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Shaw The Shaw Group Inc.™

July 28, 2004

U. S. Army Engineer District, Nashville
ATTN: CELRN-EP-R-M (Linda Ingram)
110 Ninth Avenue South
U.S. Court House Annex
Nashville, TN 37203

Submittal of Analytical Data for the Background Soil Investigation, Plum Brook Ordnance Works, Sandusky, Ohio, Contract Number DACA62-00-D-0002

Dear Mrs. Ingram:

As required by the Scope of Work (SOW) for contract number DACA62-00-D-0002, enclosed are three copies of analytical data for the Plum Brook Ordnance Works (PBOW). The data sets contain analytical results from the following sampling events: Background Soil Investigation - August 2003. The data sets are separated into the following laboratory lot numbers: H3H080204 from Severn Trent Laboratories and F18977 from Accutest.

The reports include project sample data summaries, laboratory quality control summaries, case narratives, and chain-of-custody documentation.

If you have any questions or require additional information regarding this submittal, please call me at (865) 560-5271.

Sincerely,

Maureen F. McMyler

Maureen F. McMyler
Project Chemist

Enclosure

cc: Project file w/o enclosure

Sample Cross-reference
Background Soils
Former Plum Brook Ordnance Works
Sandusky, Ohio

Sample Type	Sample Location	Sample Number	Sample Date	Sample Purpose	Lot Number
SS	BCG-SB07	DB0001	6-Aug-03	REG	H3H080204
SS	BCG-SB08	DB0002	6-Aug-03	REG	H3H080204
SS	BCG-SB09	DB0003	6-Aug-03	REG	H3H080204
SS	BCG-SB09	DB0004	6-Aug-03	FD	H3H080204
SS	BCG-SB09	DB0005	6-Aug-03	FS	F18977
SS	BCG-SB010	DB0006	6-Aug-03	REG	H3H080204
SS	BCG-SB010	DB0006-MS	6-Aug-03	MS	H3H080204
SS	BCG-SB010	DB0006-MSD	6-Aug-03	MSD	H3H080204
SS	BCG-SB011	DB0007	6-Aug-03	REG	H3H080204
SS	BCG-SB012	DB0008	6-Aug-03	REG	H3H080204
SS	BCG-SB013	DB0009	6-Aug-03	REG	H3H080204

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SEVERN TRENT STL

STL Knoxville
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Knoxville, TN 37921

Tel: 865 291 3000 Fax: 865 584 4315
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ANALYTICAL REPORT

PROJECT NO. 825635

PBOW

Lot #: H3H080204

Maureen McMyler

Shaw E & I Inc
312 Directors Dr
Knoxville, TN 37923

SEVERN TRENT LABORATORIES, INC.

Jamie A. McKinney
Project Manager

August 29, 2003

ANALYTICAL METHODS SUMMARY

H3H080204

PARAMETER	ANALYTICAL METHOD
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A
Nitroaromatics and Nitramines by HPLC	SW846 8330
Percent Moisture	MCAWW 160.3 MOD
Polynuclear Aromatic Hydrocarbons by HPLC	SW846 8310
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

H3H080204

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FVXG5	001	DB0001	08/06/03	09:30
FVXHQ	002	DB0002	08/06/03	10:30
FVXHV	003	DB0003	08/06/03	08:15
FVXH2	004	DB0004	08/06/03	08:15
FVXH7	005	DB0006	08/06/03	14:00
FVXJL	006	DB0007	08/06/03	14:30
FVXJQ	007	DB0008	08/06/03	15:10
FVXJ0	008	DB0009	08/06/03	16:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H3H080204

The results reported herein are applicable to the samples submitted for analysis only.

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

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Subcontract

The following analysis was performed by STL Denver, 4955 Yarrow Street, Arvada, CO, 80002, PAH (SW846 8310).

Quality Control

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

PAHs

The overall mean %D is within control limit, therefore, the CCV is in control. However, the 5D was 17.2% on the confirmation channel for benzo(a)pyrene. The primary channel was within limits and all results were reported from that channel.

Metals

The serial dilution of sample DB0006 was outside control limits for potassium due to physical or chemical matrix interferences.

STL Knoxville maintains the following certifications, approvals and accreditations: Arkansas DEQ Cert. # 03-049-0, California DHS ELAP Cert. #2423, Colorado DPHE, Connecticut DPH Cert. #PH-0223, Florida DOH Cert. #E87177, Georgia DNR Cert. #906, Hawaii DOH, Illinois EPA Cert. # 000687, Indiana DOH Cert. #C-TN-02, Kansas DHE Cert. # E-10349, Kentucky DEP Lab ID #90101, Louisiana DEQ Cert. #03079, Louisiana DOHH Cert. #LA030024, Maryland DHMH Cert. #277, Massachusetts DEP Cert. #M-TN009, Michigan DEQ Lab ID #9933, New Jersey DEP Cert. #TN001, New York DOH Lab #10781, North Carolina DPH Lab ID #21705, North Carolina DEHNR Cert. #64, Oklahoma DEQ ID #9415, Pennsylvania DEP Cert. # 68-576, South Carolina DHEC Lab ID #84001001, Tennessee DOH Lab ID #02014, Utah DOH Cert. #QUAN3, Virginia DGS Lab ID #00165, Washington DOE Lab #C120, Wisconsin DNR Lab ID #998044300, US Army Corps of Engineers, Naval Facilities Engineering Service Center, US EPA Perchlorate Approval and USDA Soil Permit #S-46424. This list of approvals is subject to change and does not imply that laboratory certification is available for all parameters reported in this environmental sample data report.

PROJECT NARRATIVE
H3H080204

Metals (continued)

The matrix spike/matrix spike duplicate recoveries and RPDs for sample DB0006 were outside control limits for aluminum, antimony, iron and manganese. However, the laboratory control sample showed acceptable results indicating that the analysis was in control. The matrix spike/matrix spike duplicate results are, therefore, attributed to matrix effects. In addition, results outside of limits do not necessarily reflect poor method performance due to high analyte concentrations in the sample relative to the spike level.

STL Knoxville maintains the following certifications, approvals and accreditations: Arkansas DEQ Cert. # 03-049-0, California DHS ELAP Cert. #2423, Colorado DPHE, Connecticut DPH Cert. #PH-0223, Florida DOH Cert. #E87177, Georgia DNR Cert. #906, Hawaii DOH, Illinois EPA Cert. # 000687, Indiana DOH Cert. #C-TN-02, Kansas DHE Cert. # E-10349, Kentucky DEP Lab ID #90101, Louisiana DEQ Cert. #03079, Louisiana DOHH Cert. #LA030024, Maryland DHMH Cert. #277, Massachusetts DEP Cert. #M-TN009, Michigan DEQ Lab ID #9933, New Jersey DEP Cert. #TN001, New York DOH Lab #10781, North Carolina DPH Lab ID #21705, North Carolina DEHNR Cert. #64, Oklahoma DEQ ID #9415, Pennsylvania DEP Cert. # 68-576, South Carolina DHEC Lab ID #84001001, Tennessee DOH Lab ID #02014, Utah DOH Cert. #QUAN3, Virginia DGS Lab ID #00165, Washington DOE Lab #C120, Wisconsin DNR Lab ID #998044300, US Army Corps of Engineers, Naval Facilities Engineering Service Center, US EPA Perchlorate Approval and USDA Soil Permit #S-46424. This list of approvals is subject to change and does not imply that laboratory certification is available for all parameters reported in this environmental sample data report.

Sample Data Summary

SHAW E & I INC

Client Sample ID: DB0001

HPLC

Lot-Sample #...: H3H080204-001 **Work Order #...:** FVXG51AA **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1
% Moisture.....: 20 **Method.....:** SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	250	ug/kg	4.9
Acenaphthylene	ND	250	ug/kg	15
Anthracene	ND	25	ug/kg	3.2
Benzo(a)anthracene	ND	25	ug/kg	6.2
Benzo(a)pyrene	ND	25	ug/kg	2.2
Benzo(b)fluoranthene	ND	25	ug/kg	4.9
Benzo(ghi)perylene	ND	50	ug/kg	3.2
Benzo(k)fluoranthene	ND	25	ug/kg	2.9
Chrysene	ND	50	ug/kg	3.0
Dibenzo(a,h)anthracene	ND	50	ug/kg	5.7
Fluoranthene	ND	50	ug/kg	11
Fluorene	ND	50	ug/kg	11
Indeno(1,2,3-cd)pyrene	ND	50	ug/kg	2.9
1-Methylnaphthalene	ND	250	ug/kg	8.7
2-Methylnaphthalene	ND	250	ug/kg	4.1
Naphthalene	ND	250	ug/kg	15
Phenanthrene	ND	50	ug/kg	4.1
Pyrene	ND	50	ug/kg	8.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	97	(63 - 134)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

SHAW E & I INC

Client Sample ID: DB0002

HPLC

Lot-Sample #...: H3H080204-002 **Work Order #...:** FVXHQ1AH **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1
% Moisture.....: 23 **Method.....:** SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	**350 COL**	**260**	**ug/kg**	**5.1**
Acenaphthylene	ND	260	ug/kg	16
Anthracene	ND	26	ug/kg	3.4
Benzo(a)anthracene	ND	26	ug/kg	6.5
Benzo(a)pyrene	ND	26	ug/kg	2.3
Benzo(b)fluoranthene	ND	26	ug/kg	5.1
Benzo(ghi)perylene	ND	52	ug/kg	3.4
Benzo(k)fluoranthene	ND	26	ug/kg	3.0
Chrysene	ND	52	ug/kg	3.1
Dibenzo(a,h)anthracene	ND	52	ug/kg	6.0
Fluoranthene	ND	52	ug/kg	11
Fluorene	ND	52	ug/kg	11
Indeno(1,2,3-cd)pyrene	ND	52	ug/kg	3.0
1-Methylnaphthalene	ND	260	ug/kg	9.1
2-Methylnaphthalene	ND	260	ug/kg	4.3
Naphthalene	ND	260	ug/kg	16
Phenanthrene	ND	52	ug/kg	4.3
Pyrene	ND	52	ug/kg	9.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	99	(63 - 134)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

COL More than 40% RPD between primary and confirmation detector results. The lower of the two results is reported.

SHAW E & I INC

Client Sample ID: DB0003

HPLC

Lot-Sample #...: H3H080204-003 **Work Order #...:** FVXHV1AH **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1
% Moisture.....: 9.9 **Method.....:** SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	220	ug/kg	4.3
Acenaphthylene	ND	220	ug/kg	13
Anthracene	ND	22	ug/kg	2.9
Benzo(a)anthracene	ND	22	ug/kg	5.6
Benzo(a)pyrene	ND	22	ug/kg	2.0
Benzo(b)fluoranthene	ND	22	ug/kg	4.3
Benzo(ghi)perylene	ND	44	ug/kg	2.9
Benzo(k)fluoranthene	ND	22	ug/kg	2.6
Chrysene	ND	44	ug/kg	2.7
Dibenzo(a,h)anthracene	ND	44	ug/kg	5.1
Fluoranthene	ND	44	ug/kg	9.4
Fluorene	ND	44	ug/kg	9.7
Indeno(1,2,3-cd)pyrene	ND	44	ug/kg	2.6
1-Methylnaphthalene	ND	220	ug/kg	7.8
2-Methylnaphthalene	ND	220	ug/kg	3.7
Naphthalene	ND	220	ug/kg	13
Phenanthrene	ND	44	ug/kg	3.7
Pyrene	ND	44	ug/kg	7.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	78	(63 - 134)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

SHAW E & I INC

Client Sample ID: DB0004

HPLC

Lot-Sample #...: H3H080204-004 **Work Order #...:** FVXH21AH **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1
% Moisture.....: 9.7 **Method.....:** SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	220	ug/kg	4.3
Acenaphthylene	ND	220	ug/kg	13
Anthracene	ND	22	ug/kg	2.9
Benzo(a)anthracene	ND	22	ug/kg	5.5
Benzo(a)pyrene	ND	22	ug/kg	2.0
Benzo(b)fluoranthene	ND	22	ug/kg	4.3
Benzo(ghi)perylene	ND	44	ug/kg	2.9
Benzo(k)fluoranthene	ND	44	ug/kg	2.5
Chrysene	ND	44	ug/kg	2.7
Dibenzo(a,h)anthracene	ND	44	ug/kg	5.1
Fluoranthene	ND	44	ug/kg	9.4
Fluorene	ND	44	ug/kg	9.6
Indeno(1,2,3-cd)pyrene	ND	44	ug/kg	2.5
1-Methylnaphthalene	ND	220	ug/kg	7.8
2-Methylnaphthalene	ND	220	ug/kg	3.7
Naphthalene	ND	220	ug/kg	13
Phenanthrene	ND	44	ug/kg	3.7
Pyrene	ND	44	ug/kg	7.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	87	(63 - 134)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

SHAW E & I INC

Client Sample ID: DB0006

HPLC

Lot-Sample #...: H3H080204-005 **Work Order #...:** FVXH71AU **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 0.09
% Moisture.....: 16 **Method.....:** SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	**81 COL**	**22**	**ug/kg**	**0.42**
Acenaphthylene	ND	22	ug/kg	1.3
Anthracene	ND	2.2	ug/kg	0.28
Benzo(a)anthracene	ND	2.2	ug/kg	0.54
Benzo(a)pyrene	**12**	**2.2**	**ug/kg**	**0.19**
Benzo(b)fluoranthene	**130**	**2.2**	**ug/kg**	**0.42**
Benzo(ghi)perylene	ND	4.3	ug/kg	0.28
Benzo(k)fluoranthene	ND	2.2	ug/kg	0.25
Chrysene	ND	4.3	ug/kg	0.26
Dibenzo(a,h)anthracene	ND	4.3	ug/kg	0.50
Fluoranthene	ND	4.3	ug/kg	0.92
Fluorene	**14 COL**	**4.3**	**ug/kg**	**0.94**
Indeno(1,2,3-cd)pyrene	ND	4.3	ug/kg	0.25
1-Methylnaphthalene	ND	22	ug/kg	0.75
2-Methylnaphthalene	ND	22	ug/kg	0.36
Naphthalene	ND	22	ug/kg	1.3
Phenanthrene	ND	4.3	ug/kg	0.36
Pyrene	**240**	**4.3**	**ug/kg**	**0.74**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	96	(63 - 134)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

COL More than 40% RPD between primary and confirmation detector results. The lower of the two results is reported.

SHAW E & I INC

Client Sample ID: DB0007

HPLC

Lot-Sample #...: H3H080204-006 **Work Order #...:** FVXJL1AH **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1
% Moisture.....: 25 **Method.....:** SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	270	ug/kg	5.2
Acenaphthylene	ND	270	ug/kg	16
Anthracene	ND	27	ug/kg	3.5
Benzo(a)anthracene	ND	27	ug/kg	6.7
Benzo(a)pyrene	ND	27	ug/kg	2.4
Benzo(b)fluoranthene	ND	27	ug/kg	5.2
Benzo(ghi)perylene	ND	54	ug/kg	3.5
Benzo(k)fluoranthene	ND	27	ug/kg	3.1
Chrysene	ND	54	ug/kg	3.2
Dibenzo(a,h)anthracene	ND	54	ug/kg	6.2
Fluoranthene	**95**	**54**	**ug/kg**	**11**
Fluorene	**320 COL**	**54**	**ug/kg**	**12**
Indeno(1,2,3-cd)pyrene	ND	54	ug/kg	3.1
1-Methylnaphthalene	ND	270	ug/kg	9.4
2-Methylnaphthalene	ND	270	ug/kg	4.4
Naphthalene	ND	270	ug/kg	16
Phenanthrene	ND	54	ug/kg	4.4
Pyrene	ND	54	ug/kg	9.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	99	(63 - 134)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

COL More than 40% RPD between primary and confirmation detector results. The lower of the two results is reported.

SHAW E & I INC

Client Sample ID: DB0008

HPLC

Lot-Sample #...: H3H080204-007 **Work Order #...:** FVXJQ1AH **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1
% Moisture.....: 24 **Method.....:** SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	260	ug/kg	5.1
Acenaphthylene	ND	260	ug/kg	16
Anthracene	ND	26	ug/kg	3.4
Benzo(a)anthracene	ND	26	ug/kg	6.6
Benzo(a)pyrene	ND	26	ug/kg	2.4
Benzo(b)fluoranthene	ND	26	ug/kg	5.1
Benzo(ghi)perylene	ND	53	ug/kg	3.4
Benzo(k)fluoranthene	ND	26	ug/kg	3.0
Chrysene	ND	53	ug/kg	3.2
Dibenzo(a,h)anthracene	ND	53	ug/kg	6.0
Fluoranthene	ND	53	ug/kg	11
Fluorene	ND	53	ug/kg	11
Indeno(1,2,3-cd)pyrene	ND	53	ug/kg	3.0
1-Methylnaphthalene	ND	260	ug/kg	9.2
2-Methylnaphthalene	ND	260	ug/kg	4.3
Naphthalene	ND	260	ug/kg	16
Phenanthrene	ND	53	ug/kg	4.3
Pyrene	ND	53	ug/kg	9.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	80	(63 - 134)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

SHAW E & I INC

Client Sample ID: DB0009

HPLC

Lot-Sample #...: H3H080204-008 **Work Order #...:** FVXJ01AH **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1
% Moisture.....: 30 **Method.....:** SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	280	ug/kg	5.5
Acenaphthylene	ND	280	ug/kg	17
Anthracene	ND	28	ug/kg	3.7
Benzo(a)anthracene	ND	28	ug/kg	7.1
Benzo(a)pyrene	ND	28	ug/kg	2.6
Benzo(b)fluoranthene	ND	28	ug/kg	5.5
Benzo(ghi)perylene	ND	57	ug/kg	3.7
Benzo(k)fluoranthene	ND	28	ug/kg	3.3
Chrysene	ND	57	ug/kg	3.4
Dibenzo(a,h)anthracene	ND	57	ug/kg	6.5
Fluoranthene	ND	57	ug/kg	12
Fluorene	ND	57	ug/kg	12
Indeno(1,2,3-cd)pyrene	ND	57	ug/kg	3.3
1-Methylnaphthalene	ND	280	ug/kg	10
2-Methylnaphthalene	ND	280	ug/kg	4.7
Naphthalene	ND	280	ug/kg	17
Phenanthrene	ND	57	ug/kg	4.7
Pyrene	ND	57	ug/kg	9.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	81	(63 - 134)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

METHOD BLANK REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FWG6C1AA **Matrix.....:** SOLID
MB Lot-Sample #: D3H180000-523

Prep Date.....: 08/18/03
Analysis Date..: 08/21/03 **Prep Batch #...:** 3230523
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acenaphthene	ND	200	ug/kg	SW846 8310
Acenaphthylene	ND	200	ug/kg	SW846 8310
Anthracene	ND	20	ug/kg	SW846 8310
Benzo(a)anthracene	ND	20	ug/kg	SW846 8310
Benzo(a)pyrene	ND	20	ug/kg	SW846 8310
Benzo(b)fluoranthene	ND	20	ug/kg	SW846 8310
Benzo(ghi)perylene	ND	40	ug/kg	SW846 8310
Benzo(k)fluoranthene	ND	20	ug/kg	SW846 8310
Chrysene	ND	40	ug/kg	SW846 8310
Dibenzo(a,h)anthracene	ND	40	ug/kg	SW846 8310
Fluoranthene	ND	40	ug/kg	SW846 8310
Fluorene	ND	40	ug/kg	SW846 8310
Indeno(1,2,3-cd)pyrene	ND	40	ug/kg	SW846 8310
1-Methylnaphthalene	ND	200	ug/kg	SW846 8310
2-Methylnaphthalene	ND	200	ug/kg	SW846 8310
Naphthalene	ND	200	ug/kg	SW846 8310
Phenanthrene	ND	40	ug/kg	SW846 8310
Pyrene	ND	40	ug/kg	SW846 8310

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	100	(63 - 134)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FWG6C1AC **Matrix.....:** SOLID
LCS Lot-Sample#: D3H180000-523
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzo(a)pyrene	**103**	**(57 - 130)**	**SW846 8310**
Fluorene	**101**	**(63 - 129)**	**SW846 8310**
Indeno(1,2,3-cd)pyrene	**104**	**(63 - 130)**	**SW846 8310**
Naphthalene	**103**	**(64 - 131)**	**SW846 8310**
Pyrene	**110**	**(65 - 138)**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	95	(63 - 134)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FWG6C1AC **Matrix.....:** SOLID
LCS Lot-Sample#: D3H180000-523
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Benzo(a)pyrene	**2000**	**2060**	**ug/kg**	**103**	**SW846 8310**
Fluorene	**2000**	**2020**	**ug/kg**	**101**	**SW846 8310**
Indeno(1,2,3-cd)pyrene	**2000**	**2080**	**ug/kg**	**104**	**SW846 8310**
Naphthalene	**2000**	**2060**	**ug/kg**	**103**	**SW846 8310**
Pyrene	**2000**	**2190**	**ug/kg**	**110**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	95	(63 - 134)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FVXH71AV-MS **Matrix.....:** SOLID
MS Lot-Sample #: H3H080204-005 FVXH71AW-MSD
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1 **% Moisture.....:** 16

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzo(a)pyrene	**99**	**(57 - 130)**			**SW846 8310**
	112	**(57 - 130)**	**12**	**(0-34)**	**SW846 8310**
Fluorene	**95**	**(63 - 129)**			**SW846 8310**
	106	**(63 - 129)**	**11**	**(0-40)**	**SW846 8310**
Indeno(1,2,3-cd)pyrene	**94**	**(63 - 130)**			**SW846 8310**
	111	**(63 - 130)**	**16**	**(0-30)**	**SW846 8310**
Naphthalene	**93**	**(64 - 131)**			**SW846 8310**
	104	**(64 - 131)**	**11**	**(0-40)**	**SW846 8310**
Pyrene	**105**	**(65 - 138)**			**SW846 8310**
	112	**(65 - 138)**	**5.7**	**(0-40)**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	100	(63 - 134)
	100	(63 - 134)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: H3H080204
MS Lot-Sample #: H3H080204-005
Date Sampled...: 08/06/03
Prep Date.....: 08/18/03
Prep Batch #...: 3230523
Dilution Factor: 1

Work Order #...: FVXH71AV-MS
FVXH71AW-MSD
Date Received..: 08/08/03
Analysis Date..: 08/21/03
% Moisture.....: 16

Matrix.....: SOLID

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Benzo(a)pyrene	**12**	**2390**	**2380**	**ug/kg**	**99**		**SW846 8310**
	12	**2390**	**2700**	**ug/kg**	**112**	**12**	**SW846 8310**
Fluorene	**14**	**2390**	**2280**	**ug/kg**	**95**		**SW846 8310**
	14	**2390**	**2550**	**ug/kg**	**106**	**11**	**SW846 8310**
Indeno(1,2,3-cd)pyrene	**ND**	**2390**	**2260**	**ug/kg**	**94**		**SW846 8310**
	ND	**2390**	**2670**	**ug/kg**	**111**	**16**	**SW846 8310**
Naphthalene	**ND**	**2390**	**2220**	**ug/kg**	**93**		**SW846 8310**
	ND	**2390**	**2490**	**ug/kg**	**104**	**11**	**SW846 8310**
Pyrene	**240**	**2390**	**2760**	**ug/kg**	**105**		**SW846 8310**
	240	**2390**	**2920**	**ug/kg**	**112**	**5.7**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	100	(63 - 134)
	100	(63 - 134)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

Sample Data Summary

SHAW E & I INC

Client Sample ID: DB0001

HPLC

Lot-Sample #...: H3H080204-001 **Work Order #...:** FVXG51AC **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1
% Moisture.....: 20 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
HMX	ND	0.50	mg/kg	0.18
RDX	ND	0.50	mg/kg	0.17
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	0.090
1,3-Dinitrobenzene	ND	0.25	mg/kg	0.030
Tetryl	ND	0.65	mg/kg	0.38
Nitrobenzene	ND	0.25	mg/kg	0.045
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	0.045
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2,6-Dinitrotoluene	ND	0.25	mg/kg	0.090
2,4-Dinitrotoluene	ND	0.25	mg/kg	0.045
2-Nitrotoluene	ND	0.25	mg/kg	0.14
4-Nitrotoluene	ND	0.25	mg/kg	0.090
3-Nitrotoluene	ND	0.25	mg/kg	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	101	(74 - 121)

SHAW E & I INC

Client Sample ID: DB0002

HPLC

Lot-Sample #...: H3H080204-002 **Work Order #...:** FVXHQ1AJ **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1
% Moisture.....: 23 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
HMX	ND	0.50	mg/kg	0.18
RDX	ND	0.50	mg/kg	0.17
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	0.090
1,3-Dinitrobenzene	ND	0.25	mg/kg	0.030
Tetryl	ND	0.65	mg/kg	0.38
Nitrobenzene	ND	0.25	mg/kg	0.045
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	0.045
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2,6-Dinitrotoluene	ND	0.25	mg/kg	0.090
2,4-Dinitrotoluene	ND	0.25	mg/kg	0.045
2-Nitrotoluene	ND	0.25	mg/kg	0.14
4-Nitrotoluene	ND	0.25	mg/kg	0.090
3-Nitrotoluene	ND	0.25	mg/kg	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	107	(74 - 121)

SHAW E & I INC

Client Sample ID: DB0003

HPLC

Lot-Sample #...: H3H080204-003 **Work Order #...:** FVXHV1AJ **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1
% Moisture.....: 9.9 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
HMX	ND	0.50	mg/kg	0.18
RDX	ND	0.50	mg/kg	0.17
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	0.090
1,3-Dinitrobenzene	ND	0.25	mg/kg	0.030
Tetryl	ND	0.65	mg/kg	0.38
Nitrobenzene	ND	0.25	mg/kg	0.045
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	0.045
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2,6-Dinitrotoluene	ND	0.25	mg/kg	0.090
2,4-Dinitrotoluene	ND	0.25	mg/kg	0.045
2-Nitrotoluene	ND	0.25	mg/kg	0.14
4-Nitrotoluene	ND	0.25	mg/kg	0.090
3-Nitrotoluene	ND	0.25	mg/kg	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	102	(74 - 121)

SHAW E & I INC

Client Sample ID: DB0004

HPLC

Lot-Sample #...: H3H080204-004 **Work Order #...:** FVXH21AJ **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1
% Moisture.....: 9.7 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
HMX	ND	0.50	mg/kg	0.18
RDX	ND	0.50	mg/kg	0.17
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	0.090
1,3-Dinitrobenzene	ND	0.25	mg/kg	0.030
Tetryl	ND	0.65	mg/kg	0.38
Nitrobenzene	ND	0.25	mg/kg	0.045
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	0.045
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2,6-Dinitrotoluene	ND	0.25	mg/kg	0.090
2,4-Dinitrotoluene	ND	0.25	mg/kg	0.045
2-Nitrotoluene	ND	0.25	mg/kg	0.14
4-Nitrotoluene	ND	0.25	mg/kg	0.090
3-Nitrotoluene	ND	0.25	mg/kg	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	109	(74 - 121)

SHAW E & I INC

Client Sample ID: DB0006

HPLC

Lot-Sample #...: H3H080204-005 **Work Order #...:** FVXH71AX **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1
% Moisture.....: 16 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
HMX	ND	0.50	mg/kg	0.18
RDX	ND	0.50	mg/kg	0.17
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	0.090
1,3-Dinitrobenzene	ND	0.25	mg/kg	0.030
Tetryl	ND	0.65	mg/kg	0.38
Nitrobenzene	ND	0.25	mg/kg	0.045
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	0.045
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2,6-Dinitrotoluene	ND	0.25	mg/kg	0.090
2,4-Dinitrotoluene	ND	0.25	mg/kg	0.045
2-Nitrotoluene	ND	0.25	mg/kg	0.14
4-Nitrotoluene	ND	0.25	mg/kg	0.090
3-Nitrotoluene	ND	0.25	mg/kg	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	107	(74 - 121)

SHAW E & I INC

Client Sample ID: DB0007

HPLC

Lot-Sample #...: H3H080204-006 **Work Order #...:** FVXJL1AJ **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1
% Moisture.....: 25 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
HMX	ND	0.50	mg/kg	0.18
RDX	ND	0.50	mg/kg	0.17
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	0.090
1,3-Dinitrobenzene	ND	0.25	mg/kg	0.030
Tetryl	ND	0.65	mg/kg	0.38
Nitrobenzene	ND	0.25	mg/kg	0.045
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	0.045
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2,6-Dinitrotoluene	ND	0.25	mg/kg	0.090
2,4-Dinitrotoluene	ND	0.25	mg/kg	0.045
2-Nitrotoluene	ND	0.25	mg/kg	0.14
4-Nitrotoluene	ND	0.25	mg/kg	0.090
3-Nitrotoluene	ND	0.25	mg/kg	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	101	(74 - 121)

SHAW E & I INC

Client Sample ID: DB0008

HPLC

Lot-Sample #...: H3H080204-007 **Work Order #...:** FVXJQ1AJ **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1
% Moisture.....: 24 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
HMX	ND	0.50	mg/kg	0.18
RDX	ND	0.50	mg/kg	0.17
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	0.090
1,3-Dinitrobenzene	ND	0.25	mg/kg	0.030
Tetryl	ND	0.65	mg/kg	0.38
Nitrobenzene	ND	0.25	mg/kg	0.045
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	0.045
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2,6-Dinitrotoluene	ND	0.25	mg/kg	0.090
2,4-Dinitrotoluene	ND	0.25	mg/kg	0.045
2-Nitrotoluene	ND	0.25	mg/kg	0.14
4-Nitrotoluene	ND	0.25	mg/kg	0.090
3-Nitrotoluene	ND	0.25	mg/kg	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	103	(74 - 121)

SHAW E & I INC

Client Sample ID: DB0009

HPLC

Lot-Sample #...: H3H080204-008 **Work Order #...:** FVXJ01AJ **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1
% Moisture.....: 30 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
HMX	ND	0.50	mg/kg	0.18
RDX	ND	0.50	mg/kg	0.17
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	0.090
1,3-Dinitrobenzene	ND	0.25	mg/kg	0.030
Tetryl	ND	0.65	mg/kg	0.38
Nitrobenzene	ND	0.25	mg/kg	0.045
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	0.045
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2,6-Dinitrotoluene	ND	0.25	mg/kg	0.090
2,4-Dinitrotoluene	ND	0.25	mg/kg	0.045
2-Nitrotoluene	ND	0.25	mg/kg	0.14
4-Nitrotoluene	ND	0.25	mg/kg	0.090
3-Nitrotoluene	ND	0.25	mg/kg	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	101	(74 - 121)

METHOD BLANK REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FV3QW1AA **Matrix.....:** SOLID
MB Lot-Sample #: H3H110000-497

Prep Date.....: 08/12/03
Analysis Date..: 08/13/03 **Prep Batch #...:** 3223497
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
HMX	ND	0.50	mg/kg	SW846 8330
RDX	ND	0.50	mg/kg	SW846 8330
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	SW846 8330
1,3-Dinitrobenzene	ND	0.25	mg/kg	SW846 8330
Tetryl	ND	0.65	mg/kg	SW846 8330
Nitrobenzene	ND	0.25	mg/kg	SW846 8330
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	SW846 8330
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	SW846 8330
2,6-Dinitrotoluene	ND	0.25	mg/kg	SW846 8330
2,4-Dinitrotoluene	ND	0.25	mg/kg	SW846 8330
2-Nitrotoluene	ND	0.25	mg/kg	SW846 8330
4-Nitrotoluene	ND	0.25	mg/kg	SW846 8330
3-Nitrotoluene	ND	0.25	mg/kg	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	104	(74 - 121)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FV3QW1AC **Matrix.....:** SOLID
LCS Lot-Sample#: H3H110000-497
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
HMX	**111**	**(76 - 121)**	**SW846 8330**
RDX	**108**	**(79 - 118)**	**SW846 8330**
1,3,5-Trinitrobenzene	**111**	**(76 - 116)**	**SW846 8330**
1,3-Dinitrobenzene	**109**	**(75 - 117)**	**SW846 8330**
Tetryl	**112**	**(42 - 125)**	**SW846 8330**
Nitrobenzene	**111**	**(78 - 115)**	**SW846 8330**
2,4,6-Trinitrotoluene	**111**	**(76 - 118)**	**SW846 8330**
4-Amino-2,6-dinitrotoluene	**114**	**(80 - 122)**	**SW846 8330**
2-Amino-4,6-dinitrotoluene	**110**	**(78 - 119)**	**SW846 8330**
2,6-Dinitrotoluene	**111**	**(74 - 122)**	**SW846 8330**
2,4-Dinitrotoluene	**110**	**(78 - 118)**	**SW846 8330**
2-Nitrotoluene	**112**	**(78 - 117)**	**SW846 8330**
4-Nitrotoluene	**108**	**(78 - 118)**	**SW846 8330**
3-Nitrotoluene	**109**	**(78 - 117)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	106	(74 - 121)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FV3QW1AC **Matrix.....:** SOLID
LCS Lot-Sample#: H3H110000-497
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
HMX	**3.00**	**3.33**	**mg/kg**	**111**	**SW846 8330**
RDX	**3.00**	**3.24**	**mg/kg**	**108**	**SW846 8330**
1,3,5-Trinitrobenzene	**3.00**	**3.32**	**mg/kg**	**111**	**SW846 8330**
1,3-Dinitrobenzene	**3.00**	**3.28**	**mg/kg**	**109**	**SW846 8330**
Tetryl	**3.00**	**3.36**	**mg/kg**	**112**	**SW846 8330**
Nitrobenzene	**3.00**	**3.32**	**mg/kg**	**111**	**SW846 8330**
2,4,6-Trinitrotoluene	**3.00**	**3.33**	**mg/kg**	**111**	**SW846 8330**
4-Amino-2,6-dinitrotoluene	**3.00**	**3.42**	**mg/kg**	**114**	**SW846 8330**
2-Amino-4,6-dinitrotoluene	**3.00**	**3.29**	**mg/kg**	**110**	**SW846 8330**
2,6-Dinitrotoluene	**3.00**	**3.34**	**mg/kg**	**111**	**SW846 8330**
2,4-Dinitrotoluene	**3.00**	**3.30**	**mg/kg**	**110**	**SW846 8330**
2-Nitrotoluene	**3.00**	**3.36**	**mg/kg**	**112**	**SW846 8330**
4-Nitrotoluene	**3.00**	**3.24**	**mg/kg**	**108**	**SW846 8330**
3-Nitrotoluene	**3.00**	**3.27**	**mg/kg**	**109**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	106	(74 - 121)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FVXH71A0-MS **Matrix.....:** SOLID
MS Lot-Sample #: H3H080204-005 FVXH71A1-MSD
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1 **% Moisture.....:** 16

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
HMX	**103**	**(68 - 123)**			**SW846 8330**
	107	**(68 - 123)**	**3.8**	**(0-27)**	**SW846 8330**
RDX	**100**	**(66 - 118)**			**SW846 8330**
	107	**(66 - 118)**	**6.1**	**(0-25)**	**SW846 8330**
1,3,5-Trinitrobenzene	**103**	**(76 - 119)**			**SW846 8330**
	103	**(76 - 119)**	**0.32**	**(0-26)**	**SW846 8330**
1,3-Dinitrobenzene	**102**	**(75 - 118)**			**SW846 8330**
	104	**(75 - 118)**	**2.0**	**(0-26)**	**SW846 8330**
Tetryl	**96**	**(42 - 125)**			**SW846 8330**
	79	**(42 - 125)**	**19**	**(0-39)**	**SW846 8330**
Nitrobenzene	**104**	**(78 - 115)**			**SW846 8330**
	108	**(78 - 115)**	**3.0**	**(0-25)**	**SW846 8330**
2,4,6-Trinitrotoluene	**104**	**(74 - 123)**			**SW846 8330**
	107	**(74 - 123)**	**3.2**	**(0-32)**	**SW846 8330**
4-Amino-2,6- dinitrotoluene	**107**	**(73 - 128)**			**SW846 8330**
	110	**(73 - 128)**	**3.0**	**(0-27)**	**SW846 8330**
2-Amino-4,6- dinitrotoluene	**103**	**(77 - 119)**			**SW846 8330**
	106	**(77 - 119)**	**3.4**	**(0-26)**	**SW846 8330**
2,6-Dinitrotoluene	**102**	**(73 - 125)**			**SW846 8330**
	106	**(73 - 125)**	**4.4**	**(0-27)**	**SW846 8330**
2,4-Dinitrotoluene	**103**	**(77 - 119)**			**SW846 8330**
	107	**(77 - 119)**	**3.5**	**(0-24)**	**SW846 8330**
2-Nitrotoluene	**103**	**(78 - 117)**			**SW846 8330**
	105	**(78 - 117)**	**1.3**	**(0-24)**	**SW846 8330**
4-Nitrotoluene	**101**	**(78 - 119)**			**SW846 8330**
	107	**(78 - 119)**	**5.8**	**(0-29)**	**SW846 8330**
3-Nitrotoluene	**103**	**(78 - 118)**			**SW846 8330**
	105	**(78 - 118)**	**2.0**	**(0-23)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	106	(74 - 121)
	103	(74 - 121)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FVXH71A0-MS **Matrix.....:** SOLID
MS Lot-Sample #: H3H080204-005 FVXH71A1-MSD
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1 **% Moisture.....:** 16

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
HMX	**ND**	**3.00**	**3.10**	**mg/kg**	**103**		**SW846 8330**
	ND	**3.00**	**3.22**	**mg/kg**	**107**	**3.8**	**SW846 8330**
RDX	**ND**	**3.00**	**3.01**	**mg/kg**	**100**		**SW846 8330**
	ND	**3.00**	**3.20**	**mg/kg**	**107**	**6.1**	**SW846 8330**
1,3,5-Trinitrobenzene	**ND**	**3.00**	**3.09**	**mg/kg**	**103**		**SW846 8330**
	ND	**3.00**	**3.08**	**mg/kg**	**103**	**0.32**	**SW846 8330**
1,3-Dinitrobenzene	**ND**	**3.00**	**3.07**	**mg/kg**	**102**		**SW846 8330**
	ND	**3.00**	**3.13**	**mg/kg**	**104**	**2.0**	**SW846 8330**
Tetryl	**ND**	**3.00**	**2.88**	**mg/kg**	**96**		**SW846 8330**
	ND	**3.00**	**2.38**	**mg/kg**	**79**	**19**	**SW846 8330**
Nitrobenzene	**ND**	**3.00**	**3.13**	**mg/kg**	**104**		**SW846 8330**
	ND	**3.00**	**3.23**	**mg/kg**	**108**	**3.0**	**SW846 8330**
2,4,6-Trinitrotoluene	**ND**	**3.00**	**3.11**	**mg/kg**	**104**		**SW846 8330**
	ND	**3.00**	**3.22**	**mg/kg**	**107**	**3.2**	**SW846 8330**
4-Amino-2,6- dinitrotoluene	**ND**	**3.00**	**3.21**	**mg/kg**	**107**		**SW846 8330**
	ND	**3.00**	**3.31**	**mg/kg**	**110**	**3.0**	**SW846 8330**
2-Amino-4,6- dinitrotoluene	**ND**	**3.00**	**3.08**	**mg/kg**	**103**		**SW846 8330**
	ND	**3.00**	**3.18**	**mg/kg**	**106**	**3.4**	**SW846 8330**
2,6-Dinitrotoluene	**ND**	**3.00**	**3.06**	**mg/kg**	**102**		**SW846 8330**
	ND	**3.00**	**3.19**	**mg/kg**	**106**	**4.4**	**SW846 8330**
2,4-Dinitrotoluene	**ND**	**3.00**	**3.10**	**mg/kg**	**103**		**SW846 8330**
	ND	**3.00**	**3.21**	**mg/kg**	**107**	**3.5**	**SW846 8330**
2-Nitrotoluene	**ND**	**3.00**	**3.10**	**mg/kg**	**103**		**SW846 8330**
	ND	**3.00**	**3.14**	**mg/kg**	**105**	**1.3**	**SW846 8330**
4-Nitrotoluene	**ND**	**3.00**	**3.03**	**mg/kg**	**101**		**SW846 8330**
	ND	**3.00**	**3.21**	**mg/kg**	**107**	**5.8**	**SW846 8330**
3-Nitrotoluene	**ND**	**3.00**	**3.08**	**mg/kg**	**103**		**SW846 8330**
	ND	**3.00**	**3.14**	**mg/kg**	**105**	**2.0**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	106	(74 - 121)
	103	(74 - 121)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Sample Data Summary

SHAW E & I INC

Client Sample ID: DB0001

TOTAL Metals

Lot-Sample #...: H3H080204-001 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
% Moisture.....: 20

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3224131						
Mercury	**0.027 B**	**0.041**	**mg/kg**	**SW846 7471A**	**08/12/03**	**FVXG51A4**
		Dilution Factor: 1		Analysis Time..: 14:41	MDL.....: 0.012	
Prep Batch #...: 3224241						
Aluminum	**4840**	**25.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AD**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 4.1	
Antimony	**0.53 B**	**7.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AE**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.26	
Arsenic	**12.1**	**1.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AF**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.57	
Barium	**21.2 J**	**6.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AG**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.14	
Beryllium	**0.39 B**	**0.62**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AH**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.025	
Cadmium	ND	0.62	mg/kg	SW846 6010B	08/12-08/13/03	FVXG51AJ
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.10	
Calcium	**900**	**624**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AK**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 4.0	
Chromium	**5.5**	**1.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AL**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.50	
Cobalt	**2.3 B**	**6.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AM**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.24	
Copper	**11.3**	**3.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AN**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.12	
Iron	**14000**	**12.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AP**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 3.0	
Lead	**13.5 J**	**0.37**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AQ**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.16	

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SHAW E & I INC

Client Sample ID: DB0001

TOTAL Metals

Lot-Sample #...: H3H080204-001 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	**671**	**624**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AR**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 2.2	
Manganese	**41.6 J**	**1.9**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AT**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.087	
Nickel	**7.1**	**5.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AU**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.42	
Potassium	**776**	**624**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AV**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 24.8	
Selenium	**0.48 B**	**0.62**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AW**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.31	
Silver	ND	1.2	mg/kg	SW846 6010B	08/12-08/13/03	FVXG51AX
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.35	
Sodium	**662**	**624**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51A0**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 113	
Thallium	**1.3**	**1.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51A1**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.34	
Vanadium	**12.7**	**6.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51A2**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.26	
Zinc	**30.9**	**2.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51A3**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.26	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SHAW E & I INC

Client Sample ID: DB0002

TOTAL Metals

Lot-Sample #...: H3H080204-002 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
% Moisture.....: 23

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3224131						
Mercury	**0.036 B**	**0.043**	**mg/kg**	**SW846 7471A**	**08/12/03**	**FVXHQ1AF**
		Dilution Factor: 1		Analysis Time..: 14:43	MDL.....: 0.013	
Prep Batch #...: 3224241						
Aluminum	**8520**	**26.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AK**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 4.3	
Antimony	**0.79 B**	**7.8**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AL**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.27	
Arsenic	**5.7**	**1.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AM**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.60	
Barium	**71.7 J**	**6.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AN**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.14	
Beryllium	**0.64 B**	**0.65**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AP**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.026	
Cadmium	**0.34 B**	**0.65**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AQ**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.10	
Calcium	**5010**	**652**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AR**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 4.2	
Chromium	**12.2**	**1.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AT**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.52	
Cobalt	**6.9**	**6.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AU**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.25	
Copper	**15.2**	**3.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AV**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.13	
Iron	**15300**	**13.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AW**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 3.1	
Lead	**19.0 J**	**0.39**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AX**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.17	

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SHAW E & I INC

Client Sample ID: DB0002

TOTAL Metals

Lot-Sample #...: H3H080204-002 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	**1940**	**652**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1A0**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 2.3	
Manganese	**319 J**	**2.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1A1**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.091	
Nickel	**15.7**	**5.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1A2**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.44	
Potassium	**1500**	**652**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1A3**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 26.0	
Selenium	**0.75**	**0.65**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1A4**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.33	
Silver	ND	1.3	mg/kg	SW846 6010B	08/12-08/13/03	FVXHQ1A5
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.37	
Sodium	**759**	**652**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AA**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 118	
Thallium	**0.82 B**	**1.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AC**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.35	
Vanadium	**20.7**	**6.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AD**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.27	
Zinc	**62.9**	**2.6**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AE**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.27	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SHAW E & I INC

Client Sample ID: DB0003

TOTAL Metals

Lot-Sample #...: H3H080204-003 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
% Moisture.....: 9.9

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3224131						
Mercury	ND	0.037	mg/kg	SW846 7471A	08/12/03	FVXHV1AF
		Dilution Factor: 1		Analysis Time..: 14:45	MDL.....: 0.011	
Prep Batch #...: 3224241						
Aluminum	**2940**	**22.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AK**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 3.7	
Antimony	ND	6.7	mg/kg	SW846 6010B	08/12-08/13/03	FVXHV1AL
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.23	
Arsenic	**1.7**	**1.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AM**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.51	
Barium	**12.3 J**	**5.6**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AN**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.12	
Beryllium	**0.18 B**	**0.56**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AP**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.022	
Cadmium	ND	0.56	mg/kg	SW846 6010B	08/12-08/13/03	FVXHV1AQ
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.089	
Calcium	**663**	**555**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AR**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 3.6	
Chromium	**2.7**	**1.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AT**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.44	
Cobalt	**1.3 B**	**5.6**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AU**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.21	
Copper	**2.1 B**	**2.8**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AV**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.11	
Iron	**3490**	**11.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AW**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 2.7	
Lead	**4.7 J**	**0.33**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AX**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.14	

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SHAW E & I INC

Client Sample ID: DB0003

TOTAL Metals

Lot-Sample #...: H3H080204-003 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	**439 B**	**555**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1A0**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 2.0	
Manganese	**41.5 J**	**1.7**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1A1**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.078	
Nickel	**3.4 B**	**4.4**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1A2**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.38	
Potassium	**187 B**	**555**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1A3**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 22.1	
Selenium	ND	0.56	mg/kg	SW846 6010B	08/12-08/13/03	FVXHV1A4
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.28	
Silver	ND	1.1	mg/kg	SW846 6010B	08/12-08/13/03	FVXHV1A5
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.31	
Sodium	**284 B**	**555**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AA**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 101	
Thallium	**0.55 B**	**1.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AC**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.30	
Vanadium	**4.4 B**	**5.6**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AD**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.23	
Zinc	**18.7**	**2.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AE**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.23	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

SHAW E & I INC

Client Sample ID: DB0004

TOTAL Metals

Lot-Sample #...: H3H080204-004 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
% Moisture.....: 9.7

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3224131						
Mercury	ND	0.037	mg/kg	SW846 7471A	08/12/03	FVXH21AF
		Dilution Factor: 1		Analysis Time..: 14:47	MDL.....: 0.011	
Prep Batch #...: 3224241						
Aluminum	**2930**	**22.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AK**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 3.7	
Antimony	ND	6.6	mg/kg	SW846 6010B	08/12-08/13/03	FVXH21AL
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.23	
Arsenic	**1.7**	**1.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AM**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.51	
Barium	**12.2 J**	**5.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AN**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.12	
Beryllium	**0.17 B**	**0.55**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AP**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.022	
Cadmium	ND	0.55	mg/kg	SW846 6010B	08/12-08/13/03	FVXH21AQ
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.089	
Calcium	**713**	**554**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AR**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 3.5	
Chromium	**2.6**	**1.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AT**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.44	
Cobalt	**1.3 B**	**5.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AU**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.21	
Copper	**2.0 B**	**2.8**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AV**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.11	
Iron	**3480**	**11.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AW**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 2.7	
Lead	**4.5 J**	**0.33**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AX**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.14	

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SHAW E & I INC

Client Sample ID: DB0004

TOTAL Metals

Lot-Sample #...: H3H080204-004 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	**448 B**	**554**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21A0**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 2.0	
Manganese	**42.8 J**	**1.7**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21A1**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.078	
Nickel	**3.4 B**	**4.4**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21A2**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.38	
Potassium	**195 B**	**554**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21A3**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 22.0	
Selenium	ND	0.55	mg/kg	SW846 6010B	08/12-08/13/03	FVXH21A4
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.28	
Silver	ND	1.1	mg/kg	SW846 6010B	08/12-08/13/03	FVXH21A5
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.31	
Sodium	**245 B**	**554**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AA**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 101	
Thallium	ND	1.1	mg/kg	SW846 6010B	08/12-08/13/03	FVXH21AC
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.30	
Vanadium	**4.4 B**	**5.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AD**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.23	
Zinc	**18.8**	**2.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AE**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.23	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

SHAW E & I INC

Client Sample ID: DB0006

TOTAL Metals

Lot-Sample #...: H3H080204-005 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
% Moisture.....: 16

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3224131						
Mercury	**0.044**	**0.039**	**mg/kg**	**SW846 7471A**	**08/12/03**	**FVXH71AP**
		Dilution Factor: 1		Analysis Time..: 14:49	MDL.....: 0.012	
Prep Batch #...: 3224241						
Aluminum	**5080**	**23.9**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71A2**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 3.9	
Antimony	ND	7.2	mg/kg	SW846 6010B	08/12-08/13/03	FVXH71A5
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.25	
Arsenic	**5.7**	**1.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71A8**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.55	
Barium	**46.1 J**	**6.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71CC**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.13	
Beryllium	**0.48 B**	**0.60**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71CF**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.024	
Cadmium	**0.26 B**	**0.60**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71CJ**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.096	
Calcium	**12800**	**598**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71CM**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 3.8	
Chromium	**44.8**	**1.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71CQ**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.48	
Cobalt	**7.0**	**6.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71CU**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.23	
Copper	**15.9**	**3.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71CX**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.12	
Iron	**14400**	**12.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71C2**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 2.9	
Lead	**15.6 J**	**0.36**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71C5**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.16	

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SHAW E & I INC

Client Sample ID: DB0006

TOTAL Metals

Lot-Sample #...: H3H080204-005 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	**3190**	**598**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71C8**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 2.2	
Manganese	**324 J**	**1.8**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71DC**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.084	
Nickel	**42.4**	**4.8**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71DF**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.41	
Potassium	**761**	**598**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71DJ**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 23.8	
Selenium	**0.36 B**	**0.60**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71DM**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.30	
Silver	ND	1.2	mg/kg	SW846 6010B	08/12-08/13/03	FVXH71DQ
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.34	
Sodium	**717**	**598**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71AA**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 109	
Thallium	**0.53 B**	**1.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71AE**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.32	
Vanadium	**11.6**	**6.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71AH**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.25	
Zinc	**60.0**	**2.4**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71AL**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.25	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

SHAW E & I INC

Client Sample ID: DB0007

TOTAL Metals

Lot-Sample #...: H3H080204-006 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
% Moisture.....: 25

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3224131						
Mercury	**0.043 B**	**0.044**	**mg/kg**	**SW846 7471A**	**08/12/03**	**FVXJL1AF**
		Dilution Factor: 1		Analysis Time..: 14:59	MDL.....: 0.013	
Prep Batch #...: 3224241						
Aluminum	**9570**	**26.8**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AK**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 4.4	
Antimony	**0.55 B**	**8.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AL**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.28	
Arsenic	**12.3**	**1.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AM**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.62	
Barium	**66.7 J**	**6.7**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AN**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.15	
Beryllium	**0.89**	**0.67**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AP**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.027	
Cadmium	ND	0.67	mg/kg	SW846 6010B	08/12-08/13/03	FVXJL1AQ
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.11	
Calcium	**305 B**	**670**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AR**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 4.3	
Chromium	**10.4**	**1.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AT**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.54	
Cobalt	**4.9 B**	**6.7**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AU**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.25	
Copper	**35.4**	**3.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AV**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.13	
Iron	**13800**	**13.4**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AW**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 3.2	
Lead	**28.3 J**	**0.40**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AX**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.17	

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SHAW E & I INC

Client Sample ID: DB0007

TOTAL Metals

Lot-Sample #...: H3H080204-006 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	**785**	**670**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1A0**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 2.4	
Manganese	**35.0 J**	**2.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1A1**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.094	
Nickel	**14.1**	**5.4**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1A2**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.46	
Potassium	**952**	**670**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1A3**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 26.7	
Selenium	**0.79**	**0.67**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1A4**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.33	
Silver	ND	1.3	mg/kg	SW846 6010B	08/12-08/13/03	FVXJL1A5
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.38	
Sodium	**277 B**	**670**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AA**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 122	
Thallium	**1.3**	**1.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AC**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.36	
Vanadium	**19.5**	**6.7**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AD**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.28	
Zinc	**26.1**	**2.7**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AE**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.28	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SHAW E & I INC

Client Sample ID: DB0008

TOTAL Metals

Lot-Sample #...: H3H080204-007 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
% Moisture.....: 24

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3224131						
Mercury	**0.043**	**0.043**	**mg/kg**	**SW846 7471A**	**08/12/03**	**FVXJQ1AF**
		Dilution Factor: 1		Analysis Time..: 15:00	MDL.....: 0.013	
Prep Batch #...: 3224241						
Aluminum	**5990**	**26.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AK**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 4.3	
Antimony	**0.55 B**	**7.9**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AL**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.28	
Arsenic	**8.3**	**1.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AM**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.60	
Barium	**49.2 J**	**6.6**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AN**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.14	
Beryllium	**0.66**	**0.66**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AP**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.026	
Cadmium	**0.14 B**	**0.66**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AQ**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.11	
Calcium	**920**	**657**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AR**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 4.2	
Chromium	**6.0**	**1.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AT**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.53	
Cobalt	**5.7 B**	**6.6**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AU**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.25	
Copper	**7.3**	**3.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AV**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.13	
Iron	**10200**	**13.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AW**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 3.2	
Lead	**19.2 J**	**0.39**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AX**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.17	

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SHAW E & I INC

Client Sample ID: DB0008

TOTAL Metals

Lot-Sample #...: H3H080204-007 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	**788**	**657**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1A0**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 2.4	
Manganese	**347 J**	**2.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1A1**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.092	
Nickel	**11.2**	**5.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1A2**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.45	
Potassium	**545 B**	**657**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1A3**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 26.2	
Selenium	ND	0.66	mg/kg	SW846 6010B	08/12-08/13/03	FVXJQ1A4
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.33	
Silver	ND	1.3	mg/kg	SW846 6010B	08/12-08/13/03	FVXJQ1A5
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.37	
Sodium	**304 B**	**657**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AA**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 119	
Thallium	**0.57 B**	**1.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AC**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.35	
Vanadium	**13.9**	**6.6**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AD**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.28	
Zinc	**45.9**	**2.6**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AE**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.28	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SHAW E & I INC

Client Sample ID: DB0009

TOTAL Metals

Lot-Sample #...: H3H080204-008 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
% Moisture.....: 30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3224131						
Mercury	**0.058**	**0.047**	**mg/kg**	**SW846 7471A**	**08/12/03**	**FVXJ01AF**
		Dilution Factor: 1		Analysis Time..: 15:02	MDL.....: 0.014	
Prep Batch #...: 3224241						
Aluminum	**11700**	**28.4**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AK**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 4.7	
Antimony	**0.46 B**	**8.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AL**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.30	
Arsenic	**11.8**	**1.4**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AM**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.65	
Barium	**92.5 J**	**7.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AN**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.16	
Beryllium	**0.84**	**0.71**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AP**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.028	
Cadmium	ND	0.71	mg/kg	SW846 6010B	08/12-08/13/03	FVXJ01AQ
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.11	
Calcium	**391 B**	**711**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AR**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 4.6	
Chromium	**8.4**	**1.4**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AT**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.57	
Cobalt	**2.3 B**	**7.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AU**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.27	
Copper	**14.0**	**3.6**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AV**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.14	
Iron	**14100**	**14.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AW**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 3.4	
Lead	**35.9 J**	**0.43**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AX**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.18	

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SHAW E & I INC

Client Sample ID: DB0009

TOTAL Metals

Lot-Sample #...: H3H080204-008 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	**578 B**	**711**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01A0**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 2.6	
Manganese	**43.4 J**	**2.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01A1**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.10	
Nickel	**11.0**	**5.7**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01A2**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.48	
Potassium	**801**	**711**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01A3**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 28.3	
Selenium	**0.84**	**0.71**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01A4**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.36	
Silver	ND	1.4	mg/kg	SW846 6010B	08/12-08/13/03	FVXJ01A5
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.40	
Sodium	**732**	**711**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AA**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 129	
Thallium	**0.93 B**	**1.4**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AC**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.38	
Vanadium	**20.9**	**7.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AD**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.30	
Zinc	**37.7**	**2.8**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AE**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.30	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: H3H120000-131 **Prep Batch #...:** 3224131						
Mercury	ND	0.033	mg/kg	SW846 7471A	08/12/03	FV34M1AA
		Dilution Factor: 1				
		Analysis Time..: 14:35				
MB Lot-Sample #: H3H120000-241 **Prep Batch #...:** 3224241						
Aluminum	ND	20.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AF
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Antimony	ND	6.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AG
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Arsenic	ND	1.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AH
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Barium	**0.12 B**	**5.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FV4JX1AJ**
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Beryllium	ND	0.50	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AK
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Cadmium	ND	0.50	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AL
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Calcium	ND	500	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AM
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Chromium	ND	1.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AN
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Cobalt	ND	5.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AP
		Dilution Factor: 1				
		Analysis Time..: 10:36				

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	2.5	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AQ
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Iron	ND	10.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AR
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Lead	**0.17 B**	**0.30**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FV4JX1AT**
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Magnesium	ND	500	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AU
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Manganese	**0.14 B**	**1.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FV4JX1AV**
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Nickel	ND	4.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AW
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Potassium	ND	500	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AX
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Selenium	ND	0.50	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1A0
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Silver	ND	1.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1A1
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Sodium	ND	500	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AA
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Thallium	ND	1.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AC
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Vanadium	ND	5.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AD
		Dilution Factor: 1				
		Analysis Time..: 10:36				

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	2.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AE

Dilution Factor: 1
Analysis Time..: 10:36

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: H3H120000-131 **Prep Batch #...:** 3224131					
Mercury	97	(90 - 110)	SW846 7471A	08/12/03	FV34M1AC
		Dilution Factor: 1	Analysis Time..: 14:37		
LCS Lot-Sample#: H3H120000-241 **Prep Batch #...:** 3224241					
Aluminum	103	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1A6
		Dilution Factor: 1	Analysis Time..: 10:40		
Antimony	94	(88 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1A7
		Dilution Factor: 1	Analysis Time..: 10:40		
Arsenic	96	(89 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1A8
		Dilution Factor: 1	Analysis Time..: 10:40		
Barium	101	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1A9
		Dilution Factor: 1	Analysis Time..: 10:40		
Beryllium	104	(90 - 112)	SW846 6010B	08/12-08/13/03	FV4JX1CA
		Dilution Factor: 1	Analysis Time..: 10:40		
Cadmium	101	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CC
		Dilution Factor: 1	Analysis Time..: 10:40		
Calcium	102	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CD
		Dilution Factor: 1	Analysis Time..: 10:40		
Chromium	103	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CE
		Dilution Factor: 1	Analysis Time..: 10:40		
Cobalt	102	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CF
		Dilution Factor: 1	Analysis Time..: 10:40		
Copper	101	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CG
		Dilution Factor: 1	Analysis Time..: 10:40		
Iron	102	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CH
		Dilution Factor: 1	Analysis Time..: 10:40		
Lead	99	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CJ
		Dilution Factor: 1	Analysis Time..: 10:40		

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	98	(89 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CK
		Dilution Factor: 1	Analysis Time..: 10:40		
Manganese	103	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CL
		Dilution Factor: 1	Analysis Time..: 10:40		
Nickel	101	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CM
		Dilution Factor: 1	Analysis Time..: 10:40		
Potassium	99	(84 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CN
		Dilution Factor: 1	Analysis Time..: 10:40		
Selenium	94	(87 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CP
		Dilution Factor: 1	Analysis Time..: 10:40		
Silver	99	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CQ
		Dilution Factor: 1	Analysis Time..: 10:40		
Sodium	110	(88 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1A2
		Dilution Factor: 1	Analysis Time..: 10:40		
Thallium	98	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1A3
		Dilution Factor: 1	Analysis Time..: 10:40		
Vanadium	102	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1A4
		Dilution Factor: 1	Analysis Time..: 10:40		
Zinc	105	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1A5
		Dilution Factor: 1	Analysis Time..: 10:40		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: H3H120000-131 **Prep Batch #...:** 3224131							
Mercury	0.833	0.808	mg/kg	97	SW846 7471A	08/12/03	FV34M1AC
			Dilution Factor: 1		Analysis Time..: 14:37		
LCS Lot-Sample#: H3H120000-241 **Prep Batch #...:** 3224241							
Aluminum	200	207	mg/kg	103	SW846 6010B	08/12-08/13/03	FV4JX1A6
			Dilution Factor: 1		Analysis Time..: 10:40		
Antimony	50.0	47.2	mg/kg	94	SW846 6010B	08/12-08/13/03	FV4JX1A7
			Dilution Factor: 1		Analysis Time..: 10:40		
Arsenic	200	192	mg/kg	96	SW846 6010B	08/12-08/13/03	FV4JX1A8
			Dilution Factor: 1		Analysis Time..: 10:40		
Barium	200	201	mg/kg	101	SW846 6010B	08/12-08/13/03	FV4JX1A9
			Dilution Factor: 1		Analysis Time..: 10:40		
Beryllium	5.00	5.21	mg/kg	104	SW846 6010B	08/12-08/13/03	FV4JX1CA
			Dilution Factor: 1		Analysis Time..: 10:40		
Cadmium	5.00	5.05	mg/kg	101	SW846 6010B	08/12-08/13/03	FV4JX1CC
			Dilution Factor: 1		Analysis Time..: 10:40		
Calcium	5000	5100	mg/kg	102	SW846 6010B	08/12-08/13/03	FV4JX1CD
			Dilution Factor: 1		Analysis Time..: 10:40		
Chromium	20.0	20.6	mg/kg	103	SW846 6010B	08/12-08/13/03	FV4JX1CE
			Dilution Factor: 1		Analysis Time..: 10:40		
Cobalt	50.0	50.9	mg/kg	102	SW846 6010B	08/12-08/13/03	FV4JX1CF
			Dilution Factor: 1		Analysis Time..: 10:40		
Copper	25.0	25.3	mg/kg	101	SW846 6010B	08/12-08/13/03	FV4JX1CG
			Dilution Factor: 1		Analysis Time..: 10:40		
Iron	100	102	mg/kg	102	SW846 6010B	08/12-08/13/03	FV4JX1CH
			Dilution Factor: 1		Analysis Time..: 10:40		
Lead	50.0	49.4	mg/kg	99	SW846 6010B	08/12-08/13/03	FV4JX1CJ
			Dilution Factor: 1		Analysis Time..: 10:40		

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	5000	4890	mg/kg	98	SW846 6010B	08/12-08/13/03	FV4JX1CK
			Dilution Factor: 1		Analysis Time..: 10:40		
Manganese	50.0	51.4	mg/kg	103	SW846 6010B	08/12-08/13/03	FV4JX1CL
			Dilution Factor: 1		Analysis Time..: 10:40		
Nickel	50.0	50.4	mg/kg	101	SW846 6010B	08/12-08/13/03	FV4JX1CM
			Dilution Factor: 1		Analysis Time..: 10:40		
Potassium	5000	4960	mg/kg	99	SW846 6010B	08/12-08/13/03	FV4JX1CN
			Dilution Factor: 1		Analysis Time..: 10:40		
Selenium	200	189	mg/kg	94	SW846 6010B	08/12-08/13/03	FV4JX1CP
			Dilution Factor: 1		Analysis Time..: 10:40		
Silver	5.00	4.96	mg/kg	99	SW846 6010B	08/12-08/13/03	FV4JX1CQ
			Dilution Factor: 1		Analysis Time..: 10:40		
Sodium	5000	5500	mg/kg	110	SW846 6010B	08/12-08/13/03	FV4JX1A2
			Dilution Factor: 1		Analysis Time..: 10:40		
Thallium	200	197	mg/kg	98	SW846 6010B	08/12-08/13/03	FV4JX1A3
			Dilution Factor: 1		Analysis Time..: 10:40		
Vanadium	50.0	51.0	mg/kg	102	SW846 6010B	08/12-08/13/03	FV4JX1A4
			Dilution Factor: 1		Analysis Time..: 10:40		
Zinc	50.0	52.6	mg/kg	105	SW846 6010B	08/12-08/13/03	FV4JX1A5
			Dilution Factor: 1		Analysis Time..: 10:40		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H3H080204-005 **Prep Batch #...:** 3224131							
						% Moisture.....: 16	
Mercury	101	(65 - 131)			SW846 7471A	08/12/03	FVXH71AQ
	111	(65 - 131)	7.8	(0-20)	SW846 7471A	08/12/03	FVXH71AR
		Dilution Factor: 1					
		Analysis Time..: 14:51					
MS Lot-Sample #: H3H080204-005 **Prep Batch #...:** 3224241							
						% Moisture.....: 16	
Aluminum	NC,MSB	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71A3
	NC,MSB	(75 - 125)		(0-20)	SW846 6010B	08/12-08/13/03	FVXH71A4
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Antimony	61 N	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71A6
	79 *	(75 - 125)	26	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71A7
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Arsenic	90	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71A9
	90	(75 - 125)	0.55	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71CA
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Barium	96	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71CD
	98	(75 - 125)	1.4	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71CE
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Beryllium	96	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71CG
	97	(75 - 125)	0.68	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71CH
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Cadmium	91	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71CK
	92	(75 - 125)	0.67	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71CL
		Dilution Factor: 1					
		Analysis Time..: 11:30					

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Calcium	102	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71CN
	159 N	(75 - 125)	16	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71CP
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Chromium	0.0 N	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71CR
	0.0 N	(75 - 125)	0.0	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71CT
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Cobalt	92	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71CV
	93	(75 - 125)	0.14	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71CW
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Copper	95	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71C0
	101	(75 - 125)	4.0	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71C1
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Iron	NC,MSB	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71C3
	NC,MSB	(75 - 125)		(0-20)	SW846 6010B	08/12-08/13/03	FVXH71C4
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Lead	89	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71C6
	88	(75 - 125)	0.12	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71C7
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Magnesium	97	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71C9
	107	(75 - 125)	5.9	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71DA
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Manganese	NC,MSB	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71DD
	NC,MSB	(75 - 125)		(0-20)	SW846 6010B	08/12-08/13/03	FVXH71DE
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Nickel	51 N	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71DG
	55 N	(75 - 125)	3.5	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71DH
		Dilution Factor: 1					
		Analysis Time..: 11:30					

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Potassium	116	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71DK
	118	(75 - 125)	1.4	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71DL
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Selenium	90	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71DN
	89	(75 - 125)	1.8	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71DP
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Silver	92	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71DR
	92	(75 - 125)	0.06	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71DT
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Sodium	89	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71AC
	87	(75 - 125)	1.3	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71AD
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Thallium	90	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71AF
	90	(75 - 125)	0.22	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71AG
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Vanadium	108	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71AJ
	111	(75 - 125)	2.2	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71AK
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Zinc	100	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71AM
	103	(75 - 125)	1.5	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71AN
		Dilution Factor: 1					
		Analysis Time..: 11:30					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

N Spiked analyte recovery is outside stated control limits.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H3H080204-005 **Prep Batch #...:** 3224131									
								% Moisture.....: 16	
Mercury									
	0.044	0.199	0.245	mg/kg	101		SW846 7471A	08/12/03	FVXH71AQ
	0.044	0.199	0.265	mg/kg	111	7.8	SW846 7471A	08/12/03	FVXH71AR
			Dilution Factor: 1						
			Analysis Time..: 14:51						
MS Lot-Sample #: H3H080204-005 **Prep Batch #...:** 3224241									
								% Moisture.....: 16	
Aluminum									
	5080	239	10000	mg/kg			SW846 6010B	08/12-08/13/03	FVXH71A3
			Qualifiers: NC,MSB						
	5080	239	10500	mg/kg			SW846 6010B	08/12-08/13/03	FVXH71A4
			Qualifiers: NC,MSB						
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Antimony									
	ND	59.8	36.4 N	mg/kg	61		SW846 6010B	08/12-08/13/03	FVXH71A6
	ND	59.8	47.3 *	mg/kg	79	26	SW846 6010B	08/12-08/13/03	FVXH71A7
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Arsenic									
	5.7	239	222	mg/kg	90		SW846 6010B	08/12-08/13/03	FVXH71A9
	5.7	239	221	mg/kg	90	0.55	SW846 6010B	08/12-08/13/03	FVXH71CA
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Barium									
	46.1	239	276	mg/kg	96		SW846 6010B	08/12-08/13/03	FVXH71CD
	46.1	239	280	mg/kg	98	1.4	SW846 6010B	08/12-08/13/03	FVXH71CE
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Beryllium									
	0.48	5.98	6.23	mg/kg	96		SW846 6010B	08/12-08/13/03	FVXH71CG
	0.48	5.98	6.27	mg/kg	97	0.68	SW846 6010B	08/12-08/13/03	FVXH71CH
			Dilution Factor: 1						
			Analysis Time..: 11:30						

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cadmium									
	0.26	5.98	5.70	mg/kg	91		SW846 6010B	08/12-08/13/03	FVXH71CK
	0.26	5.98	5.74	mg/kg	92	0.67	SW846 6010B	08/12-08/13/03	FVXH71CL
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Calcium									
	12800	5980	18900	mg/kg	102		SW846 6010B	08/12-08/13/03	FVXH71CN
	12800	5980	22300 N	mg/kg	159	16	SW846 6010B	08/12-08/13/03	FVXH71CP
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Chromium									
	44.8	23.9	36.3 N	mg/kg	0.0		SW846 6010B	08/12-08/13/03	FVXH71CR
	44.8	23.9	44.0 N	mg/kg	0.0	0.0	SW846 6010B	08/12-08/13/03	FVXH71CT
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Cobalt									
	7.0	59.8	62.3	mg/kg	92		SW846 6010B	08/12-08/13/03	FVXH71CV
	7.0	59.8	62.4	mg/kg	93	0.14	SW846 6010B	08/12-08/13/03	FVXH71CW
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Copper									
	15.9	29.9	44.4	mg/kg	95		SW846 6010B	08/12-08/13/03	FVXH71C0
	15.9	29.9	46.2	mg/kg	101	4.0	SW846 6010B	08/12-08/13/03	FVXH71C1
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Iron									
	14400	120	14200	mg/kg			SW846 6010B	08/12-08/13/03	FVXH71C3
			Qualifiers: NC,MSB						
	14400	120	14700	mg/kg			SW846 6010B	08/12-08/13/03	FVXH71C4
			Qualifiers: NC,MSB						
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Lead									
	15.6	59.8	68.7	mg/kg	89		SW846 6010B	08/12-08/13/03	FVXH71C6
	15.6	59.8	68.6	mg/kg	88	0.12	SW846 6010B	08/12-08/13/03	FVXH71C7
			Dilution Factor: 1						
			Analysis Time..: 11:30						

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium									
	3190	5980	9020	mg/kg	97		SW846 6010B	08/12-08/13/03	FVXH71C9
	3190	5980	9570	mg/kg	107	5.9	SW846 6010B	08/12-08/13/03	FVXH71DA
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Manganese									
	324	59.8	365	mg/kg			SW846 6010B	08/12-08/13/03	FVXH71DD
			Qualifiers: NC,MSB						
	324	59.8	376	mg/kg			SW846 6010B	08/12-08/13/03	FVXH71DE
			Qualifiers: NC,MSB						
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Nickel									
	42.4	59.8	73.0 N	mg/kg	51		SW846 6010B	08/12-08/13/03	FVXH71DG
	42.4	59.8	75.6 N	mg/kg	55	3.5	SW846 6010B	08/12-08/13/03	FVXH71DH
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Potassium									
	761	5980	7710	mg/kg	116		SW846 6010B	08/12-08/13/03	FVXH71DK
	761	5980	7820	mg/kg	118	1.4	SW846 6010B	08/12-08/13/03	FVXH71DL
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Selenium									
	0.36	239	216	mg/kg	90		SW846 6010B	08/12-08/13/03	FVXH71DN
	0.36	239	212	mg/kg	89	1.8	SW846 6010B	08/12-08/13/03	FVXH71DP
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Silver									
	ND	5.98	5.49	mg/kg	92		SW846 6010B	08/12-08/13/03	FVXH71DR
	ND	5.98	5.49	mg/kg	92	0.06	SW846 6010B	08/12-08/13/03	FVXH71DT
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Sodium									
	717	5980	6010	mg/kg	89		SW846 6010B	08/12-08/13/03	FVXH71AC
	717	5980	5940	mg/kg	87	1.3	SW846 6010B	08/12-08/13/03	FVXH71AD
			Dilution Factor: 1						
			Analysis Time..: 11:30						

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium									
	0.53	239	217	mg/kg	90		SW846 6010B	08/12-08/13/03	FVXH71AF
	0.53	239	216	mg/kg	90	0.22	SW846 6010B	08/12-08/13/03	FVXH71AG
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Vanadium									
	11.6	59.8	76.1	mg/kg	108		SW846 6010B	08/12-08/13/03	FVXH71AJ
	11.6	59.8	77.7	mg/kg	111	2.2	SW846 6010B	08/12-08/13/03	FVXH71AK
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Zinc									
	60.0	59.8	120	mg/kg	100		SW846 6010B	08/12-08/13/03	FVXH71AM
	60.0	59.8	121	mg/kg	103	1.5	SW846 6010B	08/12-08/13/03	FVXH71AN
			Dilution Factor: 1						
			Analysis Time..: 11:30						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

N Spiked analyte recovery is outside stated control limits.

* Relative percent difference (RPD) is outside stated control limits.

Sample Receipt Documentation

H3H080204

REFERENCE DOCUMENT NO.: PB080603 STL

ANALYSIS REQUEST AND CHAIN-OF-CUSTODY RECORD

PAGE 1 OF 2

Shaw
Shaw E & I, Inc.

Project Name/No: PBOW
Sample Team Member: David Kessler
Profit Center: Knoxville
Project Manager: Steve Downey
Project No.: 843656
Required Report Date: 21 Days

Sample Shipment Date: 8/7/03
Laboratory Destination: STL - Knoxville
Laboratory Contact: Jamie McKinney
Project Contact/Phone: Maureen McMyler/865-690-3211
Carrier Waybill No.: 836531447472

Bill To: Greg Massingale
Shaw E&I
312 Directors Drive
Knoxville, TN 37923

Report To: Maureen McMyler
Shaw E&I
312 Directors Drive
Knoxville, TN 37923

Sample Number	Sample Type/ Description	Date/Time Collected	Container Type	Sample Volume	Pre-servative	Requested Testing Program	Cooler ID	Condition on Receipt	Disposal Record
DB0001	Soil (SS)	8/6/03 0930	1 - ~~Amber~~ CWM	8 oz	Cool	Explosives by 8330			
			1 - ~~Amber~~ CWM	8 oz	Cool	Tal Metals by 6010B/7471A			
			1 - ~~Amber~~ CWM	8 oz	Cool	PAH by 3540C/8310		Rec'd temp. 3°c	
								custody seals	intact
DB0002		8/6/03 1030	1-CWM	8 oz	Cool	EXPLOSIVES BY 8330		1 Cooler fed	x#
			1-CWM	8 oz	Cool	TAL METAL BY 6010B/7471A		836531447472	
			1-CWM	8 oz	Cool	PAH BY 3540C/8310		MPH 8-8-03	
DB0003		8/6/03 0815	1-CWM	8 oz	Cool	EXPLOSIVES BY 8330			
			1-CWM	8 oz	Cool	TAL METALS BY 6010B/7471A			
			1-CWM	8 oz	Cool	PAH BY 3540C/8310			
DB0004		8/6/03 0815	1-CWM	8 oz	Cool	EXPLOSIVES BY 8330			
			1-CWM	8 oz	Cool	TAL METALS BY 6010B/7471A			
			1-CWM	8 oz	Cool	PAH BY 3540C/8310			

Special Instructions:

Possible Hazard Identification: Use caution when handling.
Non-haz: X Flammable: ___ Poison B: ___ Unknown: ___

Sample Disposal:
Return to Client: ___ Disposal by Lab: X Archive: ___

Turnaround Time:
Normal: X Rush: ___

Level of QC Required:
I. ___ II. ___ III. ___ Project Specific: ___

1. Relinquished by: David Kessler Date: 8/7/03 Time: 1000
2. Relinquished by: Date: Time:
3. Relinquished by: Date: Time:

1. Received by: Matthew F. Howard Date: 8-8-03 Time: 09:15
2. Received by: Date: Time:
2. Received by: Date: Time:

Comments:

N:Shared\Common\DamGroup\Field Forms\PLUBKCOC4.XLS7/30/2003

H3H D6D2D4

Shaw
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN-OF-CUSTODY RECORD

REFERENCE DOCUMENT NO.: PB 080603572 0

Project Name/No.: PBOW

Laboratory Destination: STL - Knoxville

Sample Shipment Date: 08-07-03 0

Sample Number	Sample Type/ Description	Date/Time Collected	Container Type	Sample Volume	Pre-servative	Requested Testing Program	Cooler ID	Condition on Receipt	Disposal Record
DB0006	Soil (SS)	8/6/03 1400	1-CWM	8 OZ	Cool	EXPLOSIVES BY 8330			
			1-CWM	8 OZ	Cool	TAL METALS BY 6010B/7471A			
			1-CWM	8 OZ	Cool	PAH BY 3540C/8310			
DB0006-MS	Soil (SS)	8/6/03 1400	1-CWM	8 OZ	Cool	EXPLOSIVES BY 8330			
			1-CWM	8 OZ	Cool	TAL METALS BY 6010B/7471A			
			1-CWM	8 OZ	Cool	PAH BY 3540C/8310			
DB0006-MSD	Soil (SS)	8/6/03 1400	1-CWM	8 OZ	Cool	EXPLOSIVES BY 8330			
			1-CWM	8 OZ	Cool	TAL METALS BY 6010B/7471A			
			1-CWM	8 OZ	Cool	PAH BY 3540C/8310			
DB0007	Soil (SS)	8/6/03 1430	1-CWM	8 OZ	Cool	EXPLOSIVES BY 8330			
			1-CWM	8 OZ	Cool	TAL METALS BY 6010B/7471A			
			1-CWM	8 OZ	Cool	PAH BY 3540C/8310			
DB 0008	Soil (SS)	8/6/03 1510	1-CWM	8 OZ	Cool	EXPLOSIVES BY 8330			
			1-CWM	8 OZ	Cool	TAL METALS BY 6010B/7471A			
			1-CWM	8 OZ	Cool	PAH BY 3540C/8310			
DB0009	Soil (SS)	8/6/03 1600	1-CWM	8 OZ	Cool	EXPLOSIVES BY 8330			
			1-CWM	8 OZ	Cool	TAL METALS BY 6010B/7471A			
			1-CWM	8 OZ	Cool	PAH BY 3540C/8310			

STL KNOXVILLE
SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

CLIENT: Shaw E+I PROJECT: PBOW Lot No.: H3H080204

TO BE COMPLETED BY SAMPLE RECEIPT ASSOCIATE:

1. Sample Receipt:	YES	NO	NA
a. Do sample container labels match COC? (IDs, Dates, Times)	✓		
b. Is the cooler temperature within acceptance limits? (NOTE: North Carolina, 1668, 1613B: 0-4°C; VOST: 10°C)	✓		
c. Were samples received with correct chemical preservative (excluding Encore)?			✓
d. Were custody seals present/intact on cooler and/or containers?	✓		
e. Were all of the samples listed on the COC received?	✓		
f. Were all of the sample containers received intact?	✓		
g. Were containers received for VOAs received without headspace?			✓
h. Were samples received in the appropriate containers?	✓		
i. Did you check for residual chlorine, if necessary?			✓
j. Were samples received within 1/2 of the holding time?	✓		
k. Were samples screened for radioactivity?			✓
l. Were client's sample documents (RFA/COC) received?	✓		
m. Has the RFA/COC been relinquished? (Signed, Dated, Timed)	✓		
n. Are test/parameters listed for each sample?	✓		
o. Is the matrix of the samples noted?	✓		
p. Is the date/time of sample collection noted?	✓		
q. Is the client and project name/No. identified?	✓		
r. Was the sampler identified on the RFA/COC?		✓	

SAMPLE RECEIVING ASSOCIATE: Matthew F Howard DATE: 8-8-03

TO BE COMPLETED BY PROJECT MANAGER :

1. Project manager "Sample Greet":	YES	NO	NA
a. Quote number to be logged-in under 48670			
b. Informed Login associates of special instructions ?			X

PROJECT MANAGER : pm DATE: 8/14/03

Client Sample ID	Analysis Requested	Condition (see legend)	Comments/Action

☐ Client informed on _____ by _____. Person contacted: _____.
☐ Noted actions in comments section above.
☐ No action necessary; process as is.
Project Manager: _____ Date: _____

STL KNOXVILLE

SAMPLE LOG-IN (LOT SUMMARY) REVIEW CHECKLIST

CLIENT: Shaw PROJECT: PBOW Lot No.: H3H080204

TO BE COMPLETED BY PROJECT MANAGER:

1. Client Documents (Request for Analysis/Chain of Custody):	YES	NO	NA
a. Was QuanTIMS lot number documented on all paperwork?	X		
b. Was RFA/COC signed upon receipt, including date/time?	X		
c. Is preservative check (pH) noted on RFA/COC?			X
d. Is cooler temperature & custody seal condition noted on COC?	X		

2. Log-in (Lot Folder) Review:	YES	NO	NA
a. Do client IDs on Client Summaries match RFA/COC?	X		
b. Were tests/parameters assigned correctly?	X		
c. Were correct analytical and report due dates assigned?	X		
d. Has the correct fax due date been assigned to the lot?			X
e. Is the correct report format noted in the lot summary?	X		
f. Is percent moisture logged for samples requiring this analysis?	X		
g. Are client assigned QC samples properly defined?	X		

3. Contract/Subcontract Review:	YES	NO	NA
a. Is there a contract number or PO for this work?			X
b If the purchase order number is given, is it noted in Lot header?			X
c. If samples were subcontracted, was copy of COC and associated sample receipt documentation in the folder?		X	

4. SDG Review:	YES	NO	NA
a. If SDG is required, is SDG form in Lot folder?			X
b Is SDG number noted in Lot header & sample comments?			X
c. If SDG is complete, has the due date been revised & marked closed?			X

5. Checklist Review:	YES	NO	NA
a. Has Sample Receipt Checklist been filled-out?	X		
b. Was there a CUR?			X
c. Were all issues resolved?			X

LOT FOLDER REVIEWED BY: PM DATE: 8/14/03

4.7°C DS
8/9/03

Severn Trent Laboratories, Inc
SAMPLE ANALYSIS REQUISITION

LABORATORY: STL Denver
4955 Yarrow Street
Arvada CO 80002,

NEED ANALYTICAL REPORT BY
8/21/03

ATTN:

LAB PURCHASE ORDER: SR051199

CLIENT CODE: 506155 PROJECT MANAGER: Jamie A. McKinney

NUMBER OF SAMPLES IN LOT: 0000

SAMPLE I.D.	SAMPLING DATE	ANALYSIS REQUIRED
H3H080204-001 FVXG5-1-AA	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-002 FVXHQ-1-AH	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-003 FVXHV-1-AH	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-004 FVXH2-1-AH	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-005 FVXH7-1-AU	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-005-D FVXH7-1-AW	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-005-S FVXH7-1-AV	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-006 FVXJL-1-AH	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-007 FVXJQ-1-AH	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-008 FVXJ0-1-AH	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310

NEED DETECTION LIMIT AND ANALYSIS DATE INCLUDED IN REPORT.

SHIPPING METHOD: FEDX DATE: 8/08/03

SEND REPORT TO: JAMIE MCKINNEY

SAMPLE RECEIVED BY: Aaron Bindl DATE: 8/8/03

PLEASE SEND A SIGNED COPY OF THIS FORM WITH REPORT AT COMPLETION OF ANALYSIS.

THANK YOU.

STL Knoxville

INT: _____ 8/08/03 11:51:03

STL Denver
4955 Yarrow Street
Arvada CO 80002,

RELINQUISHED BY: Andrew D. Flores DATE/TIME: 08-08-03 15:15

RELINQUISHED BY: _____ DATE/TIME: _____

RECEIVED FOR LAB BY: Aaron Bindl DATE/TIME: 8/8/03 0845

PLEASE RETURN ORIGINAL SAMPLE ANALYSIS REQUISITION

STL Denver

Sample Receiving Checklist

Lot #: H3H080204 Date/Time Received: 8/9/03 0845

Company Name & Sampling Site: STL Knoxvill

*Cooler #(s): 1

Temperatures (°C): 4.7

PM to Complete This Section: *Yes* *No*
Residual chlorine check required: ☐ ☐
Time Zone:
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking & Labeling Check Points:

N/A	Yes	No		Initials
☐	☑	☐	1. Cooler seals intact. (N/A if hand delivered)	
	☑	☐	2. Chain of custody present.	
	☐	☑	3. Bottles broken and/or are leaking, comment if yes.	
	☐	☑	4. Multiphase samples present? If yes, comment below.	
			PHOTOGRAPH BROKEN BOTTLES	
	☐	☐	5. Proper container & preservatives used (ref. Attachment D of SOP# DEN-QA-0003)	
☐	☐	☐	6. pH of all samples checked and meet requirements, note exceptions.	
	☐	☐	7. Chain of custody includes "received by" and "relinquished" by signatures, dates, and times.	
	☐	☐	8. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.	
	☐	☐	9. Chain of custody agrees with bottle count, comment if no.	
	☐	☐	10. Chain of custody agrees with labels, comment if no.	
☐	☐	☐	11. VOA samples filled completely, comment if no.	
☐	☐	☐	12. VOA vials preserved, check label. Preservative ☐HCl ☐4±2°C ☐Sodium Thiosulfate	
	☐	☐	13. Did samples require preservation with sodium thiosulfate?	
☐	☐	☐	14. If yes to #12, did the samples contain residual chlorine?	
☐	☐	☐	15. Sediment present in dissolved/filtered bottles.	
	☐	☐	16. Are analyses with short holding times requested?	
	☐	☐	17. Was a quick Turn Around (TAT) requested?	
☐	☐	☐	18. Is extra sample volume provided for MS, MSD or matrix duplicates?	
			DOUBLECHECK METALS,SAMPLE LABELS & SUBCONTRACT	
☐	☐	☐	19. Subcontract COC signed and sent with samples to bottle prep?	
	☐	☐	20. Were sample labels double-checked by a second person?	
☐	☐	☐	21. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?	
☐	☐	☐	22. If applicable, were AFCEE Metals placed in the walkin refrigerator?	
☐	☐	☐	23. Were special instructions in LIMS read and followed?	

Document any problems and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

SW846-8310
PAHs

QC Summary

METHOD BLANK REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FWG6C1AA **Matrix.....:** SOLID
MB Lot-Sample #: D3H180000-523

Prep Date.....: 08/18/03
Analysis Date..: 08/21/03 **Prep Batch #...:** 3230523
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acenaphthene	ND	200	ug/kg	SW846 8310
Acenaphthylene	ND	200	ug/kg	SW846 8310
Anthracene	ND	20	ug/kg	SW846 8310
Benzo(a)anthracene	ND	20	ug/kg	SW846 8310
Benzo(a)pyrene	ND	20	ug/kg	SW846 8310
Benzo(b)fluoranthene	ND	20	ug/kg	SW846 8310
Benzo(ghi)perylene	ND	40	ug/kg	SW846 8310
Benzo(k)fluoranthene	ND	20	ug/kg	SW846 8310
Chrysene	ND	40	ug/kg	SW846 8310
Dibenzo(a,h)anthracene	ND	40	ug/kg	SW846 8310
Fluoranthene	ND	40	ug/kg	SW846 8310
Fluorene	ND	40	ug/kg	SW846 8310
Indeno(1,2,3-cd)pyrene	ND	40	ug/kg	SW846 8310
1-Methylnaphthalene	ND	200	ug/kg	SW846 8310
2-Methylnaphthalene	ND	200	ug/kg	SW846 8310
Naphthalene	ND	200	ug/kg	SW846 8310
Phenanthrene	ND	40	ug/kg	SW846 8310
Pyrene	ND	40	ug/kg	SW846 8310

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	100	(63 - 134)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FWG6C1AC **Matrix.....:** SOLID
LCS Lot-Sample#: D3H180000-523
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzo(a)pyrene	**103**	**(57 - 130)**	**SW846 8310**
Fluorene	**101**	**(63 - 129)**	**SW846 8310**
Indeno(1,2,3-cd)pyrene	**104**	**(63 - 130)**	**SW846 8310**
Naphthalene	**103**	**(64 - 131)**	**SW846 8310**
Pyrene	**110**	**(65 - 138)**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	95	(63 - 134)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FWG6C1AC **Matrix.....:** SOLID
LCS Lot-Sample#: D3H180000-523
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Benzo(a)pyrene	**2000**	**2060**	**ug/kg**	**103**	**SW846 8310**
Fluorene	**2000**	**2020**	**ug/kg**	**101**	**SW846 8310**
Indeno(1,2,3-cd)pyrene	**2000**	**2080**	**ug/kg**	**104**	**SW846 8310**
Naphthalene	**2000**	**2060**	**ug/kg**	**103**	**SW846 8310**
Pyrene	**2000**	**2190**	**ug/kg**	**110**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	95	(63 - 134)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FVXH71AV-MS **Matrix.....:** SOLID
MS Lot-Sample #: H3H080204-005 FVXH71AW-MSD
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1 **% Moisture.....:** 16

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzo(a)pyrene	**99**	**(57 - 130)**			**SW846 8310**
	112	**(57 - 130)**	**12**	**(0-34)**	**SW846 8310**
Fluorene	**95**	**(63 - 129)**			**SW846 8310**
	106	**(63 - 129)**	**11**	**(0-40)**	**SW846 8310**
Indeno(1,2,3-cd)pyrene	**94**	**(63 - 130)**			**SW846 8310**
	111	**(63 - 130)**	**16**	**(0-30)**	**SW846 8310**
Naphthalene	**93**	**(64 - 131)**			**SW846 8310**
	104	**(64 - 131)**	**11**	**(0-40)**	**SW846 8310**
Pyrene	**105**	**(65 - 138)**			**SW846 8310**
	112	(65 - 138)	5.7	(0-40)	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	100	(63 - 134)
	100	(63 - 134)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: H3H080204
MS Lot-Sample #: H3H080204-005
Date Sampled...: 08/06/03
Prep Date.....: 08/18/03
Prep Batch #...: 3230523
Dilution Factor: 1

Work Order #...: FVXH71AV-MS
FVXH71AW-MSD
Date Received..: 08/08/03
Analysis Date..: 08/21/03
% Moisture.....: 16

Matrix.....: SOLID

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Benzo(a)pyrene	**12**	**2390**	**2380**	**ug/kg**	**99**		**SW846 8310**
	12	2390	2700	ug/kg	112	12	**SW846 8310**
Fluorene	**14**	**2390**	**2280**	**ug/kg**	**95**		**SW846 8310**
	14	2390	2550	ug/kg	**106**	**11**	**SW846 8310**
Indeno(1,2,3-cd)pyrene	**ND**	**2390**	**2260**	**ug/kg**	**94**		**SW846 8310**
	ND	**2390**	**2670**	**ug/kg**	**111**	**16**	**SW846 8310**
Naphthalene	**ND**	**2390**	**2220**	**ug/kg**	**93**		**SW846 8310**
	ND	**2390**	**2490**	**ug/kg**	**104**	**11**	**SW846 8310**
Pyrene	**240**	**2390**	**2760**	**ug/kg**	**105**		**SW846 8310**
	240	**2390**	**2920**	**ug/kg**	**112**	**5.7**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	100	(63 - 134)
	100	(63 - 134)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

Raw Sample Data

SHAW E & I INC

Client Sample ID: DB0001

HPLC

Lot-Sample #...: H3H080204-001 **Work Order #...:** FVXG51AA **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1
% Moisture.....: 20 **Method.....:** SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	250	ug/kg	4.9
Acenaphthylene	ND	250	ug/kg	15
Anthracene	ND	25	ug/kg	3.2
Benzo(a)anthracene	ND	25	ug/kg	6.2
Benzo(a)pyrene	ND	25	ug/kg	2.2
Benzo(b)fluoranthene	ND	25	ug/kg	4.9
Benzo(ghi)perylene	ND	50	ug/kg	3.2
Benzo(k)fluoranthene	ND	25	ug/kg	2.9
Chrysene	ND	50	ug/kg	3.0
Dibenzo(a,h)anthracene	ND	50	ug/kg	5.7
Fluoranthene	ND	50	ug/kg	11
Fluorene	ND	50	ug/kg	11
Indeno(1,2,3-cd)pyrene	ND	50	ug/kg	2.9
1-Methylnaphthalene	ND	250	ug/kg	8.7
2-Methylnaphthalene	ND	250	ug/kg	4.1
Naphthalene	ND	250	ug/kg	15
Phenanthrene	ND	50	ug/kg	4.1
Pyrene	ND	50	ug/kg	8.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	97	(63 - 134)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-005-0501.d Page 1
Report Date: 22-Aug-2003 07:28

STL Denver

Data file : /chem/GC_G.i/G082103P-1.b/G#A-005-0501.d
Lab Smp Id: FVXG51AA Client Smp ID: DB0001
Inj Date : 21-AUG-2003 14:24
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXG51AA,204-1
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-1.b/8310-1.m
Meth Date : 21-Aug-2003 13:51 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#A-002-0201.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.10000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	1 Naphthalene	Compound Not Detected.					
	2 Acenaphthylene	4.824	4.963	-0.139	2123	57.4171	~~7.630(a)~~ NC
	3 1-Methylnaphthalene	5.544	5.496	0.048	16576	264.965	35.21(a) COL <RL
	4 2-Methylnaphthalene	5.870	5.843	0.027	1686	23.8448	3.169(a) COL <MDL
	5 Acenaphthene	6.170	6.116	0.054	1461	23.3806	3.107(a) COL <MDL
	6 Fluorene	Compound Not Detected.					
	7 Phenanthrene	7.417	7.396	0.021	45097	552.280	~~71.39~~ report 3
$	8 Decafluorobiphenyl	8.017	8.009	0.008	97699	8264.79	1098
	9 Anthracene	8.317	8.296	0.021	5530	68.4229	~~9.093(a)~~ report 3
	10 Fluoranthene	9.137	9.149	-0.012	10026	168.759	22.43(a) COL <RL
	11 Pyrene	9.824	9.776	0.048	7604	197.972	~~26.29(a)~~ report 3
$	12 p-terphenyl-d14	11.237	11.243	-0.006	295367	4857.88	645.6
	13 Benzo(a)Anthracene	12.130	12.123	0.007	2123	23.1612	3.078(a) COL <MDL
	14 Chrysene	12.710	12.703	0.007	10284	121.355	~~16.11(a)~~ report 3
	15 Benzo(b)Fluoranthene	14.404	14.403	0.001	4759	63.0849	8.383(a) <RL

NC CM 8-25-03

IVD 8/25/03

Data File: /chem/GC_G.i/G082103P-1.b/G#A-005-0501.d
Report Date: 22-Aug-2003 07:28

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
16 Benzo(k)Fluoranthene	15.330	15.316	0.014	19607	291.887	~~30.79~~ report 3
17 Benzo(a)Pyrene	15.990	15.996	-0.006	5127	101.976	~~13.55(a)~~ report 3 <RL
$ 18 Decachlorobiphenyl	Compound Not Detected.					
19 Dibenzo(a,h)Anthracene	17.030	17.189	-0.159	30303	415.427	~~55.21~~ RT
20 Benzo(g,h,i)Perylene	Compound Not Detected.					
21 Indeno(1,2,3-c,d)Pyrene	18.277	18.363	-0.086	1777	31.2400	4.151(a) RT

QC Flag Legend

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

Data File: /chem/GC_G.i/G082103P-1.b/G#A-005-0501.d
Report Date: 22-Aug-2003 07:28

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXG51AA
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-1.b/8310-1.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0001
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

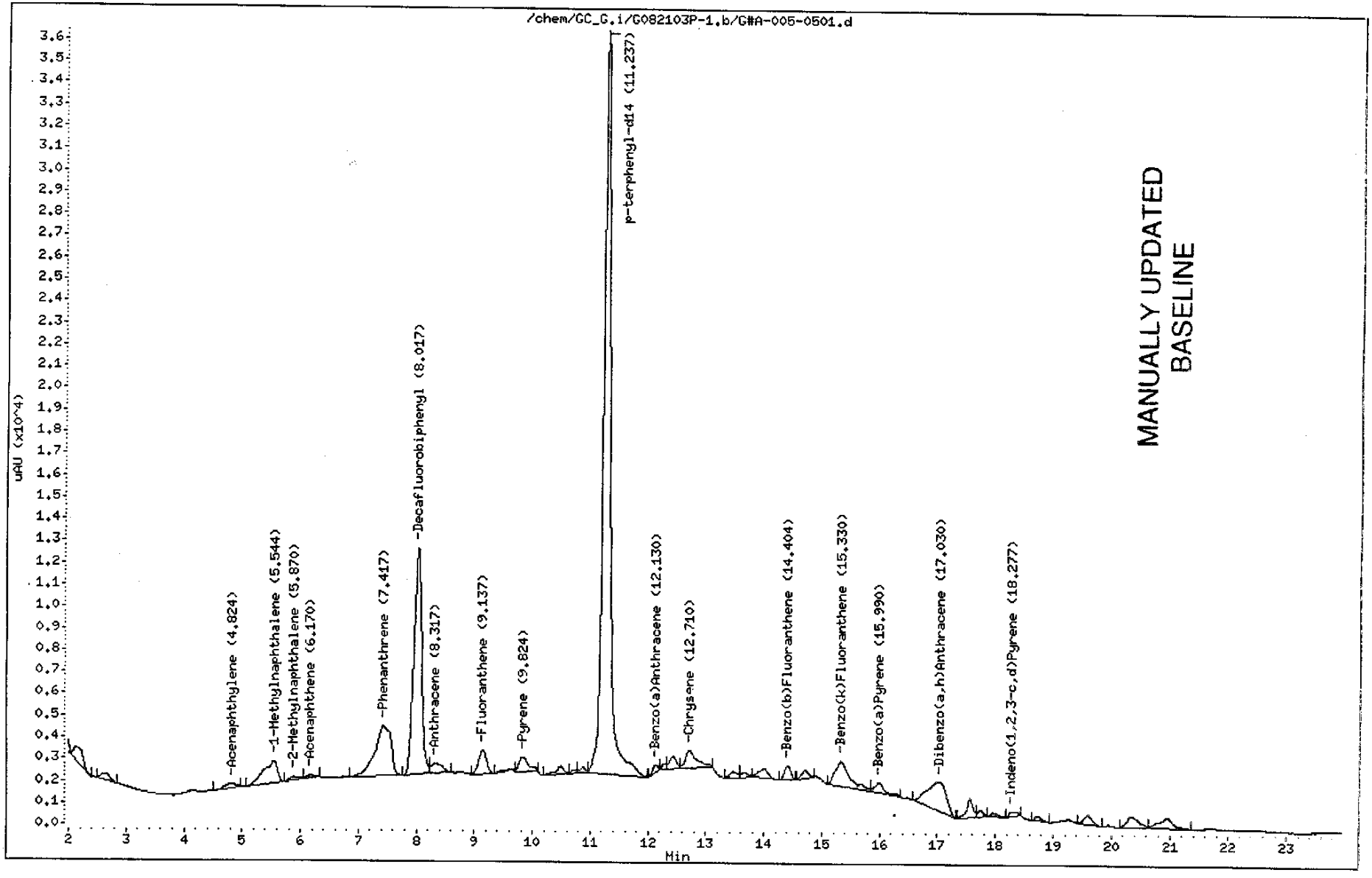
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1329	1098	82.65	37-152
$ 12 p-terphenyl-d14	664.4	645.6	97.16	22-167
$ 18 Decachlorobiphenyl	664.4	0.000	*	0-0

Data File: /chem/GC_G.i/G082103P-1.b/G#A-005-0501.d
Date : 21-AUG-2003 14:24
Client ID: DB0001
Sample Info: FVXG51AA,204-1

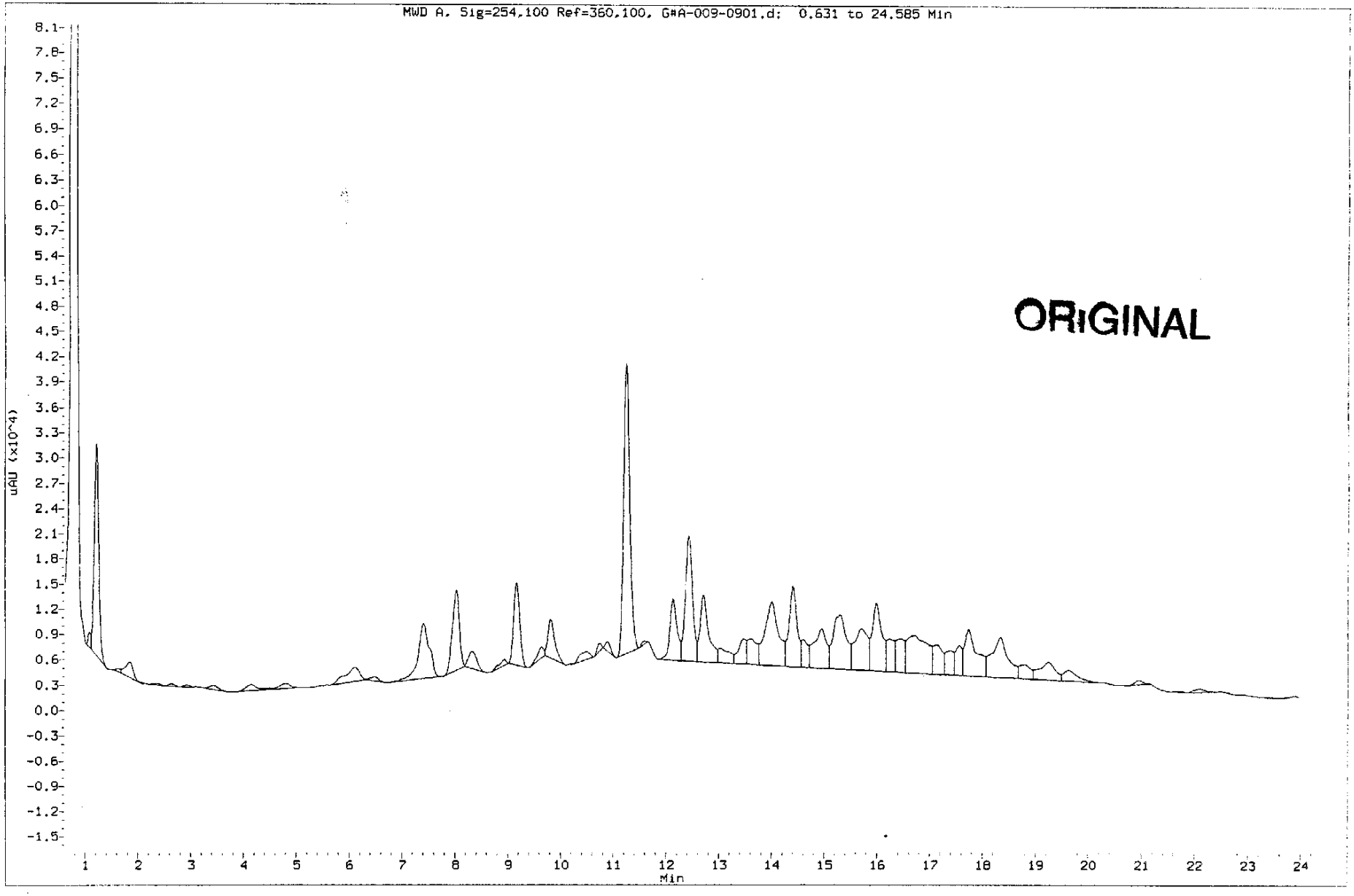
Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-1.b/G#A-009-0901.d
Injection Date: 21-AUG-2003 16:26
Instrument: GC_G.i
Client Sample ID: DB0006



Data File: /chem/GC_G.i/G082103P-2.b/G#B-005-0501.d
Report Date: 22-Aug-2003 10:32

STL Denver

Data file : /chem/GC_G.i/G082103P-2.b/G#B-005-0501.d
Lab Smp Id: FVXG51AA Client Smp ID: DB0001
Inj Date : 21-AUG-2003 14:24
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXG51AA,204-1
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-2.b/8310-2.m
Meth Date : 21-Aug-2003 13:56 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#B-002-0201.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.10000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Naphthalene	4.010	4.076	-0.066	116	46.7368	6.211(a)
2 Acenaphthylene	4.824	4.963	-0.139	5133	329.447	43.78(a)
3 1-Methylnaphthalene	5.544	5.496	0.048	7948	671.857	89.28(a)
4 2-Methylnaphthalene	5.857	5.843	0.014	3720	376.903	50.09(a)
5 Acenaphthene	6.164	6.116	0.048	5357	340.638	45.27(a)
6 Fluorene	6.430	6.523	-0.093	7996	261.422	34.74(a)
$ 8 Decafluorobiphenyl	8.017	8.009	0.008	50288	11239.3	1494
$ 12 p-terphenyl-d14	11.237	11.243	-0.006	197843	4485.44	596.1
$ 18 Decachlorobiphenyl	16.304	16.223	0.081	1140	186.082	24.73(aR)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/GC_G.i/G082103P-2.b/G#B-005-0501.d
Report Date: 22-Aug-2003 10:32

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXG51AA
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-2.b/8310-2.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0001
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

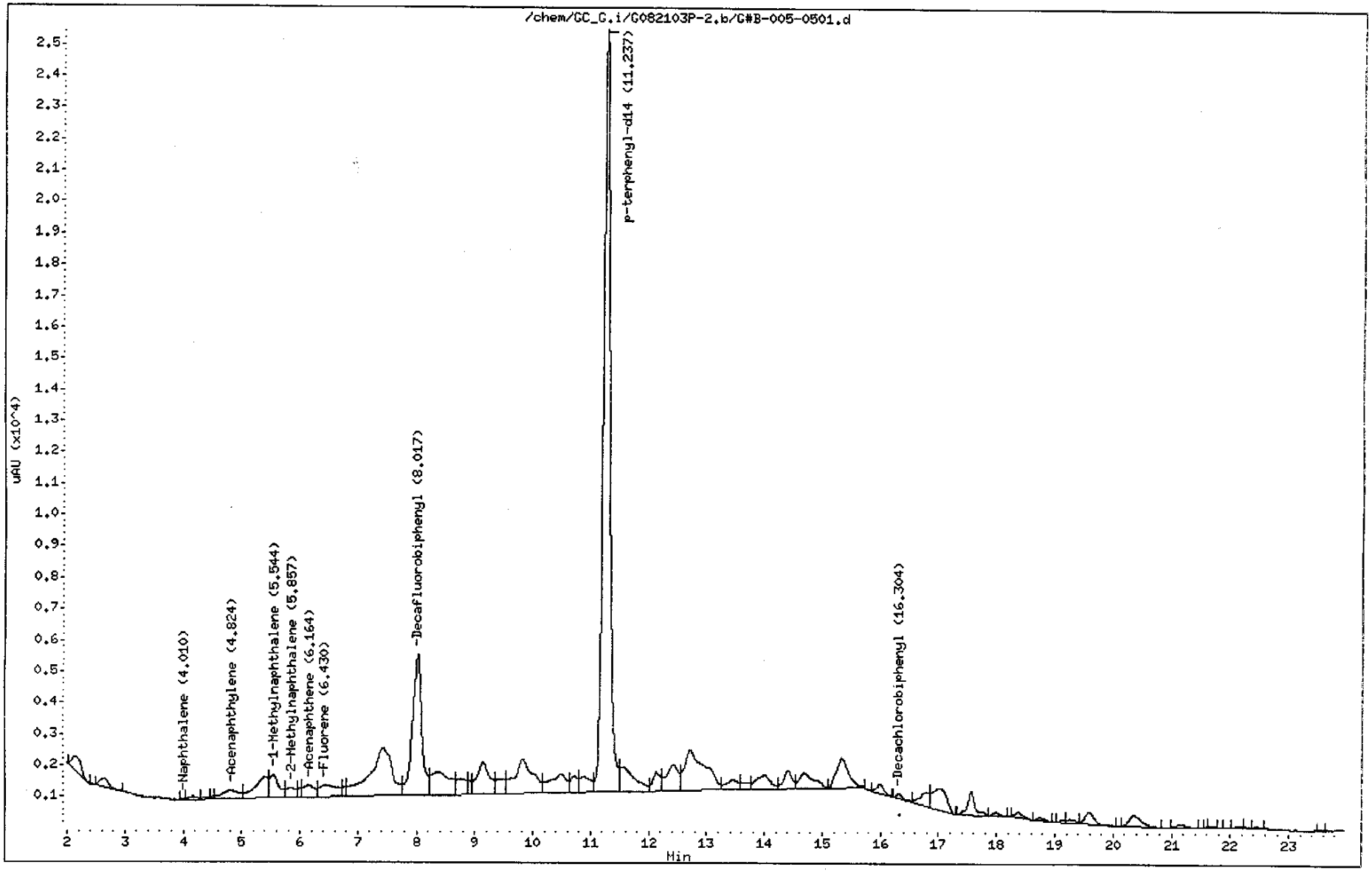
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1329	1494	112.39	37-152
$ 12 p-terphenyl-d14	664.4	596.1	89.71	22-167
$ 18 Decachlorobiphenyl	664.4	24.73	3.72*	40-160

Data File: /chem/GC_G.i/G082103P-2.b/G#B-005-0501.d
Date : 21-AUG-2003 14:24
Client ID: DB0001
Sample Info: FVXG51AA,204-1

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-3.b/G#C-005-0501.d Page 1
Report Date: 22-Aug-2003 11:04

STL Denver

Data file : /chem/GC_G.i/G082103P-3.b/G#C-005-0501.d
Lab Smp Id: FVXG51AA Client Smp ID: DB0001
Inj Date : 21-AUG-2003 14:24
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXG51AA,204-1
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-3.b/8310-3.m
Meth Date : 21-Aug-2003 13:57 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 17:39 Cal File: G#C-009-0901.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.10000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)	
	1 Phenanthrene	7.423	7.409	0.014	16697	95.3421	12.67(a)	COL < RL
$	2 Decafluorobiphenyl	8.035	8.035	0.000	11541	10255.9	1363	
	3 Anthracene	8.323	8.316	0.007	6723	5.71642	0.7596(a)	< MDL
	4 Fluoranthene	9.209	9.173	0.036	4792	405.833	53.93	
	5 Pyrene	9.821	9.792	0.029	62989	121.037	16.08(a)	< RL
$	6 p-terphenyl-d14	11.261	11.261	0.000	682079	4192.43	557.1	
	7 Benzo(a)Anthracene	12.139	12.146	-0.007	37738	49.9633	~~6.640(a)~~	report 3
	8 Chrysene	12.722	12.722	0.000	46585	68.7712	9.139(a)	< RL
	9 Benzo(b)Fluoranthene	14.429	14.422	0.007	39651	88.9777	~~11.82(a)~~	report 3
	10 Benzo(k)Fluoranthene	15.329	15.336	-0.007	22342	37.2160	4.946(a)	COL < RL
	11 Benzo(a)Pyrene	16.013	16.013	0.000	7626	56.0204	7.444(a)	
	12 Dibenzo(a,h)Anthracene	17.172	17.215	-0.043	4382	576.618	~~76.63~~	NC
	13 Benzo(g,h,i)Perylene	17.755	17.755	0.000	2751	65.0724	~~8.647(a)~~	NC
	14 Indeno(1,2,3-c,d)Pyrene	18.389	18.382	0.007	3790	32.6628	4.340(a)	

QC Flag Legend

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

Data File: /chem/GC_G.i/G082103P-3.b/G#C-005-0501.d Page 3
Report Date: 22-Aug-2003 11:04

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXG51AA
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-3.b/8310-3.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0001
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

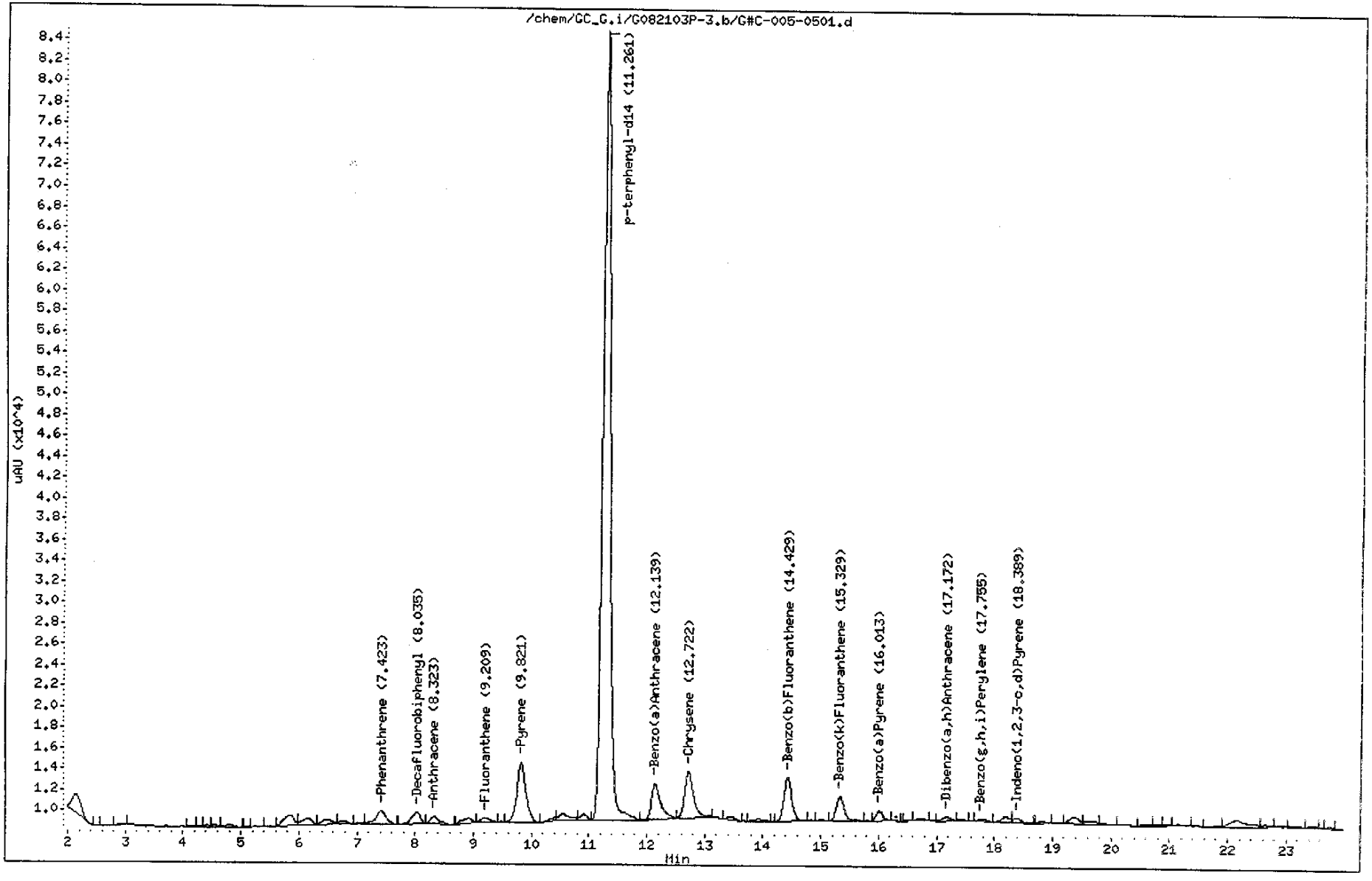
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 2 Decafluorobiphenyl	1329	1363	102.56	37-152
$ 6 p-terphenyl-d14	664.4	557.1	83.85	22-167

Data File: /chem/GC_G.i/G082103P-3.b/G#C-005-0501.d
Date : 21-AUG-2003 14:24
Client ID: DB0001
Sample Info: FVXG51AA,204-1

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



SHAW E & I INC

Client Sample ID: DB0002

HPLC

Lot-Sample #...: H3H080204-002 **Work Order #...:** FVXHQ1AH **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1
% Moisture.....: 23 **Method.....:** SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	**350 COL**	**260**	**ug/kg**	**5.1**
Acenaphthylene	ND	260	ug/kg	16
Anthracene	ND	26	ug/kg	3.4
Benzo(a)anthracene	ND	26	ug/kg	6.5
Benzo(a)pyrene	ND	26	ug/kg	2.3
Benzo(b)fluoranthene	ND	26	ug/kg	5.1
Benzo(ghi)perylene	ND	52	ug/kg	3.4
Benzo(k)fluoranthene	ND	26	ug/kg	3.0
Chrysene	ND	52	ug/kg	3.1
Dibenzo(a,h)anthracene	ND	52	ug/kg	6.0
Fluoranthene	ND	52	ug/kg	11
Fluorene	ND	52	ug/kg	11
Indeno(1,2,3-cd)pyrene	ND	52	ug/kg	3.0
1-Methylnaphthalene	ND	260	ug/kg	9.1
2-Methylnaphthalene	ND	260	ug/kg	4.3
Naphthalene	ND	260	ug/kg	16
Phenanthrene	ND	52	ug/kg	4.3
Pyrene	ND	52	ug/kg	9.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	99	(63 - 134)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

COL More than 40% RPD between primary and confirmation detector results. The lower of the two results is reported.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-006-0601.d Page 1
Report Date: 22-Aug-2003 07:28

STL Denver

Data file : /chem/GC_G.i/G082103P-1.b/G#A-006-0601.d
Lab Smp Id: FVXHQ1AH Client Smp ID: DB0002
Inj Date : 21-AUG-2003 14:54
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXHQ1AH,204-2
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-1.b/8310-1.m
Meth Date : 21-Aug-2003 13:51 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#A-002-0201.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	29.80000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	1 Naphthalene	Compound Not Detected.					
	2 Acenaphthylene	4.722	4.963	-0.241	590630	15966.2	~~2143~~ NT
	3 1-Methylnaphthalene	5.542	5.496	0.046	30888	493.723	66.27(a) COL <RL
	4 2-Methylnaphthalene	Compound Not Detected.					
	5 Acenaphthene	6.075	6.116	-0.041	123938	1983.40	266.2 COL
	6 Fluorene	6.848	6.523	0.325	3404	60.4181	~~8.110(aM)~~ NT
	7 Phenanthrene	7.189	7.396	-0.207	11349	138.991	~~18.66(aM)~~ NT
$	8 Decafluorobiphenyl	8.015	8.009	0.006	190455	16111.4	2163(RM)
	9 Anthracene	8.435	8.296	0.139	6854005	84795.7	~~11380(AM)~~ NT
	10 Fluoranthene	Compound Not Detected.					
	11 Pyrene	9.469	9.776	-0.307	648392	16880.6	~~2266(M)~~ NT
$	12 p-terphenyl-d14	11.235	11.243	-0.008	299665	4928.58	661.6(M)
	13 Benzo(a)Anthracene	12.155	12.123	0.032	20446	222.958	~~29.93(M)~~ report 3
	14 Chrysene	12.602	12.703	-0.101	28931	341.383	~~45.82(M)~~ NT
	15 Benzo(b)Fluoranthene	14.309	14.403	0.094	127483	1689.91	~~226.8(M)~~ NT

LM 8/25/04

Data File: /chem/GC_G.i/G082103P-1.b/G#A-006-0601.d
Report Date: 22-Aug-2003 07:28

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
16 Benzo(k)Fluoranthene	15.202	15.316	-0.114	12679	188.758	~~25.34~~(M)
17 Benzo(a)Pyrene	16.128	15.996	0.132	41729	829.991	11~~1.4(M)~~
$ 18 Decachlorobiphenyl	16.248	16.223	0.025	31838	1636.82	219.7(RM)
19 Dibenzo(a,h)Anthracene	17.275	17.189	0.086	8436	125.350	~~16.82(a~~M)
20 Benzo(g,h,i)Perylene	17.529	17.736	-0.207	7992	84.4497	1~~1.34(a)~~
21 Indeno(1,2,3-c,d)Pyrene	18.248	18.363	-0.115	2612	45.8987	6.~~161(a)~~

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-006-0601.d Page 3
Report Date: 22-Aug-2003 07:28

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXHQ1AH
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-1.b/8310-1.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0002
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

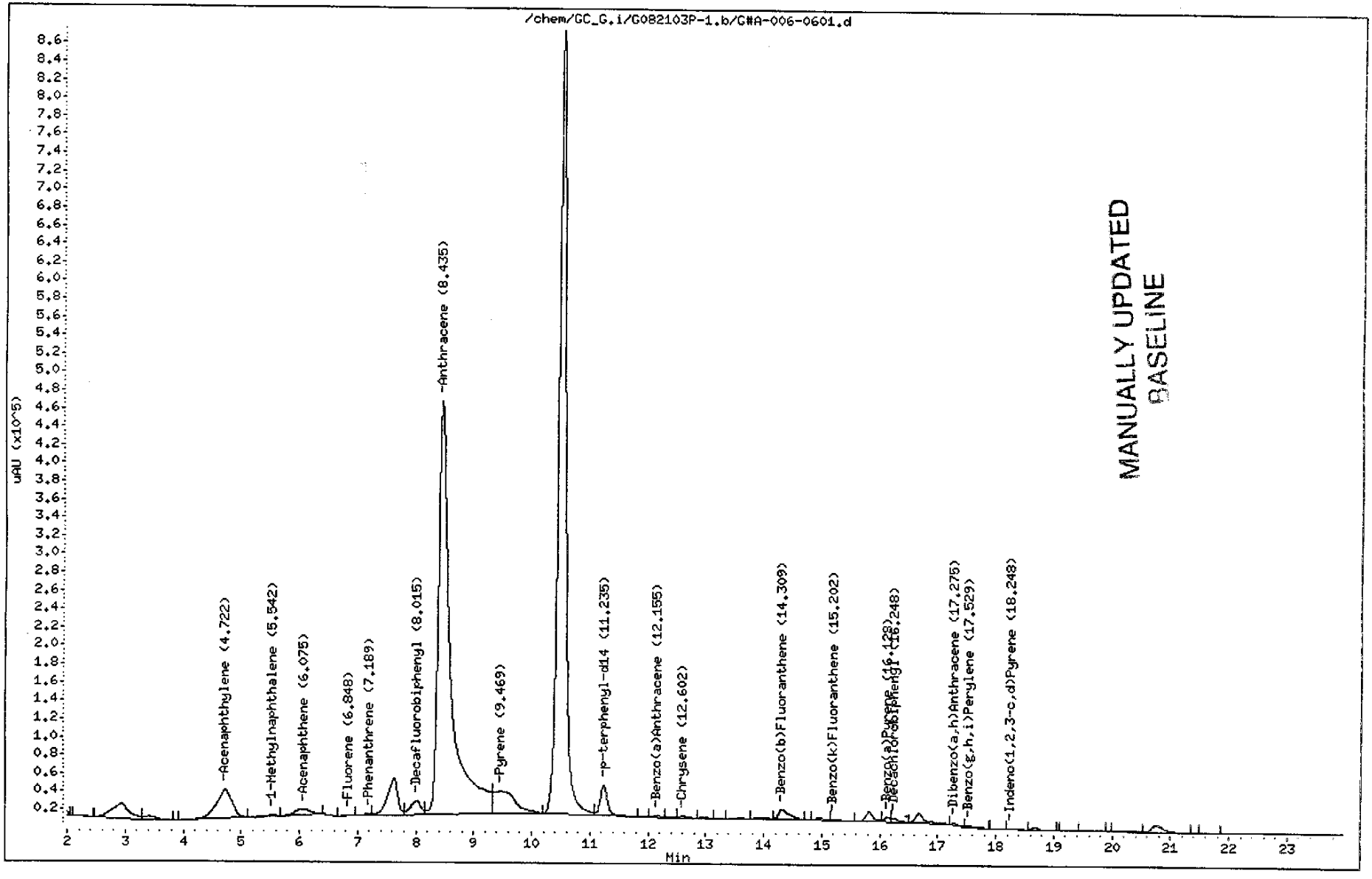
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1342	2163	161.11*	37-152
$ 12 p-terphenyl-d14	671.1	661.6	98.57	22-167
$ 18 Decachlorobiphenyl	671.1	219.7	32.74*	0-0

Data File: /chem/GC_G.i/G082103P-1.b/G#A-006-0601.d
Date : 21-AUG-2003 14:54
Client ID: DB0002
Sample Info: FVXHQ1AH,204-2

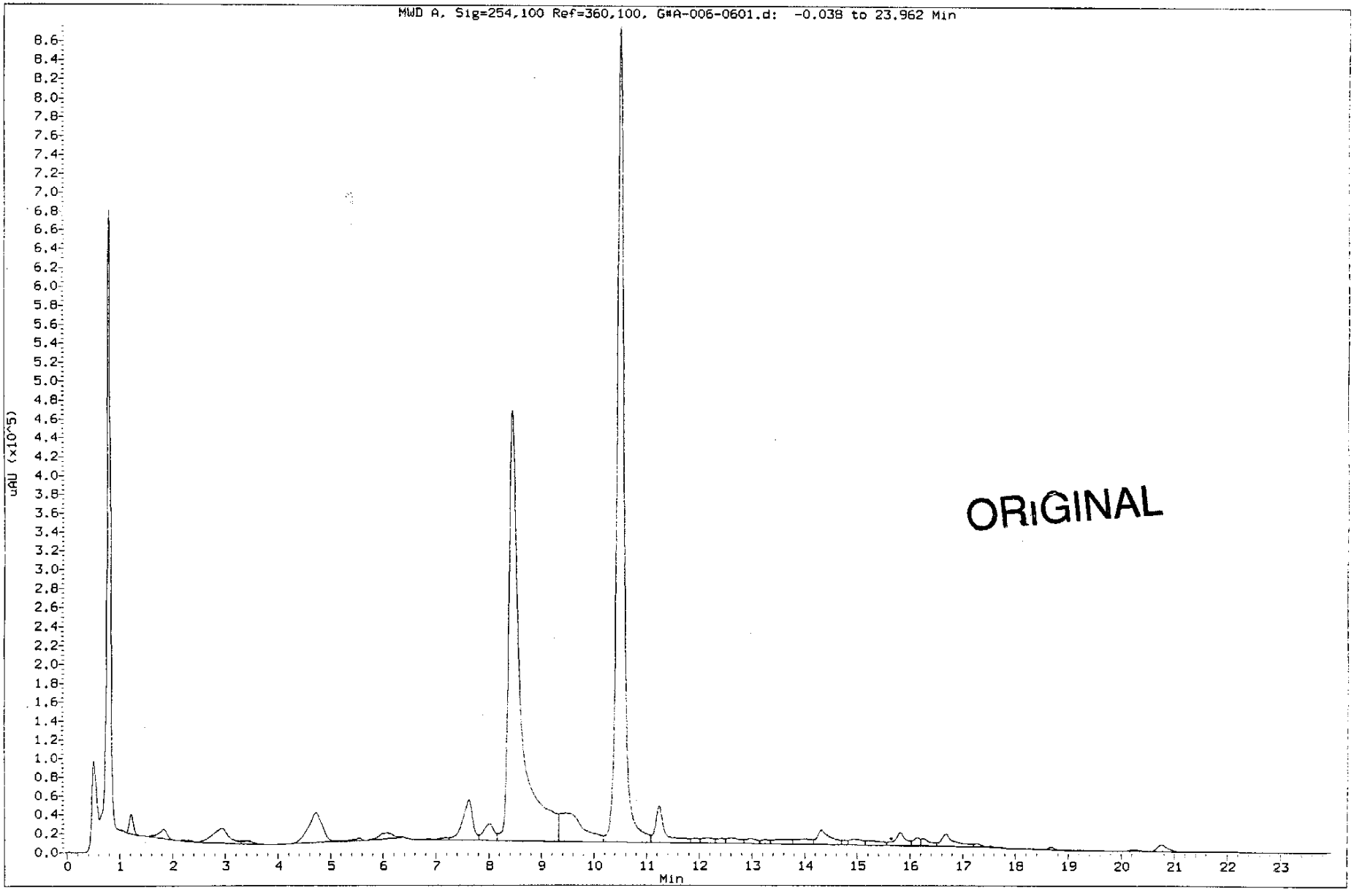
Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-1.b/G#A-006-0601.d
Injection Date: 21-AUG-2003 14:54
Instrument: GC_G.i
Client Sample ID: DB0002



Data File: /chem/GC_G.i/G082103P-2.b/G#B-006-0601.d
Report Date: 22-Aug-2003 10:32

STL Denver

Data file : /chem/GC_G.i/G082103P-2.b/G#B-006-0601.d
Lab Smp Id: FVXHQ1AH Client Smp ID: DB0002
Inj Date : 21-AUG-2003 14:54
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXHQ1AH,204-2
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-2.b/8310-2.m
Meth Date : 21-Aug-2003 13:56 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#B-002-0201.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	29.80000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Naphthalene	Compound Not Detected.					
2 Acenaphthylene	4.722	4.963	-0.241	490300	31467.3	4224(M)
3 1-Methylnaphthalene	5.535	5.496	0.039	24598	2079.32	279.1(M)
4 2-Methylnaphthalene	Compound Not Detected.					
5 Acenaphthene	6.075	6.116	-0.041	124774	7932.87	1065(M)
6 Fluorene	6.348	6.523	-0.175	35403	1157.36	155.4(M)
$ 8 Decafluorobiphenyl	8.015	8.009	0.006	51755	11567.2	1553(M)
$ 12 p-terphenyl d14	11.235	11.243	-0.008	175395	3976.51	533.8(M)
$ 18 Decachlorobiphenyl	16.255	16.223	0.032	25294	4128.13	554.1(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/GC_G.i/G082103P-2.b/G#B-006-0601.d Page 2
Report Date: 22-Aug-2003 10:32

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Client SDG: H3H080204
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: FVXHQ1AH
Client Smp ID: DB0002
Level: LOW
Operator: SLD
Data Type: LC DATA
SampleType: SAMPLE
SpikeList File: Scommercial.spk
Quant Type: ESTD
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-2.b/8310-2.m
Misc Info: ICAL 04/29/03

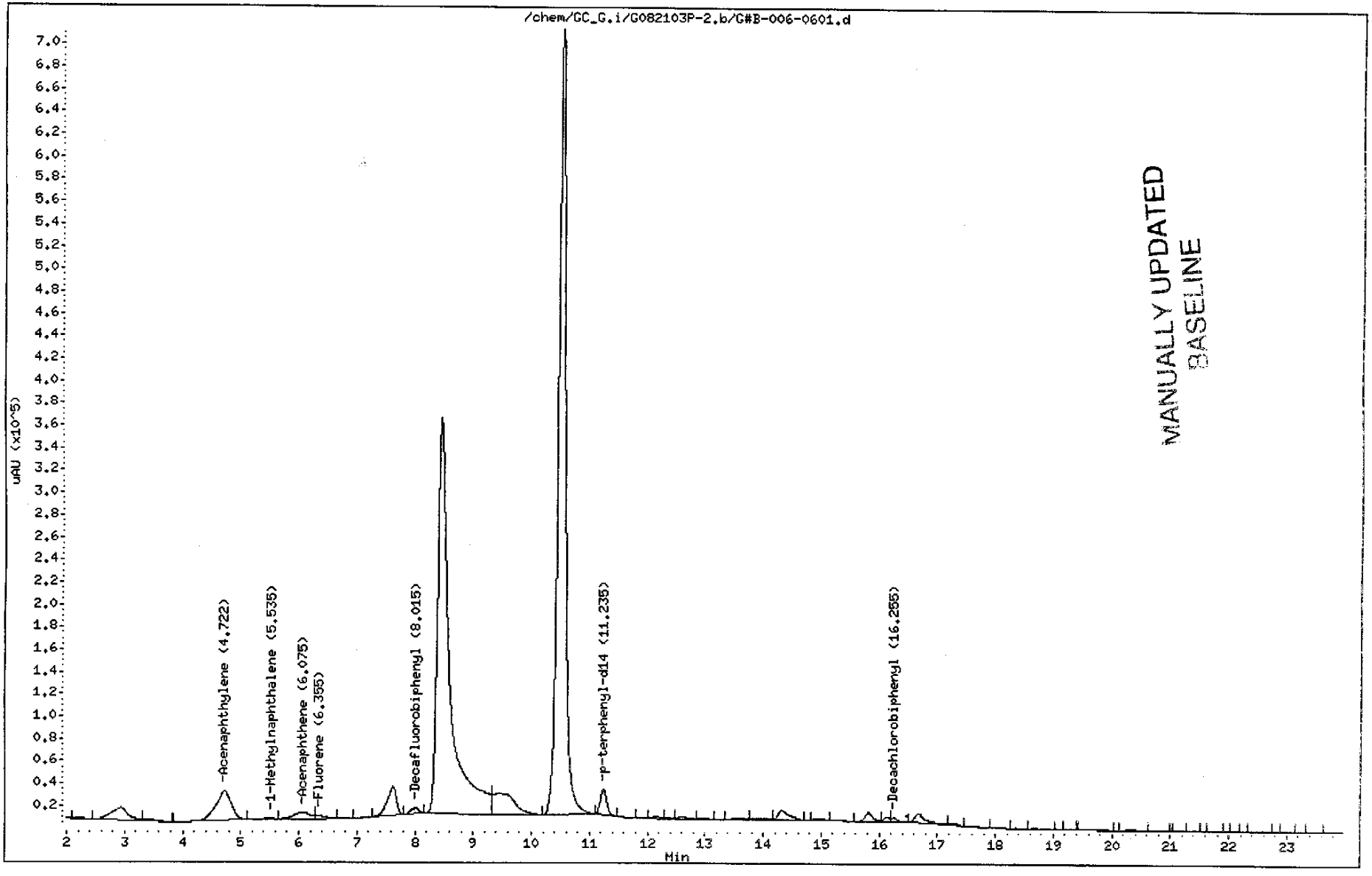
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1342	1553	115.67	37-152
$ 12 p-terphenyl-d14	671.1	533.8	79.53	22-167
$ 18 Decachlorobiphenyl	671.1	554.1	82.56	40-160

Data File: /chem/GC_G.i/G082103P-2.b/G#B-006-0601.d
Date : 21-AUG-2003 14:54
Client ID: DB0002
Sample Info: FVXHQ1AH,204-2

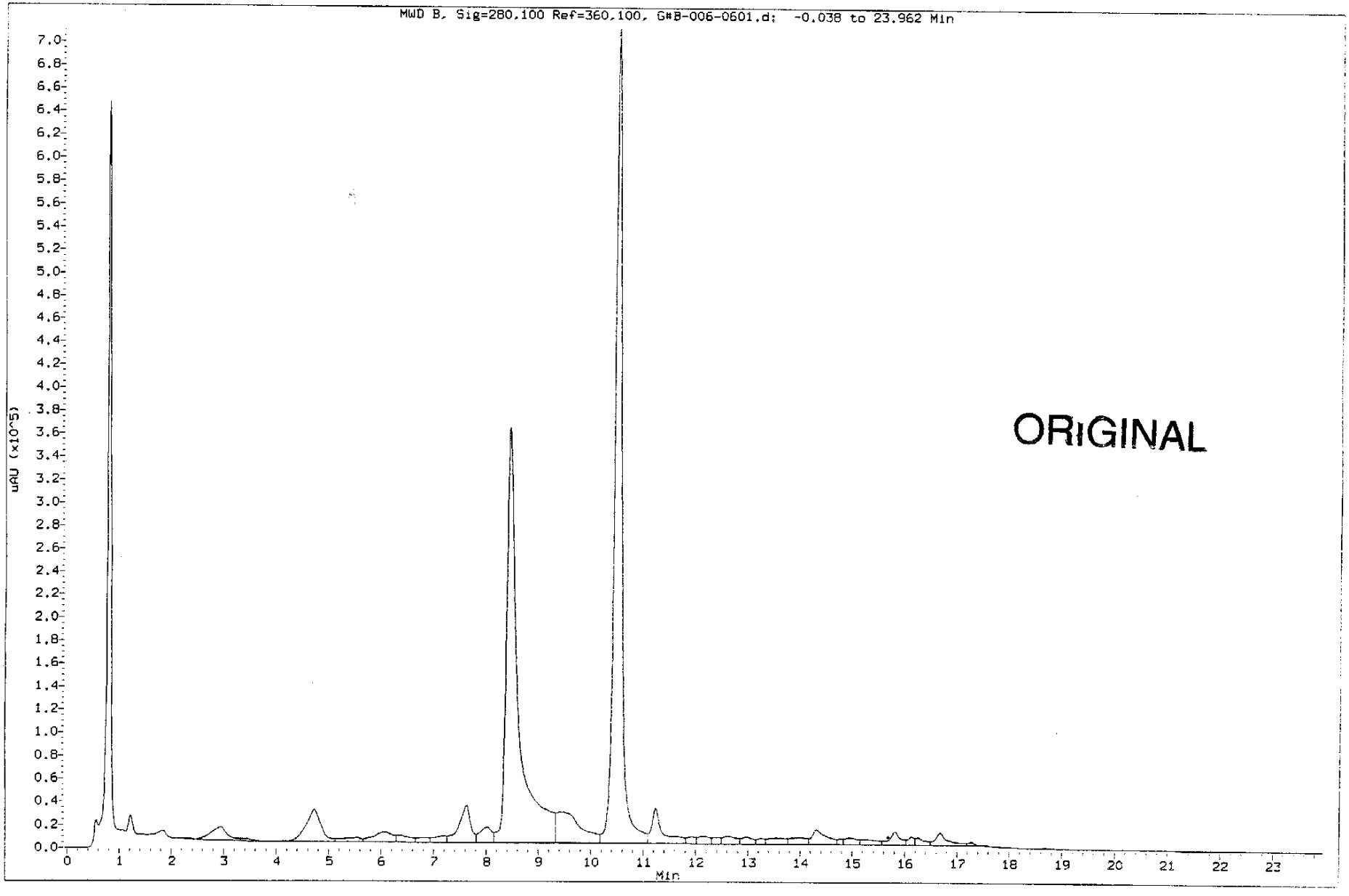
Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-2.b/G#B-006-0601.d
Injection Date: 21-AUG-2003 14:54
Instrument: GC_G.i
Client Sample ID: DB0002



Data File: /chem/GC_G.i/G082103P-3.b/G#C-006-0601.d
Report Date: 22-Aug-2003 11:04

STL Denver

Data file : /chem/GC_G.i/G082103P-3.b/G#C-006-0601.d
Lab Smp Id: FVXHQ1AH Client Smp ID: DB0002
Inj Date : 21-AUG-2003 14:54
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXHQ1AH,204-2
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-3.b/8310-3.m
Meth Date : 21-Aug-2003 13:57 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 17:39 Cal File: G#C-009-0901.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	29.80000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	1 Phenanthrene	7.380	7.409	-0.029	54599	311.767	41.85
$	2 Decafluorobiphenyl	8.064	8.035	0.029	322294	67202.4	9020(AR)
	3 Anthracene	8.460	8.316	0.144	24658	20.9648	2.814(a)
	4 Fluoranthene	9.194	9.173	0.021	8443	696.908	93.54
	5 Pyrene	9.821	9.792	0.029	80873	155.401	20.86(a)
$	6 p-terphenyl-d14	11.254	11.261	-0.007	646539	3973.98	533.4
	7 Benzo(a)Anthracene	12.139	12.146	-0.007	55306	73.2222	9.828(a) COL <RL
	8 Chrysene	12.715	12.722	-0.007	77734	114.755	15.40(a)
	9 Benzo(b)Fluoranthene	14.422	14.422	0.000	57224	128.410	17.24(a)
	10 Benzo(k)Fluoranthene	15.329	15.336	-0.007	30399	50.6358	6.797(a)
	11 Benzo(a)Pyrene	16.006	16.013	-0.007	14545	106.843	14.34(a)
	12 Dibenzo(a,h)Anthracene	17.179	17.215	-0.036	11286	1492.74	200.4
	13 Benzo(g,h,i)Perylene	17.784	17.755	0.029	3910	92.4754	12.41(a)
	14 Indeno(1,2,3-c,d)Pyrene	18.374	18.382	-0.008	8416	72.5276	9.735(a)

Data File: /chem/GC_G.i/G082103P-3.b/G#C-006-0601.d
Report Date: 22-Aug-2003 11:04

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/GC_G.i/G082103P-3.b/G#C-006-0601.d
Report Date: 22-Aug-2003 11:04

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXHQ1AH
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-3.b/8310-3.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0002
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

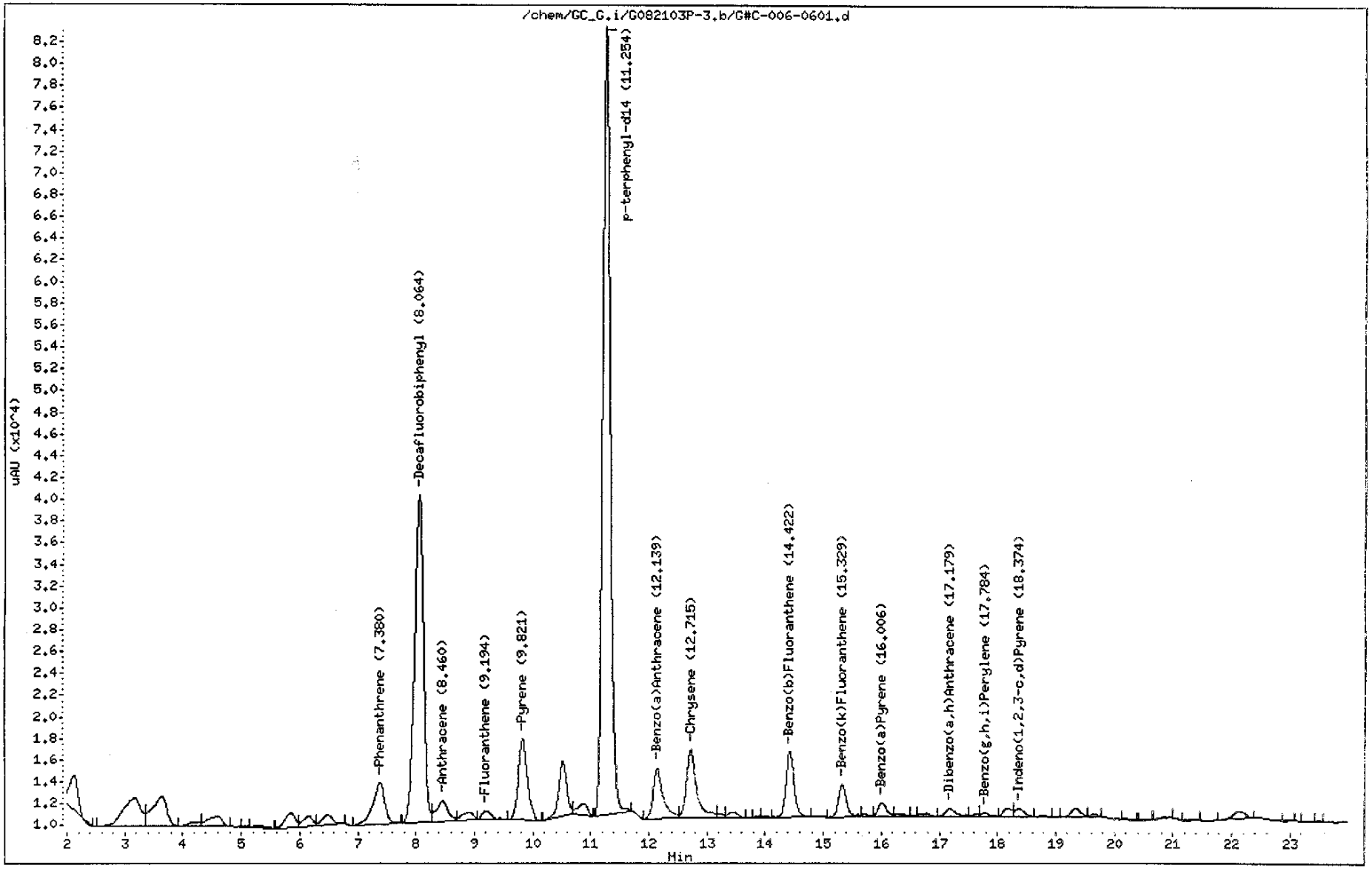
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 2 Decafluorobiphenyl	1342	9020	672.02*	37-152
$ 6 p-terphenyl-d14	671.1	533.4	79.48	22-167

Data File: /chem/GC_G.i/G082103P-3.b/G#C-006-0601.d
Date : 21-AUG-2003 14:54
Client ID: DB0002
Sample Info: FVXHQ1AH,204-2

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



SHAW E & I INC

Client Sample ID: DB0003

HPLC

Lot-Sample #...: H3H080204-003 **Work Order #...:** FVXHV1AH **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1
% Moisture.....: 9.9 **Method.....:** SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	220	ug/kg	4.3
Acenaphthylene	ND	220	ug/kg	13
Anthracene	ND	22	ug/kg	2.9
Benzo(a)anthracene	ND	22	ug/kg	5.6
Benzo(a)pyrene	ND	22	ug/kg	2.0
Benzo(b)fluoranthene	ND	22	ug/kg	4.3
Benzo(ghi)perylene	ND	44	ug/kg	2.9
Benzo(k)fluoranthene	ND	22	ug/kg	2.6
Chrysene	ND	44	ug/kg	2.7
Dibenzo(a,h)anthracene	ND	44	ug/kg	5.1
Fluoranthene	ND	44	ug/kg	9.4
Fluorene	ND	44	ug/kg	9.7
Indeno(1,2,3-cd)pyrene	ND	44	ug/kg	2.6
1-Methylnaphthalene	ND	220	ug/kg	7.8
2-Methylnaphthalene	ND	220	ug/kg	3.7
Naphthalene	ND	220	ug/kg	13
Phenanthrene	ND	44	ug/kg	3.7
Pyrene	ND	44	ug/kg	7.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	78	(63 - 134)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-007-0701.d
Report Date: 22-Aug-2003 07:28

STL Denver

Data file : /chem/GC_G.i/G082103P-1.b/G#A-007-0701.d
Lab Smp Id: FVXHV1AH Client Smp ID: DB0003
Inj Date : 21-AUG-2003 15:25
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXHV1AH,204-3
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-1.b/8310-1.m
Meth Date : 21-Aug-2003 13:51 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#A-002-0201.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.10000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	1 Naphthalene	Compound Not Detected.					
	2 Acenaphthylene	4.773	4.963	-0.190	1095	29.6169	~~3.936(a)~~ LE
	3 1-Methylnaphthalene	Compound Not Detected.					
	4 2-Methylnaphthalene	Compound Not Detected.					
	5 Acenaphthene	Compound Not Detected.					
	6 Fluorene	6.320	6.523	-0.203	2610	46.3296	~~6.157(a)~~ LE
	7 Phenanthrene	7.533	7.396	0.137	16852	206.380	27.12(a) LE
$	8 Decafluorobiphenyl	8.020	8.009	0.011	90481	7654.23	1017
	9 Anthracene	8.320	8.296	0.024	2036	25.1987	~~3.349(a)~~ report 3 NC CM 8.25.03
	10 Fluoranthene	9.160	9.149	0.011	2025	34.0924	4.530(a) <MDL
	11 Pyrene	9.786	9.776	0.010	2058	53.5947	~~7.122(a)~~ report 3 NC CM 8.25.03
$	12 p-terphenyl-d14	11.233	11.243	0.010	238226	3918.10	520.7
	13 Benzo(a)Anthracene	12.140	12.123	0.017	1116	12.1760	1.618(a) <MDL
	14 Chrysene	12.700	12.703	-0.003	2734	32.2673	~~4.288(a)~~ report 3
	15 Benzo(b)Fluoranthene	14.400	14.403	-0.003	3114	41.2869	~~5.482(a)~~ report 3

NC 8.25.03

Data File: /chem/GC_G.i/G082103P-1.b/G#A-007-0701.d
Report Date: 22-Aug-2003 07:28

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
16 Benzo(k)Fluoranthene	15.193	15.316	-0.123	2044	30.4335	~~4.044(a)~~
17 Benzo(a)Pyrene	Compound Not Detected.					
$ 18 Decachlorobiphenyl	16.720	16.223	0.497	7752	354.698	47.14(R)
19 Dibenzo(a,h)Anthracene	17.006	17.189	-0.183	25185	347.532	~~46.18~~
20 Benzo(g,h,i)Perylene	Compound Not Detected.					
21 Indeno(1,2,3-c,d)Pyrene	18.240	18.363	-0.123	1769	31.0959	4~~.132(a)~~

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-007-0701.d
Report Date: 22-Aug-2003 07:28

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXHV1AH
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-1.b/8310-1.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0003
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

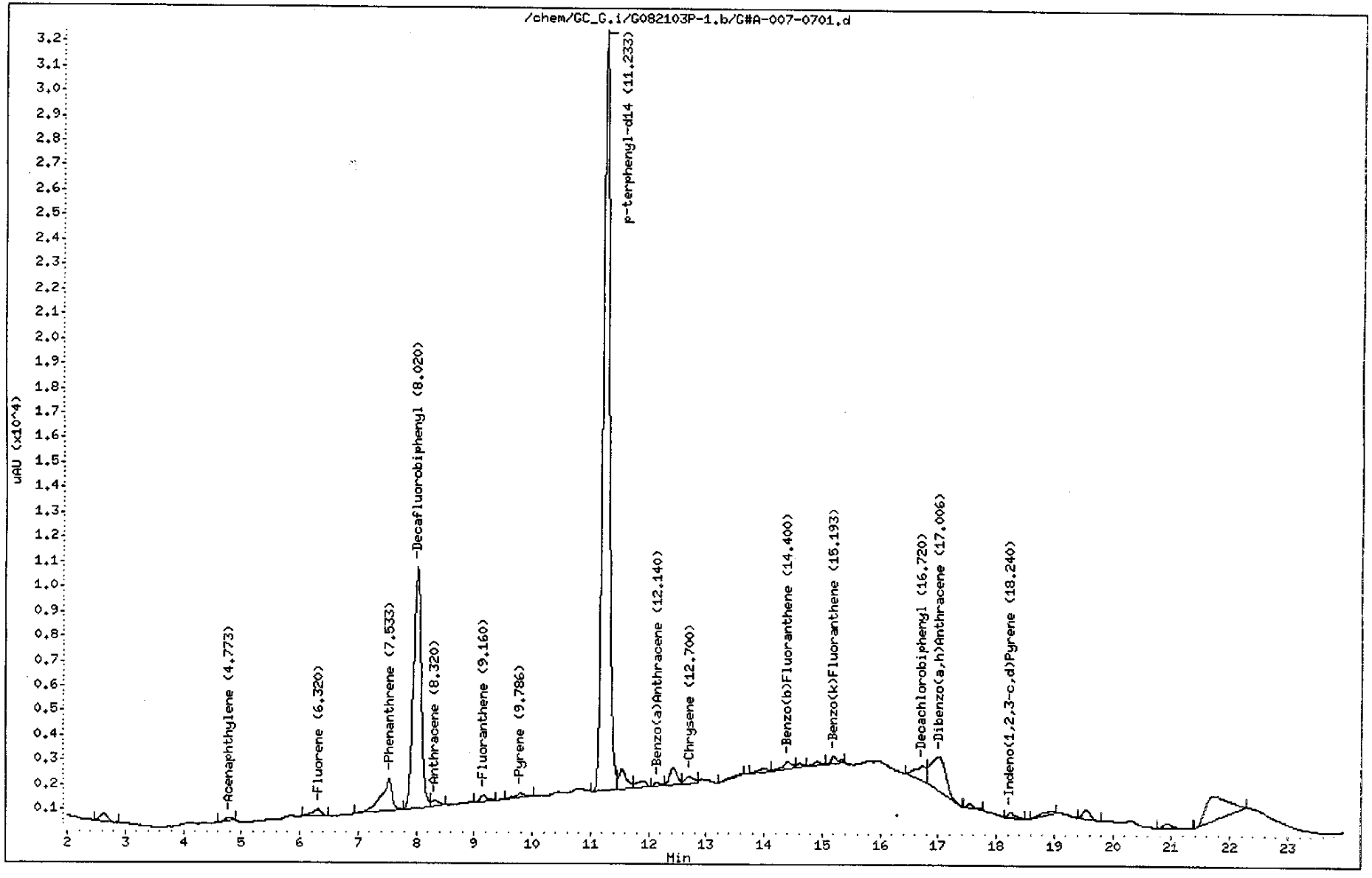
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1329	1017	76.54	37-152
$ 12 p-terphenyl-d14	664.4	520.7	78.36	22-167
$ 18 Decachlorobiphenyl	664.4	47.14	7.09*	0-0

Data File: /chem/GC_G.i/G082103P-1.b/G#A-007-0701.d
Date : 21-AUG-2003 15:25
Client ID: DB0003
Sample Info: FVXHV1AH,204-3

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-2.b/G#B-007-0701.d Page 1
Report Date: 22-Aug-2003 10:33

STL Denver

Data file : /chem/GC_G.i/G082103P-2.b/G#B-007-0701.d
Lab Smp Id: FVXHV1AH Client Smp ID: DB0003
Inj Date : 21-AUG-2003 15:25
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXHV1AH,204-3
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-2.b/8310-2.m
Meth Date : 21-Aug-2003 13:56 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#B-002-0201.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.10000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Naphthalene	3.860	4.076	-0.216	104	45.6608	6.068(a)
2 Acenaphthylene	4.766	4.963	-0.197	802	51.5106	6.845(a)
3 1-Methylnaphthalene	Compound Not Detected.					
4 2-Methylnaphthalene	5.840	5.843	-0.003	321	62.7154	8.334(a)
5 Acenaphthene	Compound Not Detected.					
6 Fluorene	6.320	6.523	-0.203	2627	85.8854	11.41(a)
$ 8 Decafluorobiphenyl	8.020	8.009	0.011	35278	7884.55	1048
$ 12 p-terphenyl-d14	11.233	11.243	-0.010	167823	3804.85	505.6
$ 18 Decachlorobiphenyl	15.966	16.223	-0.257	31918	5209.21	692.2

QC Flag Legend

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

Data File: /chem/GC_G.i/G082103P-2.b/G#B-007-0701.d
Report Date: 22-Aug-2003 10:33

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXHV1AH
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-2.b/8310-2.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0003
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

