summary

Client ID	Lab ID	Date Collected	Date Recieved
05-177511-SP1-042403	L0304554-01	24-APR-03	25-APR-03

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

I.0304554

CHAIN OF CUSTODY:

The chain of custody number was 177511-01-042403.

SHIPMENT CONDITIONS:

The chain of custody forms were received sealed in a cooler. The cooler temperature was 1 ° C.

SAMPLE MANAGEMENT:

All samples received were intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

REVIEWED: Stephanie Y Moseley DATE: 4/28/03

REPORT NARRATIVE
GC/MS VOLATILE ORGANICS

KEMRON Login No: L0304554

METHOD

Preparation: SW-846 5030B
Analysis: SW-846 8260B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied or if the mean %RSD for all analytes was less than 15% the average response factors were used. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Samples: All acceptance criteria were met.

Matrix Spikes: The MS/MSD results were not associated with this sample delivery group (SDG).

SAMPLES

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Samples: All acceptance criteria were met.

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Analyst: CMS REVIEWED: _____ DATE: 5/5/03

Rev. 7/14/00

REPORT NARRATIVE
GC/MS SEMIVOLATILE ORGANICS

KEMRON Report No.: L0304554

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8270C

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied or if the mean % RSD for all analytes was less than 15%, the average response factors were used. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD were not associated with these samples.

SAMPLES

Internal Standards: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

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Analyst: ALT REVIEWED: _____ DATE: 5/5/06

Rev. 6/00

REPORT NARRATIVE
GC PESTICIDES

KEMRON Report No.: L0304554

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8081

HOLDING TIMES

Sample Preparation: The re-extraction of sample -01 was done out of hold time. All other holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS associated with WG139387 yielded % recoveries for 4 compounds that were above the acceptance limits. There were no hits in samples associated with this LCS. All other acceptance criteria were met.
Matrix Spikes: There were no MS/MSD results associated with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Endrin/ DDT Breakdown : All acceptance criteria were met.
Samples: Sample fraction -01 was re-extracted at the client's request due to high LCS recovery. The re-extraction was done out of hold time and yielded similar sample results and good LCS results. Both sets of extraction data were reported. For all samples which yielded results with an RPD of greater than 40% between the primary and confirmation column the appropriate flag was applied. All acceptance criteria were met.

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Analyst: ECL REVIEWED: [signature] DATE: 5/9/03

Rev. 7/14/00

REPORT NARRATIVE
GC PCB

KEMRON Report No.: L0304554

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8082

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: There were no MS/MSD results associated with this sample delivery group.

SAMPLES

Surrogates: Sample fraction -01 yielded a % recovery for decachlorobiphenyl that was above the acceptance limit. This was due to sample matrix interference. All other acceptance criteria were met.
Samples: For all samples which yielded results with an RPD of greater than 40% between the primary and confirmation column the appropriate flag was applied. All acceptance criteria were met.

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Analyst: ECL REVIEWED: _____ DATE: 5/6/04

Rev. 7/14/00

REPORT NARRATIVE
GC HERBICIDES

KEMRON Report No.: L0304554

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8151

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: For all samples which yielded results with an RPD of greater than 40% between the primary and confirmation column the appropriate flag was applied. All acceptance criteria were met.

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Analyst: ECL REVIEWED: _____ DATE: 5/5/04

Rev. 7/14/00

REPORT NARRATIVE
HPLC-EXPLOSIVE RESIDUES

KEMRON Report No.: L0304554
Note: Tetryl readily decomposes in the presence of methanol/water or heat. False negative results for this analyte are possible.

METHOD

Analysis: SW-846 8330

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: An MS/MSD were not associated with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

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Analyst: RDC REVIEWED: _____ DATE: 5/12/03

Rev. 7/14/00

REPORT NARRATIVE
METALS

KEMRON Login No: L0304554

METHOD

Analysis: SW-846 6010/6020/7000

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.

SAMPLES

All acceptance criteria were met.

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Analyst: JYH REVIEWED: [signature] DATE: 5/7/03

Rev. 6/00

REPORT NARRATIVE
GENERAL CHEMISTRY

KEMRON Login No: L0304554

METHOD

Analysis: See report for method reference.

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Duplicates: All acceptance criteria were met
Matrix Spikes: All acceptance criteria were met.

SAMPLES

There were no technical difficulties with this sample group

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Analyst: dih__ REVIEWED: dlh DATE: 5/2/03

Rev. 6/00

Error Report Summary

- Navy RAC

Error Level	Process Name	Process Description	Number
WARNING	zaqrya_EDD4_Recovery_C	Recovery <0 or >200	2

Error Report Detail

- Navy RAC

Process	Message	Resolution
--		
	-- Post-Import QC Query began at: 5/14/2003 10:17	
	Key: SDG [L0304554]	
	-- Post-Import QC Query ended at: 5/14/2003 10:17	
	Key:	
zaqrya_EDD4_Recovery_C		
	WARNING: Recovery [388] value is a bit extreme and may be in error.	
	Key: RecNum [11]: FieldID [05-177511-SP1-042403], AnMth [SW8082], ExMth [SW3550B], LchMth [NONE], PrmID [CL10BZ2]	
	WARNING: Recovery [445] value is a bit extreme and may be in error.	
	Key: RecNum [20]: FieldID [05-177511-SP1-042403CF1], AnMth [SW8082], ExMth [SW3550B], LchMth [NONE], PrmID [CL10BZ2]	

Report Number: L0304554

Report Date : May 8, 2003

Sample Number: L0304554-01
Client ID: 05-177511-SP1-042403
Matrix: Soil
Workgroup Number: WG139297
Collect Date: 24-APR-03

Prep Method: 1010
Analytical Method: 1010
Analyst: DIH
Dilution: 1
Units: Degrees C

Instrument: PRECISION
Prep Date: 04/29/2003 07:45
Cal Date:
Run Date: 04/29/2003 07:45
File ID:

Analyte	CAS. Number	Result	Qual	RL	MDL
Ignitability		95.0	>		

> Greater than

Sample Number: L0304554-01
Client ID: 05-177511-SP1-042403
Matrix: Leachate
Sample Tag: 01

Workgroup Number: WG139383
Analytical Method: 6010B
Analyst: JYH
Dilution: 1
Units: mg/L

Instrument: IRIS-ICP
Cal Date: 04/30/2003 11:28
Run Date: 04/30/2003 12:46
Run Time: 12:46
File ID: IR.043003.124600

Analyte	CAS.Number	Result	Qual	RL	MDL	EPA HW#	Reg. Limit
Silver, TCLP	7440-22-4		U	.1	.05	D011	5
Arsenic, TCLP	7440-38-2		U	1	.1	D004	5
Barium, TCLP	7440-39-3	1.49		.1	.025	D005	100
Cadmium, TCLP	7440-43-9	0.0347	J	.1	.025	D006	1
Chromium, TCLP	7440-47-3		U	.2	.025	D007	5
Lead, TCLP	7439-92-1	0.232	J	1	.1	D008	5
Selenium, TCLP	7782-49-2		U	.8	.5	D010	1

J This compound was detected at a level above the method detection limit, but below the reporting limit.
U This analyte was not detected in the sample.

Sample Number: L0304554-01
Client ID: 05-177511-SP1-042403
Matrix: Leachate
Sample Tag: 01

Workgroup Number: WG139511
Analytical Method: 7470A
Analyst: KHR
Dilution: 1
Units: mg/L

Instrument: PS202
Cal Date: 05/01/2003 13:57
Run Date: 05/01/2003 14:33
Run Time: 14:33
File ID: PS.050103.143339

Analyte	CAS.Number	Result	Qual	RL	MDL	EPA HW#	Reg. Limit
Mercury, TCLP	7439-97-6		U	.005	.000052	D009	0.2

U This analyte was not detected in the sample.

Sample Number: L0304554-01
Client ID: 05-177511-SP1-042403
Matrix: Leachate
Sample Tag: 01

Workgroup Number: WG139387
Analytical Method: 8081A
Analyst: ECL
Dilution: 1
Units: ug/L

Instrument: HP9
Cal Date: 04/30/2003 15:33
Run Date: 04/30/2003 17:59
Run Time: 17:59
File ID: 9023054.R

Analyte	CAS Number	Result	Qual	RL	MDL	EPA HW#	Reg. Limit
Endrin	72-20-8		U	.1	.025	D012	20
Lindane	58-89-9		U	.05	.01	D013	400
Methoxychlor	72-43-5		U	.5	.025	D014	10000
Toxaphene	8001-35-2		U	1	.5	D015	500
Chlordane	57-74-9		U	.5	.01	D020	30
Heptachlor	76-44-8		U	.05	.01	D031	8
Heptachlor Epoxide	1024-57-3		U	.05	.01	D031	8

Surrogate	% Recovery	Lower	Upper
2,4,5,6-Tetrachloro-m-xylene	60.2	20	20
Decachlorobiphenyl	105	25	25

U This analyte was not detected in the sample.

Sample Number: L0304554-01
Client ID: 05-177511-SP1-042403
Matrix: Leachate
Sample Tag: RE1

Workgroup Number: WG139893
Analytical Method: 8081A
Analyst: ECL
Dilution: 1
Units: ug/L

Instrument: HP9
Cal Date: 05/06/2003 16:29
Run Date: 05/07/2003 12:44
Run Time: 12:44
File ID: 9G23172.R

Analyte	CAS Number	Result	Qual	RL	MDL	EPA RW#	Reg. Limit
Endrin	72-20-8		U	.1	.025	D012	20
Lindane	58-89-9		U	.05	.01	D013	400
Methoxychlor	72-43-5		U	.5	.025	D014	10000
Toxaphene	8001-35-2		U	1	.5	D015	500
Chlordane	57-74-9		U	.5	.01	D020	30
Heptachlor	76-44-8		U	.05	.01	D031	8
Heptachlor Epoxide	1024-57-3		U	.05	.01	D031	8

Surrogate	% Recovery	Lower	Upper
2,4,5,6-Tetrachloro-m-xylene	50.7	20	20
Decachlorobiphenyl	104	25	25

U This analyte was not detected in the sample.

Sample Number: L0304554-01
Client ID: 05-177511-SP1-042403
Matrix: Soil
Workgroup Number: WG139446
Collect Date: 24-APR-03
Sample Tag: 01

Prep Method: 3550B
Analytical Method: 8082
Analyst: ECL
Dilution: 1
Units: ug/kg
Percent Solid: 82.0

Instrument: HP4
Prep Date: 04/30/2003 08:50
Cal Date: 05/17/2003 17:05
Run Date: 05/01/2003 16:11
File ID: 4GR17934

Analyte	CAS. Number	Result	Qual	RL	MDL
Aroclor-1016	12674-11-2		U	20.1	10.1
Aroclor-1221	11104-28-2		U	20.1	10.1
Aroclor-1232	11141-16-5		U	20.1	10.1
Aroclor-1242	53469-21-9		U	20.1	10.1
Aroclor-1248	12672-29-6		U	20.1	10.1
Aroclor-1254	11097-69-1		U	20.1	10.1
Aroclor-1260	11096-82-5	144		20.1	10.1

Analyte	% Recovery	Lower	Upper	Qual
2,4,5,6-Tetrachloro-M-Xylene	78.6	29	133	
Decachlorobiphenyl	388	30	173	*,SMI

*,SMI
U This analyte was not detected in the sample.

Sample Number: L0304554-01
Client ID: 05-177511-SP1-042403
Matrix: Soil
Workgroup Number: WG139446
Collect Date: 24-APR-03
Sample Tag: CF1

Prep Method: 3550B
Analytical Method: 8082
Analyst: ECL
Dilution: 1
Units: ug/kg
Percent Solid: 82.0

Instrument: HP4
Prep Date: 04/30/2003 08:50
Cal Date: 05/02/2003 15:00
Run Date: 05/02/2003 20:49
File ID: 4GF17548

Analyte	CAS. Number	Result	Qual	RL	MDL
Aroclor-1016	12674-11-2		U	20.1	10.1
Aroclor-1221	11104-28-2		U	20.1	10.1
Aroclor-1232	11141-16-5		U	20.1	10.1
Aroclor-1242	53469-21-9		U	20.1	10.1
Aroclor-1248	12672-29-6		U	20.1	10.1
Aroclor-1254	11097-69-1		U	20.1	10.1
Aroclor-1260	11096-82-5	99.2		20.1	10.1

Analyte	% Recovery	Lower	Upper	Qual
2,4,5,6-Tetrachloro-M-Xylene	79.5	29	133	
Decachlorobiphenyl	445	30	173	*,SMI

*,SMI
U This analyte was not detected in the sample.

Report Date :May 8, 2003

Sample Number:L0304554-01
Client ID:05-177511-SP1-042403
Matrix:Leachate
Sample Tag:01

Workgroup Number:WG139504
Analytical Method:8151A
Analyst:ECL
Dilution:1
Units:ug/L

Instrument: HP1
Cal Date:04/15/2003 18:16
Run Date:05/02/2003 00:15
Run Time:00:15
File ID:1G5886.F

Analyte	CAS Number	Result	Qual	RL	MDL	EPA HW#	Reg. Limit
2,4-D	94-75-7		U	10	1	D016	10000
2,4,5-TP (Silvex)	93-72-1		U	2	.1	D017	1000

Surrogate	% Recovery	Lower	Upper
2,4-Dichlorophenylacetic acid	87.8	20	20

U This analyte was not detected in the sample.

Sample Number:L0304554-01
Client ID:05-177511-SP1-042403
Matrix:Leachate

Workgroup Number:WG139442
Analytical Method:8260B
Analyst:CMS
Dilution:10
Units:ug/L

Instrument: HPMS11
Cal Date:04/17/2003 14:20
Run Date:05/01/2003 02:22
Run Time:02:22
File ID:11M14670

Analyte	CAS Number	Result	Qual	RL	MDL	EPA HW#	Reg. Limit
Benzene	71-43-2		U	50	1.25	D018	500
Carbon tetrachloride	56-23-5		U	50	2.5	D019	500
Chlorobenzene	108-90-7		U	50	1.25	D021	100000
Chloroform	67-66-3		U	50	1.25	D022	6000
1,2-Dichloroethane	107-06-2		U	50	2.5	D028	500
1,1-Dichloroethene	75-35-4		U	50	5	D029	700
Methyl ethyl ketone	78-93-3		U	1000	25		
Tetrachloroethene	127-18-4		U	50	2.5	D039	700
Trichloroethene	79-01-6		U	50	2.5	D040	500
Vinyl chloride	75-01-4		U	100	2.5	D043	200

Surrogate	% Recovery	Lower	Upper
Dibromofluoromethane	99.6	86	86
1,2-Dichloroethane-d4	107	80	80
Toluene-d8	101	88	88
4-Bromofluorobenzene	101	86	86

U This analyte was not detected in the sample.

Sample Number:L0304554-01
Client ID:05-177511-SP1-042403
Matrix:Leachate
Sample Tag:01

Workgroup Number:WG139481
Analytical Method:8270C
Analyst:MDC
Dilution:1
Units:ug/L

Instrument: HPMS4
Cal Date:04/29/2003 21:00
Run Date:04/30/2003 13:38
Run Time:13:38
File ID:4M18465

Analyte	CAS.Number	Result	Qual	RL	MDL	EPA HW#	Reg. Limit
o-Cresol	95-48-7		U	50	25	D023	200000
m-,p-Cresol	106-44-5		U	50	50	D025	200000
1,4-Dichlorobenzene	106-46-7		U	50	25	D027	7500
2,4-Dinitrotoluene	121-14-2		U	50	25	D030	130
Hexachlorobenzene	118-74-1		U	50	25	D032	130
Hexachlorobutadiene	87-68-3		U	50	25	D033	500
Hexachloroethane	67-72-1		U	50	25	D034	3000
Nitrobenzene	98-95-3		U	50	25	D036	2000
Pentachlorophenol	87-86-5		U	250	25	D037	100000
Pyridine	110-86-1		U	500	250	D038	5000
2,4,5-Trichlorophenol	95-95-4		U	250	25	D041	400000
2,4,6-Trichlorophenol	88-06-2		U	50	25	D042	2000

Surrogate	% Recovery	Lower	Upper
2-Fluorophenol	33.3	21	21
Phenol-d5	22.5	10	10
Nitrobenzene-d5	55.2	35	35
2-Fluorobiphenyl	51.9	43	43
2,4,6-Tribromophenol	70.9	10	10
p-Terphenyl-d14	83.0	33	33

U This analyte was not detected in the sample.

Sample Number:L0304554-01
Client ID:05-177511-SP1-042403
Matrix:Soil
Workgroup Number:WG139534
Collect Date:24-APR-03
Sample Tag:01

Prep Method:METHOD
Analytical Method:8330
Analyst:MDC
Dilution:1
Units:mg/kg
Percent Solid:82.0

Instrument:HPLC4
Prep Date:04/30/2003 10:42
Cal Date:05/02/2003 23:11
Run Date:05/04/2003 23:04
File ID:4L004918.F

Analyte	CAS. Number	Result	Qual	RL	MDL
1,3,5-Trinitrobenzene	99-35-4		U	0.296	0.118
1,3-Dinitrobenzene	99-65-0		U	0.296	0.118
2,4,6-Trinitrotoluene	118-96-7		U	0.296	0.118
2,4-Dinitrotoluene	121-14-2		U	0.296	0.118
2,6-Dinitrotoluene	606-20-2		U	0.308	0.118
2-Amino-4,6-dinitrotoluene	35572-78-2		U	0.308	0.118
2-Nitrotoluene	88-72-2		U	0.296	0.118
3-Nitrotoluene	99-08-1		U	0.296	0.118
4-Nitrotoluene	99-99-0		U	0.296	0.118
4-Amino-2,6-dinitrotoluene	19406-51-0		U	0.308	0.118
HMX	2691-41-0		U	2.60	0.118
Nitrobenzene	98-95-3		U	0.308	0.154
RDX	121-82-4		U	1.18	0.118
Tetryl	479-45-8		U	0.769	0.237

Analyte	% Recovery	Lower	Upper	Qual
3,4-Dinitrotoluene	96.0	50	150	

U This analyte was not detected in the sample.

Sample Number: L0304554-01
Client ID: 05-177511-SP1-042403
Matrix: Soil
Workgroup Number: WG139251
Collect Date: 24-APR-03

Prep Method: 9045C
Analytical Method: 9045C
Analyst: TMM
Dilution: 1
Units: UNITS

Instrument: ORION-710A
Prep Date: 04/23/2003 15:45
Cal Date:
Run Date: 04/23/2003 15:45
File ID:

Analyte	CAS. Number	Result	Qual	RL	MDL
Corrosivity pH		8.56			

Sample Number: L0304554-01
Client ID: 05-177511-SP1-042403
Matrix: Soil
Workgroup Number: WG139244
Collect Date: 24-APR-03

Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: TMM
Dilution: 1
Units: weight %

Instrument: OVEN
Prep Date: 04/28/2003 10:55
Cal Date:
Run Date: 04/28/2003 10:55
File ID:

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	82.0		1.00	1.00

WORKGROUP SUMMARY BY METHOD

WORKGROUP SUMMARY BY METHOD

Analysis: Percent Solids
Analytical Method: D2216-90
Workgroup: WG139244

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403			04/28/03 10:55		OVEN	TMM

Analysis: Corrosivity pH
Analytical Method: 9045C
Workgroup: WG139251

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403			04/23/03 15:45		ORION-710A	TMM
L0304554-01	05-177511-SP1-042403			04/23/03 15:45		ORION-710A	TMM

Analysis: Pesticides - TCLP
Extraction Method: 8081A\3510C\1311
Workgroup: WG139296

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
04554-01	05-177511-SP1-042403	04/28/03 09:00	04/29/03 14:20			SEP-FUNNEL	CAF
04554-01	05-177511-SP1-042403	04/28/03 09:00	04/29/03 14:20			SEP-FUNNEL	CAF

Analysis: Ignitability
Analytical Method: 1010
Workgroup: WG139297

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403			04/29/03 07:45		PRECISION	DIH

Analysis: Metals Analysis
Extraction Method: 6010B\3005A
Workgroup: WG139316

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403		04/29/03 11:00			MICROWAVE	VC
L0304554-01	05-177511-SP1-042403		04/29/03 11:00			MICROWAVE	VC

WORKGROUP SUMMARY BY METHOD

Analysis: Semivolatile Organics - TCLP
Extraction Method: 8270C\3510B\1311
Workgroup: WG139340

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403	04/28/03 09:00	04/29/03 17:00			SEP-FUNNEL	DP
L0304554-01	05-177511-SP1-042403	04/28/03 09:00	04/29/03 17:00			SEP-FUNNEL	DP

Analysis: PCB
Extraction Method: 8082\3550
Workgroup: WG139368

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403		04/30/03 08:50			SONICATION	CAF

Analysis: Metals Analysis
Analytical Method: 6010B\3005A
Workgroup: WG139383

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403	04/28/03 15:00	04/29/03 11:00	04/30/03 12:46	01	IRIS-ICP	JYH

Analysis: Pesticides - TCLP
Analytical Method: 8081A\3510C\1311
Workgroup: WG139387

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403	04/28/03 15:00	04/29/03 14:20	04/30/03 17:59	01	HP9	ECL
L0304554-01	05-177511-SP1-042403	04/28/03 15:00	04/29/03 14:20	04/30/03 17:59	01	HP9	ECL
L0304554-01	05-177511-SP1-042403	04/28/03 15:00	04/29/03 14:20	04/30/03 17:35	C101	HP9	ECL
L0304554-01	05-177511-SP1-042403	04/28/03 15:00	04/29/03 14:20	04/30/03 17:35	C101	HP9	ECL

Analysis: Explosives
Extraction Method: 8330
Workgroup: WG139397

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403		04/30/03 10:42			SONICATION	CEH

WORKGROUP SUMMARY BY METHOD

Analysis: Herbicides - TCLP
Extraction Method: 8151A\8151B\1311
Workgroup: WG139417

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403	04/28/03 09:00	04/30/03 15:00			SEP-FUNNEL	DP
L0304554-01	05-177511-SP1-042403	04/28/03 09:00	04/30/03 15:00			SEP-FUNNEL	DP

Analysis: Volatile Organics - TCLP
Analytical Method: 8260B\5030B\1311
Workgroup: WG139442

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403	04/28/03 15:00		05/01/03 02:22		HPMS11	CMS
L0304554-01	05-177511-SP1-042403	04/28/03 15:00		05/01/03 02:22		HPMS11	CMS

Analysis: Volatile Organics - TCLP
Extraction Method: 8260B\5030B\1311
Workgroup: WG139442

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
04554-01	05-177511-SP1-042403				139442	HPMS11	CMS
L0304554-01	05-177511-SP1-042403				139442	HPMS11	CMS

Analysis: Mercury, TCLP
Extraction Method: 7470A\7470A
Workgroup: WG139443

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403		04/30/03 09:00			WATER BATH	TLT
L0304554-01	05-177511-SP1-042403		04/30/03 09:00			WATER BATH	TLT

Analysis: PCB
Analytical Method: 8082\3550
Workgroup: WG139446

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403		04/30/03 08:50	05/01/03 16:11	01	HP4	ECL
L0304554-01	05-177511-SP1-042403		04/30/03 08:50	05/02/03 20:49	CF1	HP4	ECL

WORKGROUP SUMMARY BY METHOD

Analysis: Semivolatile Organics - TCLP
Analytical Method: 8270C\3510B\1311
Workgroup: WG139481

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403	04/28/03 15:00	04/29/03 17:00	04/30/03 13:38	01	HPMS4	MDC
L0304554-01	05-177511-SP1-042403	04/28/03 15:00	04/29/03 17:00	04/30/03 13:38	01	HPMS4	MDC

Analysis: Herbicides - TCLP
Analytical Method: 8151A\8151B\1311
Workgroup: WG139504

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403	04/28/03 15:00	04/30/03 15:00	05/02/03 00:15	01	HP1	ECL
L0304554-01	05-177511-SP1-042403	04/28/03 15:00	04/30/03 15:00	05/02/03 00:15	01	HP1	ECL
L0304554-01	05-177511-SP1-042403	04/28/03 15:00	04/30/03 15:00	05/02/03 00:50	C202	HP1	ECL
L0304554-01	05-177511-SP1-042403	04/28/03 15:00	04/30/03 15:00	05/02/03 00:50	C202	HP1	ECL

Analysis: Mercury, TCLP
Analytical Method: 7470A\7470A
Workgroup: WG139511

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403		04/30/03 09:00	05/01/03 14:33	01	PS202	KHR
L0304554-01	05-177511-SP1-042403		04/30/03 09:00	05/01/03 14:33	01	PS202	KHR

Analysis: Explosives
Analytical Method: 8330
Workgroup: WG139534

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403		04/30/03 10:42	05/04/03 23:04	01	HPLC4	RDC
L0304554-01	05-177511-SP1-042403		04/30/03 10:42	05/02/03 03:31	P1	HPLC4	RDC

Analysis: Pesticides - TCLP
Extraction Method: 8081A\3510C\1311
Workgroup: WG139786

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403		05/05/03 15:30		139786	SEP-FUNNEL	DP
L0304554-01	05-177511-SP1-042403		05/05/03 15:30		139786	SEP-FUNNEL	DP

WORKGROUP SUMMARY BY METHOD

Analysis: Pesticides - TCLP
Analytical Method: 8081A\3510C\1311
Workgroup: WG139893

Lab ID	Client ID	Tclp Date	Prep Date	Analysis Date	Tag	Inst Id	Analyst
L0304554-01	05-177511-SP1-042403		05/05/03 15:30	05/07/03 12:19	C103	HP9	ECL
L0304554-01	05-177511-SP1-042403		05/05/03 15:30	05/07/03 12:19	C103	HP9	ECL
L0304554-01	05-177511-SP1-042403		05/05/03 15:30	05/07/03 12:44	RE1	HP9	ECL
L0304554-01	05-177511-SP1-042403		05/05/03 15:30	05/07/03 12:44	RE1	HP9	ECL

1.2 Attachments

Kemron Environmental Services
Analyst Listing
Tuesday, April 1 2003

AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
ARS - ANGELINA R. SCOTT
BRF - BRENT F. FOCS
BRG - BRENDA R. GREGORY
CAF - CHERYL A. FLOWERS
CAK - CHERYL A. KOELSCH
CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD
CLK - CARL L. KING
CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEVENS
CRC - CARLA R. COCHRAN
CSH - CHRIS S. HILL
DAD - DAVE A. DAULEY
DAH - DON A. HUNTER
DAS - DALLAS A. SULLIVAN
DAT - DEBBIE A. TORNES
DEL - DON E. LIGHTFRITZ
DEV - DAVID E. VANDENBERG
DGB - DOUGLAS G. BUTCHER
DIH - DEANNA I. HESSON
DLA - DENISE L. ADAMS
DLB - DAVID L. BUMGARNER
DLN - DEANNA L. NORTON
DLP - DOROTHY L. PAYNE
DLR - DEANNA L. RAICH
DCV - DENISE C. VANDENBERG
DP - DEANNA L. PIERSON
DRB - DOUG R. BARNETT
DSM - DAVID S. MOSSOR
DST - DENNIS S. TEPE
ECL - ERIC C. LAWSON
GSG - GALEN S. GEORGE
HV - HEMA VILASAGAR
JAL - JOHN A. LENT
JEA - JOSH E. ARNOLD
JJG - JAKE J. GREUEY
JKW - JANE K. THOMPSON
JLS - JANICE L. SCHIMMEL
JMM - JARROD M. MARTIN
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
LKN - LINDA K. NEDEFF
LRR - LUCYNDA R. ROBERTS
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MDA - MICHAEL D. ALBERTSON
MDC - MICHAEL D. COCHRAN
MEF - MIKE E. FLANAGAN
MES - MARY E. SCHILLING
MKZ - MARILYN K. ZUMBRO
MLR - MARY L. ROCHOTTE
MLS - MICHAEL L. SCHIMMEL
MMB - MAREN M. BEERY
MSW - MATT S. WILSON
NJB - NATALIE J. BOOTH
OGT - OKEY G. TUCKER
RDC - REBECCA D. CUTLIP
REK - ROBERT E. KYER
RJW - RHONDA J. WITTEKIND
RWC - ROD W. CAMPBELL
SH - SHAUNA M. HYDE
SLM - STEPHANIE L. MOSSBURG
SLP - SHERI L. PFALZGRAF
TJH - TIM J. HOEFLICH
TLT - TIFFINI L. TINGLER
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER
VKL - VICKY K. LAUER

KEMRON FORMS: JUL-25-02
Printed: APR-01-03 14:35:03

KEMRON Environmental Services, Inc
List of Valid Qualifiers
August 5, 2002

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

B	Present in the method blank	NS	Not spiked
C	Confirmed by GC/MS	P	Concentration >40% difference between The two GC columns
CG	Confluent growth		
D	The analyte was quantified at a secondary dilution factor	QNS	Quantity not sufficient to perform analysis
		RA	Re analysis confirms reported results
DL	Surrogate or spike was diluted out	RE	Re analysis confirms sample matrix interference
E	Estimated concentration due to sample matrix interference	S	Analyzed by method of standard addition
		SMI	Sample matrix interference on surrogate
FL	Free liquid	SP	Reported results are for spike compounds only
I	Semi-quantitative result, out of instrument calibration range	TNTC	Too numerous to count
J	Present below nominal reporting limit	U	Analyzed for but not detected
L	Sample reporting limits elevated due to matrix interference	W	Post-digestion spike for furnace AA out o f control limits
N	Tentatively Identified Compound (TIC)	X	Exceeds regulatory limit
NA	Not applicable	Z	Can not be resolved from isomer.***
ND	Not detected at or above the reporting limit (RL)	+	Correlation coefficient for the MSA is less than 0.995
NF	Not found		
NFL	No free liquid	<	Less than
NI	Non-ignitable	>	Greater than
		*	Surrogate or spike compound out of range

***** Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene
3. N-nitrosodiphenylamine cannot be separated from diphenylamine
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds
5. m-Xylene and p-Xylene are unresolvable compounds
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

J	The analyte was positively identified, the quantitation is an estimation
U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL
F	The analyte was positively identified but the associated numerical value is below the RL
R	The data is unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
B	The analyte was found in an associated blank, as well as in the sample
M	The matrix effect was present
S	To be applied to all field screening data
T	Tentatively identified compound (using GC/MS)

H:\DATA\COMMON\Qualifier List 08-05-02.doc

2 PROJECT NAME:	3 PROJECT NUMBER:	4 LAB NAME AND CONTACT:	11 FAX AND MAIL REPORTS/EDD TO: RECIPIENT 1 (Name and Company)	14 RECIPIENT 1 (Address, Tel No., and Fax No.):
CNC	177511	Kemron Environmental	Bonnie Hogue - CCI	115 Perimeter Ctr N.E Suite 700 Atlanta, GA 30346
5 PROJECT PHASE/SITE/TASK:	6 CTO OR DO NUMBER:	8 LAB PO NUMBER:	12 FAX AND MAIL REPORTS/EDD TO: RECIPIENT 2 (Name and Company)	15 RECIPIENT 2 (Address, Tel No., and Fax No.):
ADC Utility Cor.	0005	5259	Melissa Aycock-CCI	115 Perimeter Ctr N.E Suite 700 Atlanta GA 30346
4 PROJECT CONTACT:	7 PROJECT TEL NO AND FAX NO:	10 LAB TEL NO AND FAX NO:	13 FAX AND MAIL REPORTS/EDD TO: RECIPIENT 3 (Name and Company)	16 RECIPIENT 3 (Address, Tel No., and Fax No.):
Gwen Jordan	678-642-7211	740-373-4071 (P) 740-373-4835 (F)	Russell Henderson-CCI	115 Perimeter Ctr NE Suite 700 Atlanta GA 30346

11 ITEM	18 SAMPLE IDENTIFIER	19 SAMPLE DESCRIPTION/LOCATION	20 MATRIX (see codes on SOP)	21 DATE COLLECTED	22 TIME COLLECTED	23 DATA PKG LEVEL (see codes on SOP)	24 TAT (calendar days)	25 ANALYSES REQUIRED (Include Method Numbers): Cyanide 7.5.2	Ignitability 1010	Corrosivity 9045C	TCLP VOA 8260	TCLP SVOA 8270	TCLP HCAB 8151	TCLP METAL 6010B	TCLP PEST 8081A	PCBs 8082	Explosives 8330	26 SAMPLE TYPE (see codes on SOP)	27 COMMENTS/ SCREENING READINGS	28 LAB ID (for lab's use)
1	05-177511-SP1-04	SP1 QUAD 1/2	S	04/24/03	1623	B	7		1	1	1	1	1	1	1	1	1	N	Waste Characterization	
2	Trip Blank	NA	W	04/24/03	1623	B	7				2							QC		
3	Temp Blank	NA	W	04/24/03	1623	B	7	TEMP										QC		
4																				
5																				
6																				
7																				
8																				
9																				
10																				

29 SAMPLER(S) AND COMPANY: (please print)	30 COURIER AND SHIPPING NUMBER:	31 SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)
Gwen Jordan / CCI	FEDEX 837772904063	

32 RELINQUISHED BY	DATE	TIME	33 RECEIVED BY	DATE	TIME
Printed Name and Signature: Gwen Jordan Gwen Jordan	042403	1730	Printed Name and Signature: FEDEX	042403	1800
Printed Name and Signature:			Printed Name and Signature: SIS intact @ 1°C c/c sealed		
Printed Name and Signature:			Printed Name and Signature: Shauna Hydex Shauna Hydex	042503	1001

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CC1001, Rev 06/00

KEMRON Internal Laboratory Chain of Custody

Work Order: 4-551 **Client:** CCI **# of Samples:** 1 **Due Date:** 05-02-03 **Page:** ____

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
01	TCLP	EXT	Rec 4-28-03 @ 750	WALKIN	TCLP	JKT	Rec 4-28-03 @ 1605	WALKIN	Blg	Hold
01	DCTS	test	tmm 4/29/03 @ 1425	walkin	wet	Blg	tmm 4/29/03 @ 1620	Walkin	Blg	Storage
01	Flash	test	dch 4/29/0735	walkin	wet	[illegible]	dch 4/29/1610	archive-2	Blg	Archive
01A	PCB	EXT	4/30/03 @ 0625	WALKIN	ELAB	[illegible]	4/30/03 @ 1048	WALKIN	Blg	~~STORAGE~~ HOLD CEB 4/30/03
01A	8330	EXT	CEB 4/30/03 @ 1031	WALKIN	ELAB	Blg	↓	↓	Blg	↓
01	—	Arch-2	Blg 5-10-03 @ 0900	Walkin	Archive	Blg				

CLIENT: CH2MHill & AH CTO-05 BRG Other JKT	DATE: 4/25/03	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KM222	COOLER ID:	COOLER ID:
INDEX #: 837772904063	INDEX #:	INDEX #:
SEALED (✓) YES ( ) NO	SEALED ( ) YES ( ) NO	SEALED ( ) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY ( ) YES ( ) NO	CUSTODY ( ) YES ( ) NO
TEMP: (D) (E) °C	TEMP: (D) (E) °C	TEMP: (D) (E) °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO
WET ICE (✓) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN ( ) MELTED ( )	ICE FROZEN ( ) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER ( ) SOIL (✓) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO
SAMPLES FROZEN? ( ) YES ( ) NO	SAMPLES FROZEN? ( ) YES ( ) NO	SAMPLES FROZEN? ( ) YES ( ) NO
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS

TSR COMMENTS

CONTACT:	DATE:	TIME:

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

Revised 05/29/02

2.0 Full Sample Data Package

2.1 Volatiles Data

2.1.1 Volatiles GCMS Data (8260)

REPORT NARRATIVE
GC/MS VOLATILE ORGANICS

KEMRON Login No: L0304554

METHOD

Preparation: SW-846 5030B
Analysis: SW-846 8260B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied or if the mean %RSD for all analytes was less than 15% the average response factors were used. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Samples: All acceptance criteria were met.

Matrix Spikes: The MS/MSD results were not associated with this sample delivery group (SDG).

SAMPLES

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: CMS REVIEWED: _____ DATE: 5/5/03

Rev. 7/14/00

VOLATILES GC/MS DATA – (8260B)

Login Number: LO 304554

A. QC Summary

- ✓ Method Blank Summary
- ✓ Method Blank Results
- ✓ Laboratory Control Sample (LCS)
- NA Matrix Spike / Matrix Spike Duplicate (MS/MSD)
- ✓ Holding Time Summary
- ✓ Surrogate Recovery Summary
- ✓ Instrument Tune Summary
- ✓ Initial Calibration Summary
- ✓ Initial Calibration Verification Form (ICV/second source)
- ✓ Continuing Calibration Verification (CCV)
- ✓ Internal Standard Area Summary
- ✓ Instrument Run Log

B. Sample Data

- ✓ Target compound and surrogate results summary (see Summary Report)
- NA Tentatively Identified Compounds (TICs) (see Summary Report if requested)
- ✓ Chromatograms (RIC) and quantitation reports
- ✓ Raw and background corrected mass spectra
- NA Mass spectra for TICs with three best library matches (if requested)

C. Standards Data

- ✓ Initial calibration summary (ICAL)
- ✓ ICAL Standards, chromatograms and quantitation reports
- ✓ Initial calibration verification (ICV/second source) summary forms
- ✓ Initial calibration verification (ICV/second source) chromatograms and quantitation reports
- ✓ Continuing calibration verification (CCV) summary forms
- ✓ Continuing calibration verification (CCV) chromatograms and quantitation reports

D. Raw QC Data

- ✓ GC/MS instrument performance check (BFB)
- ✓ Method blank chromatograms and quantitation reports
- ✓ LCS chromatograms and quantitation reports
- NA MS/MSD chromatograms and quantitation reports
- ✓ Instrument run logs
- NA 5035 Logs (if applicable)
- ✓ Daily checklists
- ✓ Example calculations

Checked By: _____ **Date:** 5/5/03

2.1.1.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0304554
Work Group: WG139442
Blank File ID: 11M14655
Blank Sample ID: WG139442-01
Date Analyzed: 04/30/03
Instrument ID: HPMS11
Time Analyzed: 18:36
Method: 8260B
Analyst: CMS

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG139442-02	11M14656	04/30/03 19:07	01
LCS2	WG139442-03	11M14657	04/30/03 19:37	01
05-177511-SP1-042403	L0304554-01	11M14670	05/01/03 02:22	

KEMRON FORMS - Modified 03/21/2003
Version 1.2
Report generated 05/05/2003 16:41

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0304554 Run Date: 04/30/2003 Sample ID: WG139442-01
Instrument ID: HPMS11 Run Time: 18:36 Prep Method: 5030B
File ID: 11M14655 Analyst: CMS Method: 8260B
Workgroup (AAB#): WG139442 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS11-17-APR-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Vinyl chloride	0.250	10.0	0.250	1	U
1,1-Dichloroethene	0.500	5.00	0.500	1	U
Methyl ethyl ketone	2.50	100	2.50	1	U
Chloroform	0.125	5.00	0.125	1	U
Carbon tetrachloride	0.250	5.00	0.250	1	U
1,2-Dichloroethane	0.250	5.00	0.250	1	U
Benzene	0.125	5.00	0.125	1	U
Trichloroethene	0.250	5.00	0.250	1	U
Tetrachloroethene	0.250	5.00	0.250	1	U
Chlorobenzene	0.125	5.00	0.125	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	98.0	86 - 118	PASS
1,2-Dichloroethane-d4	104	80 - 120	PASS
Toluene-d8	102	88 - 110	PASS
4-Bromofluorobenzene	99.9	86 - 115	PASS

* Analyte detected above RDL
ND Analyte Not detected at or above reporting limit

KEMRON FORMS - Modified 05/02/2003
Version 1.3
Report generated 05/05/2003 16:41

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum: L0304554 Worknum: WG139442 Method: 8260B
Instrument ID: HPMS11 Cal ID: HPMS11-17-APR-2003 14:20 Matrix: Water
Analyst: CMS Contract #: Units: ug/L
Sample ID: WG139442-02 LCS File ID: 11M14656 Run Date: 04/30/2003 19:07
Sample ID: WG139442-03 LCS2 File ID: 11M14657 Run Date: 04/30/2003 19:37

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
Vinyl chloride	20.0	20.6	103	20.0	18.8	93.9	9.1	65 - 140	46	
1,1-Dichloroethene	20.0	21.9	109	20.0	20.5	102	6.77	80 - 132	26	
Methyl ethyl ketone	20.0	20.0	100	20.0	19.8	98.9	1.18	58 - 149	56	
Chloroform	20.0	23.2	116	20.0	22.3	111	3.93	80 - 125	23	
Carbon tetrachloride	20.0	23.6	118	20.0	22.1	111	6.35	80 - 137	32	
1,2-Dichloroethane	20.0	22.9	115	20.0	22.2	111	3.09	80 - 129	29	
Benzene	20.0	22.0	110	20.0	21.0	105	4.76	80 - 121	21	
Trichloroethene	20.0	24.3	121	20.0	22.9	114	5.95	80 - 122	21	
Tetrachloroethane	20.0	22.7	114	20.0	21.7	109	4.62	80 - 124	22	
Chlorobenzene	20.0	22.2	111	20.0	21.6	108	2.4	80 - 120	16	

Surogates	LCS % Recovery	LCS2 % Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	101	100	86 - 118	PASS
1,2-Dichloroethane-d4	105	105	80 - 120	PASS
Toluene-d8	100	101	88 - 110	PASS
4-Bromofluorobenzene	101	101	86 - 115	PASS

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method:8260B AAB#:WG139442

Login Number:L0304554

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
05-177511-SP1-042403	04/24/03	04/25/03	05/01/03	17.9	6.42	05/01/03	14	6.42	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number:L0304554
Instrument Id:HPMS11
Workgroup (AAB#):WG139442

Method:8260
CAL ID: HPMS11-17-APR-03
Matrix:WATER

Sample Number	Dilution	Tag	1	2	3	4
L0304554-01	10.0		107	99.6	101	101
WG139442-01	1.00	01	104	98.0	99.9	102
WG139442-02	1.00	01	105	101	101	100
WG139442-03	1.00	01	105	100	101	101

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	80	-	120
2 - Dibromofluoromethane	86	-	118
3 - 4-Bromofluorobenzene	86	-	115
4 - Toluene-d8	88	-	110

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

KEMRON FORMS - Modified 01/22/2003
Version 1.2
Report generated 05/05/2003 16:41

KEMRON ENVIRONMENTAL SERVICES
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L0304554
Instrument: HPMS11
Analyst: CMS
Workgroup: WG138555

Tune ID: WG138555-01
Run Date: 04/17/2003
Run Time: 06:32
File ID: 11M14388
Cal ID: HPMS11-17-APR-03

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	23.0	22250	PASS
75.0	95.0	30.0	60.0	44.4	42925	PASS
95.0	95.0	100	100	100	96738	PASS
96.0	95.0	5.00	9.00	6.21	6007	PASS
173	174	0	2.00	0.803	484	PASS
174	95.0	50.0	100	62.3	60274	PASS
175	174	5.00	9.00	7.60	4582	PASS
176	174	95.0	101	97.9	59024	PASS
177	176	5.00	9.00	6.38	3764	PASS

This check relates to the following samples, MS, MSD:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG138555-02	STD	01	04/17/2003 07:38	
WG138555-03	STD	01	04/17/2003 08:09	
WG138555-04	STD	01	04/17/2003 10:13	
WG138555-05	STD	01	04/17/2003 10:43	
WG138555-06	CCV	01	04/17/2003 11:14	
WG138555-07	STD	01	04/17/2003 11:44	
WG138555-09	STD	01	04/17/2003 12:15	
WG138555-08	STD	01	04/17/2003 14:20	

* Sample past 12 hour tune limit

KEMRON ENVIRONMENTAL SERVICES
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L0304554 Tune ID: WG138731-01
Instrument: HPMS11 Run Date: 04/21/2003
Analyst: CMS Run Time: 06:19
Workgroup: WG138731 File ID: 11M14406
Cal ID: HPMS11-17-APR-03

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	22.3	45648	PASS
75.0	95.0	30.0	60.0	45.0	91882	PASS
95.0	95.0	100	100	100	204288	PASS
96.0	95.0	5.00	9.00	6.72	13730	PASS
173	174	0	2.00	0.837	1172	PASS
174	95.0	50.0	100	68.6	140074	PASS
175	174	5.00	9.00	7.54	10559	PASS
176	174	95.0	101	97.1	136064	PASS
177	176	5.00	9.00	6.31	8587	PASS

This check relates to the following samples, MS, MSD:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG138555-10	SSCV	01	04/21/2003 08:40	

* Sample past 12 hour tune limit

KEMRON FORMS - Modified 02/14/2003
Version 1.2
Report generated 05/05/2003 16:42

KEMRON ENVIRONMENTAL SERVICES
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L0304554
Instrument: HPMS11
Analyst: CMS
Workgroup: WG139441

Tune ID: WG139441-01
Run Date: 04/30/2003
Run Time: 17:32
File ID: 11M14653
Cal ID: HPMS11-17-APR-03

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	23.5	15023	PASS
75.0	95.0	30.0	60.0	46.9	30010	PASS
95.0	95.0	100	100	100	63930	PASS
96.0	95.0	5.00	9.00	7.03	4496	PASS
173	174	0	2.00	0.635	254	PASS
174	95.0	50.0	100	62.6	40026	PASS
175	174	5.00	9.00	7.30	2922	PASS
176	174	95.0	101	98.6	39464	PASS
177	176	5.00	9.00	5.79	2286	PASS

This check relates to the following samples, MS, MSD:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG139442-01	BLANK	01	04/30/2003 18:36	
WG139442-02	LCS	01	04/30/2003 19:07	
WG139442-03	LCS2	01	04/30/2003 19:37	
L0304554-01	05-177511-SP1-042403		05/01/2003 02:22	

* Sample past 12 hour tune limit

Login Number: L0304554 Analyst: CMS

Analytical Method: 8260 Initial Calibration Date: 17-APR-03

Instrument ID: HPMS11

Analyte		Summary AVG RF	% RSD	R^2	Q
ETHYLBENZENE	CCC	.445	15.7		
TOLUENE	CCC	1.27	10.2		
1,2-DICHLOROPROPANE	CCC	.245	6.63		
CHLOROFORM	CCC	.364	9.52		
1,1-DICHLOROETHENE	CCC	.19	12.5		
VINYL CHLORIDE	CCC	.114	13.7		
1,1,2,2-TETRACHLOROETHANE	SPCC	.411	6.9		
BROMOFORM	SPCC	.103	20.1		
CHLOROBENZENE	SPCC	.82	13.8		
1,1-DICHLOROETHANE	SPCC	.442	12.2		
CHLOROMETHANE	SPCC	.179	6.9		
1,2,3-TRICHLOROBENZENE		.633	7.34		
NAPHTHALENE		1.48	4.98		
HEXACHLOROBUTADIENE		.288	9.29		
1,2,4-TRICHLOROBENZENE		.772	8.57		
1,2-DIBROMO-3-CHLOROPROPANE		.0683	9.2		
1,2-DICHLOROBENZENE		1.21	6.74		
N-BUTYLBENZENE		2.47	11.9		
1,4-DICHLOROBENZENE		1.37	8.23		
1,3-DICHLOROBENZENE		1.36	8.84		
P-ISOPROPYLTOLUENE		2.65	12.4		
SEC-BUTYLBENZENE		3.17	12.5		
1,2,4-TRIMETHYLBENZENE		2.53	13.3		
TERT-BUTYLBENZENE		2.23	14.8		
A-METHYLSTYRENE		1.46	7.42		
4-CHLOROTOLUENE		2.09	13.8		
2-CHLOROTOLUENE		2.21	12.2		
1,3,5-TRIMETHYLBENZENE		2.39	14.8		
BROMOBENZENE		.61	10.7		
N-PROPYLBENZENE		3.46	16.5		
TRANS-1,4-DICHLORO-2-BUTENE		.152	4.69		
1,2,3-TRICHLOROPROPANE		.119	7.57		
P-BROMOFLUOROBENZENE		.925	5.63		
ISOPROPYLBENZENE		1.43	14.9		
STYRENE		.905	13.2		
O-XYLENE		.562	12.7		
M-,P-XYLENE		.559	14.3		
1,1,1,2-TETRACHLOROETHANE		.233	12.9		
1-CHLOROHEXANE		.44	10.4		
1,2-DIBROMOETHANE		.181	9.12		
DIBROMOCHLOROMETHANE		.203	18.9		
TETRACHLOROETHENE		.218	18.6		
1,3-DICHLOROPROPANE		.362	4.62		
2-HEXANONE		.12	3.52		

Login Number: L0304554
Analytical Method: 8260
Instrument ID: HPMS11

Analyst: CMS
Initial Calibration Date: 17-APR-03

Analyte	AVG RF	% RSD	R^2	Q
1,1,2-TRICHLOROETHANE	.189	7.14		
TRANS-1,3-DICHLOROPROPENE	.355	12.2		
ETHYL METHACRYLATE	.248	4.44		
TOLUENE-D8	1.14	6.77		
DIMETHYL DISULFIDE	.181	7.97		
CIS-1,3-DICHLOROPROPENE	.316	11.0		
4-METHYL-2-PENTANONE	.0502	4.13		
2-CHLOROETHYL VINYL ETHER	.0973	7.66		
DIBROMOMETHANE	.094	8.5		
BROMODICHLOROMETHANE	.255	11.2		
TRICHLOROETHENE	.206	13.1		
BENZENE	.884	7.74		
1,2-DICHLOROETHANE	.281	7.41		
1,2-DICHLOROETHANE-D4	.217	5.86		
CARBON TETRACHLORIDE	.264	18.5		
1,1-DICHLOROPROPENE	.295	13.7		
CYCLOHEXANE	.525	3.6		
1,1,1-TRICHLOROETHANE	.306	21.5		
DIBROMOFLUOROMETHANE	.206	4.95		
BROMOCHLOROMETHANE	.0887	10.3		
CIS-1,2-DICHLOROETHENE	.226	9.35		
2,2-DICHLOROPROPANE	.331	12.4		
2-BUTANONE	.0545	3.25		
VINYL ACETATE	.33	6.48		
N-HEXANE	.394	9.57		
TRANS-1,2-DICHLOROETHENE	.21	14.2		
METHYLTERT-BUTYL ETHER	.432	3.43		
ACRYLONITRILE	.0551	4.1		
CARBON DISULFIDE	.684	8.53		
METHYLENE CHLORIDE	.201	6.22		
IODOMETHANE	.226	6.67		
DIMETHYL SULFIDE	.279	3.11		
ACETONE	.0372	6.21		
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	.208	1.42		
ACROLEIN	.0161	6.04		
ISOPRENE	.383	3.95		
TRICHLOROFLUOROMETHANE	.354	15.6		
CHLOROETHANE	.188	8.1		
BROMOMETHANE	.153	13.9		
DICHLORODIFLUOROMETHANE	.27	15.2		
	Average %RSD:	9.86		

= CC
* = SPCC

KEMRON FORMS - Modified 11/20/2002
Version 1.0
Report generated 05/05/2003 16:42

INITIAL CALIBRATION

Login Number: L0304554 — Analyst: CMS

Analytical Method: 8260 — Initial Calibration Date: 17-APR-03

Instrument ID: HPMS11

Analyte		Sample # WG138555-02 Conc	File # 11M14390 Response	Level 1 RF
ETHYLBENZENE	CCC	0.4	4238	.3933
TOLUENE	CCC	0.4	11835	1.098
1,2-DICHLOROPROPANE	CCC	0.4	3308	.2222
CHLOROFORM	CCC	0.4	4524	.3038
1,1-DICHLOROETHENE	CCC			
VINYL CHLORIDE	CCC			
1,1,2,2-TETRACHLOROETHANE	SPCC	0.4	1924	.3579
BROMOFORM	SPCC			
CHLOROBENZENE	SPCC	0.4	9238	.8573
1,1-DICHLOROETHANE	SPCC	0.4	5181	.348
CHLOROMETHANE	SPCC			
1,2,3-TRICHLOROBENZENE		0.4	3330	.6195
NAPHTHALENE		0.4	7887	1.467
HEXACHLOROBUTADIENE				
1,2,4-TRICHLOROBENZENE		0.4	3724	.6928
1,2-DIBROMO-3-CHLOROPROPANE				
1,2-DICHLOROBENZENE		0.4	6357	1.183
N-BUTYLBENZENE				
-DICHLOROBENZENE		0.4	6924	1.288
1,3-DICHLOROBENZENE		0.4	6414	1.193
P-ISOPROPYLTOLUENE				
SEC-BUTYLBENZENE				
1,2,4-TRIMETHYLBENZENE		0.4	10739	1.998
TERT-BUTYLBENZENE				
A-METHYLSTYRENE				
4-CHLOROTOLUENE		0.4	9040	1.682
2-CHLOROTOLUENE		0.4	9849	1.832
1,3,5-TRIMETHYLBENZENE		0.4	9829	1.829
BROMOBENZENE		0.4	2888	.5373
N-PROPYLBENZENE		0.4	13033	2.425
TRANS-1,4-DICHLORO-2-BUTENE				
1,2,3-TRICHLOROPROPANE				
P-BROMOFLUOROBENZENE				
ISOPROPYLBENZENE		0.4	11783	1.094
STYRENE		0.4	7873	.7306
O-XYLENE		0.4	4997	.4637
M-,P-XYLENE		0.8	10430	.484
1,1,1,2-TETRACHLOROETHANE		0.4	2072	.1923
1-CHLOROHEXANE				
1,2-DIBROMOETHANE		0.4	1564	.1451
DIBROMOCHLOROMETHANE		0.4	1484	.1377
TACHLOROETHENE		0.4	1628	.1511
1,3-DICHLOROPROPANE		0.4	3652	.3389

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Analyte	Sample # WG138555-02 Conc	File # 11MI4390 Response	Level 1 RF
2-HEXANONE			
1,1,2-TRICHLOROETHANE	0.4	1816	.1685
TRANS-1,3-DICHLOROPROPENE	0.4	2969	.2755
ETHYL METHACRYLATE			
TOLUENE-D8			
DIMETHYL DISULFIDE			
CIS-1,3-DICHLOROPROPENE	0.4	3901	.262
4-METHYL-2-PENTANONE			
2-CHLOROETHYL VINYL ETHER			
DIBROMOMETHANE	0.4	1196	.0803
BROMODICHLOROMETHANE	0.4	3136	.2106
TRICHLOROETHENE	0.4	2348	.1577
BENZENE	0.4	11890	.7986
1,2-DICHLOROETHANE	0.4	3576	.2402
1,2-DICHLOROETHANE-D4			
CARBON TETRACHLORIDE			
1,1-DICHLOROPROPENE			
CYCLOHEXANE			
1,1,1-TRICHLOROETHANE	0.4	2693	.1809
DIBROMOFLUOROMETHANE			
BROMOCHLOROMETHANE	0.4	1021	.0686
CIS-1,2-DICHLOROETHENE	0.4	2815	.1891
2,2-DICHLOROPROPANE			
2-BUTANONE			
VINYL ACETATE			
N-HEXANE			
TRANS-1,2-DICHLOROETHENE	0.4	2273	.1527
METHYLTERT-BUTYL ETHER			
ACRYLONITRILE			
CARBON DISULFIDE			
METHYLENE CHLORIDE	0.4	2653	.1782
IODOMETHANE			
DIMETHYL SULFIDE			
ACETONE			
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE			
ACROLEIN			
ISOPRENE			
TRICHLOROFLUOROMETHANE			
CHLOROETHANE			
BROMOMETHANE			
DICHLORODIFLUOROMETHANE			

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Login Number: L0304554 Analyst: CMS

Analytical Method: 8260 Initial Calibration Date: 17-APR-03

Instrument ID: HPMS11

Analyte		Sample # WG138555-03 Conc	File # 11M14391 Response	Level 2 RF
ETHYLBENZENE	CCC	1.0	11446	.4192
TOLUENE	CCC	1.0	30069	1.101
1,2-DICHLOROPROPANE	CCC	1.0	8375	.2241
CHLOROFORM	CCC	1.0	11827	.3165
1,1-DICHLOROETHENE	CCC	1.0	5133	.1374
VINYL CHLORIDE	CCC	1.0	3612	.0967
1,1,2,2-TETRACHLOROETHANE	SPCC	1.0	5372	.3953
BROMOFORM	SPCC	1.0	1808	.0662
CHLOROBENZENE	SPCC	1.0	22526	.8249
1,1-DICHLOROETHANE	SPCC	1.0	13648	.3652
CHLOROMETHANE	SPCC	1.0	6809	.1822
1,2,3-TRICHLOROBENZENE		1.0	8521	.6271
NAPHTHALENE		1.0	19908	1.465
HEXACHLOROBUTADIENE		1.0	3155	.2322
1,2,4-TRICHLOROBENZENE		1.0	10690	.7867
1,2-DIBROMO-3-CHLOROPROPANE				
1,2-DICHLOROBENZENE		1.0	15646	1.151
N-BUTYLBENZENE		1.0	25538	1.879
DICHLOROBENZENE		1.0	17641	1.298
1,3-DICHLOROBENZENE		1.0	17708	1.303
P-ISOPROPYLTOLUENE		1.0	27322	2.011
SEC-BUTYLBENZENE		1.0	32410	2.385
1,2,4-TRIMETHYLBENZENE		1.0	29135	2.144
TERT-BUTYLBENZENE		1.0	21195	1.56
A-METHYLSTYRENE				
4-CHLOROTOLUENE		1.0	27364	2.014
2-CHLOROTOLUENE		1.0	26171	1.926
1,3,5-TRIMETHYLBENZENE		1.0	26987	1.986
BROMOBENZENE		1.0	7929	.5835
N-PROPYLBENZENE		1.0	38314	2.82
TRANS-1,4-DICHLORO-2-BUTENE				
1,2,3-TRICHLOROPROPANE		1.0	1393	.1025
P-BROMOFLUOROBENZENE				
ISOPROPYLBENZENE		1.0	30948	1.133
STYRENE		1.0	20767	.7605
O-XYLENE		1.0	13459	.4929
M-,P-XYLENE		2.0	28386	.5198
1,1,1,2-TETRACHLOROETHANE		1.0	5781	.2117
1-CHLOROHEXANE		1.0	9462	.3465
1,2-DIBROMOETHANE		1.0	4653	.1704
DIBROMOCHLOROMETHANE		1.0	4208	.1541
ACHLOROETHENE		1.0	4410	.1615
DICHLOROPROPANE		1.0	9677	.3544

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Analyte	Sample # WG138555-03 Conc	File # 11M14391 Response	Level 2 RF
2-HEXANONE			
1,1,2-TRICHLOROETHANE	1.0	4713	.1726
TRANS-1,3-DICHLOROPROPENE	1.0	8211	.3007
ETHYL METHACRYLATE			
TOLUENE-D8			
DIMETHYL DISULFIDE			
CIS-1,3-DICHLOROPROPENE	1.0	9793	.262
4-METHYL-2-PENTANONE			
2-CHLOROETHYL VINYL ETHER	1.0	3067	.0821
DIBROMOMETHANE	1.0	3178	.085
BROMODICHLOROMETHANE	1.0	7923	.212
TRICHLOROETHENE	1.0	6416	.1717
BENZENE	1.0	29317	.7845
1,2-DICHLOROETHANE	1.0	10120	.2708
1,2-DICHLOROETHANE-D4			
CARBON TETRACHLORIDE	1.0	5890	.1576
1,1-DICHLOROPROPENE	1.0	7675	.2054
CYCLOHEXANE			
1,1,1-TRICHLOROETHANE	1.0	8272	.2213
DIBROMOFLUOROMETHANE			
BROMOCHLOROMETHANE	1.0	3186	.0853
CIS-1,2-DICHLOROETHENE	1.0	7532	.2015
2,2-DICHLOROPROPANE	1.0	8917	.2386
2-BUTANONE			
VINYL ACETATE	1.0	11485	.3073
N-HEXANE	1.0	11616	.3108
TRANS-1,2-DICHLOROETHENE	1.0	6541	.175
METHYLTERT-BUTYL ETHER	1.0	16710	.4471
ACRYLONITRILE			
CARBON DISULFIDE	1.0	20902	.5593
METHYLENE CHLORIDE	1.0	7090	.1897
IODOMETHANE			
DIMETHYL SULFIDE			
ACETONE			
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE			
ACROLEIN			
ISOPRENE			
TRICHLOROFLUOROMETHANE	1.0	8566	.2292
CHLOROETHANE	1.0	5742	.1536
BROMOMETHANE	1.0	4091	.1095
DICHLORODIFLUOROMETHANE	1.0	6698	.1792

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Analyte		Sample # WG138555-04 Conc	File # 11M14395 Response	Level 3 RF
ETHYLBENZENE	CCC	5.0	73739	.5475
TOLUENE	CCC	5.0	190625	1.416
1,2-DICHLOROPROPANE	CCC	5.0	48359	.2638
CHLOROFORM	CCC	5.0	69957	.3816
1,1-DICHLOROETHENE	CCC	5.0	36065	.1967
VINYL CHLORIDE	CCC	5.0	25262	.1378
1,1,2,2-TETRACHLOROETHANE	SPCC	5.0	29178	.4296
BROMOFORM	SPCC	5.0	11441	.085
CHLOROBENZENE	SPCC	5.0	130452	.9687
1,1-DICHLOROETHANE	SPCC	5.0	87786	.4789
CHLOROMETHANE	SPCC	5.0	36687	.2001
1,2,3-TRICHLOROBENZENE		5.0	46908	.6906
NAPHTHALENE		5.0	103438	1.523
HEXACHLOROBUTADIENE		5.0	20349	.2996
1,2,4-TRICHLOROBENZENE		5.0	57111	.8408
1,2-DIBROMO-3-CHLOROPROPANE		5.0	3872	.057
1,2-DICHLOROBENZENE		5.0	88150	1.298
N-BUTYLBENZENE		5.0	177907	2.619
1,4-DICHLOROBENZENE		5.0	101949	1.501
1,3-DICHLOROBENZENE		5.0	101658	1.497
P-ISOPROPYLTOLUENE		5.0	194516	2.864
SEC-BUTYLBENZENE		5.0	229973	3.386
1,2,4-TRIMETHYLBENZENE		5.0	190562	2.806
TERT-BUTYLBENZENE		5.0	148367	2.184
A-METHYLSTYRENE		5.0	99410	1.464
4-CHLOROTOLUENE		5.0	161894	2.384
2-CHLOROTOLUENE		5.0	167159	2.461
1,3,5-TRIMETHYLBENZENE		5.0	183813	2.706
BROMOBENZENE		5.0	46345	.6823
N-PROPYLBENZENE		5.0	263591	3.881
TRANS-1,4-DICHLORO-2-BUTENE		5.0	9536	.1404
1,2,3-TRICHLOROPROPANE		5.0	8259	.1216
P-BROMOFLUOROBENZENE		2.5	29803	.8776
ISOPROPYLBENZENE		5.0	216960	1.611
STYRENE		5.0	135903	1.009
O-XYLENE		5.0	86492	.6422
M-,P-XYLENE		10.0	179462	.6663
1,1,1,2-TETRACHLOROETHANE		5.0	34817	.2585
1-CHLOROHEXANE		5.0	60948	.4526
1,2-DIBROMOETHANE		5.0	25275	.1877
DIBROMOCHLOROMETHANE		5.0	25361	.1883
TETRACHLOROETHENE		5.0	34122	.2534
1,3-DICHLOROPROPANE		5.0	50417	.3744

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Analyte	Sample # WG138555-04 Conc	File # 11M14395 Response	Level 3 RF
2-HEXANONE	5.0	15841	.1176
1,1,2-TRICHLOROETHANE	5.0	26961	.2002
TRANS-1,3-DICHLOROPROPENE	5.0	48721	.3618
ETHYL METHACRYLATE	5.0	32626	.2423
TOLUENE-D8	2.5	68435	1.016
DIMETHYL DISULFIDE	5.0	28252	.1541
CIS-1,3-DICHLOROPROPENE	5.0	58396	.3186
4-METHYL-2-PENTANONE	5.0	9102	.0497
2-CHLOROETHYL VINYL ETHER	5.0	17670	.0964
DIBROMOMETHANE	5.0	18553	.1012
BROMODICHLOROMETHANE	5.0	45687	.2492
TRICHLOROETHENE	5.0	40944	.2234
BENZENE	5.0	173723	.9477
1,2-DICHLOROETHANE	5.0	55269	.3015
1,2-DICHLOROETHANE-D4	2.5	19791	.2159
CARBON TETRACHLORIDE	5.0	46431	.2533
1,1-DICHLOROPROPENE	5.0	55545	.303
CYCLOHEXANE	5.0	94937	.5179
1,1,1-TRICHLOROETHANE	5.0	61938	.3379
DIBROMOFLUOROMETHANE	2.5	17142	.187
BROMOCHLOROMETHANE	5.0	17250	.0941
CIS-1,2-DICHLOROETHENE	5.0	44067	.2404
2,2-DICHLOROPROPANE	5.0	61121	.3334
2-BUTANONE	5.0	10057	.0549
VINYL ACETATE	5.0	57987	.3163
N-HEXANE	5.0	74087	.4042
TRANS-1,2-DICHLOROETHENE	5.0	42057	.2294
METHYLTERT-BUTYL ETHER	5.0	79125	.4316
ACRYLONITRILE	5.0	10062	.0549
CARBON DISULFIDE	5.0	127848	.6974
METHYLENE CHLORIDE	5.0	39233	.214
IODOMETHANE	5.0	40569	.2213
DIMETHYL SULFIDE	5.0	52031	.2838
ACETONE	5.0	7305	.0398
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5.0	38587	.2105
ACROLEIN	10.0	5251	.0143
ISOPRENE	5.0	66265	.3615
TRICHLOROFLUOROMETHANE	5.0	69282	.3779
CHLOROETHANE	5.0	36361	.1984
BROMOMETHANE	5.0	26223	.143
DICHLORODIFLUOROMETHANE	5.0	55495	.3027

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Analyte		Sample # WG138555-05 Conc	File # 11M14396 Response	Level 4 RF
ETHYLBENZENE	CCC	20.0	292518	.5349
TOLUENE	CCC	20.0	778815	1.424
1,2-DICHLOROPROPANE	CCC	20.0	194977	.261
CHLOROFORM	CCC	20.0	294305	.3939
1,1-DICHLOROETHENE	CCC	20.0	154063	.2062
VINYL CHLORIDE	CCC	20.0	92065	.1232
1,1,2,2-TETRACHLOROETHANE	SPCC	20.0	119540	.4438
BROMOFORM	SPCC	20.0	54840	.1003
CHLOROBENZENE	SPCC	20.0	515730	.943
1,1-DICHLOROETHANE	SPCC	20.0	362676	.4854
CHLOROMETHANE	SPCC	20.0	139433	.1866
1,2,3-TRICHLOROBENZENE		20.0	184560	.6852
NAPHTHALENE		20.0	423745	1.573
HEXACHLOROBUTADIENE		20.0	83942	.3116
1,2,4-TRICHLOROBENZENE		20.0	230843	.857
1,2-DIBROMO-3-CHLOROPROPANE		20.0	17424	.0647
1,2-DICHLOROBENZENE		20.0	354991	1.318
N-BUTYLBENZENE		20.0	746501	2.771
[illegible]-DICHLOROBENZENE		20.0	410696	1.525
1,3-DICHLOROBENZENE		20.0	409978	1.522
P-ISOPROPYLTOLUENE		20.0	807099	2.996
SEC-BUTYLBENZENE		20.0	969237	3.598
1,2,4-TRIMETHYLBENZENE		20.0	795220	2.952
TERT-BUTYLBENZENE		20.0	608937	2.261
A-METHYLSTYRENE		20.0	430660	1.599
4-CHLOROTOLUENE		20.0	661601	2.456
2-CHLOROTOLUENE		20.0	692407	2.571
1,3,5-TRIMETHYLBENZENE		20.0	756946	2.81
BROMOBENZENE		20.0	188801	.7009
N-PROPYLBENZENE		20.0	1095098	4.066
TRANS-1,4-DICHLORO-2-BUTENE		20.0	41579	.1544
1,2,3-TRICHLOROPROPANE		20.0	34202	.127
P-BROMOFLUOROBENZENE		10.0	135884	1.009
ISOPROPYLBENZENE		20.0	905495	1.656
STYRENE		20.0	573644	1.049
O-XYLENE		20.0	357238	.6532
M-,P-XYLENE		40.0	728630	.6661
1,1,1,2-TETRACHLOROETHANE		20.0	149813	.2739
1-CHLOROHEXANE		20.0	265770	.486
1,2-DIBROMOETHANE		20.0	106436	.1946
DIBROMOCHLOROMETHANE		20.0	118199	.2161
[illegible]ACHLOROETHENE		20.0	141067	.2579
[illegible]-DICHLOROPROPANE		20.0	210224	.3844

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	Sample #	File #	Level
	WG138555-05	11M14396	4
Analyte	Conc	Response	RF
2-HEXANONE	20.0	65980	.1206
1,1,2-TRICHLOROETHANE	20.0	111425	.2037
TRANS-1,3-DICHLOROPROPENE	20.0	210836	.3855
ETHYL METHACRYLATE	20.0	138902	.254
TOLUENE-D8	10.0	340275	1.244
DIMETHYL DISULFIDE	20.0	135080	.1808
CIS-1,3-DICHLOROPROPENE	20.0	254028	.34
4-METHYL-2-PENTANONE	20.0	36946	.0494
2-CHLOROETHYL VINYL ETHER	20.0	74047	.0991
DIBROMOMETHANE	20.0	75129	.1006
BROMODICHLOROMETHANE	20.0	205119	.2745
TRICHLOROETHENE	20.0	174566	.2336
BENZENE	20.0	721785	.966
1,2-DICHLOROETHANE	20.0	224146	.3
1,2-DICHLOROETHANE-D4	10.0	86495	.2315
CARBON TETRACHLORIDE	20.0	209519	.2804
1,1-DICHLOROPROPENE	20.0	240335	.3217
CYCLOHEXANE	20.0	408043	.5461
1,1,1-TRICHLOROETHANE	20.0	259015	.3467
DIBROMOFLUOROMETHANE	10.0	80462	.2154
BROMOCHLOROMETHANE	20.0	72844	.0975
CIS-1,2-DICHLOROETHENE	20.0	185331	.248
2,2-DICHLOROPROPANE	20.0	260617	.3488
2-BUTANONE	20.0	40798	.0546
VINYL ACETATE	20.0	225160	.3014
N-HEXANE	20.0	313136	.4191
TRANS-1,2-DICHLOROETHENE	20.0	175531	.2349
METHYLTERT-BUTYL ETHER	20.0	323498	.433
ACRYLONITRILE	20.0	38751	.0519
CARBON DISULFIDE	20.0	547545	.7328
METHYLENE CHLORIDE	20.0	159013	.2128
IODOMETHANE	20.0	181835	.2434
DIMETHYL SULFIDE	20.0	215063	.2878
ACETONE	20.0	27980	.0374
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	20.0	155651	.2083
ACROLEIN	40.0	23928	.016
ISOPRENE	20.0	297291	.3979
TRICHLOROFLUOROMETHANE	20.0	279859	.3746
CHLOROETHANE	20.0	144255	.1931
BROMOMETHANE	20.0	113980	.1525
DICHLORODIFLUOROMETHANE	20.0	215750	.2888

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Analyte		Sample # WG138555-06 Conc	File # 11M14397 Response	Level 5 RF
ETHYLBENZENE	CCC	50.0	682669	.4883
TOLUENE	CCC	50.0	1916639	1.371
1,2-DICHLOROPROPANE	CCC	50.0	490510	.2583
CHLOROFORM	CCC	50.0	745542	.3926
1,1-DICHLOROETHENE	CCC	50.0	385117	.2028
VINYL CHLORIDE	CCC	50.0	229098	.1207
1,1,2,2-TETRACHLOROETHANE	SPCC	50.0	307613	.4375
BROMOFORM	SPCC	50.0	161598	.1156
CHLOROBENZENE	SPCC	50.0	1210682	.8659
1,1-DICHLOROETHANE	SPCC	50.0	908928	.4787
CHLOROMETHANE	SPCC	50.0	341322	.1798
1,2,3-TRICHLOROBENZENE		50.0	468470	.6662
NAPHTHALENE		50.0	1102280	1.568
HEXACHLOROBUTADIENE		50.0	210895	.2999
1,2,4-TRICHLOROBENZENE		50.0	576507	.8199
1,2-DIBROMO-3-CHLOROPROPANE		50.0	50688	.0721
1,2-DICHLOROBENZENE		50.0	890511	1.266
N-BUTYLBENZENE		50.0	1851714	2.633
[illegible]-DICHLOROBENZENE		50.0	1021682	1.453
1,3-DICHLOROBENZENE		50.0	1018141	1.448
P-ISOPROPYLTOLUENE		50.0	2010174	2.859
SEC-BUTYLBENZENE		50.0	2391293	3.401
1,2,4-TRIMETHYLBENZENE		50.0	1960224	2.788
TERT-BUTYLBENZENE		50.0	1827204	2.599
A-METHYLSTYRENE		50.0	1084954	1.543
4-CHLOROTOLUENE		50.0	1631580	2.32
2-CHLOROTOLUENE		50.0	1698494	2.416
1,3,5-TRIMETHYLBENZENE		50.0	1870468	2.66
BROMOBENZENE		50.0	465225	.6616
N-PROPYLBENZENE		50.0	2721632	3.871
TRANS-1,4-DICHLORO-2-BUTENE		50.0	111948	.1592
1,2,3-TRICHLOROPROPANE		50.0	89998	.128
P-BROMOFLUOROBENZENE		25.0	336773	.9579
ISOPROPYLBENZENE		50.0	2224118	1.591
STYRENE		50.0	1422996	1.018
O-XYLENE		50.0	868078	.6209
M-,P-XYLENE		100.0	1727635	.6178
1,1,1,2-TETRACHLOROETHANE		50.0	367282	.2627
1-CHLOROHEXANE		50.0	662135	.4736
1,2-DIBROMOETHANE		50.0	273851	.1959
DIBROMOCHLOROMETHANE		50.0	327104	.234
[illegible]ACHLOROETHENE		50.0	342124	.2447
[illegible]-DICHLOROPROPANE		50.0	534183	.3821

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INITIAL CALIBRATION

Login Number: L0304554
Analytical Method: 8260
Instrument ID: HPMS11

Analyst: CMS
Initial Calibration Date: 17-APR-03

Analyte	Sample #	File #	Level
	WG138555-06	11M14397	5
	Conc	Response	RF
2-HEXANONE	50.0	177930	.1273
1,1,2-TRICHLOROETHANE	50.0	284045	.2032
TRANS-1,3-DICHLOROPROPENE	50.0	550682	.3939
ETHYL METHACRYLATE	50.0	369357	.2642
TOLUENE-D8	25.0	830184	1.188
DIMETHYL DISULFIDE	50.0	367236	.1934
CIS-1,3-DICHLOROPROPENE	50.0	657699	.3464
4-METHYL-2-PENTANONE	50.0	100396	.0529
2-CHLOROETHYL VINYL ETHER	50.0	200430	.1056
DIBROMOMETHANE	50.0	193059	.1017
BROMODICHLOROMETHANE	50.0	530369	.2793
TRICHLOROETHENE	50.0	427688	.2252
BENZENE	50.0	1785659	.9404
1,2-DICHLOROETHANE	50.0	566649	.2984
1,2-DICHLOROETHANE-D4	25.0	219815	.2315
CARBON TETRACHLORIDE	50.0	551346	.2904
1,1-DICHLOROPROPENE	50.0	606699	.3195
CYCLOHEXANE	50.0	1033176	.5441
1,1,1-TRICHLOROETHANE	50.0	660735	.348
DIBROMOFLUOROMETHANE	25.0	202415	.2132
BROMOCHLOROMETHANE	50.0	182112	.0959
CIS-1,2-DICHLOROETHENE	50.0	465700	.2453
2,2-DICHLOROPROPANE	50.0	655054	.345
2-BUTANONE	50.0	106894	.0563
VINYL ACETATE	50.0	648218	.3414
N-HEXANE	50.0	785476	.4137
TRANS-1,2-DICHLOROETHENE	50.0	438995	.2312
METHYLTERT-BUTYL ETHER	50.0	854274	.4499
ACRYLONITRILE	50.0	110225	.0581
CARBON DISULFIDE	50.0	1382018	.7279
METHYLENE CHLORIDE	50.0	398458	.2099
IODOMETHANE	50.0	460751	.2427
DIMETHYL SULFIDE	50.0	546624	.2879
ACETONE	50.0	75251	.0396
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	50.0	400487	.2109
ACROLEIN	100.0	64136	.0169
ISOPRENE	50.0	758814	.3996
TRICHLOROFLUOROMETHANE	50.0	710538	.3742
CHLOROETHANE	50.0	365591	.1925
BROMOMETHANE	50.0	316237	.1665
DICHLORODIFLUOROMETHANE	50.0	539977	.2844

INITIAL CALIBRATION

Login Number: L0304554 Analyst: CMS

Analytical Method: 8260 Initial Calibration Date: 17-APR-03

Instrument ID: HPMS1i

Analyte		Sample # WG138555-07 Conc	File # 11M14398 Response	Level 6 RF
ETHYLBENZENE	CCC	100.0	1192935	.4209
TOLUENE	CCC	100.0	3638669	1.284
1,2-DICHLOROPROPANE	CCC	100.0	936167	.2495
CHLOROFORM	CCC	100.0	1432947	.3819
1,1-DICHLOROETHENE	CCC	100.0	738699	.1969
VINYL CHLORIDE	CCC	100.0	425698	.1135
1,1,2,2-TETRACHLOROETHANE	SPCC	100.0	609231	.4248
BROMOFORM	SPCC	100.0	336685	.1188
CHLOROBENZENE	SPCC	100.0	2138672	.7546
1,1-DICHLOROETHANE	SPCC	100.0	1751757	.4669
CHLOROMETHANE	SPCC	100.0	622221	.1658
1,2,3-TRICHLOROBENZENE		100.0	895357	.6243
NAPHTHALENE		100.0	2143357	1.495
HEXACHLOROBUTADIENE		100.0	421207	.2937
1,2,4-TRICHLOROBENZENE		100.0	1096417	.7645
1,2-DIBROMO-3-CHLOROPROPANE		100.0	104444	.0728
1,2-DICHLOROBENZENE		100.0	1705190	1.189
N-BUTYLBENZENE		100.0	3618761	2.523
DICHLOROBENZENE		100.0	1945950	1.357
1,3-DICHLOROBENZENE		100.0	1949377	1.359
P-ISOPROPYLTOLUENE		100.0	3857358	2.69
SEC-BUTYLBENZENE		100.0	4637278	3.234
1,2,4-TRIMETHYLBENZENE		100.0	3751037	2.616
TERT-BUTYLBENZENE		100.0	3495291	2.437
A-METHYLSTYRENE		100.0	2073158	1.446
4-CHLOROTOLUENE		100.0	3156088	2.201
2-CHLOROTOLUENE		100.0	3230883	2.253
1,3,5-TRIMETHYLBENZENE		100.0	3551754	2.477
BROMOBENZENE		100.0	872519	.6084
N-PROPYLBENZENE		100.0	5219627	3.64
TRANS-1,4-DICHLORO-2-BUTENE		100.0	227826	.1589
1,2,3-TRICHLOROPROPANE		100.0	178793	.1247
P-BROMOFLUOROBENZENE		50.0	662535	.924
ISOPROPYLBENZENE		100.0	4242257	1.497
STYRENE		100.0	2643085	.9326
O-XYLENE		100.0	1614168	.5695
M-,P-XYLENE		200.0	3076565	.5428
1,1,1,2-TETRACHLOROETHANE		100.0	671700	.237
1-CHLOROHEXANE		100.0	1279398	.4514
1,2-DIBROMOETHANE		100.0	528608	.1865
DIBROMOCHLOROMETHANE		100.0	654789	.231
ACHLOROETHENE		100.0	653980	.2307
-DICHLOROPROPANE		100.0	1028927	.363

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INITIAL CALIBRATION

Login Number: L0304554 Analyst: CMS

Analytical Method: 8260 Initial Calibration Date: 17-APR-03

Instrument ID: HPMS11

Analyte	Sample # WG138555-07 Conc	File # 11M14398 Response	Level 6 RF
2-HEXANONE	100.0	349310	.1232
1,1,2-TRICHLOROETHANE	100.0	548514	.1935
TRANS-1,3-DICHLOROPROPENE	100.0	1079255	.3808
ETHYL METHACRYLATE	100.0	716295	.2527
TOLUENE-D8	50.0	1604458	1.132
DIMETHYL DISULFIDE	100.0	726265	.1936
CIS-1,3-DICHLOROPROPENE	100.0	1285351	.3426
4-METHYL-2-PENTANONE	100.0	196894	.0525
2-CHLOROETHYL VINYL ETHER	100.0	385203	.1027
DIBROMOMETHANE	100.0	368442	.0982
BROMODICHLOROMETHANE	100.0	1038611	.2768
TRICHLOROETHENE	100.0	813830	.2169
BENZENE	100.0	3393683	.9045
1,2-DICHLOROETHANE	100.0	1086981	.2897
1,2-DICHLOROETHANE-D4	50.0	412066	.2196
CARBON TETRACHLORIDE	100.0	1091721	.291
1,1-DICHLOROPROPENE	100.0	1163911	.3102
CYCLOHEXANE	100.0	1980544	.5278
1,1,1-TRICHLOROETHANE	100.0	1275927	.3401
DIBROMOFLUOROMETHANE	50.0	394864	.2105
BROMOCHLOROMETHANE	100.0	346518	.0924
CIS-1,2-DICHLOROETHENE	100.0	878299	.2341
2,2-DICHLOROPROPANE	100.0	1319943	.3518
2-BUTANONE	100.0	211570	.0564
VINYL ACETATE	100.0	1345164	.3585
N-HEXANE	100.0	1545441	.4119
TRANS-1,2-DICHLOROETHENE	100.0	835987	.2228
METHYLTERT-BUTYL ETHER	100.0	1639898	.4371
ACRYLONITRILE	100.0	214708	.0572
CARBON DISULFIDE	100.0	2632815	.7017
METHYLENE CHLORIDE	100.0	767054	.2044
IODOMETHANE	100.0	779548	.2078
DIMETHYL SULFIDE	100.0	1040036	.2772
ACETONE	100.0	140187	.0374
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	100.0	782222	.2085
ACROLEIN	200.0	127478	.017
ISOPRENE	100.0	1455008	.3878
TRICHLOROFLUOROMETHANE	100.0	1413778	.3768
CHLOROETHANE	100.0	725419	.1933
BROMOMETHANE	100.0	627205	.1672
DICHLORODIFLUOROMETHANE	100.0	1059728	.2824

INITIAL CALIBRATION

Login Number: L0304554 Analyst: CME

Analytical Method: 8260 Initial Calibration Date: 17-APR-03

Instrument ID: HPMS11

Analyte		Sample #	File #	Level
		WG138555-08	11MI4402	7
		Conc	Response	RF
ETHYLBENZENE	CCC	150.0	1667196	.3985
TOLUENE	CCC	150.0	5351499	1.279
1,2-DICHLOROPROPANE	CCC	150.0	1382929	.2429
CHLOROFORM	CCC	150.0	2152315	.3781
1,1-DICHLOROETHENE	CCC	150.0	1132864	.199
VINYL CHLORIDE	CCC	150.0	633994	.1114
1,1,2,2-TETRACHLOROETHANE	SPCC	150.0	863417	.4073
BROMOFORM	SPCC	150.0	492296	.1177
CHLOROBENZENE	SPCC	150.0	2941043	.7031
1,1-DICHLOROETHANE	SPCC	150.0	2641047	.4639
CHLOROMETHANE	SPCC	150.0	935805	.1644
1,2,3-TRICHLOROBENZENE		150.0	1263982	.5963
NAPHTHALENE		150.0	3028151	1.429
HEXACHLOROBUTADIENE		150.0	642897	.3033
1,2,4-TRICHLOROBENZENE		150.0	1565054	.7383
1,2-DIBROMO-3-CHLOROPROPANE		150.0	153492	.0724
1,2-DICHLOROBENZENE		150.0	2451712	1.157
N-BUTYLBENZENE		150.0	5340516	2.519
DICHLOROBENZENE		150.0	2776960	1.31
1,3-DICHLOROBENZENE		150.0	2815825	1.328
P-ISOPROPYLTOLUENE		150.0	5668884	2.674
SEC-BUTYLBENZENE		150.0	6847311	3.23
1,2,4-TRIMETHYLBENZENE		150.0	5430563	2.562
TERT-BUTYLBENZENE		150.0	5078310	2.396
A-METHYLSTYRENE		150.0	2929190	1.382
4-CHLOROTOLUENE		150.0	4023799	1.898
2-CHLOROTOLUENE		150.0	4653365	2.195
1,3,5-TRIMETHYLBENZENE		150.0	5124536	2.418
BROMOBENZENE		150.0	1234172	.5822
N-PROPYLBENZENE		150.0	7688828	3.627
TRANS-1,4-DICHLORO-2-BUTENE		150.0	314690	.1485
1,2,3-TRICHLOROPROPANE		150.0	251340	.1186
P-BROMOFLUOROBENZENE		75.0	963434	.909
ISOPROPYLBENZENE		150.0	6204361	1.483
STYRENE		150.0	3747782	.8959
O-XYLENE		150.0	2283038	.5458
M-,P-XYLENE		300.0	4268000	.5101
1,1,1,2-TETRACHLOROETHANE		150.0	926153	.2214
1-CHLOROHEXANE		150.0	1870128	.4471
1,2-DIBROMOETHANE		150.0	775799	.1855
DIBROMOCHLOROMETHANE		150.0	969591	.2318
ACHLOROETHENE		150.0	963239	.2303
-DICHLOROPROPANE		150.0	1480275	.3539

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INITIAL CALIBRATION

Login Number: L0304554 Analyst: CMS

Analytical Method: 8260 Initial Calibration Date: 17-APR-03

Instrument ID: HPMS11

	Sample #	File #	Level
	WG138555-08	11M14402	7
Analyte	Conc	Response	RF
2-HEXANONE	150.0	486026	.1162
1,1,2-TRICHLOROETHANE	150.0	787700	.1883
TRANS-1,3-DICHLOROPROPENE	150.0	1576445	.3769
ETHYL METHACRYLATE	150.0	991307	.237
TOLUENE-D8	75.0	2386724	1.141
DIMETHYL DISULFIDE	150.0	1043597	.1833
CIS-1,3-DICHLOROPROPENE	150.0	1895627	.333
4-METHYL-2-PENTANONE	150.0	274970	.0483
2-CHLOROETHYL VINYL ETHER	150.0	557585	.0979
DIBROMOMETHANE	150.0	531158	.0933
BROMODICHLOROMETHANE	150.0	1540792	.2707
TRICHLOROETHENE	150.0	1211453	.2128
BENZENE	150.0	5028614	.8834
1,2-DICHLOROETHANE	150.0	1575800	.2768
1,2-DICHLOROETHANE-D4	75.0	580279	.2039
CARBON TETRACHLORIDE	150.0	1663658	.2922
1,1-DICHLOROPROPENE	150.0	1752080	.3078
CYCLOHEXANE	150.0	2932809	.5152
1,1,1-TRICHLOROETHANE	150.0	1935701	.34
DIBROMOFLUOROMETHANE	75.0	587287	.2063
BROMOCHLOROMETHANE	150.0	505843	.0889
CIS-1,2-DICHLOROETHENE	150.0	1306774	.2296
2,2-DICHLOROPROPANE	150.0	2015447	.354
2-BUTANONE	150.0	296861	.0521
VINYL ACETATE	150.0	1942803	.3413
N-HEXANE	150.0	2319753	.4075
TRANS-1,2-DICHLOROETHENE	150.0	1250197	.2196
METHYLTERT-BUTYL ETHER	150.0	2323493	.4082
ACRYLONITRILE	150.0	306056	.0538
CARBON DISULFIDE	150.0	3942811	.6926
METHYLENE CHLORIDE	150.0	1165435	.2047
IODOMETHANE	150.0	1206101	.2119
DIMETHYL SULFIDE	150.0	1531878	.2691
ACETONE	150.0	197601	.0347
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	150.0	1191250	.2093
ACROLEIN	300.0	181994	.016
ISOPRENE	150.0	2151806	.378
TRICHLOROFLUOROMETHANE	150.0	2168043	.3809
CHLOROETHANE	150.0	1085194	.1906
BROMOMETHANE	150.0	940067	.1651
DICHLORODIFLUOROMETHANE	150.0	1584904	.2784

INITIAL CALIBRATION

Login Number: L0304554
Analytical Method: 8260
Instrument ID: HPMS11

Analyst: CMS
Initial Calibration Date: 17-APR-03

Analyte		Sample # WG138555-09 Conc	File # 11M14399 Response	Level 8 RF
ETHYLBENZENE	CCC	200.0	1962335	.3586
TOLUENE	CCC	200.0	6574115	1.202
1,2-DICHLOROPROPANE	CCC	200.0	1754220	.2362
CHLOROFORM	CCC	200.0	2720639	.3664
1,1-DICHLOROETHENE	CCC	200.0	1403463	.189
VINYL CHLORIDE	CCC	200.0	688840	.0928
1,1,2,2-TETRACHLOROETHANE	SPCC	200.0	1139974	.3952
BROMOFORM	SPCC	200.0	656308	.1199
CHLOROBENZENE	SPCC	200.0	3521483	.6436
1,1-DICHLOROETHANE	SPCC	200.0	3360588	.4526
CHLOROMETHANE	SPCC	200.0	1299938	.1751
1,2,3-TRICHLOROBENZENE		200.0	1596367	.5535
NAPHTHALENE		200.0	3892769	1.35
HEXACHLOROBUTADIENE		200.0	802948	.2784
1,2,4-TRICHLOROBENZENE		200.0	1957522	.6787
1,2-DIBROMO-3-CHLOROPROPANE		200.0	203505	.0706
1,2-DICHLOROBENZENE		200.0	3121141	1.082
N-BUTYLBENZENE		200.0	6696771	2.322
DICHLOROBENZENE		200.0	3495639	1.212
1,3-DICHLOROBENZENE		200.0	3552421	1.232
P-ISOPROPYLTOLUENE		200.0	7127606	2.471
SEC-BUTYLBENZENE		200.0	8558448	2.967
1,2,4-TRIMETHYLBENZENE		200.0	6821731	2.365
TERT-BUTYLBENZENE		200.0	6340819	2.199
A-METHYLSTYRENE		200.0	3746560	1.299
4-CHLOROTOLUENE		200.0	5176874	1.795
2-CHLOROTOLUENE		200.0	5751400	1.994
1,3,5-TRIMETHYLBENZENE		200.0	6351947	2.202
BROMOBENZENE		200.0	1520935	.5273
N-PROPYLBENZENE		200.0	9573686	3.319
TRANS-1,4-DICHLORO-2-BUTENE		200.0	434710	.1507
1,2,3-TRICHLOROPROPANE		200.0	326457	.1132
P-BROMOFLUOROBENZENE		100.0	1255915	.8709
ISOPROPYLBENZENE		200.0	7666466	1.401
STYRENE		200.0	4622646	.8448
O-XYLENE		200.0	2789379	.5098
M-,P-XYLENE		400.0	5114345	.4673
1,1,1,2-TETRACHLOROETHANE		200.0	1114628	.2037
1-CHLOROHEXANE		200.0	2330600	.4259
1,2-DIBROMOETHANE		200.0	995165	.1819
DIBROMOCHLOROMETHANE		200.0	1245815	.2277
ACHLOROETHENE		200.0	1182938	.2162
DICHLOROPROPANE		200.0	1895899	.3465

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INITIAL CALIBRATION

Login Number: L0304554
Analytical Method: 8260
Instrument ID: HPMS11

Analyst: CMS
Initial Calibration Date: 17-APR-03

Analyte	Sample # WG138555-09 Conc	File # 11M14399 Response	Level 8 RF
2-HEXANONE	200.0	642350	.1174
1,1,2-TRICHLOROETHANE	200.0	1006343	.1839
TRANS-1,3-DICHLOROPROPENE	200.0	2010358	.3674
ETHYL METHACRYLATE	200.0	1294200	.2365
TOLUENE-D8	100.0	3024588	1.106
DIMETHYL DISULFIDE	200.0	1361460	.1833
CIS-1,3-DICHLOROPROPENE	200.0	2399833	.3232
4-METHYL-2-PENTANONE	200.0	357376	.0481
2-CHLOROETHYL VINYL ETHER	200.0	724853	.0976
DIBROMOMETHANE	200.0	681059	.0917
BROMODICHLOROMETHANE	200.0	1972101	.2656
TRICHLOROETHENE	200.0	1515589	.2041
BENZENE	200.0	6303532	.8489
1,2-DICHLOROETHANE	200.0	2015609	.2714
1,2-DICHLOROETHANE-D4	100.0	751634	.2024
CARBON TETRACHLORIDE	200.0	2083427	.2806
1,1-DICHLOROPROPENE	200.0	2186577	.2945
CYCLOHEXANE	200.0	3686117	.4964
1,1,1-TRICHLOROETHANE	200.0	2444149	.3291
DIBROMOFLUOROMETHANE	100.0	762876	.2055
BROMOCHLOROMETHANE	200.0	647386	.0872
CIS-1,2-DICHLOROETHENE	200.0	1640942	.221
2,2-DICHLOROPROPANE	200.0	2540029	.3421
2-BUTANONE	200.0	392203	.0528
VINYL ACETATE	200.0	2541507	.3423
N-HEXANE	200.0	2919720	.3932
TRANS-1,2-DICHLOROETHENE	200.0	1581406	.213
METHYLTERT-BUTYL ETHER	200.0	3109866	.4188
ACRYLONITRILE	200.0	406071	.0547
CARBON DISULFIDE	200.0	5038666	.6785
METHYLENE CHLORIDE	200.0	1448331	.195
IODOMETHANE	200.0	1682072	.2265
DIMETHYL SULFIDE	200.0	1998789	.2692
ACETONE	200.0	255474	.0344
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	200.0	1505338	.2027
ACROLEIN	400.0	241206	.0162
ISOPRENE	200.0	2757322	.3713
TRICHLOROFLUOROMETHANE	200.0	2694559	.3629
CHLOROETHANE	200.0	1422217	.1915
BROMOMETHANE	200.0	1238019	.1667
DICHLORODIFLUOROMETHANE	200.0	2020230	.2721

ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L0304554
File ID: 11M14410
ALT ID: WG138555-10
Units: ug/L

Instrument ID: HPMS11
Run Date: 04/21/2003
Run Time: 08:40
Analyst: CMS
Cal ID:HPMS11 - 17-APR-03

Analyte		Expected	Found	RF	%D	Q
Ethylbenzene	CCC	20	23.6	0.526	18.0	
Toluene	CCC	20	21.9	1.39	9.5	
1,2-Dichloropropane	CCC	20	20.9	0.256	4.5	
Chloroform	CCC	20	21.9	0.400	9.5	
1,1-Dichloroethane	CCC	20	22.0	0.208	10.0	
Vinyl Chloride	CCC	20	21.2	0.121	6.0	
1,1,2,2-Tetrachloroethane	SPCC	20	20.6	0.424	3.0	
Bromoform	SPCC	20	19.9	0.103	0.5	
Chlorobenzene	SPCC	20	22.3	0.915	11.5	
1,1-Dichloroethane	SPCC	20	21.7	0.479	8.5	
Chloromethane	SPCC	20	17.0	0.152	15.0	
1,2,3-Trichlorobenzene		20	21.5	0.682	7.5	
Naphthalene		20	21.1	1.56	5.5	
Hexachlorobutadiene		20	21.3	0.307	6.5	
1,2,4-Trichlorobenzene		20	22.1	0.852	10.5	
1,2-Dibromo-3-Chloropropane		20	19.8	0.0675	1.0	
1,2-Dichlorobenzene		20	21.3	1.28	6.5	
n-Butylbenzene		20	21.7	2.67	8.5	
1,4-Dichlorobenzene		20	21.0	1.44	5.0	
1,3-Dichlorobenzene		20	21.2	1.44	6.0	
p-Isopropyltoluene		20	21.3	2.82	6.5	
sec-Butylbenzene		20	21.7	3.44	8.5	
1,2,4-Trimethylbenzene		20	21.9	2.77	9.5	
tert-Butylbenzene		20	21.3	2.38	6.5	
a-Methylstyrene		20		0.000400		
4-Chlorotoluene		20	23.1	2.42	15.5	
2-Chlorotoluene		20	21.2	2.33	6.0	
1,3,5-Trimethylbenzene		20	22.5	2.69	12.5	
Bromobenzene		20	22.2	0.677	11.0	
n-Propylbenzene		20	22.5	3.89	12.5	
trans-1,4-Dichloro-2-Butene		20		0		
1,2,3-Trichloropropane		20	21.6	0.129	8.0	
Isopropylbenzene		20	21.8	1.57	9.0	
Styrene		20	23.5	1.07	17.5	
o-Xylene		20	22.9	0.643	14.5	
m-,p-Xylene		40	46.3	0.647	15.8	
1,1,1,2-Tetrachloroethane		20	24.1	0.281	20.5	
1-Chlorohexane		20	22.1	0.487	10.5	
1,2-Dibromoethane		20	21.4	0.193	7.0	
Dibromochloromethane		20	21.9	0.222	9.5	
Tetrachloroethene		20	22.9	0.250	14.5	
1,3-Dichloropropane		20	20.8	0.376	4.0	
2-Hexanone		20	19.6	0.118	2.0	
1,1,2-Trichloroethane		20	21.2	0.201	6.0	

ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L0304554
File ID: 11M14410
ALT ID: WG138555-10
Units: ug/L

Instrument ID: HPMS11
Run Date: 04/21/2003
Run Time: 08:40
Analyst: CMS
Cal ID:HPMS11 17-APR-03

Analyte	Expected	Found	RF	%D	Q
trans-1,3-Dichloropropene	20	22.5	0.400	12.5	
Ethyl Methacrylate	20		0		
Dimethyl Disulfide	20		0		
cis-1,3-Dichloropropene	20	22.9	0.362	14.5	
4-Methyl-2-Pentanone	20	21.2	0.0531	6.0	
2-Chloroethyl Vinyl Ether	20	21.8	0.106	9.0	
Dibromomethane	20	22.0	0.104	10.0	
Bromodichloromethane	20	21.8	0.278	9.0	
Trichloroethene	20	24.3	0.250	21.5	
Benzene	20	21.8	0.964	9.0	
1,2-Dichloroethane	20	21.0	0.295	5.0	
Carbon Tetrachloride	20	22.2	0.292	11.0	
1,1-Dichloropropene	20	22.5	0.331	12.5	
Cyclohexane	20		0.000500		
1,1,1-Trichloroethane	20	23.5	0.359	17.5	
Bromochloromethane	20	22.1	0.0981	10.5	
cis-1,2-Dichloroethene	20	22.0	0.249	10.0	
2,2-Dichloropropane	20	22.4	0.371	12.0	
2-Butanone	20	18.8	0.0513	6.0	
Vinyl Acetate	20	18.9	0.311	5.5	
n-Hexane	20	21.6	0.425	8.0	
trans-1,2-Dichloroethene	20	23.1	0.242	15.5	
Methyl Tert Butyl Ether	20	20.8	0.450	4.0	
Acrylonitrile	20		0		
Carbon Disulfide	20	15.8	0.540	21.0	
Methylene Chloride	20	21.4	0.215	7.0	
Iodomethane	20	21.0	0.237	5.0	
Dimethyl Sulfide	20		0		
Acetone	20	16.9	0.0314	15.5	
1,1,2-Trichloro-1,2,2-Trifluoroethane	20		0		
Acrolein	40		0		
Isoprene	20		0		
Trichlorofluoromethane	20	18.1	0.320	9.5	
Chloroethane	20	19.5	0.183	2.5	
Bromomethane	20	19.8	0.152	1.0	
Dichlorodifluoromethane	20	18.1	0.244	9.5	

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CONTINUING CALIBRATION REPORT

Login Number: L0304554
File ID: 11M14654
CCV ID: WG139441-02
Units: ug/L

Instrument ID: HPMS11
Run Date: 04/30/2003
Run Time: 18:01
Analyst: CMS
Cal ID:HPMS11 - 17-APR-03

Analyte		Expected	Found	RF	%D	Q
Ethylbenzene	CCC	50	53.9	0.480	7.8	
Toluene	CCC	50	53.1	1.35	6.2	
1,2-Dichloropropane	CCC	50	52.3	0.256	4.6	
Chloroform	CCC	50	56.2	0.410	12.4	
1,1-Dichloroethene	CCC	50	54.5	0.207	9.0	
Vinyl Chloride	CCC	50	55.4	0.126	10.8	
1,1,2,2-Tetrachloroethane	SPCC	50	50.8	0.418	1.6	
Bromoform	SPCC	50	53.0	0.110	6.0	
Chlorobenzene	SPCC	50	51.9	0.851	3.8	
1,1-Dichloroethane	SPCC	50	55.5	0.491	11.0	
Chloromethane	SPCC	50	59.2	0.212	18.4	
1,2,3-Trichlorobenzene		50	49.0	0.620	2.0	
Naphthalene		50	49.7	1.47	0.6	
Hexachlorobutadiene		50	44.2	0.255	11.6	
1,2,4-Trichlorobenzene		50	48.8	0.753	2.4	
1,2-Dibromo-3-Chloropropane		50	47.5	0.0648	5.0	
1,2-Dichlorobenzene		50	50.5	1.22	1.0	
n-Butylbenzene		50	49.1	2.42	1.8	
1,4-Dichlorobenzene		50	51.2	1.40	2.4	
1,3-Dichlorobenzene		50	51.3	1.40	2.6	
p-Isopropyltoluene		50	50.7	2.69	1.4	
sec-Butylbenzene		50	50.0	3.17	0.0	
1,2,4-Trimethylbenzene		50	53.8	2.72	7.6	
tert-Butylbenzene		50	55.6	2.48	11.2	
a-Methylstyrene		50	50.9	1.48	1.8	
4-Chlorotoluene		50	55.3	2.32	10.6	
2-Chlorotoluene		50	53.7	2.37	7.4	
1,3,5-Trimethylbenzene		50	54.1	2.58	8.2	
Bromobenzene		50	52.9	0.646	5.8	
n-Propylbenzene		50	54.0	3.73	8.0	
trans-1,4-Dichloro-2-Butene		50	52.6	0.160	5.2	
1,2,3-Trichloropropane		50	52.6	0.126	5.2	
Isopropylbenzene		50	54.3	1.56	8.6	
Styrene		50	53.8	0.974	7.6	
o-Xylene		50	53.7	0.604	7.4	
m-,p-Xylene		100	108	0.606	8.0	
1,1,1,2-Tetrachloroethane		50	57.0	0.265	14.0	
1-Chlorohexane		50	51.4	0.453	2.8	
1,2-Dibromoethane		50	52.3	0.189	4.6	
Dibromochloromethane		50	56.7	0.230	13.4	
Tetrachloroethene		50	55.3	0.242	10.6	
1,3-Dichloropropane		50	50.7	0.367	1.4	

CONTINUING CALIBRATION REPORT

Login Number: L0304554
File ID: 11M14654
CCV ID: WG139441-02
Units: ug/L

Instrument ID: HPMS11
Run Date: 04/30/2003
Run Time: 18:01
Analyst: CMS
Cal ID:HPMS11 17-APR-03

Analyte	Expected	Found	RF	%D	Q
2-Hexanone	50	49.7	0.120	0.6	
1,1,2-Trichloroethane	50	51.3	0.194	2.6	
trans-1,3-Dichloropropene	50	54.8	0.390	9.6	
Ethyl Methacrylate	50	49.2	0.244	1.6	
Dimethyl Disulfide	50	50.5	0.183	1.0	
cis-1,3-Dichloropropene	50	54.2	0.343	8.4	
4-Methyl-2-Pentanone	50	48.0	0.0482	4.0	
2-Chloroethyl Vinyl Ether	50	51.1	0.0995	2.2	
Dibromomethane	50	54.2	0.102	8.4	
Bromodichloromethane	50	56.0	0.286	12.0	
Trichloroethene	50	54.5	0.224	9.0	
Benzene	50	53.3	0.942	6.6	
1,2-Dichloroethane	50	56.1	0.315	12.2	
Carbon Tetrachloride	50	59.6	0.314	19.2	
1,1-Dichloropropene	50	55.8	0.329	11.6	
Cyclohexane	50	51.0	0.535	2.0	
1,1,1-Trichloroethane	50	60.8	0.371	21.6	
Bromochloromethane	50	53.5	0.0949	7.0	
cis-1,2-Dichloroethene	50	54.0	0.244	8.0	
2,2-Dichloropropane	50	56.2	0.372	12.4	
2-Butanone	50	49.5	0.0539	1.0	
Vinyl Acetate	50	52.4	0.346	4.8	
n-Hexane	50	49.7	0.392	0.6	
trans-1,2-Dichloroethene	50	55.7	0.234	11.4	
Methyl Tert Butyl Ether	50	49.0	0.423	2.0	
Acrylonitrile	50	52.2	0.0575	4.4	
Carbon Disulfide	50	53.2	0.728	6.4	
Methylene Chloride	50	52.2	0.210	4.4	
Iodomethane	50	54.4	0.246	8.8	
Dimethyl Sulfide	50	49.8	0.278	0.4	
Acetone	50	52.5	0.0391	5.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	51.0	0.213	2.0	
Acrolein	100	107	0.0173	7.0	
Isoprene	50	51.7	0.396	3.4	
Trichlorofluoromethane	50	57.7	0.408	15.4	
Chloroethane	50	51.8	0.194	3.6	
Bromomethane	50	49.1	0.150	1.8	
Dichlorodifluoromethane	50	56.8	0.306	13.6	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

KEMRON ENVIRONMENTAL SERVICES
INTERNAL STANDARD AREA SUMMARY

Login Number: L0304554
Instrument ID: HPMS11
Workgroup (AAB#): WG139442

CCV Number: WG139441-02
CAL ID: HPMS11-17-APR-03
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG139441-02	NA	NA	349058	696661	933013
Upper Limit	NA	NA	698116	1393322	1866026
Lower Limit	NA	NA	174529	348331	466507
L0304554-01	10.0		335983	685478	938055

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

KEMRON ENVIRONMENTAL SERVICES
INTERNAL STANDARD RETENTION TIME SUMMARY

Login Number: L0304554
Instrument ID: HPMS11
Workgroup (AAB#): WG139442

CCV Number: WG139441-02
CAL ID: HPMS11-17-APR-03
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG139441-02	NA	NA	17.79	14.97	11.33
Upper Limit	NA	NA	17.89	15.07	11.43
Lower Limit	NA	NA	17.69	14.87	11.23
L0304554-01	10.0		17.79	14.98	11.33

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

Directory: C:\MSDCHEM\1\DATA\041703

IS: SV10842
SS: SV10843

Analyst: CMS

Inj	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	11M14388.D	1.	✓WG138555-01 BFB 50NG STD 8260	1,1 SV10835	17 Apr 2003 06:32
	2	11M14389.D	1.	DNR WG138555 0.30 PPB STD 8260	1,1 SV10829	17 Apr 2003 07:07
	3	11M14390.D	1.	✓WG138555-02 0.40 PPB STD 8260	1,1 SV10829	17 Apr 2003 07:38
	4	11M14391.D	1.	✓WG138555-03 1 PPB STD 8260	1,1 SV10829	17 Apr 2003 08:09
	5	11M14392.D	1.	DNR WG138555 2 PPB STD 8260	1,1 SV10829	17 Apr 2003 08:41
	6	11M14393.D	1.	⊥ WG138555 5 PPB STD 8260	1,1 SV10829	17 Apr 2003 09:11
	7	11M14394.D	1.	DNR WG138555 2 PPB STD 8260	1,1 SV10829	17 Apr 2003 09:43
	8	11M14395.D	1.	✓WG138555-04 5 PPB STD 8260	1,1 SV10829	17 Apr 2003 10:13
	9	11M14396.D	1.	✓WG138555-05 20 PPB STD 8260	1,1 SV10829	17 Apr 2003 10:43
0	10	11M14397.D	1.	✓WG138555-06 50 PPB STD 8260	1,1 SV10829	17 Apr 2003 11:14
1	11	11M14398.D	1.	✓WG138555-07 100 PPB STD 8260	1,1 SV10829	17 Apr 2003 11:44
2	12	11M14399.D	1.	✓WG138555-09 200 PPB STD 8260	1,1 SV10829	17 Apr 2003 12:15
3	13	11M14400.D	1.	✓SYSTEM BLANK	1,1	17 Apr 2003 12:46
4	14	11M14401.D	1.	✓SYSTEM BLANK	1,1	17 Apr 2003 13:16
5	15	11M14402.D	1.	✓WG138555-08 150 PPB STD 8260	1,1 SV10829	17 Apr 2003 14:20
6	16	11M14403.D	1.	✓SYSTEM BLANK	1,1	17 Apr 2003 14:50
7	17	11M14404.D	1.	✓SYSTEM BLANK	1,1	17 Apr 2003 15:20
8	18	11M14405.D	1.	RR WG138555-12 20 PPB ALT SOURCE STD 8260	1,1 SV10847	17 Apr 2003 15:51

WG138555
reanalyze alternate source (TCE+)

Directory: C:\MSDCHEM\1\DATA\042103

IS: SV10842
SS: SV10843

Analyst: CMS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11M14406.D	1.	✓WG138731-01 BFB 50NG STD 8260	1,1 SV10835	21 Apr 2003 06:19
2	2	11M14407.D	1.	✓WG138731-02 50 PPB STD 8260	1,1 SV10829	21 Apr 2003 06:52
3	3	11M14408.D	1.	✓WG138732-01 VBLK0421 BLANK 8260	1,1	21 Apr 2003 07:38
4	4	11M14409.D	1.	✓WG138732-01 VBLK0421 BLANK 8260	1,1	21 Apr 2003 08:09
5	5	11M14410.D	1.	✓WG138555-10 20PPB ALT SOURCE STD 8260	1,1 SV10847	21 Apr 2003 08:40
6		11M14411.D	1.			

WG138555

No reanalyses / R-flags

Directory: C:\MSDCHEM\1\DATA\043003

Analyst: CMS

IS: SV10842
SS: SV10843

Pg 1 of 2

	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11M14630.D	1.	✓WG139364-01 BFB 50NG STD 8260	1,1 SV10835	30 Apr 2003 04:43
2	2	11M14631.D	1.	✓WG139364-02 50 PPB STD 8260	1,1 SV10906	30 Apr 2003 05:12
3	3	11M14632.D	1.	✓WG139365-01 VBLK0430 BLANK 8260	1,1	30 Apr 2003 05:49
4	4	11M14633.D	1.	✓WG139365-02 20 PPB LCS STD 8260	1,1 SV10847	30 Apr 2003 06:20
5	5	11M14634.D	1.	✓WG139365-03 20 PPB LCS DUP STD 8260	1,1 SV10847	30 Apr 2003 06:51
6	6	11M14635.D	1.	✓L0304497-11 B 00 8260	1,1 pH=7	30 Apr 2003 08:23
7	7	11M14636.D	1. RR5x	L0304508-01 A 50X D1 8260 - DNR	1,50	30 Apr 2003 08:54
8	8	11M14637.D	1. RR5x	L0304508-03 A 50X D1 8260 - DNR	1,50	30 Apr 2003 09:26
9	9	11M14638.D	1.	✓L0304508-06 B 10X D2 8260	1,10	30 Apr 2003 09:57
10	10	11M14639.D	1.	✓L0304497-07 B 1000X D1 8260	1,1000	30 Apr 2003 10:28
11	11	11M14640.D	1.	✓L0304497-09 B 1000X D1 8260	1,1000	30 Apr 2003 10:59
12	12	11M14641.D	1.	✓L0304497-10 B 10X 00 8260	1,10	30 Apr 2003 11:29
13	13	11M14642.D	1.	✓L0304501-03 B 100X D1 826-TC	17,100 (4/28@1500)	30 Apr 2003 11:59
14	14	11M14643.D	1. RR10x	L0304529-02 B 00 8260	1,1 pH=2	30 Apr 2003 12:30
15	15	11M14644.D	1.	✓L0304529-04 A 00 8260	1,1 1	30 Apr 2003 13:00
16	16	11M14645.D	1. RR 5x	L0304529-03 A 50X 00 8260 D1	1,50	30 Apr 2003 13:30
17	17	11M14646.D	1. RR 5x	L0304529-08 A 100X 00 8260 - DNR	1,100	30 Apr 2003 14:01
18	18	11M14647.D	1. RR 5hr.	L0304529-07 A 100X 00 8260 - DNR	1,100	30 Apr 2003 14:31
19	19	11M14648.D	1. RR 5hr.	L0304529-06 A 500X 00 8260 - DNR	1,500	30 Apr 2003 15:01
20	20	11M14649.D	1. RR 5hr.	L0304529-10 A 100X 00 8260 D1	1,100	30 Apr 2003 15:31
21	21	11M14650.D	1. RR 5ox	L0304529-09 A 100X 00 8260 - DNR	1,100	30 Apr 2003 16:02
22	22	11M14651.D	1. RR 5x	L0304529-05 A 100X 00 8260 - DNR	1,100	30 Apr 2003 16:32
23	1	11M14652.D	1.	RR WG139441-01 BFB 50NG STD 8260	1,1 SV10835	30 Apr 2003 17:03
24	2	11M14653.D	1.	✓WG139441-01 BFB 50NG STD 8260	1,1 SV10835	30 Apr 2003 17:32
25	3	11M14654.D	1.	✓WG139441-02 50 PPB STD 8260	1,1 SV10906	30 Apr 2003 18:01
26	4	11M14655.D	1.	✓WG139442-01 VBLK0430 BLANK 8260	1,1	30 Apr 2003 18:36
27	5	11M14656.D	1.	✓WG139442-02 20 PPB LCS STD 8260	1,1 SV10847	30 Apr 2003 19:07
28	6	11M14657.D	1.	✓WG139442-03 20 PPB LCS DUP STD 8260	1,1 SV10847	30 Apr 2003 19:37
29	7	11M14658.D	1.	✓L0304508-01 B 5X D2 8260	1,5	30 Apr 2003 20:08
30	8	11M14659.D	1.	✓L0304508-03 B 5X D2 8260	1,5	30 Apr 2003 20:38
31	9	11M14660.D	1.	✓L0304501-05 B 50X 00 826-TC	17,50 (4/28@1500)	30 Apr 2003 21:09
32	10	11M14661.D	1. RR10x	L0304529-07 B 00 8260	1,1 pH=2	30 Apr 2003 21:40
33	11	11M14662.D	1. RR 5ox	L0304529-06 B 00 8260	1,1 1	30 Apr 2003 22:11
34	12	11M14663.D	1. RR 100x	L0304529-10 B 00 8260	1,1 pH=12	30 Apr 2003 22:42
35	13	11M14664.D	1.	✓L0304529-01 B 50X D1 8260 00	1,50	30 Apr 2003 23:14
36	14	11M14665.D	1.	✓L0304529-02 B 10X D1 8260	1,10	30 Apr 2003 23:45
37	15	11M14666.D	1. RR 5ox	L0304529-03 B 5X 00 8260	1,5	1 May 2003 00:16
38	16	11M14667.D	1. RR 5ox	L0304529-05 B 5X 00 8260	1,5	1 May 2003 00:47
39	17	11M14668.D	1.	✓L0304529-08 B 5X 00 8260	1,5	1 May 2003 01:19
40	18	11M14669.D	1.	✓L0304529-09 B 50X 00 8260	1,50	1 May 2003 01:50
41	19	11M14670.D	1.	✓L0304554-01 10X 00 826-TC	17,10 (4/28@1500)	1 May 2003 02:22
42	20	11M14671.D	1.	✓L0304594-03 A 10X 00 826-TC	17,10 (4/28@1500)	1 May 2003 02:53
43	21	11M14672.D	1.	✓L0304649-01 A 00 826-SPE-VO-S	2,1 pH=7	1 May 2003 03:24
44	22	11M14673.D	1.	✓L0304649-02 A 00 826-SPE-VO-S	2,1 pH=10	1 May 2003 03:56
45	23	11M14674.D	1.	✓L0304469-03 A 00 826-SPE-VO-S 649 ~~mis~~ (110)	2,1 pH=7	1 May 2003 04:27
46	24	11M14675.D	1.	✓L0304516-02 A 00 826-BETX	1,1 pH=2	1 May 2003 04:58

WG139365 reanalyses

L0304508-01 @ 5x (D2) - 2-Butanone - 11M14658
-03 @ 5x (D2) ⊥ ⊥ 659

L0304529-02 @ 10x : Acetone - 11M14665
-03 @ 5x : (oo) - 11M14666
-10 @ 5tr. : (oo) - 11M14649 6663

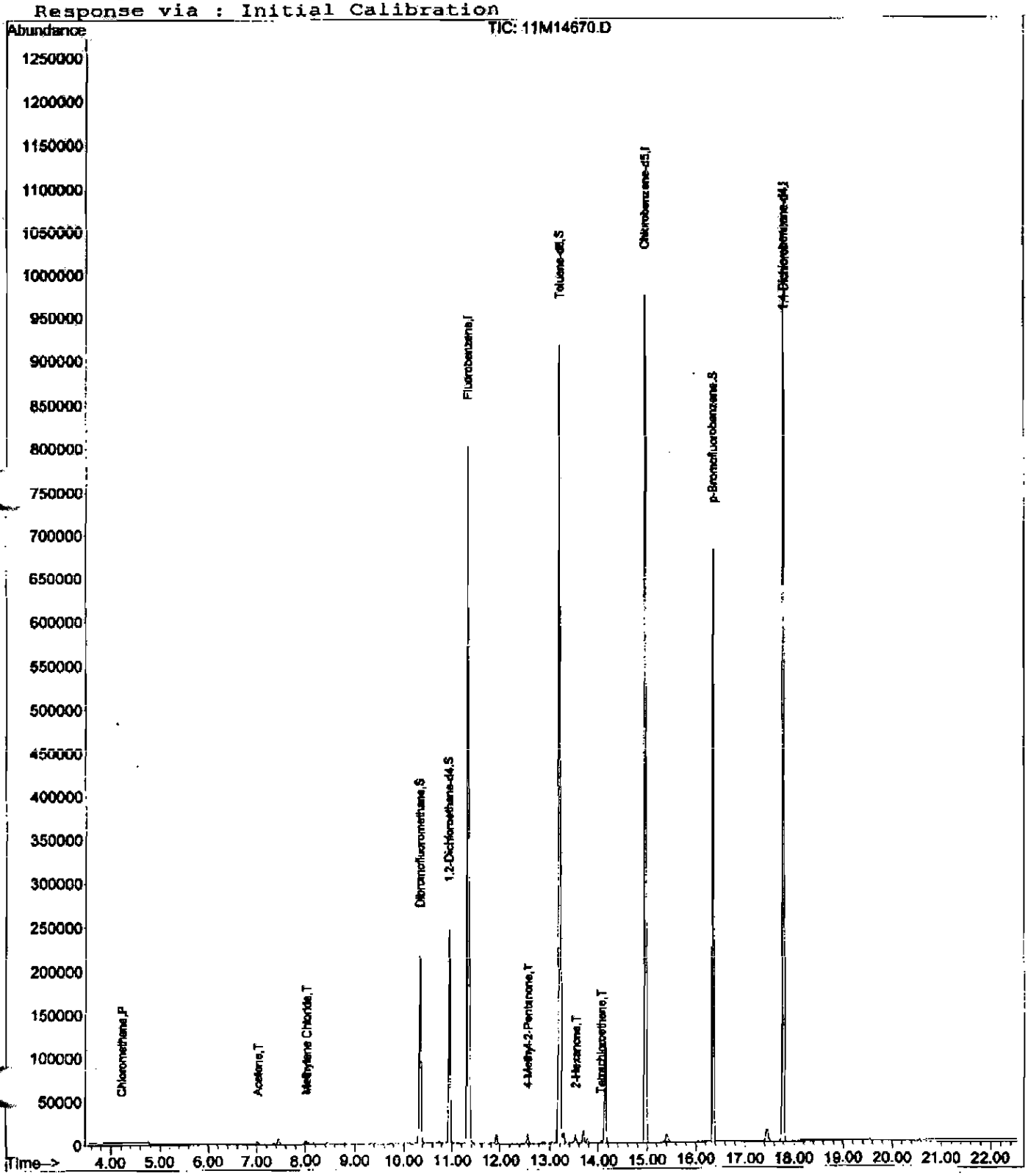
WG139442 reanalyses

L0304529-07 @ 10x : Acetone
-06 @ 50x : Acetone, 2-Butanone
-10 @ 100x : PCE : 11M14649
-03 @ 50x : Carbon tet. - 11M14645
-05 @ 50x : Acetone

2.1.1.2 Sample Data

Data File : C:\MSDCHEM\1\DATA\043003\11M14670.D Vial: 19
Acq On : 1 May 2003 2:22 Operator: CMS
Sample : L0304554-01 10X 00 826-TC Inst : HPMS11
Misc : 17,10 (4/28@1500) Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 1 2:44 2003 Quant Results File: 8260WT.RES

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration

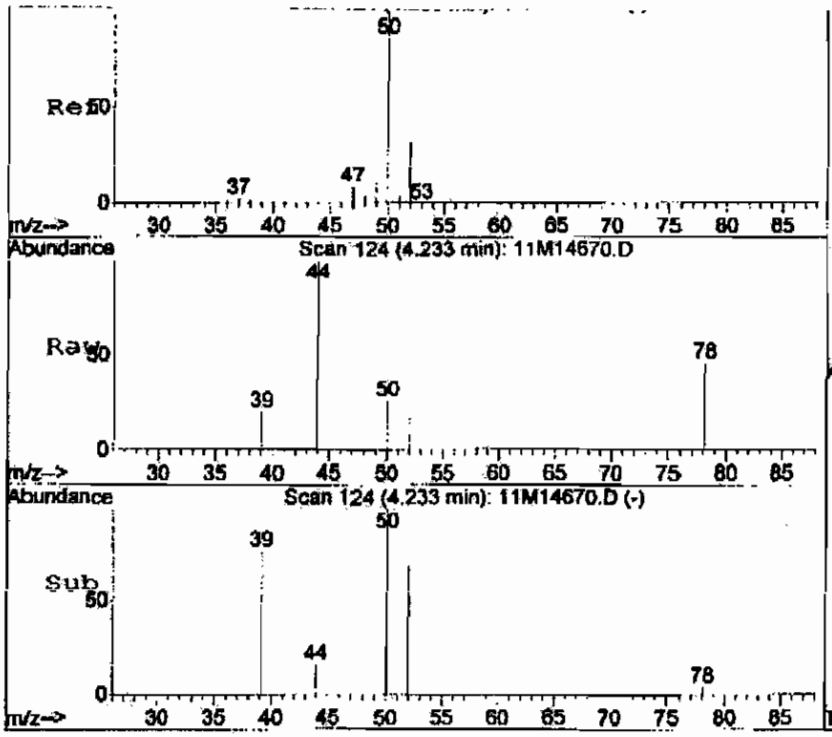


Data File : C:\MSDCHEM\1\DATA\043003\11M14670.D Vial: 19
Acq On : 1 May 2003 2:22 Operator: CMS
Sample : L0304554-01 10X 00 826-TC Inst : HPMS11
Misc : 17,10 (4/28@1500) Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 01 02:44:51 2003 Quant Results File: 8260WT.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.33	96	938055	25.00 ug/L	0.00
44) Chlorobenzene-d5	14.98	117	685478	25.00 ug/L	0.00
64) 1,4-Dichlorobenzene-d4	17.79	152	335983	25.00 ug/L	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.34	111	192712	24.8938 ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 99.56%		
33) 1,2-Dichloroethane-d4	10.94	65	219272	26.8692 ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 107.48%		
45) Toluene-d8	13.20	98	790503	25.3374 ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 101.36%		
66) p-Bromofluorobenzene	16.36	95	315045	25.3507 ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 101.40%		
Target Compounds					Qvalue
3) Chloromethane	4.23	50	1049	0.1561 ug/L	92
11) Acetone	7.04	43	5862	4.1958 ug/L #	45
15) Methylene Chloride	8.02	84	1513	0.2005 ug/L	57
41) 4-Methyl-2-Pentanone	12.57	58	533	~~0.2033 ug~~/L #	100
50) 2-Hexanone	13.54	43	8388	~~2.5410 ug~~/L #	1
52) Tetrachloroethene	14.06	164	1373	0.2295 ug/L	90

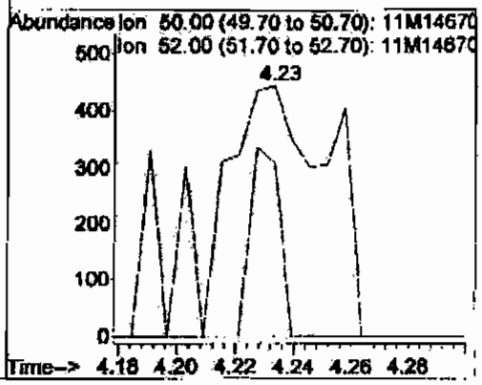
(#) = qualifier out of range (m) = manual integration

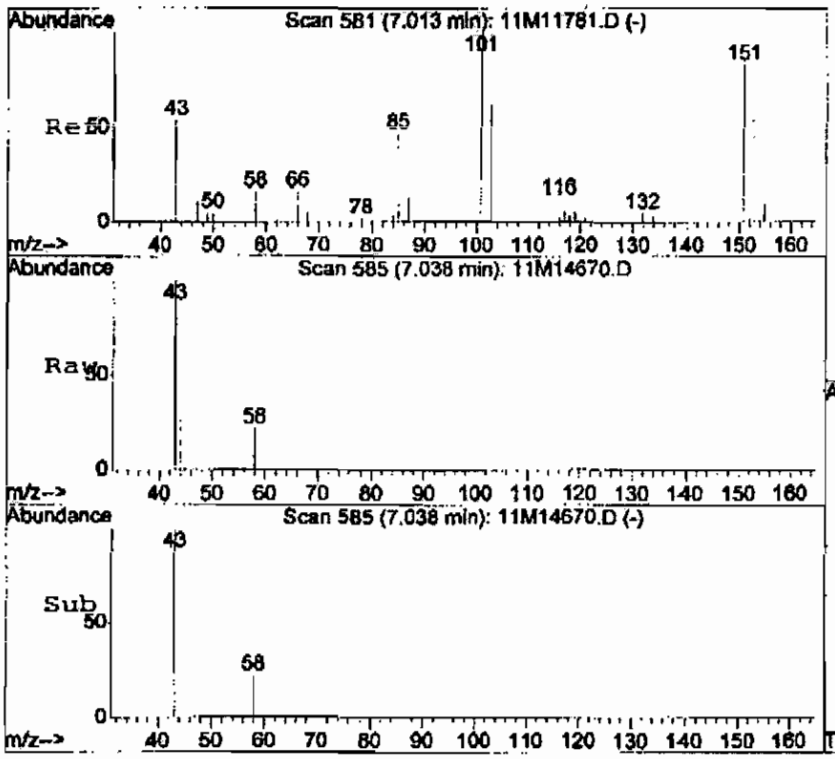


Chloromethane
Concen: 0.16 ug/L
RT: 4.23 min Scan# 124
Delta R.T. 0.01 min
Lab File: 11M14670.D
Acq: 1 May 2003 2:22

Tgt Ion: 50 Resp: 1049

Ion	Ratio	Lower	Upper
50	100		
52	22.6	16.1	37.5

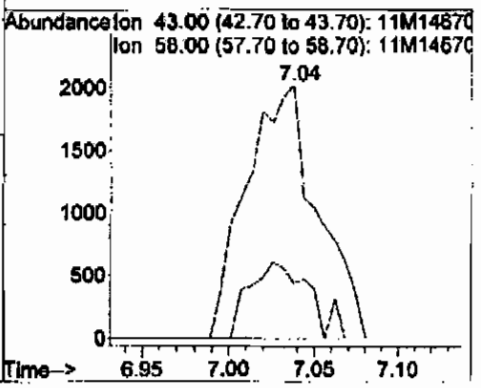


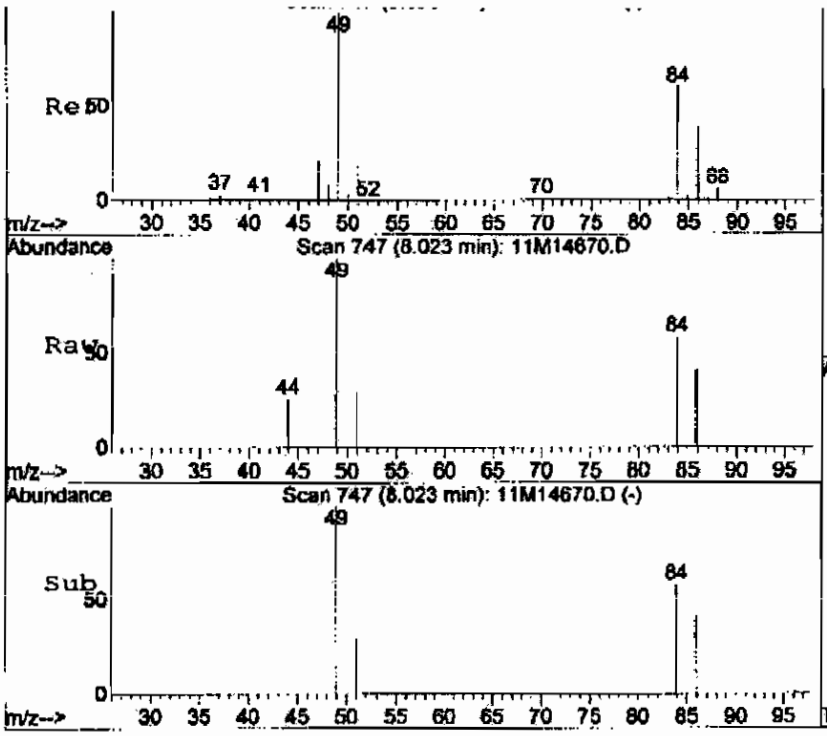


#11
Acetone
Concen: 4.20 ug/L
RT: 7.04 min Scan# 585
Delta R.T. 0.02 min
Lab File: 11M14670.D
Acq: 1 May 2003 2:22

Tgt Ion: 43 Resp: 5862

Ion	Ratio	Lower	Upper
43	100		
58	25.3	4.0	9.2#

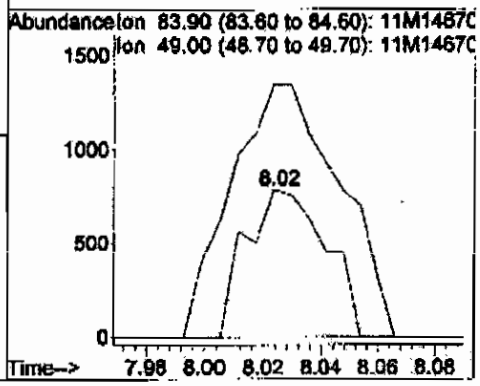


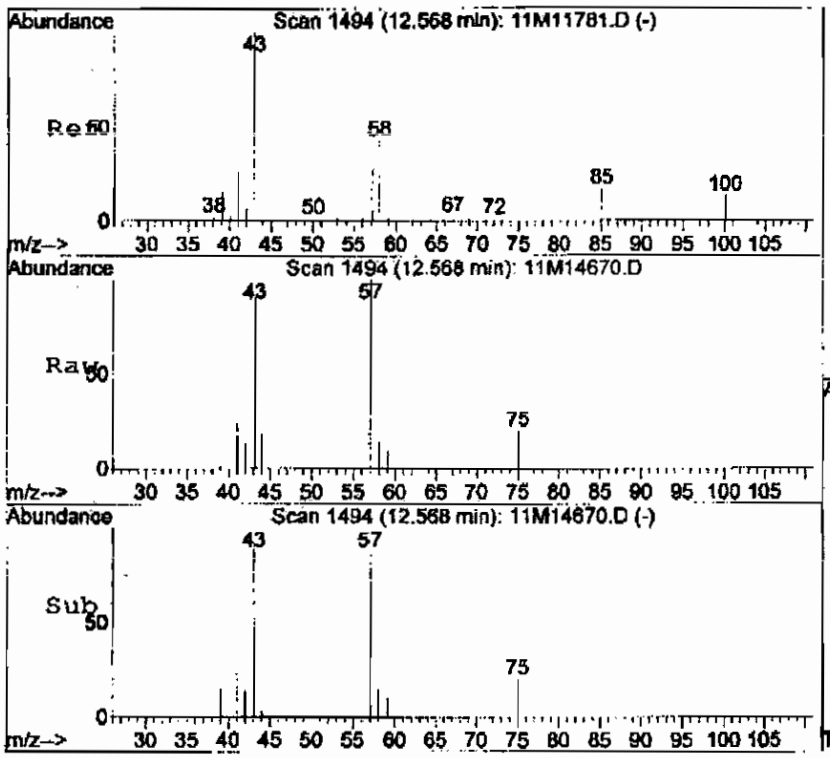


Methylene Chloride
Concen: 0.20 ug/L
RT: 8.02 min Scan# 747
Delta R.T. 0.00 min
Lab File: 11M14670.D
Acq: 1 May 2003 2:22

Tgt Ion: 84 Resp: 1513

Ion	Ratio	Lower	Upper
84	100		
49	231.3	103.1	240.5

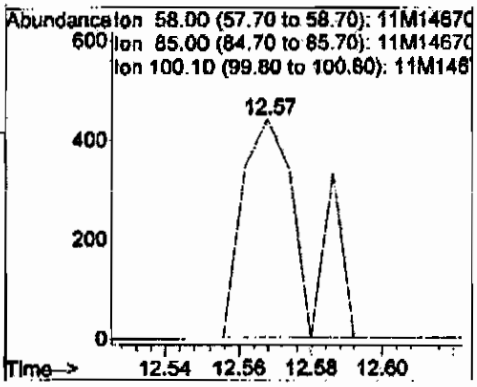


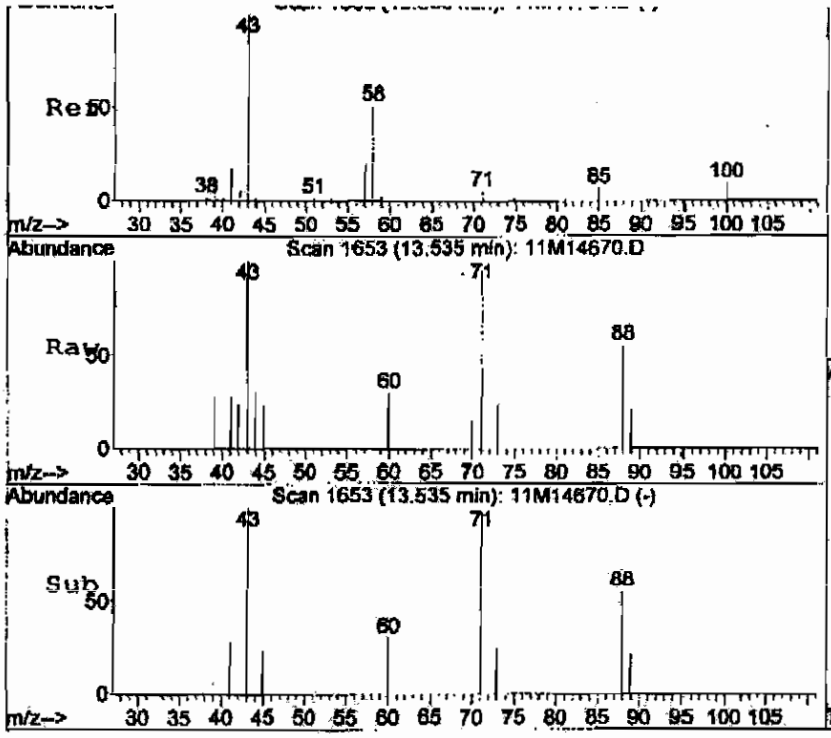


#41
4-Methyl-2-Pentanone
Concen: 0.28 ug/L
RT: 12.57 min Scan# 1494
Delta R.T. -0.01 min
Lab File: 11M14670.D
Acq: 1 May 2003 2:22

Tgt Ion: 58 Resp: 533

Ion	Ratio	Lower	Upper
58	100		
85	0.0	0.0	0.0
100	0.0	0.0	0.0

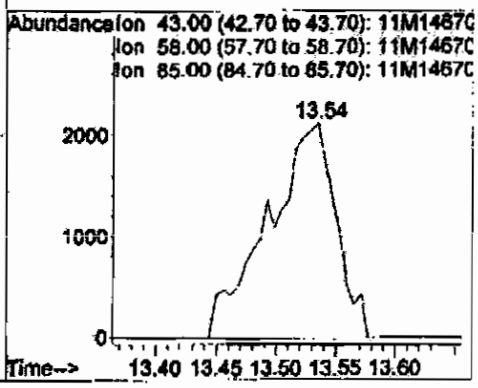


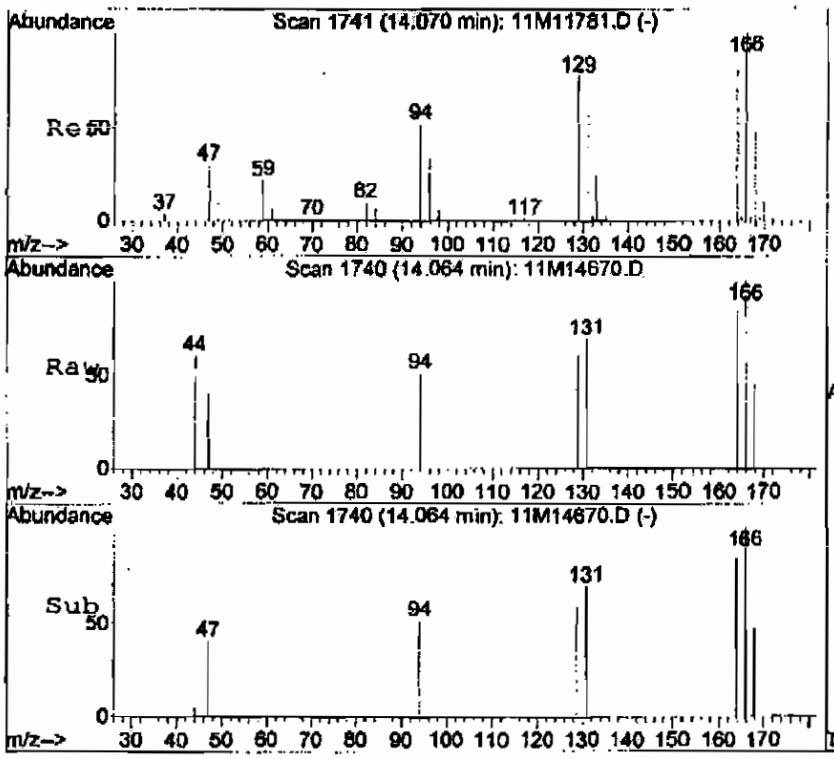


2-Hexanone
Concen: 2.54 ug/L
RT: 13.54 min Scan# 1653
Delta R.T. -0.02 min
Lab File: 11M14670.D
Acq: 1 May 2003 2:22

Tgt Ion: 43 Resp: 8388

Ion	Ratio	Lower	Upper
43	100		
58	0.0	5.6	13.0#
85	0.0	95.5	222.9#

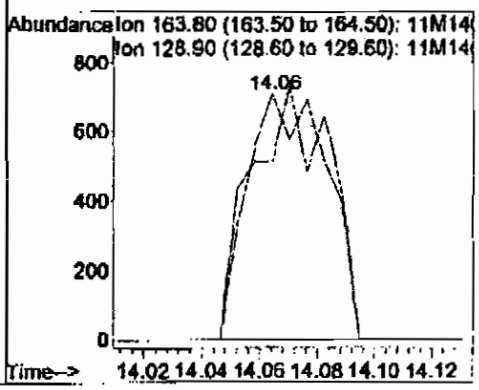




#52
Tetrachloroethene
Concen: 0.23 ug/L
RT: 14.06 min Scan# 1740
Delta R.T. -0.01 min
Lab File: 11M14670.D
Acq: 1 May 2003 2:22

Tgt Ion:164 Resp: 1373

Ion	Ratio	Lower	Upper
164	100		
129	99.2	53.8	125.4



2.1.1.3 Standards Data

Calibration Table Report
Method: 8260WT.M
Title: Method 8260B Water Analysis 04/17/03 HPMS 11
1st Calibration: Thu Apr 17 15:11:50 2003

AVE % RSD=9.86%

4/21/03

Calibration Files

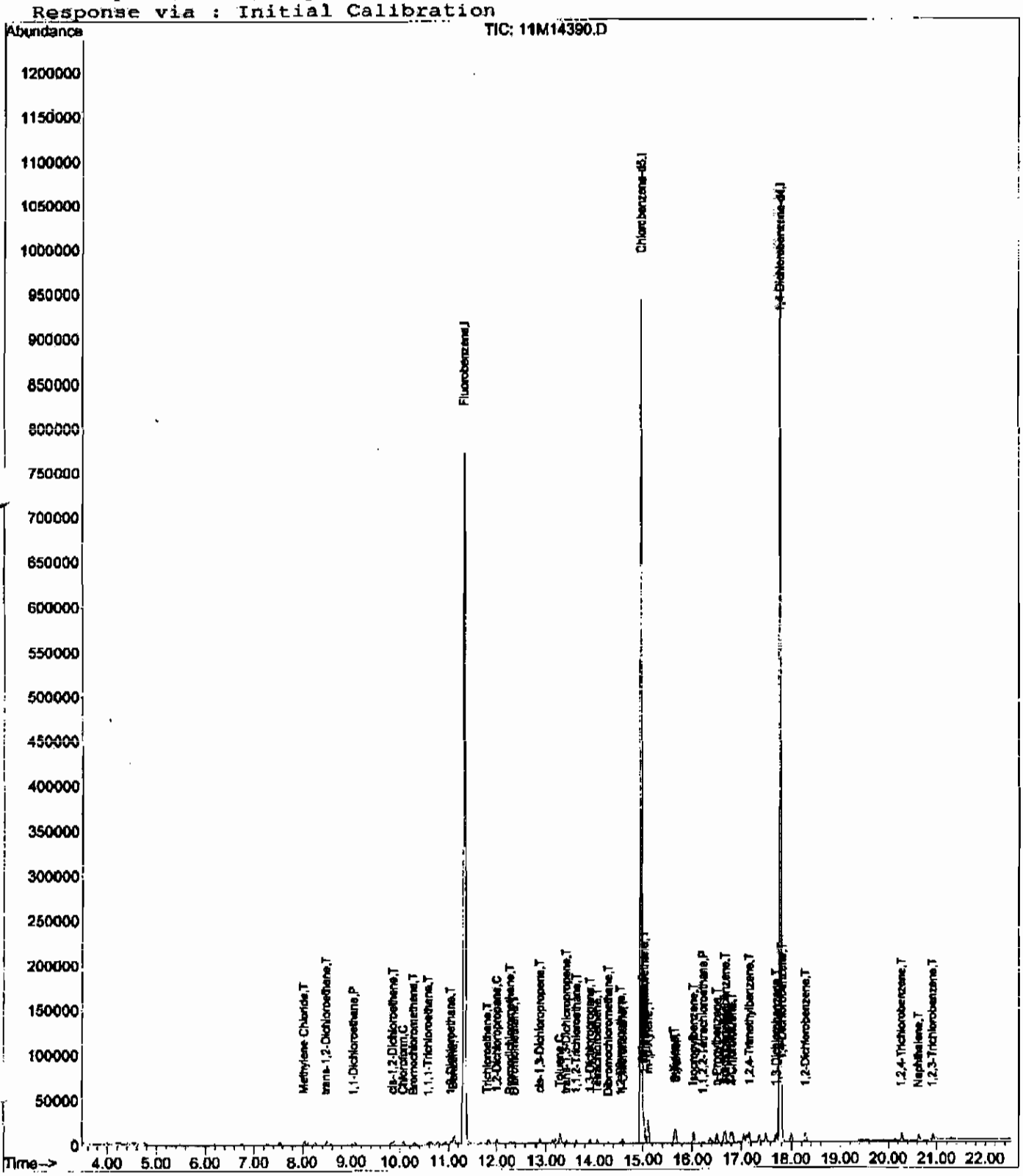
	Compound	0.4 11M14390.D	1 11M14391.D	5 11M14395.D	20 11M14396.D	50 11M14397.D	200 11M14399.D	100 11M14398.D	150 11M14402.D	Avg	%RSD
I	Fluorobenzene	ISTD									
T	Dichlorodifluoromethane		0.179	0.303	0.289	0.284	0.272	0.282	0.278	0.270	15.211
P	Chloromethane		0.182	0.200	0.187	0.180	0.175	0.166	0.164	0.179 ✓	6.903
C	Vinyl Chloride		0.097	0.138	0.123	0.121	0.093	0.113	0.111	0.114	13.693 ✓
T	Bromomethane		0.109	0.143	0.153	0.167	0.167	0.167	0.165	0.153	13.905
T	Chloroethane		0.154	0.198	0.193	0.193	0.192	0.193	0.191	0.188	8.085
T	Trichlorofluoromethane		0.229	0.378	0.375	0.374	0.363	0.377	0.381	0.354	15.611
T	Isoprene			0.361	0.398	0.400	0.371	0.388	0.378	0.383	3.955
T	Acrolein			0.014	0.016	0.017	0.016	0.017	0.016	0.016	5.972
T	1,1,2-Trichloro-1,2,2-Trifluoroethan			0.210	0.208	0.211	0.203	0.208	0.209	0.208	1.420
T	Acetone			0.040	0.037	0.040	0.034	0.037	0.035	0.037	6.243
C	1,1-Dichloroethene		0.137	0.197	0.206	0.203	0.189	0.197	0.199	0.190	12.498 ✓
T	Dimethyl Sulfide			0.284	0.288	0.288	0.269	0.277	0.269	0.279	3.115
T	Iodomethane			0.221	0.243	0.243	0.227	0.208	0.212	0.226	6.672
T	Methylene Chloride	0.178	0.190	0.214	0.213	0.210	0.195	0.204	0.205	0.201	6.224
T	Carbon Disulfide		0.559	0.697	0.733	0.728	0.679	0.702	0.693	0.684	8.532
T	Acrylonitrile			0.055	0.052	0.058	0.055	0.057	0.054	0.055	4.115
T	Methyl Tert Butyl Ether		0.447	0.432	0.433	0.450	0.419	0.437	0.408	0.432	3.430
T	trans-1,2-Dichloroethene	0.153	0.175	0.229	0.235	0.231	0.213	0.223	0.220	0.210	14.211
T	n-Hexane		0.311	0.404	0.419	0.414	0.393	0.412	0.408	0.394	9.567
T	Vinyl Acetate		0.307	0.316	0.301	0.341	0.342	0.359	0.341	0.330	6.482
P	1,1-Dichloroethane	0.348	0.365	0.479	0.485	0.479	0.453	0.467	0.464	0.442 ✓	12.244
C	2-Butanone			0.055	0.055	0.056	0.053	0.056	0.052	0.055	3.207
T	2,2-Dichloropropane		0.239	0.333	0.349	0.345	0.342	0.352	0.354	0.331	12.437
T	cis-1,2-Dichloroethene	0.189	0.202	0.240	0.248	0.245	0.221	0.234	0.230	0.226	9.351
C	Chloroform	0.304	0.316	0.382	0.394	0.393	0.366	0.382	0.378	0.364	9.522 ✓
T	Bromochloromethane	0.069	0.085	0.094	0.097	0.096	0.087	0.092	0.089	0.089	10.359
S	Dibromofluoromethane			0.187	0.215	0.213	0.205	0.210	0.206	0.206	4.942
T	1,1,1-Trichloroethane	0.181	0.221	0.338	0.347	0.348	0.329	0.340	0.340	0.305	21.468
T	Cyclohexane			0.518	0.546	0.544	0.496	0.528	0.515	0.525	3.600
T	1,1-Dichloropropene		0.205	0.303	0.322	0.320	0.294	0.310	0.308	0.295	13.722
T	Carbon Tetrachloride		0.158	0.253	0.280	0.290	0.281	0.291	0.292	0.264	18.451
S	1,2-Dichloroethane-d4			0.216	0.232	0.232	0.202	0.220	0.204	0.217	5.864
T	1,2-Dichloroethane	0.240	0.271	0.301	0.300	0.298	0.271	0.290	0.277	0.281	7.414
T	Benzene	0.799	0.784	0.948	0.966	0.940	0.849	0.904	0.883	0.884	7.744
T	Trichloroethene	0.158	0.172	0.223	0.234	0.225	0.204	0.217	0.213	0.206	13.142
C	1,2-Dichloropropane	0.222	0.224	0.264	0.261	0.258	0.236	0.250	0.243	0.245	6.632 ✓
T	Bromodichloromethane	0.211	0.212	0.249	0.275	0.279	0.266	0.277	0.271	0.255	11.155
T	Dibromomethane	0.080	0.085	0.101	0.101	0.102	0.092	0.098	0.093	0.094	8.476
T	2-Chloroethyl Vinyl Ether		0.082	0.096	0.099	0.106	0.098	0.103	0.098	0.097	7.660
T	4-Methyl-2-Pentanone			0.050	0.049	0.053	0.048	0.052	0.048	0.050	4.094
T	cis-1,3-Dichloropropene	0.262	0.262	0.319	0.34	0.346	0.323	0.343	0.333	0.3160	10.950
T	Dimethyl Disulfide			0.154	0.181	0.193	0.183	0.194	0.183	0.1814	7.966
I	Chlorobenzene-d5	ISTD									
S	Toluene-d8			1.016	1.244	1.188	1.106	1.132	1.141	1.1379	6.771
C	Toluene	1.098	1.101	1.415	1.424	1.371	1.201	1.284	1.279	1.2718	10.209 ✓
T	Ethyl Methacrylate			0.242	0.254	0.264	0.237	0.253	0.237	0.2478	4.443
T	trans-1,3-Dichloropropene	0.276	0.301	0.362	0.386	0.394	0.367	0.381	0.377	0.3553	12.152
T	1,1,2-Trichloroethane	0.169	0.173	0.2	0.204	0.203	0.184	0.194	0.188	0.1892	7.140
T	2-Hexanone			0.118	0.121	0.127	0.117	0.123	0.116	0.1204	3.520
C	1,3-Dichloropropane	0.339	0.354	0.374	0.384	0.382	0.346	0.363	0.354	0.3622	4.616
C	Tetrachloroethene	0.151	0.161	0.253	0.258	0.245	0.216	0.231	0.23	0.2182	18.611
T	Dibromochloromethane	0.138	0.154	0.188	0.216	0.234	0.228	0.231	0.232	0.2026	18.862
T	1,2-Dibromoethane	0.145	0.17	0.188	0.195	0.196	0.182	0.187	0.185	0.1809	9.106
T	1-Chlorohexane		0.347	0.453	0.486	0.474	0.426	0.451	0.447	0.4404	10.370

P	Chlorobenzene		0.857	0.825	0.969	0.943	0.866	0.644	0.755	0.703	0.8201✓	13.813
T	1,1,1,2-Tetrachloroethane		0.192	0.212	0.259	0.274	0.263	0.204	0.237	0.221	0.2327	12.924
C	Ethylbenzene		0.393	0.419	0.548	0.535	0.488	0.359	0.421	0.399	0.4452	15.657✓
T	m-,p-Xylene		0.484	0.52	0.666	0.666	0.618	0.467	0.543	0.51	0.5593	14.285
T	o-Xylene		0.464	0.493	0.642	0.653	0.621	0.51	0.57	0.546	0.5623	12.703
T	Styrene		0.731	0.761	1.009	1.049	1.018	0.845	0.933	0.896	0.9050	13.208
P	Bromoform			0.066	0.085	0.1	0.116	0.12	0.119	0.118	0.1034✓	20.127
T	Isopropylbenzene		1.093	1.133	1.611	1.656	1.591	1.401	1.497	1.483	1.4332	14.892
I	1,4-Dichlorobenzene-d4	ISTD										
P	1,1,2,2-Tetrachloroethane		0.358	0.395	0.43	0.444	0.437	0.395	0.425	0.407	0.4114✓	6.894
S	p-Bromofluorobenzene				0.878	1.009	0.958	0.871	0.924	0.909	0.9247	5.632
T	1,2,3-Trichloropropane			0.103	0.122	0.127	0.128	0.113	0.125	0.119	0.1194	7.558
T	trans-1,4-Dichloro-2-Butene				0.14	0.154	0.159	0.151	0.159	0.148	0.1520	4.684
T	n-Propylbenzene		2.425	2.82	3.881	4.066	3.87	3.319	3.64	3.627	3.4559	16.493
T	Bromobenzene		0.537	0.584	0.682	0.701	0.662	0.527	0.608	0.582	0.6105	10.680
T	1,3,5-Trimethylbenzene		1.829	1.986	2.706	2.81	2.66	2.202	2.477	2.418	2.3860	14.786
T	2-Chlorotoluene		1.832	1.926	2.461	2.571	2.415	1.994	2.253	2.195	2.2060	12.201
T	4-Chlorotoluene		1.682	2.014	2.384	2.456	2.32	1.795	2.201	1.898	2.0937	13.769
T	a-Methylstyrene				1.464	1.599	1.543	1.299	1.446	1.382	1.4553	7.418
T	tert-Butylbenzene			1.56	2.184	2.261	2.599	2.198	2.437	2.396	2.2336	14.842
T	1,2,4-Trimethylbenzene		1.998	2.144	2.806	2.952	2.788	2.365	2.616	2.562	2.5288	13.270
T	sec-Butylbenzene			2.385	3.386	3.598	3.401	2.967	3.234	3.23	3.1716	12.534
T	p-Isopropyltoluene			2.011	2.864	2.996	2.859	2.471	2.69	2.674	2.6521	12.431
T	1,3-Dichlorobenzene		1.193	1.303	1.497	1.522	1.448	1.232	1.359	1.328	1.3603	8.837
T	1,4-Dichlorobenzene		1.288	1.298	1.501	1.525	1.453	1.212	1.357	1.31	1.3680	8.220
T	n-Butylbenzene			1.879	2.619	2.771	2.633	2.322	2.523	2.519	2.4669	11.886
T	1,2-Dichlorobenzene		1.183	1.151	1.298	1.318	1.266	1.082	1.189	1.157	1.2055	6.739
T	1,2-Dibromo-3-Chloropropane				0.057	0.065	0.072	0.071	0.073	0.072	0.0683	9.205
T	1,2,4-Trichlorobenzene		0.693	0.787	0.841	0.857	0.82	0.679	0.765	0.738	0.7724	8.565
T	Hexachlorobutadiene			0.232	0.3	0.312	0.3	0.278	0.294	0.303	0.2884	9.292
T	Naphthalene		1.467	1.465	1.523	1.573	1.568	1.35	1.495	1.429	1.4836	4.986
T	1,2,3-Trichlorobenzene		0.62	0.627	0.691	0.685	0.666	0.553	0.624	0.596	0.6328	7.341

Thu Apr 17 15:16:14 2003 9.856

Data File : C:\MSDCHEM\1\DATA\041703\11M14390.D Vial: 3
Acq On : 17 Apr 2003 7:38 Operator: CMS
Sample : WG138555-02 0.40 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 17 15:22 2003 Quant Results File: 8260WT.RES

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\041703\11M14390.D Vial: 3
Acq On : 17 Apr 2003 7:38 Operator: CMS
Sample : WG138555-02 0.40 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 17 15:21:36 2003 Quant Results File: 8260WT.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.33	96	930586	25.00	ug/L		0.00
44) Chlorobenzene-d5	14.97	117	673482	25.00	ug/L		0.00
64) 1,4-Dichlorobenzene-d4	17.79	152	335941	25.00	ug/L		0.00
System Monitoring Compounds							
28) Dibromofluoromethane	0.00	111	0d	0.0000	ug/L		
Spiked Amount 25.000	Range 86 - 119		Recovery =	0.00%		#	
33) 1,2-Dichloroethane-d4	0.00	65	0d	0.0000	ug/L		
Spiked Amount 25.000	Range 80 - 120		Recovery =	0.00%		#	
45) Toluene-d8	0.00	98	0d	0.0000	ug/L		
Spiked Amount 25.000	Range 88 - 110		Recovery =	0.00%		#	
66) p-Bromofluorobenzene	0.00	95	0d	0.0000	ug/L		
Spiked Amount 25.000	Range 86 - 115		Recovery =	0.00%		#	
Target Compounds							Qvalue
15) Methylene Chloride	8.02	84	2653	0.3544	ug/L		95
19) trans-1,2-Dichloroethene	8.49	96	2273	0.2910	ug/L		84
22) 1,1-Dichloroethane	9.06	63	5181	0.3146	ug/L	#	88
25) cis-1,2-Dichloroethene	9.87	96	2815	0.3345	ug/L		88
26) Chloroform	10.07	83	4524	0.3336	ug/L		87
27) Bromochloromethane	10.28	128	1021	0.3092	ug/L		81
29) 1,1,1-Trichloroethane	10.59	97	2693	0.2368	ug/L	#	85
34) 1,2-Dichloroethane	11.05	62	3576	0.3418	ug/L	#	75
35) Benzene	11.11	78	11890	0.3612	ug/L		93
36) Trichloroethene	11.82	130	2348	0.3067	ug/L		80
37) 1,2-Dichloropropane	12.01	63	3308	0.3631	ug/L	#	71
38) Bromodichloromethane	12.29	83	3136	0.3306	ug/L	#	87
39) Dibromomethane	12.37	93	1196	0.3418	ug/L		80
42) cis-1,3-Dichloropropene	12.88	75	3901	0.3317	ug/L	#	69
46) Toluene	13.29	91	11835	0.3454	ug/L		97
48) trans-1,3-Dichloropropene	13.43	75	2969	0.3102	ug/L	#	60
49) 1,1,2-Trichloroethane	13.64	97	1816	0.3562	ug/L		84
51) 1,3-Dichloropropane	13.92	76	3652	0.3743	ug/L		100
52) Tetrachloroethene	14.07	164	1628	0.2769	ug/L		98
53) Dibromochloromethane	14.30	129	1484	0.2719	ug/L		99
54) 1,2-Dibromoethane	14.55	107	1564	0.3209	ug/L		95
55) 1-Chlorohexane	14.59	91	1738	0.1465	ug/L		95
56) Chlorobenzene	15.02	112	9238	0.4181	ug/L		97
57) 1,1,1,2-Tetrachloroethane	15.04	131	2072	0.3306	ug/L		85
58) Ethylbenzene	15.03	106	4238	0.3534	ug/L		83
59) m-,p-Xylene	15.12	106	10430	0.6923	ug/L		87
60) o-Xylene	15.65	106	4997	0.3299	ug/L		84
61) Styrene	15.68	104	7873	0.3229	ug/L		91
63) Isopropylbenzene	16.04	105	11783	0.3052	ug/L		97
65) 1,1,2,2-Tetrachloroethane	16.23	83	1924	0.3480	ug/L		81
69) n-Propylbenzene	16.50	91	13033	0.2806	ug/L		93
70) Bromobenzene	16.66	156	2888	0.3521	ug/L		64
71) 1,3,5-Trimethylbenzene	16.67	105	9829	0.3066	ug/L		96
72) 2-Chlorotoluene	16.78	91	9849	0.3323	ug/L		93
73) 4-Chlorotoluene	16.82	91	9040	0.3213	ug/L		95
76) 1,2,4-Trimethylbenzene	17.17	105	10739	0.3160	ug/L		88
79) 1,3-Dichlorobenzene	17.71	146	6414	0.3509	ug/L		89
80) 1,4-Dichlorobenzene	17.83	146	6924	0.3767	ug/L		74
82) 1,2-Dichlorobenzene	18.30	146	6357	0.3924	ug/L		99

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\041703\11M14390.D Vial: 3
Acq On : 17 Apr 2003 7:38 Operator: CMS
Sample : WG138555-02 0.40 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Apr 17 15:21:36 2003 Quant Results File: 8260WT.RES

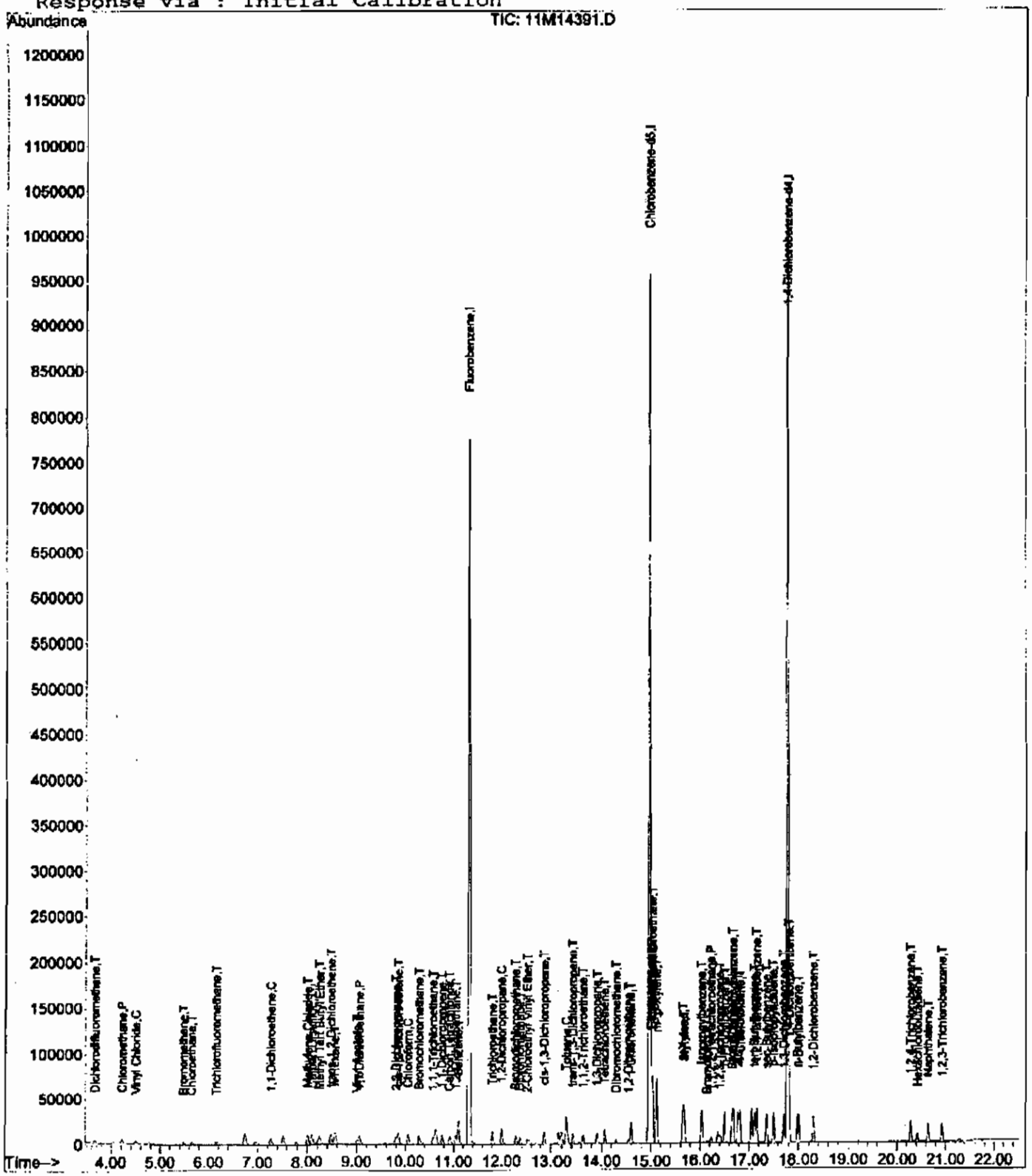
Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
84)	1,2,4-Trichlorobenzene	20.28	180	3724	0.3588 ug/L		93
86)	Naphthalene	20.64	128	7887	0.3956 ug/L	#	95
87)	1,2,3-Trichlorobenzene	20.93	180	3330	0.3916 ug/L		91

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\041703\11M14391.D Vial: 4
Acq On : 17 Apr 2003 8:09 Operator: CMS
Sample : WG138555-03 1 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 17 15:24 2003 Quant Results File: 8260WT.RES

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\041703\11M14391.D Vial: 4
Acq On : 17 Apr 2003 8:09 Operator: CMS
Sample : WG138555-03 1 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Apr 17 15:23:39 2003 Quant Results File: 8260WT.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.33	96	934281	25.00	ug/L	0.00
44) Chlorobenzene-d5	14.97	117	682670	25.00	ug/L	0.00
64) 1,4-Dichlorobenzene-d4	17.79	152	339714	25.00	ug/L	0.00
System Monitoring Compounds						
28) Dibromofluoromethane	0.00	111	0d	0.0000	ug/L	
Spiked Amount 25.000	Range 86 - 118		Recovery =	0.00%#		
33) 1,2-Dichloroethane-d4	0.00	65	0d	0.0000	ug/L	
Spiked Amount 25.000	Range 80 - 120		Recovery =	0.00%#		
45) Toluene-d8	0.00	98	0d	0.0000	ug/L	
Spiked Amount 25.000	Range 88 - 110		Recovery =	0.00%#		
66) p-Bromofluorobenzene	0.00	95	0d	0.0000	ug/L	
Spiked Amount 25.000	Range 86 - 115		Recovery =	0.00%#		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.69	85	6698	0.6645	ug/L #	80
3) Chloromethane	4.23	50	6809	1.0171	ug/L	91
4) Vinyl Chloride	4.51	62	3612	0.8500	ug/L #	80
5) Bromomethane	5.49	94	4091	0.7157	ug/L	89
6) Chloroethane	5.66	64	5742	0.8191	ug/L	87
7) Trichlorofluoromethane	6.17	101	8566m	0.6479	ug/L	
12) 1,1-Dichloroethene	7.28	96	5133	0.7240	ug/L	58
15) Methylene Chloride	8.04	84	7090	0.9434	ug/L	97
16) Carbon Disulfide	8.11	76	20902	0.8173	ug/L #	85
18) Methyl Tert Butyl Ether	8.25	73	16710	1.0345	ug/L #	73
19) trans-1,2-Dichloroethene	8.49	96	6541	0.8341	ug/L	83
20) n-Hexane	8.57	57	11616	0.7882	ug/L #	99
21) Vinyl Acetate	9.01	43	11485	0.9319	ug/L	96
22) 1,1-Dichloroethane	9.06	63	13648	0.8254	ug/L #	77
24) 2,2-Dichloropropane	9.82	77	8917	0.7219	ug/L #	90
25) cis-1,2-Dichloroethene	9.88	96	7532	0.8913	ug/L	85
26) Chloroform	10.07	83	11827	0.8686	ug/L	91
27) Bromochloromethane	10.29	128	3186	0.9610	ug/L	64
29) 1,1,1-Trichloroethane	10.58	97	8272	0.7245	ug/L #	88
31) 1,1-Dichloropropene	10.78	75	7675	0.6972	ug/L #	30
32) Carbon Tetrachloride	10.91	117	5890	0.5978	ug/L #	88
34) 1,2-Dichloroethane	11.05	62	10120	0.9633	ug/L #	76
35) Benzene	11.11	78	29317	0.8872	ug/L	91
36) Trichloroethene	11.82	130	6416	0.8347	ug/L	82
37) 1,2-Dichloropropane	12.01	63	8375	0.9156	ug/L	81
38) Bromodichloromethane	12.29	83	7923	0.8319	ug/L #	83
39) Dibromomethane	12.38	93	3178	0.9046	ug/L	84
40) 2-Chloroethyl Vinyl Ether	12.54	63	3067	0.8432	ug/L #	100
42) cis-1,3-Dichloropropene	12.88	75	9793	0.8294	ug/L	88
46) Toluene	13.29	91	30069	0.8658	ug/L	95
48) trans-1,3-Dichloropropene	13.43	75	8211	0.8463	ug/L #	58
49) 1,1,2-Trichloroethane	13.64	97	4713	0.9120	ug/L	86
51) 1,3-Dichloropropane	13.92	76	9677	0.9784	ug/L	88
52) Tetrachloroethene	14.08	164	4410	0.7401	ug/L	82
53) Dibromochloromethane	14.31	129	4208	0.7607	ug/L	80
54) 1,2-Dibromoethane	14.55	107	4653	0.9417	ug/L	91
55) 1-Chlorohexane	14.61	91	9462	0.7867	ug/L	89
56) Chlorobenzene	15.02	112	22526	1.0058	ug/L	98
57) 1,1,1,2-Tetrachloroethane	15.04	131	5781	0.9099	ug/L	90

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\041703\11M14391.D Vial: 4
Acq On : 17 Apr 2003 8:09 Operator: CMS
Sample : WG138555-03 1 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 17 15:23:39 2003 Quant Results File: 8260WT.RES

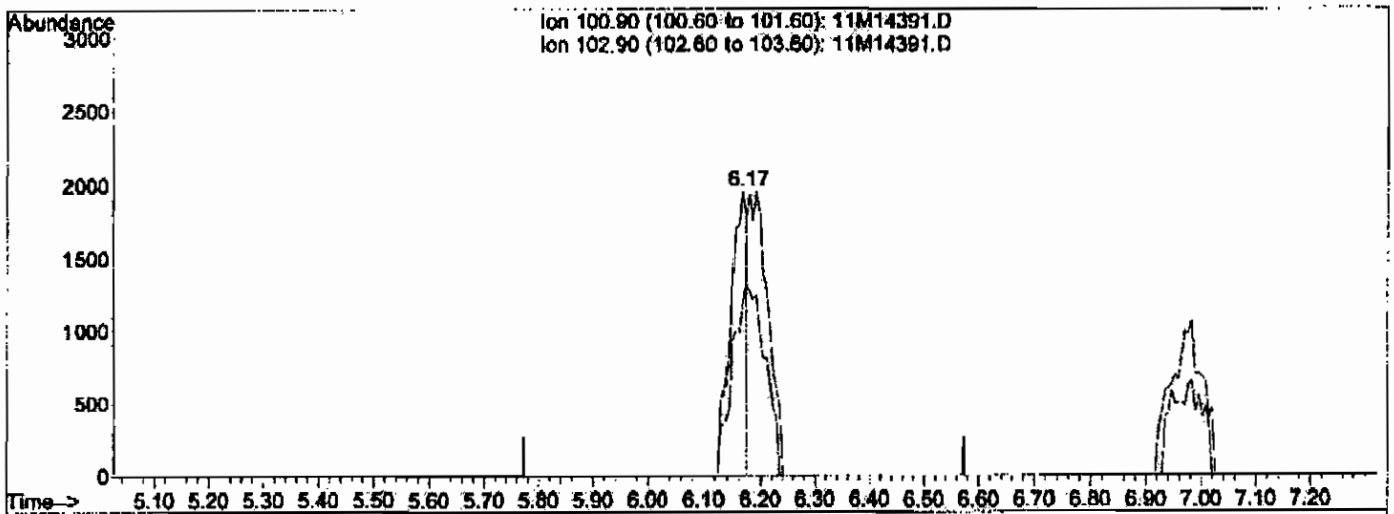
Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

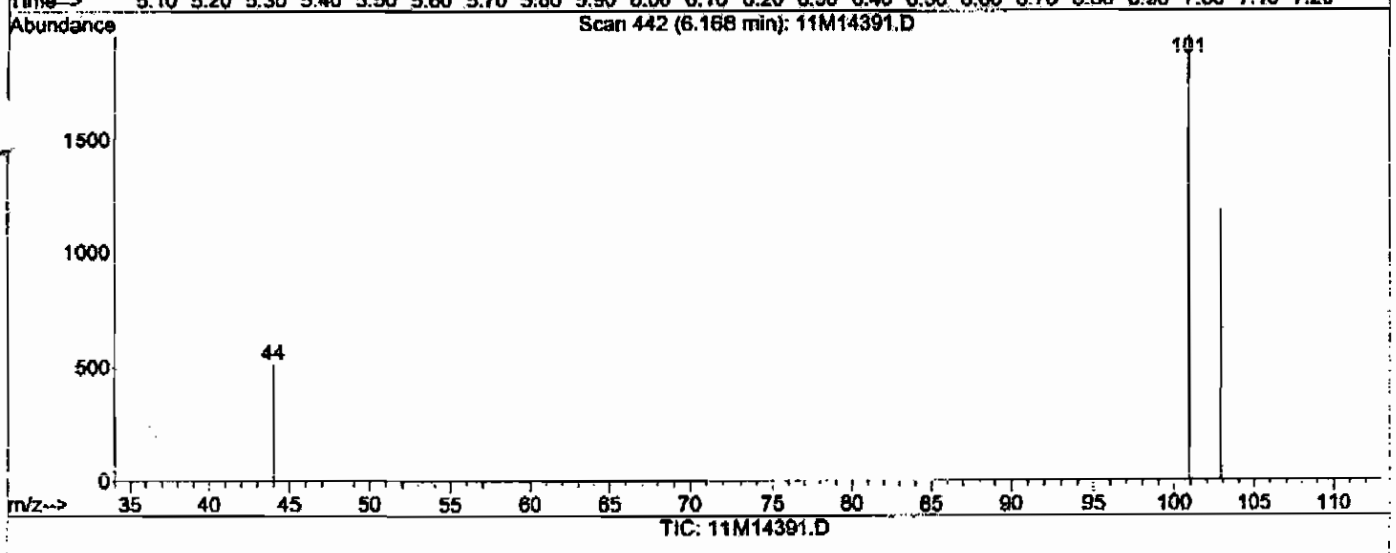
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
58)	Ethylbenzene	15.03	106	11446	0.9416	ug/L		74
59)	m-,p-Xylene	15.12	106	28386	1.8587	ug/L		81
60)	o-Xylene	15.65	106	13459	0.8766	ug/L		81
61)	Styrene	15.68	104	20767	0.8403	ug/L		87
62)	Bromoform	16.15	173	1808	0.6406	ug/L		92
63)	Isopropylbenzene	16.04	105	30948	0.7908	ug/L		94
65)	1,1,2,2-Tetrachloroethane	16.22	83	5372	0.9609	ug/L		88
67)	1,2,3-Trichloropropane	16.40	110	1393	0.8589	ug/L		85
69)	n-Propylbenzene	16.51	91	38314	0.8159	ug/L		92
70)	Bromobenzene	16.65	156	7929	0.9559	ug/L		76
71)	1,3,5-Trimethylbenzene	16.67	105	26987	0.8324	ug/L		93
72)	2-Chlorotoluene	16.78	91	26171	0.8731	ug/L		85
73)	4-Chlorotoluene	16.81	91	27364	0.9618	ug/L		88
75)	tert-Butylbenzene	17.11	119	21195	0.6983	ug/L	#	89
76)	1,2,4-Trimethylbenzene	17.17	105	29135	0.8479	ug/L		87
77)	sec-Butylbenzene	17.36	105	32410	0.7520	ug/L		92
78)	p-Isopropyltoluene	17.51	119	27322	0.7581	ug/L		99
79)	1,3-Dichlorobenzene	17.71	146	17708	0.9580	ug/L		94
80)	1,4-Dichlorobenzene	17.83	146	17641	0.9490	ug/L		78
81)	n-Butylbenzene	17.99	91	25538	0.7618	ug/L	#	98
82)	1,2-Dichlorobenzene	18.30	146	15646	0.9551	ug/L		89
84)	1,2,4-Trichlorobenzene	20.28	180	10690	1.0186	ug/L		99
85)	Hexachlorobutadiene	20.42	225	3155	0.8051	ug/L	#	97
86)	Naphthalene	20.64	128	19908	0.9875	ug/L	#	86
87)	1,2,3-Trichlorobenzene	20.93	180	8521	0.9909	ug/L	#	63

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\041703\11M14391.D Vial: 4
Acq On : 17 Apr 2003 8:09 Operator: CMS
Sample : WG138555-03 1 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Apr 17 15:24 2003 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Multiple Level Calibration





TIC: 11M14391.D

(7) Trichlorofluoromethane (T)

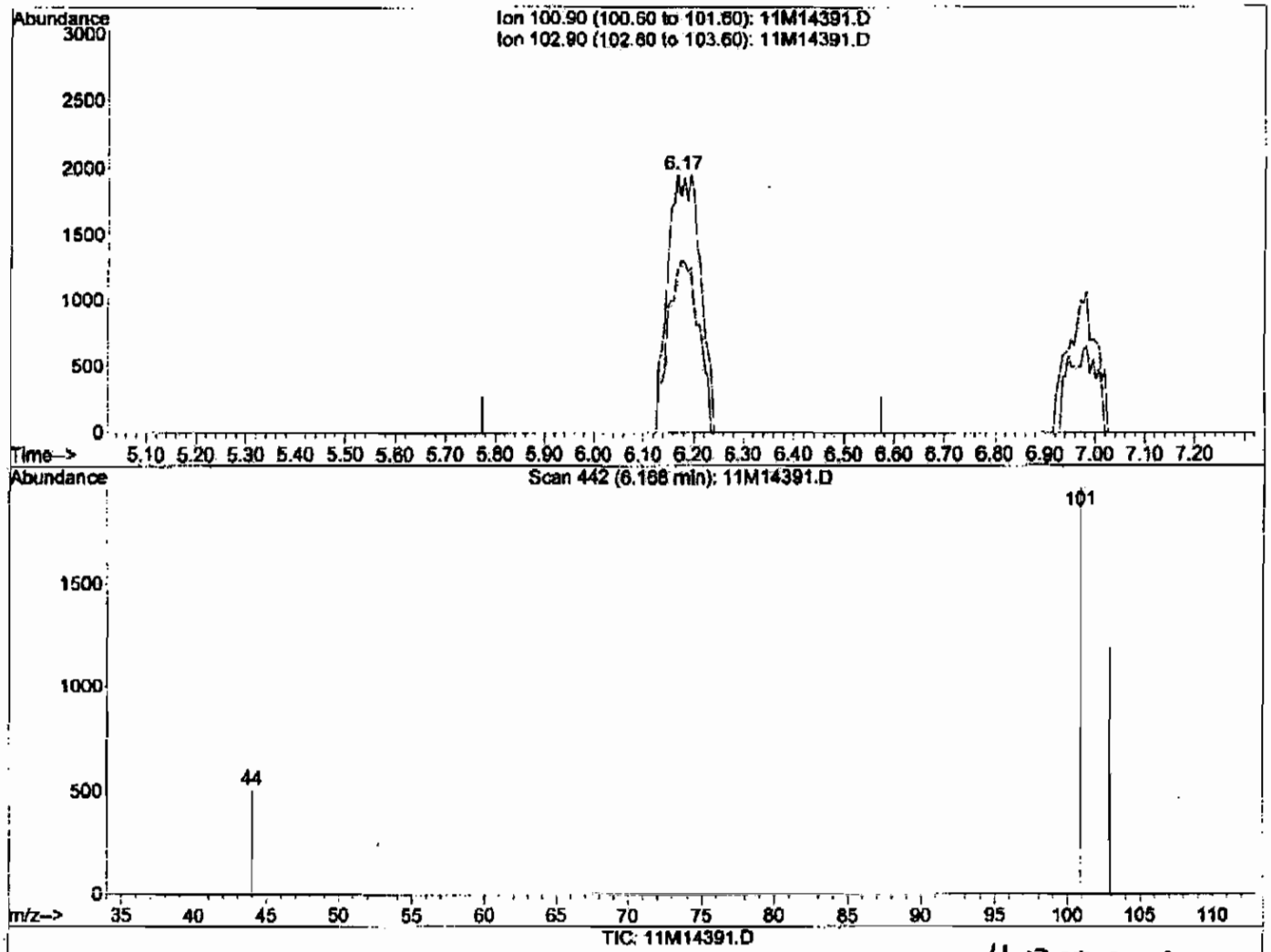
6.17min 0.29ug/L

response 3835

Ion	Exp%	Act%
100.90	100	100
102.90	81.40	137.42#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : C:\MSDCHEM\1\DATA\041703\11M14391.D Vial: 4
Acq On : 17 Apr 2003 8:09 Operator: CMS
Sample : WG138555-03 1 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 17 15:24 2003 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Multiple Level Calibration



4-17-03 amg

(7) Trichlorofluoromethane (T)

6.17min 0.65ug/L m

response 8566

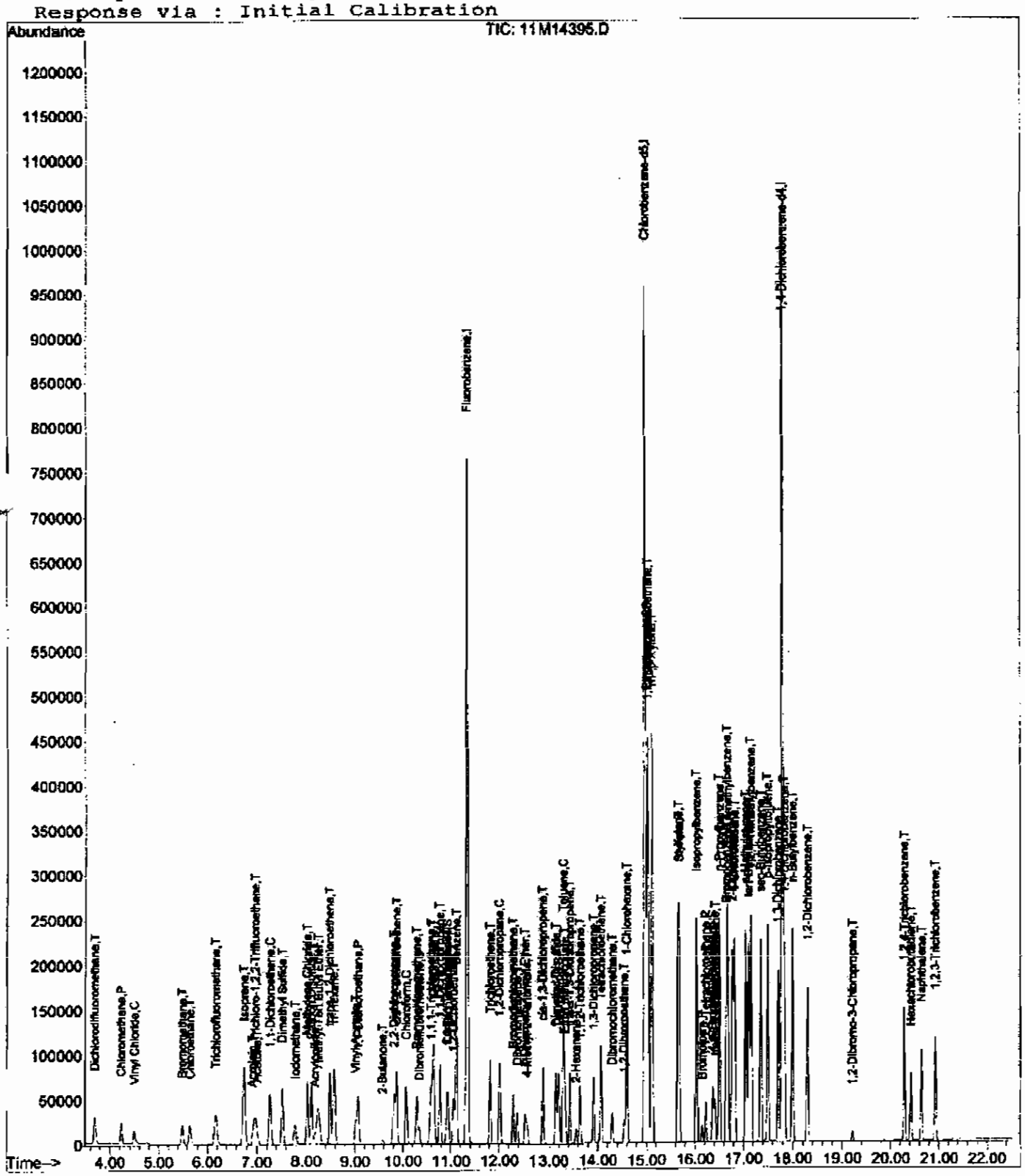
Ion	Exp%	Act%
100.90	100	100
102.90	61.40	61.52
0.00	0.00	0.00
0.00	0.00	0.00

4/17/03

#2

Data File : C:\MSDCHEM\1\DATA\041703\11M14395.D Vial: 8
Acq On : 17 Apr 2003 10:13 Operator: CMS
Sample : WG138555-04 5 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 17 15:25 2003 Quant Results File: 8260WT.RES

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\041703\11M14395.D Vial: 8
Acq On : 17 Apr 2003 10:13 Operator: CMS
Sample : WG138555-04 5 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 17 15:25:33 2003 Quant Results File: 8260WT.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.33	96	916576	25.00	ug/L		0.00
44) Chlorobenzene-d5	14.97	117	673357	25.00	ug/L		0.00
64) 1,4-Dichlorobenzene-d4	17.79	152	339614	25.00	ug/L		0.00
System Monitoring Compounds							
28) Dibromofluoromethane	10.34	111	17142	2.2662	ug/L		0.00
Spiked Amount 25.000	Range 86 - 118		Recovery =	9.08%#			
33) 1,2-Dichloroethane-d4	10.94	65	19791	2.4820	ug/L		0.00
Spiked Amount 25.000	Range 80 - 120		Recovery =	9.92%#			
45) Toluene-d8	13.19	98	68435	2.2330	ug/L		0.00
Spiked Amount 25.000	Range 88 - 110		Recovery =	8.92%#			
66) p-Bromofluorobenzene	16.36	95	29803	2.3725	ug/L		0.00
Spiked Amount 25.000	Range 86 - 115		Recovery =	9.48%#			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.69	85	55495	5.6120	ug/L		90
3) Chloromethane	4.23	50	36687	5.5858	ug/L		86
4) Vinyl Chloride	4.51	62	25262	6.0599	ug/L	#	63
5) Bromomethane	5.49	94	26223	4.6764	ug/L		91
6) Chloroethane	5.66	64	36361	5.2870	ug/L		98
7) Trichlorofluoromethane	6.18	101	69282	5.3415	ug/L		95
8) Isoprene	6.75	67	66265	4.7230	ug/L		96
9) Acrolein	6.92	56	5251	8.9108	ug/L		72
10) 1,1,2-Trichloro-1,2,2-Trif	6.97	101	38587	5.0511	ug/L	#	46
11) Acetone	7.02	43	7305	5.3511	ug/L	#	45
12) 1,1-Dichloroethene	7.28	96	36065	5.1851	ug/L		63
13) Dimethyl Sulfide	7.53	62	52031	5.0835	ug/L		85
14) Iodomethane	7.79	142	40569	4.9053	ug/L		93
15) Methylene Chloride	8.02	84	39233	5.3212	ug/L		97
16) Carbon Disulfide	8.11	76	127848	5.0957	ug/L	#	88
17) Acrylonitrile	8.18	53	10062	4.9827	ug/L	#	1
18) Methyl Tert Butyl Ether	8.25	73	79125	4.9930	ug/L	#	67
19) trans-1,2-Dichloroethene	8.48	96	42057	5.4670	ug/L		85
20) n-Hexane	8.58	57	74087	5.1245	ug/L	#	92
21) Vinyl Acetate	9.01	43	57987	4.7960	ug/L		95
22) 1,1-Dichloroethane	9.07	63	87786	5.4118	ug/L	#	77
23) 2-Butanone	9.57	43	10057	5.0314	ug/L	#	100
24) 2,2-Dichloropropane	9.82	77	61121	5.0437	ug/L	#	61
25) cis-1,2-Dichloroethene	9.87	96	44067	5.3156	ug/L		78
26) Chloroform	10.07	83	69957	5.2369	ug/L		91
27) Bromochloromethane	10.29	128	17250	5.3035	ug/L		66
29) 1,1,1-Trichloroethane	10.58	97	61938	5.5300	ug/L	#	86
30) Cyclohexane	10.64	56	94937	4.9361	ug/L	#	96
31) 1,1-Dichloropropene	10.77	75	55545	5.1431	ug/L	#	17
32) Carbon Tetrachloride	10.92	117	46431	4.8037	ug/L	#	91
34) 1,2-Dichloroethane	11.05	62	55269	5.3627	ug/L	#	73
35) Benzene	11.11	78	173723	5.3587	ug/L		90
36) Trichloroethene	11.82	130	40944	5.4297	ug/L		88
37) 1,2-Dichloropropane	12.01	63	48359	5.3891	ug/L		83
38) Bromodichloromethane	12.29	83	45687	4.8898	ug/L	#	86
39) Dibromomethane	12.38	93	18553	5.3833	ug/L		86
40) 2-Chloroethyl Vinyl Ether	12.53	63	17670	4.9515	ug/L	#	100
41) 4-Methyl-2-Pentanone	12.57	58	9102	4.9507	ug/L	#	100
42) cis-1,3-Dichloropropene	12.87	75	58396	5.0410	ug/L	#	86

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\041703\11M14395.D Vial: 8
Acq On : 17 Apr 2003 10:13 Operator: CMS
Sample : WG138555-04 5 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
; Integration Params: rteint.p
Quant Time: Apr 17 15:25:33 2003 Quant Results File: 8260WT.RES

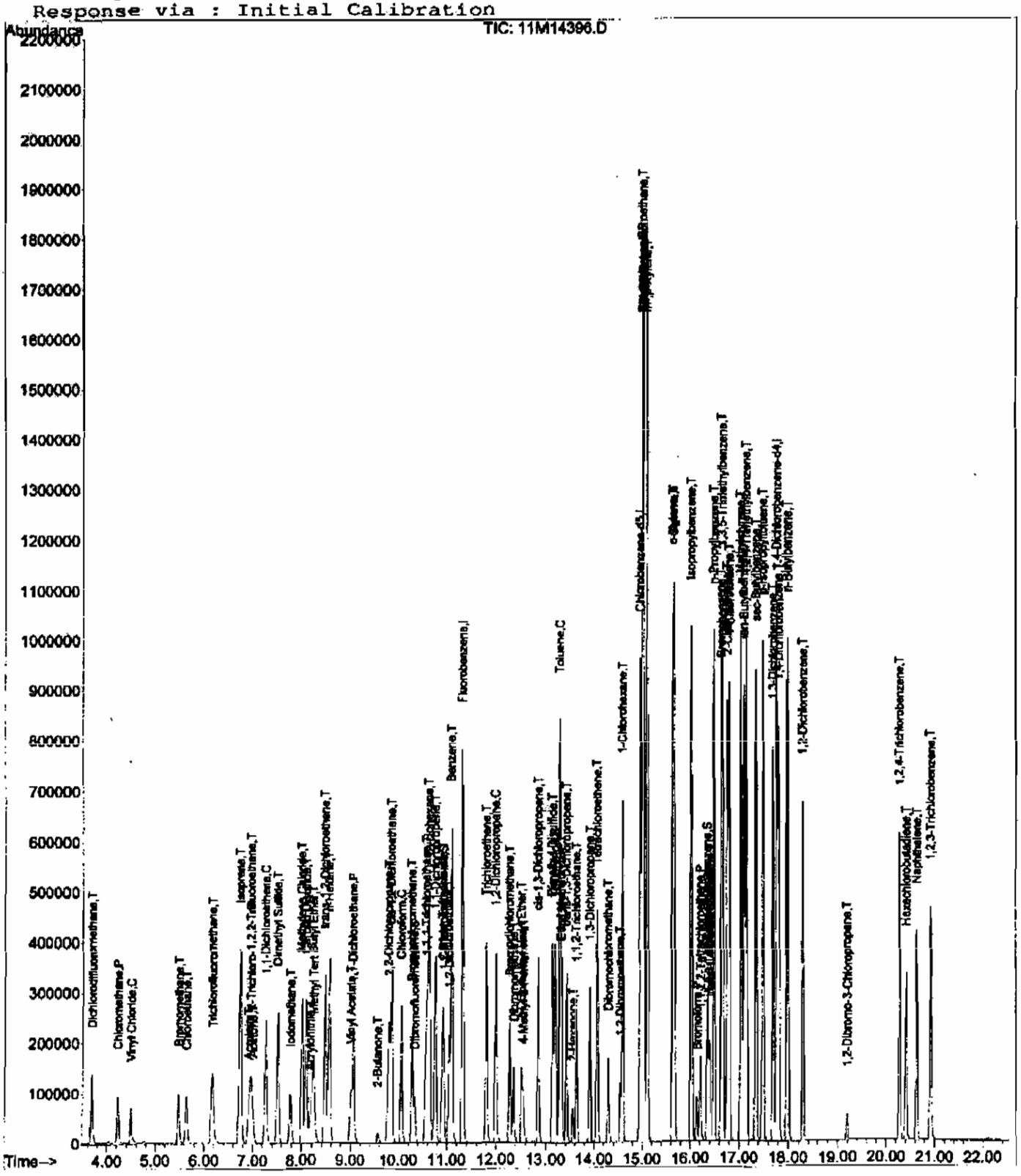
Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	Dimethyl Disulfide	13.15	79	28252	4.2474	ug/L		94
46)	Toluene	13.29	91	190625	5.5648	ug/L		94
47)	Ethyl Methacrylate	13.33	69	32626	4.8887	ug/L	#	100
48)	trans-1,3-Dichloropropene	13.43	75	48721	5.0911	ug/L	#	50
49)	1,1,2-Trichloroethane	13.64	97	26961	5.2893	ug/L		82
50)	2-Hexanone	13.56	43	15841	4.8851	ug/L	#	1
51)	1,3-Dichloropropane	13.92	76	50417	5.1681	ug/L		95
52)	Tetrachloroethene	14.06	164	34122	5.8053	ug/L		93
53)	Dibromochloromethane	14.31	129	25361	4.6477	ug/L		82
54)	1,2-Dibromoethane	14.54	107	25275	5.1861	ug/L		92
55)	1-Chlorohexane	14.60	91	60948	5.1378	ug/L		90
56)	Chlorobenzene	15.02	112	130452	5.9055	ug/L		99
57)	1,1,1,2-Tetrachloroethane	15.04	131	34817	5.5561	ug/L		93
58)	Ethylbenzene	15.03	106	73739	6.1501	ug/L		74
59)	m-,p-Xylene	15.12	106	179462	11.9134	ug/L		83
60)	o-Xylene	15.65	106	86492	5.7113	ug/L		79
61)	Styrene	15.67	104	135903	5.5752	ug/L		85
62)	Bromoform	16.15	173	11441	4.1101	ug/L		77
63)	Isopropylbenzene	16.04	105	216960	5.6205	ug/L		95
65)	1,1,2,2-Tetrachloroethane	16.22	83	29178	5.2204	ug/L		84
67)	1,2,3-Trichloropropane	16.40	110	8259	5.0937	ug/L		81
68)	trans-1,4-Dichloro-2-Buten	16.42	53	9536	4.6182	ug/L	#	68
69)	n-Propylbenzene	16.50	91	263591	5.6146	ug/L		90
70)	Bromobenzene	16.65	156	46345	5.5886	ug/L		72
71)	1,3,5-Trimethylbenzene	16.68	105	183813	5.6711	ug/L		92
72)	2-Chlorotoluene	16.78	91	167159	5.5781	ug/L		93
73)	4-Chlorotoluene	16.81	91	161894	5.6921	ug/L		95
74)	a-Methylstyrene	17.05	118	99410	5.0284	ug/L		80
75)	tert-Butylbenzene	17.11	119	148367	4.8899	ug/L	#	84
76)	1,2,4-Trimethylbenzene	17.16	105	190562	5.5473	ug/L		89
77)	sec-Butylbenzene	17.36	105	229973	5.3377	ug/L		92
78)	p-Isopropyltoluene	17.50	119	194516	5.3990	ug/L		100
79)	1,3-Dichlorobenzene	17.71	146	101658	5.5012	ug/L		91
80)	1,4-Dichlorobenzene	17.83	146	101949	5.4859	ug/L		83
81)	n-Butylbenzene	17.99	91	177907	5.3088	ug/L	#	97
82)	1,2-Dichlorobenzene	18.30	146	88150	5.3828	ug/L		90
83)	1,2-Dibromo-3-Chloropropan	19.22	157	3872	4.1755	ug/L		76
84)	1,2,4-Trichlorobenzene	20.28	180	57111	5.4433	ug/L		89
85)	Hexachlorobutadiene	20.42	225	20349	5.1942	ug/L	#	76
86)	Naphthalene	20.64	128	103438	5.1323	ug/L	#	82
87)	1,2,3-Trichlorobenzene	20.93	180	46908	5.4564	ug/L	#	62

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\041703\11M14396.D Vial: 9
Acq On : 17 Apr 2003 10:43 Operator: CMS
Sample : WG138555-05 20 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 17 15:26 2003 Quant Results File: 8260WT.RES

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\041703\11M14396.D Vial: 9
Acq On : 17 Apr 2003 10:43 Operator: CMS
Sample : WG138555-05 20 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
RTE Integration Params: rteint.p
Quant Time: Apr 17 15:26:49 2003 Quant Results File: 8260WT.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.33	96	933959	25.00 ug/L	0.00
44) Chlorobenzene-d5	14.97	117	683622	25.00 ug/L	0.00
64) 1,4-Dichlorobenzene-d4	17.79	152	336693	25.00 ug/L	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.34	111	80462	10.4394 ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery =	41.76%#	
33) 1,2-Dichloroethane-d4	10.94	65	86495	10.6454 ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery =	42.60%#	
45) Toluene-d8	13.19	98	340275	10.9362 ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery =	43.76%#	
66) p-Bromofluorobenzene	16.36	95	135884	10.9111 ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery =	43.64%#	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.69	85	215750	21.4120 ug/L	91
3) Chloromethane	4.23	50	139433	20.8345 ug/L	88
4) Vinyl Chloride	4.50	62	92065	21.6737 ug/L #	59
5) Bromomethane	5.49	94	113980	19.9479 ug/L	91
6) Chloroethane	5.66	64	144255	20.5846 ug/L	95
7) Trichlorofluoromethane	6.18	101	279859	21.1751 ug/L	96
8) Isoprene	6.75	67	297291	20.7947 ug/L	99
9) Acrolein	6.92	56	23928	39.8496 ug/L	84
10) 1,1,2-Trichloro-1,2,2-Trif	6.98	101	155651	19.9958 ug/L	87
11) Acetone	7.02	43	27980	20.1147 ug/L #	36
12) 1,1-Dichloroethene	7.28	96	154063	21.7377 ug/L	63
13) Dimethyl Sulfide	7.53	62	215063	20.6210 ug/L	84
14) Iodomethane	7.79	142	181835	21.5768 ug/L	91
15) Methylene Chloride	8.02	84	159013	21.1658 ug/L	98
16) Carbon Disulfide	8.11	76	547545	21.4176 ug/L #	87
17) Acrylonitrile	8.18	53	38751	18.8325 ug/L #	1
18) Methyl Tert Butyl Ether	8.24	73	323498	20.0337 ug/L #	67
19) trans-1,2-Dichloroethene	8.49	96	175531	22.3925 ug/L	87
20) n-Hexane	8.57	57	313136	21.2560 ug/L #	92
21) Vinyl Acetate	9.01	43	225160	18.2761 ug/L	94
22) 1,1-Dichloroethane	9.07	63	362676	21.9420 ug/L #	77
23) 2-Butanone	9.57	43	40798	20.0310 ug/L #	100
24) 2,2-Dichloropropane	9.81	77	260617	21.1059 ug/L #	59
25) cis-1,2-Dichloroethene	9.87	96	185331	21.9397 ug/L	80
26) Chloroform	10.07	83	294305	21.6214 ug/L	90
27) Bromochloromethane	10.29	128	72844	21.9789 ug/L	63
29) 1,1,1-Trichloroethane	10.58	97	259015	22.6950 ug/L #	86
30) Cyclohexane	10.65	56	408043	20.8205 ug/L #	96
31) 1,1-Dichloropropene	10.77	75	240335	21.8393 ug/L #	21
32) Carbon Tetrachloride	10.93	117	209519	21.2730 ug/L #	92
34) 1,2-Dichloroethane	11.05	62	224146	21.3439 ug/L #	72
35) Benzene	11.11	78	721785	21.8500 ug/L	91
36) Trichloroethene	11.82	130	174566	22.7187 ug/L	87
37) 1,2-Dichloropropane	12.01	63	194977	21.3238 ug/L	83
38) Bromodichloromethane	12.29	83	205119	21.5448 ug/L #	86
39) Dibromomethane	12.37	93	75129	21.3934 ug/L	85
40) 2-Chloroethyl Vinyl Ether	12.54	63	74047	20.3633 ug/L #	100
41) 4-Methyl-2-Pentanone	12.57	58	36946	19.7214 ug/L #	100
42) cis-1,3-Dichloropropene	12.87	75	254028	21.5207 ug/L #	87

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\041703\11M14396.D Vial: 9
Acq On : 17 Apr 2003 10:43 Operator: CMS
Sample : WG138555-05 20 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 17 15:26:49 2003 Quant Results File: 8260WT.RES

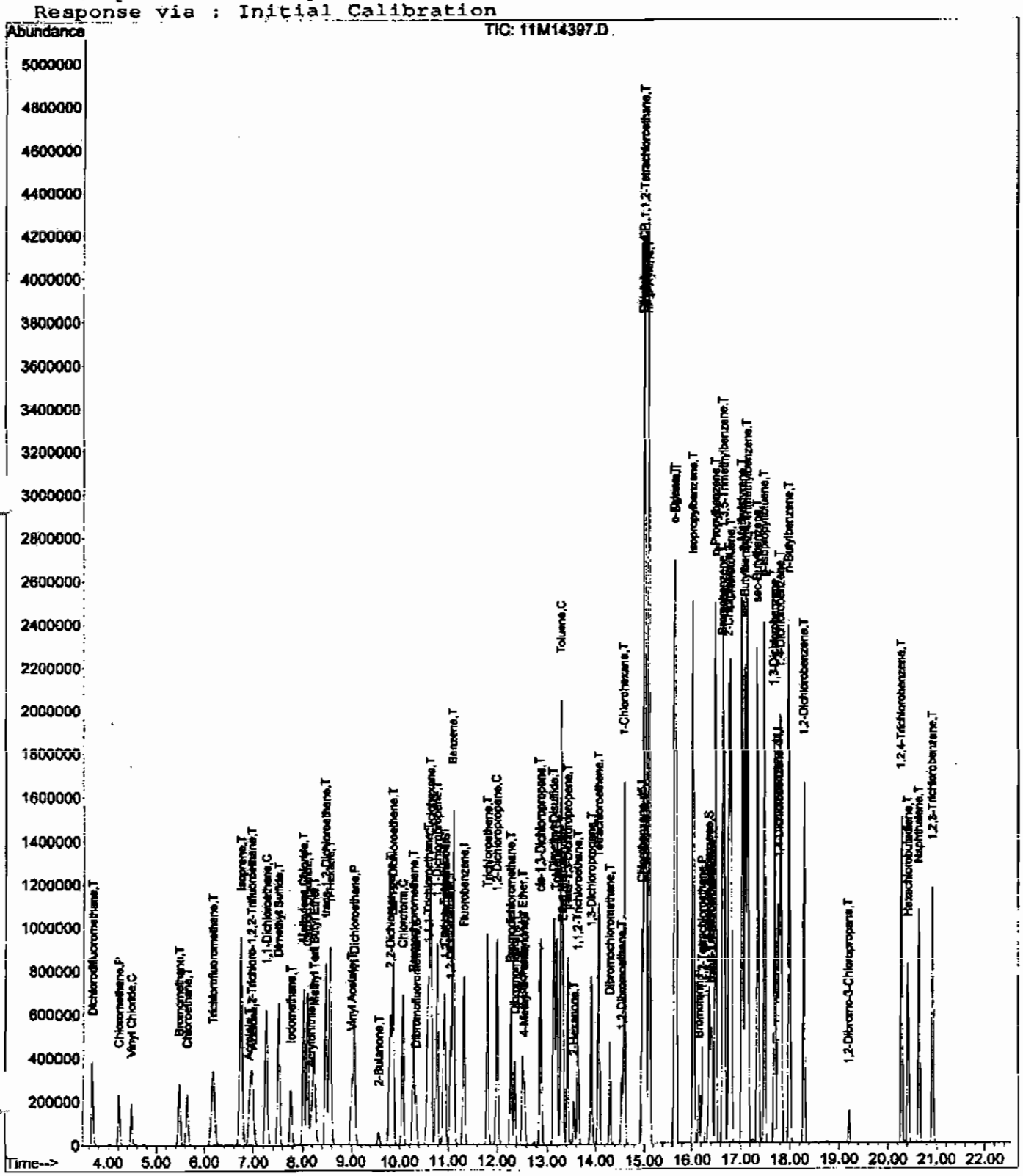
Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	Dimethyl Disulfide	13.14	79	135080	19.9300 ug/L		100
46)	Toluene	13.29	91	778815	22.3942 ug/L		94
47)	Ethyl Methacrylate	13.33	69	138902	20.5008 ug/L	#	100
48)	trans-1,3-Dichloropropene	13.43	75	210836	21.7003 ug/L	#	50
49)	1,1,2-Trichloroethane	13.64	97	111425	21.5316 ug/L		87
50)	2-Hexanone	13.55	43	65980	20.0415 ug/L	#	1
51)	1,3-Dichloropropane	13.92	76	210224	21.2260 ug/L		94
52)	Tetrachloroethene	14.07	164	141067	23.6399 ug/L		91
53)	Dibromochloromethane	14.30	129	118199	21.3363 ug/L		83
54)	1,2-Dibromoethane	14.55	107	106436	21.5114 ug/L		92
55)	1-Chlorohexane	14.60	91	265770	22.0673 ug/L		89
56)	Chlorobenzene	15.02	112	515730	22.9964 ug/L		98
57)	1,1,1,2-Tetrachloroethane	15.04	131	149813	23.5481 ug/L		93
58)	Ethylbenzene	15.03	106	292518	24.0306 ug/L		76
59)	m-,p-Xylene	15.12	106	728630	47.6431 ug/L		83
60)	o-Xylene	15.65	106	357238	23.2353 ug/L		80
61)	Styrene	15.67	104	573644	23.1793 ug/L		85
62)	Bromoform	16.15	173	54840	19.4049 ug/L		80
63)	Isopropylbenzene	16.03	105	905495	23.1052 ug/L		95
65)	1,1,2,2-Tetrachloroethane	16.22	83	119540	21.5731 ug/L		87
67)	1,2,3-Trichloropropane	16.40	110	34202	21.2768 ug/L		78
68)	trans-1,4-Dichloro-2-Buten	16.42	53	41579	20.3111 ug/L	#	65
69)	n-Propylbenzene	16.50	91	1095098	23.5285 ug/L		90
70)	Bromobenzene	16.65	156	188801	22.9645 ug/L		73
71)	1,3,5-Trimethylbenzene	16.67	105	756946	23.5564 ug/L		92
72)	2-Chlorotoluene	16.78	91	692407	23.3061 ug/L		94
73)	4-Chlorotoluene	16.81	91	661601	23.4633 ug/L		94
74)	a-Methylstyrene	17.05	118	430660	21.9728 ug/L		80
75)	tert-Butylbenzene	17.11	119	608937	20.2434 ug/L	#	84
76)	1,2,4-Trimethylbenzene	17.17	105	795220	23.3497 ug/L		92
77)	sec-Butylbenzene	17.36	105	969237	22.6912 ug/L		93
78)	p-Isopropyltoluene	17.50	119	807099	22.5963 ug/L		100
79)	1,3-Dichlorobenzene	17.71	146	409978	22.3784 ug/L		90
80)	1,4-Dichlorobenzene	17.83	146	410696	22.2915 ug/L		79
81)	n-Butylbenzene	17.99	91	746501	22.4693 ug/L	#	97
82)	1,2-Dichlorobenzene	18.30	146	354991	21.8652 ug/L		91
83)	1,2-Dibromo-3-Chloropropan	19.21	157	17424	18.9526 ug/L		83
84)	1,2,4-Trichlorobenzene	20.28	180	230843	22.1926 ug/L		91
85)	Hexachlorobutadiene	20.42	225	83942	21.6125 ug/L	#	73
86)	Naphthalene	20.64	128	423745	21.2076 ug/L	#	82
87)	1,2,3-Trichlorobenzene	20.93	180	184560	21.6545 ug/L	#	62

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\041703\11M14397.D Vial: 10
Acq On : 17 Apr 2003 11:14 Operator: CMS
Sample : WG138555-06 50 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 17 15:27 2003 Quant Results File: 8260WT.RES

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\041703\11M14397.D Vial: 10
Acq On : 17 Apr 2003 11:14 Operator: CMS
Sample : WG138555-06 50 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 17 15:27:07 2003 Quant Results File: 8260WT.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.33	96	949383	25.00 ug/L	0.00
44) Chlorobenzene-d5	14.97	117	699057	25.00 ug/L	0.00
64) 1,4-Dichlorobenzene-d4	17.79	152	351588	25.00 ug/L	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.34	111	202415	25.8352 ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 103.36%		
33) 1,2-Dichloroethane-d4	10.94	65	219815	26.6143 ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 106.44%		
45) Toluene-d8	13.19	98	830184	26.0924 ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 104.36%		
66) p-Bromofluorobenzene	16.36	95	336773	25.8963 ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 103.60%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.68	85	539977	52.7191 ug/L	91
3) Chloromethane	4.23	50	341322	50.1728 ug/L	89
4) Vinyl Chloride	4.50	62	229098	53.0574 ug/L #	56
5) Bromomethane	5.48	94	316237	54.4462 ug/L	92
6) Chloroethane	5.66	64	365591	51.3207 ug/L	95
7) Trichlorofluoromethane	6.17	101	710538	52.8884 ug/L	96
8) Isoprene	6.75	67	758814	52.2146 ug/L	100
9) Acrolein	6.92	56	64136	105.0764 ug/L	83
10) 1,1,2-Trichloro-1,2,2-Trif	6.97	101	400487	50.6128 ug/L	85
11) Acetone	7.01	43	75251	53.2188 ug/L #	34
12) 1,1-Dichloroethene	7.28	96	385117	53.4556 ug/L	64
13) Dimethyl Sulfide	7.53	62	546624	51.5609 ug/L	84
14) Iodomethane	7.78	142	460751	53.7851 ug/L	90
15) Methylene Chloride	8.02	84	398458	52.1760 ug/L	98
16) Carbon Disulfide	8.11	76	1382018	53.1803 ug/L #	88
17) Acrylonitrile	8.18	53	110225	52.6976 ug/L #	1
18) Methyl Tert Butyl Ether	8.25	73	854274	52.0443 ug/L #	68
19) trans-1,2-Dichloroethene	8.48	96	438995	55.0927 ug/L	87
20) n-Hexane	8.57	57	785476	52.4527 ug/L #	92
21) Vinyl Acetate	9.01	43	648218	51.7606 ug/L	94
22) 1,1-Dichloroethane	9.07	63	908928	54.0971 ug/L #	77
23) 2-Butanone	9.57	43	106894	51.6302 ug/L #	100
24) 2,2-Dichloropropane	9.81	77	655054	52.1872 ug/L #	59
25) cis-1,2-Dichloroethene	9.87	96	465700	54.2343 ug/L	80
26) Chloroform	10.07	83	745542	53.8821 ug/L	91
27) Bromochloromethane	10.29	128	182112	54.0552 ug/L	64
29) 1,1,1-Trichloroethane	10.58	97	660735	56.9533 ug/L #	87
30) Cyclohexane	10.64	56	1033176	51.8617 ug/L #	96
31) 1,1-Dichloropropene	10.77	75	606699	54.2351 ug/L #	19
32) Carbon Tetrachloride	10.92	117	551346	55.0701 ug/L #	92
34) 1,2-Dichloroethane	11.05	62	566649	53.0816 ug/L #	72
35) Benzene	11.11	78	1785659	53.1777 ug/L	90
36) Trichloroethene	11.82	130	427688	54.7567 ug/L	87
37) 1,2-Dichloropropane	12.01	63	490510	52.7734 ug/L	83
38) Bromodichloromethane	12.29	83	530369	54.8026 ug/L #	87
39) Dibromomethane	12.37	93	193059	54.0816 ug/L	86
40) 2-Chloroethyl Vinyl Ether	12.53	63	200430	54.2239 ug/L #	100
41) 4-Methyl-2-Pentanone	12.57	58	100396	52.7197 ug/L #	100
42) cis-1,3-Dichloropropene	12.87	75	657699	54.8135 ug/L #	87

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\041703\11M14397.D Vial: 10
Acq On : 17 Apr 2003 11:14 Operator: CMS
Sample : WG138555-06 50 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Apr 17 15:27:07 2003 Quant Results File: 8260WT.RES

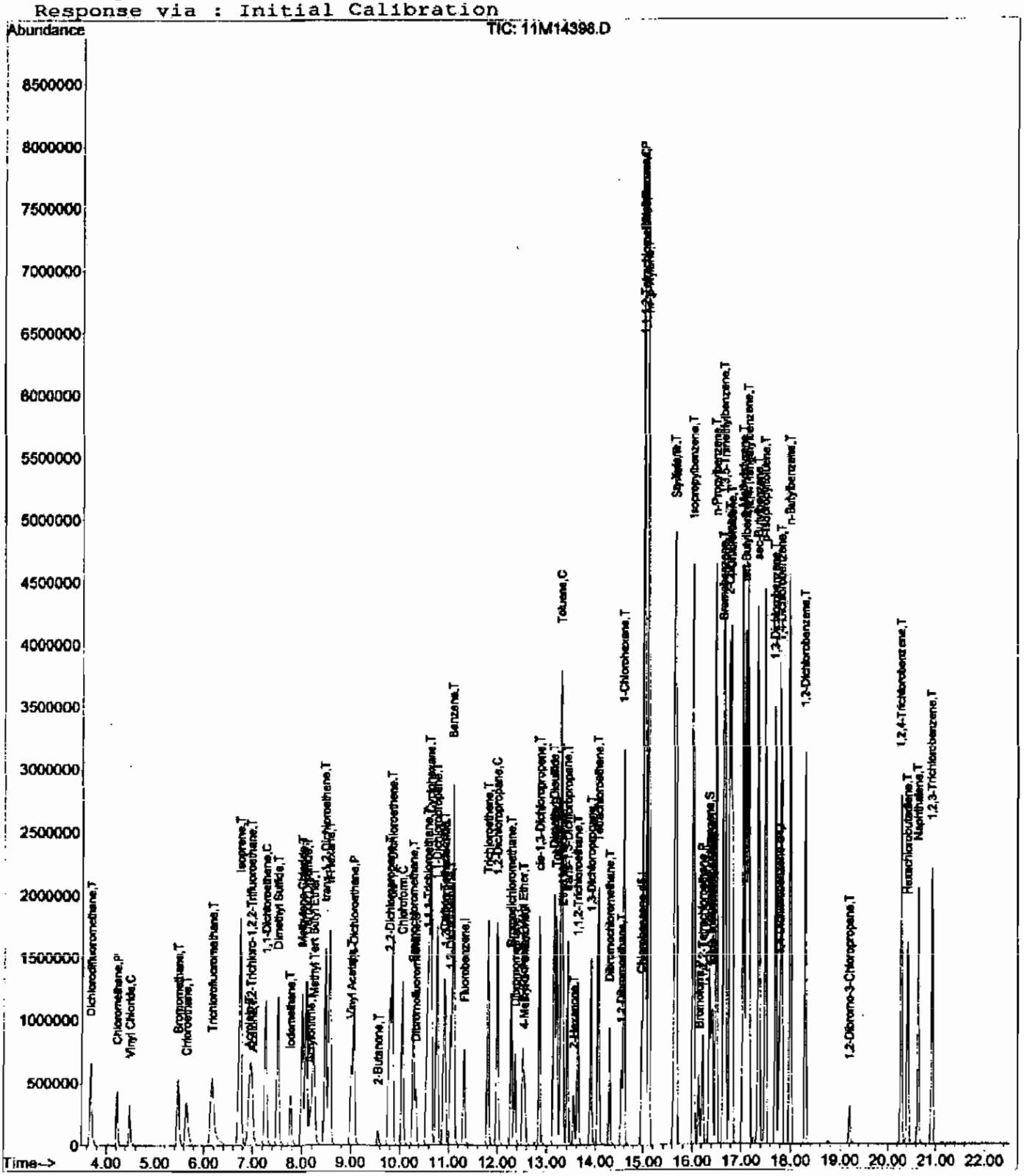
Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	Dimethyl Disulfide	13.14	79	367236	53.3026 ug/L		98
46)	Toluene	13.29	91	1916639	53.8946 ug/L		94
47)	Ethyl Methacrylate	13.33	69	369357	53.3105 ug/L	#	100
48)	trans-1,3-Dichloropropene	13.43	75	550682	55.4275 ug/L	#	50
49)	1,1,2-Trichloroethane	13.64	97	284045	53.6766 ug/L		85
50)	2-Hexanone	13.55	43	177930	52.8532 ug/L	#	1
51)	1,3-Dichloropropane	13.92	76	534183	52.7448 ug/L		94
52)	Tetrachloroethene	14.07	164	342124	56.0669 ug/L		90
53)	Dibromochloromethane	14.30	129	327104	57.7424 ug/L		84
54)	1,2-Dibromoethane	14.55	107	273851	54.1250 ug/L		92
55)	1-Chlorohexane	14.60	91	662135	53.7642 ug/L		89
56)	Chlorobenzene	15.02	112	1210682	52.7925 ug/L		98
57)	1,1,1,2-Tetrachloroethane	15.04	131	367282	56.4560 ug/L		92
58)	Ethylbenzene	15.03	106	682669	54.8436 ug/L		79
59)	m-,p-Xylene	15.12	106	1727635	110.4711 ug/L		84
60)	o-Xylene	15.65	106	868078	55.2145 ug/L		81
61)	Styrene	15.67	104	1422996	56.2295 ug/L		84
62)	Bromoform	16.15	173	161598	55.9183 ug/L		79
63)	Isopropylbenzene	16.03	105	2224118	55.4989 ug/L		95
65)	1,1,2,2-Tetrachloroethane	16.22	83	307613	53.1624 ug/L		85
67)	1,2,3-Trichloropropane	16.40	110	89998	53.6152 ug/L		77
68)	trans-1,4-Dichloro-2-Buten	16.42	53	111948	52.3692 ug/L	#	61
69)	n-Propylbenzene	16.50	91	2721632	55.9977 ug/L		91
70)	Bromobenzene	16.65	156	465225	54.1895 ug/L		76
71)	1,3,5-Trimethylbenzene	16.67	105	1870468	55.7435 ug/L		93
72)	2-Chlorotoluene	16.78	91	1698494	54.7485 ug/L		95
73)	4-Chlorotoluene	16.81	91	1631580	55.4116 ug/L		94
74)	a-Methylstyrene	17.05	118	1084954	53.0105 ug/L		80
75)	tert-Butylbenzene	17.11	119	1827204	58.1698 ug/L	#	73
76)	1,2,4-Trimethylbenzene	17.16	105	1960224	55.1187 ug/L		91
77)	sec-Butylbenzene	17.36	105	2391293	53.6118 ug/L		92
78)	p-Isopropyltoluene	17.51	119	2010174	53.8945 ug/L		99
79)	1,3-Dichlorobenzene	17.71	146	1018141	53.2201 ug/L		90
80)	1,4-Dichlorobenzene	17.83	146	1021682	53.1049 ug/L		78
81)	n-Butylbenzene	17.99	91	1851714	53.3744 ug/L	#	97
82)	1,2-Dichlorobenzene	18.30	146	890511	52.5262 ug/L		90
83)	1,2-Dibromo-3-Chloropropan	19.21	157	50688	52.7991 ug/L		90
84)	1,2,4-Trichlorobenzene	20.28	180	576507	53.0758 ug/L		90
85)	Hexachlorobutadiene	20.42	225	210895	51.9987 ug/L	#	74
86)	Naphthalene	20.64	128	1102280	52.8299 ug/L	#	83
87)	1,2,3-Trichlorobenzene	20.93	180	468470	52.6371 ug/L	#	61

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\041703\11M14398.D Vial: 11
Acq On : 17 Apr 2003 11:44 Operator: CMS
Sample : WG138555-07 100 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 17 15:27 2003 Quant Results File: 8260WT.RES

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\041703\11M14398.D Vial: 11
Acq On : 17 Apr 2003 11:44 Operator: CMS
Sample : WG138555-07 100 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Apr 17 15:27:27 2003 Quant Results File: 8260WT.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene	11.33	96	938030	25.00 ug/L		0.00
44) Chlorobenzene-d5	14.97	117	708542	25.00 ug/L		0.00
64) 1,4-Dichlorobenzene-d4	17.79	152	358525	25.00 ug/L		0.00
System Monitoring Compounds						
28) Dibromofluoromethane	10.34	111	394864	51.0084 ug/L		0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 204.04%#			
33) 1,2-Dichloroethane-d4	10.94	65	412066	50.4952 ug/L		0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 202.00%#			
45) Toluene-d8	13.19	98	1604458	49.7525 ug/L		0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 199.00%#			
66) p-Bromofluorobenzene	16.36	95	662535	49.9601 ug/L		0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 199.84%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.68	85	1059728	104.7157 ug/L		92
3) Chloromethane	4.23	50	622221	92.5706 ug/L		90
4) Vinyl Chloride	4.49	62	425698	99.7817 ug/L	#	55
5) Bromomethane	5.48	94	627205	109.2922 ug/L		92
6) Chloroethane	5.65	64	725419	103.0649 ug/L		95
7) Trichlorofluoromethane	6.18	101	1413778	106.5073 ug/L		96
8) Isoprene	6.75	67	1455008	101.3320 ug/L		100
9) Acrolein	6.92	56	127478	211.3797 ug/L		84
10) 1,1,2-Trichloro-1,2,2-Trif	6.96	101	782222	100.0523 ug/L		86
11) Acetone	7.02	43	140187	100.3426 ug/L	#	32
12) 1,1-Dichloroethene	7.28	96	738699	103.7751 ug/L		64
13) Dimethyl Sulfide	7.52	62	1040036	99.2898 ug/L		84
14) Iodomethane	7.79	142	779548	92.1009 ug/L		90
15) Methylene Chloride	8.02	84	767054	101.6573 ug/L		99
16) Carbon Disulfide	8.11	76	2632815	102.5374 ug/L	#	88
17) Acrylonitrile	8.18	53	214708	103.8923 ug/L	#	1
18) Methyl Tert Butyl Ether	8.24	73	1639898	101.1155 ug/L	#	67
19) trans-1,2-Dichloroethene	8.48	96	835987	106.1839 ug/L		87
20) n-Hexane	8.57	57	1545441	104.4509 ug/L	#	92
21) Vinyl Acetate	9.01	43	1345164	108.7122 ug/L		93
22) 1,1-Dichloroethane	9.07	63	1751757	105.5219 ug/L	#	77
23) 2-Butanone	9.57	43	211570	103.4258 ug/L	#	100
24) 2,2-Dichloropropane	9.81	77	1319943	106.4306 ug/L	#	60
25) cis-1,2-Dichloroethene	9.87	96	878299	103.5226 ug/L		78
26) Chloroform	10.07	83	1432947	104.8159 ug/L		92
27) Bromochloromethane	10.29	128	346518	104.0997 ug/L		63
29) 1,1,1-Trichloroethane	10.58	97	1275927	111.3120 ug/L	#	87
30) Cyclohexane	10.64	56	1980544	100.6194 ug/L	#	97
31) 1,1-Dichloropropene	10.77	75	1163911	105.3057 ug/L	#	19
32) Carbon Tetrachloride	10.92	117	1091721	110.3641 ug/L	#	91
34) 1,2-Dichloroethane	11.05	62	1086981	103.0568 ug/L	#	73
35) Benzene	11.11	78	3393683	102.2885 ug/L		91
36) Trichloroethene	11.82	130	813830	105.4553 ug/L		87
37) 1,2-Dichloropropane	12.01	63	936167	101.9402 ug/L		84
38) Bromodichloromethane	12.29	83	1038611	108.6177 ug/L	#	87
39) Dibromomethane	12.37	93	368442	104.4608 ug/L		86
40) 2-Chloroethyl Vinyl Ether	12.53	63	385203	105.4732 ug/L	#	100
41) 4-Methyl-2-Pentanone	12.57	58	196894	104.6438 ug/L	#	100
42) cis-1,3-Dichloropropene	12.87	75	1285351	108.4193 ug/L	#	87

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\041703\11M14398.D Vial: 11
Acq On : 17 Apr 2003 11:44 Operator: CMS
Sample : WG138555-07 100 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 17 15:27:27 2003 Quant Results File: 8260WT.RES

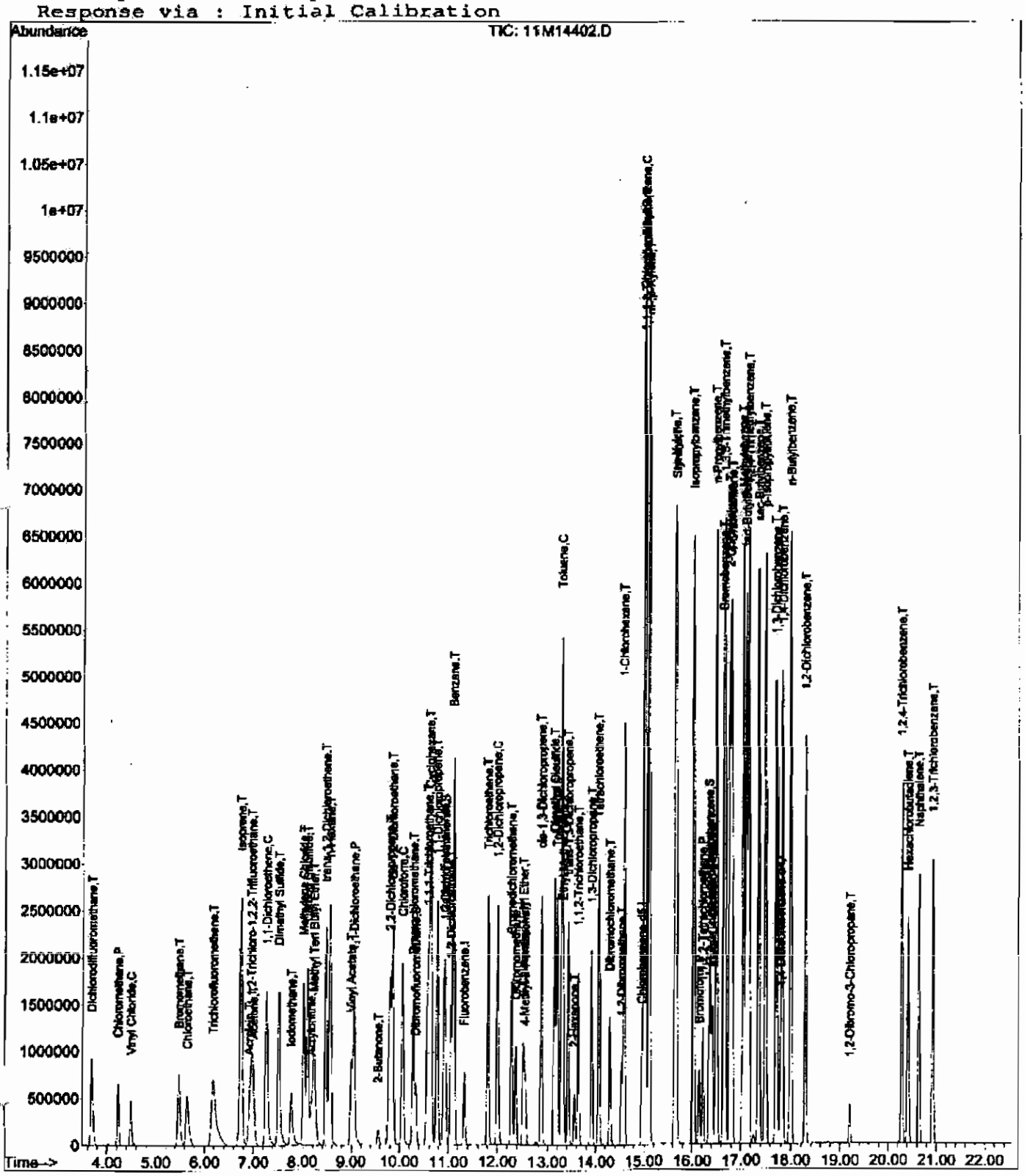
Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	Dimethyl Disulfide	13.14	79	726265	106.6898 ug/L		97
46)	Toluene	13.29	91	3638669	100.9472 ug/L		94
47)	Ethyl Methacrylate	13.33	69	716295	102.0011 ug/L	#	100
48)	trans-1,3-Dichloropropene	13.43	75	1079255	107.1756 ug/L	#	50
49)	1,1,2-Trichloroethane	13.64	97	548514	102.2663 ug/L		86
50)	2-Hexanone	13.55	43	349310	102.3717 ug/L	#	1
51)	1,3-Dichloropropane	13.92	76	1028927	100.2355 ug/L		93
52)	Tetrachloroethene	14.07	164	653980	105.7388 ug/L		90
53)	Dibromochloromethane	14.30	129	654789	114.0400 ug/L		84
54)	1,2-Dibromoethane	14.55	107	528608	103.0776 ug/L		93
55)	1-Chlorohexane	14.60	91	1279398	102.4941 ug/L		89
56)	Chlorobenzene	15.02	112	2138672	92.0095 ug/L		99
57)	1,1,1,2-Tetrachloroethane	15.04	131	671700	101.8668 ug/L		91
58)	Ethylbenzene	15.03	106	1192935	94.5540 ug/L		81
59)	m-,p-Xylene	15.12	106	3076565	194.0930 ug/L		87
60)	o-Xylene	15.65	106	1614168	101.2954 ug/L		82
61)	Styrene	15.68	104	2643085	103.0431 ug/L		85
62)	Bromoform	16.15	173	336685	114.9447 ug/L		80
63)	Isopropylbenzene	16.03	105	4242257	104.4408 ug/L		96
65)	1,1,2,2-Tetrachloroethane	16.22	83	609231	103.2516 ug/L		85
67)	1,2,3-Trichloropropane	16.40	110	178793	104.4527 ug/L		78
68)	trans-1,4-Dichloro-2-Buten	16.42	53	227826	104.5146 ug/L	#	59
69)	n-Propylbenzene	16.50	91	5219627	105.3161 ug/L		91
70)	Bromobenzene	16.65	156	872519	99.6648 ug/L		77
71)	1,3,5-Trimethylbenzene	16.68	105	3551754	103.8010 ug/L		94
72)	2-Chlorotoluene	16.78	91	3230883	102.1278 ug/L		96
73)	4-Chlorotoluene	16.81	91	3156088	105.1129 ug/L		86
74)	a-Methylstyrene	17.05	118	2073158	99.3339 ug/L		79
75)	tert-Butylbenzene	17.11	119	3495291	109.1211 ug/L	#	74
76)	1,2,4-Trimethylbenzene	17.17	105	3751037	103.4330 ug/L		92
77)	sec-Butylbenzene	17.36	105	4637278	101.9542 ug/L		93
78)	p-Isopropyltoluene	17.51	119	3857358	101.4180 ug/L		99
79)	1,3-Dichlorobenzene	17.71	146	1949377	99.9259 ug/L		90
80)	1,4-Dichlorobenzene	17.83	146	1945950	99.1894 ug/L		78
81)	n-Butylbenzene	17.99	91	3618761	102.2900 ug/L	#	97
82)	1,2-Dichlorobenzene	18.30	146	1705190	98.6334 ug/L		91
83)	1,2-Dibromo-3-Chloropropan	19.21	157	104444	106.6889 ug/L		91
84)	1,2,4-Trichlorobenzene	20.28	180	1096417	98.9879 ug/L		90
85)	Hexachlorobutadiene	20.42	225	421207	101.8442 ug/L	#	73
86)	Naphthalene	20.64	128	2143357	100.7388 ug/L	#	82
87)	1,2,3-Trichlorobenzene	20.93	180	895357	98.6555 ug/L	#	61

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\041703\11M14402.D Vial: 15
Acq On : 17 Apr 2003 14:20 Operator: CMS
Sample : WG138555-08 150 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 17 15:28 2003 Quant Results File: 8260WT.RES

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\041703\11M14402.D Vial: 15
Acq On : 17 Apr 2003 14:20 Operator: CMS
Sample : WG138555-08 150 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 17 15:28:02 2003 Quant Results File: 8260WT.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.33	96	948767	25.00	ug/L		0.00
44) Chlorobenzene-d5	14.97	117	697196	25.00	ug/L		0.00
64) 1,4-Dichlorobenzene-d4	17.79	152	353286	25.00	ug/L		0.00
System Monitoring Compounds							
28) Dibromofluoromethane	10.34	111	587287	75.0069	ug/L		0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 300.04%#				
33) 1,2-Dichloroethane-d4	10.94	65	580279	70.3035	ug/L		0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 281.20%#				
45) Toluene-d8	13.19	98	2386724	75.2141	ug/L		0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 300.84%#				
66) p-Bromofluorobenzene	16.36	95	963434	73.7275	ug/L		0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 294.92%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.68	85	1584904	154.8380	ug/L		92
3) Chloromethane	4.23	50	935805	137.6484	ug/L		89
4) Vinyl Chloride	4.49	62	633994	146.9236	ug/L	#	56
5) Bromomethane	5.48	94	940067	161.9554	ug/L		91
6) Chloroethane	5.65	64	1085194	152.4355	ug/L		95
7) Trichlorofluoromethane	6.19	101	2168043	161.4816	ug/L		96
8) Isoprene	6.75	67	2151806	148.1636	ug/L		99
9) Acrolein	6.91	56	181994	298.3612	ug/L		86
10) 1,1,2-Trichloro-1,2,2-Trif	6.96	101	1191250	150.6458	ug/L		87
11) Acetone	7.01	43	197601	139.8375	ug/L	#	30
12) 1,1-Dichloroethene	7.28	96	1132864	157.3477	ug/L		64
13) Dimethyl Sulfide	7.52	62	1531878	144.5897	ug/L		84
14) Iodomethane	7.78	142	1206101	140.8840	ug/L		92
15) Methylene Chloride	8.02	84	1165435	152.7067	ug/L		99
16) Carbon Disulfide	8.10	76	3942811	151.8187	ug/L	#	87
17) Acrylonitrile	8.18	53	306056	146.4176	ug/L	#	1
18) Methyl Tert Butyl Ether	8.24	73	2323493	141.6444	ug/L	#	67
19) trans-1,2-Dichloroethene	8.48	96	1250197	156.9983	ug/L		87
20) n-Hexane	8.56	57	2319753	155.0097	ug/L	#	92
21) Vinyl Acetate	9.01	43	1942803	155.2347	ug/L		93
22) 1,1-Dichloroethane	9.06	63	2641047	157.2904	ug/L	#	77
23) 2-Butanone	9.57	43	296861	143.4780	ug/L	#	100
24) 2,2-Dichloropropane	9.81	77	2015447	160.6719	ug/L	#	60
25) cis-1,2-Dichloroethene	9.87	96	1306774	152.2827	ug/L		78
26) Chloroform	10.07	83	2152315	155.6539	ug/L		91
27) Bromochloromethane	10.29	128	505843	150.2438	ug/L		63
29) 1,1,1-Trichloroethane	10.58	97	1935701	166.9597	ug/L	#	88
30) Cyclohexane	10.64	56	2932809	147.3120	ug/L	#	96
31) 1,1-Dichloropropene	10.77	75	1752080	156.7267	ug/L	#	20
32) Carbon Tetrachloride	10.92	117	1663658	166.2790	ug/L	#	91
34) 1,2-Dichloroethane	11.05	62	1575800	147.7110	ug/L	#	72
35) Benzene	11.11	78	5028614	149.8514	ug/L		91
36) Trichloroethene	11.81	130	1211453	155.2025	ug/L		87
37) 1,2-Dichloropropane	12.01	63	1382929	148.8844	ug/L		83
38) Bromodichloromethane	12.29	83	1540792	159.3122	ug/L	#	87
39) Dibromomethane	12.37	93	531158	148.8898	ug/L		86
40) 2-Chloroethyl Vinyl Ether	12.53	63	557585	150.9457	ug/L	#	100
41) 4-Methyl-2-Pentanone	12.57	58	274970	144.4853	ug/L	#	100
42) cis-1,3-Dichloropropene	12.87	75	1895627	158.0866	ug/L	#	87

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\041703\11M14402.D Vial: 15
Acq On : 17 Apr 2003 14:20 Operator: CMS
Sample : WG138555-08 150 PPB STD 8260 Inst : HPMS11
sc : 1,1 SV10829 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Apr 17 15:28:02 2003 Quant Results File: 8260WT.RES

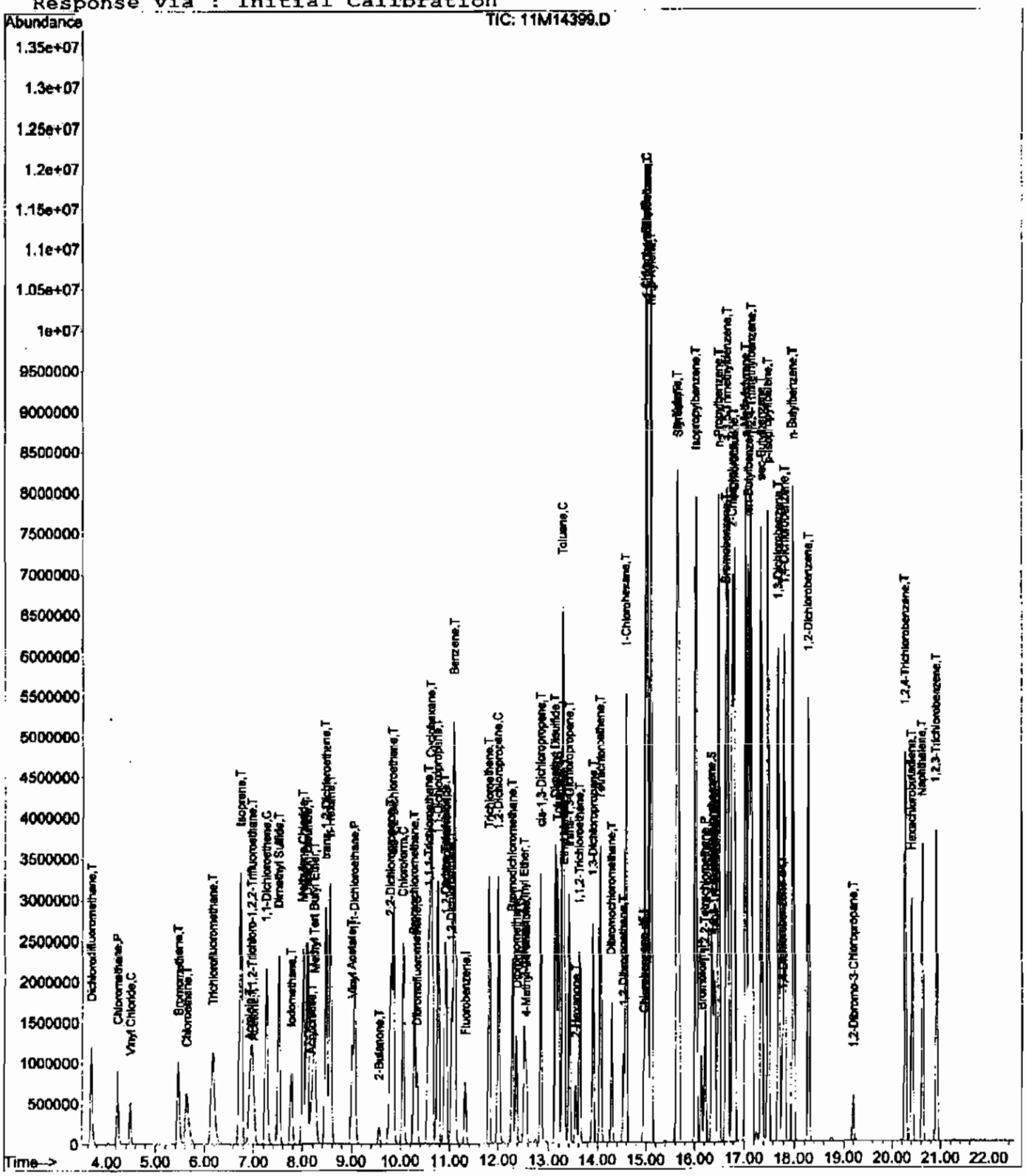
Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	Dimethyl Disulfide	13.14	79	1043597	151.5716 ug/L		97
46)	Toluene	13.29	91	5351499	150.8821 ug/L		95
47)	Ethyl Methacrylate	13.33	69	991307	143.4604 ug/L	#	100
48)	trans-1,3-Dichloropropene	13.43	75	1576445	159.0967 ug/L	#	50
49)	1,1,2-Trichloroethane	13.64	97	787700	149.2507 ug/L		86
50)	2-Hexanone	13.55	43	486026	144.7568 ug/L	#	1
51)	1,3-Dichloropropane	13.92	76	1480275	146.5514 ug/L		93
52)	Tetrachloroethene	14.07	164	963239	158.2759 ug/L		89
53)	Dibromochloromethane	14.30	129	969591	171.6149 ug/L		85
54)	1,2-Dibromoethane	14.54	107	775799	153.7413 ug/L		91
55)	1-Chlorohexane	14.60	91	1870128	152.2563 ug/L		89
56)	Chlorobenzene	15.01	112	2941043	128.5881 ug/L		98
57)	1,1,1,2-Tetrachloroethane	15.04	131	926153	142.7416 ug/L		92
58)	Ethylbenzene	15.03	106	1667196	134.2952 ug/L		81
59)	m-,p-Xylene	15.12	106	4268000	273.6396 ug/L		89
60)	o-Xylene	15.65	106	2283038	145.6012 ug/L		85
61)	Styrene	15.68	104	3747782	148.4885 ug/L		85
62)	Bromoform	16.15	173	492296	170.8056 ug/L		80
63)	Isopropylbenzene	16.03	105	6204361	155.2320 ug/L		97
65)	1,1,2,2-Tetrachloroethane	16.22	83	863417	148.5007 ug/L		85
67)	1,2,3-Trichloropropane	16.40	110	251340	149.0129 ug/L		77
68)	trans-1,4-Dichloro-2-Buten	16.43	53	314690	146.5041 ug/L	#	62
69)	n-Propylbenzene	16.50	91	7688828	157.4376 ug/L		92
70)	Bromobenzene	16.65	156	1234172	143.0657 ug/L		76
71)	1,3,5-Trimethylbenzene	16.68	105	5124536	151.9869 ug/L		95
72)	2-Chlorotoluene	16.78	91	4653365	149.2736 ug/L		97
73)	4-Chlorotoluene	16.82	91	4023799	135.9992 ug/L		92
74)	a-Methylstyrene	17.05	118	2929190	142.4314 ug/L		78
75)	tert-Butylbenzene	17.11	119	5078310	160.8932 ug/L	#	74
76)	1,2,4-Trimethylbenzene	17.17	105	5430563	151.9658 ug/L		92
77)	sec-Butylbenzene	17.37	105	6847311	152.7760 ug/L		93
78)	p-Isopropyltoluene	17.51	119	5668884	151.2571 ug/L		98
79)	1,3-Dichlorobenzene	17.71	146	2815825	146.4808 ug/L		89
80)	1,4-Dichlorobenzene	17.83	146	2776960	143.6469 ug/L		79
81)	n-Butylbenzene	17.99	91	5340516	153.1968 ug/L	#	96
82)	1,2-Dichlorobenzene	18.30	146	2451712	143.9176 ug/L		91
83)	1,2-Dibromo-3-Chloropropan	19.21	157	153492	159.1163 ug/L		95
84)	1,2,4-Trichlorobenzene	20.28	180	1565054	143.3933 ug/L		90
85)	Hexachlorobutadiene	20.42	225	642897	157.7522 ug/L	#	74
86)	Naphthalene	20.64	128	3028151	144.4351 ug/L	#	83
87)	1,2,3-Trichlorobenzene	20.93	180	1263982	141.3380 ug/L	#	60

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\041703\11M14399.D Vial: 12
Acq On : 17 Apr 2003 12:15 Operator: CMS
Sample : WG138555-09 200 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 17 15:28 2003 Quant Results File: 8260WT.RES

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\041703\11M14399.D Vial: 12
Acq On : 17 Apr 2003 12:15 Operator: CMS
Sample : WG138555-09 200 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Apr 17 15:28:21 2003 Quant Results File: 8260WT.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.33	96	928210	25.00 ug/L	0.00
44) Chlorobenzene-d5	14.97	117	683966	25.00 ug/L	0.00
64) 1,4-Dichlorobenzene-d4	17.79	152	360525	25.00 ug/L	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.34	111	762876	99.5906 ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 398.36%#		
33) 1,2-Dichloroethane-d4	10.94	65	751634	93.0808 ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 372.32%#		
45) Toluene-d8	13.19	98	3024588	97.1591 ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 388.64%#		
66) p-Bromofluorobenzene	16.36	95	1255915	94.1800 ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 376.72%#		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.68	85	2020230	201.7385 ug/L	92
3) Chloromethane	4.23	50	1299938	195.4437 ug/L	89
4) Vinyl Chloride	4.49	62	688840	163.1692 ug/L #	55
5) Bromomethane	5.47	94	1238019	218.0104 ug/L	92
6) Chloroethane	5.64	64	1422217	204.2011 ug/L	95
7) Trichlorofluoromethane	6.17	101	2694559	205.1428 ug/L	96
8) Isoprene	6.75	67	2757322	194.0614 ug/L	100
9) Acrolein	6.92	56	241206	404.1911 ug/L	85
10) 1,1,2-Trichloro-1,2,2-Trif	6.96	101	1505338	194.5815 ug/L	87
11) Acetone	7.02	43	255474	184.7969 ug/L #	29
12) 1,1-Dichloroethene	7.27	96	1403463	199.2494 ug/L	64
13) Dimethyl Sulfide	7.52	62	1998789	192.8384 ug/L	84
14) Iodomethane	7.78	142	1682072	200.8334 ug/L	91
15) Methylene Chloride	8.02	84	1448331	193.9774 ug/L	100
16) Carbon Disulfide	8.10	76	5038666	198.3116 ug/L #	88
17) Acrylonitrile	8.18	53	406071	198.5673 ug/L #	1
18) Methyl Tert Butyl Ether	8.24	73	3109866	193.7818 ug/L #	67
19) trans-1,2-Dichloroethene	8.48	96	1581406	202.9893 ug/L	87
20) n-Hexane	8.56	57	2919720	199.4213 ug/L #	93
21) Vinyl Acetate	9.01	43	2541507	207.5701 ug/L	93
22) 1,1-Dichloroethane	9.06	63	3360588	204.5760 ug/L #	77
23) 2-Butanone	9.57	43	392203	193.7565 ug/L #	100
24) 2,2-Dichloropropane	9.81	77	2540029	206.9763 ug/L #	60
25) cis-1,2-Dichloroethene	9.87	96	1640942	195.4594 ug/L	77
26) Chloroform	10.07	83	2720639	201.1121 ug/L	91
27) Bromochloromethane	10.29	128	647386	196.5430 ug/L	63
29) 1,1,1-Trichloroethane	10.58	97	2444149	215.4837 ug/L #	89
30) Cyclohexane	10.64	56	3686117	189.2504 ug/L #	97
31) 1,1-Dichloropropene	10.77	75	2186577	199.9251 ug/L #	19
32) Carbon Tetrachloride	10.92	117	2083427	212.8457 ug/L #	91
34) 1,2-Dichloroethane	11.05	62	2015609	193.1219 ug/L #	72
35) Benzene	11.11	78	6303532	192.0038 ug/L	91
36) Trichloroethene	11.82	130	1515589	198.4663 ug/L	87
37) 1,2-Dichloropropane	12.01	63	1754220	193.0397 ug/L	83
38) Bromodichloromethane	12.29	83	1972101	208.4239 ug/L #	87
39) Dibromomethane	12.37	93	681059	195.1369 ug/L	86
40) 2-Chloroethyl Vinyl Ether	12.53	63	724853	200.5732 ug/L #	100
41) 4-Methyl-2-Pentanone	12.57	58	357376	191.9451 ug/L #	100
42) cis-1,3-Dichloropropene	12.87	75	2399833	204.5674 ug/L #	86

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\041703\11M14399.D Vial: 12
Acq On : 17 Apr 2003 12:15 Operator: CMS
Sample : WG138555-09 200 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10829 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 17 15:28:21 2003 Quant Results File: 8260WT.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	Dimethyl Disulfide	13.14	79	1361460	202.1172	ug/L		97
46)	Toluene	13.29	91	6574115	188.9383	ug/L		95
47)	Ethyl Methacrylate	13.33	69	1294200	190.9174	ug/L	#	100
48)	trans-1,3-Dichloropropene	13.43	75	2010358	206.8122	ug/L	#	50
49)	1,1,2-Trichloroethane	13.64	97	1006343	194.3667	ug/L		87
50)	2-Hexanone	13.55	43	642350	195.0166	ug/L	#	1
51)	1,3-Dichloropropane	13.92	76	1895899	191.3301	ug/L		92
52)	Tetrachloroethene	14.07	164	1182938	198.1358	ug/L		90
53)	Dibromochloromethane	14.30	129	1245815	224.7711	ug/L		84
54)	1,2-Dibromoethane	14.54	107	995165	201.0282	ug/L		91
55)	1-Chlorohexane	14.60	91	2330600	193.4159	ug/L		90
56)	Chlorobenzene	15.01	112	3521483	156.9442	ug/L		98
57)	1,1,1,2-Tetrachloroethane	15.04	131	1114628	175.1130	ug/L		93
58)	Ethylbenzene	15.03	106	1962335	161.1266	ug/L		81
59)	m-,p-Xylene	15.12	106	5114345	334.2450	ug/L		89
60)	o-Xylene	15.65	106	2789379	181.3342	ug/L		86
61)	Styrene	15.68	104	4622646	186.6937	ug/L		86
62)	Bromoform	16.15	173	656308	232.1153	ug/L		80
63)	Isopropylbenzene	16.03	105	7666466	195.5238	ug/L		97
65)	1,1,2,2-Tetrachloroethane	16.22	83	1139974	192.1294	ug/L		85
67)	1,2,3-Trichloropropane	16.41	110	326457	189.6616	ug/L		73
68)	trans-1,4-Dichloro-2-Buten	16.42	53	434710	198.3159	ug/L	#	59
69)	n-Propylbenzene	16.51	91	9573686	192.0961	ug/L		92
70)	Bromobenzene	16.65	156	1520935	172.7673	ug/L		75
71)	1,3,5-Trimethylbenzene	16.68	105	6351947	184.6076	ug/L		96
72)	2-Chlorotoluene	16.78	91	5751400	180.7925	ug/L		97
73)	4-Chlorotoluene	16.82	91	5176874	171.4583	ug/L		91
74)	a-Methylstyrene	17.05	118	3746560	178.5180	ug/L		78
75)	tert-Butylbenzene	17.11	119	6340819	196.8588	ug/L	#	73
76)	1,2,4-Trimethylbenzene	17.17	105	6821731	187.0624	ug/L		95
77)	sec-Butylbenzene	17.37	105	8558448	187.1204	ug/L		94
78)	p-Isopropyltoluene	17.51	119	7127606	186.3601	ug/L		97
79)	1,3-Dichlorobenzene	17.71	146	3552421	181.0884	ug/L		89
80)	1,4-Dichlorobenzene	17.83	146	3495639	177.1921	ug/L		79
81)	n-Butylbenzene	17.99	91	6696771	188.2447	ug/L	#	96
82)	1,2-Dichlorobenzene	18.30	146	3121141	179.5349	ug/L		90
83)	1,2-Dibromo-3-Chloropropan	19.21	157	203505	206.7260	ug/L		95
84)	1,2,4-Trichlorobenzene	20.28	180	1957522	175.7508	ug/L		90
85)	Hexachlorobutadiene	20.42	225	802948	193.0689	ug/L	#	73
86)	Naphthalene	20.64	128	3892769	181.9470	ug/L	#	83
87)	1,2,3-Trichlorobenzene	20.93	180	1596367	174.9209	ug/L	#	60

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\042103\11M14410.D Vial: 5
Acq On : 21 Apr 2003 8:40 Operator: CMS
Sample : WG138555-12 20PPB ALT SOURCE STD 8260 Inst : HPMS11
Misc : 1,1 SV10847 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	102	0.00
2	T	Dichlorodifluoromethane	0.270	0.244	9.6	86	0.01
3	P	Chloromethane	0.179	0.152	15.1	83	0.00
4	C	Vinyl Chloride	0.114	0.121	-6.1	100	0.00
5	T	Bromomethane	0.153	0.152	0.7	102	0.01
6	T	Chloroethane	0.188	0.183	2.7	97	0.01
7	T	Trichlorofluoromethane	0.354	0.320	9.6	87	0.00
8	T	Isoprene	0.383	0.000	-100.0#	0#	-6.75#
9	T	Acrolein	0.016	0.000	-100.0#	0#	-6.92#
10	T	1,1,2-Trichloro-1,2,2-Trifl	0.208	0.000	-100.0#	0#	-6.96#
11	T	Acetone	0.037	0.031	16.2	86	0.00
12	C	1,1-Dichloroethene	0.190	0.208	-9.5	103	0.00
13	T	Dimethyl Sulfide	0.279	0.000	-100.0#	0#	-7.52#
14	T	Iodomethane	0.226	0.237	-4.9	99	0.00
15	T	Methylene Chloride	0.201	0.215	-7.0	103	0.00
16	T	Carbon Disulfide	0.684	0.540	21.1	75	0.00
17	T	Acrylonitrile	0.055	0.004	92.7#	8#	0.08
18	T	Methyl Tert Butyl Ether	0.432	0.450	-4.2	106	0.00
	T	trans-1,2-Dichloroethene	0.210	0.242	-15.2	105	0.00
	T	n-Hexane	0.394	0.425	-7.9	104	0.00
21	T	Vinyl Acetate	0.330	0.311	5.8	105	0.00
22	P	1,1-Dichloroethane	0.442	0.479	-8.4	101	0.00
23	T	2-Butanone	0.055	0.051	7.3	96	0.00
24	T	2,2-Dichloropropane	0.331	0.371	-12.1	108	0.00
25	T	cis-1,2-Dichloroethene	0.226	0.249	-10.2	102	0.00
26	C	Chloroform	0.364	0.400	-9.9	104	0.00
27	T	Bromochloromethane	0.089	0.098	-10.1	103	0.00
28	S	Dibromofluoromethane	0.206	0.503	-144.2#	238#	0.00
29	T	1,1,1-Trichloroethane	0.305	0.359	-17.7	106	0.00
30	T	Cyclohexane	0.525	0.001	-99.8#	0#	-0.07
31	T	1,1-Dichloropropene	0.295	0.331	-12.2	105	0.00
32	T	Carbon Tetrachloride	0.264	0.292	-10.6	106	0.00
33	S	1,2-Dichloroethane-d4	0.217	0.529	-143.8#	233#	0.00
34	T	1,2-Dichloroethane	0.281	0.295	-5.0	100	0.00
35	T	Benzene	0.884	0.964	-9.0	102	0.00
36	T	Trichloroethene	0.206	0.250	-21.4	109	0.00
37	C	1,2-Dichloropropane	0.245	0.256	-4.5	100	0.00
38	T	Bromodichloromethane	0.255	0.278	-9.0	103	0.00
39	T	Dibromomethane	0.094	0.104	-10.6	105	0.00
40	T	2-Chloroethyl Vinyl Ether	0.097	0.106	-9.3	109	0.00
41	T	4-Methyl-2-Pentanone	0.050	0.053	-6.0	110	0.00
42	T	cis-1,3-Dichloropropene	0.316	0.362	-14.6	109	0.00
43	T	Dimethyl Disulfide	0.181	0.000	-100.0#	0#	-13.14#
44	I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00
45	S	Toluene-d8	1.138	2.862	-151.5#	239#	0.00
46	C	Toluene	1.272	1.394	-9.6	102	0.00
47	T	Ethyl Methacrylate	0.248	0.000	-100.0#	0#	-13.33#
48	T	trans-1,3-Dichloropropene	0.355	0.400	-12.7	108	0.00
	I	1,1,2-Trichloroethane	0.189	0.200	-5.8	102	0.00
50	T	2-Hexanone	0.120	0.118	1.7	101	0.00
51	T	1,3-Dichloropropane	0.362	0.376	-3.9	102	0.00
52	T	Tetrachloroethene	0.218	0.250	-14.7	101	0.00

(#) = Out of Range

Data File : C:\MSDCHEM\1\DATA\042103\11M14410.D Vial: 5
Acq On : 21 Apr 2003 8:40 Operator: CMS
Sample : WG138555-12 20PPB ALT SOURCE STD 8260 Inst : HPMS11
Misc : 1,1 SV10847 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
53	T	Dibromochloromethane	0.203	0.222	-9.4	107	0.00
54	T	1,2-Dibromoethane	0.181	0.193	-6.6	103	0.00
55	T	1-Chlorohexane	0.440	0.487	-10.7	104	0.00
56	P	Chlorobenzene	0.820	0.914	-11.5	101	0.00
57	T	1,1,1,2-Tetrachloroethane	0.233	0.281	-20.6	106	0.00
58	C	Ethylbenzene	0.445	0.525	-18.0	102	0.00
59	T	m-,p-Xylene	0.559	0.647	-15.7	101	0.00
60	T	o-Xylene	0.562	0.643	-14.4	102	0.00
61	T	Styrene	0.905	1.065	-17.7	106	0.00
62	P	Bromoform	0.103	0.103	0.0	107	0.00
63	T	Isopropylbenzene	1.433	1.566	-9.3	98	0.00
64	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	107	0.00
65	P	1,1,2,2-Tetrachloroethane	0.411	0.424	-3.2	102	0.00
66	S	p-Bromofluorobenzene	0.925	2.286	~~-147.1~~#	243#	0.00
67	T	1,2,3-Trichloropropane	0.119	0.129	-8.4	109	0.00
68	T	trans-1,4-Dichloro-2-Butene	0.152	0.021	~~86.2~~#	15#	0.08
69	T	n-Propylbenzene	3.456	3.887	-12.5	102	0.00
70	T	Bromobenzene	0.610	0.677	-11.0	103	0.00
71	T	1,3,5-Trimethylbenzene	2.386	2.690	-12.7	103	0.00
72	T	2-Chlorotoluene	2.206	2.335	-5.8	97	0.00
73	T	4-Chlorotoluene	2.094	2.416	-15.4	105	0.00
74	T	a-Methylstyrene	1.455	0.000	1~~00.0~~#	0#	0.00
75	T	tert-Butylbenzene	2.234	2.377	-6.4	113	0.00
76	T	1,2,4-Trimethylbenzene	2.529	2.773	-9.6	101	0.00
77	T	sec-Butylbenzene	3.172	3.438	-8.4	102	0.00
78	T	p-Isopropyltoluene	2.652	2.821	-6.4	101	0.00
79	T	1,3-Dichlorobenzene	1.360	1.444	-6.2	102	0.00
80	T	1,4-Dichlorobenzene	1.368	1.436	-5.0	101	0.00
81	T	n-Butylbenzene	2.467	2.672	-8.3	103	0.00
82	T	1,2-Dichlorobenzene	1.206	1.284	-6.5	104	0.00
83	T	1,2-Dibromo-3-Chloropropane	0.068	0.068	0.0	112	0.00
84	T	1,2,4-Trichlorobenzene	0.772	0.852	-10.4	106	0.00
85	T	Hexachlorobutadiene	0.288	0.307	-6.6	106	0.00
86	T	Naphthalene	1.484	1.562	-5.3	106	0.00
87	T	1,2,3-Trichlorobenzene	0.633	0.682	-7.7	107	0.00

Data File : C:\MSDCHEM\1\DATA\042103\11M14410.D Vial: 5
Acq On : 21 Apr 2003 8:40 Operator: CMS
Sample : WG138555-12 20PPB ALT SOURCE STD 8260 Inst : HPMS11
Misc : 1,1 SV10847 Multiplr: 1.00
IS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	25.000	25.000	0.0	102	0.00
2	T	Dichlorodifluoromethane	20.000	18.070	9.6	86	0.01
3	P	Chloromethane	20.000	16.987	15.1	83	0.00
4	C	Vinyl Chloride	20.000	21.224	-6.1	100	0.00
5	T	Bromomethane	20.000	19.850	0.7	102	0.01
6	T	Chloroethane	20.000	19.521	2.4	97	0.01
7	T	Trichlorofluoromethane	20.000	18.114	9.4	87	0.00
8	T	Isoprene	20.000	0.000	~~100.0~~#	0	-6.75#
9	T	Acrolein	40.000	0.000	~~100.0~~#	0	-6.92#
10	T	1,1,2-Trichloro-1,2,2-Trifl	20.000	0.000	~~100.0~~#	0	-6.96#
11	T	Acetone	20.000	16.858	15.7	86	0.00
12	C	1,1-Dichloroethene	20.000	21.952	-9.8	103	0.00
13	T	Dimethyl Sulfide	20.000	0.000	~~100.0~~#	0	-7.52#
14	T	Iodomethane	20.000	20.973	-4.9	99	0.00
15	T	Methylene Chloride	20.000	21.413	-7.1	103	0.00
16	T	Carbon Disulfide	20.000	15.785	21.1	75	0.00
17	T	Acrylonitrile	20.000	1.566	~~92.2~~#	8	0.08
18	T	Methyl Tert Butyl Ether	20.000	20.812	-4.1	106	0.00
19	T	trans-1,2-Dichloroethene	20.000	23.055	-15.3	105	0.00
20	C	n-Hexane	20.000	21.573	-7.9	104	0.00
21	T	Vinyl Acetate	20.000	18.876	5.6	105	0.00
22	P	1,1-Dichloroethane	20.000	21.657	-8.3	101	0.00
23	T	2-Butanone	20.000	18.822	5.9	96	0.00
24	T	2,2-Dichloropropane	20.000	22.430	-12.1	108	0.00
25	T	cis-1,2-Dichloroethene	20.000	21.989	-9.9	102	0.00
26	C	Chloroform	20.000	21.938	-9.7	104	0.00
27	T	Bromochloromethane	20.000	22.125	-10.6	103	0.00
28	S	Dibromofluoromethane	10.000	24.378	~~-143.8~~#	238	0.00
29	T	1,1,1-Trichloroethane	20.000	23.498	-17.5	106	0.00
30	T	Cyclohexane	20.000	0.020	~~99.9~~#	0	-0.07
31	T	1,1-Dichloropropene	20.000	22.467	-12.3	105	0.00
32	T	Carbon Tetrachloride	20.000	22.152	-10.8	106	0.00
33	S	1,2-Dichloroethane-d4	10.000	24.341	~~-143.4~~#	233	0.00
34	T	1,2-Dichloroethane	20.000	20.983	-4.9	100	0.00
35	T	Benzene	20.000	21.795	-9.0	102	0.00
36	T	Trichloroethene	20.000	24.318	-21.6	109	0.00
37	C	1,2-Dichloropropane	20.000	20.931	-4.7	100	0.00
38	T	Bromodichloromethane	20.000	21.795	-9.0	103	0.00
39	T	Dibromomethane	20.000	22.045	-10.2	105	0.00
40	T	2-Chloroethyl Vinyl Ether	20.000	21.831	-9.2	109	0.00
41	T	4-Methyl-2-Pentanone	20.000	21.160	-5.8	110	0.00
42	T	cis-1,3-Dichloropropene	20.000	22.886	-14.4	109	0.00
43	T	Dimethyl Disulfide	20.000	0.000	~~100.0~~#	0	-13.14#
44	I	Chlorobenzene-d5	25.000	25.000	0.0	104	0.00
45	S	Toluene-d8	10.000	25.149	~~-151.5~~#	239	0.00
46	C	Toluene	20.000	21.923	-9.6	102	0.00
47	T	Ethyl Methacrylate	20.000	0.000	~~100.0~~#	0	-13.33#
48	T	trans-1,3-Dichloropropene	20.000	22.530	-12.7	108	0.00
49	C	1,1,2-Trichloroethane	20.000	21.189	-5.9	102	0.00
50	T	2-Hexanone	20.000	19.565	2.2	101	0.00
51	T	1,3-Dichloropropane	20.000	20.771	-3.9	102	0.00
52	T	Tetrachloroethene	20.000	22.873	-14.4	101	0.00

(#) = Out of Range

Data File : C:\MSDCHEM\1\DATA\042103\11M14410.D Vial: 5
Acq On : 21 Apr 2003 8:40 Operator: CMS
Sample : WG138555-12 20PPB ALT SOURCE STD 8260 Inst : HPMS11
Misc : 1,1 SV10847 Multiplr: 1.00
MS Integration Params: rteint.p

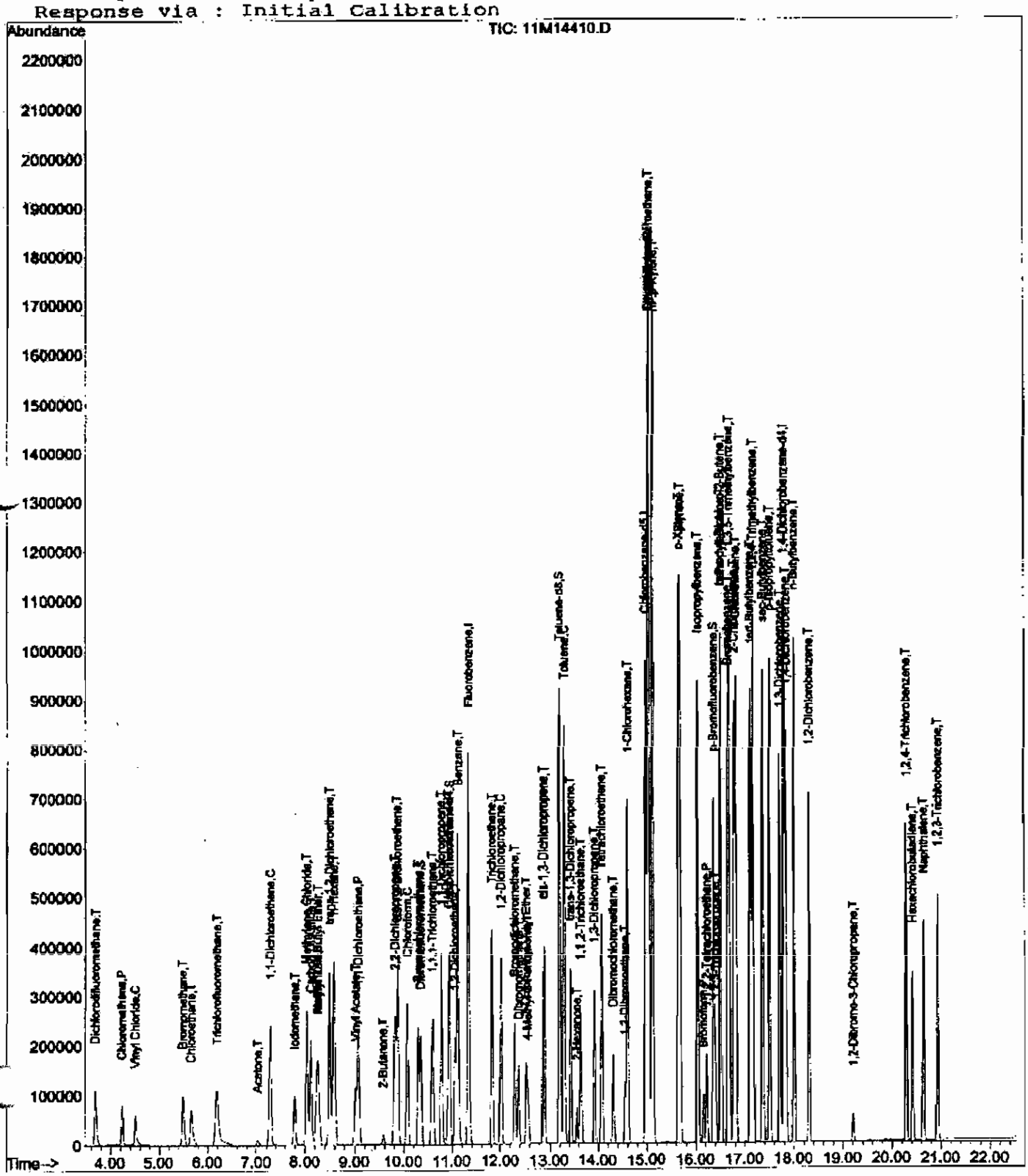
Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
53	T	Dibromochloromethane	20.000	21.940	-9.7	107	0.00
54	T	1,2-Dibromoethane	20.000	21.353	-6.8	103	0.00
55	T	1-Chlorohexane	20.000	22.094	-10.5	104	0.00
56	P	Chlorobenzene	20.000	22.300	-11.5	101	0.00
57	T	1,1,1,2-Tetrachloroethane	20.000	24.114	-20.6	106	0.00
58	C	Ethylbenzene	20.000	23.610	-18.0	102	0.00
59	T	m-,p-Xylene	40.000	46.273	-15.7	101	0.00
60	T	o-Xylene	20.000	22.883	-14.4	102	0.00
61	T	Styrene	20.000	23.544	-17.7	106	0.00
62	P	Bromoform	20.000	19.930	0.4	107	0.00
63	T	Isopropylbenzene	20.000	21.848	-9.2	98	0.00
64	I	1,4-Dichlorobenzene-d4	25.000	25.000	0.0	107	0.00
65	P	1,1,2,2-Tetrachloroethane	20.000	20.631	-3.2	102	0.00
66	S	p-Bromofluorobenzene	10.000	24.726	~~-147.3#~~	243	0.00
67	T	1,2,3-Trichloropropane	20.000	21.600	-8.0	109	0.00
68	T	trans-1,4-Dichloro-2-Butene	20.000	2.771	~~86.1#~~	15	0.08
69	T	n-Propylbenzene	20.000	22.495	-12.5	102	0.00
70	T	Bromobenzene	20.000	22.171	-10.9	103	0.00
71	T	1,3,5-Trimethylbenzene	20.000	22.546	-12.7	103	0.00
72	T	2-Chlorotoluene	20.000	21.167	-5.8	97	0.00
73	T	4-Chlorotoluene	20.000	23.082	-15.4	105	0.00
74	T	a-Methylstyrene	20.000	0.006	~~100.0#~~	0	0.00
75	T	tert-Butylbenzene	20.000	21.282	-6.4	113	0.00
76	T	1,2,4-Trimethylbenzene	20.000	21.932	-9.7	101	0.00
77	T	sec-Butylbenzene	20.000	21.677	-8.4	102	0.00
78	T	p-Isopropyltoluene	20.000	21.273	-6.4	101	0.00
79	T	1,3-Dichlorobenzene	20.000	21.225	-6.1	102	0.00
80	T	1,4-Dichlorobenzene	20.000	20.994	-5.0	101	0.00
81	T	n-Butylbenzene	20.000	21.663	-8.3	103	0.00
82	T	1,2-Dichlorobenzene	20.000	21.300	-6.5	104	0.00
83	T	1,2-Dibromo-3-Chloropropane	20.000	19.786	1.1	112	0.00
84	T	1,2,4-Trichlorobenzene	20.000	22.059	-10.3	106	0.00
85	T	Hexachlorobutadiene	20.000	21.309	-6.5	106	0.00
86	T	Naphthalene	20.000	21.052	-5.3	106	0.00
87	T	1,2,3-Trichlorobenzene	20.000	21.549	-7.7	107	0.00

Data File : C:\MSDchem\1\DATA\042103\11M14410.D Vial: 5
Acq On : 21 Apr 2003 8:40 Operator: CMS
Sample : WG138555-12 20PPB ALT SOURCE STD 8260 Inst : HPMS11
Misc : 1,1 SV10847 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 21 9:02 2003 Quant Results File: 8260WT.RES

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration



Data File : C:\MSDchem\1\DATA\042103\11M14410.D Vial: 5
Acq On : 21 Apr 2003 8:40 Operator: CMS
Sample : WG138555-12 20PPB ALT SOURCE STD 8260 Inst : HPMS11
Misc : 1,1 SV10847 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 21 09:02:44 2003 Quant Results File: 8260WT.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.33	96	953160	25.00 ug/L	0.00
44) Chlorobenzene-d5	14.98	117	710331	25.00 ug/L	0.00
64) 1,4-Dichlorobenzene-d4	17.79	152	360594	25.00 ug/L	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.34	111	191755	24.3776 ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 97.52%		
33) 1,2-Dichloroethane-d4	10.94	65	201837	24.3408 ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 97.36%		
45) Toluene-d8	13.19	98	813058	25.1485 ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 100.60%		
66) p-Bromofluorobenzene	16.36	95	329796	24.7264 ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 98.92%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.69	85	185824	18.0705 ug/L	91
3) Chloromethane	4.23	50	116021	16.9870 ug/L	91
4) Vinyl Chloride	4.50	62	92007	21.2237 ug/L #	55
5) Bromomethane	5.49	94	115752	19.8499 ug/L	91
6) Chloroethane	5.66	64	139614	19.5210 ug/L	95
7) Trichlorofluoromethane	6.18	101	244328	18.1143 ug/L	86
11) Acetone	7.02	43	23932	16.8581 ug/L #	34
12) 1,1-Dichloroethene	7.28	96	158778	21.9516 ug/L	65
14) Iodomethane	7.79	142	180380	20.9730 ug/L	92
15) Methylene Chloride	8.02	84	164177	21.4129 ug/L	98
16) Carbon Disulfide	8.11	76	411833	15.7846 ug/L #	88
17) Acrylonitrile	8.25	53	3289	1.5662 ug/L #	64
18) Methyl Tert Butyl Ether	8.25	73	342971	20.8118 ug/L #	67
19) trans-1,2-Dichloroethene	8.49	96	184440	23.0550 ug/L	86
20) n-Hexane	8.57	57	324338	21.5729 ug/L #	91
21) Vinyl Acetate	9.02	43	237327	18.8756 ug/L	93
22) 1,1-Dichloroethane	9.07	63	365331	21.6574 ug/L #	77
23) 2-Butanone	9.57	43	39123	18.8217 ug/L #	100
24) 2,2-Dichloropropane	9.82	77	282667	22.4304 ug/L #	59
25) cis-1,2-Dichloroethene	9.87	96	189563	21.9886 ug/L	78
26) Chloroform	10.07	83	304749	21.9377 ug/L	91
27) Bromochloromethane	10.29	128	74834	22.1245 ug/L	63
29) 1,1,1-Trichloroethane	10.59	97	273697	23.4983 ug/L #	88
31) 1,1-Dichloropropene	10.77	75	252327	22.4671 ug/L #	18
32) Carbon Tetrachloride	10.93	117	222657	22.1515 ug/L #	92
34) 1,2-Dichloroethane	11.05	62	224885	20.9829 ug/L #	71
35) Benzene	11.11	78	734778	21.7953 ug/L	90
36) Trichloroethene	11.82	130	190694	24.3177 ug/L	87
37) 1,2-Dichloropropane	12.01	63	195320	20.9310 ug/L	84
38) Bromodichloromethane	12.29	83	211770	21.7953 ug/L #	86
39) Dibromomethane	12.37	93	79009	22.0451 ug/L	86
40) 2-Chloroethyl Vinyl Ether	12.54	63	81015	21.8308 ug/L #	100
41) 4-Methyl-2-Pentanone	12.57	58	40457	21.1605 ug/L #	100
42) cis-1,3-Dichloropropene	12.88	75	275701	22.8862 ug/L	87
46) Toluene	13.29	91	792222	21.9232 ug/L	94
48) trans-1,3-Dichloropropene	13.43	75	227446	22.5297 ug/L #	51
49) 1,1,2-Trichloroethane	13.64	97	113937	21.1892 ug/L	85
50) 2-Hexanone	13.56	43	66927	19.5648 ug/L #	1
51) 1,3-Dichloropropane	13.92	76	213750	20.7705 ug/L	93

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDchem\1\DATA\042103\11M14410.D Vial: 5
Acq On : 21 Apr 2003 8:40 Operator: CMS
Sample : WG138555-12 20PPB ALT SOURCE STD 8260 Inst : HPMS11
sc : 1,1 SV10847 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Apr 21 09:02:44 2003 Quant Results File: 8260WT.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
52)	Tetrachloroethene	14.07	164	141823	22.8729 ug/L		90
53)	Dibromochloromethane	14.31	129	126293	21.9402 ug/L		84
54)	1,2-Dibromoethane	14.54	107	109780	21.3530 ug/L		93
55)	1-Chlorohexane	14.60	91	276490	22.0942 ug/L		87
56)	Chlorobenzene	15.02	112	519655	22.3002 ug/L		98
57)	1,1,1,2-Tetrachloroethane	15.04	131	159404	24.1136 ug/L		92
58)	Ethylbenzene	15.03	106	298623	23.6097 ug/L		76
59)	m-,p-Xylene	15.12	106	735322	46.2728 ug/L		83
60)	o-Xylene	15.65	106	365560	22.8826 ug/L		79
61)	Styrene	15.68	104	605434	23.5440 ug/L		85
62)	Bromoform	16.15	173	58524	19.9298 ug/L		79
63)	Isopropylbenzene	16.04	105	889698	21.8485 ug/L		95
65)	1,1,2,2-Tetrachloroethane	16.22	83	122435	20.6310 ug/L		83
67)	1,2,3-Trichloropropane	16.41	110	37187	21.6004 ug/L		83
68)	trans-1,4-Dichloro-2-Buten	16.51	53	6076	2.7714 ug/L	#	1
69)	n-Propylbenzene	16.50	91	1121344	22.4955 ug/L		90
70)	Bromobenzene	16.65	156	195221	22.1715 ug/L		76
71)	1,3,5-Trimethylbenzene	16.68	105	775896	22.5457 ug/L		92
72)	2-Chlorotoluene	16.78	91	673494	21.1669 ug/L		94
73)	4-Chlorotoluene	16.82	91	697053	23.0820 ug/L		88
75)	tert-Butylbenzene	17.11	119	685620	21.2819 ug/L	#	93
76)	1,2,4-Trimethylbenzene	17.17	105	799980	21.9325 ug/L		91
77)	sec-Butylbenzene	17.37	105	991648	21.6771 ug/L		92
78)	p-Isopropyltoluene	17.51	119	813777	21.2731 ug/L		99
79)	1,3-Dichlorobenzene	17.71	146	416443	21.2246 ug/L		90
80)	1,4-Dichlorobenzene	17.83	146	414251	20.9941 ug/L		80
81)	n-Butylbenzene	17.99	91	770802	21.6629 ug/L	#	98
82)	1,2-Dichlorobenzene	18.30	146	370366	21.3002 ug/L		90
83)	1,2-Dibromo-3-Chloropropan	19.22	157	19481	19.7855 ug/L		91
84)	1,2,4-Trichlorobenzene	20.28	180	245739	22.0588 ug/L		91
85)	Hexachlorobutadiene	20.42	225	88639	21.3092 ug/L	#	74
86)	Naphthalene	20.64	128	450490	21.0518 ug/L	#	83
87)	1,2,3-Trichlorobenzene	20.93	180	196699	21.5490 ug/L	#	62

(#) = qualifier out of range (m) = manual integration

Ical Date: 17-Apr-03 Ical Filename: 11M14397.D Instrument: HPMS 11
CCV Date: 4/30/2003 CCV Filename: 11M14654.D

	Fluorbenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
	Ret. Time	Response	Ret. Time	Response	Ret. Time	Response
Ical	11.33	949383	14.97	699057	17.79	351588
CCV	11.33	933013	14.97	696661	17.79	349058
	Pass	Pass	Pass	Pass	Pass	Pass

Data File : C:\MSDCHEM\1\DATA\043003\11M14654.D Vial: 3
Acq On : 30 Apr 2003 18:01 Operator: CMS
Sample : WG139441-02 50 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10906 Multiplr: 1.00
IS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	98	0.00
2	T	Dichlorodifluoromethane	0.270	0.306	-13.3	106	0.01
3	P	Chloromethane	0.179	0.212✓	-18.4	116	0.00
4	C	Vinyl Chloride	0.114	0.126	-10.5✓	103	0.00
5	T	Bromomethane	0.153	0.150	2.0	89	0.00
6	T	Chloroethane	0.188	0.194	-3.2	99	0.00
7	T	Trichlorofluoromethane	0.354	0.408	-15.3	107	0.00
8	T	Isoprene	0.383	0.396	-3.4	97	0.00
9	T	Acrolein	0.016	0.017	-6.3	100	0.00
10	T	1,1,2-Trichloro-1,2,2-Trif1	0.208	0.213	-2.4	99	0.01
11	T	Acetone	0.037	0.039	-5.4	97	0.00
12	C	1,1-Dichloroethene	0.190	0.207	-8.9✓	100	0.00
13	T	Dimethyl Sulfide	0.279	0.278	0.4	95	0.00
14	T	Iodomethane	0.226	0.246	-8.8	99	0.00
15	T	Methylene Chloride	0.201	0.210	-4.5	98	0.00
16	T	Carbon Disulfide	0.684	0.728	-6.4	98	0.00
17	T	Acrylonitrile	0.055	0.057	-3.6	97	0.00
18	T	Methyl Tert Butyl Ether	0.432	0.423	2.1	92	0.00
19	T	trans-1,2-Dichloroethene	0.210	0.234	-11.4	99	0.00
20		n-Hexane	0.394	0.392	0.5	93	0.00
21	T	Vinyl Acetate	0.330	0.346	-4.8	100	0.00
22	P	1,1-Dichloroethane	0.442	0.491✓	-11.1	101	0.00
23	T	2-Butanone	0.055	0.054	1.8	94	0.00
24	T	2,2-Dichloropropane	0.331	0.372	-12.4	106	0.00
25	T	cis-1,2-Dichloroethene	0.226	0.244	-8.0	98	0.00
26	C	Chloroform	0.364	0.410	-12.6✓	103	0.00
27	T	Bromochloromethane	0.089	0.095	-6.7	97	0.00
28	S	Dibromofluoromethane	0.206	0.209	-1.5	96	0.00
29	T	1,1,1-Trichloroethane	0.305	0.371	-21.6	105	0.00
30	T	Cyclohexane	0.525	0.535	-1.9	97	0.00
31	T	1,1-Dichloropropene	0.295	0.328	-11.2	101	0.00
32	T	Carbon Tetrachloride	0.264	0.314	-18.9	106	0.00
33	S	1,2-Dichloroethane-d4	0.217	0.224	-3.2	95	0.00
34	T	1,2-Dichloroethane	0.281	0.315	-12.1	104	0.00
35	T	Benzene	0.884	0.942	-6.6	98	0.00
36	T	Trichloroethene	0.206	0.224	-8.7	98	0.00
37	C	1,2-Dichloropropane	0.245	0.256	-4.5✓	97	0.00
38	T	Bromodichloromethane	0.255	0.286	-12.2	100	0.00
39	T	Dibromomethane	0.094	0.102	-8.5	98	0.00
40	T	2-Chloroethyl Vinyl Ether	0.097	0.100	-3.1	93	0.00
41	T	4-Methyl-2-Pentanone	0.050	0.048	4.0	90	0.00
42	T	cis-1,3-Dichloropropene	0.316	0.343	-8.5	97	0.00
43	T	Dimethyl Disulfide	0.181	0.183	-1.1	93	0.00
44	I	Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
45	S	Toluene-d8	1.138	1.145	-0.6	96	0.00
46	C	Toluene	1.272	1.350	-6.1✓	98	0.00
47	T	Ethyl Methacrylate	0.248	0.244	1.6	92	0.00
48	T	trans-1,3-Dichloropropene	0.355	0.390	-9.9	99	0.00
49		1,1,2-Trichloroethene	0.189	0.194	-2.6	95	0.00
50		2-Hexanone	0.120	0.120	0.0	94	0.00
51	T	1,3-Dichloropropane	0.362	0.367	-1.4	96	0.00
52	T	Tetrachloroethene	0.218	0.242	-11.0	98	0.00

(#) = Out of Range

Data File : C:\MSDCHEM\1\DATA\043003\11M14654.D Vial: 3
Acq On : 30 Apr 2003 18:01 Operator: CMS
Sample : WG139441-02 50 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10906 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
53	T	Dibromochloromethane	0.203	0.230	-13.3	98	0.00
54	T	1,2-Dibromoethane	0.181	0.189	-4.4	96	0.00
55	T	1-Chlorohexane	0.440	0.453	-3.0	95	0.00
56	P	Chlorobenzene	0.820	0.851✓	-3.8	98	0.00
57	T	1,1,1,2-Tetrachloroethane	0.233	0.265	-13.7	101	0.00
58	C	Ethylbenzene	0.445	0.480	-7.9✓	98	0.00
59	T	m-,p-Xylene	0.559	0.606	-8.4	98	0.00
60	T	o-Xylene	0.562	0.604	-7.5	97	0.00
61	T	Styrene	0.905	0.974	-7.6	95	0.00
62	P	Bromoform	0.103	0.110✓	-6.8	94	0.00
63	T	Isopropylbenzene	1.433	1.557	-8.7	98	0.00
64	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	99	0.00
65	P	1,1,2,2-Tetrachloroethane	0.411	0.418✓	-1.7	95	0.00
66	S	p-Bromofluorobenzene	0.925	0.914	1.2	95	0.00
67	T	1,2,3-Trichloropropane	0.119	0.126	-5.9	97	0.00
68	T	trans-1,4-Dichloro-2-Butene	0.152	0.160	-5.3	100	0.00
69	T	n-Propylbenzene	3.456	3.735	-8.1	96	0.00
70	T	Bromobenzene	0.610	0.646	-5.9	97	0.00
71	T	1,3,5-Trimethylbenzene	2.386	2.582	-8.2	96	0.00
72	T	2-Chlorotoluene	2.206	2.367	-7.3	97	0.00
73	T	4-Chlorotoluene	2.094	2.315	-10.6	99	0.00
74	T	a-Methylstyrene	1.455	1.482	-1.9	95	0.00
75	T	tert-Butylbenzene	2.234	2.484	-11.2	95	0.00
76	T	1,2,4-Trimethylbenzene	2.529	2.723	-7.7	97	0.00
77	T	sec-Butylbenzene	3.172	3.172	0.0	93	0.00
78	T	p-Isopropyltoluene	2.652	2.691	-1.5	93	0.00
79	T	1,3-Dichlorobenzene	1.360	1.397	-2.7	96	0.00
80	T	1,4-Dichlorobenzene	1.368	1.401	-2.4	96	0.00
81	T	n-Butylbenzene	2.467	2.424	1.7	91	0.00
82	T	1,2-Dichlorobenzene	1.206	1.217	-0.9	95	0.00
83	T	1,2-Dibromo-3-Chloropropane	0.068	0.065	4.4	89	0.00
84	T	1,2,4-Trichlorobenzene	0.772	0.753	2.5	91	0.00
85	T	Hexachlorobutadiene	0.288	0.255	11.5	84	0.00
86	T	Naphthalene	1.484	1.474	0.7	93	0.00
87	T	1,2,3-Trichlorobenzene	0.633	0.620	2.1	92	0.00

Data File : C:\MSDCHEM\1\DATA\043003\11M14654.D Vial: 3
Acq On : 30 Apr 2003 18:01 Operator: CMS
Sample : WG139441-02 50 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10906 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	25.000	25.000	0.0	98	0.00
2	T	Dichlorodifluoromethane	50.000	56.806	-13.6	106	0.01
3	P	Chloromethane	50.000	59.218	-18.4	116	0.00
4	C	Vinyl Chloride	50.000	55.414	-10.8	103	0.00
5	T	Bromomethane	50.000	49.103	1.8	89	0.00
6	T	Chloroethane	50.000	51.798	-3.6	99	0.00
7	T	Trichlorofluoromethane	50.000	57.695	-15.4	107	0.00
8	T	Isoprene	50.000	51.696	-3.4	97	0.00
9	T	Acrolein	100.000	107.330	-7.3	100	0.00
10	T	1,1,2-Trichloro-1,2,2-Trifl	50.000	51.021	-2.0	99	0.01
11	T	Acetone	50.000	52.531	-5.1	97	0.00
12	C	1,1-Dichloroethene	50.000	54.483	-9.0	100	0.00
13	T	Dimethyl Sulfide	50.000	49.815	0.4	95	0.00
14	T	Iodomethane	50.000	54.430	-8.9	99	0.00
15	T	Methylene Chloride	50.000	52.174	-4.3	98	0.00
16	T	Carbon Disulfide	50.000	53.184	-6.4	98	0.00
17	T	Acrylonitrile	50.000	52.153	-4.3	97	0.00
18	T	Methyl Tert Butyl Ether	50.000	48.951	2.1	92	0.00
19	T	trans-1,2-Dichloroethene	50.000	55.729	-11.5	99	0.00
20	T	n-Hexane	50.000	49.717	0.6	93	0.00
21	T	Vinyl Acetate	50.000	52.428	-4.9	100	0.00
22	P	1,1-Dichloroethane	50.000	55.496	-11.0	101	0.00
23	T	2-Butanone	50.000	49.476	1.0	94	0.00
24	T	2,2-Dichloropropane	50.000	56.239	-12.5	106	0.00
25	T	cis-1,2-Dichloroethene	50.000	54.048	-8.1	98	0.00
26	C	Chloroform	50.000	56.203	-12.4	103	0.00
27	T	Bromochloromethane	50.000	53.458	-6.9	97	0.00
28	S	Dibromofluoromethane	25.000	25.308	-1.2	96	0.00
29	T	1,1,1-Trichloroethane	50.000	60.757	-21.5	105	0.00
30	T	Cyclohexane	50.000	51.006	-2.0	97	0.00
31	T	1,1-Dichloropropene	50.000	55.757	-11.5	101	0.00
32	T	Carbon Tetrachloride	50.000	59.582	-19.2	106	0.00
33	S	1,2-Dichloroethane-d4	25.000	25.737	-2.9	95	0.00
34	T	1,2-Dichloroethane	50.000	56.105	-12.2	104	0.00
35	T	Benzene	50.000	53.275	-6.5	98	0.00
36	T	Trichloroethene	50.000	54.459	-8.9	98	0.00
37	C	1,2-Dichloropropane	50.000	52.315	-4.6	97	0.00
38	T	Bromodichloromethane	50.000	56.018	-12.0	100	0.00
39	T	Dibromomethane	50.000	54.159	-8.3	98	0.00
40	T	2-Chloroethyl Vinyl Ether	50.000	51.118	-2.2	93	0.00
41	T	4-Methyl-2-Pentanone	50.000	48.025	4.0	90	0.00
42	T	cis-1,3-Dichloropropene	50.000	54.235	-8.5	97	0.00
43	T	Dimethyl Disulfide	50.000	50.500	-1.0	93	0.00
44	I	Chlorobenzene-d5	25.000	25.000	0.0	100	0.00
45	S	Toluene-d8	25.000	25.157	-0.6	96	0.00
46	C	Toluene	50.000	53.054	-6.1	98	0.00
47	T	Ethyl Methacrylate	50.000	49.225	1.5	92	0.00
48	T	trans-1,3-Dichloropropene	50.000	54.826	-9.7	99	0.00
49	T	1,1,2-Trichloroethane	50.000	51.302	-2.6	95	0.00
50	T	2-Hexanone	50.000	49.714	0.6	94	0.00
51	T	1,3-Dichloropropane	50.000	50.721	-1.4	96	0.00
52	T	Tetrachloroethene	50.000	55.343	-10.7	98	0.00

(#) = Out of Range

Data File : C:\MSDCHEM\1\DATA\043003\11M14654.D Vial: 3
Acq On : 30 Apr 2003 18:01 Operator: CMS
Sample : WG139441-02 50 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10906 Multiplr: 1.00
MS Integration Params: rteint.p

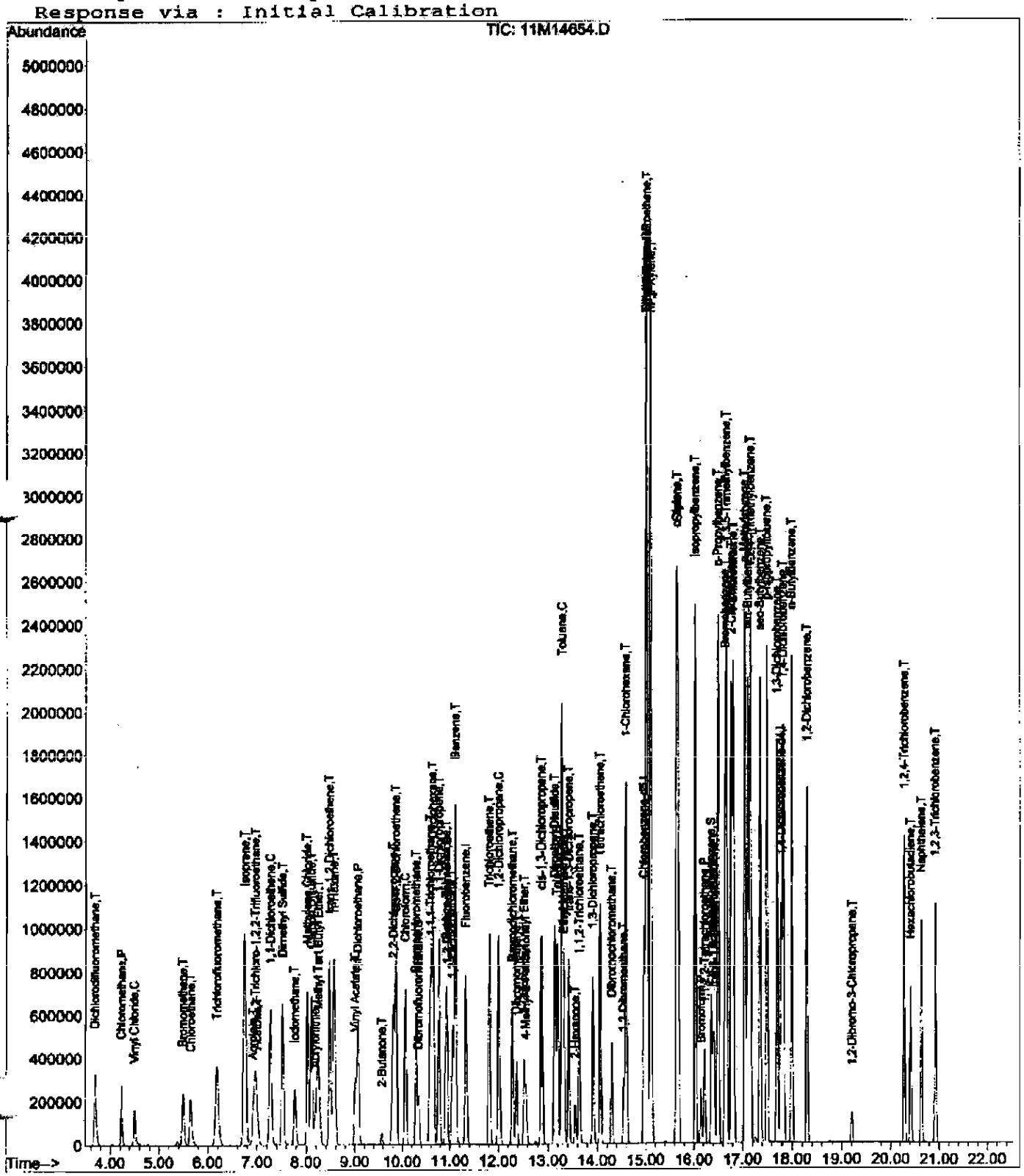
Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
53	T	Dibromochloromethane	50.000	56.702	-13.4	98	0.00
54	T	1,2-Dibromoethane	50.000	52.298	-4.6	96	0.00
55	T	1-Chlorohexane	50.000	51.414	-2.8	95	0.00
56	P	Chlorobenzene	50.000	51.855	-3.7	98	0.00
57	T	1,1,1,2-Tetrachloroethane	50.000	57.004	-14.0	101	0.00
58	C	Ethylbenzene	50.000	53.907	-7.8	98	0.00
59	T	m-,p-Xylene	100.000	108.314	-8.3	98	0.00
60	T	o-Xylene	50.000	53.674	-7.3	97	0.00
61	T	Styrene	50.000	53.793	-7.6	95	0.00
62	P	Bromoform	50.000	53.006	-6.0	94	0.00
63	T	Isopropylbenzene	50.000	54.311	-8.6	98	0.00
64	I	1,4-Dichlorobenzene-d4	25.000	25.000	0.0	99	0.00
65	P	1,1,2,2-Tetrachloroethane	50.000	50.778	-1.6	95	0.00
66	S	p-Bromofluorobenzene	25.000	24.712	1.2	95	0.00
67	T	1,2,3-Trichloropropane	50.000	52.604	-5.2	97	0.00
68	T	trans-1,4-Dichloro-2-Butene	50.000	52.643	-5.3	100	0.00
69	T	n-Propylbenzene	50.000	54.034	-8.1	96	0.00
70	T	Bromobenzene	50.000	52.934	-5.9	97	0.00
71	T	1,3,5-Trimethylbenzene	50.000	54.108	-8.2	96	0.00
72	T	2-Chlorotoluene	50.000	53.660	-7.3	97	0.00
73	T	4-Chlorotoluene	50.000	55.296	-10.6	99	0.00
74	T	a-Methylstyrene	50.000	50.920	-1.8	95	0.00
75	T	tert-Butylbenzene	50.000	55.598	-11.2	95	0.00
76	T	1,2,4-Trimethylbenzene	50.000	53.849	-7.7	97	0.00
77	T	sec-Butylbenzene	50.000	50.014	-0.0	93	0.00
78	T	p-Isopropyltoluene	50.000	50.729	-1.5	93	0.00
79	T	1,3-Dichlorobenzene	50.000	51.346	-2.7	96	0.00
80	T	1,4-Dichlorobenzene	50.000	51.222	-2.4	96	0.00
81	T	n-Butylbenzene	50.000	49.128	1.7	91	0.00
82	T	1,2-Dichlorobenzene	50.000	50.477	-1.0	95	0.00
83	T	1,2-Dibromo-3-Chloropropane	50.000	47.458	5.1	89	0.00
84	T	1,2,4-Trichlorobenzene	50.000	48.759	2.5	91	0.00
85	T	Hexachlorobutadiene	50.000	44.214	11.6	84	0.00
86	T	Naphthalene	50.000	49.670	0.7	93	0.00
87	T	1,2,3-Trichlorobenzene	50.000	49.013	2.0	92	0.00

Data File : C:\MSDchem\1\DATA\043003\11M14654.D Vial: 3
Acq On : 30 Apr 2003 18:01 Operator: CMS
Sample : WG139441-02 50 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10906 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 30 18:24 2003 Quant Results File: 8260WT.RES

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration



Data File : C:\MSDchem\1\DATA\043003\11M14654.D Vial: 3
Acq On : 30 Apr 2003 18:01 Operator: CMS
Sample : WG139441-02 50 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10906 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 30 18:24:22 2003 Quant Results File: 8260WT.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.33	96	933013	25.00 ug/L	0.00
44) Chlorobenzene-d5	14.97	117	696661	25.00 ug/L	0.00
64) 1,4-Dichlorobenzene-d4	17.79	152	349058	25.00 ug/L	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.34	111	194868	25.3083 ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 101.24%		
33) 1,2-Dichloroethane-d4	10.94	65	208902	25.7368 ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 102.96%		
45) Toluene-d8	13.19	98	797670	25.1567 ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 100.64%		
66) p-Bromofluorobenzene	16.36	95	319057	24.7118 ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 98.84%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.69	85	571808	56.8063 ug/L	90
3) Chloromethane	4.23	50	395910	59.2180 ug/L	90
4) Vinyl Chloride	4.50	62	235148	55.4140 ug/L #	55
5) Bromomethane	5.49	94	280286	49.1032 ug/L	91
6) Chloroethane	5.65	64	362627	51.7977 ug/L	95
7) Trichlorofluoromethane	6.18	101	761745	57.6948 ug/L	96
8) Isoprene	6.75	67	738318	51.6956 ug/L	96
9) Acrolein	6.92	56	64382	107.3301 ug/L	87
10) 1,1,2-Trichloro-1,2,2-Trif	6.98	101	396759	51.0214 ug/L	86
11) Acetone	7.01	43	72997	52.5305 ug/L #	41
12) 1,1-Dichloroethene	7.27	96	385747	54.4825 ug/L	67
13) Dimethyl Sulfide	7.52	62	519008	49.8149 ug/L	77
14) Iodomethane	7.78	142	458232	54.4296 ug/L	86
15) Methylene Chloride	8.02	84	391576	52.1745 ug/L	93
16) Carbon Disulfide	8.11	76	1358280	53.1839 ug/L #	88
17) Acrylonitrile	8.18	53	107204	52.1525 ug/L #	1
18) Methyl Tert Butyl Ether	8.24	73	789640	48.9507 ug/L #	67
19) trans-1,2-Dichloroethene	8.48	96	436412	55.7295 ug/L	89
20) n-Hexane	8.56	57	731664	49.7165 ug/L #	92
21) Vinyl Acetate	9.01	43	645260	52.4284 ug/L	95
22) 1,1-Dichloroethane	9.06	63	916355	55.4960 ug/L #	76
23) 2-Butanone	9.57	43	100667	49.4756 ug/L #	100
24) 2,2-Dichloropropane	9.81	77	693741	56.2390 ug/L #	61
25) cis-1,2-Dichloroethene	9.87	96	456100	54.0483 ug/L	75
26) Chloroform	10.07	83	764250	56.2032 ug/L	91
27) Bromochloromethane	10.29	128	176996	53.4584 ug/L	67
29) 1,1,1-Trichloroethane	10.58	97	692709	60.7570 ug/L #	85
30) Cyclohexane	10.64	56	998606	51.0059 ug/L #	96
31) 1,1-Dichloropropene	10.77	75	612967	55.7568 ug/L #	22
32) Carbon Tetrachloride	10.92	117	586231	59.5819 ug/L #	92
34) 1,2-Dichloroethane	11.05	62	588599	56.1052 ug/L #	73
35) Benzene	11.11	78	1758077	53.2749 ug/L	90
36) Trichloroethene	11.82	130	418026	54.4587 ug/L	88
37) 1,2-Dichloropropane	12.01	63	477866	52.3151 ug/L	87
38) Bromodichloromethane	12.29	83	532784	56.0181 ug/L #	87
39) Dibromomethane	12.37	93	190002	54.1591 ug/L	85
40) 2-Chloroethyl Vinyl Ether	12.53	63	185691	51.1178 ug/L #	100
41) 4-Methyl-2-Pentanone	12.57	58	89878	48.0246 ug/L #	100
42) cis-1,3-Dichloropropene	12.87	75	639536	54.2349 ug/L #	87

(#) = qualifier out of range (m) = manual integration
11M14654.D 8260WT.M Wed Apr 30 18:24:23 2003 Page 1

Data File : C:\MSDchem\1\DATA\043003\11M14654.D Vial: 3
Acq On : 30 Apr 2003 18:01 Operator: CMS
Sample : WG139441-02 50 PPB STD 8260 Inst : HPMS11
Misc : 1,1 SV10906 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Apr 30 18:24:22 2003 Quant Results File: 8260WT.RES

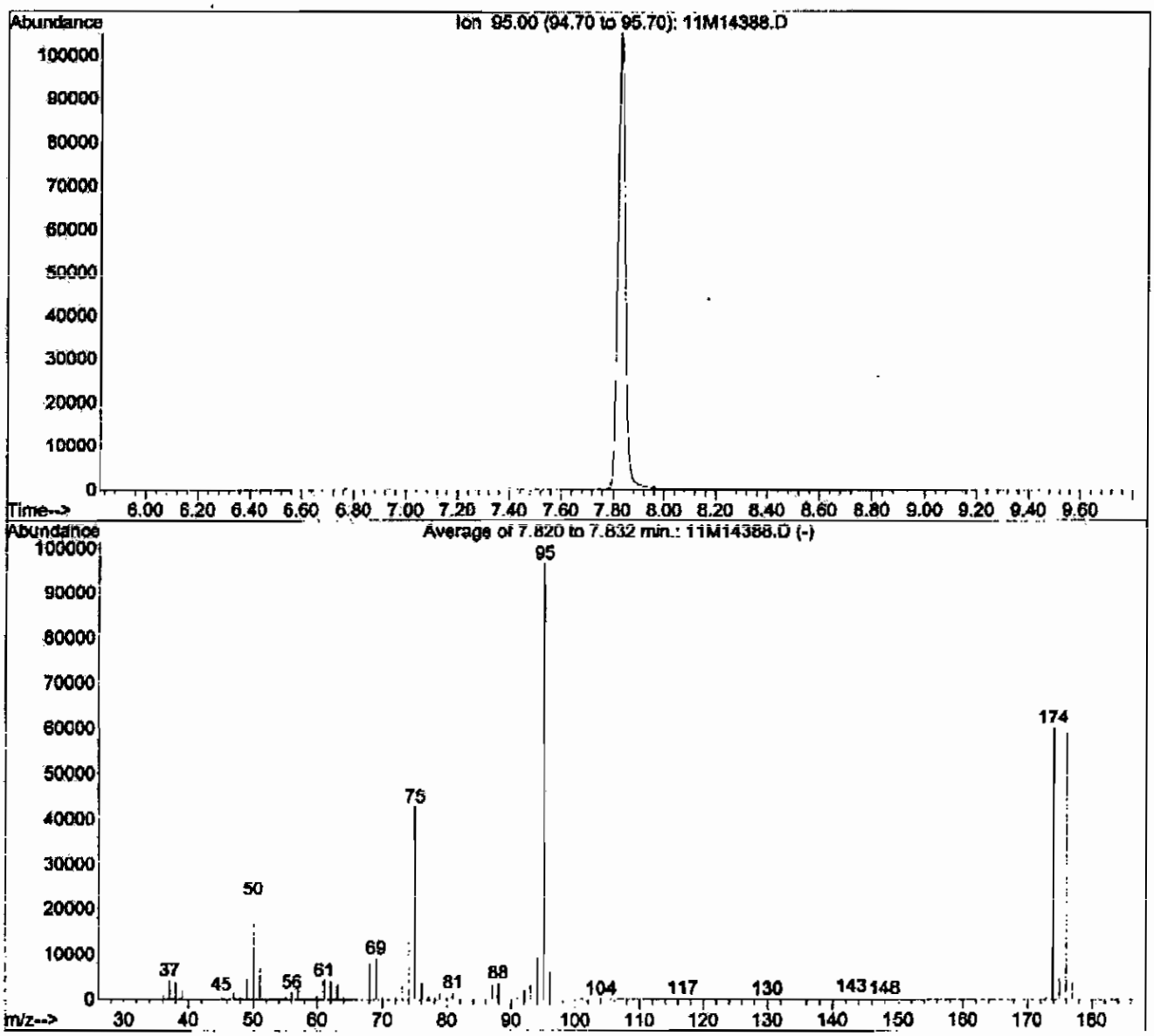
Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	Dimethyl Disulfide	13.14	79	341931	50.5005 ug/L		96
46)	Toluene	13.29	91	1880296	53.0545 ug/L		95
47)	Ethyl Methacrylate	13.33	69	339883	49.2251 ug/L	#	100
48)	trans-1,3-Dichloropropene	13.43	75	542842	54.8263 ug/L	#	52
49)	1,1,2-Trichloroethane	13.64	97	270547	51.3017 ug/L		85
50)	2-Hexanone	13.55	43	166788	49.7139 ug/L	#	1
51)	1,3-Dichloropropane	13.92	76	511929	50.7213 ug/L		99
52)	Tetrachloroethene	14.07	164	336551	55.3433 ug/L		89
53)	Dibromochloromethane	14.30	129	320109	56.7019 ug/L		84
54)	1,2-Dibromoethane	14.55	107	263700	52.2980 ug/L		92
55)	1-Chlorohexane	14.60	91	631022	51.4141 ug/L		92
56)	Chlorobenzene	15.02	112	1185112	51.8552 ug/L		98
57)	1,1,1,2-Tetrachloroethane	15.04	131	369575	57.0038 ug/L		93
58)	Ethylbenzene	15.03	106	668705	53.9066 ug/L		80
59)	m-,p-Xylene	15.12	106	1688095	108.3141 ug/L		86
60)	o-Xylene	15.65	106	840965	53.6739 ug/L		83
61)	Styrene	15.67	104	1356681	53.7935 ug/L		88
62)	Bromoform	16.15	173	152658	53.0064 ug/L		80
63)	Isopropylbenzene	16.03	105	2169037	54.3106 ug/L		96
65)	1,1,2,2-Tetrachloroethane	16.22	83	291701	50.7779 ug/L		85
67)	1,2,3-Trichloropropane	16.40	110	87665	52.6038 ug/L		80
68)	trans-1,4-Dichloro-2-Buten	16.42	53	111724	52.6432 ug/L	#	55
69)	n-Propylbenzene	16.50	91	2607310	54.0343 ug/L		91
70)	Bromobenzene	16.65	156	451172	52.9335 ug/L		72
71)	1,3,5-Trimethylbenzene	16.67	105	1802510	54.1076 ug/L		94
72)	2-Chlorotoluene	16.78	91	1652757	53.6604 ug/L		95
73)	4-Chlorotoluene	16.81	91	1616470	55.2963 ug/L		93
74)	a-Methylstyrene	17.05	118	1034667	50.9199 ug/L		79
75)	tert-Butylbenzene	17.11	119	1733844	55.5977 ug/L	#	75
76)	1,2,4-Trimethylbenzene	17.17	105	1901302	53.8494 ug/L		93
77)	sec-Butylbenzene	17.37	105	2214773	50.0142 ug/L		93
78)	p-Isopropyltoluene	17.50	119	1878475	50.7286 ug/L		99
79)	1,3-Dichlorobenzene	17.71	146	975229	51.3465 ug/L		89
80)	1,4-Dichlorobenzene	17.83	146	978367	51.2221 ug/L		79
81)	n-Butylbenzene	17.99	91	1692144	49.1284 ug/L	#	97
82)	1,2-Dichlorobenzene	18.30	146	849614	50.4772 ug/L		89
83)	1,2-Dibromo-3-Chloropropan	19.21	157	45233	47.4584 ug/L		83
84)	1,2,4-Trichlorobenzene	20.28	180	525808	48.7591 ug/L		90
85)	Hexachlorobutadiene	20.42	225	178031	44.2139 ug/L	#	70
86)	Naphthalene	20.64	128	1028883	49.6695 ug/L	#	82
87)	1,2,3-Trichlorobenzene	20.93	180	433077	49.0131 ug/L	#	60

(#) = qualifier out of range (m) = manual integration

2.1.1.4 Raw QC Data

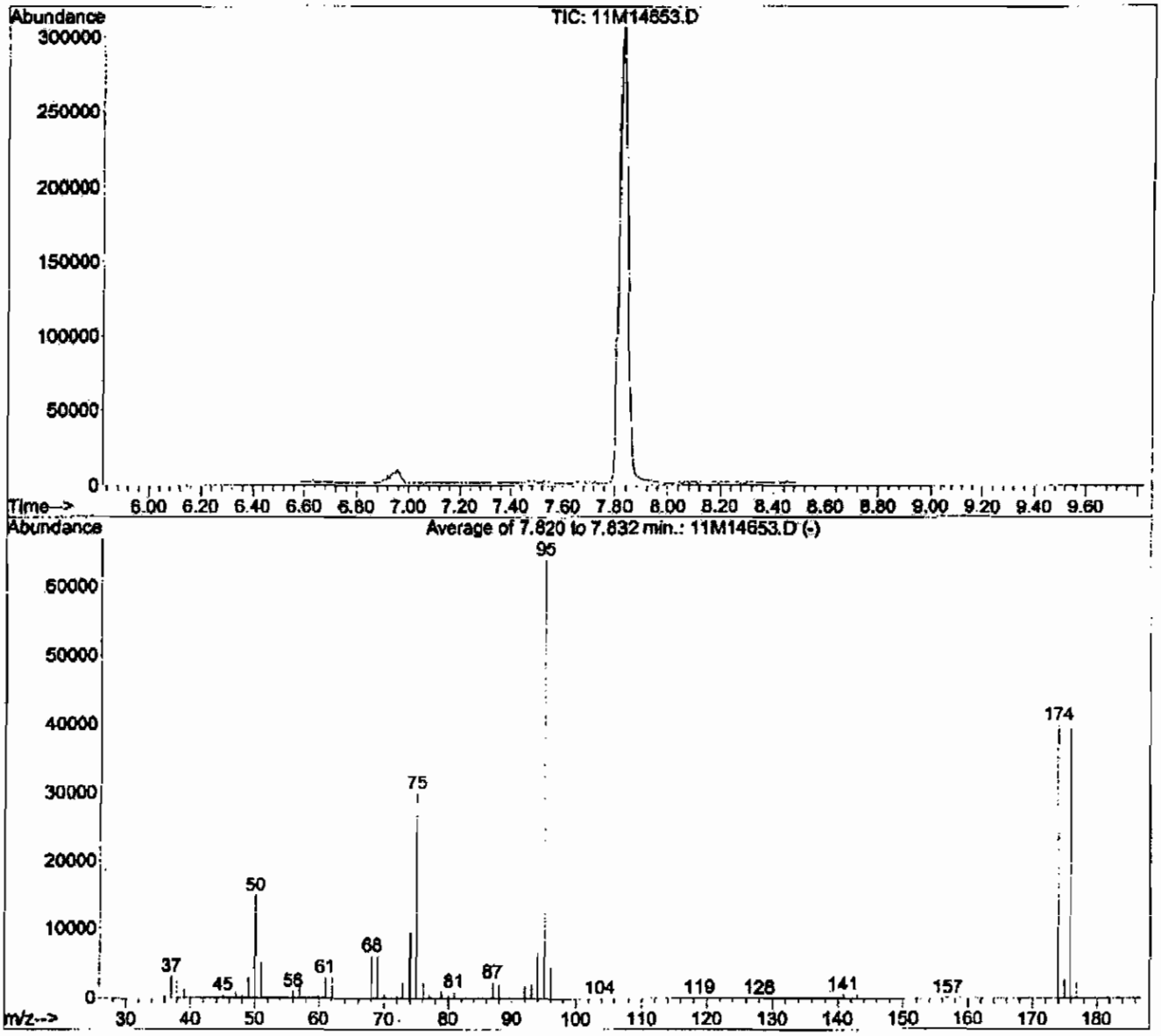
Data File : C:\MSDCHEM\1\DATA\041703\11M14388.D Vial: 1
Acq On : 17 Apr 2003 6:32 Operator: CMS
Sample : WG138555-01 BFB 50NG STD 8260 Inst : HPMS11
Misc : 1,1 SV10835 Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11



AutoFind: Scans 204, 205, 206; Background Corrected with Scan 196

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.0	22250	PASS
75	95	30	60	44.4	42925	PASS
95	95	100	100	100.0	96738	PASS
96	95	5	9	6.2	6007	PASS
173	174	0.00	2	0.8	484	PASS
174	95	50	100	62.3	60274	PASS
175	174	5	9	7.6	4582	PASS
176	174	95	101	97.9	59024	PASS
177	176	5	9	6.4	3764	PASS

Data File : C:\MSDCHEM\1\DATA\043003\11M14653.D Vial: 2
Acq On : 30 Apr 2003 17:32 Operator: CMS
Sample : WG139441-01 BFB 50NG STD 8260 Inst : HPMS11
Misc : 1,1 SV10835 Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11

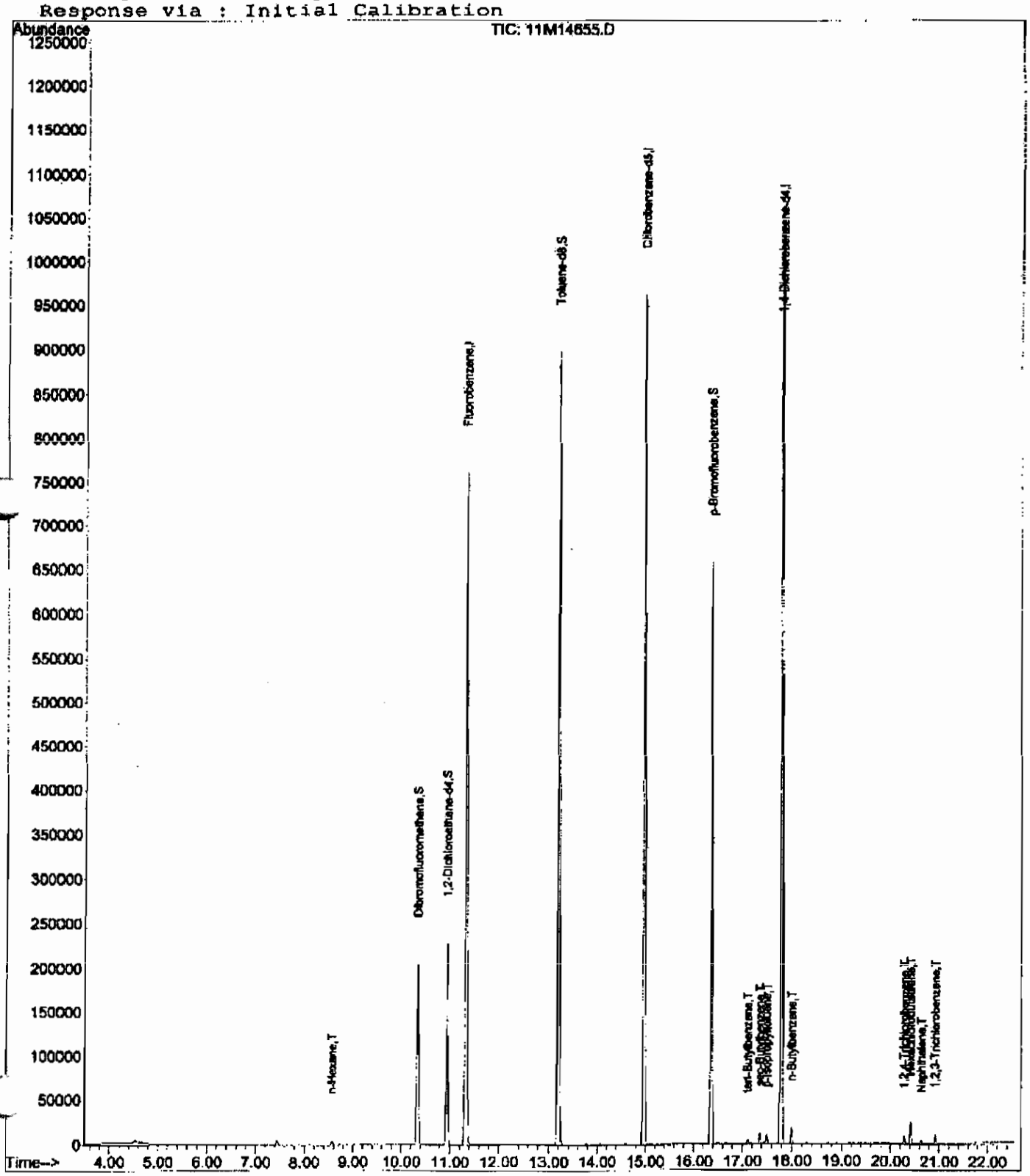


AutoFind: Scans 204, 205, 206; Background Corrected with Scan 196

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.5	15023	PASS
75	95	30	60	46.9	30010	PASS
95	95	100	100	100.0	63930	PASS
96	95	5	9	7.0	4496	PASS
173	174	0.00	2	0.6	254	PASS
174	95	50	100	62.6	40026	PASS
175	174	5	9	7.3	2922	PASS
176	174	95	101	98.6	39464	PASS
177	176	5	9	5.8	2286	PASS

Data File : C:\MSDchem\1\DATA\043003\11M14655.D Vial: 4
Acq On : 30 Apr 2003 18:36 Operator: CMS
Sample : WG139442-01 VBLK0430 BLANK 8260 Inst : HPMS11
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 30 18:59 2003 Quant Results File: 8260WT.RES

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration

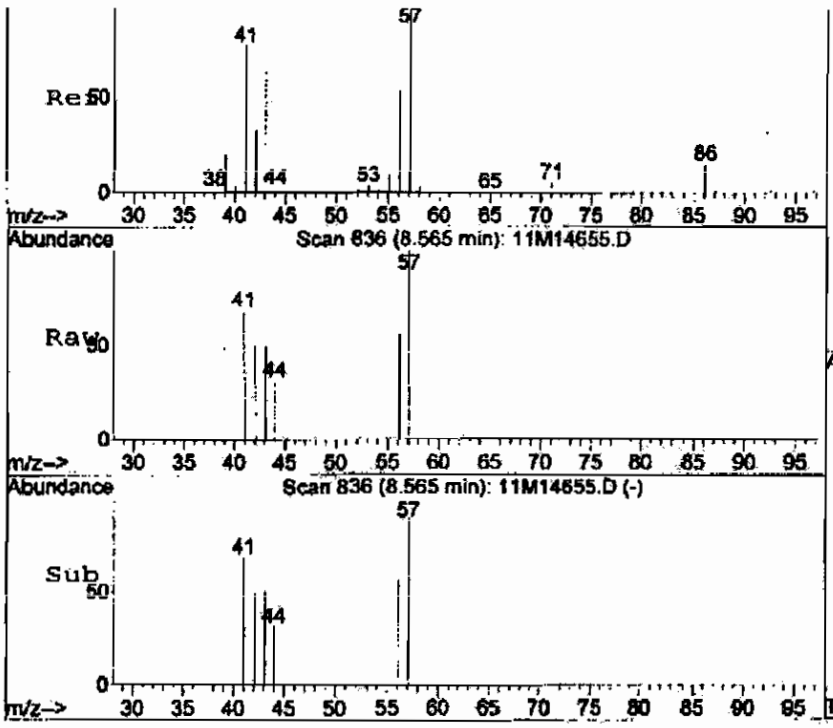


Data File : C:\MSDchem\1\DATA\043003\11M14655.D Vial: 4
Acq On : 30 Apr 2003 18:36 Operator: CMS
Sample : WG139442-01 VBLK0430 BLANK 8260 Inst : HPMS11
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 30 18:59:31 2003 Quant Results File: 8260WT.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

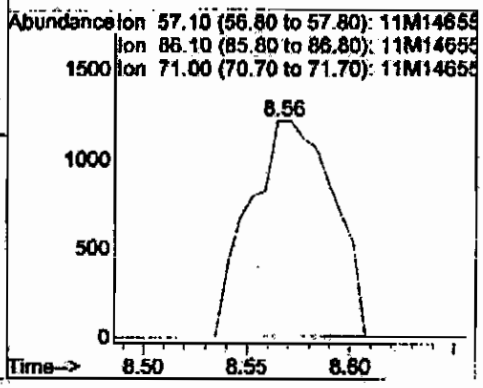
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.33	96	909632	25.00 ug/L	0.00
44) Chlorobenzene-d5	14.97	117	663104	25.00 ug/L	0.00
64) 1,4-Dichlorobenzene-d4	17.79	152	332688	25.00 ug/L	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.34	111	183921	24.5006 ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 98.00%		
33) 1,2-Dichloroethane-d4	10.94	65	205279	25.9405 ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 103.76%		
45) Toluene-d8	13.19	98	766896	25.4101 ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 101.64%		
66) p-Bromofluorobenzene	16.36	95	307429	24.9828 ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 99.92%		
Target Compounds					Qvalue
20) n-Hexane	8.56	57	3431	~~0.2391 ug/L~~ #	71
75) tert-Butylbenzene	17.11	119	5275	0.1775 ug/L #	91
77) sec-Butylbenzene	17.36	105	12999	0.3080 ug/L F	97
78) p-Isopropyltoluene	17.50	119	10012	0.2837 ug/L F	98
81) n-Butylbenzene	17.99	91	15923	0.4850 ug/L F#	96
84) 1,2,4-Trichlorobenzene	20.28	180	4483	0.4362 ug/L F	96
85) Hexachlorobutadiene	20.41	225	6611	1.7226 ug/L F#	73
86) Naphthalene	20.64	128	4695	0.2378 ug/L F#	96
87) 1,2,3-Trichlorobenzene	20.93	180	4250	0.5047 ug/L F	74

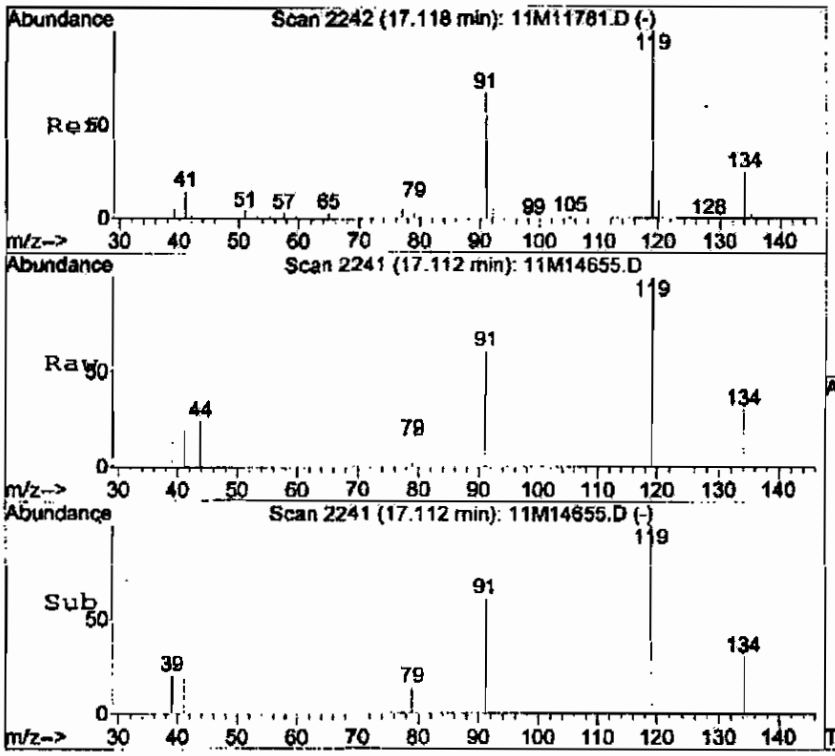
(#) = qualifier out of range (m) = manual integration
11M14655.D 8260WT.M Wed Apr 30 18:59:33 2003 Page 1



n-Hexane
Concen: 0.24 ug/L
RT: 8.56 min Scan# 836
Delta R.T. -0.01 min
Lab File: 11M14655.D
Acq: 30 Apr 2003 18:36

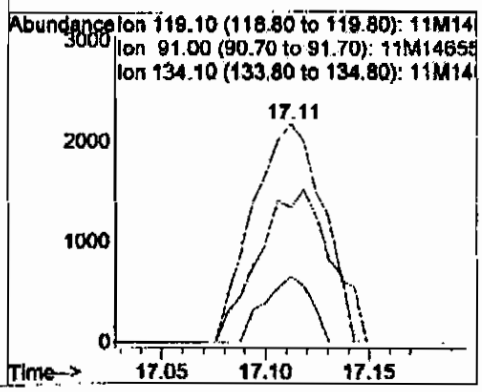
Tgt Ion: 57	Resp:	3431
Ion	Ratio	Lower	Upper
57	100		
86	0.0	6.7	15.5#
71	0.0	0.0	0.0

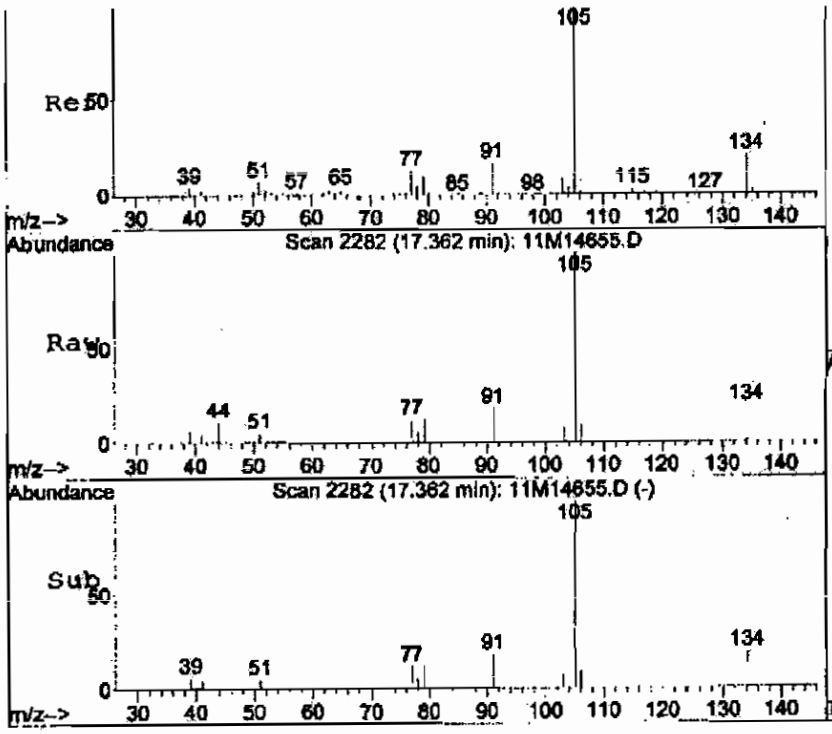




#75
tert-Butylbenzene
Concen: 0.18 ug/L
RT: 17.11 min Scan# 2241
Delta R.T. -0.01 min
Lab File: 11M14655.D
Acq: 30 Apr 2003 18:36

Tgt Ion:119	Resp:	5275
Ion	Ratio	Lower	Upper
119	100		
91	65.3	42.4	98.8
134	19.1	4.7	10.9#

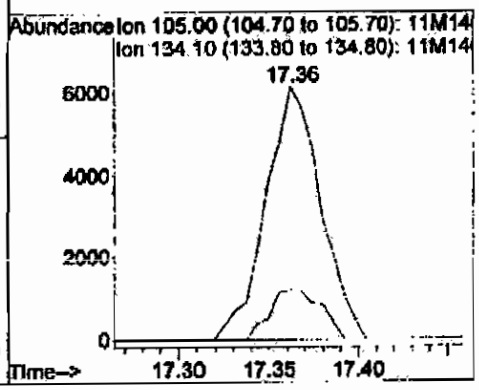


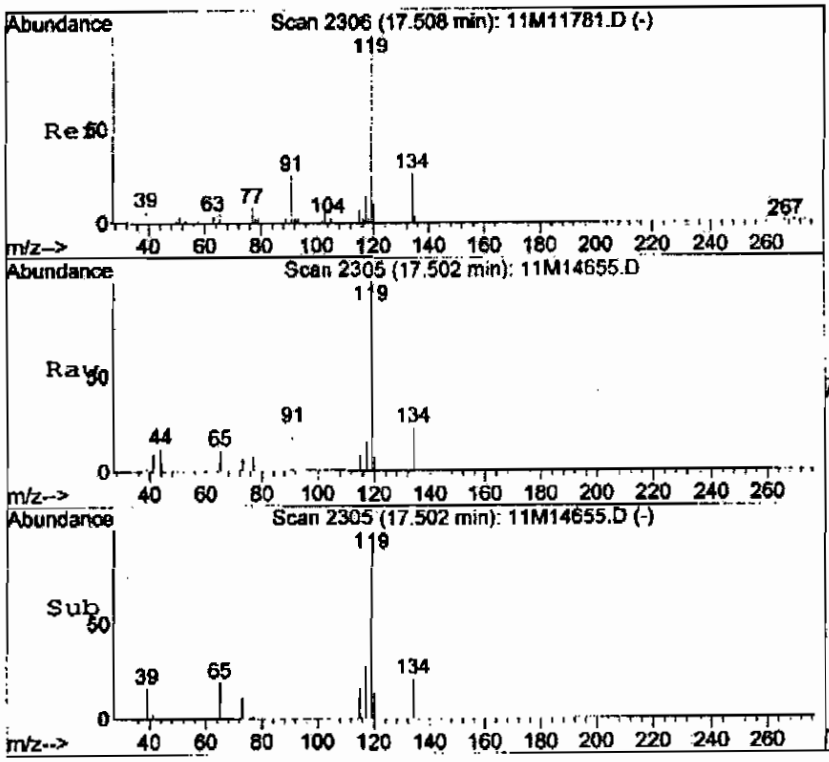


sec-Butylbenzene
Concen: 0.31 ug/L
RT: 17.36 min Scan# 2282
Delta R.T. -0.01 min
Lab File: 11M14655.D
Acq: 30 Apr 2003 18:36

Tgt Ion:105 Resp: 12999

Ion	Ratio	Lower	Upper
105	100		
134	18.0	10.0	23.2

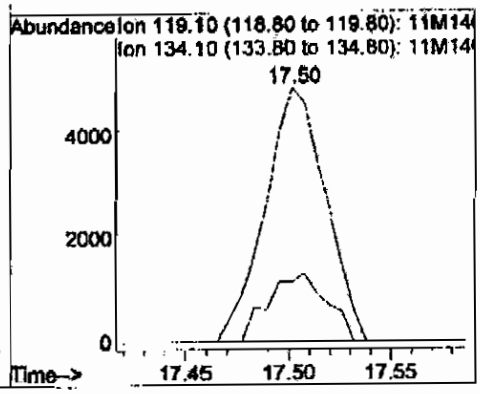


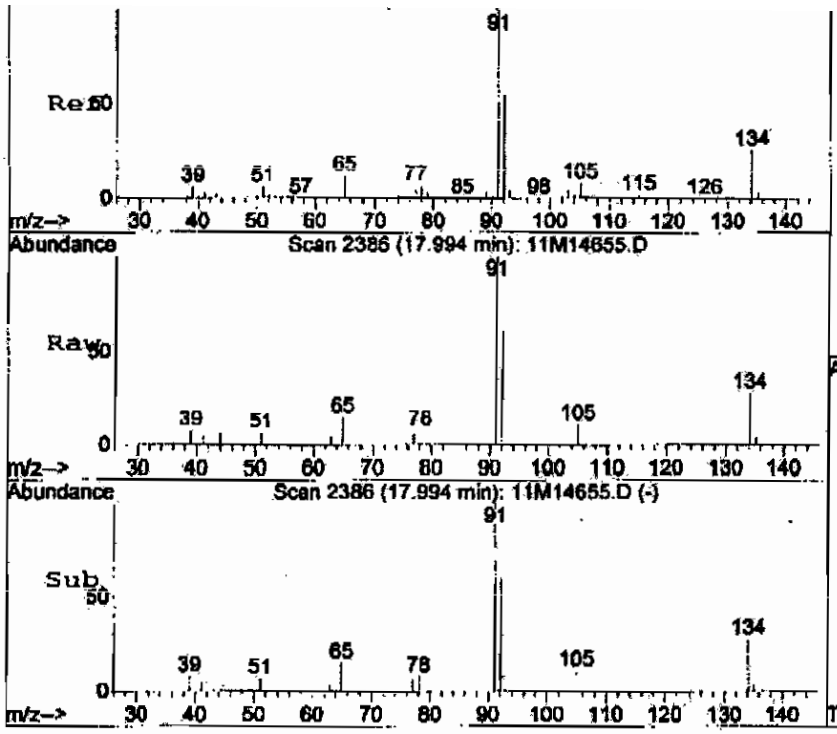


#78
p-Isopropyltoluene
Concen: 0.28 ug/L
RT: 17.50 min Scan# 2305
Delta R.T. -0.01 min
Lab File: 11M14655.D
Acq: 30 Apr 2003 18:36

Tgt Ion:119 Resp: 10012

Ion	Ratio	Lower	Upper
119	100		
134	25.9	16.0	37.4

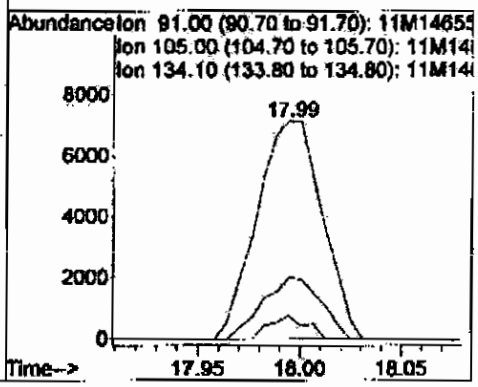


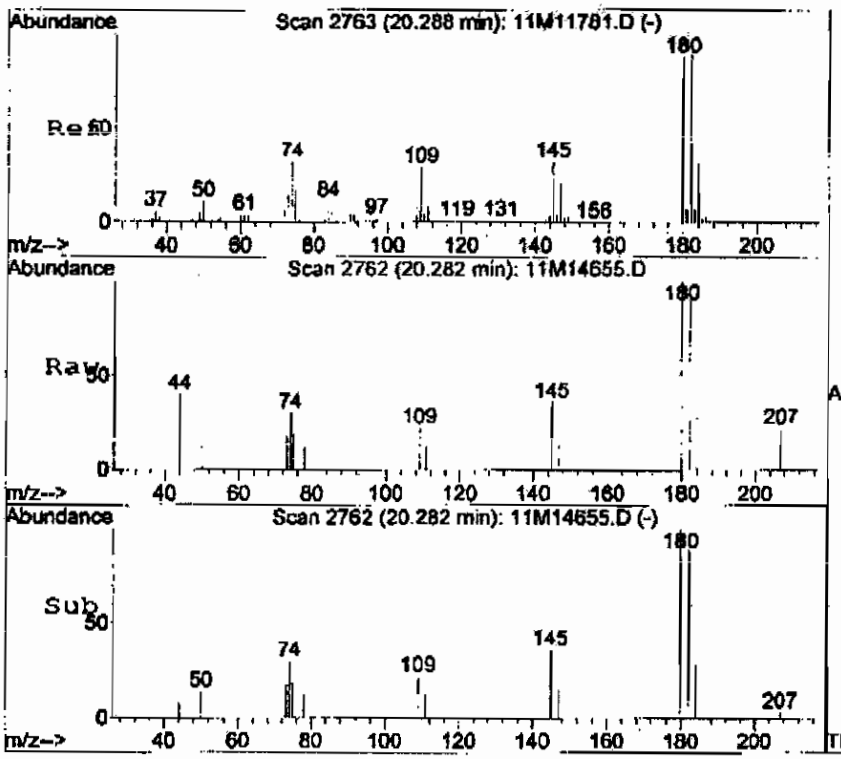


n-Butylbenzene
Concen: 0.49 ug/L
RT: 17.99 min Scan# 2386
Delta R.T. -0.01 min
Lab File: 11M14655.D
Acq: 30 Apr 2003 18:36

Tgt Ion: 91 Resp: 15923

Ion	Ratio	Lower	Upper
91	100		
105	6.0	2.2	5.2#
134	25.0	16.2	37.8

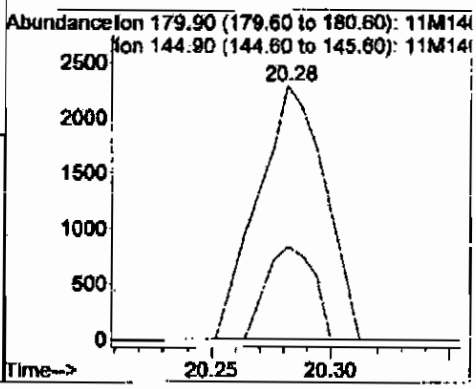


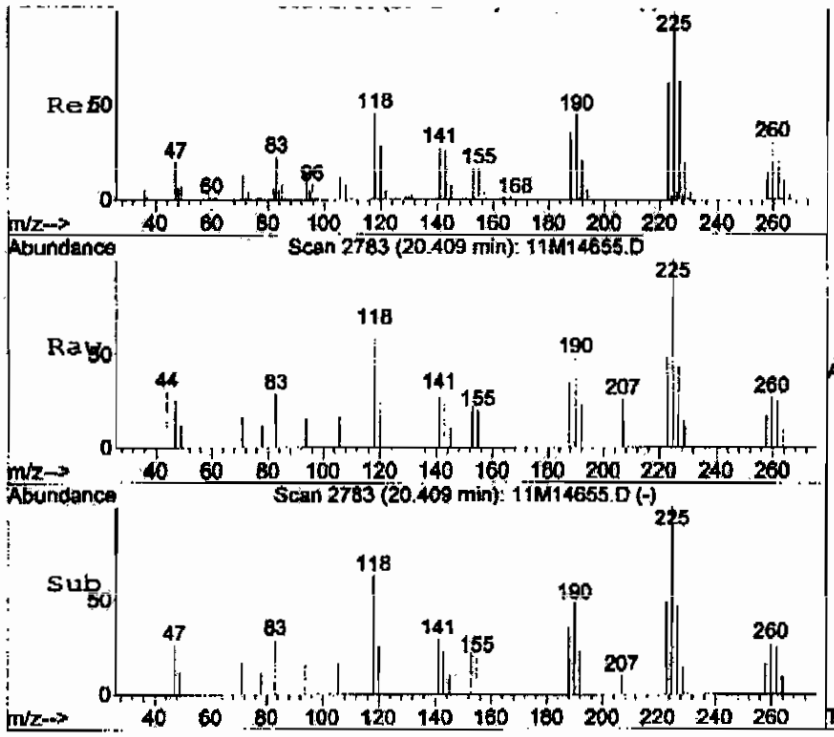


#84
1,2,4-Trichlorobenzene
Concen: 0.44 ug/L
RT: 20.28 min Scan# 2762
Delta R.T. -0.01 min
Lab File: 11M14655.D
Acq: 30 Apr 2003 18:36

Tgt Ion:180 Resp: 4483

Ion	Ratio	Lower	Upper
180	100		
145	26.1	16.8	39.2

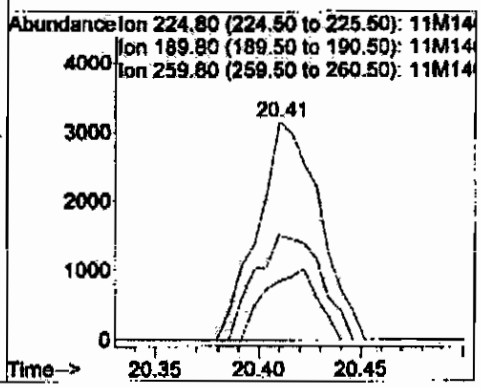


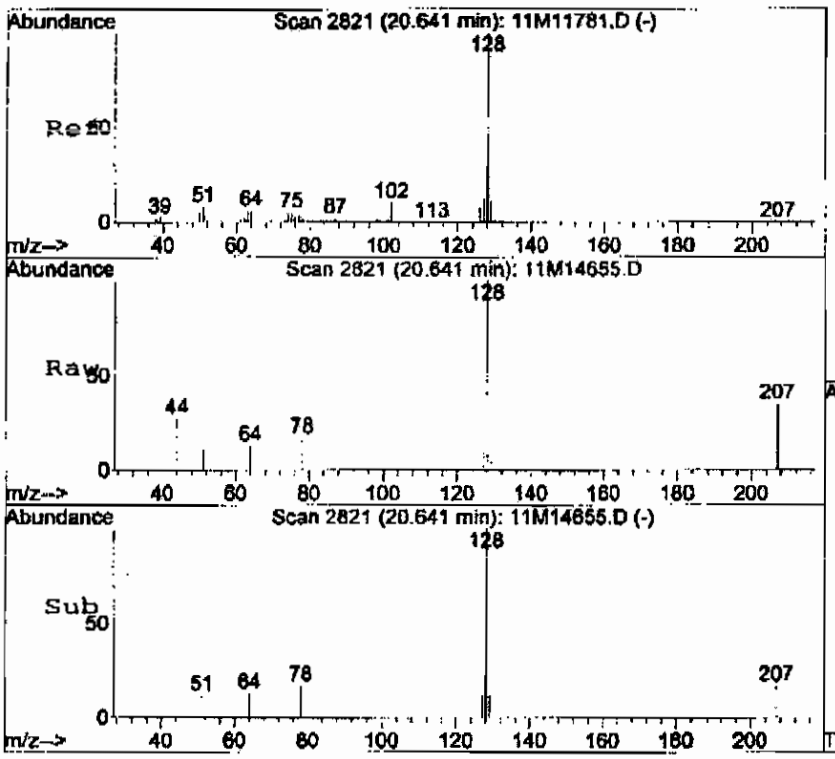


Hexachlorobutadiene
Concen: 1.72 ug/L
RT: 20.41 min Scan# 2783
Delta R.T. -0.01 min
Lab File: 11M14655.D
Acq: 30 Apr 2003 18:36

Tgt Ion:225 Resp: 6611

Ion	Ratio	Lower	Upper
225	100		
190	50.4	22.7	52.9
260	27.1	4.4	10.2#

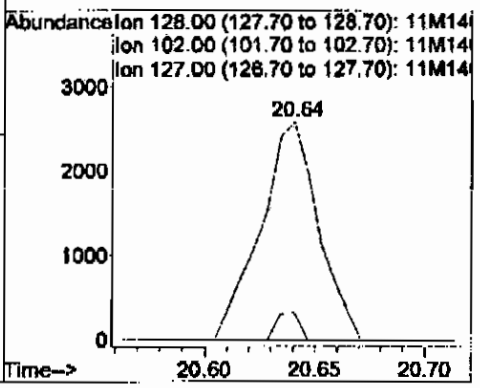


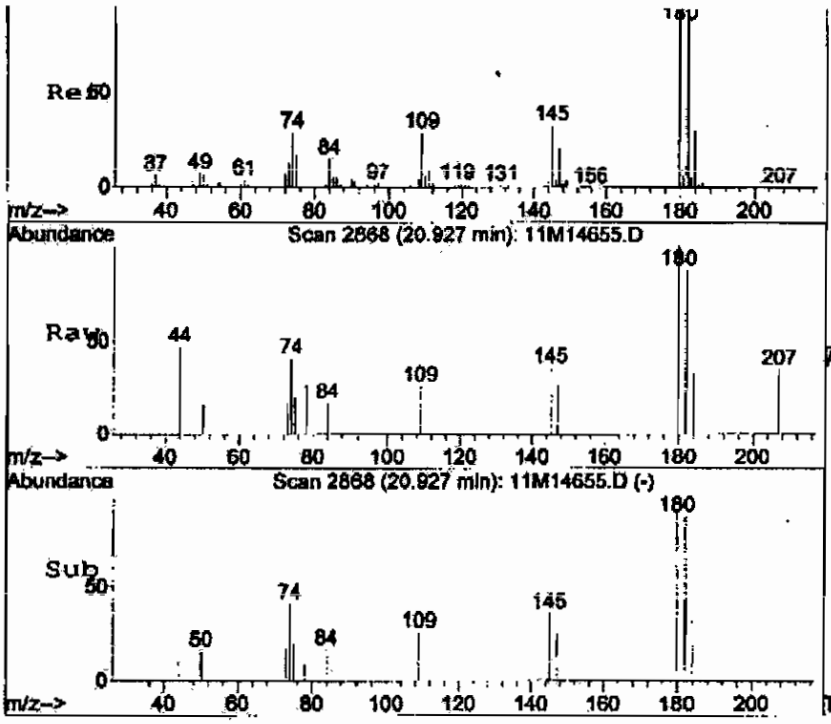


#86
Naphthalene
Concen: 0.24 ug/L
RT: 20.64 min Scan# 2821
Delta R.T. 0.00 min
Lab File: 11M14655.D
Acq: 30 Apr 2003 18:36

Tgt Ion:128 Resp: 4695

Ion	Ratio	Lower	Upper
128	100		
102	0.0	0.0	0.0
127	4.9	5.6	6.8#

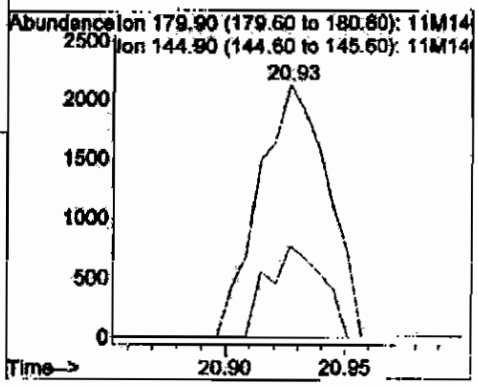




1,2,3-Trichlorobenzene
Concen: 0.50 ug/L
RT: 20.93 min Scan# 2868
Delta R.T. -0.01 min
Lab File: 11M14655.D
Acq: 30 Apr 2003 18:36

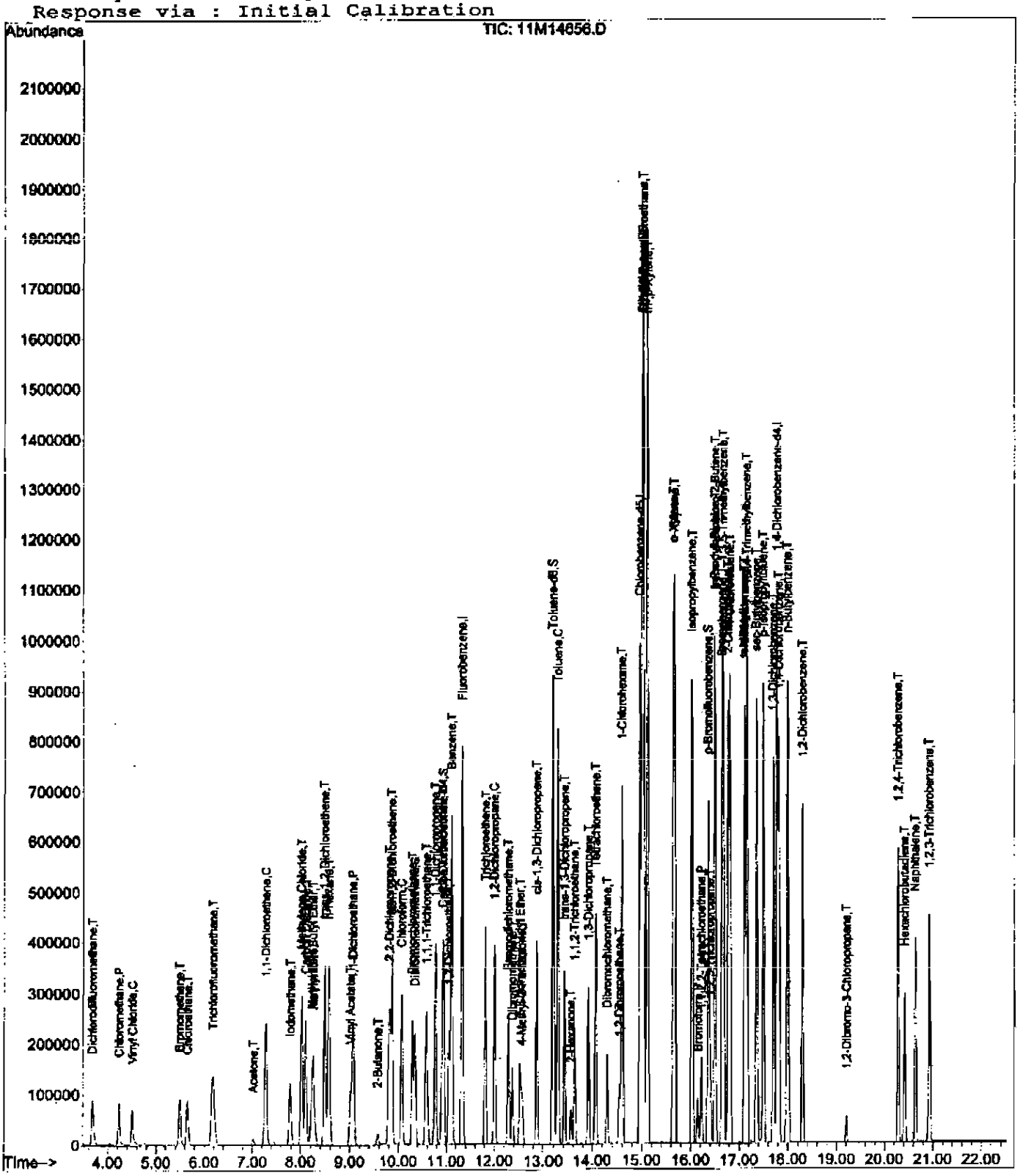
Tgt Ion:180 Resp: 4250

Ion	Ratio	Lower	Upper
180	100		
145	28.8	10.5	24.5#



Data File : C:\MSDchem\1\DATA\043003\11M14656.D Vial: 5
Acq On : 30 Apr 2003 19:07 Operator: CMS
Sample : WG139442-02 20 PPB LCS STD 8260 Inst : HPMS11
Misc : 1,1 SV10847 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 30 19:30 2003 Quant Results File: 8260WT.RES

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration



Data File : C:\MSDchem\1\DATA\043003\11M14656.D Vial: 5
Acq On : 30 Apr 2003 19:07 Operator: CMS
Sample : WG139442-02 20 PPB LCS STD 8260 Inst : HPMS11
Misc : 1,1 SV10847 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Apr 30 19:30:02 2003 Quant Results File: 8260WT.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene	11.33	96	927299	25.00 ug/L		0.00
44) Chlorobenzene-d5	14.97	117	690771	25.00 ug/L		0.00
64) 1,4-Dichlorobenzene-d4	17.79	152	341744	25.00 ug/L		0.00
System Monitoring Compounds						
28) Dibromofluoromethane	10.34	111	192502	25.1551 ug/L		0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 100.64%			
33) 1,2-Dichloroethane-d4	10.94	65	211379	26.2024 ug/L		0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 104.80%			
45) Toluene-d8	13.19	98	787256	25.0400 ug/L		0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 100.16%			
66) p-Bromofluorobenzene	16.36	95	318687	25.2114 ug/L		0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 100.84%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.68	85	147735	14.7672 ug/L		90
3) Chloromethane	4.23	50	119297	17.9537 ug/L		89
4) Vinyl Chloride	4.50	62	86772	20.5743 ug/L	#	55
5) Bromomethane	5.49	94	106617	18.7933 ug/L		92
6) Chloroethane	5.65	64	132870	19.0961 ug/L		95
7) Trichlorofluoromethane	6.18	101	280857	21.4033 ug/L		96
11) Acetone	7.02	43	25539	18.4918 ug/L	#	39
12) 1,1-Dichloroethene	7.28	96	154018	21.8874 ug/L		68
14) Iodomethane	7.79	142	216641	25.8916 ug/L		87
15) Methylene Chloride	8.02	84	160493	21.5162 ug/L		92
16) Carbon Disulfide	8.11	76	471150	18.5617 ug/L	#	87
17) Acrylonitrile	8.25	53	3587	1.7558 ug/L	#	64
18) Methyl Tert Butyl Ether	8.24	73	327515	20.4281 ug/L	#	68
19) trans-1,2-Dichloroethene	8.48	96	182660	23.4693 ug/L		88
20) n-Hexane	8.57	57	291294	19.9154 ug/L	#	93
21) Vinyl Acetate	9.02	43	220758	18.0475 ug/L		96
22) 1,1-Dichloroethane	9.06	63	367117	22.3702 ug/L	#	76
23) 2-Butanone	9.57	43	40492	20.0235 ug/L	#	100
24) 2,2-Dichloropropane	9.81	77	284485	23.2043 ug/L	#	62
25) cis-1,2-Dichloroethene	9.87	96	188067	22.4234 ug/L		75
26) Chloroform	10.07	83	313019	23.1614 ug/L		90
27) Bromochloromethane	10.29	128	73097	22.2137 ug/L		67
29) 1,1,1-Trichloroethane	10.58	97	279849	24.6966 ug/L	#	86
31) 1,1-Dichloropropene	10.77	75	251684	23.0348 ug/L	#	22
32) Carbon Tetrachloride	10.92	117	230741	23.5960 ug/L	#	91
34) 1,2-Dichloroethane	11.05	62	238915	22.9137 ug/L	#	73
35) Benzene	11.11	78	722736	22.0360 ug/L		90
36) Trichloroethene	11.82	130	185092	24.2616 ug/L		87
37) 1,2-Dichloropropane	12.01	63	189628	20.8877 ug/L		88
38) Bromodichloromethane	12.29	83	212092	22.4372 ug/L	#	87
39) Dibromomethane	12.37	93	77676	22.2776 ug/L		84
40) 2-Chloroethyl Vinyl Ether	12.53	63	75967	21.0414 ug/L	#	100
41) 4-Methyl-2-Pentanone	12.57	58	36666	19.7125 ug/L	#	100
42) cis-1,3-Dichloropropene	12.87	75	269624	23.0060 ug/L	#	86
46) Toluene	13.29	91	770809	21.9346 ug/L		94
48) trans-1,3-Dichloropropene	13.43	75	218608	22.2674 ug/L	#	53
49) 1,1,2-Trichloroethane	13.64	97	109248	20.8925 ug/L		83
50) 2-Hexanone	13.55	43	65698	19.7493 ug/L	#	1
51) 1,3-Dichloropropane	13.92	76	207574	20.7416 ug/L		97

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDchem\1\DATA\043003\11M14656.D Vial: 5
Acq On : 30 Apr 2003 19:07 Operator: CMS
Sample : WG139442-02 20 PPB LCS STD 8260 Inst : HPMS11
Misc : 1,1 SV10847 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 30 19:30:02 2003 Quant Results File: 8260WT.RES

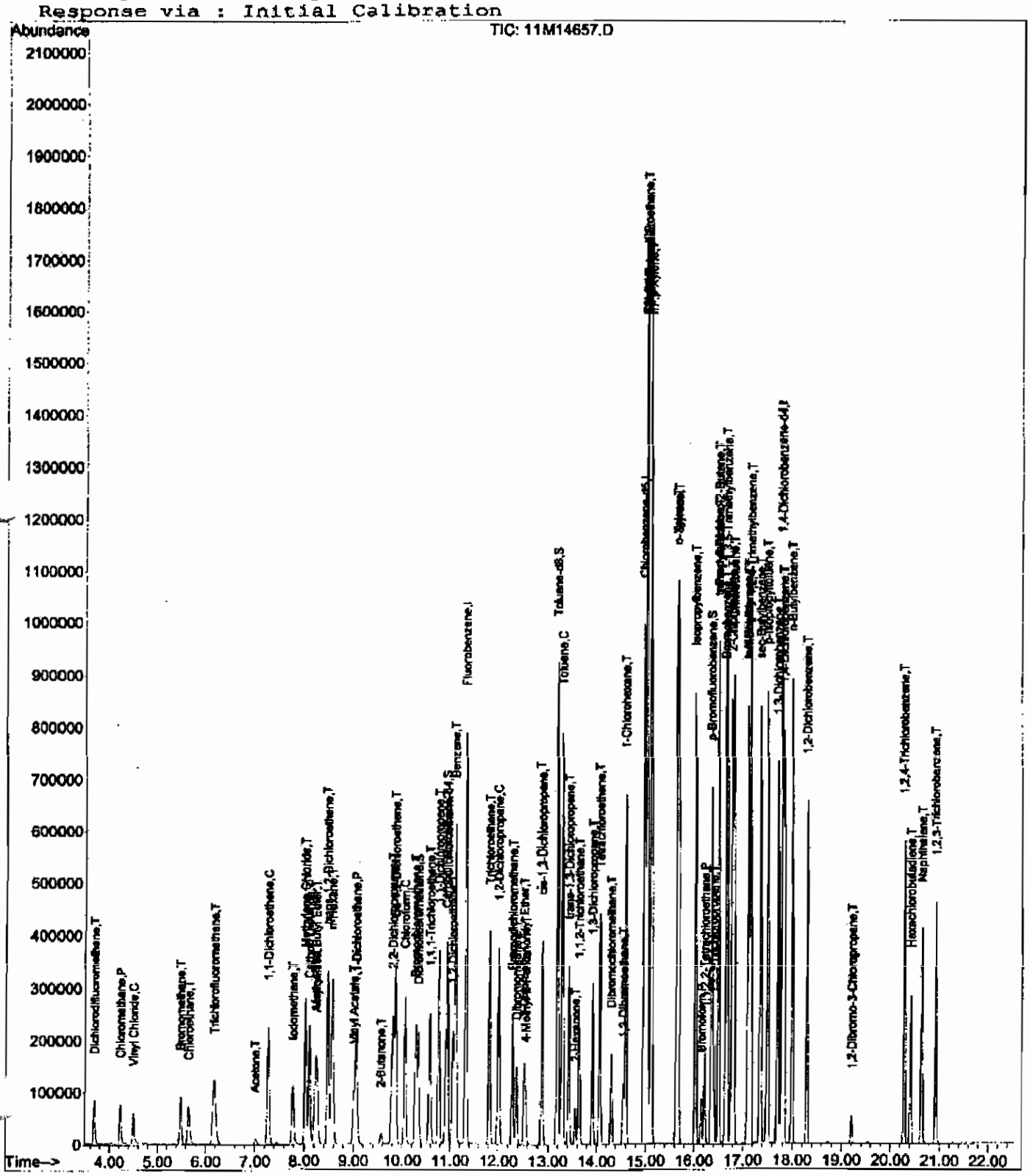
Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
52)	Tetrachloroethene	14.07	164	137176	22.7499 ug/L		89
53)	Dibromochloromethane	14.30	129	119977	21.4331 ug/L		84
54)	1,2-Dibromoethane	14.55	107	103901	20.7817 ug/L		93
55)	1-Chlorohexane	14.60	91	265674	21.8310 ug/L		93
56)	Chlorobenzene	15.02	112	502123	22.1580 ug/L		98
57)	1,1,1,2-Tetrachloroethane	15.04	131	154371	24.0134 ug/L		93
58)	Ethylbenzene	15.03	106	285641	23.2228 ug/L		79
59)	m-,p-Xylene	15.12	106	707689	45.7950 ug/L		84
60)	o-Xylene	15.65	106	350132	22.5374 ug/L		81
61)	Styrene	15.67	104	574783	22.9849 ug/L		86
62)	Bromoform	16.15	173	53706	18.8070 ug/L		81
63)	Isopropylbenzene	16.03	105	848570	21.4285 ug/L		95
65)	1,1,2,2-Tetrachloroethane	16.22	83	116085	20.6400 ug/L		85
67)	1,2,3-Trichloropropane	16.40	110	35045	21.4790 ug/L		84
68)	trans-1,4-Dichloro-2-Buten	16.50	53	6251	3.0084 ug/L	#	1
69)	n-Propylbenzene	16.50	91	1066511	22.5756 ug/L		90
70)	Bromobenzene	16.65	156	184011	22.0510 ug/L		71
71)	1,3,5-Trimethylbenzene	16.67	105	732046	22.4448 ug/L		93
72)	2-Chlorotoluene	16.78	91	681239	22.5913 ug/L		95
73)	4-Chlorotoluene	16.81	91	650253	22.7200 ug/L		94
74)	a-Methylstyrene	17.11	118	9173	0.4611 ug/L	#	1
75)	tert-Butylbenzene	17.11	119	632395	20.7125 ug/L	#	93
76)	1,2,4-Trimethylbenzene	17.17	105	757790	21.9218 ug/L		91
77)	sec-Butylbenzene	17.36	105	891703	20.5675 ug/L		93
78)	p-Isopropyltoluene	17.50	119	731244	20.1700 ug/L		99
79)	1,3-Dichlorobenzene	17.71	146	393586	21.1661 ug/L		88
80)	1,4-Dichlorobenzene	17.83	146	397117	21.2359 ug/L		79
81)	n-Butylbenzene	17.99	91	678198	20.1117 ug/L	#	97
82)	1,2-Dichlorobenzene	18.30	146	349641	21.2174 ug/L		90
83)	1,2-Dibromo-3-Chloropropan	19.21	157	16690	17.8859 ug/L		84
84)	1,2,4-Trichlorobenzene	20.28	180	215727	20.4329 ug/L		90
85)	Hexachlorobutadiene	20.42	225	71293	18.0845 ug/L	#	70
86)	Naphthalene	20.64	128	409454	20.1895 ug/L	#	83
87)	1,2,3-Trichlorobenzene	20.93	180	175624	20.3015 ug/L	#	61

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDchem\1\DATA\043003\11M14657.D Vial: 6
Acq On : 30 Apr 2003 19:37 Operator: CMS
Sample : WG139442-03 20 PPB LCS DUP STD 8260 Inst : HPMS11
Misc : 1,1 SV10847 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 30 20:00 2003 Quant Results File: 8260WT.RES

Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration



Data File : C:\MSDchem\1\DATA\043003\11M14657.D Vial: 6
Acq On : 30 Apr 2003 19:37 Operator: CMS
Sample : WG139442-03 20 PPB LCS DUP STD 8260 Inst : HPMS11
Misc : 1,1 SV10847 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 30 20:00:16 2003 Quant Results File: 8260WT.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.33	96	933643	25.00	ug/L		0.00
44) Chlorobenzene-d5	14.97	117	692784	25.00	ug/L		0.00
64) 1,4-Dichlorobenzene-d4	17.79	152	343275	25.00	ug/L		0.00
System Monitoring Compounds							
28) Dibromofluoromethane	10.34	111	192602	24.9972	ug/L		0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 100.00%				
33) 1,2-Dichloroethane-d4	10.94	65	212698	26.1868	ug/L		0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 104.76%				
45) Toluene-d8	13.19	98	795406	25.2257	ug/L		0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 100.92%				
66) p-Bromofluorobenzene	16.36	95	321750	25.3402	ug/L		0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 101.36%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.69	85	137077	13.6087	ug/L		90
3) Chloromethane	4.23	50	113851	17.0177	ug/L		88
4) Vinyl Chloride	4.50	62	79762	18.7837	ug/L	#	56
5) Bromomethane	5.49	94	102508	17.9462	ug/L		92
6) Chloroethane	5.66	64	127909	18.2582	ug/L		94
7) Trichlorofluoromethane	6.18	101	263012	19.9072	ug/L		98
11) Acetone	7.01	43	25008	17.9843	ug/L	#	35
12) 1,1-Dichloroethene	7.28	96	144920	20.4545	ug/L		67
14) Iodomethane	7.79	142	200471	23.7962	ug/L		87
15) Methylene Chloride	8.02	84	156133	20.7895	ug/L		94
16) Carbon Disulfide	8.11	76	440278	17.2276	ug/L	#	87
17) Acrylonitrile	8.25	53	3937	1.9140	ug/L	#	57
18) Methyl Tert Butyl Ether	8.24	73	326951	20.2544	ug/L	#	68
19) trans-1,2-Dichloroethene	8.48	96	170413	21.7469	ug/L		90
20) n-Hexane	8.57	57	272113	18.4776	ug/L	#	92
21) Vinyl Acetate	9.02	43	220731	17.9226	ug/L		97
22) 1,1-Dichloroethane	9.07	63	352439	21.3299	ug/L	#	77
23) 2-Butanone	9.57	43	40291	19.7888	ug/L	#	100
24) 2,2-Dichloropropane	9.81	77	264740	21.4470	ug/L	#	61
25) cis-1,2-Dichloroethene	9.87	96	180574	21.3838	ug/L		76
26) Chloroform	10.07	83	303001	22.2678	ug/L		92
27) Bromochloromethane	10.29	128	70415	21.2532	ug/L		69
29) 1,1,1-Trichloroethane	10.59	97	266268	23.3384	ug/L	#	86
31) 1,1-Dichloropropene	10.77	75	237777	21.6141	ug/L	#	23
32) Carbon Tetrachloride	10.92	117	218016	22.1432	ug/L	#	91
34) 1,2-Dichloroethane	11.05	62	233235	22.2169	ug/L	#	73
35) Benzene	11.11	78	693850	21.0115	ug/L		90
36) Trichloroethene	11.82	130	175592	22.8600	ug/L		89
37) 1,2-Dichloropropane	12.01	63	186969	20.4549	ug/L		87
38) Bromodichloromethane	12.29	83	207195	21.7702	ug/L	#	87
39) Dibromomethane	12.38	93	75258	21.4374	ug/L		86
40) 2-Chloroethyl Vinyl Ether	12.54	63	75161	20.6767	ug/L	#	100
41) 4-Methyl-2-Pentanone	12.57	58	37428	19.9854	ug/L	#	100
42) cis-1,3-Dichloropropene	12.88	75	258598	21.9152	ug/L	#	87
46) Toluene	13.29	91	740056	20.9983	ug/L		95
48) trans-1,3-Dichloropropene	13.43	75	214870	21.8230	ug/L	#	51
49) 1,1,2-Trichloroethane	13.64	97	108962	20.7772	ug/L		83
50) 2-Hexanone	13.56	43	65728	19.7009	ug/L	#	1
51) 1,3-Dichloropropane	13.92	76	202664	20.1921	ug/L		98

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDchem\1\DATA\043003\11M14657.D Vial: 6
Acq On : 30 Apr 2003 19:37 Operator: CMS
Sample : WG139442-03 20 PPB LCS DUP STD 8260 Inst : HPMS11
Misc : 1,1 SV10847 Multiplr: 1.00
Integration Params: rteint.p
Quant Time: Apr 30 20:00:16 2003 Quant Results File: 8260WT.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WT.M (RTE Integrator)
Title : Method 8260B Water Analysis 04/17/03 HPMS 11
Last Update : Thu Apr 17 15:15:50 2003
Response via : Initial Calibration
DataAcq Meth : 8260WT

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
52)	Tetrachloroethene	14.07	164	131367	21.7232 ug/L		89
53)	Dibromochloromethane	14.30	129	119166	21.2264 ug/L		83
54)	1,2-Dibromoethane	14.54	107	105909	21.1218 ug/L		92
55)	1-Chlorohexane	14.60	91	250585	20.5313 ug/L		92
56)	Chlorobenzene	15.02	112	491658	21.6331 ug/L		98
57)	1,1,1,2-Tetrachloroethane	15.04	131	151308	23.4686 ug/L		92
58)	Ethylbenzene	15.03	106	277790	22.5189 ug/L		76
59)	m-,p-Xylene	15.12	106	682557	44.0403 ug/L		84
60)	o-Xylene	15.65	106	338809	21.7452 ug/L		81
61)	Styrene	15.67	104	557982	22.2482 ug/L		86
62)	Bromoform	16.15	173	54128	18.8997 ug/L		78
63)	Isopropylbenzene	16.03	105	808323	20.3529 ug/L		96
65)	1,1,2,2-Tetrachloroethane	16.22	83	117548	20.8069 ug/L		86
67)	1,2,3-Trichloropropane	16.40	110	35043	21.3820 ug/L		86
68)	trans-1,4-Dichloro-2-Buten	16.51	53	5717	2.7392 ug/L	#	1
69)	n-Propylbenzene	16.50	91	1020334	21.5018 ug/L		90
70)	Bromobenzene	16.65	156	181878	21.6982 ug/L		73
71)	1,3,5-Trimethylbenzene	16.67	105	702060	21.4294 ug/L		93
72)	2-Chlorotoluene	16.78	91	654680	21.6137 ug/L		95
73)	4-Chlorotoluene	16.81	91	640408	22.2762 ug/L		94
74)	a-Methylstyrene	17.12	118	9880	0.4944 ug/L	#	1
75)	tert-Butylbenzene	17.11	119	667914	21.7783 ug/L	#	87
76)	1,2,4-Trimethylbenzene	17.17	105	732992	21.1098 ug/L		92
77)	sec-Butylbenzene	17.36	105	856846	19.6753 ug/L		93
78)	p-Isopropyltoluene	17.51	119	702186	19.2821 ug/L		99
79)	1,3-Dichlorobenzene	17.71	146	387046	20.7215 ug/L		89
80)	1,4-Dichlorobenzene	17.82	146	387748	20.6424 ug/L		80
81)	n-Butylbenzene	17.99	91	655231	19.3439 ug/L	#	97
82)	1,2-Dichlorobenzene	18.30	146	345532	20.8745 ug/L		91
83)	1,2-Dibromo-3-Chloropropan	19.21	157	17754	18.9413 ug/L		88
84)	1,2,4-Trichlorobenzene	20.28	180	214430	20.2194 ug/L		91
85)	Hexachlorobutadiene	20.42	225	70310	17.7556 ug/L	#	72
86)	Naphthalene	20.64	128	414374	20.3410 ug/L	#	82
87)	1,2,3-Trichlorobenzene	20.93	180	175845	20.2364 ug/L	#	61

(#) = qualifier out of range (m) = manual integration

Directory: C:\MSDCHEM\1\DATA\041703

IS: SV10842
SS: SV10843

Analyst: CMS

ne	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	11M14388.D	1.	✓WG138555-01 BFB 50NG STD 8260	1,1 SV10835	17 Apr 2003 06:32
	2	11M14389.D	1.	DNR WG138555 0.30 PPB STD 8260	1,1 SV10829	17 Apr 2003 07:07
	3	11M14390.D	1.	✓WG138555-02 0.40 PPB STD 8260	1,1 SV10829	17 Apr 2003 07:38
	4	11M14391.D	1.	✓WG138555-03 1 PPB STD 8260	1,1 SV10829	17 Apr 2003 08:09
	5	11M14392.D	1.	DNR WG138555 2 PPB STD 8260	1,1 SV10829	17 Apr 2003 08:41
	6	11M14393.D	1.	↓ WG138555 5 PPB STD 8260	1,1 SV10829	17 Apr 2003 09:11
	7	11M14394.D	1.	DNR WG138555 2 PPB STD 8260	1,1 SV10829	17 Apr 2003 09:43
	8	11M14395.D	1.	✓WG138555-04 5 PPB STD 8260	1,1 SV10829	17 Apr 2003 10:13
	9	11M14396.D	1.	✓WG138555-05 20 PPB STD 8260	1,1 SV10829	17 Apr 2003 10:43
)	10	11M14397.D	1.	✓WG138555-06 50 PPB STD 8260	1,1 SV10829	17 Apr 2003 11:14
1	11	11M14398.D	1.	✓WG138555-07 100 PPB STD 8260	1,1 SV10829	17 Apr 2003 11:44
2	12	11M14399.D	1.	✓WG138555-09 200 PPB STD 8260	1,1 SV10829	17 Apr 2003 12:15
3	13	11M14400.D	1.	✓SYSTEM BLANK	1,1	17 Apr 2003 12:46
4	14	11M14401.D	1.	✓SYSTEM BLANK	1,1	17 Apr 2003 13:16
5	15	11M14402.D	1.	✓WG138555-08 150 PPB STD 8260	1,1 SV10829	17 Apr 2003 14:20
6	16	11M14403.D	1.	✓SYSTEM BLANK	1,1	17 Apr 2003 14:50
7	17	11M14404.D	1.	✓SYSTEM BLANK	1,1	17 Apr 2003 15:20
8	18	11M14405.D	1.	RR WG138555-12 20 PPB ALT SOURCE STD 8260	1,1 SV10847	17 Apr 2003 15:51

WG138555

reanalyze alternate source (TCE 4)

Directory: C:\MSDCHEM\1\DATA\042103

Analyst: CMS

IS: SV10842
SS: SV10843

Inj	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	11M14406.D	1.	✓WG138731-01 BFB 50NG STD 8260	1,1 SV10835	21 Apr 2003 06:19
	2	11M14407.D	1.	✓WG138731-02 50 PPB STD 8260	1,1 SV10829	21 Apr 2003 06:52
	3	11M14408.D	1.	✓WG138732-01 VBLK0421 BLANK 8260	1,1	21 Apr 2003 07:38
	4	11M14409.D	1.	✓WG138732-01 VBLK0421 BLANK 8260	1,1	21 Apr 2003 08:09
	5	11M14410.D	1.	✓WG138555-10 20PPB ALT SOURCE STD 8260	1,1 SV10847	21 Apr 2003 08:40
		11M14411.D	1.			

WG138555

No reanalyses /R-flags

Injection Log

Directory: C:\MSDCHEM\1\DATA\043003

Analyst: CMS

IS: SV10842
SS: SV10843

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11M14630.D	1.	✓WG139364-01 BFB 50NG STD 8260	1,1 SV10835	30 Apr 2003 04:43
2	2	11M14631.D	1.	✓WG139364-02 50 PPB STD 8260	1,1 SV10906	30 Apr 2003 05:12
3	3	11M14632.D	1.	✓WG139365-01 VBLK0430 BLANK 8260	1,1	30 Apr 2003 05:49
4	4	11M14633.D	1.	✓WG139365-02 20 PPB LCS STD 8260	1,1 SV10847	30 Apr 2003 06:20
5	5	11M14634.D	1.	✓WG139365-03 20 PPB LCS DUP STD 8260	1,1 SV10847	30 Apr 2003 06:51
6	6	11M14635.D	1.	✓L0304497-11 B 00 8260	1,1 pH=7	30 Apr 2003 08:23
7	7	11M14636.D	1 RR5x -	L0304508-01 A 50X D1 8260-DNR	1,50	30 Apr 2003 08:54
8	8	11M14637.D	1. RR5x -	L0304508-03 A 50X D1 8260 - DNR	1,50	30 Apr 2003 09:26
9	9	11M14638.D	1.	✓L0304508-06 B 10X D2 8260	1,10	30 Apr 2003 09:57
10	10	11M14639.D	1.	✓L0304497-07 B 1000X D1 8260	1,1000	30 Apr 2003 10:28
11	11	11M14640.D	1.	✓L0304497-09 B 1000X D1 8260	1,1000	30 Apr 2003 10:59
12	12	11M14641.D	1.	✓L0304497-10 B 10X 00 8260	1,10	30 Apr 2003 11:29
13	13	11M14642.D	1.	✓L0304501-03 B 100X D1 826-TC	17,100 (4/28@1500)	30 Apr 2003 11:59
14	14	11M14643.D	1. RR 10x	L0304529-02 B 00 8260	1,1 pH=2	30 Apr 2003 12:30
15	15	11M14644.D	1.	✓L0304529-04 A 00 8260	1,1 1	30 Apr 2003 13:00
16	16	11M14645.D	1. RR 5x	L0304529-03 A 50X 00 8260 D1	1,50	30 Apr 2003 13:30
17	17	11M14646.D	1. RR 5x	L0304529-08 A 100X 00 8260 - DNR	1,100	30 Apr 2003 14:01
18	18	11M14647.D	1. RR 5hr.	L0304529-07 A 100X 00 8260 - DNR	1,100	30 Apr 2003 14:31
19	19	11M14648.D	1. RR 5hr.	L0304529-06 A 500X 00 8260 - DNR	1,500	30 Apr 2003 15:01
20	20	11M14649.D	1. RR 5hr.	L0304529-10 A 100X 00 8260 D1	1,100	30 Apr 2003 15:31
21	21	11M14650.D	1. RR 50x	L0304529-09 A 100X 00 8260 - DNR	1,100	30 Apr 2003 16:02
22	22	11M14651.D	1. RR 5x	L0304529-05 A 100X 00 8260 - DNR	1,100	30 Apr 2003 16:32
23	1	11M14652.D	1. RR	WG139441-01 BFB 50NG STD 8260	1,1 SV10835	30 Apr 2003 17:03
24	2	11M14653.D	1.	✓WG139441-01 BFB 50NG STD 8260	1,1 SV10835	30 Apr 2003 17:32
25	3	11M14654.D	1.	✓WG139441-02 50 PPB STD 8260	1,1 SV10906	30 Apr 2003 18:01
26	4	11M14655.D	1.	✓WG139442-01 VBLK0430 BLANK 8260	1,1	30 Apr 2003 18:36
27	5	11M14656.D	1.	✓WG139442-02 20 PPB LCS STD 8260	1,1 SV10847	30 Apr 2003 19:07
28	6	11M14657.D	1.	✓WG139442-03 20 PPB LCS DUP STD 8260	1,1 SV10847	30 Apr 2003 19:37
29	7	11M14658.D	1.	✓L0304508-01 B 5X D2 8260	1,5	30 Apr 2003 20:08
30	8	11M14659.D	1.	✓L0304508-03 B 5X D2 8260	1,5	30 Apr 2003 20:38
31	9	11M14660.D	1.	✓L0304501-05 B 50X 00 826-TC	17,50 (4/28@1500)	30 Apr 2003 21:09
32	10	11M14661.D	1. RR 10x	L0304529-07 B 00 8260	1,1 pH=2	30 Apr 2003 21:40
33	11	11M14662.D	1. RR 50x	L0304529-06 B 00 8260	1,1 1	30 Apr 2003 22:11
34	12	11M14663.D	1. RR 100x	L0304529-10 B 00 8260	1,1 pH=12	30 Apr 2003 22:42
35	13	11M14664.D	1.	✓L0304529-01 B 50X D1 8260 00	1,50	30 Apr 2003 23:14
36	14	11M14665.D	1.	✓L0304529-02 B 10X D1 8260	1,10	30 Apr 2003 23:45
37	15	11M14666.D	1. RR 50x	L0304529-03 B 5X 00 8260	1,5	1 May 2003 00:16
38	16	11M14667.D	1. RR 50x	L0304529-05 B 5X 00 8260	1,5	1 May 2003 00:47
39	17	11M14668.D	1.	✓L0304529-08 B 5X 00 8260	1,5	1 May 2003 01:19
40	18	11M14669.D	1.	✓L0304529-09 B 50X 00 8260	1,50	1 May 2003 01:50
41	19	11M14670.D	1.	✓L0304554-01 10X 00 826-TC	17,10 (4/28@1500)	1 May 2003 02:22
42	20	11M14671.D	1.	✓L0304594-03 A 10X 00 826-TC	17,10 (4/28@1500)	1 May 2003 02:53
43	21	11M14672.D	1.	✓L0304649-01 A 00 826-SPE-VO-S	2,1 pH=7	1 May 2003 03:24
44	22	11M14673.D	1.	✓L0304649-02 A 00 826-SPE-VO-S	2,1 pH=10	1 May 2003 03:56
45	23	11M14674.D	1.	✓L0304669-03 A 00 826-SPE-VO-S 649 mass (10)	2,1 pH=7	1 May 2003 04:27
46	24	11M14675.D	1.	✓L0304516-02 A 00 826-BETX	1,1 pH=2	1 May 2003 04:58

WG139365 reanalyses

L0304508-01 @ 5x (D2) - 2-Butanone - 11M14658
-03 @ 5x (D2) ⊥ ⊥ 659

L0304529-02 @ 10x: Acetone - 11M14665
-03 @ 5x: (oo) - 11M14666
-10 @ 8tr.: (oo) - 11M14649 6663

WG139442 reanalyses

L0304529-07 @ 10x: Acetone
-06 @ 50x: Acetone, 2-Butanone
-10 @ 100x: PCE: 11M14649
-03 @ 50x: Carbon tet. - 11M14645
-05 @ 50x: Acetone

VOA - GC/MS

Date: 4-17-03 Analyst: CMS Method: (8260) 624

Instrument: HPMS11 Work Group: WG 138555

	Analyst
System Performance Check	✓
BFB	✓
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve 4/21/03 mg	✓ NA
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	NA
Project / Client Specific Requirements	|
Special Standards	|
Blanks	|
TCL's	|
Surrogates	|
LCS (Laboratory Control Sample)	|
Recoveries	|
Surrogates	|
MS / MSD / Duplicates	|
Samples	|
TCL Hits	|
Spectra of TCL Hits	|
Surrogates	|
Internal Standards Criteria	|
Calculations & Correct Factors	|
Dilutions Run	|
Reruns	⊥
Manual Integrations	✓
Excel Spreadsheets	✓
Case Narrative	NA
Narrative Summary	|
Results Reporting / Data Qualifiers	|
Client Data Package Assembly	|
Check for Completeness	⊥

Primary Reviewers Initials & Date Checked: CMS 4-21-03

Secondary Reviewers Initials & Date Checked: mg 4-21-03

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
✓ • Check the information for the report narrative
✓ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: CMS 4/21/03

Comments: _____

✓ = Checked & OK
NA = Not Applicable

VOA - GC/MS

Date: 4-30-03 **Analyst:** CMS **Method:** (8260) 624

Instrument: HPMS11 **Work Group:** WG 139442

	Analyst
System Performance Check	✓
BFB	✓
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	✓
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Spectra of TCL Hits	✓
Surrogates	✓
Internal Standards Criteria	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	✓
Manual Integrations	
Excel Spreadsheets	✓
Case Narrative	
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: 04-501-05 5/03 CMS | 5-203 CMS

Secondary Reviewers Initials & Date Checked: _____

_____ • Check for compliance with Method and project-specific requirements
_____ • Check the completeness of the reported information
_____ • Check the information for the report narrative
_____ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: _____

Comments: _____

_____

_____

✓ = Checked & OK
NA = Not Applicable

8260B Example Calculations:

1). Calculate relative response factor (*RRF*) for each target and surrogate in initial calibration (ICAL):

$$RRF = \frac{(A_x)(C_{is})}{(A_{is})(C_x)} \qquad \textit{Example:} \quad RRF = \frac{(25{,}000)(25)}{(10{,}000)(50)} = 1.25$$

where:

A_x = peak area of the analyte or surrogate
A_{is} = peak area of the internal standard
C_x = concentration of the analyte or surrogate (ug/L)
C_{is} = concentration of the internal standard (ug/L)

2). Calculate mean RRF $\left(\overline{RRF}\right)$ for each target and surrogate:

$$\overline{RRF} = \frac{\sum_{1}^{n} RRF}{n}$$

where:
$\overline{RRF} = 1.25$

3). Calculate concentration (C_x) of target or surrogate from internal standard calibration: ug/L, ug/Kg:

$$C_x = \frac{(A_x)(C_{is})(D)}{(A_{is})\left(\overline{RRF}\right)(V_f)} \qquad \textit{Example:} \quad C_x = \frac{(25{,}000)(250)(1)}{(20{,}000)(1.25)(10)} = 25$$

where:

A_x = peak area for the analyte or surrogate
C_{is} = concentration of the internal standard (ng)
D = dilution factor for the sample (1/10 = 10)
A_{is} = peak area of the internal standard
$\overline{RRF}$ = average RRF for the analyte or surrogate
V_f = purge volume of water sample (mL); for soils enter sample weight (g)

4). Correction of soils results to dry weight (C_d): ug/Kg:

$$C_d = \frac{(C_x)(100)}{(\%\ solids)} \qquad \textit{Example:} \quad C_d = \frac{(25)(100)}{(50)} = 50$$

where:

C_x = uncorrected wet weight concentration (ug/Kg)
% solids – percent solids content of the sample

2.2 Semivolatiles

2.2.1 Semivolatiles GC MS Data (8270)

REPORT NARRATIVE
GC/MS SEMIVOLATILE ORGANICS

KEMRON Report No.: L0304554

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8270C

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied or if the mean % RSD for all analytes was less than 15%, the average response factors were used. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD were not associated with these samples.

SAMPLES

Internal Standards: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ALT REVIEWED: _____ DATE: 5/1/03

Rev. 6/00

GC/MS DATA B 8270

Login Number L0304554

A. QC Summary

- ✓ Method Blank Summary
- ✓ Method Blank Results
- ✓ Laboratory Control Sample (LCS)
- Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ✓ Holding Time Summary
- ✓ Surrogate Recovery Summary
- ✓ Instrument Tunc Summary
- ✓ Initial Calibration Summary
- ✓ Initial Calibration Verification (ICV) Form (Second Source)
- ✓ Continuing Calibration Verification (CCV)
- ✓ Internal Standard Area Summary
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet

B. Sample Data

- ___ Target compound and surrogate results summary (See Summary Report)
- ___ Tentatively Identified Compounds (TIC) (if requested B See Summary Report)
- ✓ Chromatograms (RIC) and quantitation report
- ✓ Raw and background corrected mass spectra of identified target compounds
- ___ Mass spectra for all reported TICs with three best matches

C. Standards Data

- ✓ Initial calibration (ICAL) summary form
- ✓ Chromatograms and quantitation report for ICAL standards
- ✓ Initial calibration verification (ICV/second source) summary forms
- ✓ Initial calibration verification (ICV/second source) quantitation reports and chromatograms
- ✓ Continuing Calibration Verification (CCV) summary forms
- ✓ Continuing Calibration Verification (CCV) quantitation reports and chromatograms

D. Raw QC Data

- ✓ GC/MS instrument performance check DFTPP
- ✓ Method blank chromatogram and quantitation report
- ✓ LCS chromatogram and quantitation report
- ___ MS/MSD chromatogram and quantitation report
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet
- ✓ Daily Checklist
- ✓ Example Calculations

Checked By: _____ Date: 5/5/03

2.2.1.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0304554
Work Group: WG139481
Blank File ID: 4M18457
Blank Sample ID: WG139340-02
Date Analyzed: 04/30/03
Instrument ID: HPMS4
Time Analyzed: 08:57
Method: 8270C
Analyst: MDC

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG139340-03	4M18458	04/30/03 09:33	01
05-177511-SP1-042403	L0304554-01	4M18465	04/30/03 13:38	01

KEMRON FORMS - Modified 03/21/2003
Version 1.2
Report generated 05/05/2003 09:50

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0304554 Run Date: 04/30/2003 Sample ID: WG139340-02
Instrument ID: HPMS4 Run Time: 08:57 Prep Method: 3510C
File ID: 4M18457 Analyst: MDC Method: 8270C
Workgroup (AAB#): WG139481 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS4-29-APR-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Pyridine	25.0	50.0	25.0	1	U
1,4-Dichlorobenzene	2.50	5.00	2.50	1	U
o-Cresol	2.50	5.00	2.50	1	U
m-,p-Cresol	5.00	5.00	5.00	1	U
Hexachloroethane	2.50	5.00	2.50	1	U
Nitrobenzene	2.50	5.00	2.50	1	U
Hexachlorobutadiene	2.50	5.00	2.50	1	U
2,4,6-Trichlorophenol	2.50	5.00	2.50	1	U
2,4,5-Trichlorophenol	2.50	25.0	2.50	1	U
2,4-Dinitrotoluene	2.50	5.00	2.50	1	U
Hexachlorobenzene	2.50	5.00	2.50	1	U
Pentachlorophenol	2.50	25.0	2.50	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
2-Fluorophenol	36.5	21	-	100	PASS
Phenol-d5	25.1	10	-	94	PASS
Nitrobenzene-d5	58.5	35	-	114	PASS
2-Fluorobiphenyl	52.8	43	-	116	PASS
2,4,6-Tribromophenol	75.8	10	-	123	PASS
p-Terphenyl-d14	82.3	33	-	141	PASS

* Analyte detected above RDL
ND Analyte Not detected at or above reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0304554 | Run Date: 04/30/2003 | Sample ID: WG139340-03
Instrument ID: HPMS4 | Run Time: 09:33 | Prep Method: 3510C
File ID: 4M18458 | Analyst: MDC | Method: 8270C
Workgroup (AAB#): WG139481 | Matrix: Water | Units: ug/L
Contract #: | Cal ID: HPMS4-29-APR-2003 21:00

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,4-Dichlorobenzene	50.0	19.1	38.2	24 - 62	
2,4,5-Trichlorophenol	50.0	37.8	75.6	20 - 116	
2,4,6-Trichlorophenol	50.0	33.6	67.1	20 - 103	
2,4-Dinitrotoluene	50.0	41.8	83.6	36 - 126	
o-Cresol	50.0	26.3	52.6	15 - 86	
m-,p-Cresol	50.0	24.8	49.6	10 - 90	
Hexachlorobenzene	50.0	40.9	81.8	50 - 121	
Hexachlorobutadiene	50.0	19.2	38.4	27 - 76	
Hexachloroethane	50.0	17.6	35.2	21 - 90	
Nitrobenzene	50.0	27.8	55.5	20 - 78	
Pentachlorophenol	50.0	44.2	88.4	30 - 124	
Pyridine	50.0	6.99	14.0	5 - 100	

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	93.3	10 - 123	PASS
2-Fluorobiphenyl	53.1	43 - 116	PASS
2-Fluorophenol	36.3	21 - 100	PASS
Nitrobenzene-d5	57.0	35 - 114	PASS
p-Terphenyl-d14	83.8	33 - 141	PASS
Phenol-d5	25.6	10 - 94	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method:8270C

AAB#:WG139481

Login Number:L0304554

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
05-177511-SP1-042403	04/24/03	04/25/03	04/29/03	10.9	5.03	04/30/03	40	0.860	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON FORMS - Modified 12/06/2002
Version 1.2
Report generated 05/05/2003 09:50

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number:L0304554
Instrument Id:HPMS4
Workgroup (AAB#):WG139481

Method:8270
CAL ID: HPMS4-29-APR-03
Matrix:WATER

Sample Number	Dilution	Tag	1	2	3	4	5	6
L0304554-01	1.00	01	70.9	51.9	33.3	55.2	83.0	22.5
WG139340-02	1.00	01	75.8	52.8	36.5	58.5	82.3	25.1
WG139340-03	1.00	01	93.3	53.1	36.3	57.0	83.8	25.6

	Surrogates	Surrogate Limits		
1	2,4,6-Tribromophenol	10	-	123
2	2-Fluorobiphenyl	43	-	116
3	2-Fluorophenol	21	-	100
4	Nitrobenzene-d5	35	-	114
5	p-Terphenyl-d14	33	-	141
6	Phenol-d5	10	-	94

Underline = Result out of surrogate limits

DL = surrogate diluted out

ND = surrogate not detected

KEMRON ENVIRONMENTAL SERVICES
ORGANIC INSTRUMENT CHECK
DFTPP

Login Number: L0304554
Instrument: HPMS4
Analyst: CLK
Workgroup: WG139334

Tune ID: WG139334-01
Run Date: 04/29/2003
Run Time: 16:52
File ID: 4M18446
Cal ID: HPMS4-29-APR-03

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	37.5	135568	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	38.7	139685	PASS
70.0	69.0	0	2.00	0.643	898	PASS
127	198	40.0	60.0	47.2	170432	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	361323	PASS
199	198	5.00	9.00	6.75	24379	PASS
275	198	10.0	30.0	27.7	100051	PASS
365	198	1.00	100	3.20	11551	PASS
441	443	0.0100	100	49.3	32235	PASS
442	198	40.0	100	92.1	332949	PASS
443	442	17.0	23.0	19.6	65365	PASS

This check relates to the following samples, MS, MSD:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG139334-02	CCV	01	04/29/2003 17:10	
WG139334-03	STD	01	04/29/2003 18:04	
WG139334-04	STD	01	04/29/2003 18:38	
WG139334-05	STD	01	04/29/2003 19:13	
WG139334-06	STD	01	04/29/2003 19:47	
WG139334-07	STD	01	04/29/2003 20:24	
WG139334-08	STD	01	04/29/2003 21:00	
WG139334-09	SSCV	01	04/29/2003 21:36	

* Sample past 12 hour tune limit

KEMRON ENVIRONMENTAL SERVICES
ORGANIC INSTRUMENT CHECK
DFTPP

Login Number: L0304554
Instrument HPMS4
Analyst MDC
Workgroup: WG139370

Tune ID: WG139370-01
Run Date: 04/30/2003
Run Time: 08:03
File ID: 4M18455
Cal ID: HPMS4 -29-APR-03

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	36.7	129952	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	38.0	134411	PASS
70.0	69.0	0	2.00	0.654	879	PASS
127	198	40.0	60.0	47.0	166125	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	353685	PASS
199	198	5.00	9.00	6.53	23112	PASS
275	198	10.0	30.0	27.9	98549	PASS
365	198	1.00	100	3.41	12058	PASS
441	443	0.0100	100	79.6	54488	PASS
442	198	40.0	100	99.1	350571	PASS
443	442	17.0	23.0	19.5	68453	PASS

This check relates to the following samples, MS, MSD:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG139340-02	BLANK	01	04/30/2003 08:57	
WG139340-03	LCS	01	04/30/2003 09:33	
L0304554-01	05-177511-SP1-042403	01	04/30/2003 13:38	

* Sample past 12 hour tune limit

Method: BNA.M
Title: M8270/625/Initial cal: 04/29/03
Last Calibration: Thu May 01 08:32:02 2003
HPM84
Calibration Files

Avg. %RSD
8.4

	Compound	3 4M18448.D	10 4M18449.D	20 4M18450.D	50 4M18447.D	80 4M18451.D	100 4M18452.D	120 4M18453.D	Avg	%RSD	R^2 value
I	1,4-Dichlorobenzene-d4	ISTD									
	Pyridine		1.424	1.378	1.341	1.383	1.351	1.429	1.384	2.6	
	n-Nitrosodimethylamine	0.813	0.748	0.745	0.763	0.741	0.723	0.761	0.756	3.7	
S	2-Fluorophenol	1.504	1.385	1.361	1.395	1.362	1.333	1.410	1.393	4.0	
	Aniline	0.607	0.586	0.548	0.511	0.506	0.497	0.524	0.537	7.3	
S	Phenol-d5	1.666	1.551	1.543	1.613	1.593	1.567	1.655	1.601	3.4	
C	Phenol	1.907	1.716	1.692	1.798	1.751	1.711	1.805	1.768	4.2	
	bis(2-Chloroethyl)ether	1.014	0.905	0.888	0.914	0.896	0.874	0.911	0.915	5.0	
	2-Chlorophenol	1.603	1.452	1.432	1.517	1.471	1.437	1.505	1.488	4.0	
	1,3-Dichlorobenzene	1.891	1.721	1.686	1.630	1.687	1.645	1.724	1.712	5.0	
C	1,4-Dichlorobenzene	1.976	1.789	1.721	1.739	1.747	1.692	1.776	1.774	5.3	
	Benzyl Alcohol	0.933	0.911	0.907	0.970	0.985	0.946	1.002	0.948	3.6	
	1,2-Dichlorobenzene	1.839	1.651	1.624	1.554	1.626	1.591	1.667	1.651	5.5	
	2-Methylphenol	1.232	1.110	1.114	1.176	1.152	1.128	1.187	1.157	3.8	
	bis(2-Chloroisopropyl)ether	2.048	1.805	1.758	1.723	1.749	1.696	1.791	1.796	6.5	
	3-,4-Methylphenol	1.754	1.627	1.612	1.716	1.693	1.665	1.750	1.688	3.3	
P	n-Nitrosodipropylamine	0.989	0.918	0.917	0.907	0.954	0.936	0.980	0.940	3.0	
	Hexachloroethane	0.630	0.584	0.597	0.606	0.616	0.602	0.632	0.610	2.9	
I	Naphthalene-d8	ISTD									
S	Nitrobenzene-d5	0.406	0.375	0.376	0.381	0.384	0.377	0.388	0.384	3.0	
	Nitrobenzene	0.407	0.373	0.370	0.383	0.375	0.366	0.377	0.379	3.8	
	Isophorone	0.685	0.655	0.656	0.609	0.667	0.653	0.668	0.656	3.6	
C	2-Nitrophenol	0.195	0.206	0.209	0.234	0.236	0.235	0.242	0.222	8.3	
	2,4-Dimethylphenol	0.378	0.359	0.363	0.352	0.385	0.386	0.401	0.375	4.7	
	bis(2-Chloroethoxy)methane	0.447	0.410	0.404	0.415	0.418	0.417	0.436	0.421	3.6	
	Benzoic Acid			0.103	0.156	0.167	0.177	0.199	0.161	22.4	
C	2,4-Dichlorophenol	0.348	0.321	0.324	0.343	0.338	0.335	0.347	0.336	3.1	
	1,2,4-Trichlorobenzene	0.445	0.395	0.385	0.378	0.392	0.385	0.395	0.396	5.7	
	Naphthalene	1.268	1.147	1.126	1.114	1.136	1.114	1.142	1.150	4.7	
	4-Chloroaniline	0.426	0.412	0.407	0.415	0.385	0.381	0.400	0.404	4.1	
C	Hexachlorobutadiene	0.263	0.253	0.250	0.217	0.249	0.246	0.251	0.250	7.7	
C	4-Chloro-3-Methylphenol	0.328	0.317	0.322	0.344	0.339	0.334	0.350	0.333	3.6	
	2-Methylnaphthalene	0.877	0.798	0.790	0.800	0.807	0.799	0.818	0.813	3.8	
I	Acenaphthene-d10	ISTD									
P	Hexachlorocyclopentadiene	0.299	0.332	0.369	0.359	0.420	0.416	0.423	0.374	12.9	
C	2,4,6-Trichlorophenol	0.398	0.407	0.419	0.449	0.448	0.443	0.454	0.431	5.2	
	2,4,5-Trichlorophenol	0.436	0.432	0.442	0.478	0.478	0.474	0.489	0.461	5.2	
S	2-Fluorobiphenyl	1.763	1.583	1.561	1.475	1.563	1.507	1.536	1.570	5.9	
	2-Chloronaphthalene	1.438	1.309	1.288	1.239	1.314	1.280	1.306	1.311	4.7	
	2-Nitroaniline			0.332	0.353	0.350	0.339	0.347	0.344	2.5	
	Dimethylphthalate	1.540	1.445	1.436	1.441	1.443	1.396	1.430	1.448	3.0	
	Acenaphthylene	2.258	2.119	2.108	2.051	2.134	2.078	2.088	2.119	3.2	
	2,6-Dinitrotoluene	0.307	0.317	0.330	0.343	0.350	0.348	0.362	0.337	5.8	
	3-Nitroaniline	0.316	0.296	0.277	0.277	0.186	0.146		0.246	29.1	
C	Acenaphthene	1.373	1.231	1.261	1.300	1.334	1.308	1.337	1.308	3.7	
P	2,4-Dinitrophenol			0.097	0.170	0.209	0.216	0.235	0.185	29.5	
P	4-Nitrophenol			0.222	0.249	0.249	0.259	0.285	0.249	6.5	
	Dibenzofuran	2.130	1.912	1.886	1.897	1.906	1.862	1.885	1.926	4.8	
	2,4-Dinitrotoluene	0.465	0.427	0.435	0.434	0.473	0.463	0.479	0.445	6.1	
	Diethylphthalate	1.506	1.410	1.403	1.421	1.420	1.382	1.400	1.420	2.8	
	Fluorene	1.595	1.459	1.444	1.448	1.492	1.454	1.484	1.482	3.8	
	4-Chlorophenyl Phenyl Ether	0.652	0.780	0.763	0.792	0.798	0.779	0.792	0.794	3.5	
	4-Nitroaniline		0.227	0.230	0.288	0.253	0.216	0.209	0.237	12.3	
	1,2-Diphenylhydrazine	1.368	1.284	1.284	1.325	1.302	1.270	1.300	1.305	2.5	
S	2,4,6-Tribromophenol	0.153	0.171	0.183	0.209	0.216	0.214	0.225	0.186	13.6	
I	Phenanthrene-d10	ISTD									
	4,6-Dinitro-2-Methylphenol			0.120	0.158	0.170	0.173	0.185	0.161	15.5	
C	n-Nitrosodiphenylamine	0.681	0.627	0.606	0.606	0.597	0.583	0.602	0.615	5.2	
	4-Bromophenyl Phenyl Ether	0.249	0.228	0.221	0.260	0.227	0.225	0.232	0.237	5.8	
	Hexachlorobenzene	0.305	0.284	0.278	0.274	0.275	0.271	0.277	0.280	4.1	
C	Pentachlorophenol			0.075	0.126	0.152	0.159	0.174	0.137	28.5	
	Phenanthrene	1.405	1.255	1.238	1.245	1.227	1.190	1.221	1.254	5.6	
	Anthracene	1.302	1.213	1.208	1.258	1.221	1.196	1.219	1.231	3.0	

Method: BNA.M
Title: M8270/625/Initial cal. 04/28/03
Last Calibration: Thu May 01 08:32:02 2003
HPMS4
Calibration Files

	Compound	3 4M18448.D	10 4M18449.D	20 4M18450.D	50 4M18447.D	80 4M18451.D	100 4M18452.D	120 4M18453.D	Avg	%RSD	R^2 value
	Avg. %RSD									8.4	
	Carbazole	1.161	0.978	0.838	0.858	0.510	0.545		0.815	30.8	
	Di-n-Butyl Phthalate	1.432	1.358	1.363	1.463	1.366	1.327	1.349	1.380	3.5	
C	Fluoranthene	1.579	1.459	1.428	1.465	1.408	1.373	1.390	1.443	4.8	
I	Chrysene-d12	ISTD									
	Benzidine	0.016	0.013	0.014	0.128	0.021	0.020	0.024	0.034	123.7	
	Pyrene	1.644	1.500	1.471	1.273	1.407	1.367	1.362	1.432	8.4	
S	p-Terphenyl-d14	1.137	1.047	1.032	0.856	0.986	0.963	0.971	0.999	8.7	
	Butyl Benzyl Phthalate	0.667	0.640	0.632	0.533	0.632	0.619	0.626	0.621	8.7	
	Benzo[a]anthracene	1.619	1.450	1.424	1.245	1.386	1.351	1.364	1.405	8.2	
	3,3'-Dichlorobenzidine	0.438	0.353	0.319	0.264	0.260	0.275	0.290	0.317	19.5	
	Chrysene	1.527	1.382	1.366	1.195	1.330	1.301	1.309	1.345	7.4	
	bis(2-Ethylhexyl)phthalate	0.952	0.854	0.865	0.780	0.860	0.844	0.856	0.859	5.8	
I	Perylene-d12	ISTD									
C	Di-n-Octyl Phthalate	1.832	1.761	1.811	1.908	1.869	1.856	1.906	1.852	2.9	
	Benzo[b]fluoranthene	1.936	1.872	1.786	1.843	1.815	1.776	1.835	1.838	3.0	
	Benzo[k]fluoranthene	1.978	1.852	1.765	1.802	1.742	1.714	1.752	1.729	8.2	
C	Benzo(a)pyrene	1.793	1.633	1.637	1.624	1.858	1.836	1.879	1.666	3.6	
	Indeno[1,2,3-cd]pyrene	2.085	1.938	1.942	2.029	1.953	1.891	1.913	1.864	3.5	
	Dibenz[ah]anthracene	1.786	1.647	1.678	1.700	1.663	1.630	1.652	1.684	3.3	
	Benzo[ghi]perylene	1.787	1.801	1.602	1.852	1.585	1.518	1.517	1.808	5.3	

Thu May 01 08:34:05 2003

ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L0304554
File ID: 4M18454
ALT ID: WG139334-09
Units: ug/mL

Instrument ID: HPMS4
Run Date: 04/29/2003
Run Time: 21:36
Analyst: CLK
Cal ID: HPMS4 - 29-APR-03

Analyte		Expected	Found	RF	%D	Q
Benzo[a]pyrene	CCC	50	50.9	1.69	1.8	
Di-n-Octyl Phthalate	CCC	50	52.4	1.94	4.8	
Fluoranthene	CCC	50	50.6	1.46	1.2	
Pentachlorophenol	CCC	50	56.3	0.154	12.6	
n-Nitrosodiphenylamine	CCC	50	50.6	0.623	1.2	
Acenaphthene	CCC	50	51.8	1.35	3.6	
2,4,6-Trichlorophenol	CCC	50	52.8	0.455	5.6	
4-Chloro-3-Methylphenol	CCC	50	50.7	0.338	1.4	
Hexachlorobutadiene	CCC	50	50.5	0.252	1.0	
2,4-Dichlorophenol	CCC	50	50.7	0.341	1.4	
2-Nitrophenol	CCC	50	55.5	0.247	11.0	
1,4-Dichlorobenzene	CCC	50	50.1	1.78	0.2	
Phenol	CCC	50	50.2	1.78	0.4	
4-Nitrophenol	SPCC	50	52.8	0.263	5.6	
2,4-Dinitrophenol	SPCC	50	54.3	0.201	8.6	
Hexachlorocyclopentadiene	SPCC	50	54.8	0.410	9.6	
n-Nitrosodipropylamine	SPCC	50	51.4	0.968	2.8	
Benzo[ghi]perylene		50	45.4	1.46	9.2	
Dibenz[ah]anthracene		50	48.2	1.62	3.6	
Indeno[1,2,3-cd]pyrene		50	47.5	1.87	5.0	
Benzo[k]fluoranthene		50	51.8	1.79	3.6	
Benzo[b]fluoranthene		50	50.3	1.85	0.6	
bis(2-Ethylhexyl)phthalate		50	51.2	0.880	2.4	
Chrysene		50	50.9	1.37	1.8	
3,3'-Dichlorobenzidine		50	45.5	0.289	9.0	
Benzo[a]anthracene		50	50.6	1.42	1.2	
Butyl Benzyl Phthalate		50	51.9	0.645	3.8	
Pyrene		50	50.9	1.46	1.8	
Benzidine		50	26.5	0.0179	47.0	*
Di-n-Butyl Phthalate		50	50.8	1.40	1.6	
Carbazole		50	43.5	0.708	13.0	
Anthracene		50	50.9	1.25	1.8	
Phenanthrene		50	50.2	1.26	0.4	
Hexachlorobenzene		50	50.0	0.281	0.0	
4-Bromophenyl Phenyl Ether		50	49.0	0.233	2.0	
4,6-Dinitro-2-Methylphenol		50	52.9	0.170	5.8	
1,2-Diphenylhydrazine		50	50.3	1.31	0.6	
4-Nitroaniline		50	53.9	0.256	7.8	
4-Chlorophenyl Phenyl Ether		50	50.7	0.805	1.4	
Fluorene		50	50.9	1.51	1.8	
Diethylphthalate		50	50.9	1.45	1.8	
2,4-Dinitrotoluene		50	53.3	0.474	6.6	
Dibenzofuran		50	50.4	1.94	0.8	
3-Nitroaniline		50	44.3	0.218	11.4	

ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L0304554
File ID: 4M18454
ALT ID: WG139334-09
Units: ug/mL

Instrument ID: HPMS4
Run Date: 04/29/2003
Run Time: 21:36
Analyst: CLK
Cal ID: HPMS4 29-APR-03

Analyte	Expected	Found	RF	%D	Q
2,6-Dinitrotoluene	50	53.0	0.357	6.0	
Acenaphthylene	50	51.5	2.18	3.0	
Dimethylphthalate	50	50.7	1.47	1.4	
2-Nitroaniline	50	51.3	0.353	2.6	
2-Chloronaphthalene	50	50.8	1.33	1.6	
2,4,5-Trichlorophenol	50	52.9	0.488	5.8	
2-Methylnaphthalene	50	50.5	0.821	1.0	
4-Chloroaniline	50	50.0	0.403	0.0	
Naphthalene	50	50.0	1.15	0.0	
1,2,4-Trichlorobenzene	50	49.5	0.393	1.0	
Benzoic Acid	50	56.2	0.164	12.4	
bis(2-Chloroethoxy)methane	50	50.1	0.421	0.2	
2,4-Dimethylphenol	50	51.6	0.387	3.2	
Isophorone	50	51.9	0.681	3.8	
Nitrobenzene	50	49.7	0.377	0.6	
Hexachloroethane	50	50.9	0.621	1.8	
3-,4-Methylphenol	50	51.0	1.72	2.0	
bis(2-Chloroisopropyl)ether	50	49.7	1.79	0.6	
2-Methylphenol	50	50.5	1.17	1.0	
1,2-Dichlorobenzene	50	50.0	1.65	0.0	
Benzyl Alcohol	50	51.9	0.983	3.8	
1,3-Dichlorobenzene	50	50.0	1.71	0.0	
2-Chlorophenol	50	50.0	1.49	0.0	
bis(2-Chloroethyl)ether	50	49.4	0.904	1.2	
Aniline	50	51.6	0.554	3.2	
n-Nitrosodimethylamine	50	50.8	0.768	1.6	
Pyridine	50	51.7	1.43	3.4	

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

KEMRON ENVIRONMENTAL SERVICES
CONTINUING CALIBRATION REPORT

Login Number: L0304554
File ID: 4M18456
CCV ID: WG139370-02
Units: ug/mL

Instrument ID: HPMS4
Run Date: 04/30/2003
Run Time: 08:22
Analyst: MDC
Cal ID: HPMS4 - 29-APR-03

Analyte		Expected	Found	RF	%D	Q
Benzo[a]pyrene	CCC	50	49.1	1.64	1.8	
Di-n-Octyl Phthalate	CCC	50	51.2	1.90	2.4	
Fluoranthene	CCC	50	51.2	1.48	2.4	
Pentachlorophenol	CCC	50	57.2	0.157	14.4	
n-Nitrosodiphenylamine	CCC	50	50.8	0.625	1.6	
Acenaphthene	CCC	50	49.1	1.28	1.8	
2,4,6-Trichlorophenol	CCC	50	51.4	0.443	2.8	
4-Chloro-3-Methylphenol	CCC	50	52.2	0.348	4.4	
Hexachlorobutadiene	CCC	50	44.0	0.220	12.0	
2,4-Dichlorophenol	CCC	50	51.2	0.344	2.4	
2-Nitrophenol	CCC	50	53.3	0.237	6.6	
1,4-Dichlorobenzene	CCC	50	48.5	1.72	3.0	
Phenol	CCC	50	50.0	1.77	0.0	
4-Nitrophenol	SPCC	50	50.8	0.253	1.6	
2,4-Dinitrophenol	SPCC	50	47.0	0.174	6.0	
Hexachlorocyclopentadiene	SPCC	50	47.9	0.358	4.2	
n-Nitrosodipropylamine	SPCC	50	47.4	0.892	5.2	
Benzo[ghi]perylene		50	46.2	1.48	7.6	
Dibenz[ah]anthracene		50	48.0	1.62	4.0	
Indeno[1,2,3-cd]pyrene		50	48.5	1.90	3.0	
Benzo[k]fluoranthene		50	44.3	1.53	11.4	
Benzo[b]fluoranthene		50	49.9	1.84	0.2	
bis(2-Ethylhexyl)phthalate		50	45.1	0.774	9.8	
Chrysene		50	44.0	1.18	12.0	
3,3'-Dichlorobenzidine		50	45.0	0.285	10.0	
Benzo[a]anthracene		50	44.4	1.25	11.2	
Butyl Benzyl Phthalate		50	42.3	0.525	15.4	
Pyrene		50	44.1	1.26	11.8	
Benzidine		50	218	0.147	336.0	*
Di-n-Butyl Phthalate		50	53.2	1.47	6.4	
Carbazole		50	54.9	0.895	9.8	
Anthracene		50	51.2	1.26	2.4	
Phenanthrene		50	50.0	1.26	0.0	
Hexachlorobenzene		50	49.7	0.279	0.6	
4-Bromophenyl Phenyl Ether		50	58.9	0.280	17.8	
4,6-Dinitro-2-Methylphenol		50	50.0	0.161	0.0	
1,2-Diphenylhydrazine		50	50.0	1.30	0.0	
4-Nitroaniline		50	57.8	0.274	15.6	
4-Chlorophenyl Phenyl Ether		50	49.7	0.789	0.6	
Fluorene		50	48.1	1.42	3.8	
Diethylphthalate		50	49.2	1.40	1.6	
2,4-Dinitrotoluene		50	48.2	0.429	3.6	

CONTINUING CALIBRATION REPORT

Login Number: L0304554
File ID: 4M18456
CCV ID: WG139370-02
Units: ug/mL

Instrument ID: HPMS4
Run Date: 04/30/2003
Run Time: 08:22
Analyst: MDC
Cal ID: HPMS4 29-APR-03

Analyte	Expected	Found	RF	%D	Q
Dibenzofuran	50	48.7	1.88	2.6	
3-Nitroaniline	50	60.0	0.295	20.0	
2,6-Dinitrotoluene	50	49.8	0.335	0.4	
Acenaphthylene	50	48.1	2.04	3.8	
Dimethylphthalate	50	49.0	1.42	2.0	
2-Nitroaniline	50	50.8	0.350	1.6	
2-Chloronaphthalene	50	47.3	1.24	5.4	
2,4,5-Trichlorophenol	50	51.8	0.478	3.6	
2-Methylnaphthalene	50	49.9	0.812	0.2	
4-Chloroaniline	50	51.7	0.418	3.4	
Naphthalene	50	48.6	1.12	2.8	
1,2,4-Trichlorobenzene	50	47.4	0.376	5.2	
Benzoic Acid	50	50.3	0.162	0.6	
bis(2-Chloroethoxy)methane	50	49.5	0.417	1.0	
2,4-Dimethylphenol	50	47.5	0.356	5.0	
Isophorone	50	46.2	0.606	7.6	
Nitrobenzene	50	50.5	0.383	1.0	
Hexachloroethane	50	48.8	0.595	2.4	
3-,4-Methylphenol	50	49.8	1.68	0.4	
bis(2-Chloroisopropyl)ether	50	47.3	1.70	5.4	
2-Methylphenol	50	49.6	1.15	0.8	
1,2-Dichlorobenzene	50	46.3	1.53	7.4	
Benzyl Alcohol	50	50.0	0.948	0.0	
1,3-Dichlorobenzene	50	47.3	1.62	5.4	
2-Chlorophenol	50	49.9	1.49	0.2	
bis(2-Chloroethyl)ether	50	49.2	0.901	1.6	
Aniline	50	47.2	0.507	5.6	
n-Nitrosodimethylamine	50	50.3	0.761	0.6	
Pyridine	50	48.5	1.34	3.0	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

KEMRON ENVIRONMENTAL SERVICES
INTERNAL STANDARD AREA SUMMARY

Login Number:L0304554
Instrument ID:HPMS4
Workgroup (AAB#):WG139481

CCV Number:WG139370-02
CAL ID: HPMS4-29-APR-03
Matrix:WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG139370-02	NA	NA	282724	634067	1309498	1060492	905897	1057278
Upper Limit	NA	NA	565448	1268134	2618996	2120984	1811794	2114556
Lower Limit	NA	NA	141362	317034	654749	530246	452949	528639
L0304554-01	1.00	01	300507	660049	1260714	1117535	878109	1114912

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	4M18443.D	1.	✓ WG139334-01 50PPM DFTPP	1,1 SOS64-3	29 Apr 2003 15:20
2	2	4M18444.D	1.	cc WG139334-02 50PPM BNA STD	1,1 SOS63-38-4	29 Apr 2003 15:39
[illegible]	1	4M18445.D	1.	RB WG139334-01 50PPM DFTPP [illegible]	1,1 SOS64-3	29 Apr 2003 16:37
	1	4M18446.D	1.	✓ WG139334-01 50PPM DFTPP	1,1 SOS64-3	29 Apr 2003 16:52
[illegible]	2	4M18447.D	1.	cc/✓ WG139334-02 50PPM BNA STD	1,1 SOS63-38-4	29 Apr 2003 17:10
6	3	4M18448.D	1.	✓ WG139334-03 3PPM BNA STD	1,1 SOS63-38-1	29 Apr 2003 18:04
7	4	4M18449.D	1.	WG139334-04 10PPM BNA STD	1,1 SOS63-38-2	29 Apr 2003 18:38
8	5	4M18450.D	1.	WG139334-05 20PPM BNA STD	1,1 SOS63-38-3	29 Apr 2003 19:13
9	6	4M18451.D	1.	WG139334-06 80PPM BNA STD	1,1 SOS63-38-5	29 Apr 2003 19:47
10	7	4M18452.D	1.	WG139334-07 100PPM BNA STD	1,1 SOS63-38-6	29 Apr 2003 20:24
11	8	4M18453.D	1.	WG139334-08 120PPM BNA STD	1,1 SOS63-38-7	29 Apr 2003 21:00
12	9	4M18454.D	1.	WG139334-09 50PPM Alt Source BNA STD	1,1 SOS64-19-4	29 Apr 2003 21:36

CLK
5/1/03
[illegible] 5/1/03

KEMRON ENVIRONMENTAL SERVICES

Semivolatile GC/MS Laboratory Maintenance / Runlog

Analysis Date/Time 4/29/03 Instrument ID HP5973 Column ID RTX-5MS SOP # MSS01 Rev. # 9 8270C ✓
Analyst Initials CLL Data Subdirectory 042903 SOP # MSS02 Rev. # ___ 625 ___
ISTD # A2100144 SOP # MSS03 Rev. # ___ PAH 8270C ___

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Preventative Maintenance

- ☐ Change o-ring
- ☒ Change liner
- ☐ Change septum
- ☐ Clip column (___ cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?

Yes ___ No ___

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: _____

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	4M18455.D	1.	✓WG139370-01 50PPM DFTPP	1,1 SOS64-3	30 Apr 2003 08:03
	2	4M18456.D	1.	WG139370-02 50PPM BNA STD	1,1 SOS63-38-4	30 Apr 2003 08:22
	3	4M18457.D	1.	WG139340-02 BLK 4/29 V201P101	1,1	30 Apr 2003 08:57
4	4	4M18458.D	1.	WG139340-03 LCS 4/29 V201P101	1,1	30 Apr 2003 09:33
5	5	4M18459.D	1.	WG139289-01 TBLK 4/28 V201P101	17,1	30 Apr 2003 10:08
6	6	4M18460.D	1.	WG139272-01 BLK 4/29 V202P65	7,1 SOIL	30 Apr 2003 10:43
7	7	4M18461.D	1.	WG139272-02 LCS 4/29 V202P65	7,1 SOIL	30 Apr 2003 11:18
8	8	4M18462.D	1.	WG139272-03 LCS DUP 4/29 V202P65	7,1 SOIL	30 Apr 2003 11:53
9	9	4M18463.D	1.	L0304439-01 SOIL	7,1 SOIL	30 Apr 2003 12:28
10	10	4M18464.D	1.	L0304501-05 TCLP	17,1	30 Apr 2003 13:03
11	11	4M18465.D	1.	L0304554-01 TCLP	17,1	30 Apr 2003 13:38
12	12	4M18466.D	1.	L0304594-03 TCLP	17,1	30 Apr 2003 14:13
13	13	4M18467.D	1.	L0304543-04 TCLP	17,1	30 Apr 2003 14:48
14	14	4M18468.D	1.	L0304543-05 TCLP	17,1	30 Apr 2003 15:23
15	15	4M18469.D	1.	L0304543-07 TCLP	17,1	30 Apr 2003 15:58
16	16	4M18470.D	1.	L0304420-01	1,1	30 Apr 2003 17:14
17	17	4M18471.D	1.	L0304420-02	1,1	30 Apr 2003 17:50
18	18	4M18472.D	1.	WG139243-01 BLK 4/28 V201P91 RR	2,1	30 Apr 2003 18:25
19	19	4M18473.D	1.	L0304581-01	2,1	30 Apr 2003 19:01
20	20	4M18474.D	1.	L0304581-02	2,1	30 Apr 2003 19:37
21	21	4M18475.D	1.	L0304581-03	2,1	30 Apr 2003 20:12
22	22	4M18476.D	1.	RR10 L0304581-04	2,1	30 Apr 2003 20:47
23	23	4M18477.D	1.	RR10 L0304581-05	2,1	30 Apr 2003 21:23
24	24	4M18478.D	1.	✓L0304581-06	2,1	30 Apr 2003 21:58
25	25	4M18479.D	1.	✓L0304581-07	2,1	30 Apr 2003 22:34
26	26	4M18480.D	1.	✓L0304581-08	2,1	30 Apr 2003 23:10
27	27	4M18481.D	1.	RR10 L0304581-09	2,1	30 Apr 2003 23:46
28	28	4M18482.D	1.	✓L0304574-06	2,1	1 May 2003 00:22
29	29	4M18483.D	1.	✓L0304582-09	2,1	1 May 2003 00:58
30	30	4M18484.D	1.	✓WG139340-01 L0304582-03	2,1	1 May 2003 01:34
	31	4M18485.D	1.	WG139340-04 L0304582-05 MS	2,1	1 May 2003 02:09
	32	4M18486.D	1.	WG139340-05 L0304582-07 MSD	2,1	1 May 2003 02:45
33	33	4M18487.D	1.	L0304582-16	2,1	1 May 2003 03:21
34	34	4M18488.D	1.	L0304582-01	2,1	1 May 2003 03:56
35	35	4M18489.D	1.	RR5 L0304582-14	2,1	1 May 2003 04:32
36	36	4M18490.D	10.	L0304574-03 10X	2,10	1 May 2003 05:08
37	37	4M18491.D	10.	L0304574-04 10X	2,10	1 May 2003 05:44
38	38	4M18492.D	10.	L0304574-05 10X	2,10	1 May 2003 06:20
39	39	4M18493.D	10.	L0304574-01 10X	2,10	1 May 2003 06:56
40	40	4M18494.D	10.	L0304574-02 10X	2,10	1 May 2003 07:32
41		4M18495.D	1.			

CLK
5/1/03
[illegible]

KEMRON ENVIRONMENTAL SERVICES

Semivolatile GC/MS Laboratory Maintenance / Runlog

Analysis Date/Time 4/30/03 Instrument ID #MS4 Column ID RTX-5MS SOP # MSS01 Rev. # 9 8270C ✓

Analyst Initials CL Data Subdirectory 043003 SOP # MSS02 Rev. # 3 625 ✓

ISTD # B2100144 SOP # MSS03 Rev. # ___ FAH 8270C ___

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Preventative Maintenance

- ☐ Change o-ring
- ☒ Change liner
- ☐ Change septum
- ☐ Clip column (___ cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?

Yes ___ No ___

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

L0304501-05 TCLP, SS1 <10% SMI, SS 2 bone SMI

L0304581-04, SS 4 low, Needs 10X #10, 11, 13, 28

-05, Needs 10X #10, 11, 13, possibly 100X

-09, Needs 10X #11, 13

L0304582-14, Needs 5X #75

L0304574-03 10X, Needs RR @ 5X

-04

-05

-01

-02

Reviewed By: [signature]

Parameter: BNA H_2O SOP #: EXB08 Revision #: 10
Extraction Analyst(s): DP, PAS, CAF TV/KD Analyst(s): —
Date/Time Extracted: 4/29/03 @ 17:00 Date TV/KD: 04/29/03
Spike/Surrogate Analyst: DP Witness: CAF
Surrogate #: ESS00 43-50 Earliest Hold Date: 5-01-03
Spike #: A = ESS00 44-01 #2 Spike #: B = —

Extraction Work Group WG 139340
Analytical Work Group WG 159481
Extract Relinquished By: CEO
Extract Received By & Date: 4/30/03

	Sample ID	Test Code	pH / <2	pH / N	pH / >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	Emulsions / BN	Emulsions / N	Comments
1	Blank		✓		✓	1000mL	500µL		1mL	T				WG 139340-02
2	LCS		✓		✓	1		500µL		C				WG 1 -03
5/6 3	04-574-01	625 AB	✓		✓	970 mL				C	✓	✓		
4	-02		✓		✓	950				C	✓	✓		
5	-03		✓		✓	900				C	✓	✓		
6	-04		✓		✓	950				C	✓	✓		
7	-05		✓		✓	930				C	✓	✓		
8	-06		✓		✓	890				T				
5/6 9	04-575-08	827-SPE	✓		✓	1				T				
5/8 10	04-582-01	625-AB	✓		✓	930				C	✓	✓		
11	-03		✓		✓	900				C				WG 139340-01
12	-05MD		✓		✓	940		500µL		C			*	WG 1 -04
13	-07MD		✓		✓	1		1		C			*	WG 1 -05
14	-09		✓		✓	1				T				
15	-12		✓		✓	930				C		✓		*
16	-14		✓		✓	1				C				
17	-16	1	✓		✓	1				C				
18	TBLK-4/28	827-TC	✓		✓	100mL				T				WG 139289-01
4/4 19	04-501-05		✓		✓					C	✓			
5/7 20	04-543-04		✓		✓					T				
21	-05		✓		✓					C				
22	-07		✓		✓					T				
5/7 23	04-554-01		✓		✓					T				
5/7 24	04-594-23	1	✓		✓	1		04/29/03	1	T				

Methylene Chloride Lot #: 43010
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: Fortified Lot #: ER 2405
Reagent: 10N NaOH Lot #: ER 0005-13
Reagent: — Lot #: —
Acid: 1:1 H_2SO_4 Lot #: ER 0005-02
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 0005-25

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 5/5/03

Extraction Notes For Volume # 201 Page # 101

General Comments: MS, MSD of 04-582-23

Extraction Anomalies: # Sample required 2x the normal amount (15mL) of base (10N $NaOH$) to achieve the desired pH (7±2). Due to extremely thick emulsions on the base side, sample was gently shaken by hand for the 2nd and 3rd base side shakes rather than being returned to the automatic shaker.

Concentration Anomalies: None

Clean-Up Anomalies: N/A

Supervisor Review: [signature] Date: 4/30/03

Data File : C:\HPCHEM\1\DATA\043003\4M18465.D Vial: 11
Acq On : 30 Apr 2003 13:38 Operator: mdc
Sample : L0304554-01 TCLP Inst : HPMS4
Misc : 17,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 1 9:09 2003 Quant Results File: BNA.RES

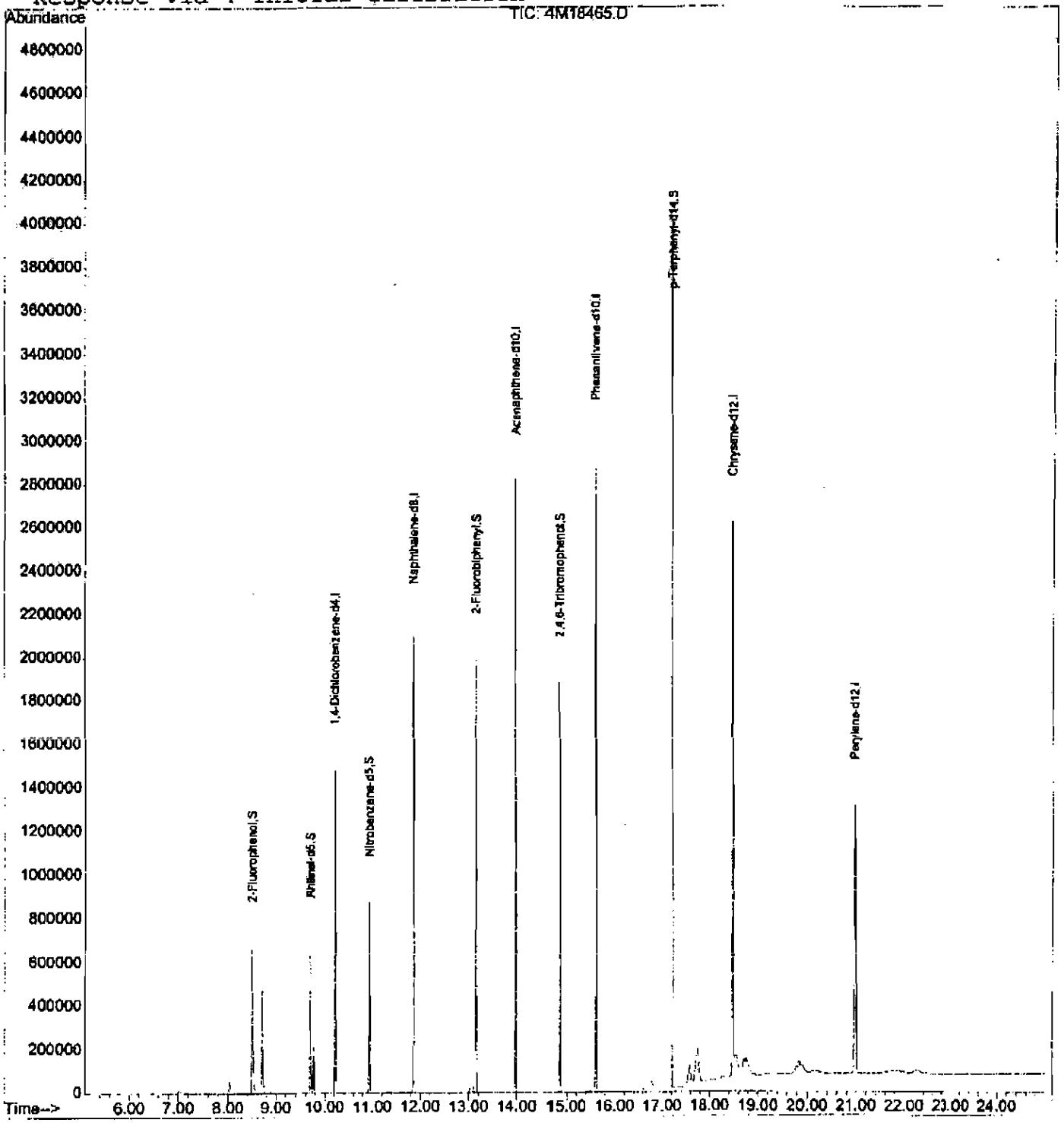
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:54:47 2003
Response via : Initial Calibration
DataAcq Meth : BNA

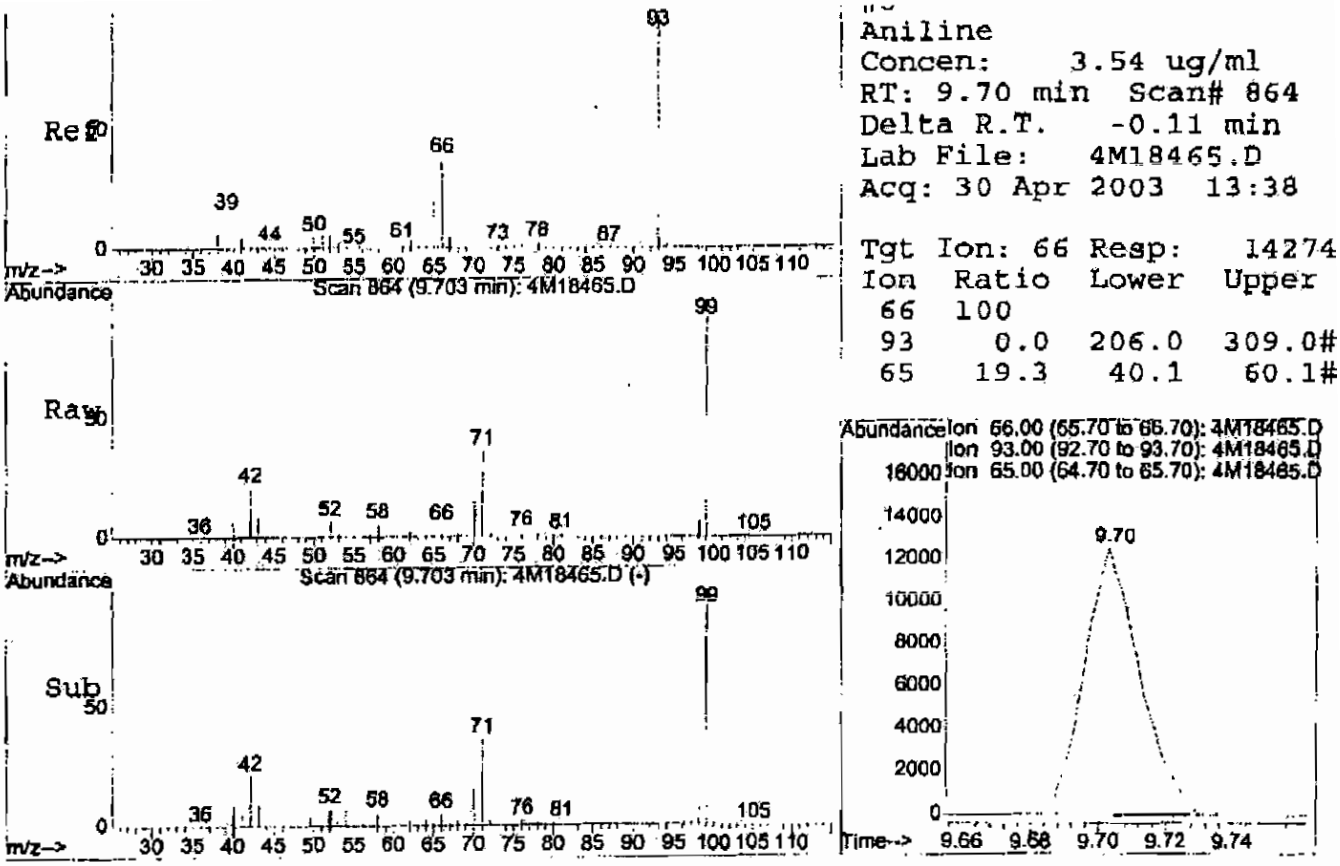
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.22	152	300507	40.00	ug/ml	0.00
19) Naphthalene-d8	11.86	136	1117535	40.00	ug/ml	0.00
34) Acenaphthene-d10	13.98	164	660049	40.00	ug/ml	0.00
56) Phenanthrene-d10	15.61	188	1114912	40.00	ug/ml	0.00
67) Chrysene-d12	18.49	240	1260714	40.00	ug/ml	0.00
76) Perylene-d12	20.98	264	878109	40.00	ug/ml	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol	8.50	112	348260	33.2809	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 33.28%			
6) Phenol-d5	9.70	99	270817	22.5152	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 22.52%			
20) Nitrobenzene-d5	10.94	82	296403	27.6244	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 55.24%			
38) 2-Fluorobiphenyl	13.15	172	672263	25.9529	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 51.90%			
55) 2,4,6-Tribromophenol	14.86	330	229197	70.8681	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 70.87%			
70) p-Terphenyl-d14	17.23	244	1306424	41.4957	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 83.00%			
Target Compounds						Qvalue
5) Aniline	9.70	66	14274	3.5401	ug/ml#	1

(#) = qualifier out of range (m) = manual integration
4M18465.D BNA.M Thu May 01 09:09:44 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\043003\4M18465.D Vial: 11
Acq On : 30 Apr 2003 13:38 Operator: mdc
Sample : L0304554-01 TCLP Inst : HPMS4
Misc : 17,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 1 9:09 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:54:47 2003
Response via : Initial Calibration




Aniline
Concen: 3.54 ug/ml
RT: 9.70 min Scan# 864
Delta R.T. -0.11 min
Lab File: 4M18465.D
Acq: 30 Apr 2003 13:38
Tgt Ion: 66 Resp: 14274
Ion Ratio Lower Upper
66 100
93 0.0 206.0 309.0#
65 19.3 40.1 60.1#
Ref
Raw
Sub
Abundance
m/z-->
Scan 864 (9.703 min): 4M18465.D
Scan 864 (9.703 min): 4M18465.D (-)
Ion 66.00 (65.70 to 66.70): 4M18465.D
Ion 93.00 (92.70 to 93.70): 4M18465.D
Ion 65.00 (64.70 to 65.70): 4M18465.D
9.70
Time-->

2.2.1.3 Standards Data

Calibration Table Report
Method: BNA.M
Title: M8270/625/Initial cal. 04/29/03
Last Calibration: Thu May 01 06:32:02 2003
HPMS4
Calibration Files

Avg. %RSD
8.4

	Compound	3 4M18448.D	10 4M18449.D	20 4M18450.D	50 4M18447.D	80 4M18451.D	100 4M18452.D	120 4M18453.D	Avg	%RSD	R^2 value
I	1,4-Dichlorobenzene-d4	ISTD									
	Pyridine		1.424	1.376	1.341	1.383	1.351	1.429	1.384	2.6	
	n-Nitrosodimethylamine	0.813	0.748	0.745	0.753	0.741	0.723	0.761	0.758	3.7	
S	2-Fluorophenol	1.504	1.385	1.361	1.395	1.362	1.333	1.410	1.393	4.0	
	Aniline	0.607	0.566	0.545	0.511	0.506	0.497	0.524	0.537	7.3	
S	Phenol-d5	1.686	1.551	1.543	1.613	1.593	1.567	1.655	1.601	3.4	
C	Phenol	1.907	1.716	1.692	1.796	1.751	1.711	1.805	1.768	4.2	
	bis(2-Chloroethyl)ether	1.014	0.908	0.888	0.914	0.896	0.874	0.911	0.915	5.0	
	2-Chlorophenol	1.603	1.452	1.432	1.517	1.471	1.437	1.505	1.488	4.0	
	1,3-Dichlorobenzene	1.891	1.721	1.686	1.630	1.687	1.645	1.724	1.712	5.0	
C	1,4-Dichlorobenzene	1.976	1.769	1.721	1.739	1.747	1.692	1.776	1.774	5.3	
	Benzyl Alcohol	0.933	0.911	0.907	0.970	0.965	0.948	1.002	0.948	3.6	
	1,2-Dichlorobenzene	1.839	1.651	1.624	1.554	1.628	1.591	1.667	1.651	5.5	
	2-Methylphenol	1.232	1.110	1.114	1.176	1.152	1.128	1.187	1.157	3.8	
	bis(2-Chloroisopropyl)ether	2.048	1.805	1.758	1.723	1.749	1.696	1.791	1.796	6.5	
	3-,4-Methylphenol	1.754	1.627	1.612	1.718	1.693	1.665	1.750	1.688	3.3	
P	n-Nitrosodipropylamine	0.969	0.918	0.917	0.907	0.954	0.936	0.980	0.940	3.0	
	Hexachloroethane	0.630	0.584	0.597	0.606	0.618	0.602	0.632	0.610	2.9	
I	Naphthalene-d8	ISTD									
S	Nitrobenzene-d5	0.405	0.375	0.376	0.381	0.384	0.377	0.388	0.384	3.0	
	Nitrobenzene	0.407	0.373	0.370	0.383	0.375	0.366	0.377	0.379	3.6	
	Isophorone	0.685	0.655	0.656	0.609	0.667	0.653	0.668	0.656	3.6	
C	2-Nitrophenol	0.195	0.206	0.209	0.234	0.236	0.235	0.242	0.222	8.3	
	2,4-Dimethylphenol	0.378	0.359	0.363	0.352	0.365	0.386	0.401	0.375	4.7	
	bis(2-Chloroethoxy)methane	0.447	0.410	0.404	0.415	0.418	0.417	0.436	0.421	3.6	
	Benzoic Acid			0.103	0.156	0.167	0.177	0.199	0.161	22.4	
C	2,4-Dichlorophenol	0.346	0.321	0.324	0.343	0.338	0.335	0.347	0.336	3.1	
	1,2,4-Trichlorobenzene	0.446	0.395	0.385	0.378	0.392	0.385	0.395	0.396	5.7	
	Naphthalene	1.268	1.147	1.126	1.114	1.136	1.114	1.142	1.150	4.7	
	4-Chloroaniline	0.426	0.412	0.407	0.415	0.385	0.381	0.400	0.404	4.1	
C	Hexachlorobutadiene	0.283	0.253	0.250	0.217	0.249	0.248	0.251	0.250	7.7	
C	4-Chloro-3-Methylphenol	0.328	0.317	0.322	0.344	0.339	0.334	0.350	0.333	3.6	
	2-Methylnaphthalene	0.877	0.798	0.790	0.800	0.807	0.799	0.818	0.813	3.6	
I	Acenaphthene-d10	ISTD									
P	Hexachlorocyclopentadiene	0.299	0.332	0.369	0.359	0.420	0.416	0.423	0.374	12.9	
C	2,4,6-Trichlorophenol	0.398	0.407	0.419	0.449	0.446	0.443	0.454	0.431	5.2	
	2,4,5-Trichlorophenol	0.436	0.432	0.442	0.479	0.478	0.474	0.480	0.461	5.2	
S	2-Fluorobiphenyl	1.763	1.583	1.561	1.475	1.563	1.507	1.536	1.570	5.9	
	2-Chloronaphthalene	1.438	1.309	1.288	1.239	1.314	1.280	1.308	1.311	4.7	
	2-Nitroaniline			0.332	0.353	0.350	0.339	0.347	0.344	2.5	
	Dimethylphthalate	1.540	1.445	1.436	1.441	1.443	1.398	1.430	1.448	3.0	
	Acenaphthylene	2.258	2.119	2.108	2.051	2.134	2.078	2.088	2.119	3.2	
	2,6-Dinitrotoluene	0.307	0.317	0.330	0.343	0.350	0.346	0.362	0.337	5.8	
	3-Nitroaniline	0.316	0.296	0.277	0.277	0.166	0.146		0.246	29.1	
C	Acenaphthene	1.373	1.231	1.261	1.300	1.334	1.308	1.337	1.306	3.7	
P	2,4-Dinitrophenol			0.097	0.170	0.209	0.216	0.235	0.185	29.5	
P	4-Nitrophenol			0.222	0.249	0.249	0.259	0.265	0.249	6.5	
	Dibenzofuran	2.130	1.912	1.885	1.897	1.908	1.862	1.885	1.926	4.8	
	2,4-Dinitrotoluene	0.405	0.427	0.435	0.434	0.473	0.463	0.479	0.445	6.1	
	Diethylphthalate	1.506	1.410	1.403	1.421	1.420	1.382	1.400	1.420	2.8	
	Fluorene	1.595	1.459	1.444	1.448	1.492	1.454	1.484	1.482	3.6	
	4-Chlorophenyl Phenyl Ether	0.852	0.780	0.783	0.792	0.798	0.779	0.792	0.794	3.5	
	4-Nitroaniline		0.227	0.230	0.288	0.253	0.216	0.209	0.237	12.3	
	1,2-Diphenylhydrazine	1.368	1.284	1.284	1.325	1.302	1.270	1.300	1.305	2.5	
S	2,4,6-Tribromophenol	0.153	0.171	0.183	0.209	0.216	0.214	0.225	0.196	13.8	
I	Phenanthrene-d10	ISTD									
	4,6-Dinitro-2-Methylphenol			0.120	0.158	0.170	0.173	0.185	0.161	15.5	
C	n-Nitrosodiphenylamine	0.661	0.627	0.606	0.608	0.597	0.583	0.602	0.615	5.2	
	4-Bromophenyl Phenyl Ether	0.249	0.228	0.221	0.280	0.227	0.225	0.232	0.237	6.8	
	Hexachlorobenzene	0.305	0.284	0.278	0.274	0.275	0.271	0.277	0.280	4.1	
	Pentachlorophenol			0.075	0.126	0.152	0.159	0.174	0.137	28.5	
	Phenanthrene	1.405	1.255	1.236	1.245	1.227	1.190	1.221	1.254	5.6	
	Anthracene	1.302	1.213	1.208	1.258	1.221	1.196	1.219	1.231	3.0	

Calibration Table Report
Method: BNA.M
Title: M8270/625/initial cal. 04/29/03
Last Calibration: Thu May 01 08:32:02 2003
HPMS4
Calibration Files

Avg. %RSD
8.4

		3	10	20	50	80	100	120			
		4M18448.D	4M18449.D	4M18450.D	4M18447.D	4M18451.D	4M18452.D	4M18453.D			
	Compound								Avg	%RSD	R^2 value
	Carbazole	1.161	0.978	0.838	0.858	0.510	0.545		0.815	30.8	
	Di-n-Butyl Phthalate	1.432	1.358	1.363	1.463	1.366	1.327	1.349	1.380	3.5	
C	Fluoranthene	1.579	1.459	1.428	1.465	1.406	1.373	1.390	1.443	4.8	
I	Chrysene-d12	ISTD									
	Benzidine	0.016	0.013	0.014	0.126	0.021	0.020	0.024	0.034	123.7	
	Pyrene	1.644	1.500	1.471	1.273	1.407	1.367	1.362	1.432	8.4	
S	p-Terphenyl-d14	1.137	1.047	1.032	0.858	0.986	0.953	0.971	0.999	8.7	
	Butyl Benzyl Phthalate	0.667	0.640	0.632	0.533	0.632	0.619	0.626	0.621	6.7	
	Benzo[a]anthracene	1.619	1.450	1.424	1.245	1.386	1.351	1.364	1.405	8.2	
	3,3'-Dichlorobenzidine	0.439	0.353	0.319	0.264	0.260	0.275	0.290	0.317	19.5	
	Chrysene	1.527	1.382	1.366	1.198	1.330	1.301	1.309	1.345	7.4	
	bis(2-Ethylhexyl)phthalate	0.952	0.854	0.865	0.760	0.860	0.844	0.856	0.859	5.8	
I	Perylene-d12	ISTD									
C	Di-n-Octyl Phthalate	1.832	1.781	1.811	1.909	1.889	1.856	1.906	1.852	2.9	
	Benzo[b]fluoranthene	1.936	1.872	1.786	1.843	1.815	1.776	1.835	1.838	3.0	
	Benzo[k]fluoranthene	1.978	1.852	1.765	1.502	1.742	1.714	1.752	1.729	6.2	
C	Benzo[a]pyrene	1.793	1.833	1.837	1.824	1.658	1.636	1.879	1.808	3.6	
	Indeno[1,2,3-cd]pyrene	2.085	1.938	1.942	2.029	1.953	1.891	1.913	1.964	3.5	
	Dibenz[ah]anthracene	1.796	1.647	1.678	1.700	1.683	1.630	1.652	1.684	3.3	
	Benzo[ghi]perylene	1.767	1.601	1.602	1.652	1.585	1.518	1.517	1.606	5.3	

Thu May 01 08:34:05 2003

Data File : C:\HPCHEM\1\DATA\042903\4M18447.D Vial: 2
Acq On : 29 Apr 2003 17:10 Operator: CLK
Sample : WG139334-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:35 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.22	152	299573	40.00 ug/ml	0.00
19) Naphthalene-d8	11.86	136	1145696	40.00 ug/ml	0.00
34) Acenaphthene-d10	13.98	164	675579	40.00 ug/ml	0.00
56) Phenanthrene-d10	15.61	188	1143794	40.00 ug/ml	0.00
67) Chrysene-d12	18.49	240	1386552	40.00 ug/ml	0.00
76) Perylene-d12	20.99	264	966761	40.00 ug/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	8.50	112	522709	50.0888 ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 50.09%		
6) Phenol-d5	9.71	99	604073	50.0520 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 50.05%		
20) Nitrobenzene-d5	10.95	82	545816	49.4147 ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 98.82%		
38) 2-Fluorobiphenyl	13.15	172	1245843	47.3122 ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 94.62%		
55) 2,4,6-Tribromophenol	14.86	330	176883	52.9521 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 52.95%		
70) p-Terphenyl-d14	17.24	244	1483878	42.6077 ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 85.22%		
Target Compounds					Qvalue
2) Pyridine	6.22	79	502066	47.2080 ug/ml	100
3) n-Nitrosodimethylamine	6.23	74	285583	49.9090 ug/ml	100
5) Aniline	9.82	66	191285	47.0300 ug/ml	100
7) Phenol	9.72	94	672537	50.8625 ug/ml	100
8) bis(2-Chloroethyl)ether	9.87	63	342265	48.5222 ug/ml	100
9) 2-Chlorophenol	9.96	128	568118	51.2324 ug/ml	100
10) 1,3-Dichlorobenzene	10.16	146	610404	47.3063 ug/ml	100
11) 1,4-Dichlorobenzene	10.24	146	651065	48.9849 ug/ml	100
12) Benzyl Alcohol	10.38	108	363260	51.0391 ug/ml	100
13) 1,2-Dichlorobenzene	10.46	146	581762	46.8909 ug/ml	100
14) 2-Methylphenol	10.49	107	440275	50.7687 ug/ml	100
15) bis(2-Chloroisopropyl)ethe	10.54	45	645234	46.3294 ug/ml	100
16) 3-,4-Methylphenol	10.68	107	643377	50.7048 ug/ml	100
17) n-Nitrosodipropylamine	10.72	70	339670	47.6932 ug/ml	100
18) Hexachloroethane	10.87	117	226853	49.6655 ug/ml	100
21) Nitrobenzene	10.97	77	549034	50.2869 ug/ml	100
22) Isophorone	11.25	82	872624	45.9813 ug/ml	100
23) 2-Nitrophenol	11.37	139	334545	53.0775 ug/ml	100
24) 2,4-Dimethylphenol	11.36	122	504814	46.3001 ug/ml	100
25) bis(2-Chloroethoxy)methane	11.49	93	593631	48.5434 ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M18447.D BNA.M Wed Apr 30 07:35:40 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\042903\4M18447.D Vial: 2
Acq On : 29 Apr 2003 17:10 Operator: CLK
Sample : WG139334-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:35 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26)	Benzoic Acid	11.45	122	223716	38.7562	ug/ml	100
27)	2,4-Dichlorophenol	11.65	162	490897	52.4698	ug/ml	100
28)	1,2,4-Trichlorobenzene	11.78	180	540939	48.6170	ug/ml	100
29)	Naphthalene	11.89	128	1595916	48.4892	ug/ml	100
30)	4-Chloroaniline	11.94	127	594718	53.5751	ug/ml	100
31)	Hexachlorobutadiene	12.02	225	310724	44.8523	ug/ml	100
32)	4-Chloro-3-Methylphenol	12.49	107	493265	52.7117	ug/ml	100
33)	2-Methylnaphthalene	12.74	142	1145203	49.8010	ug/ml	100
35)	Hexachlorocyclopentadiene	12.92	237	302921	47.5594	ug/ml	100
36)	2,4,6-Trichlorophenol	13.06	196	378761	52.4284	ug/ml	100
37)	2,4,5-Trichlorophenol	13.11	196	404816	51.8606	ug/ml	100
39)	2-Chloronaphthalene	13.33	162	1046019	47.3379	ug/ml	100
40)	2-Nitroaniline	13.45	65	298341	50.9014	ug/ml	100
41)	Dimethylphthalate	13.61	163	1217165	49.9335	ug/ml	100
42)	Acenaphthylene	13.82	152	1732079	48.3053	ug/ml	100
43)	2,6-Dinitrotoluene	13.72	165	289426	51.4302	ug/ml	100
44)	3-Nitroaniline	13.92	138	233858	59.5183	ug/ml	100
45)	Acenaphthene	14.02	154	1097746	49.8375	ug/ml	100
46)	2,4-Dinitrophenol	14.03	184	143181	43.8017	ug/ml	100
47)	4-Nitrophenol	14.05	65	210417	47.9929	ug/ml	100
48)	Dibenzofuran	14.20	168	1602344	49.5232	ug/ml	100
49)	2,4-Dinitrotoluene	14.17	165	366906	50.0755	ug/ml	100
50)	Diethylphthalate	14.39	149	1200338	50.2636	ug/ml	100
51)	Fluorene	14.59	166	1222572	49.1567	ug/ml	100
52)	4-Chlorophenyl Phenyl Ethe	14.54	204	668968	50.6545	ug/ml	100
53)	4-Nitroaniline	14.61	138	243427	60.7797	ug/ml	100
54)	1,2-Diphenylhydrazine	14.72	77	1118544	50.2548	ug/ml	100
57)	4,6-Dinitro-2-Methylphenol	14.63	198	225862	47.7636	ug/ml	100
58)	n-Nitrosodiphenylamine	14.68	169	869820	49.8970	ug/ml	100
59)	4-Bromophenyl Phenyl Ether	15.08	248	401007	60.1286	ug/ml	100
60)	Hexachlorobenzene	15.21	284	391068	49.3678	ug/ml	100
61)	Pentachlorophenol	15.40	266	179833	36.7476	ug/ml	100
62)	Phenanthrene	15.64	178	1780494	49.7605	ug/ml	100
63)	Anthracene	15.69	178	1798254	51.1410	ug/ml	100
64)	Carbazole	15.85	167	1226511	52.4083	ug/ml	100
65)	Di-n-Butyl Phthalate	16.11	149	2092125	53.9133	ug/ml	100
66)	Fluoranthene	16.90	202	2094680	51.5003	ug/ml	100
68)	Benzidine	17.00	184	222030	155.9696	ug/ml	100
69)	Pyrene	17.16	202	2205706	43.8034	ug/ml	100
71)	Butyl Benzyl Phthalate	17.68	149	924342	43.4337	ug/ml	100
72)	Benzo[a]anthracene	18.47	228	2157780	44.3808	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\042903\4M18447.D Vial: 2
Acq On : 29 Apr 2003 17:10 Operator: CLK
Sample : WG139334-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:35 2003 Quant Results File: BNA.RES

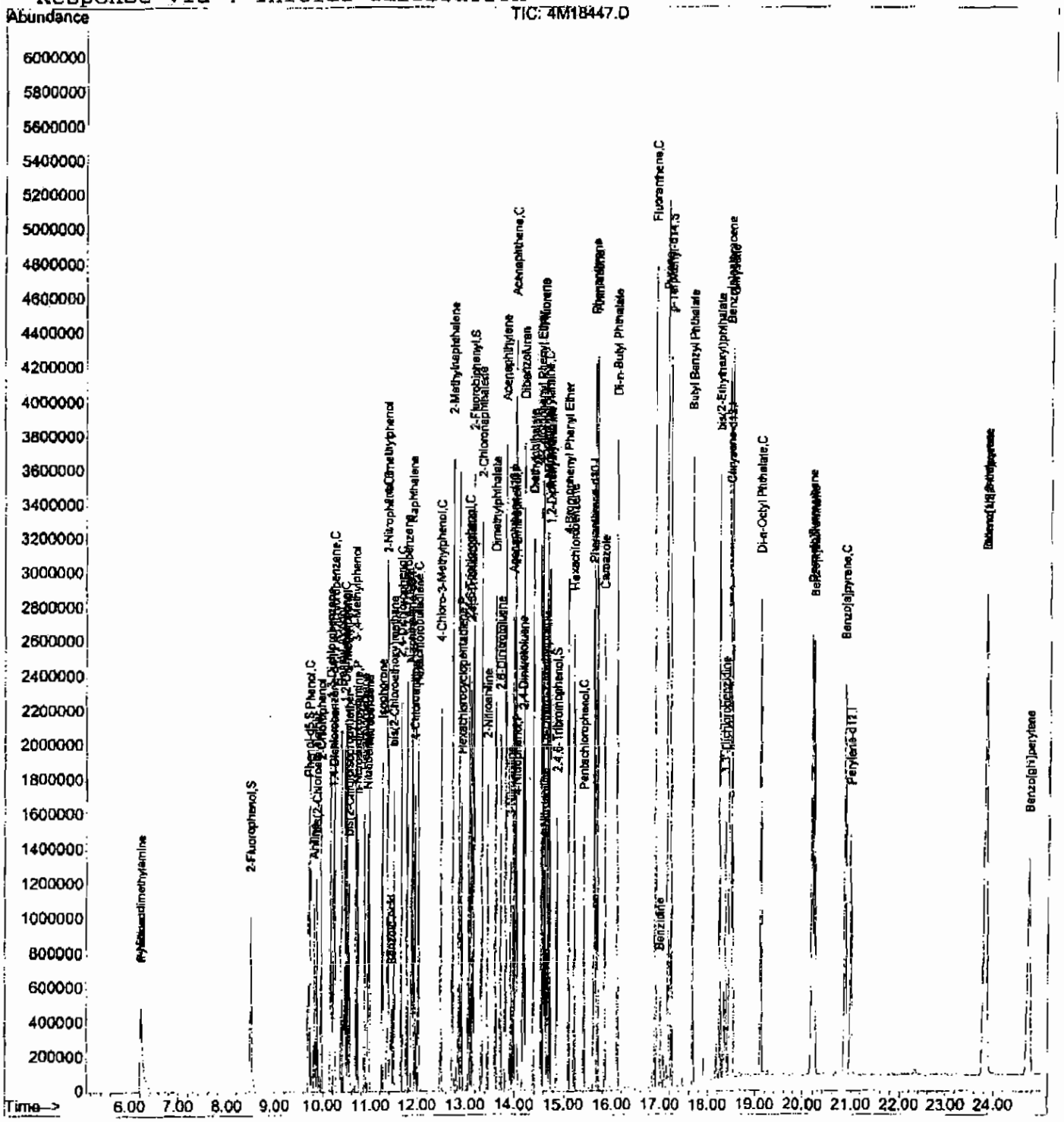
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
73)	3,3'-Dichlorobenzidine	18.38	252	456925	42.2513 ug/ml	100
74)	Chrysene	18.53	228	2076502	44.2286 ug/ml	100
75)	bis(2-Ethylhexyl)phthalate	18.26	149	1352365	46.7342 ug/ml	100
77)	Di-n-Octyl Phthalate	19.13	149	2302731	51.5095 ug/ml	100
78)	Benzo[b]fluoranthene	20.18	252	2227059	49.3755 ug/ml	100
79)	Benzo[k]fluoranthene	20.23	252	1816001	42.9944 ug/ml	100
80)	Benzo[a]pyrene	20.87	252	1962639	49.2170 ug/ml	100
81)	Indeno[1,2,3-cd]pyrene	23.84	276	2451636	57.6415 ug/ml	100
82)	Dibenz[ah]anthracene	23.84	278	2054409	56.4698 ug/ml	100
83)	Benzo[ghi]perylene	24.74	276	1996858	58.5058 ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\042903\4M18447.D Vial: 2
Acq On : 29 Apr 2003 17:10 Operator: CLK
Sample : WG139334-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:35 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\042903\4M18448.D Vial: 3
Acq On : 29 Apr 2003 18:04 Operator: CLK
Sample : WG139334-03 3PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:35 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.22	152	288241	40.00	ug/ml	0.00
19) Naphthalene-d8	11.86	136	1069296	40.00	ug/ml	0.00
34) Acenaphthene-d10	13.98	164	614567	40.00	ug/ml	0.00
56) Phenanthrene-d10	15.61	188	1062036	40.00	ug/ml	0.00
67) Chrysene-d12	18.49	240	1068025	40.00	ug/ml	0.00
76) Perylene-d12	20.99	264	861821	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	8.50	112	32523	3.2391	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery =	3.24%#		
6) Phenol-d5	9.70	99	36444	3.1384	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery =	3.14%#		
20) Nitrobenzene-d5	10.94	82	32681	3.1701	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	6.34%#		
38) 2-Fluorobiphenyl	13.15	172	81261	3.3923	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	6.78%#		
55) 2,4,6-Tribromophenol	14.86	330	7056	2.3220	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery =	2.32%#		
70) p-Terphenyl-d14	17.23	244	91098	3.3959	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	6.80%#		
Target Compounds						Qvalue
2) Pyridine	6.24	79	31160	3.0451	ug/ml	97
3) n-Nitrosodimethylamine	6.23	74	17576	3.1924	ug/ml#	97
5) Aniline	9.81	66	13117	3.3518	ug/ml	93
7) Phenol	9.72	94	41225	3.2403	ug/ml	100
8) bis(2-Chloroethyl)ether	9.87	63	21917	3.2293	ug/ml	98
9) 2-Chlorophenol	9.96	128	34650	3.2476	ug/ml	98
10) 1,3-Dichlorobenzene	10.16	146	40872	3.2921	ug/ml	98
11) 1,4-Dichlorobenzene	10.24	146	42707	3.3395	ug/ml	94
12) Benzyl Alcohol	10.38	108	20180	2.9468	ug/ml	97
13) 1,2-Dichlorobenzene	10.46	146	39766	3.3312	ug/ml	98
14) 2-Methylphenol	10.49	107	26636	3.1922	ug/ml	98
15) bis(2-Chloroisopropyl)ethe	10.54	45	44277	3.3042	ug/ml	98
16) 3-,4-Methylphenol	10.68	107	37913	3.1054	ug/ml	98
17) n-Nitrosodipropylamine	10.71	70	20950	3.0572	ug/ml	99
18) Hexachloroethane	10.87	117	13623	3.0998	ug/ml	98
21) Nitrobenzene	10.97	77	32645	3.2036	ug/ml	99
22) Isophorone	11.24	82	54957	3.1028	ug/ml	99
23) 2-Nitrophenol	11.37	139	15677	2.6650	ug/ml#	87
24) 2,4-Dimethylphenol	11.35	122	30336	2.9811	ug/ml	97
25) bis(2-Chloroethoxy)methane	11.48	93	35853	3.1413	ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M18448.D BNA.M Wed Apr 30 07:35:48 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\042903\4MI8448.D Vial: 3
Acq On : 29 Apr 2003 18:04 Operator: CLK
Sample : WG139334-03 3PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:35 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26)	Benzoic Acid	11.39	122	3630	0.6738	ug/ml	92
27)	2,4-Dichlorophenol	11.65	162	27780	3.1814	ug/ml	98
28)	1,2,4-Trichlorobenzene	11.77	180	35754	3.4430	ug/ml	98
29)	Naphthalene	11.88	128	101673	3.3099	ug/ml	100
30)	4-Chloroaniline	11.94	127	34185	3.2996	ug/ml	99
31)	Hexachlorobutadiene	12.02	225	22694	3.5099	ug/ml	98
32)	4-Chloro-3-Methylphenol	12.49	107	26282	3.0092	ug/ml	98
33)	2-Methylnaphthalene	12.73	142	70302	3.2756	ug/ml	100
35)	Hexachlorocyclopentadiene	12.92	237	13803	2.3822	ug/ml#	95
36)	2,4,6-Trichlorophenol	13.06	196	18362	2.7940	ug/ml	99
37)	2,4,5-Trichlorophenol	13.11	196	20084	2.8284	ug/ml	99
39)	2-Chloronaphthalene	13.33	162	66263	3.2965	ug/ml	99
40)	2-Nitroaniline	13.45	65	14558	2.7304	ug/ml	95
41)	Dimethylphthalate	13.61	163	70986	3.2013	ug/ml	99
42)	Acenaphthylene	13.82	152	104062	3.1903	ug/ml	100
43)	2,6-Dinitrotoluene	13.72	165	14155	2.7650	ug/ml	97
44)	3-Nitroaniline	13.91	138	14549	4.0704	ug/ml	98
45)	Acenaphthene	14.01	154	63290	3.1586	ug/ml	94
47)	4-Nitrophenol	14.04	65	7880	1.9757	ug/ml	92
48)	Dibenzofuran	14.20	168	98165	3.3352	ug/ml	99
49)	2,4-Dinitrotoluene	14.17	165	18658	2.7993	ug/ml	97
50)	Diethylphthalate	14.38	149	69414	3.1952	ug/ml	99
51)	Fluorene	14.58	166	73508	3.2490	ug/ml	98
52)	4-Chlorophenyl Phenyl Ethe	14.54	204	39257	3.2677	ug/ml	99
53)	4-Nitroaniline	14.60	138	12250	3.3623	ug/ml	98
54)	1,2-Diphenylhydrazine	14.72	77	63058	3.1144	ug/ml	98
57)	4,6-Dinitro-2-Methylphenol	14.62	198	2572	0.5858	ug/ml	94
58)	n-Nitrosodiphenylamine	14.68	169	54264	3.3525	ug/ml	99
59)	4-Bromophenyl Phenyl Ether	15.08	248	19811	3.1992	ug/ml	97
60)	Hexachlorobenzene	15.21	284	24310	3.3051	ug/ml	99
62)	Phenanthrene	15.64	178	111898	3.3680	ug/ml	98
63)	Anthracene	15.69	178	103672	3.1753	ug/ml	100
64)	Carbazole	15.85	167	92441	4.2540	ug/ml	98
65)	Di-n-Butyl Phthalate	16.10	149	114057	3.1655	ug/ml	99
66)	Fluoranthene	16.90	202	125735	3.3293	ug/ml	98
68)	Benzidine	17.00	184	1315	1.1992	ug/ml	100
69)	Pyrene	17.16	202	131678	3.3949	ug/ml	99
71)	Butyl Benzyl Phthalate	17.68	149	53402	3.2577	ug/ml	98
72)	Benzo[a]anthracene	18.46	228	129684	3.4628	ug/ml	99
73)	3,3'-Dichlorobenzidine	18.38	252	35138	4.2182	ug/ml	96
74)	Chrysene	18.52	228	122296	3.3817	ug/ml	100

(#) = qualifier out of range (m) = manual integration
4MI8448.D BNA.M Wed Apr 30 07:35:49 2003 HPMS4 Page 2

Data File : C:\HPCHEM\1\DATA\042903\4M18448.D Vial: 3
Acq On : 29 Apr 2003 18:04 Operator: CLK
Sample : WG139334-03 3PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:35 2003 Quant Results File: BNA.RES

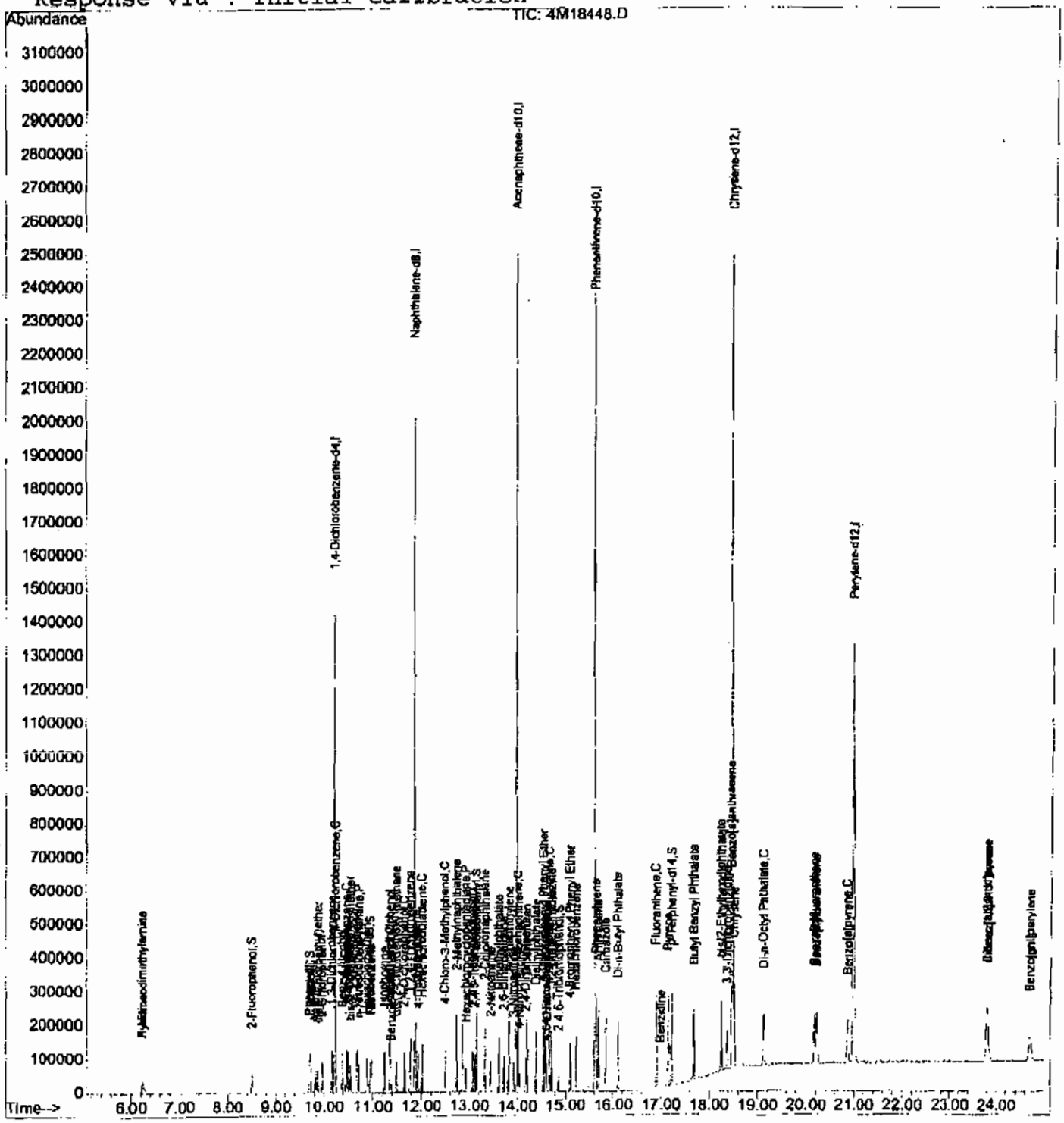
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
75)	bis(2-Ethylhexyl)phthalate	18.26	149	76243	3.4205	ug/ml	97
77)	Di-n-Octyl Phthalate	19.13	149	118429	2.9717	ug/ml#	95
78)	Benzo[b]fluoranthene	20.17	252	125160	3.1128	ug/ml	98
79)	Benzo[k]fluoranthene	20.22	252	127840	3.3952	ug/ml	96
80)	Benzo[a]pyrene	20.86	252	115925	3.2610	ug/ml	99
81)	Indeno[1,2,3-cd]pyrene	23.80	276	134749	3.5539	ug/ml#	98
82)	Dibenz[ah]anthracene	23.80	278	116085	3.5794	ug/ml	99
83)	Benzo[ghi]perylene	24.70	276	114225	3.7542	ug/ml	98

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\042903\4M18448.D Vial: 3
Acq On : 29 Apr 2003 18:04 Operator: CLK
Sample : WG139334-03 3PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:35 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\042903\4M18449.D Vial: 4
Acq On : 29 Apr 2003 18:38 Operator: CLK
Sample : WG139334-04 10PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-2 Multiplr: 1.00
IS Integration Params: RTEINT.P
Quant Time: Apr 30 7:35 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.22	152	279120	40.00	ug/ml	0.00
19) Naphthalene-d8	11.86	136	1035377	40.00	ug/ml	0.00
34) Acenaphthene-d10	13.98	164	608339	40.00	ug/ml	0.00
56) Phenanthrene-d10	15.61	188	1051996	40.00	ug/ml	0.00
67) Chrysene-d12	18.49	240	1065902	40.00	ug/ml	0.00
76) Perylene-d12	20.99	264	855034	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	8.50	112	96643	9.9395	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 9.94%#			
6) Phenol-d5	9.70	99	108242	9.6259	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 9.63%#			
20) Nitrobenzene-d5	10.94	82	97046	9.7221	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 19.44%#			
38) 2-Fluorobiphenyl	13.15	172	240814	10.1560	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 20.32%#			
55) 2,4,6-Tribromophenol	14.85	330	26027	8.6527	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 8.65%#			
70) p-Terphenyl-d14	17.23	244	279107	10.4251	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 20.86%#			
Target Compounds						Qvalue
2) Pyridine	6.23	79	99335	10.0246	ug/ml	93
3) n-Nitrosodimethylamine	6.22	74	52189	9.7890	ug/ml#	96
5) Aniline	9.81	66	39479	10.4177	ug/ml	99
7) Phenol	9.72	94	119733	9.7187	ug/ml	98
8) bis(2-Chloroethyl)ether	9.87	63	63380	9.6437	ug/ml	99
9) 2-Chlorophenol	9.95	128	101321	9.8066	ug/ml	100
10) 1,3-Dichlorobenzene	10.16	146	120123	9.9917	ug/ml	98
11) 1,4-Dichlorobenzene	10.24	146	123442	9.9681	ug/ml	99
12) Benzyl Alcohol	10.38	108	63545	9.5825	ug/ml	99
13) 1,2-Dichlorobenzene	10.45	146	115235	9.9687	ug/ml	100
14) 2-Methylphenol	10.49	107	77462	9.5868	ug/ml	98
15) bis(2-Chloroisopropyl)ethe	10.54	45	125961	9.7070	ug/ml	99
16) 3-,4-Methylphenol	10.68	107	113558	9.6053	ug/ml	99
17) n-Nitrosodipropylamine	10.71	70	64076	9.6562	ug/ml	99
18) Hexachloroethane	10.87	117	40776	9.5814	ug/ml	98
21) Nitrobenzene	10.97	77	96629	9.7934	ug/ml	99
22) Isophorone	11.24	82	169474	9.8816	ug/ml	99
23) 2-Nitrophenol	11.37	139	53223	9.3439	ug/ml	94
24) 2,4-Dimethylphenol	11.35	122	93047	9.4433	ug/ml	98
25) bis(2-Chloroethoxy)methane	11.48	93	106093	9.6000	ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M18449.D BNA.M Wed Apr 30 07:35:55 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\042903\4M18449.D Vial: 4
Acq On : 29 Apr 2003 18:38 Operator: CLK
Sample : WG139334-04 10PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:35 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26)	Benzoic Acid	11.40	122	19073	3.6562	ug/ml	96
27)	2,4-Dichlorophenol	11.65	162	83120	9.8310	ug/ml	100
28)	1,2,4-Trichlorobenzene	11.77	180	102233	10.1672	ug/ml	98
29)	Naphthalene	11.88	128	296867	9.9809	ug/ml	99
30)	4-Chloroaniline	11.94	127	106586	10.6249	ug/ml	100
31)	Hexachlorobutadiene	12.01	225	65405	10.4470	ug/ml	100
32)	4-Chloro-3-Methylphenol	12.49	107	82110	9.7094	ug/ml	100
33)	2-Methylnaphthalene	12.73	142	206571	9.9402	ug/ml	100
35)	Hexachlorocyclopentadiene	12.93	237	50495	8.8041	ug/ml	99
36)	2,4,6-Trichlorophenol	13.06	196	61878	9.5119	ug/ml	100
37)	2,4,5-Trichlorophenol	13.11	196	65700	9.3471	ug/ml	99
39)	2-Chloronaphthalene	13.33	162	199135	10.0080	ug/ml	99
40)	2-Nitroaniline	13.44	65	48950	9.2747	ug/ml	99
41)	Dimethylphthalate	13.61	163	219794	10.0136	ug/ml	100
42)	Acenaphthylene	13.82	152	322298	9.9819	ug/ml	99
43)	2,6-Dinitrotoluene	13.72	165	48158	9.5034	ug/ml	95
44)	3-Nitroaniline	13.91	138	44976	12.7119	ug/ml	95
45)	Acenaphthene	14.01	154	187184	9.4374	ug/ml	95
46)	2,4-Dinitrophenol	14.03	184	5633	1.9137	ug/ml#	1
47)	4-Nitrophenol	14.04	65	30765	7.7926	ug/ml	98
48)	Dibenzofuran	14.20	168	290818	9.9817	ug/ml	100
49)	2,4-Dinitrotoluene	14.17	165	64916	9.8390	ug/ml	99
50)	Diethylphthalate	14.38	149	214369	9.9688	ug/ml	100
51)	Fluorene	14.58	166	221865	9.9067	ug/ml	99
52)	4-Chlorophenyl Phenyl Ethe	14.54	204	118578	9.9712	ug/ml	99
53)	4-Nitroaniline	14.60	138	34588	9.5906	ug/ml	99
54)	1,2-Diphenylhydrazine	14.72	77	195237	9.7413	ug/ml	100
57)	4,6-Dinitro-2-Methylphenol	14.62	198	22114	5.0846	ug/ml	95
58)	n-Nitrosodiphenylamine	14.67	169	165025	10.2927	ug/ml	99
59)	4-Bromophenyl Phenyl Ether	15.08	248	59951	9.7737	ug/ml	98
60)	Hexachlorobenzene	15.21	284	74677	10.2497	ug/ml	100
61)	Pentachlorophenol	15.40	266	8376	1.8609	ug/ml	99
62)	Phenanthrene	15.64	178	330055	10.0292	ug/ml	100
63)	Anthracene	15.69	178	319141	9.8681	ug/ml	100
64)	Carbazole	15.85	167	257165	11.9474	ug/ml	99
65)	Di-n-Butyl Phthalate	16.10	149	357226	10.0089	ug/ml	100
66)	Fluoranthene	16.90	202	383642	10.2554	ug/ml	98
68)	Benzidine	17.00	184	3427	3.1316	ug/ml	100
69)	Pyrene	17.15	202	399658	10.3245	ug/ml	99
71)	Butyl Benzyl Phthalate	17.68	149	170423	10.4170	ug/ml	99
72)	Benzo[a]anthracene	18.46	228	386379	10.3376	ug/ml	99

(#) = qualifier out of range (m) = manual integration
4M18449.D BNA.M Wed Apr 30 07:35:55 2003 HPMS4 Page 2

Data File : C:\HPCHEM\1\DATA\042903\4M18449.D Vial: 4
Acq On : 29 Apr 2003 18:38 Operator: CLK
Sample : WG139334-04 10PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-2 Multiplr: 1.00
IS Integration Params: RTEINT.P
Quant Time: Apr 30 7:35 2003 Quant Results File: BNA.RES

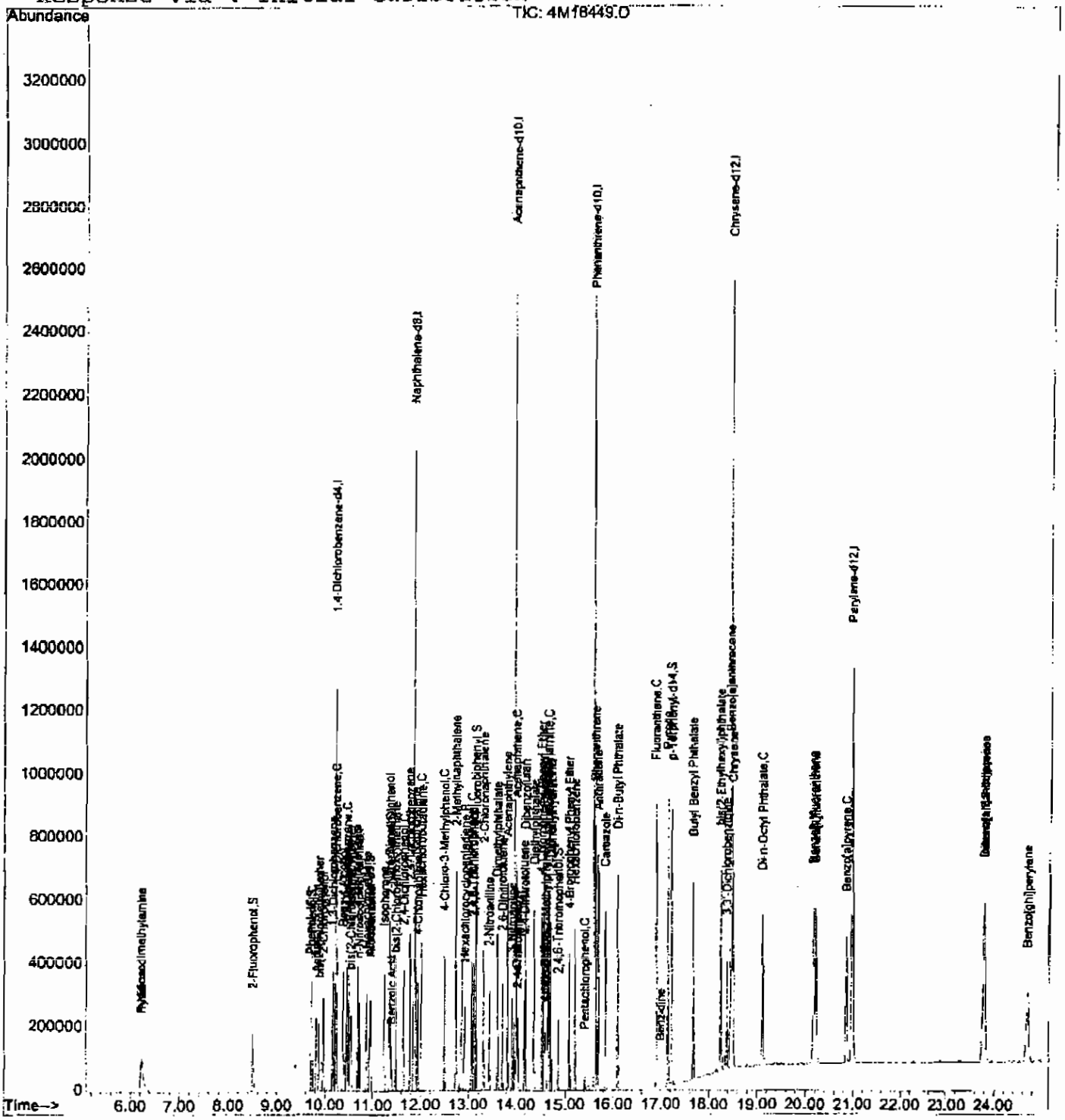
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	18.38	252	94082	11.3167	ug/ml	99
74)	Chrysene	18.52	228	368373	10.2065	ug/ml	100
75)	bis(2-Ethylhexyl)phthalate	18.26	149	227682	10.2350	ug/ml	100
77)	Di-n-Octyl Phthalate	19.13	149	376392	9.5196	ug/ml	98
78)	Benzo[b]fluoranthene	20.17	252	400231	10.0329	ug/ml	99
79)	Benzo[k]fluoranthene	20.22	252	353099	9.4521	ug/ml	99
80)	Benzo[a]pyrene	20.86	252	348970	9.8946	ug/ml	99
81)	Indeno[1,2,3-cd]pyrene	23.80	276	414244	11.0121	ug/ml#	97
82)	Dibenz[ah]anthracene	23.80	278	352072	10.9420	ug/ml	99
83)	Benzo[ghi]perylene	24.70	276	342160	11.3349	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\042903\4M18449.D Vial: 4
Acq On : 29 Apr 2003 18:38 Operator: CLK
Sample : WG139334-04 10PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:35 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration



4M18449.D BNA.M Wed Apr 30 07:35:58 2003 HPMS4 Page 4

Data File : C:\HPCHEM\1\DATA\042903\4M18450.D Vial: 5
Acq On : 29 Apr 2003 19:13 Operator: CLK
Sample : WG139334-05 20PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:36 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.22	152	291154	40.00 ug/ml	0.00
19) Naphthalene-d8	11.86	136	1085268	40.00 ug/ml	0.00
34) Acenaphthene-d10	13.98	164	634145	40.00 ug/ml	0.00
56) Phenanthrene-d10	15.61	188	1109782	40.00 ug/ml	0.00
67) Chrysene-d12	18.49	240	1120507	40.00 ug/ml	0.00
76) Perylene-d12	20.99	264	889131	40.00 ug/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	8.50	112	198103	19.5322 ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 19.53%#		
6) Phenol-d5	9.70	99	224606	19.1484 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 19.15%		
20) Nitrobenzene-d5	10.94	82	204082	19.5050 ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 39.02%		
38) 2-Fluorobiphenyl	13.15	172	494883	20.0216 ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 40.04%#		
55) 2,4,6-Tribromophenol	14.86	330	58103	18.5303 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 18.53%		
70) p-Terphenyl-d14	17.23	244	578210	20.5446 ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 41.08%		
Target Compounds					Qvalue
2) Pyridine	6.23	79	200642	19.4114 ug/ml	99
3) n-Nitrosodimethylamine	6.23	74	108526	19.5146 ug/ml	99
5) Aniline	9.82	66	79732	20.1700 ug/ml	99
7) Phenol	9.72	94	246260	19.1627 ug/ml	99
8) bis(2-Chloroethyl)ether	9.87	63	129310	18.8621 ug/ml	99
9) 2-Chlorophenol	9.96	128	208511	19.3470 ug/ml	100
10) 1,3-Dichlorobenzene	10.16	146	245371	19.5661 ug/ml	100
11) 1,4-Dichlorobenzene	10.24	146	250581	19.3984 ug/ml	99
12) Benzyl Alcohol	10.38	108	132062	19.0917 ug/ml	99
13) 1,2-Dichlorobenzene	10.46	146	236486	19.6123 ug/ml	100
14) 2-Methylphenol	10.49	107	162217	19.2463 ug/ml	100
15) bis(2-Chloroisopropyl)ethe	10.54	45	255912	18.9064 ug/ml	99
16) 3-,4-Methylphenol	10.68	107	234647	19.0274 ug/ml	99
17) n-Nitrosodipropylamine	10.71	70	133456	19.2804 ug/ml	99
18) Hexachloroethane	10.87	117	86912	19.5781 ug/ml	98
21) Nitrobenzene	10.97	77	201045	19.4393 ug/ml	99
22) Isophorone	11.24	82	356119	19.8099 ug/ml	100
23) 2-Nitrophenol	11.37	139	113501	19.0103 ug/ml	95
24) 2,4-Dimethylphenol	11.35	122	196766	19.0516 ug/ml	99
25) bis(2-Chloroethoxy)methane	11.49	93	219070	18.9116 ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M18450.D BNA.M Wed Apr 30 07:36:02 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\042903\4M18450.D Vial: 5
Acq On : 29 Apr 2003 19:13 Operator: CLK
Sample : WG139334-05 20PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:36 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26)	Benzoic Acid	11.42	122	55757	10.1971 ug/ml	96
27)	2,4-Dichlorophenol	11.65	162	175811	19.8380 ug/ml	100
28)	1,2,4-Trichlorobenzene	11.77	180	208884	19.8188 ug/ml	98
29)	Naphthalene	11.88	128	611064	19.5999 ug/ml	100
30)	4-Chloroaniline	11.94	127	221068	21.0238 ug/ml	100
31)	Hexachlorobutadiene	12.02	225	135403	20.6334 ug/ml	100
32)	4-Chloro-3-Methylphenol	12.49	107	174509	19.6869 ug/ml	98
33)	2-Methylnaphthalene	12.74	142	428692	19.6804 ug/ml	99
35)	Hexachlorocyclopentadiene	12.92	237	117066	19.5806 ug/ml	99
36)	2,4,6-Trichlorophenol	13.06	196	132893	19.5971 ug/ml	99
37)	2,4,5-Trichlorophenol	13.11	196	140021	19.1100 ug/ml	99
39)	2-Chloronaphthalene	13.33	162	408465	19.6930 ug/ml	100
40)	2-Nitroaniline	13.45	65	105256	19.1316 ug/ml	99
41)	Dimethylphthalate	13.61	163	455448	19.9053 ug/ml	100
42)	Acenaphthylene	13.82	152	668406	19.8589 ug/ml	100
43)	2,6-Dinitrotoluene	13.71	165	104657	19.8124 ug/ml	98
44)	3-Nitroaniline	13.92	138	87852	23.8198 ug/ml	99
45)	Acenaphthene	14.01	154	399932	19.3432 ug/ml	98
46)	2,4-Dinitrophenol	14.03	184	30810	10.0412 ug/ml#	1
47)	4-Nitrophenol	14.04	65	70445	17.1172 ug/ml	98
48)	Dibenzofuran	14.20	168	597646	19.6782 ug/ml	99
49)	2,4-Dinitrotoluene	14.17	165	137988	20.0632 ug/ml	98
50)	Diethylphthalate	14.38	149	444697	19.8382 ug/ml	100
51)	Fluorene	14.59	166	457923	19.6150 ug/ml	99
52)	4-Chlorophenyl Phenyl Ethe	14.54	204	242074	19.5276 ug/ml	99
53)	4-Nitroaniline	14.61	138	73001	19.4181 ug/ml	98
54)	1,2-Diphenylhydrazine	14.72	77	407129	19.4870 ug/ml	99
57)	4,6-Dinitro-2-Methylphenol	14.62	198	66482	14.4900 ug/ml	99
58)	n-Nitrosodiphenylamine	14.68	169	336212	19.8778 ug/ml	99
59)	4-Bromophenyl Phenyl Ether	15.08	248	122384	18.9131 ug/ml	97
60)	Hexachlorobenzene	15.21	284	153983	20.0343 ug/ml	99
61)	Pentachlorophenol	15.40	266	41431	8.7256 ug/ml	97
62)	Phenanthrene	15.64	178	686026	19.7604 ug/ml	100
63)	Anthracene	15.69	178	670572	19.6550 ug/ml	100
64)	Carbazole	15.85	167	464890	20.4734 ug/ml	99
65)	Di-n-Butyl Phthalate	16.11	149	756140	20.0826 ug/ml	100
66)	Fluoranthene	16.90	202	792545	20.0829 ug/ml	99
68)	Benzidine	16.99	184	7692	6.6863 ug/ml	100
69)	Pyrene	17.16	202	824289	20.2563 ug/ml	100
71)	Butyl Benzyl Phthalate	17.68	149	353989	20.5828 ug/ml	99
72)	Benzo[a]anthracene	18.46	228	797547	20.2986 ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\042903\4M18450.D Vial: 5
Acq On : 29 Apr 2003 19:13 Operator: CLK
Sample : WG139334-05 20PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:36 2003 Quant Results File: BNA.RES

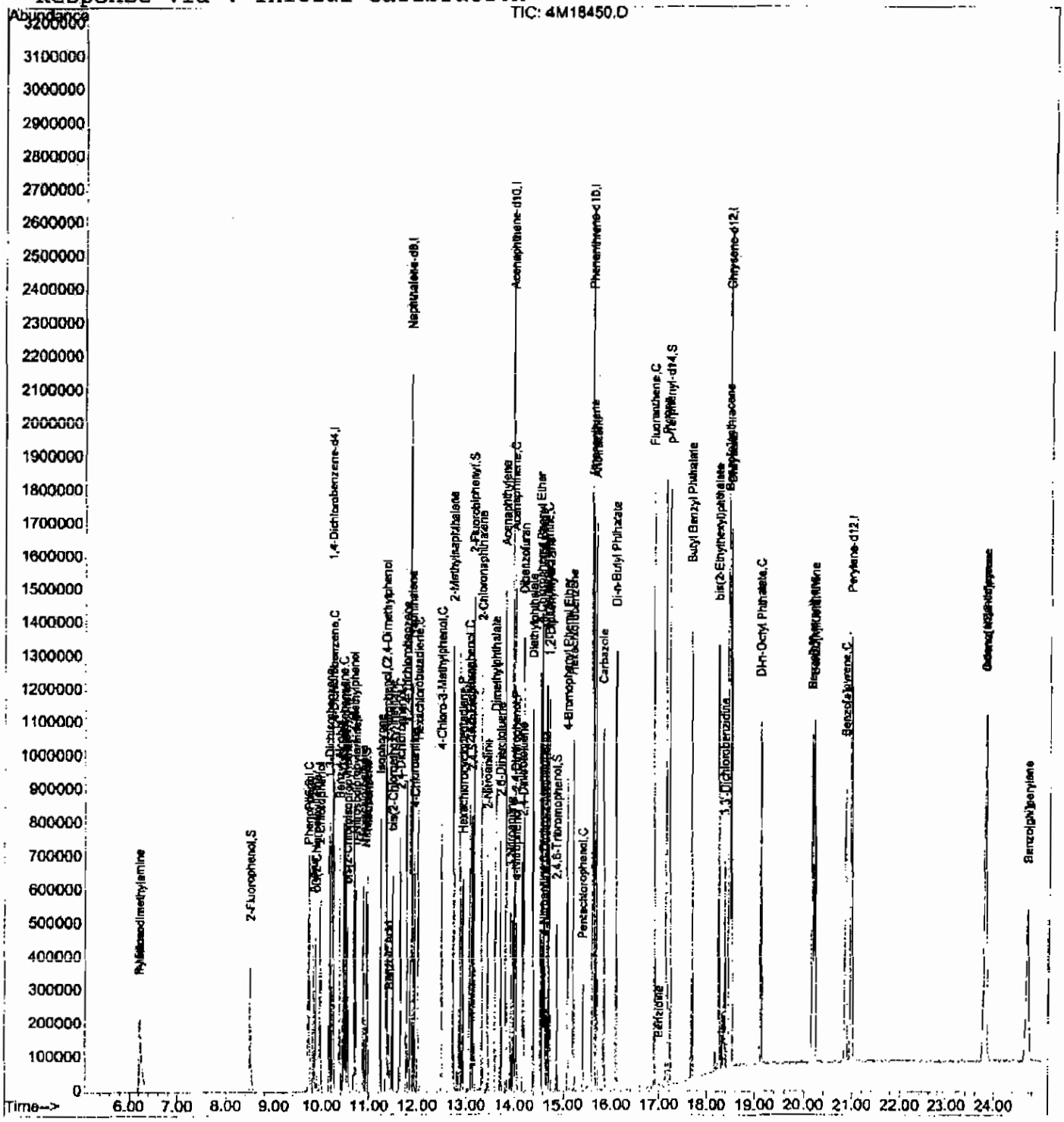
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	18.38	252	178872	20.4673	ug/ml	99
74)	Chrysene	18.52	228	765453	20.1749	ug/ml	100
75)	bis(2-Ethylhexyl)phthalate	18.26	149	484386	20.7135	ug/ml	99
77)	Di-n-Octyl Phthalate	19.13	149	805286	19.5861	ug/ml	99
78)	Benzo[b]fluoranthene	20.17	252	793972	19.1398	ug/ml	99
79)	Benzo[k]fluoranthene	20.22	252	784669	20.1993	ug/ml	97
80)	Benzo[a]pyrene	20.86	252	727956	19.8488	ug/ml	99
81)	Indeno[1,2,3-cd]pyrene	23.81	276	863280	22.0691	ug/ml#	97
82)	Dibenz[ah]anthracene	23.81	278	745982	22.2952	ug/ml	99
83)	Benzo[ghi]perylene	24.71	276	712194	22.6884	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\042903\4M18450.D Vial: 5
Acq On : 29 Apr 2003 19:13 Operator: CLK
Sample : WG139334-05 20PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:36 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration



4M18450.D BNA.M Wed Apr 30 07:36:05 2003 HPMS4 Page 4

Data File : C:\HPCHEM\1\DATA\042903\4M18451.D Vial: 6
Acq On : 29 Apr 2003 19:47 Operator: CLK
Sample : WG139334-06 80PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-5 Multiplr: 1.00
4S Integration Params: RTEINT.P
Quant Time: Apr 30 7:36 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.22	152	310538	40.00	ug/ml	0.00
19) Naphthalene-d8	11.86	136	1173277	40.00	ug/ml	0.00
34) Acenaphthene-d10	13.98	164	693896	40.00	ug/ml	0.00
56) Phenanthrene-d10	15.62	188	1236529	40.00	ug/ml	0.00
67) Chrysene-d12	18.49	240	1284376	40.00	ug/ml	0.00
76) Perylene-d12	20.99	264	995556	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	8.50	112	845808	78.1880	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 78.19%			
6) Phenol-d5	9.71	99	989263	79.0736	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 79.07%			
20) Nitrobenzene-d5	10.95	82	901672	79.7126	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 159.42%#			
38) 2-Fluorobiphenyl	13.16	172	2168809	80.1886	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 160.38%#			
55) 2,4,6-Tribromophenol	14.86	330	299398	87.2626	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 87.26%			
70) p-Terphenyl-d14	17.23	244	2532180	78.4925	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 156.98%#			
Target Compounds						Qvalue
2) Pyridine	6.22	79	859225	77.9381	ug/ml	98
3) n-Nitrosodimethylamine	6.23	74	460337	77.6086	ug/ml	98
5) Aniline	9.82	66	314153	74.5114	ug/ml	97
7) Phenol	9.73	94	1087628	79.3506	ug/ml	99
8) bis(2-Chloroethyl)ether	9.87	63	556192	76.0660	ug/ml	97
9) 2-Chlorophenol	9.96	128	913470	79.4672	ug/ml	100
10) 1,3-Dichlorobenzene	10.16	146	1047678	78.3280	ug/ml	100
11) 1,4-Dichlorobenzene	10.25	146	1084957	78.7478	ug/ml	99
12) Benzyl Alcohol	10.39	108	599347	81.2366	ug/ml	99
13) 1,2-Dichlorobenzene	10.45	146	1011398	78.6417	ug/ml	100
14) 2-Methylphenol	10.50	107	715532	79.5955	ug/ml	100
15) bis(2-Chloroisopropyl)ethe	10.54	45	1086119	75.2323	ug/ml	99
16) 3-,4-Methylphenol	10.68	107	1051215	79.9214	ug/ml	100
17) n-Nitrosodipropylamine	10.72	70	592640	80.2745	ug/ml	99
18) Hexachloroethane	10.88	117	383568	81.0104	ug/ml	100
21) Nitrobenzene	10.97	77	880113	78.7160	ug/ml	100
22) Isophorone	11.25	82	1564166	80.4833	ug/ml	99
23) 2-Nitrophenol	11.37	139	554011	85.8308	ug/ml	98
24) 2,4-Dimethylphenol	11.36	122	904524	81.0101	ug/ml	99
25) bis(2-Chloroethoxy)methane	11.49	93	980941	78.3295	ug/ml#	98

(#) = qualifier out of range (m) = manual integration
4M18451.D BNA.M Wed Apr 30 07:36:09 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\042903\4M18451.D Vial: 6
Acq On : 29 Apr 2003 19:47 Operator: CLK
Sample : WG139334-06 80PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-5 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:36 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26)	Benzoic Acid	11.48	122	392559	66.4077 ug/ml	99
27)	2,4-Dichlorophenol	11.66	162	793484	82.8183 ug/ml	100
28)	1,2,4-Trichlorobenzene	11.77	180	920023	80.7435 ug/ml	99
29)	Naphthalene	11.89	128	2666296	79.1065 ug/ml	100
30)	4-Chloroaniline	11.94	127	902700	79.4080 ug/ml	100
31)	Hexachlorobutadiene	12.01	225	583605	82.2618 ug/ml	99
32)	4-Chloro-3-Methylphenol	12.49	107	796493	83.1146 ug/ml	99
33)	2-Methylnaphthalene	12.74	142	1893583	80.4097 ug/ml	100
35)	Hexachlorocyclopentadiene	12.93	237	583271	89.1577 ug/ml	99
36)	2,4,6-Trichlorophenol	13.07	196	619383	83.4723 ug/ml	99
37)	2,4,5-Trichlorophenol	13.12	196	663599	82.7689 ug/ml	100
39)	2-Chloronaphthalene	13.33	162	1823997	80.3666 ug/ml	100
40)	2-Nitroaniline	13.45	65	485562	80.6572 ug/ml	98
41)	Dimethylphthalate	13.62	163	2002811	79.9952 ug/ml	99
42)	Acenaphthylene	13.83	152	2962148	80.4295 ug/ml	99
43)	2,6-Dinitrotoluene	13.72	165	486384	84.1476 ug/ml	99
44)	3-Nitroaniline	13.93	138	230402	57.0908 ug/ml	99
45)	Acenaphthene	14.02	154	1851865	81.8551 ug/ml	99
46)	2,4-Dinitrophenol	14.03	184	289539	86.2372 ug/ml	69
47)	4-Nitrophenol	14.05	65	346187	76.8756 ug/ml	99
48)	Dibenzofuran	14.20	168	2648158	79.6854 ug/ml	99
49)	2,4-Dinitrotoluene	14.18	165	656224	87.1975 ug/ml	98
50)	Diethylphthalate	14.39	149	1970326	80.3285 ug/ml	99
51)	Fluorene	14.59	166	2070218	81.0413 ug/ml	99
52)	4-Chlorophenyl Phenyl Ethe	14.55	204	1107344	81.6350 ug/ml	99
53)	4-Nitroaniline	14.62	138	351307	85.4002 ug/ml	95
54)	1,2-Diphenylhydrazine	14.72	77	1806435	79.0185 ug/ml	98
57)	4,6-Dinitro-2-Methylphenol	14.63	198	420029	82.1630 ug/ml	96
58)	n-Nitrosodiphenylamine	14.68	169	1477086	78.3780 ug/ml	99
59)	4-Bromophenyl Phenyl Ether	15.09	248	561600	77.8932 ug/ml	99
60)	Hexachlorobenzene	15.21	284	679288	79.3211 ug/ml	99
61)	Pentachlorophenol	15.41	266	375827	71.0381 ug/ml	99
62)	Phenanthrene	15.64	178	3033235	78.4140 ug/ml	100
63)	Anthracene	15.70	178	3018889	79.4162 ug/ml	99
64)	Carbazole	15.85	167	1260053	49.8037 ug/ml	99
65)	Di-n-Butyl Phthalate	16.11	149	3378723	80.5387 ug/ml	100
66)	Fluoranthene	16.91	202	3477570	79.0882 ug/ml	99
68)	Benzidine	17.00	184	54965	41.6829 ug/ml	100
69)	Pyrene	17.16	202	3614053	77.4815 ug/ml	99
71)	Butyl Benzyl Phthalate	17.69	149	1624070	82.3839 ug/ml	100
72)	Benzo[a]anthracene	18.47	228	3559622	79.0380 ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M18451.D BNA.M Wed Apr 30 07:36:10 2003 HPMS4 Page 2

Data File : C:\HPCHEM\1\DATA\042903\4MI8451.D Vial: 6
Acq On : 29 Apr 2003 19:47 Operator: CLK
Sample : WG139334-06 80PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-5 Multiplr: 1.00
4S Integration Params: RTEINT.P
Quant Time: Apr 30 7:36 2003 Quant Results File: BNA.RES

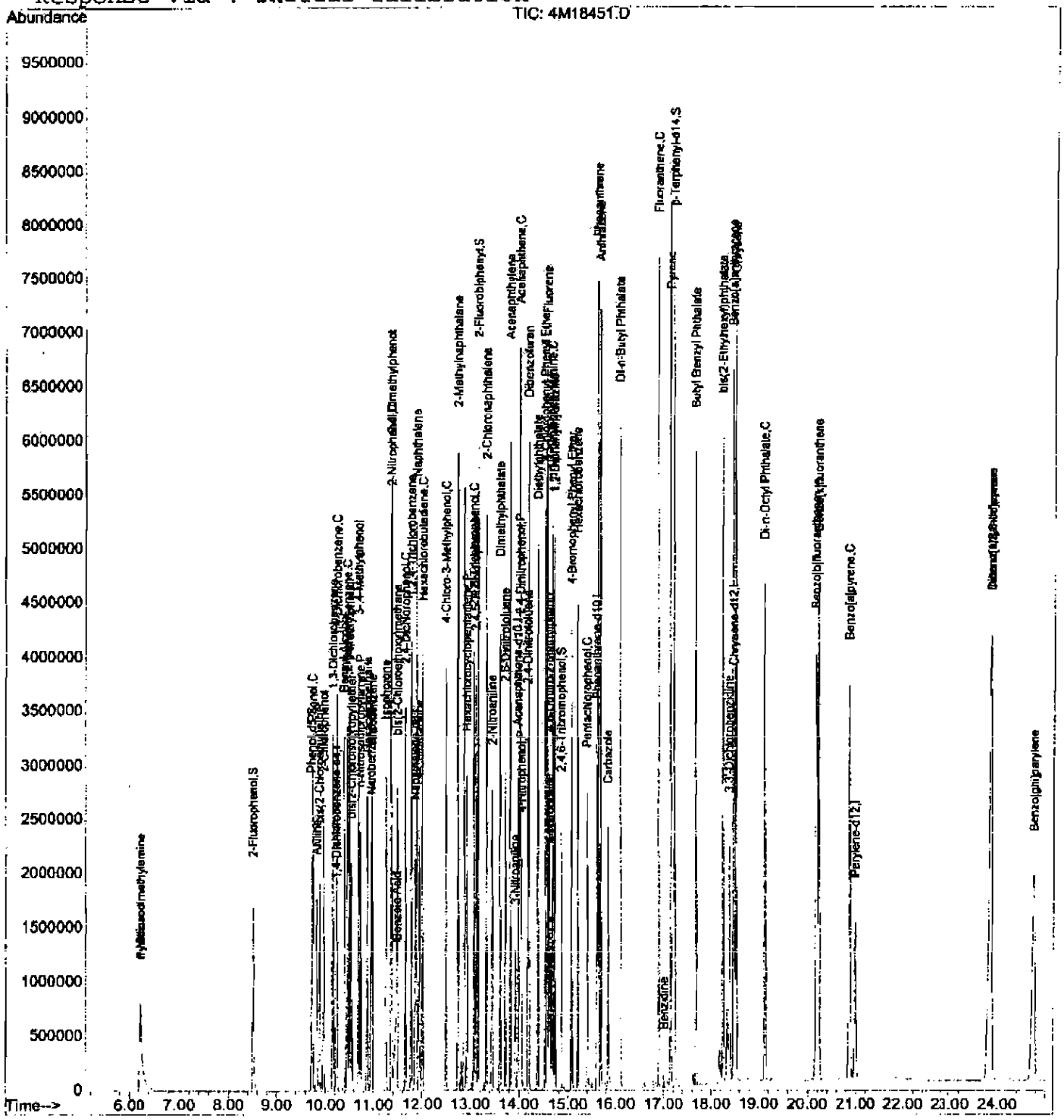
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	18.39	252	718284	71.7027	ug/ml	99
74)	Chrysene	18.53	228	3416528	78.5596	ug/ml	99
75)	bis(2-Ethylhexyl)phthalate	18.26	149	2209720	82.4370	ug/ml	100
77)	Di-n-Octyl Phthalate	19.13	149	3760525	81.6857	ug/ml	100
78)	Benzo[b]fluoranthene	20.19	252	3613456	77.7957	ug/ml	98
79)	Benzo[k]fluoranthene	20.24	252	3469425	79.7639	ug/ml	98
80)	Benzo[a]pyrene	20.88	252	3300563	80.3742	ug/ml	100
81)	Indeno[1,2,3-cd]pyrene	23.86	276	3888542	88.7809	ug/ml	99
82)	Dibenz[ah]anthracene	23.86	278	3350620	89.4351	ug/ml	99
83)	Benzo[ghi]perylene	24.76	276	3155611	89.7818	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\042903\4M18451.D Vial: 6
Acq On : 29 Apr 2003 19:47 Operator: CLK
Sample : WG139334-06 80PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-5 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:36 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\042903\4M18452.D Vial: 7
Acq On : 29 Apr 2003 20:24 Operator: CLK
Sample : WG139334-07 100PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-6 Multiplr: 1.00
IS Integration Params: RTEINT.P
Quant Time: Apr 30 7:36 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.22	152	306947	40.00 ug/ml	0.00
19) Naphthalene-d8	11.86	136	1153618	40.00 ug/ml	0.00
34) Acenaphthene-d10	13.98	164	687313	40.00 ug/ml	0.00
56) Phenanthrene-d10	15.62	188	1216656	40.00 ug/ml	0.00
67) Chrysene-d12	18.49	240	1268468	40.00 ug/ml	0.00
76) Perylene-d12	20.99	264	977567	40.00 ug/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	8.51	112	1023031	95.6772 ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 95.68%		
6) Phenol-d5	9.71	99	1202363	97.2314 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 97.23%#		
20) Nitrobenzene-d5	10.95	82	1086330	97.6740 ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 195.34%#		
38) 2-Fluorobiphenyl	13.16	172	2588954	96.6397 ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 193.28%#		
55) 2,4,6-Tribromophenol	14.86	330	368172	108.3352 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 108.34%		
70) p-Terphenyl-d14	17.24	244	3054182	95.8608 ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 191.72%#		
Target Compounds					Qvalue
2) Pyridine	6.23	79	1036933	95.1579 ug/ml	97
3) n-Nitrosodimethylamine	6.24	74	555099	94.6795 ug/ml	97
5) Aniline	9.82	66	381024	91.4293 ug/ml	98
7) Phenol	9.74	94	1312907	96.9070 ug/ml	99
8) bis(2-Chloroethyl)ether	9.87	63	670872	92.8233 ug/ml	97
9) 2-Chlorophenol	9.97	128	1102674	97.0492 ug/ml	100
10) 1,3-Dichlorobenzene	10.16	146	1262056	95.4595 ug/ml	100
11) 1,4-Dichlorobenzene	10.25	146	1298523	95.3513 ug/ml	99
12) Benzyl Alcohol	10.39	108	727231	99.7235 ug/ml	99
13) 1,2-Dichlorobenzene	10.46	146	1221156	96.0624 ug/ml	100
14) 2-Methylphenol	10.50	107	865775	97.4352 ug/ml	99
15) bis(2-Chloroisopropyl)ethe	10.54	45	1301416	91.2000 ug/ml	98
16) 3-,4-Methylphenol	10.69	107	1277716	98.2782 ug/ml	99
17) n-Nitrosodipropylamine	10.72	70	718628	98.4787 ug/ml	99
18) Hexachloroethane	10.87	117	462101	98.7386 ug/ml	99
21) Nitrobenzene	10.98	77	1055992	96.0558 ug/ml	98
22) Isophorone	11.25	82	1884202	98.6027 ug/ml	99
23) 2-Nitrophenol	11.37	139	678902	106.9721 ug/ml	97
24) 2,4-Dimethylphenol	11.37	122	1113348	101.4118 ug/ml	98
25) bis(2-Chloroethoxy)methane	11.49	93	1202320	97.6429 ug/ml#	97