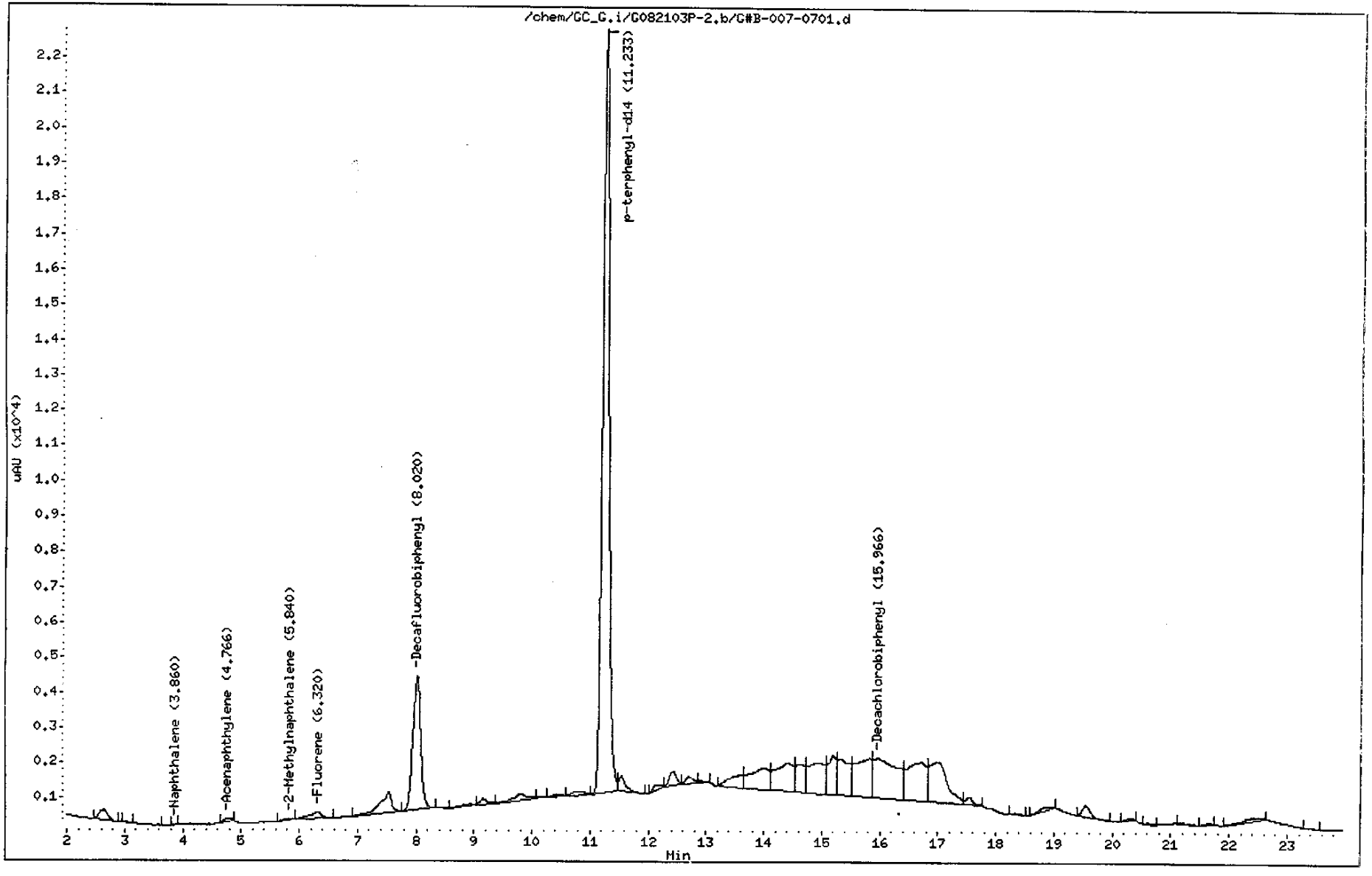
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1329	1048	78.85	37-152
$ 12 p-terphenyl-d14	664.4	505.6	76.10	22-167
$ 18 Decachlorobiphenyl	664.4	692.2	104.18	40-160

Data File: /chem/GC_G.i/G082103P-2.b/G#B-007-0701.d
Date : 21-AUG-2003 15:25
Client ID: DB0003
Sample Info: FVXHV1AH,204-3

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-3.b/G#C-007-0701.d
Report Date: 22-Aug-2003 11:04

STL Denver

Data file : /chem/GC_G.i/G082103P-3.b/G#C-007-0701.d
Lab Smp Id: FVXHV1AH Client Smp ID: DB0003
Inj Date : 21-AUG-2003 15:25
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXHV1AH,204-3
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-3.b/8310-3.m
Meth Date : 21-Aug-2003 13:57 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 17:39 Cal File: G#C-009-0901.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.10000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)	
	1 Phenanthrene	7.423	7.409	0.014	5629	32.1454	4.272(a)	
$	2 Decafluorobiphenyl	8.035	8.035	0.000	11857	10513.3	1397	
	3 Anthracene	8.302	8.316	-0.014	3296	2.80294	0.3725(a)	<MDL
	4 Fluoranthene	9.230	9.173	0.057	3300	286.892	38.12(a)	
	5 Pyrene	9.821	9.792	0.029	19875	38.1910	5.075(a)	<MDL
$	6 p-terphenyl-d14	11.254	11.261	-0.007	608511	3740.25	497.0	
	7 Benzo(a)Anthracene	12.139	12.146	-0.007	14823	19.6256	2.608(a)	
	8 Chrysene	12.715	12.722	-0.007	15248	22.5105	2.991(a)	<RL
	9 Benzo(b)Fluoranthene	14.422	14.422	0.000	13593	30.5026	4.054(a)	<RL
	10 Benzo(k)Fluoranthene	15.322	15.336	-0.014	7235	12.0519	1.602(a)	
	11 Benzo(a)Pyrene	16.034	16.013	0.021	2239	16.4485	2.186(a)	
	12 Dibenzo(a,h)Anthracene	17.165	17.215	0.050	2255	294.486	39.13	
	13 Benzo(g,h,i)Perylene	17.748	17.755	-0.007	1421	33.6191	4.468(a)	
	14 Indeno(1,2,3-c,d)Pyrene	18.360	18.382	0.022	1472	12.6914	1.686(a)	

QC Flag Legend

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

Data File: /chem/GC_G.i/G082103P-3.b/G#C-007-0701.d
Report Date: 22-Aug-2003 11:04

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXHV1AH
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-3.b/8310-3.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0003
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

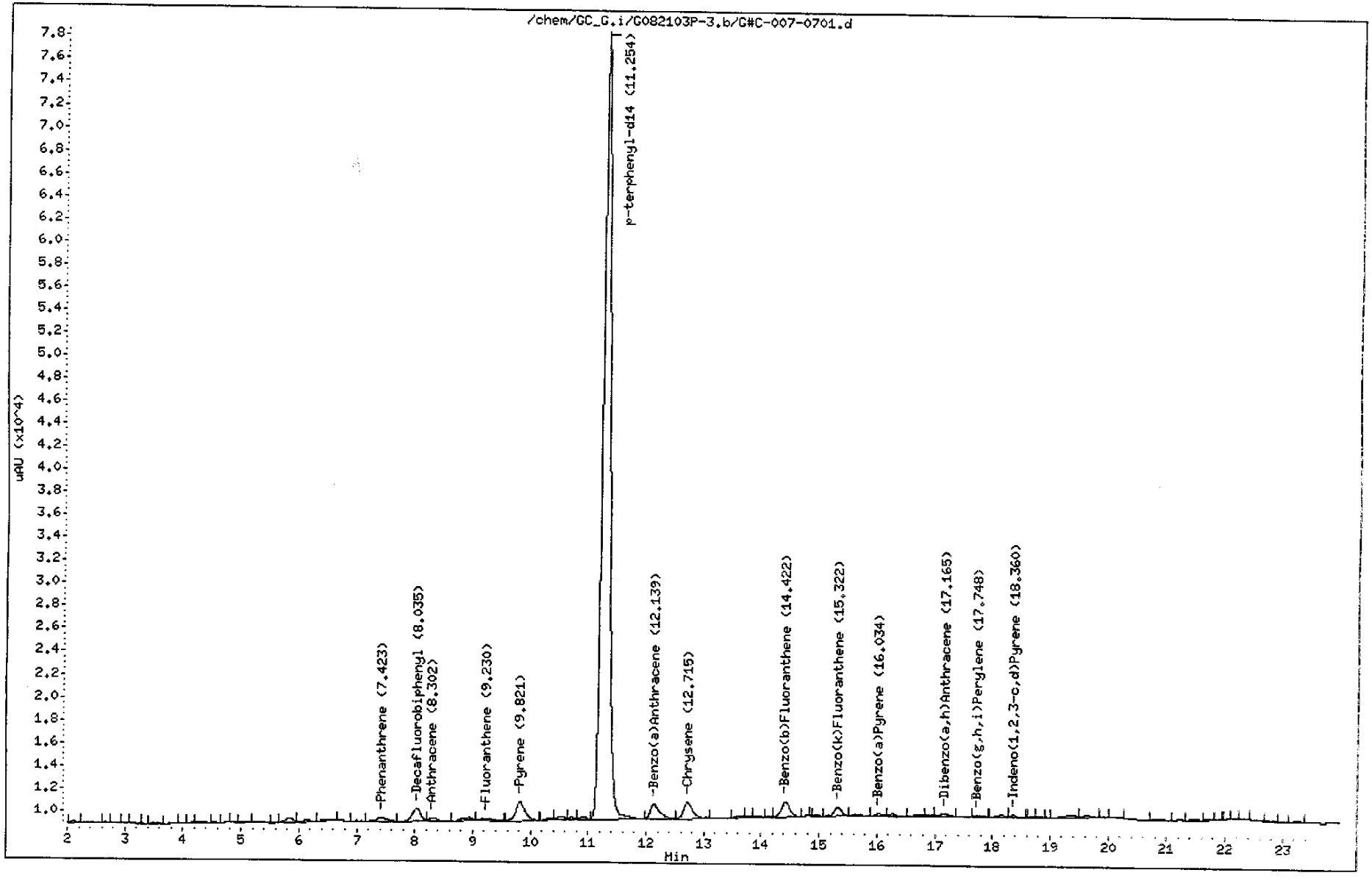
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 2 Decafluorobiphenyl	1329	1397	105.13	37-152
$ 6 p-terphenyl-d14	664.4	497.0	74.80	22-167

Data File: /chem/GC_G.i/G082103P-3.b/G#C-007-0701.d
Date : 21-AUG-2003 15:25
Client ID: DB0003
Sample Info: FVXHV1AH,204-3

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



SHAW E & I INC

Client Sample ID: DB0004

HPLC

Lot-Sample #...: H3H080204-004 **Work Order #...:** FVXH21AH **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1
% Moisture.....: 9.7 **Method.....:** SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	220	ug/kg	4.3
Acenaphthylene	ND	220	ug/kg	13
Anthracene	ND	22	ug/kg	2.9
Benzo(a)anthracene	ND	22	ug/kg	5.5
Benzo(a)pyrene	ND	22	ug/kg	2.0
Benzo(b)fluoranthene	ND	22	ug/kg	4.3
Benzo(ghi)perylene	ND	44	ug/kg	2.9
Benzo(k)fluoranthene	ND	44	ug/kg	2.5
Chrysene	ND	44	ug/kg	2.7
Dibenzo(a,h)anthracene	ND	44	ug/kg	5.1
Fluoranthene	ND	44	ug/kg	9.4
Fluorene	ND	44	ug/kg	9.6
Indeno(1,2,3-cd)pyrene	ND	44	ug/kg	2.5
1-Methylnaphthalene	ND	220	ug/kg	7.8
2-Methylnaphthalene	ND	220	ug/kg	3.7
Naphthalene	ND	220	ug/kg	13
Phenanthrene	ND	44	ug/kg	3.7
Pyrene	ND	44	ug/kg	7.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	87	(63 - 134)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-008-0801.d
Report Date: 25-Aug-2003 06:27

STL Denver

Data file : /chem/GC_G.i/G082103P-1.b/G#A-008-0801.d
Lab Smp Id: FVXH21AH Client Smp ID: DB0004
Inj Date : 21-AUG-2003 15:55
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXH21AH,204-4
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-1.b/8310-1.m
Meth Date : 25-Aug-2003 05:25 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#A-002-0201.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	29.70000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	1 Naphthalene	Compound Not Detected.					
	2 Acenaphthylene	4.810	5.083	-0.273	3902	105.481	~~14.21(a)~~
	3 1-Methylnaphthalene	Compound Not Detected.					
	4 2-Methylnaphthalene	Compound Not Detected.					
	5 Acenaphthene	Compound Not Detected.					
	6 Fluorene	6.330	6.510	-0.180	3566	63.3074	~~8.526(a)~~
	7 Phenanthrene	7.543	7.257	0.286	17956	219.900	~~29.62(a)~~
$	8 Decafluorobiphenyl	8.023	8.010	0.013	95505	8079.24	1088
	9 Anthracene	Compound Not Detected.					
	10 Fluoranthene	9.177	8.950	0.227	1308	22.0213	~~2.966(a)~~
	11 Pyrene	Compound Not Detected.					
$	12 p-terphenyl d14	11.243	11.237	0.006	264337	4347.54	585.5
	13 Benzo(a)Anthracene	11.890	12.132	0.242	5604	61.1132	~~8.231(a)~~
	14 Chrysene	12.423	12.417	0.006	4318	50.9580	~~6.864(a)~~
	15 Benzo(b)Fluoranthene	14.403	14.412	0.009	1956	25.9339	3.493(a) <MDL

8/25/03

NC CM 8.25.03

Data File: /chem/GC_G.i/G082103P-1.b/G#A-008-0801.d Page 2
Report Date: 25-Aug-2003 06:27

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)	
	16 Benzo(k)Fluoranthene	14.910	14.897	0.013	1226	18.2506	2.458(a)	<MDL
	17 Benzo(a)Pyrene	16.003	16.012	-0.009	2933	58.3411	7.857(a)	<RL
$	18 Decachlorobiphenyl	16.490	16.226	0.264	2265	62.5814	8.428(aR)	
	19 Dibenzo(a,h)Anthracene	17.010	17.037	-0.027	28391	390.066	52.53	rep 3
	20 Benzo(g,h,i)Perylene	17.556	17.797	-0.241	2249		(a)	
	21 Indeno(1,2,3-c,d)Pyrene	18.263	18.583	-0.320	2494	43.8358	5.904(a)	RT

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-008-0801.d
Report Date: 25-Aug-2003 06:27

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXH21AH
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-1.b/8310-1.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0004
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

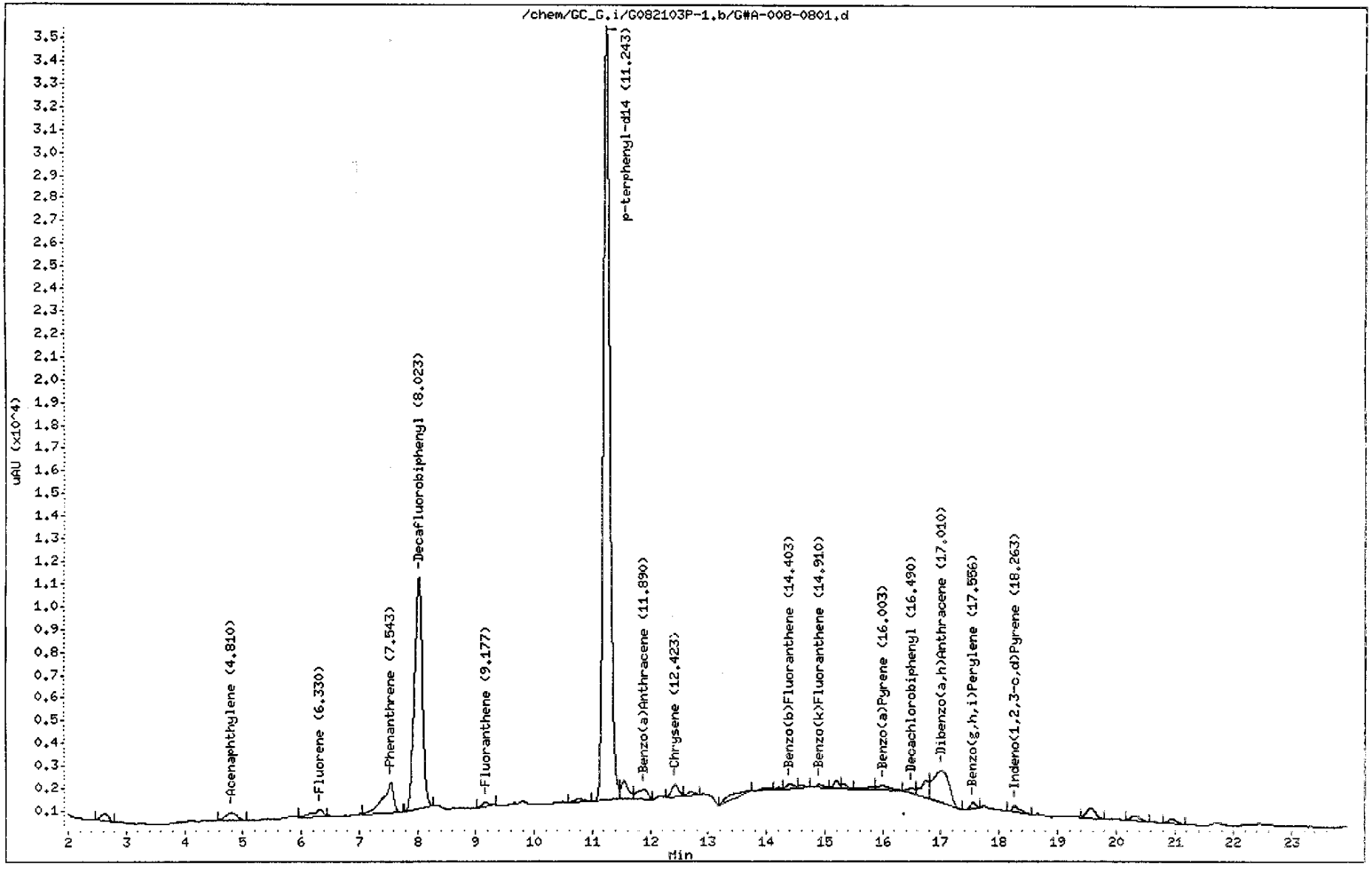
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1347	1088	80.79	37-152
$ 12 p-terphenyl-d14	673.4	585.5	86.95	22-167
$ 18 Decachlorobiphenyl	673.4	8.428	1.25*	0-0

Data File: /chem/GC_G.i/G082103P-1.b/G#A-008-0801.d
Date : 21-AUG-2003 15:55
Client ID: DB0004
Sample Info: FVXH21AH,204-4

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-2.b/G#B-008-0801.d
Report Date: 22-Aug-2003 10:33

STL Denver

Data file : /chem/GC_G.i/G082103P-2.b/G#B-008-0801.d
Lab Smp Id: FVXH21AH Client Smp ID: DB0004
Inj Date : 21-AUG-2003 15:55
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXH21AH,204-4
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-2.b/8310-2.m
Meth Date : 21-Aug-2003 13:56 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#B-002-0201.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	29.70000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Naphthalene	4.056	4.076	-0.020	279	61.6186	8.299(a)
2 Acenaphthylene	4.810	4.963	-0.153	3914	251.251	33.84(a)
3 1-Methylnaphthalene	5.510	5.496	0.014	118	9.97472	1.343(a)
4 2-Methylnaphthalene	5.896	5.843	0.053	251	56.2442	7.575(a)
5 Acenaphthene	6.163	6.116	0.047	456	28.9915	3.904(a)
6 Fluorene	6.330	6.523	-0.193	1898	62.0603	8.358(a)
$ 8 Decafluorobiphenyl	8.023	8.009	0.014	39124	8744.16	1178
$ 12 p-terphenyl-d14	11.243	11.243	0.000	185959	4216.01	567.8
$ 18 Decachlorobiphenyl	15.983	16.223	-0.240	1416	231.092	31.12(aR)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/GC_G.i/G082103P-2.b/G#B-008-0801.d
Report Date: 22-Aug-2003 10:33

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXH21AH
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-2.b/8310-2.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0004
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

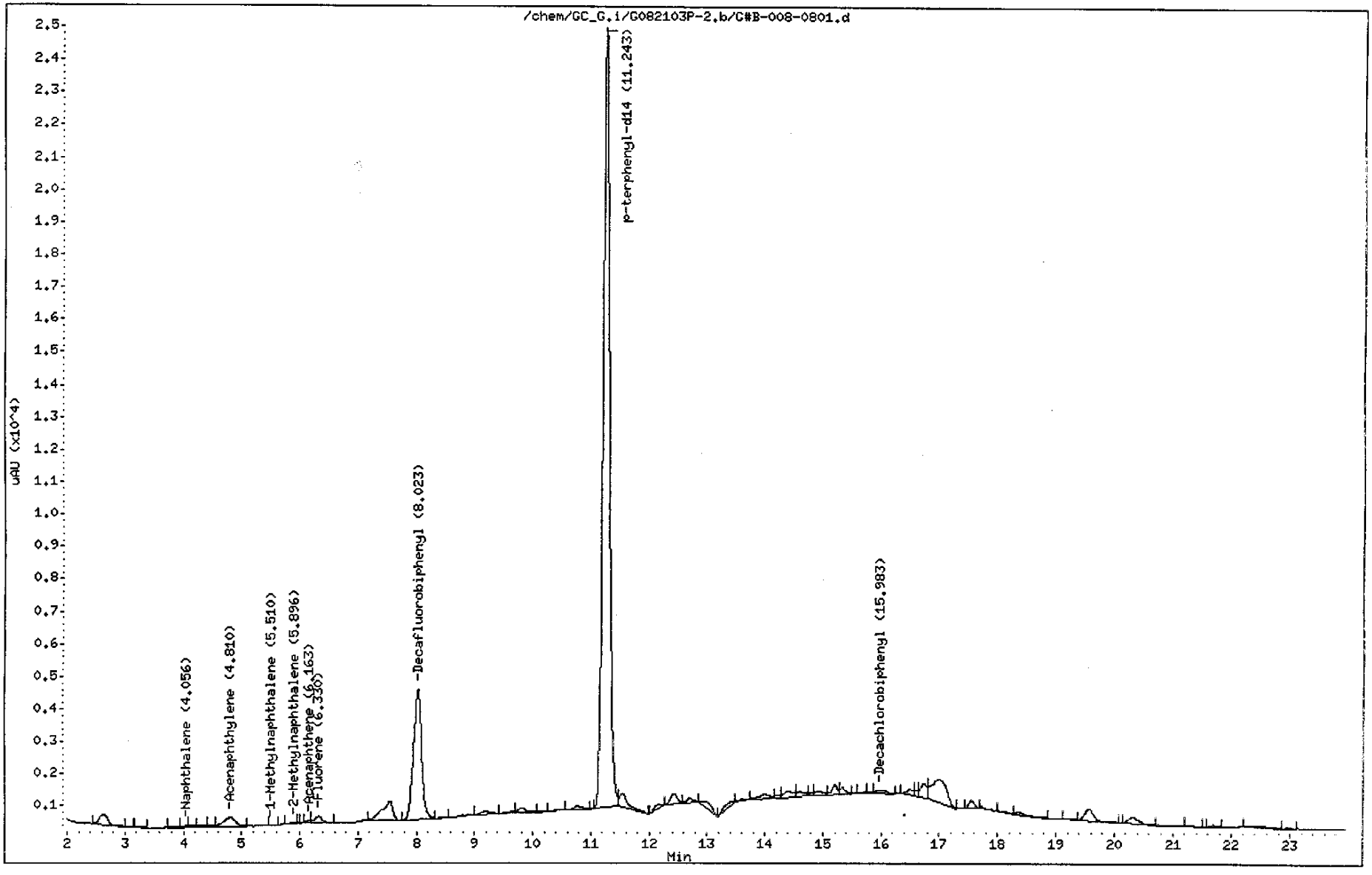
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1347	1178	87.44	37-152
$ 12 p-terphenyl-d14	673.4	567.8	84.32	22-167
$ 18 Decachlorobiphenyl	673.4	31.12	4.62*	40-160

Data File: /chem/GC_G.i/G082103P-2.b/G#B-008-0801.d
Date : 21-AUG-2003 15:55
Client ID: DB0004
Sample Info: FVXH21AH,204-4

Column phase; C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-3.b/G#C-008-0801.d
Report Date: 22-Aug-2003 11:04

STL Denver

Data file : /chem/GC_G.i/G082103P-3.b/G#C-008-0801.d
Lab Smp Id: FVXH21AH Client Smp ID: DB0004
Inj Date : 21-AUG-2003 15:55
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXH21AH,204-4
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-3.b/8310-3.m
Meth Date : 21-Aug-2003 13:57 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 17:39 Cal File: G#C-009-0901.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	29.70000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	1 Phenanthrene	7.474	7.409	0.065	5171	29.5294	3.977(a)
$	2 Decafluorobiphenyl	8.042	8.035	0.007	11538	10253.4	1381
	3 Anthracene	8.323	8.316	0.007	1394	1.18560	0.1597(a)
	4 Fluoranthene	8.935	9.173	-0.238	1620	152.953	~~20.60(a)~~ LT
	5 Pyrene	9.828	9.792	0.036	14149	27.1892	3.662(a)
$	6 p-terphenyl-d14	11.261	11.261	0.000	671334	4126.39	555.7
	7 Benzo(a)Anthracene	12.146	12.146	0.000	8435	11.1683	1.504(a)
	8 Chrysene	12.730	12.722	0.008	10716	15.8197	2.130(a) <MDL
	9 Benzo(b)Fluoranthene	14.422	14.422	0.000	12234	27.4543	3.698(a) COL
	10 Benzo(k)Fluoranthene	15.336	15.336	0.000	4542	7.56639	1.019(a) COL
	11 Benzo(a)Pyrene	16.013	16.013	0.000	1882	13.8306	1.863(a) COL
	12 Dibenzo(a,h)Anthracene	17.165	17.215	-0.050	1714	222.692	29.99 CCL <RL
	13 Benzo(g,h,i)Perylene	17.734	17.755	-0.021	762	18.0303	2.428(a)
	14 Indeno(1,2,3-c,d)Pyrene	18.389	18.382	0.007	1675	14.4411	1.945(a)

QC Flag Legend

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

Data File: /chem/GC_G.i/G082103P-3.b/G#C-008-0801.d
Report Date: 22-Aug-2003 11:04

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXH21AH
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-3.b/8310-3.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0004
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

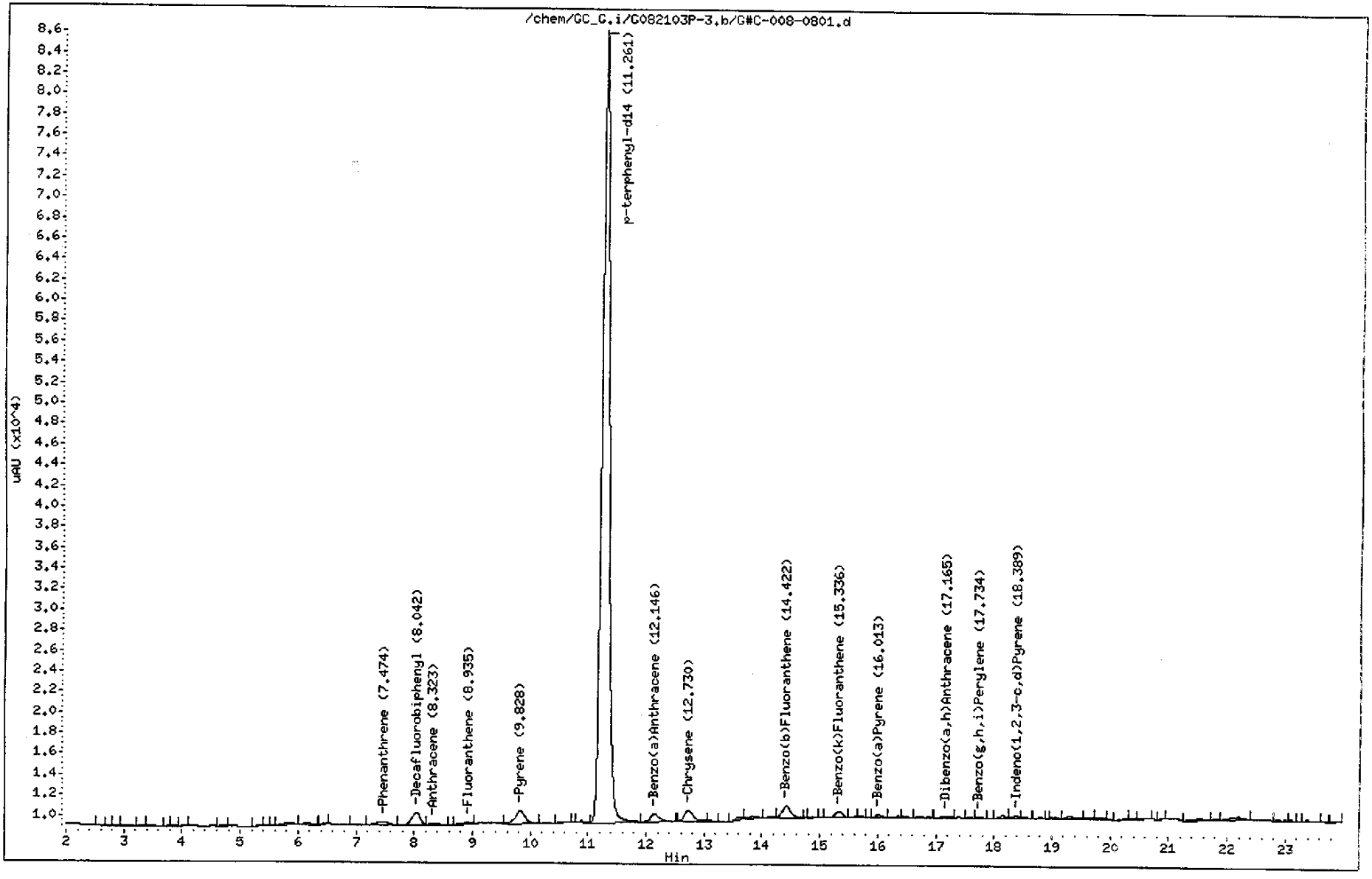
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 2 Decafluorobiphenyl	1347	1381	102.53	37-152
$ 6 p-terphenyl-d14	673.4	555.7	82.53	22-167

Data File: /chem/GC_G.i/G082103P-3.b/G#C-008-0801.d
Date : 21-AUG-2003 15:55
Client ID: DB0004
Sample Info: FVXH21AH,204-4

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



SHAW E & I INC

Client Sample ID: DB0006

HPLC

Lot-Sample #...: H3H080204-005 Work Order #...: FVXH71AU Matrix.....: SOLID
Date Sampled...: 08/06/03 Date Received..: 08/08/03
Prep Date.....: 08/18/03 Analysis Date..: 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 0.09
% Moisture.....: 16 Method.....: SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	**81 COL**	**22**	**ug/kg**	**0.42**
Acenaphthylene	ND	22	ug/kg	1.3
Anthracene	ND	2.2	ug/kg	0.28
Benzo(a)anthracene	ND	2.2	ug/kg	0.54
Benzo(a)pyrene	**12**	**2.2**	**ug/kg**	**0.19**
Benzo(b)fluoranthene	**130**	**2.2**	**ug/kg**	**0.42**
Benzo(ghi)perylene	ND	4.3	ug/kg	0.28
Benzo(k)fluoranthene	ND	2.2	ug/kg	0.25
Chrysene	ND	4.3	ug/kg	0.26
Dibenzo(a,h)anthracene	ND	4.3	ug/kg	0.50
Fluoranthene	ND	4.3	ug/kg	0.92
Fluorene	**14 COL**	**4.3**	**ug/kg**	**0.94**
Indeno(1,2,3-cd)pyrene	ND	4.3	ug/kg	0.25
1-Methylnaphthalene	ND	22	ug/kg	0.75
2-Methylnaphthalene	ND	22	ug/kg	0.36
Naphthalene	ND	22	ug/kg	1.3
Phenanthrene	ND	4.3	ug/kg	0.36
Pyrene	**240**	**4.3**	**ug/kg**	**0.74**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	96	(63 - 134)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

COL More than 40% RPD between primary and confirmation detector results. The lower of the two results is reported.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-009-0901.d
Report Date: 25-Aug-2003 08:40

STL Denver

Data file : /chem/GC_G.i/G082103P-1.b/G#A-009-0901.d
Lab Smp Id: FVXH71AU Client Smp ID: DB0006
Inj Date : 21-AUG-2003 16:26
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXH71AU,204-5
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-1.b/8310-1.m
Meth Date : 25-Aug-2003 05:25 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#A-002-0201.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.30000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	1 Naphthalene	4.152	4.457	-0.305	10154	134.676	~~17.78(a)~~ RT
	2 Acenaphthylene	4.805	5.083	-0.278	9977	269.704	~~35.60(a)~~ NC
	3 1-Methylnaphthalene	Compound Not Detected.					
	4 2-Methylnaphthalene	Compound Not Detected.					
	5 Acenaphthene	6.105	6.116	-0.011	31854	509.764	67.30(a) NC
	6 Fluorene	6.479	6.510	-0.031	5055	89.7166	11.84(a) NC
	7 Phenanthrene	7.405	7.257	0.148	95535	1169.95	~~154.4~~ report 3 RT CM 8.25.03
$	8 Decafluorobiphenyl	8.025	8.010	0.015	98573	8338.69	1101
	9 Anthracene	8.319	8.490	-0.171	34149	422.481	~~55.74~~ report 3 RT CM 8.25.03
	10 Fluoranthene	9.165	8.950	0.215	90777	1527.84	201.7 NC RT CM 8.25.03
	11 Pyrene	9.812	9.850	-0.038	59109	1538.88	~~203.2~~ report 3 CM 8.25.03
$	12 p-terphenyl-d14	11.245	11.237	0.008	293256	4823.16	636.7(M)
	13 Benzo(a)Anthracene	12.125	12.132	-0.007	67283	733.688	96.86(M) NC
	14 Chrysene	12.699	12.417	0.282	75196	887.286	117.1(M) RT
	15 Benzo(b)Fluoranthene	14.399	14.412	-0.013	62178	824.226	108.8(M)

11/08/25/03

Data File: /chem/GC_G.i/G082103P-1.b/G#A-009-0901.d
Report Date: 25-Aug-2003 08:40

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	16 Benzo(k)Fluoranthene	15.299	14.897	0.402	46050	685.512	90.50(M) ~~report~~ RT CAL 8.25.03
	17 Benzo(a)Pyrene	15.985	16.012	-0.027	37056	737.041	97.30(M)
S	18 Decachlorobiphenyl	16.232	16.226	0.006	1553	24.6696	3.257(aRM)
	19 Dibenzo(a,h)Anthracene	17.125	17.037	0.088	3153	55.2700	7.296(aM) ~~CC~~ RT CAL 8.25.03
	20 Benzo(g,h,i)Perylene	17.732	17.797	-0.065	27386	430.481	56.83(M) RT
	21 Indeno(1,2,3-c,d)Pyrene	18.339	18.583	-0.244	33786	593.696	78.38(M) RT

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-009-0901.d
Report Date: 25-Aug-2003 08:40

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXH71AU
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-1.b/8310-1.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0006
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

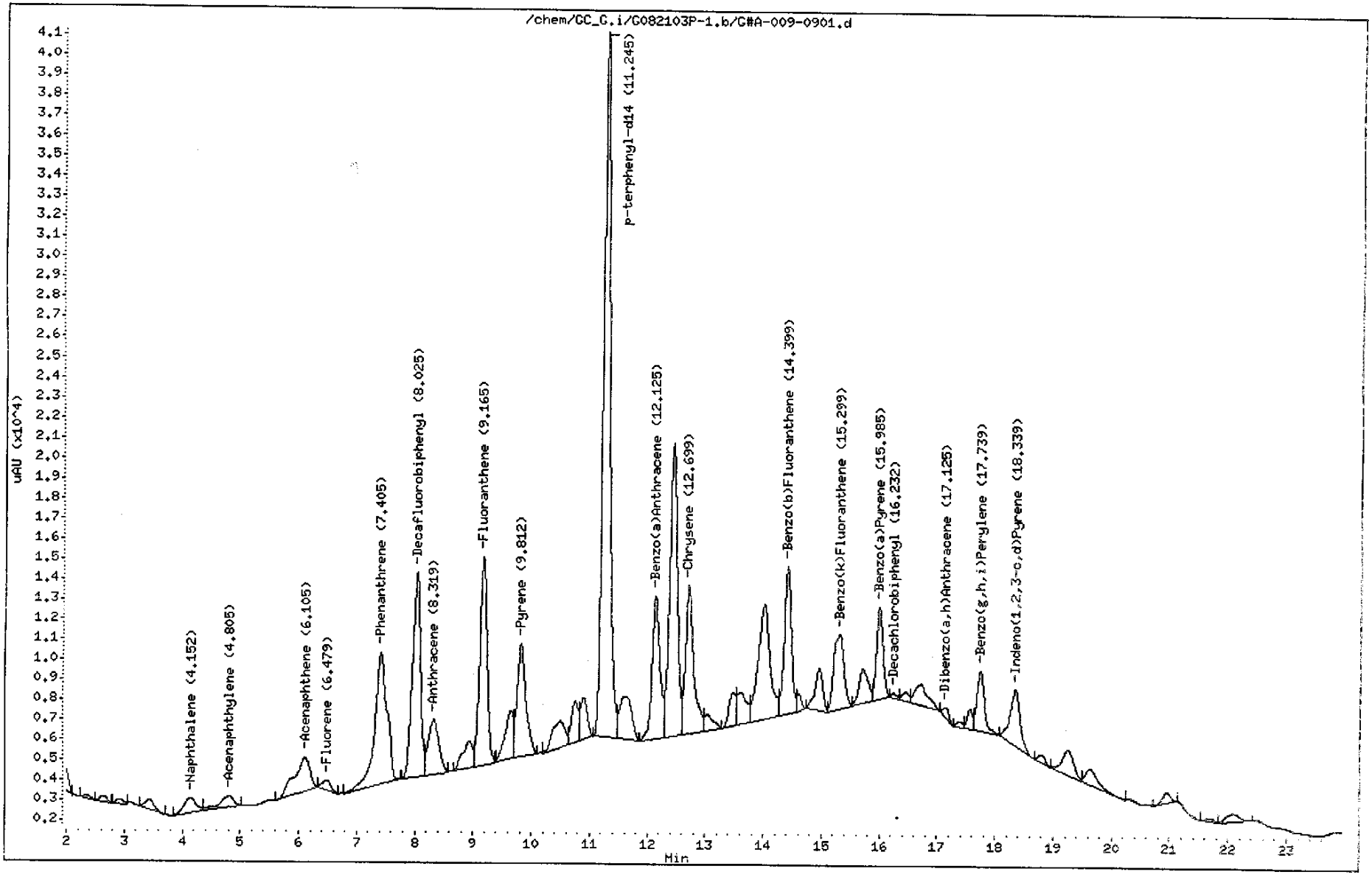
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1320	1101	83.39	37-152
$ 12 p-terphenyl-d14	660.1	636.7	96.46	22-167
$ 18 Decachlorobiphenyl	660.1	3.257	0.49*	0-0

Data File: /chem/GC_G.i/G082103P-1.b/G#A-009-0901.d
Date : 21-AUG-2003 16:26
Client ID: DB0006
Sample Info: FVXH71AU,204-5

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-2.b/G#B-009-0901.d
Report Date: 25-Aug-2003 08:41

STL Denver

Data file : /chem/GC_G.i/G082103P-2.b/G#B-009-0901.d
Lab Smp Id: FVXH71AU Client Smp ID: DB0006
Inj Date : 21-AUG-2003 16:26
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXH71AU,204-5
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-2.b/8310-2.m
Meth Date : 25-Aug-2003 05:31 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#B-002-0201.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.30000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Naphthalene	4.159	4.456	-0.297	5999	583.177	76.99(aM)
2 Acenaphthylene	4.799	4.963	-0.164	5611	360.112	47.54(aM)
3 1-Methylnaphthalene	5.492	5.506	-0.014	478	40.4061	5.334(aM)
4 2-Methylnaphthalene	5.872	5.852	0.020	6345	619.519	81.78(aM)
5 Acenaphthene	6.105	6.116	-0.011	25293	1608.08	212.3(M)
6 Fluorene	6.465	6.496	-0.031	7501	245.214	32.37(aM)
$ 8 Decafluorobiphenyl	8.025	8.009	0.016	39808	8896.99	1174(M)
$ 12 p-terphenyl-d14	11.245	11.243	0.002	208242	4721.19	623.2(M)
$ 18 Decachlorobiphenyl	16.232	16.189	0.043	562	91.7189	12.11(aRM)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/GC_G.i/G082103P-2.b/G#B-009-0901.d Page 3
Report Date: 25-Aug-2003 08:41

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXH71AU
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-2.b/8310-2.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0006
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1320	1174	88.97	37-152
$ 12 p-terphenyl-d14	660.1	623.2	94.42	22-167
$ 18 Decachlorobiphenyl	660.1	12.11	1.83*	40-160

Data File: /chem/GC_G.i/G082103P-2.b/G#B-009-0901.d

Date : 21-AUG-2003 16:26

Client ID: DB0006

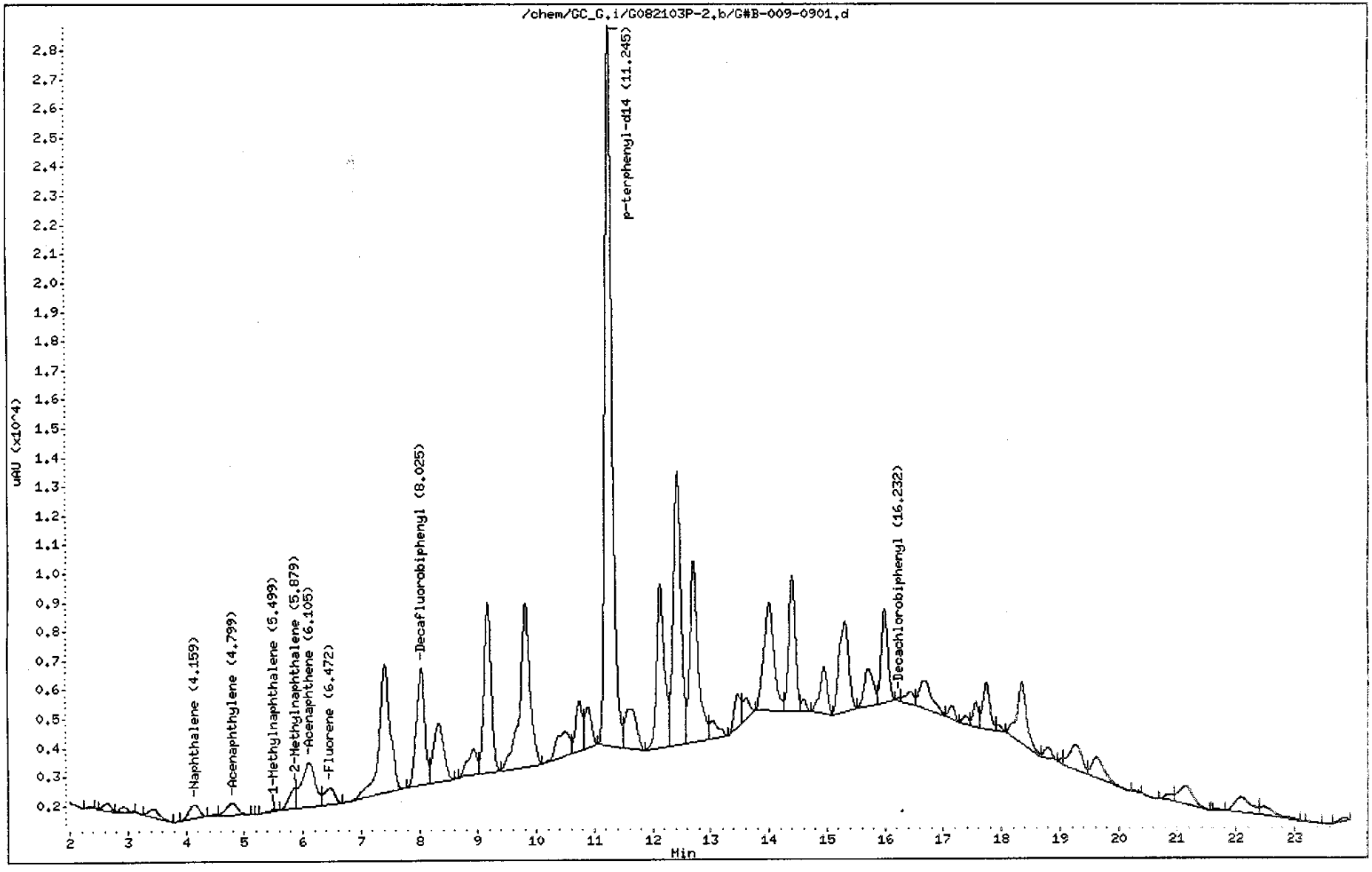
Sample Info: FVXH71AU,204-5

Column phase: C-18

Instrument: GC_G.i

Operator: SLD

Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-3.b/G#C-009-0901.d
Report Date: 25-Aug-2003 08:42

STL Denver

Data file : /chem/GC_G.i/G082103P-3.b/G#C-009-0901.d
Lab Smp Id: FVXH71AU Client Smp ID: DB0006
Inj Date : 21-AUG-2003 16:26
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXH71AU,204-5
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-3.b/8310-3.m
Meth Date : 25-Aug-2003 05:35 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 17:39 Cal File: G#C-009-0901.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.30000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	1 Phenanthrene	7.430	7.409	0.021	155005	885.087	116.8
$	2 Decafluorobiphenyl	8.057	8.028	0.029	10136	9106.30	1202
	3 Anthracene	8.338	8.323	0.015	103373	87.8874	11.60(a) cal
	4 Fluoranthene	9.209	9.194	0.015	74520	5964.77	787.4(M)
	5 Pyrene	9.835	9.828	0.007	653511	1255.75	165.8(M)
$	6 p-terphenyl-d14	11.268	11.261	0.007	929413	5712.68	754.1(M)
	7 Benzo(a)Anthracene	12.154	12.269	-0.115	515122	681.989	90.03(M) RT
	8 Chrysene	12.722	12.542	0.180	552380	815.445	107.6(M)
	9 Benzo(b)Fluoranthene	14.429	14.429	0.000	469203	1052.88	139.0(M)
	10 Benzo(k)Fluoranthene	15.336	15.113	0.223	204008	339.815	44.86(M)
	11 Benzo(a)Pyrene	16.013	15.898	0.115	85829	630.455	83.23(M)
	12 Dibenzo(a,h)Anthracene	17.179	17.460	-0.281	43220	5729.87	756.4(M)
	13 Benzo(g,h,i)Perylene	17.794	17.690	0.094	27062	639.932	84.48(M)
	14 Indeno(1,2,3-c,d)Pyrene	18.367	18.540	-0.173	66876	576.325	76.08(M)

QC Flag Legend

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

Data File: /chem/GC_G.i/G082103P-3.b/G#C-009-0901.d
Report Date: 25-Aug-2003 08:42

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXH71AU
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-3.b/8310-3.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0006
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

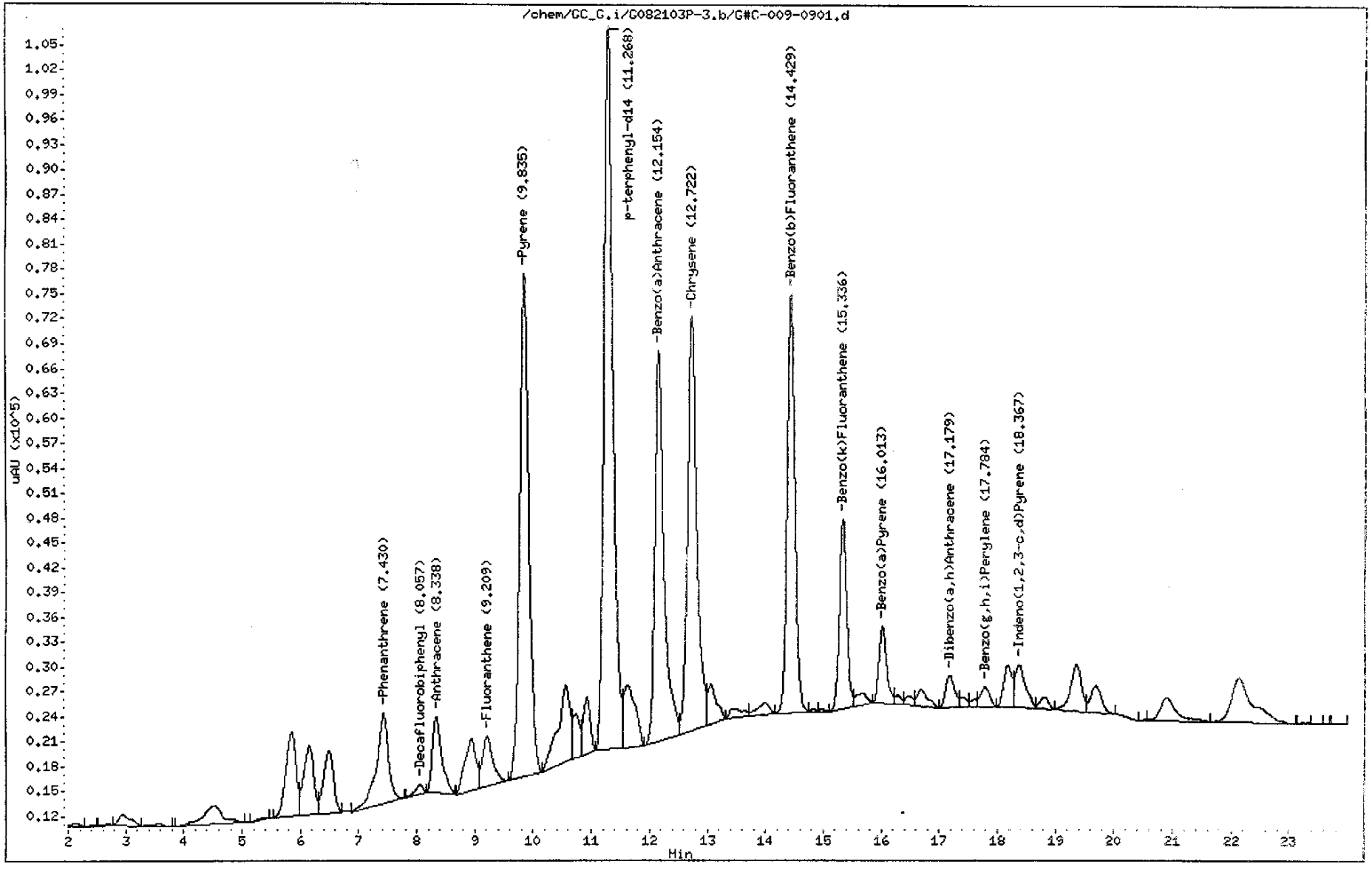
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 2 Decafluorobiphenyl	1320	1202	91.06	37-152
$ 6 p-terphenyl-d14	660.1	754.1	114.25	22-167

Data File: /chem/GC_G.i/G082103P-3.b/G#C-009-0901.d
Date : 21-AUG-2003 16:26
Client ID: DB0006
Sample Info: FVXH71AU,204-5

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



SHAW E & I INC

Client Sample ID: DB0007

HPLC

Lot-Sample #...: H3H080204-006 **Work Order #...:** FVXJL1AH **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1
% Moisture.....: 25 **Method.....:** SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	270	ug/kg	5.2
Acenaphthylene	ND	270	ug/kg	16
Anthracene	ND	27	ug/kg	3.5
Benzo(a)anthracene	ND	27	ug/kg	6.7
Benzo(a)pyrene	ND	27	ug/kg	2.4
Benzo(b)fluoranthene	ND	27	ug/kg	5.2
Benzo(ghi)perylene	ND	54	ug/kg	3.5
Benzo(k)fluoranthene	ND	27	ug/kg	3.1
Chrysene	ND	54	ug/kg	3.2
Dibenzo(a,h)anthracene	ND	54	ug/kg	6.2
Fluoranthene	**95**	**54**	**ug/kg**	**11**
Fluorene	**320 COL**	**54**	**ug/kg**	**12**
Indeno(1,2,3-cd)pyrene	ND	54	ug/kg	3.1
1-Methylnaphthalene	ND	270	ug/kg	9.4
2-Methylnaphthalene	ND	270	ug/kg	4.4
Naphthalene	ND	270	ug/kg	16
Phenanthrene	ND	54	ug/kg	4.4
Pyrene	ND	54	ug/kg	9.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	99	(63 - 134)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

COL More than 40% RPD between primary and confirmation detector results. The lower of the two results is reported.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-012-1201.d Page 1
Report Date: 25-Aug-2003 06:36

STL Denver

Data file : /chem/GC_G.i/G082103P-1.b/G#A-012-1201.d
Lab Smp Id: FVXJL1AH Client Smp ID: DB0007
Inj Date : 21-AUG-2003 18:00
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXJL1AH,204-6
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-1.b/8310-1.m
Meth Date : 25-Aug-2003 05:25 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#A-002-0201.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.30000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	1 Naphthalene	4.138	4.457	-0.319	2975	39.4583	5.209(aM) RT CM 8.25.03
	2 Acenaphthylene	4.811	5.083	-0.272	40775	1102.25	~~145.5(aM)~~ LT
	3 1-Methylnaphthalene	5.525	5.543	-0.018	71928	1149.72	151.8(aM) <RL
	4 2-Methylnaphthalene	Compound Not Detected.					
	5 Acenaphthene	6.151	6.116	0.035	56567	905.250	119.5(aM) <RL
	6 Fluorene	6.571	6.510	0.061	102216	1814.14	239.5(M)
	7 Phenanthrene	7.405	7.257	0.148	6369	77.9968	10.30(aM) RT
$	8 Decafluorobiphenyl	8.018	8.010	0.008	90648	7668.28	1012(M)
	9 Anthracene	8.538	8.490	0.048	184264	2279.66	~~300.9(M)~~ NC CM 8.25.03
	10 Fluoranthene	9.165	8.950	0.215	34062	573.289	~~75.68(M)~~
	11 Pyrene	10.018	9.850	0.168	6570	171.047	~~22.58(aM)~~
$	12 p-terphenyl-d14	11.238	11.237	0.001	300760	4946.58	653.0(M)
	13 Benzo(a)Anthracene	12.151	12.132	0.019	8206	89.4824	~~11.03(aM)~~
	14 Chrysene	12.705	12.417	0.288	12359	145.832	~~19.25(aM)~~
	15 Benzo(b)Fluoranthene	14.291	14.412	0.121	37506	497.176	~~65.65(M)~~

Data File: /chem/GC_G.i/G082103P-1.b/G#A-012-1201.d
Report Date: 25-Aug-2003 06:36

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
16 Benzo(k)Fluoranthene	15.318	14.897	0.421	16029	238.621	~~31.90(M)~~ RT CM 8.25.03
17 Benzo(a)Pyrene	16.031	16.012	0.019	4969	98.8410	13.05(aM) <RL
$ 18 Decachlorobiphenyl	16.171	16.226	-0.055	12034	582.648	76.92(RM)
19 Dibenzo(a,h)Anthracene	16.911	17.037	-0.126	29218	401.028	~~52.94(M)~~
20 Benzo(g,h,i)Perylene	17.731	17.797	-0.066	2602		(aM)
21 Indeno(1,2,3-c,d)Pyrene	18.358	18.583	-0.225	4048	71.1325	~~9.390(a)~~

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-012-1201.d Page 3
Report Date: 25-Aug-2003 06:36

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXJL1AH
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-1.b/8310-1.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0007
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

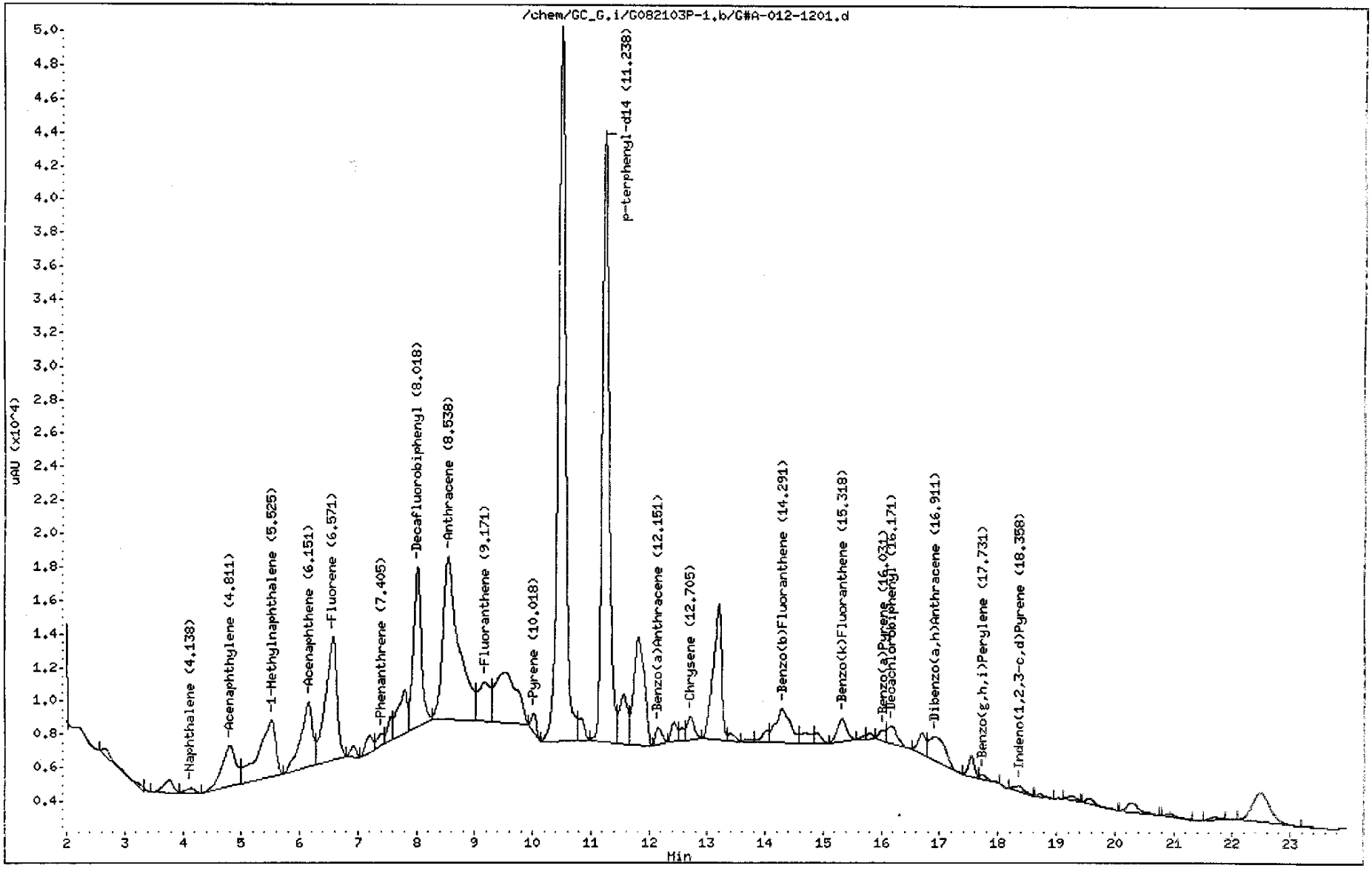
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1320	1012	76.68	37-152
$ 12 p-terphenyl-d14	660.1	653.0	98.93	22-167
$ 18 Decachlorobiphenyl	660.1	76.92	11.65*	0-0

Data File: /chem/GC_G.i/G082103P-1.b/G#A-012-1201.d
Date : 21-AUG-2003 18:00
Client ID: DB0007
Sample Info: FVXJL1AH,204-6

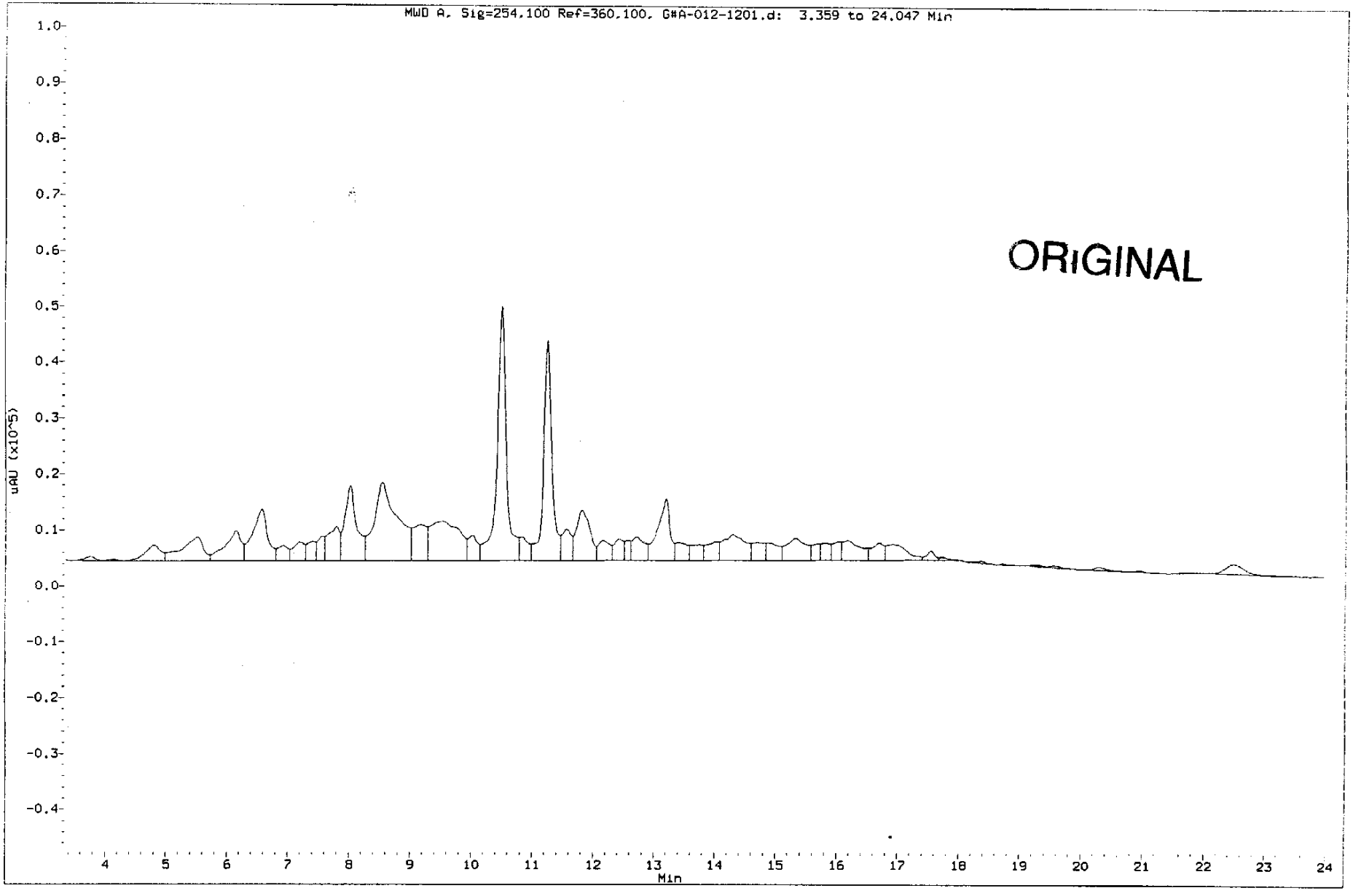
Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-1.b/G#A-012-1201.d
Injection Date: 21-AUG-2003 18:00
Instrument: GC_G.i
Client Sample ID: DB0007



ORIGINAL

Data File: /chem/GC_G.i/G082103P-2.b/G#B-012-1201.d
Report Date: 22-Aug-2003 10:33

STL Denver

Data file : /chem/GC_G.i/G082103P-2.b/G#B-012-1201.d
Lab Smp Id: FVXJL1AH Client Smp ID: DB0007
Inj Date : 21-AUG-2003 18:00
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXJL1AH,204-6
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-2.b/8310-2.m
Meth Date : 21-Aug-2003 13:56 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#B-002-0201.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.30000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Naphthalene	4.138	4.076	0.062	1596	181.750	23.99(aM)
2 Acenaphthylene	5.118	4.963	0.155	16269	1044.19	137.8(aM)
3 1-Methylnaphthalene	5.518	5.496	0.022	43263	3657.14	482.8(M)
4 2-Methylnaphthalene	Compound Not Detected.					
5 Acenaphthene	6.158	6.116	0.042	41935	2666.18	352.0(M)
6 Fluorene	6.571	6.523	0.048	116273	3801.08	501.8(M)
$ 8 Decafluorobiphenyl	8.018	8.009	0.009	35801	8001.57	1056(M)
$ 12 p-terphenyl-d14	11.238	11.243	-0.005	224157	5082.02	670.9(M)
$ 18 Decachlorobiphenyl	16.005	16.223	-0.218	14041	2291.60	302.5(M)

QC Flag Legend

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

Data File: /chem/GC_G.i/G082103P-2.b/G#B-012-1201.d Page 2
Report Date: 22-Aug-2003 10:33

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXJL1AH
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-2.b/8310-2.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0007
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

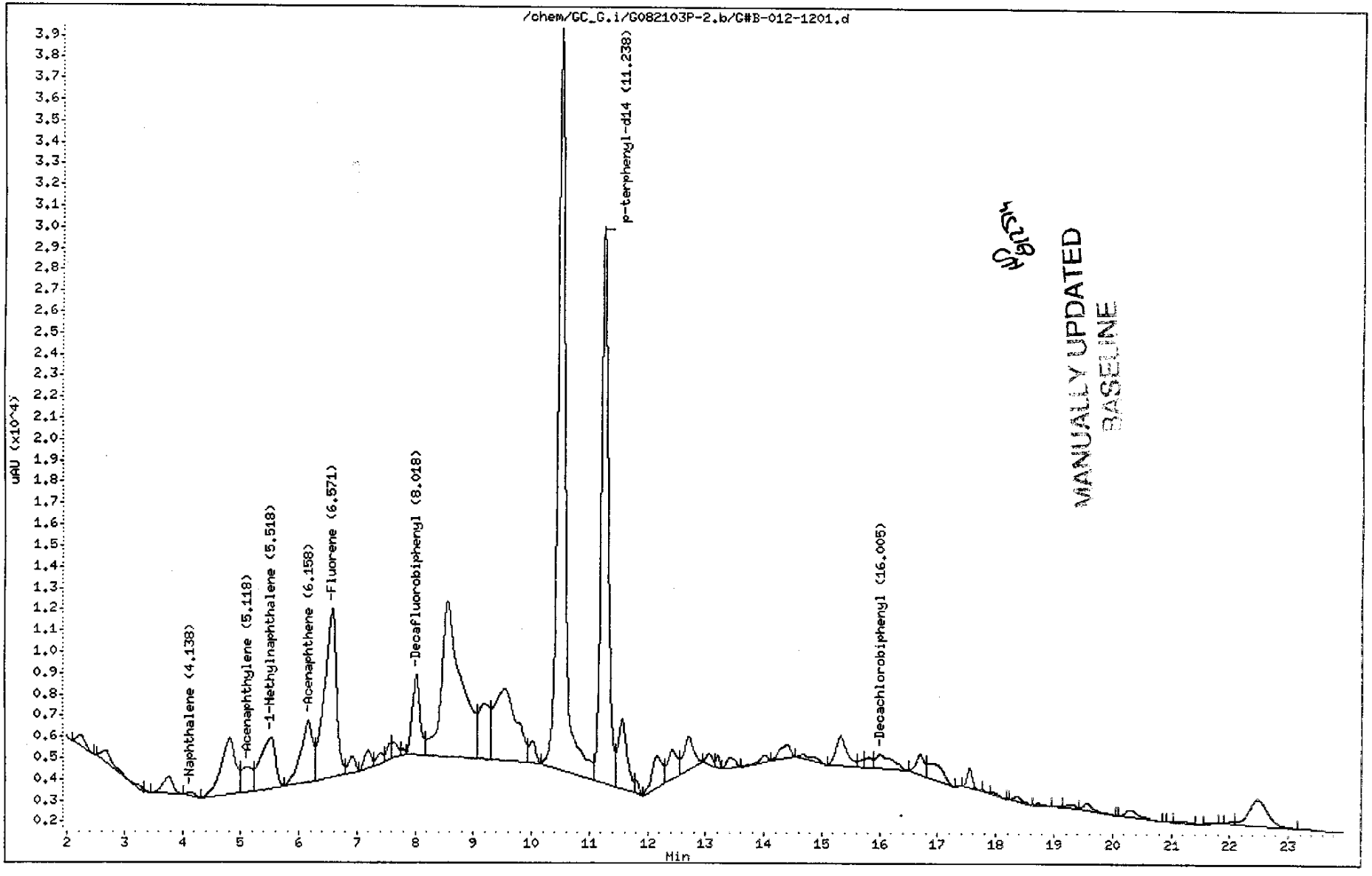
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1320	1056	80.02	37-152
$ 12 p-terphenyl-d14	660.1	670.9	101.64	22-167
$ 18 Decachlorobiphenyl	660.1	302.5	45.83	40-160

Data File: /chem/GC_G.i/G082103P-2.b/G#B-012-1201.d
Date : 21-AUG-2003 18:00
Client ID: DB0007
Sample Info: FVXJL1AH,204-6

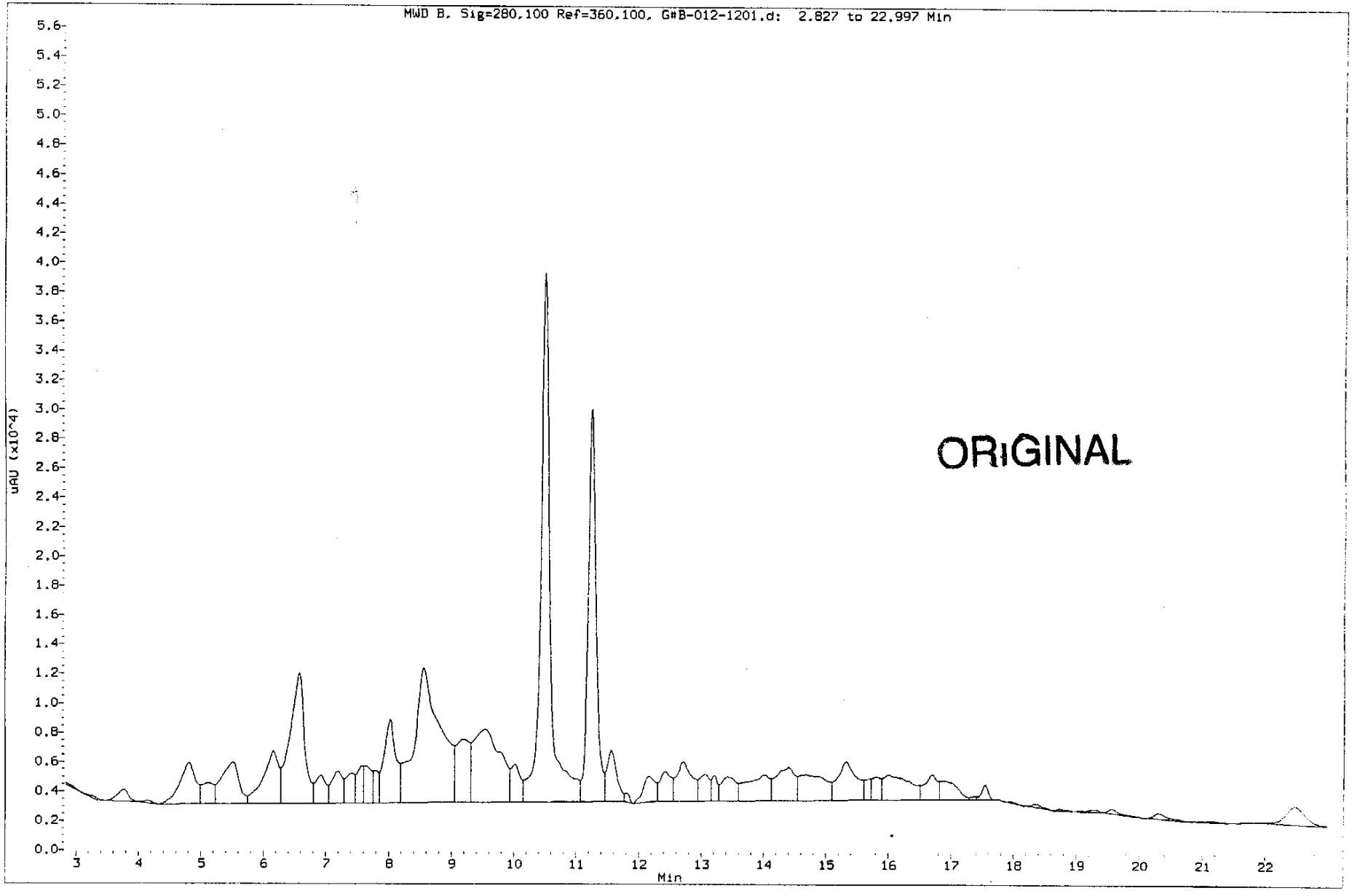
Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-2.b/G#B-012-1201.d
Injection Date: 21-AUG-2003 18:00
Instrument: GC_G.i
Client Sample ID: DB0007



ORIGINAL

Data File: /chem/GC_G.i/G082103P-3.b/G#C-012-1201.d Page 1
Report Date: 22-Aug-2003 11:05

STL Denver

Data file : /chem/GC_G.i/G082103P-3.b/G#C-012-1201.d
Lab Smp Id: FVXJL1AH Client Smp ID: DB0007
Inj Date : 21-AUG-2003 18:00
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXJL1AH,204-6
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-3.b/8310-3.m
Meth Date : 21-Aug-2003 13:57 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 17:39 Cal File: G#C-009-0901.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.30000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	1 Phenanthrene	7.423	7.409	0.014	15386	87.8556	11.60(a)
$	2 Decafluorobiphenyl	8.035	8.035	0.000	9928	8935.83	1180
	3 Anthracene	8.330	8.316	0.014	8674	7.37508	0.9736(a) <MDL
	4 Fluoranthene	9.202	9.173	0.029	6455	538.412	71.08
	5 Pyrene	9.828	9.792	0.036	79976	153.678	20.29(a)
$	6 p-terphenyl-d14	11.261	11.261	0.000	712820	4381.39	578.4
	7 Benzo(a)Anthracene	12.146	12.146	0.000	43407	57.4692	7.587(a)
	8 Chrysene	12.722	12.722	0.000	55307	81.6467	10.78(a)
	9 Benzo(b)Fluoranthene	14.429	14.422	0.007	54420	122.118	16.12(a)
	10 Benzo(k)Fluoranthene	15.336	15.336	0.000	26700	44.4747	5.871(a)
	11 Benzo(a)Pyrene	16.013	16.013	0.000	7820	57.4468	7.584(a)
	12 Dibenzo(a,h)Anthracene	17.179	17.215	-0.036	3948	519.011	68.52
	13 Benzo(g,h,i)Perylene	17.798	17.755	0.043	3344	79.0829	10.44(a)
	14 Indeno(1,2,3-c,d)Pyrene	18.374	18.382	-0.008	7148	61.5842	8.130(a)

QC Flag Legend

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

Data File: /chem/GC_G.i/G082103P-3.b/G#C-012-1201.d
Report Date: 22-Aug-2003 11:05

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXJL1AH
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-3.b/8310-3.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0007
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

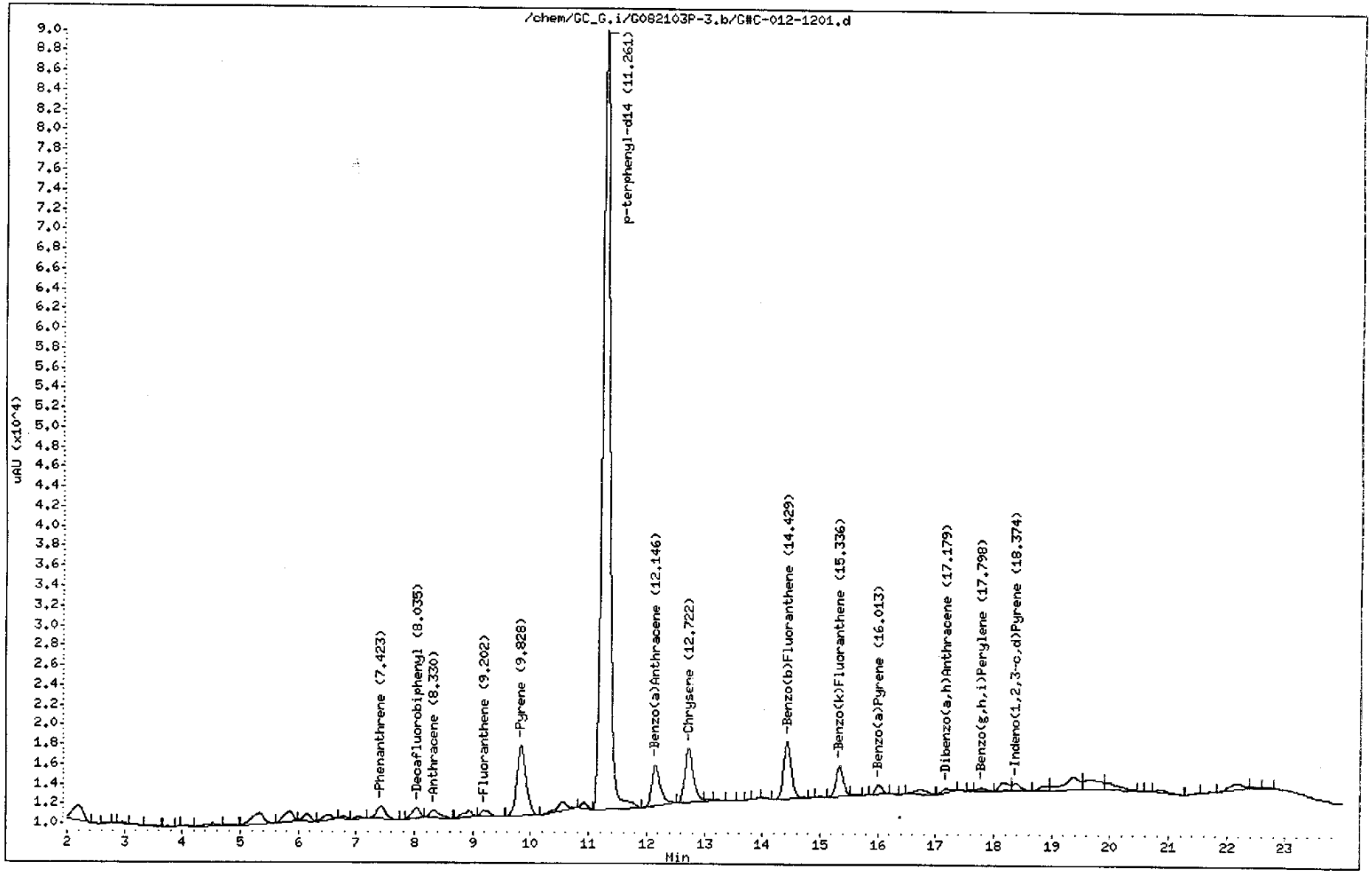
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 2 Decafluorobiphenyl	1320	1180	89.36	37-152
$ 6 p-terphenyl-d14	660.1	578.4	87.63	22-167

Data File: /chem/GC_G.i/G082103P-3.b/G#C-012-1201.d
Date : 21-AUG-2003 18:00
Client ID: DB0007
Sample Info: FVXJL1AH,204-6

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



SHAW E & I INC

Client Sample ID: DB0008

HPLC

Lot-Sample #...: H3H080204-007 **Work Order #...:** FVXJQ1AH **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1
% Moisture.....: 24 **Method.....:** SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	260	ug/kg	5.1
Acenaphthylene	ND	260	ug/kg	16
Anthracene	ND	26	ug/kg	3.4
Benzo(a)anthracene	ND	26	ug/kg	6.6
Benzo(a)pyrene	ND	26	ug/kg	2.4
Benzo(b)fluoranthene	ND	26	ug/kg	5.1
Benzo(ghi)perylene	ND	53	ug/kg	3.4
Benzo(k)fluoranthene	ND	26	ug/kg	3.0
Chrysene	ND	53	ug/kg	3.2
Dibenzo(a,h)anthracene	ND	53	ug/kg	6.0
Fluoranthene	ND	53	ug/kg	11
Fluorene	ND	53	ug/kg	11
Indeno(1,2,3-cd)pyrene	ND	53	ug/kg	3.0
1-Methylnaphthalene	ND	260	ug/kg	9.2
2-Methylnaphthalene	ND	260	ug/kg	4.3
Naphthalene	ND	260	ug/kg	16
Phenanthrene	ND	53	ug/kg	4.3
Pyrene	ND	53	ug/kg	9.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	80	(63 - 134)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-013-1401.d
Report Date: 22-Aug-2003 09:50

STL Denver

Data file : /chem/GC_G.i/G082103P-1.b/G#A-013-1401.d
Lab Smp Id: FVXJQ1AH Client Smp ID: DB0008
Inj Date : 21-AUG-2003 19:02
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXJQ1AH,204-7
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-1.b/8310-1.m
Meth Date : 22-Aug-2003 09:32 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#A-002-0201.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.50000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	1 Naphthalene	Compound Not Detected.					
	2 Acenaphthylene	Compound Not Detected.					
	3 1-Methylnaphthalene	5.278	5.506	-0.228	1077	17.2311	~~2.360(a)~~ NT
	4 2-Methylnaphthalene	5.845	5.846	-0.001	2474	34.9994	4.590(a) <RL
	5 Acenaphthene	6.285	6.126	0.159	1971	31.5486	~~4.138(a)~~ NT
	6 Fluorene	6.625	6.526	0.099	1724	30.6048	~~4.014(a)~~ NT
	7 Phenanthrene	7.531	7.399	0.132	17162	210.179	~~27.56(a)~~ NT
$	8 Decafluorobiphenyl	8.018	8.012	0.006	83223	7040.24	923.3
	9 Anthracene	Compound Not Detected.					
	10 Fluoranthene	9.165	9.152	0.013	7241	121.875	15.98(a) <RL
	11 Pyrene	9.818	9.799	0.019	3401	88.5591	~~11.61(a)~~ report 3
$	12 p-terphenyl-d14	11.245	11.239	0.006	242972	3996.15	524.1
	13 Benzo(a)Anthracene	12.145	12.126	0.019	3321	36.2182	4.750(a) <MDL
	14 Chrysene	12.751	12.706	0.045	11977	141.329	18.53(a) report 3
	15 Benzo(b)Fluoranthene	14.411	14.399	0.012	5438	72.0910	9.454(a) <RL

DB0008

Data File: /chem/GC_G.i/G082103P-1.b/G#A-013-1401.d
Report Date: 22-Aug-2003 09:50

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
16 Benzo(k)Fluoranthene	15.331	14.892	0.439	8506	126.625	~~16.61(a)~~ ~~[illegible]~~ RT CM 8.25.03
17 Benzo(a)Pyrene	16.005	15.992	0.013	2869	57.0682	7.484(a) < RL
$ 18 Decachlorobiphenyl	16.211	16.599	-0.388	4044	157.281	20.63(aR)
19 Dibenzo(a,h)Anthracene	17.011	17.179	-0.168	23705	327.897	43.00 ~~[illegible]~~ RT CM 8.25.03
20 Benzo(g,h,i)Perylene	17.558	17.706	-0.148	6771	62.6751	8.220(a) RT
21 Indeno(1,2,3-c,d)Pyrene	18.258	18.339	-0.081	1036	18.2084	2.388(a) RT

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-013-1401.d
Report Date: 22-Aug-2003 09:50

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXJQ1AH
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-1.b/8310-1.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0008
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

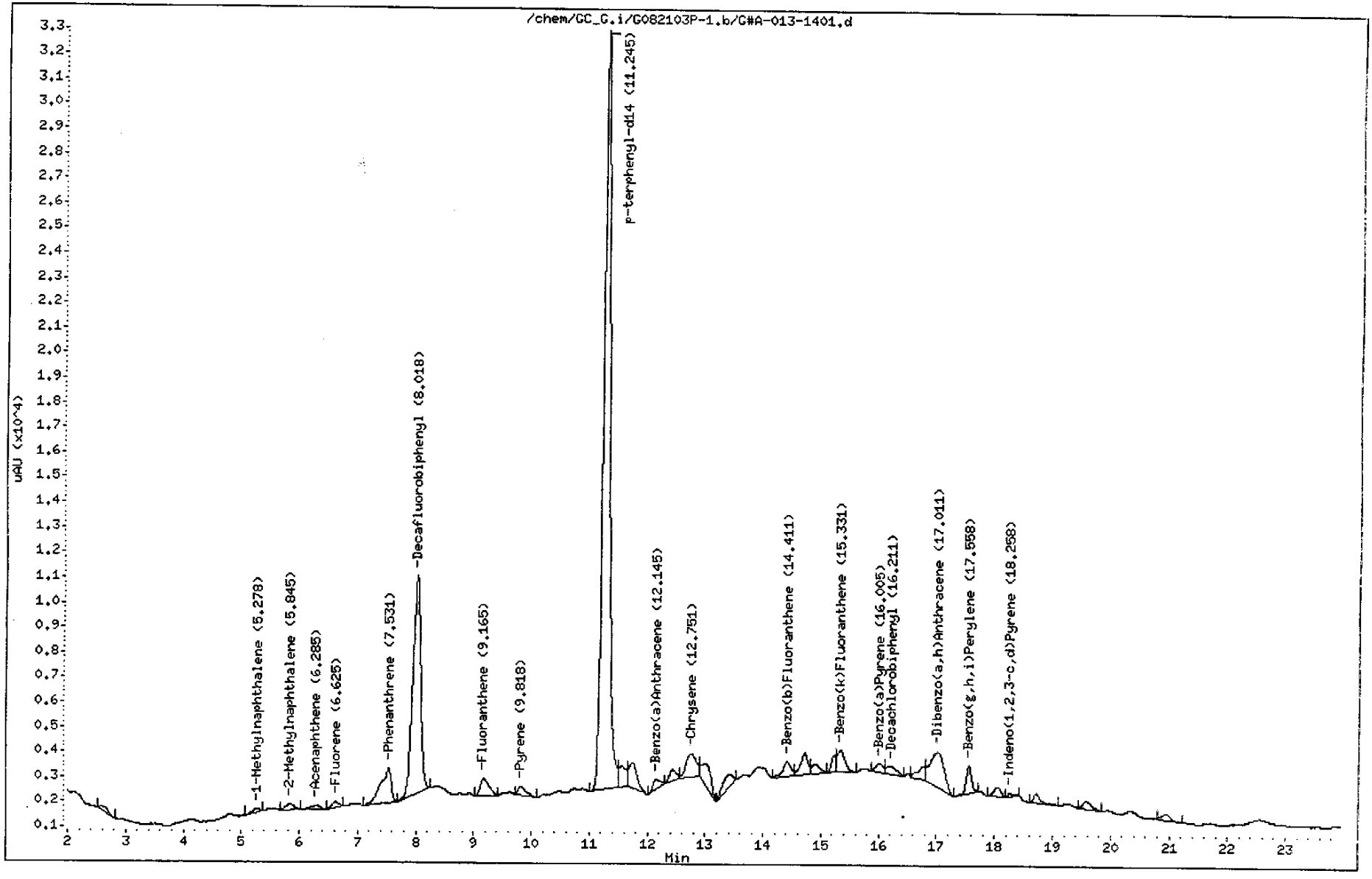
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1311	923.3	70.40	37-152
$ 12 p-terphenyl-d14	655.7	524.1	79.92	22-167
$ 18 Decachlorobiphenyl	655.7	20.63	3.15*	0-0

Data File: /chem/GC_G.i/G082103P-1.b/G#A-013-1401.d
Date : 21-AUG-2003 19:02
Client ID: DB0008
Sample Info: FVXJQ1AH,204-7

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-2.b/G#B-013-1401.d
Report Date: 25-Aug-2003 04:07

STL Denver

Data file : /chem/GC_G.i/G082103P-2.b/G#B-013-1401.d
Lab Smp Id: FVXJQ1AH Client Smp ID: DB0008
Inj Date : 21-AUG-2003 19:02
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXJQ1AH,204-7
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-2.b/8310-2.m
Meth Date : 22-Aug-2003 10:54 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#B-002-0201.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.50000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Naphthalene	4.185	4.086	0.099	1155	141.517	18.56(a)
2 Acenaphthylene	5.038	4.966	0.072	271	17.4440	2.288(a)
3 1-Methylnaphthalene	5.531	5.506	0.025	487	41.1838	5.401(a)
4 2-Methylnaphthalene	5.818	5.852	-0.034	2606	273.955	35.93(a)
5 Acenaphthene	6.145	6.126	0.019	517	32.9206	4.317(a)
6 Fluorene	6.645	6.526	0.119	153	5.00824	0.6568(a)
$ 8 Decafluorobiphenyl	8.018	8.012	0.006	35039	7831.31	1027
$ 12 p-terphenyl-d14	11.245	11.246	-0.001	167008	3786.36	496.6
$ 18 Decachlorobiphenyl	16.225	16.226	-0.001	3006	490.745	64.36(R)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/GC_G.i/G082103P-2.b/G#B-013-1401.d Page 2
Report Date: 25-Aug-2003 04:07

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXJQ1AH
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-2.b/8310-2.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0008
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

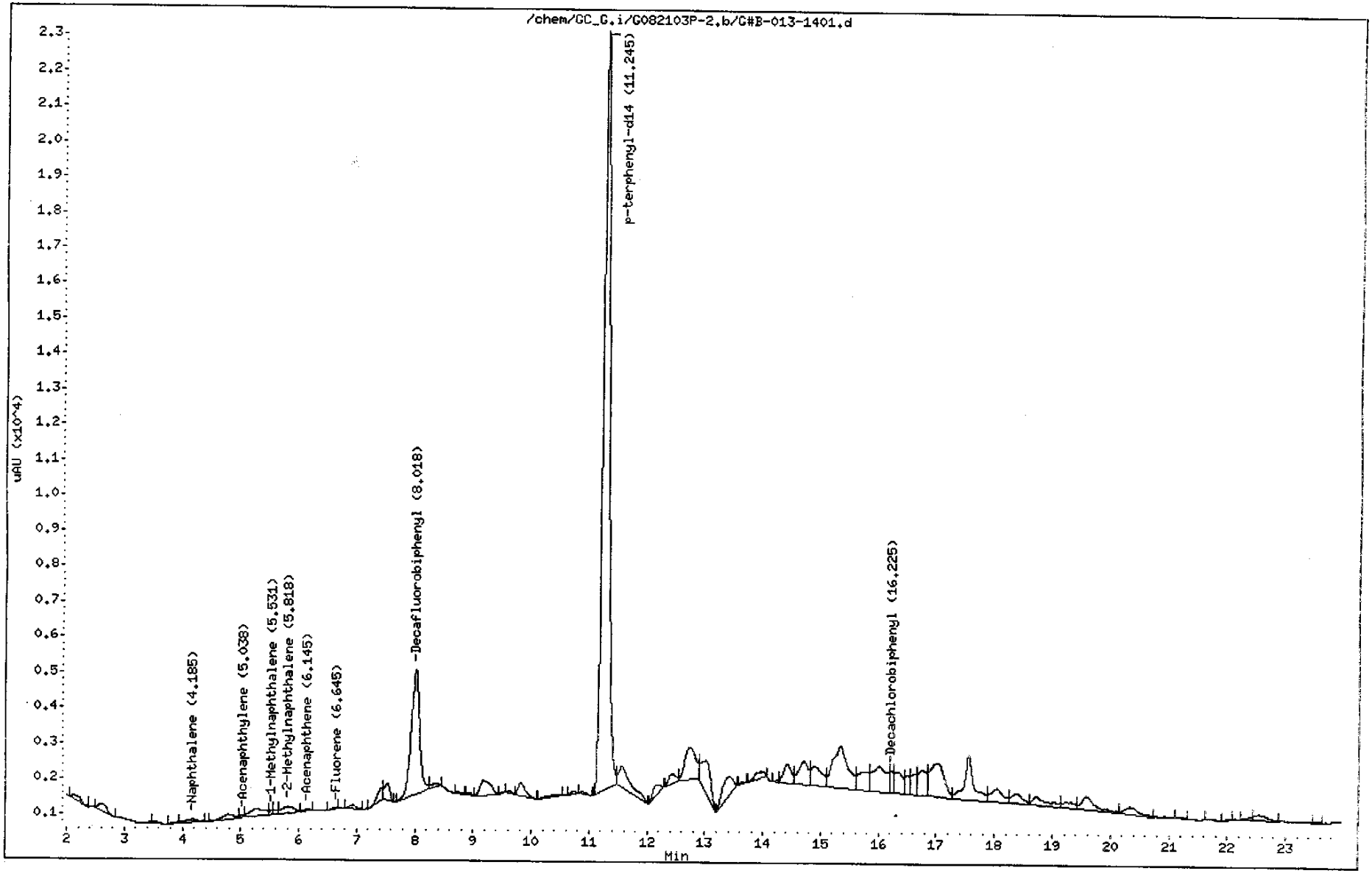
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1311	1027	78.31	37-152
$ 12 p-terphenyl-d14	655.7	496.6	75.73	22-167
$ 18 Decachlorobiphenyl	655.7	64.36	9.81*	40-160

Data File: /chem/GC_G.i/G082103P-2.b/G#B-013-1401.d
Date : 21-AUG-2003 19:02
Client ID: DB0008
Sample Info: FVXJQ1AH,204-7

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-3.b/G#C-013-1401.d Page 1
Report Date: 22-Aug-2003 11:17

STL Denver

Data file : /chem/GC_G.i/G082103P-3.b/G#C-013-1401.d
Lab Smp Id: FVXJQ1AH Client Smp ID: DB0008
Inj Date : 21-AUG-2003 19:02
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXJQ1AH,204-7
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-3.b/8310-3.m
Meth Date : 22-Aug-2003 11:14 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 17:39 Cal File: G#C-009-0901.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.50000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	1 Phenanthrene	7.423	7.416	0.007	12212	69.7336	9.145(a)
$	2 Decafluorobiphenyl	8.035	8.021	0.014	9133	8281.71	1086
	3 Anthracene	8.330	8.323	0.007	4902	4.16795	0.5466(a)
	4 Fluoranthene	9.216	9.180	0.036	1718	160.788	21.09(a)
	5 Pyrene	9.828	9.799	0.029	42183	81.0580	10.63(a) <RL
$	6 p-terphenyl-d14	11.268	11.261	0.007	605872	3724.02	488.4
	7 Benzo(a)Anthracene	12.161	12.154	0.007	24967	33.0553	4.335(a)
	8 Chrysene	12.730	12.730	0.000	30606	45.1832	5.926(a) <RL
	9 Benzo(b)Fluoranthene	14.443	14.429	0.014	31145	69.8902	9.166(a)
	10 Benzo(k)Fluoranthene	15.350	15.336	0.014	18107	30.1623	3.956(a)
	11 Benzo(a)Pyrene	16.034	16.020	0.014	12154	89.2808	11.71(a)
	12 Dibenzo(a,h)Anthracene	17.194	17.222	-0.028	4099	539.159	70.71
	13 Benzo(g,h,i)Perylene	17.798	17.762	0.036	2994	70.8186	9.288(a)
	14 Indeno(1,2,3-c,d)Pyrene	18.418	18.382	0.036	3034	26.1534	3.430(a)

QC Flag Legend

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

Data File: /chem/GC_G.i/G082103P-3.b/G#C-013-1401.d
Report Date: 22-Aug-2003 11:17

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXJQ1AH
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-3.b/8310-3.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0008
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

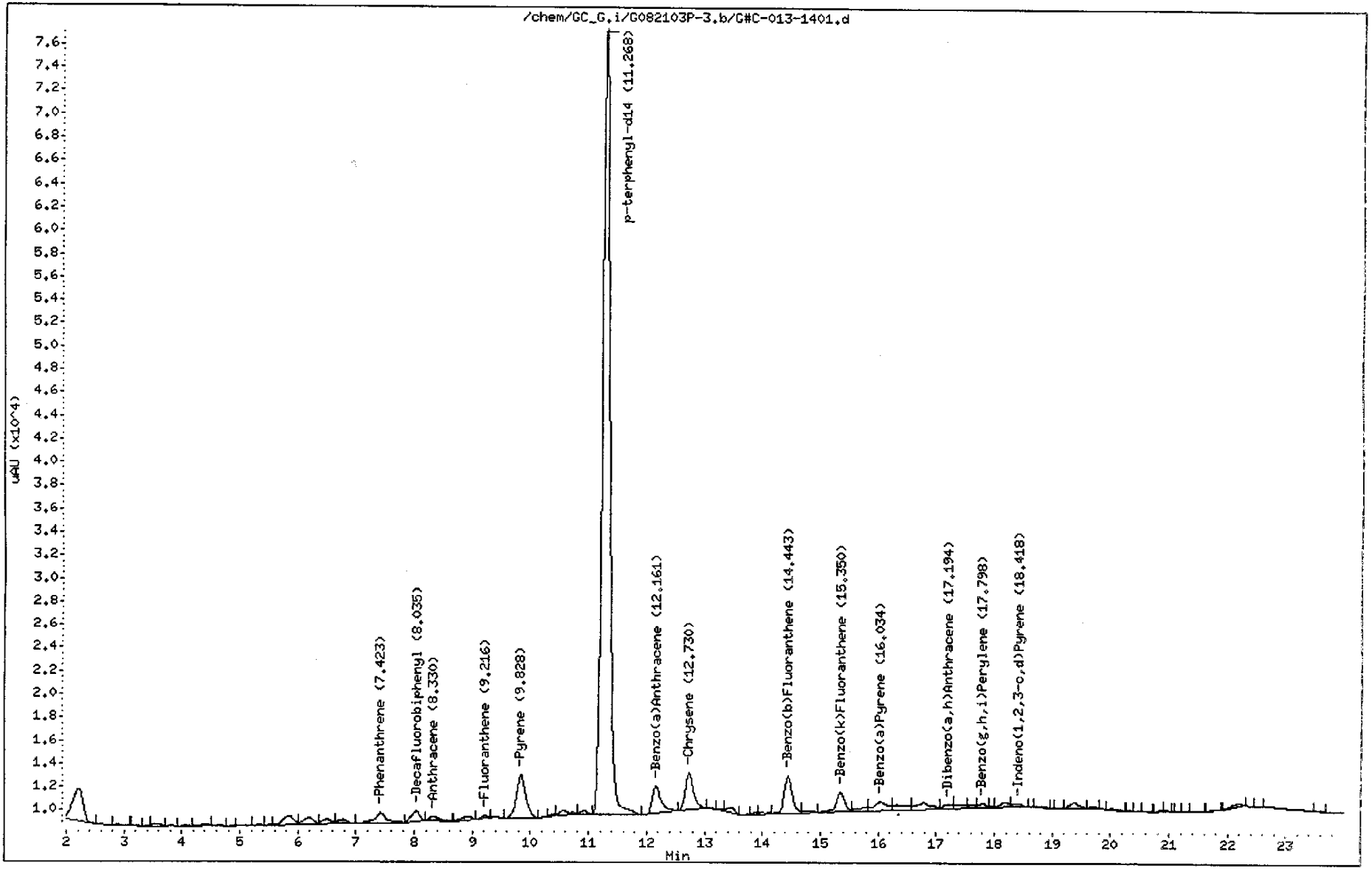
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 2 Decafluorobiphenyl	1311	1086	82.82	37-152
$ 6 p-terphenyl-d14	655.7	488.4	74.48	22-167

Data File: /chem/GC_G.i/G082103P-3.b/G#C-013-1401.d
Date : 21-AUG-2003 19:02
Client ID: DB0008
Sample Info: FVXJQ1AH,204-7

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



SHAW E & I INC

Client Sample ID: DB0009

HPLC

Lot-Sample #...: H3H080204-008 **Work Order #...:** FVXJ01AH **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1
% Moisture.....: 30 **Method.....:** SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	280	ug/kg	5.5
Acenaphthylene	ND	280	ug/kg	17
Anthracene	ND	28	ug/kg	3.7
Benzo(a)anthracene	ND	28	ug/kg	7.1
Benzo(a)pyrene	ND	28	ug/kg	2.6
Benzo(b)fluoranthene	ND	28	ug/kg	5.5
Benzo(ghi)perylene	ND	57	ug/kg	3.7
Benzo(k)fluoranthene	ND	28	ug/kg	3.3
Chrysene	ND	57	ug/kg	3.4
Dibenzo(a,h)anthracene	ND	57	ug/kg	6.5
Fluoranthene	ND	57	ug/kg	12
Fluorene	ND	57	ug/kg	12
Indeno(1,2,3-cd)pyrene	ND	57	ug/kg	3.3
1-Methylnaphthalene	ND	280	ug/kg	10
2-Methylnaphthalene	ND	280	ug/kg	4.7
Naphthalene	ND	280	ug/kg	17
Phenanthrene	ND	57	ug/kg	4.7
Pyrene	ND	57	ug/kg	9.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	81	(63 - 134)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-014-1501.d Page 1
Report Date: 22-Aug-2003 09:50

STL Denver

Data file : /chem/GC_G.i/G082103P-1.b/G#A-014-1501.d
Lab Smp Id: FVXJ01AH Client Smp ID: DB0009
Inj Date : 21-AUG-2003 19:33
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXJ01AH,204-8
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-1.b/8310-1.m
Meth Date : 22-Aug-2003 09:32 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#A-002-0201.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.30000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	1 Naphthalene	4.125	4.079	0.046	3903	51.7666	~~6.834(a)~~ NC
	2 Acenaphthylene	4.818	4.966	-0.148	4744	128.242	~~16.93(a)~~ NC
	3 1-Methylnaphthalene	5.378	5.506	-0.128	7910	126.436	~~16.69(a)~~ NC
	4 2-Methylnaphthalene	5.838	5.846	-0.008	9274	131.145	17.31(a) WL <RL
	5 Acenaphthene	6.338	6.126	0.212	1952	31.2381	~~4.124(a)~~ NC
	6 Fluorene	6.638	6.526	0.112	1822	32.3370	~~4.269(a)~~ NC
	7 Phenanthrene	7.538	7.399	0.139	102743	1258.22	~~166.1~~ NC
$	8 Decafluorobiphenyl	8.018	8.012	0.006	86530	7319.93	966.3
	9 Anthracene	8.331	8.306	0.025	12885	159.409	~~21.04~~ report 3 NC CAL 8.25.03
	10 Fluoranthene	9.165	9.152	0.013	11614	195.472	25.80(a) WL <RL
	11 Pyrene	9.805	9.799	0.006	5163	134.416	17.74(a) <RL
$	12 p-terphenyl-d14	11.238	11.239	-0.001	246567	4055.28	535.4(M)
	13 Benzo(a)Anthracene	12.231	12.126	0.105	11927	130.060	~~17.17(aM)~~ NC
	14 Chrysene	12.751	12.706	0.045	103729	1223.97	~~161.6(M)~~ report 3
	15 Benzo(b)Fluoranthene	14.405	14.399	0.006	10760	142.644	~~18.83(aM)~~ report 3

NP 8/25/03

Data File: /chem/GC_G.i/G082103P-1.b/G#A-014-1501.d
Report Date: 22-Aug-2003 09:50

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
16 Benzo(k)Fluoranthene	15.311	14.892	0.419	45778	681.466	~~89.96(M)~~ NT
17 Benzo(a)Pyrene	16.011	15.992	0.019	8038	159.879	~~21.11(M)~~ [illegible]
$ 18 Decachlorobiphenyl	16.185	16.599	-0.414	14550	716.569	~~94.60(RM)~~ NT
19 Dibenzo(a,h)Anthracene	16.978	17.179	-0.201	34728	474.123	~~62.59(M)~~ NT
20 Benzo(g,h,i)Perylene	17.751	17.706	0.045	3086		(aM)
21 Indeno(1,2,3-c,d)Pyrene	18.258	18.339	-0.081	3018	53.0471	~~7.003(aM)~~ NT

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-014-1501.d
Report Date: 22-Aug-2003 09:50

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXJ01AH
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-1.b/8310-1.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0009
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

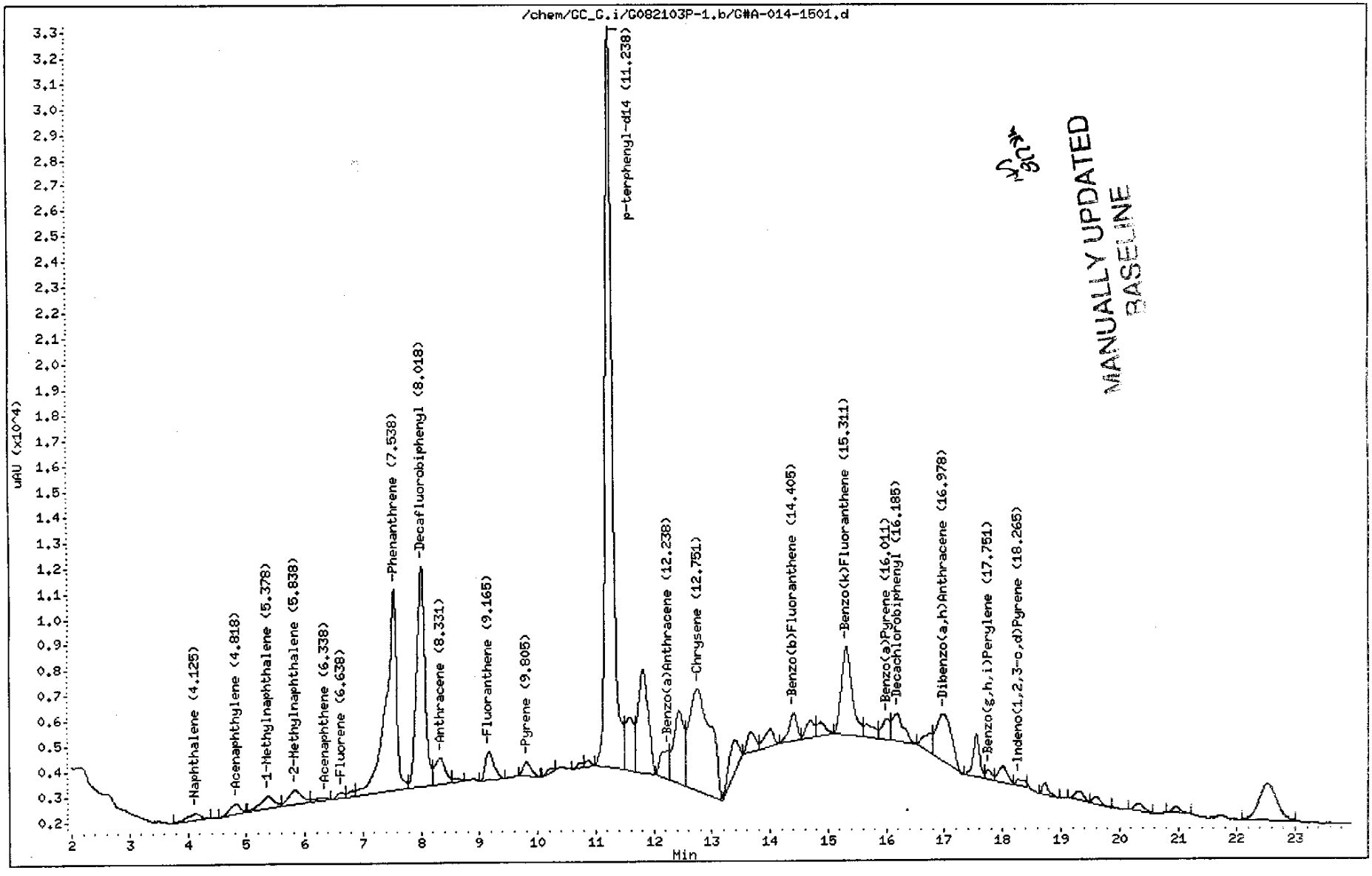
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1320	966.3	73.20	37-152
$ 12 p-terphenyl-d14	660.1	535.4	81.11	22-167
$ 18 Decachlorobiphenyl	660.1	94.60	14.33*	0-0

Data File: /chem/GC_G.i/G082103P-1.b/G#A-014-1501.d
Date : 21-AUG-2003 19:33
Client ID: DB0009
Sample Info: FVXJ01AH,204-8

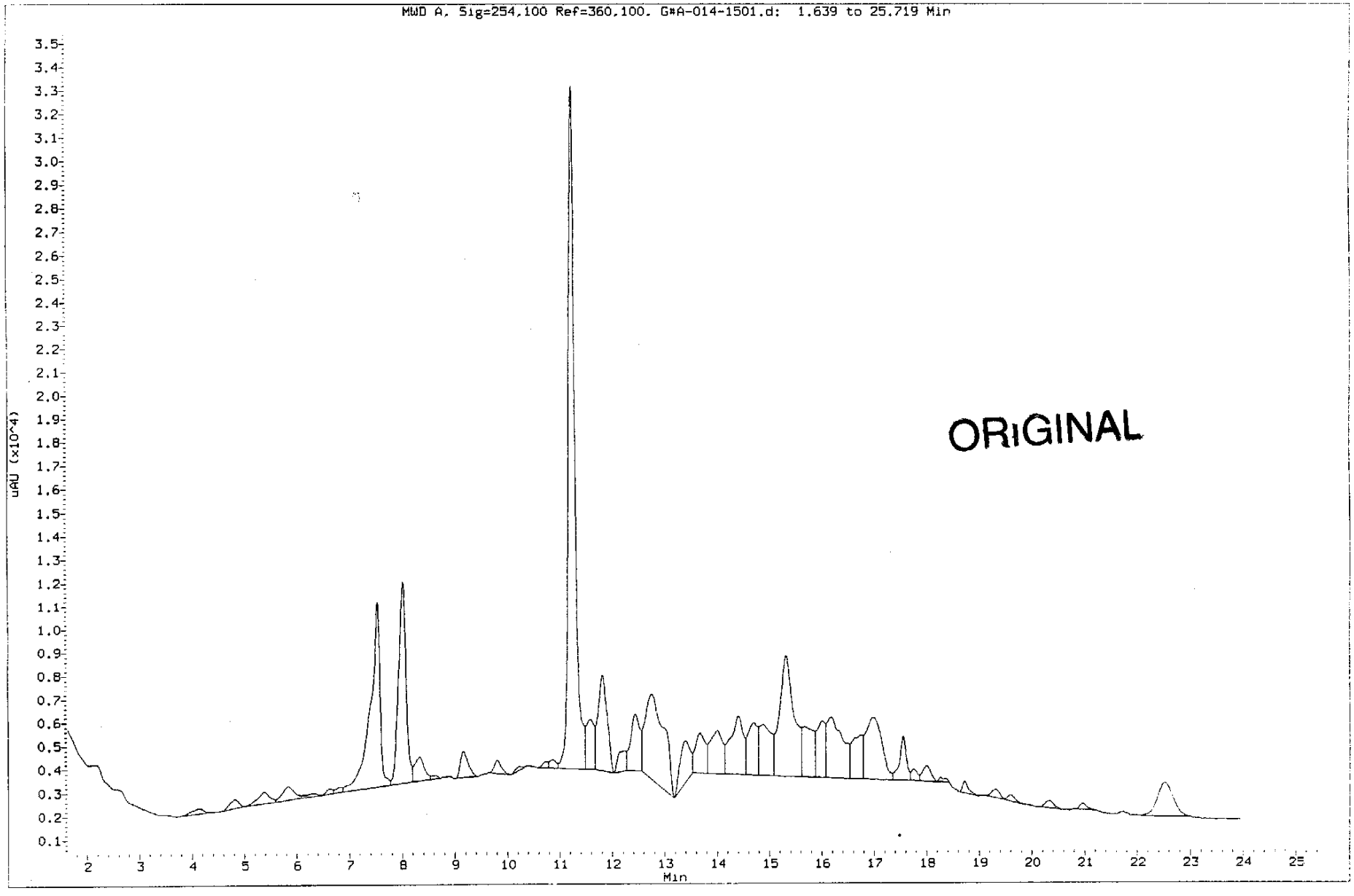
Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-1.b/G#A-014-1501.d
Injection Date: 21-AUG-2003 19:33
Instrument: GC_G.i
Client Sample ID: DB0009



Data File: /chem/GC_G.i/G082103P-2.b/G#B-014-1501.d
Report Date: 22-Aug-2003 10:44

STL Denver

Data file : /chem/GC_G.i/G082103P-2.b/G#B-014-1501.d
Lab Smp Id: FVXJ01AH Client Smp ID: DB0009
Inj Date : 21-AUG-2003 19:33
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXJ01AH,204-8
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-2.b/8310-2.m
Meth Date : 22-Aug-2003 10:39 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#B-002-0201.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.30000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Naphthalene	4.145	4.559	-0.414	1878	207.428	~~27.38(a)~~ NC
2 Acenaphthylene	4.818	4.966	-0.148	4765	305.867	40.38(a)
3 1-Methylnaphthalene	5.371	5.506	-0.135	10968	927.209	122.4(a)
4 2-Methylnaphthalene	5.825	5.846	-0.021	11427	1089.37	143.8(a)
5 Acenaphthene	6.131	6.126	0.005	2666	169.537	22.38(a)
6 Fluorene	6.465	6.526	-0.061	2975	97.2749	12.84(a)
$ 8 Decafluorobiphenyl	8.018	8.012	0.006	53179	11885.5	1569
$ 12 p-terphenyl-d14	11.238	11.239	-0.001	178674	4050.84	534.8
$ 18 Decachlorobiphenyl	16.145	15.992	0.153	24762	4041.34	533.5

QC Flag Legend

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

Data File: /chem/GC_G.i/G082103P-2.b/G#B-014-1501.d
Report Date: 22-Aug-2003 10:44

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXJ01AH
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-2.b/8310-2.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0009
Operator: SLD
SampleType: SAMPLE
Quant Type: ESTD

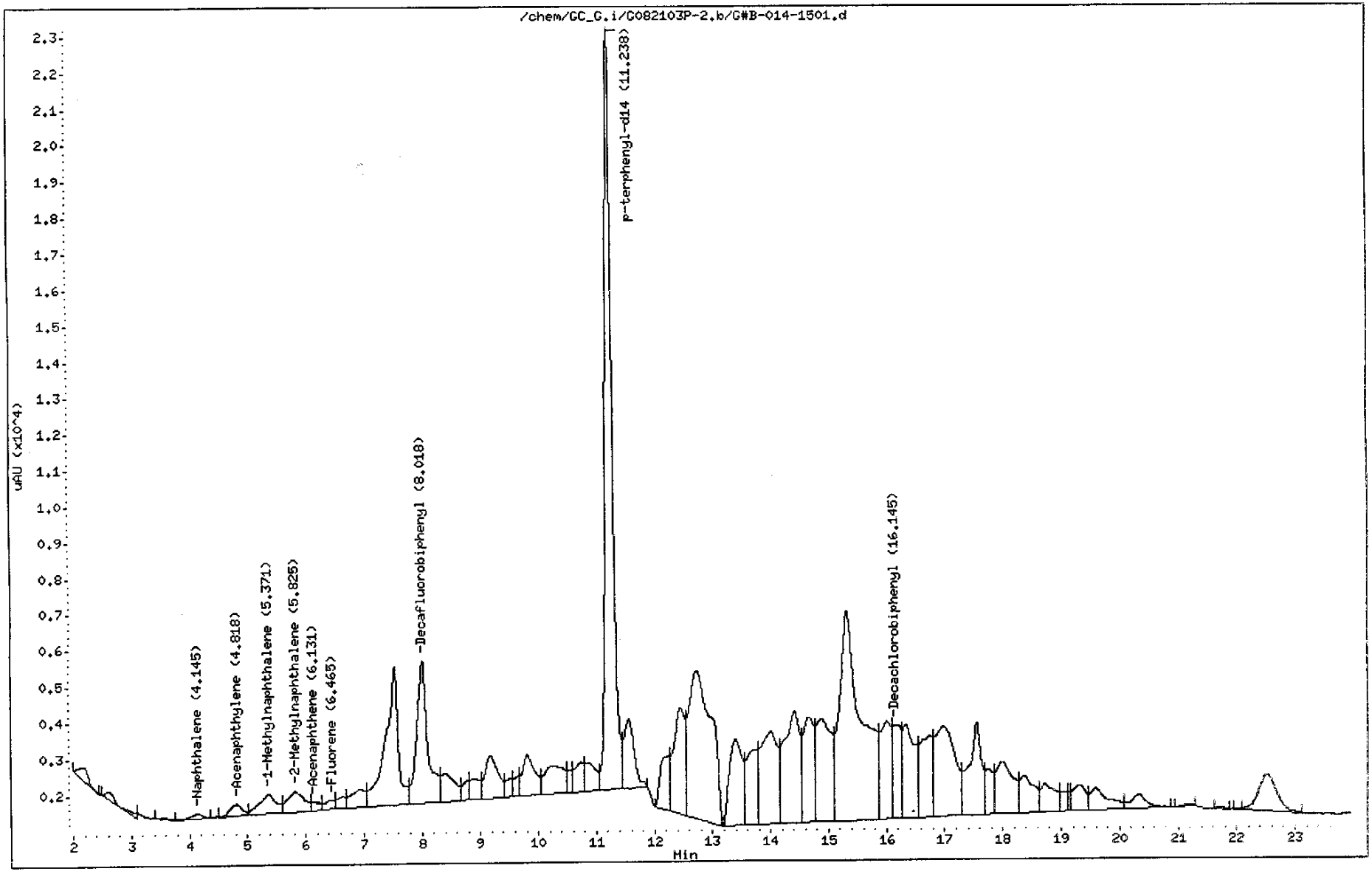
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1320	1569	118.86	37-152
$ 12 p-terphenyl-d14	660.1	534.8	81.02	22-167
$ 18 Decachlorobiphenyl	660.1	533.5	80.83	40-160

Data File: /chem/GC_G.i/G082103P-2.b/G#B-014-1501.d
Date : 21-AUG-2003 19:33
Client ID: DB0009
Sample Info: FVXJ01AH,204-8

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-3.b/G#C-014-1501.d
Report Date: 22-Aug-2003 11:17

STL Denver

Data file : /chem/GC_G.i/G082103P-3.b/G#C-014-1501.d
Lab Smp Id: FVXJ01AH Client Smp ID: DB0009
Inj Date : 21-AUG-2003 19:33
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXJ01AH,204-8
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-3.b/8310-3.m
Meth Date : 22-Aug-2003 11:14 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 17:39 Cal File: G#C-009-0901.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.30000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)	
	1 Phenanthrene	7.423	7.416	0.007	25522	145.733	19.24(a)	
$	2 Decafluorobiphenyl	8.035	8.021	0.014	9368	8474.76	1119	
	3 Anthracene	8.323	8.323	0.000	7925	6.73840	0.8896(a)	<MDL
	4 Fluoranthene	9.202	9.180	0.022	6360	530.870	70.08	
	5 Pyrene	9.821	9.799	0.022	74151	142.486	18.81(a)	
$	6 p-terphenyl-d14	11.254	11.261	-0.007	584699	3593.88	474.4	
	7 Benzo(a)Anthracene	12.146	12.154	-0.008	41619	55.1011	7.274(a)	
	8 Chrysene	12.722	12.730	-0.008	56088	82.8001	10.93(a)	<RL
	9 Benzo(b)Fluoranthene	14.429	14.429	0.000	50080	112.379	14.84(a)	<RL
	10 Benzo(k)Fluoranthene	15.336	15.336	0.000	27196	45.3019	5.980(a)	
	11 Benzo(a)Pyrene	16.020	16.020	0.000	8974	65.9194	8.702(a)	<RL
	12 Dibenzo(a,h)Anthracene	17.194	17.222	-0.028	3462	454.611	60.01	
	13 Benzo(g,h,i)Perylene	17.755	17.762	-0.007	432	10.2308	1.350(a)	
	14 Indeno(1,2,3-c,d)Pyrene	18.389	18.382	0.007	8953	77.1626	10.19(a)	

QC Flag Legend

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

Data File: /chem/GC_G.i/G082103P-3.b/G#C-014-1501.d
Report Date: 22-Aug-2003 11:17

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Client SDG: H3H080204
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: FVXJ01AH
Client Smp ID: DB0009
Level: LOW
Operator: SLD
Data Type: LC DATA
SampleType: SAMPLE
SpikeList File: Scommercial.spk
Quant Type: ESTD
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-3.b/8310-3.m
Misc Info: ICAL 04/29/03

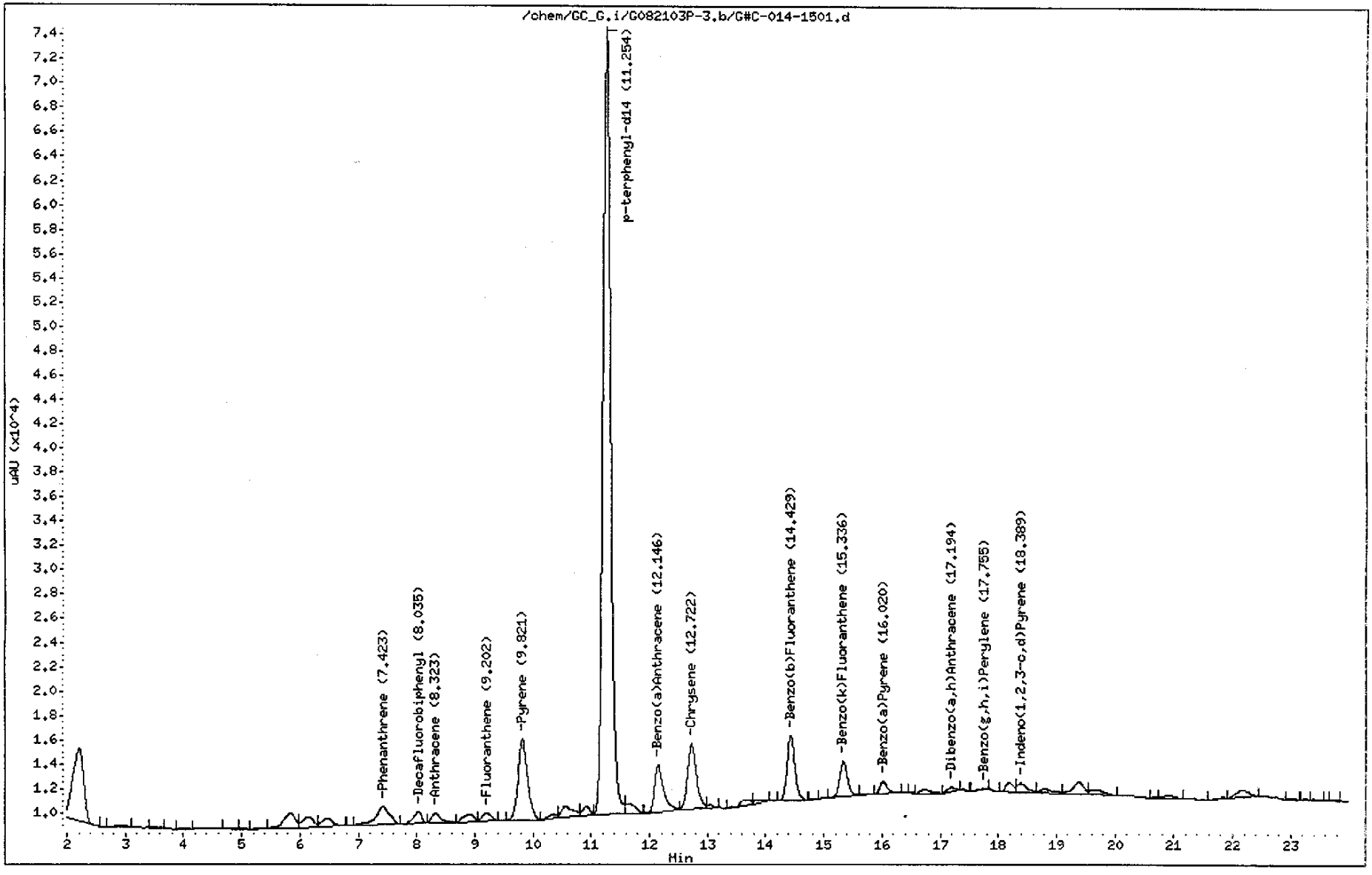
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 2 Decafluorobiphenyl	1320	1119	84.75	37-152
$ 6 p-terphenyl-d14	660.1	474.4	71.88	22-167

Data File: /chem/GC_G.i/G082103P-3.b/G#C-014-1501.d
Date : 21-AUG-2003 19:33
Client ID: DB0009
Sample Info: FVXJ01AH,204-8

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Standards Data

STL Denver

Calibration: G0429037.S

GC and HPLC Initial Calibration Review Checklist

Instrument ID: G

☐ 608 ☐ 8081 ☐ 8082 ☐ Other Pest/PCB _____
☐ 8151 ☐ 8141 ☐ TPH/DRO ☐ Other SV _____
☒ 8310 ☐ 8330 ☐ Other HPLC

Analysis: ☐ 601 ☐ 602 ☐ 8021 ☐ BTEX
☐ TPH/GRO ☐ Other Volatile GC _____.
Preparation ☐ 5030 ☐ 5035

Review Items	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments
Initial Calibration					
1. ICAL date and instrument ID verified?	✓			✓	
2. Sufficient number of calibration points used?	✓			✓	
3. Reasons for removal of points documented?	✓			✓	low point for decafluorobiphenyl not needed
4. Is linearity acceptable, 8000Series: linear least-squares regression with r ≥ 0.990, (DOD projects require r ≥ 0.995) quadratic fit COD r^2>0.990, or average response factors with RSD or RSE ≤ 20%? 600 Series: < 10% RSD or linear regression	✓			✓	
5. Are the correct RT windows applied to the ICAL integration?	✓			✓	
6. Did the standards pass the resolution check criteria (*CLP only*)?			✓	NA	
7. Did DDT & Endrin breakdown < 15%?			✓	NA	
8. Manual integrations documented and checked?	✓			✓	
9. Traceability of standards properly documented?	✓			✓	
10. Was second-source ICV performed, & was recovery 85-115%	✓			✓	

1st Level Reviewer: [signature] Date: 4/30/03

2nd Level Reviewer: [signature] Date: 4/30/03

Sequence: C:\HPCHEM\1\SEQUENCE\G042903P.S

Sequence Table:

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PRIMER				
2	Vial 2	50ug/mL L8 HPLC365-02				
3	Vial 3	20ug/mL L7 HPLC127-03				
4	Vial 4	5ug/mL L6 HPLC128-03				
5	Vial 5	2ug/mL L5 HPLC113-03				
6	Vial 6	1ug/mL L4 HPLC124-03				
7	Vial 7	0.5ug/mL L3 HPLC130-03				
8	Vial 8	0.2ug/mL L2 HPLC131-03				
9	Vial 9	0.05ug/mL L1 HPLC132-03				
10	Vial 10	8310 ICAL SS HPLC071-03				
11	Vial 11	FMAGR1AA,BLK				
12	Vial 12	FMAGR1AC,LCS				
13	Vial 13	FL5DR1AC,222-1				
14	Vial 14	FL5DR1AH,222-1S				
15	Vial 15	FL5DR1AJ,222-1D				
16	Vial 16	FL5DX1AC,222-2				
17	Vial 17	FL5D41AC,222-4				
18	Vial 18	FMAHP1AA,BLK				
19	Vial 19	FMAHP1AC,LCS				
20	Vial 20	FL1GV1AD,324-1				
21	Vial 5	8310 CCV HPLC113				
22	Vial 21	FL1JT1AE,330-1				
23	Vial 22	FL1JT1AN,330-1S				
24	Vial 23	FL1JT1AP,330-1D				
25	Vial 24	FL1JV1AE,330-2				
26	Vial 25	FL1JW1AE,330-3				
27	Vial 5	8310 CCV HPLC113				
28	Vial 26	FLXQ91AA,BLK				
29	Vial 27	FLXQ91AC,LCS				
30	Vial 28	FLJRP1AD,330-2				
31	Vial 29	FLJRW1AE,330-7				
32	Vial 30	FLJR01AE,330-9				
33	Vial 31	FLL4F1AC,328-3				
34	Vial 5	8310 CCV HPLC113				
35	Vial 32	FL1VF1AA,BLK				
36	Vial 33	FL1VF1AC,LCS				
37	Vial 34	FLL4D1AE,328-1				
38	Vial 35	FLL4E1AE,328-2				
39	Vial 36	FLL4H1AE,328-4				
40	Vial 37	FLL4L1AE,328-7				
41	Vial 38	FLL4M1AE,328-8				
42	Vial 39	FLPMP1AD,376-1				
43	Vial 40	FLPMQ1AD,376-2				
44	Vial 41	FLPM01AD,376-3				
45	Vial 5	8310 CCV HPLC113				
46	Vial 42	FLPM21AD,376-5				
47	Vial 43	FLPM41AD,376-6				
48	Vial 44	FLPM51AK,376-7				
49	Vial 45	FLPM61AA,376-8				
50	Vial 46	FLPM71AA,376-9				
51	Vial 47	FLTKP1AE,398-3				
52	Vial 48	FL1VH1AA,BLK				
53	Vial 49	FL1VH1AC,LCS				
54	Vial 50	FLMQ11C8,164-1				
55	Vial 51	FLMQ11FK,164-1S				
56	Vial 5	8310 CCV HPLC113				
57	Vial 52	FLMQ11FL,164-1D				
58	Vial 53	FLMTC1CL,164-3				

Sequence: C:\HPCHEM\1\SEQUENCE\G042903P.S

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
59	Vial 54	FLMTJ1CX,164-4				
60	Vial 55	FMNV71AA,BLK				
61	Vial 56	FMNV71AC,LCS				
62	Vial 57	FMC231AC,139-6				
63	Vial 58	FMC251AC,139-7				
64	Vial 59	FME761AC,164-7				
65	Vial 60	FMNVL1AA,BLK				
66	Vial 61	FMNVL1AC,LCS				
67	Vial 5	8310 CCV HPLC113				
68	Vial 62	FMNVL1AD,LCSD				
69	Vial 63	FMC521AC,155-2				
70	Vial 64	FMEFD1AC,323-17				
71	Vial 65	FMGEF1AD,316-1				
72	Vial 66	FMGEH1AD,316-2				
73	Vial 67	FMGEJ1AD,316-3				
74	Vial 68	FMM211AC,119-3				
75	Vial 69	FMM231AN,119-4				
76	Vial 5	8310 CCV HPLC113				

Report Date : 30-Apr-2003 06:08

STL Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2003 14:05
End Cal Date : 29-APR-2003 17:39
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/GC_G.i/G042903P-1.b/8310-1.m
Cal Date : 30-Apr-2003 06:06 dacars

Calibration File Names:
Level 1: /chem/GC_G.i/G042903P-1.b/G#A-009-0901.d
Level 2: /chem/GC_G.i/G042903P-1.b/G#A-008-0801.d
Level 3: /chem/GC_G.i/G042903P-1.b/G#A-007-0701.d
Level 4: /chem/GC_G.i/G042903P-1.b/G#A-006-0601.d
Level 5: /chem/GC_G.i/G042903P-1.b/G#A-005-0501.d
Level 6: /chem/GC_G.i/G042903P-1.b/G#A-004-0401.d
Level 7: /chem/GC_G.i/G042903P-1.b/G#A-003-0301.d
Level 8: /chem/GC_G.i/G042903P-1.b/G#A-002-0201.d

Compound	50 Level 1	200 Level 2	500 Level 3	1000 Level 4	2000 Level 5	5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20000 Level 7	50000 Level 8									
1 Naphthalene	71.88000	80.91500	79.76600	71.53900	76.61850	77.93580					
	70.61250	73.90152					AVRG		75.39604		5.25428
2 Acenaphthylene	32.88000	38.67000	45.14200	33.56400	36.62300	38.01320					
	34.51685	36.53052					AVRG		36.99245		10.49039
3 1-Methylnaphthalene	56.80000	61.97000	67.31600	60.82600	63.47100	65.91900					
	60.06595	64.12310					AVRG		62.56138		5.40126
4 2-Methylnaphthalene	65.34000	70.49000	73.84600	69.44500	72.97700	74.97420					
	67.84665	70.80500					AVRG		70.71548		4.53055
5 Acenaphthene	67.72000	61.82000	64.30200	59.79200	61.41200	64.73620					
	58.23980	61.87964					AVRG		62.48770		4.80127

Report Date : 30-Apr-2003 06:08

STL Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2003 14:05
End Cal Date : 29-APR-2003 17:39
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/GC_G.i/G042903P-1.b/8310-1.m
Cal Date : 30-Apr-2003 06:06 dacars

Compound	50 Level 1 / 20000 Level 7	200 Level 2 / 50000 Level 8	500 Level 3	1000 Level 4	2000 Level 5	5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
6 Fluorene	62.06000	57.43500	56.54400	52.38400	54.60900	57.42360					
	52.46935	57.82776					AVRG		56.34409		5.65138
7 Phenanthrene	80.92000	84.19500	79.64400	77.19000	83.07100	85.18080					
	77.44785	85.60854					AVRG		81.65715		4.10726
9 Anthracene	75.98000	85.98500	82.91200	79.99200	84.60850	86.50320					
	77.25015	73.40604					AVRG		80.82961		6.08834
10 Fluoranthene	56.50000	59.29500	58.65600	57.64300	60.97600	62.53760					
	56.86805	62.84492					AVRG		59.41507		4.15525
11 Pyrene	37.02000	39.22500	37.77400	36.41800	39.31850	40.43460					
	36.94185	40.15216					AVRG		38.41051		4.06718
13 Benzo(a)Anthracene	82.70000	96.94000	90.78400	88.52700	94.02850	97.14700					
	87.39320	96.12212					AVRG		91.70523		5.71926
14 Chrysene	86.74000	88.04500	83.66400	80.81600	85.29700	88.40620					
	79.00820	86.00984					AVRG		84.74828		3.98141
15 Benzo(b)Fluoranthene	81.92000	77.75500	73.06800	69.93400	74.47600	77.68880					
	70.50190	78.16062					AVRG		75.43804		5.51277
16 Benzo(k)Fluoranthene	54.84000	66.50500	65.25400	62.98100	69.34900	76.81480					
	67.01340	74.65124					AVRG		67.17606		10.18149

Report Date : 30-Apr-2003 06:08

STL Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2003 14:05
End Cal Date : 29-APR-2003 17:39
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/GC_G.i/G042903P-1.b/8310-1.m
Cal Date : 30-Apr-2003 06:06 dacars

Compound	50 Level 1 / 20000 Level 7	200 Level 2 / 50000 Level 8	500 Level 3	1000 Level 4	2000 Level 5	5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
17 Benzo(a)Pyrene	56.12000	50.04500	48.27200	45.95900	48.85950	52.11820					
	47.13180	53.70818					AVRG		50.27671		6.88696
19 Dibenzo(a,h)Anthracene	2796	13408	35154	70831	156461	403574					
	1458028	3965821					WLINR	13.44470	75.38499		0.99727
20 Benzo(g,h,i)Perylene	6552	15549	30953	55240	113067	286647					
	1040291	2891465					WLINR	-58.14519	56.04690		0.99768
21 Indeno(1,2,3-c,d)Pyrene	57.02000	58.96500	56.05000	53.03500	56.84350	59.27120					
	54.05815	60.02016					AVRG		56.90788		4.37425
$ 8 Decafluorobiphenyl	+++++	12.41500	11.56000	11.26500	11.65250	11.93320					
	11.37910	12.54330					AVRG		11.82116		4.21285
$ 12 p-terphenyl-d14	62.42000	60.20000	58.80400	56.68100	60.95950	64.72600					
	58.15980	64.46298					AVRG		60.80166		4.80559
$ 18 Decachlorobiphenyl	1523	4696	13181	20836	40793	109847					
	347796	949416					WLINR	-57.99985	18.78567		0.99624

Report Date : 30-Apr-2003 06:08

STL Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2003 14:05
End Cal Date : 29-APR-2003 17:39
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/GC_G.i/G042903P-1.b/8310-1.m
Cal Date : 30-Apr-2003 06:06 dacars

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

Report Date: 30-Apr-2003 06:08

Calibration History

Method : /chem/GC_G.i/G042903P-1.b/8310-1.m
Start Cal Date: 29-APR-2003 14:05
End Cal Date : 29-APR-2003 17:39

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 50.00000		
29-APR-2003 17:39	all	/chem/GC_G.i/G042903P-1.b/G#A-009-0901.d
Cal Level: 2 , Cal Amount: 200.00000		
29-APR-2003 17:08	all	/chem/GC_G.i/G042903P-1.b/G#A-008-0801.d
Cal Level: 3 , Cal Amount: 500.00000		
29-APR-2003 16:38	all	/chem/GC_G.i/G042903P-1.b/G#A-007-0701.d
Cal Level: 4 , Cal Amount: 1000.00000		
29-APR-2003 16:07	all	/chem/GC_G.i/G042903P-1.b/G#A-006-0601.d
Cal Level: 5 , Cal Amount: 2000.00000		
29-APR-2003 15:36	all	/chem/GC_G.i/G042903P-1.b/G#A-005-0501.d
Cal Level: 6 , Cal Amount: 5000.00000		
29-APR-2003 15:06	all	/chem/GC_G.i/G042903P-1.b/G#A-004-0401.d
Cal Level: 7 , Cal Amount: 20000.00000		
29-APR-2003 14:35	all	/chem/GC_G.i/G042903P-1.b/G#A-003-0301.d
Cal Level: 8 , Cal Amount: 50000.00000		
29-APR-2003 14:05	all	/chem/GC_G.i/G042903P-1.b/G#A-002-0201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 2000		
29-APR-2003 15:36	all	/chem/GC_G.i/G042903P-1.b/G#A-005-0501.d

Data File: /chem/GC_G.i/G042903P-1.b/G#A-002-0201.d
Report Date: 30-Apr-2003 06:06

STL Denver

Data file : /chem/GC_G.i/G042903P-1.b/G#A-002-0201.d
Lab Smp Id: 50ug/mL L8 Client Smp ID: 50ug/mL L8
Inj Date : 29-APR-2003 14:05
Operator : SLD Inst ID: GC_G.i
Smp Info : 50ug/mL L8
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-1.b/8310-1.m
Meth Date : 30-Apr-2003 06:06 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#A-002-0201.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

SP 4/30/03

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Naphthalene	4.083	4.083	0.000	3695076	50000.0	49010
	2 Acenaphthylene	4.963	4.963	0.000	1826526	50000.0	49380
	3 1-Methylnaphthalene	5.503	5.503	0.000	3206155	50000.0	51250(A)
	4 2-Methylnaphthalene	5.850	5.850	0.000	3540250	50000.0	50060(A)
	5 Acenaphthene	6.123	6.123	0.000	3093982	50000.0	49510
	6 Fluorene	6.523	6.523	0.000	2891388	50000.0	51320(A)
	7 Phenanthrene	7.403	7.403	0.000	4280427	50000.0	52420(A)
$	8 Decafluorobiphenyl	8.030	8.030	0.000	627165	50000.0	53050(A)
	9 Anthracene	8.323	8.323	0.000	3670302	50000.0	45410
	10 Fluoranthene	9.163	9.163	0.000	3142246	50000.0	52890(A)
	11 Pyrene	9.777	9.777	0.000	2007608	50000.0	52270(A)
$	12 p-terphenyl-d14	11.270	11.270	0.000	3223149	50000.0	53010(A)
	13 Benzo(a)Anthracene	12.157	12.157	0.000	4806106	50000.0	52410(A)
	14 Chrysene	12.770	12.770	0.000	4300492	50000.0	50740(A)
	15 Benzo(b)Fluoranthene	14.477	14.477	0.000	3908031	50000.0	51800(A)
	16 Benzo(k)Fluoranthene	15.397	15.397	0.000	3732562	50000.0	55560(A)
	17 Benzo(a)Pyrene	16.077	16.077	0.000	2685409	50000.0	53410(A)
$	18 Decachlorobiphenyl	16.310	16.310	0.000	949416	50000.0	42220
	19 Dibenzo(a,h)Anthracene	17.250	17.250	0.000	3965821	50000.0	55150(A)
	20 Benzo(g,h,i)Perylene	17.750	17.750	0.000	2891465	50000.0	42080
	21 Indeno(1,2,3-c,d)Pyrene	18.390	18.390	0.000	3001008	50000.0	52730(A)

QC Flag Legend

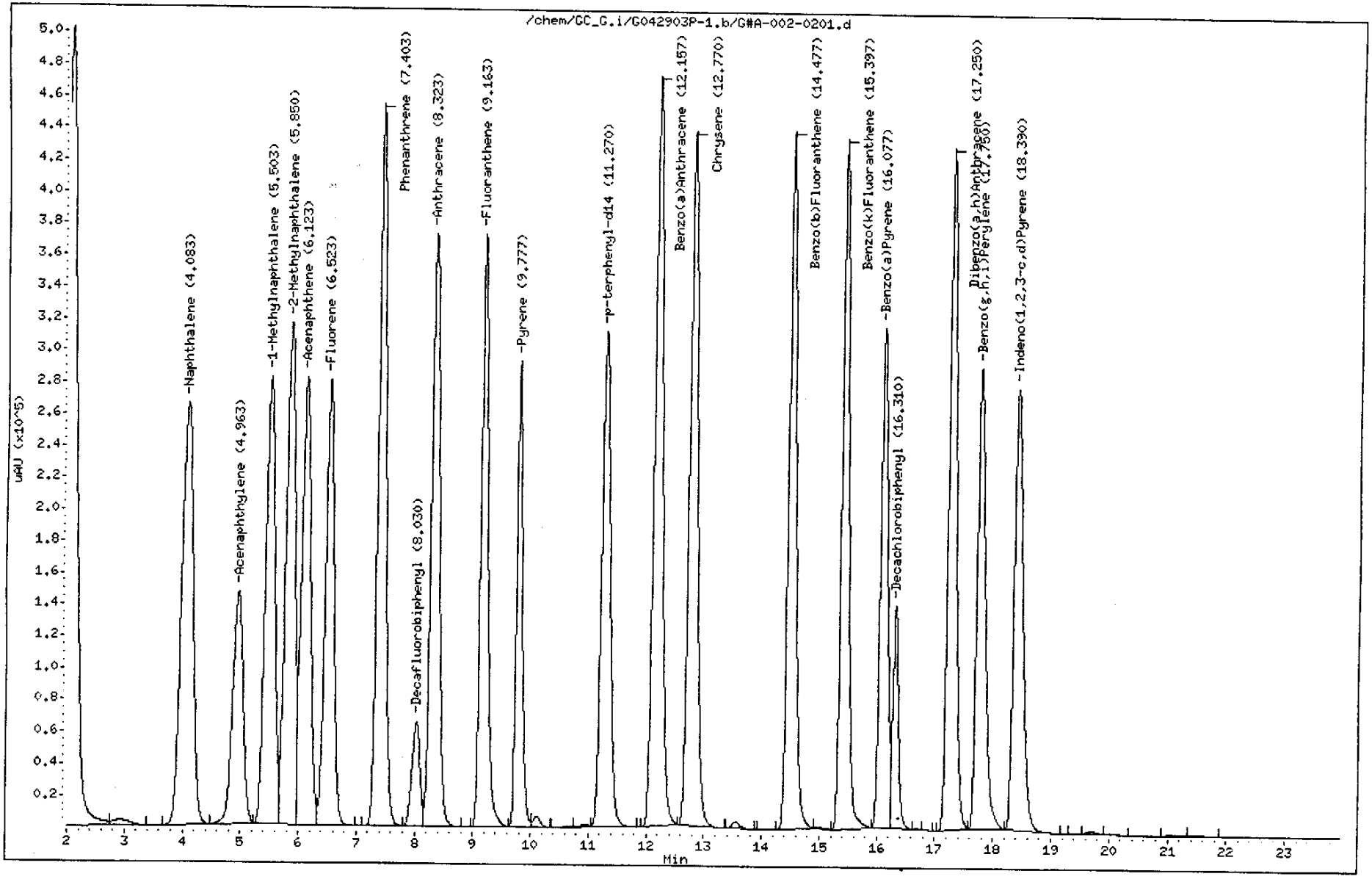
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/GC_G.i/G042903P-1.b/G#A-002-0201.d
Date : 29-APR-2003 14:05
Client ID: 50ug/mL L8
Sample Info: 50ug/mL L8

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G042903P-1.b/G#A-003-0301.d
Report Date: 30-Apr-2003 06:06

STL Denver

Data file : /chem/GC_G.i/G042903P-1.b/G#A-003-0301.d
Lab Smp Id: 20ug/mL L7 Client Smp ID: 20ug/mL L7
Inj Date : 29-APR-2003 14:35
Operator : SLD Inst ID: GC_G.i
Smp Info : 20ug/mL L7
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-1.b/8310-1.m
Meth Date : 30-Apr-2003 06:06 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 14:35 Cal File: G#A-003-0301.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

SD 4/30/03

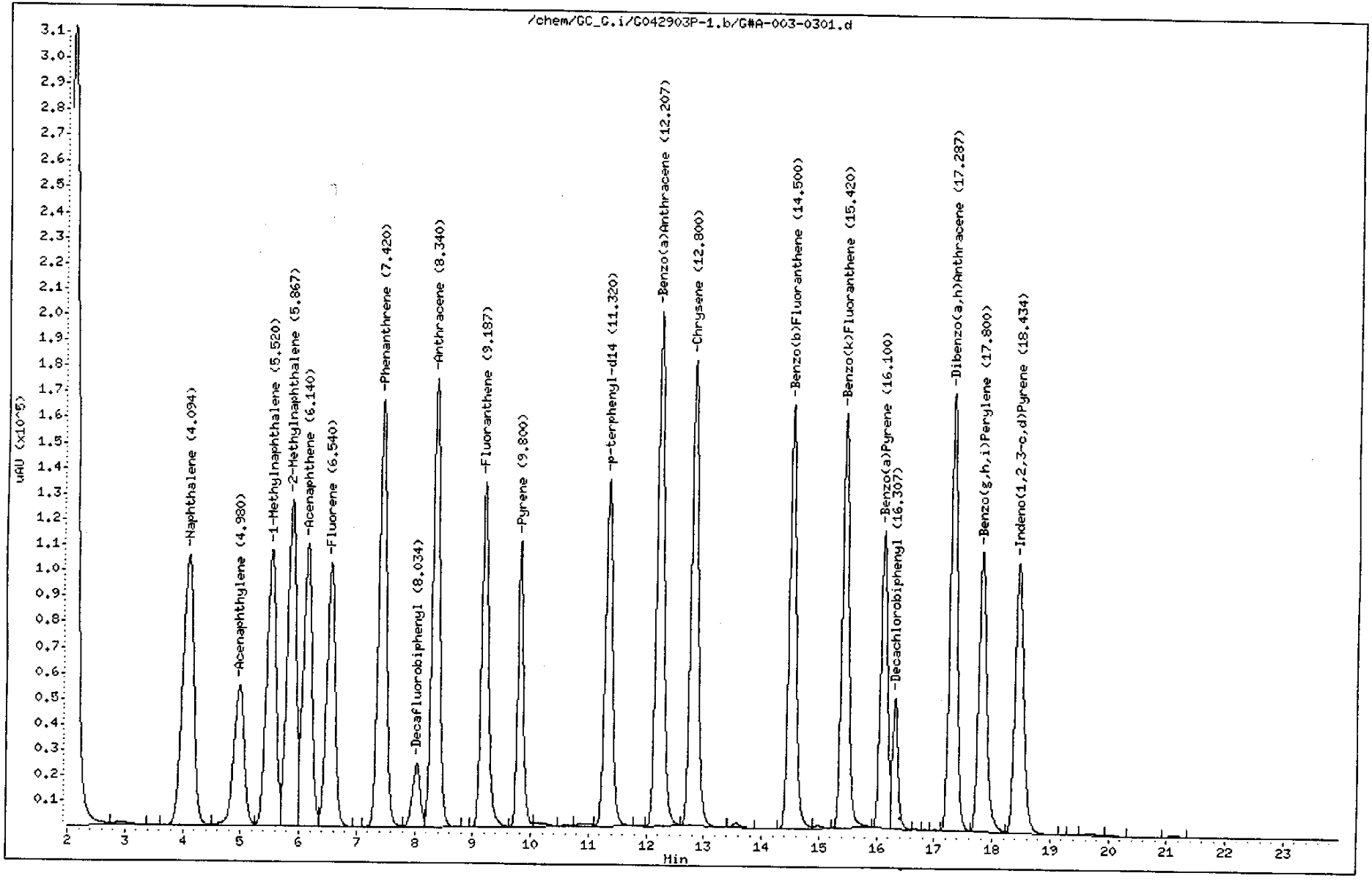
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Naphthalene	4.094	4.094	0.000	1412250	20000.0	18730
	2 Acenaphthylene	4.980	4.980	0.000	690337	20000.0	18660
	3 1-Methylnaphthalene	5.520	5.520	0.000	1201319	20000.0	19200
	4 2-Methylnaphthalene	5.867	5.867	0.000	1356933	20000.0	19190
	5 Acenaphthene	6.140	6.140	0.000	1164796	20000.0	18640
	6 Fluorene	6.540	6.540	0.000	1049387	20000.0	18620
	7 Phenanthrene	7.420	7.420	0.000	1548957	20000.0	18970
$	8 Decafluorobiphenyl	8.034	8.034	0.000	227582	20000.0	19250
	9 Anthracene	8.340	8.340	0.000	1545003	20000.0	19110
*	10 Fluoranthene	9.187	9.187	0.000	1137361	20000.0	19140
	11 Pyrene	9.800	9.800	0.000	738837	20000.0	19240
$	12 p-terphenyl-d14	11.320	11.320	0.000	1163196	20000.0	19130
	13 Benzo(a)Anthracene	12.207	12.207	0.000	1747864	20000.0	19060
	14 Chrysene	12.800	12.800	0.000	1580164	20000.0	18640
	15 Benzo(b)Fluoranthene	14.500	14.500	0.000	1410038	20000.0	18690
	16 Benzo(k)Fluoranthene	15.420	15.420	0.000	1340268	20000.0	19950
	17 Benzo(a)Pyrene	16.100	16.100	0.000	942636	20000.0	18750
$	18 Decachlorobiphenyl	16.307	16.307	0.000	347796	20000.0	15470
	19 Dibenzo(a,h)Anthracene	17.287	17.287	0.000	1458028	20000.0	20280
	20 Benzo(g,h,i)Perylene	17.800	17.800	0.000	1040291	20000.0	15140
	21 Indeno(1,2,3-c,d)Pyrene	18.434	18.434	0.000	1081163	20000.0	19000

Data File: /chem/GC_G.i/G042903P-1.b/G#A-003-0301.d
Date : 29-APR-2003 14:35
Client ID: 20ug/mL L7
Sample Info: 20ug/mL L7

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G042903P-1.b/G#A-004-0401.d
Report Date: 30-Apr-2003 06:06

STL Denver

Data file : /chem/GC_G.i/G042903P-1.b/G#A-004-0401.d
Lab Smp Id: 5ug/mL L6 Client Smp ID: 5ug/mL L6
Inj Date : 29-APR-2003 15:06
Operator : SLD Inst ID: GC_G.i
Smp Info : 5ug/mL L6
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-1.b/8310-1.m
Meth Date : 30-Apr-2003 06:06 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 15:06 Cal File: G#A-004-0401.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

SD 413063

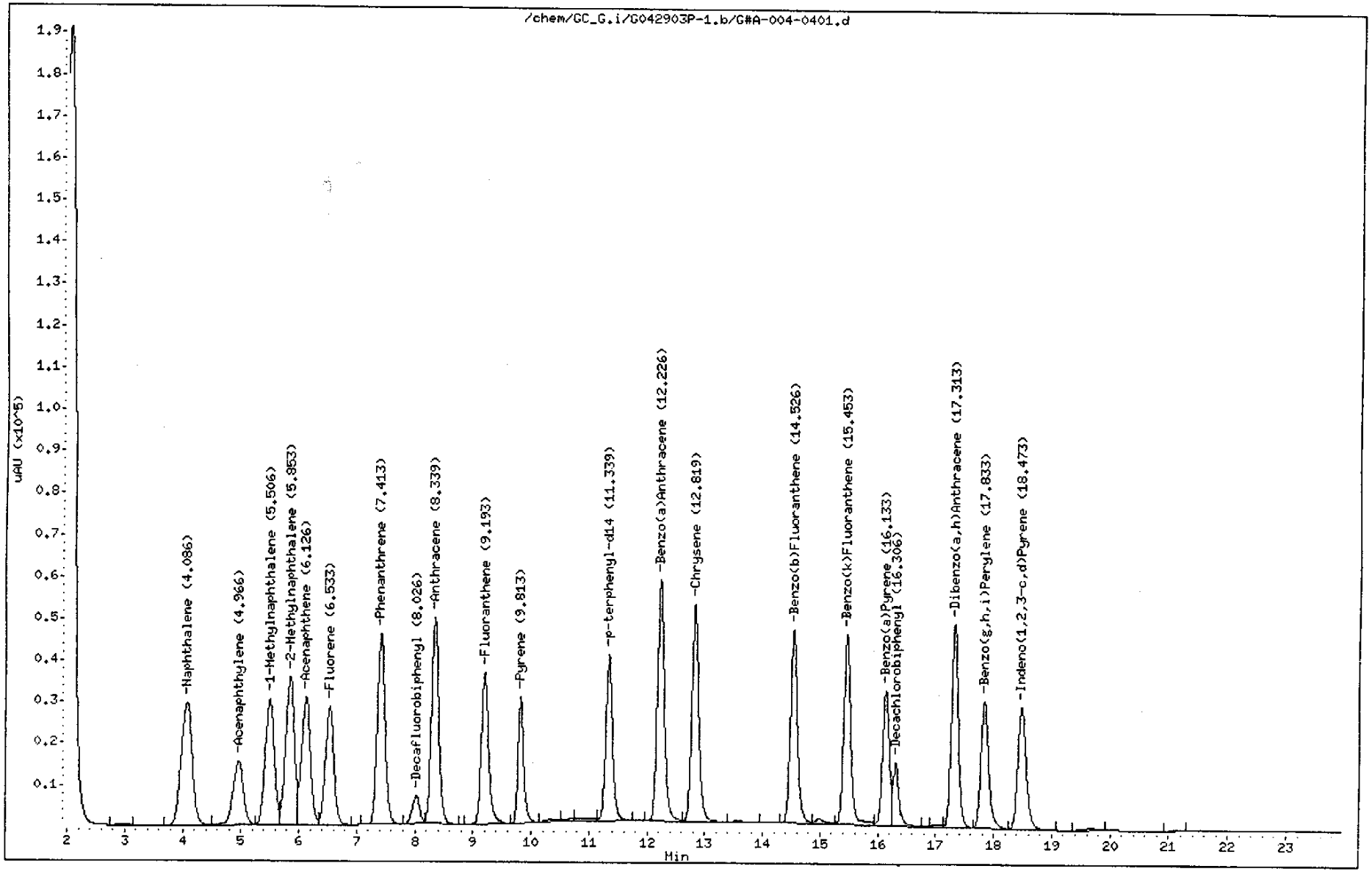
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Naphthalene	4.086	4.086	0.000	389679	5000.00	5168
	2 Acenaphthylene	4.966	4.966	0.000	190066	5000.00	5138
	3 1-Methylnaphthalene	5.506	5.506	0.000	329595	5000.00	5268
	4 2-Methylnaphthalene	5.853	5.853	0.000	374871	5000.00	5301
	5 Acenaphthene	6.126	6.126	0.000	323681	5000.00	5180
	6 Fluorene	6.533	6.533	0.000	287118	5000.00	5096
	7 Phenanthrene	7.413	7.413	0.000	425904	5000.00	5216
$	8 Decafluorobiphenyl	8.026	8.026	0.000	59666	5000.00	5047
	9 Anthracene	8.339	8.339	0.000	432516	5000.00	5351
	10 Fluoranthene	9.193	9.193	0.000	312688	5000.00	5263
	11 Pyrene	9.813	9.813	0.000	202173	5000.00	5263
$	12 p-terphenyl-d14	11.339	11.339	0.000	323630	5000.00	5323
	13 Benzo(a)Anthracene	12.226	12.226	0.000	485735	5000.00	5297
	14 Chrysene	12.819	12.819	0.000	442031	5000.00	5216
	15 Benzo(b)Fluoranthene	14.526	14.526	0.000	388444	5000.00	5149
	16 Benzo(k)Fluoranthene	15.453	15.453	0.000	384074	5000.00	5717
	17 Benzo(a)Pyrene	16.133	16.133	0.000	260591	5000.00	5183
$	18 Decachlorobiphenyl	16.306	16.306	0.000	109847	5000.00	4885
	19 Dibenzo(a,h)Anthracene	17.313	17.313	0.000	403574	5000.00	5612
	20 Benzo(g,h,i)Perylene	17.833	17.833	0.000	286647	5000.00	4172
	21 Indeno(1,2,3-c,d)Pyrene	18.473	18.473	0.000	296356	5000.00	5208