(#) = qualifier out of range (m) = manual integration
4M18452.D BNA.M Wed Apr 30 07:36:20 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\042903\4M18452.D Vial: 7
Acq On : 29 Apr 2003 20:24 Operator: CLK
Sample : WG139334-07 100PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-6 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:36 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26)	Benzoic Acid	11.48	122	511117	87.9371	ug/ml	99
27)	2,4-Dichlorophenol	11.66	162	965962	102.5384	ug/ml	100
28)	1,2,4-Trichlorobenzene	11.78	180	1109197	99.0048	ug/ml	99
29)	Naphthalene	11.89	128	3214041	96.9826	ug/ml	100
30)	4-Chloroaniline	11.94	127	1097539	98.1928	ug/ml	100
31)	Hexachlorobutadiene	12.02	225	708729	101.6009	ug/ml	99
32)	4-Chloro-3-Methylphenol	12.49	107	963825	102.2897	ug/ml	99
33)	2-Methylnaphthalene	12.74	142	2304792	99.5392	ug/ml	100
35)	Hexachlorocyclopentadiene	12.93	237	715327	110.3908	ug/ml	99
36)	2,4,6-Trichlorophenol	13.07	196	761022	103.5428	ug/ml	99
37)	2,4,5-Trichlorophenol	13.11	196	814453	102.5575	ug/ml	99
39)	2-Chloronaphthalene	13.33	162	2198863	97.8114	ug/ml	100
40)	2-Nitroaniline	13.45	65	582605	97.7040	ug/ml	96
41)	Dimethylphthalate	13.62	163	2401650	96.8442	ug/ml	99
42)	Acenaphthylene	13.83	152	3570590	97.8788	ug/ml	99
43)	2,6-Dinitrotoluene	13.73	165	598693	104.5698	ug/ml	97
44)	3-Nitroaniline	13.93	138	250408	62.6424	ug/ml	96
45)	Acenaphthene	14.02	154	2247682	100.3023	ug/ml	98
46)	2,4-Dinitrophenol	14.04	184	371692	111.7663	ug/ml#	56
47)	4-Nitrophenol	14.06	65	444967	99.7575	ug/ml	98
48)	Dibenzofuran	14.21	168	3199385	97.1944	ug/ml	99
49)	2,4-Dinitrotoluene	14.18	165	795355	106.6972	ug/ml	99
50)	Diethylphthalate	14.39	149	2374206	97.7214	ug/ml	99
51)	Fluorene	14.59	166	2498717	98.7523	ug/ml	100
52)	4-Chlorophenyl Phenyl Ethe	14.55	204	1338819	99.6450	ug/ml	99
53)	4-Nitroaniline	14.62	138	370684	90.9736	ug/ml	97
54)	1,2-Diphenylhydrazine	14.73	77	2182066	96.3639	ug/ml	97
57)	4,6-Dinitro-2-Methylphenol	14.63	198	525158	104.4056	ug/ml	95
58)	n-Nitrosodiphenylamine	14.68	169	1773631	95.6507	ug/ml	99
59)	4-Bromophenyl Phenyl Ether	15.09	248	684350	96.4688	ug/ml	99
60)	Hexachlorobenzene	15.21	284	824920	97.9001	ug/ml	99
61)	Pentachlorophenol	15.40	266	485075	93.1856	ug/ml	99
62)	Phenanthrene	15.64	178	3618527	95.0727	ug/ml	99
63)	Anthracene	15.70	178	3636310	97.2208	ug/ml	99
64)	Carbazole	15.85	167	1658385	66.6184	ug/ml	100
65)	Di-n-Butyl Phthalate	16.11	149	4036974	97.8012	ug/ml	99
66)	Fluoranthene	16.90	202	4174847	96.4968	ug/ml	99
68)	Benzidine	17.00	184	64773	49.7369	ug/ml	100
69)	Pyrene	17.16	202	4336334	94.1324	ug/ml	99
71)	Butyl Benzyl Phthalate	17.68	149	1962479	100.7988	ug/ml	99
72)	Benzo[a]anthracene	18.48	228	4283173	96.2965	ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M18452.D BNA.M Wed Apr 30 07:36:21 2003 HPMS4 Page 2

Data File : C:\HPCHEM\1\DATA\042903\4M18452.D Vial: 7
Acq On : 29 Apr 2003 20:24 Operator: CLK
Sample : WG139334-07 100PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-6 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:36 2003 Quant Results File: BNA.RES

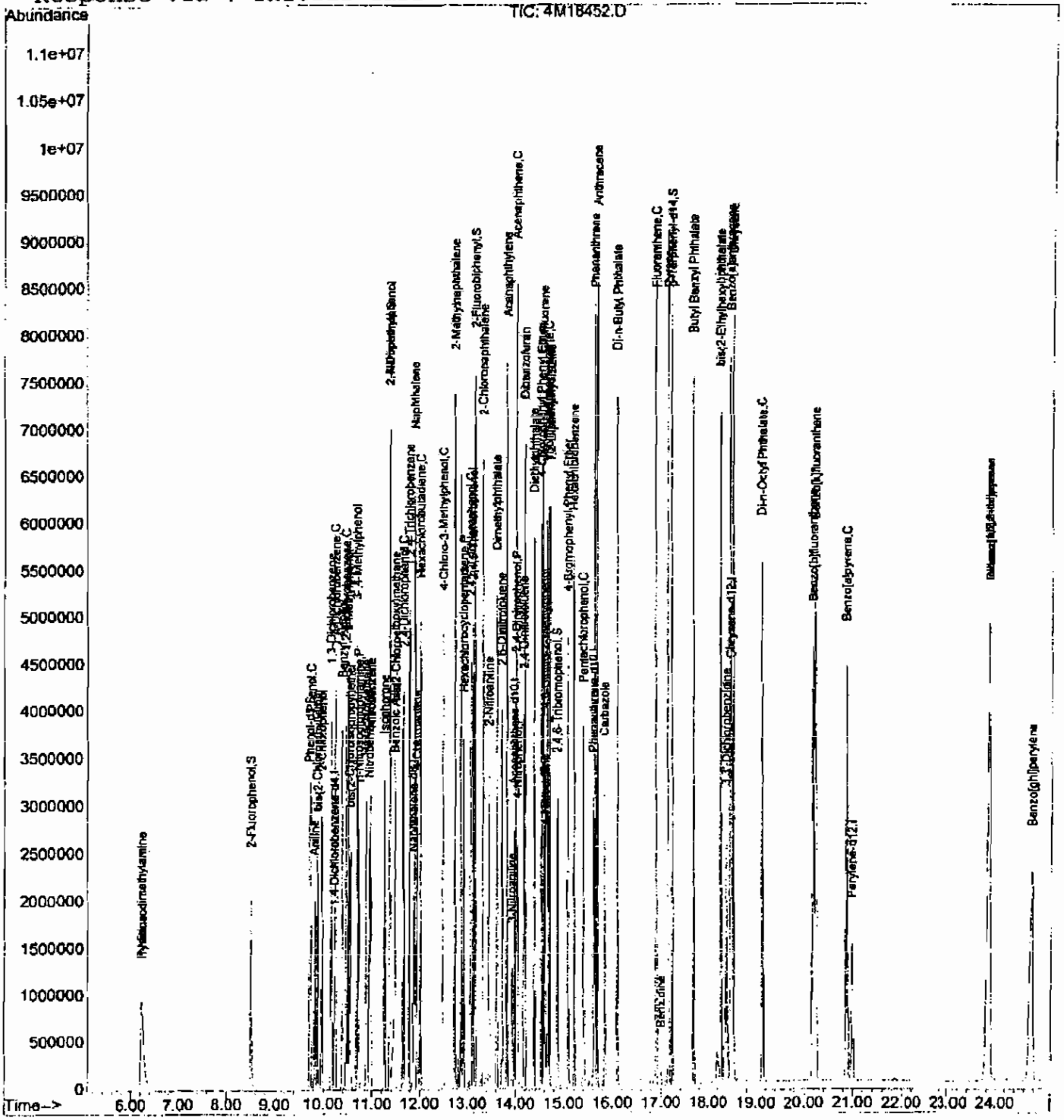
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	18.39	252	871272	88.0655	ug/ml	99
74)	Chrysene	18.53	228	4124445	96.0268	ug/ml	99
75)	bis(2-Ethylhexyl)phthalate	18.26	149	2677888	101.1556	ug/ml	99
77)	Di-n-Octyl Phthalate	19.13	149	4535668	100.3363	ug/ml	99
78)	Benzo[b]fluoranthene	20.19	252	4339316	95.1422	ug/ml	98
79)	Benzo[k]fluoranthene	20.24	252	4189150	98.0831	ug/ml	99
80)	Benzo[a]pyrene	20.88	252	3998500	99.1619	ug/ml	100
81)	Indeno[1,2,3-cd]pyrene	23.87	276	4621551	107.4582	ug/ml#	98
82)	Dibenz[ah]anthracene	23.86	278	3982391	108.2545	ug/ml	99
83)	Benzo[ghi]perylene	24.76	276	3710329	107.5069	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\042903\4M18452.D Vial: 7
Acq On : 29 Apr 2003 20:24 Operator: CLK
Sample : WG139334-07 100PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-6 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:36 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\042903\4M18453.D Vial: 8
Acq On : 29 Apr 2003 21:00 Operator: CLK
Sample : WG139334-08 120PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-7 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:36 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.22	152	298179	40.00 ug/ml	0.00
19) Naphthalene-d8	11.86	136	1137583	40.00 ug/ml	0.00
34) Acenaphthene-d10	13.98	164	685106	40.00 ug/ml	0.00
56) Phenanthrene-d10	15.62	188	1207044	40.00 ug/ml	0.00
67) Chrysene-d12	18.50	240	1276409	40.00 ug/ml	0.00
76) Perylene-d12	21.00	264	970867	40.00 ug/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	8.51	112	1261231	121.4229 ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 121.42%#		
6) Phenol-d5	9.72	99	1480155	123.2153 ug/ml	0.01
Spiked Amount 100.000	Range 10 - 94		Recovery = 123.22%#		
20) Nitrobenzene-d5	10.95	82	1323424	120.6688 ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 241.34%#		
38) 2-Fluorobiphenyl	13.16	172	3157866	118.2556 ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 236.52%#		
55) 2,4,6-Tribromophenol	14.86	330	462499	136.5295 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 136.53%#		
70) p-Terphenyl-d14	17.24	244	3716612	115.9266 ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 231.86%#		
Target Compounds					Qvalue
2) Pyridine	6.23	79	1278038	120.7325 ug/ml	97
3) n-Nitrosodimethylamine	6.24	74	680591	119.4973 ug/ml	98
5) Aniline	9.82	66	468319	115.6807 ug/ml	98
7) Phenol	9.74	94	1614326	122.6588 ug/ml	98
8) bis(2-Chloroethyl)ether	9.87	63	815182	116.1069 ug/ml	96
9) 2-Chlorophenol	9.97	128	1346464	121.9905 ug/ml	99
10) 1,3-Dichlorobenzene	10.16	146	1541882	120.0544 ug/ml	100
11) 1,4-Dichlorobenzene	10.25	146	1588734	120.0921 ug/ml	99
12) Benzyl Alcohol	10.39	108	896104	126.4940 ug/ml	98
13) 1,2-Dichlorobenzene	10.46	146	1490981	120.7371 ug/ml	100
14) 2-Methylphenol	10.50	107	1061859	123.0167 ug/ml	99
15) bis(2-Chloroisopropyl)ethe	10.54	45	1602282	115.5856 ug/ml	98
16) 3-,4-Methylphenol	10.69	107	1565608	123.9631 ug/ml	99
17) n-Nitrosodipropylamine	10.73	70	876830	123.6915 ug/ml	98
18) Hexachloroethane	10.87	117	565228	124.3254 ug/ml	99
21) Nitrobenzene	10.98	77	1286665	118.6882 ug/ml	98
22) Isophorone	11.26	82	2281170	121.0592 ug/ml	99
23) 2-Nitrophenol	11.38	139	825087	131.8384 ug/ml	96
24) 2,4-Dimethylphenol	11.36	122	1369958	126.5446 ug/ml	97
25) bis(2-Chloroethoxy)methane	11.49	93	1487063	122.4698 ug/ml#	97

(#) = qualifier out of range (m) = manual integration
4M18453.D BNA.M Wed Apr 30 07:36:27 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\042903\4M18453.D Vial: 8
Acq On : 29 Apr 2003 21:00 Operator: CLK
Sample : WG139334-08 120PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-7 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:36 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26) Benzoic Acid	11.49	122	680801	118.7821 ug/ml	98
27) 2,4-Dichlorophenol	11.66	162	1183111	127.3594 ug/ml	100
28) 1,2,4-Trichlorobenzene	11.78	180	1347401	121.9617 ug/ml	99
29) Naphthalene	11.89	128	3898874	119.3055 ug/ml	99
30) 4-Chloroaniline	11.94	127	1364329	123.7820 ug/ml	100
31) Hexachlorobutadiene	12.02	225	857985	124.7315 ug/ml	99
32) 4-Chloro-3-Methylphenol	12.49	107	1193968	128.5007 ug/ml	99
33) 2-Methylnaphthalene	12.74	142	2792339	122.2953 ug/ml	100
35) Hexachlorocyclopentadiene	12.92	237	869451	134.6078 ug/ml	99
36) 2,4,6-Trichlorophenol	13.07	196	933180	127.3752 ug/ml	99
37) 2,4,5-Trichlorophenol	13.12	196	1005313	126.9987 ug/ml	99
39) 2-Chloronaphthalene	13.34	162	2684617	119.8038 ug/ml	100
40) 2-Nitroaniline	13.46	65	713409	120.0255 ug/ml	96
41) Dimethylphthalate	13.62	163	2939514	118.9149 ug/ml	99
42) Acenaphthylene	13.83	152	4291316	118.0147 ug/ml	99
43) 2,6-Dinitrotoluene	13.73	165	743258	130.2382 ug/ml	96
44) 3-Nitroaniline	13.93	138	346243	86.8956 ug/ml	96
45) Acenaphthene	14.02	154	2748602	123.0509 ug/ml	98
46) 2,4-Dinitrophenol	14.04	184	482293	145.4907 ug/ml#	52
47) 4-Nitrophenol	14.06	65	543715	122.2886 ug/ml	97
48) Dibenzofuran	14.21	168	3875086	118.1008 ug/ml	100
49) 2,4-Dinitrotoluene	14.19	165	983883	132.4135 ug/ml	94
50) Diethylphthalate	14.39	149	2878080	118.8423 ug/ml	98
51) Fluorene	14.59	166	3049777	120.9191 ug/ml	100
52) 4-Chlorophenyl Phenyl Ethe	14.55	204	1627704	121.5363 ug/ml	99
53) 4-Nitroaniline	14.62	138	430295	105.9436 ug/ml	94
54) 1,2-Diphenylhydrazine	14.73	77	2671103	118.3406 ug/ml	97
57) 4,6-Dinitro-2-Methylphenol	14.63	198	668544	133.9702 ug/ml	94
58) n-Nitrosodiphenylamine	14.68	169	2178380	118.4141 ug/ml	99
59) 4-Bromophenyl Phenyl Ether	15.09	248	841237	119.5286 ug/ml	99
60) Hexachlorobenzene	15.21	284	1003602	120.0543 ug/ml	99
61) Pentachlorophenol	15.40	266	631126	122.2083 ug/ml	98
62) Phenanthrene	15.64	178	4423095	117.1373 ug/ml	99
63) Anthracene	15.70	178	4415869	119.0033 ug/ml	99
64) Carbazole	15.85	167	2130910	86.2817 ug/ml	100
65) Di-n-Butyl Phthalate	16.11	149	4884609	119.2787 ug/ml	99
66) Fluoranthene	16.91	202	5032391	117.2442 ug/ml	98
68) Benzidine	17.00	184	90322	68.9236 ug/ml	100
69) Pyrene	17.16	202	5213512	112.4699 ug/ml	99
71) Butyl Benzyl Phthalate	17.69	149	2396161	122.3083 ug/ml	99
72) Benzo[a]anthracene	18.48	228	5224396	116.7268 ug/ml	99

(#) = qualifier out of range (m) = manual integration
4M18453.D BNA.M Wed Apr 30 07:36:28 2003 HPMS4 Page 2

Data File : C:\HPCHEM\1\DATA\042903\4M18453.D Vial: 8
Acq On : 29 Apr 2003 21:00 Operator: CLK
Sample : WG139334-08 120PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-7 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:36 2003 Quant Results File: BNA.RES

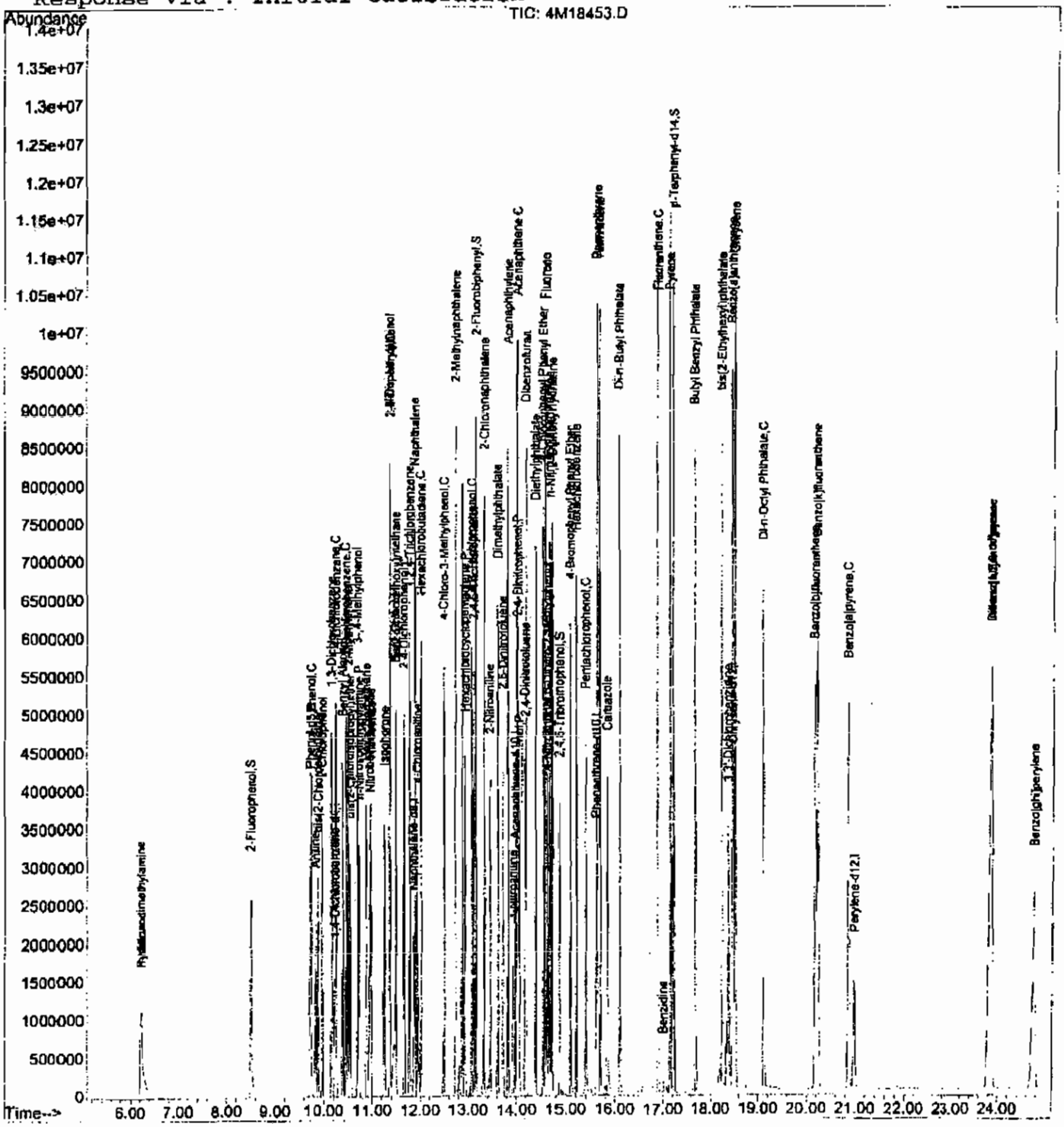
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
73)	3,3'-Dichlorobenzidine	18.39	252	1108773	111.3742 ug/ml	100
74)	Chrysene	18.53	228	5014223	116.0167 ug/ml	98
75)	bis(2-Ethylhexyl)phthalate	18.26	149	3278747	123.0822 ug/ml	99
77)	Di-n-Octyl Phthalate	19.13	149	5558409	123.8095 ug/ml	100
78)	Benzo[b]fluoranthene	20.19	252	5344594	117.9923 ug/ml	97
79)	Benzo[k]fluoranthene	20.24	252	5103226	120.3095 ug/ml	98
80)	Benzo[a]pyrene	20.88	252	4891184	122.1373 ug/ml	99
81)	Indeno[1,2,3-cd]pyrene	23.88	276	5572875	130.4722 ug/ml	98
82)	Dibenz[ah]anthracene	23.88	278	4811783	131.7027 ug/ml	99
83)	Benzo[ghi]perylene	24.77	276	4419802	128.9477 ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\042903\4M18453.D Vial: 8
Acq On : 29 Apr 2003 21:00 Operator: CLK
Sample : WG139334-08 120PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-7 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 30 7:36 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Wed Apr 30 07:35:13 2003
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\042903\4M18454.D Vial: 9
Acq On : 29 Apr 2003 21:36 Operator: CLK
Sample : WG139334-09 50PPM Alt Source BNA STD Inst : HPMS4
Misc : 1,1 SOS64-19-4 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	123	0.00
2		Pyridine	50.000	51.677	-3.4	131	0.00
3		n-Nitrosodimethylamine	50.000	50.776	-1.6	124	0.00
4	S	2-Fluorophenol	50.000	50.255	-0.5	123	0.00
5		Aniline	50.000	51.614	-3.2	133	0.00
6	S	Phenol-d5	50.000	51.094	-2.2	124	0.00
7	C	Phenol	50.000	50.238	-0.5	121	0.00
8		bis(2-Chloroethyl)ether	50.000	49.373	1.3	121	0.00
9		2-Chlorophenol	50.000	49.960	0.1	120	0.00
10		1,3-Dichlorobenzene	50.000	49.974	0.1	129	0.00
11	C	1,4-Dichlorobenzene	50.000	50.060	-0.1	125	0.00
12		Benzyl Alcohol	50.000	51.868	-3.7	124	0.00
13	C	1,2-Dichlorobenzene	50.000	49.975	0.0	130	0.00
14		2-Methylphenol	50.000	50.468	-0.9	122	0.00
		bis(2-Chloroisopropyl)ether	50.000	49.733	0.5	127	0.00
16		3-,4-Methylphenol	50.000	50.956	-1.9	123	0.00
17	P	n-Nitrosodipropylamine	50.000	51.445	-2.9	131	0.00
18		Hexachloroethane	50.000	50.922	-1.8	126	0.00
19	I	Naphthalene-d8	40.000	40.000	0.0	122	0.00
20	S	Nitrobenzene-d5	50.000	50.834	-1.7	125	0.00
21		Nitrobenzene	50.000	49.676	0.6	120	0.00
22		Isophorone	50.000	51.853	-3.7	137	0.00
23	C	2-Nitrophenol	50.000	55.536	-11.1	129	0.00
24		2,4-Dimethylphenol	50.000	51.567	-3.1	134	0.00
25		bis(2-Chloroethoxy)methane	50.000	50.055	-0.1	124	0.00
26		Benzoic Acid	50.000	51.135	-2.3	128	0.01
27	C	2,4-Dichlorophenol	50.000	50.704	-1.4	122	0.00
28		1,2,4-Trichlorobenzene	50.000	49.534	0.9	127	0.00
29		Naphthalene	50.000	50.018	-0.0	126	0.00
30		4-Chloroaniline	50.000	49.955	0.1	119	0.00
31	C	Hexachlorobutadiene	50.000	50.539	-1.1	142	0.00
32	C	4-Chloro-3-Methylphenol	50.000	50.675	-1.3	120	0.00
33		2-Methylnaphthalene	50.000	50.498	-1.0	125	0.00
34	I	Acenaphthene-d10	40.000	40.000	0.0	122	0.00
35	P	Hexachlorocyclopentadiene	50.000	54.754	-9.5	139	0.00
36	C	2,4,6-Trichlorophenol	50.000	52.757	-5.5	124	0.00
37		2,4,5-Trichlorophenol	50.000	52.851	-5.7	124	0.00
38	S	2-Fluorobiphenyl	50.000	50.436	-0.9	131	0.00
		2-Chloronaphthalene	50.000	50.760	-1.5	131	0.00

(#)=Out of Range
4M18454.D BNA.M Thu May 01 08:32:54 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\042903\4M18454.D Vial: 9
Acq On : 29 Apr 2003 21:36 Operator: CLK
Sample : WG139334-09 50PPM Alt Source BNA STD Inst : HPMS4
Misc : 1,1 SOS64-19-4 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
40		2-Nitroaniline	50.000	51.322	-2.6	122	0.00
41		Dimethylphthalate	50.000	50.724	-1.4	124	0.00
42		Acenaphthylene	50.000	51.499	-3.0	130	0.00
43		2,6-Dinitrotoluene	50.000	52.996	-6.0	127	0.00
44		3-Nitroaniline	50.000	44.295	11.4	96	0.00
45	C	Acenaphthene	50.000	51.767	-3.5	127	0.00
46	P	2,4-Dinitrophenol	50.000	54.254	-8.5	145	0.00
47	P	4-Nitrophenol	50.000	52.822	-5.6	129	0.00
48		Dibenzofuran	50.000	50.357	-0.7	125	0.00
49		2,4-Dinitrotoluene	50.000	53.277	-6.6	133	0.00
50		Diethylphthalate	50.000	50.884	-1.8	124	0.00
51		Fluorene	50.000	50.882	-1.8	127	0.00
52		4-Chlorophenyl Phenyl Ether	50.000	50.691	-1.4	124	0.00
53		4-Nitroaniline	50.000	53.922	-7.8	108	0.00
54		1,2-Diphenylhydrazine	50.000	50.288	-0.6	121	0.00
55	S	2,4,6-Tribromophenol	50.000	55.007	-10.0	126	0.00
56	I	Phenanthrene-d10	40.000	40.000	0.0	127	0.00
57		4,6-Dinitro-2-Methylphenol	50.000	52.933	-5.9	137	0.00
58	C	n-Nitrosodiphenylamine	50.000	50.621	-1.2	130	0.00
59		4-Bromophenyl Phenyl Ether	50.000	49.028	1.9	105	0.00
60		Hexachlorobenzene	50.000	50.019	-0.0	130	0.00
61	C	Pentachlorophenol	50.000	56.255	-12.5	155	0.00
62		Phenanthrene	50.000	50.230	-0.5	128	0.00
63		Anthracene	50.000	50.876	-1.8	126	0.00
64		Carbazole	50.000	43.451	13.1	105	0.00
65		Di-n-Butyl Phthalate	50.000	50.817	-1.6	121	0.00
66	C	Fluoranthene	50.000	50.633	-1.3	126	0.00
67	I	Chrysene-d12	40.000	40.000	0.0	108	0.00
68		Benzidine	50.000	26.532	46.9#	15	0.00
69		Pyrene	50.000	50.893	-1.8	124	0.00
70	S	p-Terphenyl-d14	50.000	51.054	-2.1	129	0.00
71		Butyl Benzyl Phthalate	50.000	51.910	-3.8	131	0.00
72		Benzo[a]anthracene	50.000	50.615	-1.2	124	0.00
73		3,3'-Dichlorobenzidine	50.000	45.540	8.9	119	0.00
74		Chrysene	50.000	50.934	-1.9	124	0.00
75		bis(2-Ethylhexyl)phthalate	50.000	51.203	-2.4	122	0.00
76	I	Perylene-d12	40.000	40.000	0.0	120	0.00
77	C	Di-n-Octyl Phthalate	50.000	52.391	-4.8	122	0.00

(#)=Out of Range

Data File : C:\HPCHEM\1\DATA\042903\4M18454.D Vial: 9
Acq On : 29 Apr 2003 21:36 Operator: CLK
Sample : WG139334-09 50PPM Alt Source BNA STD Inst : HPMS4
Misc : 1,1 SOS64-19-4 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
78		Benzo[b]fluoranthene	50.000	50.340	-0.7	120	0.00
79		Benzo[k]fluoranthene	50.000	51.796	-3.6	143	0.00
80	C	Benzo[a]pyrene	50.000	50.851	-1.7	125	0.00
81		Indeno[1,2,3-cd]pyrene	50.000	47.544	4.9	110	0.00
82		Dibenz[ah]anthracene	50.000	48.179	3.6	114	0.00
83		Benzo[ghi]perylene	50.000	45.352	9.3	105	0.00

Data File : C:\HPCHEM\1\DATA\042903\4M18454.D Vial: 9
Acq On : 29 Apr 2003 21:36 Operator: CLK
Sample : WG139334-09 50PPM Alt Source BNA STD Inst : HPMS4
Misc : 1,1 SOS64-19-4 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	123	0.00
2		Pyridine	1.384	1.431	-3.4	131	0.00
3		n-Nitrosodimethylamine	0.756	0.768	-1.6	124	0.00
4	S	2-Fluorophenol	1.393	1.400	-0.5	123	0.00
5		Aniline	0.537	0.554	-3.2	133	0.00
6	S	Phenol-d5	1.601	1.636	-2.2	124	0.00
7	C	Phenol	1.768	1.777	-0.5	121	0.00
8		bis(2-Chloroethyl)ether	0.915	0.904	1.2	121	0.00
9		2-Chlorophenol	1.488	1.487	0.1	120	0.00
10		1,3-Dichlorobenzene	1.712	1.711	0.1	129	0.00
11	C	1,4-Dichlorobenzene	1.774	1.776	-0.1	125	0.00
12		Benzyl Alcohol	0.948	0.983	-3.7	124	0.00
13	C	1,2-Dichlorobenzene	1.651	1.650	0.1	130	0.00
14		2-Methylphenol	1.157	1.168	-1.0	122	0.00
15		bis(2-Chloroisopropyl)ether	1.796	1.786	0.6	127	0.00
16		3-,4-Methylphenol	1.688	1.721	-2.0	123	0.00
17	P	n-Nitrosodipropylamine	0.940	0.967	-2.9	131	0.00
18		Hexachloroethane	0.610	0.621	-1.8	126	0.00
19	I	Naphthalene-d8	1.000	1.000	0.0	122	0.00
20	S	Nitrobenzene-d5	0.384	0.390	-1.6	125	0.00
21		Nitrobenzene	0.379	0.376	0.8	120	0.00
22		Isophorone	0.656	0.681	-3.8	137	0.00
23	C	2-Nitrophenol	0.222	0.247	-11.3	129	0.00
24		2,4-Dimethylphenol	0.375	0.387	-3.2	134	0.00
25		bis(2-Chloroethoxy)methane	0.421	0.421	0.0	124	0.00
26		Benzoic Acid	0.161	0.164	-1.9	128	0.01
27	C	2,4-Dichlorophenol	0.336	0.341	-1.5	122	0.00
28		1,2,4-Trichlorobenzene	0.396	0.393	0.8	127	0.00
29		Naphthalene	1.150	1.150	0.0	126	0.00
30		4-Chloroaniline	0.404	0.403	0.2	119	0.00
31	C	Hexachlorobutadiene	0.250	0.252	-0.8	142	0.00
32	C	4-Chloro-3-Methylphenol	0.333	0.338	-1.5	120	0.00
33		2-Methylnaphthalene	0.813	0.821	-1.0	125	0.00
34	I	Acenaphthene-d10	1.000	1.000	0.0	122	0.00
35	P	Hexachlorocyclopentadiene	0.374	0.410	-9.6	139	0.00
36	C	2,4,6-Trichlorophenol	0.431	0.455	-5.6	124	0.00
37		2,4,5-Trichlorophenol	0.461	0.488	-5.9	124	0.00
38	S	2-Fluorobiphenyl	1.570	1.583	-0.8	131	0.00
39		2-Chloronaphthalene	1.311	1.330	-1.4	131	0.00

(#)=Out of Range
4M18454.D BNA.M Thu May 01 08:33:02 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\042903\4M18454.D Vial: 9
Acq On : 29 Apr 2003 21:36 Operator: CLK
Sample : WG139334-09 50PPM Alt Source BNA STD Inst : HPMS4
Misc : 1,1 SOS64-19-4 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40		2-Nitroaniline	0.344	0.353	-2.6	122	0.00
41		Dimethylphthalate	1.448	1.469	-1.5	124	0.00
42		Acenaphthylene	2.119	2.183	-3.0	130	0.00
43		2,6-Dinitrotoluene	0.337	0.357	-5.9	127	0.00
44		3-Nitroaniline	0.246	0.218	11.4	96	0.00
45	C	Acenaphthene	1.306	1.353	-3.6	127	0.00
46	P	2,4-Dinitrophenol	0.185	0.201	-8.6	145	0.00
47	P	4-Nitrophenol	0.249	0.263	-5.6	129	0.00
48		Dibenzofuran	1.926	1.939	-0.7	125	0.00
49		2,4-Dinitrotoluene	0.445	0.474	-6.5	133	0.00
50		Diethylphthalate	1.420	1.445	-1.8	124	0.00
51		Fluorene	1.482	1.508	-1.8	127	0.00
52		4-Chlorophenyl Phenyl Ether	0.794	0.805	-1.4	124	0.00
53		4-Nitroaniline	0.237	0.256	-8.0	108	0.00
		1,2-Diphenylhydrazine	1.305	1.312	-0.5	121	0.00
55	S	2,4,6-Tribromophenol	0.196	0.216	-10.2	126	0.00
56	I	Phenanthrene-d10	1.000	1.000	0.0	127	0.00
57		4,6-Dinitro-2-Methylphenol	0.161	0.170	-5.6	137	0.00
58	C	n-Nitrosodiphenylamine	0.615	0.623	-1.3	130	0.00
59		4-Bromophenyl Phenyl Ether	0.237	0.233	1.7	105	0.00
60		Hexachlorobenzene	0.280	0.281	-0.4	130	0.00
61	C	Pentachlorophenol	0.137	0.154	-12.4	155	0.00
62		Phenanthrene	1.254	1.260	-0.5	128	0.00
63		Anthracene	1.231	1.253	-1.8	126	0.00
64		Carbazole	0.815	0.708	13.1	105	0.00
65		Di-n-Butyl Phthalate	1.380	1.402	-1.6	121	0.00
66	C	Fluoranthene	1.443	1.461	-1.2	126	0.00
67	I	Chrysene-d12	1.000	1.000	0.0	108	0.00
68		Benzidine	0.034	0.018#	47.1#	15#	0.00
69		Pyrene	1.432	1.457	-1.7	124	0.00
70	S	p-Terphenyl-d14	0.999	1.020	-2.1	129	0.00
71		Butyl Benzyl Phthalate	0.621	0.645	-3.9	131	0.00
72		Benzo[a]anthracene	1.405	1.423	-1.3	124	0.00
73		3,3'-Dichlorobenzidine	0.317	0.289	8.8	119	0.00
74		Chrysene	1.345	1.370	-1.9	124	0.00
75		bis(2-Ethylhexyl)phthalate	0.859	0.880	-2.4	122	0.00
76	I	Perylene-d12	1.000	1.000	0.0	120	0.00
	C	Di-n-Octyl Phthalate	1.852	1.940	-4.8	122	0.00

(#)=Out of Range

Data File : C:\HPCHEM\1\DATA\042903\4M18454.D Vial: 9
Acq On : 29 Apr 2003 21:36 Operator: CLK
Sample : WG139334-09 50PPM Alt Source BNA STD Inst : HPMS4
Misc : 1,1 SOS64-19-4 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
78		Benzo[b]fluoranthene	1.838	1.850	-0.7	120	0.00
79		Benzo[k]fluoranthene	1.729	1.792	-3.6	143	0.00
80	C	Benzo[a]pyrene	1.666	1.694	-1.7	125	0.00
81		Indeno[1,2,3-cd]pyrene	1.964	1.868	4.9	110	0.00
82		Dibenz[ah]anthracene	1.684	1.622	3.7	114	0.00
83		Benzo[ghi]perylene	1.606	1.457	9.3	105	0.00

Data File : C:\HPCHEM\1\DATA\042903\4M18454.D Vial: 9
Acq On : 29 Apr 2003 21:36 Operator: CLK
Sample : WG139334-09 50PPM Alt Source BNA STD Inst : HPMS4
Misc : 1,1 SOS64-19-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 1 8:32 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.22	152	367548	40.00	ug/ml	0.00
19) Naphthalene-d8	11.86	136	1400186	40.00	ug/ml	0.00
34) Acenaphthene-d10	13.98	164	824459	40.00	ug/ml	0.00
56) Phenanthrene-d10	15.62	188	1448144	40.00	ug/ml	0.00
67) Chrysene-d12	18.49	240	1502642	40.00	ug/ml	0.00
76) Perylene-d12	20.99	264	1156760	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	8.50	112	643204	50.2552	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 50.26%			
6) Phenol-d5	9.71	99	751677	51.0942	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 51.09%			
20) Nitrobenzene-d5	10.95	82	683386	50.8336	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 101.66%			
38) 2-Fluorobiphenyl	13.16	172	1631868	50.4358	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 100.88%			
55) 2,4,6-Tribromophenol	14.86	330	222211	55.0065	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 55.01%			
70) p-Terphenyl-d14	17.24	244	1915791	51.0538	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 102.10%			
Target Compounds						Qvalue
2) Pyridine	6.23	79	657346	51.6773	ug/ml	99
3) n-Nitrosodimethylamine	6.23	74	352889	50.7762	ug/ml	98
5) Aniline	9.82	66	254541	51.6142	ug/ml	96
7) Phenol	9.73	94	816224	50.2378	ug/ml	100
8) bis(2-Chloroethyl)ether	9.87	63	415138	49.3727	ug/ml	96
9) 2-Chlorophenol	9.96	128	683167	49.9596	ug/ml	100
10) 1,3-Dichlorobenzene	10.16	146	786062	49.9736	ug/ml	100
11) 1,4-Dichlorobenzene	10.24	146	816115	50.0596	ug/ml	99
12) Benzyl Alcohol	10.38	108	451803	51.8678	ug/ml	99
13) 1,2-Dichlorobenzene	10.46	146	758052	49.9751	ug/ml	100
14) 2-Methylphenol	10.50	107	536580	50.4677	ug/ml	99
15) bis(2-Chloroisopropyl)ethe	10.54	45	820618	49.7330	ug/ml	99
16) 3-,4-Methylphenol	10.68	107	790554	50.9563	ug/ml	99
17) n-Nitrosodipropylamine	10.72	70	444489	51.4449	ug/ml	99
18) Hexachloroethane	10.87	117	285356	50.9221	ug/ml	98
21) Nitrobenzene	10.97	77	658913	49.6763	ug/ml	99
22) Isophorone	11.25	82	1191205	51.8530	ug/ml	100
23) 2-Nitrophenol	11.37	139	432439	55.5358	ug/ml	96
24) 2,4-Dimethylphenol	11.36	122	677101	51.5666	ug/ml	99
25) bis(2-Chloroethoxy)methane	11.49	93	737363	50.0550	ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M18454.D BNA.M Thu May 01 08:32:42 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\042903\4M18454.D Vial: 9
Acq On : 29 Apr 2003 21:36 Operator: CLK
Sample : WG139334-09 50PPM Alt Source BNA STD Inst : HPMS4
Misc : 1,1 SOS64-19-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 1 8:32 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) Benzoic Acid	11.46	122	287454	51.1346	ug/ml	99
27) 2,4-Dichlorophenol	11.65	162	596877	50.7041	ug/ml	99
28) 1,2,4-Trichlorobenzene	11.78	180	687360	49.5340	ug/ml	99
29) Naphthalene	11.89	128	2013077	50.0183	ug/ml	100
30) 4-Chloroaniline	11.94	127	705893	49.9552	ug/ml	100
31) Hexachlorobutadiene	12.02	225	441769	50.5387	ug/ml	99
32) 4-Chloro-3-Methylphenol	12.49	107	591571	50.6753	ug/ml	99
33) 2-Methylnaphthalene	12.74	142	1436508	50.4975	ug/ml	100
35) Hexachlorocyclopentadiene	12.92	237	422244	54.7538	ug/ml	98
36) 2,4,6-Trichlorophenol	13.06	196	468531	52.7569	ug/ml	99
37) 2,4,5-Trichlorophenol	13.11	196	502655	52.8515	ug/ml	99
39) 2-Chloronaphthalene	13.33	162	1371176	50.7599	ug/ml	100
40) 2-Nitroaniline	13.45	65	364163	51.3217	ug/ml	99
41) Dimethylphthalate	13.61	163	1513602	50.7243	ug/ml	100
42) Acenaphthylene	13.82	152	2249749	51.4987	ug/ml	100
43) 2,6-Dinitrotoluene	13.72	165	367813	52.9958	ug/ml	99
44) 3-Nitroaniline	13.92	138	224765	44.2948	ug/ml	98
45) Acenaphthene	14.02	154	1393953	51.7674	ug/ml	99
46) 2,4-Dinitrophenol	14.03	184	207173	54.2538	ug/ml	76
47) 4-Nitrophenol	14.05	65	270943	52.8221	ug/ml	98
48) Dibenzofuran	14.20	168	1998754	50.3575	ug/ml	100
49) 2,4-Dinitrotoluene	14.17	165	488778	53.2769	ug/ml	98
50) Diethylphthalate	14.39	149	1489467	50.8839	ug/ml	99
51) Fluorene	14.59	166	1554458	50.8821	ug/ml	100
52) 4-Chlorophenyl Phenyl Ethe	14.54	204	829288	50.6907	ug/ml	99
53) 4-Nitroaniline	14.62	138	263786	53.9221	ug/ml	98
54) 1,2-Diphenylhydrazine	14.72	77	1352136	50.2880	ug/ml	99
57) 4,6-Dinitro-2-Methylphenol	14.63	198	308500	52.9332	ug/ml	96
58) n-Nitrosodiphenylamine	14.68	169	1127090	50.6214	ug/ml	99
59) 4-Bromophenyl Phenyl Ether	15.08	248	421461	49.0285	ug/ml	99
60) Hexachlorobenzene	15.21	284	507871	50.0189	ug/ml	99
61) Pentachlorophenol	15.40	266	279499	56.2548	ug/ml	99
62) Phenanthrene	15.64	178	2280705	50.2304	ug/ml	100
63) Anthracene	15.70	178	2267347	50.8758	ug/ml	100
64) Carbazole	15.85	167	1281731	43.4507	ug/ml	100
65) Di-n-Butyl Phthalate	16.11	149	2538484	50.8170	ug/ml	100
66) Fluoranthene	16.90	202	2644686	50.6335	ug/ml	100
68) Benzidine	17.00	184	33678	26.5324	ug/ml	100
69) Pyrene	17.16	202	2737614	50.8930	ug/ml	100
71) Butyl Benzyl Phthalate	17.68	149	1211320	51.9098	ug/ml	99
72) Benzo[a]anthracene	18.47	228	2672373	50.6154	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\042903\4M18454.D Vial: 9
Acq On : 29 Apr 2003 21:36 Operator: CLK
Sample : WG139334-09 50PPM Alt Source BNA STD Inst : HPMS4
Misc : 1,1 SOS64-19-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 1 8:32 2003 Quant Results File: BNA.RES

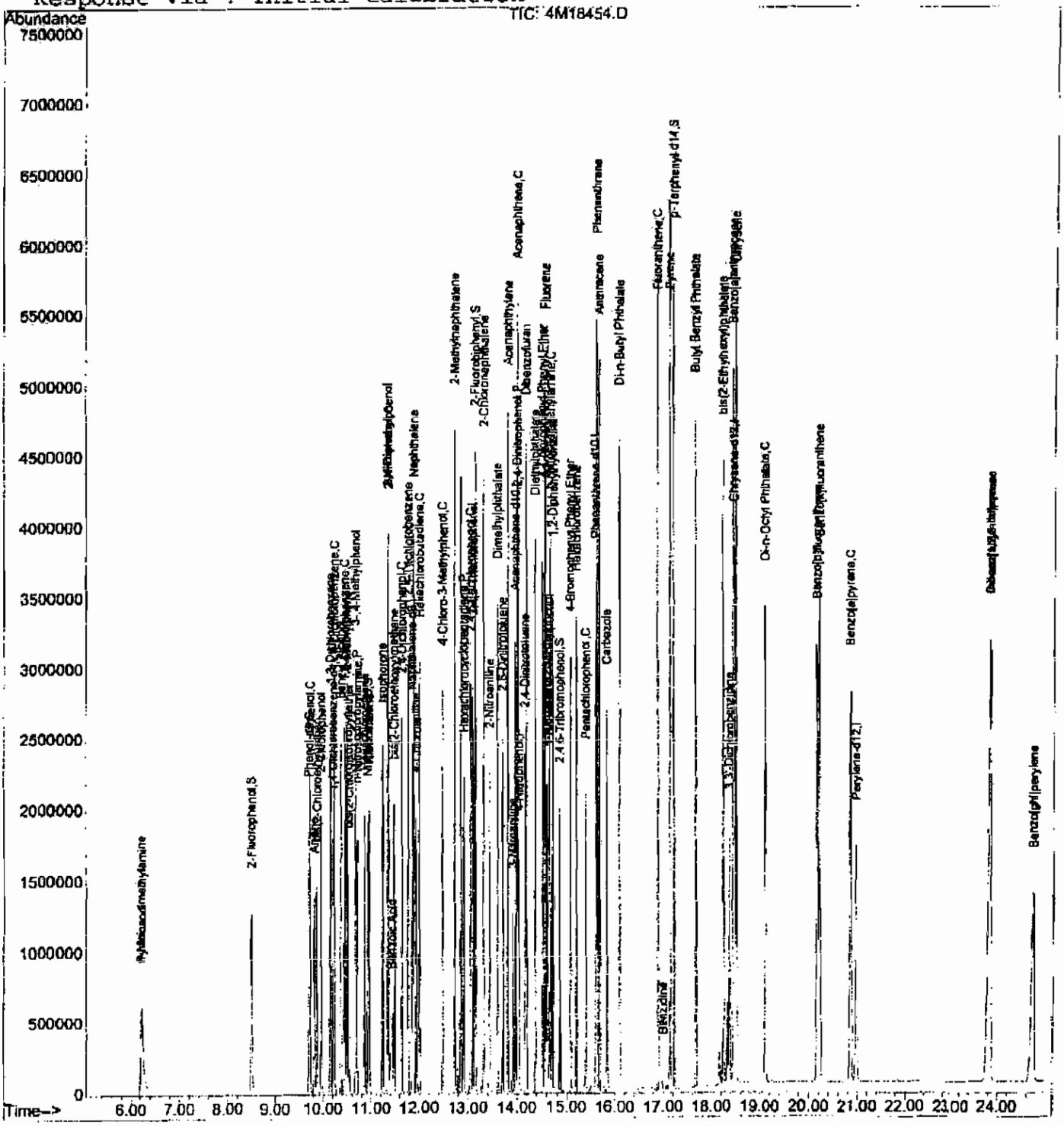
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
73)	3,3'-Dichlorobenzidine	18.38	252	542196	45.5395 ug/ml	100
74)	Chrysene	18.53	228	2573108	50.9337 ug/ml	99
75)	bis(2-Ethylhexyl)phthalate	18.26	149	1652002	51.2026 ug/ml	99
77)	Di-n-Octyl Phthalate	19.13	149	2805724	52.3910 ug/ml	100
78)	Benzo[b]fluoranthene	20.18	252	2675087	50.3400 ug/ml	98
79)	Benzo[k]fluoranthene	20.23	252	2590454	51.7957 ug/ml	98
80)	Benzo[a]pyrene	20.87	252	2449655	50.8507 ug/ml	100
81)	Indeno[1,2,3-cd]pyrene	23.84	276	2700854	47.5439 ug/ml	100
82)	Dibenz[ah]anthracene	23.84	278	2345807	48.1795 ug/ml	99
83)	Benzo[ghi]perylene	24.74	276	2106470	45.3519 ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M18454.D BNA.M Thu May 01 08:32:43 2003 HPMS4 Page 3

Data File : C:\HPCHEM\1\DATA\042903\4M18454.D Vial: 9
Acq On : 29 Apr 2003 21:36 Operator: CLK
Sample : WG139334-09 50PPM Alt Source BNA STD Inst : HPMS4
Misc : 1,1 SOS64-19-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 1 8:32 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Initial Calibration



Continuing calibration Area and RT check

Instrument: HPMS4
Initial cal date: 29 Apr 2003 17:10
CCV date: 30 Apr 2003 8:22
CCV filename: 4M18456.D

	1,4-Dichlorobenzene-d4		Naphthalene-d8		Acenaphthene-d10	
	Amount	RT	Amount	RT	Amount	RT
InitCal	299573	10.22	1145696	11.86	675579	13.98
CCV	282724	10.22	1060492	11.85	634067	13.98

	Phenanthrene-d10		Chrysene-d12		Perylene-d12	
	Amount	RT	Amount	RT	Amount	RT
InitCal	1143794	15.61	1386652	18.49	966761	20.99
CCV	1057278	15.62	1309498	18.49	905897	20.99

Data File : C:\HPCHEM\1\DATA\043003\4M18456.D Vial: 2
Acq On : 30 Apr 2003 8:22 Operator: mdc
Sample : WG139370-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	94	0.00
2		Pyridine	50.000	48.528	2.9	95	0.00
3		n-Nitrosodimethylamine	50.000	50.333	-0.7	94	0.00
4	S	2-Fluorophenol	50.000	49.522	1.0	93	0.00
5		Aniline	50.000	47.198	5.6	94	0.00
6	S	Phenol-d5	50.000	49.732	0.5	93	0.00
7	C	Phenol	50.000	50.041	-0.1	93	0.00
8		bis(2-Chloroethyl)ether	50.000	49.235	1.5	93	0.00
9		2-Chlorophenol	50.000	49.904	0.2	92	0.00
10		1,3-Dichlorobenzene	50.000	47.284	5.4	94	0.00
11	C	1,4-Dichlorobenzene	50.000	48.531	2.9	93	0.00
12		Benzyl Alcohol	50.000	49.997	0.0	92	0.00
13	C	1,2-Dichlorobenzene	50.000	46.291	7.4	93	0.00
14		2-Methylphenol	50.000	49.572	0.9	92	0.00
15		bis(2-Chloroisopropyl)ether	50.000	47.326	5.3	93	0.00
16		3-,4-Methylphenol	50.000	49.779	0.4	92	0.00
17	P	n-Nitrosodipropylamine	50.000	47.414	5.2	93	0.00
18		Hexachloroethane	50.000	48.781	2.4	93	0.00
19	I	Naphthalene-d8	40.000	40.000	0.0	93	0.00
20	S	Nitrobenzene-d5	50.000	49.761	0.5	93	0.00
21		Nitrobenzene	50.000	50.542	-1.1	92	0.00
22		Isophorone	50.000	46.199	7.6	92	0.00
23	C	2-Nitrophenol	50.000	53.252	-6.5	94	0.00
24		2,4-Dimethylphenol	50.000	47.497	5.0	94	0.00
25		bis(2-Chloroethoxy)methane	50.000	49.503	1.0	93	0.00
26		Benzoic Acid	50.000	50.330	-0.7	96	0.00
27	C	2,4-Dichlorophenol	50.000	51.201	-2.4	93	0.00
28		1,2,4-Trichlorobenzene	50.000	47.422	5.2	92	0.00
29		Naphthalene	50.000	48.619	2.8	93	0.00
30		4-Chloroaniline	50.000	51.746	-3.5	93	0.00
31	C	Hexachlorobutadiene	50.000	44.030	11.9	94	0.00
32	C	4-Chloro-3-Methylphenol	50.000	52.159	-4.3	93	0.00
33		2-Methylnaphthalene	50.000	49.931	0.1	94	0.00
34	I	Acenaphthene-d10	40.000	40.000	0.0	94	0.00
35	P	Hexachlorocyclopentadiene	50.000	47.861	4.3	94	0.00
36	C	2,4,6-Trichlorophenol	50.000	51.413	-2.8	93	0.00
37		2,4,5-Trichlorophenol	50.000	51.814	-3.6	94	0.00
38	S	2-Fluorobiphenyl	50.000	46.798	6.4	93	0.00
39		2-Chloronaphthalene	50.000	47.291	5.4	94	0.00

(#)=Out of Range
4M18456.D BNA.M Thu May 01 08:47:59 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\043003\4M18456.D Vial: 2
Acq On : 30 Apr 2003 8:22 Operator: mdc
Sample : WG139370-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
40		2-Nitroaniline	50.000	50.829	-1.7	93	0.00
41		Dimethylphthalate	50.000	49.022	2.0	92	0.00
42		Acenaphthylene	50.000	48.078	3.8	93	0.00
43		2,6-Dinitrotoluene	50.000	49.786	0.4	92	0.00
44		3-Nitroaniline	50.000	59.954	-19.9	100	0.00
45	C	Acenaphthene	50.000	49.113	1.8	93	0.00
46	P	2,4-Dinitrophenol	50.000	47.050	5.9	97	0.00
47	P	4-Nitrophenol	50.000	50.819	-1.6	95	0.00
48		Dibenzofuran	50.000	48.746	2.5	93	0.00
49		2,4-Dinitrotoluene	50.000	48.217	3.6	93	0.00
50		Diethylphthalate	50.000	49.216	1.6	92	0.00
51		Fluorene	50.000	48.066	3.9	92	0.00
52		4-Chlorophenyl Phenyl Ether	50.000	49.687	0.6	93	0.00
53		4-Nitroaniline	50.000	57.763	-15.5	89	0.00
		1,2-Diphenylhydrazine	50.000	49.968	0.1	92	0.00
55	S	2,4,6-Tribromophenol	50.000	54.330	-8.7	95	0.00
56	I	Phenanthrene-d10	40.000	40.000	0.0	92	0.00
57		4,6-Dinitro-2-Methylphenol	50.000	50.046	-0.1	94	0.00
58	C	n-Nitrosodiphenylamine	50.000	50.797	-1.6	95	0.00
59		4-Bromophenyl Phenyl Ether	50.000	58.883	-17.8	92	0.00
60		Hexachlorobenzene	50.000	49.705	0.6	94	0.00
61	C	Pentachlorophenol	50.000	57.195	-14.4	115	0.00
62		Phenanthrene	50.000	50.033	-0.1	93	0.00
63		Anthracene	50.000	51.160	-2.3	93	0.00
64		Carbazole	50.000	54.899	-9.8	96	0.00
65		Di-n-Butyl Phthalate	50.000	53.155	-6.3	93	0.00
66	C	Fluoranthene	50.000	51.196	-2.4	93	0.00
67	I	Chrysene-d12	40.000	40.000	0.0	94	0.00
68		Benzidine	50.000	217.909	-335.8#	109	0.00
69		Pyrene	50.000	44.095	11.8	94	0.00
70	S	p-Terphenyl-d14	50.000	42.899	14.2	95	0.00
71		Butyl Benzyl Phthalate	50.000	42.256	15.5	93	0.00
72		Benzo[a]anthracene	50.000	44.396	11.2	95	0.00
73		3,3'-Dichlorobenzidine	50.000	45.021	10.0	102	0.00
74		Chrysene	50.000	43.964	12.1	93	0.00
75		bis(2-Ethylhexyl)phthalate	50.000	45.066	9.9	94	0.00
76	I	Perylene-d12	40.000	40.000	0.0	94	0.00
	C	Di-n-Octyl Phthalate	50.000	51.172	-2.3	93	0.00

(#)=Out of Range

Data File : C:\HPCHEM\1\DATA\043003\4M18456.D Vial: 2
Acq On : 30 Apr 2003 8:22 Operator: mdc
Sample : WG139370-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
78		Benzo[b]fluoranthene	50.000	49.947	0.1	93	0.00
79		Benzo[k]fluoranthene	50.000	44.345	11.3	96	0.00
80	C	Benzo[a]pyrene	50.000	49.098	1.8	94	0.00
81		Indeno[1,2,3-cd]pyrene	50.000	48.475	3.0	88	0.00
82		Dibenz[ah]anthracene	50.000	47.999	4.0	89	0.00
83		Benzo[ghi]perylene	50.000	46.213	7.6	84	0.00

Data File : C:\HPCHEM\1\DATA\043003\4M18456.D Vial: 2
Acq On : 30 Apr 2003 8:22 Operator: mdc
Sample : WG139370-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	0.00
2		Pyridine	1.384	1.344	2.9	95	0.00
3		n-Nitrosodimethylamine	0.756	0.761	-0.7	94	0.00
4	S	2-Fluorophenol	1.393	1.380	0.9	93	0.00
5		Aniline	0.537	0.507	5.6	94	0.00
6	S	Phenol-d5	1.601	1.592	0.6	93	0.00
7	C	Phenol	1.768	1.770	-0.1	93	0.00
8		bis(2-Chloroethyl)ether	0.915	0.901	1.5	93	0.00
9		2-Chlorophenol	1.488	1.485	0.2	92	0.00
10		1,3-Dichlorobenzene	1.712	1.619	5.4	94	0.00
11	C	1,4-Dichlorobenzene	1.774	1.722	2.9	93	0.00
12		Benzyl Alcohol	0.948	0.948	0.0	92	0.00
13	C	1,2-Dichlorobenzene	1.651	1.528	7.5	93	0.00
14		2-Methylphenol	1.157	1.147	0.9	92	0.00
		bis(2-Chloroisopropyl)ether	1.796	1.700	5.3	93	0.00
16		3-,4-Methylphenol	1.688	1.681	0.4	92	0.00
17	P	n-Nitrosodipropylamine	0.940	0.892	5.1	93	0.00
18		Hexachloroethane	0.610	0.595	2.5	93	0.00
19	I	Naphthalene-d8	1.000	1.000	0.0	93	0.00
20	S	Nitrobenzene-d5	0.384	0.382	0.5	93	0.00
21		Nitrobenzene	0.379	0.383	-1.1	92	0.00
22		Isophorone	0.656	0.606	7.6	92	0.00
23	C	2-Nitrophenol	0.222	0.237	-6.8	94	0.00
24		2,4-Dimethylphenol	0.375	0.356	5.1	94	0.00
25		bis(2-Chloroethoxy)methane	0.421	0.417	1.0	93	0.00
26		Benzoic Acid	0.161	0.162	-0.6	96	0.00
27	C	2,4-Dichlorophenol	0.336	0.344	-2.4	93	0.00
28		1,2,4-Trichlorobenzene	0.396	0.376	5.1	92	0.00
29		Naphthalene	1.150	1.118	2.8	93	0.00
30		4-Chloroaniline	0.404	0.418	-3.5	93	0.00
31	C	Hexachlorobutadiene	0.250	0.220	12.0	94	0.00
32	C	4-Chloro-3-Methylphenol	0.333	0.348	-4.5	93	0.00
33		2-Methylnaphthalene	0.813	0.812	0.1	94	0.00
34	I	Acenaphthene-d10	1.000	1.000	0.0	94	0.00
35	P	Hexachlorocyclopentadiene	0.374	0.358	4.3	94	0.00
36	C	2,4,6-Trichlorophenol	0.431	0.443	-2.8	93	0.00
37		2,4,5-Trichlorophenol	0.461	0.478	-3.7	94	0.00
38	S	2-Fluorobiphenyl	1.570	1.469	6.4	93	0.00
		2-Chloronaphthalene	1.311	1.240	5.4	94	0.00

(#)=Out of Range

Data File : C:\HPCHEM\1\DATA\043003\4M18456.D Vial: 2
Acq On : 30 Apr 2003 8:22 Operator: mdc
Sample : WG139370-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40		2-Nitroaniline	0.344	0.350	-1.7	93	0.00
41		Dimethylphthalate	1.448	1.419	2.0	92	0.00
42		Acenaphthylene	2.119	2.038	3.8	93	0.00
43		2,6-Dinitrotoluene	0.337	0.335	0.6	92	0.00
44		3-Nitroaniline	0.246	0.295	-19.9	100	0.00
45	C	Acenaphthene	1.306	1.283	1.8	93	0.00
46	P	2,4-Dinitrophenol	0.185	0.174	5.9	97	0.00
47	P	4-Nitrophenol	0.249	0.253	-1.6	95	0.00
48		Dibenzofuran	1.926	1.877	2.5	93	0.00
49		2,4-Dinitrotoluene	0.445	0.429	3.6	93	0.00
50		Diethylphthalate	1.420	1.398	1.5	92	0.00
51		Fluorene	1.482	1.425	3.8	92	0.00
52		4-Chlorophenyl Phenyl Ether	0.794	0.789	0.6	93	0.00
53		4-Nitroaniline	0.237	0.274	-15.6	89	0.00
54		1,2-Diphenylhydrazine	1.305	1.304	0.1	92	0.00
55	S	2,4,6-Tribromophenol	0.196	0.213	-8.7	95	0.00
56	I	Phenanthrene-d10	1.000	1.000	0.0	92	0.00
57		4,6-Dinitro-2-Methylphenol	0.161	0.161	0.0	94	0.00
58	C	n-Nitrosodiphenylamine	0.615	0.625	-1.6	95	0.00
59		4-Bromophenyl Phenyl Ether	0.237	0.280	-18.1	92	0.00
60		Hexachlorobenzene	0.280	0.279	0.4	94	0.00
61	C	Pentachlorophenol	0.137	0.157	-14.6	115	0.00
62		Phenanthrene	1.254	1.255	-0.1	93	0.00
63		Anthracene	1.231	1.260	-2.4	93	0.00
64		Carbazole	0.815	0.895	-9.8	96	0.00
65		Di-n-Butyl Phthalate	1.380	1.467	-6.3	93	0.00
66	C	Fluoranthene	1.443	1.477	-2.4	93	0.00
67	I	Chrysene-d12	1.000	1.000	0.0	94	0.00
68		Benzidine	0.034	0.147	-332.4#	109	0.00
69		Pyrene	1.432	1.263	11.8	94	0.00
70	S	p-Terphenyl-d14	0.999	0.857	14.2	95	0.00
71		Butyl Benzyl Phthalate	0.621	0.525	15.5	93	0.00
72		Benzo[a]anthracene	1.405	1.248	11.2	95	0.00
73		3,3'-Dichlorobenzidine	0.317	0.285	10.1	102	0.00
74		Chrysene	1.345	1.182	12.1	93	0.00
75		bis(2-Ethylhexyl)phthalate	0.859	0.774	9.9	94	0.00
76	I	Perylene-d12	1.000	1.000	0.0	94	0.00
77	C	Di-n-Octyl Phthalate	1.852	1.895	-2.3	93	0.00

(#)=Out of Range

Data File : C:\HPCHEM\1\DATA\043003\4M18456.D Vial: 2
Acq On : 30 Apr 2003 8:22 Operator: mdc
Sample : WG139370-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
78		Benzo[b]fluoranthene	1.838	1.836	0.1	93	0.00
79		Benzo[k]fluoranthene	1.729	1.534	11.3	96	0.00
80	C	Benzo[a]pyrene	1.666	1.636	1.8	94	0.00
81		Indeno[1,2,3-cd]pyrene	1.964	1.904	3.1	88	0.00
82		Dibenz[ah]anthracene	1.684	1.616	4.0	89	0.00
83		Benzo[ghi]perylene	1.606	1.484	7.6	84	0.00

Data File : C:\HPCHEM\1\DATA\043003\4M18456.D Vial: 2
Acq On : 30 Apr 2003 8:22 Operator: mdc
Sample : WG139370-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 1 8:47 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.22	152	282724	40.00	ug/ml	0.00
19) Naphthalene-d8	11.85	136	1060492	40.00	ug/ml	0.00
34) Acenaphthene-d10	13.98	164	634067	40.00	ug/ml	0.00
56) Phenanthrene-d10	15.62	188	1057278	40.00	ug/ml	0.00
67) Chrysene-d12	18.49	240	1309498	40.00	ug/ml	0.00
76) Perylene-d12	20.99	264	905897	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	8.49	112	487546	49.5221	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 49.52%			
6) Phenol-d5	9.71	99	562792	49.7324	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 49.73%			
20) Nitrobenzene-d5	10.95	82	506672	49.7611	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 99.52%			
38) 2-Fluorobiphenyl	13.16	172	1164510	46.7984	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 93.60%			
55) 2,4,6-Tribromophenol	14.86	330	168794	54.3300	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 54.33%			
70) p-Terphenyl-d14	17.23	244	1402879	42.8993	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 85.80%			
Target Compounds						Qvalue
2) Pyridine	6.22	79	474824	48.5277	ug/ml	99
3) n-Nitrosodimethylamine	6.22	74	269077	50.3327	ug/ml	100
5) Aniline	9.81	66	179044	47.1979	ug/ml	99
7) Phenol	9.72	94	625394	50.0410	ug/ml	100
8) bis(2-Chloroethyl)ether	9.87	63	318440	49.2350	ug/ml	99
9) 2-Chlorophenol	9.96	128	524924	49.9045	ug/ml	100
10) 1,3-Dichlorobenzene	10.16	146	572110	47.2840	ug/ml	100
11) 1,4-Dichlorobenzene	10.24	146	608597	48.5308	ug/ml	99
12) Benzyl Alcohol	10.38	108	334997	49.9967	ug/ml	99
13) 1,2-Dichlorobenzene	10.46	146	540117	46.2907	ug/ml	99
14) 2-Methylphenol	10.49	107	405423	49.5723	ug/ml	99
15) bis(2-Chloroisopropyl)ethe	10.54	45	600682	47.3259	ug/ml	100
16) 3-,4-Methylphenol	10.68	107	594055	49.7788	ug/ml	100
17) n-Nitrosodipropylamine	10.72	70	315119	47.4141	ug/ml	100
18) Hexachloroethane	10.87	117	210270	48.7807	ug/ml	100
21) Nitrobenzene	10.97	77	507751	50.5418	ug/ml	99
22) Isophorone	11.25	82	803840	46.1993	ug/ml	100
23) 2-Nitrophenol	11.37	139	314059	53.2522	ug/ml	100
24) 2,4-Dimethylphenol	11.36	122	472363	47.4973	ug/ml	100
25) bis(2-Chloroethoxy)methane	11.49	93	552311	49.5026	ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M18456.D BNA.M Thu May 01 08:47:53 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\043003\4M18456.D Vial: 2
Acq On : 30 Apr 2003 8:22 Operator: mdc
Sample : WG139370-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 1 8:47 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26) Benzoic Acid	11.45	122	214288	50.3295 ug/ml	99
27) 2,4-Dichlorophenol	11.65	162	456504	51.2013 ug/ml	100
28) 1,2,4-Trichlorobenzene	11.77	180	498408	47.4223 ug/ml	98
29) Naphthalene	11.89	128	1482031	48.6188 ug/ml	100
30) 4-Chloroaniline	11.94	127	553807	51.7462 ug/ml	99
31) Hexachlorobutadiene	12.02	225	291501	44.0298 ug/ml	100
32) 4-Chloro-3-Methylphenol	12.49	107	461169	52.1589 ug/ml	99
33) 2-Methylnaphthalene	12.74	142	1075788	49.9306 ug/ml	100
35) Hexachlorocyclopentadiene	12.92	237	283855	47.8609 ug/ml	99
36) 2,4,6-Trichlorophenol	13.06	196	351156	51.4132 ug/ml	99
37) 2,4,5-Trichlorophenol	13.11	196	378987	51.8138 ug/ml	99
39) 2-Chloronaphthalene	13.33	162	982457	47.2906 ug/ml	99
40) 2-Nitroaniline	13.45	65	277378	50.8290 ug/ml	99
41) Dimethylphthalate	13.61	163	1125011	49.0224 ug/ml	100
42) Acenaphthylene	13.82	152	1615305	48.0785 ug/ml	100
43) 2,6-Dinitrotoluene	13.72	165	265742	49.7862 ug/ml	98
44) 3-Nitroaniline	13.92	138	233969	59.9537 ug/ml	99
45) Acenaphthene	14.02	154	1017079	49.1130 ug/ml	99
46) 2,4-Dinitrophenol	14.03	184	138174	47.0498 ug/ml	93
47) 4-Nitrophenol	14.05	65	200474	50.8194 ug/ml	98
48) Dibenzofuran	14.20	168	1487987	48.7459 ug/ml	100
49) 2,4-Dinitrotoluene	14.17	165	340204	48.2171 ug/ml	100
50) Diethylphthalate	14.39	149	1107953	49.2158 ug/ml	99
51) Fluorene	14.58	166	1129321	48.0660 ug/ml	100
52) 4-Chlorophenyl Phenyl Ethe	14.54	204	625147	49.6866 ug/ml	99
53) 4-Nitroaniline	14.61	138	217321	57.7632 ug/ml	98
54) 1,2-Diphenylhydrazine	14.72	77	1033281	49.9685 ug/ml	100
57) 4,6-Dinitro-2-Methylphenol	14.63	198	212948	50.0460 ug/ml	99
58) n-Nitrosodiphenylamine	14.68	169	825735	50.7971 ug/ml	99
59) 4-Bromophenyl Phenyl Ether	15.09	248	369554	58.8832 ug/ml	99
60) Hexachlorobenzene	15.21	284	368464	49.7048 ug/ml	99
61) Pentachlorophenol	15.40	266	207469	57.1946 ug/ml	98
62) Phenanthrene	15.64	178	1658597	50.0335 ug/ml	99
63) Anthracene	15.70	178	1664607	51.1597 ug/ml	100
64) Carbazole	15.85	167	1182328	54.8985 ug/ml	99
65) Di-n-Butyl Phthalate	16.11	149	1938596	53.1550 ug/ml	100
66) Fluoranthene	16.90	202	1952296	51.1955 ug/ml	100
68) Benzidine	17.00	184	241043	217.9095 ug/ml	100
69) Pyrene	17.15	202	2067038	44.0945 ug/ml	100
71) Butyl Benzyl Phthalate	17.68	149	859296	42.2556 ug/ml	99
72) Benzo[a]anthracene	18.47	228	2042735	44.3965 ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M18456.D BNA.M Thu May 01 08:47:54 2003 HPMS4 Page 2

Data File : C:\HPCHEM\1\DATA\043003\4M18456.D Vial: 2
Acq On : 30 Apr 2003 8:22 Operator: mdc
Sample : WG139370-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 1 8:47 2003 Quant Results File: BNA.RES

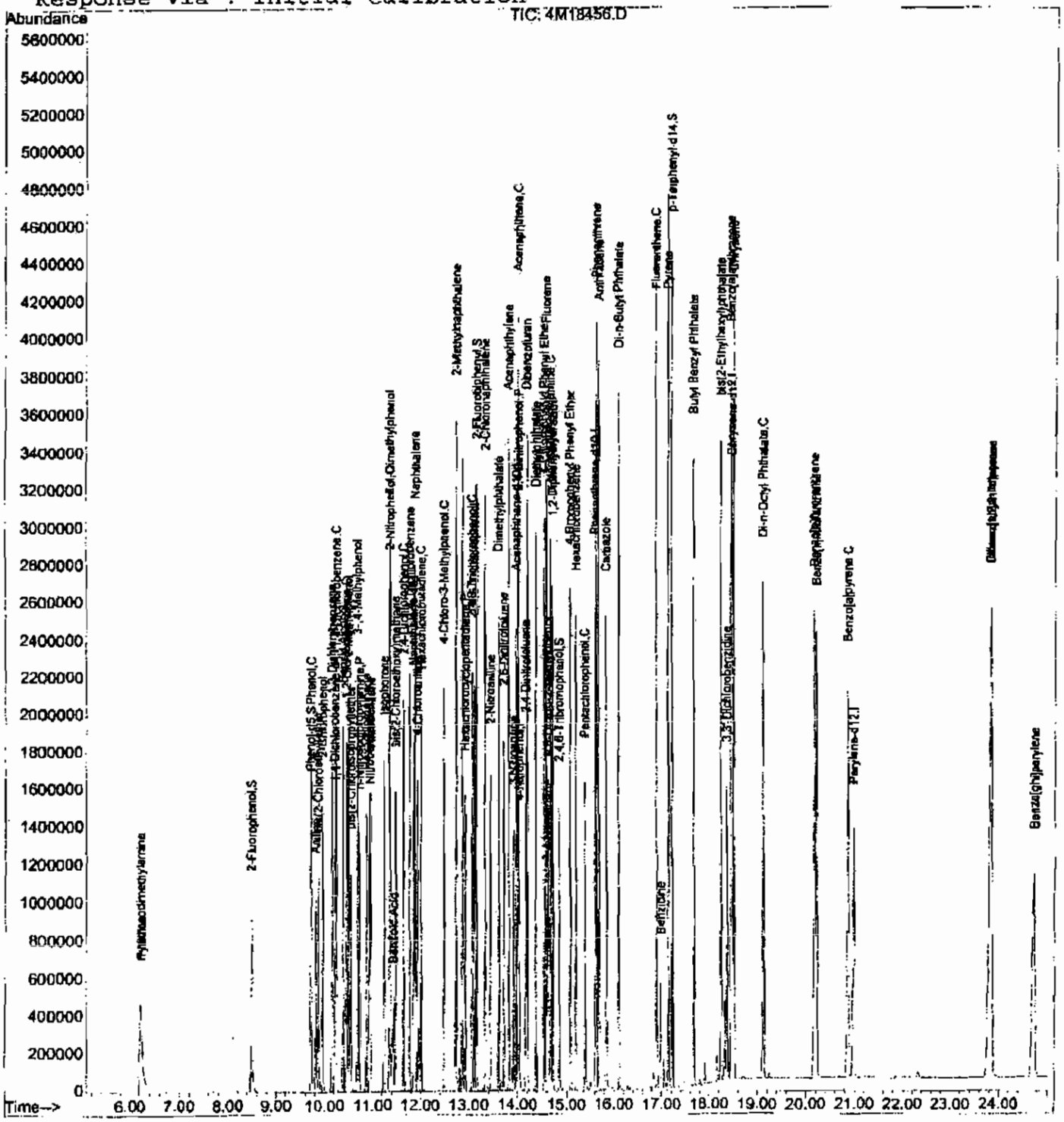
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	18.38	252	467129	45.0215	ug/ml	99
74)	Chrysene	18.53	228	1935533	43.9641	ug/ml	99
75)	bis(2-Ethylhexyl)phthalate	18.26	149	1267108	45.0657	ug/ml	100
77)	Di-n-Octyl Phthalate	19.13	149	2146141	51.1722	ug/ml	100
78)	Benzo[b]fluoranthene	20.18	252	2078582	49.9467	ug/ml	98
79)	Benzo[k]fluoranthene	20.23	252	1736865	44.3454	ug/ml	98
80)	Benzo[a]pyrene	20.87	252	1852300	49.0984	ug/ml	100
81)	Indeno[1,2,3-cd]pyrene	23.83	276	2156558	48.4752	ug/ml	100
82)	Dibenz[ah]anthracene	23.83	278	1830202	47.9991	ug/ml	100
83)	Benzo[ghi]perylene	24.73	276	1680954	46.2126	ug/ml	100

(#) = qualifier out of range (m) = manual integration

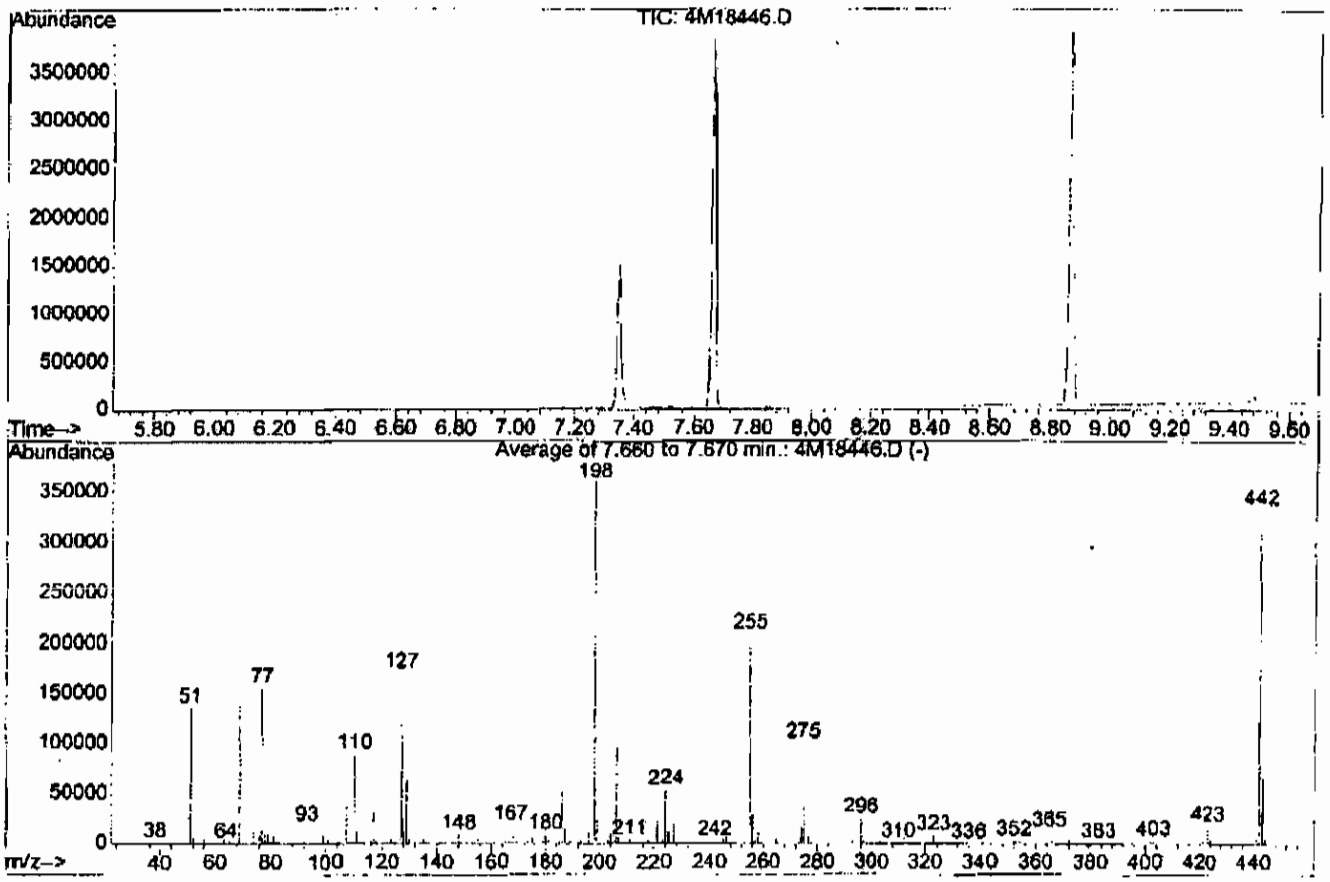
Data File : C:\HPCHEM\1\DATA\043003\4M18456.D Vial: 2
Acq On : 30 Apr 2003 8:22 Operator: mdc
Sample : WG139370-02 50PPM BNA STD Inst : HPMS4
Misc : 1,1 SOS63-38-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 1 8:47 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:32:02 2003
Response via : Initial Calibration



2.2.1.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\042903\4M18446.D Vial: 1
Acq On : 29 Apr 2003 16:52 Operator: CLK
Sample : WG139334-01 50PPM DFTPP Inst : HPMS4
Misc : 1,1 SOS64-3 Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP



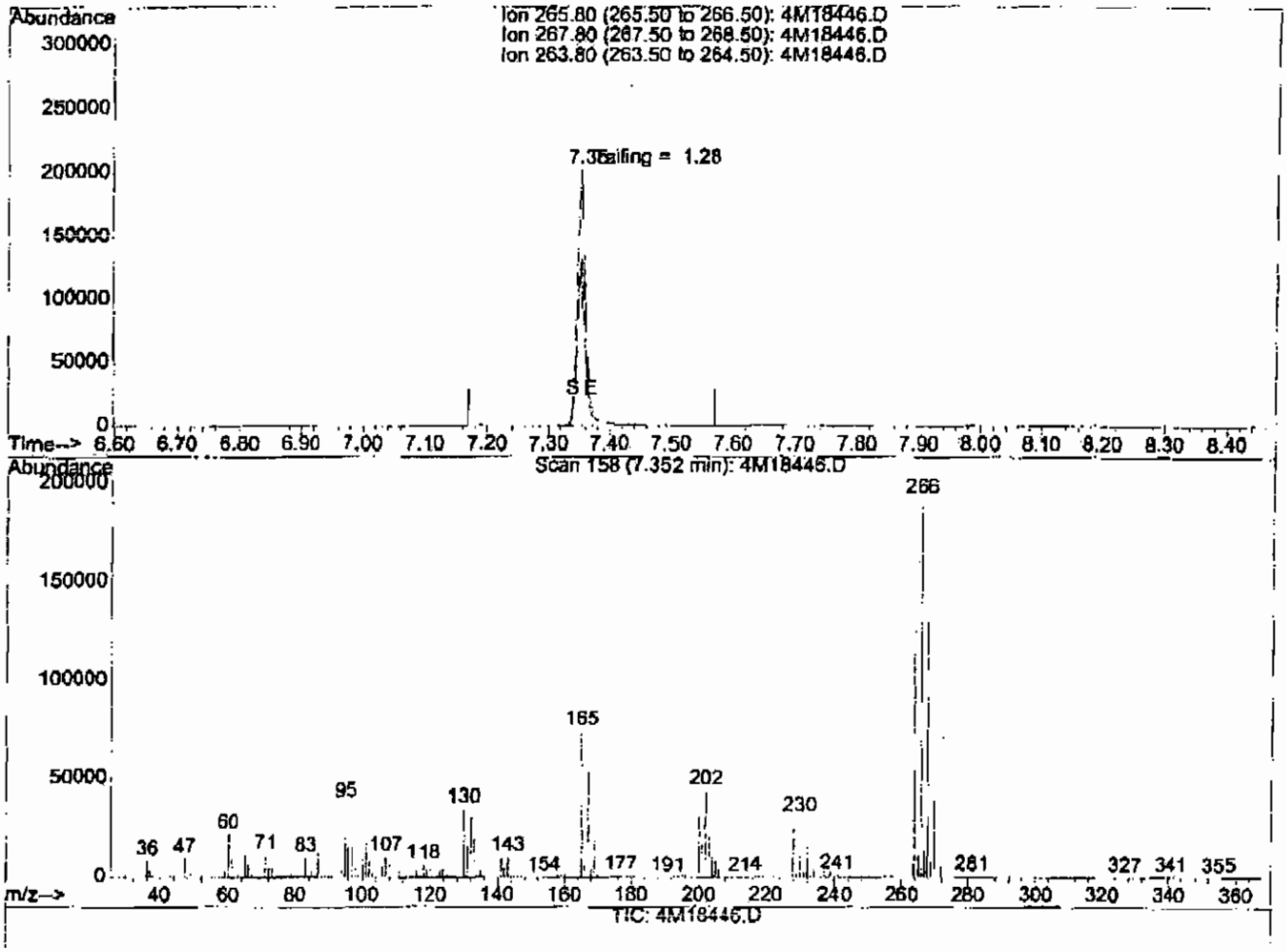
AutoFind: Scans 222, 223, 224; Background Corrected with Scan 215

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	37.5	135568	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	38.7	139685	PASS
70	69	0.00	2	0.6	898	PASS
127	198	40	60	47.2	170432	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	361323	PASS
199	198	5	9	6.7	24379	PASS
275	198	10	30	27.7	100051	PASS
365	198	1	100	3.2	11551	PASS
441	443	0.01	100	49.3	32235	PASS
442	198	40	100	92.1	332949	PASS
443	442	17	23	19.6	65365	PASS

4M18446.D DFTPP.M Thu May 01 08:10:35 2003 HPMS4

Data File : C:\HPCHEM\1\DATA\042903\4M18446.D Vial: 1
Acq On : 29 Apr 2003 16:52 Operator: CLK
Sample : WG139334-01 50PPM DFTPP Inst : HPMS4
Misc : 1,1 SOS64-3 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 1 8:10 2003 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Wed Apr 09 19:58:29 2003
Response via : Single Level Calibration



(1) PENTACHLOROPHENOL

7.35min 0.00

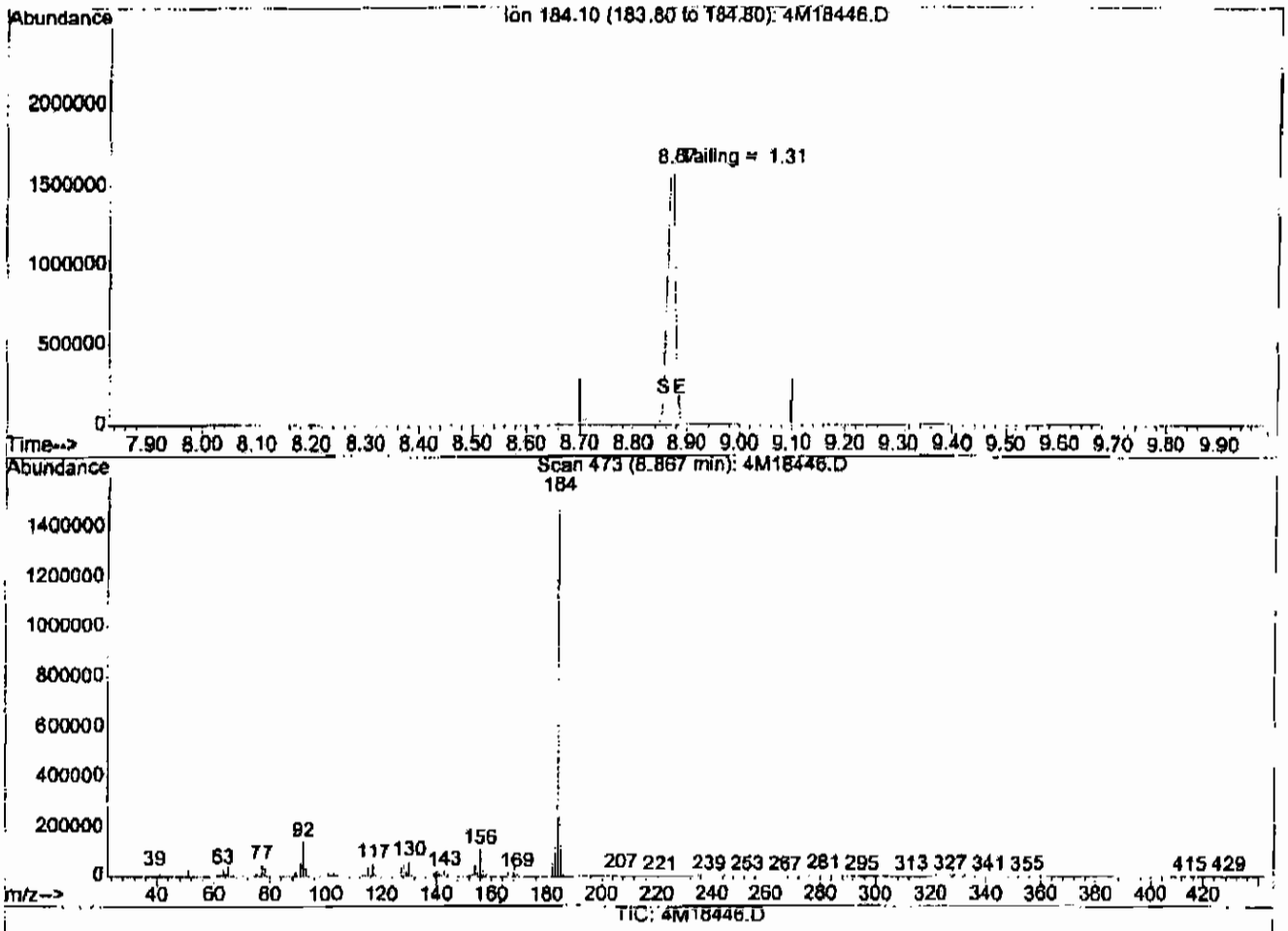
response 194618

Ion	Exp%	Act%
265.80	100	100
267.80	64.50	63.96
263.80	62.90	62.96
0.00	0.00	0.00

4M18446.D DFTPP.M Thu May 01 08:10:45 2003 HPMS4

Data File : C:\HPCHEM\1\DATA\042903\4M18446.D Vial: 1
Acq On : 29 Apr 2003 16:52 Operator: CLK
Sample : WG139334-01 50PPM DFTPP Inst : HPMS4
Misc : 1,1 SOS64-3 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 1 8:10 2003 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Wed Apr 09 19:58:29 2003
Response via : Single Level Calibration



(2) BENZIDINE

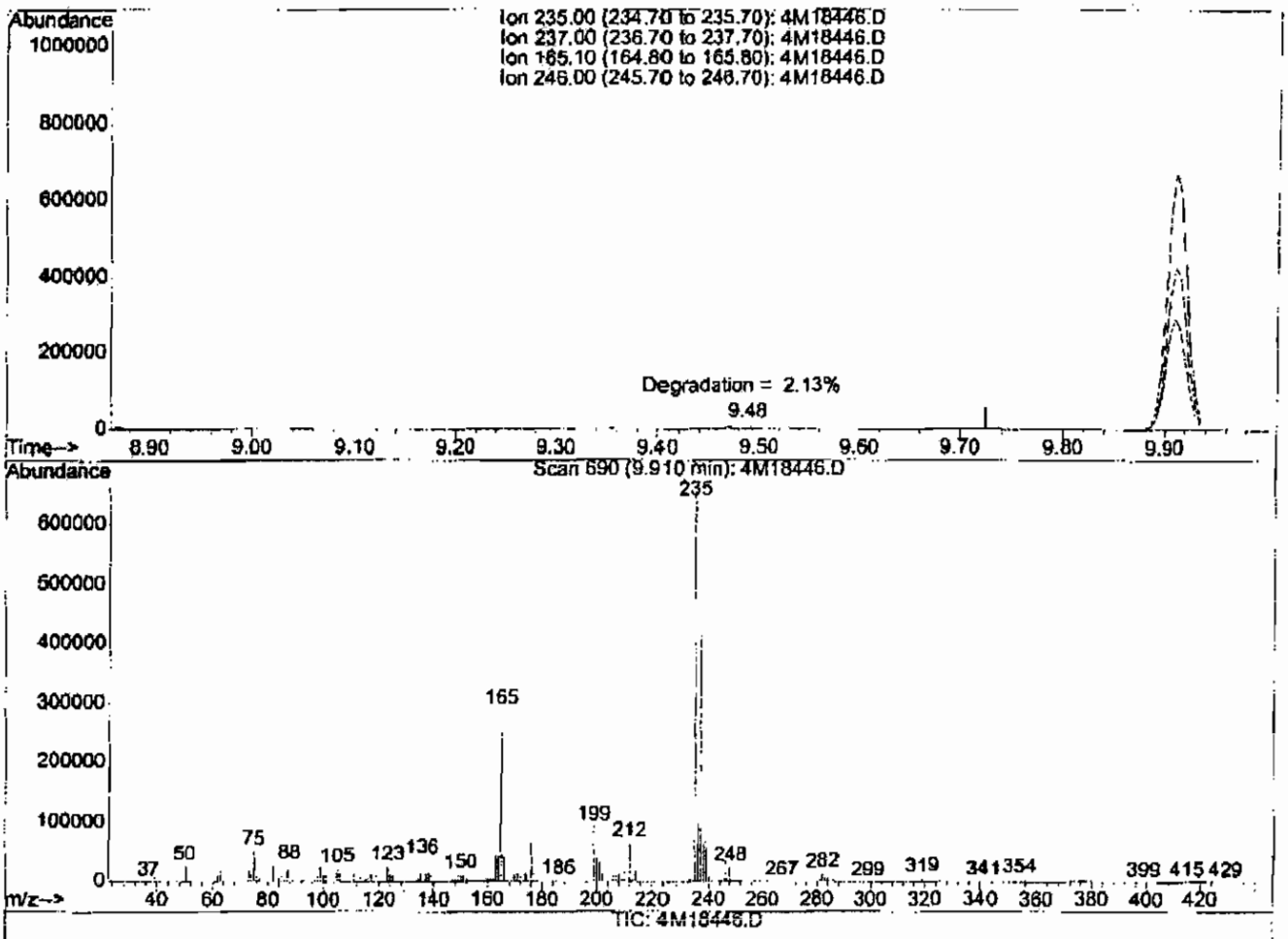
8.87min 0.00

response 1695904

Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data File : C:\HPCHEM\1\DATA\042903\4M18446.D Vial: 1
Acq On : 29 Apr 2003 16:52 Operator: CLK
Sample : WG139334-01 50PPM DFTPP Inst : HPMS4
Misc : 1,1 SOS64-3 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 1 8:10 2003 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Wed Apr 09 19:58:29 2003
Response via : Single Level Calibration



(3) 4,4'-DDT

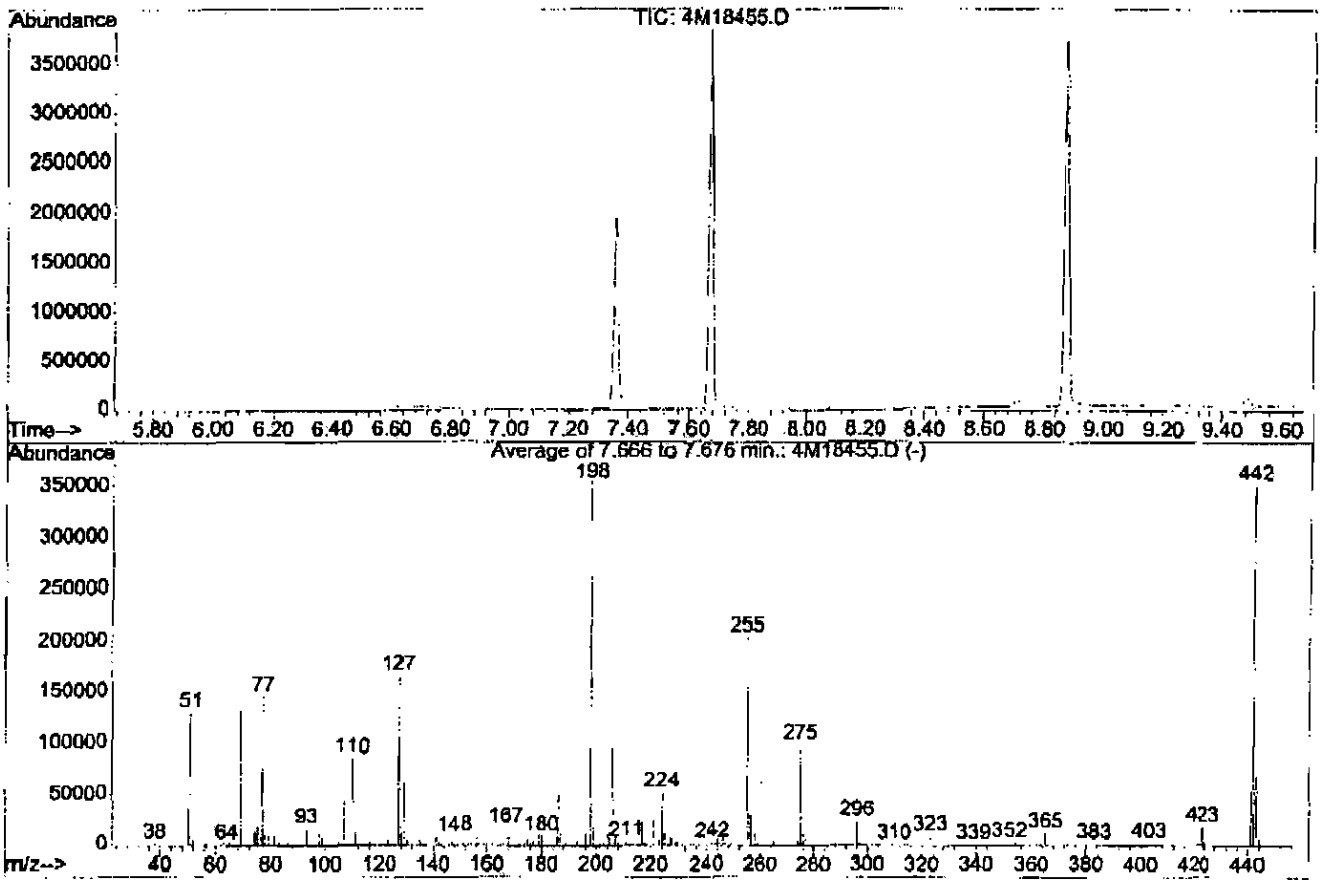
9.91min 0.00

response 927330

Ion	Exp%	Act%
235.00	100	100
237.00	64.70	64.00
165.10	43.90	43.72
246.00	5.70	5.68

4M18446.D DFTPP.M Thu May 01 08:11:02 2003 HPMS4

Data File : C:\HPCHEM\1\DATA\043003\4M18455.D Vial: 1
Acq On : 30 Apr 2003 8:03 Operator: mdc
Sample : WG139370-01 50PPM DFTPP Inst : HPMS4
Misc : 1,1 SOS64-3 Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP



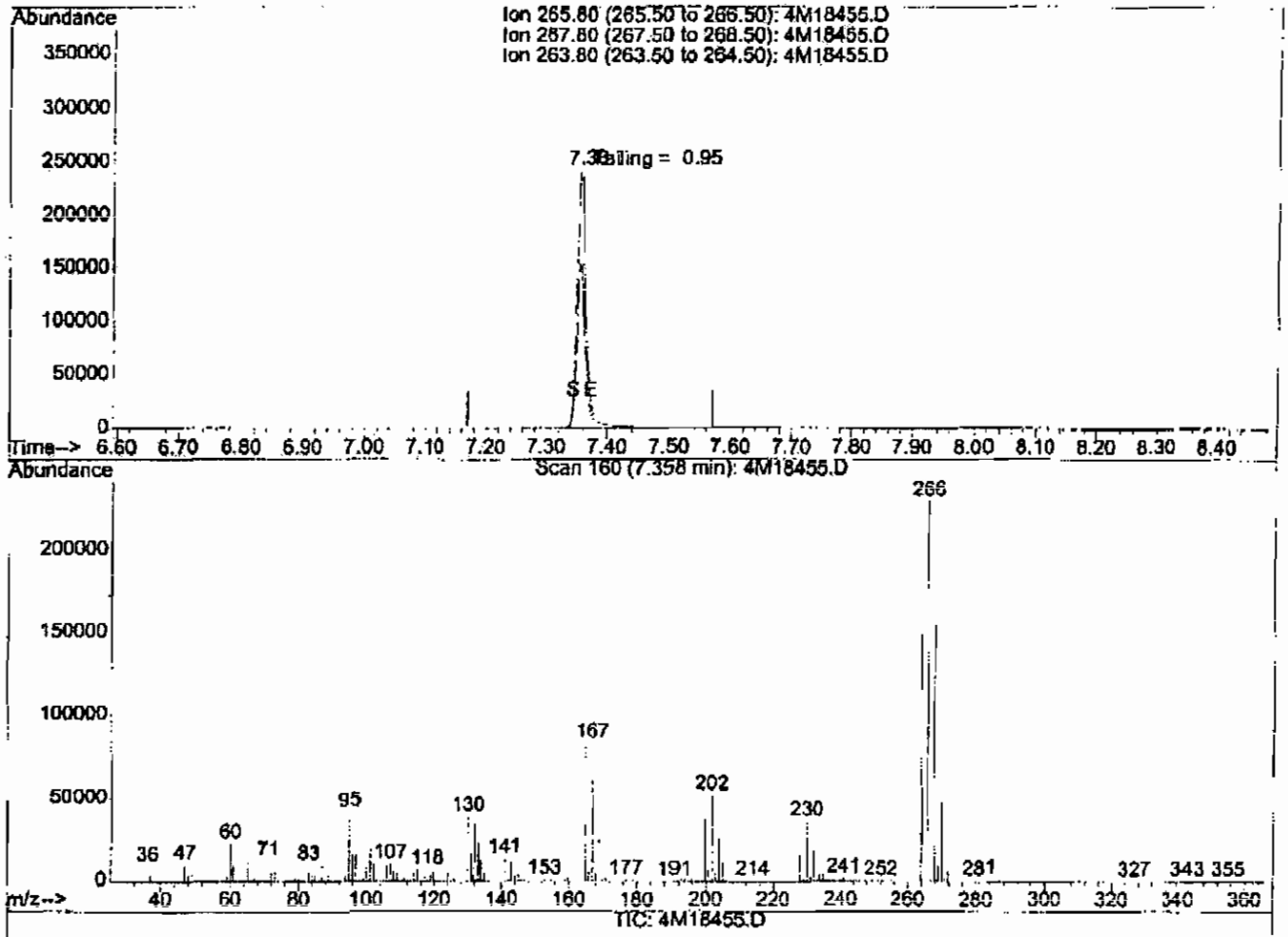
AutoFind: Scans 224, 225, 226; Background Corrected with Scan 217

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	36.7	129952	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	38.0	134411	PASS
70	69	0.00	2	0.7	879	PASS
127	198	40	60	47.0	166125	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	353685	PASS
199	198	5	9	6.5	23112	PASS
275	198	10	30	27.9	98549	PASS
365	198	1	100	3.4	12058	PASS
441	443	0.01	100	79.6	54488	PASS
442	198	40	100	99.1	350571	PASS
443	442	17	23	19.5	68453	PASS

4M18455.D DFTPP.M Thu May 01 08:46:45 2003 HPMS4

Data File : C:\HPCHEM\1\DATA\043003\4M18455.D Vial: 1
Acq On : 30 Apr 2003 8:03 Operator: mdc
Sample : WG139370-01 50PPM DFTPP Inst : HPMS4
Misc : 1,1 SOS64-3 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 1 8:46 2003 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Wed Apr 09 19:58:29 2003
Response via : Single Level Calibration



(1) PENTACHLOROPHENOL

7.36min 0.00

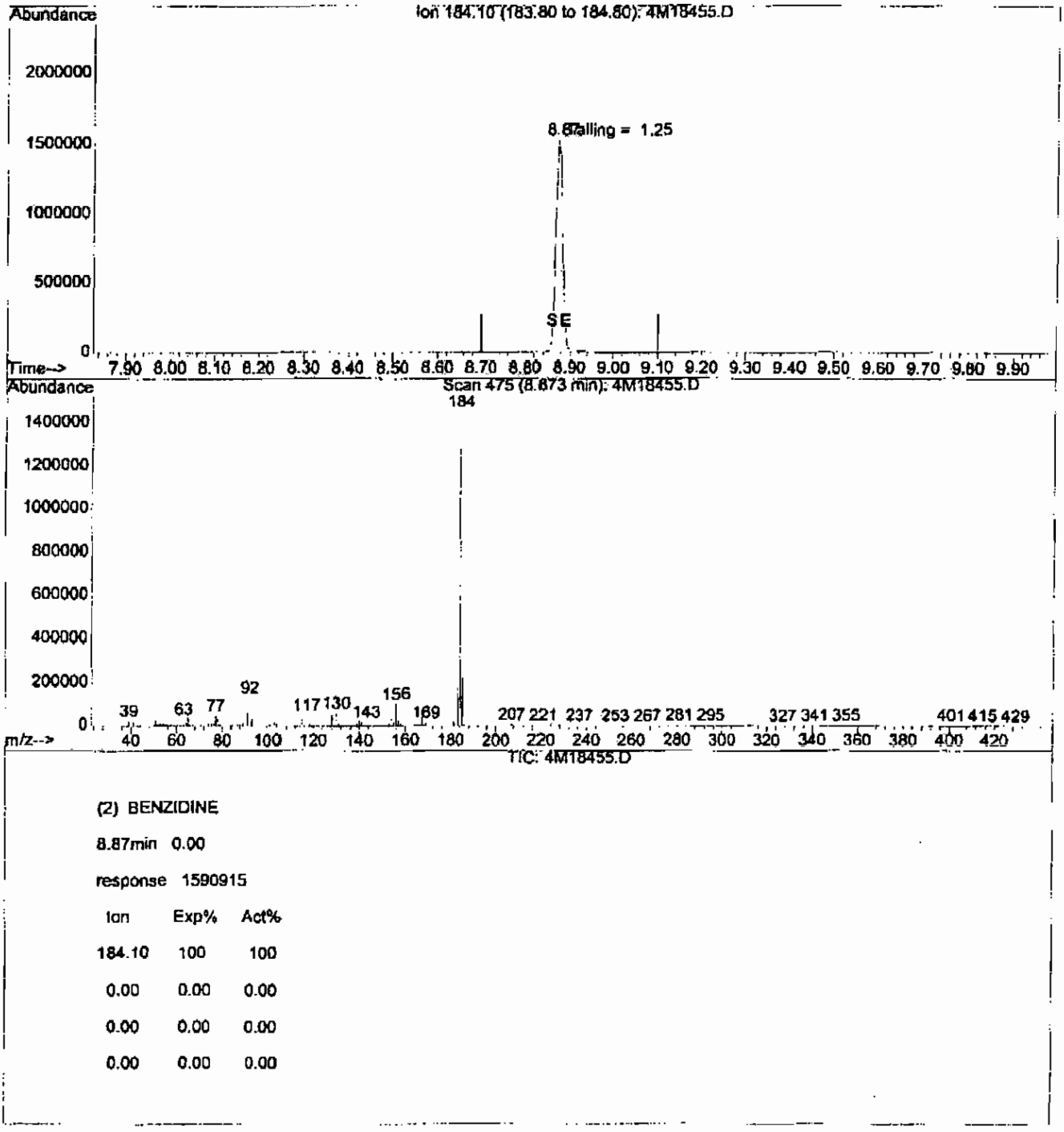
response 258933

Ion	Exp%	Act%
265.80	100	100
267.80	64.50	61.94
263.80	62.90	62.57
0.00	0.00	0.00

4M18455.D DFTPP.M Thu May 01 08:46:56 2003 HPMS4

Data File : C:\HPCHEM\1\DATA\043003\4M18455.D Vial: 1
Acq On : 30 Apr 2003 8:03 Operator: mdc
Sample : WG139370-01 50PPM DFTPP Inst : HPMS4
Misc : 1,1 SOS64-3 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 1 8:46 2003 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Wed Apr 09 19:58:29 2003
Response via : Single Level Calibration



(2) BENZIDINE

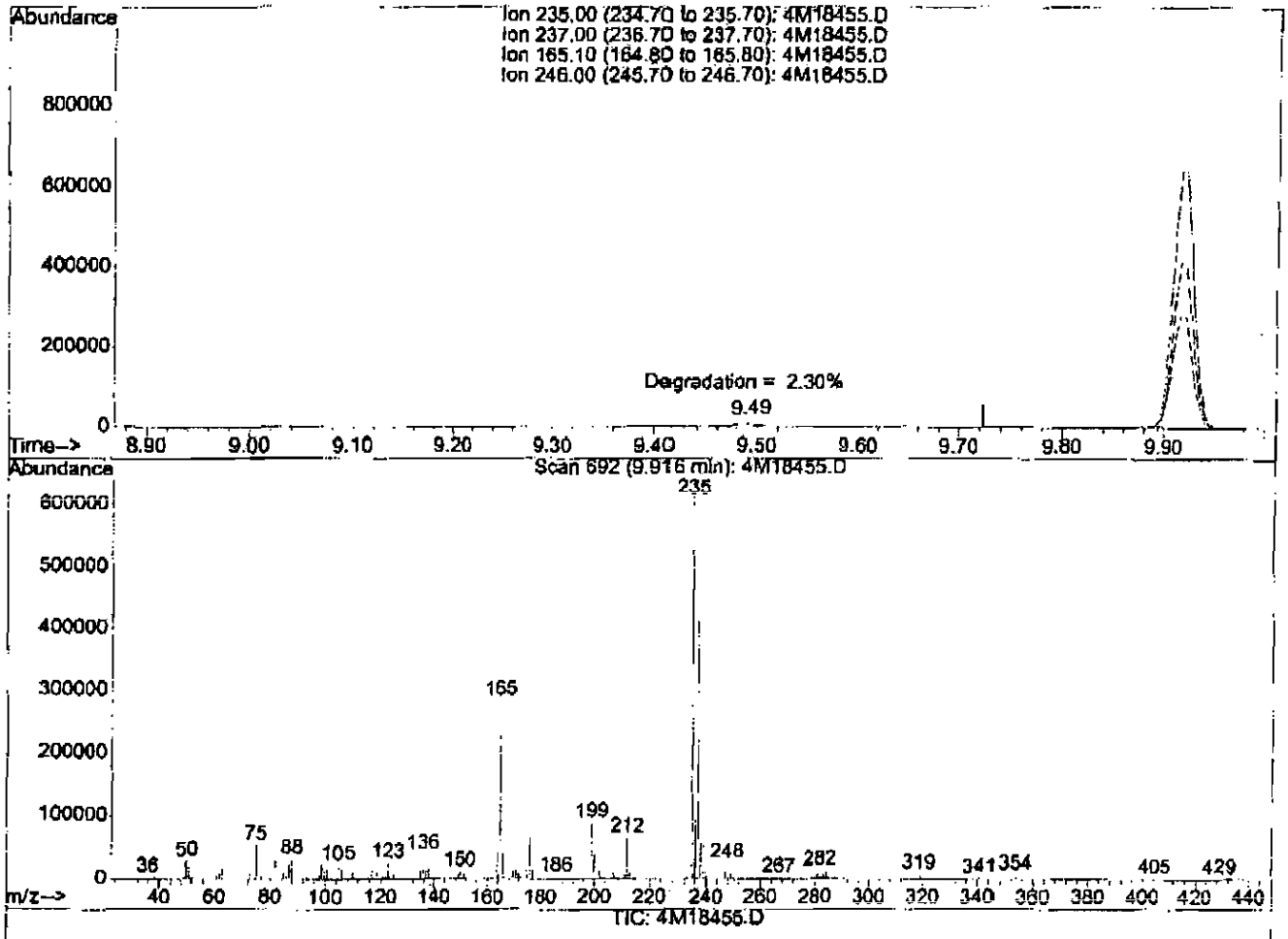
8.87min 0.00

response 1590915

Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data File : C:\HPCHEM\1\DATA\043003\4M18455.D Vial: 1
Acq On : 30 Apr 2003 8:03 Operator: mdc
Sample : WG139370-01 50PPM DFTPP Inst : HPMS4
Misc : 1,1 SOS64-3 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 1 8:46 2003 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Wed Apr 09 19:58:29 2003
Response via : Single Level Calibration



(3) 4,4'-DDT

9.92min 0.00

response 904122

Ion	Exp%	Act%
235.00	100	100
237.00	64.70	63.87
165.10	43.90	43.94
246.00	5.70	5.79

4M18455.D DFTPP.M Thu May 01 08:47:11 2003 HPMS4

Data File : C:\HPCHEM\1\DATA\043003\4M18457.D Vial: 3
Acq On : 30 Apr 2003 8:57 Operator: mdc
Sample : WG139340-02 BLK 4/29 V201P101 Inst : HPMS4
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 1 8:55 2003 Quant Results File: BNA.RES

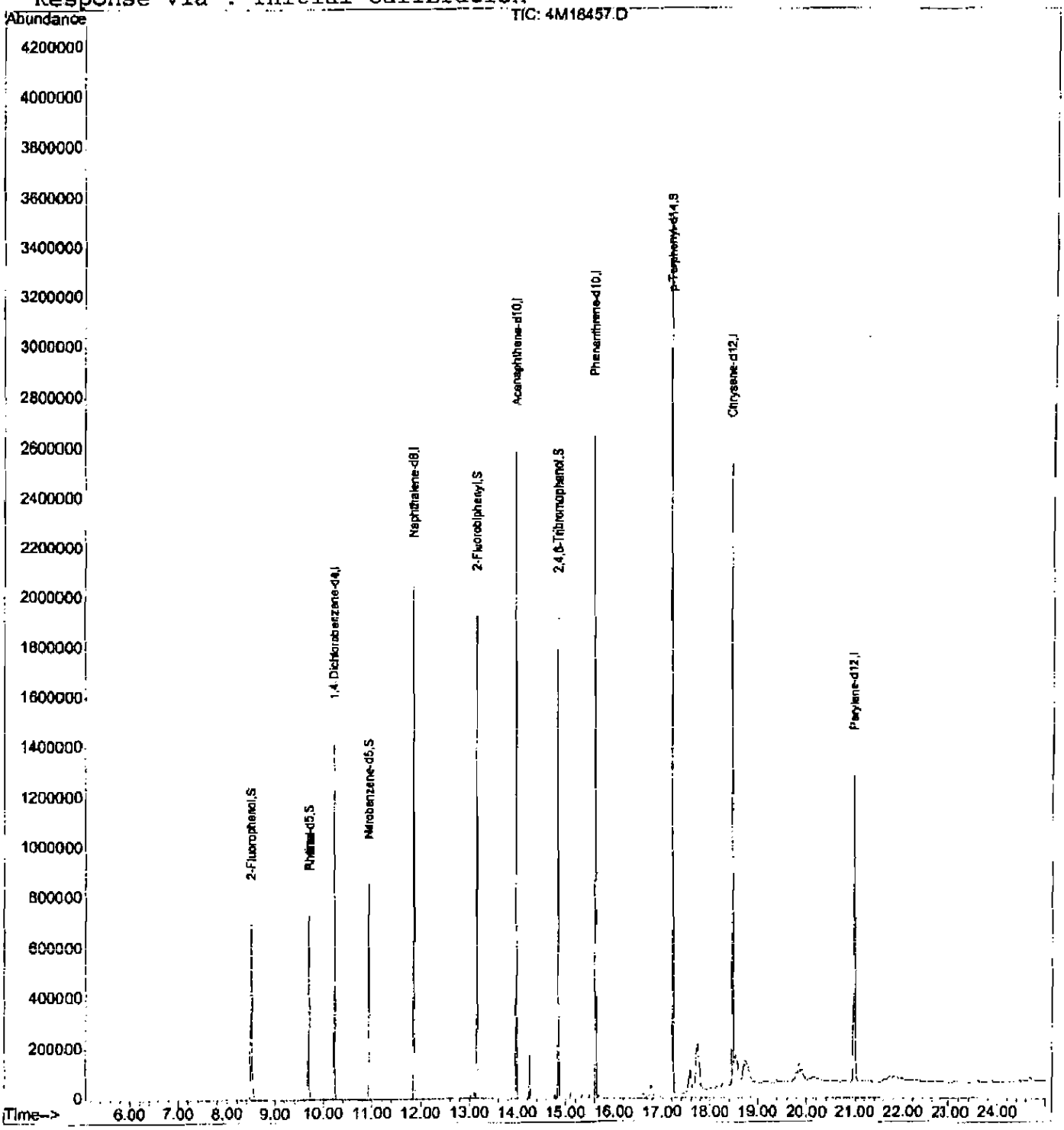
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:54:47 2003
Response via : Initial Calibration
DataAcq Meth : BNA

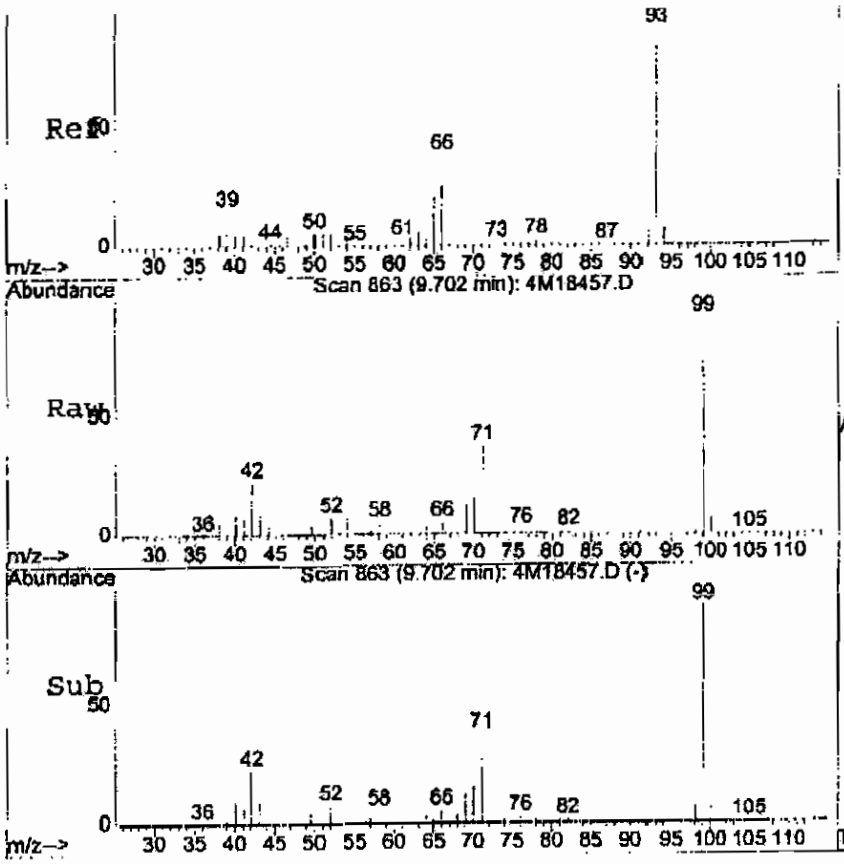
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.22	152	279347	40.00	ug/ml	0.00
19) Naphthalene-d8	11.86	136	1034034	40.00	ug/ml	0.00
34) Acenaphthene-d10	13.98	164	615171	40.00	ug/ml	0.00
56) Phenanthrene-d10	15.61	188	1035305	40.00	ug/ml	0.00
67) Chrysene-d12	18.48	240	1176683	40.00	ug/ml	0.00
76) Perylene-d12	20.98	264	833805	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	8.49	112	354626	36.4563	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 36.46%			
6) Phenol-d5	9.70	99	280186	25.0586	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 25.06%			
20) Nitrobenzene-d5	10.94	82	290575	29.2681	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 58.54%			
38) 2-Fluorobiphenyl	13.15	172	637281	26.3972	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 52.80%			
55) 2,4,6-Tribromophenol	14.86	330	228537	75.8191	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 75.82%			
70) p-Terphenyl-d14	17.23	244	1208847	41.1384	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 82.28%			
Target Compounds						Qvalue
5) Aniline	9.70	66	15007	4.0038	ug/ml#	1

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\043003\4M18457.D Vial: 3
Acq On : 30 Apr 2003 8:57 Operator: mdc
Sample : WG139340-02 BLK 4/29 V201P101 Inst : HPMS4
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 1 8:55 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:54:47 2003
Response via : Initial Calibration

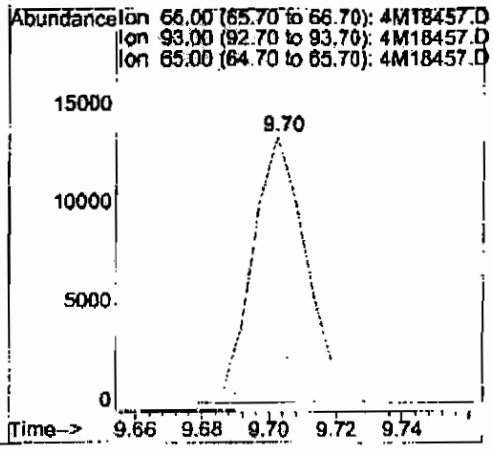




Aniline
Concen: 4.00 ug/ml
RT: 9.70 min Scan# 863
Delta R.T. -0.11 min
Lab File: 4M18457.D
Acq: 30 Apr 2003 8:57

Tgt Ion: 66 Resp: 15007

Ion	Ratio	Lower	Upper
66	100		
93	0.0	206.0	309.0#
65	20.6	40.1	60.1#



Data File : C:\HPCHEM\1\DATA\043003\4M18459.D Vial: 5
Acq On : 30 Apr 2003 10:08 Operator: mdc
Sample : WG139289-01 TBLK 4/28 V201P101 Inst : HPMS4
Misc : 17,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 1 8:55 2003 Quant Results File: BNA.RES

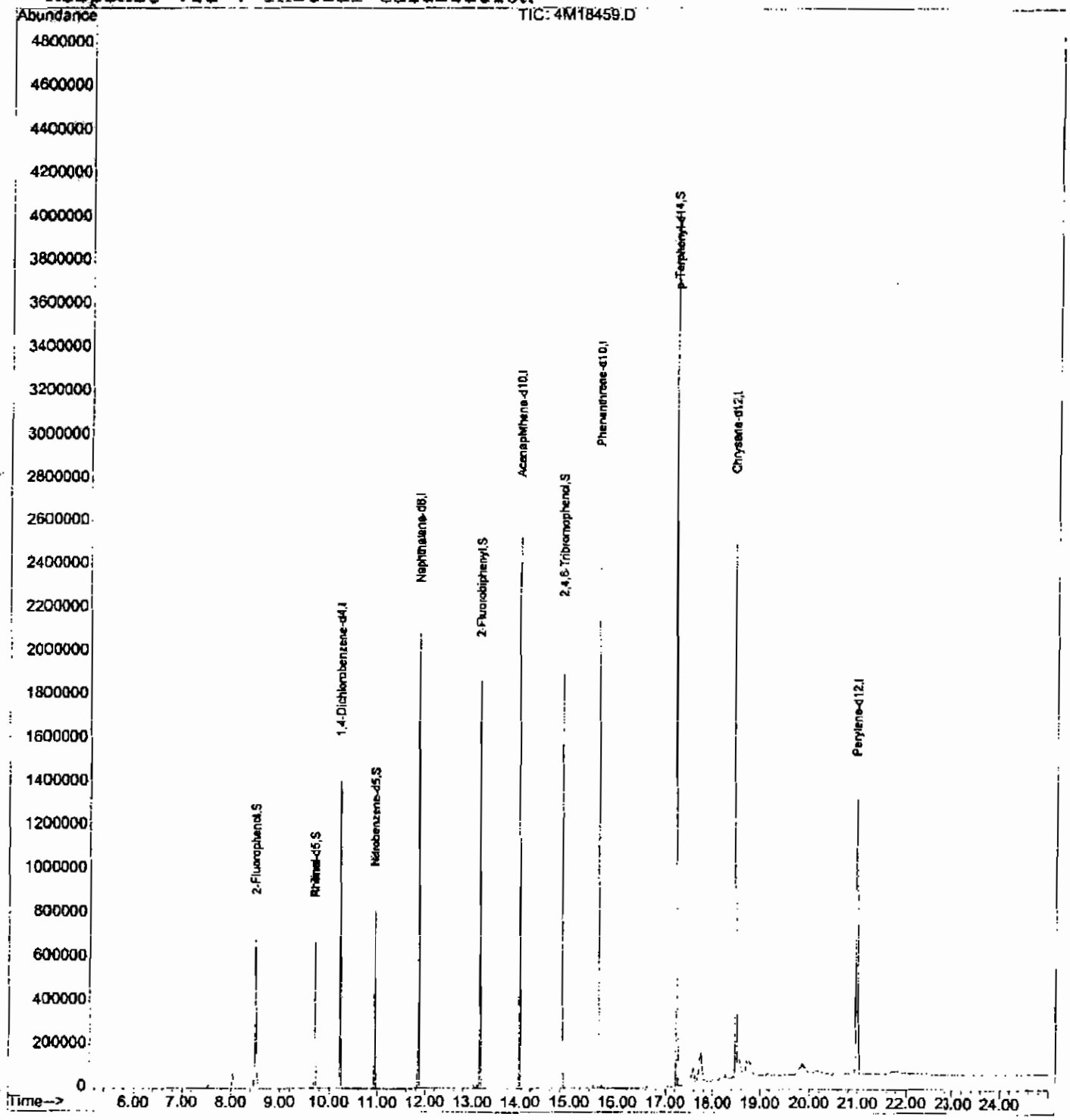
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:54:47 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.22	152	293892	40.00	ug/ml	0.00
19) Naphthalene-d8	11.85	136	1088333	40.00	ug/ml	0.00
34) Acenaphthene-d10	13.98	164	642038	40.00	ug/ml	0.00
56) Phenanthrene-d10	15.61	188	1078596	40.00	ug/ml	0.00
67) Chrysene-d12	18.48	240	1230853	40.00	ug/ml	0.00
76) Perylene-d12	20.98	264	869475	40.00	ug/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	8.50	112	347729	33.9781	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 33.98%			
6) Phenol-d5	9.71	99	274728	23.3544	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 23.35%			
20) Nitrobenzene-d5	10.94	82	293341	28.0725	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 56.14%			
38) 2-Fluorobiphenyl	13.15	172	636814	25.2740	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 50.54%			
55) 2,4,6-Tribromophenol	14.86	330	233831	74.3292	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 74.33%			
70) p-Terphenyl-d14	17.23	244	1285771	41.8305	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 83.66%			
Target Compounds						Qvalue
5) Aniline	9.71	66	14847	3.7651	ug/ml#	1

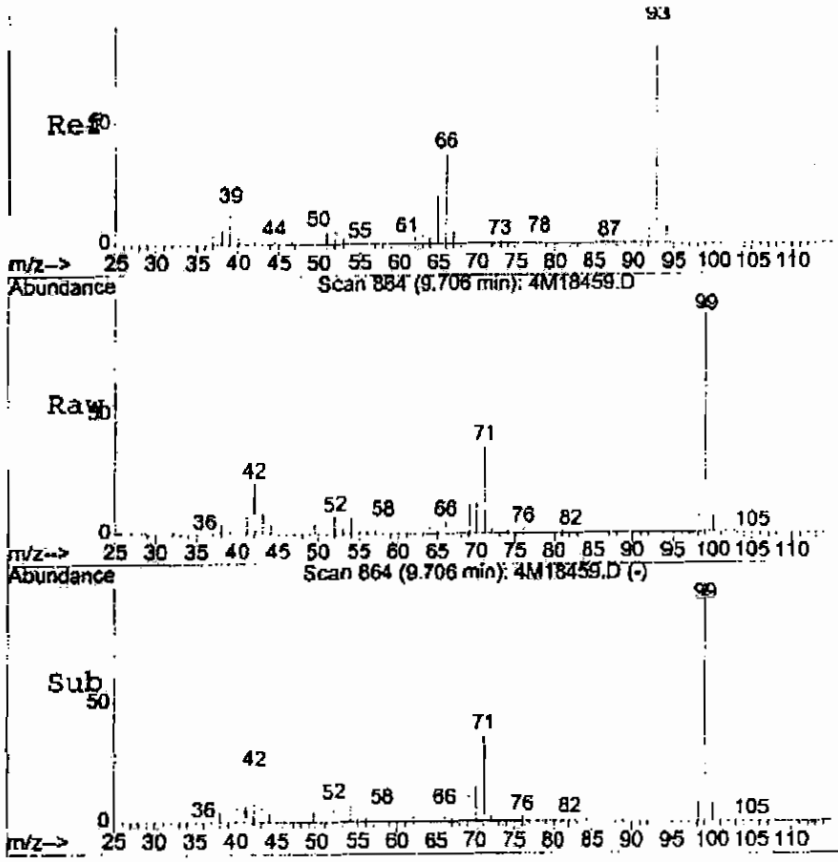
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\043003\4M18459.D Vial: 5
Acq On : 30 Apr 2003 10:08 Operator: mdc
Sample : WG139289-01 TBLK 4/28 V201P101 Inst : HPMS4
Misc : 17,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 1 8:55 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:54:47 2003
Response via : Initial Calibration



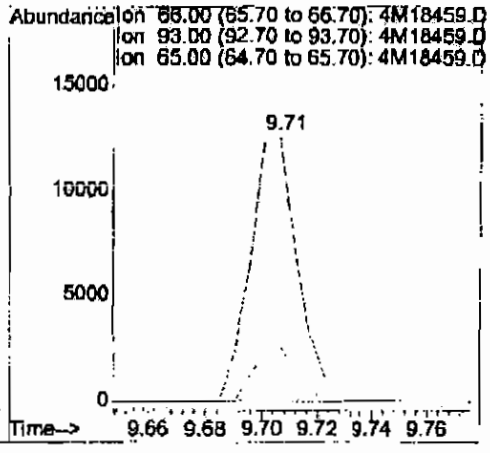
4M18459.D BNA.M Thu May 01 08:55:46 2003 HPMS4 Page 2



Aniline
Concen: 3.77 ug/ml
RT: 9.71 min Scan# 864
Delta R.T. -0.11 min
Lab File: 4M18459.D
Acq: 30 Apr 2003 10:08

Tgt Ion: 66 Resp: 14847

Ion	Ratio	Lower	Upper
66	100		
93	0.0	206.0	309.0#
65	17.7	40.1	60.1#



Data File : C:\HPCHEM\1\DATA\043003\4M18458.D Vial: 4
Acq On : 30 Apr 2003 9:33 Operator: mdc
Sample : WG139340-03 LCS 4/29 V201P101 Inst : HPMS4
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 1 8:55 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:54:47 2003
Response via : Initial Calibration
DataAcq Meth : BNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.22	152	279419	40.00 ug/ml	0.00
19) Naphthalene-d8	11.86	136	1049663	40.00 ug/ml	0.00
34) Acenaphthene-d10	13.98	164	622729	40.00 ug/ml	0.00
56) Phenanthrene-d10	15.61	188	1055220	40.00 ug/ml	0.00
67) Chrysene-d12	18.49	240	1263001	40.00 ug/ml	0.00
76) Perylene-d12	20.99	264	886243	40.00 ug/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	8.50	112	352746	36.2537 ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 36.25%		
6) Phenol-d5	9.71	99	286170	25.5872 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 25.59%		
20) Nitrobenzene-d5	10.95	82	286985	28.4761 ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 56.96%		
38) 2-Fluorobiphenyl	13.16	172	648922	26.5532 ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 53.10%		
55) 2,4,6-Tribromophenol	14.86	330	284754	93.3230 ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 93.32%		
70) p-Terphenyl-d14	17.23	244	1321298	41.8921 ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 83.78%		
Target Compounds					Qvalue
2) Pyridine	6.23	79	67633	6.9939 ug/ml	97
3) n-Nitrosodimethylamine	6.23	74	110602	20.9336 ug/ml	97
5) Aniline	9.81	66	94090	25.0965 ug/ml	100
7) Phenol	9.72	94	149525	12.1058 ug/ml	91
8) bis(2-Chloroethyl)ether	9.87	63	177096	27.7052 ug/ml	98
9) 2-Chlorophenol	9.96	128	279823	26.9174 ug/ml	99
10) 1,3-Dichlorobenzene	10.15	146	224609	18.7832 ug/ml	99
11) 1,4-Dichlorobenzene	10.25	146	236516	19.0834 ug/ml	99
12) Benzyl Alcohol	10.38	108	179409	27.0926 ug/ml	100
13) 1,2-Dichlorobenzene	10.45	146	230905	20.0238 ug/ml	100
14) 2-Methylphenol	10.50	107	212628	26.3062 ug/ml	98
15) bis(2-Chloroisopropyl)ethe	10.54	45	344169	27.4368 ug/ml	99
16) 3-,4-Methylphenol	10.68	107	292485	24.7986 ug/ml	99
17) n-Nitrosodipropylamine	10.71	70	195758	29.8029 ug/ml	99
18) Hexachloroethane	10.88	117	75054	17.6178 ug/ml	99
21) Nitrobenzene	10.97	77	276163	27.7730 ug/ml	99
22) Isophorone	11.24	82	546728	31.7464 ug/ml	100
23) 2-Nitrophenol	11.37	139	163063	27.9344 ug/ml	93
24) 2,4-Dimethylphenol	11.36	122	306343	31.1214 ug/ml	100
25) bis(2-Chloroethoxy)methane	11.48	93	320500	29.0222 ug/ml	100

(#) = qualifier out of range (m) = manual integration
4M18458.D BNA.M Thu May 01 08:55:25 2003 HPMS4 Page 1

Data File : C:\HPCHEM\1\DATA\043003\4M18458.D Vial: 4
Acq On : 30 Apr 2003 9:33 Operator: mdc
Sample : WG139340-03 LCS 4/29 V201P101 Inst : HPMS4
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 1 8:55 2003 Quant Results File: BNA.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:54:47 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26)	Benzoic Acid	11.40	122	12600	2.9899	ug/ml	90
27)	2,4-Dichlorophenol	11.65	162	262569	29.7534	ug/ml	100
28)	1,2,4-Trichlorobenzene	11.77	180	217034	20.8633	ug/ml	99
29)	Naphthalene	11.89	128	755478	25.0395	ug/ml	100
30)	4-Chloroaniline	11.94	127	369789	34.9085	ug/ml	100
31)	Hexachlorobutadiene	12.01	225	125836	19.2030	ug/ml	99
32)	4-Chloro-3-Methylphenol	12.49	107	312556	35.7152	ug/ml	100
33)	2-Methylnaphthalene	12.73	142	528794	24.7961	ug/ml	100
35)	Hexachlorocyclopentadiene	12.92	237	120684	20.7191	ug/ml	99
36)	2,4,6-Trichlorophenol	13.07	196	225078	33.5540	ug/ml	100
37)	2,4,5-Trichlorophenol	13.11	196	271695	37.8215	ug/ml	99
39)	2-Chloronaphthalene	13.33	162	534389	26.1912	ug/ml	99
40)	2-Nitroaniline	13.45	65	195768	36.5273	ug/ml	99
41)	Dimethylphthalate	13.61	163	869089	38.5601	ug/ml	100
42)	Acenaphthylene	13.82	152	1015224	30.7676	ug/ml	100
43)	2,6-Dinitrotoluene	13.72	165	198388	37.8443	ug/ml	99
44)	3-Nitroaniline	13.92	138	219442	57.2550	ug/ml	99
45)	Acenaphthene	14.02	154	618316	30.4010	ug/ml	100
46)	2,4-Dinitrophenol	14.03	184	93204	32.3148	ug/ml	73
47)	4-Nitrophenol	14.04	65	74544	19.2407	ug/ml	96
48)	Dibenzofuran	14.20	168	933388	31.1341	ug/ml	100
49)	2,4-Dinitrotoluene	14.17	165	289514	41.7799	ug/ml	98
50)	Diethylphthalate	14.39	149	931540	42.1329	ug/ml	100
51)	Fluorene	14.58	166	805181	34.8939	ug/ml	99
52)	4-Chlorophenyl Phenyl Ethe	14.54	204	420035	33.9921	ug/ml	100
53)	4-Nitroaniline	14.61	138	194680	52.6874	ug/ml	97
54)	1,2-Diphenylhydrazine	14.72	77	753225	37.0884	ug/ml	99
57)	4,6-Dinitro-2-Methylphenol	14.63	198	169247	39.8532	ug/ml	99
58)	n-Nitrosodiphenylamine	14.67	169	695697	42.8810	ug/ml	99
59)	4-Bromophenyl Phenyl Ether	15.09	248	240453	38.3875	ug/ml	100
60)	Hexachlorobenzene	15.21	284	302769	40.9224	ug/ml	100
61)	Pentachlorophenol	15.40	266	160015	44.1986	ug/ml	98
62)	Phenanthrene	15.64	178	1436956	43.4319	ug/ml	100
63)	Anthracene	15.69	178	1466544	45.1604	ug/ml	100
64)	Carbazole	15.85	167	1309067	60.9019	ug/ml	100
65)	Di-n-Butyl Phthalate	16.11	149	1722638	47.3257	ug/ml	100
66)	Fluoranthene	16.90	202	1784172	46.8780	ug/ml	99
68)	Benzidine	16.99	184	6060	5.6801	ug/ml	100
69)	Pyrene	17.15	202	1857775	41.0895	ug/ml	100
71)	Butyl Benzyl Phthalate	17.68	149	853081	43.4943	ug/ml	100
72)	Benzo[a]anthracene	18.47	228	1845025	41.5758	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\043003\4M18458.D Vial: 4
Acq On : 30 Apr 2003 9:33 Operator: mdc
Sample : WG139340-03 LCS 4/29 V201P101 Inst : HPMS4
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 1 8:55 2003 Quant Results File: BNA.RES

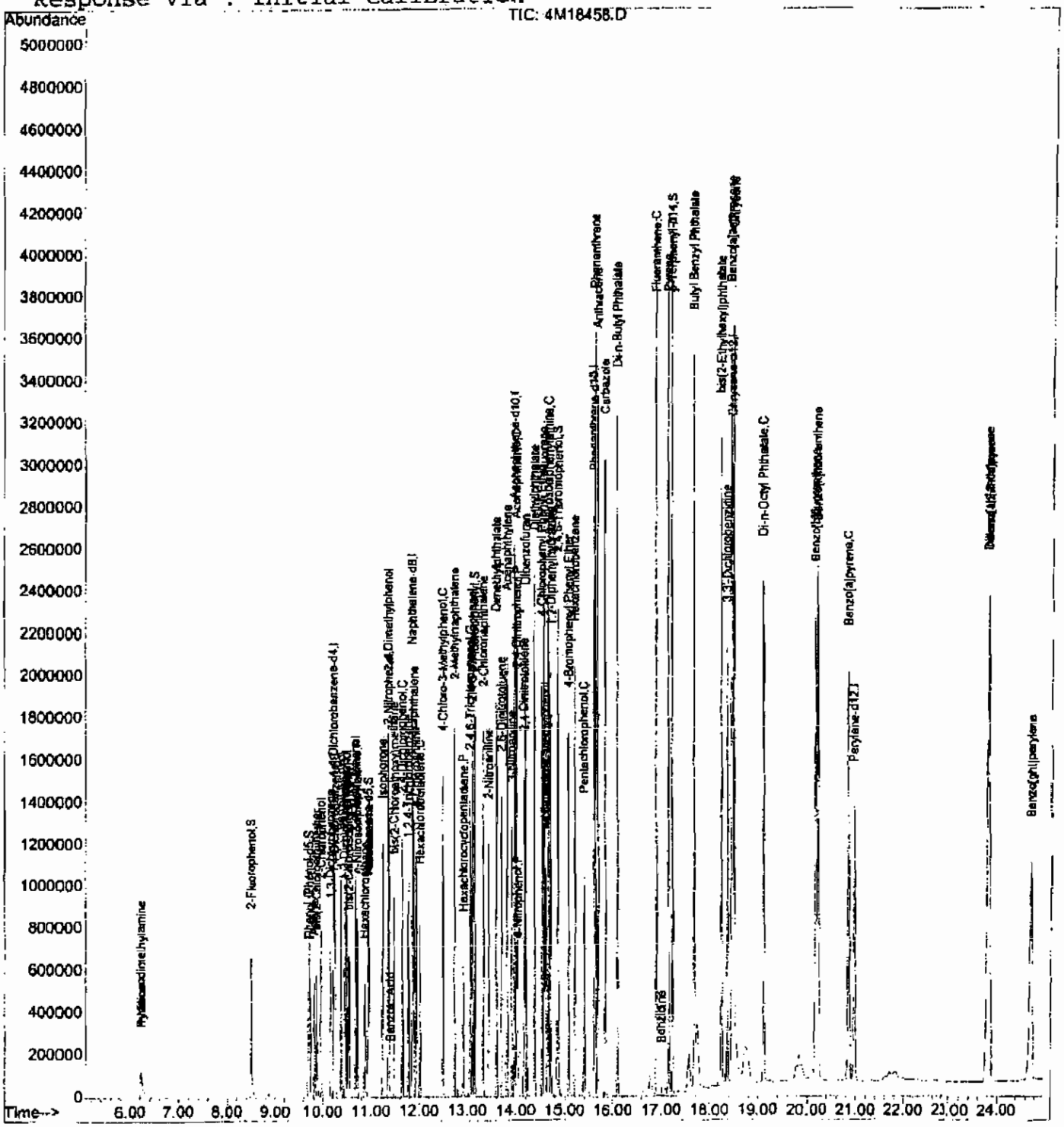
Quant Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:54:47 2003
Response via : Initial Calibration
DataAcq Meth : BNA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73)	3,3'-Dichlorobenzidine	18.38	252	582490	58.2066	ug/ml	99
74)	Chrysene	18.53	228	1776318	41.8331	ug/ml	99
75)	bis(2-Ethylhexyl)phthalate	18.26	149	1149863	42.4013	ug/ml	100
77)	Di-n-Octyl Phthalate	19.12	149	1970194	48.0187	ug/ml	100
78)	Benzo[b]fluoranthene	20.18	252	1803404	44.2954	ug/ml	98
79)	Benzo[k]fluoranthene	20.22	252	1850636	48.2981	ug/ml	98
80)	Benzo[a]pyrene	20.87	252	1756183	47.5830	ug/ml	99
81)	Indeno[1,2,3-cd]pyrene	23.83	276	1995231	45.8435	ug/ml	99
82)	Dibenz[ah]anthracene	23.83	278	1720359	46.1190	ug/ml	100
83)	Benzo[ghi]perylene	24.72	276	1644574	46.2151	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\043003\4M18458.D Vial: 4
Acq On : 30 Apr 2003 9:33 Operator: mdc
Sample : WG139340-03 LCS 4/29 V201P101 Inst : HPMS4
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 1 8:55 2003 Quant Results File: BNA.RES

Method : C:\HPCHEM\1\METHODS\BNA.M (RTE Integrator)
Title : M8270/625/Initial cal. 04/29/03
Last Update : Thu May 01 08:54:47 2003
Response via : Initial Calibration



Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	4M18443.D	1.	✓ WG139334-01 50PPM DFTPP	1,1 SOS64-3	29 Apr 2003 15:20
[illegible]	2	4M18444.D	1.	cc WG139334-02 50PPM BNA STD	1,1 SOS63-38-4	29 Apr 2003 15:39
	1	4M18445.D	1.	RR WG139334-01 50PPM DFTPP Mass #47 high	1,1 SOS64-3	29 Apr 2003 16:37
	1	4M18446.D	1.	✓ WG139334-01 50PPM DFTPP	1,1 SOS64-3	29 Apr 2003 16:52
5	2	4M18447.D	1.	cc/✓ WG139334-02 50PPM BNA STD	1,1 SOS63-38-4	29 Apr 2003 17:10
6	3	4M18448.D	1.	✓ WG139334-03 3PPM BNA STD	1,1 SOS63-38-1	29 Apr 2003 18:04
7	4	4M18449.D	1.	WG139334-04 10PPM BNA STD	1,1 SOS63-38-2	29 Apr 2003 18:38
8	5	4M18450.D	1.	WG139334-05 20PPM BNA STD	1,1 SOS63-38-3	29 Apr 2003 19:13
9	6	4M18451.D	1.	WG139334-06 80PPM BNA STD	1,1 SOS63-38-5	29 Apr 2003 19:47
10	7	4M18452.D	1.	WG139334-07 100PPM BNA STD	1,1 SOS63-38-6	29 Apr 2003 20:24
11	8	4M18453.D	1.	WG139334-08 120PPM BNA STD	1,1 SOS63-38-7	29 Apr 2003 21:00
12	9	4M18454.D	1.	WG139334-09 50PPM Alt Source BNA STD	1,1 SOS64-19-4	29 Apr 2003 21:36

CK
5/1/03
vck 5/1/03

KEMRON ENVIRONMENTAL SERVICES

Semivolatile GC/MS Laboratory Maintenance / Runlog

Analysis Date/Time 4/29/03 Instrument ID HP5973 Column ID RTX-5MS SOP # MSS01 Rev. # 9 8270C ✓
Analyst Initials CAR Data Subdirectory 042903 SOP # MSS02 Rev. # ___ 625 ___
ISTD # B2100144 SOP # MSS03 Rev. # ___ PAH 8270C ___

Analysis Date/Time ___ Instrument ID ___ Column ID ___ Data Subdirectory ___

Preventative Maintenance

- ☐ Change o-ring
- ☒ Change liner
- ☐ Change septum
- ☐ Clip column (___ cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases ___

Additional Maintenance

Problem: ___

Action Taken: ___

Returned To Control?

Yes ___ No ___

Comments

Reviewed By: 04/5/03

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	4M18455.D	1.	✓WG139370-01 50PPM DFTPP	1,1 SOS64-3	30 Apr 2003 08:03
	2	4M18456.D	1.	WG139370-02 50PPM BNA STD	1,1 SOS63-38-4	30 Apr 2003 08:22
	3	4M18457.D	1.	WG139340-02 BLK 4/29 V201P101	1,1	30 Apr 2003 08:57
4	4	4M18458.D	1.	WG139340-03 LCS 4/29 V201P101	1,1	30 Apr 2003 09:33
5	5	4M18459.D	1.	WG139289-01 TBLK 4/28 V201P101	17,1	30 Apr 2003 10:08
6	6	4M18460.D	1.	WG139272-01 BLK 4/29 V202P65	7,1 SOIL	30 Apr 2003 10:43
7	7	4M18461.D	1.	WG139272-02 LCS 4/29 V202P65	7,1 SOIL	30 Apr 2003 11:18
8	8	4M18462.D	1.	WG139272-03 LCS DUP 4/29 V202P65	7,1 SOIL	30 Apr 2003 11:53
9	9	4M18463.D	1.	L0304439-01 SOIL	7,1 SOIL	30 Apr 2003 12:28
10	10	4M18464.D	1.	L0304501-05 TCLP	17,1	30 Apr 2003 13:03
11	11	4M18465.D	1.	L0304554-01 TCLP	17,1	30 Apr 2003 13:38
12	12	4M18466.D	1.	L0304594-03 TCLP	17,1	30 Apr 2003 14:13
13	13	4M18467.D	1.	L0304543-04 TCLP	17,1	30 Apr 2003 14:48
14	14	4M18468.D	1.	L0304543-05 TCLP	17,1	30 Apr 2003 15:23
15	15	4M18469.D	1.	L0304543-07 TCLP	17,1	30 Apr 2003 15:58
16	16	4M18470.D	1.	L0304420-01	1,1	30 Apr 2003 17:14
17	17	4M18471.D	1.	L0304420-02	1,1	30 Apr 2003 17:50
18	18	4M18472.D	1.	WG139243-01 BLK 4/28 V201P91 RR	2,1	30 Apr 2003 18:25
19	19	4M18473.D	1.	L0304581-01	2,1	30 Apr 2003 19:01
20	20	4M18474.D	1.	L0304581-02	2,1	30 Apr 2003 19:37
21	21	4M18475.D	1.	L0304581-03	2,1	30 Apr 2003 20:12
22	22	4M18476.D	1.	RR10 L0304581-04	2,1	30 Apr 2003 20:47
23	23	4M18477.D	1.	RR10 L0304581-05	2,1	30 Apr 2003 21:23
24	24	4M18478.D	1.	✓L0304581-06	2,1	30 Apr 2003 21:58
25	25	4M18479.D	1.	✓L0304581-07	2,1	30 Apr 2003 22:34
26	26	4M18480.D	1.	✓L0304581-08	2,1	30 Apr 2003 23:10
27	27	4M18481.D	1.	RR10 L0304581-09	2,1	30 Apr 2003 23:46
28	28	4M18482.D	1.	✓L0304574-06	2,1	1 May 2003 00:22
29	29	4M18483.D	1.	✓L0304582-09	2,1	1 May 2003 00:58
30	30	4M18484.D	1.	✓WG139340-01 L0304582-03	2,1	1 May 2003 01:34
	31	4M18485.D	1.	WG139340-04 L0304582-05 MS	2,1	1 May 2003 02:09
	32	4M18486.D	1.	WG139340-05 L0304582-07 MSD	2,1	1 May 2003 02:45
33	33	4M18487.D	1.	L0304582-16	2,1	1 May 2003 03:21
34	34	4M18488.D	1.	L0304582-01	2,1	1 May 2003 03:56
35	35	4M18489.D	1.	RR5 L0304582-14	2,1	1 May 2003 04:32
36	36	4M18490.D	10.	L0304574-03 10X	2,10	1 May 2003 05:08
37	37	4M18491.D	10.	L0304574-04 10X	2,10	1 May 2003 05:44
38	38	4M18492.D	10.	L0304574-05 10X	2,10	1 May 2003 06:20
39	39	4M18493.D	10.	L0304574-01 10X	2,10	1 May 2003 06:56
40	40	4M18494.D	10.	L0304574-02 10X	2,10	1 May 2003 07:32
41		4M18495.D	1.			

CK
5/1/03
[illegible]

KEMRON ENVIRONMENTAL SERVICES

Semivolatile GC/MS Laboratory Maintenance / Runlog

Analysis Date/Time 4/30/03 Instrument ID #MS4 Column ID RTX-5MS SOP # MSS01 Rev. # 9 8270C ✓
Analyst Initials CLK Data Subdirectory 043003 SOP # MSS02 Rev. # 3 625 ✓
ISTD # B2100144 SOP # MSS03 Rev. # ___ PAH 8270C ___

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Preventative Maintenance

- ☐ Change o-ring
- ☒ Change liner
- ☐ Change septum
- ☐ Clip column (___ cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?

Yes ___ No ___

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

L0304501-05 TCLP, SS 1 <10% SMI, SS 2 bone SMI

L0304581-04, SS 4 low, Needs 10X # 10, 11, 13, 22
-05, Needs 10X # 10, 11, 13, possibly 100X
-09, Needs 10X # 11, 13

L0304582-14, Needs 5X #75

L0304574-03 10X, Needs RR @ 5X
-04
-05
-01
-02

Reviewed By: [signature]

Parameter: BNA H_2O SOP #: EXB08 Revision #: 10
Extraction Analyst(s): DP, PAS, CAF TV/KD Analyst(s): DP
Date/Time Extracted: 4-29-03 @ 17:00 Date TV/KD: 04/29/03
Spike/Surrogate Analyst: DP Witness: CAF
Surrogate #: ESS00443-50 Earliest Hold Date: 5-01-03
Spike #: A = ESS00444-01 + 2 Spike #: B = —

Extraction Work Group WG 139340
Analytical Work Group WG 139481
Extract Relinquished By: CEB
Extract Received By & Date: 4/30/03

	Sample ID	Test Code	pH: <2	pH: N	pH: >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions: A	Emulsions: BN	Emulsions: N	Comments
1	Blank		✓		✓	1000mL	500µL		1mL	T				WG 139340-02
2	LCS		✓		✓	〃		500µL		C				WG 〃 -03
3	04-574-01	625 AB	✓		✓	970 mL				C	✓	✓		
4	-02		✓		✓	950				C	✓	✓		
5	-03		✓		✓	900				C	✓	—		
6	-04		✓		✓	950				C	✓	—		
7	-05		✓		✓	930				C	✓	✓		
8	-06	〃	✓		✓	890				T				
9	04-575-08	827-SPE	✓		✓	〃				T				
10	04-582-01	625-AB	✓		✓	930				C	✓	✓		
11	-03		✓		✓	908				C				WG 139340-01
12	-05MS		✓		✓	940		500µL		C			*	WG 〃 -04
13	-07MSD		✓		✓	〃		〃		C			*	WG 〃 -05
14	-09		✓		✓	〃				T				
15	-12		✓		✓	930				C		✓		*
16	-14		✓		✓	〃				C				
17	-16	〃	✓		✓	〃				C				
18	TBLK-4/28	827-TC	✓		✓	100mL				T				WG 139289-01
19	04-501-05		✓		✓					C	✓			
20	04-543-04		✓		✓					T				
21	-05		✓		✓					C				
22	-07		✓		✓					T				
23	04-557-01		✓		✓					T				
24	04-594-23	〃	✓		✓	〃			〃	T				

DP 04/29/03

Methylene Chloride Lot #: 43016
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: Fortified Lot #: ER 2405
Reagent: 1N NaOH Lot #: ER 0005-13
Reagent: — Lot #: —
Acid: 1:1 H_2SO_4 Lot #: ER 0005-02
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 0005-25

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 05/30/03

Extraction Notes For Volume # 201 Page # 101

General Comments: MS, MSD of 04-582-23

Extraction Anomalies: # Sample required 2x the normal amount (15mL) of base (10N NaOH) to achieve the desired pH (7±2). Due to extremely thick emulsions on the base side sample was gently shaken by hand for the 2nd and 3rd base side shakes rather than being returned to the automatic shaker

Concentration Anomalies: None

Clean-Up Anomalies: N/A

Supervisor Review: [signature] Date: 4/30/03

Run Date: 4/29/03

Analyst: CLK

Instrument: HP1154

Workorders: Due Date: Priority:

Curve Only

√ = Checked & OK

NA = Not Applicable

Comments:

		Analyst
System Performance Check:	DFTPP	√
	Tailing	√
	DDT Breakdown	√
Initial Calibration:	ICAL summary	√
	Average RF	√
	Linear or quadriatic regression	
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	
	Client Specific Requirements	
	Special Standards	
Blanks:	Quant Report/Chromatogram	
	Surrogates	
	Library search	
LCS/LCS DUP:	Quant Report/Chromatogram	
	Surrogates	
	Spike Compounds	
	MS/MSD	
	QC forms	
Samples:	Quant Reports/Chromatograms	
	Spectra of TCL Hits	
	Surrogates	
	Internal Standards	
	Correct Factors	
	Library searches	
Data Package:	Manual integrations	
	Run logs	
	Bench sheets	
	Upload results	
	R-flag reports	
	Seedpak workgroups	
	Level 2	
	Level 4 copies	
	Level x	
	Case narratives	

	Supervisor
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Primary Reviewer: CLK 5/1/03

Secondary Reviewer: [illegible] 5/1/03

Supervisor Review: mlc 5/1/03

Run Date: 4/30/03

Analyst: CLK

Instrument: HPMS4

Workorders:	Due Date:	Priority:
04-439	5/1	—
04-501	5/1	A1
04-554	5/7	P1
04-594	5/6	P1
04-543	5/8	A1
04-420	5/7	—
04-581	5/5	—
04-574	5/6	—
04-582	5/8	—

√ = Checked & OK

NA = Not Applicable

		Analyst
System Performance Check:	DFTPP	✓
	Tailing	✓
	DDT Breakdown	✓
Initial Calibration:	ICAL summary	
	Average RF	
	Linear or quadratic regression	
	Alt Source Check	
Continuing Calibration:	Continuing Calibration	✓
	Client Specific Requirements	✓
	Special Standards	
Blanks:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Library search	
LCS/LCS DUP:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Spike Compounds	✓
	MS/MSD	
	QC forms	✓
Samples:	Quant Reports/Chromatograms	✓
	Spectra of TCL Hits	✓
	Surrogates	✓
	Internal Standards	✓
	Correct Factors	✓
	Library searches	
Data Package:	Manual integrations	
	Run logs	✓
	Bench sheets	✓
	Upload results	✓
	R-flag reports	
	Seedpak workgroups	✓
	Level 2	
	Level 4 copies	✓
	Level x	✓
	Case narratives	✓

	Supervisor
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

04-581-04 Needs 10X
-05
-09

04-582-14 Needs 5X

04-574-03 10X, Need RR 5X
-04
-05
-01
-02

Primary Reviewer: CLK 5/1/03

Secondary Reviewer: [illegible] 5/1/03

Supervisor Review: [illegible] 5/1/03

Example 8270 Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = [(Ax)(Cis)] / [(Ais)(Cx)]

		Example:
Where:	Ax = Area of the characteristic ion for the compound being measured	10000
	Cis = Concentration of the specific internal standard (ng/ml).	100
	Ais = Area of the characteristic ion for the specific internal standard.	5000
	Cx = Concentration of the compound being measured (ng/ml).	100
	RF	**2**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:*

C = [(Ax)(Cis)(Vf)(D)] / [(Ais)(RF)(Vi)]

		Example:
Where:	Ax = Area of the characteristic ion for for the compound being measured	10000
	Cis = Concentration of the specific internal standard in ng/ml (ug/L).	4000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	Ais = Area of the characteristic ion for for the specific internal standard.	5000
	RF = Response factor from ICAL calculated above.	2
	Vi = Initial volume of sample (mL). (prep log)	1000
	C (ug/L)	**4**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report:*

C = [(Ax)(Cis)(Vf)(D)] / [(Ais)(RF)(Wi)]

		Example:
Where:	Ax = Area of the characteristic ion for for the compound being measured	10000
	Cis = Concentration of the specific internal standard in ng/ml (ug/L).	4000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	Ais = Area of the characteristic ion for for the specific internal standard.	5000
	RF = Response factor from ICAL calculated above.	2
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**133.3333**

* Concentrations appearing on instrument quantitation reports are on-column results and do not take into account initial volume, final volume and dilution factor.

2.2.2 Pesticide GC Data (8081)

REPORT NARRATIVE
GC PESTICIDES

KEMRON Report No.: L0304554

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8081

HOLDING TIMES

Sample Preparation: The re-extraction of sample -01 was done out of hold time. All other holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS associated with WG139387 yielded % recoveries for 4 compounds that were above the acceptance limits. There were no hits in samples associated with this LCS. All other acceptance criteria were met.
Matrix Spikes: There were no MS/MSD results associated with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Endrin/ DDT Breakdown : All acceptance criteria were met.
Samples: Sample fraction -01 was re-extracted at the client's request due to high LCS recovery. The re-extraction was done out of hold time and yielded similar sample results and good LCS results. Both sets of extraction data were reported. For all samples which yielded results with an RPD of greater than 40% between the primary and confirmation column the appropriate flag was applied. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ECL REVIEWED: _____ DATE: 5/10/00

Rev. 7/14/00

PESTICIDES B GC DATA (8081)

Login Number 04-554

A. QC Summary

- ✓ Method Blank Summary
- ✓ Method Blank Results
- ✓ Laboratory Control Sample (LCS)
- NA Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ✓ Holding Time Summary
- ✓ Surrogate Recovery Summary
- ✓ Initial Calibration Summary
- ✓ Initial Calibration Verification (ICV) Form (Second Source)
- ✓ Continuing Calibration Verification (CCV)
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet

B. Sample Data

- ✓ Target compound and surrogate results summary (See Summary Report)
- ✓ Chromatograms and quantitation report

C. Standards Data

- ✓ Initial calibration (ICAL) summary form
- ✓ Chromatograms and quantitation report for ICAL standards
- ✓ Initial calibration verification (ICV/second source) summary forms
- ✓ Initial calibration verification (ICV/second source) quantitation reports and chromatograms
- ✓ Continuing Calibration Verification (CCV) summary forms
- ✓ Continuing Calibration Verification (CCV) quantitation reports and chromatograms
- ✓ Retention Time Window Summary

D. Raw QC Data

- ✓ Endrin/DDT Breakdown chromatogram and quantitation report
- ✓ Method blank chromatogram and quantitation report
- ✓ LCS chromatogram and quantitation report
- NA MS/MSD chromatogram and quantitation report
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet
- ✓ Daily Checklist
- ✓ Example Calculations

Checked By: EC Date: 5-8-03

2.2.2.1 QC Summary

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003

Calibration Files
2000 =9G23038.D 1000 =9G23039.D 500 =9G23040.D
250 =9G23041.D 100 =9G23042.D

	Compound	2000	1000	500	250	100	Avg		%RSD
1) L1	Toxaphene-1	8.883	8.889	8.886	8.756	8.911	8.865	E5	0.70
2) L1	Toxaphene-2	1.620	1.612	1.597	1.642	1.692	1.633	E6	2.26
3) L1	Toxaphene-3	1.148	1.128	1.083	1.055	1.033	1.089	E6	4.43
4) L1	Toxaphene-4	1.436	1.431	1.419	1.403	1.387	1.415	E6	1.45
5) L1	Toxaphene-5	7.258	7.129	6.883	6.675	6.537	6.897	E5	4.37

Signal #2 Calibration Files
2000 =9G23038.D 1000 =9G23039.D 500 =9G23040.D
250 =9G23041.D 100 =9G23042.D

	Compound	2000	1000	500	250	100	Avg		%RSD
1) L1	Toxaphene-1	5.392	5.284	5.107	4.910	5.063	5.151	E5	3.68
2) L1	Toxaphene-2	1.492	1.458	1.404	1.316	1.384	1.411	E6	4.83
3) L1	Toxaphene-3	1.056	1.010	0.946	0.813	0.771	0.919	E6	13.42
4) L1	Toxaphene-4	7.813	7.495	6.996	6.167	5.770	6.848	E5	12.64
5) L1	Toxaphene-5	7.230	6.956	6.587	6.010	5.887	6.534	E5	8.92

(#) = Out of Range

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Wed Apr 30 16:35:45 2003

Calibration Files
4 =9G23049.D 10 =9G23048.D 20 =9G23047.D
50 =9G23046.D 100 =9G23045.D 200 =9G23044.D

		Compound	4	10	20	50	100	200	Avg		%RSD
1)	S	2,4,5,6-Tetrachloro	8.512	8.600	8.708	8.528	8.522	8.305	8.529	E7	1.55
2)		alpha-BHC	1.124	1.200	1.242	1.257	1.270	1.241	1.222	E8	4.39
3)		gamma-BHC	1.064	1.057	1.105	1.101	1.114	1.052	1.082	E8	2.51
4)		beta-BHC	4.459	4.738	4.856	4.710	4.639	4.804	4.701	E7	2.98
5)		Heptachlor	1.116	1.137	1.144	1.111	1.085	1.019	1.102	E8	4.16
6)		delta-BHC	0.969	1.060	1.141	1.161	1.163	1.146	1.107	E8	7.01
7)		Aldrin	1.001	1.061	1.063	1.046	1.030	0.982	1.030	E8	3.22
8)		Heptachlor Epoxide	7.806	8.124	8.661	8.330	8.285	7.474	8.113	E7	5.17
9)		gamma-Chlordane	9.176	9.368	9.484	9.413	9.347	9.127	9.319	E7	1.49
10)		alpha-Chlordane	9.775	9.272	9.108	8.873	8.788	8.529	9.057	E7	4.81
11)		Endosulfan I	9.750	9.358	9.221	8.867	8.587	8.065	8.975	E7	6.68
12)		4,4'-DDE	9.070	8.575	8.568	8.552	8.530	8.329	8.604	E7	2.86
13)		Dieldrin	9.106	9.383	9.372	9.226	9.114	8.736	9.156	E7	2.60
14)		Endrin	8.346	8.629	8.758	8.671	8.556	8.181	8.523	E7	2.56
15)		4,4'-DDD	6.121	6.617	6.872	7.147	7.143	7.016	6.819	E7	5.80
16)		Endosulfan II	7.119	7.371	7.549	7.432	7.319	7.136	7.321	E7	2.30
17)		4,4'-DDT	7.837	7.456	7.563	7.436	7.428	7.292	7.502	E7	2.47
18)		Endrin Aldehyde	6.331	5.737	5.646	5.407	5.351	5.373	5.641	E7	6.61
19)		Endosulfan Sulfate	4.466	4.773	4.938	4.844	4.921	4.799	4.790	E7	3.58
20)		Methoxychlor	3.453	3.432	3.520	3.352	3.337	3.285	3.396	E7	2.56
21)		Endrin Ketone	6.630	6.697	6.715	6.639	6.652	6.634	6.661	E7	0.54
22)	S	Decachlorobiphenyl	5.665	5.493	5.319	5.065	5.011	4.942	5.249	E7	5.54

Signal #2 Calibration Files
4 =9G23049.D 10 =9G23048.D 20 =9G23047.D
50 =9G23046.D 100 =9G23045.D 200 =9G23044.D

		Compound	4	10	20	50	100	200	Avg		%RSD
1)	S	2,4,5,6-Tetrachloro	5.335	5.565	5.548	5.907	5.847	5.713	5.653	E7	3.76
2)		alpha-BHC	6.905	7.755	8.226	8.962	8.969	8.720	8.256	E7	9.84
3)		gamma-BHC	6.384	7.006	7.302	7.910	7.913	7.684	7.366	E7	8.13
4)		beta-BHC	3.267	3.282	3.241	3.382	3.343	3.277	3.299	E7	1.60
5)		Heptachlor	5.505	6.133	6.330	6.692	6.677	6.396	6.289	E7	6.99
6)		delta-BHC	5.922	6.585	7.042	7.723	7.784	7.652	7.118	E7	10.54
7)		Aldrin	5.517	6.081	6.341	6.893	6.893	6.683	6.401	E7	8.42
8)		Heptachlor Epoxide	5.484	5.602	5.791	6.176	6.149	5.990	5.865	E7	4.90
9)		gamma-Chlordane	5.288	5.544	5.657	6.104	6.111	5.990	5.782	E7	5.84
10)		alpha-Chlordane	5.081	5.187	5.283	5.641	5.634	5.526	5.392	E7	4.46
11)		Endosulfan I	4.917	5.072	5.191	5.555	5.551	5.429	5.286	E7	5.03
12)		4,4'-DDE	4.392	4.736	4.980	5.494	5.561	5.510	5.112	E7	9.52
13)		Dieldrin	4.800	5.143	5.388	5.911	5.989	5.921	5.525	E7	8.91
14)		Endrin	4.023	4.223	4.498	4.891	5.089	5.136	4.643	E7	10.03
15)		4,4'-DDD	3.509	3.788	4.007	4.408	4.492	4.559	4.127	E7	10.33
16)		Endosulfan II	3.937	4.236	4.305	4.744	4.806	4.892	4.487	E7	8.52
17)		4,4'-DDT	3.393	3.608	3.859	4.267	4.453	4.527	4.018	E7	11.65
18)		Endrin Aldehyde	3.085	3.324	3.301	3.448	3.505	3.565	3.371	E7	5.14
19)		Endosulfan Sulfate	3.336	3.450	3.594	3.852	3.975	4.062	3.712	E7	7.95
20)		Methoxychlor	2.037	1.923	1.941	2.061	2.146	2.221	2.055	E7	5.61
21)		Endrin Ketone	4.167	4.278	4.432	4.733	4.828	4.900	4.556	E7	6.71
22)	S	Decachlorobiphenyl	4.317	4.051	3.969	3.900	3.915	3.910	4.010	E7	4.00

(#) = Out of Range

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:54:29 2003

Calibration Files
4 =9G23123.D 10 =9G23122.D 20 =9G23121.D
50 =9G23120.D 100 =9G23119.D 200 =9G23118.D

		Compound	4	10	20	50	100	200	Avg		%RSD
1)	S	2,4,5,6-Tetrachloro	9.457	9.453	9.698	9.663	9.686	9.846	9.634	E7	1.59
2)		alpha-BHC	1.251	1.342	1.408	1.440	1.459	1.435	1.389	E8	5.68
3)		gamma-BHC	0.831	1.113	1.213	1.192	1.218	1.131	1.117	E8	13.10
4)		beta-BHC	4.296	5.212	5.476	5.320	5.310	5.429	5.174	E7	8.51
5)		Heptachlor	1.240	1.270	1.296	1.265	1.229	1.116	1.236	E8	5.13
6)		delta-BHC	1.056	1.203	1.294	1.332	1.337	1.290	1.252	E8	8.59
7)		Aldrin	1.048	1.200	1.210	1.201	1.181	1.078	1.153	E8	6.15
8)		Heptachlor Epoxide	4.899	7.948	9.016	8.385	8.665	7.523	7.739	E7	19.22
9)		gamma-Chlordane	1.024	1.061	1.090	1.089	1.088	1.013	1.061	E8	3.27
10)		alpha-Chlordane	1.143	1.065	1.049	1.026	1.022	0.939	1.041	E8	6.39
11)		Endosulfan I	1.153	1.082	1.072	1.027	0.987	0.871	1.032	E8	9.34
12)		4,4'-DDE	1.105	0.966	0.969	0.974	0.977	0.909	0.983	E8	6.59
13)		Dieldrin	1.077	1.068	1.076	1.063	1.044	0.935	1.044	E8	5.25
14)		Endrin	9.293	9.356	9.602	9.562	9.413	8.487	9.286	E7	4.40
15)		4,4'-DDD	6.874	7.512	7.945	8.316	8.310	7.628	7.764	E7	7.08
16)		Endosulfan II	8.319	9.013	8.702	8.653	8.449	7.704	8.473	E7	5.25
17)		4,4'-DDT	9.313	9.294	8.762	8.636	8.617	7.973	8.766	E7	5.69
18)		Endrin Aldehyde	6.893	6.541	6.474	6.280	6.209	5.916	6.386	E7	5.21
19)		Endosulfan Sulfate	3.274	4.944	5.464	5.332	5.512	4.930	4.910	E7	17.10
20)		Methoxychlor	3.912	3.786	3.810	3.735	3.707	3.429	3.730	E7	4.38
21)		Endrin Ketone	7.541	7.550	7.648	7.614	7.621	7.138	7.519	E7	2.54
22)	S	Decachlorobiphenyl	6.136	5.866	5.743	5.578	5.576	5.307	5.701	E7	4.99

Signal #2 Calibration Files
4 =9G23123.D 10 =9G23122.D 20 =9G23121.D
50 =9G23120.D 100 =9G23119.D 200 =9G23118.D

		Compound	4	10	20	50	100	200	Avg		%RSD
1)	S	2,4,5,6-Tetrachloro	5.356	5.437	5.540	5.994	6.075	6.001	5.734	E7	5.64
2)		alpha-BHC	7.084	7.758	8.221	9.138	9.297	9.194	8.449	E7	10.77
3)		gamma-BHC	6.537	6.950	7.267	8.076	8.204	8.116	7.525	E7	9.37
4)		beta-BHC	3.337	3.236	3.197	3.437	3.474	3.467	3.358	E7	3.59
5)		Heptachlor	5.103	5.815	6.066	6.611	6.704	6.526	6.137	E7	9.98
6)		delta-BHC	5.890	6.520	7.030	7.819	8.042	8.036	7.223	E7	12.38
7)		Aldrin	5.574	6.025	6.324	7.025	7.156	7.051	6.526	E7	9.98
8)		Heptachlor Epoxide	5.627	5.746	5.852	6.279	6.363	6.301	6.028	E7	5.35
9)		gamma-Chlordane	5.384	5.479	5.630	6.181	6.336	6.325	5.889	E7	7.46
10)		alpha-Chlordane	5.186	5.179	5.273	5.739	5.846	5.836	5.510	E7	5.98
11)		Endosulfan I	5.006	5.037	5.171	5.647	5.738	5.690	5.381	E7	6.42
12)		4,4'-DDE	4.531	4.698	4.946	5.560	5.745	5.773	5.209	E7	10.58
13)		Dieldrin	4.896	5.081	5.345	5.973	6.163	6.193	5.609	E7	10.20
14)		Endrin	3.959	4.060	4.385	4.788	5.005	5.104	4.550	E7	10.71
15)		4,4'-DDD	3.541	3.740	3.948	4.436	4.629	4.767	4.177	E7	12.06
16)		Endosulfan II	4.137	4.092	4.262	4.757	4.924	5.058	4.538	E7	9.37
17)		4,4'-DDT	3.379	3.521	3.833	4.292	4.523	4.635	4.030	E7	13.13
18)		Endrin Aldehyde	3.930	3.365	3.338	3.543	3.659	3.766	3.600	E7	6.42
19)		Endosulfan Sulfate	3.301	3.369	3.534	3.839	4.015	4.154	3.702	E7	9.52
20)		Methoxychlor	1.895	1.836	1.899	2.015	2.116	2.212	1.996	E7	7.33
21)		Endrin Ketone	4.249	4.232	4.389	4.780	4.946	5.087	4.614	E7	8.06
22)	S	Decachlorobiphenyl	4.388	4.114	3.991	3.986	4.005	4.037	4.087	E7	3.79

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\043003\9G23043.D\ECD1A.CH Vial: 9
Acq On : 30 Apr 2003 13:08 Operator: ECL
Sample : TOX ALT ICV 500 PPB Inst : HP9
Misc : SOS63-05 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\043003\9G23043.D\ECD2B.CH Vial: 9
Acq On : 30 Apr 2003 13:32 Operator: ECL
Sample : TOX ALT ICV 500 PPB Inst : HP9
Misc : SOS63-05 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	Toxaphene-1	500.000	504.769	-1.0	101	0.00
2	L1	Toxaphene-2	500.000	452.612	9.5	93	0.00
3	L1	Toxaphene-3	500.000	496.209	0.8	100	0.00
4	L1	Toxaphene-4	500.000	492.361	1.5	98	0.00
5	L1	Toxaphene-5	500.000	530.972	-6.2	106	0.00
		Signal #2					
1	L1	Toxaphene-1	500.000	443.844	11.2	90	0.00
2	L1	Toxaphene-2	500.000	494.089	1.2	99	0.00
3	L1	Toxaphene-3	500.000	476.207	4.8	93	0.00
4	L1	Toxaphene-4	500.000	469.622	6.1	92	0.00
5	L1	Toxaphene-5	500.000	488.513	2.3	97	0.00

Data File : C:\HPCHEM\1\DATA\043003\9G23050.D\ECD1A.CH Vial: 16
Acq On : 30 Apr 2003 15:57 Operator: ECL
Sample : WG139380-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23050.D\ECD2B.CH Vial: 16
Acq On : 30 Apr 2003 16:22 Operator: ECL
Sample : WG139380-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Wed Apr 30 16:35:45 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	alpha-BHC	20.000	19.355	3.2	95	0.00
3	gamma-BHC	20.000	19.371	3.1	95	0.00
4	beta-BHC	20.000	18.796	6.0	91	0.00
5	Heptachlor	20.000	19.633	1.8	95	0.00
6	delta-BHC	20.000	18.899	5.5	92	0.00
7	Aldrin	20.000	19.424	2.9	94	0.00
8	Heptachlor Epoxide	20.000	19.649	1.8	92	0.00
9	gamma-Chlordane	20.000	19.497	2.5	96	0.00
10	alpha-Chlordane	20.000	19.375	3.1	96	0.00
11	Endosulfan I	20.000	19.116	4.4	93	0.00
12	4,4'-DDE	20.000	19.396	3.0	97	0.00
13	Dieldrin	20.000	19.302	3.5	94	0.00
14	Endrin	20.000	18.703	6.5	91	0.00
15	4,4'-DDD	20.000	19.084	4.6	95	0.00
16	Endosulfan II	20.000	18.658	6.7	90	0.00
17	4,4'-DDT	20.000	18.442	7.8	91	0.00
18	Endrin Aldehyde	20.000	17.443	12.8	87	0.00
19	Endosulfan Sulfate	20.000	19.275	3.6	93	0.00
20	Methoxychlor	20.000	19.035	4.8	92	0.00
21	Endrin Ketone	20.000	18.935	5.3	94	0.00
	Signal #2					
2	alpha-BHC	20.000	19.397	3.0	97	0.00
3	gamma-BHC	20.000	19.276	3.6	97	0.00
4	beta-BHC	20.000	18.464	7.7	94	0.00
5	Heptachlor	20.000	19.267	3.7	96	0.00
6	delta-BHC	20.000	18.448	7.8	93	0.00
7	Aldrin	20.000	19.048	4.8	96	0.00
8	Heptachlor Epoxide	20.000	19.213	3.9	97	0.00
9	gamma-Chlordane	20.000	19.014	4.9	97	0.00
10	alpha-Chlordane	20.000	19.280	3.6	98	0.00
11	Endosulfan I	20.000	18.540	7.3	94	0.00
12	4,4'-DDE	20.000	19.264	3.7	99	0.00
13	Dieldrin	20.000	18.742	6.3	96	0.00
14	Endrin	20.000	17.935	10.3	93	0.00
15	4,4'-DDD	20.000	18.670	6.6	96	0.00
16	Endosulfan II	20.000	18.002	10.0	94	0.00
17	4,4'-DDT	20.000	18.396	8.0	96	0.00
18	Endrin Aldehyde	20.000	17.209	14.0	88	0.00
19	Endosulfan Sulfate	20.000	18.211	8.9	94	0.00
20	Methoxychlor	20.000	17.996	10.0	95	0.00
21	Endrin Ketone	20.000	18.367	8.2	94	0.00

Data File : C:\HPCHEM\1\DATA\050603\9G23124.D\ECD1A.CH Vial: 10
Acq On : 6 May 2003 16:53 Operator: ECL
Sample : WG139891-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23124.D\ECD2B.CH Vial: 10
Acq On : 6 May 2003 17:18 Operator: ECL
Sample : WG139891-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:54:29 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	alpha-BHC	20.000	19.346	3.3	95	0.00
3	gamma-BHC	20.000	20.518	-2.6	94	0.00
4	beta-BHC	20.000	18.716	6.4	88	0.00
5	Heptachlor	20.000	19.912	0.4	95	0.00
6	delta-BHC	20.000	18.468	7.7	89	0.00
7	Aldrin	20.000	19.980	0.1	95	0.00
8	Heptachlor Epoxide	20.000	21.444	-7.2	92	0.00
9	gamma-Chlordane	20.000	19.712	1.4	96	0.00
10	alpha-Chlordane	20.000	19.666	1.7	98	0.00
11	Endosulfan I	20.000	19.308	3.5	93	0.00
12	4,4'-DDE	20.000	19.457	2.7	99	0.00
13	Dieldrin	20.000	19.666	1.7	95	0.00
14	Endrin	20.000	19.067	4.7	92	0.00
15	4,4'-DDD	20.000	19.275	3.6	94	0.00
16	Endosulfan II	20.000	18.584	7.1	90	0.00
17	4,4'-DDT	20.000	18.735	6.3	94	0.00
18	Endrin Aldehyde	20.000	18.029	9.9	89	0.00
19	Endosulfan Sulfate	20.000	20.490	-2.4	92	0.00
20	Methoxychlor	20.000	19.532	2.3	96	0.00
21	Endrin Ketone	20.000	19.394	3.0	95	0.00
	Signal #2					
2	alpha-BHC	20.000	19.550	2.2	100	0.00
3	gamma-BHC	20.000	19.468	2.7	101	0.00
4	beta-BHC	20.000	18.603	7.0	98	0.00
5	Heptachlor	20.000	19.486	2.6	99	0.00
6	delta-BHC	20.000	18.675	6.6	96	0.00
7	Aldrin	20.000	19.277	3.6	99	0.00
8	Heptachlor Epoxide	20.000	19.255	3.7	99	0.00
9	gamma-Chlordane	20.000	19.252	3.7	101	0.00
10	alpha-Chlordane	20.000	19.412	2.9	101	0.00
11	Endosulfan I	20.000	18.735	6.3	97	0.00
12	4,4'-DDE	20.000	19.396	3.0	102	0.00
13	Dieldrin	20.000	18.888	5.6	99	0.00
14	Endrin	20.000	18.110	9.5	94	0.00
15	4,4'-DDD	20.000	18.720	6.4	99	0.00
16	Endosulfan II	20.000	17.983	10.1	96	0.00
17	4,4'-DDT	20.000	18.660	6.7	98	0.00
18	Endrin Aldehyde	20.000	17.388	13.1	94	0.00
19	Endosulfan Sulfate	20.000	18.226	8.9	95	0.00
20	Methoxychlor	20.000	18.391	8.0	97	0.00
21	Endrin Ketone	20.000	18.351	8.2	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\043003\9G23062.D\ECD1A.CH Vial: 28
Acq On : 30 Apr 2003 20:48 Operator: ECL
Sample : WG139380-08 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23062.D\ECD2B.CH Vial: 28
Acq On : 30 Apr 2003 21:13 Operator: ECL
Sample : WG139380-08 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Thu May 01 08:17:59 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	20.000	21.353	-6.8	105	0.00
2		alpha-BHC	20.000	21.425	-7.1	105	0.00
3		gamma-BHC	20.000	20.780	-3.9	102	0.00
4		beta-BHC	20.000	21.933	-9.7	106	0.00
5		Heptachlor	20.000	22.030	-10.2	106	0.00
6		delta-BHC	20.000	22.004	-10.0	107	0.00
7		Aldrin	20.000	21.943	-9.7	106	0.00
8		Heptachlor Epoxide	20.000	20.353	-1.8	95	0.00
9		gamma-Chlordane	20.000	21.498	-7.5	106	0.01#
10		alpha-Chlordane	20.000	21.436	-7.2	107	0.01#
11		Endosulfan I	20.000	21.926	-9.6	107	0.01#
12		4,4'-DDE	20.000	21.610	-8.0	109	0.00
13		Dieldrin	20.000	21.825	-9.1	107	0.01#
14		Endrin	20.000	22.081	-10.4	107	0.01#
15		4,4'-DDD	20.000	22.032	-10.2	109	0.00
16		Endosulfan II	20.000	22.698	-13.5	110	0.01#
17		4,4'-DDT	20.000	22.125	-10.6	110	0.01#
18		Endrin Aldehyde	20.000	21.024	-5.1	105	0.01#
19		Endosulfan Sulfate	20.000	22.828	-14.1	111	0.00
20		Methoxychlor	20.000	21.528	-7.6	104	0.00
21		Endrin Ketone	20.000	21.379	-6.9	106	0.00
22	S	Decachlorobiphenyl	20.000	20.875	-4.4	103	0.00
		Signal #2					
1	S	2,4,5,6-Tetrachloro-M-Xyl	20.000	19.394	3.0	99	0.00
2		alpha-BHC	20.000	19.552	2.2	98	0.00
3		gamma-BHC	20.000	19.456	2.7	98	0.00
4		beta-BHC	20.000	19.254	3.7	98	0.00
5		Heptachlor	20.000	19.444	2.8	97	0.00
6		delta-BHC	20.000	19.485	2.6	98	0.00
7		Aldrin	20.000	19.345	3.3	98	0.00
8		Heptachlor Epoxide	20.000	19.601	2.0	99	0.00
9		gamma-Chlordane	20.000	19.156	4.2	98	0.00
10		alpha-Chlordane	20.000	19.217	3.9	98	0.00
11		Endosulfan I	20.000	19.275	3.6	98	0.00
12		4,4'-DDE	20.000	19.157	4.2	98	0.00
13		Dieldrin	20.000	19.147	4.3	98	0.00
14		Endrin	20.000	19.783	1.1	102	0.00
15		4,4'-DDD	20.000	19.039	4.8	98	0.00
16		Endosulfan II	20.000	19.026	4.9	99	0.00
17		4,4'-DDT	20.000	19.149	4.3	100	0.00
18		Endrin Aldehyde	20.000	19.402	3.0	99	0.00
		Endosulfan Sulfate	20.000	19.525	2.4	101	0.00
		Methoxychlor	20.000	19.349	3.3	102	0.00
21		Endrin Ketone	20.000	19.218	3.9	99	0.00
22	S	Decachlorobiphenyl	20.000	19.467	2.7	98	-0.01#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\043003\9G23063.D\ECD1A.CH Vial: 29
Acq On : 30 Apr 2003 21:13 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\043003\9G23063.D\ECD2B.CH Vial: 29
Acq On : 30 Apr 2003 21:37 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	Toxaphene-1	500.000	508.710	-1.7	102	0.00
2	L1	Toxaphene-2	500.000	491.897	1.6	101	0.00
3	L1	Toxaphene-3	500.000	502.821	-0.6	101	0.00
4	L1	Toxaphene-4	500.000	498.953	0.2	100	0.00
5	L1	Toxaphene-5	500.000	500.738	-0.1	100	0.00
		Signal #2					
1	L1	Toxaphene-1	500.000	472.739	5.5	95	0.00
2	L1	Toxaphene-2	500.000	470.251	5.9	95	0.00
3	L1	Toxaphene-3	500.000	483.885	3.2	94	0.00
4	L1	Toxaphene-4	500.000	479.445	4.1	94	0.00
5	L1	Toxaphene-5	500.000	477.200	4.6	95	0.00

Data File : C:\HPCHEM\1\DATA\050603\9G23117.D\ECD1A.CH Vial: 3
Acq On : 6 May 2003 13:17 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\050603\9G23117.D\ECD2B.CH Vial: 3
Acq On : 6 May 2003 13:42 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	Toxaphene-1	500.000	554.988	-11.0	111	0.00
2	L1	Toxaphene-2	500.000	536.375	-7.3	110	0.00
3	L1	Toxaphene-3	500.000	554.519	-10.9	112	0.00
4	L1	Toxaphene-4	500.000	545.435	-9.1	109	0.00
5	L1	Toxaphene-5	500.000	545.300	-9.1	109	0.00
		Signal #2					
1	L1	Toxaphene-1	500.000	452.799	9.4	91	0.00
2	L1	Toxaphene-2	500.000	452.400	9.5	91	0.00
3	L1	Toxaphene-3	500.000	468.354	6.3	91	0.00
4	L1	Toxaphene-4	500.000	450.509	9.9	88	0.00
	L1	Toxaphene-5	500.000	454.746	9.1	90	0.00

Data File : C:\HPCHEM\1\DATA\050603\9G23148.D\ECD1A.CH Vial: 34
Acq On : 7 May 2003 2:36 Operator: ECL
Sample : WG139891-09 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23148.D\ECD2B.CH Vial: 34
Acq On : 7 May 2003 3:01 Operator: ECL
Sample : WG139891-09 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:59:49 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	50.000	49.674	0.7	99	0.00
2		alpha-BHC	50.000	51.223	-2.4	99	0.00
3		gamma-BHC	50.000	56.030	-12.1	105	0.00
4		beta-BHC	50.000	47.403	5.2	92	0.00
5		Heptachlor	50.000	43.540	12.9	85	0.00
6		delta-BHC	50.000	52.947	-5.9	100	0.00
7		Aldrin	50.000	50.986	-2.0	98	0.01#
8		Heptachlor Epoxide	50.000	60.808	-21.6#	112	0.01#
9		gamma-Chlordane	50.000	48.908	2.2	95	0.00
10		alpha-Chlordane	50.000	48.302	3.4	98	0.01#
11		Endosulfan I	50.000	47.990	4.0	96	0.01#
12		4,4'-DDE	50.000	49.487	1.0	100	0.00
13		Dieldrin	50.000	49.811	0.4	98	0.01#
14		Endrin	50.000	50.560	-1.1	98	0.01#
15		4,4'-DDD	50.000	50.546	-1.1	94	0.00
16		Endosulfan II	50.000	49.874	0.3	98	0.01#
17		4,4'-DDT	50.000	45.261	9.5	92	0.00
18		Endrin Aldehyde	50.000	48.569	2.9	99	0.01#
19		Endosulfan Sulfate	50.000	59.657	-19.3#	110	0.00
20		Methoxychlor	50.000	42.878	14.2	86	0.00
21		Endrin Ketone	50.000	49.924	0.2	99	0.00
22	S	Decachlorobiphenyl	50.000	47.319	5.4	97	0.00
		Signal #2					
1	S	2,4,5,6-Tetrachloro-M-Xyl	50.000	48.544	2.9	93	0.00
2		alpha-BHC	50.000	49.522	1.0	92	0.00
3		gamma-BHC	50.000	48.916	2.2	91	0.00
4		beta-BHC	50.000	46.394	7.2	91	0.00
5		Heptachlor	50.000	52.025	-4.0	97	0.00
6		delta-BHC	50.000	49.775	0.5	92	0.00
7		Aldrin	50.000	49.021	2.0	91	0.00
8		Heptachlor Epoxide	50.000	48.284	3.4	93	0.00
9		gamma-Chlordane	50.000	47.912	4.2	91	0.00
10		alpha-Chlordane	50.000	47.402	5.2	91	0.00
11		Endosulfan I	50.000	48.130	3.7	92	0.00
12		4,4'-DDE	50.000	49.160	1.7	92	0.00
13		Dieldrin	50.000	48.972	2.1	92	0.00
14		Endrin	50.000	48.755	2.5	93	0.00
15		4,4'-DDD	50.000	49.149	1.7	93	0.00
16		Endosulfan II	50.000	48.752	2.5	93	0.00
17		4,4'-DDT	50.000	48.380	3.2	91	0.00
18		Endrin Aldehyde	50.000	45.337	9.3	92	0.00
19		Endosulfan Sulfate	50.000	48.903	2.2	94	0.00
20		Methoxychlor	50.000	46.851	6.3	93	0.00
21		Endrin Ketone	50.000	49.112	1.8	95	0.00
22	S	Decachlorobiphenyl	50.000	45.235	9.5	93	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\050603\9G23149.D\ECD1A.CH Vial: 35
Acq On : 7 May 2003 3:01 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\050603\9G23149.D\ECD2B.CH Vial: 35
Acq On : 7 May 2003 3:25 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	Toxaphene-1	250.000	282.457	-13.0	114	0.00
2	L1	Toxaphene-2	250.000	272.882	-9.2	109	0.00
3	L1	Toxaphene-3	250.000	266.841	-6.7	110	0.00
4	L1	Toxaphene-4	250.000	268.198	-7.3	108	0.00
5	L1	Toxaphene-5	250.000	261.980	-4.8	108	0.00
		Signal #2					
1	L1	Toxaphene-1	250.000	213.653	14.5	90	0.00
2	L1	Toxaphene-2	250.000	205.035	18.0#	88	0.00
3	L1	Toxaphene-3	250.000	197.552	21.0#	89	0.00
4	L1	Toxaphene-4	250.000	200.153	19.9#	89	0.00
	L1	Toxaphene-5	250.000	204.347	18.3#	89	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\050603\9G23161.D\ECD1A.CH Vial: 47
Acq On : 7 May 2003 7:52 Operator: ECL
Sample : WG139891-10 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23161.D\ECD2B.CH Vial: 47
Acq On : 7 May 2003 8:17 Operator: ECL
Sample : WG139891-10 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:59:49 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	20.000	19.798	1.0	98	0.00
2		alpha-BHC	20.000	20.009	-0.0	99	0.01#
3		gamma-BHC	20.000	21.484	-7.4	99	0.00
4		beta-BHC	20.000	17.446	12.8	82	0.01#
5		Heptachlor	20.000	20.206	-1.0	96	0.01#
6		delta-BHC	20.000	20.001	-0.0	97	0.00
7		Aldrin	20.000	20.568	-2.8	98	0.01#
8		Heptachlor Epoxide	20.000	22.402	-12.0	96	0.01#
9		gamma-Chlordane	20.000	18.969	5.2	92	0.00
10		alpha-Chlordane	20.000	19.839	0.8	98	0.01#
11		Endosulfan I	20.000	20.068	-0.3	97	0.01#
12		4,4'-DDE	20.000	20.048	-0.2	102	0.00
13		Dieldrin	20.000	20.393	-2.0	99	0.01#
14		Endrin	20.000	20.429	-2.1	99	0.01#
15		4,4'-DDD	20.000	19.821	0.9	97	0.00
16		Endosulfan II	20.000	20.074	-0.4	98	0.01#
17		4,4'-DDT	20.000	19.600	2.0	98	0.00
18		Endrin Aldehyde	20.000	20.044	-0.2	99	0.01#
19		Endosulfan Sulfate	20.000	23.042	-15.2#	104	0.00
20		Methoxychlor	20.000	19.255	3.7	94	0.00
21		Endrin Ketone	20.000	20.222	-1.1	99	0.00
22	S	Decachlorobiphenyl	20.000	19.545	2.3	97	0.00
	Signal #2						
1	S	2,4,5,6-Tetrachloro-M-Xyl	20.000	18.439	7.8	95	0.00
2		alpha-BHC	20.000	18.282	8.6	94	-0.01#
3		gamma-BHC	20.000	18.170	9.1	94	-0.01#
4		beta-BHC	20.000	17.916	10.4	94	-0.01#
5		Heptachlor	20.000	19.448	2.8	98	-0.02#
6		delta-BHC	20.000	18.324	8.4	94	-0.01#
7		Aldrin	20.000	18.195	9.0	94	-0.02#
8		Heptachlor Epoxide	20.000	18.273	8.6	94	-0.02#
9		gamma-Chlordane	20.000	18.022	9.9	94	-0.02#
10		alpha-Chlordane	20.000	18.031	9.8	94	-0.02#
11		Endosulfan I	20.000	18.160	9.2	94	-0.02#
12		4,4'-DDE	20.000	18.019	9.9	95	-0.02#
13		Dieldrin	20.000	18.065	9.7	95	-0.02#
14		Endrin	20.000	17.576	12.1	91	-0.02#
15		4,4'-DDD	20.000	17.979	10.1	95	-0.02#
16		Endosulfan II	20.000	18.352	8.2	98	-0.02#
17		4,4'-DDT	20.000	17.628	11.9	93	-0.02#
18		Endrin Aldehyde	20.000	17.676	11.6	95	-0.02#
19		Endosulfan Sulfate	20.000	18.376	8.1	96	-0.02#
20		Methoxychlor	20.000	17.672	11.6	93	-0.02#
21		Endrin Ketone	20.000	18.448	7.8	97	-0.02#
22	S	Decachlorobiphenyl	20.000	18.465	7.7	95	-0.02#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\050603\9G23162.D\ECD1A.CH Vial: 48
Acq On : 7 May 2003 8:17 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\050603\9G23162.D\ECD2B.CH Vial: 48
Acq On : 7 May 2003 8:41 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	Toxaphene-1	500.000	567.948	-13.6	113	0.00
2	L1	Toxaphene-2	500.000	540.264	-8.1	110	0.00
3	L1	Toxaphene-3	500.000	566.525	-13.3	114	-0.01
4	L1	Toxaphene-4	500.000	543.832	-8.8	108	0.00
5	L1	Toxaphene-5	500.000	555.479	-11.1	111	0.00
		Signal #2					
1	L1	Toxaphene-1	500.000	458.704	8.3	93	0.00
2	L1	Toxaphene-2	500.000	454.666	9.1	91	0.00
3	L1	Toxaphene-3	500.000	477.451	4.5	93	0.00
4	L1	Toxaphene-4	500.000	470.238	6.0	92	0.00
	L1	Toxaphene-5	500.000	460.972	7.8	91	0.00

Data File : C:\HPCHEM\1\DATA\050603\9G23174.D\ECD1A.CH Vial: 60
Acq On : 7 May 2003 13:08 Operator: ECL
Sample : WG139891-11 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23174.D\ECD2B.CH Vial: 60
Acq On : 7 May 2003 13:32 Operator: ECL
Sample : WG139891-11 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 14:02:17 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	50.000	50.097	-0.2	100	0.00
2		alpha-BHC	50.000	51.527	-3.1	99	0.00
3		gamma-BHC	50.000	53.614	-7.2	100	0.00
4		beta-BHC	50.000	47.462	5.1	92	0.00
5		Heptachlor	50.000	50.506	-1.0	99	0.00
6		delta-BHC	50.000	53.179	-6.4	100	0.00
7		Aldrin	50.000	51.117	-2.2	98	0.00
8		Heptachlor Epoxide	50.000	54.564	-9.1	101	0.00
9		gamma-Chlordane	50.000	48.785	2.4	95	0.00
10		alpha-Chlordane	50.000	48.400	3.2	98	0.00
11		Endosulfan I	50.000	48.028	3.9	97	0.00
12		4,4'-DDE	50.000	49.962	0.1	101	0.00
13		Dieldrin	50.000	49.828	0.3	98	0.00
14		Endrin	50.000	51.553	-3.1	100	0.00
15		4,4'-DDD	50.000	50.737	-1.5	95	0.00
16		Endosulfan II	50.000	50.089	-0.2	98	0.00
17		4,4'-DDT	50.000	48.002	4.0	97	0.00
18		Endrin Aldehyde	50.000	48.148	3.7	98	0.00
19		Endosulfan Sulfate	50.000	57.779	-15.6#	106	0.00
20		Methoxychlor	50.000	48.717	2.6	97	0.00
21		Endrin Ketone	50.000	49.486	1.0	98	0.00
22	S	Decachlorobiphenyl	50.000	46.580	6.8	95	0.00
		Signal #2					
1	S	2,4,5,6-Tetrachloro-M-Xyl	50.000	49.470	1.1	95	0.00
2		alpha-BHC	50.000	50.798	-1.6	94	0.00
3		gamma-BHC	50.000	50.396	-0.8	94	0.00
4		beta-BHC	50.000	47.959	4.1	94	0.00
5		Heptachlor	50.000	49.815	0.4	92	0.00
6		delta-BHC	50.000	51.498	-3.0	95	0.00
7		Aldrin	50.000	50.218	-0.4	93	0.00
8		Heptachlor Epoxide	50.000	49.593	0.8	95	0.00
9		gamma-Chlordane	50.000	49.153	1.7	94	0.00
10		alpha-Chlordane	50.000	48.725	2.5	94	0.00
11		Endosulfan I	50.000	49.412	1.2	94	0.00
12		4,4'-DDE	50.000	50.399	-0.8	94	0.00
13		Dieldrin	50.000	50.335	-0.7	95	0.00
14		Endrin	50.000	51.592	-3.2	98	0.00
15		4,4'-DDD	50.000	50.318	-0.6	95	0.00
16		Endosulfan II	50.000	50.160	-0.3	96	0.00
17		4,4'-DDT	50.000	50.651	-1.3	95	0.00
18		Endrin Aldehyde	50.000	47.336	5.3	96	0.00
19		Endosulfan Sulfate	50.000	51.011	-2.0	98	0.00
20		Methoxychlor	50.000	49.015	2.0	97	0.00
21		Endrin Ketone	50.000	50.190	-0.4	97	0.00
22	S	Decachlorobiphenyl	50.000	46.702	6.6	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\050603\9G23175.D\ECD1A.CH Vial: 61
Acq On : 7 May 2003 13:32 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\050603\9G23175.D\ECD2B.CH Vial: 61
Acq On : 7 May 2003 13:57 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	Toxaphene-1	250.000	291.117	-16.4#	118	-0.01
2	L1	Toxaphene-2	250.000	285.282	-14.1	113	0.00
3	L1	Toxaphene-3	250.000	293.879	-17.6#	121	-0.01
4	L1	Toxaphene-4	250.000	274.375	-9.8	111	0.00
5	L1	Toxaphene-5	250.000	274.325	-9.7	113	0.00
		Signal #2					
1	L1	Toxaphene-1	250.000	225.305	9.9	95	-0.01
2	L1	Toxaphene-2	250.000	220.229	11.9	94	-0.01
3	L1	Toxaphene-3	250.000	211.882	15.2#	96	-0.01
4	L1	Toxaphene-4	250.000	216.953	13.2	96	-0.01
	L1	Toxaphene-5	250.000	216.709	13.3	94	-0.01

4,4'-DDT / ENDRIN BREAKDOWN

INSTRUMENT: HP 9

COLUMN: RTx-CLP (FRONT)

Data File Name: 9G23035.D

ENDRIN	ENDRIN KETONE	ENDRIN ALDEHYDE	ENDRIN BREAKDOWN
4633152424	0	0	0.00

4,4'-DDT	4,4'-DDE	4,4'-DDD	4,4'-DDT BREAKDOWN
3936465904	0	0	0.00

COLUMN: RTx-CLP II (REAR)

Data File Name: 9G23035.D

ENDRIN #2	ENDRIN KETONE #2	ENDRIN ALDEHYDE #2	ENDRIN #2 BREAKDOWN
2338990890	61562938	35972394	4.00

4,4'-DDT #2	4,4'-DDE #2	4,4'-DDD #2	4,4'-DDT #2 BREAKDOWN
1908584116	0	85122406	4.27

4,4'-DDT / ENDRIN BREAKDOWN

INSTRUMENT: HP 9

COLUMN: RTx-CLP (FRONT)

Data File Name: 9G23061.D

ENDRIN	ENDRIN KETONE	ENDRIN ALDEHYDE	ENDRIN BREAKDOWN
4336103356	0	0	0.00

4,4'-DDT	4,4'-DDE	4,4'-DDD	4,4'-DDT BREAKDOWN
3650449596	0	0	0.00

COLUMN: RTx-CLP II (REAR)

Data File Name: 9G23061.D

ENDRIN #2	ENDRIN KETONE #2	ENDRIN ALDEHYDE #2	ENDRIN #2 BREAKDOWN
2325868348	26663016	0	1.13

4,4'-DDT #2	4,4'-DDE #2	4,4'-DDD #2	4,4'-DDT #2 BREAKDOWN
1944716614	0	49098821	2.46

4,4'-DDT / ENDRIN BREAKDOWN

INSTRUMENT: HP 9

COLUMN: RTx-CLP (FRONT)

Data File Name: 9G23115.D

ENDRIN	ENDRIN KETONE	ENDRIN ALDEHYDE	ENDRIN BREAKDOWN
5128128968	128336052	146580572	5.09

4,4'-DDT	4,4'-DDE	4,4'-DDD	4,4'-DDT BREAKDOWN
4630471217	0	0	0.00

COLUMN: RTx-CLP II (REAR)

Data File Name: 9G23115.D

ENDRIN #2	ENDRIN KETONE #2	ENDRIN ALDEHYDE #2	ENDRIN #2 BREAKDOWN
2169209828	89981618	86161178	7.51

4,4'-DDT #2	4,4'-DDE #2	4,4'-DDD #2	4,4'-DDT #2 BREAKDOWN
1827305909	0	89399240	4.66

4,4'-DDT / ENDRIN BREAKDOWN

INSTRUMENT: HP 9

COLUMN: RTx-CLP (FRONT)

Data File Name: 9G23160.D

ENDRIN	ENDRIN KETONE	ENDRIN ALDEHYDE	ENDRIN BREAKDOWN
4505743708	0	0	0.00

4,4'-DDT	4,4'-DDE	4,4'-DDD	4,4'-DDT BREAKDOWN
3975519435	0	0	0.00

COLUMN: RTx-CLP II (REAR)

Data File Name: 9G23160.D

ENDRIN #2	ENDRIN KETONE #2	ENDRIN ALDEHYDE #2	ENDRIN #2 BREAKDOWN
2062402218	94556245	87948905	8.13

4,4'-DDT #2	4,4'-DDE #2	4,4'-DDD #2	4,4'-DDT #2 BREAKDOWN
1851726590	0	0	0.00

4,4'-DDT / ENDRIN BREAKDOWN

INSTRUMENT: HP 9

COLUMN: RTx-CLP (FRONT)

Data File Name: 9G23173.D

ENDRIN	ENDRIN KETONE	ENDRIN ALDEHYDE	ENDRIN BREAKDOWN
4535967846	0	0	0.00

4,4'-DDT	4,4'-DDE	4,4'-DDD	4,4'-DDT BREAKDOWN
3904387168	0	0	0.00

COLUMN: RTx-CLP II (REAR)

Data File Name: 9G23173.D

ENDRIN #2	ENDRIN KETONE #2	ENDRIN ALDEHYDE #2	ENDRIN #2 BREAKDOWN
2232225970	74776040	0	3.24

4,4'-DDT #2	4,4'-DDE #2	4,4'-DDD #2	4,4'-DDT #2 BREAKDOWN
1954447715	0	0	0.00

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	9g23035.d	1.	ENDRIN/DDT	SOS64-06	30 Apr 2003 09:11
	2	9g23036.d	1.	PEST CCV 20 PPB	1,1 SOS63-32	30 Apr 2003 09:32
3	3	9g23037.d	1.	TOX CCV 500 PPB	SOS62-45	30 Apr 2003 10:00
4	4	9g23038.d	1.	TOX ICAL 2000 PPB	SOS62-45	30 Apr 2003 11:06
5	5	9g23039.d	1.	TOX ICAL 1000 PPB	SOS62-45	30 Apr 2003 11:31
6	6	9g23040.d	1.	TOX ICAL 500 PPB	SOS62-45	30 Apr 2003 11:55
7	7	9g23041.d	1.	TOX ICAL 250 PPB	SOS62-45	30 Apr 2003 12:19
8	8	9g23042.d	1.	TOX ICAL 100 PPB	SOS62-45	30 Apr 2003 12:43
9	9	9g23043.d	1.	TOX ALT ICV 500 PPB	SOS63-05	30 Apr 2003 13:08
10	10	9g23044.d	1.	WG139380-01 PEST ICAL 200 PPB	1,1 SOS63-32	30 Apr 2003 13:32
11	11	9g23045.d	1.	WG139380-02 PEST ICAL 100 PPB	1,1 SOS63-32	30 Apr 2003 13:56
12	12	9g23046.d	1.	WG139380-03 PEST ICAL 50 PPB	1,1 SOS63-32	30 Apr 2003 14:20
13	13	9g23047.d	1.	WG139380-04 PEST ICAL 20 PPB	1,1 SOS63-32	30 Apr 2003 14:45
14	14	9g23048.d	1.	WG139380-05 PEST ICAL 10 PPB	1,1 SOS63-32	30 Apr 2003 15:09
15	15	9g23049.d	1.	WG139380-06 PEST ICAL 4 PPB	1,1 SOS63-32	30 Apr 2003 15:33
16	16	9g23050.d	1.	WG139380-07 PEST ALT ICV 20...	1,1 SOS62-49	30 Apr 2003 15:57
17	17	9g23051.d	1.	WG139296-02 BLANK V201 P99	1,1 WATER	30 Apr 2003 16:22
18	18	9g23052.d	1.	WG139296-03 LCS V201 P99 — *	1,1 WATER	30 Apr 2003 16:46
19	19	9g23053.d	1.	WG139290-01 TCLP BLANK 4/28	17,1 WATER	30 Apr 2003 17:10
20	20	9g23054.d	1.	L0304554-01	17,1 WATER	30 Apr 2003 17:35
21	21	9g23055.d	1.	L0304594-03	17,1 WATER	30 Apr 2003 17:59
22	22	9g23056.d	1.	WG139296-01 L0304585-04	1,1 WATER	30 Apr 2003 18:23
23	23	9g23057.d	1.	WG139296-04 L0304585-05 MS	1,1 WATER	30 Apr 2003 18:47
24	24	9g23058.d	1.	WG139296-05 L0304585-06 MSD	1,1 WATER	30 Apr 2003 19:11
25	25	9g23059.d	1.	L0304585-10	1,1 WATER	30 Apr 2003 19:35
26	26	9g23060.d	1.	L0304585-01	1,1 WATER	30 Apr 2003 20:00
	27	9g23061.d	1.	ENDRIN/DDT	SOS64-06	30 Apr 2003 20:24
	28	9g23062.d	1.	WG139380-08 PEST CCV 20 PPB	1,1 SOS63-32	30 Apr 2003 20:48
29	29	9g23063.d	1.	TOX CCV 500 PPB	SOS62-45	30 Apr 2003 21:13
30	30	9g23064.d	1.	L0304585-02	1,1 WATER	30 Apr 2003 21:37
31	31	9g23065.d	1.	L0304585-03	1,1 WATER	30 Apr 2003 22:01
32	32	9g23066.d	1.	RE L0304581-01	2,1 WATER	30 Apr 2003 22:26
33	33	9g23067.d	1.	RE L0304581-02	2,1 WATER	30 Apr 2003 22:50
34	34	9g23068.d	1.	RE L0304581-03	2,1 WATER	30 Apr 2003 23:14
35	35	9g23069.d	1.	RE L0304581-04 — ☆	2,1 WATER	30 Apr 2003 23:38
36	36	9g23070.d	1.	RE L0304581-05 — 10X	2,1 WATER	01 May 2003 00:03
37	37	9g23071.d	1.	L0304581-06	2,1 WATER	01 May 2003 00:27
38	38	9g23072.d	1.	L0304581-07	2,1 WATER	01 May 2003 00:51
39	39	9g23073.d	1.	RE L0304581-08	2,1 WATER	01 May 2003 01:16
40	40	9g23074.d	1.	WG139380-09 PEST CCV 50 PPB	1,1 SOS63-32	01 May 2003 01:40
41	41	9g23075.d	1.	TOX CCV 250 PPB	SOS62-45	01 May 2003 02:04
42	42	9g23076.d	1.	L0304581-09	2,1 WATER	01 May 2003 02:28
43	43	9g23077.d	1.	WG139269-01 BLANK V201 P93	1,1 WATER	01 May 2003 02:53
44	44	9g23078.d	1.	WG139269-02 LCS V201 P93	1,1 WATER	01 May 2003 03:17
45	45	9g23079.d	1.	WG139269-03 LCS DUP V201 P93	1,1 WATER	01 May 2003 03:41
46	46	9g23080.d	1.	L0304558-01	1,1 WATER	01 May 2003 04:06
47	47	9g23081.d	1.	L0304558-02	1,1 WATER	01 May 2003 04:30
48	48	9g23082.d	1.	L0304558-03	1,1 WATER	01 May 2003 04:55
49	49	9g23083.d	1.	L0304558-04	1,1 WATER	01 May 2003 05:18
50	50	9g23084.d	1.	L0304576-01	1,1 WATER	01 May 2003 05:43
51	51	9g23085.d	1.	L0304576-02	1,1 WATER	01 May 2003 06:07
52	52	9g23086.d	1.	ENDRIN/DDT	SOS64-06	01 May 2003 06:31
	53	9g23087.d	1.	WG139380-10 PEST CCV 20 PPB	1,1 SOS63-32	01 May 2003 06:56
	54	9g23088.d	1.	TOX CCV 500 PPB	SOS62-45	01 May 2003 07:20
55	55	9g23089.d	1.	L0304576-03	1,1 WATER	01 May 2003 07:44

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
56	56	9g23090.d	1.	L0304576-04	1,1 WATER	01 May 2003 0[illegible]
57	57	9g23091.d	1.	L0304576-05	1,1 WATER	01 May 2003 08:[illegible]
58	58	9g23092.d	1.	L0304576-06	1,1 WATER	01 May 2003 08:57
59	59	9g23093.d	1.	L0304587-02	1,1 WATER	01 May 2003 09:22
60	60	9g23094.d	1.	L0304593-01	1,1 WATER	01 May 2003 09:46
61	61	9g23095.d	1.	L0304593-02	1,1 WATER	01 May 2003 10:10
62	62	9g23096.d	1.	L0304593-03	1,1 WATER	01 May 2003 10:35
63	63	9g23097.d	1.	L0304594-01	1,1 WATER	01 May 2003 10:59
64	64	9g23098.d	1.	L0304594-02	1,1 WATER	01 May 2003 11:23
65	65	9g23099.d	1.	ENDRIN/DDT	SOS64-06	01 May 2003 11:47
66	66	9g23100.d	1.	WG139380-11 PEST CCV 50 PPB -A	1,1 SOS63-32	01 May 2003 12:12
67	67	9g23101.d	1.	TOX CCV 500 PPB	SOS62-45	01 May 2003 12:3[illegible]

EC2 5/1/03

ade 5/1/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 4/30/03 Instrument ID HP 9 Column ID RTX-CLP Front Data Subdirectory 043003
Analyst Initials ECL

SOP # GCS09 Rev. # 2 8081A ✓
SOP # GCS04 Rev. # ___ 8151A ___
SOP # GCS03 Rev. # ___ PRO ___
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ___
SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ___
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time 4/30/03 Instrument ID HP 9 Column ID RTX-CLP II Rear Data Subdirectory 043003

Daily Check
☑ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☐ Change liner
☐ Change septum
☐ Clip column (___cm)
☐ Injection port seal (goldseal)
☐ Change gases ___

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: ___

Action Taken: ___

Comments

A - Endosulfan sulfate failed high on ~~rear~~ Front column ~~Front~~ Rear column good. EC 5/1/03

* - LCS failed 12 compounds high.

RE - need reextracted due to high LCS recovery & samples had hits of these compounds.

☆ - T-M-X surrogate failed high due to SMI.

Reviewed By: [signature]

Directory: C:\HPCHEM\1\DATA\050603

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	9g23115.d	1.	ENDRIN/DDT	SOS64-06	06 May 2003 12:29
2	2	9g23116.d	1.	WG139891-01 PEST CCV 20 PPB	1,1 SOS63-32	06 May 2003 12:53
3	3	9g23117.d	1.	TOX CCV 500 PPB	SOS62-45	06 May 2003 13:17
4	4	9g23118.d	1.	WG139891-01 PEST ICAL 200 PPB	1,1 SOS63-32	06 May 2003 14:28
5	5	9g23119.d	1.	WG139891-02 PEST ICAL 100 PPB	1,1 SOS63-32	06 May 2003 14:52
6	6	9g23120.d	1.	WG139891-03 PEST ICAL 50 PPB	1,1 SOS63-32	06 May 2003 15:16
7	7	9g23121.d	1.	WG139891-04 PEST ICAL 20 PPB	1,1 SOS63-32	06 May 2003 15:41
8	8	9g23122.d	1.	WG139891-05 PEST ICAL 10 PPB	1,1 SOS63-32	06 May 2003 16:05
9	9	9g23123.d	1.	WG139891-06 PEST ICAL 4 PPB	1,1 SOS63-32	06 May 2003 16:29
10	10	9g23124.d	1.	WG139891-07 PEST ALT ICV 20...	1,1 SOS62-49	06 May 2003 16:53
11	11	9g23125.d	1.	WG139738-02 BLANK V201 P133	1,1 WATER	06 May 2003 17:18
12	12	9g23126.d	1.	WG139738-03 LCS V201 P133	1,1 WATER	06 May 2003 17:42
13	13	9g23127.d	1.	L0304581-01	2,1,RE WATER	06 May 2003 18:06
14	14	9g23128.d	1.	L0304581-02	2,1,RE WATER	06 May 2003 18:31
15	15	9g23129.d	1.	L0304581-03	2,1,RE WATER	06 May 2003 18:55
16	16	9g23130.d	1.	L0304581-04 – *	2,1,RE WATER	06 May 2003 19:19
17	17	9g23131.d	1.	L0304581-05	2,1,RE WATER	06 May 2003 19:44
18	18	9g23132.d	1.	L0304581-06	2,1,RE WATER	06 May 2003 20:08
19	19	9g23133.d	1.	L0304627-01	1,1 WATER	06 May 2003 20:32
20	20	9g23134.d	1.	L0304627-02	1,1 WATER	06 May 2003 20:56
21	21	9g23135.d	1.	ENDRIN/DDT	SOS64-06	06 May 2003 21:21
22	22	9g23136.d	1.	WG139891-08 PEST CCV 20 PPB – A	1,1 SOS63-32	06 May 2003 21:45
23	23	9g23137.d	1.	TOX CCV 500 PPB	SOS62-45	06 May 2003 22:09
24	24	9g23138.d	1.	L0304627-03	1,1 WATER	06 May 2003 22:34
25	25	9g23139.d	1.	WG139738-01 L0304627-04	1,1 WATER	06 May 2003 22:58
26	26	9g23140.d	1.	WG139738-04 L0304627-05 MS	1,1 WATER	06 May 2003 23:22
27	27	9g23141.d	1.	WG139738-05 L0304627-06 MSD	1,1 WATER	06 May 2003 23:46
28	28	9g23142.d	1.	L0304676-01	1,1 WATER	07 May 2003 00:11
29	29	9g23143.d	1.	L0304676-02	1,1 WATER	07 May 2003 00:35
30	30	9g23144.d	1.	L0304676-03	1,1 WATER	07 May 2003 00:59
31	31	9g23145.d	1.	L0305017-01	1,1 WATER	07 May 2003 01:23
32	32	9g23146.d	1.	L0305017-02	1,1 WATER	07 May 2003 01:48
33	33	9g23147.d	1.	L0305069-01	1,1 WATER	07 May 2003 02:12
34	34	9g23148.d	1.	WG139891-09 PEST CCV 50 PPB – B	1,1 SOS63-32	07 May 2003 02:36
35	35	9g23149.d	1.	TOX CCV 250 PPB – C	SOS62-45	07 May 2003 03:01
36	36	9g23150.d	1.	L0305069-02	1,1 WATER	07 May 2003 03:25
37	37	9g23151.d	1.	WG139786-01 BLANK V201 P139	1,1 WATER	07 May 2003 03:49
38	38	9g23152.d	1.	WG139786-02 LCS V201 P139	1,1 WATER	07 May 2003 04:14
39	39	9g23153.d	1.	WG139786-03 LCS DUP V201 P139	1,1 WATER	07 May 2003 04:38
40	40	9g23154.d	1.	L0304690-01	1,1 WATER	07 May 2003 05:02
41	41	9g23155.d	1.	L0304690-03	1,1 WATER	07 May 2003 05:27
42	42	9g23156.d	1.	L0304690-05	1,1 WATER	07 May 2003 05:51
43	43	9g23157.d	1.	L0304690-07	1,1 WATER	07 May 2003 06:15
44	44	9g23158.d	1.	L0304690-09	1,1 WATER	07 May 2003 06:40
45	45	9g23159.d	1.	L0304690-11	1,1 WATER	07 May 2003 07:04
46	46	9g23160.d	1.	ENDRIN/DDT	SOS64-06	07 May 2003 07:28
47	47	9g23161.d	1.	WG139891-10 PEST CCV 20 PPB – D	1,1 SOS63-32	07 May 2003 07:52
48	48	9g23162.d	1.	TOX CCV 500 PPB	SOS62-45	07 May 2003 08:17
49	49	9g23163.d	1.	L0305040-01	1,1 WATER	07 May 2003 08:41
50	50	9g23164.d	1.	L0305040-03	1,1 WATER	07 May 2003 09:05
51	51	9g23165.d	1.	L0305040-05	1,1 WATER	07 May 2003 09:29
52	52	9g23166.d	1.	L0305040-07	1,1 WATER	07 May 2003 09:54
53	53	9g23167.d	1.	L0305040-09	1,1 WATER	07 May 2003 10:18
54	54	9g23168.d	1.	L0305040-11	1,1 WATER	07 May 2003 10:42
55	55	9g23169.d	1.	L0305100-01	1,1 WATER	07 May 2003 11:06

Directory: C:\HPCHEM\1\DATA\050603

[illegible]	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
[illegible]	56	9g23170.d	1.	L0305100-02	1,1 WATER	07 May 2003 11:31
57	57	9g23171.d	20.	L0305100-03 20x	1,20 WATER	07 May 2003 11:55
58	58	9g23172.d	1.	L0304554-01	17,1,RE WATER	07 May 2003 12:19
59	59	9g23173.d	1.	ENDRIN/DDT	SOS64-06	07 May 2003 12:44
60	60	9g23174.d	1.	WG139891-11 PEST CCV 50 PPB – D	1,1 SOS63-32	07 May 2003 13:08
61	61	9g23175.d	1.	TOX CCV 250 PPB	SOS62-45	07 May 2003 13:32

EC2 5/7/03

pm 5/7/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 5/6/03 Instrument ID HP7 Column ID RTx-CLP Data Subdirectory 050603
Analyst Initials ECL

SOP # GCS09 Rev. # 2 8081A ✓
SOP # GCS04 Rev. # ___ 8151A ___
SOP # GCS03 Rev. # ___ PRO ___
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ___

SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ___
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time 5/6/03 Instrument ID HP 9 Column ID RTx-CLP II Data Subdirectory 050603

Daily Check
☑ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☐ Change liner
☐ Change septum
☐ Clip column (___cm)
☐ Injection port seal (goldseal)
☐ Change gases ___

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: ___

Action Taken: ___

Comments

A - Heptachlor epoxide failed high on Front column. Rear was good

B - Hept. Epoxide and Endosulfan sulfate failed high on Front column. Rear was good

C - Rear column failed low. Front was good

D - Endosulfan sulfate failed high on Front column. Rear column was good

* - TMX surrogate failed high due to SMI

Reviewed By: [signature] 5/7/03

Parameter: Pest H2O SOP #: EXP01 Revision #: 10
Extraction Analyst(s): CAF PAS TV/KD Analyst(s): CAF
Date/Time Extracted: 4-29-03 1420 Date TV/KD: 04-29-03
Spike/Surrogate Analyst: CAF Witness: CEB
Surrogate #: ES5004-10 Earliest Hold Date: 5-01-03
Spike #: A = ES5004-11 Spike #: B = —

Extraction Work Group WG 139296
Analytical Work Group WG 139387

Extract Relinquished By: CEB
Extract Received By & Date: [illegible] 4/30/03

	Sample ID	Test Code	pH / <2	pH / N	pH / >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	Emulsions / BN	Emulsions / N	Comments
1	Blank			✓		1000 mL	200 mL		10 mL	T				WG 139296-02
2	LCS			✓		〃	〃	250 mL	〃	〃				WG 〃 -03
3	04-585-01	8081		✓		1000 mL	〃	〃 CAF 4-29-03	〃	〃				
4	-02	〃		✓		〃	〃	〃	〃	〃				
5	-03	〃		✓		〃	〃	〃	〃	〃				
6	-04	〃		✓		〃	〃	〃	〃	〃				WG 139296-01
7	-05MS	〃		✓		〃	〃	250 mL	〃	〃				WG 〃 -04
8	-06MSD	〃		✓		〃	〃	〃	〃	〃				WG 〃 -05
9	-10	〃		✓		〃	〃	〃	〃	〃				
10	04-581-01	C08		✓		940 mL	〃	〃	〃	〃				
11	-02	〃		✓		910 mL	〃	〃	〃	〃				
12	-03	〃		✓		930 mL	〃	〃	〃	〃				
13	-04	〃		✓		950 mL	〃	〃	〃	〃				
14	-05	〃		✓		970 mL	〃	〃	〃	〃				
15	-06	〃		✓		970 mL	〃	〃	〃	〃				
16	-07	〃		✓		930 mL	〃	〃	〃	〃				
17	-09	〃		✓		910 mL	〃	〃	〃	〃				
18	-09	〃		✓		940 mL	〃	〃	〃	〃				
19	TBLK 4/28	8081-TC		✓		1000 mL	〃	〃	〃	〃				WG 139290-01
20	04-584-01	〃		✓		〃	〃	〃	〃	〃				
21	04-584-03	〃		✓		〃	〃	〃	〃	〃				
22														
23							04-27-03							
24														

Methylene Chloride Lot #: 4301D
Hexane Lot #: 43057
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: 94:6 Lot #: ER 0005-27
Reagent: 50:50 Lot #: ER 2314
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: Y01559
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 0005-25

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B	✓	GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 04/30/03

Extraction Notes For Volume # 201 Page # 99

General Comments: None.

Extraction Anomalies: None.

Concentration Anomalies: None.

Clean-Up Anomalies: None.

Supervisor Review: [signature] Date: 4/30/03

Parameter: Pest-H2O SOP #: EXP01 Revision #: 10
Extraction Analyst(s): DP TV/KD Analyst(s): CAF PAS
Date/Time Extracted: 05/05/03 @ 1530 Date TV/KD: 5-5-03
Spike/Surrogate Analyst: DP Witness: PAS
Surrogate #: ES50044-10 Earliest Hold Date: 05/07/03
Spike #: A = ES50044-11 Spike #: B = _____

Extraction Work Group WG 139786
Analytical Work Group WG 139893

Extract Relinquished By: CEB
Extract Received By & Date: CNT 5/6/03

	Sample ID	Test Code	pH ✓ <2	pH ✓ N	pH ✓ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions ✓ A	Emulsions ✓ BN	Emulsions ✓ N	Comments
1	Blank			✓		1000 mL	200 mL		10 mL	T				WG 139786-01
2	LCS			✓				250 mL						WG -02
3	LCS DUP			✓										WG -03
4	04-690-01	8081P		✓		1000 mL								
5	-03			✓		1000 mL								
6	-05			✓		980 mL								
7	-07			✓		970 mL								
8	-09			✓		940 mL								
9	-11			✓		1000 mL								
10	05-040-01			✓		980 mL								
11	-03			✓		980 mL								
12	-05			✓		920 mL								
13	-07			✓		970 mL								
14	-09			✓		910 mL								
15	-11			✓		940 mL								
16	05-~~087~~ 100-01	8081		✓		1000 mL								
17	05-100-02			✓		1000 mL								
18	-03			✓		860 mL				O				*
19	~~05~~ 04-554-01	8081-TC		✓		100 mL				T				RE-EXT IN HOLD
20	5/6/03													
21														
22														
23														
24														

PAS 5-5-03

Methylene Chloride Lot #: 43010
Hexane Lot #: 43057
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: 50150 Lot #: ER 0005-28
Reagent: 94:6 Lot #: ER 0005-40
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: Y01559
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER0005-41

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B	✓	GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	
Sulfur 3660B			

Peer Reviewed By: Cheryl Flowers Date: 5-05-03

Extraction Notes For Volume # 204 Page # 139

General Comments: # Sample contains a small amount of oil and a large quantity of sediment. The water layer of this sample was decanted for extraction, leaving most sediment (equivalent to 140 cm3) in the sample jar

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: CWB Date: 5/6/13

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0304554
Work Group: WG139387
Blank File ID: 9G23051.R
Blank Sample ID: WG139296-02
Date Analyzed: 04/30/03
Instrument ID: HP9
Time Analyzed: 16:46
Method: 8081A
Analyst: ECL

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG139296-03	9G23052.R	04/30/03 17:10	01
05-177511-SP1-042403	L0304554-01	9G23054.R	04/30/03 17:59	01

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0304554
Blank File ID: 9G23151.R
Date Analyzed: 05/07/03
Time Analyzed: 04:14
Analyst: ECL

Work Group: WG139893
Blank Sample ID: WG139786-01
Instrument ID: HP9
Method: 8081A

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG139786-02	9G23152.R	05/07/03 04:38	01
LCS2	WG139786-03	9G23153.R	05/07/03 05:02	01
05-177511-SP1-042403	L0304554-01	9G23172.R	05/07/03 12:44	RE1

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number:L0304554 Run Date:04/30/2003 Sample ID:WG139296-02
Instrument ID:HP9 Run Time:16:46 Prep Method:3510C
File ID:9G23051.R Analyst:ECL Method:8081A
Workgroup (AAB#):WG139387 Matrix:Water Units:ug/L
Contract #: Cal ID: HP9-30-APR-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Chlordane	0.0100	0.500	0.0100	1	U
Endrin	0.0250	0.100	0.0250	1	U
Lindane	0.0100	0.0500	0.0100	1	U
Heptachlor	0.0100	0.0500	0.0100	1	U
Heptachlor Epoxide	0.0100	0.0500	0.0100	1	U
Methoxychlor	0.0250	0.500	0.0250	1	U
Toxaphene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
Decachlorobiphenyl	81.8	25 - 140	PASS
2,4,5,6-Tetrachloro-m-xylene	58.4	20 - 180	PASS

* Analyte detected above RDL
ND Analyte Not detected at or above reporting limit

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number:L0304554 Run Date:05/07/2003 Sample ID:WG139786-01
Instrument ID:HP9 Run Time:04:14 Prep Method:3510C
File ID:9G23151.R Analyst:ECL Method:8081A
Workgroup (AAB#):WG139893 Matrix:Water Units:ug/L
Contract #: Cal ID: HP9-06-MAY-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Chlordane	0.0100	0.500	0.0100	1	U
Endrin	0.0250	0.100	0.0250	1	U
Lindane	0.0100	0.0500	0.0100	1	U
Heptachlor	0.0100	0.0500	0.0100	1	U
Heptachlor Epoxide	0.0100	0.0500	0.0100	1	U
Methoxychlor	0.0250	0.500	0.0250	1	U
Toxaphene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
Decachlorobiphenyl	41.5	25	-	140	PASS
2,4,5,6-Tetrachloro-m-xylene	51.1	20	-	180	PASS

* Analyte detected above RDL
ND Analyte Not detected at or above reporting limit

KEMRON FORMS - Modified 05/02/2003
Version 1.3
Report generated 05/08/2003 16:34

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number:L0304554 Run Date:04/30/2003 Sample ID:WG139296-03
Instrument ID:HP9 Run Time:17:10 Prep Method:3510C
File ID:9G23052.R Analyst:ECL Method:8081A
Workgroup (AAB#):WG139387 Matrix:Water Units:ug/L
Contract #: Cal ID: HP9-30-APR-2003 15:33

Analytes	Expected	Found	% Rec	LCS Limits	Q
Endrin	0.500	0.768	154	50 - 150	*
Lindane	0.500	0.667	133	43 - 122	*
Heptachlor	0.500	0.574	115	40 - 130	
Heptachlor Epoxide	0.500	0.724	145	60 - 132	*
Methoxychlor	0.500	0.770	154	60 - 150	*

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,5,6-Tetrachloro-m-xylene	66.5	20 - 180	PASS
Decachlorobiphenyl	129	25 - 140	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0304554 | Run Date: 05/07/2003 | Sample ID: WG139786-02
Instrument ID: HP9 | Run Time: 04:38 | Prep Method: 3510C
File ID: 9G23152.R | Analyst: ECL | Method: 8081A
Workgroup (AAB#): WG139893 | Matrix: Water | Units: ug/L
Contract #: | Cal ID: HP9_06-MAY-2003 16:29

Analytes	Expected	Found	% Rec	LCS Limits	Q
Endrin	0.500	0.508	102	50 - 150	
Lindane	0.500	0.420	84.0	43 - 122	
Heptachlor	0.500	0.424	84.8	40 - 130	
Heptachlor Epoxide	0.500	0.474	94.9	60 - 132	
Methoxychlor	0.500	0.526	105	60 - 150	

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,5,6-Tetrachloro-m-xylene	58.3	20 - 180	PASS
Decachlorobiphenyl	65.4	25 - 140	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum: L0304554 Worknum: WG139893 Method: 8081A
Instrument ID: HP9 Cal ID: HP9-06-MAY-2003 16:29 Matrix: Water
Analyst: ECL Contract #: Units: ug/L
Sample ID: WG139786-02 LCS File ID: 9G23152.R Run Date: 05/07/2003 04:38
Sample ID: WG139786-03 LCS2 File ID: 9G23153.R Run Date: 05/07/2003 05:02

Analytes	LCS			LCS2			%RPD	%Rec Limits		RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC					
Endrin	0.500	0.508	102	0.500	0.467	93.3	8.53	50	- 150	40	
Lindane	0.500	0.420	84.0	0.500	0.398	79.7	5.33	43	- 122	40	
Heptachlor	0.500	0.424	84.8	0.500	0.401	80.3	5.51	40	- 130	40	
Heptachlor Epoxide	0.500	0.474	94.9	0.500	0.440	88.0	7.51	60	- 132	40	
Methoxychlor	0.500	0.526	105	0.500	0.477	95.5	9.73	60	- 150	40	

Surogates	LCS % Recovery	LCS2 % Recovery	Surrogate Limits			Qualifier
Decachlorobiphenyl	65.4	61.6	25	-	140	PASS
2,4,5,6-Tetrachloro-m-xylene	58.3	54.6	20	-	180	PASS

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON FORMS - Modified 05/01/2003
Version 1.2
Report generated 05/08/2003 16:35

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method:8081A

AAB#:WG139387

Login Number:L0304554

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
05-177511-SP1-042403	04/24/03	04/25/03	04/29/03	10.9	4.91	04/30/03	40	1.15	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method:8081B AAB#:WG139893

Login Number:L0304554

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
05-177511-SP1-042403	04/24/03	04/25/03	05/05/03	7	11.0	05/07/03	40	1.88	*EXT

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON FORMS - Modified 05/07/2003
Version 1.2
Report generated 05/08/2003 16:32

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0304554
Instrument Id: HP9
Workgroup (AAB#): WG139387

Method: 8081
CAL ID: HP9-30-APR-03
Matrix: WATER

Sample Number	Dilution	Tag	1	2
L0304554-01	1.00	01	60.2	105
WG139296-02	1.00	01	58.4	81.8
WG139296-03	1.00	01	66.5	129

Surrogates	Surrogate Limits
1 - 2,4,5,6-Tetrachloro-m-xylene	20 - 180
2 - Decachlorobiphenyl	25 - 140

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0304554
Instrument Id: HP9
Workgroup (AAB#): WG139893

Method: 8081
CAL ID: HP9-06-MAY-03
Matrix: WATER

Sample Number	Dilution	Tag	1	2
L0304554-01	1.00	RE1	50.7	104
WG139786-01	1.00	01	51.1	41.5
WG139786-02	1.00	01	58.3	65.4
WG139786-03	1.00	01	54.6	61.6

Surrogates	Surrogate Limits
1 - 2,4,5,6-Tetrachloro-m-xylene	20 - 180
2 - Decachlorobiphenyl	25 - 140

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

KEMRON FORMS - Modified 01/22/2003
Version 1.2
Report generated 05/08/2003 16:33

2.2.2.2 Sample Data

Data File : C:\HPCHEM\1\DATA\043003\9G23054.D\ECD1A.CH Vial: 20
Acq On : 30 Apr 2003 17:35 Operator: ECL
Sample : L0304554-01 Inst : HP9
Misc : 17,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23054.D\ECD2B.CH Vial: 20
Acq On : 30 Apr 2003 17:59 Operator: ECL
Sample : L0304554-01 Inst : HP9
Misc : 17,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 1 8:25 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Thu May 01 08:24:58 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L	
	System Monitoring Compounds							
1) S	2,4,5,6-Tetrachl	7.21	8.36	1078.5E6	680.0E6	12.645	12.030	
	Spiked Amount 20.000	Range 30 - 132		Recovery =		63.22%	60.15%	
22) S	Decachlorobiphen	14.86	16.30	968.2E6	838.8E6	18.444	20.915	
	Spiked Amount 20.000	Range 36 - 144		Recovery =		92.22%	104.57%	
	Target Compounds							
2)	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.	
3)	gamma-BHC	0.00	0.00	0	0	N.D.	N.D.	
	beta-BHC	0.00	0.00	0	0	N.D.	N.D.	
	Heptachlor	0.00	0.00	0	0	N.D.	N.D.	
6)	delta-BHC	0.00	0.00	0	0	N.D.	N.D.	
7)	Aldrin	0.00	0.00	0	0	N.D.	N.D.	
8)	Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.	
9)	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
10)	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
11)	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.	
13)	Dieldrin	0.00	0.00	0	0	N.D.	N.D.	
14)	Endrin	0.00	0.00	0	0	N.D.	N.D.	
15)	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.	
16)	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.	
17)	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.	
18)	Endrin Aldehyde	12.97	0.00	174.4E6	0	3.092	N.D.	#
19)	Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.	
20)	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.	
21)	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.	