Data File: /chem/GC_G.i/G042903P-1.b/G#A-004-0401.d
Date : 29-APR-2003 15:06
Client ID: 5ug/mL L6
Sample Info: 5ug/mL L6

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G042903P-1.b/G#A-005-0501.d
Report Date: 30-Apr-2003 06:06

STL Denver

Data file : /chem/GC_G.i/G042903P-1.b/G#A-005-0501.d
Lab Smp Id: 2ug/mL L5 — Client Smp ID: 2ug/mL L5
Inj Date : 29-APR-2003 15:36
Operator : SLD — Inst ID: GC_G.i
Smp Info : 2ug/mL L5
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-1.b/8310-1.m
Meth Date : 30-Apr-2003 06:06 dacars — Quant Type: ESTD
Cal Date : 29-APR-2003 15:36 — Cal File: G#A-005-0501.d
Als bottle: 1 — Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon — Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

SD 413063

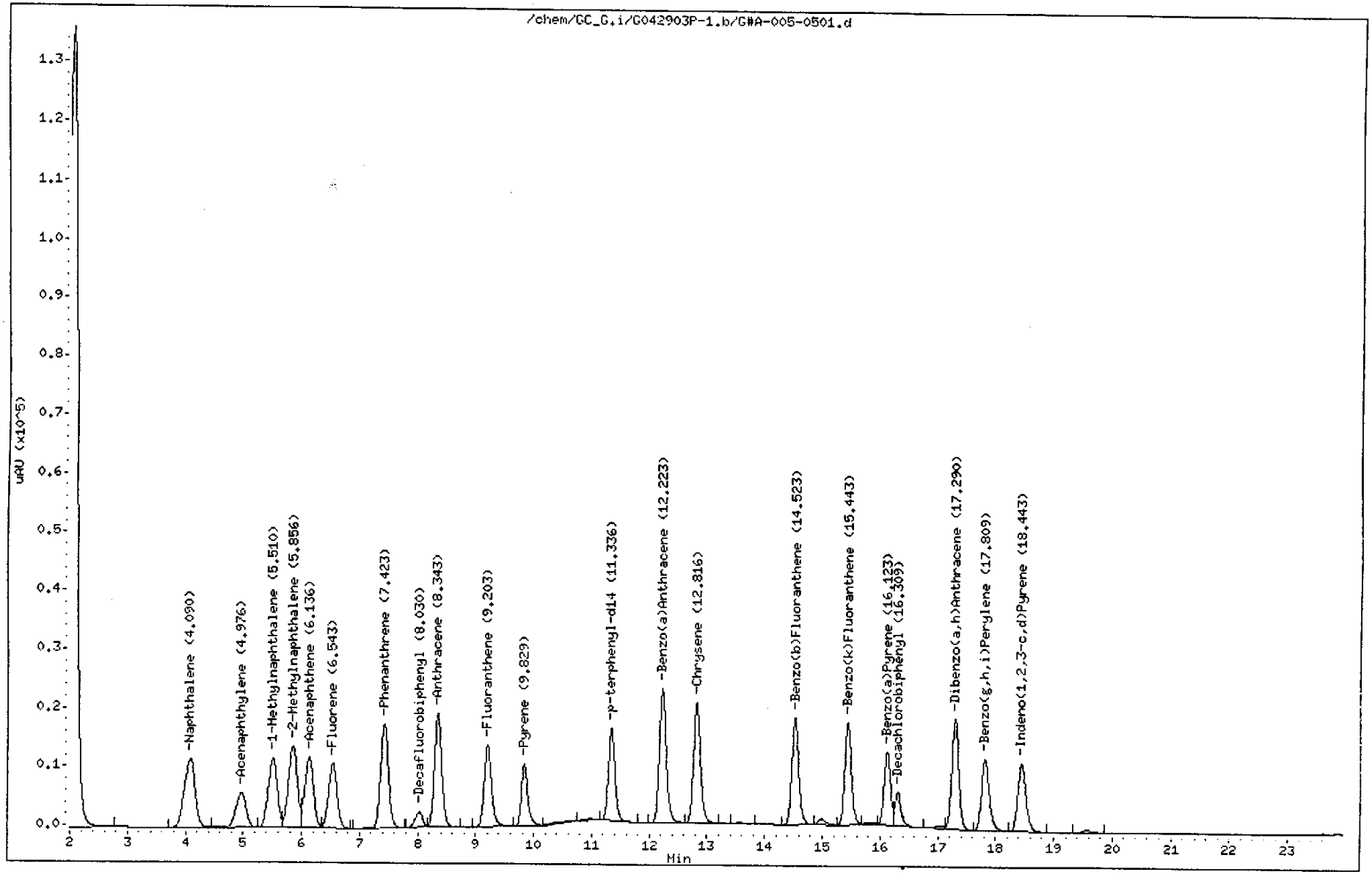
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Naphthalene	4.090	4.090	0.000	153237	2000.00	2032
	2 Acenaphthylene	4.976	4.976	0.000	73246	2000.00	1980
	3 1-Methylnaphthalene	5.510	5.510	0.000	126942	2000.00	2029
	4 2-Methylnaphthalene	5.856	5.856	0.000	145954	2000.00	2064
	5 Acenaphthene	6.136	6.136	0.000	122824	2000.00	1966
	6 Fluorene	6.543	6.543	0.000	109218	2000.00	1938
	7 Phenanthrene	7.423	7.423	0.000	166142	2000.00	2035
$	8 Decafluorobiphenyl	8.030	8.030	0.000	23305	2000.00	1971
	9 Anthracene	8.343	8.343	0.000	169217	2000.00	2094
	10 Fluoranthene	9.203	9.203	0.000	121952	2000.00	2052
	11 Pyrene	9.829	9.829	0.000	78637	2000.00	2047
$	12 p-terphenyl-d14	11.336	11.336	0.000	121919	2000.00	2005
	13 Benzo(a)Anthracene	12.223	12.223	0.000	188057	2000.00	2051
	14 Chrysene	12.816	12.816	0.000	170594	2000.00	2013
	15 Benzo(b)Fluoranthene	14.523	14.523	0.000	148952	2000.00	1974
	16 Benzo(k)Fluoranthene	15.443	15.443	0.000	138698	2000.00	2065
	17 Benzo(a)Pyrene	16.123	16.123	0.000	97719	2000.00	1944
$	18 Decachlorobiphenyl	16.309	16.309	0.000	40793	2000.00	1814
	19 Dibenzo(a,h)Anthracene	17.290	17.290	0.000	156461	2000.00	2176
	20 Benzo(g,h,i)Perylene	17.809	17.809	0.000	113067	2000.00	1646
	21 Indeno(1,2,3-c,d)Pyrene	18.443	18.443	0.000	113687	2000.00	1998

Data File: /chem/GC_G.i/G042903P-1.b/G#A-005-0501.d
Date : 29-APR-2003 15:36
Client ID: 2ug/mL L5
Sample Info: 2ug/mL L5

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G042903P-1.b/G#A-006-0601.d
Report Date: 30-Apr-2003 06:06

STL Denver

Data file : /chem/GC_G.i/G042903P-1.b/G#A-006-0601.d
Lab Smp Id: 1ug/mL L4 Client Smp ID: 1ug/mL L4
Inj Date : 29-APR-2003 16:07
Operator : SLD Inst ID: GC_G.i
Smp Info : 1ug/mL L4
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-1.b/8310-1.m
Meth Date : 30-Apr-2003 06:06 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 16:07 Cal File: G#A-006-0601.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

SO 413063

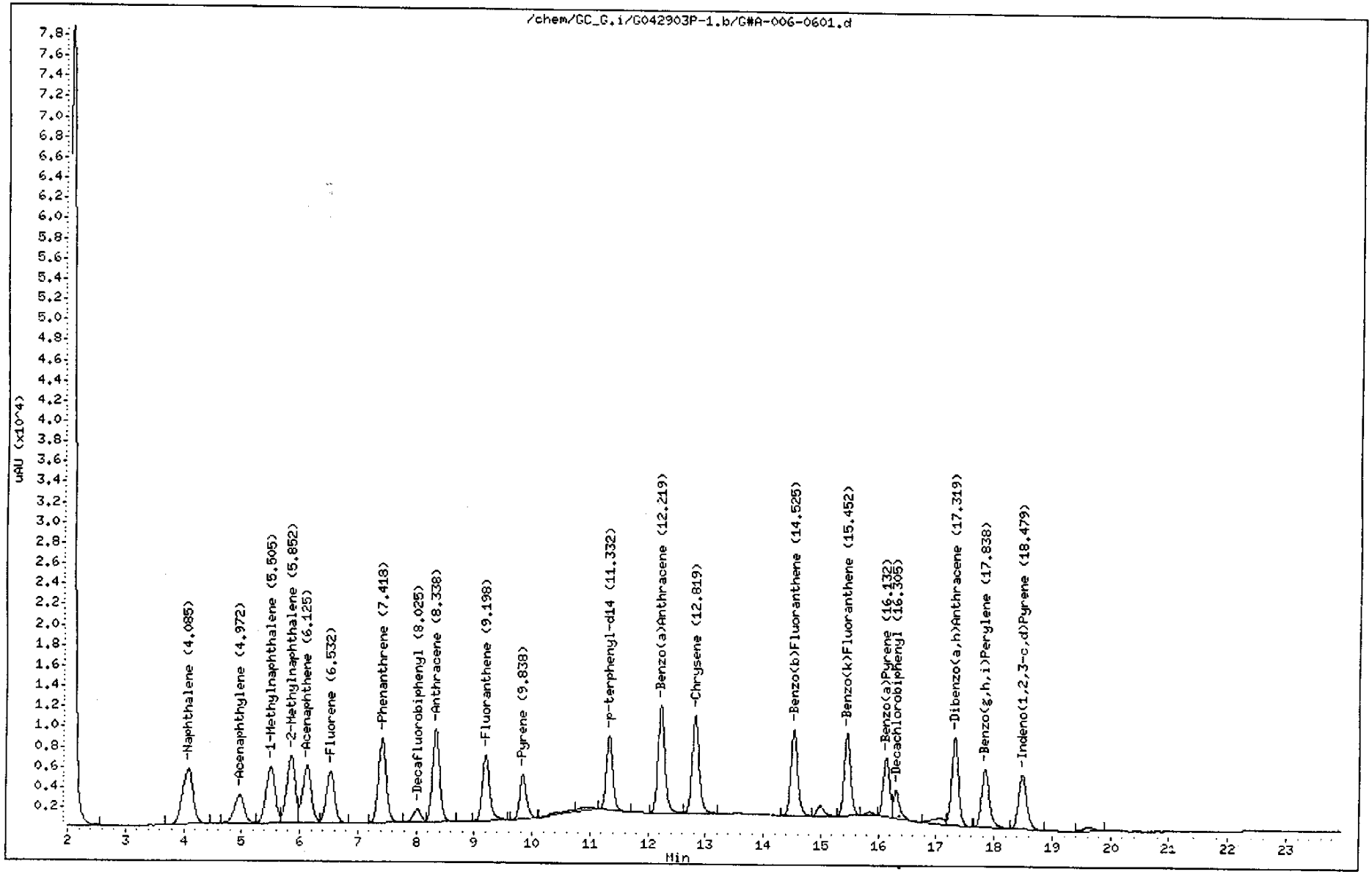
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Naphthalene	4.085	4.085	0.000	71539	1000.00	948.8
	2 Acenaphthylene	4.972	4.972	0.000	33564	1000.00	907.3
	3 1-Methylnaphthalene	5.505	5.505	0.000	60826	1000.00	972.3
	4 2-Methylnaphthalene	5.852	5.852	0.000	69445	1000.00	982.0
	5 Acenaphthene	6.125	6.125	0.000	59792	1000.00	956.9
	6 Fluorene	6.532	6.532	0.000	52384	1000.00	929.7
	7 Phenanthrene	7.418	7.418	0.000	77190	1000.00	945.3
$	8 Decafluorobiphenyl	8.025	8.025	0.000	11265	1000.00	953.0
	9 Anthracene	8.338	8.338	0.000	79992	1000.00	989.6
	10 Fluoranthene	9.198	9.198	0.000	57643	1000.00	970.2
	11 Pyrene	9.838	9.838	0.000	36418	1000.00	948.1
$	12 p-terphenyl-d14	11.332	11.332	0.000	56681	1000.00	932.2
	13 Benzo(a)Anthracene	12.219	12.219	0.000	88527	1000.00	965.3
	14 Chrysene	12.819	12.819	0.000	80816	1000.00	953.6
	15 Benzo(b)Fluoranthene	14.525	14.525	0.000	69934	1000.00	927.0
	16 Benzo(k)Fluoranthene	15.452	15.452	0.000	62981	1000.00	937.6
	17 Benzo(a)Pyrene	16.132	16.132	0.000	45959	1000.00	914.1
$	18 Decachlorobiphenyl	16.305	16.305	0.000	20836	1000.00	926.6
	19 Dibenzo(a,h)Anthracene	17.319	17.319	0.000	70831	1000.00	985.0
	20 Benzo(g,h,i)Perylene	17.838	17.838	0.000	55240	1000.00	804.0
	21 Indeno(1,2,3-c,d)Pyrene	18.479	18.479	0.000	53035	1000.00	931.9

Data File: /chem/GC_G.i/G042903P-1.b/G#A-006-0601.d
Date : 29-APR-2003 16:07
Client ID: 1ug/mL L4
Sample Info: 1ug/mL L4

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G042903P-1.b/G#A-007-0701.d
Report Date: 30-Apr-2003 06:06

STL Denver

Data file : /chem/GC_G.i/G042903P-1.b/G#A-007-0701.d
Lab Smp Id: 0.5ug/mL L3 Client Smp ID: 0.5ug/mL L3
Inj Date : 29-APR-2003 16:38
Operator : SLD Inst ID: GC_G.i
Smp Info : 0.5ug/mL L3
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-1.b/8310-1.m
Meth Date : 30-Apr-2003 06:06 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 16:38 Cal File: G#A-007-0701.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

SD 413063

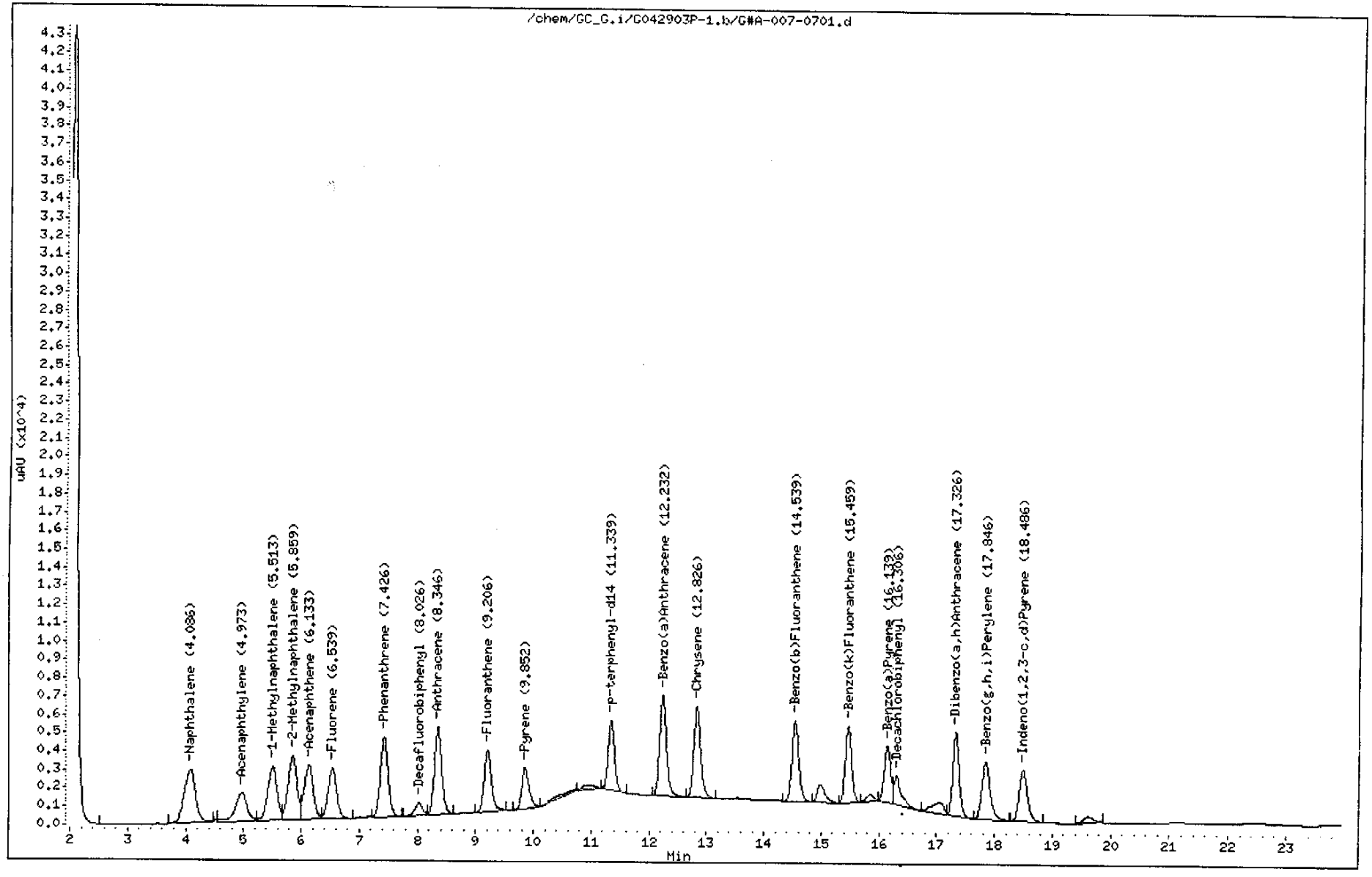
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Naphthalene	4.086	4.086	0.000	39883	500.000	529.0
	2 Acenaphthylene	4.973	4.973	0.000	22571	500.000	610.2
	3 1-Methylnaphthalene	5.513	5.513	0.000	33658	500.000	538.0
	4 2-Methylnaphthalene	5.859	5.859	0.000	36923	500.000	522.1
	5 Acenaphthene	6.133	6.133	0.000	32151	500.000	514.5
	6 Fluorene	6.539	6.539	0.000	28272	500.000	501.8
	7 Phenanthrene	7.426	7.426	0.000	39822	500.000	487.7
$	8 Decafluorobiphenyl	8.026	8.026	0.000	5780	500.000	489.0
	9 Anthracene	8.346	8.346	0.000	41456	500.000	512.9
	10 Fluoranthene	9.206	9.206	0.000	29328	500.000	493.6
	11 Pyrene	9.852	9.852	0.000	18887	500.000	491.7
$	12 p-terphenyl-d14	11.339	11.339	0.000	29402	500.000	483.6
	13 Benzo(a)Anthracene	12.232	12.232	0.000	45392	500.000	495.0
	14 Chrysene	12.826	12.826	0.000	41832	500.000	493.6
	15 Benzo(b)Fluoranthene	14.539	14.539	0.000	36534	500.000	484.3
	16 Benzo(k)Fluoranthene	15.459	15.459	0.000	32627	500.000	485.7
	17 Benzo(a)Pyrene	16.139	16.139	0.000	24136	500.000	480.1
$	18 Decachlorobiphenyl	16.306	16.306	0.000	13181	500.000	586.2
	19 Dibenzo(a,h)Anthracene	17.326	17.326	0.000	35154	500.000	488.9
	20 Benzo(g,h,i)Perylene	17.846	17.846	0.000	30953	500.000	450.5
	21 Indeno(1,2,3-c,d)Pyrene	18.486	18.486	0.000	28025	500.000	492.5

Data File: /chem/GC_G.i/G042903P-1.b/G#A-007-0701.d
Date : 29-APR-2003 16:38
Client ID: 0.5ug/mL L3
Sample Info: 0.5ug/mL L3

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G042903P-1.b/G#A-008-0801.d
Report Date: 30-Apr-2003 06:06

STL Denver

Data file : /chem/GC_G.i/G042903P-1.b/G#A-008-0801.d
Lab Smp Id: 0.2ug/mL L2 Client Smp ID: 0.2ug/mL L2
Inj Date : 29-APR-2003 17:08
Operator : SLD Inst ID: GC_G.i
Smp Info : 0.2ug/mL L2
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-1.b/8310-1.m
Meth Date : 30-Apr-2003 06:06 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 17:08 Cal File: G#A-008-0801.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

SD 413063

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Naphthalene	4.097	4.097	0.000	16183	200.000	214.6
	2 Acenaphthylene	4.977	4.977	0.000	7734	200.000	209.1
	3 1-Methylnaphthalene	5.517	5.517	0.000	12394	200.000	198.1
	4 2-Methylnaphthalene	5.864	5.864	0.000	14098	200.000	199.4
	5 Acenaphthene	6.137	6.137	0.000	12364	200.000	197.9
	6 Fluorene	6.543	6.543	0.000	11487	200.000	203.9
	7 Phenanthrene	7.430	7.430	0.000	16839	200.000	206.2
$	8 Decafluorobiphenyl	8.030	8.030	0.000	2483	200.000	210.0
	9 Anthracene	8.350	8.350	0.000	17197	200.000	212.8
	10 Fluoranthene	9.217	9.217	0.000	11859	200.000	199.6
	11 Pyrene	9.870	9.870	0.000	7845	200.000	204.2
$	12 p-terphenyl-d14	11.344	11.344	0.000	12040	200.000	198.0
	13 Benzo(a)Anthracene	12.237	12.237	0.000	19388	200.000	211.4
	14 Chrysene	12.830	12.830	0.000	17609	200.000	207.8
	15 Benzo(b)Fluoranthene	14.543	14.543	0.000	15551	200.000	206.1
	16 Benzo(k)Fluoranthene	15.463	15.463	0.000	13301	200.000	198.0
	17 Benzo(a)Pyrene	16.143	16.143	0.000	10009	200.000	199.1
$	18 Decachlorobiphenyl	16.310	16.310	0.000	4696	200.000	208.8(M)
	19 Dibenzo(a,h)Anthracene	17.330	17.330	0.000	13408	200.000	186.5
	20 Benzo(g,h,i)Perylene	17.843	17.843	0.000	15549	200.000	226.3
	21 Indeno(1,2,3-c,d)Pyrene	18.497	18.497	0.000	11793	200.000	207.2

QC Flag Legend

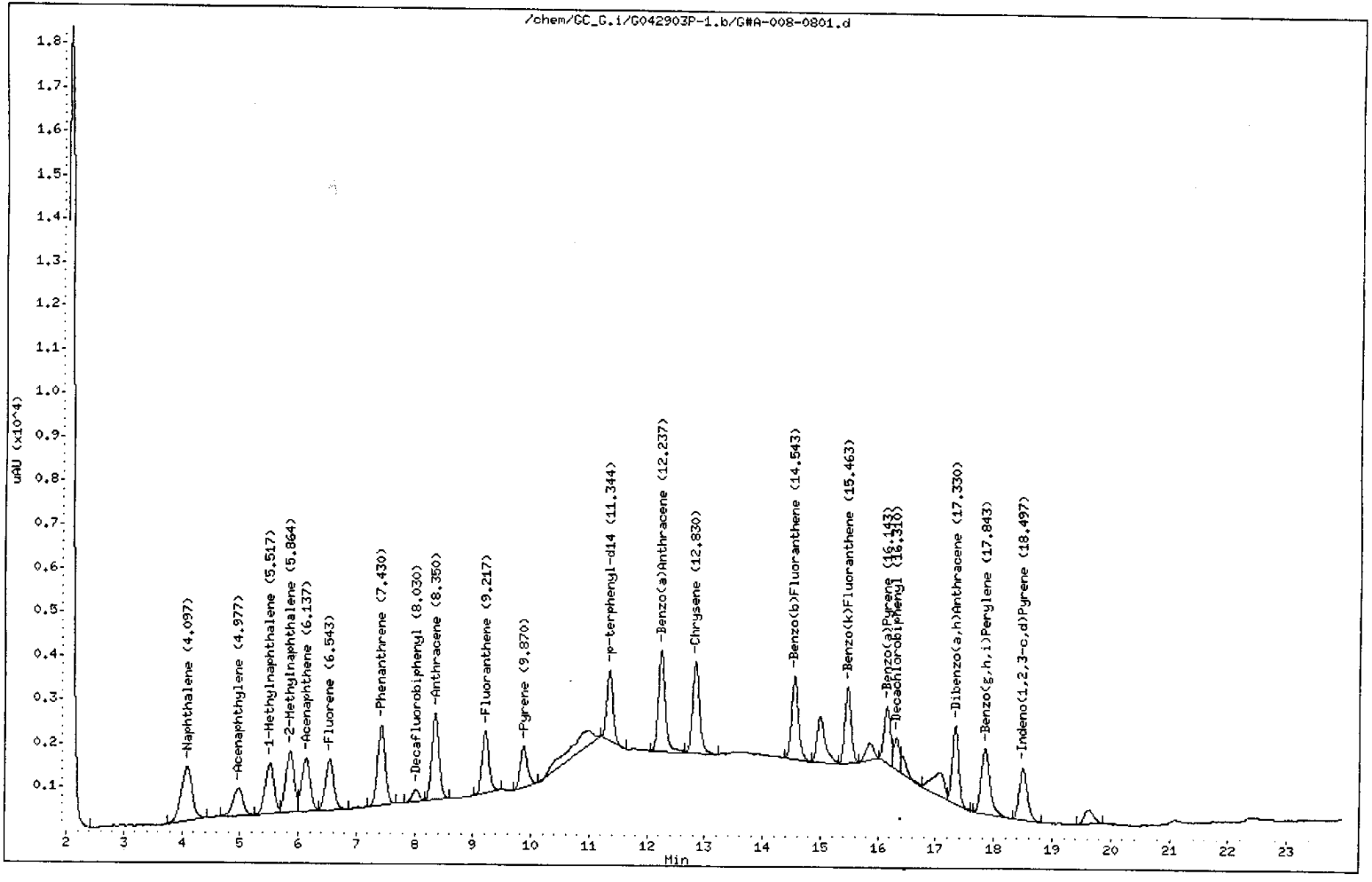
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G042903P-1.b/G#A-008-0801.d
Date : 29-APR-2003 17:08
Client ID: 0.2ug/mL L2
Sample Info: 0.2ug/mL L2

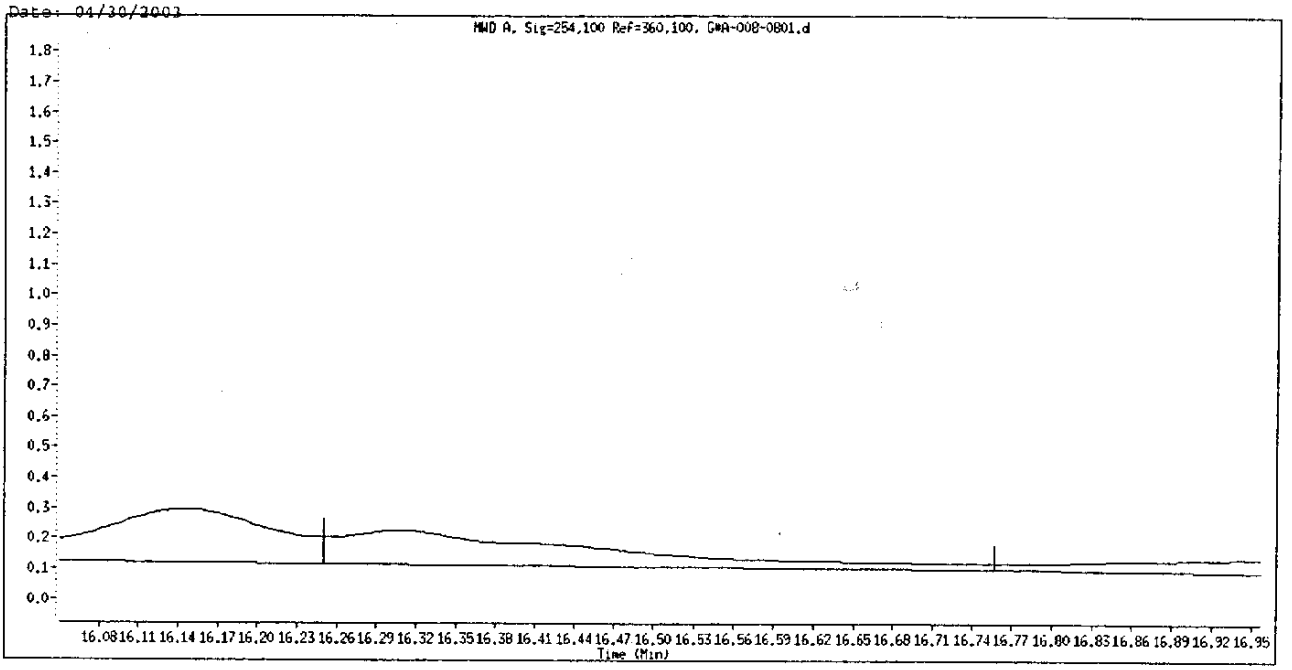
Column phase: C-18

Instrument: GC_G.i

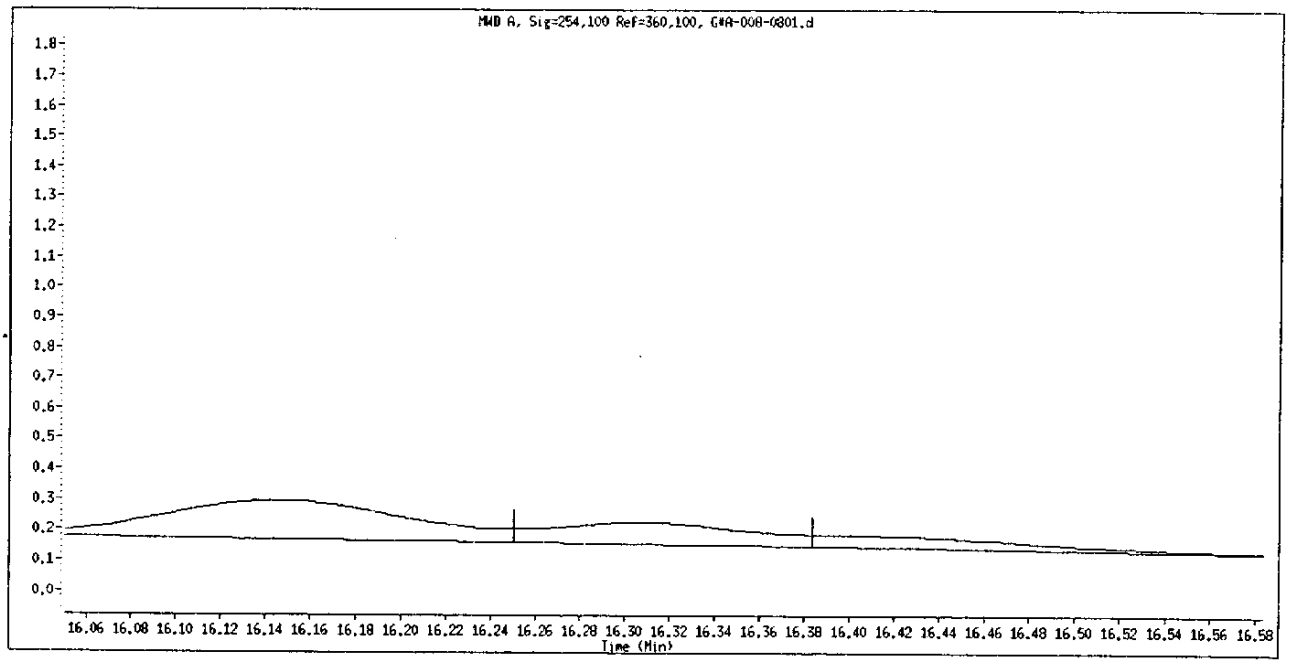
Operator: SLD
Column diameter: 4.60



Data File Name: G#A-008-0801.d
Inj. Date and Time: 29-APR-2003 17:08
Instrument ID: GC_G.i
Client ID: 0.2ug/mL L2
Compound Name: Decachlorobiphenyl
CAS #: 2051-24-3
Report Date: 04/30/2003



Original Integration



Manual Integration

Manually Integrated By: dacars
Manual Integration Reason: Split Peak

Data File: /chem/GC_G.i/G042903P-1.b/G#A-009-0901.d
Report Date: 30-Apr-2003 06:06

STL Denver

Data file : /chem/GC_G.i/G042903P-1.b/G#A-009-0901.d
Lab Smp Id: 0.05ug/mL L1 Client Smp ID: 0.05ug/mL L1
Inj Date : 29-APR-2003 17:39
Operator : SLD Inst ID: GC_G.i
Smp Info : 0.05ug/mL L1
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-1.b/8310-1.m
Meth Date : 30-Apr-2003 06:06 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 17:39 Cal File: G#A-009-0901.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

SD 413063

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Naphthalene	4.087	4.087	0.000	3594	50.0000	47.67
	2 Acenaphthylene	4.947	4.947	0.000	1644	50.0000	44.44(M)
	3 1-Methylnaphthalene	5.507	5.507	0.000	2840	50.0000	45.40
	4 2-Methylnaphthalene	5.867	5.867	0.000	3267	50.0000	46.20
	5 Acenaphthene	6.140	6.140	0.000	3386	50.0000	54.19
	6 Fluorene	6.540	6.540	0.000	3103	50.0000	55.07
	7 Phenanthrene	7.427	7.427	0.000	4046	50.0000	49.55
$	8 Decafluorobiphenyl	Compound Not Detected.					
	9 Anthracene	8.354	8.354	0.000	3799	50.0000	47.00
	10 Fluoranthene	9.214	9.214	0.000	2825	50.0000	47.55
	11 Pyrene	9.867	9.867	0.000	1851	50.0000	48.19
$	12 p-terphenyl-d14	11.340	11.340	0.000	3121	50.0000	51.33
	13 Benzo(a)Anthracene	12.234	12.234	0.000	4135	50.0000	45.09
	14 Chrysene	12.827	12.827	0.000	4337	50.0000	51.18
	15 Benzo(b)Fluoranthene	14.540	14.540	0.000	4096	50.0000	54.30
	16 Benzo(k)Fluoranthene	15.460	15.460	0.000	2742	50.0000	40.82
	17 Benzo(a)Pyrene	16.140	16.140	0.000	2806	50.0000	55.81
$	18 Decachlorobiphenyl	16.314	16.314	0.000	1523	50.0000	67.73
	19 Dibenzo(a,h)Anthracene	17.320	17.320	0.000	2796	50.0000	38.88
	20 Benzo(g,h,i)Perylene	17.800	17.800	0.000	6552	50.0000	95.36
	21 Indeno(1,2,3-c,d)Pyrene	18.474	18.474	0.000	2851	50.0000	50.10

QC Flag Legend

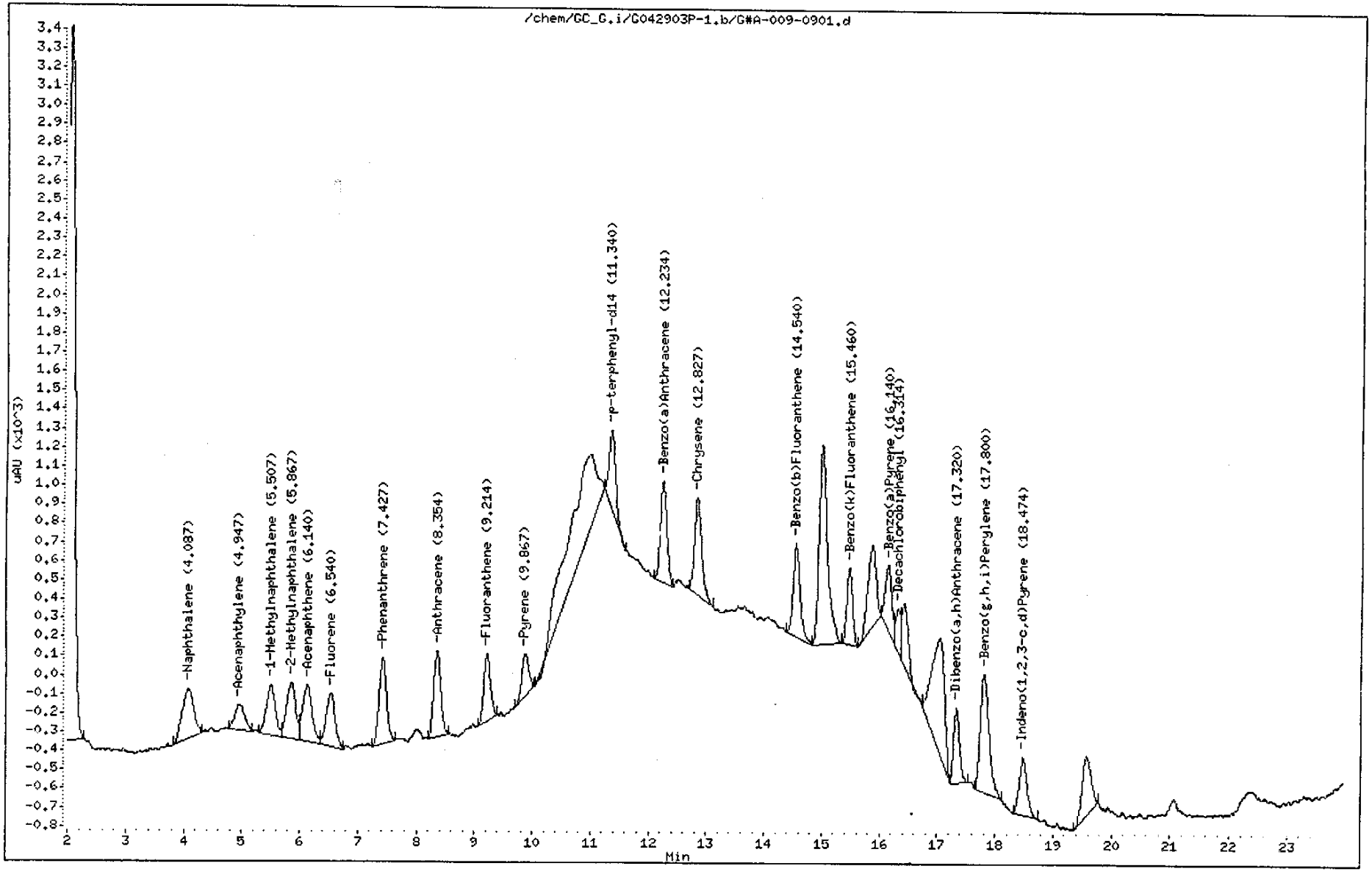
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G042903P-1.b/G#A-009-0901.d
Date : 29-APR-2003 17:39
Client ID: 0.05ug/mL L1
Sample Info: 0.05ug/mL L1

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File Name: G#A-009-0901.d

Inj. Date and Time: 29-APR-2003 17:39

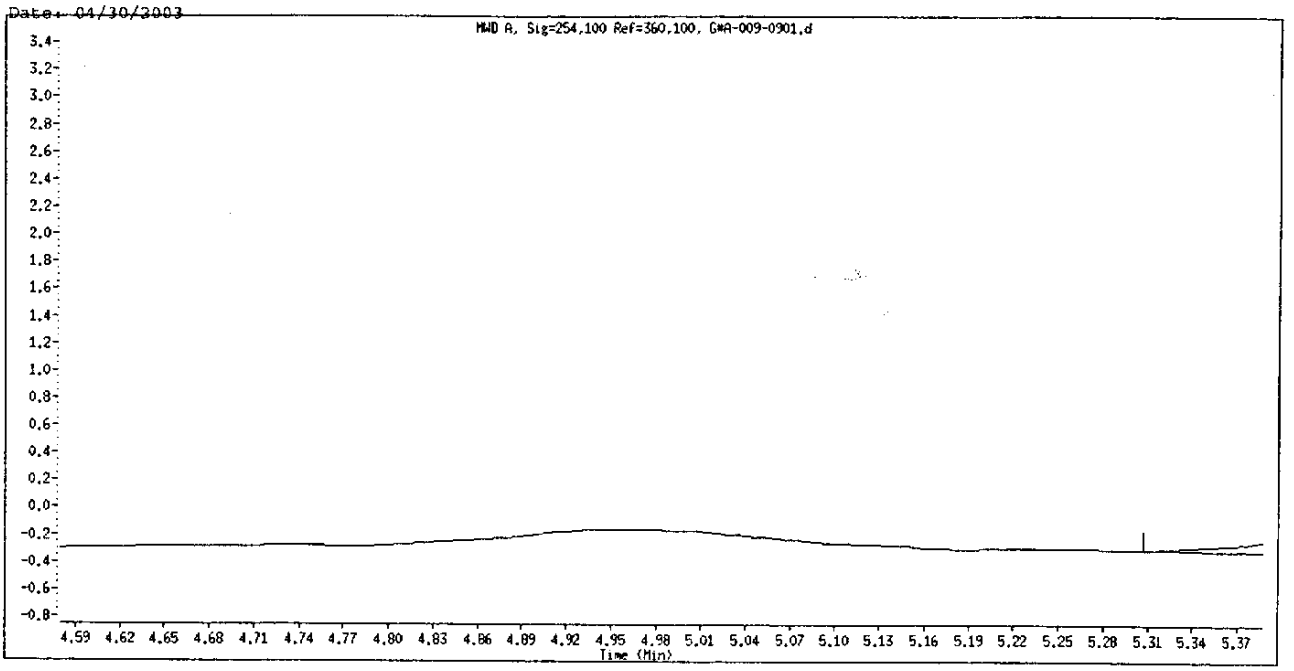
Instrument ID: GC_G.i

Client ID: 0.05ug/mL L1

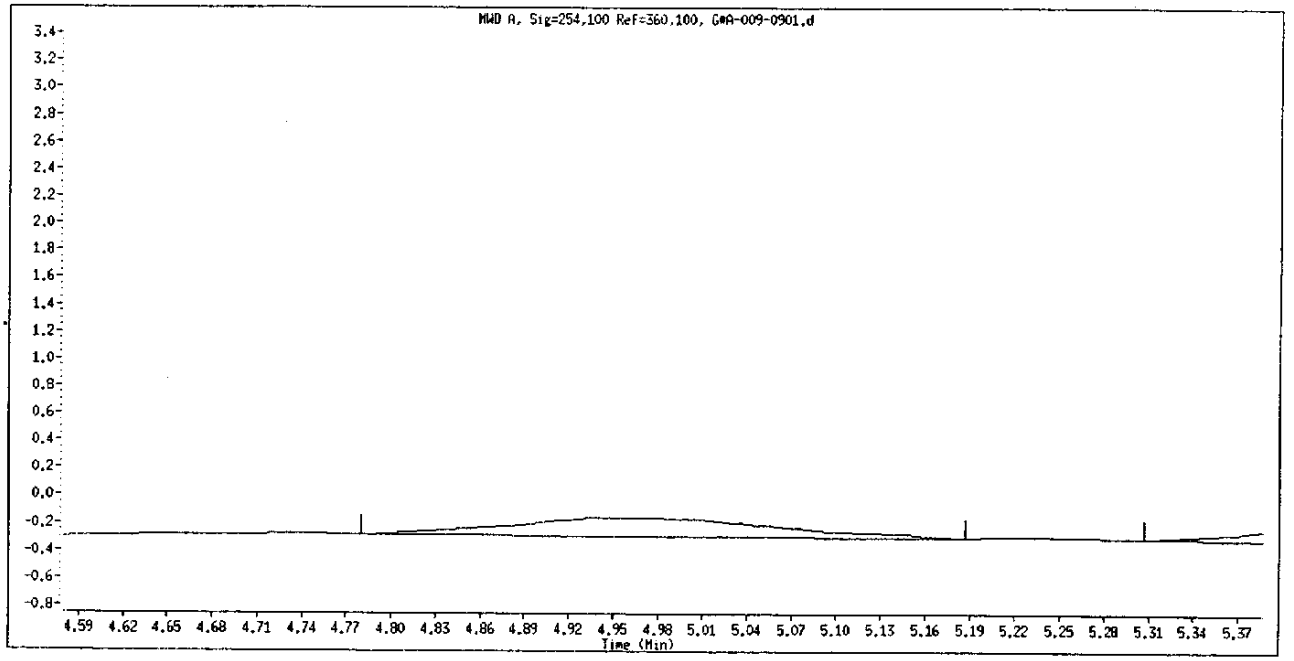
Compound Name: Acenaphthylene

CAS #: 208-96-8

Report Date: 04/30/2003



Original Integration



Manual Integration

Manually Integrated By: dacars

Manual Integration Reason: Analyte not Identified by the Data System

Data File: /chem/GC_G.i/G042903P-1.b/G#A-010-1001.d Page 1
Report Date: 30-Apr-2003 06:10

STL Denver

Data file : /chem/GC_G.i/G042903P-1.b/G#A-010-1001.d
Lab Smp Id: 8310 ICAL SS Client Smp ID: 8310 ICAL SS
Inj Date : 29-APR-2003 18:09
Operator : SLD Inst ID: GC_G.i
Smp Info : 8310 ICAL SS
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-1.b/8310-1.m
Meth Date : 30-Apr-2003 06:08 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#A-002-0201.d
Als bottle: 1 QC Sample: SSV
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

SD
413063

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	1 Naphthalene	4.090	4.083	0.007	396396	5257.52	5258
	2 Acenaphthylene	4.976	4.963	0.013	185131	5004.58	5004
	3 1-Methylnaphthalene	5.510	5.503	0.007	306236	4894.98	4895
	4 2-Methylnaphthalene	5.856	5.850	0.006	347993	4921.04	4921
	5 Acenaphthene	6.130	6.123	0.007	315011	5041.17	5041
	6 Fluorene	6.537	6.523	0.014	276245	4902.84	4903
	7 Phenanthrene	7.417	7.403	0.014	409826	5018.87	5019
$	8 Decafluorobiphenyl	8.023	8.030	-0.007	50556	4276.82	4277
	9 Anthracene	8.336	8.323	0.013	381471	4719.46	4719
	10 Fluoranthene	9.197	9.163	0.034	297157	5001.38	5001
•	11 Pyrene	9.810	9.777	0.033	197697	5146.96	5147
$	12 p-terphenyl-d14	11.336	11.270	0.066	296659	4879.14	4879
	13 Benzo(a)Anthracene	12.223	12.157	0.066	474532	5174.55	5174
	14 Chrysene	12.816	12.770	0.046	453255	5348.26	5348
	15 Benzo(b)Fluoranthene	14.530	14.477	0.053	374719	4967.24	4967
	16 Benzo(k)Fluoranthene	15.450	15.397	0.053	358070	5330.33	5330
	17 Benzo(a)Pyrene	16.130	16.077	0.053	239327	4760.22	4760
$	18 Decachlorobiphenyl	16.303	16.310	-0.007	93526	4920.62	4921
	19 Dibenzo(a,h)Anthracene	17.310	17.250	0.060	407725	5422.02	5422
	20 Benzo(g,h,i)Perylene	17.823	17.750	0.073	274210	4834.37	4834
	21 Indeno(1,2,3-c,d)Pyrene	18.463	18.390	0.073	276840	4864.71	4865

Data File: /chem/GC_G.i/G042903P-1.b/G#A-010-1001.d
Report Date: 30-Apr-2003 06:10

STL Denver

RECOVERY REPORT

Client Name:
Sample Matrix: NONE
Lab Smp Id: 8310 ICAL SS
Level:
Data Type: LC DATA
SpikeList File: SSspike.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G042903P-1.b/8310-1.m
Misc Info: ICAL 04/29/03

Client SDG: G042903P-1
Fraction: SV
Client Smp ID: 8310 ICAL SS
Operator: SLD
SampleType: SSV
Quant Type: ESTD

	SPIKE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS 85-115
	1 Naphthalene	5000	5258	105.15	
	2 Acenaphthylene	5000	5004	100.09	
	3 1-Methylnaphthalen	5000	4895	97.90	
	4 2-Methylnaphthalen	5000	4921	98.42	
	5 Acenaphthene	5000	5041	100.82	
	6 Fluorene	5000	4903	98.06	
	7 Phenanthrene	5000	5019	100.38	
$	8 Decafluorobiphenyl	5000	4277	85.54	
	9 Anthracene	5000	4719	94.39	
	10 Fluoranthene	5000	5001	100.03	
	11 Pyrene	5000	5147	102.94	
$	12 p-terphenyl-d14	5000	4879	97.58	
	13 Benzo(a)Anthracene	5000	5174	103.49	
	14 Chrysene	5000	5348	106.97	
	15 Benzo(b)Fluoranthe	5000	4967	99.34	
	16 Benzo(k)Fluoranthe	5000	5330	106.61	
	17 Benzo(a)Pyrene	5000	4760	95.20	
$	18 Decachlorobiphenyl	5000	4921	98.41	
	19 Dibenzo(a,h)Anthra	5000	5422	108.44	
	20 Benzo(g,h,i)Peryle	5000	4834	96.69	
	21 Indeno(1,2,3-c,d)P	5000	4865	97.29	

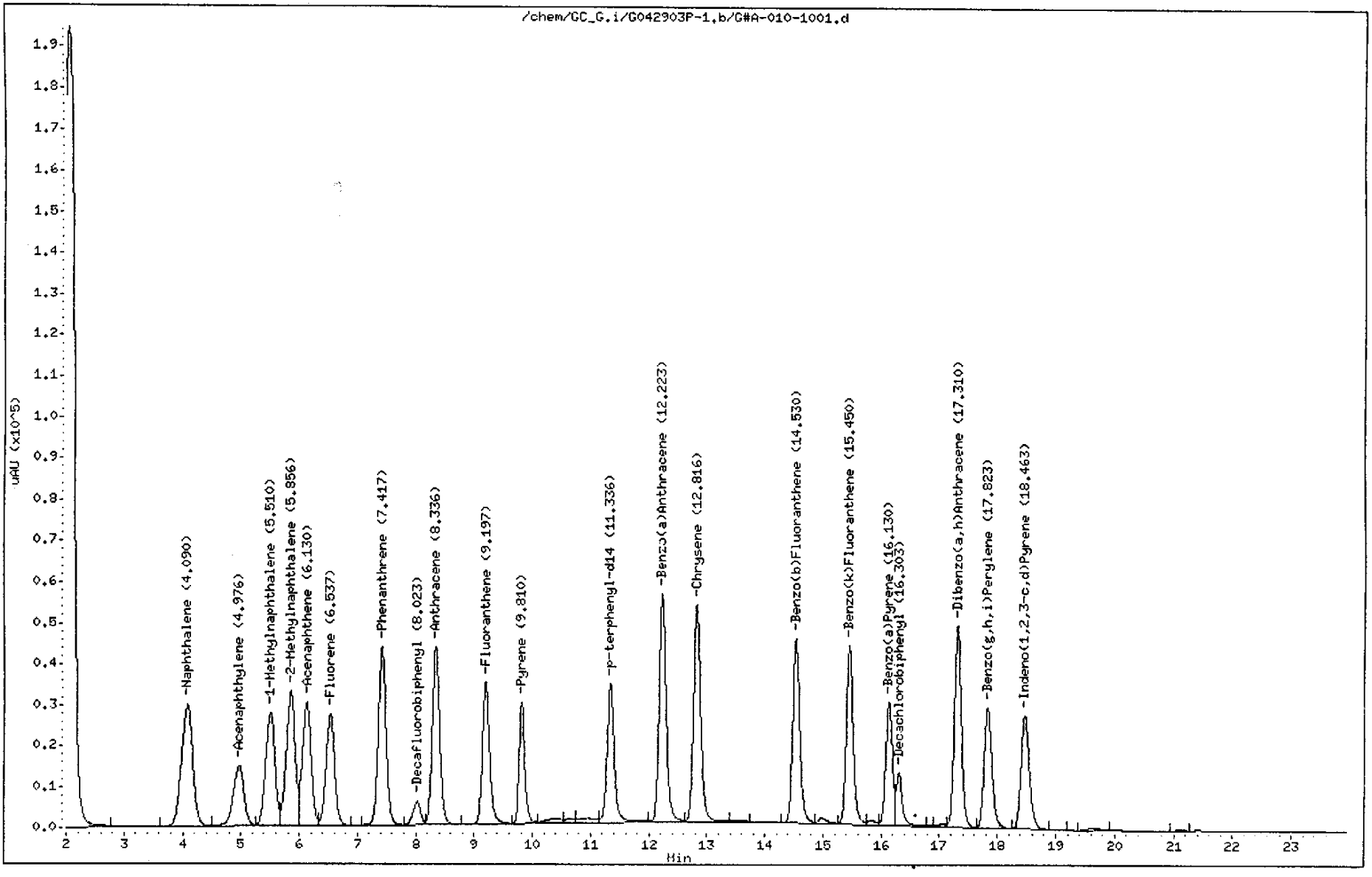
	SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$	8 Decafluorobiphenyl	40000	4277	85.54	
$	12 p-terphenyl-d14	20000	4879	97.58	
$	18 Decachlorobiphenyl	20000	4921	98.41	

Data File: /chem/GC_G.i/G042903P-1.b/G#A-010-1001.d
Date : 29-APR-2003 18:09
Client ID: 8310 ICAL SS
Sample Info: 8310 ICAL SS

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Report Date : 30-Apr-2003 06:25

STL Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2003 14:05
End Cal Date : 29-APR-2003 17:39
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/GC_G.i/G042903P-2.b/8310-2.m
Cal Date : 30-Apr-2003 06:23 dacars

Calibration File Names:
Level 1: /chem/GC_G.i/G042903P-2.b/G#B-009-0901.d
Level 2: /chem/GC_G.i/G042903P-2.b/G#B-008-0801.d
Level 3: /chem/GC_G.i/G042903P-2.b/G#B-007-0701.d
Level 4: /chem/GC_G.i/G042903P-2.b/G#B-006-0601.d
Level 5: /chem/GC_G.i/G042903P-2.b/G#B-005-0501.d
Level 6: /chem/GC_G.i/G042903P-2.b/G#B-004-0401.d
Level 7: /chem/GC_G.i/G042903P-2.b/G#B-003-0301.d
Level 8: /chem/GC_G.i/G042903P-2.b/G#B-002-0201.d

Compound	50 Level 1 / 20000 Level 7	200 Level 2 / 50000 Level 8	500 Level 3	1000 Level 4	2000 Level 5	5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
1 Naphthalene	103 203831	3303 560002	5401	10344	21871	55576	WLINR	36.14075	10.96637		0.99750
2 Acenaphthylene	15.98000 14.84810	15.37000 16.19416	15.40600	15.08700	15.67900	16.08580	AVRG		15.58126		3.12153
3 1-Methylnaphthalene	11.50000 11.37290	10.42000 12.59774	11.97200	12.32100	12.02900	12.42660	AVRG		11.82991		6.02164
4 2-Methylnaphthalene	170 199549	1885 555369	5291	10814	21445	54473	WLINR	32.94773	10.81711		0.99787
5 Acenaphthene	12.62000 15.08730	15.85000 16.51762	16.66200	15.95100	16.36400	16.77800	AVRG		15.72874		8.70994

STL Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2003 14:05
End Cal Date : 29-APR-2003 17:39
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/GC_G.i/G042903P-2.b/8310-2.m
Cal Date : 30-Apr-2003 06:23 dacars

Compound	50 Level 1 20000 Level 7	200 Level 2 50000 Level 8	500 Level 3	1000 Level 4	2000 Level 5	5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
6 Fluorene	30.82000	32.30500	30.19800	29.08400	30.50000	31.33620					
	28.60815	31.86542					AVRG		30.58960		4.19652
$ 8 Decafluorobiphenyl	+++++	4.47500	4.47200	4.23600	4.46850	4.63840					
	4.26000	4.77036					AVRG		4.47432		4.25361
$ 12 p-terphenyl-d14	43.92000	48.87000	43.53200	40.66400	43.66200	44.63780					
	41.74825	45.82934					AVRG		44.10792		5.67865
$ 18 Decachlorobiphenyl	6.54000	7.34500	6.01000	6.34100	6.28450	5.97640					
	5.03355	5.48890					AVRG		6.12742		11.31339

STL Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2003 14:05
End Cal Date : 29-APR-2003 17:39
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/GC_G.i/G042903P-2.b/8310-2.m
Cal Date : 30-Apr-2003 06:23 dacars

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Wt Linear	Amt = b + Rsp/m1	Response

Report Date: 30-Apr-2003 06:25

Calibration History

Method : /chem/GC_G.i/G042903P-2.b/8310-2.m
Start Cal Date: 29-APR-2003 14:05
End Cal Date : 29-APR-2003 17:39

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 50.00000		
29-APR-2003 17:39	all	/chem/GC_G.i/G042903P-2.b/G#B-009-0901.d
Cal Level: 2 , Cal Amount: 200.00000		
29-APR-2003 17:08	all	/chem/GC_G.i/G042903P-2.b/G#B-008-0801.d
Cal Level: 3 , Cal Amount: 500.00000		
29-APR-2003 16:38	all	/chem/GC_G.i/G042903P-2.b/G#B-007-0701.d
Cal Level: 4 , Cal Amount: 1000.00000		
29-APR-2003 16:07	all	/chem/GC_G.i/G042903P-2.b/G#B-006-0601.d
Cal Level: 5 , Cal Amount: 2000.00000		
29-APR-2003 15:36	all	/chem/GC_G.i/G042903P-2.b/G#B-005-0501.d
Cal Level: 6 , Cal Amount: 5000.00000		
29-APR-2003 15:06	all	/chem/GC_G.i/G042903P-2.b/G#B-004-0401.d
Cal Level: 7 , Cal Amount: 20000.00000		
29-APR-2003 14:35	all	/chem/GC_G.i/G042903P-2.b/G#B-003-0301.d
Cal Level: 8 , Cal Amount: 50000.00000		
29-APR-2003 14:05	all	/chem/GC_G.i/G042903P-2.b/G#B-002-0201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 2000		
29-APR-2003 15:36	all	/chem/GC_G.i/G042903P-2.b/G#B-005-0501.d

Data File: /chem/GC_G.i/G042903P-2.b/G#B-002-0201.d
Report Date: 30-Apr-2003 06:23

STL Denver

Data file : /chem/GC_G.i/G042903P-2.b/G#B-002-0201.d
Lab Smp Id: 50ug/mL L8 Client Smp ID: 50ug/mL L8
Inj Date : 29-APR-2003 14:05
Operator : SLD Inst ID: GC_G.i
Smp Info : 50ug/mL L8
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-2.b/8310-2.m
Meth Date : 30-Apr-2003 06:23 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#B-002-0201.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

SP 4/30/03

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Naphthalene	4.083	4.083	0.000	560002	50000.0	53870(A)
2 Acenaphthylene	4.963	4.963	0.000	809708	50000.0	51970(A)
3 1-Methylnaphthalene	5.503	5.503	0.000	629887	50000.0	53240(A)
4 2-Methylnaphthalene	5.850	5.850	0.000	555369	50000.0	57760(A)
5 Acenaphthene	6.123	6.123	0.000	825881	50000.0	52510(A)
6 Fluorene	6.523	6.523	0.000	1593271	50000.0	52080(A)
$ 8 Decafluorobiphenyl	8.030	8.030	0.000	238518	50000.0	53310(A)
$ 12 p-terphenyl-d14	11.270	11.270	0.000	2291467	50000.0	51950(A)
$ 18 Decachlorobiphenyl	16.303	16.303	0.000	274445	50000.0	44790

QC Flag Legend

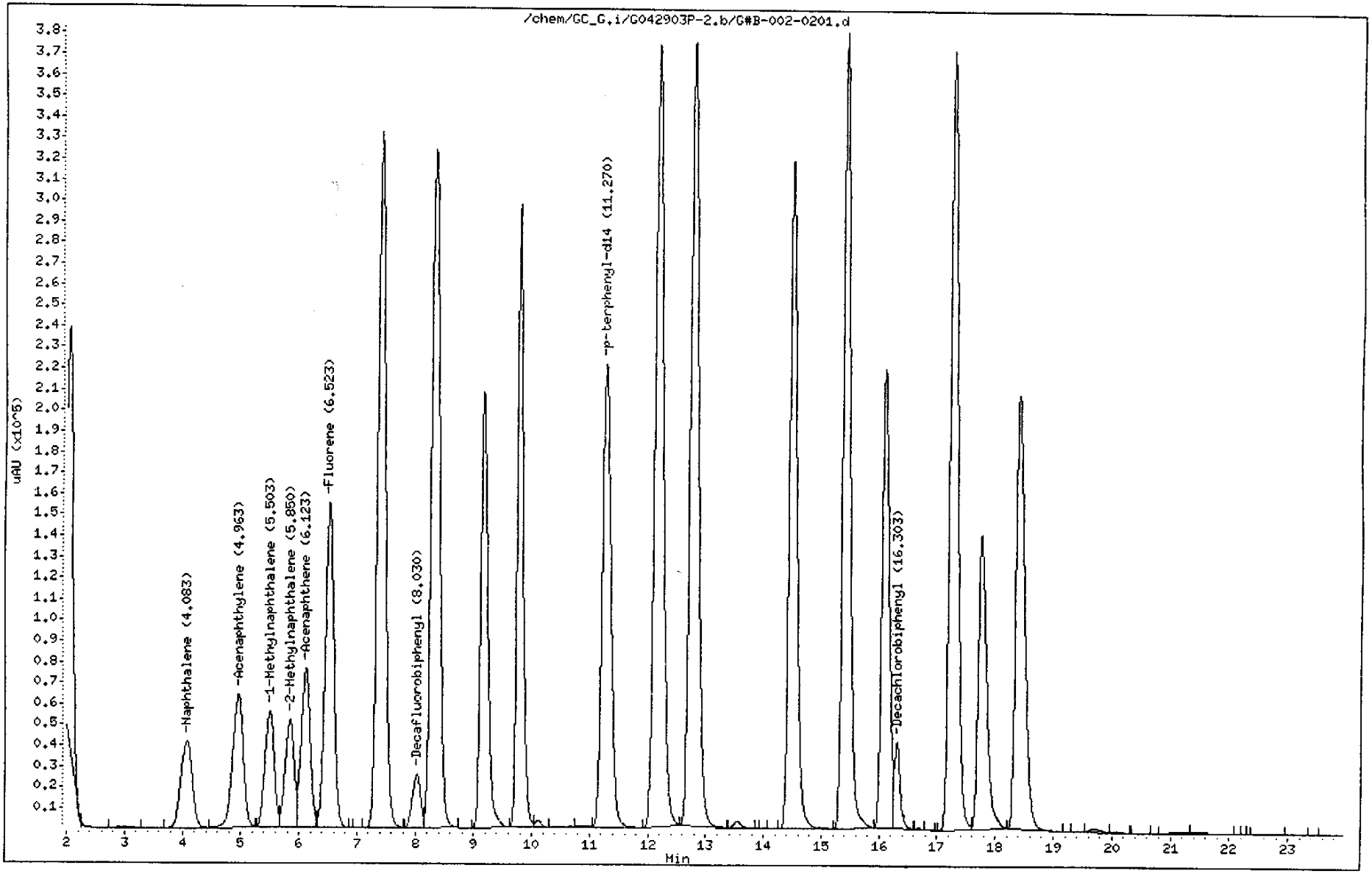
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/GC_G.i/G042903P-2.b/G#B-002-0201.d
Date : 29-APR-2003 14:05
Client ID: 50ug/mL L8
Sample Info: 50ug/mL L8

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G042903P-2.b/G#B-003-0301.d
Report Date: 30-Apr-2003 06:23

STL Denver

Data file : /chem/GC_G.i/G042903P-2.b/G#B-003-0301.d
Lab Smp Id: 20ug/mL L7 Client Smp ID: 20ug/mL L7
Inj Date : 29-APR-2003 14:35
Operator : SLD Inst ID: GC_G.i
Smp Info : 20ug/mL L7
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-2.b/8310-2.m
Meth Date : 30-Apr-2003 06:23 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 14:35 Cal File: G#B-003-0301.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

SD
Y13063

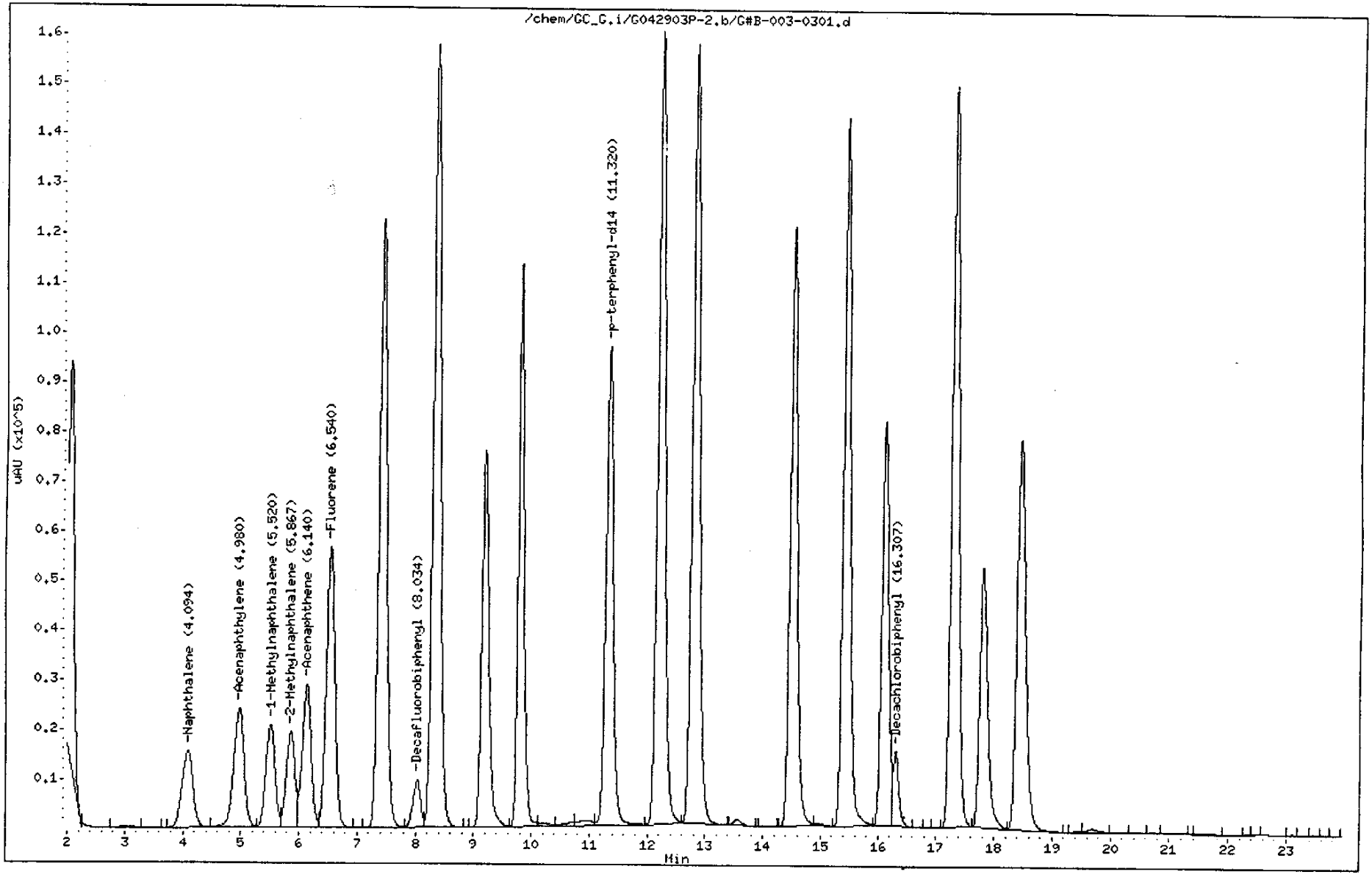
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Naphthalene	4.094	4.094	0.000	203831	20000.0	19610
2 Acenaphthylene	4.980	4.980	0.000	296962	20000.0	19060
3 1-Methylnaphthalene	5.520	5.520	0.000	227458	20000.0	19230
4 2-Methylnaphthalene	5.867	5.867	0.000	199549	20000.0	20750
5 Acenaphthene	6.140	6.140	0.000	301746	20000.0	19180
6 Fluorene	6.540	6.540	0.000	572163	20000.0	18700
$ 8 Decafluorobiphenyl	8.034	8.034	0.000	85200	20000.0	19040
$ 12 p-terphenyl-d14	11.320	11.320	0.000	834965	20000.0	18930
$ 18 Decachlorobiphenyl	16.307	16.307	0.000	100671	20000.0	16430

Data File: /chem/GC_G.i/G042903P-2.b/G#B-003-0301.d
Date : 29-APR-2003 14:35
Client ID: 20ug/mL L7
Sample Info: 20ug/mL L7

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G042903P-2.b/G#B-004-0401.d Page 1
Report Date: 30-Apr-2003 06:23

STL Denver

Data file : /chem/GC_G.i/G042903P-2.b/G#B-004-0401.d
Lab Smp Id: 5ug/mL L6 Client Smp ID: 5ug/mL L6
Inj Date : 29-APR-2003 15:06
Operator : SLD Inst ID: GC_G.i
Smp Info : 5ug/mL L6
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-2.b/8310-2.m
Meth Date : 30-Apr-2003 06:23 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 15:06 Cal File: G#B-004-0401.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

SD 4/30/03

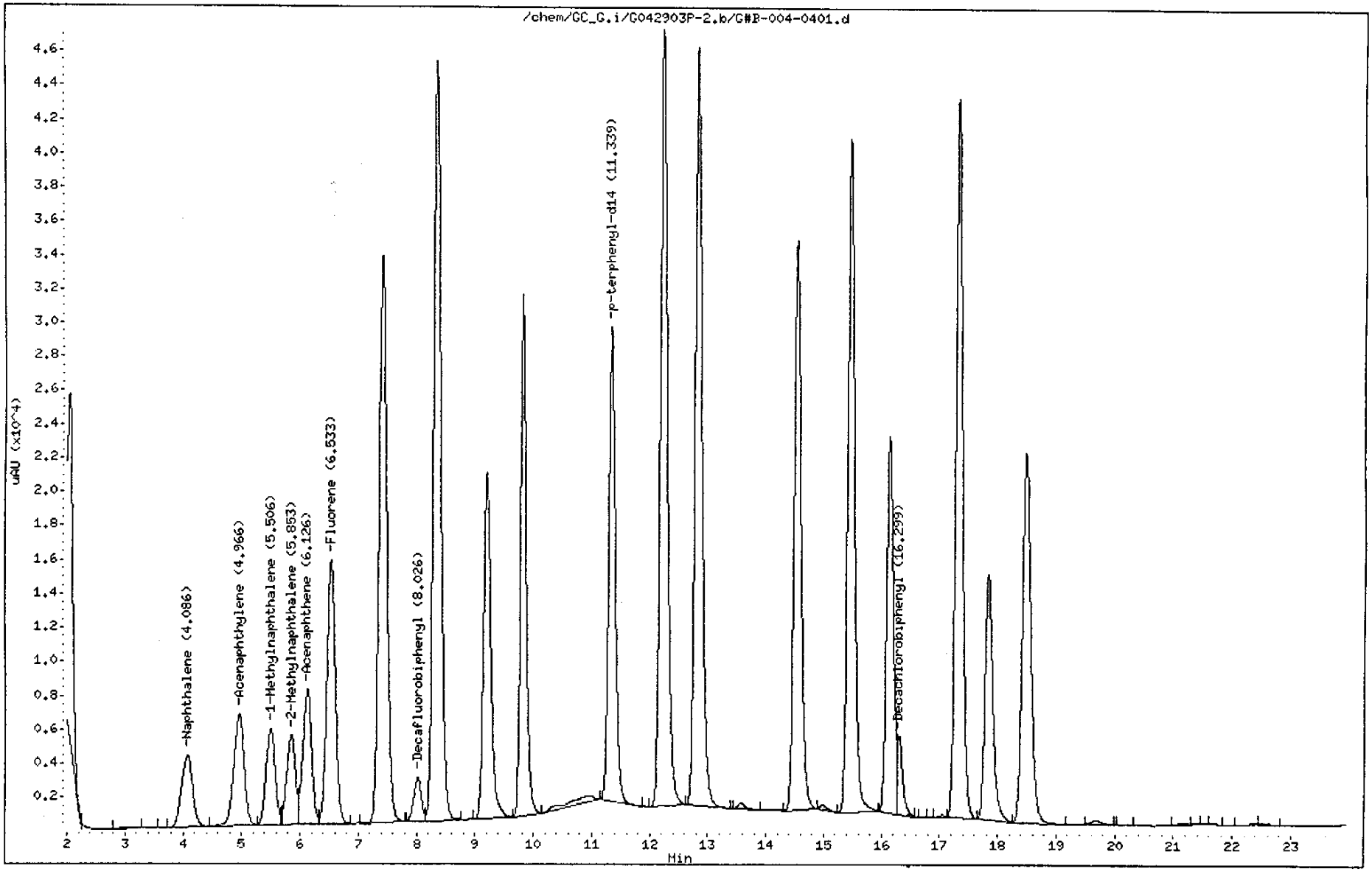
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Naphthalene	4.086	4.086	0.000	55576	5000.00	5346
2 Acenaphthylene	4.966	4.966	0.000	80429	5000.00	5162
3 1-Methylnaphthalene	5.506	5.506	0.000	62133	5000.00	5252
4 2-Methylnaphthalene	5.853	5.853	0.000	54473	5000.00	5665
5 Acenaphthene	6.126	6.126	0.000	83890	5000.00	5334
6 Fluorene	6.533	6.533	0.000	156681	5000.00	5122
$ 8 Decafluorobiphenyl	8.026	8.026	0.000	23192	5000.00	5183
$ 12 p-terphenyl-d14	11.339	11.339	0.000	223189	5000.00	5060
$ 18 Decachlorobiphenyl	16.299	16.299	0.000	29882	5000.00	4877

Data File: /chem/GC_G.i/G042903P-2.b/G#B-004-0401.d
Date : 29-APR-2003 15:06
Client ID: 5ug/mL L6
Sample Info: 5ug/mL L6

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G042903P-2.b/G#B-005-0501.d Page 1
Report Date: 30-Apr-2003 06:23

STL Denver

Data file : /chem/GC_G.i/G042903P-2.b/G#B-005-0501.d
Lab Smp Id: 2ug/mL L5 Client Smp ID: 2ug/mL L5
Inj Date : 29-APR-2003 15:36
Operator : SLD Inst ID: GC_G.i
Smp Info : 2ug/mL L5
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-2.b/8310-2.m
Meth Date : 30-Apr-2003 06:23 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 15:36 Cal File: G#B-005-0501.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

SD 4/30/03

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Naphthalene	4.090	4.090	0.000	21871	2000.00	2104
2 Acenaphthylene	4.976	4.976	0.000	31358	2000.00	2012
3 1-Methylnaphthalene	5.510	5.510	0.000	24058	2000.00	2034
4 2-Methylnaphthalene	5.856	5.856	0.000	21445	2000.00	2230
5 Acenaphthene	6.136	6.136	0.000	32728	2000.00	2081
6 Fluorene	6.543	6.543	0.000	61000	2000.00	1994
$ 8 Decafluorobiphenyl	8.030	8.030	0.000	8937	2000.00	1997
$ 12 p-terphenyl-d14	11.336	11.336	0.000	87324	2000.00	1980(M)
$ 18 Decachlorobiphenyl	16.303	16.303	0.000	12569	2000.00	2051

QC Flag Legend

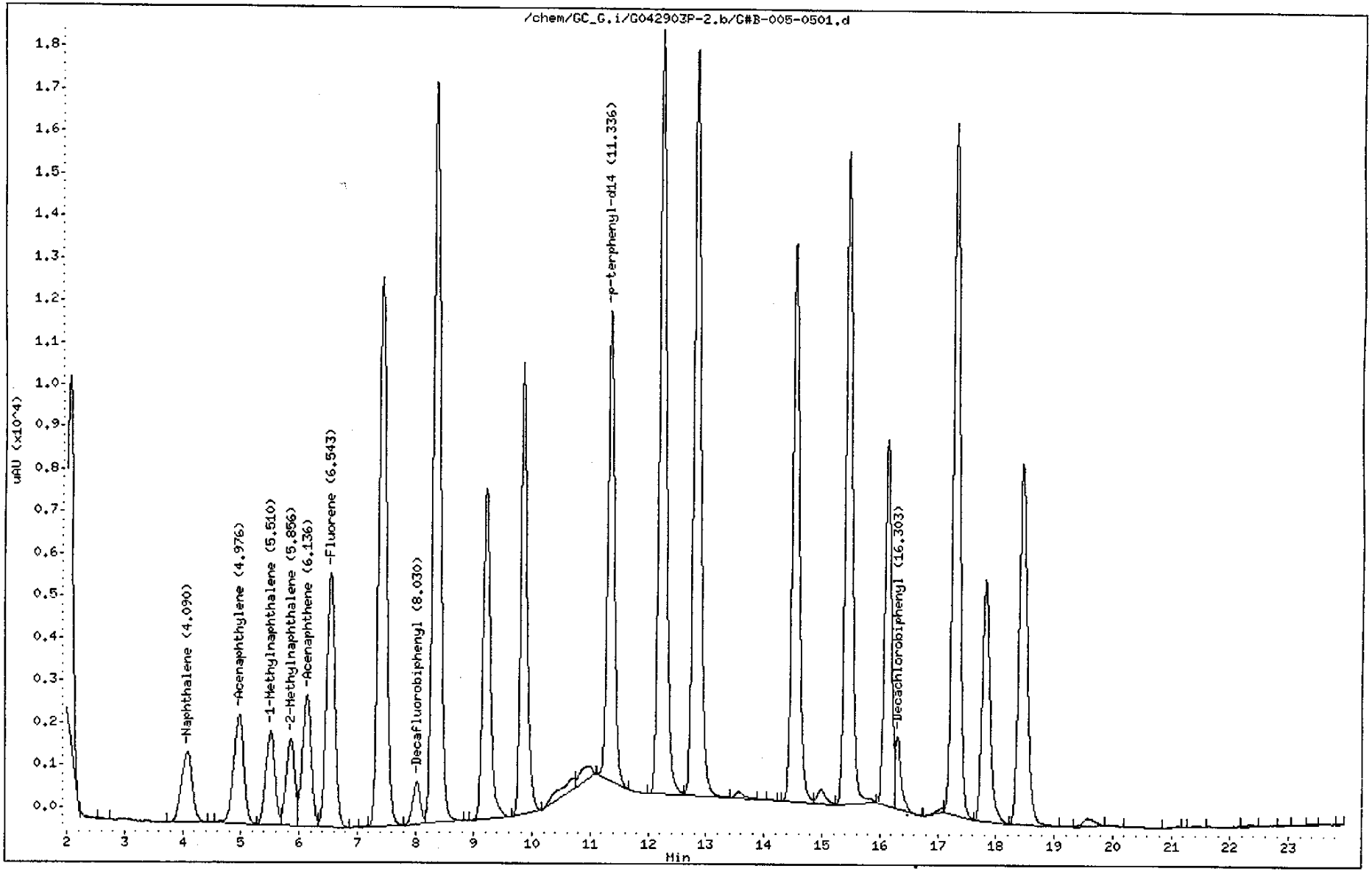
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G042903P-2.b/G#B-005-0501.d
Date : 29-APR-2003 15:36
Client ID: 2ug/mL L5
Sample Info: 2ug/mL L5

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File Name: G#B-005-0501.d

Inj. Date and Time: 29-APR-2003 15:36

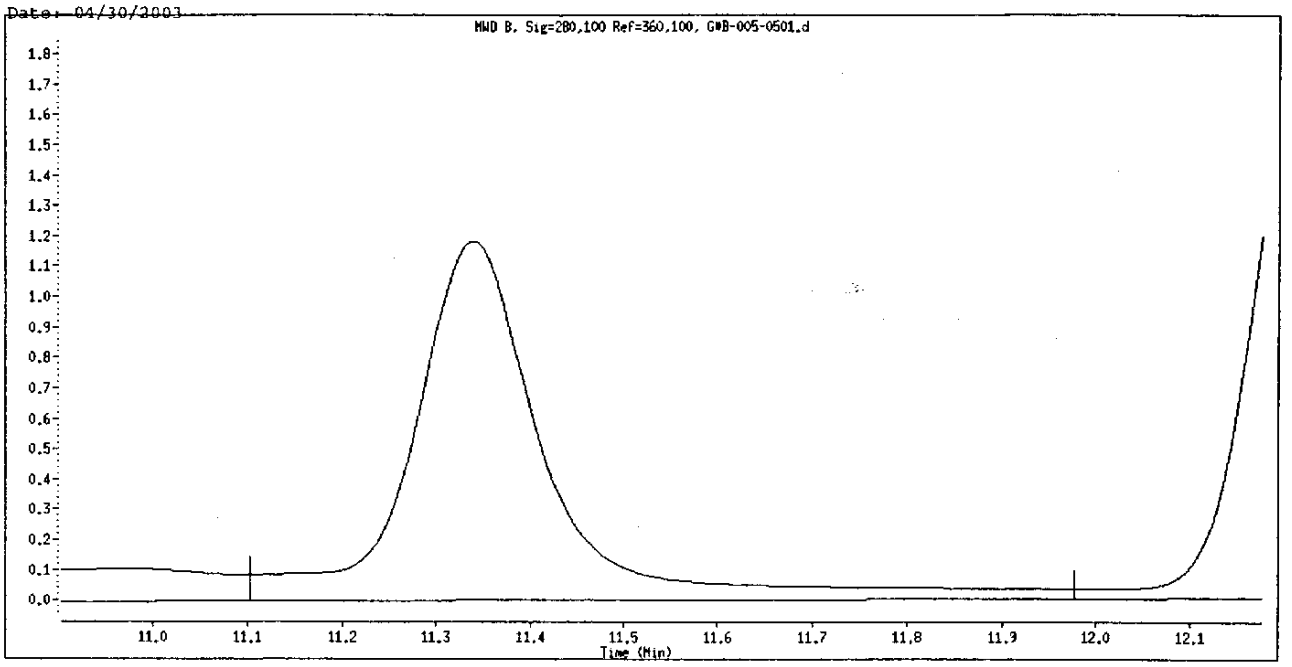
Instrument ID: GC_G.i

Client ID: 2ug/mL L5

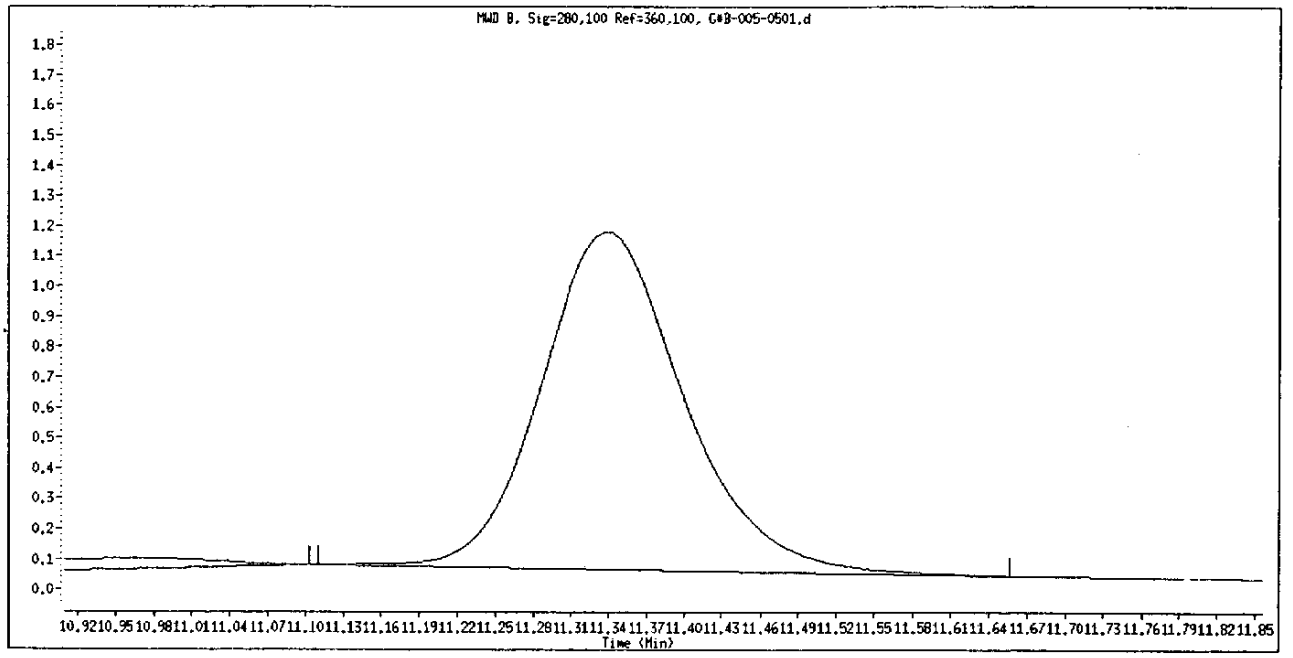
Compound Name: p-terphenyl-d14

CAS #: 1718-51-0

Report Date: 04/30/2003



Original Integration



Manual Integration

Manually Integrated By: dacars

Manual Integration Reason: Baseline Event

Data File: /chem/GC_G.i/G042903P-2.b/G#B-006-0601.d Page 1
Report Date: 30-Apr-2003 06:23

STL Denver

Data file : /chem/GC_G.i/G042903P-2.b/G#B-006-0601.d
Lab Smp Id: 1ug/mL L4 Client Smp ID: 1ug/mL L4
Inj Date : 29-APR-2003 16:07
Operator : SLD Inst ID: GC_G.i
Smp Info : 1ug/mL L4
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-2.b/8310-2.m
Meth Date : 30-Apr-2003 06:23 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 16:07 Cal File: G#B-006-0601.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

SD 413063

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Naphthalene	4.085	4.085	0.000	10344	1000.00	995.0
2 Acenaphthylene	4.972	4.972	0.000	15087	1000.00	968.3
3 1-Methylnaphthalene	5.505	5.505	0.000	12321	1000.00	1042
4 2-Methylnaphthalene	5.852	5.852	0.000	10814	1000.00	1125
5 Acenaphthene	6.125	6.125	0.000	15951	1000.00	1014
6 Fluorene	6.532	6.532	0.000	29084	1000.00	950.8
$ 8 Decafluorobiphenyl	8.025	8.025	0.000	4236	1000.00	946.7
$ 12 p-terphenyl-d14	11.332	11.332	0.000	40664	1000.00	921.9(M)
$ 18 Decachlorobiphenyl	16.299	16.299	0.000	6341	1000.00	1035

QC Flag Legend

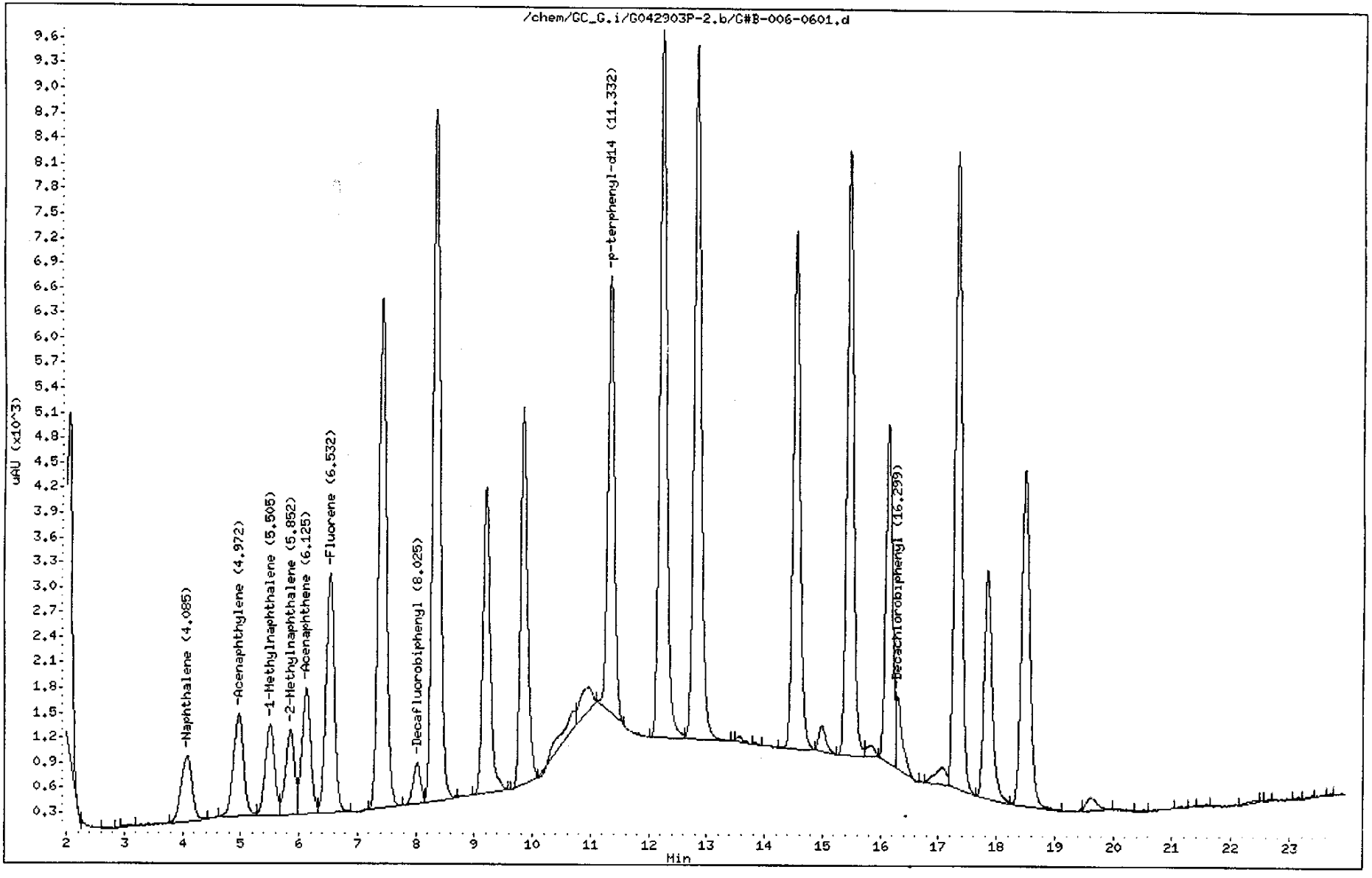
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G042903P-2.b/G#B-006-0601.d
Date : 29-APR-2003 16:07
Client ID: 1ug/mL L4
Sample Info: 1ug/mL L4

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File Name: G#B-006-0601.d

Inj. Date and Time: 29-APR-2003 16:07

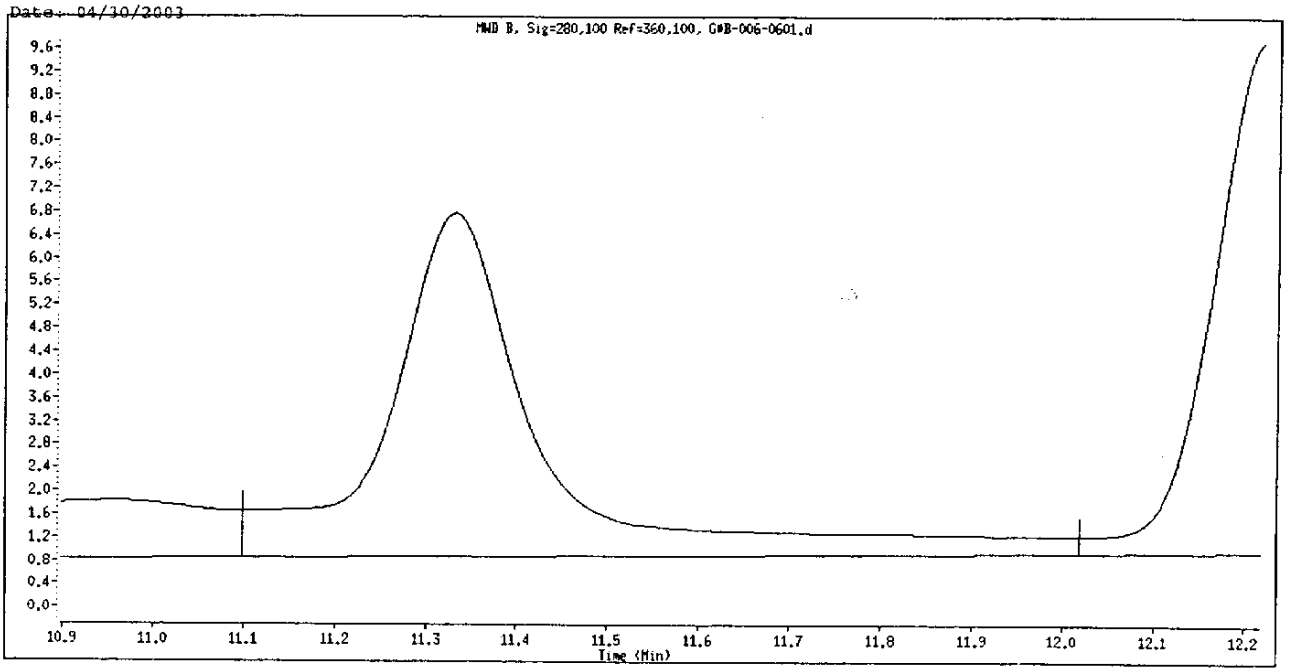
Instrument ID: GC_G.i

Client ID: 1ug/mL L4

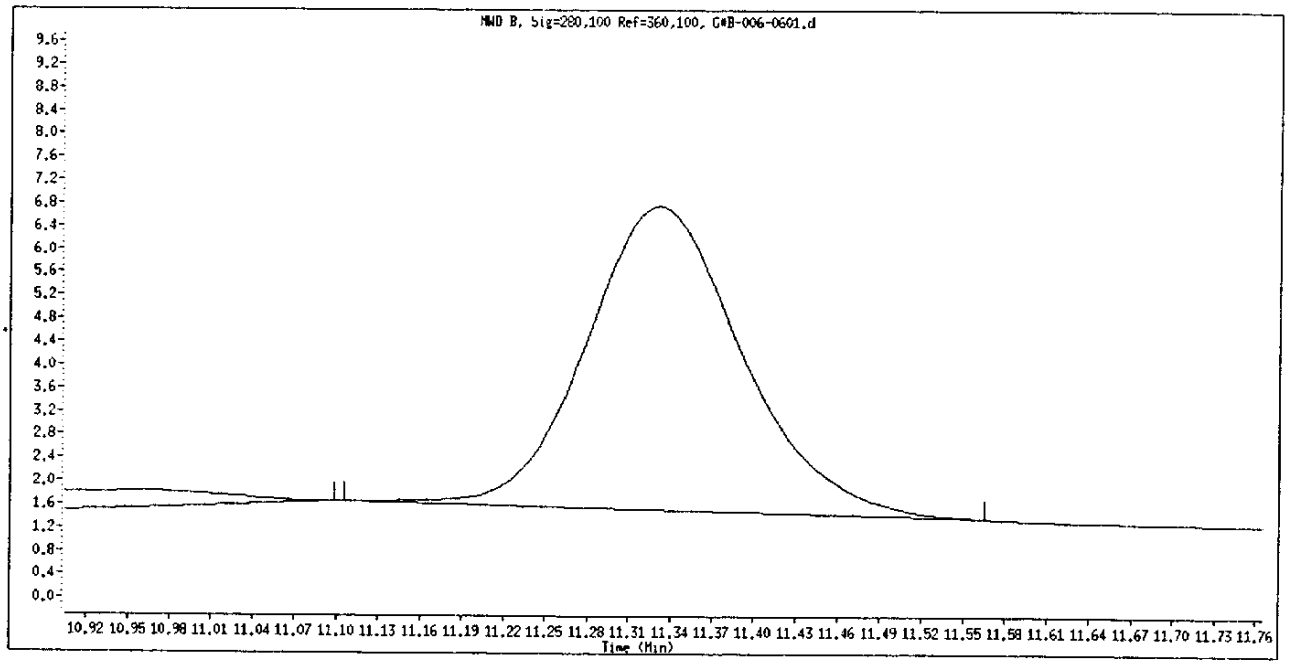
Compound Name: p-terphenyl-d14

CAS #: 1718-51-0

Report Date: 04/30/2003



Original Integration



Manual Integration

Manually Integrated By: dacars

Manual Integration Reason: Baseline Event

Data File: /chem/GC_G.i/G042903P-2.b/G#B-007-0701.d
Report Date: 30-Apr-2003 06:23

STL Denver

Data file : /chem/GC_G.i/G042903P-2.b/G#B-007-0701.d
Lab Smp Id: 0.5ug/mL L3 Client Smp ID: 0.5ug/mL L3
Inj Date : 29-APR-2003 16:38
Operator : SLD Inst ID: GC_G.i
Smp Info : 0.5ug/mL L3
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-2.b/8310-2.m
Meth Date : 30-Apr-2003 06:23 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 16:38 Cal File: G#B-007-0701.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

SD 4/3063

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Naphthalene	4.086	4.086	0.000	5401	500.000	519.6
2 Acenaphthylene	4.973	4.973	0.000	7703	500.000	494.4
3 1-Methylnaphthalene	5.513	5.513	0.000	5986	500.000	506.0
4 2-Methylnaphthalene	5.859	5.859	0.000	5291	500.000	550.3
5 Acenaphthene	6.133	6.133	0.000	8331	500.000	529.7
6 Fluorene	6.539	6.539	0.000	15099	500.000	493.6
$ 8 Decafluorobiphenyl	8.033	8.033	0.000	2236	500.000	499.7
$ 12 p-terphenyl-d14	11.339	11.339	0.000	21766	500.000	493.5(M)
$ 18 Decachlorobiphenyl	16.293	16.293	0.000	3005	500.000	490.4(M)

QC Flag Legend

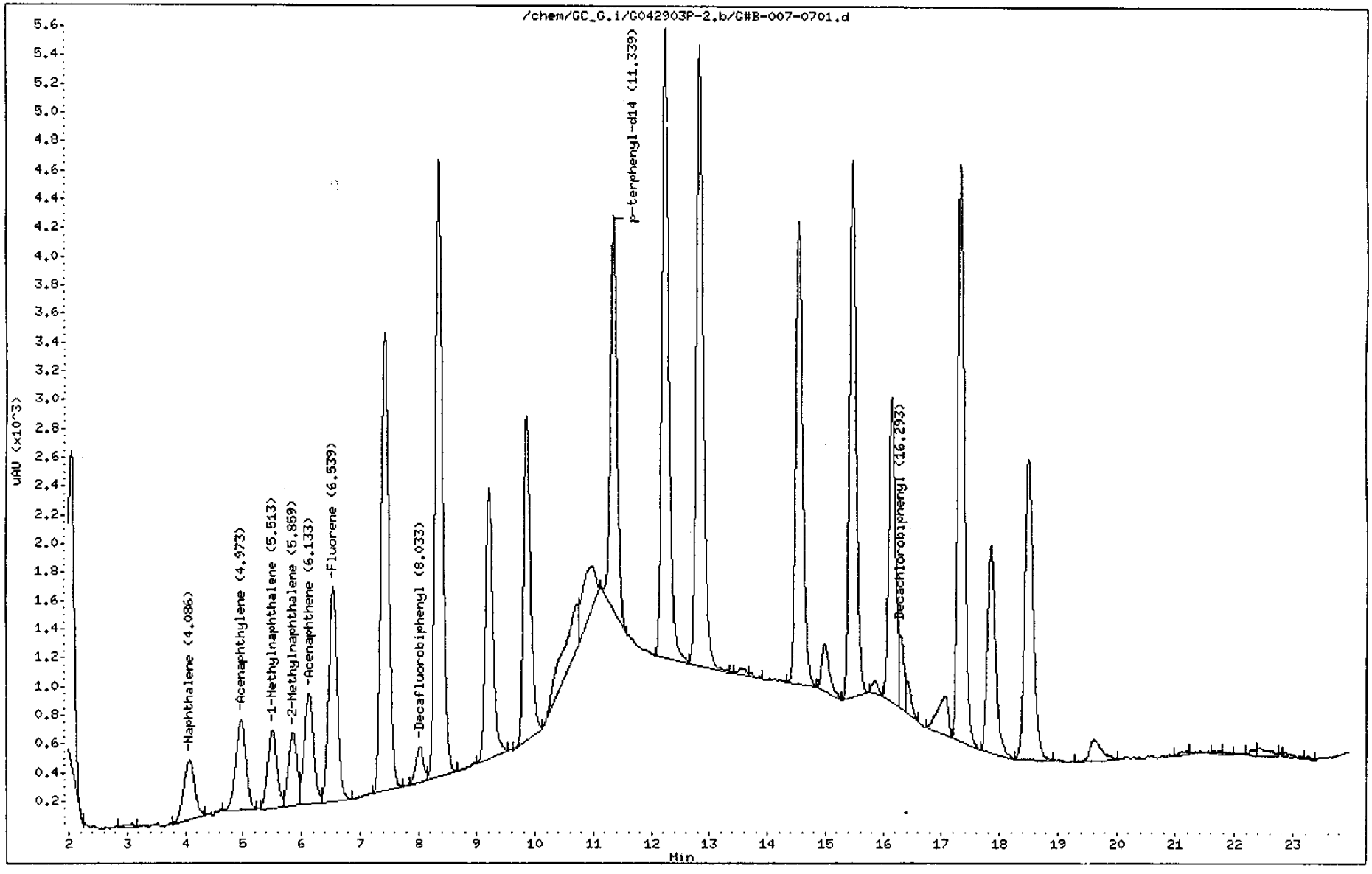
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G042903P-2.b/G#B-007-0701.d
Date : 29-APR-2003 16:38
Client ID: 0.5ug/mL L3
Sample Info: 0.5ug/mL L3

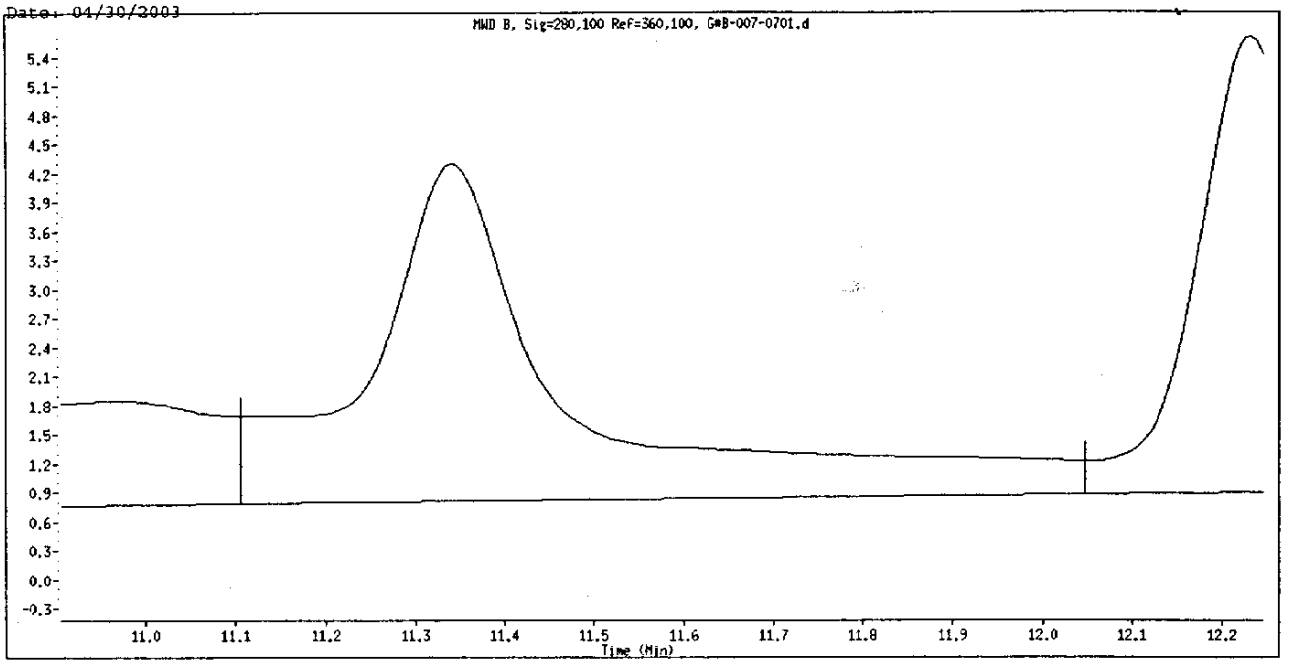
Column phase: C-18

Instrument: GC_G.i

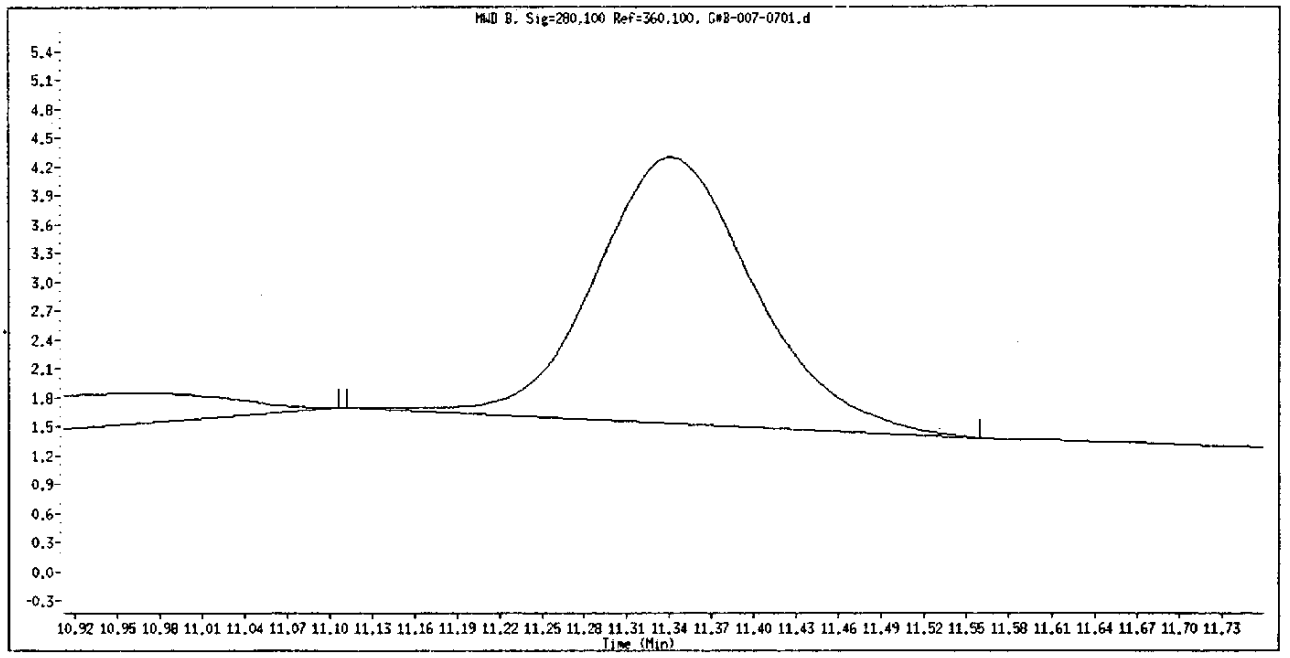
Operator: SLD
Column diameter: 4.60



Data File Name: G#B-007-0701.d
Inj. Date and Time: 29-APR-2003 16:38
Instrument ID: GC_G.i
Client ID: 0.5ug/mL L3
Compound Name: p-terphenyl-d14
CAS #: 1718-51-0
Report Date: 04/30/2003



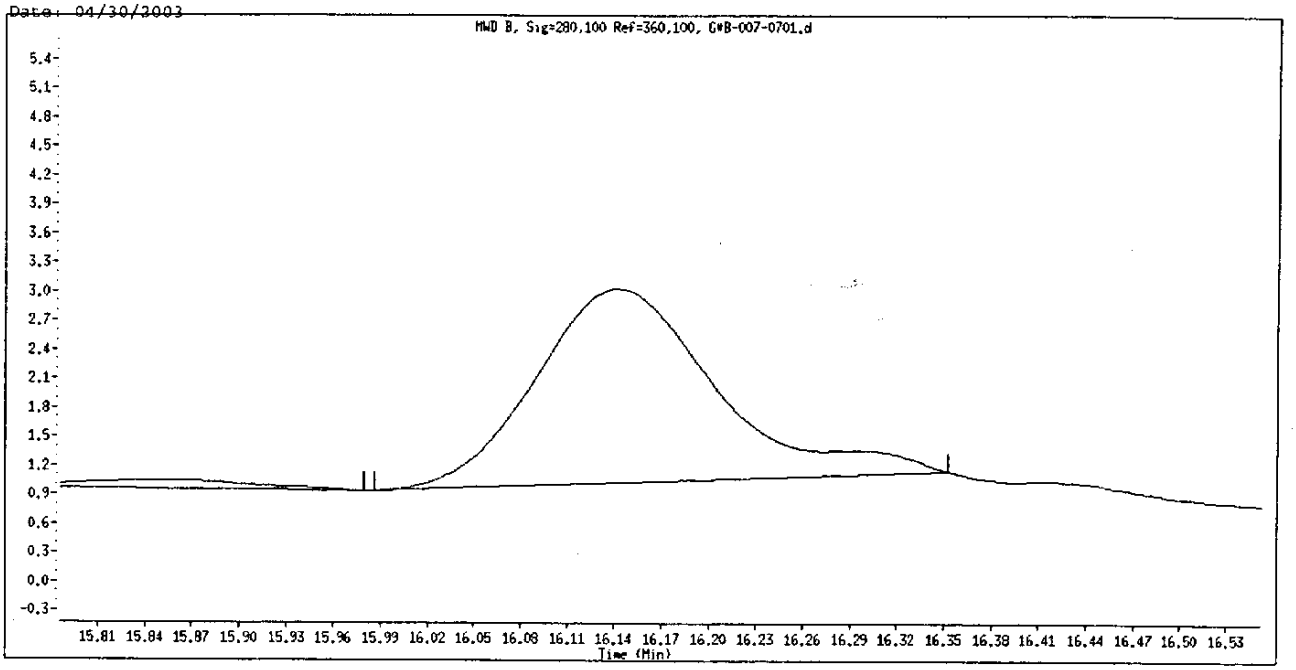
Original Integration



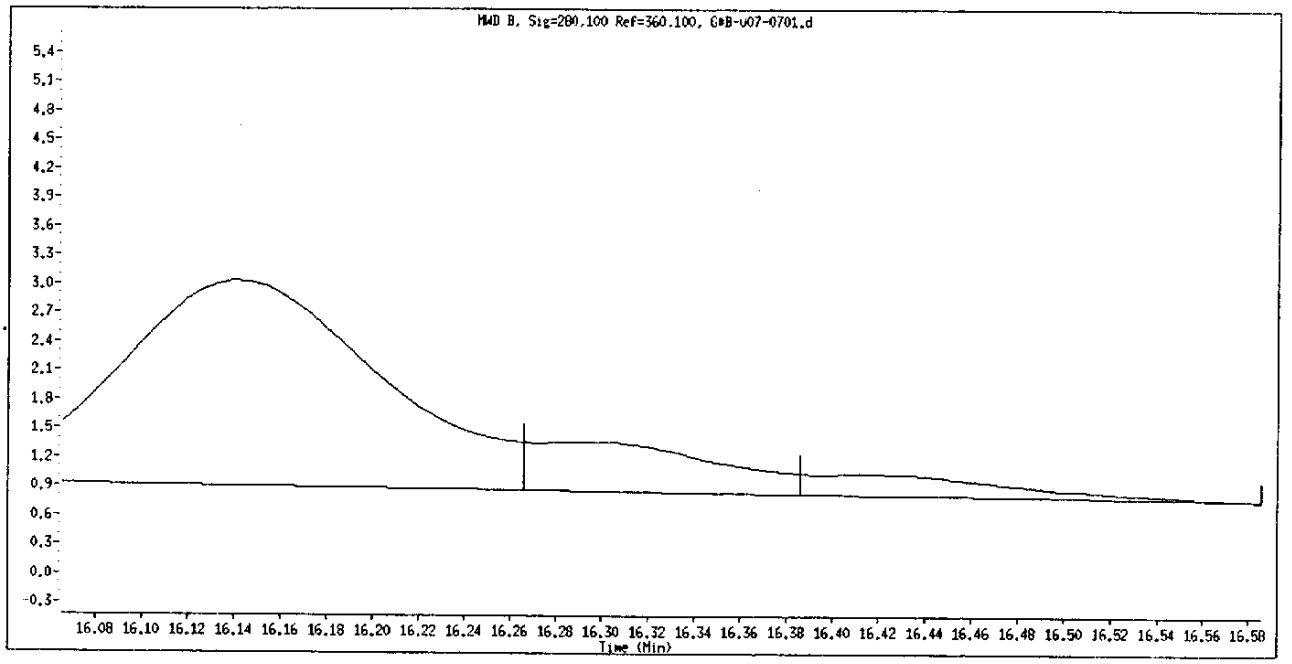
Manual Integration

Manually Integrated By: dacars
Manual Integration Reason: Baseline Event

Data File Name: G#B-007-0701.d
Inj. Date and Time: 29-APR-2003 16:38
Instrument ID: GC_G.i
Client ID: 0.5ug/mL L3
Compound Name: Decachlorobiphenyl
CAS #: 002051-24-3
Report Date: 04/30/2003



Original Integration



Manual Integration

Manually Integrated By: dacars
Manual Integration Reason: Split Peak

Data File: /chem/GC_G.i/G042903P-2.b/G#B-008-0801.d
Report Date: 30-Apr-2003 06:24

STL Denver

Data file : /chem/GC_G.i/G042903P-2.b/G#B-008-0801.d
Lab Smp Id: 0.2ug/mL L2 Client Smp ID: 0.2ug/mL L2
Inj Date : 29-APR-2003 17:08
Operator : SLD Inst ID: GC_G.i
Smp Info : 0.2ug/mL L2
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-2.b/8310-2.m
Meth Date : 30-Apr-2003 06:24 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 17:08 Cal File: G#B-008-0801.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

SD
4/30/03

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Naphthalene	4.104	4.104	0.000	3303	200.000	317.7
2 Acenaphthylene	4.984	4.984	0.000	3074	200.000	197.3
3 1-Methylnaphthalene	5.524	5.524	0.000	2084	200.000	176.2
4 2-Methylnaphthalene	5.864	5.864	0.000	1885	200.000	196.0
5 Acenaphthene	6.144	6.144	0.000	3170	200.000	201.5
6 Fluorene	6.543	6.543	0.000	6461	200.000	211.2
$ 8 Decafluorobiphenyl	8.024	8.024	0.000	895	200.000	200.0
$ 12 p-terphenyl-d14	11.344	11.344	0.000	9774	200.000	221.6(M)
$ 18 Decachlorobiphenyl	16.297	16.297	0.000	1469	200.000	239.7(M)

QC Flag Legend

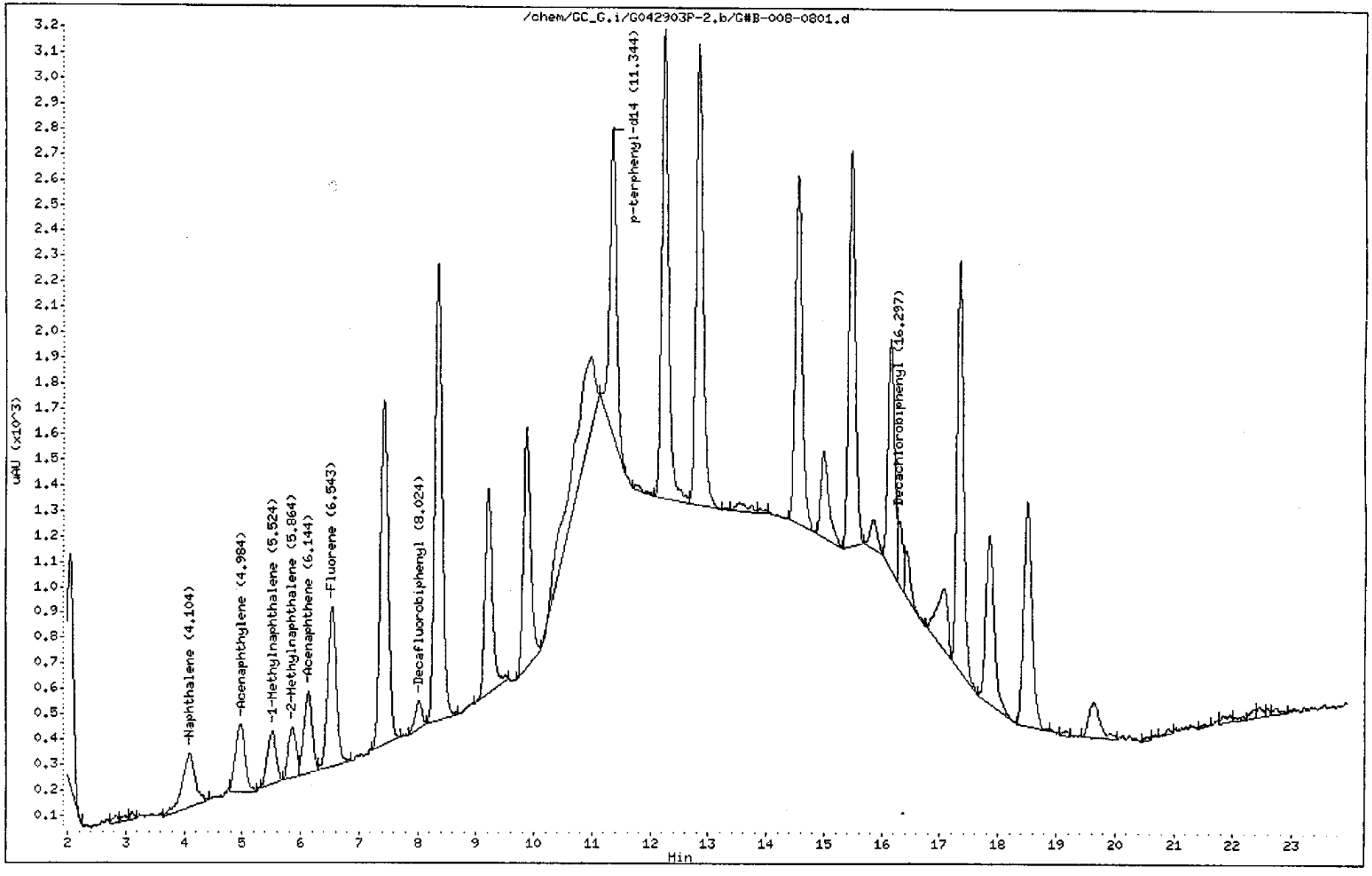
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G042903P-2.b/G#B-008-0801.d
Date : 29-APR-2003 17:08
Client ID: 0.2ug/mL L2
Sample Info: 0.2ug/mL L2

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File Name: G#B-008-0801.d

Inj. Date and Time: 29-APR-2003 17:08

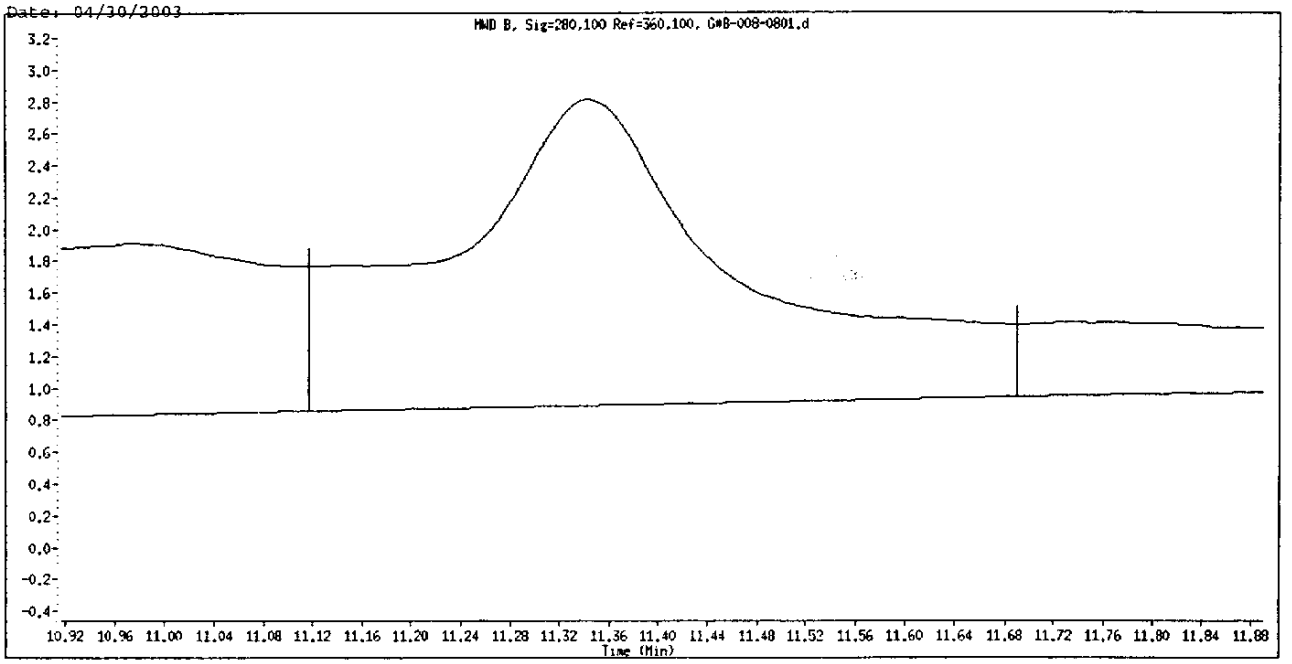
Instrument ID: GC_G.i

Client ID: 0.2ug/mL L2

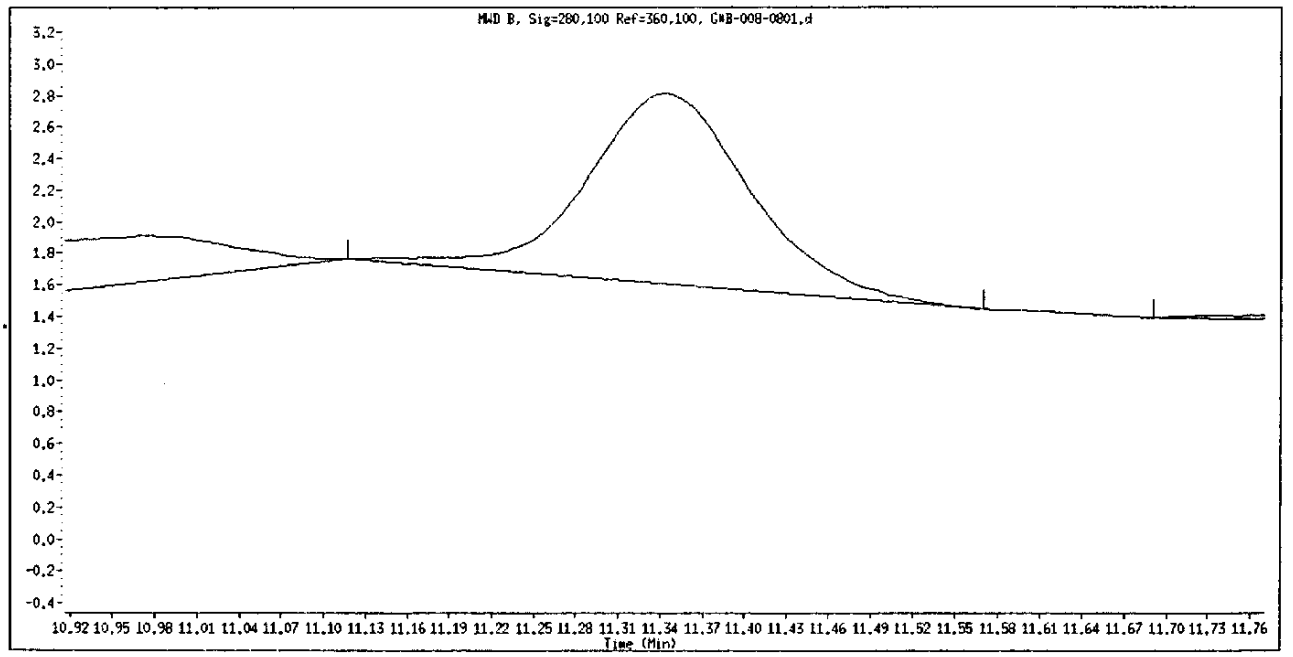
Compound Name: p-terphenyl-d14

CAS #: 1718-51-0

Report Date: 04/30/2003



Original Integration



Manual Integration

Manually Integrated By: dacars

Manual Integration Reason: Baseline Event

Data File Name: G#B-008-0801.d

Inj. Date and Time: 29-APR-2003 17:08

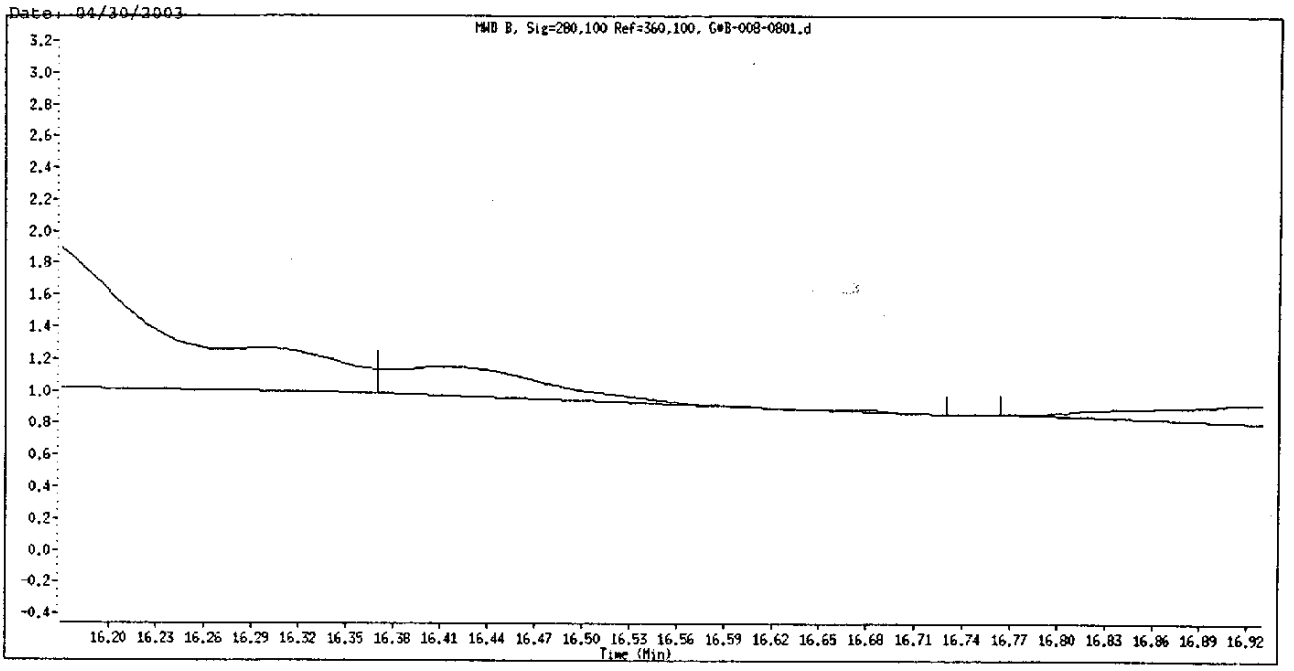
Instrument ID: GC_G.i

Client ID: 0.2ug/mL L2

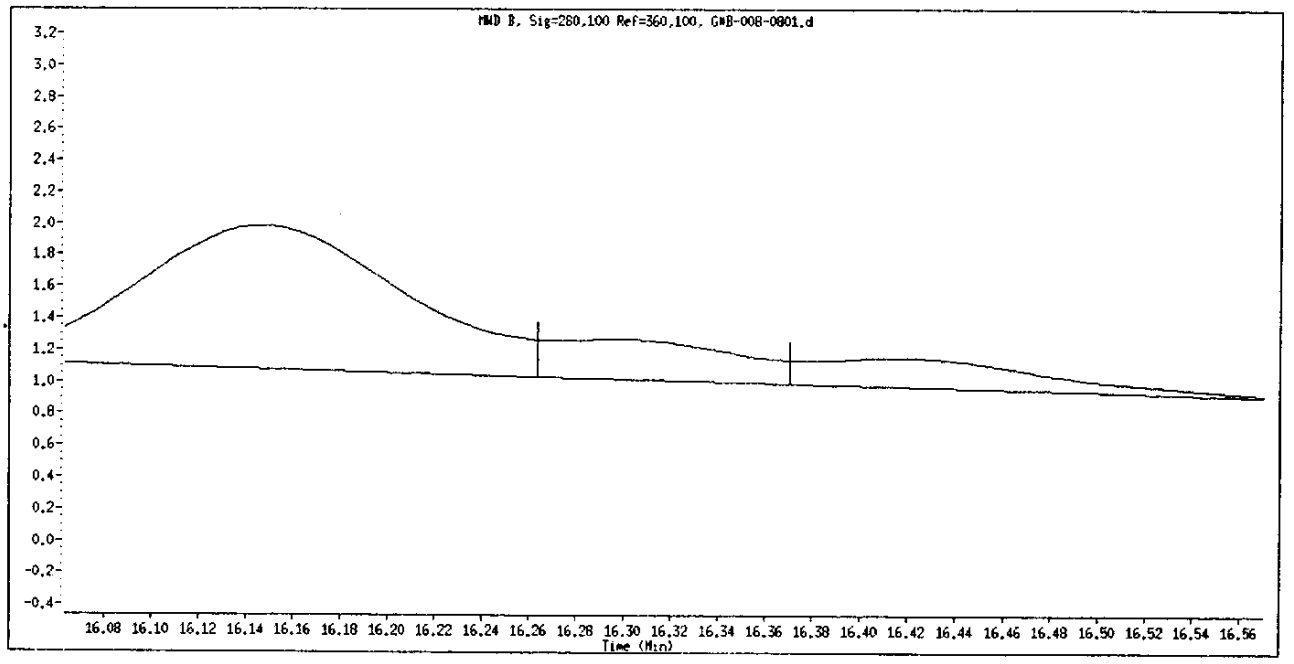
Compound Name: Decachlorobiphenyl

CAS #: 002051-24-3

Report Date: 04/30/2003



Original Integration



Manual Integration

Manually Integrated By: dacars

Manual Integration Reason: Split Peak

Data File: /chem/GC_G.i/G042903P-2.b/G#B-009-0901.d
Report Date: 30-Apr-2003 06:24

STL Denver

Data file : /chem/GC_G.i/G042903P-2.b/G#B-009-0901.d
Lab Smp Id: 0.05ug/mL L1 Client Smp ID: 0.05ug/mL L1
Inj Date : 29-APR-2003 17:39
Operator : SLD Inst ID: GC_G.i
Smp Info : 0.05ug/mL L1
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-2.b/8310-2.m
Meth Date : 30-Apr-2003 06:24 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 17:39 Cal File: G#B-009-0901.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

SD 413063

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Naphthalene	3.727	3.727	0.000	103	50.0000	9.908
2 Acenaphthylene	4.934	4.934	0.000	799	50.0000	51.28
3 1-Methylnaphthalene	5.507	5.507	0.000	575	50.0000	48.60
4 2-Methylnaphthalene	5.900	5.900	0.000	170	50.0000	17.68
5 Acenaphthene	6.147	6.147	0.000	631	50.0000	40.12
6 Fluorene	6.540	6.540	0.000	1541	50.0000	50.38
$ 8 Decafluorobiphenyl	7.974	7.974	0.000	269	50.0000	60.12
$ 12 p-terphenyl-d14	11.334	11.334	0.000	2196	50.0000	49.79(M)
$ 18 Decachlorobiphenyl	16.294	16.294	0.000	327	50.0000	53.37(M)

QC Flag Legend

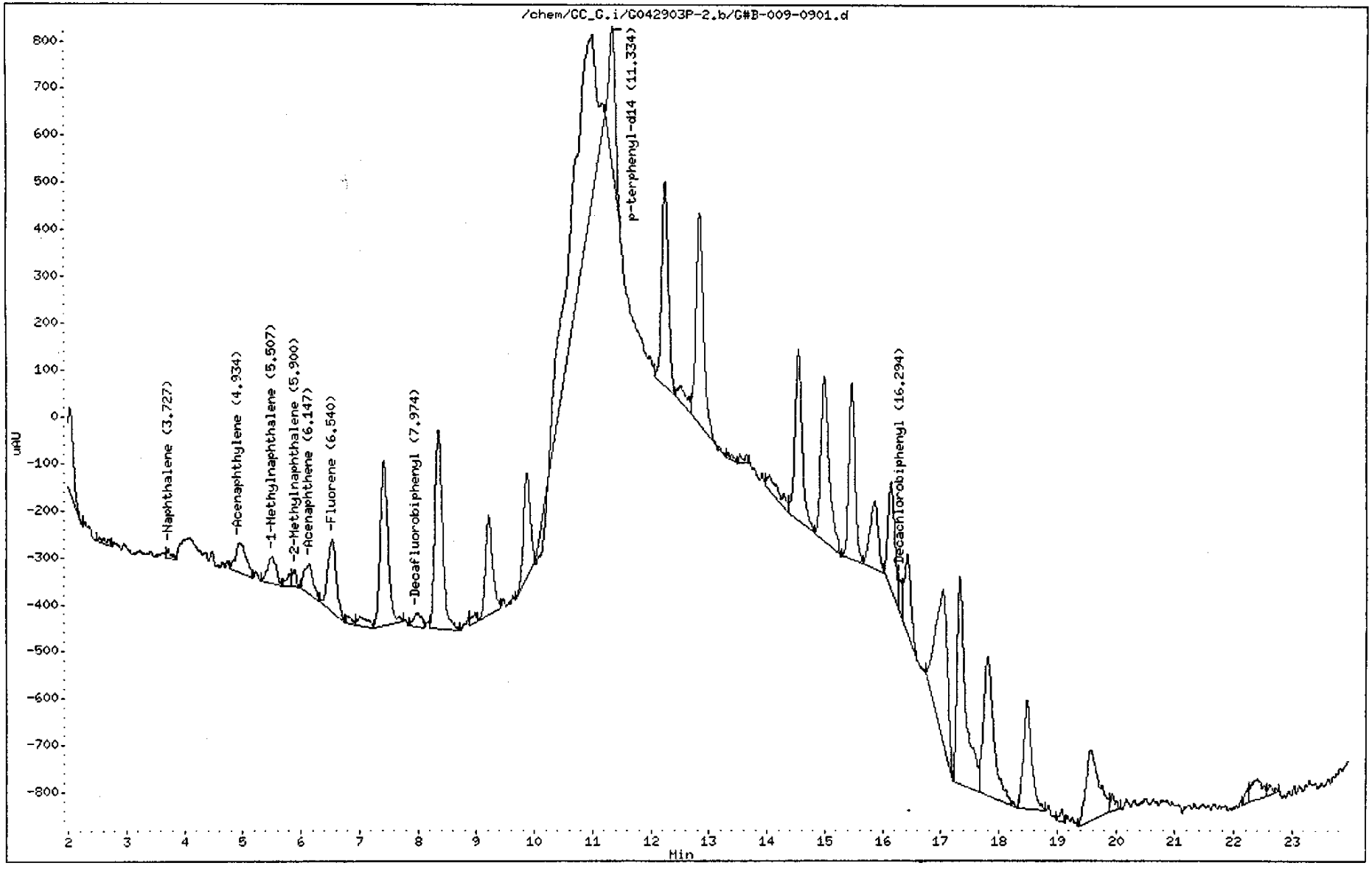
M - Compound response manually integrated.