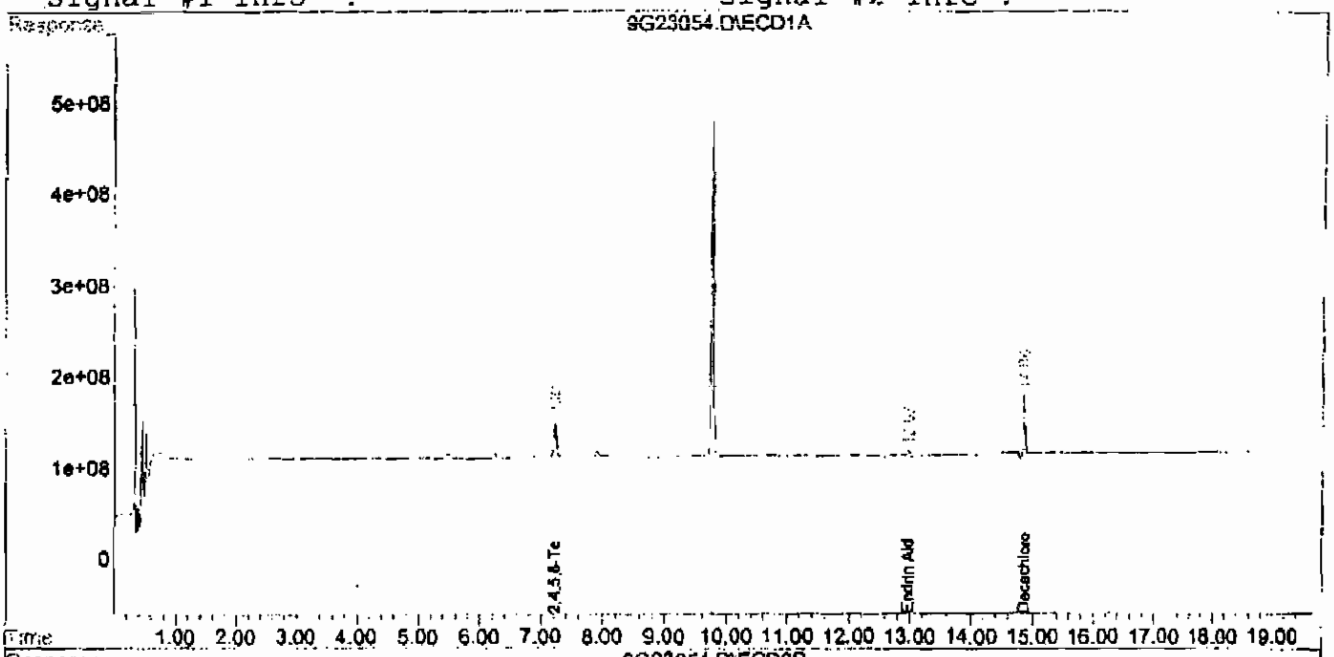
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

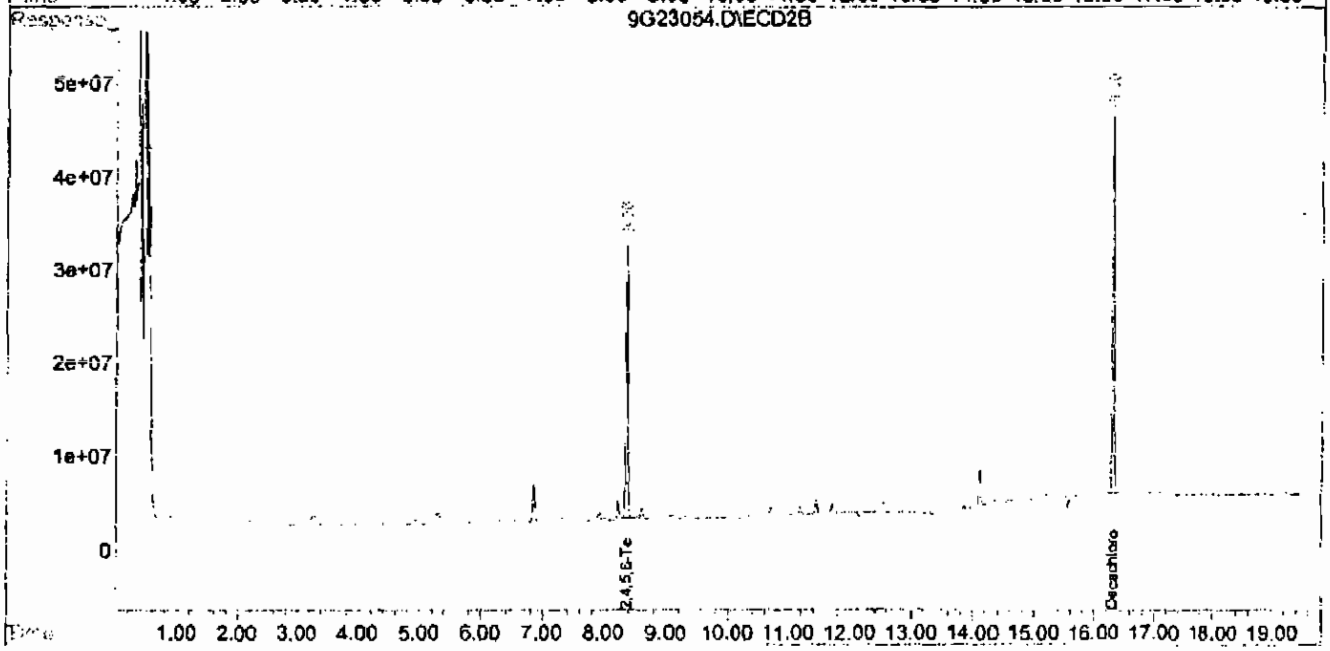
Data File : C:\HPCHEM\1\DATA\043003\9G23054.D\ECD1A.CH Vial: 20
Acq On : 30 Apr 2003 17:35 Operator: ECL
Sample : L0304554-01 Inst : HP9
Misc : 17,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23054.D\ECD2B.CH Vial: 20
Acq On : 30 Apr 2003 17:59 Operator: ECL
Sample : L0304554-01 Inst : HP9
Misc : 17,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 1 8:25 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Thu May 01 08:24:58 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\050603\9G23172.D\ECD1A.CH Vial: 58
Acq On : 7 May 2003 12:19 Operator: ECL
Sample : L0304554-01 Inst : HP9
Misc : 17,1,RE WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23172.D\ECD2B.CH Vial: 58
Acq On : 7 May 2003 12:44 Operator: ECL
Sample : L0304554-01 Inst : HP9
Misc : 17,1,RE WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 14:22 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 14:09:09 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1) S	2,4,5,6-Tetrachl	7.19	8.34	1056.4E6	581.8E6	10.965	10.147
	Spiked Amount 20.000	Range 30 - 132		Recovery =		54.83%	50.73%
22) S	Decachlorobiphen	14.83	16.28f	1096.8E6	853.5E6	19.239	20.884
	Spiked Amount 20.000	Range 36 - 144		Recovery =		96.20%	104.42%
	Target Compounds						
2)	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
3)	gamma-BHC	0.00	0.00	0	0	N.D.	N.D.
	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
5)	Heptachlor	0.00	0.00	0	0	N.D.	N.D.
6)	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	Aldrin	0.00	0.00	0	0	N.D.	N.D.
8)	Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.
9)	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
10)	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
12)	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	Endrin	0.00	0.00	0	0	N.D.	N.D.
15)	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
16)	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
17)	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.
18)	Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
19)	Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.
20)	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

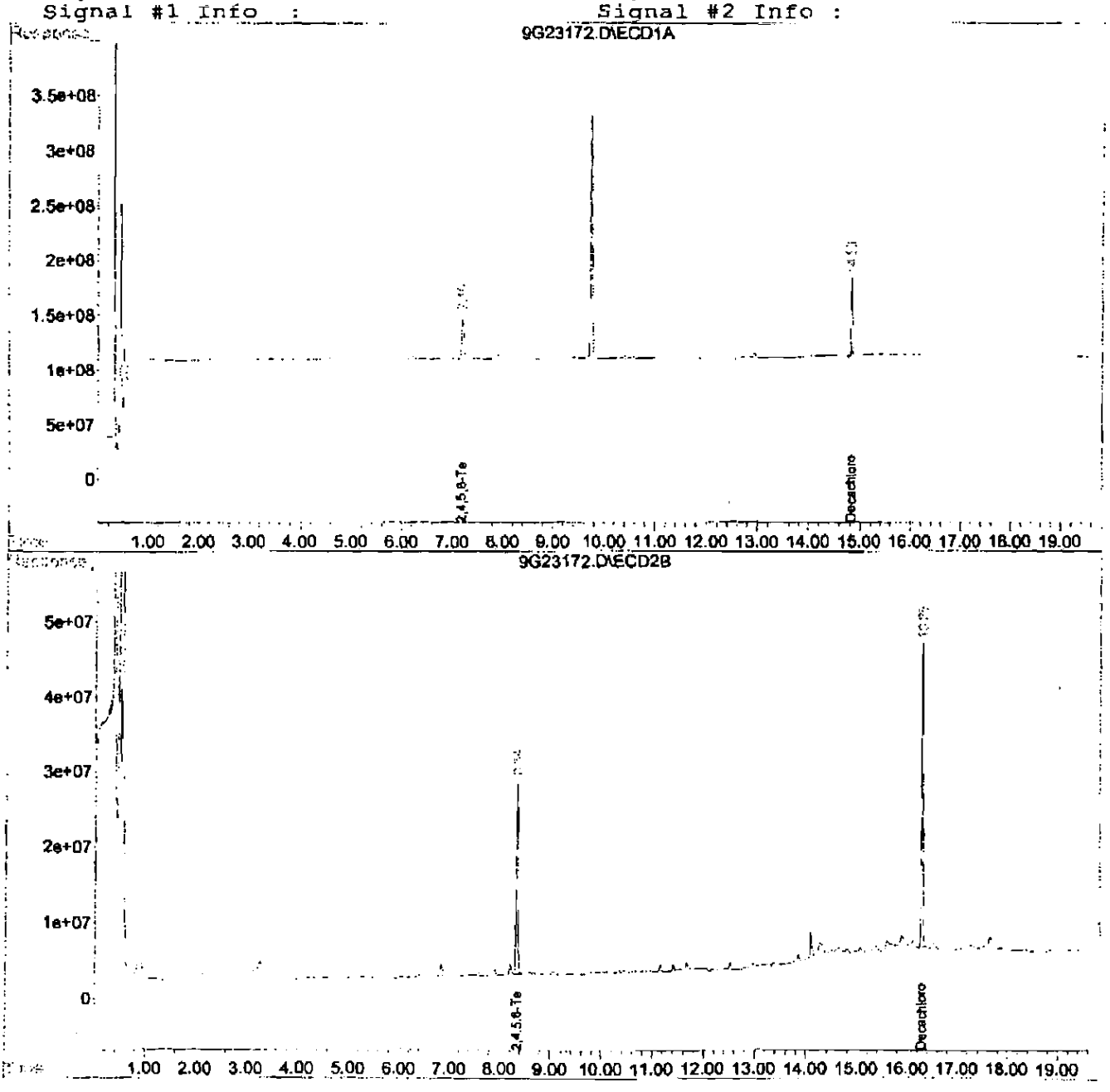
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\050603\9G23172.D\ECD1A.CH Vial: 58
Acq On : 7 May 2003 12:19 Operator: ECL
Sample : L0304554-01 Inst : HP9
Misc : 17,1,RE WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23172.D\ECD2B.CH Vial: 58
Acq On : 7 May 2003 12:44 Operator: ECL
Sample : L0304554-01 Inst : HP9
Misc : 17,1,RE WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 14:22 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 14:09:09 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003

Calibration Files
2000 =9G23038.D 1000 =9G23039.D 500 =9G23040.D
250 =9G23041.D 100 =9G23042.D

	Compound	2000	1000	500	250	100	Avg		%RSD
1) L1	Toxaphene-1	8.883	8.889	8.886	8.756	8.911	8.865	E5	0.70
2) L1	Toxaphene-2	1.620	1.612	1.597	1.642	1.692	1.633	E6	2.26
3) L1	Toxaphene-3	1.148	1.128	1.083	1.055	1.033	1.089	E6	4.43
4) L1	Toxaphene-4	1.436	1.431	1.419	1.403	1.387	1.415	E6	1.45
5) L1	Toxaphene-5	7.258	7.129	6.883	6.675	6.537	6.897	E5	4.37

Signal #2 Calibration Files
2000 =9G23038.D 1000 =9G23039.D 500 =9G23040.D
250 =9G23041.D 100 =9G23042.D

	Compound	2000	1000	500	250	100	Avg		%RSD
1) L1	Toxaphene-1	5.392	5.284	5.107	4.910	5.063	5.151	E5	3.68
2) L1	Toxaphene-2	1.492	1.458	1.404	1.316	1.384	1.411	E6	4.83
3) L1	Toxaphene-3	1.056	1.010	0.946	0.813	0.771	0.919	E6	13.42
4) L1	Toxaphene-4	7.813	7.495	6.996	6.167	5.770	6.848	E5	12.64
5) L1	Toxaphene-5	7.230	6.956	6.587	6.010	5.887	6.534	E5	8.92

Data File : C:\HPCHEM\1\DATA\043003\9G23038.D\ECD1A.CH Vial: 4
Acq On : 30 Apr 2003 11:06 Operator: ECL
Sample : TOX ICAL 2000 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\043003\9G23038.D\ECD2B.CH Vial: 4
Acq On : 30 Apr 2003 11:31 Operator: ECL
Sample : TOX ICAL 2000 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 30 16:30 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	Target Compounds						
1)	L1 Toxaphene-1	12.20	13.13	1776.7E6	1078.5E6	2004.082	2093.679
2)	L1 Toxaphene-2	12.97	13.87	3240.7E6	2983.2E6	1984.989	2114.845
3)	L1 Toxaphene-3	13.46	14.15	2295.1E6	2111.7E6	2106.805	2297.575
4)	L1 Toxaphene-4	13.80	14.73	2872.3E6	1562.6E6	2029.497	2281.791
5)	L1 Toxaphene-5	13.96	15.08	1451.7E6	1446.0E6	2104.926	2213.098
	Sum Toxaphene-1			11636.4E6	9182.0E6	10230.299	11000.988
Average	Toxaphene-1					2046.060	2200.198

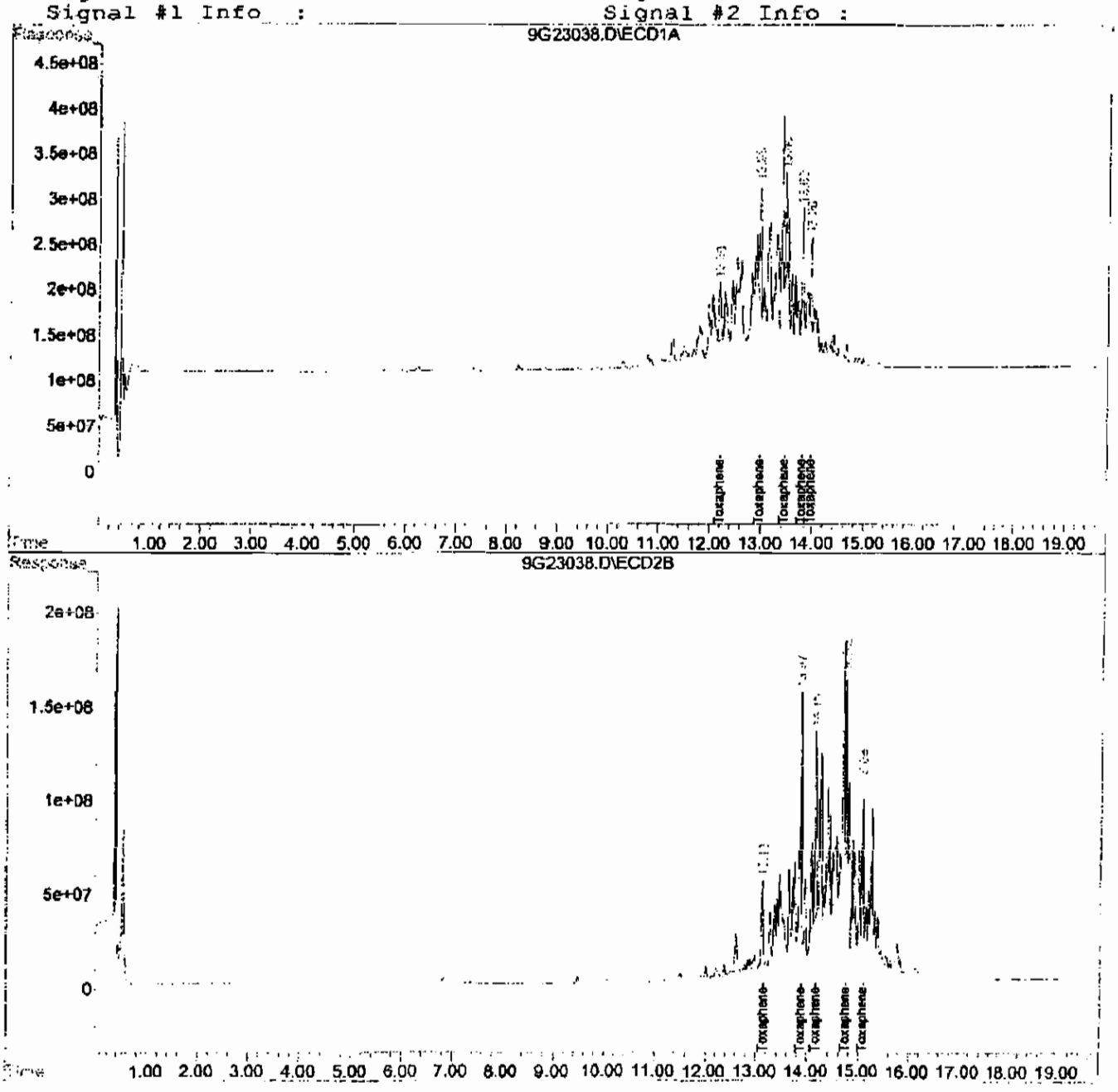
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\043003\9G23038.D\ECD1A.CH Vial: 4
Acq On : 30 Apr 2003 11:06 Operator: ECL
Sample : TOX ICAL 2000 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\043003\9G23038.D\ECD2B.CH Vial: 4
Acq On : 30 Apr 2003 11:31 Operator: ECL
Sample : TOX ICAL 2000 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 30 16:30 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\043003\9G23039.D\ECD1A.CH Vial: 5
Acq On : 30 Apr 2003 11:31 Operator: ECL
Sample : TOX ICAL 1000 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\043003\9G23039.D\ECD2B.CH Vial: 5
Acq On : 30 Apr 2003 11:55 Operator: ECL
Sample : TOX ICAL 1000 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 30 16:28 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:28:55 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	Target Compounds						
1)	L1 Toxaphene-1	12.19	13.15	888.9E6	528.4E6	1000.662	979.808
2)	L1 Toxaphene-2	12.97	13.88	1611.7E6	1458.1E6	994.674	977.570
3)	L1 Toxaphene-3	13.45	14.16	1128.5E6	1009.6E6	983.386	956.180
4)	L1 Toxaphene-4	13.80	14.74	1431.5E6	749.5E6	996.720	959.267
5)	L1 Toxaphene-5	13.96	15.09	712.9E6	695.6E6	982.215	962.096
	Sum Toxaphene-1			5773.5E6	4441.2E6	4957.656	4834.921
Average	Toxaphene-1					991.531	966.984

(f) RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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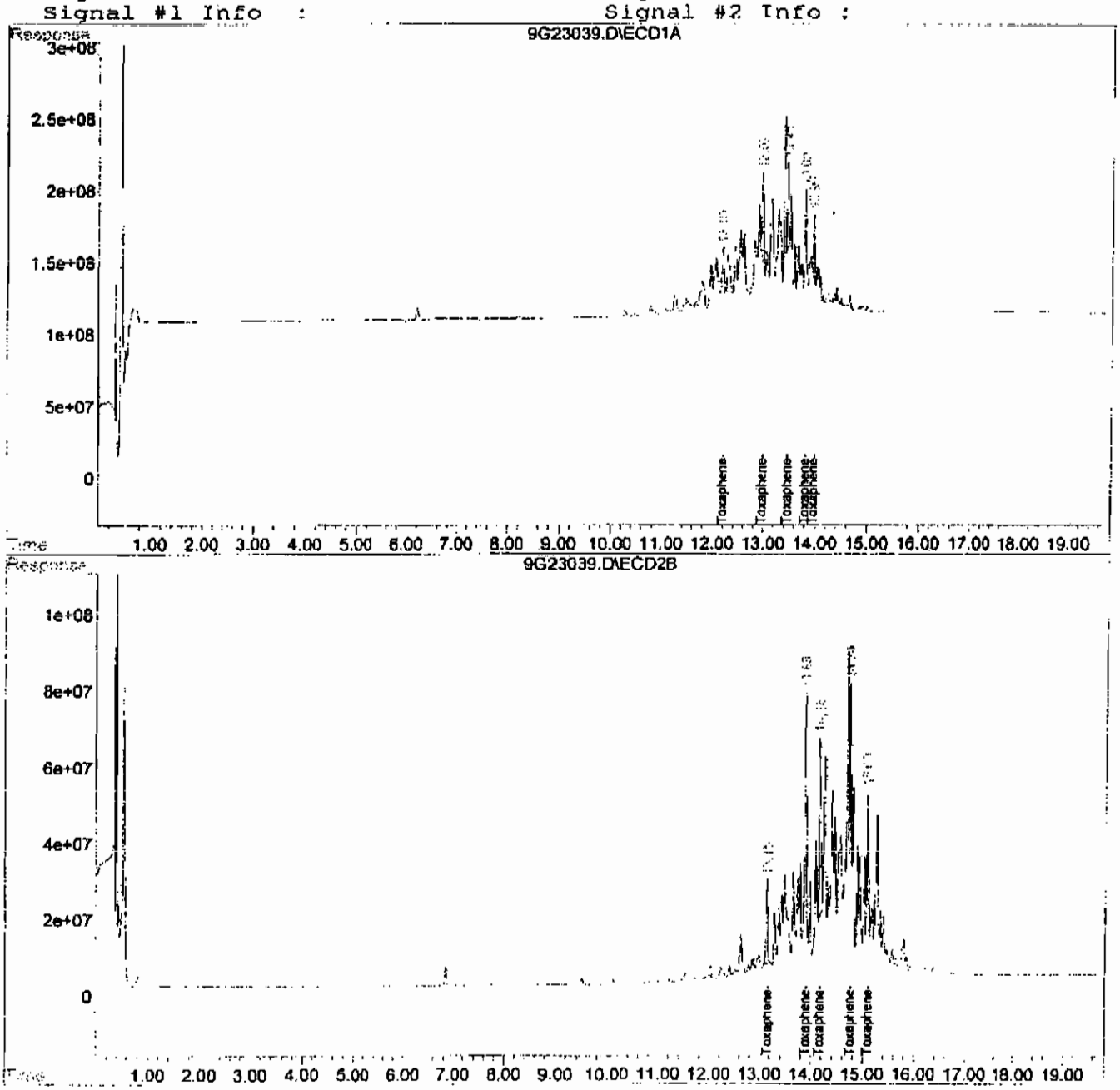
Data File : C:\HPCHEM\1\DATA\043003\9G23039.D\ECD1A.CH Vial: 5
Acq On : 30 Apr 2003 11:31 Operator: ECL
Sample : TOX ICAL 1000 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\043003\9G23039.D\ECD2B.CH Vial: 5
Acq On : 30 Apr 2003 11:55 Operator: ECL
Sample : TOX ICAL 1000 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 30 16:28 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:28:55 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\043003\9G23040.D\ECD1A.CH Vial: 6
Acq On : 30 Apr 2003 11:55 Operator: ECL
Sample : TOX ICAL 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\043003\9G23040.D\ECD2B.CH Vial: 6
Acq On : 30 Apr 2003 12:19 Operator: ECL
Sample : TOX ICAL 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 30 16:28 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:28:56 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
Target Compounds						
1) L1 Toxaphene-1	12.20	13.14	444.3E6	255.3E6	499.970	478.331
2) L1 Toxaphene-2	12.98	13.87	798.7E6	701.8E6	494.231	475.853
3) L1 Toxaphene-3	13.46	14.15	541.6E6	473.0E6	475.907	458.038
4) L1 Toxaphene-4	13.81	14.73	709.7E6	349.8E6	494.943	457.036
5) L1 Toxaphene-5	13.97	15.08	344.2E6	329.3E6	478.412	464.319
Sum Toxaphene-1			2838.4E6	2109.3E6	2443.463	2333.576
Average Toxaphene-1					488.693	466.715

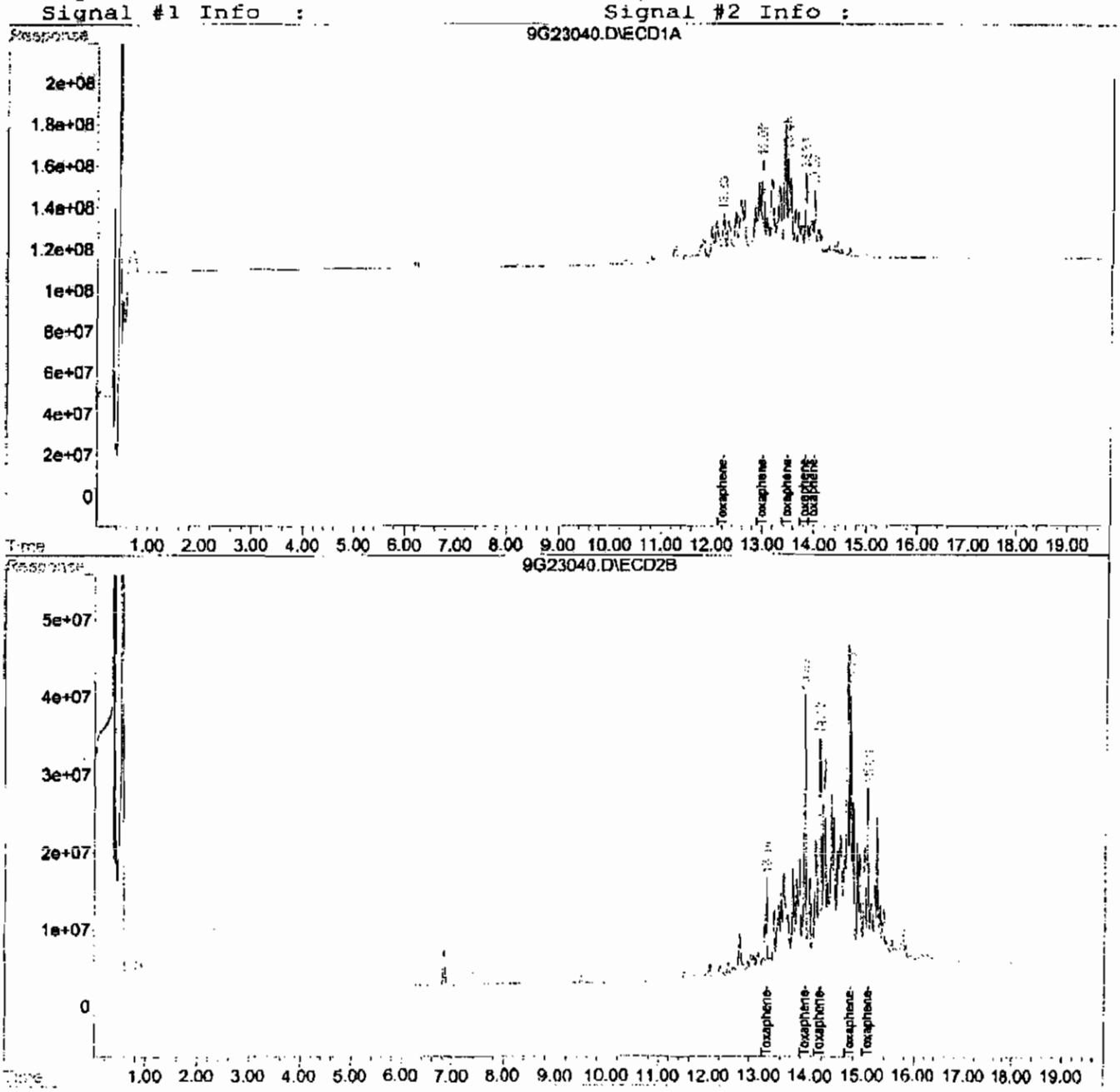
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\043003\9G23040.D\ECD1A.CH Vial: 6
Acq On : 30 Apr 2003 11:55 Operator: ECL
Sample : TOX ICAL 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\043003\9G23040.D\ECD2B.CH Vial: 6
Acq On : 30 Apr 2003 12:19 Operator: ECL
Sample : TOX ICAL 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 30 16:28 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:28:56 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\043003\9G23041.D\ECD1A.CH Vial: 7
Acq On : 30 Apr 2003 12:19 Operator: ECL
Sample : TOX ICAL 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\043003\9G23041.D\ECD2B.CH Vial: 7
Acq On : 30 Apr 2003 12:43 Operator: ECL
Sample : TOX ICAL 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 30 16:28 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:28:58 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	Target Compounds						
1)	L1 Toxaphene-1	12.19	13.14	218.9E6	122.7E6	246.355	233.311
2)	L1 Toxaphene-2	12.97	13.87	410.4E6	329.0E6	254.928	226.692
3)	L1 Toxaphene-3	13.45	14.15	263.6E6	203.3E6	235.448	202.520
4)	L1 Toxaphene-4	13.80	14.73	350.7E6	154.2E6	245.416	207.359
5)	L1 Toxaphene-5	13.96	15.09	166.9E6	150.2E6	235.363	216.969
	Sum Toxaphene-1			1410.5E6	959.4E6	1217.509	1086.851
Average	Toxaphene-1					243.502	217.370

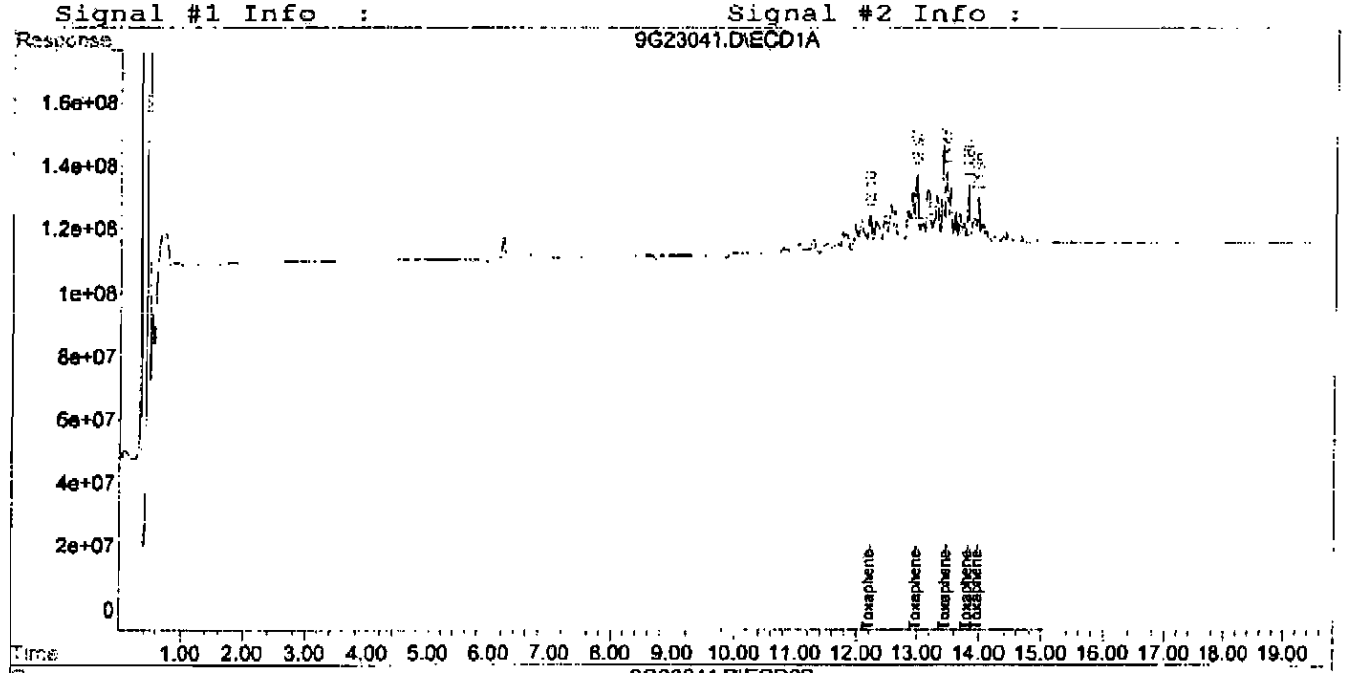
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

```
Data File : C:\HPCHEM\1\DATA\043003\9G23041.D\ECD1A.CH   Vial: 7
Acq On    : 30 Apr 2003  12:19                          Operator: ECL
Sample    : TOX ICAL 250 PPB                            Inst    : HP9
Misc      : SOS62-45                                    Multiplr: 1.00
IntFile   : .E

Data File : C:\HPCHEM\1\DATA\043003\9G23041.D\ECD2B.CH   Vial: 7
Acq On    : 30 Apr 2003  12:43                          Operator: ECL
Sample    : TOX ICAL 250 PPB                            Inst    : HP9
Misc      : SOS62-45                                    Multiplr: 1.00
IntFile   : EVENTS.E
Quant Time: Apr 30 16:28 2003  Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title        : CALIBRATION April 30, 2003
Last Update  : Wed Apr 30 16:28:58 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj.      :
Signal #1 Phase  :                    Signal #2 Phase:
Signal #1 Info   :                    Signal #2 Info :
```



Data File : C:\HPCHEM\1\DATA\043003\9G23042.D\ECD1A.CH Vial: 8
Acq On : 30 Apr 2003 12:43 Operator: ECL
Sample : TOX ICAL 100 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\043003\9G23042.D\ECD2B.CH Vial: 8
Acq On : 30 Apr 2003 13:08 Operator: ECL
Sample : TOX ICAL 100 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 30 16:29 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:28:59 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	Target Compounds						
1)	L1 Toxaphene-1	12.20	13.14	89113369	50634903	100.652	97.881
2)	L1 Toxaphene-2	12.97	13.88	169.2E6	138.4E6	104.590	97.634
3)	L1 Toxaphene-3	13.46	14.16	103.3E6	77082918	93.625	80.617
4)	L1 Toxaphene-4	13.80	14.74	138.7E6	57702509	97.492	81.068
5)	L1 Toxaphene-5	13.97	15.09	65368153	58871565	93.562	87.924
	Sum Toxaphene-1			565.7E6	382.7E6	489.921	445.125
Average	Toxaphene-1					97.984	89.025

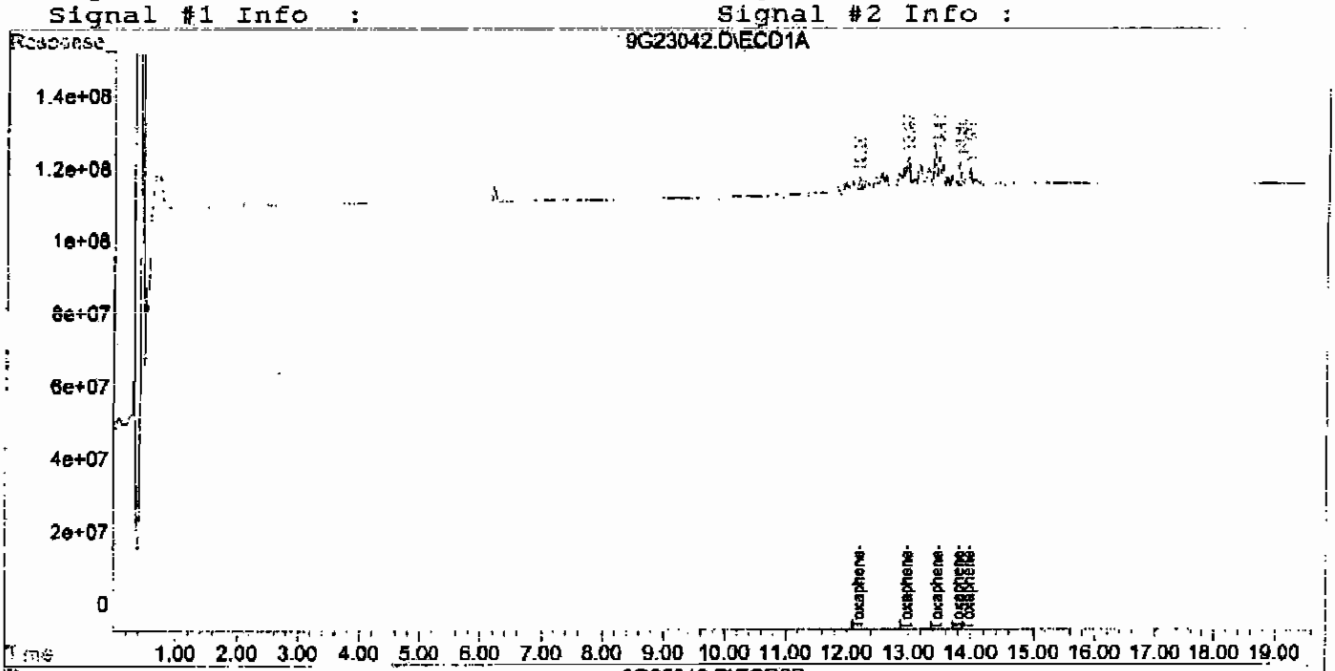
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

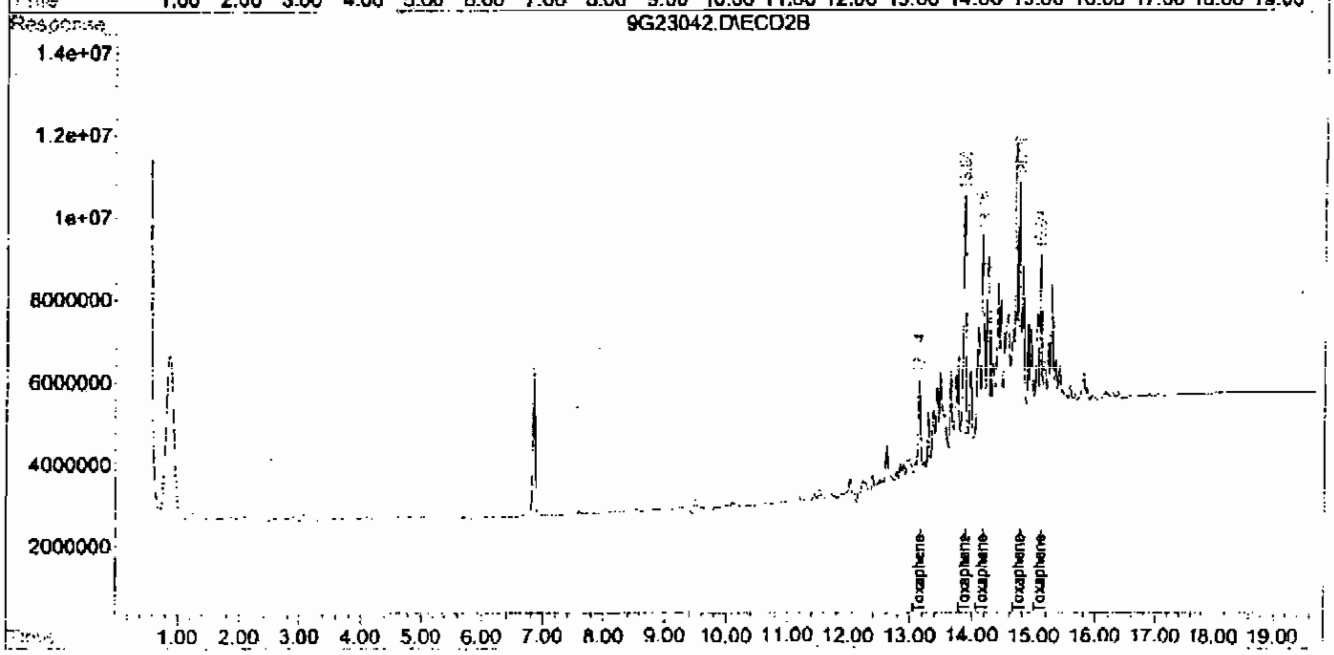
Data File : C:\HPCHEM\1\DATA\043003\9G23042.D\ECD1A.CH Vial: 8
Acq On : 30 Apr 2003 12:43 Operator: ECL
Sample : TOX ICAL 100 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\043003\9G23042.D\ECD2B.CH Vial: 8
Acq On : 30 Apr 2003 13:08 Operator: ECL
Sample : TOX ICAL 100 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 30 16:29 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:28:59 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\043003\9G23043.D\ECD1A.CH Vial: 9
Acq On : 30 Apr 2003 13:08 Operator: ECL
Sample : TOX ALT ICV 500 PPB Inst : HP9
Misc : SOS63-05 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\043003\9G23043.D\ECD2B.CH Vial: 9
Acq On : 30 Apr 2003 13:32 Operator: ECL
Sample : TOX ALT ICV 500 PPB Inst : HP9
Misc : SOS63-05 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	Toxaphene-1	500.000	504.769	-1.0	101	0.00
2	L1	Toxaphene-2	500.000	452.612	9.5	93	0.00
3	L1	Toxaphene-3	500.000	496.209	0.8	100	0.00
4	L1	Toxaphene-4	500.000	492.361	1.5	98	0.00
5	L1	Toxaphene-5	500.000	530.972	-6.2	106	0.00
		Signal #2					
1	L1	Toxaphene-1	500.000	443.844	11.2	90	0.00
2	L1	Toxaphene-2	500.000	494.089	1.2	99	0.00
3	L1	Toxaphene-3	500.000	476.207	4.8	93	0.00
4	L1	Toxaphene-4	500.000	469.622	6.1	92	0.00
5	L1	Toxaphene-5	500.000	488.513	2.3	97	0.00

Data File : C:\HPCHEM\1\DATA\043003\9G23043.D\ECD1A.CH Vial: 9
Acq On : 30 Apr 2003 13:08 Operator: ECL
Sample : TOX ALT ICV 500 PPB Inst : HP9
Misc : SOS63-05 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\043003\9G23043.D\ECD2B.CH Vial: 9
Acq On : 30 Apr 2003 13:32 Operator: ECL
Sample : TOX ALT ICV 500 PPB Inst : HP9
Misc : SOS63-05 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 30 16:30 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	Target Compounds						
1)	L1 Toxaphene-1	12.21	13.14	447.5E6	228.6E6	504.769	443.844
2)	L1 Toxaphene-2	12.98	13.88	738.9E6	697.0E6	452.612	494.089
3)	L1 Toxaphene-3	13.46	14.15	540.6E6	437.7E6	496.209	476.207
4)	L1 Toxaphene-4	13.81	14.73	696.8E6	321.6E6	492.361	469.622
5)	L1 Toxaphene-5	13.97	15.08	366.2E6	319.2E6	530.972	488.513
	Sum Toxaphene-1			2790.0E6	2004.1E6	2476.924	2372.275
Average	Toxaphene-1					495.385	474.455

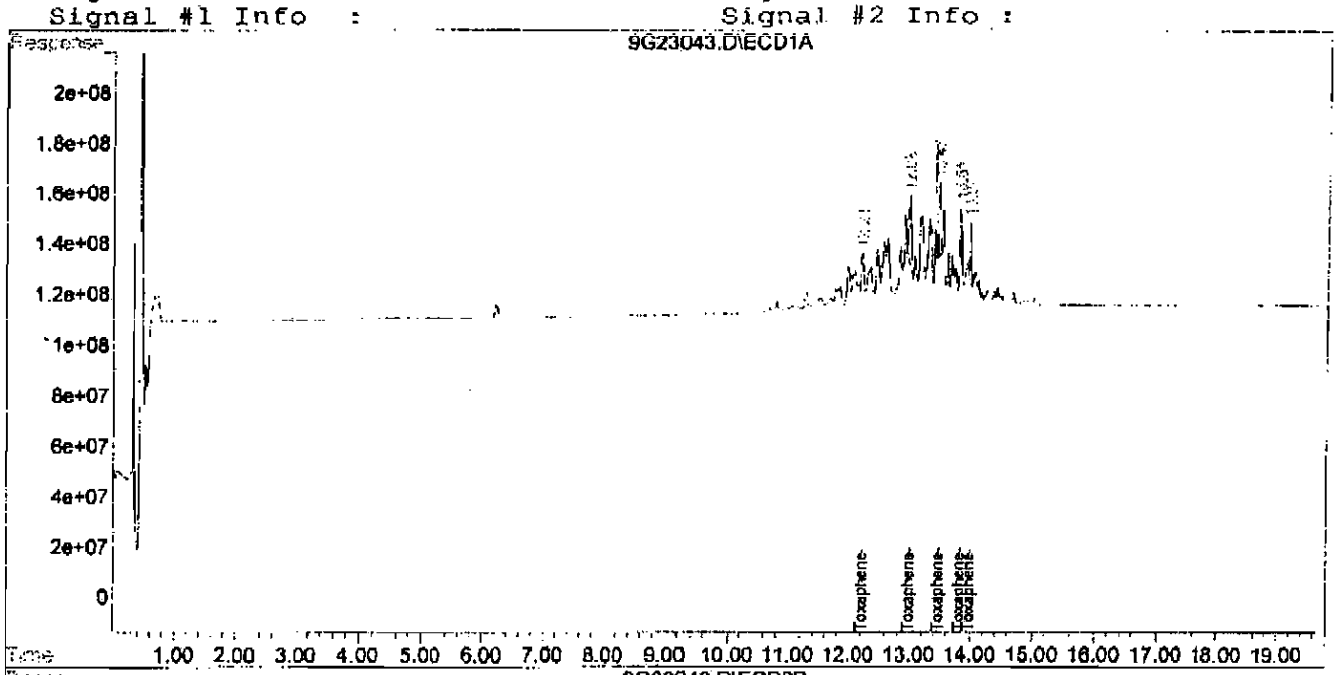
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

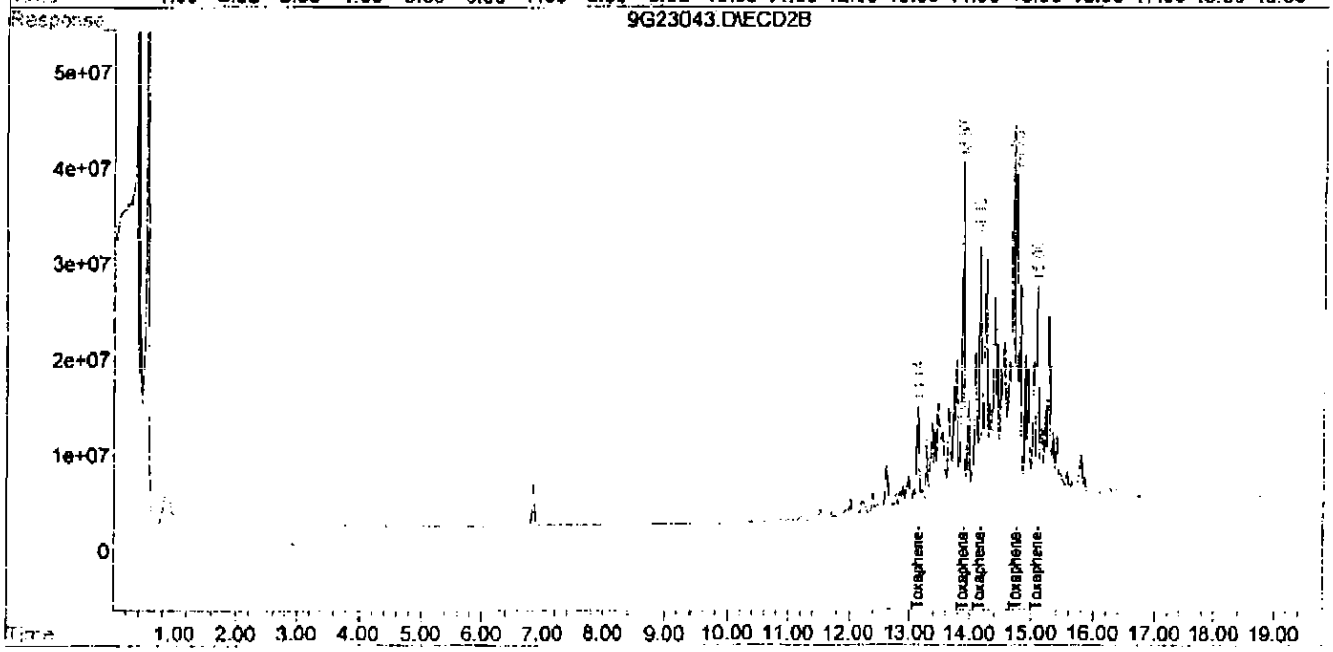
Data File : C:\HPCHEM\1\DATA\043003\9G23043.D\ECD1A.CH Vial: 9
Acq On : 30 Apr 2003 13:08 Operator: ECL
Sample : TOX ALT ICV 500 PPB Inst : HP9
Misc : SOS63-05 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\043003\9G23043.D\ECD2B.CH Vial: 9
Acq On : 30 Apr 2003 13:32 Operator: ECL
Sample : TOX ALT ICV 500 PPB Inst : HP9
Misc : SOS63-05 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 30 16:30 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Wed Apr 30 16:35:45 2003

Calibration Files
4 =9G23049.D 10 =9G23048.D 20 =9G23047.D
50 =9G23046.D 100 =9G23045.D 200 =9G23044.D

		Compound	4	10	20	50	100	200	Avg		%RSD
1)	S	2,4,5,6-Tetrachloro	8.512	8.600	8.708	8.528	8.522	8.305	8.529	E7	1.55
2)		alpha-BHC	1.124	1.200	1.242	1.257	1.270	1.241	1.222	E8	4.39
3)		gamma-BHC	1.064	1.057	1.105	1.101	1.114	1.052	1.082	E8	2.51
4)		beta-BHC	4.459	4.738	4.856	4.710	4.639	4.804	4.701	E7	2.98
5)		Heptachlor	1.116	1.137	1.144	1.111	1.085	1.019	1.102	E8	4.16
6)		delta-BHC	0.969	1.060	1.141	1.161	1.163	1.146	1.107	E8	7.01
7)		Aldrin	1.001	1.061	1.063	1.046	1.030	0.982	1.030	E8	3.22
8)		Heptachlor Epoxide	7.806	8.124	8.661	8.330	8.285	7.474	8.113	E7	5.17
9)		gamma-Chlordane	9.176	9.368	9.484	9.413	9.347	9.127	9.319	E7	1.49
10)		alpha-Chlordane	9.775	9.272	9.108	8.873	8.788	8.529	9.057	E7	4.81
11)		Endosulfan I	9.750	9.358	9.221	8.867	8.587	8.065	8.975	E7	6.68
12)		4,4'-DDE	9.070	8.575	8.568	8.552	8.530	8.329	8.604	E7	2.86
13)		Dieldrin	9.106	9.383	9.372	9.226	9.114	8.736	9.156	E7	2.60
14)		Endrin	8.346	8.629	8.758	8.671	8.556	8.181	8.523	E7	2.56
15)		4,4'-DDD	6.121	6.617	6.872	7.147	7.143	7.016	6.819	E7	5.80
16)		Endosulfan II	7.119	7.371	7.549	7.432	7.319	7.136	7.321	E7	2.30
17)		4,4'-DDT	7.837	7.456	7.563	7.436	7.428	7.292	7.502	E7	2.47
18)		Endrin Aldehyde	6.331	5.737	5.646	5.407	5.351	5.373	5.641	E7	6.61
19)		Endosulfan Sulfate	4.466	4.773	4.938	4.844	4.921	4.799	4.790	E7	3.58
20)		Methoxychlor	3.453	3.432	3.520	3.352	3.337	3.285	3.396	E7	2.56
21)		Endrin Ketone	6.630	6.697	6.715	6.639	6.652	6.634	6.661	E7	0.54
22)	S	Decachlorobiphenyl	5.665	5.493	5.319	5.065	5.011	4.942	5.249	E7	5.54

Signal #2 Calibration Files
4 =9G23049.D 10 =9G23048.D 20 =9G23047.D
50 =9G23046.D 100 =9G23045.D 200 =9G23044.D

		Compound	4	10	20	50	100	200	Avg		%RSD
1)	S	2,4,5,6-Tetrachloro	5.335	5.565	5.548	5.907	5.847	5.713	5.653	E7	3.76
2)		alpha-BHC	6.905	7.755	8.226	8.962	8.969	8.720	8.256	E7	9.84
3)		gamma-BHC	6.384	7.006	7.302	7.910	7.913	7.684	7.366	E7	8.13
4)		beta-BHC	3.267	3.282	3.241	3.382	3.343	3.277	3.299	E7	1.60
5)		Heptachlor	5.505	6.133	6.330	6.692	6.677	6.396	6.289	E7	6.99
6)		delta-BHC	5.922	6.585	7.042	7.723	7.784	7.652	7.118	E7	10.54
7)		Aldrin	5.517	6.081	6.341	6.893	6.893	6.683	6.401	E7	8.42
8)		Heptachlor Epoxide	5.484	5.602	5.791	6.176	6.149	5.990	5.865	E7	4.90
9)		gamma-Chlordane	5.288	5.544	5.657	6.104	6.111	5.990	5.782	E7	5.84
10)		alpha-Chlordane	5.081	5.187	5.283	5.641	5.634	5.526	5.392	E7	4.46
11)		Endosulfan I	4.917	5.072	5.191	5.555	5.551	5.429	5.286	E7	5.03
12)		4,4'-DDE	4.392	4.736	4.980	5.494	5.561	5.510	5.112	E7	9.52
13)		Dieldrin	4.800	5.143	5.388	5.911	5.989	5.921	5.525	E7	8.91
14)		Endrin	4.023	4.223	4.498	4.891	5.089	5.136	4.643	E7	10.03
15)		4,4'-DDD	3.509	3.788	4.007	4.408	4.492	4.559	4.127	E7	10.33
16)		Endosulfan II	3.937	4.236	4.305	4.744	4.806	4.892	4.487	E7	8.52
17)		4,4'-DDT	3.393	3.608	3.859	4.267	4.453	4.527	4.018	E7	11.65
18)		Endrin Aldehyde	3.085	3.324	3.301	3.448	3.505	3.565	3.371	E7	5.14
19)		Endosulfan Sulfate	3.336	3.450	3.594	3.852	3.975	4.062	3.712	E7	7.95
20)		Methoxychlor	2.037	1.923	1.941	2.061	2.146	2.221	2.055	E7	5.61
21)		Endrin Ketone	4.167	4.278	4.432	4.733	4.828	4.900	4.556	E7	6.71
22)	S	Decachlorobiphenyl	4.317	4.051	3.969	3.900	3.915	3.910	4.010	E7	4.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\043003\9G23044.D\ECD1A.CH Vial: 10
Acq On : 30 Apr 2003 13:32 Operator: ECL
Sample : WG139380-01 PEST ICAL 200 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23044.D\ECD2B.CH Vial: 10
Acq On : 30 Apr 2003 13:56 Operator: ECL
Sample : WG139380-01 PEST ICAL 200 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Apr 30 16:32 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Wed Apr 30 16:32:54 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.20	8.35	16610.3E6	11426.5E6	226.240	201.608
	Spiked Amount 20.000	Range 30 - 132		Recovery = 1131.20%#		1008.04%#	
22)	S Decachlorobiphen	14.85	16.29	9884.2E6	7820.9E6	197.873	194.460
	Spiked Amount 20.000	Range 36 - 144		Recovery = 989.36%#		972.30%#	
	Target Compounds						
2)	alpha-BHC	8.21	9.49	24813.5E6	17439.3E6	238.753	211.955
3)	gamma-BHC	8.75	10.11	21045.5E6	15367.0E6	228.641	209.488
4)	beta-BHC	8.89	10.24	9607.2E6	6554.5E6	240.753	200.204
5)	Heptachlor	9.55	10.85	20373.4E6	12791.0E6	218.270	211.108
6)	delta-BHC	9.18	10.73	22910.7E6	15304.8E6	243.942	214.603
7)	Aldrin	10.02	11.37	19630.6E6	13365.7E6	226.126	208.314
8)	Heptachlor Epoxi	10.91	12.24	14948.3E6	11979.4E6	208.859	201.126
9)	gamma-Chlordane	11.10	12.52	18253.4E6	11980.0E6	229.835	208.617
10)	alpha-Chlordane	11.30	12.72	17058.2E6	11052.3E6	222.351	206.081
11)	Endosulfan I	11.48	12.81	16130.1E6	10857.5E6	218.249	206.136
12)	4,4'-DDE	11.44	12.92	16658.5E6	11019.1E6	221.914	216.304
13)	Dieldrin	11.83	13.17	17472.0E6	11841.0E6	224.453	214.862
14)	Endrin	12.15	13.54	16361.6E6	10271.3E6	220.462	219.457
15)	4,4'-DDD	12.27	13.63	14031.8E6	9117.5E6	237.152	219.403
16)	Endosulfan II	12.45	13.78	14272.3E6	9783.3E6	254.850	218.020
17)	4,4'-DDT	12.65	13.98	14583.2E6	9053.7E6	226.191	227.946
18)	Endrin Aldehyde	12.98	14.14	10745.5E6	7129.6E6	224.098	211.070
19)	Endosulfan Sulfa	13.49	14.43	9597.7E6	8124.2E6	216.781	215.203
20)	Methoxychlor	13.26	14.66	6570.2E6	4441.8E6	221.498	218.550
21)	Endrin Ketone	13.80	14.98	13268.6E6	9800.0E6	228.566	211.363

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

```
Data File : C:\HPCHEM\1\DATA\043003\9G23044.D\ECD1A.CH   Vial: 10
Acq On    : 30 Apr 2003  13:32                          Operator: ECL
Sample    : WG139380-01 PEST ICAL 200 PPB               Inst    : HP9
Misc      : 1,1 SOS63-32                                Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23044.D\ECD2B.CH   Vial: 10
Acq On    : 30 Apr 2003  13:56                          Operator: ECL
Sample    : WG139380-01 PEST ICAL 200 PPB               Inst    : HP9
Misc      : 1,1 SOS63-32                                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Apr 30 16:32 2003  Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title        : CALIBRATION April 30, 2003 @ 1557
Last Update  : Wed Apr 30 16:32:54 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj.      :
Signal #1 Phase  :                    Signal #2 Phase:
Signal #1 Info   :                    Signal #2 Phase :
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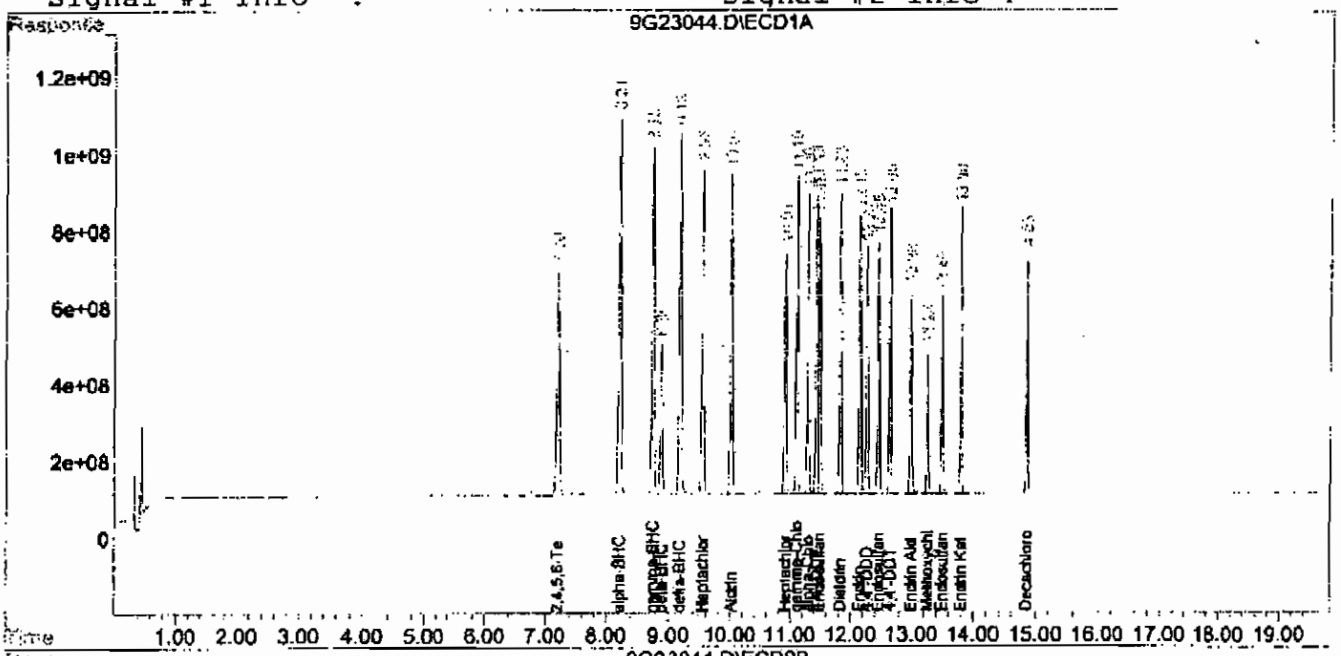
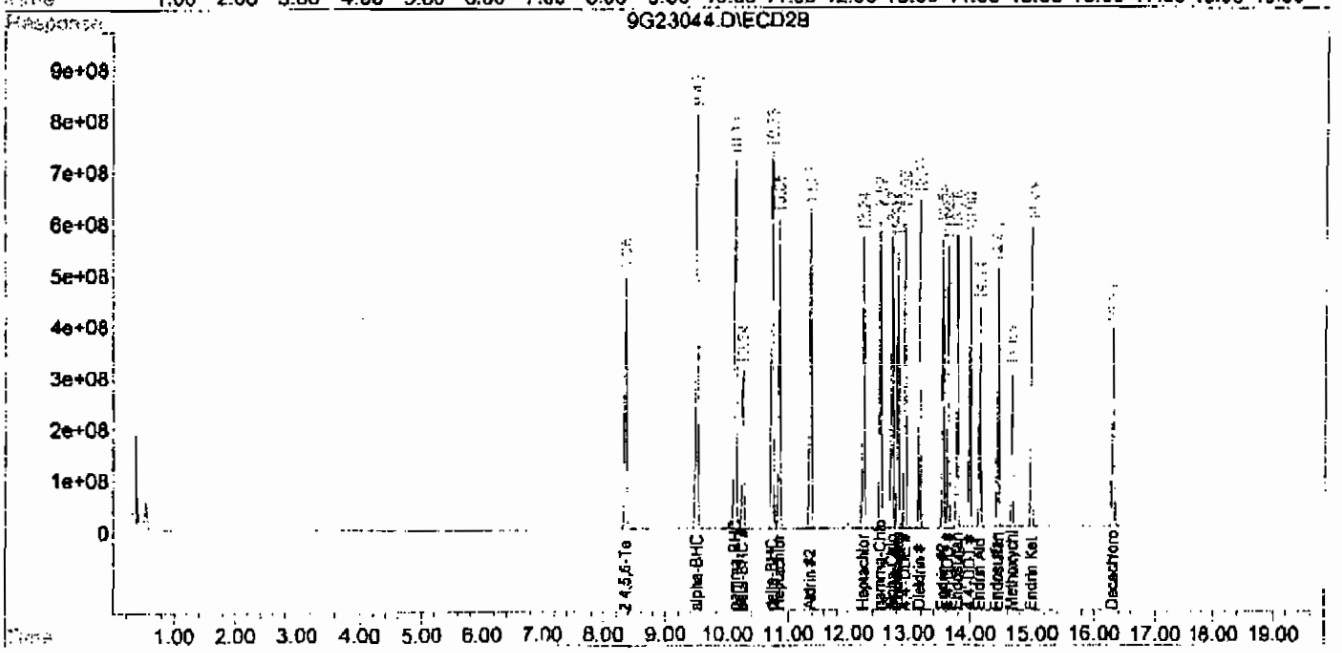




Data File : C:\HPCHEM\1\DATA\043003\9G23045.D\ECD1A.CH Vial: 11
Acq On : 30 Apr 2003 13:56 Operator: ECL
Sample : WG139380-02 PEST ICAL 100 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23045.D\ECD2B.CH Vial: 11
Acq On : 30 Apr 2003 14:20 Operator: ECL
Sample : WG139380-02 PEST ICAL 100 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Apr 30 16:33 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Wed Apr 30 16:33:15 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
System Monitoring Compounds						
1) S 2,4,5,6-Tetrachl	7.20	8.35	8522.3E6	5847.2E6	112.658	103.392
Spiked Amount 20.000	Range 30 - 132		Recovery =		563.29%#	516.96%#
22) S Decachlorobiphen	14.84	16.29	5011.2E6	3915.3E6	99.412	97.396
Spiked Amount 20.000	Range 36 - 144		Recovery =		497.06%#	486.98%#
Target Compounds						
2) alpha-BHC	8.21	9.49	12699.3E6	8969.4E6	118.176	109.085
3) gamma-BHC	8.75	10.11	11138.1E6	7913.1E6	117.231	107.965
4) beta-BHC	8.89	10.24	4638.7E6	3343.1E6	112.940	102.180
5) Heptachlor	9.55	10.84	10849.0E6	6676.8E6	112.913	109.652
6) delta-BHC	9.18	10.73	11628.0E6	7784.1E6	119.717	109.342
7) Aldrin	10.01	11.37	10295.2E6	6893.2E6	115.001	107.504
8) Heptachlor Epoxi	10.91	12.24	8285.0E6	6149.4E6	113.301	103.473
9) gamma-Chlordane	11.10	12.52	9346.6E6	6111.0E6	114.194	106.477
10) alpha-Chlordane	11.30	12.72	8787.6E6	5634.0E6	111.109	105.134
11) Endosulfan I	11.48	12.81	8587.3E6	5551.3E6	112.462	105.540
12) 4,4'-DDE	11.43	12.92	8529.9E6	5561.5E6	110.719	109.259
13) Dieldrin	11.82	13.17	9113.7E6	5988.8E6	113.884	108.798
14) Endrin	12.15	13.54	8556.1E6	5088.8E6	112.622	108.487
15) 4,4'-DDD	12.26	13.63	7142.9E6	4492.2E6	117.115	108.407
16) Endosulfan II	12.45	13.78	7318.5E6	4806.3E6	123.725	107.368
17) 4,4'-DDT	12.65	13.98	7427.7E6	4453.0E6	112.240	112.003
18) Endrin Aldehyde	12.98	14.15	5350.7E6	3505.3E6	108.653	104.002
19) Endosulfan Sulfa	13.48	14.43	4920.7E6	3975.2E6	109.418	105.769
20) Methoxychlor	13.25	14.66	3336.7E6	2145.7E6	109.836	105.273
21) Endrin Ketone	13.80	14.98	6652.3E6	4828.0E6	111.534	104.589

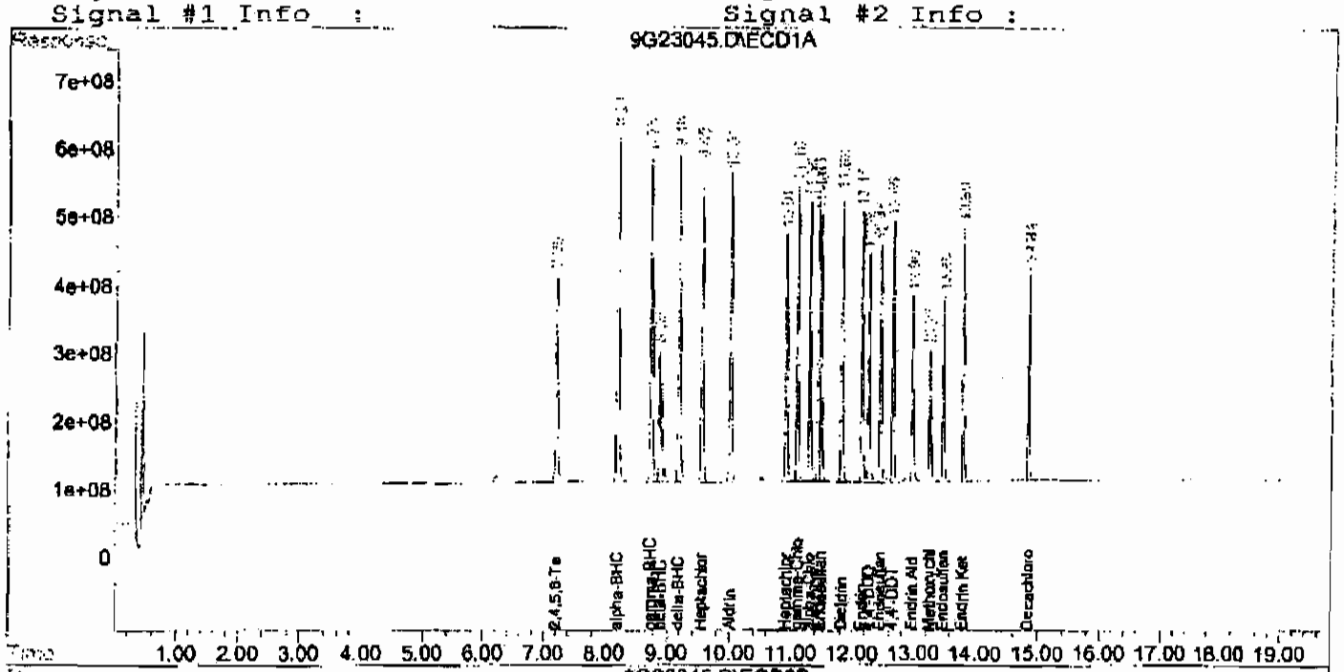
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

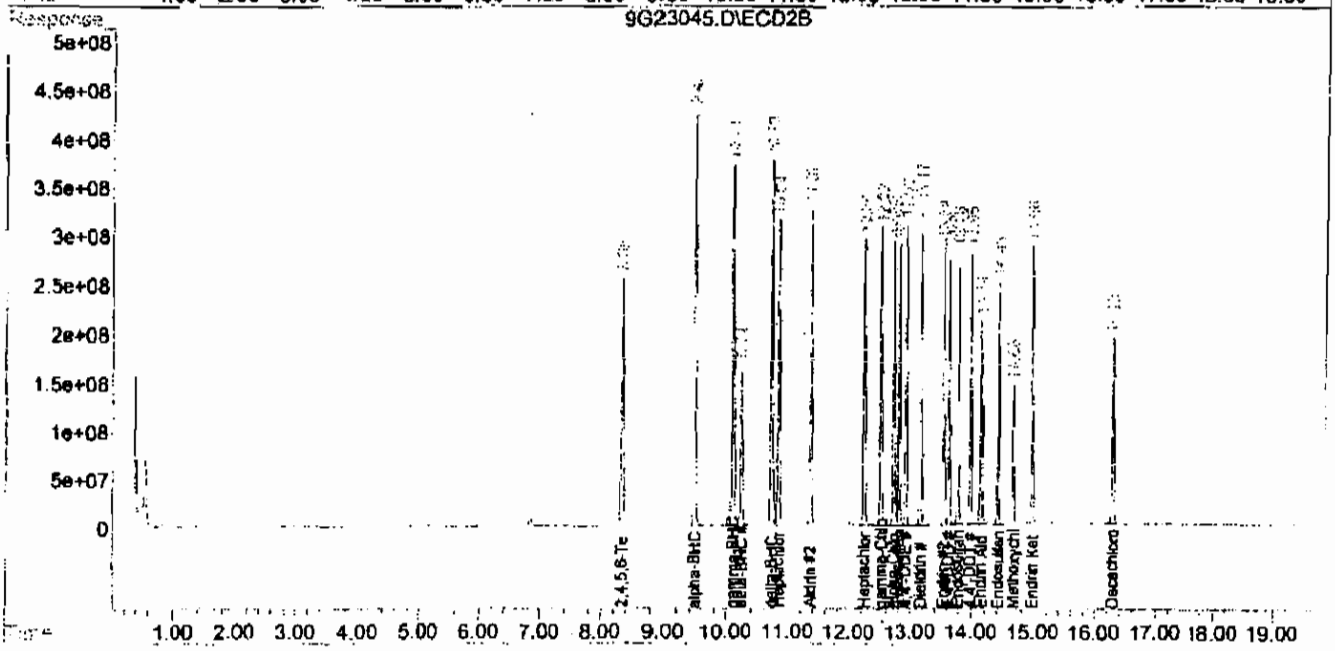
Data File : C:\HPCHEM\1\DATA\043003\9G23045.D\ECD1A.CH Vial: 11
Acq On : 30 Apr 2003 13:56 Operator: ECL
Sample : WG139380-02 PEST ICAL 100 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23045.D\ECD2B.CH Vial: 11
Acq On : 30 Apr 2003 14:20 Operator: ECL
Sample : WG139380-02 PEST ICAL 100 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Apr 30 16:33 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Wed Apr 30 16:33:15 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\043003\9G23046.D\ECD1A.CH Vial: 12
Acq On : 30 Apr 2003 14:20 Operator: ECL
Sample : WG139380-03 PEST ICAL 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23046.D\ECD2B.CH Vial: 12
Acq On : 30 Apr 2003 14:45 Operator: ECL
Sample : WG139380-03 PEST ICAL 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Apr 30 16:33 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Wed Apr 30 16:33:35 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.20	8.35	4263.8E6	2953.6E6	54.879	52.186
	Spiked Amount 20.000	Range 30 - 132		Recovery =		274.39%#	260.93%#
22)	S Decachlorobiphen	14.85	16.30	2532.6E6	1950.2E6	49.908	48.585
	Spiked Amount 20.000	Range 36 - 144		Recovery =		249.54%#	242.93%#
	Target Compounds						
2)	alpha-BHC	8.21	9.49	6282.9E6	4480.8E6	56.733	54.382
3)	gamma-BHC	8.75	10.11	5505.0E6	3955.2E6	56.295	53.868
4)	beta-BHC	8.89	10.24	2354.8E6	1690.8E6	55.726	51.541
5)	Heptachlor	9.54	10.85	5556.7E6	3346.2E6	56.171	54.473
6)	delta-BHC	9.18	10.73	5806.7E6	3861.4E6	57.712	54.203
7)	Aldrin	10.01	11.37	5228.1E6	3446.7E6	56.668	53.693
8)	Heptachlor Epoxi	10.91	12.24	4164.8E6	3087.9E6	55.670	51.956
9)	gamma-Chlordane	11.10	12.52	4706.4E6	3051.8E6	55.814	53.019
10)	alpha-Chlordane	11.30	12.72	4436.5E6	2820.3E6	54.459	52.504
11)	Endosulfan I	11.48	12.81	4433.5E6	2777.3E6	56.128	52.701
12)	4,4'-DDE	11.43	12.92	4275.9E6	2747.2E6	54.129	53.850
13)	Dieldrin	11.82	13.17	4613.1E6	2955.7E6	56.040	53.596
14)	Endrin	12.15	13.55	4335.7E6	2445.3E6	55.700	52.086
15)	4,4'-DDD	12.26	13.63	3573.7E6	2204.2E6	56.881	53.165
16)	Endosulfan II	12.45	13.78	3716.2E6	2372.1E6	59.485	52.930
17)	4,4'-DDT	12.65	13.99	3717.9E6	2133.5E6	54.822	53.527
18)	Endrin Aldehyde	12.98	14.15	2703.3E6	1724.2E6	53.401	51.051
19)	Endosulfan Sulfa	13.48	14.43	2422.1E6	1926.2E6	53.117	51.384
20)	Methoxychlor	13.25	14.66	1676.0E6	1030.7E6	53.896	50.418
21)	Endrin Ketone	13.80	14.98	3319.5E6	2366.7E6	54.217	51.382

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

```
Data File : C:\HPCHEM\1\DATA\043003\9G23046.D\ECD1A.CH   Vial: 12
Acq On    : 30 Apr 2003  14:20                          Operator: ECL
Sample    : WG139380-03 PEST ICAL 50 PPB                Inst    : HP9
Misc      : 1,1 SOS63-32                                Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23046.D\ECD2B.CH   Vial: 12
Acq On    : 30 Apr 2003  14:45                          Operator: ECL
Sample    : WG139380-03 PEST ICAL 50 PPB                Inst    : HP9
Misc      : 1,1 SOS63-32                                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Apr 30 16:33 2003  Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title        : CALIBRATION April 30, 2003 @ 1557
Last Update  : Wed Apr 30 16:33:35 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj.      :
Signal #1 Phase  :                    Signal #2 Phase:
Signal #1 Info   :                    Signal #2 Info  :
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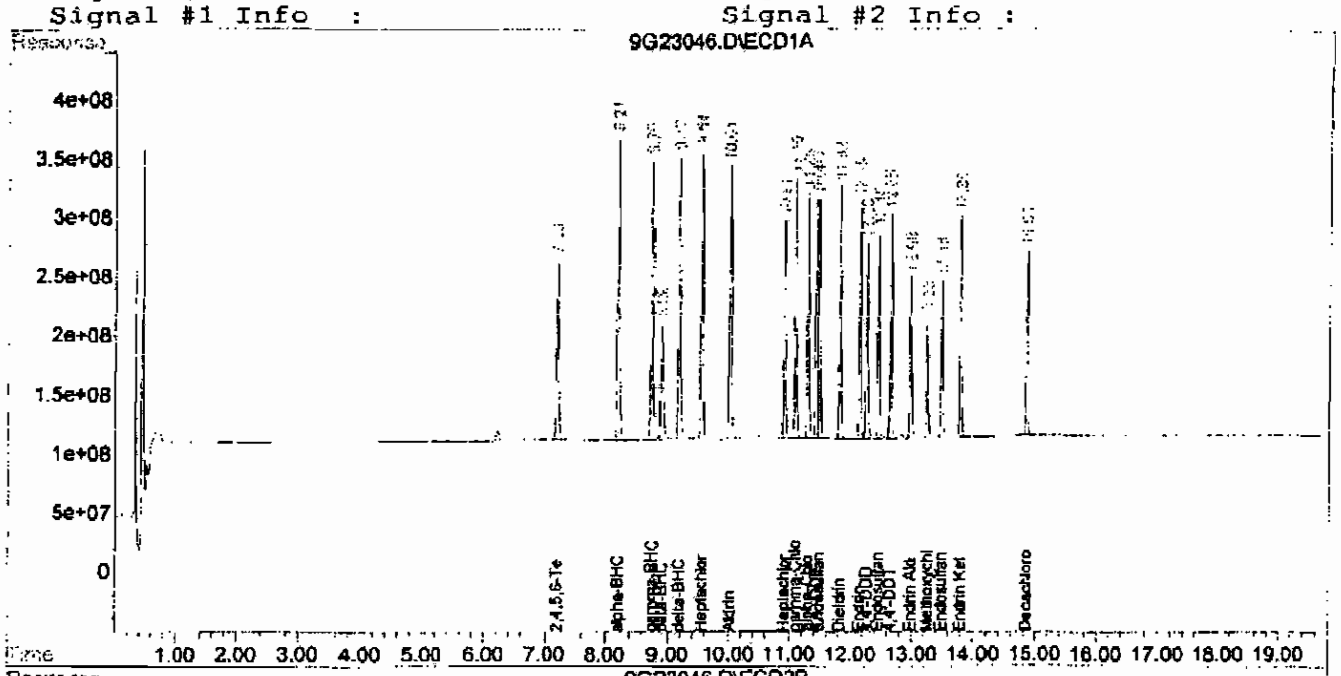
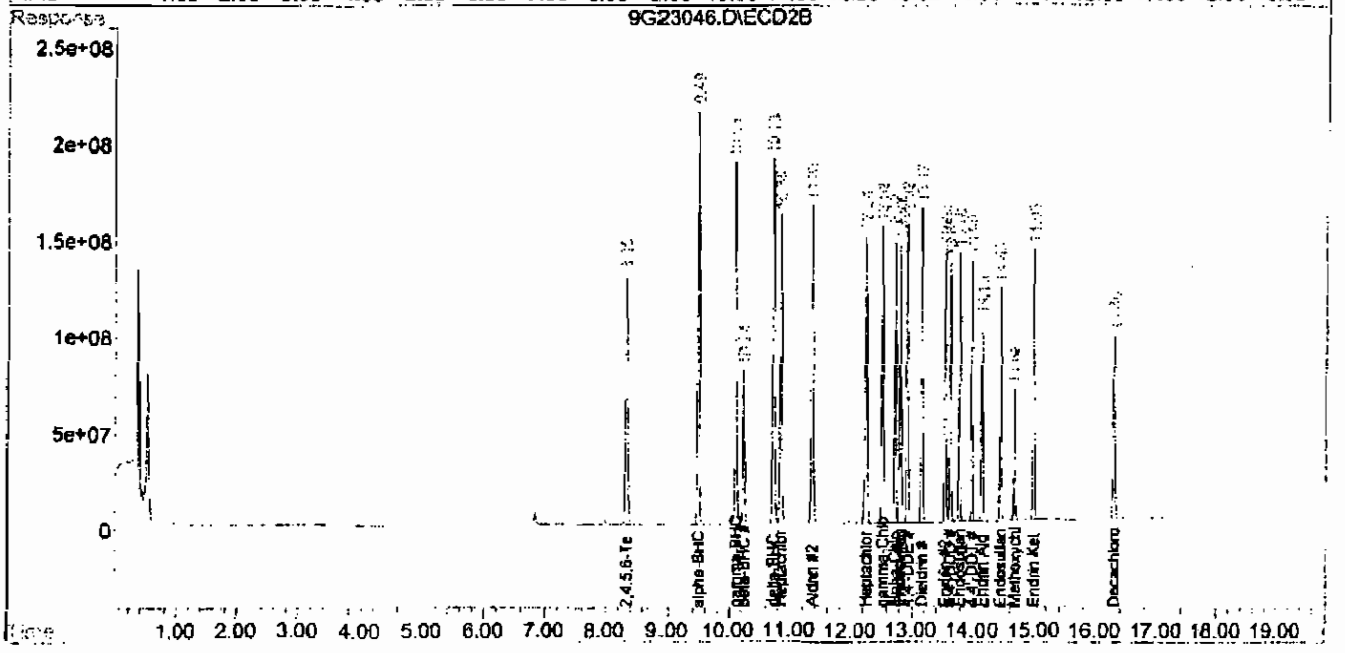




Data File : C:\HPCHEM\1\DATA\043003\9G23047.D\ECD1A.CH Vial: 13
Acq On : 30 Apr 2003 14:45 Operator: ECL
Sample : WG139380-04 PEST ICAL 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23047.D\ECD2B.CH Vial: 13
Acq On : 30 Apr 2003 15:09 Operator: ECL
Sample : WG139380-04 PEST ICAL 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Apr 30 16:33 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Wed Apr 30 16:33:55 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.20	8.35	1741.6E6	1109.6E6	21.654	19.666
	Spiked Amount 20.000	Range 30 - 132		Recovery =		108.27%	98.33%
22)	S Decachlorobiphen	14.85	16.29	1063.9E6	793.7E6	20.739	19.781
	Spiked Amount 20.000	Range 36 - 144		Recovery =		103.70%	98.91%
	Target Compounds						
2)	alpha-BHC	8.21	9.49	2483.9E6	1645.2E6	21.651	19.948
3)	gamma-BHC	8.75	10.10	2209.5E6	1460.4E6	21.806	19.882
4)	beta-BHC	8.89	10.24	971.1E6	648.1E6	22.151	19.741
5)	Heptachlor	9.54	10.84	2287.7E6	1266.0E6	22.282	20.434
6)	delta-BHC	9.18	10.73	2282.1E6	1408.4E6	21.802	19.778
7)	Aldrin	10.01	11.37	2126.8E6	1268.1E6	22.210	19.804
8)	Heptachlor Epoxi	10.91	12.24	1732.2E6	1158.2E6	22.413	19.558
9)	gamma-Chlordane	11.10	12.52	1896.8E6	1131.3E6	21.722	19.635
10)	alpha-Chlordane	11.30	12.72	1821.6E6	1056.7E6	21.600	19.665
11)	Endosulfan I	11.48	12.81	1844.3E6	1038.2E6	22.400	19.692
12)	4,4'-DDE	11.43	12.92	1713.5E6	996.1E6	21.099	19.518
13)	Dieldrin	11.82	13.17	1874.3E6	1077.5E6	21.973	19.534
14)	Endrin	12.15	13.54	1751.6E6	899.7E6	21.814	19.153
15)	4,4'-DDD	12.27	13.63	1374.3E6	801.4E6	21.218	19.359
16)	Endosulfan II	12.45	13.78	1509.8E6	861.0E6	22.880	19.234
17)	4,4'-DDT	12.65	13.98	1512.6E6	771.7E6	21.674	19.318
18)	Endrin Aldehyde	12.98	14.14	1129.2E6	660.1E6	21.548	19.552
19)	Endosulfan Sulfa	13.49	14.43	987.7E6	718.7E6	21.235	19.227
20)	Methoxychlor	13.26	14.66	704.0E6	388.2E6	21.905	18.958
21)	Endrin Ketone	13.80	14.98	1343.0E6	886.5E6	21.293	19.293

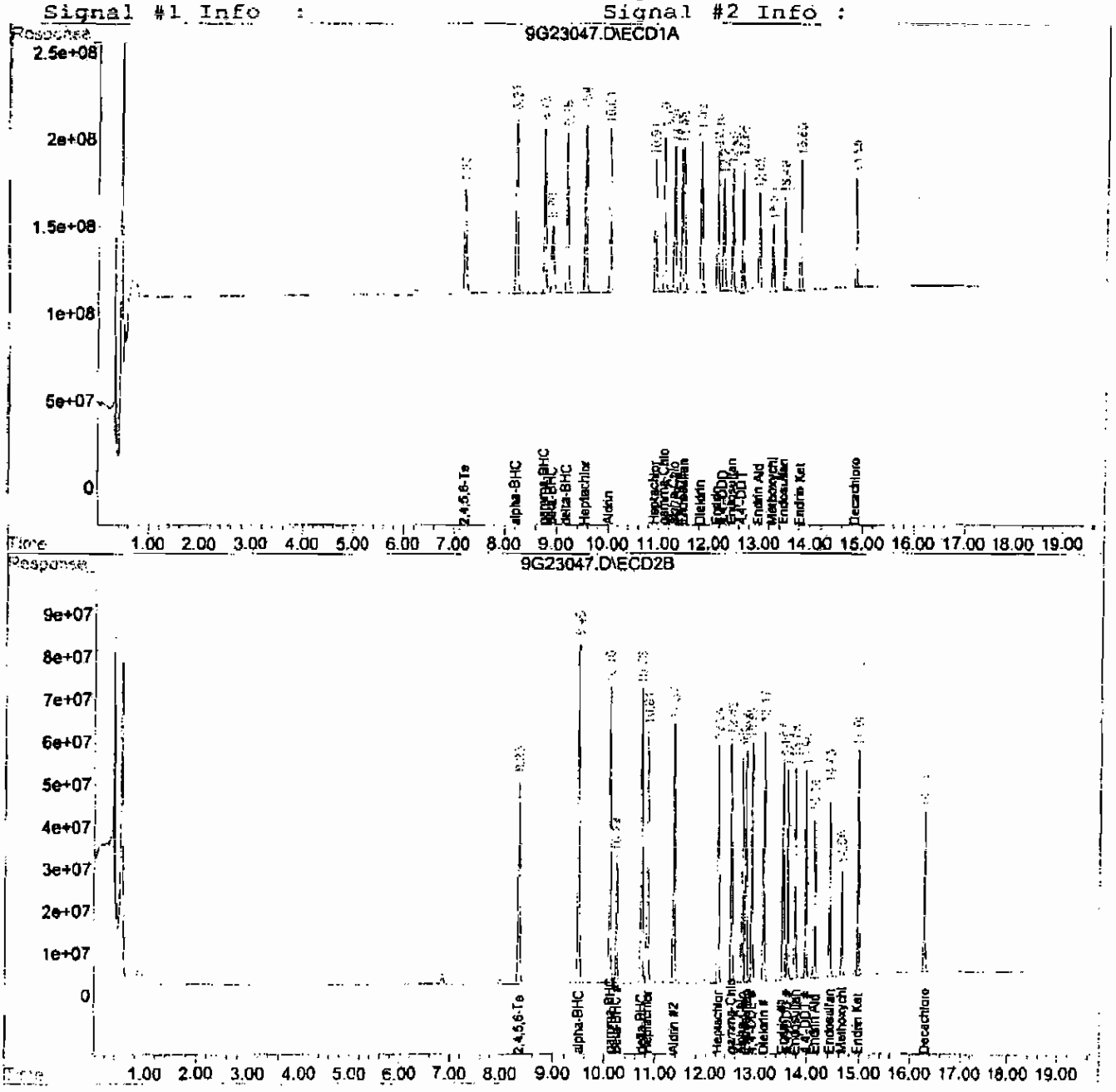
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\043003\9G23047.D\ECD1A.CH Vial: 13
Acq On : 30 Apr 2003 14:45 Operator: ECL
Sample : WG139380-04 PEST ICAL 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23047.D\ECD2B.CH Vial: 13
Acq On : 30 Apr 2003 15:09 Operator: ECL
Sample : WG139380-04 PEST ICAL 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Apr 30 16:33 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Wed Apr 30 16:33:55 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\043003\9G23048.D\ECD1A.CH Vial: 14
Acq On : 30 Apr 2003 15:09 Operator: ECL
Sample : WG139380-05 PEST ICAL 10 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23048.D\ECD2B.CH Vial: 14
Acq On : 30 Apr 2003 15:33 Operator: ECL
Sample : WG139380-05 PEST ICAL 10 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Apr 30 16:34 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Wed Apr 30 16:34:16 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.20	8.35	860.0E6	556.5E6	10.332	9.838
	Spiked Amount 20.000	Range 30 - 132		Recovery =		51.66%	49.19%
22)	S Decachlorobiphen	14.85	16.29	549.3E6	405.1E6	10.545	10.111
	Spiked Amount 20.000	Range 36 - 144		Recovery =		52.73%	50.56%
	Target Compounds						
2)	alpha-BHC	8.21	9.49	1199.5E6	775.5E6	10.087	9.391
3)	gamma-BHC	8.75	10.11	1057.5E6	700.6E6	10.078	9.516
4)	beta-BHC	8.89	10.24	473.8E6	328.2E6	10.402	9.954
5)	Heptachlor	9.54	10.84	1137.2E6	613.3E6	10.654	9.766
6)	delta-BHC	9.18	10.73	1059.9E6	658.5E6	9.791	9.250
7)	Aldrin	10.01	11.37	1060.8E6	608.1E6	10.618	9.508
8)	Heptachlor Epoxi	10.91	12.24	812.4E6	560.2E6	10.230	9.562
9)	gamma-Chlordane	11.10	12.52	936.8E6	554.4E6	10.345	9.598
10)	alpha-Chlordane	11.30	12.72	927.2E6	518.7E6	10.601	9.644
11)	Endosulfan I	11.48	12.81	935.8E6	507.2E6	10.863	9.612
12)	4,4'-DDE	11.43	12.92	857.5E6	473.6E6	10.255	9.278
13)	Dieldrin	11.82	13.17	938.3E6	514.3E6	10.571	9.316
14)	Endrin	12.15	13.54	862.9E6	422.3E6	10.394	9.109
15)	4,4'-DDD	12.26	13.63	661.7E6	378.8E6	9.901	9.170
16)	Endosulfan II	12.45	13.78	737.1E6	423.6E6	10.539	9.437
17)	4,4'-DDT	12.65	13.98	745.6E6	360.8E6	10.235	9.011
18)	Endrin Aldehyde	12.98	14.14	573.7E6	332.4E6	10.545	9.831
19)	Endosulfan Sulfa	13.48	14.43	477.3E6	345.0E6	10.065	9.263
20)	Methoxychlor	13.26	14.66	343.2E6	192.3E6	10.356	9.374
21)	Endrin Ketone	13.80	14.98	669.7E6	427.8E6	10.296	9.348

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

```
Data File : C:\HPCHEM\1\DATA\043003\9G23048.D\ECD1A.CH   Vial: 14
Acq On    : 30 Apr 2003  15:09                          Operator: ECL
Sample    : WG139380-05 PEST ICAL 10 PPB                Inst    : HP9
Misc      : 1,1 SOS63-32                                Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23048.D\ECD2B.CH   Vial: 14
Acq On    : 30 Apr 2003  15:33                          Operator: ECL
Sample    : WG139380-05 PEST ICAL 10 PPB                Inst    : HP9
Misc      : 1,1 SOS63-32                                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Apr 30 16:34 2003  Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title        : CALIBRATION April 30, 2003 @ 1557
Last Update  : Wed Apr 30 16:34:16 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj.      :
Signal #1 Phase  :                    Signal #2 Phase:
Signal #1 Info   :                    Signal #2 Info  :
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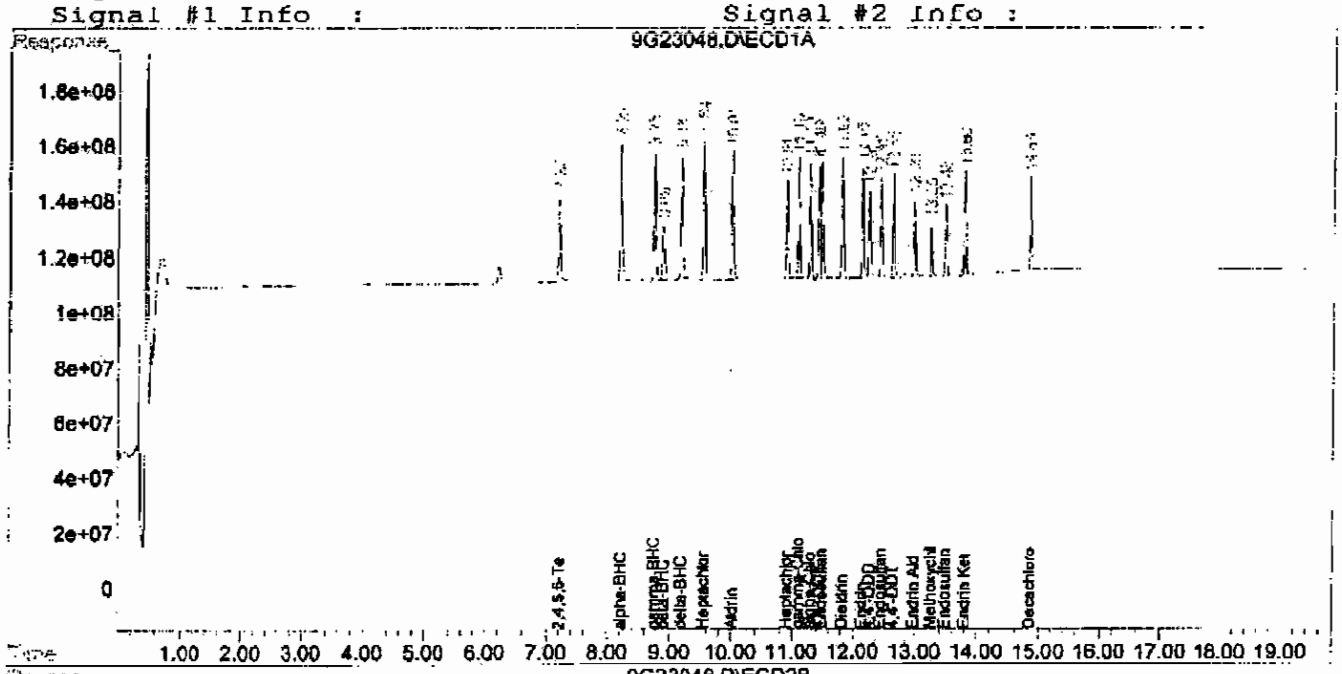
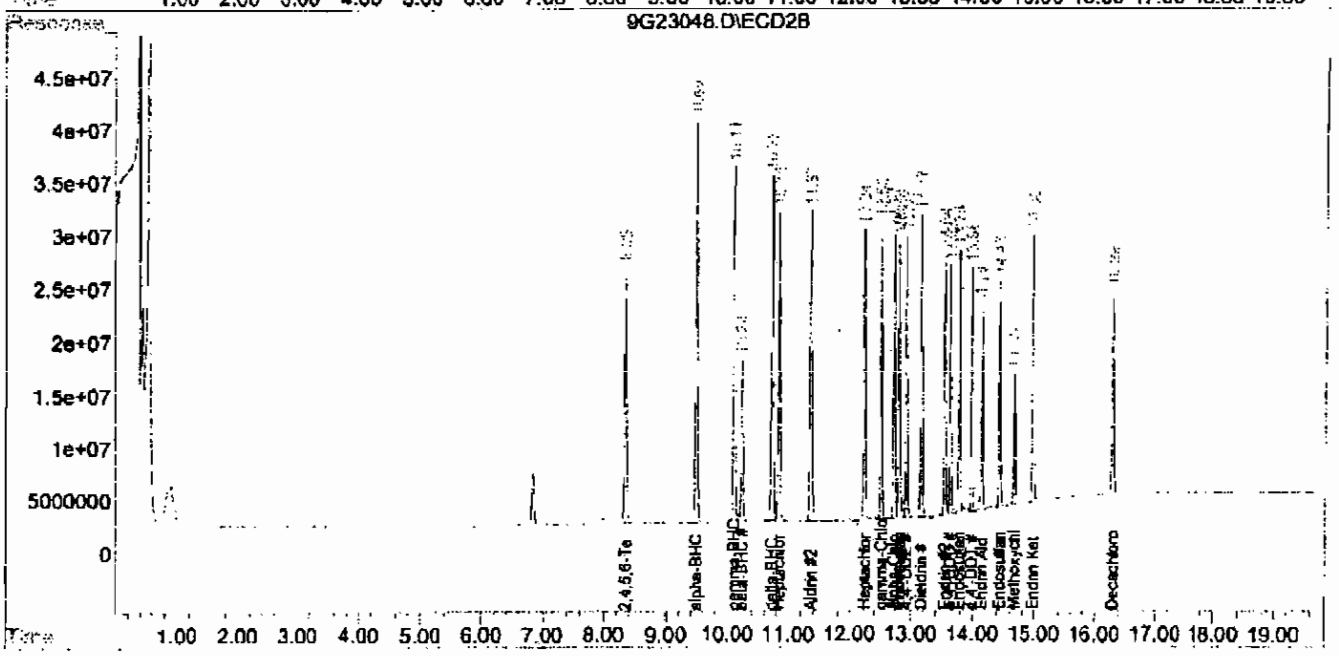




Data File : C:\HPCHEM\1\DATA\043003\9G23049.D\ECD1A.CH Vial: 15
Acq On : 30 Apr 2003 15:33 Operator: ECL
Sample : WG139380-06 PEST ICAL 4 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23049.D\ECD2B.CH Vial: 15
Acq On : 30 Apr 2003 15:57 Operator: ECL
Sample : WG139380-06 PEST ICAL 4 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Apr 30 16:35 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Wed Apr 30 16:35:45 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
System Monitoring Compounds						
1) S 2,4,5,6-Tetrachl	7.20	8.35	340.5E6	213.4E6	3.992	3.775
Spiked Amount 20.000	Range 30 - 132		Recovery =		19.96%#	18.88%#
22) S Decachlorobiphen	14.84	16.29	226.6E6	172.7E6	4.317	4.306
Spiked Amount 20.000	Range 36 - 144		Recovery =		21.59%#	21.53%#
Target Compounds						
2) alpha-BHC	8.21	9.49	449.5E6	276.2E6	3.678	3.345
3) gamma-BHC	8.75	10.11	425.6E6	255.4E6	3.933	3.466
4) beta-BHC	8.90	10.24	178.4E6	130.7E6	3.794	3.962
5) Heptachlor	9.55	10.85	446.2E6	220.2E6	4.050	3.501
6) delta-BHC	9.18	10.73	387.4E6	236.9E6	3.501	3.328
7) Aldrin	10.01	11.37	400.5E6	220.7E6	3.887	3.448
8) Heptachlor Epoxi	10.91	12.24	312.2E6	219.4E6	3.848	3.740
9) gamma-Chlordane	11.10	12.52	367.0E6	211.5E6	3.939	3.658
10) alpha-Chlordane	11.30	12.73	391.0E6	203.2E6	4.317	3.769
11) Endosulfan I	11.48	12.81	390.0E6	196.7E6	4.345	3.721
12) 4,4'-DDE	11.43	12.93	362.8E6	175.7E6	4.217	3.436
13) Dieldrin	11.82	13.17	364.2E6	192.0E6	3.978	3.475
14) Endrin	12.15	13.55	333.8E6	160.9E6	3.917	3.466
15) 4,4'-DDD	12.26	13.63	244.9E6	140.4E6	3.591	3.401
16) Endosulfan II	12.45	13.78	284.8E6	157.5E6	3.890	3.510
17) 4,4'-DDT	12.65	13.99	313.5E6	135.7E6	4.179	3.378
18) Endrin Aldehyde	12.98	14.15	253.2E6	123.4E6	4.489	3.660
19) Endosulfan Sulfa	13.48	14.43	178.7E6	133.4E6	3.729	3.595
20) Methoxychlor	13.26	14.66	138.1E6	81482248	4.067	3.965
21) Endrin Ketone	13.80	14.98	265.2E6	166.7E6	3.981	3.658

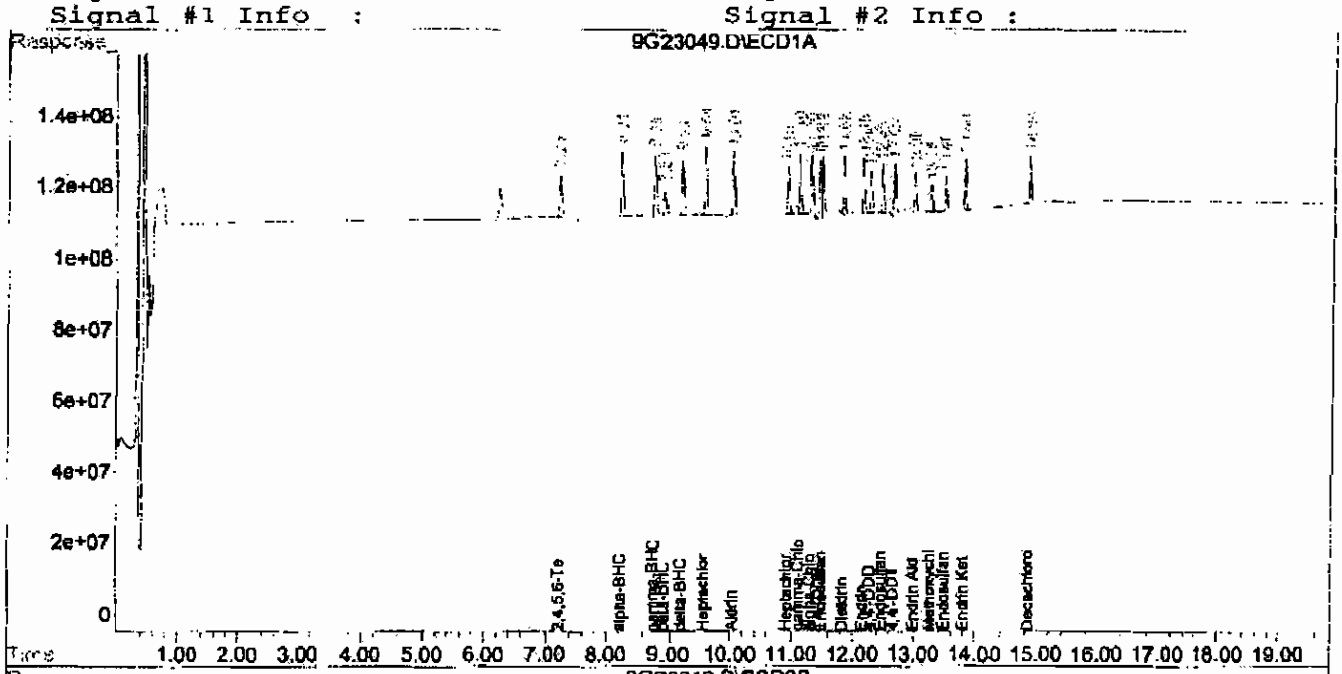
(t)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m) manual int.

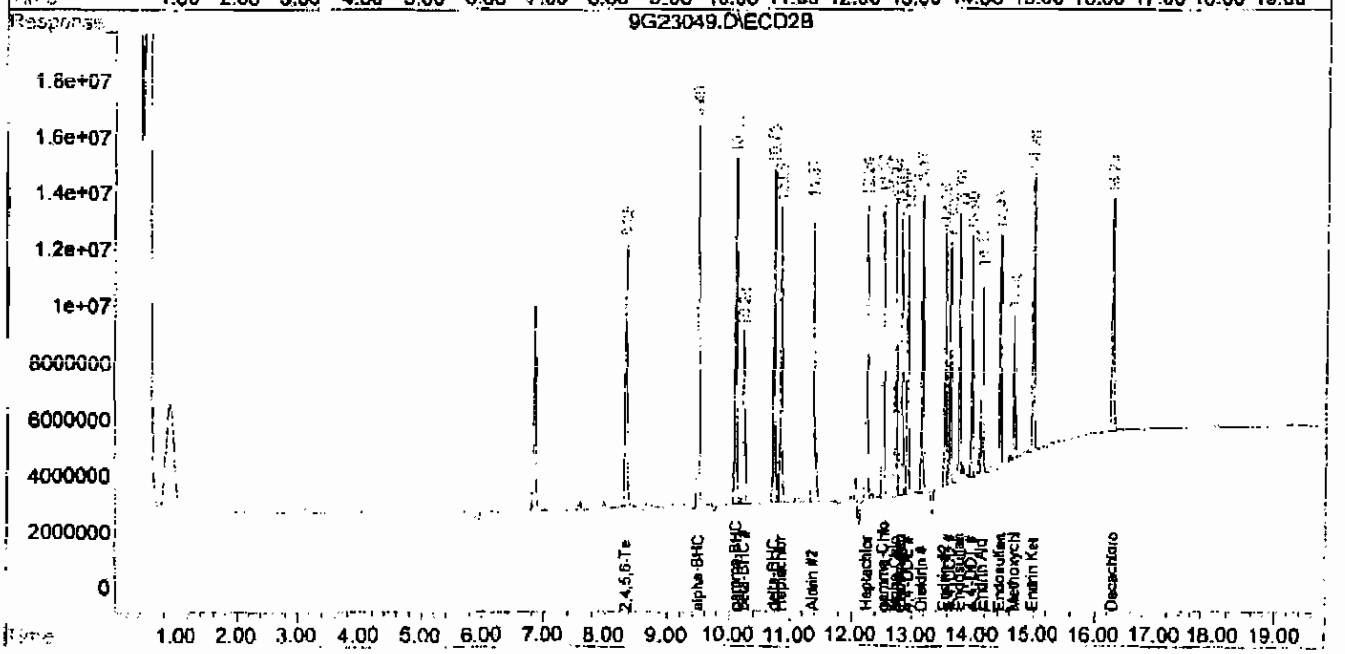
```
Data File : C:\HPCHEM\1\DATA\043003\9G23049.D\ECD1A.CH   Vial: 15
Acq On    : 30 Apr 2003  15:33                          Operator: ECL
Sample    : WG139380-06 PEST ICAL 4 PPB                 Inst    : HP9
Misc      : 1,l SOS63-32                                Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23049.D\ECD2B.CH   Vial: 15
Acq On    : 30 Apr 2003  15:57                          Operator: ECL
Sample    : WG139380-06 PEST ICAL 4 PPB                 Inst    : HP9
Misc      : 1,l SOS63-32                                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Apr 30 16:35 2003  Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title        : CALIBRATION April 30, 2003 @ 1557
Last Update  : Wed Apr 30 16:35:45 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj.      :
Signal #1 Phase  :                    Signal #2 Phase:
Signal #1 Info   :                    Signal #2 Info  :
```





Data File : C:\HPCHEM\1\DATA\043003\9G23050.D\ECD1A.CH Vial: 16
Acq On : 30 Apr 2003 15:57 Operator: ECL
Sample : WG139380-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23050.D\ECD2B.CH Vial: 16
Acq On : 30 Apr 2003 16:22 Operator: ECL
Sample : WG139380-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Wed Apr 30 16:35:45 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	alpha-BHC	20.000	19.355	3.2	95	0.00
3	gamma-BHC	20.000	19.371	3.1	95	0.00
4	beta-BHC	20.000	18.796	6.0	91	0.00
5	Heptachlor	20.000	19.633	1.8	95	0.00
6	delta-BHC	20.000	18.899	5.5	92	0.00
7	Aldrin	20.000	19.421	2.9	94	0.00
8	Heptachlor Epoxide	20.000	19.649	1.8	92	0.00
9	gamma-Chlordane	20.000	19.497	2.5	96	0.00
10	alpha-Chlordane	20.000	19.375	3.1	96	0.00
11	Endosulfan I	20.000	19.116	4.4	93	0.00
12	4,4'-DDE	20.000	19.396	3.0	97	0.00
13	Dieldrin	20.000	19.302	3.5	94	0.00
14	Endrin	20.000	18.703	6.5	91	0.00
15	4,4'-DDD	20.000	19.084	4.6	95	0.00
16	Endosulfan II	20.000	18.658	6.7	90	0.00
17	4,4'-DDT	20.000	18.442	7.8	91	0.00
18	Endrin Aldehyde	20.000	17.443	12.8	87	0.00
19	Endosulfan Sulfate	20.000	19.275	3.6	93	0.00
20	Methoxychlor	20.000	19.035	4.8	92	0.00
21	Endrin Ketone	20.000	18.935	5.3	94	0.00
	Signal #2					
2	alpha-BHC	20.000	19.397	3.0	97	0.00
3	gamma-BHC	20.000	19.276	3.6	97	0.00
4	beta-BHC	20.000	18.464	7.7	94	0.00
5	Heptachlor	20.000	19.267	3.7	96	0.00
6	delta-BHC	20.000	18.448	7.8	93	0.00
7	Aldrin	20.000	19.048	4.8	96	0.00
8	Heptachlor Epoxide	20.000	19.213	3.9	97	0.00
9	gamma-Chlordane	20.000	19.014	4.9	97	0.00
10	alpha-Chlordane	20.000	19.280	3.6	98	0.00
11	Endosulfan I	20.000	18.540	7.3	94	0.00
12	4,4'-DDE	20.000	19.264	3.7	99	0.00
13	Dieldrin	20.000	18.742	6.3	96	0.00
14	Endrin	20.000	17.935	10.3	93	0.00
15	4,4'-DDD	20.000	18.670	6.6	96	0.00
16	Endosulfan II	20.000	18.002	10.0	94	0.00
17	4,4'-DDT	20.000	18.396	8.0	96	0.00
18	Endrin Aldehyde	20.000	17.209	14.0	88	0.00
19	Endosulfan Sulfate	20.000	18.211	8.9	94	0.00
20	Methoxychlor	20.000	17.996	10.0	95	0.00
21	Endrin Ketone	20.000	18.367	8.2	94	0.00

Data File : C:\HPCHEM\1\DATA\043003\9G23050.D\ECD1A.CH Vial: 16
Acq On : 30 Apr 2003 15:57 Operator: ECL
Sample : WG139380-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23050.D\ECD2B.CH Vial: 16
Acq On : 30 Apr 2003 16:22 Operator: ECL
Sample : WG139380-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Apr 30 16:57 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Wed Apr 30 16:35:45 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	0.00	0.00	0	0	N.D.	N.D.
	Spiked Amount 20.000	Range 30 - 132		Recovery =		0.00%#	0.00%#
22)	S Decachlorobiphen	0.00	0.00	0	0	N.D.	N.D.
	Spiked Amount 20.000	Range 36 - 144		Recovery =		0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	8.21	9.49	2365.2E6	1601.4E6	19.355	19.397
3)	gamma-BHC	8.76	10.10	2096.4E6	1420.0E6	19.371	19.276
	beta-BHC	8.90	10.24	883.6E6	609.1E6	18.796	18.464
5)	Heptachlor	9.55	10.84	2163.4E6	1211.6E6	19.633	19.267
6)	delta-BHC	9.18	10.73	2091.2E6	1313.2E6	18.899	18.448
7)	Aldrin	10.02	11.37	2001.3E6	1219.3E6	19.424	19.048
8)	Heptachlor Epoxi	10.92	12.24	1594.2E6	1126.9E6	19.649	19.213
9)	gamma-Chlordane	11.11	12.52	1817.0E6	1099.5E6	19.497	19.014
10)	alpha-Chlordane	11.30	12.72	1754.9E6	1039.6E6	19.375	19.280
11)	Endosulfan I	11.48	12.81	1715.6E6	980.0E6	19.116	18.540
12)	4,4'-DDE	11.44	12.92	1668.8E6	984.8E6	19.396	19.264
13)	Dieldrin	11.83	13.16	1767.3E6	1035.5E6	19.302	18.742
14)	Endrin	12.15	13.54	1594.1E6	832.8E6	18.703	17.935
15)	4,4'-DDD	12.27	13.63	1301.4E6	770.6E6	19.084	18.670
16)	Endosulfan II	12.45	13.78	1366.0E6	807.7E6	18.658	18.002
17)	4,4'-DDT	12.65	13.98	1383.5E6	739.1E6	18.442	18.396
18)	Endrin Aldehyde	12.98	14.14	983.9E6	580.2E6	17.443	17.209
19)	Endosulfan Sulfa	13.49	14.43	923.3E6	675.9E6	19.275	18.211
20)	Methoxychlor	13.26	14.66	646.5E6	369.8E6	19.035	17.996
21)	Endrin Ketone	13.80	14.98	1261.3E6	836.9E6	18.935	18.367

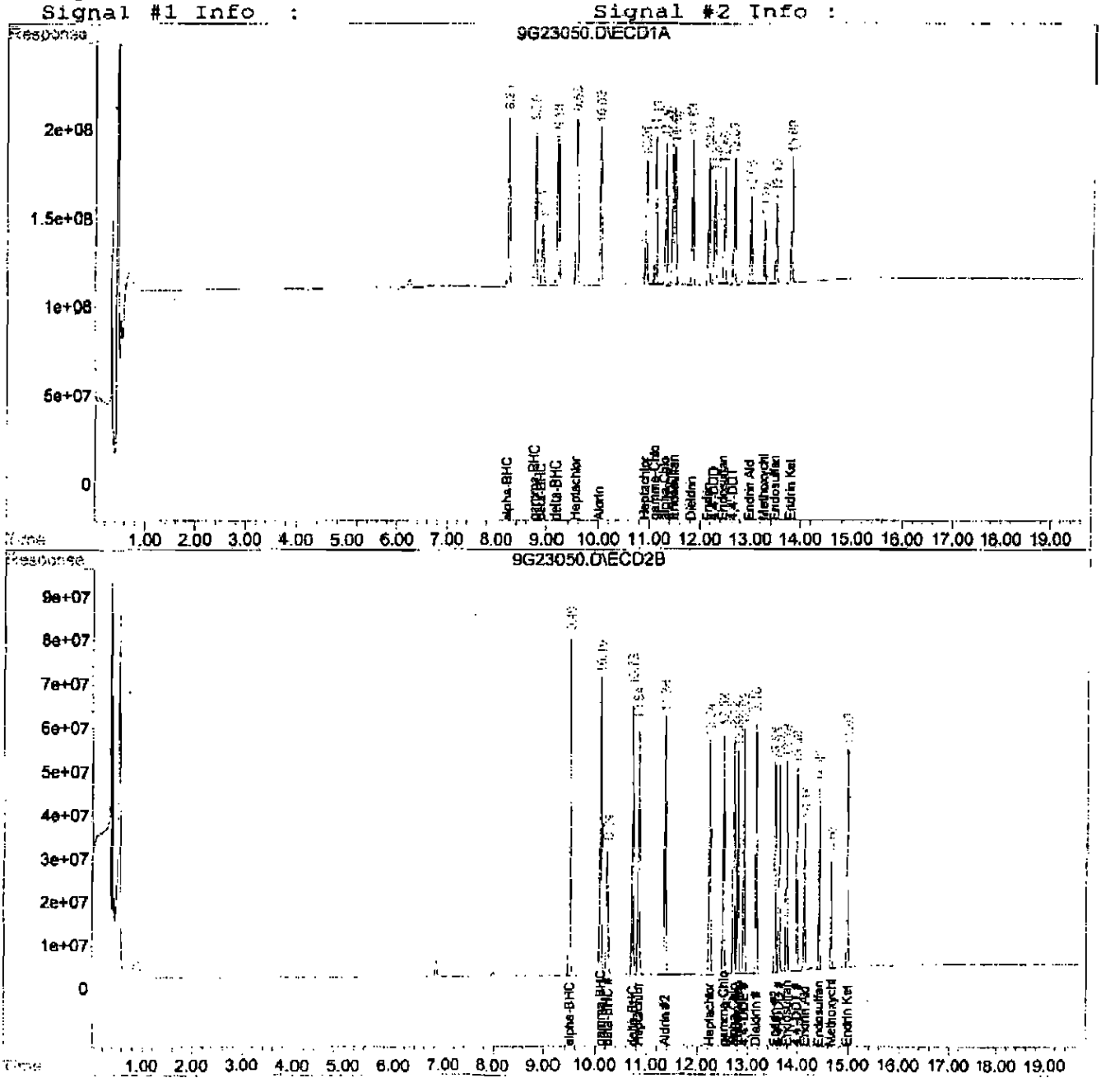
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\043003\9G23050.D\ECD1A.CH Vial: 16
Acq On : 30 Apr 2003 15:57 Operator: ECL
Sample : WG139380-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23050.D\ECD2B.CH Vial: 16
Acq On : 30 Apr 2003 16:22 Operator: ECL
Sample : WG139380-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Apr 30 16:57 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Wed Apr 30 16:35:45 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:54:29 2003

Calibration Files
4 =9G23123.D 10 =9G23122.D 20 =9G23121.D
50 =9G23120.D 100 =9G23119.D 200 =9G23118.D

		Compound	4	10	20	50	100	200	Avg		%RSD
1)	S	2,4,5,6-Tetrachloro	9.457	9.453	9.698	9.663	9.686	9.846	9.634	E7	1.59
2)		alpha-BHC	1.251	1.342	1.408	1.440	1.459	1.435	1.389	E8	5.68
3)		gamma-BHC	0.831	1.113	1.213	1.192	1.218	1.131	1.117	E8	13.10
4)		beta-BHC	4.296	5.212	5.476	5.320	5.310	5.429	5.174	E7	8.51
5)		Heptachlor	1.240	1.270	1.296	1.265	1.229	1.116	1.236	E8	5.13
6)		delta-BHC	1.056	1.203	1.294	1.332	1.337	1.290	1.252	E8	8.59
7)		Aldrin	1.048	1.200	1.210	1.201	1.181	1.078	1.153	E8	6.15
8)		Heptachlor Epoxide	4.899	7.948	9.016	8.385	8.665	7.523	7.739	E7	19.22
9)		gamma-Chlordane	1.024	1.061	1.090	1.089	1.088	1.013	1.061	E8	3.27
10)		alpha-Chlordane	1.143	1.065	1.049	1.026	1.022	0.939	1.041	E8	6.39
11)		Endosulfan 1	1.153	1.082	1.072	1.027	0.987	0.871	1.032	E8	9.34
12)		4,4'-DDE	1.105	0.966	0.969	0.974	0.977	0.909	0.983	E8	6.59
13)		Dieldrin	1.077	1.068	1.076	1.063	1.044	0.935	1.044	E8	5.25
14)		Endrin	9.293	9.356	9.602	9.562	9.413	8.487	9.286	E7	4.40
15)		4,4'-DDD	6.874	7.512	7.945	8.316	8.310	7.628	7.764	E7	7.08
16)		Endosulfan II	8.319	9.013	8.702	8.653	8.449	7.704	8.473	E7	5.25
17)		4,4'-DDT	9.313	9.294	8.762	8.636	8.617	7.973	8.766	E7	5.69
18)		Endrin Aldehyde	6.893	6.541	6.474	6.280	6.209	5.916	6.386	E7	5.21
19)		Endosulfan Sulfate	3.274	4.944	5.464	5.332	5.512	4.930	4.910	E7	17.10
20)		Methoxychlor	3.912	3.786	3.810	3.735	3.707	3.429	3.730	E7	4.38
21)		Endrin Ketone	7.541	7.550	7.648	7.614	7.621	7.138	7.519	E7	2.54
22)	S	Decachlorobiphenyl	6.136	5.866	5.743	5.578	5.576	5.307	5.701	E7	4.99

Signal #2 Calibration Files
4 =9G23123.D 10 =9G23122.D 20 =9G23121.D
50 =9G23120.D 100 =9G23119.D 200 =9G23118.D

		Compound	4	10	20	50	100	200	Avg		%RSD
1)	S	2,4,5,6-Tetrachloro	5.356	5.437	5.540	5.994	6.075	6.001	5.734	E7	5.64
2)		alpha-BHC	7.084	7.758	8.221	9.138	9.297	9.194	8.449	E7	10.77
3)		gamma-BHC	6.537	6.950	7.267	8.076	8.204	8.116	7.525	E7	9.37
4)		beta-BHC	3.337	3.236	3.197	3.437	3.474	3.467	3.358	E7	3.59
5)		Heptachlor	5.103	5.815	6.066	6.611	6.704	6.526	6.137	E7	9.98
6)		delta-BHC	5.890	6.520	7.030	7.819	8.042	8.036	7.223	E7	12.38
7)		Aldrin	5.574	6.025	6.324	7.025	7.156	7.051	6.526	E7	9.98
8)		Heptachlor Epoxide	5.627	5.746	5.852	6.279	6.363	6.301	6.028	E7	5.35
9)		gamma-Chlordane	5.384	5.479	5.630	6.181	6.336	6.325	5.889	E7	7.46
10)		alpha-Chlordane	5.186	5.179	5.273	5.739	5.846	5.836	5.510	E7	5.98
11)		Endosulfan I	5.006	5.037	5.171	5.647	5.738	5.690	5.381	E7	6.42
12)		4,4'-DDE	4.531	4.698	4.946	5.560	5.745	5.773	5.209	E7	10.58
13)		Dieldrin	4.896	5.081	5.345	5.973	6.163	6.193	5.609	E7	10.20
14)		Endrin	3.959	4.060	4.385	4.788	5.005	5.104	4.550	E7	10.71
15)		4,4'-DDD	3.541	3.740	3.948	4.436	4.629	4.767	4.177	E7	12.06
16)		Endosulfan II	4.137	4.092	4.262	4.757	4.924	5.058	4.538	E7	9.37
17)		4,4'-DDT	3.379	3.521	3.833	4.292	4.523	4.635	4.030	E7	13.13
18)		Endrin Aldehyde	3.930	3.365	3.338	3.543	3.659	3.766	3.600	E7	6.42
19)		Endosulfan Sulfate	3.301	3.369	3.534	3.839	4.015	4.154	3.702	E7	9.52
20)		Methoxychlor	1.895	1.836	1.899	2.015	2.116	2.212	1.996	E7	7.33
21)		Endrin Ketone	4.249	4.232	4.389	4.780	4.946	5.087	4.614	E7	8.06
22)	S	Decachlorobiphenyl	4.388	4.114	3.991	3.986	4.005	4.037	4.087	E7	3.79

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\050603\9G23118.D\ECD1A.CH Vial: 4
Acq On : 6 May 2003 14:28 Operator: ECL
Sample : WG139891-01 PEST ICAL 200 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23118.D\ECD2B.CH Vial: 4
Acq On : 6 May 2003 14:52 Operator: ECL
Sample : WG139891-01 PEST ICAL 200 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 12:43 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:38:19 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.21	8.35	19692.5E6	12001.2E6	224.135	210.526
	Spiked Amount 20.000	Range 30 - 132		Recovery = 1120.68%#			1052.63%#
22)	S Decachlorobiphen	14.84	16.31	10614.1E6	8073.2E6	199.881	200.253
	Spiked Amount 20.000	Range 36 - 144		Recovery = 999.40%#			1001.26%#
	Target Compounds						
2)	alpha-BHC	8.21	9.49	28691.2E6	18388.7E6	228.731	220.616
3)	gamma-BHC	8.76	10.11	22629.4E6	16231.3E6	206.580	218.208
4)	beta-BHC	8.90	10.25	10857.3E6	6934.3E6	225.956	208.221
5)	Heptachlor	9.55	10.86	22312.3E6	13051.4E6	199.558	206.821
6)	delta-BHC	9.18	10.74	25800.1E6	16071.4E6	228.195	223.774
7)	Aldrin	10.01	11.38	21552.4E6	14102.2E6	205.975	218.209
8)	Heptachlor Epoxi	10.91	12.25	15045.6E6	12601.8E6	185.256	212.967
9)	gamma-Chlordane	11.10	12.53	20263.0E6	12649.0E6	213.601	216.664
10)	alpha-Chlordane	11.30	12.74	18773.3E6	11671.4E6	204.050	214.408
11)	Endosulfan I	11.48	12.82	17428.5E6	11380.4E6	191.882	213.539
12)	4,4'-DDE	11.43	12.94	18174.4E6	11546.0E6	208.179	223.922
13)	Dieldrin	11.82	13.18	18690.2E6	12386.1E6	201.890	222.351
14)	Endrin	12.14	13.56	16974.3E6	10208.2E6	197.962	220.098
15)	4,4'-DDD	12.26	13.64	15255.2E6	9533.5E6	220.410	229.060
16)	Endosulfan II	12.45	13.79	15408.3E6	10116.1E6	207.778	224.084
17)	4,4'-DDT	12.65	14.00	15946.4E6	9269.6E6	209.395	229.688
18)	Endrin Aldehyde	12.97	14.16	11831.4E6	7532.3E6	206.440	221.211
19)	Endosulfan Sulfa	13.48	14.44	9860.0E6	8308.9E6	204.900	222.940
20)	Methoxychlor	13.25	14.67	6858.5E6	4425.0E6	200.512	215.482
21)	Endrin Ketone	13.79	14.99	14276.4E6	10173.9E6	211.655	221.773

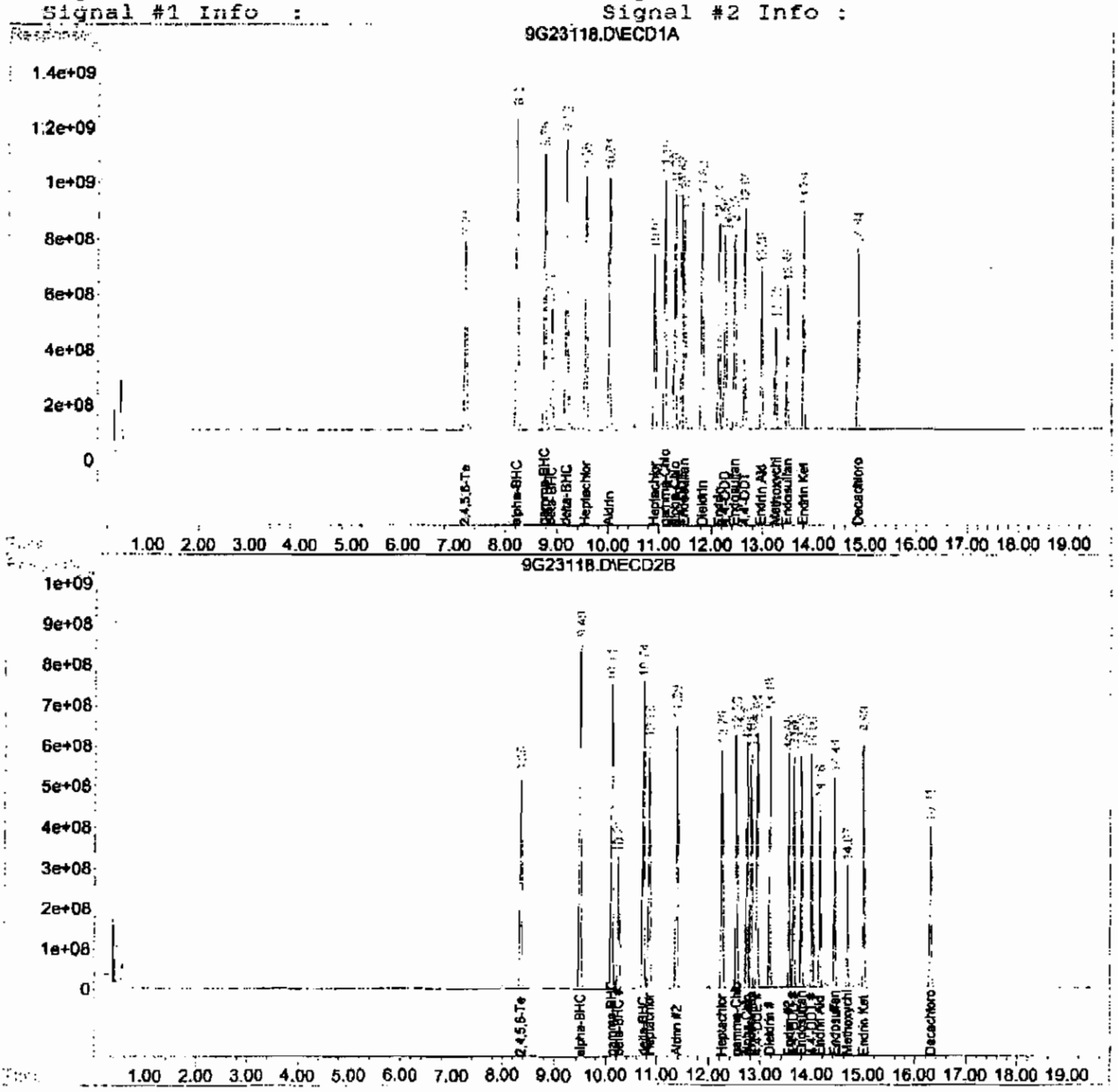
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\050603\9G23118.D\ECD1A.CH Vial: 4
Acq On : 6 May 2003 14:28 Operator: ECL
Sample : WG139891-01 PEST ICAL 200 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23118.D\ECD2B.CH Vial: 4
Acq On : 6 May 2003 14:52 Operator: ECL
Sample : WG139891-01 PEST ICAL 200 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 12:43 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:38:19 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\050603\9G23119.D\ECD1A.CH Vial: 5
Acq On : 6 May 2003 14:52 Operator: ECL
Sample : WG139891-02 PEST ICAL 100 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23119.D\ECD2B.CH Vial: 5
Acq On : 6 May 2003 15:16 Operator: ECL
Sample : WG139891-02 PEST ICAL 100 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 12:44 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:38:19 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.18f	8.35	9686.4E6	6074.9E6	110.249	106.567
	Spiked Amount 20.000	Range 30 - 132		Recovery =		551.24%#	532.83%#
22)	S Decachlorobiphen	14.84	16.30	5575.7E6	4005.3E6	105.001	99.349
	Spiked Amount 20.000	Range 36 - 144		Recovery =		525.01%#	496.75%#
	Target Compounds						
2)	alpha-BHC	8.19f	9.49	14592.5E6	9297.2E6	116.334	111.542
3)	gamma-BHC	8.73f	10.11	12183.3E6	8204.1E6	111.219	110.293
4)	beta-BHC	8.87f	10.25	5310.4E6	3473.7E6	110.517	104.306
5)	Heptachlor	9.53f	10.85	12293.7E6	6704.3E6	109.953	106.240
6)	delta-BHC	9.16f	10.74	13370.5E6	8041.7E6	118.259	111.971
7)	Aldrin	10.00f	11.38	11812.0E6	7155.8E6	112.886	110.724
8)	Heptachlor Epoxi	10.90	12.25	8664.7E6	6362.6E6	106.688	107.526
9)	gamma-Chlordane	11.09	12.53	10878.5E6	6335.7E6	114.675	108.525
10)	alpha-Chlordane	11.28	12.73	10219.1E6	5846.0E6	111.073	107.392
11)	Endosulfan I	11.46	12.82	9874.0E6	5738.1E6	108.709	107.668
12)	4,4'-DDE	11.42	12.93	9774.6E6	5744.7E6	111.964	111.412
13)	Dieldrin	11.81	13.18	10443.7E6	6163.2E6	112.812	110.640
14)	Endrin	12.13	13.55	9413.2E6	5005.1E6	109.781	107.915
15)	4,4'-DDD	12.25	13.64	8810.5E6	4629.2E6	120.071	111.226
16)	Endosulfan II	12.44	13.79	8449.2E6	4924.0E6	113.936	109.074
17)	4,4'-DDT	12.64	13.99	8617.5E6	4523.3E6	113.157	112.081
18)	Endrin Aldehyde	12.97	14.15	6209.0E6	3659.2E6	108.339	107.466
19)	Endosulfan Sulfa	13.48	14.44	5511.9E6	4015.2E6	114.542	107.735
20)	Methoxychlor	13.25	14.67	3706.7E6	2116.2E6	108.368	103.054
21)	Endrin Ketone	13.79	14.99	7621.4E6	4945.8E6	112.991	107.809

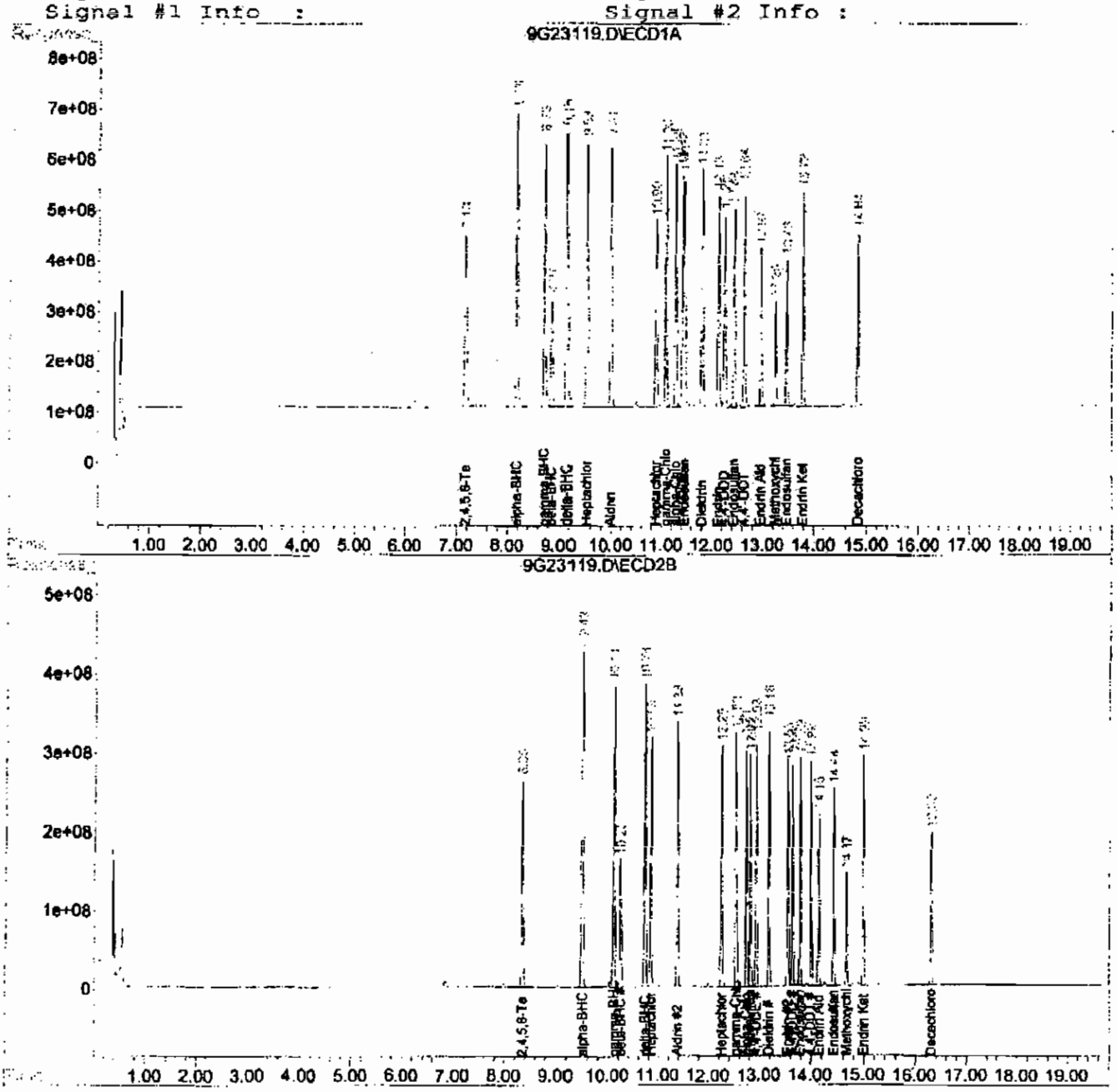
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

```
Data File : C:\HPCHEM\1\DATA\050603\9G23119.D\ECD1A.CH   Vial: 5
Acq On    :  6 May 2003  14:52                          Operator: ECL
Sample    : WG139891-02 PEST ICAL 100 PPB               Inst    : HP9
Misc      : 1,1 SOS63-32                                Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23119.D\ECD2B.CH   Vial: 5
Acq On    :  6 May 2003  15:16                          Operator: ECL
Sample    : WG139891-02 PEST ICAL 100 PPB               Inst    : HP9
Misc      : 1,1 SOS63-32                                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May  7 12:44 2003  Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title        : CALIBRATION May 6, 2003  @ 1653
Last Update  : Wed May 07 12:38:19 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj.      :
Signal #1 Phase  :                    Signal #2 Phase:
Signal #1 Info   :                    Signal #2 Info :
```



Data File : C:\HPCHEM\1\DATA\050603\9G23120.D\ECD1A.CH Vial: 6
Acq On : 6 May 2003 15:16 Operator: ECL
Sample : WG139891-03 PEST ICAL 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23120.D\ECD2B.CH Vial: 6
Acq On : 6 May 2003 15:41 Operator: ECL
Sample : WG139891-03 PEST ICAL 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 12:44 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:44:23 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.19	8.36	4831.6E6	2996.9E6	52.693	52.093
	Spiked Amount 20.000	Range 30 - 132		Recovery =		263.46%#	260.47%#
22)	S Decachlorobiphen	14.84	16.31	2789.0E6	1993.0E6	50.803	49.080
	Spiked Amount 20.000	Range 36 - 144		Recovery =		254.01%#	245.40%#
	Target Compounds						
2)	alpha-BHC	8.20	9.50	7202.0E6	4569.2E6	54.703	54.271
3)	gamma-BHC	8.74	10.12	5961.8E6	4037.8E6	52.850	53.734
4)	beta-BHC	8.88	10.26	2660.1E6	1718.6E6	53.004	51.129
5)	Heptachlor	9.53	10.86	6327.2E6	3305.3E6	54.178	52.453
6)	delta-BHC	9.16	10.75	6662.1E6	3909.7E6	56.070	53.994
7)	Aldrin	10.00	11.39	6004.7E6	3512.3E6	54.711	53.801
8)	Heptachlor Epoxi	10.90	12.26	4192.4E6	3139.3E6	51.164	52.585
9)	gamma-Chlordane	11.09	12.54	5447.5E6	3090.4E6	54.536	52.483
10)	alpha-Chlordane	11.29	12.74	5130.5E6	2869.3E6	53.055	52.215
11)	Endosulfan I	11.47	12.83	5134.7E6	2823.3E6	53.873	52.517
12)	4,4'-DDE	11.42	12.94	4868.8E6	2779.8E6	53.297	53.482
13)	Dieldrin	11.81	13.18	5314.4E6	2986.5E6	54.714	53.237
14)	Endrin	12.14	13.56	4780.8E6	2393.9E6	53.924	51.964
15)	4,4'-DDD	12.25	13.65	4158.2E6	2218.2E6	56.878	52.945
16)	Endosulfan II	12.44	13.80	4326.5E6	2378.6E6	55.415	52.435
17)	4,4'-DDT	12.64	14.00	4318.2E6	2146.1E6	53.884	52.968
18)	Endrin Aldehyde	12.97	14.16	3140.1E6	1771.4E6	52.163	51.398
19)	Endosulfan Sulfa	13.47	14.45	2666.2E6	1919.7E6	53.410	51.446
20)	Methoxychlor	13.25	14.68	1867.6E6	1007.4E6	52.668	49.363
21)	Endrin Ketone	13.79	15.00	3807.2E6	2390.0E6	53.856	51.789

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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Data File : C:\HPCHEM\1\DATA\050603\9G23120.D\ECD1A.CH   Vial: 6
Acq On    :  6 May 2003  15:16                          Operator: ECL
Sample    : WG139891-03 PEST ICAL 50 PPB                Inst    : HP9
Misc      : 1,1 SOS63-32                                Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23120.D\ECD2B.CH   Vial: 6
Acq On    :  6 May 2003  15:41                          Operator: ECL
Sample    : WG139891-03 PEST ICAL 50 PPB                Inst    : HP9
Misc      : 1,1 SOS63-32                                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May  7 12:44 2003  Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title        : CALIBRATION May 6, 2003  @ 1653
Last Update  : Wed May 07 12:44:23 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj.      :
Signal #1 Phase  :                    Signal #2 Phase:
Signal #1 Info   :                    Signal #2 Info :
```
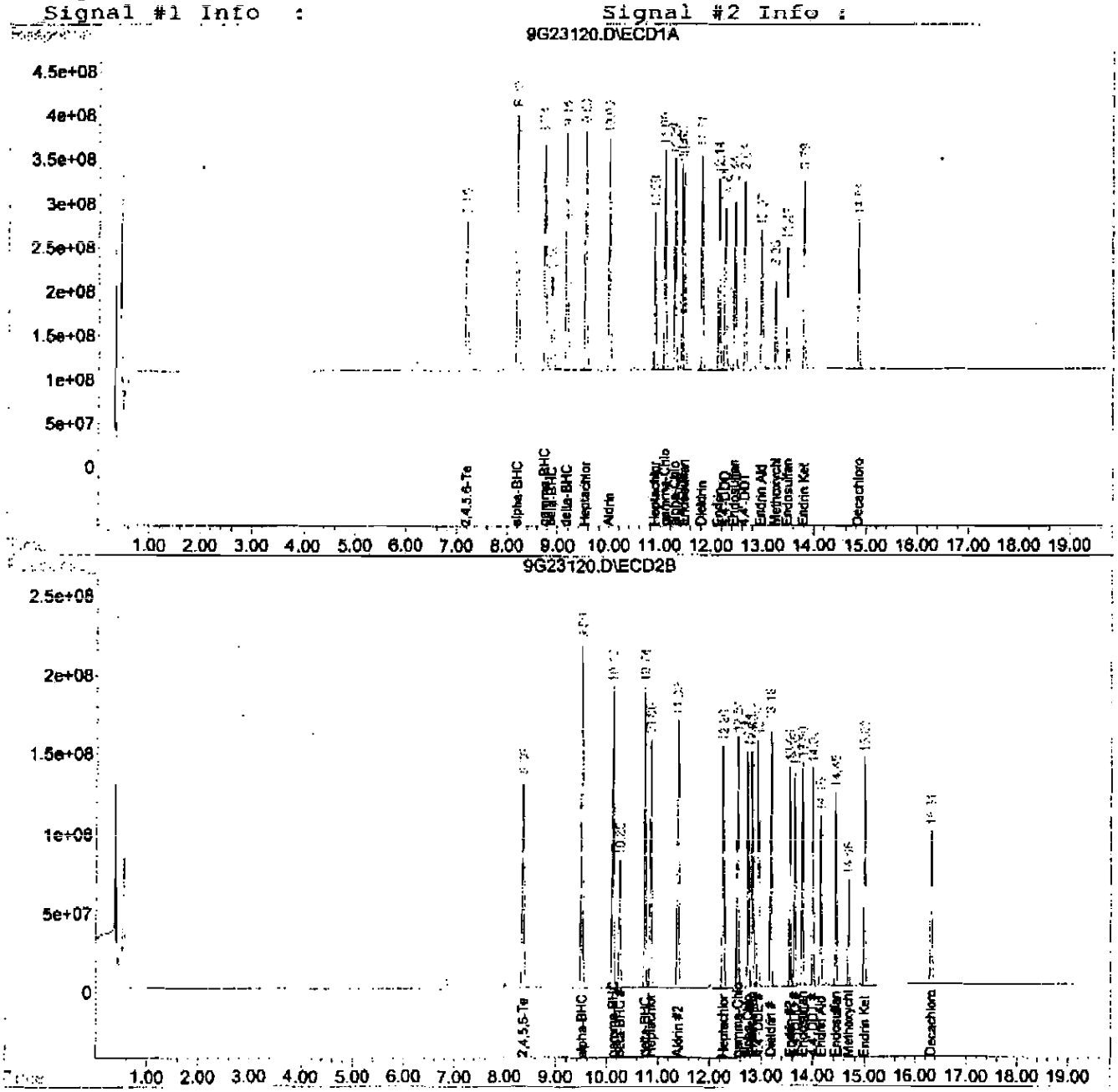



Data File : C:\HPCHEM\1\DATA\050603\9G23121.D\ECD1A.CH Vial: 7
Acq On : 6 May 2003 15:41 Operator: ECL
Sample : WG139891-04 PEST ICAL 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23121.D\ECD2B.CH Vial: 7
Acq On : 6 May 2003 16:05 Operator: ECL
Sample : WG139891-04 PEST ICAL 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 12:44 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:44:43 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1) S	2,4,5,6-Tetrachl	7.19	8.35	1939.7E6	1107.9E6	20.780	19.263
	Spiked Amount 20.000	Range 30 - 132		Recovery =		103.90%	96.32%
22) S	Decachlorobiphen	14.85	16.31	1148.7E6	798.2E6	20.658	19.638
	Spiked Amount 20.000	Range 36 - 144		Recovery =		103.29%	98.19%
	Target Compounds						
2)	alpha-BHC	8.20	9.49	2815.8E6	1644.1E6	20.948	19.530
3)	gamma-BHC	8.75	10.11	2426.3E6	1453.3E6	21.169	19.356
4)	beta-BHC	8.89	10.25	1095.1E6	639.4E6	21.380	19.065
5)	Heptachlor	9.54	10.85	2591.4E6	1213.1E6	21.719	19.387
6)	delta-BHC	9.17	10.74	2588.7E6	1406.1E6	21.328	19.424
7)	Aldrin	10.01	11.38	2420.3E6	1264.9E6	21.572	19.383
8)	Heptachlor Epoxi	10.91	12.25	1803.1E6	1170.3E6	21.848	19.571
9)	gamma-Chlordane	11.10	12.53	2179.9E6	1125.9E6	21.320	19.136
10)	alpha-Chlordane	11.30	12.73	2098.0E6	1054.6E6	21.190	19.197
11)	Endosulfan I	11.48	12.82	2144.8E6	1034.2E6	21.927	19.250
12)	4,4'-DDE	11.43	12.93	1938.5E6	989.2E6	20.793	19.053
13)	Dieldrin	11.82	13.18	2152.2E6	1069.1E6	21.642	19.081
14)	Endrin	12.15	13.55	1920.5E6	876.9E6	21.323	19.113
15)	4,4'-DDD	12.27	13.64	1589.0E6	789.5E6	21.216	18.890
16)	Endosulfan II	12.45	13.79	1740.4E6	852.3E6	21.756	18.819
17)	4,4'-DDT	12.65	13.99	1752.4E6	766.5E6	21.335	18.939
18)	Endrin Aldehyde	12.98	14.15	1294.9E6	667.6E6	21.028	19.336
19)	Endosulfan Sulfa	13.48	14.44	1092.8E6	706.8E6	21.514	18.992
20)	Methoxychlor	13.26	14.67	762.1E6	379.8E6	21.202	18.676
21)	Endrin Ketone	13.80	14.99	1529.7E6	877.8E6	21.173	19.050

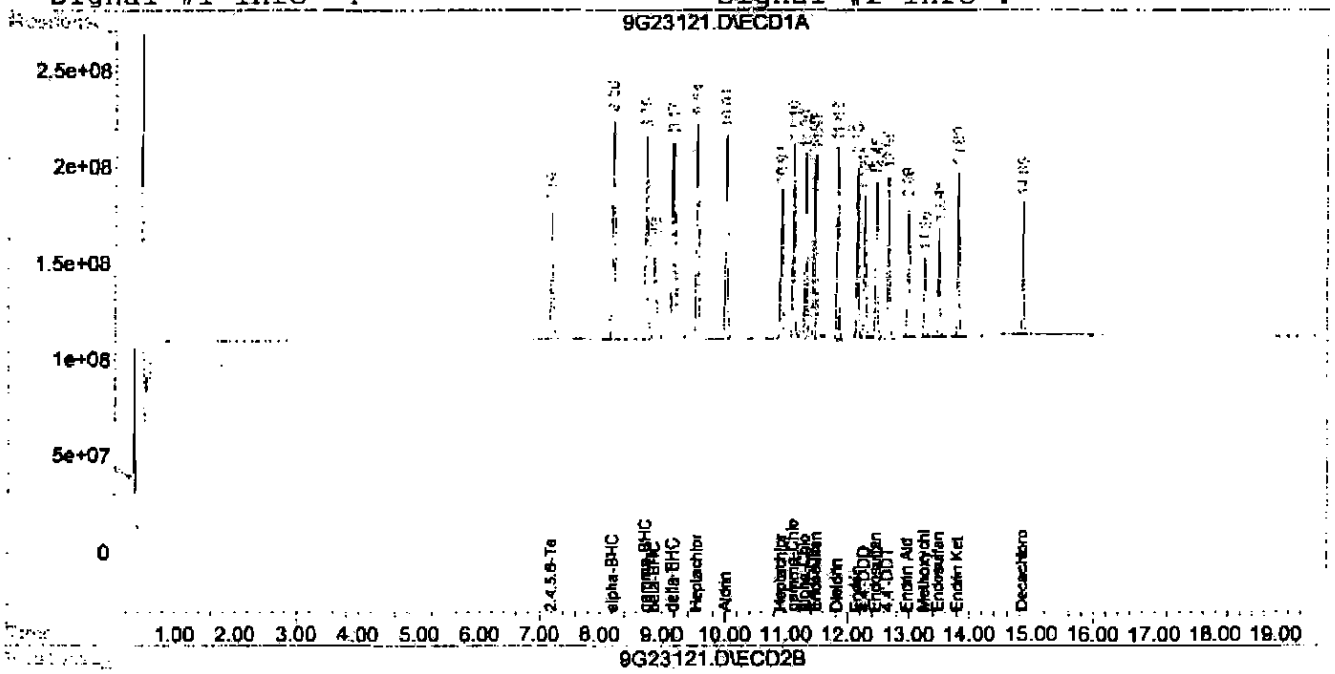
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

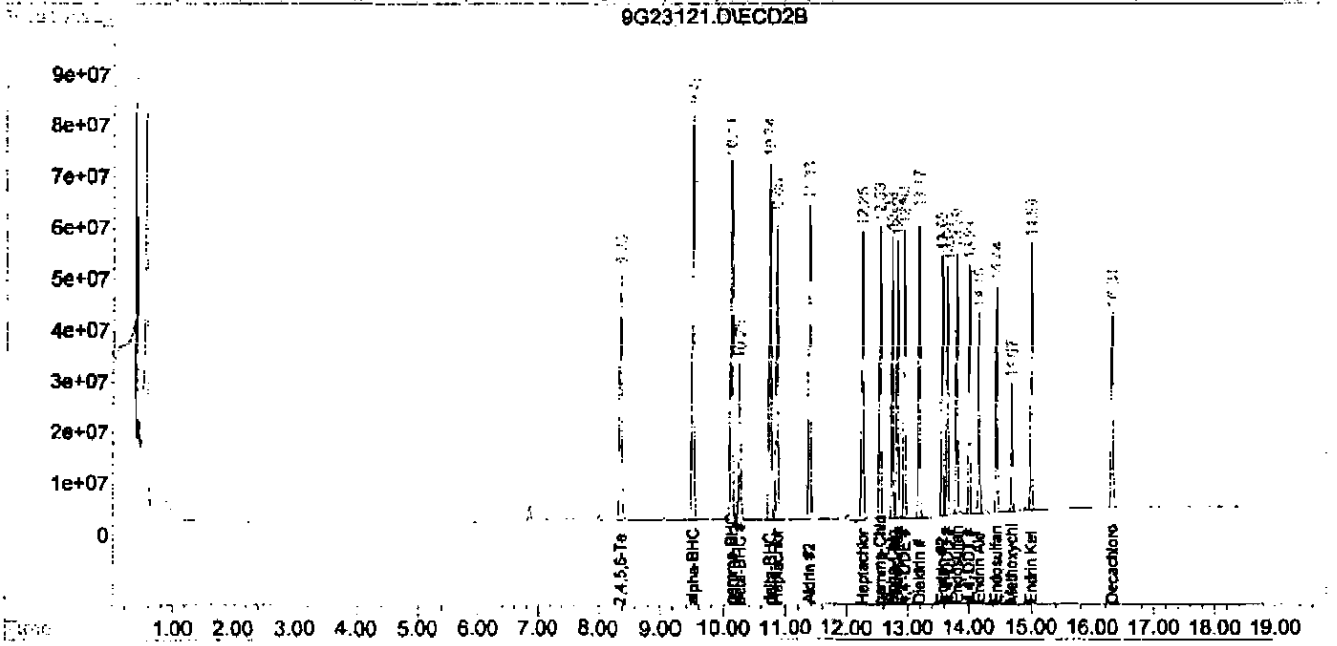
Data File : C:\HPCHEM\1\DATA\050603\9G23121.D\ECD1A.CH Vial: 7
Acq On : 6 May 2003 15:41 Operator: ECL
Sample : WG139891-04 PEST ICAL 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23121.D\ECD2B.CH Vial: 7
Acq On : 6 May 2003 16:05 Operator: ECL
Sample : WG139891-04 PEST ICAL 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 12:44 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:44:43 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\050603\9G23122.D\ECD1A.CH Vial: 8
Acq On : 6 May 2003 16:05 Operator: ECL
Sample : WG139891-05 PEST ICAL 10 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23122.D\ECD2B.CH Vial: 8
Acq On : 6 May 2003 16:29 Operator: ECL
Sample : WG139891-05 PEST ICAL 10 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 12:45 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:45:22 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.19	8.36	945.3E6	543.7E6	9.975	9.489
	Spiked Amount 20.000	Range 30 - 132		Recovery =		49.88%	47.45%
22)	S Decachlorobiphen	14.84	16.30	586.6E6	411.4E6	10.434	10.095
	Spiked Amount 20.000	Range 36 - 144		Recovery =		52.17%	50.48%
	Target Compounds						
2)	alpha-BHC	8.20	9.50	1341.9E6	775.8E6	9.810	9.215
3)	gamma-BHC	8.74	10.12	1112.7E6	695.0E6	9.631	9.267
4)	beta-BHC	8.89	10.25	521.2E6	323.6E6	10.022	9.670
5)	Heptachlor	9.54	10.86	1269.9E6	581.5E6	10.449	9.372
6)	delta-BHC	9.17	10.74	1203.0E6	652.0E6	9.721	9.020
7)	Aldrin	10.00	11.38	1199.6E6	602.5E6	10.476	9.246
8)	Heptachlor Epoxi	10.90	12.26	794.8E6	574.6E6	9.665	9.571
9)	gamma-Chlordane	11.09	12.53	1060.9E6	547.9E6	10.170	9.329
10)	alpha-Chlordane	11.29	12.74	1065.2E6	517.9E6	10.514	9.429
11)	Endosulfan I	11.47	12.82	1082.1E6	503.7E6	10.793	9.385
12)	4,4'-DDE	11.43	12.94	966.5E6	469.8E6	10.169	9.060
13)	Dieldrin	11.81	13.18	1067.6E6	508.1E6	10.507	9.085
14)	Endrin	12.14	13.56	935.6E6	406.0E6	10.250	8.901
15)	4,4'-DDD	12.26	13.64	751.2E6	374.0E6	9.834	8.965
16)	Endosulfan II	12.44	13.79	901.3E6	409.2E6	10.893	9.083
17)	4,4'-DDT	12.64	14.00	929.4E6	352.1E6	10.908	8.730
18)	Endrin Aldehyde	12.97	14.16	654.1E6	336.5E6	10.396	9.726
19)	Endosulfan Sulfa	13.48	14.41	494.4E6	336.9E6	9.679	9.086
20)	Methoxychlor	13.25	14.67	378.6E6	183.6E6	10.363	9.094
21)	Endrin Ketone	13.79	14.99	755.0E6	423.2E6	10.248	9.199

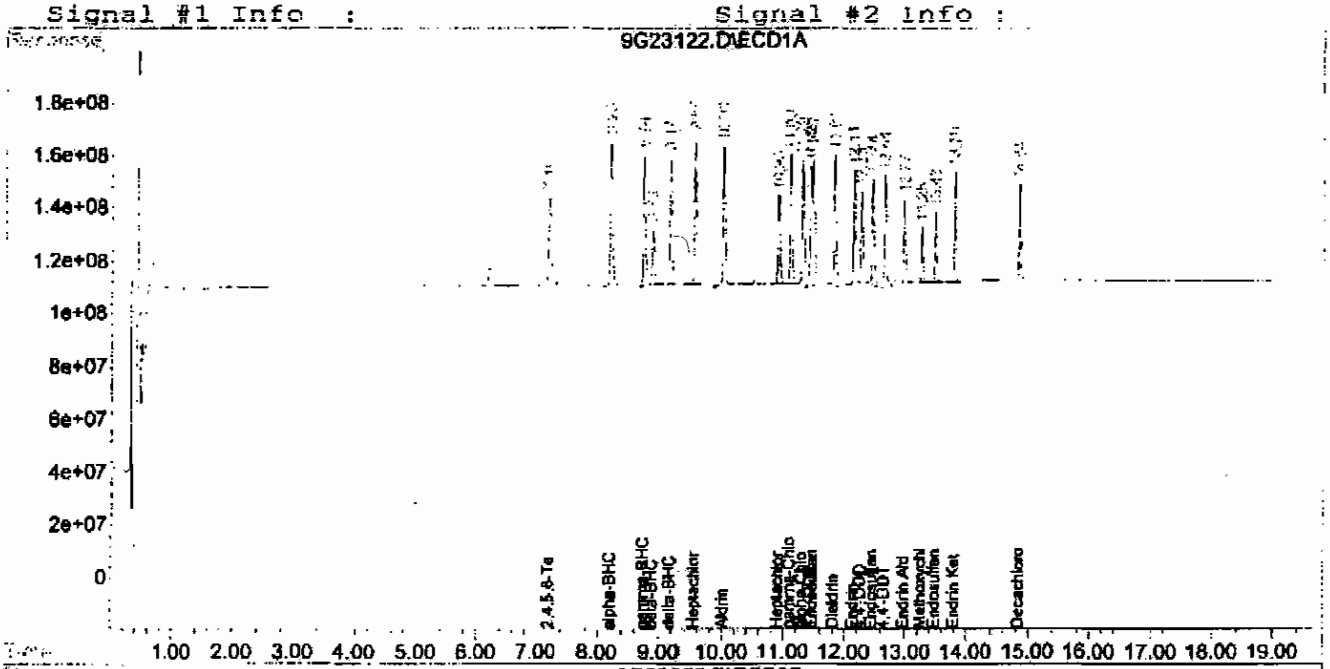
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

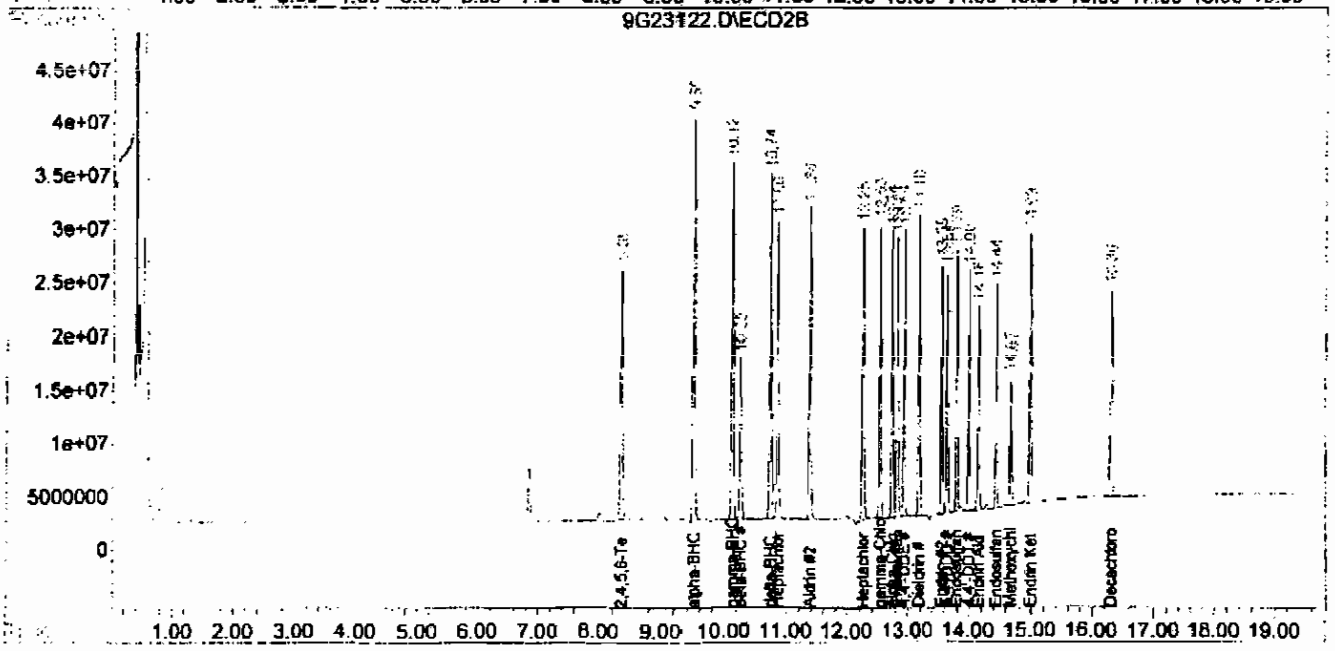
Data File : C:\HPCHEM\1\DATA\050603\9G23122.D\ECD1A.CH Vial: 8
Acq On : 6 May 2003 16:05 Operator: ECL
Sample : WG139891-05 PEST ICAL 10 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23122.D\ECD2B.CH Vial: 8
Acq On : 6 May 2003 16:29 Operator: ECL
Sample : WG139891-05 PEST ICAL 10 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 12:45 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:45:22 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\050603\9G23123.D\ECD1A.CH Vial: 9
Acq On : 6 May 2003 16:29 Operator: ECL
Sample : WG139891-06 PEST ICAL 4 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23123.D\ECD2B.CH Vial: 9
Acq On : 6 May 2003 16:53 Operator: ECL
Sample : WG139891-06 PEST ICAL 4 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 12:54 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:49:23 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L	
	System Monitoring Compounds							
1)	S 2,4,5,6-Tetrachl	7.20	8.35	378.3E6	214.2E6	3.927	3.737	
	Spiked Amount 20.000	Range 30 - 132			Recovery =	19.63%#	18.69%#	
22)	S Decachlorobiphen	14.84	16.30	245.4E6	175.5E6	4.305	4.295	
	Spiked Amount 20.000	Range 36 - 144			Recovery =	21.52%#	21.48%#	
	Target Compounds							
2)	alpha-BHC	8.21	9.50	500.6E6	283.4E6	3.603	3.354	
3)	gamma-BHC	8.75	10.12	332.6E6	261.5E6	2.979	3.475	
4)	beta-BHC	8.89	10.25	171.8E6	133.5E6	3.321	3.975	
5)	Heptachlor	9.54	10.86	495.9E6	204.1E6	4.012	3.326	
6)	delta-BHC	9.18	10.74	422.3E6	235.6E6	3.373	3.262	
7)	Aldrin	10.01	11.38	419.3E6	223.0E6	3.636	3.422	
8)	Heptachlor Epoxi	10.91	12.25	195.9E6	225.1E6	2.566	3.734	#
9)	gamma-Chlordane	11.10	12.53	409.8E6	215.4E6	3.862	3.657	
10)	alpha-Chlordane	11.29	12.73	457.1E6	207.4E6	4.393	3.765	
11)	Endosulfan I	11.47	12.82	461.0E6	200.3E6	4.467	3.721	
12)	4,4'-DDE	11.43	12.94	442.0E6	181.2E6	4.494	3.479	
13)	Dieldrin	11.82	13.18	430.8E6	195.8E6	4.128	3.492	
14)	Endrin	12.14	13.55	371.7E6	158.4E6	4.003	3.483	
15)	4,4'-DDD	12.26	13.64	275.0E6	141.6E6	3.541	3.393	
16)	Endosulfan II	12.45	13.79	332.8E6	165.5E6	3.927	3.654	
17)	4,4'-DDT	12.65	14.00	372.5E6	135.2E6	4.237	3.354	
18)	Endrin Aldehyde	12.97	14.15	275.7E6	157.2E6	4.294	4.367	
19)	Endosulfan Sulfa	13.48	14.44	131.0E6	132.0E6	2.686	3.567	#
20)	Methoxychlor	13.25	14.67	156.5E6	75782639	4.195	3.797	
21)	Endrin Ketone	13.79	14.99	301.7E6	170.0E6	4.012	3.684	

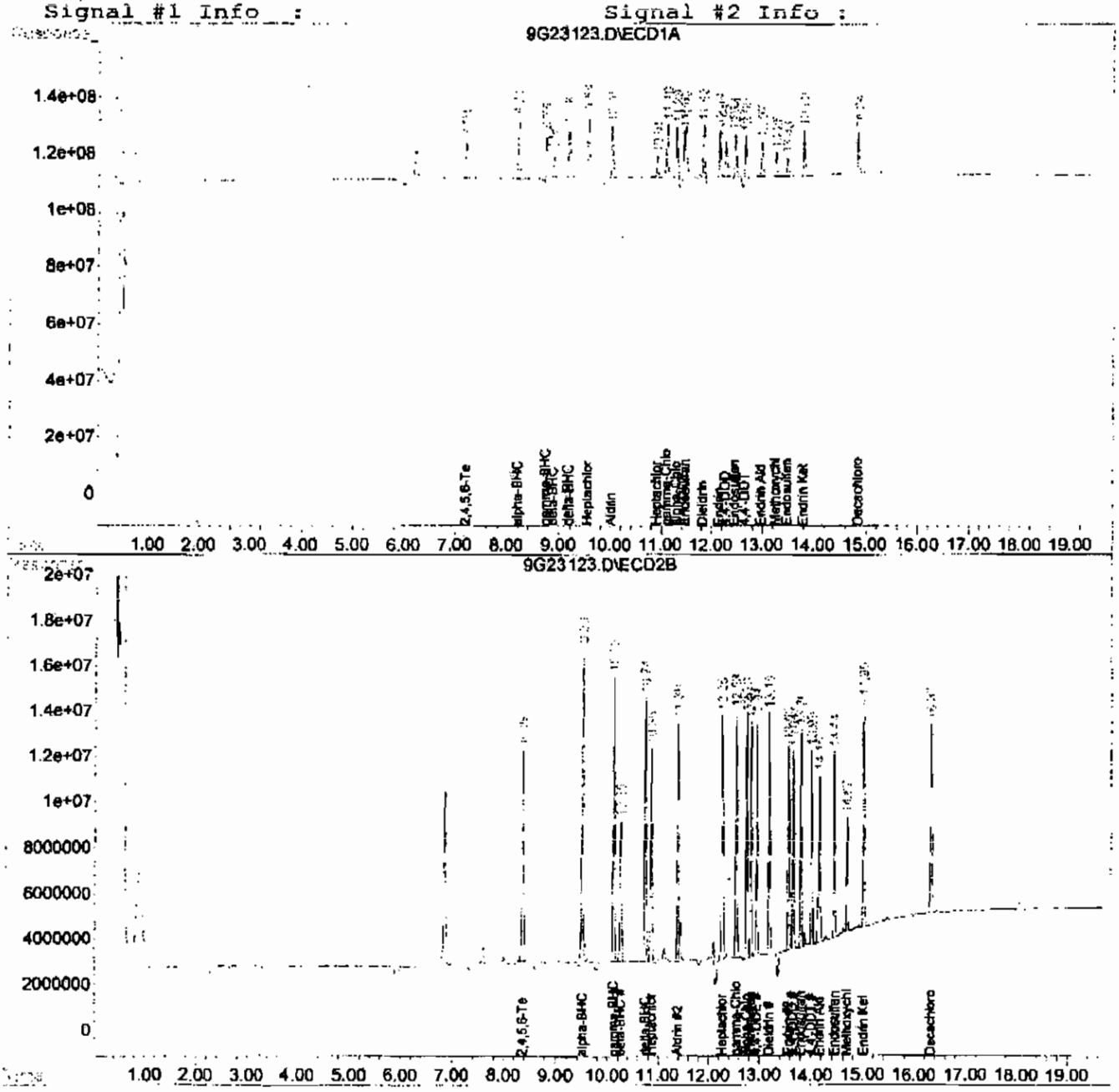
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\050603\9G23123.D\ECD1A.CH Vial: 9
Acq On : 6 May 2003 16:29 Operator: ECL
Sample : WG139891-06 PEST ICAL 4 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23123.D\ECD2B.CH Vial: 9
Acq On : 6 May 2003 16:53 Operator: ECL
Sample : WG139891-06 PEST ICAL 4 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 12:54 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:49:23 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\050603\9G23124.D\ECD1A.CH Vial: 10
Acq On : 6 May 2003 16:53 Operator: ECL
Sample : WG139891-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23124.D\ECD2B.CH Vial: 10
Acq On : 6 May 2003 17:18 Operator: ECL
Sample : WG139891-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:54:29 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	alpha-BHC	20.000	19.346	3.3	95	0.00
3	gamma-BHC	20.000	20.518	-2.6	94	0.00
4	beta-BHC	20.000	18.716	6.4	88	0.00
5	Heptachlor	20.000	19.912	0.4	95	0.00
6	delta-BHC	20.000	18.468	7.7	89	0.00
7	Aldrin	20.000	19.980	0.1	95	0.00
8	Heptachlor Epoxide	20.000	21.444	-7.2	92	0.00
9	gamma-Chlordane	20.000	19.712	1.4	96	0.00
10	alpha-Chlordane	20.000	19.666	1.7	98	0.00
11	Endosulfan I	20.000	19.308	3.5	93	0.00
12	4,4'-DDE	20.000	19.457	2.7	99	0.00
13	Dieldrin	20.000	19.666	1.7	95	0.00
14	Endrin	20.000	19.067	4.7	92	0.00
15	4,4'-DDD	20.000	19.275	3.6	94	0.00
16	Endosulfan II	20.000	18.584	7.1	90	0.00
17	4,4'-DDT	20.000	18.735	6.3	94	0.00
18	Endrin Aldehyde	20.000	18.029	9.9	89	0.00
19	Endosulfan Sulfate	20.000	20.490	-2.4	92	0.00
20	Methoxychlor	20.000	19.532	2.3	96	0.00
21	Endrin Ketone	20.000	19.394	3.0	95	0.00
	Signal #2					
2	alpha-BHC	20.000	19.550	2.2	100	0.00
3	gamma-BHC	20.000	19.468	2.7	101	0.00
4	beta-BHC	20.000	18.603	7.0	98	0.00
5	Heptachlor	20.000	19.486	2.6	99	0.00
6	delta-BHC	20.000	18.675	6.6	96	0.00
7	Aldrin	20.000	19.277	3.6	99	0.00
8	Heptachlor Epoxide	20.000	19.255	3.7	99	0.00
9	gamma-Chlordane	20.000	19.252	3.7	101	0.00
10	alpha-Chlordane	20.000	19.412	2.9	101	0.00
11	Endosulfan I	20.000	18.735	6.3	97	0.00
12	4,4'-DDE	20.000	19.396	3.0	102	0.00
13	Dieldrin	20.000	18.888	5.6	99	0.00
14	Endrin	20.000	18.110	9.5	94	0.00
15	4,4'-DDD	20.000	18.720	6.4	99	0.00
16	Endosulfan II	20.000	17.983	10.1	96	0.00
17	4,4'-DDT	20.000	18.660	6.7	98	0.00
18	Endrin Aldehyde	20.000	17.388	13.1	94	0.00
19	Endosulfan Sulfate	20.000	18.226	8.9	95	0.00
20	Methoxychlor	20.000	18.391	8.0	97	0.00
21	Endrin Ketone	20.000	18.351	8.2	96	0.00

Data File : C:\HPCHEM\1\DATA\050603\9G23124.D\ECD1A.CH Vial: 10
Acq On : 6 May 2003 16:53 Operator: ECL
Sample : WG139891-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23124.D\ECD2B.CH Vial: 10
Acq On : 6 May 2003 17:18 Operator: ECL
Sample : WG139891-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 12:56 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:54:29 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1) S	2,4,5,6-Tetrachl	0.00	0.00	0	0	N.D.	N.D.
	Spiked Amount 20.000	Range 30 - 132		Recovery =		0.00%#	0.00%#
22) S	Decachlorobiphen	0.00	0.00	0	0	N.D.	N.D.
	Spiked Amount 20.000	Range 36 - 144		Recovery =		0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	8.20	9.50	2687.6E6	1651.7E6	19.346	19.550
	gamma-BHC	8.74	10.12	2291.0E6	1464.9E6	20.518	19.468
	beta-BHC	8.89	10.25	968.3E6	624.7E6	18.716	18.603
5)	Heptachlor	9.54	10.86	2461.0E6	1195.9E6	19.912	19.486
6)	delta-BHC	9.17	10.74	2312.4E6	1348.9E6	18.468	18.675
7)	Aldrin	10.01	11.38	2303.6E6	1258.0E6	19.980	19.277
8)	Heptachlor Epoxi	10.90	12.25	1659.6E6	1160.6E6	21.444	19.255
9)	gamma-Chlordane	11.09	12.53	2091.4E6	1133.7E6	19.712	19.252
10)	alpha-Chlordane	11.29	12.73	2046.4E6	1069.5E6	19.666	19.412
11)	Endosulfan I	11.47	12.82	1992.9E6	1008.2E6	19.308	18.735
12)	4,4'-DDE	11.43	12.93	1913.6E6	1010.3E6	19.457	19.396
13)	Dieldrin	11.82	13.18	2052.6E6	1059.3E6	19.666	18.888
14)	Endrin	12.14	13.55	1770.5E6	824.0E6	19.067	18.110
15)	4,4'-DDD	12.26	13.64	1496.5E6	781.9E6	19.275	18.720
16)	Endosulfan II	12.44	13.79	1574.7E6	816.1E6	18.584	17.983
17)	4,4'-DDT	12.64	13.99	1642.3E6	752.1E6	18.735	18.660
18)	Endrin Aldehyde	12.97	14.15	1151.3E6	626.0E6	18.029	17.388
19)	Endosulfan Sulfa	13.48	14.44	1005.9E6	674.8E6	20.490	18.226
20)	Methoxychlor	13.25	14.67	728.5E6	367.0E6	19.532	18.391
21)	Endrin Ketone	13.79	14.99	1458.2E6	846.6E6	19.394	18.351

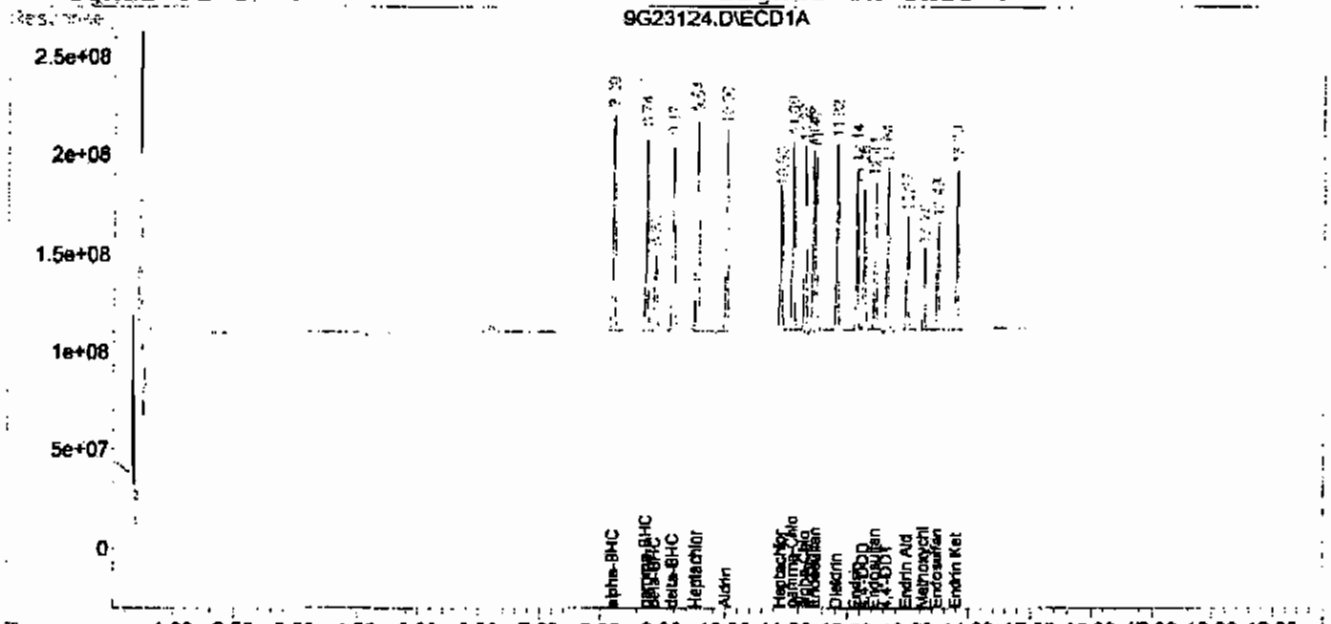
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

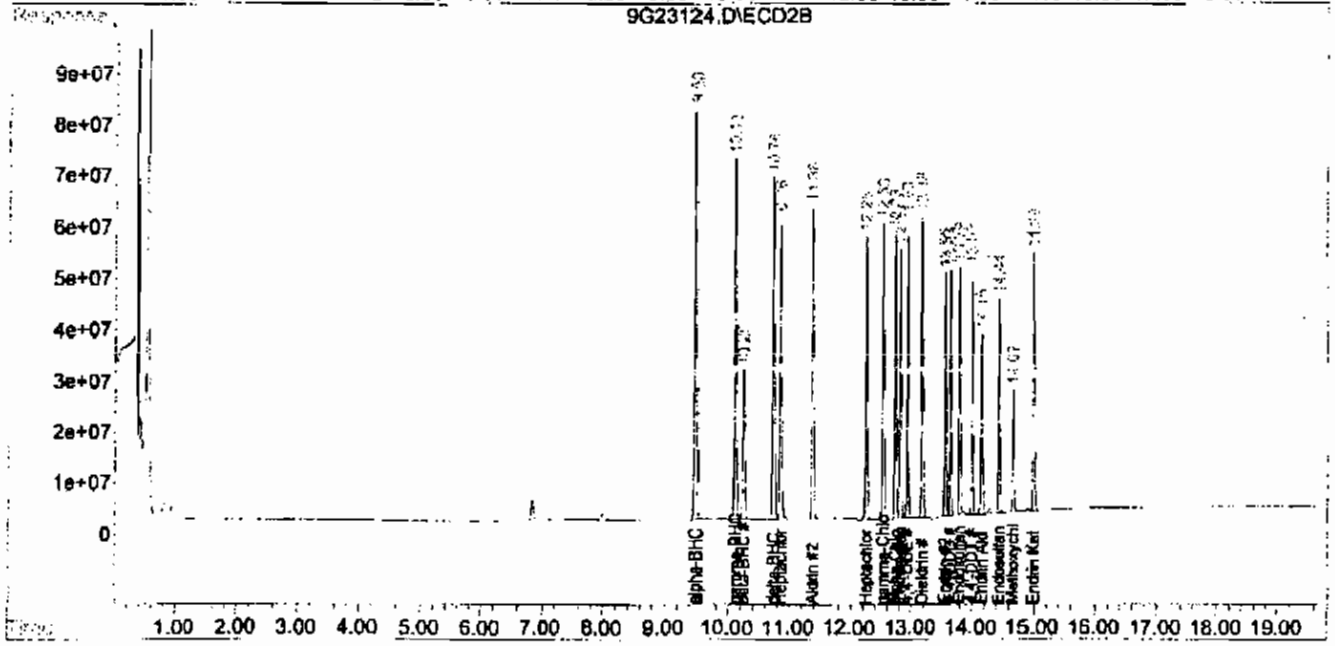
Data File : C:\HPCHEM\1\DATA\050603\9G23124.D\ECD1A.CH Vial: 10
Acq On : 6 May 2003 16:53 Operator: ECL
Sample : WG139891-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23124.D\ECD2B.CH Vial: 10
Acq On : 6 May 2003 17:18 Operator: ECL
Sample : WG139891-07 PEST ALT ICV 20 PPB Inst : HP9
Misc : 1,1 SOS62-49 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 12:56 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:54:29 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\043003\9G23062.D\ECD1A.CH Vial: 28
Acq On : 30 Apr 2003 20:48 Operator: ECL
Sample : WG139380-08 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23062.D\ECD2B.CH Vial: 28
Acq On : 30 Apr 2003 21:13 Operator: ECL
Sample : WG139380-08 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Thu May 01 08:17:59 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	20.000	21.353	-6.8	105	0.00
2		alpha-BHC	20.000	21.425	-7.1	105	0.00
3		gamma-BHC	20.000	20.780	-3.9	102	0.00
4		beta-BHC	20.000	21.933	-9.7	106	0.00
5		Heptachlor	20.000	22.030	-10.2	106	0.00
6		delta-BHC	20.000	22.004	-10.0	107	0.00
7		Aldrin	20.000	21.943	-9.7	106	0.00
8		Heptachlor Epoxide	20.000	20.353	-1.8	95	0.00
9		gamma-Chlordane	20.000	21.498	-7.5	106	0.01#
10		alpha-Chlordane	20.000	21.436	-7.2	107	0.01#
11		Endosulfan I	20.000	21.926	-9.6	107	0.01#
12		4,4'-DDE	20.000	21.610	-8.0	109	0.00
13		Dieldrin	20.000	21.825	-9.1	107	0.01#
14		Endrin	20.000	22.081	-10.4	107	0.01#
15		4,4'-DDD	20.000	22.032	-10.2	109	0.00
16		Endosulfan II	20.000	22.698	-13.5	110	0.01#
17		4,4'-DDT	20.000	22.125	-10.6	110	0.01#
18		Endrin Aldehyde	20.000	21.024	-5.1	105	0.01#
19		Endosulfan Sulfate	20.000	22.828	-14.1	111	0.00
20		Methoxychlor	20.000	21.528	-7.6	104	0.00
21		Endrin Ketone	20.000	21.379	-6.9	106	0.00
22	S	Decachlorobiphenyl	20.000	20.875	-4.4	103	0.00
		Signal #2					
1	S	2,4,5,6-Tetrachloro-M-Xyl	20.000	19.394	3.0	99	0.00
2		alpha-BHC	20.000	19.552	2.2	98	0.00
3		gamma-BHC	20.000	19.456	2.7	98	0.00
4		beta-BHC	20.000	19.254	3.7	98	0.00
5		Heptachlor	20.000	19.444	2.8	97	0.00
6		delta-BHC	20.000	19.485	2.6	98	0.00
7		Aldrin	20.000	19.345	3.3	98	0.00
8		Heptachlor Epoxide	20.000	19.601	2.0	99	0.00
9		gamma-Chlordane	20.000	19.156	4.2	98	0.00
10		alpha-Chlordane	20.000	19.217	3.9	98	0.00
11		Endosulfan I	20.000	19.275	3.6	98	0.00
12		4,4'-DDE	20.000	19.157	4.2	98	0.00
13		Dieldrin	20.000	19.147	4.3	98	0.00
14		Endrin	20.000	19.783	1.1	102	0.00
15		4,4'-DDD	20.000	19.039	4.8	98	0.00
16		Endosulfan II	20.000	19.026	4.9	99	0.00
17		4,4'-DDT	20.000	19.149	4.3	100	0.00
18		Endrin Aldehyde	20.000	19.402	3.0	99	0.00
19		Endosulfan Sulfate	20.000	19.525	2.4	101	0.00
20		Methoxychlor	20.000	19.349	3.3	102	0.00
21		Endrin Ketone	20.000	19.218	3.9	99	0.00
22	S	Decachlorobiphenyl	20.000	19.467	2.7	98	-0.01#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\043003\9G23062.D\ECD1A.CH Vial: 28
Acq On : 30 Apr 2003 20:48 Operator: ECL
Sample : WG139380-08 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23062.D\ECD2B.CH Vial: 28
Acq On : 30 Apr 2003 21:13 Operator: ECL
Sample : WG139380-08 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 1 8:18 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Thu May 01 08:17:59 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1) S	2,4,5,6-Tetrachl	7.21	8.35	1821.2E6	1096.3E6	21.353	19.394
	Spiked Amount 20.000	Range 30 - 132		Recovery =		106.77%	96.97%
22) S	Decachlorobiphen	14.85	16.28	1095.8E6	780.7E6	20.875	19.467
	Spiked Amount 20.000	Range 36 - 144		Recovery =		104.38%	97.33%
	Target Compounds						
2)	alpha-BHC	8.22	9.49	2618.3E6	1614.2E6	21.425	19.552
3)	gamma-BHC	8.76	10.11	2248.9E6	1433.2E6	20.780	19.456
4)	beta-BHC	8.90	10.24	1031.0E6	635.1E6	21.933	19.254
5)	Heptachlor	9.55	10.85	2427.5E6	1222.8E6	22.030	19.444
6)	delta-BHC	9.19	10.73	2434.8E6	1387.0E6	22.004	19.485
7)	Aldrin	10.02	11.37	2260.9E6	1238.3E6	21.943	19.345
8)	Heptachlor Epoxi	10.92	12.24	1651.3E6	1149.7E6	20.353	19.601
9)	gamma-Chlordane	11.11	12.52	2003.4E6	1107.7E6	21.498	19.156
10)	alpha-Chlordane	11.31	12.72	1941.6E6	1036.2E6	21.436	19.217
11)	Endosulfan I	11.49	12.81	1967.8E6	1018.8E6	21.926	19.275
12)	4,4'-DDE	11.44	12.92	1859.3E6	979.4E6	21.610	19.157
13)	Dieldrin	11.83	13.16	1998.3E6	1057.9E6	21.825	19.147
14)	Endrin	12.16	13.54	1882.0E6	918.6E6	22.081	19.783
15)	4,4'-DDD	12.27	13.63	1502.4E6	785.8E6	22.032	19.039
16)	Endosulfan II	12.46	13.78	1661.7E6	853.6E6	22.698	19.026
17)	4,4'-DDT	12.66	13.98	1659.8E6	769.4E6	22.125	19.149
18)	Endrin Aldehyde	12.99	14.14	1185.9E6	654.1E6	21.024	19.402
19)	Endosulfan Sulfa	13.49	14.43	1093.5E6	724.7E6	22.828	19.525
20)	Methoxychlor	13.26	14.66	731.2E6	397.6E6	21.528	19.349
21)	Endrin Ketone	13.81	14.97	1424.1E6	875.6E6	21.379	19.218

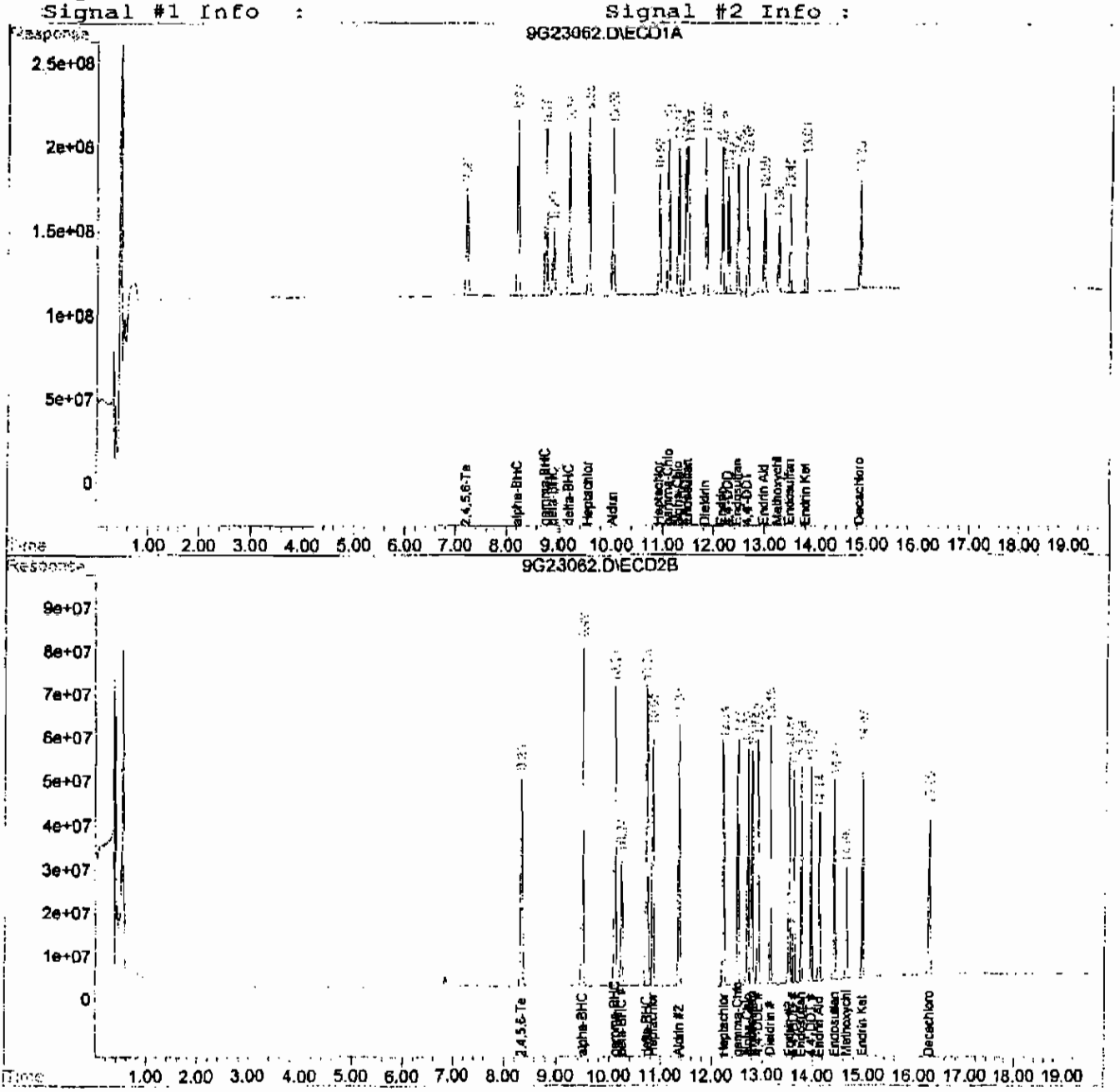
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\043003\9G23062.D\ECD1A.CH Vial: 28
Acq On : 30 Apr 2003 20:48 Operator: ECL
Sample : WG139380-08 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23062.D\ECD2B.CH Vial: 28
Acq On : 30 Apr 2003 21:13 Operator: ECL
Sample : WG139380-08 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 1 8:18 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Thu May 01 08:17:59 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\043003\9G23063.D\ECD1A.CH Vial: 29
Acq On : 30 Apr 2003 21:13 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\043003\9G23063.D\ECD2B.CH Vial: 29
Acq On : 30 Apr 2003 21:37 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	Toxaphene-1	500.000	508.710	-1.7	102	0.00
2	L1	Toxaphene-2	500.000	491.897	1.6	101	0.00
3	L1	Toxaphene-3	500.000	502.821	-0.6	101	0.00
4	L1	Toxaphene-4	500.000	498.953	0.2	100	0.00
5	L1	Toxaphene-5	500.000	500.738	-0.1	100	0.00
		Signal #2					
1	L1	Toxaphene-1	500.000	472.739	5.5	95	0.00
2	L1	Toxaphene-2	500.000	470.251	5.9	95	0.00
3	L1	Toxaphene-3	500.000	483.885	3.2	94	0.00
4	L1	Toxaphene-4	500.000	479.445	4.1	94	0.00
5	L1	Toxaphene-5	500.000	477.200	4.6	95	0.00

Data File : C:\HPCHEM\1\DATA\043003\9G23063.D\ECD1A.CH Vial: 29
Acq On : 30 Apr 2003 21:13 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\043003\9G23063.D\ECD2B.CH Vial: 29
Acq On : 30 Apr 2003 21:37 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: May 1 8:23 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
Target Compounds						
1) L1 Toxaphene-1	12.20	13.15	451.0E6	243.5E6	508.710	472.739
2) L1 Toxaphene-2	12.97	13.89	803.1E6	663.3E6	491.897	470.251
3) L1 Toxaphene-3	13.46	14.16	547.8E6	444.7E6	502.821	483.885
4) L1 Toxaphene-4	13.80	14.74	706.2E6	328.3E6	498.953	479.445
5) L1 Toxaphene-5	13.96	15.10	345.3E6	311.8E6	500.738	477.200
Sum Toxaphene-1			2853.3E6	1991.7E6	2503.118	2383.521
Average Toxaphene-1					500.624	476.704

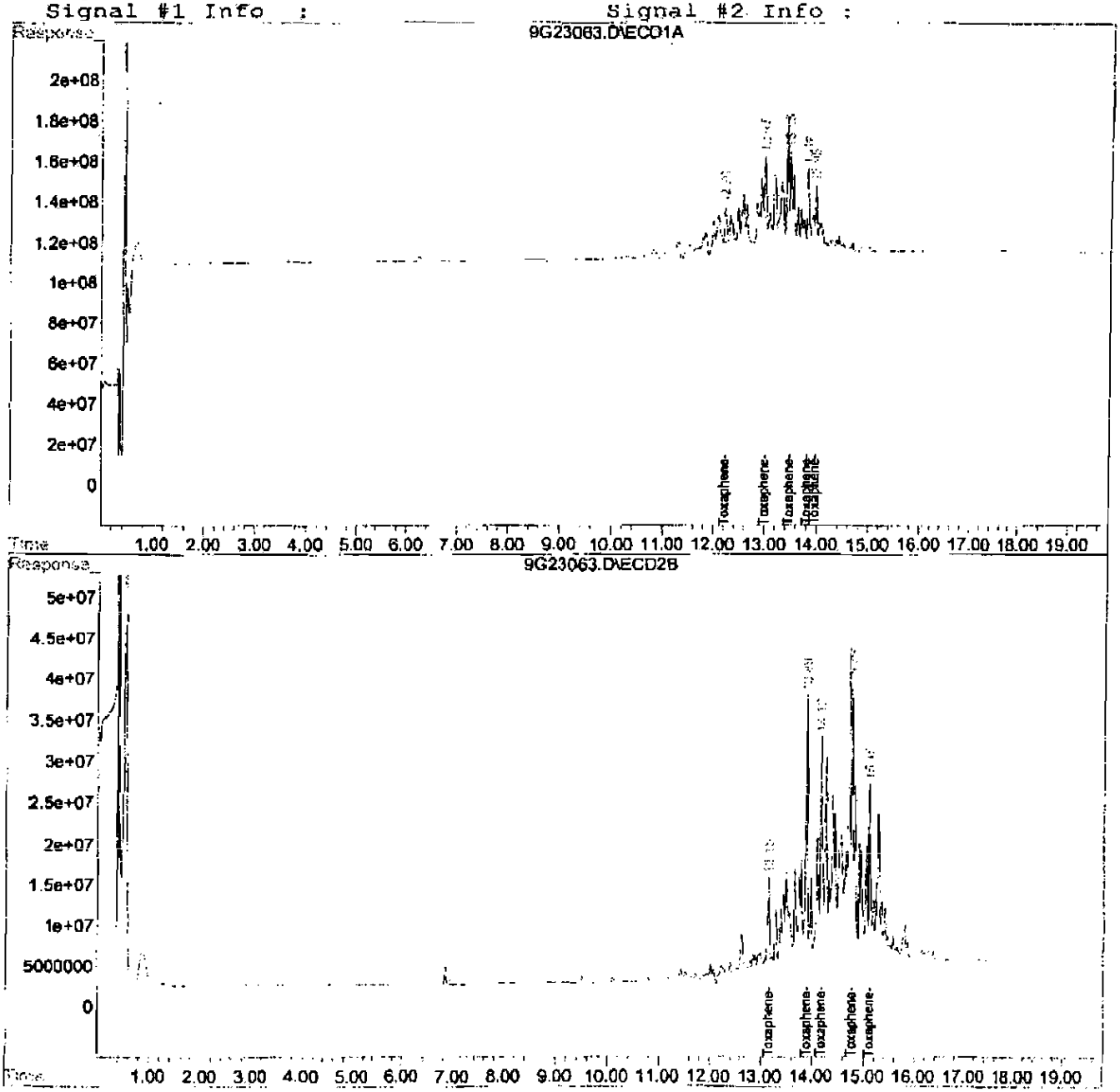
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\043003\9G23063.D\ECD1A.CH Vial: 29
Acq On : 30 Apr 2003 21:13 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\043003\9G23063.D\ECD2B.CH Vial: 29
Acq On : 30 Apr 2003 21:37 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: May 1 8:23 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\050603\9G23117.D\ECD1A.CH Vial: 3
Acq On : 6 May 2003 13:17 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\050603\9G23117.D\ECD2B.CH Vial: 3
Acq On : 6 May 2003 13:42 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	Toxaphene-1	500.000	554.988	-11.0	111	0.00
2	L1	Toxaphene-2	500.000	536.375	-7.3	110	0.00
3	L1	Toxaphene-3	500.000	554.519	-10.9	112	0.00
4	L1	Toxaphene-4	500.000	545.435	-9.1	109	0.00
5	L1	Toxaphene-5	500.000	545.300	-9.1	109	0.00
		Signal #2					
1	L1	Toxaphene-1	500.000	452.799	9.4	91	0.00
2	L1	Toxaphene-2	500.000	452.400	9.5	91	0.00
3	L1	Toxaphene-3	500.000	468.354	6.3	91	0.00
4	L1	Toxaphene-4	500.000	450.509	9.9	88	0.00
	L1	Toxaphene-5	500.000	454.746	9.1	90	0.00

Data File : C:\HPCHEM\1\DATA\050603\9G23117.D\ECD1A.CH Vial: 3
Acq On : 6 May 2003 13:17 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\050603\9G23117.D\ECD2B.CH Vial: 3
Acq On : 6 May 2003 13:42 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: May 6 14:06 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	Target Compounds						
1)	L1 Toxaphene-1	12.19	13.15	492.0E6	233.2E6	554.988	452.799
2)	L1 Toxaphene-2	12.97	13.89	875.7E6	638.1E6	536.375	452.400
3)	L1 Toxaphene-3	13.45	14.16	604.1E6	430.5E6	554.519	468.354
4)	L1 Toxaphene-4	13.80	14.74	771.9E6	308.5E6	545.435	450.509
5)	L1 Toxaphene-5	13.96	15.09	376.1E6	297.1E6	545.300	454.746
	Sum Toxaphene-1			3119.8E6	1907.5E6	2736.618	2278.808
Average	Toxaphene-1					547.324	455.762

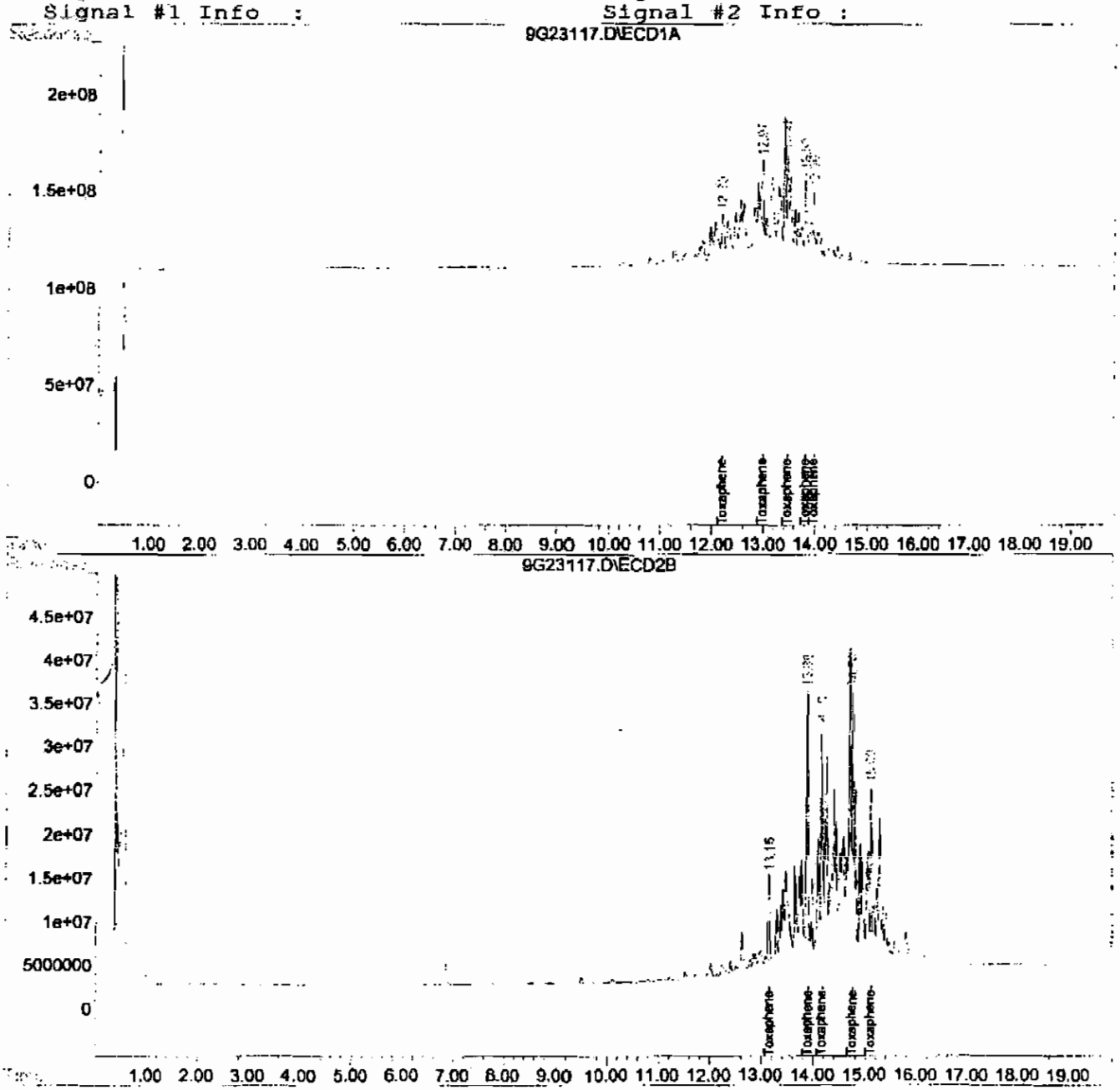
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\050603\9G23117.D\ECD1A.CH Vial: 3
Acq On : 6 May 2003 13:17 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\050603\9G23117.D\ECD2B.CH Vial: 3
Acq On : 6 May 2003 13:42 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: May 6 14:06 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\050603\9G23148.D\ECD1A.CH Vial: 34
Acq On : 7 May 2003 2:36 Operator: ECL
Sample : WG139891-09 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23148.D\ECD2B.CH Vial: 34
Acq On : 7 May 2003 3:01 Operator: ECL
Sample : WG139891-09 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:59:49 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	50.000	49.674	0.7	99	0.00
2		alpha-BHC	50.000	51.223	-2.4	99	0.00
3		gamma-BHC	50.000	56.030	-12.1	105	0.00
4		beta-BHC	50.000	47.403	5.2	92	0.00
5		Heptachlor	50.000	43.540	12.9	85	0.00
6		delta-BHC	50.000	52.947	-5.9	100	0.00
7		Aldrin	50.000	50.986	-2.0	98	0.01#
8		Heptachlor Epoxide	50.000	60.808	-21.6#	112	0.01#
9		gamma-Chlordane	50.000	48.908	2.2	95	0.00
10		alpha-Chlordane	50.000	48.302	3.4	98	0.01#
11		Endosulfan I	50.000	47.990	4.0	96	0.01#
12		4,4'-DDE	50.000	49.487	1.0	100	0.00
13		Dieldrin	50.000	49.811	0.4	98	0.01#
14		Endrin	50.000	50.560	-1.1	98	0.01#
15		4,4'-DDD	50.000	50.546	-1.1	94	0.00
16		Endosulfan II	50.000	49.874	0.3	98	0.01#
17		4,4'-DDT	50.000	45.261	9.5	92	0.00
18		Endrin Aldehyde	50.000	48.569	2.9	99	0.01#
19		Endosulfan Sulfate	50.000	59.657	-19.3#	110	0.00
20		Methoxychlor	50.000	42.878	14.2	86	0.00
21		Endrin Ketone	50.000	49.924	0.2	99	0.00
22	S	Decachlorobiphenyl	50.000	47.319	5.4	97	0.00
		Signal #2					
1	S	2,4,5,6-Tetrachloro-M-Xyl	50.000	48.544	2.9	93	0.00
2		alpha-BHC	50.000	49.522	1.0	92	0.00
3		gamma-BHC	50.000	48.916	2.2	91	0.00
4		beta-BHC	50.000	46.394	7.2	91	0.00
5		Heptachlor	50.000	52.025	-4.0	97	0.00
6		delta-BHC	50.000	49.775	0.5	92	0.00
7		Aldrin	50.000	49.021	2.0	91	0.00
8		Heptachlor Epoxide	50.000	48.284	3.4	93	0.00
9		gamma-Chlordane	50.000	47.912	4.2	91	0.00
10		alpha-Chlordane	50.000	47.402	5.2	91	0.00
11		Endosulfan I	50.000	48.130	3.7	92	0.00
12		4,4'-DDE	50.000	49.160	1.7	92	0.00
13		Dieldrin	50.000	48.972	2.1	92	0.00
14		Endrin	50.000	48.755	2.5	93	0.00
15		4,4'-DDD	50.000	49.149	1.7	93	0.00
16		Endosulfan II	50.000	48.752	2.5	93	0.00
17		4,4'-DDT	50.000	48.380	3.2	91	0.00
18		Endrin Aldehyde	50.000	45.337	9.3	92	0.00
19		Endosulfan Sulfate	50.000	48.903	2.2	94	0.00
20		Methoxychlor	50.000	46.851	6.3	93	0.00
21		Endrin Ketone	50.000	49.112	1.8	95	0.00
22	S	Decachlorobiphenyl	50.000	45.235	9.5	93	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\050603\9G23148.D\ECD1A.CH Vial: 34
Acq On : 7 May 2003 2:36 Operator: ECL
Sample : WG139891-09 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autointl.e

Data File : C:\HPCHEM\1\DATA\050603\9G23148.D\ECD2B.CH Vial: 34
Acq On : 7 May 2003 3:01 Operator: ECL
Sample : WG139891-09 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 12:59 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:59:49 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.21	8.35	4785.6E6	2783.4E6	49.674	48.544
	Spiked Amount 20.000	Range 30 - 132		Recovery =		248.37%#	242.72%#
22)	S Decachlorobiphen	14.85	16.30	2697.7E6	1848.7E6	47.319	45.235
	Spiked Amount 20.000	Range 36 - 144		Recovery =		236.60%#	226.18%#
	Target Compounds						
2)	alpha-BHC	8.22	9.50	7116.1E6	4184.0E6	51.223	49.522
	gamma-BHC	8.76	10.11	6256.2E6	3680.8E6	56.030	48.916
	beta-BHC	8.90	10.25	2452.6E6	1557.9E6	47.403	46.394
5)	Heptachlor	9.55	10.85	5381.3E6	3192.9E6	43.540	52.025
6)	delta-BHC	9.18	10.74	6629.5E6	3595.2E6	52.947	49.775
7)	Aldrin	10.02	11.38	5878.5E6	3199.0E6	50.986	49.021
8)	Heptachlor Epoxi	10.92	12.25	4706.0E6	2910.4E6	60.808	48.284
9)	gamma-Chlordane	11.11	12.53	5189.0E6	2821.5E6	48.908	47.912
10)	alpha-Chlordane	11.31	12.73	5026.3E6	2611.6E6	48.302	47.402
11)	Endosulfan I	11.49	12.82	4953.2E6	2590.1E6	47.990	48.130
12)	4,4'-DDE	11.44	12.93	4866.8E6	2560.6E6	49.487	49.160
13)	Dieldrin	11.83	13.17	5199.1E6	2746.7E6	49.811	48.972
14)	Endrin	12.15	13.55	4694.8E6	2218.4E6	50.560	48.755
15)	4,4'-DDD	12.27	13.64	3924.5E6	2052.8E6	50.546	49.149
16)	Endosulfan II	12.46	13.79	4226.0E6	2212.5E6	49.874	48.752
17)	4,4'-DDT	12.66	13.99	3967.5E6	1949.9E6	45.261	48.380
18)	Endrin Aldehyde	12.98	14.15	3101.4E6	1632.2E6	48.569	45.337
19)	Endosulfan Sulfa	13.49	14.44	2928.9E6	1810.5E6	59.657	48.903
20)	Methoxychlor	13.26	14.67	1599.3E6	935.0E6	42.878	46.851
21)	Endrin Ketone	13.80	14.98	3753.8E6	2265.9E6	49.924	49.112

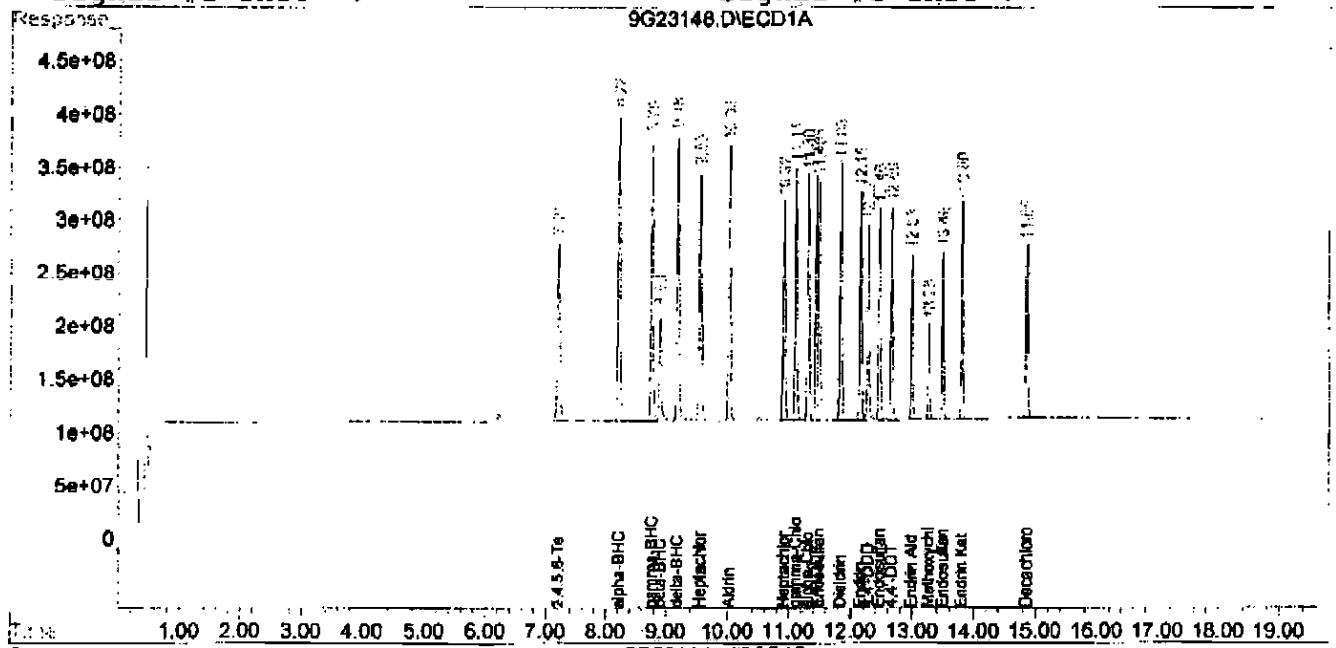
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

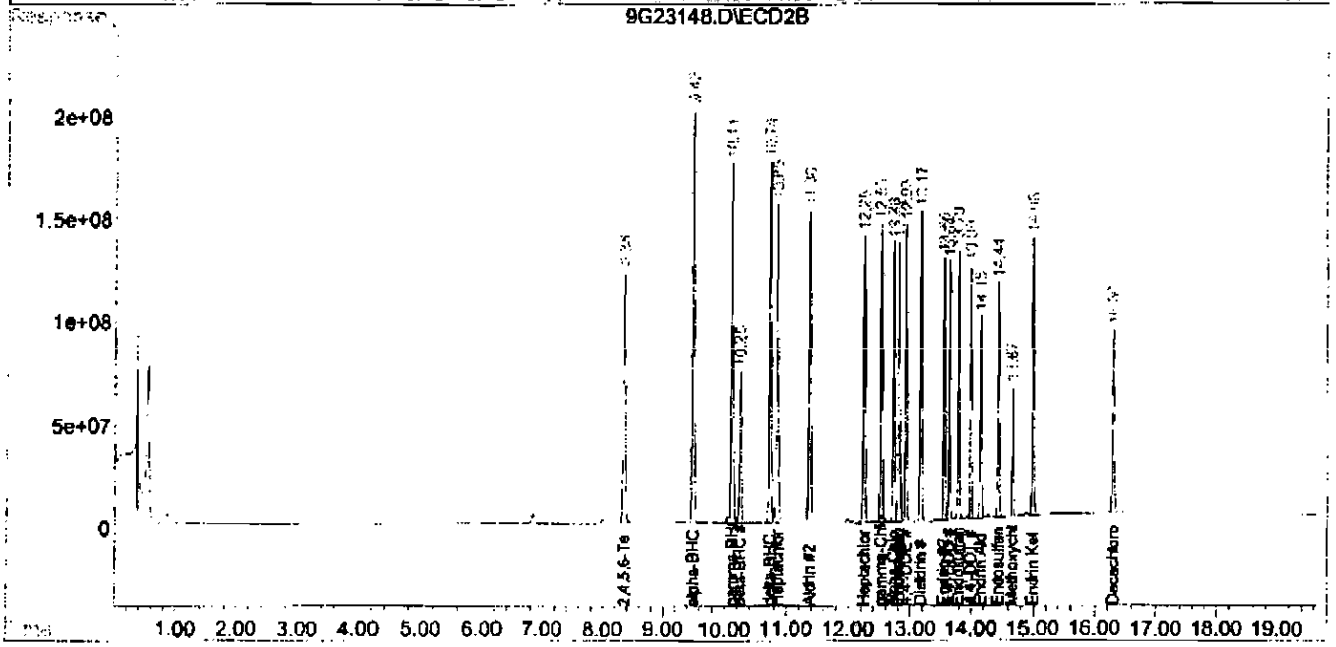
Data File : C:\HPCHEM\1\DATA\050603\9G23148.D\ECD1A.CH Vial: 34
Acq On : 7 May 2003 2:36 Operator: ECL
Sample : WG139891-09 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23148.D\ECD2B.CH Vial: 34
Acq On : 7 May 2003 3:01 Operator: ECL
Sample : WG139891-09 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 12:59 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:59:49 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\050603\9G23149.D\ECD1A.CH Vial: 35
Acq On : 7 May 2003 3:01 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\050603\9G23149.D\ECD2B.CH Vial: 35
Acq On : 7 May 2003 3:25 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	Toxaphene-1	250.000	282.457	-13.0	114	0.00
2	L1	Toxaphene-2	250.000	272.882	-9.2	109	0.00
3	L1	Toxaphene-3	250.000	266.841	-6.7	110	0.00
4	L1	Toxaphene-4	250.000	268.198	-7.3	108	0.00
5	L1	Toxaphene-5	250.000	261.980	-4.8	108	0.00
		Signal #2					
1	L1	Toxaphene-1	250.000	213.653	14.5	90	0.00
2	L1	Toxaphene-2	250.000	205.035	18.0#	88	0.00
3	L1	Toxaphene-3	250.000	197.552	21.0#	89	0.00
4	L1	Toxaphene-4	250.000	200.153	19.9#	89	0.00
	L1	Toxaphene-5	250.000	204.347	18.3#	89	0.00

Data File : C:\HPCHEM\1\DATA\050603\9G23149.D\ECD1A.CH Vial: 35
Acq On : 7 May 2003 3:01 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\050603\9G23149.D\ECD2B.CH Vial: 35
Acq On : 7 May 2003 3:25 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: May 7 13:04 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L	
	Target Compounds							
1)	L1 Toxaphene-1	12.21	13.14	250.4E6	110.1E6	282.457	213.653	
2)	L1 Toxaphene-2	12.98	13.88	445.5E6	289.2E6	272.882	205.035	
3)	L1 Toxaphene-3	13.46	14.16	290.7E6	181.6E6	266.841	197.552	#
4)	L1 Toxaphene-4	13.81	14.74	379.6E6	137.1E6	268.198	200.153	#
5)	L1 Toxaphene-5	13.97	15.09	180.7E6	133.5E6	261.980	204.347	
	Sum Toxaphene-1			1546.8E6	851.4E6	1352.358	1020.740	
Average	Toxaphene-1					270.472	204.148	

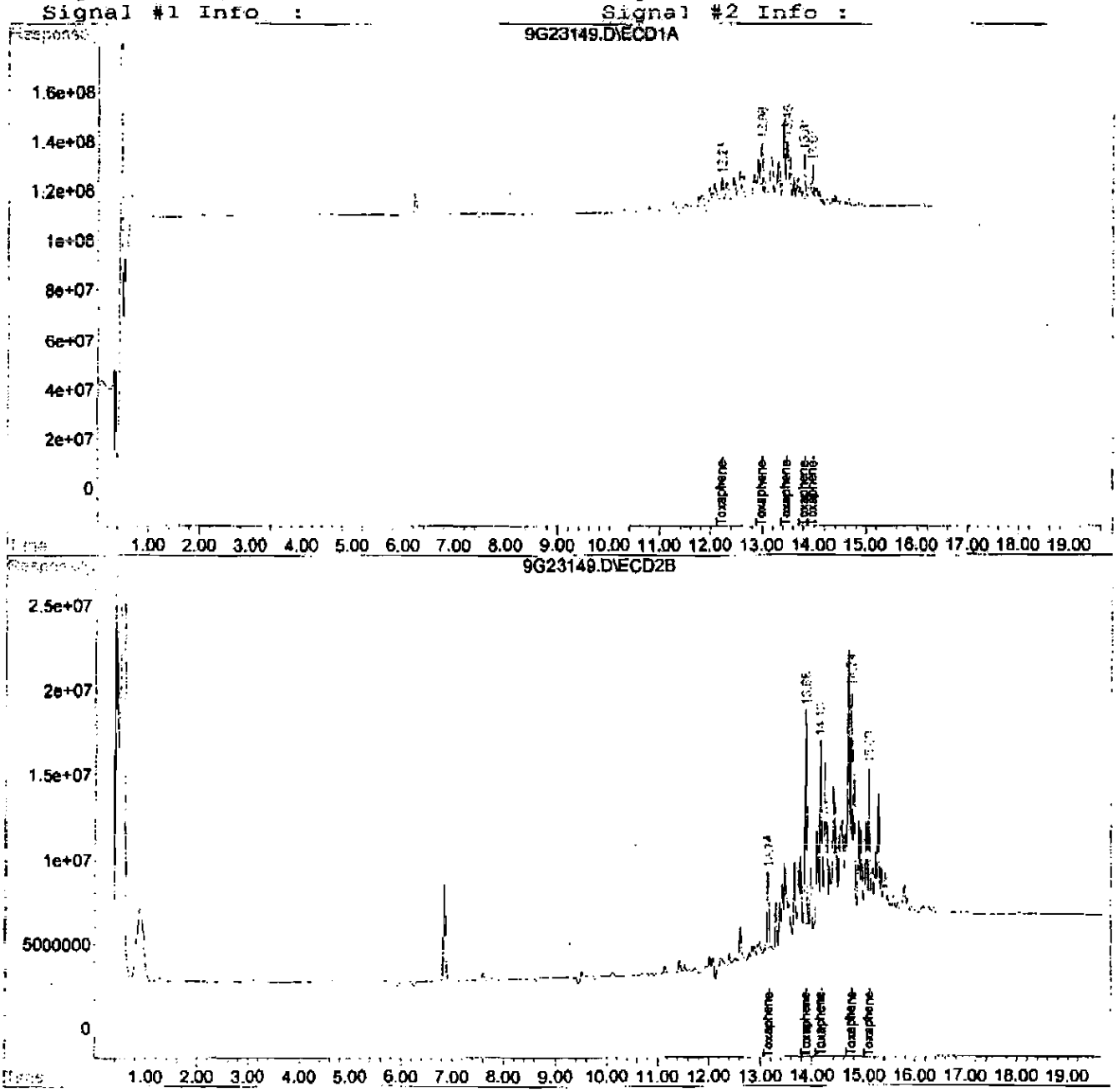
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\050603\9G23149.D\ECD1A.CH Vial: 35
Acq On : 7 May 2003 3:01 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\050603\9G23149.D\ECD2B.CH Vial: 35
Acq On : 7 May 2003 3:25 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: May 7 13:04 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\050603\9G23161.D\ECD1A.CH Vial: 47
Acq On : 7 May 2003 7:52 Operator: ECL
Sample : WG139891-10 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23161.D\ECD2B.CH Vial: 47
Acq On : 7 May 2003 8:17 Operator: ECL
Sample : WG139891-10 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:59:49 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	20.000	19.798	1.0	98	0.00
2		alpha-BHC	20.000	20.009	-0.0	99	0.01#
3		gamma-BHC	20.000	21.484	-7.4	99	0.00
4		beta-BHC	20.000	17.446	12.8	82	0.01#
5		Heptachlor	20.000	20.206	-1.0	96	0.01#
6		delta-BHC	20.000	20.001	-0.0	97	0.00
7		Aldrin	20.000	20.568	-2.8	98	0.01#
8		Heptachlor Epoxide	20.000	22.402	-12.0	96	0.01#
9		gamma-Chlordane	20.000	18.969	5.2	92	0.00
10		alpha-Chlordane	20.000	19.839	0.8	98	0.01#
11		Endosulfan I	20.000	20.068	-0.3	97	0.01#
12		4,4'-DDE	20.000	20.048	-0.2	102	0.00
13		Dieldrin	20.000	20.393	-2.0	99	0.01#
14		Endrin	20.000	20.429	-2.1	99	0.01#
15		4,4'-DDD	20.000	19.821	0.9	97	0.00
16		Endosulfan II	20.000	20.074	-0.4	98	0.01#
17		4,4'-DDT	20.000	19.600	2.0	98	0.00
18		Endrin Aldehyde	20.000	20.044	-0.2	99	0.01#
19		Endosulfan Sulfate	20.000	23.042	-15.2#	104	0.00
20		Methoxychlor	20.000	19.255	3.7	94	0.00
21		Endrin Ketone	20.000	20.222	-1.1	99	0.00
22	S	Decachlorobiphenyl	20.000	19.545	2.3	97	0.00
		Signal #2					
1	S	2,4,5,6-Tetrachloro-M-Xyl	20.000	18.439	7.8	95	0.00
2		alpha-BHC	20.000	18.282	8.6	94	-0.01#
3		gamma-BHC	20.000	18.170	9.1	94	-0.01#
4		beta-BHC	20.000	17.916	10.4	94	-0.01#
5		Heptachlor	20.000	19.448	2.8	98	-0.02#
6		delta-BHC	20.000	18.324	8.4	94	-0.01#
7		Aldrin	20.000	18.195	9.0	94	-0.02#
8		Heptachlor Epoxide	20.000	18.273	8.6	94	-0.02#
9		gamma-Chlordane	20.000	18.022	9.9	94	-0.02#
10		alpha-Chlordane	20.000	18.031	9.8	94	-0.02#
11		Endosulfan I	20.000	18.160	9.2	94	-0.02#
12		4,4'-DDE	20.000	18.019	9.9	95	-0.02#
13		Dieldrin	20.000	18.065	9.7	95	-0.02#
14		Endrin	20.000	17.576	12.1	91	-0.02#
15		4,4'-DDD	20.000	17.979	10.1	95	-0.02#
16		Endosulfan II	20.000	18.352	8.2	98	-0.02#
17		4,4'-DDT	20.000	17.628	11.9	93	-0.02#
18		Endrin Aldehyde	20.000	17.676	11.6	95	-0.02#
19		Endosulfan Sulfate	20.000	18.376	8.1	96	-0.02#
20		Methoxychlor	20.000	17.672	11.6	93	-0.02#
21		Endrin Ketone	20.000	18.448	7.8	97	-0.02#
22	S	Decachlorobiphenyl	20.000	18.465	7.7	95	-0.02#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\050603\9G23161.D\ECD1A.CH Vial: 47
Acq On : 7 May 2003 7:52 Operator: ECL
Sample : WG139891-10 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23161.D\ECD2B.CH Vial: 47
Acq On : 7 May 2003 8:17 Operator: ECL
Sample : WG139891-10 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 13:01 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:59:49 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.21	8.35	1907.3E6	1057.3E6	19.798	18.439
	Spiked Amount 20.000	Range 30 - 132		Recovery =		98.99%	92.20%
22)	S Decachlorobiphen	14.85	16.28f	1114.3E6	754.6E6	19.545	18.465
	Spiked Amount 20.000	Range 36 - 144		Recovery =		97.73%	92.33%
	Target Compounds						
2)	alpha-BHC	8.22	9.49	2779.7E6	1544.6E6	20.009	18.282
	gamma-BHC	8.76	10.10	2398.8E6	1367.2E6	21.484	18.170
	beta-BHC	8.90	10.24	902.6E6	601.6E6	17.446	17.916
5)	Heptachlor	9.55	10.84f	2497.3E6	1193.6E6	20.206	19.448
6)	delta-BHC	9.19	10.73	2504.3E6	1323.5E6	20.001	18.324
7)	Aldrin	10.02	11.36f	2371.4E6	1187.4E6	20.568	18.195
8)	Heptachlor Epoxi	10.92	12.24f	1733.7E6	1101.5E6	22.402	18.273
9)	gamma-Chlordane	11.11	12.51f	2012.5E6	1061.3E6	18.969	18.022
10)	alpha-Chlordane	11.31	12.72f	2064.5E6	993.5E6	19.839	18.031
11)	Endosulfan I	11.49	12.80f	2071.3E6	977.3E6	20.068	18.160
12)	4,4'-DDE	11.44	12.92f	1971.7E6	938.6E6	20.048	18.019
13)	Dieldrin	11.83	13.16f	2128.5E6	1013.2E6	20.393	18.065
14)	Endrin	12.16	13.54f	1897.0E6	799.7E6	20.429	17.576
15)	4,4'-DDD	12.27	13.63f	1538.9E6	750.9E6	19.821	17.979
16)	Endosulfan II	12.46	13.78f	1701.0E6	832.9E6	20.074	18.352
17)	4,4'-DDT	12.66	13.98f	1718.1E6	710.5E6	19.600	17.628
18)	Endrin Aldehyde	12.98	14.14f	1279.9E6	636.4E6	20.044	17.676
19)	Endosulfan Sulfa	13.49	14.43f	1131.2E6	680.3E6	23.042	18.376
20)	Methoxychlor	13.26	14.66f	718.2E6	352.7E6	19.255	17.672
21)	Endrin Ketone	13.80	14.97f	1520.5E6	851.1E6	20.222	18.448

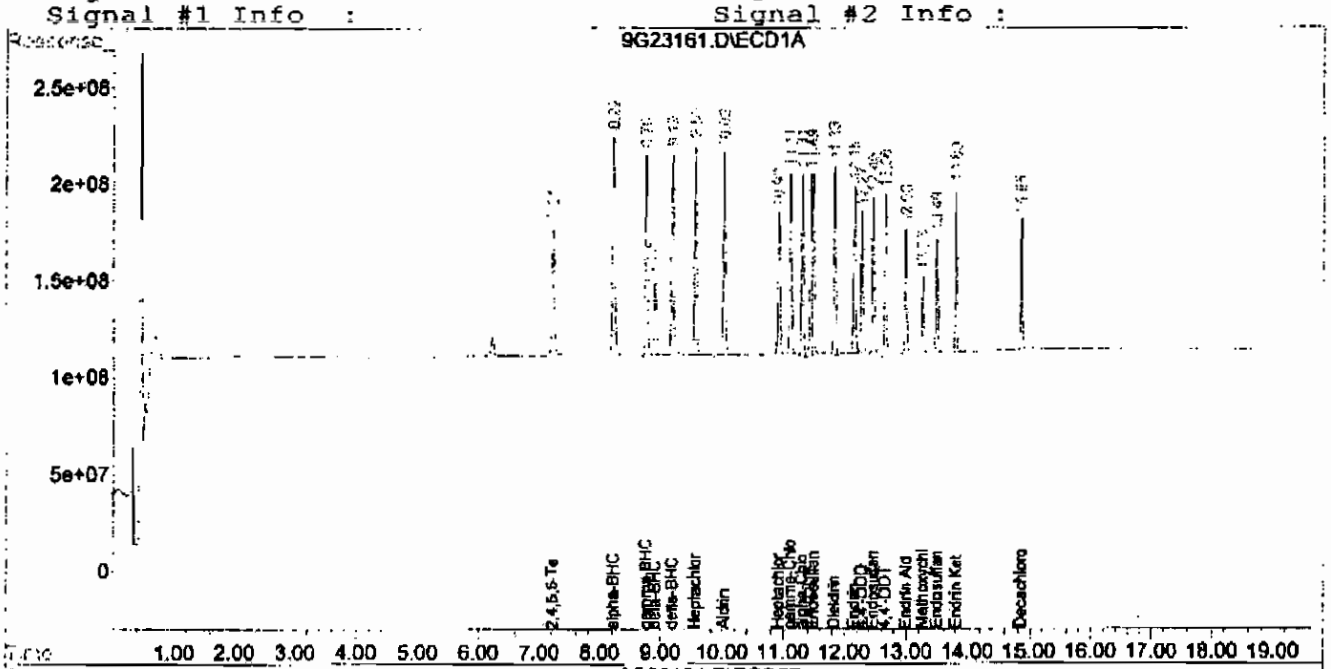
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

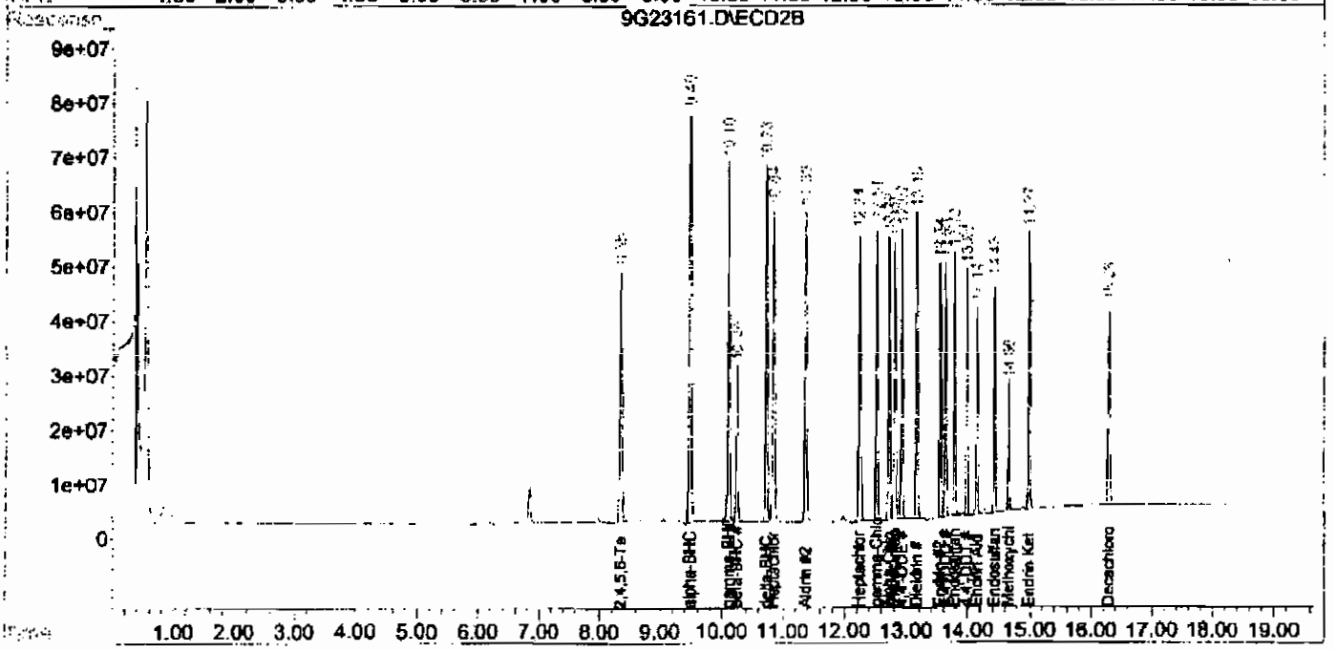
Data File : C:\HPCHEM\1\DATA\050603\9G23161.D\ECD1A.CH Vial: 47
Acq On : 7 May 2003 7:52 Operator: ECL
Sample : WG139891-10 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23161.D\ECD2B.CH Vial: 47
Acq On : 7 May 2003 8:17 Operator: ECL
Sample : WG139891-10 PEST CCV 20 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 13:01 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:59:49 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\050603\9G23162.D\ECD1A.CH Vial: 48
Acq On : 7 May 2003 8:17 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\050603\9G23162.D\ECD2B.CH Vial: 48
Acq On : 7 May 2003 8:41 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	Toxaphene-1	500.000	567.948	-13.6	113	0.00
2	L1	Toxaphene-2	500.000	540.264	-8.1	110	0.00
3	L1	Toxaphene-3	500.000	566.525	-13.3	114	-0.01
4	L1	Toxaphene-4	500.000	543.832	-8.8	108	0.00
5	L1	Toxaphene-5	500.000	555.479	-11.1	111	0.00
	Signal #2						
1	L1	Toxaphene-1	500.000	458.704	8.3	93	0.00
2	L1	Toxaphene-2	500.000	454.666	9.1	91	0.00
3	L1	Toxaphene-3	500.000	477.451	4.5	93	0.00
4	L1	Toxaphene-4	500.000	470.238	6.0	92	0.00
	L1	Toxaphene-5	500.000	460.972	7.8	91	0.00

Data File : C:\HPCHEM\1\DATA\050603\9G23162.D\ECD1A.CH Vial: 48
Acq On : 7 May 2003 8:17 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\050603\9G23162.D\ECD2B.CH Vial: 48
Acq On : 7 May 2003 8:41 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: May 7 13:04 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) L1 Toxaphene-1	12.19	503496773	567.948 UG/L
2) L1 Toxaphene-2	12.97	882028083	540.264 UG/L
3) L1 Toxaphene-3	13.45	617154097	566.525 UG/L
4) L1 Toxaphene-4	13.80	769678155	543.832 UG/L
5) L1 Toxaphene-5	13.96	383093679	555.479 UG/L
Sum Toxaphene-1		3155.5E6	2774.049 UG/L
Average Toxaphene-1			554.810 UG/L
7) L1 Toxaphene-1 #2	13.14	236287045	458.704 UG/L
8) L1 Toxaphene-2 #2	13.88	641344110	454.666 UG/L
9) L1 Toxaphene-3 #2	14.15	438821316	477.451 UG/L
10) L1 Toxaphene-4 #2	14.73	322030619	470.238 UG/L
11) L1 Toxaphene-5 #2	15.08	301199184	460.972 UG/L
Sum Toxaphene-1 #2		1939.7E6	2322.031 UG/L
Average Toxaphene-1 #2			464.406 UG/L

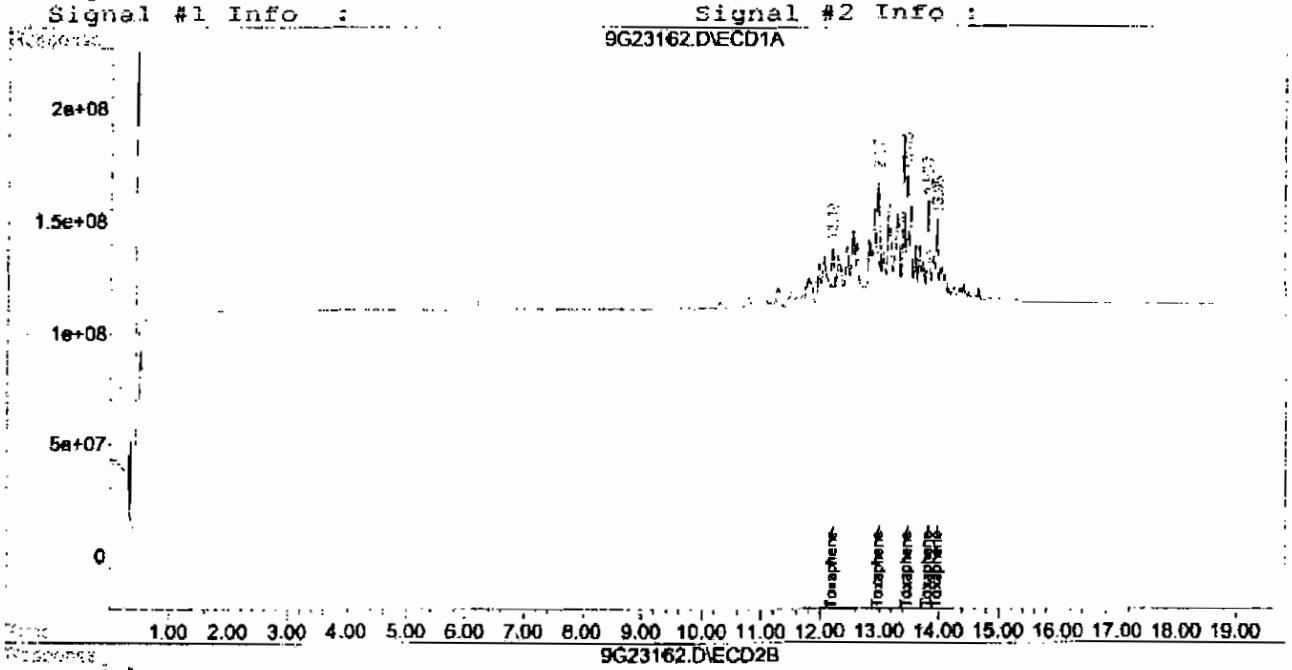
(f)=RT Delta > 1/2 Window (m)=manual int.

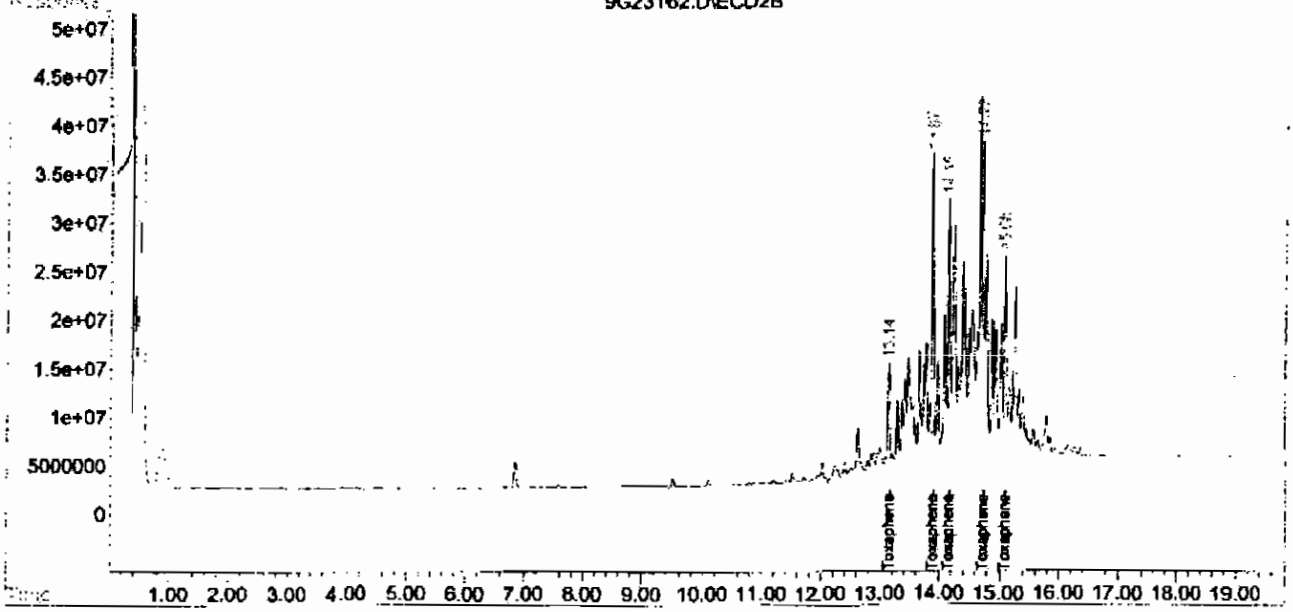
Data File : C:\HPCHEM\1\DATA\050603\9G23162.D\ECD1A.CH Vial: 48
Acq On : 7 May 2003 8:17 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\050603\9G23162.D\ECD2B.CH Vial: 48
Acq On : 7 May 2003 8:41 Operator: ECL
Sample : TOX CCV 500 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: May 7 13:04 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\050603\9G23174.D\ECD1A.CH Vial: 60
Acq On : 7 May 2003 13:08 Operator: ECL
Sample : WG139891-11 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23174.D\ECD2B.CH Vial: 60
Acq On : 7 May 2003 13:32 Operator: ECL
Sample : WG139891-11 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 14:02:17 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.01min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	50.000	50.097	-0.2	100	0.00
2		alpha-BHC	50.000	51.527	-3.1	99	0.00
3		gamma-BHC	50.000	53.614	-7.2	100	0.00
4		beta-BHC	50.000	47.462	5.1	92	0.00
5		Heptachlor	50.000	50.506	-1.0	99	0.00
6		delta-BHC	50.000	53.179	-6.4	100	0.00
7		Aldrin	50.000	51.117	-2.2	98	0.00
8		Heptachlor Epoxide	50.000	54.564	-9.1	101	0.00
9		gamma-Chlordane	50.000	48.785	2.4	95	0.00
10		alpha-Chlordane	50.000	48.400	3.2	98	0.00
11		Endosulfan I	50.000	48.028	3.9	97	0.00
12		4,4'-DDE	50.000	49.962	0.1	101	0.00
13		Dieldrin	50.000	49.828	0.3	98	0.00
14		Endrin	50.000	51.553	-3.1	100	0.00
15		4,4'-DDD	50.000	50.737	-1.5	95	0.00
16		Endosulfan II	50.000	50.089	-0.2	98	0.00
17		4,4'-DDT	50.000	48.002	4.0	97	0.00
18		Endrin Aldehyde	50.000	48.148	3.7	98	0.00
19		Endosulfan Sulfate	50.000	57.779	-15.6#	106	0.00
20		Methoxychlor	50.000	48.717	2.6	97	0.00
21		Endrin Ketone	50.000	49.486	1.0	98	0.00
22	S	Decachlorobiphenyl	50.000	46.580	6.8	95	0.00
		Signal #2					
1	S	2,4,5,6-Tetrachloro-M-Xyl	50.000	49.470	1.1	95	0.00
2		alpha-BHC	50.000	50.798	-1.6	94	0.00
3		gamma-BHC	50.000	50.396	-0.8	94	0.00
4		beta-BHC	50.000	47.959	4.1	94	0.00
5		Heptachlor	50.000	49.815	0.4	92	0.00
6		delta-BHC	50.000	51.498	-3.0	95	0.00
7		Aldrin	50.000	50.218	-0.4	93	0.00
8		Heptachlor Epoxide	50.000	49.593	0.8	95	0.00
9		gamma-Chlordane	50.000	49.153	1.7	94	0.00
10		alpha-Chlordane	50.000	48.725	2.5	94	0.00
11		Endosulfan I	50.000	49.412	1.2	94	0.00
12		4,4'-DDE	50.000	50.399	-0.8	94	0.00
13		Dieldrin	50.000	50.335	-0.7	95	0.00
14		Endrin	50.000	51.592	-3.2	98	0.00
15		4,4'-DDD	50.000	50.318	-0.6	95	0.00
16		Endosulfan II	50.000	50.160	-0.3	96	0.00
17		4,4'-DDT	50.000	50.651	-1.3	95	0.00
18		Endrin Aldehyde	50.000	47.336	5.3	96	0.00
19		Endosulfan Sulfate	50.000	51.011	-2.0	98	0.00
20		Methoxychlor	50.000	49.015	2.0	97	0.00
21		Endrin Ketone	50.000	50.190	-0.4	97	0.00
22	S	Decachlorobiphenyl	50.000	46.702	6.6	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
9G23174.D 8081.M Wed May 07 14:02:42 2003 Page 1

Data File : C:\HPCHEM\1\DATA\050603\9G23174.D\ECD1A.CH Vial: 60
Acq On : 7 May 2003 13:08 Operator: ECL
Sample : WG139891-11 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23174.D\ECD2B.CH Vial: 60
Acq On : 7 May 2003 13:32 Operator: ECL
Sample : WG139891-11 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 14:02 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 14:02:17 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.19	8.34	4826.4E6	2836.5E6	50.097	49.470
	Spiked Amount 20.000	Range 30 - 132			Recovery =	250.49%#	247.35%#
22)	S Decachlorobiphen	14.84	16.29	2655.5E6	1908.6E6	46.580	46.702
	Spiked Amount 20.000	Range 36 - 144			Recovery =	232.90%#	233.51%#
	Target Compounds						
2)	alpha-BHC	8.20	9.48	7158.3E6	4291.8E6	51.527	50.798
3)	gamma-BHC	8.74	10.10	5986.4E6	3792.2E6	53.614	50.396
4)	beta-BHC	8.89	10.24	2455.6E6	1610.5E6	47.462	47.959
5)	Heptachlor	9.54	10.84	6242.2E6	3057.2E6	50.506	49.815
6)	delta-BHC	9.17	10.73	6658.5E6	3719.6E6	53.179	51.498
7)	Aldrin	10.00	11.37	5893.6E6	3277.1E6	51.117	50.218
8)	Heptachlor Epoxi	10.90	12.24	4222.7E6	2989.3E6	54.564	49.593
9)	gamma-Chlordane	11.09	12.52	5175.8E6	2894.6E6	48.785	49.153
10)	alpha-Chlordane	11.29	12.72	5036.6E6	2684.5E6	48.400	48.725
11)	Endosulfan I	11.47	12.81	4957.1E6	2659.1E6	48.028	49.412
12)	4,4'-DDE	11.42	12.92	4913.5E6	2625.2E6	49.962	50.399
13)	Dieldrin	11.81	13.17	5200.8E6	2823.1E6	49.828	50.335
14)	Endrin	12.14	13.54	4787.0E6	2347.5E6	51.553	51.592
15)	4,4'-DDD	12.25	13.63	3939.3E6	2101.6E6	50.737	50.318
16)	Endosulfan II	12.44	13.78	4244.2E6	2276.4E6	50.089	50.160
17)	4,4'-DDT	12.64	13.90	4207.8E6	2041.5E6	48.002	50.651
18)	Endrin Aldehyde	12.97	14.14	3074.5E6	1704.2E6	48.148	47.336
19)	Endosulfan Sulfa	13.47	14.43	2836.7E6	1888.5E6	57.779	51.011
20)	Methoxychlor	13.25	14.66	1817.1E6	978.1E6	48.717	49.015
21)	Endrin Ketone	13.79	14.98	3720.8E6	2315.7E6	49.486	50.190

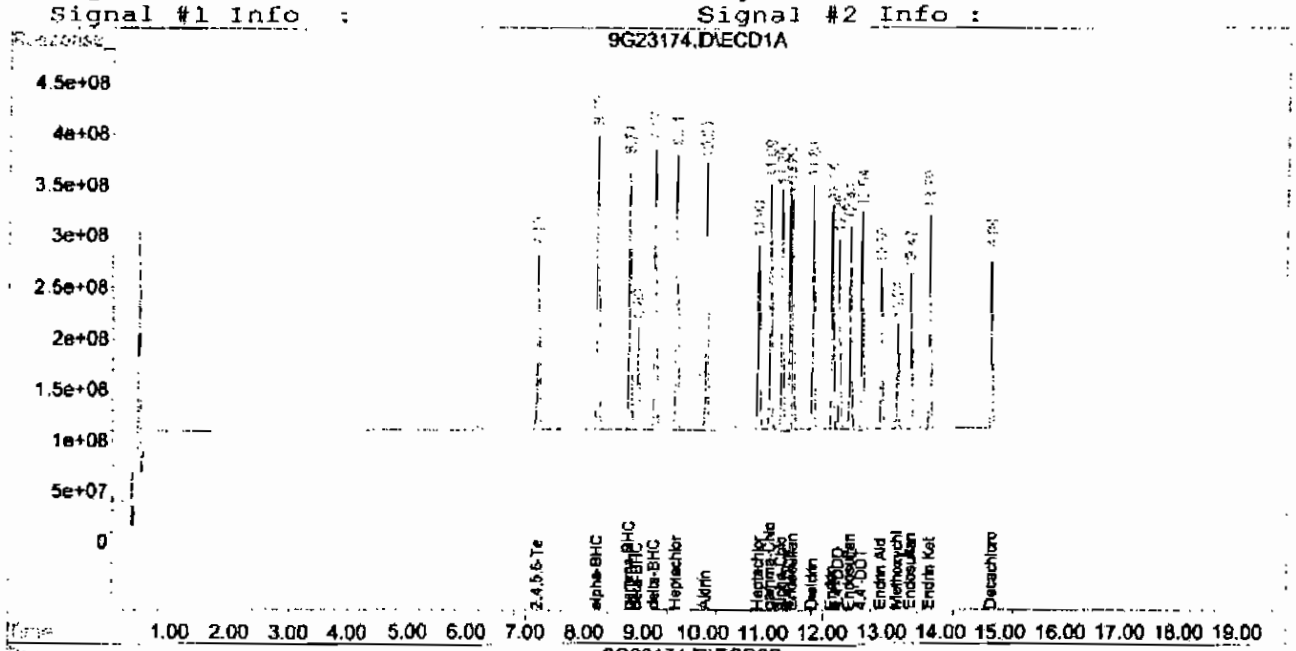
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

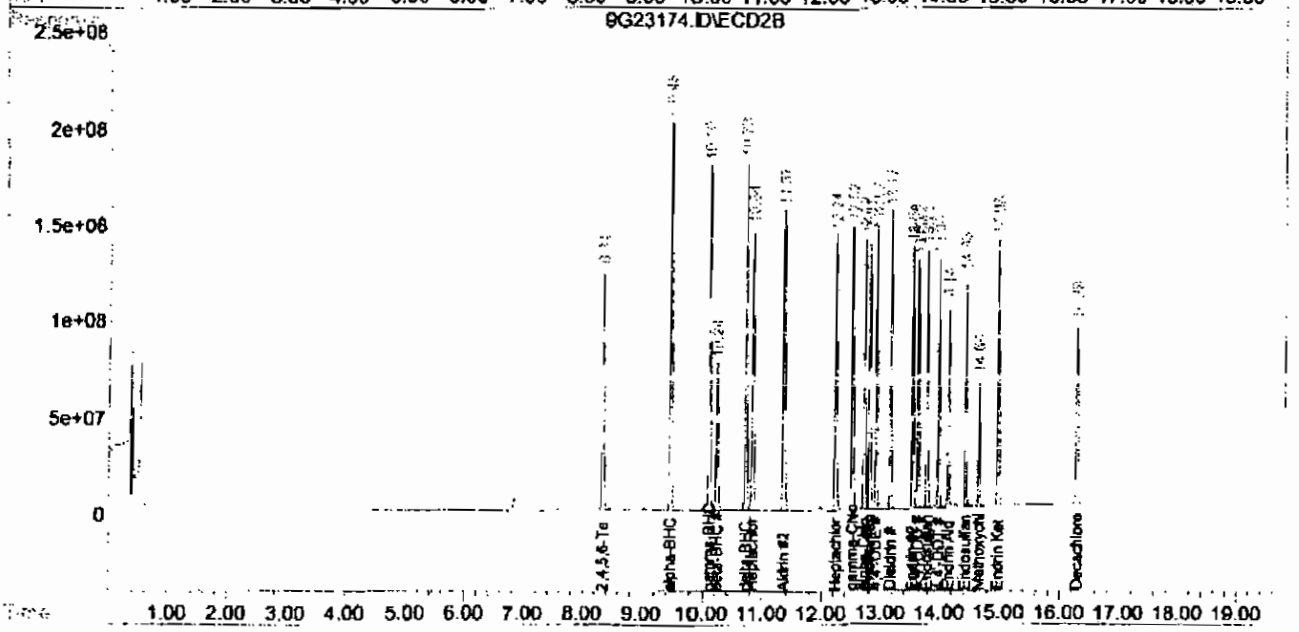
Data File : C:\HPCHEM\1\DATA\050603\9G23174.D\ECD1A.CH Vial: 60
Acq On : 7 May 2003 13:08 Operator: ECL
Sample : WG139891-11 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23174.D\ECD2B.CH Vial: 60
Acq On : 7 May 2003 13:32 Operator: ECL
Sample : WG139891-11 PEST CCV 50 PPB Inst : HP9
Misc : 1,1 SOS63-32 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 14:02 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 14:02:17 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data File : C:\HPCHEM\1\DATA\050603\9G23175.D\ECD1A.CH Vial: 61
Acq On : 7 May 2003 13:32 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\050603\9G23175.D\ECD2B.CH Vial: 61
Acq On : 7 May 2003 13:57 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	Toxaphene-1	250.000	291.117	-16.4#	118	-0.01
2	L1	Toxaphene-2	250.000	285.282	-14.1	113	0.00
3	L1	Toxaphene-3	250.000	293.879	-17.6#	121	-0.01
4	L1	Toxaphene-4	250.000	274.375	-9.8	111	0.00
5	L1	Toxaphene-5	250.000	274.325	-9.7	113	0.00
		Signal #2					
1	L1	Toxaphene-1	250.000	225.305	9.9	95	-0.01
2	L1	Toxaphene-2	250.000	220.229	11.9	94	-0.01
3	L1	Toxaphene-3	250.000	211.882	15.2#	96	-0.01
4	L1	Toxaphene-4	250.000	216.953	13.2	96	-0.01
5	L1	Toxaphene-5	250.000	216.709	13.3	94	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
9G23175.D TOX.M Wed May 07 14:27:16 2003 Page 1

Data File : C:\HPCHEM\1\DATA\050603\9G23175.D\ECD1A.CH Vial: 61
Acq On : 7 May 2003 13:32 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\050603\9G23175.D\ECD2B.CH Vial: 61
Acq On : 7 May 2003 13:57 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: May 7 14:27 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L	
	Target Compounds							
1)	L1 Toxaphene-1	12.19	13.13	258.1E6	116.1E6	291.117	225.305	
2)	L1 Toxaphene-2	12.96	13.87	465.7E6	310.7E6	285.282	220.229	
3)	L1 Toxaphene-3	13.45	14.15	320.1E6	194.7E6	293.879	211.882	#
4)	L1 Toxaphene-4	13.80	14.73	388.3E6	148.6E6	274.375	216.953	
5)	L1 Toxaphene-5	13.96	15.08	189.2E6	141.6E6	274.325	216.709	
	Sum Toxaphene-1			1621.5E6	911.6E6	1418.979	1091.078	
Average	Toxaphene-1					283.796	218.216	

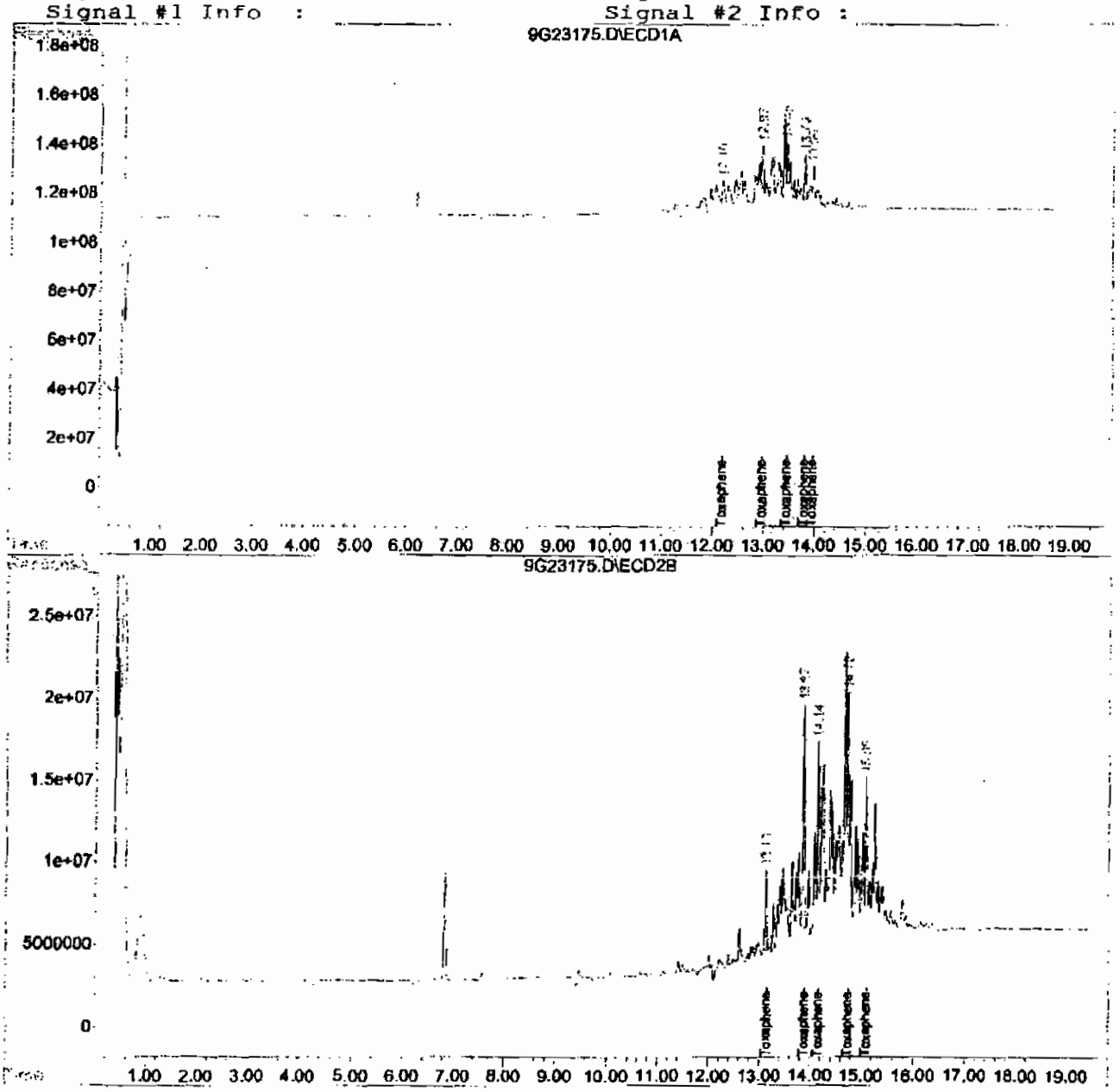
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\050603\9G23175.D\ECD1A.CH Vial: 61
Acq On : 7 May 2003 13:32 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : .E

Data File : C:\HPCHEM\1\DATA\050603\9G23175.D\ECD2B.CH Vial: 61
Acq On : 7 May 2003 13:57 Operator: ECL
Sample : TOX CCV 250 PPB Inst : HP9
Misc : SOS62-45 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: May 7 14:27 2003 Quant Results File: TOX.RES

Quant Method : C:\HPCHEM\1\METHODS\TOX.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003
Last Update : Wed Apr 30 16:29:00 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

Instrument ID: HP 9

GC Column: RTx-CLP (Front)

	STANDARD #1	STANDARD #2	STANDARD #3
Date Run	7/3/02	7/4/02	7/8/02
File #	9G20336	9G20361	9G20364

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
alpha-BHC	9.08	9.06	9.06	0.035
gamma-BHC	9.62	9.61	9.60	0.030
beta-BHC	9.76	9.75	9.74	0.030
Heptachlor	10.41	10.40	10.39	0.030
delta-BHC	10.05	10.04	10.04	0.017
Aldrin	10.89	10.87	10.87	0.035
Heptachlor Epoxide	11.80	11.78	11.78	0.035
gamma-Chlordane	11.98	11.97	11.96	0.030
alpha-Chlordane	12.18	12.16	12.16	0.035
Endosulfan I	12.37	12.36	12.36	0.017
4,4'-DDE	12.28	12.27	12.27	0.017
Dieldrin	12.70	12.69	12.69	0.017
Endrin	13.00	12.99	12.99	0.017
4,4'-DDD	13.07	13.06	13.06	0.017
Endosulfan II	13.27	13.26	13.26	0.017
4,4'-DDT	13.41	13.4	13.4	0.017
Endrin Aldehyde	13.76	13.75	13.75	0.017
Endosulfan Sulfate	14.23	14.22	14.22	0.017
Methoxychlor	13.95	13.94	13.94	0.017
Endrin Ketone	14.52	14.52	14.51	0.017

RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

Instrument ID: HP 9
GC Column: RTx-CLP II (Rear)

	STANDARD #1	STANDARD #2	STANDARD #3
Date Run	7/3/02	7/4/02	7/8/02
File #	9G20336	9G20361	9G20364

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
alpha-BHC	9.18	9.17	9.17	0.017
gamma-BHC	9.8	9.79	9.79	0.017
beta-BHC	9.95	9.94	9.95	0.017
Heptachlor	10.51	10.51	10.51	0.000
delta-BHC	10.44	10.43	10.43	0.017
Aldrin	11.03	11.02	11.02	0.017
Heptachlor Epoxide	11.92	11.91	11.91	0.017
gamma-Chlordane	12.2	12.19	12.19	0.017
alpha-Chlordane	12.41	12.40	12.40	0.017
Endosulfan I	12.51	12.49	12.50	0.030
4,4'-DDE	12.63	12.62	12.62	0.017
Dieldrin	12.88	12.87	12.87	0.017
Endrin	13.27	13.26	13.26	0.017
4,4'-DDD	13.37	13.36	13.36	0.017
Endosulfan II	13.52	13.51	13.52	0.017
4,4'-DDT	13.73	13.72	13.72	0.017
Endrin Aldehyde	13.9	13.89	13.9	0.017
Endosulfan Sulfate	14.19	14.18	14.19	0.017
Methoxychlor	14.43	14.42	14.43	0.017
Endrin Ketone	14.74	14.73	14.73	0.017

2.2.2.4 Raw QC Data

4,4'-DDT / ENDRIN BREAKDOWN

INSTRUMENT: HP 9

COLUMN: RTx-CLP (FRONT)

Data File Name: 9G23035.D

ENDRIN	ENDRIN KETONE	ENDRIN ALDEHYDE	ENDRIN BREAKDOWN
4633152424	0	0	0.00

4,4'-DDT	4,4'-DDE	4,4'-DDD	4,4'-DDT BREAKDOWN
3936465904	0	0	0.00

COLUMN: RTx-CLP II (REAR)

Data File Name: 9G23035.D

ENDRIN #2	ENDRIN KETONE #2	ENDRIN ALDEHYDE #2	ENDRIN #2 BREAKDOWN
2338990890	61562938	35972394	4.00

4,4'-DDT #2	4,4'-DDE #2	4,4'-DDD #2	4,4'-DDT #2 BREAKDOWN
1908584116	0	85122406	4.27

Data File : C:\HPCHEM\1\DATA\043003\9G23035.D\ECD1A.CH Vial: 1
Acq On : 30 Apr 2003 9:11 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23035.D\ECD2B.CH Vial: 1
Acq On : 30 Apr 2003 9:36 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Apr 30 10:06 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 24, 2003 @ 2101
Last Update : Wed Apr 30 10:06:43 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L	
	System Monitoring Compounds							
1)	S 2,4,5,6-Tetrachl	0.00	0.00	0	0	N.D.	N.D.	
	Spiked Amount 20.000	Range 30 - 132		Recovery =		0.00%#	0.00%#	
22)	S Decachlorobiphen	0.00	0.00	0	0	N.D.	N.D.	
	Spiked Amount 20.000	Range 36 - 144		Recovery =		0.00%#	0.00%#	
	Target Compounds							
2)	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.	
3)	gamma-BHC	0.00	0.00	0	0	N.D.	N.D.	
4)	beta-BHC	0.00	0.00	0	0	N.D.	N.D.	
5)	Heptachlor	0.00	0.00	0	0	N.D.	N.D.	
6)	delta-BHC	0.00	0.00	0	0	N.D.	N.D.	
7)	Aldrin	0.00	0.00	0	0	N.D.	N.D.	
8)	Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.	
9)	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
10)	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
11)	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.	
13)	Dieldrin	0.00	0.00	0	0	N.D.	N.D.	
14)	Endrin	12.16	13.55	4633.2E6	2339.0E6	63.582	49.881	
15)	4,4'-DDD	0.00	13.64	0	85122406	N.D.	2.038	#
16)	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.	
17)	4,4'-DDT	12.66	13.99	3936.5E6	1908.6E6	62.573	47.915	
18)	Endrin Aldehyde	0.00	14.15	0	35972394	N.D.	1.061	#
19)	Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.	
20)	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.	
21)	Endrin Ketone	0.00	14.98	0	61562938	N.D.	1.320	#

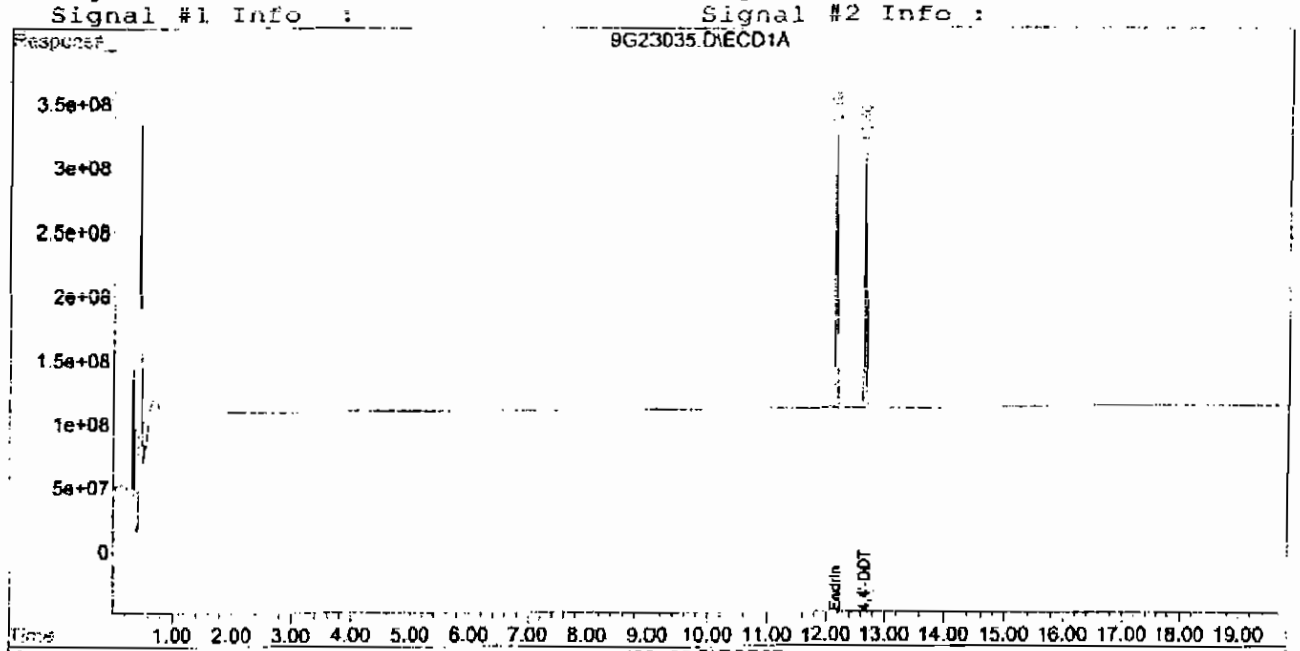
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

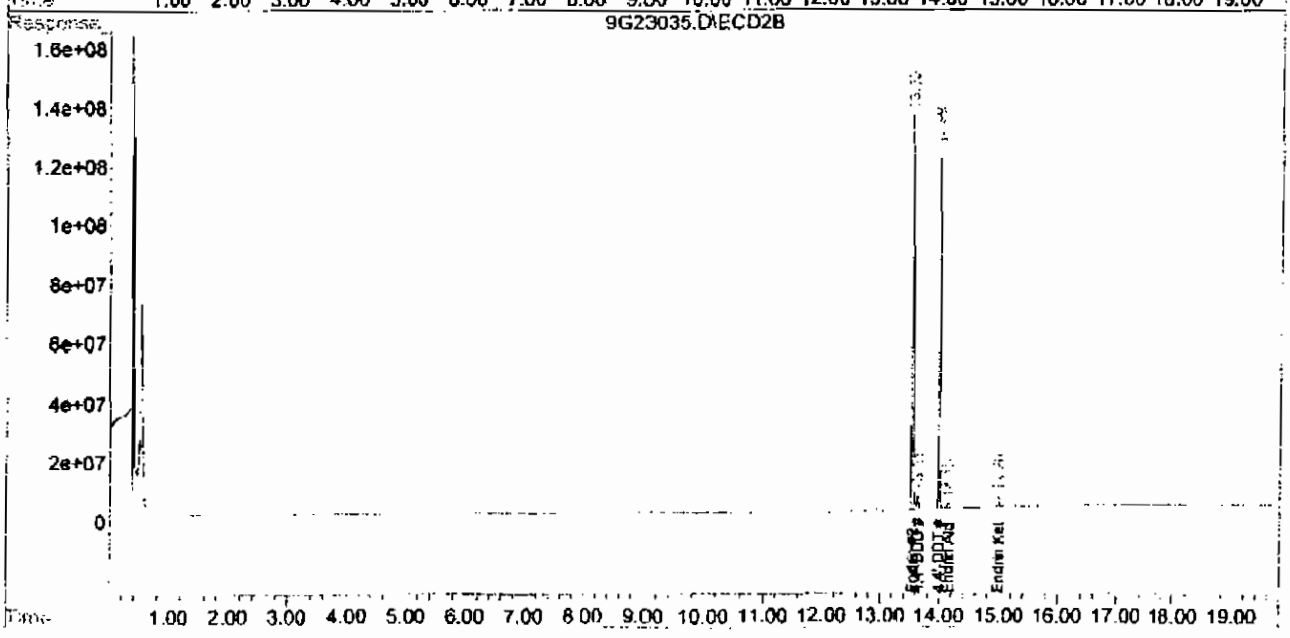
Data File : C:\HPCHEM\1\DATA\043003\9G23035.D\ECD1A.CH Vial: 1
Acq On : 30 Apr 2003 9:11 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23035.D\ECD2B.CH Vial: 1
Acq On : 30 Apr 2003 9:36 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Apr 30 10:06 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 24, 2003 @ 2101
Last Update : Wed Apr 30 10:06:43 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





4,4'-DDT / ENDRIN BREAKDOWN

INSTRUMENT: HP 9

COLUMN: RTx-CLP (FRONT)

Data File Name: 9G23061.D

ENDRIN	ENDRIN KETONE	ENDRIN ALDEHYDE	ENDRIN BREAKDOWN
4336103356	0	0	0.00

4,4'-DDT	4,4'-DDE	4,4'-DDD	4,4'-DDT BREAKDOWN
3650449596	0	0	0.00

COLUMN: RTx-CLP II (REAR)

Data File Name: 9G23061.D

ENDRIN #2	ENDRIN KETONE #2	ENDRIN ALDEHYDE #2	ENDRIN #2 BREAKDOWN
2325868348	26663016	0	1.13

4,4'-DDT #2	4,4'-DDE #2	4,4'-DDD #2	4,4'-DDT #2 BREAKDOWN
1944716614	0	49098821	2.46

Data File : C:\HPCHEM\1\DATA\043003\9G23061.D\ECD1A.CH Vial: 27
Acq On : 30 Apr 2003 20:24 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23061.D\ECD2B.CH Vial: 27
Acq On : 30 Apr 2003 20:48 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 1 8:15 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Thu May 01 08:15:35 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1) S	2,4,5,6-Tetrachl	0.00	0.00	0	0	N.D.	N.D.
	Spiked Amount 20.000	Range 30 - 132		Recovery =		0.00%#	0.00%#
22) S	Decachlorobiphen	0.00	0.00	0	0	N.D.	N.D.
	Spiked Amount 20.000	Range 36 - 144		Recovery =		0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
3)	gamma-BHC	0.00	0.00	0	0	N.D.	N.D.
4)	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
5)	Heptachlor	0.00	0.00	0	0	N.D.	N.D.
6)	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	Aldrin	0.00	0.00	0	0	N.D.	N.D.
8)	Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.
9)	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
10)	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
12)	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	Endrin	12.17	13.55	4336.1E6	2325.9E6	50.872	50.091
15)	4,4'-DDD	0.00	13.63	0	49098821	N.D.	1.190 #
16)	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
17)	4,4'-DDT	12.67	13.99	3650.4E6	1944.7E6	48.660	48.403
18)	Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
19)	Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.
20)	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	Endrin Ketone	0.00	14.98	0	26663016	N.D.	0.585 #

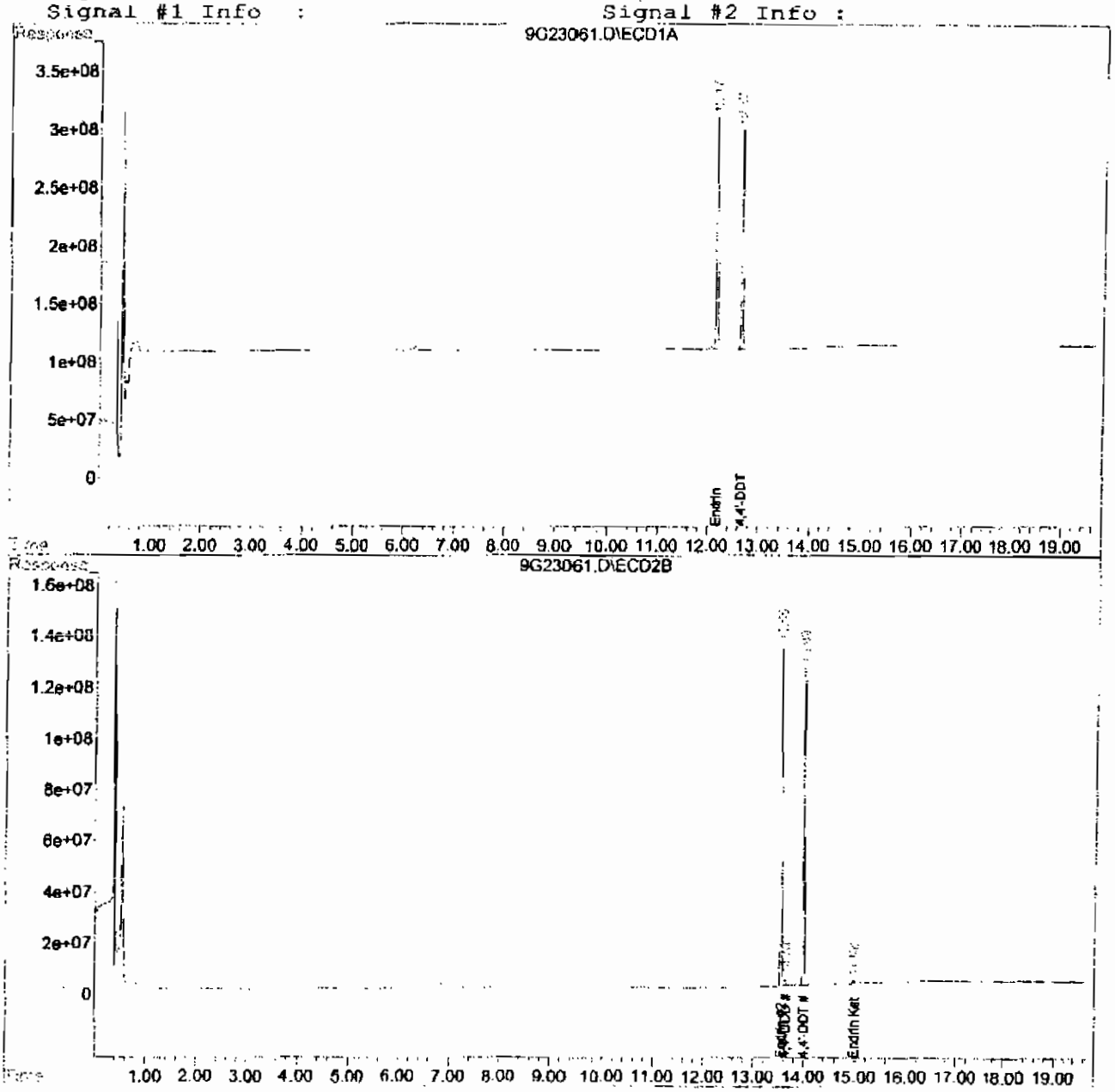
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\043003\9G23061.D\ECD1A.CH Vial: 27
Acq On : 30 Apr 2003 20:24 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23061.D\ECD2B.CH Vial: 27
Acq On : 30 Apr 2003 20:48 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multipir: 1.00
IntFile : autoint2.e
Quant Time: May 1 8:15 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Thu May 01 08:15:35 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



4,4'-DDT / ENDRIN BREAKDOWN

INSTRUMENT: HP 9

COLUMN: RTx-CLP (FRONT)

Data File Name: 9G23115.D

ENDRIN	ENDRIN KETONE	ENDRIN ALDEHYDE	ENDRIN BREAKDOWN
5128128968	128336052	146580572	5.09

4,4'-DDT	4,4'-DDE	4,4'-DDD	4,4'-DDT BREAKDOWN
4630471217	0	0	0.00

COLUMN: RTx-CLP II (REAR)

Data File Name: 9G23115.D

ENDRIN #2	ENDRIN KETONE #2	ENDRIN ALDEHYDE #2	ENDRIN #2 BREAKDOWN
2169209828	89981618	86161178	7.51

4,4'-DDT #2	4,4'-DDE #2	4,4'-DDD #2	4,4'-DDT #2 BREAKDOWN
1827305909	0	89399240	4.66

Data File : C:\HPCHEM\1\DATA\050603\9G23115.D\ECD1A.CH Vial: 1
Acq On : 6 May 2003 12:29 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23115.D\ECD2B.CH Vial: 1
Acq On : 6 May 2003 12:53 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 6 13:59 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Wed Apr 30 16:35:45 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L	
	System Monitoring Compounds							
1)	S 2,4,5,6-Tetrachl	0.00	0.00	0	0	N.D.	N.D.	
	Spiked Amount 20.000	Range 30 - 132		Recovery =		0.00%#	0.00%#	
22)	S Decachlorobiphen	0.00	0.00	0	0	N.D.	N.D.	
	Spiked Amount 20.000	Range 36 - 144		Recovery =		0.00%#	0.00%#	
	Target Compounds							
2)	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.	
3)	gamma-BHC	0.00	0.00	0	0	N.D.	N.D.	
4)	beta-BHC	0.00	0.00	0	0	N.D.	N.D.	
5)	Heptachlor	0.00	0.00	0	0	N.D.	N.D.	
6)	delta-BHC	0.00	0.00	0	0	N.D.	N.D.	
7)	Aldrin	0.00	0.00	0	0	N.D.	N.D.	
8)	Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.	
9)	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
10)	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
11)	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.	
13)	Dieldrin	0.00	0.00	0	0	N.D.	N.D.	
14)	Endrin	12.15	13.56	5128.1E6	2169.2E6	60.165	46.717	
15)	4,4'-DDD	0.00	13.65	0	89399240	N.D.	2.166	#
16)	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.	
17)	4,4'-DDT	12.65	14.00	4630.5E6	1827.3E6	61.724	45.481	#
18)	Endrin Aldehyde	12.98	14.16	146.6E6	86161178	2.599	2.556	
19)	Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.	
20)	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.	
21)	Endrin Ketone	13.80	14.99	128.3E6	89981618	1.927	1.975	

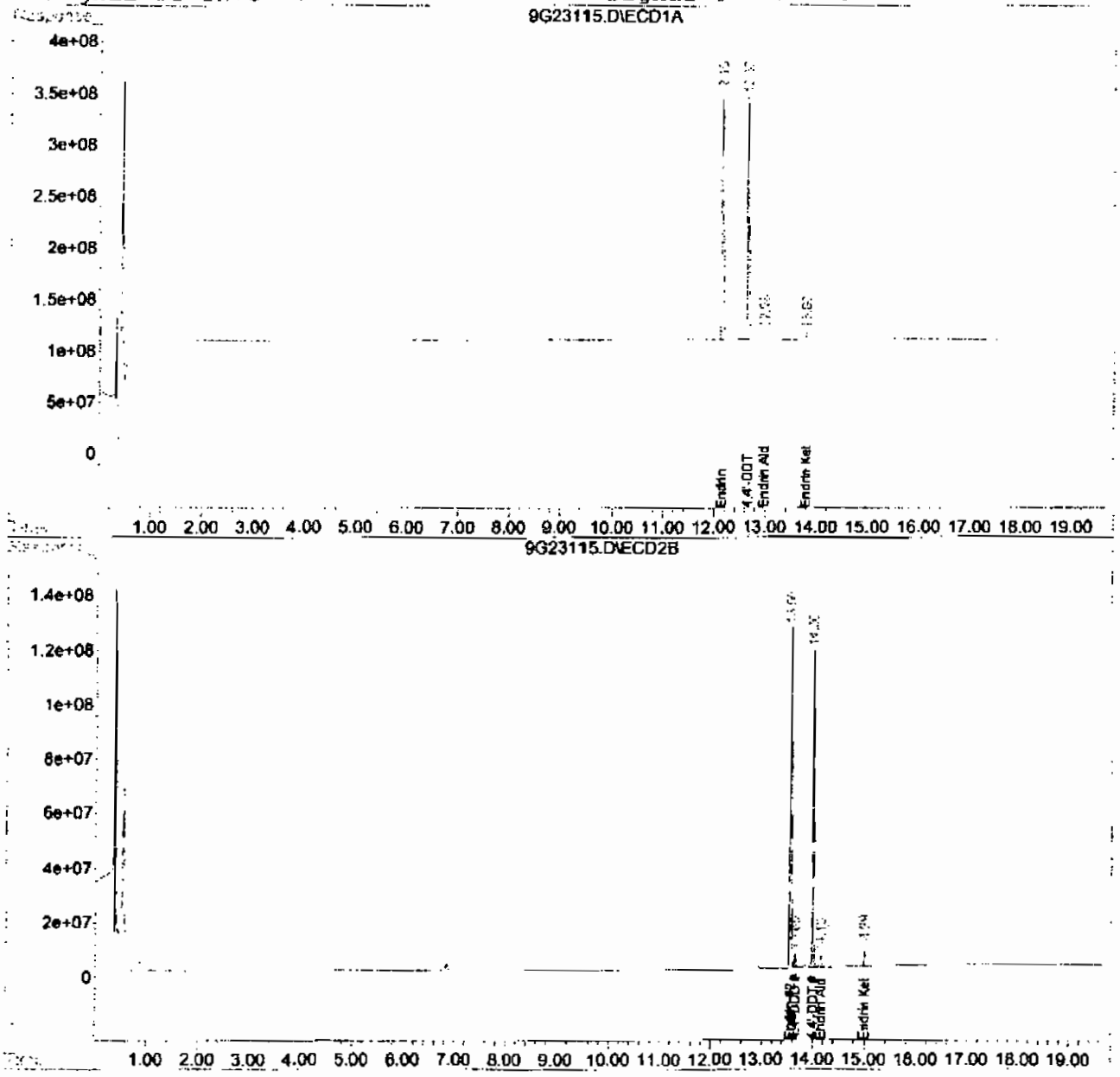
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\050603\9G23115.D\ECD1A.CH Vial: 1
Acq On : 6 May 2003 12:29 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23115.D\ECD2B.CH Vial: 1
Acq On : 6 May 2003 12:53 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 6 13:59 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Wed Apr 30 16:35:45 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



4,4'-DDT / ENDRIN BREAKDOWN

INSTRUMENT: HP 9

COLUMN: RTx-CLP (FRONT)

Data File Name: 9G23160.D

ENDRIN	ENDRIN KETONE	ENDRIN ALDEHYDE	ENDRIN BREAKDOWN
4505743708	0	0	0.00

4,4'-DDT	4,4'-DDE	4,4'-DDD	4,4'-DDT BREAKDOWN
3975519435	0	0	0.00

COLUMN: RTx-CLP II (REAR)

Data File Name: 9G23160.D

ENDRIN #2	ENDRIN KETONE #2	ENDRIN ALDEHYDE #2	ENDRIN #2 BREAKDOWN
2062402218	94556245	87948905	8.13

4,4'-DDT #2	4,4'-DDE #2	4,4'-DDD #2	4,4'-DDT #2 BREAKDOWN
1851726590	0	0	0.00

Data File : C:\HPCHEM\1\DATA\050603\9G23160.D\ECD1A.CH Vial: 46
Acq On : 7 May 2003 7:28 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23160.D\ECD2B.CH Vial: 46
Acq On : 7 May 2003 7:52 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 13:00 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:59:49 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L	
	System Monitoring Compounds							
1)	S 2,4,5,6-Tetrachl	0.00	0.00	0	0	N.D.	N.D.	
	Spiked Amount 20.000	Range 30 - 132		Recovery =		0.00%#	0.00%#	
22)	S Decachlorobiphen	0.00	0.00	0	0	N.D.	N.D.	
	Spiked Amount 20.000	Range 36 - 144		Recovery =		0.00%#	0.00%#	
	Target Compounds							
2)	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.	
3)	gamma-BHC	0.00	0.00	0	0	N.D.	N.D.	
4)	beta-BHC	0.00	0.00	0	0	N.D.	N.D.	
5)	Heptachlor	0.00	0.00	0	0	N.D.	N.D.	
6)	delta-BHC	0.00	0.00	0	0	N.D.	N.D.	
7)	Aldrin	0.00	0.00	0	0	N.D.	N.D.	
8)	Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.	
9)	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
10)	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
11)	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.	
13)	Dieldrin	0.00	0.00	0	0	N.D.	N.D.	
14)	Endrin	12.16	13.55	4505.7E6	2062.4E6	48.524	45.327	
15)	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.	
16)	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.	
17)	4,4'-DDT	12.66	13.99	3975.5E6	1851.7E6	45.352	45.943	
18)	Endrin Aldehyde	0.00	14.15	0	87948905	N.D.	2.443	#
19)	Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.	
20)	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.	
21)	Endrin Ketone	0.00	14.98	0	94556245	N.D.	2.049	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

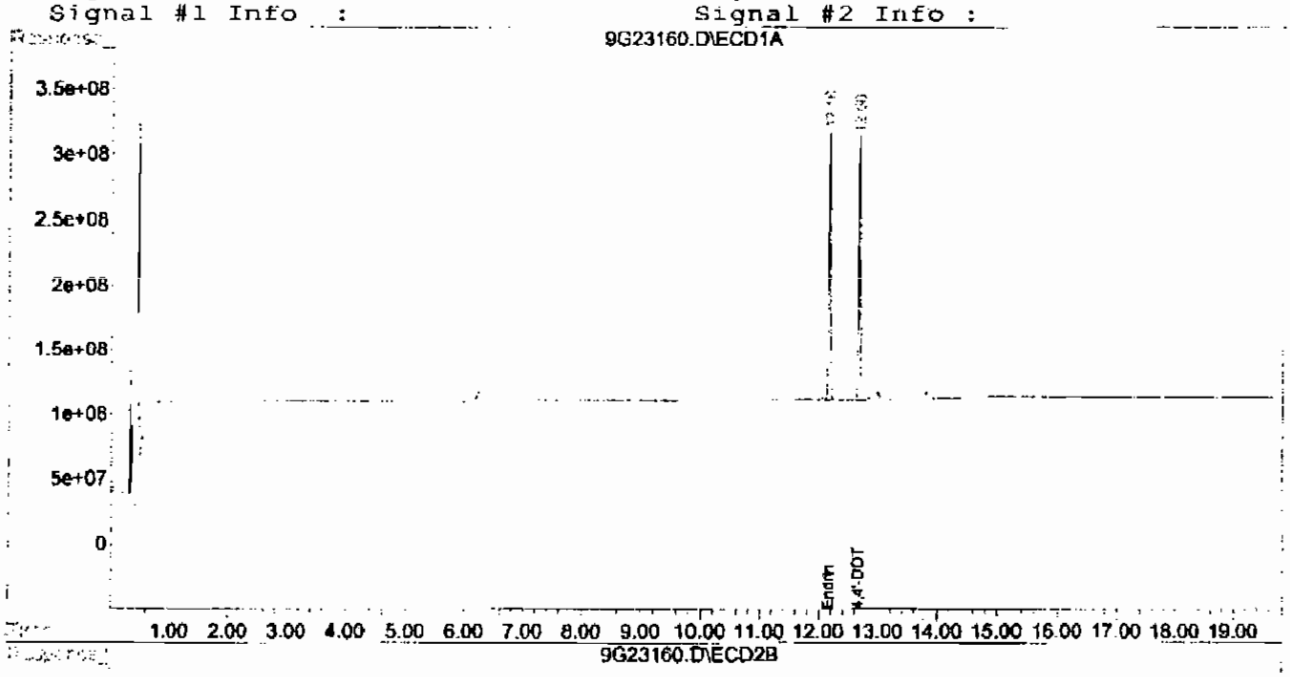
Quantification Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\050603\9G23160.D\ECD1A.CH Vial: 46
Acq On : 7 May 2003 7:28 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23160.D\ECD2B.CH Vial: 46
Acq On : 7 May 2003 7:52 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 13:00 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 12:59:49 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



4,4'-DDT / ENDRIN BREAKDOWN

INSTRUMENT: HP 9

COLUMN: RTx-CLP (FRONT)

Data File Name: 9G23173.D

ENDRIN	ENDRIN KETONE	ENDRIN ALDEHYDE	ENDRIN BREAKDOWN
4535967848	0	0	0.00

4,4'-DDT	4,4'-DDE	4,4'-DDD	4,4'-DDT BREAKDOWN
3904387168	0	0	0.00

COLUMN: RTx-CLP II (REAR)

Data File Name: 9G23173.D

ENDRIN #2	ENDRIN KETONE #2	ENDRIN ALDEHYDE #2	ENDRIN #2 BREAKDOWN
2232225970	74776040	0	3.24

4,4'-DDT #2	4,4'-DDE #2	4,4'-DDD #2	4,4'-DDT #2 BREAKDOWN
1954447715	0	0	0.00

Data File : C:\HPCHEM\1\DATA\050603\9G23173.D\ECD1A.CH Vial: 59
Acq On : 7 May 2003 12:44 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23173.D\ECD2B.CH Vial: 59
Acq On : 7 May 2003 13:08 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 14:02 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 14:02:17 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	0.00	0.00	0	0	N.D.	N.D.
	Spiked Amount 20.000	Range 30 - 132		Recovery =		0.00%#	0.00%#
22)	S Decachlorobiphen	0.00	0.00	0	0	N.D.	N.D.
	Spiked Amount 20.000	Range 36 - 144		Recovery =		0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
3)	gamma-BHC	0.00	0.00	0	0	N.D.	N.D.
4)	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
5)	Heptachlor	0.00	0.00	0	0	N.D.	N.D.
6)	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	Aldrin	0.00	0.00	0	0	N.D.	N.D.
8)	Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.
9)	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
10)	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
12)	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	Endrin	12.13	13.54	4536.0E6	2232.2E6	48.850	49.059
15)	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
16)	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
17)	4,4'-DDT	12.63	13.98	3904.4E6	1954.4E6	44.541	48.492
18)	Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
19)	Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.
20)	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	Endrin Ketone	0.00	14.97	0	74776040	N.D.	1.621 #

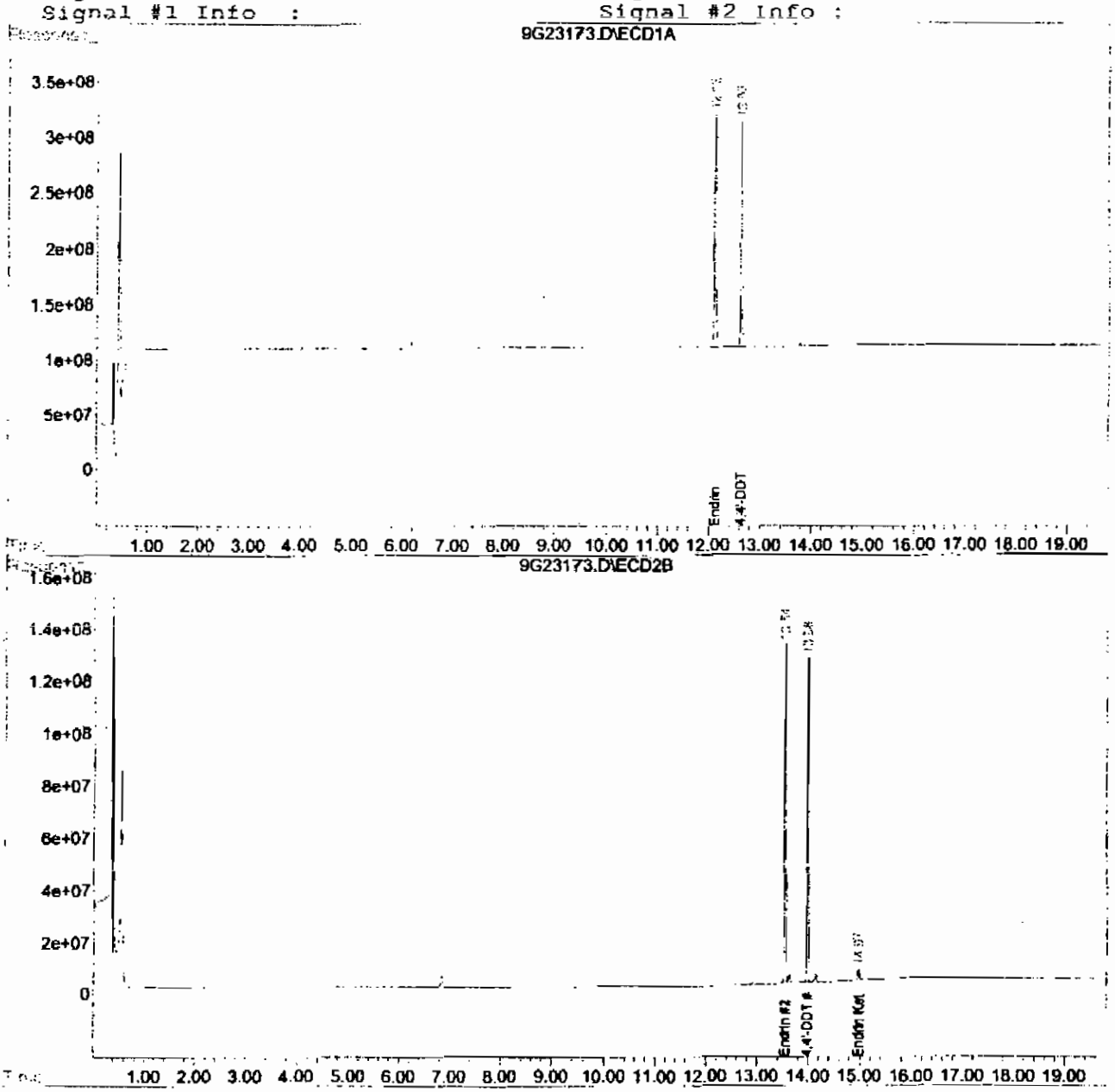
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\050603\9G23173.D\ECD1A.CH Vial: 59
Acq On : 7 May 2003 12:44 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23173.D\ECD2B.CH Vial: 59
Acq On : 7 May 2003 13:08 Operator: ECL
Sample : ENDRIN/DDT Inst : HP9
Misc : SOS64-06 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 14:02 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 14:02:17 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\043003\9G23051.D\ECD1A.CH Vial: 17
Acq On : 30 Apr 2003 16:22 Operator: ECL
Sample : WG139296-02 BLANK V201 P99 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autointl.e

Data File : C:\HPCHEM\1\DATA\043003\9G23051.D\ECD2B.CH Vial: 17
Acq On : 30 Apr 2003 16:46 Operator: ECL
Sample : WG139296-02 BLANK V201 P99 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 1 8:24 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Wed Apr 30 16:35:45 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L	
	System Monitoring Compounds							
1)	S 2,4,5,6-Tetrachl	7.20	8.36	1049.6E6	660.2E6	12.306	11.679	
	Spiked Amount 20.000	Range 30 - 132		Recovery =		61.53%	58.39%	
22)	S Decachlorobiphen	14.85	16.30	854.6E6	656.2E6	16.280	16.363	
	Spiked Amount 20.000	Range 36 - 144		Recovery =		81.40%	81.81%	
	Target Compounds							
2)	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.	
3)	gamma-BHC	0.00	0.00	0	0	N.D.	N.D.	
4)	beta-BHC	0.00	0.00	0	0	N.D.	N.D.	
5)	Heptachlor	0.00	0.00	0	0	N.D.	N.D.	
6)	delta-BHC	0.00	0.00	0	0	N.D.	N.D.	
7)	Aldrin	0.00	0.00	0	0	N.D.	N.D.	
8)	Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.	
9)	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
10)	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
11)	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.	
13)	Dieldrin	0.00	0.00	0	0	N.D.	N.D.	
14)	Endrin	0.00	0.00	0	0	N.D.	N.D.	
15)	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.	
16)	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.	
17)	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.	
18)	Endrin Aldehyde	12.95f	0.00	78224236	0	1.387	N.D.	#
19)	Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.	
20)	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.	
21)	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.	

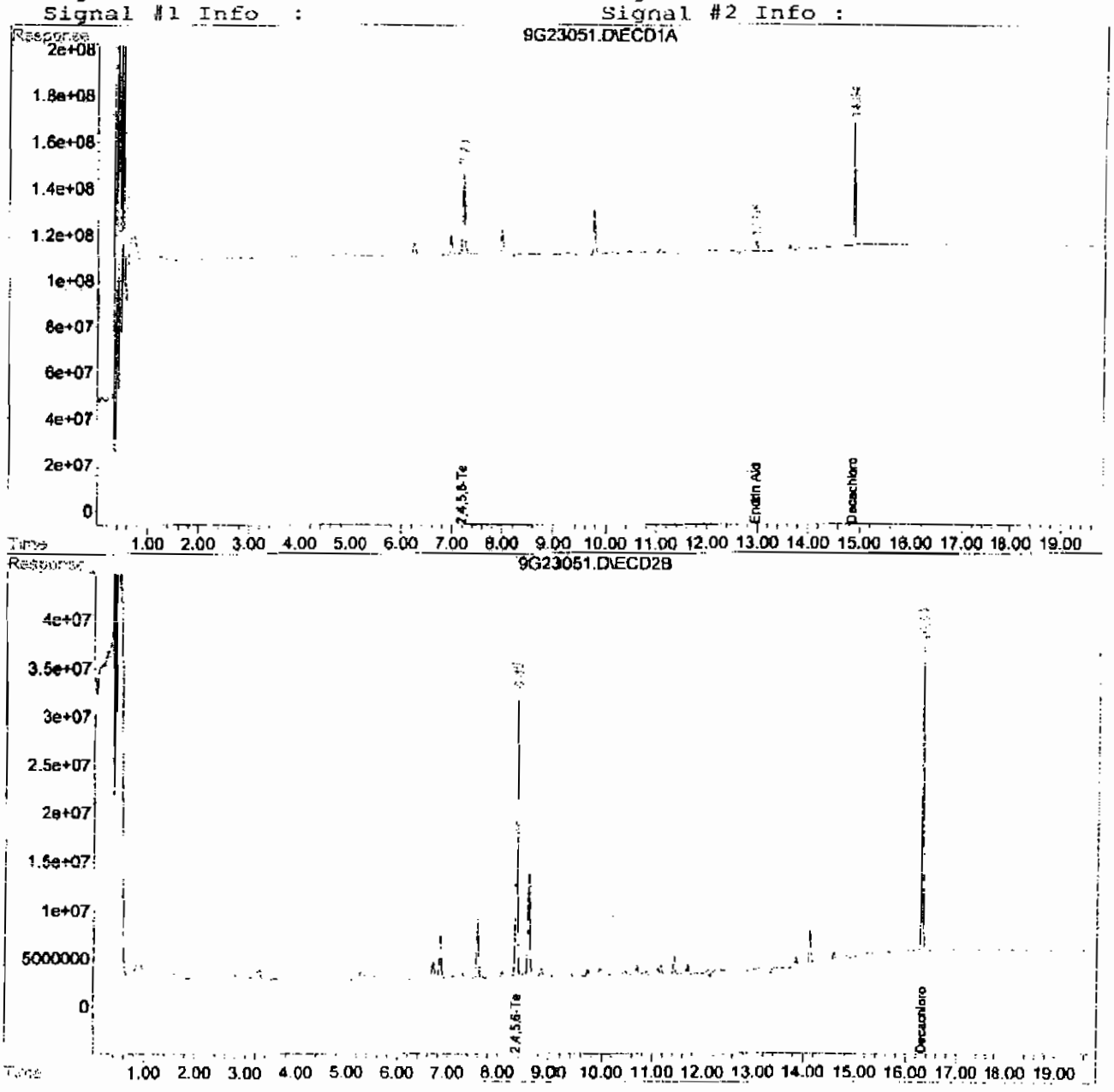
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\043003\9G23051.D\ECD1A.CH Vial: 17
Acq On : 30 Apr 2003 16:22 Operator: ECL
Sample : WG139296-02 BLANK V201 P99 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23051.D\ECD2B.CH Vial: 17
Acq On : 30 Apr 2003 16:46 Operator: ECL
Sample : WG139296-02 BLANK V201 P99 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 1 8:24 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Wed Apr 30 16:35:45 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\050603\9G23151.D\ECD1A.CH Vial: 37
Acq On : 7 May 2003 3:49 Operator: ECL
Sample : WG139786-01 BLANK V201 P139 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23151.D\ECD2B.CH Vial: 37
Acq On : 7 May 2003 4:14 Operator: ECL
Sample : WG139786-01 BLANK V201 P139 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 14:18 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 14:09:09 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

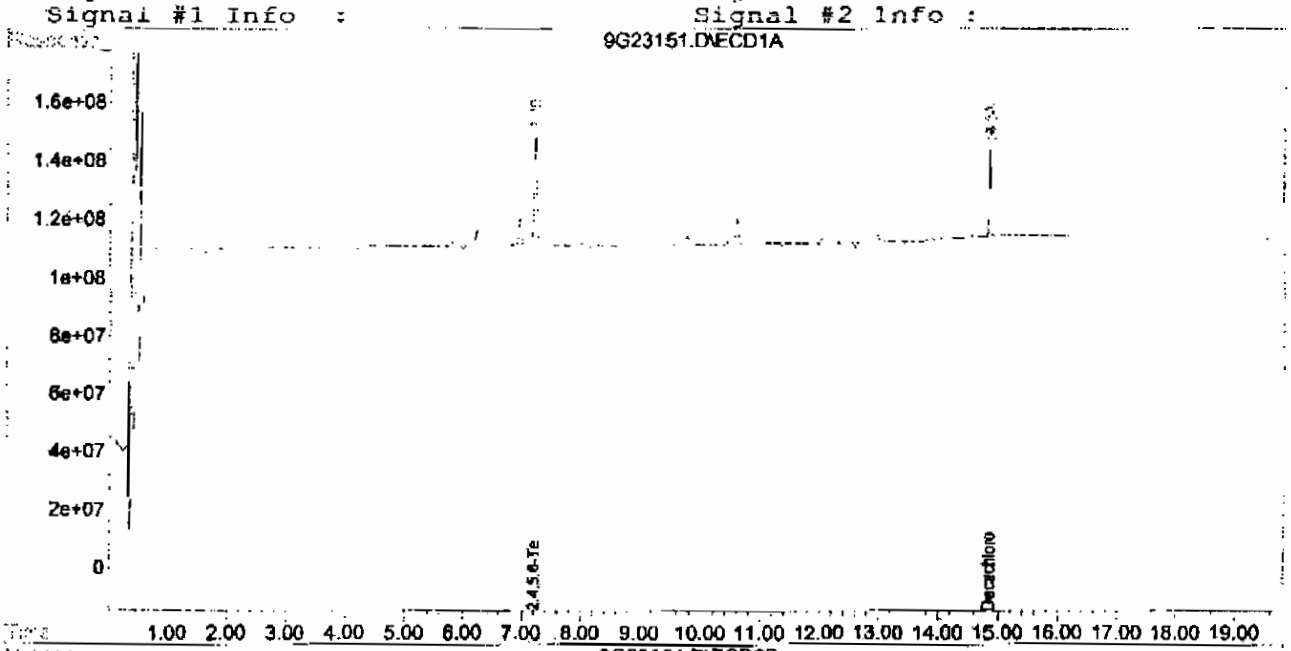
	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.20	8.35	1056.4E6	586.1E6	10.966	10.223
	Spiked Amount 20.000	Range 30 - 132		Recovery =		54.83%	51.12%
22)	S Decachlorobiphen	14.84	16.30	494.9E6	339.0E6	8.680	8.294
	Spiked Amount 20.000	Range 36 - 144		Recovery =		43.40%	41.47%
	Target Compounds						
2)	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
3)	gamma-BHC	0.00	0.00	0	0	N.D.	N.D.
4)	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
5)	Heptachlor	0.00	0.00	0	0	N.D.	N.D.
6)	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	Aldrin	0.00	0.00	0	0	N.D.	N.D.
8)	Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.
9)	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
10)	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
12)	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	Endrin	0.00	0.00	0	0	N.D.	N.D.
15)	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
16)	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
17)	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.
18)	Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
19)	Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.
20)	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

Data File : C:\HPCHEM\1\DATA\050603\9G23151.D\ECD1A.CH Vial: 37
Acq On : 7 May 2003 3:49 Operator: ECL
Sample : WG139786-01 BLANK V201 P139 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23151.D\ECD2B.CH Vial: 37
Acq On : 7 May 2003 4:14 Operator: ECL
Sample : WG139786-01 BLANK V201 P139 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 14:18 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 14:09:09 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\043003\9G23052.D\ECD1A.CH Vial: 18
Acq On : 30 Apr 2003 16:46 Operator: ECL
Sample : WG139296-03 LCS V201 P99 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23052.D\ECD2B.CH Vial: 18
Acq On : 30 Apr 2003 17:10 Operator: ECL
Sample : WG139296-03 LCS V201 P99 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 1 8:25 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Thu May 01 08:24:58 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.21	8.36	1217.7E6	751.8E6	14.277	13.300
	Spiked Amount 20.000	Range 30 - 132		Recovery =		71.39%	66.50%
22)	S Decachlorobiphen	14.86	16.30	1370.9E6	1035.8E6	26.115	25.828
	Spiked Amount 20.000	Range 36 - 144		Recovery =		130.57%	129.14%
	Target Compounds						
2)	alpha-BHC	8.22	9.50	7117.9E6	5056.4E6	58.245	61.245
3)	gamma-BHC	8.76	10.12	7087.0E6	4915.6E6	65.485	66.730
4)	beta-BHC	8.90	10.25	3042.6E6	2229.2E6	64.725	67.581
5)	Heptachlor	9.56	10.86	6164.5E6	3612.6E6	55.942	57.445
6)	delta-BHC	9.19	10.74	7935.3E6	5414.3E6	71.713	76.064
7)	Aldrin	10.03	11.38	5091.4E6	3306.4E6	49.414	51.652
8)	Heptachlor Epoxi	10.93	12.26	5977.7E6	4246.8E6	73.677	72.404
9)	gamma-Chlordane	11.12	12.53	6615.9E6	4177.5E6	70.995	72.245
10)	alpha-Chlordane	11.31	12.74	6207.6E6	3867.7E6	68.537	71.731
11)	Endosulfan I	11.49	12.82	5053.6E6	3070.0E6	56.309	58.080
12)	4,4'-DDE	11.45	12.94	6263.0E6	3825.7E6	72.793	74.832
13)	Dieldrin	11.84	13.18	6550.5E6	4162.1E6	71.543	75.331
14)	Endrin	12.16	13.56	6243.9E6	3566.6E6	73.256	76.812
15)	4,4'-DDD	12.28	13.64	5170.3E6	3190.7E6	76.818	77.306
16)	Endosulfan II	12.47	13.79	4270.9E6	2660.7E6	58.337	59.302
17)	4,4'-DDT	12.66	14.00	5443.1E6	3158.7E6	72.556	78.618
18)	Endrin Aldehyde	12.99	14.16	3126.9E6	1982.0E6	55.435	58.787
19)	Endosulfan Sulfa	13.50	14.44	2964.3E6	2105.2E6	61.882	56.721
20)	Methoxychlor	13.27	14.67	2478.5E6	1582.4E6	72.973	77.006
21)	Endrin Ketone	13.81	14.99	4204.4E6	2810.0E6	63.118	61.672

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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Data File : C:\HPCHEM\1\DATA\043003\9G23052.D\ECD1A.CH   Vial: 18
Acq On    : 30 Apr 2003  16:46                          Operator: ECL
Sample    : WG139296-03 LCS V201 P99                    Inst    : HP9
Misc      : 1,1 WATER                                   Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23052.D\ECD2B.CH   Vial: 18
Acq On    : 30 Apr 2003  17:10                          Operator: ECL
Sample    : WG139296-03 LCS V201 P99                    Inst    : HP9
Misc      : 1,1 WATER                                   Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May  1  8:25 2003  Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title        : CALIBRATION April 30, 2003 @ 1557
Last Update  : Thu May 01 08:24:58 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj.      :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
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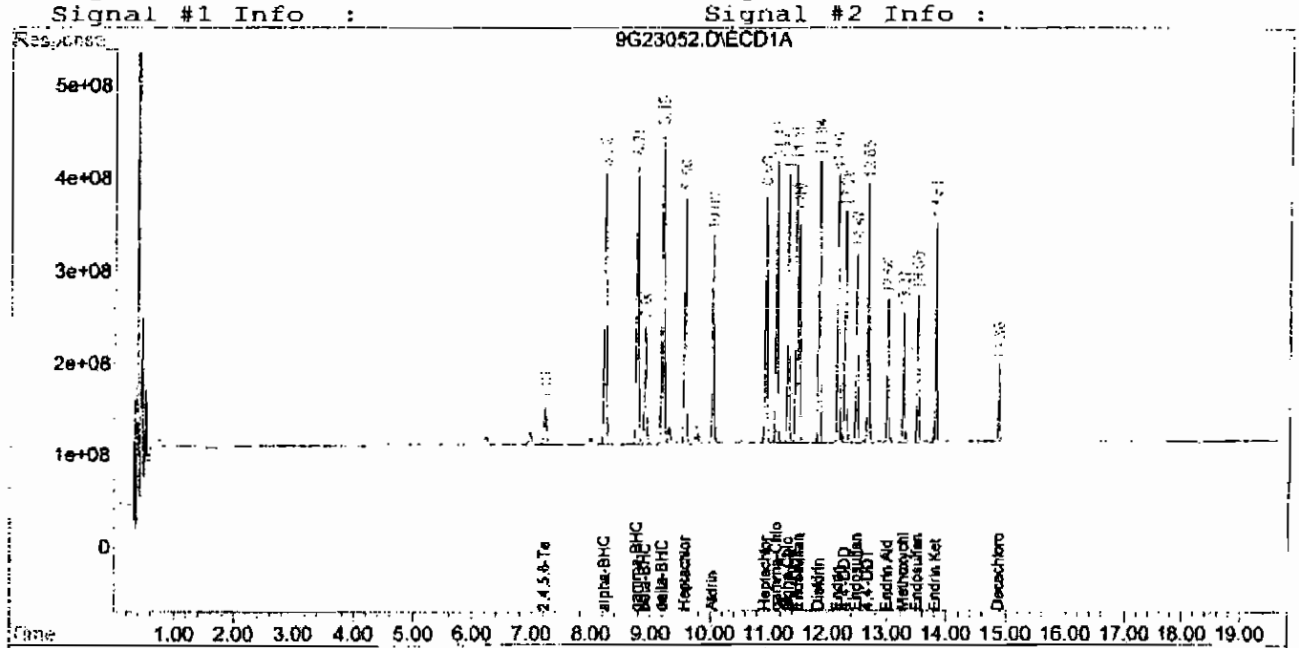
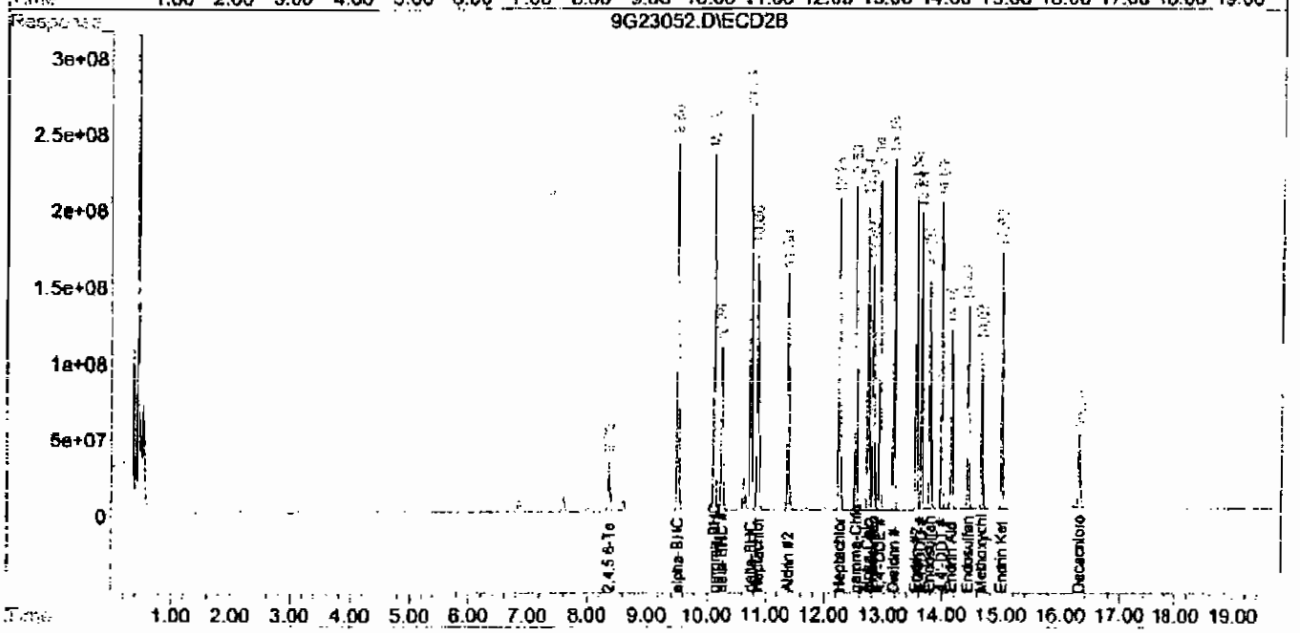




Data File : C:\HPCHEM\1\DATA\050603\9G23152.D\ECD1A.CH Vial: 38
Acq On : 7 May 2003 4:14 Operator: ECL
Sample : WG139786-02 LCS V201 P139 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23152.D\ECD2B.CH Vial: 38
Acq On : 7 May 2003 4:38 Operator: ECL
Sample : WG139786-02 LCS V201 P139 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 14:18 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 14:09:09 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.21	8.35	1128.1E6	668.0E6	11.709	11.650
	Spiked Amount 20.000	Range 30 - 132		Recovery =		58.55%	58.25%
22)	S Decachlorobiphen	14.85	16.30	758.0E6	534.7E6	13.296	13.085
	Spiked Amount 20.000	Range 36 - 144		Recovery =		66.48%	65.42%
	Target Compounds						
2)	alpha-BHC	8.22	9.50	5247.6E6	3329.4E6	37.774	39.407
3)	gamma-BHC	8.76	10.11	5074.8E6	3161.6E6	45.449	42.017
4)	beta-BHC	8.90	10.25	2543.7E6	1561.9E6	49.164	46.512
5)	Heptachlor	9.55	10.85	4328.2E6	2602.9E6	35.019	42.412
6)	delta-BHC	9.10	10.74	6100.7E6	3674.1E6	48.723	50.868
7)	Aldrin	10.02	11.38	4258.4E6	2434.6E6	36.934	37.307
8)	Heptachlor Epoxi	10.92	12.25	4377.6E6	2859.4E6	56.565	47.438
9)	gamma-Chlordane	11.11	12.53	5061.8E6	2842.1E6	47.710	48.262
10)	alpha-Chlordane	11.30	12.73	4835.8E6	2616.2E6	46.470	47.485
11)	Endosulfan I	11.48	12.82	3668.4E6	1951.2E6	35.542	36.257
12)	4,4'-DDE	11.44	12.93	4865.5E6	2631.0E6	49.474	50.511
13)	Dieldrin	11.83	13.17	5127.0E6	2844.8E6	49.121	50.723
14)	Endrin	12.15	13.55	4707.8E6	2312.8E6	50.700	50.831
15)	4,4'-DDD	12.27	13.64	4046.3E6	2198.1E6	52.114	52.629
16)	Endosulfan II	12.45	13.79	2748.4E6	1442.9E6	32.436	31.794
17)	4,4'-DDT	12.65	13.99	4137.5E6	2126.3E6	47.200	52.756
18)	Endrin Aldehyde	12.98	14.15	1496.6E6	832.1E6	23.437	23.113
19)	Endosulfan Sulfa	13.49	14.44	1405.0E6	860.5E6	28.618	23.243
20)	Methoxychlor	13.26	14.67	1705.5E6	1050.0E6	45.726	52.618
21)	Endrin Ketone	13.80	14.98	2368.9E6	1440.0E6	31.506	31.212

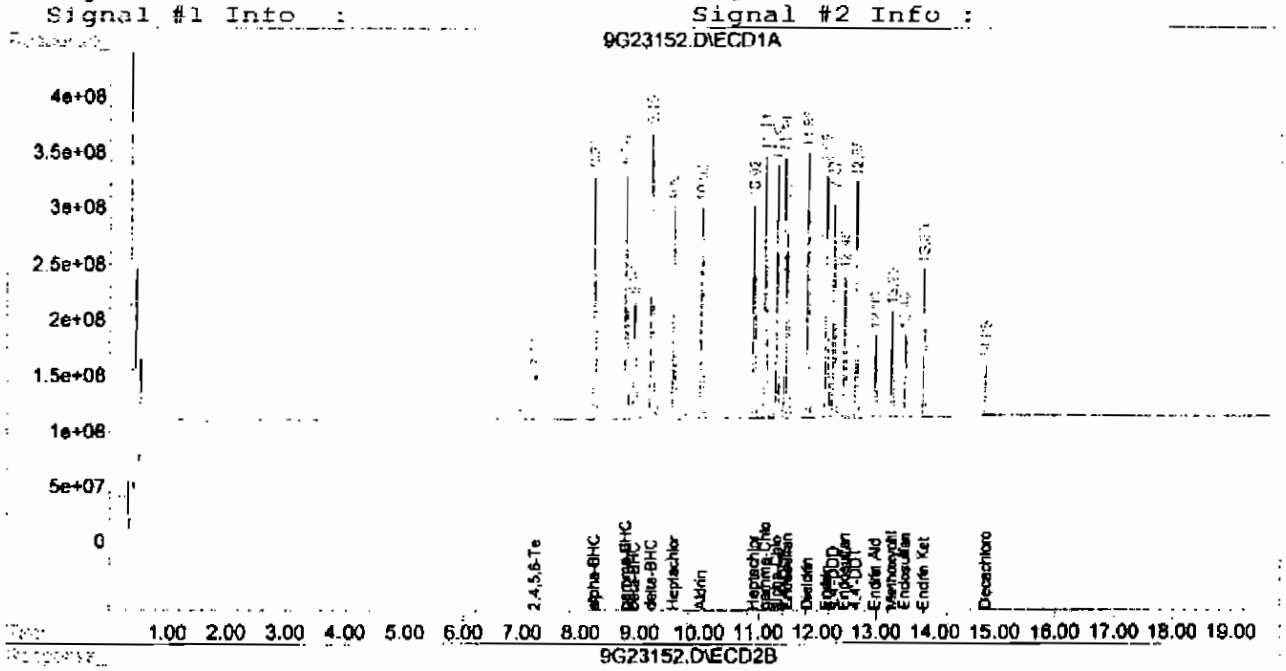
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\050603\9G23152.D\ECD1A.CH Vial: 38
Acq On : 7 May 2003 4:14 Operator: ECL
Sample : WG139786-02 LCS V201 P139 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23152.D\ECD2B.CH Vial: 38
Acq On : 7 May 2003 4:38 Operator: ECL
Sample : WG139786-02 LCS V201 P139 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 14:18 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 14:09:09 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\050603\9G23153.D\ECD1A.CH Vial: 39
Acq On : 7 May 2003 4:38 Operator: ECL
Sample : WG139786-03 LCS DUP V201 P139 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23153.D\ECD2B.CH Vial: 39
Acq On : 7 May 2003 5:02 Operator: ECL
Sample : WG139786-03 LCS DUP V201 P139 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 14:19 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 14:09:09 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L
	System Monitoring Compounds						
1)	S 2,4,5,6-Tetrachl	7.21	8.34	1096.4E6	626.1E6	11.381	10.920
	Spiked Amount 20.000	Range 30 - 132		Recovery =		56.91%	54.60%
22)	S Decachlorobiphen	14.85	16.28f	739.7E6	503.7E6	12.975	12.325
	Spiked Amount 20.000	Range 36 - 144		Recovery =		64.88%	61.63%
	Target Compounds						
2)	alpha-BHC	8.22	9.48	5191.2E6	3146.3E6	37.367	37.240
3)	gamma-BHC	8.76	10.10	5028.4E6	2997.4E6	45.034	39.834
4)	beta-BHC	8.90	10.24	2461.4E6	1439.9E6	47.575	42.879
5)	Heptachlor	9.55	10.84f	4409.9E6	2463.4E6	35.681	40.138
6)	delta-BHC	9.18	10.72	5890.8E6	3381.6E6	47.047	46.818
7)	Aldrin	10.02	11.36	4165.1E6	2281.0E6	36.125	34.953
8)	Heptachlor Epoxi	10.92	12.23f	4252.1E6	2652.4E6	54.943	44.003
9)	gamma-Chlordane	11.11	12.51f	4800.7E6	2595.1E6	45.249	44.067
10)	alpha-Chlordane	11.30	12.72f	4612.6E6	2390.3E6	44.325	43.384
11)	Endosulfan I	11.48	12.80f	3563.9E6	1807.6E6	34.529	33.589
12)	4,4'-DDE	11.44	12.92f	4578.6E6	2364.0E6	46.556	45.385
13)	Dieldrin	11.83	13.16f	4912.7E6	2625.0E6	47.068	46.804
14)	Endrin	12.15	13.54f	4508.9E6	2123.6E6	48.558	46.672
15)	4,4'-DDD	12.27	13.62f	3817.3E6	1989.4E6	49.165	47.630
16)	Endosulfan II	12.46	13.77f	2794.3E6	1405.7E6	32.977	30.974
17)	4,4'-DDT	12.65	13.98f	3899.0E6	1901.2E6	44.479	47.171
18)	Endrin Aldehyde	12.98	14.14f	1524.4E6	811.4E6	23.872	22.538
19)	Endosulfan Sulfa	13.49	14.42f	1529.3E6	889.5E6	31.149	24.027
20)	Methoxychlor	13.26	14.66f	1655.7E6	952.6E6	44.389	47.737
21)	Endrin Ketone	13.80	14.97f	2416.8E6	1400.4E6	32.143	30.352

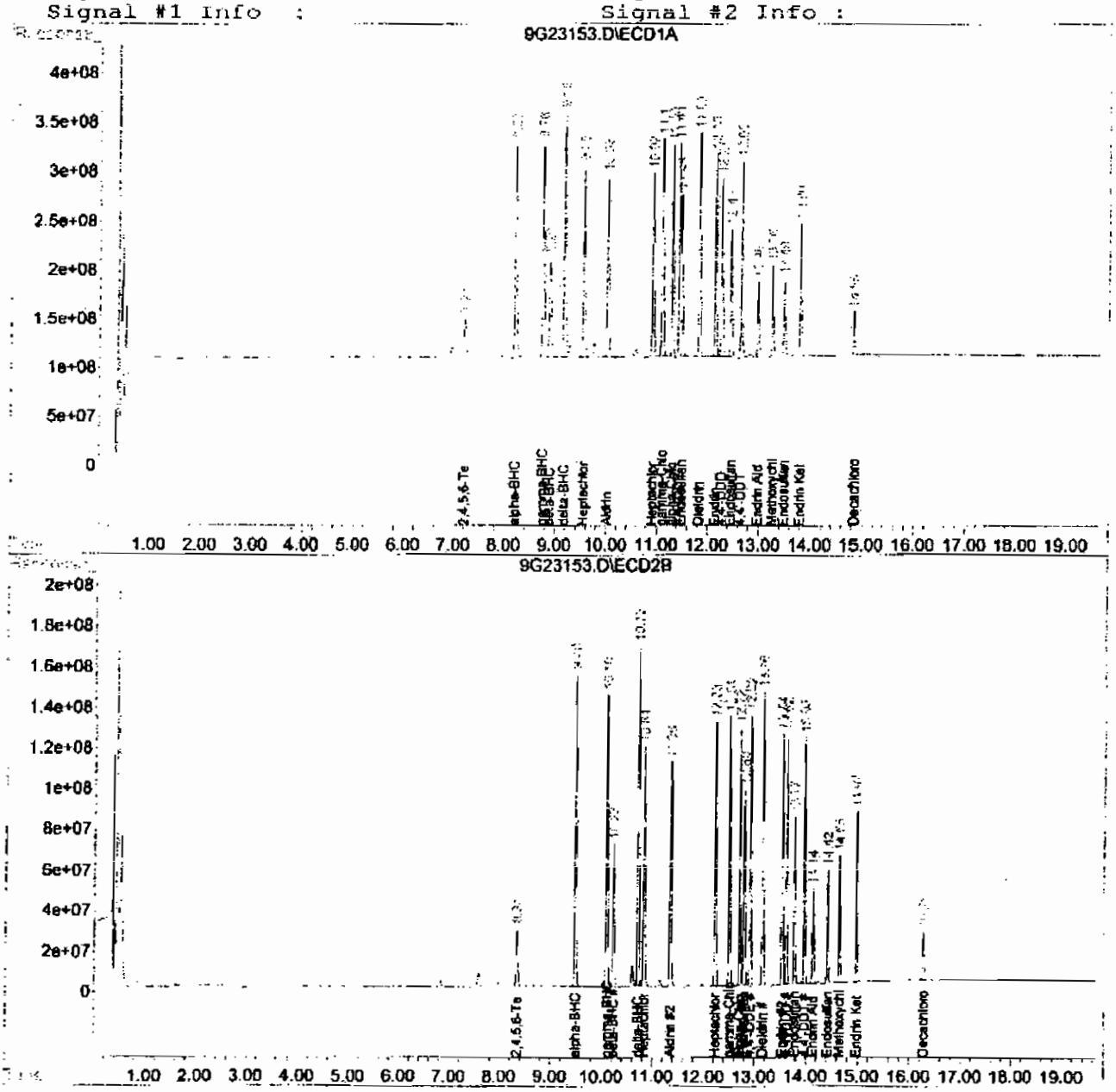
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\050603\9G23153.D\ECD1A.CH Vial: 39
Acq On : 7 May 2003 4:38 Operator: ECL
Sample : WG139786-03 LCS DUP V201 P139 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\050603\9G23153.D\ECD2B.CH Vial: 39
Acq On : 7 May 2003 5:02 Operator: ECL
Sample : WG139786-03 LCS DUP V201 P139 Inst : HP9
Misc : 1,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 7 14:19 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION May 6, 2003 @ 1653
Last Update : Wed May 07 14:09:09 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\043003\9G23053.D\ECD1A.CH Vial: 19
Acq On : 30 Apr 2003 17:10 Operator: ECL
Sample : WG139290-01 TCLP BLANK 4/28 Inst : HP9
Misc : 17,1 WATER Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23053.D\ECD2B.CH Vial: 19
Acq On : 30 Apr 2003 17:35 Operator: ECL
Sample : WG139290-01 TCLP BLANK 4/28 Inst : HP9
Misc : 17,1 WATER Multiplr: 1.00
IntFile : autoint2.e
Quant Time: May 1 8:25 2003 Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title : CALIBRATION April 30, 2003 @ 1557
Last Update : Thu May 01 08:24:58 2003
Response via : Initial Calibration
DataAcq Meth : 8081.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	UG/L	UG/L	
	System Monitoring Compounds							
1)	S 2,4,5,6-Tetrachl	7.21	8.36	913.5E6	591.9E6	10.710	10.470	
	Spiked Amount 20.000	Range 30 - 132		Recovery =		53.55%	52.35%	
22)	S Decachlorobiphen	14.86	16.30	1073.8E6	846.3E6	20.456	21.102	
	Spiked Amount 20.000	Range 36 - 144		Recovery =		102.28%	105.51%	
	Target Compounds							
2)	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.	
3)	gamma-BHC	0.00	0.00	0	0	N.D.	N.D.	
4)	beta-BHC	0.00	0.00	0	0	N.D.	N.D.	
5)	Heptachlor	0.00	0.00	0	0	N.D.	N.D.	
6)	delta-BHC	0.00	0.00	0	0	N.D.	N.D.	
7)	Aldrin	0.00	0.00	0	0	N.D.	N.D.	
8)	Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.	
9)	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
10)	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
11)	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.	
13)	Dieldrin	0.00	0.00	0	0	N.D.	N.D.	
14)	Endrin	0.00	0.00	0	0	N.D.	N.D.	
15)	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.	
16)	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.	
17)	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.	
18)	Endrin Aldehyde	12.97	0.00	150.6E6	0	2.670	N.D.	#
19)	Endosulfan Sulfa	0.00	0.00	0	0	N.D.	N.D.	
20)	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.	
21)	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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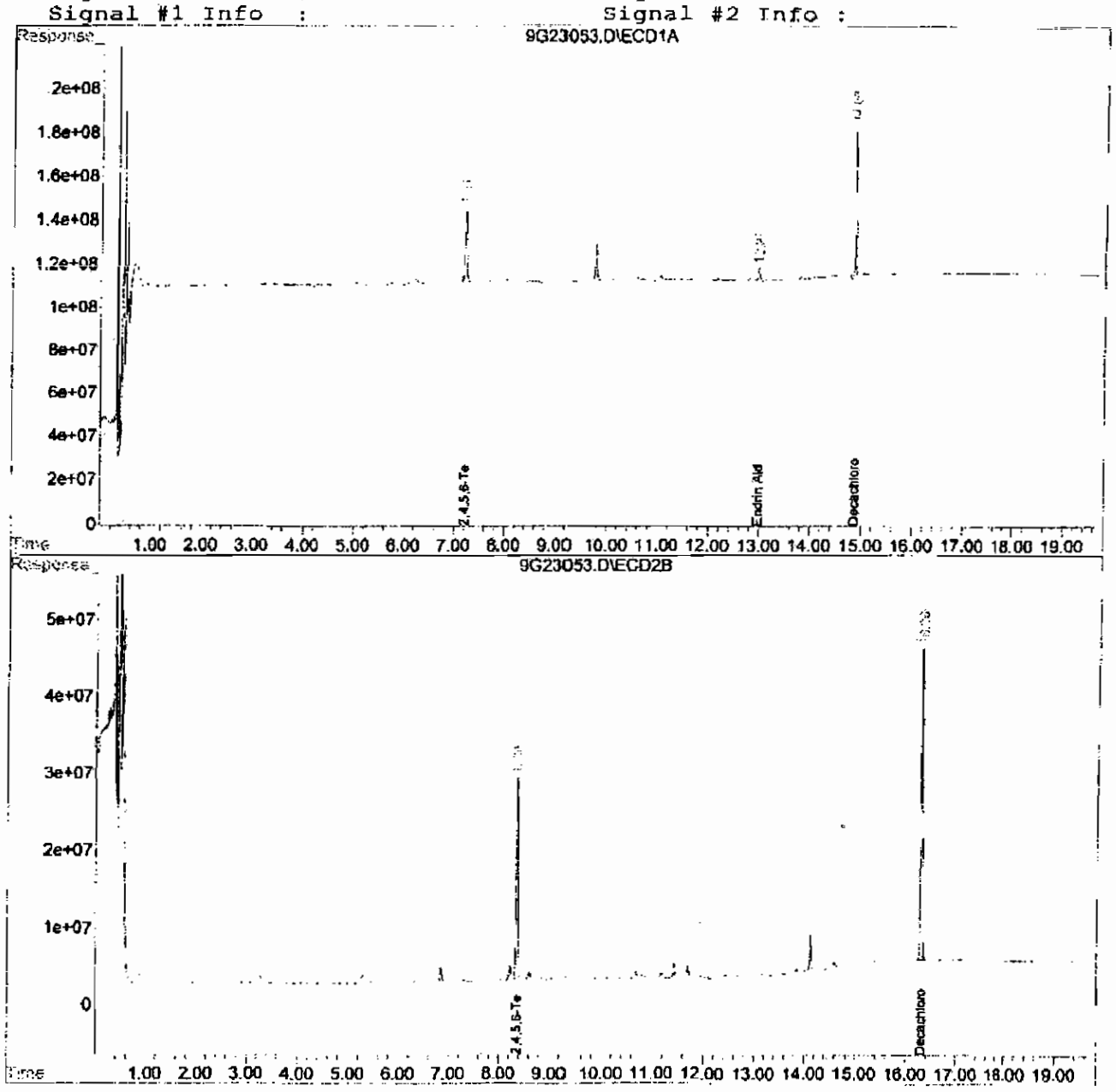
Data File : C:\HPCHEM\1\DATA\043003\9G23053.D\ECD1A.CH  Vial: 19
Acq On    : 30 Apr 2003  17:10                        Operator: ECL
Sample    : WG139290-01 TCLP BLANK 4/28               Inst    : HP9
Misc      : 17,1 WATER                                Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\043003\9G23053.D\ECD2B.CH  Vial: 19
Acq On    : 30 Apr 2003  17:35                        Operator: ECL
Sample    : WG139290-01 TCLP BLANK 4/28               Inst    : HP9
Misc      : 17,1 WATER                                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: May  1  8:25 2003  Quant Results File: 8081.RES

Quant Method : C:\HPCHEM\1\METHODS\8081.M (Chemstation Integrator)
Title        : CALIBRATION April 30, 2003 @ 1557
Last Update  : Thu May 01 08:24:58 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8081.M

Volume Inj.      :
Signal #1 Phase  :                    Signal #2 Phase:
Signal #1 Info   :                    Signal #2 Info :
```



Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	9g23035.d	1.	ENDRIN/DDT	SOS64-06	30 Apr 2003 09:11
2	2	9g23036.d	1.	PEST CCV 20 PPB	1,1 SOS63-32	30 Apr 2003 09:35
3	3	9g23037.d	1.	TOX CCV 500 PPB	SOS62-45	30 Apr 2003 10:00
4	4	9g23038.d	1.	TOX ICAL 2000 PPB	SOS62-45	30 Apr 2003 11:06
5	5	9g23039.d	1.	TOX ICAL 1000 PPB	SOS62-45	30 Apr 2003 11:31
6	6	9g23040.d	1.	TOX ICAL 500 PPB	SOS62-45	30 Apr 2003 11:55
7	7	9g23041.d	1.	TOX ICAL 250 PPB	SOS62-45	30 Apr 2003 12:19
8	8	9g23042.d	1.	TOX ICAL 100 PPB	SOS62-45	30 Apr 2003 12:43
9	9	9g23043.d	1.	TOX ALT ICV 500 PPB	SOS63-05	30 Apr 2003 13:08
10	10	9g23044.d	1.	WG139380-01 PEST ICAL 200 PPB	1,1 SOS63-32	30 Apr 2003 13:32
11	11	9g23045.d	1.	WG139380-02 PEST ICAL 100 PPB	1,1 SOS63-32	30 Apr 2003 13:56
12	12	9g23046.d	1.	WG139380-03 PEST ICAL 50 PPB	1,1 SOS63-32	30 Apr 2003 14:20
13	13	9g23047.d	1.	WG139380-04 PEST ICAL 20 PPB	1,1 SOS63-32	30 Apr 2003 14:45
14	14	9g23048.d	1.	WG139380-05 PEST ICAL 10 PPB	1,1 SOS63-32	30 Apr 2003 15:09
15	15	9g23049.d	1.	WG139380-06 PEST ICAL 4 PPB	1,1 SOS63-32	30 Apr 2003 15:33
16	16	9g23050.d	1.	WG139380-07 PEST ALT ICV 20...	1,1 SOS62-49	30 Apr 2003 15:57
17	17	9g23051.d	1.	WG139296-02 BLANK V201 P99	1,1 WATER	30 Apr 2003 16:22
18	18	9g23052.d	1.	WG139296-03 LCS V201 P99	1,1 WATER	30 Apr 2003 16:46
19	19	9g23053.d	1.	WG139290-01 TCLP BLANK 4/28	17,1 WATER	30 Apr 2003 17:10
20	20	9g23054.d	1.	L0304554-01	17,1 WATER	30 Apr 2003 17:35
21	21	9g23055.d	1.	L0304594-03	17,1 WATER	30 Apr 2003 17:59
22	22	9g23056.d	1.	WG139296-01 L0304585-04	1,1 WATER	30 Apr 2003 18:23
23	23	9g23057.d	1.	WG139296-04 L0304585-05 MS	1,1 WATER	30 Apr 2003 18:47
24	24	9g23058.d	1.	WG139296-05 L0304585-06 MSD	1,1 WATER	30 Apr 2003 19:11
25	25	9g23059.d	1.	L0304585-10	1,1 WATER	30 Apr 2003 19:35
26	26	9g23060.d	1.	L0304585-01	1,1 WATER	30 Apr 2003 20:00
27	27	9g23061.d	1.	ENDRIN/DDT	SOS64-06	30 Apr 2003 20:24
28	28	9g23062.d	1.	WG139380-08 PEST CCV 20 PPB	1,1 SOS63-32	30 Apr 2003 20:48
29	29	9g23063.d	1.	TOX CCV 500 PPB	SOS62-45	30 Apr 2003 21:13
30	30	9g23064.d	1.	L0304585-02	1,1 WATER	30 Apr 2003 21:37
31	31	9g23065.d	1.	L0304585-03	1,1 WATER	30 Apr 2003 22:01
32	32	9g23066.d	1.	RE L0304581-01	2,1 WATER	30 Apr 2003 22:26
33	33	9g23067.d	1.	RE L0304581-02	2,1 WATER	30 Apr 2003 22:50
34	34	9g23068.d	1.	RE L0304581-03	2,1 WATER	30 Apr 2003 23:14
35	35	9g23069.d	1.	RE L0304581-04 -5X	2,1 WATER	30 Apr 2003 23:38
36	36	9g23070.d	1.	RE L0304581-05 -10X	2,1 WATER	01 May 2003 00:03
37	37	9g23071.d	1.	L0304581-06	2,1 WATER	01 May 2003 00:27
38	38	9g23072.d	1.	L0304581-07	2,1 WATER	01 May 2003 00:51
39	39	9g23073.d	1.	RE L0304581-08	2,1 WATER	01 May 2003 01:16
40	40	9g23074.d	1.	WG139380-09 PEST CCV 50 PPB	1,1 SOS63-32	01 May 2003 01:40
41	41	9g23075.d	1.	TOX CCV 250 PPB	SOS62-45	01 May 2003 02:04
42	42	9g23076.d	1.	L0304581-09	2,1 WATER	01 May 2003 02:28
43	43	9g23077.d	1.	WG139269-01 BLANK V201 P93	1,1 WATER	01 May 2003 02:53
44	44	9g23078.d	1.	WG139269-02 LCS V201 P93	1,1 WATER	01 May 2003 03:17
45	45	9g23079.d	1.	WG139269-03 LCS DUP V201 P93	1,1 WATER	01 May 2003 03:41
46	46	9g23080.d	1.	L0304558-01	1,1 WATER	01 May 2003 04:06
47	47	9g23081.d	1.	L0304558-02	1,1 WATER	01 May 2003 04:30
48	48	9g23082.d	1.	L0304558-03	1,1 WATER	01 May 2003 04:54
49	49	9g23083.d	1.	L0304558-04	1,1 WATER	01 May 2003 05:18
50	50	9g23084.d	1.	L0304576-01	1,1 WATER	01 May 2003 05:43
51	51	9g23085.d	1.	L0304576-02	1,1 WATER	01 May 2003 06:07
52	52	9g23086.d	1.	ENDRIN/DDT	SOS64-06	01 May 2003 06:31
53	53	9g23087.d	1.	WG139380-10 PEST CCV 20 PPB	1,1 SOS63-32	01 May 2003 06:56
54	54	9g23088.d	1.	TOX CCV 500 PPB	SOS62-45	01 May 2003 07:20
55	55	9g23089.d	1.	L0304576-03	1,1 WATER	01 May 2003 07:44

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
56	56	9g23090.d	1.	L0304576-04	1,1 WATER	01 May 2003 08:09
57	57	9g23091.d	1.	L0304576-05	1,1 WATER	01 May 2003 08:33
58	58	9g23092.d	1.	L0304576-06	1,1 WATER	01 May 2003 08:57
59	59	9g23093.d	1.	L0304587-02	1,1 WATER	01 May 2003 09:22
60	60	9g23094.d	1.	L0304593-01	1,1 WATER	01 May 2003 09:46
61	61	9g23095.d	1.	L0304593-02	1,1 WATER	01 May 2003 10:10
62	62	9g23096.d	1.	L0304593-03	1,1 WATER	01 May 2003 10:35
63	63	9g23097.d	1.	L0304594-01	1,1 WATER	01 May 2003 10:59
64	64	9g23098.d	1.	L0304594-02	1,1 WATER	01 May 2003 11:23
65	65	9g23099.d	1.	ENDRIN/DDT	SOS64-06	01 May 2003 11:47
66	66	9g23100.d	1.	WG139380-11 PEST CCV 50 PPB -A	1,1 SOS63-32	01 May 2003 12:12
67	67	9g23101.d	1.	TOX CCV 500 PPB	SOS62-45	01 May 2003 12:38

EC 5/1/03

mdc 5/1/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 4/30/03 Instrument ID HP7 Column ID RTx-CLP Front Data Subdirectory 043003
Analyst Initials ECL

SOP # GCS09 Rev. # 2 8081A ✓
SOP # GCS04 Rev. # ___ 8151A ___
SOP # GCS03 Rev. # ___ PRO ___
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ___
SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ___
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time 4/30/03 Instrument ID HP 7 Column ID RTx-CLP II Rear Data Subdirectory 043003

Daily Check
☑ Gases >500 psi

Preventative Maintenance
☐ Change o-ring
☐ Change liner
☐ Change septum
☐ Clip column (___cm)
☐ Injection port seal (goldseal)
☐ Change gases ___

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: ___

Action Taken: ___

Comments

A - Endosulfan sulfate failed high on ~~rear~~ Front col 5/1/03 column
~~Front~~ Rear column good.

* - LCS failed 12 compounds high

RE - need reextracted due to high LCS recovery + samples had hits of these compounds.

☆ - T-D-X surrogate failed high due to SME.

Reviewed By: [signature]

Directory: C:\HPCHEM\1\DATA\050603

e	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	9g23115.d	1.	ENDRIN/DDT	SOS64-06	06 May 2003 12:29
	2	9g23116.d	1.	WG139891-01 PEST CCV 20 PPB	1,1 SOS63-32	06 May 2003 12:53
	3	9g23117.d	1.	TOX CCV 500 PPB	SOS62-45	06 May 2003 13:17
	4	9g23118.d	1.	WG139891-01 PEST ICAL 200 PPB	1,1 SOS63-32	06 May 2003 14:28
	5	9g23119.d	1.	WG139891-02 PEST ICAL 100 PPB	1,1 SOS63-32	06 May 2003 14:52
	6	9g23120.d	1.	WG139891-03 PEST ICAL 50 PPB	1,1 SOS63-32	06 May 2003 15:16
	7	9g23121.d	1.	WG139891-04 PEST ICAL 20 PPB	1,1 SOS63-32	06 May 2003 15:41
	8	9g23122.d	1.	WG139891-05 PEST ICAL 10 PPB	1,1 SOS63-32	06 May 2003 16:05
	9	9g23123.d	1.	WG139891-06 PEST ICAL 4 PPB	1,1 SOS63-32	06 May 2003 16:29
	10	9g23124.d	1.	WG139891-07 PEST ALT ICV 20..	1,1 SOS62-49	06 May 2003 16:53
	11	9g23125.d	1.	WG139738-02 BLANK V201 P133	1,1 WATER	06 May 2003 17:18
	12	9g23126.d	1.	WG139738-03 LCS V201 P133	1,1 WATER	06 May 2003 17:42
	13	9g23127.d	1.	L0304581-01	2,1,RE WATER	06 May 2003 18:06
	14	9g23128.d	1.	L0304581-02	2,1,RE WATER	06 May 2003 18:31
	15	9g23129.d	1.	L0304581-03	2,1,RE WATER	06 May 2003 18:55
	16	9g23130.d	1.	L0304581-04 – *	2,1,RE WATER	06 May 2003 19:19
	17	9g23131.d	1.	L0304581-05	2,1,RE WATER	06 May 2003 19:44
	18	9g23132.d	1.	L0304581-08	2,1,RE WATER	06 May 2003 20:08
	19	9g23133.d	1.	L0304627-01	1,1 WATER	06 May 2003 20:32
	20	9g23134.d	1.	L0304627-02	1,1 WATER	06 May 2003 20:56
	21	9g23135.d	1.	ENDRIN/DDT	SOS64-06	06 May 2003 21:21
	22	9g23136.d	1.	WG139891-08 PEST CCV 20 PPB – A	1,1 SOS63-32	06 May 2003 21:45
	23	9g23137.d	1.	TOX CCV 500 PPB	SOS62-45	06 May 2003 22:09
	24	9g23138.d	1.	L0304627-03	1,1 WATER	06 May 2003 22:34
	25	9g23139.d	1.	WG139738-01 L0304627-04	1,1 WATER	06 May 2003 22:58
	26	9g23140.d	1.	WG139738-04 L0304627-05 MS	1,1 WATER	06 May 2003 23:22
	27	9g23141.d	1.	WG139738-05 L0304627-06 MSD	1,1 WATER	06 May 2003 23:46
	28	9g23142.d	1.	L0304676-01	1,1 WATER	07 May 2003 00:11
	29	9g23143.d	1.	L0304676-02	1,1 WATER	07 May 2003 00:35
	30	9g23144.d	1.	L0304676-03	1,1 WATER	07 May 2003 00:59
	31	9g23145.d	1.	L0305017-01	1,1 WATER	07 May 2003 01:23
	32	9g23146.d	1.	L0305017-02	1,1 WATER	07 May 2003 01:48
	33	9g23147.d	1.	L0305069-01	1,1 WATER	07 May 2003 02:12
	34	9g23148.d	1.	WG139891-09 PEST CCV 50 PPB – B	1,1 SOS63-32	07 May 2003 02:36
	35	9g23149.d	1.	TOX CCV 250 PPB – C	SOS62-45	07 May 2003 03:01
	36	9g23150.d	1.	L0305069-02	1,1 WATER	07 May 2003 03:25
	37	9g23151.d	1.	WG139786-01 BLANK V201 P139	1,1 WATER	07 May 2003 03:49
	38	9g23152.d	1.	WG139786-02 LCS V201 P139	1,1 WATER	07 May 2003 04:14
	39	9g23153.d	1.	WG139786-03 LCS DUP V201 P139	1,1 WATER	07 May 2003 04:38
	40	9g23154.d	1.	L0304690-01	1,1 WATER	07 May 2003 05:02
	41	9g23155.d	1.	L0304690-03	1,1 WATER	07 May 2003 05:27
	42	9g23156.d	1.	L0304690-05	1,1 WATER	07 May 2003 05:51
	43	9g23157.d	1.	L0304690-07	1,1 WATER	07 May 2003 06:15
	44	9g23158.d	1.	L0304690-09	1,1 WATER	07 May 2003 06:40
	45	9g23159.d	1.	L0304690-11	1,1 WATER	07 May 2003 07:04
	46	9g23160.d	1.	ENDRIN/DDT	SOS64-06	07 May 2003 07:28
	47	9g23161.d	1.	WG139891-10 PEST CCV 20 PPB – D	1,1 SOS63-32	07 May 2003 07:52
	48	9g23162.d	1.	TOX CCV 500 PPB	SOS62-45	07 May 2003 08:17
	49	9g23163.d	1.	L0305040-01	1,1 WATER	07 May 2003 08:41
	50	9g23164.d	1.	L0305040-03	1,1 WATER	07 May 2003 09:05
	51	9g23165.d	1.	L0305040-05	1,1 WATER	07 May 2003 09:29
	52	9g23166.d	1.	L0305040-07	1,1 WATER	07 May 2003 09:54
	53	9g23167.d	1.	L0305040-09	1,1 WATER	07 May 2003 10:18
	54	9g23168.d	1.	L0305040-11	1,1 WATER	07 May 2003 10:42
	55	9g23169.d	1.	L0305100-01	1,1 WATER	07 May 2003 11:06

Directory: C:\HPCHEM\1\DATA\050603

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
5	56	9g23170.d	1.	L0305100-02	1,1 WATER	07 May 2003 11:31
57	57	9g23171.d	20.	L0305100-03 20x	1,20 WATER	07 May 2003 11:55
58	58	9g23172.d	1.	L0304554-01	17,1,RE WATER	07 May 2003 12:19
59	59	9g23173.d	1.	ENDRIN/DDT	SOS64-06	07 May 2003 12:44
60	60	9g23174.d	1.	WG139891-11 PEST CCV 50 PPB – D	1,1 SOS63-32	07 May 2003 13:08
61	61	9g23175.d	1.	TOX CCV 250 PPB	SOS62-45	07 May 2003 13:32

EC2 5/7/03

pk 5/7/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 5/6/03 Instrument ID HP7 Column ID RTx-CLP Data Subdirectory 050603
Analyst Initials ECL

SOP # GCS09 Rev. # 2 8081A ✓ (Front)
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ FRO ____
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____
SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time 5/6/03 Instrument ID HP 9 Column ID RTx-CLP II (Rear) Data Subdirectory 050603

Daily Check
- ☑ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☐ Change liner
- ☐ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

A - Heptachlor epoxide failed high on Front column. Rear was good

B - Hept. Epoxide and Endosulfan sulfate failed high on Front column. Rear was good

C - Rear column failed low. Front was good

D - Endosulfan Sulfate failed high on Front column. Rear column was good

* - TMX surrogate failed high due to SMI

Reviewed By: _____

Parameter: Pest H2O SOP #: EXP01 Revision #: 10
Extraction Analyst(s): CAF PAS TV/KD Analyst(s): CAF
Date/Time Extracted: 4-29-03 @ 1420 Date TV/KD: 04-29-03
Spike/Surrogate Analyst: CAF Witness: CEB
Surrogate #: ES5004 4-10 Earliest Hold Date: 5-01-03
Spike #: A = ES5004 4-11 Spike #: B = —

Extraction Work Group WG 139296
Analytical Work Group WG 139387
Extract Relinquished By: CEB
Extract Received By & Date: [illegible] 4/30/03

	Sample ID	Test Code	pH / <2	pH / N	pH / >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	Emulsions / BN	Emulsions / N	Comments
1	Blank			—		1000 mL	200 mL		10 mL	T				WG 139296-02
2	LCS			✓		1000 mL		250 mL						WG 139296-03
3	04-585-01	8081		✓				CAF 4-29-03						
4	-02			✓										
5	-03			✓										
6	-04			✓										WG 139296-01
7	-05MS			✓				250 mL						WG 139296-04
8	-06MSD			✓										WG 139296-05
9	-10			✓										
10	04-581-01	608		✓		940 mL								
11	-02			✓		940 mL								
12	-03			✓		930 mL								
13	-04			✓		950 mL								
14	-05			✓		970 mL								
15	-06			✓		970 mL								
16	-07			✓		930 mL								
17	-08			✓		910 mL								
18	-09			✓		940 mL								
19	TBLK 4/28	8081-TC		✓		100 mL								WG 139298-01
20	04-554-01			✓										
21	04-594-03			✓										
22														
23						04-24-03								
24														

Methylene Chloride Lot #: 4310
Hexane Lot #: 43057
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: 94:6 Lot #: ER 0005-27
Reagent: 50:50 Lot #: ER 2384
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: Y01559
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER0005-25

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B	✓	GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 04/30/03

Extraction Notes For Volume # 201 Page # 99

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: 4/30/03

Parameter: Prist-H_2O SOP #: EXF01 Revision #: 10
Extraction Analyst(s): DP TV/KD Analyst(s): CAF PAS
Date/Time Extracted: 05/05/03 @ 1530 Date TV/KD: 5-5-03
Spike/Surrogate Analyst: DP Witness: PAS
Surrogate #: ES50044-10 Earliest Hold Date: 05/07/03
Spike #: A = ES50044-11 Spike #: B = _____

Extraction Work Group WG 139786
Analytical Work Group WG 139893

Extract Relinquished By: CB
Extract Received By & Date: CAF 5/5/03

	Sample ID	Test Code	pH / <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	BN	N	Comments
1	Blank			✓		1000mL	200mL		10mL	T				WG 139786-01
2	LCS			✓		1	1	250mL	1	1				WG -02
3	LCS DUP			✓		1	1	1	1	1				WG -03
4	04-690-01	8081P		✓		1000mL	1	1	1	1				
5	-03	1		✓		1000mL	1	1	1	1				
6	-05	1		✓		980mL	1	1	1	1				
7	-07	1		✓		970mL	1	1	1	1				
8	-09	1		✓		940mL	1	1	1	1				
9	-11	1		✓		1000mL	1	1	1	1				
10	05-040-01	1		✓		980mL	1	1	1	1				
11	-03	1		✓		980mL	1	1	1	1				
12	-05	1		✓		920mL	1	1	1	1				
13	-07	1		✓		970mL	1	1	1	1				
14	-09	1		✓		910mL	1	1	1	1				
15	-11	1		✓		940mL	1	1	1	1				
16	05-087-01	8081		✓		1000mL	1	1	1	1				
17	05-100-02	1		✓		1000mL	1	1	1	1				
18	-03	1		✓		860mL	1	1	1	O				*
19	05-554-01	8081-TC		✓		100mL	1	1	1	T				RE-EXT IN HOLD
20	TO SH 5/6/03													
21														
22						PAS 5-5-03								
23														
24														

Methylene Chloride Lot #: 43010
Hexane Lot #: 43057
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: 50150 Lot #: ER 0005-28
Reagent: 94:6 Lot #: ER 0005-40
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: 901559
Silica Gel Lot #: —
IR Analyst / Date / Time: _____
Dried Na_2SO_4 Lot #: ER 0005-41

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B	✓	GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	
Sulfur 3660B			

Peer Reviewed By: Cheryl Flowers Date: 5-05-03

Extraction Notes For Volume # 201 Page # 139

General Comments: * Sample contains a small amount of oil and a large quantity of sediment. The water layer of this sample was decanted for extraction, leaving most sediment (equivalent to 140 cm3) in the sample jar

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: [signature] Date: 5/6/13

Semi-Volatile GC Checklist

Run Date: 4/30/03

Analyst: ECL

Instrument: HP9

Method: 8081

Workorders:	Due Date:	Priority:
04-554	5/2	P1
04-581	5/5	—
04-585	5/5	F1
04-594	5/5	P1
04-598	5/8	—
04-576	5/9	—
04-587	5/7	F1
04-593	5/12	—

		Analyst
System Performance Check:	Endrin/DDT Breakdown	✓
Initial Calibration:	Average RF	✓
	Linear or quadriatic regression	
	Alt Source Check	
Continuing Calibration:	Continuing Calibration	✓
	Client Specific Requirements	✓
	Ending Standards	✓
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	✓
	Surrogates	✓
LCS/LCS DUP:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Spike Compounds	✓
	MS/MSD	✓
Samples:	Quant Reports/Chromatograms	✓
	Surrogates	✓
	Dilution runs	
	Check Sample Histories	
Data Package:	Manual Integrations	✓
	Run logs	✓
	Bench sheets	✓
	QC sheets	✓
	Upload results	✓
	Seedpak workgroups	✓
	Level 2	✓
	Level 3	
	Level 4 copies	✓
	Level x	
	Case narratives	✓

	Supervisor
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

√ = Checked & OK

NA = Not Applicable

Comments:

Primary Reviewer: EC 5/1/03

Secondary Reviewer: [illegible] 5/2/03

Supervisor Review: [illegible] 5/2/03

Semi-Volatile GC Checklist

Run Date: 5/6/03

Analyst: ECL

Instrument: HP 9

Method: 8081

Workorders:	Due Date:	Priority:
04-581 RE	5/5	-
04-627	5/13	-
04-676	5/14	-
05-017	5/15	-
05-069	5/16	-
04-554 RE	5/2	P1
04-690	5/14	-
05-040	5/15	MP
05-100	5/9	P1

		Analyst
System Performance Check:	Endrin/DDT Breakdown	✓
Initial Calibration:	Average RF	✓
	Linear or quadratic regression	
	Alt Source Check	✓
Continuing Calibration:	Continuing Calibration	✓
	Client Specific Requirements	✓
	Ending Standards	✓
	Special Standards	
Blanks:	Quant Report/Chromatogram	✓
	Surrogates	✓
LCS/LCS DUP:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Spike Compounds	✓
	MS/MSD	✓
Samples:	Quant Reports/Chromatograms	✓
	Surrogates	✓
	Dilution runs	✓
	Check Sample Histories	✓
Data Package:	Manual Integrations	✓
	Run logs	✓
	Bench sheets	✓
	QC sheets	✓
	Upload results	✓
	Seedpak workgroups	✓
	Level 2	✓
	Level 3	
	Level 4 copies	✓
	Level x	
	Case narratives	✓

	Supervisor
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

√ = Checked & OK

NA = Not Applicable

Comments:

Primary Reviewer: ECL 5/7/03

Secondary Reviewer: mk 5/7/03

Supervisor Review: mk 5/7/03

Example 8081 Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

		Example:
	RF = As/ Cs	
Where:	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ng/ml).	100
	RF	**100**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:*

		Example:
	C = [(Ax)(Vf)(D)] / [(RF)(Vi)]	
Where:	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Vi = Initial volume of sample (mL). (prep log)	1000
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report:*

		Example:
	C = [(Ax)(Vf)(D)] / [(RF)(Vi)]	
Where:	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

* Concentrations appearing on instrument quantitation reports are on-column results and do not take into account initial volume, final volume and dilution factor.

2.2.3 PCB GC Data (8082)

REPORT NARRATIVE
GC PCB

KEMRON Report No.: L0304554

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8082

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: There were no MS/MSD results associated with this sample delivery group.

SAMPLES

Surrogates: Sample fraction -01 yielded a % recovery for decachlorobiphenyl that was above the acceptance limit. This was due to sample matrix interference. All other acceptance criteria were met.
Samples: For all samples which yielded results with an RPD of greater than 40% between the primary and confirmation column the appropriate flag was applied. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ECL REVIEWED: _____ DATE: 5/8/03

Rev. 7/14/00

PCB B GC DATA (8082)

Login Number 04-554

A. QC Summary

- ✓ Method Blank Summary
- ✓ Method Blank Results
- ✓ Laboratory Control Sample (LCS)
- NA Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ✓ Holding Time Summary
- ✓ Surrogate Recovery Summary
- ✓ Initial Calibration Summary
- ✓ Initial Calibration Verification (ICV) Form (Second Source)
- ✓ Continuing Calibration Verification (CCV)
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet

B. Sample Data

- ✓ Target compound and surrogate results summary (See Summary Report)
- ✓ Chromatograms and quantitation report

C. Standards Data

- ✓ Initial calibration (ICAL) summary form
- ✓ Chromatograms and quantitation report for ICAL standards
- ✓ Initial calibration verification (ICV/second source) summary forms
- ✓ Initial calibration verification (ICV/second source) quantitation reports and chromatograms
- ✓ Continuing Calibration Verification (CCV) summary forms
- ✓ Continuing Calibration Verification (CCV) quantitation reports and chromatograms
- ✓ Retention Time Window Summary

D. Raw QC Data

- ✓ Method blank chromatogram and quantitation report
- ✓ LCS chromatogram and quantitation report
- NA MS/MSD chromatogram and quantitation report
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet
- ✓ Daily Checklist
- ✓ Example Calculations

Checked By: EC Date: 5/7/03

2.2.3.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0304554
Blank File ID: 4GR17931
Date Analyzed: 05/01/03
Time Analyzed: 15:18
Analyst: ECL

Work Group: WG139446
Blank Sample ID: WG139368-01
Instrument ID: HP4
Method: 8082

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG139368-02	4GR17932	05/01/03 15:35	01
LCS2	WG139368-03	4GR17933	05/01/03 15:53	01
05-177511-SP1-042403	L0304554-01	4GR17934	05/01/03 16:11	01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0304554 Run Date: 05/01/2003 Sample ID: WG139368-01
Instrument ID: HP4 Run Time: 15:18 Prep Method: 3550B
File ID: 4GR17931 Analyst: ECL Method: 8082
Workgroup (AAB#): WG139446 Matrix: Solid Units: ug/kg
Contract #: Cal ID: HP4-17-MAR-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Aroclor-1016	8.25	16.5	8.25	1	U
Aroclor-1221	8.25	16.5	8.25	1	U
Aroclor-1232	8.25	16.5	8.25	1	U
Aroclor-1242	8.25	16.5	8.25	1	U
Aroclor-1248	8.25	16.5	8.25	1	U
Aroclor-1254	8.25	16.5	8.25	1	U
Aroclor-1260	8.25	16.5	8.25	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
2,4,5,6-Tetrachloro-M-Xylene	94.0	29	-	133	PASS
Decachlorobiphenyl	114	30	-	173	PASS

* Analyte detected above RDL
ND Analyte Not detected at or above reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0304554 | Run Date: 05/01/2003 | Sample ID: WG139368-02
Instrument ID: HP4 | Run Time: 15:35 | Prep Method: 3550B
File ID: 4GR17932 | Analyst: ECL | Method: 8082
Workgroup (AAB#): WG139446 | Matrix: Solid | Units: ug/kg
Contract #: | Cal ID: HP4-17-MAR-2003

Analytes	Expected	Found	% Rec	LCS Limits	Q
Aroclor-1016	83.3	92.8	111	64 - 136	
Aroclor-1260	83.3	106	127	63 - 137	

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,5,6-Tetrachloro-M-Xylene	105	29 - 133	PASS
Decachlorobiphenyl	124	30 - 173	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 05/01/2003
Version 1.3
Report generated 05/07/2003 17:01

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum: L0304554 Worknum: WG139446 Method: 8082
Instrument ID: HP4 Cal ID: HP4-17-MAR-2003 Matrix: Solid
Analyst: ECL Contract #: Units: ug/kg
Sample ID: WG139368-02 LCS File ID: 4GR17932 Run Date: 05/01/2003 15:35
Sample ID: WG139368-03 LCS2 File ID: 4GR17933 Run Date: 05/01/2003 15:53

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Limit	Q
	Known	Found	% REC	Known	Found	% REC				
Aroclor-1016	83.3	92.8	111	83.3	95.1	114	2.49	64 - 136	40	
Aroclor-1260	83.3	106	127	83.3	101	121	4.9	63 - 137	40	

Surrogates	LCS % Recovery	LCS2 % Recovery	Surrogate Limits	Qualifier
2,4,5,6-Tetrachloro-M-Xylene	105	99.0	29 - 133	PASS
Decachlorobiphenyl	124	115	30 - 173	PASS

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method:8082 AAB#:WG139446

Login Number:L0304554

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
05-177511-SP1-042403	04/24/03	04/25/03	04/30/03	14	5.69	05/01/03	40	1.31	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON FORMS - Modified 05/07/2003
Version 1.2
Report generated 05/07/2003 17:00

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0304554
Instrument Id: HP4
Workgroup (AAB#): WG139446

Method: 8082
CAL ID: ____ HP4 -17-MAR-03
Matrix: SOLID

Sample Number	Dilution	Tag	1	2
L0304554-01	1.00	01	78.6	388
WG139368-01	1.00	01	94.0	114
WG139368-02	1.00	01	105	124
WG139368-03	1.00	01	99.0	115

Surrogates	Surrogate Limits		
1 - 2,4,5,6-Tetrachloro-M-Xylene	29	-	133
2 - Decachlorobiphenyl	30	-	173

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Fri May 02 15:05:39 2003

Calibration Files
2000 =4GF17523.D 1000 =4GF17524.D 500 =4GF17525.D
250 =4GF17526.D 100 =4GF17527.D 50 =4GF17528.D

		Compound	2000	1000	500	250	100	50	Avg	%RSD
1)	S	2,4,5,6-Tetrachloro	7.673	8.186	7.756	7.818	7.325	7.176	7.656#E3	4.74
2)	L1	Aroclor-1016-1	1.599	1.852	1.832	1.897	1.880	1.725	1.797#E2	6.37
3)	L1	Aroclor-1016-2	2.885	3.399	3.526	3.873	4.074	3.635	3.565#E2	11.56
4)	L1	Aroclor-1016-3	6.255	7.248	7.473	7.691	8.208	7.767	7.440#E2	8.92
5)	L1	Aroclor-1016-4	2.795	3.215	3.184	3.124	3.614	3.026	3.160#E2	8.52
6)	L1	Aroclor-1016-5	2.182	2.451	2.457	2.341	2.664	1.937	2.339#E2	10.79
7)	L2	Aroclor-1260-1	5.021	5.633	5.806	6.063	6.099	6.160	5.797#E2	7.41
8)	L2	Aroclor-1260-2	4.293	4.732	4.833	4.933	4.897	4.810	4.750#E2	4.93
9)	L2	Aroclor-1260-3	9.208	9.768	9.804	9.734	9.067	8.855	9.406#E2	4.40
10)	L2	Aroclor-1260-4	8.913	9.178	8.984	9.041	8.658	8.394	8.862#E2	3.23
11)	L2	Aroclor-1260-5	2.504	2.515	2.382	2.322	2.231	2.178	2.355#E2	5.89
12)	S	Decachlorobiphenyl	7.477	7.837	7.756	7.636	7.421	6.754	7.480#E3	5.21

(#) = Out of Range

Data File : 4GF17529.D Vial: 7
Acq On : 2 May 2003 15:00 Operator: ECL
Sample : WG139612-07 1660 ALT ICV 500 PPB Inst : HP4
Misc : 1,1 SOS63-14 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Fri May 02 15:05:39 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	25.000	26.121	-4.5	103	0.00
2	L1	Aroclor-1016-1	500.000	506.617	-1.3	99	0.00
3	L1	Aroclor-1016-2	500.000	482.699	3.5	98	0.00
4	L1	Aroclor-1016-3	500.000	481.367	3.7	96	0.00
5	L1	Aroclor-1016-4	500.000	498.211	0.4	99	0.00
6	L1	Aroclor-1016-5	500.000	497.797	0.4	95	0.00
7	L2	Aroclor-1260-1	500.000	495.502	0.9	99	0.00
8	L2	Aroclor-1260-2	500.000	503.186	-0.6	99	0.00
9	L2	Aroclor-1260-3	500.000	460.271	7.9	88	0.00
10	L2	Aroclor-1260-4	500.000	441.180	11.8	87	0.00
11	L2	Aroclor-1260-5	500.000	400.165	20.0#	79	0.00
12	S	Decachlorobiphenyl	25.000	25.750	-3.0	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4GF17529.D 1660F.M Fri May 02 15:18:02 2003 Page 1

CONTINUING CALIBRATION REPORT

Login Number: L0304554
File ID: 4GR17926
CCV ID: WG139378-07
Units: ug/L

Instrument ID: HP4
Run Date: 05/01/2003
Run Time: 13:49
Analyst: ECL
Cal ID: HP4 - 17-MAR-03

Analyte	Expected	Found	RF	%D	Q
Aroclor-1260-5	500	562	425	12.4	
Aroclor-1260-4	500	545	1190	9.0	
Aroclor-1260-3	500	457	273	8.6	
Aroclor-1260-2	500	462	770	7.6	
Aroclor-1260-1	500	467	532	6.6	
Aroclor-1016-5	500	435	262	13.0	
Aroclor-1016-4	500	518	853	3.6	
Aroclor-1016-3	500	465	309	7.0	
Aroclor-1016-2	500	465	512	7.0	
Aroclor-1016-1	500	464	195	7.2	

* Exceeds %D Limit

CONTINUING CALIBRATION REPORT

Login Number: L0304554
File ID: 4GR17936
CCV ID: WG139378-08
Units: ug/L

Instrument ID: HP4
Run Date: 05/01/2003
Run Time: 16:47
Analyst: ECL
Cal ID: HP4 - 17-MAR-03

Analyte	Expected	Found	RF	%D	Q
Aroclor-1260-5	250	259	392	3.6	
Aroclor-1260-4	250	271	1180	8.4	
Aroclor-1260-3	250	224	269	10.4	
Aroclor-1260-2	250	231	769	7.6	
Aroclor-1260-1	250	237	541	5.2	
Aroclor-1016-5	250	221	266	11.6	
Aroclor-1016-4	250	269	887	7.6	
Aroclor-1016-3	250	242	321	3.2	
Aroclor-1016-2	250	244	536	2.4	
Aroclor-1016-1	250	240	202	4.0	

* Exceeds %D Limit

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	100	4gr16956.d	1.	HEXANE		17 Mar 2003 15:14
2	1	4gr16957.d	1.	WG136402-01 1660 ICAL 2000 PPB	1,1 SOS63-02	17 Mar 2003 15:32
3	2	4gr16958.d	1.	WG136402-02 1660 ICAL 1000 PPB	1,1 SOS63-02	17 Mar 2003 15:51
4	3	4gr16959.d	1.	WG136402-03 1660 ICAL 500 PPB	1,1 SOS63-02	17 Mar 2003 16:10
5	4	4gr16960.d	1.	WG136402-04 1660 ICAL 250 PPB	1,1 SOS63-02	17 Mar 2003 16:28
6	5	4gr16961.d	1.	WG136402-05 1660 ICAL 100 PPB	1,1 SOS63-02	17 Mar 2003 16:47
7	6	4gr16962.d	1.	WG136402-06 1660 ICAL 50 PPB	1,1 SOS63-02	17 Mar 2003 17:05
8	7	4gr16963.d	1.	WG136402-07 1660 ALT ICV 50...	1,1 SOS63-14	17 Mar 2003 17:24
9	8	4gr16964.d	1.	1254 ICAL 2000 PPB	SOS63-41	17 Mar 2003 17:42
10	9	4gr16965.d	1.	1254 ICAL 1000 PPB	SOS63-41	17 Mar 2003 18:01
11	10	4gr16966.d	1.	1254 ICAL 500 PPB	SOS63-41	17 Mar 2003 18:19
12	11	4gr16967.d	1.	1254 ICAL 250 PPB	SOS63-41	17 Mar 2003 18:38
13	12	4gr16968.d	1.	1254 ICAL 100 PPB	SOS63-41	17 Mar 2003 18:56
14	13	4gr16969.d	1.	1254 ICAL 50 PPB	SOS63-41	17 Mar 2003 19:14
15	14	4gr16970.d	1.	1254 ALT ICV 500 PPB	SOS63-08	17 Mar 2003 19:32
16	15	4gr16971.d	1.	1248 500 PPB	SOS61-40	17 Mar 2003 19:51
17	16	4gr16972.d	1.	1248 ALT 500 PPB - *	SOS64-08	17 Mar 2003 20:09
18	17	4gr16973.d	1.	1242 500 PPB	SOS61-41	17 Mar 2003 20:27
19	18	4gr16974.d	1.	1242 ALT 500 PPB	SOS63-09	17 Mar 2003 20:45
20	19	4gr16975.d	1.	1232 500 PPB	SOS64-09	17 Mar 2003 21:04
21	20	4gr16976.d	1.	1232 ALT 500 PPB	SOS64-10	17 Mar 2003 21:22
22	21	4gr16977.d	1.	1221 500 PPB	SOS64-07	17 Mar 2003 21:40
23	22	4gr16978.d	1.	1221 ALT 500 PPB	SOS61-43	17 Mar 2003 21:58
24	23	4gr16979.d	1.	WG136402-08 1660 CCV 500 PPB	1,1 SOS63-02	17 Mar 2003 22:16
25	51	4gr16980.d	1.	WG136402-09 INST. BLANK	1,1 SOS62-07	17 Mar 2003 22:34
26	52	4gr16981.d	1.	WG136354-01 BLANK V200 P79	1,1 WATER	17 Mar 2003 22:53
27	53	4gr16982.d	1.	WG136354-02 LCS V200 P79	1,1 WATER	17 Mar 2003 23:11
	54	4gr16983.d	1.	WG136354-03 LCS DUP V200 P79	1,1 WATER	17 Mar 2003 23:29
29	55	4gr16984.d	1.	L0303318-01	1,1 WATER	17 Mar 2003 23:47
30	56	4gr16985.d	1.	L0303318-02	1,1 WATER	18 Mar 2003 00:05
31	57	4gr16986.d	1.	L0303318-03	1,1 WATER	18 Mar 2003 00:23
32	58	4gr16987.d	1.	L0303318-04	1,1 WATER	18 Mar 2003 00:42
33	59	4gr16988.d	1.	L0303318-05	1,1 WATER	18 Mar 2003 01:00
34	60	4gr16989.d	1.	L0303318-06 - **	1,1 WATER	18 Mar 2003 01:18
35	61	4gr16990.d	1.	L0303318-07	1,1 WATER	18 Mar 2003 01:36
36	62	4gr16991.d	1.	1254 CCV 500 PPB	SOS63-41	18 Mar 2003 01:54
37	63	4gr16992.d	1.	WG136402-10 INST. BLANK	1,1 SOS62-07	18 Mar 2003 02:12
38	64	4gr16993.d	1.	L0303318-08 - ** - A	1,1 WATER	18 Mar 2003 02:31
39	65	4gr16994.d	1.	L0303318-09	1,1 WATER	18 Mar 2003 02:49
40	66	4gr16995.d	1.	L0303318-10 -	1,1 WATER	18 Mar 2003 03:07
41	67	4gr16996.d	1.	L0303318-11	1,1 WATER	18 Mar 2003 03:25
42	68	4gr16997.d	1.	L0303318-12	1,1 WATER	18 Mar 2003 03:44
43	69	4gr16998.d	1.	WG136402-11 1660 CCV 500 PPB	1,1 SOS63-02	18 Mar 2003 04:02
44	70	4gr16999.d	1.	WG136402-12 INST. BLANK	1,1 SOS62-07	18 Mar 2003 04:20

EC 3/18/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 3/17/03 Instrument ID HP4 Column ID RTX-CLP Rear Data Subdirectory 031703.SEC
Analyst Initials ECL

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ____
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____
SOP # GCS10 Rev. # 3 8082 ✓
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ✓ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ✓ Change liner
- ☐ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

* - 3 peaks failed but the average was within 15% = good

** - need rerun for Ar 1232 and confirmed

A - sample failed TCMX surrogate high. PCB was good

Reviewed By: _____

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	4gr17913.d	1.	WG139378-04 1660 CCV 500 PPB	1,1 SOS63-02	1 May 2003 09:51
2	2	4gr17914.d	1.	WG139378-05 INST. BLANK	1,1 SOS64-38	1 May 2003 10:15
3	3	4gr17915.d	1.	WG139410-01 BLANK V202 P75	7,1 SOIL	1 May 2003 10:33
4	4	4gr17916.d	1.	WG139410-02 LCS V202 P75	7,1 SOIL	1 May 2003 10:51
5	5	4gr17917.d	1.	WG139410-03 LCS DUP V202 P75	7,1 SOIL	1 May 2003 11:08
6	6	4gr17918.d	1.	L0304596-05 - CF	7,1,RE SOIL	1 May 2003 11:26
7	7	4gr17919.d	1.	L0304596-07 - CF	7,1,RE SOIL	1 May 2003 11:44
8	8	4gr17920.d	1.	L0304651-01	7,1 SOIL	1 May 2003 12:02
9	9	4gr17921.d	1.	L0304651-02 - CF	7,1 SOIL	1 May 2003 12:20
10	10	4gr17922.d	1.	L0304651-03	7,1 SOIL	1 May 2003 12:38
11	11	4gr17923.d	1.	L0304651-04	7,1 SOIL	1 May 2003 12:56
12	12	4gr17924.d	1.	1254 CCV 500 PPB	SOS63-41	1 May 2003 13:13
13	13	4gr17925.d	1.	WG139378-06 INST. BLANK	1,1 SOS64-38	1 May 2003 13:31
14	14	4gr17926.d	1.	WG139378-07 1660 CCV 500 PPB	1,1 SOS63-02	1 May 2003 13:49
15	15	4gr17927.d	1.	WG139432-01 BLANK V201 P107	2,1 WATER	1 May 2003 14:07
16	16	4gr17928.d	1.	WG139432-02 LCS V201 P107	2,1 WATER	1 May 2003 14:24
17	17	4gr17929.d	1.	WG139432-03 LCS DUP V201 P107	2,1 WATER	1 May 2003 14:42
18	18	4gr17930.d	1.	L0304672-01	2,1 WATER	1 May 2003 15:00
19	19	4gr17931.d	1.	WG139368-01 BLANK V202 P73	7,1 SOIL	1 May 2003 15:18
20	20	4gr17932.d	1.	WG139368-02 LCS V202 P73	7,1 SOIL	1 May 2003 15:35
21	21	4gr17933.d	1.	WG139368-03 LCS DUP V202 P73	7,1 SOIL	1 May 2003 15:53
22	22	4gr17934.d	1.	L0304554-01 - CF - *	7,1 SOIL	1 May 2003 16:11
23	23	4gr17935.d	1.	L0304594-03 - CF - *	7,1 SOIL	1 May 2003 16:29
24	24	4gr17936.d	1.	WG139378-08 1660 CCV 250 PPB	1,1 SOS63-02	1 May 2003 16:47
25	25	4gr17937.d	1.	WG139367-01 BLANK V202 P71	11,1 OIL	1 May 2003 17:05
26	26	4gr17938.d	1.	WG139367-02 LCS V202 P71	11,1 OIL	1 May 2003 17:23
27	27	4gr17939.d	1.	WG139367-03 LCS DUP V202 P71	11,1 OIL	1 May 2003 17:41
28	28	4gr17940.d	1.	L0304419-01 5x - 20X	11,5 OIL	1 May 2003 17:59
29	29	4gr17941.d	1.	L0304419-02 5x - 20X	11,5 OIL	1 May 2003 18:16
30	30	4gr17942.d	1.	L0304543-06 5x - 20X	12,5 OIL	1 May 2003 18:34
31	31	4gr17943.d	1.	L0304619-01 5x - 20X	11,5 OIL	1 May 2003 18:52
32	32	4gr17944.d	1.	CC WG139378-09 1660 CCV 500 PPB	1,1 SOS63-02	1 May 2003 19:09

ECL 5/2/03
note 5/2/03

02 May 2003 08:06

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 5/1/03 Instrument ID HP4 Column ID RTX-CLP Rear Data Subdirectory 050103
Analyst Initials ECL

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ____
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____

SOP # GCS10 Rev. # 3? 8082 ✓
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ☐ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☐ Change liner
- ☐ Change septum
- ☐ Clip column (__cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___, No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

CF - need confirmed

CC - Standard failed low.

RR - need rerun.

* - DCB surrogate failed high due to SNI.

Reviewed By: mk 5/2/03

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	4gf17523.d	1.	WG139612-01 1660 ICAL 2000 PPB	1,1 SOS63-02	2 May 2003 13:09
2	2	4gf17524.d	1.	WG139612-02 1660 ICAL 1000 PPB	1,1 SOS63-02	2 May 2003 13:27
3	3	4gf17525.d	1.	WG139612-03 1660 ICAL 500 PPB	1,1 SOS63-02	2 May 2003 13:46
4	4	4gf17526.d	1.	WG139612-04 1660 ICAL 250 PPB	1,1 SOS63-02	2 May 2003 14:04
5	5	4gf17527.d	1.	WG139612-05 1660 ICAL 100 PPB	1,1 SOS63-02	2 May 2003 14:23
6	6	4gf17528.d	1.	WG139612-06 1660 ICAL 50 PPB	1,1 SOS63-02	2 May 2003 14:41
7	7	4gf17529.d	1.	WG139612-07 1660 ALT ICV 50...	1,1 SOS63-14	2 May 2003 15:00
8	8	4gf17530.d	1.	1254 ICAL 2000 PPB	SOS63-41	2 May 2003 15:18
9	9	4gf17531.d	1.	1254 ICAL 1000 PPB	SOS63-41	2 May 2003 15:37
10	10	4gf17532.d	1.	1254 ICAL 500 PPB	SOS63-41	2 May 2003 15:55
11	11	4gf17533.d	1.	1254 ICAL 250 PPB	SOS63-41	2 May 2003 16:13
12	12	4gf17534.d	1.	1254 ICAL 100 PPB	SOS63-41	2 May 2003 16:32
13	13	4gf17535.d	1.	1254 ICAL 50 PPB	SOS63-41	2 May 2003 16:50
14	14	4gf17536.d	1.	1254 ALT ICV 500 PPB	SOS63-08	2 May 2003 17:09
15	15	4gf17537.d	1.	1248 500 PPB	SOS64-45	2 May 2003 17:27
16	16	4gf17538.d	1.	1248 ALT 500 PPB	SOS64-08	2 May 2003 17:45
17	17	4gf17539.d	1.	1242 500 PPB	SOS64-44	2 May 2003 18:04
18	18	4gf17540.d	1.	1242 ALT 500 PPB	SOS63-09	2 May 2003 18:23
19	19	4gf17541.d	1.	1232 500 PPB	SOS64-09	2 May 2003 18:41
20	20	4gf17542.d	1.	1232 ALT 500 PPB	SOS64-10	2 May 2003 18:59
21	21	4gf17543.d	1.	1221 500 PPB	SOS64-07	2 May 2003 19:18
22	22	4gf17544.d	1.	1221 ALT 500 PPB	SOS64-43	2 May 2003 19:36
23	23	4gf17545.d	1.	WG139612-08 1660 CCV 500 PPB	1,1 SOS63-02	2 May 2003 19:54
24	24	4gf17546.d	1.	L0304426-17 CF	1,1 WATER CF	2 May 2003 20:13
25	25	4gf17547.d	1.	L0304447-01 CF	1,1 WATER CF	2 May 2003 20:31
26	26	4gf17548.d	1.	L0304554-01 CF	7,1 SOIL CF	2 May 2003 20:49
27	27	4gf17549.d	1.	L0304594-03 CF	7,1 SOIL CF	2 May 2003 21:07
8	28	4gf17550.d	1.	WG139612-09 1660 CCV 500 PPB	1,1 SOS63-02	2 May 2003 21:26
29	29	4gf17551.d	1.	INST. BLANK	SOS64-38	2 May 2003 21:44
30	30	4gf17552.d	1.	L0304441-01 CF	1,1 WATER CF	2 May 2003 22:02
31	31	4gf17553.d	100.	L0304441-03 CF 100x	1,100 WATER CF	2 May 2003 22:20
32	32	4gf17554.d	1.	L0304509-01 CF	7,1 SOIL CF	2 May 2003 22:38
33	33	4gf17555.d	1.	L0304509-02 CF	7,1 SOIL CF	2 May 2003 22:57
34	34	4gf17556.d	1.	L0304509-03 CF	7,1 SOIL CF	2 May 2003 23:15
35	35	4gf17557.d	1.	L0304509-04 CF	7,1 SOIL CF	2 May 2003 23:33
36	36	4gf17558.d	1.	L0304509-09 CF	7,1 SOIL CF	2 May 2003 23:51
37	37	4gf17559.d	1.	L0304509-10 CF	7,1 SOIL CF	3 May 2003 00:09
38	38	4gf17560.d	1.	L0304509-11 CF	7,1 SOIL CF	3 May 2003 00:28
39	39	4gf17561.d	1.	L0304547-01 CF	13,1 WIPE	3 May 2003 00:46
40	40	4gf17562.d	1.	1254 CCV 500 PPB	SOS63-41	3 May 2003 01:04
41	41	4gf17563.d	1.	INST. BLANK	SOS64-38	3 May 2003 01:22
42	42	4gf17564.d	20.	L0304548-01 CF 20x	7,20 SOIL CF	3 May 2003 01:40
43	43	4gf17565.d	1.	L0304596-05 CF	7,1,RE SOIL CF	3 May 2003 01:59
44	44	4gf17566.d	1.	L0304596-07 CF	7,1,RE SOIL CF	3 May 2003 02:17
45	45	4gf17567.d	1.	L0304651-02 CF	7,1 SOIL CF	3 May 2003 02:35
46	46	4gf17568.d	1.	1660 CCV 500 PPB	SOS63-02	3 May 2003 02:53
47	47	4gf17569.d	1.	INST. BLANK	SOS63-48	3 May 2003 03:11

EC2 5/4/03
results

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 5/2/03 Instrument ID HP 4 Column ID Rtx-CLP II Front Data Subdirectory 050203
Analyst Initials ECL

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ____
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____
SOP # GCS10 Rev. # 5 8082 ✓
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ☑ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☐ Change liner
- ☐ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

_____

_____

Action Taken: _____

_____

_____

Comments

Reviewed By: _____

Parameter: PCB-S SOP #: EXP C2 Revision #: 11
Extraction Analyst(s): PAS, CAF TV/KD Analyst(s): CAF
Date/Time Extracted: 04-30-03 8:50 Date TV/KD: 4-30-03
Spike/Surrogate Analyst: CAF Witness: PAS
Surrogate #: ESS0044-10 Earliest Hold Date: 5-08-03
Spike #: A = ESS0044-02 CAF 4-30-03 Spike #: B = —
43-03 #2

Extraction Work Group WG 139368
Analytical Work Group WG 139446

Extract Relinquished By: CAF
Extract Received By & Date: EO 4/30/03

	Sample ID	Test Code	pH / <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	BN	N	Comments
1	Blank				*	30.00 g	200 ml		10 mL	T				WG 139365 C1
2	LCS				*	30.00 g		100 ml						WG 139365 C
3	LCS DUP				*	30.00 g		⊥						WG 139368 C3
4	04-554-01	8082			*	30.00 g								
5	04-594-03	⊥			*	30.00 g	⊥		⊥	⊥				
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

CAF 4-30-03

Methylene Chloride Lot #: —
Hexane Lot #: 43057
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: 94.6 Lot #: ER 0005-27
Reagent: LAB Sand Lot #: → X35635
Reagent: pack Na_2SO_4 Lot #: → X33157
Acid: Con H_2SO_4 Lot #: X43027
Florisil Lot #: Y01559
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 0005-19

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C					
Sonication	3550B	✓				
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B	✓	GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A	✓	N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 04/30/03

Extraction Notes For Volume # 202 Page # 73

General Comments: * all wts. are 30 ± .10 g.

Extraction Anomalies: NONE

Concentration Anomalies: NONE

Clean-Up Anomalies: NONE

Supervisor Review: _____ Date: _____

2.2.3.2 Sample Data

Data File : C:\HPCHEM\2\DATA\050103\4GR17934.D Vial: 22
Acq On : 1 May 2003 16:11 Operator: ECL
Sample : L0304554-01 Inst : HP4
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 8:19 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Fri May 02 08:18:10 2003
Response via : Initial Calibration
DataAcq Meth : 8082R.M

Volume Inj. :
Signal Phase :
Signal Info :

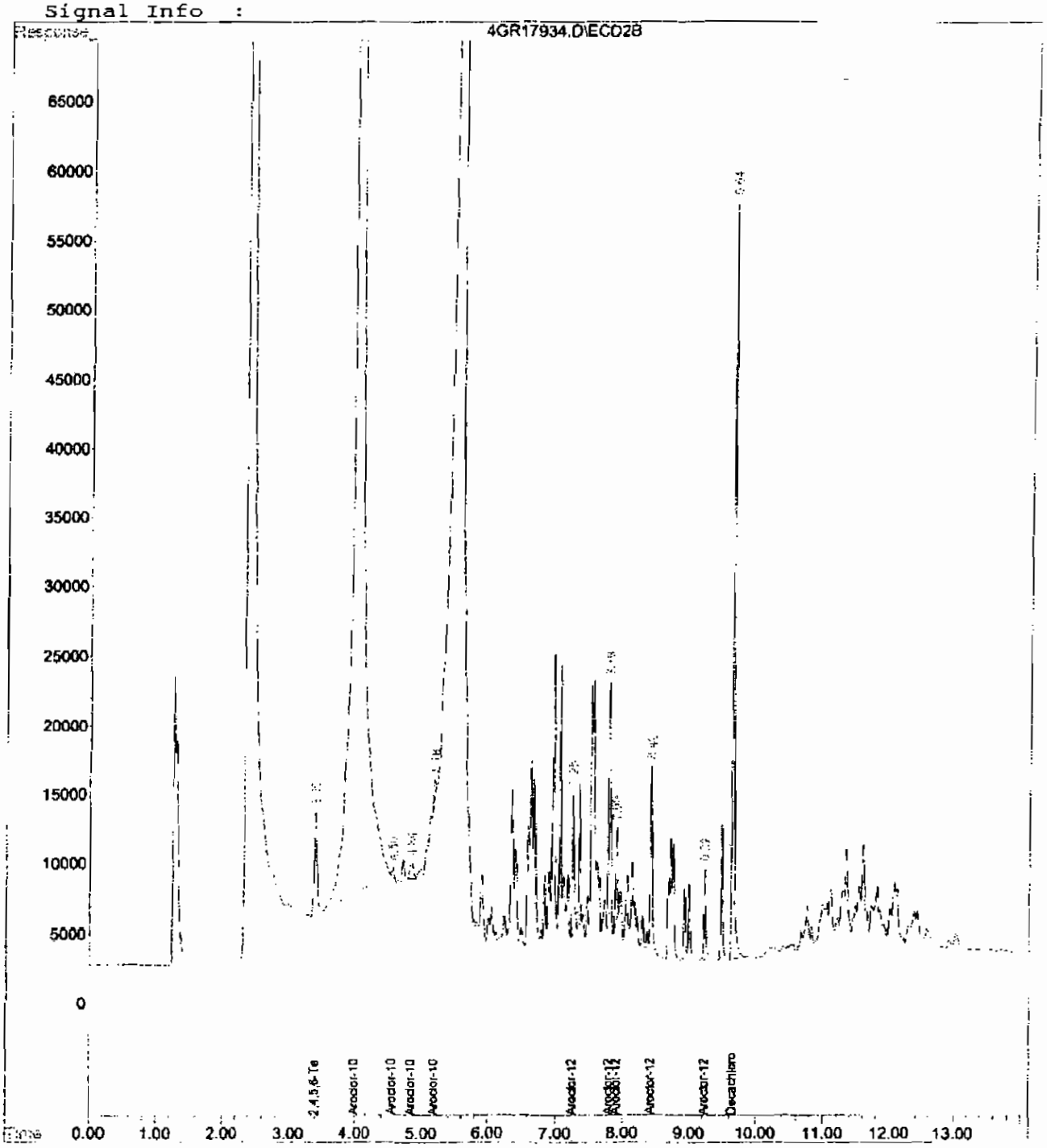
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.39	204881	15.729 UG/L
Spiked Amount 20.000 Range 29 - 133		Recovery =	78.64%
12) S Decachlorobiphenyl	9.64	991793	77.542 UG/L
Spiked Amount 20.000 Range 30 - 173		Recovery =	387.71%#
Target Compounds			
2) L1 Aroclor-1016-1	3.99f	31787131	151253.026 UG/L
3) L1 Aroclor-1016-2	4.55	19446	35.364 UG/L
4) L1 Aroclor-1016-3	4.84	40739	122.613 UG/L
5) L1 Aroclor-1016-4	5.18f	27647	33.545 UG/L
6) L1 Aroclor-1016-5	0.00	0	N.D. UG/L
Sum Aroclor-1016-1		31874963	151444.548 UG/L
Average Aroclor-1016-1			37861.137 UG/L
7) L2 Aroclor-1260-1	7.25	197898	347.224 UG/L
8) L2 Aroclor-1260-2	7.79	406797	488.371 UG/L
9) L2 Aroclor-1260-3	7.91	113619	379.677 UG/L
10) L2 Aroclor-1260-4	8.42	237504	218.178 UG/L
11) L2 Aroclor-1260-5	9.23	129846	343.589 UG/L
Sum Aroclor-1260-1		1085664	1777.040 UG/L
Average Aroclor-1260-1			355.408 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050103\4GR17934.D Vial: 22
Acq On : 1 May 2003 16:11 Operator: ECL
Sample : L0304554-01 Inst : HP4
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 8:19 2003 Quant Results File: 1660R.RES

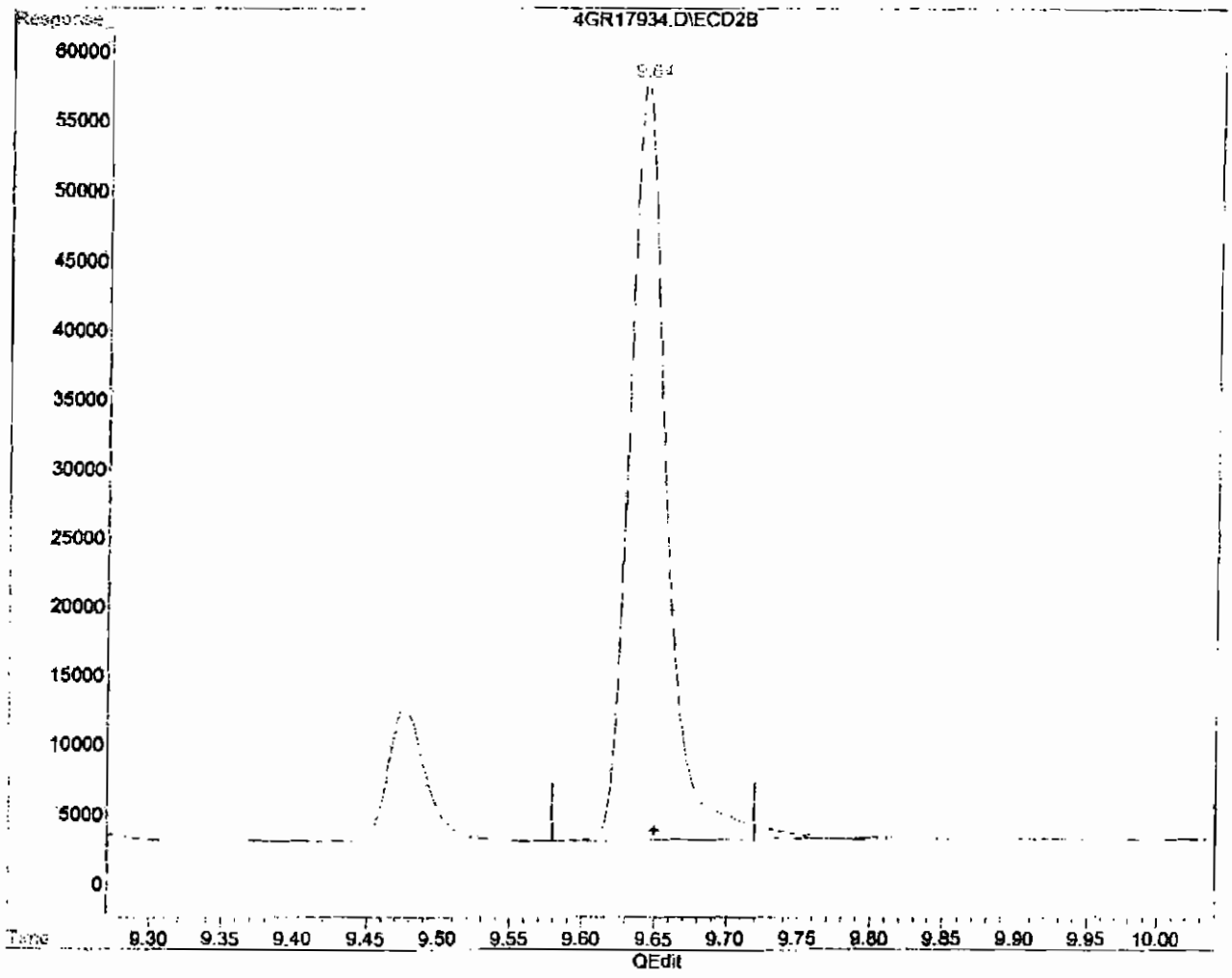
Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Fri May 02 08:18:10 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082R.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050103\4GR17934.D Vial: 22
Acq On : 1 May 2003 16:11 Operator: ECL
Sample : L0304554-01 Inst : HP4
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 8:19 2003 Quant Results File: 1660R.RES

Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Fri May 02 08:21:43 2003
Response via : Multiple Level Calibration



(12) Decachlorobiphenyl (S)

9.64min 77.542UG/L

response 991793

SMI.

(+) = Expected Retention Time

Data File : C:\HPCHEM\2\DATA\050203\4GF17548.D Vial: 26
Acq On : 2 May 2003 20:49 Operator: ECL
Sample : L0304554-01 CF Inst : HP4
Misc : 7,1 SOIL CF Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:52 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Sun May 04 12:49:42 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

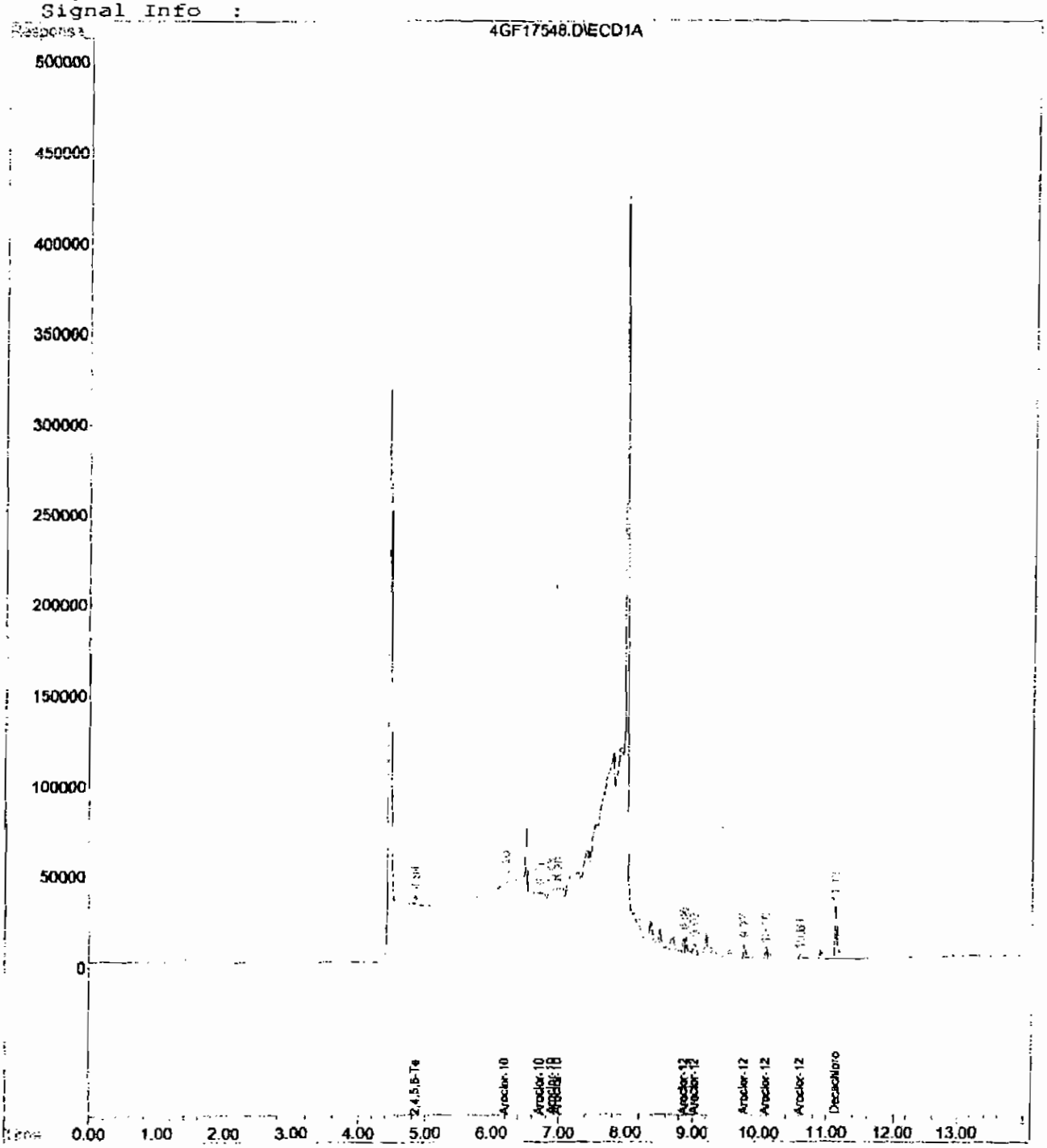
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.84	121681	15.894 UG/L
Spiked Amount 20.000	Range 29 - 133	Recovery = 79.47%	
12) S Decachlorobiphenyl	11.13	665290	88.939 UG/L
Spiked Amount 20.000	Range 30 - 173	Recovery = 444.69%#	
Target Compounds			
2) L1 Aroclor-1016-1	0.00	0	N.D. UG/L
3) L1 Aroclor-1016-2	6.20f	47229	132.463 UG/L
4) L1 Aroclor-1016-3	6.71	12242	16.453 UG/L
5) L1 Aroclor-1016-4	6.88	82445	260.915 UG/L
6) L1 Aroclor-1016-5	6.98f	11128	47.585 UG/L
Sum Aroclor-1016-1		153044	457.416 UG/L
Average Aroclor-1016-1			114.354 UG/L
7) L2 Aroclor-1260-1	8.86	142514	245.852 UG/L
8) L2 Aroclor-1260-2	9.02	168661	355.100 UG/L
9) L2 Aroclor-1260-3	9.77	162474	172.737 UG/L
10) L2 Aroclor-1260-4	10.10	135664	153.092 UG/L
11) L2 Aroclor-1260-5	10.61	69036	293.119 UG/L
Sum Aroclor-1260-1		678350	1219.899 UG/L
Average Aroclor-1260-1			243.980 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17548.D Vial: 26
Acq On : 2 May 2003 20:49 Operator: ECL
Sample : L0304554-01 CF Inst : HP4
Misc : 7,1 SOIL CF Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:52 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Sun May 04 12:49:42 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.3.3 Standards Data

Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Tue Mar 18 08:14:02 2003

Calibration Files
2000 =4GR16957.D 1000 =4GR16958.D 500 =4GR16959.D
250 =4GR16960.D 100 =4GR16961.D 50 =4GR16962.D

		Compound	2000	1000	500	250	100	50	Avg	%RSD
1)	S	2,4,5,6-Tetrachloro	1.150	1.244	1.317	1.354	1.387	1.363	1.303#E4	6.88
2)	L1	Aroclor-1016-1	1.579	1.799	2.028	2.182	2.516	2.506	2.102#E2	17.95
3)	L1	Aroclor-1016-2	4.067	4.636	5.253	5.801	6.548	6.687	5.499#E2	19.00
4)	L1	Aroclor-1016-3	2.628	2.915	3.249	3.534	3.838	3.771	3.323#E2	14.54
5)	L1	Aroclor-1016-4	6.873	7.474	8.136	8.679	9.137	9.153	8.242#E2	11.25
6)	L1	Aroclor-1016-5	2.484	2.700	2.941	3.150	3.423	3.386	3.014#E2	12.50
7)	L2	Aroclor-1260-1	4.256	4.740	5.328	5.968	6.727	7.178	5.699#E2	19.94
8)	L2	Aroclor-1260-2	6.644	7.272	8.027	8.770	9.530	9.734	8.330#E2	14.86
9)	L2	Aroclor-1260-3	2.528	2.694	2.859	3.030	3.243	3.600	2.993#E2	12.99
10)	L2	Aroclor-1260-4	0.857	0.938	1.038	1.136	1.242	1.320	1.089#E3	16.34
11)	L2	Aroclor-1260-5	3.061	3.368	3.694	4.015	4.212	4.325	3.779#E2	13.14
12)	S	Decachlorobiphenyl	0.943	1.068	1.212	1.361	1.496	1.594	1.279#E4	19.63

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\031703.SEQ\4GR16957.D Vial: 1
Acq On : 17 Mar 2003 15:32 Operator: ECL
Sample : WG136402-01 1660 ICAL 2000 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:13 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Tue Mar 18 08:13:38 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

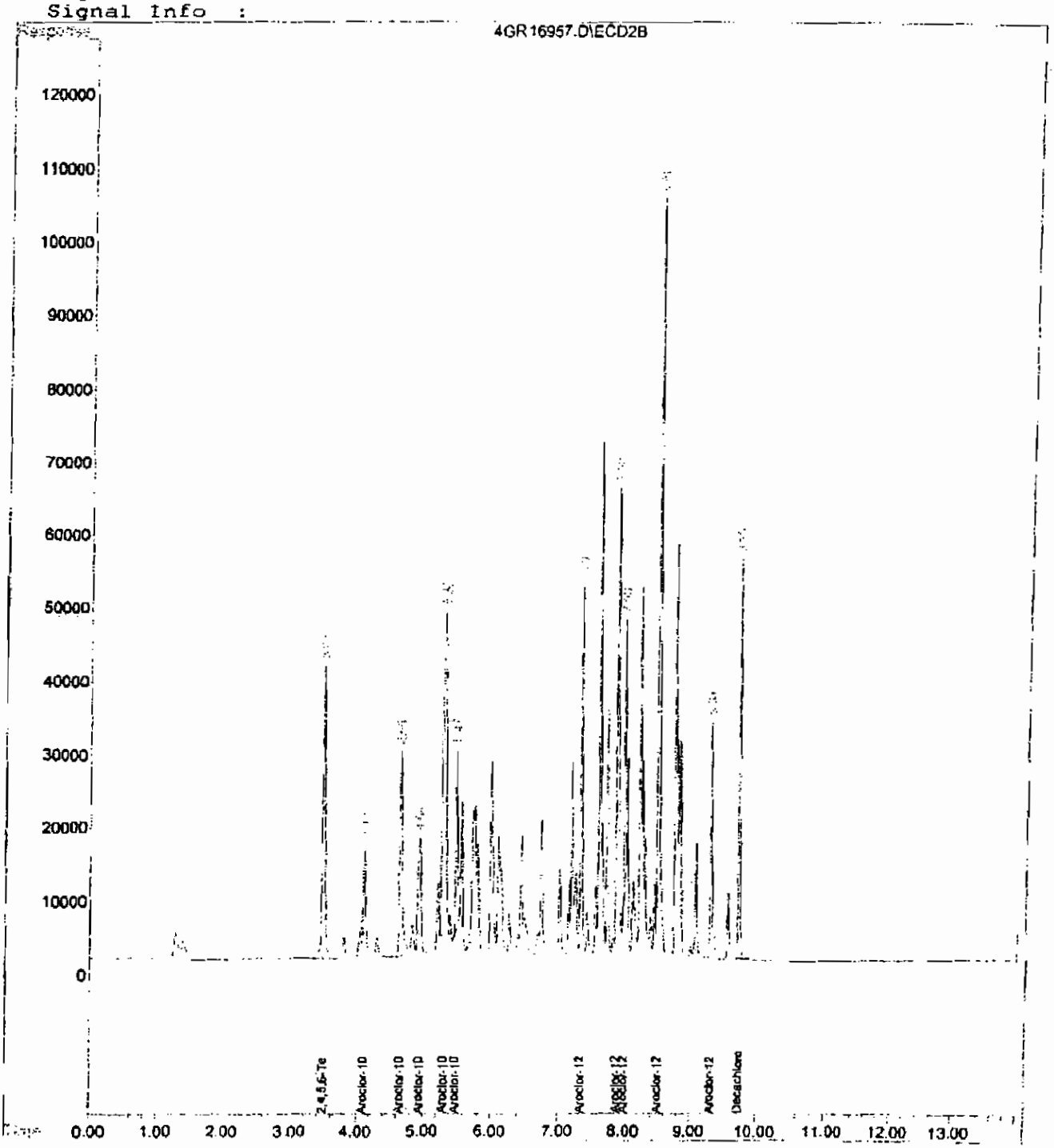
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.48	1150307	88.308 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	441.54%#
12) S Decachlorobiphenyl	9.73	943167	73.740 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	368.70%#
Target Compounds			
2) L1 Aroclor-1016-1	4.10	315754	1502.457 UG/L
3) L1 Aroclor-1016-2	4.65	813465	1479.374 UG/L
4) L1 Aroclor-1016-3	4.94	525513	1581.641 UG/L
5) L1 Aroclor-1016-4	5.30	1374501	1667.692 UG/L
6) L1 Aroclor-1016-5	5.47	496701	1648.092 UG/L
Sum Aroclor-1016-1		3525935	7879.256 UG/L
Average Aroclor-1016-1			1575.851 UG/L
7) L2 Aroclor-1260-1	7.33	851102	1494.064 UG/L
8) L2 Aroclor-1260-2	7.88	1328861	1595.336 UG/L
9) L2 Aroclor-1260-3	7.99	505697	1689.867 UG/L
10) L2 Aroclor-1260-4	8.50	1713799	1574.348 UG/L
11) L2 Aroclor-1260-5	9.31	612119	1619.748 UG/L
Sum Aroclor-1260-1		5011578	7973.364 UG/L
Average Aroclor-1260-1			1594.673 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16957.D Vial: 1
Acq On : 17 Mar 2003 15:32 Operator: ECL
Sample : WG136402-01 1660 ICAL 2000 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:13 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Tue Mar 18 08:13:38 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16958.D Vial: 2
Acq On : 17 Mar 2003 15:51 Operator: ECL
Sample : WG136402-02 1660 ICAL 1000 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:09 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Tue Mar 18 08:09:09 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

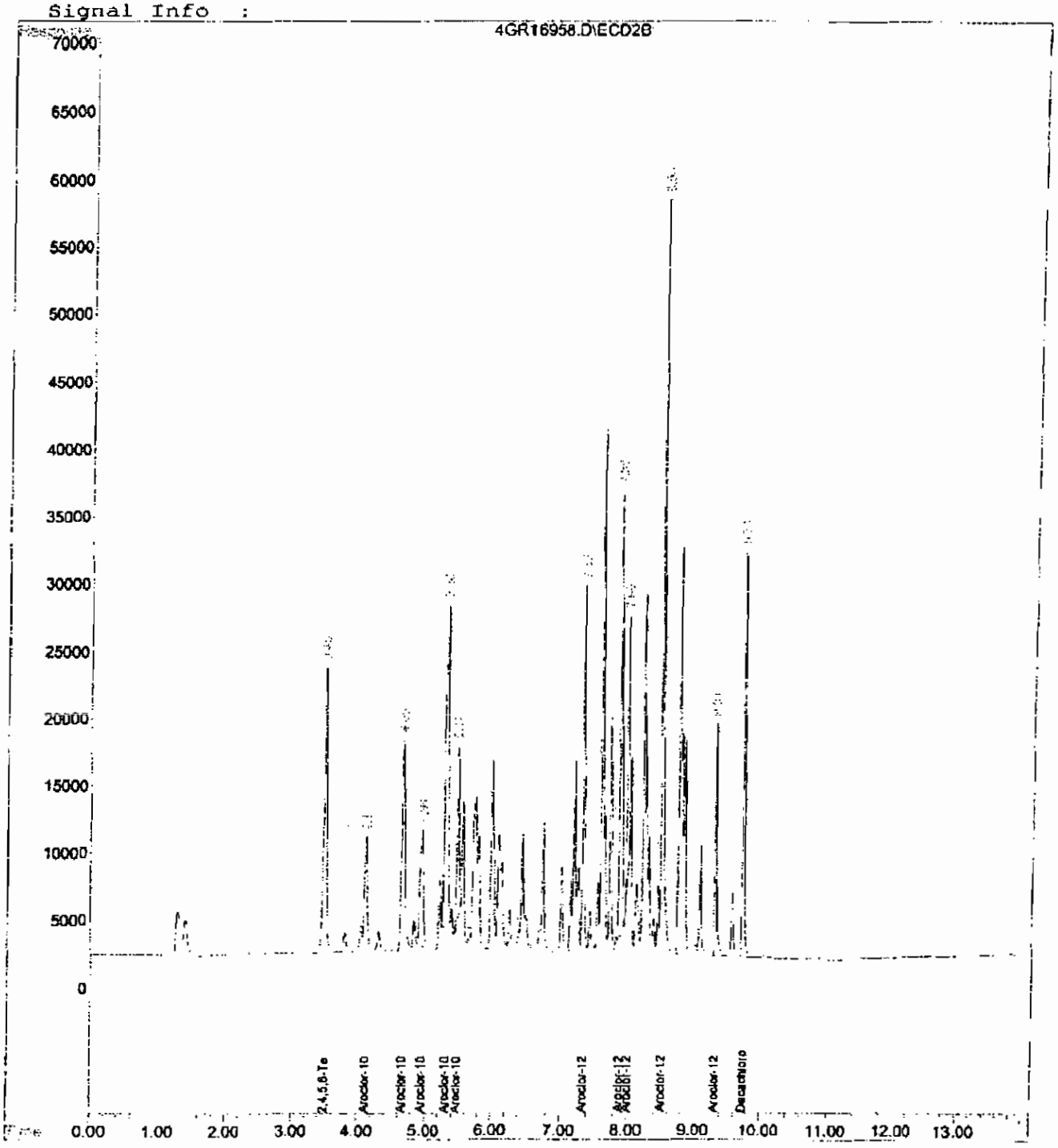
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.49	622137	54.084 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery = 270.42%#	
12) S Decachlorobiphenyl	9.73	533971	56.615 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery = 283.07%#	
Target Compounds			
2) L1 Aroclor-1016-1	4.11	179905	1139.528 UG/L
3) L1 Aroclor-1016-2	4.65	463563	1315.243 UG/L
4) L1 Aroclor-1016-3	4.94	291530	1109.506 UG/L
5) L1 Aroclor-1016-4	5.30	747439	1087.578 UG/L
6) L1 Aroclor-1016-5	5.48	269973	1087.064 UG/L
Sum Aroclor-1016-1		1952411	5738.920 UG/L
Average Aroclor-1016-1			1147.784 UG/L
7) L2 Aroclor-1260-1	7.34	473996	1118.380 UG/L
8) L2 Aroclor-1260-2	7.88	727195	1094.463 UG/L
9) L2 Aroclor-1260-3	7.99	269444	1065.636 UG/L
10) L2 Aroclor-1260-4	8.50	938453	1095.173 UG/L
11) L2 Aroclor-1260-5	9.31	336847	1100.592 UG/L
Sum Aroclor-1260-1		2745935	5474.244 UG/L
Average Aroclor-1260-1			1094.849 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16958.D Vial: 2
Acq On : 17 Mar 2003 15:51 Operator: ECL
Sample : WG136402-02 1660 ICAL 1000 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:09 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Tue Mar 18 08:09:09 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16959.D Vial: 3
Acq On : 17 Mar 2003 16:10 Operator: ECL
Sample : WG136402-03 1660 ICAL 500 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:09 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Tue Mar 18 08:09:09 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

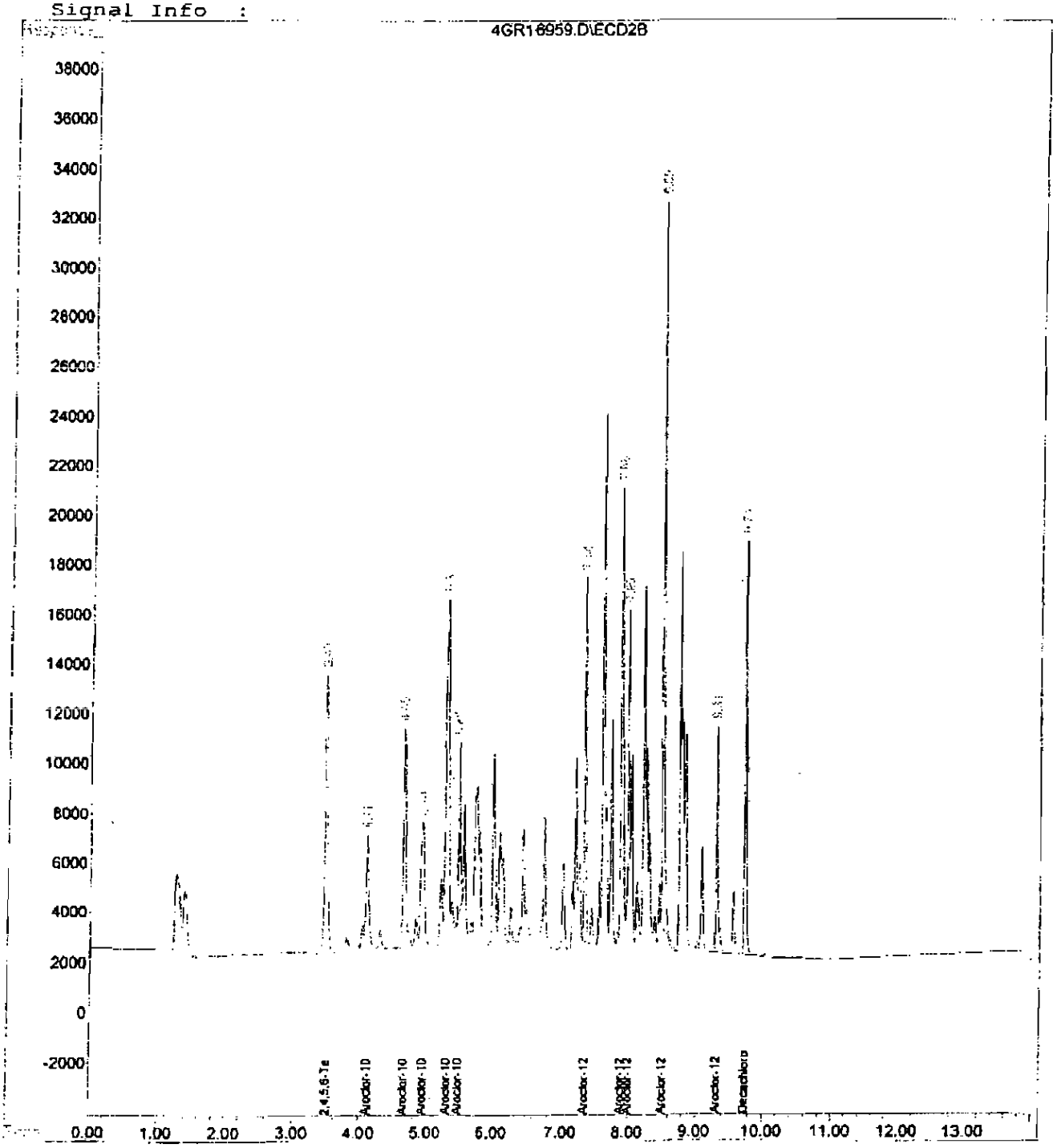
Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
1) S	2,4,5,6-Tetrachloro-M-Xyle		3.49	329342	27.507 UG/L
Spiked Amount	20.000	Range 30 - 132		Recovery =	137.54%#
12) S	Decachlorobiphenyl		9.73	302949	30.128 UG/L
Spiked Amount	20.000	Range 36 - 144		Recovery =	150.64%#
Target Compounds					
2) L1	Aroclor-1016-1		4.11	101393	600.343 UG/L
3) L1	Aroclor-1016-2		4.65	262642	643.717 UG/L
4) L1	Aroclor-1016-3		4.94	162444	586.138 UG/L
5) L1	Aroclor-1016-4		5.31	406781	567.065 UG/L
6) L1	Aroclor-1016-5		5.48	147029	567.324 UG/L
Sum	Aroclor-1016-1			1080289	2964.586 UG/L
Average	Aroclor-1016-1				592.917 UG/L
7) L2	Aroclor-1260-1		7.34	266391	593.417 UG/L
8) L2	Aroclor-1260-2		7.88	401368	576.834 UG/L
9) L2	Aroclor-1260-3		7.99	142934	547.333 UG/L
10) L2	Aroclor-1260-4		8.51	518980	578.138 UG/L
11) L2	Aroclor-1260-5		9.32	184694	574.560 UG/L
Sum	Aroclor-1260-1			1514368	2870.281 UG/L
Average	Aroclor-1260-1				574.056 UG/L

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16959.D Vial: 3
Acq On : 17 Mar 2003 16:10 Operator: ECL
Sample : WG136402-03 1660 ICAL 500 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:09 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Tue Mar 18 08:09:09 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16960.D Vial: 4
Acq On : 17 Mar 2003 16:28 Operator: ECL
Sample : WG136402-04 1660 ICAL 250 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:09 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Tue Mar 18 08:09:09 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

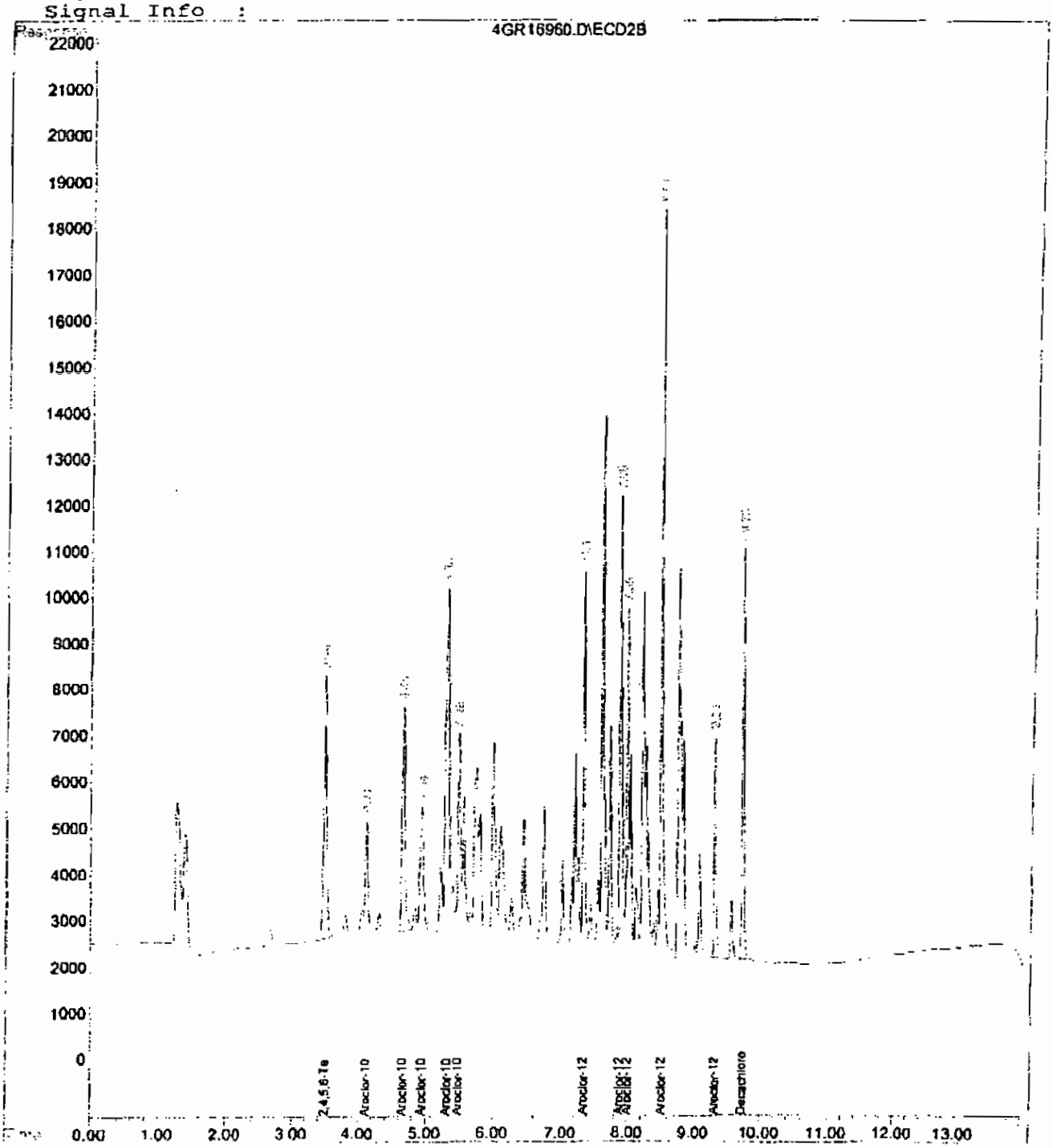
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.49	169215	13.676 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery = 68.38%	
12) S Decachlorobiphenyl	9.73	170100	15.834 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery = 79.17%	
Target Compounds			
2) L1 Aroclor-1016-1	4.11	54551	302.740 UG/L
3) L1 Aroclor-1016-2	4.65	145025	324.368 UG/L
4) L1 Aroclor-1016-3	4.94	88355	301.492 UG/L
5) L1 Aroclor-1016-4	5.31	216969	289.517 UG/L
6) L1 Aroclor-1016-5	5.48	78755	290.829 UG/L
Sum Aroclor-1016-1		583654	1508.947 UG/L
Average Aroclor-1016-1			301.789 UG/L
7) L2 Aroclor-1260-1	7.34	149206	312.888 UG/L
8) L2 Aroclor-1260-2	7.88	219254	299.751 UG/L
9) L2 Aroclor-1260-3	7.99	75752	281.202 UG/L
10) L2 Aroclor-1260-4	8.50	284098	300.811 UG/L
11) L2 Aroclor-1260-5	9.31	100364	297.435 UG/L
Sum Aroclor-1260-1		828674	1492.088 UG/L
Average Aroclor-1260-1			298.418 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16960.D Vial: 4
Acq On : 17 Mar 2003 16:28 Operator: ECL
Sample : WG136402-04 1660 ICAL 250 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:09 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Tue Mar 18 08:09:09 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16961.D Vial: 5
Acq On : 17 Mar 2003 16:47 Operator: ECL
Sample : WG136402-05 1660 ICAL 100 PPB Inst : HP4
Misc : 1,1 SQS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:09 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Tue Mar 18 08:09:10 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

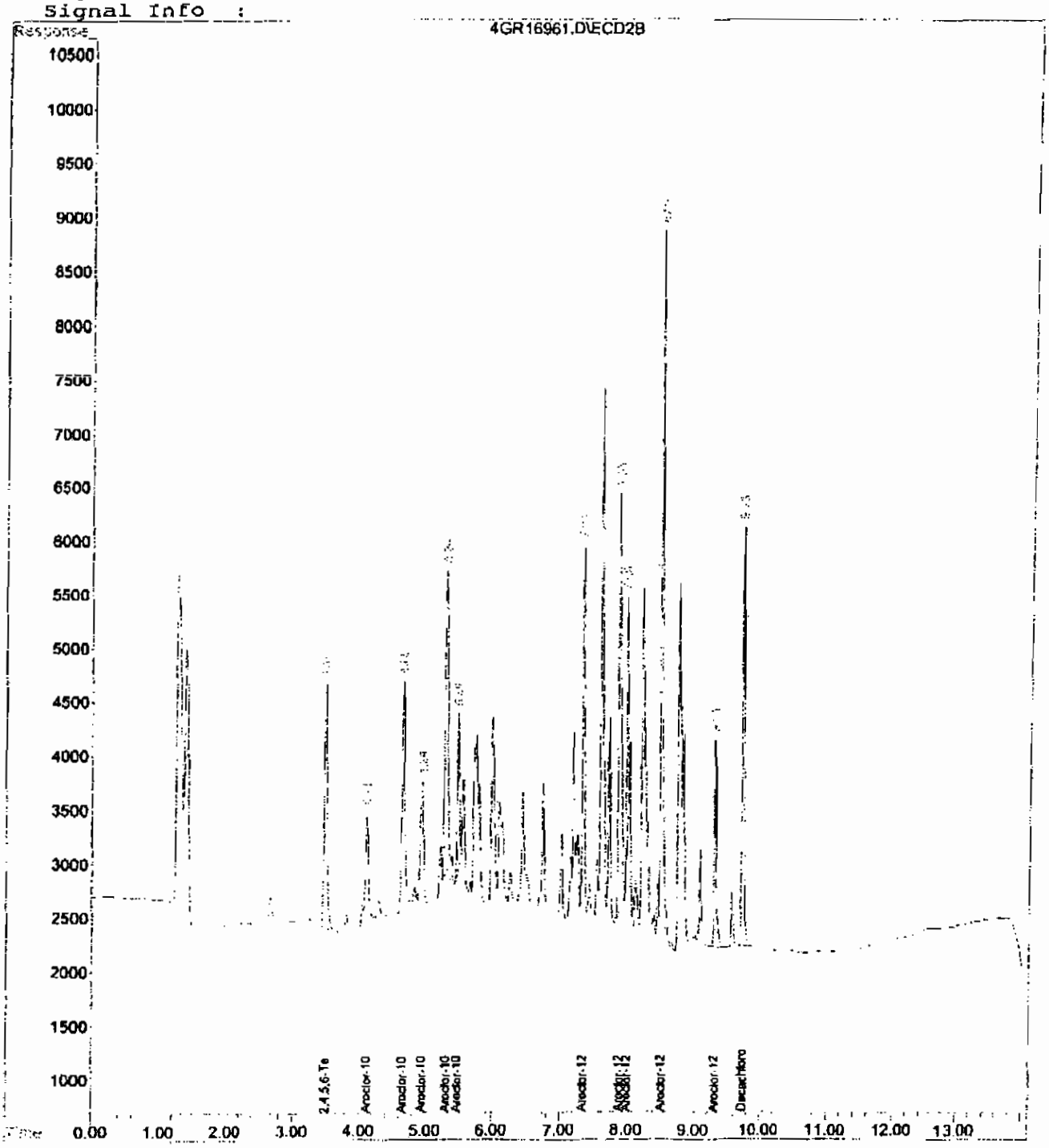
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.49	69335	5.475 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	27.38%#
12) S Decachlorobiphenyl	9.73	74825	6.530 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	32.65%#
Target Compounds			
2) L1 Aroclor-1016-1	4.11	25159	132.630 UG/L
3) L1 Aroclor-1016-2	4.65	65482	136.321 UG/L
4) L1 Aroclor-1016-3	4.94	38383	124.561 UG/L
5) L1 Aroclor-1016-4	5.30	91371	117.288 UG/L
6) L1 Aroclor-1016-5	5.48	34229	121.444 UG/L
Sum Aroclor-1016-1		254624	632.244 UG/L
Average Aroclor-1016-1			126.449 UG/L
7) L2 Aroclor-1260-1	7.34	67268	132.717 UG/L
8) L2 Aroclor-1260-2	7.88	95303	124.117 UG/L
9) L2 Aroclor-1260-3	7.99	32430	116.743 UG/L
10) L2 Aroclor-1260-4	8.51	124152	125.100 UG/L
11) L2 Aroclor-1260-5	9.32	42117	119.164 UG/L
Sum Aroclor-1260-1		361270	617.840 UG/L
Average Aroclor-1260-1			123.568 UG/L

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16961.D Vial: 5
Acq On : 17 Mar 2003 16:47 Operator: ECL
Sample : WG136402-05 1660 ICAL 100 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:09 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Tue Mar 18 08:09:10 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16962.D Vial: 6
Acq On : 17 Mar 2003 17:05 Operator: ECL
Sample : WG136402-06 1660 ICAL 50 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:09 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Tue Mar 18 08:09:10 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

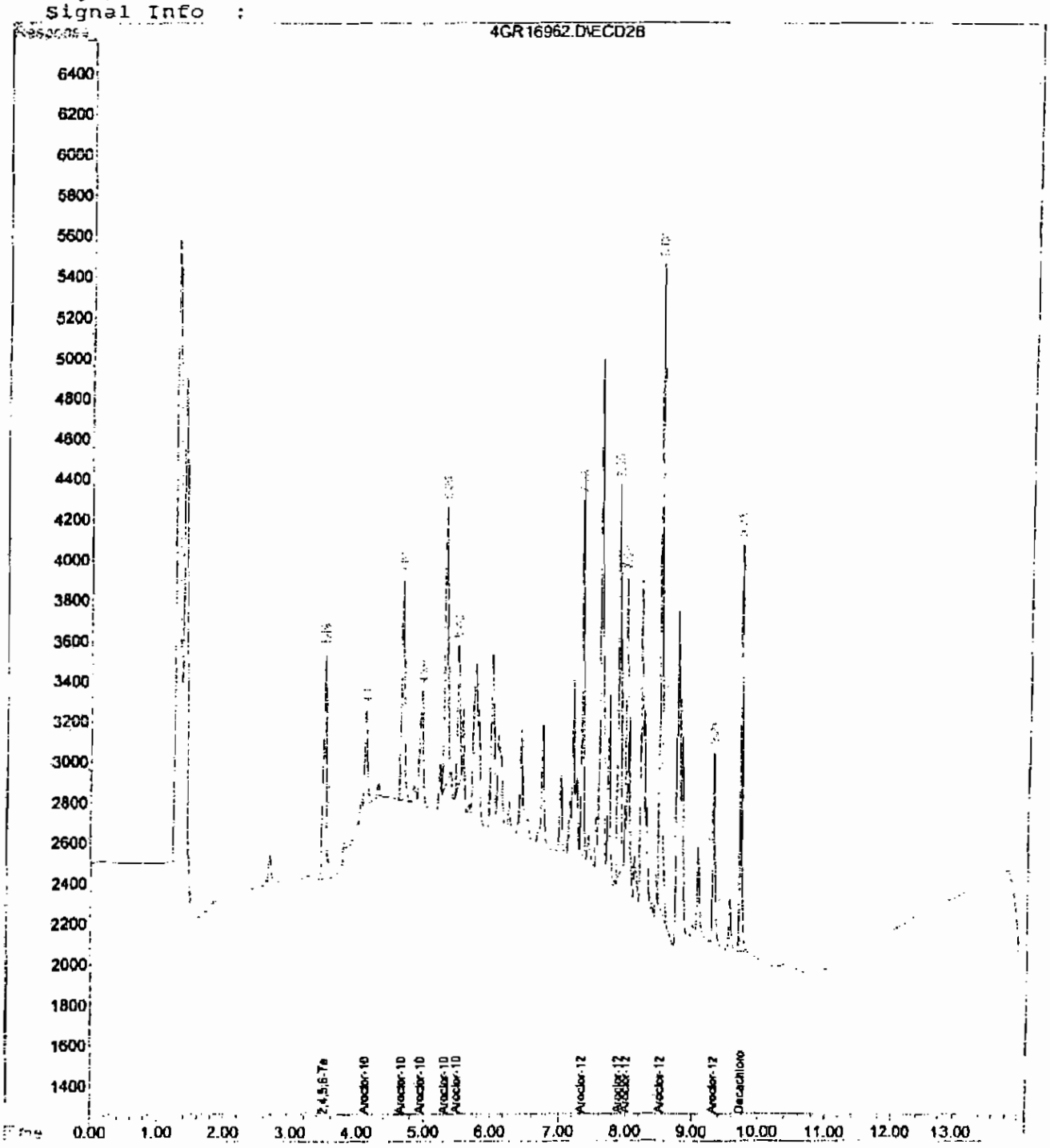
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.49	34081	2.641 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	13.21%#
12) S Decachlorobipheny1	9.73	39851	3.277 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	16.38%#
Target Compounds			
2) L1 Aroclor-1016-1	4.11	12530	62.006 UG/L
3) L1 Aroclor-1016-2	4.65	33436	64.894 UG/L
4) L1 Aroclor-1016-3	4.94	18856	58.326 UG/L
5) L1 Aroclor-1016-4	5.31	45766	56.784 UG/L
6) L1 Aroclor-1016-5	5.49	16929	57.595 UG/L
Sum Aroclor-1016-1		127518	299.606 UG/L
Average Aroclor-1016-1			59.921 UG/L
7) L2 Aroclor-1260-1	7.34	35891	66.463 UG/L
8) L2 Aroclor-1260-2	7.88	48670	60.468 UG/L
9) L2 Aroclor-1260-3	7.99	18002	62.704 UG/L
10) L2 Aroclor-1260-4	8.50	66012	63.336 UG/L
11) L2 Aroclor-1260-5	9.31	21627	58.932 UG/L
Sum Aroclor-1260-1		190202	311.903 UG/L
Average Aroclor-1260-1			62.381 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16962.D Vial: 6
Acq On : 17 Mar 2003 17:05 Operator: ECL
Sample : WG136402-06 1660 ICAL 50 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:09 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Tue Mar 18 08:09:10 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16963.D Vial: 7
Acq On : 17 Mar 2003 17:24 Operator: ECL
Sample : WG136402-07 1660 ALT ICV 500 PPB Inst : HP4
Misc : 1,1 SOS63-14 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Tue Mar 18 08:14:02 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	25.000	26.016	-4.1	103	0.00
2	L1	Aroclor-1016-1	500.000	472.121	5.6	98	0.00
3	L1	Aroclor-1016-2	500.000	466.929	6.6	98	0.00
4	L1	Aroclor-1016-3	500.000	478.649	4.3	98	0.00
5	L1	Aroclor-1016-4	500.000	483.626	3.3	98	0.00
6	L1	Aroclor-1016-5	500.000	479.648	4.1	98	0.00
7	L2	Aroclor-1260-1	500.000	474.638	5.1	102	0.00
8	L2	Aroclor-1260-2	500.000	522.853	-4.6	109	0.00
9	L2	Aroclor-1260-3	500.000	440.956	11.8	92	0.00
10	L2	Aroclor-1260-4	500.000	435.398	12.9	91	0.00
11	L2	Aroclor-1260-5	500.000	409.741	18.1#	84	0.00
12	S	Decachlorobiphenyl	25.000	24.156	3.4	102	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4GR16963.D 1660R.M Tue Mar 18 08:16:23 2003 Page 1

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16963.D Vial: 7
Acq On : 17 Mar 2003 17:24 Operator: ECL
Sample : WG136402-07 1660 ALT ICV 500 PPB Inst : HP4
Misc : 1,1 SOS63-14 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:16 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Tue Mar 18 08:14:02 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

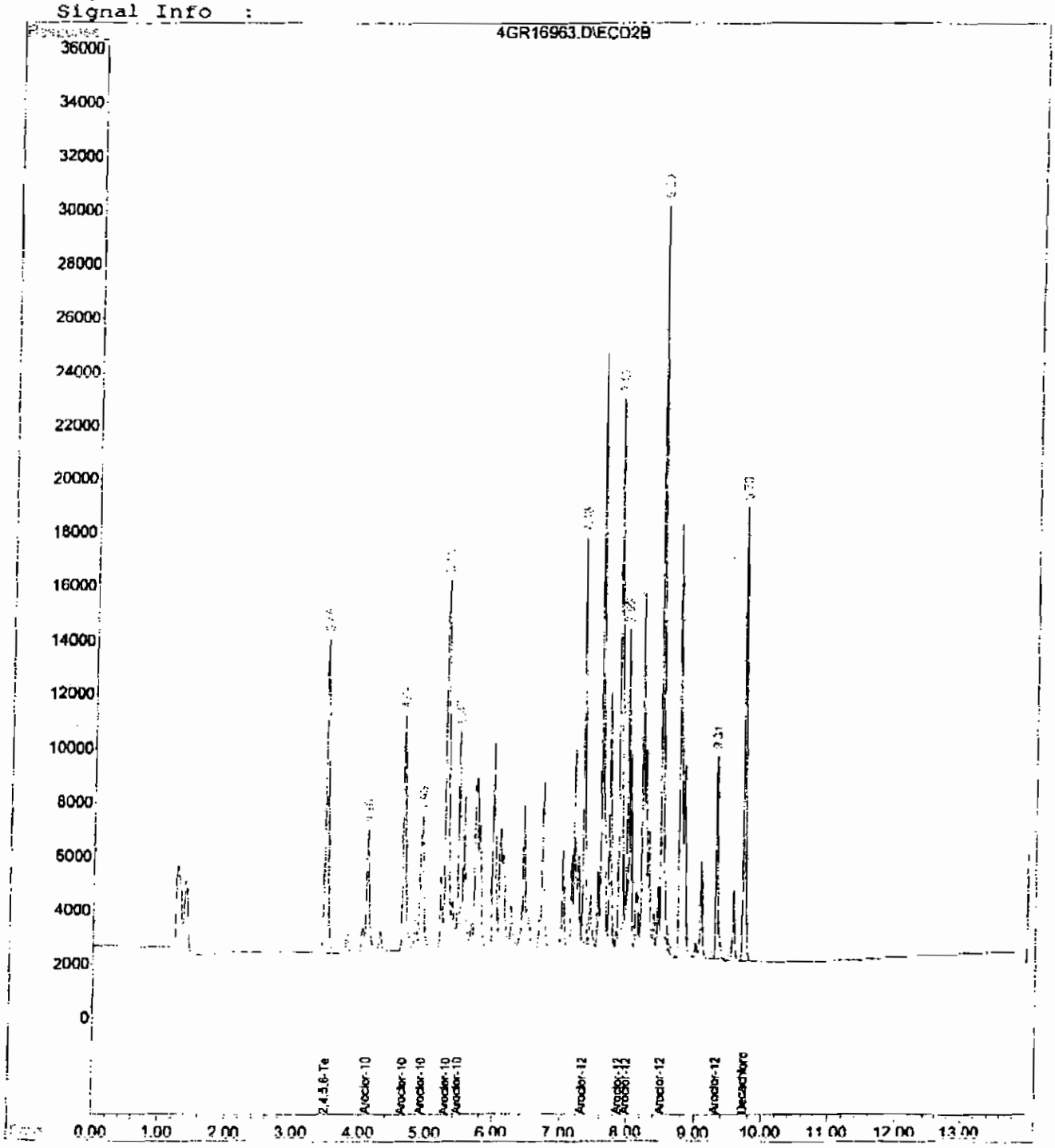
Compound			R.T.	Response	Conc	Units
System Monitoring Compounds						
1) S	2,4,5,6-Tetrachloro-M-Xyle		3.48	338886	26.016	UG/L
Spiked Amount	20.000	Range 30 - 132		Recovery =	130.08%	
12) S	Decachlorobiphenyl		9.73	308966	24.156	UG/L
Spiked Amount	20.000	Range 36 - 144		Recovery =	120.78%	
Target Compounds						
2) L1	Aroclor-1016-1		4.10	99220	472.121	UG/L
3) L1	Aroclor-1016-2		4.64	256751	466.929	UG/L
4) L1	Aroclor-1016-3		4.93	159035	478.649	UG/L
5) L1	Aroclor-1016-4		5.30	398602	483.626	UG/L
6) L1	Aroclor-1016-5		5.47	144556	479.648	UG/L
Sum	Aroclor-1016-1			1058164	2380.973	UG/L
Average	Aroclor-1016-1				476.195	UG/L
7) L2	Aroclor-1260-1		7.33	270517	474.638	UG/L
8) L2	Aroclor-1260-2		7.88	435519	522.853	UG/L
9) L2	Aroclor-1260-3		7.99	131957	440.956	UG/L
10) L2	Aroclor-1260-4		8.50	473964	435.398	UG/L
11) L2	Aroclor-1260-5		9.31	154845	409.741	UG/L
Sum	Aroclor-1260-1			1466802	2283.586	UG/L
Average	Aroclor-1260-1				456.717	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16963.D Vial: 7
Acq On : 17 Mar 2003 17:24 Operator: ECL
Sample : WG136402-07 1660 ALT ICV 500 PPB Inst : HP4
Misc : 1,1 SOS63-14 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:16 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Tue Mar 18 08:14:02 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\2\METHODS\1254R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1914
Last Update : Tue Mar 18 08:23:36 2003

Calibration Files
2000 =4GR16964.D 1000 =4GR16965.D 500 =4GR16966.D
250 =4GR16967.D 100 =4GR16968.D 50 =4GR16969.D

		Compound	2000	1000	500	250	100	50	Avg		%RSD
1)	S	2,4,5,6-Tetrachloro	1.104	1.176	1.269	1.313	1.340	1.347	1.258	E4	7.82
2)	L1	Aroclor-1254-1	2.925	3.316	3.722	4.133	4.497	4.661	3.876	E2	17.53
3)	L1	Aroclor-1254-2	1.843	2.039	2.293	2.506	2.675	2.818	2.362	E2	15.89
4)	L1	Aroclor-1254-3	3.457	4.373	4.898	5.209	5.727	5.923	4.931	E2	18.54
5)	L1	Aroclor-1254-4	3.536	3.957	4.517	4.979	5.604	5.995	4.765	E2	19.89
6)	L1	Aroclor-1254-5	5.336	5.850	6.577	7.013	7.640	7.890	6.718	E2	14.88
7)	S	Decachlorobiphenyl	0.888	1.004	1.168	1.289	1.424	1.515	1.215	E4	19.92

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16964.D Vial: 8
Acq On : 17 Mar 2003 17:42 Operator: ECL
Sample : 1254 ICAL 2000 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:22 2003 Quant Results File: 1254R.RES

Quant Method : C:\HPCHEM\2\METHODS\1254R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1914
Last Update : Tue Mar 18 08:22:20 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

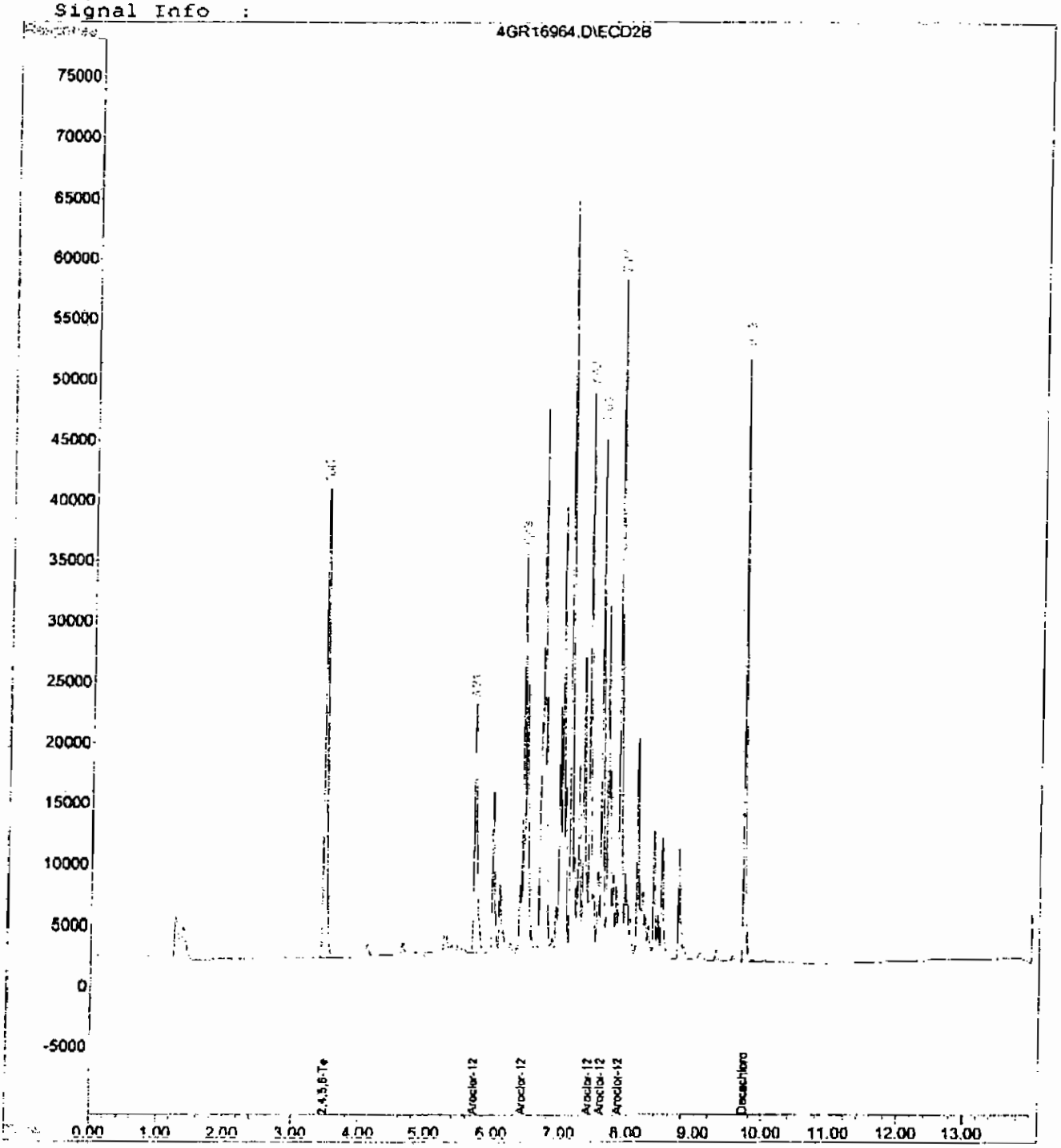
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.48	1104047	87.749 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery = 438.74%#	
7) S Decachlorobiphenyl	9.72	887561	73.073 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery = 365.37%#	
Target Compounds			
2) L1 Aroclor-1254-1	5.71	585049	1509.505 UG/L
3) L1 Aroclor-1254-2	6.43	368615	1804.567 UG/L
4) L1 Aroclor-1254-3	7.42	691474	1402.260 UG/L
5) L1 Aroclor-1254-4	7.60	707166	1484.130 UG/L
6) L1 Aroclor-1254-5	7.87	1067116	1588.530 UG/L
Sum Aroclor-1254-1		3419419	7788.992 UG/L
Average Aroclor-1254-1			1557.798 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16964.D Vial: 8
Acq On : 17 Mar 2003 17:42 Operator: ECL
Sample : 1254 ICAL 2000 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:22 2003 Quant Results File: 1254R.RES

Quant Method : C:\HPCHEM\2\METHODS\1254R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1914
Last Update : Tue Mar 18 08:22:20 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703\4GR16965.D Vial: 9
Acq On : 17 Mar 2003 18:01 Operator: ECL
Sample : 1254 ICAL 1000 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:22 2003 Quant Results File: 1254R.RES

Quant Method : C:\HPCHEM\2\METHODS\1254R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1914
Last Update : Tue Mar 18 08:22:36 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

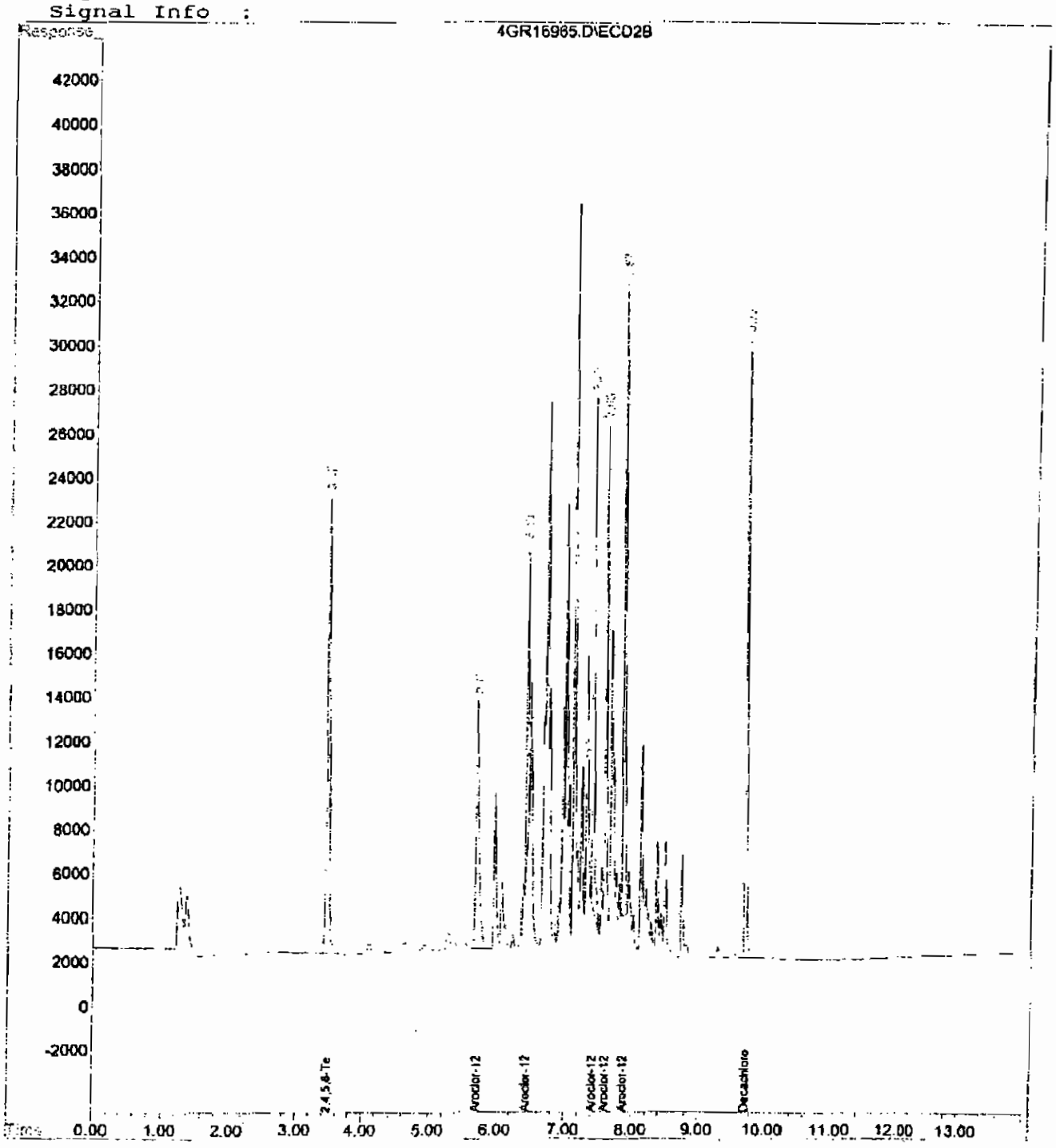
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.47	587772	46.716 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	233.58%#
7) S Decachlorobiphenyl	9.72	502197	41.346 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	206.73%#
Target Compounds			
2) L1 Aroclor-1254-1	5.71	331630	855.650 UG/L
3) L1 Aroclor-1254-2	6.43	203922	863.281 UG/L
4) L1 Aroclor-1254-3	7.42	437314	886.841 UG/L
5) L1 Aroclor-1254-4	7.60	395724	830.507 UG/L
6) L1 Aroclor-1254-5	7.87	584987	870.823 UG/L
Sum Aroclor-1254-1		1953577	4307.103 UG/L
Average Aroclor-1254-1			861.421 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16965.D Vial: 9
Acq On : 17 Mar 2003 18:01 Operator: ECL
Sample : 1254 ICAL 1000 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:22 2003 Quant Results File: 1254R.RES

Quant Method : C:\HPCHEM\2\METHODS\1254R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1914
Last Update : Tue Mar 18 08:22:36 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16966.D Vial: 10
Acq On : 17 Mar 2003 18:19 Operator: ECL
Sample : 1254 ICAL 500 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:22 2003 Quant Results File: 1254R.RES

Quant Method : C:\HPCHEM\2\METHODS\1254R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1914
Last Update : Tue Mar 18 08:22:52 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

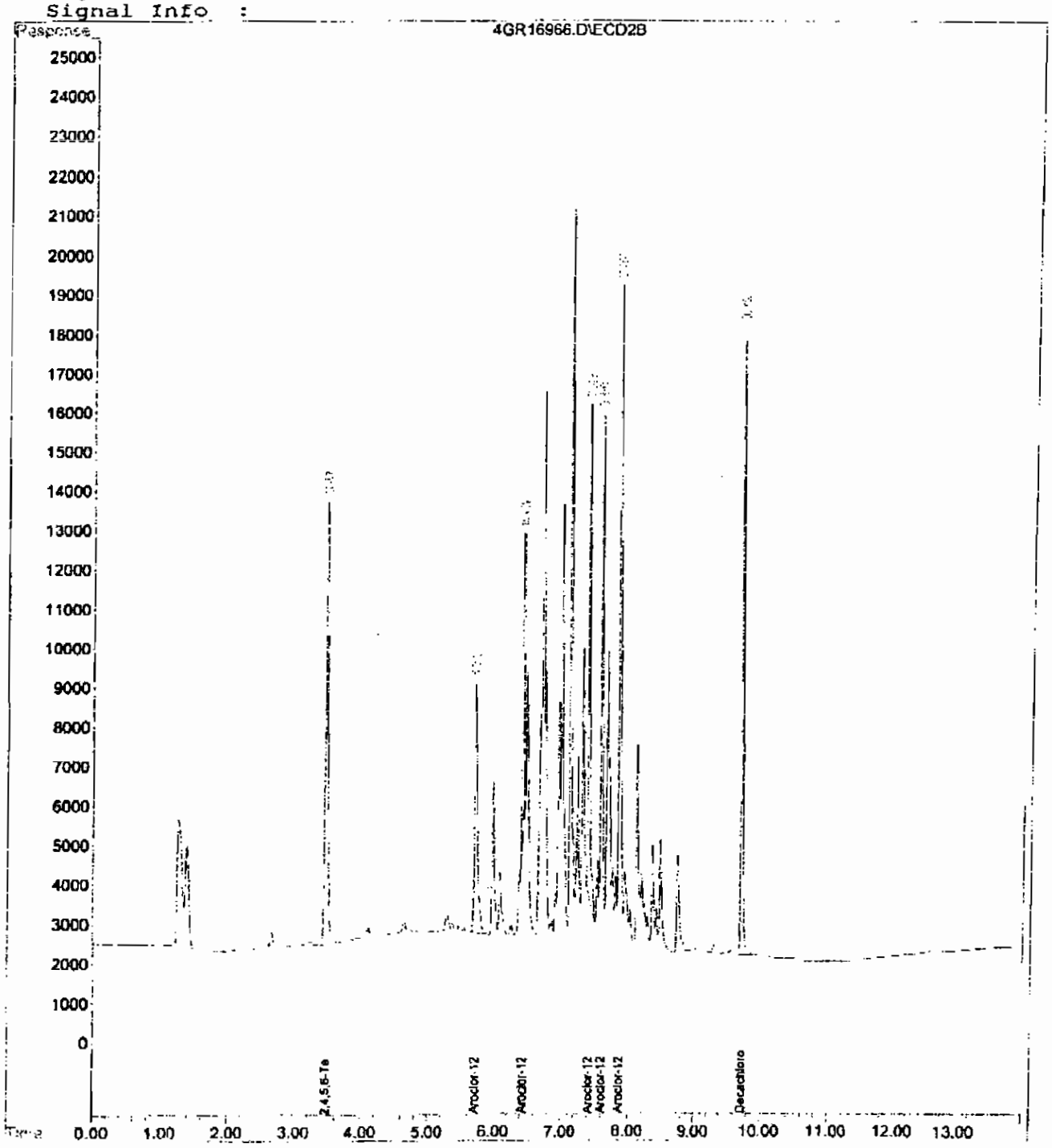
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.47	317330	25.221 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery = 126.11%	
7) S Decachlorobiphenyl	9.72	292096	24.048 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery = 120.24%	
Target Compounds			
2) L1 Aroclor-1254-1	5.71	186107	480.182 UG/L
3) L1 Aroclor-1254-2	6.43	114635	485.294 UG/L
4) L1 Aroclor-1254-3	7.42	244882	496.602 UG/L
5) L1 Aroclor-1254-4	7.60	225850	473.991 UG/L
6) L1 Aroclor-1254-5	7.87	328872	489.565 UG/L
Sum Aroclor-1254-1		1100345	2425.634 UG/L
Average Aroclor-1254-1			485.127 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16966.D Vial: 10
Acq On : 17 Mar 2003 18:19 Operator: ECL
Sample : 1254 ICAL 500 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:22 2003 Quant Results File: 1254R.RES

Quant Method : C:\HPCHEM\2\METHODS\1254R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1914
Last Update : Tue Mar 18 08:22:52 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16967.D Vial: 11
Acq On : 17 Mar 2003 18:38 Operator: ECL
Sample : 1254 ICAL 250 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:23 2003 Quant Results File: 1254R.RES

Quant Method : C:\HPCHEM\2\METHODS\1254R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1914
Last Update : Tue Mar 18 08:23:08 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

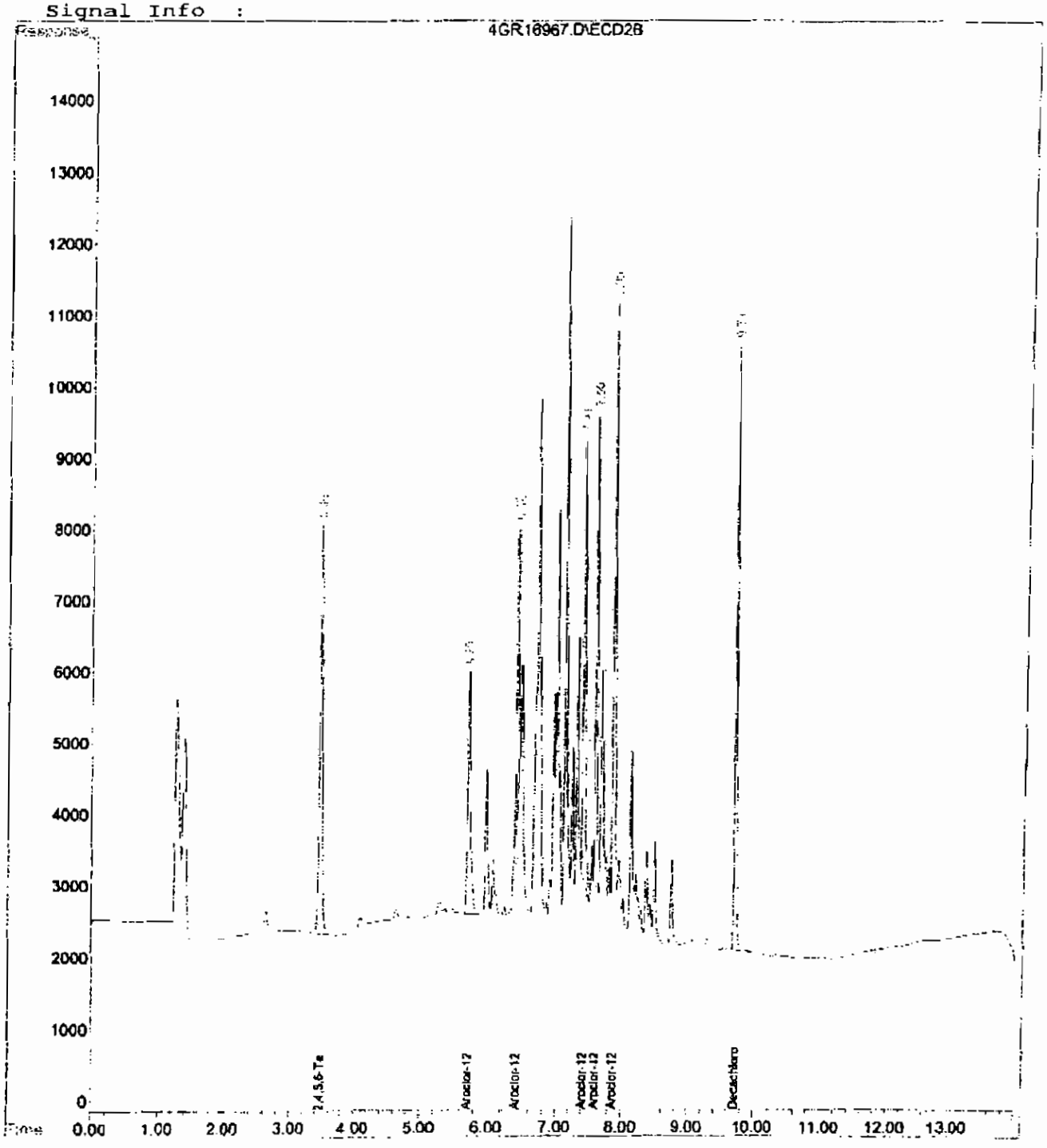
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.46	164112	13.043 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	65.22%
7) S Decachlorobiphenyl	9.71	161125	13.266 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	66.33%
Target Compounds			
2) L1 Aroclor-1254-1	5.70	103325	266.594 UG/L
3) L1 Aroclor-1254-2	6.42	62640	265.178 UG/L
4) L1 Aroclor-1254-3	7.41	130221	264.078 UG/L
5) L1 Aroclor-1254-4	7.59	124483	261.252 UG/L
6) L1 Aroclor-1254-5	7.86	175316	260.979 UG/L
Sum Aroclor-1254-1		595985	1318.081 UG/L
Average Aroclor-1254-1			263.616 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16967.D Vial: 11
Acq On : 17 Mar 2003 18:38 Operator: ECL
Sample : 1254 ICAL 250 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:23 2003 Quant Results File: 1254R.RES

Quant Method : C:\HPCHEM\2\METHODS\1254R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1914
Last Update : Tue Mar 18 08:23:08 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16968.D Vial: 12
Acq On : 17 Mar 2003 18:56 Operator: ECL
Sample : 1254 ICAL 100 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:23 2003 Quant Results File: 1254R.RES

Quant Method : C:\HPCHEM\2\METHODS\1254R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1914
Last Update : Tue Mar 18 08:23:08 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

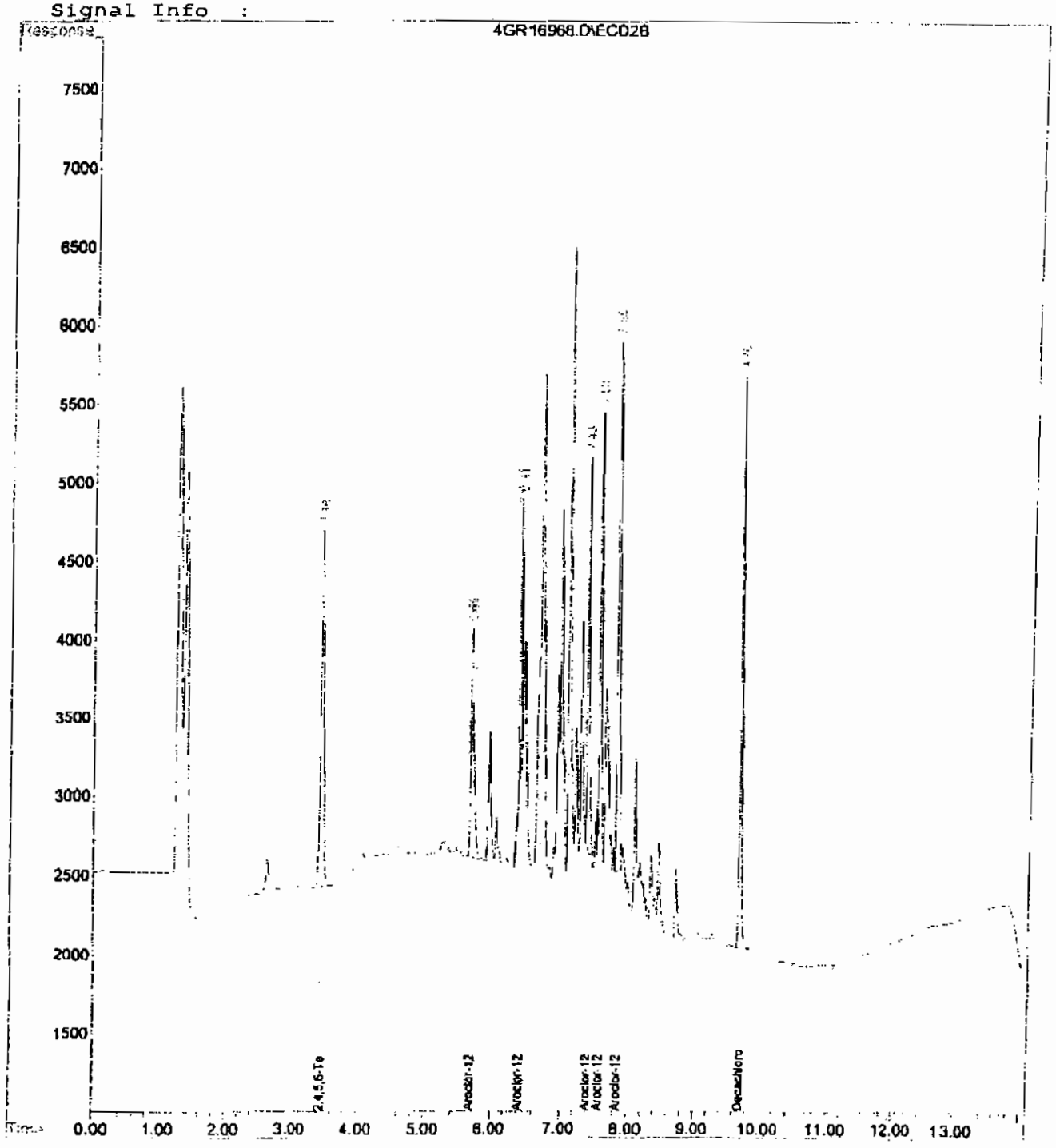
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.44	67004	5.325 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	26.63%#
7) S Decachlorobiphenyl	9.70	71187	5.861 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	29.30%#
Target Compounds			
2) L1 Aroclor-1254-1	5.69	44971	116.031 UG/L
3) L1 Aroclor-1254-2	6.41	26749	113.239 UG/L
4) L1 Aroclor-1254-3	7.40	57270	116.140 UG/L
5) L1 Aroclor-1254-4	7.58	56043	117.617 UG/L
6) L1 Aroclor-1254-5	7.85	76403	113.735 UG/L
Sum Aroclor-1254-1		261436	576.761 UG/L
Average Aroclor-1254-1			115.352 UG/L

(F)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16968.D Vial: 12
Acq On : 17 Mar 2003 18:56 Operator: ECL
Sample : 1254 ICAL 100 PPB Inst : HP4
Misc : SQS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:23 2003 Quant Results File: 1254R.RES

Quant Method : C:\HPCHEM\2\METHODS\1254R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1914
Last Update : Tue Mar 18 08:23:08 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16969.D Vial: 13
Acq On : 17 Mar 2003 19:14 Operator: ECL
Sample : 1254 ICAL 50 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:23 2003 Quant Results File: 1254R.RES

Quant Method : C:\HPCHEM\2\METHODS\1254R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1914
Last Update : Tue Mar 18 08:23:22 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

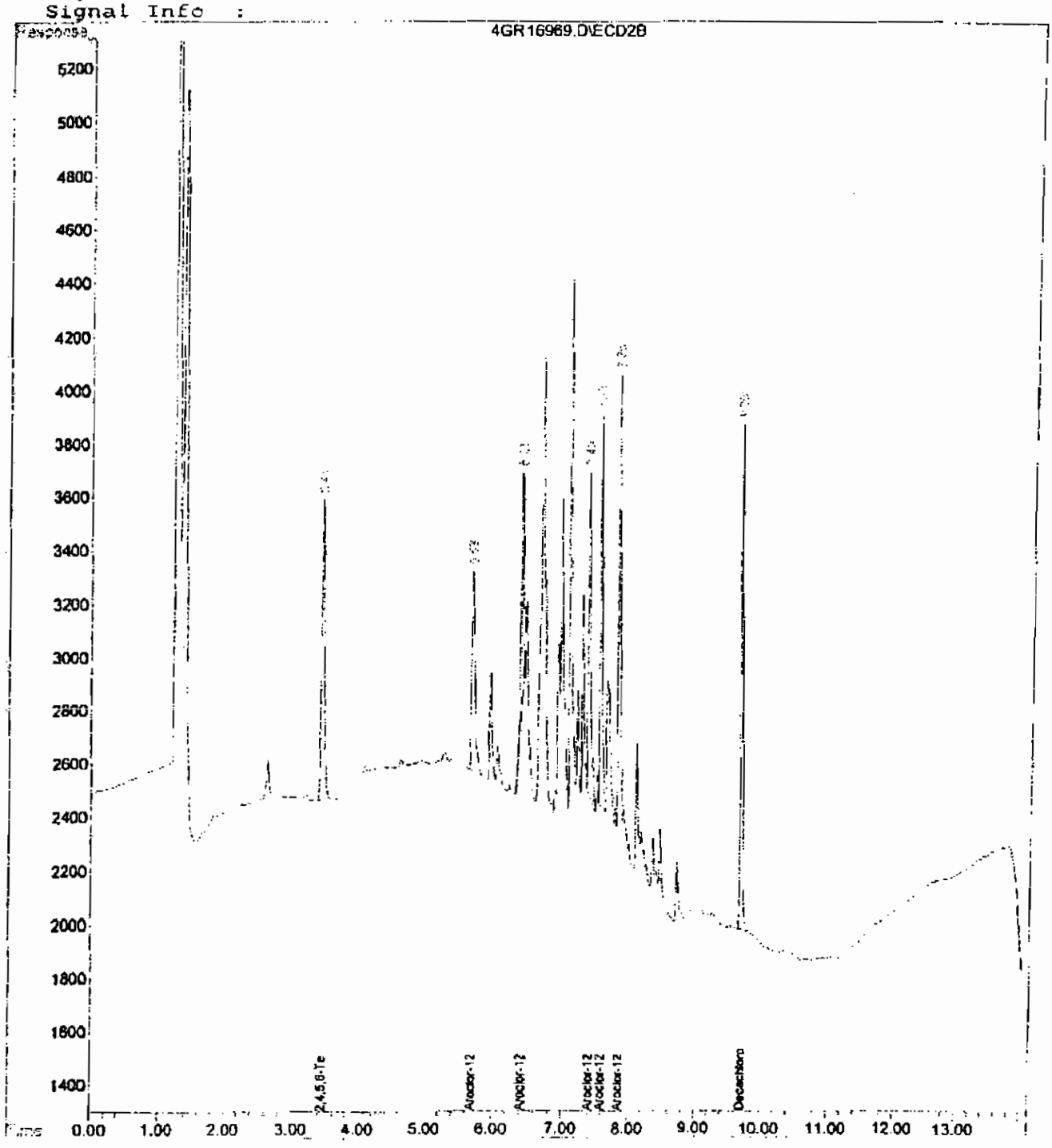
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.44	33681	2.677 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	13.39%#
7) S Decachlorobiphenyl	9.70	37866	3.117 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	15.58%#
Target Compounds			
2) L1 Aroclor-1254-1	5.69	23304	60.127 UG/L
3) L1 Aroclor-1254-2	6.41	14088	59.640 UG/L
4) L1 Aroclor-1254-3	7.40	29614	60.055 UG/L
5) L1 Aroclor-1254-4	7.58	29977	62.913 UG/L
6) L1 Aroclor-1254-5	7.85	39450	58.726 UG/L
Sum Aroclor-1254-1		136433	301.462 UG/L
Average Aroclor-1254-1			60.292 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16969.D Vial: 13
Acq On : 17 Mar 2003 19:14 Operator: ECL
Sample : 1254 ICAL 50 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:23 2003 Quant Results File: 1254R.RES

Quant Method : C:\HPCHEM\2\METHODS\1254R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1914
Last Update : Tue Mar 18 08:23:22 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16970.D Vial: 14
Acq On : 17 Mar 2003 19:32 Operator: ECL
Sample : 1254 ALT ICV 500 PPB Inst : HP4
Misc : SQS63-08 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1254R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1914
Last Update : Tue Mar 18 08:23:36 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	L1	Aroclor-1254-1	500.000	478.190	4.4	100	-0.01
3	L1	Aroclor-1254-2	500.000	511.405	-2.3	105	-0.01
4	L1	Aroclor-1254-3	500.000	501.858	-0.4	101	-0.02
5	L1	Aroclor-1254-4	500.000	469.770	6.0	99	-0.01
6	L1	Aroclor-1254-5	500.000	479.321	4.1	98	-0.01

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR1697O.D Vial: 14
Acq On : 17 Mar 2003 19:32 Operator: ECL
Sample : 1254 ALT ICV 500 PPB Inst : HP4
Misc : SOS63-08 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:24 2003 Quant Results File: 1254R.RES

Quant Method : C:\HPCHEM\2\METHODS\1254R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1914
Last Update : Tue Mar 18 08:23:36 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

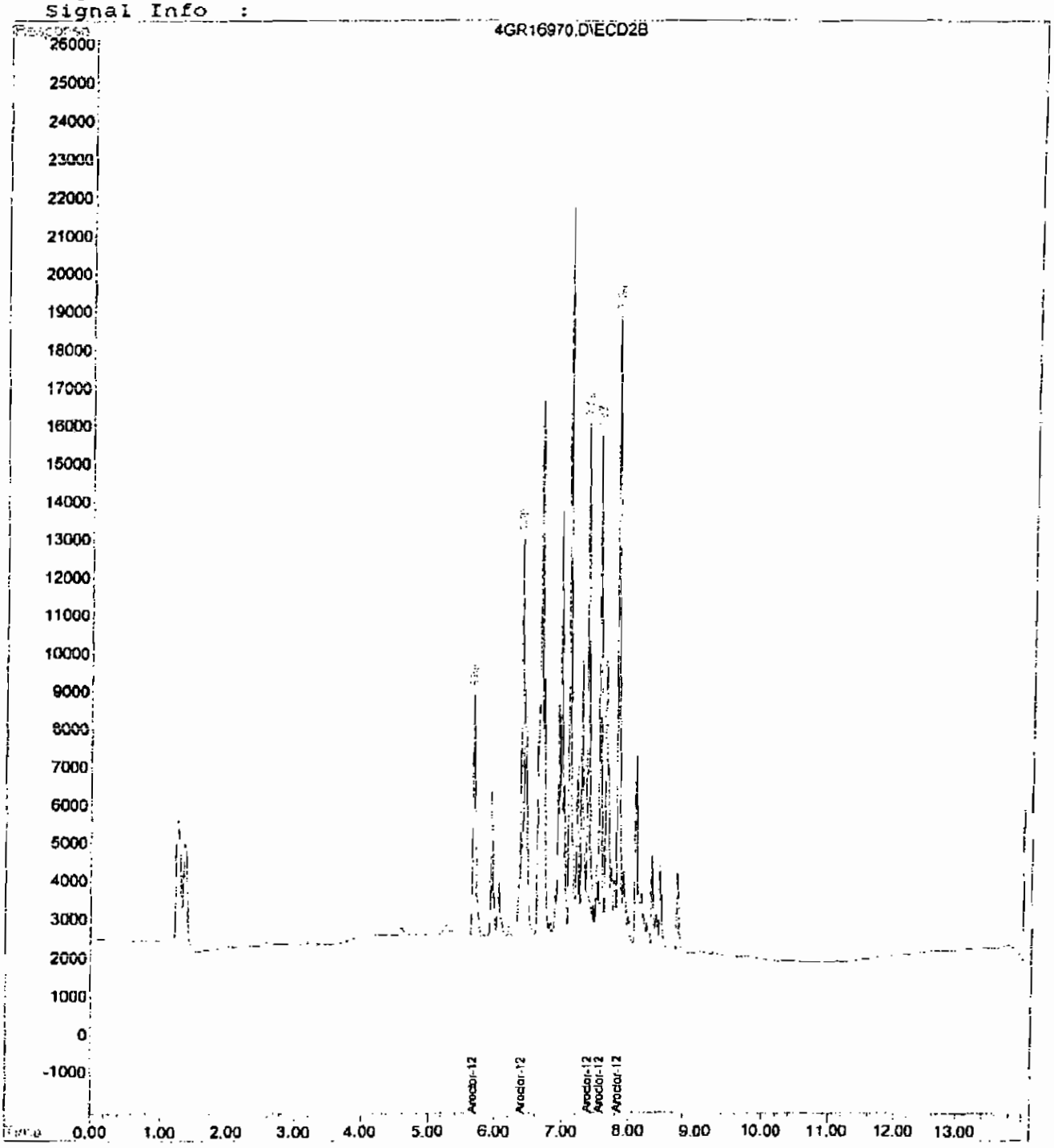
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	0.00	0	N.D. UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	0.00%#
7) S Decachlorobiphenyl	0.00	0	N.D. UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	0.00%#
Target Compounds			
2) L1 Aroclor-1254-1	5.68	185335	478.190 UG/L
3) L1 Aroclor-1254-2	6.40	120803	511.405 UG/L
4) L1 Aroclor-1254-3	7.39	247473	501.858 UG/L
5) L1 Aroclor-1254-4	7.57	223839	469.770 UG/L
6) L1 Aroclor-1254-5	7.84	321990	479.321 UG/L
Sum Aroclor-1254-1		1099440	2440.544 UG/L
Average Aroclor-1254-1			488.109 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
4GR1697O.D 1254R.M Tue Mar 18 08:24:54 2003 Page 1

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16970.D Vial: 14
Acq On : 17 Mar 2003 19:32 Operator: ECL
Sample : 1254 ALT ICV 500 PPB Inst : HP4
Misc : SOS63-09 MultiplIr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:24 2003 Quant Results File: 1254R.RES

Quant Method : C:\HPCHEM\2\METHODS\1254R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1914
Last Update : Tue Mar 18 08:23:36 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\2\METHODS\1248SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 08:52:45 2003

Calibration Files
500 =4GR16971.D = =
= =

		Compound	500	Avg	%RSD
1)	S	2,4,5,6-Tetrachloro-M	1.252	1.252#E4	0.00
2)	L1	Aroclor-1248-1	2.237	2.237#E2	0.00
3)	L1	Aroclor-1248-2	5.421	5.421#E2	0.00
4)	L1	Aroclor-1248-3	4.679	4.679#E2	0.00
5)	L1	Aroclor-1248-4	1.726	1.726#E2	0.00
6)	L1	Aroclor-1248-5	1.968	1.968#E2	0.00
7)	S	Decachlorobiphenyl	1.174	1.174#E4	0.00

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16971.D Vial: 15
Acq On : 17 Mar 2003 19:51 Operator: ECL
Sample : 1248 500 PPB Inst : HP4
Misc : SOS61-40 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:52 2003 Quant Results File: 1248SR.RES

Quant Method : C:\HPCHEM\2\METHODS\1248SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 08:52:45 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

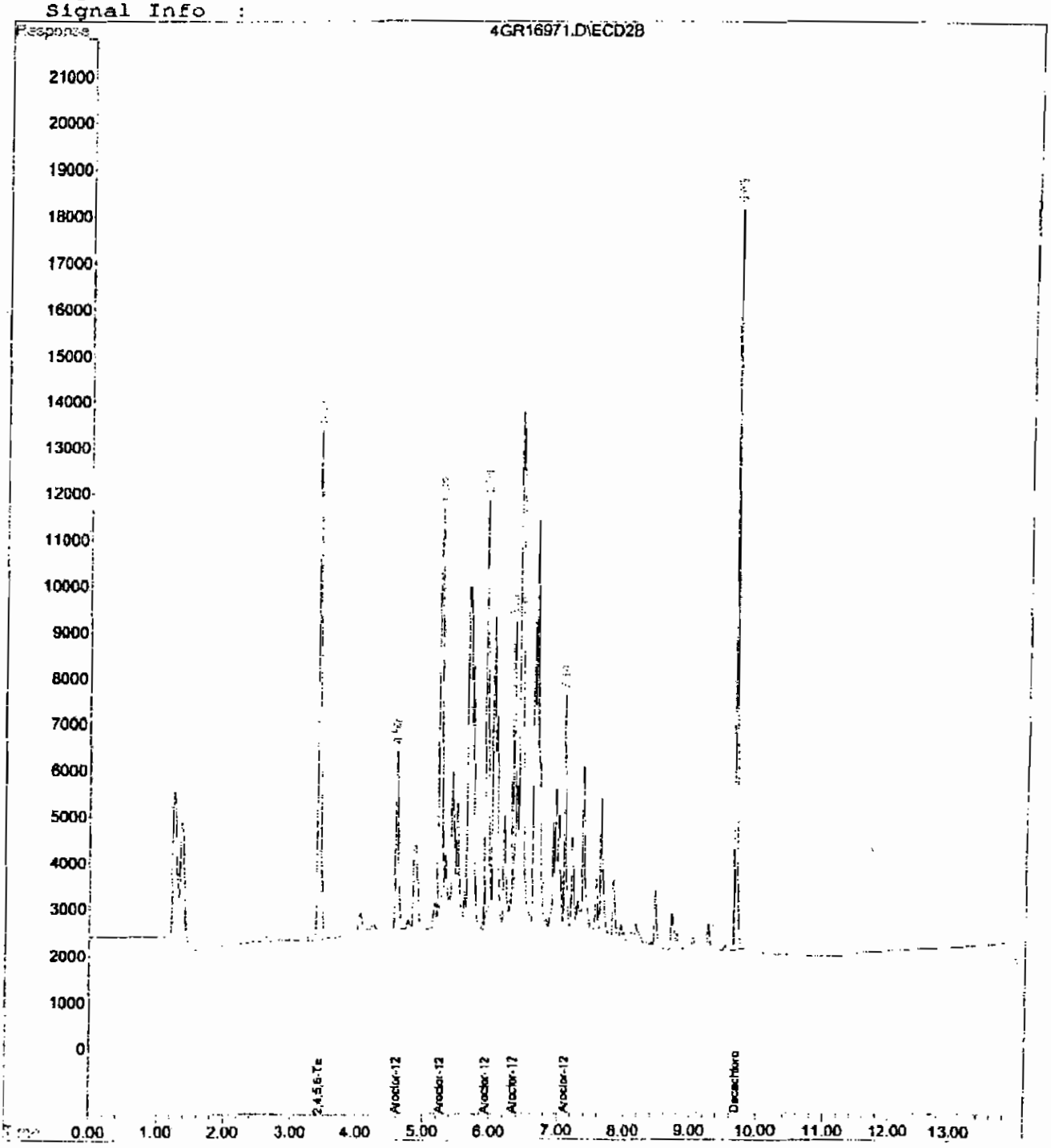
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.42	312924	25.000 UG/L
Spiked Amount 20.000	Recovery	=	125.00%
7) S Decachlorobiphenyl	9.68	293428	25.000 UG/L
Spiked Amount 20.000	Recovery	=	125.00%
Target Compounds			
2) L1 Aroclor-1248-1	4.59	111857	500.000 UG/L
3) L1 Aroclor-1248-2	5.25	271071	500.000 UG/L
4) L1 Aroclor-1248-3	5.94	233968	500.000 UG/L
5) L1 Aroclor-1248-4	6.34	86299	500.000 UG/L
6) L1 Aroclor-1248-5	7.10	98421	500.000 UG/L
Sum Aroclor-1248-1		801616	2500.000 UG/L
Average Aroclor-1248-1			500.000 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16971.D Vial: 15
Acq On : 17 Mar 2003 19:51 Operator: ECL
Sample : 1248 500 PPB Inst : HP4
Misc : SOS61-40 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:52 2003 Quant Results File: 1248SR.RES

Quant Method : C:\HPCHEM\2\METHODS\1248SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 08:52:45 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16972.D Vial: 16
Acq On : 17 Mar 2003 20:09 Operator: ECL
Sample : 1248 ALT 500 PPB Inst : HP4
Misc : SOS64-08 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1248SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 08:52:45 2003
Response via : Single Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	L1	Aroclor-1248-1	500.000	486.125	2.8	97	0.00
3	L1	Aroclor-1248-2	500.000	403.958	19.2#	81	0.00
4	L1	Aroclor-1248-3	500.000	535.663	-7.1	107	0.00
5	L1	Aroclor-1248-4	500.000	377.595	24.5#	76	0.00
6	L1	Aroclor-1248-5	500.000	634.562	-26.9#	127	0.00

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16972.D Vial: 16
Acq On : 17 Mar 2003 20:09 Operator: ECL
Sample : 1248 ALT 500 PPB Inst : HP4
Misc : SOS64-08 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:54 2003 Quant Results File: 1248SR.RES

Quant Method : C:\HPCHEM\2\METHODS\1248SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 08:52:45 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

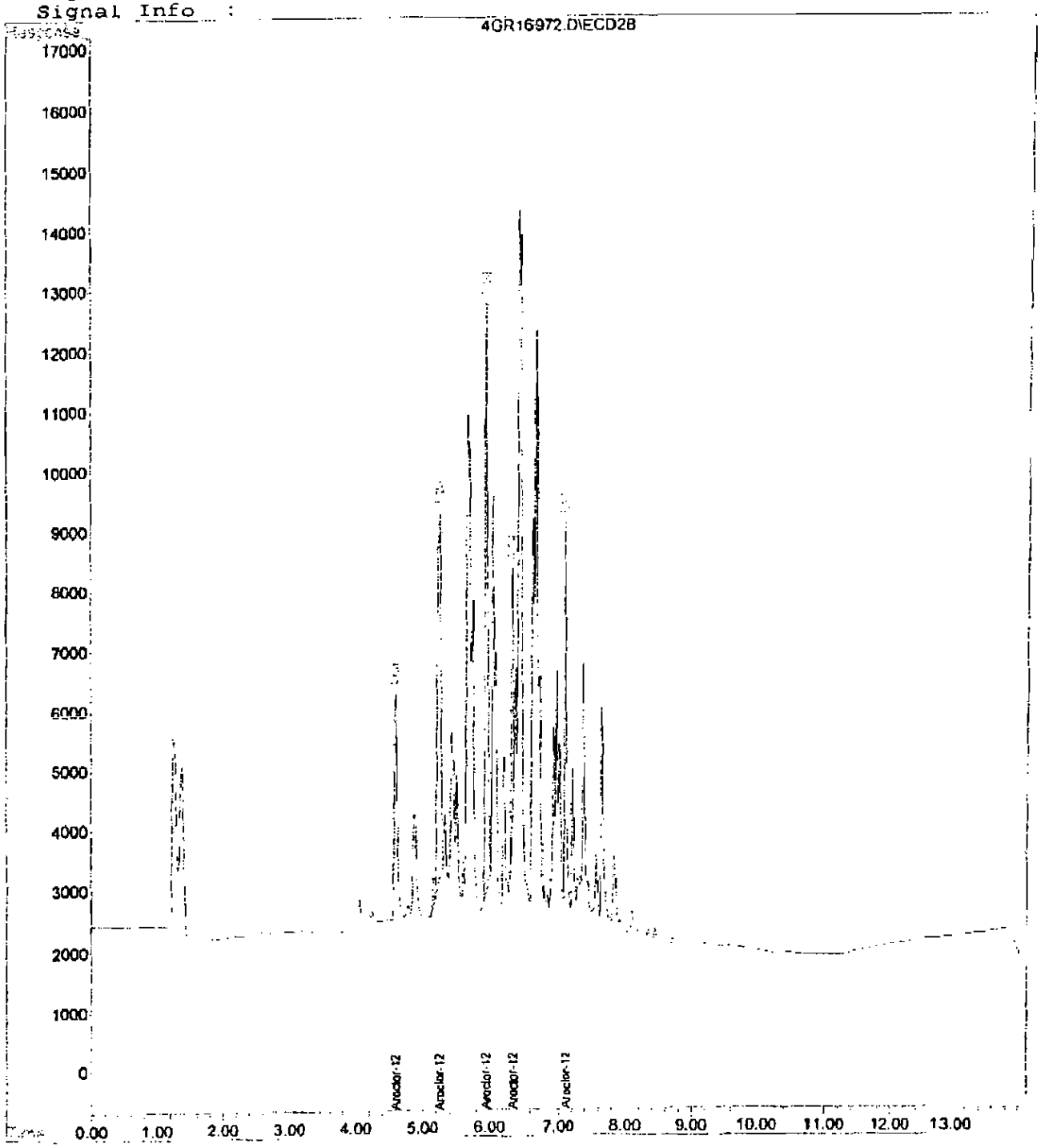
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5,6-Tetrachloro-M-Xyle	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
7) S Decachlorobiphenyl	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
Target Compounds				
2) L1 Aroclor-1248-1	4.60	108753	486.125	UG/L
3) L1 Aroclor-1248-2	5.25	219003	403.958	UG/L
4) L1 Aroclor-1248-3	5.94	250656	535.663	UG/L
5) L1 Aroclor-1248-4	6.34	65172	377.595	UG/L
6) L1 Aroclor-1248-5	7.10	124908	634.562	UG/L
Sum Aroclor-1248-1		768492	2437.903	UG/L
Average Aroclor-1248-1			487.581	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16972.D Vial: 16
Acq On : 17 Mar 2003 20:09 Operator: ECL
Sample : 1248 ALT 500 PPB Inst : HP4
Misc : SOS64-08 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:54 2003 Quant Results File: 1248SR.RES

Quant Method : C:\HPCHEM\2\METHODS\1248SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 08:52:45 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\2\METHODS\1242SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 08:57:03 2003

Calibration Files
500 =4GR16973.D

	Compound	500	Avg	%RSD
1) S	2,4,5,6-Tetrachloro-M	1.300	1.300#E4	0.00
2) L1	Aroclor-1242-1	1.714	1.714#E2	0.00
3) L1	Aroclor-1242-2	4.142	4.142#E2	0.00
4) L1	Aroclor-1242-3	2.576	2.576#E2	0.00
5) L1	Aroclor-1242-4	6.442	6.442#E2	0.00
6) L1	Aroclor-1242-5	3.380	3.380#E2	0.00
7) S	Decachlorobiphenyl	1.194	1.194#E4	0.00

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16973.D Vial: 17
Acq On : 17 Mar 2003 20:27 Operator: ECL
Sample : 1242 500 PPB Inst : HP4
Misc : SOS61-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:57 2003 Quant Results File: 1242SR.RES

Quant Method : C:\HPCHEM\2\METHODS\1242SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 08:57:03 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

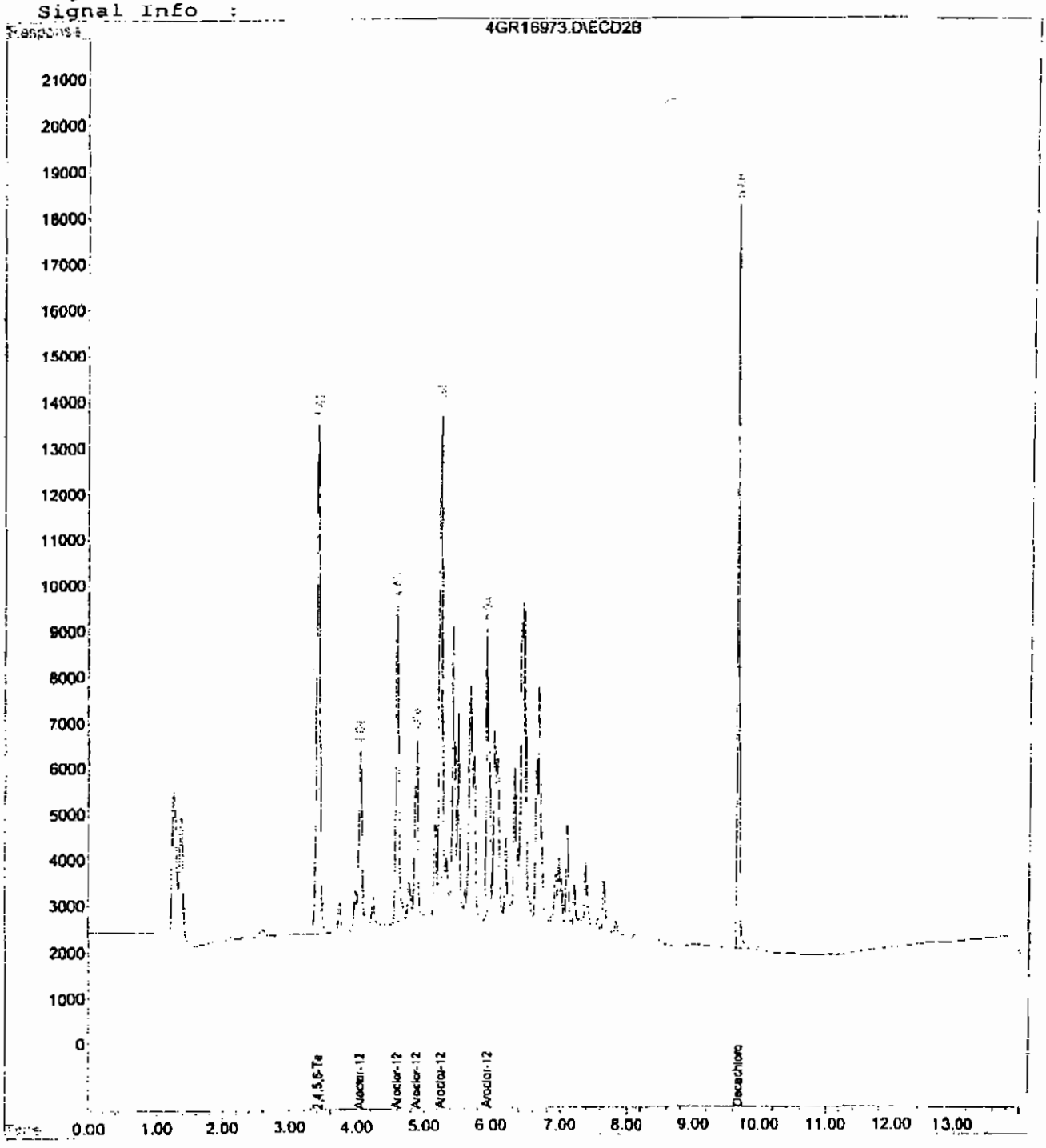
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.42	325113	25.000	UG/L
Spiked Amount 20.000		Recovery =	125.00%	
7) S Decachlorobiphenyl	9.68	298453	25.000	UG/L
Spiked Amount 20.000		Recovery =	125.00%	
Target Compounds				
2) L1 Aroclor-1242-1	4.04	85722	500.000	UG/L
3) L1 Aroclor-1242-2	4.59	207115	500.000	UG/L
4) L1 Aroclor-1242-3	4.88	128802	500.000	UG/L
5) L1 Aroclor-1242-4	5.24	322085	500.000	UG/L
6) L1 Aroclor-1242-5	5.94	169021	500.000	UG/L
Sum Aroclor-1242-1		912746	2500.000	UG/L
Average Aroclor-1242-1			500.000	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16973.D Vial: 17
Acq On : 17 Mar 2003 20:27 Operator: ECL
Sample : 1242 500 PPB Inst : HP4
Misc : SOS61-41 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:57 2003 Quant Results File: 1242SR.RES

Quant Method : C:\HPCHEM\2\METHODS\1242SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 08:57:03 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16974.D Vial: 18
Acq On : 17 Mar 2003 20:45 Operator: ECL
Sample : 1242 ALT 500 PPB Inst : HP4
Misc : SOS63-09 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1242SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 08:57:03 2003
Response via : Single Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	L1	Aroclor-1242-1	500.000	483.467	3.3	97	0.00
3	L1	Aroclor-1242-2	500.000	509.497	-1.9	102	0.00
4	L1	Aroclor-1242-3	500.000	501.019	-0.2	100	0.00
5	L1	Aroclor-1242-4	500.000	500.572	-0.1	100	0.00
6	L1	Aroclor-1242-5	500.000	492.967	1.4	99	0.00

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16974.D Vial: 18
Acq On : 17 Mar 2003 20:45 Operator: ECL
Sample : 1242 ALT 500 PPB Inst : HP4
Misc : SOS63-09 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:57 2003 Quant Results File: 1242SR.RES

Quant Method : C:\HPCHEM\2\METHODS\1242SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 08:57:03 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

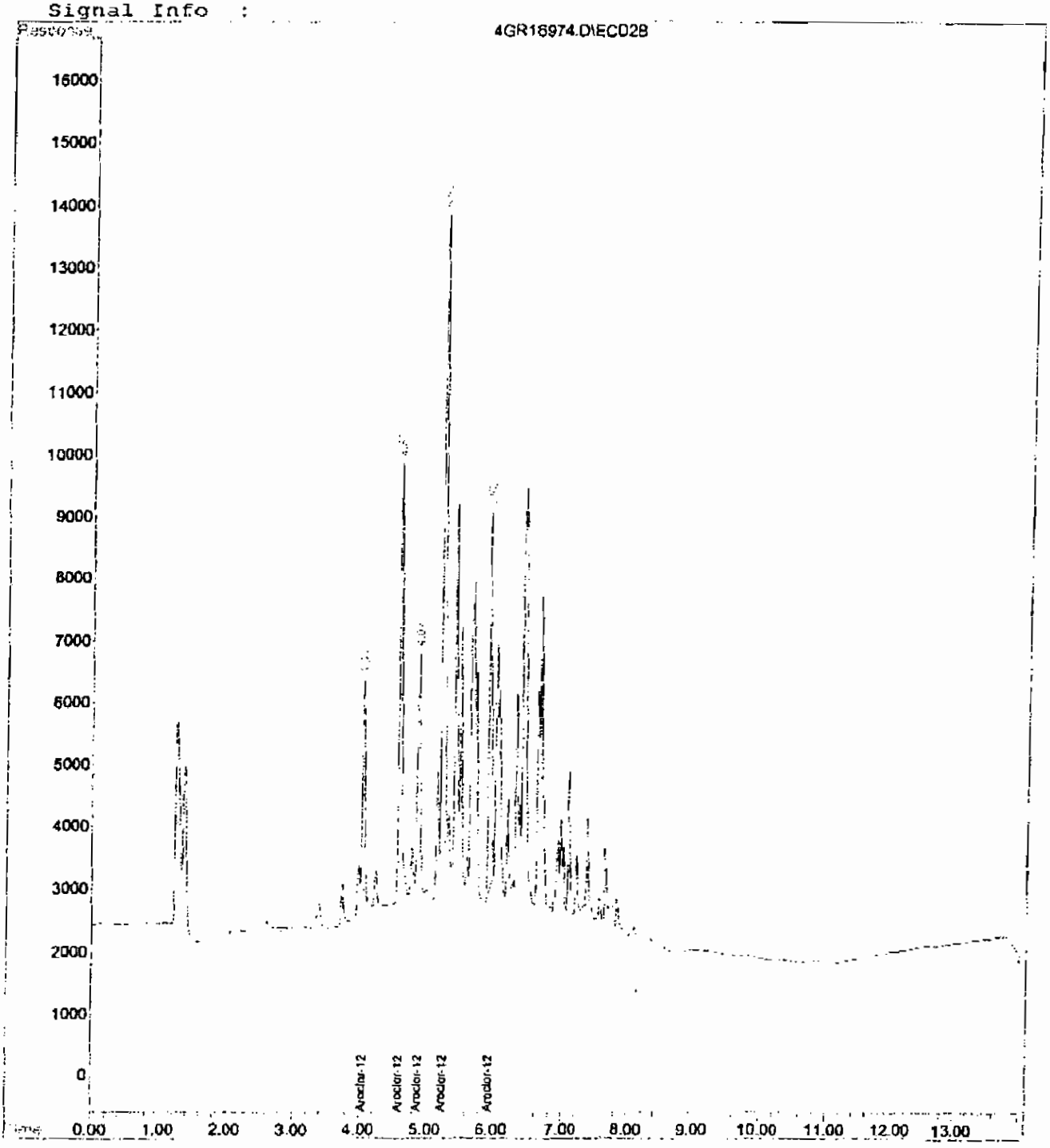
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5,6-Tetrachloro-M-Xyle	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
7) S Decachlorobiphenyl	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
Target Compounds				
2) L1 Aroclor-1242-1	4.04	82887	483.467	UG/L
3) L1 Aroclor-1242-2	4.59	211049	509.497	UG/L
4) L1 Aroclor-1242-3	4.88	129064	501.019	UG/L
5) L1 Aroclor-1242-4	5.24	322454	500.572	UG/L
6) L1 Aroclor-1242-5	5.94	166644	492.967	UG/L
Sum Aroclor-1242-1		912099	2487.522	UG/L
Average Aroclor-1242-1			497.504	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16974.D Vial: 18
Acq On : 17 Mar 2003 20:45 Operator: ECL
Sample : 1242 ALT 500 PPB Inst : HP4
Misc : SOS63-09 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 8:57 2003 Quant Results File: 1242SR.RES

Quant Method : C:\HPCHEM\2\METHODS\1242SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 08:57:03 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\2\METHODS\1232SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 09:01:00 2003

Calibration Files
500 =4GR16975.D

		Compound	500	Avg	%RSD
1)	S	2,4,5,6-Tetrachloro-M	1.315	1.315#E4	0.00
2)	L1	Aroclor-1232-1	8.123	8.123#E1	0.00
3)	L1	Aroclor-1232-2	1.820	1.820#E2	0.00
4)	L1	Aroclor-1232-3	2.041	2.041#E2	0.00
5)	L1	Aroclor-1232-4	3.395	3.395#E2	0.00
6)	L1	Aroclor-1232-5	1.233	1.233#E2	0.00
7)	S	Decachlorobiphenyl	1.138	1.138#E4	0.00

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16975.D Vial: 19
Acq On : 17 Mar 2003 21:04 Operator: ECL
Sample : 1232 500 PPB Inst : HP4
Misc : SOS64-09 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 9:01 2003 Quant Results File: 1232SR.RES

Quant Method : C:\HPCHEM\2\METHODS\1232SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 09:01:00 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

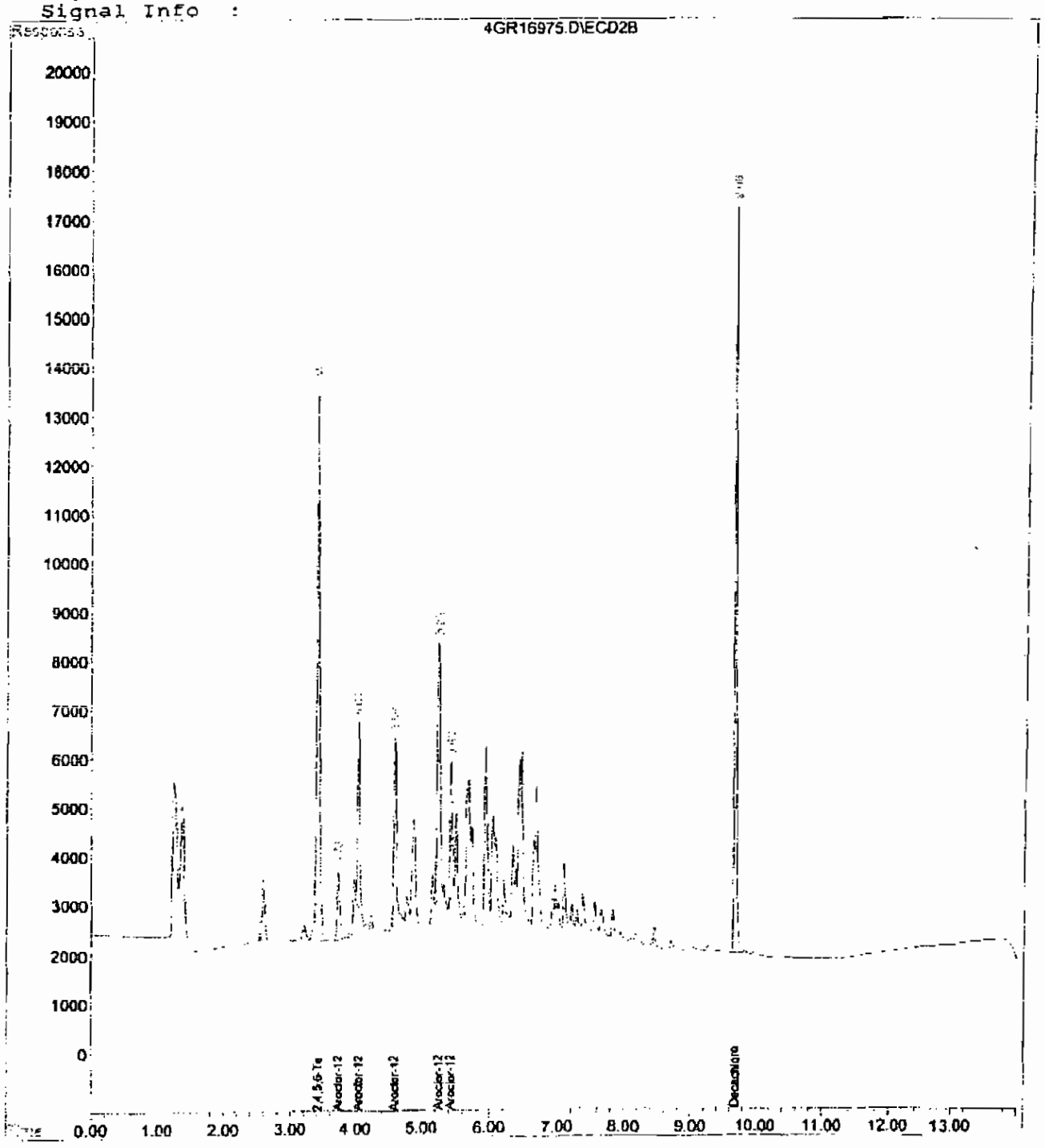
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.42	328673	25.000 UG/L
Spiked Amount 20.000	Recovery	=	125.00%
7) S Decachlorobiphenyl	9.68	284621	25.000 UG/L
Spiked Amount 20.000	Recovery	=	125.00%
Target Compounds			
2) L1 Aroclor-1232-1	3.74	40613	500.000 UG/L
3) L1 Aroclor-1232-2	4.04	90984	500.000 UG/L
4) L1 Aroclor-1232-3	4.59	102039	500.000 UG/L
5) L1 Aroclor-1232-4	5.25	169775	500.000 UG/L
6) L1 Aroclor-1232-5	5.42	61659	500.000 UG/L
Sum Aroclor-1232-1		465070	2500.000 UG/L
Average Aroclor-1232-1			500.000 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16975.D Vial: 19
Acq On : 17 Mar 2003 21:04 Operator: ECL
Sample : 1232 500 PPB Inst : HP4
Misc : SOS64-09 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 9:01 2003 Quant Results File: 1232SR.RES

Quant Method : C:\HPCHEM\2\METHODS\1232SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 09:01:00 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16976.D Vial: 20
Acq On : 17 Mar 2003 21:22 Operator: ECL
Sample : 1232 ALT 500 PPB Inst : HP4
Misc : SOS64-10 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1232SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 09:01:00 2003
Response via : Single Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	L1	Aroclor-1232-1	500.000	643.547	-28.7#	129	0.00
3	L1	Aroclor-1232-2	500.000	588.916	-17.8#	118	0.00
4	L1	Aroclor-1232-3	500.000	522.533	-4.5	105	0.00
5	L1	Aroclor-1232-4	500.000	538.550	-7.7	108	0.00
6	L1	Aroclor-1232-5	500.000	547.206	-9.4	109	0.00

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16976.D Vial: 20
Acq On : 17 Mar 2003 21:22 Operator: ECL
Sample : 1232 ALT 500 PPB Inst : HP4
Misc : SOS64-10 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 9:01 2003 Quant Results File: 1232SR.RES

Quant Method : C:\HPCHEM\2\METHODS\1232SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 09:01:00 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

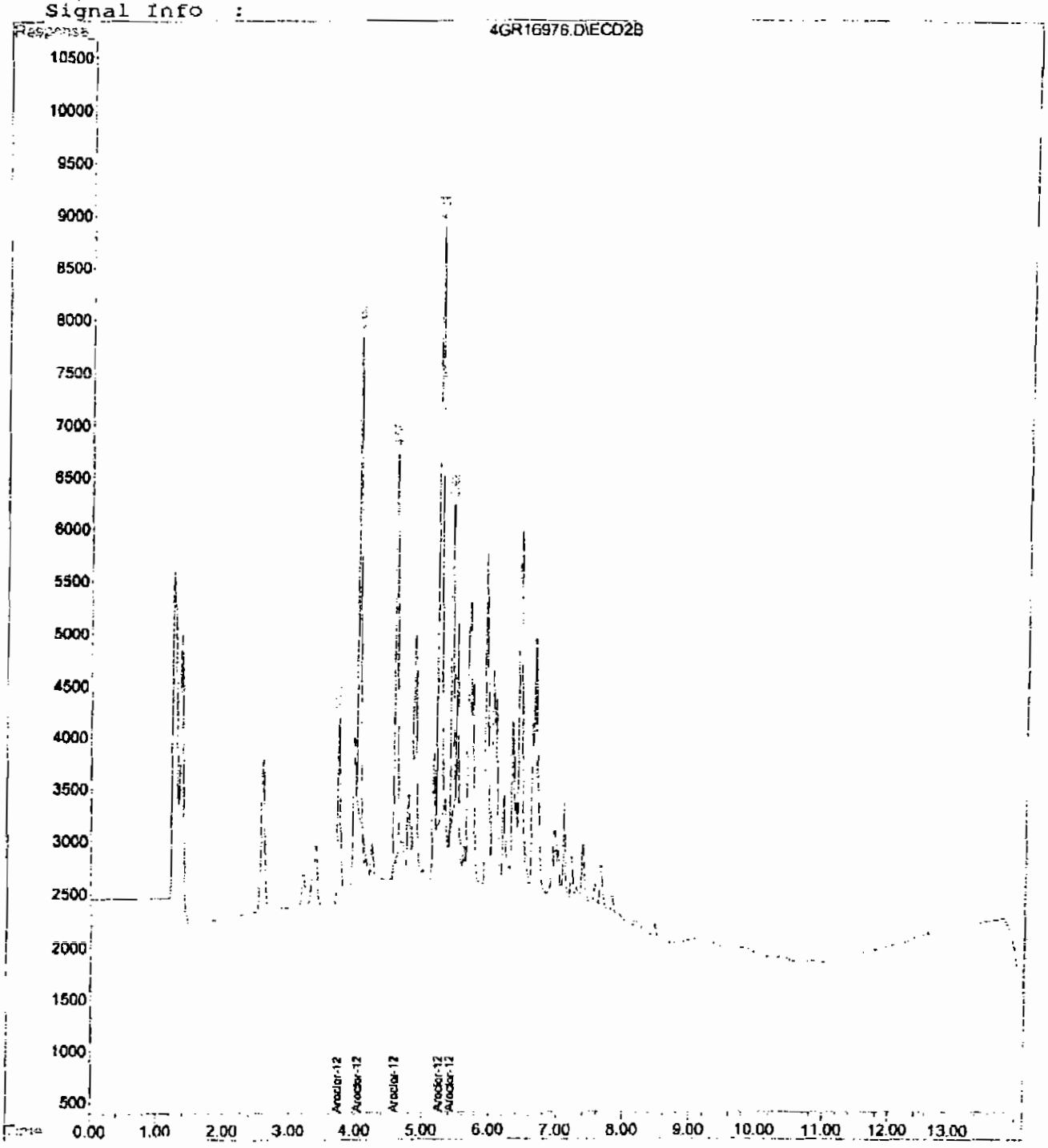
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	0.00	0	N.D. UG/L
Spiked Amount 20.000	Recovery	=	0.00%
7) S Decachlorobiphenyl	0.00	0	N.D. UG/L
Spiked Amount 20.000	Recovery	=	0.00%
Target Compounds			
2) L1 Aroclor-1232-1	3.73	52272	643.547 UG/L
3) L1 Aroclor-1232-2	4.04	107164	588.916 UG/L
4) L1 Aroclor-1232-3	4.59	106638	522.533 UG/L
5) L1 Aroclor-1232-4	5.24	182864	538.550 UG/L
6) L1 Aroclor-1232-5	5.42	67481	547.206 UG/L
Sum Aroclor-1232-1		516419	2840.751 UG/L
Average Aroclor-1232-1			568.150 UG/L

(E)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16976.D Vial: 20
Acq On : 17 Mar 2003 21:22 Operator: ECL
Sample : 1232 ALT 500 PPB Inst : HP4
Misc : SOS64-10 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 9:01 2003 Quant Results File: 1232SR.RES

Quant Method : C:\HPCHEM\2\METHODS\1232SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 09:01:00 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\2\METHODS\1221SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 09:04:15 2003

Calibration Files
500 =4GR16977.D

		Compound	500	Avg	%RSD
1)	S	2,4,5,6-Tetrachloro-M	1.355	1.355#E4	0.00
2)	L1	Aroclor-1221-1	1.408	1.408#E2	0.00
3)	L1	Aroclor-1221-2	1.479	1.479#E2	0.00
4)	L1	Aroclor-1221-3	2.399	2.399#E2	0.00
5)	L1	Aroclor-1221-4	3.052	3.052#E1	0.00
6)	L1	Aroclor-1221-5	5.704	5.704#E1	0.00
7)	S	Decachlorobiphenyl	1.134	1.134#E4	0.00

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16977.D Vial: 21
Acq On : 17 Mar 2003 21:40 Operator: ECL
Sample : 1221 500 PPB Inst : HP4
Misc : SOS64-07 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 9:04 2003 Quant Results File: 1221SR.RES

Quant Method : C:\HPCHEM\2\METHODS\1221SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 09:04:15 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

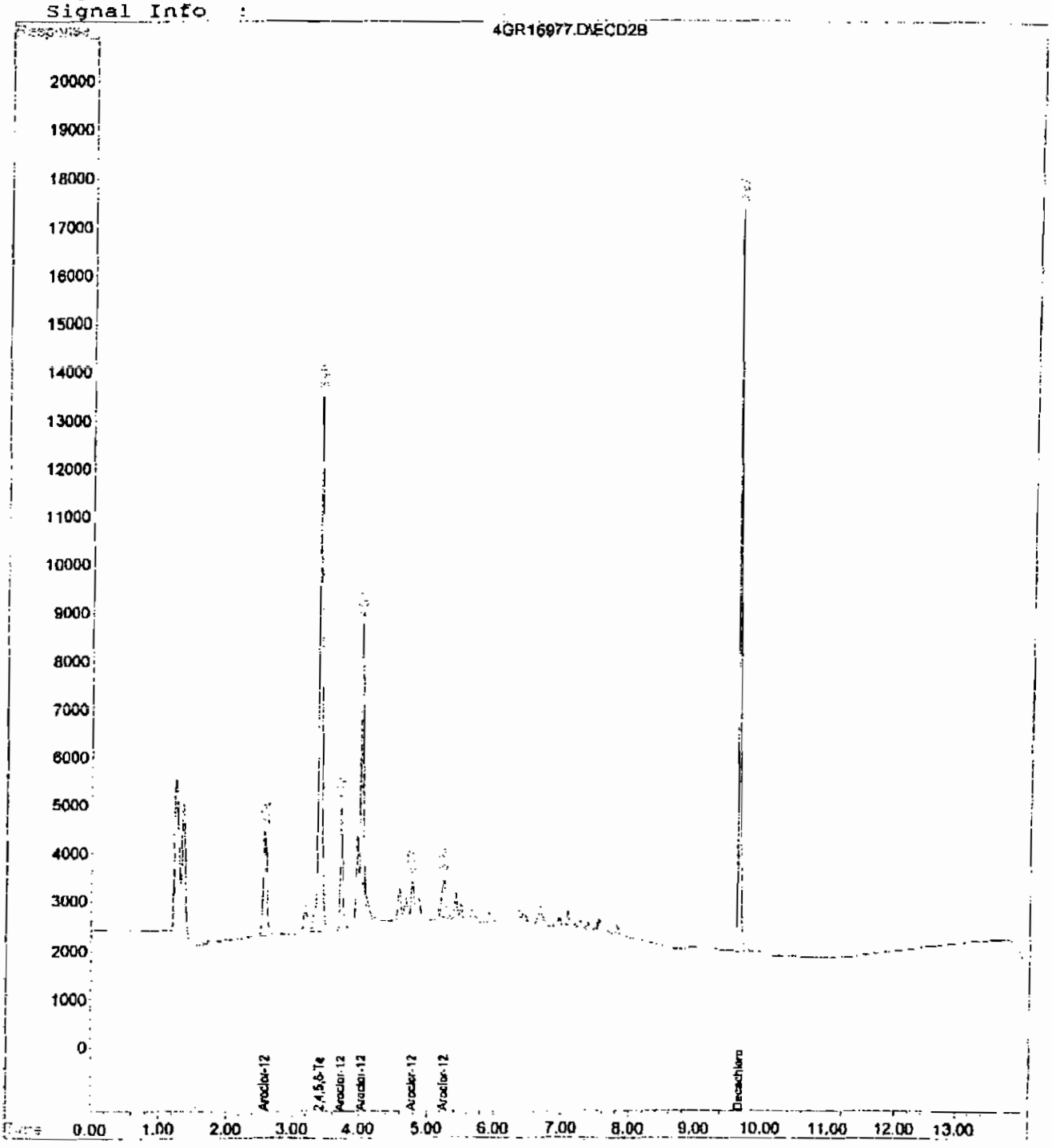
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.41	338873	25.000 UG/L
Spiked Amount 20.000	Recovery	=	125.00%
7) S Decachlorobiphenyl	9.67	283596	25.000 UG/L
Spiked Amount 20.000	Recovery	=	125.00%
Target Compounds			
2) L1 Aroclor-1221-1	2.58	70419	500.000 UG/L
3) L1 Aroclor-1221-2	3.72	73932	500.000 UG/L
4) L1 Aroclor-1221-3	4.03	119937	500.000 UG/L
5) L1 Aroclor-1221-4	4.77	15259	500.000 UG/L
6) L1 Aroclor-1221-5	5.24	28518	500.000 UG/L
Sum Aroclor-1221-1		308065	2500.000 UG/L
Average Aroclor-1221-1			500.000 UG/L

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16977.D Vial: 21
Acq On : 17 Mar 2003 21:40 Operator: ECL
Sample : 1221 500 PPB Inst : HP4
Misc : SOS64-07 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 9:04 2003 Quant Results File: 1221SR.RES

Quant Method : C:\HPCHEM\2\METHODS\1221SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 09:04:15 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16978.D Vial: 22
Acq On : 17 Mar 2003 21:58 Operator: ECL
Sample : 1221 ALT 500 PPB Inst : HP4
Misc : SOS61-43 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1221SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 09:04:15 2003
Response via : Single Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	L1	Aroclor-1221-1	500.000	496.425	0.7	99	0.00
3	L1	Aroclor-1221-2	500.000	493.314	1.3	99	0.00
4	L1	Aroclor-1221-3	500.000	480.300	3.9	96	0.00
5	L1	Aroclor-1221-4	500.000	509.844	-2.0	102	0.00
6	L1	Aroclor-1221-5	500.000	492.570	1.5	99	0.00

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16978.D Vial: 22
Acq On : 17 Mar 2003 21:58 Operator: ECL
Sample : 1221 ALT 500 PPB Inst : HP4
Misc : SQS61-43 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 9:04 2003 Quant Results File: 1221SR.RES

Quant Method : C:\HPCHEM\2\METHODS\1221SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 09:04:15 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

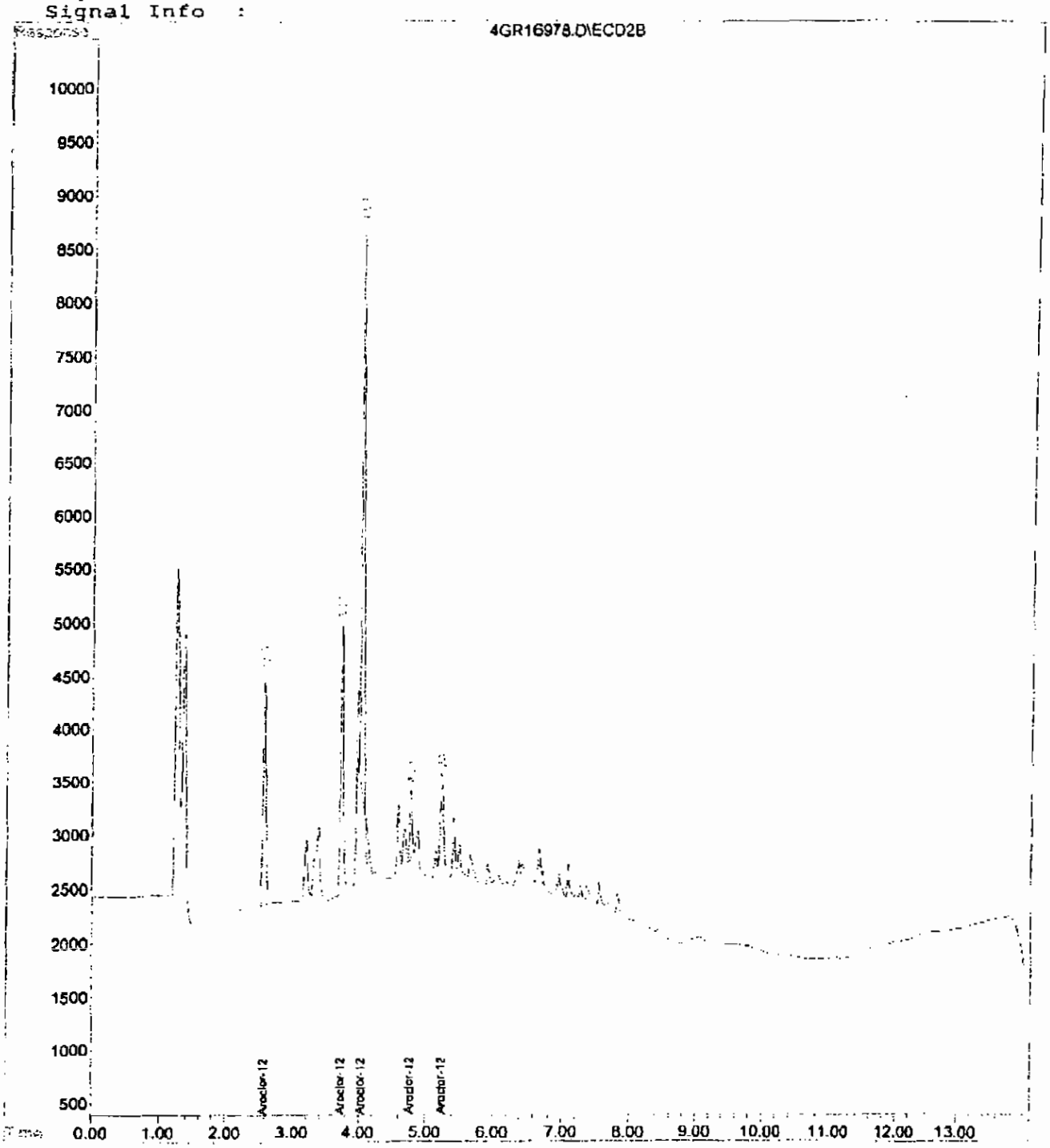
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5,6-Tetrachloro-M-Xyle	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
7) S Decachlorobiphenyl	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
Target Compounds				
2) L1 Aroclor-1221-1	2.58	69915	496.425	UG/L
3) L1 Aroclor-1221-2	3.72	72943	493.314	UG/L
4) L1 Aroclor-1221-3	4.03	115211	480.300	UG/L
5) L1 Aroclor-1221-4	4.77	15560	509.844	UG/L
6) L1 Aroclor-1221-5	5.24	28094	492.570	UG/L
Sum Aroclor-1221-1		301724	2472.454	UG/L
Average Aroclor-1221-1			494.491	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\031703.SEC\4GR16978.D Vial: 22
Acq On : 17 Mar 2003 21:58 Operator: ECL
Sample : 1221 ALT 500 PPB Inst : HP4
Misc : SQS61-43 Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 9:04 2003 Quant Results File: 1221SR.RES

Quant Method : C:\HPCHEM\2\METHODS\1221SR.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003
Last Update : Tue Mar 18 09:04:15 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Fri May 02 15:05:39 2003

Calibration Files
2000 =4GF17523.D 1000 =4GF17524.D 500 =4GF17525.D
250 =4GF17526.D 100 =4GF17527.D 50 =4GF17528.D

		Compound	2000	1000	500	250	100	50	Avg	%RSD
1)	S	2,4,5,6-Tetrachloro	7.673	8.186	7.756	7.818	7.325	7.176	7.656#E3	4.74
2)	L1	Aroclor-1016-1	1.599	1.852	1.832	1.897	1.880	1.725	1.797#E2	6.37
3)	L1	Aroclor-1016-2	2.885	3.399	3.526	3.873	4.074	3.635	3.565#E2	11.56
4)	L1	Aroclor-1016-3	6.255	7.248	7.473	7.691	8.208	7.767	7.440#E2	8.92
5)	L1	Aroclor-1016-4	2.795	3.215	3.184	3.124	3.614	3.026	3.160#E2	8.52
6)	L1	Aroclor-1016-5	2.182	2.451	2.457	2.341	2.664	1.937	2.339#E2	10.79
7)	L2	Aroclor-1260-1	5.021	5.633	5.806	6.063	6.099	6.160	5.797#E2	7.41
8)	L2	Aroclor-1260-2	4.293	4.732	4.833	4.933	4.897	4.810	4.750#E2	4.93
9)	L2	Aroclor-1260-3	9.208	9.768	9.804	9.734	9.067	8.855	9.406#E2	4.40
10)	L2	Aroclor-1260-4	8.913	9.178	8.984	9.041	8.658	8.394	8.862#E2	3.23
11)	L2	Aroclor-1260-5	2.504	2.515	2.382	2.322	2.231	2.178	2.355#E2	5.89
12)	S	Decachlorobiphenyl	7.477	7.837	7.756	7.636	7.421	6.754	7.480#E3	5.21

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\050203\4GF17523.D Vial: 1
Acq On : 2 May 2003 13:09 Operator: ECL
Sample : WG139612-01 1660 ICAL 2000 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 15:04 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Fri May 02 15:04:15 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

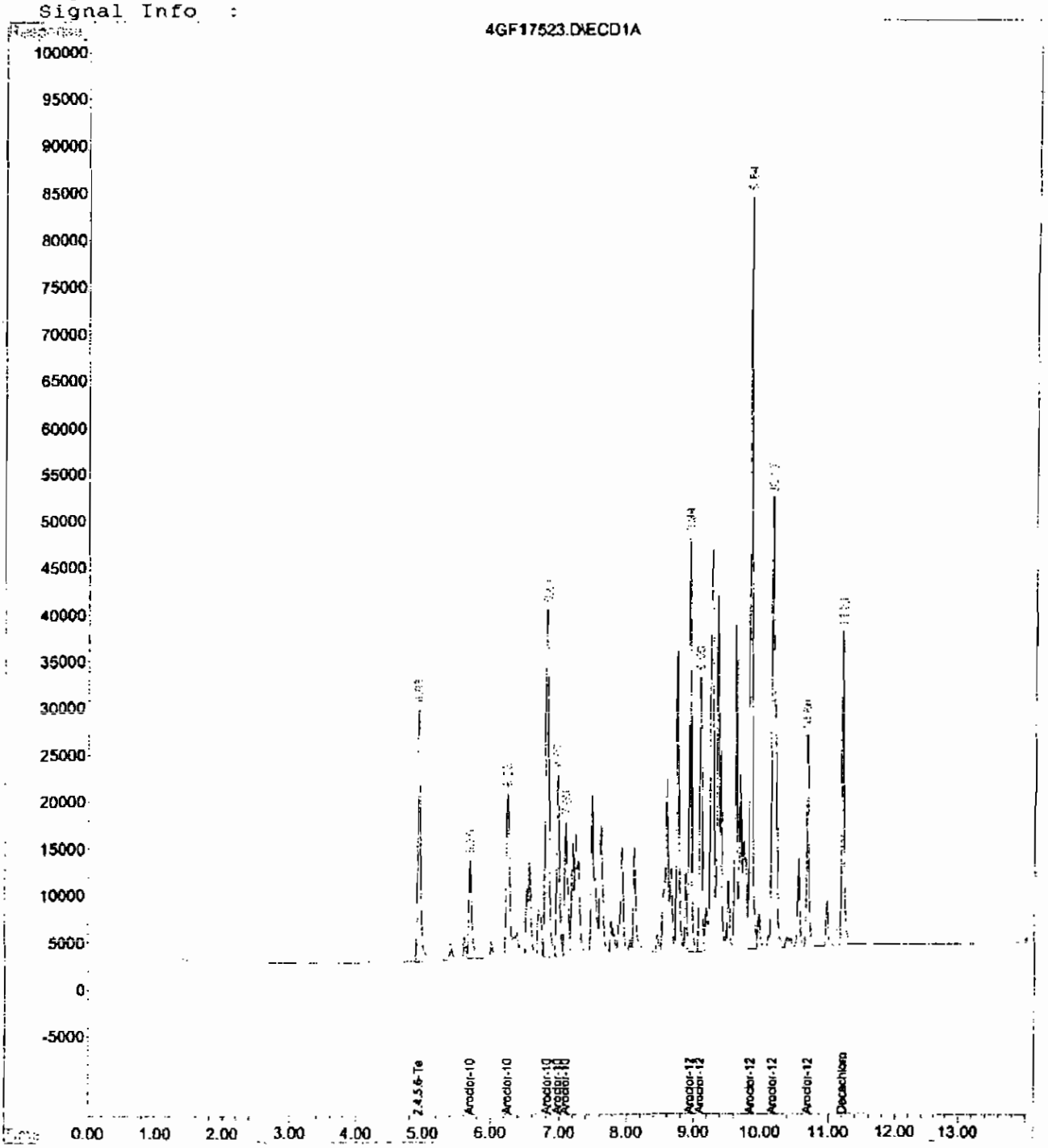
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.93	767322	117.633 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery = 588.16%#	
12) S Decachlorobiphenyl	11.21	747695	102.628 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery = 513.14%#	
Target Compounds			
2) L1 Aroclor-1016-1	5.70	319732	2104.759 UG/L
3) L1 Aroclor-1016-2	6.25	577072	1848.066 UG/L
4) L1 Aroclor-1016-3	6.81	1251000	2078.191 UG/L
5) L1 Aroclor-1016-4	6.97	559043	2215.338 UG/L
6) L1 Aroclor-1016-5	7.09	436343	2834.150 UG/L
Sum Aroclor-1016-1		3143189	11080.505 UG/L
Average Aroclor-1016-1			2216.101 UG/L
7) L2 Aroclor-1260-1	8.94	1004166	2391.222 UG/L
8) L2 Aroclor-1260-2	9.09	858659	2246.130 UG/L
9) L2 Aroclor-1260-3	9.84	1841554	2799.113 UG/L
10) L2 Aroclor-1260-4	10.18	1782642	2432.885 UG/L
11) L2 Aroclor-1260-5	10.68	500736	2367.158 UG/L
Sum Aroclor-1260-1		5987757	12236.509 UG/L
Average Aroclor-1260-1			2447.302 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17523.D Vial: 1
Acq On : 2 May 2003 13:09 Operator: ECL
Sample : WG139612-01 1660 ICAL 2000 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 15:04 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Fri May 02 15:04:15 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



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Data File : C:\HPCHEM\2\DATA\050203\4GF17524.D          Vial: 2
Acq On    :  2 May 2003  13:27                        Operator: ECL
Sample    : WG139612-02 1660 ICAL 1000 PPB            Inst    : HP4
Misc      : 1,1 SOS63-02                              Multiplr: 1.00
IntFile   : events.e
Quant Time: May  2 15:04 2003  Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title        : CALIBRATION May 2, 2003  @  1459
Last Update  : Fri May 02 15:04:29 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj.  :
Signal Phase :
Signal Info  :
```