Data File: /chem/GC_C.i/G042903P-2.b/G#B-009-0901.d
Date : 29-APR-2003 17:39
Client ID: 0.05ug/mL L1
Sample Info: 0.05ug/mL L1

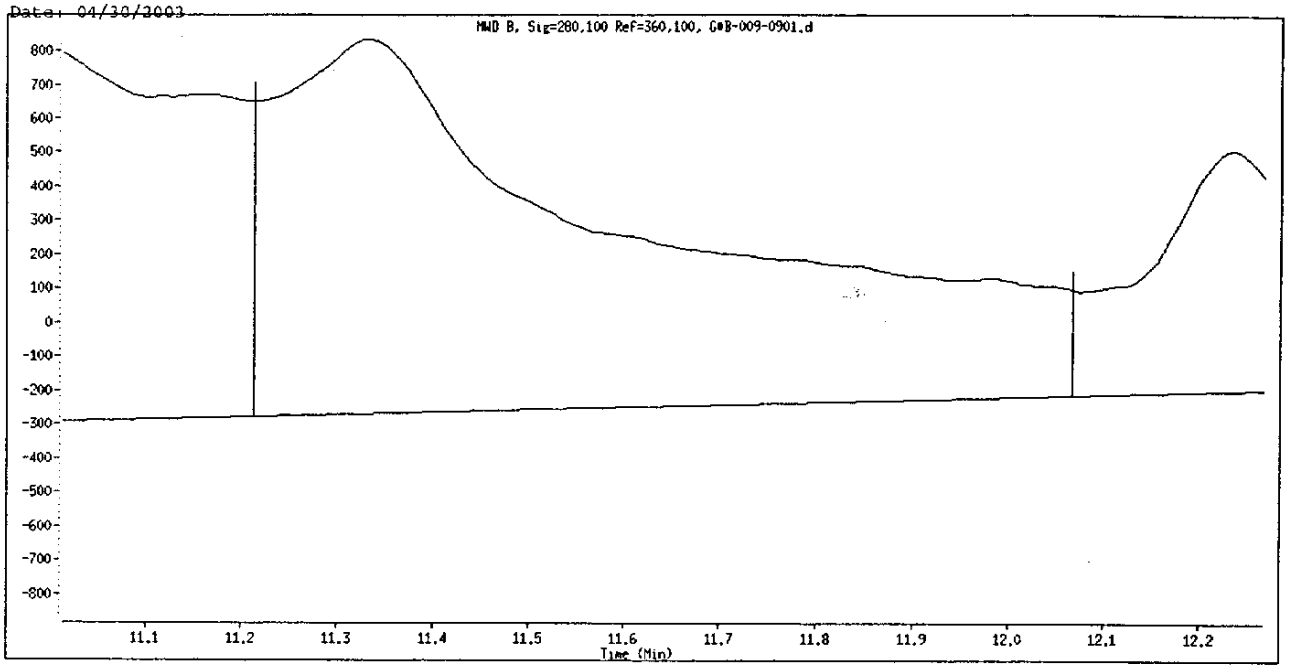
Column phase: C-18

Instrument: GC_C.i

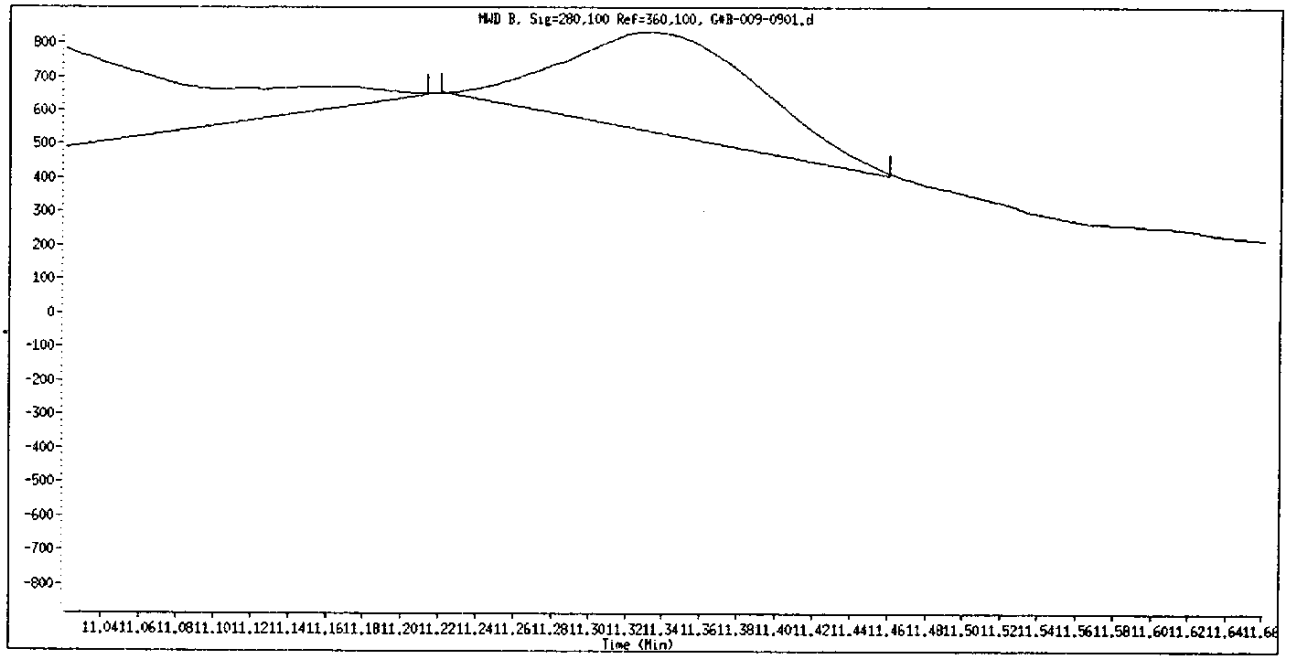
Operator: SLD
Column diameter: 4.60



Data File Name: G#B-009-0901.d
Inj. Date and Time: 29-APR-2003 17:39
Instrument ID: GC_G.i
Client ID: 0.05ug/mL L1
Compound Name: p-terphenyl-d14
CAS #: 1718-51-0
Report Date: 04/30/2003



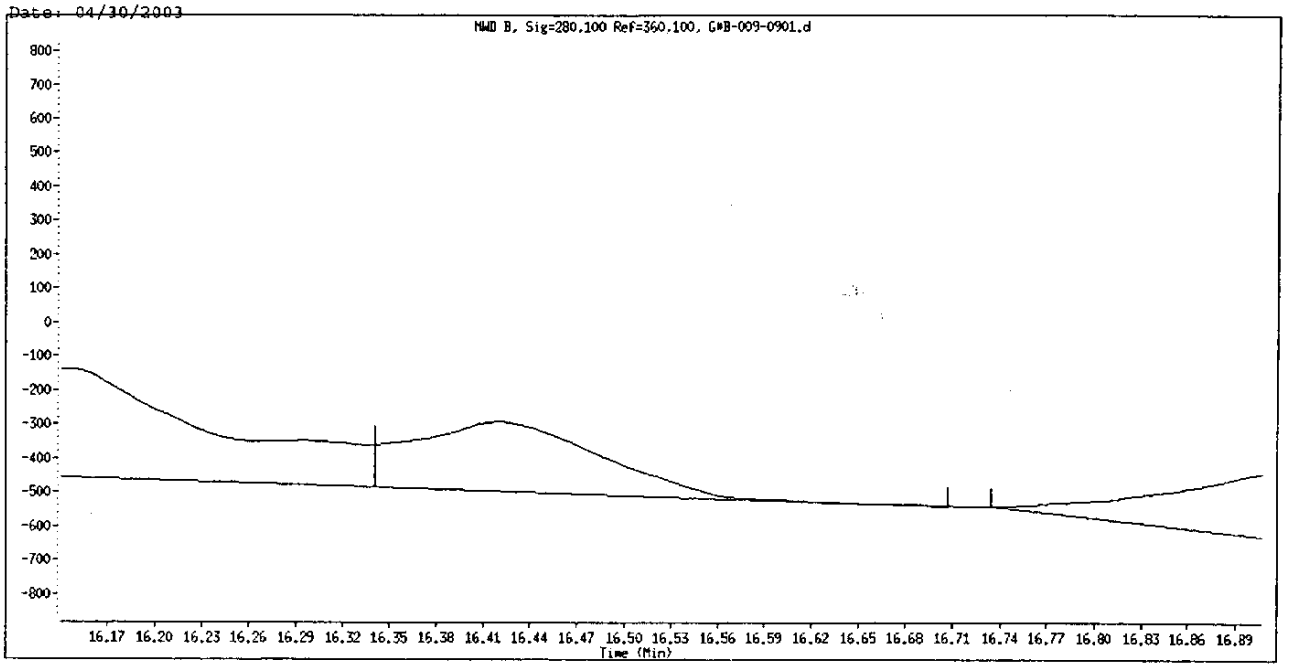
Original Integration



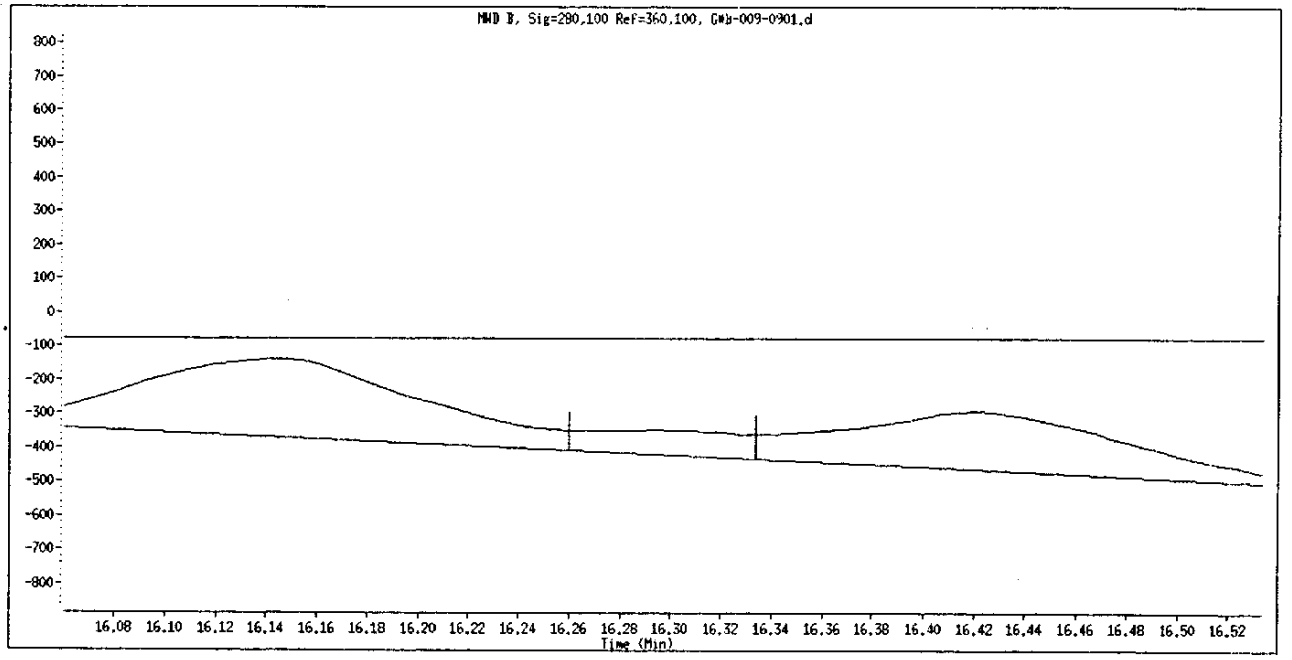
Manual Integration

Manually Integrated By: dacars
Manual Integration Reason: Baseline Event

Data File Name: G#B-009-0901.d
Inj. Date and Time: 29-APR-2003 17:39
Instrument ID: GC_G.i
Client ID: 0.05ug/mL L1
Compound Name: Decachlorobiphenyl
CAS #: 002051-24-3
Report Date: 04/30/2003



Original Integration



Manual Integration

Manually Integrated By: dacars
Manual Integration Reason: Split Peak

Data File: /chem/GC_G.i/G042903P-2.b/G#B-010-1001.d
Report Date: 30-Apr-2003 06:27

STL Denver

Data file : /chem/GC_G.i/G042903P-2.b/G#B-010-1001.d
Lab Smp Id: 8310 ICAL SS
Client Smp ID: 8310 ICAL SS
Inj Date : 29-APR-2003 18:09
Operator : SLD
Inst ID: GC_G.i
Smp Info : 8310 ICAL SS
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-2.b/8310-2.m
Meth Date : 30-Apr-2003 06:25 dacars
Quant Type: ESTD
Cal Date : 29-APR-2003 14:05
Cal File: G#B-002-0201.d
Als bottle: 1
QC Sample: SSV
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

SD 4/30/03

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Naphthalene	4.103	4.083	0.020	60863	5586.11	5586(M)
2 Acenaphthylene	4.976	4.963	0.013	78132	5014.49	5014
3 1-Methylnaphthalene	5.510	5.503	0.007	57712	4878.48	4878
4 2-Methylnaphthalene	5.856	5.850	0.006	51463	4790.50	4790
5 Acenaphthene	6.130	6.123	0.007	82998	5276.84	5277
6 Fluorene	6.537	6.523	0.014	149934	4901.47	4901
$ 8 Decafluorobiphenyl	8.023	8.030	-0.007	19008	4248.24	4248(RR)
$ 12 p-terphenyl-d14	11.336	11.270	0.066	193202	4380.21	4380
$ 18 Decachlorobiphenyl	16.297	16.303	-0.006	26270	4287.29	4287

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G042903P-2.b/G#B-010-1001.d
Report Date: 30-Apr-2003 06:27

STL Denver

RECOVERY REPORT

Client Name:
Sample Matrix: NONE
Lab Smp Id: 8310 ICAL SS
Level:
Data Type: LC DATA
SpikeList File: SSspike.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G042903P-2.b/8310-2.m
Misc Info: ICAL 04/29/03

Client SDG: G042903P-2
Fraction: SV
Client Smp ID: 8310 ICAL SS
Operator: SLD
SampleType: SSV
Quant Type: ESTD

SPIKE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS 85-115
1 Naphthalene	5000	5586	111.72	
2 Acenaphthylene	5000	5014	100.29	
3 1-Methylnaphthalen	5000	4878	97.57	
4 2-Methylnaphthalen	5000	4790	95.81	
5 Acenaphthene	5000	5277	105.54	
6 Fluorene	5000	4901	98.03	
$ 8 Decafluorobiphenyl	5000	4248	84.96*	
$ 12 p-terphenyl-d14	5000	4380	87.60	
$ 18 Decachlorobiphenyl	5000	4287	85.75	

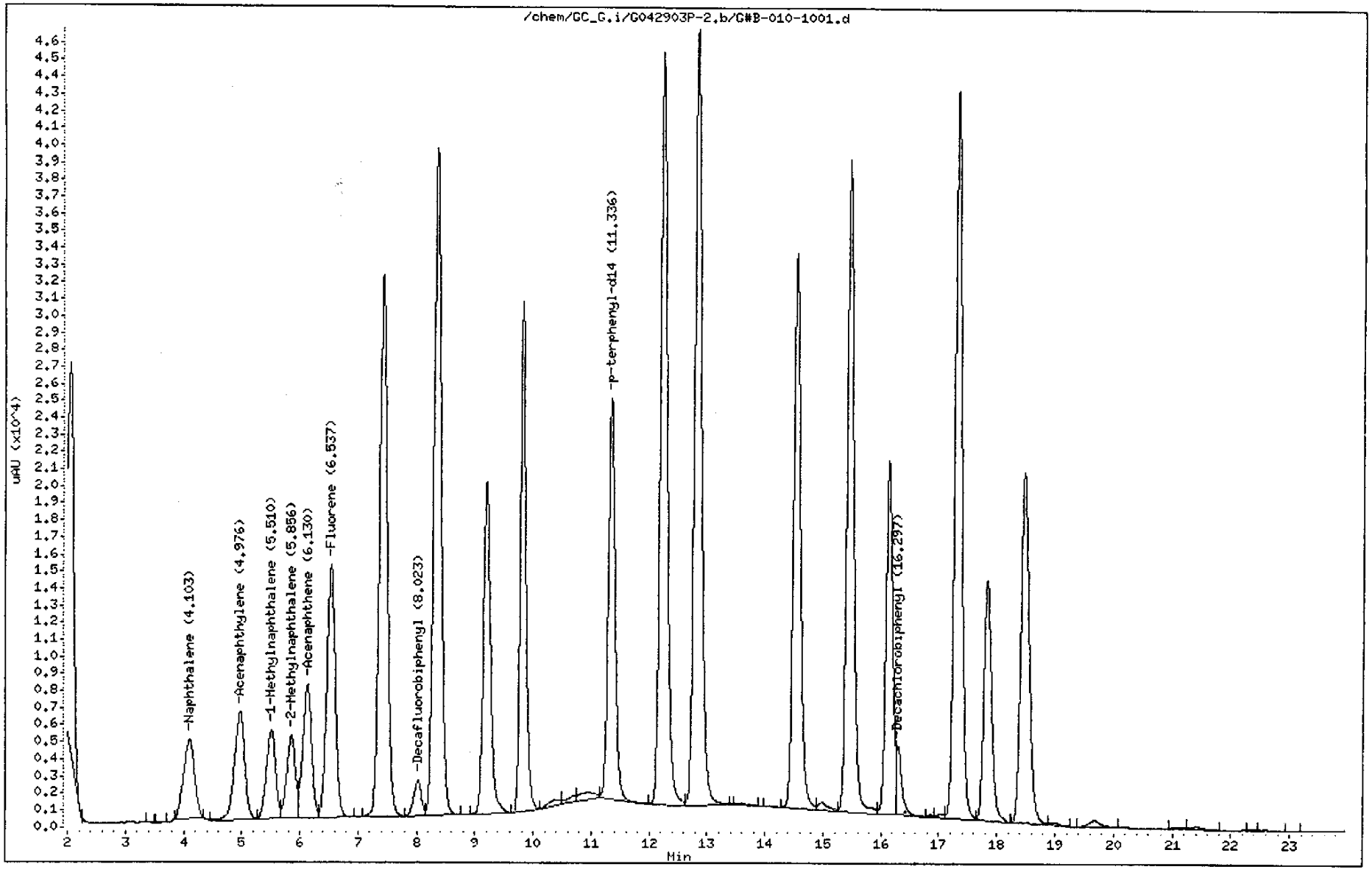
SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	40000	4248	84.96	
$ 12 p-terphenyl-d14	20000	4380	87.60	
$ 18 Decachlorobiphenyl	20000	4287	85.75	

Data File: /chem/GC_G.i/G042903P-2.b/G#B-010-1001.d
Date : 29-APR-2003 18:09
Client ID: 8310 ICAL SS
Sample Info: 8310 ICAL SS

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File Name: G#B-010-1001.d

Inj. Date and Time: 29-APR-2003 18:09

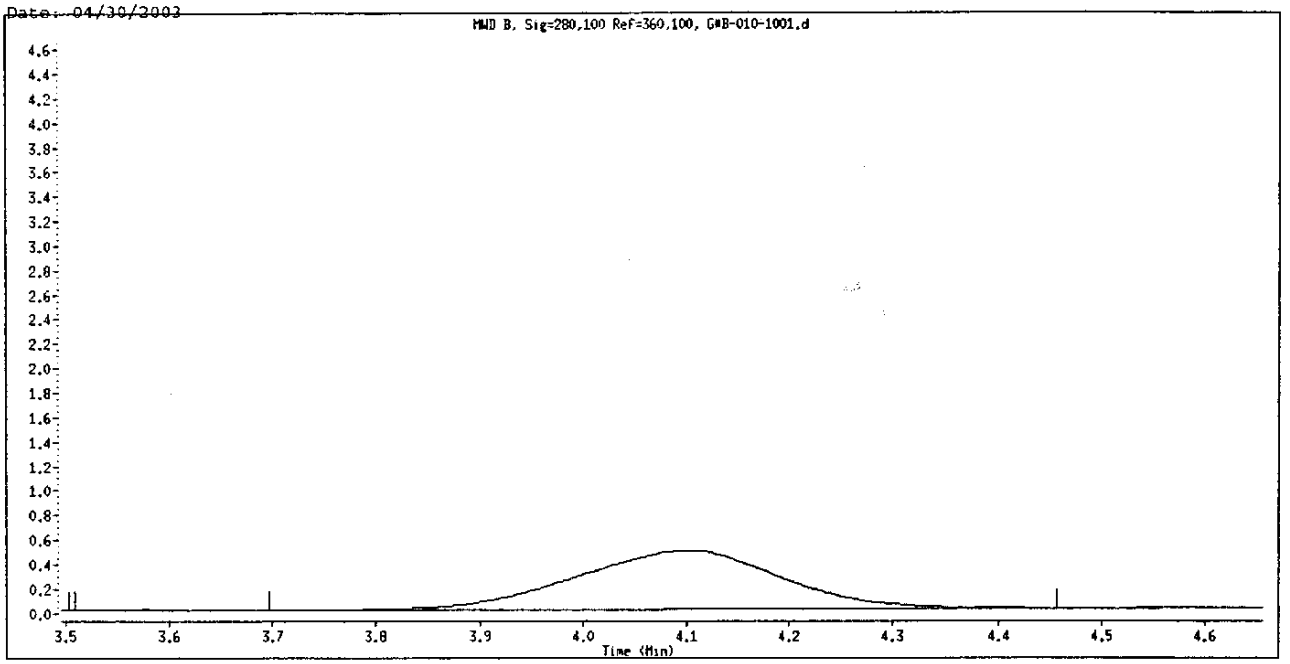
Instrument ID: GC_G.i

Client ID: 8310 ICAL SS

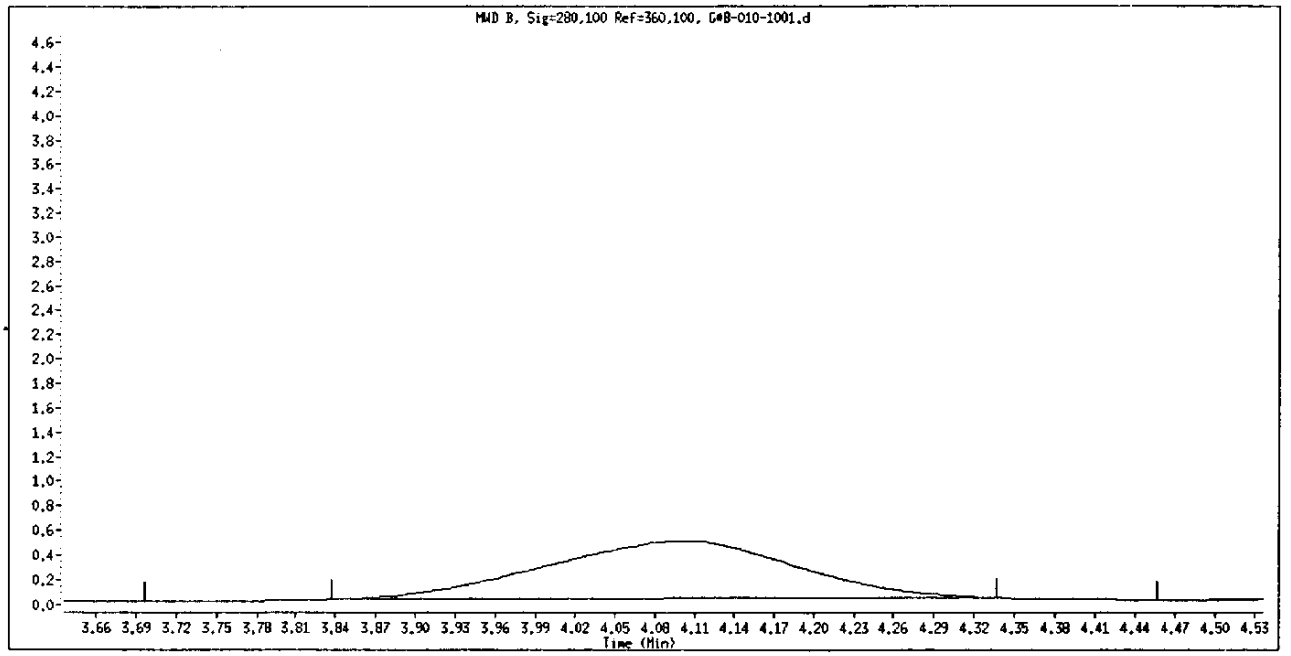
Compound Name: Naphthalene

CAS #: 91-20-3

Report Date: 04/30/2003



Original Integration



Manual Integration

Manually Integrated By: dacars

Manual Integration Reason: Baseline Event

24B

STL Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2003 14:05
End Cal Date : 29-APR-2003 17:39
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/GC_G.i/G042903P-3.b/8310-3.m
Cal Date : 30-Apr-2003 06:29 dacars

Calibration File Names:
Level 1: /chem/GC_G.i/G042903P-3.b/G#C-009-0901.d
Level 2: /chem/GC_G.i/G042903P-3.b/G#C-008-0801.d
Level 3: /chem/GC_G.i/G042903P-3.b/G#C-007-0701.d
Level 4: /chem/GC_G.i/G042903P-3.b/G#C-006-0601.d
Level 5: /chem/GC_G.i/G042903P-3.b/G#C-005-0501.d
Level 6: /chem/GC_G.i/G042903P-3.b/G#C-004-0401.d
Level 7: /chem/GC_G.i/G042903P-3.b/G#C-003-0301.d
Level 8: /chem/GC_G.i/G042903P-3.b/G#C-002-0201.d

Compound	50 Level 1	200 Level 2	500 Level 3	1000 Level 4	2000 Level 5	5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20000 Level 7	50000 Level 8									
1 Phenanthrene	185	180	168	164	171	177					
	165	191					AVRG		175		5.52180
3 Anthracene	1190	1258	1202	1171	1223	1240					
	1080	1046					AVRG		1176		6.42804
4 Fluoranthene	324	2546	6115	11907	22602	60400					
	238054	675413					WLINR	23.76619	12.54334		0.99430
5 Pyrene	551	536	511	497	520	534					
	485	529					AVRG		520		4.14332
7 Benzo(a)Anthracene	868	770	732	707	740	752					
	695	779					AVRG		755		7.10529

STL Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2003 14:05
End Cal Date : 29-APR-2003 17:39
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/GC_G.i/G042903P-3.b/8310-3.m
Cal Date : 30-Apr-2003 06:29 dacars

Compound	50 Level 1 / 20000 Level 7	200 Level 2 / 50000 Level 8	500 Level 3	1000 Level 4	2000 Level 5	5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
8 Chrysene	726	700	658	637	668	677					
	632	722					AVRG		677		5.30166
9 Benzo(b)Fluoranthene	536	462	414	413	436	437					
	404	464					AVRG		446		9.55812
10 Benzo(k)Fluoranthene	660	619	582	566	600	597					
	551	627					AVRG		600		5.82923
11 Benzo(a)Pyrene	147	137	134	128	134	132					
	126	150					AVRG		136		6.15498
12 Dibenzo(a,h)Anthracene	332	2031	4439	6417	17124	38302					
	133680	391471					WLINR	-4.84192	7.53656		0.99413
13 Benzo(g,h,i)Perylene	49.90000	45.73000	40.83200	37.78200	40.55400	40.89500					
	37.60655	44.99818					AVRG		42.28888		10.05735
14 Indeno(1,2,3-c,d)Pyrene	116	120	115	109	116	117					
	108	126					AVRG		116		4.88513
$ 2 Decafluorobiphenyl	+++++	232	220	652	1672	3746					
	24211	68296					QUAD	577	0.86213	-2.034e-06	0.99903

STL Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2003 14:05
End Cal Date : 29-APR-2003 17:39
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/GC_G.i/G042903P-3.b/8310-3.m
Cal Date : 30-Apr-2003 06:29 dacars

Compound	50 Level 1	200 Level 2	500 Level 3	1000 Level 4	2000 Level 5	5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20000 Level 7	50000 Level 8									
$ 6 p-terphenyl-d14	176	162	162	152	162	164					
	152	171					AVRG		163		4.99746

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Wt Linear	Amt = b + Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

Report Date: 30-Apr-2003 06:33

Calibration History

Method : /chem/GC_G.i/G042903P-3.b/8310-3.m
Start Cal Date: 29-APR-2003 14:05
End Cal Date : 29-APR-2003 17:39

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 50.00000		
29-APR-2003 17:39	all	/chem/GC_G.i/G042903P-3.b/G#C-009-0901.d
Cal Level: 2 , Cal Amount: 200.00000		
29-APR-2003 17:08	all	/chem/GC_G.i/G042903P-3.b/G#C-008-0801.d
Cal Level: 3 , Cal Amount: 500.00000		
29-APR-2003 16:38	all	/chem/GC_G.i/G042903P-3.b/G#C-007-0701.d
Cal Level: 4 , Cal Amount: 1000.00000		
29-APR-2003 16:07	all	/chem/GC_G.i/G042903P-3.b/G#C-006-0601.d
Cal Level: 5 , Cal Amount: 2000.00000		
29-APR-2003 15:36	all	/chem/GC_G.i/G042903P-3.b/G#C-005-0501.d
Cal Level: 6 , Cal Amount: 5000.00000		
29-APR-2003 15:06	all	/chem/GC_G.i/G042903P-3.b/G#C-004-0401.d
Cal Level: 7 , Cal Amount: 20000.00000		
29-APR-2003 14:35	all	/chem/GC_G.i/G042903P-3.b/G#C-003-0301.d
Cal Level: 8 , Cal Amount: 50000.00000		
29-APR-2003 14:05	all	/chem/GC_G.i/G042903P-3.b/G#C-002-0201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 2000		
29-APR-2003 15:36	all	/chem/GC_G.i/G042903P-3.b/G#C-005-0501.d

Data File: /chem/GC_G.i/G042903P-3.b/G#C-002-0201.d Page 1
Report Date: 30-Apr-2003 06:32

STL Denver

Data file : /chem/GC_G.i/G042903P-3.b/G#C-002-0201.d
Lab Smp Id: 50ug/mL L8 Client Smp ID: 50ug/mL L8
Inj Date : 29-APR-2003 14:05
Operator : SLD Inst ID: GC_G.i
Smp Info : 50ug/mL L8
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-3.b/8310-3.m
Meth Date : 30-Apr-2003 06:29 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#C-002-0201.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

SD 4/30/03

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
	1 Phenanthrene	7.423	7.452	-0.029	9538121	50000.0	50000
$	2 Decafluorobiphenyl	8.050	8.100	-0.050	68296	50000.0	50000
	3 Anthracene	8.345	8.374	-0.029	52301197	50000.0	50000
	4 Fluoranthene	9.187	9.223	-0.036	675413	50000.0	50000
	5 Pyrene	9.799	9.893	-0.094	26444752	50000.0	50000
$	6 p-terphenyl-d14	11.290	11.369	-0.079	8543299	50000.0	50000
	7 Benzo(a)Anthracene	12.182	12.262	-0.080	38972184	50000.0	50000
	8 Chrysene	12.787	12.852	-0.065	36088628	50000.0	50000
	9 Benzo(b)Fluoranthene	14.501	14.566	-0.065	23199339	50000.0	50000
	10 Benzo(k)Fluoranthene	15.422	15.487	-0.065	31360057	50000.0	50000(A)
	11 Benzo(a)Pyrene	16.106	16.164	-0.058	7481376	50000.0	50000
	12 Dibenzo(a,h)Anthracene	17.273	17.532	-0.259	391471	50000.0	50000
	13 Benzo(g,h,i)Perylene	17.777	17.856	-0.079	2249909	50000.0	50000
	14 Indeno(1,2,3-c,d)Pyrene	18.418	18.497	-0.079	6283338	50000.0	50000

QC Flag Legend

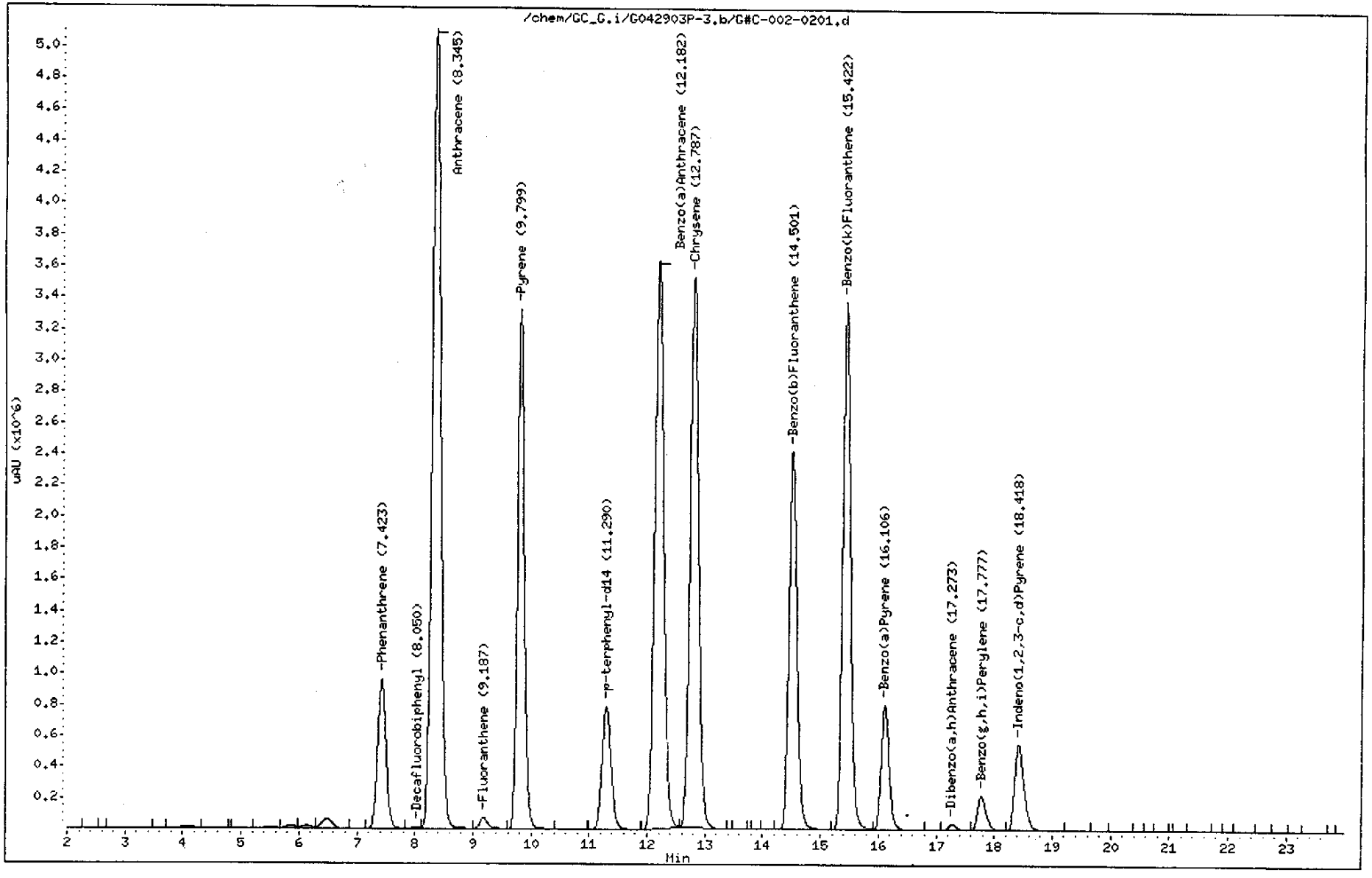
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/GC_G.i/G042903P-3.b/G#C-002-0201.d
Date : 29-APR-2003 14:05
Client ID: 50ug/mL L8
Sample Info: 50ug/mL L8

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G042903P-3.b/G#C-003-0301.d Page 1
Report Date: 30-Apr-2003 06:32

STL Denver

Data file : /chem/GC_G.i/G042903P-3.b/G#C-003-0301.d
Lab Smp Id: 20ug/mL L7 Client Smp ID: 20ug/mL L7
Inj Date : 29-APR-2003 14:35
Operator : SLD Inst ID: GC_G.i
Smp Info : 20ug/mL L7
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-3.b/8310-3.m
Meth Date : 30-Apr-2003 06:29 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 14:35 Cal File: G#C-003-0301.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

SD 4/30/03

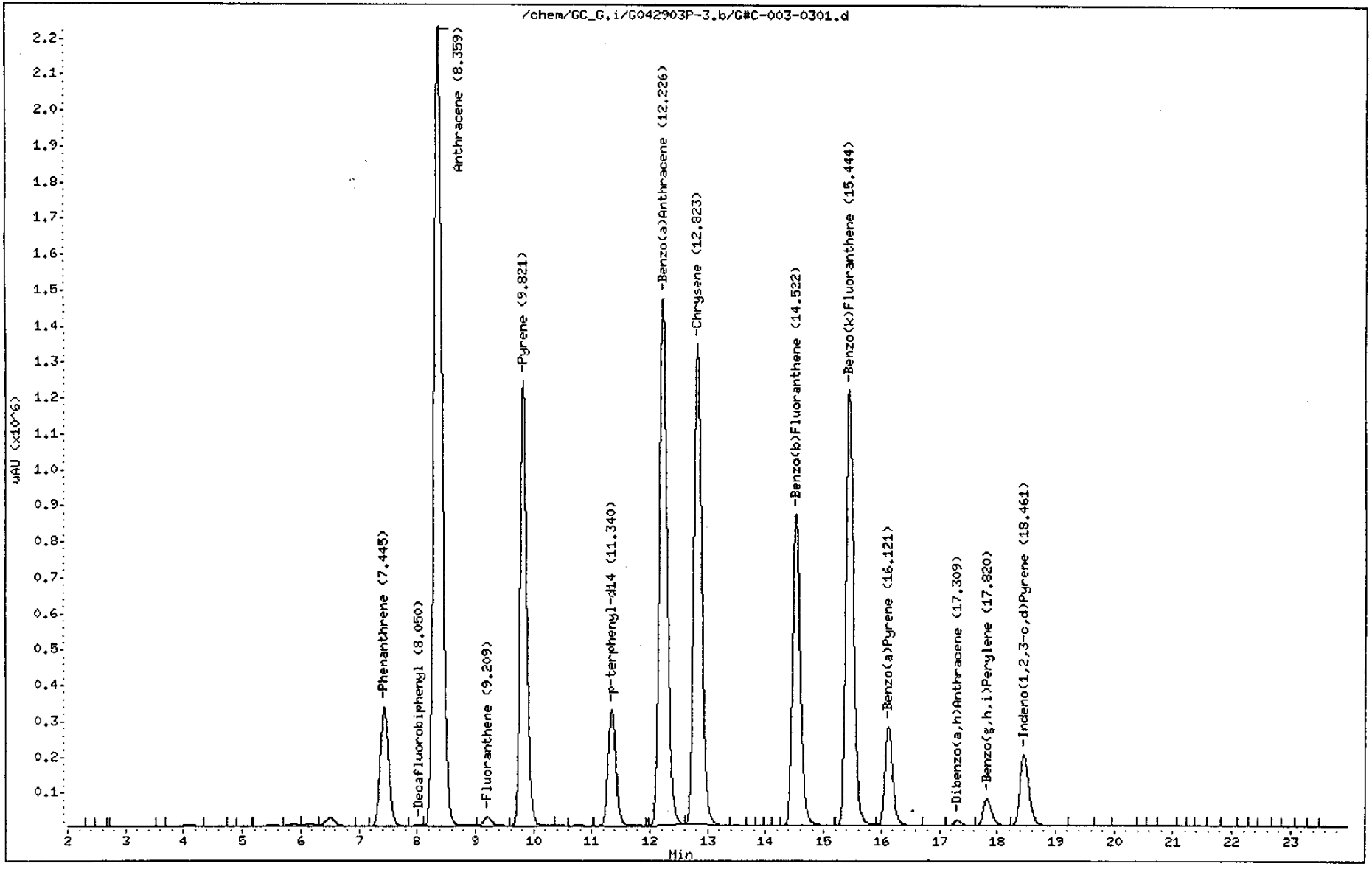
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Phenanthrene	7.445	7.452	-0.007	3299105	20000.0	18550
$	2 Decafluorobiphenyl	8.050	8.100	-0.050	24211	20000.0	20000
	3 Anthracene	8.359	8.374	-0.015	21603859	20000.0	20320
	4 Fluoranthene	9.209	9.223	-0.014	238054	20000.0	18740
	5 Pyrene	9.821	9.893	-0.072	9705872	20000.0	19140
$	6 p-terphenyl-d14	11.340	11.369	-0.029	3038397	20000.0	18830
	7 Benzo(a)Anthracene	12.226	12.262	-0.036	13903308	20000.0	18860
	8 Chrysene	12.823	12.852	-0.029	12634217	20000.0	18670
	9 Benzo(b)Fluoranthene	14.522	14.566	-0.044	8079038	20000.0	18620
	10 Benzo(k)Fluoranthene	15.444	15.487	-0.043	11014016	20000.0	18700
	11 Benzo(a)Pyrene	16.121	16.164	-0.043	2526065	20000.0	18310
	12 Dibenzo(a,h)Anthracene	17.309	17.532	-0.223	133680	20000.0	20000
	13 Benzo(g,h,i)Perylene	17.820	17.856	-0.036	752131	20000.0	18210
	14 Indeno(1,2,3-c,d)Pyrene	18.461	18.497	-0.036	2156423	20000.0	18470

Data File: /chem/GC_G.i/G042903P-3.b/G#C-003-0301.d
Date : 29-APR-2003 14:35
Client ID: 20ug/mL L7
Sample Info: 20ug/mL L7

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G042903P-3.b/G#C-004-0401.d Page 1
Report Date: 30-Apr-2003 06:32

STL Denver

Data file : /chem/GC_G.i/G042903P-3.b/G#C-004-0401.d
Lab Smp Id: 5ug/mL L6 Client Smp ID: 5ug/mL L6
Inj Date : 29-APR-2003 15:06
Operator : SLD Inst ID: GC_G.i
Smp Info : 5ug/mL L6
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-3.b/8310-3.m
Meth Date : 30-Apr-2003 06:29 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 15:06 Cal File: G#C-004-0401.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

SD 4/30/03

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Phenanthrene	7.438	7.452	-0.014	885331	5000.00	4985
$	2 Decafluorobiphenyl	8.042	8.100	-0.058	3746	5000.00	5000
	3 Anthracene	8.366	8.374	-0.008	6199295	5000.00	5525
	4 Fluoranthene	9.216	9.223	-0.007	60400	5000.00	4833
	5 Pyrene	9.835	9.893	-0.058	2668104	5000.00	5171
$	6 p-terphenyl-d14	11.362	11.369	-0.007	821300	5000.00	5059
	7 Benzo(a)Anthracene	12.247	12.262	-0.015	3757696	5000.00	5064
	8 Chrysene	12.845	12.852	-0.007	3384885	5000.00	5001
	9 Benzo(b)Fluoranthene	14.551	14.566	-0.015	2183192	5000.00	5020
	10 Benzo(k)Fluoranthene	15.480	15.487	-0.007	2986599	5000.00	5047
	11 Benzo(a)Pyrene	16.157	16.164	-0.007	662172	5000.00	4864
	12 Dibenzo(a,h)Anthracene	17.338	17.532	-0.194	38302	5000.00	5436
	13 Benzo(g,h,i)Perylene	17.856	17.856	0.000	204475	5000.00	4967
	14 Indeno(1,2,3-c,d)Pyrene	18.497	18.497	0.000	585074	5000.00	5008

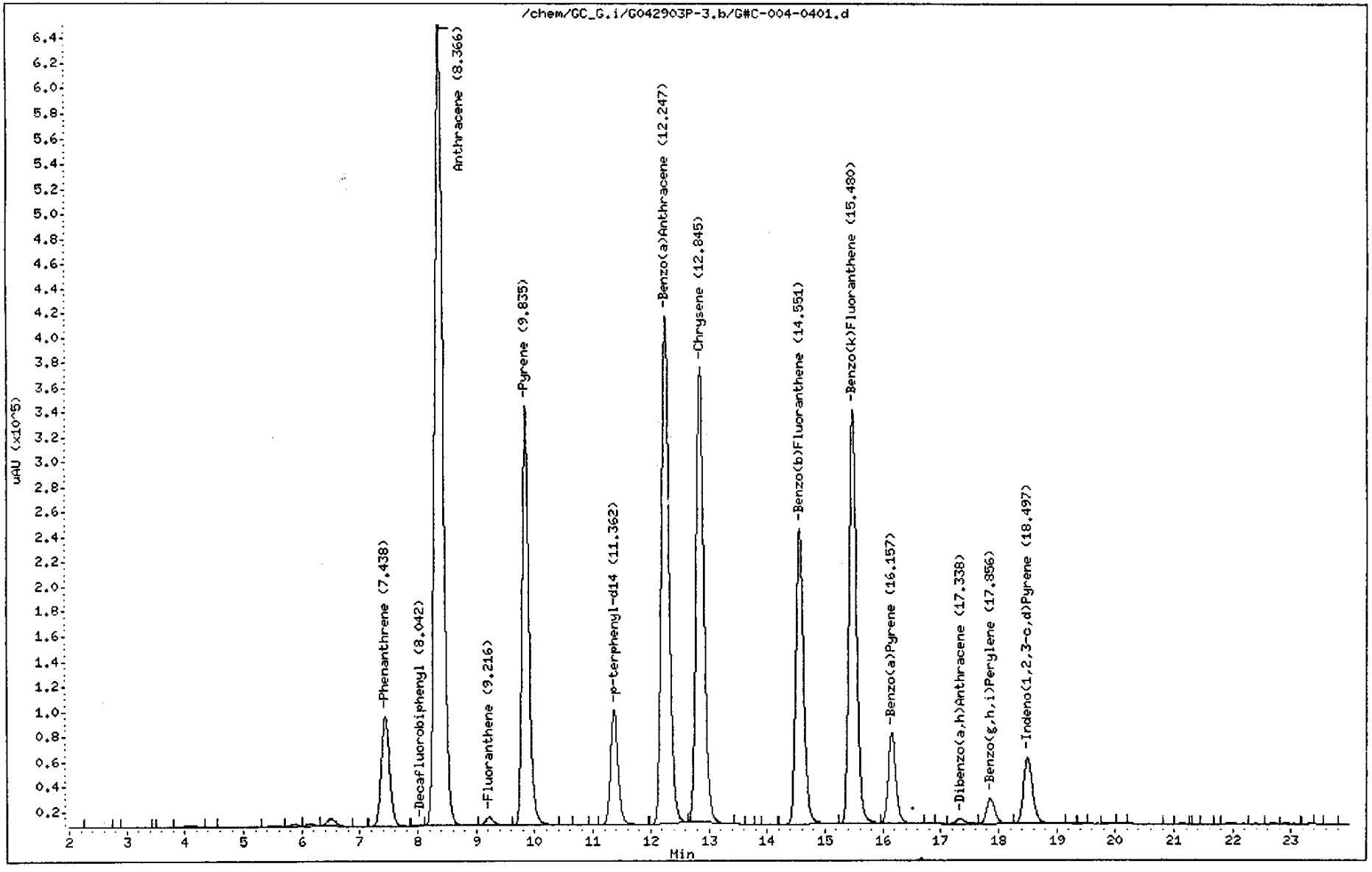
Data File: /chem/GC_G.i/G042903P-3.b/G#C-004-0401.d
Date : 29-APR-2003 15:06
Client ID: 5ug/mL L6
Sample Info: 5ug/mL L6

Column phase: C-18

Page 2

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G042903P-3.b/G#C-005-0501.d
Report Date: 30-Apr-2003 06:32

STL Denver

Data file : /chem/GC_G.i/G042903P-3.b/G#C-005-0501.d
Lab Smp Id: 2ug/mL L5 Client Smp ID: 2ug/mL L5
Inj Date : 29-APR-2003 15:36
Operator : SLD Inst ID: GC_G.i
Smp Info : 2ug/mL L5
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-3.b/8310-3.m
Meth Date : 30-Apr-2003 06:29 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 15:36 Cal File: G#C-005-0501.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

SD 413063

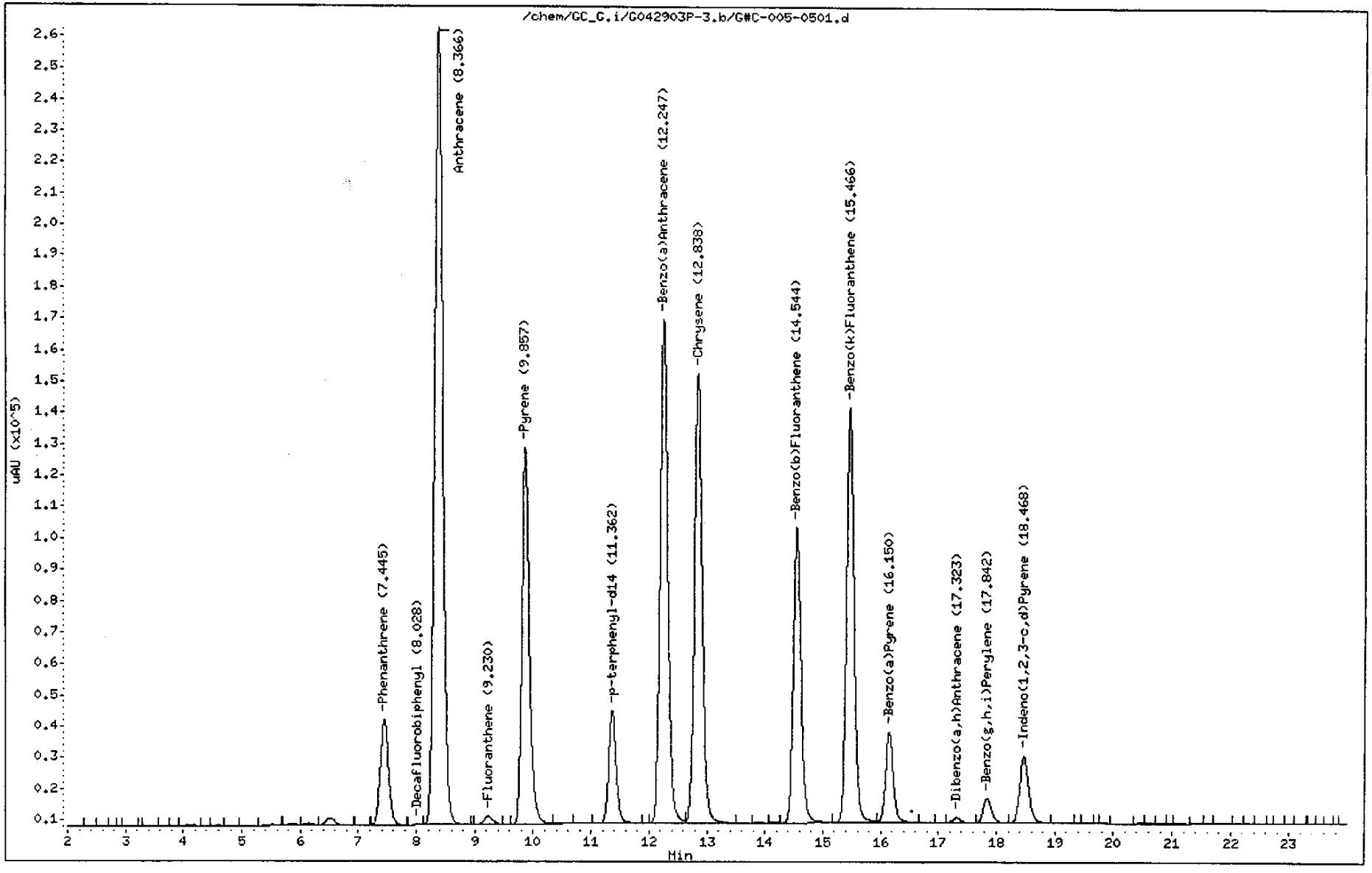
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Phenanthrene	7.445	7.452	-0.007	342035	2000.00	1944
$	2 Decafluorobiphenyl	8.028	8.100	-0.072	1672	2000.00	2623
	3 Anthracene	8.366	8.374	-0.008	2445713	2000.00	2132
	4 Fluoranthene	9.230	9.223	0.007	22602	2000.00	1853
	5 Pyrene	9.857	9.893	-0.036	1040198	2000.00	2012
$	6 p-terphenyl-d14	11.362	11.369	-0.007	323752	2000.00	1996
	7 Benzo(a)Anthracene	12.247	12.262	-0.015	1479597	2000.00	1995
	8 Chrysene	12.838	12.852	-0.014	1335804	2000.00	1980
	9 Benzo(b)Fluoranthene	14.544	14.566	-0.022	871855	2000.00	2004
	10 Benzo(k)Fluoranthene	15.466	15.487	-0.021	1200436	2000.00	2021
	11 Benzo(a)Pyrene	16.150	16.164	-0.014	267122	2000.00	1972
	12 Dibenzo(a,h)Anthracene	17.323	17.532	-0.209	17124	2000.00	2194
	13 Benzo(g,h,i)Perylene	17.842	17.856	-0.014	81108	2000.00	1978
	14 Indeno(1,2,3-c,d)Pyrene	18.468	18.497	-0.029	232972	2000.00	1996

Data File: /chem/GC_G.i/G042903P-3.b/G#C-005-0501.d
Date : 29-APR-2003 15:36
Client ID: 2ug/mL L5
Sample Info: 2ug/mL L5

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G042903P-3.b/G#C-006-0601.d
Report Date: 30-Apr-2003 06:32

STL Denver

Data file : /chem/GC_G.i/G042903P-3.b/G#C-006-0601.d
Lab Smp Id: 1ug/mL L4 Client Smp ID: 1ug/mL L4
Inj Date : 29-APR-2003 16:07
Operator : SLD Inst ID: GC_G.i
Smp Info : 1ug/mL L4
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-3.b/8310-3.m
Meth Date : 30-Apr-2003 06:29 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 16:07 Cal File: G#C-006-0601.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

SD 413063

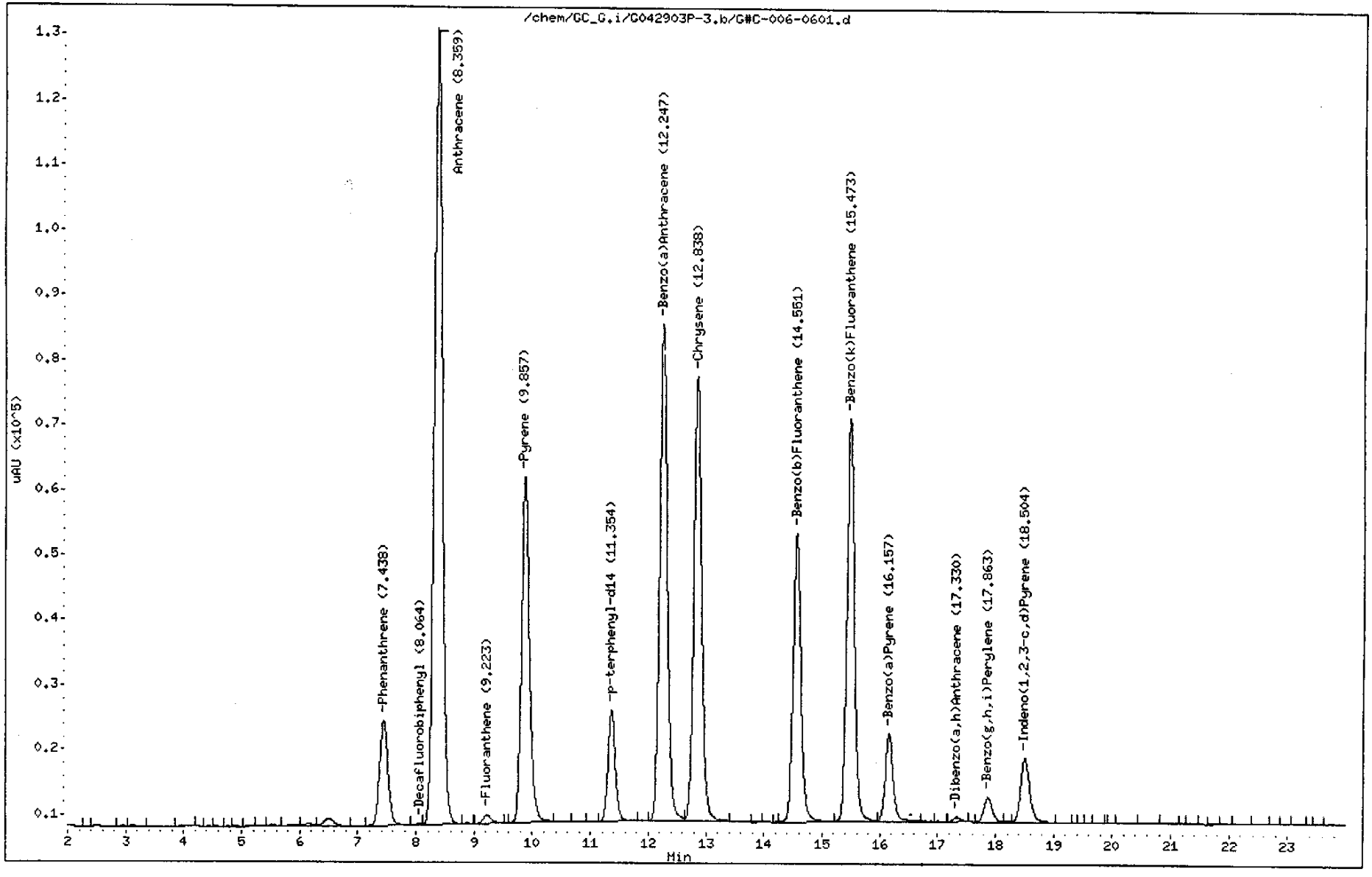
		Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1	Phenanthrene	7.438	7.452	-0.014	164302	1000.00	946.3
$	2	Decafluorobiphenyl	8.064	8.100	-0.036	652	1000.00	1482
	3	Anthracene	8.359	8.374	-0.015	1170813	1000.00	1016
	4	Fluoranthene	9.223	9.223	0.000	11907	1000.00	980.9
	5	Pyrene	9.857	9.893	-0.036	497419	1000.00	969.5
$	6	p-terphenyl-d14	11.354	11.369	-0.015	152495	1000.00	951.4
	7	Benzo(a)Anthracene	12.247	12.262	-0.015	707210	1000.00	962.7
	8	Chrysene	12.838	12.852	-0.014	637099	1000.00	955.0
	9	Benzo(b)Fluoranthene	14.551	14.566	-0.015	412907	1000.00	958.7
	10	Benzo(k)Fluoranthene	15.473	15.487	-0.014	566246	1000.00	962.4
	11	Benzo(a)Pyrene	16.157	16.164	-0.007	128432	1000.00	957.9
*	12	Dibenzo(a,h)Anthracene	17.330	17.532	-0.202	6417	1000.00	926.0
	13	Benzo(g,h,i)Perylene	17.863	17.856	0.007	37782	1000.00	936.0
	14	Indeno(1,2,3-c,d)Pyrene	18.504	18.497	0.007	109414	1000.00	949.1

Data File: /chem/GC_G.i/G042903P-3.b/G#C-006-0601.d
Date : 29-APR-2003 16:07
Client ID: 1ug/mL L4
Sample Info: 1ug/mL L4

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G042903P-3.b/G#C-007-0701.d
Report Date: 30-Apr-2003 06:32

STL Denver

Data file : /chem/GC_G.i/G042903P-3.b/G#C-007-0701.d
Lab Smp Id: 0.5ug/mL L3 Client Smp ID: 0.5ug/mL L3
Inj Date : 29-APR-2003 16:38
Operator : SLD Inst ID: GC_G.i
Smp Info : 0.5ug/mL L3
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-3.b/8310-3.m
Meth Date : 30-Apr-2003 06:29 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 16:38 Cal File: G#C-007-0701.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

SD 4/30/03

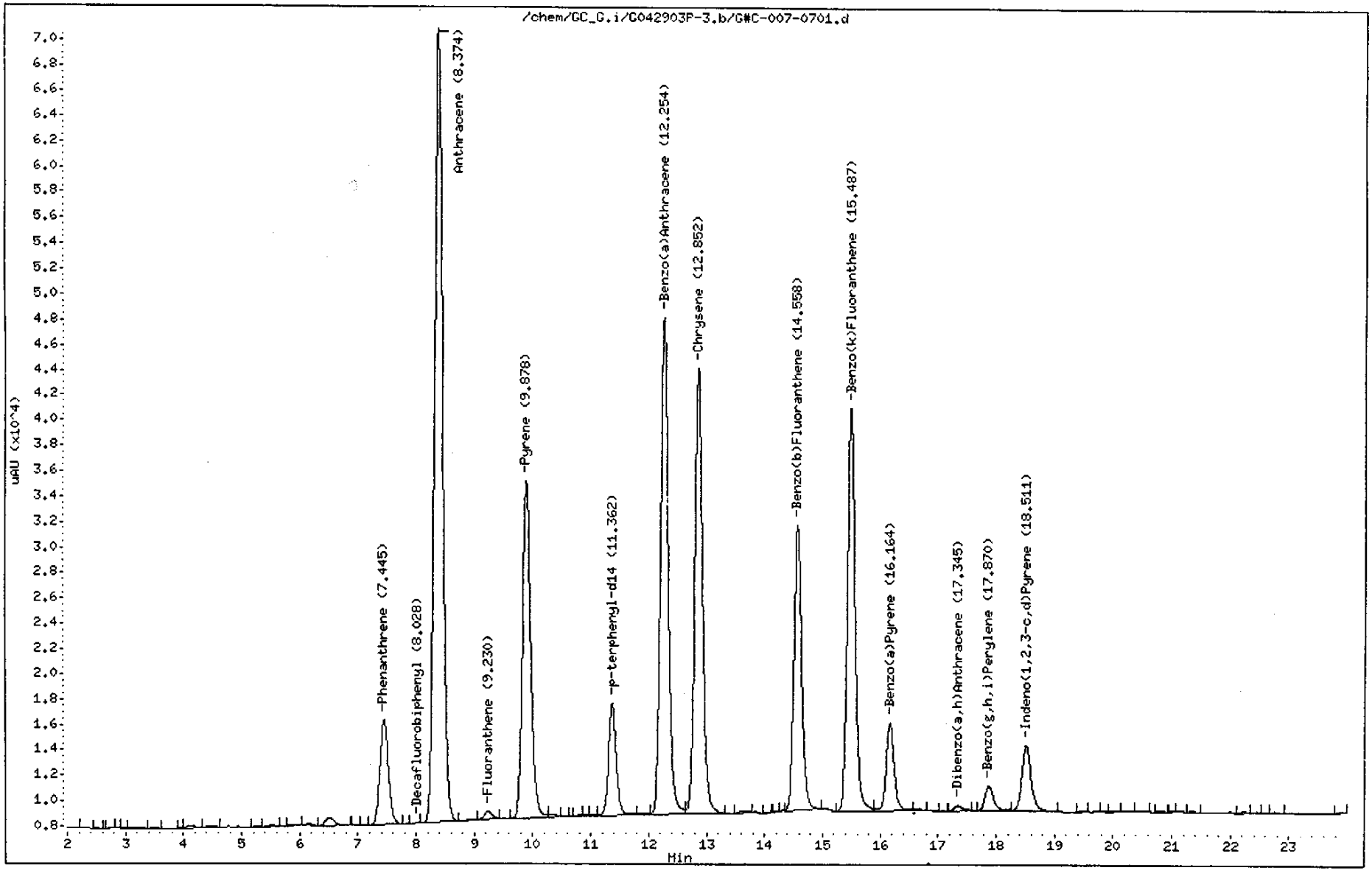
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Phenanthrene	7.445	7.452	-0.007	84019	500.000	486.5
$	2 Decafluorobiphenyl	8.028	8.100	-0.072	220	500.000	937.5
	3 Anthracene	8.374	8.374	0.000	600943	500.000	517.9
	4 Fluoranthene	9.230	9.223	0.007	6115	500.000	503.1
	5 Pyrene	9.878	9.893	-0.015	255675	500.000	498.6
$	6 p-terphenyl-d14	11.362	11.369	-0.007	80915	500.000	504.0
	7 Benzo(a)Anthracene	12.254	12.262	-0.008	365860	500.000	498.3
	8 Chrysene	12.852	12.852	0.000	328956	500.000	494.2
	9 Benzo(b)Fluoranthene	14.558	14.566	-0.008	207063	500.000	483.9
	10 Benzo(k)Fluoranthene	15.487	15.487	0.000	291155	500.000	495.7
	11 Benzo(a)Pyrene	16.164	16.164	0.000	67111	500.000	500.5
	12 Dibenzo(a,h)Anthracene	17.345	17.532	-0.187	4439	500.000	581.8
	13 Benzo(g,h,i)Perylene	17.870	17.856	0.014	20416	500.000	504.8
	14 Indeno(1,2,3-c,d)Pyrene	18.511	18.497	0.014	57584	500.000	499.6

Data File: /chem/GC_G.i/G042903P-3.b/G#C-007-0701.d
Date : 29-APR-2003 16:38
Client ID: 0.5ug/mL L3
Sample Info: 0.5ug/mL L3

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G042903P-3.b/G#C-008-0801.d Page 1
Report Date: 30-Apr-2003 06:32

STL Denver

Data file : /chem/GC_G.i/G042903P-3.b/G#C-008-0801.d
Lab Smp Id: 0.2ug/mL L2 Client Smp ID: 0.2ug/mL L2
Inj Date : 29-APR-2003 17:08
Operator : SLD Inst ID: GC_G.i
Smp Info : 0.2ug/mL L2
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-3.b/8310-3.m
Meth Date : 30-Apr-2003 06:29 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 17:08 Cal File: G#C-008-0801.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

SD 413063

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Phenanthrene	7.445	7.452	-0.007	36012	200.000	207.3
$	2 Decafluorobiphenyl	8.100	8.100	0.000	232	200.000	776.9
	3 Anthracene	8.366	8.374	-0.008	251677	200.000	214.3
	4 Fluoranthene	9.238	9.223	0.015	2546	200.000	208.1
	5 Pyrene	9.886	9.893	-0.007	107157	200.000	207.6
$	6 p-terphenyl-d14	11.369	11.369	0.000	32498	200.000	202.1
	7 Benzo(a)Anthracene	12.254	12.262	-0.008	154012	200.000	208.3
	8 Chrysene	12.852	12.852	0.000	139908	200.000	208.7
	9 Benzo(b)Fluoranthene	14.566	14.566	0.000	92356	200.000	213.4
	10 Benzo(k)Fluoranthene	15.487	15.487	0.000	123784	200.000	209.1
	11 Benzo(a)Pyrene	16.171	16.164	0.007	27410	200.000	203.8
*	12 Dibenzo(a,h)Anthracene	17.366	17.532	-0.166	2031	200.000	229.0
	13 Benzo(g,h,i)Perylene	17.878	17.856	0.022	9146	200.000	222.0
	14 Indeno(1,2,3-c,d)Pyrene	18.518	18.497	0.021	24075	200.000	207.6

Data File: /chem/GC_G.i/G042903P-3.b/G#C-008-0801.d

Date : 29-APR-2003 17:08

Client ID: 0.2ug/mL L2

Sample Info: 0.2ug/mL L2

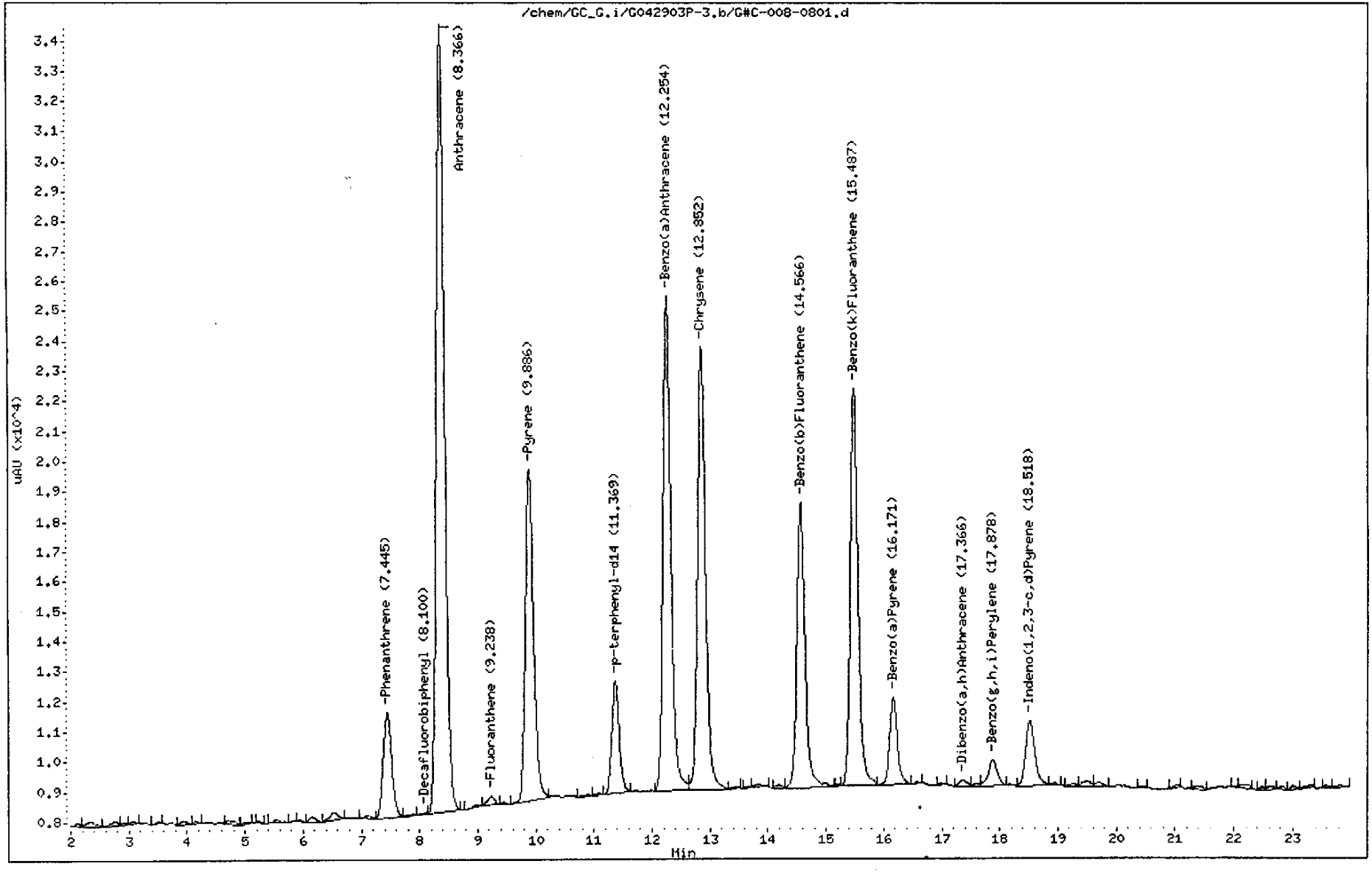
Column phase: C-18

Page 2

Instrument: GC_G.i

Operator: SLD

Column diameter: 4.60



Data File: /chem/GC_G.i/G042903P-3.b/G#C-009-0901.d
Report Date: 30-Apr-2003 06:33

STL Denver

Data file : /chem/GC_G.i/G042903P-3.b/G#C-009-0901.d
Lab Smp Id: 0.05ug/mL L1 Client Smp ID: 0.05ug/mL L1
Inj Date : 29-APR-2003 17:39
Operator : SLD Inst ID: GC_G.i
Smp Info : 0.05ug/mL L1
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-3.b/8310-3.m
Meth Date : 30-Apr-2003 06:29 dacars Quant Type: ESTD
Cal Date : 29-APR-2003 17:39 Cal File: G#C-009-0901.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

SO 4/30/03

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Phenanthrene	7.452	7.452	0.000	9241	50.0000	52.77
$	2 Decafluorobiphenyl	Compound Not Detected.					
	3 Anthracene	8.374	8.374	0.000	59478	50.0000	50.57
	4 Fluoranthene	9.223	9.223	0.000	324	50.0000	28.15
	5 Pyrene	9.893	9.893	0.000	27543	50.0000	52.92
$	6 p-terphenyl-d14	11.369	11.369	0.000	8790	50.0000	54.03
	7 Benzo(a)Anthracene	12.262	12.262	0.000	43382	50.0000	57.44
	8 Chrysene	12.852	12.852	0.000	36313	50.0000	53.61
	9 Benzo(b)Fluoranthene	14.566	14.566	0.000	26788	50.0000	60.11
	10 Benzo(k)Fluoranthene	15.487	15.487	0.000	32994	50.0000	54.96
	11 Benzo(a)Pyrene	16.164	16.164	0.000	7373	50.0000	54.16
	12 Dibenzo(a,h)Anthracene	17.532	17.532	0.000	332	50.0000	39.22
	13 Benzo(g,h,i)Perylene	17.856	17.856	0.000	2495	50.0000	59.01
	14 Indeno(1,2,3-c,d)Pyrene	18.497	18.497	0.000	5818	50.0000	50.14

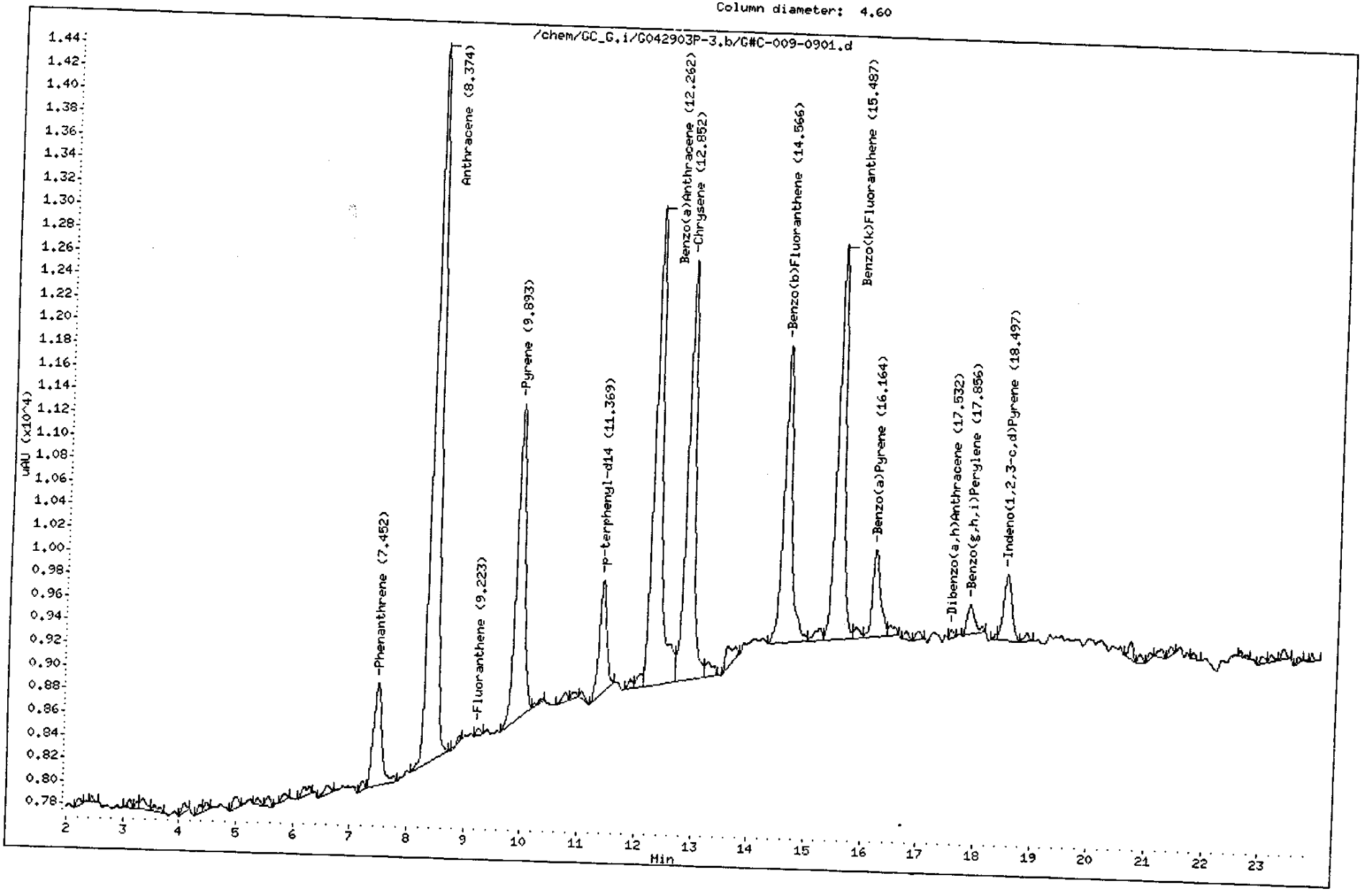
Data File: /chem/GC_G.i/G042903P-3.b/G#C-009-0901.d
Date : 29-APR-2003 17:39
Client ID: 0.05ug/mL L1
Sample Info: 0.05ug/mL L1

Instrument: GC_G.i

Page 2

Column phase: C-18

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G042903P-3.b/G#C-010-1001.d
Report Date: 30-Apr-2003 06:35

STL Denver

Data file : /chem/GC_G.i/G042903P-3.b/G#C-010-1001.d
Lab Smp Id: 8310 ICAL SS
Inj Date : 29-APR-2003 18:09
Operator : SLD
Smp Info : 8310 ICAL SS
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G042903P-3.b/8310-3.m
Meth Date : 30-Apr-2003 06:34 dacars
Cal Date : 29-APR-2003 17:39
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.50

Client Smp ID: 8310 ICAL SS

Inst ID: GC_G.i

Quant Type: ESTD
Cal File: G#C-009-0901.d
QC Sample: SSV

Compound Sublist: all.sub

SD 413063

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	1 Phenanthrene	7.438	7.452	-0.014	854847	4881.22	4881
$	2 Decafluorobiphenyl	8.035	8.100	-0.065	5056	4883.75	4884 (R)
	3 Anthracene	8.359	8.374	-0.015	5485930	4664.12	4664
	4 Fluoranthene	9.216	9.223	-0.007	61326	4912.97	4913
	5 Pyrene	9.828	9.893	-0.065	2603307	5002.35	5002
$	6 p-terphenyl-d14	11.354	11.369	-0.015	696313	4279.92	4280 (R)
	7 Benzo(a)Anthracene	12.240	12.262	-0.022	3627336	4802.37	4802
	8 Chrysene	12.838	12.852	-0.014	3444805	5085.36	5085
	9 Benzo(b)Fluoranthene	14.544	14.566	-0.022	2120619	4758.62	4759
	10 Benzo(k)Fluoranthene	15.466	15.487	-0.021	2899453	4829.61	4830
	11 Benzo(a)Pyrene	16.150	16.164	-0.014	615353	4520.06	4520
•	12 Dibenzo(a,h)Anthracene	17.330	17.532	-0.202	37003	4904.98	4905
	13 Benzo(g,h,i)Perylene	17.849	17.856	-0.007	193716	4580.80	4581
	14 Indeno(1,2,3-c,d)Pyrene	18.482	18.497	-0.015	555572	4787.82	4788

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/GC_G.i/G042903P-3.b/G#C-010-1001.d
Report Date: 30-Apr-2003 06:35

STL Denver

RECOVERY REPORT

Client Name:
Sample Matrix: NONE
Lab Smp Id: 8310 ICAL SS
Level:
Data Type: LC DATA
SpikeList File: SSspike.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G042903P-3.b/8310-3.m
Misc Info: ICAL 04/29/03

Client SDG: G042903P-3
Fraction: SV
Client Smp ID: 8310 ICAL SS
Operator: SLD
SampleType: SSV
Quant Type: ESTD

SPIKE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS 85-115
1 Phenanthrene	5000	4881	97.62	
3 Anthracene	5000	4664	93.28	
4 Fluoranthene	5000	4913	98.26	
5 Pyrene	5000	5002	100.05	
7 Benzo(a)Anthracene	5000	4802	96.05	
8 Chrysene	5000	5085	101.71	
9 Benzo(b)Fluoranthe	5000	4759	95.17	
10 Benzo(k)Fluoranthe	5000	4830	96.59	
11 Benzo(a)Pyrene	5000	4520	90.40	
	0.000	0.000	*	
12 Dibenzo(a,h)Anthra	5000	4905	98.10	
13 Benzo(g,h,i)Peryle	5000	4581	91.62	
14 Indeno(1,2,3-c,d)P	5000	4788	95.76	

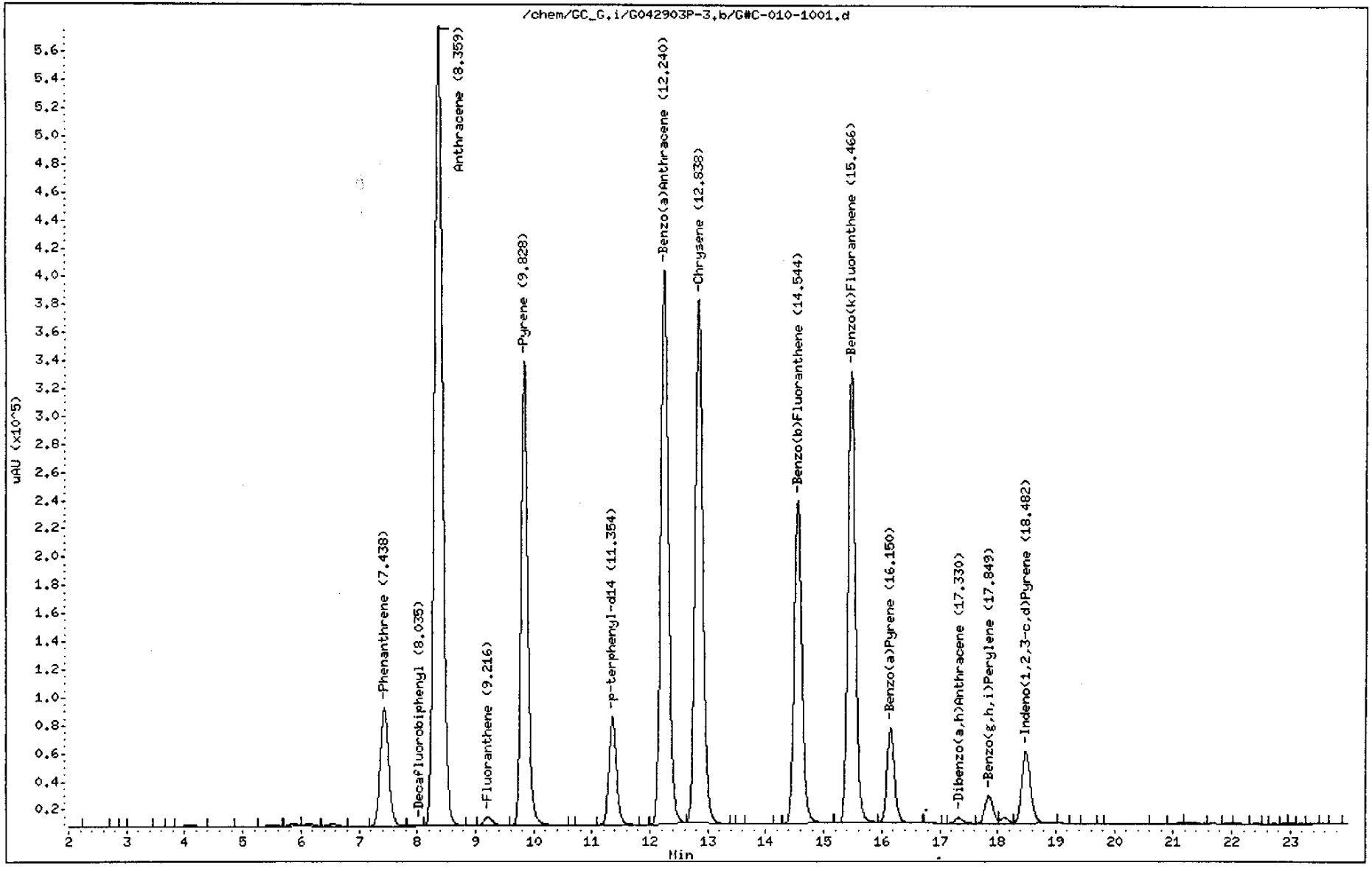
SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 2 Decafluorobiphenyl	40000	4884	12.21	
$ 6 p-terphenyl-d14	20000	4280	21.40	

Data File: /chem/GC_G.i/G042903P-3.b/G#C-010-1001.d
Date : 29-APR-2003 18:09
Client ID: 8310 ICAL SS
Sample Info: 8310 ICAL SS

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-1.b/G#A-002-0201.d
Report Date: 08/22/2003

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_G.i
Lab File ID: G#A-002-0201.d
Analysis Type: NONE

Injection Date: 21-AUG-2003 12:52
Lab Sample ID: 8310 CCV HPLC152
Method File: /chem/GC_G.i/G082103P-1.b/8310-1.m

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D	
0	Naphthalene	2000.0000	1988.7517	0.6	15.0	
0	Acenaphthylene	2000.0000	2041.7682	2.1	15.0	
0	1-Methylnaphthalene	2000.0000	1989.6460	0.5	15.0	
0	2-Methylnaphthalene	2000.0000	1997.2713	0.1	15.0	
0	Acenaphthene	2000.0000	1936.3489	3.2	15.0	
0	Fluorene	2000.0000	1915.4094	4.2	15.0	
0	Phenanthrene	2000.0000	1920.2728	4.0	15.0	
22	Decafluorobiphenyl	2000.0000	1858.7013	7.1	15.0	
0	Anthracene	2000.0000	2064.9363	3.2	15.0	
0	Fluoranthene	2000.0000	1987.8626	0.6	15.0	
0	Pyrene	2000.0000	1999.0360	0.0	15.0	
30	p-terphenyl-d14	2000.0000	1880.6230	6.0	15.0	
0	Benzo(a)Anthracene	2000.0000	1985.1649	0.7	15.0	
0	Chrysene	2000.0000	2003.5687	0.2	15.0	
0	Benzo(b)Fluoranthene	2000.0000	1899.7842	5.0	15.0	
0	Benzo(k)Fluoranthene	2000.0000	2027.6273	1.4	15.0	
0	Benzo(a)Pyrene	2000.0000	1978.9879	1.1	15.0	
25	Decachlorobiphenyl	2000.0000	1585.9128	20.7	15.0	<- NT
0	Dibenzo(a,h)Anthracene	2000.0000	1986.9013	0.7	15.0	
0	Benzo(g,h,i)Perylene	2000.0000	1821.5128	8.9	15.0	
0	Indeno(1,2,3-c,d)Pyrene	2000.0000	1963.6649	1.8	15.0	

Average %D = 3.43

HO 8/22/03

Data File: /chem/GC_G.i/G082103P-1.b/G#A-002-0201.d
Report Date: 22-Aug-2003 09:23

STL Denver

Data file : /chem/GC_G.i/G082103P-1.b/G#A-002-0201.d
Lab Smp Id: 8310 CCV HPLC152
Inj Date : 21-AUG-2003 12:52
Operator : SLD Inst ID: GC_G.i
Smp Info : 8310 CCV HPLC152
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-1.b/8310-1.m
Meth Date : 22-Aug-2003 09:23 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#A-002-0201.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Naphthalene	4.076	4.076	0.000	149944	2000.00	1989
	2 Acenaphthylene	4.963	4.963	0.000	75530	2000.00	2042
	3 1-Methylnaphthalene	5.496	5.496	0.000	124475	2000.00	1990
	4 2-Methylnaphthalene	5.843	5.843	0.000	141238	2000.00	1997
	5 Acenaphthene	6.116	6.116	0.000	120998	2000.00	1936
	6 Fluorene	6.523	6.523	0.000	107922	2000.00	1915
	7 Phenanthrene	7.396	7.396	0.000	156804	2000.00	1920
$	8 Decafluorobiphenyl	8.009	8.009	0.000	21972	2000.00	1859
	9 Anthracene	8.296	8.296	0.000	166908	2000.00	2065
	10 Fluoranthene	9.149	9.149	0.000	118109	2000.00	1988
	11 Pyrene	9.776	9.776	0.000	76784	2000.00	1999
$	12 p-terphenyl-d14	11.243	11.243	0.000	114345	2000.00	1881
	13 Benzo(a)Anthracene	12.123	12.123	0.000	182050	2000.00	1985
	14 Chrysene	12.703	12.703	0.000	169799	2000.00	2004
	15 Benzo(b)Fluoranthene	14.403	14.403	0.000	143316	2000.00	1900
	16 Benzo(k)Fluoranthene	15.316	15.316	0.000	136208	2000.00	2028
	17 Benzo(a)Pyrene	15.996	15.996	0.000	99497	2000.00	1979
$	18 Decachlorobiphenyl	16.223	16.223	0.000	30882	2000.00	1586
	19 Dibenzo(a,h)Anthracene	17.189	17.189	0.000	148769	2000.00	1987(M)
	20 Benzo(g,h,i)Perylene	17.736	17.736	0.000	105349	2000.00	1822
	21 Indeno(1,2,3 c,d)Pyrene	18.363	18.363	0.000	111748	2000.00	1964

QC Flag Legend

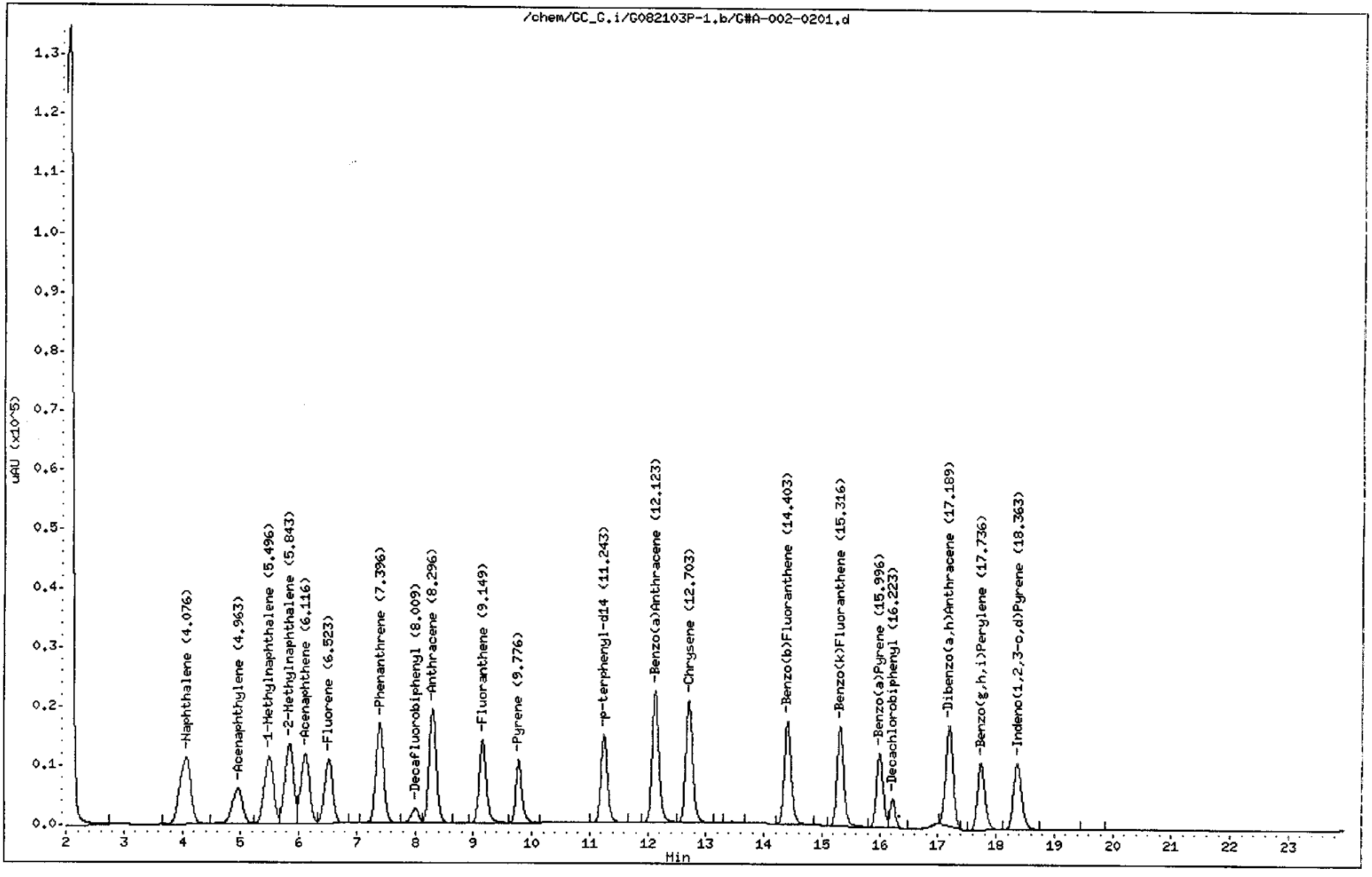
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-002-0201.d
Date : 21-AUG-2003 12:52
Client ID:
Sample Info: 8310 CCV HPLC152

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File Name: G#A-002-0201.d

Inj. Date and Time: 21-AUG-2003 12:52

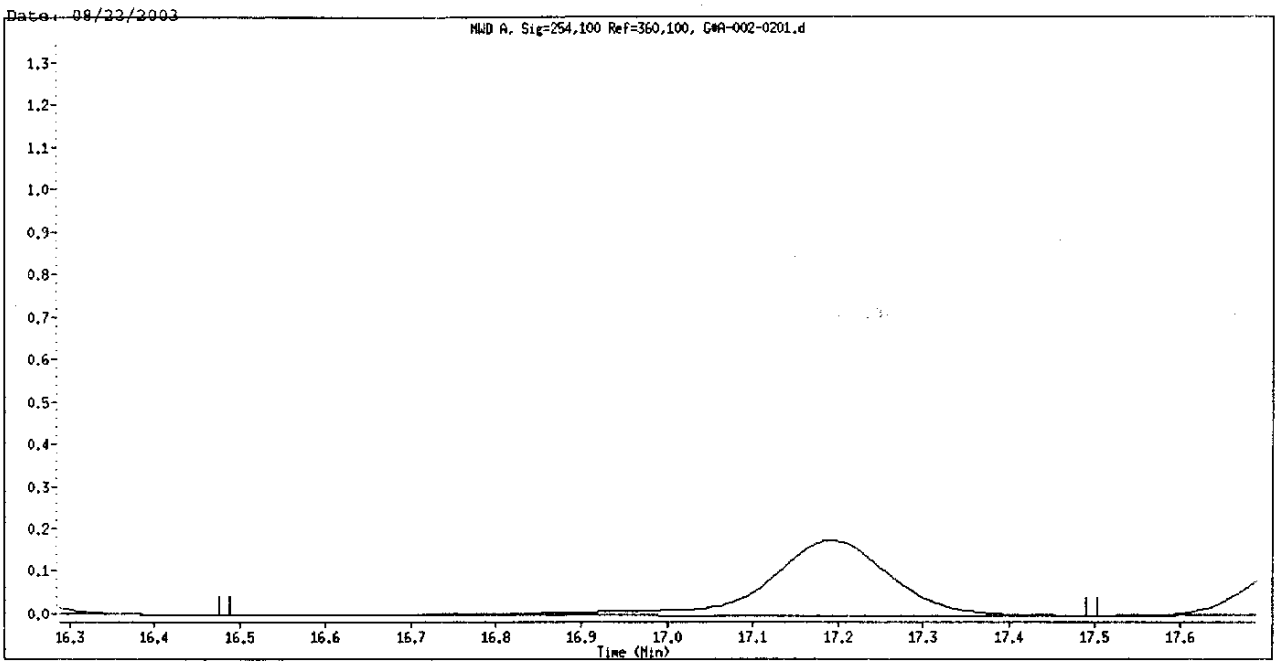
Instrument ID: GC_G.i

Client ID:

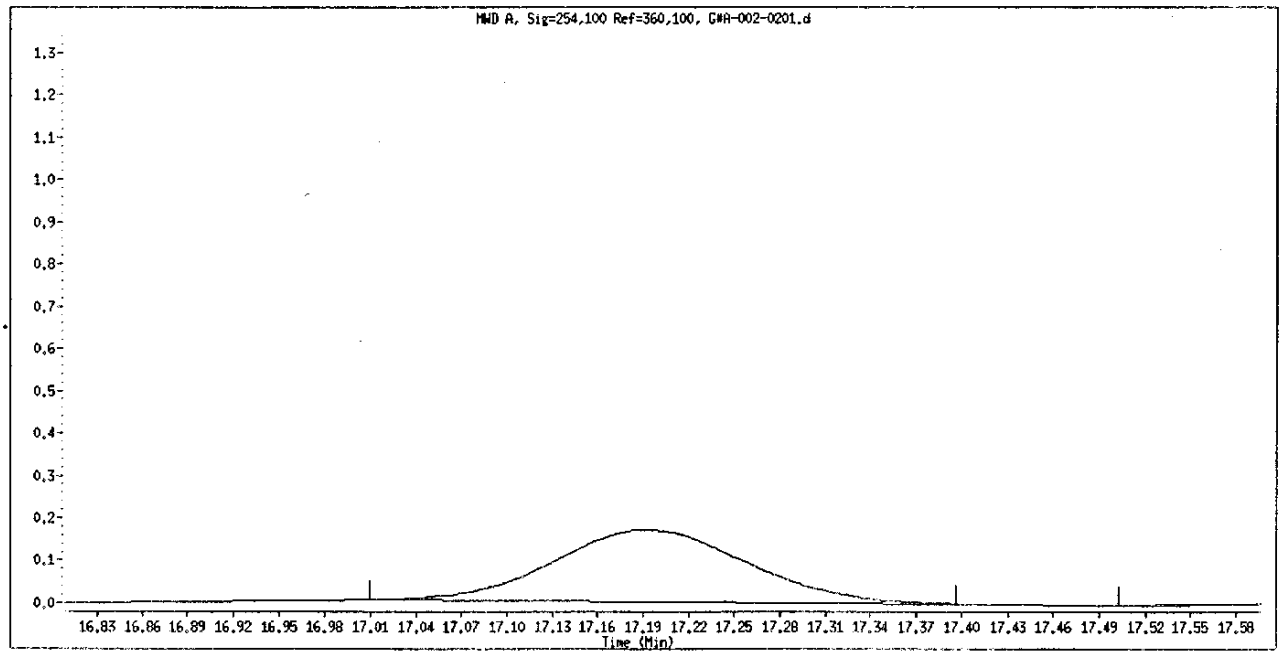
Compound Name: Dibenzo(a,h)Anthracene

CAS #: 53-70-3

Report ~~Date: 08/23/2003~~



Original Integration



Manual Integration

Manually Integrated By: fiedlerh

Manual Integration Reason: Baseline Event

Data File: /chem/GC_G.i/G082103P-2.b/G#B-002-0201.d
Report Date: 08/22/2003

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_G.i
Lab File ID: G#B-002-0201.d
Analysis Type: NONE

Injection Date: 21-AUG-2003 12:52
Lab Sample ID: 8310 CCV HPLC152
Method File: /chem/GC_G.i/G082103P-2.b/8310-2.m

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
0 Naphthalene	2000.0000	2037.8970	1.9	15.0
0 Acenaphthylene	2000.0000	2046.8181	2.3	15.0
0 1-Methylnaphthalene	2000.0000	1968.0631	1.6	15.0
0 2-Methylnaphthalene	2000.0000	1900.7299	5.0	15.0
0 Acenaphthene	2000.0000	1965.1288	1.7	15.0
0 Fluorene	2000.0000	1909.9958	4.5	15.0
22 Decafluorobiphenyl	2000.0000	1820.6107	9.0	15.0
30 p-terphenyl-d14	2000.0000	1836.5861	8.2	15.0
24 Decachlorobiphenyl	2000.0000	1495.8991	25.2	15.0 <- NT

Average %D = 6.60

NS 8/22/03

Data File: /chem/GC_G.i/G082103P-2.b/G#B-002-0201.d
Report Date: 22-Aug-2003 10:33

STL Denver

Data file : /chem/GC_G.i/G082103P-2.b/G#B-002-0201.d
Lab Smp Id: 8310 CCV HPLC152
Inj Date : 21-AUG-2003 12:52
Operator : SLD Inst ID: GC_G.i
Smp Info : 8310 CCV HPLC152
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-2.b/8310-2.m
Meth Date : 22-Aug-2003 10:33 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#B-002-0201.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

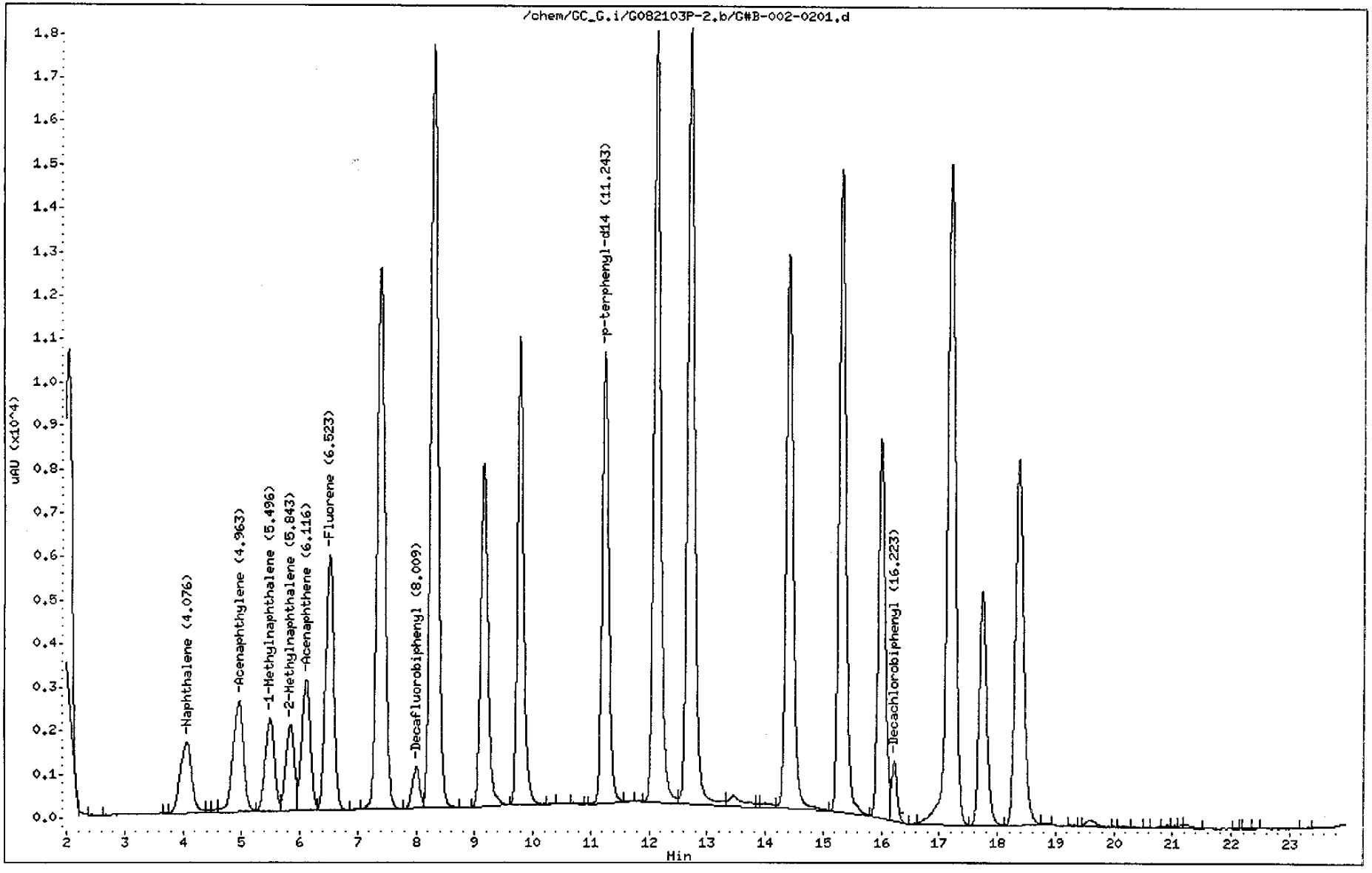
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Naphthalene	4.076	4.076	0.000	21952	2000.00	2038
2 Acenaphthylene	4.963	4.963	0.000	31892	2000.00	2047
3 1-Methylnaphthalene	5.496	5.496	0.000	23282	2000.00	1968
4 2-Methylnaphthalene	5.843	5.843	0.000	20204	2000.00	1901
5 Acenaphthene	6.116	6.116	0.000	30909	2000.00	1965
6 Fluorene	6.523	6.523	0.000	58426	2000.00	1910
$ 8 Decafluorobiphenyl	8.009	8.009	0.000	8146	2000.00	1821
$ 12 p-terphenyl-d14	11.243	11.243	0.000	81008	2000.00	1836
$ 18 Decachlorobiphenyl	16.223	16.223	0.000	9166	2000.00	1496

Data File: /chem/GC_G.i/G082103P-2.b/G#B-002-0201.d
Date : 21-AUG-2003 12:52
Client ID:
Sample Info: 8310 CCV HPLC152

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-3.b/G#C-002-0201.d
Report Date: 08/22/2003

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_G.i
Lab File ID: G#C-002-0201.d
Analysis Type: NONE

Injection Date: 21-AUG-2003 12:52
Lab Sample ID: 8310 CCV HPLC152
Method File: /chem/GC_G.i/G082103P-3.b/8310-3.m

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
0	Phenanthrene	2000.0000	1748.3965	12.6	15.0
22	Decafluorobiphenyl	2000.0000	2174.0940	8.7	15.0
0	Anthracene	2000.0000	1988.1634	0.6	15.0
0	Fluoranthene	2000.0000	2105.1102	5.3	15.0
0	Pyrene	2000.0000	1808.9090	9.6	15.0
30	p-terphenyl-d14	2000.0000	1731.5441	13.4	15.0
0	Benzo(a)Anthracene	2000.0000	1774.2228	11.3	15.0
0	Chrysene	2000.0000	1824.2306	8.8	15.0
0	Benzo(b)Fluoranthene	2000.0000	1750.6329	12.5	15.0
0	Benzo(k)Fluoranthene	2000.0000	1749.3895	12.5	15.0
0	Benzo(a)Pyrene	2000.0000	1772.6534	11.4	15.0
0	Dibenzo(a,h)Anthracene	2000.0000	1808.1869	9.6	15.0
0	Benzo(g,h,i)Perylene	2000.0000	1701.5349	14.9	15.0
0	Indeno(1,2,3-c,d)Pyrene	2000.0000	1824.0043	8.8	15.0

Average %D = 9.99

IVD 812214

Data File: /chem/GC_G.i/G082103P-3.b/G#C-002-0201.d Page 1
Report Date: 22-Aug-2003 11:06

STL Denver

Data file : /chem/GC_G.i/G082103P-3.b/G#C-002-0201.d
Lab Smp Id: 8310 CCV HPLC152
Inj Date : 21-AUG-2003 12:52
Operator : SLD Inst ID: GC_G.i
Smp Info : 8310 CCV HPLC152
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-3.b/8310-3.m
Meth Date : 22-Aug-2003 11:06 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 17:39 Cal File: G#C-009-0901.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

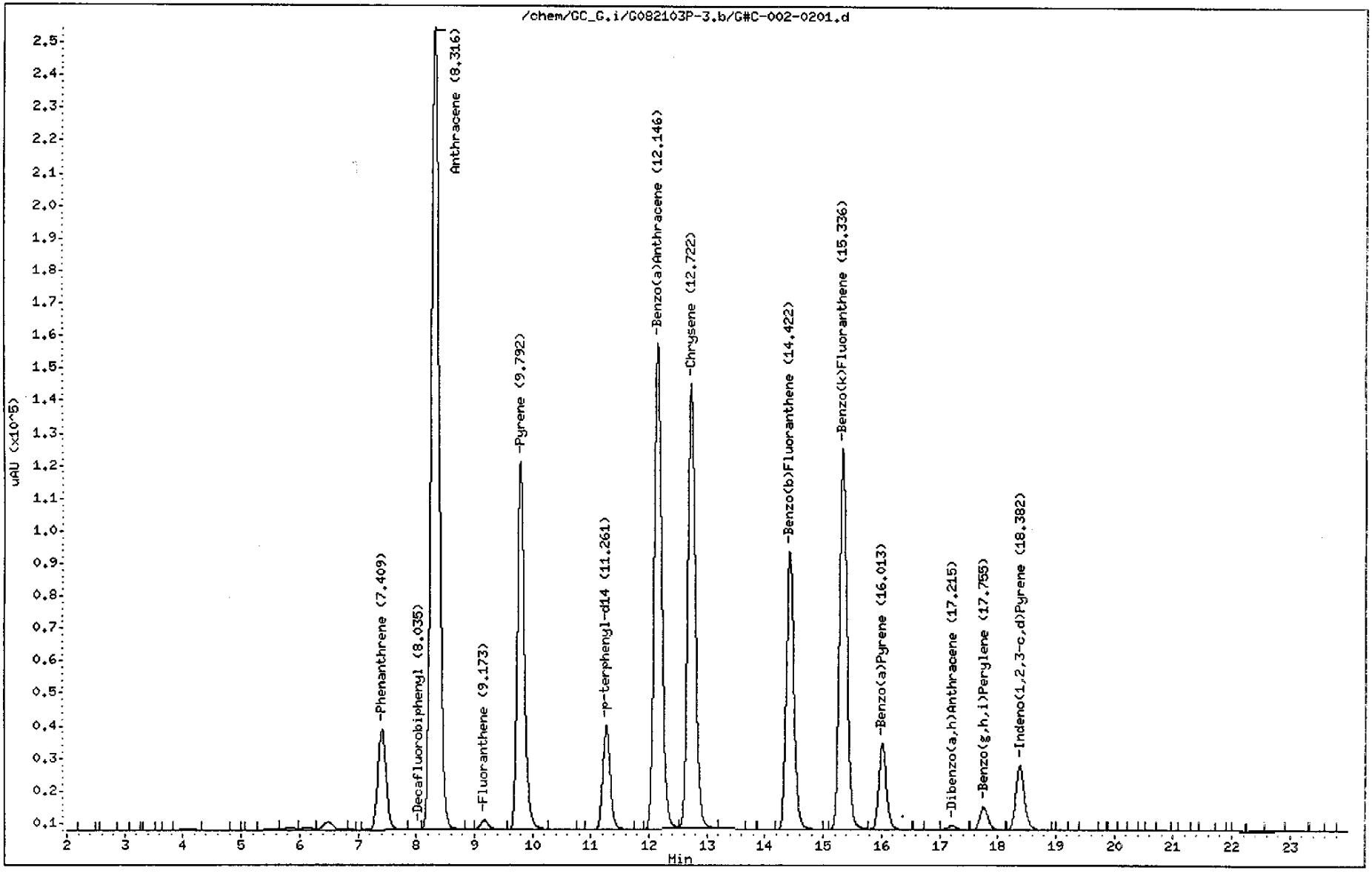
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Phenanthrene	7.409	7.409	0.000	306196	2000.00	1748
$	2 Decafluorobiphenyl	8.035	8.035	0.000	1861	2000.00	2174
	3 Anthracene	8.316	8.316	0.000	2338474	2000.00	1988
	4 Fluoranthene	9.173	9.173	0.000	26107	2000.00	2105
	5 Pyrene	9.792	9.792	0.000	941386	2000.00	1809
$	6 p-terphenyl-d14	11.261	11.261	0.000	281710	2000.00	1732
	7 Benzo(a)Anthracene	12.146	12.146	0.000	1340111	2000.00	1774
	8 Chrysene	12.722	12.722	0.000	1235728	2000.00	1824
	9 Benzo(b)Fluoranthene	14.422	14.422	0.000	780147	2000.00	1751
	10 Benzo(k)Fluoranthene	15.336	15.336	0.000	1050246	2000.00	1749
	11 Benzo(a)Pyrene	16.013	16.013	0.000	241326	2000.00	1773
	12 Dibenzo(a,h)Anthracene	17.215	17.215	0.000	13664	2000.00	1808
	13 Benzo(g,h,i)Perylene	17.755	17.755	0.000	71956	2000.00	1702
	14 Indeno(1,2,3-c,d)Pyrene	18.382	18.382	0.000	211655	2000.00	1824

Data File: /chem/GC_G.i/G082103P-3.b/G#C-002-0201.d
Date : 21-AUG-2003 12:52
Client ID:
Sample Info: 8310 CCV HPLC152

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-1.b/G#A-002-1301.d
Report Date: 08/22/2003

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_G.i
Lab File ID: G#A-002-1301.d
Analysis Type: NONE

Injection Date: 21-AUG-2003 18:31
Lab Sample ID: 8310 CCV HPLC152
Method File: /chem/GC_G.i/G082103P-1.b/8310-1.m

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
0	Naphthalene	2000.0000	1952.5959	2.4	15.0
0	Acenaphthylene	2000.0000	1933.5299	3.3	15.0
0	1-Methylnaphthalene	2000.0000	1983.5400	0.8	15.0
0	2-Methylnaphthalene	2000.0000	1987.7684	0.6	15.0
0	Acenaphthene	2000.0000	1927.0831	3.6	15.0
0	Fluorene	2000.0000	1907.1388	4.6	15.0
0	Phenanthrene	2000.0000	1931.3435	3.4	15.0
22	Decafluorobiphenyl	2000.0000	1891.0162	5.4	15.0
0	Anthracene	2000.0000	2058.3422	2.9	15.0
0	Fluoranthene	2000.0000	1992.8782	0.4	15.0
0	Pyrene	2000.0000	1999.1401	0.0	15.0
30	p-terphenyl-d14	2000.0000	1903.6158	4.8	15.0
0	Benzo(a)Anthracene	2000.0000	1982.8532	0.9	15.0
0	Chrysene	2000.0000	2003.7339	0.2	15.0
0	Benzo(b)Fluoranthene	2000.0000	1889.7628	5.5	15.0
0	Benzo(k)Fluoranthene	2000.0000	2099.6767	5.0	15.0
0	Benzo(a)Pyrene	2000.0000	2033.0487	1.7	15.0
25	Decachlorobiphenyl	2000.0000	1812.7879	9.4	15.0
0	Dibenzo(a,h)Anthracene	2000.0000	2021.4837	1.1	15.0
0	Benzo(g,h,i)Perylene	2000.0000	1770.6269	11.5	15.0
0	Indeno(1,2,3-c,d)Pyrene	2000.0000	1915.0952	4.2	15.0

Average %D = 3.42

WD 8/22/03

Data File: /chem/GC_G.i/G082103P-1.b/G#A-002-1301.d
Report Date: 22-Aug-2003 09:23

STL Denver

Data file : /chem/GC_G.i/G082103P-1.b/G#A-002-1301.d
Lab Smp Id: 8310 CCV HPLC152
Inj Date : 21-AUG-2003 18:31
Operator : SLD Inst ID: GC_G.i
Smp Info : 8310 CCV HPLC152
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-1.b/8310-1.m
Meth Date : 22-Aug-2003 09:23 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#A-002-0201.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

						AMOUNTS	
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
	1 Naphthalene	4.068	4.068	0.000	147218	2000.00	1952
	2 Acenaphthylene	4.955	4.955	0.000	71526	2000.00	1934
	3 1-Methylnaphthalene	5.495	5.495	0.000	124093	2000.00	1984
	4 2-Methylnaphthalene	5.842	5.842	0.000	140566	2000.00	1988
	5 Acenaphthene	6.122	6.122	0.000	120419	2000.00	1927
	6 Fluorene	6.522	6.522	0.000	107456	2000.00	1907
	7 Phenanthrene	7.395	7.395	0.000	157708	2000.00	1931
$	8 Decafluorobiphenyl	8.015	8.015	0.000	22354	2000.00	1891
	9 Anthracene	8.302	8.302	0.000	166375	2000.00	2058
	10 Fluoranthene	9.155	9.155	0.000	118407	2000.00	1993
	11 Pyrene	9.782	9.782	0.000	76788	2000.00	1999
$	12 p-terphenyl-d14	11.242	11.242	0.000	115743	2000.00	1904
	13 Benzo(a)Anthracene	12.128	12.128	0.000	181838	2000.00	1983
	14 Chrysene	12.708	12.708	0.000	169813	2000.00	2004
	15 Benzo(b)Fluoranthene	14.408	14.408	0.000	142560	2000.00	1890
	16 Benzo(k)Fluoranthene	15.315	15.315	0.000	141048	2000.00	2100
	17 Benzo(a)Pyrene	15.995	15.995	0.000	102215	2000.00	2033
$	18 Decachlorobiphenyl	16.228	16.228	0.000	35144	2000.00	1813
	19 Dibenzo(a,h)Anthracene	17.188	17.188	0.000	151376	2000.00	2021(M)
	20 Benzo(g,h,i)Perylene	17.735	17.735	0.000	102497	2000.00	1771
	21 Indeno(1,2,3-c,d)Pyrene	18.355	18.355	0.000	108984	2000.00	1915

QC Flag Legend

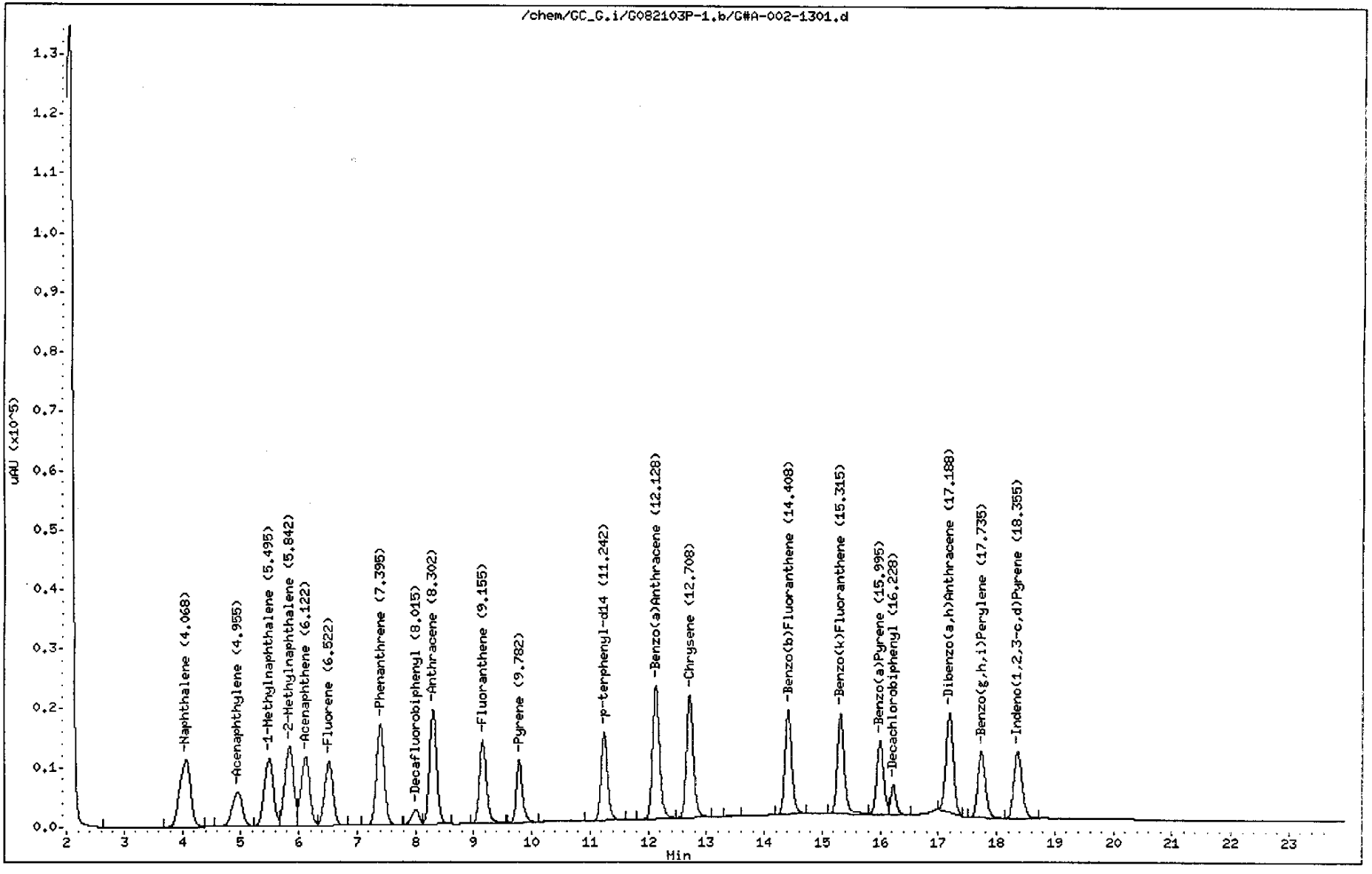
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-002-1301.d
Date : 21-AUG-2003 18:31
Client ID:
Sample Info: 8310 CCV HPLC152

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File Name: G#A-002-1301.d

Inj. Date and Time: 21-AUG-2003 18:31

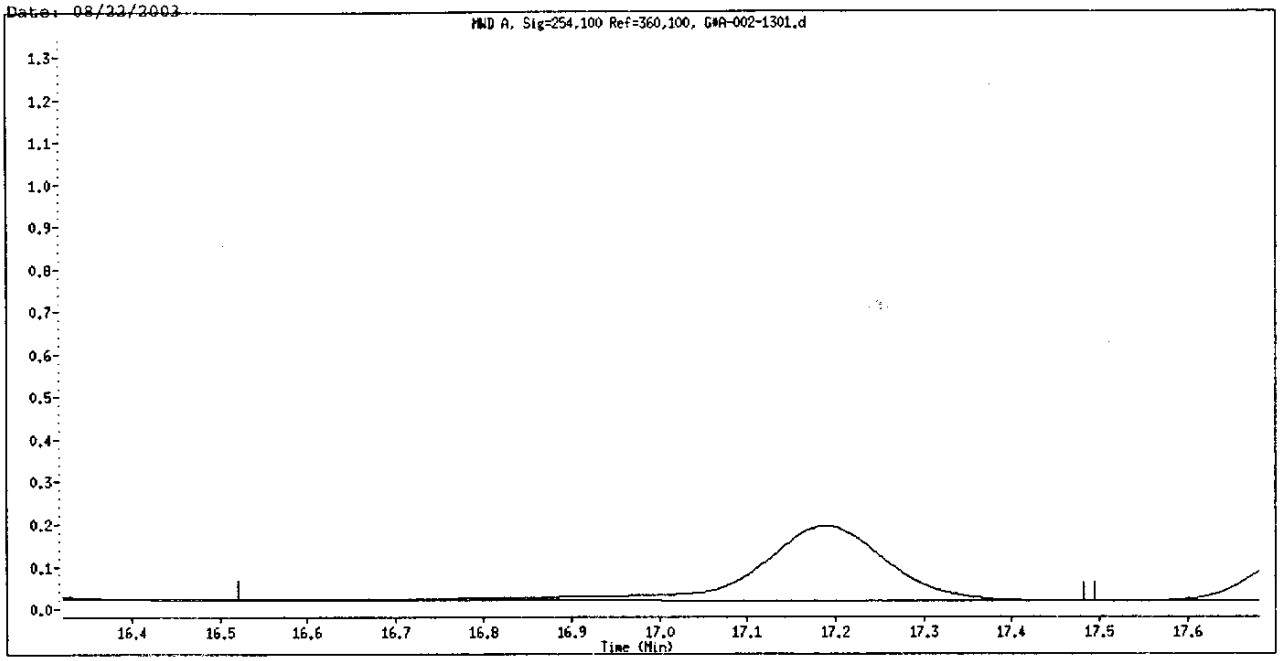
Instrument ID: GC_G.i

Client ID:

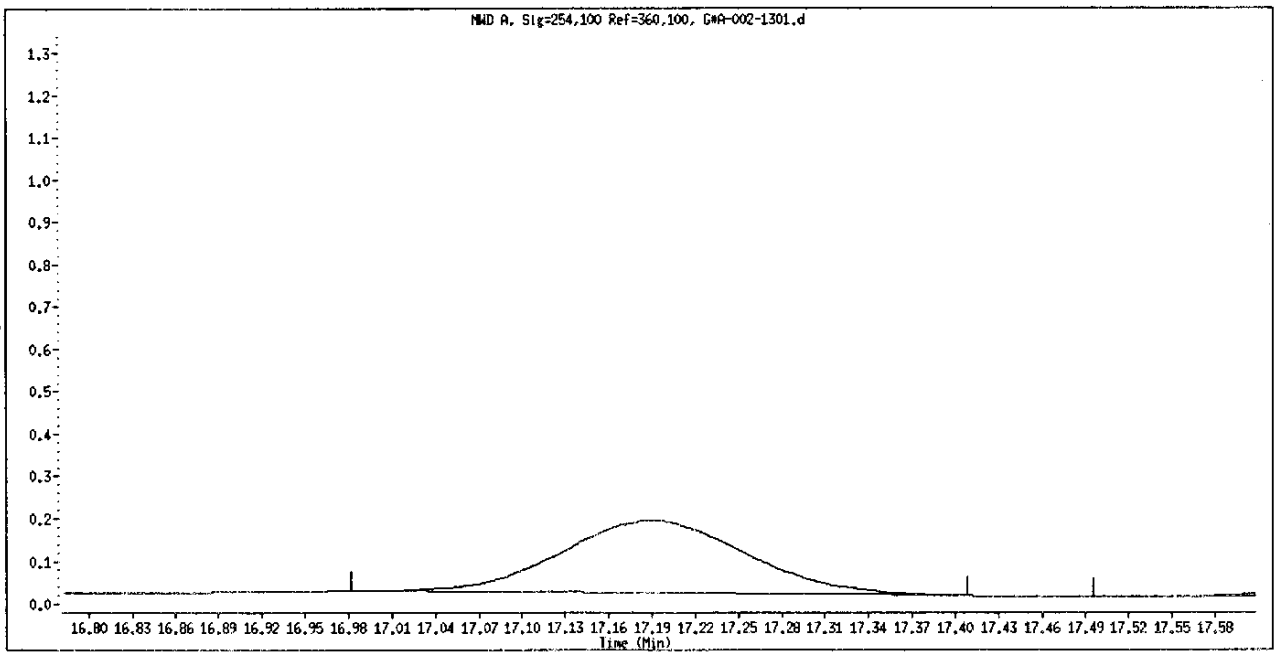
Compound Name: Dibenzo(a,h)Anthracene

CAS #: 53-70-3

Report ~~Date: 08/22/2003~~



Original Integration



Manual Integration

Manually Integrated By: fiedlerh

Manual Integration Reason: Baseline Event

Data File: /chem/GC_G.i/G082103P-2.b/G#B-002-1301.d
Report Date: 08/22/2003

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_G.i
Lab File ID: G#B-002-1301.d
Analysis Type: NONE

Injection Date: 21-AUG-2003 18:31
Lab Sample ID: 8310 CCV HPLC152
Method File: /chem/GC_G.i/G082103P-2.b/8310-2.m

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D	
0 Naphthalene	2000.0000	1936.4961	3.2	15.0	
0 Acenaphthylene	2000.0000	1920.8334	4.0	15.0	
0 1-Methylnaphthalene	2000.0000	1875.2475	6.2	15.0	
0 2-Methylnaphthalene	2000.0000	1742.1847	12.9	15.0	
0 Acenaphthene	2000.0000	1862.4505	6.9	15.0	
0 Fluorene	2000.0000	1887.5045	5.6	15.0	
22 Decafluorobiphenyl	2000.0000	2002.7612	0.1	15.0	
30 p-terphenyl-d14	2000.0000	1910.0650	4.5	15.0	
24 Decachlorobiphenyl	2000.0000	3617.9998	80.9	15.0	<- NT

Average %D = 13.8

3/22/04

Data File: /chem/GC_G.i/G082103P-2.b/G#B-002-1301.d
Report Date: 22-Aug-2003 10:36

STL Denver

Data file : /chem/GC_G.i/G082103P-2.b/G#B-002-1301.d
Lab Smp Id: 8310 CCV HPLC152
Inj Date : 21-AUG-2003 18:31
Operator : SLD Inst ID: GC_G.i
Smp Info : 8310 CCV HPLC152
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-2.b/8310-2.m
Meth Date : 22-Aug-2003 10:36 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#B-002-0201.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

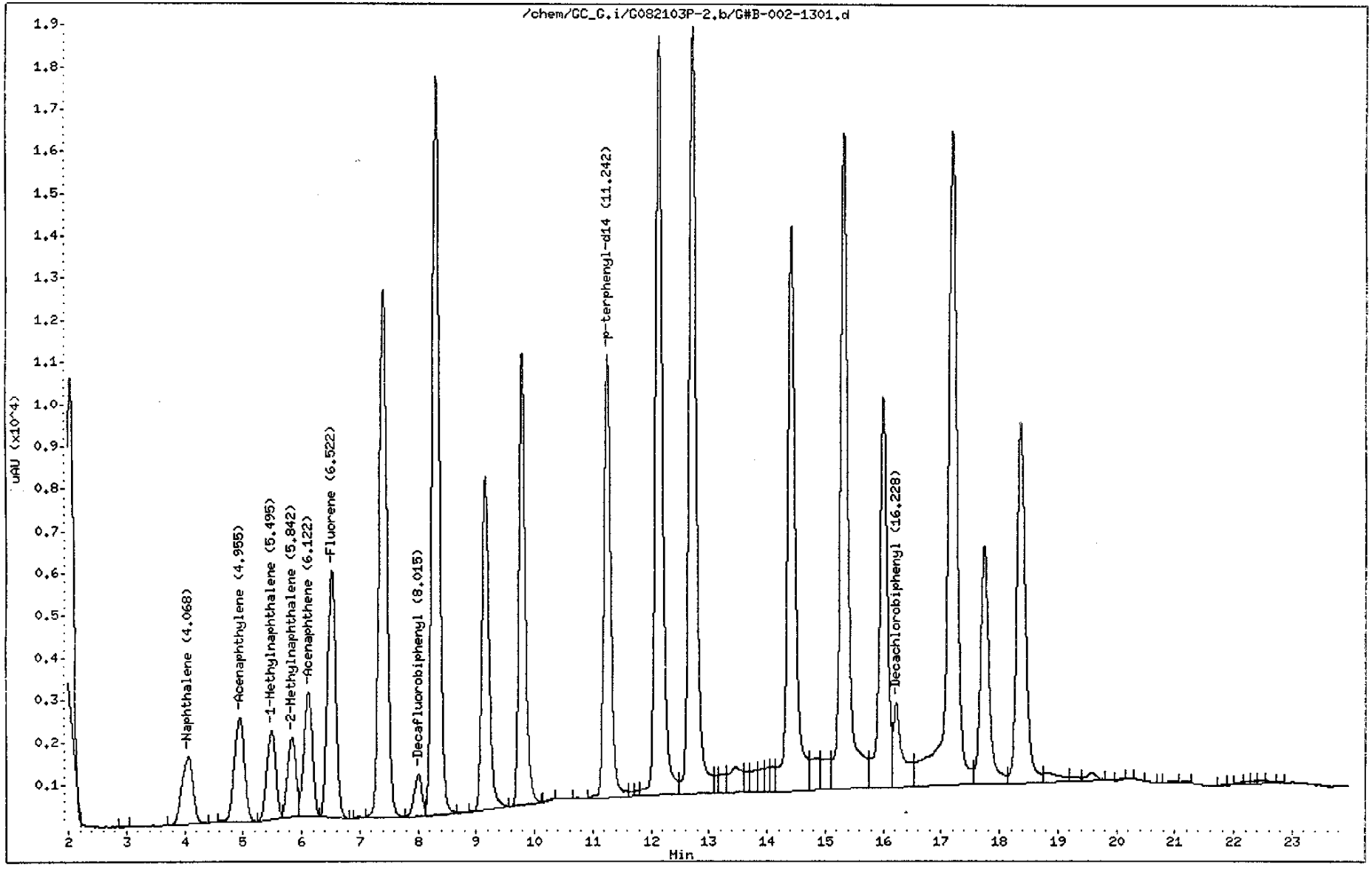
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Naphthalene	4.068	4.068	0.000	20840	2000.00	1936
2 Acenaphthylene	4.955	4.955	0.000	29929	2000.00	1921
3 1-Methylnaphthalene	5.495	5.495	0.000	22184	2000.00	1875
4 2-Methylnaphthalene	5.842	5.842	0.000	18489	2000.00	1742
5 Acenaphthene	6.122	6.122	0.000	29294	2000.00	1862
6 Fluorene	6.522	6.522	0.000	57738	2000.00	1888
$ 8 Decafluorobiphenyl	8.015	8.015	0.000	8961	2000.00	2003
$ 12 p-terphenyl-d14	11.242	11.242	0.000	84249	2000.00	1910
$ 18 Decachlorobiphenyl	16.228	16.228	0.000	22169	2000.00	3618

Data File: /chem/GC_G.i/G082103P-2.b/G#B-002-1301.d
Date : 21-AUG-2003 18:31
Client ID:
Sample Info: 8310 CCV HPLC152

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-3.b/G#C-002-1301.d
Report Date: 08/22/2003

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_G.i
Lab File ID: G#C-002-1301.d
Analysis Type: NONE

Injection Date: 21-AUG-2003 18:31
Lab Sample ID: 8310 CCV HPLC152
Method File: /chem/GC_G.i/G082103P-3.b/8310-3.m

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D	
0	Phenanthrene	2000.0000	1758.2406	12.1	15.0	
22	Decafluorobiphenyl	2000.0000	1538.8933	23.1	15.0	<- NTC
0	Anthracene	2000.0000	1975.8747	1.2	15.0	
0	Fluoranthene	2000.0000	2078.8014	3.9	15.0	
0	Pyrene	2000.0000	1758.0325	12.1	15.0	
30	p-terphenyl-d14	2000.0000	1758.6565	12.1	15.0	
0	Benzo(a)Anthracene	2000.0000	1782.1756	10.9	15.0	
0	Chrysene	2000.0000	1840.6818	8.0	15.0	
0	Benzo(b)Fluoranthene	2000.0000	1797.4670	10.1	15.0	
0	Benzo(k)Fluoranthene	2000.0000	1789.0097	10.5	15.0	
0	Benzo(a)Pyrene	2000.0000	1756.9708	12.2	15.0	
0	Dibenzo(a,h)Anthracene	2000.0000	1925.4818	3.7	15.0	
0	Benzo(g,h,i)Perylene	2000.0000	1691.3668	15.4	15.0	<- OK
0	Indeno(1,2,3-c,d)Pyrene	2000.0000	1810.8793	9.5	15.0	

Average %D = 10.3

1D812216

Data File: /chem/GC_G.i/G082103P-3.b/G#C-002-1301.d
Report Date: 22-Aug-2003 11:10

STL Denver

Data file : /chem/GC_G.i/G082103P-3.b/G#C-002-1301.d
Lab Smp Id: 8310 CCV HPLC152
Inj Date : 21-AUG-2003 18:31
Operator : SLD Inst ID: GC_G.i
Smp Info : 8310 CCV HPLC152
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-3.b/8310-3.m
Meth Date : 22-Aug-2003 11:10 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 17:39 Cal File: G#C-009-0901.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

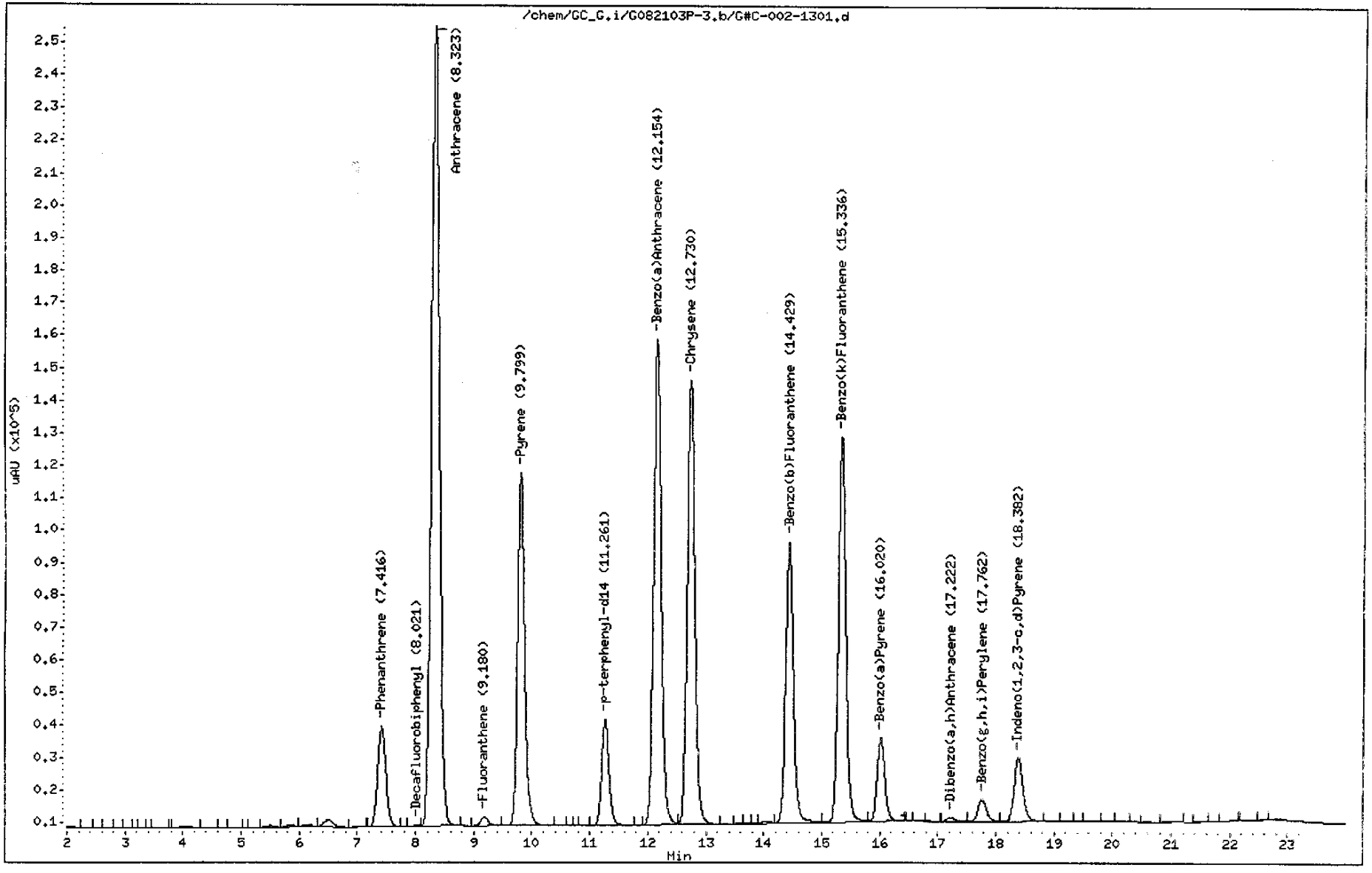
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Phenanthrene	7.416	7.416	0.000	307920	2000.00	1758
$	2 Decafluorobiphenyl	8.021	8.021	0.000	1119	2000.00	1539
	3 Anthracene	8.323	8.323	0.000	2324020	2000.00	1976
	4 Fluoranthene	9.180	9.180	0.000	25777	2000.00	2079
	5 Pyrene	9.799	9.799	0.000	914909	2000.00	1758
$	6 p-terphenyl-d14	11.261	11.261	0.000	286121	2000.00	1759
	7 Benzo(a)Anthracene	12.154	12.154	0.000	1346118	2000.00	1782
	8 Chrysene	12.730	12.730	0.000	1246872	2000.00	1841
	9 Benzo(b)Fluoranthene	14.429	14.429	0.000	801018	2000.00	1797
	10 Benzo(k)Fluoranthene	15.336	15.336	0.000	1074032	2000.00	1789
	11 Benzo(a)Pyrene	16.020	16.020	0.000	239191	2000.00	1757
	12 Dibenzo(a,h)Anthracene	17.222	17.222	0.000	14548	2000.00	1925
	13 Benzo(g,h,i)Perylene	17.762	17.762	0.000	71526	2000.00	1691
	14 Indeno(1,2,3-c,d)Pyrene	18.382	18.382	0.000	210132	2000.00	1811

Data File: /chem/GC_G.i/G082103P-3.b/G#C-002-1301.d
Date : 21-AUG-2003 18:31
Client ID:
Sample Info: 8310 CCV HPLC152

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-1.b/G#A-002-2401.d
Report Date: 08/22/2003

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_G.i
Lab File ID: G#A-002-2401.d
Analysis Type: NONE

Injection Date: 22-AUG-2003 00:11
Lab Sample ID: 8310 CCV HPLC152
Method File: /chem/GC_G.i/G082103P-1.b/8310-1.m

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D	
0	Naphthalene	2000.0000	2019.0185	1.0	15.0	
0	Acenaphthylene	2000.0000	2087.1018	4.4	15.0	
0	1-Methylnaphthalene	2000.0000	2026.2980	1.3	15.0	
0	2-Methylnaphthalene	2000.0000	2022.3294	1.1	15.0	
0	Acenaphthene	2000.0000	1977.4290	1.1	15.0	
0	Fluorene	2000.0000	1940.0793	3.0	15.0	
0	Phenanthrene	2000.0000	1947.5209	2.6	15.0	
22	Decafluorobiphenyl	2000.0000	1938.5581	3.1	15.0	
0	Anthracene	2000.0000	2077.6792	3.9	15.0	
0	Fluoranthene	2000.0000	2000.5025	0.0	15.0	
0	Pyrene	2000.0000	2007.9398	0.4	15.0	
30	p-terphenyl-d14	2000.0000	1904.8658	4.8	15.0	
0	Benzo(a)Anthracene	2000.0000	1993.2233	0.3	15.0	
0	Chrysene	2000.0000	2017.0911	0.9	15.0	
0	Benzo(b)Fluoranthene	2000.0000	1914.6574	4.3	15.0	
0	Benzo(k)Fluoranthene	2000.0000	2052.0705	2.6	15.0	
0	Benzo(a)Pyrene	2000.0000	1870.5878	6.5	15.0	
25	Decachlorobiphenyl	2000.0000	1599.9129	20.0	15.0	<- WT
0	Dibenzo(a,h)Anthracene	2000.0000	2278.1794	13.9	15.0	
0	Benzo(g,h,i)Perylene	2000.0000	1756.6029	12.2	15.0	
0	Indeno(1,2,3-c,d)Pyrene	2000.0000	1945.3898	2.7	15.0	

Average %D = 4.28

ND 8/22/03

Data File: /chem/GC_G.i/G082103P-1.b/G#A-002-2401.d
Report Date: 22-Aug-2003 09:58

STL Denver

Data file : /chem/GC_G.i/G082103P-1.b/G#A-002-2401.d
Lab Smp Id: 8310 CCV HPLC152
Inj Date : 22-AUG-2003 00:11
Operator : SLD Inst ID: GC_G.i
Smp Info : 8310 CCV HPLC152
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-1.b/8310-1.m
Meth Date : 22-Aug-2003 09:58 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#A-002-0201.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

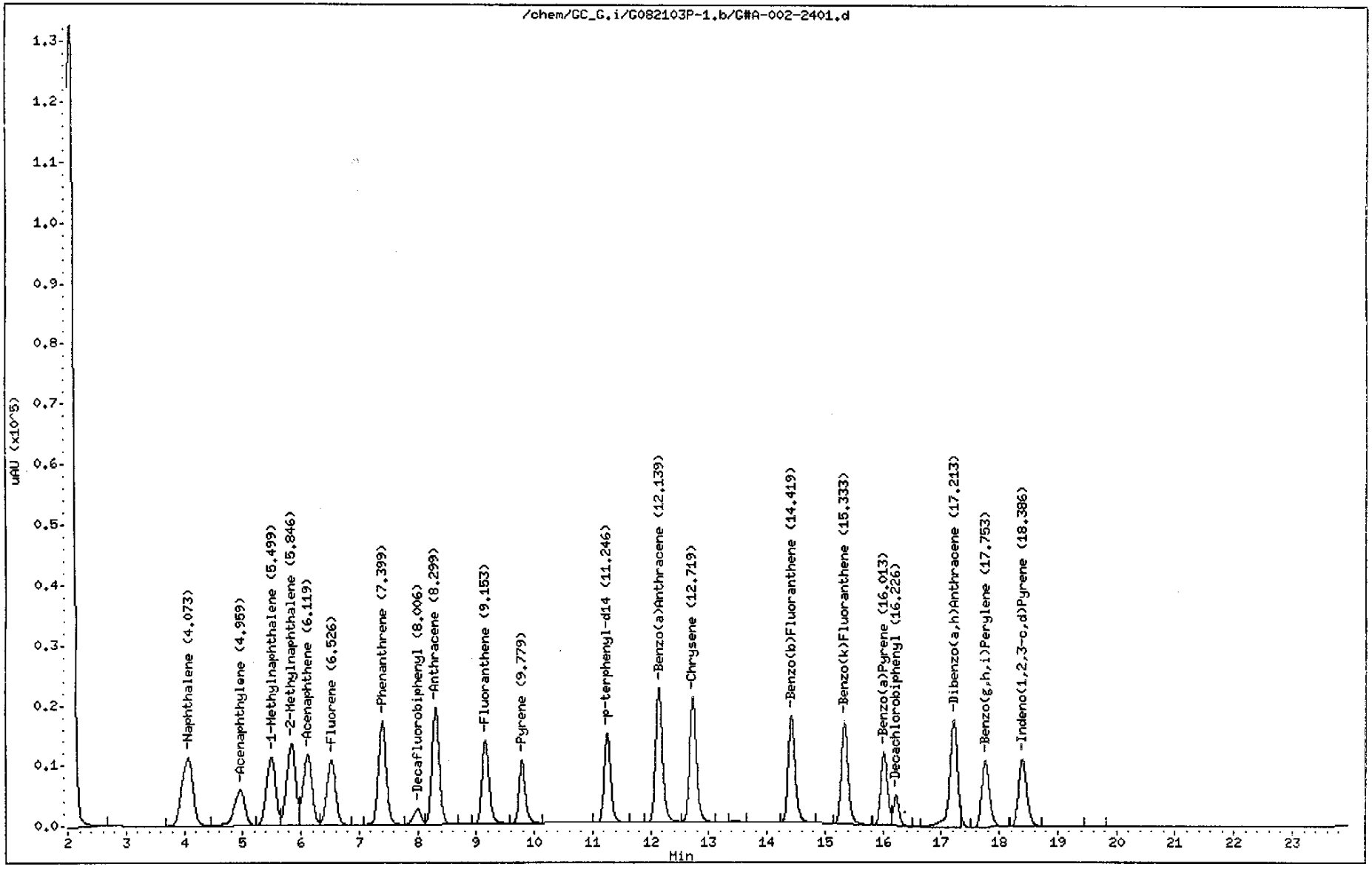
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Naphthalene	4.073	4.073	0.000	152226	2000.00	2019
	2 Acenaphthylene	4.959	4.959	0.000	77207	2000.00	2087
	3 1-Methylnaphthalene	5.499	5.499	0.000	126768	2000.00	2026
	4 2-Methylnaphthalene	5.846	5.846	0.000	143010	2000.00	2022
	5 Acenaphthene	6.119	6.119	0.000	123565	2000.00	1977
	6 Fluorene	6.526	6.526	0.000	109312	2000.00	1940
	7 Phenanthrene	7.399	7.399	0.000	159029	2000.00	1948
$	8 Decafluorobiphenyl	8.006	8.006	0.000	22916	2000.00	1938
	9 Anthracene	8.299	8.299	0.000	167938	2000.00	2078
	10 Fluoranthene	9.153	9.153	0.000	118860	2000.00	2000
	11 Pyrene	9.779	9.779	0.000	77126	2000.00	2008
$	12 p-terphenyl-d14	11.246	11.246	0.000	115819	2000.00	1905
	13 Benzo(a)Anthracene	12.139	12.139	0.000	182789	2000.00	1993
	14 Chrysene	12.719	12.719	0.000	170945	2000.00	2017
	15 Benzo(b)Fluoranthene	14.419	14.419	0.000	144438	2000.00	1915
	16 Benzo(k)Fluoranthene	15.333	15.333	0.000	137850	2000.00	2052
	17 Benzo(a)Pyrene	16.013	16.013	0.000	94047	2000.00	1870
$	18 Decachlorobiphenyl	16.226	16.226	0.000	31145	2000.00	1600
	19 Dibenzo(a,h)Anthracene	17.213	17.213	0.000	170727	2000.00	2278
	20 Benzo(g,h,i)Perylene	17.753	17.753	0.000	101711	2000.00	1757
	21 Indeno(1,2,3-c,d)Pyrene	18.386	18.386	0.000	110708	2000.00	1945

Data File: /chem/GC_G.i/G082103P-1.b/G#A-002-2401.d
Date : 22-AUG-2003 00:11
Client ID:
Sample Info: 8310 CCV HPLC152

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-2.b/G#B-002-2401.d
Report Date: 08/22/2003

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_G.i
Lab File ID: G#B-002-2401.d
Analysis Type: NONE

Injection Date: 22-AUG-2003 00:11
Lab Sample ID: 8310 CCV HPLC152
Method File: /chem/GC_G.i/G082103P-2.b/8310-2.m

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D	
0	Naphthalene	2000.0000	2094.5246	4.7	15.0	
0	Acenaphthylene	2000.0000	2035.1374	1.8	15.0	
0	1-Methylnaphthalene	2000.0000	1978.3760	1.1	15.0	
0	2-Methylnaphthalene	2000.0000	1934.2879	3.3	15.0	
0	Acenaphthene	2000.0000	1957.8809	2.1	15.0	
0	Fluorene	2000.0000	1915.6840	4.2	15.0	
22	Decafluorobiphenyl	2000.0000	1773.8997	11.3	15.0	
30	p-terphenyl-d14	2000.0000	1910.5184	4.5	15.0	
24	Decachlorobiphenyl	2000.0000	1523.4800	23.8	15.0	<- MT

Average %D = 6.31

KD 8/22/03

Data File: /chem/GC_G.i/G082103P-2.b/G#B-002-2401.d
Report Date: 22-Aug-2003 10:49

STL Denver

Data file : /chem/GC_G.i/G082103P-2.b/G#B-002-2401.d
Lab Smp Id: 8310 CCV HPLC152
Inj Date : 22-AUG-2003 00:11
Operator : SLD Inst ID: GC_G.i
Smp Info : 8310 CCV HPLC152
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-2.b/8310-2.m
Meth Date : 22-Aug-2003 10:49 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#B-002-0201.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

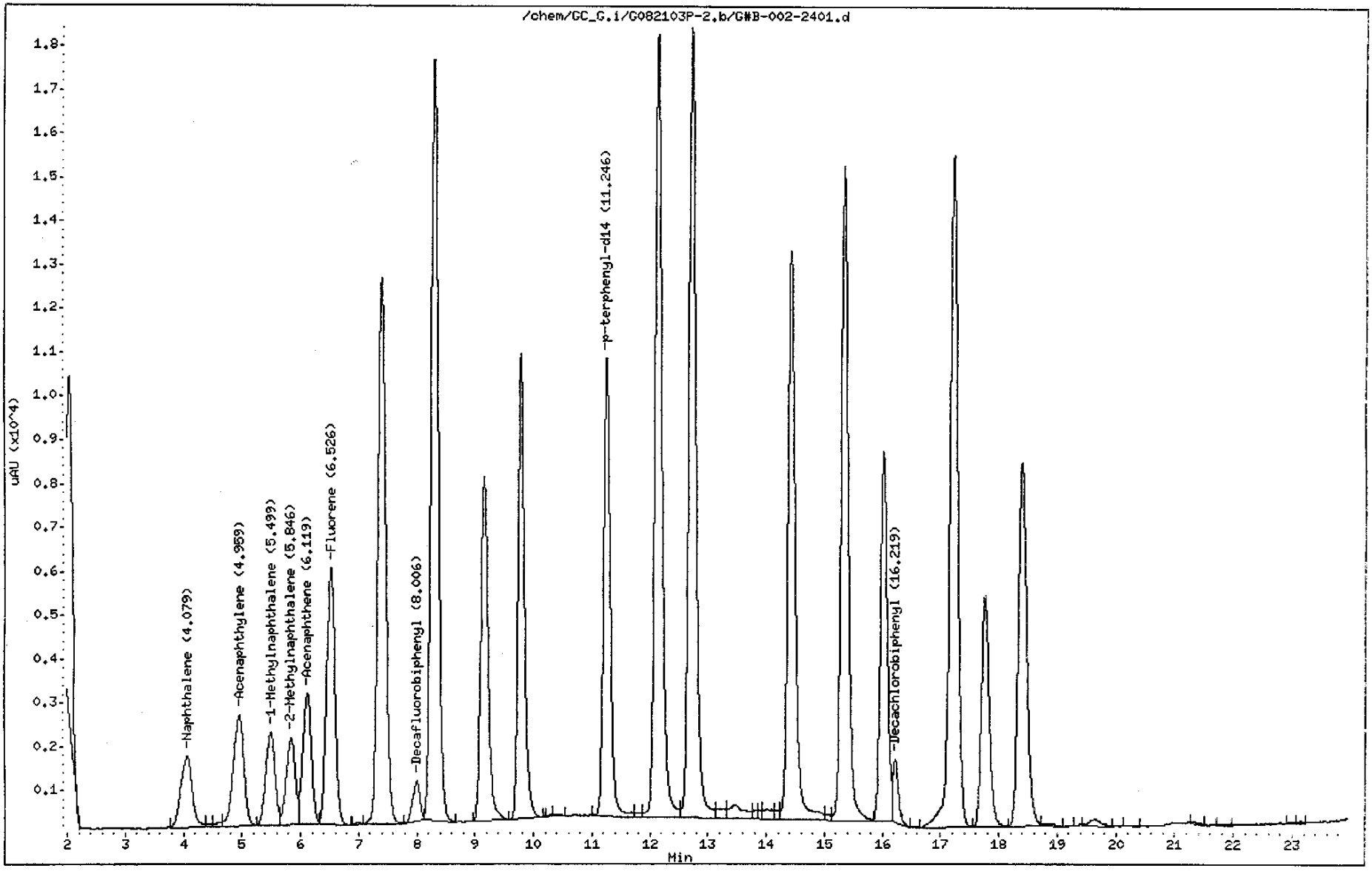
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Naphthalene	4.079	4.079	0.000	22573	2000.00	2094
2 Acenaphthylene	4.959	4.959	0.000	31710	2000.00	2035
3 1-Methylnaphthalene	5.499	5.499	0.000	23404	2000.00	1978
4 2-Methylnaphthalene	5.846	5.846	0.000	20567	2000.00	1934
5 Acenaphthene	6.119	6.119	0.000	30795	2000.00	1958
6 Fluorene	6.526	6.526	0.000	58600	2000.00	1916
$ 8 Decafluorobiphenyl	8.006	8.006	0.000	7937	2000.00	1774
$ 12 p-terphenyl-d14	11.246	11.246	0.000	84269	2000.00	1910
$ 18 Decachlorobiphenyl	16.219	16.219	0.000	9335	2000.00	1523

Data File: /chem/GC_G.i/G082103P-2.b/G#B-002-2401.d
Date : 22-AUG-2003 00:11
Client ID:
Sample Info: 8310 CCV HPLC152

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-3.b/G#C-002-2401.d
Report Date: 08/22/2003

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_G.i
Lab File ID: G#C-002-2401.d
Analysis Type: NONE

Injection Date: 22-AUG-2003 00:11
Lab Sample ID: 8310 CCV HPLC152
Method File: /chem/GC_G.i/G082103P-3.b/8310-3.m

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D	
0	Phenanthrene	2000.0000	1730.2442	13.5	15.0	
22	Decafluorobiphenyl	2000.0000	799.8750	60.0	15.0	<- NTC
0	Anthracene	2000.0000	1964.9905	1.8	15.0	
0	Fluoranthene	2000.0000	2176.7817	8.8	15.0	
0	Pyrene	2000.0000	1712.9897	14.4	15.0	
30	p-terphenyl-d14	2000.0000	1733.7445	13.3	15.0	
0	Benzo(a)Anthracene	2000.0000	1743.2863	12.8	15.0	
0	Chrysene	2000.0000	1793.2591	10.3	15.0	
0	Benzo(b)Fluoranthene	2000.0000	1734.4852	13.3	15.0	
0	Benzo(k)Fluoranthene	2000.0000	1742.3053	12.9	15.0	
0	Benzo(a)Pyrene	2000.0000	1655.5592	17.2	15.0	<-
0	Dibenzo(a,h)Anthracene	2000.0000	1828.4880	8.6	15.0	
0	Benzo(g,h,i)Perylene	2000.0000	1691.7451	15.4	15.0	<- DO
0	Indeno(1,2,3-c,d)Pyrene	2000.0000	1804.9158	9.8	15.0	

Average %D = 15.1

Data File: /chem/GC_G.i/G082103P-3.b/G#C-002-2401.d
Report Date: 22-Aug-2003 11:23

STL Denver

Data file : /chem/GC_G.i/G082103P-3.b/G#C-002-2401.d
Lab Smp Id: 8310 CCV HPLC152
Inj Date : 22-AUG-2003 00:11
Operator : SLD Inst ID: GC_G.i
Smp Info : 8310 CCV HPLC152
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-3.b/8310-3.m
Meth Date : 22-Aug-2003 11:23 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 17:39 Cal File: G#C-009-0901.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsv04

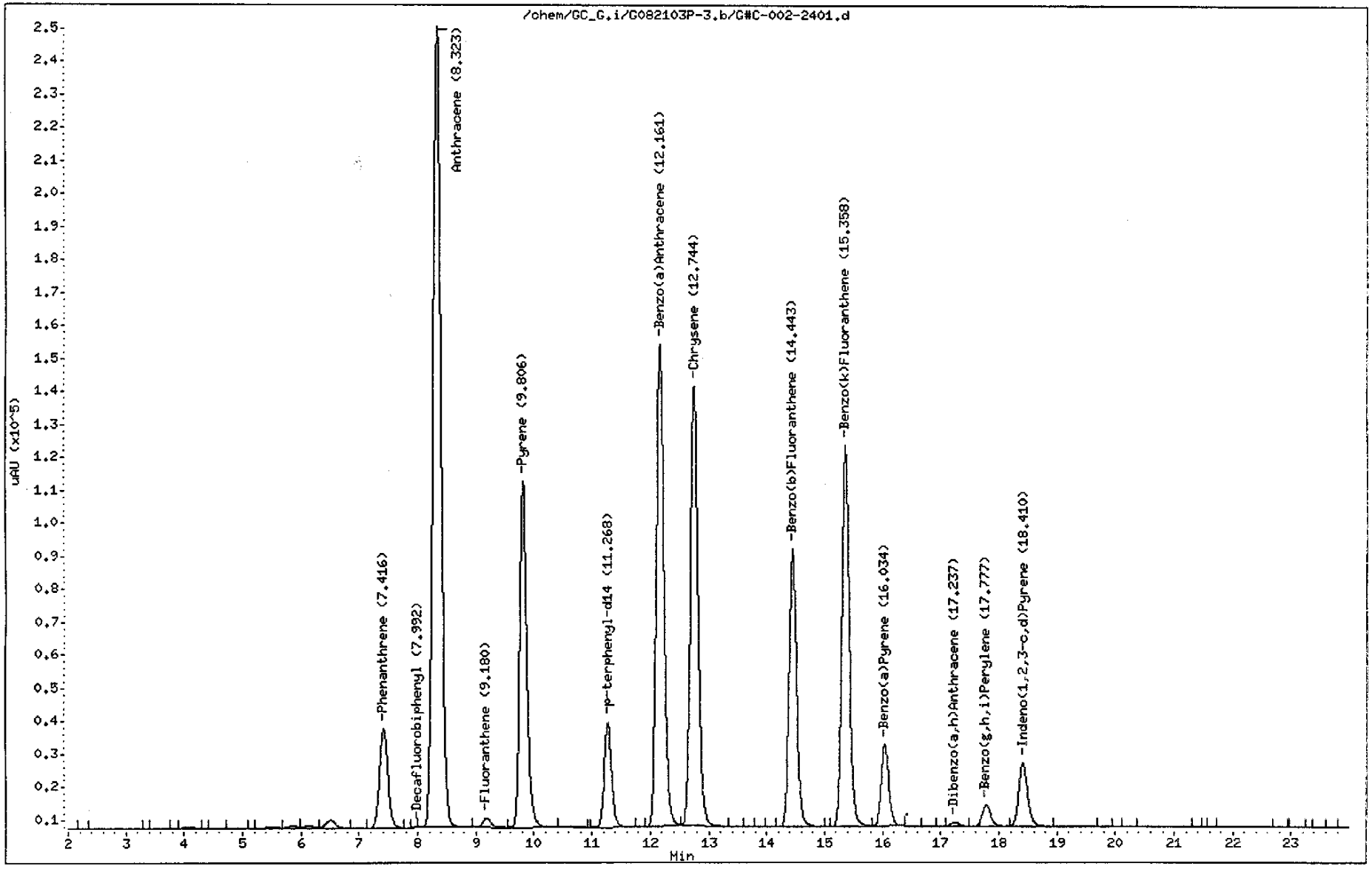
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Phenanthrene	7.416	7.416	0.000	303017	2000.00	1730
$	2 Decafluorobiphenyl	7.992	7.992	0.000	259	2000.00	799.9
	3 Anthracene	8.323	8.323	0.000	2311218	2000.00	1965
	4 Fluoranthene	9.180	9.180	0.000	27006	2000.00	2177
	5 Pyrene	9.806	9.806	0.000	891468	2000.00	1713
$	6 p-terphenyl-d14	11.268	11.268	0.000	282068	2000.00	1734
	7 Benzo(a)Anthracene	12.161	12.161	0.000	1316744	2000.00	1743
	8 Chrysene	12.744	12.744	0.000	1214748	2000.00	1793
	9 Benzo(b)Fluoranthene	14.443	14.443	0.000	772951	2000.00	1734
	10 Benzo(k)Fluoranthene	15.358	15.358	0.000	1045993	2000.00	1742
	11 Benzo(a)Pyrene	16.034	16.034	0.000	225385	2000.00	1656
	12 Dibenzo(a,h)Anthracene	17.237	17.237	0.000	13817	2000.00	1828
	13 Benzo(g,h,i)Perylene	17.777	17.777	0.000	71542	2000.00	1692
	14 Indeno(1,2,3-c,d)Pyrene	18.410	18.410	0.000	209440	2000.00	1805

Data File: /chem/GC_G.i/G082103P-3.b/G#C-002-2401.d
Date : 22-AUG-2003 00:11
Client ID:
Sample Info: 8310 CCV HPLC152

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Raw QC Data

METHOD BLANK REPORT

HPLC

Client Lot #...: H3H080204
MB Lot-Sample #: D3H180000-523

Work Order #...: FWG6C1AA

Matrix.....: SOLID

Prep Date.....: 08/18/03
Prep Batch #...: 3230523

Analysis Date..: 08/21/03
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acenaphthene	ND	200	ug/kg	SW846 8310
Acenaphthylene	ND	200	ug/kg	SW846 8310
Anthracene	ND	20	ug/kg	SW846 8310
Benzo(a)anthracene	ND	20	ug/kg	SW846 8310
Benzo(a)pyrene	ND	20	ug/kg	SW846 8310
Benzo(b)fluoranthene	ND	20	ug/kg	SW846 8310
Benzo(ghi)perylene	ND	40	ug/kg	SW846 8310
Benzo(k)fluoranthene	ND	20	ug/kg	SW846 8310
Chrysene	ND	40	ug/kg	SW846 8310
Dibenzo(a,h)anthracene	ND	40	ug/kg	SW846 8310
Fluoranthene	ND	40	ug/kg	SW846 8310
Fluorene	ND	40	ug/kg	SW846 8310
Indeno(1,2,3-cd)pyrene	ND	40	ug/kg	SW846 8310
1-Methylnaphthalene	ND	200	ug/kg	SW846 8310
2-Methylnaphthalene	ND	200	ug/kg	SW846 8310
Naphthalene	ND	200	ug/kg	SW846 8310
Phenanthrene	ND	40	ug/kg	SW846 8310
Pyrene	ND	40	ug/kg	SW846 8310

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	100	(63 - 134)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-004-0401.d
Report Date: 22-Aug-2003 07:28

STL Denver

Data file : /chem/GC_G.i/G082103P-1.b/G#A-004-0401.d
Lab Smp Id: FWG6C1AA
Client Smp ID: BLANK
Inj Date : 21-AUG-2003 13:53
Operator : SLD
Inst ID: GC_G.i
Smp Info : FWG6C1AA,BLK
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-1.b/8310-1.m
Meth Date : 21-Aug-2003 13:51 fiedlerh
Quant Type: ESTD
Cal Date : 29-APR-2003 14:05
Cal File: G#A-002-0201.d
Als bottle: 1
QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.00000	Weight of Sample Extracted (g)

Cpnd Variable — Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
1 Naphthalene	Compound Not Detected.					
2 Acenaphthylene	Compound Not Detected.					
3 1-Methylnaphthalene	Compound Not Detected.					
4 2-Methylnaphthalene	Compound Not Detected.					
5 Acenaphthene	Compound Not Detected.					
6 Fluorene	Compound Not Detected.					
7 Phenanthrene	Compound Not Detected.					
$ 8 Decafluorobiphenyl	8.015	8.009	0.006	111274	9413.19	1255
9 Anthracene	Compound Not Detected.					
10 Fluoranthene	Compound Not Detected.					
11 Pyrene	Compound Not Detected.					
$ 12 p-terphenyl-d14	11.242	11.243	-0.001	303447	4990.78	665.4
13 Benzo(a)Anthracene	Compound Not Detected					
14 Chrysene	12.415	12.703	-0.288	29772	351.302	~~46.84~~
15 Benzo(b)Fluoranthene	Compound Not Detected.					

Data File: /chem/GC_G.i/G082103P-1.b/G#A-004-0401.d
Report Date: 22-Aug-2003 07:28

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
16 Benzo(k)Fluoranthene	14.888	15.316	-0.428	1166	17.3693	~~2.316(a)~~ NC
17 Benzo(a)Pyrene	Compound Not Detected.					
$ 18 Decachlorobiphenyl	Compound Not Detected.					
19 Dibenzo(a,h)Anthracene	17.042	17.189	-0.147	29021	398.423	~~53.12~~ NC
20 Benzo(g,h,i)Perylene	Compound Not Detected.					
21 Indeno(1,2,3-c,d)Pyrene	Compound Not Detected.					