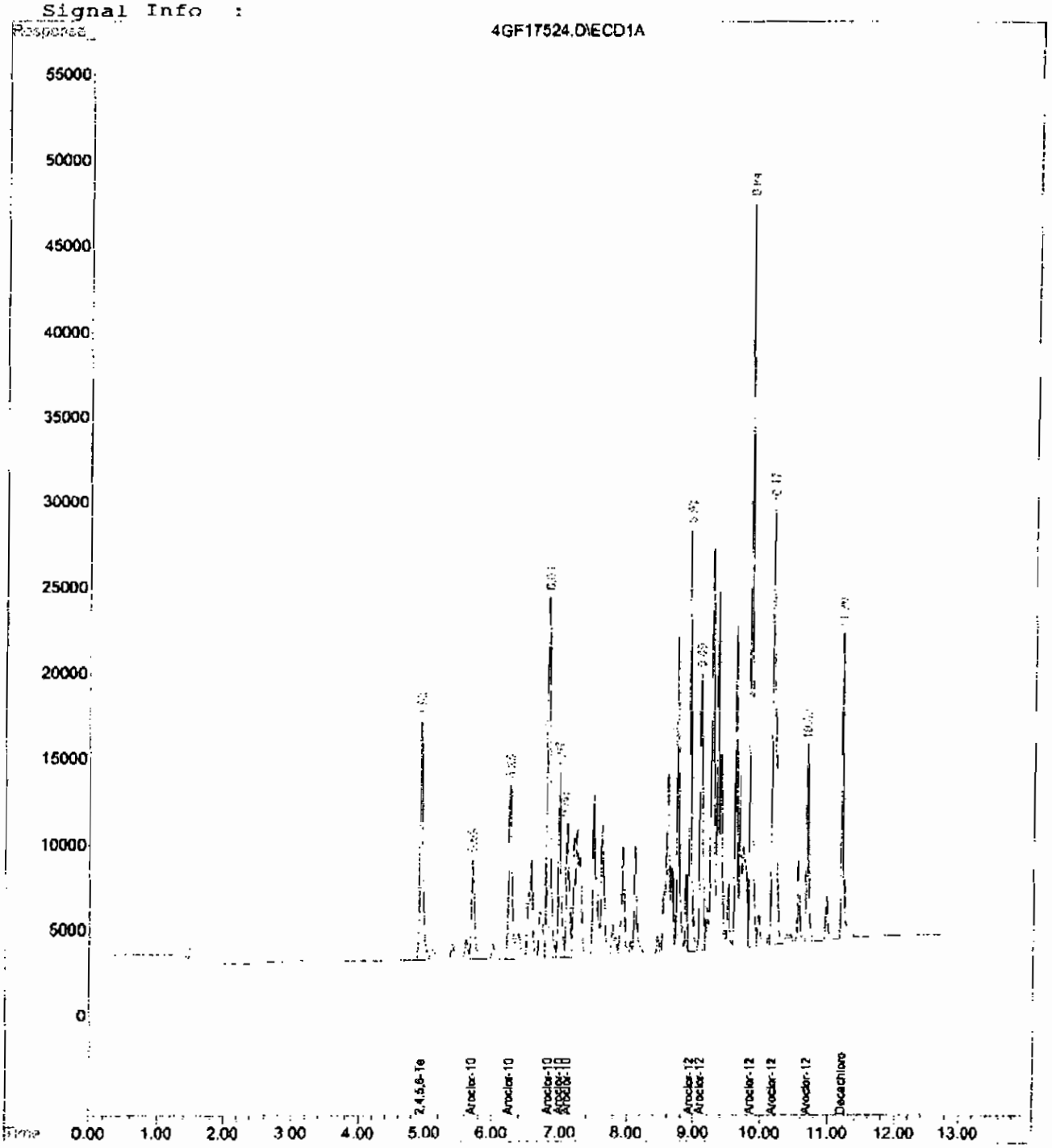
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.93	409314	60.779 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	303.90%#
12) S Decachlorobiphenyl	11.20	391845	52.902 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	264.51%#
Target Compounds			
2) L1 Aroclor-1016-1	5.70	185165	1170.990 UG/L
3) L1 Aroclor-1016-2	6.25	339948	1062.803 UG/L
4) L1 Aroclor-1016-3	6.81	724826	1164.761 UG/L
5) L1 Aroclor-1016-4	6.97	321509	1222.024 UG/L
6) L1 Aroclor-1016-5	7.09	245078	1467.761 UG/L
Sum Aroclor-1016-1		1816526	6088.339 UG/L
Average Aroclor-1016-1			1217.668 UG/L
7) L2 Aroclor-1260-1	8.94	563261	1250.844 UG/L
8) L2 Aroclor-1260-2	9.09	473200	1183.714 UG/L
9) L2 Aroclor-1260-3	9.84	976777	1351.091 UG/L
10) L2 Aroclor-1260-4	10.17	917844	1184.974 UG/L
11) L2 Aroclor-1260-5	10.68	251479	1141.410 UG/L
Sum Aroclor-1260-1		3182561	6112.032 UG/L
Average Aroclor-1260-1			1222.406 UG/L

(f) =RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17524.D Vial: 2
Acq On : 2 May 2003 13:27 Operator: ECL
Sample : WG139612-02 1660 ICAL 1000 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 15:04 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Fri May 02 15:04:29 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050203\4GF17525.D Vial: 5
Acq On : 2 May 2003 13:46 Operator: ECL
Sample : WG139612-03 1660 ICAL 500 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 15:04 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Fri May 02 15:04:44 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

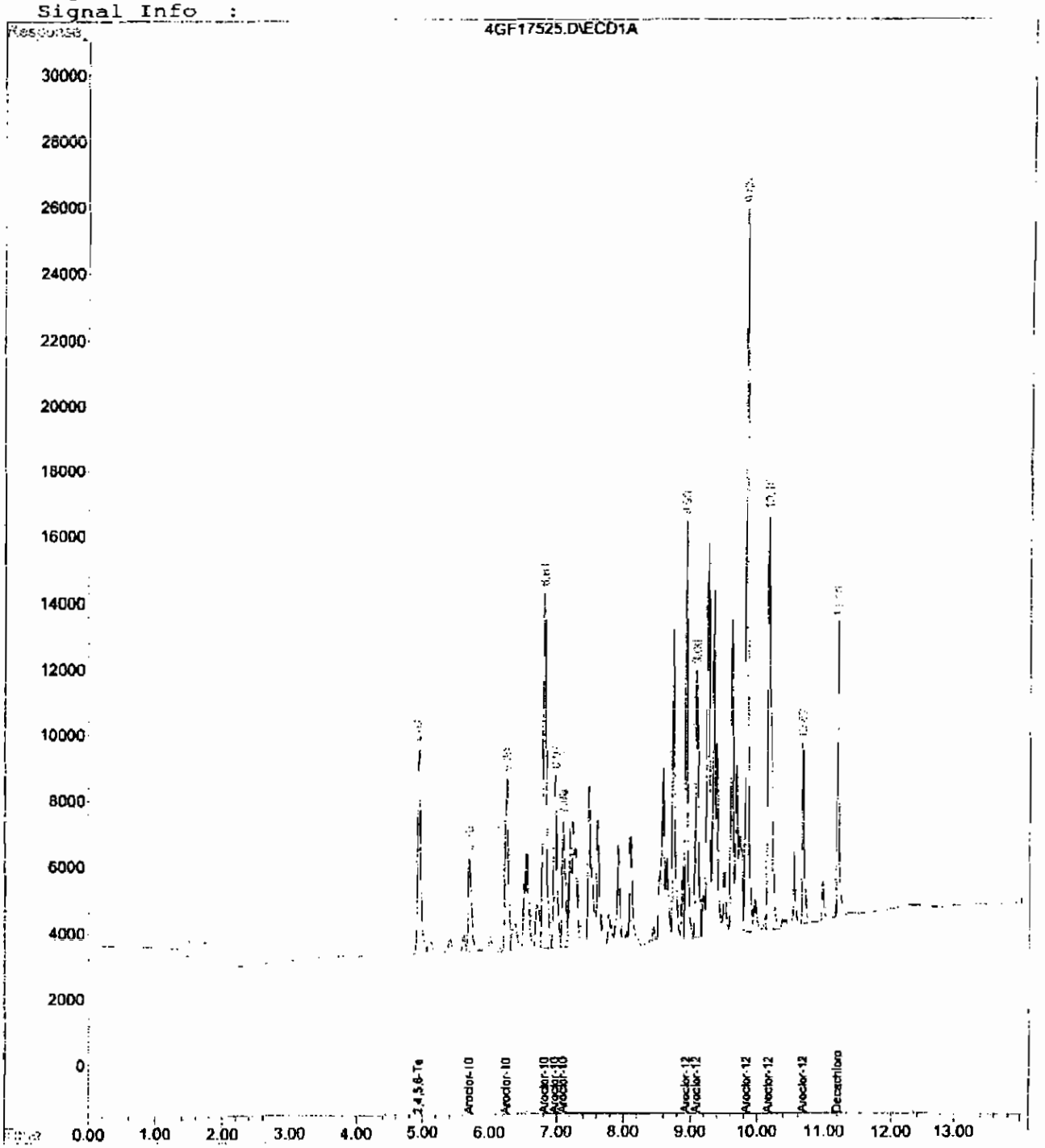
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.93	193893	27.621 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	138.10%#
12) S Decachlorobiphenyl	11.19	193911	25.809 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	129.05%
Target Compounds			
2) L1 Aroclor-1016-1	5.70	91588	551.314 UG/L
3) L1 Aroclor-1016-2	6.25	176292	533.003 UG/L
4) L1 Aroclor-1016-3	6.81	373647	572.411 UG/L
5) L1 Aroclor-1016-4	6.97	159216	572.459 UG/L
6) L1 Aroclor-1016-5	7.09	122827	668.235 UG/L
Sum Aroclor-1016-1		923569	2897.422 UG/L
Average Aroclor-1016-1			579.484 UG/L
7) L2 Aroclor-1260-1	8.93	290280	597.864 UG/L
8) L2 Aroclor-1260-2	9.09	241654	574.346 UG/L
9) L2 Aroclor-1260-3	9.83	490182	619.486 UG/L
10) L2 Aroclor-1260-4	10.16	449215	551.357 UG/L
11) L2 Aroclor-1260-5	10.67	119101	522.696 UG/L
Sum Aroclor-1260-1		1590432	2865.748 UG/L
Average Aroclor-1260-1			573.150 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17525.D Vial: 3
Acq On : 2 May 2003 13:46 Operator: ECL
Sample : WG139612-03 1660 ICAL 500 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 15:04 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Fri May 02 15:04:44 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050203\4GF17526.D Vial: 4
Acq On : 2 May 2003 14:04 Operator: ECL
Sample : WG139612-04 1660 ICAL 250 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 15:05 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Fri May 02 15:04:57 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

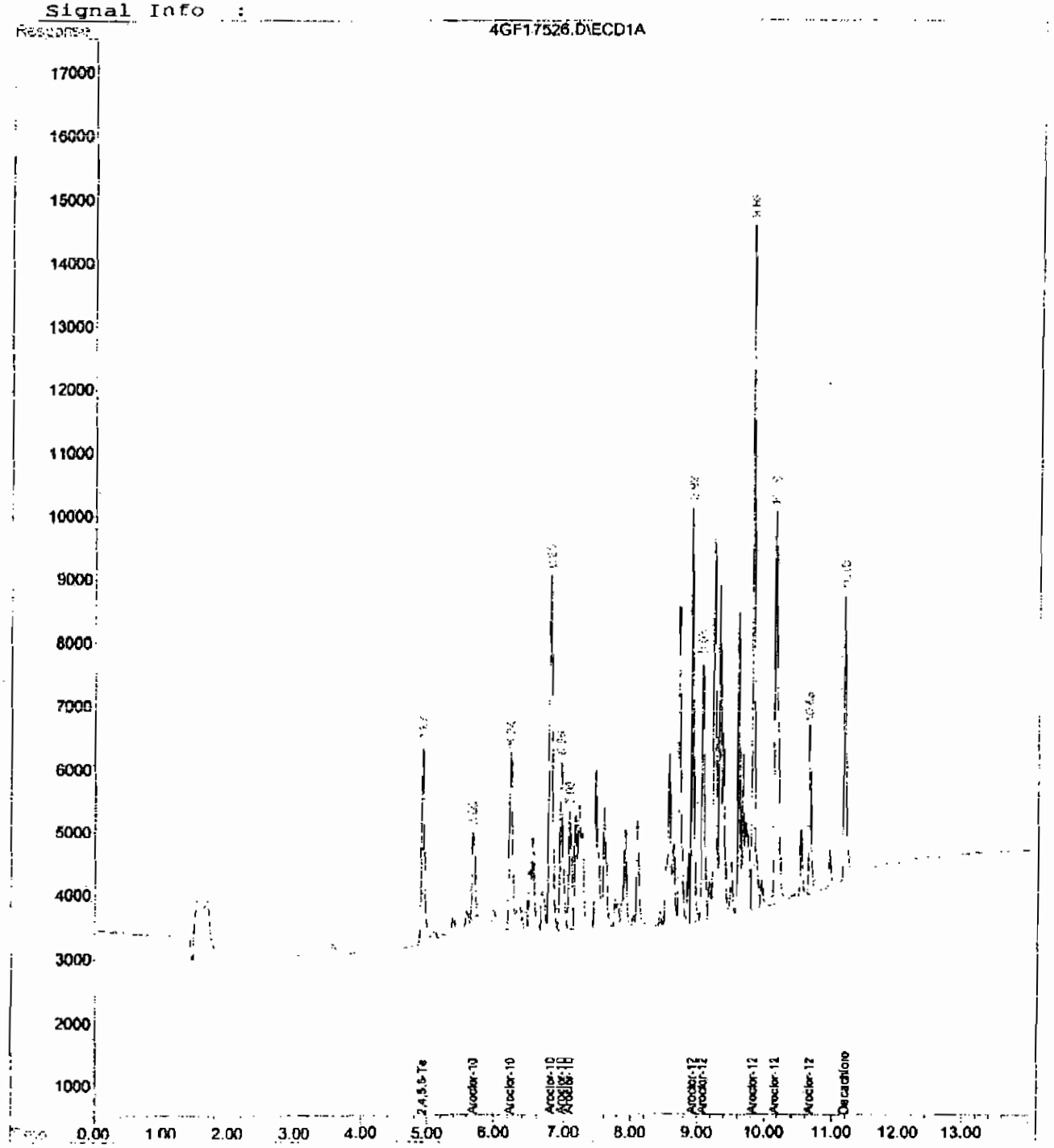
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.92	97723	13.463 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	67.31%
12) S Decachlorobiphenyl	11.19	95450	12.611 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	63.06%
Target Compounds			
2) L1 Aroclor-1016-1	5.69	47414	275.604 UG/L
3) L1 Aroclor-1016-2	6.24	96817	284.908 UG/L
4) L1 Aroclor-1016-3	6.80	192280	281.751 UG/L
5) L1 Aroclor-1016-4	6.96	78107	268.769 UG/L
6) L1 Aroclor-1016-5	7.08	58536	292.202 UG/L
Sum Aroclor-1016-1		473154	1403.234 UG/L
Average Aroclor-1016-1			280.647 UG/L
7) L2 Aroclor-1260-1	8.92	151569	292.054 UG/L
8) L2 Aroclor-1260-2	9.08	123325	279.849 UG/L
9) L2 Aroclor-1260-3	9.83	243356	283.570 UG/L
10) L2 Aroclor-1260-4	10.16	226033	266.571 UG/L
11) L2 Aroclor-1260-5	10.66	58056	250.066 UG/L
Sum Aroclor-1260-1		802339	1372.110 UG/L
Average Aroclor-1260-1			274.422 UG/L

Data File : C:\HPCHEM\2\DATA\050203\4GF17526.D Vial: 4
Acq On : 2 May 2003 14:04 Operator: ECL
Sample : WG139612-04 1660 ICAL 250 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 15:05 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Fri May 02 15:04:57 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050203\4GF17527.D Vial: 5
Acq On : 2 May 2003 14:23 Operator: ECL
Sample : WG139612-05 1660 ICAL 100 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 15:05 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Fri May 02 15:05:11 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

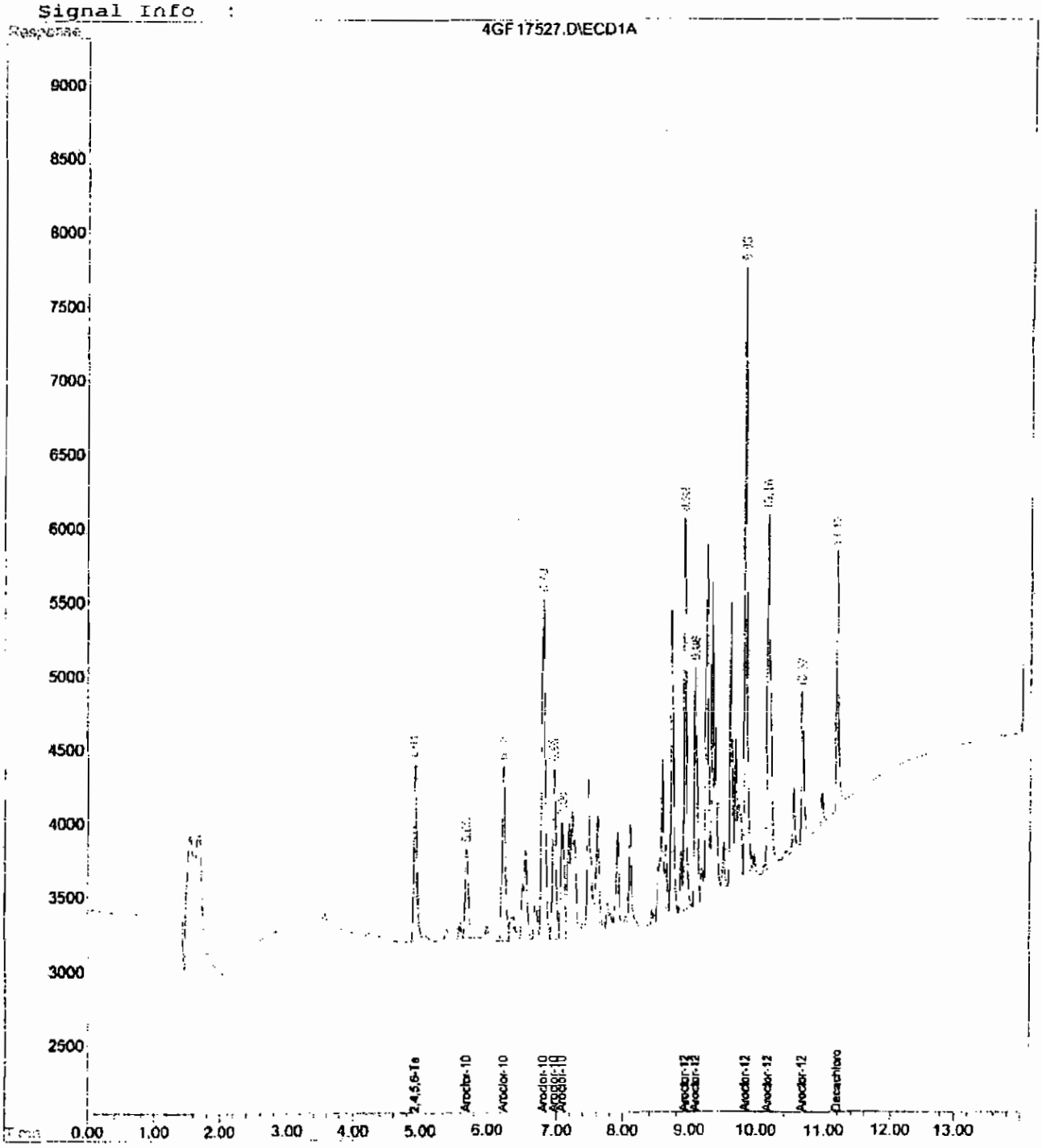
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.91	36624	4.889 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	24.45%#
12) S Decachlorobiphenyl	11.19	37106	4.912 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	24.56%#
Target Compounds			
2) L1 Aroclor-1016-1	5.68	18805	106.370 UG/L
3) L1 Aroclor-1016-2	6.24	40741	116.980 UG/L
4) L1 Aroclor-1016-3	6.80	82082	115.489 UG/L
5) L1 Aroclor-1016-4	6.96	36143	120.583 UG/L
6) L1 Aroclor-1016-5	7.08	26640	124.300 UG/L
Sum Aroclor-1016-1		204410	583.722 UG/L
Average Aroclor-1016-1			116.744 UG/L
7) L2 Aroclor-1260-1	8.92	60992	110.547 UG/L
8) L2 Aroclor-1260-2	9.08	48965	106.583 UG/L
9) L2 Aroclor-1260-3	9.83	90671	99.965 UG/L
10) L2 Aroclor-1260-4	10.16	86584	99.276 UG/L
11) L2 Aroclor-1260-5	10.67	22305	94.970 UG/L
Sum Aroclor-1260-1		309517	511.341 UG/L
Average Aroclor-1260-1			102.268 UG/L

Data File : C:\HPCHEM\2\DATA\050203\4GF17527.D Vial: 5
Acq On : 2 May 2003 14:23 Operator: ECL
Sample : WG139612-05 1660 ICAL 100 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 15:05 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Fri May 02 15:05:11 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050203\4GF17528.D Vial: 6
Acq On : 2 May 2003 14:41 Operator: ECL
Sample : WG139612-06 1660 ICAL 50 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 15:05 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Fri May 02 15:05:27 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

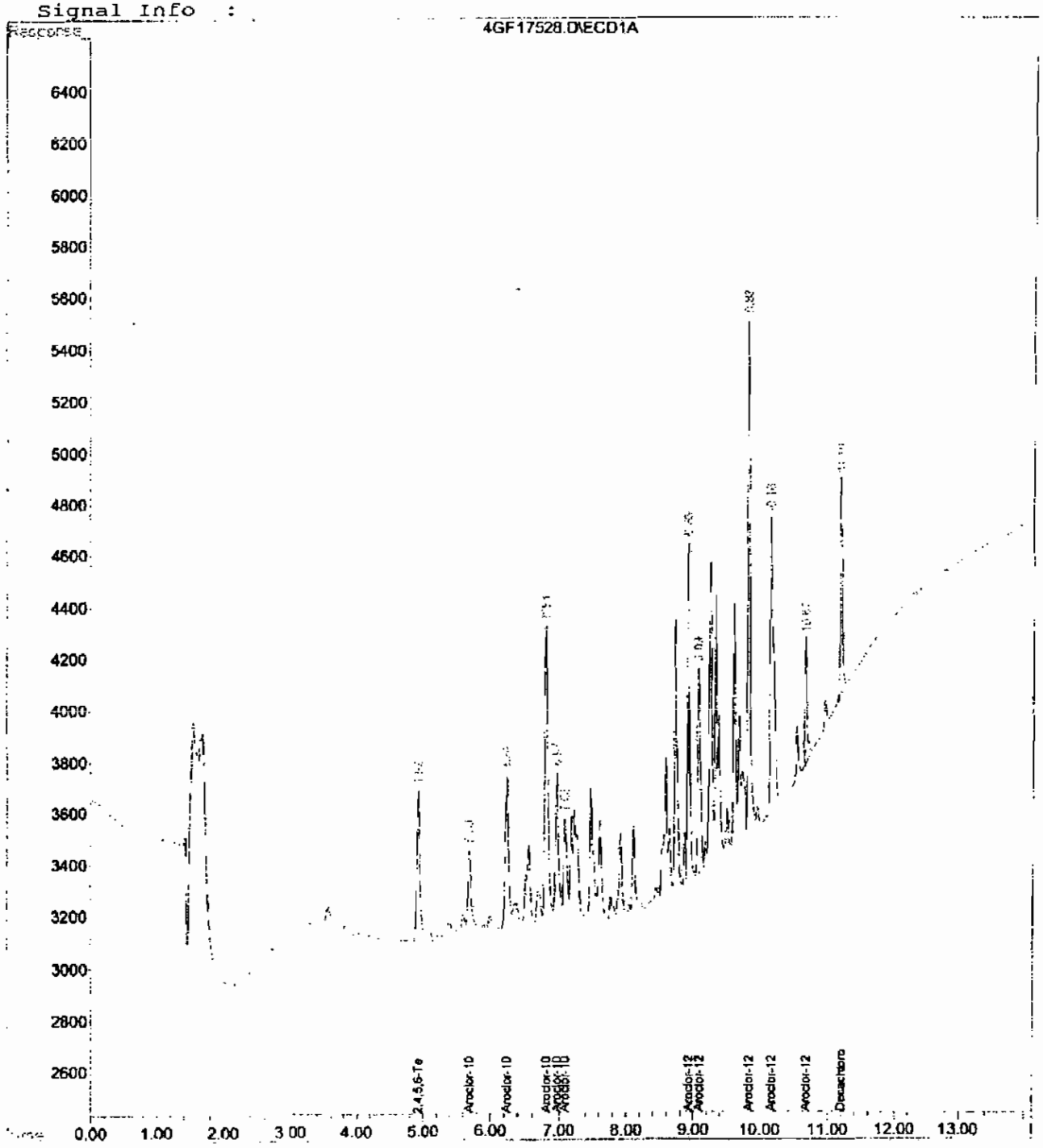
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.92	17940	2.343 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	11.72%#
12) S Decachlorobiphenyl	11.19	16886	2.257 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	11.29%#
Target Compounds			
2) L1 Aroclor-1016-1	5.69	8627	47.998 UG/L
3) L1 Aroclor-1016-2	6.24	18177	50.980 UG/L
4) L1 Aroclor-1016-3	6.81	38836	52.195 UG/L
5) L1 Aroclor-1016-4	6.97	15129	47.880 UG/L
6) L1 Aroclor-1016-5	7.09	9684	41.411 UG/L
Sum Aroclor-1016-1		90453	240.464 UG/L
Average Aroclor-1016-1			48.093 UG/L
7) L2 Aroclor-1260-1	8.93	30798	53.129 UG/L
8) L2 Aroclor-1260-2	9.09	24051	50.637 UG/L
9) L2 Aroclor-1260-3	9.84	44273	47.070 UG/L
10) L2 Aroclor-1260-4	10.17	41971	47.362 UG/L
11) L2 Aroclor-1260-5	10.67	10890	46.238 UG/L
Sum Aroclor-1260-1		151983	244.437 UG/L
Average Aroclor-1260-1			48.887 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17528.D Vial: 6
Acq On : 2 May 2003 14:41 Operator: ECL
Sample : WG139612-06 1660 ICAL 50 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 15:05 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Fri May 02 15:05:27 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050203\4GF17529.D Vial: 7
Acq On : 2 May 2003 15:00 Operator: ECL
Sample : WG139612-07 1660 ALT ICV 500 PPB Inst : HP4
Misc : 1,1 SOS63-14 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Fri May 02 15:05:39 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	25.000	26.121	-4.5	103	0.00
2	L1	Aroclor-1016-1	500.000	506.617	-1.3	99	0.00
3	L1	Aroclor-1016-2	500.000	482.699	3.5	98	0.00
4	L1	Aroclor-1016-3	500.000	481.367	3.7	96	0.00
5	L1	Aroclor-1016-4	500.000	498.211	0.4	99	0.00
6	L1	Aroclor-1016-5	500.000	497.797	0.4	95	0.00
7	L2	Aroclor-1260-1	500.000	495.502	0.9	99	0.00
8	L2	Aroclor-1260-2	500.000	503.186	-0.6	99	0.00
9	L2	Aroclor-1260-3	500.000	460.271	7.9	88	0.00
10	L2	Aroclor-1260-4	500.000	441.180	11.8	87	0.00
11	L2	Aroclor-1260-5	500.000	400.165	20.0#	79	0.00
12	S	Decachlorobiphenyl	25.000	25.750	-3.0	99	0.00

Data File : C:\HPCHEM\2\DATA\050203\4GF17529.D Vial: 7
Acq On : 2 May 2003 15:00 Operator: ECL
Sample : WG139612-07 1660 ALT ICV 500 PPB Inst : HP4
Misc : 1,1 SOS63-14 Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 15:17 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Fri May 02 15:05:39 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

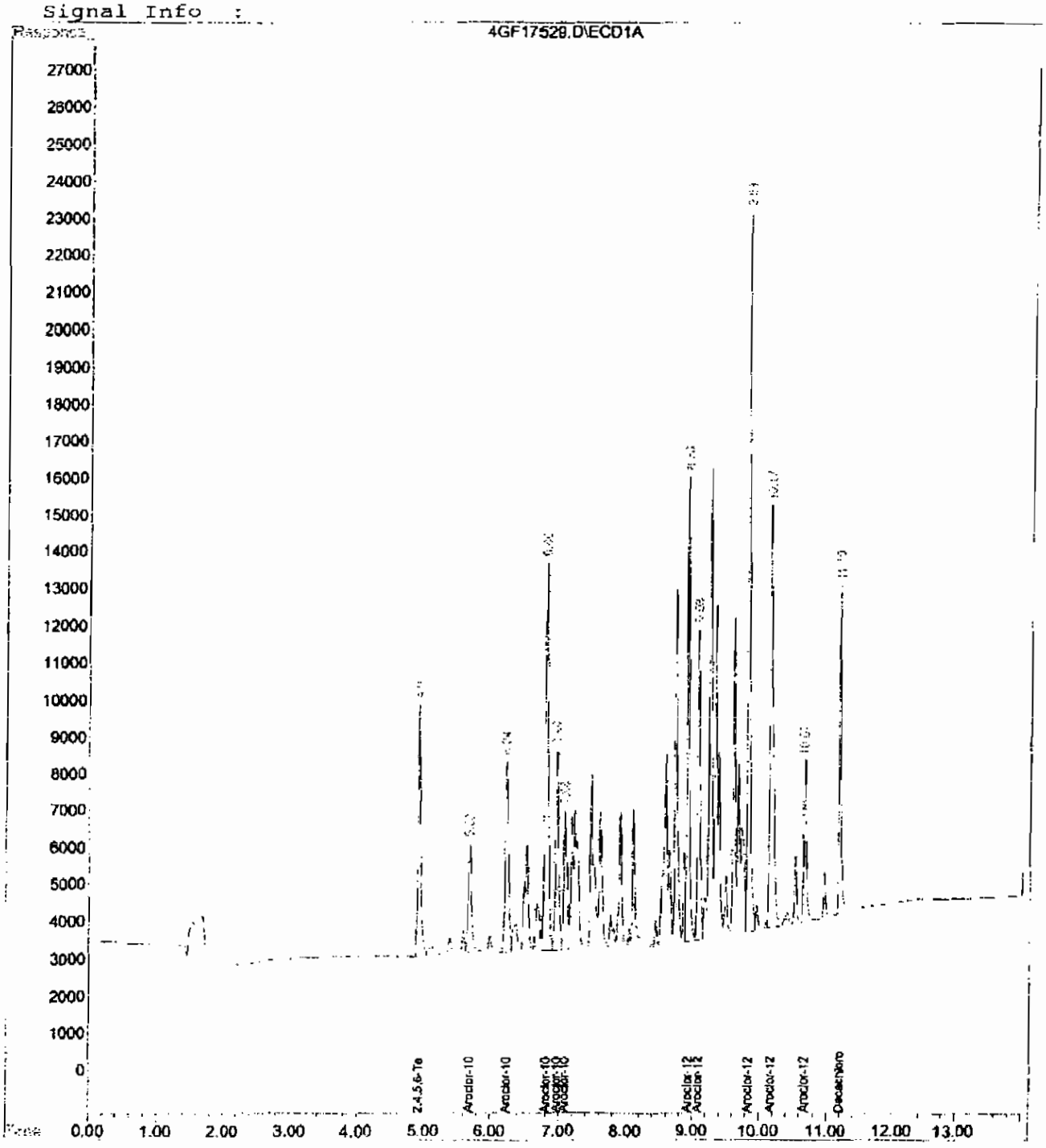
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.92	199969	26.121 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery = 130.60%	
12) S Decachlorobiphenyl	11.19	192618	25.750 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery = 128.75%	
Target Compounds			
2) L1 Aroclor-1016-1	5.69	91060	506.617 UG/L
3) L1 Aroclor-1016-2	6.24	172104	482.699 UG/L
4) L1 Aroclor-1016-3	6.81	358158	481.367 UG/L
5) L1 Aroclor-1016-4	6.97	157427	498.211 UG/L
6) L1 Aroclor-1016-5	7.09	116412	497.797 UG/L
Sum Aroclor-1016-1		895162	2466.690 UG/L
Average Aroclor-1016-1			493.338 UG/L
7) L2 Aroclor-1260-1	8.93	287231	495.502 UG/L
8) L2 Aroclor-1260-2	9.09	238997	503.186 UG/L
9) L2 Aroclor-1260-3	9.84	432924	460.271 UG/L
10) L2 Aroclor-1260-4	10.17	390958	441.180 UG/L
11) L2 Aroclor-1260-5	10.67	94247	400.165 UG/L
Sum Aroclor-1260-1		1444357	2300.304 UG/L
Average Aroclor-1260-1			460.061 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17529.D Vial: 7
Acq On : 2 May 2003 15:00 Operator: ECL
Sample : WG139612-07 1660 ALT ICV 500 PPB Inst : HP4
Misc : 1,1 SQS63-14 Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 15:17 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Fri May 02 15:05:39 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1709
Last Update : Sun May 04 12:35:25 2003

Calibration Files
2000 =4GF17530.D 1000 =4GF17531.D 500 =4GF17532.D
250 =4GF17533.D 100 =4GF17534.D 50 =4GF17535.D

		Compound	2000	1000	500	250	100	50	Avg		%RSD
1)	S	2,4,5,6-Tetrachloro	8.043	8.200	8.169	7.881	7.656	7.169	7.853	E3	4.98
2)	L1	Aroclor-1254-1	1.160	1.207	1.196	1.252	1.153	1.172	1.190	E2	3.08
3)	L1	Aroclor-1254-2	3.242	3.605	3.789	4.007	4.189	4.139	3.829	E2	9.44
4)	L1	Aroclor-1254-3	5.474	5.918	6.016	6.168	6.470	6.515	6.093	E2	6.34
5)	L1	Aroclor-1254-4	2.923	3.149	3.154	3.136	3.633	3.136	3.189	E2	7.38
6)	L1	Aroclor-1254-5	5.284	5.936	5.544	5.579	6.608	4.813	5.628	E2	10.80
7)	S	Decachlorobiphenyl	7.063	7.335	7.146	7.102	6.888	6.654	7.031	E3	3.33

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\050203\4GF17531.D Vial: 9
Acq On : 2 May 2003 15:37 Operator: ECL
Sample : 1254 ICAL 1000 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:35 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1709
Last Update : Sun May 04 12:35:23 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

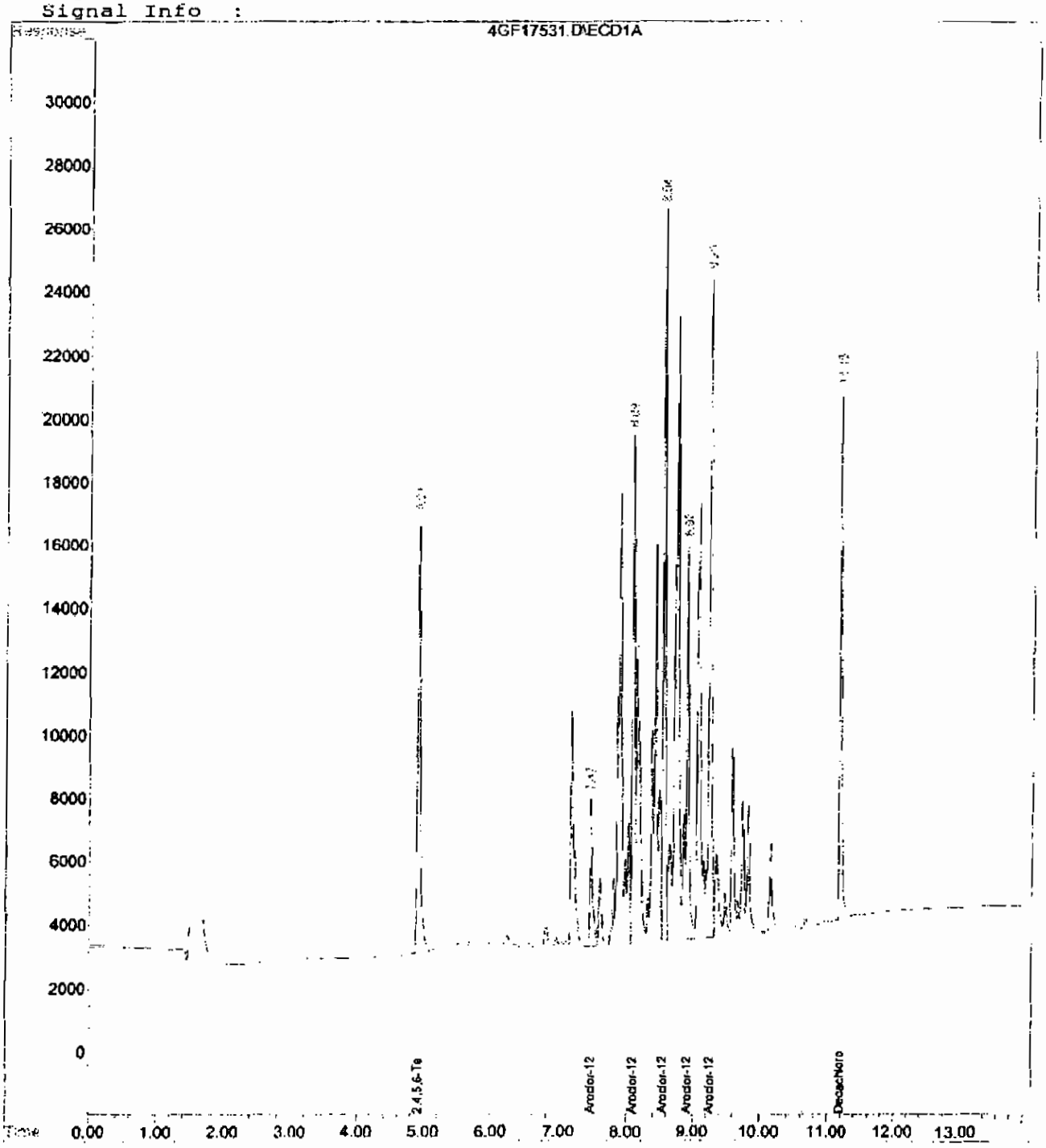
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.91	410001	50.977 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery = 254.88%#	
7) S Decachlorobiphenyl	11.19	366757	51.929 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery = 259.64%#	
Target Compounds			
2) L1 Aroclor-1254-1	7.47	120673	1040.030 UG/L
3) L1 Aroclor-1254-2	8.09	360514	1111.853 UG/L
4) L1 Aroclor-1254-3	8.55	591791	1081.118 UG/L
5) L1 Aroclor-1254-4	8.92	314865	1077.202 UG/L
6) L1 Aroclor-1254-5	9.25	593601	1123.462 UG/L
Sum Aroclor-1254-1		1981444	5433.665 UG/L
Average Aroclor-1254-1			1086.733 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17531.D Vial: 9
Acq On : 2 May 2003 15:37 Operator: ECL
Sample : 1254 ICAL 1000 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:35 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1709
Last Update : Sun May 04 12:35:23 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



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Data File : C:\HPCHEM\2\DATA\050203\4GF17532.D          Vial: 10
Acq On    :  2 May 2003  15:55                        Operator: ECL
Sample    : 1254 ICAL 500 PPB                         Inst    : HP4
Misc      : SOS63-41                                  Multiplr: 1.00
IntFile   : events.e
Quant Time: May  4 12:35 2003  Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title        : CALIBRATION May 2, 2003  @  1709
Last Update  : Sun May 04 12:35:24 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj.  :
Signal Phase :
Signal Info  :
```

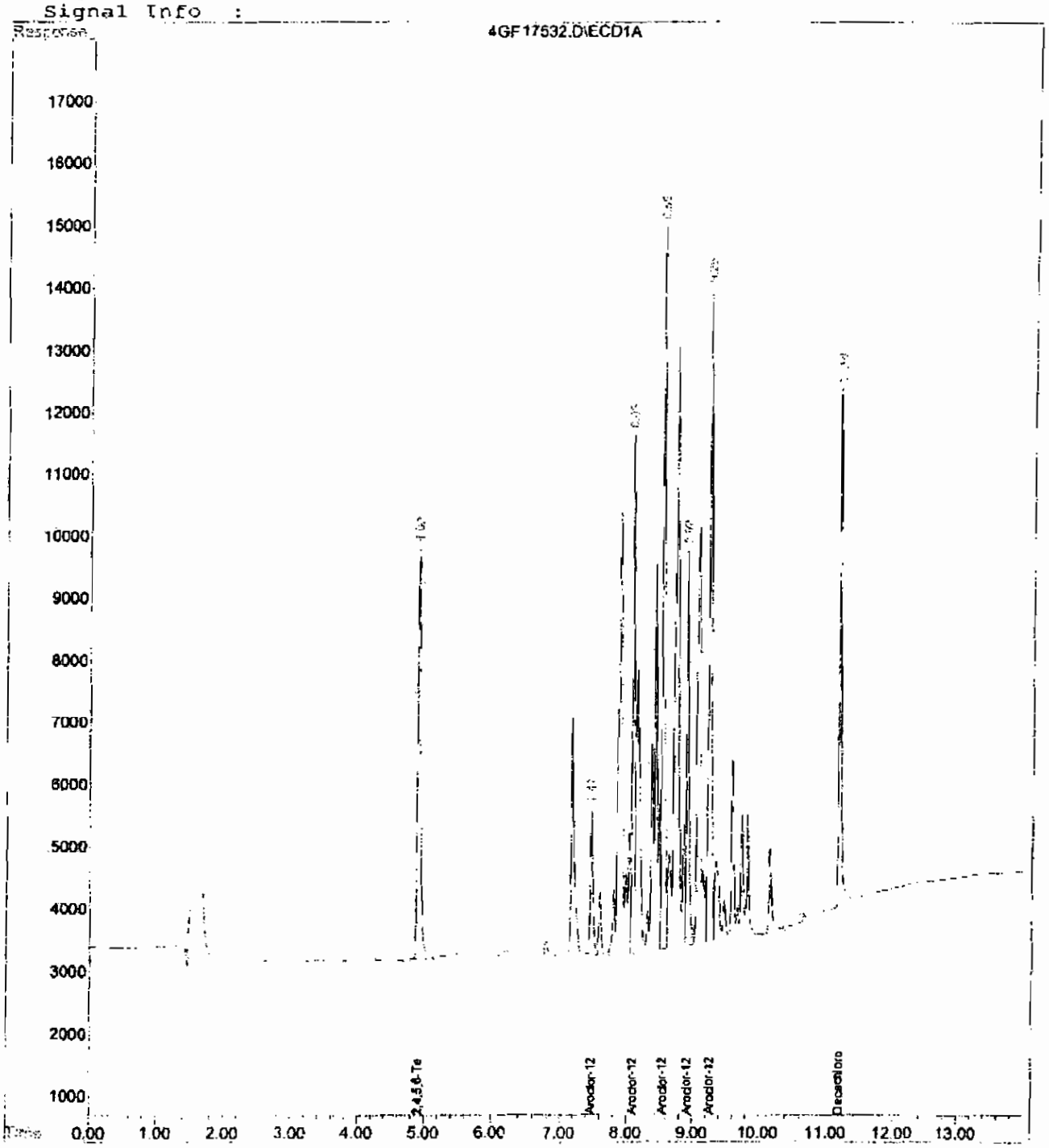
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.90	204233	25.147 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	125.74%
7) S Decachlorobiphenyl	11.18	178650	24.816 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	124.08%
Target Compounds			
2) L1 Aroclor-1254-1	7.47	59795	505.231 UG/L
3) L1 Aroclor-1254-2	8.09	189438	553.297 UG/L
4) L1 Aroclor-1254-3	8.55	300815	528.125 UG/L
5) L1 Aroclor-1254-4	8.92	157720	519.531 UG/L
6) L1 Aroclor-1254-5	9.25	277220	494.168 UG/L
Sum Aroclor-1254-1		984987	2600.351 UG/L
Average Aroclor-1254-1			520.070 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17532.D Vial: 10
Acq On : 2 May 2003 15:55 Operator: ECL
Sample : 1254 ICAL 500 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:35 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1709
Last Update : Sun May 04 12:35:24 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050203\4GF17533.D Vial: 11
Acq On : 2 May 2003 16:13 Operator: ECL
Sample : 1254 ICAL 250 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:35 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1709
Last Update : Sun May 04 12:35:24 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

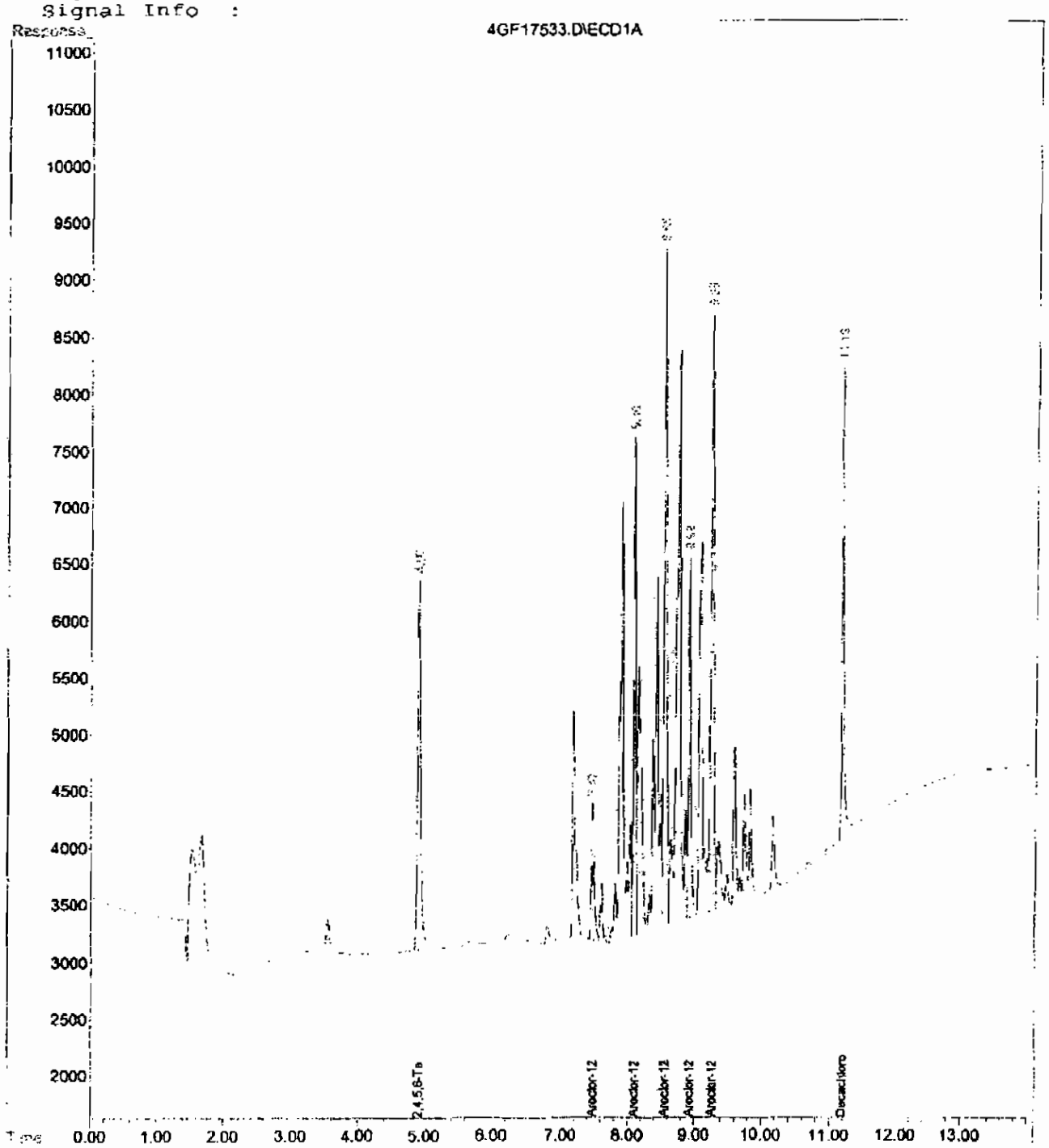
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.91	98506	12.105 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	60.53%
7) S Decachlorobiphenyl	11.18	88771	12.361 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	61.81%
Target Compounds			
2) L1 Aroclor-1254-1	7.47	31289	263.459 UG/L
3) L1 Aroclor-1254-2	8.10	100174	282.541 UG/L
4) L1 Aroclor-1254-3	8.55	154199	265.737 UG/L
5) L1 Aroclor-1254-4	8.92	76399	254.927 UG/L
6) L1 Aroclor-1254-5	9.26	139487	249.618 UG/L
Sum Aroclor-1254-1		503548	1316.282 UG/L
Average Aroclor-1254-1			263.256 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17533.D Vial: 11
Acq On : 2 May 2003 16:13 Operator: ECL
Sample : 1254 ICAL 250 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:35 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1709
Last Update : Sun May 04 12:35:24 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050203\4GF17534.D Vial: 12
Acq On : 2 May 2003 16:32 Operator: ECL
Sample : 1254 ICAL 100 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:35 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1709
Last Update : Sun May 04 12:35:24 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

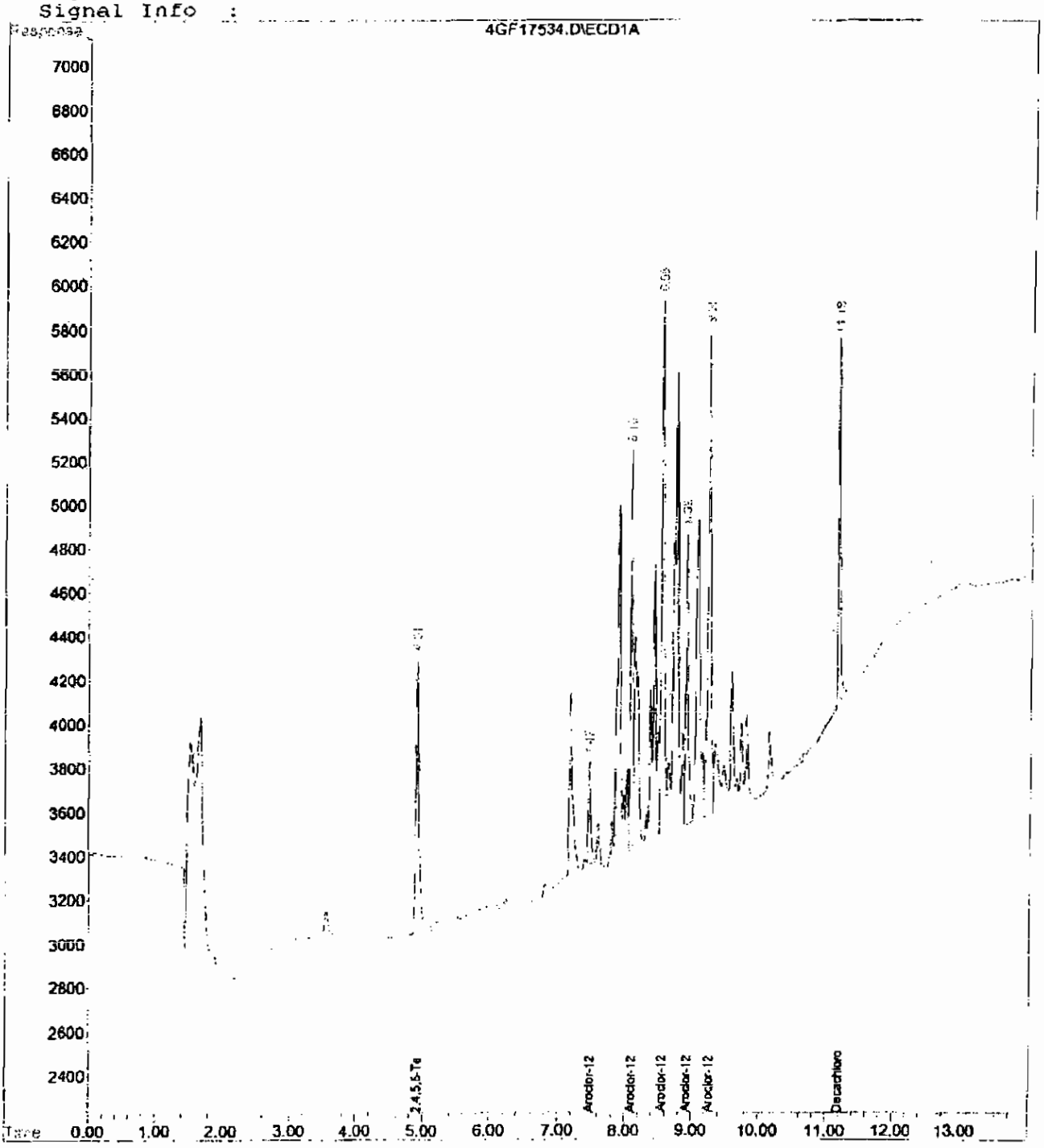
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.91	38280	4.742 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	23.71%#
7) S Decachlorobiphenyl	11.18	34442	4.809 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	24.04%#
Target Compounds			
2) L1 Aroclor-1254-1	7.47	11526	95.757 UG/L
3) L1 Aroclor-1254-2	8.10	41893	114.435 UG/L
4) L1 Aroclor-1254-3	8.55	64697	109.768 UG/L
5) L1 Aroclor-1254-4	8.92	36334	117.567 UG/L
6) L1 Aroclor-1254-5	9.26	66085	118.306 UG/L
Sum Aroclor-1254-1		220534	555.833 UG/L
Average Aroclor-1254-1			111.167 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17534.D Vial: 12
Acq On : 2 May 2003 16:32 Operator: ECL
Sample : 1254 TCAL 100 PPB Inst : HP4
Misc : SO563-41 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:35 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1709
Last Update : Sun May 04 12:35:24 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050203\4GF17535.D Vial: 13
Acq On : 2 May 2003 16:50 Operator: ECL
Sample : 1254 ICAL 50 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:35 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1709
Last Update : Sun May 04 12:35:25 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

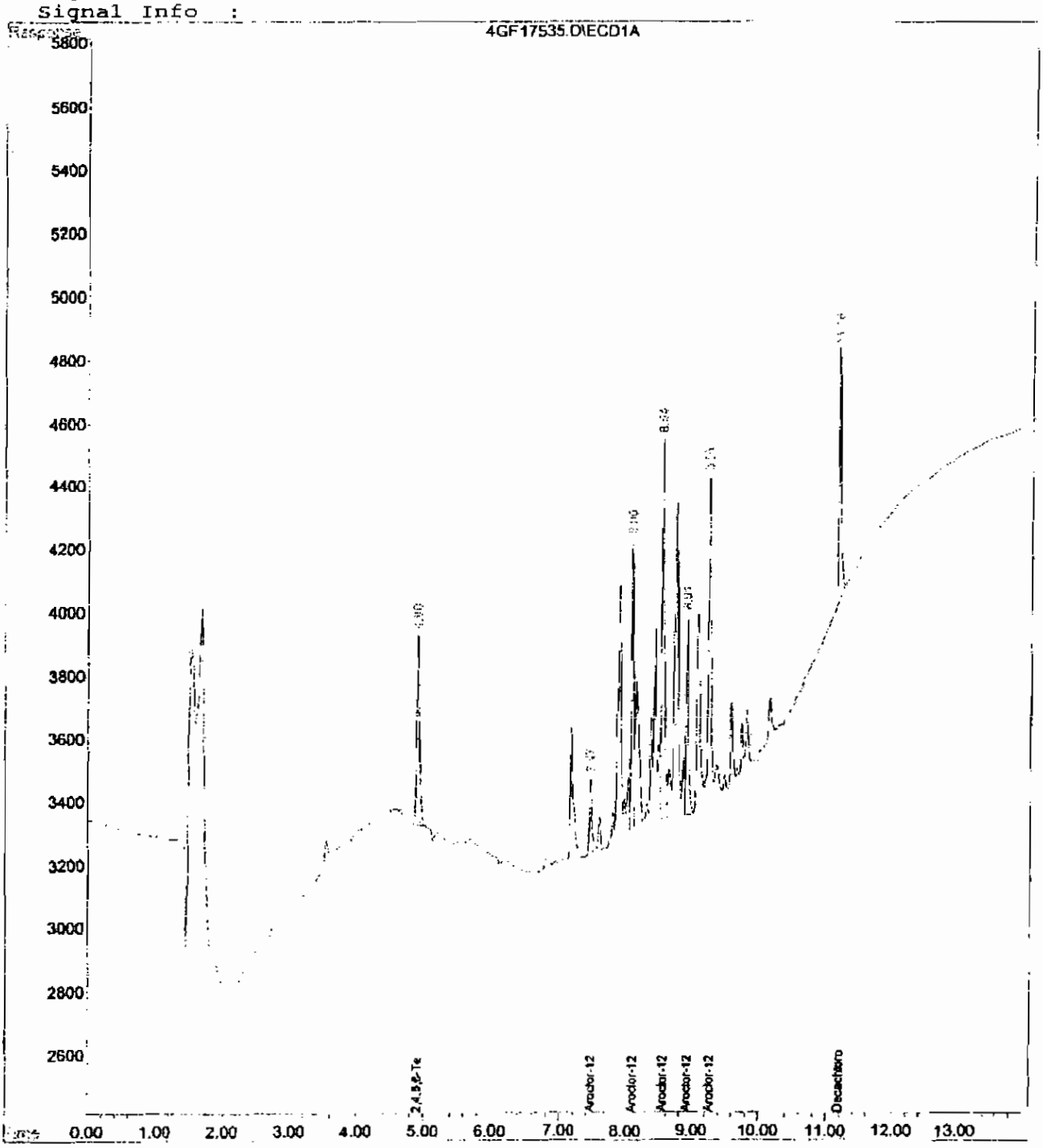
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.90	17922	2.243 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery =	11.22%#
7) S Decachlorobiphenyl	11.18	16635	2.341 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery =	11.71%#
Target Compounds			
2) L1 Aroclor-1254-1	7.47	5858	49.087 UG/L
3) L1 Aroclor-1254-2	8.09	20696	54.947 UG/L
4) L1 Aroclor-1254-3	8.55	32575	54.209 UG/L
5) L1 Aroclor-1254-4	8.92	15679	49.012 UG/L
6) L1 Aroclor-1254-5	9.25	24065	41.560 UG/L
Sum Aroclor-1254-1		98873	248.815 UG/L
Average Aroclor-1254-1			49.763 UG/L

Data File : C:\HPCHEM\2\DATA\050203\4GF17535.D Vial: 13
Acq On : 2 May 2003 16:50 Operator: ECL
Sample : 1254 ICAL 50 PPB Inst : HP4
Misc : SOS63-41 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:35 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1709
Last Update : Sun May 04 12:35:25 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050203\4GF17536.D Vial: 14
Acq On : 2 May 2003 17:09 Operator: ECL
Sample : 1254 ALT ICV 500 PPB Inst : HP4
Misc : SOS63-08 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1709
Last Update : Sun May 04 12:35:25 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	L1	Aroclor-1254-1	500.000	507.021	-1.4	101	0.00
3	L1	Aroclor-1254-2	500.000	505.479	-1.1	102	0.00
4	L1	Aroclor-1254-3	500.000	503.327	-0.7	102	0.00
5	L1	Aroclor-1254-4	500.000	484.486	3.1	98	0.00
6	L1	Aroclor-1254-5	500.000	486.715	2.7	99	0.00

Data File : C:\HPCHEM\2\DATA\050203\4GF17536.D Vial: 14
Acq On : 2 May 2003 17:09 Operator: ECL
Sample : 1254 ALT ICV 500 PPB Inst : HP4
Misc : SOS63-08 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:36 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1709
Last Update : Sun May 04 12:35:25 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

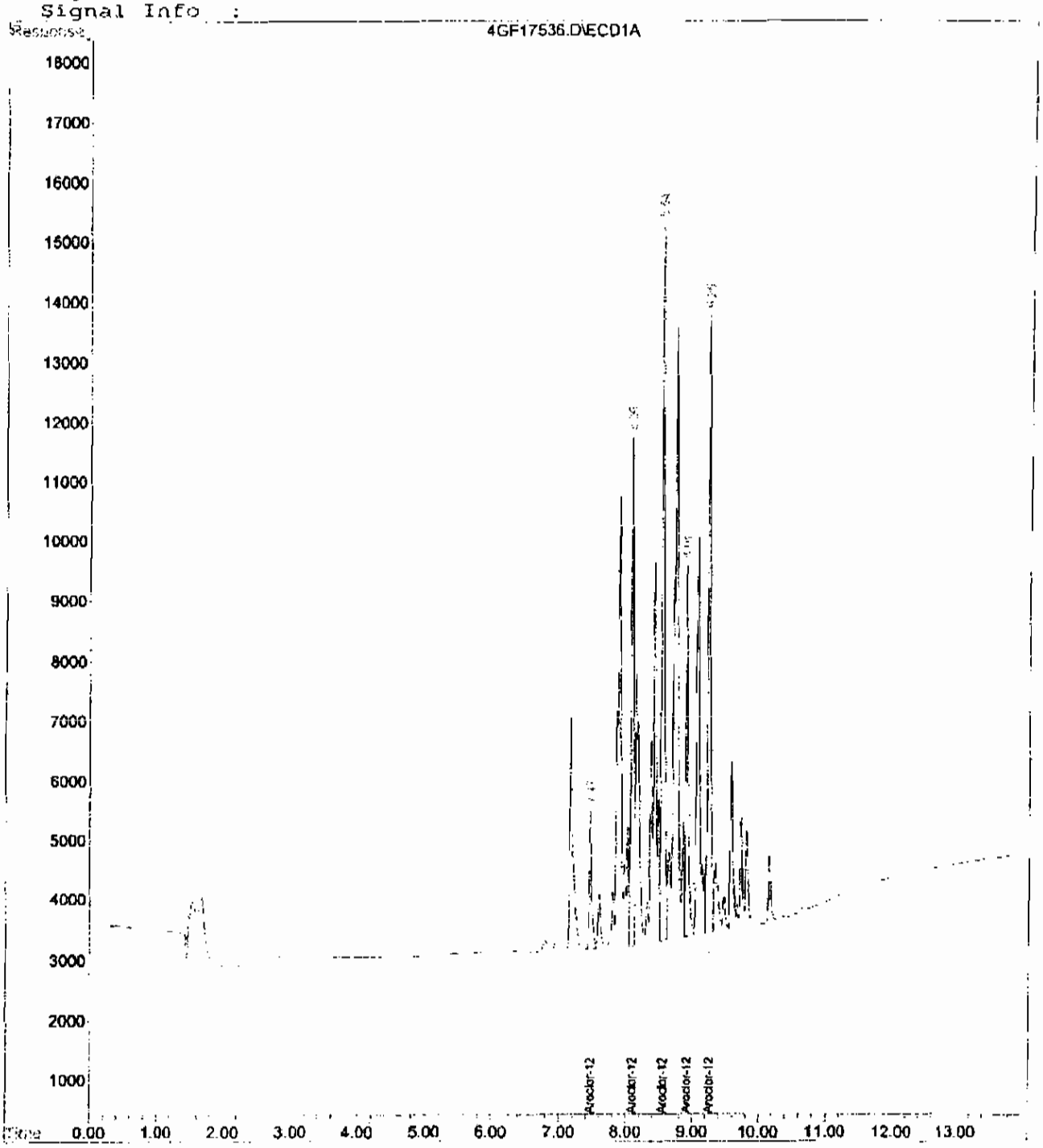
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	0.00	0	N.D. UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	0.00%#
7) S Decachlorobiphenyl	0.00	0	N.D. UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	0.00%#
Target Compounds			
2) L1 Aroclor-1254-1	7.47	60324	507.021 UG/L
3) L1 Aroclor-1254-2	8.09	193529	505.479 UG/L
4) L1 Aroclor-1254-3	8.54	306701	503.327 UG/L
5) L1 Aroclor-1254-4	8.92	154480	484.486 UG/L
6) L1 Aroclor-1254-5	9.25	273900	486.715 UG/L
Sum Aroclor-1254-1		988933	2487.028 UG/L
Average Aroclor-1254-1			497.406 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17536.D Vial: 14
Acq On : 2 May 2003 17:09 Operator: ECL
Sample : 1254 ALT (CV 500 PPB Inst : HP4
Misc : SOS63-08 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:36 2003 Quant Results File: 1254F.RES

Quant Method : C:\HPCHEM\2\METHODS\1254F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1709
Last Update : Sun May 04 12:35:25 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\2\METHODS\1248SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:38:51 2003

Calibration Files
500 =4GF17537.D = =
= =

		Compound	500	Avg	%RSD
1)	S	2,4,5,6-Tetrachloro-M	7.732	7.732#E3	0.00
2)	L1	Aroclor-1248-1	1.414	1.414#E2	0.00
3)	L1	Aroclor-1248-2	4.865	4.865#E2	0.00
4)	L1	Aroclor-1248-3	3.499	3.499#E2	0.00
5)	L1	Aroclor-1248-4	4.782	4.782#E2	0.00
6)	L1	Aroclor-1248-5	1.935	1.935#E2	0.00
7)	S	Decachlorobiphenyl	6.561	6.561#E3	0.00

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\050203\4GF17537.D Vial: 15
Acq On : 2 May 2003 17:27 Operator: ECL
Sample : 1248 500 PPB Inst : HP4
Misc : SOS64-45 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:38 2003 Quant Results File: 1248SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1248SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:38:51 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

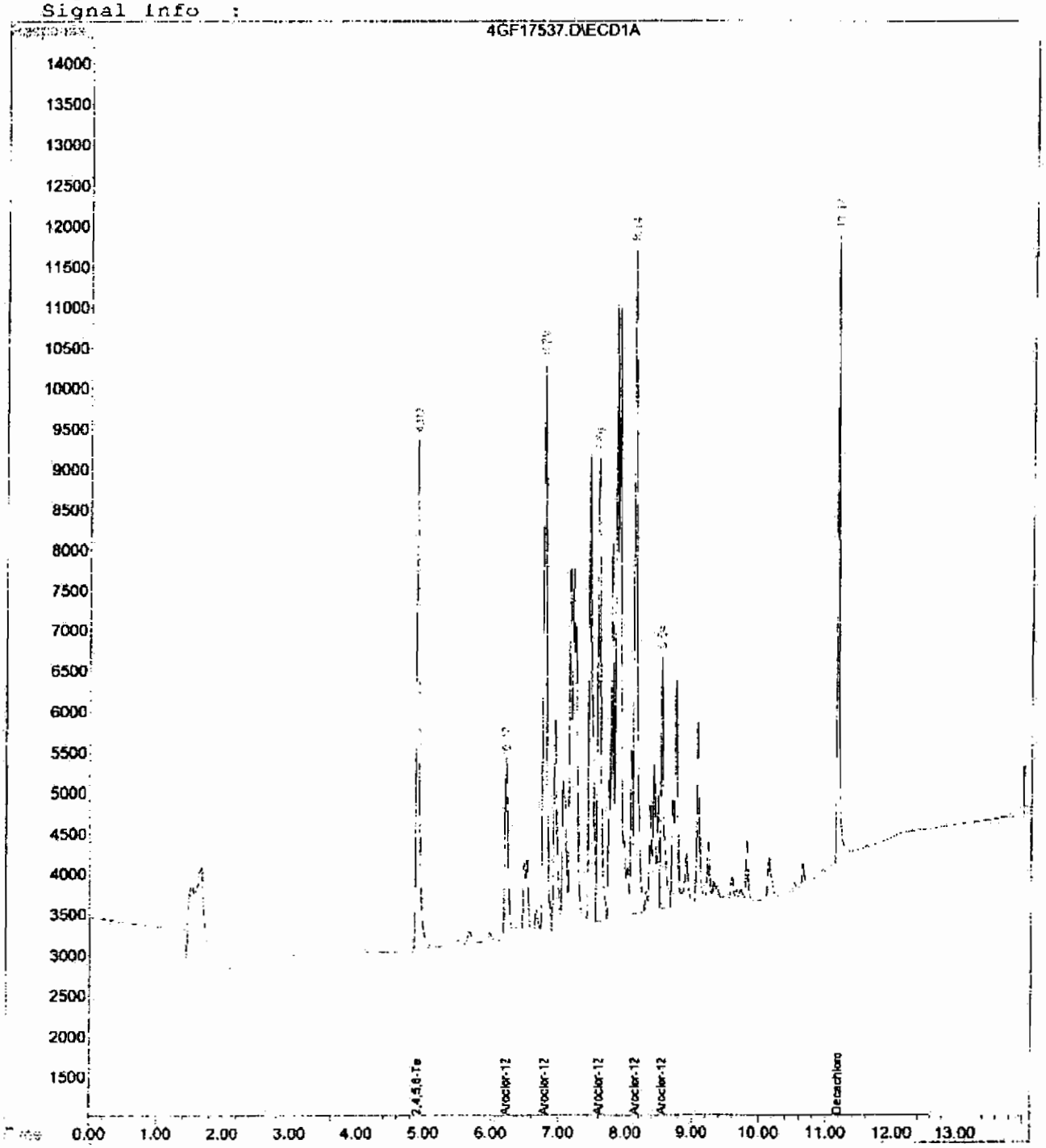
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.90	193307	25.000	UG/L
Spiked Amount 20.000	Recovery	=	125.00%	
7) S Decachlorobiphenyl	11.17	164015	25.000	UG/L
Spiked Amount 20.000	Recovery	=	125.00%	
Target Compounds				
2) L1 Aroclor-1248-1	6.22	70721	500.000	UG/L
3) L1 Aroclor-1248-2	6.79	243272	500.000	UG/L
4) L1 Aroclor-1248-3	7.60	174975	500.000	UG/L
5) L1 Aroclor-1248-4	8.14	239096	500.000	UG/L
6) L1 Aroclor-1248-5	8.54	96748	500.000	UG/L
Sum Aroclor-1248-1		824812	2500.000	UG/L
Average Aroclor-1248-1			500.000	UG/L

Data File : C:\HPCHEM\2\DATA\050203\4GF17537.D Vial: 15
Acq On : 2 May 2003 17:27 Operator: ECL
Sample : 1248 500 PPB Inst : HP4
Misc : SOS64-45 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:38 2003 Quant Results File: 1248SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1248SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:38:51 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\030503\4GF17538.D Vial: 16
Acq On : 2 May 2003 17:45 Operator: ECL
Sample : 1248 ALT 500 PPB Inst : HP4
Misc : SOS64-08 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1248SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:38:51 2003
Response via : Single Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	L1	Aroclor-1248-1	500.000	471.421	5.7	94	0.00
3	L1	Aroclor-1248-2	500.000	385.846	22.8#	77	0.00
4	L1	Aroclor-1248-3	500.000	483.403	3.3	97	0.00
5	L1	Aroclor-1248-4	500.000	499.149	0.2	100	0.00
6	L1	Aroclor-1248-5	500.000	558.861	-11.8	112	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4GF17538.D 1248SF.M Sun May 04 12:39:18 2003 Page 1

Data File : C:\HPCHEM\2\DATA\050203\4GF17538.D Vial: 16
Acq On : 2 May 2003 17:45 Operator: ECL
Sample : 1248 ALT 500 PPB Inst : HP4
Misc : SOS64-08 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:39 2003 Quant Results File: 1248SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1248SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:38:51 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

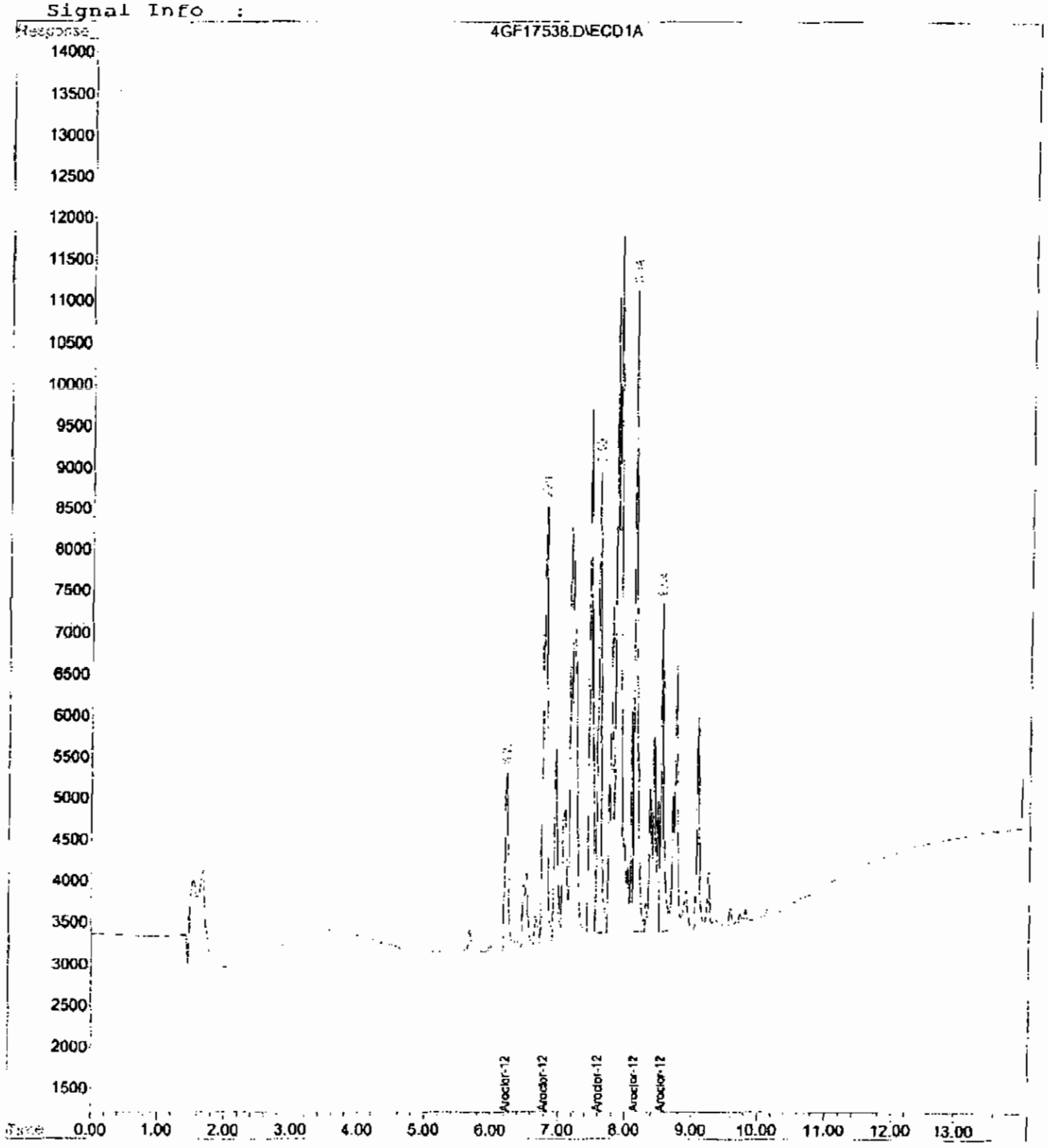
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5,6-Tetrachloro-M-Xyle	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
7) S Decachlorobiphenyl	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
Target Compounds				
2) L1 Aroclor-1248-1	6.22	66679	471.421	UG/L
3) L1 Aroclor-1248-2	6.79	187731	385.846	UG/L
4) L1 Aroclor-1248-3	7.59	169166	483.403	UG/L
5) L1 Aroclor-1248-4	8.14	238690	499.149	UG/L
6) L1 Aroclor-1248-5	8.54	108137	558.861	UG/L
Sum Aroclor-1248-1		770403	2398.679	UG/L
Average Aroclor-1248-1			479.736	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17538.D Vial: 16
Acq On : 2 May 2003 17:45 Operator: ECL
Sample : 1248 ALT 500 PPB Inst : HP4
Misc : SOS64-08 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:39 2003 Quant Results File: 1248SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1248SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:38:51 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\2\METHODS\1242SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:40:07 2003

Calibration Files
500 =4GF17539.D = =
= =

		Compound	500	Avg	%RSD
1)	S	2,4,5,6-Tetrachloro-M	7.602	7.602#E3	0.00
2)	L1	Aroclor-1242-1	1.541	1.541#E2	0.00
3)	L1	Aroclor-1242-2	2.734	2.734#E2	0.00
4)	L1	Aroclor-1242-3	5.757	5.757#E2	0.00
5)	L1	Aroclor-1242-4	2.520	2.520#E2	0.00
6)	L1	Aroclor-1242-5	2.680	2.680#E2	0.00
7)	S	Decachlorobipheny1	6.613	6.613#E3	0.00

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\050203\4GF17539.D Vial: 17
Acq On : 2 May 2003 18:04 Operator: ECL
Sample : 1242 500 PPB Inst : HP4
Misc : SOS64-44 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:40 2003 Quant Results File: 1242SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1242SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:40:07 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

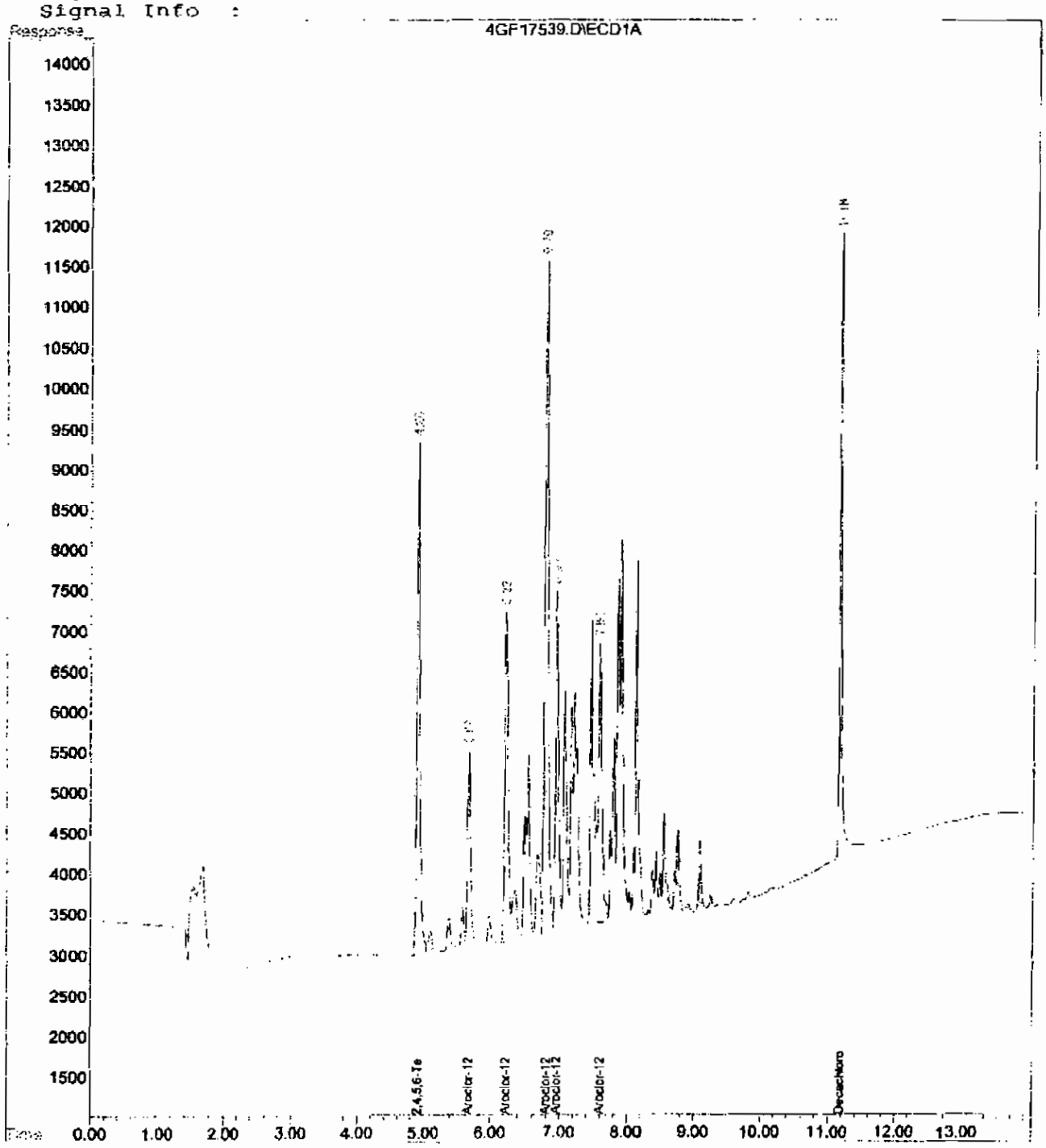
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.90	190048	25.000	UG/L
Spiked Amount 20.000		Recovery =	125.00%	
7) S Decachlorobiphenyl	11.18	165337	25.000	UG/L
Spiked Amount 20.000		Recovery =	125.00%	
Target Compounds				
2) L1 Aroclor-1242-1	5.67	77043	500.000	UG/L
3) L1 Aroclor-1242-2	6.23	136678	500.000	UG/L
4) L1 Aroclor-1242-3	6.79	287874	500.000	UG/L
5) L1 Aroclor-1242-4	6.95	126006	500.000	UG/L
6) L1 Aroclor-1242-5	7.60	133978	500.000	UG/L
Sum Aroclor-1242-1		761579	2500.000	UG/L
Average Aroclor-1242-1			500.000	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17539.D Vial: 17
Acq On : 2 May 2003 18:04 Operator: ECL
Sample : 1242 500 PPB Inst : HP4
Misc : SOS64-44 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:40 2003 Quant Results File: 1242SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1242SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:40:07 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050203\4GF17540.D Vial: 18
Acq On : 2 May 2003 18:23 Operator: ECL
Sample : 1242 ALT 500 PPB Inst : HP4
Misc : SQS63-09 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1242SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:40:07 2003
Response via : Single Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	L1	Aroclor-1242-1	500.000	504.638	-0.9	101	0.00
3	L1	Aroclor-1242-2	500.000	515.438	-3.1	103	0.00
4	L1	Aroclor-1242-3	500.000	502.713	-0.5	101	0.00
5	L1	Aroclor-1242-4	500.000	504.325	-0.9	101	0.00
6	L1	Aroclor-1242-5	500.000	441.749	11.7	88	0.00

Data File : C:\HPCHEM\2\DATA\050203\4GF17540.D Vial: 18
Acq On : 2 May 2003 18:23 Operator: ECL
Sample : 1242 ALT 500 PPB Inst : HP4
Misc : SOS63-09 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:40 2003 Quant Results File: 1242SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1242SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:40:07 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

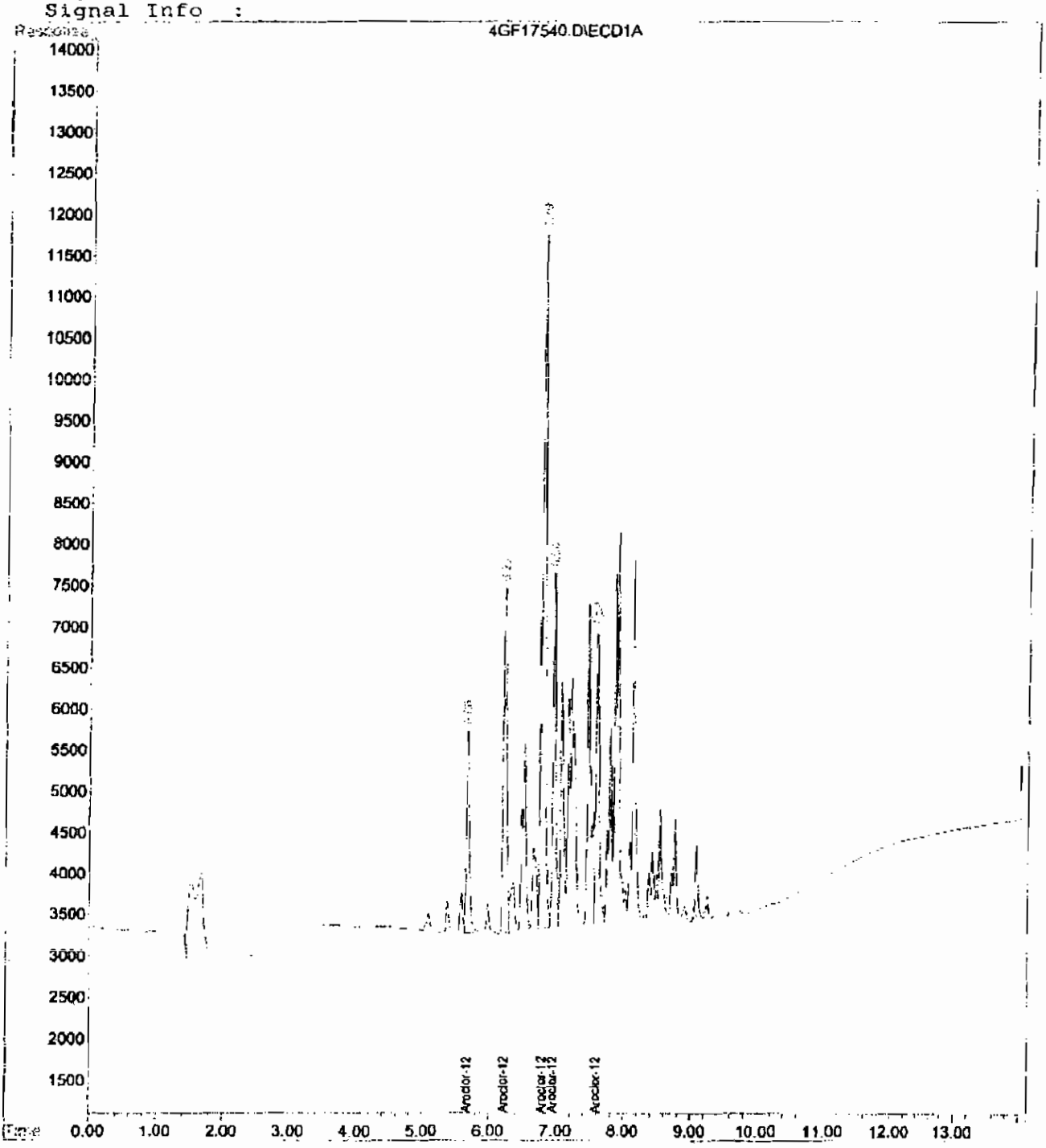
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5,6-Tetrachloro-M-Xyle	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
7) S Decachlorobiphenyl	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
Target Compounds				
2) L1 Aroclor-1242-1	5.67	77758	504.638	UG/L
3) L1 Aroclor-1242-2	6.22	140898	515.438	UG/L
4) L1 Aroclor-1242-3	6.79	289436	502.713	UG/L
5) L1 Aroclor-1242-4	6.95	127096	504.325	UG/L
6) L1 Aroclor-1242-5	7.59	118369	441.749	UG/L
Sum Aroclor-1242-1		753557	2468.863	UG/L
Average Aroclor-1242-1			493.773	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17540.D Vial: 18
Acq On : 2 May 2003 18:23 Operator: ECL
Sample : 1242 ALT 500 PPB Inst : HP4
Misc : SOS63-09 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:40 2003 Quant Results File: 1242SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1242SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:40:07 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\2\METHODS\1232SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:41:19 2003

Calibration Files
500 =4GF17541.D = =
= =

		Compound	500	Avg	%RSD
1)	S	2,4,5,6-Tetrachloro-M	7.477	7.477#E3	0.00
2)	L1	Aroclor-1232-1	4.390	4.390#E1	0.00
3)	L1	Aroclor-1232-2	1.728	1.728#E2	0.00
4)	L1	Aroclor-1232-3	1.514	1.514#E2	0.00
5)	L1	Aroclor-1232-4	2.970	2.970#E2	0.00
6)	L1	Aroclor-1232-5	1.360	1.360#E2	0.00
7)	S	Decachlorobiphenyl	6.558	6.558#E3	0.00

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\050203\4GF17541.D Vial: 19
Acq On : 2 May 2003 18:41 Operator: ECL
Sample : 1232 500 PPB Inst : HP4
Misc : SOS64-09 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:41 2003 Quant Results File: 1232SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1232SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:41:19 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

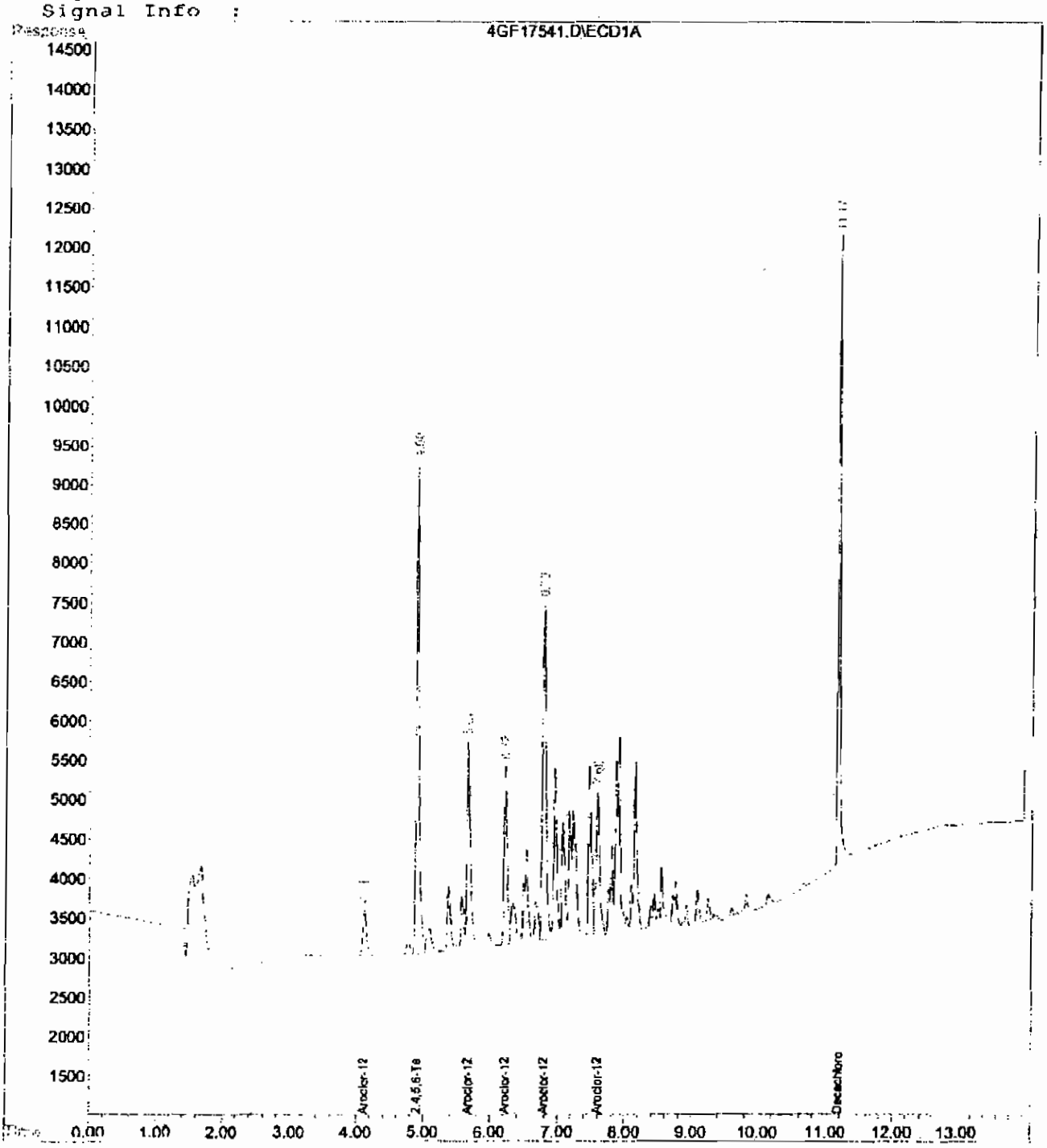
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.90	186919	25.000	UG/L
Spiked Amount 20.000		Recovery =	125.00%	
7) S Decachlorobiphenyl	11.18	163956	25.000	UG/L
Spiked Amount 20.000		Recovery =	125.00%	
Target Compounds				
2) L1 Aroclor-1232-1	4.11	21949	500.000	UG/L
3) L1 Aroclor-1232-2	5.67	86401	500.000	UG/L
4) L1 Aroclor-1232-3	6.23	75715	500.000	UG/L
5) L1 Aroclor-1232-4	6.79	148498	500.000	UG/L
6) L1 Aroclor-1232-5	7.60	68001	500.000	UG/L
Sum Aroclor-1232-1		400563	2500.000	UG/L
Average Aroclor-1232-1			500.000	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17541.D Vial: 19
Acq On : 2 May 2003 18:41 Operator: ECL
Sample : 1232 500 PPB Inst : HP4
Misc : SOS64-09 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:41 2003 Quant Results File: 1232SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1232SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:41:19 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050203\4GF17542.D Vial: 20
Acq On : 2 May 2003 18:59 Operator: ECL
Sample : 1232 ALT 500 PPB Inst : HP4
Misc : SOS64-10 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1232SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:41:19 2003
Response via : Single Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	L1	Aroclor-1232-1	500.000	495.253	0.9	99	0.00
3	L1	Aroclor-1232-2	500.000	638.992	-27.8#	128	0.00
4	L1	Aroclor-1232-3	500.000	542.076	-8.4	108	0.00
5	L1	Aroclor-1232-4	500.000	540.662	-8.1	108	0.00
6	L1	Aroclor-1232-5	500.000	508.214	-1.6	102	0.00

Data File : C:\HPCHEM\2\DATA\050203\4GF17542.D Vial: 20
Acq On : 2 May 2003 18:59 Operator: ECL
Sample : 1232 ALT 500 PPB Inst : HP4
Misc : SOS64-10 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:41 2003 Quant Results File: 1232SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1232SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:41:19 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

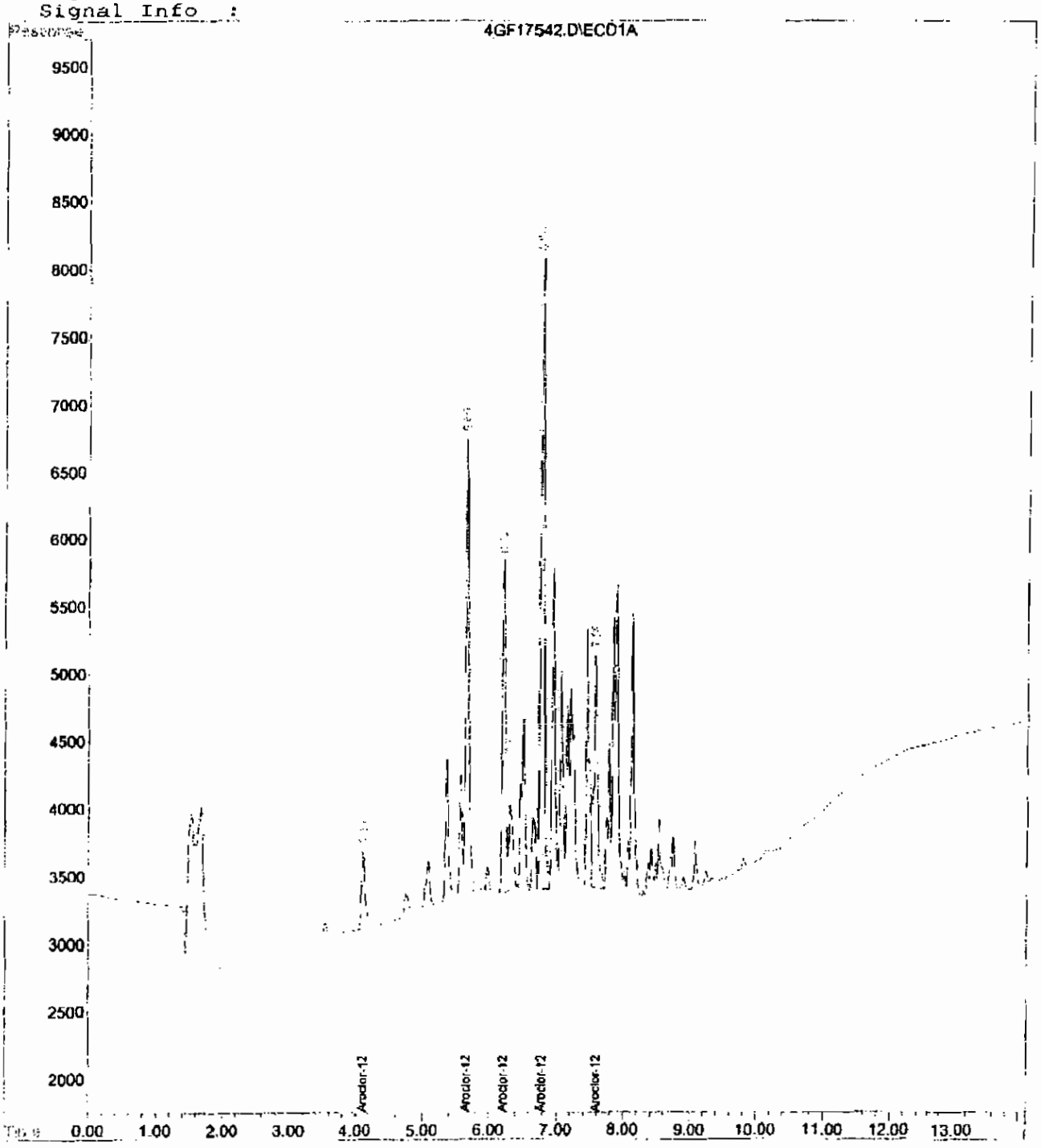
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5,6-Tetrachloro-M-Xyle	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
7) S Decachlorobiphenyl	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
Target Compounds				
2) L1 Aroclor-1232-1	4.11	21740	495.253	UG/L
3) L1 Aroclor-1232-2	5.67	110419	638.992	UG/L
4) L1 Aroclor-1232-3	6.22	82086	542.076	UG/L
5) L1 Aroclor-1232-4	6.79	160574	540.662	UG/L
6) L1 Aroclor-1232-5	7.59	69118	508.214	UG/L
Sum Aroclor-1232-1		443937	2725.198	UG/L
Average Aroclor-1232-1			545.040	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17542.D Vial: 20
Acq On : 2 May 2003 18:59 Operator: ECL
Sample : 1232 ALT 500 PPB Inst : HP4
Misc : SOS64-10 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:41 2003 Quant Results File: 1232SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1232SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:41:19 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\2\METHODS\1221SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:42:41 2003

Calibration Files
500 =4GF17543.D

		Compound	500	Avg	%RSD
1)	S	2,4,5,6-Tetrachloro-M	7.620	7.620#E3	0.00
2)	L1	Aroclor-1221-1	7.778	7.778#E1	0.00
3)	L1	Aroclor-1221-2	9.585	9.585#E1	0.00
4)	L1	Aroclor-1221-3	6.435	6.435#E1	0.00
5)	L1	Aroclor-1221-4	2.582	2.582#E2	0.00
6)	L1	Aroclor-1221-5	4.096	4.096#E1	0.00
7)	S	Decachlorobiphenyl	6.754	6.754#E3	0.00

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\050203\4GF17543.D Vial: 21
Acq On : 2 May 2003 19:18 Operator: ECL
Sample : 1221 500 PPB Inst : HP4
Misc : SOS64-07 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:42 2003 Quant Results File: 1221SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1221SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:42:41 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

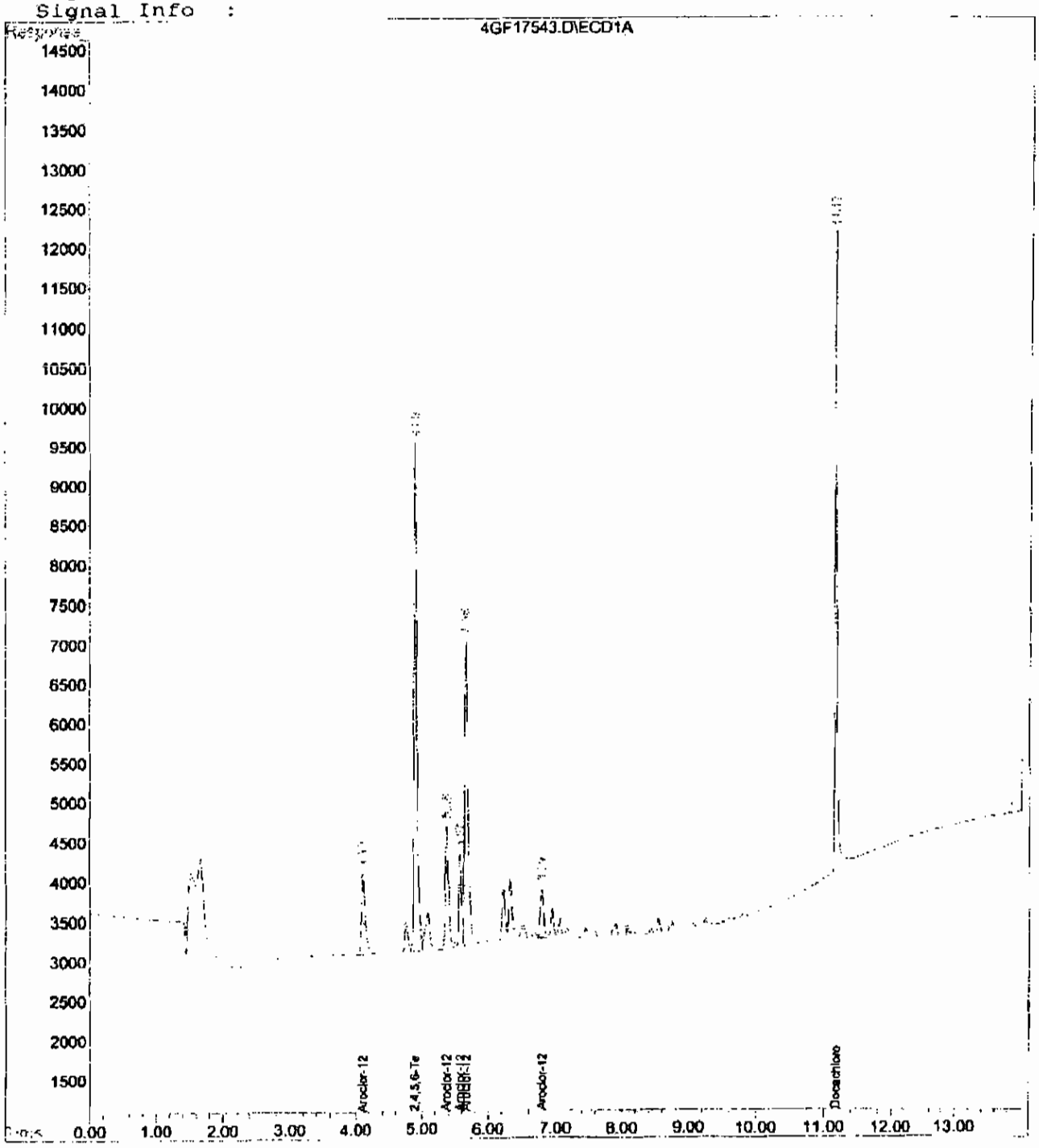
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.89	190505	25.000 UG/L
Spiked Amount 20.000		Recovery =	125.00%
7) S Decachlorobiphenyl	11.17	168851	25.000 UG/L
Spiked Amount 20.000		Recovery =	125.00%
Target Compounds			
2) L1 Aroclor-1221-1	4.10	38891	500.000 UG/L
3) L1 Aroclor-1221-2	5.36	47926	500.000 UG/L
4) L1 Aroclor-1221-3	5.57	32175	500.000 UG/L
5) L1 Aroclor-1221-4	5.66	129080	500.000 UG/L
6) L1 Aroclor-1221-5	6.79	20482	500.000 UG/L
Sum Aroclor-1221-1		268554	2500.000 UG/L
Average Aroclor-1221-1			500.000 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17543.D Vial: 21
Acq On : 2 May 2003 19:18 Operator: ECL
Sample : 1221 500 PPB Inst : HP4
Misc : SOS64-07 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:42 2003 Quant Results File: 1221SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1221SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:42:41 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050203\4GF17544.D Vial: 22
Acq On : 2 May 2003 19:36 Operator: ECL
Sample : 1221 ALT 500 PPB Inst : HP4
Misc : SOS64-43 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1221SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:42:41 2003
Response via : Single Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
2	L1	Aroclor-1221-1	500.000	508.451	-1.7	102	-0.01
3	L1	Aroclor-1221-2	500.000	521.315	-4.3	104	-0.02
4	L1	Aroclor-1221-3	500.000	513.875	-2.8	103	-0.02
5	L1	Aroclor-1221-4	500.000	513.160	-2.6	103	-0.02
6	L1	Aroclor-1221-5	500.000	507.447	-1.5	101	-0.02

Data File : C:\HPCHEM\2\DATA\050203\4GF17544.D Vial: 22
Acq On : 2 May 2003 19:36 Operator: ECL
Sample : 1221 ALT 500 PPB Inst : HP4
Misc : SOS64-43 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:42 2003 Quant Results File: 1221SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1221SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:42:41 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

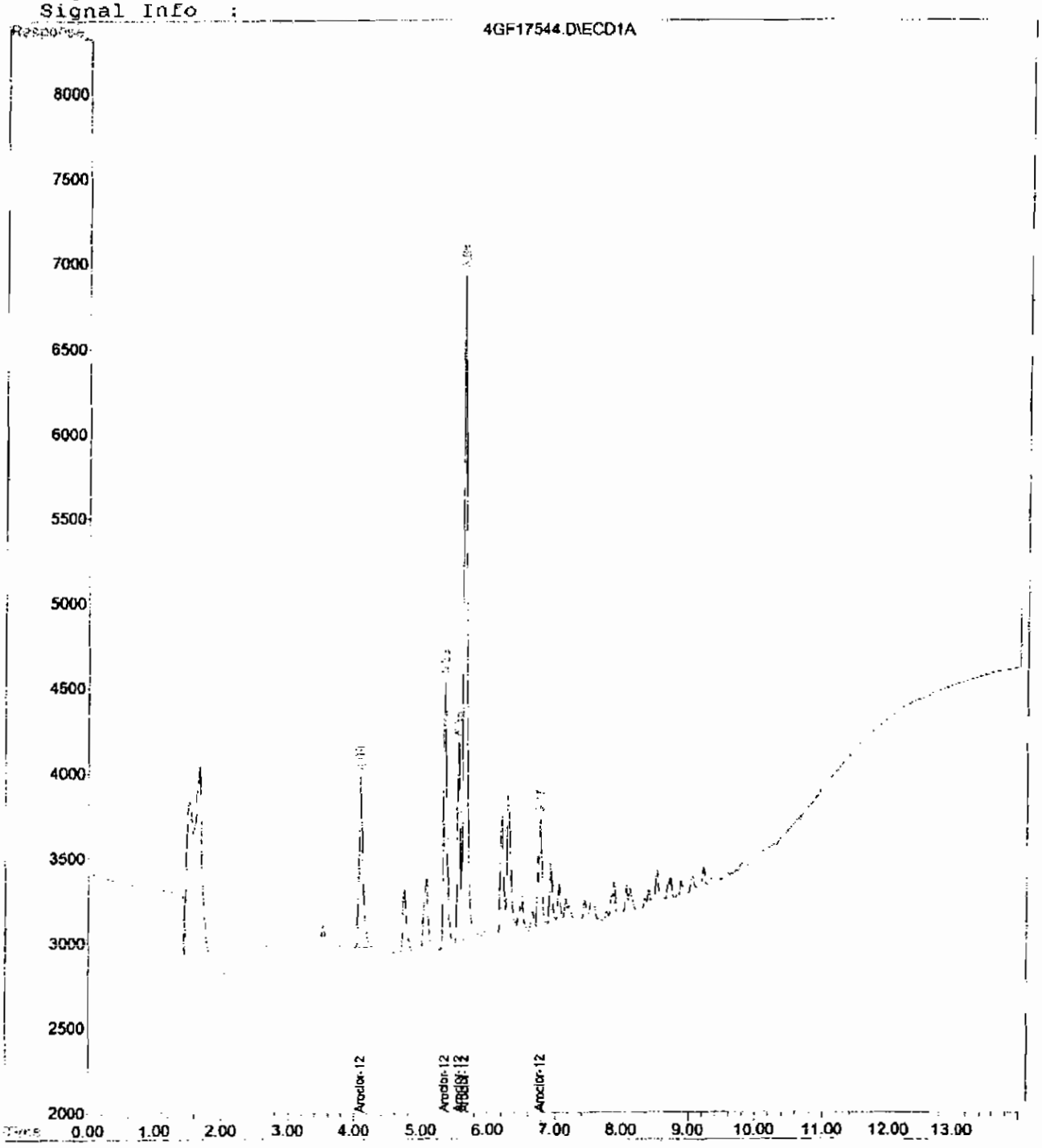
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 2,4,5,6-Tetrachloro-M-Xyle	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
7) S Decachlorobiphenyl	0.00	0	N.D.	UG/L
Spiked Amount 20.000	Recovery	=	0.00%	
Target Compounds				
2) L1 Aroclor-1221-1	4.09	39548	508.451	UG/L
3) L1 Aroclor-1221-2	5.35	49969	521.315	UG/L
4) L1 Aroclor-1221-3	5.56	33068	513.875	UG/L
5) L1 Aroclor-1221-4	5.65	132477	513.160	UG/L
6) L1 Aroclor-1221-5	6.78	20787	507.447	UG/L
Sum Aroclor-1221-1		275850	2564.249	UG/L
Average Aroclor-1221-1			512.850	UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17544.D Vial: 22
Acq On : 2 May 2003 19:36 Operator: ECL
Sample : 1221 ALT 500 PPB Inst : HP4
Misc : SOS64-43 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:42 2003 Quant Results File: 1221SF.RES

Quant Method : C:\HPCHEM\2\METHODS\1221SF.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003
Last Update : Sun May 04 12:42:41 2003
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050103\4GR17926.D Vial: 14
Acq On : 1 May 2003 13:49 Operator: ECL
Sample : WG139378-07 1660 CCV 500 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Thu May 01 14:23:45 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	25.000	25.034	-0.1	99	0.00
2	L1	Aroclor-1016-1	500.000	463.841	7.2	96	0.00
3	L1	Aroclor-1016-2	500.000	465.403	6.9	97	0.00
4	L1	Aroclor-1016-3	500.000	464.780	7.0	95	0.00
5	L1	Aroclor-1016-4	500.000	517.586	-3.5	105	0.00
6	L1	Aroclor-1016-5	500.000	435.080	13.0	89	-0.01
7	L2	Aroclor-1260-1	500.000	466.900	6.6	100	0.00
8	L2	Aroclor-1260-2	500.000	462.187	7.6	96	0.00
9	L2	Aroclor-1260-3	500.000	456.543	8.7	96	-0.01
10	L2	Aroclor-1260-4	500.000	544.766	-9.0	114	0.00
11	L2	Aroclor-1260-5	500.000	562.008	-12.4	115	0.00
12	S	Decachlorobiphenyl	25.000	26.064	-4.3	110	0.00

Data File : C:\HPCHEM\2\DATA\050103\4GR17926.D Vial: 14
Acq On : 1 May 2003 13:49 Operator: ECL
Sample : WG139378-07 1660 CCV 500 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 1 14:24 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Thu May 01 14:23:45 2003
Response via : Initial Calibration
DataAcq Meth : 8082R.M

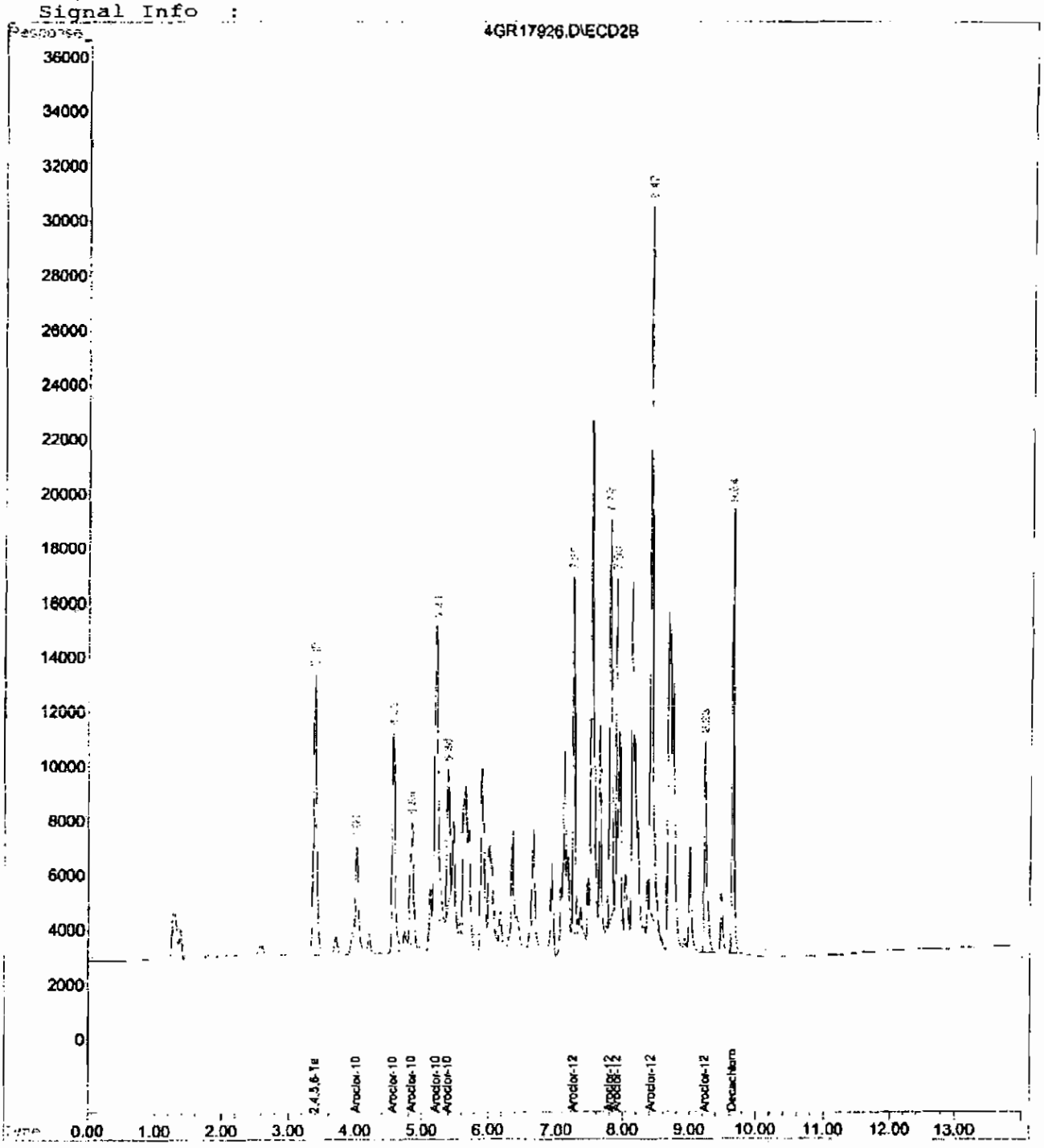
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.39	326097	25.034 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery = 125.17%	
12) S Decachlorobiphenyl	9.64	333369	26.064 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery = 130.32%	
Target Compounds			
2) L1 Aroclor-1016-1	4.01	97480	463.841 UG/L
3) L1 Aroclor-1016-2	4.55	255912	465.403 UG/L
4) L1 Aroclor-1016-3	4.84	154427	464.780 UG/L
5) L1 Aroclor-1016-4	5.21	426591	517.586 UG/L
6) L1 Aroclor-1016-5	5.38	131124	435.080 UG/L
Sum Aroclor-1016-1		1065534	2346.690 UG/L
Average Aroclor-1016-1			469.338 UG/L
7) L2 Aroclor-1260-1	7.25	266107	466.900 UG/L
8) L2 Aroclor-1260-2	7.80	384986	462.187 UG/L
9) L2 Aroclor-1260-3	7.90	136621	456.543 UG/L
10) L2 Aroclor-1260-4	8.42	593019	544.766 UG/L
11) L2 Aroclor-1260-5	9.23	212389	562.008 UG/L
Sum Aroclor-1260-1		1593122	2492.404 UG/L
Average Aroclor-1260-1			498.481 UG/L

Data File : C:\HPCHEM\2\DATA\050103\4GR17926.D Vial: 14
Acq On : 1 May 2003 13:49 Operator: ECL
Sample : WG139378-07 1660 CCV 500 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 1 14:24 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Thu May 01 14:23:45 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082R.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050103\4GR17936.D Vial: 24
Acq On : 1 May 2003 16:47 Operator: ECL
Sample : WG139378-08 1660 CCV 250 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Fri May 02 08:06:46 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	12.500	12.345	1.2	95	0.00
2	L1	Aroclor-1016-1	250.000	240.158	3.9	93	-0.02
3	L1	Aroclor-1016-2	250.000	243.509	2.6	92	0.00
4	L1	Aroclor-1016-3	250.000	241.603	3.4	91	-0.01
5	L1	Aroclor-1016-4	250.000	268.976	-7.6	102	-0.01
6	L1	Aroclor-1016-5	250.000	220.817	11.7	85	-0.01
7	L2	Aroclor-1260-1	250.000	237.405	5.0	91	0.00
8	L2	Aroclor-1260-2	250.000	230.945	7.6	88	0.00
9	L2	Aroclor-1260-3	250.000	224.494	10.2	89	-0.01
10	L2	Aroclor-1260-4	250.000	270.536	-8.2	104	0.00
11	L2	Aroclor-1260-5	250.000	259.307	-3.7	98	0.00
12	S	Decachlorobiphenyl	12.500	12.569	-0.6	95	0.00

Data File : C:\HPCHEM\2\DATA\050103\4GR17936.D Vial: 24
Acq On : 1 May 2003 16:47 Operator: ECL
Sample : WG139378-08 1660 CCV 250 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 8:06 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Fri May 02 08:06:46 2003
Response via : Initial Calibration
DataAcq Meth : 8082R.M

Volume Inj. :
Signal Phase :
Signal Info :

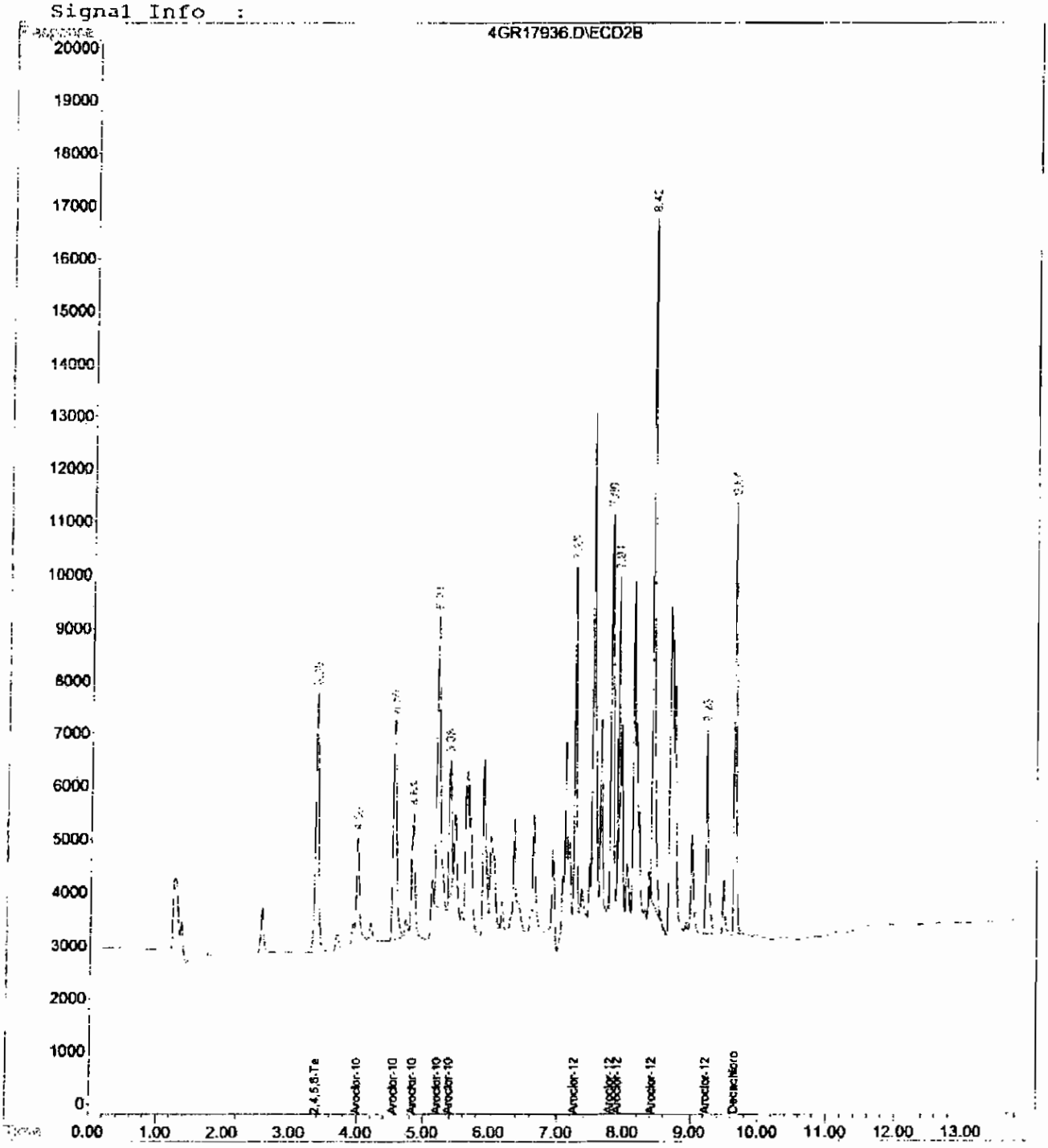
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.38	160808	12.345 UG/L
Spiked Amount 20.000 Range 30 - 132		Recovery =	61.73%
12) S Decachlorobiphenyl	9.65	160767	12.569 UG/L
Spiked Amount 20.000 Range 36 - 144		Recovery =	62.85%
Target Compounds			
2) L1 Aroclor-1016-1	4.00	50471	240.158 UG/L
3) L1 Aroclor-1016-2	4.55	133898	243.509 UG/L
4) L1 Aroclor-1016-3	4.84	80275	241.603 UG/L
5) L1 Aroclor-1016-4	5.21	221688	268.976 UG/L
6) L1 Aroclor-1016-5	5.39	66550	220.817 UG/L
Sum Aroclor-1016-1		552882	1215.064 UG/L
Average Aroclor-1016-1			243.013 UG/L
7) L2 Aroclor-1260-1	7.25	135307	237.405 UG/L
8) L2 Aroclor-1260-2	7.80	192370	230.945 UG/L
9) L2 Aroclor-1260-3	7.91	67180	224.494 UG/L
10) L2 Aroclor-1260-4	8.42	294499	270.536 UG/L
11) L2 Aroclor-1260-5	9.23	97995	259.307 UG/L
Sum Aroclor-1260-1		787351	1222.687 UG/L
Average Aroclor-1260-1			244.537 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050103\4GR17936.D Vial: 24
Acq On : 1 May 2003 16:47 Operator: ECL
Sample : WG139378-08 1660 CCV 250 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 8:06 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Fri May 02 08:06:46 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082R.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050203\4GF17545.D Vial: 23
Acq On : 2 May 2003 19:54 Operator: ECL
Sample : WG139612-08 1660 CCV 500 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Sun May 04 12:28:14 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	25.000	26.358	-5.4	104	0.00
2	L1	Aroclor-1016-1	500.000	544.774	-9.0	107	0.00
3	L1	Aroclor-1016-2	500.000	516.855	-3.4	105	0.00
4	L1	Aroclor-1016-3	500.000	523.153	-4.6	104	0.00
5	L1	Aroclor-1016-4	500.000	534.058	-6.8	106	0.00
6	L1	Aroclor-1016-5	500.000	559.592	-11.9	107	0.00
7	L2	Aroclor-1260-1	500.000	509.980	-2.0	102	0.00
8	L2	Aroclor-1260-2	500.000	514.721	-2.9	101	0.00
9	L2	Aroclor-1260-3	500.000	528.194	-5.6	101	0.00
10	L2	Aroclor-1260-4	500.000	524.097	-4.8	103	0.00
11	L2	Aroclor-1260-5	500.000	532.416	-6.5	105	0.00
12	S	Decachlorobiphenyl	25.000	25.899	-3.6	100	0.00

Data File : C:\HPCHEM\2\DATA\050203\4GF17545.D Vial: 23
Acq On : 2 May 2003 19:54 Operator: ECL
Sample : WG139612-08 1660 CCV 500 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:28 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Sun May 04 12:28:14 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

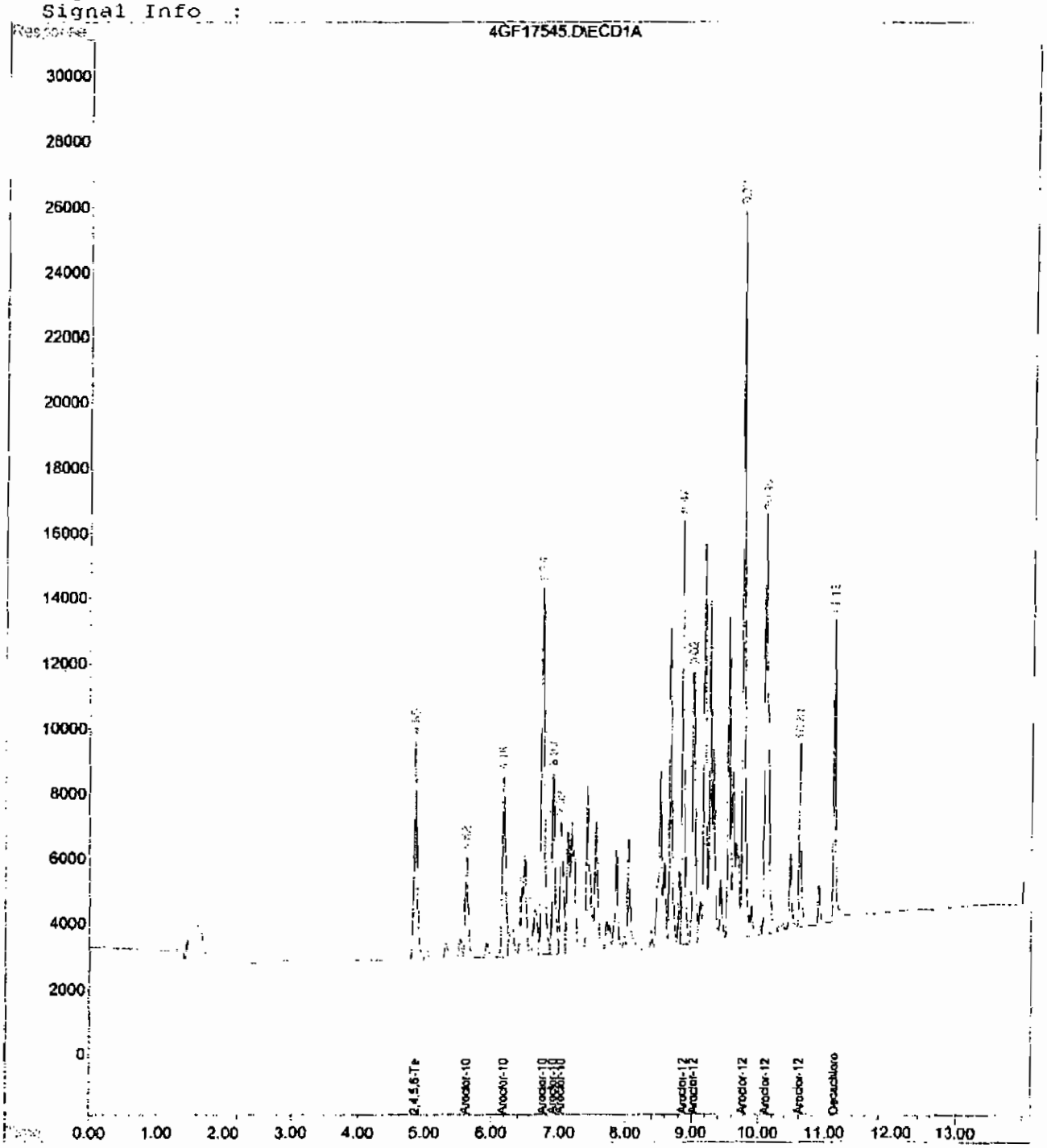
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.85	201788	26.358 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery = 131.79%	
12) S Decachlorobiphenyl	11.13	193729	25.899 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery = 129.50%	
Target Compounds			
2) L1 Aroclor-1016-1	5.62	97919	544.774 UG/L
3) L1 Aroclor-1016-2	6.18	184282	516.855 UG/L
4) L1 Aroclor-1016-3	6.75	389249	523.153 UG/L
5) L1 Aroclor-1016-4	6.90	168754	534.058 UG/L
6) L1 Aroclor-1016-5	7.02	130863	559.592 UG/L
Sum Aroclor-1016-1		971068	2678.431 UG/L
Average Aroclor-1016-1			535.686 UG/L
7) L2 Aroclor-1260-1	8.87	295623	509.980 UG/L
8) L2 Aroclor-1260-2	9.02	244476	514.721 UG/L
9) L2 Aroclor-1260-3	9.77	496811	528.194 UG/L
10) L2 Aroclor-1260-4	10.10	464436	524.097 UG/L
11) L2 Aroclor-1260-5	10.61	125395	532.416 UG/L
Sum Aroclor-1260-1		1626742	2609.407 UG/L
Average Aroclor-1260-1			521.881 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17545.D Vial: 23
Acq On : 2 May 2003 19:54 Operator: ECL
Sample : WG139612-08 1660 CCV 500 PPB Inst : HP4
Misc : 1,1 SQ563-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:28 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Sun May 04 12:28:14 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050203\4GF17550.D Vial: 28
Acq On : 2 May 2003 21:26 Operator: ECL
Sample : WG139612-09 1660 CCV 500 PPB Inst : HP4
Misc : 1,1 SQS63-02 Multiplr: 1.00
IntFile : events.e

Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Sun May 04 12:28:14 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	2,4,5,6-Tetrachloro-M-Xylen	25.000	25.789	-3.2	102	0.00
2	L1	Aroclor-1016-1	500.000	526.004	-5.2	103	0.00
3	L1	Aroclor-1016-2	500.000	499.185	0.2	101	0.00
4	L1	Aroclor-1016-3	500.000	507.448	-1.5	101	0.00
5	L1	Aroclor-1016-4	500.000	504.165	-0.8	100	0.00
6	L1	Aroclor-1016-5	500.000	525.807	-5.2	100	0.00
7	L2	Aroclor-1260-1	500.000	499.808	0.0	100	0.00
8	L2	Aroclor-1260-2	500.000	486.360	2.7	96	0.00
9	L2	Aroclor-1260-3	500.000	495.271	0.9	95	0.00
10	L2	Aroclor-1260-4	500.000	494.154	1.2	97	0.00
11	L2	Aroclor-1260-5	500.000	474.649	5.1	94	0.00
12	S	Decachlorobiphenyl	25.000	28.568	-14.3	110	0.00

Data File : C:\HPCHEM\2\DATA\050203\4GF17550.D Vial: 28
Acq On : 2 May 2003 21:26 Operator: ECL
Sample : WG139612-09 1660 CCV 500 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:28 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Sun May 04 12:28:14 2003
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

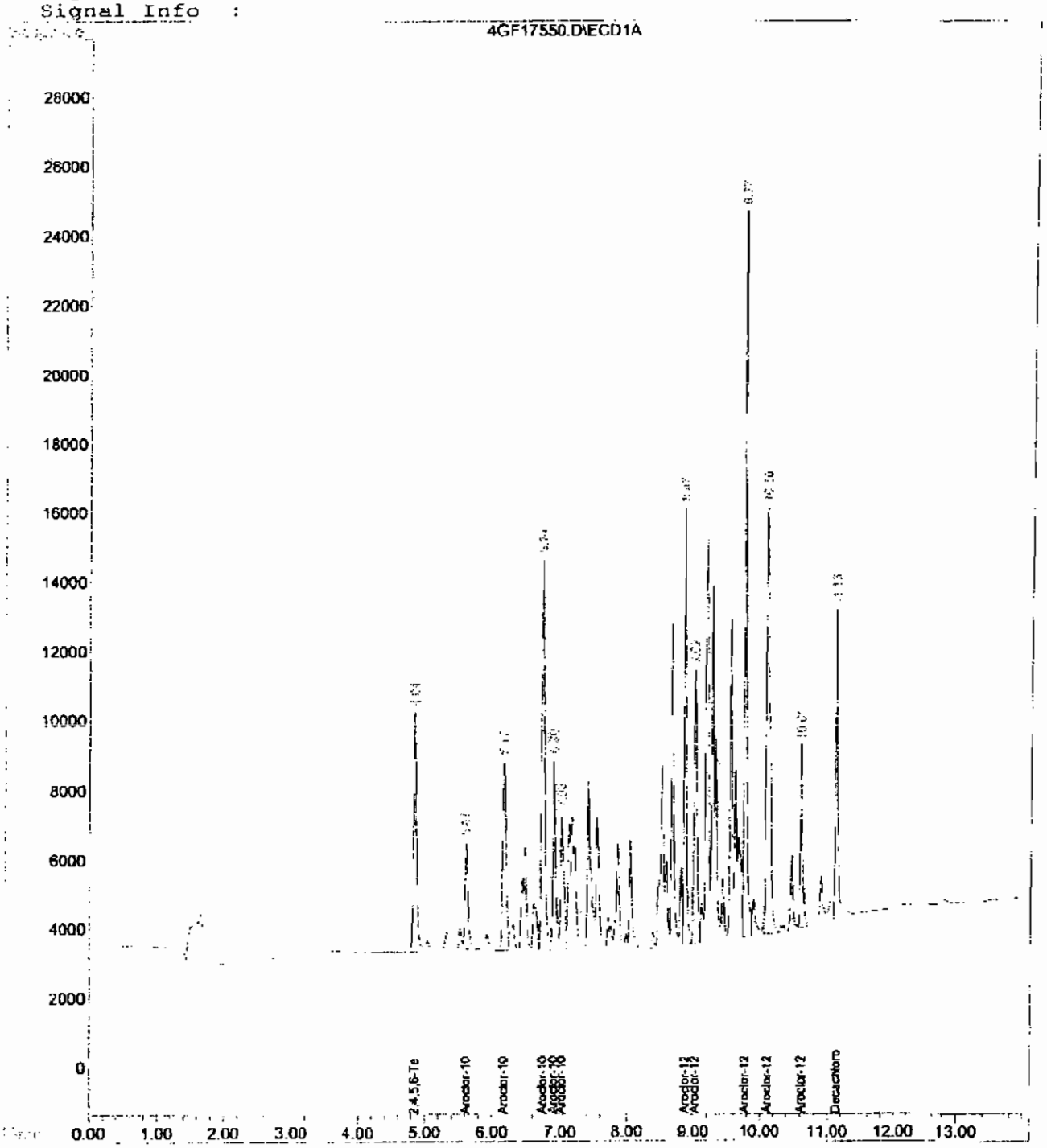
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	4.84	197432	25.789 UG/L
Spiked Amount 20.000	Range 30 - 132	Recovery = 128.94%	
12) S Decachlorobiphenyl	11.13	213695	28.568 UG/L
Spiked Amount 20.000	Range 36 - 144	Recovery = 142.84%	
Target Compounds			
2) L1 Aroclor-1016-1	5.61	94545	526.004 UG/L
3) L1 Aroclor-1016-2	6.17	177982	499.185 UG/L
4) L1 Aroclor-1016-3	6.74	377564	507.448 UG/L
5) L1 Aroclor-1016-4	6.90	159309	504.165 UG/L
6) L1 Aroclor-1016-5	7.02	122963	525.807 UG/L
Sum Aroclor-1016-1		932362	2562.610 UG/L
Average Aroclor-1016-1			512.522 UG/L
7) L2 Aroclor-1260-1	8.87	289727	499.808 UG/L
8) L2 Aroclor-1260-2	9.02	231005	486.360 UG/L
9) L2 Aroclor-1260-3	9.77	465845	495.271 UG/L
10) L2 Aroclor-1260-4	10.10	437902	494.154 UG/L
11) L2 Aroclor-1260-5	10.61	111790	474.649 UG/L
Sum Aroclor-1260-1		1536269	2450.242 UG/L
Average Aroclor-1260-1			490.048 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050203\4GF17550.D Vial: 28
Acq On : 2 May 2003 21:26 Operator: ECL
Sample : WG139612-09 1660 CCV 500 PPB Inst : HP4
Misc : 1,1 SOS63-02 Multiplr: 1.00
IntFile : events.e
Quant Time: May 4 12:28 2003 Quant Results File: 1660F.RES

Quant Method : C:\HPCHEM\2\METHODS\1660F.M (Chemstation Integrator)
Title : CALIBRATION May 2, 2003 @ 1459
Last Update : Sun May 04 12:28:14 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :



RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

Instrument ID: HP-4 Front Column

GC Column: RTx-CLP II

	STANDARD #1	STANDARD #2	STANDARD #3
Date Run	6/24/2002	6/26/2002	6/27/2002
File #	4GF15023	4GF15060	4GF15088

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
AR 1016 #1	6.03	6.01	6.00	0.046
AR 1016 #2	6.57	6.55	6.54	0.046
AR 1016 #3	7.13	7.11	7.10	0.046
AR 1016 #4	7.29	7.27	7.25	0.060
AR 1016 #5	7.41	7.39	7.38	0.046
AR 1260 #1	9.05	9.03	9.02	0.046
AR 1260 #2	9.24	9.22	9.21	0.046
AR 1260 #3	9.40	9.38	9.36	0.060
AR 1260 #4	10.15	10.13	10.11	0.060
AR 1260 #5	11.00	10.98	10.96	0.060

RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

Instrument ID: HP-4 Rear Column
GC Column: RTx-CLP

	STANDARD #1	STANDARD #2	STANDARD #3
Date Run	6/25/2002	6/26/2002	6/27/2002
File #	4GR14321	4GR14350	4GR14368

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
AR 1016 #1	4.83	4.79	4.76	0.105
AR 1016 #2	5.35	5.31	5.29	0.092
AR 1016 #3	5.63	5.59	5.57	0.092
AR 1016 #4	5.97	5.93	5.91	0.092
AR 1016 #5	6.15	6.11	6.09	0.092
AR 1260 #1	7.93	7.89	7.87	0.092
AR 1260 #2	8.19	8.16	8.14	0.075
AR 1260 #3	8.46	8.42	8.41	0.079
AR 1260 #4	9.07	9.04	9.02	0.075
AR 1260 #5	9.88	9.84	9.82	0.092

2.2.3.4 Raw QC Data

Data File : C:\HPCHEM\2\DATA\050103\4GR17931.D Vial: 19
Acq On : 1 May 2003 15:18 Operator: ECL
Sample : WG139368-01 BLANK V202 P73 Inst : HP4
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 8:18 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Fri May 02 08:18:10 2003
Response via : Initial Calibration
DataAcq Meth : 8082R.M

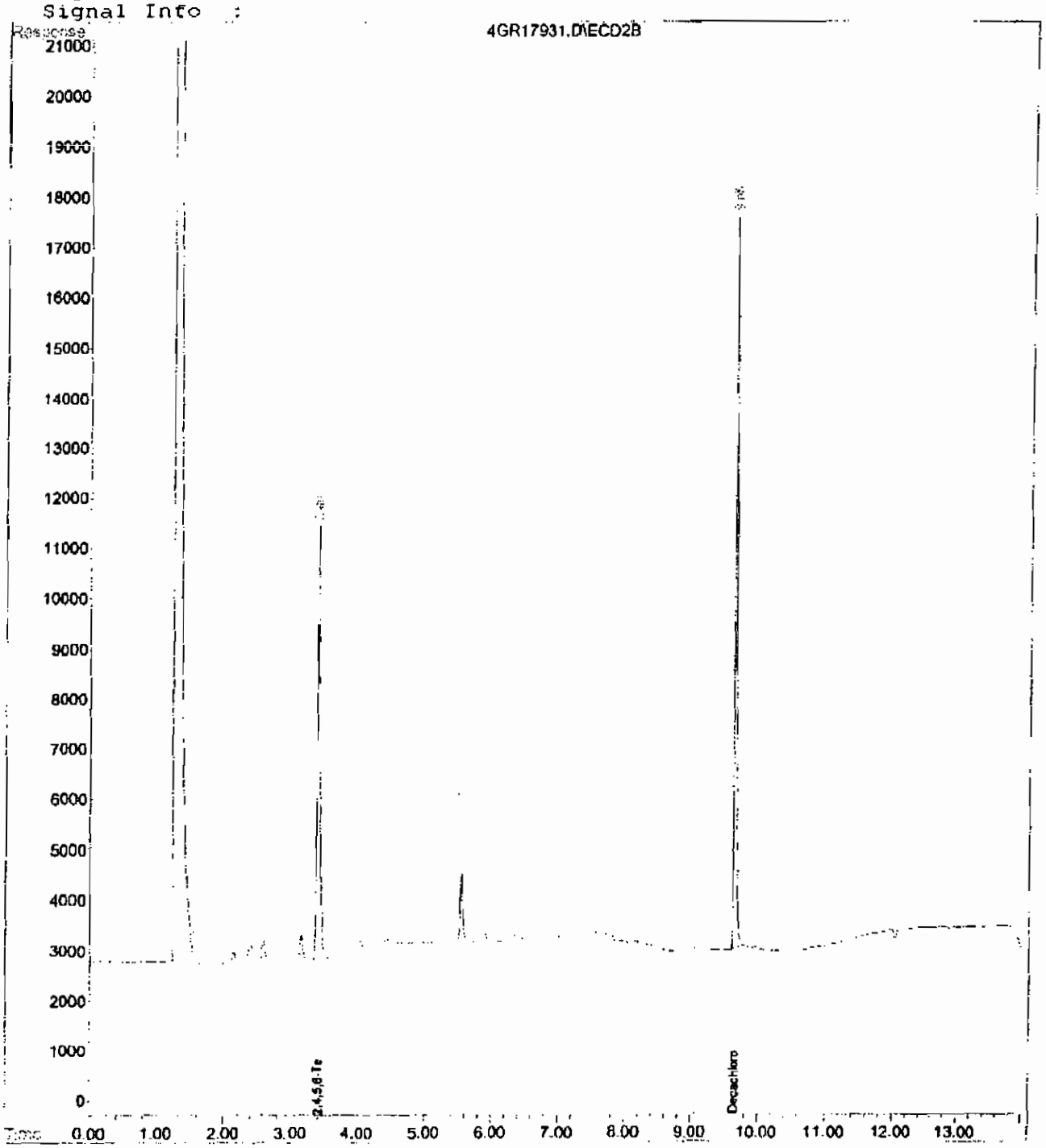
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.40	244826	18.795 UG/L
Spiked Amount 20.000 Range 29 - 133		Recovery = 93.98%	
12) S Decachlorobiphenyl	9.65	291132	22.762 UG/L
Spiked Amount 20.000 Range 30 - 173		Recovery = 113.81%	
Target Compounds			
2) L1 Aroclor-1016-1	0.00	0	N.D. UG/L
3) L1 Aroclor-1016-2	0.00	0	N.D. UG/L
4) L1 Aroclor-1016-3	0.00	0	N.D. UG/L
5) L1 Aroclor-1016-4	0.00	0	N.D. UG/L
6) L1 Aroclor-1016-5	0.00	0	N.D. UG/L
Sum Aroclor-1016-1		0	N.D. UG/L
Average Aroclor-1016-1			0.000 UG/L
7) L2 Aroclor-1260-1	0.00	0	N.D. UG/L
8) L2 Aroclor-1260-2	0.00	0	N.D. UG/L
9) L2 Aroclor-1260-3	0.00	0	N.D. UG/L
10) L2 Aroclor-1260-4	0.00	0	N.D. UG/L
11) L2 Aroclor-1260-5	0.00	0	N.D. UG/L
Sum Aroclor-1260-1		0	N.D. UG/L
Average Aroclor-1260-1			0.000 UG/L

Data File : C:\HPCHEM\2\DATA\050103\4GR17931.D Vial: 19
Acq On : 1 May 2003 15:18 Operator: ECL
Sample : WG139368-01 BLANK V202 P73 Inst : HP4
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 8:18 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Fri May 02 08:18:10 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082R.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050103\4GR17932.D Vial: 20
Acq On : 1 May 2003 15:35 Operator: ECL
Sample : WG139368-02 LCS V202 P73 Inst : HP4
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 8:19 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Fri May 02 08:18:10 2003
Response via : Initial Calibration
DataAcq Meth : 8082R.M

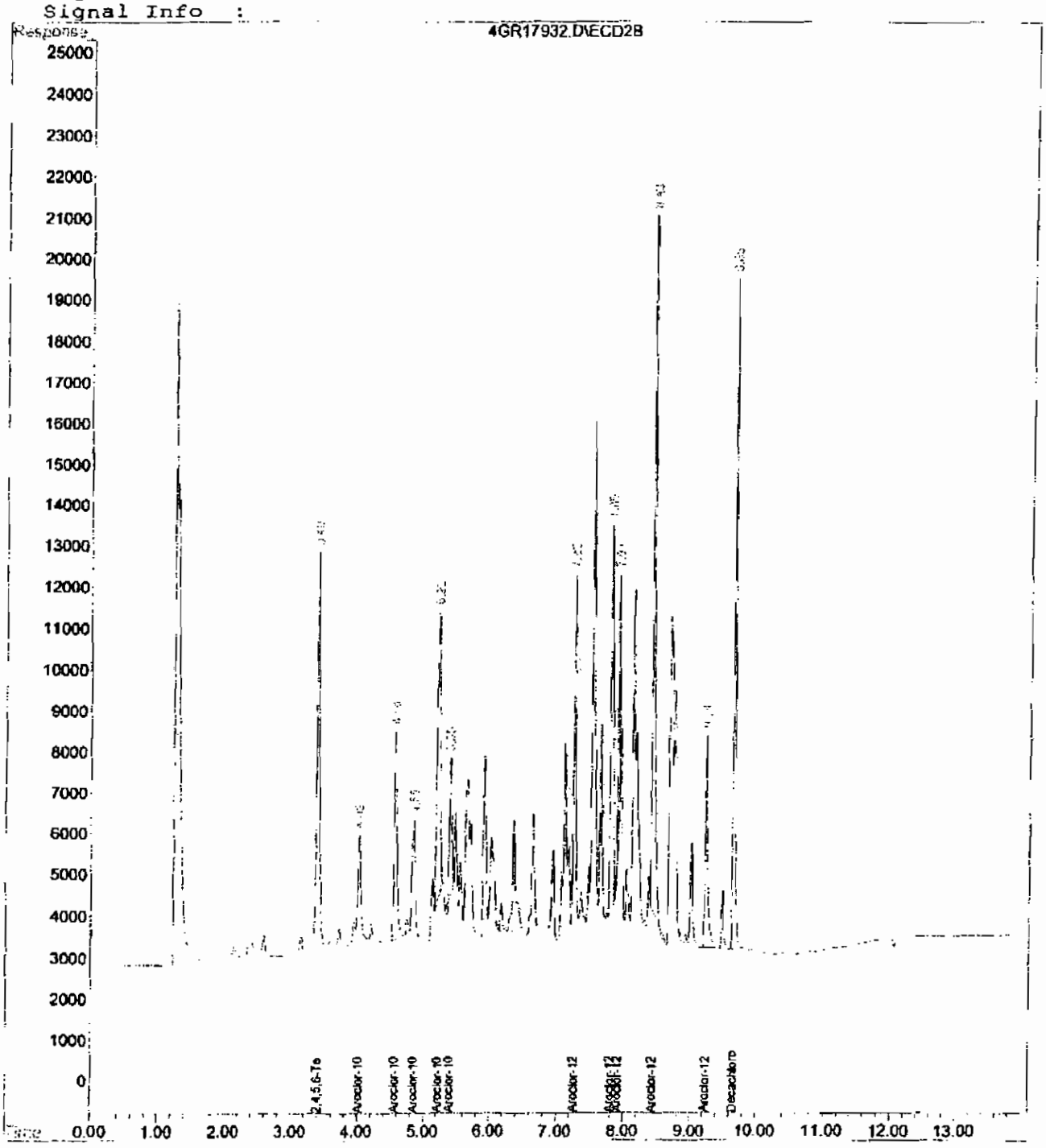
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.40	273580	21.003 UG/L
Spiked Amount 20.000 Range 29 - 133		Recovery = 105.01%	
12) S Decachlorobiphenyl	9.65	316450	24.741 UG/L
Spiked Amount 20.000 Range 30 - 173		Recovery = 123.71%	
Target Compounds			
2) L1 Aroclor-1016-1	4.02	63130	300.394 UG/L
3) L1 Aroclor-1016-2	4.56	154744	281.418 UG/L
4) L1 Aroclor-1016-3	4.85	90777	273.213 UG/L
5) L1 Aroclor-1016-4	5.22	233121	282.847 UG/L
6) L1 Aroclor-1016-5	5.39	76481	253.769 UG/L
Sum Aroclor-1016-1		618253	1391.641 UG/L
Average Aroclor-1016-1			278.328 UG/L
7) L2 Aroclor-1260-1	7.26	170274	298.756 UG/L
8) L2 Aroclor-1260-2	7.81	245478	294.703 UG/L
9) L2 Aroclor-1260-3	7.91	90170	301.319 UG/L
10) L2 Aroclor-1260-4	8.43	375161	344.635 UG/L
11) L2 Aroclor-1260-5	9.24	130507	345.338 UG/L
Sum Aroclor-1260-1		1011590	1584.751 UG/L
Average Aroclor-1260-1			316.950 UG/L

Data File : C:\HPCHEM\2\DATA\050103\4GR17932.D Vial: 20
Acq On : 1 May 2003 15:35 Operator: ECL
Sample : WG139368-02 LCS V202 P73 Inst : HP4
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 8:19 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Fri May 02 08:18:10 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082R.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\050103\4GR17933.D Vial: 21
Acq On : 1 May 2003 15:53 Operator: ECL
Sample : WG139368-03 LCS DUP V202 P73 Inst : HP4
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 8:19 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Fri May 02 08:18:10 2003
Response via : Initial Calibration
DataAcq Meth : 8082R.M

Volume Inj. :
Signal Phase :
Signal Info :

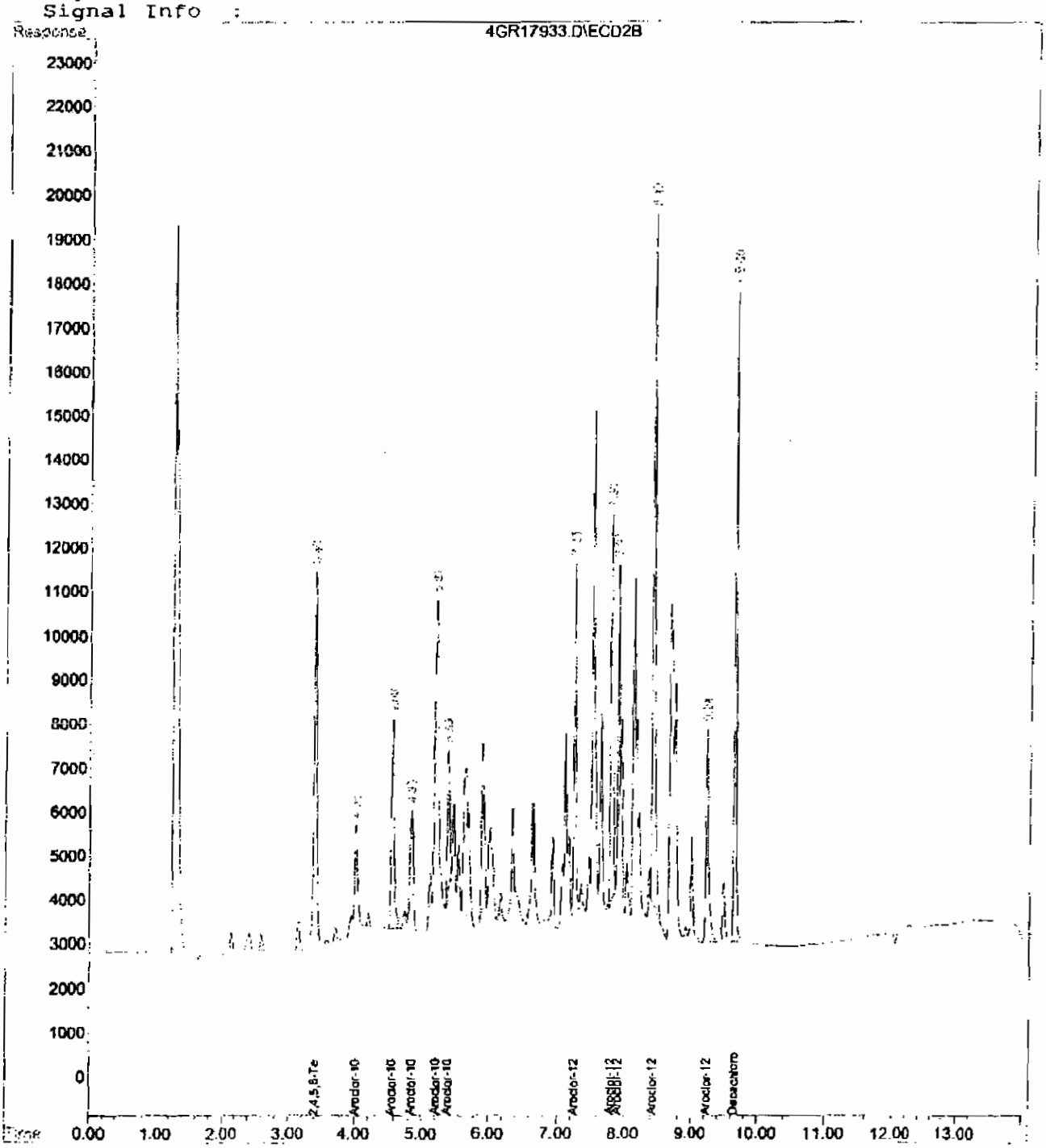
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2,4,5,6-Tetrachloro-M-Xyle	3.40	257861	19.796 UG/L
Spiked Amount 20.000 Range 29 - 133		Recovery = 98.98%	
12) S Decachlorobiphenyl	9.65	294227	23.004 UG/L
Spiked Amount 20.000 Range 30 - 173		Recovery = 115.02%	
Target Compounds			
2) L1 Aroclor-1016-1	4.02	63107	300.281 UG/L
3) L1 Aroclor-1016-2	4.56	148365	269.819 UG/L
4) L1 Aroclor-1016-3	4.85	87569	263.558 UG/L
5) L1 Aroclor-1016-4	5.21	263817	320.091 UG/L
6) L1 Aroclor-1016-5	5.39	82256	272.933 UG/L
Sum Aroclor-1016-1		645115	1426.681 UG/L
Average Aroclor-1016-1			285.336 UG/L
7) L2 Aroclor-1260-1	7.26	163425	286.739 UG/L
8) L2 Aroclor-1260-2	7.80	234017	280.944 UG/L
9) L2 Aroclor-1260-3	7.91	84260	281.567 UG/L
10) L2 Aroclor-1260-4	8.43	355762	326.814 UG/L
11) L2 Aroclor-1260-5	9.24	125778	332.824 UG/L
Sum Aroclor-1260-1		963242	1508.889 UG/L
Average Aroclor-1260-1			301.778 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\050103\4GR17933.D Vial: 21
Acq On : 1 May 2003 15:53 Operator: ECL
Sample : WG139368-03 LCS DUP V202 P73 Inst : HP4
Misc : 7,1 SOIL Multiplr: 1.00
IntFile : events.e
Quant Time: May 2 8:19 2003 Quant Results File: 1660R.RES

Quant Method : C:\HPCHEM\2\METHODS\1660R.M (Chemstation Integrator)
Title : CALIBRATION March 17, 2003 @ 1705
Last Update : Fri May 02 08:18:10 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8082R.M

Volume Inj. :
Signal Phase :
Signal Info :



Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	100	4gr16956.d	1.	HEXANE		17 Mar 2003 15:14
2	1	4gr16957.d	1.	WG136402-01 1660 ICAL 2000 PPB	1,1 SOS63-02	17 Mar 2003 15:32
3	2	4gr16958.d	1.	WG136402-02 1660 ICAL 1000 PPB	1,1 SOS63-02	17 Mar 2003 15:51
4	3	4gr16959.d	1.	WG136402-03 1660 ICAL 500 PPB	1,1 SOS63-02	17 Mar 2003 16:10
5	4	4gr16960.d	1.	WG136402-04 1660 ICAL 250 PPB	1,1 SOS63-02	17 Mar 2003 16:28
6	5	4gr16961.d	1.	WG136402-05 1660 ICAL 100 PPB	1,1 SOS63-02	17 Mar 2003 16:47
7	6	4gr16962.d	1.	WG136402-06 1660 ICAL 50 PPB	1,1 SOS63-02	17 Mar 2003 17:05
8	7	4gr16963.d	1.	WG136402-07 1660 ALT ICV 50...	1,1 SOS63-14	17 Mar 2003 17:24
9	8	4gr16964.d	1.	1254 ICAL 2000 PPB	SOS63-41	17 Mar 2003 17:42
10	9	4gr16965.d	1.	1254 ICAL 1000 PPB	SOS63-41	17 Mar 2003 18:01
11	10	4gr16966.d	1.	1254 ICAL 500 PPB	SOS63-41	17 Mar 2003 18:19
12	11	4gr16967.d	1.	1254 ICAL 250 PPB	SOS63-41	17 Mar 2003 18:38
13	12	4gr16968.d	1.	1254 ICAL 100 PPB	SOS63-41	17 Mar 2003 18:56
14	13	4gr16969.d	1.	1254 ICAL 50 PPB	SOS63-41	17 Mar 2003 19:14
15	14	4gr16970.d	1.	1254 ALT ICV 500 PPB	SOS63-08	17 Mar 2003 19:32
16	15	4gr16971.d	1.	1248 500 PPB	SOS61-40	17 Mar 2003 19:51
17	16	4gr16972.d	1.	1248 ALT 500 PPB - *	SOS64-08	17 Mar 2003 20:09
18	17	4gr16973.d	1.	1242 500 PPB	SOS61-41	17 Mar 2003 20:27
19	18	4gr16974.d	1.	1242 ALT 500 PPB	SOS63-09	17 Mar 2003 20:45
20	19	4gr16975.d	1.	1232 500 PPB	SOS64-09	17 Mar 2003 21:04
21	20	4gr16976.d	1.	1232 ALT 500 PPB	SOS64-10	17 Mar 2003 21:22
22	21	4gr16977.d	1.	1221 500 PPB	SOS64-07	17 Mar 2003 21:40
23	22	4gr16978.d	1.	1221 ALT 500 PPB	SOS61-43	17 Mar 2003 21:58
24	23	4gr16979.d	1.	WG136402-08 1660 CCV 500 PPB	1,1 SOS63-02	17 Mar 2003 22:16
25	51	4gr16980.d	1.	WG136402-09 INST. BLANK	1,1 SOS62-07	17 Mar 2003 22:34
26	52	4gr16981.d	1.	WG136354-01 BLANK V200 P79	1,1 WATER	17 Mar 2003 22:53
	53	4gr16982.d	1.	WG136354-02 LCS V200 P79	1,1 WATER	17 Mar 2003 23:11
	54	4gr16983.d	1.	WG136354-03 LCS DUP V200 P79	1,1 WATER	17 Mar 2003 23:29
29	55	4gr16984.d	1.	L0303318-01	1,1 WATER	17 Mar 2003 23:47
30	56	4gr16985.d	1.	L0303318-02	1,1 WATER	18 Mar 2003 00:05
31	57	4gr16986.d	1.	L0303318-03	1,1 WATER	18 Mar 2003 00:23
32	58	4gr16987.d	1.	L0303318-04	1,1 WATER	18 Mar 2003 00:42
33	59	4gr16988.d	1.	L0303318-05	1,1 WATER	18 Mar 2003 01:00
34	60	4gr16989.d	1.	L0303318-06 - **	1,1 WATER	18 Mar 2003 01:18
35	61	4gr16990.d	1.	L0303318-07	1,1 WATER	18 Mar 2003 01:36
36	62	4gr16991.d	1.	1254 CCV 500 PPB	SOS63-41	18 Mar 2003 01:54
37	63	4gr16992.d	1.	WG136402-10 INST. BLANK	1,1 SOS62-07	18 Mar 2003 02:12
38	64	4gr16993.d	1.	L0303318-08 - ** -A	1,1 WATER	18 Mar 2003 02:31
39	65	4gr16994.d	1.	L0303318-09	1,1 WATER	18 Mar 2003 02:49
40	66	4gr16995.d	1.	L0303318-10 -	1,1 WATER	18 Mar 2003 03:07
41	67	4gr16996.d	1.	L0303318-11	1,1 WATER	18 Mar 2003 03:25
42	68	4gr16997.d	1.	L0303318-12	1,1 WATER	18 Mar 2003 03:44
43	69	4gr16998.d	1.	WG136402-11 1660 CCV 500 PPB	1,1 SOS63-02	18 Mar 2003 04:02
44	70	4gr16999.d	1.	WG136402-12 INST. BLANK	1,1 SOS62-07	18 Mar 2003 04:20

EC2 3/18/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 3/17/03 Instrument ID HP4 Column ID RTX-CLP Rear Data Subdirectory 031703.SEC
Analyst Initials ECL

SOP # GCS09 Rev. # __ 8081A ____
SOP # GCS04 Rev. # __ 8151A ____
SOP # GCS03 Rev. # __ PRO ____
SOP # GCS02 Rev. # __ 8015B Mod (Alcohol) ____
SOP # GCS10 Rev. # 3 8082 ✓
SOP # GCS01 Rev. # __ 8100 ____
SOP # GCS02 Rev. # __ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # __ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
☑ Cases >500 psi

Preventative Maintenance
☐ Change o-ring
☑ Change liner
☐ Change septum
☐ Clip column (__cm)
☐ Injection port seal (goldseal)
☐ Change gases _____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

* - 3 peaks failed but the average was within 15% = good

** - need rerun for Ar 1232 and confirmed

A - Sample failed T-M-X surrogate high. PCB was good

Reviewed By: _____

Directory: [illegible]

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	4gr17913.d	1.	WG139378-04 1660 CCV 500 PPB	1,1 SOS63-02	1 May 2003 [illegible]
2	2	4gr17914.d	1.	WG139378-05 INST. BLANK	1,1 SOS64-38	1 May 2003 10:15
3	3	4gr17915.d	1.	WG139410-01 BLANK V202 P75	7,1 SOIL	1 May 2003 10:33
4	4	4gr17916.d	1.	WG139410-02 LCS V202 P75	7,1 SOIL	1 May 2003 10:51
5	5	4gr17917.d	1.	WG139410-03 LCS DUP V202 P75	7,1 SOIL	1 May 2003 11:08
6	6	4gr17918.d	1.	L0304596-05 - CF	7,1,RE SOIL	1 May 2003 11:26
7	7	4gr17919.d	1.	L0304596-07 - CF	7,1,RE SOIL	1 May 2003 11:44
8	8	4gr17920.d	1.	L0304651-01	7,1 SOIL	1 May 2003 12:02
9	9	4gr17921.d	1.	L0304651-02 - CF	7,1 SOIL	1 May 2003 12:20
10	10	4gr17922.d	1.	L0304651-03	7,1 SOIL	1 May 2003 12:38
11	11	4gr17923.d	1.	L0304651-04	7,1 SOIL	1 May 2003 12:56
12	12	4gr17924.d	1.	1254 CCV 500 PPB	SOS63-41	1 May 2003 13:13
13	13	4gr17925.d	1.	WG139378-06 INST. BLANK	1,1 SOS64-38	1 May 2003 13:31
14	14	4gr17926.d	1.	WG139378-07 1660 CCV 500 PPB	1,1 SOS63-02	1 May 2003 13:49
15	15	4gr17927.d	1.	WG139432-01 BLANK V201 P107	2,1 WATER	1 May 2003 14:07
16	16	4gr17928.d	1.	WG139432-02 LCS V201 P107	2,1 WATER	1 May 2003 14:24
17	17	4gr17929.d	1.	WG139432-03 LCS DUP V201 P107	2,1 WATER	1 May 2003 14:42
18	18	4gr17930.d	1.	L0304672-01	2,1 WATER	1 May 2003 15:00
19	19	4gr17931.d	1.	WG139368-01 BLANK V202 P73	7,1 SOIL	1 May 2003 15:18
20	20	4gr17932.d	1.	WG139368-02 LCS V202 P73	7,1 SOIL	1 May 2003 15:35
21	21	4gr17933.d	1.	WG139368-03 LCS DUP V202 P73	7,1 SOIL	1 May 2003 15:53
22	22	4gr17934.d	1.	L0304554-01 - CF - *	7,1 SOIL	1 May 2003 16:11
23	23	4gr17935.d	1.	L0304594-03 - CF - *	7,1 SOIL	1 May 2003 16:29
24	24	4gr17936.d	1.	WG139378-08 1660 CCV 250 PPB	1,1 SOS63-02	1 May 2003 16:47
25	25	4gr17937.d	1.	RR WG139367-01 BLANK V202 P71	11,1 OIL	1 May 2003 17:05
26	26	4gr17938.d	1.	WG139367-02 LCS V202 P71	11,1 OIL	1 May 2003 17:23
[illegible]	27	4gr17939.d	1.	WG139367-03 LCS DUP V202 P71	11,1 OIL	1 May 2003 17:41
[illegible]	28	4gr17940.d	1.	L0304419-01 5x - 20X	11,5 OIL	1 May 2003 17:59
29	29	4gr17941.d	1.	L0304419-02 5x - 20X	11,5 OIL	1 May 2003 18:16
30	30	4gr17942.d	1.	L0304543-06 5x - 20X	12,5 OIL	1 May 2003 18:34
31	31	4gr17943.d	1.	L0304619-01 5x - 20X	11,5 OIL	1 May 2003 18:52
32	32	4gr17944.d	1.	CC WG139378-09 1660 CCV 500 PPB	1,1 SOS63-02	1 May 2003 19:09

ECZ 5/2/03
mdc 5/2/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 5/1/03 Instrument ID HP4 Column ID RTx-CLP Rear Data Subdirectory 050103
Analyst Initials ECL

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ____
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____
SOP # GCS10 Rev. # 3.5 8082 ✓
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time ____ Instrument ID ____ Column ID ____ Data Subdirectory ____

Daily Check
- ☐ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☐ Change liner
- ☐ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases ____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

CF - need confirmed

CC - Standard failed low.

RR - need rerun.

X - DCB surrogate failed high due to SMI.

Reviewed By: mk 5/2/03

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	4gf17523.d	1.	WG139612-01 1660 ICAL 2000 PPB	1,1 SOS63-02	2 May 2003 13:09
2	2	4gf17524.d	1.	WG139612-02 1660 ICAL 1000 PPB	1,1 SOS63-02	2 May 2003 13:27
3	3	4gf17525.d	1.	WG139612-03 1660 ICAL 500 PPB	1,1 SOS63-02	2 May 2003 13:46
4	4	4gf17526.d	1.	WG139612-04 1660 ICAL 250 PPB	1,1 SOS63-02	2 May 2003 14:04
5	5	4gf17527.d	1.	WG139612-05 1660 ICAL 100 PPB	1,1 SOS63-02	2 May 2003 14:23
6	6	4gf17528.d	1.	WG139612-06 1660 ICAL 50 PPB	1,1 SOS63-02	2 May 2003 14:41
7	7	4gf17529.d	1.	WG139612-07 1660 ALT ICV 50...	1,1 SOS63-14	2 May 2003 15:00
8	8	4gf17530.d	1.	1254 ICAL 2000 PPB	SOS63-41	2 May 2003 15:18
9	9	4gf17531.d	1.	1254 ICAL 1000 PPB	SOS63-41	2 May 2003 15:37
10	10	4gf17532.d	1.	1254 ICAL 500 PPB	SOS63-41	2 May 2003 15:55
11	11	4gf17533.d	1.	1254 ICAL 250 PPB	SOS63-41	2 May 2003 16:13
12	12	4gf17534.d	1.	1254 ICAL 100 PPB	SOS63-41	2 May 2003 16:32
13	13	4gf17535.d	1.	1254 ICAL 50 PPB	SOS63-41	2 May 2003 16:50
14	14	4gf17536.d	1.	1254 ALT ICV 500 PPB	SOS63-08	2 May 2003 17:09
15	15	4gf17537.d	1.	1248 500 PPB	SOS64-45	2 May 2003 17:27
16	16	4gf17538.d	1.	1248 ALT 500 PPB	SOS64-08	2 May 2003 17:45
17	17	4gf17539.d	1.	1242 500 PPB	SOS64-44	2 May 2003 18:04
18	18	4gf17540.d	1.	1242 ALT 500 PPB	SOS63-09	2 May 2003 18:23
19	19	4gf17541.d	1.	1232 500 PPB	SOS64-09	2 May 2003 18:41
20	20	4gf17542.d	1.	1232 ALT 500 PPB	SOS64-10	2 May 2003 18:59
21	21	4gf17543.d	1.	1221 500 PPB	SOS64-07	2 May 2003 19:18
22	22	4gf17544.d	1.	1221 ALT 500 PPB	SOS64-43	2 May 2003 19:36
23	23	4gf17545.d	1.	WG139612-08 1660 CCV 500 PPB	1,1 SOS63-02	2 May 2003 19:54
24	24	4gf17546.d	1.	L0304426-17 CF	1,1 WATER CF	2 May 2003 20:13
25	25	4gf17547.d	1.	L0304447-01 CF	1,1 WATER CF	2 May 2003 20:31
26	26	4gf17548.d	1.	L0304554-01 CF	7,1 SOIL CF	2 May 2003 20:49
27	27	4gf17549.d	1.	L0304594-03 CF	7,1 SOIL CF	2 May 2003 21:07
28	28	4gf17550.d	1.	WG139612-09 1660 CCV 500 PPB	1,1 SOS63-02	2 May 2003 21:26
29	29	4gf17551.d	1.	INST. BLANK	SOS64-38	2 May 2003 21:44
30	30	4gf17552.d	1.	L0304441-01 CF	1,1 WATER CF	2 May 2003 22:02
31	31	4gf17553.d	100.	L0304441-03 CF 100x	1,100 WATER CF	2 May 2003 22:20
32	32	4gf17554.d	1.	L0304509-01 CF	7,1 SOIL CF	2 May 2003 22:38
33	33	4gf17555.d	1.	L0304509-02 CF	7,1 SOIL CF	2 May 2003 22:57
34	34	4gf17556.d	1.	L0304509-03 CF	7,1 SOIL CF	2 May 2003 23:15
35	35	4gf17557.d	1.	L0304509-04 CF	7,1 SOIL CF	2 May 2003 23:33
36	36	4gf17558.d	1.	L0304509-09 CF	7,1 SOIL CF	2 May 2003 23:51
37	37	4gf17559.d	1.	L0304509-10 CF	7,1 SOIL CF	3 May 2003 00:09
38	38	4gf17560.d	1.	L0304509-11 CF	7,1 SOIL CF	3 May 2003 00:28
39	39	4gf17561.d	1.	L0304547-01 CF	13,1 WIPE	3 May 2003 00:46
40	40	4gf17562.d	1.	1254 CCV 500 PPB	SOS63-41	3 May 2003 01:04
41	41	4gf17563.d	1.	INST. BLANK	SOS64-38	3 May 2003 01:22
42	42	4gf17564.d	20.	L0304548-01 CF 20x	7,20 SOIL CF	3 May 2003 01:40
43	43	4gf17565.d	1.	L0304596-05 CF	7,1,RE SOIL CF	3 May 2003 01:59
44	44	4gf17566.d	1.	L0304596-07 CF	7,1,RE SOIL CF	3 May 2003 02:17
45	45	4gf17567.d	1.	L0304651-02 CF	7,1 SOIL CF	3 May 2003 02:35
46	46	4gf17568.d	1.	1660 CCV 500 PPB	SOS63-02	3 May 2003 02:53
47	47	4gf17569.d	1.	INST. BLANK	SOS63-48	3 May 2003 03:11

EQ 5/4/03

mlc 5/5/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 5/2/03 Instrument ID HP4 Column ID RTx-CLPII Front Data Subdirectory 050203
Analyst Initials ECL

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ____
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____
SOP # GCS10 Rev. # 5 8082 ✓
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ☑ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☐ Change liner
- ☐ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: _____

Parameter: PCB-S SOP #: EXT02 Revision #: 11
Extraction Analyst(s): PAS, CAF TV/KD Analyst(s): CAF
Date/Time Extracted: 04/30/03 850 Date TV/KD: 4-30-03
Spike/Surrogate Analyst: CAF Witness: PAS
Surrogate #: ES500449-10 Earliest Hold Date: 5-08-03
Spike #: A = ES500449-E7 CAF 4-30-03 Spike #: B = —
43-03 #2

Extraction Work Group WG 139368
Analytical Work Group WG 139446

Extract Relinquished By: CAF
Extract Received By & Date: EQ 4/30/03

	Sample ID	Test Code	pH / <2	pH / N	pH / >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	Emulsions / BN	Emulsions / N	Comments
1	Blank				*	30.00 g	2mL		10mL	T				WG 139365 C1
2	LCS				*	30.00 g		1mL						WG 139365 C2
3	LCS DUP				*	30.00 g		"						WG 139365 C3
4	04-554-01	3082			*	30.00 g								
5	04-554-03	"			*	30.00 g	"		"	"				
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

CAF 4-30-03

Methylene Chloride Lot #: —
Hexane Lot #: 43057
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: 9416 Lot #: ER0005-27
Reagent: 2AB Sand Lot #: → X35635
Reagent: powd. Na2SO4 Lot #: → X33157
Acid: Conc. H2SO4 Lot #: X43027
Florisil Lot #: Y01559
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 0005-19

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C					
Sonication	3550B	✓				
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B	✓	GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A	✓	N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 04/30/03

Extraction Notes For Volume # 202 Page # 73

General Comments: * all wts. are 30 ± .10 g.

Extraction Anomalies: NONE

Concentration Anomalies: NONE

Clean-Up Anomalies: NONE

Supervisor Review: _____ Date: _____

Semi-Volatile CC Checklist

Run Date: 3/17/03

Analyst: ECL

Instrument: HP4 Regr

Method: 8082

Workorders:	Due Date:	Priority:
03-318	3/18	PIT.

		Analyst
System Performance Check:	Endrin/DDT Breakdown	
Initial Calibration:	Average RF	✓
	Linear or quadratic regression	
	Alt Source Check	✓
Continuing Calibration:	Continuing Calibration	✓
	Client Specific Requirements	✓
	Ending Standards	✓
	Special Standards	✓
Blanks:	Quant Report/Chromatogram	✓
	Surrogates	✓
LCS/LCS DUP:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Spike Compounds	✓
	MS/MSD	
Samples:	Quant Reports/Chromatograms	✓
	Surrogates	✓
	Dilution runs	
	Check Sample Histories	✓
Data Package:	Manual Integrations	
	Run logs	✓
	Bench sheets	✓
	QC sheets	✓
	Upload results	✓
	Seedpak workgroups	✓
	Level 2	
	Level 3	
	Level 4 copies	✓
	Level x	
	Case narratives	

	Supervisor
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

✓ = Checked & OK

NA = Not Applicable

Comments:

Primary Reviewer: ECL 3/18/03

Secondary Reviewer: mlc 3/18/03

Supervisor Review: mlc 3/18/03

Semi-Volatile GC Checklist

Run Date: 5/1/03

Analyst: ECL

Instrument: HP 4

Method: 8082

Workorders:	Due Date:	Priority:
04-596 RE	4/29	PIT
04-651	5/2	PIT
04-672	5/1	P1
04-554	5/2	P1
04-594	5/5	P1

		Analyst
System Performance Check:	Endrin/DDT Breakdown	
Initial Calibration:	Average RF	
	Linear or quadratic regression	
	Alt Source Check	
Continuing Calibration:	Continuing Calibration	✓
	Client Specific Requirements	✓
	Ending Standards	✓
	Special Standards	✓
Blanks:	Quant Report/Chromatogram	✓
	Surrogates	✓
LCS/LCS DUP:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Spike Compounds	✓
	MS/MSD	
Samples:	Quant Reports/Chromatograms	✓
	Surrogates	✓
	Dilution runs	✓
	Check Sample Histories	✓
Data Package:	Manual Integrations	
	Run logs	✓
	Bench sheets	✓
	QC sheets	✓
	Upload results	✓
	Seedpax workgroups	✓
	Level 2	✓
	Level 3	
	Level 4 copies	✓
	Level x	
	Case narratives	✓

	Supervisor
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

√ = Checked & OK

NA = Not Applicable

Comments:

Primary Reviewer: EC 5/2/03

Secondary Reviewer: mlc 5/2/03

Supervisor Review: mlc 5/2/03

Semi-Volatile GC Checklist

Run Date: 5/2/03

Analyst: ECL

Instrument: HP4 Front

Method: 8082

Workorders: Due Date: Priority:

04-441
04-509
04-547
04-549
04-596
04-651
04-426
04-447
04-594

Confirmations

		Analyst
System Performance Check:	Endrin/DDT Breakdown	
Initial Calibration:	Average RF	✓
	Linear or quadratic regression	
	Alt Source Check	✓
Continuing Calibration:	Continuing Calibration	✓
	Client Specific Requirements	✓
	Ending Standards	✓
	Special Standards	✓
Blanks:	Quant Report/Chromatogram	
	Surrogates	
LCS/LCS DUP:	Quant Report/Chromatogram	
	Surrogates	
	Spike Compounds	
	MS/MSD	
Samples:	Quant Reports/Chromatograms	✓
	Surrogates	✓
	Dilution runs	✓
	Check Sample Histories	✓
Data Package:	Manual Integrations	
	Run logs	✓
	Bench sheets	
	QC sheets	
	Upload results	
	Seedpak workgroups	
	Level 2	
	Level 3	
	Level 4 copies	
	Level x	
	Case narratives	

	Supervisor
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

√ = Checked & OK

NA = Not Applicable

Comments:

Primary Reviewer: ECL 5/14/03

Secondary Reviewer: [illegible] 5/15/03

Supervisor Review: [illegible] 5/15/03

Example 8082 Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

		Example:
	RF = As/ Cs	
Where:	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ng/ml).	100
	RF	**100**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:*

		Example:
	C = [(Ax)(Vf)(D)] / [(RF)(Vi)]	
Where:	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Vi = Initial volume of sample (mL). (prep log)	1000
	C (ug/L)	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report:*

		Example:
	C = [(Ax)(Vf)(D)] / [(RF)(Vi)]	
Where:	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

* Concentrations appearing on instrument quantitation reports are on-column results and do not take into account initial volume, final volume and dilution factor.

2.2.4 Herbicide GC Data (8151)

REPORT NARRATIVE
GC HERBICIDES

KEMRON Report No.: L0304554

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8151

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

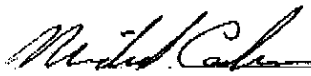
BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: For all samples which yielded results with an RPD of greater than 40% between the primary and confirmation column the appropriate flag was applied. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ECL REVIEWED:  DATE: 5/16/03

Rev. 7/14/00

HERBICIDES B GC DATA (8151)

Login Number 04-554

A. QC Summary

- ✓ Method Blank Summary
- ✓ Method Blank Results
- ✓ Laboratory Control Sample (LCS)
- NA Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ✓ Holding Time Summary
- ✓ Surrogate Recovery Summary
- ✓ Initial Calibration Summary
- ✓ Initial Calibration Verification (ICV) Form (Second Source)
- ✓ Continuing Calibration Verification (CCV)
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet

B. Sample Data

- ✓ Target compound and surrogate results summary (See Summary Report)
- ✓ Chromatograms and quantitation report

C. Standards Data

- ✓ Initial calibration (ICAL) summary form
- ✓ Chromatograms and quantitation report for ICAL standards
- ✓ Initial calibration verification (ICV/second source) summary forms
- ✓ Initial calibration verification (ICV/second source) quantitation reports and chromatograms
- ✓ Continuing Calibration Verification (CCV) summary forms
- ✓ Continuing Calibration Verification (CCV) quantitation reports and chromatograms
- ✓ Retention Time Window Summary

D. Raw QC Data

- ✓ Method blank chromatogram and quantitation report
- ✓ LCS chromatogram and quantitation report
- NA MS/MSD chromatogram and quantitation report
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet
- ✓ Daily Checklist
- ✓ Example Calculations

Checked By: EC2 Date: 5-5-03

2.2.4.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0304554
Blank File ID: 1G5872.F
Date Analyzed: 05/01/03
Time Analyzed: 16:02
Analyst: ECL

Work Group: WG139504
Blank Sample ID: WG139417-02
Instrument ID: HP1
Method: 8151A

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG139417-03	1G5873.F	05/01/03 16:37	01
05-177511-SP1-042403	L0304554-01	1G5886.F	05/02/03 00:15	01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0304554 | Run Date: 05/01/2003 | Sample ID: WG139417-02
Instrument ID: HP1 | Run Time: 16:02 | Prep Method: METHOD
File ID: 1G5872.F | Analyst: ECL | Method: 8151A
Workgroup (AAB#): WG139504 | Matrix: Tclp | Units: ug/L
Contract #: | Cal ID: HP1-15-APR-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
2,4-D	1.00	10.0	1.00	1	U
2,4,5-TP (Silvex)	0.100	2.00	0.100	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4-Dichlorophenylacetic acid	88.2	20 - 144	PASS

* Analyte detected above RDL
ND Analyte Not detected at or above reporting limit

KEMRON FORMS - Modified 05/02/2003
Version 1.3
Report generated 05/05/2003 12:46

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0304554 Run Date: 05/01/2003 Sample ID: WG139417-03
Instrument ID: HP1 Run Time: 16:37 Prep Method: METHOD
File ID: 1G5873.F Analyst: ECL Method: 8151A
Workgroup (AAB#): WG139504 Matrix: Tclp Units: ug/L
Contract #: Cal ID: HP1-15-APR-2003 18:16

Analytes	Expected	Found	% Rec	LCS Limits	Q
2,4,5-TP (Silvex)	0.500	0.499	99.7	81 - 305	
2,4-D	5.00	4.61	92.1	72 - 247	

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4-dichlorophenylacetic acid	97.2	20 - 144	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method:8151B AAB#:WG139504
Login Number:L0304554

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
05-177511-SP1-042403	04/24/03	04/25/03	04/30/03	10.9	5.94	05/02/03	40	1.39	
05-177511-SP1-042403	04/24/03	04/25/03	04/30/03	10.9	5.94	05/02/03	40	1.41	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0304554
Instrument Id: HP1
Workgroup (AAB#): WG139504

Method: 8151
CAL ID: HP1-15-APR-03
Matrix: TCLP

Sample Number	Dilution	Tag	1
L0304554-01	1.00	01	87.8

Surrogates	Surrogate Limits
1 - 2,4-Dichlorophenylacetic acid	20 - 144

Underline = Result out of surrogate limits

DL = surrogate diluted out

ND = surrogate not detected

KEMRON FORMS - Modified 01/22/2003
Version 1.2
Report generated 05/05/2003 12:46

Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 12:06:45 2003

Calibration Files
5 =1G5758.D 4 =1G5759.D 3 =1G5760.D
2 =1G5761.D 1 =1G5762.D

		Compound	5	4	3	2	1	Avg	%RSD
1)		Dalapon	1.589	1.767	1.861	2.006	2.161	1.877#E3	11.69
2)	S	2,4-Dichlorophenylace	0.848	0.963	1.041	1.158	1.281	1.059#E3	15.90
3)		MCPA	3.173	3.478	3.636	3.743	3.524	3.511#E3	6.13
4)		Dicamba	4.722	5.059	5.002	5.087	5.167	5.007#E3	3.40
5)		MCPP	2.082	2.201	2.156	2.051	1.570	2.012#E3	12.63
6)		Dichloroprop	1.118	1.265	1.395	1.575	1.668	1.404#E3	15.92
7)		2,4-D	1.355	1.530	1.725	1.999	2.146	1.751#E3	18.60
8)		Pentachlorophenol	1.966	2.129	2.165	2.202	2.123	2.117#E4	4.27
9)		Silvex	8.125	8.429	8.355	8.481	8.290	8.336#E3	1.66
10)		2,4,5-T	7.615	8.352	8.693	9.513	7.869	8.408#E3	8.87
11)		Dinoseb	5.477	6.115	6.589	7.131	7.514	6.565#E3	12.30
12)		2,4-DB	0.852	0.949	0.986	1.063	1.170	1.004#E3	11.93

Signal #2 Calibration Files
5 =1G5758.D 4 =1G5759.D 3 =1G5760.D
2 =1G5761.D 1 =1G5762.D

		Compound	5	4	3	2	1	Avg	%RSD
1)		Dalapon	1.486	1.585	1.669	1.803	1.984	1.705#E3	11.41
2)	S	2,4-Dichlorophenylace	0.784	0.997	1.084	1.204	1.351	1.084#E3	19.76
3)		MCPA	2.980	3.963	4.264	4.581	4.791	4.116#E3	17.21
4)		Dicamba	4.275	5.214	5.354	5.649	5.960	5.291#E3	12.02
5)		MCPP	2.113	2.540	2.685	2.526	1.967	2.366#E3	13.03
6)		Dichloroprop	1.050	1.306	1.455	1.633	1.757	1.440#E3	19.27
7)		2,4-D	1.174	1.573	1.715	1.880	2.009	1.670#E3	19.32
8)		Pentachlorophenol	1.688	2.237	2.301	2.388	2.365	2.196#E4	13.20
9)		Silvex	7.162	9.466	9.596	9.735	9.721	9.136#E3	12.14
10)		2,4,5-T	6.468	8.703	9.007	9.172	9.053	8.481#E3	13.42
11)		Dinoseb	4.718	6.256	6.760	7.455	8.029	6.644#E3	19.11
12)		2,4-DB	0.740	0.990	1.041	1.108	1.135	1.002#E3	15.72

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\041503\1G5763.D\ECD1A.CH Vial: 6
Acq On : 15 Apr 2003 18:51 Operator: ECL
Sample : WG138386-06 HERB ALT ICV Inst : HP1
Misc : 1,1 SOS64-21 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\041503\1G5763.D\ECD2B.CH Vial: 6
Acq On : 15 Apr 2003 19:26 Operator: ECL
Sample : WG138386-01 HERB ICAL #1 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e

Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 12:06:45 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Dalapon	1250.000	1083.115	13.4	87	0.00
2	S	2,4-Dichlorophenylacetic ac	500.000	450.089	10.0	91	-0.01
3		MCPA	50.000	48.449	3.1	94	0.00
4		Dicamba	50.000	45.893	8.2	92	0.00
5		MCPP	50.000	49.640	0.7	93	0.00
6		Dichloroprop	500.000	501.584	-0.3	101	-0.01
7		2,4-D	500.000	427.613	14.5	87	-0.02
8		Pentachlorophenol	50.000	46.613	6.8	91	-0.01
9		Silvex	50.000	48.215	3.6	96	-0.02
10		2,4,5-T	50.000	46.435	7.1	90	-0.02
11		Dinoseb	250.000	231.746	7.3	92	-0.02
12		2,4-DB	500.000	437.110	12.6	89	-0.03

Signal #2

1		Dalapon	1250.000	1077.862	13.8	88	-0.01
2	S	2,4-Dichlorophenylacetic	500.000	453.447	9.3	91	-0.01
3		MCPA	50.000	45.793	8.4	88	0.00
4		Dicamba	50.000	47.139	5.7	93	0.00
5		MCPP	50.000	47.788	4.4	84	0.00
6		Dichloroprop	500.000	500.500	-0.1	99	0.00
7		2,4-D	500.000	437.155	12.6	85	0.00
8		Pentachlorophenol	50.000	47.032	5.9	90	0.00
9		Silvex	50.000	46.642	6.7	89	0.00
10		2,4,5-T	50.000	50.273	-0.5	95	-0.01
11		Dinoseb	250.000	227.044	9.2	89	0.00
12		2,4-DB	500.000	417.000	16.6#	80	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G5763.D 8151.M Wed Apr 16 12:24:53 2003 Page 1

Data File : C:\HPCHEM\1\DATA\050103\1G5871.D\ECD1A.CH Vial: 1
Acq On : 1 May 2003 14:01 Operator: ECL
Sample : WG139503-01 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5871.D\ECD2B.CH Vial: 1
Acq On : 1 May 2003 14:37 Operator: ECL
Sample : HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e

Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 12:06:45 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Dalapon	1250.000	1276.270	-2.1	103	0.00
2	S	2,4-Dichlorophenylacetic ac	500.000	489.007	2.2	99	0.01
3		MCPA	50.000	50.741	-1.5	98	0.00
4		Dicamba	50.000	51.820	-3.6	104	0.02
5		MCPP	50.000	51.998	-4.0	97	0.02
6		Dichloroprop	500.000	515.822	-3.2	104	0.00
7		2,4-D	500.000	504.003	-0.8	102	0.01
8		Pentachlorophenol	50.000	53.543	-7.1	105	0.01
9		Silvex	50.000	51.112	-2.2	102	0.01
10		2,4,5-T	50.000	49.880	0.2	96	0.00
11		Dinoseb	250.000	260.762	-4.3	104	0.00
12		2,4-DB	500.000	502.751	-0.6	102	0.00

Signal #2

1		Dalapon	1250.000	1352.807	-8.2	111	0.00
2	S	2,4-Dichlorophenylacetic	500.000	528.495	-5.7	106	0.00
3		MCPA	50.000	52.073	-4.1	101	0.00
4		Dicamba	50.000	55.390	-10.8	109	0.01
5		MCPP	50.000	56.701	-13.4	100	0.00
6		Dichloroprop	500.000	533.200	-6.6	106	0.00
7		2,4-D	500.000	532.237	-6.4	104	0.00
8		Pentachlorophenol	50.000	57.440	-14.9	110	0.00
9		Silvex	50.000	57.142	-14.3	109	0.00
10		2,4,5-T	50.000	57.351	-14.7	108	0.00
11		Dinoseb	250.000	267.853	-7.1	105	0.00
12		2,4-DB	500.000	560.037	-12.0	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G5871.D 8151.M Thu May 01 16:01:10 2003 Page 1

Data File : C:\HPCHEM\1\DATA\050103\1G5882.D\ECD1A.CH Vial: 12
Acq On : 1 May 2003 21:53 Operator: ECL
Sample : WG139503-02 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5882.D\ECD2B.CH Vial: 12
Acq On : 1 May 2003 22:28 Operator: ECL
Sample : L0304587-02 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e

Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 12:06:45 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Dalapon	1250.000	1300.158	-4.0	105	0.02
2	S	2,4-Dichlorophenylacetic ac	500.000	506.144	-1.2	103	0.00
3		MCPA	50.000	52.651	-5.3	102	0.00
4		Dicamba	50.000	52.997	-6.0	106	0.00
5		MCPP	50.000	54.213	-8.4	101	0.00
6		Dichloroprop	500.000	524.057	-4.8	105	0.00
7		2,4-D	500.000	515.756	-3.2	105	0.00
8		Pentachlorophenol	50.000	54.698	-9.4	107	0.00
9		Silvex	50.000	53.214	-6.4	106	0.00
10		2,4,5-T	50.000	50.670	-1.3	98	0.00
11		Dinoseb	250.000	262.942	-5.2	105	-0.01
12		2,4-DB	500.000	517.553	-3.5	105	-0.01

Signal #2

1		Dalapon	1250.000	1351.993	-8.2	111	0.01
2	S	2,4-Dichlorophenylacetic	500.000	528.324	-5.7	106	0.00
3		MCPA	50.000	51.977	-4.0	100	0.00
4		Dicamba	50.000	55.483	-11.0	110	0.00
5		MCPP	50.000	56.848	-13.7	100	0.00
6		Dichloroprop	500.000	536.016	-7.2	106	0.00
7		2,4-D	500.000	535.476	-7.1	104	0.00
8		Pentachlorophenol	50.000	56.799	-13.6	108	0.00
9		Silvex	50.000	56.977	-14.0	108	0.00
10		2,4,5-T	50.000	56.259	-12.5	106	0.00
11		Dinoseb	250.000	269.156	-7.7	106	0.00
12		2,4-DB	500.000	562.310	-12.5	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G5882.D 8151.M Fri May 02 08:01:38 2003 Page 1

Data File : C:\HPCHEM\1\DATA\050103\1G5888.D\ECD1A.CH Vial: 18
Acq On : 2 May 2003 1:25 Operator: ECL
Sample : WG139503-03 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5888.D\ECD2B.CH Vial: 18
Acq On : 2 May 2003 2:01 Operator: ECL
Sample : L0304594-03 Inst : HP1
Misc : 17,1 WATER Multiplr: 1.00
IntFile : events2.e

Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 12:06:45 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Dalapon	1250.000	1312.210	-5.0	106	0.02
2	S	2,4-Dichlorophenylacetic ac	500.000	511.406	-2.3	104	0.00
3		MCPA	50.000	53.505	-7.0	103	0.00
4		Dicamba	50.000	53.406	-6.8	107	0.00
5		MCPP	50.000	55.484	-11.0	104	0.00
6		Dichloroprop	500.000	528.552	-5.7	106	0.00
7		2,4-D	500.000	520.334	-4.1	106	0.00
8		Pentachlorophenol	50.000	55.242	-10.5	108	0.00
9		Silvex	50.000	53.758	-7.5	107	0.00
10		2,4,5-T	50.000	51.164	-2.3	99	0.00
11		Dinoseb	250.000	266.124	-6.4	106	-0.01
12		2,4-DB	500.000	523.280	-4.7	107	-0.01

Signal #2

1		Dalapon	1250.000	1351.401	-8.1	110	0.02
2	S	2,4-Dichlorophenylacetic	500.000	527.188	-5.4	105	0.00
3		MCPA	50.000	51.723	-3.4	100	0.00
4		Dicamba	50.000	55.518	-11.0	110	0.00
5		MCPP	50.000	56.429	-12.9	99	0.00
6		Dichloroprop	500.000	536.944	-7.4	106	0.00
7		2,4-D	500.000	535.177	-7.0	104	0.00
8		Pentachlorophenol	50.000	56.994	-14.0	109	-0.01
9		Silvex	50.000	57.056	-14.1	109	0.00
10		2,4,5-T	50.000	56.308	-12.6	106	0.00
11		Dinoseb	250.000	268.751	-7.5	106	0.00
12		2,4-DB	500.000	564.466	-12.9	109	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G5888.D 8151.M Fri May 02 08:03:18 2003 Page 1

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	1g5758.d	1.	WG138386-05 HERB ICAL #5	1,1 SOS63-10	15 Apr 103 12::
2	2	1g5759.d	1.	WG138386-04 HERB ICAL #4	1,1 SOS63-10	15 Apr 103 12::
3	3	1g5760.d	1.	WG138386-03 HERB ICAL #3	1,1 SOS63-10	15 Apr 103 12::
4	4	1g5761.d	1.	WG138386-02 HERB ICAL #2	1,1 SOS63-10	15 Apr 103 12::
5	5	1g5762.d	1.	WG138386-01 HERB ICAL #1	1,1 SOS63-10	15 Apr 103 12::
6	6	1g5763.d	1.	WG138386-06 HERB ALT ICV	1,1 SOS64-21	15 Apr 103 12::
7	7	1g5764.d	1.	WG138293-02 BLANK V201 P09	1,1 WATER	15 Apr 103 12::
8	8	1g5765.d	1.	WG138293-03 LCS V201 P09	1,1 WATER	15 Apr 103 12::
9	9	1g5766.d	1.	WG138293-04 LCS DUP V201 P09	1,1 WATER	15 Apr 103 12::
10	10	1g5767.d	1.	WG138133-01 TCLP BLANK 4/10	17,1 WATER	15 Apr 103 12::
11	11	1g5768.d	1.	WG138293-01 L0304191-01	17,1 WATER	15 Apr 103 12::
12	12	1g5769.d	1.	WG138293-05 L0304191-01 MS	17,1 WATER	15 Apr 103 13::
13	13	1g5770.d	1.	WG138196-01 TCLP BLANK 4/11	17,1 WATER	15 Apr 103 13::
14	14	1g5771.d	1.	L0304184-01	17,1 WATER	15 Apr 103 13::
15	15	1g5772.d	1.	WG138386-07 HERB CCV	1,1 SOS63-10	16 Apr 103 12::
16	16	1g5773.d	1.	L0304198-01	1,1 WATER	16 Apr 103 12::
17	17	1g5774.d	1.	L0304198-02	1,1 WATER	16 Apr 103 12::
18	18	1g5775.d	1.	L0304198-03	1,1 WATER	16 Apr 103 13::
19	19	1g5776.d	1.	L0304198-04	1,1 WATER	16 Apr 103 13::
20	20	1g5777.d	1.	L0304198-05	1,1 WATER	16 Apr 103 13::
21	21	1g5778.d	1.	L0304248-01	1,1 WATER	16 Apr 103 13::
22	22	1g5779.d	1.	L0304248-02	1,1 WATER	16 Apr 103 13::
23	23	1g5780.d	1.	L0304248-03	1,1 WATER	16 Apr 103 12::
24	24	1g5781.d	1.	L0304248-04	1,1 WATER	16 Apr 103 12::
25	25	1g5782.d	1.	L0304248-05	1,1 WATER	16 Apr 103 12::
26	26	1g5783.d	1.	WG138386-08 HERB CCV	1,1 SOS63-10	16 Apr 103 12::

EC2 4/17/03

note 4/17/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 4/15/03 Instrument ID HP I Column ID Rtx-CLP Data Subdirectory 041503
Analyst Initials EQ (Front)

SOP # GCS09 Rev. # ___ 8081A ___
SOP # GCS04 Rev. # 2 8151A ✓
SOP # GCS03 Rev. # ___ PRO ___
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ___
SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ___
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time 4/15/03 Instrument ID HP I Column ID Rtx-CLP II (Front) Data Subdirectory 041503

Daily Check
- ☑ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☑ Change liner
- ☑ Change septum
- ☑ Clip column (6 cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases ___

Returned To Control?
Yes ✓ No ___

Additional Maintenance
Problem: ___

Action Taken: ___

Comments

Reviewed By: [signature] 4/17/03

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1g5871.d	1.	WG139503-01 HERB CCV	1,1 SOS63-10	1 May 103 12::
2	2	1g5872.d	1.	WG139417-02 BLANK V201 P105	1,1 WATER	1 May 103 12::
3	3	1g5873.d	1.	WG139417-03 LCS V201 P105	1,1 WATER	1 May 103 12::
4	4	1g5874.d	1.	L0304585-01	1,1 WATER	1 May 103 12::
5	5	1g5875.d	1.	L0304585-02	1,1 WATER	1 May 103 12::
6	6	1g5876.d	1.	L0304585-03	1,1 WATER	1 May 103 12::
7	7	1g5877.d	1.	WG139417-01 L0304585-04	1,1 WATER	1 May 103 12::
8	8	1g5878.d	1.	WG139417-04 L0304585-05 MS	1,1 WATER	1 May 103 12::
9	9	1g5879.d	1.	WG139417-05 L0304585-06 MSD	1,1 WATER	1 May 103 12::
10	10	1g5880.d	1.	L0304585-10	1,1 WATER	1 May 103 12::
11	11	1g5881.d	1.	L0304587-02	1,1 WATER	1 May 103 12::
12	12	1g5882.d	1.	WG139503-02 HERB CCV	1,1 SOS63-10	1 May 103 12::
13	13	1g5883.d	1.	L0304594-01	1,1 WATER	1 May 103 13::
14	14	1g5884.d	1.	L0304594-02	1,1 WATER	1 May 103 13::
15	15	1g5885.d	1.	WG139291-01 TCLP BLANK 4/28	17,1 WATER	1 May 103 13::
16	16	1g5886.d	1.	L0304554-01	17,1 WATER	2 May 103 13::
17	17	1g5887.d	1.	L0304594-03	17,1 WATER	2 May 103 13::
18	18	1g5888.d	1.	WG139503-03 HERB CCV	1,1 SOS63-10	2 May 103 12::

EC 5/2/03
ME 5/6

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 5/1/03 Instrument ID HP I Column ID RTx-CLP Front Data Subdirectory 050103
Analyst Initials ECL

SOP # GCS09 Rev. # __ 8081A __
SOP # GCS04 Rev. # 2 8151A ✓
SOP # GCS03 Rev. # __ PRO ____
SOP # GCS02 Rev. # __ 8015B Mod (Alcohol) ____

SOP # GCS10 Rev. # __ 8082 ____
SOP # GCS01 Rev. # __ 8100 ____
SOP # GCS02 Rev. # __ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # __ 8011 ____

Analysis Date/Time 5/1/03 Instrument ID HP I Column ID RTx-CLP II Front Data Subdirectory 050103

Daily Check
- ☑ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☐ Change liner
- ☐ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: _____

Parameter: HEPB H2O SOP #: EXH01 Revision #: 12
Extraction Analyst(s): [illegible] PAS TV/KD Analyst(s): [illegible]
Date/Time Extracted: 04/30/03 @ 1580 Date TV/KD: 05-01-03
Spike/Surrogate Analyst: [illegible] Witness: CEB
Surrogate #: ESSCC44-07 Earliest Hold Date: 05/01/03
Spike #: A = ESSCC44-07 Spike #: B = —

Extraction Work Group WG 139417
Analytical Work Group WG 139504

Extract Relinquished By: [illegible]
Extract Received By & Date: EC 5/1/03

	Sample ID	Test Code	pH / <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	BN	N	Comments
1	Blank		✓		✓	1000 mL	1 mL		10 mL	T				WG 139417-02
2	LCS		✓		✓	⊥		1 mL						WG ⊥ -03
3	04-585-01	8151	✓		✓	980 mL								
4	-02		✓		✓	980 mL								
5	-03		✓		✓	1000 mL								
6	.04		✓		✓									WG 139417-01
7	-05 MS		✓		✓			1 mL						-04 *
8	-06 MSD		✓		✓			⊥						-05 *
9	⊥ -10		✓		✓	⊥								
10	04-587-02		✓		✓	960 mL								
11	04-594-01		✓		✓	900 mL								
12	⊥ -02	⊥	✓		✓	955 mL								
13	TBLK 4/30	8151-TC	✓		✓	100 mL								WG 139291-01
14	04-554-01		✓		✓									
15	04-594-03	⊥	✓		✓	⊥	⊥		⊥	⊥				
16														
17														
18														
19														
20														
21														
22														
23														
24														

05-01-03

Methylene Chloride Lot #: 43010
Hexane Lot #: 54305F
Ether Lot #: 43049
Methanol Lot #: 43036 3087
Solvent: — Lot #: —
Reagent: NaCl Lot #: Y05H20
Reagent: 6N NaOH Lot #: ER0005-14
Reagent: Iso-octane Lot #: VC4616
Acid: 12 N H_2SO_4 Lot #: ER0005-8
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: (Acidified) ER 0005-6

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	✓
Acid 3665A		N/A	
Sulfur 3660B			

Peer Reviewed By: [illegible] Date: 05-01-03

Extraction Notes For Volume # 201 Page # 105

General Comments: 2 MS, MSD of 04-585-04
Diazomethane → FCCQS-16
Silicic Acid → 2847 & 3607

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

2.2.4.2 Sample Data

Data File : C:\HPCHEM\1\DATA\050103\1G5886.D\ECD1A.CH Vial: 16
Acq On : 2 May 2003 00:15 Operator: ECL
Sample : L0304554-01 Inst : HP1
Misc : 17,1 WATER Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5886.D\ECD2B.CH Vial: 16
Acq On : 2 May 2003 00:50 Operator: ECL
Sample : L0304554-01 Inst : HP1
Misc : 17,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: May 2 9:27 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Fri May 02 09:25:07 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
) S	2,4-Dichlorophen	9.84	10.32	464920	440984	439.217	406.832	
Spiked Amount		500.000	Range 20 - 144		Recovery =	87.84%	81.37%	
	Target Compounds							
1)	Dalapon	0.00	0.00	0	0	N.D.	N.D.	
3)	MCPA	0.00	11.11	0	129733	N.D.	31.522	#
4)	Dicamba	0.00	0.00	0	0	N.D.	N.D.	
5)	MCPP	0.00	0.00	0	0	N.D.	N.D.	
6)	Dichloroprop	0.00	11.58	0	205235	N.D.	142.506	#
7)	2,4-D	11.46f	0.00	66139	0	37.770	N.D.	#
8)	Pentachlorophenol	0.00	0.00	0	0	N.D.	N.D.	
9)	Silvex	0.00	0.00	0	0	N.D.	N.D.	
10)	2,4,5-T	0.00	0.00	0	0	N.D.	N.D.	
11)	Dinoseb	0.00	0.00	0	0	N.D.	N.D.	
12)	2,4-DB	0.00	0.00	0	0	N.D.	N.D.	

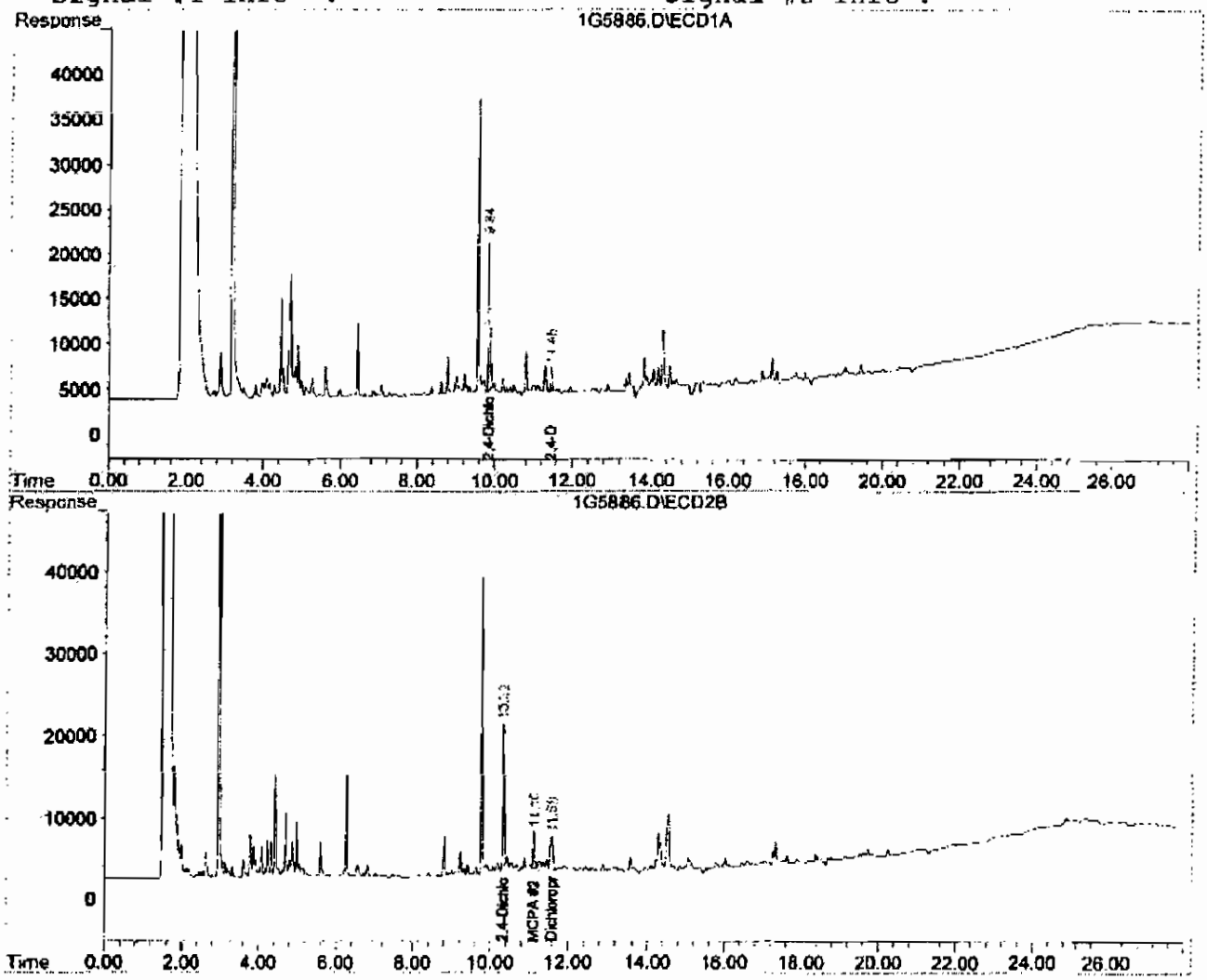
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\050103\1G5886.D\ECD1A.CH Vial: 16
Acq On : 2 May 2003 00:15 Operator: ECL
Sample : L0304554-01 Inst : HP1
Misc : 17,1 WATER Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5886.D\ECD2B.CH Vial: 16
Acq On : 2 May 2003 00:50 Operator: ECL
Sample : L0304554-01 Inst : HP1
Misc : 17,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: May 2 9:27 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Fri May 02 09:25:07 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



2.2.4.3 Standards Data

Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 12:06:45 2003

Calibration Files
5 =1G5758.D 4 =1G5759.D 3 =1G5760.D
2 =1G5761.D 1 =1G5762.D

		Compound	5	4	3	2	1	Avg	%RSD
1)		Dalapon	1.589	1.767	1.861	2.006	2.161	1.877#E3	11.69
2)	S	2,4-Dichlorophenylace	0.848	0.963	1.041	1.158	1.281	1.059#E3	15.90
3)		MCPA	3.173	3.478	3.636	3.743	3.524	3.511#E3	6.13
4)		Dicamba	4.722	5.059	5.002	5.087	5.167	5.007#E3	3.40
5)		MCPP	2.082	2.201	2.156	2.051	1.570	2.012#E3	12.63
6)		Dichloroprop	1.118	1.265	1.395	1.575	1.668	1.404#E3	15.92
7)		2,4-D	1.355	1.530	1.725	1.999	2.146	1.751#E3	18.60
8)		Pentachlorophenol	1.966	2.129	2.165	2.202	2.123	2.117#E4	4.27
9)		Silvex	8.125	8.429	8.355	8.481	8.290	8.336#E3	1.66
10)		2,4,5-T	7.615	8.352	8.693	9.513	7.869	8.408#E3	8.87
11)		Dinoseb	5.477	6.115	6.589	7.131	7.514	6.565#E3	12.30
12)		2,4-DB	0.852	0.949	0.986	1.063	1.170	1.004#E3	11.93

Signal #2 Calibration Files
5 =1G5758.D 4 =1G5759.D 3 =1G5760.D
2 =1G5761.D 1 =1G5762.D

		Compound	5	4	3	2	1	Avg	%RSD
1)		Dalapon	1.486	1.585	1.669	1.803	1.984	1.705#E3	11.41
2)	S	2,4-Dichlorophenylace	0.784	0.997	1.084	1.204	1.351	1.084#E3	19.76
3)		MCPA	2.980	3.963	4.264	4.581	4.791	4.116#E3	17.21
4)		Dicamba	4.275	5.214	5.354	5.649	5.960	5.291#E3	12.02
5)		MCPP	2.113	2.540	2.685	2.526	1.967	2.366#E3	13.03
6)		Dichloroprop	1.050	1.306	1.455	1.633	1.757	1.440#E3	19.27
7)		2,4-D	1.174	1.573	1.715	1.880	2.009	1.670#E3	19.32
8)		Pentachlorophenol	1.688	2.237	2.301	2.388	2.365	2.196#E4	13.20
9)		Silvex	7.162	9.466	9.596	9.735	9.721	9.136#E3	12.14
10)		2,4,5-T	6.468	8.703	9.007	9.172	9.053	8.481#E3	13.42
11)		Dinoseb	4.718	6.256	6.760	7.455	8.029	6.644#E3	19.11
12)		2,4-DB	0.740	0.990	1.041	1.108	1.135	1.002#E3	15.72

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\041503\1G5758.D\ECD1A.CH Vial: 1
Acq On : 15 Apr 2003 15:56 Operator: ECL
Sample : WG138386-05 HERB ICAL #5 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\041503\1G5758.D\ECD2B.CH Vial: 1
Acq On : 15 Apr 2003 16:31 Operator: ECL
Sample : WG138386-05 HERB ICAL #5 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Apr 16 12:07 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 12:06:45 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
2) S	2,4-Dichlorophen	9.96	10.42	1696426	1567483	1602.638	1446.092
	Spiked Amount 500.000	Range 20 - 144		Recovery =		320.53%#	289.22%#
	Target Compounds						
1)	Dalapon	3.70	3.48	7943802	7429089	4233.075	4356.201
3)	MCPA	10.75f	11.21f	634573	595947	180.742	144.802
4)	Dicamba	10.20	10.67	944377	855043	188.597	161.618
5)	MCPP	10.53	10.88	416421	422570	206.960	178.591
6)	Dichloroprop	11.23	11.66	2236860	2100736	1592.758	1465.866
7)	2,4-D	11.54	12.07	2709502	2347262	1547.321	1405.441
8)	Pentachloropheno	11.78	12.54	3931188	3375968	185.688	153.738
9)	Silvex	12.61	13.11	1625062	1432496	194.946	156.792
10)	2,4,5-T	12.96	13.58	1522905	1293654	181.115	152.544
11)	Dinoseb	14.81	14.55	5476519	4717832	834.205	710.138
12)	2,4-DB	13.61	14.19	1704207	1479259	1697.768	1475.627

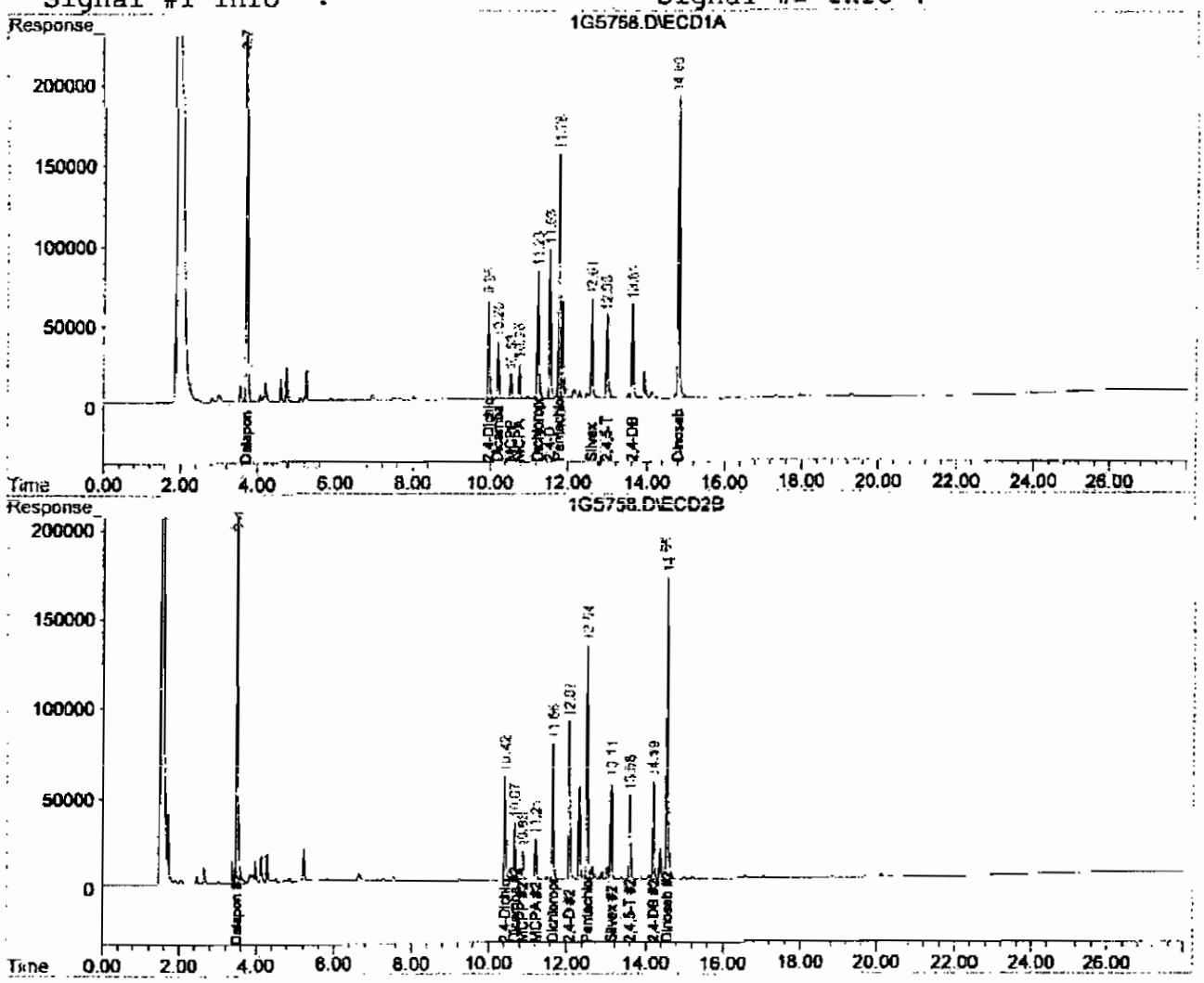
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\041503\1G5758.D\ECD1A.CH Vial: 1
Acq On : 15 Apr 2003 15:56 Operator: ECL
Sample : WG138386-05 HERB ICAL #5 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\041503\1G5758.D\ECD2B.CH Vial: 1
Acq On : 15 Apr 2003 16:31 Operator: ECL
Sample : WG138386-05 HERB ICAL #5 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Apr 16 12:07 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 12:06:45 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\041503\1G5759.D\ECD1A.CH Vial: 2
Acq On : 15 Apr 2003 16:31 Operator: ECL
Sample : WG138386-04 HERB ICAL #4 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\041503\1G5759.D\ECD2B.CH Vial: 2
Acq On : 15 Apr 2003 17:06 Operator: ECL
Sample : WG138386-05 HERB ICAL #5 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Apr 16 12:05 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 12:04:49 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
2) S	2,4-Dichlorophen	9.95	10.42	963104	997380	909.858	920.139
	Spiked Amount 500.000	Range 20 - 144		Recovery =		181.97%#	184.03%#
	Target Compounds						
1)	Dalapon	3.71	3.48	4417018	3963335	2353.731	2323.984
3)	MCPA	10.74	11.20	347808	396254	99.064	96.281
4)	Dicamba	10.20	10.67	505863	521440	101.024	98.561
5)	MCPP	10.53	10.87	220146	253996	109.412	107.346
6)	Dichloroprop	11.23	11.66	1265035	1305711	900.769	908.733
7)	2,4-D	11.54	12.07	1530020	1573487	873.751	942.137
8)	Pentachloropheno	11.78	12.54	2129447	2237074	100.584	101.874
9)	Silvex	12.62	13.11	842893	946650	101.115	103.615
10)	2,4,5-T	12.96	13.58	835187	870264	99.327	102.619
11)	Dinoseb	14.81	14.55	3057259	3128020	465.694	470.836
12)	2,4-DB	13.62	14.19	948756	989606	945.171	987.177

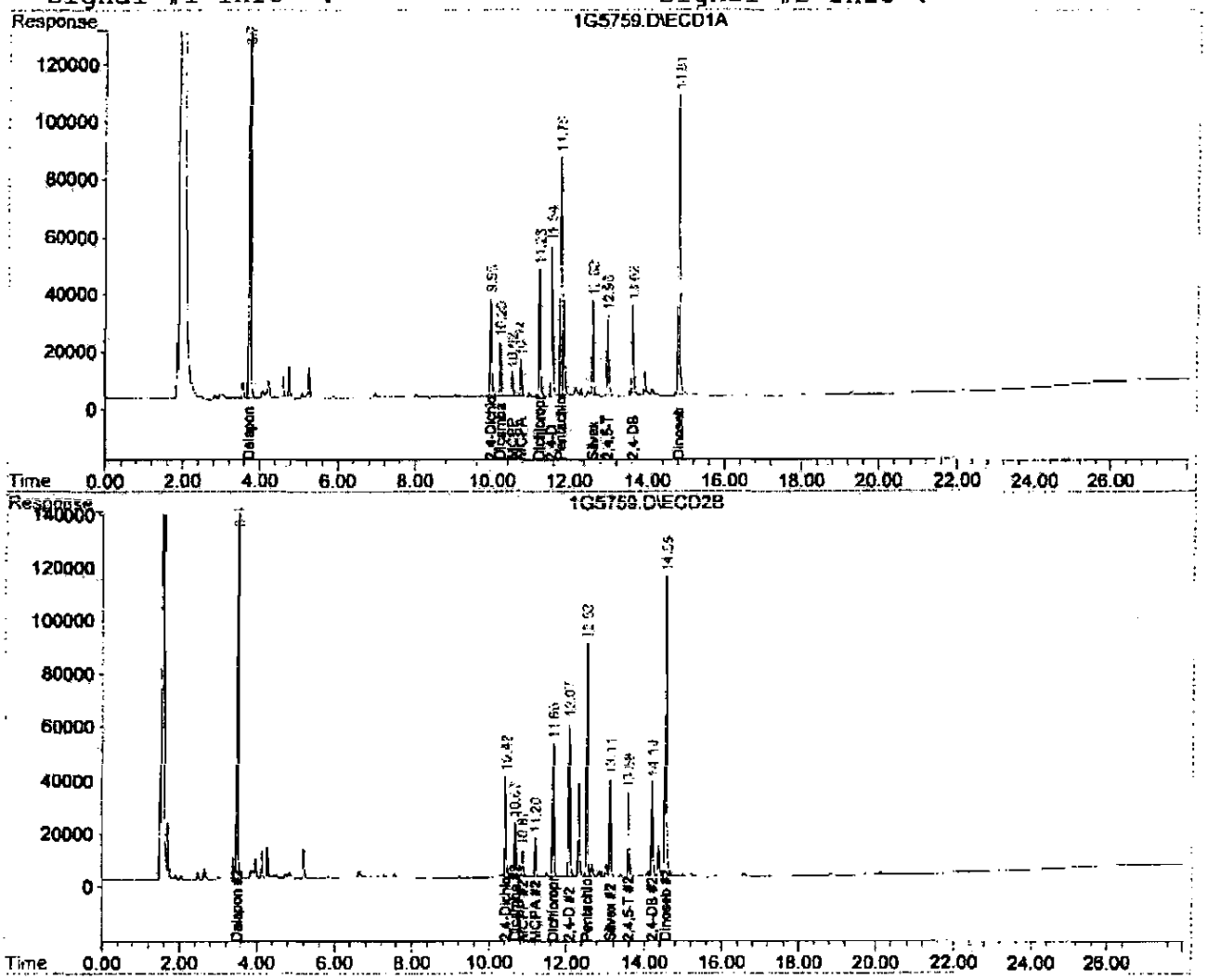
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\041503\1G5759.D\ECD1A.CH Vial: 2
Acq On : 15 Apr 2003 16:31 Operator: ECL
Sample : WG138386-04 HERB ICAL #4 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\041503\1G5759.D\ECD2B.CH Vial: 2
Acq On : 15 Apr 2003 17:06 Operator: ECL
Sample : WG138386-05 HERB ICAL #5 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Apr 16 12:05 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 12:04:49 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\041503\1G5760.D\ECD1A.CH Vial: 3
Acq On : 15 Apr 2003 17:06 Operator: ECL
Sample : WG138386-03 HERB ICAL #3 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\041503\1G5760.D\ECD2B.CH Vial: 3
Acq On : 15 Apr 2003 17:41 Operator: ECL
Sample : WG138386-04 HERB ICAL #4 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Apr 16 11:55 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 11:51:14 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

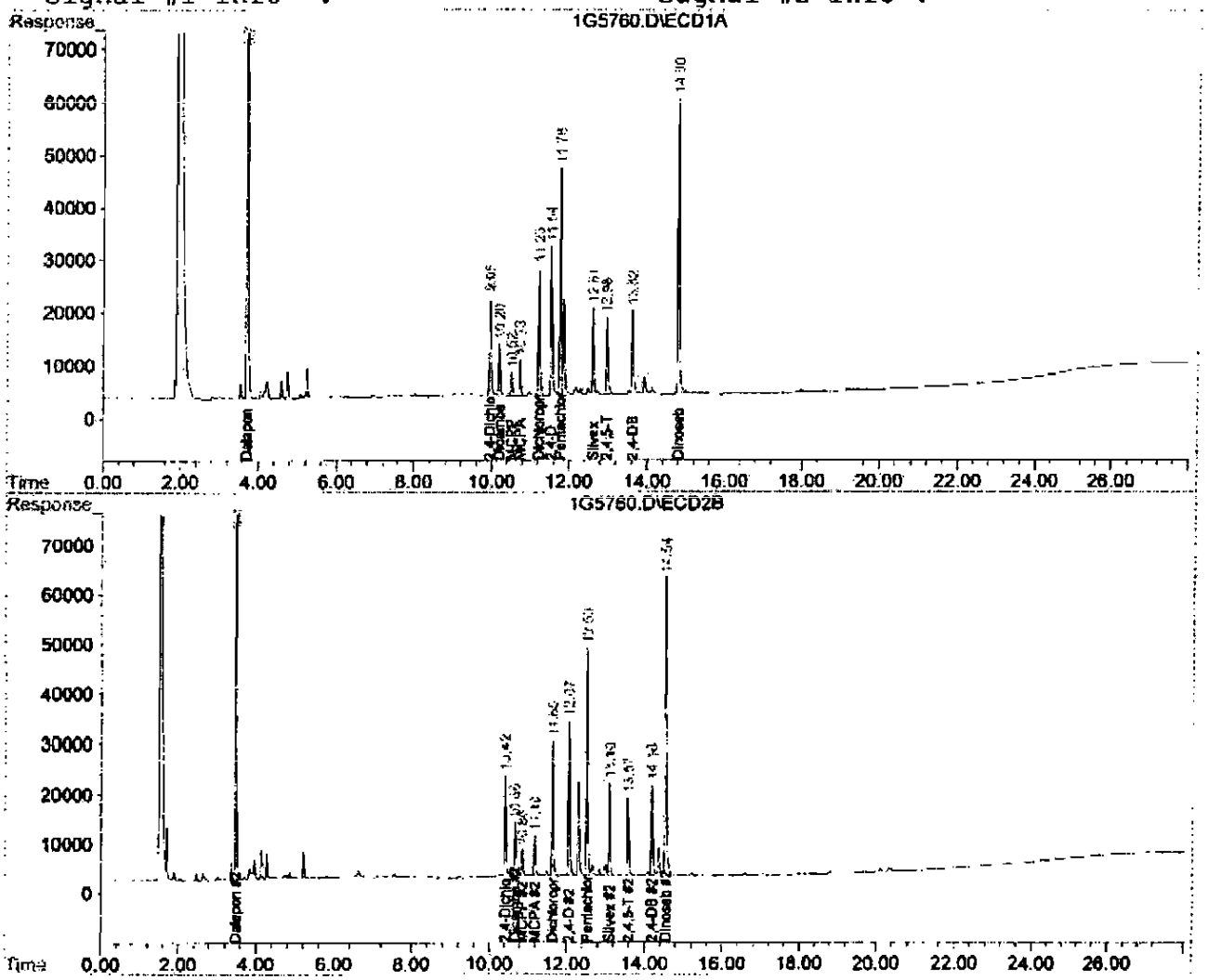
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
2)	S 2,4-Dichlorophen	9.95	10.42	520729	541780	556.784	510.451
	Spiked Amount 500.000	Range 20 - 144		Recovery =		111.36%	102.09%
	Target Compounds						
1)	Dalapon	3.70	3.48	2326409	2085697	1284.980	1215.634
3)	MCPA	10.73	11.19	181820	213225	57.616	53.113
4)	Dicamba	10.20	10.67	250119	267692	54.856	51.918
5)	MCPP	10.52	10.87	107792	134239	55.153	55.175
6)	Dichloroprop	11.23	11.65	697748	727300	570.452	518.331
7)	2,4-D	11.54	12.07	862509	857576	599.122	521.874
8)	Pentachloropheno	11.78	12.53	1082342	1150738	58.021	53.734
9)	Silvex	12.62	13.10	417749	479797	57.628	53.449
10)	2,4,5-T	12.96	13.58	434669	450336	62.140	56.981
11)	Dinoseb	14.81	14.54	1647153	1689958	283.809	266.687
12)	2,4-DB	13.62	14.19	492817	520304	633.696	578.054

Data File : C:\HPCHEM\1\DATA\041503\1G5760.D\ECD1A.CH Vial: 3
Acq On : 15 Apr 2003 17:06 Operator: ECL
Sample : WG138386-03 HERB ICAL #3 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\041503\1G5760.D\ECD2B.CH Vial: 3
Acq On : 15 Apr 2003 17:41 Operator: ECL
Sample : WG138386-04 HERB ICAL #4 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Apr 16 11:55 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 11:51:14 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\041503\1G5761.D\ECD1A.CH Vial: 4
Acq On : 15 Apr 2003 17:41 Operator: ECL
Sample : WG138386-02 HERB ICAL #2 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\041503\1G5761.D\ECD2B.CH Vial: 4
Acq On : 15 Apr 2003 18:16 Operator: ECL
Sample : WG138386-03 HERB ICAL #3 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Apr 16 11:55 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 11:51:14 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
System Monitoring Compounds						
2) S 2,4-Dichlorophen	9.96	10.41	289603	300945	292.088	280.212
Spiked Amount 500.000	Range 20 - 144		Recovery =		58.42%	56.04%
Target Compounds						
1) Dalapon	3.70	3.48	1253442	1126820	678.115	656.343
3) MCPA	10.73	11.19	93572	114513	27.925	28.152
4) Dicamba	10.20	10.66	127165	141237	26.761	26.999
5) MCPP	10.52	10.86	51272	63144	25.437	25.981
6) Dichloroprop	11.23	11.65	393666	408256	298.836	287.572
7) 2,4-D	11.54	12.07	499836	469963	313.649	282.151
8) Pentachloropheno	11.78	12.53	550571	596928	27.574	27.412
9) Silvex	12.62	13.10	212024	243386	27.054	26.590
10) 2,4,5-T	12.96	13.58	237833	229312	30.347	28.133
11) Dinoseb	14.80	14.54	891341	931827	144.426	143.982
12) 2,4-DB	13.62	14.19	265737	276934	303.836	294.925

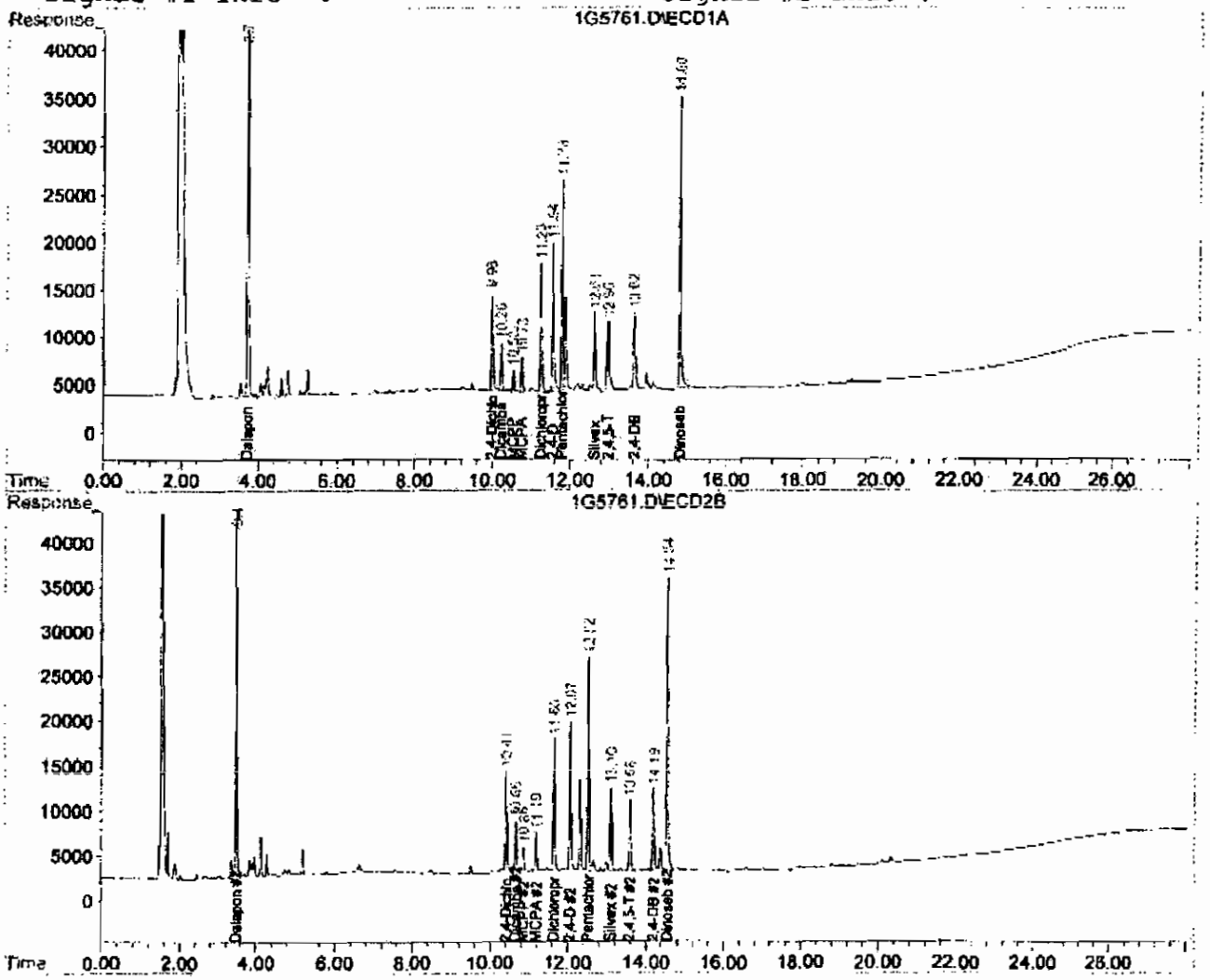
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\041503\1G5761.D\ECD1A.CH Vial: 4
Acq On : 15 Apr 2003 17:41 Operator: ECL
Sample : WG138386-02 HERB ICAL #2 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\041503\1G5761.D\ECD2B.CH Vial: 4
Acq On : 15 Apr 2003 18:16 Operator: ECL
Sample : WG138386-03 HERB ICAL #3 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Apr 16 11:55 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 11:51:14 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\041503\1G5762.D\ECD1A.CH Vial: 5
Acq On : 15 Apr 2003 18:16 Operator: ECL
Sample : WG138386-01 HERB ICAL #1 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\041503\1G5762.D\ECD2B.CH Vial: 5
Acq On : 15 Apr 2003 18:51 Operator: ECL
Sample : WG138386-02 HERB ICAL #2 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Apr 16 12:01 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 11:51:14 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
2) S	2,4-Dichlorophen	9.95	10.41	128142	135126	121.058	124.661
	Spiked Amount 500.000	Range 20 - 144		Recovery =		24.21%	24.93%
	Target Compounds						
1)	Dalapon	3.70	3.48	540203	496101	287.862	290.899
3)	MCPA	10.72	11.18	35245	47907	10.039	11.640
4)	Dicamba	10.19	10.66	51673	59596	10.319	11.265
5)	MCPP	10.51	10.86	15701	19673	7.804	8.314
6)	Dichloroprop	11.23	11.64	166835	175724	118.795	122.731
7)	2,4-D	11.54	12.06	214633	200851	122.571	120.261
8)	Pentachloropheno	11.77	12.52	212346	236537	10.030	10.772
9)	Silvex	12.61	13.09	82897	97209	9.944	10.640
10)	2,4,5-T	12.97	13.57	78693	90527	9.359	10.675
11)	Dinoseb	14.80	14.53	375721	401470	57.231	60.430
12)	2,4-DB	13.63	14.19	116952	113472	116.510	113.194

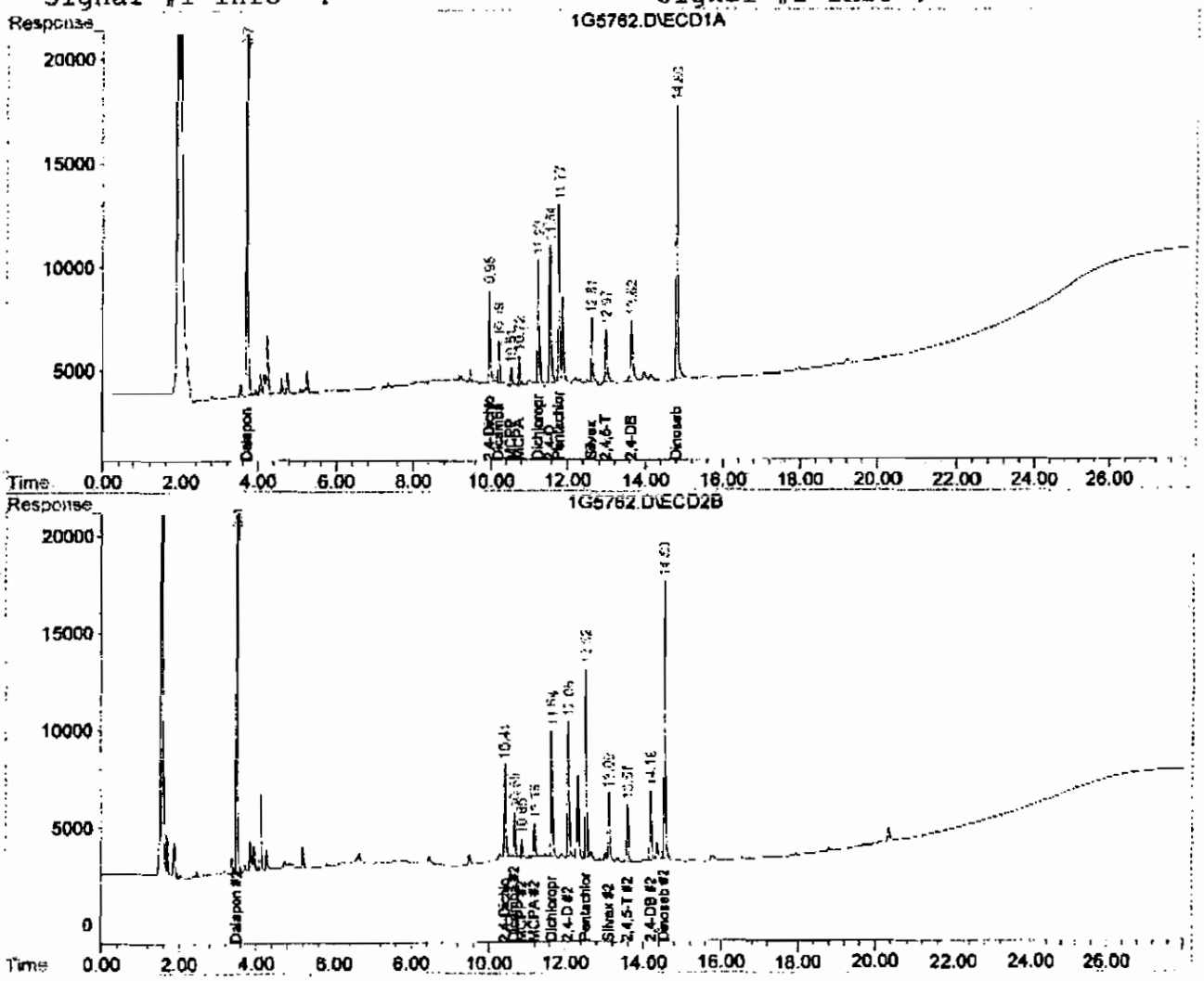
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\041503\1G5762.D\ECD1A.CH Vial: 5
Acq On : 15 Apr 2003 18:16 Operator: ECL
Sample : WG138386-01 HERB ICAL #1 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\041503\1G5762.D\ECD2B.CH Vial: 5
Acq On : 15 Apr 2003 18:51 Operator: ECL
Sample : WG138386-02 HERB ICAL #2 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Apr 16 12:01 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 11:51:14 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\041503\1G5763.D\ECD1A.CH Vial: 6
Acq On : 15 Apr 2003 18:51 Operator: ECL
Sample : WG138386-06 HERB ALT ICV Inst : HP1
Misc : 1,1 SOS64-21 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\041503\1G5763.D\ECD2B.CH Vial: 6
Acq On : 15 Apr 2003 19:26 Operator: ECL
Sample : WG138386-01 HERB ICAL #1 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e

Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 12:06:45 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Dalapon	1250.000	1083.115	13.4	87	0.00
2	S	2,4-Dichlorophenylacetic ac	500.000	450.089	10.0	91	-0.01
3		MCPA	50.000	48.449	3.1	94	0.00
4		Dicamba	50.000	45.893	8.2	92	0.00
5		MCPP	50.000	49.640	0.7	93	0.00
6		Dichloroprop	500.000	501.584	-0.3	101	-0.01
7		2,4-D	500.000	427.613	14.5	87	-0.02
8		Pentachlorophenol	50.000	46.613	6.8	91	-0.01
9		Silvex	50.000	48.215	3.6	96	-0.02
10		2,4,5-T	50.000	46.435	7.1	90	-0.02
11		Dinoseb	250.000	231.746	7.3	92	-0.02
12		2,4-DB	500.000	437.110	12.6	89	-0.03
		Signal #2					
1		Dalapon	1250.000	1077.862	13.8	88	-0.01
2	S	2,4-Dichlorophenylacetic	500.000	453.447	9.3	91	-0.01
3		MCPA	50.000	45.793	8.4	88	0.00
4		Dicamba	50.000	47.139	5.7	93	0.00
5		MCPP	50.000	47.788	4.4	84	0.00
6		Dichloroprop	500.000	500.500	-0.1	99	0.00
7		2,4-D	500.000	437.155	12.6	85	0.00
8		Pentachlorophenol	50.000	47.032	5.9	90	0.00
9		Silvex	50.000	46.642	6.7	89	0.00
10		2,4,5-T	50.000	50.273	-0.5	95	-0.01
11		Dinoseb	250.000	227.044	9.2	89	0.00
12		2,4-DB	500.000	417.000	16.6#	80	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G5763.D 8151.M Wed Apr 16 12:24:53 2003 Page 1

Data File : C:\HPCHEM\1\DATA\041503\1G5763.D\ECD1A.CH Vial: 6
Acq On : 15 Apr 2003 18:51 Operator: ECL
Sample : WG138386-06 HERB ALT ICV Inst : HP1
Misc : 1,1 SOS64-21 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\041503\1G5763.D\ECD2B.CH Vial: 6
Acq On : 15 Apr 2003 19:26 Operator: ECL
Sample : WG138386-01 HERB ICAL #1 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Apr 16 12:24 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 12:06:45 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
?)	S 2,4-Dichlorophen	9.94	10.40	476428	491511	450.089	453.447
	Spiked Amount 500.000	Range 20 - 144		Recovery =		90.02%	90.69%
	Target Compounds						
1)	Dalapon	3.70	3.47	2032576	1838191	1083.115	1077.862
3)	MCPA	10.71	11.18	170102	188467	48.449	45.793
4)	Dicamba	10.18	10.65	229803	249388	45.893	47.139
5)	MCPP	10.50	10.85	99880	113072	49.640	47.788
6)	Dichloroprop	11.21	11.64	704422	720815	501.584	500.500
7)	2,4-D	11.52	12.05	748790	730103	427.613	437.155
8)	Pentachloropheno	11.76	12.51	986852	1032786	46.613	47.032
9)	Silvex	12.60	13.09	401922	426130	48.215	46.642
10)	2,4,5-T	12.95	13.56	390445	426340	46.435	50.273
11)	Dinoseb	14.78	14.52	1521405	1508379	231.746	227.044
12)	2,4-DB	13.60f	14.17	438768	418027	437.110	417.000

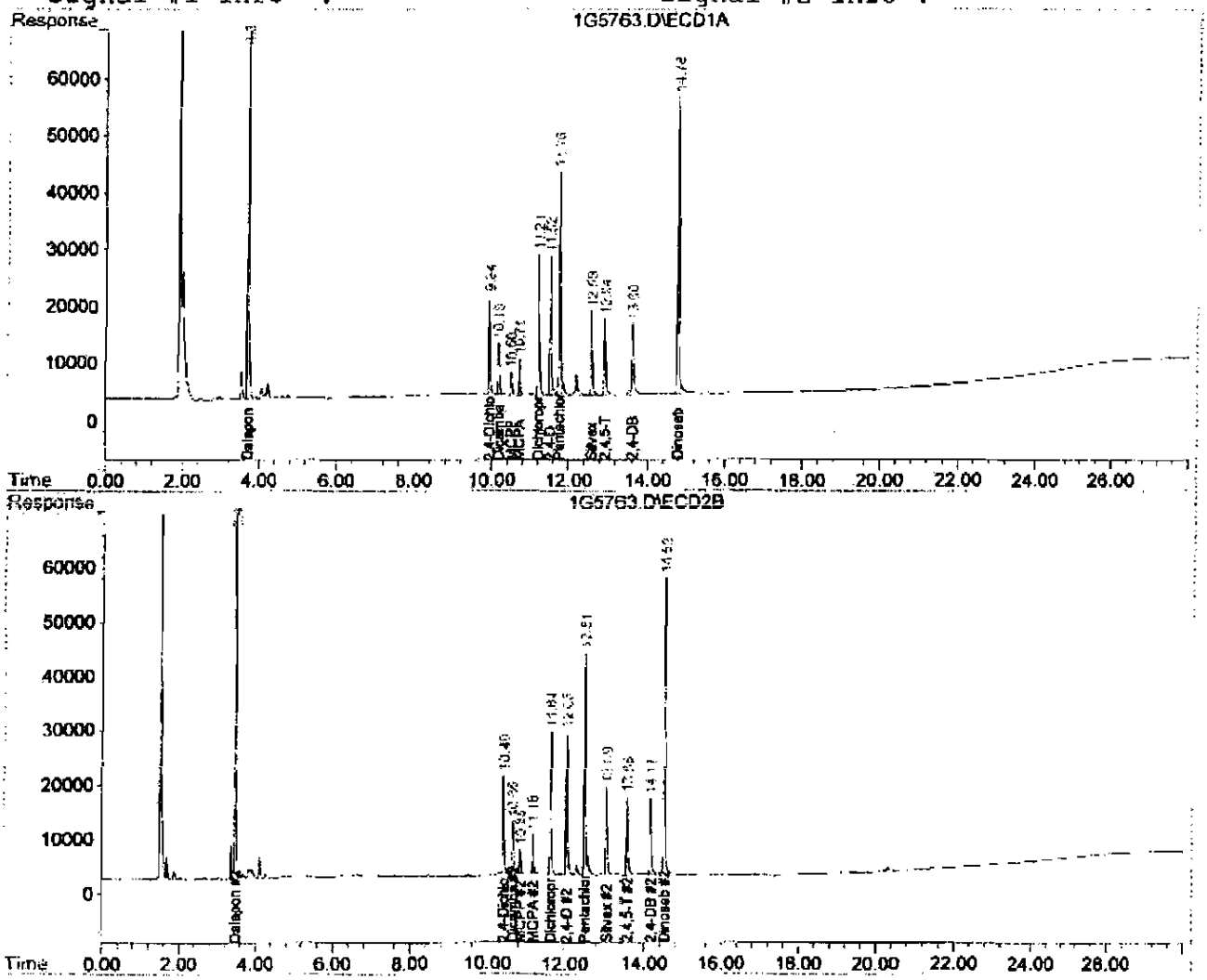
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\041503\1G5763.D\ECD1A.CH Vial: 6
Acq On : 15 Apr 2003 18:51 Operator: ECL
Sample : WG138386-06 HERB ALT ICV Inst : HP1
Misc : 1,1 SOS64-21 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\041503\1G5763.D\ECD2B.CH Vial: 6
Acq On : 15 Apr 2003 19:26 Operator: ECL
Sample : WG138386-01 HERB ICAL #1 Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: Apr 16 12:24 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 12:06:45 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\050103\1G5871.D\ECD1A.CH Vial: 1
Acq On : 1 May 2003 14:01 Operator: ECL
Sample : WG139503-01 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5871.D\ECD2B.CH Vial: 1
Acq On : 1 May 2003 14:37 Operator: ECL
Sample : HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e

Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 12:06:45 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Dalapon	1250.000	1276.270	-2.1	103	0.00
2	S	2,4-Dichlorophenylacetic ac	500.000	489.007	2.2	99	0.01
3		MCPA	50.000	50.741	-1.5	98	0.00
4		Dicamba	50.000	51.820	-3.6	104	0.02
5		MCPP	50.000	51.998	-4.0	97	0.02
6		Dichloroprop	500.000	515.822	-3.2	104	0.00
7		2,4-D	500.000	504.003	-0.8	102	0.01
8		Pentachlorophenol	50.000	53.543	-7.1	105	0.01
9		Silvex	50.000	51.112	-2.2	102	0.01
10		2,4,5-T	50.000	49.880	0.2	96	0.00
11		Dinoseb	250.000	260.762	-4.3	104	0.00
12		2,4-DB	500.000	502.751	-0.6	102	0.00

Signal #2

1		Dalapon	1250.000	1352.807	-8.2	111	0.00
2	S	2,4-Dichlorophenylacetic	500.000	528.495	-5.7	106	0.00
3		MCPA	50.000	52.073	-4.1	101	0.00
4		Dicamba	50.000	55.390	-10.8	109	0.01
5		MCPP	50.000	56.701	-13.4	100	0.00
6		Dichloroprop	500.000	533.200	-6.6	106	0.00
7		2,4-D	500.000	532.237	-6.4	104	0.00
8		Pentachlorophenol	50.000	57.440	-14.9	110	0.00
9		Silvex	50.000	57.142	-14.3	109	0.00
10		2,4,5-T	50.000	57.351	-14.7	108	0.00
11		Dinoseb	250.000	267.853	-7.1	105	0.00
12		2,4-DB	500.000	560.037	-12.0	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G5871.D 8151.M Thu May 01 16:01:10 2003 Page 1

Data File : C:\HPCHEM\1\DATA\050103\1G5871.D\ECD1A.CH Vial: 1
Acq On : 1 May 2003 14:01 Operator: ECL
Sample : WG139503-01 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5871.D\ECD2B.CH Vial: 1
Acq On : 1 May 2003 14:37 Operator: ECL
Sample : HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events2.e
Quant Time: May 1 15:52 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Thu May 01 15:52:34 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
2) S	2,4-Dichlorophen	9.93	10.40	517624	572859	489.007	528.495
	Spiked Amount 500.000	Range 20 - 144		Recovery =		97.80%	105.70%
	Target Compounds						
1)	Dalapon	3.69	3.47	2395051	2307085	1276.270	1352.807
3)	MCPA	10.71	11.18	178149	214313	50.741	52.073
4)	Dicamba	10.18	10.65	259482	293042	51.820	55.390
5)	MCPP	10.50	10.85	104624	134161	51.998	56.701
6)	Dichloroprop	11.21	11.64	724418	767909	515.822	533.200
7)	2,4-D	11.51	12.06	882556	888903	504.003	532.237
8)	Pentachloropheno	11.75	12.52	1133560	1261336	53.543	57.440
9)	Silvex	12.59	13.09	426064	522063	51.112	57.142
10)	2,4,5-T	12.94	13.57	419414	486368	49.880	57.351
11)	Dinoseb	14.78	14.53	1711894	1779490	260.762	267.853
12)	2,4-DB	13.59	14.18	504658	561416	502.751	560.037

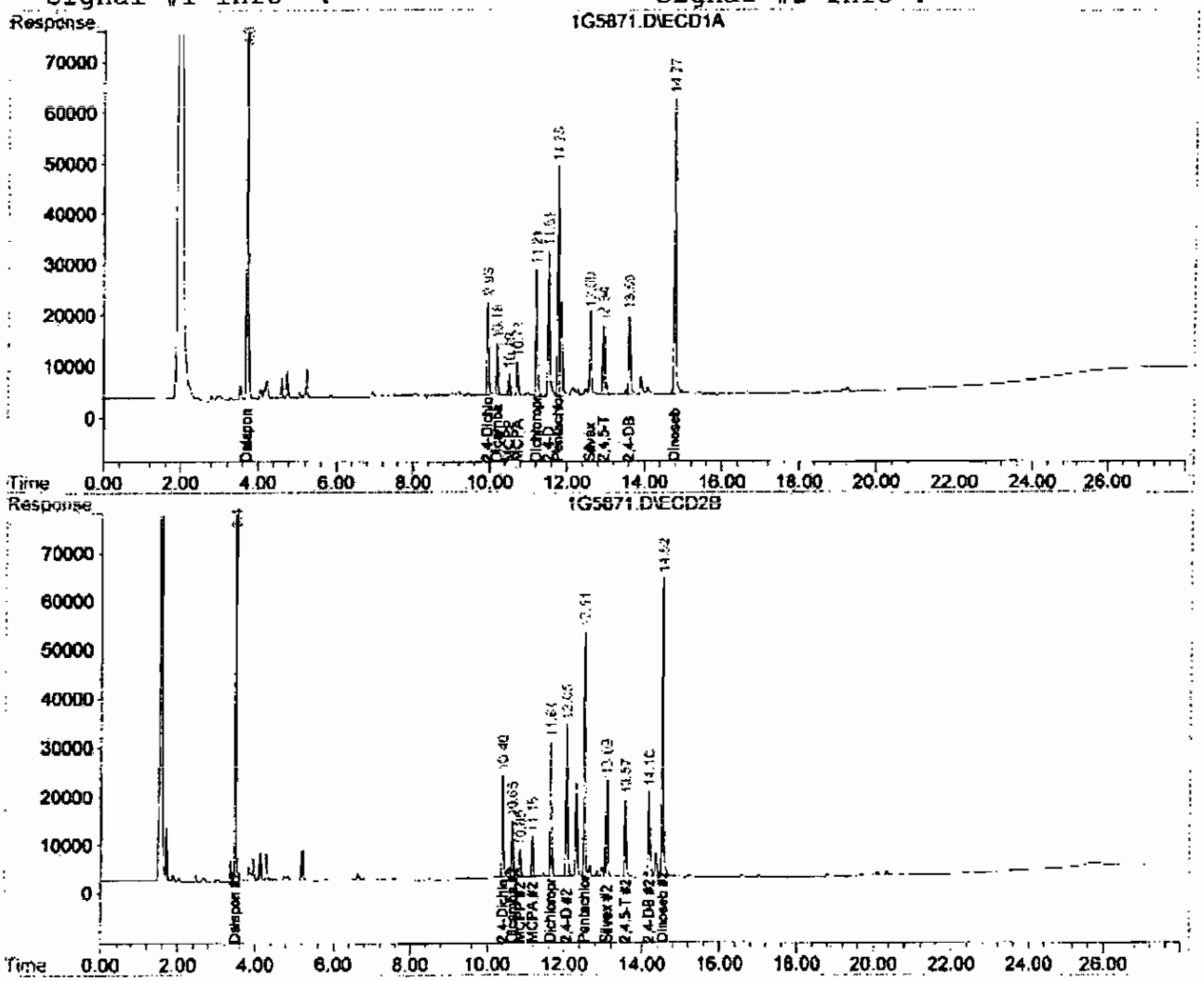
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

```
Data File : C:\HPCHEM\1\DATA\050103\1G5871.D\ECD1A.CH    Vial: 1
Acq On    :  1 May 2003  14:01                          Operator: ECL
Sample    : WG139503-01 HERB CCV                       Inst    : HP1
Misc      : 1,1 SOS63-10                               Multiplr: 1.00
IntFile   : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5871.D\ECD2B.CH    Vial: 1
Acq On    :  1 May 2003  14:37                          Operator: ECL
Sample    : HERB CCV                                   Inst    : HP1
Misc      : 1,1 SOS63-10                               Multiplr: 1.00
IntFile   : events2.e
Quant Time: May  1 15:52 2003  Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title        : CALIBRATION April 15, 2003 @ 1851
Last Update  : Thu May 01 15:52:34 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```



Data File : C:\HPCHEM\1\DATA\050103\1G5882.D\ECD1A.CH Vial: 12
Acq On : 1 May 2003 21:53 Operator: ECL
Sample : WG139503-02 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5882.D\ECD2B.CH Vial: 12
Acq On : 1 May 2003 22:28 Operator: ECL
Sample : L0304587-02 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e

Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 12:06:45 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Dalapon	1250.000	1300.158	-4.0	105	0.02
2	S	2,4-Dichlorophenylacetic ac	500.000	506.144	-1.2	103	0.00
3		MCPA	50.000	52.651	-5.3	102	0.00
4		Dicamba	50.000	52.997	-6.0	106	0.00
5		MCPP	50.000	54.213	-8.4	101	0.00
6		Dichloroprop	500.000	524.057	-4.8	105	0.00
7		2,4-D	500.000	515.756	-3.2	105	0.00
8		Pentachlorophenol	50.000	54.698	-9.4	107	0.00
9		Silvex	50.000	53.214	-6.4	106	0.00
10		2,4,5-T	50.000	50.670	-1.3	98	0.00
11		Dinoseb	250.000	262.942	-5.2	105	-0.01
12		2,4-DB	500.000	517.553	-3.5	105	-0.01

Signal #2

1		Dalapon	1250.000	1351.993	-8.2	111	0.01
2	S	2,4-Dichlorophenylacetic	500.000	528.324	-5.7	106	0.00
3		MCPA	50.000	51.977	-4.0	100	0.00
4		Dicamba	50.000	55.483	-11.0	110	0.00
5		MCPP	50.000	56.848	-13.7	100	0.00
6		Dichloroprop	500.000	536.016	-7.2	106	0.00
7		2,4-D	500.000	535.476	-7.1	104	0.00
8		Pentachlorophenol	50.000	56.799	-13.6	108	0.00
9		Silvex	50.000	56.977	-14.0	108	0.00
10		2,4,5-T	50.000	56.259	-12.5	106	0.00
11		Dinoseb	250.000	269.156	-7.7	106	0.00
12		2,4-DB	500.000	562.310	-12.5	108	0.00

Data File : C:\HPCHEM\1\DATA\050103\1G5882.D\ECD1A.CH Vial: 12
Acq On : 1 May 2003 21:53 Operator: ECL
Sample : WG139503-02 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5882.D\ECD2B.CH Vial: 12
Acq On : 1 May 2003 22:28 Operator: ECL
Sample : L0304587-02 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: May 2 8:01 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Fri May 02 07:59:15 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
2)	S 2,4-Dichlorophen	9.85	10.33	535764	572674	506.144	528.324
	Spiked Amount 500.000	Range 20 - 144		Recovery =		101.23%	105.66%
	Target Compounds						
1)	Dalapon	3.64	3.42	2439880	2305696	1300.158	1351.993
3)	MCPA	10.63	11.11	184854	213918	52.651	51.977
4)	Dicamba	10.10	10.58	265374	293534	52.997	55.483
5)	MCPP	10.42	10.78	109080	134510	54.213	56.848
6)	Dichloroprop	11.13	11.56	735983	771964	524.057	536.016
7)	2,4-D	11.43	11.98	903137	894312	515.756	535.476
8)	Pentachloropheno	11.67	12.43	1158010	1247270	54.698	56.799
9)	Silvex	12.51	13.01	443587	520560	53.214	56.977
10)	2,4,5-T	12.85	13.49	426060	477110	50.670	56.259
11)	Dinoseb	14.69	14.45	1726206	1788150	262.942	269.156
12)	2,4-DB	13.51	14.10	519515	563694	517.553	562.310

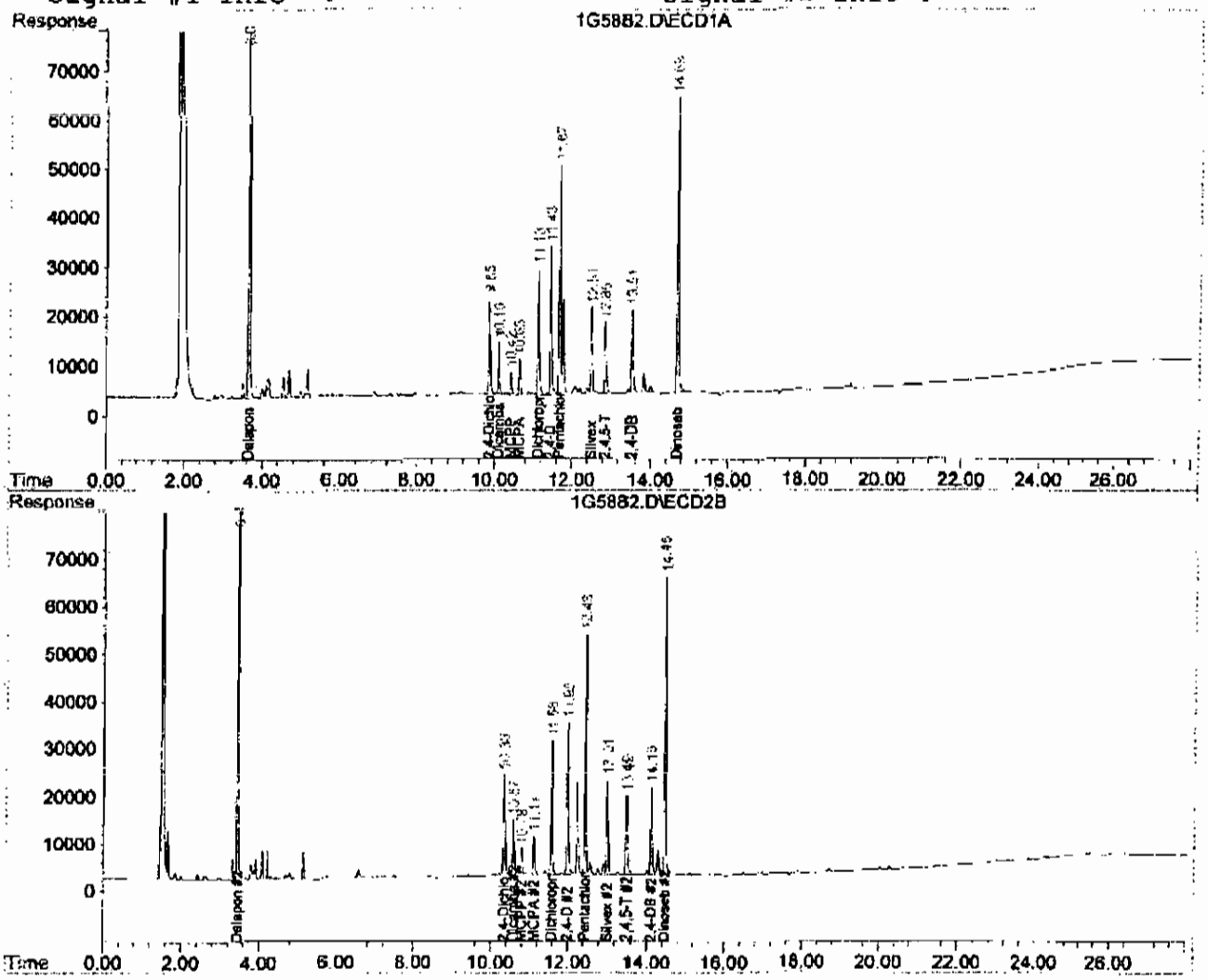
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\050103\1G5882.D\ECD1A.CH Vial: 12
Acq On : 1 May 2003 21:53 Operator: ECL
Sample : WG139503-02 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5882.D\ECD2B.CH Vial: 12
Acq On : 1 May 2003 22:28 Operator: ECL
Sample : L0304587-02 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: May 2 8:01 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Fri May 02 07:59:15 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\050103\1G5888.D\ECD1A.CH Vial: 18
Acq On : 2 May 2003 1:25 Operator: ECL
Sample : WG139503-03 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5888.D\ECD2B.CH Vial: 18
Acq On : 2 May 2003 2:01 Operator: ECL
Sample : L0304594-03 Inst : HP1
Misc : 17,1 WATER Multiplr: 1.00
IntFile : events2.e

Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Wed Apr 16 12:06:45 2003
Response via : Multiple Level Calibration

Min. RRF : 15.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Dalapon	1250.000	1312.210	-5.0	106	0.02
2	S	2,4-Dichlorophenylacetic ac	500.000	511.406	-2.3	104	0.00
3		MCPA	50.000	53.505	-7.0	103	0.00
4		Dicamba	50.000	53.406	-6.8	107	0.00
5		MCPP	50.000	55.484	-11.0	104	0.00
6		Dichloroprop	500.000	528.552	-5.7	106	0.00
7		2,4-D	500.000	520.334	-4.1	106	0.00
8		Pentachlorophenol	50.000	55.242	-10.5	108	0.00
9		Silvex	50.000	53.758	-7.5	107	0.00
10		2,4,5-T	50.000	51.164	-2.3	99	0.00
11		Dinoseb	250.000	266.124	-6.4	106	-0.01
12		2,4-DB	500.000	523.280	-4.7	107	-0.01

Signal #2

1		Dalapon	1250.000	1351.401	-8.1	110	0.02
2	S	2,4-Dichlorophenylacetic	500.000	527.188	-5.4	105	0.00
3		MCPA	50.000	51.723	-3.4	100	0.00
4		Dicamba	50.000	55.518	-11.0	110	0.00
5		MCPP	50.000	56.429	-12.9	99	0.00
6		Dichloroprop	500.000	536.944	-7.4	106	0.00
7		2,4-D	500.000	535.177	-7.0	104	0.00
8		Pentachlorophenol	50.000	56.994	-14.0	109	-0.01
9		Silvex	50.000	57.056	-14.1	109	0.00
10		2,4,5-T	50.000	56.308	-12.6	106	0.00
11		Dinoseb	250.000	268.751	-7.5	106	0.00
12		2,4-DB	500.000	564.466	-12.9	109	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G5888.D 8151.M Fri May 02 08:03:18 2003 Page 1

Data File : C:\HPCHEM\1\DATA\050103\1G5888.D\ECD1A.CH Vial: 18
Acq On : 2 May 2003 1:25 Operator: ECL
Sample : WG139503-03 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5888.D\ECD2B.CH Vial: 18
Acq On : 2 May 2003 2:01 Operator: ECL
Sample : L0304594-03 Inst : HP1
Misc : 17,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: May 2 8:02 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Fri May 02 08:02:03 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
2)	S 2,4-Dichlorophen	9.84	10.31	541334	571443	511.406	527.188
	Spiked Amount 500.000	Range 20 - 144		Recovery =		102.28%	105.44%
	Target Compounds						
1)	Dalapon	3.63	3.42	2462497	2304686	1312.210	1351.401
3)	MCPA	10.62	11.09	187853	212871	53.505	51.723
4)	Dicamba	10.09	10.56	267426	293716	53.406	55.518
5)	MCPP	10.41	10.76	111640	133518	55.484	56.429
6)	Dichloroprop	11.12	11.55	742296	773300	528.552	536.944
7)	2,4-D	11.42	11.96	911154	893813	520.334	535.177
8)	Pentachloropheno	11.66	12.42	1169519	1251544	55.242	56.994
9)	Silvex	12.50	13.00	448123	521279	53.758	57.056
10)	2,4,5-T	12.84	13.47	430215	477527	51.164	56.308
11)	Dinoseb	14.68	14.44	1747096	1785460	266.124	268.751
12)	2,4-DB	13.50	14.09	525265	565855	523.280	564.466

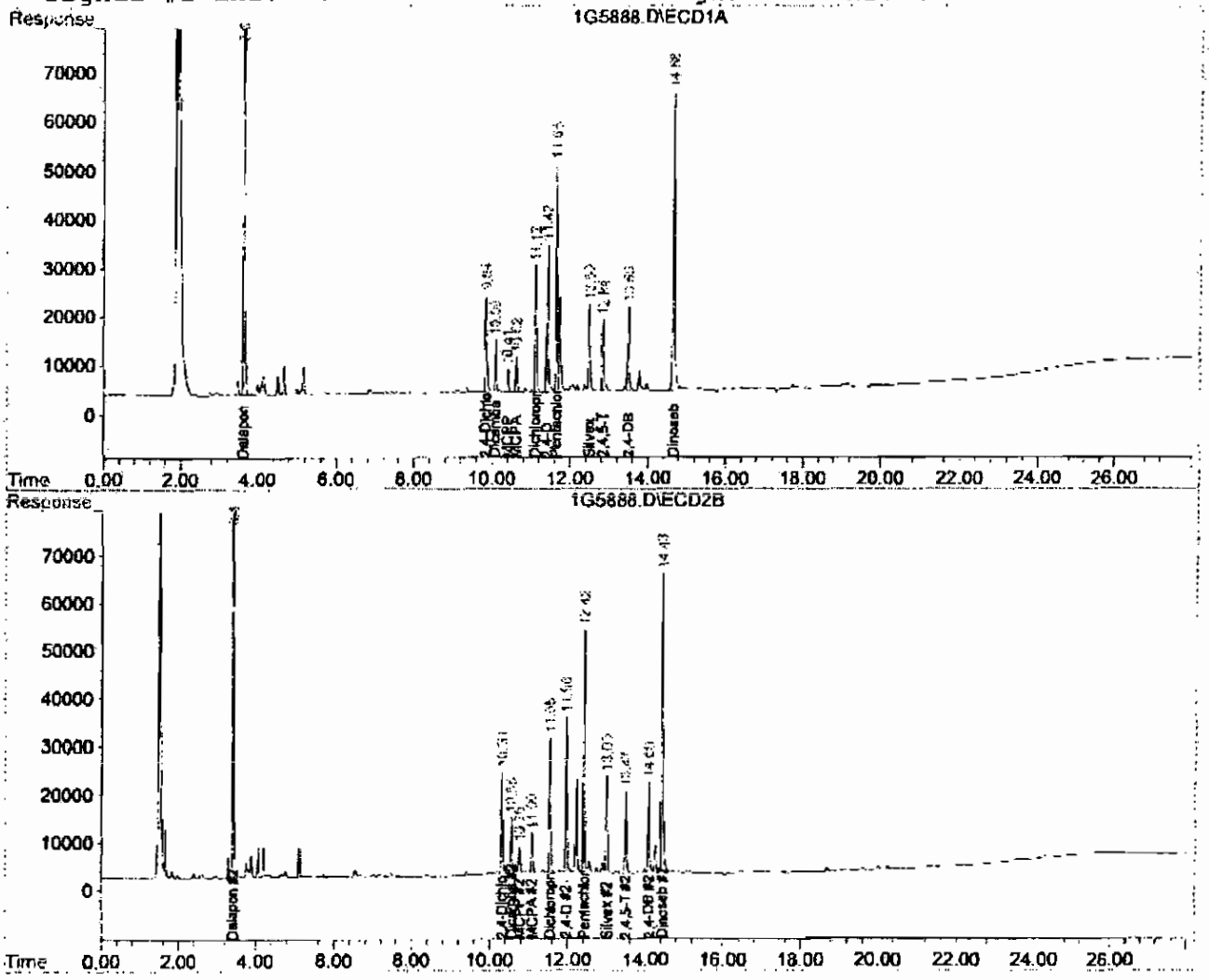
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\050103\1G5888.D\ECD1A.CH Vial: 18
Acq On : 2 May 2003 1:25 Operator: ECL
Sample : WG139503-03 HERB CCV Inst : HP1
Misc : 1,1 SOS63-10 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5888.D\ECD2B.CH Vial: 18
Acq On : 2 May 2003 2:01 Operator: ECL
Sample : L0304594-03 Inst : HP1
Misc : 17,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: May 2 8:02 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Fri May 02 08:02:03 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

Instrument ID: HP 1

GC Column: RTx-CLP (Front)

	STANDARD #1	STANDARD #2	STANDARD #3
Date Run	6/4/2002	6/6/02	6/12/02
File #	1G4958	1G4971	1G4992

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
Dalapon	3.86	3.81	3.82	0.079
MCPA	11.05	10.97	10.99	0.125
Dicamba	10.52	10.44	10.47	0.121
MCPP	10.84	10.76	10.78	0.125
Dichloroprop	11.56	11.48	11.50	0.125
2,4-D	11.88	11.80	11.82	0.125
Pentachlorophenol	12.12	12.03	12.06	0.137
Silvex	12.96	12.88	12.90	0.125
2,4,5-T	13.33	13.26	13.26	0.121
Dinoseb	15.18	15.08	15.12	0.151
2,4-DB	13.99	13.92	13.93	0.114

RETENTION TIME WINDOWS

Lab Name: Kemron Environmental Services

Instrument ID: HP 1
GC Column: RTx-CLP II (Rear)

	STANDARD #1	STANDARD #2	STANDARD #3
Date Run	6/4/2002	6/6/02	6/12/02
File #	1G4958	1G4971	1G4992

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
Dalapon	3.61	3.57	3.58	0.062
MCPA	11.49	11.41	11.43	0.125
Dicamba	10.96	10.88	10.90	0.125
MCPP	11.16	11.08	11.10	0.125
Dichloroprop	11.95	11.87	11.89	0.125
2,4-D	12.37	12.30	12.32	0.108
Pentachlorophenol	12.85	12.76	12.78	0.142
Silvex	13.42	13.34	13.36	0.125
2,4,5-T	13.91	13.84	13.85	0.114
Dinoseb	14.87	14.79	14.80	0.131
2,4-DB	14.53	14.45	14.46	0.131

2.2.4.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\050103\1G5872.D\ECD1A.CH Vial: 2
Acq On : 1 May 2003 16:02 Operator: ECL
Sample : WG139417-02 BLANK V201 P105 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5872.D\ECD2B.CH Vial: 2
Acq On : 1 May 2003 16:37 Operator: ECL
Sample : WG139417-02 BLANK V201 P105 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: May 2 9:16 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Fri May 02 09:16:22 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
) S	2,4-Dichlorophen	9.92	10.39	466633	478145	440.835	441.116	
Spiked Amount		500.000	Range 20 - 144		Recovery =	88.17%	88.22%	
	Target Compounds							
1)	Dalapon	0.00	0.00	0	0	N.D.	N.D.	
3)	MCPA	0.00	11.18	0	117114	N.D.	28.456	#
4)	Dicamba	0.00	0.00	0	0	N.D.	N.D.	
5)	MCPP	0.00	0.00	0	0	N.D.	N.D.	
6)	Dichloroprop	0.00	11.65f	0	193438	N.D.	134.315	#
7)	2,4-D	11.54f	0.00	69081	0	39.450	N.D.	#
8)	Pentachloropheno	0.00	0.00	0	0	N.D.	N.D.	
9)	Silvex	0.00	0.00	0	0	N.D.	N.D.	
10)	2,4,5-T	0.00	0.00	0	0	N.D.	N.D.	
11)	Dinoseb	0.00	0.00	0	0	N.D.	N.D.	
12)	2,4-DB	0.00	0.00	0	0	N.D.	N.D.	

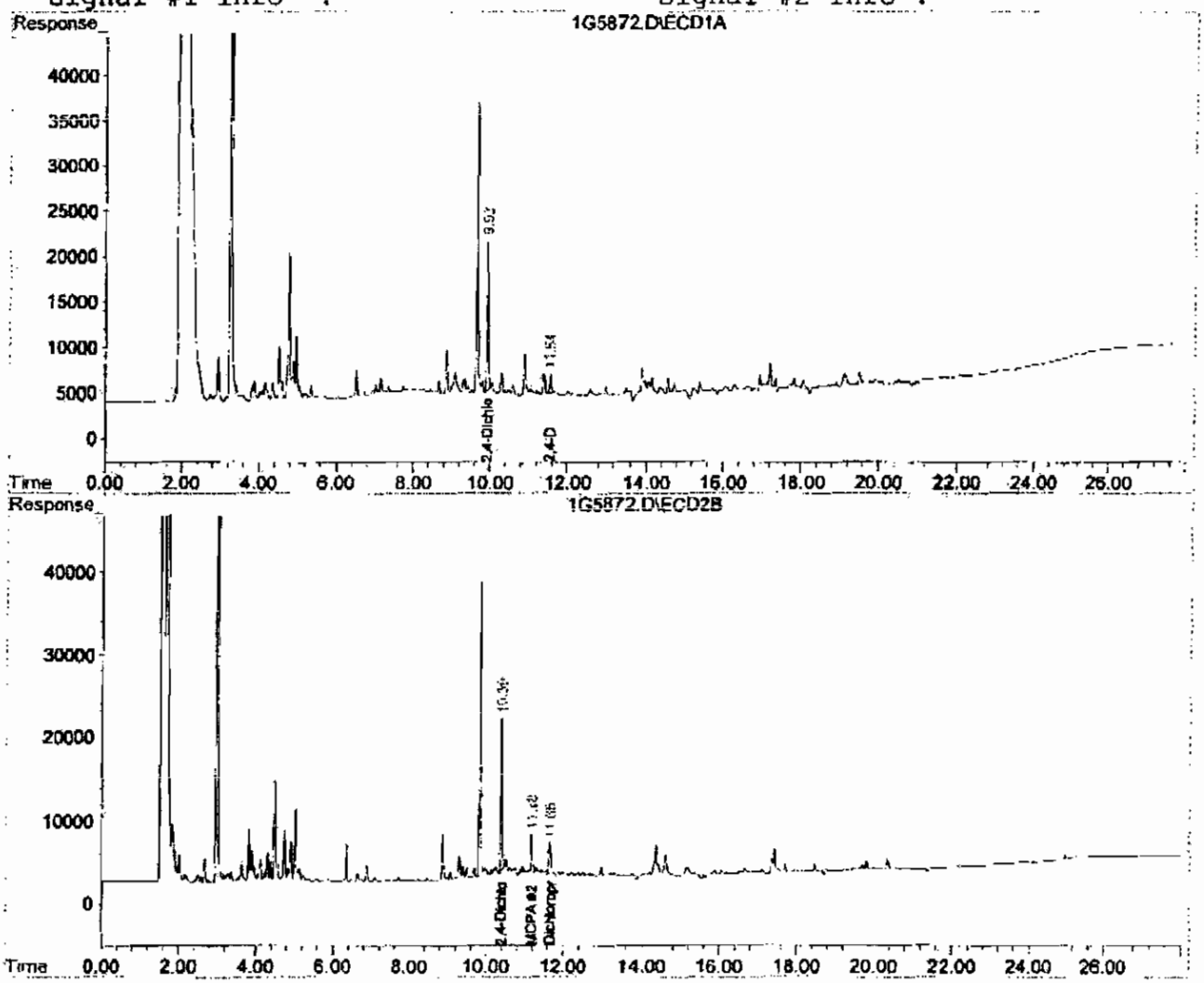
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

```
Data File : C:\HPCHEM\1\DATA\050103\1G5872.D\ECD1A.CH    Vial: 2
Acq On    :  1 May 2003  16:02                          Operator: ECL
Sample    : WG139417-02 BLANK V201 P105                 Inst    : HP1
Misc      : 1,1 WATER                                   Multiplr: 1.00
IntFile   : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5872.D\ECD2B.CH    Vial: 2
Acq On    :  1 May 2003  16:37                          Operator: ECL
Sample    : WG139417-02 BLANK V201 P105                 Inst    : HP1
Misc      : 1,1 WATER                                   Multiplr: 1.00
IntFile   : events2.e
Quant Time: May  2  9:16 2003  Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title        : CALIBRATION April 15, 2003 @ 1851
Last Update  : Fri May 02 09:16:22 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```



Data File : C:\HPCHEM\1\DATA\050103\1G5873.D\ECD1A.CH Vial: 3
Acq On : 1 May 2003 16:37 Operator: ECL
Sample : WG139417-03 LCS V201 P105 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5873.D\ECD2B.CH Vial: 3
Acq On : 1 May 2003 17:12 Operator: ECL
Sample : WG139417-03 LCS V201 P105 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: May 2 9:17 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Fri May 02 09:16:22 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
?)	S 2,4-Dichlorophen	9.90	10.39	514308	466977	485.874	430.812	
	Spiked Amount 500.000	Range 20 - 144			Recovery =	97.17%	86.16%	
	Target Compounds							
1)	Dalapon	3.68	3.47	508932	517191	271.199	303.266	
3)	MCPA	10.68	11.17	170596	307776	48.590	74.783	#
4)	Dicamba	10.15	10.63	244616	226244	48.851	42.764	
5)	MCPP	10.46	10.84	136176	123944	67.679	52.382	
6)	Dichloroprop	11.18	11.62	720027	942487	512.696	654.419	#
7)	2,4-D	11.48	12.04	806732	756315	460.702	452.849	
8)	Pentachloropheno	11.72	12.50	883518	976445	41.733	44.466	
9)	Silvex	12.56	13.07	415632	442637	49.860	48.448	
10)	2,4,5-T	12.91	13.55	452322	461469	53.794	54.415	
11)	Dinoseb	14.75	14.51	1322301	1407898	201.418	211.920	
12)	2,4-DB	13.56	14.16	402885	430765	401.362	429.707	

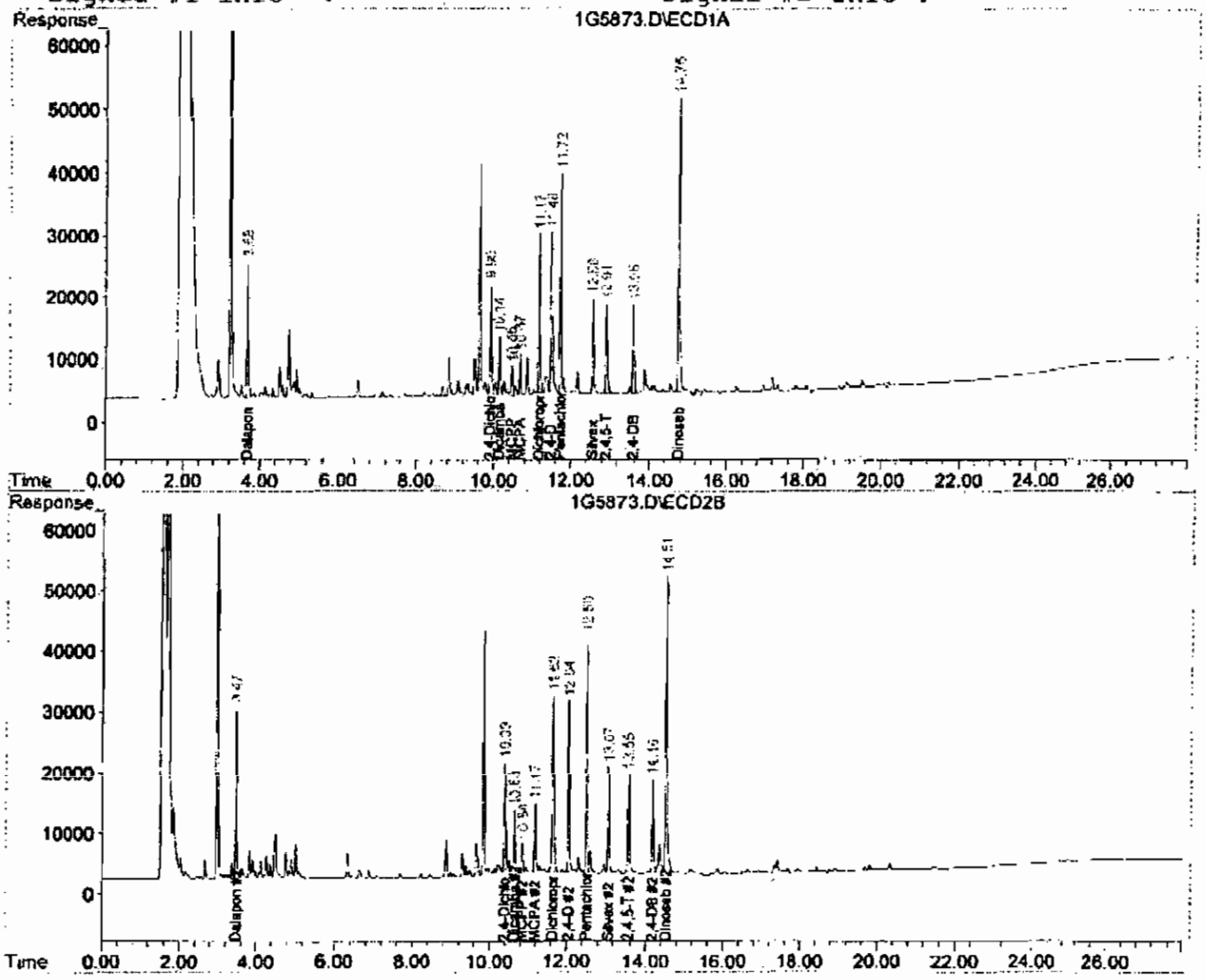
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\050103\1G5873.D\ECD1A.CH Vial: 3
Acq On : 1 May 2003 16:37 Operator: ECL
Sample : WG139417-03 LCS V201 P105 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5873.D\ECD2B.CH Vial: 3
Acq On : 1 May 2003 17:12 Operator: ECL
Sample : WG139417-03 LCS V201 P105 Inst : HP1
Misc : 1,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: May 2 9:17 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Fri May 02 09:16:22 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : C:\HPCHEM\1\DATA\050103\1G5885.D\ECD1A.CH Vial: 15
Acq On : 1 May 2003 23:39 Operator: ECL
Sample : WG139291-01 TCLP BLANK 4/28 Inst : HP1
Misc : 17,1 WATER Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5885.D\ECD2B.CH Vial: 15
Acq On : 2 May 2003 00:15 Operator: ECL
Sample : WG139291-01 TCLP BLANK 4/28 Inst : HP1
Misc : 17,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: May 2 9:26 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Fri May 02 09:25:07 2003
Response via : Initial Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
?)	S 2,4-Dichlorophen	9.84	10.32	431875	409574	407.998	377.855	
	Spiked Amount 500.000	Range 20 - 144			Recovery =	81.60%	75.57%	
	Target Compounds							
1)	Dalapon	0.00	0.00	0	0	N.D.	N.D.	
3)	MCPA	0.00	11.10	0	120321	N.D.	29.235	#
4)	Dicamba	0.00	0.00	0	0	N.D.	N.D.	
5)	MCPP	0.00	0.00	0	0	N.D.	N.D.	
6)	Dichloroprop	0.00	11.58	0	193371	N.D.	134.268	#
7)	2,4-D	11.46f	0.00	70172	0	40.073	N.D.	#
8)	Pentachloropheno	0.00	0.00	0	0	N.D.	N.D.	
9)	Silvex	0.00	0.00	0	0	N.D.	N.D.	
10)	2,4,5-T	0.00	0.00	0	0	N.D.	N.D.	
11)	Dinoseb	0.00	14.50f	0	99934	N.D.	15.042	#
12)	2,4-DB	0.00	0.00	0	0	N.D.	N.D.	

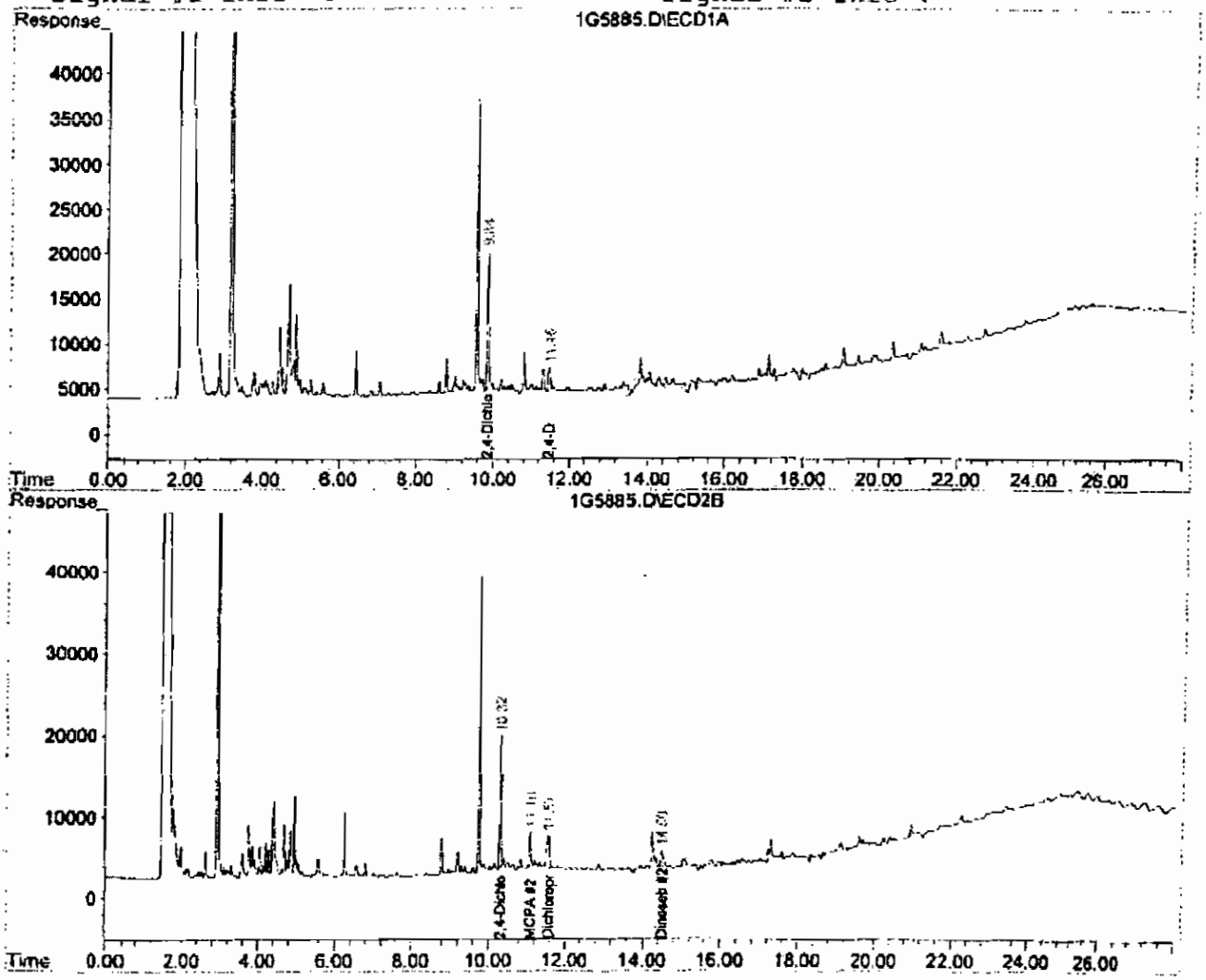
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\1\DATA\050103\1G5885.D\ECD1A.CH Vial: 15
Acq On : 1 May 2003 23:39 Operator: ECL
Sample : WG139291-01 TCLP BLANK 4/28 Inst : HP1
Misc : 17,1 WATER Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\050103\1G5885.D\ECD2B.CH Vial: 15
Acq On : 2 May 2003 00:15 Operator: ECL
Sample : WG139291-01 TCLP BLANK 4/28 Inst : HP1
Misc : 17,1 WATER Multiplr: 1.00
IntFile : events2.e
Quant Time: May 2 9:26 2003 Quant Results File: 8151.RES

Quant Method : C:\HPCHEM\1\METHODS\8151.M (Chemstation Integrator)
Title : CALIBRATION April 15, 2003 @ 1851
Last Update : Fri May 02 09:25:07 2003
Response via : Multiple Level Calibration
DataAcq Meth : 8151.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



ine	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1g5758.d	1.	WG138386-05 HERB ICAL #5	1,1 SOS63-10	15 Apr 103 12::5
2	2	1g5759.d	1.	WG138386-04 HERB ICAL #4	1,1 SOS63-10	15 Apr 103 12::3
3	3	1g5760.d	1.	WG138386-03 HERB ICAL #3	1,1 SOS63-10	15 Apr 103 12::0
4	4	1g5761.d	1.	WG138386-02 HERB ICAL #2	1,1 SOS63-10	15 Apr 103 12::4
5	5	1g5762.d	1.	WG138386-01 HERB ICAL #1	1,1 SOS63-10	15 Apr 103 12::1
6	6	1g5763.d	1.	WG138386-06 HERB ALT ICV	1,1 SOS64-21	15 Apr 103 12::5
7	7	1g5764.d	1.	WG138293-02 BLANK V201 P09	1,1 WATER	15 Apr 103 12::2
8	8	1g5765.d	1.	WG138293-03 LCS V201 P09	1,1 WATER	15 Apr 103 12::0
9	9	1g5766.d	1.	WG138293-04 LCS DUP V201 P09	1,1 WATER	15 Apr 103 12::3
10	10	1g5767.d	1.	WG138133-01 TCLP BLANK 4/10	17,1 WATER	15 Apr 103 12::1
11	11	1g5768.d	1.	WG138293-01 L0304191-01	17,1 WATER	15 Apr 103 12::4
12	12	1g5769.d	1.	WG138293-05 L0304191-01 MS	17,1 WATER	15 Apr 103 13::2
13	13	1g5770.d	1.	WG138196-01 TCLP BLANK 4/11	17,1 WATER	15 Apr 103 13::5
14	14	1g5771.d	1.	L0304184-01	17,1 WATER	15 Apr 103 13::3
15	15	1g5772.d	1.	WG138386-07 HERB CCV	1,1 SOS63-10	16 Apr 103 12::2
16	16	1g5773.d	1.	L0304198-01	1,1 WATER	16 Apr 103 12::5
17	17	1g5774.d	1.	L0304198-02	1,1 WATER	16 Apr 103 12::3
18	18	1g5775.d	1.	L0304198-03	1,1 WATER	16 Apr 103 13::0
19	19	1g5776.d	1.	L0304198-04	1,1 WATER	16 Apr 103 13::4
20	20	1g5777.d	1.	L0304198-05	1,1 WATER	16 Apr 103 13::1
21	21	1g5778.d	1.	L0304248-01	1,1 WATER	16 Apr 103 13::5
22	22	1g5779.d	1.	L0304248-02	1,1 WATER	16 Apr 103 13::2
23	23	1g5780.d	1.	L0304248-03	1,1 WATER	16 Apr 103 12::0
24	24	1g5781.d	1.	L0304248-04	1,1 WATER	16 Apr 103 12::3
25	25	1g5782.d	1.	L0304248-05	1,1 WATER	16 Apr 103 12::1
26	26	1g5783.d	1.	WG138386-08 HERB CCV	1,1 SOS63-10	16 Apr 103 12::4

EC2 4/17/03

note 4/17/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 4/15/03 Instrument ID HP I Column ID Rtx-CLP Front Data Subdirectory 041503
Analyst Initials EG

SOP # GCS09 Rev. # ___ 8081A ___
SOP # GCS04 Rev. # 2 8151A ✓
SOP # GCS03 Rev. # ___ PRO ___
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ___
SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ___
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time 4/15/03 Instrument ID HP I Column ID Rtx-CLP II Rear Data Subdirectory 041503

Daily Check
- ☑ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☑ Change liner
- ☑ Change septum
- ☑ Clip column (8 cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases ___

Returned To Control?
Yes ✓ No ___

Additional Maintenance
Problem: ___

Action Taken: ___

Comments

Reviewed By ___ 4/17/03

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1g5871.d	1.	WG139503-01 HERB CCV	1,1 SOS63-10	1 May 103 12::(
2	2	1g5872.d	1.	WG139417-02 BLANK V201 P105	1,1 WATER	1 May 103 12::(
3	3	1g5873.d	1.	WG139417-03 LCS V201 P105	1,1 WATER	1 May 103 12::3
4	4	1g5874.d	1.	L0304585-01	1,1 WATER	1 May 103 12::1
5	5	1g5875.d	1.	L0304585-02	1,1 WATER	1 May 103 12::4
6	6	1g5876.d	1.	L0304585-03	1,1 WATER	1 May 103 12::2
7	7	1g5877.d	1.	WG139417-01 L0304585-04	1,1 WATER	1 May 103 12::5
8	8	1g5878.d	1.	WG139417-04 L0304585-05 MS	1,1 WATER	1 May 103 12::3
9	9	1g5879.d	1.	WG139417-05 L0304585-06 MSD	1,1 WATER	1 May 103 12::(
10	10	1g5880.d	1.	L0304585-10	1,1 WATER	1 May 103 12::4
11	11	1g5881.d	1.	L0304587-02	1,1 WATER	1 May 103 12::1
12	12	1g5882.d	1.	WG139503-02 HERB CCV	1,1 SOS63-10	1 May 103 12::5
13	13	1g5883.d	1.	L0304594-01	1,1 WATER	1 May 103 13::2
14	14	1g5884.d	1.	L0304594-02	1,1 WATER	1 May 103 13::0
15	15	1g5885.d	1.	WG139291-01 TCLP BLANK 4/28	17,1 WATER	1 May 103 13::3
16	16	1g5886.d	1.	L0304554-01	17,1 WATER	2 May 103 13::1
17	17	1g5887.d	1.	L0304594-03	17,1 WATER	2 May 103 13::5
18	18	1g5888.d	1.	WG139503-03 HERB CCV	1,1 SOS63-10	2 May 103 12::2

EC 5/2/03

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 5/1/03 Instrument ID HP I Column ID Rtx-CLP Front Data Subdirectory 050103
Analyst Initials EGL

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # 7 8151A ✓
SOP # GCS03 Rev. # ___ PRO ____
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____
SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time 5/1/03 Instrument ID HP I Column ID Rtx-CLP II Rear Data Subdirectory 050103

Daily Check
- ✓ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☐ Change liner
- ☐ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: _____

Parameter: HERB H2O SOP #: EXA01 Revision #: 12
Extraction Analyst(s): DP, PAS TV/KD Analyst(s): [illegible]
Date/Time Extracted: 04/30/03 @ 1500 Date TV/KD: 05-01-03
Spike/Surrogate Analyst: DP Witness: CEB
Surrogate #: ESS0044-07 Earliest Hold Date: 05/01/03
Spike #: A = ESS0044-09 Spike #: B = —

Extraction Work Group WG 139417
Analytical Work Group WG 139504

Extract Relinquished By: [illegible]
Extract Received By & Date: EO 5/1/03

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank		✓		✓	1000 mL	1 mL		10 mL	T				WG 139417-02
2	LCS		✓		✓	⊥		1 mL						WG ⊥ -03
3	04-585-01	8151	✓		✓	980 mL								
4	-02		✓		✓	980 mL								
5	-03		✓		✓	1000 mL								
6	.04		✓		✓									WG 139417-01
7	-05AS		✓		✓			1 mL						-04*
8	-06ASD		✓		✓			⊥						-05*
9	-10		✓		✓									
10	04-587-02		✓		✓	960 mL								
11	04-594-01		✓		✓	900 mL								
12	-02		✓		✓	955 mL								
13	TBLK 4/30	8151-TC	✓		✓	100 mL								WG 139291-01
14	04-554-01		✓		✓									
15	04-594-03		✓		✓									
16														
17														
18														
19														
20														
21														
22														
23														
24														

05-01-03

Methylene Chloride Lot #: 43010
Hexane Lot #: 543057
Ether Lot #: 43049
Methanol Lot #: 43036 3087
Solvent: — Lot #: —
Reagent: NaCl Lot #: Y05H20
Reagent: 6N NaOH Lot #: ER0005-14
Reagent: Iso-octane Lot #: V04616
Acid: 12 N H_2SO_4 Lot #: ER0005-8
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: (Acidified) ER 0005-6

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	✓
Acid 3665A		N/A	
Sulfur 3660B			

Peer Reviewed By: [illegible] Date: 05-01-03

Extraction Notes For Volume # 201 Page # 105

General Comments: * MS, MSD of 04-585-04
Diazomethane → 5K0005-26
Silicic Acid → 2847N, 3460?

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

Semi-Volatile GC Checklist

Run Date: 4/15/03

Analyst: ECL

Instrument: HP I

Method: 8151

Workorders:	Due Date:	Priority:
04-184	4/23	
04-191	4/16	F2
04-198	4/17	F2
04-248	4/18	F2

		Analyst
System Performance Check:	Endrin/DDT Breakdown	
Initial Calibration:	Average RF	✓
	Linear or quadratic regression	
	Alt Source Check	✓
Continuing Calibration:	Continuing Calibration	✓
	Client Specific Requirements	✓
	Ending Standards	✓
	Special Standards	
Blanks:	Quant Report/Chromatogram	✓
	Surrogates	✓
LCS/LCS DUP:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Spike Compounds	✓
	MS/MSD	✓
Samples:	Quant Reports/Chromatograms	✓
	Surrogates	✓
	Dilution runs	
	Check Sample Histories	
Data Package:	Manual Integrations	
	Run logs	✓
	Bench sheets	✓
	QC sheets	✓
	Upload results	✓
	Seedpak workgroups	✓
	Level 2	✓
	Level 3	
	Level 4 copies	✓
	Level x	
	Case narratives	✓

	Supervisor
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

√ = Checked & OK

NA = Not Applicable

Comments:

Primary Reviewer: EC2 4/17/03

Secondary Reviewer: mdc 4/17/03

Supervisor Review: mdc 4/17/03

Semi-Volatile GC Checklist

Run Date: 5/1/03

Analyst: ECL

Instrument: HPI

Method: 8151

Workorders:	Due Date:	Priority:
04-554	5/2	P1
04-585	5/5	F1
04-587	5/9	F1
04-594	5/5	P1

		Analyst
System Performance Check:	Endrin/DDT Breakdown	
Initial Calibration:	Average RF	
	Linear or quadriatic regression	
	Alt Source Check	
Continuing Calibration:	Continuing Calibration	✓
	Client Specific Requirements	✓
	Ending Standards	✓
	Special Standards	
Blanks:	Quant Report/Chromatogram	✓
	Surrogates	✓
LCS/LCS DUP:	Quant Report/Chromatogram	✓
	Surrogates	✓
	Spike Compounds	✓
	MS/MSD	✓
Samples:	Quant Reports/Chromatograms	✓
	Surrogates	✓
	Dilution runs	
	Check Sample Histories	
Data Package:	Manual Integrations	
	Run logs	✓
	Bench sheets	✓
	QC sheets	✓
	Upload results	✓
	Seedpak workgroups	✓
	Level 2	
	Level 3	
	Level 4 copies	✓
	Level x	
	Case narratives	

	Supervisor
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

√ = Checked & OK

NA = Not Applicable

Comments:

Primary Reviewer: EC 5/2/03

Secondary Reviewer: mls 5/2/03

Supervisor Review: mls 5/2/03

Example 8151 Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

			Example:
	RF = As/ Cs		
Where:	As = Area of the compound being measured in the standard		10000
	Cs = Concentration of the compound being measured (ng/ml).		100
		RF	**100**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:*

			Example:
	C = [(Ax)(Vf)(D)] / [(RF)(Vi)]		
Where:	Ax = Area of the compound being measured		10000
	Vf = Final volume of sample extract (mL). (prep log)		1
	D = Dilution factor for sample as a multiplier (10X = 10).		1
	RF = Response factor from ICAL calculated above.		100
	Vi = Initial volume of sample (mL). (prep log)		1000
		C (ug/L)	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report:*

			Example:
	C = [(Ax)(Vf)(D)] / [(RF)(Vi)]		
Where:	Ax = Area of the compound being measured		10000
	Vf = Final volume of sample extract (mL).		1
	D = Dilution factor for sample as a multiplier (10X = 10).		1
	RF = Response factor from ICAL calculated above.		100
	Wi = Initial weight of sample (g).		30
		C (ug/kg)	**3.333333**

* Concentrations appearing on instrument quantitation reports are on-column results and do not take into account initial volume, final volume and dilution factor.

2.2.9 Explosives (8330)

REPORT NARRATIVE
HPLC-EXPLOSIVE RESIDUES

KEMRON Report No.: L0304554
Note: Tetryl readily decomposes in the presence of methanol/water or heat. False negative results for this analyte are possible.

METHOD

Analysis: SW-846 8330

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: An MS/MSD were not associated with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC REVIEWED: _____ DATE: 5/12/03

Rev. 7/14/00

EXPLOSIVES HPLC DATA (8330)

Login Number L0304554

A. QC Summary

- ✓ Method Blank Summary
- ✓ Method Blank Results
- ✓ Laboratory Control Sample (LCS)
- NA Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ✓ Holding Time Summary
- ✓ Surrogate Recovery Summary
- ✓ Initial Calibration Summary
- ✓ Initial Calibration Verification (ICV) Form (Second Source)
- ✓ Continuing Calibration Verification (CCV)
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet

B. Sample Data

- ✓ Target compound and surrogate results summary (See Summary Report)
- ✓ Chromatograms and quantitation report

C. Standards Data

- ✓ Initial calibration (ICAL) summary form
- ✓ Chromatograms and quantitation report for ICAL standards
- ✓ Initial calibration verification (ICV/second source) summary forms
- ✓ Initial calibration verification (ICV/second source) quantitation reports and chromatograms
- ✓ Continuing Calibration Verification (CCV) summary forms
- ✓ Continuing Calibration Verification (CCV) quantitation reports and chromatograms
- ✓ Retention Time Window Summary

D. Raw QC Data

- ✓ Method blank chromatogram and quantitation report
- ✓ LCS chromatogram and quantitation report
- NA MS/MSD chromatogram and quantitation report
- ✓ Instrument Run Log
- ✓ Extraction Bench Sheet
- ✓ Daily Checklist
- ✓ Example Calculations

Checked By: TBC Date: 5/12/03

2.2.9.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0304554
Blank File ID: 4L004896.F
Date Analyzed: 05/02/03
Time Analyzed: 00:02
Analyst: RDC

Work Group: WG139534
Blank Sample ID: WG139397-01
Instrument ID: HPLC4
Method: 8330

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG139397-02	4L004916.F	05/04/03 21:20	01
LCS2	WG139397-03	4L004917.F	05/04/03 22:12	01
05-177511-SP1-042403	L0304554-01	4L004918.F	05/04/03 23:04	01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0304554 Run Date: 05/04/2003 Sample ID: WG139397-01
Instrument ID: HPLC4 Run Time: 19:36 Prep Method: METHOD
File ID: 4L004914.F Analyst: RDC Method: 8330
Workgroup (AAB#): WG139534 Matrix: Solid Units: mg/kg
Contract #: Cal ID: HPLC4-02-MAY-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
1,3,5-Trinitrobenzene	0.100	0.250	0.100	1	U
1,3-Dinitrobenzene	0.100	0.250	0.100	1	U
2,4,6-Trinitrotoluene	0.100	0.250	0.100	1	U
2,4-Dinitrotoluene	0.100	0.250	0.100	1	U
2,6-Dinitrotoluene	0.100	0.260	0.100	1	U
2-Amino-4,6-dinitrotoluene	0.100	0.260	0.100	1	U
2-Nitrotoluene	0.100	0.250	0.100	1	U
3-Nitrotoluene	0.100	0.250	0.100	1	U
4-Nitrotoluene	0.100	0.250	0.100	1	U
4-Amino-2,6-dinitrotoluene	0.100	0.260	0.100	1	U
HMX	0.100	2.20	0.100	1	U
Nitrobenzene	0.130	0.260	0.130	1	U
RDX	0.100	1.00	0.100	1	U
Tetryl	0.200	0.650	0.200	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
3,4-Dinitrotoluene	96.8	50 - 150	PASS

* Analyte detected above RDL
ND Analyte Not detected at or above reporting limit

KEMRON FORMS - Modified 05/08/2003
Version 1.3
Report generated 05/12/2003 16:49

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLES

Loginnum:L0304554 Worknum:WG139534 Method:8330
Instrument ID:HPLC4 Cal ID: HPLC4-02-MAY-2003 23:11 Matrix:Solid
Analyst:RDC Contract #: Units:mg/kg
Sample ID:WG139397-02 LCS File ID:4L004916.F Run Date:05/04/2003 21:20
Sample ID:WG139397-03 LCS2 File ID:4L004917.F Run Date:05/04/2003 22:12

Analytes	LCS Known	LCS Found	LCS % REC	LCS2 Known	LCS2 Found	LCS2 % REC	%RPD	%Rec Limits	RPD Limit	Q
1,3,5-Trinitrobenzene	0.493	0.491	99.7	0.498	0.509	102	3.52	40 - 143	40	
1,3-Dinitrobenzene	0.493	0.519	105	0.498	0.518	104	.203	59 - 145	40	
2,4,6-Trinitrotoluene	0.493	0.475	96.4	0.498	0.459	92.3	3.29	33 - 146	40	
2,4-Dinitrotoluene	0.493	0.508	103	0.498	0.499	100	1.78	50 - 135	40	
2,6-Dinitrotoluene	0.493	0.503	102	0.498	0.490	98.4	2.76	19 - 156	40	
2-Amino-4,6-dinitrotoluene	0.493	0.522	106	0.498	0.506	102	3.09	50 - 129	40	
2-Nitrotoluene	0.493	0.480	97.5	0.498	0.480	96.5	.0924	58 - 145	40	
3-Nitrotoluene	0.493	0.486	98.7	0.498	0.479	96.3	1.47	46 - 148	40	
4-Nitrotoluene	0.493	0.472	95.7	0.498	0.467	93.9	.925	57 - 146	40	
4-Amino-2,6-dinitrotoluene	0.493	0.493	100	0.498	0.475	95.6	3.66	46 - 138	40	
HMX	0.493	0.497	101	0.498	0.488	98.0	1.82	38 - 151	40	
Nitrobenzene	0.493	0.501	102	0.498	0.505	102	.878	65 - 148	40	
RDX	0.493	0.504	102	0.498	0.509	102	.88	60 - 156	40	
Tetryl	0.493	0.369	75.0	0.498	0.439	88.2	17.2	10 - 129	40	

Surogates	LCS % Recovery	LCS2 % Recovery	Surrogate Limits	Qualifier
3,4-Dinitrotoluene	95.1	91.2	50 - 150	PASS

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON FORMS - Modified 05/01/2003
Version 1.2
Report generated 05/12/2003 16:46

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method:8330 _____ AAB#:WG139534

Login Number:L0304554 _____

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
05-177511-SP1-042403	04/24/03	04/25/03	04/30/03	14	5.76	05/04/03	40	4.52	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON FORMS - Modified 05/07/2003
Version 1.2
Report generated 05/12/2003 16:45

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0304554
Instrument Id: HPLC4
Workgroup (AAB#): WG139534

Method: 8330
CAL ID: HPLC4-02-MAY-03
Matrix: SOLID

Sample Number	Dilution	Tag	1
L0304554-01	1.00	01	96.0
WG139397-01	1.00	01	96.8
WG139397-02	1.00	01	95.1
WG139397-03	1.00	01	91.2

Surrogates	Surrogate Limits
1 - 3,4-Dinitrotoluene	50 - 150

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

KEMRON FORMS - Modified 01/22/2003
Version 1.2
Report generated 05/12/2003 16:48

Calibration Table

8330 HPLC4

Calib. Data Modified : 5/4/2003 4:27:13 PM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.000 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.500 min
Uncalibrated Peaks : using compound Nitrobenzene #6
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: Yes, even for non-identified peaks

Curve Type : Linear
Origin : Ignored
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
4.631	1	1	10.00000	1.57396	6.35341			HMX #1
		2	25.00000	4.00373	6.24417			
		3	50.00000	7.97567	6.26906			
		4	100.00000	18.35064	5.44940			
		5	500.00000	81.70618	6.11949			
		6	1000.00000	166.21046	6.01647			
7.239	1	1	10.00000	1.36909	7.30414			RDX #2
		2	25.00000	3.97642	6.28706			
		3	50.00000	7.96822	6.27492			
		4	100.00000	18.25620	5.47759			
		5	500.00000	94.78035	5.27536			
		6	1000.00000	197.94426	5.05193			
9.796	1	1	10.00000	3.88054	2.57696			1,3,5-Trinitrobenzene
		2	25.00000	10.03447	2.49141			
		3	50.00000	20.23016	2.47156			
		4	100.00000	43.17253	2.31629			
		5	500.00000	217.77176	2.29598			
		6	1000.00000	437.98468	2.28318			
12.025	1	1	10.00000	5.80553	1.72250			1,3-Dinitrobenzene #4
		2	25.00000	14.11635	1.77100			

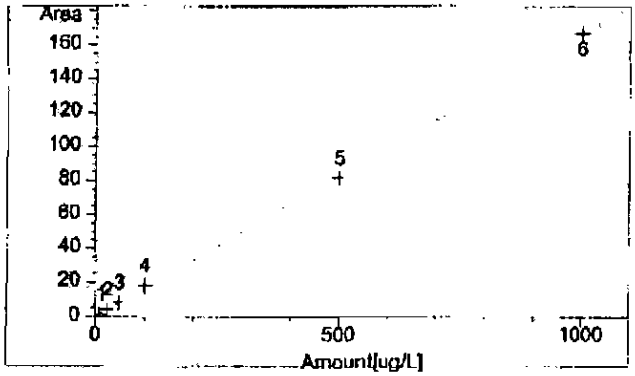
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	50.00000	28.37236	1.76228			
		4	100.00000	56.64658	1.76533			
		5	500.00000	291.93634	1.71270			
		6	1000.00000	585.14874	1.70897			
12.988	1	1	10.00000	3.14353	3.18114			Tetryl #5
		2	25.00000	7.80422	3.20340			
		3	50.00000	15.61649	3.20174			
		4	100.00000	30.13752	3.31812			
		5	500.00000	160.47656	3.11572			
		6	1000.00000	313.70349	3.18772			
13.654	1	1	10.00000	3.81040	2.62440			Nitrobenzene #6
		2	25.00000	9.44287	2.64750			
		3	50.00000	18.73051	2.66944			
		4	100.00000	37.13404	2.69295			
		5	500.00000	193.49026	2.58411			
		6	1000.00000	379.35959	2.63602			
14.781	1	1	10.00000	2.27462	4.39633			3,4-Dinitrotoluene #7
		2	25.00000	5.23684	4.77387			
		3	50.00000	10.60707	4.71384			
		4	100.00000	20.55322	4.86542			
		5	500.00000	111.83913	4.47071			
		6	1000.00000	215.25517	4.64565			
15.574	1	1	10.00000	4.11333	2.43112			2,4,6-Trinitrotoluene
		2	25.00000	10.25914	2.43685			
		3	50.00000	19.82112	2.52256			
		4	100.00000	38.07655	2.62629			
		5	500.00000	203.73759	2.45414			
		6	1000.00000	404.13718	2.47441			
16.539	1	1	10.00000	2.57813	3.87877			4-Amino-2,6-Dinitrotol
		2	25.00000	6.48298	3.85625			
		3	50.00000	12.28848	4.06885			
		4	100.00000	21.71029	4.60611			
		5	500.00000	125.79243	3.97480			
		6	1000.00000	246.13437	4.06282			
17.440	1	1	10.00000	3.55554	2.81251			2-Amino-4,6-Dinitrotol
		2	25.00000	8.69794	2.87424			
		3	50.00000	16.78469	2.97891			
		4	100.00000	30.72612	3.25456			
		5	500.00000	171.46715	2.91601			
		6	1000.00000	343.51910	2.91105			
18.230	1	1	10.00000	2.92485	3.41898			2,6-Dinitrotoluene #11
		2	25.00000	6.66755	3.74950			
		3	50.00000	12.96977	3.85512			
		4	100.00000	23.98173	4.16984			
		5	500.00000	131.02063	3.81619			
		6	1000.00000	265.18420	3.77096			
18.878	1	1	10.00000	5.45924	1.83176			2,4-Dinitrotoluene #12
		2	25.00000	13.48203	1.85432			
		3	50.00000	26.12951	1.91354			
		4	100.00000	51.72134	1.93344			
		5	500.00000	267.79782	1.86708			
		6	1000.00000	545.61340	1.83280			
22.226	1	1	10.00000	1.91520	5.22140			2-Nitrotoluene #13
		2	25.00000	5.21716	4.79188			
		3	50.00000	10.38873	4.81291			
		4	100.00000	22.40642	4.46301			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref Grp	Name
		5	500.00000	107.90704	4.63362		
		6	1000.00000	218.03798	4.58636		
23.750	1	1	10.00000	1.67214	5.98036		4-Nitrotoluene #14
		2	25.00000	4.10438	6.09105		
		3	50.00000	8.30096	6.02340		
		4	100.00000	17.42019	5.74047		
		5	500.00000	87.53891	5.71175		
		6	1000.00000	169.68343	5.89333		
25.583	1	1	10.00000	2.21367	4.51739		3-Nitrotoluene #15
		2	25.00000	5.77062	4.33229		
		3	50.00000	11.49031	4.35149		
		4	100.00000	24.64791	4.05714		
		5	500.00000	122.69504	4.07514		
		6	1000.00000	240.64584	4.15548		

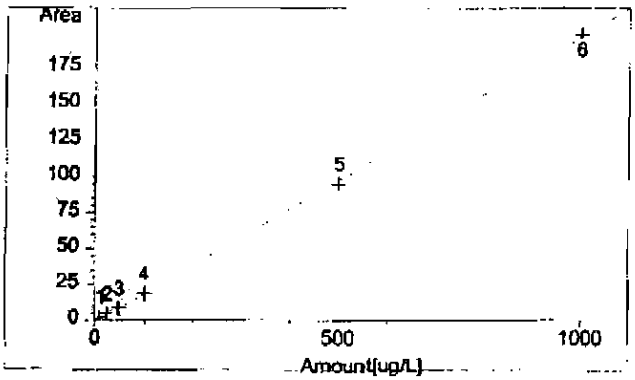
Peak Sum Table

No Entries in table

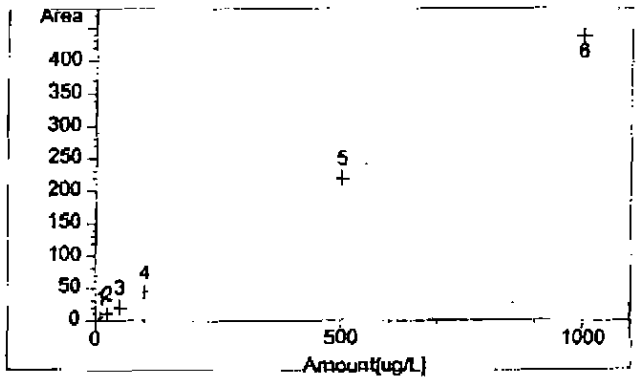
Calibration Curves



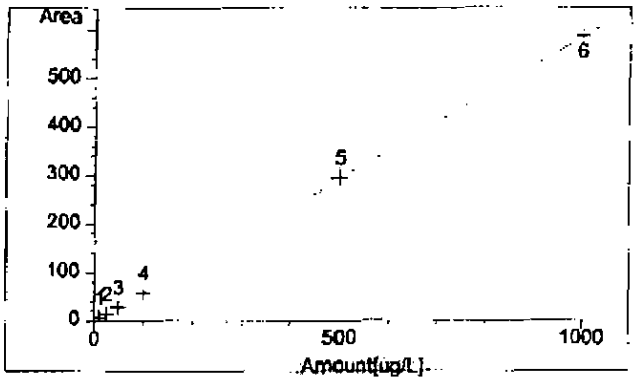
HMX #1 at exp. RT: 4.631
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99989
Residual Std. Dev.: 1.09440
Formula: y = mx + b
m: 1.65604e-1
b: 1.29773e-1
x: Amount [ug/L]
y: Area



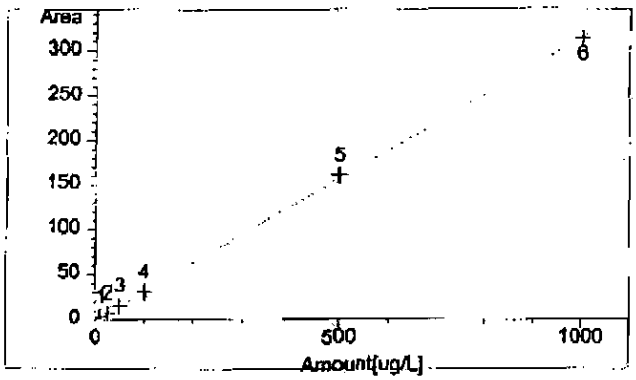
RDX #2 at exp. RT: 7.239
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99983
Residual Std. Dev.: 1.63408
Formula: y = mx + b
m: 1.98221e-1
b: -1.61802
x: Amount [ug/L]
y: Area



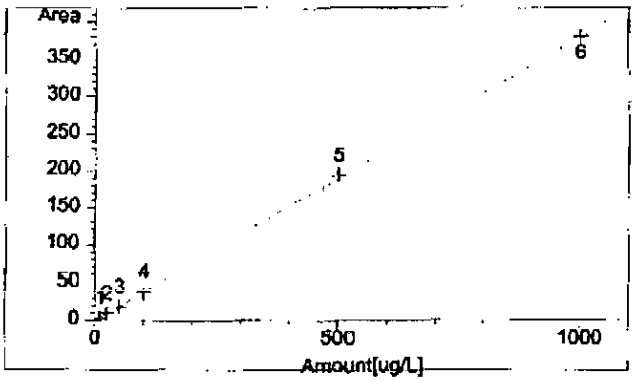
1,3,5-Trinitrobenzene #3 at exp. RT: 9.79
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 1.00000
Residual Std. Dev.: 0.55838
Formula: y = mx + b
m: 4.38745e-1
b: -1.03507
x: Amount [ug/L]
y: Area



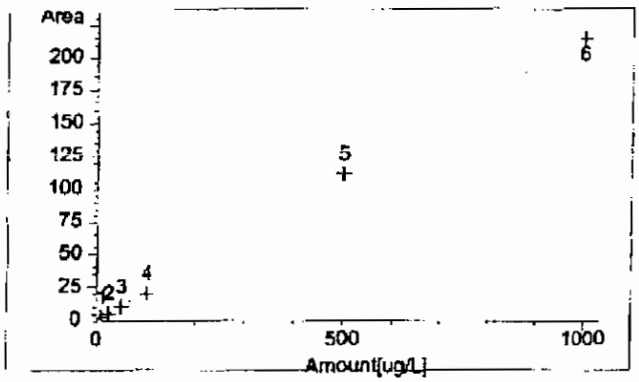
1,3-Dinitrobenzene #4 at exp. RT: 12.025
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 1.00000
Residual Std. Dev.: 0.70150
Formula: y = mx + b
m: 5.85840e-1
b: -8.52323e-1
x: Amount [ug/L]
y: Area



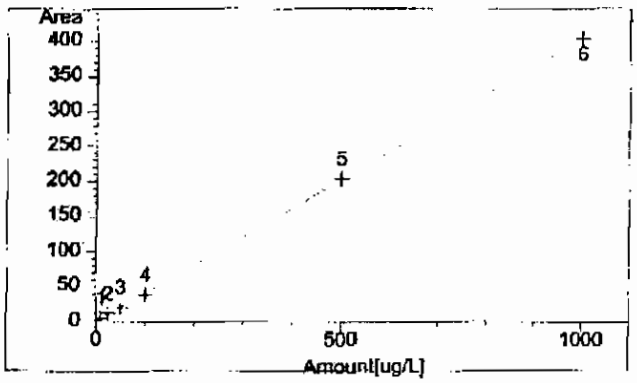
Tetryl #5 at exp. RT: 12.988
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99992
Residual Std. Dev.: 1.76195
Formula: y = mx + b
m: 3.15022e-1
b: 1.17534e-2
x: Amount [ug/L]
y: Area



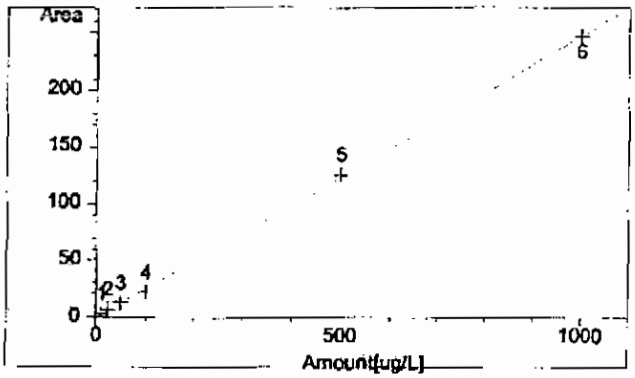
Nitrobenzene #6 at exp. RT: 13.654
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99995
Residual Std. Dev.: 1.77427
Formula: y = mx + b
m: 3.80677e-1
b: 8.77696e-2
x: Amount [ug/L]
y: Area



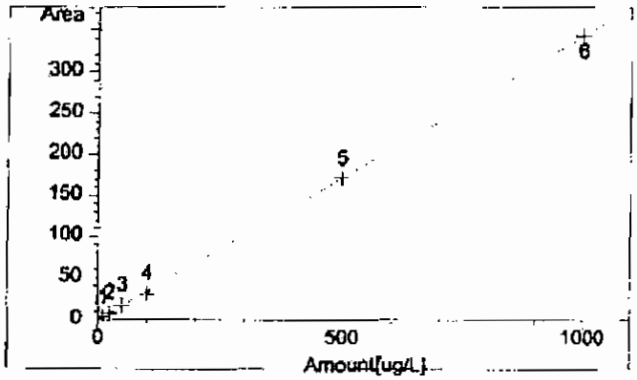
3,4-Dinitrotoluene #7 * at exp. RT: 14.7
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99979
Residual Std. Dev.: 1.97101
Formula: y = mx + b
m: 2.16697e-1
b: 1.05397e-1
x: Amount [ug/L]
y: Area



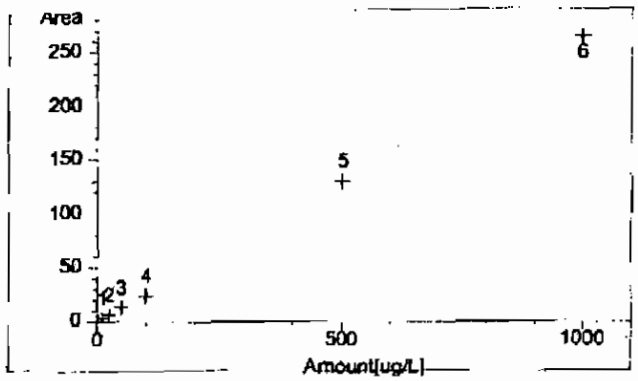
2,4,6-Trinitrotoluene #8 at exp. RT: 15.5
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99997
Residual Std. Dev.: 1.36612
Formula: y = mx + b
m: 4.05173e-1
b: -4.28536e-1
x: Amount [ug/L]
y: Area



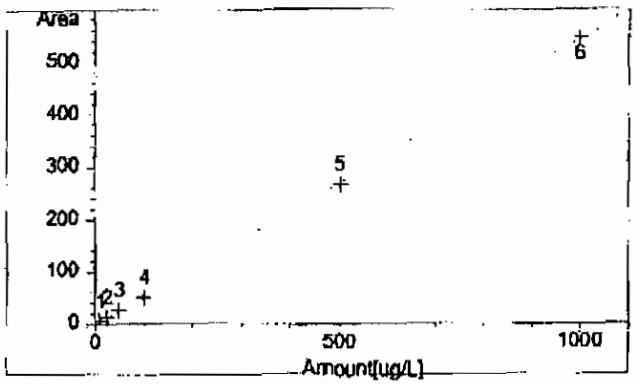
4-Amino-2,6-Dinitrotoluene #9 at exp. RT:
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99985
Residual Std. Dev.: 1.91539
Formula: y = mx + b
m: 2.47413e-1
b: -3.17505e-1
x: Amount [ug/L]
y: Area



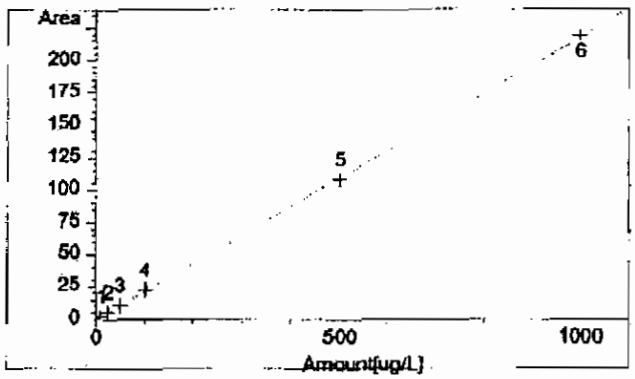
2-Amino-4,6-Dinitrotoluene #10 at exp. RT
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99995
Residual Std. Dev.: 1.59294
Formula: y = mx + b
m: 3.44305e-1
b: -9.00671e-1
x: Amount [ug/L]
y: Area



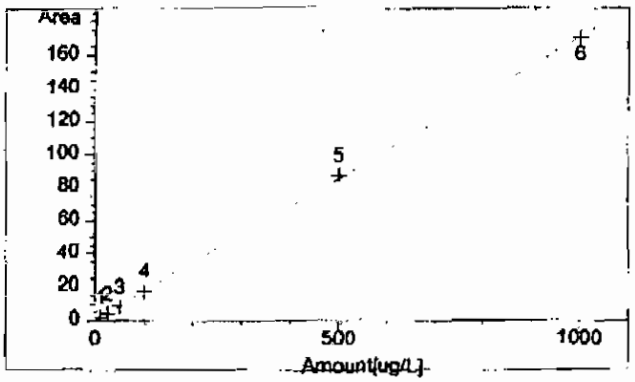
2,6-Dinitrotoluene #11 at exp. RT: 18.230
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99994
Residual Std. Dev.: 1.25186
Formula: y = mx + b
m: 2.65308e-1
b: -7.15756e-1
x: Amount [ug/L]
y: Area



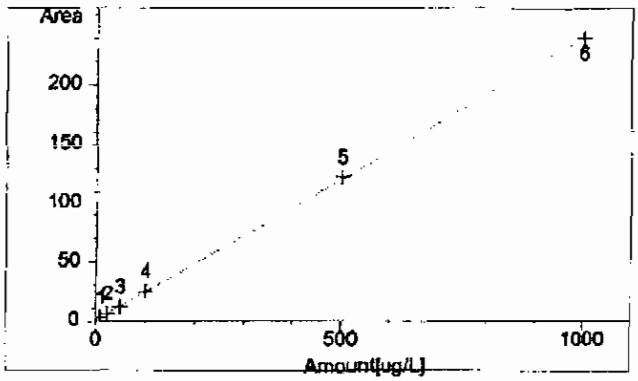
2,4-Dinitrotoluene #12 at exp. RT: 18.878
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99996
Residual Std. Dev.: 2.26034
Formula: y = mx + b
m: 5.45260e-1
b: -1.42676
x: Amount [ug/L]
y: Area



2-Nitrotoluene #13 at exp. RT: 22.226
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99998
Residual Std. Dev.: 0.63024
Formula: y = mx + b
m: 2.17908e-1
b: -2.17113e-1
x: Amount [ug/L]
y: Area



4-Nitrotoluene #14 at exp. RT: 23.750
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99987
Residual Std. Dev.: 1.20169
Formula: y = mx + b
m: 1.70435e-1
b: 2.56217e-1
x: Amount [ug/L]
y: Area



3-Nitrotoluene #15 at exp. RT: 25.583
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99994
Residual Std. Dev.: 1.13643
Formula: y = mx + b
m: 2.41474e-1
b: 9.65161e-2
x: Amount [ug/L]
y: Area

Check Standard Report

Data File C:\HPCHEM\2\DATA\050203\4L004911.D Sample Name: WG139673-07 ALT
HPLC4 5/4/2003 4:29:59 PM RDC

1,1 SOS64-48 50 ppb

Injection Date : 5/3/2003 12:03:56 AM Seq. Line : 8

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

Compound	RT	Known Conc.	Cal. Conc.	%D
HMX #1	4.644	50.0	45.982	-8.0
RDX #2	7.272	50.0	47.403	-5.2
1,3,5-Trinitrobenzene #3	9.833	50.0	47.765	-4.5
1,3-Dinitrobenzene #4	12.077	50.0	48.175	-3.7
Tetryl #5	13.058	50.0	47.563	-4.9
Nitrobenzene #6	13.715	50.0	46.391	-7.2
3,4-Dinitrotoluene #7 *	14.858	50.0	47.381	-5.2
2,4,6-Trinitrotoluene #8	15.649	50.0	48.652	-2.7
4-Amino-2,6-Dinitrotolue	16.642	50.0	48.562	-2.9
2-Amino-4,6-Dinitrotolue	17.544	50.0	50.209	0.4
2,6-Dinitrotoluene #11	18.344	50.0	52.318	4.6
2,4-Dinitrotoluene #12	18.976	50.0	48.767	-2.5
2-Nitrotoluene #13	22.334	50.0	46.823	-6.4
4-Nitrotoluene #14	23.889	50.0	44.180	-11.6
3-Nitrotoluene #15	25.761	50.0	45.409	-9.2

= Failed 15.0% Criteria

Check Standard Report

Data File C:\HPCHEM\2\DATA\050403\4L004913.D Sample Name: WG139732-01 CCV
HPLC4 5/5/2003 9:15:54 AM RDC

1,1 SOS64-31 50 ppb

Injection Date : 5/4/2003 6:44:06 PM Seq. Line : 2

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

Compound	RT	Known Conc.	Cal. Conc.	%D
HMX #1	4.625	50.0	45.302	-9.4
RDX #2	7.226	50.0	49.225	-1.6
1,3,5-Trinitrobenzene #3	9.782	50.0	48.545	-2.9
1,3-Dinitrobenzene #4	12.003	50.0	48.581	-2.8
Tetryl #5	12.955	50.0	47.326	-5.3
Nitrobenzene #6	13.634	50.0	46.339	-7.3
3,4-Dinitrotoluene #7 *	14.745	50.0	42.764	-14.5
2,4,6-Trinitrotoluene #8	15.543	50.0	44.513	-11.0
4-Amino-2,6-Dinitrotolue	16.492	50.0	44.586	-10.8
2-Amino-4,6-Dinitrotolue	17.379	50.0	49.428	-1.1
2,6-Dinitrotoluene #11	18.195	50.0	50.580	1.2
2,4-Dinitrotoluene #12	18.825	50.0	50.189	0.4
2-Nitrotoluene #13	22.153	50.0	49.130	-1.7
4-Nitrotoluene #14	23.684	50.0	52.372	4.7
3-Nitrotoluene #15	25.545	50.0	53.973	7.9

= Failed 15.0% Criteria

Check Standard Report

Data File C:\HPCHEM\2\DATA\050403\4L004924.D Sample Name: WG139732-02 CCV
HPLC4 5/5/2003 9:24:28 AM RDC

1,1 SOS64-31 50 ppb

Injection Date : 5/5/2003 4:18:09 AM Seq. Line : 13

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

Compound	RT	Known Conc.	Cal. Conc.	%D
HMX #1	4.629	50.0	45.725	-8.6
RDX #2	7.236	50.0	49.300	-1.4
1,3,5-Trinitrobenzene #3	9.763	50.0	49.023	-2.0
1,3-Dinitrobenzene #4	11.984	50.0	48.823	-2.4
Tetryl #5	12.936	50.0	43.183	-13.6
Nitrobenzene #6	13.597	50.0	48.264	-3.5
3,4-Dinitrotoluene #7 *	14.710	50.0	50.058	0.1
2,4,6-Trinitrotoluene #8	15.491	50.0	50.691	1.4
4-Amino-2,6-Dinitrotolue	16.540	50.0	50.366	0.7
2-Amino-4,6-Dinitrotolue	17.419	50.0	50.706	1.4
2,6-Dinitrotoluene #11	18.151	50.0	51.751	3.5
2,4-Dinitrotoluene #12	18.780	50.0	50.833	1.7
2-Nitrotoluene #13	22.071	50.0	47.670	-4.7
4-Nitrotoluene #14	23.605	50.0	49.600	-0.8
3-Nitrotoluene #15	25.434	50.0	46.915	-6.2

= Failed 15.0% Criteria

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	Blank Me/AcCN/Wa	8330	1	Sample		
2	2	WG139673-01 STD6	8330	1	Sample		
3	3	WG139673-02 STD5	8330	1	Sample		
4	4	WG139673-03 STD4	8330	1	Sample		
5	5	WG139673-04 STD3	8330	1	Sample		
6	6	WG139673-05 STD2	8330	1	Sample		
7	7	WG139673-06 STD1	8330	1	Sample		
8	8	WG139673-07 ALT	8330	1	Sample		

RPOE 5/4/03

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8330	4L004904	01:01		Blank Me/AcCN/
No	2	2	8330	4L004905	02:01	DICN SOS 64-31	WG139673-01 ST
No	3	3	8330	4L004906	03:01		WG139673-02 ST
No	4	4	8330	4L004907	04:01		WG139673-03 ST
No	5	5	8330	4L004908	05:01		WG139673-04 ST
No	6	6	8330	4L004909	06:01		WG139673-05 ST
No	7	7	8330	4L004910	07:01		WG139673-06 ST
No	8	8	8330	4L004911	08:01	DICN. SOS 64-48	WG139673-07 AL

[illegible] 5/4/03
[illegible]

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time May 2, 2003 Instrument ID HPLC 4 Column ID Ultracarb 5ODS Data Subdirectory 050203
Analyst Initials [illegible] SOP # HPLC01 Rev. # 4 8310 SOP # HPLC02 Rev. # 3 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 227 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: [signature]

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	Blank Me/AcCN/Wa	8330	1	Sample		
2	2	WG139732-01 CCV	8330	1	Sample		
3	3	WG139397-01 BLK	8330	1	Sample		
4	4	MDL CHK	8330	1	Sample		
5	5	WG139397-02 LCS	8330	1	Sample		
6	6	WG139397-03 LCS2	8330	1	Sample		
7	7	L0304554-01 833S	8330	1	Sample		
8	8	L0304594-03 833S	8330	1	Sample		
9	9	L0304439-01 REEX	8330	1	Sample		
10	10	WG139590-01 BLK	8330	1	Sample		
11	11	WG139590-02 LCS	8330	1	Sample		
12	12	WG139590-03 LCS2	8330	1	Sample		
13	2	WG139732-02 CCV	8330	1	Sample		
14	13	L0305015-01 833W	8330	1	Sample		
15	14	L0305015-02 833W	8330	1	Sample		
16	15	L0305020-01 833W	8330	1	Sample		
17	2	WG139732-03 CCV	8330	1	Sample		

RDL 5/5/03

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8330	4L004912	01:01		Blank Me/AcCN
No	2	2	8330	4L004913	02:01	SOS 64-31	WG139732-01 CC
No	3	3	8330	4L004914	03:01		WG139397-01 BL
No	4	4	8330	4L004915	04:01		MDL CHK
No	5	5	8330	4L004916	05:01		WG139397-02 LC
No	6	6	8330	4L004917	06:01		WG139397-03 LC
No	7	7	8330	4L004918	07:01		L0304554-01 83
No	8	8	8330	4L004919	08:01		L0304594-03 83
No	9	9	8330	4L004920	09:01		L0304439-01 RE
No	10	10	8330	4L004921	10:01		WG139590-01 BL
No	11	11	8330	4L004922	11:01		WG139590-02 LC
No	12	12	8330	4L004923	12:01		WG139590-03 LC
No	13	2	8330	4L004924	13:01	SOS 64-31	WG139732-02 CC
No	14	13	8330	4L004925	14:01 RR		L0305015-01 83
No	15	14	8330	4L004926	15:01		L0305015-02 83
No	16	15	8330	4L004927	16:01		L0305020-01 83
No	17	2	8330	4L004928	17:01 CC	SOS64-31	WG139732-03 CC

RRC 5/5/03
[illegible] 5/5/03

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time 5/04/03 Instrument ID HPLC4 Column ID Ultracarb 5 ODC Data Subdirectory 050403
Analyst Initials AEL SOP # HPLC01 Rev. # 4 8310 SOP # HPLC02 Rev. # 3 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 229 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Ending CCV 4L0049281 / WF139732-03 %D for tetryl @ 16.4% (low)

Reviewed By: _____

Sample Extraction Log Sheet – Method 8330 / Explosives

Analyst: CEB
Date: 4-30-03 @ 1042
SOP#: EXTNT02 REV
Spike Analyst: CEB Witness: RMC
Sample Matrix: SOIL
Ext Solvent: CH_3CN Lot#: 42269
Ext Solvent: — Lot#: —
Ext Disk: — Lot#: —
Other: CCl Lot#: EP0005-1

Extract Relinquished By: CEB
Extract Received By: KDC
Date Extract Received: 5/1/03

Matrix Spike # / Conc: ES50044-20 @ 1.0 ppm
Surrogate Spike # / Conc: ES50044-12 @ 1.0 ppm

Extraction Work Group: WG139397
Analytical Work Group: WG-139534

Sonic Bath On – Date:	4-30-03
Time (1) 1300	Temp (1) CTRL 3.4°C BATH 10°C
Time (2) 1539	Temp (2) CTRL 3.4°C BATH 12°C
Sonic Bath Off – Date:	5/1/03
Time (3) 0700	Temp (3) CTRL 3.4°C BATH 12°

	Project ID	Sample ID	Sample Wt (g) / Vol (mL)	Surrogate Amount (uL)	Matrix Spike Amount (uL)	Extract F. Volume (mL)	Comments
1		BLK	2.00 g	1000 uL		20.0 mL	WG139397-01
2		LCS	2.03	↓	1000 uL	↓	↓ -02
3		LCSDUP	2.01		↓		↓ -03
4		04-554-01	2.06				
5		04-594-03	2.05				
6		04-434-01	2.02				RE EXT IN HOLD
7		MDL ✓	2.01 ↓	↓	200 uL	↓	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

CEB 4-30-03

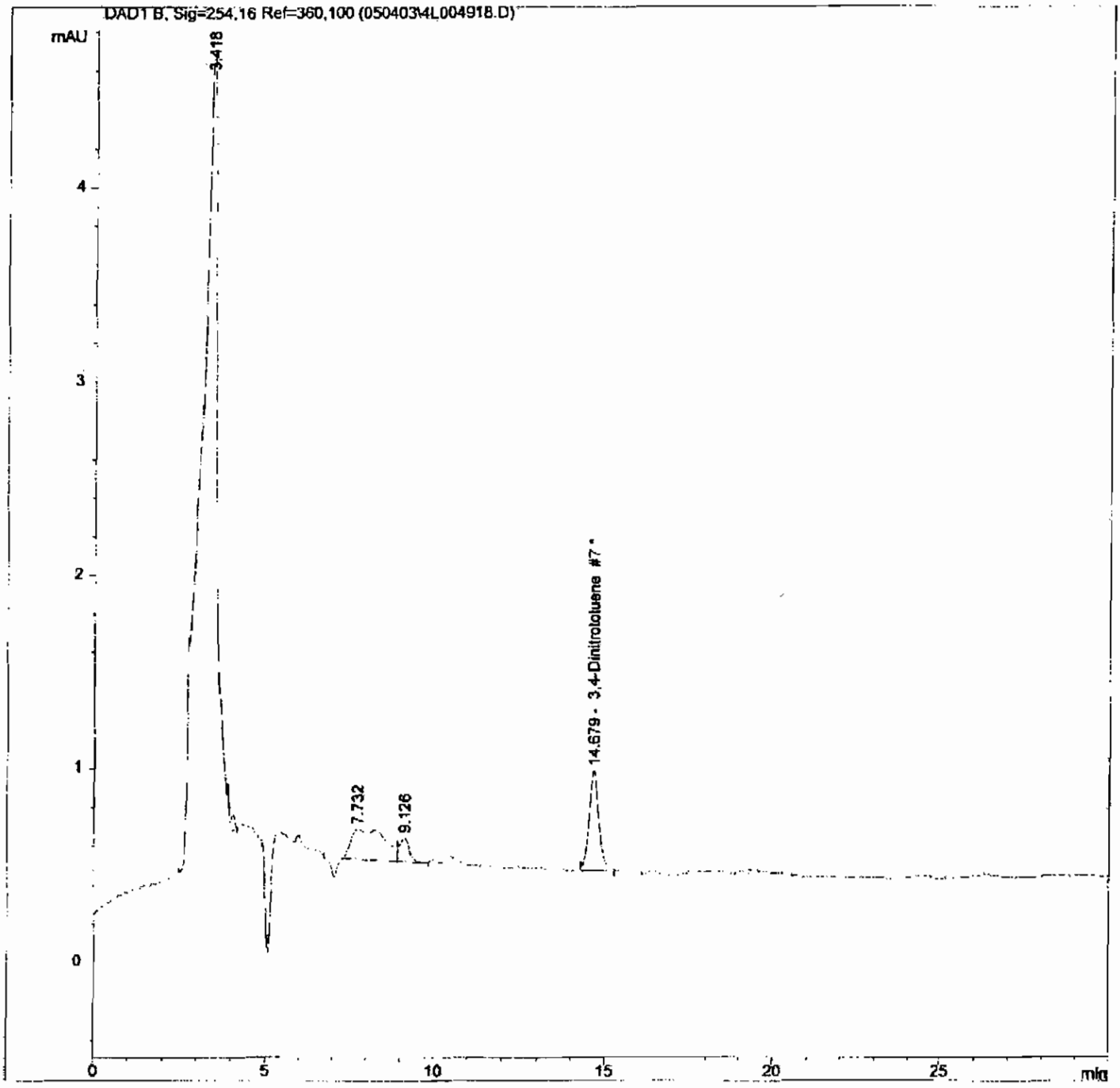
All soil samples are air dried to a constant weight prior to extraction
*All extracts are filtered through a 0.45 um teflon **ACRODISC** prior to analysis*

Reviewed by: _____

2.2.9.2 Sample Data

```
================================================================================
Injection Date  : 5/4/2003 11:04:58 PM          Seq. Line :   7
Sample Name     : L0304554-01 833S                 Vial :   7
Acq. Operator   : RDC                              Inj :   1
                                                Inj Volume : 100 µl

Acq. Method     : C:\HPCHEM\2\METHODS\8330.M
Last changed    : 4/29/2003 2:40:07 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed    : 5/5/2003 9:15:05 AM by RDC
                  (modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11
================================================================================
```



Injection Date : 5/4/2003 11:04:58 PM Seq. Line : 7
Sample Name : L0304554-01 833S Vial : 7
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl

Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 4/29/2003 2:40:07 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 5/5/2003 9:15:05 AM by RDC
(modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11

External Standard Report

Sorted By : Signal
Calib. Data Modified : 5/4/2003 4:27:13 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.631		-	-	-		HMX #1
7.239		-	-	-		RDX #2
9.796		-	-	-		1,3,5-Trinitrobenzene #3
12.025		-	-	-		1,3-Dinitrobenzene #4
12.988		-	-	-		Tetryl #5
13.654		-	-	-		Nitrobenzene #6
14.679	BB	10.50982	4.56847	48.01379		3,4-Dinitrotoluene #7 *
15.574		-	-	-		2,4,6-Trinitrotoluene #8
16.539		-	-	-		4-Amino-2,6-Dinitrotoluen
17.440		-	-	-		2-Amino-4,6-Dinitrotoluen
18.230		-	-	-		2,6-Dinitrotoluene #11
18.878		-	-	-		2,4-Dinitrotoluene #12
22.226		-	-	-		2-Nitrotoluene #13
23.750		-	-	-		4-Nitrotoluene #14
25.583		-	-	-		3-Nitrotoluene #15

96.0%

Totals : 4724.04145

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

*** End of Report ***

2.2.9.3 Standards Data

Calibration Table

8330 HPLC4

Calib. Data Modified : 5/4/2003 4:27:13 PM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.000 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.500 min
Uncalibrated Peaks : using compound Nitrobenzene #6
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: Yes, even for non-identified peaks

Curve Type : Linear
Origin : Ignored
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
4.631	1	1	10.00000	1.57396	6.35341			HMX #1
		2	25.00000	4.00373	6.24417			
		3	50.00000	7.97567	6.26906			
		4	100.00000	18.35064	5.44940			
		5	500.00000	81.70618	6.11949			
		6	1000.00000	166.21046	6.01647			
7.239	1	1	10.00000	1.36909	7.30414			RDX #2
		2	25.00000	3.97642	6.28706			
		3	50.00000	7.96822	6.27492			
		4	100.00000	18.25620	5.47759			
		5	500.00000	94.78035	5.27536			
		6	1000.00000	197.94426	5.05193			
9.796	1	1	10.00000	3.88054	2.57696			1,3,5-Trinitrobenzene
		2	25.00000	10.03447	2.49141			
		3	50.00000	20.23016	2.47156			
		4	100.00000	43.17253	2.31629			
		5	500.00000	217.77176	2.29598			
		6	1000.00000	437.98468	2.28318			
12.025	1	1	10.00000	5.80553	1.72250			1,3-Dinitrobenzene #4
		2	25.00000	14.11635	1.77100			

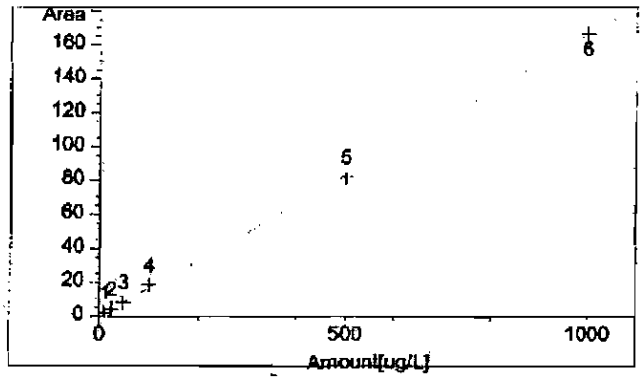
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	50.00000	28.37236	1.76228			
		4	100.00000	56.64658	1.76533			
		5	500.00000	291.93634	1.71270			
		6	1000.00000	585.14874	1.70897			
12.988	1	1	10.00000	3.14353	3.18114			Tetryl #5
		2	25.00000	7.80422	3.20340			
		3	50.00000	15.61649	3.20174			
		4	100.00000	30.13752	3.31812			
		5	500.00000	160.47656	3.11572			
		6	1000.00000	313.70349	3.18772			
13.654	1	1	10.00000	3.81040	2.62440			Nitrobenzene #6
		2	25.00000	9.44287	2.64750			
		3	50.00000	18.73051	2.66944			
		4	100.00000	37.13404	2.69295			
		5	500.00000	193.49026	2.58411			
		6	1000.00000	379.35959	2.63602			
14.781	1	1	10.00000	2.27462	4.39633			3,4-Dinitrotoluene #7
		2	25.00000	5.23684	4.77387			
		3	50.00000	10.60707	4.71384			
		4	100.00000	20.55322	4.86542			
		5	500.00000	111.83913	4.47071			
		6	1000.00000	215.25517	4.64565			
15.574	1	1	10.00000	4.11333	2.43112			2,4,6-Trinitrotoluene
		2	25.00000	10.25914	2.43685			
		3	50.00000	19.82112	2.52256			
		4	100.00000	38.07655	2.62629			
		5	500.00000	203.73759	2.45414			
		6	1000.00000	404.13718	2.47441			
16.539	1	1	10.00000	2.57813	3.87877			4-Amino-2,6-Dinitrotol
		2	25.00000	6.48298	3.85625			
		3	50.00000	12.28848	4.06885			
		4	100.00000	21.71029	4.60611			
		5	500.00000	125.79243	3.97480			
		6	1000.00000	246.13437	4.06282			
17.440	1	1	10.00000	3.55554	2.81251			2-Amino-4,6-Dinitrotol
		2	25.00000	8.69794	2.87424			
		3	50.00000	16.78469	2.97891			
		4	100.00000	30.72612	3.25456			
		5	500.00000	171.46715	2.91601			
		6	1000.00000	343.51910	2.91105			
18.230	1	1	10.00000	2.92485	3.41898			2,6-Dinitrotoluene #11
		2	25.00000	6.66755	3.74950			
		3	50.00000	12.96977	3.85512			
		4	100.00000	23.98173	4.16984			
		5	500.00000	131.02063	3.81619			
		6	1000.00000	265.18420	3.77096			
18.878	1	1	10.00000	5.45924	1.83176			2,4-Dinitrotoluene #12
		2	25.00000	13.48203	1.85432			
		3	50.00000	26.12951	1.91354			
		4	100.00000	51.72134	1.93344			
		5	500.00000	267.79782	1.86708			
		6	1000.00000	545.61340	1.83280			
22.226	1	1	10.00000	1.91520	5.22140			2-Nitrotoluene #13
		2	25.00000	5.21716	4.79188			
		3	50.00000	10.38873	4.81291			
		4	100.00000	22.40642	4.46301			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref Grp	Name
		5	500.00000	107.90704	4.63362		
		6	1000.00000	218.03798	4.58636		
23.750	1	1	10.00000	1.67214	5.98036		4-Nitrotoluene #14
		2	25.00000	4.10438	6.09105		
		3	50.00000	8.30096	6.02340		
		4	100.00000	17.42019	5.74047		
		5	500.00000	87.53891	5.71175		
		6	1000.00000	169.68343	5.89333		
25.583	1	1	10.00000	2.21367	4.51739		3-Nitrotoluene #15
		2	25.00000	5.77062	4.33229		
		3	50.00000	11.49031	4.35149		
		4	100.00000	24.64791	4.05714		
		5	500.00000	122.69504	4.07514		
		6	1000.00000	240.64584	4.15548		

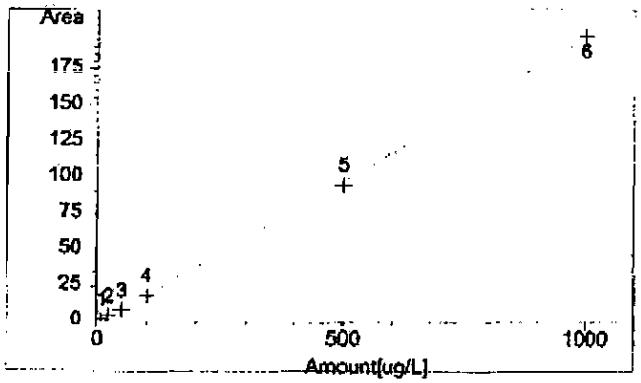
Peak Sum Table

No Entries in table

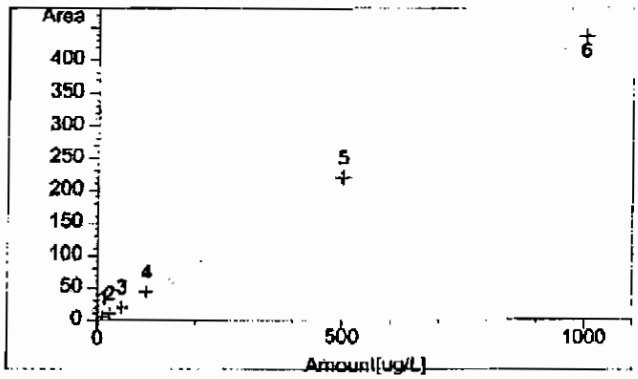
Calibration Curves



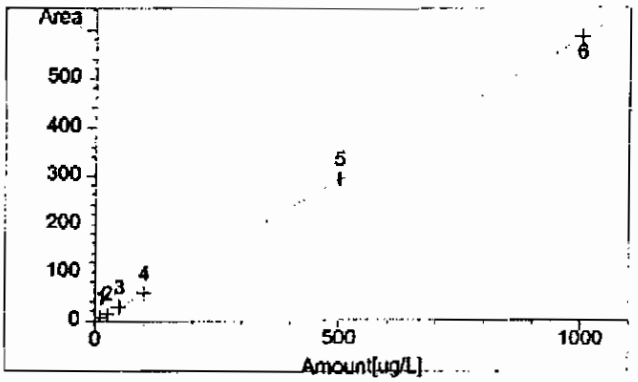
HMX #1 at exp. RT: 4.631
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99989
Residual Std. Dev.: 1.09440
Formula: y = mx + b
m: 1.65604e-1
b: 1.29773e-1
x: Amount [ug/L]
y: Area



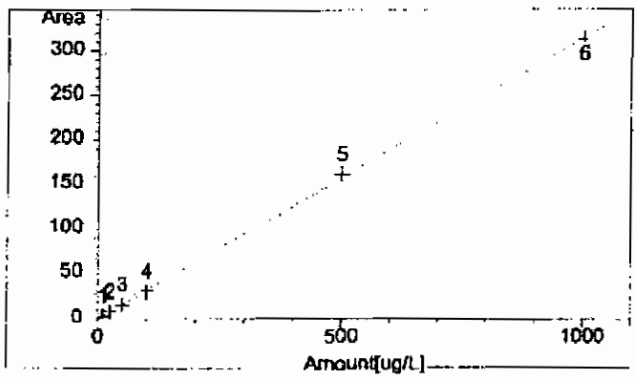
RDX #2 at exp. RT: 7.239
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99983
Residual Std. Dev.: 1.63408
Formula: y = mx + b
m: 1.98221e-1
b: -1.61802
x: Amount [ug/L]
y: Area



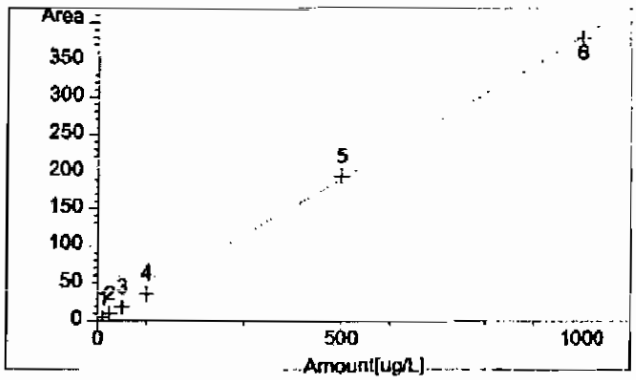
1,3,5-Trinitrobenzene #3 at exp. RT: 9.79
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 1.00000
Residual Std. Dev.: 0.55838
Formula: y = mx + b
m: 4.38745e-1
b: -1.03507
x: Amount [ug/L]
y: Area



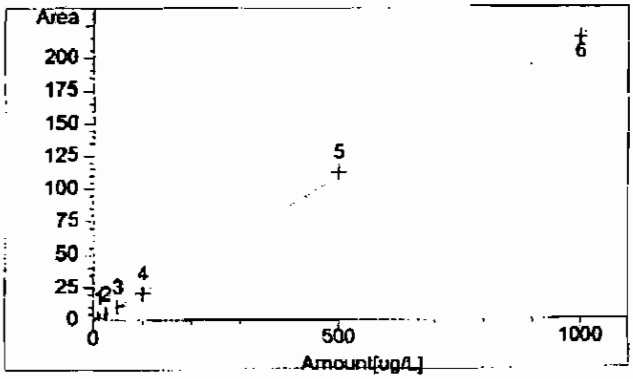
1,3-Dinitrobenzene #4 at exp. RT: 12.025
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 1.00000
Residual Std. Dev.: 0.70150
Formula: y = mx + b
m: 5.85840e-1
b: -8.52323e-1
x: Amount [ug/L]
y: Area



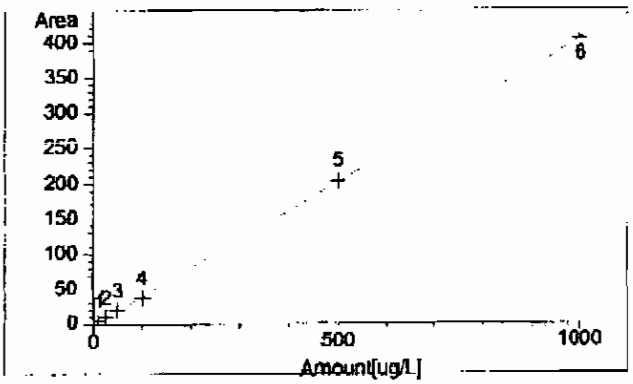
Tetryl #5 at exp. RT: 12.988
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99992
Residual Std. Dev.: 1.76195
Formula: y = mx + b
m: 3.15022e-1
b: 1.17534e-2
x: Amount [ug/L]
y: Area



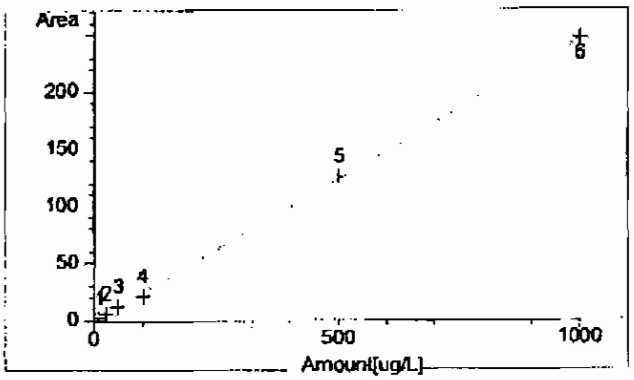
Nitrobenzene #6 at exp. RT: 13.654
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99995
Residual Std. Dev.: 1.77427
Formula: y = mx + b
m: 3.80677e-1
b: 8.77696e-2
x: Amount [ug/L]
y: Area



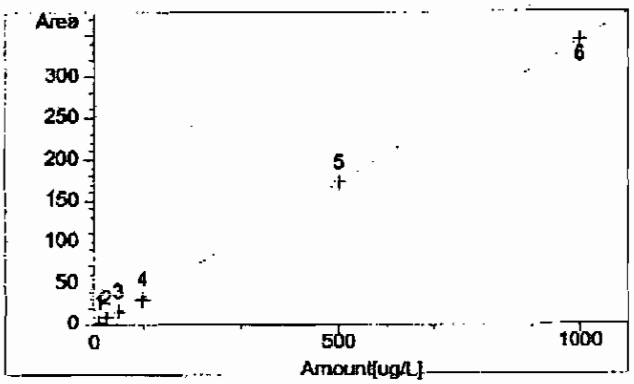
3,4-Dinitrotoluene #7 * at exp. RT: 14.7
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99979
Residual Std. Dev.: 1.97101
Formula: y = mx + b
m: 2.16697e-1
b: 1.05397e-1
x: Amount [ug/L]
y: Area



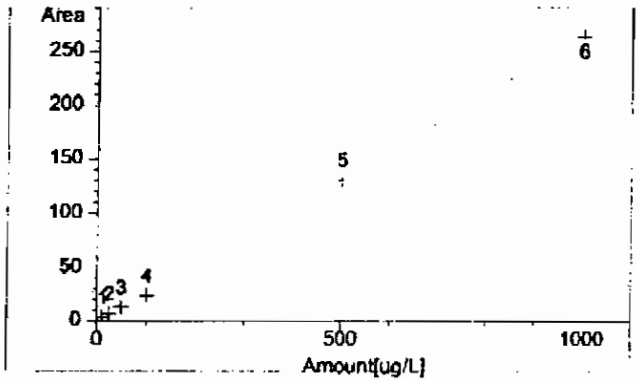
2,4,6-Trinitrotoluene #8 at exp. RT: 15.5
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99997
Residual Std. Dev.: 1.36612
Formula: y = mx + b
m: 4.05173e-1
b: -4.28536e-1
x: Amount [ug/L]
y: Area



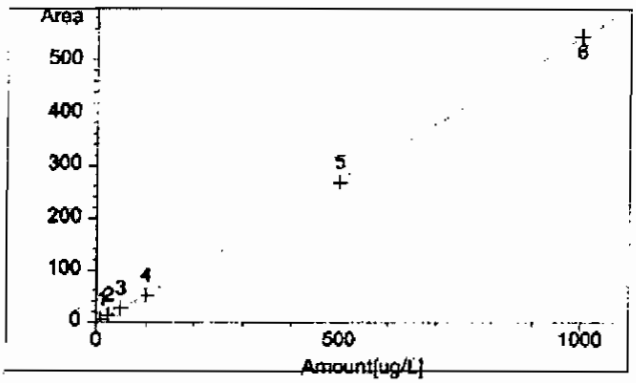
4-Amino-2,6-Dinitrotoluene #9 at exp. RT:
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99985
Residual Std. Dev.: 1.91539
Formula: y = mx + b
m: 2.47413e-1
b: -3.17505e-1
x: Amount [ug/L]
y: Area



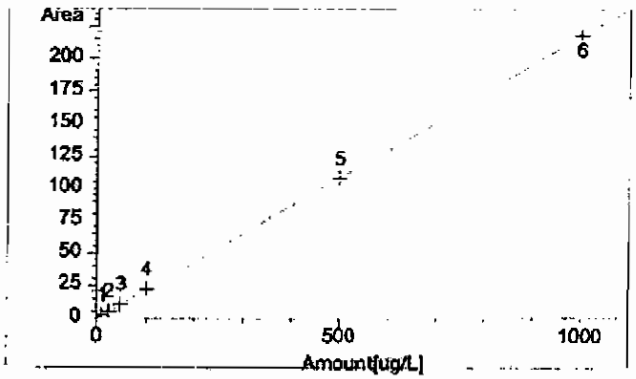
2-Amino-4,6-Dinitrotoluene #10 at exp. RT
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99995
Residual Std. Dev.: 1.59294
Formula: y = mx + b
m: 3.44305e-1
b: -9.00671e-1
x: Amount [ug/L]
y: Area



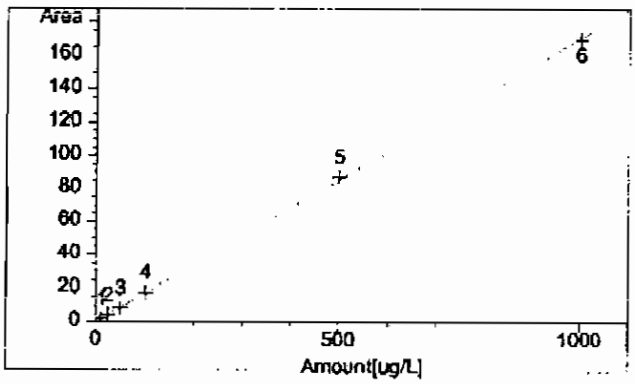
2,6-Dinitrotoluene #11 at exp. RT: 18.230
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99994
Residual Std. Dev.: 1.25186
Formula: y = mx + b
m: 2.65308e-1
b: -7.15756e-1
x: Amount [ug/L]
y: Area



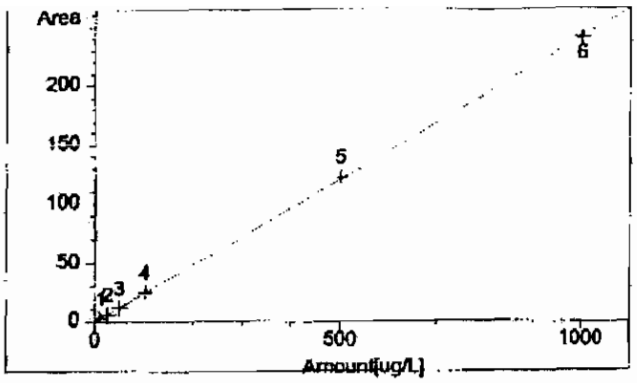
2,4-Dinitrotoluene #12 at exp. RT: 18.878
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99996
Residual Std. Dev.: 2.26034
Formula: y = mx + b
m: 5.45260e-1
b: -1.42676
x: Amount [ug/L]
y: Area



2-Nitrotoluene #13 at exp. RT: 22.226
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99998
Residual Std. Dev.: 0.63024
Formula: y = mx + b
m: 2.17908e-1
b: -2.17113e-1
x: Amount [ug/L]
y: Area



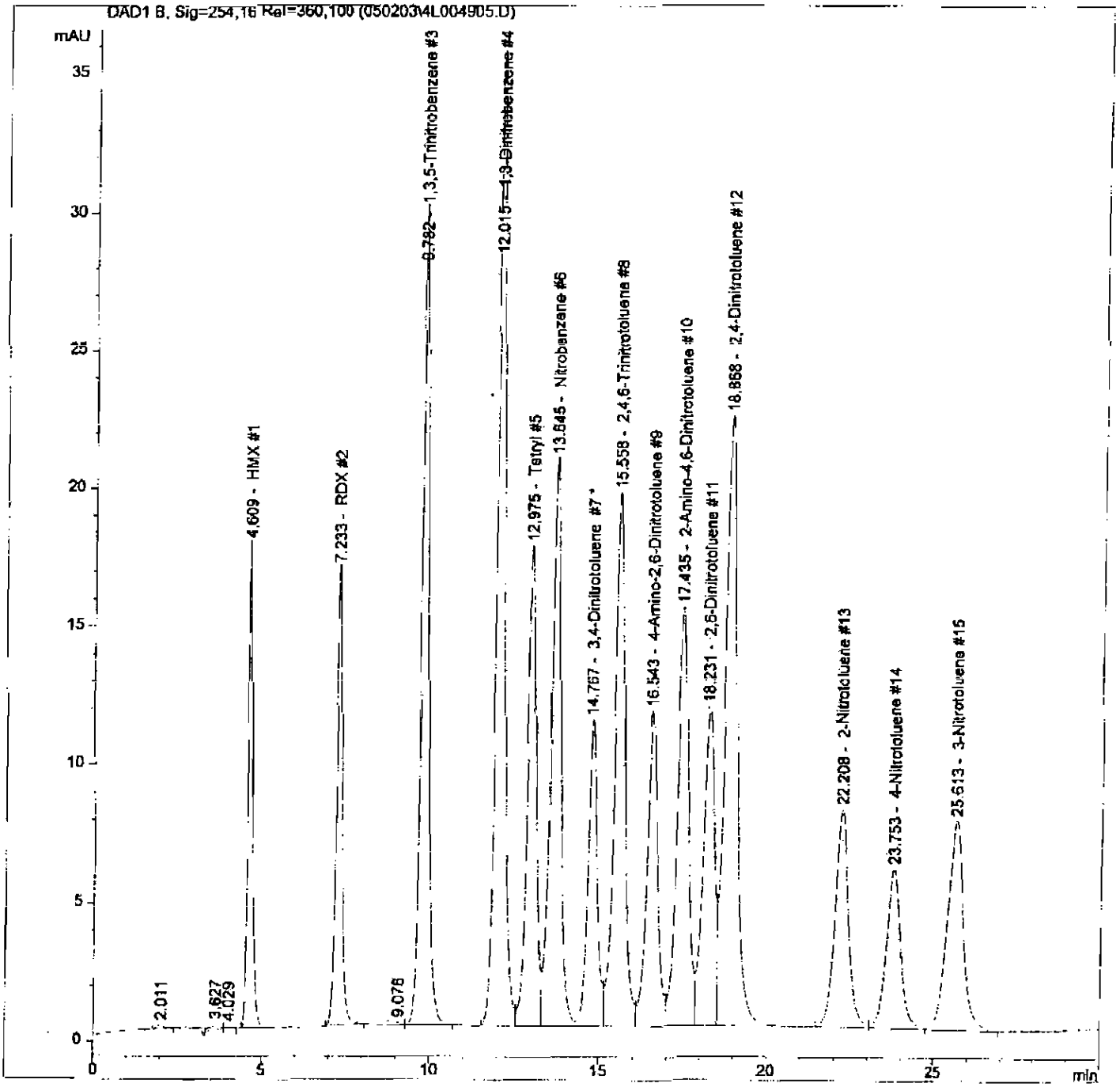
4-Nitrotoluene #14 at exp. RT: 23.750
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99987
Residual Std. Dev.: 1.20169
Formula: y = mx + b
m: 1.70435e-1
b: 2.56217e-1
x: Amount [ug/L]
y: Area



3-Nitrotoluene #15 at exp. RT: 25.583
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99994
Residual Std. Dev.: 1.13643
Formula: y = mx + b
m: 2.41474e-1
b: 9.65161e-2
x: Amount [ug/L]
y: Area

```
==========================================================================
Injection Date  : 5/2/2003 6:50:45 PM              Seq. Line :   2
Sample Name     : WG139673-01 STD6                     Vial :   2
Acq. Operator   : RDC                                  Inj :   1
                                                 Inj Volume : 100 µl

Acq. Method     : C:\HPCHEM\2\METHODS\8330.M
Last changed    : 4/29/2003 2:40:07 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed    : 5/4/2003 4:21:45 PM by RDC
                  (modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11
==========================================================================
```



Injection Date : 5/2/2003 6:50:45 PM Seq. Line : 2
Sample Name : WG139673-01 STD6 Vial : 2
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl

Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 4/29/2003 2:40:07 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 5/4/2003 4:21:45 PM by RDC
(modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11

External Standard Report

Sorted By : Signal
Calib. Data Modified : Sunday, May 04, 2003 4:21:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.609	BBA	166.21046	6.05137	1005.80125		HMX #1
7.233	PBA	197.94426	5.08611	1006.76575		RDX #2
9.782	VB	437.98468	2.29060	1003.24716		1,3,5-Trinitrobenzene #3
12.015	BV	585.14874	1.72492	1009.33645		1,3-Dinitrobenzene #4
12.975	VV	313.70349	3.23101	1013.57875		Tetryl #5
13.645	VV	379.35959	2.66293	1010.20710		Nitrobenzene #6
14.767	VV	215.25517	4.68636	1008.76408		3,4-Dinitrotoluene #7 *
15.558	VV	404.13718	2.49056	1006.52731		2,4,6-Trinitrotoluene #8
16.543	VV	246.13437	4.08740	1006.05024		4-Amino-2,6-Dinitrotoluen
17.435	VV	343.51910	2.92859	1006.02583		2-Amino-4,6-Dinitrotoluen
18.231	VV	265.18420	3.79571	1006.56131		2,6-Dinitrotoluene #11
18.868	VB	545.61340	1.84412	1006.17690		2,4-Dinitrotoluene #12
22.208	BV	218.03798	4.59402	1001.67075		2-Nitrotoluene #13
23.753	VV	169.68343	5.85897	994.16986		4-Nitrotoluene #14
25.613	VP	240.64584	4.13966	996.19286		3-Nitrotoluene #15

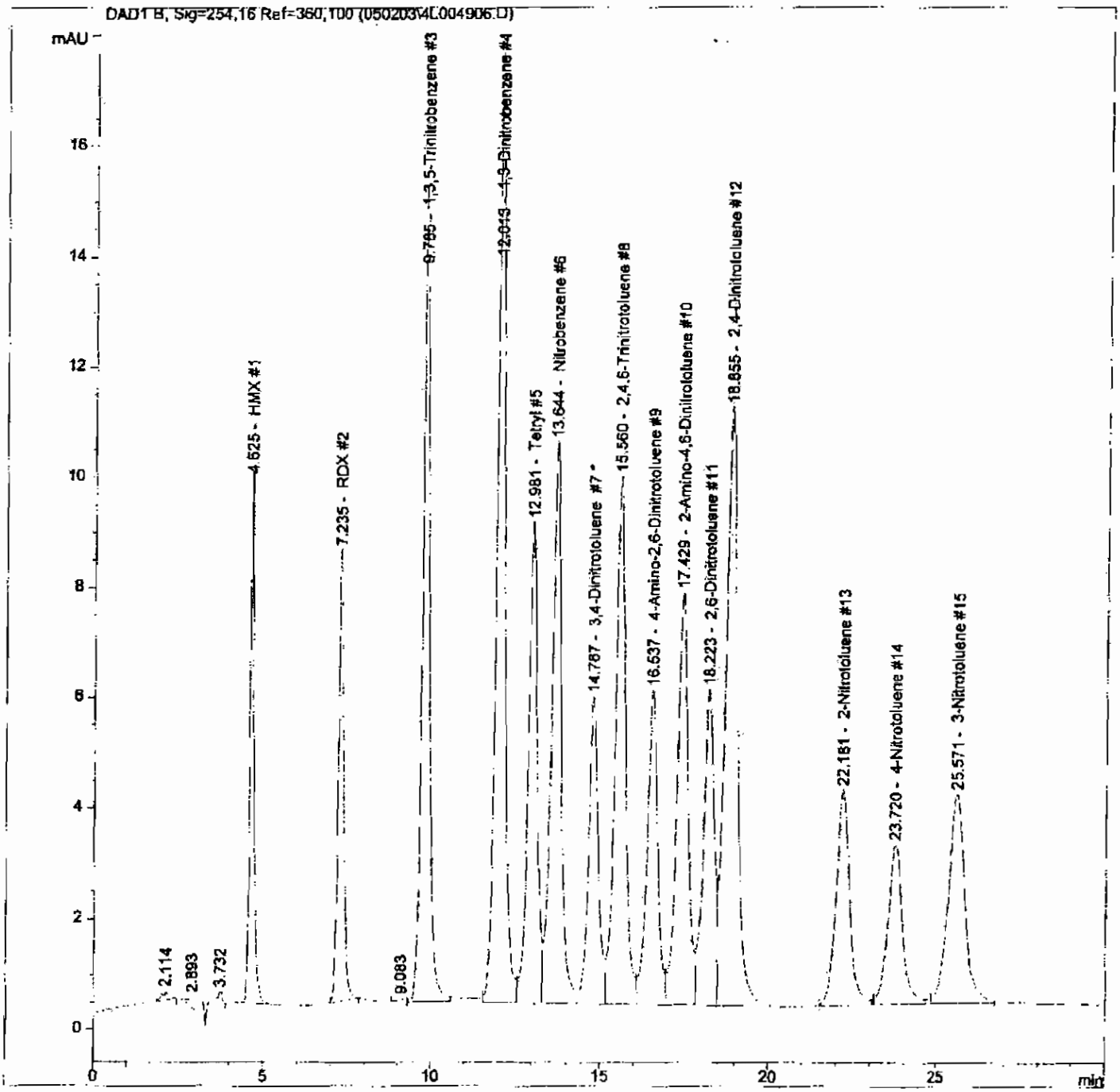
Totals : 1.59109e4

Results obtained with enhanced integrator!

*** End of Report ***

```
Injection Date   : 5/2/2003 7:42:56 PM              Seq. Line :   3
Sample Name      : WG139673-02 STD5                      Vial :   3
Acq. Operator    : RDC                                   Inj :   1
                                                 Inj Volume : 100 µl

Acq. Method      : C:\HPCHEM\2\METHODS\8330.M
Last changed     : 4/29/2003 2:40:07 PM by RDC
Analysis Method  : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed     : 5/4/2003 4:22:23 PM by RDC
                   (modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11
```



```
Injection Date   : 5/2/2003 7:42:56 PM            Seq. Line :   3
Sample Name      : WG139673-02 STD5                    Vial :   3
Acq. Operator    : RDC                                  Inj :   1
                                                Inj Volume : 100 µl
Acq. Method      : C:\HPCHEM\2\METHODS\8330.M
Last changed     : 4/29/2003 2:40:07 PM by RDC
Analysis Method  : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed     : 5/4/2003 4:22:23 PM by RDC
                   (modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11
```

External Standard Report

```
Sorted By             :      Signal
Calib. Data Modified  :      Sunday, May 04, 2003 4:22:18 PM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100
```

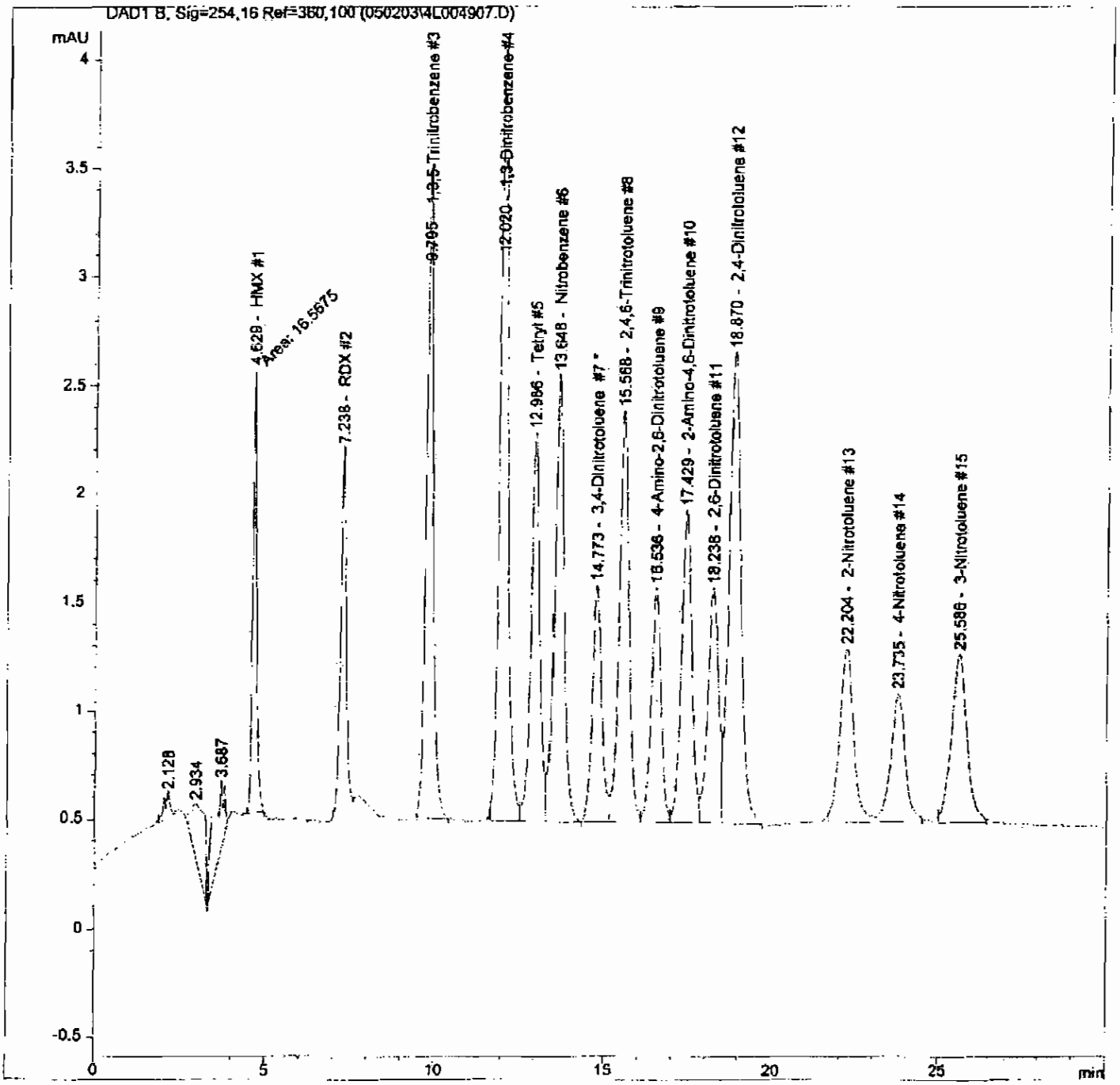
RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.625	BBA	81.70618	5.97421	488.13018		HMX #1
7.235	PBA	94.78035	5.13099	486.31724		RDX #2
9.785	VB	217.77176	2.29006	498.71122		1,3,5-Trinitrobenzene #3
12.013	BV	291.93634	1.71290	500.05789		1,3-Dinitrobenzene #4
12.981	VV	160.47656	3.17761	509.93238		Tetryl #5
13.644	VV	193.49026	2.62772	508.43788		Nitrobenzene #6
14.767	VV	111.83913	4.61470	516.10436		3,4-Dinitrotoluene #7 *
15.560	VV	203.73759	2.47454	504.15657		2,4,6-Trinitrotoluene #8
16.537	VV	125.79243	4.05494	510.08062		4-Amino-2,6-Dinitrotoluen
17.429	VV	171.46715	2.92078	500.81704		2-Amino-4,6-Dinitrotoluen
18.223	VV	131.02063	3.79092	496.68818		2,6-Dinitrotoluene #11
18.855	VB	267.79782	1.84415	493.85976		2,4-Dinitrotoluene #12
22.181	BB	107.90704	4.59832	496.19145		2-Nitrotoluene #13
23.720	BB	87.53891	5.84997	512.10010		4-Nitrotoluene #14
25.571	BB	122.69504	4.13797	507.70825		3-Nitrotoluene #15
Totals :				8276.52406		

```
 Results obtained with enhanced integrator!
```

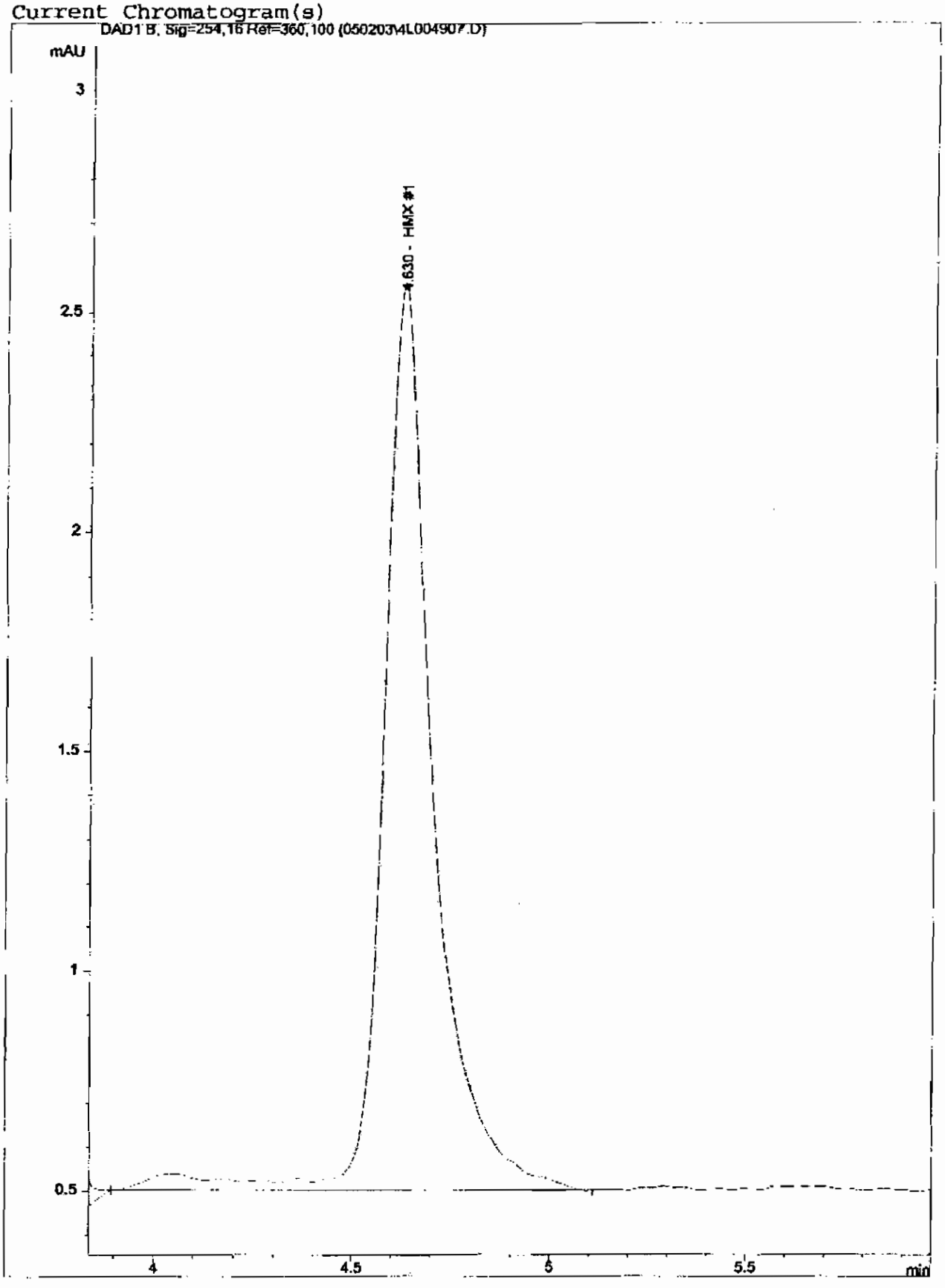
*** End of Report ***

Injection Date	: 5/2/2003 8:35:07 PM	Seq. Line	: 4
Sample Name	: WG139673-03 STD4	Vial	: 4
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 100 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8330.M		
Last changed	: 4/29/2003 2:40:07 PM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\833GRDDA.M		
Last changed	: 5/4/2003 4:23:33 PM by RDC (modified after loading)		

8330 CALIBRATION 05/02/2003 @ 23:11

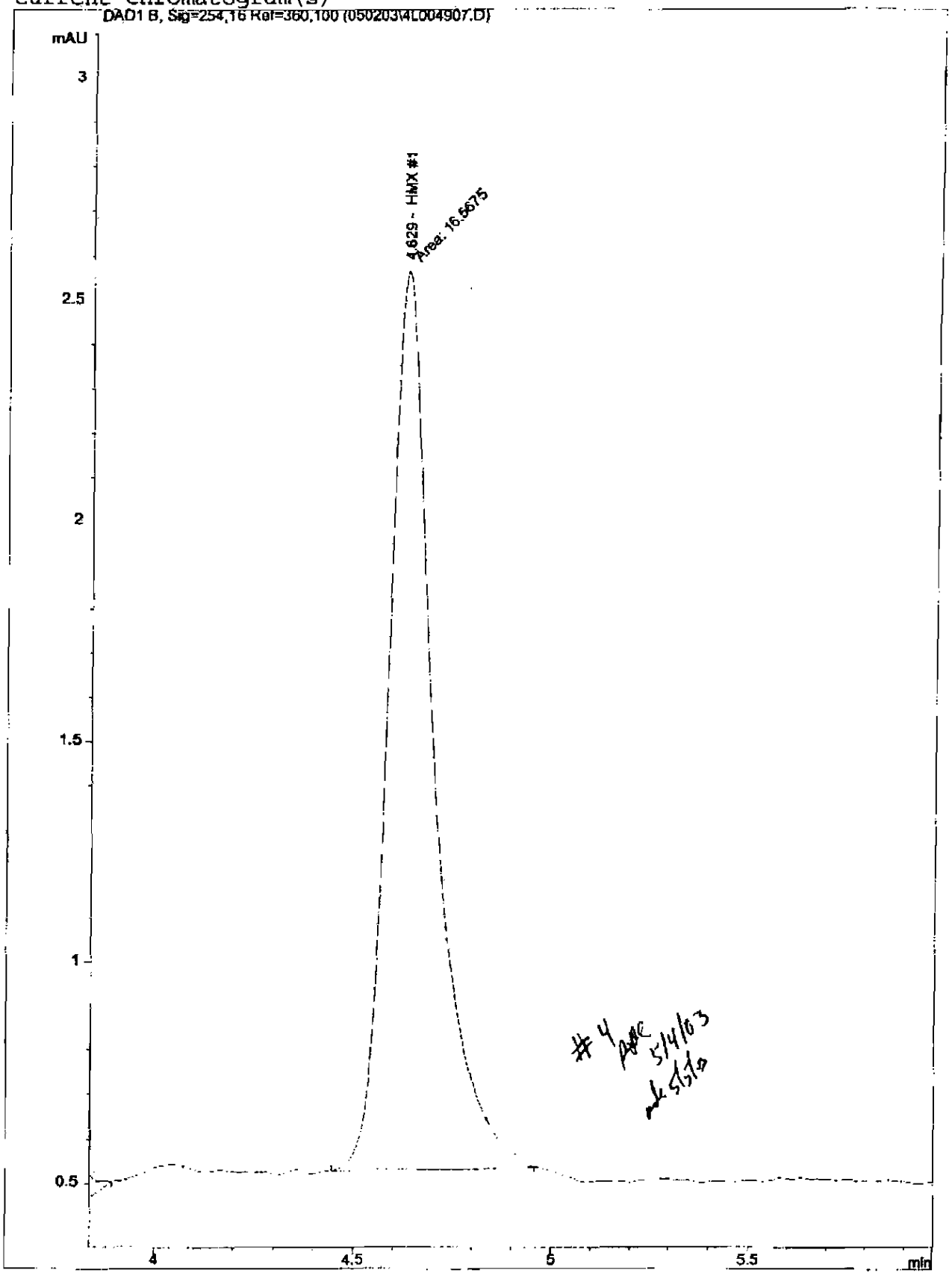


Current Chromatogram(s)



HPLC4 5/4/2003 4:22:53 PM RDC

Current Chromatogram(s)



#4 AMC 5/14/03

HPLC4 5/4/2003 4:23:25 PM RDC

```
Injection Date  : 5/2/2003 8:35:07 PM              Seq. Line :   4
Sample Name     : WG139673-03 STD4                      Vial :   4
Acq. Operator   : RDC                                    Inj :   1
                                                 Inj Volume : 100 µl
Acq. Method     : C:\HPCHEM\2\METHODS\8330.M
Last changed    : 4/29/2003 2:40:07 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed    : 5/4/2003 4:23:33 PM by RDC
                  (modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11
```

External Standard Report

```
Sorted By             :      Signal
Calib. Data Modified  :      Sunday, May 04, 2003 4:23:31 PM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.629	MM	16.56754	4.86004	80.51889		HMX #1
7.238	PBA	18.25620	4.85856	88.69892		RDX #2
9.795	PB	43.17253	2.06416	89.11495		1,3,5-Trinitrobenzene #3
12.020	BV	58.97837	1.53728	90.66656		1,3-Dinitrobenzene #4
12.986	VV	32.31647	2.82001	91.13263		Tetryl #5
13.648	VB	38.17598	2.33018	88.95675		Nitrobenzene #6
14.773	BV	20.79393	4.10639	85.38806		3,4-Dinitrotoluene #7 *
15.568	VV	38.32570	2.23549	85.67674		2,4,6-Trinitrotoluene #8
16.536	VV	21.89131	3.71370	81.29775		4-Amino-2,6-Dinitrotoluen
17.429	VV	30.86336	2.69700	83.23835		2-Amino-4,6-Dinitrotoluen
18.238	VV	24.05506	3.49728	84.12729		2,6-Dinitrotoluene #11
18.870	VP	51.78456	1.68414	87.21249		2,4-Dinitrotoluene #12
22.204	BB	22.40642	4.08722	91.58006		2-Nitrotoluene #13
23.735	BB	17.42019	5.09406	88.73946		4-Nitrotoluene #14
25.586	BB	24.64791	3.63301	89.54599		3-Nitrotoluene #15

```
Totals :                                1903.72625

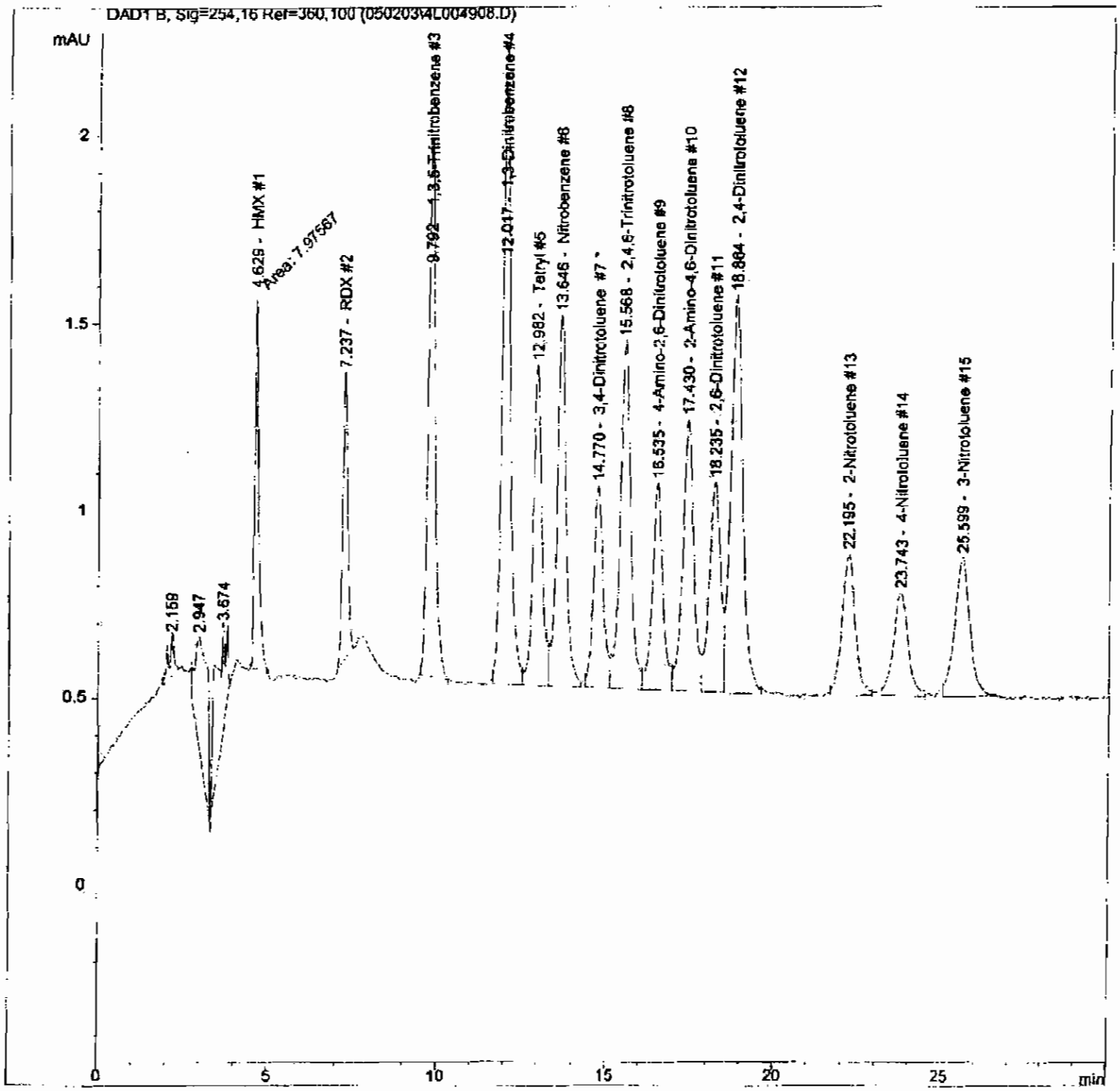
 Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Negative results set to zero (cal. curve intercept)
```

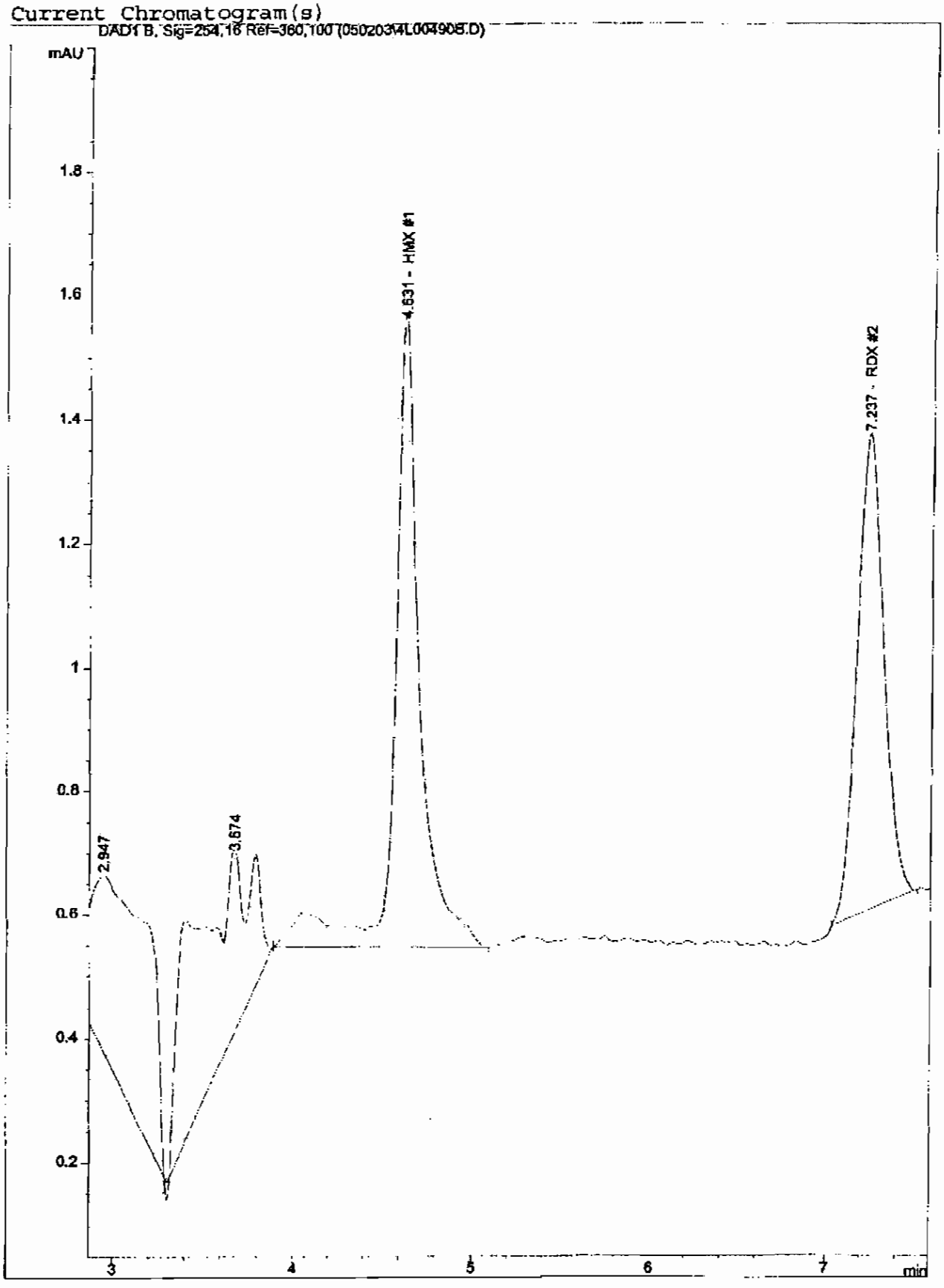
*** End of Report ***

```
================================================================================
Injection Date  : 5/2/2003 9:27:16 PM                    Seq. Line :    5
Sample Name     : WG139673-04 STD3                          Vial :    5
Acq. Operator   : RDC                                        Inj :    1
                                                      Inj Volume : 100 µl

Acq. Method     : C:\HPCHEM\2\METHODS\8330.M
Last changed    : 4/29/2003 2:40:07 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed    : 5/4/2003 4:24:39 PM by RDC
                  (modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11
================================================================================
```

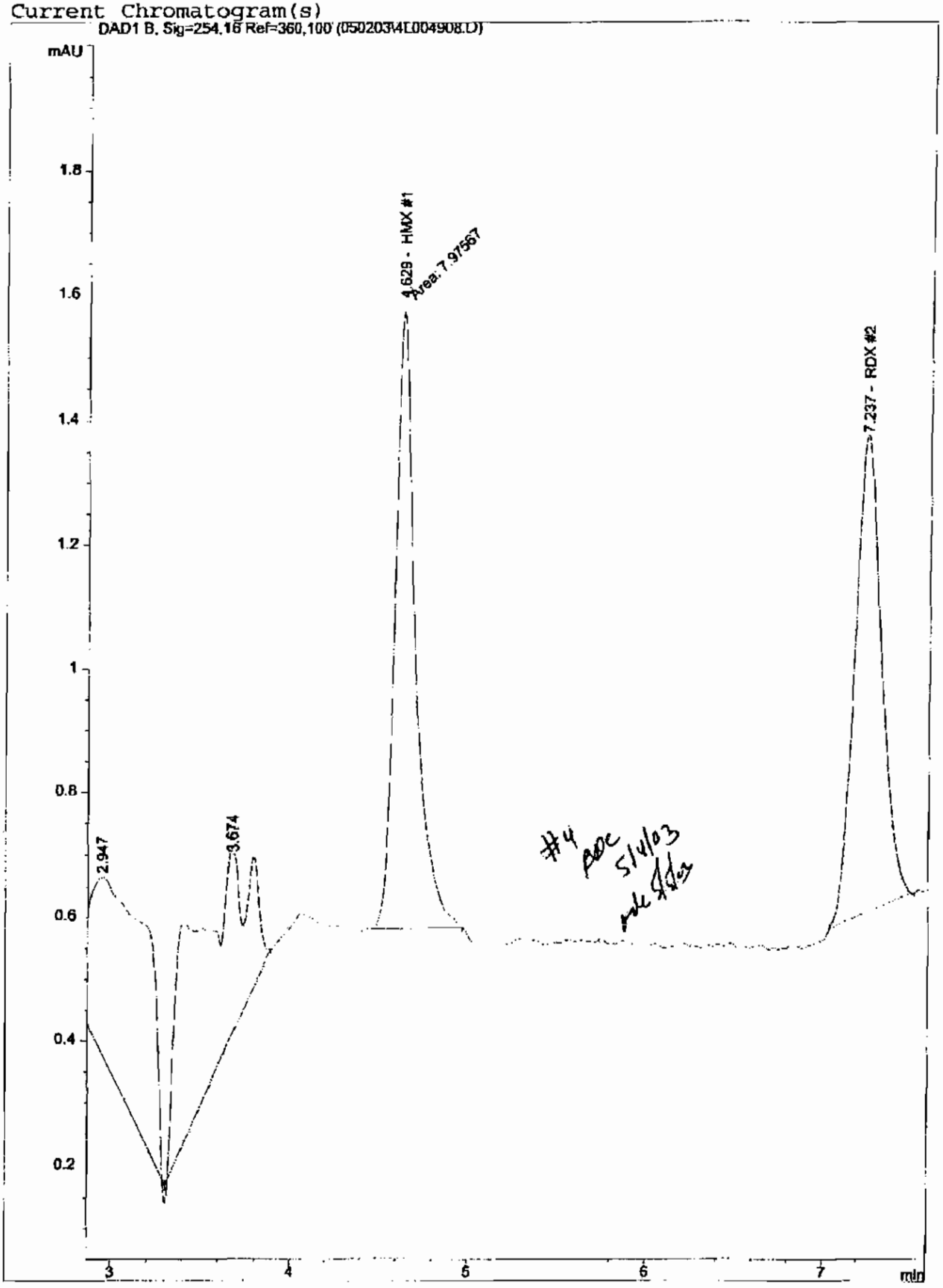


Current Chromatogram(s)



HPLC4 5/4/2003 4:24:04 PM RDC

Current Chromatogram(s)



HPLC4 5/4/2003 4:24:30 PM RDC

```
Injection Date  : 5/2/2003 9:27:16 PM              Seq. Line :   5
Sample Name     : WG139673-04 STD3                     Vial :   5
Acq. Operator   : RDC                                   Inj :   1
                                                 Inj Volume : 100 µl
Acq. Method     : C:\HPCHEM\2\METHODS\8330.M
Last changed    : 4/29/2003 2:40:07 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed    : 5/4/2003 4:24:39 PM by RDC
                  (modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11
```

External Standard Report

```
Sorted By             :      Signal
Calib. Data Modified  :      Sunday, May 04, 2003 4:24:36 PM
Multiplier            :      1.0000
Dilution              :      1.0000

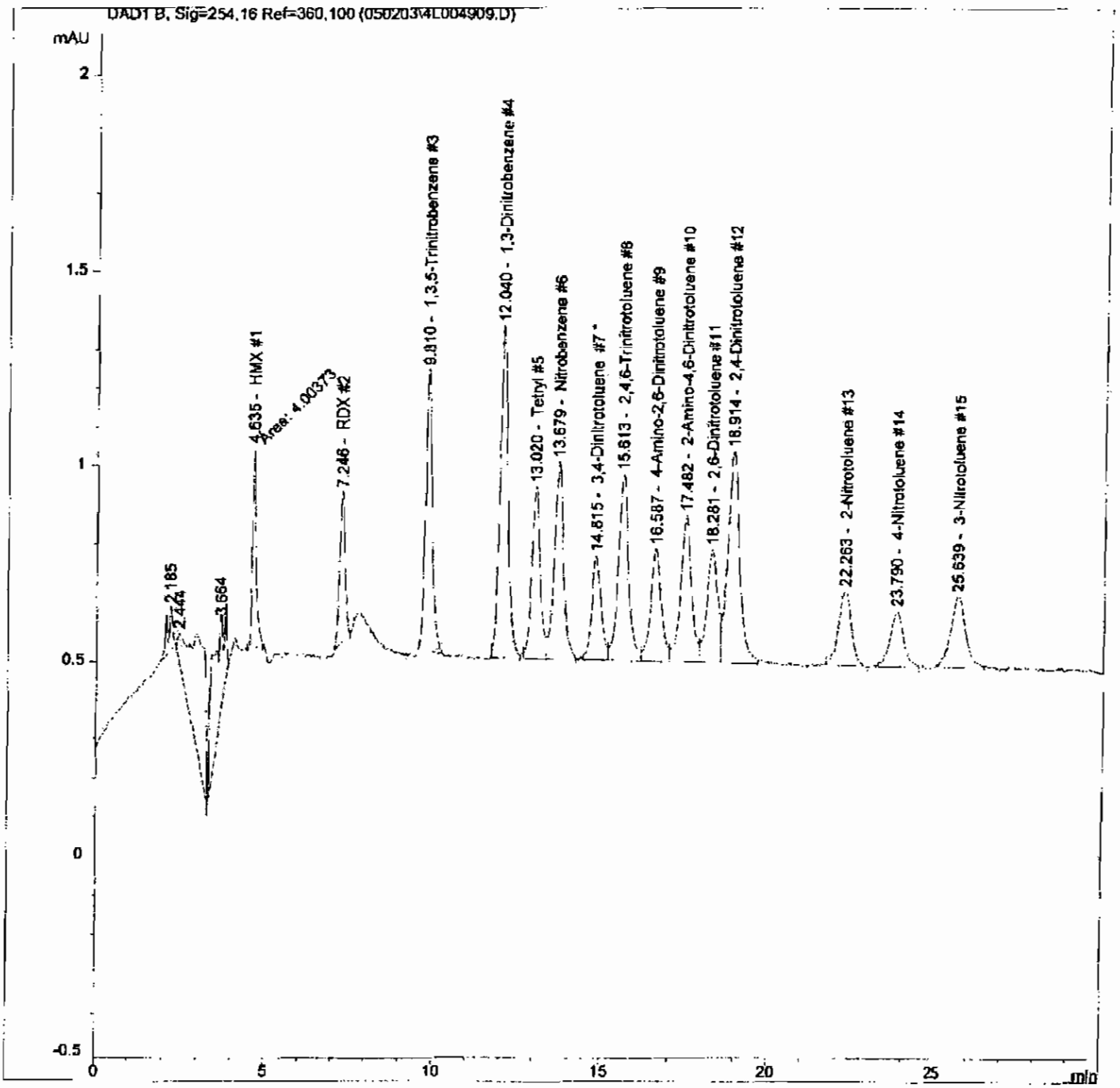
Signal 1: DAD1 B, Sig=254,16 Ref=360,100
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.629	MM	7.97567	5.00409	39.91099		HMX #1
7.237	PBA	7.96822	6.06928	48.36135		RDX #2
9.792	BB	20.23016	2.39585	48.46837		1,3,5-Trinitrobenzene #3
12.017	BV	28.37236	1.76376	50.04218		1,3-Dinitrobenzene #4
12.982	VV	15.61649	3.19632	49.91529		Tetryl #5
13.646	VB	18.73051	2.63040	49.26876		Nitrobenzene #6
14.770	BV	10.60707	4.61207	48.92054		3,4-Dinitrotoluene #7 *
15.568	VV	19.82112	2.53439	50.23442		2,4,6-Trinitrotoluene #8
16.535	VV	12.28848	4.16877	51.22790		4-Amino-2,6-Dinitrotoluen
17.430	VV	16.78469	3.07013	51.53125		2-Amino-4,6-Dinitrotoluen
18.235	VV	12.96977	3.98740	51.71563		2,6-Dinitrotoluene #11
18.864	VB	26.12951	1.93926	50.67185		2,4-Dinitrotoluene #12
22.195	BB	10.38873	4.68500	48.67115		2-Nitrotoluene #13
23.743	BB	8.30096	5.68027	47.15169		4-Nitrotoluene #14
25.599	BB	11.49031	4.10644	47.18430		3-Nitrotoluene #15
Totals :				1432.21061		

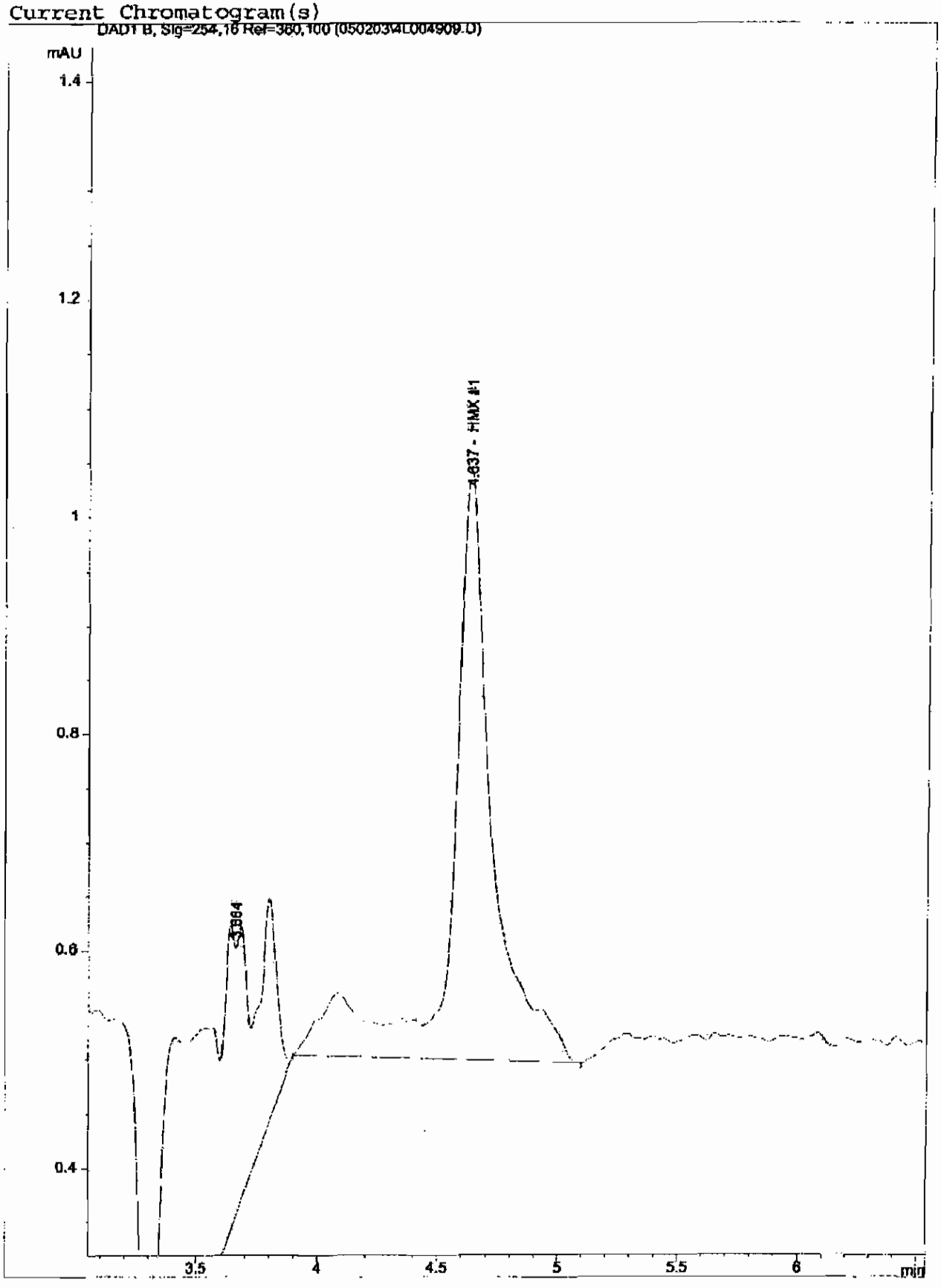
```
 Results obtained with enhanced integrator!
```

*** End of Report ***

```
==========================================================================
Injection Date  : 5/2/2003 10:19:29 PM          Seq. Line :   6
Sample Name     : WG139673-05 STD2                  Vial :   6
Acq. Operator   : RDC                               Inj :   1
                                                Inj Volume : 100 µl
Acq. Method     : C:\HPCHEM\2\METHODS\8330.M
Last changed    : 4/29/2003 2:40:07 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed    : 5/4/2003 4:25:21 PM by RDC
                  (modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11
==========================================================================
```

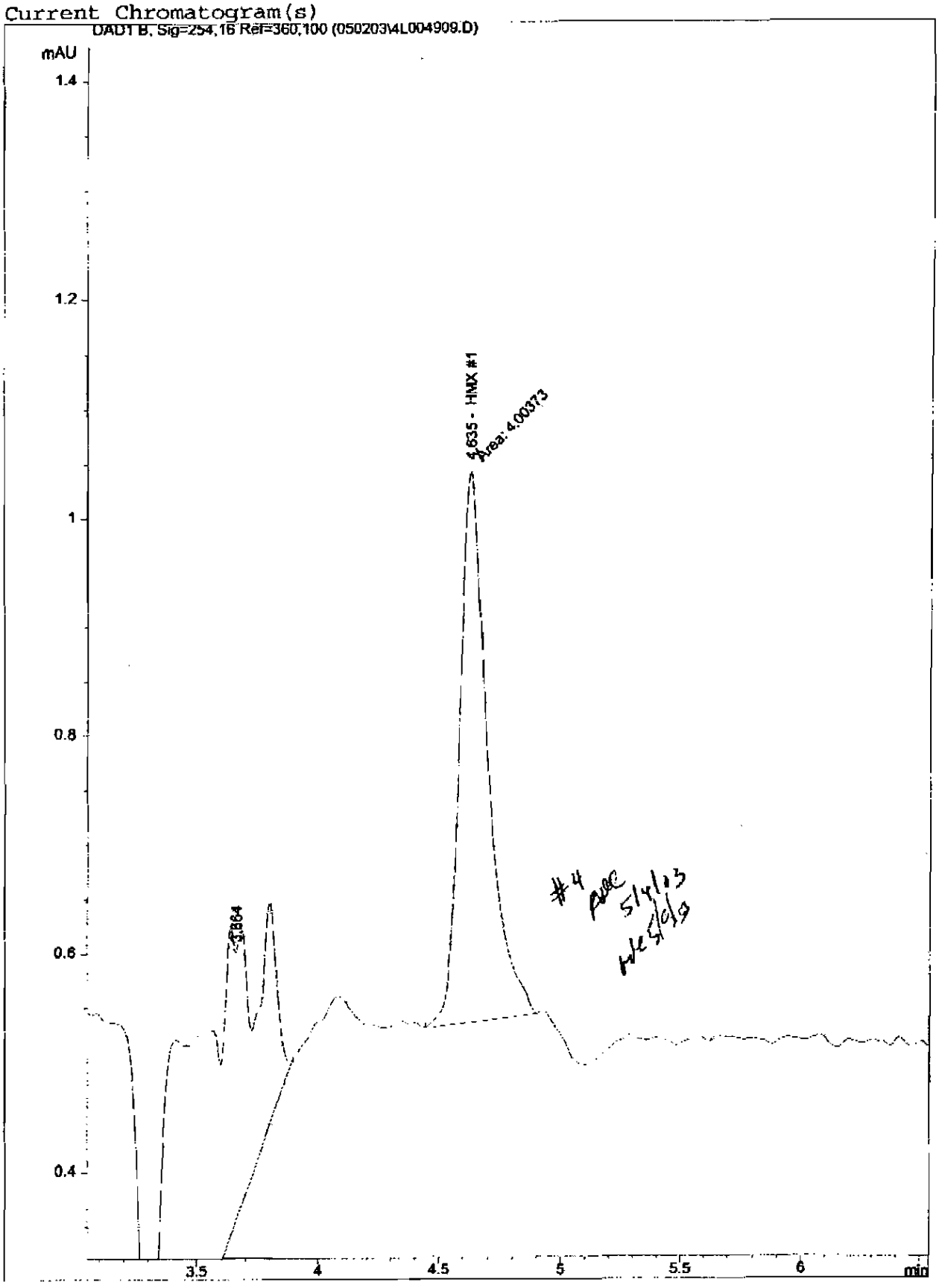


Current Chromatogram(s)



HPLC4 5/4/2003 4:25:00 PM RDC

Current Chromatogram(s)



HPLC4 5/4/2003 4:25:13 PM RDC

Page 1 of 1

```
Injection Date  : 5/2/2003 10:19:29 PM          Seq. Line :   6
Sample Name     : WG139673-05 STD2                  Vial :   6
Acq. Operator   : RDC                               Inj :   1
                                                Inj Volume : 100 µl
Acq. Method     : C:\HPCHEM\2\METHODS\8330.M
Last changed    : 4/29/2003 2:40:07 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed    : 5/4/2003 4:25:21 PM by RDC
                  (modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11
```

External Standard Report

Sorted By : Signal
Calib. Data Modified : Sunday, May 04, 2003 4:25:18 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

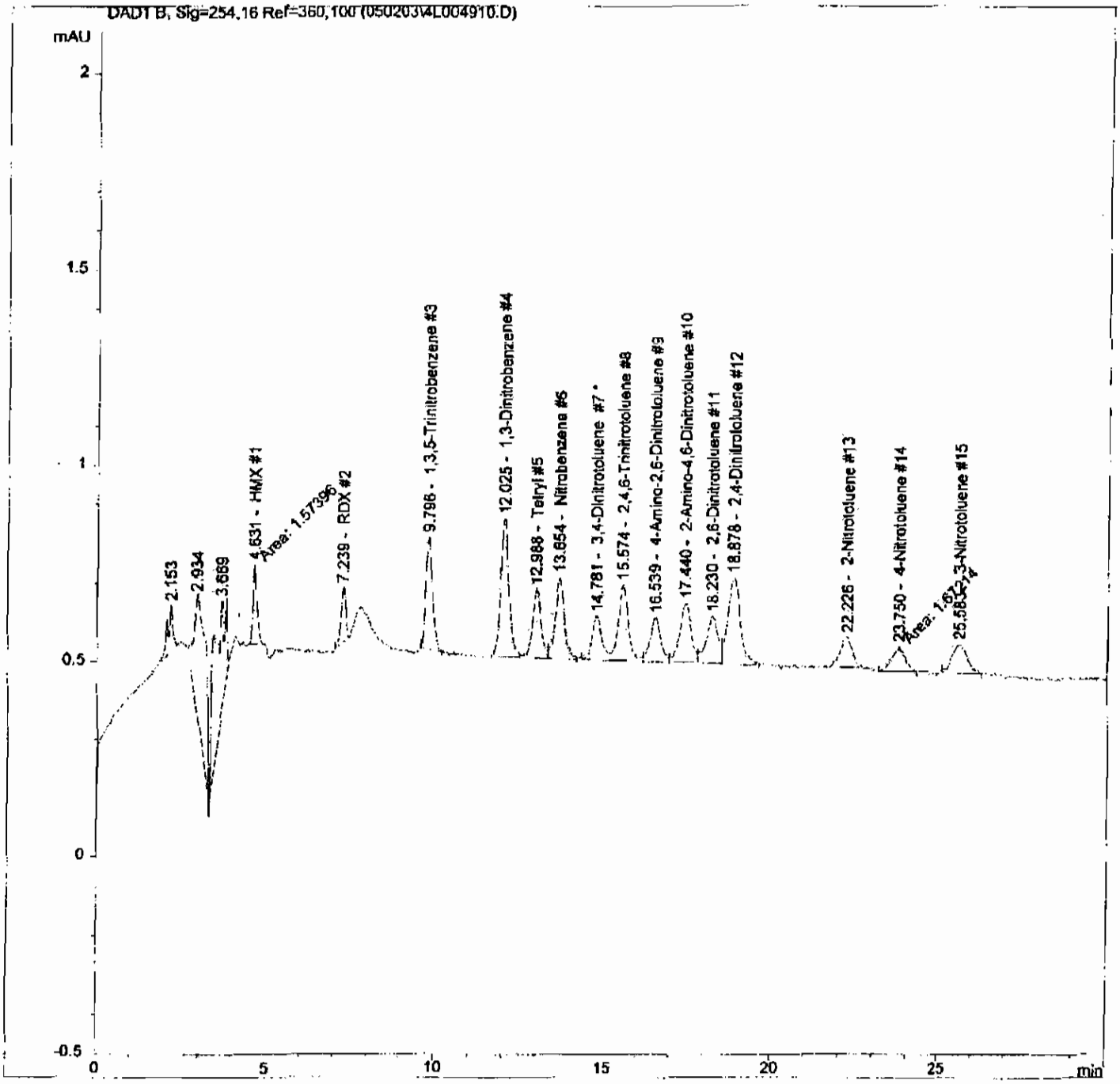
RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.635	MM	4.00373	4.84956	19.41636		HMX #1
7.246	PB	3.97642	7.09765	28.22322		RDX #2
9.810	BP	10.03447	2.51434	25.23003		1,3,5-Trinitrobenzene #3
12.040	BB	14.11635	1.81142	25.57059		1,3-Dinitrobenzene #4
13.020	BV	7.80422	3.17711	24.79488		Tetryl #5
13.679	VB	9.44287	2.61137	24.65877		Nitrobenzene #6
14.815	BV	5.23684	4.56415	23.90171		3,4-Dinitrotoluene #7 *
15.613	VV	10.25914	2.58505	26.52043		2,4,6-Trinitrotoluene #8
16.587	VV	6.48298	4.25527	27.58682		4-Amino-2,6-Dinitrotoluen
17.482	VV	8.69794	3.21404	27.95549		2-Amino-4,6-Dinitrotoluen
18.281	VV	6.66755	4.18363	27.89457		2,6-Dinitrotoluene #11
18.914	VB	13.48203	2.03243	27.40132		2,4-Dinitrotoluene #12
22.263	BP	5.21716	4.78007	24.93835		2-Nitrotoluene #13
23.790	BB	4.10438	5.48857	22.52721		4-Nitrotoluene #14
25.639	BB	5.77062	4.07196	23.49774		3-Nitrotoluene #15
Totals :				1023.80556		

Results obtained with enhanced integrator!

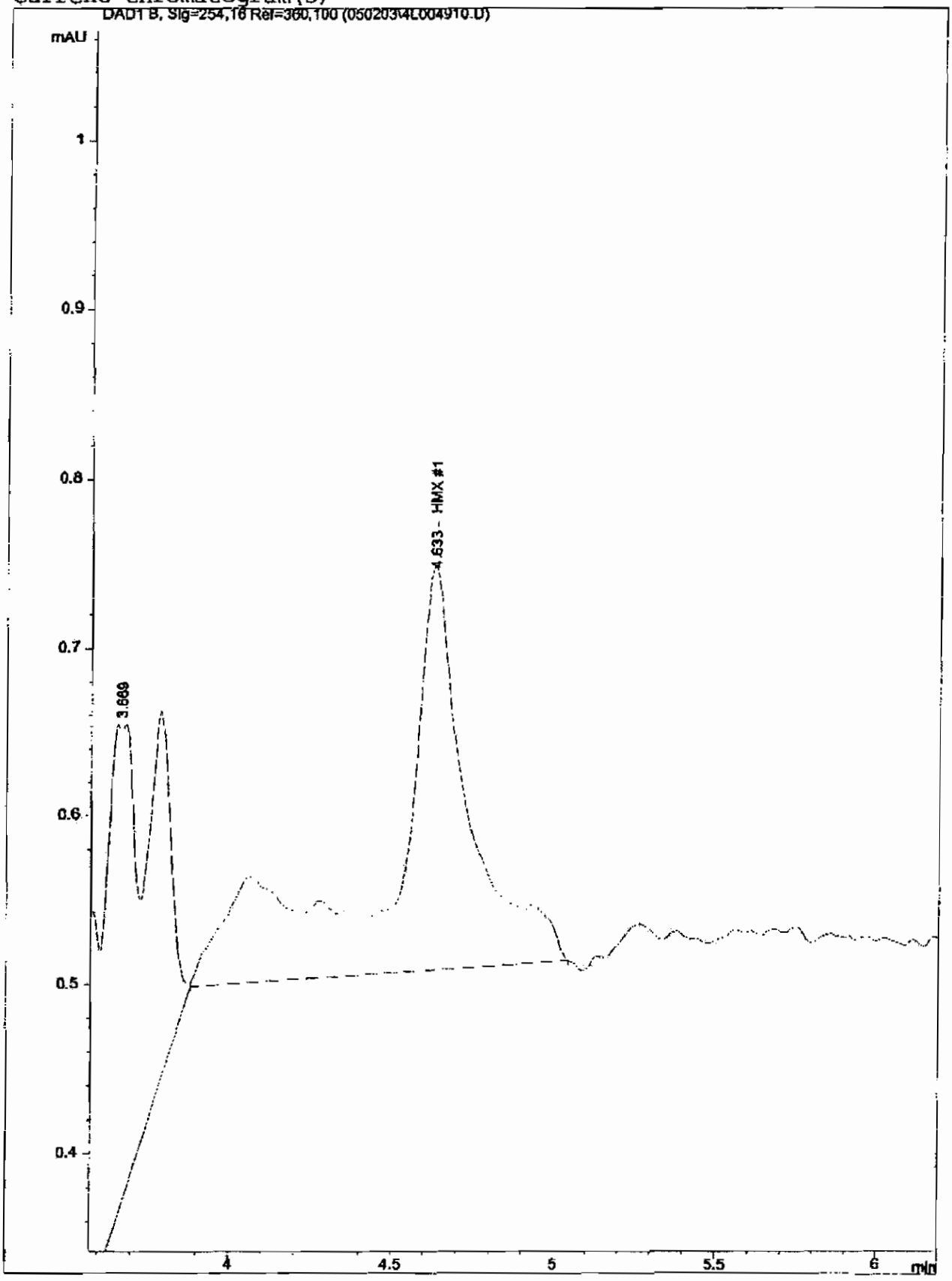
*** End of Report ***

```
Injection Date   : 5/2/2003 11:11:43 PM          Seq. Line :   7
Sample Name      : WG139673-06 STD1                   Vial :   7
Acq. Operator    : RDC                                 Inj :   1
                                                Inj Volume : 100 µl

Acq. Method      : C:\HPCHEM\2\METHODS\8330.M
Last changed     : 4/29/2003 2:40:07 PM by RDC
Analysis Method  : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed     : 5/4/2003 4:26:52 PM by RDC
                   (modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11
```

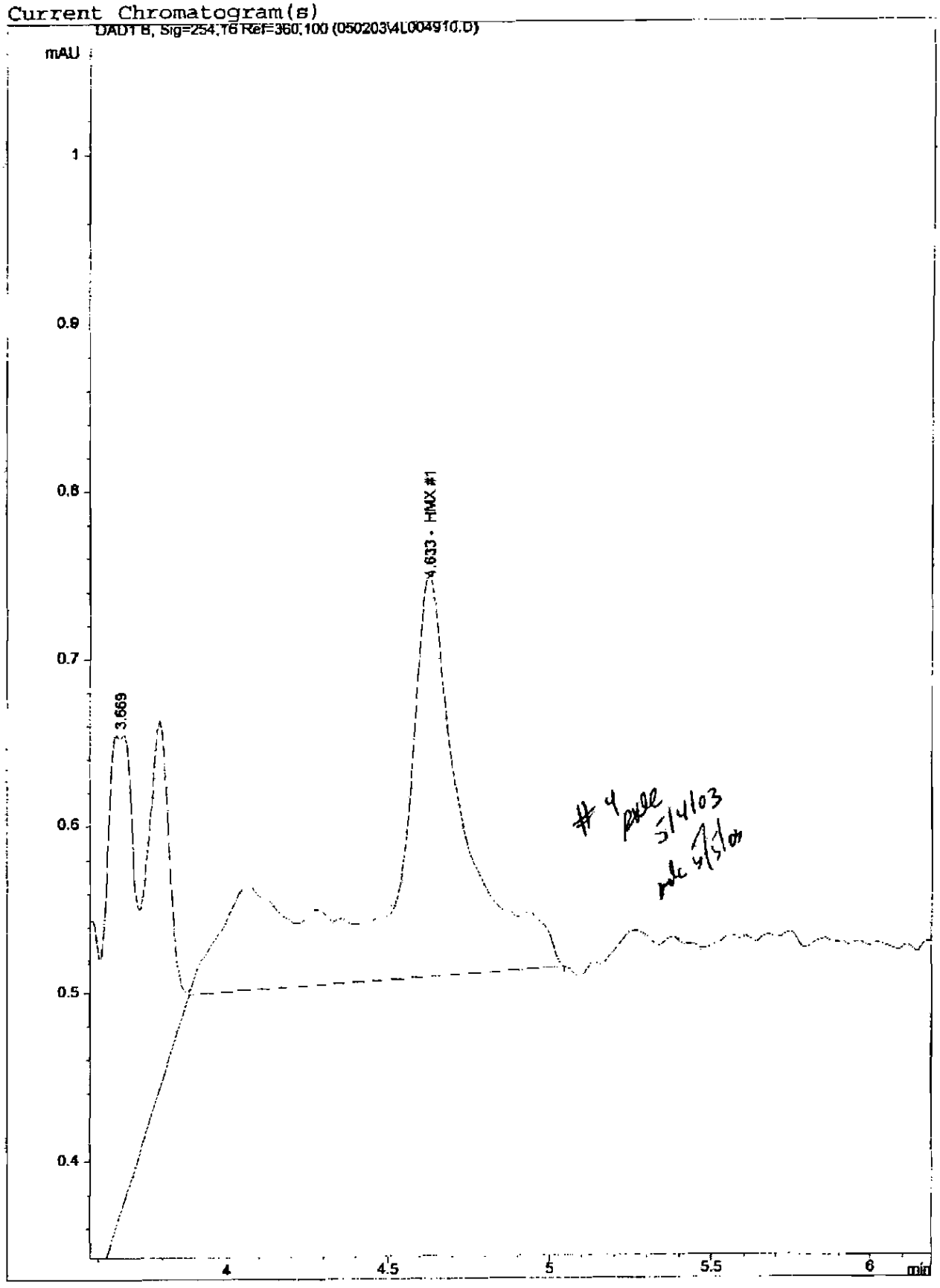


Current Chromatogram(s)



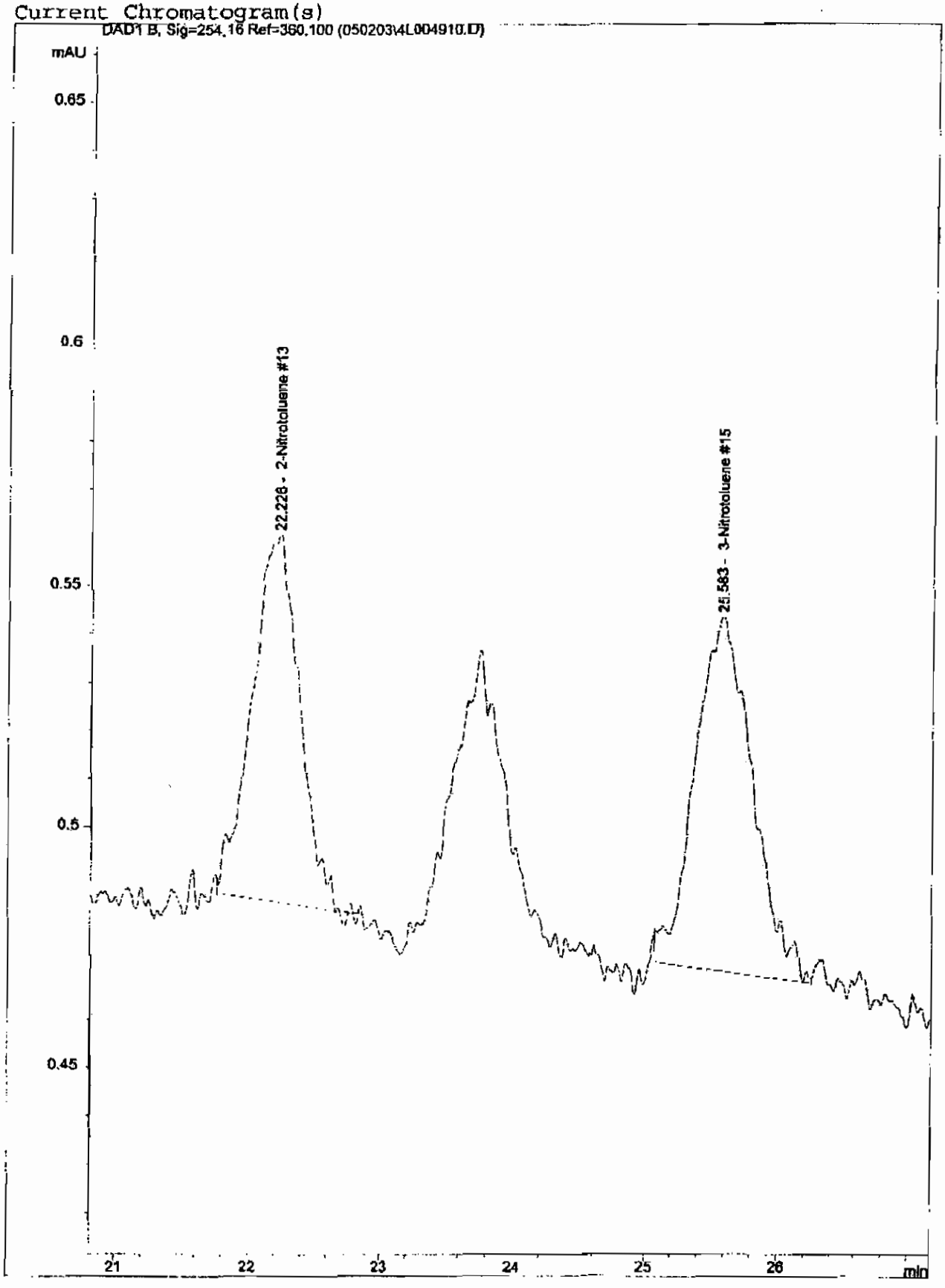
HPLC4 5/4/2003 4:25:40 PM RDC

Current Chromatogram(s)

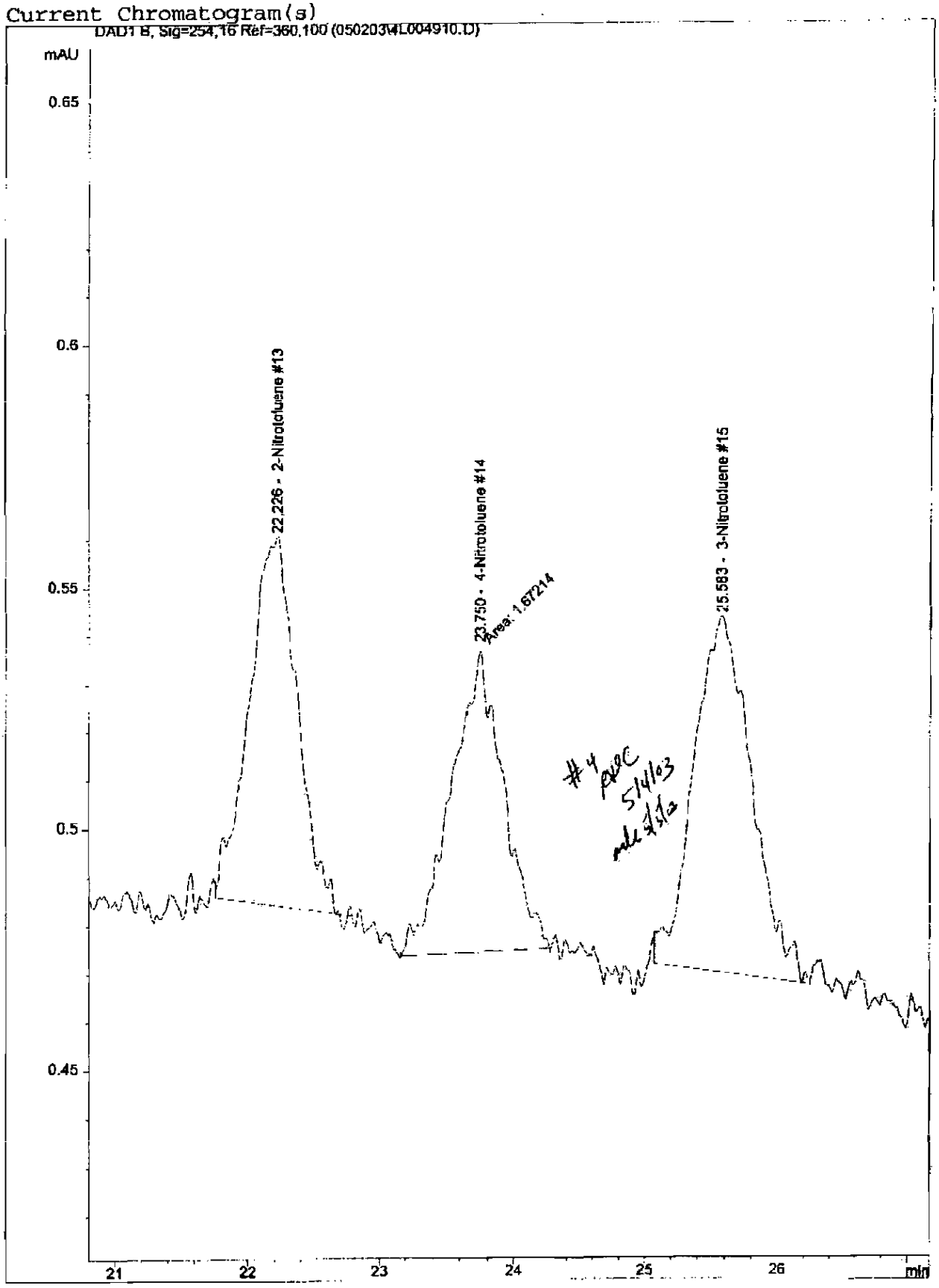


HPLC4 5/4/2003 4:25:45 PM RDC

Current Chromatogram(s)



Current Chromatogram(s)



HPLC4 5/4/2003 4:26:43 PM RDC

Page 1 of 1

```
Injection Date  : 5/2/2003 11:11:43 PM          Seq. Line :   7
Sample Name     : WG139673-06 STD1                 Vial :   7
Acq. Operator   : RDC                              Inj :   1
                                                Inj Volume : 100 µl
Acq. Method     : C:\HPCHEM\2\METHODS\8330.M
Last changed    : 4/29/2003 2:40:07 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed    : 5/4/2003 4:26:52 PM by RDC
                  (modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11
```

External Standard Report

Sorted By : Signal
Calib. Data Modified : Sunday, May 04, 2003 4:26:50 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.631	MM	1.57396	5.54064	8.72073		HMX #1
7.239	PB	1.36909	11.00702	15.06956		RDX #2
9.796	BB	3.88054	2.88718	11.20382		1,3,5-Trinitrobenzene #3
12.025	BB	5.80553	1.95755	11.36463		1,3-Dinitrobenzene #4
12.988	BV	3.14353	3.16252	9.94146		Tetryl #5
13.654	VB	3.81040	2.56639	9.77897		Nitrobenzene #6
14.781	BV	2.27462	4.40092	10.01043		3,4-Dinitrotoluene #7 *
15.574	VB	4.11333	2.72521	11.20971		2,4,6-Trinitrotoluene #8
16.539	BV	2.57813	4.53958	11.70364		4-Amino-2,6-Dinitrotoluen
17.440	VV	3.55554	3.64013	12.94260		2-Amino-4,6-Dinitrotoluen
18.230	VV	2.92485	4.69159	13.72219		2,6-Dinitrotoluene #11
18.878	VB	5.45924	2.31329	12.62882		2,4-Dinitrotoluene #12
22.226	BB	1.91520	5.10932	9.78536		2-Nitrotoluene #13
23.750	MM	1.67214	4.96831	8.30771		4-Nitrotoluene #14
25.583	BB	2.21367	3.96067	8.76760		3-Nitrotoluene #15
Totals :				851.17887		

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

Data File C:\HPCHEM\2\DATA\050203\4L004911.D Sample Name: WG139673-07 ALT
HPLC4 5/4/2003 4:29:59 PM RDC

1,1 SOS64-48 50 ppb

Injection Date : 5/3/2003 12:03:56 AM Seq. Line : 8

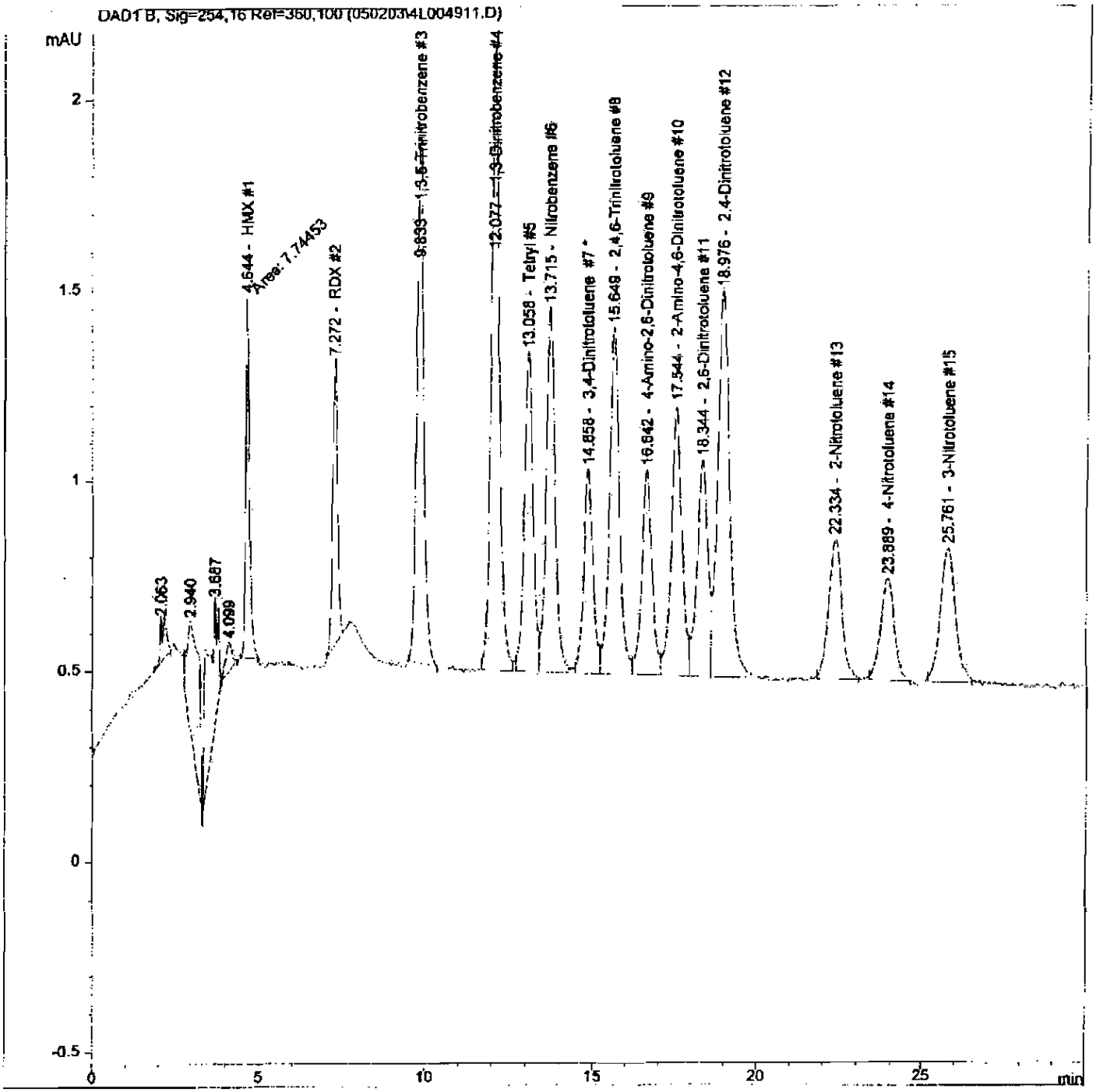
Signal 1: DAD1 B, Sig=254,16 Ref=360,100

Compound	RT	Known Conc.	Cal. Conc.	%D
HMX #1	4.644	50.0	45.982	-8.0
RDX #2	7.272	50.0	47.403	-5.2
1,3,5-Trinitrobenzene #3	9.833	50.0	47.765	-4.5
1,3-Dinitrobenzene #4	12.077	50.0	48.175	-3.7
Tetryl #5	13.058	50.0	47.563	-4.9
Nitrobenzene #6	13.715	50.0	46.391	-7.2
3,4-Dinitrotoluene #7 *	14.858	50.0	47.381	-5.2
2,4,6-Trinitrotoluene #8	15.649	50.0	48.652	-2.7
4-Amino-2,6-Dinitrotolue	16.642	50.0	48.562	-2.9
2-Amino-4,6-Dinitrotolue	17.544	50.0	50.209	0.4
2,6-Dinitrotoluene #11	18.344	50.0	52.318	4.6
2,4-Dinitrotoluene #12	18.976	50.0	48.767	-2.5
2-Nitrotoluene #13	22.334	50.0	46.823	-6.4
4-Nitrotoluene #14	23.889	50.0	44.180	-11.6
3-Nitrotoluene #15	25.761	50.0	45.409	-9.2

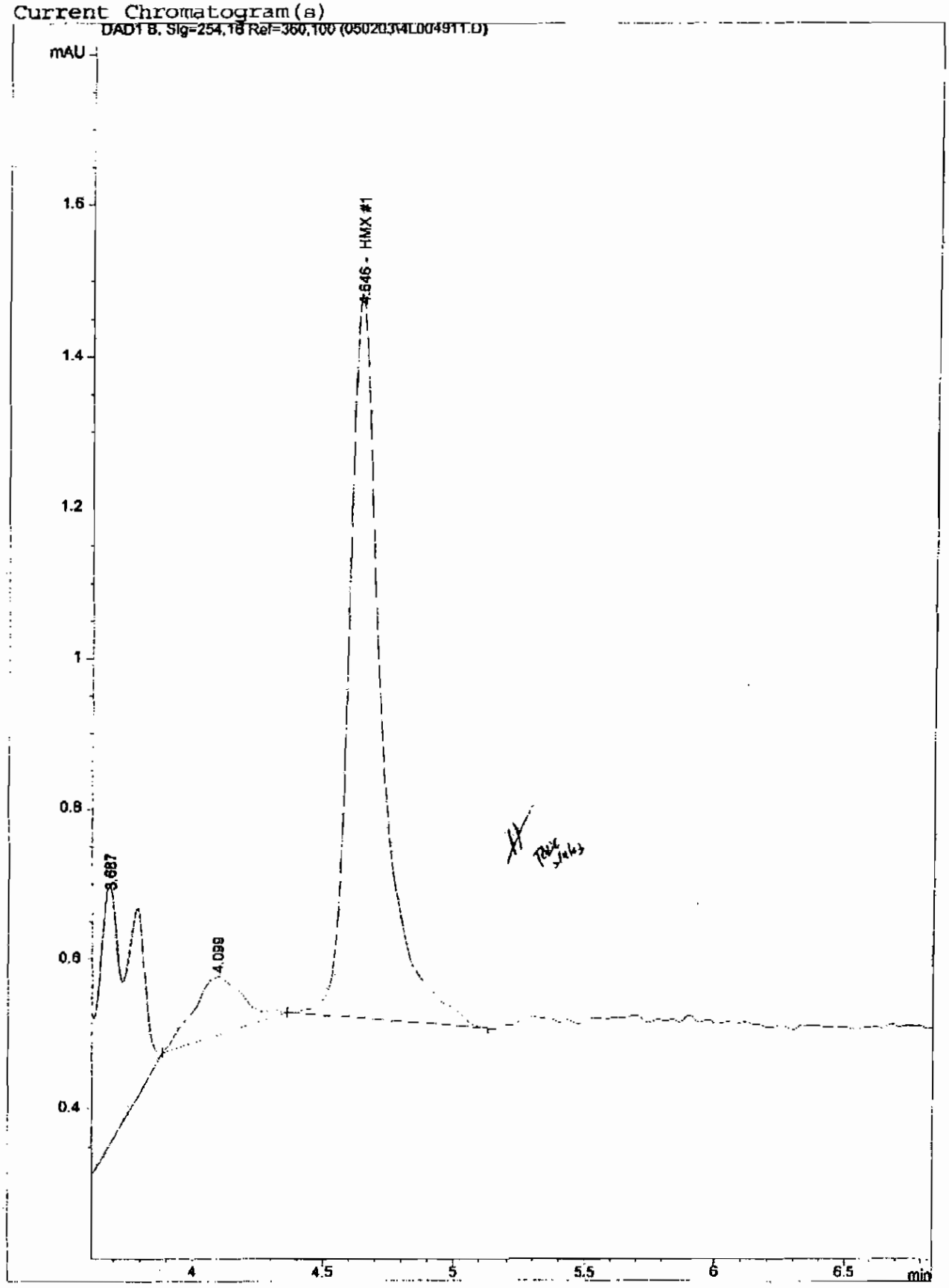
= Failed 15.0% Criteria

```
Injection Date   : 5/3/2003 12:03:56 AM          Seq. Line :   8
Sample Name      : WG139673-07 ALT                    Vial :   8
Acq. Operator    : RDC                                 Inj :   1
                                                Inj Volume : 100 µl

Acq. Method      : C:\HPCHEM\2\METHODS\8330.M
Last changed     : 4/29/2003 2:40:07 PM by RDC
Analysis Method  : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed     : 5/4/2003 4:27:15 PM by RDC
8330 CALIBRATION 05/02/2003 @ 23:11
```

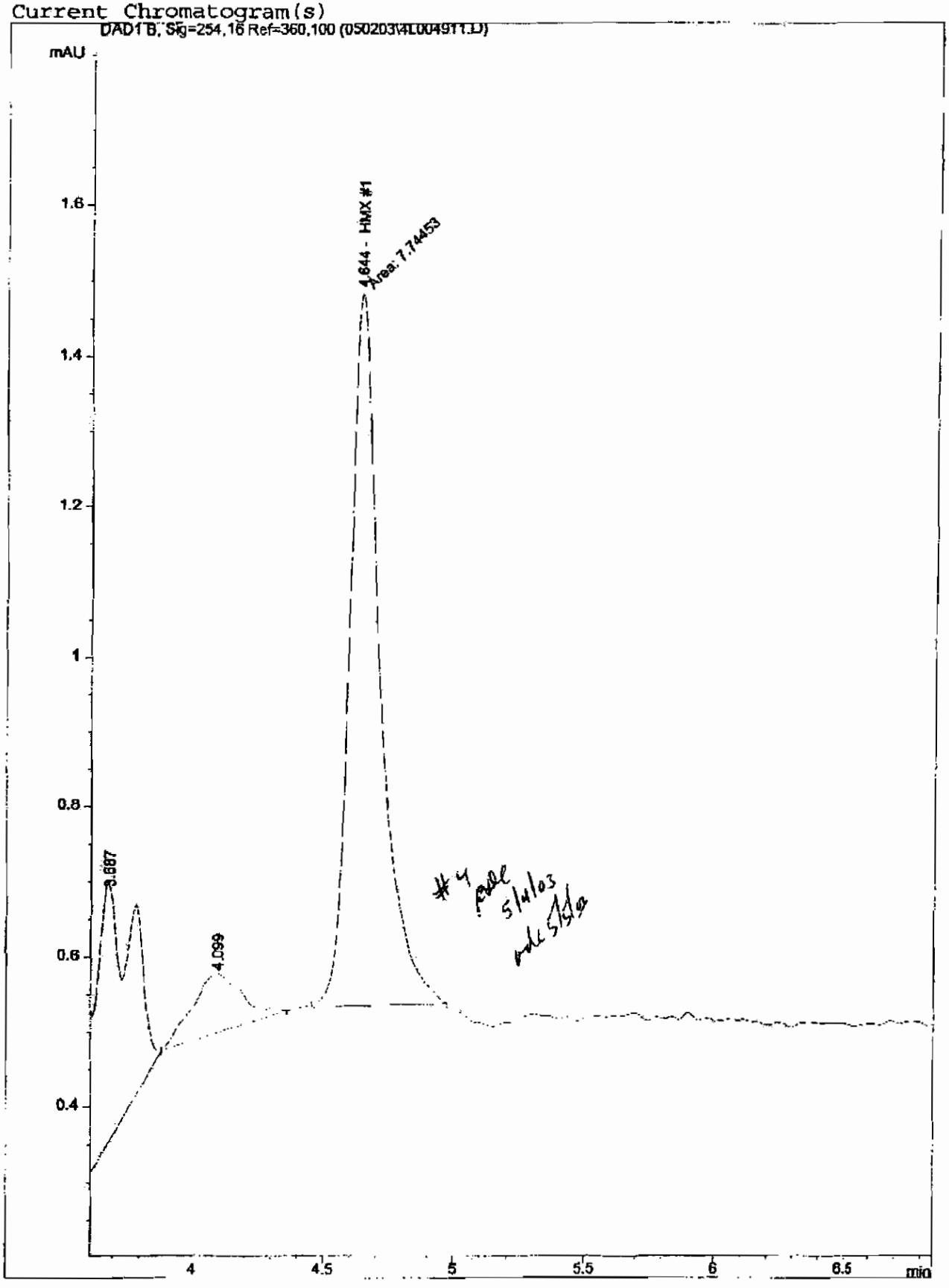


Current Chromatogram(s)



HPLC4 5/4/2003 4:29:32 PM RDC

Current Chromatogram(s)



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Injection Date  : 5/3/2003 12:03:56 AM          Seq. Line :   8
Sample Name     : WG139673-07 ALT                   Vial :   8
Acq. Operator   : RDC                               Inj :   1
                                                Inj Volume : 100 µl
Acq. Method     : C:\HPCHEM\2\METHODS\8330.M
Last changed    : 4/29/2003 2:40:07 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed    : 5/4/2003 4:27:15 PM by RDC
8330 CALIBRATION 05/02/2003 @ 23:11
```

External Standard Report

```
Sorted By             :      Signal
Calib. Data Modified  :      5/4/2003 4:27:13 PM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.644	MM	7.74453	5.93733	45.98187		HMX #1
7.272	PBA	7.77821	6.09430	47.40274		RDX #2
9.833	BP	19.92147	2.39765	47.76478		1,3,5-Trinitrobenzene #3
12.077	BB	27.37036	1.76011	48.17475		1,3-Dinitrobenzene #4
13.058	BV	14.99512	3.17190	47.56300		Tetryl #5
13.715	VB	17.74767	2.61391	46.39076		Nitrobenzene #6
14.858	BV	10.37263	4.56786	47.38071		3,4-Dinitrotoluene #7 *
15.649	VV	19.28394	2.52293	48.65202		2,4,6-Trinitrotoluene #8
16.642	VV	11.69730	4.15153	48.56163		4-Amino-2,6-Dinitrotoluen
17.544	VV	16.38657	3.06404	50.20904		2-Amino-4,6-Dinitrotoluen
18.344	VV	13.16455	3.97414	52.31779		2,6-Dinitrotoluene #11
18.976	VB	25.16400	1.93797	48.76707		2,4-Dinitrotoluene #12
22.334	BB	9.98604	4.68886	46.82318		2-Nitrotoluene #13
23.889	BB	7.78606	5.67427	44.18018		4-Nitrotoluene #14
25.761	BB	11.06168	4.10509	45.40922		3-Nitrotoluene #15
Totals :				1399.83579		

```
 Results obtained with enhanced integrator!
```

*** End of Report ***

Check Standard Report

Data File C:\HPCHEM\2\DATA\050403\4L004913.D Sample Name: WG139732-01 CCV
HPLC4 5/5/2003 9:15:54 AM RDC

1,1 SOS64-31 50 ppb

Injection Date : 5/4/2003 6:44:06 PM Seq. Line : 2

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

Compound	RT	Known Conc.	Cal. Conc.	%D
HMX #1	4.625	50.0	45.302	-9.4
RDX #2	7.226	50.0	49.225	-1.6
1,3,5-Trinitrobenzene #3	9.782	50.0	48.545	-2.9
1,3-Dinitrobenzene #4	12.003	50.0	48.581	-2.8
Tetryl #5	12.955	50.0	47.326	-5.3
Nitrobenzene #6	13.634	50.0	46.339	-7.3
3,4-Dinitrotoluene #7 *	14.745	50.0	42.764	-14.5
2,4,6-Trinitrotoluene #8	15.543	50.0	44.513	-11.0
4-Amino-2,6-Dinitrotolue	16.492	50.0	44.586	-10.8
2-Amino-4,6-Dinitrotolue	17.379	50.0	49.428	-1.1
2,6-Dinitrotoluene #11	18.195	50.0	50.580	1.2
2,4-Dinitrotoluene #12	18.825	50.0	50.189	0.4
2-Nitrotoluene #13	22.153	50.0	49.130	-1.7
4-Nitrotoluene #14	23.684	50.0	52.372	4.7
-Nitrotoluene #15	25.545	50.0	53.973	7.9

= Failed 15.0% Criteria

1,1 SOS64-31 50 ppb

==========

Injection Date	: 5/4/2003 6:44:06 PM	Seq. Line :	2
Sample Name	: WG139732-01 CCV	Vial :	2
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	100 µl

Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 4/29/2003 2:40:07 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 5/5/2003 9:15:05 AM by RDC
(modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11

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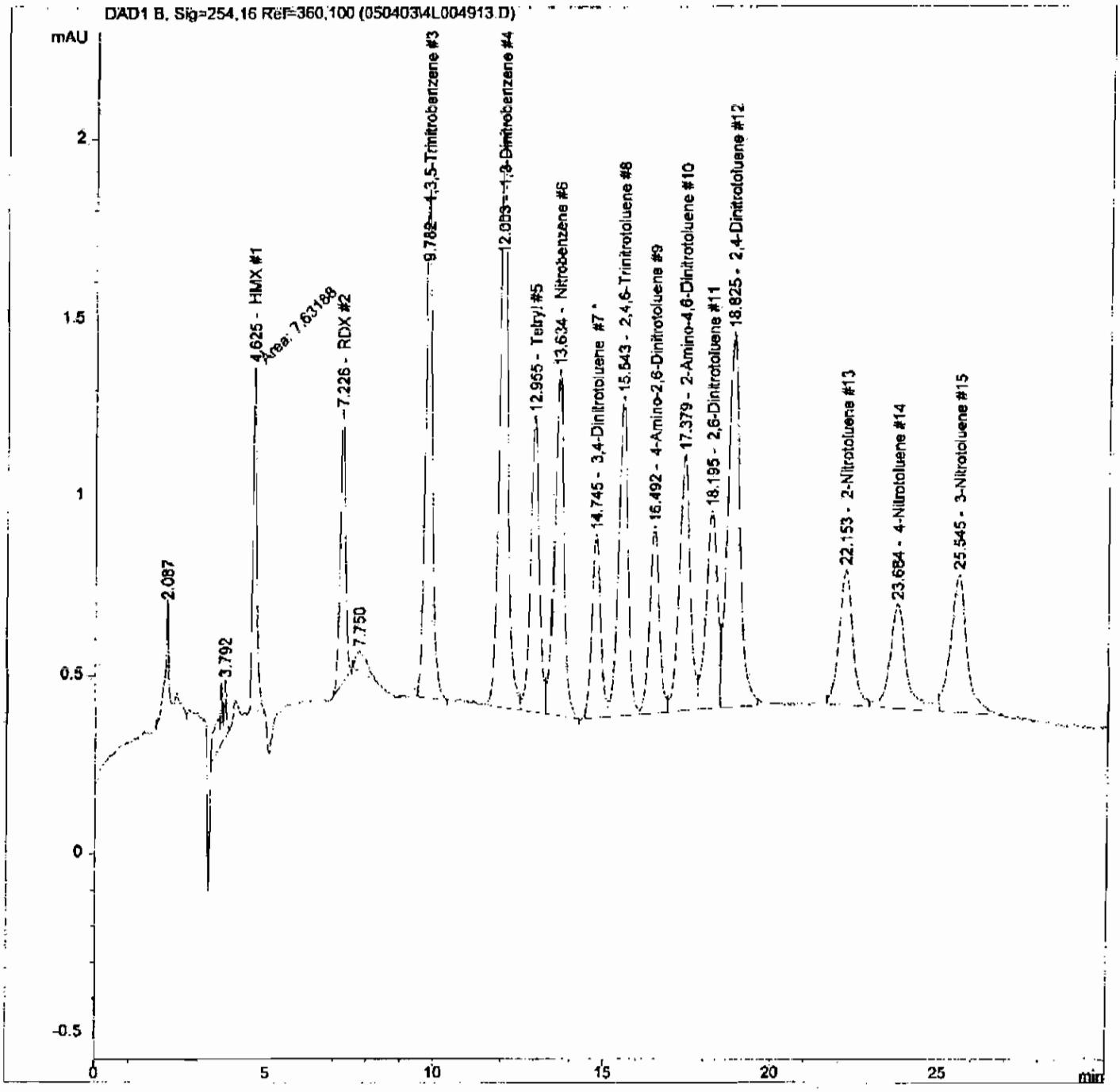
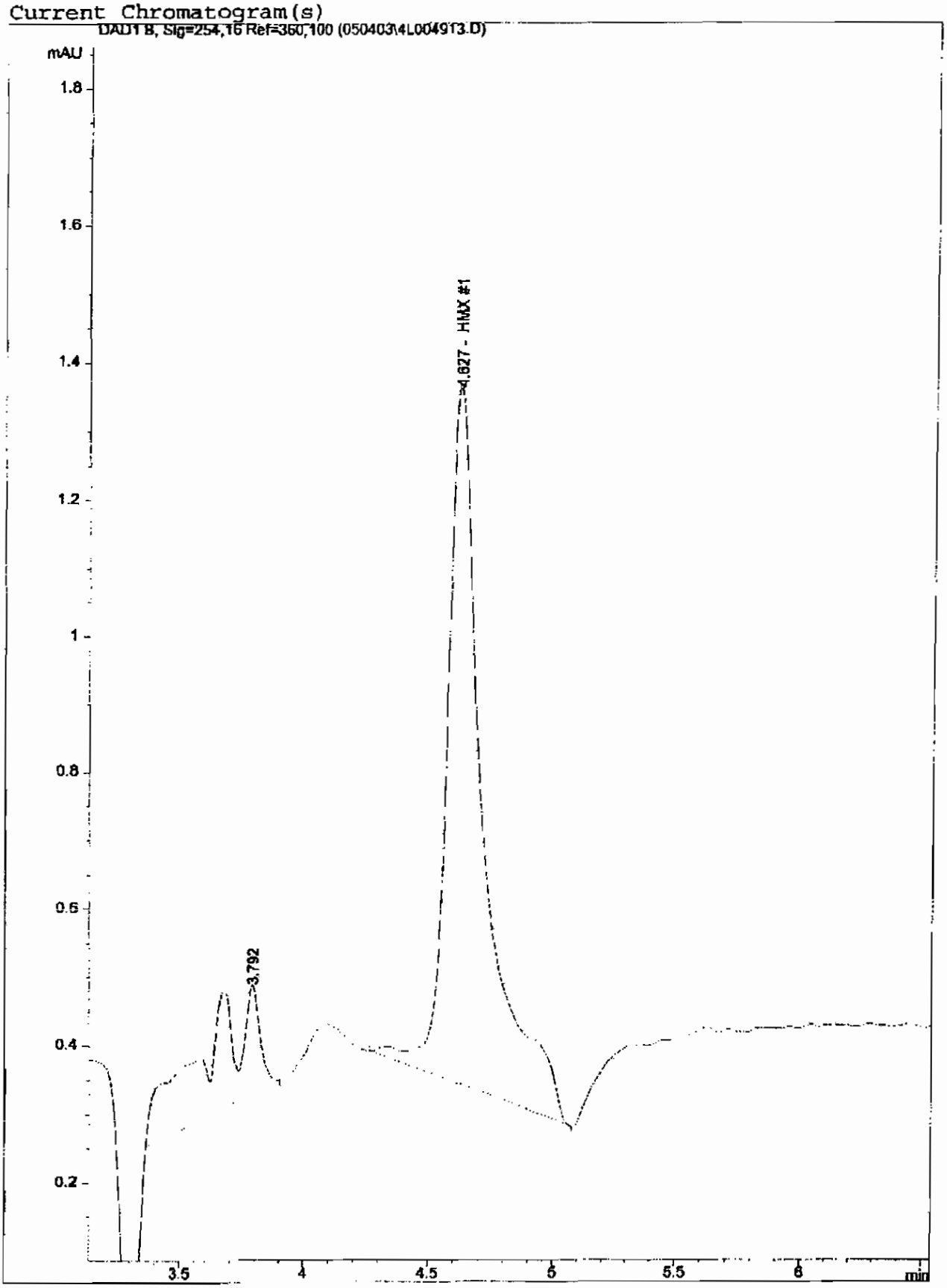
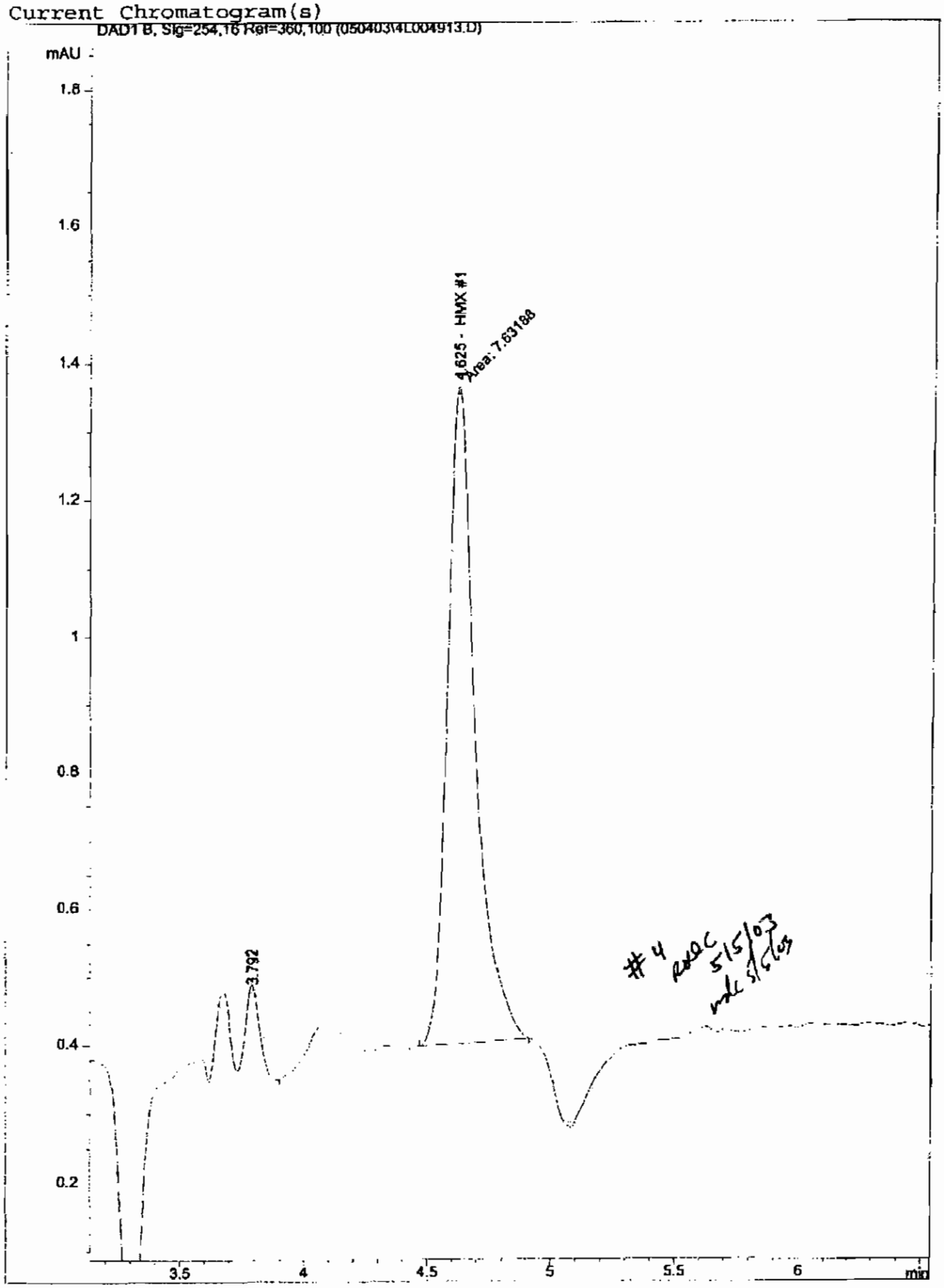


Current Chromatogram(s)



Current Chromatogram(s)



HPLC4 5/5/2003 9:15:49 AM RDC

Injection Date : 5/4/2003 6:44:06 PM Seq. Line : 2
Sample Name : WG139732-01 CCV Vial : 2
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl
Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 4/29/2003 2:40:07 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 5/5/2003 9:15:05 AM by RDC
(modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11

External Standard Report

Sorted By : Signal
Calib. Data Modified : 5/4/2003 4:27:13 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.625	MM	7.63188	5.93584	45.30160		HMX #1
7.226	PBA	8.13932	6.04774	49.22453		RDX #2
9.782	BB	20.26395	2.39565	48.54538		1,3,5-Trinitrobenzene #3
12.003	BV	27.60806	1.75965	48.58050		1,3-Dinitrobenzene #4
12.955	VV	14.92055	3.17189	47.32626		Tetryl #5
13.634	VP	17.72780	2.61389	46.33856		Nitrobenzene #6
14.745	BV	9.37213	4.56285	42.76366		3,4-Dinitrotoluene #7 *
15.543	VV	17.60690	2.52815	44.51295		2,4,6-Trinitrotoluene #8
16.492	VV	10.71365	4.16160	44.58591		4-Amino-2,6-Dinitrotoluen
17.379	VV	16.11777	3.06670	49.42832		2-Amino-4,6-Dinitrotoluen
18.195	VV	12.70339	3.98158	50.57956		2,6-Dinitrotoluene #11
18.825	VB	25.93942	1.93486	50.18918		2,4-Dinitrotoluene #12
22.153	BB	10.48862	4.68408	49.12959		2-Nitrotoluene #13
23.684	BB	9.18220	5.70362	52.37181		4-Nitrotoluene #14
25.545	BB	13.12951	4.11078	53.97256		3-Nitrotoluene #15

Totals : 1529.13820

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

Data File C:\HPCHEM\2\DATA\050403\4L004924.D Sample Name: WG139732-02 CCV
HPLC4 5/5/2003 9:24:28 AM RDC

1,1 50S64-31 50 ppb

Injection Date : 5/5/2003 4:18:09 AM Seq. Line : 13

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

Compound	RT	Known Conc.	Cal. Conc.	%D
HMX #1	4.629	50.0	45.725	-8.6
RDX #2	7.236	50.0	49.300	-1.4
1,3,5-Trinitrobenzene #3	9.763	50.0	49.023	-2.0
1,3-Dinitrobenzene #4	11.984	50.0	48.823	-2.4
Tetryl #5	12.936	50.0	43.183	-13.6
Nitrobenzene #6	13.597	50.0	48.264	-3.5
3,4-Dinitrotoluene #7 *	14.710	50.0	50.058	0.1
2,4,6-Trinitrotoluene #8	15.491	50.0	50.691	1.4
4-Amino-2,6-Dinitrotolue	16.540	50.0	50.366	0.7
2-Amino-4,6-Dinitrotolue	17.419	50.0	50.706	1.4
2,6-Dinitrotoluene #11	18.151	50.0	51.751	3.5
2,4-Dinitrotoluene #12	18.780	50.0	50.833	1.7
2-Nitrotoluene #13	22.071	50.0	47.670	-4.7
4-Nitrotoluene #14	23.605	50.0	49.600	-0.8
3-Nitrotoluene #15	25.434	50.0	46.915	-6.2

= Failed 15.0% Criteria

```
Injection Date  : 5/5/2003 4:18:09 AM                Seq. Line :  13
Sample Name     : WG139732-02 CCV                       Vial :   2
Acq. Operator   : RDC                                    Inj :   1
                                                  Inj Volume : 100 µl
Acq. Method     : C:\HPCHEM\2\METHODS\8330.M
Last changed    : 4/29/2003 2:40:07 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed    : 5/5/2003 9:15:05 AM by RDC
                  (modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11
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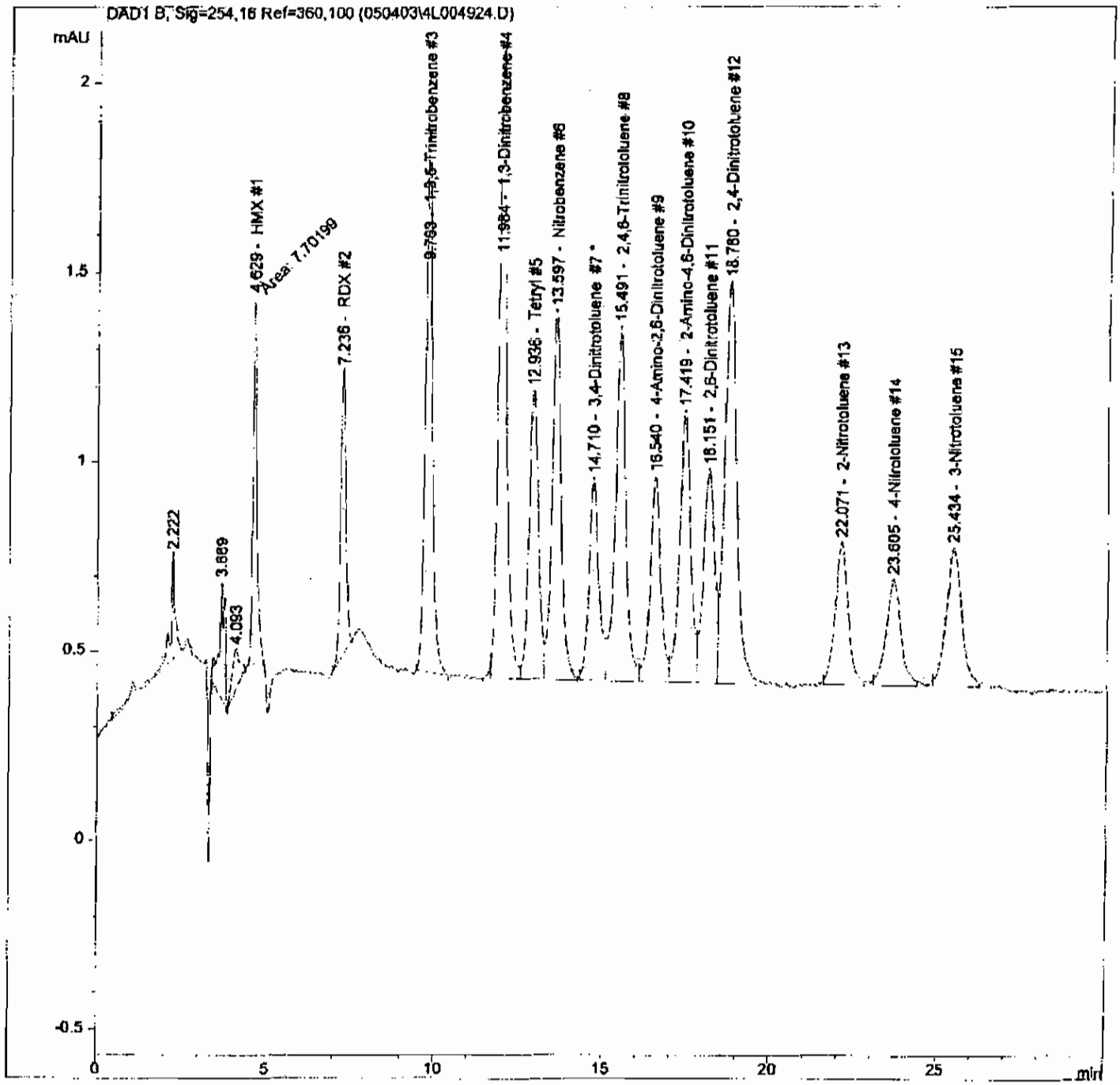
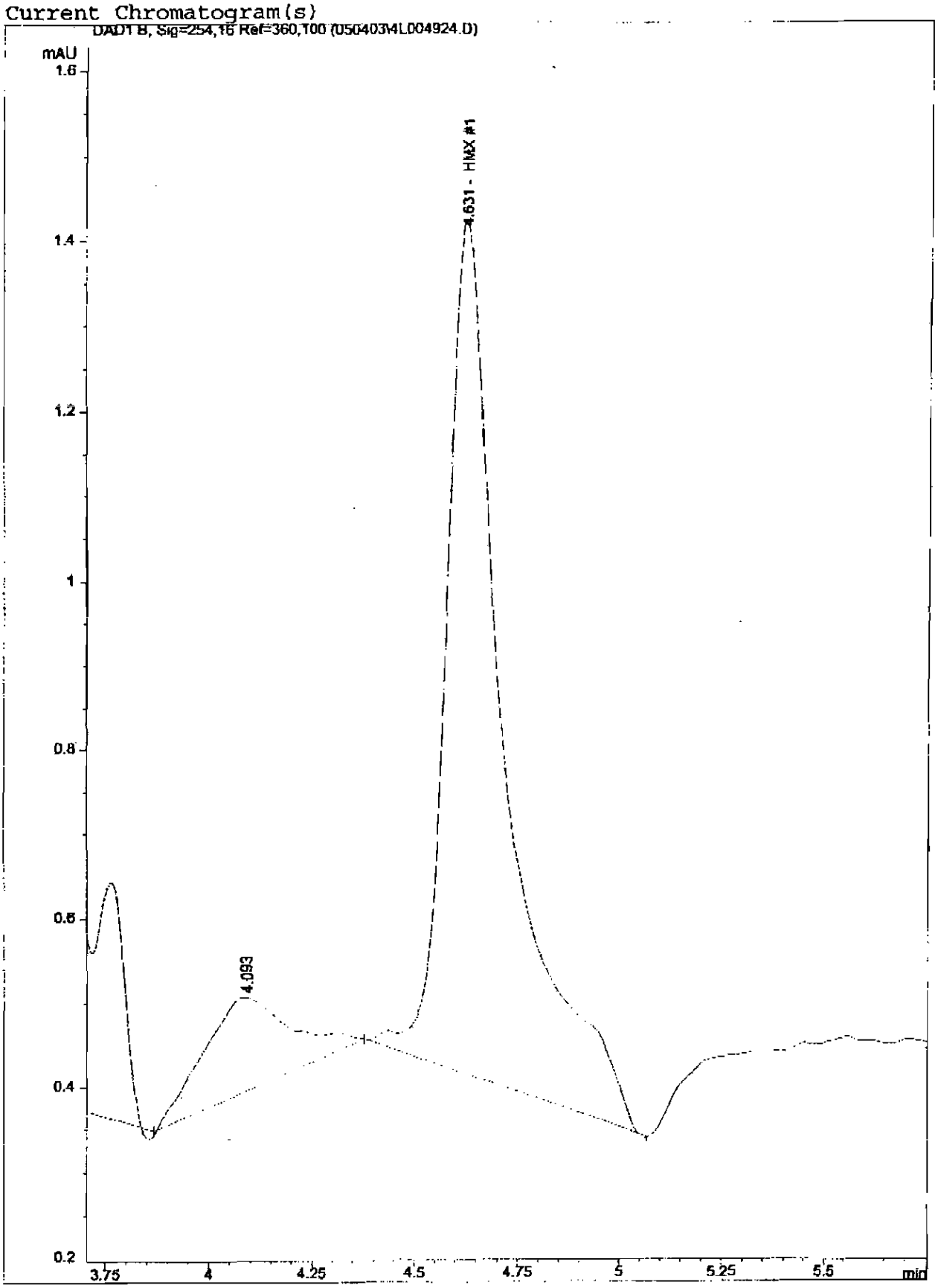
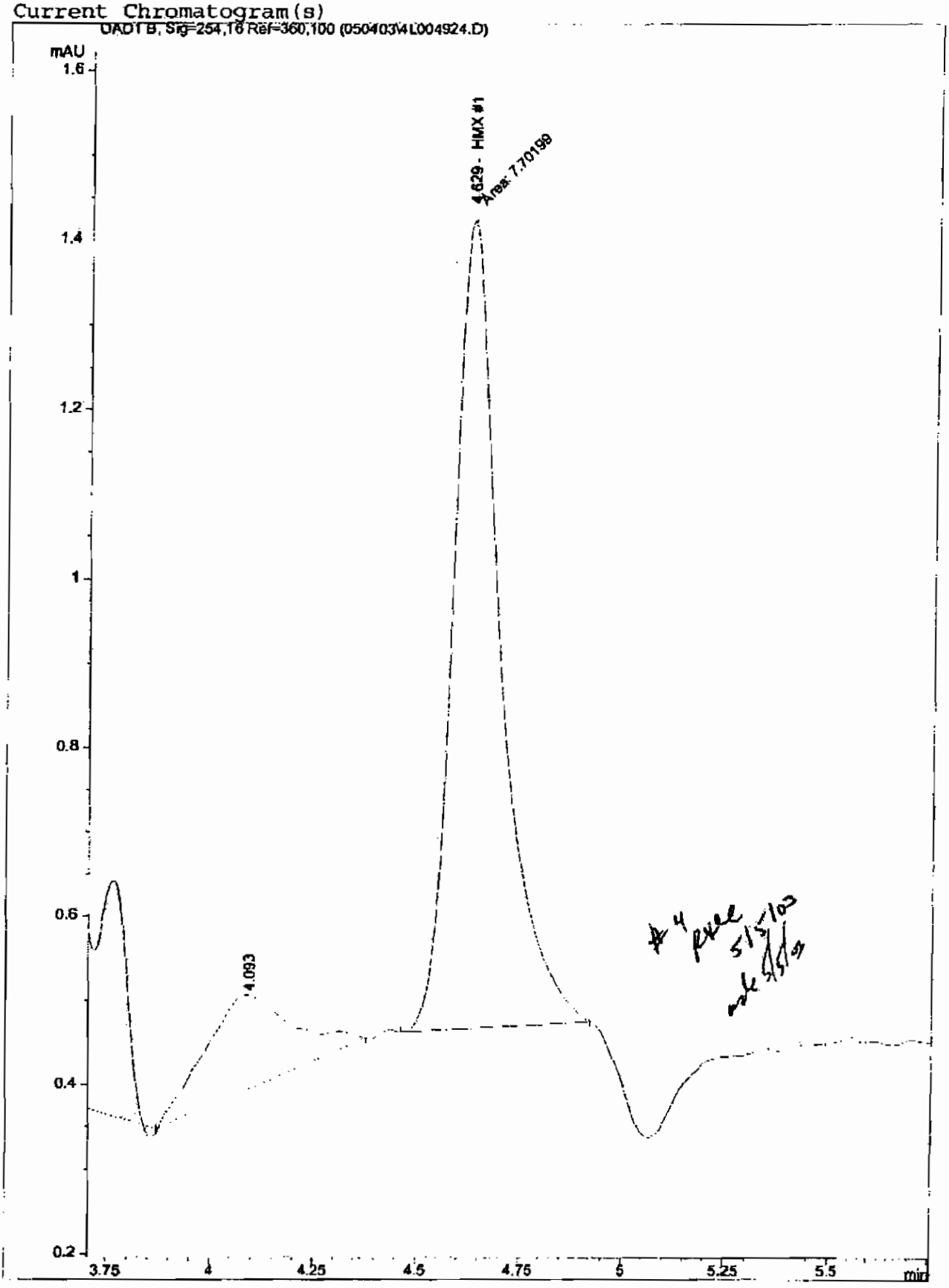


Current Chromatogram(s)



HPLC4 5/5/2003 9:24:05 AM RDC

Current Chromatogram(s)



HPLC4 5/5/2003 9:24:23 AM RDC

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Injection Date   : 5/5/2003 4:18:09 AM              Seq. Line :  13
Sample Name      : WG139732-02 CCV                      Vial :   2
Acq. Operator    : RDC                                   Inj :   1
                                                  Inj Volume : 100 µl
Acq. Method      : C:\HPCHEM\2\METHODS\8330.M
Last changed     : 4/29/2003 2:40:07 PM by RDC
Analysis Method  : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed     : 5/5/2003 9:15:05 AM by RDC
                   (modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11
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External Standard Report

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Sorted By             :      Signal
Calib. Data Modified  :      5/4/2003 4:27:13 PM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.629	MM	7.70199	5.93677	45.72494		HMX #1
7.236	PBA	8.15420	6.04591	49.29958		RDX #2
9.763	PP	20.47329	2.39446	49.02251		1,3,5-Trinitrobenzene #3
11.984	BB	27.75027	1.75938	48.82324		1,3-Dinitrobenzene #4
12.936	BV	13.61523	3.17165	43.18269		Tetryl #5
13.597	VB	18.46093	2.61441	48.26440		Nitrobenzene #6
14.710	BV	10.95275	4.57034	50.05780		3,4-Dinitrotoluene #7 *
15.491	VV	20.11027	2.52068	50.69147		2,4,6-Trinitrotoluene #8
16.540	VV	12.14377	4.14749	50.36619		4-Amino-2,6-Dinitrotoluen
17.419	VV	16.55752	3.06239	50.70554		2-Amino-4,6-Dinitrotoluen
18.151	VV	13.01412	3.97651	51.75079		2,6-Dinitrotoluene #11
18.780	VB	26.29033	1.93351	50.83275		2,4-Dinitrotoluene #12
22.071	BB	10.17049	4.68705	47.66965		2-Nitrotoluene #13
23.605	BB	8.70981	5.69475	49.60012		4-Nitrotoluene #14
25.434	BB	11.42533	4.10624	46.91520		3-Nitrotoluene #15
Totals :				1350.97360		

```
 Results obtained with enhanced integrator!
```

*** End of Report ***

Lab Name: Kemron Environmental Services

strument ID: HPLC4 Method: 8330

Column: Ultracarb 5 ODS 20

	STD #1	STD #2	STD #3
Date Run	07/23/2002	07/25/2002	07/26/2002
File #	4L003294	4L003317	4L003330
Time	21:06	17:22	22:58

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
HMX	4.639	4.667	4.669	0.050
RDX	7.311	7.372	7.388	0.122
1,3,5-Trinitrobenzene	9.930	9.990	9.989	0.103
1,3-Dinitrobenzene	12.229	12.309	12.320	0.149
Tetryl	13.237	13.386	13.400	0.271
Nitrobenzene	13.911	14.018	14.030	0.197
3,4-Dinitrotoluene (Surr.)	15.075	15.284	15.304	0.381
2,4,6-Trinitrotoluene	15.868	16.015	16.019	0.258
4-Amino-2,6-Dinitrotoluene	16.855	17.073	17.198	0.521
2-Amino-4,6-Dinitrotoluene	17.775	17.996	18.096	0.493
2,6-Dinitrotoluene	18.622	18.825	18.849	0.374
2,4-Dinitrotoluene	19.282	19.471	19.489	0.344
Nitrotoluene	22.703	22.981	22.982	0.482
Nitrotoluene	24.294	24.580	24.579	0.495
3-Nitrotoluene	26.204	26.483	26.531	0.530

2.2.9.4 Raw QC Data

7,1 VSPII BLANK 043003

==========

Injection Date : 5/4/2003 7:36:19 PM Seq. Line : 3
Sample Name : WG139397-01 BLK Vial : 3
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl

Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 4/29/2003 2:40:07 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 5/5/2003 9:15:05 AM by RDC
(modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11

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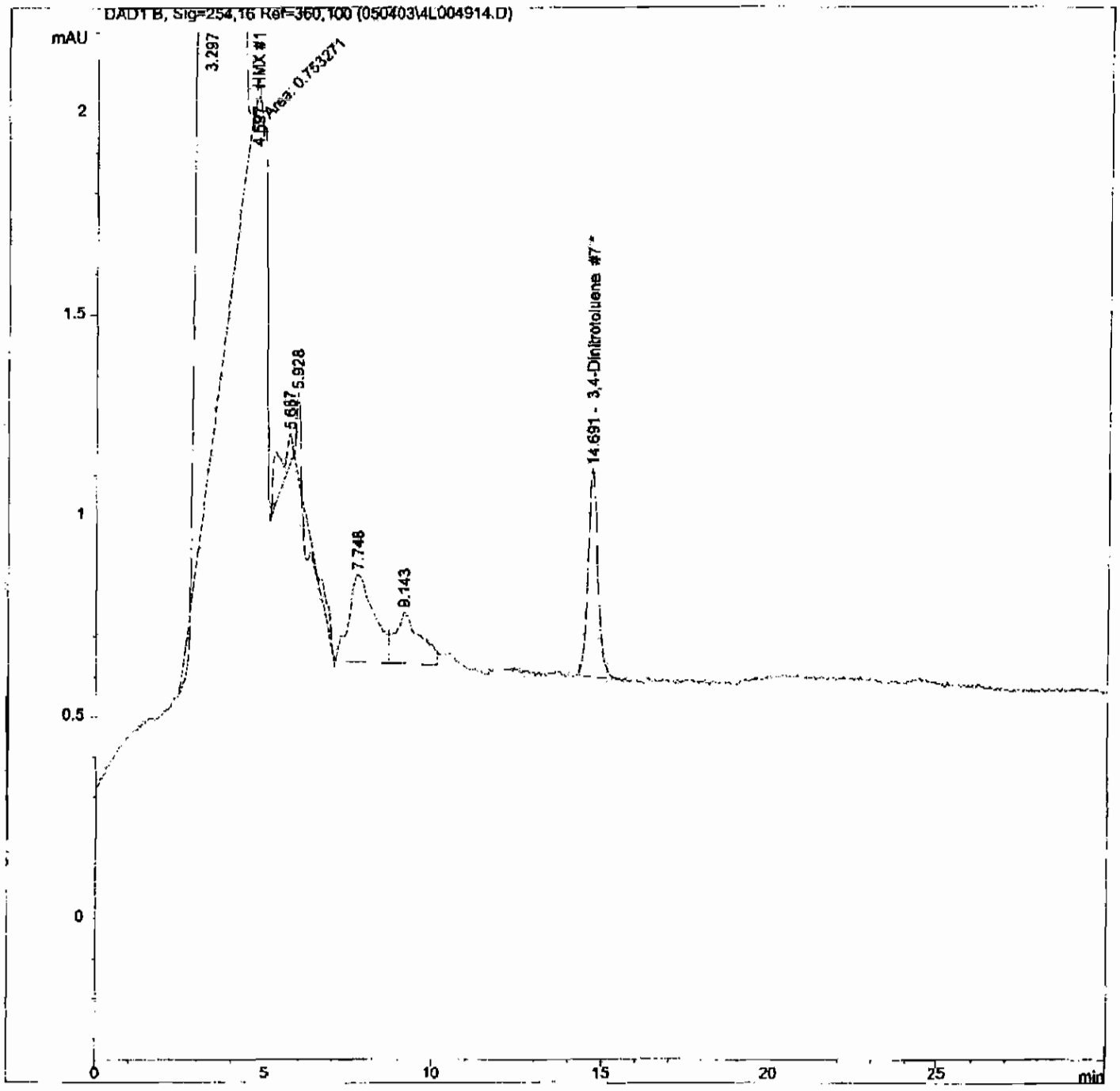
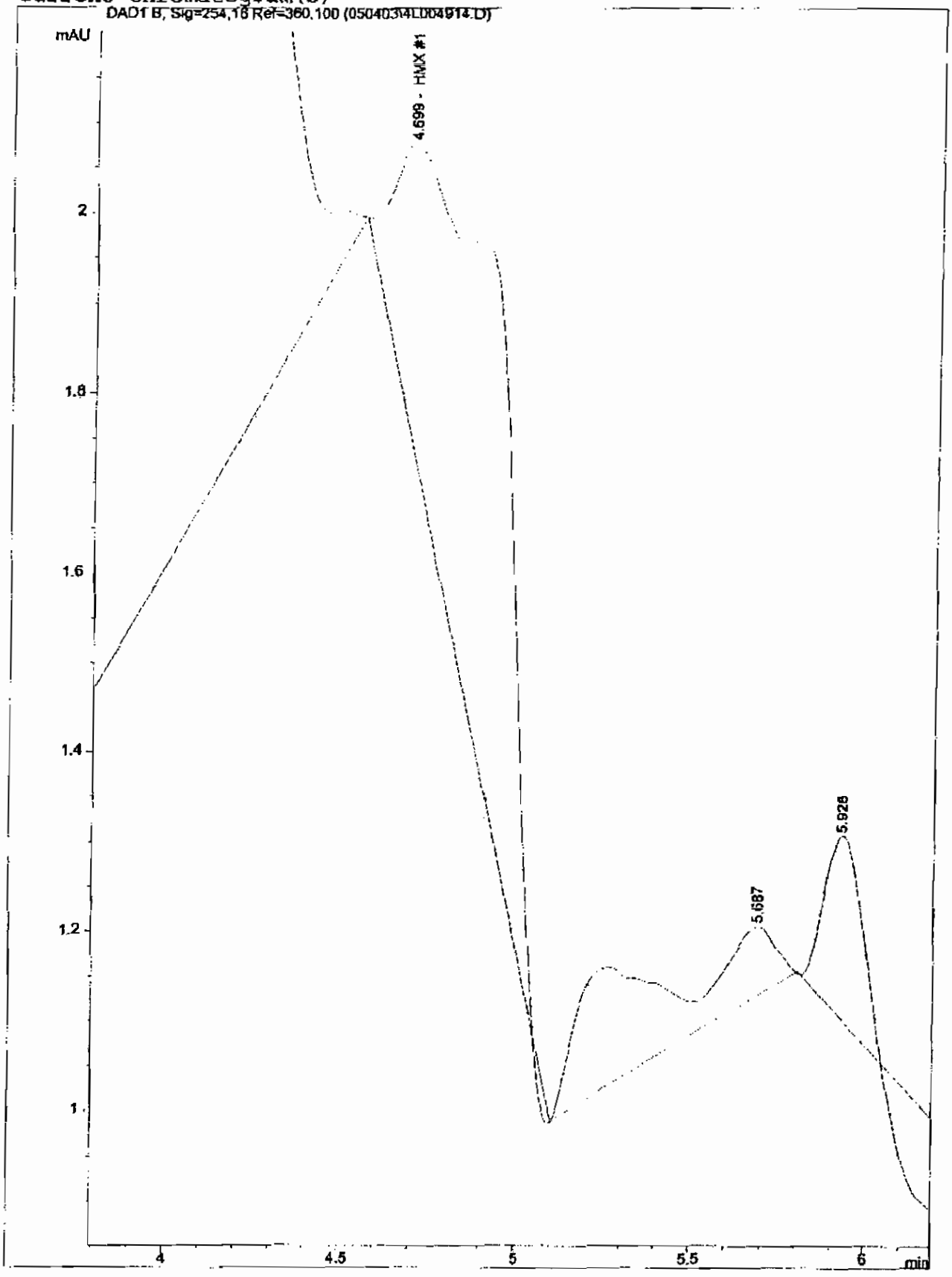
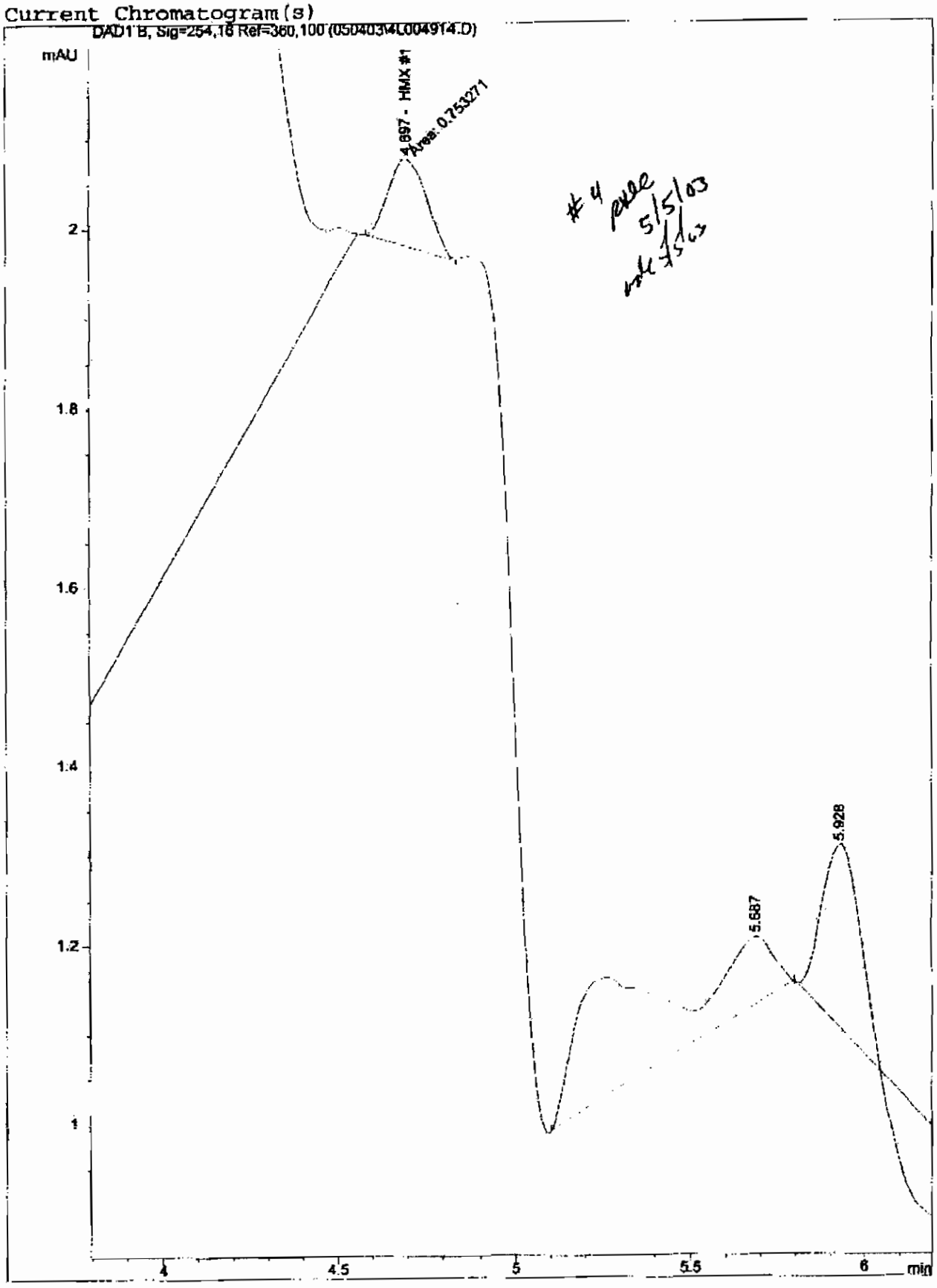


Current Chromatogram(s)



Current Chromatogram(s)



7,1 V3F11 BLANK 043003

Injection Date : 5/4/2003 7:36:19 PM Seq. Line : 3
Sample Name : WG139397-01 BLK Vial : 3
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl
Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 4/29/2003 2:40:07 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 5/5/2003 9:15:05 AM by RDC
(modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11

External Standard Report

Sorted By : Signal
Calib. Data Modified : 5/4/2003 4:27:13 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.697	MM	7.53271e-1	4.99820	3.76500		HMX #1
7.239		-	-	-		RDX #2
9.796		-	-	-		1,3,5-Trinitrobenzene #3
12.025		-	-	-		1,3-Dinitrobenzene #4
12.988		-	-	-		Tetryl #5
13.654		-	-	-		Nitrobenzene #6
14.691	BB	10.59825	4.56886	48.42187		3,4-Dinitrotoluene #7 *
15.574		-	-	-		2,4,6-Trinitrotoluene #8
16.539		-	-	-		4-Amino-2,6-Dinitrotoluen
17.440		-	-	-		2-Amino-4,6-Dinitrotoluen
18.230		-	-	-		2,6-Dinitrotoluene #11
18.878		-	-	-		2,4-Dinitrotoluene #12
22.226		-	-	-		2-Nitrotoluene #13
23.750		-	-	-		4-Nitrotoluene #14
25.583		-	-	-		3-Nitrotoluene #15

Totals : 2670.56758

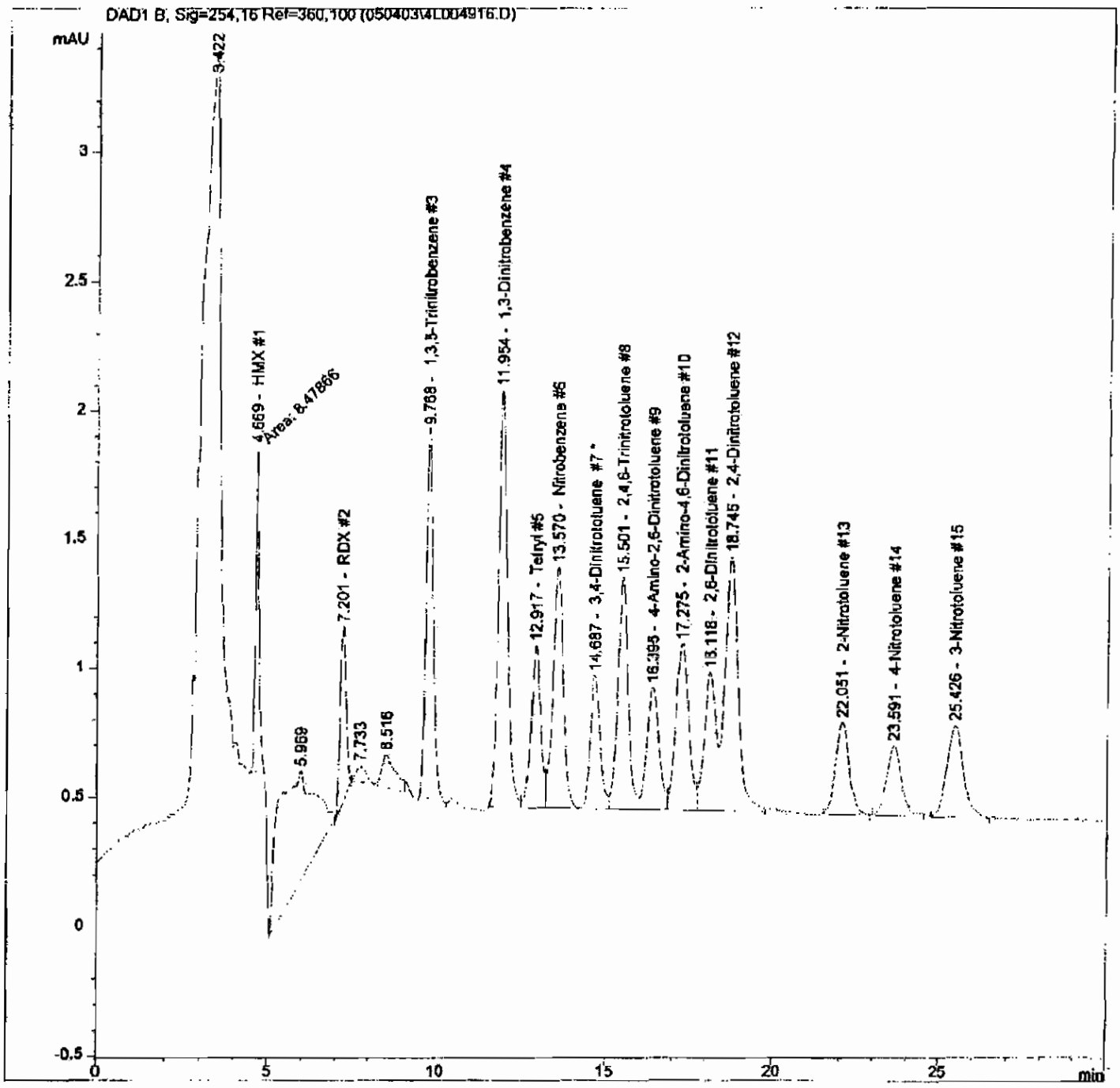
Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

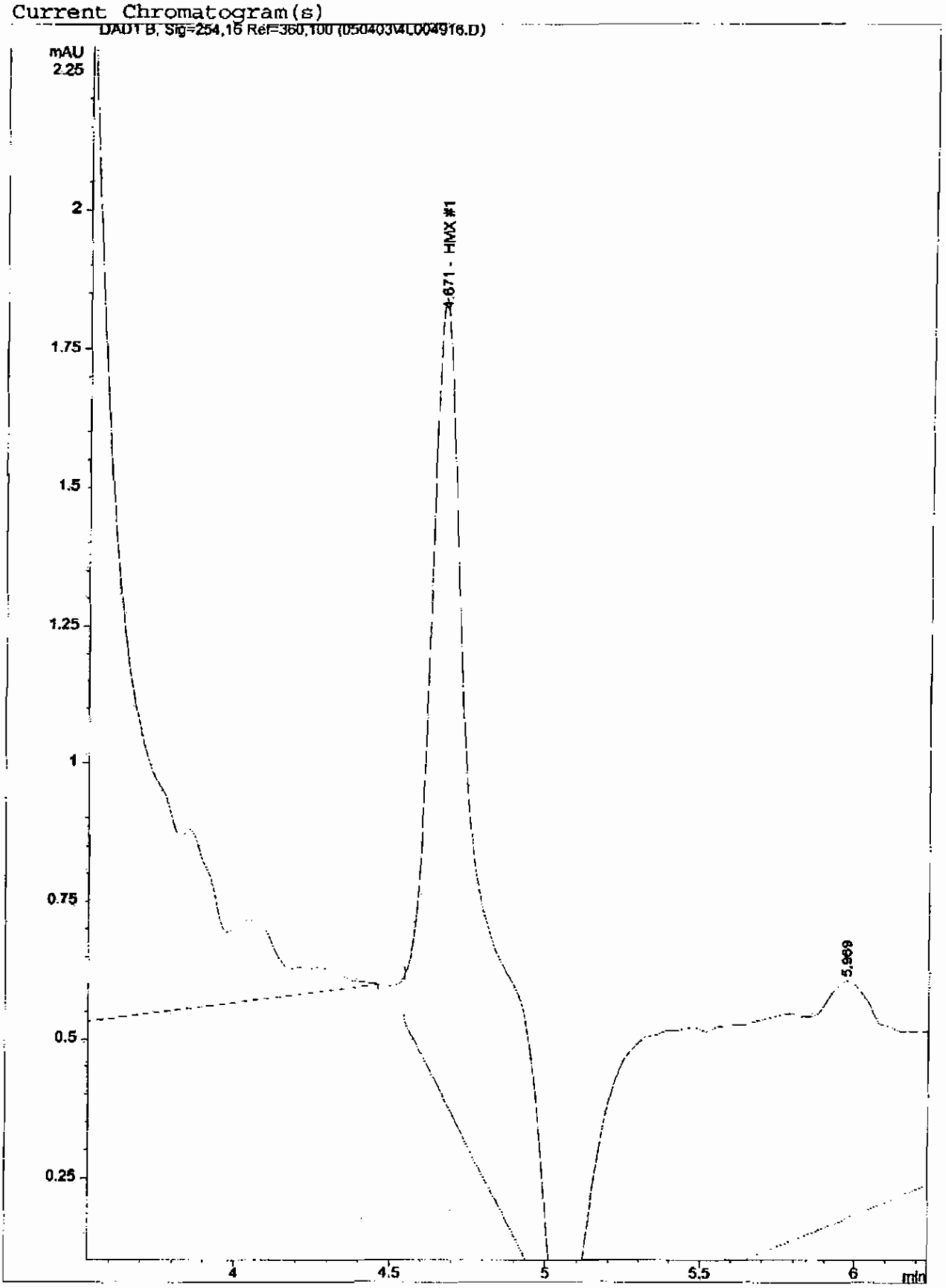
*** End of Report ***

Injection Date	: 5/4/2003 9:20:35 PM	Seq. Line :	5
Sample Name	: WG139397-02 LCS	Vial :	5
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	100 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8330.M		
Last changed	: 4/29/2003 2:40:07 PM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\833GRDDA.M		
Last changed	: 5/5/2003 9:15:05 AM by RDC (modified after loading)		

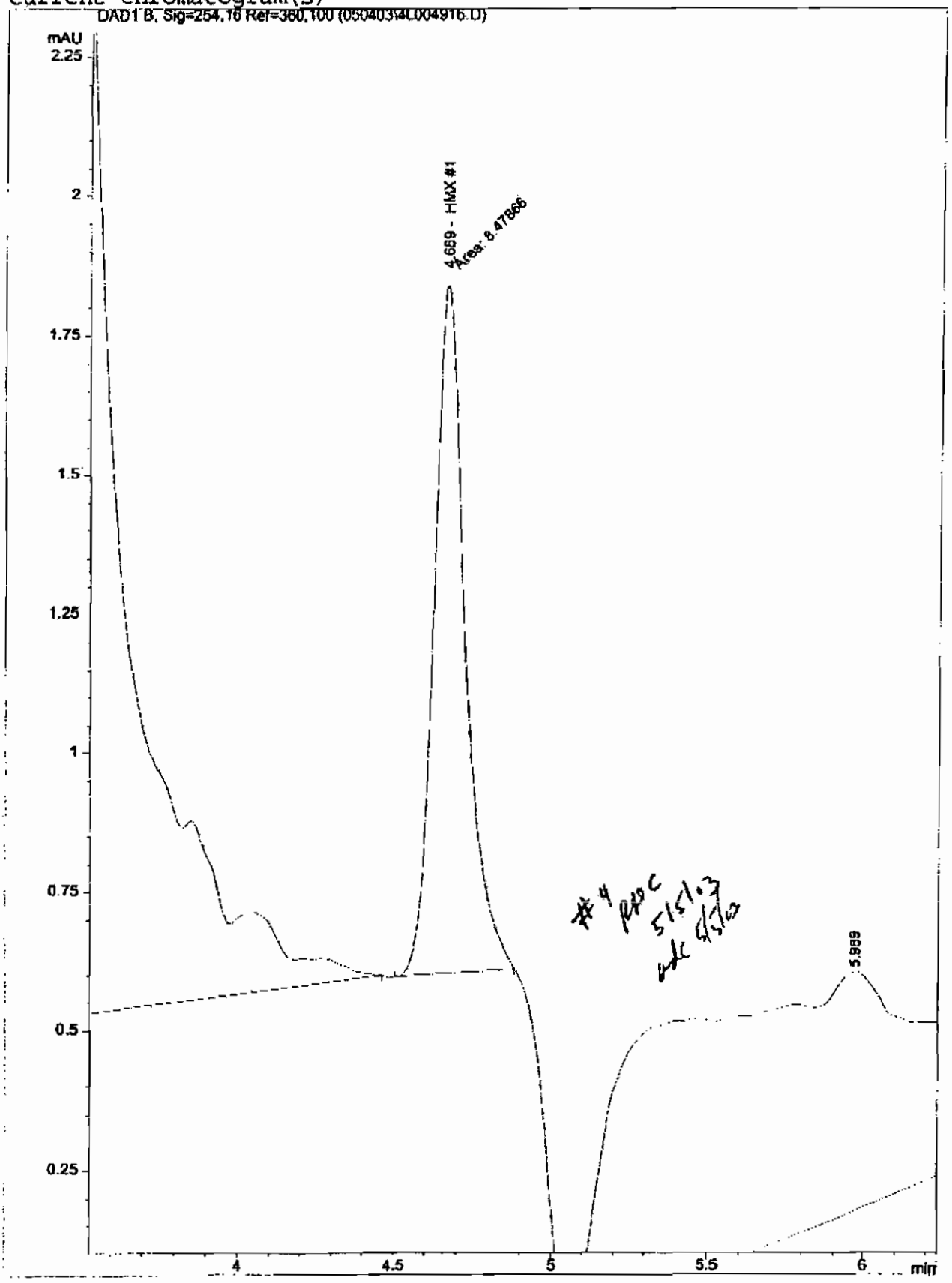
8330 CALIBRATION 05/02/2003 @ 23:11



Current Chromatogram(s)



Current Chromatogram(s)



```
================================================================================
Injection Date  : 5/4/2003 9:20:35 PM              Seq. Line :   5
Sample Name     : WG139397-02 LCS                       Vial :   5
Acq. Operator   : RDC                                   Inj :   1
                                                  Inj Volume : 100 µl
Acq. Method     : C:\HPCHEM\2\METHODS\8330.M
Last changed    : 4/29/2003 2:40:07 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed    : 5/5/2003 9:15:05 AM by RDC
                  (modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11
================================================================================

================================================================================
                        External Standard Report
================================================================================

Sorted By             :      Signal
Calib. Data Modified  :      5/4/2003 4:27:13 PM
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100
```

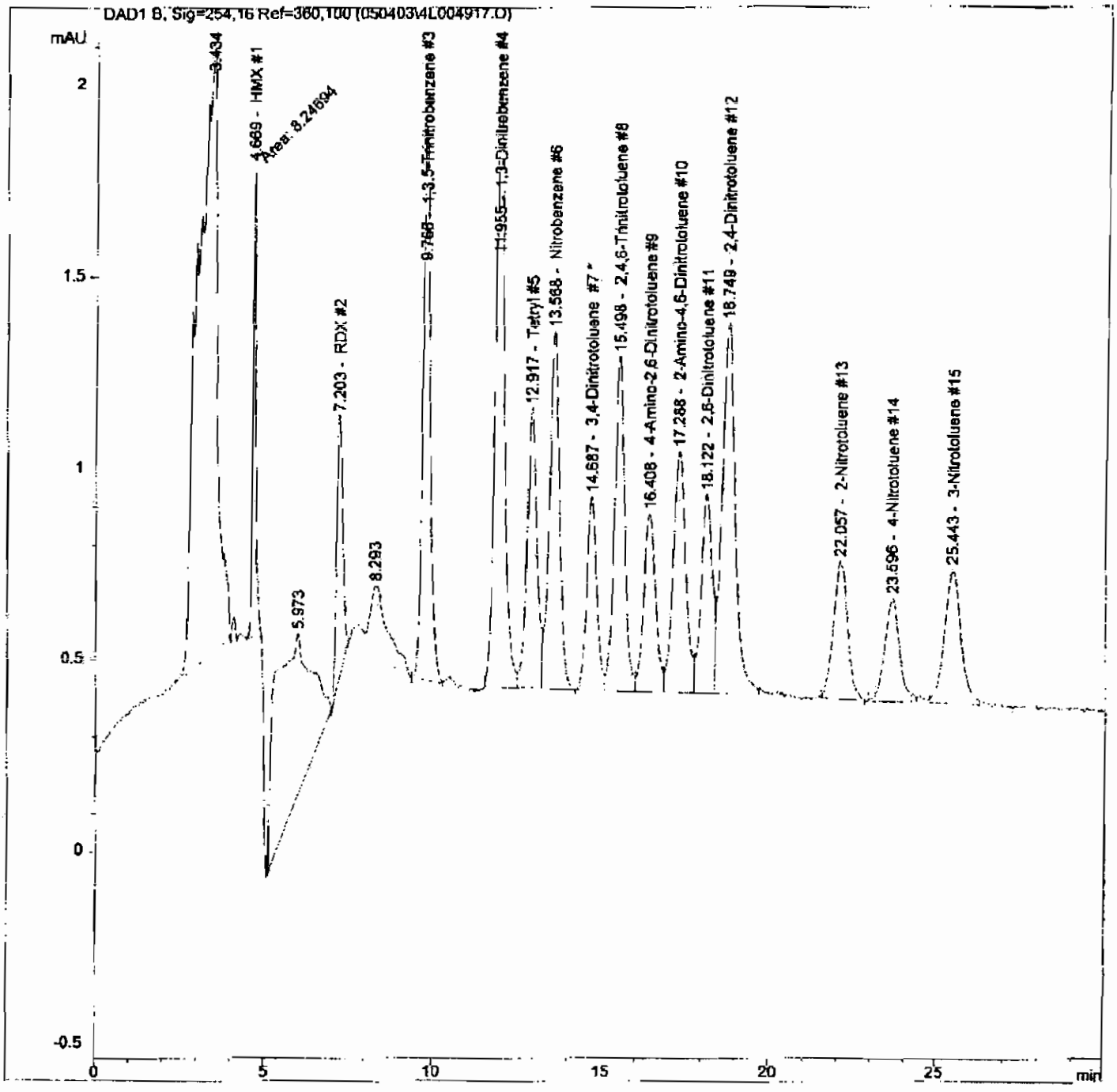
RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.669	MM	8.47866	5.94609	50.41489		HMX #1
7.201	BB	8.53204	6.00158	51.20572		RDX #2
9.768	BB	20.83549	2.39246	49.84805		1,3,5-Trinitrobenzene #3
11.954	BV	30.02393	1.75541	52.70427		1,3-Dinitrobenzene #4
12.917	VV	11.82216	3.17123	37.49078		Tetryl #5
13.570	VP	19.44239	2.61504	50.84262		Nitrobenzene #6
14.687	VV	10.40745	4.56801	47.54139		3,4-Dinitrotoluene #7 *
15.501	VV	19.09632	2.52347	48.18896		2,4,6-Trinitrotoluene #8
16.395	VV	12.06627	4.14817	50.05293		4-Amino-2,6-Dinitrotoluen
17.275	VV	17.35539	3.05512	53.02289		2-Amino-4,6-Dinitrotoluen
18.118	VV	12.83727	3.97937	51.08421		2,6-Dinitrotoluene #11
18.745	VB	26.68263	1.93205	51.55222		2,4-Dinitrotoluene #12
22.051	BB	10.41039	4.68480	48.77055		2-Nitrotoluene #13
23.591	BB	8.41485	5.68870	47.86951		4-Nitrotoluene #14
25.426	BB	12.01083	4.10795	49.33987		3-Nitrotoluene #15

95.1%

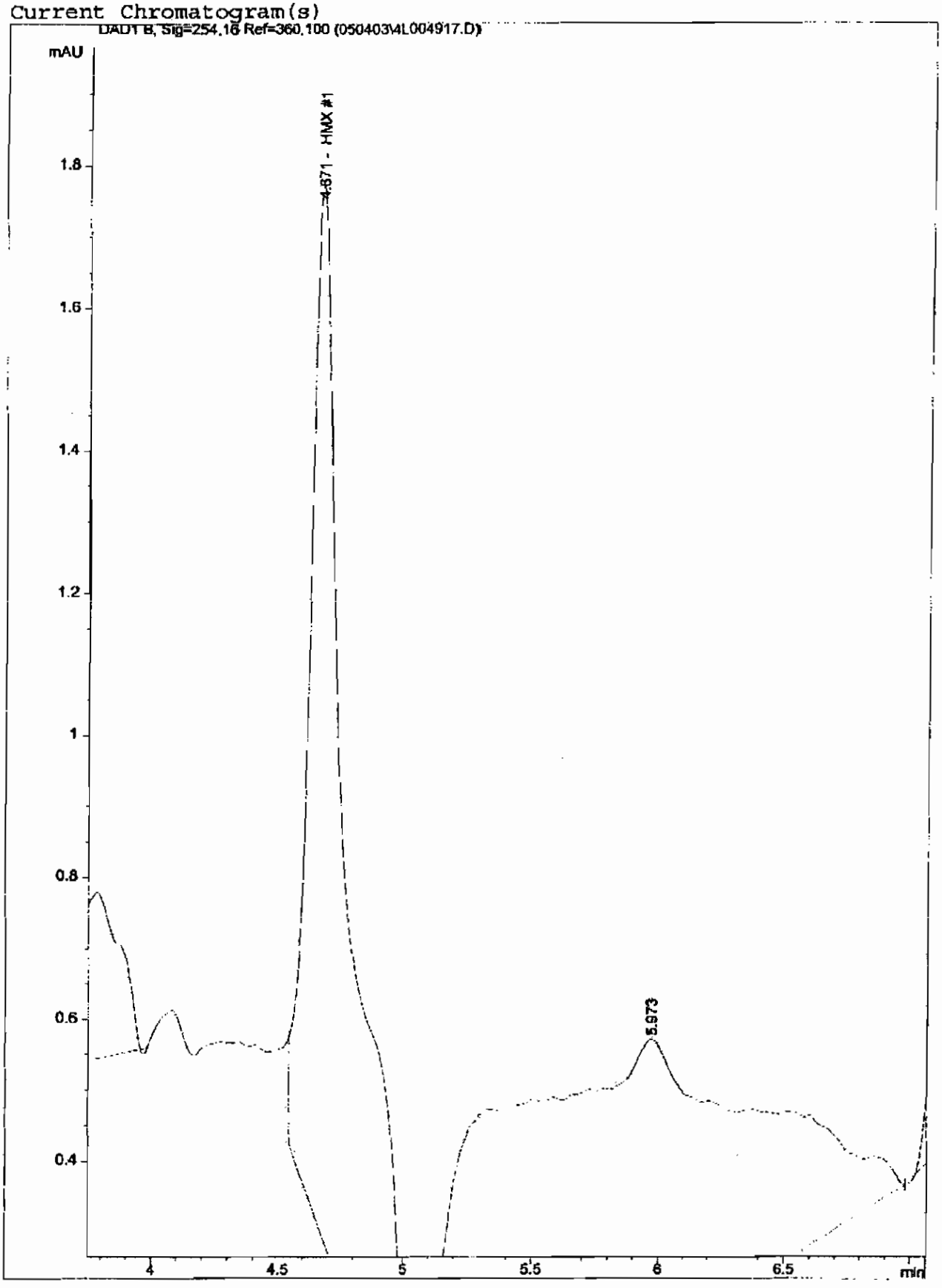
```
Totals :                              1879.92907

 Results obtained with enhanced integrator!
================================================================================
                          *** End of Report ***
```

Injection Date	: 5/4/2003 10:12:45 PM	Seq. Line	: 6
Sample Name	: WG139397-03 LCS2	Vial	: 6
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 100 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8330.M		
Last changed	: 4/29/2003 2:40:07 PM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\833GRDDA.M		
Last changed	: 5/5/2003 9:15:05 AM by RDC (modified after loading)		

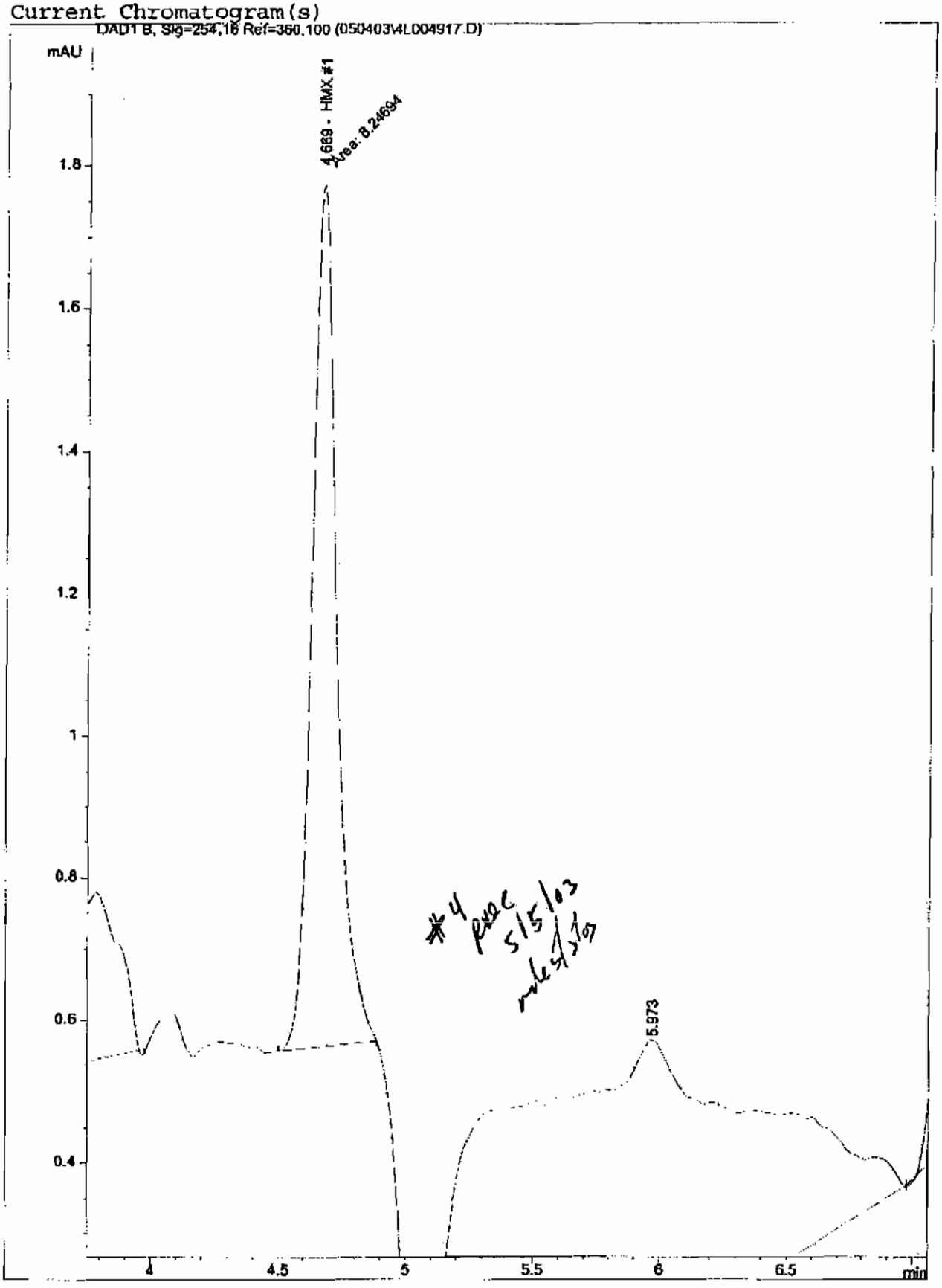
8330 CALIBRATION 05/02/2003 @ 23:11



Current Chromatogram(s)



Current Chromatogram(s)



#4 pure 5/15/03

HPLC4 5/5/2003 9:20:25 AM RDC

Page 1 of 1

Injection Date : 5/4/2003 10:12:45 PM Seq. Line : 6
Sample Name : WG139397-03 LCS2 Vial : 6
Acq. Operator : RDC Inj : 1
Inj Volume : 100 µl
Acq. Method : C:\HPCHEM\2\METHODS\8330.M
Last changed : 4/29/2003 2:40:07 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\833GRDDA.M
Last changed : 5/5/2003 9:15:05 AM by RDC
(modified after loading)
8330 CALIBRATION 05/02/2003 @ 23:11

External Standard Report

Sorted By : Signal
Calib. Data Modified : 5/4/2003 4:27:13 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: DAD1 B, Sig=254,16 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.669	MM	8.24694	5.94350	49.01566		HMX #1
7.203	BB	8.52087	6.00283	51.14940		RDX #2
9.766	VB	21.39548	2.38950	51.12438		1,3,5-Trinitrobenzene #3
11.955	BV	29.65775	1.75601	52.07922		1,3-Dinitrobenzene #4
12.917	VV	13.90413	3.17170	44.09978		Tetryl #5
13.568	VP	19.42067	2.61503	50.78554		Nitrobenzene #6
14.687	BV	9.98607	4.56604	45.59683		3,4-Dinitrotoluene #7 *
15.498	VV	18.27903	2.52595	46.17182		2,4,6-Trinitrotoluene #8
16.408	VV	11.50358	4.15337	47.77864		4-Amino-2,6-Dinitrotoluen
17.288	VV	16.62554	3.06174	50.90310		2-Amino-4,6-Dinitrotoluen
18.122	VV	12.33853	3.98786	49.20436		2,6-Dinitrotoluene #11
18.749	VB	25.91526	1.93496	50.14487		2,4-Dinitrotoluene #12
22.057	BP	10.29596	4.68586	48.24544		2-Nitrotoluene #13
23.596	BB	8.26010	5.68535	46.96154		4-Nitrotoluene #14
25.443	BB	11.72167	4.10713	48.14238		3-Nitrotoluene #15

91.26

Totals : 1751.61922

Results obtained with enhanced integrator!