QC Flag Legend

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

Data File: /chem/GC_G.i/G082103P-1.b/G#A-004-0401.d
Report Date: 22-Aug-2003 07:28

STL Denver

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: FWG6C1AA
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-1.b/8310-1.m
Misc Info: ICAL 04/29/03

Client SDG: D3H180000
Fraction: SV
Client Smp ID: BLANK
Operator: SLD
SampleType: BLANK
Quant Type: ESTD

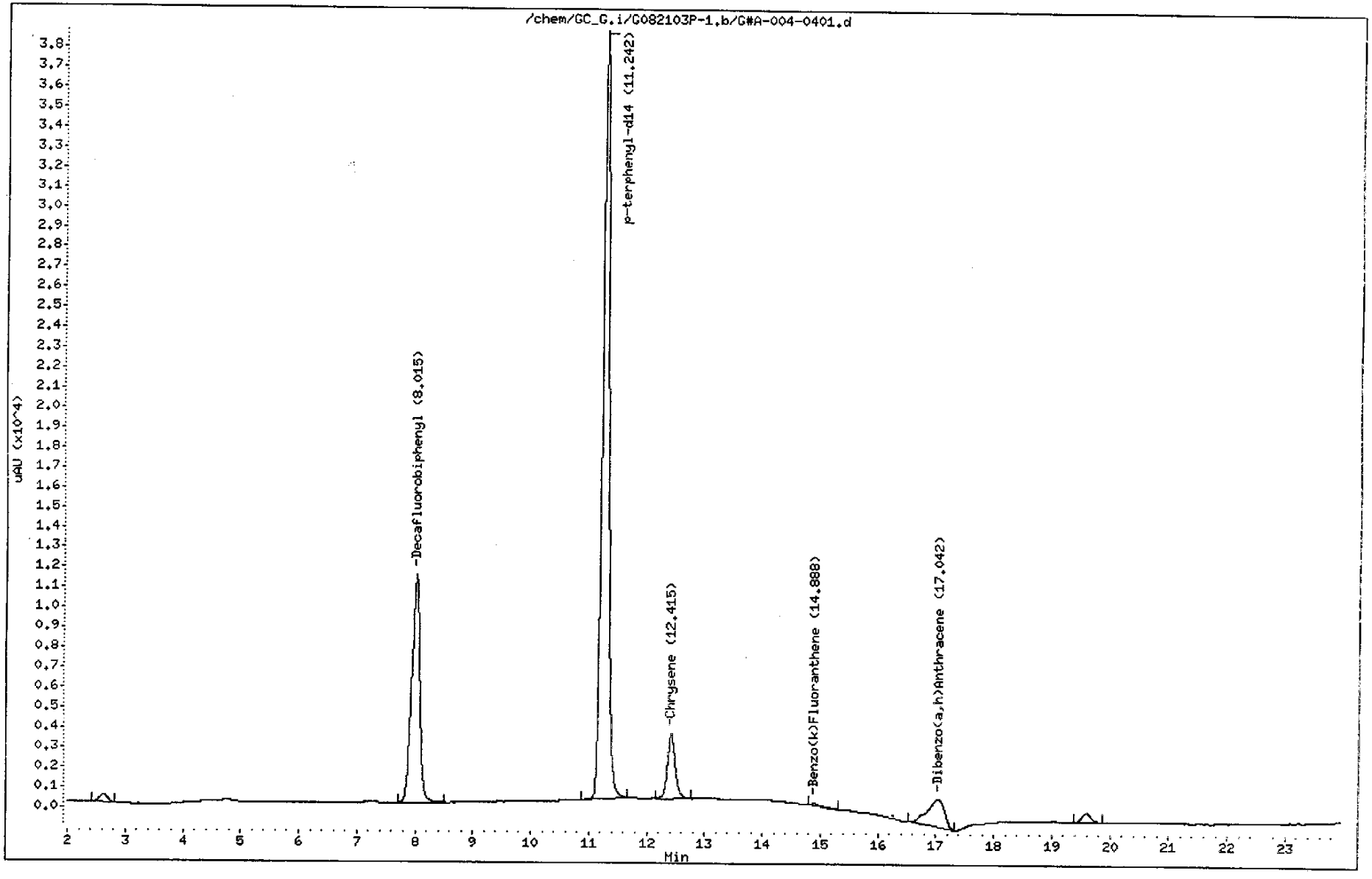
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1333	1255	94.13	37-152
$ 12 p-terphenyl-d14	666.7	665.4	99.82	22-167
$ 18 Decachlorobiphenyl	666.7	0.000	*	0-0

Data File: /chem/GC_G.i/G082103P-1.b/G#A-004-0401.d
Date : 21-AUG-2003 13:53
Client ID: BLANK
Sample Info: FWG6C1AA,BLK

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-2.b/G#B-004-0401.d
Report Date: 25-Aug-2003 03:35

STL Denver

Data file : /chem/GC_G.i/G082103P-2.b/G#B-004-0401.d
Lab Smp Id: FWG6C1AA
Client Smp ID: BLANK
Inj Date : 21-AUG-2003 13:53
Operator : SLD
Inst ID: GC_G.i
Smp Info : FWG6C1AA,BLK
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-2.b/8310-2.m
Meth Date : 22-Aug-2003 10:54 fiedlerh
Quant Type: ESTD
Cal Date : 29-APR-2003 14:05
Cal File: G#B-002-0201.d
Als bottle: 1
QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.00000	Weight of Sample Extracted (g)

Cpnd Variable — Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Naphthalene	4.735	4.086	0.649	319	65.2479	8.700(a)
2 Acenaphthylene	Compound Not Detected.					
3 1-Methylnaphthalene	5.488	5.506	-0.018	131	11.1243	1.483(a)
4 2-Methylnaphthalene	5.908	5.852	0.056	104	42.5991	5.680(a)
5 Acenaphthene	6.088	6.126	-0.038	133	8.46857	1.129(a)
6 Fluorene	6.802	6.526	0.276	128	4.19751	0.5597(a)
$ 8 Decafluorobiphenyl	8.015	8.012	0.003	43773	9783.20	1304
$ 12 p-terphenyl-d14	11.242	11.246	-0.004	217268	4925.83	656.8
$ 18 Decachlorobiphenyl	Compound Not Detected					

QC Flag Legend

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

Data File: /chem/GC_G.i/G082103P-2.b/G#B-004-0401.d
Report Date: 25-Aug-2003 03:35

STL Denver

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: FWG6C1AA
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-2.b/8310-2.m
Misc Info: ICAL 04/29/03

Client SDG: D3H180000
Fraction: SV
Client Smp ID: BLANK
Operator: SLD
SampleType: BLANK
Quant Type: ESTD

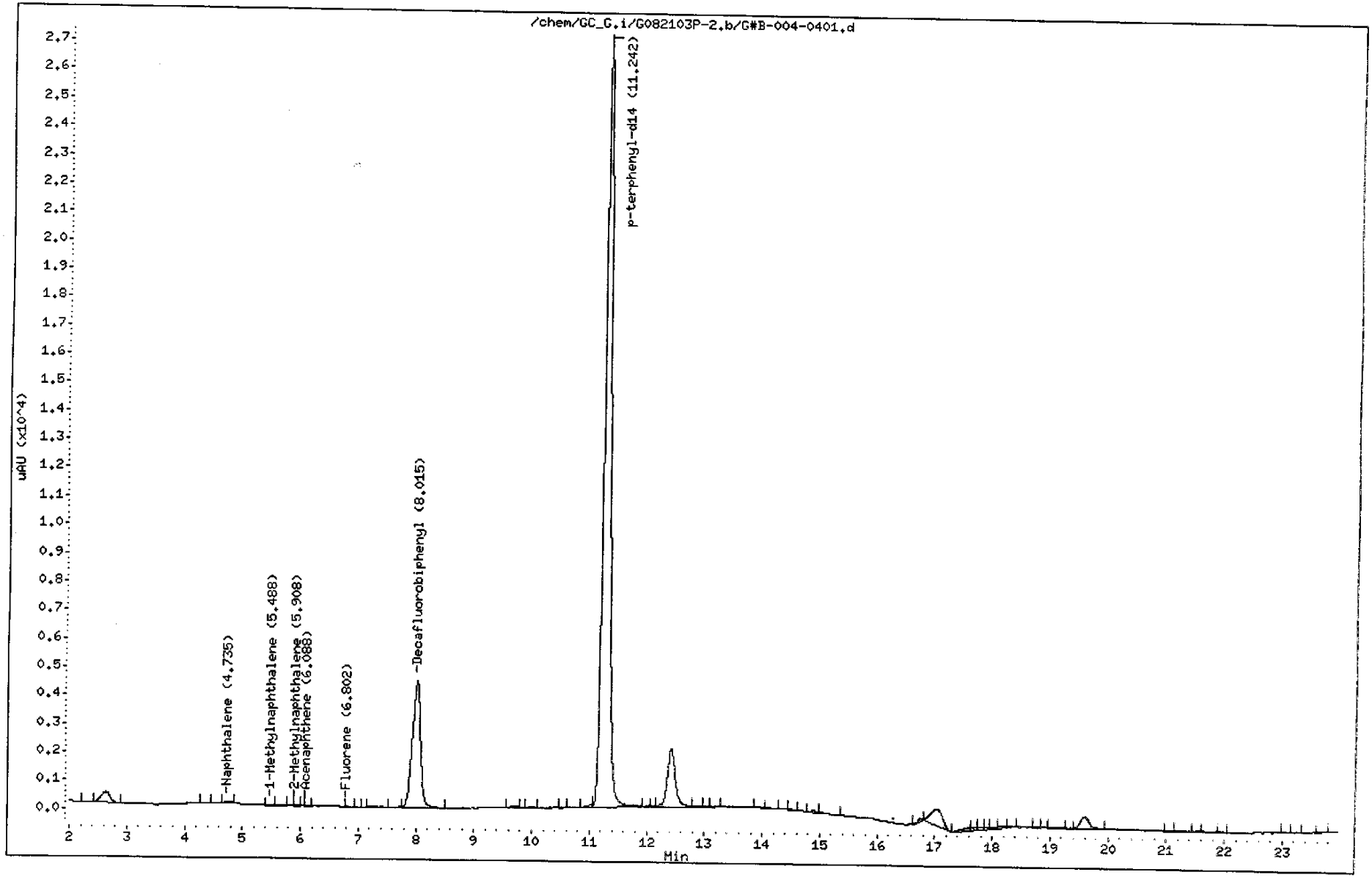
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1333	1304	97.83	37-152
$ 12 p-terphenyl-d14	666.7	656.8	98.52	22-167
$ 18 Decachlorobiphenyl	666.7	0.000	*	40-160

Data File: /chem/GC_G.i/G082103P-2.b/G#B-004-0401.d
Date : 21-AUG-2003 13:53
Client ID: BLANK
Sample Info: FWG6C1AA,BLK

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-3.b/G#C-004-0401.d
Report Date: 22-Aug-2003 11:04

STL Denver

Data file : /chem/GC_G.i/G082103P-3.b/G#C-004-0401.d
Lab Smp Id: FWG6C1AA
Client Smp ID: BLANK
Inj Date : 21-AUG-2003 13:53
Operator : SLD
Inst ID: GC_G.i
Smp Info : FWG6C1AA,BLK
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-3.b/8310-3.m
Meth Date : 21-Aug-2003 13:57 fiedlerh
Quant Type: ESTD
Cal Date : 29-APR-2003 17:39
Cal File: G#C-009-0901.d
Als bottle: 1
QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.00000	Weight of Sample Extracted (g)

Cpnd Variable — Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
	1 Phenanthrene	7.466	7.409	0.057	447	2.55678	0.3409(a)
$	2 Decafluorobiphenyl	8.035	8.035	0.000	15651	13572.4	1810
	3 Anthracene	8.604	8.316	0.288	297	0.25269	0.03369(a)
	4 Fluoranthene	9.252	9.173	0.079	1694	158.825	21.18(a)
	5 Pyrene	9.547	9.792	-0.245	310	0.59643	0.07952(a)
$	6 p-terphenyl-d14	11.261	11.261	0.000	750777	4614.69	615.3
	7 Benzo(a)Anthracene	Compound Not Detected.					
	8 Chrysene	12.658	12.722	-0.064	554	0.81790	0.1090(a)
	9 Benzo(b)Fluoranthene	14.206	14.422	-0.216	486	1.09106	0.1455(a)
	10 Benzo(k)Fluoranthene	15.394	15.336	0.058	287	0.47816	0.06375(a)
	11 Benzo(a)Pyrene	16.078	16.013	0.065	810	5.95301	0.7937(a)
	12 Dibenzo(a,h)Anthracene	17.309	17.215	0.094	364	43.5367	5.805(a)
	13 Benzo(g,h,i)Perylene	17.813	17.755	0.058	707	16.7227	2.230(a)
	14 Indeno(1,2,3-c,d)Pyrene	18.821	18.382	0.439	937	8.07869	1.077(a)

Data File: /chem/GC_G.i/G082103P-3.b/G#C-004-0401.d
Report Date: 22-Aug-2003 11:04

QC Flag Legend

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

Data File: /chem/GC_G.i/G082103P-3.b/G#C-004-0401.d
Report Date: 22-Aug-2003 11:04

STL Denver

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: FWG6C1AA
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-3.b/8310-3.m
Misc Info: ICAL 04/29/03

Client SDG: D3H180000
Fraction: SV
Client Smp ID: BLANK
Operator: SLD
SampleType: BLANK
Quant Type: ESTD

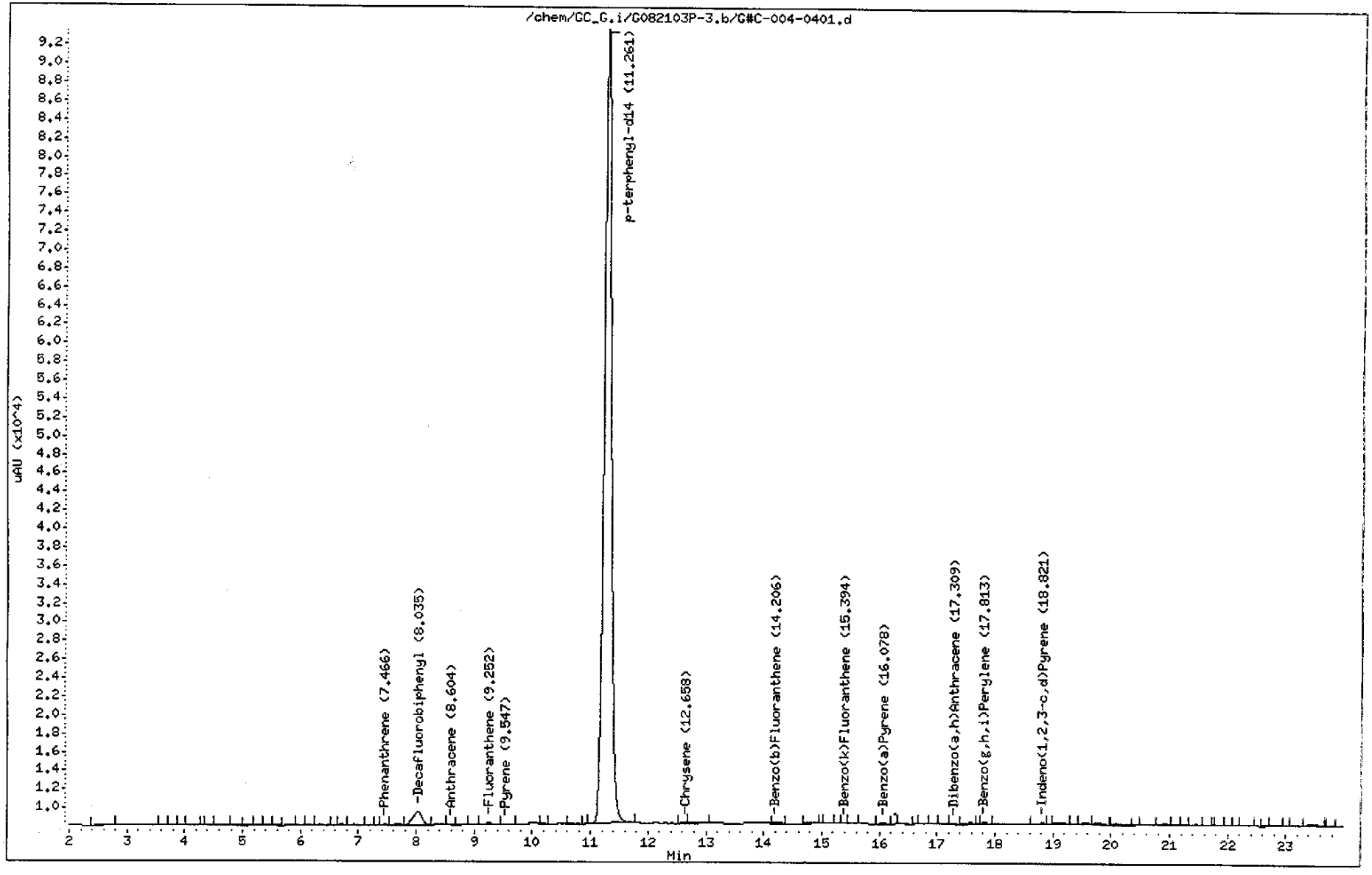
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 2 Decafluorobiphenyl	1333	1810	135.72	37-152
$ 6 p-terphenyl-d14	666.7	615.3	92.29	22-167

Data File: /chem/GC_G.i/G082103P-3.b/G#C-004-0401.d
Date : 21-AUG-2003 13:53
Client ID: BLANK
Sample Info: FWG6C1AA,BLK

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FWG6C1AC **Matrix.....:** SOLID
LCS Lot-Sample#: D3H180000-523
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzo(a)pyrene	**103**	**(57 - 130)**	**SW846 8310**
Fluorene	**101**	**(63 - 129)**	**SW846 8310**
Indeno(1,2,3-cd)pyrene	**104**	**(63 - 130)**	**SW846 8310**
Naphthalene	**103**	**(64 - 131)**	**SW846 8310**
Pyrene	**110**	**(65 - 138)**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	95	(63 - 134)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FWG6C1AC **Matrix.....:** SOLID
LCS Lot-Sample#: D3H180000-523
Prep Date.....: 08/18/03 **Analysis Date..:** 08/21/03
Prep Batch #...: 3230523
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Benzo(a)pyrene	**2000**	**2060**	**ug/kg**	**103**	**SW846 8310**
Fluorene	**2000**	**2020**	**ug/kg**	**101**	**SW846 8310**
Indeno(1,2,3-cd)pyrene	**2000**	**2080**	**ug/kg**	**104**	**SW846 8310**
Naphthalene	**2000**	**2060**	**ug/kg**	**103**	**SW846 8310**
Pyrene	**2000**	**2190**	**ug/kg**	**110**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	95	(63 - 134)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Data File: /chem/GC_G.i/G082103P-1.b/G#A-003-0301.d
Report Date: 22-Aug-2003 07:27

STL Denver

Data file : /chem/GC_G.i/G082103P-1.b/G#A-003-0301.d
Lab Smp Id: FWG6C1AC
Client Smp ID: LCS
Inj Date : 21-AUG-2003 13:22
Operator : SLD
Inst ID: GC_G.i
Smp Info : FWG6C1AC,LCS
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-1.b/8310-1.m
Meth Date : 21-Aug-2003 13:51 fiedlerh
Quant Type: ESTD
Cal Date : 29-APR-2003 14:05
Cal File: G#A-002-0201.d
Als bottle: 1
QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.00000	Weight of Sample Extracted (g)

Cpnd Variable — Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
	1 Naphthalene	4.085	4.076	0.009	1163994	15438.4	2058
	2 Acenaphthylene	4.965	4.963	0.002	455209	12305.5	1641
	3 1-Methylnaphthalene	5.505	5.496	0.009	832970	13314.4	1775
	4 2-Methylnaphthalene	5.845	5.843	0.002	964211	13635.1	1818
	5 Acenaphthene	6.125	6.116	0.009	917163	14677.5	1957
	6 Fluorene	6.525	6.523	0.002	851650	15115.2	2015
	7 Phenanthrene	7.398	7.396	0.002	1287492	15767.0	2102
$	8 Decafluorobiphenyl	8.018	8.009	0.009	111604	9441.06	1259
	9 Anthracene	8.305	8.296	0.009	1309779	16204.2	2160
	10 Fluoranthene	9.152	9.149	0.003	957059	16108.0	2148
	11 Pyrene	9.798	9.776	0.022	631860	16450.2	2193
$	12 p-terphenyl-d14	11.245	11.243	0.002	288512	4745.13	632.7
	13 Benzo(a)Anthracene	12.118	12.123	-0.005	1404316	15313.4	2042
	14 Chrysene	12.698	12.703	-0.005	1334184	15742.9	2099
	15 Benzo(b)Fluoranthene	14.385	14.403	-0.018	1165850	15454.4	2060

WD 8/25/03

Data File: /chem/GC_G.i/G082103P-1.b/G#A-003-0301.d
Report Date: 22-Aug-2003 07:27

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
16 Benzo(k)Fluoranthene	15.292	15.316	-0.024	1104915	16448.1	2193
17 Benzo(a)Pyrene	15.978	15.996	-0.018	778243	15479.2	2064
$ 18 Decachlorobiphenyl	16.572	16.223	0.349	1267	9.48777	1.265(aR)
19 Dibenzo(a,h)Anthracene	17.158	17.189	-0.031	1266733	16817.0	2242
20 Benzo(g,h,i)Perylene	17.692	17.736	-0.044	844913	15017.0	2002
21 Indeno(1,2,3-c,d)Pyrene	18.318	18.363	-0.045	889032	15622.3	2083

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-003-0301.d
Report Date: 22-Aug-2003 07:27

STL Denver

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: FWG6C1AC
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-1.b/8310-1.m
Misc Info: ICAL 04/29/03

Client SDG: D3H180000
Fraction: SV
Client Smp ID: LCS
Operator: SLD
SampleType: LCS
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1 Naphthalene	2000	2058	102.92	64-131
2 Acenaphthylene	2000	1641	82.04	57-120
3 1-Methylnaphthalen	2000	1775	88.76	51-116
4 2-Methylnaphthalen	2000	1818	90.90	51-116
5 Acenaphthene	2000	1957	97.85	59-130
6 Fluorene	2000	2015	100.77	63-129
7 Phenanthrene	2000	2102	105.11	64-132
9 Anthracene	2000	2160	108.03	59-130
10 Fluoranthene	2000	2148	107.39	63-132
11 Pyrene	2000	2193	109.67	65-138
13 Benzo(a)Anthracene	2000	2042	102.09	65-135
14 Chrysene	2000	2099	104.95	67-133
15 Benzo(b)Fluoranthe	2000	2060	103.03	65-132
16 Benzo(k)Fluoranthe	2000	2193	109.65	66-132
17 Benzo(a)Pyrene	2000	2064	103.19	51-116
19 Dibenzo(a,h)Anthra	2000	2242	112.11	66-142
20 Benzo(g,h,i)Peryle	2000	2002	100.11	58-135
21 Indeno(1,2,3-c,d)P	2000	2083	104.15	63-130

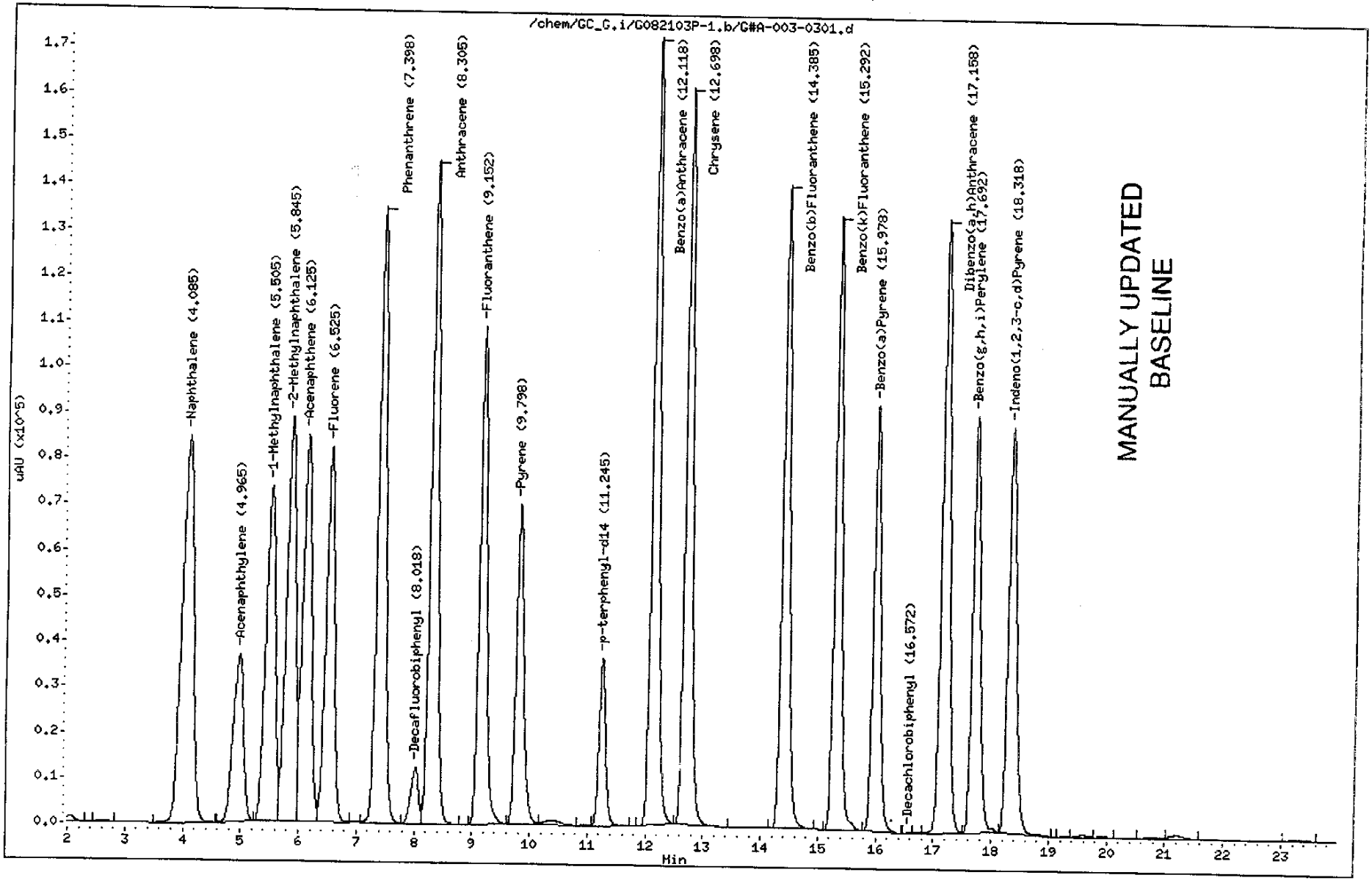
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1333	1259	94.41	37-152
$ 12 p-terphenyl-d14	666.7	632.7	94.90	22-167
$ 18 Decachlorobiphenyl	666.7	1.265	0.19*	0-0

Data File: /chem/GC_G.i/G082103P-1.b/G#A-003-0301.d
Date : 21-AUG-2003 13:22
Client ID: LCS
Sample Info: FWG6C1AC,LCS

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-2.b/G#B-003-0301.d
Report Date: 25-Aug-2003 03:35

STL Denver

Data file : /chem/GC_G.i/G082103P-2.b/G#B-003-0301.d
Lab Smp Id: FWG6C1AC
Client Smp ID: LCS
Inj Date : 21-AUG-2003 13:22
Operator : SLD
Inst ID: GC_G.i
Smp Info : FWG6C1AC,LCS
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-2.b/8310-2.m
Meth Date : 22-Aug-2003 10:54 fiedlerh
Quant Type: ESTD
Cal Date : 29-APR-2003 14:05
Cal File: G#B-002-0201.d
Als bottle: 1
QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.00000	Weight of Sample Extracted (g)

Cpnd Variable — Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
1 Naphthalene	4.085	4.086	-0.001	173426	15850.5	2113
2 Acenaphthylene	4.965	4.966	-0.001	199363	12795.1	1706
3 1-Methylnaphthalene	5.505	5.506	-0.001	158552	13402.7	1787
4 2-Methylnaphthalene	5.845	5.852	-0.007	143399	13289.7	1772
5 Acenaphthene	6.125	6.126	-0.001	237569	15104.2	2014
6 Fluorene	6.525	6.526	-0.001	466609	15253.9	2034
$ 8 Decafluorobiphenyl	8.018	8.012	0.006	41741	9329.23	1244
$ 12 p-terphenyl-d14	11.245	11.246	-0.001	204078	4626.80	616.9
$ 18 Decachlorobiphenyl	15.978	16.226	-0.248	544594	88878.3	11850(AR)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/GC_G.i/G082103P-2.b/G#B-003-0301.d
Report Date: 25-Aug-2003 03:35

STL Denver

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: FWG6C1AC
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-2.b/8310-2.m
Misc Info: ICAL 04/29/03

Client SDG: D3H180000
Fraction: SV
Client Smp ID: LCS
Operator: SLD
SampleType: LCS
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1 Naphthalene	2000	2113	105.67	64-131
2 Acenaphthylene	2000	1706	85.30	57-120
3 1-Methylnaphthalen	2000	1787	89.35	51-116
4 2-Methylnaphthalen	2000	1772	88.60	51-116
5 Acenaphthene	2000	2014	100.69	59-130
6 Fluorene	2000	2034	101.69	63-129
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0

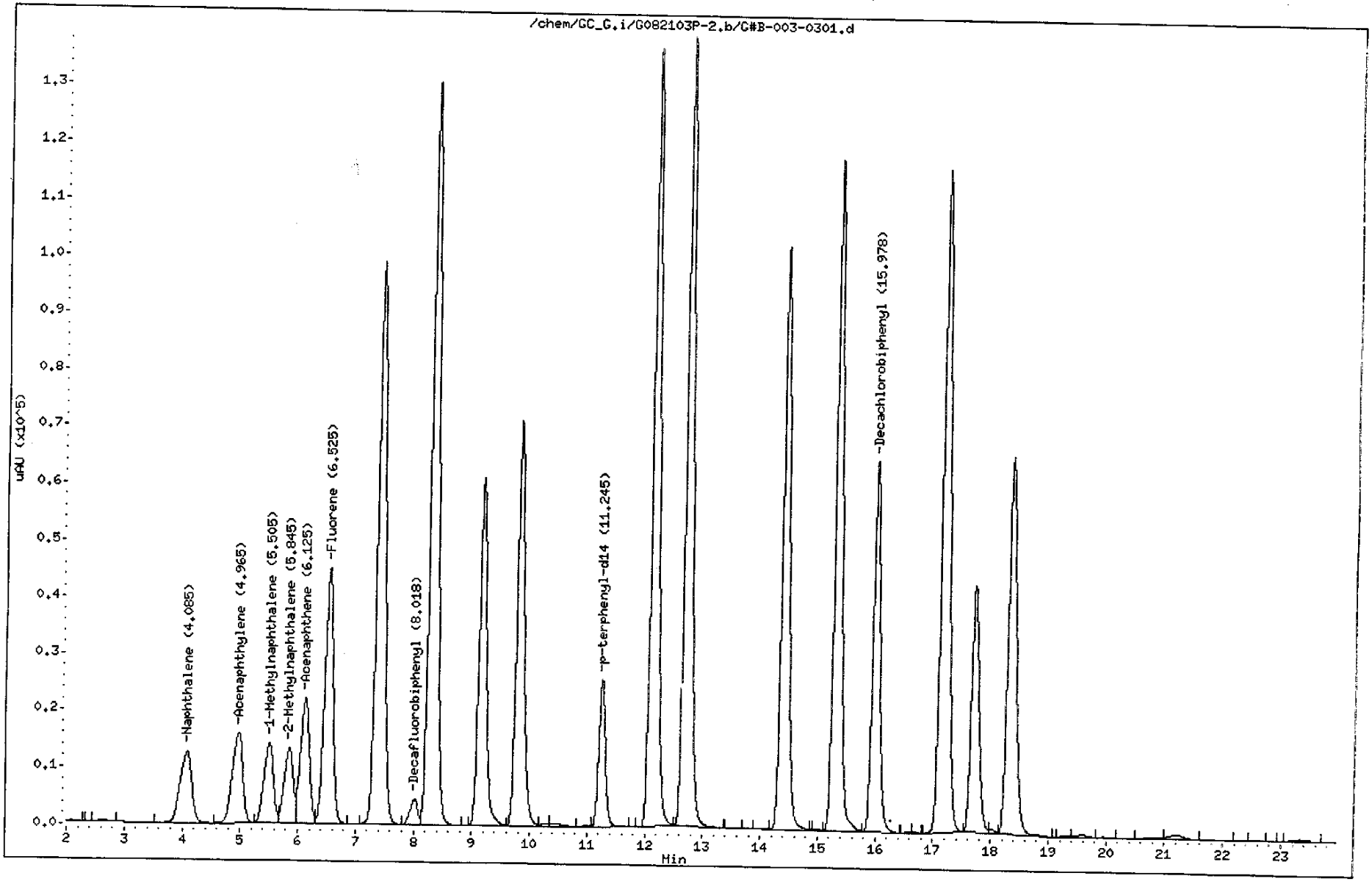
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1333	1244	93.29	37-152
$ 12 p-terphenyl-d14	666.7	616.9	92.54	22-167
$ 18 Decachlorobiphenyl	666.7	11850	1777.57*	40-160

Data File: /chem/GC_G.i/G082103P-2.b/G#B-003-0301.d
Date : 21-AUG-2003 13:22
Client ID: LCS
Sample Info: FWG6C1AC,LCS

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-3.b/G#C-003-0301.d
Report Date: 22-Aug-2003 11:04

STL Denver

Data file : /chem/GC_G.i/G082103P-3.b/G#C-003-0301.d
Lab Smp Id: FWG6C1AC
Client Smp ID: LCS
Inj Date : 21-AUG-2003 13:22
Operator : SLD
Inst ID: GC_G.i
Smp Info : FWG6C1AC,LCS
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-3.b/8310-3.m
Meth Date : 21-Aug-2003 13:57 fiedlerh
Quant Type: ESTD
Cal Date : 29-APR-2003 17:39
Cal File: G#C-009-0901.d
Als bottle: 1
QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.00000	Weight of Sample Extracted (g)

Cpnd Variable — Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	1 Phenanthrene	7.416	7.409	0.007	2580850	14736.8	1965
$	2 Decafluorobiphenyl	8.028	8.035	-0.007	12380	10938.4	1458
	3 Anthracene	8.323	8.316	0.007	17846872	15173.4	2023
	4 Fluoranthene	9.173	9.173	0.000	204336	16314.2	2175
	5 Pyrene	9.821	9.792	0.029	7718443	14831.3	1978
$	6 p-terphenyl-d14	11.261	11.261	0.000	712350	4378.49	583.8
	7 Benzo(a)Anthracene	12.139	12.146	-0.007	10548453	13965.5	1862
	8 Chrysene	12.715	12.722	-0.007	9979940	14732.8	1964
	9 Benzo(b)Fluoranthene	14.407	14.422	-0.015	6368985	14291.9	1906
	10 Benzo(k)Fluoranthene	15.314	15.336	-0.022	8632108	14378.5	1917
	11 Benzo(a)Pyrene	15.998	16.013	-0.015	1854855	13624.8	1817
	12 Dibenzo(a,h)Anthracene	17.179	17.215	-0.036	112212	14884.2	1984
	13 Benzo(g,h,i)Perylene	17.712	17.755	-0.043	580360	13723.7	1830
	14 Indeno(1,2,3-c,d)Pyrene	18.338	18.382	-0.044	1743878	15028.4	2004

Data File: /chem/GC_G.i/G082103P-3.b/G#C-003-0301.d
Report Date: 22-Aug-2003 11:04

STL Denver

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: FWG6C1AC
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-3.b/8310-3.m
Misc Info: ICAL 04/29/03

Client SDG: D3H180000
Fraction: SV
Client Smp ID: LCS
Operator: SLD
SampleType: LCS
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1 Phenanthrene	2000	1965	98.25	64-132
3 Anthracene	2000	2023	101.16	59-130
4 Fluoranthene	2000	2175	108.76	63-132
5 Pyrene	2000	1978	98.88	65-138
7 Benzo(a)Anthracene	2000	1862	93.10	65-135
8 Chrysene	2000	1964	98.22	67-133
9 Benzo(b)Fluoranthe	2000	1906	95.28	65-132
10 Benzo(k)Fluoranthe	2000	1917	95.86	66-132
11 Benzo(a)Pyrene	2000	1817	90.83	51-116
	0.000	0.000	*	0-0
12 Dibenzo(a,h)Anthra	2000	1984	99.23	66-142
13 Benzo(g,h,i)Peryle	2000	1830	91.49	58-135
14 Indeno(1,2,3-c,d)P	2000	2004	100.19	63-130

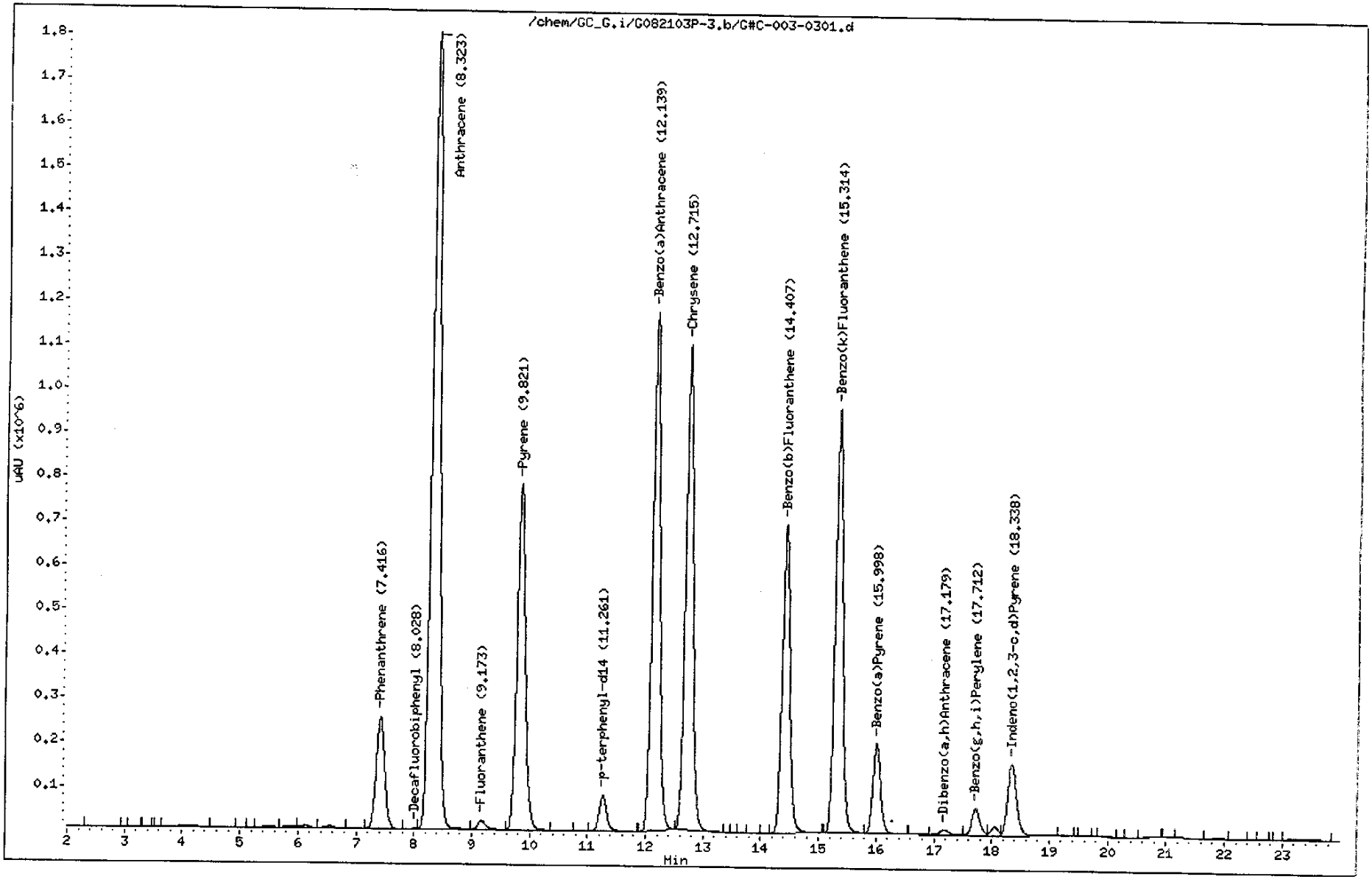
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 2 Decafluorobiphenyl	1333	1458	109.38	37-152
$ 6 p-terphenyl-d14	666.7	583.8	87.57	22-167

Data File: /chem/GC_G.i/G082103P-3.b/G#C-003-0301.d
Date : 21-AUG-2003 13:22
Client ID: LCS
Sample Info: FWG6C1AC,LCS

Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: H3H080204
MS Lot-Sample #: H3H080204-005
Date Sampled...: 08/06/03
Prep Date.....: 08/18/03
Prep Batch #...: 3230523
Dilution Factor: 1

Work Order #...: FVXH71AV-MS
FVXH71AW-MSD
Date Received..: 08/08/03
Analysis Date..: 08/21/03

% Moisture.....: 16

Matrix.....: SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzo(a)pyrene	99	(57 - 130)			SW846 8310
	112	(57 - 130)	12	(0-34)	SW846 8310
Fluorene	95	(63 - 129)			SW846 8310
	106	(63 - 129)	11	(0-40)	SW846 8310
Indeno(1,2,3-cd)pyrene	94	(63 - 130)			SW846 8310
	111	(63 - 130)	16	(0-30)	SW846 8310
Naphthalene	93	(64 - 131)			SW846 8310
	104	(64 - 131)	11	(0-40)	SW846 8310
Pyrene	105	(65 - 138)			SW846 8310
	112	(65 - 138)	5.7	(0-40)	SW846 8310

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	100	(63 - 134)
	100	(63 - 134)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: H3H080204
MS Lot-Sample #: H3H080204-005
Date Sampled...: 08/06/03
Prep Date.....: 08/18/03
Prep Batch #...: 3230523
Dilution Factor: 1

Work Order #...: FVXH71AV-MS
FVXH71AW-MSD
Date Received..: 08/08/03
Analysis Date..: 08/21/03
% Moisture.....: 16

Matrix.....: SOLID

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Benzo(a)pyrene	12	2390	2380	ug/kg	99		SW846 8310
	12	2390	2700	ug/kg	112	12	SW846 8310
Fluorene	14	2390	2280	ug/kg	95		SW846 8310
	14	2390	2550	ug/kg	106	11	SW846 8310
Indeno(1,2,3-cd)pyrene	ND	2390	2260	ug/kg	94		SW846 8310
	ND	2390	2670	ug/kg	111	16	SW846 8310
Naphthalene	ND	2390	2220	ug/kg	93		SW846 8310
	ND	2390	2490	ug/kg	104	11	SW846 8310
Pyrene	240	2390	2760	ug/kg	105		SW846 8310
	240	2390	2920	ug/kg	112	5.7	SW846 8310

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	100	(63 - 134)
	100	(63 - 134)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-010-1001.d
Report Date: 22-Aug-2003 07:28

STL Denver

Data file : /chem/GC_G.i/G082103P-1.b/G#A-010-1001.d
Lab Smp Id: FVXH71AV Client Smp ID: DB0006
Inj Date : 21-AUG-2003 16:57
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXH71AV,204-5S
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-1.b/8310-1.m
Meth Date : 21-Aug-2003 13:51 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 14:05 Cal File: G#A-002-0201.d
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.00000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Naphthalene	4.086	4.076	0.010	1048207	13902.7	1854
2 Acenaphthylene	4.973	4.963	0.010	422314	11416.2	1522 (M)
3 1-Methylnaphthalene	5.513	5.496	0.017	758955	12131.4	1618 (M)
4 2-Methylnaphthalene	5.853	5.843	0.010	902949	12768.8	1702 (M)
5 Acenaphthene	6.133	6.116	0.017	897227	14358.5	1914 (M)
6 Fluorene	6.533	6.523	0.010	805687	14299.4	1906 (M)
7 Phenanthrene	7.406	7.396	0.010	1331815	16309.8	2175
$ 8 Decafluorobiphenyl	8.033	8.009	0.024	105710	8942.47	1192 (M)
9 Anthracene	8.313	8.296	0.017	1251371	15481.6	2064 (M)
10 Fluoranthene	9.159	9.149	0.010	971557	16352.0	2180
11 Pyrene	9.806	9.776	0.030	663857	17283.2	2304
$ 12 p-terphenyl-d14	11.239	11.243	-0.004	304485	5007.84	667.7
13 Benzo(a)Anthracene	12.119	12.123	-0.004	1344843	14664.8	1955 (M)
14 Chrysene	12.693	12.703	-0.010	1315713	15525.0	2070 (M)
15 Benzo(b)Fluoranthene	14.386	14.403	-0.017	1093397	14494.0	1932 (M)

NO 87250

Data File: /chem/GC_G.i/G082103P-1.b/G#A-010-1001.d
Report Date: 22-Aug-2003 07:28

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
16 Benzo(k)Fluoranthene	15.293	15.316	-0.023	1004267	14949.8	1993(M)
17 Benzo(a)Pyrene	15.973	15.996	-0.023	751645	14950.2	1993(M)
$ 18 Decachlorobiphenyl	16.426	16.223	0.203	2662	83.7146	11.16(aRM)
19 Dibenzo(a,h)Anthracene	17.153	17.189	-0.036	1084234	14396.1	1919(M)
20 Benzo(g,h,i)Perylene	17.693	17.736	-0.043	776999	13805.2	1841(M)
21 Indeno(1,2,3-c,d)Pyrene	18.313	18.363	-0.050	806897	14179.0	1890(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-010-1001.d
Report Date: 22-Aug-2003 07:28

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXH71AV
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-1.b/8310-1.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0006
Operator: SLD
SampleType: MS
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1 Naphthalene	2000	1854	92.68	64-131
2 Acenaphthylene	2000	1522	76.11	57-120
3 1-Methylnaphthalen	2000	1618	80.88	51-116
4 2-Methylnaphthalen	2000	1702	85.13	51-116
5 Acenaphthene	2000	1914	95.72	59-130
6 Fluorene	2000	1906	95.33	63-129
7 Phenanthrene	2000	2175	108.73	64-132
9 Anthracene	2000	2064	103.21	59-130
10 Fluoranthene	2000	2180	109.01	63-132
11 Pyrene	2000	2304	115.22	65-138
13 Benzo(a)Anthracene	2000	1955	97.77	65-135
14 Chrysene	2000	2070	103.50	67-133
15 Benzo(b)Fluoranthe	2000	1932	96.63	65-132
16 Benzo(k)Fluoranthe	2000	1993	99.67	66-132
17 Benzo(a)Pyrene	2000	1993	99.67	51-116
19 Dibenzo(a,h)Anthra	2000	1919	95.97	66-142
20 Benzo(g,h,i)Peryle	2000	1841	92.03	58-135
21 Indeno(1,2,3-c,d)P	2000	1890	94.53	63-130

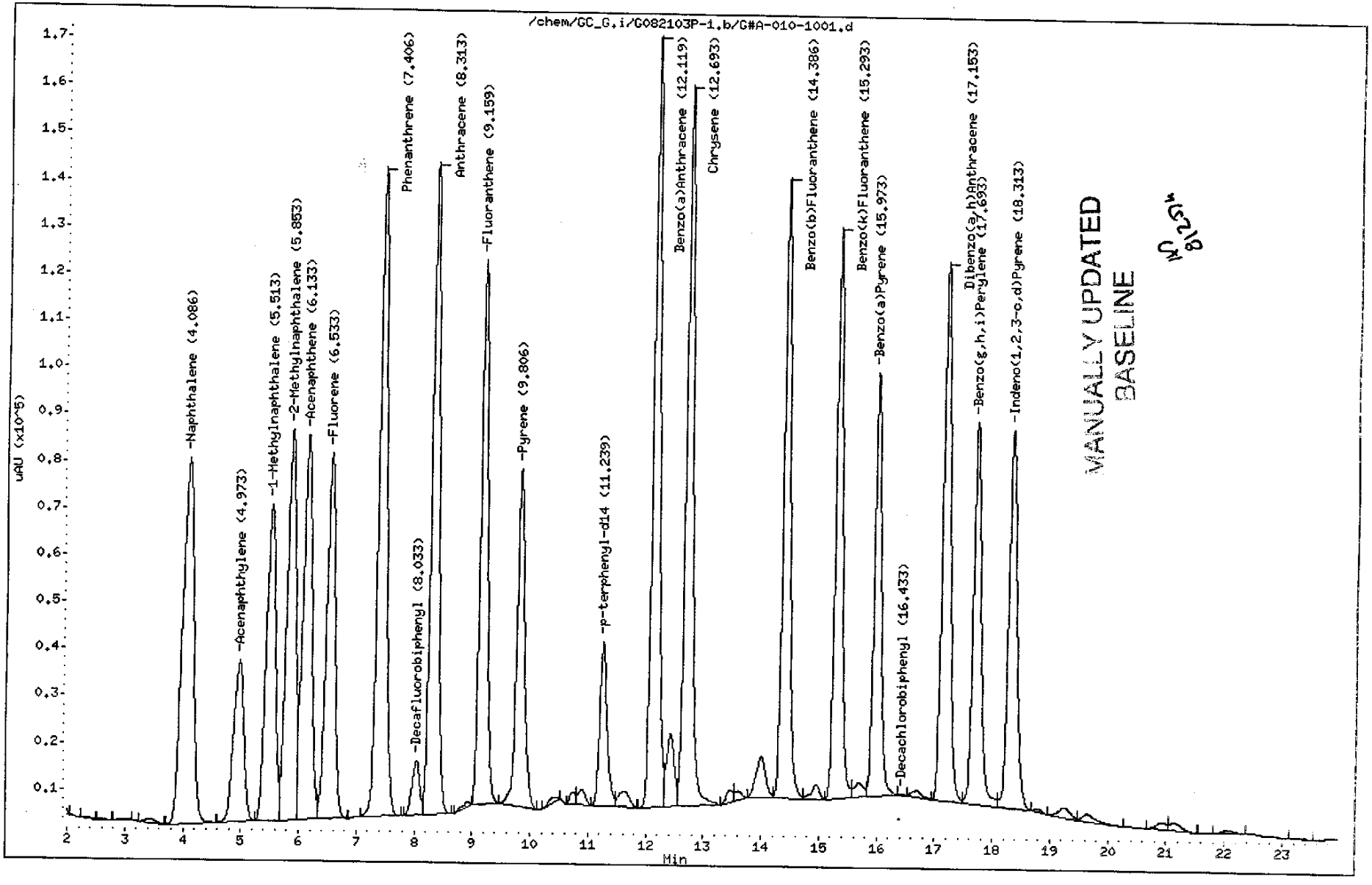
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1333	1192	89.42	37-152
$ 12 p-terphenyl-d14	666.7	667.7	100.16	22-167
$ 18 Decachlorobiphenyl	666.7	11.16	1.67*	0-0

Data File: /chem/GC_G.i/G082103P-1.b/G#A-010-1001.d
Date : 21-AUG-2003 16:57
Client ID: DB0006
Sample Info: FVXH71AV,204-5S

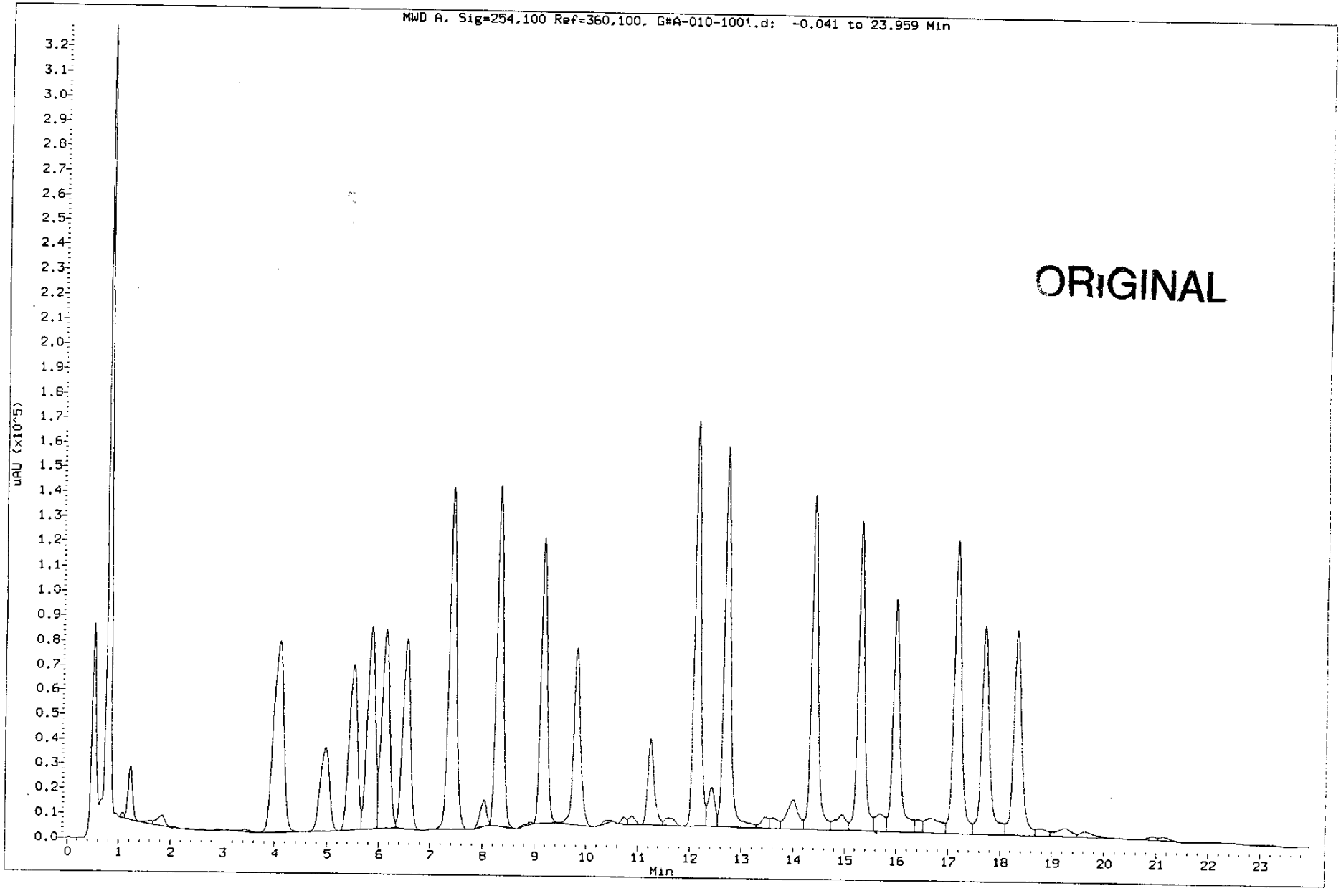
Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-1.b/G#A-010-1001.d
Injection Date: 21-AUG-2003 16:57
Instrument: GC_G.i
Client Sample ID: DB0006



Data File: /chem/GC_G.i/G082103P-2.b/G#B-010-1001.d
Report Date: 22-Aug-2003 10:33

STL Denver

Data file : /chem/GC_G.i/G082103P-2.b/G#B-010-1001.d
Lab Smp Id: FVXH71AV
Client Smp ID: DB0006
Inj Date : 21-AUG-2003 16:57
Operator : SLD
Inst ID: GC_G.i
Smp Info : FVXH71AV,204-5S
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-2.b/8310-2.m
Meth Date : 21-Aug-2003 13:56 fiedlerh
Quant Type: ESTD
Cal Date : 29-APR-2003 14:05
Cal File: G#B-002-0201.d
Als bottle: 1
QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.00000	Weight of Sample Extracted (g)

Cpnd Variable — Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Naphthalene	4.086	4.076	0.010	163920	14983.7	1998
2 Acenaphthylene	4.973	4.963	0.010	187484	12032.7	1604 (M)
3 1-Methylnaphthalene	5.506	5.496	0.010	144390	12205.5	1627 (M)
4 2-Methylnaphthalene	5.853	5.843	0.010	144710	13410.8	1788 (M)
5 Acenaphthene	6.126	6.116	0.010	260992	16593.3	2212 (M)
6 Fluorene	6.533	6.523	0.010	444989	14547.1	1940 (M)
$ 8 Decafluorobiphenyl	8.033	8.009	0.024	40736	9104.39	1214 (M)
$ 12 p-terphenyl-d14	11.239	11.243	-0.004	230927	5235.51	698.1 (M)
$ 18 Decachlorobiphenyl	16.419	16.223	0.196	10548	1721.57	229.5 (RM)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G082103P-2.b/G#B-010-1001.d
Report Date: 22-Aug-2003 10:33

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXH71AV
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-2.b/8310-2.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0006
Operator: SLD
SampleType: MS
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1 Naphthalene	2000	1998	99.89	64-131
2 Acenaphthylene	2000	1604	80.22	57-120
3 1-Methylnaphthalen	2000	1627	81.37	51-116
4 2-Methylnaphthalen	2000	1788	89.41	51-116
5 Acenaphthene	2000	2212	110.62	59-130
6 Fluorene	2000	1940	96.98	63-129
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0

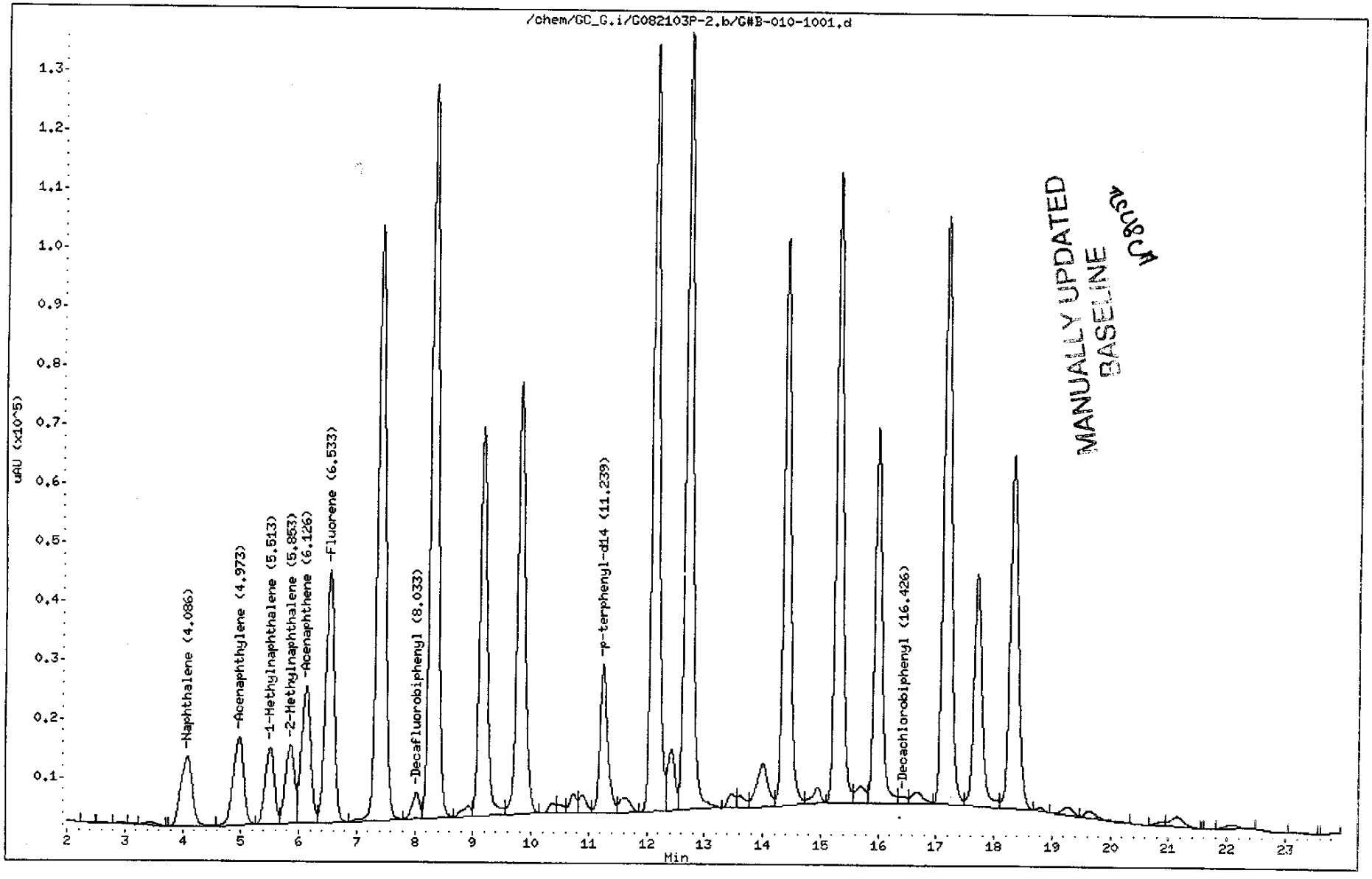
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1333	1214	91.04	37-152
$ 12 p-terphenyl-d14	666.7	698.1	104.71	22-167
$ 18 Decachlorobiphenyl	666.7	229.5	34.43*	40-160

Data File: /chem/GC_G.i/G082103P-2.b/G#B-010-1001.d
Date : 21-AUG-2003 16:57
Client ID: DB0006
Sample Info: FVXH71AV,204-5S

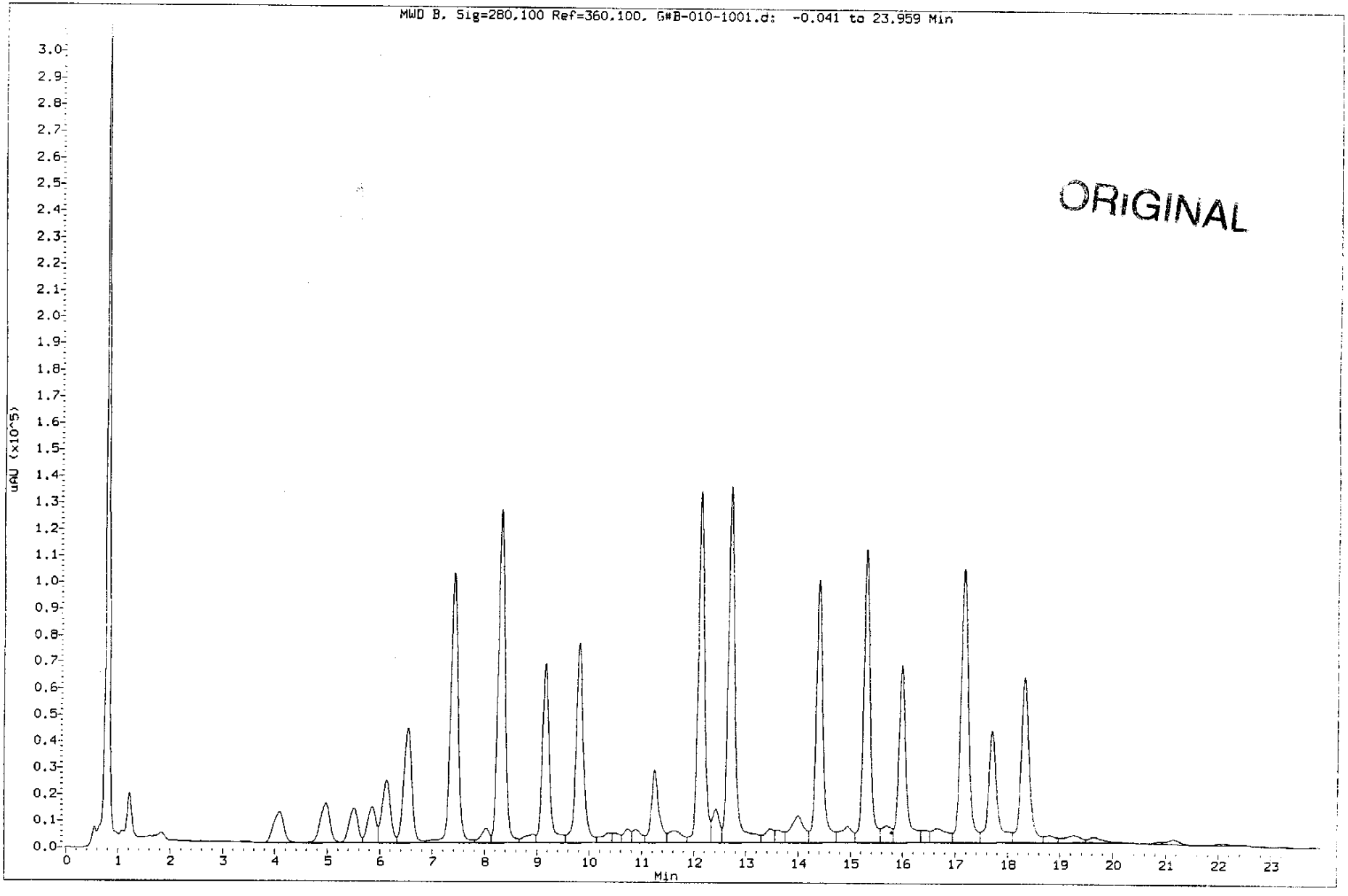
Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-2.b/G#B-010-1001.d
Injection Date: 21-AUG-2003 16:57
Instrument: GC_G.i
Client Sample ID: DB0006



ORIGINAL

Data File: /chem/GC_G.i/G082103P-3.b/G#C-010-1001.d
Report Date: 22-Aug-2003 11:05

STL Denver

Data file : /chem/GC_G.i/G082103P-3.b/G#C-010-1001.d
Lab Smp Id: FVXH71AV Client Smp ID: DB0006
Inj Date : 21-AUG-2003 16:57
Operator : SLD Inst ID: GC_G.i
Smp Info : FVXH71AV,204-5S
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-3.b/8310-3.m
Meth Date : 21-Aug-2003 13:57 fiedlerh Quant Type: ESTD
Cal Date : 29-APR-2003 17:39 Cal File: G#C-009-0901.d
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.00000	Weight of Sample Extracted (g)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	1 Phenanthrene	7.423	7.409	0.014	2695213	15389.8	2052
$	2 Decafluorobiphenyl	7.920	8.035	-0.115	1675	2015.33	268.7(RM)
	3 Anthracene	8.330	8.316	0.014	16702845	14200.7	1893(M)
	4 Fluoranthene	9.187	9.173	0.014	325216	25951.2	3460(RM)
	5 Pyrene	9.821	9.792	0.029	7883637	15148.7	2020(M)
$	6 p-terphenyl-d14	11.268	11.261	0.007	1149248	7063.91	941.8(M)
	7 Benzo(a)Anthracene	12.139	12.146	-0.007	10264837	13590.0	1812(M)
	8 Chrysene	12.715	12.722	-0.007	9920759	14645.4	1953(M)
	9 Benzo(b)Fluoranthene	14.407	14.422	-0.015	6352979	14255.9	1901(M)
	10 Benzo(k)Fluoranthene	15.314	15.336	-0.022	7962140	13262.5	1768(M)
	11 Benzo(a)Pyrene	15.991	16.013	-0.022	1887986	13868.1	1849(M)
	12 Dibenzo(a,h)Anthracene	17.172	17.215	-0.043	180968	24007.2	3201(RM)
	13 Benzo(g,h,i)Perylene	17.719	17.755	-0.036	541221	12798.2	1706(M)
	14 Indeno(1,2,3-c,d)Pyrene	18.331	18.382	-0.051	1623001	13986.7	1865(M)

Data File: /chem/GC_G.i/G082103P-3.b/G#C-010-1001.d
Report Date: 22-Aug-2003 11:05

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G082103P-3.b/G#C-010-1001.d
Report Date: 22-Aug-2003 11:05

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXH71AV
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-3.b/8310-3.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0006
Operator: SLD
SampleType: MS
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1 Phenanthrene	2000	2052	102.60	64-132
3 Anthracene	2000	1893	94.67	59-130
4 Fluoranthene	2000	3460	173.01*	63-132
5 Pyrene	2000	2020	100.99	65-138
7 Benzo(a)Anthracene	2000	1812	90.60	65-135
8 Chrysene	2000	1953	97.64	67-133
9 Benzo(b)Fluoranthe	2000	1901	95.04	65-132
10 Benzo(k)Fluoranthe	2000	1768	88.42	66-132
11 Benzo(a)Pyrene	2000	1849	92.45	51-116
	0.000	0.000	*	0-0
12 Dibenzo(a,h)Anthra	2000	3201	160.05*	66-142
13 Benzo(g,h,i)Peryle	2000	1706	85.32	58-135
14 Indeno(1,2,3-c,d)P	2000	1865	93.24	63-130

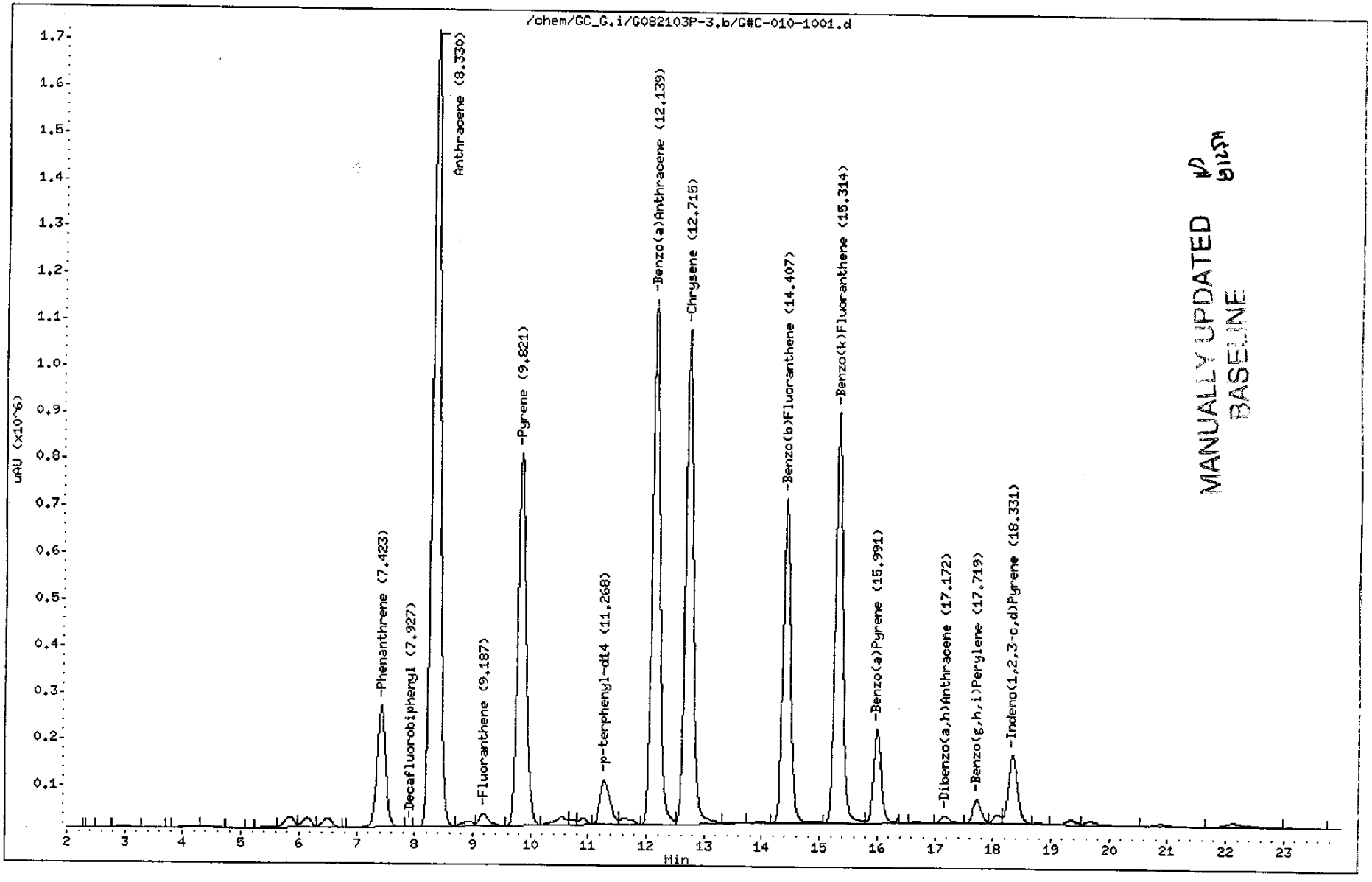
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 2 Decafluorobiphenyl	1333	268.7	20.15*	37-152
$ 6 p-terphenyl-d14	666.7	941.8	141.28	22-167

Data File: /chem/GC_G.i/G082103P-3.b/G#C-010-1001.d
Date : 21-AUG-2003 16:57
Client ID: DB0006
Sample Info: FVXH71AV,204-5S

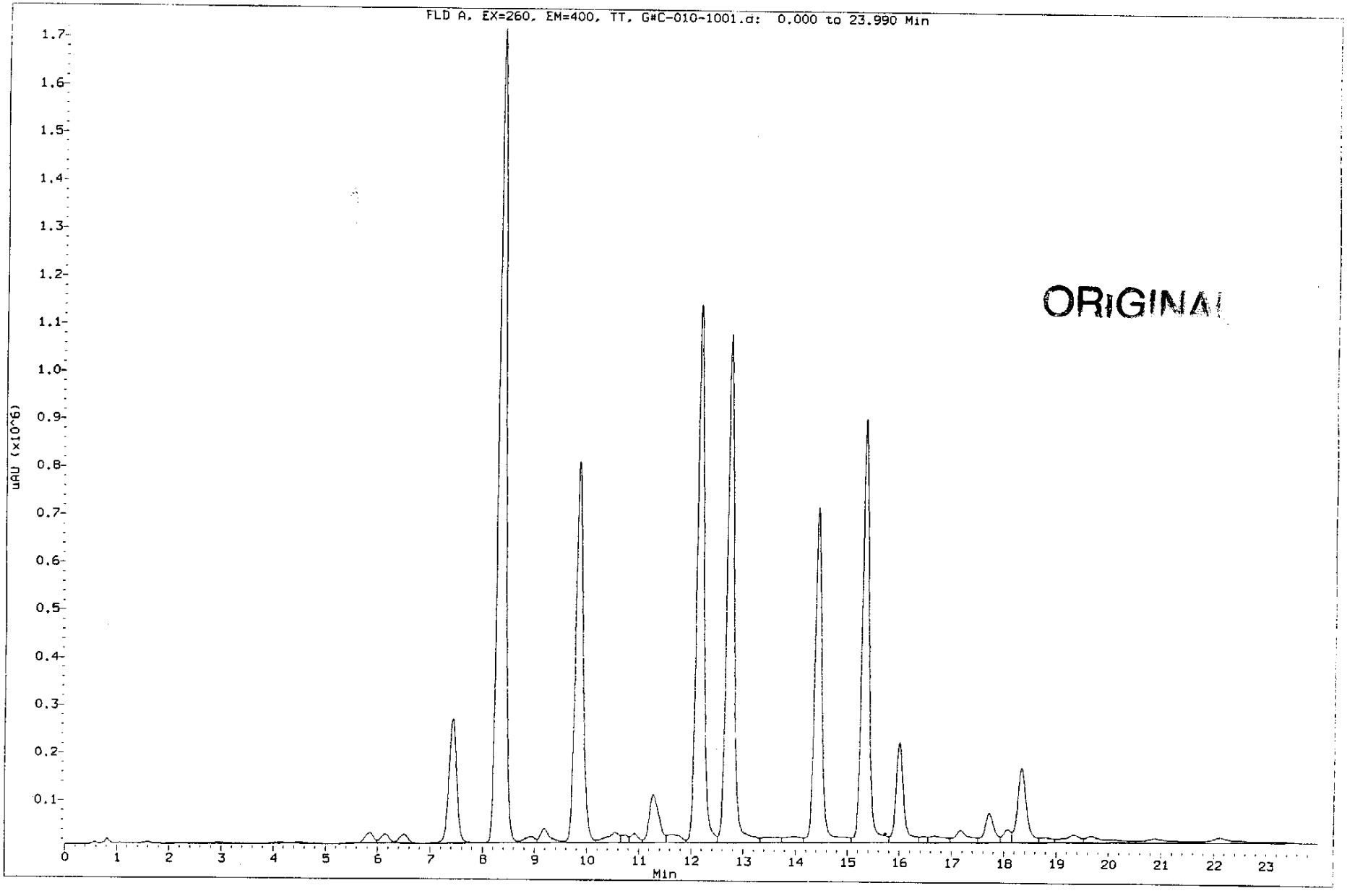
Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-3.b/G#C-010-1001.d
Injection Date: 21-AUG-2003 16:57
Instrument: GC_G.i
Client Sample ID: DB0006



ORIGINAL

Data File: /chem/GC_G.i/G082103P-1.b/G#A-011-1101.d
Report Date: 22-Aug-2003 07:28

STL Denver

Data file : /chem/GC_G.i/G082103P-1.b/G#A-011-1101.d
Lab Smp Id: FVXH71AW
Client Smp ID: DB0006
Inj Date : 21-AUG-2003 17:28
Operator : SLD
Inst ID: GC_G.i
Smp Info : FVXH71AW,204-5D
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-1.b/8310-1.m
Meth Date : 21-Aug-2003 13:51 fiedlerh
Quant Type: ESTD
Cal Date : 29-APR-2003 14:05
Cal File: G#A-002-0201.d
Als bottle: 1
QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.00000	Weight of Sample Extracted (g)

Cpnd Variable — Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
	1 Naphthalene	4.075	4.076	-0.001	1176289	15601.5	2080
	2 Acenaphthylene	4.962	4.963	-0.001	495827	13403.5	1787
	3 1-Methylnaphthalene	5.502	5.496	0.006	849748	13582.6	1811
	4 2-Methylnaphthalene	5.849	5.843	0.006	1007201	14243.0	1899
	5 Acenaphthene	6.122	6.116	0.006	1026209	16422.6	2190
	6 Fluorene	6.529	6.523	0.006	902008	16008.9	2134
	7 Phenanthrene	7.402	7.396	0.006	1470857	18012.6	2402
$	8 Decafluorobiphenyl	8.022	8.009	0.013	109580	9269.82	1236
	9 Anthracene	8.302	8.296	0.006	1370465	16955.0	2261
	10 Fluoranthene	9.149	9.149	0.000	1035669	17431.1	2324
	11 Pyrene	9.796	9.776	0.020	702553	18290.6	2439
$	12 p-terphenyl-d14	11.236	11.243	-0.007	305417	5023.17	669.8
	13 Benzo(a)Anthracene	12.116	12.123	-0.007	1490902	16257.5	2168 (M)
	14 Chrysene	12.689	12.703	-0.014	1453759	17153.8	2287 (M)
	15 Benzo(b)Fluoranthene	14.382	14.403	-0.021	1241633	16459.0	2194 (M)

Data File: /chem/GC_G.i/G082103P-1.b/G#A-011-1101.d
Report Date: 22-Aug-2003 07:28

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
16 Benzo(k)Fluoranthene	15.289	15.316	-0.027	1157487	17230.7	2297(M)
17 Benzo(a)Pyrene	15.976	15.996	-0.020	850260	16911.6	2255(M)
$ 18 Decachlorobiphenyl	16.442	16.223	0.219	2515	75.8894	10.12(aRM)
19 Dibenzo(a,h)Anthracene	17.155	17.189	-0.034	1272631	16895.2	2253(M)
20 Benzo(g,h,i)Perylene	17.702	17.736	-0.034	912775	16227.8	2164(M)
21 Indeno(1,2,3-c,d)Pyrene	18.322	18.363	-0.041	950726	16706.4	2228(M)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G082103P-1.b/G#A-011-1101.d
Report Date: 22-Aug-2003 07:28

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXH71AW
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-1.b/8310-1.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0006
Operator: SLD
SampleType: MSD
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1 Naphthalene	2000	2080	104.01	64-131
2 Acenaphthylene	2000	1787	89.36	57-120
3 1-Methylnaphthalen	2000	1811	90.55	51-116
4 2-Methylnaphthalen	2000	1899	94.95	51-116
5 Acenaphthene	2000	2190	109.48	59-130
6 Fluorene	2000	2134	106.73	63-129
7 Phenanthrene	2000	2402	120.08	64-132
9 Anthracene	2000	2261	113.03	59-130
10 Fluoranthene	2000	2324	116.21	63-132
11 Pyrene	2000	2439	121.94	65-138
13 Benzo(a)Anthracene	2000	2168	108.38	65-135
14 Chrysene	2000	2287	114.36	67-133
15 Benzo(b)Fluoranthe	2000	2194	109.73	65-132
16 Benzo(k)Fluoranthe	2000	2297	114.87	66-132
17 Benzo(a)Pyrene	2000	2255	112.74	51-116
19 Dibenzo(a,h)Anthra	2000	2253	112.63	66-142
20 Benzo(g,h,i)Peryle	2000	2164	108.19	58-135
21 Indeno(1,2,3-c,d)P	2000	2228	111.38	63-130

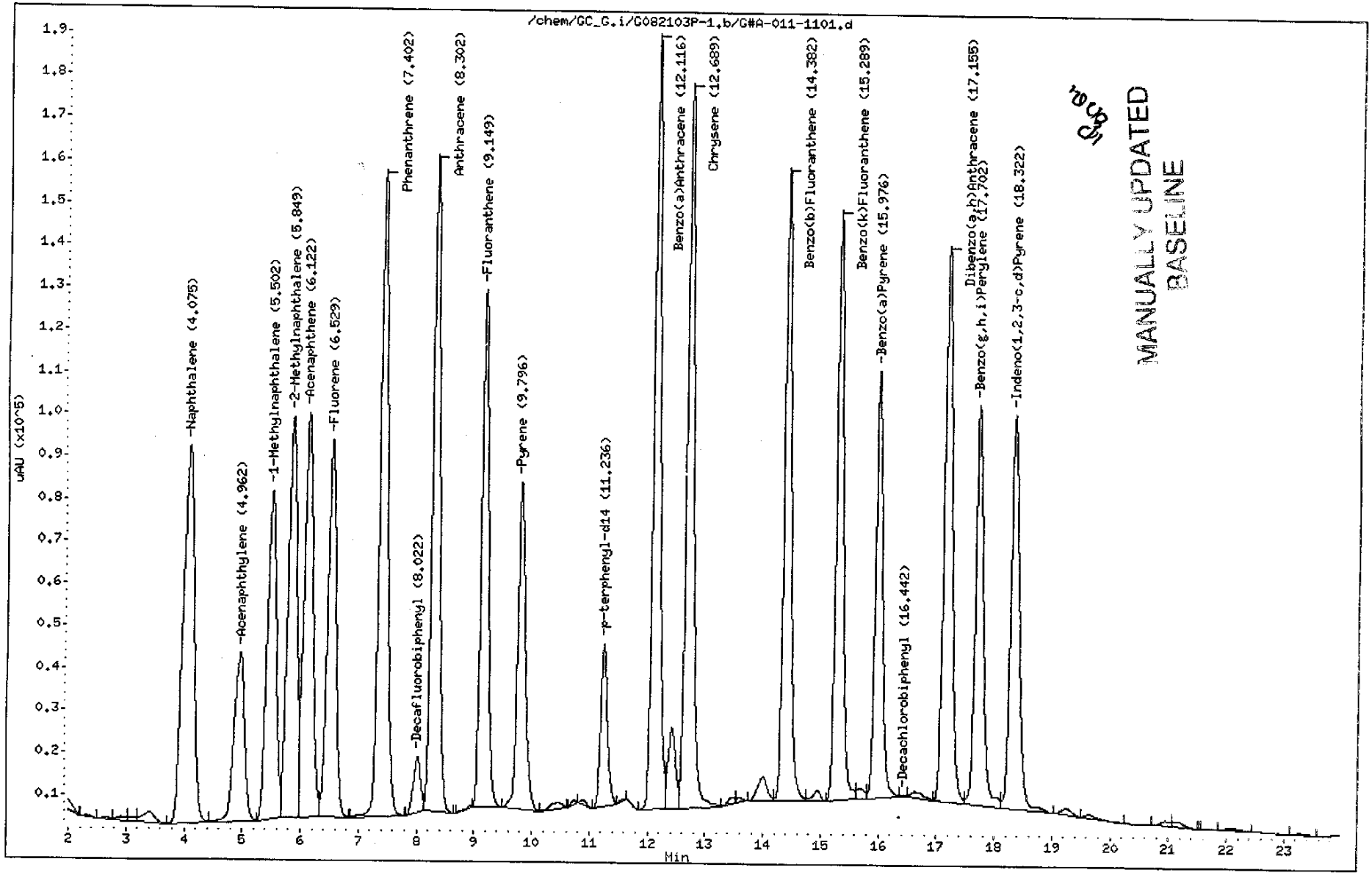
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1333	1236	92.70	37-152
$ 12 p-terphenyl-d14	666.7	669.8	100.46	22-167
$ 18 Decachlorobiphenyl	666.7	10.12	1.52*	0-0

Data File: /chem/GC_G.i/G082103P-1.b/G#A-011-1101.d
Date : 21-AUG-2003 17:28
Client ID: DB0006
Sample Info: FVXH71AW,204-5D

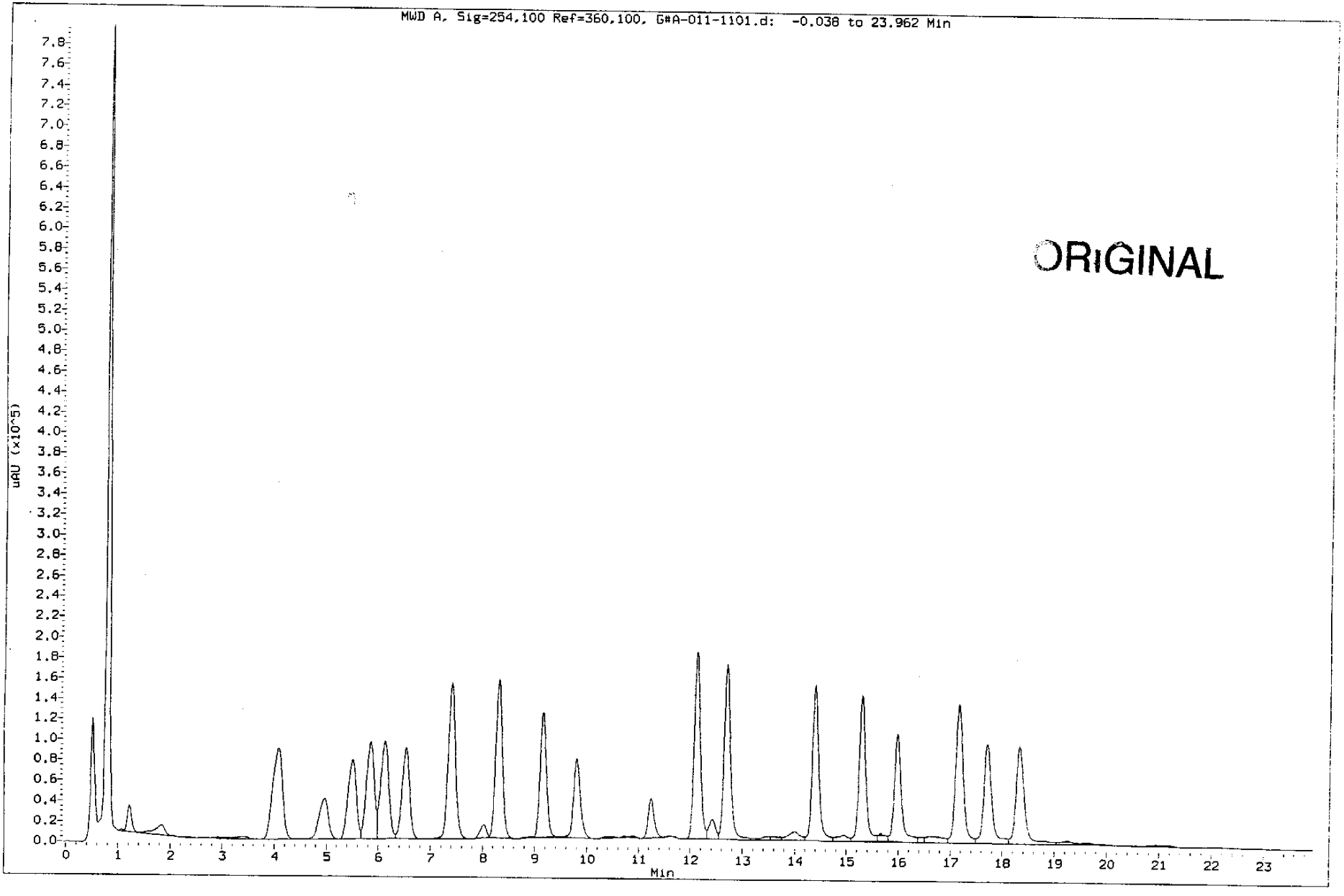
Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-1.b/G#A-011-1101.d
Injection Date: 21-AUG-2003 17:28
Instrument: GC_G.i
Client Sample ID: DB0006



ORIGINAL

Data File: /chem/GC_G.i/G082103P-2.b/G#B-011-1101.d
Report Date: 22-Aug-2003 10:33

STL Denver

Data file : /chem/GC_G.i/G082103P-2.b/G#B-011-1101.d
Lab Smp Id: FVXH71AW
Client Smp ID: DB0006
Inj Date : 21-AUG-2003 17:28
Operator : SLD
Inst ID: GC_G.i
Smp Info : FVXH71AW,204-5D
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-2.b/8310-2.m
Meth Date : 21-Aug-2003 13:56 fiedlerh
Quant Type: ESTD
Cal Date : 29-APR-2003 14:05
Cal File: G#B-002-0201.d
Als bottle: 1
QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.00000	Weight of Sample Extracted (g)

Cpnd Variable — Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
1 Naphthalene	4.082	4.076	0.006	175412	16031.7	2138(M)
2 Acenaphthylene	4.962	4.963	-0.001	219908	14113.7	1882(M)
3 1-Methylnaphthalene	5.502	5.496	0.006	161451	13647.8	1820(M)
4 2-Methylnaphthalene	5.849	5.843	0.006	165267	15311.3	2042(M)
5 Acenaphthene	6.115	6.116	-0.001	317678	20197.3	2693(RM)
6 Fluorene	6.529	6.523	0.006	504105	16479.6	2197(M)
$ 8 Decafluorobiphenyl	8.022	8.009	0.013	46640	10424.1	1390(M)
$ 12 p-terphenyl-d14	11.236	11.243	-0.007	230634	5228.86	697.2(M)
$ 18 Decachlorobiphenyl	16.429	16.223	0.206	8653	1412.21	188.3(RM)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G082103P-2.b/G#B-011-1101.d
Report Date: 22-Aug-2003 10:33

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXH71AW
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-2.b/8310-2.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0006
Operator: SLD
SampleType: MSD
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1 Naphthalene	2000	2138	106.88	64-131
2 Acenaphthylene	2000	1882	94.09	57-120
3 1-Methylnaphthalen	2000	1820	90.99	51-116
4 2-Methylnaphthalen	2000	2042	102.08	51-116
5 Acenaphthene	2000	2693	134.65*	59-130
6 Fluorene	2000	2197	109.86	63-129
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0
	0.000	0.000	*	0-0

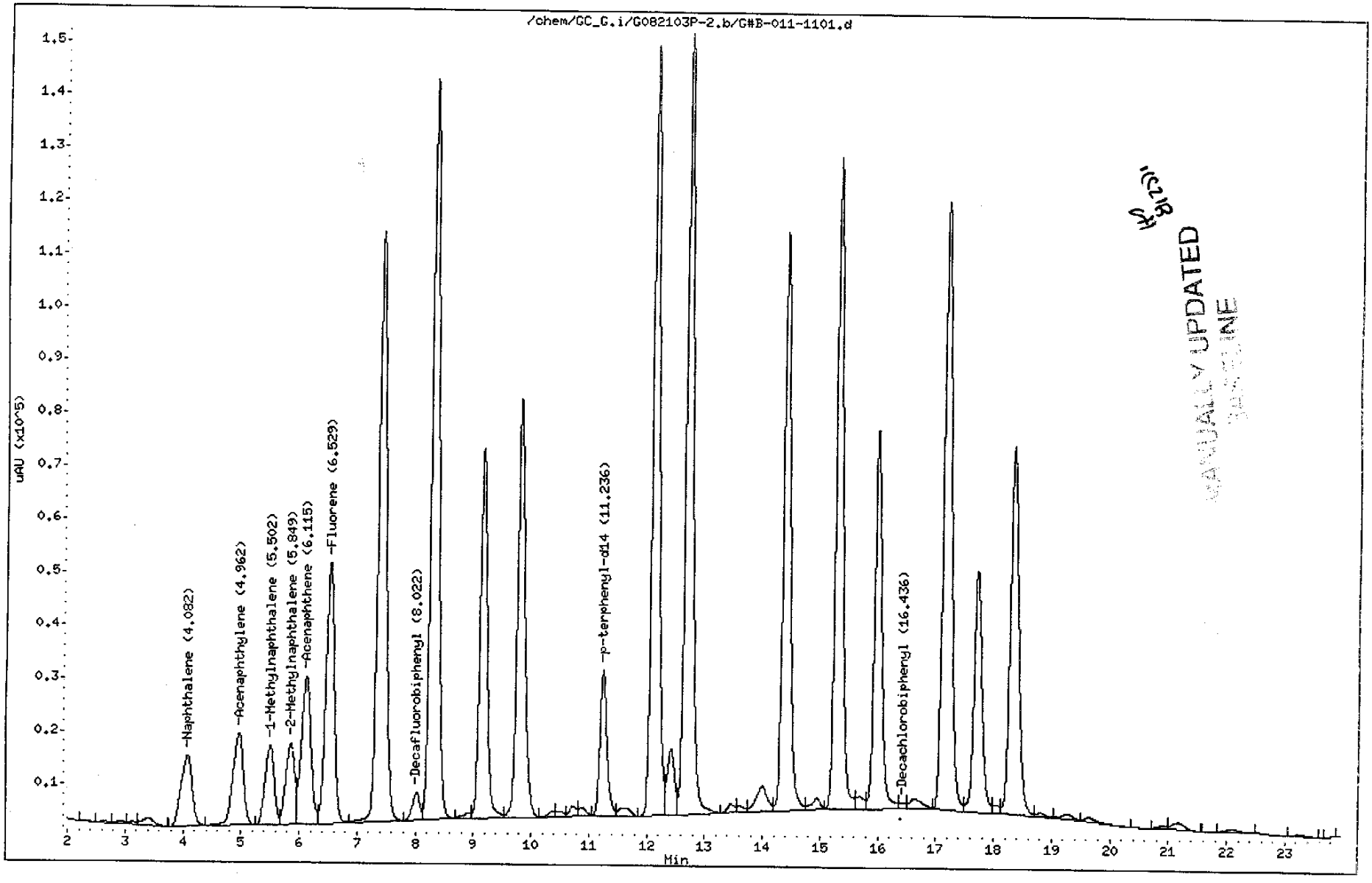
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 8 Decafluorobiphenyl	1333	1390	104.24	37-152
$ 12 p-terphenyl-d14	666.7	697.2	104.58	22-167
$ 18 Decachlorobiphenyl	666.7	188.3	28.24*	40-160

Data File: /chem/GC_G.i/G082103P-2.b/G#B-011-1101.d
Date : 21-AUG-2003 17:28
Client ID: DB0006
Sample Info: FVXH71AW,204-5D

Column phase: C-18

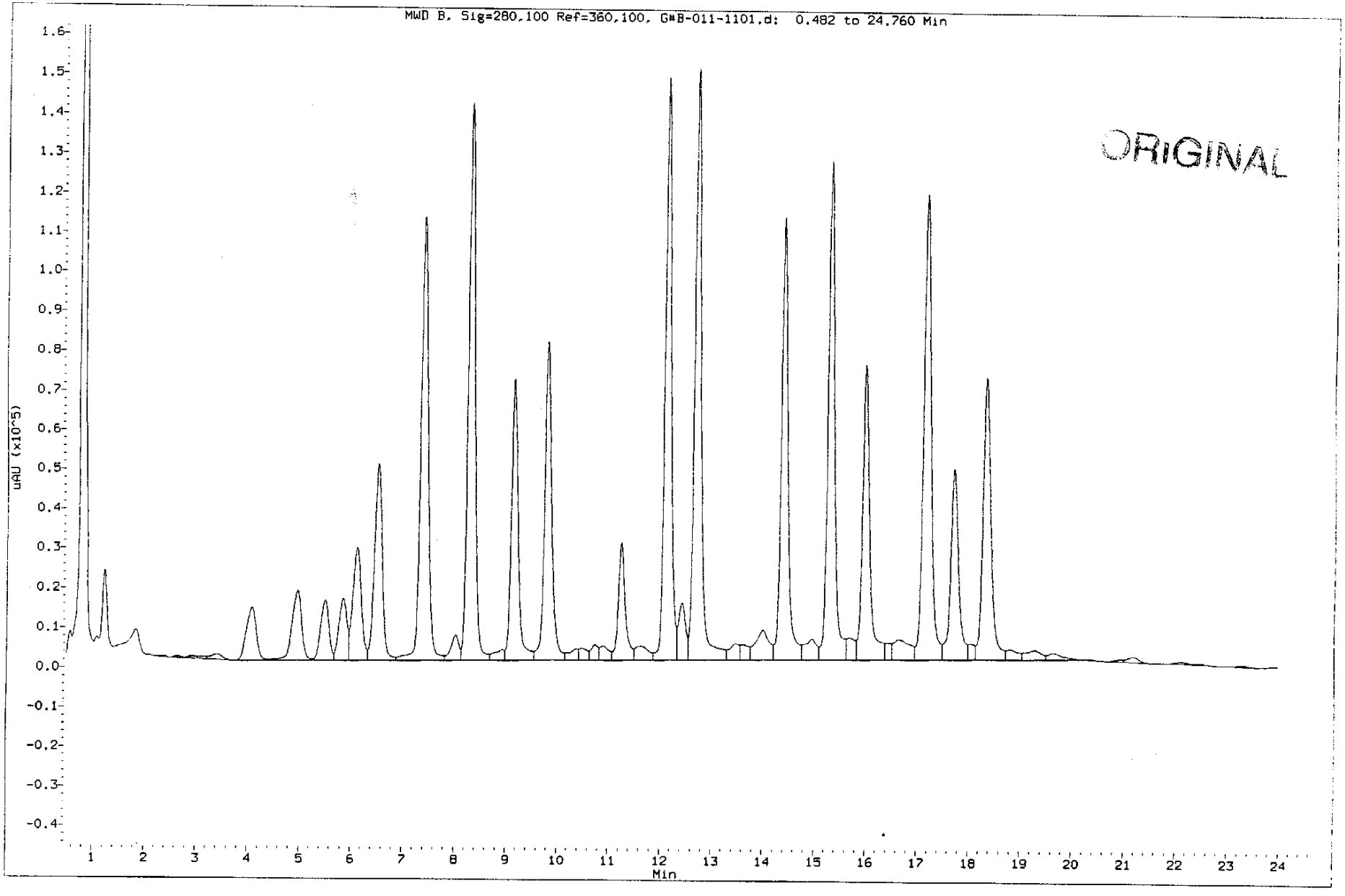
Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



MANUALLY UPDATED BASELINE

Data File: /chem/GC_G.i/G082103P-2.b/G#B-011-1101.d
Injection Date: 21-AUG-2003 17:28
Instrument: GC_G.i
Client Sample ID: DB0006



ORIGINAL

Data File: /chem/GC_G.i/G082103P-3.b/G#C-011-1101.d
Report Date: 22-Aug-2003 11:05

STL Denver

Data file : /chem/GC_G.i/G082103P-3.b/G#C-011-1101.d
Lab Smp Id: FVXH71AW
Client Smp ID: DB0006
Inj Date : 21-AUG-2003 17:28
Operator : SLD
Inst ID: GC_G.i
Smp Info : FVXH71AW,204-5D
Misc Info : ICAL 04/29/03
Comment :
Method : /chem/GC_G.i/G082103P-3.b/8310-3.m
Meth Date : 21-Aug-2003 13:57 fiedlerh
Quant Type: ESTD
Cal Date : 29-APR-2003 17:39
Cal File: G#C-009-0901.d
Als bottle: 1
QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * (Vf / Ws) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Unit Correction Factor (ug/ng)
Vf	4000.00000	Final Volume of Extract (uL)
Ws	30.00000	Weight of Sample Extracted (g)

Cpnd Variable — Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	1 Phenanthrene	7.416	7.409	0.007	2877312	16429.6	2191 (M)
$	2 Decafluorobiphenyl	8.057	8.035	0.022	35854	28873.7	3850 (RM)
	3 Anthracene	8.323	8.316	0.007	18534654	15758.1	2101 (M)
	4 Fluoranthene	9.180	9.173	0.007	279183	22281.3	2971 (RM)
	5 Pyrene	9.821	9.792	0.029	8333218	16012.6	2135 (M)
$	6 p-terphenyl-d14	11.261	11.261	0.000	1020897	6275.00	836.7 (M)
	7 Benzo(a)Anthracene	12.132	12.146	-0.014	11324441	14992.8	1999 (M)
	8 Chrysene	12.708	12.722	-0.014	10932328	16138.7	2152 (M)
	9 Benzo(b)Fluoranthene	14.407	14.422	-0.015	7003895	15716.6	2096 (M)
	10 Benzo(k)Fluoranthene	15.314	15.336	-0.022	9033863	15047.7	2006 (M)
	11 Benzo(a)Pyrene	15.991	16.013	-0.022	2055314	15097.3	2013 (M)
	12 Dibenzo(a,h)Anthracene	17.172	17.215	-0.043	162822	21599.6	2880 (RM)
	13 Benzo(g,h,i)Perylene	17.726	17.755	-0.029	605965	14329.2	1910 (M)
	14 Indeno(1,2,3-c,d)Pyrene	18.346	18.382	-0.036	1815623	15646.7	2086 (M)

Data File: /chem/GC_G.i/G082103P-3.b/G#C-011-1101.d
Report Date: 22-Aug-2003 11:05

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/GC_G.i/G082103P-3.b/G#C-011-1101.d
Report Date: 22-Aug-2003 11:05

STL Denver

RECOVERY REPORT

Client Name: SHAW E & I INC
Sample Matrix: SOLID
Lab Smp Id: FVXH71AW
Level: LOW
Data Type: LC DATA
SpikeList File: Scommercial.spk
Sublist File: all.sub
Method File: /chem/GC_G.i/G082103P-3.b/8310-3.m
Misc Info: ICAL 04/29/03

Client SDG: H3H080204
Fraction: SV
Client Smp ID: DB0006
Operator: SLD
SampleType: MSD
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1 Phenanthrene	2000	2191	109.53	64-132
3 Anthracene	2000	2101	105.05	59-130
4 Fluoranthene	2000	2971	148.54*	63-132
5 Pyrene	2000	2135	106.75	65-138
7 Benzo(a)Anthracene	2000	1999	99.95	65-135
8 Chrysene	2000	2152	107.59	67-133
9 Benzo(b)Fluoranthe	2000	2096	104.78	65-132
10 Benzo(k)Fluoranthe	2000	2006	100.32	66-132
11 Benzo(a)Pyrene	2000	2013	100.65	51-116
	0.000	0.000	*	0-0
12 Dibenzo(a,h)Anthra	2000	2880	144.00*	66-142
13 Benzo(g,h,i)Peryle	2000	1910	95.53	58-135
14 Indeno(1,2,3-c,d)P	2000	2086	104.31	63-130

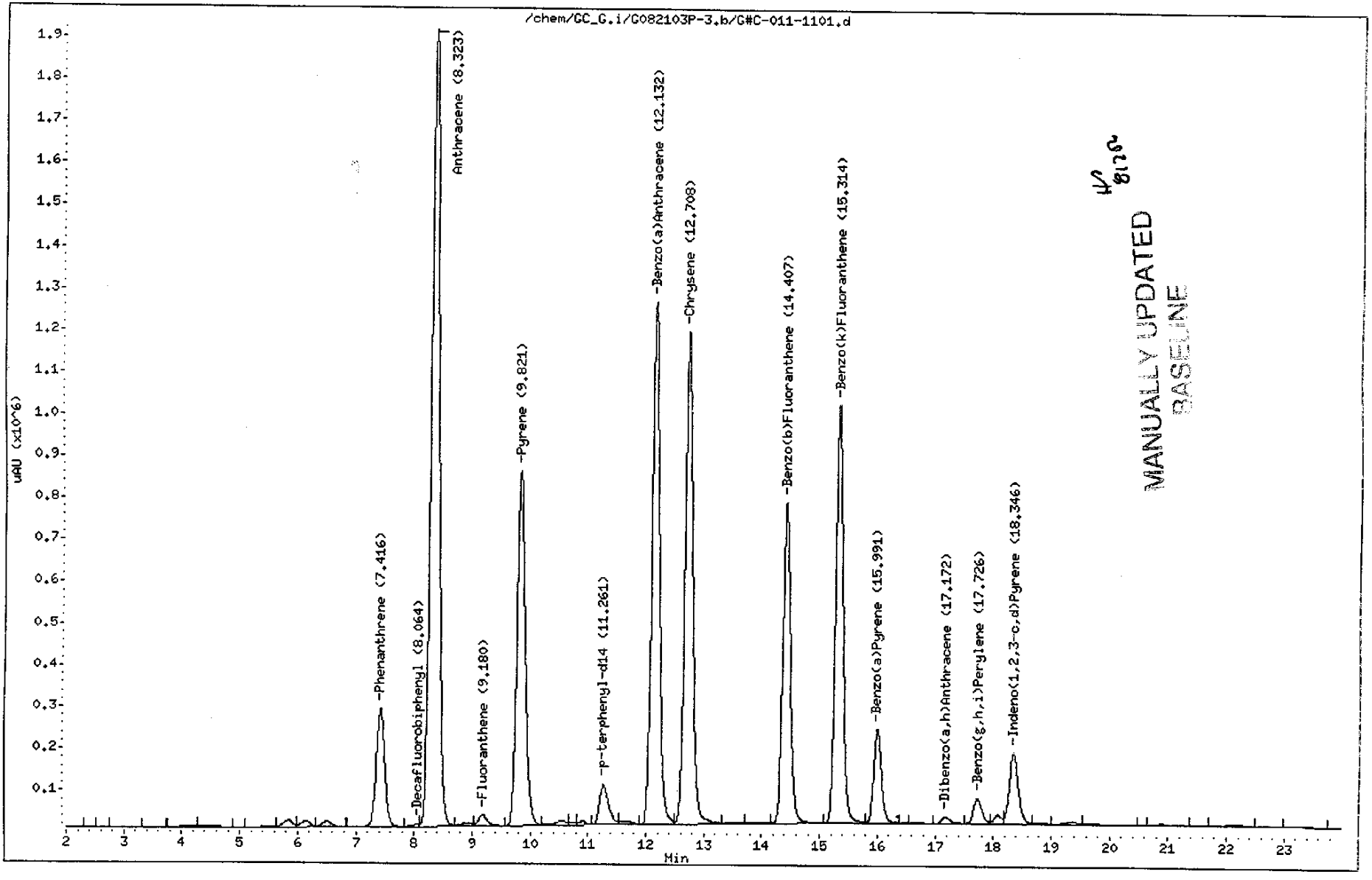
SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 2 Decafluorobiphenyl	1333	3850	288.74*	37-152
$ 6 p-terphenyl-d14	666.7	836.7	125.50	22-167

Data File: /chem/GC_G.i/G082103P-3.b/G#C-011-1101.d
Date : 21-AUG-2003 17:28
Client ID: DB0006
Sample Info: FVXH71AW,204-5D

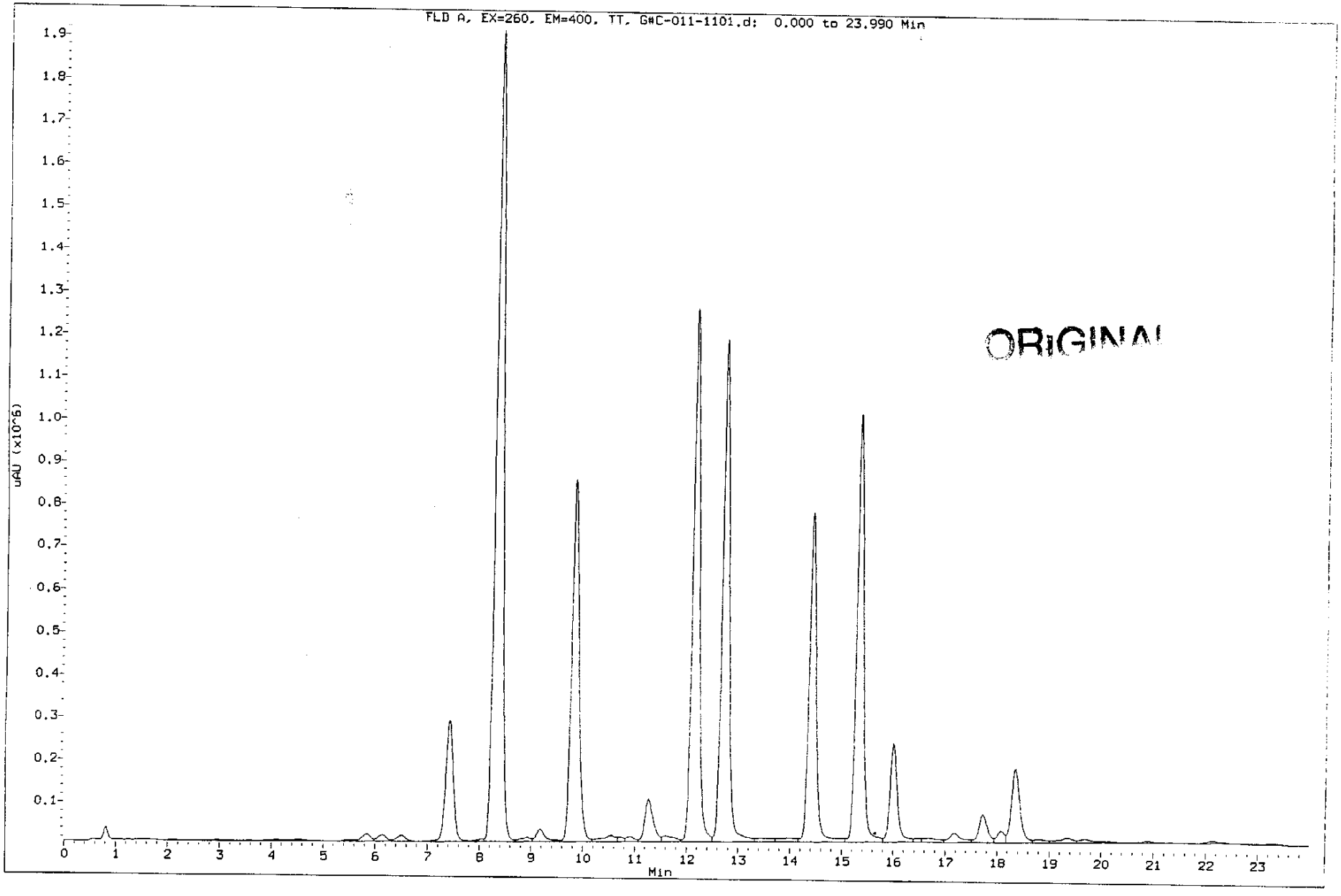
Column phase: C-18

Instrument: GC_G.i

Operator: SLD
Column diameter: 4.60



Data File: /chem/GC_G.i/G082103P-3.b/G#C-011-1101.d
Injection Date: 21-AUG-2003 17:28
Instrument: GC_G.i
Client Sample ID: DB0006



ORIGINAL

Miscellaneous Data

Sequence Table:

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PRIMER				
2	Vial 2	8310 CCV HPLC152				
3	Vial 3	FWG6C1AA,BLK				
4	Vial 4	FWG6C1AC,LCS switched				
5	Vial 5	FVXG51AA,204-1				
6	Vial 6	FVXHQ1AH,204-2				
7	Vial 7	FVXHV1AH,204-3				
8	Vial 8	FVXH21AH,204-4				
9	Vial 9	FVXH71AU,204-5				
10	Vial 10	FVXH71AV,204-5S				
11	Vial 11	FVXH71AW,204-5D				
12	Vial 12	FVXJL1AH,204-6				
13	Vial 2	8310 CCV HPLC152				
14	Vial 13	FVXJQ1AH,204-7				
15	Vial 14	FVXJ01AH,204-8				
16	Vial 15	FWMLM1AA,BLK				
17	Vial 16	FWMLM1AC,LCS				
18	Vial 17	FWA0N1AC,349-1				
19	Vial 18	FWA0Q1AC,349-3				
20	Vial 19	FQA0R1AC,349-4				
21	Vial 20	FQA0T1AC,349-5				
22	Vial 21	FWMK11AA,BLK				
23	Vial 22	FQMK11AC,LCS				
24	Vial 2	8310 CCV HPLC152				
25	Vial 23	FWH391AD,165-1				
26	Vial 24	FWH5J1AD,165-2				
27	Vial 25	FWH5M1AC,165-4				
28	Vial 26	HPLC202-03				
29	Vial 2	8310 CCV HPLC152				

RQC058

Severn Trent Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 8/19/03
Time: 14:58:47

LEV 1	LEV 2		LEV 1	LEV 2	
Y	Y	Blank	Y	Y	Weights/Volumes
Y	Y	Check	Y	Y	Spike & Surrogate Worksheet
Y	Y	MS/MSD	Y	Y	Vial contains correct volume
			Y	Y	Labels, greenbars, worksheets
					computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
_ Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: 003658 Sara Havig
009250 Heather Despres

Concentrationist: 002770 Erma J. Pottruff
008835 Carrie Lahr

QC BATCH: 3230523

PREP DATE: 8/18/03 15:00
COMP DATE: 8/19/03 13:45

Reviewer/Date: LAHRC / 8/19/03

Hydrocarbons, Polynuclear Aromatic (HPLC - 8310)
SONICATION - Low Level

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADJ1	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
8/20/03 COMMENTS:	8/22/03	H3H080204-001 **FVXG5-1-AA**	D	13	SG	SOLID	**30.1g** 4.00mL	NA	NA	NA	1:1	300.0	ACN	10.0	1ML HPLC176 7-8-03
8/20/03 COMMENTS:	8/22/03	H3H080204-002 **FVXHQ-1-AH**	D	13	SG	SOLID	**29.8g** 4.00mL	NA	NA	NA	1:1	300.0	ACN	10.0	1ML HPLC176 7-8-03
8/20/03 COMMENTS:	8/22/03	H3H080204-003 **FVXHV-1-AH**	D	13	SG	SOLID	**30.1g** 4.00mL	NA	NA	NA	1:1	300.0	ACN	10.0	1ML HPLC176 7-8-03
8/20/03 COMMENTS:	8/22/03	H3H080204-004 **FVXH2-1-AH**	D	13	SG	SOLID	**29.7g** 4.00mL	NA	NA	NA	1:1	300.0	ACN	10.0	1ML HPLC176 7-8-03
8/20/03 COMMENTS:	8/22/03	H3H080204-005 **FVXH7-1-AU**	D	13	SG	SOLID	**303g** 4.00mL	NA	NA	NA	1:1	300.0	ACN	10.0	1ML HPLC176 7-8-03
8/20/03 COMMENTS:	8/22/03	H3H080204-005 **FVXH7-1-AVS**	D	13	SG	SOLID	**30g** 4.00mL	NA	NA	NA	1:1	300.0	ACN	10.0	1ML HPLC154 6-9-03 1ML HPLC176 7-8-03
8/20/03 COMMENTS:	8/22/03	H3H080204-005 **FVXH7-1-AWD**	D	13	SG	SOLID	**30g** 4.00mL	NA	NA	NA	1:1	300.0	ACN	10.0	1ML HPLC154 6-9-03 1ML HPLC176 7-8-03

RQC058

Seven[illegible] Laboratories, Inc
[illegible] BENCH WORKSHEET

Run Date: 8/19/03
Time: 14:58:47

QC BATCH: 3230523

PREP DATE: 8/18/03 15:00
COMP DATE: 8/19/03 13:45

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INI[illegible] WI[illegible]	INIT	PH"S ADJ1	ADJ2	EXTRACTION	SOLVENTS VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
8/20/03	8/22/03	H3H080204-006 **FVXJL-1-AH**	D	13	SG	SOLID	**30.3g** 4.[illegible]	NA	NA	NA	1:1	300.0	ACN	10.0	1ML HPLC176 7-8-03
COMMENTS:															
8/20/03	8/22/03	H3H080204-007 **FVXJQ-1-AH**	D	13	SG	SOLID	**30.5g** 4.[illegible]	NA	NA	NA	1:1	300.0	ACN	10.0	1ML HPLC176 7-8-03
COMMENTS:															
8/20/03	8/22/03	H3H080204-008 **FVXJ0-1-AH**	D	13	SG	SOLID	**30.3g** 4.00mL	NA	NA	NA	1:1	300.0	ACN	10.0	1ML HPLC176 7-8-03
COMMENTS:															
8/20/03	0/00/00	D3H180000-523 **FWG6C-1-AAB**		13	SG	SOLID	**30g** 4.00mL	NA	NA	NA	1:1	300.0	ACN	10.0	1ML HPLC176 7-8-03
COMMENTS:															
8/20/03	0/00/00	D3H180000-523 **FWG6C-1-ACC**		13	SG	SOLID	**30g** 4.00mL	NA	NA	NA	1:1	300.0	ACN	10.0	1ML HPLC154 6-9-03 1ML HPLC176 7-8-03
COMMENTS:															

DEN-OP-0005 MECL2:Y21E46 ACETONE:Y11E10 NA2S04:Y26599 SAND:Y15476
S/S:HD W:SH

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD
↕

NUMBER OF WORK ORDERS IN BATCH: 12

4.7°C DB
8/9/03

Severn Trent Laboratories, Inc
SAMPLE ANALYSIS REQUISITION

LABORATORY: STL Denver
4955 Yarrow Street
Arvada CO 80002,

NEED ANALYTICAL REPORT BY
8/21/03

ATTN:

LAB PURCHASE ORDER: SR051199

CLIENT CODE: 506155 PROJECT MANAGER: Jamie A. McKinney

NUMBER OF SAMPLES IN LOT: 0000

SAMPLE I.D.	SAMPLING DATE	ANALYSIS REQUIRED
H3H080204-001 FVXG5-1-AA	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-002 FVXHQ-1-AH	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-003 FVXHV-1-AH	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-004 FVXH2-1-AH	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-005 FVXH7-1-AU	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-005-D FVXH7-1-AW	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-005-S FVXH7-1-AV	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-006 FVXJL-1-AH	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-007 FVXJQ-1-AH	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-008 FVXJ0-1-AH	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310

NEED DETECTION LIMIT AND ANALYSIS DATE INCLUDED IN REPORT.

SHIPPING METHOD: FEDX DATE: 8/08/03

SEND REPORT TO: JAMIE MCKINNEY

SAMPLE RECEIVED BY: Amy Bindl DATE: 8/8/03

PLEASE SEND A SIGNED COPY OF THIS FORM WITH REPORT AT COMPLETION OF ANALYSIS.

THANK YOU.

STL Knoxville

INT: _____ 8/08/03 11:51:03

STL Denver
4955 Yarrow Street
Arvada CO 80002,

RELINQUISHED BY: Andrew D. Flores DATE/TIME: 08-08-03 15:15

RELINQUISHED BY: _____ DATE/TIME: _____

RECEIVED FOR LAB BY: Amy Bindl DATE/TIME: 8/8/03 0845

PLEASE RETURN ORIGINAL SAMPLE ANALYSIS REQUISITION

STL Denver

Sample Receiving Checklist

Lot #: 1/SH/080204 Date/Time Received: 8/9/03 0845

Company Name & Sampling Site: STL Knoxvill

*Cooler #(s): 1

Temperatures (°C): 4.7

PM to Complete This Section: *Yes* *No*
Residual chlorine check required: ☐ ☐
Time Zone:
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking & Labeling Check Points:

N/A	Yes	No		Initials
☐	☑	☐	1. Cooler seals intact. (N/A if hand delivered)	
	☑	☐	2. Chain of custody present.	
	☐	☑	3. Bottles broken and/or are leaking, comment if yes.	
	☐	☑	4. Multiphase samples present? If yes, comment below.	
			PHOTOGRAPH BROKEN BOTTLES	
	☐	☐	5. Proper container & preservatives used (ref. Attachment D of SOP# DEN-QA-0003)	
☐	☐	☐	6. pH of all samples checked and meet requirements, note exceptions.	
	☐	☐	7. Chain of custody includes "received by" and "relinquished" by signatures, dates, and times.	
	☐	☐	8. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.	
	☐	☐	9. Chain of custody agrees with bottle count, comment if no.	
	☐	☐	10. Chain of custody agrees with labels, comment if no.	
☐	☐	☐	11. VOA samples filled completely, comment if no.	
☐	☐	☐	12. VOA vials preserved, check label. Preservative ☐HCl ☐4±2°C ☐Sodium Thiosulfate	
	☐	☐	13. Did samples require preservation with sodium thiosulfate?	
☐	☐	☐	14. If yes to #12, did the samples contain residual chlorine?	
☐	☐	☐	15. Sediment present in dissolved/filtered bottles.	
	☐	☐	16. Are analyses with short holding times requested?	
	☐	☐	17. Was a quick Turn Around (TAT) requested?	
☐	☐	☐	18. Is extra sample volume provided for MS, MSD or matrix duplicates?	
			DOUBLECHECK METALS,SAMPLE LABELS & SUBCONTRACT	
☐	☐	☐	19. Subcontract COC signed and sent with samples to bottle prep?	
	☐	☐	20. Were sample labels double-checked by a second person?	
☐	☐	☐	21. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?	
☐	☐	☐	22. If applicable, were AFCEE Metals placed in the walkin refrigerator?	
☐	☐	☐	23. Were special instructions in LIMS read and followed?	

Document any problems and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

Internal Chain-of-Custody Form

STL Lot # HSH080204	Initial Receipt Date 8/9/03	Sample Custodian Initials AB

Samples Stored in Sample Receiving Walk-In

Sample #s 1 - 8	Location in Walk-In (or Satellite area for strict internal COC samples) Import 2C	Matrix Solid

Sample #s	Department	Test(s)	Matrix	Date/Time Out	Analyst Initials	Date/Time In	Analyst Initials
1-8	OP	8310	S	8/18 19:50	SMA	8/18 18:40	SMA

Satellite Area Sample Transfers

Satellite Area		Sample Numbers	Transfer Date	Storage Location	2nd Transfer Date	2nd Storage Location	Archive Date	Archived By
Metals (aqueous, non-AFCEE)								
GC Volatiles	Water							
	Solid							
MS Volatiles	Water							
	Solid							

Transfers to Sample Archive

Sample #s	Area Received From	Date Received	Archived By	Archive Storage Location	Disposal Date

*Strict Internal Chain-of-Custody Required:*_____

Explosives

Raw Sample Data

SHAW E & I INC

Client Sample ID: DB0001

HPLC

Lot-Sample #...: H3H080204-001 **Work Order #...:** FVXG51AC **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1
% Moisture.....: 20 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
HMX	ND	0.50	mg/kg	0.18
RDX	ND	0.50	mg/kg	0.17
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	0.090
1,3-Dinitrobenzene	ND	0.25	mg/kg	0.030
Tetryl	ND	0.65	mg/kg	0.38
Nitrobenzene	ND	0.25	mg/kg	0.045
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	0.045
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2,6-Dinitrotoluene	ND	0.25	mg/kg	0.090
2,4-Dinitrotoluene	ND	0.25	mg/kg	0.045
2-Nitrotoluene	ND	0.25	mg/kg	0.14
4-Nitrotoluene	ND	0.25	mg/kg	0.090
3-Nitrotoluene	ND	0.25	mg/kg	0.14

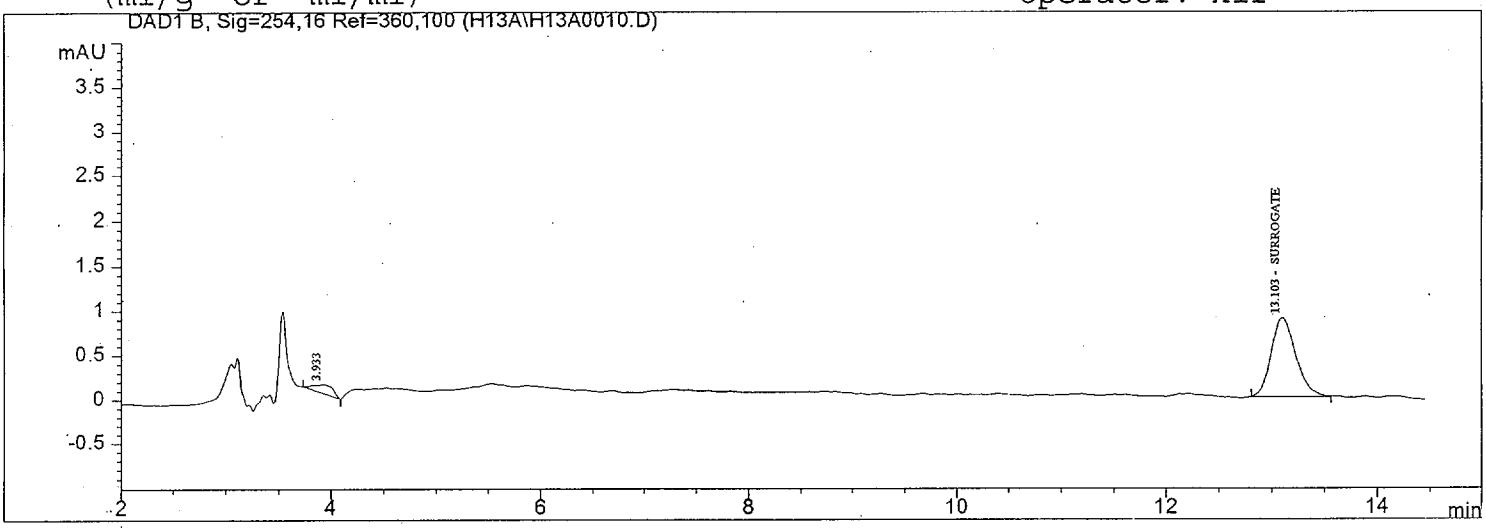
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	101	(74 - 121)

STL-KNOXVILLE Explosives Analysis

Sample Number: FVXG51AC Print Time:8/13/03 12:18:09

Instrument Name: Ace Data Acquisition Time:8/13/03 12:03:04
Data File name: H:\ACE\DATA\H13A\H13A0010.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File: H:\ACE\SEQUENCE\H13A.S

Dilution: 1.000 Sample Amount: 2.000
Multiplier : 10.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.789	0.000	HMX	0.00000	0.0000
2	0.000	3.933		0.10438	0.0000
3	4.812	0.000	RDX	0.00000	0.0000
4	5.943	0.000	1,3,5-TNB	0.00000	0.0000
5	6.591	0.000	TETRYL	0.00000	0.0000
6	6.776	0.000	1,3-DNB	0.00000	0.0000
7	7.406	0.000	NB	0.00000	0.0000
8	7.978	0.000	TNT	0.00000	0.0000
9	8.182	0.000	4-AMINO	0.00000	0.0000
10	8.569	0.000	2-AMINO	0.00000	0.0000
11	8.761	0.000	2,6-DNT	0.00000	0.0000
12	9.156	0.000	2,4-DNT	0.00000	0.0000
13	10.226	0.000	2-NT	0.00000	0.0000
14	10.996	0.000	4-NT	0.00000	0.0000
15	11.574	0.000	3-NT	0.00000	0.0000
16	13.131	13.103	SURROGATE	0.89244	1780.9355

SHAW E & I INC

Client Sample ID: DB0002

HPLC

Lot-Sample #...: H3H080204-002 **Work Order #...:** FVXHQ1AJ **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1
% Moisture.....: 23 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
HMX	ND	0.50	mg/kg	0.18
RDX	ND	0.50	mg/kg	0.17
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	0.090
1,3-Dinitrobenzene	ND	0.25	mg/kg	0.030
Tetryl	ND	0.65	mg/kg	0.38
Nitrobenzene	ND	0.25	mg/kg	0.045
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	0.045
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2,6-Dinitrotoluene	ND	0.25	mg/kg	0.090
2,4-Dinitrotoluene	ND	0.25	mg/kg	0.045
2-Nitrotoluene	ND	0.25	mg/kg	0.14
4-Nitrotoluene	ND	0.25	mg/kg	0.090
3-Nitrotoluene	ND	0.25	mg/kg	0.14

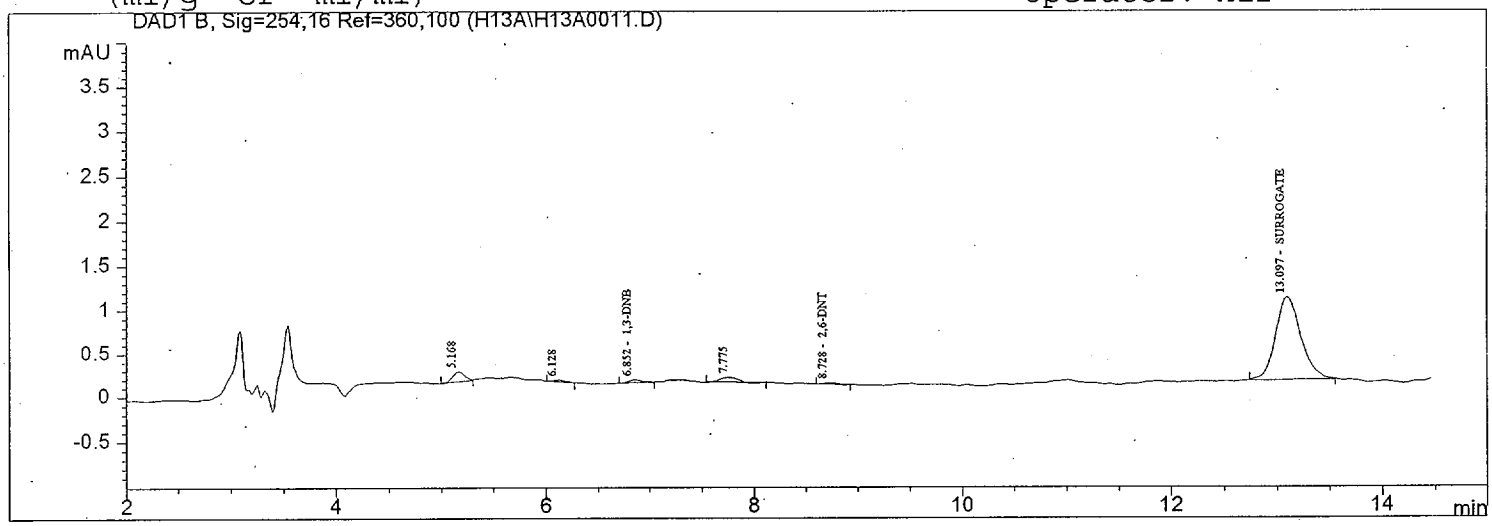
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	107	(74 - 121)

STL-KNOXVILLE Explosives Analysis

Sample Number: FVXHQ1AJ Print Time:8/13/03 12:36:01

Instrument Name: Ace Data Acquisition Time:8/13/03 12:20:56
Data File name: H:\ACE\DATA\H13A\H13A0011.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File: H:\ACE\SEQUENCE\H13A.S

Dilution: 1.000 Sample Amount: 2.000
Multiplier : 10.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.789	0.000	HMX	0.00000	0.0000
2	4.812	0.000	RDX	0.00000	0.0000
3	0.000	5.168		0.11804	0.0000
4	5.943	0.000	1,3,5-TNB	0.00000	0.0000
5	0.000	6.128		0.02518	0.0000
6	6.591	0.000	TETRYL	0.00000	0.0000
7	6.776	6.852	1,3-DNB	0.03878	18.0577
8	7.406	0.000	NB	0.00000	0.0000
9	0.000	7.775		0.05965	0.0000
10	7.978	0.000	TNT	0.00000	0.0000
11	8.182	0.000	4-AMINO	0.00000	0.0000
12	8.569	0.000	2-AMINO	0.00000	0.0000
13	8.761	8.728	2,6-DNT	0.02225	26.8392
14	9.156	0.000	2,4-DNT	0.00000	0.0000
15	10.226	0.000	2-NT	0.00000	0.0000
16	10.996	0.000	4-NT	0.00000	0.0000
17	11.574	0.000	3-NT	0.00000	0.0000
18	13.131	13.097	SURROGATE	0.95026	1896.3351

SHAW E & I INC

Client Sample ID: DB0003

HPLC

Lot-Sample #...: H3H080204-003 **Work Order #...:** FVXHV1AJ **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1
% Moisture.....: 9.9 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
HMX	ND	0.50	mg/kg	0.18
RDX	ND	0.50	mg/kg	0.17
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	0.090
1,3-Dinitrobenzene	ND	0.25	mg/kg	0.030
Tetryl	ND	0.65	mg/kg	0.38
Nitrobenzene	ND	0.25	mg/kg	0.045
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	0.045
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2,6-Dinitrotoluene	ND	0.25	mg/kg	0.090
2,4-Dinitrotoluene	ND	0.25	mg/kg	0.045
2-Nitrotoluene	ND	0.25	mg/kg	0.14
4-Nitrotoluene	ND	0.25	mg/kg	0.090
3-Nitrotoluene	ND	0.25	mg/kg	0.14

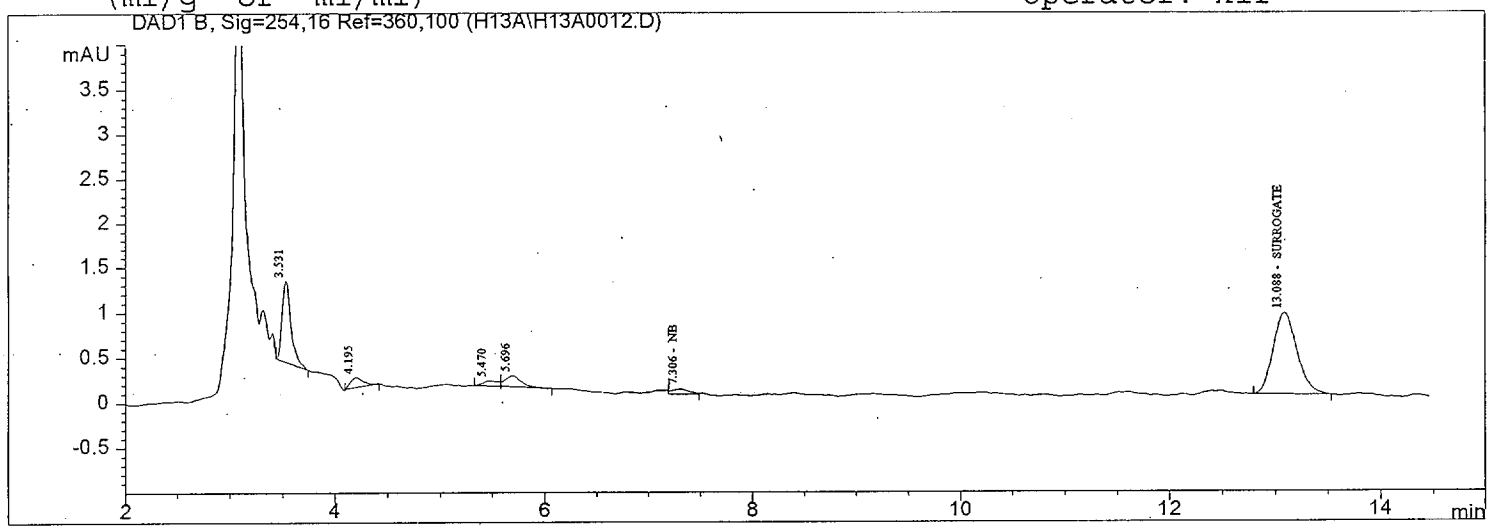
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	102	(74 - 121)

STL-KNOXVILLE Explosives Analysis

Sample Number: FVXHV1AJ Print Time:8/14/03 15:00:21

Instrument Name: Ace Data Acquisition Time:8/13/03 12:38:44
Data File name: H:\ACE\DATA\H13A\H13A0012.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File:

Dilution: 1.000 Sample Amount: 2.000
Multiplier : 10.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



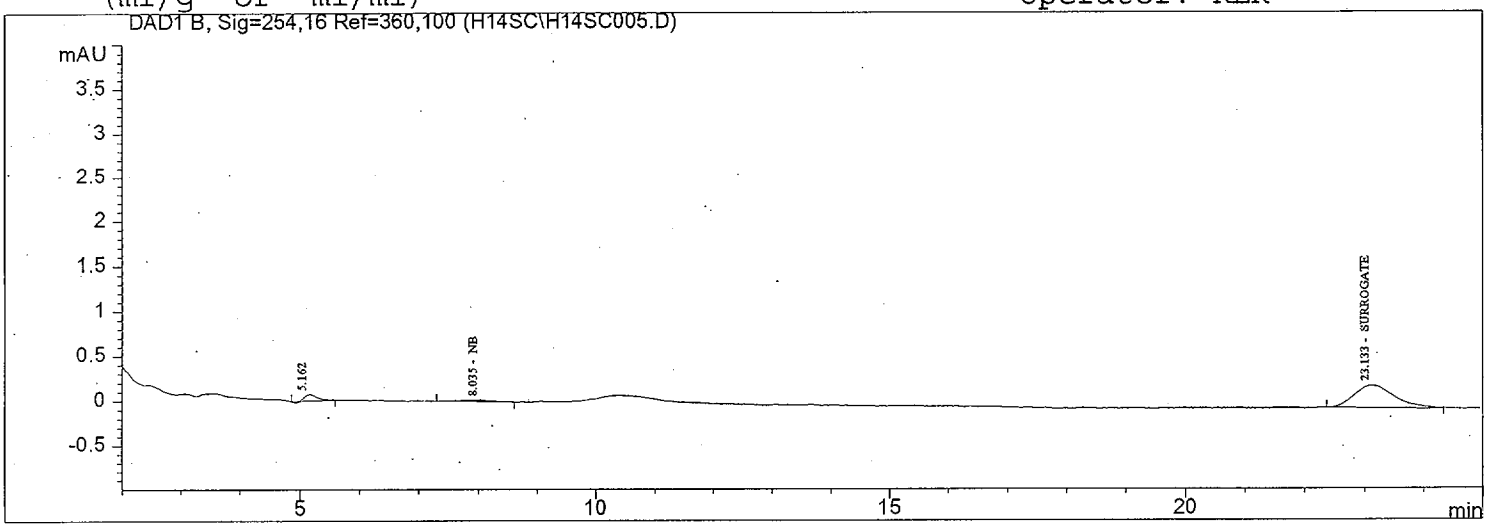
#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	0.000	3.531		0.89217	0.0000
2	3.789	0.000	HMX	0.00000	0.0000
3	0.000	4.195		0.11296	0.0000
4	4.812	0.000	RDX	0.00000	0.0000
5	0.000	5.470		0.06136	0.0000
6	0.000	5.696		0.12651	0.0000
7	5.943	0.000	1,3,5-TNB	0.00000	0.0000
8	6.591	0.000	TETRYL	0.00000	0.0000
9	6.776	0.000	1,3-DNB	0.00000	0.0000
10	7.406	7.306	NB	0.05974	49.8711
11	7.978	0.000	TNT	0.00000	0.0000
12	8.182	0.000	4-AMINO	0.00000	0.0000
13	8.569	0.000	2-AMINO	0.00000	0.0000
14	8.761	0.000	2,6-DNT	0.00000	0.0000
15	9.156	0.000	2,4-DNT	0.00000	0.0000
16	10.226	0.000	2-NT	0.00000	0.0000
17	10.996	0.000	4-NT	0.00000	0.0000
18	11.574	0.000	3-NT	0.00000	0.0000
19	13.131	13.088	SURROGATE	0.90416	1804.3369

STL-KNOXVILLE Explosives Confirmation Analysis

Sample Number: FVXHV1AJ Print Time:8/14/03 18:11:04

Instrument Name: Semika Data Acquisition Time:8/14/03 17:44:46
Data File name: H:\SEMEKA\DATA\H14SC\H14SC005.D
Method File: H:\SEMEKA\METHODS\H14SC.M
Sequence File: H:\SEMEKA\SEQUENCE\H14SC.S

Dilution: 1.000 Sample Amount: 2.000
Multiplier : 10.000000 Injection Volume (ul): 40.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: KLR



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.523	0.000	1,3,5-TNB	0.00000	0.0000
2	3.834	0.000	HMX	0.00000	0.0000
3	4.573	0.000	RDX	0.00000	0.0000
4	0.000	5.162		0.07477	0.0000
5	5.786	0.000	1,3-DNB	0.00000	0.0000
6	6.576	0.000	TNT	0.00000	0.0000
7	8.163	8.035	NB	0.01997	36.9752
8	8.793	0.000	TETRYL	0.00000	0.0000
9	11.565	0.000	2,4-DNT	0.00000	0.0000
10	13.788	0.000	2,6-DNT	0.00000	0.0000
11	16.007	0.000	2-AMINO	0.00000	0.0000
12	17.688	0.000	4-AMINO	0.00000	0.0000
13	18.742	0.000	4-NT	0.00000	0.0000
14	19.021	0.000	2-NT	0.00000	0.0000
15	21.010	0.000	3-NT	0.00000	0.0000
16	23.166	23.133	SURROGATE	0.25082	1677.4114

SHAW E & I INC

Client Sample ID: DB0004

HPLC

Lot-Sample #...: H3H080204-004 **Work Order #...:** FVXH21AJ **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1
% Moisture.....: 9.7 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
HMX	ND	0.50	mg/kg	0.18
RDX	ND	0.50	mg/kg	0.17
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	0.090
1,3-Dinitrobenzene	ND	0.25	mg/kg	0.030
Tetryl	ND	0.65	mg/kg	0.38
Nitrobenzene	ND	0.25	mg/kg	0.045
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	0.045
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2,6-Dinitrotoluene	ND	0.25	mg/kg	0.090
2,4-Dinitrotoluene	ND	0.25	mg/kg	0.045
2-Nitrotoluene	ND	0.25	mg/kg	0.14
4-Nitrotoluene	ND	0.25	mg/kg	0.090
3-Nitrotoluene	ND	0.25	mg/kg	0.14

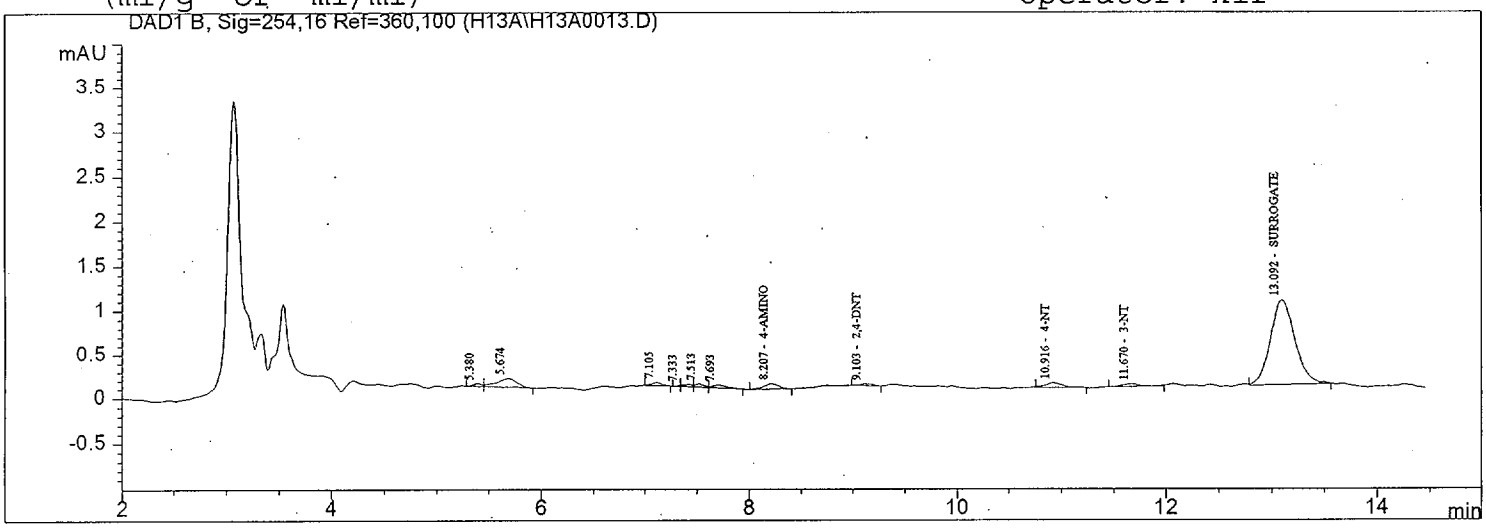
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	109	(74 - 121)

STL-KNOXVILLE Explosives Analysis

Sample Number: FVXH21AJ Print Time:8/14/03 15:01:26

Instrument Name: Ace Data Acquisition Time:8/13/03 12:56:40
Data File name: H:\ACE\DATA\H13A\H13A0013.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File:

Dilution: 1.000 Sample Amount: 2.000
Multiplier : 10.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



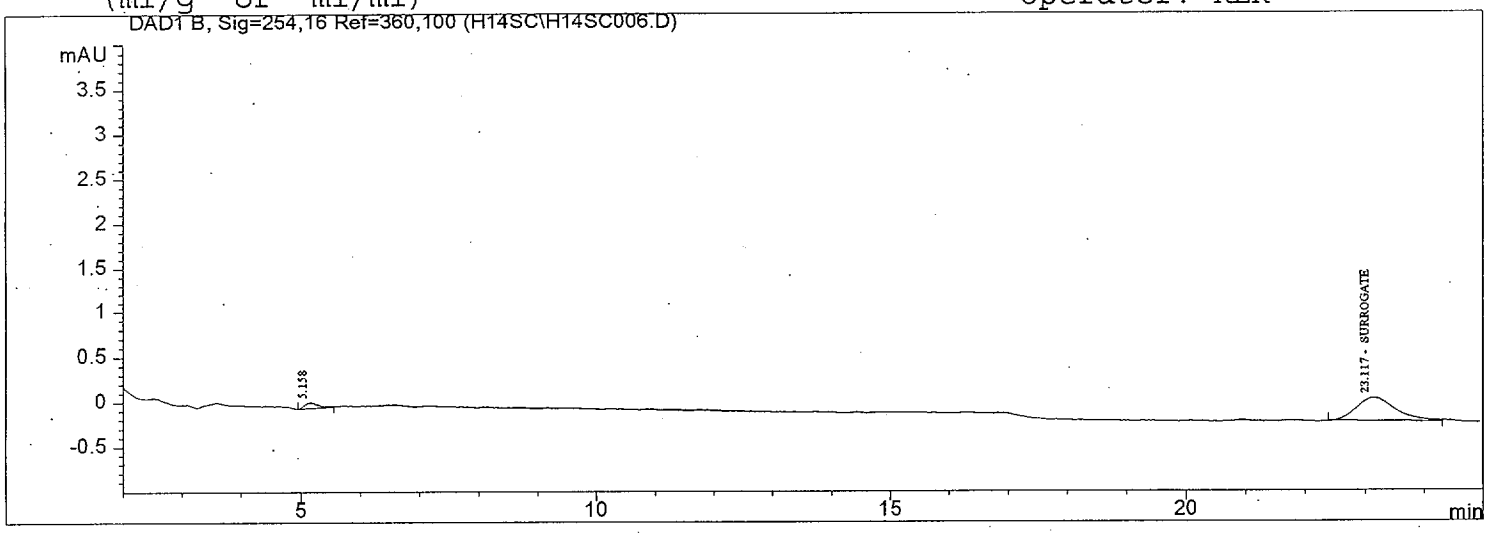
#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.789	0.000	HMX	0.00000	0.0000
2	4.812	0.000	RDX	0.00000	0.0000
3	0.000	5.380		0.03676	0.0000
4	0.000	5.674		0.10713	0.0000
5	5.943	0.000	1,3,5-TNB	0.00000	0.0000
6	6.591	0.000	TETRYL	0.00000	0.0000
7	6.776	0.000	1,3-DNB	0.00000	0.0000
8	0.000	7.105		0.04033	0.0000
9	0.000	7.333		0.01399	0.0000
10	7.406	7.420	NB	0.02903	24.2337
11	0.000	7.513		0.04104	0.0000
12	0.000	7.693		0.03472	0.0000
13	7.978	0.000	TNT	0.00000	0.0000
14	8.182	8.207	4-AMINO	0.06521	80.0576
15	8.569	0.000	2-AMINO	0.00000	0.0000
16	8.761	0.000	2,6-DNT	0.00000	0.0000
17	9.156	9.103	2,4-DNT	0.02350	17.3295
18	10.226	0.000	2-NT	0.00000	0.0000
19	10.996	10.916	4-NT	0.06028	~~137.8475~~ ND
20	11.574	11.670	3-NT	0.03507	64.0984
21	13.131	13.092	SURROGATE	0.96709	1929.9068

STL-KNOXVILLE Explosives Confirmation Analysis

Sample Number: FVXH21AJ Print Time:8/14/03 18:35:54

Instrument Name: Semika Data Acquisition Time:8/14/03 18:11:27
Data File name: H:\SEMEKA\DATA\H14SC\H14SC006.D
Method File: H:\SEMEKA\METHODS\H14SC.M
Sequence File: H:\SEMEKA\SEQUENCE\H14SC.S

Dilution: 1.000 Sample Amount: 2.000
Multiplier : 10.000000 Injection Volume (ul): 40.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: KLR



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.523	0.000	1,3,5-TNB	0.00000	0.0000
2	3.834	0.000	HMX	0.00000	0.0000
3	4.573	0.000	RDX	0.00000	0.0000
4	0.000	5.158		0.06809	0.0000
5	5.786	0.000	1,3-DNB	0.00000	0.0000
6	6.576	0.000	TNT	0.00000	0.0000
7	8.163	0.000	NB	0.00000	0.0000
8	8.793	0.000	TETRYL	0.00000	0.0000
9	11.565	0.000	2,4-DNT	0.00000	0.0000
10	13.788	0.000	2,6-DNT	0.00000	0.0000
11	16.007	0.000	2-AMINO	0.00000	0.0000
12	17.688	0.000	4-AMINO	0.00000	0.0000
13	18.742	0.000	4-NT	0.00000	0.0000
14	19.021	0.000	2-NT	0.00000	0.0000
15	21.010	0.000	3-NT	0.00000	0.0000
16	23.166	23.117	SURROGATE	0.26071	1743.5758

SHAW E & I INC

Client Sample ID: DB0006

HPLC

Lot-Sample #...: H3H080204-005 **Work Order #...:** FVXH71AX **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1
% Moisture.....: 16 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
HMX	ND	0.50	mg/kg	0.18
RDX	ND	0.50	mg/kg	0.17
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	0.090
1,3-Dinitrobenzene	ND	0.25	mg/kg	0.030
Tetryl	ND	0.65	mg/kg	0.38
Nitrobenzene	ND	0.25	mg/kg	0.045
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	0.045
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2,6-Dinitrotoluene	ND	0.25	mg/kg	0.090
2,4-Dinitrotoluene	ND	0.25	mg/kg	0.045
2-Nitrotoluene	ND	0.25	mg/kg	0.14
4-Nitrotoluene	ND	0.25	mg/kg	0.090
3-Nitrotoluene	ND	0.25	mg/kg	0.14

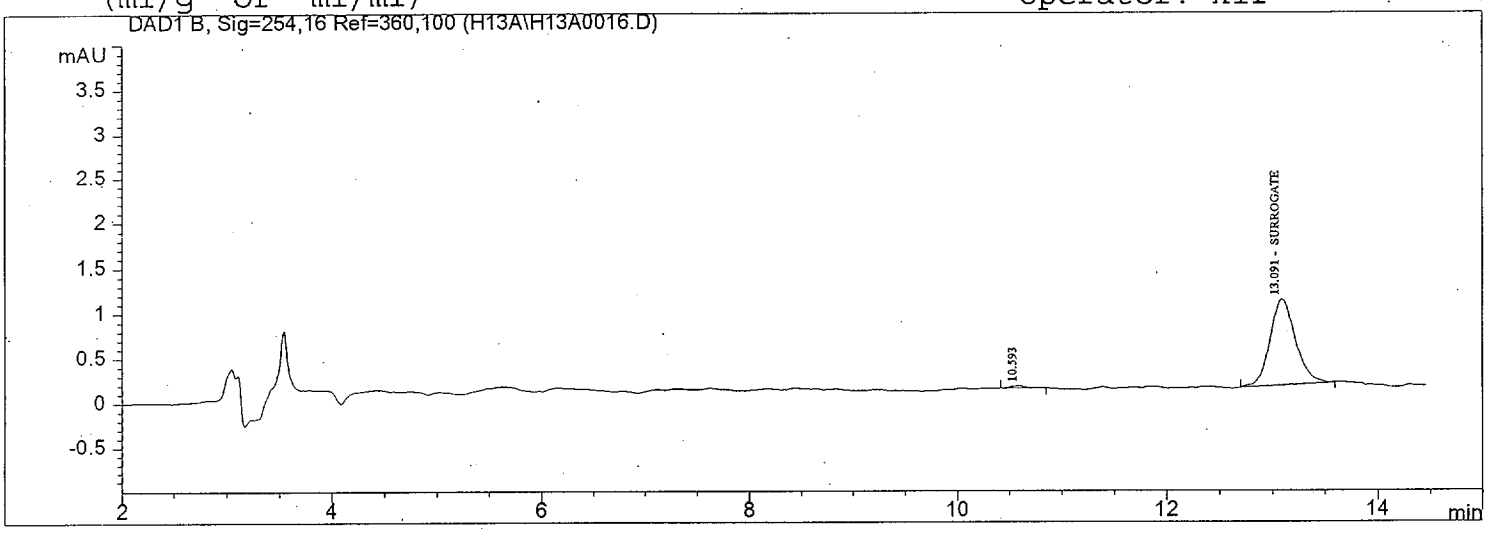
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	107	(74 - 121)

STL-KNOXVILLE Explosives Analysis

Sample Number: FVXH71AX Print Time:8/13/03 14:08:20

Instrument Name: Ace Data Acquisition Time:8/13/03 13:53:13
Data File name: H:\ACE\DATA\H13A\H13A0016.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File: H:\ACE\SEQUENCE\H13A.S

Dilution: 1.000 Sample Amount: 2.000
Multiplier : 10.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.789	0.000	HMX	0.00000	0.0000
2	4.812	0.000	RDX	0.00000	0.0000
3	5.943	0.000	1,3,5-TNB	0.00000	0.0000
4	6.591	0.000	TETRYL	0.00000	0.0000
5	6.776	0.000	1,3-DNB	0.00000	0.0000
6	7.406	0.000	NB	0.00000	0.0000
7	7.978	0.000	TNT	0.00000	0.0000
8	8.182	0.000	4-AMINO	0.00000	0.0000
9	8.569	0.000	2-AMINO	0.00000	0.0000
10	8.761	0.000	2,6-DNT	0.00000	0.0000
11	9.156	0.000	2,4-DNT	0.00000	0.0000
12	10.226	0.000	2-NT	0.00000	0.0000
13	0.000	10.593		0.03111	0.0000
14	10.996	0.000	4-NT	0.00000	0.0000
15	11.574	0.000	3-NT	0.00000	0.0000
16	13.131	13.091	SURROGATE	0.95191	1899.6106

SHAW E & I INC

Client Sample ID: DB0007

HPLC

Lot-Sample #...: H3H080204-006 **Work Order #...:** FVXJL1AJ **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1
% Moisture.....: 25 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
HMX	ND	0.50	mg/kg	0.18
RDX	ND	0.50	mg/kg	0.17
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	0.090
1,3-Dinitrobenzene	ND	0.25	mg/kg	0.030
Tetryl	ND	0.65	mg/kg	0.38
Nitrobenzene	ND	0.25	mg/kg	0.045
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	0.045
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2,6-Dinitrotoluene	ND	0.25	mg/kg	0.090
2,4-Dinitrotoluene	ND	0.25	mg/kg	0.045
2-Nitrotoluene	ND	0.25	mg/kg	0.14
4-Nitrotoluene	ND	0.25	mg/kg	0.090
3-Nitrotoluene	ND	0.25	mg/kg	0.14

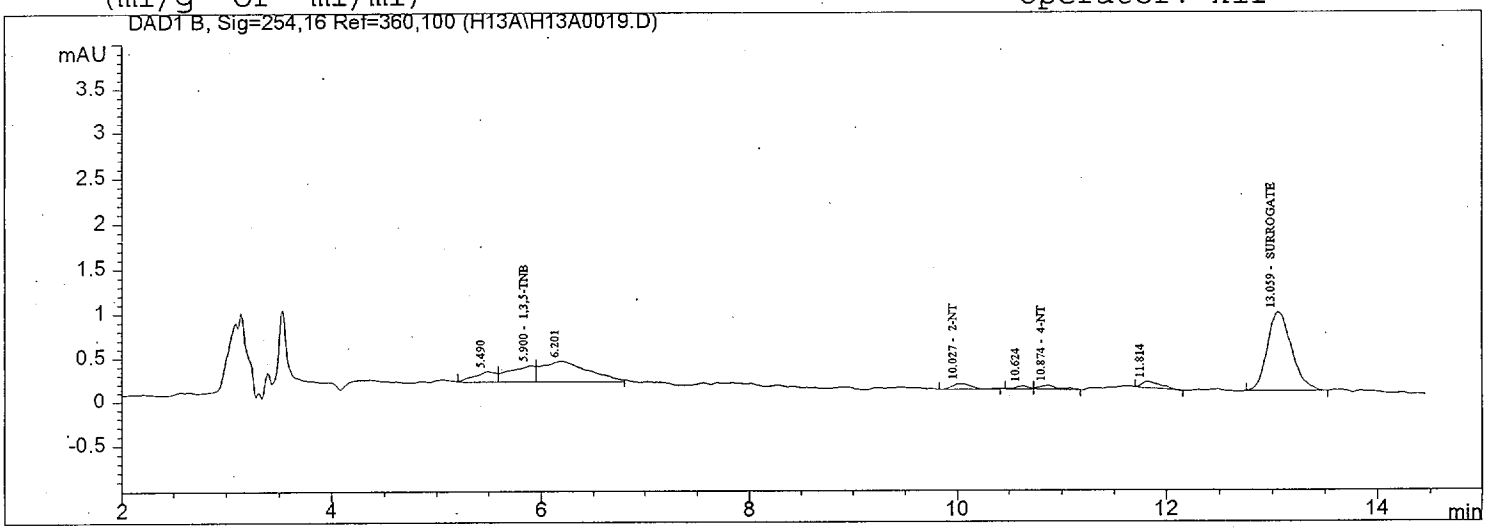
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	101	(74 - 121)

STL-KNOXVILLE Explosives Analysis

Sample Number: FVXJL1AJ Print Time:8/13/03 15:01:56

Instrument Name: Ace Data Acquisition Time:8/13/03 14:46:49
Data File name: H:\ACE\DATA\H13A\H13A0019.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File: H:\ACE\SEQUENCE\H13A.S

Dilution: 1.000 Sample Amount: 2.000
Multiplier : 10.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



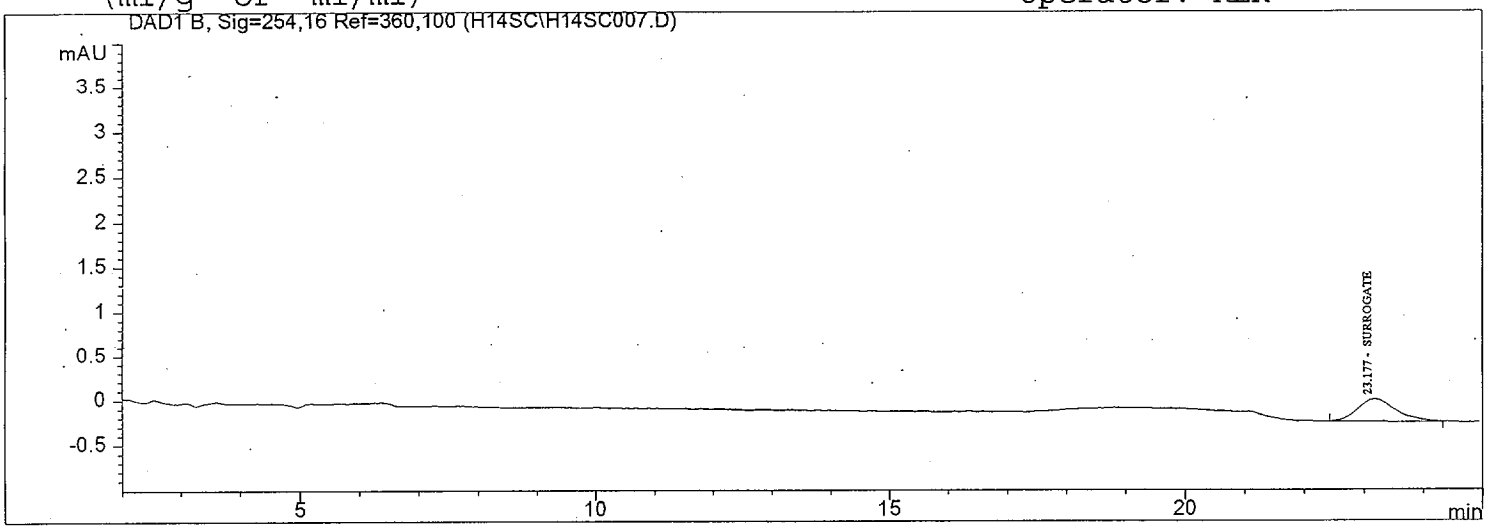
#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.789	0.000	HMX	0.00000	0.0000
2	4.812	0.000	RDX	0.00000	0.0000
3	0.000	5.490		0.12007	0.0000
4	5.943	5.900	1,3,5-TNB	0.18943	113.3960 ND
5	0.000	6.201		0.23575	0.0000
6	6.591	0.000	TETRYL	0.00000	0.0000
7	6.776	0.000	1,3-DNB	0.00000	0.0000
8	7.406	0.000	NB	0.00000	0.0000
9	7.978	0.000	TNT	0.00000	0.0000
10	8.182	0.000	4-AMINO	0.00000	0.0000
11	8.569	0.000	2-AMINO	0.00000	0.0000
12	8.761	0.000	2,6-DNT	0.00000	0.0000
13	9.156	0.000	2,4-DNT	0.00000	0.0000
14	10.226	10.027	2-NT	0.06753	124.1643
15	0.000	10.624		0.04243	0.0000
16	10.996	10.874	4-NT	0.05052	115.5254 ND
17	11.574	0.000	3-NT	0.00000	0.0000
18	0.000	11.814		0.07572	0.0000
19	13.131	13.059	SURROGATE	0.89186	1779.7772

STL-KNOXVILLE Explosives Confirmation Analysis

Sample Number: FVXJL1AJ Print Time:8/14/03 19:02:35

Instrument Name: Semika Data Acquisition Time:8/14/03 18:38:07
Data File name: H:\SEMEKA\DATA\H14SC\H14SC007.D
Method File: H:\SEMEKA\METHODS\H14SC.M
Sequence File: H:\SEMEKA\SEQUENCE\H14SC.S

Dilution: 1.000 Sample Amount: 2.000
Multiplier : 10.000000 Injection Volume (ul): 40.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: KLR



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.523	0.000	1,3,5-TNB	0.00000	0.0000
2	3.834	0.000	HMX	0.00000	0.0000
3	4.573	0.000	RDX	0.00000	0.0000
4	5.786	0.000	1,3-DNB	0.00000	0.0000
5	6.576	0.000	TNT	0.00000	0.0000
6	8.163	0.000	NB	0.00000	0.0000
7	8.793	0.000	TETRYL	0.00000	0.0000
8	11.565	0.000	2,4-DNT	0.00000	0.0000
9	13.788	0.000	2,6-DNT	0.00000	0.0000
10	16.007	0.000	2-AMINO	0.00000	0.0000
11	17.688	0.000	4-AMINO	0.00000	0.0000
12	18.742	0.000	4-NT	0.00000	0.0000
13	19.021	0.000	2-NT	0.00000	0.0000
14	21.010	0.000	3-NT	0.00000	0.0000
15	23.166	23.177	SURROGATE	0.25214	1686.2316

SHAW E & I INC

Client Sample ID: DB0008

HPLC

Lot-Sample #...: H3H080204-007 **Work Order #...:** FVXJQ1AJ **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1
% Moisture.....: 24 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
HMX	ND	0.50	mg/kg	0.18
RDX	ND	0.50	mg/kg	0.17
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	0.090
1,3-Dinitrobenzene	ND	0.25	mg/kg	0.030
Tetryl	ND	0.65	mg/kg	0.38
Nitrobenzene	ND	0.25	mg/kg	0.045
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	0.045
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2,6-Dinitrotoluene	ND	0.25	mg/kg	0.090
2,4-Dinitrotoluene	ND	0.25	mg/kg	0.045
2-Nitrotoluene	ND	0.25	mg/kg	0.14
4-Nitrotoluene	ND	0.25	mg/kg	0.090
3-Nitrotoluene	ND	0.25	mg/kg	0.14

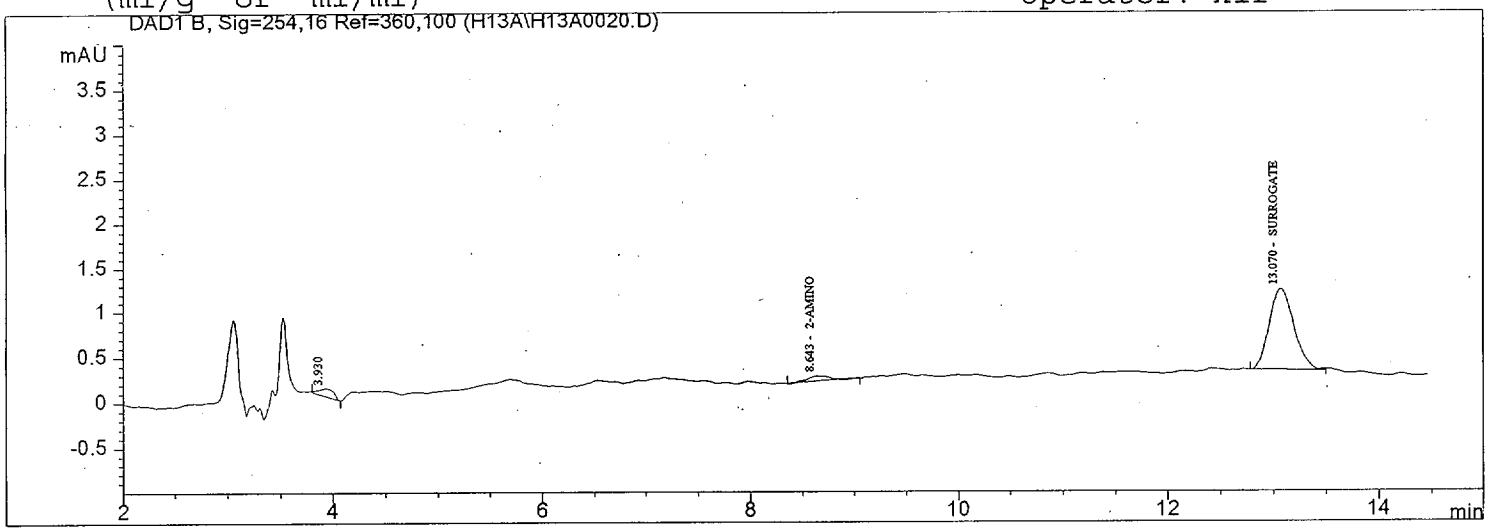
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	103	(74 - 121)

STL-KNOXVILLE Explosives Analysis

Sample Number: FVXJQ1AJ Print Time:8/13/03 15:19:50

Instrument Name: Ace Data Acquisition Time:8/13/03 15:04:43
Data File name: H:\ACE\DATA\H13A\H13A0020.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File: H:\ACE\SEQUENCE\H13A.S

Dilution: 1.000 Sample Amount: 2.000
Multiplier : 10.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.789	0.000	HMX	0.00000	0.0000
2	0.000	3.930		0.08547	0.0000
3	4.812	0.000	RDX	0.00000	0.0000
4	5.943	0.000	1,3,5-TNB	0.00000	0.0000
5	6.591	0.000	TETRYL	0.00000	0.0000
6	6.776	0.000	1,3-DNB	0.00000	0.0000
7	7.406	0.000	NB	0.00000	0.0000
8	7.978	0.000	TNT	0.00000	0.0000
9	8.182	0.000	4-AMINO	0.00000	0.0000
10	8.569	8.643	2-AMINO	0.05801	57.6880
11	8.761	0.000	2,6-DNT	0.00000	0.0000
12	9.156	0.000	2,4-DNT	0.00000	0.0000
13	10.226	0.000	2-NT	0.00000	0.0000
14	10.996	0.000	4-NT	0.00000	0.0000
15	11.574	0.000	3-NT	0.00000	0.0000
16	13.131	13.070	SURROGATE	0.91100	1817.9788

SHAW E & I INC

Client Sample ID: DB0009

HPLC

Lot-Sample #...: H3H080204-008 **Work Order #...:** FVXJ01AJ **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1
% Moisture.....: 30 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
HMX	ND	0.50	mg/kg	0.18
RDX	ND	0.50	mg/kg	0.17
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	0.090
1,3-Dinitrobenzene	ND	0.25	mg/kg	0.030
Tetryl	ND	0.65	mg/kg	0.38
Nitrobenzene	ND	0.25	mg/kg	0.045
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	0.045
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	0.090
2,6-Dinitrotoluene	ND	0.25	mg/kg	0.090
2,4-Dinitrotoluene	ND	0.25	mg/kg	0.045
2-Nitrotoluene	ND	0.25	mg/kg	0.14
4-Nitrotoluene	ND	0.25	mg/kg	0.090
3-Nitrotoluene	ND	0.25	mg/kg	0.14

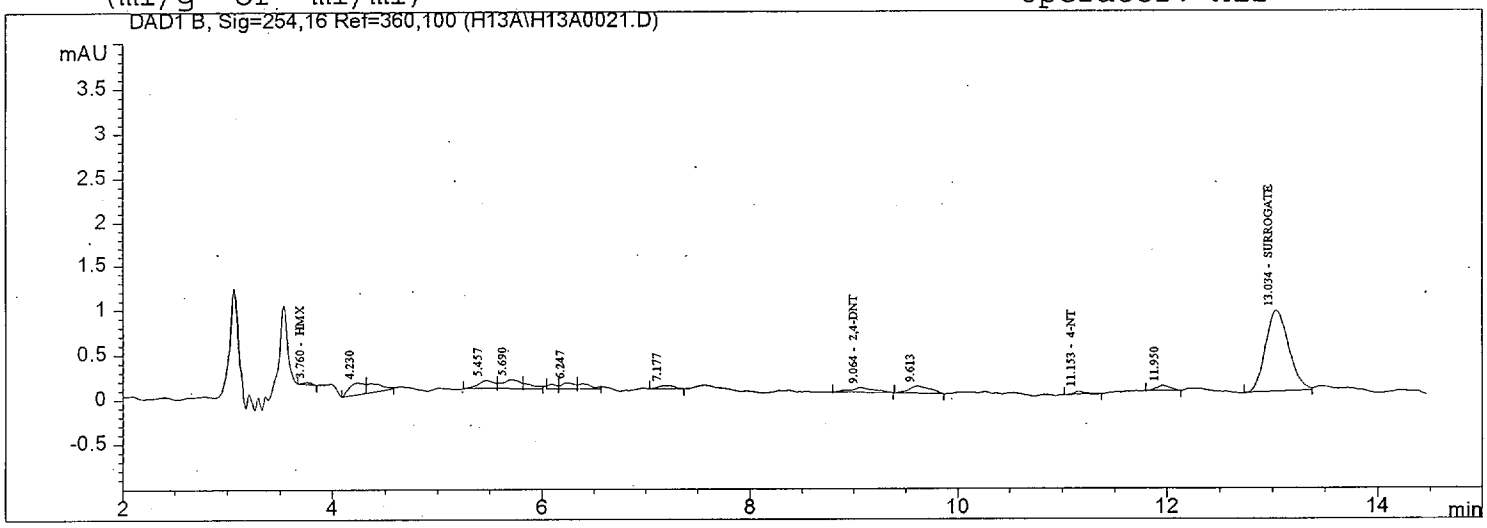
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	101	(74 - 121)

STL-KNOXVILLE Explosives Analysis

Sample Number: FVXJ01AJ Print Time:8/14/03 15:05:53

Instrument Name: Ace Data Acquisition Time:8/13/03 15:22:34
Data File name: H:\ACE\DATA\H13A\H13A0021.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File:

Dilution: 1.000 Sample Amount: 2.000
Multiplier : 10.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.789	3.760	HMX	0.02507	25.1176
2	0.000	4.230		0.13199	0.0000
3	0.000	4.364		0.09958	0.0000
4	4.812	0.000	RDX	0.00000	0.0000
5	0.000	5.457		0.09304	0.0000
6	0.000	5.690		0.10086	0.0000
7	0.000	5.818		0.05791	0.0000
8	5.943	0.000	1,3,5-TNB	0.00000	0.0000
9	0.000	6.083		0.04986	0.0000
10	0.000	6.247		0.06589	0.0000
11	0.000	6.384		0.05624	0.0000
12	6.591	0.000	TETRYL	0.00000	0.0000
13	6.776	0.000	1,3-DNB	0.00000	0.0000
14	0.000	7.177		0.03594	0.0000
15	7.406	0.000	NB	0.00000	0.0000
16	7.978	0.000	TNT	0.00000	0.0000
17	8.182	0.000	4-AMINO	0.00000	0.0000
18	8.569	0.000	2-AMINO	0.00000	0.0000
19	8.761	0.000	2,6-DNT	0.00000	0.0000
20	9.156	9.064	2,4-DNT	0.05840	43.0718
21	0.000	9.613		0.08042	0.0000
22	10.226	0.000	2-NT	0.00000	0.0000
23	10.996	11.153	4-NT	0.03353	76.6737
24	11.574	0.000	3-NT	0.00000	0.0000
25	0.000	11.950		0.05879	0.0000
26	13.131	13.034	SURROGATE	0.89729	1790.6155

Standards Data

STL Knoxville HPLC Initial Calibration Data Review / Narrative Checklist
Method: 8330 - KNOX-LC-0001 Rev 7
Page 1 of 1

Analysis Date:	4/25/03	Instrument/File ID:	D25AICAL	Scanned ☐

Review Items **A. Initial Calibration**	Yes	No	NA	2nd ✓	If No, why is data reportable?
1. Were at least ***5-levels*** of each analyte and surrogate analyzed?	✓			✓	
2. Were ***all standard used*** in the curve?	✓			✓	☐ [ic1] Lowest std removed, but RL adjusted. ☐ [ic2] Highest std removed, but linear range adjusted. ☐ [ic3] Std _____ reanalyzed, and reanalysis used.
3. Is low level standard concentration ≤ ***RL***?	✓			✓	
4. Are ***%RSD*** ≤20% or ***correlation*** coefficients ≥0.995? (No 2nd or 3rd order curves allowed.)	✓			✓	
5. Was a ***2nd source*** verification standard analyzed & were calculated concentrations < ***30%D*** from cal. std?	✓			✓	* Second source run on 4/29/03 - D29A.method. All compound < 15% D.
6. Was each run checked for ***saturation***?	✓			✓	
7. Is ***integration*** acceptable?	✓			✓	
8. If ***manual integrations*** were performed, are they clearly identified, initialed, dated and reason given?	✓			✓	Reasons: 1) Corrected split peak; 2) Unresolved peak; 3) Tailing; 4) RT shift; 5) Wrong peak selected; 6) Other
9. Was ICAL method file processed using the ***correct data files***? (Analyst should compare area or peak height on chromatograms to calibration summary for all analytes. 2nd level reviewer should check 20% of analytes.)	✓			✓	
10. Were the standards ***scanned properly***?	✓				

Analyst: [signature]	Date: 4/28/03	2nd Level Reviewer : [signature]	Date: 4/30/03
Comments:		Comments:	

STL KNOXVILLE--EXPLOSIVES RUNLOG

Operator: h
PM Performed: Yes
Inj. Vol.: 30ul
Instrument: ACE

Sample ID	File Name	Dilution	Run Time
ICAL #1 LC1238	D25A0001.D	1.000	4/25/03 12:44:44
ICAL #2 LC1238	D25A0002.D	1.000	4/25/03 13:02:23
ICAL #3 LC1238	D25A0003.D	1.000	4/25/03 13:20:07
ICAL #4 LC1239	D25A0004.D	1.000	4/25/03 13:37:50
ICAL #5 LC1239	D25A0005.D	1.000	4/25/03 13:55:27
ICAL #6 LC1239	D25A0006.D	1.000	4/25/03 14:13:12
omit → 8330 ICV LC1239	D25A0007.D	1.000	4/25/03 14:30:58

standard made wrong; see ICV LC1246 on D29A0003 – h 4/29/03

(Attached)

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Calibration Table

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Calib. Data Modified : Monday, April 28, 2003 4:09:40 PM

Calculate : External Standard
Based on : Peak Height

Rel. Reference Window : 4.000 %
Abs. Reference Window : 0.000 min
Rel. Non-ref. Window : 4.000 %
Abs. Non-ref. Window : 0.000 min
Uncalibrated Peaks : not reported
Partial Calibration : No recalibration if peaks missing

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Average all calibrations

Calibration Report Options :
Printout of recalibrations within a sequence:
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]	Lvl Sig		Amount [ppb]	Height	Amt/Height	Ref	Grp	Name
3.814	1	1	20.00000	1.91192e-1	104.60689			HMX
		2	60.00000	6.19458e-1	96.85889			
		3	120.00000	1.21734	98.57567			
		4	240.00000	2.38764	100.51785			
		5	480.00000	4.82742	99.43205			
		6	960.00000	9.56236	100.39362			
4.853	1	1	20.00000	1.81471e-1	110.21053			RDX
		2	60.00000	5.35286e-1	112.08970			
		3	120.00000	1.01373	118.37443			
		4	240.00000	2.14266	112.01035			
		5	480.00000	4.24150	113.16760			
		6	960.00000	7.98384	120.24286			
5.995	1	1	20.00000	3.41915e-1	58.49402			1,3,5-TNB
		2	60.00000	1.01496	59.11565			
		3	120.00000	1.96877	60.95165			
		4	240.00000	4.16758	57.58739			
		5	480.00000	8.24049	58.24896			
		6	960.00000	15.88961	60.41683			
6.658	1	1	20.00000	2.11092e-1	94.74561			TETRYL
		2	60.00000	6.12773e-1	97.91559			
		3	120.00000	1.19248	100.63038			
		4	240.00000	2.45785	97.64635			

RetTime [min]	Sig	Lvl	Amount [ppb]	Height	Amt/Height	Ref	Grp	Name
		5	480.00000	4.88994	98.16074			
		6	960.00000	9.53995	100.62947			
6.843	1	1	20.00000	4.49103e-1	44.53317			1,3-DNB
		2	60.00000	1.31788	45.52768			
		3	120.00000	2.55935	46.88689			
		4	240.00000	5.38607	44.55938			
		5	480.00000	10.56918	45.41508			
		6	960.00000	20.42796	46.99442			
7.491	1	1	20.00000	2.53085e-1	79.02497			NB
		2	60.00000	7.39471e-1	81.13905			
		3	120.00000	1.43292	83.74484			
		4	240.00000	3.02375	79.37176			
		5	480.00000	5.94583	80.72889			
		6	960.00000	11.36230	84.48992			
8.063	1	1	20.00000	2.50744e-1	79.76253			TNT
		2	60.00000	7.38139e-1	81.28549			
		3	120.00000	1.44910	82.81003			
		4	240.00000	2.97920	80.55854			
		5	480.00000	5.89868	81.37412			
		6	960.00000	11.49953	83.48164			
8.281	1	1	20.00000	1.74405e-1	114.67567			4-AMINO
		2	60.00000	5.06422e-1	118.47827			
		3	120.00000	9.83083e-1	122.06496			
		4	240.00000	2.02521	118.50596			
		5	480.00000	3.97567	120.73445			
		6	960.00000	7.76712	123.59797			
8.669	1	1	20.00000	2.15520e-1	92.79900			2-AMINO
		2	60.00000	6.28866e-1	95.40988			
		3	120.00000	1.19935	100.05414			
		4	240.00000	2.52600	95.01180			
		5	480.00000	4.96556	96.66581			
		6	960.00000	9.55462	100.47494			
8.864	1	1	20.00000	1.71955e-1	116.30923			2,6-DNT
		2	60.00000	5.03805e-1	119.09379			
		3	120.00000	9.77325e-1	122.78411			
		4	240.00000	2.00034	119.97945			
		5	480.00000	3.98856	120.34427			
		6	960.00000	7.95316	120.70667			
9.265	1	1	20.00000	2.76580e-1	72.31171			2,4-DNT
		2	60.00000	8.26988e-1	72.55241			
		3	120.00000	1.63409	73.43524			
		4	240.00000	3.35268	71.58446			
		5	480.00000	6.66606	72.00651			
		6	960.00000	12.91115	74.35436			
10.367	1	1	20.00000	1.16015e-1	172.39185			2-NT
		2	60.00000	3.31141e-1	181.19165			
		3	120.00000	6.45273e-1	185.96769			
		4	240.00000	1.33098	180.31875			
		5	480.00000	2.64026	181.80041			
		6	960.00000	5.20074	184.58907			
11.156	1	1	20.00000	9.48933e-2	210.76312			4-NT
		2	60.00000	2.72573e-1	220.12440			
		3	120.00000	5.18319e-1	231.51784			
		4	240.00000	1.05856	226.72266			
		5	480.00000	2.12104	226.30442			
		6	960.00000	4.18519	229.38007			

RetTime [min]	Sig	Lvl	Amount [ppb]	Height	Amt/Height	Ref	Grp	Name
11.747	1	1	20.00000	1.16424e-1	171.78594			3-NT
		2	60.00000	3.38704e-1	177.14574			
		3	120.00000	6.47465e-1	185.33814			
		4	240.00000	1.33907	179.22897			
		5	480.00000	2.65932	180.49747			
		6	960.00000	5.22914	183.58675			
13.315	1	1	11.77000	6.58338e-2	178.78346			SURROGATE
		2	35.30000	1.87797e-1	187.96911			
		3	70.60000	3.63337e-1	194.31006			
		4	141.20000	7.15354e-1	197.38478			
		5	282.40000	1.42467	198.22100			
		6	564.80000	2.82150	200.17716			

3 Warnings or Errors :

Warning : Overlapping peak time windows at 6.658 min, signal 1
Warning : Overlapping peak time windows at 8.063 min, signal 1
Warning : Overlapping peak time windows at 8.669 min, signal 1

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Peak Sum Table

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No Entries in table

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Calibration Curves

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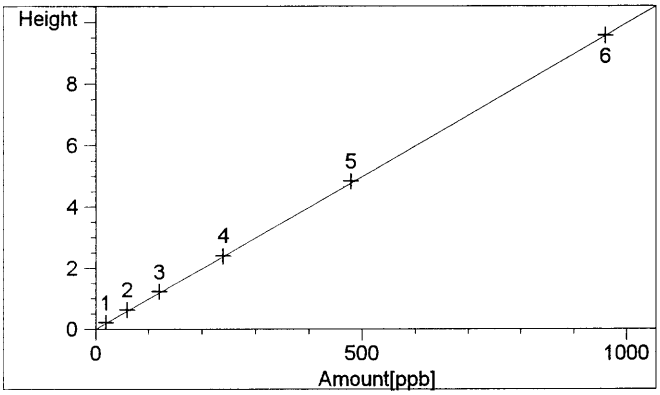
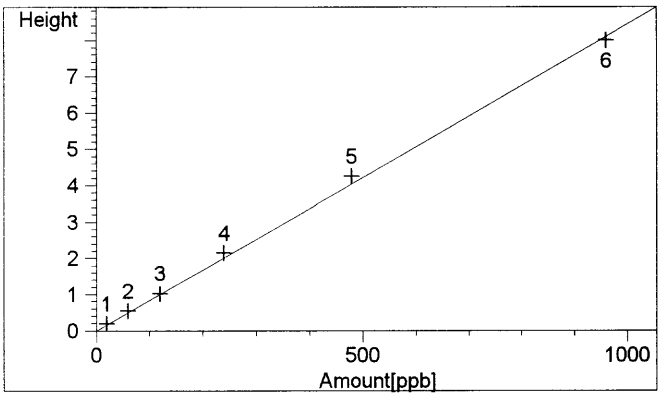
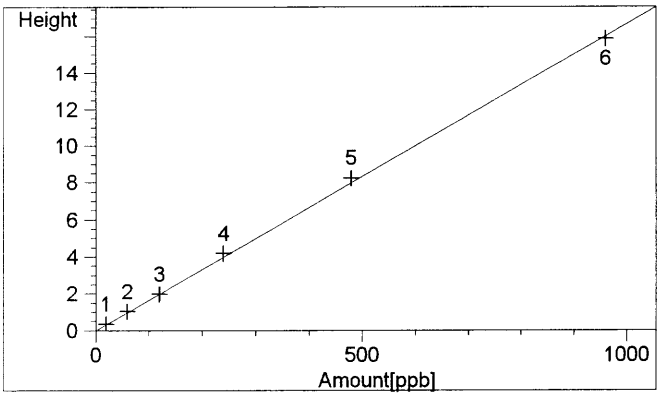


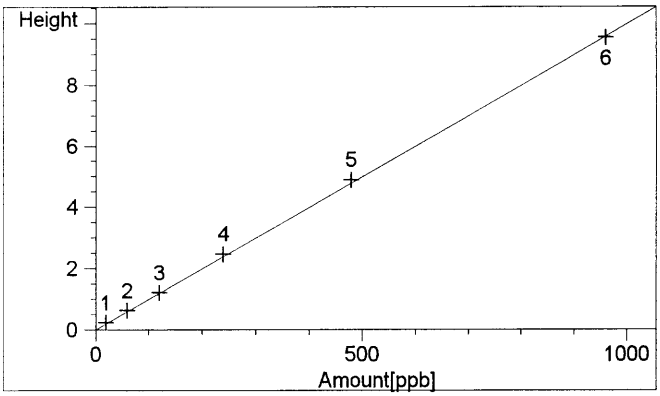
HMX at exp. RT: 3.814
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99999
Residual Std. Dev.: 0.02303
Formula: y = mx
m: 9.98138e-3
x: Amount[ppb]
y: Height



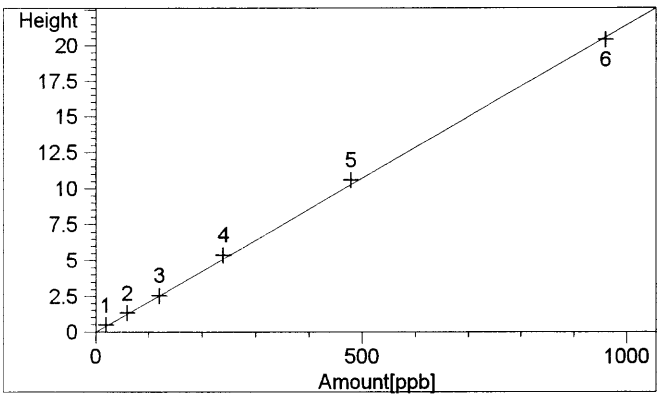
RDX at exp. RT: 4.853
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99963
Residual Std. Dev.: 0.11395
Formula: y = mx
m: 8.44629e-3
x: Amount[ppb]
y: Height



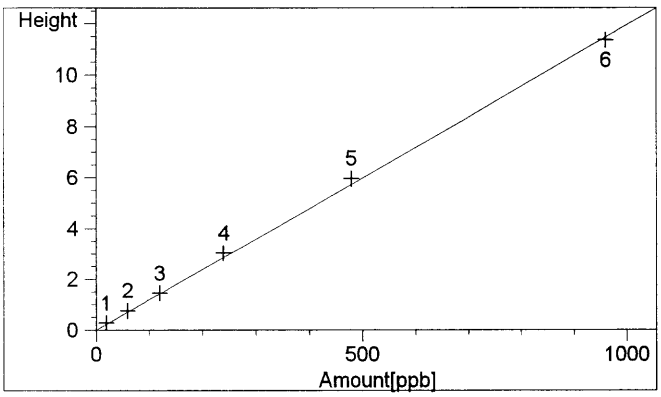
1,3,5-TNB at exp. RT: 5.995
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99986
Residual Std. Dev.: 0.13970
Formula: y = mx
m: 1.67049e-2
x: Amount[ppb]
y: Height



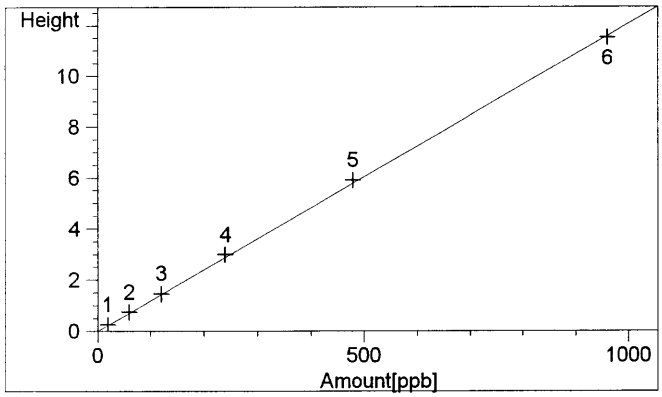
TETRYL at exp. RT: 6.658
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99994
Residual Std. Dev.: 0.05547
Formula: y = mx
m: 9.99959e-3
x: Amount[ppb]
y: Height



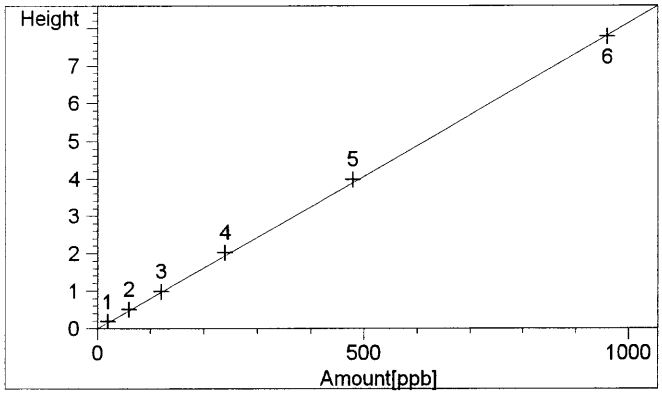
1,3-DNB at exp. RT: 6.843
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99986
Residual Std. Dev.: 0.17832
Formula: y = mx
m: 2.14755e-2
x: Amount[ppb]
y: Height



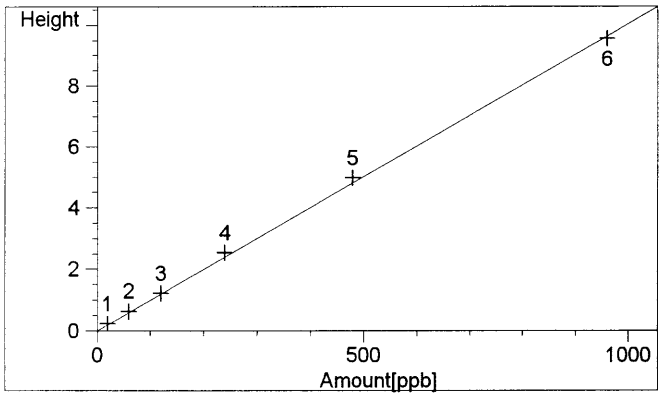
NB at exp. RT: 7.491
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99977
Residual Std. Dev.: 0.12654
Formula: y = mx
m: 1.19779e-2
x: Amount[ppb]
y: Height



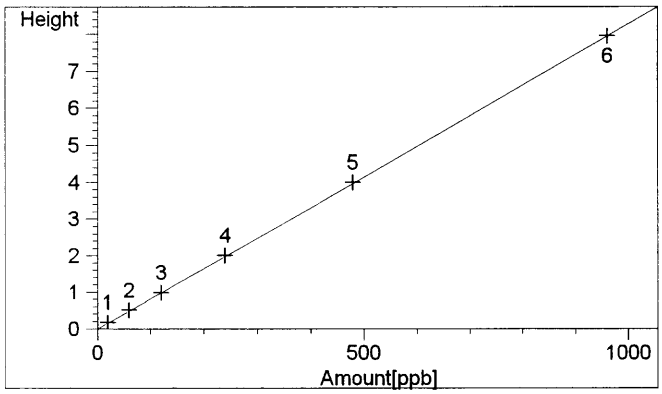
TNT at exp. RT: 8.063
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99993
Residual Std. Dev.: 0.07165
Formula: y = mx
m: 1.20595e-2
x: Amount[ppb]
y: Height



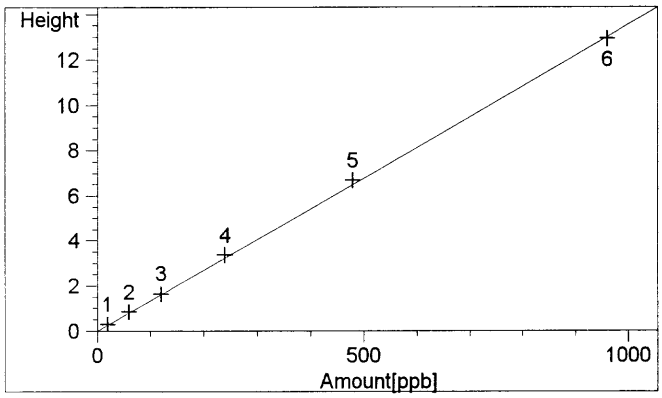
4-AMINO at exp. RT: 8.281
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99992
Residual Std. Dev.: 0.05003
Formula: y = mx
m: 8.14548e-3
x: Amount[ppb]
y: Height



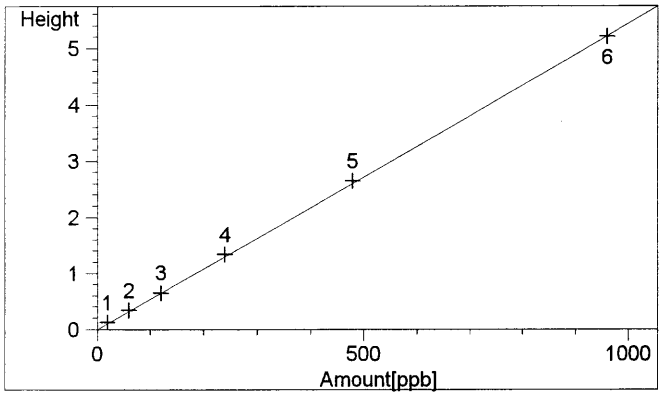
2-AMINO at exp. RT: 8.669
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99983
Residual Std. Dev.: 0.09235
Formula: y = mx
m: 1.00555e-2
x: Amount[ppb]
y: Height



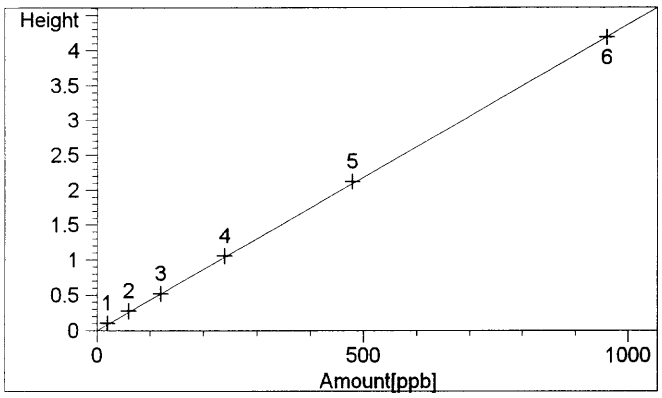
2,6-DNT at exp. RT: 8.864
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 1.00000
Residual Std. Dev.: 0.01109
Formula: y = mx
m: 8.29037e-3
x: Amount[ppb]
y: Height



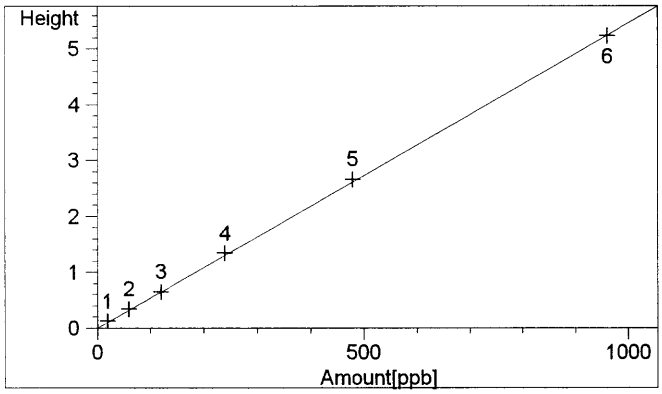
2,4-DNT at exp. RT: 9.265
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99990
Residual Std. Dev.: 0.09589
Formula: y = mx
m: 1.35589e-2
x: Amount[ppb]
y: Height



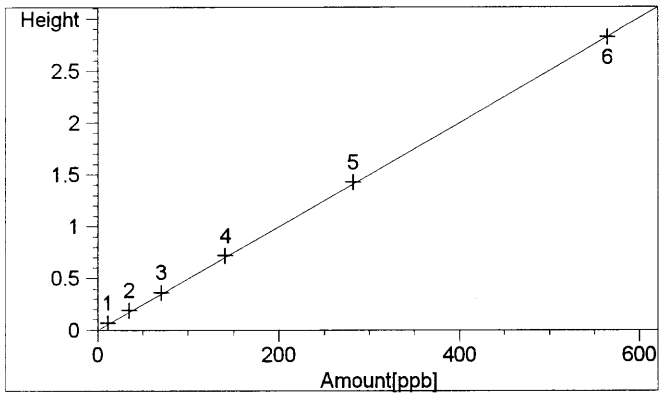
2-NT at exp. RT: 10.367
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99997
Residual Std. Dev.: 0.02043
Formula: y = mx
m: 5.43900e-3
x: Amount[ppb]
y: Height



4-NT at exp. RT: 11.156
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99998
Residual Std. Dev.: 0.01365
Formula: y = mx
m: 4.37328e-3
x: Amount[ppb]
y: Height



3-NT at exp. RT: 11.747
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99997
Residual Std. Dev.: 0.02259
Formula: y = mx
m: 5.47082e-3
x: Amount[ppb]
y: Height



SURROGATE at exp. RT: 13.315
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99998
Residual Std. Dev.: 0.00986
Formula: y = mx
m: 5.01105e-3
x: Amount[ppb]
y: Height

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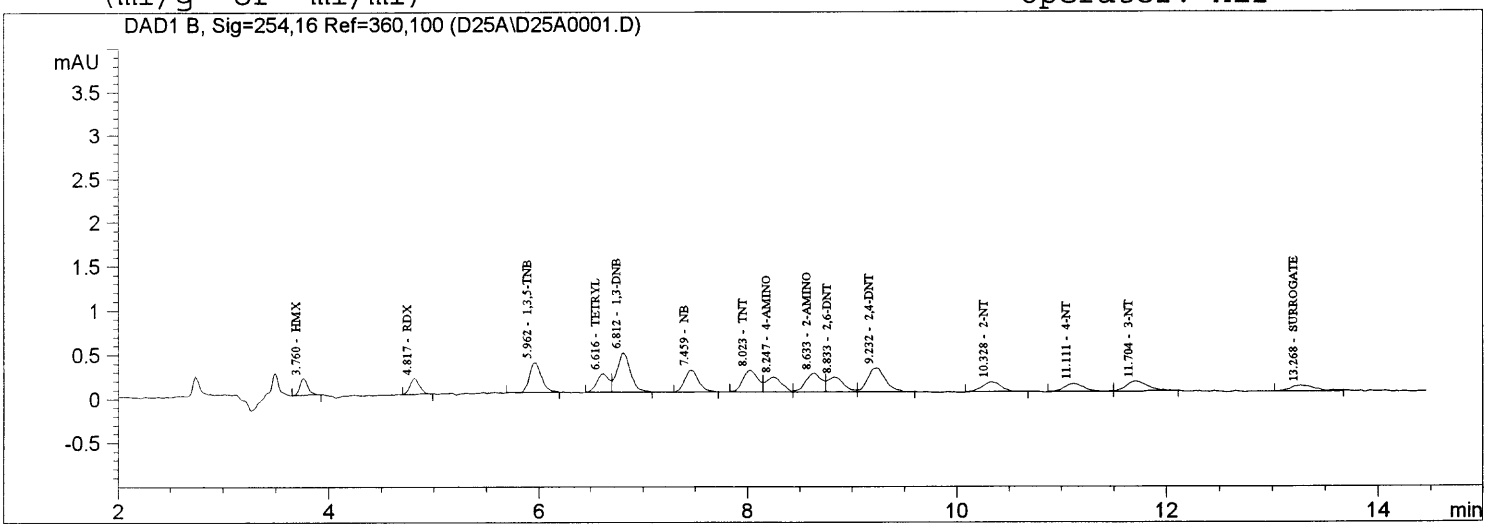
STL-KNOXVILLE Explosives Analysis

Sample Number: ICAL #1 LC1238 Print Time:4/25/03 12:59:20

Instrument Name: Ace Data Acquisition Time:4/25/03 12:44:44
Data File name: H:\ACE\DATA\D25A\D25A0001.D
Method File: H:\ACE\METHOD\D25AICAL.M
Sequence File: H:\ACE\SEQUENCE\D25A.S

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 5.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



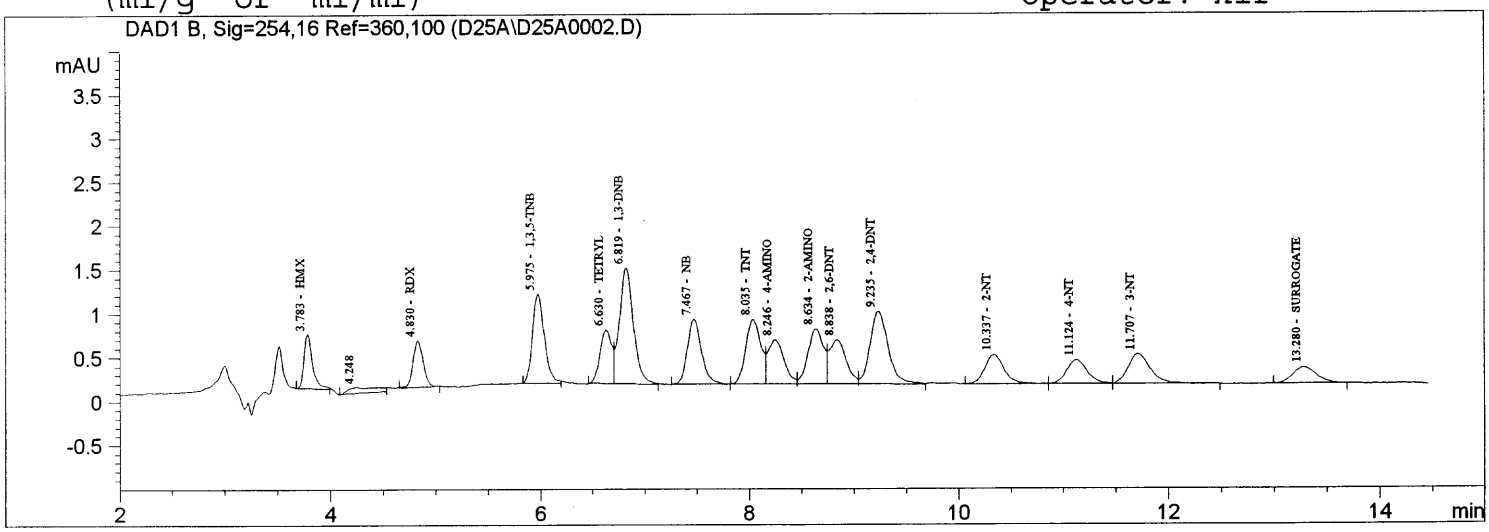
#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.761	3.760	HMX	0.19119	19.9725
2	4.812	4.817	RDX	0.18147	22.3781
3	5.961	5.962	1,3,5-TNB	0.34192	21.7953
4	6.615	6.616	TETRYL	0.21109	22.0200
5	6.806	6.812	1,3-DNB	0.44910	22.2151
6	7.452	7.459	NB	0.25308	21.9707
7	8.021	8.023	TNT	0.25074	22.0487
8	8.233	8.247	4-AMINO	0.17440	22.4048
9	8.624	8.633	2-AMINO	0.21552	22.4178
10	8.830	8.833	2,6-DNT	0.17196	22.4792
11	9.220	9.232	2,4-DNT	0.27658	21.0083
12	10.328	10.328	2-NT	0.11601	22.5676
13	11.107	11.111	4-NT	0.09489	22.9734
14	11.693	11.704	3-NT	0.11642	22.3014
15	13.252	13.268	SURROGATE	0.06583	10.8778

STL-KNOXVILLE Explosives Analysis

Sample Number: ICAL #2 LC1238 Print Time:4/28/03 16:06:49

Instrument Name: Ace Data Acquisition Time:4/25/03 13:02:23
Data File name: H:\ACE\DATA\D25A\D25A0002.D
Method File: H:\ACE\METHOD\D25AICAL.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 15.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



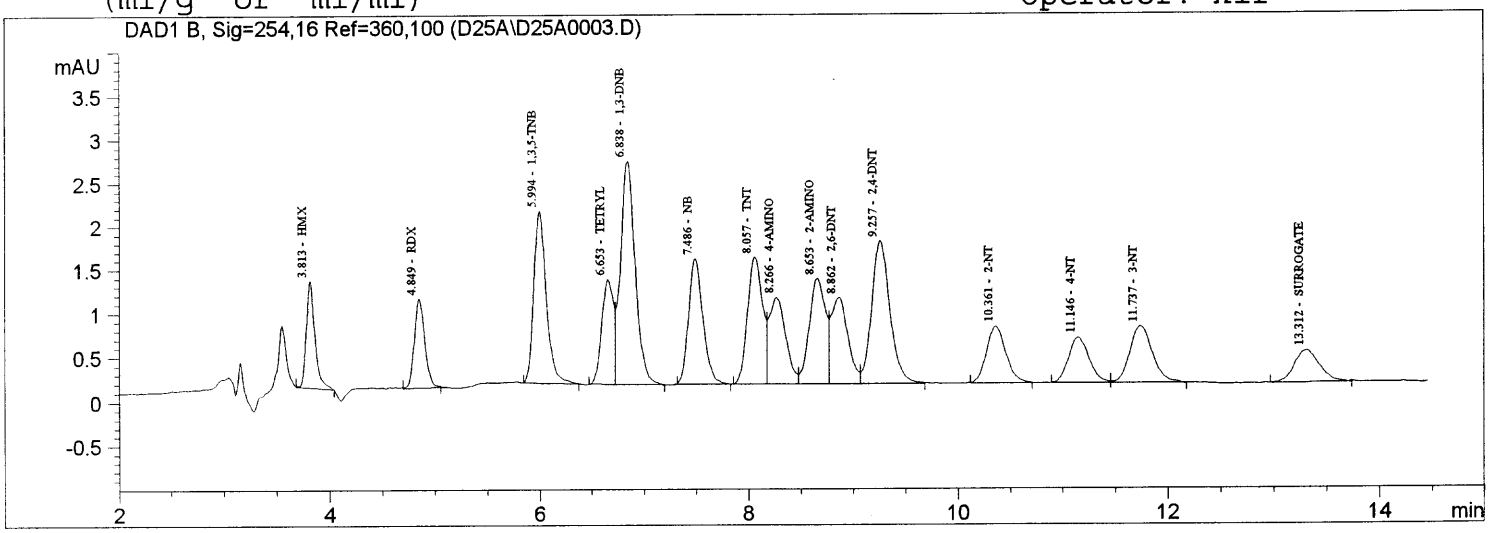
#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.783	3.783	HMX	0.61946	62.0486
2	0.000	4.248		0.07243	0.0000
3	4.830	4.830	RDX	0.53529	62.8861
4	5.975	5.975	1,3,5-TNB	1.01496	60.4353
5	6.630	6.630	TETRYL	0.61277	60.7547
6	6.819	6.819	1,3-DNB	1.31788	61.1424
7	7.467	7.467	NB	0.73947	61.3479
8	8.035	8.035	TNT	0.73814	60.8567
9	8.246	8.246	4-AMINO	0.50642	61.6485
10	8.634	8.634	2-AMINO	0.62887	62.1414
11	8.838	8.838	2,6-DNT	0.50380	60.3140
12	9.235	9.235	2,4-DNT	0.82699	60.7408
13	10.337	10.337	2-NT	0.33114	60.8827
14	11.124	11.124	4-NT	0.27257	62.3269
15	11.707	11.707	3-NT	0.33870	61.9111
16	13.280	13.280	SURROGATE	0.18780	37.4765

STL-KNOXVILLE Explosives Analysis

Sample Number: ICAL #3 LC1238 Print Time:4/28/03 16:07:29

Instrument Name: Ace Data Acquisition Time:4/25/03 13:20:07
Data File name: H:\ACE\DATA\D25A\D25A0003.D
Method File: H:\ACE\METHOD\D25AICAL.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



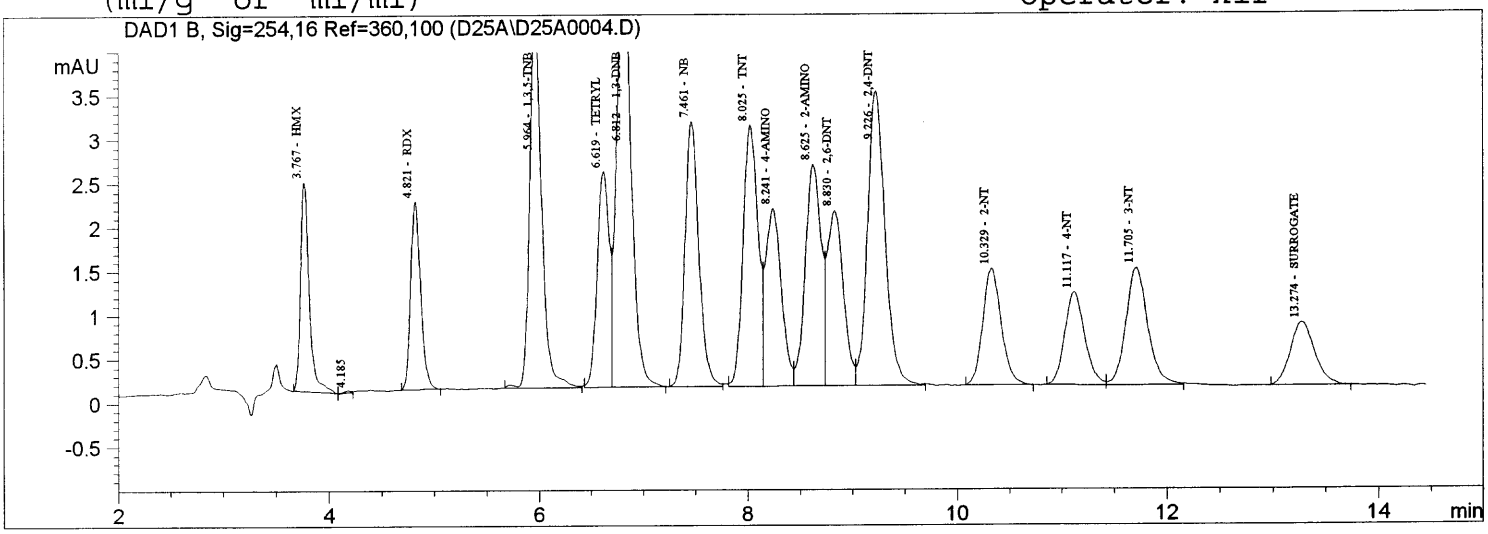
#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.813	3.813	HMX	1.21734	121.9610
2	4.849	4.849	RDX	1.01373	119.1482
3	5.994	5.994	1,3,5-TNB	1.96877	117.2298
4	6.653	6.653	TETRYL	1.19248	118.2314
5	6.838	6.838	1,3-DNB	2.55935	118.7399
6	7.486	7.486	NB	1.43292	118.8780
7	8.057	8.057	TNT	1.44910	119.4727
8	8.266	8.266	4-AMINO	0.98308	119.6742
9	8.653	8.653	2-AMINO	1.19935	118.5139
10	8.862	8.862	2,6-DNT	0.97733	117.0024
11	9.257	9.257	2,4-DNT	1.63409	120.0211
12	10.361	10.361	2-NT	0.64527	118.6383
13	11.146	11.146	4-NT	0.51832	118.5194
14	11.737	11.737	3-NT	0.64747	118.3489
15	13.312	13.312	SURROGATE	0.36334	72.5071

STL-KNOXVILLE Explosives Analysis

Sample Number: ICAL #4 LC1239 Print Time:4/25/03 13:52:26

Instrument Name: Ace Data Acquisition Time:4/25/03 13:37:50
Data File name: H:\ACE\DATA\D25A\D25A0004.D
Method File: H:\ACE\METHOD\D25AICAL.M
Sequence File: H:\ACE\SEQUENCE\D25A.S

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 7.500
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



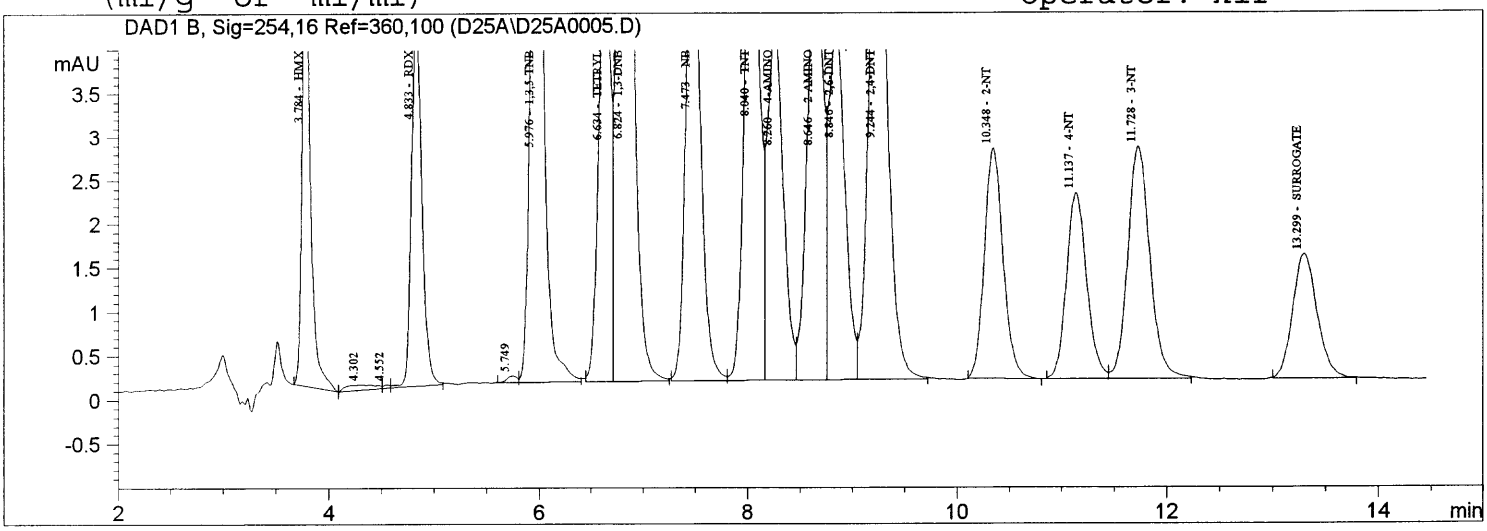
#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.813	3.767	HMX	2.38764	249.0781
2	0.000	4.185		0.02692	0.0000
3	4.849	4.821	RDX	2.14266	263.7400
4	5.994	5.964	1,3,5-TNB	4.16758	264.8865
5	6.653	6.619	TETRYL	2.45785	255.9331
6	6.838	6.812	1,3-DNB	5.38607	265.6082
7	7.486	7.461	NB	3.02375	261.9655
8	8.057	8.025	TNT	2.97920	261.2001
9	8.266	8.241	4-AMINO	2.02521	259.6655
10	8.653	8.625	2-AMINO	2.52600	262.1527
11	8.862	8.830	2,6-DNT	2.00034	260.4587
12	9.257	9.226	2,4-DNT	3.35268	254.4209
13	10.361	10.329	2-NT	1.33098	258.2203
14	11.146	11.117	4-NT	1.05856	255.5598
15	11.737	11.705	3-NT	1.33907	255.9049
16	13.312	13.274	SURROGATE	0.71535	119.0416

STL-KNOXVILLE Explosives Analysis

Sample Number: ICAL #5 LC1239 Print Time:4/25/03 14:10:03

Instrument Name: Ace Data Acquisition Time:4/25/03 13:55:27
Data File name: H:\ACE\DATA\D25A\D25A0005.D
Method File: H:\ACE\METHOD\D25AICAL.M
Sequence File: H:\ACE\SEQUENCE\D25A.S

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 15.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



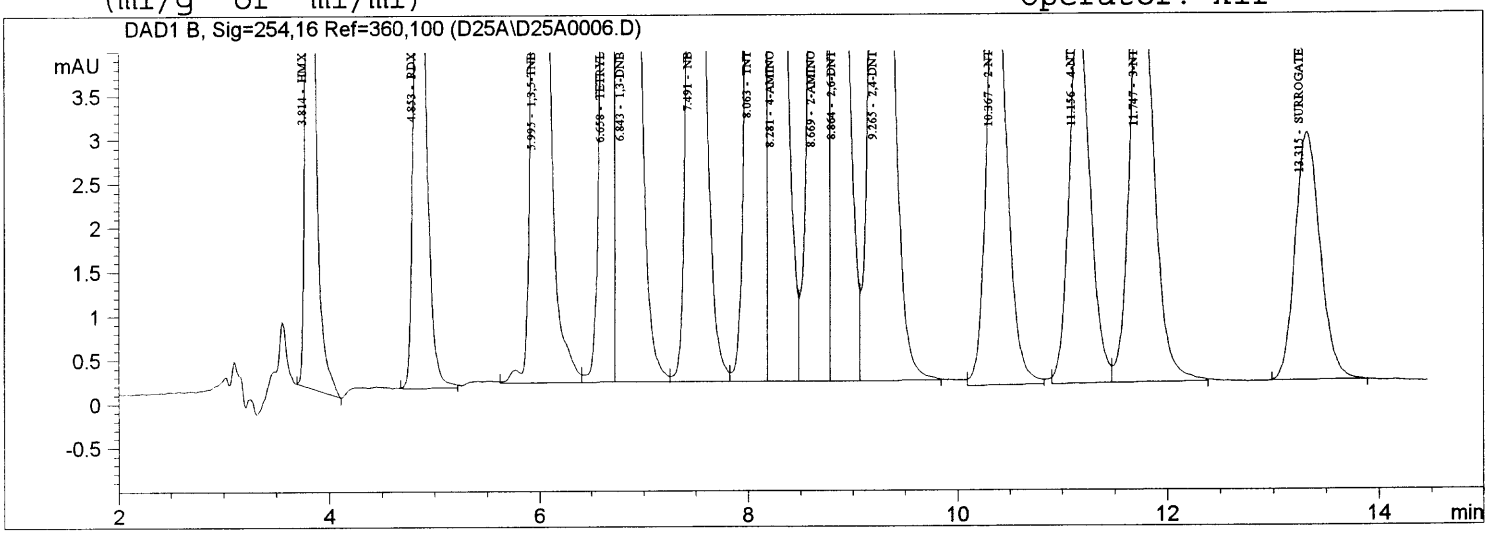
#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.813	3.784	HMX	4.82742	499.7383
2	0.000	4.302		0.06445	0.0000
3	0.000	4.552		0.04523	0.0000
4	4.849	4.833	RDX	4.24150	517.1171
5	0.000	5.749		0.07730	0.0000
6	5.994	5.976	1,3,5-TNB	8.24049	517.6697
7	6.653	6.634	TETRYL	4.88994	505.7676
8	6.838	6.824	1,3-DNB	10.56918	515.4707
9	7.486	7.473	NB	5.94583	511.4859
10	8.057	8.040	TNT	5.89868	511.8525
11	8.266	8.260	4-AMINO	3.97567	505.8023
12	8.653	8.646	2-AMINO	4.96556	511.1973
13	8.862	8.846	2,6-DNT	3.98856	512.3982
14	9.257	9.244	2,4-DNT	6.66606	502.9302
15	10.361	10.348	2-NT	2.64026	507.2150
16	11.146	11.137	4-NT	2.12104	506.9785
17	11.737	11.728	3-NT	2.65932	503.5529
18	13.312	13.299	SURROGATE	1.42467	245.7262

STL-KNOXVILLE Explosives Analysis

Sample Number: ICAL #6 LC1239 Print Time:4/28/03 16:09:45

Instrument Name: Ace Data Acquisition Time:4/25/03 14:13:12
Data File name: H:\ACE\DATA\D25A\D25A0006.D
Method File: H:\ACE\METHOD\D25AICAL.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr

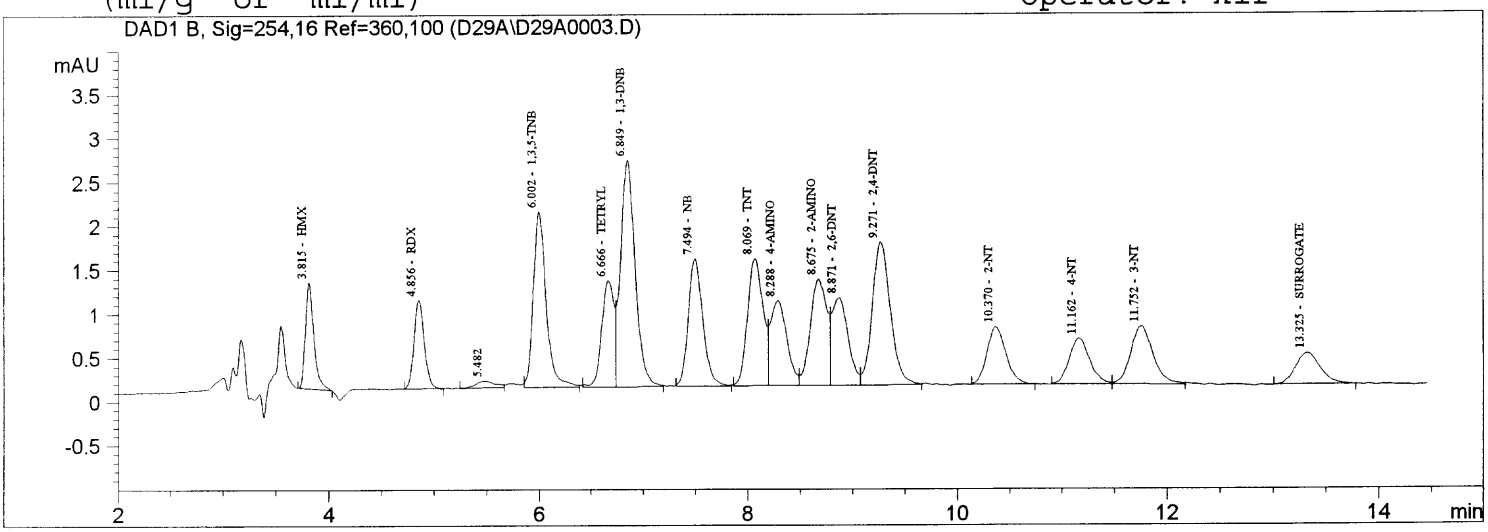


#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.814	3.814	HMX	9.56236	958.0202
2	4.853	4.853	RDX	7.98384	945.2488
3	5.995	5.995	1,3,5-TNB	15.88961	951.1922
4	6.658	6.658	TETRYL	9.53995	954.0344
5	6.843	6.843	1,3-DNB	20.42796	951.2228
6	7.491	7.491	NB	11.36230	948.6039
7	8.063	8.063	TNT	11.49953	953.5627
8	8.281	8.281	4-AMINO	7.76712	953.5495
9	8.669	8.669	2-AMINO	9.55462	950.1919
10	8.864	8.864	2,6-DNT	7.95316	959.3257
11	9.265	9.265	2,4-DNT	12.91115	952.2285
12	10.367	10.367	2-NT	5.20074	956.1945
13	11.156	11.156	4-NT	4.18519	956.9917
14	11.747	11.747	3-NT	5.22914	955.8232
15	13.315	13.315	SURROGATE	2.82150	563.0553

STL-KNOXVILLE Explosives Analysis

Sample Number: 8330 ICV LC1246 Print Time:4/29/03 12:53:25
SECOND SOURCE (ULTRA) ->
Instrument Name: Ace Data Acquisition Time:4/29/03 12:13:56
Data File name: H:\ACE\DATA\D29A\D29A0003.D
Method File: H:\ACE\METHOD\D29A.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.815	3.815	HMX	1.21356	121.5822
2	4.857	4.856	RDX	1.00649	119.1631
3	0.000	5.482		0.08258	0.0000
4	6.003	6.002	1,3,5-TNB	2.00461	120.0013
5	6.670	6.666	TETRYL	1.21138	121.1431
6	6.852	6.849	1,3-DNB	2.57776	120.0327
7	7.499	7.494	NB	1.45022	121.0743
8	8.075	8.069	TNT	1.44911	120.1631
9	8.295	8.288	4-AMINO	0.96709	118.7274
10	8.686	8.675	2-AMINO	1.20887	120.2206
11	8.876	8.871	2,6-DNT	0.99793	120.3717
12	9.280	9.271	2,4-DNT	1.62578	119.9054
13	10.380	10.370	2-NT	0.65263	119.9907
14	11.170	11.162	4-NT	0.52339	119.6779
15	11.760	11.752	3-NT	0.66269	121.1324
16	13.339	13.325	SURROGATE	0.36002	71.8449

STL Knoxville HPLC Continuing Calibration Data Review / Narrative Checklist
Method: 8330 - KNOX-LC-0001 Rev 7

Analysis Date:	8/13/03	CCAL File ID:	H13A/B	ICAL File ID:	D25A/L04BICAL	Scanned ☐

Review Items A. Continuing Calibration	Yes	No	NA	2nd ✓	If No, why is data reportable?
1. Was the ***correct ICAL*** used for quantitation?	✓			✓	
2. Were the ***same process parameters*** used for the CCAL standards and the ICAL?	✓			✓	
3. Were ***CCAL standards*** run at beginning of sequence, and after ***every 10 injections or 12 hours*** and at end of sequence?	✓			✓	
4. Were ***RTs updated*** for the first CCAL standard (at least every 24 hours)?	✓			✓	☐ Samples were analyzed immediately after ICAL, therefore RTs were updated from ICAL midpoint. ☐ See Comment No. _____.
5. Is ***%D ≤ 15%*** for each CCAL?	✓			✓	☐ CCAL response increased and all sample results were ND.
6. Is ***integration*** acceptable?	✓			✓	
7. If ***manual integrations*** were performed, are they clearly identified, initialed, dated and reason given?	✓			✓	Reasons: 1) Corrected split peak; 2) Unresolved peak; 3) Tailing; 4) RT shift; 5) Wrong peak selected; 6) Other
8. Were the standards ***scanned properly***?	✓				

Analyst: [signature]	Date: 8/14/03	2nd Level Reviewer : [signature]	Date: 8/15/03
Comments:		Comments:	

STL KNOXVILLE--EXPLOSIVES RUNLOG

Operator: KJh
PM Performed: No
Inj. Vol.: 30ul
Instrument: ACE

Sample ID	File Name	Dilution	Run Time
MRL LC1360	H13A0001.D	1.000	8/13/03 09:19:27
CCV LC1360	H13A0002.D	1.000	8/13/03 09:37:13
NG CCV LC1361	H13A0003.D	1.000	8/13/03 09:55:16
FVRRC1AA	H13A0004.D	1.000	8/13/03 10:15:54
FVVVF1AA	H13A0005.D	1.000	8/13/03 10:33:45
FVVVF1AC MS	H13A0006.D	1.000	8/13/03 10:51:39
FVVVF1AD MSD	H13A0007.D	1.000	8/13/03 11:09:31
FV3GR1AA BLK	H13A0008.D	1.000	8/13/03 11:27:22
FV3GR1AC LCS	H13A0009.D	1.000	8/13/03 11:45:12
FVXG51AC	H13A0010.D	1.000	8/13/03 12:03:04
FVXHQ1AJ	H13A0011.D	1.000	8/13/03 12:20:56
FVXHV1AJ	H13A0012.D	1.000	8/13/03 12:38:44
FVXH21AJ	H13A0013.D	1.000	8/13/03 12:56:40
NG CCV LC1361	H13A0014.D	1.000	8/13/03 13:14:46
CCV LC1360	H13A0015.D	1.000	8/13/03 13:35:18
FVXH71AX	H13A0016.D	1.000	8/13/03 13:53:13
FVXH71A0 MS	H13A0017.D	1.000	8/13/03 14:11:04
FVXH71A1 MSD	H13A0018.D	1.000	8/13/03 14:28:55
FVXJL1AJ	H13A0019.D	1.000	8/13/03 14:46:49
FVXJQ1AJ	H13A0020.D	1.000	8/13/03 15:04:43
FVXJ01AJ	H13A0021.D	1.000	8/13/03 15:22:34
FV3QW1AA BLK	H13A0022.D	1.000	8/13/03 15:40:24
FV3QW1AC LCS	H13A0023.D	1.000	8/13/03 15:58:16
FVRQX1AA	H13A0024.D	1.000	8/13/03 16:16:11
FVRQ01AA	H13A0025.D	1.000	8/13/03 16:34:03
NG CCV LC1361	H13A0026.D	1.000	8/13/03 16:52:05
CCV LC1360	H13A0027.D	1.000	8/13/03 17:12:37
FVRQ31AA	H13A0028.D	1.000	8/13/03 17:30:31
FVRQ31AC MS	H13A0029.D	1.000	8/13/03 17:48:21
FVRQ31AD MSD	H13A0030.D	1.000	8/13/03 18:06:13
FVRQ51AA	H13A0031.D	1.000	8/13/03 18:24:08
FVRQ61AA	H13A0032.D	1.000	8/13/03 18:41:58
FVRQ71AA	H13A0033.D	1.000	8/13/03 18:59:46
FVRRA1AA	H13A0034.D	1.000	8/13/03 19:17:39
FV08D1AA	H13A0035.D	1.000	8/13/03 19:35:31
FV08E1AG	H13A0036.D	1.000	8/13/03 19:53:23
FV08F1AG	H13A0037.D	1.000	8/13/03 20:11:15
NG CCV LC1361	H13A0038.D	1.000	8/13/03 20:29:21
CCV LC1360	H13A0039.D	1.000	8/13/03 20:49:54
FV08H1AG	H13A0040.D	1.000	8/13/03 21:07:45
FV08J1AG	H13A0041.D	1.000	8/13/03 21:25:36
FV08K1AG	H13A0042.D	1.000	8/13/03 21:43:29
FV08L1AG	H13A0043.D	1.000	8/13/03 22:01:22
FV08M1AG	H13A0044.D	1.000	8/13/03 22:19:17
FV08N1AG	H13A0045.D	1.000	8/13/03 22:37:07
FV08P1AG	H13A0046.D	1.000	8/13/03 22:54:59
FV08Q1AA	H13A0047.D	1.000	8/13/03 23:12:53
FV3Q91AA BLK	H13A0048.D	1.000	8/13/03 23:30:45
FV3Q91AC LCS	H13A0049.D	1.000	8/13/03 23:48:38
NG CCV LC1361	H13A0050.D	1.000	8/14/03 00:06:39
CCV LC1360	H13A0051.D	1.000	8/14/03 00:27:11
MRL LC1360	H13A0052.D	1.000	8/14/03 00:44:57

Calibration Table

Calib. Data Modified : Wednesday, August 13, 2003 9:52:19 AM

Calculate : External Standard
Based on : Peak Height

Rel. Reference Window : 4.000 %
Abs. Reference Window : 0.000 min
Rel. Non-ref. Window : 4.000 %
Abs. Non-ref. Window : 0.000 min
Uncalibrated Peaks : not reported
Partial Calibration : No recalibration if peaks missing

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Average all calibrations

Calibration Report Options :
Printout of recalibrations within a sequence:
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 [ppb]	Height	Amt/Height	Ref	Grp	Name
3.789	1	1	20.00000	1.91192e-1	104.60689			HMX
		2	60.00000	6.19458e-1	96.85889			
		3	120.00000	1.21734	98.57567			
		4	240.00000	2.38764	100.51785			
		5	480.00000	4.82742	99.43205			
		6	960.00000	9.56236	100.39362			
4.812	1	1	20.00000	1.81471e-1	110.21053			RDX
		2	60.00000	5.35286e-1	112.08970			
		3	120.00000	1.01373	118.37443			
		4	240.00000	2.14266	112.01035			
		5	480.00000	4.24150	113.16760			
		6	960.00000	7.98384	120.24286			
5.943	1	1	20.00000	3.41915e-1	58.49402			1,3,5-TNB
		2	60.00000	1.01496	59.11565			
		3	120.00000	1.96877	60.95165			
		4	240.00000	4.16758	57.58739			
		5	480.00000	8.24049	58.24896			
		6	960.00000	15.88961	60.41683			
6.591	1	1	20.00000	2.11092e-1	94.74561			TETRYL
		2	60.00000	6.12773e-1	97.91559			
		3	120.00000	1.19248	100.63038			
		4	240.00000	2.45785	97.64635			

RetTime [min]	Sig	Lvl	Amount [ppb]	Height	Amt/Height	Ref	Grp	Name
		5	480.00000	4.88994	98.16074			
		6	960.00000	9.53995	100.62947			
6.776	1	1	20.00000	4.49103e-1	44.53317			1,3-DNB
		2	60.00000	1.31788	45.52768			
		3	120.00000	2.55935	46.88689			
		4	240.00000	5.38607	44.55938			
		5	480.00000	10.56918	45.41508			
		6	960.00000	20.42796	46.99442			
7.406	1	1	20.00000	2.53085e-1	79.02497			NB
		2	60.00000	7.39471e-1	81.13905			
		3	120.00000	1.43292	83.74484			
		4	240.00000	3.02375	79.37176			
		5	480.00000	5.94583	80.72889			
		6	960.00000	11.36230	84.48992			
7.978	1	1	20.00000	2.50744e-1	79.76253			TNT
		2	60.00000	7.38139e-1	81.28549			
		3	120.00000	1.44910	82.81003			
		4	240.00000	2.97920	80.55854			
		5	480.00000	5.89868	81.37412			
		6	960.00000	11.49953	83.48164			
8.182	1	1	20.00000	1.74405e-1	114.67567			4-AMINO
		2	60.00000	5.06422e-1	118.47827			
		3	120.00000	9.83083e-1	122.06496			
		4	240.00000	2.02521	118.50596			
		5	480.00000	3.97567	120.73445			
		6	960.00000	7.76712	123.59797			
8.569	1	1	20.00000	2.15520e-1	92.79900			2-AMINO
		2	60.00000	6.28866e-1	95.40988			
		3	120.00000	1.19935	100.05414			
		4	240.00000	2.52600	95.01180			
		5	480.00000	4.96556	96.66581			
		6	960.00000	9.55462	100.47494			
8.761	1	1	20.00000	1.71955e-1	116.30923			2,6-DNT
		2	60.00000	5.03805e-1	119.09379			
		3	120.00000	9.77325e-1	122.78411			
		4	240.00000	2.00034	119.97945			
		5	480.00000	3.98856	120.34427			
		6	960.00000	7.95316	120.70667			
9.156	1	1	20.00000	2.76580e-1	72.31171			2,4-DNT
		2	60.00000	8.26988e-1	72.55241			
		3	120.00000	1.63409	73.43524			
		4	240.00000	3.35268	71.58446			
		5	480.00000	6.66606	72.00651			
		6	960.00000	12.91115	74.35436			
10.226	1	1	20.00000	1.16015e-1	172.39185			2-NT
		2	60.00000	3.31141e-1	181.19165			
		3	120.00000	6.45273e-1	185.96769			
		4	240.00000	1.33098	180.31875			
		5	480.00000	2.64026	181.80041			
		6	960.00000	5.20074	184.58907			
10.996	1	1	20.00000	9.48933e-2	210.76312			4-NT
		2	60.00000	2.72573e-1	220.12440			
		3	120.00000	5.18319e-1	231.51784			
		4	240.00000	1.05856	226.72266			
		5	480.00000	2.12104	226.30442			
		6	960.00000	4.18519	229.38007			

RetTime [min]	Sig	Lvl	Amount [ppb]	Height	Amt/Height	Ref	Grp	Name
11.574	1	1	20.00000	1.16424e-1	171.78594			3-NT
		2	60.00000	3.38704e-1	177.14574			
		3	120.00000	6.47465e-1	185.33814			
		4	240.00000	1.33907	179.22897			
		5	480.00000	2.65932	180.49747			
		6	960.00000	5.22914	183.58675			
13.131	1	1	11.77000	6.58338e-2	178.78346			SURROGATE
		2	35.30000	1.87797e-1	187.96911			
		3	70.60000	3.63337e-1	194.31006			
		4	141.20000	7.15354e-1	197.38478			
		5	282.40000	1.42467	198.22100			
		6	564.80000	2.82150	200.17716			

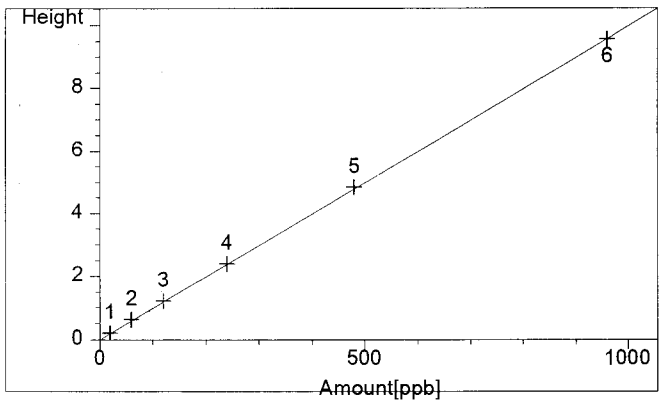
3 Warnings or Errors :

Warning : Overlapping peak time windows at 6.591 min, signal 1
Warning : Overlapping peak time windows at 7.978 min, signal 1
Warning : Overlapping peak time windows at 8.569 min, signal 1

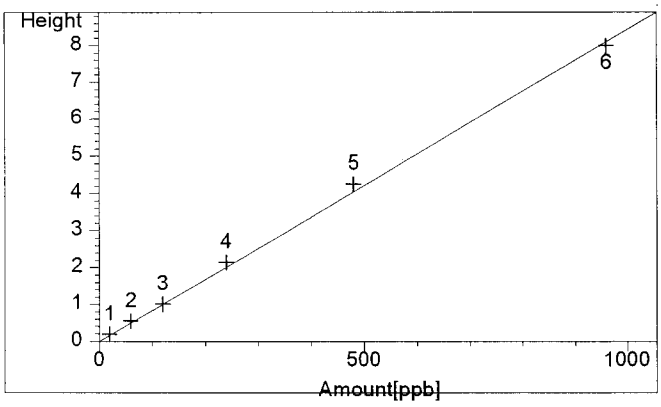
Peak Sum Table

No Entries in table

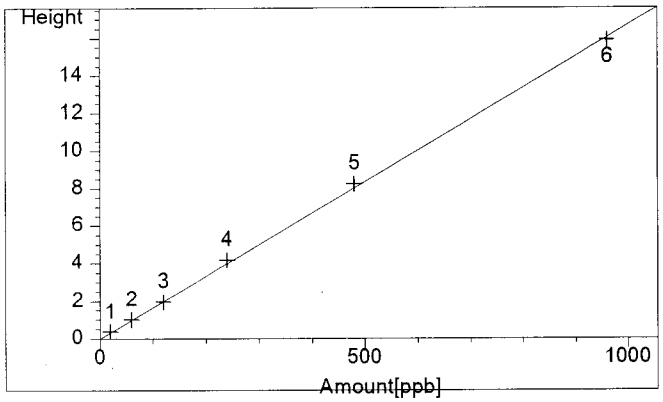
Calibration Curves



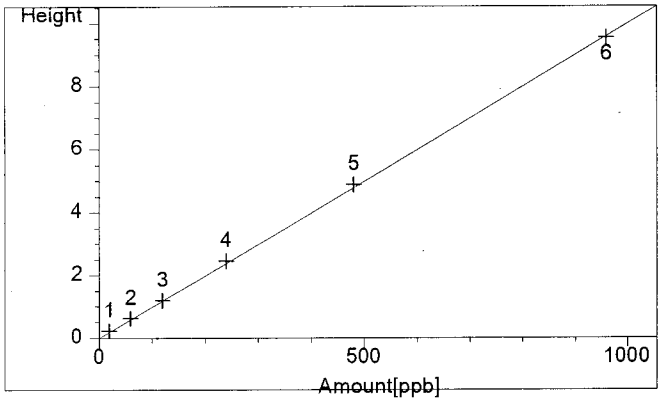
HMX at exp. RT: 3.789
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99999
Residual Std. Dev.: 0.02303
Formula: y = mx
m: 9.98138e-3
x: Amount[ppb]
y: Height



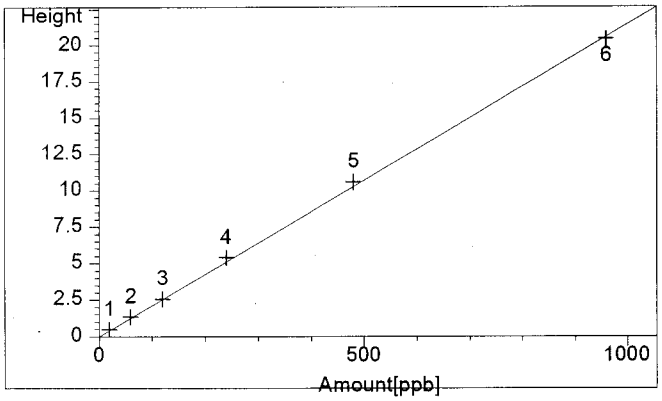
RDX at exp. RT: 4.812
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99963
Residual Std. Dev.: 0.11395
Formula: y = mx
m: 8.44629e-3
x: Amount[ppb]
y: Height



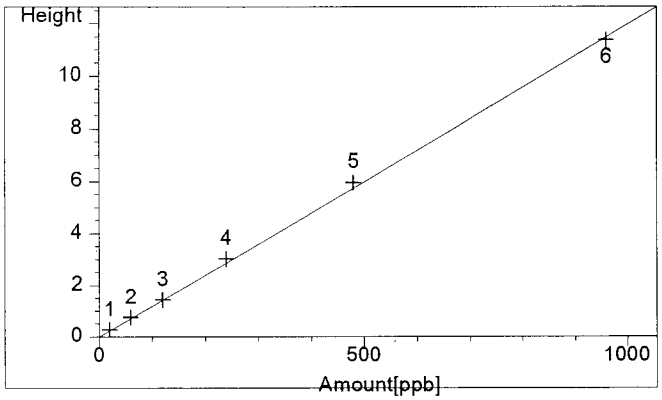
1,3,5-TNB at exp. RT: 5.943
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99986
Residual Std. Dev.: 0.13970
Formula: y = mx
m: 1.67049e-2
x: Amount[ppb]
y: Height



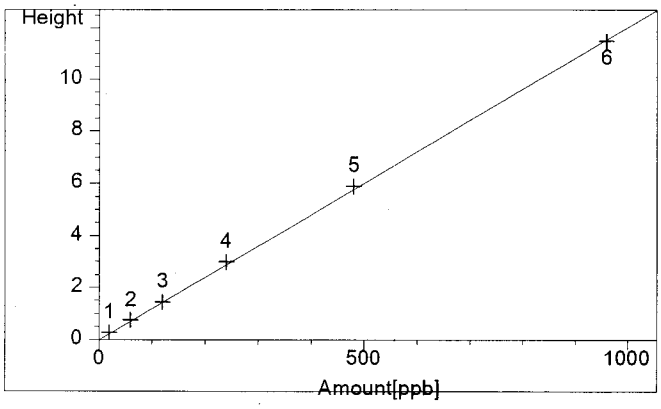
TETRYL at exp. RT: 6.591
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99994
Residual Std. Dev.: 0.05547
Formula: y = mx
m: 9.99959e-3
x: Amount[ppb]
y: Height



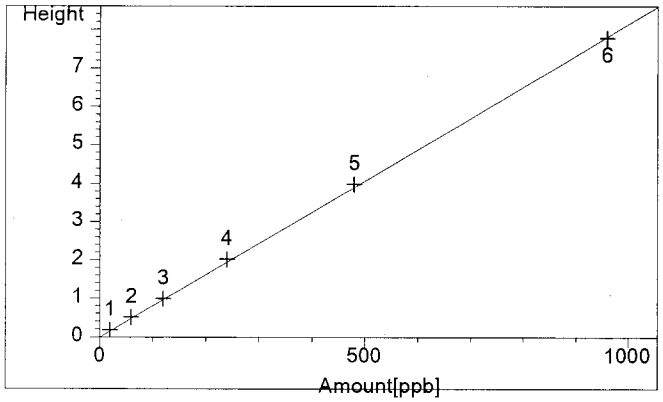
1,3-DNB at exp. RT: 6.776
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99986
Residual Std. Dev.: 0.17832
Formula: y = mx
m: 2.14755e-2
x: Amount[ppb]
y: Height



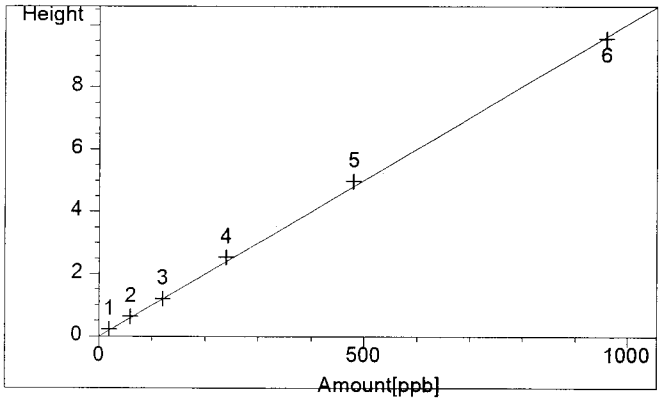
NB at exp. RT: 7.406
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99977
Residual Std. Dev.: 0.12654
Formula: y = mx
m: 1.19779e-2
x: Amount[ppb]
y: Height



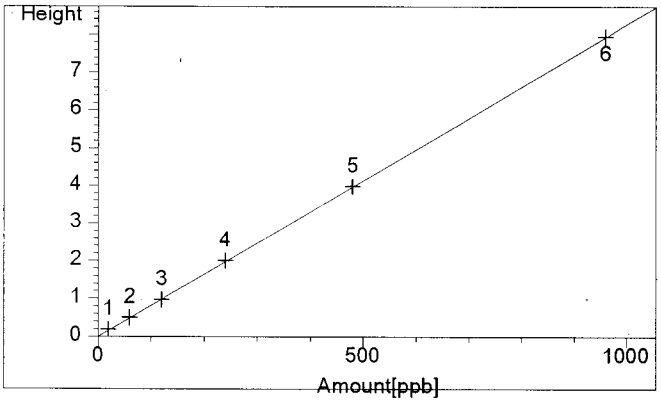
TNT at exp. RT: 7.978
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99993
Residual Std. Dev.: 0.07165
Formula: y = mx
m: 1.20595e-2
x: Amount[ppb]
y: Height



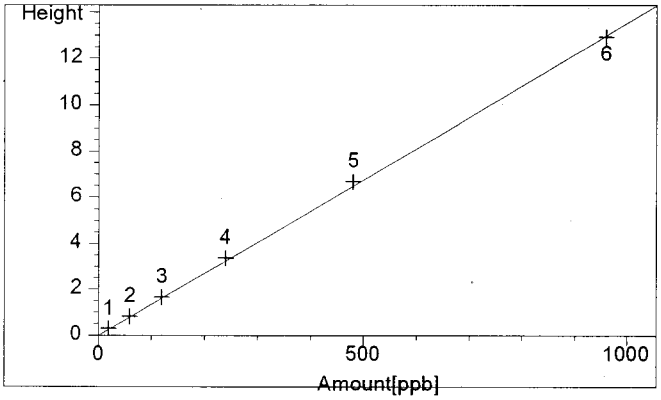
4-AMINO at exp. RT: 8.182
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99992
Residual Std. Dev.: 0.05003
Formula: y = mx
m: 8.14548e-3
x: Amount[ppb]
y: Height



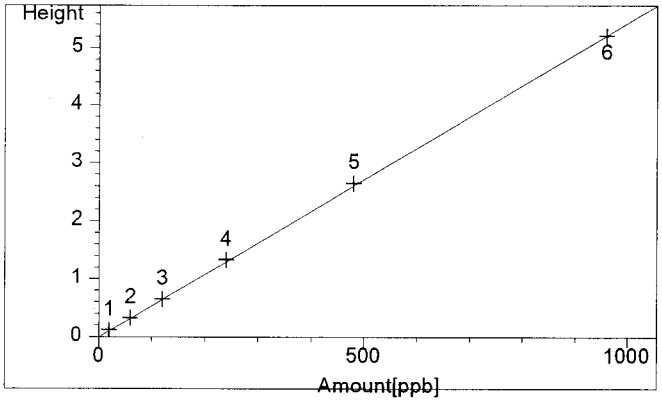
2-AMINO at exp. RT: 8.569
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99983
Residual Std. Dev.: 0.09235
Formula: y = mx
m: 1.00555e-2
x: Amount[ppb]
y: Height



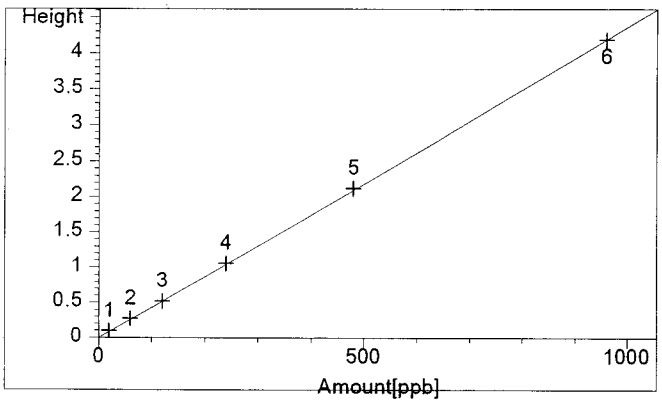
2,6-DNT at exp. RT: 8.761
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 1.00000
Residual Std. Dev.: 0.01109
Formula: y = mx
m: 8.29037e-3
x: Amount[ppb]
y: Height



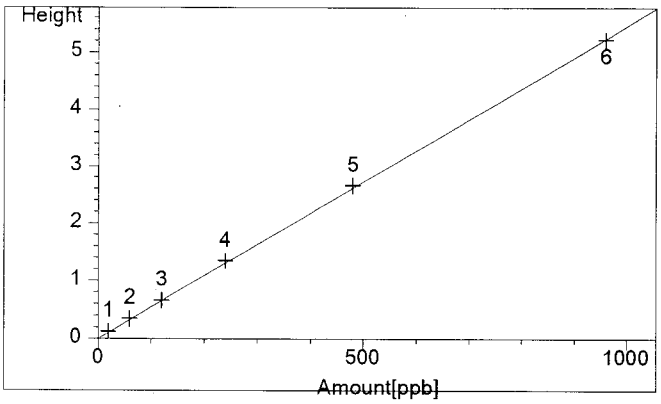
2,4-DNT at exp. RT: 9.156
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99990
Residual Std. Dev.: 0.09589
Formula: y = mx
m: 1.35589e-2
x: Amount[ppb]
y: Height



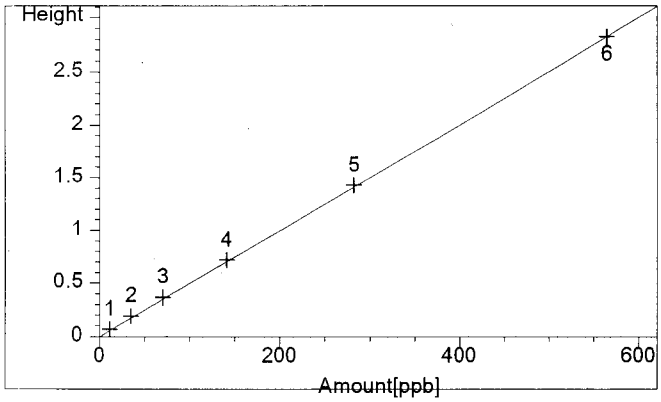
2-NT at exp. RT: 10.226
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99997
Residual Std. Dev.: 0.02043
Formula: y = mx
m: 5.43900e-3
x: Amount[ppb]
y: Height



4-NT at exp. RT: 10.996
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99998
Residual Std. Dev.: 0.01365
Formula: y = mx
m: 4.37328e-3
x: Amount[ppb]
y: Height



3-NT at exp. RT: 11.574
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99997
Residual Std. Dev.: 0.02259
Formula: y = mx
m: 5.47082e-3
x: Amount[ppb]
y: Height



SURROGATE at exp. RT: 13.131
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99998
Residual Std. Dev.: 0.00986
Formula: y = mx
m: 5.01105e-3
x: Amount[ppb]
y: Height

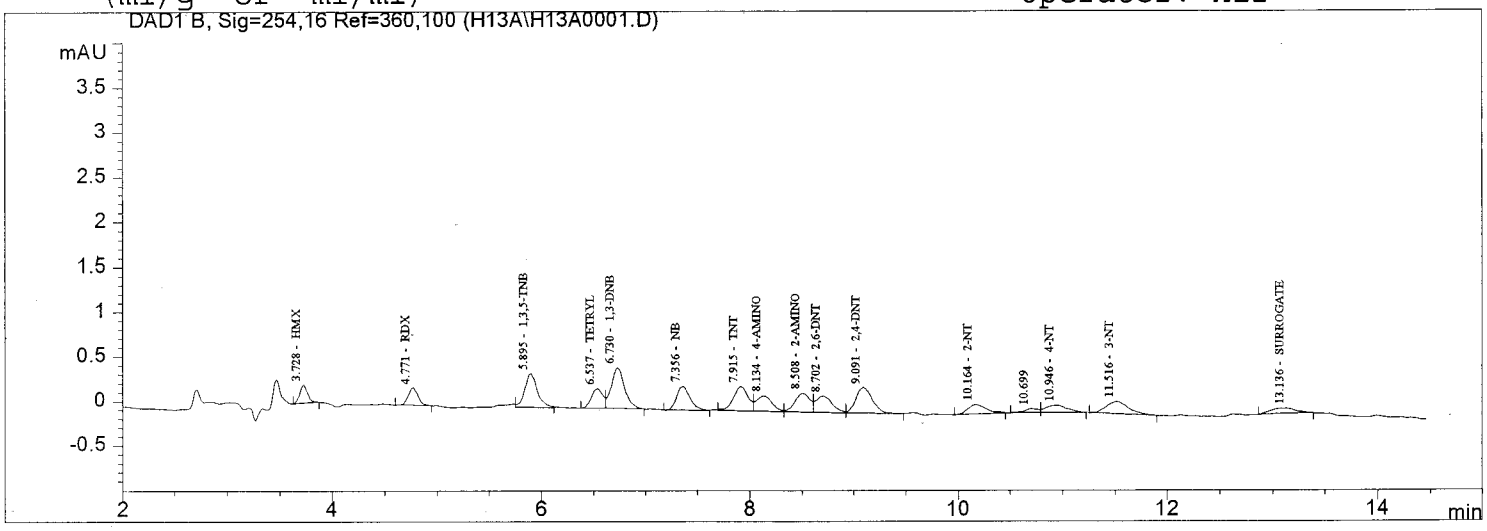
==========

STL-KNOXVILLE Explosives Analysis

Sample Number: MRL LC1360 Print Time:8/13/03 09:59:10

Instrument Name: Ace Data Acquisition Time:8/13/03 09:19:27
Data File name: H:\ACE\DATA\H13A\H13A0001.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 5.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.789	3.728	HMX	0.20353	20.3911
2	4.812	4.771	RDX	0.19869	23.5236
3	5.943	5.895	1,3,5-TNB	0.38079	22.7953
4	6.591	6.537	TETRYL	0.22245	22.2460
5	6.776	6.730	1,3-DNB	0.45765	21.3105
6	7.406	7.356	NB	0.27125	22.6459
7	7.978	7.915	TNT	0.27975	23.1972
8	8.182	8.134	4-AMINO	0.17963	22.0528
9	8.569	8.508	2-AMINO	0.21787	21.6669
10	8.761	8.702	2,6-DNT	0.18920	22.8219
11	9.156	9.091	2,4-DNT	0.28936	21.3411
12	10.226	10.164	2-NT	0.11205	20.6014
13	0.000	10.699		0.04672	0.0000
14	10.996	10.946	4-NT	0.08602	19.6698
15	11.574	11.516	3-NT	0.14131	25.8300
16	13.131	13.136	SURROGATE	0.06398	12.7668

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STL Knoxville

Reporting Limit Check Standard Report

Sample Name: MRL LC1360
Analysis Time: 8/13/03 09:19:27
File Name: H:\ACE\DATA\H13A\H13A0001.D
Method: H:\ACE\METHOD\H13A.M

Component	Spike Amt.	Result	% Diff.
HMX	20	20.3911	1.955
RDX	20	23.5236	17.61
1,3,5-TNB	20	22.7953	13.97
TETRYL	20	22.2460	11.23
1,3-DNB	20	21.3105	6.552
NB	20	22.6459	13.22
TNT	20	23.1972	15.98
4-AMINO	20	22.0528	10.26
2-AMINO	20	21.6669	8.334
2,6-DNT	20	22.8219	14.10
2,4-DNT	20	21.3411	6.705
2-NT	20	20.6014	3.007
4-NT	20	19.6698	-1.651
3-NT	20	25.8300	29.15

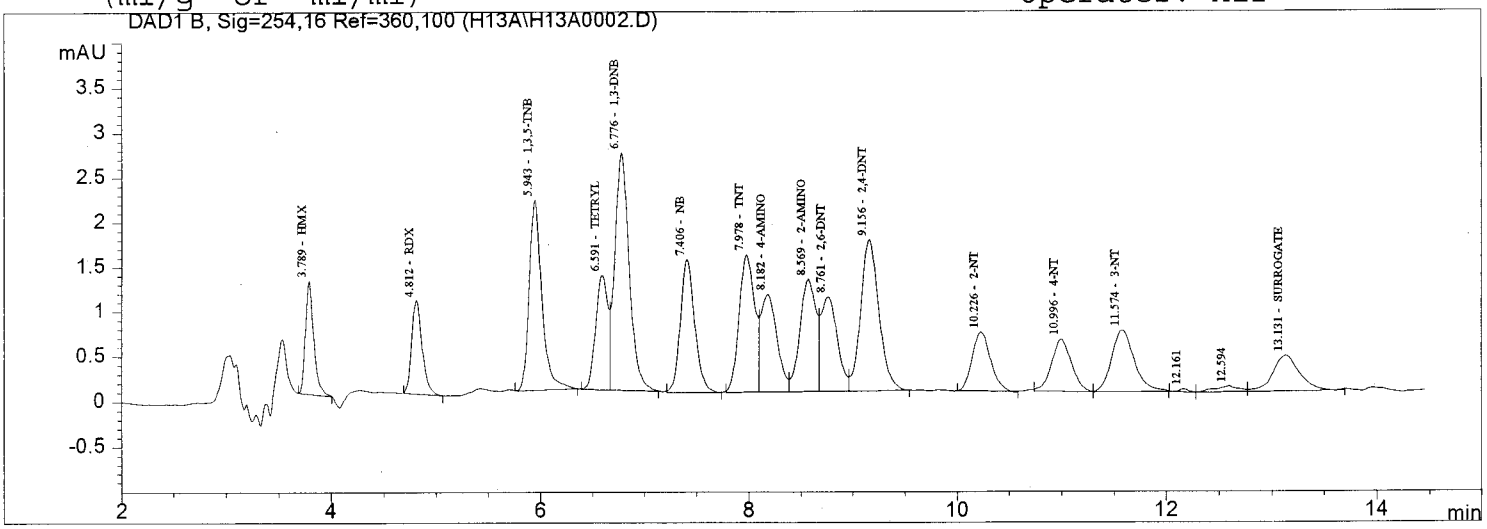
---Note: No criteria (for informational purposes only)

STL-KNOXVILLE Explosives Analysis

Sample Number: CCV LC1360 Print Time:8/13/03 09:53:36

Instrument Name: Ace Data Acquisition Time:8/13/03 09:37:13
Data File name: H:\ACE\DATA\H13A\H13A0002.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File: H:\ACE\SEQUENCE\H13A.S

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.789	3.789	HMX	1.26429	126.6647
2	4.812	4.812	RDX	1.04321	123.5111
3	5.943	5.943	1,3,5-TNB	2.12262	127.0652
4	6.591	6.591	TETRYL	1.28491	128.4959
5	6.776	6.776	1,3-DNB	2.65318	123.5449
6	7.406	7.406	NB	1.48182	123.7123
7	7.978	7.978	TNT	1.53385	127.1896
8	8.182	8.182	4-AMINO	1.08876	133.6639
9	8.569	8.569	2-AMINO	1.25272	124.5810
10	8.761	8.761	2,6-DNT	1.05345	127.0696
11	9.156	9.156	2,4-DNT	1.69010	124.6486
12	10.226	10.226	2-NT	0.65971	121.2928
13	10.996	10.996	4-NT	0.58528	133.8317
14	11.574	11.574	3-NT	0.69226	126.5364
15	0.000	12.161		0.03938	0.0000
16	0.000	12.594		0.06669	0.0000
17	13.131	13.131	SURROGATE	0.40094	80.0111

STL Knoxville
Check Standard Report

Sample Name: CCV LC1360
Analysis Time: 8/13/03 09:37:13
File Name: H:\ACE\DATA\H13A\H13A0002.D
Method: H:\ACE\METHOD\H13A.M

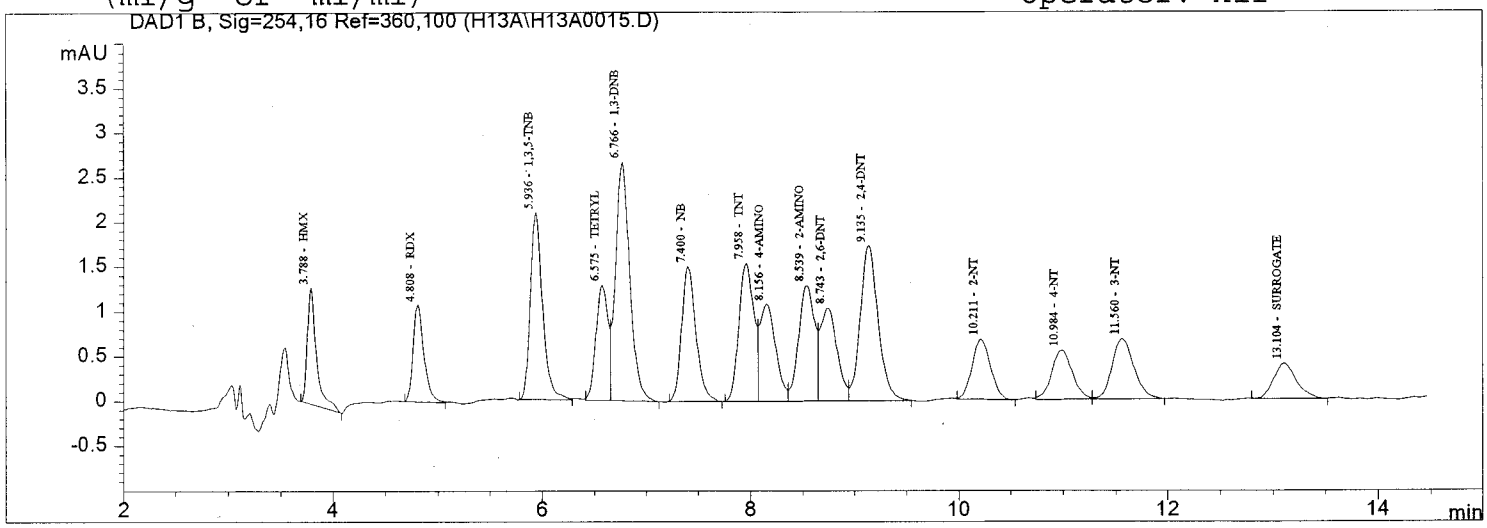
Component	Spike Amt.	Result	% Diff.
HMX	120	126.6647	5.5539
RDX	120	123.5111	2.9259
1,3,5-TNB	120	127.0652	5.8877
TETRYL	120	128.4959	7.0799
1,3-DNB	120	123.5449	2.9541
NB	120	123.7123	3.0936
TNT	120	127.1896	5.9913
4-AMINO	120	133.6639	11.3866
2-AMINO	120	124.5810	3.8175
2,6-DNT	120	127.0696	5.8913
2,4-DNT	120	124.6486	3.8738
2-NT	120	121.2928	1.0773
4-NT	120	133.8317	11.5264
3-NT	120	126.5364	5.447
SURROGATE	70.6	80.0111	13.3302

STL-KNOXVILLE Explosives Analysis

Sample Number: CCV LC1360 Print Time:8/13/03 13:50:24

Instrument Name: Ace Data Acquisition Time:8/13/03 13:35:18
Data File name: H:\ACE\DATA\H13A\H13A0015.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File: H:\ACE\SEQUENCE\H13A.S

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.789	3.788	HMX	1.29927	130.1694
2	4.812	4.808	RDX	1.08082	127.9635
3	5.943	5.936	1,3,5-TNB	2.08384	124.7439
4	6.591	6.575	TETRYL	1.28789	128.7940
5	6.776	6.766	1,3-DNB	2.66235	123.9716
6	7.406	7.400	NB	1.50177	125.3778
7	7.978	7.958	TNT	1.54004	127.7031
8	8.182	8.156	4-AMINO	1.08469	133.1643
9	8.569	8.539	2-AMINO	1.29365	128.6512
10	8.761	8.743	2,6-DNT	1.04426	125.9602
11	9.156	9.135	2,4-DNT	1.73040	127.6215
12	10.226	10.211	2-NT	0.67864	124.7721
13	10.996	10.984	4-NT	0.55054	125.8881
14	11.574	11.560	3-NT	0.67983	124.2656
15	13.131	13.104	SURROGATE	0.39988	79.7999

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STL Knoxville
Check Standard Report

Sample Name: CCV LC1360
Analysis Time: 8/13/03 13:35:18
File Name: H:\ACE\DATA\H13A\H13A0015.D
Method: H:\ACE\METHOD\H13A.M

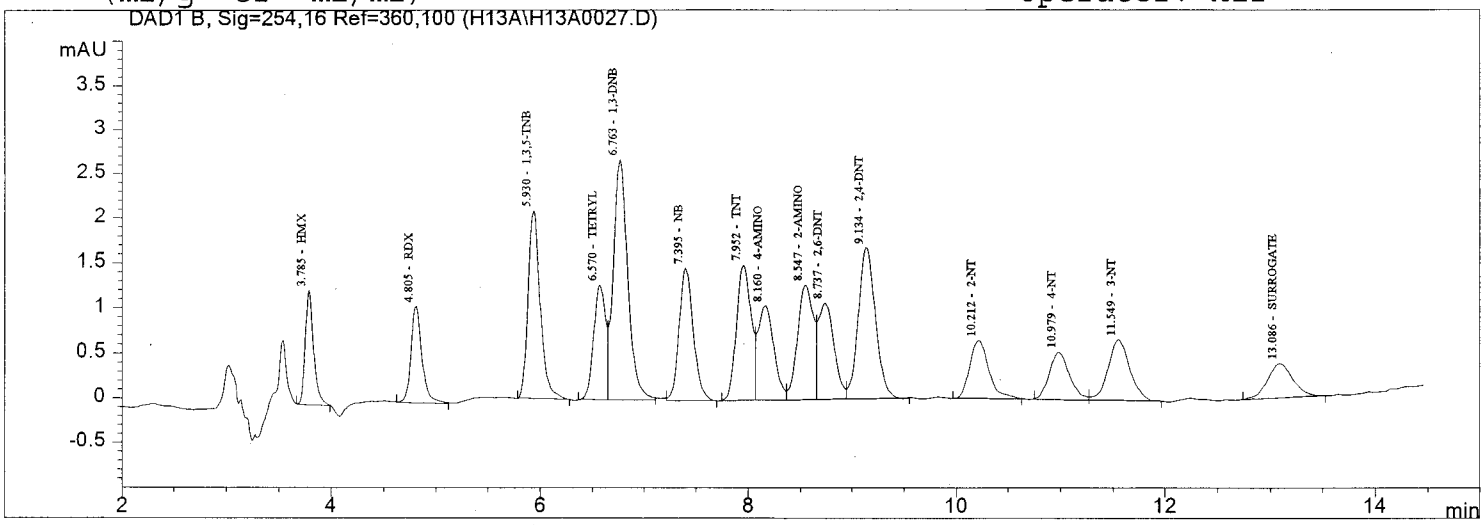
Component	Spike Amt.	Result	% Diff.
HMX	120	130.1694	8.4745
RDX	120	127.9635	6.6362
1,3,5-TNB	120	124.7439	3.9532
TETRYL	120	128.7940	7.3283
1,3-DNB	120	123.9716	3.3097
NB	120	125.3778	4.4815
TNT	120	127.7031	6.4193
4-AMINO	120	133.1643	10.9702
2-AMINO	120	128.6512	7.2093
2,6-DNT	120	125.9602	4.9668
2,4-DNT	120	127.6215	6.3512
2-NT	120	124.7721	3.9767
4-NT	120	125.8881	4.9067
3-NT	120	124.2656	3.5547
SURROGATE	70.6	79.7999	13.031

STL-KNOXVILLE Explosives Analysis

Sample Number: CCV LC1360 Print Time:8/14/03 14:46:40

Instrument Name: Ace Data Acquisition Time:8/13/03 17:12:37
Data File name: H:\ACE\DATA\H13A\H13A0027.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.789	3.785	HMX	1.27666	127.9039
2	4.812	4.805	RDX	1.07610	127.4050
3	5.943	5.930	1,3,5-TNB	2.08604	124.8759
4	6.591	6.570	TETRYL	1.27226	127.2317
5	6.776	6.763	1,3-DNB	2.67926	124.7590
6	7.406	7.395	NB	1.46939	122.6749
7	7.978	7.952	TNT	1.50296	124.6281
8	8.182	8.160	4-AMINO	1.04324	128.0754
9	8.569	8.547	2-AMINO	1.26764	126.0649
10	8.761	8.737	2,6-DNT	1.06499	128.4608
11	9.156	9.134	2,4-DNT	1.67401	123.4623
12	10.226	10.212	2-NT	0.64518	118.6212
13	10.996	10.979	4-NT	0.52559	120.1816
14	11.574	11.549	3-NT	0.67442	123.2751
15	13.131	13.086	SURROGATE	0.38364	76.5579

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STL Knoxville
Check Standard Report

Sample Name: CCV LC1360
Analysis Time: 8/13/03 17:12:37
File Name: H:\ACE\DATA\H13A\H13A0027.D
Method: H:\ACE\METHOD\H13A.M

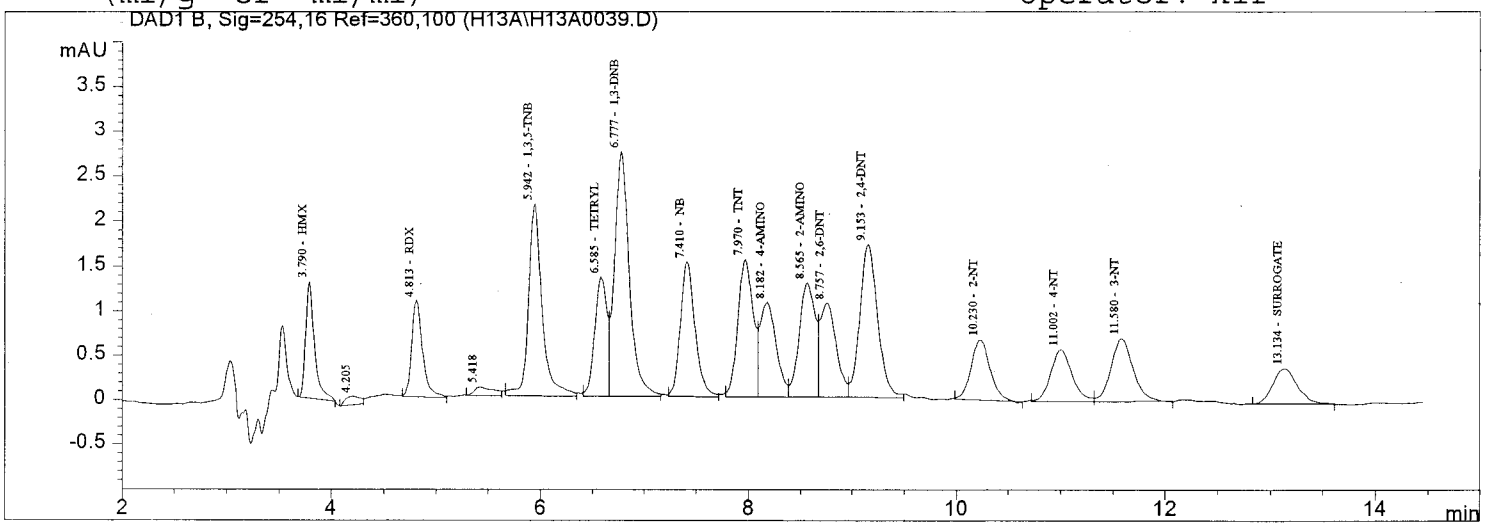
Component	Spike Amt.	Result	% Diff.
HMX	120	127.9039	6.5866
RDX	120	127.4050	6.1708
1,3,5-TNB	120	124.8759	4.0633
TETRYL	120	127.2317	6.0264
1,3-DNB	120	124.7590	3.9658
NB	120	122.6749	2.2291
TNT	120	124.6281	3.8568
4-AMINO	120	128.0754	6.7295
2-AMINO	120	126.0649	5.0541
2,6-DNT	120	128.4608	7.0507
2,4-DNT	120	123.4623	2.8852
2-NT	120	118.6212	-1.149
4-NT	120	120.1816	0.1513
3-NT	120	123.2751	2.7292
SURROGATE	70.6	76.5579	8.439

STL-KNOXVILLE Explosives Analysis

Sample Number: CCV LC1360 Print Time:8/14/03 14:47:38

Instrument Name: Ace Data Acquisition Time:8/13/03 20:49:54
Data File name: H:\ACE\DATA\H13A\H13A0039.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.789	3.790	HMX	1.31259	131.5044
2	0.000	4.205		0.09956	0.0000
3	4.812	4.813	RDX	1.08580	128.5541
4	0.000	5.418		0.09928	0.0000
5	5.943	5.942	1,3,5-TNB	2.14029	128.1229
6	6.591	6.585	TETRYL	1.33298	133.3034
7	6.776	6.777	1,3-DNB	2.72566	126.9196
8	7.406	7.410	NB	1.50935	126.0111
9	7.978	7.970	TNT	1.53951	127.6587
10	8.182	8.182	4-AMINO	1.06325	130.5321
11	8.569	8.565	2-AMINO	1.28773	128.0628
12	8.761	8.757	2,6-DNT	1.05946	127.7936
13	9.156	9.153	2,4-DNT	1.71212	126.2728
14	10.226	10.230	2-NT	0.68088	125.1841
15	10.996	11.002	4-NT	0.58147	132.9604
16	11.574	11.580	3-NT	0.70830	129.4691
17	13.131	13.134	SURROGATE	0.39702	79.2291

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STL Knoxville
Check Standard Report

Sample Name: CCV LC1360
Analysis Time: 8/13/03 20:49:54
File Name: H:\ACE\DATA\H13A\H13A0039.D
Method: H:\ACE\METHOD\H13A.M

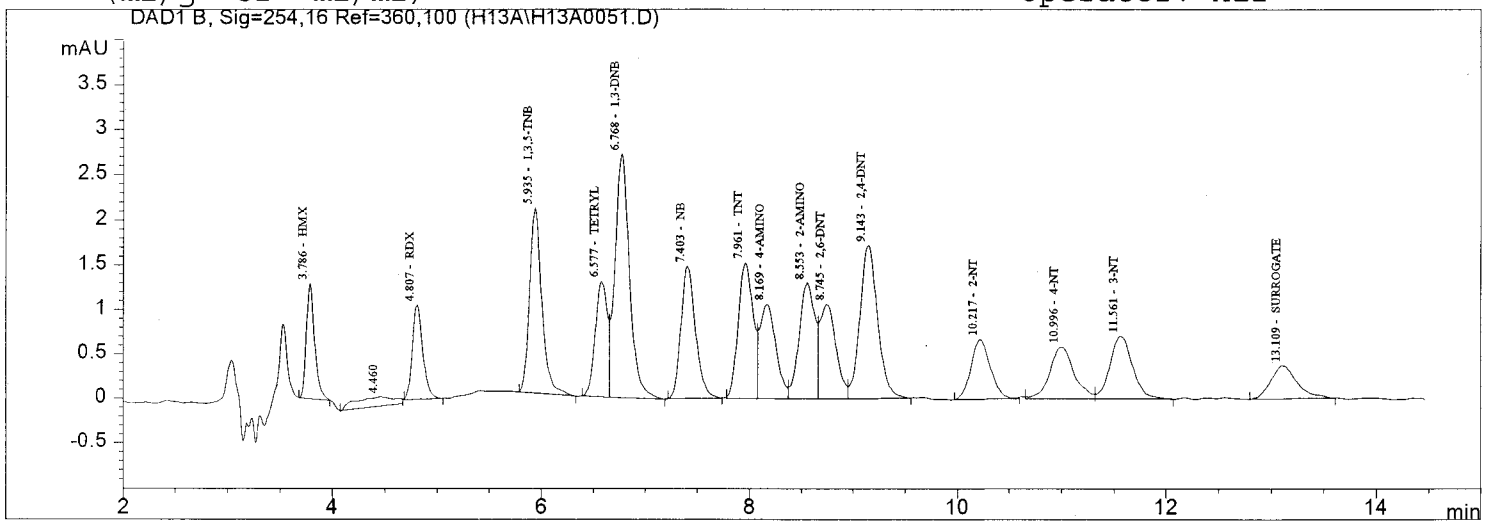
Component	Spike Amt.	Result	% Diff.
HMX	120	131.5044	9.587
RDX	120	128.5541	7.1284
1,3,5-TNB	120	128.1229	6.7691
TETRYL	120	133.3034	11.0862
1,3-DNB	120	126.9196	5.7663
NB	120	126.0111	5.0092
TNT	120	127.6587	6.3822
4-AMINO	120	130.5321	8.7768
2-AMINO	120	128.0628	6.719
2,6-DNT	120	127.7936	6.4947
2,4-DNT	120	126.2728	5.2273
2-NT	120	125.1841	4.3201
4-NT	120	132.9604	10.8003
3-NT	120	129.4691	7.8909
SURROGATE	70.6	79.2291	12.2225

STL-KNOXVILLE Explosives Analysis

Sample Number: CCV LC1360 Print Time:8/14/03 14:48:20

Instrument Name: Ace Data Acquisition Time:8/14/03 00:27:11
Data File name: H:\ACE\DATA\H13A\H13A0051.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.789	3.786	HMX	1.30012	130.2547
2	0.000	4.460		0.10730	0.0000
3	4.812	4.807	RDX	1.06193	125.7275
4	5.943	5.935	1,3,5-TNB	2.07273	124.0786
5	6.591	6.577	TETRYL	1.29712	129.7177
6	6.776	6.768	1,3-DNB	2.71533	126.4385
7	7.406	7.403	NB	1.48740	124.1784
8	7.978	7.961	TNT	1.52713	126.6323
9	8.182	8.169	4-AMINO	1.06012	130.1479
10	8.569	8.553	2-AMINO	1.29861	129.1448
11	8.761	8.745	2,6-DNT	1.06059	127.9306
12	9.156	9.143	2,4-DNT	1.71684	126.6209
13	10.226	10.217	2-NT	0.67442	123.9977
14	10.996	10.996	4-NT	0.58738	134.3116
15	11.574	11.561	3-NT	0.70692	129.2165
16	13.131	13.109	SURROGATE	0.37639	75.1117

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STL Knoxville
Check Standard Report

Sample Name: CCV LC1360
Analysis Time: 8/14/03 00:27:11
File Name: H:\ACE\DATA\H13A\H13A0051.D
Method: H:\ACE\METHOD\H13A.M

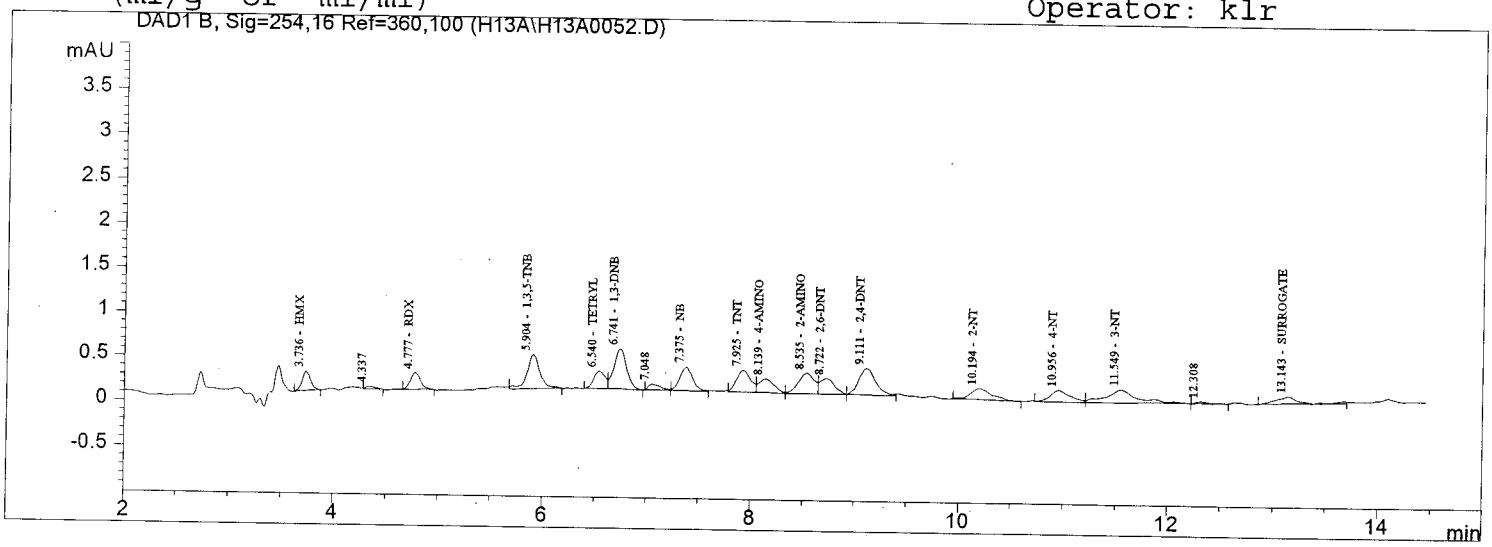
Component	Spike Amt.	Result	% Diff.
HMX	120	130.2547	8.5456
RDX	120	125.7275	4.7729
1,3,5-TNB	120	124.0786	3.3988
TETRYL	120	129.7177	8.0981
1,3-DNB	120	126.4385	5.3654
NB	120	124.1784	3.482
TNT	120	126.6323	5.5269
4-AMINO	120	130.1479	8.4566
2-AMINO	120	129.1448	7.6207
2,6-DNT	120	127.9306	6.6088
2,4-DNT	120	126.6209	5.5174
2-NT	120	123.9977	3.3314
4-NT	120	134.3116	11.9263
3-NT	120	129.2165	7.6804
SURROGATE	70.6	75.1117	6.3905

STL-KNOXVILLE Explosives Analysis

Sample Number: MRL LC1360 Print Time:8/14/03 01:00:05

Instrument Name: Ace Data Acquisition Time:8/14/03 00:44:57
Data File name: H:\ACE\DATA\H13A\H13A0052.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File: H:\ACE\SEQUENCE\H13A.S

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 5.000
(Final Vol / Sample Amt)
(ml/g or ml/ml)
Operator: klr



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.789	3.736	HMX	0.22058	22.0987
2	0.000	4.337		0.03656	0.0000
3	4.812	4.777	RDX	0.19070	22.5778
4	5.943	5.904	1,3,5-TNB	0.38313	22.9353
5	6.591	6.540	TETRYL	0.19601	19.6014
6	6.776	6.741	1,3-DNB	0.44910	20.9123
7	0.000	7.048		0.06450	0.0000
8	7.406	7.375	NB	0.26320	21.9736
9	7.978	7.925	TNT	0.24349	20.1905
10	8.182	8.139	4-AMINO	0.15255	18.7276
11	8.569	8.535	2-AMINO	0.22852	22.7260
12	8.761	8.722	2,6-DNT	0.17493	21.0999
13	9.156	9.111	2,4-DNT	0.29686	21.8943
14	10.226	10.194	2-NT	0.11964	21.9970
15	10.996	10.956	4-NT	0.12825	29.3263
16	11.574	11.549	3-NT	0.14266	26.0762
17	0.000	12.308		0.02547	0.0000
18	13.131	13.143	SURROGATE	0.08636	17.2339

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STL Knoxville

Reporting Limit Check Standard Report

Sample Name: MRL LC1360
Analysis Time: 8/14/03 00:44:57
File Name: H:\ACE\DATA\H13A\H13A0052.D
Method: H:\ACE\METHOD\H13A.M

Component	Spike Amt.	Result	% Diff.
HMX	20	22.0987	10.49
RDX	20	22.5778	12.88
1,3,5-TNB	20	22.9353	14.67
TETRYL	20	19.6014	-1.992
1,3-DNB	20	20.9123	4.561
NB	20	21.9736	9.868
TNT	20	20.1905	.9525
4-AMINO	20	18.7276	-6.362
2-AMINO	20	22.7260	13.63
2,6-DNT	20	21.0999	5.499
2,4-DNT	20	21.8943	9.471
2-NT	20	21.9970	9.985
4-NT	20	29.3263	46.63
3-NT	20	26.0762	30.38

---Note: No criteria (for informational purposes only)

STL Knoxville HPLC Initial Calibration Data Review / Narrative Checklist
Method: 8330 - KNOX-LC-0001 Rev 7
Page 1 of 1 (Confirmation ICAL)

Analysis Date:	8/12/03	Instrument/File ID:	H125/TICAL	Scanned ☐

Review Items **A. Initial Calibration**	Yes	No	NA	2nd ✓	If No, why is data reportable?
1. Were at least ***5-levels*** of each analyte and surrogate analyzed?	✓			✓	
2. Were ***all standard used*** in the curve?	✓			✓	☐ [ic1] Lowest std removed, but RL adjusted. ☐ [ic2] Highest std removed, but linear range adjusted. ☐ [ic3] Std _____ reanalyzed, and reanalysis used.
3. Is low level standard concentration ≤ ***RL***?	✓			✓	
4. Are ***%RSD*** ≤20% or ***correlation*** coefficients ≥0.995? (No 2nd or 3rd order curves allowed.)	✓			✓	
5. Was a ***2nd source*** verification standard analyzed & were calculated concentrations < ***30%D*** from cal. std?	✓			✓	
6. Was each run checked for ***saturation***?	✓			✓	
7. Is ***integration*** acceptable?	✓			✓	
8. If ***manual integrations*** were performed, are they clearly identified, initialed, dated and reason given?	✓			✓	Reasons: 1) Corrected split peak; 2) Unresolved peak; 3) Tailing; 4) RT shift; 5) Wrong peak selected; 6) Other
9. Was ICAL method file processed using the ***correct data files***? (Analyst should compare area or peak height on chromatograms to calibration summary for all analytes. 2nd level reviewer should check 20% of analytes.)	✓			✓	
10. Were the standards ***scanned properly***?	✓				

Analyst: KJM	Date: 8/13/03	2nd Level Reviewer : L	Date: 8/13/03
Comments:		Comments:	

STL KNOXVILLE--EXPLOSIVES RUNLOG

Operator: KM
PM Performed: No
Inj. Vol.: 30ul
Instrument: SEMEKA

Sample ID	File Name	Dilution	Run Time
ICAL#1 LC1354	H12SC001.D	1.000	8/12/03 16:51:07
ICAL #2 LC135	H12SC002.D	1.000	8/12/03 17:17:33
ICAL#3 LC1354	H12SC003.D	1.000	8/12/03 17:44:10
ICAL#4 LC1355	H12SC004.D	1.000	8/12/03 18:10:45
ICAL#5 LC1355	H12SC005.D	1.000	8/12/03 18:37:08
ICAL#6 LC1355	H12SC006.D	1.000	8/12/03 19:03:46
8330 ICV LC13	H12SC007.D	1.000	8/12/03 19:30:29
ICAL#1 LC1357	H12SC008.D	1.000	8/12/03 19:57:06
ICAL#2 LC1357	H12SC009.D	1.000	8/12/03 20:22:25
ICAL#3 LC1357	H12SC010.D	1.000	8/12/03 20:47:54
ICAL#4 LC1358	H12SC011.D	1.000	8/12/03 21:13:28
ICAL#5 LC1358	H12SC012.D	1.000	8/12/03 21:38:55
ICAL#6 LC1358	H12SC013.D	1.000	8/12/03 22:04:29
NG ICV LC1359	H12SC014.D	1.000	8/12/03 22:30:09

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Calibration Table

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Calib. Data Modified : Wednesday, August 13, 2003 8:21:06 AM

Calculate : External Standard
Based on : Peak Height

Rel. Reference Window : 4.000 %
Abs. Reference Window : 0.000 min
Rel. Non-ref. Window : 4.000 %
Abs. Non-ref. Window : 0.000 min
Uncalibrated Peaks : not reported
Partial Calibration : No recalibration if peaks missing

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Average all calibrations

Calibration Report Options :
Printout of recalibrations within a sequence:
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 [ppb]	Height	Amt/Height	Ref	Grp	Name
3.519	1	1	20.00000	3.52813e-1	56.68719			1,3,5-TNB
		2	60.00000	1.07345	55.89429			
		3	120.00000	2.04790	58.59648			
		4	240.00000	4.22476	56.80802			
		5	480.00000	8.44278	56.85330			
		6	960.00000	16.38799	58.57947			
3.835	1	1	20.00000	1.03661e-1	192.93617			HMX
		2	60.00000	2.98779e-1	200.81758			
		3	120.00000	5.98289e-1	200.57204			
		4	240.00000	1.12559	213.22188			
		5	480.00000	2.33596	205.48329			
		6	960.00000	4.72998	202.96065			
4.572	1	1	20.00000	1.20209e-1	166.37743			RDX
		2	60.00000	3.56152e-1	168.46759			
		3	120.00000	6.25503e-1	191.84551			
		4	240.00000	1.36571	175.73238			
		5	480.00000	2.76294	173.72811			
		6	960.00000	4.89525	196.10861			
5.778	1	1	20.00000	3.11169e-1	64.27385			1,3-DNB
		2	60.00000	9.21597e-1	65.10439			
		3	120.00000	1.61290	74.39996			
		4	240.00000	3.77102	63.64319			

RetTime [min]	Sig	Lvl	Amount [ppb]	Height	Amt/Height	Ref	Grp	Name
		5	480.00000	7.36278	65.19274			
		6	960.00000	12.82151	74.87416			
6.569	1	1	20.00000	1.96309e-1	101.88029			TNT
		2	60.00000	6.03240e-1	99.46283			
		3	120.00000	1.15369	104.01434			
		4	240.00000	2.41477	99.38849			
		5	480.00000	4.89097	98.14007			
		6	960.00000	9.32794	102.91658			
8.158	1	1	20.00000	1.25362e-1	159.53780			NB
		2	60.00000	3.59268e-1	167.00648			
		3	120.00000	6.02528e-1	199.16076			
		4	240.00000	1.51441	158.47739			
		5	480.00000	3.00008	159.99574			
		6	960.00000	4.92916	194.75944			
8.788	1	1	20.00000	1.03794e-1	192.68942			TETRYL
		2	60.00000	3.11251e-1	192.77022			
		3	120.00000	6.03105e-1	198.97044			
		4	240.00000	1.23754	193.93380			
		5	480.00000	2.59196	185.18834			
		6	960.00000	4.95340	193.80612			
11.542	1	1	20.00000	1.43957e-1	138.93059			2,4-DNT
		2	60.00000	4.06104e-1	147.74544			
		3	120.00000	7.41992e-1	161.72671			
		4	240.00000	1.68353	142.55757			
		5	480.00000	3.30437	145.26227			
		6	960.00000	5.91330	162.34584			
13.753	1	1	20.00000	7.69420e-2	259.93619			2,6-DNT
		2	60.00000	2.15166e-1	278.85508			
		3	120.00000	3.91706e-1	306.35250			
		4	240.00000	8.72231e-1	275.15643			
		5	480.00000	1.73475	276.69755			
		6	960.00000	3.09622	310.05565			
15.940	1	1	20.00000	5.54425e-2	360.73394			2-AMINO
		2	60.00000	1.70775e-1	351.33946			
		3	120.00000	2.86422e-1	418.96269			
		4	240.00000	6.92418e-1	346.61133			
		5	480.00000	1.36103	352.67433			
		6	960.00000	2.34189	409.92559			
17.633	1	1	20.00000	4.69133e-2	426.31803			4-AMINO
		2	60.00000	1.22734e-1	488.86143			
		3	120.00000	2.04248e-1	587.52098			
		4	240.00000	5.44866e-1	440.47511			
		5	480.00000	1.06207	451.94690			
		6	960.00000	1.82055	527.31391			
18.646	1	1	20.00000	2.79601e-2	715.30600			4-NT
		2	60.00000	6.87657e-2	872.52849			
		3	120.00000	1.52081e-1	789.05406			
		4	240.00000	3.09751e-1	774.81500			
		5	480.00000	6.16457e-1	778.64306			
		6	960.00000	1.36015	705.80452			
18.938	1	1	20.00000	4.44368e-2	450.07763			2-NT
		2	60.00000	1.11277e-1	539.19513			
		3	120.00000	1.88361e-1	637.07328			
		4	240.00000	4.60696e-1	520.95090			
		5	480.00000	8.98428e-1	534.26661			
		6	960.00000	1.65857	578.81143			

RetTime [min]	Sig	Lvl	Amount [ppb]	Height	Amt/Height	Ref	Grp	Name
20.951	1	1	20.00000	3.76217e-2	531.60762			3-NT
		2	60.00000	7.88378e-2	761.05663			
		3	120.00000	1.52475e-1	787.01519			
		4	240.00000	3.61888e-1	663.18857			
		5	480.00000	7.27913e-1	659.41907			
		6	960.00000	1.29984	738.55028			
23.094	1	1	11.77000	2.78093e-2	423.24011			SURROGATE
		2	35.30000	5.15792e-2	684.38406			
		3	70.60000	1.01332e-1	696.72286			
		4	141.20000	2.30677e-1	612.11204			
		5	282.40000	4.60073e-1	613.81512			
		6	564.80000	8.21132e-1	687.83099			

1 Warnings or Errors :

Warning : Overlapping peak time windows at 18.646 min, signal 1

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Peak Sum Table

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No Entries in table

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Calibration Curves

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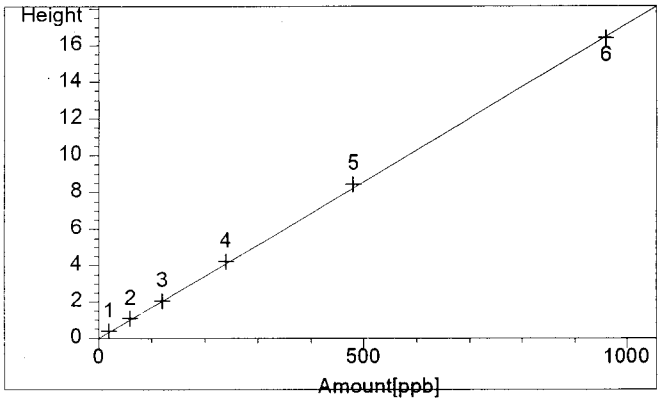
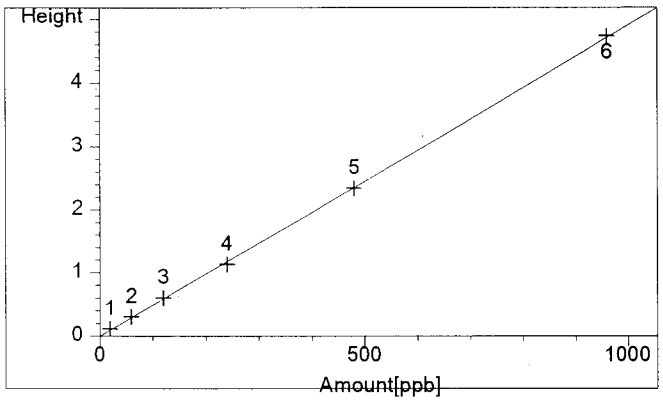
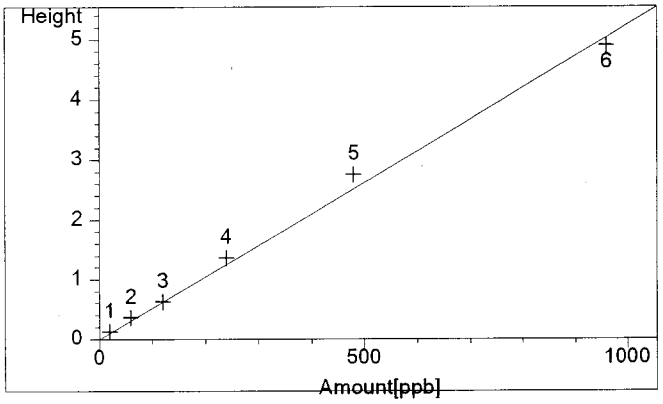


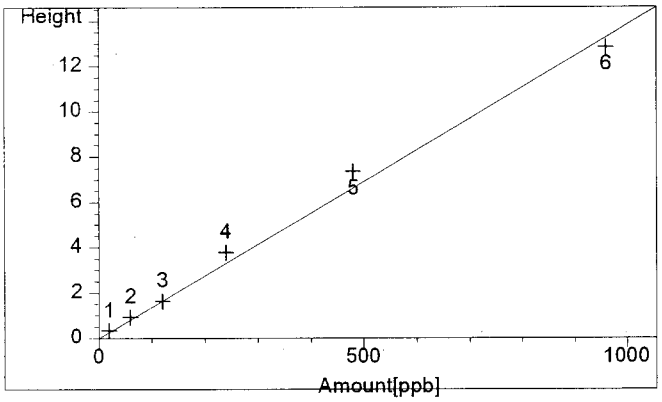
1,3,5-TNB at exp. RT: 3.519
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99992
Residual Std. Dev.: 0.11105
Formula: y = mx
m: 1.71956e-2
x: Amount[ppb]
y: Height



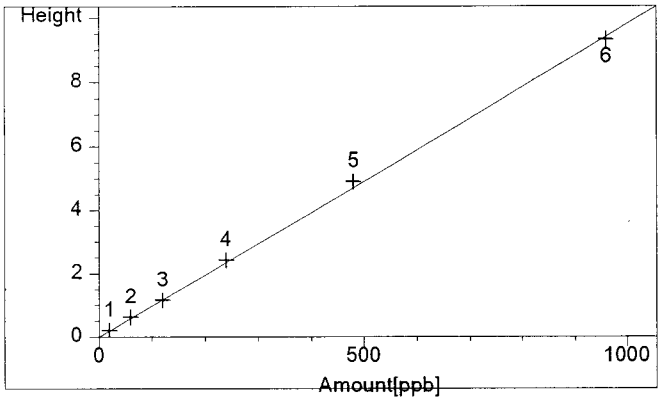
HMX at exp. RT: 3.835
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99994
Residual Std. Dev.: 0.02682
Formula: y = mx
m: 4.90552e-3
x: Amount[ppb]
y: Height



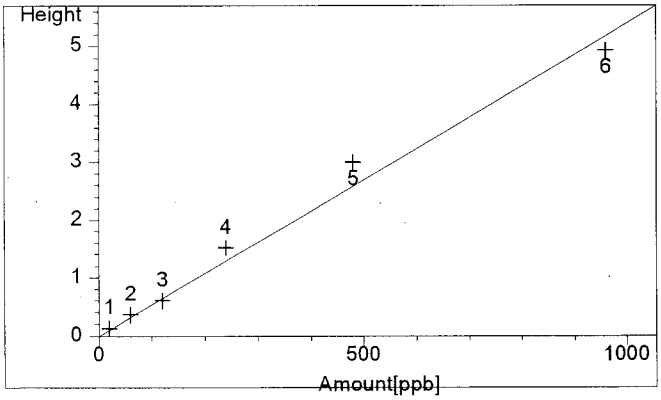
RDX at exp. RT: 4.572
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99863
Residual Std. Dev.: 0.13643
Formula: y = mx
m: 5.25428e-3
x: Amount[ppb]
y: Height



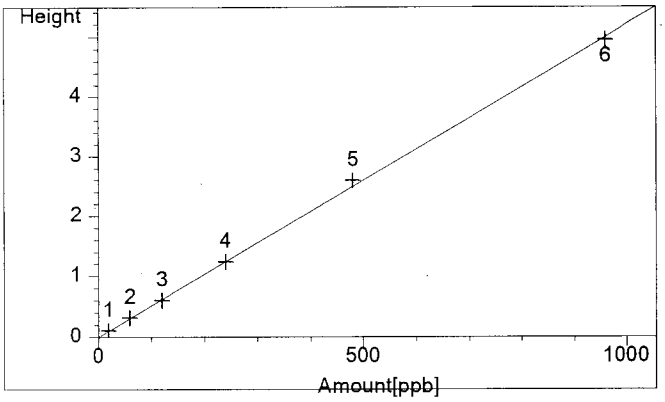
1,3-DNB at exp. RT: 5.778
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99799
Residual Std. Dev.: 0.43535
Formula: y = mx
m: 1.38460e-2
x: Amount[ppb]
y: Height



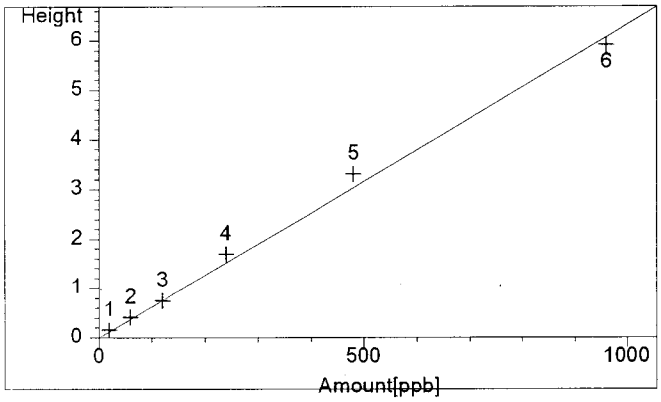
TNT at exp. RT: 6.569
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99981
Residual Std. Dev.: 0.09537
Formula: y = mx
m: 9.82133e-3
x: Amount[ppb]
y: Height



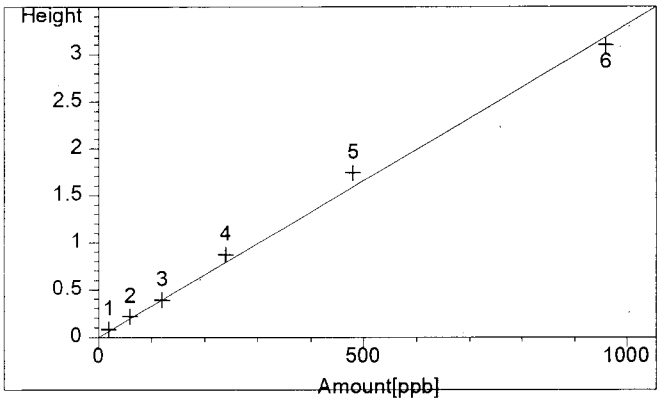
NB at exp. RT: 8.158
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99608
Residual Std. Dev.: 0.23782
Formula: y = mx
m: 5.40053e-3
x: Amount[ppb]
y: Height



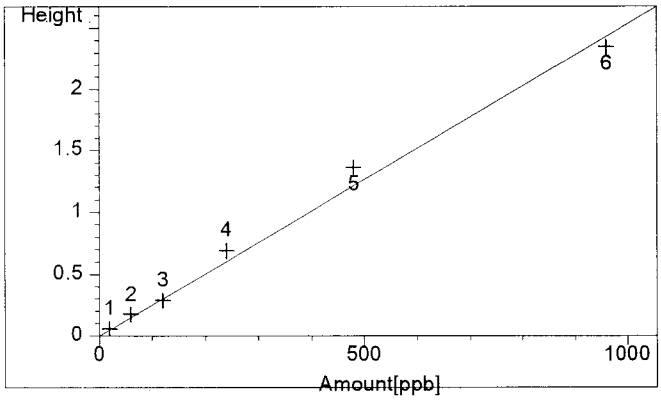
TETRYL at exp. RT: 8.788
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99983
Residual Std. Dev.: 0.04739
Formula: y = mx
m: 5.20321e-3
x: Amount[ppb]
y: Height



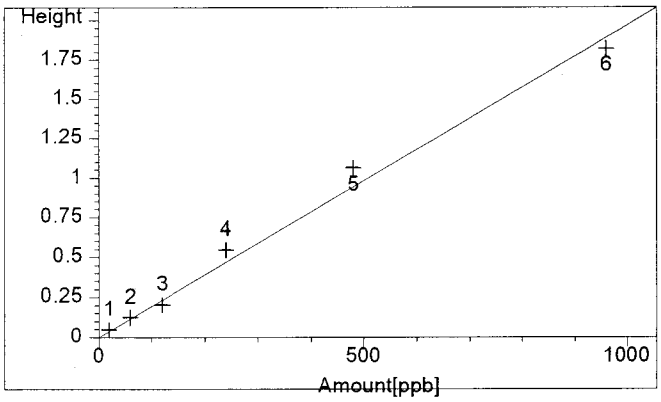
2,4-DNT at exp. RT: 11.542
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99873
Residual Std. Dev.: 0.15855
Formula: y = mx
m: 6.33811e-3
x: Amount[ppb]
y: Height



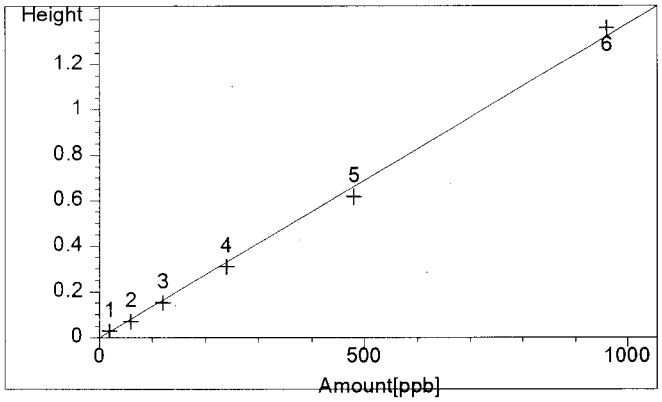
2,6-DNT at exp. RT: 13.753
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99873
Residual Std. Dev.: 0.08282
Formula: y = mx
m: 3.31909e-3
x: Amount[ppb]
y: Height



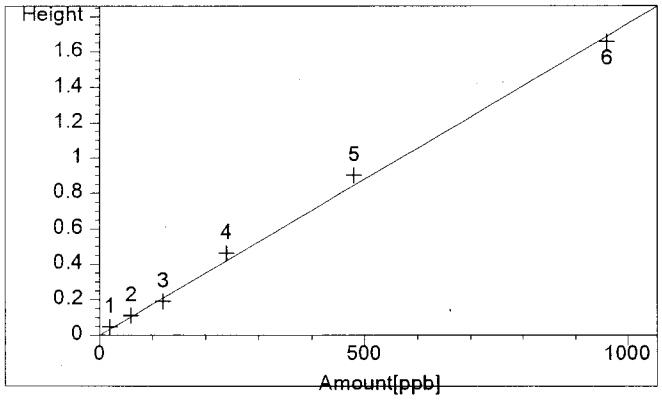
2-AMINO at exp. RT: 15.940
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99767
Residual Std. Dev.: 0.08598
Formula: y = mx
m: 2.53535e-3
x: Amount[ppb]
y: Height



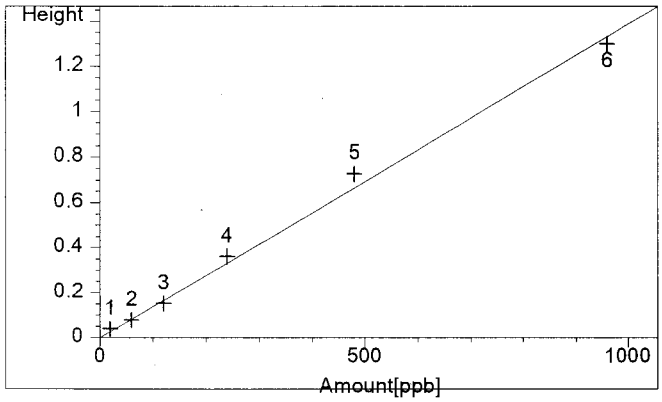
4-AMINO at exp. RT: 17.633
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99741
Residual Std. Dev.: 0.07051
Formula: y = mx
m: 1.97158e-3
x: Amount[ppb]
y: Height



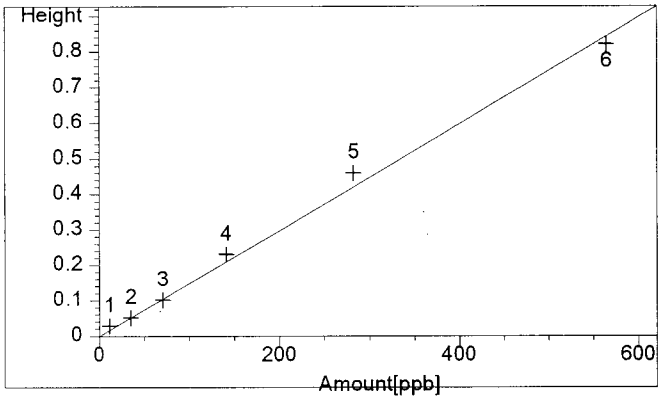
4-NT at exp. RT: 18.646
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99911
Residual Std. Dev.: 0.02893
Formula: y = mx
m: 1.38348e-3
x: Amount[ppb]
y: Height



2-NT at exp. RT: 18.938
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99922
Residual Std. Dev.: 0.03446
Formula: y = mx
m: 1.76239e-3
x: Amount[ppb]
y: Height



3-NT at exp. RT: 20.951
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99874
Residual Std. Dev.: 0.03465
Formula: y = mx
m: 1.39078e-3
x: Amount[ppb]
y: Height



SURROGATE at exp. RT: 23.094
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99870
Residual Std. Dev.: 0.02228
Formula: y = mx
m: 1.49527e-3
x: Amount[ppb]
y: Height

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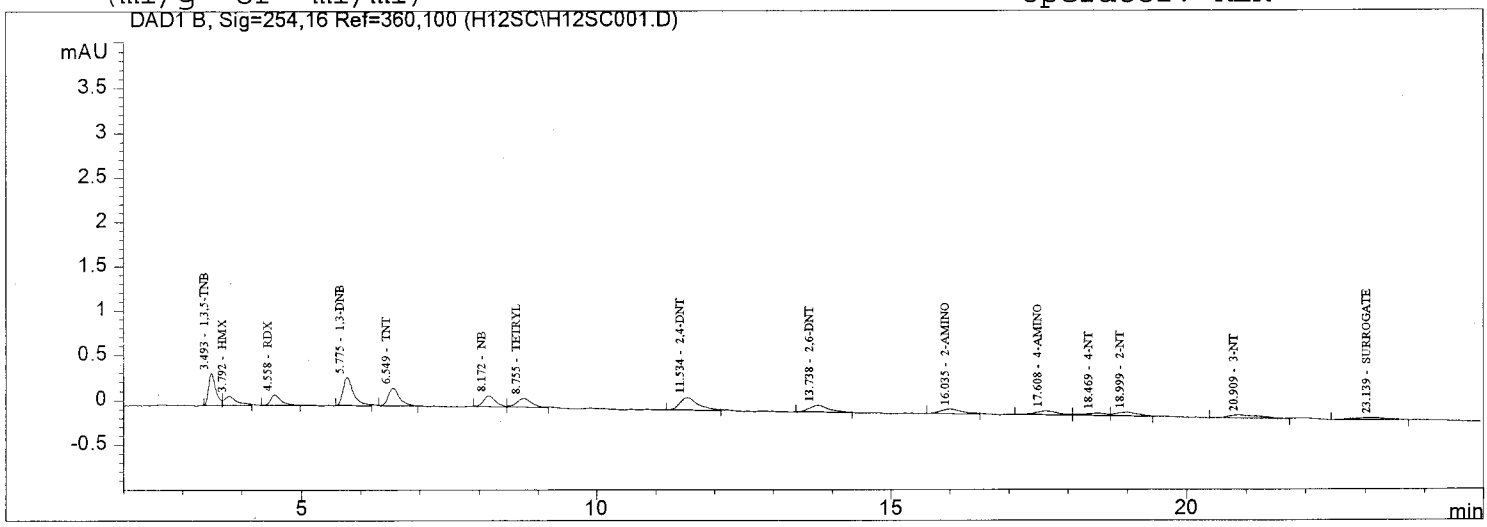
STL-KNOXVILLE Explosives Confirmation Analysis

Sample Number: ICAL#1 LC1354 Print Time:8/13/03 08:17:03
8330 20PPM ->
Instrument Name: Semika Data Acquisition Time:8/12/03 16:51:07
Data File name: H:\SEMEKA\DATA\H12SC\H12SC001.D
Method File: H:\SEMEKA\METHODS\H12SICAL.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 6.670
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: KLR

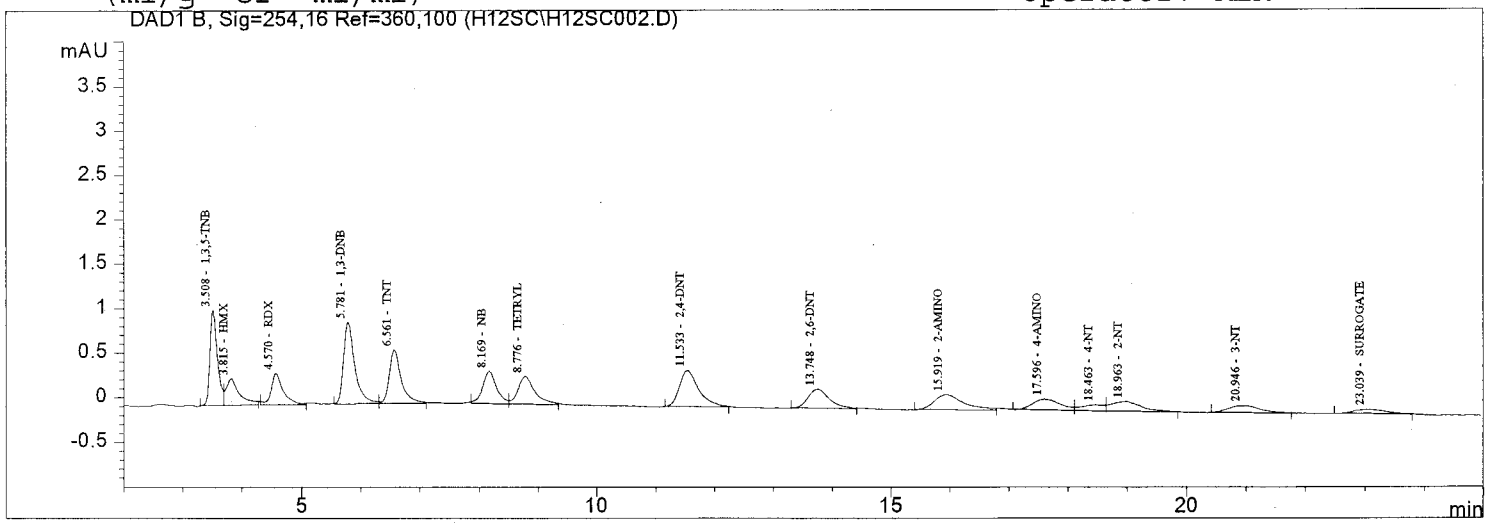


#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.493	3.493	1,3,5-TNB	0.35281	28.6331
2	3.792	3.792	HMX	0.10366	32.2694
3	4.558	4.558	RDX	0.12021	29.8030
4	5.775	5.775	1,3-DNB	0.31117	29.0886
5	6.549	6.549	TNT	0.19631	27.5982
6	8.172	8.172	NB	0.12536	28.7533
7	8.755	8.755	TETRYL	0.10379	28.7342
8	11.534	11.534	2,4-DNT	0.14396	29.2385
9	13.738	13.738	2,6-DNT	0.07694	29.5152
10	16.035	16.035	2-AMINO	0.05544	26.7508
11	17.608	17.608	4-AMINO	0.04691	29.0222
12	18.469	18.469	4-NT	0.02796	28.9951
13	18.999	18.999	2-NT	0.04444	32.2585
14	20.909	20.909	3-NT	0.03762	35.0987
15	23.139	23.139	SURROGATE	0.02781	24.6605