*** End of Report ***

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	Blank Me/AcCN/Wa	8330	1	Sample		
2	2	WG139673-01 STD6	8330	1	Sample		
3	3	WG139673-02 STD5	8330	1	Sample		
4	4	WG139673-03 STD4	8330	1	Sample		
5	5	WG139673-04 STD3	8330	1	Sample		
6	6	WG139673-05 STD2	8330	1	Sample		
7	7	WG139673-06 STD1	8330	1	Sample		
8	8	WG139673-07 ALT	8330	1	Sample		

RBOE 5/4/03

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8330	4L004904	01:01 ✓		Blank Me/AcCN/
No	2	2	8330	4L004905	02:01 ✓	DIL'N SOS 64-3,	WG139673-01 ST
No	3	3	8330	4L004906	03:01 ✓		WG139673-02 ST
No	4	4	8330	4L004907	04:01 ✓		WG139673-03 ST
No	5	5	8330	4L004908	05:01 ✓		WG139673-04 ST
No	6	6	8330	4L004909	06:01 ✓		WG139673-05 ST
No	7	7	8330	4L004910	07:01 ✓		WG139673-06 ST
No	8	8	8330	4L004911	08:01 ✓	DIL'N. SOS 64-48	WG139673-07 AL

RAC 5/4/03
[illegible]

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time May 2, 2003 Instrument ID HPLC4 Column ID Ultracarb 5ODS Data Subdirectory 050203
Analyst Initials MK SOP # HPLC01 Rev. # 4 8310 SOP # HPLC02 Rev. # 3 K 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 227 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: _____

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	Blank Me/AcCN/Wa	8330	1	Sample		
2	2	WG139732-01 CCV	8330	1	Sample		
3	3	WG139397-01 BLK	8330	1	Sample		
4	4	MDL CHK	8330	1	Sample		
5	5	WG139397-02 LCS	8330	1	Sample		
6	6	WG139397-03 LCS2	8330	1	Sample		
7	7	L0304554-01 833S	8330	1	Sample		
8	8	L0304594-03 833S	8330	1	Sample		
9	9	L0304439-01 REEX	8330	1	Sample		
10	10	WG139590-01 BLK	8330	1	Sample		
11	11	WG139590-02 LCS	8330	1	Sample		
12	12	WG139590-03 LCS2	8330	1	Sample		
13	2	WG139732-02 CCV	8330	1	Sample		
14	13	L0305015-01 833W	8330	1	Sample		
15	14	L0305015-02 833W	8330	1	Sample		
16	15	L0305020-01 833W	8330	1	Sample		
17	2	WG139732-03 CCV	8330	1	Sample		

RDL 5/5/03 2

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8330	4L004912	01:01 ✓		Blank Me/AcCN/
No	2	2	8330	4L004913	02:01 ✓	SOS 64-31	WG139732-01 CC
No	3	3	8330	4L004914	03:01 ✓		WG139397-01 BL
No	4	4	8330	4L004915	04:01 ✓		MDL CHK
No	5	5	8330	4L004916	05:01 ✓		WG139397-02 LC
No	6	6	8330	4L004917	06:01 ✓		WG139397-03 LC
No	7	7	8330	4L004918	07:01 ✓		L0304554-01 83
No	8	8	8330	4L004919	08:01 ✓		L0304594-03 83
No	9	9	8330	4L004920	09:01 ✓		L0304439-01 RE
No	10	10	8330	4L004921	10:01 ✓		WG139590-01 BL
No	11	11	8330	4L004922	11:01 ✓		WG139590-02 LC
No	12	12	8330	4L004923	12:01 ✓		WG139590-03 LC
No	13	2	8330	4L004924	13:01 ✓	SOS 64-31	WG139732-02 CC
No	14	13	8330	4L004925	14:01 RR		L0305015-01 83
No	15	14	8330	4L004926	15:01		L0305015-02 83
No	16	15	8330	4L004927	16:01		L0305020-01 83
No	17	2	8330	4L004928	17:01 cc	SOS64-31	WG139732-03 CC

RAL 5/5/03
[illegible] 5/5/03

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time 5/04/03 Instrument ID HPLC4 Column ID Ultracarb 5 ODS Data Subdirectory 050403
Analyst Initials DEC SOP # HPLC01 Rev. # 4 8310 SOP # HPLC02 Rev. # 3 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 229 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Ending CCV 4L004928 / WG139732-03 %D for tetryl @ 16.4% (low)

Reviewed By: mlc 5/5/03

Sample Extraction Log Sheet – Method 8330 / Explosives

Analyst: CEB
Date: 4-30-03 @ 1042
SOP#: EXTM01 REV
Spike Analyst: CEB Witness: RMC
Sample Matrix: SOIL
Ext Solvent: CH3CN Lot#: 42269
Ext Solvent: – Lot#: –
Ext Disk: – Lot#: –
Other: CaCl Lot#: EP0005-1

Extract Relinquished By: CEB
Extract Received By: KBC
Date Extract Received: 5/1/03

Matrix Spike # / Conc: ES50044-20 @ 1.0 ppm
Surrogate Spike # / Conc: ES500 44-12 @ 1.0 ppm

Extraction Work Group: WG139397
Analytical Work Group: WG-139534

Sonic Bath On – Date:	4-30-03
Time (1) 1300	Temp (1) CTRL 3.4°C / BATH 10°C
Time (2) 1539	Temp (2) CTRL 3.4°C / BATH 12°C
Sonic Bath Off – Date:	5/1/03
Time (3) 0700	Temp (3) CTRL 3.4°C / BATH 12°

	Project ID	Sample ID	Sample Wt (g) / Vol (mL)	Surrogate Amount (uL)	Matrix Spike Amount (uL)	Extract F. Volume (mL)	Comments
1		BLK	2.00	1000 uL		20.0 mL	WG139397-01
2		LCS	2.03	↓	1000 uL	↓	↓ -02
3		LCS DUP	2.01	↓	↓	↓	↓ -03
4		04-554-01	2.06	↓	↓	↓	↓
5		04-594-03	2.05	↓	↓	↓	↓
6		04-439-01	2.02	↓	↓	↓	RE EXT IN HOLD
7		MDL ✓	2.01	↓	200 uL	↓	↓
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

CEB 4-30-03

All soil samples are air dried to a constant weight prior to extraction
All extracts are filtered through a 0.45 um teflon ACRODISC prior to analysis

Reviewed by: _____

Semi-Volatile 8330 Checklist

Run Date: 2-May-03

Analyst: RDC

Instrument: HPLC4

Workorders: Due Date: Priority:

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	NA
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	NA
	Surrogates	NA
Laboratory Control Sample:	Quant Report/Chromatogram	NA
	Surrogates	NA
	Spike Compounds	NA
	MS/MSD	NA
	QC Forms	NA
Samples:	TCL Hits	NA
	Surrogates	NA
	Correct Factors	NA
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Manual Re-integrations	√
	Level 2/2 (X)	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:
ICAL.....

Primary Reviewer: RDC 5/4/03

Secondary Reviewer: mlc 5/5/03

Supervisor Review: mlc 5/5/03

√
NA

Semi-Volatile 8330 Checklist

Run Date: 4-May-03

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
04-439 RE	5/1/2003	
04-554	5/2/2003	P1
04-594	5/5/2003	P1

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	NA
	Air Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	NA
	QC Forms	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	NA
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Manual Re-integrations	√
	Level 2/2 (X)	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

Ending CCV %D >15 - low J for tetryl...

L0305015-01402 and L0305020-01 will be RE..

Primary Reviewer: RDC 5/5/03

Secondary Reviewer: [signature] 5/5/03

Supervisor Review: [signature] 5/5/03

√ NA

Example 8330 Calculations

1.0 Calulating the Calibration Factor (CF) from the initial calibration (ICAL) data:

		Example:
	CF = Cs/As	
Where:	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ng/ml).	100
	CF	**0.01**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:*

		Example:
	C = [(Ax)(Vf)(D)(CF)] / Vi	
Where:	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	**0.01**
	Vi = Initial volume of sample (mL). (prep log)	1000
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report:*

		Example:
	C = [(Ax)(Vf)(D)(CF)] / Vi	
Where:	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	0.01
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

* Concentrations appearing on instrument quantitation reports are on-column results and do not take into account initial volume, final volume and dilution factor.

2.3 Metals

2.3.1 Metals I C P Data

REPORT NARRATIVE
METALS

KEMRON Login No: L0304554

METHOD

Analysis: SW-846 6010/6020/7000

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.

SAMPLES

All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: JYH REVIEWED: Sheri L. Aalzgrof DATE: 5/7/03

Rev. 6/00

METALS - ICP DATA
Login Number: L0304554

A. QC Summary

✓ Batch QC Summary Form

B. Raw Data

✓ Analyst checksheet
✓ Analysis runlog
✓ Instrument data: (actual order may vary)

- Initial and continuing calibration standards
- Initial and continuing calibration blanks
- Preparation blank
- Laboratory control sample
- Sample data
- Matrix spike
- Matrix spike duplicate
- Duplicate
- ICP Interference check sample
- ICP Serial dilutions (as needed)
- Post digestion spike sample (if applicable)
- Standard addition results (as needed)

C. Preparation log(s)

D. Sample Calculations

Checked By: DAJ SKP Date: 5/7/03

2.3.1.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number:L0304554 Run Date:04/29/2003 Sample ID:WG139316-03
Instrument ID:IRIS-ICP Run Time:18:32 Prep Method:3015
File ID:IR.042903.183200 Analyst:JYH Method:6010B
Workgroup (AAB#):WG139383 Matrix:Tclp Units:mg/L
Contract #: Cal ID:IRIS-I-29-APR-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Arsenic, TCLP	0.0100	0.100	0.0100	1	U
Barium, TCLP	0.00250	0.0100	0.00250	1	U
Cadmium, TCLP	0.00250	0.0100	0.00250	1	U
Chromium, TCLP	0.00250	0.0200	0.00250	1	U
Lead, TCLP	0.0100	0.100	0.0100	1	U
Selenium, TCLP	0.0500	0.0800	0.0500	1	U
Silver, TCLP	0.00500	0.0100	0.00500	1	U

KEMRON FORMS - Modified 04/24/2003
Version 1.3
Report generated 05/01/2003 14:47

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0304554 Run Date: 04/29/2003 Sample ID: WG139316-04
Instrument ID: IRIS-ICP Run Time: 18:37 Prep Method: 3015
File ID: IR.042903.183700 Analyst: JYH Method: 6010B
Workgroup (AAB#): WG139383 Matrix: Tclp Units: mg/L
Contract #: Cal ID: IRIS-I-29-APR-2003 18:01

Analytes	Expected	Found	% Rec	LCS Limits	Q
Arsenic, TCLP	1.00	0.987	98.7	80 - 120	
Barium, TCLP	10.0	10.1	101	80 - 120	
Cadmium, TCLP	1.00	0.974	97.4	80 - 120	
Chromium, TCLP	1.00	1.02	102	80 - 120	
Lead, TCLP	1.00	1.00	100	80 - 120	
Selenium, TCLP	1.00	0.993	99.3	80 - 120	
Silver, TCLP	0.200	0.217	108	80 - 120	

KEMRON FORMS - Modified 05/01/2003
Version 1.3
Report generated 05/01/2003 14:47

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 8

Analytical Method:6010B
Login Number:L0304554

AAH#:MG139383
Contract #:Bonnie Hogue

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
05-177511-SP1-042403	04/24/03	04/25/03	04/29/03	180	4.78	04/30/03	180	5.85	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

2.3.1.2 Raw Data

Metals

Date: 4/29/03
Analyst: JYH
Method: 6010B
Instrument: IRIS
Work Group: 139335 139383

	Analyst
Calibration/Linearity	
ICV/CCV	
ICB/CCB	
icsa/icsab/cri	
Blank/LCS	
MS/MSD	
Postspike/Serial Dilution	
Duplicate	
Record Results	
Excel Spreadsheets	
Results Reporting / Data Qualifiers	
Calculations & Correct Factors	
Reanalysis Assign	
Instrument Failure/Reassign	
Case Narrative	
QA Approval - Seedpak 3	
Check for Completeness	
Level IV Data 4/30	4-554
	4-594

Cal 3

WG 139398

Primary Reviewer Initials & Date Checked JYH 4/29/03

Secondary Reviewer Initials & Date Checked DA 4.30.03

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
NA • Check the information for the report narrative
✓ • Check the reasonableness of results

Supervisory Review Initials & Date Checked MJ 4/30/03

Comments:

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

KEMRON ENVIRONMENTAL SERVICES
ICP (ICP/MS) RUN LOGBOOK

ANALYST JYH DATE 4/25/03 TIME 11:33
METHOD # Eo/eB SOP # ME-60E Rev # 2 WORK GROUP # 139335, 139331, 139383
CAL STD SOURCE M2-17-23A ICV/CCV SOURCE M2-17-24A
ICS AB SOURCE M2-17-28B ICS A SOURCE M2-17-23A POST SPK SOURCE DS50051-60
Instrument ID: TJA IRIS: _____ Data File: _____ Perkin Elmer Optima: _____ Perkin Elmer ELAN: _____

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
	Std				27.	Lo3045U103			
	1 1/200				28.	03S			
	2 1/100				29.	03S2			
	3 1/4				30.	Lo3045U02			
	4 1/2				31.	02DP			
	5			ICV/ICB	32.	Lo3046U501			
	ICSA				33.	01S			ICV/ICB
	ICSAB			ICV/ICB	34.	01PS			
1.	PBW T2			WG139275-03	35.	Lo3045301			
2.	LCSW T2			04	36.	01PS			ICV/ICB
3.	TC BLK 4/24				37.				
4.	Lo3044901			01	38.				
5.	01S			05	39.				
6.	01S2			06	40.				
7.	Lo3044702			02	41.				
8.	02DP			03	42.				
9.	Lo3044801				43.				
10.	01S			ICV/ICB	44.				
11.	~~Lo3045301~~	FRS	JYH 4/29/03		45.				
12.	~~01PS~~	PBSX5	WG139325-03		46.				
13.	~~TC LCSS X5~~			04	47.				
14.	Lo3045901			02	48.				
15.	01DP			06	49.				
16.	01PS				50.				
17.	01SDL	5			51.				
18.	02			01	52.				
19.	02L			05	53.				
20.	CRI				54.				
21.	ICSA				55.				
22.	ICSAB		ICV/ICB		56.				
23.	FRS				57.				
24.	PBW K3		WG139316-03		58.			JYH 4/29/03	
25.	LCSW K3			04	59.				
26.	TC FBLK 4/29				60.				

Reviewed by: MMB 04/30/03

Comments: _____

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:
CCV - Continuing Calibration Verification
CCB = Continuing Calibration Blank
FRS = Full Recalibration Sequence
R = Analyst Rerun

KEMRON ENVIRONMENTAL SERVICES
FORM 2A - INITIAL AND CONTINUING CALIBRATION VERIFICATION

INSTRUMENT:	IRIS - Jarrell Ash
METHOD:	6010B
ANALYST:	Jyh
DATE:	4/29/03
UNITS:	ug/L
ICV Time:	6:06 PM
CCV1 Time:	6:24 PM
CCV2 Time:	7:16 PM

	Initial Calibration Verification			Continuing Calibration Verification CCV1			CCV2		Q
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Aluminum	10000	9860	98.6	10000	10000	100.0	9850	98.5	
Antimony	1200	1210	100.8	1200	1220	101.7	1200	100.0	
Arsenic	400	388	97.0	400	393	98.3	388	97.0	
Barium	1000	1000	100.0	1000	1020	102.0	1010	101.0	
Beryllium	50	49.8	99.6	50	50.2	100.4	49.7	99.4	
Cadmium	50	50.0	100.0	50	50.3	100.6	49.8	99.6	
Calcium	10000	9860	98.6	10000	9930	99.3	9820	98.2	
Chromium	500	500	100.0	500	504	100.8	499	99.8	
Cobalt	200	198	99.0	200	200	100.0	197	98.5	
Copper	500	498	99.6	500	502	100.4	498	99.6	
Iron	4000	3950	98.8	4000	3980	99.5	3950	98.8	
Lead	500	499	99.8	500	502	100.4	494	98.8	
Magnesium	10000	10100	101.0	10000	10200	102.0	10000	100.0	
Manganese	500	497	99.4	500	502	100.4	495	99.0	
Nickel	500	497	99.4	500	501	100.2	493	98.6	
Potassium	50000	49700	99.4	50000	50100	100.2	49700	99.4	
Selenium	400	395	98.8	400	400	100.0	394	98.5	
Silver	400	401	100.3	400	403	100.8	399	99.8	
Sodium	50000	50600	101.2	50000	51000	102.0	50500	101.0	
Thallium	500	505	101.0	500	509	101.8	502	100.4	
Vanadium	1000	991	99.1	1000	997	99.7	989	98.9	
Zinc	1000	988	98.8	1000	999	99.9	985	98.5	

(1) Control Limits: 90-110%

XEMRON ENVIRONMENTAL SERVICES
FORM 2A - INITIAL AND CONTINUING CALIBRATION VERIFICATION

INSTRUMENT: IRIS - Jarrell Ash
METHOD: 6010B
ANALYST: Jyh
DATE: 4/29/03

UNITS: ug/L

ICV Time: 6:06 PM
CCV1 Time: 7:38 PM
CCV2 Time:

	Initial Calibration Verification			Continuing Calibration Verification CCV1			CCV2		Q
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Aluminum	10000	9860	98.6	10000	9870	98.7			
Antimony	1200	1210	100.8	1200	1210	100.8			
Arsenic	400	388	97.0	400	384	96.0			
Barium	1000	1000	100.0	1000	1010	101.0			
Beryllium	50	49.8	99.6	50	49.6	99.2			
Cadmium	50	50.0	100.0	50	49.4	98.8			
Calcium	10000	9860	98.6	10000	9810	98.1			
Chromium	500	500	100.0	500	497	99.4			
Cobalt	200	198	99.0	200	198	99.0			
Copper	500	498	99.6	500	496	99.2			
Iron	4000	3950	98.8	4000	3880	97.0			
Lead	500	499	99.8	500	491	98.2			
Magnesium	10000	10100	101.0	10000	9940	99.4			
Manganese	500	497	99.4	500	495	99.0			
Nickel	500	497	99.4	500	494	98.8			
Potassium	50000	49700	99.4	50000	49100	98.2			
Selenium	400	395	98.8	400	390	97.5			
Silver	400	401	100.3	400	397	99.3			
Sodium	50000	50600	101.2	50000	49900	99.8			
Thallium	500	505	101.0	500	500	100.0			
Vanadium	1000	991	99.1	1000	978	97.8			
Zinc	1000	988	98.8	1000	985	98.5			

(1) Control Limits: 90-110%

KEMRON ENVIRONMENTAL SERVICES
FORM 3 - BLANKS

INSTRUMENT:	IRIS - Jarrell Ash
METHOD:	6010B
ANALYST:	Jyh
DATE:	4/29/03
UNITS:	ug/L
ICB Time:	6:11 PM
CCB1 Time:	6:28 PM
CCB2 Time:	7:20 PM
CCB3 Time:	7:42 PM

Analyte	Initial Calibration Blank(ug/L)	Continuing Calibration Blank (ug/L) CCB1 1	CCB2 2	CCB3 3
Aluminum	-7.48	-13.8	9.46	-9.23
Antimony	-2.69	-1.44	-4.77	-6.04
Arsenic	-1.26	-2.66	-0.28	-0.21
Barium	0.04	0.17	0.53	0.02
Beryllium	-0.01	0.01	0.01	-0.01
Cadmium	0.47	0.13	0.43	0.3
Calcium	-0.01	-5.06	0.45	12.8
Chromium	-0.03	0.23	0.24	-0.01
Cobalt	0.09	-0.13	0.06	0.23
Copper	-2.04	-0.64	-2.09	-2.74
Iron	4.42	1.54	3.18	-1.91
Lead	2.42	3.44	1.36	-0.3
Magnesium	40.0	18.7	14.5	13.6
Manganese	0.02	0.14	0.09	0.13
Nickel	-0.79	-0.73	-0.31	-0.67
Potassium	31.2	-25.6	137	54.9
Selenium	2.72	1.16	0.69	-3.07
Silver	0.58	1.47	-0.77	-1.87
Sodium	14.2	6.37	22.0	30.6
Thallium	6.65	9.20	7.24	9.16
Vanadium	-0.59	-2.29	-0.91	-1.35
Zinc	-0.07	-0.15	0.22	0.22

J = Result is less than MDL
B = Result is between MDL and RL

KEMRON ENVIRONMENTAL SERVICES
FORM 4A - INTERFERENCE CHECK SAMPLE

INSTRUMENT ID: IRIS - Jarrell Ash
METHOD: 6010B
ANALYST: Jyh
DATE: 4/29/03

UNITS: ug/L

Initial ICSA Time: 6:15 PM
Initial ICSAB Time: 6:19 PM
Final ICSA Time:
Final ICSAB Time:

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R	Q
Aluminum	250000	250000	248000	246000	98.4				
Antimony	0	500	15.9	509	101.8				
Arsenic	0	250	-2.92	238	95.2				
Barium	0	250	-0.14	254	101.6				
Beryllium	0	250	-0.09	247	98.8				
Cadmium	0	500	0.94	468	93.6				
Calcium	250000	250000	237000	235000	94.0				
Chromium	0	250	0.34	230	92.0				
Cobalt	0	250	-7.03	221	88.4				
Copper	0	250	5.29	249	99.6				
Iron	100000	100000	86100	89700	89.7				
Lead	0	500	-19.1	446	89.2				
Magnesium	250000	250000	249000	247000	98.8				
Manganese	0	250	0.83	220	88.0				
Nickel	0	500	-2.90	451	90.2				
Potassium	0	5000	-62.9	4990	99.8				
Selenium	0	250	-0.26	243	97.2				
Silver	0	500	2.04	485	97.0				
Sodium	0	5000	26.4	5140	102.8				
Thallium	0	500	3.25	464	92.8				
Vanadium	0	250	1.71	245	98.0				
Zinc	0	500	-3.02	485	97				

(1) Control Limits: 80-120%

ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Instrument ID: IRIS-Jarrell Ash

Date: January 17, 2003

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	As	Ba
Aluminum	308.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.80	0.0000500	0.0000000	0.0001000	0.0000000	0.0007700	0.0000000
Arsenic	189.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.70	0.0000000	0.0000000	-0.0006000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	-0.0000200	0.0000000	0.0200000	-0.0015000
Calcium	373.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.70	0.0000000	0.0000000	0.0000380	0.0000000	0.0000000	0.0000000
Cobalt	228.60	0.0000000	0.0000000	0.0000100	0.0000000	0.0000000	0.0000000
Copper	324.70	0.0000300	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000400	-0.0023000	0.0000000
Lead	220.30	-0.0003000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lithium	670.80	0.0000000	-0.0000500	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	277.90	0.0000000	0.0000000	0.0000000	0.0000000	-0.2000000	0.0000000
Manganese	257.60	0.0000000	0.0000000	-0.0000580	0.0000190	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	-0.0000200	0.0000000	0.0000000	0.0000000
Potassium	766.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	0.0000400	0.0000000	-0.0005000	0.0000000	0.0000000	0.0000000
Silicon	251.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	-0.0000500	0.0000000	0.0000000	0.0000000
Sodium	589.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	215.20	0.0002150	0.0000290	-0.0005300	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Tin	189.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	-0.0000190	0.0000000	0.0000300	0.0000000	0.0000000
Vanadium	310.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.80	0.0000000	0.0000000	0.0000760	0.0003400	0.0000000	0.0000000

Comments:

ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Instrument ID: IRIS-Jarrell Ash

Date: Jan. 17, 2003

Analyte	Wave-length (nm)	Interelement Correction Factors for: Be	Co	Cr	Cu	Mn	Mo
Aluminum	308.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0018000	0.0202000
Antimony	206.80	0.0000000	0.0000000	0.0160000	0.0000000	0.0000000	0.0004700
Arsenic	189.00	0.0000000	0.0000000	-0.0023000	0.0000000	0.0000000	-0.0006000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000750
Boron	249.70	0.0000000	0.0013800	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	-0.0029000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0016000	0.0000000
Chromium	267.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0013000	0.0000000
Cobalt	228.60	0.0000000	0.0000000	0.0000450	0.0000000	0.0000000	-0.0012000
Copper	324.70	0.0000000	0.0000000	-0.0000890	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0960000	0.0000000	0.0000000	-0.0062000	-0.0080000
Lead	220.30	0.0000000	0.0000000	-0.0010000	0.0000000	0.0000000	-0.0012000
Lithium	670.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	277.90	0.0000000	0.0000000	-0.3400000	0.0000000	0.0013200	0.0160000
Manganese	257.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0083000	0.0001100	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0004300	0.0060000
Silicon	251.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0080000
Silver	328.00	0.0000000	0.0000000	-0.0005800	0.0000000	0.0000900	-0.0002900
Sodium	589.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	215.20	0.0000000	0.0000250	0.0000000	0.0000000	0.0000000	-0.0003000
Thallium	190.80	0.0000000	-0.0015000	-0.0017000	0.0000000	0.0008000	-0.0019000
Tin	189.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0005000	0.0000000	0.0000000	0.0000000
Vanadium	310.20	0.0120000	0.0000000	-0.0006000	0.0000000	0.0000000	0.0000000
Zinc	213.80	0.0000000	-0.0002800	0.0000000	0.0009000	0.0002790	0.0000000

Comments:

KEMRON ENVIRONMENTAL SERVICES

ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Instrument ID: IRIS-Jarrell Ash

Date: Jan. 17, 2003

Analyte	Wave-length (nm)	Interelement Correction Factors for: Ni	Sb	V	Ti	Zn
Aluminum	308.20	0.0000000	0.0000000	0.0300000	0.0013000	0.0000000
Antimony	206.80	-0.0012000	0.0000000	-0.0038000	0.0000000	0.0000000
Arsenic	189.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	-0.0003000	0.0000000	0.0000000
Boron	249.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	-0.0001700	0.0000000	0.0000700	0.0000000	0.0000000
Calcium	373.70	0.0006500	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.70	0.0000000	0.0000000	-0.0025000	0.0000000	0.0000000
Cobalt	228.60	0.0000000	0.0000000	0.0000000	0.0013000	0.0000000
Copper	324.70	0.0000000	0.0000000	-0.0140000	-0.0007000	0.0000000
Iron	271.40	0.0000000	0.0000000	-0.1500000	0.0000000	0.0000000
Lead	220.30	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lithium	670.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	277.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.60	0.0000000	0.0000000	-0.0000750	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	-0.0002470	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	251.60	0.0000000	0.0000000	0.0000000	0.0066470	0.0000000
Silver	328.00	0.0000000	0.0000000	-0.0300000	0.0010000	0.0000000
Sodium	589.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	215.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	-0.0220000	-0.0011000	0.0000000
Tin	189.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	310.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.80	0.0053000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

)1-IN
ICP-AES AND ICP-MS LINEAR RANGES (QUARTERLY)

Instrument ID: IRIS-Jarrel Ash

Date: 1/30/03

Analyte	Integ. Time (Sec.)	Concentration (ug/L)
Aluminum	15.00	1000000.0
Antimony	55.00	50000.0
Arsenic	55.00	100000.0
Barium	15.00	20000.0
Beryllium	15.00	5000.0
Boron	15.00	100000.0
Cadmium	55.00	30000.0
Calcium	15.00	1000000.0
Chromium	55.00	100000.0
Cobalt	55.00	100000.0
Copper	15.00	50000.0
Iron	55.00	1000000.0
Lead	55.00	200000.0
Lithium		15000.0
Magnesium	55.00	1000000.0
Manganese	55.00	40000.0
Molybdenum		30000.0
Nickel	55.00	100000.0
Potassium	15.00	400000.0
Selenium	55.00	20000.0
Silicon		50000.0
Silver	15.00	10000.0
Sodium	15.00	400000.0
Strontium		30000.0
Thallium	55.00	20000.0
Tin		30000.0
Titanium		30000.0
Vanadium	15.00	100000.0
Zinc	55.00	40000.0

Comments:

Method: CLP5 Sample Name: S0 Operator:

Comment:

Run Time: 04/29/03 17:39 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.11084	.39487	-.00062	.54621	.17838
Stddev	.01957	.01967	.01134	.01698	.09549
%RSD	17.660	4.9805	1839.4	3.1095	53.534
#1	.09700	.40878	-.00864	.55822	.11086
#2	.12468	.38097	.00740	.53420	.24590

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.28403	.34810	.49270	.05551	-1.2170
Stddev	.03924	.09056	.00979	.03140	.0357
%RSD	13.816	26.014	1.9873	56.569	2.9341
#1	.31178	.28407	.49962	.07772	-1.2423
#2	.25629	.41214	.48577	.03331	-1.1918

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.21130	.20110	-1.2018	6.2366	-.28749
Stddev	.04413	.01832	.1524	.1775	.02444
%RSD	20.884	9.1089	12.684	2.8463	8.5012
	.24250	.21405	-1.0940	6.3622	-.27021
	.18010	.18815	-1.3096	6.1111	-.30478

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.09715	.04164	1.2241	.90983	.10455
Stddev	.01265	.01875	.2092	.03406	.04230
%RSD	13.017	45.040	17.090	3.7440	40.463
#1	-.10609	.05490	1.0762	.88574	.13447
#2	-.08821	.02838	1.3721	.93392	.07464

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.36825	.00617	.16439	-.05613	-.02714
Stddev	.01485	.02355	.06062	.04100	.00698
%RSD	4.0314	381.87	36.876	73.038	25.718
#1	.35775	.02282	.20725	-.08512	-.02221
#2	.37875	-.01049	.12152	-.02714	-.03208

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.61309	-.05428	3.9106	.10980
Stddev	.00479	.00698	.1022	.01134
%RSD	.78050	12.861	2.6121	10.324
	.60971	-.04935	3.8384	.11781
	.61647	-.05922	3.9828	.10178

Method: CLP5 Sample Name: S1 Operator:
Comment:
Run Time: 04/29/03 17:43 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Al3082	B_2496	Ba4554	Be3130	Ca3736
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.43456	4.7999	4.5949	2.2057	2.3390
Stddev	.00236	.0100	.0205	.1220	.0314
%RSD	.54421	.20744	.44568	5.5310	1.3414
#1	.43289	4.8069	4.6094	2.1194	2.3168
#2	.43624	4.7929	4.5805	2.2920	2.3612

Elem	Cr2677	Fe2714	K_7664	Li6707	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.36023	.65943	3.0345	10.775	6.5215
Stddev	.08898	.05759	.0937	.555	.0108
%RSD	24.700	8.7329	3.0878	5.1553	.16565
#1	-.42315	.61871	2.9682	11.168	6.5291
#2	-.29732	.70015	3.1007	10.382	6.5139

Elem	Mo2020	Na5895	Sb2068	Si2516	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.32075	27.044	.43549	1.0560	.10918
Stddev	.00610	.624	.00175	.0218	.01308
%RSD	1.9023	2.3070	.40230	2.0637	11.983
#1	.32507	27.485	.43425	1.0714	.11843
#2	.31644	26.603	.43672	1.0406	.09993

Elem	Sr2152	Ti3349	V_3102	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.30009	3.1129	4.8616	1.6824
Stddev	.00655	.1022	.0303	.0074
%RSD	2.1818	3.2842	.62367	.44227
#1	.29546	3.0406	4.8830	1.6772
#2	.30472	3.1852	4.8401	1.6877

Method: CLP5 Sample Name: S2 Operator:

Comment:

Run Time: 04/29/03 17:47 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	A13082	Ag3280	As1890	B 2496	Ba4554
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.73754	.90719	.06846	9.0396	9.1309
Stddev	.04913	.05856	.00785	.0390	.1391
%RSD	6.6614	6.4551	11.464	.43107	1.5238
#1	.70280	.94860	.07401	9.0672	9.0325
#2	.77228	.86578	.06291	9.0121	9.2292

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.4286	4.0253	.68972	.57824	.45827
Stddev	.0235	.0163	.00979	.01176	.10379
%RSD	.53063	.40361	1.4197	2.0334	22.647
#1	4.4453	4.0367	.69665	.58655	.53166
#2	4.4120	4.0138	.68280	.56992	.38488

Elem	Cu3247	Fe2714	K 7664	Li6707	Mg2779
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.67172	1.0119	6.8943	15.447	.50207
Stddev	.15655	.0179	.4769	.781	.01458
%RSD	23.306	1.7647	6.9167	5.0530	2.9036
	.78242	1.0245	6.5571	15.999	.51238
	.56103	.99926	7.2315	14.895	.49177

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	13.178	.57299	52.399	1.7591	.28465
Stddev	.024	.00612	.113	.0017	.02836
%RSD	.18518	1.0687	.21510	.09615	9.9624
#1	13.161	.56867	52.479	1.7603	.26460
#2	13.195	.57732	52.319	1.7579	.30470

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.47986	.04996	1.9648	.26892	.61154
Stddev	.03313	.00523	.0353	.00871	.02309
%RSD	6.9044	10.478	1.7949	3.2406	3.7764
#1	.50329	.04626	1.9897	.27508	.62787
#2	.45643	.05366	1.9398	.26276	.59521

Elem	Ti3349	V 3102	Zn2138
Units	Cts/S	Cts/S	Cts/S
Avg	5.4432	6.1668	3.2264
Stddev	.0282	.1406	.0025
%RSD	.51761	2.2805	.07794
	5.4631	6.2663	3.2282
	5.4233	6.0674	3.2246

Method: CLP5 Sample Name: S3 Operator:
Comment:
Run Time: 04/29/03 17:52 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	15.152	13.331	1.7397	222.08	226.78
Stddev	.082	.229	.0262	1.21	.77
%RSD	.54079	1.7175	1.5035	.54532	.34124
#1	15.094	13.169	1.7582	221.22	226.23
#2	15.210	13.493	1.7212	222.93	227.32

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	105.40	92.658	4.0517	13.014	41.877
Stddev	.13	.472	.0530	.084	.164
%RSD	.12459	.50929	1.3071	.64455	.39059
#1	105.50	92.324	4.0891	12.955	41.762
#2	105.31	92.992	4.0142	13.074	41.993

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	18.381	22.374	213.20	249.71	18.302
Stddev	.021	.079	3.36	.36	.114
%RSD	.11502	.35390	1.5766	.14372	.62371
#1	18.396	22.318	210.82	249.46	18.383
#2	18.366	22.430	215.57	249.97	18.221

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	345.16	14.630	1317.7	24.439	4.7206
Stddev	1.20	.094	11.1	.132	.0245
%RSD	.34667	.64206	.83977	.54008	.51850
#1	344.31	14.564	1309.8	24.345	4.7033
#2	346.00	14.697	1325.5	24.532	4.7379

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.1499	1.1252	49.397	8.7792	16.426
Stddev	.0253	.0052	.147	.0324	.047
%RSD	.61066	.46415	.29685	.36870	.28517
#1	4.1320	1.1289	49.293	8.7563	16.393
#2	4.1679	1.1215	49.500	8.8021	16.459

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	132.00	1.3415	61.386	78.684
Stddev	.14	.0100	.098	.235
%RSD	.10650	.74889	.15899	.29822
#1	131.90	1.3344	61.317	78.518
#2	132.10	1.3486	61.455	78.850

Method: CLP5 Sample Name: S4 Operator:

mment:

Time: 04/29/03 17:56 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	30.845	26.661	3.5188	447.41	464.20
Stddev	.298	.543	.0139	.91	.99
%RSD	.96614	2.0357	.39581	.20402	.21334
#1	30.634	26.277	3.5287	446.76	463.50
#2	31.055	27.045	3.5090	448.05	464.90

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	214.34	190.09	7.6508	25.880	86.739
Stddev	.73	.83	.1021	.108	.007
%RSD	.33854	.43858	1.3351	.41552	.00862
#1	213.83	189.50	7.5786	25.804	86.733
#2	214.85	190.67	7.7230	25.956	86.744

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	37.125	44.897	433.95	502.69	37.741
Stddev	.621	.354	.20	3.55	.210
%RSD	1.6724	.78903	.04510	.70646	.55590
	36.686	45.147	433.81	500.18	37.593
	37.564	44.646	434.08	505.20	37.889

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	694.28	29.963	2634.0	47.555	9.2495
Stddev	1.08	.080	2.8	.191	.0239
%RSD	.15620	.26731	.10513	.40267	.25850
#1	693.51	29.906	2636.0	47.420	9.2664
#2	695.04	30.019	2632.1	47.690	9.2326

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7.9673	2.2563	99.604	17.730	32.554
Stddev	.0306	.0039	.008	.048	.205
%RSD	.38415	.17312	.00790	.27152	.62936
#1	7.9456	2.2591	99.598	17.696	32.409
#2	7.9889	2.2536	99.609	17.764	32.698

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	272.44	2.6835	121.22	158.11
Stddev	8.59	.0340	.37	.09
%RSD	3.1522	1.2688	.30922	.05634
	278.51	2.6594	120.95	158.05
	266.37	2.7076	121.48	158.17

Method: CLP5 Sample Name: S5 Operator:
Comment:
Run Time: 04/29/03 18:01 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	60.978	52.159	7.0605	883.01	917.91
Stddev	.117	.187	.0095	.05	.03
%RSD	.19105	.35896	.13463	.00580	.00326
#1	60.895	52.027	7.0672	882.97	917.89
#2	61.060	52.292	7.0538	883.05	917.93

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	419.50	378.85	14.820	51.195	173.42
Stddev	.65	.83	.014	.007	.14
%RSD	.15446	.21946	.09143	.01407	.08150
#1	419.04	378.26	14.830	51.190	173.52
#2	419.95	379.44	14.810	51.201	173.32

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	73.343	89.435	857.20	1002.8	74.665
Stddev	.354	.004	.76	8.1	.432
%RSD	.48285	.00458	.08863	.80809	.57922
#1	73.092	89.438	857.74	997.12	74.359
#2	73.593	89.432	856.67	1008.6	74.970

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1372.1	58.704	5146.2	95.047	18.229
Stddev	2.0	.021	2.4	.084	.001
%RSD	.14702	.03661	.04627	.08868	.00607
#1	1373.5	58.719	5147.9	95.106	18.228
#2	1370.7	58.689	5144.5	94.987	18.230

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	15.453	4.4269	197.65	35.137	64.624
Stddev	.041	.0392	.27	.061	.017
%RSD	.26406	.88555	.13798	.17500	.02639
#1	15.482	4.4546	197.84	35.181	64.636
#2	15.424	4.3992	197.46	35.094	64.612

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	531.80	5.3051	242.17	315.21
Stddev	.73	.0073	.93	.53
%RSD	.13680	.13848	.38234	.16687
#1	531.29	5.3103	241.52	315.58
#2	532.31	5.2999	242.83	314.83

El Name	Slope	Y-int	Correlation	Date Stdized
Al3082	3.0633	0.1111	0.9999698	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	-8.2256e-050		0	0.11084
S1	0.1	0.1056	0.0056	5.6	0.43456
S2	0.2	0.2045	0.0045	2.25	0.73754
S3	5	4.91	-0.09	-1.8	15.152
S4	10	10.033	0.033	0.33	30.845
S5	20	19.87	-0.13	-0.651	60.978

El Name	Slope	Y-int	Correlation	Date Stdized
Ag3280	70.1130	0.3948	0.9999770	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	8.956e-07	0	0	0.39487
S2	0.008	0.007308	-0.000692	-8.65	0.90719
S3	0.2	0.1845	-0.0155	-7.75	13.331
S4	0.4	0.37463	-0.0254	-6.34	26.661
S5	0.8	0.7383	-0.0617	-7.71	52.159

El Name	Slope	Y-int	Correlation	Date Stdized
As1890	8.8191	-0.0006	0.9999875	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
	0	2.1309e-060		0	-0.00061655
	0.008	0.0078351	-0.000165	-2.06	0.068463
S3	0.2	0.19733	-0.00267	-1.33	1.7397
S4	0.4	0.39907	-0.000929	-0.232	3.5188
S5	0.8	0.80066	0.000662	0.0828	7.0605

El Name	Slope	Y-int	Correlation	Date Stdized
B_2496	44.2992	0.5429	0.9999777	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	7.4588e-050		0	0.54621
S1	0.1	0.096097	-0.0039	-3.9	4.7999
S2	0.2	0.1918	-0.0082	-4.1	9.0396
S3	5	5.0009	0.00087	0.0174	222.08
S4	10	10.087	0.0874	0.874	447.41
S5	20	19.921	-0.0794	-0.397	883.01

El Name	Slope	Y-int	Correlation	Date Stdized
Ba4554	459.4161	0.1753	0.9999685	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	6.7991e-060		0	0.17838
S1	0.01	0.0096202	-0.00038	-3.8	4.5949
S2	0.02	0.019493	-0.000507	-2.53	9.1309
S3	0.5	0.49324	-0.00676	-1.35	226.78
	1	1.01	0.01	1	464.2
	2	1.9976	-0.00238	-0.119	917.91

El Name	Slope	Y-int	Correlation	Date Stdized
Be3130	4249.7969	0.2819	0.9999450	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	4.9092e-070		0	0.28403
S1	0.0005	0.00045267	-4.73e-05	-9.47	2.2057
S2	0.001	0.00097574	-2.43e-05	-2.43	4.4286
S3	0.025	0.024736	-0.000264	-1.06	105.4
S4	0.05	0.050369	0.000369	0.737	214.34
S5	0.1	0.098643	-0.00136	-1.36	419.5

El Name	Slope	Y-int	Correlation	Date Stdized
Ca3736	18.8709	0.3484	0.9999540	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	-1.5207e-050		0	0.3481
S1	0.1	0.10549	0.00549	5.49	2.339
S2	0.2	0.19484	-0.00516	-2.58	4.0253
S3	5	4.8916	-0.108	-2.17	92.658
S4	10	10.054	0.0545	0.545	190.09
S5	20	20.058	0.0575	0.288	378.85

El Name	Slope	Y-int	Correlation	Date Stdized
Cd2288	139.8181	0.4932	0.9996020	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	-3.6937e-060		0	0.4927
S2	0.001	0.0014055	0.000405	40.5	0.68972
S3	0.025	0.025451	0.000451	1.8	4.0517
S4	0.05	0.051192	0.00119	2.38	7.6508
S5	0.1	0.10247	0.00247	2.47	14.82

El Name	Slope	Y-int	Correlation	Date Stdized
Co2286	130.5346	0.0556	0.9999835	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	-1.0147e-060		0	0.055513
S2	0.004	0.0040035	3.47e-06	0.0868	0.57824
S3	0.1	0.099273	-0.000727	-0.727	13.014
S4	0.2	0.19784	-0.00216	-1.08	25.88
S5	0.4	0.39177	-0.00823	-2.06	51.195

El Name	Slope	Y-int	Correlation	Date Stdized
Cr2677	175.2260	-1.2176	0.9999754	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	3.1873e-060		0	-1.217
S1	0.005	0.0048928	-0.000107	-2.14	-0.36023
S2	0.01	0.0095639	-0.000436	-4.36	0.45827
S3	0.25	0.24594	-0.00406	-1.62	41.877
S4	0.5	0.50196	0.00196	0.392	86.739
S5	1	0.99665	-0.00335	-0.335	173.42

El Name	Slope	Y-int	Correlation	Date Stdized
3247	75.3402	0.2086	0.9995982	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	3.5178e-050		0	0.2113
S2	0.01	0.0061465	-0.00385	-38.5	0.67172
S3	0.25	0.24121	-0.00879	-3.52	18.381
S4	0.5	0.49	-0.01	-2	37.125
S5	1	0.97072	-0.0293	-2.93	73.343

El Name	Slope	Y-int	Correlation	Date Stdized
Fe2714	11.6061	0.2008	0.9999726	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	2.4476e-050		0	0.2011
S1	0.04	0.039514	-0.000486	-1.21	0.65943
S2	0.08	0.069883	-0.0101	-12.6	1.0119
S3	2	1.9105	-0.0895	-4.47	22.374
S4	4	3.8511	-0.149	-3.72	44.897
S5	8	7.6886	-0.311	-3.89	89.435

El Name	Slope	Y-int	Correlation	Date Stdized
K_7664	8.6136	-1.2049	0.9999695	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
	0	0.000363820		0	-1.2018
	0.5	0.49218	-0.00782	-1.56	3.0345
S2	1	0.94029	-0.0597	-5.97	6.8943
S3	25	24.891	-0.109	-0.436	213.2
S4	50	50.519	0.519	1.04	433.95
S5	100	99.657	-0.343	-0.343	857.2

El Name	Slope	Y-int	Correlation	Date Stdized
Li6707	496.0941	6.2284	0.9999459	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	1.6501e-050		0	6.2366
S1	0.01	0.0091651	-0.000835	-8.35	10.775
S2	0.02	0.018583	-0.00142	-7.08	15.447
S3	0.5	0.4908	-0.0092	-1.84	249.71
S4	1	1.0007	0.000747	0.0747	502.69
S5	2	2.0089	0.00894	0.447	1002.8

El Name	Slope	Y-int	Correlation	Date Stdized
Mg2779	3.7845	-0.2871	0.9999625	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	-9.1741e-050		0	-0.28749
S2	0.2	0.20854	0.00854	4.27	0.50207
S3	5	4.9118	-0.0882	-1.76	18.302
	10	10.048	0.0483	0.483	37.741
	20	19.805	-0.195	-0.976	74.665

El Name	Slope	Y-int	Correlation	Date Stdized
Mn2576	1378.0828	-0.1018	0.9999802	04/29/03 18:04:11

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	3.3975e-060		0	-0.097149
S1	0.005	0.0048062	-0.000194	-3.88	6.5215
S2	0.01	0.0096364	-0.000364	-3.64	13.178
S3	0.25	0.25054	0.000536	0.214	345.16
S4	0.5	0.50387	0.00387	0.775	694.28
S5	1	0.99574	-0.00426	-0.426	1372.1

El Name	Slope	Y-int	Correlation	Date Stdized
Mo2020	29.4546	0.0412	0.9999224	04/29/03 18:04:11

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	1.4637e-050		0	0.041636
S1	0.01	0.0094909	-0.000509	-5.09	0.32075
S2	0.02	0.018055	-0.00195	-9.73	0.57299
S3	0.5	0.49531	-0.00469	-0.939	14.63
S4	1	1.0158	0.0158	1.58	29.963
S5	2	1.9916	-0.00837	-0.419	58.704

El Name	Slope	Y-int	Correlation	Date Stdized
Na5895	51.9616	1.2230	0.9999337	04/29/03 18:04:11

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	2.173e-05	0	0	1.2241
S1	0.5	0.49693	-0.00307	-0.615	27.044
S2	1	0.98488	-0.0151	-1.51	52.399
S3	25	25.335	0.335	1.34	1317.7
S4	50	50.669	0.669	1.34	2634
S5	100	99.015	-0.985	-0.985	5146.2

El Name	Slope	Y-int	Correlation	Date Stdized
Ni2316	93.7761	0.9090	0.9999663	04/29/03 18:04:11

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	9.3949e-060		0	0.90983
S2	0.01	0.0090655	-0.000935	-9.35	1.7591
S3	0.25	0.25092	0.000915	0.366	24.439
S4	0.5	0.49742	-0.00258	-0.516	47.555
S5	1	1.0039	0.00386	0.386	95.047

El Name	Slope	Y-int	Correlation	Date Stdized
Pb2203	18.3585	0.1046	0.9999769	04/29/03 18:04:11

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	-6.3716e-080		0	0.10455
S2	0.01	0.0098098	-0.00019	-1.9	0.28465
S3	0.25	0.25144	0.00144	0.575	4.7206
S4	0.5	0.49813	-0.00187	-0.374	9.2495
S5	1	0.98725	-0.0128	-1.28	18.229

El Name	Slope	Y-int	Correlation	Date Stdized
Pb2068	6.2892	0.3680	0.9997852	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	4.289e-05	0	0	0.36825
S1	0.012	0.010734	-0.00127	-10.6	0.43549
S2	0.024	0.017789	-0.00621	-25.9	0.47986
S3	0.6	0.60134	0.00134	0.224	4.1499
S4	1.2	1.2083	0.00831	0.693	7.9673
S5	2.4	2.3985	-0.00146	-0.0609	15.453

El Name	Slope	Y-int	Correlation	Date Stdized
Se1960	5.3316	0.0062	0.9999664	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S2	0.008	0.0082141	0.000214	2.68	0.04996
S3	0.2	0.20989	0.00989	4.95	1.1252
S4	0.4	0.42204	0.022	5.51	2.2563
S0	0	5.1015e-070		0	0.0061677
S5	0.8	0.82916	0.0292	3.64	4.4269

El Name	Slope	Y-int	Correlation	Date Stdized
Si2516	19.7076	0.1626	0.9999578	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
	0	9.1469e-050		0	0.16439
	0.05	0.045335	-0.00467	-9.33	1.056
S2	0.1	0.091447	-0.00855	-8.55	1.9648
S3	2.5	2.4982	-0.00177	-0.0707	49.397
S4	5	5.0458	0.0458	0.917	99.604
S5	10	10.021	0.0209	0.209	197.65

El Name	Slope	Y-int	Correlation	Date Stdized
Sn1899	17.6506	-0.0564	0.9999656	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	1.3479e-050		0	-0.056131
S1	0.01	0.0093792	-0.000621	-6.21	0.10918
S2	0.02	0.018429	-0.00157	-7.85	0.26892
S3	0.5	0.50058	0.000582	0.116	8.7792
S4	1	1.0077	0.00771	0.771	17.73
S5	2	1.9939	-0.0061	-0.305	35.137

El Name	Slope	Y-int	Correlation	Date Stdized
Sr2152	32.5378	-0.0271	0.9999791	04/29/03 18:04:11

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	-2.1839e-070		0	-0.027141
S1	0.01	0.010057	5.67e-05	0.567	0.30009
S2	0.02	0.019629	-0.000371	-1.86	0.61154
	0.5	0.50566	0.00566	1.13	16.426
	1	1.0013	0.00132	0.132	32.554
S5	2	1.9869	-0.0131	-0.653	64.624

El Name	Slope	Y-int	Correlation	Date Stdized
Ti3349	267.4680	0.6089	0.9998971	04/29/03 18:04:11

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	1.5555e-050		0	0.61309
S1	0.01	0.0093618	-0.000638	-6.38	3.1129
S2	0.02	0.018074	-0.00193	-9.63	5.4432
S3	0.5	0.49125	-0.00875	-1.75	132
S4	1	1.0163	0.0163	1.63	272.44
S5	2	1.986	-0.014	-0.7	531.8

El Name	Slope	Y-int	Correlation	Date Stdized
T11908	5.7283	-0.0539	0.9998842	04/29/03 18:04:11

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	-6.2727e-050		0	-0.054282
S3	0.25	0.2436	-0.0064	-2.56	1.3415
S4	0.5	0.47788	-0.0221	-4.42	2.6835
S5	1	0.93553	-0.0645	-6.45	5.3051

El Name	Slope	Y-int	Correlation	Date Stdized
V_3102	117.9434	3.9076	0.9998638	04/29/03 18:04:11

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	2.5317e-050		0	3.9106
S1	0.01	0.0080881	-0.00191	-19.1	4.8616
S2	0.02	0.019155	-0.000845	-4.22	6.1668
S3	0.5	0.48733	-0.0127	-2.53	61.386
S4	1	0.99462	-0.00538	-0.538	121.22
S5	2	2.0202	0.0202	1.01	242.17

El Name	Slope	Y-int	Correlation	Date Stdized
Zn2138	157.0006	0.1096	0.9999981	04/29/03 18:04:11

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	1.0772e-060		0	0.1098
S1	0.01	0.010018	1.77e-05	0.177	1.6824
S2	0.02	0.019852	-0.000148	-0.74	3.2264
S3	0.5	0.50047	0.000472	0.0944	78.684
S4	1	1.0064	0.00637	0.637	158.11
S5	2	2.007	0.00698	0.349	315.21

Method: CLP5 Sample Name: ICV Operator:
Comment:
Run Time: 04/29/03 18:06 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.8606	.40128	.38786	9.6274	1.0049
Stddev	.0249	.00253	.00624	.0262	.0008
%RSD	.25198	.63079	1.6094	.27186	.08080
#1	9.8430	.39949	.38344	9.6089	1.0055
#2	9.8782	.40307	.39227	9.6459	1.0043
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	.40000	.40000	10.000	1.0000
Range	5.0000%	5.0000%	5.0000%	5.0000%	5.0000%

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04982	9.8602	.05004	.19801	.49986
Stddev	.00003	.0207	.00042	.00125	.00098
%RSD	.05749	.21002	.84853	.63000	.19606
#1	.04980	9.8456	.04974	.19713	.49917
#2	.04984	9.8749	.05034	.19889	.50056
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.05000	10.000	.05000	.20000	.50000
Range	5.0000%	5.0000%	5.0000%	5.0000%	5.0000%

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49780	3.9497	49.748	.98983	10.131
Stddev	.00075	.0226	.125	.00285	.015
%RSD	.15142	.57150	.25054	.28832	.14902
#1	.49727	3.9657	49.660	.98781	10.120
#2	.49834	3.9338	49.836	.99184	10.142
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	4.0000	50.000	1.0000	10.000
Range	5.0000%	5.0000%	5.0000%	5.0000%	5.0000%

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49652	.99946	50.573	.49698	.49886
Stddev	.00077	.00407	.186	.00074	.00563
%RSD	.15413	.40742	.36690	.14915	1.1277
#1	.49597	.99658	50.442	.49645	.49489
#2	.49706	1.0023	50.704	.49750	.50284
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	1.0000	50.000	.50000	.50000
Range	5.0000%	5.0000%	5.0000%	5.0000%	5.0000%

Sample Name: ICV Run Time: 04/29/03 18:06

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.2137	.39510	Q -.01105	1.0025	.99310
Stddev	.0062	.00070	.00138	.0050	.00386
%RSD	.50740	.17794	12.482	.49444	.38880
#1	1.2093	.39560	-.01008	.99901	.99037
#2	1.2181	.39460	-.01203	1.0060	.99583
Check ?	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass
Value	1.2000	.40000	5.0000	1.0000	1.0000
Range	5.0000%	5.0000%	5.0000%	5.0000%	5.0000%

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.95912	.50505	.99111	.98809
Stddev	.00044	.00190	.00294	.00208
%RSD	.04538	.37651	.29701	.21101
#1	.95943	.50640	.98903	.98661
#2	.95882	.50371	.99319	.98956
Check ?	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.50000	1.0000	1.0000
Range	5.0000%	5.0000%	5.0000%	5.0000%

Method: CLP5 Sample Name: CCB Operator:
Comment:
n Time: 04/29/03 18:11 Type: Blank Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00748	.00058	-.00126	.02620	.00004
Stddev	.00407	.00018	.00128	.00374	.00006
%RSD	54.407	30.651	101.91	14.284	131.87
#1	-.00460	.00070	-.00217	.02885	.00000
#2	-.01035	.00045	-.00035	.02356	.00009
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.20000	.00500	.01000	.05000	.00250
Low Limit	-.20000	-.00500	-.01000	-.05000	-.00250

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	-.00001	.00047	.00009	-.00003
Stddev	.00002	.00740	.00032	.00001	.00008
%RSD	162.60	52387.	67.331	10.100	311.79
#1	-.00002	-.00525	.00070	.00008	-.00008
#2	.00000	.00522	.00025	.00010	.00003
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00025	.05000	.00100	.00250	.00250
Low Limit	-.00025	-.05000	-.00100	-.00250	-.00250

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00204	.00442	.03125	-.00024	.03999
Stddev	.00050	.00278	.01353	.00005	.00668
%RSD	24.613	62.942	43.278	19.882	16.697
#1	-.00240	.00639	.02169	-.00021	.03527
#2	-.00169	.00245	.04082	-.00028	.04471
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01000	.02000	.25000	.05000	.10000
Low Limit	-.01000	-.02000	-.25000	-.05000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00020	.01425	-.00079	.00242
Stddev	.00002	.00070	.00402	.00037	.00002
%RSD	113.19	343.18	28.227	47.237	.91445
#1	.00000	.00070	.01709	-.00105	.00240
#2	.00004	-.00029	.01140	-.00052	.00243
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00250	.05000	.10000	.01000	.01000
Low Limit	-.00250	-.05000	-.10000	-.01000	-.01000

Sample Name: CCB Run Time: 04/29/03 18:11

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00269	.00272	.00014	.00190	.00095
Stddev	.00404	.00090	.00129	.00074	.00069
%RSD	150.08	32.929	943.97	38.999	73.117
#1	.00016	.00335	-.00078	.00242	.00046
#2	-.00554	.00209	.00105	.00138	.00144
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.02000	.01000	.25000	.20000	.00500
Low Limit	-.02000	-.01000	-.25000	-.20000	-.00500

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	-.00006	.00665	-.00059	-.00007
Stddev	.00024	.00468	.00124	.00006
%RSD	379.13	70.305	210.26	85.096
#1	.00011	.00996	.00029	-.00003
#2	-.00023	.00335	-.00147	-.00011
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01500	.02000	.00728	.01000
Low Limit	-.01500	-.02000	-.00728	-.01000

Method: CLP5 Sample Name: ICSA Operator:
Comment:
Time: 04/29/03 18:15 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	247.88	.00204	-.00292	.03872	-.00014
Stddev	.16	.00045	.00038	.00138	.00055
%RSD	.06356	21.870	12.911	3.5535	401.31
#1	247.99	.00236	-.00319	.03969	.00025
#2	247.77	.00172	-.00266	.03775	-.00052
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	250.00	.00000	.00000	.00000	.00000
Range	±50.000	±.01600	±.04000	±.20000	±.02000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	237.11	.00094	-.00703	.00034
Stddev	.00001	.40	.00049	.00037	.00036
%RSD	9.8933	.16943	52.316	5.2989	105.83
#1	-.00009	236.82	.00129	-.00730	.00009
#2	-.00008	237.39	.00059	-.00677	.00060
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	250.00	.00000	.00000	.00000
Range	±.00100	±50.000	±.00400	±.01000	±.01000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00529	86.147	-.06291	.02011	248.22
Stddev	.00034	.072	.02286	.00026	.92
%RSD	6.5117	.08407	36.336	1.2747	.36964
#1	.00505	86.096	-.04674	.02030	247.57
#2	.00554	86.199	-.07907	.01993	248.87
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	100.00	.00000	.00000	250.00
Range	±.01000	±20.000	±1.0000	±.20000	±50.000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00083	-.00038	.02642	-.00290	-.01909
Stddev	.00002	.00064	.00656	.00036	.00092
%RSD	2.6141	166.95	24.841	12.234	4.8039
#1	.00084	-.00083	.02178	-.00315	-.01974
#2	.00081	.00007	.03107	-.00265	-.01845
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000
Range	±.01000	±.20000	±1.0000	±.04000	±.04000

Sample Name: ICSA Run Time: 04/29/03 18:15

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01505	-.00026	.18070	-.00397	.00332
Stddev	.00029	.00091	.00002	.00124	.00256
%RSD	1.9534	347.09	.01201	31.123	77.120
#1	.01526	-.00090	.18069	-.00310	.00512
#2	.01484	.00038	.18072	-.00485	.00151
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000
Range	±.04000	±.04000	±1.0000	±1.0000	±.02000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.00266	.00325	.00171	-.00302
Stddev	.00056	.00689	.00140	.00019
%RSD	21.046	212.13	82.015	6.1867
#1	.00227	-.00162	.00072	-.00315
#2	.00306	.00812	.00270	-.00289
Check ?	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000
Range	±.06000	±.08000	±.02000	±.02000

Method: CLP5 Sample Name: ICSAB Operator:
Comment:
n Time: 04/29/03 18:19 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	245.88	.48491	.23802	.02317	.25368
Stddev	.12	.00005	.00752	.00029	.00014
%RSD	.04807	.01076	3.1588	1.2688	.05591
#1	245.79	.48487	.23271	.02337	.25358
#2	245.96	.48494	.24334	.02296	.25378
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	250.00	.50000	.25000	.00000	.25000
Range	±50.000	±.10000	±.05000	±.20000	±.05000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.24663	234.70	.46781	.22067	.23038
Stddev	.00018	.62	.00034	.00063	.00044
%RSD	.07428	.26348	.07162	.28742	.19305
#1	.24676	234.26	.46757	.22022	.23007
#2	.24651	235.14	.46805	.22112	.23070
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.25000	250.00	.50000	.25000	.25000
nge	±.05000	±50.000	±.10000	±.05000	±.05000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.24937	89.660	4.9851	.02011	246.60
Stddev	.00202	.073	.0394	.00061	.01
%RSD	.81063	.08149	.79051	3.0488	.00336
#1	.25080	89.608	5.0129	.01968	246.60
#2	.24794	89.712	4.9572	.02054	246.61
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.25000	100.00	5.0000	.00000	250.00
Range	±.05000	±20.000	±1.0000	±.20000	±50.000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21958	.00337	5.1445	.45076	.44575
Stddev	.00052	.00004	.0001	.00047	.00168
%RSD	.23638	1.3214	.00268	.10365	.37747
#1	.21922	.00340	5.1446	.45109	.44694
#2	.21995	.00333	5.1444	.45043	.44456
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.25000	.00000	5.0000	.50000	.50000
Range	±.05000	±.20000	±1.0000	±.10000	±.10000

Sample Name: ICSAB Run Time: 04/29/03 18:19

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50860	.24318	.02097	-.00474	.00727
Stddev	.00334	.00014	.00146	.00005	.00035
%RSD	.65668	.05937	6.9663	1.0442	4.7838
#1	.51097	.24328	.02200	-.00471	.00702
#2	.50624	.24308	.01994	-.00478	.00751
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	.25000	.00000	.00000	.00000
Range	±.10000	±.05000	±1.0000	±1.0000	±.02000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.00338	.46398	.24487	.48501
Stddev	.00009	.00052	.00082	.00021
%RSD	2.7523	.11161	.33408	.04260
#1	.00331	.46361	.24544	.48516
#2	.00345	.46434	.24429	.48487
Check ?	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.50000	.25000	.50000
Range	±.06000	±.10000	±.05000	±.10000

Method: CLP5 Sample Name: CCV Operator:

Comment:

Run Time: 04/29/03 18:24 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.9993	.40286	.39297	9.7100	1.0187
Stddev	.0058	.00184	.00237	.0128	.0044
%RSD	.05831	.45602	.60285	.13157	.42853
#1	10.003	.40156	.39130	9.7010	1.0157
#2	9.9952	.40416	.39465	9.7191	1.0218
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	.40000	.40000	10.000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05025	9.9280	.05034	.19975	.50432
Stddev	.00023	.0357	.00025	.00046	.00008
%RSD	.46716	.35926	.49858	.23233	.01662
#1	.05008	9.9028	.05052	.19942	.50426
#2	.05042	9.9532	.05016	.20008	.50438
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.05000	10.000	.05000	.20000	.50000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50229	3.9781	50.110	1.0015	10.190
Stddev	.00365	.0308	.154	.0055	.027
%RSD	.72658	.77519	.30796	.55129	.26613
#1	.49971	3.9999	50.000	.99755	10.171
#2	.50487	3.9563	50.219	1.0054	10.209
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	4.0000	50.000	1.0000	10.000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50173	1.0108	51.044	.50142	.50207
Stddev	.00052	.0017	.136	.00034	.00104
%RSD	.10349	.17243	.26632	.06748	.20781
#1	.50136	1.0096	50.948	.50118	.50133
#2	.50209	1.0121	51.140	.50166	.50281
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	1.0000	50.000	.50000	.50000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Sample Name: CCV Run Time: 04/29/03 18:24

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.2211	.40046	Q -.01297	1.0110	.99623
Stddev	.0039	.00522	.00245	.0010	.00621
%RSD	.31592	1.3045	18.926	.09715	.62329
#1	1.2239	.39677	-.01123	1.0103	.99184
#2	1.2184	.40416	-.01470	1.0117	1.0006
Check ?	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass
Value	1.2000	.40000	5.0000	1.0000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Ti3349	T11908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.96510	.50910	.99699	.99876
Stddev	.00419	.00487	.00669	.00059
%RSD	.43365	.95675	.67095	.05943
#1	.96214	.50565	.99226	.99917
#2	.96806	.51254	1.0017	.99834
Check ?	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.50000	1.0000	1.0000
Range	10.000%	10.000%	10.000%	10.000%

Method: CLP5 Sample Name: CCB Operator:
Comment:
Run Time: 04/29/03 18:28 Type: Blank Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.01381	.00147	-.00266	.01668	.00017
Stddev	.04475	.00232	.00050	.00250	.00033
%RSD	324.04	158.19	18.648	14.973	188.29
#1	.01783	-.00017	-.00301	.01845	.00040
#2	-.04546	.00310	-.00231	.01492	-.00006
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.20000	.00500	.01000	.05000	.00250
Low Limit	-.20000	-.00500	-.01000	-.05000	-.00250

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	-.00506	.00013	-.00013	.00023
Stddev	.00000	.00156	.00027	.00014	.00014
%RSD	.77421	30.822	202.48	109.39	61.642
#1	.00001	-.00396	.00032	-.00003	.00032
#2	.00001	-.00616	-.00006	-.00023	.00013
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00025	.05000	.00100	.00250	.00250
Low Limit	-.00025	-.05000	-.00100	-.00250	-.00250

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00064	.00154	-.02558	.00006	.01873
Stddev	.00059	.00254	.09891	.00045	.01561
%RSD	92.153	165.38	386.66	755.09	83.380
#1	-.00106	-.00026	.04436	-.00026	.00769
#2	-.00022	.00334	-.09552	.00038	.02977
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01000	.02000	.25000	.05000	.10000
Low Limit	-.01000	-.02000	-.25000	-.05000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00023	.00637	-.00073	.00344
Stddev	.00001	.00018	.00376	.00021	.00061
%RSD	5.1881	75.767	58.969	29.553	17.691
#1	.00015	.00036	.00371	-.00088	.00301
#2	.00014	.00011	.00903	-.00057	.00387
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00250	.05000	.10000	.01000	.01000
Low Limit	-.00250	-.05000	-.10000	-.01000	-.01000

Sample Name: CCB Run Time: 04/29/03 18:28

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00144	.00116	-.00105	-.00020	.00022
Stddev	.00250	.00556	.00110	.00025	.00079
%RSD	173.62	480.03	104.96	125.85	361.91
#1	-.00321	.00509	-.00027	-.00002	-.00034
#2	.00033	-.00277	-.00183	-.00037	.00078
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.02000	.01000	.25000	.20000	.00500
Low Limit	-.02000	-.01000	-.25000	-.20000	-.00500

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	-.00046	.00920	-.00229	-.00015
Stddev	.00055	.00222	.00041	.00013
%RSD	118.38	24.115	17.873	85.411
#1	-.00008	.00763	-.00258	-.00006
#2	-.00085	.01077	-.00200	-.00024
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01500	.02000	.00728	.01000
Low Limit	-.01500	-.02000	-.00728	-.01000

Method: CLP5 Sample Name: PBW K3 Operator: JYH
Comment: WG139316-03
n Time: 04/29/03 18:32 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.10041	.00078	-.00182	.00801	.00113
Stddev	.00312	.00010	.00148	.00229	.00020
%RSD	3.1107	13.316	81.235	28.556	17.435
#1	.10262	.00070	-.00287	.00962	.00127
#2	.09820	.00085	-.00078	.00639	.00099
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.20000	.00800	.02000	.10000	.01000
Low Limit	-.20000	-.00800	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.00173	.00054	-.00019	-.00015
Stddev	.00002	.00156	.00006	.00038	.00039
%RSD	53.387	90.317	10.666	205.16	257.00
#1	-.00006	.00062	.00050	.00008	-.00042
#2	-.00003	.00283	.00059	-.00045	.00012
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00050	.20000	.00200	.00500	.00500
Low Limit	-.00050	-.20000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00032	.00055	-.03420	-.00104	.02435
Stddev	.00145	.00250	.03957	.00157	.02351
%RSD	457.03	456.10	115.69	150.94	96.555
#1	-.00134	-.00122	-.00622	.00007	.00773
#2	.00071	.00232	-.06218	-.00215	.04098
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00500	.02000	.50000	.10000	.10000
Low Limit	-.00500	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00041	-.00055	-.00493	-.00111	.00240
Stddev	.00000	.00084	.00790	.00022	.00021
%RSD	.53366	153.07	160.28	19.422	8.8794
#1	.00041	-.00115	-.01051	-.00096	.00225
#2	.00041	.00005	.00066	-.00126	.00256
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01000	.10000	.50000	.02000	.02000
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: PBW K3 Run Time: 04/29/03 18:32

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00791	-.00104	-.00186	-.00016	.00119
Stddev	.00640	.00393	.00036	.00010	.00011
%RSD	80.885	378.06	19.507	60.981	8.8687
#1	-.00339	.00174	-.00160	-.00009	.00127
#2	-.01243	-.00382	-.00212	-.00023	.00112
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.02000	.02000	1.0000	.50000	.01000
Low Limit	-.02000	-.02000	-1.0000	-.50000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.00001	.00731	-.00212	.00028
Stddev	.00016	.00531	.00108	.00016
%RSD	1243.8	72.564	51.242	56.785
#1	-.00010	.01107	-.00288	.00017
#2	.00013	.00356	-.00135	.00039
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.03000	.04000	.01000	.02000
Low Limit	-.03000	-.04000	-.01000	-.02000

Method: CLP5 Sample Name: LCSW K3 Operator: JYH
Comment: WG139316-04
.n Time: 04/29/03 18:37 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.309	L .21693	H .98651	L 1.0197	H 10.131
Stddev	.006	.00395	.00169	.0002	.044
%RSD	.05937	1.8222	.17124	.02311	.43721
#1	10.304	.21413	.98770	1.0198	10.099
#2	10.313	.21972	.98531	1.0195	10.162
Check ?	LC Pass	LC Fail	LC Fail	LC Fail	LC Fail
High Limit	12.000	.48000	.48000	12.000	1.2000
Low Limit	8.0000	.32000	.32000	8.0000	.80000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	H 1.0148	10.146	H .97367	H 1.0123	H 1.0152
Stddev	.0044	.029	.00098	.0003	.0000
%RSD	.43390	.28397	.10046	.02847	.00404
#1	1.0180	10.126	.97298	1.0125	1.0152
#2	1.0117	10.166	.97436	1.0121	1.0151
Check ?	LC Fail	LC Pass	LC Fail	LC Fail	LC Fail
High Limit	.06000	12.000	.06000	.24000	.60000
Low Limit	.04000	8.0000	.04000	.16000	.40000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	H .99897	L 1.1019	48.890	10.226	10.174
Stddev	.00317	.0008	.249	.026	.034
%RSD	.31702	.07168	.50845	.25157	.33870
#1	.99673	1.1013	49.066	10.244	10.150
#2	1.0012	1.1024	48.714	10.208	10.199
Check ?	LC Fail	LC Fail	LC Pass	None	LC Pass
High Limit	.60000	4.8000	60.000		12.000
Low Limit	.40000	3.2000	40.000		8.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	H 1.0086	1.0183	50.242	H 1.0260	H 1.0042
Stddev	.0010	.0032	.174	.0009	.0008
%RSD	.10321	.31791	.34539	.09307	.07987
#1	1.0079	1.0160	50.365	1.0253	1.0048
#2	1.0093	1.0206	50.120	1.0266	1.0036
Check ?	LC Fail	LC Pass	LC Pass	LC Fail	LC Fail
High Limit	.60000	1.2000	60.000	.60000	.60000
Low Limit	.40000	.80000	40.000	.40000	.40000

wrong check table

Data is good JYH 4/29/03

Sample Name: LCSW K3 Run Time: 04/29/03 18:37

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0166	H .99272	10.205	-.00006	1.0045
Stddev	.0035	.00214	.020	.00173	.0014
%RSD	.34651	.21568	.19557	3031.9	.13979
#1	1.0191	.99120	10.219	.00117	1.0055
#2	1.0141	.99423	10.191	-.00128	1.0035
Check ?	LC Pass	LC Fail	None	None	None
High Limit	1.4400	.48000			
Low Limit	.96000	.32000			

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	1.0668	H 1.0141	.99739	1.0093
Stddev	.0018	.0005	.00049	.0016
%RSD	.16368	.04653	.04931	.15571
#1	1.0656	1.0137	.99774	1.0104
#2	1.0681	1.0144	.99704	1.0082
Check ?	None	LC Fail	LC Pass	LC Pass
High Limit		.60000	1.2000	1.2000
Low Limit		.40000	.80000	.80000

Method: CLP5 Sample Name: TC F BLK 4/29 Operator: JYH
Comment:
Time: 04/29/03 18:41 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00362	.00000	-.00049	.00488	.00052
Stddev	.00561	.00141	.00158	.00135	.00016
%RSD	154.84	123500.	323.96	27.644	30.986
#1	.00758	.00100	-.00161	.00583	.00063
#2	-.00034	-.00100	.00063	.00392	.00040
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.02697	.00072	.00039	-.00010
Stddev	.00001	.00194	.00039	.00009	.00005
%RSD	84.334	7.1966	54.450	23.316	48.123
#1	-.00003	.02834	.00099	.00046	-.00013
#2	-.00001	.02560	.00044	.00033	-.00007
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5.0000	1000.0	30.000	100.00	100.00
Low Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	-.00641	.01659	-.00134	.00988
Stddev	.00137	.00105	.03648	.00080	.01270
%RSD	478.33	16.425	219.94	59.668	128.59
#1	.00068	-.00567	.04238	-.00191	.01885
#2	-.00126	-.00716	-.00921	-.00078	.00090
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	.00125	.01138	-.00105	.00119
Stddev	.00004	.00093	.00205	.00054	.00095
%RSD	31.341	74.686	18.046	51.434	79.407
#1	.00009	.00191	.00993	-.00143	.00052
#2	.00014	.00059	.01283	-.00067	.00187
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: TC F BLK 4/29 Run Time: 04/29/03 18:41

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00203	.00287	.00010	.00050	.00149
Stddev	.00138	.00148	.00098	.00124	.00099
%RSD	67.985	51.508	1020.8	245.80	66.399
#1	-.00300	.00183	-.00060	.00138	.00079
#2	-.00105	.00392	.00079	-.00037	.00219
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.00009	.00681	-.00329	.00092
Stddev	.00009	.00085	.00049	.00014
%RSD	98.361	12.469	15.023	15.562
#1	.00015	.00741	-.00294	.00102
#2	.00003	.00621	-.00364	.00082
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: CLP5 Sample Name: L030450103 Operator: JYH
Comment: WG139316-01
Run Time: 04/29/03 18:45 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00755	.00361	-.00226	.14901	.12596
Stddev	.00641	.00261	.00109	.00013	.00054
%RSD	84.926	72.285	48.174	.08788	.42679
#1	.00301	.00176	-.00149	.14892	.12558
#2	.01208	.00545	-.00303	.14910	.12634
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	7.0818	.01857	.01599	.00035
Stddev	.00001	.0175	.00058	.00087	.00005
%RSD	65.860	.24657	3.1298	5.4664	14.157
#1	-.00001	7.0695	.01815	.01660	.00038
#2	-.00002	7.0942	.01898	.01537	.00031
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5.0000	1000.0	30.000	100.00	100.00
Low Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04543	5.0060	.40211	.00317	.93098
Stddev	.00094	.0351	.04033	.00115	.02876
%RSD	2.0732	.70044	10.029	36.281	3.0890
#1	.04477	4.9812	.43062	.00398	.91065
#2	.04610	5.0308	.37359	.00236	.95132
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.09340	.00444	164.68	.00738	2.6121
Stddev	.00021	.00043	.89	.00005	.0124
%RSD	.22396	9.6161	.54119	.74346	.47651
#1	.09326	.00414	164.05	.00742	2.6033
#2	.09355	.00474	165.31	.00734	2.6209
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: L030450103 Run Time: 04/29/03 18:45

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00841	.02844	.77267	.00176	.02609
Stddev	.00055	.00222	.00282	.00124	.00119
%RSD	6.5096	7.8146	.36433	70.187	4.5686
#1	-.00880	.03002	.77068	.00263	.02694
#2	-.00802	.02687	.77466	.00089	.02525
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	-.00006	-.01530	-.00139	1.8922
Stddev	.00033	.00041	.00101	.0084
%RSD	536.76	2.6674	72.564	.44211
#1	.00017	-.01559	-.00210	1.8863
#2	-.00030	-.01502	-.00068	1.8982
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: CLP5 Sample Name: L030450103S Operator: JYH
Comment: WG139316-05
Run Time: 04/29/03 18:50 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.051	.21288	.98370	1.1367	10.111
Stddev	.086	.00014	.00227	.0004	.018
%RSD	.85139	.06678	.23050	.03676	.17463
#1	10.112	.21298	.98530	1.1364	10.124
#2	9.9909	.21278	.98210	1.1370	10.099
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0010	17.045	.97636	1.0055	.99844
Stddev	.0030	.028	.00198	.0013	.00081
%RSD	.29614	.16367	.20251	.13360	.08152
#1	.99886	17.025	.97496	1.0046	.99787
#2	1.0030	17.065	.97775	1.0065	.99902
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5.0000	1000.0	30.000	100.00	100.00
Low Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0491	6.0382	49.420	10.208	10.947
Stddev	.0008	.0004	.217	.022	.046
%RSD	.08134	.00693	.43989	.21919	.42115
#1	1.0497	6.0379	49.266	10.224	10.979
#2	1.0485	6.0385	49.573	10.193	10.914
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0796	.99988	205.65	1.0142	3.5411
Stddev	.0012	.00031	.93	.0034	.0092
%RSD	.11508	.03065	.45338	.33568	.25908
#1	1.0788	1.0001	204.99	1.0118	3.5346
#2	1.0805	.99966	206.31	1.0166	3.5475
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: L030450103S Run Time: 04/29/03 18:50

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.99802	1.0203	10.882	-.00009	1.0081
Stddev	.00219	.0008	.031	.00138	.0005
%RSD	.21967	.08276	.28637	1507.7	.04555
#1	.99647	1.0209	10.860	.00089	1.0078
#2	.99957	1.0197	10.904	-.00107	1.0085
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	1.0234	.97075	.99082	2.8781
Stddev	.0356	.00079	.00061	.0028
%RSD	3.4810	.08094	.06197	.09663
#1	1.0486	.97020	.99039	2.8762
#2	.99821	.97131	.99126	2.8801
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: CLP5 Sample Name: L030450103SD Operator: JYH
Comment: WG139316-06
Run Time: 04/29/03 18:54 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.097	.21155	.98411	1.1379	10.179
Stddev	.019	.00495	.00248	.0003	.077
%RSD	.19225	2.3405	.25245	.02922	.75237
#1	10.083	.21505	.98235	1.1377	10.233
#2	10.111	.20805	.98587	1.1381	10.125
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0025	17.247	.97618	1.0055	.99734
Stddev	.0056	.087	.00171	.0014	.00051
%RSD	.55830	.50474	.17493	.13848	.05155
#1	1.0065	17.309	.97497	1.0045	.99697
#2	.99856	17.186	.97739	1.0064	.99770
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5.0000	1000.0	30.000	100.00	100.00
Low Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0495	6.1486	49.485	10.234	11.028
Stddev	.0052	.0050	.187	.065	.039
%RSD	.49171	.08219	.37750	.63968	.35224
#1	1.0531	6.1521	49.353	10.280	11.056
#2	1.0459	6.1450	49.617	10.188	11.001
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0798	1.0021	208.14	1.0120	3.5914
Stddev	.0004	.0009	.96	.0014	.0105
%RSD	.04021	.08767	.46096	.13976	.29224
#1	1.0801	1.0015	208.82	1.0110	3.5840
#2	1.0795	1.0027	207.47	1.0130	3.5988
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: L0304501035D Run Time: 04/29/03 18:54

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.99308	1.0163	10.904	.00071	1.0065
Stddev	.00095	.0010	.013	.00094	.0020
%RSD	.09578	.09451	.12234	131.89	.19619
#1	.99240	1.0156	10.894	.00005	1.0051
#2	.99375	1.0170	10.913	.00138	1.0079
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.99838	.97073	.99659	2.9089
Stddev	.00755	.00630	.00761	.0089
%RSD	.75657	.64868	.76334	.30716
#1	1.0037	.96627	1.0020	2.9025
#2	.99303	.97518	.99121	2.9152
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: CLP5 Sample Name: L030450002 Operator: JYH
Comment: WG139316-02
Run Time: 04/29/03 18:59 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19539	.00085	-.00126	.00953	.20948
Stddev	.01102	.00059	.00406	.00062	.00110
%RSD	5.6385	69.596	321.60	6.4792	.52314
#1	.20318	.00043	.00161	.00997	.21026
#2	.18760	.00127	-.00413	.00910	.20871
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00017	1.2741	.00263	.00020	.00162
Stddev	.00001	.0200	.00017	.00009	.00001
%RSD	7.0809	1.5671	6.4093	43.093	.72589
#1	.00016	1.2883	.00251	.00014	.00161
#2	.00018	1.2600	.00275	.00027	.00163
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5.0000	1000.0	30.000	100.00	100.00
Low Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01087	.27243	-.03766	-.00009	.09401
Stddev	.00251	.00082	.04011	.00040	.00198
%RSD	23.133	.29998	106.50	429.79	2.1037
#1	.01264	.27301	-.06602	.00019	.09261
#2	.00909	.27185	-.00930	-.00038	.09540
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00616	.00291	163.04	.02095	.57480
Stddev	.00007	.00080	1.61	.00047	.00032
%RSD	1.1185	27.542	.98775	2.2421	.05598
#1	.00612	.00234	164.17	.02061	.57457
#2	.00621	.00347	161.90	.02128	.57503
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: L030450002 Run Time: 04/29/03 18:59

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00508	.00929	.31255	.00138	.00603
Stddev	.00056	.00294	.00220	.00079	.00014
%RSD	10.966	31.637	.70329	57.514	2.2521
#1	-.00547	.01137	.31411	.00194	.00593
#2	-.00468	.00721	.31100	.00082	.00613
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	-.00013	-.01543	-.00137	.45345
Stddev	.00046	.00706	.00105	.00076
%RSD	356.80	45.769	76.842	.16870
#1	-.00045	-.01043	-.00212	.45400
#2	.00020	-.02042	-.00063	.45291
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: CLP5 Sample Name: L030450002DP Operator: JYH
Comment: WG139316-07
Run Time: 04/29/03 19:03 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.22653	-.00190	-.00182	.00904	.20904
Stddev	.03295	.00140	.00267	.00073	.00071
%RSD	14.548	73.923	146.99	8.0551	.34031
#1	.24983	-.00091	.00007	.00955	.20954
#2	.20322	-.00289	-.00371	.00852	.20853
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	1.2532	.00252	.00040	.00171
Stddev	.00001	.0050	.00022	.00009	.00076
%RSD	11.120	.40228	8.7608	22.377	44.459
#1	.00014	1.2568	.00268	.00034	.00225
#2	.00012	1.2497	.00236	.00046	.00118
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5.0000	1000.0	30.000	100.00	100.00
Low Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01225	.27479	.02339	-.00047	.08845
Stddev	.00005	.00344	.02607	.00008	.00474
%RSD	.44875	1.2532	111.48	16.411	5.3603
#1	.01221	.27235	.00495	-.00042	.08510
#2	.01229	.27722	.04182	-.00053	.09180
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00625	.00175	160.47	.02131	.57314
Stddev	.00002	.00037	.80	.00013	.00068
%RSD	.24441	21.197	.50151	.61090	.11842
#1	.00624	.00201	161.04	.02140	.57266
#2	.00626	.00149	159.91	.02122	.57362
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: L030450002DP Run Time: 04/29/03 19:03

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00207	.01133	.31227	-.00079	.00661
Stddev	.00263	.00131	.00122	.00138	.00004
%RSD	127.25	11.563	.39195	174.98	.63759
#1	-.00021	.01225	.31313	.00019	.00658
#2	-.00392	.01040	.31140	-.00177	.00664
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.00028	-.01498	-.00076	.44826
Stddev	.00123	.00449	.00002	.00028
%RSD	432.04	30.002	3.2235	.06151
#1	-.00058	-.01180	-.00074	.44806
#2	.00115	-.01816	-.00078	.44845
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: CLP5 Sample Name: L030460501 Operator: JYH

Comment:

Run Time: 04/29/03 19:07 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	102.95	.04095	5.3558	2.3579	.01039
Stddev	.62	.00080	.0118	.0052	.00040
%RSD	.60611	1.9565	.21988	.22010	3.8970
#1	103.39	.04038	5.3475	2.3616	.01068
#2	102.51	.04152	5.3641	2.3543	.01010
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03330	62.631	.05354	.41109	.67135
Stddev	.00014	.174	.00064	.00063	.00062
%RSD	.41276	.27742	1.2046	.15259	.09195
#1	.03320	62.508	.05309	.41065	.67092
#2	.03339	62.754	.05400	.41154	.67179
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5.0000	1000.0	30.000	100.00	100.00
Low Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.2862	455.92	50.894	1.8674	17.043
Stddev	.0028	.89	.117	.0038	.002
%RSD	.12324	.19469	.22899	.20327	.01299
#1	2.2842	455.29	50.812	1.8647	17.045
#2	2.2881	456.55	50.977	1.8701	17.041
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.4970	.14479	98.858	1.1445	.02273
Stddev	.0018	.00032	.092	.0013	.00084
%RSD	.05115	.21779	.09272	.11524	3.6834
#1	3.4957	.14501	98.923	1.1436	.02332
#2	3.4983	.14456	98.794	1.1455	.02214
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: L030460501 Run Time: 04/29/03 19:07

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	L -.03385	.27981	10.731	.09218	2.4973
Stddev	.00620	.00151	.008	.00069	.0255
%RSD	18.321	.54122	.07582	.75072	1.0209
#1	-.03823	.28088	10.736	.09267	2.4793
#2	-.02946	.27874	10.725	.09169	2.5153
Check ?	LC Fail	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	4.0467	.14457	.84827	6.5738
Stddev	.0012	.00191	.00153	.0115
%RSD	.02935	1.3223	.18060	.17562
#1	4.0475	.14321	.84936	6.5657
#2	4.0458	.14592	.84719	6.5820
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: CLP5 Sample Name: L030460501S Operator: JYH
Comment:
Run Time: 04/29/03 19:12 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	111.89	.24754	6.2124	3.1418	9.7467
Stddev	.06	.00044	.0372	.0056	.0247
%RSD	.05407	.17819	.59809	.17749	.25333
#1	111.84	.24722	6.1861	3.1379	9.7642
#2	111.93	.24785	6.2387	3.1458	9.7293
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0026	70.907	.99444	1.3383	1.5879
Stddev	.0019	.276	.00442	.0076	.0057
%RSD	.18804	.38977	.44462	.56770	.35666
#1	1.0012	70.712	.99131	1.3330	1.5839
#2	1.0039	71.103	.99756	1.3437	1.5919
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5.0000	1000.0	30.000	100.00	100.00
Low Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.2369	445.69	98.340	12.300	26.269
Stddev	.0002	1.83	.130	.026	.067
%RSD	.00660	.41021	.13200	.21208	.25431
#1	3.2371	444.40	98.248	12.282	26.221
#2	3.2368	446.98	98.432	12.319	26.316
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.2275	1.0777	143.92	2.0712	.95929
Stddev	.0081	.0069	.31	.0095	.00731
%RSD	.19186	.64267	.21456	.45972	.76252
#1	4.2218	1.0728	143.70	2.0644	.95412
#2	4.2332	1.0826	144.14	2.0779	.96446
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: L030460501S Run Time: 04/29/03 19:12

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.93162	1.2241	19.544	.08809	3.3977
Stddev	.00787	.0000	.053	.00044	.0202
%RSD	.84432	.00172	.26932	.50425	.59346
#1	.92606	1.2241	19.507	.08778	3.3835
#2	.93718	1.2241	19.582	.08840	3.4120
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	5.0138	.47578	1.8343	7.4331
Stddev	.0021	.00282	.0001	.0345
%RSD	.04106	.59343	.00274	.46435
#1	5.0124	.47378	1.8343	7.4087
#2	5.0153	.47778	1.8344	7.4575
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: CLP5 Sample Name: CCV Operator:
Comment:
Run Time: 04/29/03 19:16 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.8544	.39901	.38757	9.6147	1.0083
Stddev	.0735	.00264	.00248	.0432	.0016
%RSD	.74605	.66077	.63921	.44901	.15616
#1	9.9064	.40087	.38582	9.5841	1.0071
#2	9.8024	.39714	.38932	9.6452	1.0094
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	.40000	.40000	10.000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04968	9.8167	.04982	.19680	.49869
Stddev	.00007	.0112	.00048	.00020	.00198
%RSD	.14038	.11359	.95825	.10398	.39691
#1	.04963	9.8088	.04948	.19666	.49729
#2	.04973	9.8246	.05016	.19695	.50009
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.05000	10.000	.05000	.20000	.50000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49786	3.9475	49.697	.99948	10.038
Stddev	.00113	.0444	.141	.00103	.008
%RSD	.22779	1.1243	.28339	.10337	.07968
#1	.49866	3.9161	49.797	.99875	10.032
#2	.49706	3.9789	49.597	1.0002	10.043
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	4.0000	50.000	1.0000	10.000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49494	.99600	50.467	.49341	.49397
Stddev	.00144	.00541	.178	.00265	.00245
%RSD	.29175	.54345	.35302	.53638	.49509
#1	.49392	.99217	50.593	.49153	.49224
#2	.49596	.99982	50.341	.49528	.49570
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	1.0000	50.000	.50000	.50000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Sample Name: CCV Run Time: 04/29/03 19:16

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.2026	.39412	Q -.01126	.99472	.98283
Stddev	.0004	.00107	.00396	.00540	.00191
%RSD	.03290	.27084	35.170	.54244	.19448
#1	1.2028	.39337	-.00846	.99091	.98419
#2	1.2023	.39488	-.01406	.99854	.98148
Check ?	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass
Value	1.2000	.40000	5.0000	1.0000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.95677	.50241	.98912	.98487
Stddev	.00008	.00266	.00293	.00476
%RSD	.00872	.52974	.29615	.48286
#1	.95683	.50429	.98705	.98151
#2	.95671	.50053	.99119	.98823
Check ?	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.50000	1.0000	1.0000
Range	10.000%	10.000%	10.000%	10.000%

Method: CLP5 Sample Name: CCB Operator:
Comment:
)n Time: 04/29/03 19:20 Type: Blank Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00946	-.00077	-.00028	.01247	.00053
Stddev	.00711	.00136	.00267	.00324	.00026
%RSD	75.142	176.89	950.59	25.951	48.805
#1	.01449	-.00172	.00161	.01475	.00072
#2	.00443	.00019	-.00217	.01018	.00035
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.20000	.00500	.01000	.05000	.00250
Low Limit	-.20000	-.00500	-.01000	-.05000	-.00250

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00045	.00043	.00006	.00024
Stddev	.00006	.00831	.00004	.00042	.00014
%RSD	1077.3	1855.3	9.1937	740.77	56.556
#1	-.00003	-.00543	.00045	.00036	.00014
#2	.00004	.00633	.00040	-.00024	.00034
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00025	.05000	.00100	.00250	.00250
Low Limit	-.00025	-.05000	-.00100	-.00250	-.00250

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00209	.00318	.13691	-.00058	.01451
Stddev	.00343	.00238	.03625	.00004	.00347
%RSD	164.05	74.718	26.474	7.6149	23.948
#1	.00033	.00150	.16254	-.00061	.01205
#2	-.00452	.00487	.11128	-.00055	.01696
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01000	.02000	.25000	.05000	.10000
Low Limit	-.01000	-.02000	-.25000	-.05000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00043	.02198	-.00031	.00136
Stddev	.00009	.00046	.00532	.00002	.00038
%RSD	101.42	105.90	24.208	5.7364	27.805
#1	.00015	.00076	.01822	-.00030	.00110
#2	.00002	.00011	.02575	-.00033	.00163
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00250	.05000	.10000	.01000	.01000
Low Limit	-.00250	-.05000	-.10000	-.01000	-.01000

Sample Name: CCB Run Time: 04/29/03 19:20

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00477	.00069	.00129	.00068	.00048
Stddev	.00249	.00441	.00186	.00099	.00059
%RSD	52.217	639.88	143.57	145.94	123.84
#1	-.00653	.00381	.00260	.00138	.00089
#2	-.00301	-.00243	-.00002	-.00002	.00006
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.02000	.01000	.25000	.20000	.00500
Low Limit	-.02000	-.01000	-.25000	-.20000	-.00500

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.00001	.00724	-.00091	.00022
Stddev	.00020	.00170	.00088	.00003
%RSD	1412.3	23.455	97.133	15.342
#1	-.00013	.00604	-.00153	.00019
#2	.00016	.00844	-.00028	.00024
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01500	.02000	.00728	.01000
Low Limit	-.01500	-.02000	-.00728	-.01000

Method: CLP5 Sample Name: L030460501PS Operator: JYH
Comment:
n Time: 04/29/03 19:25 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	104.03	.26068	5.7529	3.0280	10.353
Stddev	.97	.01078	.0294	.0307	.525
%RSD	.92929	4.1338	.51150	1.0139	5.0663
#1	104.71	.25306	5.7320	3.0063	9.9825
#2	103.34	.26830	5.7737	3.0497	10.724
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0546	66.039	1.0348	1.3550	1.5763
Stddev	.0484	.246	.0392	.0394	.0386
%RSD	4.5861	.37275	3.7921	2.9069	2.4510
#1	1.0204	65.865	1.0071	1.3271	1.5490
#2	1.0888	66.213	1.0625	1.3828	1.6036
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5.0000	1000.0	30.000	100.00	100.00
w Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.1030	407.20	96.423	12.603	25.122
Stddev	.0480	.81	1.984	.538	.487
%RSD	1.5479	.19967	2.0575	4.2694	1.9370
#1	3.0691	407.77	95.020	12.222	24.778
#2	3.1370	406.62	97.825	12.983	25.466
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.0213	1.1178	138.62	2.0315	1.0037
Stddev	.0321	.0420	1.38	.0384	.0381
%RSD	.79751	3.7567	.99563	1.8904	3.7971
#1	3.9987	1.0881	137.64	2.0043	.97677
#2	4.0440	1.1475	139.59	2.0586	1.0307
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: L030460501PS Run Time: 04/29/03 19:25

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.98500	1.2408	19.145	.08417	3.2217
Stddev	.04068	.0286	.302	.00124	.0361
%RSD	4.1302	2.3093	1.5766	1.4679	1.1197
#1	.95623	1.2206	18.932	.08505	3.1962
#2	1.0138	1.2611	19.359	.08330	3.2472
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	4.7469	1.1175	1.8054	6.9417
Stddev	.0157	.0388	.0474	.0174
%RSD	.33084	3.4719	2.6228	.25019
#1	4.7358	1.0900	1.7720	6.9294
#2	4.7580	1.1449	1.8389	6.9540
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: CLP5 Sample Name: L030453601 Operator: JYH

Comment:

Run Time: 04/29/03 19:29 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.26943	-.00017	.00158	.03408	.11180
Stddev	.02157	.00005	.00218	.00185	.00031
%RSD	8.0066	29.651	137.85	5.4255	.27456
#1	.28468	-.00013	.00312	.03539	.11202
#2	.25418	-.00020	.00004	.03278	.11158
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	39.746	.00087	.00401	.00057
Stddev	.00003	.058	.00008	.00056	.00024
%RSD	47.638	.14551	9.3940	13.986	42.597
#1	.00004	39.705	.00093	.00362	.00074
#2	.00007	39.787	.00081	.00441	.00040
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5.0000	1000.0	30.000	100.00	100.00
Low Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00056	1.2822	.34982	.00183	1.2512
Stddev	.00318	.0003	.02281	.00016	.0241
%RSD	569.31	.02295	6.5192	8.7037	1.9266
#1	.00280	1.2820	.33369	.00172	1.2342
#2	-.00169	1.2824	.36594	.00194	1.2683
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.61204	.00086	144.24	.00350	1.0839
Stddev	.00083	.00015	.62	.00006	.0011
%RSD	.13590	17.239	.43210	1.8457	.10141
#1	.61263	.00076	144.68	.00354	1.0847
#2	.61145	.00097	143.80	.00345	1.0831
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: L030453601 Run Time: 04/29/03 19:29

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00929	-.00160	.60410	.00064	.07093
Stddev	.00358	.00131	.00113	.00173	.00001
%RSD	38.489	81.644	.18786	269.45	.01390
#1	-.00676	-.00068	.60490	-.00058	.07094
#2	-.01182	-.00252	.60330	.00187	.07093
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.00548	-.01121	-.00232	.06492
Stddev	.00005	.00167	.00070	.00027
%RSD	.97518	14.869	30.240	.40891
#1	.00552	-.01003	-.00281	.06511
#2	.00545	-.01239	-.00182	.06474
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: CLP5 Sample Name: L030453601PS Operator: JYH
Comment:
Run Time: 04/29/03 19:33 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.761	.22355	1.0387	1.0754	10.481
Stddev	.037	.00364	.0068	.0037	.038
%RSD	.34633	1.6278	.65695	.34013	.36638
#1	10.735	.22098	1.0339	1.0728	10.453
#2	10.787	.22613	1.0435	1.0780	10.508
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0474	46.654	1.0125	1.0374	1.0451
Stddev	.0034	.123	.0023	.0021	.0023
%RSD	.32702	.26297	.22327	.19720	.21985
#1	1.0450	46.568	1.0109	1.0360	1.0435
#2	1.0498	46.741	1.0141	1.0389	1.0467
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5.0000	1000.0	30.000	100.00	100.00
Low Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0391	2.3594	51.691	10.680	11.612
Stddev	.0016	.0050	.036	.044	.117
%RSD	.15161	.21110	.06897	.40909	1.0038
#1	1.0380	2.3558	51.716	10.711	11.529
#2	1.0402	2.3629	51.665	10.649	11.694
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.5980	1.0441	176.61	1.0519	2.0427
Stddev	.0039	.0036	.39	.0035	.0063
%RSD	.24529	.34426	.21942	.33654	.30742
#1	1.5952	1.0415	176.89	1.0494	2.0383
#2	1.6007	1.0466	176.34	1.0544	2.0472
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: L030453601PS Run Time: 04/29/03 19:33

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0498	1.0326	11.278	-.00051	1.0963
Stddev	.0043	.0095	.025	.00059	.0033
%RSD	.40477	.92043	.21792	116.03	.30035
#1	1.0468	1.0259	11.260	-.00093	1.0939
#2	1.0528	1.0393	11.295	-.00009	1.0986
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	T11908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	1.0944	1.0263	1.0416	1.1115
Stddev	.0085	.0024	.0027	.0035
%RSD	.77614	.22995	.25515	.31602
#1	1.0884	1.0279	1.0397	1.1090
#2	1.1004	1.0246	1.0435	1.1140
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: CLP5 Sample Name: CCV Operator:
Comment:
Run Time: 04/29/03 19:38 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.8668	.39729	.38408	9.6191	1.0111
Stddev	.0623	.00010	.00048	.0013	.0021
%RSD	.63100	.02518	.12588	.01347	.21055
#1	9.9108	.39722	.38442	9.6182	1.0127
#2	9.8227	.39736	.38374	9.6200	1.0096
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	.40000	.40000	10.000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04955	9.8147	.04943	.19753	.49721
Stddev	.00011	.0085	.00005	.00049	.00114
%RSD	.23165	.08628	.09334	.24832	.22837
#1	.04963	9.8087	.04940	.19719	.49641
#2	.04947	9.8207	.04947	.19788	.49801
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.05000	10.000	.05000	.20000	.50000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49563	3.8839	49.095	.98821	9.9402
Stddev	.00091	.0069	.281	.00339	.0790
%RSD	.18274	.17736	.57333	.34335	.79444
#1	.49499	3.8791	48.896	.99061	9.9960
#2	.49627	3.8888	49.294	.98581	9.8843
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	4.0000	50.000	1.0000	10.000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49516	1.0005	49.888	.49383	.49099
Stddev	.00107	.0041	.399	.00162	.00045
%RSD	.21589	.40937	.80000	.32889	.09234
#1	.49440	.99757	49.606	.49268	.49131
#2	.49592	1.0034	50.170	.49497	.49066
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	1.0000	50.000	.50000	.50000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Sample Name: CCV Run Time: 04/29/03 19:38

Elem	Sb2068	Se1960		Si2516	Sn1899	Sr2152
Units	ppm	ppm		ppm	ppm	ppm
Avg	1.2078	.38956	Q	-.01122	.99304	.97921
Stddev	.0090	.00117		.00013	.00095	.00056
%RSD	.74514	.30052		1.1453	.09541	.05750
#1	1.2015	.39039		-.01131	.99237	.97881
#2	1.2142	.38874		-.01113	.99371	.97961
Check ?	QC Pass	QC Pass		QC Fail	QC Pass	QC Pass
Value	1.2000	.40000		5.0000	1.0000	1.0000
Range	10.000%	10.000%		10.000%	10.000%	10.000%

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.95516	.50001	.97785	.98538
Stddev	.00094	.00092	.00088	.00043
%RSD	.09813	.18330	.08999	.04414
#1	.95582	.50066	.97847	.98507
#2	.95450	.49936	.97722	.98569
Check ?	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.50000	1.0000	1.0000
Range	10.000%	10.000%	10.000%	10.000%

Method: CLP5 Sample Name: CCB Operator:
Comment:
Run Time: 04/29/03 19:42 Type: Blank Mode: CONC Corr.Fact: 1.000000

Elem	Al3082	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00923	-.00187	-.00021	.01190	.00002
Stddev	.01753	.00163	.00000	.00284	.00017
%RSD	189.99	87.359	.55117	23.827	753.05
#1	.00317	-.00302	-.00021	.01391	.00014
#2	-.02162	-.00071	-.00021	.00990	-.00009
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.20000	.00500	.01000	.05000	.00250
Low Limit	-.20000	-.00500	-.01000	-.05000	-.00250

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.01284	.00030	.00023	-.00001
Stddev	.00002	.00403	.00001	.00008	.00007
%RSD	211.07	31.372	4.7430	34.849	705.71
#1	-.00003	.01569	.00029	.00017	-.00006
#2	.00001	.00999	.00031	.00028	.00004
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00025	.05000	.00100	.00250	.00250
Low Limit	-.00025	-.05000	-.00100	-.00250	-.00250

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00274	-.00191	.05491	-.00058	.01359
Stddev	.00161	.00264	.02686	.00092	.01296
%RSD	58.852	138.42	48.924	159.91	95.363
#1	-.00160	-.00377	.07391	.00008	.00443
#2	-.00388	-.00004	.03591	-.00123	.02275
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01000	.02000	.25000	.05000	.10000
Low Limit	-.01000	-.02000	-.25000	-.05000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.00038	.03058	-.00067	-.00030
Stddev	.00006	.00041	.00352	.00017	.00293
%RSD	46.124	108.91	11.502	24.966	961.54
#1	.00009	.00067	.02809	-.00079	.00176
#2	.00017	.00009	.03307	-.00055	-.00237
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00250	.05000	.10000	.01000	.01000
Low Limit	-.00250	-.05000	-.10000	-.01000	-.01000

Sample Name: CCB Run Time: 04/29/03 19:42

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00604	-.00307	-.00486	.00047	.00016
Stddev	.00152	.00286	.00215	.00030	.00012
%RSD	25.198	93.114	44.169	63.376	76.648
#1	-.00497	-.00105	-.00334	.00026	.00007
#2	-.00712	-.00509	-.00637	.00068	.00025
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.02000	.01000	.25000	.20000	.00500
Low Limit	-.02000	-.01000	-.25000	-.20000	-.00500

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.00001	.00916	-.00135	.00022
Stddev	.00031	.00474	.00083	.00008
%RSD	2092.0	51.697	61.153	35.627
#1	-.00020	.00581	-.00194	.00027
#2	.00023	.01251	-.00077	.00016
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01500	.02000	.00728	.01000
Low Limit	-.01500	-.02000	-.00728	-.01000

Metals

Date: 4/30/03
Analyst: JYH
Method: 6010B
Instrument: IRIS
Work Group: 139383, 139335, 139358, 139483

	Analyst
Calibration/Linearity	
ICV/CCV	
ICB/CCB	
icsa/icsab/cri	
Blank/LCS	
MS/MSD	
Postspike/Serial Dilution	
Duplicate	
Record Results	
Excel Spreadsheets	
Results Reporting / Data Qualifiers	
Calculations & Correct Factors	
Reanalysis Assign	
Instrument Failure/Reassign	
Case Narrative	✓
QA Approval - Seedpak 3	
Check for Completeness	
Level IV Data LQS/L	✓ 4-554
	4-594

WG 139492

Primary Reviewer Initials & Date Checked JYH 4/30/03
Secondary Reviewer Initials & Date Checked DA 5-01-03

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
✓ • Check the information for the report narrative
✓ • Check the reasonableness of results
Supervisory Review Initials & Date Checked MM3 5/1/03

Comments: _____

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

KEMRON ENVIRONMENTAL SERVICES
ICP (ICP/MS) RUN LOGBOOK

ANALYST JYH DATE 4/30/03 TIME 11:03
METHOD # 6010B SOP # ME600E Rev # 2 WORK GROUP # 139383, 139335, 139358, 13948
CAL STD SOURCE M2-17-35B ICV/CCV SOURCE M2-17-32B
ICS AB SOURCE M2-17-33A ICS A SOURCE M2-17-36A POST SPK SOURCE DSS-053-60
Instrument ID: TJA IRIS: ✓ Data File: 20030430-1 Perkin Elmer Optima: Perkin Elmer ELAN:

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
	SO				27.	L030445001			
	1 1/200				28.	L030454306			ccv/ccb x2
	2 1/100				29.	PBW J5			WG 139239-03
	3 1/4				30.	LCSW J5			04
	4 1/2				31.	L030458106			01
	5			ICV/ICB	32.	06S			05
	ICSA				33.	06SD			06
	ICSAB			CCV/CCB	34.	L030456201			02
1.	TC BLK 4/28				35.	01DP			02
2.	L030450104				36.	02			
3.	05				37.	02PS			ccv/ccb
4.	L030454302				38.	02SDL			
5.	04				39.	PBW P5			WG 139307-03
6.	05				40.	LCSW P5			04
7.	07				41.	L030457403			01
8.	08				42.	03S			05
9.	L030455401				43.	03SD			06
10.	01S			CCV/CCB	44.	02			02
11.	L030459403				45.	02DP			07
12.	TC F BLK 4/26				46.	01			
13.	L030450002	2			47.	01PS			ccv/ccb
14.	+1 ppm Pb	↓			48.	01SDL			
15.	+2	↓			49.	04			
16.	+3	↓		ccv/ccb	50.	05			
17.	L030450101	2			51.	06			ccv/ccb
18.	L030450102				52.				
19.	L030454301				53.				
20.	01S				54.				
21.	L030454401				55.				
22.	01S				56.				
23.	01				57.				
24.	L030447301			ccv/ccb	58.				
25.	L030448501				59.				
26.	01S				60.				

JYH 4/30/03

Reviewed by: MMB 05/01/03

Comments:

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:
CCV - Continuing Calibration Verification
CCB = Continuing Calibration Blank
FRS = Full Recalibration Sequence
R = Analyst Rerun

INORGANIC ANALYSES DATA SHEET
INITIAL MULTIPOINT CALIBRATION

Analytical Method: 6010B

AAB#:

Lab Name: KEMRON ENVIRONMENTAL SERVICES

Contract #:

Date of Initial Calibration: 30-Apr-03

Initial Calibration ID: IRIS-ICP 30-APR-2003

Instrument ID: IRIS-ICP

Concentration Units (mg/L or mg/kg dry weight): mg/kg

Analyte	Std 1	RF 1	Std 2	RF 2	Std 3	RF 3	Std 4	RF 4	Std 5	RF 5	Std 6	RF 6	r	Q
Barium	0	0	0.01	0.009526	0.02	0.019	0.5	0.4767	1	0.9843	2	2.0404	0.99977	

r = correlation coefficient

Comments:

Forms by ChemSW(707)804-0846 v1.0 12/1/07

AFCEE FORM I-3B

INORGANIC ANALYSES DATA SHEET
INITIAL MULTIPOINT CALIBRATION

Analytical Method: 6010B AAB#:

Lab Name: KEMRON ENVIRONMENTAL SERVICES Contract #:

Date of Initial Calibration: 30-Apr-03 Initial Calibration ID: IRIS-ICP 30-APR-2003

Instrument ID: IRIS-ICP Concentration Units (mg/L or mg/kg dry weight): mg/kg

Analyte	Std 1	RF 1	Std 2	RF 2	Std 3	RF 3	Std 4	RF 4	Std 5	RF 5			r	Q
Silver	0	0	0.008	0.0069	0.2	0.1858	0.4	0.3824	0.8	0.7864			0.99985	
Arsenic	0	0	0.008	0.0055	0.2	0.1962	0.4	0.3996	0.8	0.8052			0.99998	
Cadmium	0	0	0.001	0.0013	0.025	0.0263	0.05	0.054	0.1	0.11			0.99990	
Lead	0	0	0.01	0.007	0.25	0.244	0.5	0.5004	1	1.0252			0.99989	
Selenium	0	0	0.008	0.0067	0.2	0.1806	0.4	0.4326	0.8	0.8653			0.99908	

r = correlation coefficient

Comments:

Forms by ChemSW(707)864-0845 v1.0.12/1/97

AFCEE FORM 1-3B

KEMRON ENVIRONMENTAL SERVICES
FORM 2A - INITIAL AND CONTINUING CALIBRATION VERIFICATION

INSTRUMENT:	IRIS - Jarrell Ash
METHOD:	6010B
ANALYST:	Jyh
DATE:	4/30/03
UNITS:	ug/L
ICV Time:	11:35 AM
CCV1 Time:	11:55 AM
CCV2 Time:	1:16 PM

	Initial Calibration Verification			Continuing Calibration Verification CCV1			CCV2		Q
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Aluminum	10000	9890	98.9	10000	9920	99.2	9540	95.4	
Antimony	1200	1210	100.8	1200	1210	100.8	1200	100.0	
Arsenic	400	390	97.5	400	390	97.5	376	94.0	
Barium	1000	997	99.7	1000	995	99.5	974	97.4	
Beryllium	50	49.0	98.0	50	49.1	98.2	47.7	95.4	
Cadmium	50	49.4	98.8	50	49.4	98.8	48.2	96.4	
Calcium	10000	9770	97.7	10000	9790	97.9	9640	96.4	
Chromium	500	495	99.0	500	495	99.0	486	97.2	
Cobalt	200	198	99.0	200	198	99.0	195	97.5	
Copper	500	491	98.2	500	489	97.8	471	94.2	
Iron	4000	3930	98.3	4000	3930	98.3	3850	96.3	
Lead	500	493	98.6	500	492	98.4	486	97.2	
Magnesium	10000	9860	98.6	10000	9910	99.1	9600	96.0	
Manganese	500	492	98.4	500	492	98.4	483	96.6	
Nickel	500	496	99.2	500	498	99.6	488	97.6	
Potassium	50000	52800	105.6	50000	53300	106.6	52800	105.6	
Selenium	400	405	101.3	400	403	100.8	386	96.5	
Silver	400	393	98.3	400	390	97.5	384	96.0	
Sodium	50000	53700	107.4	50000	54000	108.0	53500	107.0	
Thallium	500	507	101.4	500	512	102.4	496	99.2	
Vanadium	1000	993	99.3	1000	987	98.7	968	96.8	
Zinc	1000	998	99.8	1000	996	99.6	981	98.1	

(1) Control Limits: 90-110%

KEMRON ENVIRONMENTAL SERVICES
FORM 3 - BLANKS

INSTRUMENT:	IRIS - Jarrell Ash
METHOD:	6010B
ANALYST:	Jyh
DATE:	4/30/2003
UNITS:	ug/L
ICB Time:	11:40 AM
CCB1 Time:	12:00 PM
CCB2 Time:	1:21 PM
CCB3 Time:	

Analyte	Initial Calibration Blank (ug/L)	Continuing Calibration Blank (ug/L) CCB1 1	CCB2 2	CCB3 3
Aluminum	-7.82	2.52	5.88	
Antimony	-0.80	7.32	2.99	
Arsenic	-0.20	0.31	-0.83	
Barium	-0.21	0.06	0.42	
Beryllium	0.05	0.03	0.03	
Cadmium	0.10	0.12	0.01	
Calcium	-12.1	4.48	-16.2	
Chromium	-0.11	0.01	0.13	
Cobalt	0.08	0.10	0.01	
Copper	3.21	-0.85	-1.64	
Iron	1.24	1.04	-0.49	
Lead	2.48	0.47	4.22	
Magnesium	9.37	10.2	0.67	
Manganese	-0.02	-0.02	0.06	
Nickel	0.24	0.70	0.14	
Potassium	-31.9	-21.2	-1.05	
Selenium	1.76	-0.12	2.35	
Silver	2.23	1.47	-0.35	
Sodium	0.22	2.34	10.6	
Thallium	5.85	9.03	1.78	
Vanadium	0.99	-0.44	2.17	
Zinc	0.25	0	0.29	

U = Result is less than MDL.
B = Result is between MDL and RL

KEMRON ENVIRONMENTAL SERVICES
FORM 4A - INTERFERENCE CHECK SAMPLE

INSTRUMENT ID: TRTS - Jarrell Ash
METHOD: 6010B
ANALYST: Jyh
DATE: 4/30/03

UNITS: ug/L

Initial ICSA Time: 11:45 AM
Initial ICSAB Time: 11:50 AM
Final ICSA Time:
Final ICSAB Time:

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R	Q
Aluminum	250000	250000	238000	240000	96.0				
Antimony	0	500	-9.79	479	95.8				
Arsenic	0	250	-3.67	244	97.6				
Barium	0	250	-0.11	256	102.4				
Beryllium	0	250	-0.01	234	93.6				
Cadmium	0	500	0.03	507	101.4				
Calcium	250000	250000	250000	253000	101.2				
Chromium	0	250	0.96	247	98.8				
Cobalt	0	250	7.30	253	101.2				
Copper	0	250	4.22	260	104.0				
Iron	100000	100000	87800	93800	93.8				
Lead	0	500	-14.6	492	98.4				
Magnesium	250000	250000	252000	255000	102.0				
Manganese	0	250	-4.09	229	91.6				
Nickel	0	500	0.38	484	96.8				
Potassium	0	5000	50.9	4880	97.6				
Selenium	0	250	-7.90	210	84.0				
Silver	0	500	6.00	511	102.2				
Sodium	0	5000	16.5	4990	99.8				
Thallium	0	500	-30.0	499	99.8				
Vanadium	0	250	2.21	252	100.8				
Zinc	0	500	7.86	504	100.8				

(1) Control Limits: 80-120%

ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Instrument ID: IRIS-Jarrell Ash

Date: January 17, 2003

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	As	Ba
Aluminum	308.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.80	0.0000500	0.0000000	0.0001000	0.0000000	0.0007700	0.0000000
Arsenic	189.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.70	0.0000000	0.0000000	-0.0006000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	-0.0000200	0.0000000	0.0200000	-0.0015000
Calcium	373.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.70	0.0000000	0.0000000	0.0000360	0.0000000	0.0000000	0.0000000
Cobalt	228.60	0.0000000	0.0000000	0.0000100	0.0000000	0.0000000	0.0000000
Copper	324.70	0.0000300	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000400	-0.0023000	0.0000000
Lead	220.30	-0.0003000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lithium	670.80	0.0000000	-0.0000500	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	277.90	0.0000000	0.0000000	0.0000000	0.0000000	-0.2000000	0.0000000
Manganese	257.60	0.0000000	0.0000000	-0.0000580	0.0000190	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	-0.0000200	0.0000000	0.0000000	0.0000000
Potassium	766.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	0.0000400	0.0000000	-0.0005000	0.0000000	0.0000000	0.0000000
Silicon	251.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	-0.0000500	0.0000000	0.0000000	0.0000000
Sodium	589.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	215.20	0.0002150	0.0000290	-0.0005500	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Tin	189.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	-0.0000190	0.0000000	0.0000300	0.0000000	0.0000000
Vanadium	310.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.80	0.0000000	0.0000000	0.0000760	0.0000400	0.0000000	0.0000000

Comments:

ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Instrument ID: IRIS-Jarrell Ash

Date: Jan. 17, 2003

Analyte	Wave-length (nm)	Interelement Correction Factors for: Be	Co	Cr	Cu	Mn	Mo
Aluminum	308.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0018000	0.0202000
Antimony	206.80	0.0000000	0.0000000	0.0160000	0.0000000	0.0000000	0.0004700
Arsenic	189.00	0.0000000	0.0000000	-0.0023000	0.0000000	0.0000000	-0.0008000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000750
Boron	249.70	0.0000000	0.0013800	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	-0.0029000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0016000	0.0000000
Chromium	267.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0013000	0.0000000
Cobalt	238.60	0.0000000	0.0000000	0.0000450	0.0000000	0.0000000	-0.0012000
Copper	324.70	0.0000000	0.0000000	-0.0000890	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0960000	0.0000000	0.0000000	-0.0062000	-0.0080000
Lead	220.30	0.0000000	0.0000000	-0.0010000	0.0000000	0.0000000	-0.0012000
Lithium	670.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	277.90	0.0000000	0.0000000	-0.3400000	0.0000000	0.0013200	0.0160000
Manganese	257.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0083000	0.0001100	0.0000900	0.0000000	0.0000000	0.0000000
Potassium	766.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0004300	0.0060000
Silicon	251.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0080000
Silver	328.00	0.0000000	0.0000000	-0.0005800	0.0000000	0.0000900	-0.0002900
Sodium	589.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	215.20	0.0000000	0.0000250	0.0000000	0.0000000	0.0000000	-0.0003000
Thallium	190.80	0.0000000	-0.0015000	-0.0017000	0.0000000	0.0008000	-0.0019000
Tin	189.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0005000	0.0000000	0.0000000	0.0000000
Vanadium	310.20	0.0120000	0.0000000	-0.0006000	0.0000000	0.0000000	0.0000000
Zinc	213.80	0.0000000	-0.0002900	0.0000000	0.0009000	0.0002790	0.0000000

Comments:

ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Instrument ID: IRIS-Jarrell Ash

Date: Jan. 17, 2003

Analyte	Wave-length (nm)	Interelement Correction Factors for: Ni	Sb	V	Ti	Zn
Aluminum	308.20	0.0000000	0.0000000	0.0300000	0.0013000	0.0000000
Antimony	206.80	-0.0012000	0.0000000	-0.0038000	0.0000000	0.0000000
Arsenic	189.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	-0.0003000	0.0000000	0.0000000
Boron	249.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	-0.0001700	0.0000000	0.0000700	0.0000000	0.0000000
Calcium	373.70	0.0006500	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.70	0.0000000	0.0000000	-0.0025000	0.0000000	0.0000000
Cobalt	228.60	0.0000000	0.0000000	0.0000000	0.0013000	0.0000000
Copper	324.70	0.0000000	0.0000000	-0.0140000	-0.0007090	0.0000000
Iron	271.40	0.0000000	0.0000000	-0.1500000	0.0000000	0.0000000
Lead	220.30	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lithium	670.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.60	0.0000000	0.0000000	-0.0000750	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	-0.0002470	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	251.60	0.0000000	0.0000000	0.0000000	0.0066470	0.0000000
Silver	328.00	0.0000000	0.0000000	-0.0300000	0.0010000	0.0000000
Sodium	589.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	215.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	-0.0220000	-0.0011000	0.0000000
Tin	189.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	310.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.80	0.0053000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

ICP-AES AND ICP-MS LINEAR RANGES (QUARTERLY)

Instrument ID: IRIS-Jarrel Ash

Date: 1/30/03

Analyte	Integ. Time (Sec.)	Concentration (ug/L)
Aluminum	15.00	1000000.0
Antimony	55.00	50000.0
Arsenic	55.00	100000.0
Barium	15.00	20000.0
Beryllium	15.00	5000.0
Boron	15.00	100000.0
Cadmium	55.00	30000.0
Calcium	15.00	1000000.0
Chromium	55.00	100000.0
Cobalt	55.00	100000.0
Copper	15.00	50000.0
Iron	55.00	1000000.0
Lead	55.00	200000.0
Lithium		15000.0
Magnesium	55.00	1000000.0
Manganese	55.00	40000.0
Molybdenum		30000.0
Nickel	55.00	100000.0
Potassium	15.00	400000.0
Selenium	55.00	20000.0
Silicon		50000.0
Silver	15.00	10000.0
Sodium	15.00	400000.0
Strontium		30000.0
Thallium	55.00	20000.0
Tin		50000.0
Titanium		30000.0
Vanadium	15.00	100000.0
Zinc	55.00	40000.0

Comments:

Method: FE3 Sample Name: S0 Operator:
Comment:
Run Time: 04/30/03 11:03 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.76047	.18781	-.03515	1.0684	.99807
Stddev	.15210	.05839	.02116	.0200	.06313
%RSD	20.001	31.090	60.202	1.8768	6.3250
#1	.70144	.23197	-.05471	1.0721	.92789
#2	.64672	.12161	-.03806	1.0863	1.0502
#3	.93324	.20984	-.01269	1.0467	1.0161

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.41617	.72926	.74457	1.0906	.90824
Stddev	.15480	.15506	.00412	.0321	.05684
%RSD	37.196	21.262	.55337	2.9437	6.2580
#1	.24302	.72906	.74933	1.1165	.87229
#2	.46432	.88441	.74217	1.1006	.97376
#3	.54117	.57430	.74222	1.0546	.87866

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.32037	-.08379	-1.3544	2.0335	-.00554
Stddev	.13785	.02866	.4455	.2962	.04721
%RSD	43.029	34.207	32.892	14.568	852.53
#1	.27616	-.11657	-1.8607	2.2211	.03866
#2	.21005	-.07137	-1.0225	1.6920	-.05528
#3	.47491	-.06343	-1.1801	2.1875	.00000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.03040	.02432	7.6517	.39911	.12158
Stddev	.03321	.01421	.1960	.02879	.02188
%RSD	109.26	58.455	2.5610	7.2127	17.994
#1	.02061	.00793	7.7635	.37268	.09674
#2	.06740	.03330	7.4254	.39487	.13797
#3	.00318	.03172	7.7661	.42979	.13005

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.19348	.10203	.06106	-.04282	.29973
Stddev	.02181	.01540	.01787	.01355	.02303
%RSD	11.271	15.098	29.275	31.646	7.6828
#1	-.17445	.11894	.05154	-.02855	.29815
#2	-.18871	.08881	.04995	-.04440	.32351
#3	-.21727	.09833	.08168	-.05551	.27754

Sample Name: S0 Run Time: 04/30/03 11:03

Item	Ti3349	Tl1908	V_3102	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.39039	-.04123	4.0364	.35365
Stddev	.05565	.00363	.0714	.01801
%RSD	14.256	8.8102	1.7700	5.0928
#1	.44185	-.04044	3.9546	.37427
#2	.39799	-.04520	4.0683	.34571
#3	.33133	-.03806	4.0864	.34098

Method: FE3 Sample Name: S1 Operator:
Comment:
Run Time: 04/30/03 11:08 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Al3944	B_2496	Ba4554	Be3130	Ca3736
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.3976	4.9803	5.1933	2.5137	1.6549
Stddev	.1235	.0238	.0977	.0338	.0909
%RSD	5.1525	.47885	1.8809	1.3444	5.4951
#1	2.5281	5.0078	5.2996	2.5226	1.7592
#2	2.2824	4.9647	5.1728	2.5422	1.5916
#3	2.3824	4.9686	5.1075	2.4764	1.6141

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.3487	.82933	2.3120	8.5872	19.108
Stddev	.0550	.08819	.0244	.4333	.305
%RSD	4.0787	10.634	1.0534	5.0457	1.5972
#1	1.2861	.92937	2.3287	9.0857	19.440
#2	1.3896	.79582	2.2841	8.3746	18.840
#3	1.3703	.76281	2.3233	8.3013	19.043

Elem	Mn2576	Mo2020	Na5895	Sb2068	Si2516
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.7050	.15093	67.143	-.13745	.96371
Stddev	.0227	.01021	.243	.01169	.04245
%RSD	.61203	6.7657	.36127	8.5050	4.4045
#1	3.7051	.15382	67.371	-.12845	.95621
#2	3.6823	.13958	66.888	-.13324	.92552
#3	3.7276	.15938	67.169	-.15066	1.0094

Elem	Sn1899	Sr2152	Ti3349	V_3102	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02960	.44194	2.6943	4.8247	1.4522
Stddev	.00916	.02980	.1386	.1151	.0070
%RSD	30.937	6.7426	5.1463	2.3862	.47936
#1	.01903	.46145	2.5447	4.7022	1.4589
#2	.03490	.40764	2.8185	4.8412	1.4450
#3	.03489	.45673	2.7196	4.9306	1.4527

Method: FE3 Sample Name: S2 Operator:
Comment:
un Time: 04/30/03 11:13 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.1495	.60096	-.00317	8.9653	9.3904
Stddev	.0866	.03900	.00893	.0466	.1950
%RSD	2.0870	6.4901	281.78	.51940	2.0770
#1	4.1769	.64174	.00159	9.0134	9.6040
#2	4.0525	.59710	-.01348	8.9204	9.2219
#3	4.2191	.56403	.00238	8.9621	9.3452

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.3394	2.4333	.84288	1.2861	1.7477
Stddev	.1707	.1441	.00364	.0139	.0466
%RSD	3.9343	5.9223	.43142	1.0837	2.6672
#1	4.5365	2.3678	.83980	1.3021	1.7336
#2	4.2460	2.5985	.84194	1.2796	1.7997
#3	4.2357	2.3335	.84689	1.2767	1.7097

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.0323	4.6085	17.930	36.053	.40186
Stddev	.0651	.0446	.371	.553	.06382
%RSD	6.3093	.96858	2.0696	1.5338	15.881
#1	1.1065	4.6336	18.317	35.745	.36513
#2	1.0062	4.5569	17.896	35.722	.36489
#3	.98428	4.6349	17.577	36.691	.47555

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7.4751	.30765	129.24	.81301	.17286
Stddev	.0219	.00523	3.93	.01321	.02290
%RSD	.29233	1.7001	3.0390	1.6253	13.245
#1	7.4726	.30690	132.55	.79777	.19191
#2	7.4982	.30284	124.90	.82132	.14746
#3	7.4547	.31322	130.28	.81993	.17921

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.07824	.12634	1.8076	.09568	.54183
Stddev	.01212	.02163	.0106	.00814	.02852
%RSD	15.494	17.124	.58771	8.5122	5.2628
#1	-.08089	.13005	1.8017	.10468	.50911
#2	-.06501	.14587	1.8012	.09355	.55495
#3	-.08881	.10309	1.8199	.08881	.56142

Sample Name: S2 Run Time: 04/30/03 11:13

Elem	Ti3349	V 3102	Zn2138
Units	Cts/S	Cts/S	Cts/S
Avg	4.7007	5.5007	2.5284
Stddev	.0811	.1035	.0279
%RSD	1.7256	1.8822	1.1024
#1	4.7909	5.4659	2.5424
#2	4.6773	5.6172	2.5464
#3	4.6339	5.4191	2.4963

Method: FE3 Sample Name: S3 Operator:
Comment:
un Time: 04/30/03 11:18 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	84.443	11.388	1.1152	202.96	211.22
Stddev	.538	.130	.0236	.69	.97
%RSD	.63694	1.1409	2.1203	.33772	.45952
#1	84.817	11.535	1.1299	202.40	211.48
#2	83.826	11.291	1.1277	202.77	210.15
#3	84.685	11.336	1.0879	203.73	212.04

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	97.185	44.831	2.6833	6.5154	23.755
Stddev	.140	.092	.0246	.0147	.054
%RSD	.14454	.20488	.91761	.22515	.22704
#1	97.277	44.891	2.7118	6.5320	23.810
#2	97.023	44.877	2.6693	6.5043	23.754
#3	97.256	44.725	2.6690	6.5098	23.702

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	19.339	121.02	507.56	1002.8	10.375
Stddev	.168	.19	19.03	17.9	.117
%RSD	.86793	.15986	3.7486	1.7815	1.1246
#1	19.462	121.24	504.04	1000.8	10.340
#2	19.148	120.88	490.54	985.99	10.505
#3	19.407	120.94	528.11	1021.6	10.279

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	195.58	7.7091	3165.0	11.598	1.9163
Stddev	.65	.0207	124.7	.037	.0247
%RSD	.33026	.26875	3.9392	.31499	1.2875
#1	196.05	7.7214	3131.9	11.599	1.8887
#2	194.84	7.6851	3060.2	11.561	1.9239
#3	195.84	7.7206	3302.9	11.634	1.9363

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.4428	.75806	43.541	3.4240	6.6407
Stddev	.0134	.01805	.158	.0231	.0491
%RSD	.54962	2.3807	.36243	.67488	.74010
#1	2.4327	.76596	43.537	3.4365	6.6954
#2	2.4377	.77081	43.385	3.3973	6.6265
#3	2.4580	.73741	43.701	3.4381	6.6002

Sample Name: S3 Run Time: 04/30/03 11:18

Elem	Ti3349	Tl1908	V 3102	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	111.22	.62432	42.347	55.627
Stddev	.49	.00327	.093	.179
%RSD	.44397	.52361	.22020	.32104
#1	111.56	.62323	42.389	55.601
#2	110.65	.62173	42.240	55.462
#3	111.45	.62799	42.412	55.817

Method: FE3 Sample Name: S4 Operator:

Comment:

Run Time: 04/30/03 11:23 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	166.01	23.239	2.3080	421.76	435.13
Stddev	1.61	.068	.0258	1.68	4.64
%RSD	.96829	.29435	1.1183	.39919	1.0664
#1	164.51	23.161	2.3132	420.17	430.06
#2	165.82	23.265	2.3307	421.59	436.14
#3	167.71	23.289	2.2799	423.52	439.18

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	198.09	93.294	4.7169	11.978	49.132
Stddev	.79	.296	.0194	.028	.092
%RSD	.40019	.31708	.41203	.23153	.18794
#1	197.22	92.976	4.7081	11.989	49.099
#2	198.29	93.560	4.7392	11.946	49.236
#3	198.76	93.346	4.7034	11.998	49.061

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	38.927	252.43	967.04	1943.9	21.566
Stddev	.480	.35	24.26	33.5	.074
%RSD	1.2338	.13752	2.5090	1.7218	.34486
#1	38.524	252.29	939.04	1922.2	21.494
#2	38.798	252.83	980.34	1927.1	21.642
#3	39.458	252.18	981.75	1982.5	21.562

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	411.86	16.222	6087.3	23.722	3.8033
Stddev	.85	.050	172.7	.026	.0389
%RSD	.20642	.30527	2.8367	.11067	1.0236
#1	411.80	16.165	5889.2	23.716	3.7700
#2	412.74	16.251	6206.2	23.751	3.7939
#3	411.04	16.250	6166.4	23.700	3.8461

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.2556	1.6733	89.281	7.1858	13.585
Stddev	.0274	.0084	.211	.0234	.040
%RSD	.52071	.50270	.23657	.32634	.29622
#1	5.2466	1.6669	89.087	7.1942	13.616
#2	5.2863	1.6828	89.251	7.2039	13.600
#3	5.2339	1.6701	89.506	7.1593	13.540

Sample Name: S4 Run Time: 04/30/03 11:23

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	228.10	1.2987	83.074	117.64
Stddev	1.29	.0133	.474	.26
%RSD	.56672	1.0237	.57087	.21823
#1	226.61	1.3140	82.608	117.44
#2	228.69	1.2903	83.556	117.55
#3	228.99	1.2918	83.058	117.93

Method: FE3 Sample Name: S5 Operator:
Comment:
Run Time: 04/30/03 11:28 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B 2496	Ba4554
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	338.61	47.592	4.6860	841.79	900.92
Stddev	5.88	.506	.0194	1.59	8.32
%RSD	1.7377	1.0630	.41422	.18876	.92385
#1	332.12	47.247	4.6947	843.56	897.00
#2	343.59	48.172	4.6996	841.35	910.48
#3	340.12	47.356	4.6638	840.47	895.28

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	403.93	191.38	8.8395	23.023	99.020
Stddev	3.08	1.53	.0257	.028	.567
%RSD	.76353	.79738	.29026	.12159	.57276
#1	403.12	192.50	8.8691	23.055	99.660
#2	407.33	192.00	8.8248	23.001	98.821
#3	401.32	189.65	8.8246	23.013	98.580

Elem	Cu3247	Fe2598	K 7664	Li6707	Mg2779
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	79.737	509.36	1743.9	3814.5	44.805
Stddev	.866	1.15	21.5	140.2	.242
%RSD	1.0861	.22567	1.2334	3.6768	.53985
#1	79.043	510.63	1749.9	3652.8	44.565
#2	80.708	509.06	1720.0	3903.7	45.048
#3	79.462	508.39	1761.8	3887.0	44.801

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	842.19	32.799	10881.	48.382	7.6645
Stddev	3.80	.117	81.	.251	.0421
%RSD	.45072	.35530	.74121	.51940	.54870
#1	846.41	32.921	10855.	48.614	7.6336
#2	841.13	32.788	10817.	48.417	7.6475
#3	839.04	32.689	10971.	48.115	7.7124

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	10.847	3.2453	179.07	14.644	27.389
Stddev	.094	.0194	.34	.070	.099
%RSD	.86726	.59898	.19133	.47746	.36280
#1	10.953	3.2672	179.44	14.717	27.504
#2	10.813	3.2383	178.76	14.637	27.326
#3	10.775	3.2303	179.02	14.578	27.337

Sample Name: S5 Run Time: 04/30/03 11:28

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	472.47	2.6049	166.24	235.45
Stddev	3.57	.0138	1.29	.79
%RSD	.75545	.52887	.77314	.33341
#1	472.05	2.6201	165.87	236.24
#2	476.23	2.5933	167.66	235.46
#3	469.13	2.6012	165.17	234.67

El Name	Slope	Y-int	Correlation	Date Stdized
Al3944	16.5113	0.7601	0.9999533	04/30/03 11:32:40

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	2.1172e-050		0	0.76047
S1	0.1	0.099176	-0.000824	-0.824	2.3976
S2	0.2	0.20528	0.00528	2.64	4.1495
S3	5	5.0682	0.0682	1.36	84.443
S4	10	10.008	0.00839	0.0839	166.01
S5	20	20.462	0.462	2.31	338.61

El Name	Slope	Y-int	Correlation	Date Stdized
Ag3280	60.2790	0.1871	0.9997576	04/30/03 11:32:40

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	1.1332e-050		0	0.18781
S2	0.008	0.0068653	-0.00113	-14.2	0.60096
S3	0.2	0.18581	-0.0142	-7.09	11.388
S4	0.4	0.38241	-0.0176	-4.4	23.239
S5	0.8	0.78642	-0.0136	-1.7	47.592

El Name	Slope	Y-int	Correlation	Date Stdized
As1890	5.8634	-0.0353	0.9996773	04/30/03 11:32:40

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	2.593e-05	0	0	-0.035154
	0.008	0.0054805	-0.00252	-31.5	-0.0031707
S3	0.2	0.19621	-0.00379	-1.9	1.1152
S4	0.4	0.39964	-0.000361	-0.0903	2.308
S5	0.8	0.80521	0.00521	0.652	4.686

El Name	Slope	Y-int	Correlation	Date Stdized
B_2496	41.7889	1.0626	0.9998890	04/30/03 11:32:40

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	0.000138010		0	1.0684
S1	0.1	0.093751	-0.00625	-6.25	4.9803
S2	0.2	0.18911	-0.0109	-5.44	8.9653
S3	5	4.8315	-0.169	-3.37	202.96
S4	10	10.067	0.0671	0.671	421.76
S5	20	20.119	0.119	0.593	841.79

El Name	Slope	Y-int	Correlation	Date Stdized
Ba4554	441.0452	0.9920	0.9996850	04/30/03 11:32:40

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	1.3745e-050		0	0.99807
S1	0.01	0.0095258	-0.000474	-4.74	5.1933
S2	0.02	0.019042	-0.000958	-4.79	9.3904
S3	0.5	0.47666	-0.0233	-4.67	211.22
	1	0.98433	-0.0157	-1.57	435.13
	2	2.0404	0.0404	2.02	900.92

El Name	Slope	Y-int	Correlation	Date Stdized
Be3130	4137.4521	0.4163	0.9998841	04/30/03 11:32:40

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	-4.1799e-080		0	0.41617
S1	0.0005	0.000506926.92e-06		1.38	2.5137
S2	0.001	0.00094819	-5.18e-05	-5.18	4.3394
S3	0.025	0.023389	-0.00161	-6.45	97.185
S4	0.05	0.047776	-0.00222	-4.45	198.09
S5	0.1	0.097526	-0.00247	-2.47	403.93

El Name	Slope	Y-int	Correlation	Date Stdized
Ca3736	9.3199	0.7279	0.9996279	04/30/03 11:32:40

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	0.000142550		0	0.72926
S1	0.1	0.099467	-0.000533	-0.533	1.6549
S2	0.2	0.18298	-0.017	-8.51	2.4333
S3	5	4.7322	-0.268	-5.36	44.831
S4	10	9.9321	-0.0679	-0.679	93.294
S5	20	20.457	0.457	2.29	191.38

El Name	Slope	Y-int	Correlation	Date Stdized
Cd2288	73.5833	0.7447	0.9997413	04/30/03 11:32:40

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	-2.1126e-060		0	0.74457
S2	0.001	0.0013338	0.000334	33.4	0.84288
S3	0.025	0.026346	0.00135	5.38	2.6833
S4	0.05	0.053982	0.00398	7.96	4.7169
S5	0.1	0.11001	0.01	10	8.8395

El Name	Slope	Y-int	Correlation	Date Stdized
Co2286	55.9997	1.0903	0.9999599	04/30/03 11:32:40

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	4.2469e-060		0	1.0906
S2	0.004	0.0034964	-0.000504	-12.6	1.2861
S3	0.1	0.096877	-0.00312	-3.12	6.5154
S4	0.2	0.19442	-0.00558	-2.79	11.978
S5	0.4	0.39166	-0.00834	-2.09	23.023

El Name	Slope	Y-int	Correlation	Date Stdized
Cr2677	96.5809	0.9070	0.9996652	04/30/03 11:32:40

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	1.2715e-050		0	0.90824
S1	0.005	0.0045728	-0.000427	-8.54	1.3487
S2	0.01	0.0087045	-0.0013	-13	1.7477
S3	0.25	0.23657	-0.0134	-5.37	23.755
S4	0.5	0.49932	-0.00068	-0.136	49.132
S5	1	1.0159	0.0159	1.59	99.02

El Name	Slope	Y-int	Correlation	Date Stdized
Cu3247	79.1002	0.3211	0.9997077	04/30/03 11:32:40

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S1	0.005	0.0064257	0.00143	28.5	0.82933
S0	0	-8.7293e-060		0	0.32037
S2	0.01	0.0089919	-0.00101	-10.1	1.0323
S3	0.25	0.24043	-0.00957	-3.83	19.339
S4	0.5	0.48806	-0.0119	-2.39	38.927
S5	1	1.004	0.004	0.4	79.737

El Name	Slope	Y-int	Correlation	Date Stdized
Fe2598	63.3834	-0.0875	0.9998431	04/30/03 11:32:40

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	5.7844e-050		0	-0.083789
S1	0.04	0.037856	-0.00214	-5.36	2.312
S2	0.08	0.074088	-0.00591	-7.39	4.6085
S3	2	1.9107	-0.0893	-4.47	121.02
S4	4	3.984	-0.016	-0.4	252.43
S5	8	8.0376	0.0376	0.47	509.36

El Name	Slope	Y-int	Correlation	Date Stdized
K_7664	18.4231	-1.3336	0.9980509	04/30/03 11:32:40

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
	0	-0.00113040		0	-1.3544
	0.5	0.5385	0.0385	7.7	8.5872
S2	1	1.0456	0.0456	4.56	17.93
S3	25	27.623	2.62	10.5	507.56
S4	50	52.563	2.56	5.13	967.04
S5	100	94.73	-5.27	-5.27	1743.9

El Name	Slope	Y-int	Correlation	Date Stdized
Li6707	1929.1086	1.9958	0.9997964	04/30/03 11:32:40

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	1.9541e-050		0	2.0335
S1	0.01	0.0088705	-0.00113	-11.3	19.108
S2	0.02	0.017654	-0.00235	-11.7	36.053
S3	0.5	0.51877	0.0188	3.75	1002.8
S4	1	1.0066	0.00664	0.664	1943.9
S5	2	1.9763	-0.0237	-1.19	3814.5

El Name	Slope	Y-int	Correlation	Date Stdized
Mg2779	2.1975	-0.0061	0.9996123	04/30/03 11:32:40

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	0.000233050		0	-0.005538
S2	0.2	0.18562	-0.0144	-7.19	0.40186
S3	5	4.7238	-0.276	-5.52	10.375
	10	9.8165	-0.183	-1.83	21.566
S5	20	20.392	0.392	1.96	44.805

El Name	Slope	Y-int	Correlation	Date Stdized
Mn2576	627.4034	0.0200	0.9996504	04/30/03 11:32:40

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	1.2512e-050		0	0.030396
S1	0.005	0.0044536	-0.000546	-10.9	3.705
S2	0.01	0.0090102	-0.00099	-9.9	7.4751
S3	0.25	0.23635	-0.0137	-5.46	195.58
S4	0.5	0.49775	-0.00225	-0.45	411.86
S5	1	1.0179	0.0179	1.79	842.19

El Name	Slope	Y-int	Correlation	Date Stdized
Mo2020	16.1713	0.0237	0.9996663	04/30/03 11:32:40

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	3.6869e-050		0	0.024317
S1	0.01	0.0078662	-0.00213	-21.3	0.15093
S2	0.02	0.017558	-0.00244	-12.2	0.30765
S3	0.5	0.47525	-0.0248	-4.95	7.7091
S4	1	1.0017	0.00167	0.167	16.222
S5	2	2.0268	0.0268	1.34	32.799

El Name	Slope	Y-int	Correlation	Date Stdized
Na5895	114.9620	7.7619	0.9980030	04/30/03 11:32:40

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	-0.000958740		0	7.6517
S1	0.5	0.51653	0.0165	3.31	67.143
S2	1	1.0567	0.0567	5.67	129.24
S3	25	27.463	2.46	9.85	3165
S4	50	52.883	2.88	5.77	6087.3
S5	100	94.581	-5.42	-5.42	10881

El Name	Slope	Y-int	Correlation	Date Stdized
Ni2316	47.0818	0.3984	0.9996759	04/30/03 11:32:40

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	1.6067e-050		0	0.39911
S2	0.01	0.008807	-0.00119	-11.9	0.81301
S3	0.25	0.23787	-0.0121	-4.85	11.598
S4	0.5	0.49539	-0.00461	-0.921	23.722
S5	1	1.0192	0.0192	1.92	48.382

El Name	Slope	Y-int	Correlation	Date Stdized
Pb2203	7.3579	0.1213	0.9995719	04/30/03 11:32:40

Standard	Concentration		Difference		Signal
Name	Stated	Found	Conc	%	(S)IR
S0	0	3.3557e-050		0	0.12158
S2	0.01	0.0070022	-0.003	-30	0.17286
S3	0.25	0.24395	-0.00605	-2.42	1.9163
S4	0.5	0.50041	0.00041	0.0821	3.8033
S5	1	1.0252	0.0252	2.52	7.6645

El Name	Slope	Y-int	Correlation	Date Stdized
Sb2068	4.6133	-0.1935	0.9998729	04/30/03 11:32:40

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	-5.8626e-060		0	-0.19348
S1	0.012	0.01214	0.00014	1.16	-0.13745
S2	0.024	0.024975	0.000975	4.06	-0.078236
S3	0.6	0.57145	-0.0285	-4.76	2.4428
S4	1.2	1.1812	-0.0188	-1.57	5.2556
S5	2.4	2.3932	-0.00684	-0.285	10.847

El Name	Slope	Y-int	Correlation	Date Stdized
Se1960	3.6325	0.1019	0.9981398	04/30/03 11:32:40

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S2	0.008	0.006718	-0.00128	-16	0.12634
S3	0.2	0.18063	-0.0194	-9.69	0.75806
S4	0.4	0.43258	0.0326	8.14	1.6733
S0	0	2.5079e-050		0	0.10203
S5	0.8	0.86534	0.0653	8.17	3.2453

El Name	Slope	Y-int	Correlation	Date Stdized
Si2516	17.8300	0.0609	0.9999517	04/30/03 11:32:40

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	1.1017e-050		0	0.061057
	0.05	0.050637	0.000637	1.27	0.96371
	0.1	0.097966	-0.00203	-2.03	1.8076
S3	2.5	2.4386	-0.0614	-2.46	43.541
S4	5	5.0039	0.00393	0.0786	89.281
S5	10	10.04	0.04	0.4	179.07

El Name	Slope	Y-int	Correlation	Date Stdized
Sn1899	7.2502	-0.0429	0.9998113	04/30/03 11:32:40

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	7.8538e-060		0	-0.042819
S1	0.01	0.0099971	-2.92e-06	-0.0292	0.029605
S2	0.02	0.019111	-0.000889	-4.45	0.09568
S3	0.5	0.47817	-0.0218	-4.37	3.424
S4	1	0.99704	-0.00296	-0.296	7.1858
S5	2	2.0257	0.0257	1.28	14.644

El Name	Slope	Y-int	Correlation	Date Stdized
Sr2152	13.3331	0.2996	0.9997283	04/30/03 11:32:40

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	6.4709e-060		0	0.29973
S1	0.01	0.010672	0.000672	6.72	0.44194
S2	0.02	0.018164	-0.00184	-9.18	0.54183
	0.5	0.47559	-0.0244	-4.88	6.6407
	1	0.99646	-0.00354	-0.354	13.585
S5	2	2.0317	0.0317	1.59	27.389

El Name	Slope	Y-int	Correlation	Date Stdized
Ti3349	231.3786	0.3878	0.9997117	04/30/03 11:32:40

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	1.1144e-050		0	0.39039
S1	0.01	0.0099683	-3.17e-05	-0.317	2.6943
S2	0.02	0.01864	-0.00136	-6.8	4.7007
S3	0.5	0.47901	-0.021	-4.2	111.22
S4	1	0.98413	-0.0159	-1.59	228.1
S5	2	2.0403	0.0403	2.01	472.47

El Name	Slope	Y-int	Correlation	Date Stdized
Tl1908	2.8062	-0.0412	0.9999843	04/30/03 11:32:40

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	-1.2418e-050		0	-0.041233
S3	0.25	0.23716	-0.0128	-5.14	0.62432
S4	0.5	0.47748	-0.0225	-4.5	1.2987
S5	1	0.94296	-0.057	-5.7	2.6049

El Name	Slope	Y-int	Correlation	Date Stdized
V_3102	79.8446	4.0354	0.9997804	04/30/03 11:32:40

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S5	2	2.0314	0.0314	1.57	166.24
S4	1	0.98991	-0.0101	-1.01	83.074
S3	0.5	0.47983	-0.0202	-4.03	42.347
S2	0.02	0.018352	-0.00165	-8.24	5.5007
S1	0.01	0.009885	-0.000115	-1.15	4.8247
S0	0	1.278e-05	0	0	4.0364

El Name	Slope	Y-int	Correlation	Date Stdized
Zn2138	116.0665	0.3519	0.9997690	04/30/03 11:32:40

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	1.509e-05	0	0	0.35365
S1	0.01	0.0094797	-0.00052	-5.2	1.4522
S2	0.02	0.018752	-0.00125	-6.24	2.5284
S3	0.5	0.47623	-0.0238	-4.75	55.627
S4	1	1.0105	0.0105	1.05	117.64
S5	2	2.0256	0.0256	1.28	235.45

Method: FE3 Sample Name: ICV Operator:
Comment:
un Time: 04/30/03 11:35 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.8913	.39328	.38956	9.5906	.99673
Stddev	.0948	.00433	.00126	.0183	.00386
%RSD	.95881	1.1013	.32328	.19041	.38692
#1	9.7886	.39030	.38811	9.6047	.99237
#2	9.9756	.39825	.39035	9.5700	.99968
#3	9.9097	.39129	.39022	9.5972	.99815
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	.40000	.40000	10.000	1.0000
Range	5.0000%	5.0000%	5.0000%	5.0000%	5.0000%

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04899	9.7721	.04941	.19799	.49452
Stddev	.00002	.0460	.00027	.00073	.00108
%RSD	.04254	.47030	.55227	.36861	.21783
#1	.04897	9.7377	.04972	.19842	.49559
#2	.04901	9.8243	.04921	.19839	.49452
#3	.04899	9.7543	.04930	.19714	.49344
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
lue	.05000	10.000	.05000	.20000	.50000
Range	5.0000%	5.0000%	5.0000%	5.0000%	5.0000%

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49052	3.9310	Q 52.756	1.0199	9.8575
Stddev	.00475	.0068	2.052	.0174	.0188
%RSD	.96906	.17306	3.8902	1.7094	.19044
#1	.48507	3.9373	51.927	1.0000	9.8642
#2	.49273	3.9320	51.248	1.0325	9.8363
#3	.49377	3.9238	55.093	1.0273	9.8720
Check ?	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass
Value	.50000	4.0000	50.000	1.0000	10.000
Range	5.0000%	5.0000%	5.0000%	5.0000%	5.0000%

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49160	.99523	Q 53.714	.49600	.49257
Stddev	.00080	.00117	2.170	.00051	.00283
%RSD	.16295	.11779	4.0401	.10242	.57492
#1	.49242	.99639	52.786	.49560	.49584
#2	.49157	.99527	52.161	.49657	.49092
#3	.49082	.99404	56.193	.49583	.49096
ck ?	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass
Value	.50000	1.0000	50.000	.50000	.50000
Range	5.0000%	5.0000%	5.0000%	5.0000%	5.0000%

Sample Name: ICV Run Time: 04/30/03 11:35

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.2082	.40512	4.8096	1.0091	.98390
Stddev	.0035	.00479	.0112	.0018	.00236
%RSD	.29339	1.1817	.23203	.17604	.24024
#1	1.2066	.40067	4.8123	1.0111	.98471
#2	1.2058	.40450	4.7974	1.0086	.98576
#3	1.2123	.41018	4.8192	1.0077	.98124
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.2000	.40000	5.0000	1.0000	1.0000
Range	5.0000%	5.0000%	5.0000%	5.0000%	5.0000%

Elem	Ti3349	T11908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.97038	.50720	.99261	.99798
Stddev	.00253	.00411	.00496	.00116
%RSD	.26034	.81094	.49922	.11618
#1	.96749	.50251	.99023	.99665
#2	.97218	.51019	.99830	.99852
#3	.97146	.50890	.98929	.99877
Check ?	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.50000	1.0000	1.0000
Range	5.0000%	5.0000%	5.0000%	5.0000%

Method: FE3 Sample Name: CCB Operator:
Comment:
Run Time: 04/30/03 11:40 Type: Blank Mode: CONC Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00782	.00223	-.00020	.02598	-.00021
Stddev	.01401	.00103	.00293	.00554	.00038
%RSD	179.16	46.310	1468.7	21.315	178.12
#1	-.02319	.00334	.00061	.03183	-.00057
#2	-.00452	.00130	-.00344	.02527	.00018
#3	.00425	.00205	.00224	.02082	-.00024
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.20000	.00500	.01000	.05000	.00250
Low Limit	-.20000	-.00500	-.01000	-.05000	-.00250

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	-.01211	.00010	.00008	-.00011
Stddev	.00002	.01413	.00025	.00052	.00035
%RSD	46.674	116.73	258.13	674.56	322.58
#1	.00005	-.02830	.00024	.00042	-.00029
#2	.00006	-.00224	-.00019	-.00052	-.00033
#3	.00002	-.00579	.00024	.00033	.00030
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00025	.05000	.00100	.00250	.00250
Low Limit	-.00025	-.05000	-.00100	-.00250	-.00250

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00321	.00124	-.03191	.00033	.00937
Stddev	.00074	.00073	.02323	.00017	.04114
%RSD	23.036	58.562	72.813	51.077	438.87
#1	.00377	.00178	-.04951	.00026	.03793
#2	.00348	.00042	-.04065	.00021	-.03778
#3	.00237	.00153	-.00557	.00053	.02797
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01000	.02000	.25000	.05000	.10000
Low Limit	-.01000	-.02000	-.25000	-.05000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	-.00001	-.00022	.00024	-.00248
Stddev	.00002	.00101	.00262	.00102	.00591
%RSD	113.89	8308.3	1187.7	427.27	238.30
#1	-.00004	.00103	-.00322	-.00061	-.00032
#2	-.00001	-.00098	.00164	-.00004	.00204
#3	.00000	-.00009	.00091	.00137	-.00917
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00250	.05000	.10000	.01000	.01000
Low Limit	-.00250	-.05000	-.10000	-.01000	-.01000

Sample Name: CCB Run Time: 04/30/03 11:40

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00080	.00176	.00171	.00292	.00115
Stddev	.00349	.00557	.00023	.00146	.00107
%RSD	434.26	315.78	13.511	49.805	92.593
#1	-.00478	-.00188	.00193	.00329	.00060
#2	.00066	.00817	.00172	.00132	.00239
#3	.00171	-.00101	.00147	.00416	.00048
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.02000	.01000	.25000	.20000	.00500
Low Limit	-.02000	-.01000	-.25000	-.20000	-.00500

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	-.00012	.00585	.00099	.00025
Stddev	.00041	.00327	.00067	.00028
%RSD	354.07	55.989	67.208	112.16
#1	-.00020	.00284	.00152	.00006
#2	-.00048	.00536	.00024	.00056
#3	.00033	.00934	.00122	.00012
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01500	.02000	.00728	.01000
Low Limit	-.01500	-.02000	-.00728	-.01000

Method: FE3 Sample Name: ICSA Operator:
Comment:
n Time: 04/30/03 11:45 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	237.90	.00600	-.00161	.03086	-.00011
Stddev	.82	.00222	.00114	.00248	.00014
%RSD	.34438	37.042	70.845	8.0226	128.13
#1	237.13	.00771	-.00292	.03335	.00001
#2	238.76	.00349	-.00102	.03084	-.00007
#3	237.79	.00680	-.00088	.02839	-.00027
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	250.00	.00000	.00000	.00000	.00000
Range	±50.000	±.01600	±.04000	±.20000	±.02000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	250.13	.00003	.00730	.00096
Stddev	.00002	1.08	.00039	.00014	.00005
%RSD	213.70	.43152	1320.7	1.9294	5.3102
#1	-.00002	250.96	.00002	.00741	.00096
#2	-.00003	248.91	.00043	.00734	.00091
#3	.00002	250.51	-.00036	.00714	.00101
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
lue	.00000	250.00	.00000	.00000	.00000
nge	±.00100	±50.000	±.00400	±.01000	±.01000

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00422	87.840	.05094	.01436	251.77
Stddev	.00230	.075	.04057	.00012	.45
%RSD	54.638	.08537	79.647	.85897	.17767
#1	.00612	87.822	.09778	.01434	252.03
#2	.00487	87.776	.02752	.01425	251.25
#3	.00166	87.923	.02751	.01450	252.03
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	100.00	.00000	.00000	250.00
Range	±.01000	±20.000	±1.0000	±.20000	±50.000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00409	.00105	.01654	.00038	-.01460
Stddev	.00004	.00054	.00299	.00031	.00348
%RSD	1.0543	51.360	18.067	82.031	23.810
#1	-.00414	.00108	.01496	.00020	-.01733
#2	-.00409	.00050	.01466	.00020	-.01068
#3	-.00405	.00157	.01998	.00074	-.01578
ck ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
alue	.00000	.00000	.00000	.00000	.00000
Range	±.01000	±.20000	±1.0000	±.04000	±.04000

Sample Name: ICSA Run Time: 04/30/03 11:45

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00979	-.00790	.12804	-.00123	.00970
Stddev	.00389	.00953	.00169	.00249	.00274
%RSD	39.674	120.61	1.3214	201.64	28.239
#1	-.01313	-.01824	.12958	.00154	.00747
#2	-.01073	-.00601	.12623	-.00328	.01276
#3	-.00553	.00054	.12832	-.00196	.00886
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000
Range	±.04000	±.04000	±1.0000	±1.0000	±.02000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	-.01130	-.03001	.00221	.00786
Stddev	.00053	.00865	.00035	.00001
%RSD	4.6658	28.813	16.002	.18349
#1	-.01180	-.03991	.00202	.00787
#2	-.01134	-.02391	.00198	.00786
#3	-.01075	-.02622	.00261	.00784
Check ?	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000
Range	±.06000	±.08000	±.02000	±.02000

Method: PE3 Sample Name: ICSAB Operator:
Comment:
Run Time: 04/30/03 11:50 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	240.16	.51092	.24447	.01415	.25615
Stddev	2.82	.00412	.00315	.00235	.00115
%RSD	1.1739	.80545	1.2874	16.606	.45023
#1	240.45	.50740	.24566	.01678	.25673
#2	242.82	.51544	.24686	.01340	.25689
#3	237.20	.50991	.24091	.01226	.25482
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	250.00	.50000	.25000	.00000	.25000
Range	±50.000	±.10000	±.05000	±.20000	±.05000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.23444	252.84	.50693	.25290	.24680
Stddev	.00093	.68	.00128	.00084	.00083
%RSD	.39590	.26834	.25165	.33302	.33748
#1	.23363	253.12	.50812	.25231	.24776
#2	.23424	253.34	.50559	.25387	.24635
#3	.23545	252.07	.50709	.25253	.24629
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.25000	250.00	.50000	.25000	.25000
Range	±.05000	±50.000	±.10000	±.05000	±.05000

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.25979	93.795	4.8805	.01459	254.54
Stddev	.00152	.205	.0375	.00002	.52
%RSD	.58542	.21813	.76752	.12889	.20329
#1	.26088	94.030	4.8871	.01457	254.11
#2	.26045	93.697	4.9143	.01461	255.11
#3	.25806	93.657	4.8402	.01459	254.39
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.25000	100.00	5.0000	.00000	250.00
Range	±.05000	±20.000	±1.0000	±.20000	±50.000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.22874	.00067	4.9895	.48396	.49183
Stddev	.00111	.00113	.0623	.00180	.00243
%RSD	.48308	168.29	1.2493	.37113	.49395
#1	.22991	-.00057	4.9593	.48601	.48923
#2	.22859	.00095	5.0612	.48270	.49223
#3	.22772	.00164	4.9481	.48316	.49404
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.25000	.00000	5.0000	.50000	.50000
Range	±.05000	±.20000	±1.0000	±.10000	±.10000

Sample Name: ICSAB Run Time: 04/30/03 11:50

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.47933	.21047	.01964	-.00619	.01110
Stddev	.00286	.00472	.00073	.00392	.00162
%RSD	.59707	2.2407	3.7404	63.340	14.568
#1	.47838	.21249	.01934	-.00415	.00943
#2	.48254	.20508	.01911	-.01071	.01265
#3	.47706	.21384	.02048	-.00371	.01122
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	.25000	.00000	.00000	.00000
Range	±.10000	±.05000	±1.0000	±1.0000	±.02000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	-.01256	.49932	.25168	.50401
Stddev	.00055	.00642	.00092	.00154
%RSD	4.4053	1.2853	.36550	.30586
#1	-.01200	.49973	.25071	.50577
#2	-.01260	.50553	.25180	.50333
#3	-.01310	.49271	.25253	.50292
Check ?	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.50000	.25000	.50000
Range	±.06000	±.10000	±.05000	±.10000

Method: FE3 Sample Name: CCV Operator:
Comment:
n Time: 04/30/03 11:55 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.9184	.39000	.39046	9.5959	.99465
Stddev	.1129	.00393	.00206	.0315	.00452
%RSD	1.1383	1.0084	.52853	.32829	.45433
#1	10.029	.38927	.39271	9.5617	.99523
#2	9.8031	.38649	.38866	9.6023	.98987
#3	9.9234	.39425	.39000	9.6237	.99885
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	.40000	.40000	10.000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04906	9.7923	.04942	.19750	.49502
Stddev	.00004	.0694	.00029	.00062	.00081
%RSD	.07903	.70832	.59296	.31259	.16447
#1	.04903	9.7362	.04909	.19737	.49472
#2	.04911	9.8699	.04964	.19696	.49594
#3	.04905	9.7708	.04955	.19817	.49440
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
ue	.05000	10.000	.05000	.20000	.50000
nge	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.48886	3.9323	53.289	1.0274	9.9074
Stddev	.00250	.0026	2.526	.0291	.0120
%RSD	.51064	.06684	4.7409	2.8313	.12122
#1	.49008	3.9321	55.830	1.0453	9.8937
#2	.48599	3.9350	50.777	.99380	9.9163
#3	.49051	3.9297	53.260	1.0430	9.9123
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	4.0000	50.000	1.0000	10.000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49219	.99361	53.998	.49765	.49232
Stddev	.00029	.00415	2.854	.00056	.00300
%RSD	.05891	.41774	5.2863	.11223	.60925
#1	.49221	.98937	57.068	.49829	.49376
#2	.49248	.99379	51.425	.49725	.49433
#3	.49190	.99766	53.501	.49742	.48887
ck ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	1.0000	50.000	.50000	.50000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Sample Name: CCV Run Time: 04/30/03 11:55

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.2131	.40331	4.8019	1.0036	.98233
Stddev	.0052	.00118	.0039	.0011	.00083
%RSD	.43096	.29334	.08070	.11151	.08452
#1	1.2082	.40465	4.7974	1.0046	.98292
#2	1.2186	.40242	4.8042	1.0039	.98270
#3	1.2125	.40285	4.8041	1.0024	.98138
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.2000	.40000	5.0000	1.0000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.97264	.51169	.98715	.99641
Stddev	.00066	.00304	.00302	.00152
%RSD	.06834	.59367	.30621	.15281
#1	.97195	.50894	.98667	.99465
#2	.97327	.51495	.99038	.99732
#3	.97269	.51116	.98439	.99726
Check ?	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.50000	1.0000	1.0000
Range	10.000%	10.000%	10.000%	10.000%

Method: FE3 Sample Name: CCB Operator:
Comment:
n Time: 04/30/03 12:00 Type: Blank Mode: CONC Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00252	.00147	.00021	.01313	.00006
Stddev	.00919	.00184	.00135	.00424	.00014
%RSD	363.95	124.79	649.59	32.301	213.95
#1	.00129	.00146	.00021	.01788	-.00009
#2	.01227	.00332	-.00114	.01180	.00013
#3	-.00598	-.00036	.00156	.00971	.00016
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.20000	.00500	.01000	.05000	.00250
Low Limit	-.20000	-.00500	-.01000	-.05000	-.00250

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.00448	.00012	-.00010	.00001
Stddev	.00004	.01191	.00048	.00039	.00016
%RSD	114.27	265.57	386.10	384.72	2098.2
#1	.00004	-.00813	-.00043	-.00046	-.00016
#2	-.00001	.01552	.00041	.00030	.00015
#3	.00006	.00606	.00039	-.00014	.00003
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
h Limit	.00025	.05000	.00100	.00250	.00250
ow Limit	-.00025	-.05000	-.00100	-.00250	-.00250

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00085	.00104	-.02120	.00007	.01024
Stddev	.00042	.00075	.01101	.00006	.03629
%RSD	49.271	71.487	51.919	83.427	354.32
#1	-.00043	.00185	-.00868	.00009	.05053
#2	-.00127	.00092	-.02935	.00013	.00008
#3	-.00085	.00037	-.02558	.00001	-.01988
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01000	.02000	.25000	.05000	.10000
Low Limit	-.01000	-.02000	-.25000	-.05000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	-.00013	.00234	.00070	.00047
Stddev	.00010	.00152	.00121	.00017	.00404
%RSD	547.46	1204.2	51.502	24.131	866.49
#1	.00009	.00162	.00307	.00087	-.00248
#2	-.00009	-.00083	.00095	.00053	-.00119
#3	-.00006	-.00117	.00300	.00070	.00507
ck ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00250	.05000	.10000	.01000	.01000
Low Limit	-.00250	-.05000	-.10000	-.01000	-.01000

Sample Name: CCB Run Time: 04/30/03 12:00

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00732	-.00012	.00392	.00329	.00290
Stddev	.00470	.00444	.00114	.00187	.00143
%RSD	64.188	3746.9	28.973	56.832	49.327
#1	.01172	.00469	.00511	.00154	.00429
#2	.00788	-.00100	.00382	.00307	.00143
#3	.00237	-.00405	.00284	.00526	.00298
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.02000	.01000	.25000	.20000	.00500
Low Limit	-.02000	-.01000	-.25000	-.20000	-.00500

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	-.00005	.00903	-.00044	.00000
Stddev	.00044	.00341	.00111	.00012
%RSD	832.06	37.803	251.20	4865.7
#1	-.00015	.01269	-.00166	-.00011
#2	-.00043	.00593	.00051	.00014
#3	.00043	.00846	-.00017	-.00002
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01500	.02000	.00728	.01000
Low Limit	-.01500	-.02000	-.00728	-.01000

Method: FE3 Sample Name: TC BLK 4/28 Operator: JYH
Comment:
n Time: 04/30/03 12:05 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00071	-.00033	.00070	.00758	.00333
Stddev	.00860	.00198	.00207	.00150	.00056
%RSD	1211.9	599.93	293.79	19.801	16.898
#1	.00054	-.00149	-.00168	.00835	.00396
#2	.00720	-.00146	.00197	.00854	.00289
#3	-.00986	.00196	.00183	.00585	.00314
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00366	-.00015	.00020	.00051
Stddev	.00002	.01346	.00040	.00054	.00039
%RSD	112.49	368.00	259.85	271.96	78.074
#1	.00000	-.00584	-.00002	-.00008	.00089
#2	.00003	-.00225	.00016	-.00015	.00010
#3	.00001	.01906	-.00061	.00082	.00053
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
h Limit	5.0000	1000.0	30.000	100.00	100.00
ow Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00068	.00304	.10391	.00015	.02460
Stddev	.00051	.00096	.03259	.00012	.02027
%RSD	74.587	31.473	31.359	78.432	82.402
#1	.00026	.00217	.06795	.00012	.04294
#2	.00125	.00288	.11230	.00006	.02802
#3	.00053	.00406	.13147	.00029	.00283
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	-.00116	146.78	.00111	-.00155
Stddev	.00001	.00046	7.33	.00091	.00282
%RSD	36.300	39.431	4.9959	82.261	182.38
#1	.00001	-.00103	154.27	.00050	-.00184
#2	.00002	-.00078	139.62	.00067	-.00421
#3	.00001	-.00166	146.46	.00215	.00141
ck ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: TC BLK 4/28 Run Time: 04/30/03 12:05

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00741	.00058	.01160	.00037	.00250
Stddev	.00533	.00309	.00196	.00342	.00183
%RSD	71.920	532.47	16.874	917.58	73.232
#1	.00305	-.00276	.01351	-.00327	.00203
#2	.00582	.00116	.00960	.00088	.00096
#3	.01335	.00334	.01169	.00351	.00453
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	-.00010	-.02689	-.00258	.00123
Stddev	.00033	.00109	.00239	.00017
%RSD	324.37	4.0487	92.699	13.613
#1	.00028	-.02688	-.00213	.00104
#2	-.00029	-.02798	-.00045	.00134
#3	-.00029	-.02581	-.00516	.00132
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: FE3 Sample Name: L030450104 Operator: JYH
Comment:
n Time: 04/30/03 12:10 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02954	-.00015	-.00191	.01433	.00218
Stddev	.00942	.00064	.00192	.00070	.00029
%RSD	31.906	421.79	100.46	4.8832	13.097
#1	.03778	-.00077	-.00155	.01498	.00241
#2	.01926	-.00018	-.00398	.01441	.00227
#3	.03158	.00050	-.00020	.01359	.00186
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.30478	.00171	.00026	.00046
Stddev	.00001	.02960	.00052	.00029	.00045
%RSD	305.62	9.7112	30.532	109.42	97.877
#1	.00000	.28210	.00136	.00026	-.00006
#2	-.00001	.33827	.00231	-.00002	.00078
#3	.00001	.29398	.00146	.00055	.00067
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
ıh Limit	5.0000	1000.0	30.000	100.00	100.00
w Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00064	.04430	.12361	-.00014	.07216
Stddev	.00220	.00038	.02771	.00015	.01391
%RSD	343.98	.86019	22.416	103.67	19.270
#1	-.00183	.04399	.14033	-.00026	.08557
#2	.00237	.04418	.13887	.00002	.05780
#3	.00138	.04472	.09162	-.00019	.07311
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05006	-.00057	139.81	.00130	.14556
Stddev	.00016	.00048	2.51	.00014	.00195
%RSD	.31216	85.089	1.7978	10.698	1.3387
#1	.04988	-.00034	141.74	.00141	.14727
#2	.05017	-.00024	136.97	.00134	.14599
#3	.05013	-.00112	140.72	.00114	.14344
ck ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: L030450104 Run Time: 04/30/03 12:10

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00594	.00081	.02575	.00052	.00246
Stddev	.00425	.00661	.00070	.00067	.00159
%RSD	71.649	811.97	2.7195	128.72	64.507
#1	.00481	.00547	.02628	.00066	.00167
#2	.01064	-.00675	.02601	-.00021	.00143
#3	.00236	.00373	.02495	.00110	.00429
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	-.00009	-.02833	-.00303	.00534
Stddev	.00024	.00040	.00173	.00003
%RSD	287.01	1.4093	57.013	.55286
#1	-.00029	-.02824	-.00374	.00536
#2	-.00015	-.02876	-.00106	.00536
#3	.00018	-.02798	-.00429	.00531
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: FE3 Sample Name: L030450105 Operator: JYH
Comment:
Run Time: 04/30/03 12:15 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.37274	-.00097	-.00321	.47376	.02835
Stddev	.01717	.00121	.00292	.00184	.00062
%RSD	4.6059	124.70	90.929	.38849	2.1965
#1	.39055	.00021	-.00628	.47312	.02816
#2	.35630	-.00091	-.00046	.47234	.02783
#3	.37136	-.00221	-.00289	.47584	.02904
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00073	19.984	.00182	.00106	.00856
Stddev	.00001	.180	.00069	.00047	.00008
%RSD	1.5866	.90154	37.884	44.679	.90076
#1	.00074	19.872	.00252	.00058	.00863
#2	.00073	19.889	.00114	.00106	.00856
#3	.00072	20.192	.00181	.00153	.00848
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5.0000	1000.0	30.000	100.00	100.00
Low Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00512	.02376	.48939	.04667	.71692
Stddev	.00059	.00069	.03501	.00105	.02521
%RSD	11.472	2.9013	7.1541	2.2488	3.5157
#1	.00558	.02357	.48290	.04645	.72378
#2	.00532	.02318	.52720	.04782	.73798
#3	.00446	.02452	.45808	.04575	.68900
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.08428	.00020	127.65	.00250	.00557
Stddev	.00045	.00047	3.83	.00015	.00159
%RSD	.53710	233.65	3.0026	6.1399	28.608
#1	.08381	.00015	124.37	.00265	.00377
#2	.08431	.00069	126.71	.00251	.00680
#3	.08472	-.00024	131.86	.00234	.00615
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: L030450105 Run Time: 04/30/03 12:15

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00216	-.00112	.56851	.00278	.08220
Stddev	.00429	.00588	.00289	.00354	.00082
%RSD	198.82	524.41	.50815	127.22	.99567
#1	.00226	-.00721	.56521	.00482	.08135
#2	-.00218	-.00069	.56972	.00482	.08226
#3	.00639	.00453	.57060	-.00130	.08298
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.00038	L -.17248	.00010	.16061
Stddev	.00046	.00763	.00118	.00054
%RSD	120.00	4.4257	1160.8	.33393
#1	-.00003	-.16393	.00123	.16005
#2	.00088	-.17490	.00020	.16065
#3	.00030	-.17860	-.00112	.16112
Check ?	LC Pass	LC Fail	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: FE3 Sample Name: L030454302 Operator: JYH
Comment:
Run Time: 04/30/03 12:20 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20886	-.00119	-.00216	1.5461	.07140
Stddev	.00163	.00222	.00113	.0003	.00059
%RSD	.78167	186.85	52.097	.02140	.83270
#1	.20966	-.00370	-.00343	1.5457	.07151
#2	.20698	-.00041	-.00126	1.5463	.07076
#3	.20994	.00054	-.00180	1.5463	.07193
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	5.2331	.00220	.00183	.00060
Stddev	.0000	.0431	.00029	.00026	.00035
%RSD	1134.5	.82328	13.395	14.390	58.515
#1	.00000	5.2317	.00230	.00196	.00020
#2	.00001	5.2769	.00187	.00201	.00074
#3	-.00001	5.1907	.00243	.00153	.00085
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5.0000	1000.0	30.000	100.00	100.00
Low Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00241	.00656	4.3524	.00112	.41248
Stddev	.00159	.00085	.0896	.00010	.02347
%RSD	66.198	13.009	2.0574	9.0427	5.6900
#1	.00110	.00719	4.3183	.00124	.43061
#2	.00194	.00690	4.2849	.00104	.42085
#3	.00418	.00559	4.4540	.00109	.38597
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00301	.72527	135.47	.00076	-.00769
Stddev	.00002	.00314	2.44	.00093	.00462
%RSD	.82649	.43353	1.8018	122.95	60.121
#1	.00301	.72186	135.98	-.00031	-.00237
#2	.00304	.72590	137.62	.00141	-.00991
#3	.00299	.72805	132.82	.00117	-.01078
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: L030454302 Run Time: 04/30/03 12:20

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01008	-.01224	.49592	.00263	.08467
Stddev	.00387	.00297	.00199	.00165	.00190
%RSD	38.355	24.306	.40039	62.726	2.2425
#1	.00656	-.01324	.49403	.00438	.08675
#2	.01422	-.00889	.49799	.00110	.08424
#3	.00946	-.01458	.49574	.00241	.08303
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.00011	L -.05815	-.00218	.54670
Stddev	.00027	.00353	.00079	.00063
%RSD	249.68	6.0651	36.061	.11601
#1	.00027	-.05628	-.00224	.54608
#2	.00027	-.06222	-.00294	.54666
#3	-.00021	-.05596	-.00137	.54735
Check ?	LC Pass	LC Fail	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: PE3 Sample Name: L030454304 Operator: JYH
Comment:
Run Time: 04/30/03 12:25 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03511	.00012	-.00084	.04663	.00997
Stddev	.00787	.00251	.00101	.00095	.00021
%RSD	22.405	2146.7	120.45	2.0475	2.1557
#1	.04383	.00239	-.00026	.04767	.01010
#2	.02854	.00053	-.00201	.04580	.00972
#3	.03296	-.00257	-.00026	.04641	.01009
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.90611	.00048	.00041	.12977
Stddev	.00004	.02447	.00043	.00025	.00086
%RSD	40.049	2.7010	89.927	60.886	.66004
#1	.00013	.90386	.00030	.00022	.12878
#2	.00009	.88284	.00017	.00033	.13030
#3	.00006	.93163	.00098	.00070	.13022
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5.0000	1000.0	30.000	100.00	100.00
Low Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00061	.01291	1.0856	.00693	.31194
Stddev	.00219	.00083	.0185	.00025	.01651
%RSD	358.70	6.4039	1.7070	3.6472	5.2913
#1	-.00013	.01278	1.0687	.00704	.31893
#2	.00307	.01215	1.0827	.00711	.29309
#3	-.00111	.01379	1.1054	.00664	.32379
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00479	.00061	136.82	.00178	-.00279
Stddev	.00009	.00035	5.07	.00061	.00433
%RSD	1.8130	57.155	3.7084	34.097	155.59
#1	.00476	.00054	136.68	.00127	-.00401
#2	.00473	.00030	141.96	.00245	-.00638
#3	.00489	.00098	131.81	.00161	.00203
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: L030454304 Run Time: 04/30/03 12:25

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00458	.00136	.18385	.00132	.18433
Stddev	.00634	.00382	.00136	.00058	.00362
%RSD	138.61	280.87	.74232	43.816	1.9650
#1	.00997	.00457	.18348	.00176	.18534
#2	.00617	-.00286	.18536	.00066	.18031
#3	-.00241	.00237	.18270	.00154	.18733
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.00106	-.03226	-.00090	.11518
Stddev	.00055	.00441	.00045	.00025
%RSD	51.595	13.668	50.021	.21864
#1	.00064	-.03000	-.00062	.11492
#2	.00168	-.02944	-.00142	.11518
#3	.00087	-.03734	-.00066	.11542
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: FE3 Sample Name: L030454305 Operator: JYH
Comment:
n Time: 04/30/03 12:31 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.13116	-.00108	.00177	.19632	.05777
Stddev	.00455	.00259	.00113	.00079	.00023
%RSD	3.4660	238.69	64.135	.40074	.40528
#1	.13605	-.00071	.00308	.19619	.05801
#2	.13038	.00130	.00105	.19717	.05774
#3	.12706	-.00384	.00118	.19561	.05755
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	6.2384	.00561	.01477	.01498
Stddev	.00003	.0617	.00040	.00047	.00060
%RSD	75.346	.98820	7.0538	3.1778	4.0187
#1	.00004	6.2884	.00525	.01475	.01560
#2	.00001	6.2572	.00603	.01524	.01440
#3	.00006	6.1695	.00554	.01430	.01492
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
h Limit	5.0000	1000.0	30.000	100.00	100.00
Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00513	.48879	.27983	.00211	.55677
Stddev	.00214	.00167	.02065	.00017	.02323
%RSD	41.729	.34265	7.3812	8.0718	4.1726
#1	.00756	.48686	.29727	.00212	.54615
#2	.00350	.48987	.25702	.00193	.58342
#3	.00434	.48964	.28519	.00227	.54075
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04036	.00031	131.47	.00961	.00384
Stddev	.00011	.00108	3.34	.00052	.00704
%RSD	.27606	344.72	2.5389	5.3811	183.19
#1	.04024	.00045	135.26	.01021	.00542
#2	.04046	.00133	130.19	.00929	.00995
#3	.04036	-.00083	128.96	.00933	-.00385
ck ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
gh Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: L030454305 Run Time: 04/30/03 12:31

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00528	-.00902	2.8942	.01780	.05249
Stddev	.00864	.00487	.0266	.00146	.00060
%RSD	163.50	53.935	.91990	8.1747	1.1465
#1	.00596	-.01338	2.8641	.01685	.05313
#2	.01357	-.00992	2.9039	.01707	.05193
#3	-.00367	-.00377	2.9146	.01947	.05240
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.00971	-.03354	-.00067	.52594
Stddev	.00079	.00131	.00036	.00087
%RSD	8.1055	3.9081	53.213	.16545
#1	.00967	-.03429	-.00029	.52560
#2	.01052	-.03429	-.00073	.52693
#3	.00895	-.03202	-.00099	.52529
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: FE3 Sample Name: L030454307 Operator: JYH

Comment:

Time: 04/30/03 12:36 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.08551	.00015	-.00215	.05550	.05373
Stddev	.00262	.00169	.00113	.00021	.00052
%RSD	3.0608	1117.9	52.671	.37356	.96010
#1	.08518	.00202	-.00287	.05532	.05363
#2	.08827	-.00126	-.00085	.05545	.05429
#3	.08307	-.00031	-.00274	.05572	.05328
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00053	7.9177	.00193	.00410	.00090
Stddev	.00000	.0532	.00048	.00011	.00044
%RSD	.74978	.67146	24.950	2.6801	48.744
#1	.00053	7.8705	.00245	.00400	.00130
#2	.00054	7.9074	.00180	.00409	.00097
#3	.00053	7.9753	.00152	.00422	.00043
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5.0000	1000.0	30.000	100.00	100.00
Low Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00054	.73614	2.0943	.00384	4.3342
Stddev	.00170	.00396	.0358	.00019	.0104
%RSD	311.58	.53831	1.7085	5.0015	.24075
#1	.00250	.73270	2.0931	.00378	4.3347
#2	-.00029	.73524	2.1307	.00405	4.3444
#3	-.00057	.74048	2.0591	.00368	4.3235
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05476	.00038	136.33	.00350	-.00195
Stddev	.00031	.00116	3.20	.00039	.00153
%RSD	.56232	306.33	2.3458	11.113	78.494
#1	.05442	-.00068	137.22	.00394	-.00361
#2	.05487	.00020	132.77	.00324	-.00059
#3	.05501	.00162	138.98	.00331	-.00166
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: L030454307 Run Time: 04/30/03 12:36

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00107	-.00282	2.0159	.00278	.05225
Stddev	.00243	.00291	.0056	.00310	.00173
%RSD	227.18	103.15	.27889	111.71	3.3034
#1	-.00170	-.00034	2.0223	.00220	.05124
#2	.00209	-.00209	2.0120	.00001	.05126
#3	.00282	-.00602	2.0134	.00613	.05424
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	T11908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	-.00055	-.02542	-.00170	.18669
Stddev	.00006	.00328	.00193	.00035
%RSD	10.034	12.909	113.55	.18958
#1	-.00052	-.02846	-.00348	.18628
#2	-.00061	-.02194	-.00197	.18688
#3	-.00052	-.02585	.00035	.18690
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: FE3 Sample Name: L030454308 Operator: JYH
Comment:
[redacted]n Time: 04/30/03 12:41 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.44011	-.00010	-.00042	.01349	.00158
Stddev	.00531	.00289	.00100	.00058	.00028
%RSD	1.2074	2794.6	239.19	4.3321	17.786
#1	.43874	.00306	-.00155	.01416	.00173
#2	.44597	-.00078	.00035	.01309	.00176
#3	.43561	-.00259	-.00006	.01321	.00126
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.98091	.00102	.00028	.00352
Stddev	.00003	.01497	.00007	.00019	.00029
%RSD	493.79	1.5261	6.6834	69.753	8.1953
#1	-.00001	.97596	.00110	.00040	.00379
#2	-.00001	.96905	.00100	.00038	.00354
#3	.00004	.99773	.00097	.00005	.00322
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
[redacted]h Limit	5.0000	1000.0	30.000	100.00	100.00
[redacted] Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00324	.11052	.08420	-.00023	.04214
Stddev	.00214	.00076	.00148	.00006	.01452
%RSD	66.177	.68746	1.7557	26.033	34.450
#1	.00570	.10971	.08272	-.00016	.05041
#2	.00179	.11064	.08568	-.00026	.05065
#3	.00222	.11121	.08421	-.00027	.02538
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01749	-.00078	131.46	.00421	.14090
Stddev	.00010	.00025	2.18	.00069	.00352
%RSD	.58853	31.380	1.6593	16.348	2.4966
#1	.01738	-.00103	129.74	.00444	.13932
#2	.01759	-.00054	130.71	.00475	.13845
#3	.01750	-.00078	133.91	.00343	.14493
[redacted]ck ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
[redacted]gh Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: L030454308 Run Time: 04/30/03 12:41

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00565	-.00011	.02170	.00220	.00435
Stddev	.00535	.00284	.00050	.00209	.00197
%RSD	94.571	2607.0	2.3057	95.060	45.279
#1	.00129	-.00025	.02135	.00351	.00249
#2	.00406	.00280	.02228	-.00021	.00415
#3	.01162	-.00287	.02148	.00329	.00641
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.00028	-.03095	-.00420	.00734
Stddev	.00037	.00357	.00114	.00014
%RSD	134.16	11.532	27.010	1.8588
#1	-.00015	-.03228	-.00500	.00730
#2	.00047	-.02690	-.00471	.00722
#3	.00052	-.03366	-.00290	.00749
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: FE3 Sample Name: L030455401 Operator: JYH
Comment:
Run Time: 04/30/03 12:46 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496
Units	ppm	ppm	ppm	ppm
Avg	L -.23543	.00055	.00061	.01433
Stddev	.01305	.00080	.00137	.00083
%RSD	5.5434	146.46	223.22	5.7773
#1	-.24836	.00147	-.00087	.01522
#2	-.22226	.00020	.00088	.01358
#3	-.23569	-.00002	.00183	.01419
Check ?	LC Fail	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00
Low Limit	-.10000	-.01000	-.02000	-.10000

Elem	Ba4554	Be3130	Ca3736	Cd2288
Units	ppm	ppm	ppm	ppm
Avg	.14948	.00129	78.419	.00347
Stddev	.00060	.00003	.344	.00030
%RSD	.40075	2.4322	.43824	8.7928
#1	.15006	.00129	78.082	.00377
#2	.14951	.00132	78.769	.00347
#3	.14886	.00126	78.407	.00316
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	20.000	5.0000	1000.0	30.000
Low Limit	-.01000	-.00050	-.10000	-.00200

Elem	Co2286	Cr2677	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm
Avg	.00440	.00154	.02325	.00495
Stddev	.00022	.00055	.00106	.00076
%RSD	4.9394	35.567	4.5784	15.405
#1	.00422	.00217	.02240	.00419
#2	.00464	.00117	.02444	.00494
#3	.00433	.00129	.02290	.00571
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	100.00	100.00	50.000	1000.0
Low Limit	-.00500	-.00500	-.02000	-.02000

Elem	K_7664	Li6707	Mg2779	Mn2576
Units	ppm	ppm	ppm	ppm
Avg	.25774	.01747	.77023	.05782
Stddev	.01917	.00035	.01321	.00024
%RSD	7.4384	2.0059	1.7156	.41107
#1	.25711	.01759	.75614	.05757
#2	.27721	.01775	.78235	.05783
#3	.23888	.01708	.77221	.05805
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	400.00	15.000	1000.0	40.000
Low Limit	-.50000	-.10000	-.10000	-.01000

Sample Name: L03045540i Run Time: 04/30/03 12:46

Elem	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm
Avg	.00254	122.82	.00901	.02321
Stddev	.00089	1.77	.00109	.00431
%RSD	35.060	1.4430	12.050	18.575
#1	.00152	123.38	.01016	.01877
#2	.00290	124.25	.00800	.02349
#3	.00319	120.84	.00888	.02738
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	300.00	100.00	200.00
Low Limit	-.10000	-.50000	-.02000	-.02000

Elem	Sb2068	Se1960	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm
Avg	.00954	-.00147	.20040	.00190
Stddev	.00557	.00659	.00229	.00170
%RSD	58.343	449.38	1.1424	89.242
#1	.01443	-.00844	.20035	.00241
#2	.00348	-.00061	.20272	.00001
#3	.01070	.00465	.19814	.00329
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000

Elem	Sr2152	Ti3349	T11908	V_3102
Units	ppm	ppm	ppm	ppm
Avg	.21294	-.00108	-.02469	-.00116
Stddev	.00199	.00066	.00157	.00105
%RSD	.93267	61.052	6.3748	90.215
#1	.21066	-.00036	-.02639	-.00132
#2	.21431	-.00165	-.02438	-.00004
#3	.21384	-.00122	-.02328	-.00213
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	30.000	20.000	100.00
Low Limit	-.01000	-.01000	-.04000	-.01000

Elem	Zn2138
Units	ppm
Avg	.28435
Stddev	.00039
%RSD	.13833
#1	.28401
#2	.28478
#3	.28427
Check ?	LC Pass
High Limit	40.000
Low Limit	-.01000

Method: FE3 Sample Name: L030455401S Operator: JYH
Comment:
Run Time: 04/30/03 13:11 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	8.6828	.19604	.93886	.95993	9.4060
Stddev	.0902	.00186	.00304	.00067	.0480
%RSD	1.0390	.95036	.32363	.07021	.51045
#1	8.7515	.19425	.93589	.96032	9.4537
#2	8.7163	.19591	.93873	.96031	9.4067
#3	8.5807	.19797	.94197	.95915	9.3576
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	10.000	100.00	100.00	20.000
Low Limit	-.10000	-.01000	-.02000	-.10000	-.01000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.90400	88.734	.96942	.95729	.94771
Stddev	.00134	.398	.00314	.00624	.00697
%RSD	.14820	.44838	.32358	.65156	.73556
#1	.90276	88.279	.96603	.95033	.93995
#2	.90542	88.902	.97000	.95915	.94974
#3	.90382	89.020	.97223	.96237	.95344
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5.0000	1000.0	30.000	100.00	100.00
Low Limit	-.00050	-.10000	-.00200	-.00500	-.00500

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.93386	.91933	41.677	8.0745	10.239
Stddev	.00518	.00631	.561	.1403	.089
%RSD	.55468	.68680	1.3465	1.7375	.87232
#1	.93308	.91209	42.061	8.1913	10.189
#2	.93939	.92364	41.937	8.1134	10.342
#3	.92911	.92228	41.033	7.9189	10.186
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	1000.0	400.00	15.000	1000.0
Low Limit	-.02000	-.02000	-.50000	-.10000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0000	.94830	143.75	.97023	.95547
Stddev	.0060	.00698	4.98	.00678	.00582
%RSD	.59689	.73602	3.4636	.69896	.60873
#1	.99321	.94033	147.65	.96240	.94876
#2	1.0024	.95125	145.45	.97408	.95899
#3	1.0044	.95332	138.14	.97420	.95867
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	40.000	30.000	300.00	100.00	200.00
Low Limit	-.01000	-.10000	-.50000	-.02000	-.02000

Sample Name: L0304554015 Run Time: 04/30/03 13:11

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.94654	.93743	9.6339	-.00200	1.1770
Stddev	.00383	.00853	.0067	.00106	.0108
%RSD	.40490	.91015	.06974	52.927	.92061
#1	.94615	.93051	9.6298	-.00299	1.1652
#2	.95056	.94696	9.6303	-.00088	1.1792
#3	.94292	.93482	9.6417	-.00214	1.1865
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	50.000	20.000	50.000	30.000	30.000
Low Limit	-.02000	-.02000	-1.0000	-.10000	-.01000

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.90912	.90773	.96210	1.2403
Stddev	.00182	.01301	.00300	.0030
%RSD	.19973	1.4331	.31165	.24033
#1	.90921	.89329	.96021	1.2378
#2	.91089	.91855	.96555	1.2395
#3	.90726	.91133	.96053	1.2436
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	30.000	20.000	100.00	40.000
Low Limit	-.01000	-.04000	-.01000	-.01000

Method: FE3 Sample Name: CCV Operator:
Comment:
n Time: 04/30/03 13:16 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Al3944	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.5357	.38394	.37580	9.3863	.97424
Stddev	.1072	.00193	.00259	.0197	.00521
%RSD	1.1244	.50167	.68927	.20972	.53444
#1	9.5064	.38506	.37879	9.3859	.97507
#2	9.4461	.38504	.37434	9.3668	.96867
#3	9.6545	.38171	.37426	9.4061	.97899
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.000	.40000	.40000	10.000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04767	9.6350	.04815	.19500	.48603
Stddev	.00020	.0181	.00035	.00127	.00207
%RSD	.42619	.18754	.71717	.65011	.42506
#1	.04788	9.6543	.04853	.19508	.48757
#2	.04747	9.6184	.04806	.19622	.48684
#3	.04766	9.6323	.04786	.19369	.48368
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
lue	.05000	10.000	.05000	.20000	.50000
nge	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.47142	3.8486	52.817	.98337	9.6003
Stddev	.00053	.0083	1.966	.02482	.0751
%RSD	.11164	.21649	3.7227	2.5237	.78263
#1	.47203	3.8547	50.911	.96735	9.6842
#2	.47108	3.8519	52.703	.97080	9.5391
#3	.47115	3.8391	54.838	1.0120	9.5777
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	4.0000	50.000	1.0000	10.000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.48325	.98335	53.514	.48751	.48632
Stddev	.00138	.00218	2.030	.00162	.00413
%RSD	.28463	.22123	3.7938	.33227	.84863
#1	.48441	.98477	51.529	.48805	.48330
#2	.48362	.98444	53.427	.48879	.49102
#3	.48173	.98085	55.587	.48569	.48463
ck ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	1.0000	50.000	.50000	.50000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Sample Name: CCV Run Time: 04/30/03 13:16

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.1977	.38551	4.6979	.99698	.97122
Stddev	.0053	.00081	.0053	.00343	.00616
%RSD	.44494	.20909	.11266	.34453	.63381
#1	1.2023	.38481	4.7024	.99893	.97792
#2	1.1919	.38639	4.6992	.99900	.96992
#3	1.1990	.38532	4.6920	.99302	.96582
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.2000	.40000	5.0000	1.0000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	.94402	.49554	.96799	.98130
Stddev	.00376	.00443	.00655	.00241
%RSD	.39871	.89410	.67714	.24556
#1	.94729	.49677	.97392	.98250
#2	.93990	.49923	.96095	.98288
#3	.94486	.49062	.96908	.97853
Check ?	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.50000	1.0000	1.0000
Range	10.000%	10.000%	10.000%	10.000%

Method: FE3 Sample Name: CCB Operator:
Comment:
n Time: 04/30/03 13:21 Type: Blank Mode: CONC Corr.Fact: 1.000000

Elem	A13944	Ag3280	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00588	-.00035	-.00083	-.00137	.00042
Stddev	.00568	.00075	.00174	.00388	.00050
%RSD	96.674	211.95	210.04	283.87	118.21
#1	-.00064	-.00119	.00089	.00284	-.00014
#2	.00845	.00023	-.00260	-.00213	.00080
#3	.00982	-.00010	-.00079	-.00481	.00060
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.20000	.00500	.01000	.05000	.00250
Low Limit	-.20000	-.00500	-.01000	-.05000	-.00250

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	-.01624	.00001	-.00001	.00013
Stddev	.00004	.01303	.00122	.00024	.00051
%RSD	131.91	80.236	15024.	2233.9	379.87
#1	.00004	-.02908	.00132	-.00018	-.00003
#2	-.00001	-.01660	-.00109	-.00012	.00071
#3	.00006	-.00303	-.00020	.00027	-.00027
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
jh Limit	.00025	.05000	.00100	.00250	.00250
ow Limit	-.00025	-.05000	-.00100	-.00250	-.00250

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00164	-.00049	-.00105	-.00019	.00067
Stddev	.00231	.00062	.02537	.00019	.04812
%RSD	140.63	127.20	2411.9	97.179	7229.0
#1	.00019	-.00033	.02630	-.00026	.05581
#2	-.00088	-.00118	-.00563	-.00034	-.02103
#3	-.00424	.00004	-.02383	.00002	-.03279
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01000	.02000	.25000	.05000	.10000
Low Limit	-.01000	-.02000	-.25000	-.05000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00173	.01057	-.00014	.00422
Stddev	.00002	.00125	.00803	.00039	.00143
%RSD	38.472	71.939	75.957	282.80	33.938
#1	.00004	.00301	.00266	.00031	.00286
#2	.00009	.00051	.01871	-.00036	.00408
#3	.00007	.00169	.01033	-.00037	.00571
ck ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00250	.05000	.10000	.01000	.01000
Low Limit	-.00250	-.05000	-.10000	-.01000	-.01000

Sample Name: CCB Run Time: 04/30/03 13:21

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00299	.00235	.00070	-.00116	-.00153
Stddev	.00398	.00282	.00157	.00179	.00098
%RSD	132.89	119.95	225.47	154.36	64.179
#1	.00181	.00138	.00207	-.00046	-.00171
#2	-.00026	.00014	.00105	.00017	-.00240
#3	.00743	.00552	-.00102	-.00320	-.00047
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.02000	.01000	.25000	.20000	.00500
Low Limit	-.02000	-.01000	-.25000	-.20000	-.00500

Elem	Ti3349	Tl1908	V_3102	Zn2138
Units	ppm	ppm	ppm	ppm
Avg	-.00017	.00178	.00217	.00029
Stddev	.00068	.00502	.00151	.00005
%RSD	396.26	282.77	69.646	18.023
#1	-.00068	-.00071	.00068	.00030
#2	-.00045	-.00152	.00213	.00024
#3	.00060	.00755	.00370	.00034
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01500	.02000	.00728	.01000
Low Limit	-.01500	-.02000	-.00728	-.01000

2.3.1.3 Preparation Log (s)

Microwave Digestion Log

Volume # 59
Page 9

Analyst(s): UC
Date: 4/29/03 11:00
LCS: 5 mC DSS00 53-60
MS/MSD: 5 mC DSS00 53-60
Witness: TLT
Earliest Sample Due Date: 4/30

Box: K3
HNO_3 Lot #: N35
HCl Lot #: —

Digestion Work Group: WG 139316
Analytical Work Group: WG

ME407 - Method 3015-Water
ME406 - Method 3051-Soil-Oil

7

	KEMRON #	Initial Wt/Vol	Final Volume	Initial Weight	Final Weight	Comments	Due Date
1	PBW	50 mC	50 mC	422.65	422.61	03	
2	LCSW			408.22	408.21	04	
3	RBLKF 4/29			420.18	420.17	RWJ 139285 0830	4/30
4	R64605-01	5		402.73	402.74		
5	01MS			412.98	412.94		
6	RBLK 4/28	50		409.58	409.57	RWJ 139288 1500	
7	500 02	5		406.45	406.43	WG 139316 02	5/1
8	02 dup			407.14	407.11	07	
9	501-03			409.38	409.36	WG 139316 01	5/1
10	03MS			411.47	411.43	05	
11	03MSD			404.57	404.54	06	
12	04			410.03	410.02		
13	05			406.58	406.54		
14	543 02			407.73	407.70		5/2
15	04			407.47	407.42		
16	05			418.03	418.03		
17	07			407.46	407.44		
18	08			405.76	405.72		
19	554 01 *			411.68	411.65		5/2
20	01MS			406.05	406.00		
21	594 03 *			402.27	402.22		5/5
22							
23							
24							
25							
26							
27							
28							
29							
30							

UC 4/29/03

Comments: *level 4

Peer Review By: [signature]

Supervisor Review:

2.3.1.4 Sample Calculations

Example 6010 Calculations
Perkin Elmer Optima 3000 (PE-ICP)

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and three standards:

The equation is in the form of I = mC + b,

Where: I = Mean emission intensity at the element's measured wavelength.
C = Concentration of the element in mg/L
m = Slope of the ICAL curve computed by system
b = Intercept of the ICAL curve computed by system

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$C = [(I - b) / (m)]] [(Qs) / (Vp)] [D]$$

Where:		Example:
I	= Mean adjusted intensity at the element's measured wavelength.	307088.8
b	= Intercept of the ICAL curve computed by system	373.4
m	= Slope of the ICAL curve computed by system	780569.9
Qs	= Sample quantity digested (defaults to 1)_	1
Vp	= Prep volume (defaults to 1)	1
D	= Dilution factor as a multplier (10X = 10)	1
C	= Concentration of element in ppm (mg/L):	0.39293778

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$C = [(I - b) / m]] [(Vp) / (Qs)] [D]$$

Where:		Example:
I	= Mean emission intensity at the element's measured wavelength.	307088.8
b	= Intercept of the ICAL curve computed by system	373.4
m	= Slope of the ICAL curve computed by system	780569.9
Qs	= Sample quantity digested (g)	2
Vp	= Prep volume (mL)	100
D	= Dilution factor as a multplier (10X = 10)	1
C	= Concentration of element in ppm (mg/kg):	19.6488888

5.0 Adjusting the concentration to dry weight:

$$C dry = [(Cx)(100)] / Px$$

Where:			
Cx	= Concentration calculated as received (wet basis):		19.646889
Px	= Percent solids of sample (%wt)		80
		C(mg/kg)	24.5586113

Example 6010 Calculations
TJA - Iris

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and three standards:

2.0 Calculating the concentration (C) of an element in water using data from run log and quantitation report (note: this calculation is performed automatically by the data system when correction factors have been entered):

$$Cx = (Cs) (Fc) (D)$$

	Example:
Where:	
Cs = Concentration computed by the data system (mg/L)(ppm)	0.1
Fc = Correction factor for the preparation data, = Final volume/ initial volume	1
D = Dilution factor as a multiplier (10X = 10)	1
Cx = Concentration of element in ppm (mg/L):	**0.1**

3.0 Calculating the concentration (C) of an element in soil using data from prep log and quantitation report (note: this calculation is performed automatically by the data system when correction factors have been entered):

$$Cx = (Cs) (Fc) (D)$$

	Example:
Where:	
Cs = Concentration computed by the data system (mg/L)(ppm)	0.1
Fc = Correction factor for the preparation data, = Final volume(mL)/ initial weight (g)	50
D = Dilution factor as a multiplier (10X = 10)	1
Cx = Concentration of element in ppm (mg/kg):	**5**

4.0 Adjusting the concentration to dry weight:

$$Cdry = [(Cx)(100)] / Px$$

Where:		
Cx = Concentration calculated as received (wet basis):		125
Px = Percent solids of sample (%wt)		80
	C(mg/kg)	156.25

Example 6020 Calculations
Perkin Elmer ELAN ICP/MS

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and three standards:

2.0 Calculating the concentration (C) of an element in water using data from run log and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = [\,Cs\,]\ [(Vf / Vi)]\ [D]$$

	Example:
Where:	
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Diluted To Volume (mL)	50
Vi = Aliquot Volume (mL)	40
D = Manual dilution factor, if required (10X = 10)	1
Cx = Concentration of element in ppb (ug/L)	**0.125**

3.0 Calculating the concentration (C) of an element in soil using data from prep log and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = [\,Cs\,]\ [(Vf / Ws)]\ [D]$$

	Example:
Where:	
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Diluted To Volume (mL)	50
Ws = Aliquot weight (g)	0.5
D = Manual dilution factor	1
Cx = Concentration of element in ug/kg	**10**

4.0 Adjusting the concentration to dry weight:

$$Cdry = [(Cx)(100)] / Px$$

Where:		
Cx = Concentration calculated as received (wet basis):		10
Px = Percent solids of sample (%wt)		80
	C(ug/kg)	**12.5**

12.5 ug/kg = 0.0125 mg/kg

2.3.3 Metals CVAA (Mercury) Data

METALS - CVAA (MERCURY) DATA
Login Number: 0304554

A. QC Summary

✓ Batch QC Summary Form

B. Raw Data

✓ Analyst checksheet
✓ Analysis run log
✓ Instrument data: (actual order may vary)

- Initial and continuing calibration standards
- Initial and continuing calibration blanks
- Preparation blank data
- Laboratory control sample
- Sample data
- Matrix spike
- Matrix spike duplicate
- Duplicate
- Post digestion spike (if applicable)
- Serial dilution (as needed)
- Standard additions results (as needed)

C. Preparation Log(s)

D. Sample Calculations

Checked by: DK SKP Date: 5/7/03

2.3.3.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number:L0304554 Run Date:05/01/2003 Sample ID:WG139443-03
Instrument ID:PS202 Run Time:14:05 Prep Method:METHOD
File ID:PS.050103.140535 Analyst:KHR Method:7470A
Workgroup (AAB#):WG139511 Matrix:Tclp Units:mg/L
Contract #: Cal ID: PS202-01-MAY-03

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Mercury, TCLP	0.00000520	0.000500	0.00000900	1	J

KEMRON FORMS - Modified 05/02/2003
Version 1.3
Report generated 05/02/2003 14:07

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0304554 Run Date: 05/01/2003 Sample ID: WG139443-04
Instrument ID: PS202 Run Time: 14:06 Prep Method: METHOD
File ID: PS.050103.140645 Analyst: KHR Method: 7470A
Workgroup (AAB#): WG139511 Matrix: Tclp Units: mg/L
Contract #: Cal ID: PS202-01-MAY-2003 13:57

Analytes	Expected	Found	% Rec	LCS Limits	Q
Mercury, TCLP	0.00400	0.00388	97.0	80 - 120	

KEMRON FORMS - Modified 05/01/2003
Version 1.3
Report generated 05/02/2003 14:07

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 8

Analytical Method: 7470A
Login Number: L0304554

AAB#: WG139511
Contract #: Bonnie Hogue

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
05-177511-SP1-042403	04/24/03	04/25/03	04/30/03	28	5.69	05/01/03	28	6.92	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYITICAL HOLD TIME

KEMRON FORMS - Modified 05/28/2002
Version 1.1
Report generated 05/07/2003 16:17

2.3.3.2 Raw Data

Metals

Date: 5/1/03
Analyst: KLu
Method: 7470A
Instrument: P5202
Work Group: 139511, 139528

	Analyst
Calibration/Linearity	✓
ICV/CCV	✓
ICB/CCB	✓
icsa/icsab/cri	NA
Blank/LCS	✓
MS/MSD	✓
Postspike/Serial Dilution	✓
Duplicate	✓
Record Results	✓
Excel Spreadsheets	✓
Results Reporting / Data Qualifiers	
Calculations & Correct Factors	
Reanalysis Assign	
Instrument Failure/Reassign	
Case Narrative	
QA Approval - Seedpak 3	
Check for Completeness	
Level IV Data	04-554
	04-534
	04-459
MS/2	04-566

LWG139548

Primary Reviewer Initials & Date Checked KLu 5/1/03

Secondary Reviewer Initials & Date Checked MMB 5/1/03 5/2/03

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
✓ • Check the information for the report narrative
✓ • Check the reasonableness of results

Supervisory Review Initials & Date Checked MB 5/1/03 5/2/03

Comments: _____

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

KEMRON ENVIRONMENTAL SERVICES
MERCURY RUN LOGBOOK

ANALYST Kim N Rhodes DATE 5/1/03 TIME 1351
METHOD # 7470A SOP # ME-404 REV. # C WORK GROUP # 139511, 139528
CAL STD SOURCE DS500 55-27 ICV/CCV SOURCE DS2055-28
POST SPK SOURCE DS2055-27 (10 PPB Std)

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
	50				27.	04-500-01RS	0.9		CCV/CCB (x2)
	50.2				28.	PBW A1			UG 139449-03
	51.0				29.	LCSW A1			-04
	52.0				30.	04-490-01			-02
	55.0				31.	0.5DP			-07
	510				32.	02			
	~~ICV~~				33.	04-455-02			
	~~ICB~~			CCV/CCB	34.	03			
1.	PBW J1			UG 139443-03	35.	01			
2.	LCSW J1			-04	36.	05			
3.	04-419-03				37.	06			CCV/CCB -01
4.	03RS	0.9			38.	075			-05
5.	04				39.	085D			-06
6.	04-500-01		1/50		40.	09			
7.	015		↓		41.	10			
8.	TCB/K 4/28				42.	04-506-01			
9.	04-506-02		5/50		43.	01RS	0.9		
10.	04-501-03			CCV/CCB	44.	03			
11.	04			-01	45.	04			
12.	045			-05	46.	06			
13.	045D			-06	47.	08			CCV/CCB
14.	05				48.	11			CCV/CCB
15.	01-543-02				49.	04-419-03	0.5		
16.	04				50.	03 + 10PB			
17.	05			-02	51.	03 + 2PB			
18.	05D			-07	52.	03 + 3PB			CCV/CCB
19.	07				53.				
20.	08			CCV/CCB	54.				
21.	04-554-01				55.				
22.	04-554-03				56.				
23.	03RS	0.9			57.				
24.	035		↓		58.				
25.	04-419-03RS RR	0.9			59.				
26.	04RS	0.9			60.				

5/1/03

Comments: _____

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:

CCV - Continuing Calibration Verification
CCB = Continuing Calibration Blank
% D = Automatic Instrument Rerun due to % RSD > 20%
FRS = Rull Recalibration Sequence

ID = Automatic Instrument Dilution
R = Analyst Rerun
BLK = Blank Rerun

Reviewed By: MMB 05/02/03

INORGANIC ANALYSES DATA SHEET
INITIAL MULTIPOINT CALIBRATION

Analytical Method: 7470 AAB#:

Lab Name: KEMRON ENVIRONMENTAL SERVICES Contract #:

Date of Initial Calibration: 1-May-03 Initial Calibration ID:

Instrument ID: PS202 Concentration Units (mg/L or mg/kg dry weight): ug/L

Analyte	Std 1	RF 1	Std 2	RF 2	Std 3	RF 3	Std 4	RF 4	Std 5	RF 5	Std 6	RF 6	r	Q
Mercury	0.00	455	0.20	11801	1.00	46092	2.0	88578	5.0	231444	10.0	443636	0.99977	

r = correlation coefficient

Comments:

Form 1v ChemSW 707)864-0845;v1.0;12/1/07

APCEE FORM I-3B

KEMRON ENVIRONMENTAL SERVICES
FORM 2A - INITIAL AND CONTINUING CALIBRATION VERIFICATION

INSTRUMENT:	PS202
METHOD:	7470
ANALYST:	KHR
DATE:	5/1/03
UNITS:	ug/L
ICV Time:	1:59 PM
CCV1 Time:	2:03 PM
CCV2 Time:	2:17 PM

	Initial Calibration Verification			Continuing Calibration Verification					Q
					CCV1		CCV2		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury	2.0	2.15	107.5	2.0	2.14	107.0	2.10	105.0	

(1) Control Limits: 80-120%

KEMRON ENVIRONMENTAL SERVICES
FORM 2A - INITIAL AND CONTINUING CALIBRATION VERIFICATION

INSTRUMENT: PS202
METHOD: 7470
ANALYST: KHR
DATE: 5/1/03

UNITS: ug/L

ICV Time: 1:59 PM
CCV1 Time: 2:31 PM
CCV2 Time: 2:49 PM

	Initial Calibration Verification			Continuing Calibration Verification CCV1			CCV2		Q
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury	2.0	2.15	107.5	2.0	2.15	107.5	2.15	107.5	

(1) Control Limits: 80-120%

KEMRON ENVIRONMENTAL SERVICE
FORM 3 - BLANKS

INSTRUMENT:	PS202
METHOD:	7470
ANALYST:	KHR
DATE:	5/1/03
UNITS:	ug/L
ICB Time:	2:01 PM
CCB1 Time:	2:04 PM
CCB2 Time:	2:19 PM
CCB3 Time:	2:32 PM

	Initial Calibration Blank(ug/L)	Continuing Calibration Blank (ug/L)		
		CCB1	CCB2	CCB3
Analyte		1	2	3
Mercury	-.004	-.013	-.026	-.017

KEMRON ENVIRONMENTAL SERVICE
FORM 3 - BLANKS

INSTRUMENT:	PS202
METHOD:	7470
ANALYST:	KHR
DATE:	5/1/2003
UNITS:	ug/L
ICB Time:	2:01 PM
CCB1 Time:	3:02 PM
CCB2 Time:	
CCB3 Time:	

	Initial Calibration Blank (ug/L)	Continuing Calibration Blank (ug/L)		
		CCB1	CCB2	CCB3
Analyte		1	2	3
Mercury	-.004	.006		

*** Standard: 1 Rep: 1 Seq: 846 13:51:17 01 May 2003 HG

Hg .000 ppb 455

*** Standard: 2 Rep: 1 Seq: 847 13:52:27 01 May 2003 HG

Hg .200 ppb 11801

*** Standard: 3 Rep: 1 Seq: 848 13:53:39 01 May 2003 HG

Hg 1.00 ppb 46092

*** Standard: 4 Rep: 1 Seq: 849 13:54:49 01 May 2003 HG

Hg 2.00 ppb 88578

*** Standard: 5 Rep: 1 Seq: 850 13:56:05 01 May 2003 HG

Hg 5.00 ppb 231444

*** Standard: 6 Rep: 1 Seq: 851 13:57:26 01 May 2003 HG

Hg 10.0 ppb 443636

RunProt: CLP2 Hg analysis in the ppb range

RunFold: 041503 Seq: 852 Batch:

Prnt: R/T On Pump: On

Rev: 4.2 13:58:00 01 May 2003 Xmit: Off Gas: 0.70 LPM

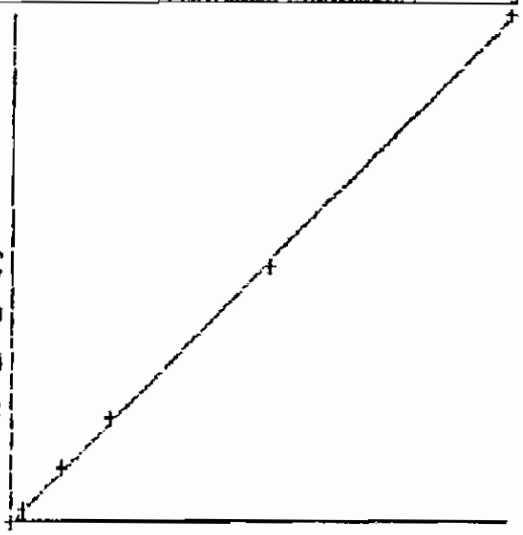
State: Idle User: KHR A/S: On

CALIBRATION: Line proto: CLP2

	Hg Conc.	Calc.	Dev.	Accepted ->linear
S1	.000	-.038	-.038	Quadratic
S2	.200	.218	.018	Wtdlinear
S3	1.00	.989	-.011	
S4	2.00	1.94	-.056	Accept
S5	5.00	5.16	.157	
S6	10.0	9.93	-.070	

A .0000000 r .999768

B 2.24906e-5 C -4.79053e-2



	Mean		
S1	455	0 SD	455
S2	11801	0 %RSD	11801
S3	46092	0 %RSD	46092
S4	88578	0 %RSD	88578
S5	231444	0 %RSD	231444
S6	443636	0 %RSD	443636

New cal coefficients stored

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Check Standard: 2 Ck2ICV Seq: 852 13:59:57 01 May 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		107.	2.15	2.00	ppb	.000 %

*** Check Standard: 3 Ck3ICB Seq: 853 14:01:39 01 May 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-1.77	-.004	.200	ppb	.000 %

*** Check Standard: 2 Ck2CCV Seq: 854 14:03:08 01 May 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		107.	2.14	2.00	ppb	.000 %

*** Check Standard: 3 Ck3CCB Seq: 855 14:04:17 01 May 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-6.53	-.013	.200	ppb	.000 %

*** Sample ID: WG13944303 Seq: 856 14:05:35 01 May 2003 HG

PBW J1

Hg	.009	ppb	.000	%	.009

*** Sample ID: WG13944304 Seq: 857 14:06:45 01 May 2003 HG

LCSW J1

Hg	3.88	ppb	.000	%	3.88

*** Sample ID: L030441903 Seq: 858 14:07:55 01 May 2003 HG

Hg	.042	ppb	.000	%	.042

*** Sample ID: PS03 0.9 Seq: 859 14:09:02 01 May 2003 HG

Hg	1.17	ppb	.000	%	1.17

*** Sample ID: L030441904 Seq: 860 14:10:10 01 May 2003 HG

Hg	.631	ppb	.000	%	.631

*** Sample ID: L030450001 Seq: 861 14:11:35 01 May 2003 HG

Hg	.040	ppb	.000	%	.040

*** Sample ID: MS01 Seq: 862 14:12:42 01 May 2003 HG

Hg	3.79	ppb	.000	%	3.79

*** Sample ID: TC BLK Seq: 863 14:14:09 01 May 2003 HG

4/28

Hg	.010	ppb	.000	%	.010

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: L030450002 Seq: 864 14:15:20 01 May 2003 HG

Hg -.011 ppb .000 % -.011

*** Sample ID: L030450103 Seq: 865 14:16:40 01 May 2003 HG

Hg -.007 ppb .000 % -.007

*** Check Standard: 2 CK2CCV Seq: 866 14:17:48 01 May 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		105.	2.10	2.00	ppb	.000 %

*** Check Standard: 3 CK3CCB Seq: 867 14:18:57 01 May 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-12.8	-.026	.200	ppb	.000 %

*** Sample ID: WG13944301 Seq: 868 14:20:05 01 May 2003 HG
L030450104
Hg .016 ppb .000 % .016

*** Sample ID: WG13944305 Seq: 869 14:21:10 01 May 2003 HG
L030450104S
Hg 4.45 ppb .000 % 4.45

*** Sample ID: WG13944306 Seq: 870 14:22:19 01 May 2003 HG
L030450104SD
Hg 4.48 ppb .000 % 4.48

*** Sample ID: L030450105 Seq: 871 14:23:33 01 May 2003 HG

Hg .009 ppb .000 % .009

*** Sample ID: L030454302 Seq: 872 14:24:38 01 May 2003 HG

Hg .005 ppb .000 % .005

*** Sample ID: L030454304 Seq: 873 14:25:44 01 May 2003 HG

Hg .005 ppb .000 % .005

*** Sample ID: WG13944302 Seq: 874 14:26:49 01 May 2003 HG
L030454305
Hg .022 ppb .000 % .022

*** Sample ID: WG13944307 Seq: 875 14:27:56 01 May 2003 HG
L030454305DP
Hg -.017 ppb .000 % -.017

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: L030454307 Seq: 876 14:29:05 01 May 2003 HG

Hg .002 ppb .000 % .002

*** Sample ID: L030454308 Seq: 877 14:30:10 01 May 2003 HG

Hg .005 ppb .000 % .005

*** Check Standard: 2 Ck2CCV Seq: 878 14:31:22 01 May 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		108.	2.15	2.00	ppb	.000 %

*** Check Standard: 3 Ck3CCB Seq: 879 14:32:31 01 May 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-8.30	-.017	.200	ppb	.000 %

*** Sample ID: L030455401 Seq: 880 14:33:39 01 May 2003 HG

Hg -.004 ppb .000 % -.004

*** Sample ID: L030459403 Seq: 881 14:34:55 01 May 2003 HG

Hg -.002 ppb .000 % -.002

*** Sample ID: PS03 0.9 Seq: 882 14:36:23 01 May 2003 HG

Hg 1.12 ppb .000 % 1.12

*** Sample ID: MS03 Seq: 883 14:37:39 01 May 2003 HG

Hg 4.47 ppb .000 % 4.47

*** Sample ID: 0441903PS Seq: 884 14:40:03 01 May 2003 HG

0.9 RR

Hg 1.19 ppb .000 % 1.19

*** Sample ID: 0441904PS Seq: 885 14:46:39 01 May 2003 HG

0.9

Hg 1.44 ppb .000 % 1.44

*** Sample ID: 0450001PS Seq: 886 14:47:45 01 May 2003 HG

0.9

Hg 1.09 ppb .000 % 1.09

*** Check Standard: 2 Ck2CCV Seq: 887 14:49:13 01 May 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		107.	2.15	2.00	ppb	.000 %

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Check Standard: 3 Ck3CCB Seq: 888 15:02:03 01 May 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		2.82	.006	.200	ppb	.000 %

*** Check Standard: 2 Ck2CCV Seq: 889 15:03:53 01 May 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		107.	2.13	2.00	ppb	.000 %

*** Check Standard: 3 Ck3CCB Seq: 890 15:05:06 01 May 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		10.7	.021	.200	ppb	.000 %

*** Sample ID: WG13944403 Seq: 891 15:06:33 01 May 2003 HG

PBW A1

Hg	.008	ppb	.000	%	.008

*** Sample ID: WG13944404 Seq: 892 15:07:39 01 May 2003 HG

LCSW A1

Hg	4.41	ppb	.000	%	4.41

*** Sample ID: WG13944402 Seq: 893 15:09:13 01 May 2003 HG

L030442001

Hg	.024	ppb	.000	%	.024

*** Sample ID: WG13944407 Seq: 894 15:10:21 01 May 2003 HG

L030442001DP

Hg	-.013	ppb	.000	%	-.013

*** Sample ID: L030442002 Seq: 895 15:11:36 01 May 2003 HG

Hg	-.005	ppb	.000	%	-.005

*** Sample ID: L030445902 Seq: 896 15:12:52 01 May 2003 HG

Hg	.021	ppb	.000	%	.021

*** Sample ID: L030445903 Seq: 897 15:14:29 01 May 2003 HG

Hg	.023	ppb	.000	%	.023

*** Sample ID: L030445904 Seq: 898 15:15:45 01 May 2003 HG

Hg	.005	ppb	.000	%	.005

*** Sample ID: L030445905 Seq: 899 15:16:52 01 May 2003 HG

Hg	.021	ppb	.000	%	.021

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: WG13944401 Seq: 900 15:18:03 01 May 2003 HG

L030445906

Hg .009 ppb .000 % .009

*** Check Standard: 2 Ck2CCV Seq: 901 15:19:11 01 May 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		108.	2.15	2.00	ppb	.000 %

*** Check Standard: 3 Ck3CCB Seq: 902 15:20:24 01 May 2003 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		.416	.001	.200	ppb	.000 %

*** Sample ID: WG13944405 Seq: 903 15:21:33 01 May 2003 HG

L030445907S

Hg 4.52 ppb .000 % 4.52

*** Sample ID: WG13944406 Seq: 904 15:22:40 01 May 2003 HG

L030445908SD

Hg 4.56 ppb .000 % 4.56

*** Sample ID: L030445909 Seq: 905 15:23:57 01 May 2003 HG

Hg -.036 ppb .000 % -.036

*** Sample ID: L030445910 Seq: 906 15:25:15 01 May 2003 HG

Hg .019 ppb .000 % .019

*** Sample ID: L030450601 Seq: 907 15:26:19 01 May 2003 HG

Hg -.011 ppb .000 % -.011

*** Sample ID: PS01 0.9 Seq: 908 15:27:28 01 May 2003 HG

Hg 1.06 ppb .000 % 1.06

*** Sample ID: L030450603 Seq: 909 15:28:33 01 May 2003 HG

Hg .021 ppb .000 % .021

*** Sample ID: L030450604 Seq: 910 15:29:58 01 May 2003 HG

Hg .011 ppb .000 % .011

*** Sample ID: L030450606 Seq: 911 15:31:33 01 May 2003 HG

Hg .016 ppb .000 % .016

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: L030450608				Seq: 912	15:32:39 01 May 2003 HG			
Hg	.026	ppb	.000 %	.026				
*** Check Standard: 2 Ck2CCV				Seq: 913	15:33:47 01 May 2003 HG			
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		108.	2.16	2.00	ppb	.000 %		
*** Check Standard: 3 Ck3CCB				Seq: 914	15:34:55 01 May 2003 HG			
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		-5.94	-.012	.200	ppb	.000 %		
*** Sample ID: L030450611				Seq: 915	15:36:07 01 May 2003 HG			
Hg	.028	ppb	.000 %	.028				
*** Check Standard: 2 Ck2CCV				Seq: 916	15:37:13 01 May 2003 HG			
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		107.	2.14	2.00	ppb	.000 %		
*** Check Standard: 3 Ck3CCB				Seq: 917	15:38:20 01 May 2003 HG			
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		7.50	.015	.200	ppb	.000 %		
*** Sample ID: L030441903				Seq: 918	15:42:02 01 May 2003 HG			
Hg	.030	ppb	.000 % (0.5)	.030				
*** Sample ID: 03 + 1PPB				Seq: 919	15:43:12 01 May 2003 HG			
Hg	1.17	ppb	.000 %	1.17				
*** Sample ID: 03 + 2PPB				Seq: 920	15:44:18 01 May 2003 HG			
Hg	2.28	ppb	.000 %	2.28				
*** Sample ID: 03 + 3PPB				Seq: 921	15:45:29 01 May 2003 HG			
Hg	3.35	ppb	.000 %	3.35				
*** Check Standard: 2 Ck2CCV				Seq: 922	15:49:23 01 May 2003 HG			
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		109.	2.17	2.00	ppb	.000 %		
*** Check Standard: 3 Ck3CCB				Seq: 923	15:50:43 01 May 2003 HG			
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		1.14	.002	.200	ppb	.000 %		

$R = 0.9999$
$b = 0.047$
$[Hg] = ND$

2.3.3.3 Preparation Log (s)

Mercury Digestion Log

Volume No. 100
Page 13

Analyst(s): TLT
Box: J1
Digestion Work Group: WG 139443
Date: 4-30-03 @ 9:00
LCS: 2ml D3XC55-25
MS/MSD: 2ml D3SC055 25
Analytical Work Group: WG
Witness: VC
ME404 Revision # 6 - Method 7470A-Water
ME405 Revision # ____ - Method 7471A-Soil
H_2SO_4 Lot #: 31C
K_2SO_4 Lot #: PM 77
$KMNO_4$ Lot #: DS 57
HNO_3 Lot #: R135
Earliest Sample Due Date: 5/1/03
ICV / CCV: D3SC055-28
Stds: 0, 0.2, 1, 2, 5, 10: D3SC055 27
A Bath 2 Temperature @ start: 90°C @ 9:30
A Bath 2 Temperature @ end: 96°C @ 11:30
B Bath 2 Temperature @ start: 92°C @ 11:40
B Bath 2 Temperature @ end: 97°C @ 13:40
Pressure & Time: ——

*NOTE: All Hg standards are digested

	KEMRON #	Initial Wt/Vol	Final Volume	Comments	Due Date	Bath #
1	PBW	50ml	50ml	WG 139443 -03		2A
2	LCSW			-04		
3	04-414-03				5/2	
4	-04					
5	500-01	1ml			5/1	
6	-01MS					
7	TC BLK 4-28	50ml				
8	04-500-02	5ml			5/1	
9	501-03				5/1	
10	-04			-01		
11	-04 ms			-05		
12	-04 msd			-06		
13	-05					
14	543-02				5/2	
15	-04					
16	-05			-02		
17	05dup			-07		2B
18	-07					
19	-08					
20	~~544-01~~		TLT/30-4		5/1	
21	544-03				5/1	
22	-03 ms					
23						
24						
25						

Comments: * Aliquot from Bottle 2 after digestion * Reduced Vol

Peer Review By: Vicki Calla 4/30 Supervisor Review: ____