STL-KNOXVILLE Explosives Confirmation Analysis

Sample Number: ICAL #2 LC1354 Print Time:8/13/03 08:14:30
8830 60PPM ->
Instrument Name: Semika Data Acquisition Time:8/12/03 17:17:33
Data File name: H:\SEMEKA\DATA\H12SC\H12SC002.D
Method File: H:\SEMEKA\METHODS\H12SICAL.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 20.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: KLR

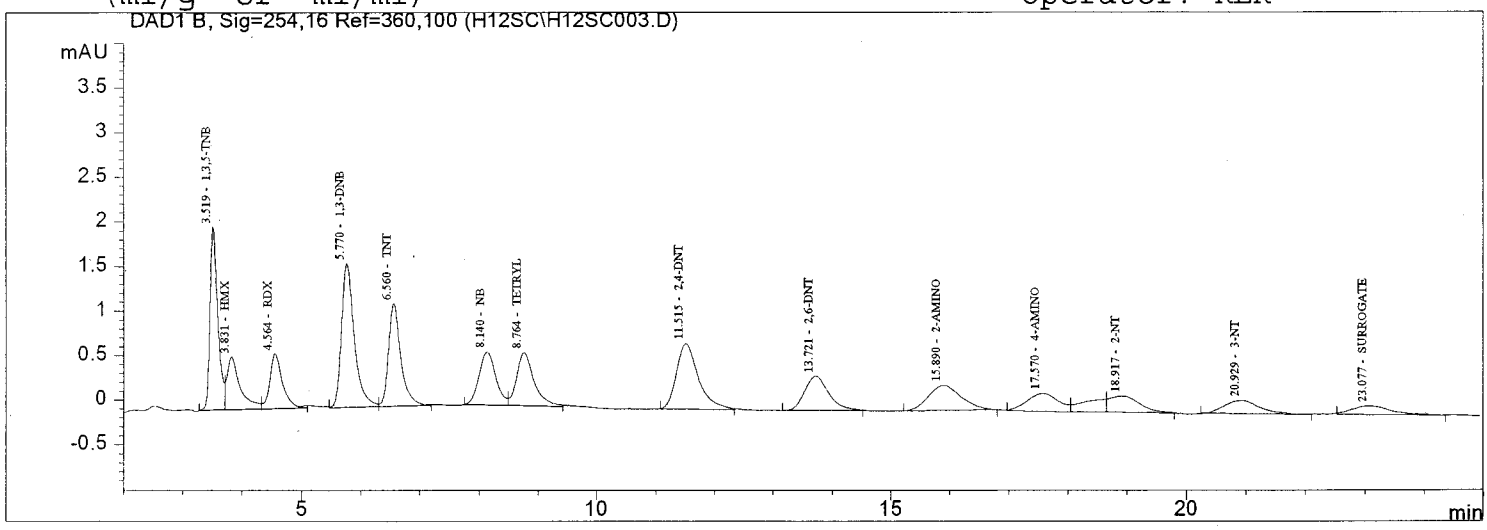


#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.493	3.508	1,3,5-TNB	1.07345	87.2309
2	3.792	3.815	HMX	0.29878	93.1667
3	4.558	4.570	RDX	0.35615	88.4194
4	5.775	5.781	1,3-DNB	0.92160	86.2512
5	6.549	6.561	TNT	0.60324	84.9139
6	8.172	8.169	NB	0.35927	82.4748
7	8.755	8.776	TETRYL	0.31125	86.2807
8	11.534	11.533	2,4-DNT	0.40610	82.5630
9	13.738	13.748	2,6-DNT	0.21517	82.6149
10	16.035	15.919	2-AMINO	0.17078	82.4811
11	17.608	17.596	4-AMINO	0.12273	75.9817
12	18.472	18.463	4-NT	0.06877	71.3898
13	18.994	18.963	2-NT	0.11128	80.8515
14	20.909	20.946	3-NT	0.07884	73.5941
15	23.152	23.039	SURROGATE	0.05158	45.7512

STL-KNOXVILLE Explosives Confirmation Analysis

Sample Number: ICAL#3 LC1354 Print Time:8/13/03 08:18:32
8330 120PPM ->
Instrument Name: Semika Data Acquisition Time:8/12/03 17:44:10
Data File name: H:\SEMEKA\DATA\H12SC\H12SC003.D
Method File: H:\SEMEKA\METHODS\H12SICAL.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 40.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: KLR

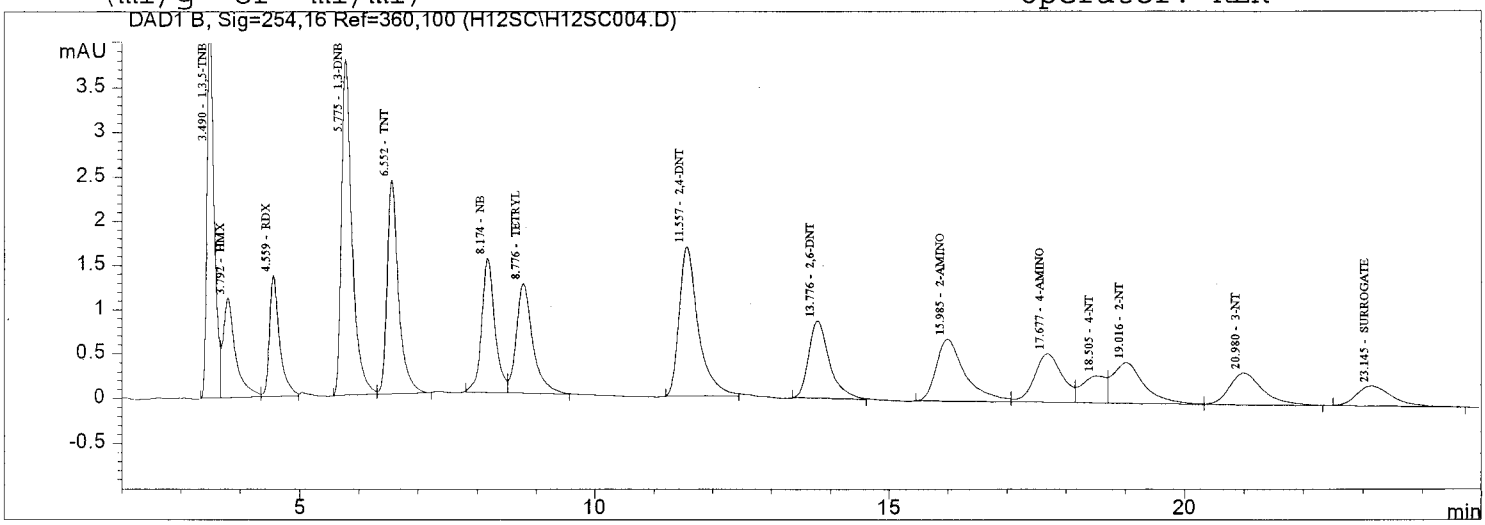


#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.519	3.519	1,3,5-TNB	2.04790	165.4563
2	3.831	3.831	HMX	0.59829	185.0673
3	4.564	4.564	RDX	0.62550	154.5349
4	5.770	5.770	1,3-DNB	1.61290	150.3177
5	6.560	6.560	TNT	1.15369	161.5016
6	8.140	8.140	NB	0.60253	137.8990
7	8.764	8.764	TETRYL	0.60310	166.1544
8	11.515	11.515	2,4-DNT	0.74199	150.2162
9	13.721	13.721	2,6-DNT	0.39171	149.7733
10	15.890	15.890	2-AMINO	0.28642	137.8990
11	17.570	17.570	4-AMINO	0.20425	126.2150
12	18.650	18.650	4-NT	0.15208	157.0721
13	18.917	18.917	2-NT	0.18836	136.4546
14	20.929	20.929	3-NT	0.15247	141.9384
15	23.077	23.077	SURROGATE	0.10133	89.5381

STL-KNOXVILLE Explosives Confirmation Analysis

Sample Number: ICAL#4 LC1355 Print Time:8/13/03 08:19:07
8330 240PPM ->
Instrument Name: Semika Data Acquisition Time:8/12/03 18:10:45
Data File name: H:\SEMEKA\DATA\H12SC\H12SC004.D
Method File: H:\SEMEKA\METHODS\H12SICAL.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 10.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: KLR

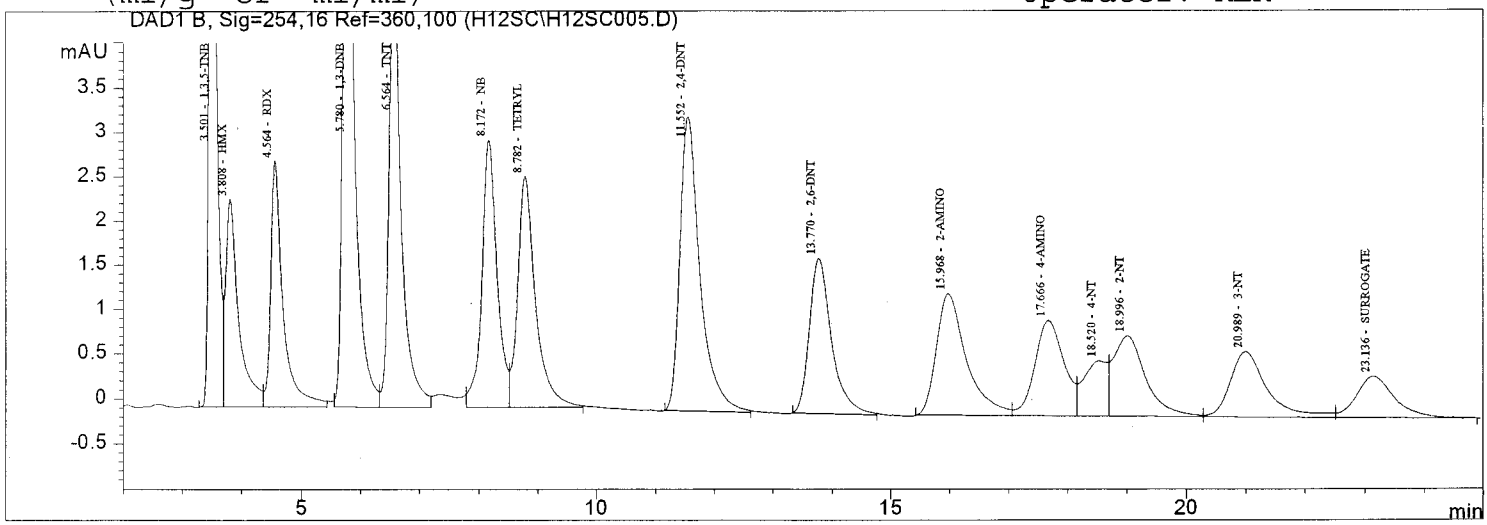


#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.490	3.490	1,3,5-TNB	4.22476	334.9096
2	3.792	3.792	HMX	1.12559	340.7551
3	4.559	4.559	RDX	1.36571	332.0457
4	5.775	5.775	1,3-DNB	3.77102	345.1898
5	6.552	6.552	TNT	2.41477	331.9098
6	8.174	8.174	NB	1.51441	341.3777
7	8.776	8.776	TETRYL	1.23754	334.4141
8	11.557	11.557	2,4-DNT	1.68353	335.0714
9	13.776	13.776	2,6-DNT	0.87223	328.1615
10	15.985	15.985	2-AMINO	0.69242	328.4373
11	17.677	17.677	4-AMINO	0.54487	331.4777
12	18.505	18.505	4-NT	0.30975	314.2500
13	19.016	19.016	2-NT	0.46070	328.2188
14	20.980	20.980	3-NT	0.36189	331.3113
15	23.145	23.145	SURROGATE	0.23068	199.9420

STL-KNOXVILLE Explosives Confirmation Analysis

Sample Number: ICAL#5 LC1355 Print Time:8/13/03 08:19:45
8330 480PPM ->
Instrument Name: Semika Data Acquisition Time:8/12/03 18:37:08
Data File name: H:\SEMEKA\DATA\H12SC\H12SC005.D
Method File: H:\SEMEKA\METHODS\H12SICAL.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 20.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: KLR

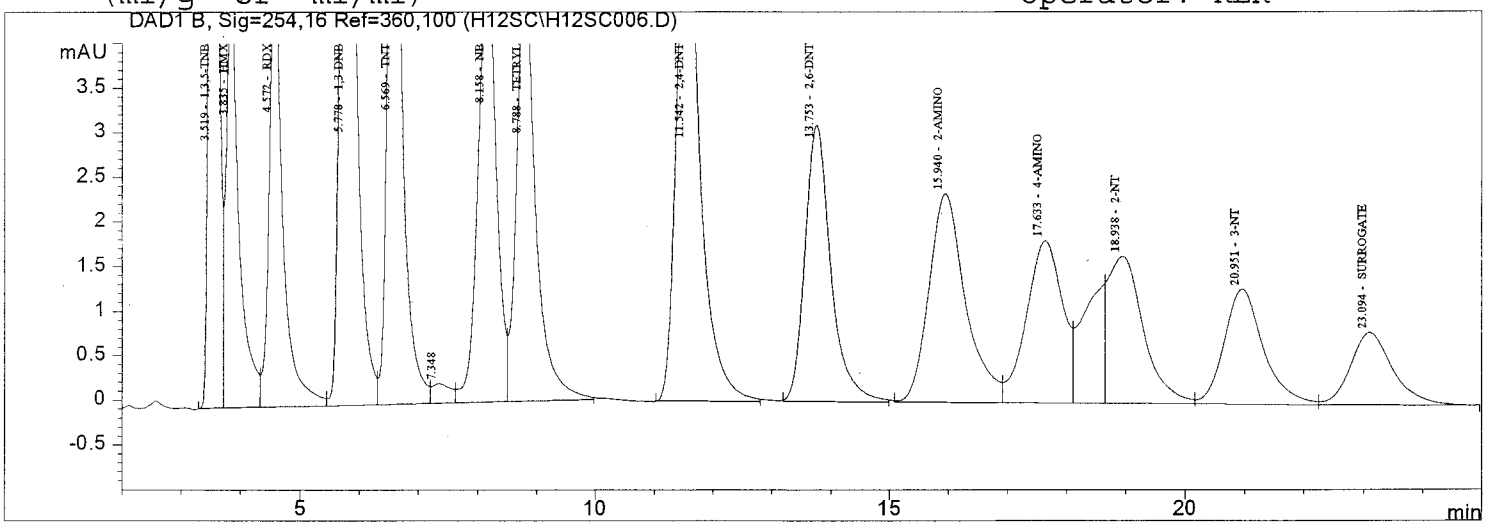


#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.501	3.501	1,3,5-TNB	8.44278	621.6280
2	3.808	3.808	HMX	2.33596	645.3920
3	4.564	4.564	RDX	2.76294	627.0584
4	5.780	5.780	1,3-DNB	7.36278	630.4362
5	6.564	6.564	TNT	4.89097	624.1132
6	8.172	8.172	NB	3.00008	635.2039
7	8.782	8.782	TETRYL	2.59196	642.8934
8	11.552	11.552	2,4-DNT	3.30437	617.0092
9	13.770	13.770	2,6-DNT	1.73475	614.6811
10	15.968	15.968	2-AMINO	1.36103	612.2425
11	17.666	17.666	4-AMINO	1.06207	612.0351
12	18.520	18.520	4-NT	0.61646	583.8821
13	18.996	18.996	2-NT	0.89843	603.2712
14	20.989	20.989	3-NT	0.72791	621.9156
15	23.136	23.136	SURROGATE	0.46007	369.4586

STL-KNOXVILLE Explosives Confirmation Analysis

Sample Number: ICAL#6 LC1355 Print Time:8/13/03 08:21:12
8330 960PPM ->
Instrument Name: Semika Data Acquisition Time:8/12/03 19:03:46
Data File name: H:\SEMEKA\DATA\H12SC\H12SC006.D
Method File: H:\SEMEKA\METHODS\H12SICAL.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 40.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: KLR

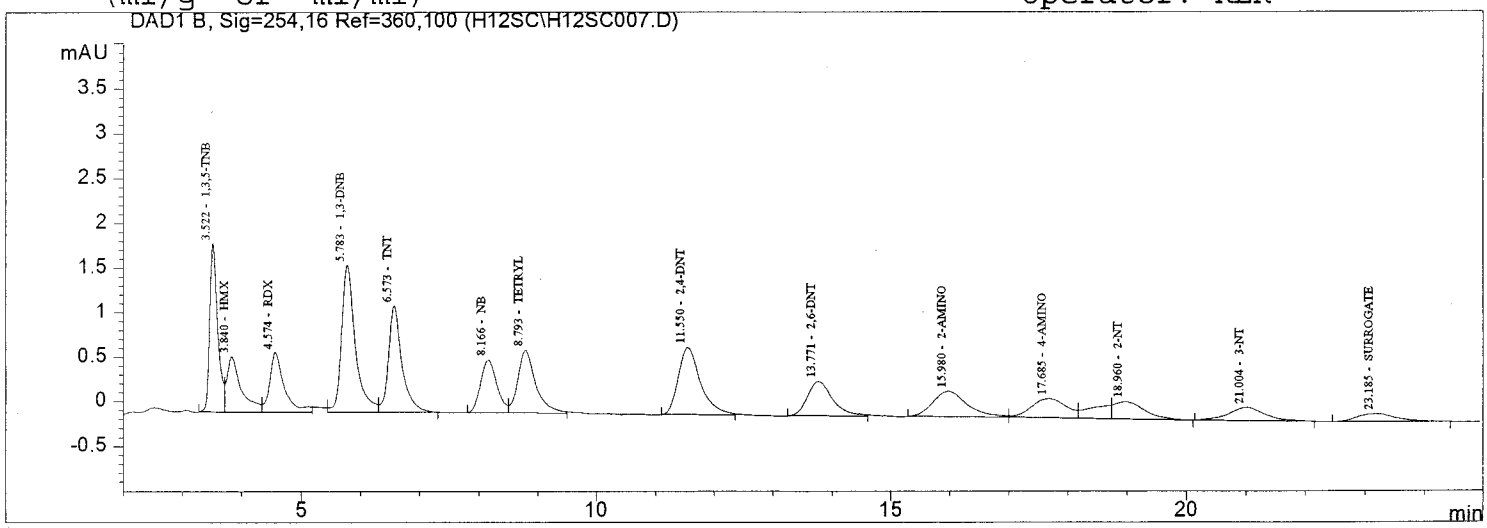


#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.519	3.519	1,3,5-TNB	16.38799	953.0357
2	3.835	3.835	HMX	4.72998	964.2163
3	4.572	4.572	RDX	4.89525	931.6690
4	5.778	5.778	1,3-DNB	12.82151	926.0077
5	6.569	6.569	TNT	9.32794	949.7634
6	0.000	7.348		0.22094	0.0000
7	8.158	8.158	NB	4.92916	912.7168
8	8.788	8.788	TETRYL	4.95340	951.9905
9	11.542	11.542	2,4-DNT	5.91330	932.9757
10	13.753	13.753	2,6-DNT	3.09622	932.8529
11	15.940	15.940	2-AMINO	2.34189	923.6933
12	17.633	17.633	4-AMINO	1.82055	923.3953
13	18.646	18.646	4-NT	1.36015	983.1338
14	18.938	18.938	2-NT	1.65857	941.0944
15	20.951	20.951	3-NT	1.29984	934.6131
16	23.094	23.094	SURROGATE	0.82113	549.1518

STL-KNOXVILLE Explosives Confirmation Analysis

Sample Number: 8330 ICV LC1356 Print Time:8/13/03 08:24:46
8330 Second source ->
Instrument Name: Semika Data Acquisition Time:8/12/03 19:30:29
Data File name: H:\SEMEKA\DATA\H12SC\H12SC007.D
Method File: H:\SEMEKA\METHODS\H12SICAL.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 40.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: KLR



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.519	3.522	1,3,5-TNB	1.88744	109.7633
2	3.835	3.840	HMX	0.62408	127.2203
3	4.572	4.574	RDX	0.67187	127.8706
4	5.778	5.783	1,3-DNB	1.64978	119.1522
5	6.569	6.573	TNT	1.19619	121.7955
6	8.158	8.166	NB	0.59471	110.1197
7	8.788	8.793	TETRYL	0.70625	135.7344
8	11.542	11.550	2,4-DNT	0.75944	119.8216
9	13.753	13.771	2,6-DNT	0.38578	116.2295
10	15.940	15.980	2-AMINO	0.28725	113.2994
11	17.633	17.685	4-AMINO	0.21771	110.4228
12	18.646	18.731	4-NT	0.15557	112.4478
13	18.938	18.960	2-NT	0.19806	112.3792
14	20.951	21.004	3-NT	0.15295	109.9720
15	23.094	23.185	SURROGATE	0.09534	63.7642

1,3,5-TNB Calculation Check:

$$\frac{1.88744}{0.0171956} = 109.763$$

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STL Knoxville
Check Standard Report

Sample Name: 8330 ICV LC1356
Analysis Time: 8/12/03 19:30:29
File Name: H:\SEMEKA\DATA\H12SC\H12SC007.D
Method: H:\SEMEKA\METHODS\H12SICAL.M

Component	Spike Amt.	Result	% Diff.
1,3,5-TNB	120	109.7633	-8.5306
HMX	120	127.2203	6.0169
RDX	120	127.8706	6.5588
1,3-DNB	120	119.1522	-0.7065
TNT	120	121.7955	1.4963
NB	120	110.1197	-8.2336
TETRYL	120	135.7344	13.112
2,4-DNT	120	119.8216	-0.1487
2,6-DNT	120	116.2295	-3.1421
2-AMINO	120	113.2994	-5.5838
4-AMINO	120	110.4228	-7.981
4-NT	120	112.4478	-6.2935
2-NT	120	112.3792	-6.3507
3-NT	120	109.9720	-8.3567
SURROGATE	70.6	63.7642	-9.6824

STL Knoxville HPLC Continuing Calibration Data Review / Narrative Checklist
Method: 8330 - KNOX-LC-0001 Rev 7
Page 1 of 1

Analysis Date:	8/14/03	CCAL File ID:	H14SC	ICAL File ID:	H12SCICAL	Scanned ☐

Review Items A. Continuing Calibration	Yes	No	NA	2nd ✓	If No, why is data reportable?
1. Was the ***correct ICAL*** used for quantitation?	✓			✓	
2. Were the ***same process parameters*** used for the CCAL standards and the ICAL?	✓			✓	
3. Were ***CCAL standards*** run at beginning of sequence, and after ***every 10 injections or 12 hours*** and at end of sequence?	✓			✓	
4. Were ***RTs updated*** for the first CCAL standard (at least every 24 hours)?	✓			✓	☐ Samples were analyzed immediately after ICAL, therefore RTs were updated from ICAL midpoint. ☐ See Comment No. _____.
5. Is ***%D ≤ 15%*** for each CCAL?	✓			✓	☐ CCAL response increased and all sample results were ND.
6. Is ***integration*** acceptable?	✓			✓	
7. If ***manual integrations*** were performed, are they clearly identified, initialed, dated and reason given?	✓			✓	Reasons: 1) Corrected split peak; 2) Unresolved peak; 3) Tailing; 4) RT shift; 5) Wrong peak selected; 6) Other
8. Were the standards ***scanned properly***?	✓				

Analyst: [signature]	Date: 8/15/03	2nd Level Reviewer : [signature]	Date: 8/15/03
Comments:		Comments:	

STL KNOXVILLE--EXPLOSIVES RUNLOG

Operator: KJK
PM Performed: No
Inj. Vol.: 30ul
Instrument: SEMEKA

Sample ID	File Name	Dilution	Run Time
WARM UP	H14SC001.D	1.000	8/14/03 15:54:26
MRL LC1362	H14SC002.D	1.000	8/14/03 16:20:57
CCV LC1362	H14SC003.D	1.000	8/14/03 16:47:28
FVRRC1AA	H14SC004.D	1.000	8/14/03 17:18:05
FVXHV1AJ	H14SC005.D	1.000	8/14/03 17:44:46
FVXH21AJ	H14SC006.D	1.000	8/14/03 18:11:27
FVXJL1AJ	H14SC007.D	1.000	8/14/03 18:38:07
FVRQX1AA	H14SC008.D	1.000	8/14/03 19:04:47
FV08H1AG	H14SC009.D	1.000	8/14/03 19:31:26
CCV LC1362	H14SC010.D	1.000	8/14/03 19:58:10
MRL LC1362	H14SC011.D	1.000	8/14/03 20:24:41

Calibration Table

Calib. Data Modified : 8/14/03 5:12:40 PM

Calculate : External Standard
Based on : Peak Height

Rel. Reference Window : 4.000 %
Abs. Reference Window : 0.000 min
Rel. Non-ref. Window : 4.000 %
Abs. Non-ref. Window : 0.000 min
Uncalibrated Peaks : not reported
Partial Calibration : No recalibration if peaks missing

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Average all calibrations

Calibration Report Options :
Printout of recalibrations within a sequence:
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 [ppb]	Height	Amt/Height	Ref	Grp	Name
3.523	1	1	20.00000	3.52813e-1	56.68719			1,3,5-TNB
		2	60.00000	1.07345	55.89429			
		3	120.00000	2.04790	58.59648			
		4	240.00000	4.22476	56.80802			
		5	480.00000	8.44278	56.85330			
		6	960.00000	16.38799	58.57947			
3.834	1	1	20.00000	1.03661e-1	192.93617			HMX
		2	60.00000	2.98779e-1	200.81758			
		3	120.00000	5.98289e-1	200.57204			
		4	240.00000	1.12559	213.22188			
		5	480.00000	2.33596	205.48329			
		6	960.00000	4.72998	202.96065			
4.573	1	1	20.00000	1.20209e-1	166.37743			RDX
		2	60.00000	3.56152e-1	168.46759			
		3	120.00000	6.25503e-1	191.84551			
		4	240.00000	1.36571	175.73238			
		5	480.00000	2.76294	173.72811			
		6	960.00000	4.89525	196.10861			
5.786	1	1	20.00000	3.11169e-1	64.27385			1,3-DNB
		2	60.00000	9.21597e-1	65.10439			
		3	120.00000	1.61290	74.39996			
		4	240.00000	3.77102	63.64319			

RetTime [min]	Sig	Lvl	Amount [ppb]	Height	Amt/Height	Ref	Grp	Name
		5	480.00000	7.36278	65.19274			
		6	960.00000	12.82151	74.87416			
6.576	1	1	20.00000	1.96309e-1	101.88029			TNT
		2	60.00000	6.03240e-1	99.46283			
		3	120.00000	1.15369	104.01434			
		4	240.00000	2.41477	99.38849			
		5	480.00000	4.89097	98.14007			
		6	960.00000	9.32794	102.91658			
8.163	1	1	20.00000	1.25362e-1	159.53780			NB
		2	60.00000	3.59268e-1	167.00648			
		3	120.00000	6.02528e-1	199.16076			
		4	240.00000	1.51441	158.47739			
		5	480.00000	3.00008	159.99574			
		6	960.00000	4.92916	194.75944			
8.793	1	1	20.00000	1.03794e-1	192.68942			TETRYL
		2	60.00000	3.11251e-1	192.77022			
		3	120.00000	6.03105e-1	198.97044			
		4	240.00000	1.23754	193.93380			
		5	480.00000	2.59196	185.18834			
		6	960.00000	4.95340	193.80612			
11.565	1	1	20.00000	1.43957e-1	138.93059			2,4-DNT
		2	60.00000	4.06104e-1	147.74544			
		3	120.00000	7.41992e-1	161.72671			
		4	240.00000	1.68353	142.55757			
		5	480.00000	3.30437	145.26227			
		6	960.00000	5.91330	162.34584			
13.788	1	1	20.00000	7.69420e-2	259.93619			2,6-DNT
		2	60.00000	2.15166e-1	278.85508			
		3	120.00000	3.91706e-1	306.35250			
		4	240.00000	8.72231e-1	275.15643			
		5	480.00000	1.73475	276.69755			
		6	960.00000	3.09622	310.05565			
16.007	1	1	20.00000	5.54425e-2	360.73394			2-AMINO
		2	60.00000	1.70775e-1	351.33946			
		3	120.00000	2.86422e-1	418.96269			
		4	240.00000	6.92418e-1	346.61133			
		5	480.00000	1.36103	352.67433			
		6	960.00000	2.34189	409.92559			
17.688	1	1	20.00000	4.69133e-2	426.31803			4-AMINO
		2	60.00000	1.22734e-1	488.86143			
		3	120.00000	2.04248e-1	587.52098			
		4	240.00000	5.44866e-1	440.47511			
		5	480.00000	1.06207	451.94690			
		6	960.00000	1.82055	527.31391			
18.742	1	1	20.00000	2.79601e-2	715.30600			4-NT
		2	60.00000	6.87657e-2	872.52849			
		3	120.00000	1.52081e-1	789.05406			
		4	240.00000	3.09751e-1	774.81500			
		5	480.00000	6.16457e-1	778.64306			
		6	960.00000	1.36015	705.80452			
19.021	1	1	20.00000	4.44368e-2	450.07763			2-NT
		2	60.00000	1.11277e-1	539.19513			
		3	120.00000	1.88361e-1	637.07328			
		4	240.00000	4.60696e-1	520.95090			
		5	480.00000	8.98428e-1	534.26661			
		6	960.00000	1.65857	578.81143			

RetTime [min]	Lvl Sig		Amount [ppb]	Height	Amt/Height	Ref	Grp	Name
21.010	1	1	20.00000	3.76217e-2	531.60762			3-NT
		2	60.00000	7.88378e-2	761.05663			
		3	120.00000	1.52475e-1	787.01519			
		4	240.00000	3.61888e-1	663.18857			
		5	480.00000	7.27913e-1	659.41907			
		6	960.00000	1.29984	738.55028			
23.166	1	1	11.77000	2.78093e-2	423.24011			SURROGATE
		2	35.30000	5.15792e-2	684.38406			
		3	70.60000	1.01332e-1	696.72286			
		4	141.20000	2.30677e-1	612.11204			
		5	282.40000	4.60073e-1	613.81512			
		6	564.80000	8.21132e-1	687.83099			

1 Warnings or Errors :

Warning : Overlapping peak time windows at 18.742 min, signal 1

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Peak Sum Table

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No Entries in table

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Calibration Curves

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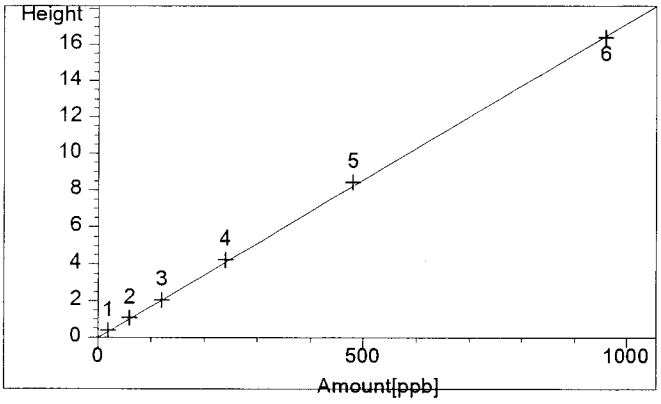
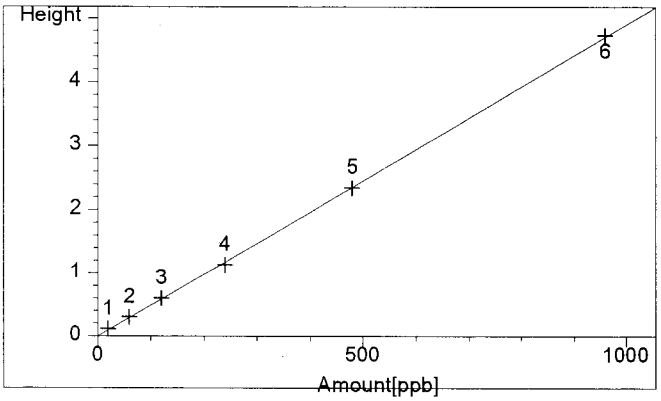
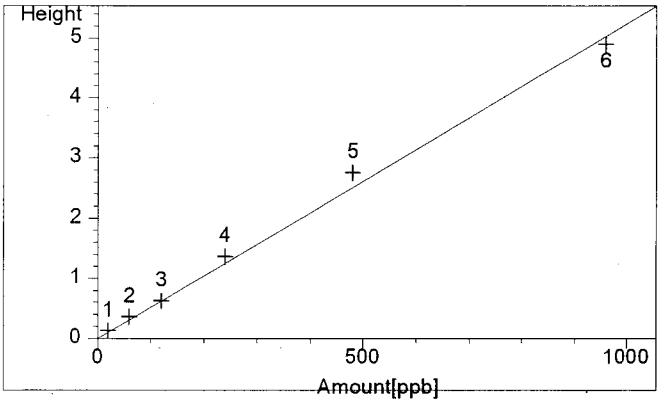


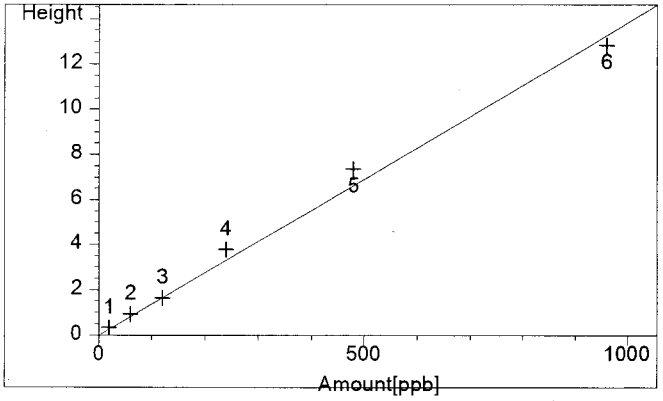
1,3,5-TNB at exp. RT: 3.523
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99992
Residual Std. Dev.: 0.11105
Formula: y = mx
m: 1.71956e-2
x: Amount[ppb]
y: Height



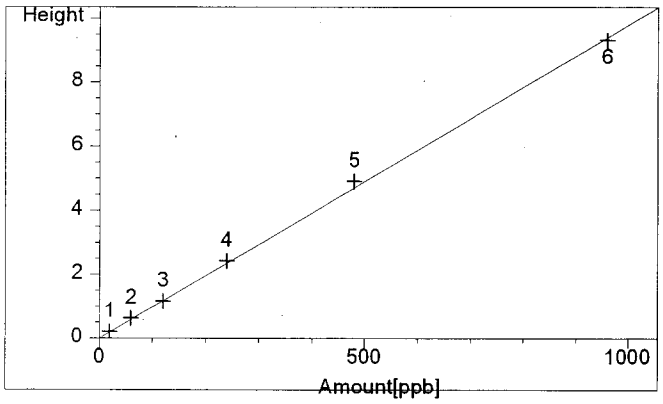
HMX at exp. RT: 3.834
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99994
Residual Std. Dev.: 0.02682
Formula: y = mx
m: 4.90552e-3
x: Amount[ppb]
y: Height



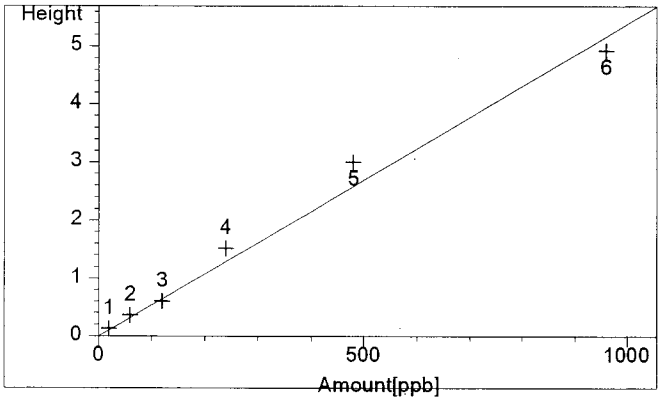
RDX at exp. RT: 4.573
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99863
Residual Std. Std. Dev.: 0.13643
Formula: y = mx
m: 5.25428e-3
x: Amount[ppb]
y: Height



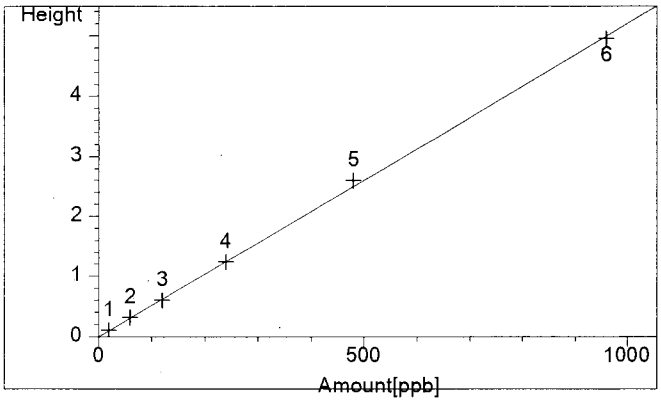
1,3-DNB at exp. RT: 5.786
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99799
Residual Std. Dev.: 0.43535
Formula: y = mx
m: 1.38460e-2
x: Amount[ppb]
y: Height



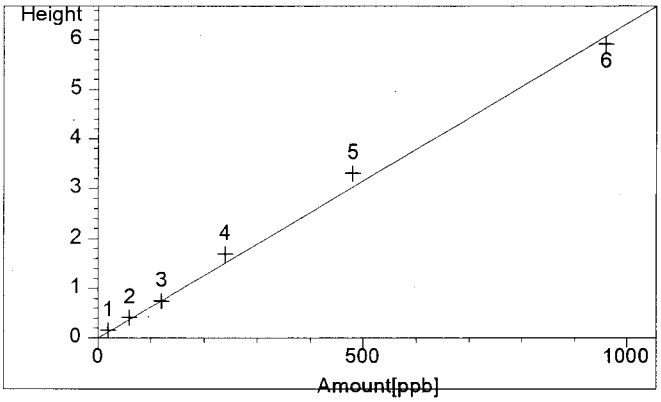
TNT at exp. RT: 6.576
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99981
Residual Std. Dev.: 0.09537
Formula: y = mx
m: 9.82133e-3
x: Amount[ppb]
y: Height



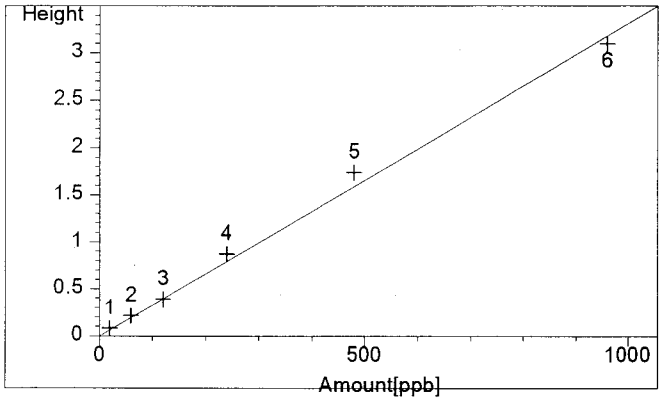
NB at exp. RT: 8.163
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99608
Residual Std. Dev.: 0.23782
Formula: y = mx
m: 5.40053e-3
x: Amount[ppb]
y: Height



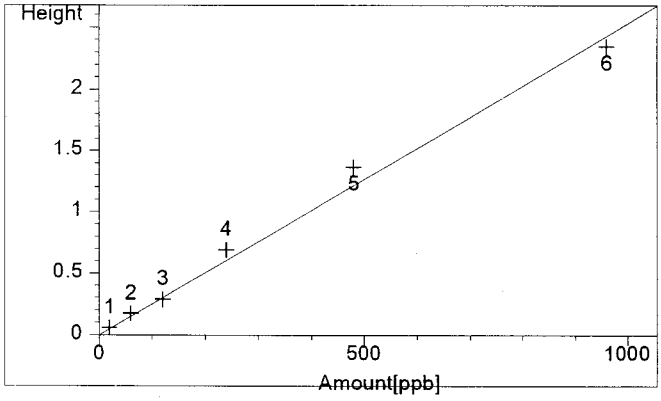
TETRYL at exp. RT: 8.793
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99983
Residual Std. Dev.: 0.04739
Formula: y = mx
m: 5.20321e-3
x: Amount[ppb]
y: Height



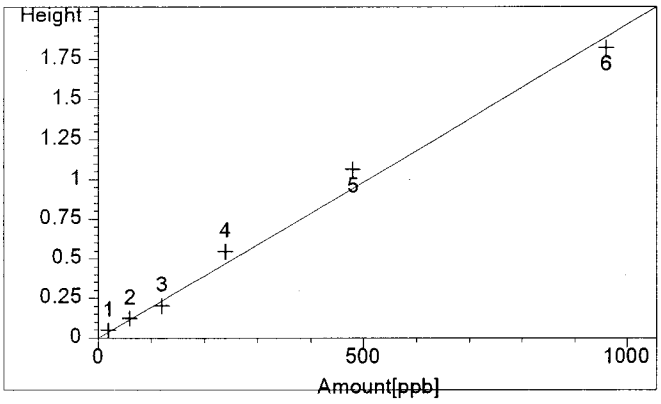
2,4-DNT at exp. RT: 11.565
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99873
Residual Std. Dev.: 0.15855
Formula: y = mx
m: 6.33811e-3
x: Amount[ppb]
y: Height



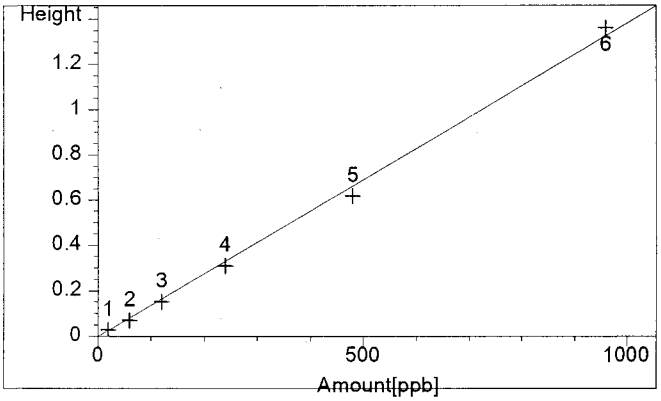
2,6-DNT at exp. RT: 13.788
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99873
Residual Std. Dev.: 0.08282
Formula: y = mx
m: 3.31909e-3
x: Amount[ppb]
y: Height



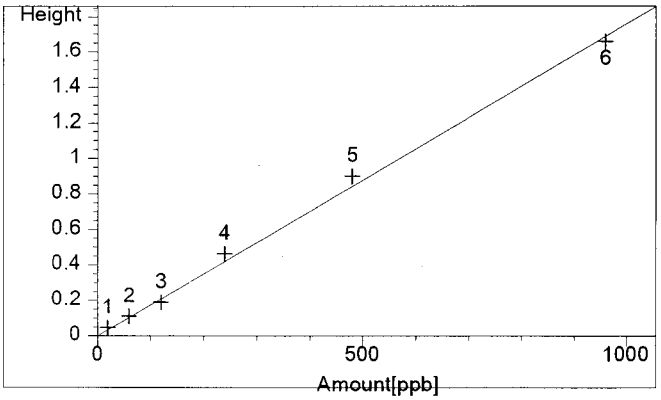
2-AMINO at exp. RT: 16.007
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99767
Residual Std. Dev.: 0.08598
Formula: y = mx
m: 2.53535e-3
x: Amount[ppb]
y: Height



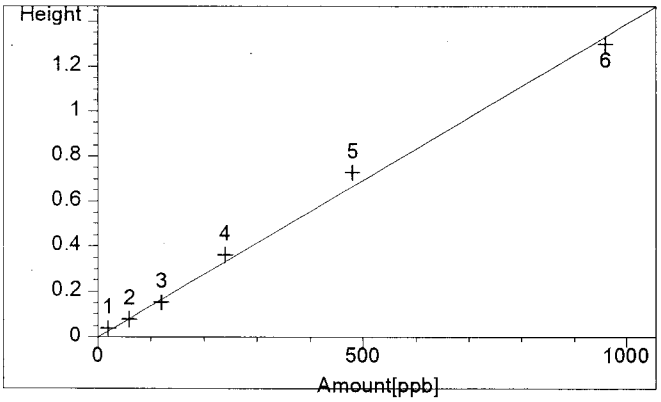
4-AMINO at exp. RT: 17.688
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99741
Residual Std. Dev.: 0.07051
Formula: y = mx
m: 1.97158e-3
x: Amount[ppb]
y: Height



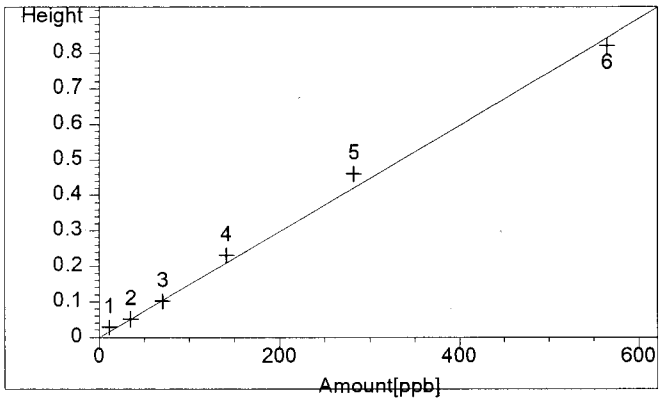
4-NT at exp. RT: 18.742
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99911
Residual Std. Dev.: 0.02893
Formula: y = mx
m: 1.38348e-3
x: Amount[ppb]
y: Height



2-NT at exp. RT: 19.021
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99922
Residual Std. Dev.: 0.03446
Formula: y = mx
m: 1.76239e-3
x: Amount[ppb]
y: Height



3-NT at exp. RT: 21.010
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99874
Residual Std. Dev.: 0.03465
Formula: y = mx
m: 1.39078e-3
x: Amount[ppb]
y: Height



SURROGATE at exp. RT: 23.166
DAD1 B, Sig=254,16 Ref=360,100
Correlation: 0.99870
Residual Std. Dev.: 0.02228
Formula: y = mx
m: 1.49527e-3
x: Amount[ppb]
y: Height

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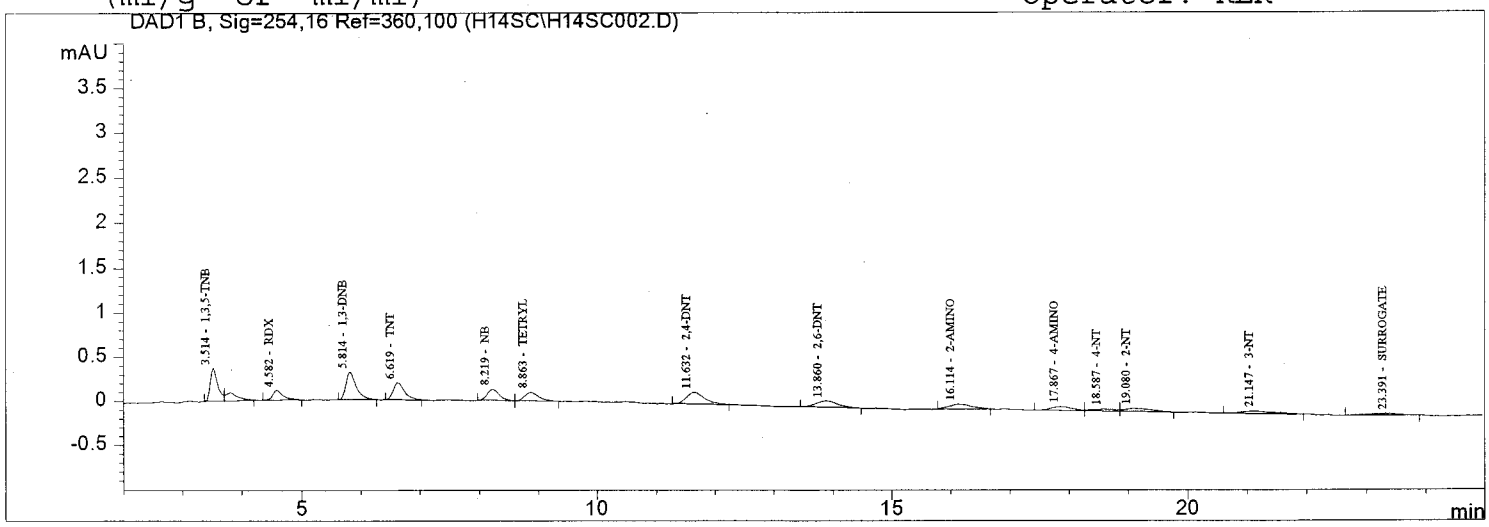
STL-KNOXVILLE Explosives Confirmation Analysis

Sample Number: MRL LC1362 Print Time:8/14/03 17:15:41

Instrument Name: Semika Data Acquisition Time:8/14/03 16:20:57
Data File name: H:\SEMEKA\DATA\H14SC\H14SC002.D
Method File: H:\SEMEKA\METHODS\H14SC.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 6.700
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: KLR



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.523	3.514	1,3,5-TNB	0.37330	21.7089
2	3.834	3.802	HMX	0.09711	19.7956
3	4.573	4.582	RDX	0.11562	22.0045
4	5.786	5.814	1,3-DNB	0.31809	22.9731
5	6.576	6.619	TNT	0.19813	20.1730
6	8.163	8.219	NB	0.13250	24.5342
7	8.793	8.863	TETRYL	0.10056	19.3265
8	11.565	11.632	2,4-DNT	0.13413	21.1621
9	13.788	13.860	2,6-DNT	0.07299	21.9896
10	16.007	16.114	2-AMINO	0.05745	22.6598
11	17.688	17.867	4-AMINO	0.04398	22.3089
12	18.742	18.587	4-NT	0.02604	18.8252
13	19.021	19.080	2-NT	0.04046	22.9549
14	21.010	21.147	3-NT	0.03163	22.7429
15	23.166	23.391	SURROGATE	0.02275	15.2130

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STL Knoxville

Reporting Limit Check Standard Report

Sample Name: MRL LC1362
Analysis Time: 8/14/03 16:20:57
File Name: H:\SEMEKA\DATA\H14SC\H14SC002.D
Method: H:\SEMEKA\METHODS\H14SC.M

Component	Spike Amt.	Result	% Diff.
1,3,5-TNB	20	21.7089	8.544
HMX	20	19.7956	-1.022
RDX	20	22.0045	10.02
1,3-DNB	20	22.9731	14.86
TNT	20	20.1730	.8649
NB	20	24.5342	22.67
TETRYL	20	19.3265	-3.367
2,4-DNT	20	21.1621	5.810
2,6-DNT	20	21.9896	9.948
2-AMINO	20	22.6598	13.29
4-AMINO	20	22.3089	11.54
4-NT	20	18.8252	-5.874
2-NT	20	22.9549	14.77
3-NT	20	22.7429	13.71

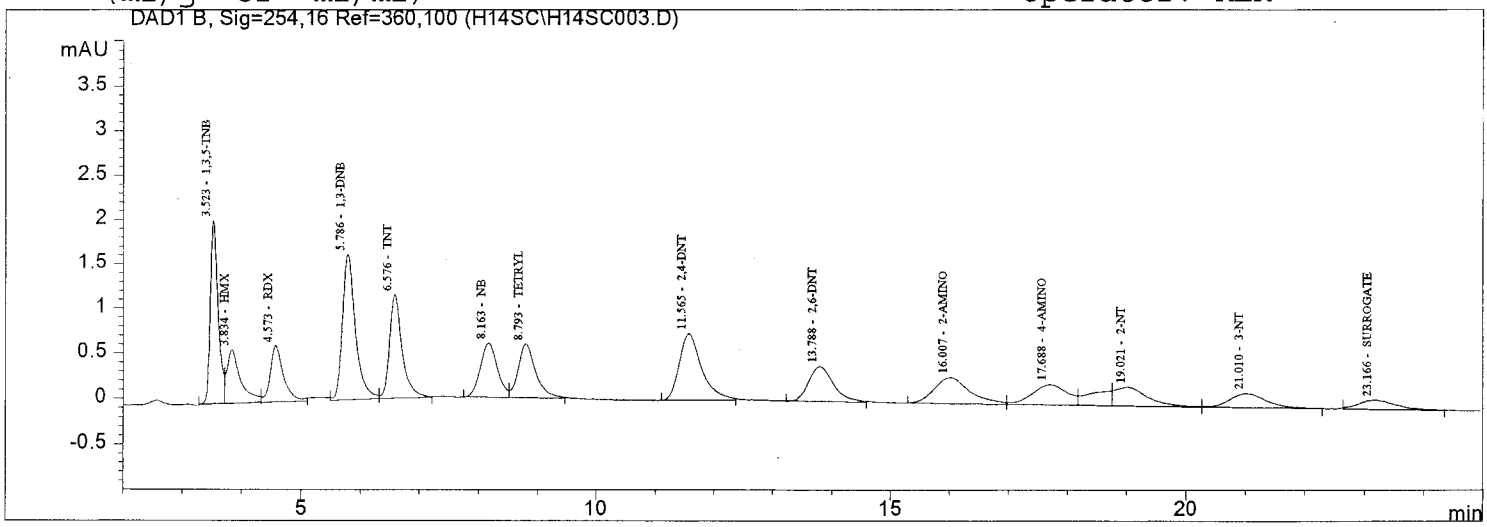
---Note: No criteria (for informational purposes only)

STL-KNOXVILLE Explosives Confirmation Analysis

Sample Number: CCV LC1362 Print Time:8/14/03 17:14:58

Instrument Name: Semika Data Acquisition Time:8/14/03 16:47:28
Data File name: H:\SEMEKA\DATA\H14SC\H14SC003.D
Method File: H:\SEMEKA\METHODS\H14SC.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 40.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: KLR



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.523	3.523	1,3,5-TNB	2.04954	119.1902
2	3.834	3.834	HMX	0.59644	121.5855
3	4.573	4.573	RDX	0.62832	119.5829
4	5.786	5.786	1,3-DNB	1.62418	117.3030
5	6.576	6.576	TNT	1.15303	117.4002
6	8.163	8.163	NB	0.60367	111.7803
7	8.793	8.793	TETRYL	0.59872	115.0683
8	11.565	11.565	2,4-DNT	0.73987	116.7334
9	13.788	13.788	2,6-DNT	0.38734	116.7018
10	16.007	16.007	2-AMINO	0.28636	112.9483
11	17.688	17.688	4-AMINO	0.22416	113.6980
12	18.742	18.742	4-NT	0.17040	123.1693
13	19.021	19.021	2-NT	0.20915	118.6758
14	21.010	21.010	3-NT	0.15951	114.6915
15	23.166	23.166	SURROGATE	0.10593	70.8434

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STL Knoxville
Check Standard Report

Sample Name: CCV LC1362
Analysis Time: 8/14/03 16:47:28
File Name: H:\SEMEKA\DATA\H14SC\H14SC003.D
Method: H:\SEMEKA\METHODS\H14SC.M

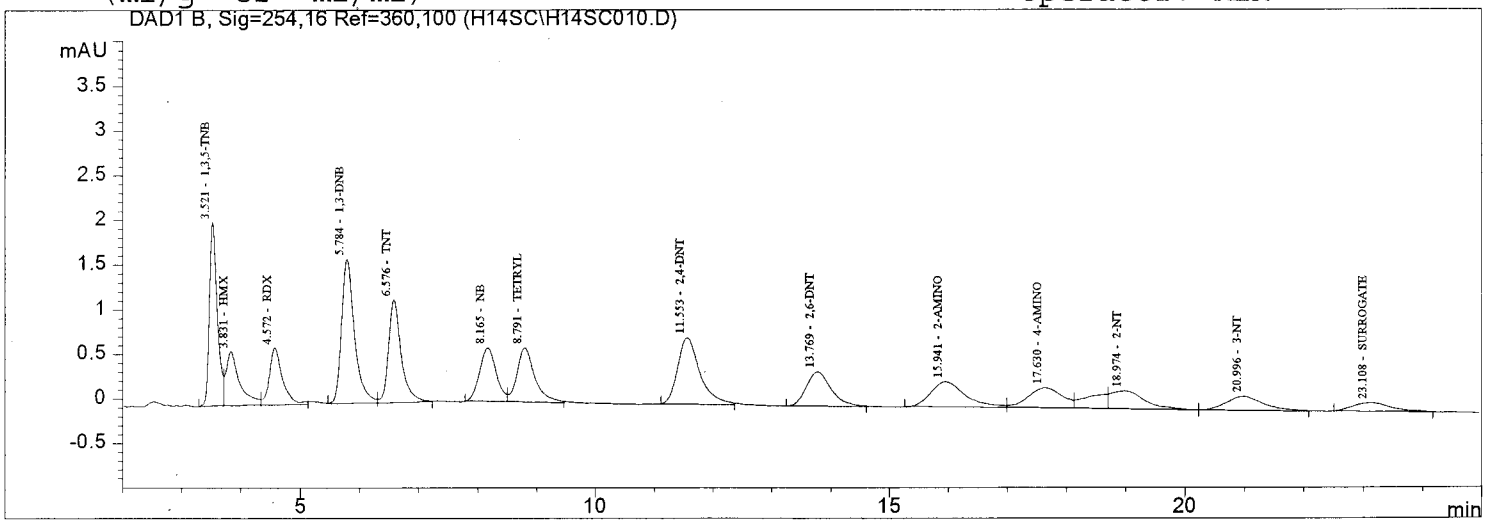
Component	Spike Amt.	Result	% Diff.
1,3,5-TNB	120	119.1902	-0.6748
HMX	120	121.5855	1.3212
RDX	120	119.5829	-0.3476
1,3-DNB	120	117.3030	-2.2475
TNT	120	117.4002	-2.1665
NB	120	111.7803	-6.8498
TETRYL	120	115.0683	-4.1098
2,4-DNT	120	116.7334	-2.7222
2,6-DNT	120	116.7018	-2.7485
2-AMINO	120	112.9483	-5.8764
4-AMINO	120	113.6980	-5.2517
4-NT	120	123.1693	2.6411
2-NT	120	118.6758	-1.1035
3-NT	120	114.6915	-4.4237
SURROGATE	70.6	70.8434	0.3448

STL-KNOXVILLE Explosives Confirmation Analysis

Sample Number: CCV LC1362 Print Time:8/15/03 07:06:54

Instrument Name: Semika Data Acquisition Time:8/14/03 19:58:10
Data File name: H:\SEMEKA\DATA\H14SC\H14SC010.D
Method File: H:\SEMEKA\METHODS\H14SC.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 40.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: KLR



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.523	3.521	1,3,5-TNB	2.05377	119.4358
2	3.834	3.831	HMX	0.60959	124.2652
3	4.573	4.572	RDX	0.64309	122.3943
4	5.786	5.784	1,3-DNB	1.61599	116.7118
5	6.576	6.576	TNT	1.15112	117.2058
6	8.163	8.165	NB	0.60454	111.9414
7	8.793	8.791	TETRYL	0.60995	117.2258
8	11.565	11.553	2,4-DNT	0.74946	118.2474
9	13.788	13.769	2,6-DNT	0.38666	116.4967
10	16.007	15.941	2-AMINO	0.28731	113.3204
11	17.688	17.630	4-AMINO	0.22800	115.6452
12	18.742	18.701	4-NT	0.16580	119.8424
13	19.021	18.974	2-NT	0.20281	115.0750
14	21.010	20.996	3-NT	0.16022	115.2041
15	23.166	23.108	SURROGATE	0.10128	67.7349

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STL Knoxville
Check Standard Report

Sample Name: CCV LC1362
Analysis Time: 8/14/03 19:58:10
File Name: H:\SEMEKA\DATA\H14SC\H14SC010.D
Method: H:\SEMEKA\METHODS\H14SC.M

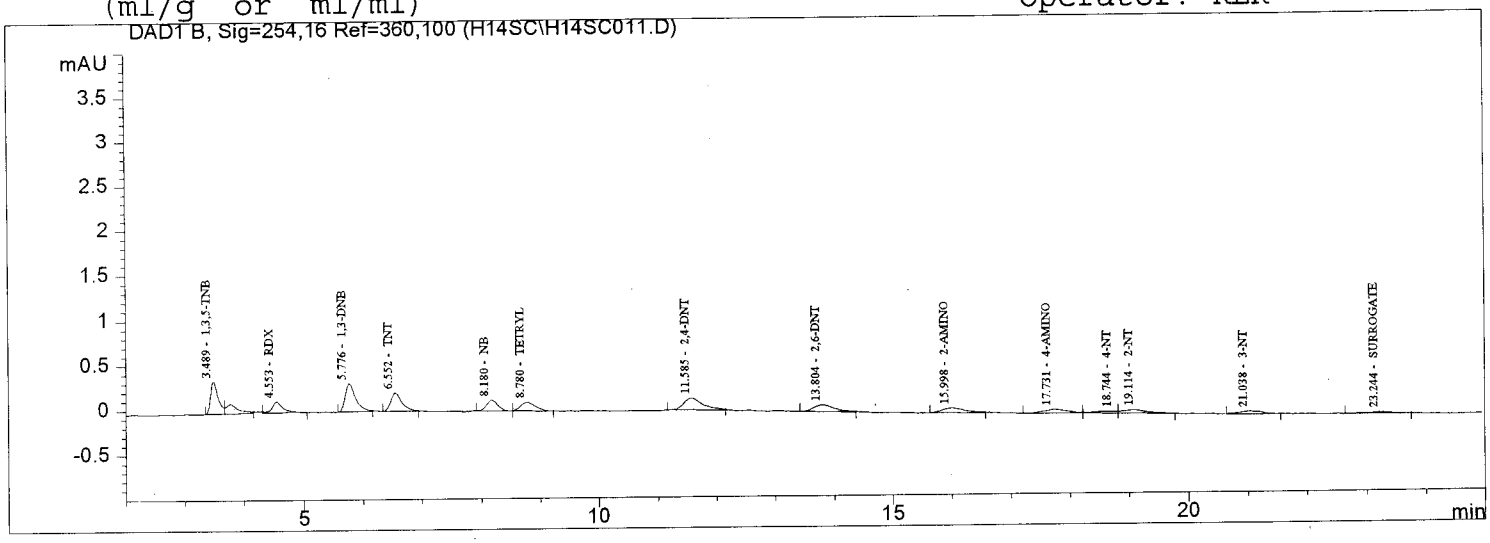
Component	Spike Amt.	Result	% Diff.
1,3,5-TNB	120	119.4358	-0.4702
HMX	120	124.2652	3.5543
RDX	120	122.3943	1.9953
1,3-DNB	120	116.7118	-2.7402
TNT	120	117.2058	-2.3285
NB	120	111.9414	-6.7155
TETRYL	120	117.2258	-2.3118
2,4-DNT	120	118.2474	-1.4605
2,6-DNT	120	116.4967	-2.9194
2-AMINO	120	113.3204	-5.5663
4-AMINO	120	115.6452	-3.629
4-NT	120	119.8424	-0.1313
2-NT	120	115.0750	-4.1042
3-NT	120	115.2041	-3.9966
SURROGATE	70.6	67.7349	-4.0582

STL-KNOXVILLE Explosives Confirmation Analysis

Sample Number: MRL LC1362 Print Time:8/15/03 07:07:43

Instrument Name: Semika Data Acquisition Time:8/14/03 20:24:41
Data File name: H:\SEMEKA\DATA\H14SC\H14SC011.D
Method File: H:\SEMEKA\METHODS\H14SC.M
Sequence File:

Dilution: 1.000 Sample Amount: 0.000
Multiplier : 1.000000 Injection Volume (ul): 6.700
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: KLR



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.523	3.489	1,3,5-TNB	0.36421	21.1804
2	3.834	3.776	HMX	0.10827	22.0708
3	4.573	4.553	RDX	0.12467	23.7271
4	5.786	5.776	1,3-DNB	0.31552	22.7878
5	6.576	6.552	TNT	0.20763	21.1410
6	8.163	8.180	NB	0.12177	22.5487
7	8.793	8.780	TETRYL	0.10087	19.3864
8	11.565	11.585	2,4-DNT	0.13902	21.9339
9	13.788	13.804	2,6-DNT	0.07644	23.0311
10	16.007	15.998	2-AMINO	0.05499	21.6883
11	17.688	17.731	4-AMINO	0.04486	22.7531
12	18.742	18.744	4-NT	0.02702	19.5333
13	19.021	19.114	2-NT	0.04498	25.5224
14	21.010	21.038	3-NT	0.03306	23.7697
15	23.166	23.244	SURROGATE	0.01973	13.1979

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STL Knoxville

Reporting Limit Check Standard Report

Sample Name: MRL LC1362
Analysis Time: 8/14/03 20:24:41
File Name: H:\SEMEKA\DATA\H14SC\H14SC011.D
Method: H:\SEMEKA\METHODS\H14SC.M

Component	Spike Amt.	Result	% Diff.
1,3,5-TNB	20	21.1804	5.901
HMX	20	22.0708	10.35
RDX	20	23.7271	18.63
1,3-DNB	20	22.7878	13.93
TNT	20	21.1410	5.704
NB	20	22.5487	12.74
TETRYL	20	19.3864	-3.068
2,4-DNT	20	21.9339	9.669
2,6-DNT	20	23.0311	15.15
2-AMINO	20	21.6883	8.441
4-AMINO	20	22.7531	13.76
4-NT	20	19.5333	-2.333
2-NT	20	25.5224	27.61
3-NT	20	23.7697	18.84

---Note: No criteria (for informational purposes only)

Raw QC Data

METHOD BLANK REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FV3QW1AA **Matrix.....:** SOLID
MB Lot-Sample #: H3H110000-497

Prep Date.....: 08/12/03
Analysis Date..: 08/13/03 **Prep Batch #...:** 3223497
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
HMX	ND	0.50	mg/kg	SW846 8330
RDX	ND	0.50	mg/kg	SW846 8330
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	SW846 8330
1,3-Dinitrobenzene	ND	0.25	mg/kg	SW846 8330
Tetryl	ND	0.65	mg/kg	SW846 8330
Nitrobenzene	ND	0.25	mg/kg	SW846 8330
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	SW846 8330
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	SW846 8330
2,6-Dinitrotoluene	ND	0.25	mg/kg	SW846 8330
2,4-Dinitrotoluene	ND	0.25	mg/kg	SW846 8330
2-Nitrotoluene	ND	0.25	mg/kg	SW846 8330
4-Nitrotoluene	ND	0.25	mg/kg	SW846 8330
3-Nitrotoluene	ND	0.25	mg/kg	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	104	(74 - 121)

NOTE(S):

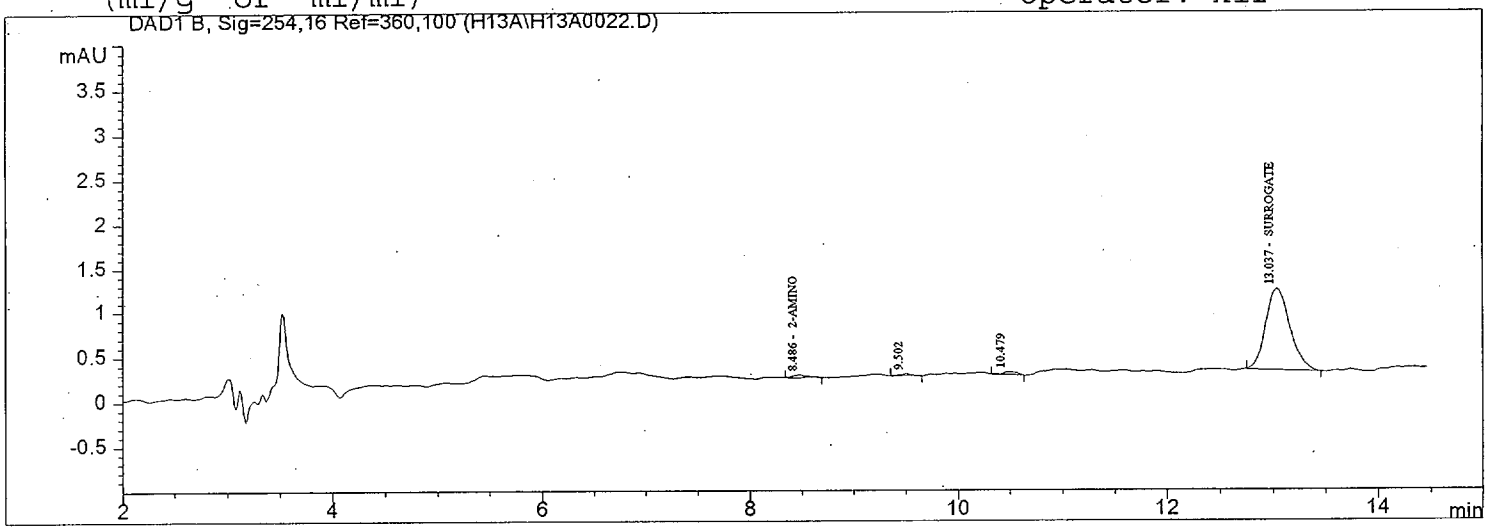
Calculations are performed before rounding to avoid round-off errors in calculated results.

STL-KNOXVILLE Explosives Analysis

Sample Number: FV3QW1AA BLK Print Time:8/13/03 15:55:30

Instrument Name: Ace Data Acquisition Time:8/13/03 15:40:24
Data File name: H:\ACE\DATA\H13A\H13A0022.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File: H:\ACE\SEQUENCE\H13A.S

Dilution: 1.000 Sample Amount: 2.000
Multiplier : 10.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.789	0.000	HMX	0.00000	0.0000
2	4.812	0.000	RDX	0.00000	0.0000
3	5.943	0.000	1,3,5-TNB	0.00000	0.0000
4	6.591	0.000	TETRYL	0.00000	0.0000
5	6.776	0.000	1,3-DNB	0.00000	0.0000
6	7.406	0.000	NB	0.00000	0.0000
7	7.978	0.000	TNT	0.00000	0.0000
8	8.182	0.000	4-AMINO	0.00000	0.0000
9	8.569	8.486	2-AMINO	0.03375	33.5677
10	8.761	0.000	2,6-DNT	0.00000	0.0000
11	9.156	0.000	2,4-DNT	0.00000	0.0000
12	0.000	9.502		0.02405	0.0000
13	10.226	0.000	2-NT	0.00000	0.0000
14	0.000	10.479		0.03327	0.0000
15	10.996	0.000	4-NT	0.00000	0.0000
16	11.574	0.000	3-NT	0.00000	0.0000
17	13.131	13.037	SURROGATE	0.92499	1845.9034

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FV3QW1AC **Matrix.....:** SOLID
LCS Lot-Sample#: H3H110000-497
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
HMX	**111**	**(76 - 121)**	**SW846 8330**
RDX	**108**	**(79 - 118)**	**SW846 8330**
1,3,5-Trinitrobenzene	**111**	**(76 - 116)**	**SW846 8330**
1,3-Dinitrobenzene	**109**	**(75 - 117)**	**SW846 8330**
Tetryl	**112**	**(42 - 125)**	**SW846 8330**
Nitrobenzene	**111**	**(78 - 115)**	**SW846 8330**
2,4,6-Trinitrotoluene	**111**	**(76 - 118)**	**SW846 8330**
4-Amino-2,6-dinitrotoluene	**114**	**(80 - 122)**	**SW846 8330**
2-Amino-4,6-dinitrotoluene	**110**	**(78 - 119)**	**SW846 8330**
2,6-Dinitrotoluene	**111**	**(74 - 122)**	**SW846 8330**
2,4-Dinitrotoluene	**110**	**(78 - 118)**	**SW846 8330**
2-Nitrotoluene	**112**	**(78 - 117)**	**SW846 8330**
4-Nitrotoluene	**108**	**(78 - 118)**	**SW846 8330**
3-Nitrotoluene	**109**	**(78 - 117)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	106	(74 - 121)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FV3QW1AC **Matrix.....:** SOLID
LCS Lot-Sample#: H3H110000-497
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
HMX	**3.00**	**3.33**	**mg/kg**	**111**	**SW846 8330**
RDX	**3.00**	**3.24**	**mg/kg**	**108**	**SW846 8330**
1,3,5-Trinitrobenzene	**3.00**	**3.32**	**mg/kg**	**111**	**SW846 8330**
1,3-Dinitrobenzene	**3.00**	**3.28**	**mg/kg**	**109**	**SW846 8330**
Tetryl	**3.00**	**3.36**	**mg/kg**	**112**	**SW846 8330**
Nitrobenzene	**3.00**	**3.32**	**mg/kg**	**111**	**SW846 8330**
2,4,6-Trinitrotoluene	**3.00**	**3.33**	**mg/kg**	**111**	**SW846 8330**
4-Amino-2,6-dinitrotoluene	**3.00**	**3.42**	**mg/kg**	**114**	**SW846 8330**
2-Amino-4,6-dinitrotoluene	**3.00**	**3.29**	**mg/kg**	**110**	**SW846 8330**
2,6-Dinitrotoluene	**3.00**	**3.34**	**mg/kg**	**111**	**SW846 8330**
2,4-Dinitrotoluene	**3.00**	**3.30**	**mg/kg**	**110**	**SW846 8330**
2-Nitrotoluene	**3.00**	**3.36**	**mg/kg**	**112**	**SW846 8330**
4-Nitrotoluene	**3.00**	**3.24**	**mg/kg**	**108**	**SW846 8330**
3-Nitrotoluene	**3.00**	**3.27**	**mg/kg**	**109**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	106	(74 - 121)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

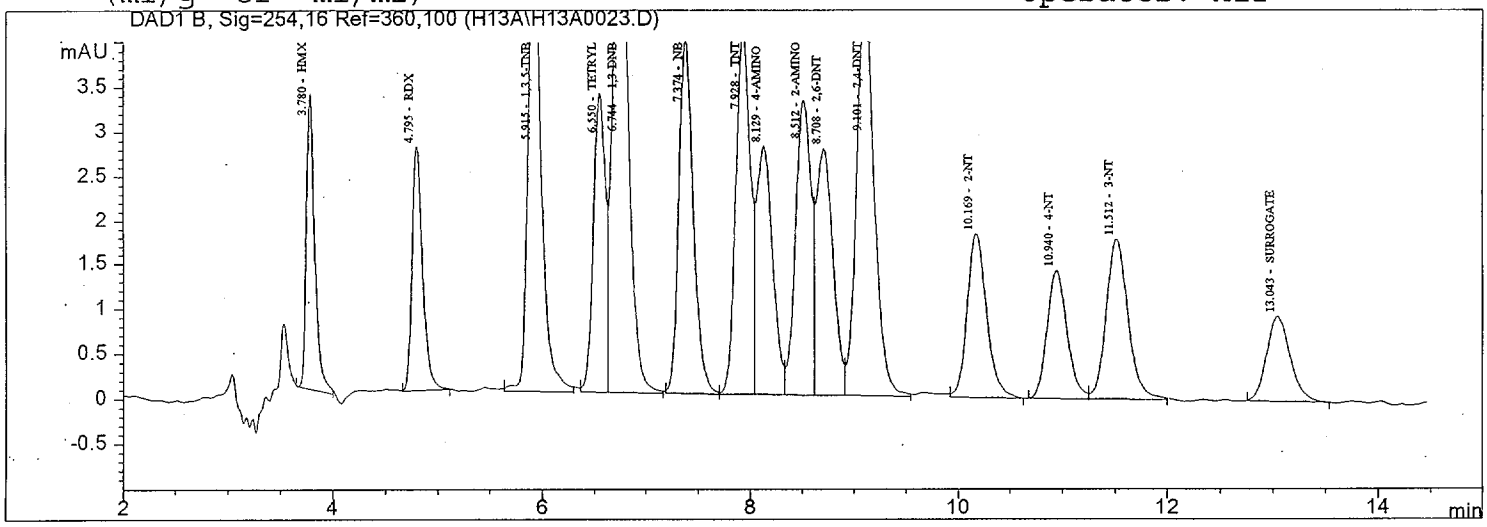
Bold print denotes control parameters

STL-KNOXVILLE Explosives Analysis

Sample Number: FV3QW1AC LCS Print Time:8/14/03 15:06:59

Instrument Name: Ace Data Acquisition Time:8/13/03 15:58:16
Data File name: H:\ACE\DATA\H13A\H13A0023.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File:

Dilution: 1.000 Sample Amount: 2.000
Multiplier : 10.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.789	3.780	HMX	3.32224	3328.4391
2	4.812	4.795	RDX	2.73986	3243.8651
3	5.943	5.915	1,3,5-TNB	5.54185	3317.4923
4	6.591	6.550	TETRYL	3.35563	3355.7721
5	6.776	6.744	1,3-DNB	7.04254	3279.3397
6	7.406	7.374	NB	3.98058	3323.2623
7	7.978	7.928	TNT	4.01580	3329.9790
8	8.182	8.129	4-AMINO	2.78699	3421.5139
9	8.569	8.512	2-AMINO	3.30783	3289.5846
10	8.761	8.708	2,6-DNT	2.77200	3343.6441
11	9.156	9.101	2,4-DNT	4.47514	3300.5256
12	10.226	10.169	2-NT	1.82899	3362.7309
13	10.996	10.940	4-NT	1.41665	3239.3283
14	11.574	11.512	3-NT	1.78660	3265.6877
15	13.131	13.043	SURROGATE	0.94069	1877.2361

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FVXH71A0-MS **Matrix.....:** SOLID
MS Lot-Sample #: H3H080204-005 FVXH71A1-MSD
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1 **% Moisture.....:** 16

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
HMX	**103**	**(68 - 123)**			**SW846 8330**
	107	**(68 - 123)**	**3.8**	**(0-27)**	**SW846 8330**
RDX	**100**	**(66 - 118)**			**SW846 8330**
	107	**(66 - 118)**	**6.1**	**(0-25)**	**SW846 8330**
1,3,5-Trinitrobenzene	**103**	**(76 - 119)**			**SW846 8330**
	103	**(76 - 119)**	**0.32**	**(0-26)**	**SW846 8330**
1,3-Dinitrobenzene	**102**	**(75 - 118)**			**SW846 8330**
	104	**(75 - 118)**	**2.0**	**(0-26)**	**SW846 8330**
Tetryl	**96**	**(42 - 125)**			**SW846 8330**
	79	**(42 - 125)**	**19**	**(0-39)**	**SW846 8330**
Nitrobenzene	**104**	**(78 - 115)**			**SW846 8330**
	108	**(78 - 115)**	**3.0**	**(0-25)**	**SW846 8330**
2,4,6-Trinitrotoluene	**104**	**(74 - 123)**			**SW846 8330**
	107	**(74 - 123)**	**3.2**	**(0-32)**	**SW846 8330**
4-Amino-2,6- dinitrotoluene	**107**	**(73 - 128)**			**SW846 8330**
	110	**(73 - 128)**	**3.0**	**(0-27)**	**SW846 8330**
2-Amino-4,6- dinitrotoluene	**103**	**(77 - 119)**			**SW846 8330**
	106	**(77 - 119)**	**3.4**	**(0-26)**	**SW846 8330**
2,6-Dinitrotoluene	**102**	**(73 - 125)**			**SW846 8330**
	106	**(73 - 125)**	**4.4**	**(0-27)**	**SW846 8330**
2,4-Dinitrotoluene	**103**	**(77 - 119)**			**SW846 8330**
	107	**(77 - 119)**	**3.5**	**(0-24)**	**SW846 8330**
2-Nitrotoluene	**103**	**(78 - 117)**			**SW846 8330**
	105	**(78 - 117)**	**1.3**	**(0-24)**	**SW846 8330**
4-Nitrotoluene	**101**	**(78 - 119)**			**SW846 8330**
	107	**(78 - 119)**	**5.8**	**(0-29)**	**SW846 8330**
3-Nitrotoluene	**103**	**(78 - 118)**			**SW846 8330**
	105	**(78 - 118)**	**2.0**	**(0-23)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	106	(74 - 121)
	103	(74 - 121)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: H3H080204 **Work Order #...:** FVXH71A0-MS **Matrix.....:** SOLID
MS Lot-Sample #: H3H080204-005 FVXH71A1-MSD
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
Prep Date.....: 08/12/03 **Analysis Date..:** 08/13/03
Prep Batch #...: 3223497
Dilution Factor: 1 **% Moisture.....:** 16

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
HMX	**ND**	**3.00**	**3.10**	**mg/kg**	**103**		**SW846 8330**
	ND	**3.00**	**3.22**	**mg/kg**	**107**	**3.8**	**SW846 8330**
RDX	**ND**	**3.00**	**3.01**	**mg/kg**	**100**		**SW846 8330**
	ND	**3.00**	**3.20**	**mg/kg**	**107**	**6.1**	**SW846 8330**
1,3,5-Trinitrobenzene	**ND**	**3.00**	**3.09**	**mg/kg**	**103**		**SW846 8330**
	ND	**3.00**	**3.08**	**mg/kg**	**103**	**0.32**	**SW846 8330**
1,3-Dinitrobenzene	**ND**	**3.00**	**3.07**	**mg/kg**	**102**		**SW846 8330**
	ND	**3.00**	**3.13**	**mg/kg**	**104**	**2.0**	**SW846 8330**
Tetryl	**ND**	**3.00**	**2.88**	**mg/kg**	**96**		**SW846 8330**
	ND	**3.00**	**2.38**	**mg/kg**	**79**	**19**	**SW846 8330**
Nitrobenzene	**ND**	**3.00**	**3.13**	**mg/kg**	**104**		**SW846 8330**
	ND	**3.00**	**3.23**	**mg/kg**	**108**	**3.0**	**SW846 8330**
2,4,6-Trinitrotoluene	**ND**	**3.00**	**3.11**	**mg/kg**	**104**		**SW846 8330**
	ND	**3.00**	**3.22**	**mg/kg**	**107**	**3.2**	**SW846 8330**
4-Amino-2,6- dinitrotoluene	**ND**	**3.00**	**3.21**	**mg/kg**	**107**		**SW846 8330**
	ND	**3.00**	**3.31**	**mg/kg**	**110**	**3.0**	**SW846 8330**
2-Amino-4,6- dinitrotoluene	**ND**	**3.00**	**3.08**	**mg/kg**	**103**		**SW846 8330**
	ND	**3.00**	**3.18**	**mg/kg**	**106**	**3.4**	**SW846 8330**
2,6-Dinitrotoluene	**ND**	**3.00**	**3.06**	**mg/kg**	**102**		**SW846 8330**
	ND	**3.00**	**3.19**	**mg/kg**	**106**	**4.4**	**SW846 8330**
2,4-Dinitrotoluene	**ND**	**3.00**	**3.10**	**mg/kg**	**103**		**SW846 8330**
	ND	**3.00**	**3.21**	**mg/kg**	**107**	**3.5**	**SW846 8330**
2-Nitrotoluene	**ND**	**3.00**	**3.10**	**mg/kg**	**103**		**SW846 8330**
	ND	**3.00**	**3.14**	**mg/kg**	**105**	**1.3**	**SW846 8330**
4-Nitrotoluene	**ND**	**3.00**	**3.03**	**mg/kg**	**101**		**SW846 8330**
	ND	**3.00**	**3.21**	**mg/kg**	**107**	**5.8**	**SW846 8330**
3-Nitrotoluene	**ND**	**3.00**	**3.08**	**mg/kg**	**103**		**SW846 8330**
	ND	**3.00**	**3.14**	**mg/kg**	**105**	**2.0**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Chloro-3-nitrobenzene	106	(74 - 121)
	103	(74 - 121)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

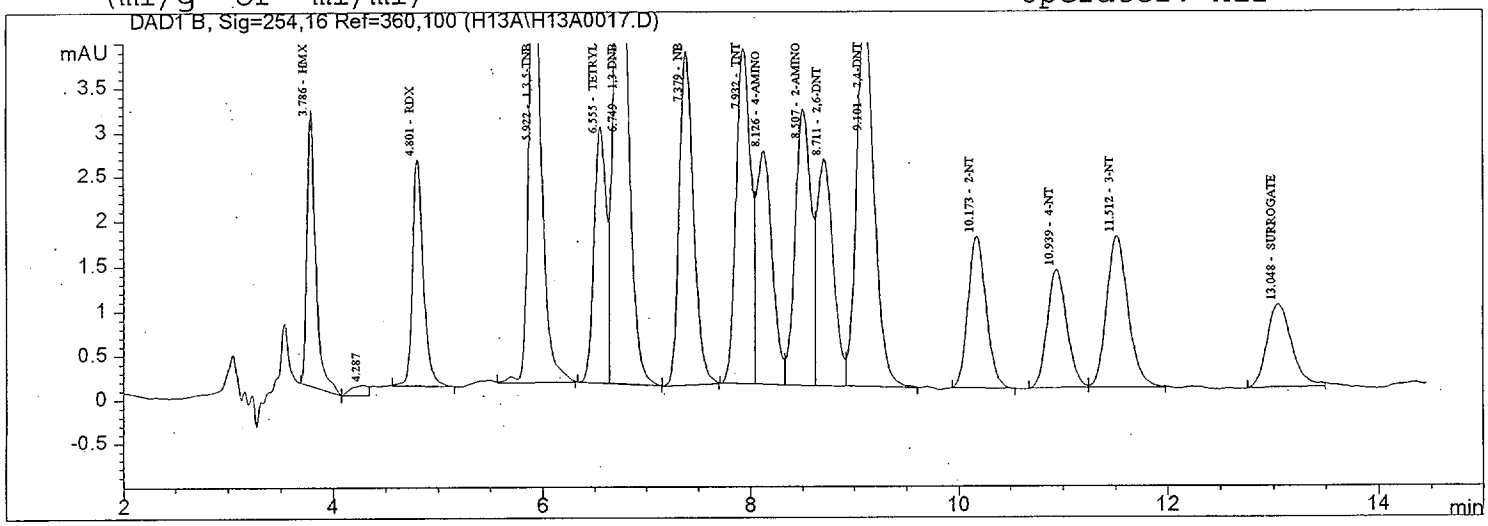
Bold print denotes control parameters

STL-KNOXVILLE Explosives Analysis

Sample Number: FVXH71A0 MS Print Time:8/14/03 15:03:39

Instrument Name: Ace Data Acquisition Time:8/13/03 14:11:04
Data File name: H:\ACE\DATA\H13A\H13A0017.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File:

Dilution: 1.000 Sample Amount: 2.000
Multiplier : 10.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



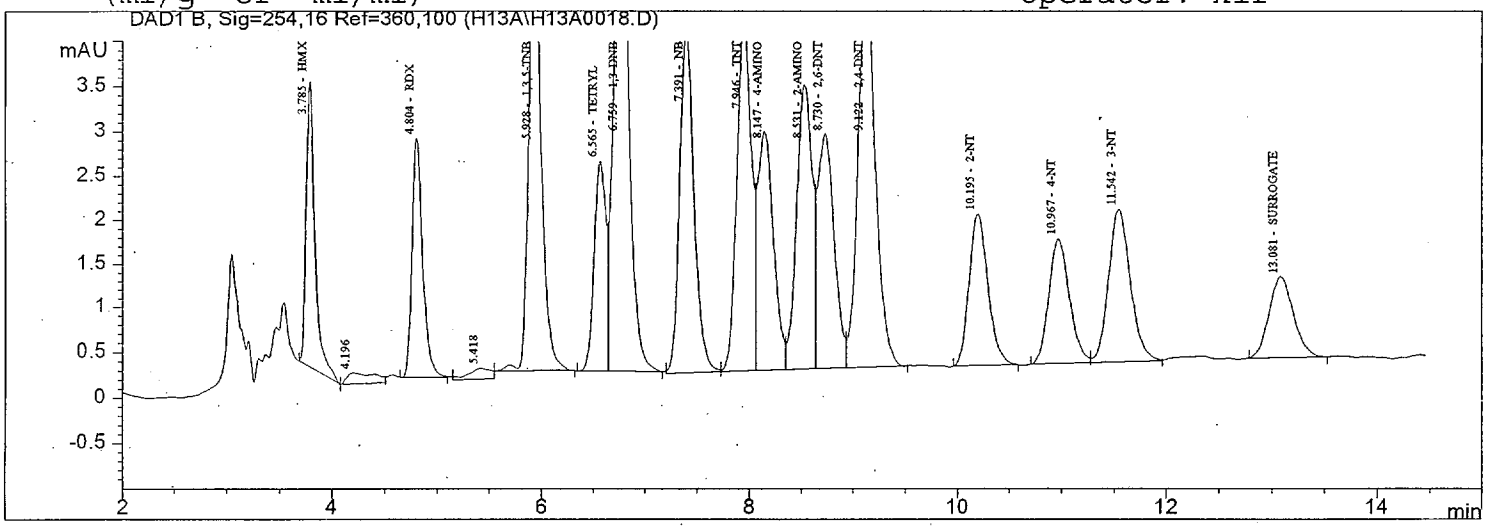
#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.789	3.786	HMX	3.09628	3102.0615
2	0.000	4.287		0.11637	0.0000
3	4.812	4.801	RDX	2.54116	3008.6065
4	5.943	5.922	1,3,5-TNB	5.16014	3088.9913
5	6.591	6.555	TETRYL	2.87710	2877.2185
6	6.776	6.749	1,3-DNB	6.59835	3072.5072
7	7.406	7.379	NB	3.75115	3131.7224
8	7.978	7.932	TNT	3.75603	3114.5661
9	8.182	8.126	4-AMINO	2.61755	3213.4976
10	8.569	8.507	2-AMINO	3.09286	3075.8038
11	8.761	8.711	2,6-DNT	2.53382	3056.3404
12	9.156	9.101	2,4-DNT	4.19896	3096.8328
13	10.226	10.173	2-NT	1.68428	3096.6642
14	10.996	10.939	4-NT	1.32626	3032.6423
15	11.574	11.512	3-NT	1.68572	3081.2916
16	13.131	13.048	SURROGATE	0.94013	1876.1191

STL-KNOXVILLE Explosives Analysis

Sample Number: FVXH71A1 MSD Print Time:8/14/03 15:04:35

Instrument Name: Ace Data Acquisition Time:8/13/03 14:28:55
Data File name: H:\ACE\DATA\H13A\H13A0018.D
Method File: H:\ACE\METHOD\H13A.M
Sequence File:

Dilution: 1.000 Sample Amount: 2.000
Multiplier : 10.000000 Injection Volume (ul): 30.000
(Final Vol / Sample Amt)
(ml/g or ml/ml) Operator: klr



#	Exp.RT	Meas.RT	Compound Name	Height	Amt (ppb)
1	3.789	3.785	HMX	3.21587	3221.8721
2	0.000	4.196		0.12113	0.0000
3	4.812	4.804	RDX	2.70110	3197.9777
4	0.000	5.418		0.12588	0.0000
5	5.943	5.928	1,3,5-TNB	5.14323	3078.8688
6	6.591	6.565	TETRYL	2.37493	2375.0283
7	6.776	6.759	1,3-DNB	6.72914	3133.4098
8	7.406	7.391	NB	3.86381	3225.7776
9	7.978	7.946	TNT	3.87890	3216.4545
10	8.182	8.147	4-AMINO	2.69643	3310.3434
11	8.569	8.531	2-AMINO	3.20072	3183.0687
12	8.761	8.730	2,6-DNT	2.64792	3193.9722
13	9.156	9.122	2,4-DNT	4.35052	3208.6161
14	10.226	10.195	2-NT	1.70604	3136.6867
15	10.996	10.967	4-NT	1.40548	3213.7944
16	11.574	11.542	3-NT	1.71969	3143.3807
17	13.131	13.081	SURROGATE	0.91040	1816.7828

Miscellaneous Data

STL Knoxville HPLC Data Review / Narrative Checklist

LOT # H3H080204

Methods 8330 by KNOX-LC-0001 Rev 7 and 8332 by KNOX-LC-0005, Rev. 0

Analysis Date:	8/13/03			
Instrument/File ID:	H13A			
ICAL File or Date:	D25AICAL			

Review Items A. Calibration	Yes	No	NA	2nd ✓	If No, why is data reportable?
1. Has a *CCAL Checklist* been completed for all calibrations?	✓			✓	
2. Was the *correct ICAL* used for quantitation?	✓			✓	
B. CLIENT SAMPLE AND QC SAMPLE Results	Yes	No	NA	2nd ✓	
1. Were all *special project requirements* met?	✓			✓	
2. Were sample *IDs*, prep *factors*, DFs *verified*?	✓			✓	
3. Sample analyses done within preparation and analytical *holding time* (HT)? *If no, list samples:* _____	✓			✓	*[ht1] HT expired upon receipt.* *[ht2] Client requested analysis after HT expired.** **Re-extraction done after HT expired.**
4. Are *surrogates* within QC limits? *If no, list samples and reason (e.g., sur1):* Sample / Reason / Sample / Reason _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	✓			✓	[sur1] MS/MSD surr. %R demonstrated same effect. [sur2] Re-extraction demonstrated same effect. **[sur3] Not enough sample for re-extraction.** **[sur4] Re-extraction done outside HT. Rerun %R acceptable; both sets of data reported.** [sur7] Obvious matrix interference. **[sur12] Surr. %R high and all targets ND.**
5. Do positive hits meet *qualitative identification criteria* (RT and 2nd column confirmation)?	✓			✓	
6. Are positive results within *calibration range*?	✓			✓	
7. Were peaks checked for *saturation*?	✓			✓	
8. Is *integration* acceptable?	✓			✓	
9. If *manual integrations* were performed, are they clearly identified, initialed, dated and reason given?	✓			✓	Reasons: 1) Corrected split peak; 2) Unresolved peak; 3) Tailing; 4) RT shift; 5) Wrong peak selected; 6) Other
10. Is largest *analyte diluted* to 20-100% of calibration range? *If no, list sample(s):* _____	✓			✓	[elev5] Elevated RLs reported due to matrix interferences
11. Final *report acceptable*? (Results correct, RLs calculated correctly, units correct, surrogate %R correct, appropriate flags used, **deviations noted in narrative**, dilution factor correct, and extraction/ analysis dates correct.)	✓			✓	
C. Preparation/Matrix QC	Yes	No	NA	2nd ✓	
1. *LCS* done per prep batch and all analytes within laboratory established QC limits? *If no, list LCS ID:* _____	✓			✓	**[lcs2] Insufficient sample for reanalysis.*** **[lcs3] LCS %R high and all analyte(s) were <RL in associated samples.**
2. *Method blank* done per prep batch, all surrogate recoveries OK, and all analytes present in the method blank < RL? *If no, list blank ID:* _____	✓			✓	**[mb1] Sample surrogates OK and there is no analyte >RL in samples associated with blank.*** **[mb3] No analyte > RL in associated samples.*** **[mb4] Sample results > 20x higher than blank.**
4. *MS/MSD* done per batch and are all recoveries and RPDs within laboratory generated control limits? *If no, list MS/MSD ID:* _____	✓			✓	[ms1] LCS acceptable - sample matrix effects. [ms2] LCS acceptable. High native analyte concentration relative to spike level.
5. Were *MS run #'s* assigned correctly?	✓			✓	
D. Other	Yes	No	NA	2nd ✓	
1. Are all *nonconformances* documented appropriately?			✓	✓	
2. Are the correct *scanned file names* provided with report?	✓			✓	

Analyst: [signature]	Date: 8/15/03	2nd Level Reviewer: mop	Date: 8/18/03
Comments:		Comments:	

RQC058

Severn Trent Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 8/11/03
Time: 15:49:23

LEV 1	LEV 2		LEV 1	LEV 2	
_	_	Blank	_	_	Weights/Volumes
_	_	Check	_	_	Spike & Surrogate Worksheet
_	_	MS/MSD	_	_	Vial contains correct volume
			_	_	Labels, greenbars, worksheets
			_	_	computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
_ Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: _____
_____

Concentrationist: _____
_____

Reviewer/Date: _____ / 0/00/00

QC BATCH: 3223497

PREP DATE: 8/12/03 17:00
COMP DATE: 8/13/03 11:00

Nitroaromatics & Nitramines: Explosives (8330)
SONICATION - Low Level

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
8/20/03	8/22/03	H3H080204-001 **FVXG5-1-AC**	D	13	A0	SOLID	**2.0g** 20.00mL	NA	NA	NA		.0		.0	LC1197 35.3PPM/100UL
COMMENTS:															
8/20/03	8/22/03	H3H080204-002 **FVXHQ-1-AJ**	D	13	A0	SOLID	**2.0g** 20.00mL	NA	NA	NA		.0		.0	LC1197 35.3PPM/100UL
COMMENTS:															
8/20/03	8/22/03	H3H080204-003 **FVXHV-1-AJ**	D	13	A0	SOLID	**2.0g** 20.00mL	NA	NA	NA		.0		.0	LC1197 35.3PPM/100UL
COMMENTS:															
8/20/03	8/22/03	H3H080204-004 **FVXH2-1-AJ**	D	13	A0	SOLID	**2.0g** 20.00mL	NA	NA	NA		.0		.0	LC1197 35.3PPM/100UL
COMMENTS:															
8/20/03	8/22/03	H3H080204-005 3223237 **FVXH7-1-AX**	D	13	A0	SOLID	**2.0g** 20.00mL	NA	NA	NA		.0		.0	LC1197 35.3PPM/100UL
COMMENTS:															
8/20/03	8/22/03	H3H080204-005 3223237 **FVXH7-1-A0**S	D	13	A0	SOLID	**2.0g** 20.00mL	NA	NA	NA		.0		.0	LC1347 60PPM/100UL LC1197 35.3PPM/100UL
COMMENTS:															
8/20/03	8/22/03	H3H080204-005 3223237 **FVXH7-1-A1**D	D	13	A0	SOLID	**2.0g** 20.00mL	NA	NA	NA		.0		.0	LC1347 60PPM/100UL LC1197 35.3PPM/100UL
COMMENTS:															

RQC058

Severn Trent Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 8/11/03
Time: 15:49:23

QC BATCH: 3223497

PREP DATE: 8/12/03 17:00
COMP DATE: 8/13/03 11:00

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
8/20/03	8/22/03	H3H080204-006 **FVXJL-1-AJ**	D	13	A0	SOLID	**2.0g** 20.00mL	NA	NA	NA		.0		.0	LC1197 35.3PPM/100UL
COMMENTS:															
8/20/03	8/22/03	H3H080204-007 **FVXJQ-1-AJ**	D	13	A0	SOLID	**2.0g** 20.00mL	NA	NA	NA		.0		.0	LC1197 35.3PPM/100UL
COMMENTS:															
8/20/03	8/22/03	H3H080204-008 **FVXJ0-1-AJ**	D	13	A0	SOLID	**2.0g** 20.00mL	NA	NA	NA		.0		.0	LC1197 35.3PPM/100UL
COMMENTS:															
8/20/03	0/00/00	H3H110000-497 **FV3QW-1-AAB**		13	A0	SOLID	**2.0g** 20.00mL	NA	NA	NA		.0		.0	LC1197 35.3PPM/100UL
COMMENTS:															
8/20/03	0/00/00	H3H110000-497 **FV3QW-1-ACC**		13	A0	SOLID	**2.0g** 20.00mL	NA	NA	NA		.0		.0	LC1347 60PPM/100UL LC1197 35.3PPM/100UL
COMMENTS:															

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD
‡

NUMBER OF WORK ORDERS IN BATCH: 12

Metals

Sample Results

SHAW E & I INC

Client Sample ID: DB0001

TOTAL Metals

Lot-Sample #...: H3H080204-001 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
% Moisture.....: 20

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3224131						
Mercury	**0.027 B**	**0.041**	**mg/kg**	**SW846 7471A**	**08/12/03**	**FVXG51A4**
		Dilution Factor: 1		Analysis Time..: 14:41	MDL.....: 0.012	
Prep Batch #...: 3224241						
Aluminum	**4840**	**25.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AD**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 4.1	
Antimony	**0.53 B**	**7.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AE**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.26	
Arsenic	**12.1**	**1.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AF**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.57	
Barium	**21.2 J**	**6.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AG**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.14	
Beryllium	**0.39 B**	**0.62**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AH**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.025	
Cadmium	ND	0.62	mg/kg	SW846 6010B	08/12-08/13/03	FVXG51AJ
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.10	
Calcium	**900**	**624**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AK**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 4.0	
Chromium	**5.5**	**1.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AL**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.50	
Cobalt	**2.3 B**	**6.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AM**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.24	
Copper	**11.3**	**3.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AN**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.12	
Iron	**14000**	**12.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AP**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 3.0	
Lead	**13.5 J**	**0.37**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AQ**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.16	

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SHAW E & I INC

Client Sample ID: DB0001

TOTAL Metals

Lot-Sample #...: H3H080204-001 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	**671**	**624**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AR**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 2.2	
Manganese	**41.6 J**	**1.9**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AT**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.087	
Nickel	**7.1**	**5.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AU**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.42	
Potassium	**776**	**624**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AV**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 24.8	
Selenium	**0.48 B**	**0.62**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51AW**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.31	
Silver	ND	1.2	mg/kg	SW846 6010B	08/12-08/13/03	FVXG51AX
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.35	
Sodium	**662**	**624**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51A0**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 113	
Thallium	**1.3**	**1.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51A1**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.34	
Vanadium	**12.7**	**6.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51A2**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.26	
Zinc	**30.9**	**2.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXG51A3**
		Dilution Factor: 1		Analysis Time..: 11:03	MDL.....: 0.26	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SHAW E & I INC

Client Sample ID: DB0002

TOTAL Metals

Lot-Sample #...: H3H080204-002 Matrix.....: SOLID
Date Sampled...: 08/06/03 Date Received..: 08/08/03
% Moisture.....: 23

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3224131						
Mercury	0.036 B	0.043	mg/kg	SW846 7471A	08/12/03	FVXHQ1AF
		Dilution Factor: 1		Analysis Time..: 14:43	MDL.....: 0.013	
Prep Batch #...: 3224241						
Aluminum	8520	26.1	mg/kg	SW846 6010B	08/12-08/13/03	FVXHQ1AK
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 4.3	
Antimony	0.79 B	7.8	mg/kg	SW846 6010B	08/12-08/13/03	FVXHQ1AL
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.27	
Arsenic	5.7	1.3	mg/kg	SW846 6010B	08/12-08/13/03	FVXHQ1AM
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.60	
Barium	71.7 J	6.5	mg/kg	SW846 6010B	08/12-08/13/03	FVXHQ1AN
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.14	
Beryllium	0.64 B	0.65	mg/kg	SW846 6010B	08/12-08/13/03	FVXHQ1AP
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.026	
Cadmium	0.34 B	0.65	mg/kg	SW846 6010B	08/12-08/13/03	FVXHQ1AQ
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.10	
Calcium	5010	652	mg/kg	SW846 6010B	08/12-08/13/03	FVXHQ1AR
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 4.2	
Chromium	12.2	1.3	mg/kg	SW846 6010B	08/12-08/13/03	FVXHQ1AT
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.52	
Cobalt	6.9	6.5	mg/kg	SW846 6010B	08/12-08/13/03	FVXHQ1AU
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.25	
Copper	15.2	3.3	mg/kg	SW846 6010B	08/12-08/13/03	FVXHQ1AV
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.13	
Iron	15300	13.0	mg/kg	SW846 6010B	08/12-08/13/03	FVXHQ1AW
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 3.1	
Lead	19.0 J	0.39	mg/kg	SW846 6010B	08/12-08/13/03	FVXHQ1AX
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.17	

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SHAW E & I INC

Client Sample ID: DB0002

TOTAL Metals

Lot-Sample #...: H3H080204-002 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	**1940**	**652**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1A0**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 2.3	
Manganese	**319 J**	**2.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1A1**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.091	
Nickel	**15.7**	**5.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1A2**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.44	
Potassium	**1500**	**652**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1A3**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 26.0	
Selenium	**0.75**	**0.65**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1A4**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.33	
Silver	ND	1.3	mg/kg	SW846 6010B	08/12-08/13/03	FVXHQ1A5
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.37	
Sodium	**759**	**652**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AA**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 118	
Thallium	**0.82 B**	**1.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AC**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.35	
Vanadium	**20.7**	**6.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AD**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.27	
Zinc	**62.9**	**2.6**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHQ1AE**
		Dilution Factor: 1		Analysis Time..: 11:07	MDL.....: 0.27	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SHAW E & I INC

Client Sample ID: DB0003

TOTAL Metals

Lot-Sample #...: H3H080204-003 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
% Moisture.....: 9.9

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3224131						
Mercury	ND	0.037	mg/kg	SW846 7471A	08/12/03	FVXHV1AF
		Dilution Factor: 1		Analysis Time..: 14:45	MDL.....: 0.011	
Prep Batch #...: 3224241						
Aluminum	**2940**	**22.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AK**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 3.7	
Antimony	ND	6.7	mg/kg	SW846 6010B	08/12-08/13/03	FVXHV1AL
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.23	
Arsenic	**1.7**	**1.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AM**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.51	
Barium	**12.3 J**	**5.6**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AN**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.12	
Beryllium	**0.18 B**	**0.56**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AP**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.022	
Cadmium	ND	0.56	mg/kg	SW846 6010B	08/12-08/13/03	FVXHV1AQ
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.089	
Calcium	**663**	**555**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AR**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 3.6	
Chromium	**2.7**	**1.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AT**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.44	
Cobalt	**1.3 B**	**5.6**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AU**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.21	
Copper	**2.1 B**	**2.8**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AV**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.11	
Iron	**3490**	**11.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AW**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 2.7	
Lead	**4.7 J**	**0.33**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AX**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.14	

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SHAW E & I INC

Client Sample ID: DB0003

TOTAL Metals

Lot-Sample #...: H3H080204-003 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	**439 B**	**555**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1A0**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 2.0	
Manganese	**41.5 J**	**1.7**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1A1**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.078	
Nickel	**3.4 B**	**4.4**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1A2**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.38	
Potassium	**187 B**	**555**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1A3**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 22.1	
Selenium	ND	0.56	mg/kg	SW846 6010B	08/12-08/13/03	FVXHV1A4
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.28	
Silver	ND	1.1	mg/kg	SW846 6010B	08/12-08/13/03	FVXHV1A5
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.31	
Sodium	**284 B**	**555**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AA**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 101	
Thallium	**0.55 B**	**1.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AC**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.30	
Vanadium	**4.4 B**	**5.6**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AD**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.23	
Zinc	**18.7**	**2.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXHV1AE**
		Dilution Factor: 1		Analysis Time..: 11:39	MDL.....: 0.23	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

SHAW E & I INC

Client Sample ID: DB0004

TOTAL Metals

Lot-Sample #...: H3H080204-004 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
% Moisture.....: 9.7

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3224131						
Mercury	ND	0.037	mg/kg	SW846 7471A	08/12/03	FVXH21AF
		Dilution Factor: 1		Analysis Time..: 14:47	MDL.....: 0.011	
Prep Batch #...: 3224241						
Aluminum	**2930**	**22.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AK**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 3.7	
Antimony	ND	6.6	mg/kg	SW846 6010B	08/12-08/13/03	FVXH21AL
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.23	
Arsenic	**1.7**	**1.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AM**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.51	
Barium	**12.2 J**	**5.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AN**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.12	
Beryllium	**0.17 B**	**0.55**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AP**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.022	
Cadmium	ND	0.55	mg/kg	SW846 6010B	08/12-08/13/03	FVXH21AQ
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.089	
Calcium	**713**	**554**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AR**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 3.5	
Chromium	**2.6**	**1.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AT**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.44	
Cobalt	**1.3 B**	**5.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AU**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.21	
Copper	**2.0 B**	**2.8**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AV**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.11	
Iron	**3480**	**11.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AW**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 2.7	
Lead	**4.5 J**	**0.33**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AX**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.14	

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SHAW E & I INC

Client Sample ID: DB0004

TOTAL Metals

Lot-Sample #...: H3H080204-004 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	**448 B**	**554**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21A0**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 2.0	
Manganese	**42.8 J**	**1.7**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21A1**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.078	
Nickel	**3.4 B**	**4.4**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21A2**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.38	
Potassium	**195 B**	**554**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21A3**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 22.0	
Selenium	ND	0.55	mg/kg	SW846 6010B	08/12-08/13/03	FVXH21A4
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.28	
Silver	ND	1.1	mg/kg	SW846 6010B	08/12-08/13/03	FVXH21A5
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.31	
Sodium	**245 B**	**554**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AA**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 101	
Thallium	ND	1.1	mg/kg	SW846 6010B	08/12-08/13/03	FVXH21AC
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.30	
Vanadium	**4.4 B**	**5.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AD**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.23	
Zinc	**18.8**	**2.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH21AE**
		Dilution Factor: 1		Analysis Time..: 11:43	MDL.....: 0.23	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

SHAW E & I INC

Client Sample ID: DB0006

TOTAL Metals

Lot-Sample #...: H3H080204-005 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
% Moisture.....: 16

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3224131						
Mercury	**0.044**	**0.039**	**mg/kg**	**SW846 7471A**	**08/12/03**	**FVXH71AP**
		Dilution Factor: 1		Analysis Time..: 14:49	MDL.....: 0.012	
Prep Batch #...: 3224241						
Aluminum	**5080**	**23.9**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71A2**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 3.9	
Antimony	ND	7.2	mg/kg	SW846 6010B	08/12-08/13/03	FVXH71A5
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.25	
Arsenic	**5.7**	**1.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71A8**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.55	
Barium	**46.1 J**	**6.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71CC**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.13	
Beryllium	**0.48 B**	**0.60**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71CF**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.024	
Cadmium	**0.26 B**	**0.60**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71CJ**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.096	
Calcium	**12800**	**598**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71CM**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 3.8	
Chromium	**44.8**	**1.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71CQ**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.48	
Cobalt	**7.0**	**6.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71CU**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.23	
Copper	**15.9**	**3.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71CX**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.12	
Iron	**14400**	**12.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71C2**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 2.9	
Lead	**15.6 J**	**0.36**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXH71C5**
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.16	

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SHAW E & I INC

Client Sample ID: DB0006

TOTAL Metals

Lot-Sample #...: H3H080204-005 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	3190	598	mg/kg	SW846 6010B	08/12-08/13/03	FVXH71C8
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 2.2	
Manganese	324 J	1.8	mg/kg	SW846 6010B	08/12-08/13/03	FVXH71DC
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.084	
Nickel	42.4	4.8	mg/kg	SW846 6010B	08/12-08/13/03	FVXH71DF
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.41	
Potassium	761	598	mg/kg	SW846 6010B	08/12-08/13/03	FVXH71DJ
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 23.8	
Selenium	0.36 B	0.60	mg/kg	SW846 6010B	08/12-08/13/03	FVXH71DM
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.30	
Silver	ND	1.2	mg/kg	SW846 6010B	08/12-08/13/03	FVXH71DQ
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.34	
Sodium	717	598	mg/kg	SW846 6010B	08/12-08/13/03	FVXH71AA
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 109	
Thallium	0.53 B	1.2	mg/kg	SW846 6010B	08/12-08/13/03	FVXH71AE
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.32	
Vanadium	11.6	6.0	mg/kg	SW846 6010B	08/12-08/13/03	FVXH71AH
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.25	
Zinc	60.0	2.4	mg/kg	SW846 6010B	08/12-08/13/03	FVXH71AL
		Dilution Factor: 1		Analysis Time..: 11:12	MDL.....: 0.25	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

SHAW E & I INC

Client Sample ID: DB0007

TOTAL Metals

Lot-Sample #...: H3H080204-006 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
% Moisture.....: 25

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3224131						
Mercury	**0.043 B**	**0.044**	**mg/kg**	**SW846 7471A**	**08/12/03**	**FVXJL1AF**
		Dilution Factor: 1		Analysis Time..: 14:59	MDL.....: 0.013	
Prep Batch #...: 3224241						
Aluminum	**9570**	**26.8**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AK**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 4.4	
Antimony	**0.55 B**	**8.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AL**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.28	
Arsenic	**12.3**	**1.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AM**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.62	
Barium	**66.7 J**	**6.7**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AN**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.15	
Beryllium	**0.89**	**0.67**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AP**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.027	
Cadmium	ND	0.67	mg/kg	SW846 6010B	08/12-08/13/03	FVXJL1AQ
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.11	
Calcium	**305 B**	**670**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AR**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 4.3	
Chromium	**10.4**	**1.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AT**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.54	
Cobalt	**4.9 B**	**6.7**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AU**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.25	
Copper	**35.4**	**3.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AV**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.13	
Iron	**13800**	**13.4**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AW**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 3.2	
Lead	**28.3 J**	**0.40**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AX**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.17	

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SHAW E & I INC

Client Sample ID: DB0007

TOTAL Metals

Lot-Sample #...: H3H080204-006 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	**785**	**670**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1A0**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 2.4	
Manganese	**35.0 J**	**2.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1A1**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.094	
Nickel	**14.1**	**5.4**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1A2**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.46	
Potassium	**952**	**670**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1A3**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 26.7	
Selenium	**0.79**	**0.67**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1A4**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.33	
Silver	ND	1.3	mg/kg	SW846 6010B	08/12-08/13/03	FVXJL1A5
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.38	
Sodium	**277 B**	**670**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AA**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 122	
Thallium	**1.3**	**1.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AC**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.36	
Vanadium	**19.5**	**6.7**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AD**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.28	
Zinc	**26.1**	**2.7**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJL1AE**
		Dilution Factor: 1		Analysis Time..: 11:47	MDL.....: 0.28	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SHAW E & I INC

Client Sample ID: DB0008

TOTAL Metals

Lot-Sample #...: H3H080204-007 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
% Moisture.....: 24

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3224131						
Mercury	**0.043**	**0.043**	**mg/kg**	**SW846 7471A**	**08/12/03**	**FVXJQ1AF**
		Dilution Factor: 1		Analysis Time..: 15:00	MDL.....: 0.013	
Prep Batch #...: 3224241						
Aluminum	**5990**	**26.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AK**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 4.3	
Antimony	**0.55 B**	**7.9**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AL**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.28	
Arsenic	**8.3**	**1.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AM**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.60	
Barium	**49.2 J**	**6.6**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AN**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.14	
Beryllium	**0.66**	**0.66**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AP**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.026	
Cadmium	**0.14 B**	**0.66**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AQ**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.11	
Calcium	**920**	**657**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AR**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 4.2	
Chromium	**6.0**	**1.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AT**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.53	
Cobalt	**5.7 B**	**6.6**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AU**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.25	
Copper	**7.3**	**3.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AV**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.13	
Iron	**10200**	**13.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AW**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 3.2	
Lead	**19.2 J**	**0.39**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AX**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.17	

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SHAW E & I INC

Client Sample ID: DB0008

TOTAL Metals

Lot-Sample #...: H3H080204-007 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	**788**	**657**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1A0**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 2.4	
Manganese	**347 J**	**2.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1A1**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.092	
Nickel	**11.2**	**5.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1A2**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.45	
Potassium	**545 B**	**657**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1A3**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 26.2	
Selenium	ND	0.66	mg/kg	SW846 6010B	08/12-08/13/03	FVXJQ1A4
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.33	
Silver	ND	1.3	mg/kg	SW846 6010B	08/12-08/13/03	FVXJQ1A5
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.37	
Sodium	**304 B**	**657**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AA**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 119	
Thallium	**0.57 B**	**1.3**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AC**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.35	
Vanadium	**13.9**	**6.6**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AD**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.28	
Zinc	**45.9**	**2.6**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJQ1AE**
		Dilution Factor: 1		Analysis Time..: 11:52	MDL.....: 0.28	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SHAW E & I INC

Client Sample ID: DB0009

TOTAL Metals

Lot-Sample #...: H3H080204-008 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03
% Moisture.....: 30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3224131						
Mercury	**0.058**	**0.047**	**mg/kg**	**SW846 7471A**	**08/12/03**	**FVXJ01AF**
		Dilution Factor: 1		Analysis Time..: 15:02	MDL.....: 0.014	
Prep Batch #...: 3224241						
Aluminum	**11700**	**28.4**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AK**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 4.7	
Antimony	**0.46 B**	**8.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AL**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.30	
Arsenic	**11.8**	**1.4**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AM**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.65	
Barium	**92.5 J**	**7.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AN**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.16	
Beryllium	**0.84**	**0.71**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AP**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.028	
Cadmium	ND	0.71	mg/kg	SW846 6010B	08/12-08/13/03	FVXJ01AQ
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.11	
Calcium	**391 B**	**711**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AR**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 4.6	
Chromium	**8.4**	**1.4**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AT**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.57	
Cobalt	**2.3 B**	**7.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AU**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.27	
Copper	**14.0**	**3.6**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AV**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.14	
Iron	**14100**	**14.2**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AW**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 3.4	
Lead	**35.9 J**	**0.43**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AX**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.18	

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SHAW E & I INC

Client Sample ID: DB0009

TOTAL Metals

Lot-Sample #...: H3H080204-008 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	**578 B**	**711**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01A0**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 2.6	
Manganese	**43.4 J**	**2.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01A1**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.10	
Nickel	**11.0**	**5.7**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01A2**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.48	
Potassium	**801**	**711**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01A3**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 28.3	
Selenium	**0.84**	**0.71**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01A4**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.36	
Silver	ND	1.4	mg/kg	SW846 6010B	08/12-08/13/03	FVXJ01A5
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.40	
Sodium	**732**	**711**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AA**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 129	
Thallium	**0.93 B**	**1.4**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AC**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.38	
Vanadium	**20.9**	**7.1**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AD**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.30	
Zinc	**37.7**	**2.8**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FVXJ01AE**
		Dilution Factor: 1		Analysis Time..: 11:56	MDL.....: 0.30	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

QC Summary

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: H3H120000-131 **Prep Batch #...:** 3224131						
Mercury	ND	0.033	mg/kg	SW846 7471A	08/12/03	FV34M1AA
		Dilution Factor: 1				
		Analysis Time..: 14:35				
MB Lot-Sample #: H3H120000-241 **Prep Batch #...:** 3224241						
Aluminum	ND	20.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AF
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Antimony	ND	6.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AG
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Arsenic	ND	1.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AH
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Barium	**0.12 B**	**5.0**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FV4JX1AJ**
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Beryllium	ND	0.50	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AK
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Cadmium	ND	0.50	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AL
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Calcium	ND	500	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AM
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Chromium	ND	1.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AN
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Cobalt	ND	5.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AP
		Dilution Factor: 1				
		Analysis Time..: 10:36				

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	2.5	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AQ
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Iron	ND	10.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AR
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Lead	**0.17 B**	**0.30**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FV4JX1AT**
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Magnesium	ND	500	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AU
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Manganese	**0.14 B**	**1.5**	**mg/kg**	**SW846 6010B**	**08/12-08/13/03**	**FV4JX1AV**
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Nickel	ND	4.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AW
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Potassium	ND	500	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AX
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Selenium	ND	0.50	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1A0
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Silver	ND	1.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1A1
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Sodium	ND	500	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AA
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Thallium	ND	1.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AC
		Dilution Factor: 1				
		Analysis Time..: 10:36				
Vanadium	ND	5.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AD
		Dilution Factor: 1				
		Analysis Time..: 10:36				

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	2.0	mg/kg	SW846 6010B	08/12-08/13/03	FV4JX1AE

Dilution Factor: 1
Analysis Time..: 10:36

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: H3H120000-131 **Prep Batch #...:** 3224131					
Mercury	97	(90 - 110)	SW846 7471A	08/12/03	FV34M1AC
		Dilution Factor: 1	Analysis Time..: 14:37		
LCS Lot-Sample#: H3H120000-241 **Prep Batch #...:** 3224241					
Aluminum	103	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1A6
		Dilution Factor: 1	Analysis Time..: 10:40		
Antimony	94	(88 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1A7
		Dilution Factor: 1	Analysis Time..: 10:40		
Arsenic	96	(89 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1A8
		Dilution Factor: 1	Analysis Time..: 10:40		
Barium	101	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1A9
		Dilution Factor: 1	Analysis Time..: 10:40		
Beryllium	104	(90 - 112)	SW846 6010B	08/12-08/13/03	FV4JX1CA
		Dilution Factor: 1	Analysis Time..: 10:40		
Cadmium	101	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CC
		Dilution Factor: 1	Analysis Time..: 10:40		
Calcium	102	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CD
		Dilution Factor: 1	Analysis Time..: 10:40		
Chromium	103	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CE
		Dilution Factor: 1	Analysis Time..: 10:40		
Cobalt	102	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CF
		Dilution Factor: 1	Analysis Time..: 10:40		
Copper	101	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CG
		Dilution Factor: 1	Analysis Time..: 10:40		
Iron	102	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CH
		Dilution Factor: 1	Analysis Time..: 10:40		
Lead	99	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CJ
		Dilution Factor: 1	Analysis Time..: 10:40		

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	98	(89 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CK
		Dilution Factor: 1	Analysis Time..: 10:40		
Manganese	103	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CL
		Dilution Factor: 1	Analysis Time..: 10:40		
Nickel	101	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CM
		Dilution Factor: 1	Analysis Time..: 10:40		
Potassium	99	(84 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CN
		Dilution Factor: 1	Analysis Time..: 10:40		
Selenium	94	(87 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CP
		Dilution Factor: 1	Analysis Time..: 10:40		
Silver	99	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1CQ
		Dilution Factor: 1	Analysis Time..: 10:40		
Sodium	110	(88 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1A2
		Dilution Factor: 1	Analysis Time..: 10:40		
Thallium	98	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1A3
		Dilution Factor: 1	Analysis Time..: 10:40		
Vanadium	102	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1A4
		Dilution Factor: 1	Analysis Time..: 10:40		
Zinc	105	(90 - 110)	SW846 6010B	08/12-08/13/03	FV4JX1A5
		Dilution Factor: 1	Analysis Time..: 10:40		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: H3H120000-131 **Prep Batch #...:** 3224131							
Mercury	0.833	0.808	mg/kg	97	SW846 7471A	08/12/03	FV34M1AC
			Dilution Factor: 1		Analysis Time..: 14:37		
LCS Lot-Sample#: H3H120000-241 **Prep Batch #...:** 3224241							
Aluminum	200	207	mg/kg	103	SW846 6010B	08/12-08/13/03	FV4JX1A6
			Dilution Factor: 1		Analysis Time..: 10:40		
Antimony	50.0	47.2	mg/kg	94	SW846 6010B	08/12-08/13/03	FV4JX1A7
			Dilution Factor: 1		Analysis Time..: 10:40		
Arsenic	200	192	mg/kg	96	SW846 6010B	08/12-08/13/03	FV4JX1A8
			Dilution Factor: 1		Analysis Time..: 10:40		
Barium	200	201	mg/kg	101	SW846 6010B	08/12-08/13/03	FV4JX1A9
			Dilution Factor: 1		Analysis Time..: 10:40		
Beryllium	5.00	5.21	mg/kg	104	SW846 6010B	08/12-08/13/03	FV4JX1CA
			Dilution Factor: 1		Analysis Time..: 10:40		
Cadmium	5.00	5.05	mg/kg	101	SW846 6010B	08/12-08/13/03	FV4JX1CC
			Dilution Factor: 1		Analysis Time..: 10:40		
Calcium	5000	5100	mg/kg	102	SW846 6010B	08/12-08/13/03	FV4JX1CD
			Dilution Factor: 1		Analysis Time..: 10:40		
Chromium	20.0	20.6	mg/kg	103	SW846 6010B	08/12-08/13/03	FV4JX1CE
			Dilution Factor: 1		Analysis Time..: 10:40		
Cobalt	50.0	50.9	mg/kg	102	SW846 6010B	08/12-08/13/03	FV4JX1CF
			Dilution Factor: 1		Analysis Time..: 10:40		
Copper	25.0	25.3	mg/kg	101	SW846 6010B	08/12-08/13/03	FV4JX1CG
			Dilution Factor: 1		Analysis Time..: 10:40		
Iron	100	102	mg/kg	102	SW846 6010B	08/12-08/13/03	FV4JX1CH
			Dilution Factor: 1		Analysis Time..: 10:40		
Lead	50.0	49.4	mg/kg	99	SW846 6010B	08/12-08/13/03	FV4JX1CJ
			Dilution Factor: 1		Analysis Time..: 10:40		

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	5000	4890	mg/kg	98	SW846 6010B	08/12-08/13/03	FV4JX1CK
			Dilution Factor: 1		Analysis Time..: 10:40		
Manganese	50.0	51.4	mg/kg	103	SW846 6010B	08/12-08/13/03	FV4JX1CL
			Dilution Factor: 1		Analysis Time..: 10:40		
Nickel	50.0	50.4	mg/kg	101	SW846 6010B	08/12-08/13/03	FV4JX1CM
			Dilution Factor: 1		Analysis Time..: 10:40		
Potassium	5000	4960	mg/kg	99	SW846 6010B	08/12-08/13/03	FV4JX1CN
			Dilution Factor: 1		Analysis Time..: 10:40		
Selenium	200	189	mg/kg	94	SW846 6010B	08/12-08/13/03	FV4JX1CP
			Dilution Factor: 1		Analysis Time..: 10:40		
Silver	5.00	4.96	mg/kg	99	SW846 6010B	08/12-08/13/03	FV4JX1CQ
			Dilution Factor: 1		Analysis Time..: 10:40		
Sodium	5000	5500	mg/kg	110	SW846 6010B	08/12-08/13/03	FV4JX1A2
			Dilution Factor: 1		Analysis Time..: 10:40		
Thallium	200	197	mg/kg	98	SW846 6010B	08/12-08/13/03	FV4JX1A3
			Dilution Factor: 1		Analysis Time..: 10:40		
Vanadium	50.0	51.0	mg/kg	102	SW846 6010B	08/12-08/13/03	FV4JX1A4
			Dilution Factor: 1		Analysis Time..: 10:40		
Zinc	50.0	52.6	mg/kg	105	SW846 6010B	08/12-08/13/03	FV4JX1A5
			Dilution Factor: 1		Analysis Time..: 10:40		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H3H080204-005 **Prep Batch #...:** 3224131							
						% Moisture.....: 16	
Mercury	101	(65 - 131)			SW846 7471A	08/12/03	FVXH71AQ
	111	(65 - 131)	7.8	(0-20)	SW846 7471A	08/12/03	FVXH71AR
		Dilution Factor: 1					
		Analysis Time..: 14:51					
MS Lot-Sample #: H3H080204-005 **Prep Batch #...:** 3224241							
						% Moisture.....: 16	
Aluminum	NC,MSB	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71A3
	NC,MSB	(75 - 125)		(0-20)	SW846 6010B	08/12-08/13/03	FVXH71A4
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Antimony	61 N	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71A6
	79 *	(75 - 125)	26	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71A7
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Arsenic	90	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71A9
	90	(75 - 125)	0.55	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71CA
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Barium	96	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71CD
	98	(75 - 125)	1.4	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71CE
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Beryllium	96	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71CG
	97	(75 - 125)	0.68	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71CH
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Cadmium	91	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71CK
	92	(75 - 125)	0.67	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71CL
		Dilution Factor: 1					
		Analysis Time..: 11:30					

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Calcium	102	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71CN
	159 N	(75 - 125)	16	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71CP
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Chromium	0.0 N	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71CR
	0.0 N	(75 - 125)	0.0	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71CT
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Cobalt	92	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71CV
	93	(75 - 125)	0.14	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71CW
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Copper	95	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71C0
	101	(75 - 125)	4.0	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71C1
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Iron	NC,MSB	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71C3
	NC,MSB	(75 - 125)		(0-20)	SW846 6010B	08/12-08/13/03	FVXH71C4
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Lead	89	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71C6
	88	(75 - 125)	0.12	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71C7
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Magnesium	97	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71C9
	107	(75 - 125)	5.9	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71DA
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Manganese	NC,MSB	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71DD
	NC,MSB	(75 - 125)		(0-20)	SW846 6010B	08/12-08/13/03	FVXH71DE
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Nickel	51 N	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71DG
	55 N	(75 - 125)	3.5	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71DH
		Dilution Factor: 1					
		Analysis Time..: 11:30					

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Potassium	116	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71DK
	118	(75 - 125)	1.4	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71DL
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Selenium	90	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71DN
	89	(75 - 125)	1.8	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71DP
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Silver	92	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71DR
	92	(75 - 125)	0.06	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71DT
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Sodium	89	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71AC
	87	(75 - 125)	1.3	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71AD
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Thallium	90	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71AF
	90	(75 - 125)	0.22	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71AG
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Vanadium	108	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71AJ
	111	(75 - 125)	2.2	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71AK
		Dilution Factor: 1					
		Analysis Time..: 11:30					
Zinc	100	(75 - 125)			SW846 6010B	08/12-08/13/03	FVXH71AM
	103	(75 - 125)	1.5	(0-20)	SW846 6010B	08/12-08/13/03	FVXH71AN
		Dilution Factor: 1					
		Analysis Time..: 11:30					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

N Spiked analyte recovery is outside stated control limits.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H3H080204-005 **Prep Batch #...:** 3224131									
								% Moisture.....: 16	
Mercury									
	0.044	0.199	0.245	mg/kg	101		SW846 7471A	08/12/03	FVXH71AQ
	0.044	0.199	0.265	mg/kg	111	7.8	SW846 7471A	08/12/03	FVXH71AR
			Dilution Factor: 1						
			Analysis Time..: 14:51						
MS Lot-Sample #: H3H080204-005 **Prep Batch #...:** 3224241									
								% Moisture.....: 16	
Aluminum									
	5080	239	10000	mg/kg			SW846 6010B	08/12-08/13/03	FVXH71A3
			Qualifiers: NC,MSB						
	5080	239	10500	mg/kg			SW846 6010B	08/12-08/13/03	FVXH71A4
			Qualifiers: NC,MSB						
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Antimony									
	ND	59.8	36.4 N	mg/kg	61		SW846 6010B	08/12-08/13/03	FVXH71A6
	ND	59.8	47.3 *	mg/kg	79	26	SW846 6010B	08/12-08/13/03	FVXH71A7
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Arsenic									
	5.7	239	222	mg/kg	90		SW846 6010B	08/12-08/13/03	FVXH71A9
	5.7	239	221	mg/kg	90	0.55	SW846 6010B	08/12-08/13/03	FVXH71CA
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Barium									
	46.1	239	276	mg/kg	96		SW846 6010B	08/12-08/13/03	FVXH71CD
	46.1	239	280	mg/kg	98	1.4	SW846 6010B	08/12-08/13/03	FVXH71CE
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Beryllium									
	0.48	5.98	6.23	mg/kg	96		SW846 6010B	08/12-08/13/03	FVXH71CG
	0.48	5.98	6.27	mg/kg	97	0.68	SW846 6010B	08/12-08/13/03	FVXH71CH
			Dilution Factor: 1						
			Analysis Time..: 11:30						

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cadmium									
	0.26	5.98	5.70	mg/kg	91		SW846 6010B	08/12-08/13/03	FVXH71CK
	0.26	5.98	5.74	mg/kg	92	0.67	SW846 6010B	08/12-08/13/03	FVXH71CL
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Calcium									
	12800	5980	18900	mg/kg	102		SW846 6010B	08/12-08/13/03	FVXH71CN
	12800	5980	22300 N	mg/kg	159	16	SW846 6010B	08/12-08/13/03	FVXH71CP
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Chromium									
	44.8	23.9	36.3 N	mg/kg	0.0		SW846 6010B	08/12-08/13/03	FVXH71CR
	44.8	23.9	44.0 N	mg/kg	0.0	0.0	SW846 6010B	08/12-08/13/03	FVXH71CT
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Cobalt									
	7.0	59.8	62.3	mg/kg	92		SW846 6010B	08/12-08/13/03	FVXH71CV
	7.0	59.8	62.4	mg/kg	93	0.14	SW846 6010B	08/12-08/13/03	FVXH71CW
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Copper									
	15.9	29.9	44.4	mg/kg	95		SW846 6010B	08/12-08/13/03	FVXH71C0
	15.9	29.9	46.2	mg/kg	101	4.0	SW846 6010B	08/12-08/13/03	FVXH71C1
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Iron									
	14400	120	14200	mg/kg			SW846 6010B	08/12-08/13/03	FVXH71C3
			Qualifiers: NC,MSB						
	14400	120	14700	mg/kg			SW846 6010B	08/12-08/13/03	FVXH71C4
			Qualifiers: NC,MSB						
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Lead									
	15.6	59.8	68.7	mg/kg	89		SW846 6010B	08/12-08/13/03	FVXH71C6
	15.6	59.8	68.6	mg/kg	88	0.12	SW846 6010B	08/12-08/13/03	FVXH71C7
			Dilution Factor: 1						
			Analysis Time..: 11:30						

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium									
	3190	5980	9020	mg/kg	97		SW846 6010B	08/12-08/13/03	FVXH71C9
	3190	5980	9570	mg/kg	107	5.9	SW846 6010B	08/12-08/13/03	FVXH71DA
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Manganese									
	324	59.8	365	mg/kg			SW846 6010B	08/12-08/13/03	FVXH71DD
			Qualifiers: NC,MSB						
	324	59.8	376	mg/kg			SW846 6010B	08/12-08/13/03	FVXH71DE
			Qualifiers: NC,MSB						
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Nickel									
	42.4	59.8	73.0 N	mg/kg	51		SW846 6010B	08/12-08/13/03	FVXH71DG
	42.4	59.8	75.6 N	mg/kg	55	3.5	SW846 6010B	08/12-08/13/03	FVXH71DH
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Potassium									
	761	5980	7710	mg/kg	116		SW846 6010B	08/12-08/13/03	FVXH71DK
	761	5980	7820	mg/kg	118	1.4	SW846 6010B	08/12-08/13/03	FVXH71DL
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Selenium									
	0.36	239	216	mg/kg	90		SW846 6010B	08/12-08/13/03	FVXH71DN
	0.36	239	212	mg/kg	89	1.8	SW846 6010B	08/12-08/13/03	FVXH71DP
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Silver									
	ND	5.98	5.49	mg/kg	92		SW846 6010B	08/12-08/13/03	FVXH71DR
	ND	5.98	5.49	mg/kg	92	0.06	SW846 6010B	08/12-08/13/03	FVXH71DT
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Sodium									
	717	5980	6010	mg/kg	89		SW846 6010B	08/12-08/13/03	FVXH71AC
	717	5980	5940	mg/kg	87	1.3	SW846 6010B	08/12-08/13/03	FVXH71AD
			Dilution Factor: 1						
			Analysis Time..: 11:30						

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H3H080204 **Matrix.....:** SOLID
Date Sampled...: 08/06/03 **Date Received..:** 08/08/03

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium									
	0.53	239	217	mg/kg	90		SW846 6010B	08/12-08/13/03	FVXH71AF
	0.53	239	216	mg/kg	90	0.22	SW846 6010B	08/12-08/13/03	FVXH71AG
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Vanadium									
	11.6	59.8	76.1	mg/kg	108		SW846 6010B	08/12-08/13/03	FVXH71AJ
	11.6	59.8	77.7	mg/kg	111	2.2	SW846 6010B	08/12-08/13/03	FVXH71AK
			Dilution Factor: 1						
			Analysis Time..: 11:30						
Zinc									
	60.0	59.8	120	mg/kg	100		SW846 6010B	08/12-08/13/03	FVXH71AM
	60.0	59.8	121	mg/kg	103	1.5	SW846 6010B	08/12-08/13/03	FVXH71AN
			Dilution Factor: 1						
			Analysis Time..: 11:30						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

N Spiked analyte recovery is outside stated control limits.

* Relative percent difference (RPD) is outside stated control limits.

Quality Control Results SuperTrace ICP

STL Knoxville

ICP Data Reporting Form

Initial Calibration Verification

Units: ug/L (ppb)

Instrument ID: TJA 61-E SuperTrace ICP

Data File Name: s081303.arc

Elem	True Conc	ICV 13-Aug-03 10:01 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Ag	500.0	485.29	**97.1**										
Al	12500.0	12508.55	**100.1**										
As	250.0	247.23	**98.9**										
Ba	1000.0	1021.48	**102.1**										
Be	1000.0	1021.29	**102.1**										
Ca	25000.0	25447.70	**101.8**										
Cd	250.0	255.46	**102.2**										
Co	1000.0	1034.11	**103.4**										
Cr	1000.0	1024.47	**102.4**										
Cu	1000.0	1000.14	**100.0**										
Fe	12500.0	12893.35	**103.1**										
K	25000.0	24774.80	**99.1**										
Mg	25000.0	24710.76	**98.8**										
Mn	1000.0	1032.01	**103.2**										
Na	25000.0	24776.47	**99.1**										
Ni	1000.0	1028.47	**102.8**										
Pb	250.0	252.17	**100.9**										
Sb	250.0	244.64	**97.9**										
Se	250.0	250.02	**100.0**										
Tl	500.0	497.26	**99.5**										
V	1000.0	1025.49	**102.5**										
Zn	1000.0	1049.19	**104.9**										

STL Knoxville

ICP Data Reporting Form

Continuing Calibration Verification

Units: ug/L (ppb)

Instrument ID: TJA 61-E SuperTrace ICP

Data File Name: s081303.arc

		CCV1 13-Aug-03 10:27 AM		CCV2 13-Aug-03 11:21 AM		CCV3 13-Aug-03 12:14 PM		CCV4 13-Aug-03 1:08 PM		CCV5 13-Aug-03 2:02 PM		CCV6 13-Aug-03 2:55 PM	
Elem	True Conc	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Ag	1000.0	979.91	**98.0**	975.91	**97.6**	979.31	**97.9**	987.20	**98.7**	979.09	**97.9**	968.38	**96.8**
Al	25000.0	24595.50	**98.4**	24588.00	**98.4**	24801.67	**99.2**	25149.95	**100.6**	25097.39	**100.4**	24845.86	**99.4**
As	500.0	495.14	**99.0**	492.46	**98.5**	491.08	**98.2**	494.43	**98.9**	488.25	**97.7**	486.01	**97.2**
Ba	2000.0	2005.50	**100.3**	1983.98	**99.2**	1992.38	**99.6**	2004.13	**100.2**	1998.14	**99.9**	1980.09	**99.0**
Be	2000.0	2039.49	**102.0**	2026.27	**101.3**	2019.36	**101.0**	2020.85	**101.0**	1987.60	**99.4**	1954.55	**97.7**
Ca	50000.0	50190.31	**100.4**	49938.76	**99.9**	49605.94	**99.2**	49623.74	**99.2**	48620.90	**97.2**	47757.85	**95.5**
Cd	500.0	504.09	**100.8**	497.80	**99.6**	494.05	**98.8**	493.35	**98.7**	487.72	**97.5**	482.67	**96.5**
Co	2000.0	2014.41	**100.7**	2002.22	**100.1**	1999.84	**100.0**	2005.01	**100.3**	1978.58	**98.9**	1951.94	**97.6**
Cr	2000.0	2012.72	**100.6**	1993.96	**99.7**	1983.24	**99.2**	1980.61	**99.0**	1938.21	**96.9**	1899.53	**95.0**
Cu	2000.0	1970.17	**98.5**	1963.95	**98.2**	1984.57	**99.2**	2008.92	**100.4**	2003.58	**100.2**	1978.10	**98.9**
Fe	25000.0	25148.29	**100.6**	24974.46	**99.9**	24894.60	**99.6**	24961.31	**99.8**	24606.76	**98.4**	24244.56	**97.0**
K	50000.0	49901.96	**99.8**	50076.10	**100.2**	51259.51	**102.5**	52394.01	**104.8**	52963.15	**105.9**	52767.23	**105.5**
Mg	50000.0	49068.92	**98.1**	49024.89	**98.0**	49167.83	**98.3**	49580.71	**99.2**	49266.64	**98.5**	48949.71	**97.9**
Mn	2000.0	2018.25	**100.9**	2002.98	**100.1**	1999.74	**100.0**	2001.38	**100.1**	1970.44	**98.5**	1940.33	**97.0**
Na	50000.0	48928.19	**97.9**	48629.33	**97.3**	48749.98	**97.5**	49139.72	**98.3**	48837.73	**97.7**	48271.08	**96.5**
Ni	2000.0	2013.00	**100.6**	1986.20	**99.3**	1964.08	**98.2**	1950.59	**97.5**	1925.18	**96.3**	1903.79	**95.2**
Pb	500.0	498.56	**99.7**	494.99	**99.0**	490.93	**98.2**	489.02	**97.8**	480.57	**96.1**	471.90	**94.4**
Sb	500.0	493.22	**98.6**	491.02	**98.2**	491.86	**98.4**	495.50	**99.1**	489.56	**97.9**	483.17	**96.6**
Se	500.0	493.44	**98.7**	493.20	**98.6**	495.55	**99.1**	496.57	**99.3**	493.42	**98.7**	489.13	**97.8**
Tl	1000.0	990.90	**99.1**	983.44	**98.3**	985.56	**98.6**	990.21	**99.0**	977.68	**97.8**	961.09	**96.1**
V	2000.0	2007.27	**100.4**	1993.17	**99.7**	1993.80	**99.7**	2003.57	**100.2**	1980.11	**99.0**	1954.31	**97.7**
Zn	2000.0	2047.26	**102.4**	2031.80	**101.6**	2023.82	**101.2**	2027.79	**101.4**	2006.96	**100.3**	1986.56	**99.3**

STL Knoxville

ICP Data Reporting Form

Continuing Calibration Verification

Units: ug/L (ppb)

Instrument ID: TJA 61-E SuperTrace ICP

Data File Name: s081303.arc

Elem	True Conc	CCV7 13-Aug-03 3:32 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Ag	1000.0	951.21	**95.1**										
Al	25000.0	24413.91	**97.7**										
As	500.0	479.57	**95.9**										
Ba	2000.0	1953.46	**97.7**										
Be	2000.0	1923.03	**96.2**										
Ca	50000.0	46972.29	**93.9**										
Cd	500.0	477.80	**95.6**										
Co	2000.0	1925.37	**96.3**										
Cr	2000.0	1862.69	**93.1**										
Cu	2000.0	1938.79	**96.9**										
Fe	25000.0	23845.66	**95.4**										
K	50000.0	52049.72	**104.1**										
Mg	50000.0	48382.15	**96.8**										
Mn	2000.0	1907.13	**95.4**										
Na	50000.0	47386.20	**94.8**										
Ni	2000.0	1884.60	**94.2**										
Pb	500.0	466.88	**93.4**										
Sb	500.0	477.68	**95.5**										
Se	500.0	486.82	**97.4**										
Tl	1000.0	953.26	**95.3**										
V	2000.0	1925.46	**96.3**										
Zn	2000.0	1962.33	**98.1**										

STL Knoxville

ICP Data Reporting Form

Contract Required Detection Limit Standard(s)

Units: ug/L (ppb)

Instrument ID: TJA 61-E SuperTrace ICP

Data File Name: s081303.arc

Elem	True Conc	CRI1 13-Aug-03 10:10 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Ag	10.0	9.93	**99.3**										
Al	400.0	383.40	**95.9**										
As	20.0	20.14	**100.7**										
Ba	20.0	19.72	**98.6**										
Be	10.0	10.29	**102.9**										
Ca	10000.0	9856.21	**98.6**										
Cd	4.0	3.99	**99.8**										
Co	100.0	101.08	**101.1**										
Cr	10.0	9.94	**99.4**										
Cu	50.0	46.53	**93.1**										
Fe	200.0	188.82	**94.4**										
K	10000.0	9164.37	**91.6**										
Mg	10000.0	9761.38	**97.6**										
Mn	30.0	31.24	**104.1**										
Na	10000.0	9856.67	**98.6**										
Ni	80.0	81.50	**101.9**										
Pb	6.0	4.40	**73.3**										
Sb	20.0	18.99	**94.9**										
Se	10.0	9.39	**93.9**										
Tl	20.0	20.70	**103.5**										
V	100.0	100.76	**100.8**										
Zn	40.0	41.58	**103.9**										

STL Knoxville

ICP Data Reporting Form

Initial Calibration Blank(s)

Units: ug/L (ppb)

Instrument ID: TJA 61-E SuperTrace ICP

Data File Name: s081303.arc

Elem	Reporting Limit	ICB 13-Aug-03 10:06 AM											
		Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag
Ag	10.0	0.7	U										
Al	200.0	14.1	B										
As	10.0	1.8	U										
Ba	50.0	0.2	U										
Be	5.0	0.1	B										
Ca	5000.0	13.0	U										
Cd	5.0	0.2	U										
Co	50.0	0.4	U										
Cr	10.0	0.6	U										
Cu	25.0	0.6	B										
Fe	100.0	8.1	U										
K	5000.0	-30.3	B										
Mg	5000.0	12.2	U										
Mn	15.0	0.3	U										
Na	5000.0	-663.8	B										
Ni	40.0	1.3	U										
Pb	3.0	1.2	U										
Sb	60.0	1.7	U										
Se	5.0	2.4	U										
Tl	10.0	1.7	B										
V	50.0	0.5	U										
Zn	20.0	2.5	B										

B - Analyte concentration is between IDL and Reporting Limit
U - Analyte concentration is less than IDL

STL Knoxville

ICP Data Reporting Form

Continuing Calibration Blank(s)

Units: ug/L (ppb)

Instrument ID: TJA 61-E SuperTrace ICP

Data File Name: s081303.arc

Elem	Reporting Limit	CCB1 13-Aug-03 10:32 AM		CCB2 13-Aug-03 11:25 AM		CCB3 13-Aug-03 12:19 PM		CCB4 13-Aug-03 1:12 PM		CCB5 13-Aug-03 2:06 PM		CCB6 13-Aug-03 3:00 PM	
		Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag
Ag	10.0	0.7	U	0.7	U	0.7	U	0.7	U	0.7	B	0.7	U
Al	200.0	13.0	U	13.5	B	21.2	B	36.5	B	49.9	B	60.2	B
As	10.0	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U
Ba	50.0	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Be	5.0	0.3	B	0.1	B	0.1	U	0.1	U	0.1	U	0.1	U
Ca	5000.0	17.8	B	13.0	U	13.0	U	13.0	U	13.0	U	13.0	U
Cd	5.0	0.2	U	0.2	U	0.2	U	0.2	U	0.2	B	0.2	U
Co	50.0	0.4	U	0.4	U	0.6	B	0.4	U	0.4	U	0.4	U
Cr	10.0	0.6	U	0.6	U	0.6	U	0.6	B	0.6	U	0.6	U
Cu	25.0	0.5	U	0.5	U	-0.7	B	-1.7	B	-2.7	B	-3.9	B
Fe	100.0	8.1	U	8.1	U	8.1	U	8.1	U	8.1	U	8.1	U
K	5000.0	-43.9	B	-33.5	B	-45.3	B	-54.9	B	-57.6	B	-62.8	B
Mg	5000.0	15.4	B	12.2	U	12.2	U	12.2	U	12.2	U	12.2	U
Mn	15.0	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U
Na	5000.0	-657.3	B	-712.1	B	-697.9	B	-621.2	B	-595.8	B	-689.9	B
Ni	40.0	1.3	U	1.3	U	1.8	B	1.3	U	1.3	U	1.3	U
Pb	3.0	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
Sb	60.0	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
Se	5.0	2.4	U	2.4	U	2.4	U	2.4	U	2.4	U	2.4	U
Tl	10.0	3.8	B	4.2	B	4.6	B	3.6	B	4.3	B	3.5	B
V	50.0	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Zn	20.0	0.4	B	0.8	B	1.3	B	0.8	B	1.6	B	1.6	B

B - Analyte concentration is between IDL and Reporting Limit
U - Analyte concentration is less than IDL

STL Knoxville

ICP Data Reporting Form

Continuing Calibration Blank(s)

Units: ug/L (ppb)

Instrument ID: TJA 61-E SuperTrace ICP

Data File Name: s081303.arc

Elem	Reporting Limit	CCB7 13-Aug-03 3:37 PM											
		Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag
Ag	10.0	0.7	U										
Al	200.0	72.1	B										
As	10.0	1.8	U										
Ba	50.0	0.2	U										
Be	5.0	0.2	B										
Ca	5000.0	13.0	U										
Cd	5.0	0.2	U										
Co	50.0	0.4	U										
Cr	10.0	0.6	U										
Cu	25.0	-4.8	B										
Fe	100.0	8.1	U										
K	5000.0	-67.4	B										
Mg	5000.0	12.2	U										
Mn	15.0	0.3	U										
Na	5000.0	-775.0	B										
Ni	40.0	1.3	U										
Pb	3.0	1.2	U										
Sb	60.0	1.7	U										
Se	5.0	2.4	U										
Tl	10.0	2.3	B										
V	50.0	0.5	U										
Zn	20.0	1.3	B										

B - Analyte concentration is between IDL and Reporting Limit
U - Analyte concentration is less than IDL

STL Knoxville

ICP Data Reporting Form

Interference Check Standard A

Units: ug/L (ppb)

Instrument ID: TJA 61-E SuperTrace ICP

Data File Name: s081303.arc

Elem	True Conc	Reporting Limit	ICSA1 13-Aug-03 10:18 AM				
			Found	Found	Found	Found	Found
Ag		10	0				
Al	500000		467217				
As		10	4				
Ba		50	3				
Be		5	-1				
Ca	500000		470796				
Cd		5	3				
Co		50	1				
Cr		10	-1				
Cu		25	2				
Fe	200000		191808				
K		5000	-693				
Mg	500000		521433				
Mn		15	-1				
Na		5000	-628				
Ni		40	1				
Pb		3	-1				
Sb		60	2				
Se		5	-3				
Tl		10	-3				
V		50	4				
Zn		20	7				

STL Knoxville

ICP Data Reporting Form

Interference Check Standard AB

Units: ug/L (ppb)

Instrument ID: TJA 61-E SuperTrace ICP

Data File Name: s081303.arc

Elem	True Conc	ICSAB1 13-Aug-03 10:23 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Ag	200	207.9	**104.0**										
Al	500000	463971.7	**92.8**										
As	100	103.9	**103.9**										
Ba	500	517.0	**103.4**										
Be	500	490.7	**98.1**										
Ca	500000	470195.6	**94.0**										
Cd	1000	950.9	**95.1**										
Co	500	484.6	**96.9**										
Cr	500	477.5	**95.5**										
Cu	500	536.7	**107.3**										
Fe	200000	191196.3	**95.6**										
K	10000	11112.2	**111.1**										
Mg	500000	520757.4	**104.2**										
Mn	500	504.0	**100.8**										
Na	10000	11019.7	**110.2**										
Ni	1000	947.0	**94.7**										
Pb	50	45.4	**90.8**										
Sb	600	609.0	**101.5**										
Se	50	45.9	**91.9**										
Tl	100	91.7	**91.7**										
V	500	504.1	**100.8**										
Zn	1000	1047.9	**104.8**										

STL Knoxville

ICP Data Reporting Form

Serial Dilution(s)

Units: ug/L (ppb)

Instrument ID: TJA 61-E SuperTrace ICP

Data File Name: s081303.arc

Element	FVXH7	FVXH7P	Percent Difference
Ag	0.68 U	3.40 U	
Al	42488.20	44776.05	5.4
As	47.76	52.80	10.6
Ba	385.23	402.40	4.5
Be	4.04 B	4.85 B	20.0
Ca	107144.28	112983.90	5.5
Cd	2.18 B	2.30 B	5.5
Co	58.52	62.30 B	6.5
Cr	374.17	396.40	5.9
Cu	133.14	136.80	2.7
Fe	120035.38	127328.85	6.1
K	6357.81	5275.30 B	17.0 E
Mg	26658.13	28125.90	5.5
Mn	2710.74	2880.25	6.3
Na	5991.98	3735.30 B	37.7
Ni	354.49	379.20	7.0
Pb	130.70	137.50	5.2
Sb	1.73 B	8.50 U	100.0
Se	3.04 B	12.00 U	100.0
Tl	4.40 B	12.75 B	189.8
V	96.61	101.65 B	5.2
Zn	501.19	533.90	6.5

B - Analyte concentration is between IDL and Reporting Limit
U - Analyte concentration is less than IDL
E - Percent Difference is greater than 10 and [OS]>50 times IDL

STL Knoxville

ICP Data Reporting Form

Instrument Detection Limits

Units: ug/L (ppb)

IDL Completion Date: 23-Apr-03

Instrument ID: TJA 61-E SuperTrace ICP

Data File Name: s081303.arc

Element	Wavelength (nm)	Reporting Limit	IDL
Ag	328.07	10.0	0.68
Al	308.21	200	13.0
As	189.04	10.0	1.8
Ba	493.41	50.0	0.17
Be	313.04	5.0	0.11
Ca	317.93	5000	13.0
Cd	226.50	5.0	0.16
Co	228.62	50.0	0.42
Cr	267.72	10.0	0.55
Cu	324.75	25.0	0.53
Fe	271.44	100	8.1
K	766.49	5000	8.5
Mg	279.08	5000	12.2
Mn	257.61	15.0	0.31
Na	330.23	5000	170
Ni	231.60	40.0	1.3
Pb	220.35	3.0	1.2
Sb	206.84	60.0	1.7
Se	196.03	5.0	2.4
Tl	190.86	10.0	1.7
V	292.40	50.0	0.50
Zn	213.86	20.0	0.29

STL Knoxville

ICP Data Reporting Form

Inter-Element Correction Factors

Instrument: TJA 61-E SuperTrace ICP **Date of IEC's:** 1/7/03

Interfering Element	Correction Factor(s)
Aluminum	V(0.002605)
Antimony	Cr(0.01058), Ni(-0.00072), V(-0.00876)
Antimony	Cr(0.0101), Ni(-0.00965)
Arsenic	Cr(-0.00313), Mo(-0.00139)
Beryllium	V(0.00031)
Boron	Co(-0.00249)
Cadmium	Co(-0.00012), Fe(0.0001)
Calcium	Fe(-0.00023)
Chromium	Al(0.00001), Fe(-0.000016)
Cobalt	Ti(0.001989)
Iron	Al(0.000227), Co(0.075169), Pb(0.002849), V(0.01037)
Lead	Al(0.00046), Ca(0.00006), Fe(0.00011), Mo(-0.00163)
Lead	Al(-0.0004), Ca(0.000074), Fe(0.000033), Mn(0.000182), V(-0.00049)
Molybdenum	Pb(0.00107)
Selenium	Al(0.000017), Fe(-0.00008), Mn(0.000352), Pb(0.000435)
Selenium	Fe(-0.0002), Mn(0.000545), Pb(0.000474)
Silica	Mg(0.00012)
Silver	Cu(0.000187), Pb(0.000155)
Strontium	Ca(0.000056)
Thallium	Al(-0.000021), Co(0.0036), Fe(-0.00004), Mn(-0.001845), V(0.00212)
Tin	Pb(0.0006)
Titanium	Cr(0.00027), Pb(0.00051)
Vanadium	Mo(-0.0017)
Zinc	Cu(0.000568), Fe(0.000101), Ni(0.00517)

STL Knoxville

ICP Data Reporting Form

Linear Dynamic Ranges

Units: ug/L (ppb)

LDR Date: 23-Apr-03

Instrument ID: TJA 61-E SuperTrace ICP

Data File Name: s081303.arc

Element	Linear Dynamic Range
Ag	2000.0
Al	500000.0
As	10000.0
Ba	10000.0
Be	10000.0
Ca	500000.0
Cd	10000.0
Co	20000.0
Cr	20000.0
Cu	10000.0
Fe	400000.0
K	100000.0
Mg	500000.0
Mn	20000.0
Na	600000.0
Ni	20000.0
Pb	10000.0
Sb	10000.0
Se	10000.0
Tl	20000.0
V	20000.0
Zn	10000.0

STL Knoxville

Data Reporting Form

Preparation Log

Preparation Batch 3224241 **Matrix:** Soil

Project Number: H3H080204

Sample ID	Prep Date	Weight (g)	Volume (ml)
FV4JXB	12-Aug-03	0.50	50.0
FV4JXC	12-Aug-03	0.50	50.0
FVXG5	12-Aug-03	0.50	50.0
FVXH2	12-Aug-03	0.50	50.0
FVXH7	12-Aug-03	0.50	50.0
FVXH7D	12-Aug-03	0.50	50.0
FVXH7S	12-Aug-03	0.50	50.0
FVXHQ	12-Aug-03	0.50	50.0
FVXHV	12-Aug-03	0.50	50.0
FVXJ0	12-Aug-03	0.50	50.0
FVXJL	12-Aug-03	0.50	50.0
FVXJQ	12-Aug-03	0.50	50.0

STL Knoxville

ICP Data Reporting Form

Analysis Run Log

Instrument ID: TJA 61-E SuperTrace ICP

Data File Name: s081303.arc

Sample Name	Date of Analysis	Time of Analysis
S0	13-Aug-03	9:48 AM
S1	13-Aug-03	9:52 AM
S2	13-Aug-03	9:57 AM
ICV	13-Aug-03	10:01 AM
ICB	13-Aug-03	10:06 AM
CRI1	13-Aug-03	10:10 AM
ICSA1	13-Aug-03	10:18 AM
ICSAB1	13-Aug-03	10:23 AM
CCV1	13-Aug-03	10:27 AM
CCB1	13-Aug-03	10:32 AM
FV4JXB	13-Aug-03	10:36 AM
FV4JXC	13-Aug-03	10:40 AM
FV3G3B	13-Aug-03	10:45 AM
FV3G3C	13-Aug-03	10:49 AM
FV4JEB	13-Aug-03	10:54 AM
FV4JEC	13-Aug-03	10:58 AM
FVXG5	13-Aug-03	11:03 AM
FVXHQ	13-Aug-03	11:07 AM
FVXH7	13-Aug-03	11:12 AM
FVXH7P	13-Aug-03	11:16 AM
CCV2	13-Aug-03	11:21 AM
CCB2	13-Aug-03	11:25 AM
FVXH7S	13-Aug-03	11:30 AM
FVXH7D	13-Aug-03	11:34 AM
FVXHV	13-Aug-03	11:39 AM
FVXH2	13-Aug-03	11:43 AM
FVXJL	13-Aug-03	11:47 AM
FVXJQ	13-Aug-03	11:52 AM
FVXJ0	13-Aug-03	11:56 AM
FV2NL	13-Aug-03	12:01 PM
FV2N2	13-Aug-03	12:05 PM
FV2PW	13-Aug-03	12:10 PM

STL Knoxville

ICP Data Reporting Form

Analysis Run Log

Instrument ID: TJA 61-E SuperTrace ICP

Data File Name: s081303.arc

Sample Name	Date of Analysis	Time of Analysis
CCV3	13-Aug-03	12:14 PM
CCB3	13-Aug-03	12:19 PM
FV2P7	13-Aug-03	12:23 PM
FV2QG	13-Aug-03	12:28 PM
FV2QR	13-Aug-03	12:32 PM
FV2QRS	13-Aug-03	12:37 PM
FV2QRD	13-Aug-03	12:41 PM
FVWL5	13-Aug-03	12:46 PM
FVWL8	13-Aug-03	12:50 PM
FVWMA	13-Aug-03	12:54 PM
FVWMD	13-Aug-03	12:59 PM
FVWMF	13-Aug-03	1:03 PM
CCV4	13-Aug-03	1:08 PM
CCB4	13-Aug-03	1:12 PM
FVWMH	13-Aug-03	1:17 PM
FVWMJ	13-Aug-03	1:21 PM
FVWML	13-Aug-03	1:26 PM
FVWMLS	13-Aug-03	1:30 PM
FVWMLX	13-Aug-03	1:35 PM
ZZZZZZ	13-Aug-03	1:39 PM
FVWMN	13-Aug-03	1:44 PM
FVWMP	13-Aug-03	1:48 PM
FVWMR	13-Aug-03	1:53 PM
FVWMT	13-Aug-03	1:57 PM
CCV5	13-Aug-03	2:02 PM
CCB5	13-Aug-03	2:06 PM
FV1AV	13-Aug-03	2:10 PM
FV1AW	13-Aug-03	2:15 PM
FV1AX	13-Aug-03	2:19 PM
DV1A0	13-Aug-03	2:24 PM
DV1A1	13-Aug-03	2:28 PM
FV1A2	13-Aug-03	2:33 PM

STL Knoxville

ICP Data Reporting Form

Analysis Run Log

Instrument ID: TJA 61-E SuperTrace ICP

Data File Name: s081303.arc

Sample Name	Date of Analysis	Time of Analysis
FV1A3	13-Aug-03	2:37 PM
FV1A4	13-Aug-03	2:42 PM
FV1A5	13-Aug-03	2:46 PM
FV1A6	13-Aug-03	2:51 PM
CCV6	13-Aug-03	2:55 PM
CCB6	13-Aug-03	3:00 PM
FV1A7	13-Aug-03	3:04 PM
FV1A7S	13-Aug-03	3:09 PM
FV1A7X	13-Aug-03	3:13 PM
ZZZZZZ	13-Aug-03	3:18 PM
FV1A8	13-Aug-03	3:22 PM
FV2N2Z10	13-Aug-03	3:28 PM
CCV7	13-Aug-03	3:32 PM
CCB7	13-Aug-03	3:37 PM

STL Knoxville

Sample ID Nomenclature

The laboratory sample ID consists of 5 alpha-numeric characters followed by a suffix in the 6th position that designates the sample type:

Suffix	Sample Type
B	Method Blank
C	Laboratory Control Sample
L	Laboratory Control Sample Duplicate
S	Matrix Spike
D	Matrix Spike Duplicate
X	Sample Duplicate
P	Serial Dilution
A	Post Digestion Spike
Z#	Dilution; # = Dilution Factor

Quality Control Results Mercury

STL Knoxville

Mercury Data Reporting Form

Initial Calibration Verification

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: H081203.PRN

		Ck2icv 8/12/03 2:24 PM											
Elem	True Conc	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Hg	2.5	2.52	**100.8**										

STL Knoxville

Mercury Data Reporting Form

Continuing Calibration Verification

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: H081203.PRN

Elem	True Conc	Ck3ccv 8/12/03 2:31 PM		Ck3ccv 8/12/03 2:55 PM		Ck3ccv 8/12/03 3:20 PM		Ck3ccv 8/12/03 3:37 PM		Ck3ccv 8/12/03 3:49 PM		Ck3ccv 8/12/03 4:10 PM	
		Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Hg	5.0	5.09	**101.8**	5.11	**102.2**	5.24	**104.8**	5.19	**103.8**	5.08	**101.6**	5.14	**102.8**

STL Knoxville

Mercury Data Reporting Form

Contract Required Detection Limit Standard(s)

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: H081203.PRN

		CRA 8/12/03 2:29 PM											
Elem	True Conc	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Hg	0.2	0.19	**92.5**										

STL Knoxville

Mercury Data Reporting Form

Initial Calibration Blank(s)

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: H081203.PRN

Elem	Reporting Limit	ICB 8/12/03 2:26 PM											
		Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag
Hg	0.2	-0.04	B										

B - Analyte concentration is between IDL and Reporting Limit
U - Analyte concentration is less than IDL

STL Knoxville

Mercury Data Reporting Form

Continuing Calibration Blank(s)

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: H081203.PRN

Elem	Reporting Limit	Ck1ccb 8/12/03 2:33 PM		Ck1ccb 8/12/03 2:57 PM		Ck1ccb 8/12/03 3:22 PM		Ck1ccb 8/12/03 3:38 PM		Ck1ccb 8/12/03 3:51 PM		Ck1ccb 8/12/03 4:12 PM	
		Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag
Hg	0.2	0.04	U	0.04	U	0.04	U	0.04	U	0.04	U	0.04	U

B - Analyte concentration is between IDL and Reporting Limit
U - Analyte concentration is less than IDL

STL Knoxville

Mercury Data Reporting Form

Instrument Detection Limits

Units: ug/L (ppb)

IDL Completion Date:5/12/03

Instrument ID: Leeman HydraAA Hg An

Data File Name: H081203.PRN

Element	Wavelength (nm)	Reporting Limit	IDL
Hg	253.70	0.2	0.04

STL Knoxville

Mercury Data Reporting Form

Preparation Log

Preparation Batch 3224131 **Matrix:** 3224131

Project Number: H3H080204

Sample ID	Prep Date	Weight (g)	Volume (ml)
FV34MB	8/12/03	0.30	50.0
FV34MC	8/12/03	0.30	50.0
FVXG5	8/12/03	0.30	50.0
FVXH2	8/12/03	0.30	50.0
FVXH7	8/12/03	0.30	50.0
FVXH7D	8/12/03	0.30	50.0
FVXH7S	8/12/03	0.30	50.0
FVXHQ	8/12/03	0.30	50.0
FVXHV	8/12/03	0.30	50.0
FVXJ0	8/12/03	0.30	50.0
FVXJL	8/12/03	0.30	50.0
FVXJQ	8/12/03	0.30	50.0

STL Knoxville

Mercury Data Reporting Form

Analysis Run Log

Instrument ID: Leeman HydraAA Hg An

Data File Name: H081203.PRN

Sample Name	Date Of Analysis	Time Of Analysis
Std01Rep1	8/12/03	2:09 PM
Std02Rep1	8/12/03	2:11 PM
Std03Rep1	8/12/03	2:13 PM
Std04Rep1	8/12/03	2:15 PM
Std05Rep1	8/12/03	2:17 PM
Std06Rep1	8/12/03	2:19 PM
Std07Rep1	8/12/03	2:21 PM
Ck2icv	8/12/03	2:24 PM
ICB	8/12/03	2:26 PM
CRA	8/12/03	2:29 PM
Ck3ccv	8/12/03	2:31 PM
Ck1ccb	8/12/03	2:33 PM
FV34MB	8/12/03	2:35 PM
FV34MC	8/12/03	2:37 PM
FVPFJ	8/12/03	2:39 PM
FVXG5	8/12/03	2:41 PM
FVXHQ	8/12/03	2:43 PM
FVXHV	8/12/03	2:45 PM
FVXH2	8/12/03	2:47 PM
FVXH7	8/12/03	2:49 PM
FVXH7S	8/12/03	2:51 PM
FVXH7D	8/12/03	2:53 PM
Ck3ccv	8/12/03	2:55 PM
Ck1ccb	8/12/03	2:57 PM
FVXJL	8/12/03	2:59 PM
FVXJQ	8/12/03	3:00 PM
FVXJ0	8/12/03	3:02 PM
FV08D	8/12/03	3:04 PM
FV08E	8/12/03	3:07 PM
FV08F	8/12/03	3:08 PM
FV08H	8/12/03	3:10 PM

STL Knoxville

Mercury Data Reporting Form

Analysis Run Log

Instrument ID: Leeman HydraAA Hg An

Data File Name: H081203.PRN

Sample Name	Date Of Analysis	Time Of Analysis
FV08J	8/12/03	3:13 PM
FV08K	8/12/03	3:16 PM
FV08L	8/12/03	3:17 PM
Ck3ccv	8/12/03	3:20 PM
Ck1ccb	8/12/03	3:22 PM
FV08M	8/12/03	3:24 PM
FV08N	8/12/03	3:26 PM
FV08P	8/12/03	3:28 PM
FV08Q	8/12/03	3:30 PM
FV34QB	8/12/03	3:32 PM
FV34QC	8/12/03	3:34 PM
Ck3ccv	8/12/03	3:37 PM
Ck1ccb	8/12/03	3:38 PM
FVQLE	8/12/03	3:41 PM
FVQLES	8/12/03	3:43 PM
FVQLED	8/12/03	3:45 PM
FVQL0	8/12/03	3:47 PM
Ck3ccv	8/12/03	3:49 PM
Ck1ccb	8/12/03	3:51 PM
FVQL2	8/12/03	3:52 PM
FVQL7	8/12/03	3:54 PM
FVQL8	8/12/03	3:56 PM
FV2NL	8/12/03	3:58 PM
FV2N2	8/12/03	4:00 PM
FV2PW	8/12/03	4:02 PM
FV2P7	8/12/03	4:04 PM
FV2QG	8/12/03	4:06 PM
FV2QR	8/12/03	4:08 PM
Ck3ccv	8/12/03	4:10 PM
Ck1ccb	8/12/03	4:12 PM

STL Knoxville

Sample ID Nomenclature

The sample ID consists of 5 alpha-numeric characters followed by a suffix in the 6th position that designates the sample type:

Suffix	Sample Type:
B	Method Blank
C	Laboratory Control Sample
L	Laboratory Control Sample Duplicate
S	Matrix Spike
D	Matrix Spike Duplicate
X	Sample Duplicate
P	Serial Dilution
A	Post Digestion Spike
Z#	Dilution; # = Dilution Factor

Raw Data
SuperTrace ICP

STL Knoxville
ICP Analysis Cover Sheet

Chart Number:	5081303	**Date of Analysis:**	8-13-03
Instrument:	ST	**Analyst:**	

Standard	ID #
Calibration Std. ID #:	
CCV (1:1 dil. of Cal. Std. ID#):	2641-21
ICV ID #:	2642-14
ICSA ID #:	2630A-12
ICSAB ID #:	2630B-12
CRI ID #:	2631-8-13

Maintenance performed ☑

Daily	Monthly or As Needed	Semi-annually	Annually
Check gases Check that argon tank pressure is 50-60 psi and that a spare tank is available. Check aspiration tubing.	Clean plasma torch assembly to remove accumulated deposits.	Replace coolant water filter (may require replacement more or less frequently, depending on the quality of water).	Notify manufacturer service engineer for scheduled preventive maintenance service.
Check vacuum pump gauge. (<10 millitorr)	Clean nebulizer and drain chamber; keep free flowing to maintain optimum performance.		Change vacuum pump oil.
Check that cooling water supply system is full and drain bottle is not full. Also ensure drain tubing is clear, tight fitting and has few bends.	Clean filters on back of power unit to remove dust.		
Check that nebulizer is not clogged.	Replace when needed: peristaltic pump tubing sample capillary tubing autosampler sipper probe.		
Check that capillary tubing is clean and in good condition.	Check yttrium position.		
Check that peristaltic pump windings are secure.	Check O-rings		
Check that high voltage switch is on.	Clean/lubricate pump rollers, autosampler arm.		
Check that exhaust screens are clean.	Check vacuum pump oil.		
Check that torch, glassware, aerosol injector tube, bonnet are clean.			

Comments: _____

```
-----------------------------------------------------------------------------
:       Instrument Upload                                   Run Log - Page  1 :
:       Started Thu Aug 14 06:11:58 2003 by SZELAGOK                          :
:       Data File: UPL$KNX_DATA_ROOT:<TJA>S081303.ARC;1                       :
-----------------------------------------------------------------------------
```

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
1	S0	1	13-AUG-2003	09:48:00			ST
2	S1	1	13-AUG-2003	09:52:00			ST
3	S2	1	13-AUG-2003	09:57:00			ST
4	ICV	1	13-AUG-2003	10:01:00			ST
5	ICB	1	13-AUG-2003	10:06:00			ST
6	CRI1	1	13-AUG-2003	10:10:00			ST
7	ICSA1	1	13-AUG-2003	10:18:00			ST
8	ICSAB1	1	13-AUG-2003	10:23:00			ST
9	CCV1	1	13-AUG-2003	10:27:00			ST
10	CCB1	1	13-AUG-2003	10:32:00			ST
11	FV4JXB	1	13-AUG-2003	10:36:00	3224241	H3H120000	ST
12	FV4JXC	1	13-AUG-2003	10:40:00	3224241	H3H120000	ST
13	FV3G3B	1	13-AUG-2003	10:45:00	3223411	H3H110000	ST
14	FV3G3C	1	13-AUG-2003	10:49:00	3223411	H3H110000	ST
15	FV4JEB	1	13-AUG-2003	10:54:00	3224235	H3H120000	ST
16	FV4JEC	1	13-AUG-2003	10:58:00	3224235	H3H120000	ST
17	FVXG5	1	13-AUG-2003	11:03:00	3224241	H3H080204	ST
18	FVXHQ	1	13-AUG-2003	11:07:00	3224241	H3H080204	ST
19	FVXH7	1	13-AUG-2003	11:12:00	3224241	H3H080204	ST
20	FVXH7P5	1	13-AUG-2003	11:16:00			ST
21	CCV2	1	13-AUG-2003	11:21:00			ST
22	CCB2	1	13-AUG-2003	11:25:00			ST
23	FVXH7S	1	13-AUG-2003	11:30:00	3224241	H3H080204	ST
24	FVXH7D	1	13-AUG-2003	11:34:00	3224241	H3H080204	ST
25	FVXHV	1	13-AUG-2003	11:39:00	3224241	H3H080204	ST
26	FVXH2	1	13-AUG-2003	11:43:00	3224241	H3H080204	ST
27	FVXJL	1	13-AUG-2003	11:47:00	3224241	H3H080204	ST
28	FVXJQ	1	13-AUG-2003	11:52:00	3224241	H3H080204	ST
29	FVXJ0	1	13-AUG-2003	11:56:00	3224241	H3H080204	ST
30	FV2NL	1	13-AUG-2003	12:01:00	3224241	H3H110119	ST
31	FV2N2	1	13-AUG-2003	12:05:00	3224241	H3H110119	ST
32	FV2PW	1	13-AUG-2003	12:10:00	3224241	H3H110119	ST
33	CCV3	1	13-AUG-2003	12:14:00			ST
34	CCB3	1	13-AUG-2003	12:19:00			ST
35	FV2P7	1	13-AUG-2003	12:23:00	3224241	H3H110119	ST
36	FV2QG	1	13-AUG-2003	12:28:00	3224241	H3H110119	ST
37	FV2QR	1	13-AUG-2003	12:32:00	3224241	H3H110119	ST
38	FV2QRS	1	13-AUG-2003	12:37:00	3224241	H3H110119	ST
39	FV2QRD	1	13-AUG-2003	12:41:00	3224241	H3H110119	ST
40	FVWL5	1	13-AUG-2003	12:46:00	3223411	H3H080111	ST
41	FVWL8	1	13-AUG-2003	12:50:00	3223411	H3H080111	ST
42	FVWMA	1	13-AUG-2003	12:54:00	3223411	H3H080111	ST
43	FVWMD	1	13-AUG-2003	12:59:00	3223411	H3H080111	ST
44	FVWMF	1	13-AUG-2003	13:03:00	3223411	H3H080111	ST

---------- (continued) ----------

```
-----------------------------------------------------------------------------
:       Instrument Upload                                   Run Log - Page  2 :
:       Started Thu Aug 14 06:11:58 2003 by SZELAGOK                          :
:       Data File: UPL$KNX_DATA_ROOT:<TJA>S081303.ARC;1                       :
-----------------------------------------------------------------------------
```

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
45	CCV4	1	13-AUG-2003	13:08:00			ST
46	CCB4	1	13-AUG-2003	13:12:00			ST
47	FVWMH	1	13-AUG-2003	13:17:00	3223411	H3H080111	ST
48	FVWMJ	1	13-AUG-2003	13:21:00	3223411	H3H080111	ST
49	FVWML	1	13-AUG-2003	13:26:00	3223411	H3H080111	ST
50	FVWMLS	1	13-AUG-2003	13:30:00	3223411	H3H080111	ST
51	FVWMLX	1	13-AUG-2003	13:35:00	3223411	H3H080111	ST
52	FVWMLP6	1	13-AUG-2003	13:39:00			ST
53	FVWMN	1	13-AUG-2003	13:44:00	3223411	H3H080111	ST
54	FVWMP	1	13-AUG-2003	13:48:00	3223411	H3H080111	ST
55	FVWMR	1	13-AUG-2003	13:53:00	3223411	H3H080111	ST
56	FVWMT	1	13-AUG-2003	13:57:00	3223411	H3H080111	ST
57	CCV5	1	13-AUG-2003	14:02:00			ST
58	CCB5	1	13-AUG-2003	14:06:00			ST
59	FV1AV	1	13-AUG-2003	14:10:00	3224235	H3H090109	ST
60	FV1AW	1	13-AUG-2003	14:15:00	3224235	H3H090109	ST
61	FV1AX	1	13-AUG-2003	14:19:00	3224235	H3H090109	ST
62	FV1A0	1	13-AUG-2003	14:24:00	3224235	H3H090109	ST
63	FV1A1	1	13-AUG-2003	14:28:00	3224235	H3H090109	ST
64	FV1A2	1	13-AUG-2003	14:33:00	3224235	H3H090109	ST
65	FV1A3	1	13-AUG-2003	14:37:00	3224235	H3H090109	ST
66	FV1A4	1	13-AUG-2003	14:42:00	3224235	H3H090109	ST
67	FV1A5	1	13-AUG-2003	14:46:00	3224235	H3H090109	ST
68	FV1A6	1	13-AUG-2003	14:51:00	3224235	H3H090109	ST
69	CCV6	1	13-AUG-2003	14:55:00			ST
70	CCB6	1	13-AUG-2003	15:00:00			ST
71	FV1A7	1	13-AUG-2003	15:04:00	3224235	H3H090109	ST
72	FV1A7S	1	13-AUG-2003	15:09:00	3224235	H3H090109	ST
73	FV1A7X	1	13-AUG-2003	15:13:00	3224235	H3H090109	ST
74	FV1A7P5	1	13-AUG-2003	15:18:00			ST
75	FV1A8	1	13-AUG-2003	15:22:00	3224235	H3H090109	ST
76	FV2N2Z10	10	13-AUG-2003	15:28:00	3224241	H3H110119	ST
77	CCV7	1	13-AUG-2003	15:32:00			ST
78	CCB7	1	13-AUG-2003	15:37:00			ST

---------- End of Report ----------

STL Knoxville ICP Chart Review Checklist
Method: 6010B/200.7 - KNOX-MT-0007, Rev 1
Page 1 of 2

Chart Name:	5081303	Instrument:	5T

A. Calibration/Instrument Run QC	NA	Yes	No	If No, why is data reportable?
1. Instrument calibrated per SOP?		✓		
2. ICV analyzed at beginning of run & within limits? (6010B = 90 - 110%R **and** <5% RSD) (200.7 = 95 - 105%R **and** <3% RSD)		✓		
3. CCV analyzed at appropriate frequency and within control limits? (6010B & SDWA 200.7 = 90 - 110%R **and** <5% RSD) (CWA 200.7 = 95 – 105%R)		✓		If no, list details: _____
4. ICB/CCB analyzed at appropriate frequency and within +/- RL?		✓		If no, list details: _____
5. ICSA/ICSAB run at required frequency? (6010B & SDWA 200.7 = beginning of run; CWA 200.7 = beginning and end of run)		✓		
6. ICSAB interferents and analytes within limits? (80 - 120%R)		✓		
7. ICSA criteria for non-interfering elements met? (RLs ≤10 ppb within +/- 2x **SOP** RL from zero) (RLs >10 ppb within +/- 1x **SOP** RL from zero) *If no, list analytes:* _____		✓		☐ [ics1] Results outside limits due to contamination. ☐ [ics2] Interfering elements not present in sample at level which would result in false result >±2x RL. ☐ [ics3] Concentration of affected analyte in sample is more than 10x analyte signal in ICSA.
8. Were all exposures for the QC standards used?		✓		If no, list details: _____
B. Client Sample and QC Sample Results	**NA**	**Yes**	**No**	
1. Were samples with concentrations > the linear range for any parameter diluted and reanalyzed?	✓			Comments: _____
2. Were RLs elevated due to matrix effects?	✓			Comments: _____
3. Internal standard (IS) response ± 30% of ICB IS? *If no, list details:* _____		✓		☐ [is] High IS response. Sample(s) rerun at dilution. ☐ Low IS response. Sample(s) reanalyzed.
C. Preparation/Matrix QC	**NA**	**Yes**	**No**	
1. Method blank done per prep batch and < RL? *If no, list blank ID and reason, i.e. [Autotext]:* *Blank ID* *[Autotext]* *Blank ID* *[Autotext]*		✓		☐ **[mb3] No analyte >RL in associated samples.*** ☐ **[mb4] Sample results >20x blank.** ☐ **[mb5] Insufficient sample for reanalysis.***
2. LCS done per prep batch and within QC limits? (6010B = 80 – 120%R or inhouse limits; 200.7 = 85 - 115%R) *If no, list LCS ID:* _____		✓		☐ **[lcs2] Insufficient sample for reanalysis.** ☐ **[lcs3] LCS recovery > QC limits and sample results are < RL.***
3. MS/MSD or MS/DUP run at required frequency?				☐ [lcsd] Insufficient sample – lcs/lcsd analyzed.
4. MS/MSD %R and RPD within QC limits? *If no, list MS/MSD ID and [Autotext]:* *MS/MSD ID* *[Autotext]* *MS/MSD ID* *[Autotext]* FVX H7 MSD3			✓	[ms1] [msd1] LCS acceptable - matrix effects. [ms2] [msd2] Native analyte > 4x spike level. [ms3] [msd3] Matrix effects and native analyte > 4x spike level.
5. PDS or PDS/PDSD analyzed at required frequency? *PDS ID* *Spike Level* *CLQC or Batch*	✓			

Such action must be taken in consultation with client.

STL Knoxville ICP Chart Review Checklist
Method: 6010B/200.7 - KNOX-MT-0007, Rev 1
Page 2 of 2

Chart Name:	5081303

C. Preparation/Matrix QC (continued)	NA	Yes	No	If No, why is data reportable?
6. Serial dilution done per prep batch?		✓		
7. Was serial dilution reanalyzed at a dilution?	✓			Comments:
8. Was the original sample analyzed on same chart as serial dilution?		✓		If no, list details:
D. Other	**NA**	**Yes**	**No**	
1. Are nonconformances documented appropriately?	✓			NCM #
2. Calculations checked for error? (Document manual calculation checks in comments section.)		✓		
3. All client/project specific requirements met? (Review PM checklists, Lot Summary or Client Analysis Summary, QAS.)		✓		List requirements added since log-in:
4. Were all samples labelled correctly in the autosampler table?			✓	If no, list details: 10:40 FV3DXC should be FV4DXC; DV1A0 at 14:24 should be FV1A0; DV1A1 at 14:28 should be FV1A1; Corrected WO# listed above in 5081303.txt. RW 8/14/03

Analyst: dgs **Date:** 8-14-03

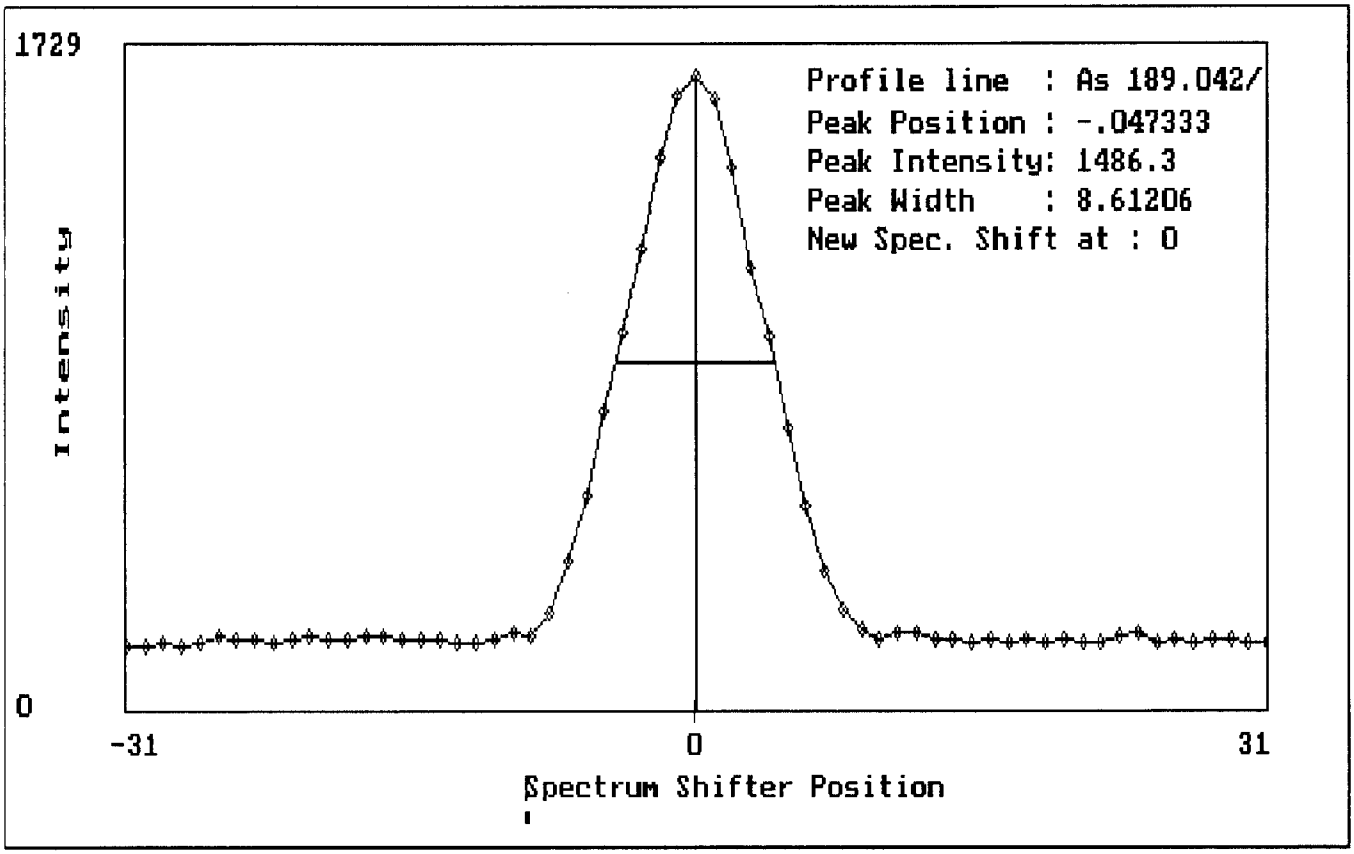
Comments:

FVXG5 (Al) 3877.0 µg/L x 0.05L/0.5g = 3877 mg/kg

Li (Al) 200.0 µg/L x 0.05L/0.5g = 20.0 mg/kg

FVWL5 (Ba) 449.55 µg/L x 0.05L x 9/2 Stv = 101.1 µg

NOTE: Nonconformance memos are required for **bold** and *italicized* [autotext] statements: **Bold** = deficiency, *italicized* = anomoly.


1729
Intensity
0
-31
0
31
Spectrum Shifter Position
Profile line : As 189.042/
Peak Position : -.047333
Peak Intensity: 1486.3
Peak Width : 8.61206
New Spec. Shift at : 0

Standardization Rpt. 08/13/03 09:52:33 AM page 1

Method: TRA10103 Standard: S0
Run Time: 08/13/03 09:48:04

Elem	Al	Sb\1	Sb\2	As	Ba	Be	Cd
Avge	.02935	-.01364	-.00201	-.00140	.00370	-.02636	.01490
SDev	.00043	.01802	.00252	.00174	.00013	.00010	.00840
%RSD	1.4780	132.11	125.54	124.58	3.3770	.36491	56.362
#1	.02963	-.00564	-.00393	-.00265	.00376	-.02647	.01708
#2	.02885	-.03427	.00085	.00059	.00355	-.02632	.02200
#3	.02958	-.00101	-.00294	-.00214	.00378	-.02630	.00563

Elem	Ca	Cr	Co	Cu	Fe	Pb/1	Pb/2
Avge	.00023	.00144	-.00102	-.00150	-.00194	.07776	-.00413
SDev	.00005	.00055	.00029	.00017	.00080	.02489	.01530
%RSD	22.223	38.364	28.805	11.574	41.197	32.010	370.03
#1	.00026	.00094	-.00085	-.00137	-.00111	.06097	.00094
#2	.00025	.00203	-.00135	-.00169	-.00271	.10636	-.02132
#3	.00017	.00134	-.00084	-.00143	-.00202	.06596	.00798

Elem	Pb	Mg	Mn	K_	Ni	Se/1	Se/2
Avge	.00022	.00037	.00017	.37920	.00034	-.01412	.01667
SDev	.00053	.00069	.00000	.00625	.00023	.00525	.00331
%RSD	239.11	187.73	.81505	1.6473	66.501	37.185	19.858
#1	-.00009	.00068	.00017	.38480	.00051	-.01076	.02041
#2	-.00008	-.00042	.00017	.38035	.00042	-.01142	.01548
#3	.00084	.00084	.00017	.37246	.00008	-.02016	.01412

Elem	Ag	Na	Tl	V_	Zn	B_	Mo
Avge	-.00155	-.00115	-.02541	.00009	.00229	.00104	-.00079
SDev	.00055	.00148	.00275	.00017	.00007	.00018	.00034
%RSD	35.550	128.46	10.824	200.01	2.8934	17.342	43.235
#1	-.00120	-.00137	-.02784	.00026	.00222	.00111	-.00060
#2	-.00127	.00042	-.02242	-.00008	.00228	.00118	-.00118
#3	-.00218	-.00252	-.02596	.00008	.00235	.00084	-.00059

Elem	Li	Sr	Ti	Sn	Si
Avge	.00034	.00023	-.00073	-.00077	.01840
SDev	.00009	.00005	.00010	.00062	.00037
%RSD	25.240	22.223	13.278	80.417	2.0257
#1	.00034	.00026	-.00068	-.00128	.01827
#2	.00042	.00025	-.00085	-.00093	.01811
#3	.00025	.00017	-.00067	-.00008	.01882

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11810	--	--	--	--	--	--
SDev	96.15697	--	--	--	--	--	--
%RSD	.8141969	--	--	--	--	--	--
#1	11710	--	--	--	--	--	--
#2	11818	--	--	--	--	--	--
#3	11902	--	--	--	--	--	--

Standardization Rpt. 08/13/03 09:57:02 AM page 1

Method: TRA10103 Standard: S1
Run Time: 08/13/03 09:52:38

Elem	Al	Sb\1	Sb\2	As	Ba	Be	Cd
Avge	4.9326	5.5721	4.1886	2.6068	8.2920	10.489	39.982
SDev	.0042	.0129	.0164	.0036	.0140	.014	.105
%RSD	.08536	.23065	.39244	.13789	.16902	.13649	.26240
#1	4.9375	5.5579	4.2074	2.6053	8.3069	10.472	39.873
#2	4.9304	5.5756	4.1816	2.6109	8.2899	10.499	40.083
#3	4.9300	5.5829	4.1769	2.6042	8.2791	10.494	39.990

Elem	Ca	Cr	Co	Cu	Fe	Pb/1	Pb/2
Avge	11.333	20.134	3.7499	3.9484	8.3208	6.1659	9.4942
SDev	.027	.042	.0052	.0077	.0134	.0068	.0536
%RSD	.24147	.21059	.13785	.19469	.16051	.11015	.56471
#1	11.302	20.085	3.7439	3.9569	8.3053	6.1598	9.4385
#2	11.347	20.151	3.7529	3.9462	8.3288	6.1647	9.4987
#3	11.351	20.164	3.7529	3.9420	8.3281	6.1732	9.5455

Elem	Pb	Mg	Mn	K_	Ni	Se/1	Se/2
Avge	.22116	35.979	1.1095	44.445	2.3989	1.4360	1.4499
SDev	.00209	.041	.0010	.164	.0042	.0026	.0094
%RSD	.94529	.11396	.08807	.36986	.17308	.18342	.64512
#1	.22343	35.931	1.1085	44.633	2.3942	1.4390	1.4391
#2	.22071	36.005	1.1104	44.377	2.4019	1.4345	1.4547
#3	.21933	36.000	1.1097	44.326	2.4007	1.4345	1.4559

Elem	Ag	Na	Tl	V_	Zn	B_	Mo
Avge	6.4934	3.7056	4.2172	1.7064	3.8433	2.2848	2.2879
SDev	.0087	.0059	.0292	.0016	.0017	.0036	.0043
%RSD	.13400	.15836	.69184	.09502	.04462	.15678	.18987
#1	6.5012	3.7118	4.1852	1.7045	3.8414	2.2818	2.2832
#2	6.4949	3.7002	4.2240	1.7075	3.8448	2.2887	2.2917
#3	6.4840	3.7048	4.2423	1.7072	3.8436	2.2839	2.2887

Elem	Li	Sr	Ti	Sn	Si
Avge	13.141	6.3877	2.9096	1.2378	1.2447
SDev	.032	.0101	.0018	.0027	.0011
%RSD	.24156	.15806	.06046	.21505	.08514
#1	13.177	6.3980	2.9093	1.2350	1.2450
#2	13.125	6.3872	2.9115	1.2383	1.2456
#3	13.120	6.3778	2.9080	1.2402	1.2435

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11393	--	--	--	--	--	--
SDev	21.95595	--	--	--	--	--	--
%RSD	.1927102	--	--	--	--	--	--
#1	11368	--	--	--	--	--	--
#2	11404	--	--	--	--	--	--
#3	11408	--	--	--	--	--	--

Standardization Report 08/13/03 09:57:03 AM page 1

Method: TRA10103 Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Pb	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
Se	196.026	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
Sb	206.838	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
Al	308.215	S1	S0	10.1994	-.299393	08/13/03 09:52:38
Sb\1	206.831	S1	S0	.179815	.002452	08/13/03 09:52:38
Sb\2	206.832	S1	S0	.239056	.000480	08/13/03 09:52:38
As	189.042	S1	S0	.376474	.000527	08/13/03 09:52:38
Ba	493.409	S1	S0	.482609	-.001784	08/13/03 09:52:38
Be	313.042	S1	S0	.380527	.010032	08/13/03 09:52:38
Cd	226.502	S1	S0	.025165	-.000375	08/13/03 09:52:38
Ca	317.933	S1	S0	8.82268	-.001994	08/13/03 09:52:38
Cr	267.716	S1	S0	.198677	-.000286	08/13/03 09:52:38
Co	228.616	S1	S0	1.06853	.001086	08/13/03 09:52:38
Cu	324.753	S1	S0	1.01269	.001515	08/13/03 09:52:38
Fe	271.441	S1	S0	6.05048	.011767	08/13/03 09:52:38
Pb/1	220.351	S1	S0	.168373	-.013093	08/13/03 09:52:38
Pb/2	220.352	S1	S0	.104302	.000431	08/13/03 09:52:38
Pb	283.306	S1	S0	4.52625	-.001011	08/13/03 09:52:38
Mg	279.078	S1	S0	2.77945	-.001019	08/13/03 09:52:38
Mn	257.610	S1	S0	3.60573	-.000611	08/13/03 09:52:38
K_	766.491	S1	S0	1.06092	.182333	08/13/03 09:52:38
Ni	231.604	S1	S0	1.66765	-.000567	08/13/03 09:52:38
Se/1	196.021	S1	S0	.688697	.009722	08/13/03 09:52:38
Se/2	196.022	S1	S0	.692433	-.011543	08/13/03 09:52:38
Ag	328.068	S1	S0	.308071	.000477	08/13/03 09:52:38
Na	330.232	S1	S0	1.03624	-.001026	08/13/03 09:52:38
Tl	190.864	S1	S0	.474344	.012052	08/13/03 09:52:38
V_	292.402	S1	S0	2.34026	-.000199	08/13/03 09:52:38
Zn	213.856	S1	S0	1.04869	-.002397	08/13/03 09:52:38
B_	249.678	S1	S0	1.74714	-.001826	08/13/03 09:52:38
Mo	202.030	S1	S0	1.74821	.001381	08/13/03 09:52:38
Li	670.784	S1	S0	.304405	-.000103	08/13/03 09:52:38
Sr	421.552	S1	S0	.627107	-.000142	08/13/03 09:52:38
Ti	334.941	S1	S0	1.37495	.001009	08/13/03 09:52:38
Sn	189.989	S1	S0	3.22994	.002472	08/13/03 09:52:38
Si	288.158	S1	S0	3.27160	-.060201	08/13/03 09:52:38

Analysis Report QC Standard 08/13/03 10:01:32 AM page 1

Method: TRA10103 Sample Name: S2 Operator: KGS
Run Time: 08/13/03 09:57:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25160	.24776	.24378	12.443	.24280	.24576	.24896
SDev	.00097	.00261	.00182	.109	.00123	.00343	.00209
%RSD	.38645	1.0531	.74758	.87862	.50719	1.3956	.83939
#1	.25067	.24500	.24177	12.333	.24175	.24180	.24724
#2	.25154	.24808	.24428	12.443	.24249	.24785	.24835
#3	.25261	.25019	.24531	12.552	.24415	.24763	.25129
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass
Value	.25000	.25000	.25000	12.500			.25000
Range	10.500	10.500	10.500	10.500			10.500

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0182	1.0224	.25605	25.481	1.0257	1.0348	.99723
SDev	.0078	.0071	.00208	.188	.0069	.0075	.00744
%RSD	.76561	.69773	.81181	.73927	.67482	.72751	.74616
#1	1.0111	1.0173	.25463	25.354	1.0200	1.0291	.99026
#2	1.0171	1.0194	.25509	25.392	1.0238	1.0320	.99637
#3	1.0266	1.0306	.25844	25.698	1.0334	1.0433	1.0051
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	.25000	25.000	1.0000	1.0000	1.0000
Range	10.500	10.500	10.500	10.500	10.500	10.500	10.500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.902	.25182	.25150	24.708	1.0323	24.514	1.0290
SDev	.082	.00087	.00130	.199	.0077	.244	.0063
%RSD	.63452	.34463	.51716	.80488	.74932	.99345	.60736
#1	12.835	.25093	.25054	24.546	1.0264	24.259	1.0258
#2	12.878	.25266	.25098	24.648	1.0294	24.539	1.0251
#3	12.993	.25187	.25298	24.930	1.0411	24.744	1.0362
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value	12.500			25.000	1.0000	25.000	1.0000
Range	10.500			10.500	10.500	10.500	10.500

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.24869	.24729	.48458	24.610	.49450	1.0245	1.0490
SDev	.00533	.00142	.00339	.132	.00716	.0079	.0071
%RSD	2.1445	.57343	.69892	.53690	1.4480	.77353	.67696
#1	.24370	.24566	.48202	24.486	.48641	1.0182	1.0436
#2	.24806	.24809	.48329	24.596	.49706	1.0217	1.0465
#3	.25431	.24814	.48842	24.749	.50003	1.0334	1.0571
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value			.50000	25.000	.50000	1.0000	1.0000
Range			10.500	10.500	10.500	10.500	10.500
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97249	1.0023	1.0127	1.0421	1.0003	.99072	1.0367
SDev	.00448	.0068	.0092	.0080	.0071	.00492	.0091
%RSD	.46069	.67360	.90687	.77252	.70657	.49657	.87964
#1	.96955	.99641	1.0034	1.0352	.99485	.98515	1.0278
#2	.97028	1.0009	1.0128	1.0401	.99778	.99254	1.0363
#3	.97765	1.0097	1.0218	1.0510	1.0083	.99447	1.0461
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.500	10.500	10.500	10.500	10.500	10.500	10.500
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11756	--	--	--	--	--	--
SDev	64.75840	--	--	--	--	--	--
%RSD	.5508349	--	--	--	--	--	--
#1	11803	--	--	--	--	--	--
#2	11784	--	--	--	--	--	--
#3	11682	--	--	--	--	--	--

Analysis Report QC Standard 08/13/03 10:06:01 AM page 1

Method: TRA10103 Sample Name: ICV Operator: KGS
Run Time: 08/13/03 10:01:37
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25217	.25003	.24465	12.509	.24458	.24478	.24723
SDev	.00069	.00195	.00068	.066	.00060	.00186	.00223
%RSD	.27283	.77991	.27724	.53004	.24708	.76072	.90113
#1	.25293	.24793	.24541	12.573	.24473	.24677	.24961
#2	.25199	.25038	.24410	12.441	.24392	.24447	.24519
#3	.25159	.25178	.24443	12.511	.24510	.24308	.24691
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass
Value	.25000	.25000	.25000	12.500			.25000
Range	10.500	10.500	10.500	10.500			10.500

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0215	1.0213	.25547	25.448	1.0245	1.0341	1.0001
SDev	.0035	.0013	.00035	.041	.0014	.0017	.0045
%RSD	.34394	.13003	.13707	.16217	.13788	.16357	.44592
#1	1.0253	1.0211	.25539	25.447	1.0240	1.0342	1.0049
#2	1.0185	1.0227	.25585	25.489	1.0261	1.0358	.99601
#3	1.0207	1.0201	.25516	25.407	1.0234	1.0324	.99955
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	.25000	25.000	1.0000	1.0000	1.0000
Range	10.500	10.500	10.500	10.500	10.500	10.500	10.500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.893	.25292	.25180	24.711	1.0320	24.775	1.0285
SDev	.033	.00281	.00196	.035	.0012	.271	.0047
%RSD	.25853	1.1108	.77735	.14326	.11877	1.0925	.45744
#1	12.905	.25117	.25381	24.751	1.0330	25.062	1.0277
#2	12.920	.25616	.24990	24.699	1.0324	24.524	1.0335
#3	12.856	.25142	.25168	24.683	1.0307	24.738	1.0242
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value	12.500			25.000	1.0000	25.000	1.0000
Range	10.500			10.500	10.500	10.500	10.500

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25333	.24838	.48530	24.776	.49727	1.0255	1.0492
SDev	.00369	.00167	.00133	.189	.00631	.0021	.0020
%RSD	1.4580	.67351	.27349	.76134	1.2693	.20301	.19402
#1	.24914	.24733	.48683	24.911	.49018	1.0277	1.0508
#2	.25611	.24751	.48454	24.561	.49931	1.0251	1.0499
#3	.25473	.25031	.48452	24.858	.50230	1.0236	1.0469
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value			.50000	25.000	.50000	1.0000	1.0000
Range			10.500	10.500	10.500	10.500	10.500
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97375	.99778	1.0199	1.0447	1.0016	.99112	1.0375
SDev	.00258	.00227	.0072	.0033	.0018	.00738	.0017
%RSD	.26451	.22737	.70283	.31182	.18066	.74502	.16437
#1	.97670	.99530	1.0274	1.0483	1.0037	.99450	1.0394
#2	.97194	.99830	1.0131	1.0419	1.0005	.99621	1.0363
#3	.97261	.99975	1.0193	1.0438	1.0007	.98265	1.0367
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Range	10.500	10.500	10.500	10.500	10.500	10.500	10.500
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11724	--	--	--	--	--	--
SDev	42.80703	--	--	--	--	--	--
%RSD	.3651142	--	--	--	--	--	--
#1	11676	--	--	--	--	--	--
#2	11756	--	--	--	--	--	--
#3	11741	--	--	--	--	--	--

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Method: TRA10103 Sample Name: ICB Operator: KGS
Run Time: 08/13/03 10:06:05
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00040	-.00125	-.00041	.01411	-.00136	.00150	.00062
SDev	.00076	.00307	.00016	.00268	.00076	.00118	.00096
%RSD	190.57	244.60	38.007	18.978	55.913	78.570	153.94
#1	-.00118	-.00450	-.00046	.01716	-.00107	.00076	.00149
#2	-.00036	.00159	-.00053	.01217	-.00223	.00286	-.00041
#3	.00034	-.00085	-.00024	.01299	-.00079	.00088	.00078
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.00305	.00505	.06005	.20005			.01005
Low	-.00305	-.00505	-.06005	-.20005			-.01005

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00002	.00013	.00007	.00272	.00031	.00003	.00057
SDev	.00003	.00006	.00009	.00046	.00008	.00022	.00015
%RSD	186.66	44.463	119.29	16.901	26.565	659.23	25.251
#1	.00002	.00007	.00005	.00326	.00022	.00027	.00065
#2	-.00004	.00017	.00017	.00246	.00033	-.00017	.00066
#3	-.00004	.00017	-.00000	.00246	.00038	.00001	.00041
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.20005	.00505	.00505	5.0000	.01005	.05005	.02505
Low	-.20005	-.00505	-.00505	-5.0000	-.01005	-.05005	-.02505

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00696	.00298	-.00209	-.00102	-.00000	-.03028	-.00000
SDev	.00117	.00324	.00090	.00122	.00000	.00261	.00042
%RSD	16.785	108.53	42.884	119.13	216.62	8.6128	12319.
#1	-.00575	-.00074	-.00140	-.00173	.00000	-.02726	.00000
#2	-.00808	.00513	-.00310	-.00172	-.00000	-.03180	.00042
#3	-.00707	.00457	-.00177	.00038	-.00000	-.03176	-.00043
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	.10005			5.0000	.01505	5.0000	.04005
Low	-.10005			-5.0000	-.01505	-5.0000	-.04005

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00020	-.00198	.00001	-.66379	.00174	-.00020	.00253
SDev	.00574	.00177	.00032	.02808	.00215	.00020	.00002
%RSD	2856.6	89.179	3770.3	4.2303	123.77	101.03	.85728
#1	-.00609	-.00371	-.00020	-.69602	.00048	.00000	.00251
#2	.00514	-.00018	.00037	-.64465	.00423	-.00020	.00254
#3	.00155	-.00205	-.00014	-.65069	.00052	-.00040	.00255
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			.01005	5.0000	.01005	.05005	.02005
Low			-.01005	-5.0000	-.01005	-.05005	-.02005

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00088	.00104	.00039	-.00002	.00008	.00056	.00021
SDev	.00008	.00060	.00007	.00003	.00001	.00136	.00061
%RSD	8.8605	57.367	17.163	172.42	6.5501	241.55	298.01
#1	.00085	.00168	.00047	.00002	.00007	.00055	-.00011
#2	.00097	.00094	.00038	-.00004	.00008	.00193	-.00018
#3	.00082	.00050	.00033	-.00004	.00008	-.00079	.00091
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05005	.04005	.00505	.00505	.00505	.10005	.10005
Low	-.05005	-.04005	-.00505	-.00505	-.00505	-.10005	-.10005

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11843	--	--	--	--	--	--
SDev	71.44399	--	--	--	--	--	--
%RSD	.6032690	--	--	--	--	--	--
#1	11760	--	--	--	--	--	--
#2	11883	--	--	--	--	--	--
#3	11885	--	--	--	--	--	--

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Method: TRA10103 Sample Name: CRI1 Operator: KGS
Run Time: 08/13/03 10:10:34
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00440	.00940	.01899	.38340	.01808	.02082	.02015
SDev	.00009	.00094	.00091	.00689	.00190	.00135	.00070
%RSD	2.0825	10.008	4.7797	1.7981	10.509	6.4580	3.4844
#1	.00434	.00981	.01978	.37678	.01932	.02070	.01958
#2	.00436	.00832	.01919	.39054	.01902	.01954	.02093
#3	.00451	.01006	.01800	.38288	.01589	.02222	.01993
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.00902	.01504	.03008	.60160			.03008
Low	.00298	.00496	.00992	.19840			.00992

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01972	.01030	.00400	9.8562	.00995	.10109	.04653
SDev	.00023	.00004	.00018	.0976	.00031	.00088	.00056
%RSD	1.1815	.37400	4.6146	.99043	3.0766	.87291	1.2028
#1	.01946	.01025	.00392	9.7492	.00961	.10010	.04593
#2	.01991	.01032	.00421	9.9404	.01001	.10179	.04703
#3	.01980	.01032	.00386	9.8790	.01021	.10138	.04664
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.03002	.01504	.00602	15.040	.01504	.15040	.07520
Low	.00992	.00496	.00198	4.9600	.00496	.04960	.02480

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18882	.00573	.00374	9.7614	.03124	9.1644	.08151
SDev	.00484	.00347	.00161	.0989	.00041	.1326	.00052
%RSD	2.5642	60.515	42.948	1.0135	1.3246	1.4470	.64072
#1	.19271	.00227	.00537	9.6536	.03078	9.0308	.08114
#2	.19036	.00572	.00369	9.8480	.03156	9.2959	.08211
#3	.18340	.00921	.00216	9.7826	.03140	9.1664	.08128
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	.30080			15.040	.04512	15.040	.12032
Low	.09920			4.9600	.01488	4.9600	.03968

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01261	.00779	.00994	9.8567	.02070	.10077	.04159
SDev	.00338	.00098	.00039	.2226	.00169	.00087	.00040
%RSD	26.776	12.635	3.9235	2.2582	8.1833	.86143	.97138
#1	.01172	.00886	.00951	9.6316	.01879	.09985	.04113
#2	.00978	.00759	.01027	10.077	.02200	.10158	.04188
#3	.01635	.00692	.01004	9.8617	.02132	.10088	.04176
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			.01504	15.040	.03008	.15040	.06016
Low			.00496	4.9600	.00992	.04960	.01984

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.39059	.07934	.10357	.10478	.10198	.19924	1.0180
SDev	.00483	.00088	.00136	.00123	.00117	.00345	.0140
%RSD	1.2357	1.1148	1.3141	1.1696	1.1474	1.7296	1.3705
#1	.38529	.07848	.10215	.10339	.10063	.19687	1.0029
#2	.39473	.08025	.10487	.10571	.10273	.19766	1.0304
#3	.39176	.07928	.10369	.10524	.10257	.20320	1.0207
Errors	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High		.12032					
Low		.03968					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11961	--	--	--	--	--	--
SDev	92.56588	--	--	--	--	--	--
%RSD	.7738857	--	--	--	--	--	--
#1	12063	--	--	--	--	--	--
#2	11881	--	--	--	--	--	--
#3	11940	--	--	--	--	--	--

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Method: TRA10103 Sample Name: ICSA1 Operator: KGS
Run Time: 08/13/03 10:18:35
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00143	-.00267	.00182	467.22	-.00128	.00804	.00375
SDev	.00051	.00211	.00269	4.06	.00603	.00708	.00228
%RSD	35.542	78.818	147.59	.86891	470.21	88.063	60.811
#1	-.00183	-.00422	.00267	471.75	-.00350	.01503	.00637
#2	-.00161	-.00352	-.00119	463.91	-.00590	.00824	.00231
#3	-.00086	-.00027	.00399	466.00	.00554	.00087	.00256
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.00600	.01000	.06000	602.45			.02000
Low	-.00600	-.01000	-.06000	397.55			-.02000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00302	-.00070	.00293	470.80	-.00109	.00079	.00170
SDev	.00010	.00011	.00028	4.67	.00049	.00050	.00032
%RSD	3.1287	15.880	9.4022	.99287	45.027	63.369	19.069
#1	.00311	-.00082	.00322	474.63	-.00052	.00029	.00151
#2	.00292	-.00060	.00267	465.59	-.00135	.00079	.00151
#3	.00304	-.00067	.00290	472.16	-.00139	.00129	.00208
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.01000	602.45	.02000	.05000	.02500
Low	-.05000	-.01000	-.01000	397.55	-.02000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	191.81	-.04357	.01960	521.43	-.00106	-.69291	.00150
SDev	1.70	.01134	.00642	4.93	.00020	.00233	.00064
%RSD	.88551	26.035	32.756	.94635	18.773	.33636	42.677
#1	193.35	-.03363	.01405	526.19	-.00129	-.69442	.00209
#2	189.99	-.04114	.01813	516.34	-.00094	-.69408	.00158
#3	192.08	-.05592	.02663	521.77	-.00094	-.69022	.00082
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	NOCHECK	LC Pass
High	240.98			602.45	.01500		.04000
Low	159.02			397.55	-.01500		-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00027	-.00414	-.00006	-.62765	-.00292	.00371	.00672
SDev	.00679	.00652	.00045	.13441	.00162	.00018	.00023
%RSD	2555.8	157.39	824.24	21.415	55.552	4.7868	3.5006
#1	.00638	-.00951	.00025	-.55197	-.00449	.00354	.00665
#2	.00146	-.00601	.00017	-.54813	-.00301	.00389	.00652
#3	-.00705	.00311	-.00058	-.78284	-.00125	.00370	.00698
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass

High			.02000	5000.0	.02000		.02000
Low			-.02000	-5000.0	-.02000		-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00261	.00057	.00012	-.01554	-.00124	.00665	-.00271
SDev	.00052	.00090	.00000	.00019	.00022	.00358	.00032
%RSD	19.967	156.94	1.9058	1.2000	17.392	53.868	11.907
#1	.00309	.00138	.00013	-.01567	-.00144	.00308	-.00242
#2	.00267	.00074	.00012	-.01532	-.00101	.00663	-.00306
#3	.00206	-.00040	.00012	-.01562	-.00128	.01024	-.00265
Errors	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High		.04000	.05000	.05000	.05000	.10000	.50000
Low		-.04000	-.05000	-.05000	-.05000	-.10000	-.50000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10782	--	--	--	--	--	--
SDev	111.2388	--	--	--	--	--	--
%RSD	1.031692	--	--	--	--	--	--
#1	10660	--	--	--	--	--	--
#2	10878	--	--	--	--	--	--
#3	10809	--	--	--	--	--	--

Analysis Report 08/13/03 10:27:27 AM page 1

Method: TRA10103 Sample Name: ICSAB1 Operator: KGS
Run Time: 08/13/03 10:23:03
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04541	.04594	.60901	463.97	.60787	.61129	.10394
SDev	.00030	.00376	.01193	7.56	.01555	.00959	.00152
%RSD	.65903	8.1739	1.9590	1.6297	2.5587	1.5696	1.4636
#1	.04563	.04765	.59534	455.31	.59115	.60373	.10220
#2	.04553	.04164	.61440	467.36	.61057	.62208	.10463
#3	.04507	.04854	.61729	469.25	.62190	.60806	.10499
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.06024	.06024	.72294	602.45			.12049
Low	.03976	.03976	.47706	397.55			.07951

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51704	.49075	.95088	470.20	.47754	.48462	.53667
SDev	.00838	.01114	.02209	11.55	.01076	.01094	.00850
%RSD	1.6212	2.2701	2.3228	2.4571	2.2524	2.2572	1.5841
#1	.50748	.47788	.92537	456.86	.46513	.47199	.52698
#2	.52052	.49704	.96371	477.22	.48355	.49123	.54016
#3	.52312	.49732	.96355	476.51	.48395	.49063	.54288
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.60245	.60245	1.2049	602.45	.60245	.60245	.60245
Low	.39755	.39755	.79510	397.55	.39755	.39755	.39755

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	191.20	.00685	.06467	520.76	.50403	11.112	.94696
SDev	4.37	.00560	.00235	12.27	.01090	.108	.02331
%RSD	2.2846	81.840	3.6343	2.3554	2.1637	.97044	2.4611
#1	186.15	.01058	.06313	506.59	.49144	11.000	.92013
#2	193.68	.00955	.06349	527.73	.51033	11.121	.96216
#3	193.75	.00040	.06737	527.95	.51032	11.215	.95860
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	240.98			602.45	.60245	12.049	1.2049
Low	159.02			397.55	.39755	7.9510	.79510

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05021	.04381	.20790	11.020	.09172	.50406	1.0479
SDev	.00892	.00544	.00341	.077	.00427	.01163	.0216
%RSD	17.756	12.407	1.6381	.70157	4.6516	2.3080	2.0626
#1	.06049	.04124	.20399	10.938	.08681	.49063	1.0230
#2	.04463	.04014	.20949	11.029	.09383	.51044	1.0585
#3	.04550	.05006	.21023	11.092	.09453	.51110	1.0621
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			.24098	12.049	.12049	.60245	1.2049
Low			.15902	7.9510	.07951	.39755	.79510

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98077	.98638	1.1490	1.0381	.99009	.97985	.97273
SDev	.01459	.02546	.0128	.0176	.01982	.02439	.01589
%RSD	1.4879	2.5815	1.1182	1.6948	2.0014	2.4894	1.6332
#1	.96393	.95707	1.1348	1.0180	.96725	.95210	.95457
#2	.98871	.99910	1.1521	1.0456	1.0003	.98953	.97955
#3	.98968	1.0030	1.1599	1.0507	1.0027	.99792	.98407
Errors	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High		1.2049					
Low		.79510					

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10863	--	--	--	--	--	--
SDev	162.5266	--	--	--	--	--	--
%RSD	1.496149	--	--	--	--	--	--
#1	11051	--	--	--	--	--	--
#2	10769	--	--	--	--	--	--
#3	10769	--	--	--	--	--	--

Analysis Report QC Standard 08/13/03 10:31:55 AM page 1

Method: TRA10103 Sample Name: CCV1 Operator: KGS
Run Time: 08/13/03 10:27:31
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49857	.49345	.49322	24.596	.49331	.49304	.49515
SDev	.00395	.00377	.00572	.104	.00626	.00466	.00346
%RSD	.79236	.76473	1.1605	.42203	1.2693	.94568	.69818
#1	.49403	.48971	.48732	24.485	.48694	.48807	.49117
#2	.50125	.49725	.49875	24.691	.49946	.49732	.49685
#3	.50042	.49338	.49360	24.610	.49353	.49373	.49742
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass
Value	.50000	.50000	.50000	25.000			.50000
Range	10.500	10.500	10.500	10.500			10.500

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0055	2.0395	.50409	50.190	2.0127	2.0144	1.9702
SDev	.0090	.0158	.00492	.450	.0171	.0154	.0074
%RSD	.44636	.77682	.97586	.89592	.85031	.76666	.37577
#1	1.9952	2.0212	.49845	49.679	1.9931	1.9966	1.9617
#2	2.0097	2.0489	.50750	50.523	2.0246	2.0241	1.9736
#3	2.0116	2.0484	.50633	50.369	2.0204	2.0226	1.9752
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	.50000	50.000	2.0000	2.0000	2.0000
Range	10.500	10.500	10.500	10.500	10.500	10.500	10.500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.148	.49909	.49831	49.069	2.0183	49.902	2.0130
SDev	.235	.00374	.00460	.369	.0152	.146	.0148
%RSD	.93291	.74983	.92262	.75175	.75324	.29310	.73295
#1	24.877	.49598	.49306	48.648	2.0007	49.833	1.9969
#2	25.282	.50324	.50026	49.337	2.0281	50.070	2.0259
#3	25.285	.49804	.50161	49.222	2.0260	49.803	2.0162
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value	25.000			50.000	2.0000	50.000	2.0000
Range	10.500			10.500	10.500	10.500	10.500

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49442	.49296	.97992	48.928	.99090	2.0073	2.0473
SDev	.00218	.00461	.00453	.296	.01191	.0145	.0147
%RSD	.44174	.93431	.46258	.60423	1.2021	.72068	.71958
#1	.49262	.48825	.97472	48.698	.97751	1.9907	2.0303
#2	.49685	.49746	.98306	49.262	.99488	2.0171	2.0570
#3	.49378	.49319	.98198	48.825	1.0003	2.0141	2.0544
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value			1.0000	50.000	1.0000	2.0000	2.0000
Range			10.500	10.500	10.500	10.500	10.500
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9698	1.9943	2.0246	2.0367	2.0030	1.9926	1.9891
SDev	.0071	.0148	.0062	.0099	.0127	.0209	.0120
%RSD	.36117	.74014	.30780	.48628	.63568	1.0505	.60186
#1	1.9617	1.9773	2.0192	2.0253	1.9883	1.9685	1.9755
#2	1.9748	2.0020	2.0314	2.0420	2.0105	2.0044	1.9982
#3	1.9730	2.0037	2.0233	2.0428	2.0102	2.0050	1.9936
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Range	10.500	10.500	10.500	10.500	10.500	10.500	10.500
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11592	--	--	--	--	--	--
SDev	56.82618	--	--	--	--	--	--
%RSD	.4902149	--	--	--	--	--	--
#1	11655	--	--	--	--	--	--
#2	11544	--	--	--	--	--	--
#3	11577	--	--	--	--	--	--

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Method: TRA10103 Sample Name: CCB1 Operator: KGS
Run Time: 08/13/03 10:32:00
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00092	-.00105	.00054	.00975	.00057	.00047	-.00024
SDev	.00027	.00123	.00077	.01722	.00169	.00110	.00160
%RSD	29.561	116.53	142.60	176.64	293.71	236.01	674.90
#1	-.00103	-.00190	.00054	-.00962	.00075	.00012	-.00209
#2	-.00111	.00035	.00130	.01555	.00216	-.00042	.00070
#3	-.00061	-.00161	-.00023	.02332	-.00119	.00170	.00067
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.00305	.00505	.06005	.20005			.01005
Low	-.00305	-.00505	-.06005	-.20005			-.01005

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00003	.00034	.00007	.01782	.00007	.00011	-.00026
SDev	.00007	.00032	.00021	.01019	.00032	.00025	.00008
%RSD	193.48	93.189	320.21	57.184	464.16	220.77	31.336
#1	-.00009	.00070	-.00014	.00643	-.00024	.00032	-.00026
#2	.00004	.00010	.00005	.02096	.00005	.00019	-.00018
#3	-.00005	.00022	.00028	.02607	.00040	-.00017	-.00035
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.20005	.00505	.00505	5.0000	.01005	.05005	.02505
Low	-.20005	-.00505	-.00505	-5.0000	-.01005	-.05005	-.02505

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00383	-.00021	-.00127	.01544	-.00002	-.04394	.00045
SDev	.01024	.00196	.00072	.01043	.00002	.01668	.00054
%RSD	267.51	950.97	56.694	67.540	107.06	37.956	120.01
#1	-.00799	-.00222	-.00044	.00340	-.00004	-.06318	-.00017
#2	.00972	-.00011	-.00160	.02114	-.00001	-.03491	.00083
#3	.00975	.00171	-.00176	.02178	-.00001	-.03372	.00069
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	.10005			5.0000	.01505	5.0000	.04005
Low	-.10005			-5.0000	-.01505	-5.0000	-.04005

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00172	-.00072	.00037	-.65732	.00383	-.00007	.00039
SDev	.00058	.00211	.00003	.00846	.00110	.00011	.00011
%RSD	33.574	292.18	9.5286	1.2863	28.688	165.00	28.783
#1	-.00157	-.00207	.00033	-.66423	.00337	-.00001	.00028
#2	-.00235	.00171	.00040	-.65983	.00509	-.00020	.00050
#3	-.00123	-.00180	.00037	-.64789	.00304	.00000	.00041
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			.01005	5.0000	.01005	.05005	.02005
Low			-.01005	-5.0000	-.01005	-.05005	-.02005

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00101	.00285	.00007	.00005	.00010	.00227	-.00225
SDev	.00016	.00079	.00003	.00003	.00003	.00310	.00154
%RSD	16.389	27.589	36.243	60.961	26.159	136.80	68.411
#1	.00082	.00375	.00007	.00006	.00013	.00401	-.00370
#2	.00111	.00255	.00010	.00007	.00009	.00410	-.00063
#3	.00110	.00226	.00005	.00001	.00009	-.00131	-.00242
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05005	.04005	.00505	.00505	.00505	.10005	.10005
Low	-.05005	-.04005	-.00505	-.00505	-.00505	-.10005	-.10005

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	12144	--	--	--	--	--	--
SDev	365.9553	--	--	--	--	--	--
%RSD	3.013588	--	--	--	--	--	--
#1	12566	--	--	--	--	--	--
#2	11918	--	--	--	--	--	--
#3	11947	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV4JXB Operator: KGS
Run Time: 08/13/03 10:36:28
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00171	-.00104	.00102	.01146	.00069	.00169	-.00040
SDev	.00118	.00223	.00076	.00331	.00192	.00175	.00049
%RSD	68.811	213.05	74.993	28.904	278.98	103.98	121.88
#1	.00304	-.00354	.00072	.01398	-.00061	.00338	-.00074
#2	.00081	-.00033	.00189	.00771	.00289	-.00012	.00016
#3	.00127	.00073	.00045	.01271	-.00022	.00180	-.00063
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.00305	.00505	.06005	.20005			.01005
Low	-.00305	-.00505	-.06005	-.20005			-.01005

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00115	-.00011	.00034	-.00476	.00110	.00005	.00019
SDev	.00003	.00008	.00011	.00372	.00025	.00028	.00005
%RSD	2.9604	77.371	32.055	77.997	22.840	528.46	28.481
#1	.00115	-.00019	.00036	-.00728	.00113	-.00019	.00013
#2	.00119	-.00009	.00043	-.00652	.00135	.00035	.00022
#3	.00112	-.00003	.00022	-.00050	.00084	-.00000	.00023
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.20005	.00505	.00505	5.0000	.01005	.05005	.02505
Low	-.20005	-.00505	-.00505	-5.0000	-.01005	-.05005	-.02505

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01089	.00523	-.00005	.00821	.00144	-.02921	.00076
SDev	.00516	.00481	.00110	.00407	.00017	.00675	.00071
%RSD	47.414	91.952	2139.8	49.586	11.961	23.106	92.707
#1	.00556	.00970	-.00029	.00374	.00124	-.03436	.00157
#2	.01587	.00014	.00115	.00920	.00155	-.02157	.00029
#3	.01125	.00585	-.00101	.01170	.00153	-.03169	.00042
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	.10005			5.0000	.01505	5.0000	.04005
Low	-.10005			-5.0000	-.01505	-5.0000	-.04005

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00501	.00094	.00052	-.46734	.00067	.00033	-.00011
SDev	.00462	.00422	.00028	.08397	.00080	.00061	.00005
%RSD	92.241	450.91	52.839	17.967	117.81	183.03	46.317
#1	-.00330	-.00366	.00053	-.45663	.00069	-.00020	-.00016
#2	-.01025	.00463	.00079	-.38924	.00146	.00100	-.00007
#3	-.00149	.00184	.00024	-.55615	-.00013	.00020	-.00009
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			.01005	5.0000	.01005	.05005	.02005
Low			-.01005	-5.0000	-.01005	-.05005	-.02005

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01144	.00068	-.00003	.00005	.00011	.01477	.00798
SDev	.00021	.00023	.00005	.00003	.00018	.00145	.00124
%RSD	1.8616	33.713	179.50	55.432	165.03	9.7908	15.575
#1	.01148	.00048	-.00005	.00002	-.00005	.01381	.00672
#2	.01163	.00063	.00003	.00007	.00030	.01408	.00920
#3	.01121	.00094	-.00005	.00007	.00008	.01643	.00802
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05005	.04005	.00505	.00505	.00505	.10005	.10005
Low	-.05005	-.04005	-.00505	-.00505	-.00505	-.10005	-.10005

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11724	--	--	--	--	--	--
SDev	63.56072	--	--	--	--	--	--
%RSD	.5421325	--	--	--	--	--	--
#1	11685	--	--	--	--	--	--
#2	11690	--	--	--	--	--	--
#3	11798	--	--	--	--	--	--

Analysis Report 08/13/03 10:45:19 AM page 1

Method: TRA10103 Sample Name: FV4JXC Operator: KGS
Run Time: 08/13/03 10:40:55
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49413	1.8884	.47204	2.0659	.47011	.47591	1.9207
SDev	.00321	.0084	.00259	.0175	.00339	.00246	.0104
%RSD	.64885	.44512	.54914	.84732	.72122	.51780	.54121
#1	.49205	1.8840	.47084	2.0749	.46752	.47750	1.9175
#2	.49782	1.8981	.47502	2.0771	.47395	.47716	1.9323
#3	.49252	1.8832	.47027	2.0458	.46888	.47307	1.9123
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.55000	2.2000	.55000	2.2000			2.2000
Low	.45000	1.7400	.44000	1.8000			1.7800

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0149	.05209	.05054	51.013	.20591	.50905	.25296
SDev	.0123	.00042	.00037	.432	.00166	.00386	.00176
%RSD	.61014	.79758	.73634	.84682	.80433	.75835	.69508
#1	2.0190	.05169	.05013	50.629	.20481	.50706	.25407
#2	2.0245	.05252	.05085	51.481	.20782	.51350	.25388
#3	2.0010	.05207	.05064	50.929	.20511	.50658	.25094
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	.05600	.05500	55.000	.22000	.55000	.27500
Low	1.8000	.04500	.04500	45.000	.18000	.45000	.22500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0203	.50389	.48926	48.887	.51449	49.581	.50441
SDev	.0183	.00099	.00451	.346	.00344	.516	.00353
%RSD	1.7977	.19669	.92072	.70765	.66808	1.0405	.70023
#1	1.0141	.50420	.48598	48.656	.51216	50.100	.50165
#2	1.0409	.50468	.49440	49.285	.51843	49.576	.50839
#3	1.0058	.50278	.48740	48.722	.51286	49.068	.50320
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000			55.000	.55000	55.000	.55000
Low	.90000			44.500	.45000	42.000	.45000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8775	1.8939	.04960	H55.016	1.9663	.51049	.52621
SDev	.0067	.0098	.00035	.310	.0203	.00341	.00356
%RSD	.35842	.51819	.70948	.56283	1.0308	.66820	.67581
#1	1.8778	1.8871	.04978	H55.306	1.9448	.50827	.52404
#2	1.8841	1.9052	.04984	H55.052	1.9851	.51442	.53032
#3	1.8706	1.8895	.04920	54.690	1.9690	.50879	.52428
Errors	NOCHECK	NOCHECK	LC Pass	LC High	LC Pass	LC Pass	LC Pass

High			.05500	55.000	2.2000	.55000	.55000
Low			.04500	44.000	1.8000	.45000	.45000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0464	1.0122	1.0261	1.0410	1.0220	2.0182	L4.5389
SDev	.0082	.0081	.0085	.0061	.0060	.0192	.0240
%RSD	.78430	.80197	.83267	.58187	.58299	.95044	.52821
#1	1.0479	1.0053	1.0341	1.0424	1.0196	2.0039	L4.5406
#2	1.0537	1.0211	1.0272	1.0462	1.0288	2.0400	L4.5619
#3	1.0375	1.0102	1.0171	1.0344	1.0176	2.0108	L4.5141
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low
High	1.2000	1.2000	1.2000	1.2000	1.2000	2.2000	12.000
Low	.80000	.80000	.80000	.80000	.80000	1.8000	8.0000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11501	--	--	--	--	--	--
SDev	69.18512	--	--	--	--	--	--
%RSD	.6015397	--	--	--	--	--	--
#1	11476	--	--	--	--	--	--
#2	11448	--	--	--	--	--	--
#3	11580	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV3G3B Operator: KGS
Run Time: 08/13/03 10:45:23
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00221	-.00123	.00187	.00211	.00225	.00110	.00012
SDev	.00049	.00093	.00052	.00236	.00111	.00144	.00131
%RSD	22.321	75.687	27.983	111.82	49.032	131.57	1056.9
#1	-.00234	-.00134	.00188	-.00008	.00144	.00276	-.00037
#2	-.00262	-.00209	.00239	.00461	.00351	.00014	.00161
#3	-.00166	-.00025	.00134	.00180	.00181	.00040	-.00087
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.00305	.00505	.06005	.20005			.01005
Low	-.00305	-.00505	-.06005	-.20005			-.01005

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00005	.00018	-.00013	-.00664	-.00003	.00032	-.00011
SDev	.00009	.00005	.00010	.00406	.00059	.00037	.00025
%RSD	178.40	29.394	72.529	61.116	1998.9	115.70	235.81
#1	-.00009	.00013	-.00009	-.01082	-.00063	.00019	-.00017
#2	.00005	.00017	-.00007	-.00272	.00054	.00073	.00017
#3	-.00011	.00024	-.00024	-.00636	.00001	.00003	-.00032
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.20005	.00505	.00505	5.0000	.01005	.05005	.02505
Low	-.20005	-.00505	-.00505	-5.0000	-.01005	-.05005	-.02505

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00664	-.00535	-.00064	.00404	-.00001	-.03341	.00022
SDev	.00735	.00326	.00109	.00753	.00000	.00620	.00083
%RSD	110.67	60.904	169.64	186.37	24.949	18.561	382.88
#1	-.00942	-.00808	.00053	-.00171	-.00001	-.02986	.00013
#2	.00169	-.00622	-.00083	.01256	-.00001	-.02980	.00109
#3	-.01219	-.00174	-.00162	.00127	-.00002	-.04057	-.00057
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	.10005			5.0000	.01505	5.0000	.04005
Low	-.10005			-5.0000	-.01505	-5.0000	-.04005

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00353	-.00360	-.00005	-.72206	.00650	-.00000	.00030
SDev	.00259	.00077	.00071	.13393	.00177	.00051	.00014
%RSD	73.463	21.503	1388.5	18.548	27.197	18214.	48.398
#1	.00163	-.00283	-.00055	-.87532	.00806	-.00039	.00023
#2	.00248	-.00438	.00076	-.62756	.00686	.00058	.00046
#3	.00648	-.00361	-.00036	-.66329	.00458	-.00020	.00020
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			.01005	5.0000	.01005	.05005	.02005
Low			-.01005	-5.0000	-.01005	-.05005	-.02005

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00078	.00191	.00003	-.00002	.00029	.00211	.00298
SDev	.00038	.00022	.00004	.00003	.00017	.00215	.00236
%RSD	48.573	11.701	122.09	147.69	59.718	102.00	79.357
#1	.00051	.00211	-.00000	-.00004	.00032	.00005	.00226
#2	.00121	.00196	.00007	.00001	.00044	.00194	.00562
#3	.00062	.00167	.00002	-.00004	.00010	.00434	.00106
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05005	.04005	.00505	.00505	.00505	.10005	.10005
Low	-.05005	-.04005	-.00505	-.00505	-.00505	-.10005	-.10005

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	12065	--	--	--	--	--	--
SDev	65.03273	--	--	--	--	--	--
%RSD	.5390073	--	--	--	--	--	--
#1	11995	--	--	--	--	--	--
#2	12078	--	--	--	--	--	--
#3	12123	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV3G3C Operator: KGS
Run Time: 08/13/03 10:49:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.46396	1.8623	L.00107	1.9183	.00115	.00092	1.8070
SDev	.00021	.0071	.00104	.0071	.00168	.00063	.0032
%RSD	.04589	.38281	96.799	.37244	147.00	67.691	.17678
#1	.46382	1.8678	L.00188	1.9125	.00269	.00026	1.8107
#2	.46420	1.8542	L.00143	1.9263	.00139	.00150	1.8047
#3	.46385	1.8649	L-.00010	1.9162	-.00065	.00101	1.8057
Errors	LC Pass	LC Pass	LC Low	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.60245	2.4098	.60245	2.4098			2.4098
Low	.39755	1.5902	.39755	1.5902			1.5902

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8757	.04871	.04704	L1.8252	.20038	.47265	.22955
SDev	.0035	.00015	.00019	.0071	.00064	.00166	.00037
%RSD	.18415	.30888	.41556	.38943	.32049	.35018	.16159
#1	1.8792	.04880	.04720	L1.8333	.20099	.47449	.22941
#2	1.8758	.04853	.04682	L1.8200	.19971	.47127	.22926
#3	1.8723	.04879	.04711	L1.8222	.20043	.47221	.22997
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass
High	2.4098	.06024	.06024	60.245	.24098	.60245	.30123
Low	1.5902	.03976	.03976	39.750	.15902	.39755	.19875

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0293	.46200	.46493	L.22907	.47501	L.04807	.47000
SDev	.0040	.00244	.00153	.00203	.00175	.00275	.00142
%RSD	.39221	.52702	.32986	.88653	.36846	5.7168	.30145
#1	1.0334	.46335	.46405	L.23107	.47702	L.05101	.47138
#2	1.0253	.45919	.46670	L.22915	.47380	L.04556	.46855
#3	1.0292	.46347	.46404	L.22701	.47421	L.04763	.47007
Errors	LC Pass	NOCHECK	NOCHECK	LC Low	LC Pass	LC Low	LC Pass
High	1.2049			60.245	.60245	60.245	.60245
Low	.79510			39.755	.39755	39.755	.39755

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8496	1.8686	.04460	L7.6437	1.8482	.46183	.49497
SDev	.0104	.0088	.00059	.0195	.0108	.00129	.00147
%RSD	.56450	.46904	1.3152	.25499	.58431	.27968	.29695
#1	1.8616	1.8709	.04496	L7.6510	1.8364	.46332	.49665
#2	1.8448	1.8590	.04393	L7.6216	1.8509	.46118	.49396
#3	1.8425	1.8760	.04492	L7.6584	1.8575	.46099	.49429
Errors	NOCHECK	NOCHECK	LC Pass	LC Low	LC Pass	LC Pass	LC Pass

High			.06024	60.245	2.4098	.60245	.60245
Low			.03976	39.755	1.5902	.39755	.39755

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99615	L.00237	.92252	.95608	L.00161	L.00439	L1.0009
SDev	.00288	.00060	.00455	.00192	.00007	.00246	.0006
%RSD	.28920	25.258	.49306	.20072	4.2880	56.177	.05908
#1	.99610	L.00272	.91827	.95827	L.00165	L.00686	L1.0003
#2	.99905	L.00270	.92732	.95529	L.00164	L.00193	L1.0015
#3	.99329	L.00168	.92196	.95468	L.00153	L.00437	L1.0010
Errors	LC Pass	LC Low	LC Pass	LC Pass	LC Low	LC Low	LC Low
High	1.2049	1.2049	1.2049	1.2049	1.2049	2.4098	12.049
Low	.79510	.79510	.79510	.79510	.79510	1.5902	7.9510

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11854	--	--	--	--	--	--
SDev	60.92278	--	--	--	--	--	--
%RSD	.5139222	--	--	--	--	--	--
#1	11784	--	--	--	--	--	--
#2	11895	--	--	--	--	--	--
#3	11884	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV4JEB Operator: KGS
Run Time: 08/13/03 10:54:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00247	-.00158	.00098	.00533	.00125	.00042	.00110
SDev	.00066	.00083	.00190	.01077	.00293	.00084	.00079
%RSD	26.726	52.453	194.53	202.15	233.77	198.75	72.156
#1	-.00171	-.00107	-.00066	-.00581	-.00092	-.00014	.00133
#2	-.00281	-.00253	.00053	.00612	.00010	.00140	.00021
#3	-.00288	-.00113	.00306	.01568	.00458	.00002	.00174
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.00305	.00505	.06005	.20005			.01005
Low	-.00305	-.00505	-.06005	-.20005			-.01005

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00026	.00017	-.00014	-.00839	.00039	.00108	.00030
SDev	.00009	.00021	.00018	.00225	.00044	.00046	.00032
%RSD	35.745	123.29	133.47	26.857	113.43	42.809	107.01
#1	.00032	.00038	.00004	-.01085	.00088	.00135	.00067
#2	.00015	.00016	-.00032	-.00790	.00001	.00055	.00007
#3	.00032	-.00004	-.00013	-.00642	.00028	.00135	.00016
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.20005	.00505	.00505	5.0000	.01005	.05005	.02505
Low	-.20005	-.00505	-.00505	-5.0000	-.01005	-.05005	-.02505

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00848	-.00696	-.00022	.00782	-.00001	-.02774	.00055
SDev	.00534	.00420	.00138	.00484	.00000	.01092	.00078
%RSD	62.963	60.337	624.88	61.935	2.5418	39.366	141.32
#1	.01419	-.00303	-.00105	.00526	-.00001	-.01515	.00041
#2	.00363	-.00647	-.00099	.00479	-.00001	-.03336	.00139
#3	.00761	-.01139	.00137	.01341	-.00001	-.03470	-.00015
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	.10005			5.0000	.01505	5.0000	.04005
Low	-.10005			-5.0000	-.01505	-5.0000	-.04005

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00298	-.00385	.00059	-.62690	.00810	.00072	.00055
SDev	.00271	.00177	.00051	.12758	.00313	.00011	.00005
%RSD	91.056	45.859	86.862	20.351	38.618	15.774	9.8377
#1	.00575	-.00447	.00117	-.47983	H.01070	.00078	.00058
#2	.00286	-.00523	.00037	-.70793	.00463	.00059	.00049
#3	.00033	-.00186	.00022	-.69292	.00899	.00078	.00059
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			.01005	5.0000	.01005	.05005	.02005
Low			-.01005	-5.0000	-.01005	-.05005	-.02005

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00212	.00163	.00010	.00005	.00043	.00238	.01025
SDev	.00053	.00037	.00003	.00003	.00020	.00095	.00209
%RSD	24.791	22.658	25.317	59.333	45.994	39.852	20.417
#1	.00271	.00124	.00013	.00007	.00032	.00139	.00878
#2	.00198	.00167	.00008	.00002	.00032	.00328	.00933
#3	.00169	.00197	.00010	.00007	.00067	.00247	.01265
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05005	.04005	.00505	.00505	.00505	.10005	.10005
Low	-.05005	-.04005	-.00505	-.00505	-.00505	-.10005	-.10005

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11949	--	--	--	--	--	--
SDev	3.596421	--	--	--	--	--	--
%RSD	.0300972	--	--	--	--	--	--
#1	11951	--	--	--	--	--	--
#2	11952	--	--	--	--	--	--
#3	11945	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV4JEC Operator: KGS
Run Time: 08/13/03 10:58:47
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.45893	1.8431	L.00074	1.8838	.00026	.00172	1.7911
SDev	.00324	.0191	.00063	.0087	.00169	.00173	.0140
%RSD	.70507	1.0369	84.050	.46155	657.92	100.37	.78078
#1	.46256	1.8651	L.00004	1.8923	-.00168	.00347	1.8073
#2	.45636	1.8316	L.00122	1.8840	.00099	.00168	1.7839
#3	.45787	1.8325	L.00098	1.8750	.00146	.00002	1.7823
Errors	LC Pass	LC Pass	LC Low	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.60245	2.4098	.60245	2.4098			2.4098
Low	.39755	1.5902	.39755	1.5902			1.5902

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8501	.04818	.04679	L1.8945	.19674	.46675	.22645
SDev	.0100	.00034	.00061	.0148	.00212	.00382	.00126
%RSD	.53932	.70062	1.2986	.78183	1.0770	.81960	.55580
#1	1.8617	.04857	.04749	L1.9110	.19917	.47106	.22790
#2	1.8442	.04803	.04639	L1.8902	.19527	.46546	.22575
#3	1.8446	.04795	.04650	L1.8823	.19578	.46374	.22569
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass
High	2.4098	.06024	.06024	60.245	.24098	.60245	.30123
Low	1.5902	.03976	.03976	39.750	.15902	.39755	.19875

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99560	.45798	.45941	L.21984	.47045	L.06519	.46534
SDev	.00383	.00754	.00202	.00191	.00336	.00595	.00430
%RSD	.38493	1.6471	.43978	.87069	.71494	9.1316	.92509
#1	.99990	.46657	.46056	L.21812	.47433	L.07158	.47024
#2	.99435	.45492	.45707	L.22190	.46853	L.06420	.46216
#3	.99255	.45244	.46058	L.21949	.46848	L.05980	.46362
Errors	LC Pass	NOCHECK	NOCHECK	LC Low	LC Pass	LC Low	LC Pass
High	1.2049			60.245	.60245	60.245	.60245
Low	.79510			39.755	.39755	39.755	.39755

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8284	1.8504	.04437	L9.5996	1.8287	.45604	.49271
SDev	.0126	.0225	.00086	.1271	.0058	.00344	.00402
%RSD	.68808	1.2179	1.9320	1.3242	.31622	.75417	.81529
#1	1.8427	1.8764	.04536	L9.7257	1.8349	.45999	.49731
#2	1.8235	1.8357	.04390	L9.6016	1.8234	.45437	.49099
#3	1.8190	1.8393	.04386	L9.4715	1.8277	.45374	.48985
Errors	NOCHECK	NOCHECK	LC Pass	LC Low	LC Pass	LC Pass	LC Pass

High			.06024	60.245	2.4098	.60245	.60245
Low			.03976	39.755	1.5902	.39755	.39755

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0040	L.00177	.90840	.94393	L.00146	L.00502	L.87714
SDev	.0067	.00084	.00448	.00562	.00018	.00105	.01443
%RSD	.66269	47.087	.49359	.59559	12.133	20.851	1.6456
#1	1.0115	L.00153	.91240	.95043	L.00142	L.00578	L.89190
#2	1.0017	L.00109	.90925	.94076	L.00165	L.00546	L.87646
#3	.99882	L.00270	.90356	.94061	L.00130	L.00383	L.86306
Errors	LC Pass	LC Low	LC Pass	LC Pass	LC Low	LC Low	LC Low
High	1.2049	1.2049	1.2049	1.2049	1.2049	2.4098	12.049
Low	.79510	.79510	.79510	.79510	.79510	1.5902	7.9510

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11829	--	--	--	--	--	--
SDev	106.4431	--	--	--	--	--	--
%RSD	.8998295	--	--	--	--	--	--
#1	11707	--	--	--	--	--	--
#2	11882	--	--	--	--	--	--
#3	11899	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVXG5 Operator: KGS
Run Time: 08/13/03 11:03:15
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.10809	.00382	.00429	38.770	.00339	.00609	.09729
SDev	.00126	.00189	.00151	.653	.00222	.00075	.00140
%RSD	1.1612	49.425	35.145	1.6835	65.437	12.317	1.4429
#1	.10809	.00335	.00546	39.323	.00540	.00558	.09880
#2	.10934	.00590	.00482	38.936	.00376	.00696	.09704
#3	.10683	.00221	.00259	38.050	.00101	.00575	.09603
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.16991	.00316	.00022	7.2095	.04421	.01804	.09033
SDev	.00323	.00023	.00021	.0802	.00053	.00063	.00169
%RSD	1.9009	7.3668	97.218	1.1118	1.2110	3.4833	1.8720
#1	.17275	.00291	.00047	7.2669	.04479	.01874	.09199
#2	.17058	.00320	.00010	7.2437	.04412	.01786	.09038
#3	.16639	.00337	.00009	7.1179	.04373	.01752	.08861
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	112.52	.10944	.10741	5.3718	.33288	6.2131	.05682
SDev	1.50	.00339	.00031	.0645	.00466	.1335	.00067
%RSD	1.3308	3.0996	.28860	1.2017	1.3990	2.1495	1.1732
#1	113.68	.10890	.10768	5.4250	.33664	6.3210	.05732
#2	113.05	.11307	.10748	5.3903	.33432	6.2546	.05707
#3	110.83	.10635	.10707	5.3000	.32767	6.0638	.05606
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00173	.00486	-.00032	5.2990	.01018	.10203	.24735
SDev	.00295	.00266	.00013	.0534	.00107	.00127	.00390
%RSD	170.19	54.766	40.044	1.0079	10.477	1.2488	1.5782
#1	-.00163	.00584	-.00027	5.3254	.00998	.10315	.25021
#2	.00389	.00690	-.00023	5.3341	.01133	.10229	.24894
#3	.00293	.00185	-.00047	5.2376	.00923	.10065	.24290
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.12219	.18213	.03181	.03255	.30619	.01542	1.9678
SDev	.00287	.00161	.00054	.00062	.00467	.00041	.0327
%RSD	2.3486	.88277	1.6917	1.9040	1.5261	2.6597	1.6600
#1	.12519	.18343	.03225	.03312	.30969	.01545	2.0000
#2	.12193	.18263	.03197	.03265	.30801	.01500	1.9688
#3	.11947	.18033	.03121	.03189	.30089	.01581	1.9347
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11888	--	--	--	--	--	--
SDev	204.8475	--	--	--	--	--	--
%RSD	1.723141	--	--	--	--	--	--
#1	11697	--	--	--	--	--	--
#2	11864	--	--	--	--	--	--
#3	12104	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVXHQ Operator: KGS
Run Time: 08/13/03 11:07:44
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.14564	.00577	.00609	65.263	.00588	.00650	.04406
SDev	.00376	.00191	.00125	1.315	.00205	.00107	.00172
%RSD	2.5842	33.074	20.569	2.0157	34.919	16.465	3.8998
#1	.14268	.00643	.00494	64.222	.00369	.00744	.04211
#2	.14988	.00726	.00590	66.741	.00618	.00534	.04472
#3	.14436	.00362	.00742	64.825	.00776	.00674	.04536
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.54964	.00489	.00261	38.429	.09376	.05277	.11632
SDev	.01090	.00001	.00018	.867	.00210	.00146	.00218
%RSD	1.9833	.27523	6.7668	2.2553	2.2394	2.7647	1.8727
#1	.54108	.00488	.00275	37.547	.09158	.05122	.11468
#2	.56191	.00489	.00267	39.279	.09577	.05411	.11879
#3	.54593	.00491	.00241	38.463	.09394	.05299	.11550
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	117.27	.14315	.14689	14.892	2.4447	11.496	.11999
SDev	2.57	.00389	.00412	.323	.0516	.223	.00194
%RSD	2.1890	2.7190	2.8075	2.1705	2.1097	1.9378	1.6184
#1	114.76	.14229	.14288	14.579	2.3947	11.356	.11776
#2	119.89	.14739	.15112	15.225	2.4977	11.753	.12084
#3	117.16	.13975	.14666	14.873	2.4417	11.379	.12136
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00477	.00627	-.00028	5.8170	.00627	.15887	.48221
SDev	.00393	.00205	.00023	.0936	.00217	.00355	.00980
%RSD	82.460	32.707	83.231	1.6083	34.605	2.2354	2.0326
#1	.00883	.00524	-.00030	5.7455	.00684	.15541	.47285
#2	.00452	.00864	-.00050	5.9228	.00387	.16251	.49240
#3	.00097	.00494	-.00004	5.7825	.00810	.15869	.48136
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.15884	.00887	.07932	.12312	.62017	.01801	1.9708
SDev	.00245	.00076	.00156	.00242	.01289	.00210	.0424
%RSD	1.5428	8.5621	1.9670	1.9675	2.0779	11.663	2.1530
#1	.15783	.00822	.07816	.12114	.60808	.01846	1.9328
#2	.16164	.00970	.08110	.12582	.63373	.01573	2.0166
#3	.15706	.00868	.07872	.12240	.61870	.01986	1.9630
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	12387	--	--	--	--	--	--
SDev	180.2045	--	--	--	--	--	--
%RSD	1.454838	--	--	--	--	--	--
#1	12529	--	--	--	--	--	--
#2	12184	--	--	--	--	--	--
#3	12447	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVXH7 Operator: KGS
Run Time: 08/13/03 11:12:12
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13070	.00305	.00173	42.488	.00028	.00465	.04777
SDev	.00119	.00083	.00247	.112	.00411	.00124	.00139
%RSD	.90778	27.333	142.67	.26379	1469.2	26.686	2.9038
#1	.12934	.00283	-.00106	42.585	-.00422	.00525	.04649
#2	.13154	.00234	.00363	42.514	.00383	.00322	.04757
#3	.13123	.00396	.00264	42.366	.00122	.00548	.04924
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.38524	.00404	.00218	107.14	.37418	.05853	.13315
SDev	.00090	.00005	.00030	.97	.00265	.00102	.00020
%RSD	.23443	1.3385	13.599	.90520	.70825	1.7481	.14699
#1	.38583	.00402	.00246	106.07	.37133	.05739	.13337
#2	.38568	.00400	.00187	107.40	.37464	.05883	.13303
#3	.38420	.00410	.00222	107.96	.37657	.05936	.13303
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	120.04	.13652	.12780	26.658	2.7107	6.3578	.35450
SDev	.80	.00423	.00371	.150	.0156	.0635	.00231
%RSD	.66367	3.0997	2.9002	.56104	.57514	.99882	.65160
#1	119.14	.14009	.12398	26.492	2.6935	6.4215	.35231
#2	120.31	.13184	.13138	26.701	2.7148	6.3575	.35427
#3	120.66	.13763	.12803	26.782	2.7239	6.2945	.35691
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00589	.00163	-.00018	5.9920	.00441	.09661	.50119
SDev	.00366	.00232	.00054	.1063	.00188	.00105	.00245
%RSD	62.107	142.60	300.29	1.7743	42.713	1.0883	.48909
#1	.01008	-.00078	-.00009	6.0895	.00376	.09541	.49850
#2	.00338	.00182	-.00076	5.8786	.00294	.09737	.50179
#3	.00420	.00385	.00031	6.0079	.00653	.09706	.50329
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.14172	.04813	.06371	.12292	.38546	.01962	1.9143
SDev	.00077	.00071	.00039	.00017	.00084	.00136	.0059
%RSD	.54492	1.4778	.61087	.13878	.21792	6.9258	.30560
#1	.14124	.04736	.06406	.12292	.38452	.01863	1.9076
#2	.14261	.04876	.06376	.12309	.38572	.02117	1.9187
#3	.14131	.04828	.06329	.12275	.38613	.01907	1.9165
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	12427	--	--	--	--	--	--
SDev	28.38352	--	--	--	--	--	--
%RSD	.2283941	--	--	--	--	--	--
#1	12396	--	--	--	--	--	--
#2	12436	--	--	--	--	--	--
#3	12451	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVXH7P5 Operator: KGS
Run Time: 08/13/03 11:16:40
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02751	.00103	.00023	8.9552	.00042	-.00014	.01056
SDev	.00034	.00185	.00021	.0563	.00131	.00209	.00057
%RSD	1.2539	180.15	91.120	.62876	310.18	1454.1	5.3561
#1	.02751	.00316	.00036	9.0174	.00050	.00009	.01108
#2	.02785	.00002	-.00001	8.9405	-.00093	.00182	.00996
#3	.02716	-.00010	.00035	8.9077	.00169	-.00234	.01065
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08048	.00097	.00047	22.597	.07928	.01247	.02737
SDev	.00038	.00003	.00022	.146	.00074	.00052	.00009
%RSD	.47261	3.5102	46.853	.64410	.93886	4.1723	.33188
#1	.08092	.00093	.00026	22.765	.07998	.01235	.02732
#2	.08031	.00099	.00070	22.515	.07938	.01202	.02747
#3	.08022	.00099	.00043	22.511	.07850	.01304	.02731
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.466	.02848	.02702	5.6252	.57606	1.0551	.07584
SDev	.162	.00423	.00167	.0361	.00361	.0110	.00024
%RSD	.63794	14.849	6.1739	.64220	.62718	1.0446	.31172
#1	25.653	.03074	.02590	5.6667	.58023	1.0652	.07593
#2	25.370	.03111	.02622	5.6078	.57412	1.0566	.07558
#3	25.373	.02361	.02894	5.6010	.57383	1.0433	.07603
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00647	-.00169	.00030	.74707	.00256	.02033	.10678
SDev	.00570	.00112	.00046	.03528	.00047	.00016	.00068
%RSD	88.093	66.350	152.69	4.7228	18.175	.77942	.63226
#1	.01244	-.00147	.00031	.77241	.00288	.02015	.10755
#2	.00588	-.00290	.00075	.76203	.00277	.02045	.10648
#3	.00109	-.00070	-.00016	.70677	.00203	.02039	.10631
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03009	.00982	.01355	.02587	.08141	.00656	.41031
SDev	.00042	.00057	.00004	.00019	.00040	.00109	.00224
%RSD	1.3836	5.8380	.31072	.72567	.48923	16.648	.54544
#1	.03047	.01044	.01358	.02609	.08185	.00571	.41283
#2	.03017	.00931	.01357	.02578	.08132	.00780	.40856
#3	.02964	.00971	.01350	.02575	.08107	.00619	.40953
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	12091	--	--	--	--	--	--
SDev	107.6517	--	--	--	--	--	--
%RSD	.8903411	--	--	--	--	--	--
#1	11969	--	--	--	--	--	--
#2	12133	--	--	--	--	--	--
#3	12171	--	--	--	--	--	--

Analysis Report QC Standard 08/13/03 11:25:33 AM page 1

Method: TRA10103 Sample Name: CCV2 Operator: KGS
Run Time: 08/13/03 11:21:09
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49499	.49321	.49102	24.588	.49034	.49238	.49246
SDev	.00730	.00768	.00778	.339	.00842	.00649	.00677
%RSD	1.4750	1.5568	1.5841	1.3781	1.7174	1.3182	1.3736
#1	.48657	.48498	.48210	24.212	.48069	.48493	.48483
#2	.49887	.49444	.49454	24.681	.49412	.49538	.49773
#3	.49953	.50019	.49642	24.871	.49621	.49683	.49482
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass
Value	.50000	.50000	.50000	25.000			.50000
Range	10.500	10.500	10.500	10.500			10.500

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9840	2.0263	.49781	49.939	1.9940	2.0022	1.9640
SDev	.0257	.0283	.00711	.722	.0282	.0283	.0245
%RSD	1.2951	1.3948	1.4286	1.4460	1.4151	1.4109	1.2470
#1	1.9551	1.9940	.48972	49.119	1.9619	1.9700	1.9365
#2	1.9927	2.0383	.50065	50.216	2.0053	2.0138	1.9720
#3	2.0042	2.0465	.50306	50.481	2.0148	2.0229	1.9834
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	.50000	50.000	2.0000	2.0000	2.0000
Range	10.500	10.500	10.500	10.500	10.500	10.500	10.500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.974	.48920	.49788	49.025	2.0030	50.076	1.9862
SDev	.365	.00547	.00868	.694	.0277	.561	.0252
%RSD	1.4623	1.1175	1.7431	1.4156	1.3842	1.1208	1.2683
#1	24.560	.48357	.48807	48.239	1.9715	49.492	1.9573
#2	25.114	.49449	.50106	49.280	2.0139	50.125	1.9979
#3	25.249	.48952	.50453	49.555	2.0236	50.612	2.0034
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value	25.000			50.000	2.0000	50.000	2.0000
Range	10.500			10.500	10.500	10.500	10.500

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48914	.49524	.97591	48.629	.98344	1.9932	2.0318
SDev	.00693	.00816	.01244	.577	.02100	.0259	.0274
%RSD	1.4171	1.6483	1.2745	1.1876	2.1354	1.2975	1.3473
#1	.48125	.48685	.96184	48.009	.96040	1.9638	2.0008
#2	.49191	.49571	.98045	48.727	.98843	2.0030	2.0418
#3	.49426	.50315	.98545	49.152	1.0015	2.0127	2.0528
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value			1.0000	50.000	1.0000	2.0000	2.0000
Range			10.500	10.500	10.500	10.500	10.500
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9271	1.9697	2.0142	2.0177	1.9908	1.9676	1.9774
SDev	.0206	.0278	.0228	.0255	.0269	.0201	.0241
%RSD	1.0678	1.4094	1.1331	1.2623	1.3534	1.0234	1.2186
#1	1.9047	1.9381	1.9902	1.9888	1.9601	1.9443	1.9501
#2	1.9314	1.9810	2.0167	2.0273	2.0016	1.9783	1.9862
#3	1.9451	1.9900	2.0357	2.0370	2.0107	1.9801	1.9959
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Range	10.500	10.500	10.500	10.500	10.500	10.500	10.500
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11768	--	--	--	--	--	--
SDev	118.8593	--	--	--	--	--	--
%RSD	1.010050	--	--	--	--	--	--
#1	11901	--	--	--	--	--	--
#2	11729	--	--	--	--	--	--
#3	11673	--	--	--	--	--	--

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Method: TRA10103 Sample Name: CCB2 Operator: KGS
Run Time: 08/13/03 11:25:37
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00013	-.00051	.00016	.01350	.00019	.00009	.00001
SDev	.00085	.00072	.00178	.00398	.00240	.00153	.00144
%RSD	657.03	140.30	1135.5	29.457	1258.6	1734.5	21088.
#1	-.00031	-.00021	.00055	.01379	-.00006	.00177	-.00165
#2	.00079	-.00133	-.00179	.00938	-.00208	-.00120	.00091
#3	-.00087	.00000	.00171	.01732	.00271	-.00031	.00077
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.00305	.00505	.06005	.20005			.01005
Low	-.00305	-.00505	-.06005	-.20005			-.01005

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00004	.00012	.00008	.00614	.00024	.00037	-.00018
SDev	.00003	.00011	.00012	.00003	.00023	.00009	.00015
%RSD	98.121	89.027	140.51	.42198	98.503	23.752	81.435
#1	.00000	.00001	-.00004	.00617	-.00000	.00046	-.00027
#2	.00007	.00023	.00018	.00612	.00046	.00028	-.00026
#3	.00003	.00013	.00011	.00613	.00025	.00037	-.00001
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.20005	.00505	.00505	5.0000	.01005	.05005	.02505
Low	-.20005	-.00505	-.00505	-5.0000	-.01005	-.05005	-.02505

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00717	-.00047	.00004	.00317	-.00001	-.03352	.00079
SDev	.00103	.00263	.00068	.00022	.00000	.00159	.00036
%RSD	14.425	554.33	1571.1	6.9561	31.329	4.7432	45.301
#1	.00613	.00056	-.00074	.00296	-.00000	-.03387	.00112
#2	.00820	.00148	.00045	.00340	-.00001	-.03179	.00041
#3	.00718	-.00346	.00042	.00317	-.00001	-.03491	.00083
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	.10005			5.0000	.01505	5.0000	.04005
Low	-.10005			-5.0000	-.01505	-5.0000	-.04005

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00128	-.00140	.00062	-.71209	.00419	.00013	.00076
SDev	.00076	.00076	.00039	.05690	.00161	.00022	.00008
%RSD	59.947	54.431	62.221	7.9900	38.337	171.71	10.546
#1	.00196	-.00129	.00037	-.77441	.00299	.00000	.00068
#2	.00045	-.00222	.00107	-.66293	.00356	.00000	.00085
#3	.00142	-.00070	.00043	-.69893	.00602	.00039	.00076
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			.01005	5.0000	.01005	.05005	.02005
Low			-.01005	-5.0000	-.01005	-.05005	-.02005

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00110	.00221	.00025	.00005	.00020	.00202	-.00006
SDev	.00028	.00052	.00007	.00003	.00012	.00068	.00085
%RSD	25.757	23.368	26.817	60.557	58.229	33.815	1453.8
#1	.00082	.00271	.00031	.00007	.00008	.00138	-.00103
#2	.00139	.00226	.00028	.00002	.00020	.00193	.00054
#3	.00110	.00167	.00018	.00007	.00032	.00274	.00031
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05005	.04005	.00505	.00505	.00505	.10005	.10005
Low	-.05005	-.04005	-.00505	-.00505	-.00505	-.10005	-.10005

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11931	--	--	--	--	--	--
SDev	38.27009	--	--	--	--	--	--
%RSD	.3207693	--	--	--	--	--	--
#1	11887	--	--	--	--	--	--
#2	11958	--	--	--	--	--	--
#3	11948	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVXH7S Operator: KGS
Run Time: 08/13/03 11:30:05
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.57373	1.8081	.30387	83.905	.30184	.30793	1.8559
SDev	.00676	.0128	.00348	.298	.00348	.00403	.0152
%RSD	1.1782	.70977	1.1448	.35476	1.1536	1.3084	.81711
#1	.56629	1.7935	.29986	83.623	.29801	.30357	1.8394
#2	.57539	1.8176	.30611	84.216	.30482	.30871	1.8594
#3	.57950	1.8133	.30563	83.877	.30269	.31151	1.8691
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.3057	.05208	.04763	158.27	.30312	.52042	.37131
SDev	.0057	.00051	.00008	1.68	.00232	.00434	.00114
%RSD	.24546	.97719	.16863	1.0601	.76561	.83441	.30779
#1	2.3001	.05155	.04754	156.36	.30044	.51540	.37031
#2	2.3114	.05211	.04770	158.92	.30461	.52284	.37256
#3	2.3055	.05257	.04766	159.52	.30430	.52301	.37107
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	118.60	.57167	.57475	75.377	3.0488	64.470	.61007
SDev	1.03	.00738	.00756	.620	.0245	.323	.00633
%RSD	.87097	1.2911	1.3150	.82247	.80277	.50075	1.0380
#1	117.42	.56683	.56603	74.662	3.0209	64.657	.60283
#2	119.02	.56803	.57906	75.699	3.0589	64.657	.61275
#3	119.35	.58017	.57917	75.769	3.0666	64.098	.61461
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.7962	1.8141	.04587	50.251	1.8113	.63559	.99972
SDev	.0140	.0123	.00048	.261	.0213	.00515	.00696
%RSD	.78157	.67647	1.0427	.51960	1.1773	.81095	.69645
#1	1.7805	1.8000	.04554	50.185	1.7868	.62969	.99181
#2	1.8076	1.8226	.04642	50.539	1.8219	.63785	1.0024
#3	1.8005	1.8197	.04564	50.029	1.8253	.63923	1.0049
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0794	.94226	1.0876	1.1373	1.7932	1.8101	7.3951
SDev	.0077	.00962	.0038	.0037	.0103	.0137	.0308
%RSD	.70977	1.0208	.34572	.32127	.57360	.75797	.41614
#1	1.0708	.93117	1.0888	1.1333	1.7813	1.7956	7.3647
#2	1.0856	.94727	1.0906	1.1405	1.7988	1.8117	7.4263
#3	1.0817	.94835	1.0834	1.1381	1.7994	1.8229	7.3944
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	12335	--	--	--	--	--	--
SDev	27.22872	--	--	--	--	--	--
%RSD	.2207411	--	--	--	--	--	--
#1	12351	--	--	--	--	--	--
#2	12304	--	--	--	--	--	--
#3	12351	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVXH7D Operator: KGS
Run Time: 08/13/03 11:34:32
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.57302	1.7752	.39492	88.062	.39185	.40107	1.8456
SDev	.01354	.0374	.00793	1.587	.00978	.00435	.0352
%RSD	2.3629	2.1091	2.0093	1.8016	2.4968	1.0845	1.9092
#1	.55805	1.7352	.38704	86.457	.38188	.39738	1.8089
#2	.58440	1.8094	.40291	89.630	.40144	.40587	1.8792
#3	.57662	1.7809	.39479	88.098	.39222	.39995	1.8488
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.3377	.05243	.04795	186.46	.36757	.52116	.38643
SDev	.0388	.00121	.00107	5.13	.00924	.01291	.00601
%RSD	1.6609	2.3109	2.2278	2.7511	2.5147	2.4766	1.5555
#1	2.2985	.05106	.04676	180.69	.35725	.50659	.38063
#2	2.3761	.05335	.04883	190.51	.37509	.53115	.39263
#3	2.3386	.05289	.04827	188.17	.37037	.52575	.38603
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	123.06	.57568	.57169	79.986	3.1449	65.381	.63187
SDev	3.07	.00853	.01616	1.956	.0748	.941	.01541
%RSD	2.4977	1.4810	2.8264	2.4456	2.3776	1.4390	2.4384
#1	119.64	.56704	.55355	77.826	3.0620	64.588	.61470
#2	125.59	.58409	.58455	81.637	3.2072	66.420	.64447
#3	123.94	.57592	.57696	80.496	3.1657	65.135	.63646
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.7594	1.7830	.04590	49.617	1.8073	.64970	1.0145
SDev	.0245	.0442	.00097	.796	.0430	.01570	.0227
%RSD	1.3915	2.4799	2.1212	1.6045	2.3804	2.4163	2.2369
#1	1.7359	1.7348	.04499	48.909	1.7584	.63257	.98989
#2	1.7848	1.8217	.04692	50.479	1.8394	.66340	1.0346
#3	1.7576	1.7926	.04578	49.463	1.8241	.65312	1.0192
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0791	1.1305	1.0810	1.1556	1.9041	2.1667	9.6483
SDev	.0230	.0288	.0159	.0205	.0403	.0590	.2077
%RSD	2.1289	2.5468	1.4678	1.7708	2.1156	2.7222	2.1522
#1	1.0537	1.0991	1.0667	1.1346	1.8606	2.1015	9.4244
#2	1.0984	1.1557	1.0981	1.1755	1.9401	2.2162	9.8346
#3	1.0853	1.1367	1.0783	1.1569	1.9117	2.1824	9.6858
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	12198	--	--	--	--	--	--
SDev	165.1403	--	--	--	--	--	--
%RSD	1.353837	--	--	--	--	--	--
#1	12360	--	--	--	--	--	--
#2	12030	--	--	--	--	--	--
#3	12204	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVXHV Operator: KGS
Run Time: 08/13/03 11:39:00
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04251	.00016	.00155	26.464	.00121	.00223	.01517
SDev	.00060	.00178	.00072	.282	.00134	.00215	.00188
%RSD	1.4209	1128.8	46.156	1.0663	110.13	96.505	12.378
#1	.04195	-.00005	.00236	26.140	.00239	.00229	.01605
#2	.04315	.00203	.00100	26.594	.00148	.00005	.01644
#3	.04243	-.00151	.00129	26.657	-.00024	.00435	.01301
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11055	.00161	.00075	5.9761	.02396	.01149	.01863
SDev	.00106	.00003	.00010	.0716	.00014	.00021	.00006
%RSD	.96335	2.0964	12.985	1.1986	.58080	1.8493	.31425
#1	.10933	.00165	.00072	5.8946	.02382	.01127	.01856
#2	.11124	.00161	.00086	6.0293	.02396	.01169	.01867
#3	.11110	.00158	.00067	6.0043	.02409	.01151	.01866
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	31.430	.04257	.04248	3.9544	.37348	1.6800	.03061
SDev	.400	.00064	.00076	.0443	.00478	.0149	.00082
%RSD	1.2738	1.4954	1.7980	1.1210	1.2790	.88923	2.6698
#1	30.969	.04258	.04164	3.9038	.36798	1.6638	.03011
#2	31.695	.04320	.04313	3.9860	.37662	1.6829	.03018
#3	31.625	.04193	.04268	3.9735	.37584	1.6932	.03156
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00497	.00272	.00034	2.5561	.00495	.03994	.16845
SDev	.00183	.00180	.00010	.0615	.00337	.00011	.00176
%RSD	36.911	66.222	30.415	2.4076	67.990	.27724	1.0452
#1	-.00570	.00277	.00044	2.6257	.00859	.03997	.16644
#2	-.00288	.00449	.00024	2.5341	.00432	.04003	.16975
#3	-.00633	.00089	.00034	2.5087	.00195	.03982	.16914
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07958	.00699	.01578	.01928	.57940	.01363	1.4130
SDev	.00072	.00022	.00004	.00016	.00720	.00225	.0154
%RSD	.90983	3.1506	.24507	.83754	1.2424	16.534	1.0869
#1	.07882	.00698	.01574	.01909	.57112	.01441	1.3961
#2	.08027	.00722	.01582	.01935	.58419	.01109	1.4261
#3	.07965	.00678	.01579	.01939	.58289	.01540	1.4169
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	12052	--	--	--	--	--	--
SDev	109.7109	--	--	--	--	--	--
%RSD	.9102828	--	--	--	--	--	--
#1	12179	--	--	--	--	--	--
#2	11986	--	--	--	--	--	--
#3	11992	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVXH2 Operator: KGS
Run Time: 08/13/03 11:43:28
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04068	.00165	.00185	26.425	.00212	.00132	.01490
SDev	.00036	.00077	.00094	.218	.00217	.00246	.00113
%RSD	.87522	46.505	51.100	.82545	102.53	186.92	7.6146
#1	.04027	.00247	.00257	26.174	.00251	.00270	.01567
#2	.04084	.00094	.00078	26.563	-.00022	.00278	.01360
#3	.04093	.00154	.00220	26.539	.00406	-.00153	.01544
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11011	.00157	.00077	6.4357	.02363	.01132	.01827
SDev	.00043	.00005	.00012	.0646	.00034	.00012	.00032
%RSD	.38815	3.1276	15.641	1.0036	1.4259	1.0127	1.7221
#1	.10964	.00151	.00064	6.3616	.02356	.01126	.01795
#2	.11047	.00158	.00086	6.4659	.02400	.01146	.01858
#3	.11022	.00160	.00083	6.4797	.02334	.01125	.01829
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	31.399	.04106	.04049	4.0441	.38661	1.7568	.03049
SDev	.296	.00304	.00194	.0373	.00306	.0197	.00035
%RSD	.94140	7.4163	4.7809	.92111	.79049	1.1220	1.1558
#1	31.060	.04321	.03880	4.0012	.38309	1.7343	.03078
#2	31.530	.04239	.04006	4.0629	.38822	1.7712	.03058
#3	31.606	.03758	.04260	4.0682	.38853	1.7649	.03010
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00339	.00078	.00014	2.2117	.00202	.03938	.16950
SDev	.00433	.00180	.00047	.0516	.00119	.00055	.00149
%RSD	127.53	229.47	343.77	2.3318	58.702	1.4048	.88062
#1	.00756	-.00007	.00024	2.1817	.00159	.03877	.16782
#2	.00369	-.00043	.00054	2.2713	.00336	.03983	.17003
#3	-.00108	.00285	-.00037	2.1822	.00111	.03955	.17066
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07963	.00679	.01565	.02232	.58141	.01746	1.4324
SDev	.00062	.00059	.00013	.00015	.00360	.00217	.0106
%RSD	.77564	8.6395	.84613	.66607	.61885	12.458	.73945
#1	.07980	.00616	.01550	.02214	.57726	.01986	1.4202
#2	.08015	.00690	.01569	.02240	.58335	.01561	1.4385
#3	.07895	.00732	.01576	.02240	.58362	.01692	1.4386
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	12065	--	--	--	--	--	--
SDev	16.49264	--	--	--	--	--	--
%RSD	.1366983	--	--	--	--	--	--
#1	12076	--	--	--	--	--	--
#2	12046	--	--	--	--	--	--
#3	12073	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVXJL Operator: KGS
Run Time: 08/13/03 11:47:56
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21151	.00589	.00411	71.461	.00399	.00434	.09186
SDev	.00126	.00343	.00097	.469	.00088	.00121	.00142
%RSD	.59468	58.261	23.674	.65660	22.067	27.867	1.5431
#1	.21007	.00703	.00395	71.004	.00369	.00446	.09129
#2	.21210	.00861	.00322	71.437	.00330	.00307	.09348
#3	.21236	.00203	.00515	71.941	.00498	.00548	.09082
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49820	.00665	.00027	2.2796	.07773	.03678	.26459
SDev	.00176	.00009	.00026	.0160	.00049	.00015	.00122
%RSD	.35365	1.4048	94.928	.70321	.63212	.41027	.46303
#1	.49644	.00654	.00049	2.2613	.07771	.03663	.26334
#2	.49821	.00671	.00034	2.2912	.07823	.03693	.26465
#3	.49996	.00669	-.00001	2.2864	.07725	.03679	.26579
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	103.20	.20621	.21416	5.8574	.26129	7.1045	.10503
SDev	.63	.00202	.00254	.0348	.00148	.0693	.00165
%RSD	.61161	.97825	1.1874	.59381	.56763	.97503	1.5712
#1	102.48	.20716	.21152	5.8175	.25958	7.0499	.10569
#2	103.65	.20758	.21436	5.8813	.26224	7.0811	.10625
#3	103.48	.20389	.21659	5.8735	.26204	7.1824	.10316
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00616	.00576	-.00035	2.0706	.00995	.14526	.19456
SDev	.00530	.00261	.00064	.0797	.00212	.00076	.00137
%RSD	86.043	45.355	184.76	3.8470	21.304	.52389	.70393
#1	.00670	.00720	.00014	2.1298	.01150	.14444	.19300
#2	.01116	.00733	-.00010	2.1020	.00753	.14595	.19557
#3	.00061	.00274	-.00107	1.9801	.01081	.14538	.19511
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08199	.11946	.07391	.03097	.23682	.01569	2.3710
SDev	.00065	.00054	.00068	.00009	.00169	.00249	.0180
%RSD	.79547	.45525	.92170	.27610	.71395	15.853	.75716
#1	.08129	.11921	.07327	.03088	.23489	.01289	2.3509
#2	.08210	.12008	.07382	.03098	.23803	.01762	2.3854
#3	.08258	.11909	.07463	.03105	.23753	.01657	2.3766
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	13029	--	--	--	--	--	--
SDev	25.52174	--	--	--	--	--	--
%RSD	.1958870	--	--	--	--	--	--
#1	13027	--	--	--	--	--	--
#2	13004	--	--	--	--	--	--
#3	13055	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVXJQ Operator: KGS
Run Time: 08/13/03 11:52:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.14617	.00133	.00416	45.580	.00388	.00472	.06304
SDev	.00031	.00250	.00215	.588	.00353	.00068	.00195
%RSD	.21217	188.04	51.800	1.2897	91.190	14.405	3.0882
#1	.14621	-.00140	.00210	46.256	.00060	.00510	.06080
#2	.14646	.00188	.00398	45.188	.00341	.00513	.06407
#3	.14584	.00351	.00639	45.297	.00762	.00394	.06426
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.37408	.00499	.00106	6.9988	.04580	.04312	.05529
SDev	.00269	.00015	.00036	.0291	.00063	.00036	.00099
%RSD	.71816	2.9237	34.061	.41611	1.3802	.83092	1.7873
#1	.37707	.00483	.00145	7.0325	.04647	.04286	.05643
#2	.37187	.00502	.00099	6.9829	.04571	.04297	.05463
#3	.37331	.00512	.00074	6.9811	.04522	.04353	.05483
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	77.505	.14481	.14684	5.9972	2.6389	4.1438	.08509
SDev	.424	.00838	.00396	.0222	.0145	.0880	.00135
%RSD	.54731	5.7853	2.6944	.37006	.55123	2.1230	1.5891
#1	77.994	.15355	.14254	6.0225	2.6557	4.2445	.08353
#2	77.226	.14404	.14766	5.9810	2.6314	4.0818	.08584
#3	77.297	.13685	.15033	5.9881	2.6297	4.1051	.08590
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00199	.00100	-.00026	2.3114	.00431	.10592	.34915
SDev	.00257	.00320	.00065	.1103	.00164	.00032	.00095
%RSD	129.28	319.39	245.08	4.7699	38.114	.30239	.27226
#1	-.00040	-.00190	.00037	2.4164	.00549	.10617	.35023
#2	.00470	.00047	-.00024	2.3211	.00501	.10556	.34842
#3	.00166	.00443	-.00092	2.1965	.00243	.10604	.34880
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07581	.04872	.03812	.04147	.35210	.01388	2.0456
SDev	.00186	.00023	.00054	.00041	.00367	.00190	.0375
%RSD	2.4536	.47675	1.4264	.99524	1.0437	13.719	1.8346
#1	.07368	.04899	.03874	.04193	.35634	.01239	2.0888
#2	.07662	.04861	.03771	.04115	.35000	.01322	2.0216
#3	.07712	.04857	.03792	.04132	.34995	.01602	2.0262
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	12543	--	--	--	--	--	--
SDev	146.3048	--	--	--	--	--	--
%RSD	1.166417	--	--	--	--	--	--
#1	12374	--	--	--	--	--	--
#2	12623	--	--	--	--	--	--
#3	12632	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVXJ0 Operator: KGS
Run Time: 08/13/03 11:56:52
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25212	.00595	.00321	82.245	.00199	.00566	.08324
SDev	.00192	.00098	.00029	.558	.00066	.00058	.00020
%RSD	.76118	16.493	9.1550	.67821	33.216	10.299	.23985
#1	.24993	.00533	.00287	81.603	.00126	.00609	.08301
#2	.25294	.00544	.00337	82.514	.00256	.00500	.08335
#3	.25350	.00708	.00339	82.617	.00214	.00590	.08337
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.65040	.00592	.00068	2.7503	.05874	.01592	.09856
SDev	.00130	.00005	.00010	.0189	.00017	.00027	.00017
%RSD	.19995	.84490	14.826	.68670	.28573	1.6953	.16792
#1	.64900	.00587	.00080	2.7285	.05873	.01607	.09847
#2	.65157	.00592	.00063	2.7615	.05891	.01608	.09845
#3	.65062	.00596	.00061	2.7609	.05858	.01560	.09875
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	98.875	.24911	.25363	4.0632	.30499	5.6319	.07708
SDev	.557	.00078	.00310	.0235	.00156	.0504	.00050
%RSD	.56369	.31387	1.2207	.57717	.51020	.89468	.64423
#1	98.233	.24968	.25006	4.0363	.30320	5.5760	.07742
#2	99.234	.24822	.25530	4.0799	.30605	5.6459	.07651
#3	99.158	.24943	.25554	4.0733	.30571	5.6738	.07731
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00775	.00505	.00032	5.1456	.00654	.14681	.26536
SDev	.00496	.00183	.00052	.0146	.00240	.00072	.00117
%RSD	63.956	36.250	163.53	.28355	36.764	.49365	.44050
#1	.00914	.00342	.00075	5.1438	.00377	.14615	.26404
#2	.00225	.00703	.00047	5.1320	.00776	.14759	.26626
#3	.01186	.00470	-.00026	5.1610	.00809	.14670	.26578
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.10617	.13813	.05750	.01959	.26954	.01801	2.7491
SDev	.00068	.00128	.00060	.00003	.00076	.00146	.0153
%RSD	.64484	.92571	1.0475	.16009	.28295	8.1295	.55629
#1	.10543	.13721	.05681	.01957	.26879	.01970	2.7346
#2	.10679	.13959	.05772	.01963	.26952	.01732	2.7478
#3	.10628	.13758	.05795	.01959	.27032	.01703	2.7651
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	12192	--	--	--	--	--	--
SDev	12.92449	--	--	--	--	--	--
%RSD	.1060067	--	--	--	--	--	--
#1	12189	--	--	--	--	--	--
#2	12181	--	--	--	--	--	--
#3	12206	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV2NL Operator: KGS
Run Time: 08/13/03 12:01:20
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00070	-.00062	.00094	.07154	.00018	.00248	-.00040
SDev	.00073	.00060	.00096	.00499	.00168	.00060	.00061
%RSD	104.40	96.899	101.42	6.9769	956.08	24.187	151.54
#1	.00116	.00000	.00116	.06730	.00034	.00281	.00005
#2	.00109	-.00119	-.00010	.07704	-.00158	.00285	-.00016
#3	-.00014	-.00066	.00177	.07028	.00176	.00179	-.00110
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00833	.00018	.00022	.61198	.00082	-.00025	.00071
SDev	.00005	.00009	.00010	.00389	.00020	.00021	.00022
%RSD	.56875	47.589	47.380	.63503	24.396	82.888	30.860
#1	.00835	.00009	.00031	.60753	.00066	-.00001	.00048
#2	.00827	.00026	.00024	.61474	.00105	-.00037	.00091
#3	.00835	.00020	.00011	.61365	.00076	-.00036	.00074
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01621	.00389	-.00089	.13063	.00000	.02353	.00104
SDev	.01011	.00342	.00072	.00096	.00000	.00102	.00071
%RSD	62.385	87.975	81.575	.73505	98.303	4.3255	67.808
#1	.00555	.00497	-.00075	.12953	.00001	.02292	.00185
#2	.02566	.00664	-.00167	.13111	.00000	.02471	.00057
#3	.01741	.00006	-.00024	.13126	.00000	.02297	.00070
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00224	.00020	.00050	5.8431	.00022	.00013	.00651
SDev	.00085	.00047	.00055	.1083	.00104	.00011	.00014
%RSD	38.074	236.24	110.94	1.8530	470.86	85.594	2.1999
#1	-.00140	.00070	.00053	5.7934	.00006	.00000	.00637
#2	-.00310	-.00023	.00103	5.9673	-.00073	.00020	.00651
#3	-.00223	.00013	-.00007	5.7687	.00133	.00020	.00666
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09163	.00024	.00017	.00045	.00074	.01264	.05488
SDev	.00047	.00034	.00002	.00003	.00014	.00199	.00843
%RSD	.51295	140.21	8.6692	6.9612	18.511	15.751	15.363
#1	.09217	.00063	.00018	.00047	.00066	.01213	.05489
#2	.09133	.00004	.00016	.00041	.00066	.01483	.06331
#3	.09138	.00005	.00018	.00046	.00089	.01095	.04645
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11759	--	--	--	--	--	--
SDev	49.30524	--	--	--	--	--	--
%RSD	.4192878	--	--	--	--	--	--
#1	11710	--	--	--	--	--	--
#2	11759	--	--	--	--	--	--
#3	11809	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV2N2 Operator: KGS
Run Time: 08/13/03 12:05:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00066	-.00096	-.00088	.05183	-.00223	.00184	-.00011
SDev	.00061	.00283	.00067	.00447	.00091	.00227	.00142
%RSD	93.310	293.38	76.613	8.6160	40.764	123.60	1261.5
#1	.00082	.00200	-.00041	.05528	-.00284	.00446	.00031
#2	-.00002	-.00363	-.00058	.05342	-.00119	.00064	.00105
#3	.00117	-.00126	-.00165	.04679	-.00268	.00042	-.00169
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00172	-.00114	.00023	.00060	.00115	-.00007	-.00120
SDev	.00002	.00020	.00013	.00086	.00017	.00028	.00030
%RSD	1.3222	17.803	58.091	143.07	15.016	414.08	24.954
#1	.00174	-.00136	.00019	-.00025	.00101	-.00029	-.00139
#2	.00172	-.00112	.00012	.00146	.00110	.00025	-.00136
#3	.00170	-.00095	.00037	.00059	.00134	-.00016	-.00086
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00053	.00610	-.00206	.00070	-.00049	.12774	.00428
SDev	.00637	.00185	.00023	.00284	.00021	.00619	.00118
%RSD	1191.1	30.287	11.332	403.70	41.808	4.8442	27.459
#1	-.00735	.00606	-.00180	-.00157	-.00025	.12078	.00339
#2	.00047	.00428	-.00217	.00388	-.00061	.12981	.00385
#3	.00527	.00797	-.00223	-.00021	-.00061	.13262	.00561
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00042	-.00124	.00074	H2802.0	.00026	-.00012	.00732
SDev	.00620	.00126	.00022	14.2	.00179	.00027	.00012
%RSD	1473.7	102.31	29.878	.50757	687.91	214.78	1.5925
#1	.00557	.00022	.00066	H2817.5	-.00125	-.00043	.00722
#2	-.00681	-.00204	.00057	H2799.0	.00224	.00003	.00745
#3	-.00002	-.00188	.00099	H2789.6	-.00021	.00003	.00729
Errors	NOCHECK	NOCHECK	LC Pass	LC High	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01297	.00007	.00348	.00084	-.00012	.01398	.14991
SDev	.00105	.00040	.00028	.00001	.00009	.00188	.00203
%RSD	8.0835	599.70	7.9527	.76151	73.258	13.483	1.3526
#1	.01181	-.00017	.00317	.00085	-.00021	.01428	.14794
#2	.01324	.00052	.00371	.00084	-.00007	.01197	.14979
#3	.01385	-.00015	.00355	.00084	-.00006	.01570	.15199
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	10193	--	--	--	--	--	--
SDev	66.02760	--	--	--	--	--	--
%RSD	.6477429	--	--	--	--	--	--
#1	10122	--	--	--	--	--	--
#2	10205	--	--	--	--	--	--
#3	10253	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV2PW Operator: KGS
Run Time: 08/13/03 12:10:16
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00093	-.00026	.00040	.05244	-.00013	.00146	.00045
SDev	.00070	.00064	.00081	.00536	.00160	.00099	.00049
%RSD	74.620	246.53	202.29	10.219	1258.4	67.956	109.95
#1	.00173	.00000	.00125	.05795	.00167	.00040	.00058
#2	.00060	-.00099	-.00037	.05214	-.00137	.00162	-.00010
#3	.00046	.00021	.00033	.04724	-.00068	.00236	.00087
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00728	.00005	.00023	.47454	.00076	-.00031	-.00015
SDev	.00010	.00015	.00012	.00276	.00055	.00021	.00008
%RSD	1.3062	297.83	51.156	.58095	71.979	65.812	53.748
#1	.00738	-.00012	.00011	.47765	.00045	-.00021	-.00006
#2	.00719	.00008	.00023	.47360	.00044	-.00055	-.00020
#3	.00727	.00019	.00035	.47239	.00139	-.00018	-.00020
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00043	.00402	-.00061	.10276	-.00041	.00824	.00091
SDev	.00525	.00275	.00228	.00217	.00035	.00205	.00059
%RSD	1230.6	68.429	373.27	2.1165	86.393	24.897	65.015
#1	.00080	.00179	.00170	.10475	-.00061	.01009	.00145
#2	-.00618	.00318	-.00068	.10044	-.00061	.00603	.00099
#3	.00410	.00710	-.00285	.10308	-.00000	.00860	.00028
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00334	.00128	.00014	4.4296	-.00320	-.00026	.00469
SDev	.00431	.00242	.00052	.0335	.00119	.00031	.00015
%RSD	129.03	188.59	368.49	.75648	37.009	115.58	3.1192
#1	-.00811	.00405	-.00024	4.4329	-.00338	.00000	.00483
#2	-.00221	-.00038	-.00007	4.3946	-.00429	-.00060	.00454
#3	.00029	.00017	.00074	4.4614	-.00194	-.00020	.00469
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07685	-.00016	.00031	.00031	.00058	.01577	.03562
SDev	.00086	.00066	.00001	.00001	.00013	.00226	.00269
%RSD	1.1228	427.34	1.4477	1.6241	23.038	14.317	7.5531
#1	.07657	.00048	.00032	.00032	.00065	.01501	.03465
#2	.07782	-.00084	.00031	.00031	.00042	.01399	.03866
#3	.07616	-.00010	.00031	.00031	.00066	.01831	.03355
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11732	--	--	--	--	--	--
SDev	126.9705	--	--	--	--	--	--
%RSD	1.082235	--	--	--	--	--	--
#1	11588	--	--	--	--	--	--
#2	11780	--	--	--	--	--	--
#3	11829	--	--	--	--	--	--

Analysis Report QC Standard 08/13/03 12:19:08 PM page 1

Method: TRA10103 Sample Name: CCV3 Operator: KGS
Run Time: 08/13/03 12:14:44
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49093	.49556	.49186	24.802	.49128	.49302	.49109
SDev	.00430	.00097	.00099	.129	.00094	.00188	.00355
%RSD	.87664	.19541	.20131	.51964	.19216	.38058	.72203
#1	.48596	.49480	.49105	24.661	.49020	.49276	.48701
#2	.49341	.49665	.49157	24.913	.49170	.49129	.49343
#3	.49342	.49522	.49297	24.831	.49194	.49502	.49283
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass
Value	.50000	.50000	.50000	25.000			.50000
Range	10.500	10.500	10.500	10.500			10.500

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9924	2.0194	.49405	49.606	1.9832	1.9998	1.9846
SDev	.0077	.0123	.00321	.421	.0126	.0134	.0071
%RSD	.38690	.60686	.65001	.84890	.63616	.67149	.35898
#1	1.9876	2.0052	.49049	49.136	1.9687	1.9844	1.9795
#2	2.0013	2.0257	.49494	49.734	1.9896	2.0061	1.9927
#3	1.9883	2.0272	.49672	49.948	1.9915	2.0090	1.9816
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	.50000	50.000	2.0000	2.0000	2.0000
Range	10.500	10.500	10.500	10.500	10.500	10.500	10.500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.895	.48440	.49419	49.168	1.9997	51.260	1.9641
SDev	.170	.00391	.00461	.323	.0116	.203	.0109
%RSD	.68357	.80689	.93288	.65713	.57784	.39651	.55439
#1	24.699	.48007	.48890	48.796	1.9864	51.053	1.9536
#2	24.975	.48548	.49737	49.331	2.0058	51.459	1.9634
#3	25.010	.48766	.49630	49.377	2.0070	51.267	1.9753
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value	25.000			50.000	2.0000	50.000	2.0000
Range	10.500			10.500	10.500	10.500	10.500

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49087	.49790	.97931	48.750	.98557	1.9938	2.0238
SDev	.00140	.00189	.00422	.190	.01203	.0118	.0106
%RSD	.28486	.37970	.43069	.39026	1.2208	.59370	.52455
#1	.49244	.49598	.97462	48.531	.97306	1.9801	2.0116
#2	.49041	.49976	.98279	48.851	.98658	2.0012	2.0308
#3	.48976	.49795	.98053	48.868	.99706	2.0001	2.0291
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value			1.0000	50.000	1.0000	2.0000	2.0000
Range			10.500	10.500	10.500	10.500	10.500
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8990	1.9656	2.0353	2.0244	1.9964	1.9542	1.9670
SDev	.0102	.0123	.0094	.0074	.0086	.0171	.0106
%RSD	.53707	.62588	.46357	.36785	.42956	.87325	.53692
#1	1.8880	1.9515	2.0249	2.0180	1.9869	1.9361	1.9552
#2	1.9081	1.9711	2.0433	2.0326	2.0035	1.9565	1.9755
#3	1.9008	1.9743	2.0378	2.0227	1.9988	1.9700	1.9704
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Range	10.500	10.500	10.500	10.500	10.500	10.500	10.500
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11712	--	--	--	--	--	--
SDev	30.07339	--	--	--	--	--	--
%RSD	.2567643	--	--	--	--	--	--
#1	11746	--	--	--	--	--	--
#2	11688	--	--	--	--	--	--
#3	11703	--	--	--	--	--	--

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Method: TRA10103 Sample Name: CCB3 Operator: KGS
Run Time: 08/13/03 12:19:12
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00073	-.00061	.00095	.02123	.00143	.00001	-.00022
SDev	.00008	.00138	.00215	.00695	.00314	.00072	.00040
%RSD	11.408	227.60	225.41	32.718	220.19	13035.	186.00
#1	-.00064	-.00215	.00343	.02922	.00504	.00020	-.00068
#2	-.00074	-.00020	-.00038	.01787	-.00018	-.00079	.00005
#3	-.00081	.00052	-.00019	.01661	-.00059	.00060	-.00002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.00305	.00505	.06005	.20005			.01005
Low	-.00305	-.00505	-.06005	-.20005			-.01005

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00016	-.00005	-.00000	.00549	.00025	.00061	-.00068
SDev	.00013	.00014	.00001	.00206	.00035	.00057	.00011
%RSD	76.285	266.08	266.01	37.608	142.17	94.327	16.696
#1	.00028	-.00021	.00000	.00784	.00051	.00127	-.00057
#2	.00017	.00003	-.00000	.00397	.00039	.00027	-.00080
#3	.00003	.00003	-.00002	.00465	-.00015	.00028	-.00069
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.20005	.00505	.00505	5.0000	.01005	.05005	.02505
Low	-.20005	-.00505	-.00505	-5.0000	-.01005	-.05005	-.02505

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00311	-.00277	.00029	.00419	-.00000	-.04533	.00178
SDev	.01297	.00372	.00196	.00529	.00001	.00941	.00042
%RSD	417.25	134.29	679.22	126.19	3690.1	20.767	23.627
#1	.01736	-.00700	.00253	.01017	.00001	-.03618	.00143
#2	-.00002	.00001	-.00111	.00016	-.00000	-.04482	.00225
#3	-.00801	-.00132	-.00055	.00224	-.00001	-.05499	.00167
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	.10005			5.0000	.01505	5.0000	.04005
Low	-.10005			-5.0000	-.01505	-5.0000	-.04005

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00051	-.00116	.00030	-.69792	.00462	.00027	.00126
SDev	.00621	.00138	.00020	.02298	.00135	.00047	.00012
%RSD	1220.9	118.90	68.938	3.2929	29.182	172.98	9.2477
#1	-.00662	.00009	.00037	-.69300	.00550	.00081	.00137
#2	.00472	-.00265	.00045	-.67779	.00307	.00000	.00114
#3	.00344	-.00093	.00006	-.72296	.00530	.00000	.00128
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			.01005	5.0000	.01005	.05005	.02005
Low			-.01005	-5.0000	-.01005	-.05005	-.02005

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00050	.00222	.00019	.00009	.00020	.00219	-.00028
SDev	.00128	.00112	.00004	.00006	.00019	.00275	.00176
%RSD	254.89	50.427	22.658	71.406	99.053	125.85	624.85
#1	.00147	.00333	.00024	.00013	.00042	-.00057	.00175
#2	.00098	.00109	.00018	.00012	.00008	.00493	-.00130
#3	-.00095	.00226	.00015	.00002	.00009	.00220	-.00130
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05005	.04005	.00505	.00505	.00505	.10005	.10005
Low	-.05005	-.04005	-.00505	-.00505	-.00505	-.10005	-.10005

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11814	--	--	--	--	--	--
SDev	136.8142	--	--	--	--	--	--
%RSD	1.158040	--	--	--	--	--	--
#1	11670	--	--	--	--	--	--
#2	11831	--	--	--	--	--	--
#3	11942	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV2P7 Operator: KGS
Run Time: 08/13/03 12:23:40
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00151	-.00109	.00082	.06944	.00032	.00183	.00042
SDev	.00046	.00156	.00149	.00622	.00216	.00049	.00083
%RSD	30.429	143.35	180.83	8.9538	674.81	26.683	198.21
#1	.00098	.00049	-.00087	.07572	-.00217	.00173	.00137
#2	.00175	-.00112	.00192	.06932	.00170	.00236	-.00001
#3	.00179	-.00262	.00142	.06329	.00143	.00140	-.00011
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00771	.00002	.00034	.50914	.00077	-.00028	-.00006
SDev	.00009	.00021	.00018	.00107	.00034	.00024	.00023
%RSD	1.1449	1007.0	53.522	.20959	43.692	86.136	358.14
#1	.00781	-.00021	.00034	.50931	.00096	-.00038	-.00031
#2	.00768	.00009	.00053	.51011	.00098	-.00000	.00014
#3	.00765	.00019	.00016	.50799	.00038	-.00045	-.00002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00330	.00652	-.00100	.10979	.00000	.00524	.00123
SDev	.00557	.00104	.00121	.00338	.00001	.00098	.00047
%RSD	169.08	16.011	121.05	3.0768	270.08	18.678	38.046
#1	-.00378	.00772	-.00239	.10859	.00001	.00483	.00158
#2	.00250	.00604	-.00040	.11361	.00000	.00636	.00141
#3	-.00861	.00581	-.00021	.10718	-.00000	.00454	.00070
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00226	-.00050	.00021	4.8630	.00021	-.00013	.00541
SDev	.00289	.00149	.00006	.0609	.00200	.00012	.00007
%RSD	128.08	298.17	28.091	1.2531	949.54	86.796	1.3147
#1	.00104	.00021	.00024	4.9306	-.00173	-.00020	.00533
#2	-.00436	.00050	.00024	4.8460	.00010	.00000	.00543
#3	-.00345	-.00221	.00014	4.8123	.00226	-.00020	.00546
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08049	.00039	.00012	.00033	.00066	.01273	.05078
SDev	.00049	.00030	.00001	.00003	.00020	.00303	.01441
%RSD	.60711	76.991	10.957	9.3312	30.229	23.795	28.376
#1	.07995	.00048	.00011	.00031	.00077	.01493	.03907
#2	.08061	.00064	.00013	.00036	.00077	.01398	.04639
#3	.08091	.00006	.00013	.00031	.00043	.00928	.06687
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11772	--	--	--	--	--	--
SDev	102.0562	--	--	--	--	--	--
%RSD	.8669299	--	--	--	--	--	--
#1	11665	--	--	--	--	--	--
#2	11784	--	--	--	--	--	--
#3	11868	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV2QG Operator: KGS
Run Time: 08/13/03 12:28:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00149	-.00139	-.00032	.01886	-.00126	.00156	-.00006
SDev	.00045	.00010	.00221	.00110	.00420	.00189	.00099
%RSD	30.268	7.3848	695.43	5.8443	334.02	121.03	1686.9
#1	.00099	-.00127	.00217	.01980	.00334	-.00018	-.00057
#2	.00188	-.00144	-.00104	.01914	-.00221	.00129	-.00069
#3	.00160	-.00146	-.00208	.01765	-.00491	.00358	.00108
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00110	.00002	.00013	-.00670	.00056	-.00053	-.00119
SDev	.00006	.00001	.00023	.00045	.00111	.00019	.00027
%RSD	5.3369	85.446	182.60	6.7119	198.02	34.779	22.915
#1	.00103	.00002	-.00014	-.00722	-.00069	-.00072	-.00148
#2	.00113	.00000	.00021	-.00644	.00095	-.00053	-.00095
#3	.00113	.00003	.00031	-.00644	.00142	-.00035	-.00112
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00756	.00544	-.00048	-.00033	-.00061	-.05402	.00060
SDev	.00533	.00596	.00257	.00330	.00000	.00176	.00056
%RSD	70.438	109.51	530.87	1014.9	.00000	3.2495	93.733
#1	-.01070	-.00052	.00175	-.00337	-.00061	-.05558	.00028
#2	-.00141	.00546	.00009	.00318	-.00061	-.05435	.00027
#3	-.01058	.01140	-.00329	-.00079	-.00061	-.05212	.00125
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00461	.00022	.00022	18.399	-.00146	-.00020	-.00052
SDev	.00557	.00292	.00118	.268	.00204	.00039	.00005
%RSD	120.70	1345.2	547.14	1.4566	139.60	196.74	8.8344
#1	-.01049	.00333	-.00103	18.204	-.00295	-.00059	-.00053
#2	-.00392	-.00021	.00037	18.289	.00086	.00019	-.00055
#3	.00058	-.00247	.00131	18.705	-.00229	-.00020	-.00046
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00685	.00001	.00008	.00005	-.00019	.01180	.00626
SDev	.00125	.00016	.00003	.00003	.00007	.00223	.00048
%RSD	18.265	1982.0	32.902	58.985	37.941	18.902	7.6959
#1	.00541	.00020	.00005	.00007	-.00027	.00930	.00593
#2	.00741	-.00009	.00008	.00007	-.00015	.01359	.00682
#3	.00771	-.00009	.00010	.00002	-.00015	.01251	.00604
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11879	--	--	--	--	--	--
SDev	48.82809	--	--	--	--	--	--
%RSD	.4110366	--	--	--	--	--	--
#1	11823	--	--	--	--	--	--
#2	11911	--	--	--	--	--	--
#3	11903	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV2QR Operator: KGS
Run Time: 08/13/03 12:32:36
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00117	.00112	.00018	.03503	.00001	.00052	.00071
SDev	.00085	.00056	.00090	.00142	.00137	.00068	.00025
%RSD	72.823	49.666	505.28	4.0533	23275.	130.23	34.735
#1	.00032	.00126	.00104	.03626	.00107	.00098	.00045
#2	.00203	.00160	.00024	.03535	.00048	-.00026	.00074
#3	.00116	.00051	-.00075	.03347	-.00154	.00084	.00094
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00090	-.00020	.00013	-.00671	.00091	-.00018	-.00110
SDev	.00005	.00010	.00010	.00041	.00028	.00026	.00031
%RSD	5.3154	52.235	79.498	6.1392	30.816	148.37	28.053
#1	.00093	-.00016	.00003	-.00718	.00061	-.00044	-.00146
#2	.00093	-.00032	.00022	-.00651	.00117	.00008	-.00090
#3	.00085	-.00012	.00013	-.00643	.00093	-.00017	-.00095
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00142	.00363	-.00006	.00432	-.00061	-.05583	.00046
SDev	.00707	.00081	.00091	.00432	.00000	.00841	.00028
%RSD	498.95	22.316	1478.9	100.04	.00000	15.072	61.569
#1	-.00650	.00271	-.00087	-.00032	-.00061	-.06396	.00069
#2	.00710	.00423	.00092	.00822	-.00061	-.04716	.00014
#3	.00364	.00396	-.00024	.00504	-.00061	-.05637	.00055
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00041	.00189	.00043	-.58973	.00019	.00026	-.00060
SDev	.00296	.00066	.00039	.07799	.00056	.00031	.00011
%RSD	718.49	34.713	91.036	13.224	291.56	116.20	18.704
#1	-.00011	.00194	.00014	-.67487	.00019	-.00000	-.00055
#2	.00238	.00121	.00087	-.52175	-.00036	.00060	-.00052
#3	-.00351	.00252	.00027	-.57256	.00075	.00019	-.00073
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00741	.00069	.00005	.00002	.00054	.01256	.01137
SDev	.00044	.00017	.00003	.00000	.00011	.00219	.00094
%RSD	5.9491	24.081	52.788	8.2398	20.608	17.427	8.2803
#1	.00697	.00050	.00002	.00002	.00043	.01413	.01039
#2	.00786	.00079	.00008	.00002	.00066	.01349	.01147
#3	.00741	.00079	.00005	.00002	.00055	.01006	.01226
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11854	--	--	--	--	--	--
SDev	106.8857	--	--	--	--	--	--
%RSD	.9016949	--	--	--	--	--	--
#1	11912	--	--	--	--	--	--
#2	11731	--	--	--	--	--	--
#3	11919	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV2QRS Operator: KGS
Run Time: 08/13/03 12:37:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48139	1.8654	.47476	2.0443	.47317	.47795	1.8958
SDev	.00402	.0073	.00425	.0068	.00589	.00242	.0136
%RSD	.83619	.39115	.89515	.33157	1.2447	.50645	.71847
#1	.47710	1.8583	.47079	2.0398	.46703	.47831	1.8817
#2	.48197	1.8649	.47425	2.0521	.47369	.47537	1.8969
#3	.48509	1.8729	.47924	2.0410	.47878	.48017	1.9088
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0027	.05128	.04899	49.705	.20126	.50350	.25475
SDev	.0059	.00042	.00035	.504	.00214	.00422	.00084
%RSD	.29266	.81482	.71317	1.0138	1.0627	.83782	.32808
#1	2.0021	.05085	.04866	49.220	.19957	.49944	.25522
#2	2.0089	.05131	.04896	49.669	.20054	.50318	.25525
#3	1.9972	.05168	.04936	50.226	.20367	.50786	.25379
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99480	.48508	.47955	48.811	.50796	51.147	.48822
SDev	.02230	.00143	.00571	.352	.00316	.313	.00209
%RSD	2.2421	.29474	1.1915	.72204	.62317	.61167	.42862
#1	.97352	.48488	.47322	48.437	.50478	51.100	.48584
#2	.99287	.48376	.48108	48.859	.50799	51.480	.48906
#3	1.0180	.48660	.48434	49.137	.51111	50.860	.48977
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8366	1.8798	.04864	49.120	1.9502	.50536	.51190
SDev	.0046	.0130	.00068	.269	.0168	.00215	.00300
%RSD	.24921	.69030	1.4031	.54672	.86291	.42576	.58617
#1	1.8419	1.8665	.04821	48.857	1.9350	.50345	.50867
#2	1.8342	1.8803	.04828	49.394	1.9473	.50495	.51246
#3	1.8337	1.8925	.04942	49.109	1.9683	.50769	.51459
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.92429	1.0003	1.0388	1.0374	1.0299	1.9744	5.5664
SDev	.00235	.0084	.0057	.0025	.0039	.0211	.0243
%RSD	.25451	.83961	.55152	.23658	.38081	1.0710	.43671
#1	.92159	.99167	1.0358	1.0359	1.0255	1.9574	5.5384
#2	.92538	1.0007	1.0454	1.0402	1.0313	1.9678	5.5821
#3	.92590	1.0084	1.0351	1.0360	1.0330	1.9981	5.5787
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11564	--	--	--	--	--	--
SDev	17.59514	--	--	--	--	--	--
%RSD	.1521590	--	--	--	--	--	--
#1	11544	--	--	--	--	--	--
#2	11570	--	--	--	--	--	--
#3	11577	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV2QRD Operator: KGS
Run Time: 08/13/03 12:41:32
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48049	1.8593	.47148	2.0896	.46899	.47648	1.8893
SDev	.00870	.0244	.00655	.0282	.00847	.00270	.0296
%RSD	1.8108	1.3127	1.3885	1.3517	1.8069	.56648	1.5664
#1	.47059	1.8315	.46396	2.0577	.45926	.47337	1.8552
#2	.48691	1.8696	.47584	2.1117	.47475	.47804	1.9083
#3	.48397	1.8769	.47465	2.0993	.47295	.47805	1.9044
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9864	.05148	.04902	50.279	.20149	.50113	.25355
SDev	.0245	.00091	.00091	.922	.00296	.00836	.00322
%RSD	1.2321	1.7693	1.8586	1.8337	1.4667	1.6675	1.2707
#1	1.9595	.05044	.04799	49.224	.19808	.49152	.24998
#2	2.0073	.05191	.04974	50.680	.20305	.50525	.25623
#3	1.9926	.05211	.04931	50.932	.20334	.50663	.25445
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98443	.48833	.47657	48.725	.50626	50.199	.48905
SDev	.01535	.00584	.01013	.815	.00755	.695	.00680
%RSD	1.5592	1.1959	2.1260	1.6719	1.4909	1.3835	1.3898
#1	.96839	.48174	.46502	47.785	.49755	49.471	.48148
#2	.98592	.49286	.48394	49.171	.51053	50.855	.49103
#3	.99897	.49040	.48076	49.220	.51071	50.271	.49464
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8318	1.8731	.04845	54.113	1.9455	.50472	.51598
SDev	.0233	.0251	.00055	.652	.0280	.00797	.00759
%RSD	1.2737	1.3403	1.1289	1.2048	1.4379	1.5798	1.4714
#1	1.8059	1.8442	.04782	53.375	1.9132	.49555	.50721
#2	1.8381	1.8854	.04867	54.613	1.9608	.50856	.52035
#3	1.8513	1.8897	.04884	54.350	1.9625	.51004	.52038
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0015	.99235	1.0196	1.0268	1.0149	1.9540	5.4776
SDev	.0125	.01611	.0139	.0133	.0148	.0372	.0863
%RSD	1.2467	1.6231	1.3652	1.2916	1.4565	1.9014	1.5761
#1	.98734	.97378	1.0043	1.0119	.99792	1.9112	5.3781
#2	1.0109	1.0025	1.0315	1.0373	1.0246	1.9731	5.5329
#3	1.0064	1.0007	1.0230	1.0311	1.0223	1.9778	5.5218
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11591	--	--	--	--	--	--
SDev	85.44427	--	--	--	--	--	--
%RSD	.7371334	--	--	--	--	--	--
#1	11690	--	--	--	--	--	--
#2	11534	--	--	--	--	--	--
#3	11551	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVWL5 Operator: KGS
Run Time: 08/13/03 12:46:00
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06421	.00393	.04124	.70033	.04115	.04141	.01125
SDev	.00116	.00189	.00041	.00244	.00015	.00122	.00031
%RSD	1.8062	48.069	.99414	.34845	.37170	2.9397	2.7544
#1	.06419	.00320	.04170	.69845	.04115	.04281	.01127
#2	.06307	.00252	.04093	.69945	.04100	.04080	.01155
#3	.06538	.00608	.04108	.70308	.04131	.04061	.01093
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.44955	.00027	.00160	8.7375	.03443	.00198	.27434
SDev	.00098	.00003	.00004	.0243	.00004	.00022	.00101
%RSD	.21763	13.133	2.4938	.27831	.12021	11.290	.36889
#1	.44860	.00030	.00164	8.7102	.03439	.00195	.27395
#2	.44950	.00028	.00159	8.7567	.03443	.00222	.27359
#3	.45055	.00023	.00156	8.7456	.03447	.00178	.27549
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.4369	.06060	.06602	3.0525	.11243	.48727	.01565
SDev	.0312	.00314	.00043	.0086	.00041	.00265	.00103
%RSD	.41949	5.1853	.64465	.28156	.36576	.54382	6.5634
#1	7.4125	.06140	.06559	3.0426	.11206	.48675	.01546
#2	7.4720	.05714	.06602	3.0572	.11236	.48491	.01676
#3	7.4262	.06327	.06644	3.0578	.11287	.49013	.01473
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00888	.00146	.00039	8.7912	.00948	.00407	.45815
SDev	.00552	.00178	.00009	.0754	.00232	.00028	.00135
%RSD	62.134	121.70	23.867	.85784	24.458	7.0026	.29379
#1	.00356	.00302	.00031	8.7519	.00911	.00432	.45660
#2	.00851	-.00047	.00049	8.7435	.01196	.00414	.45880
#3	.01458	.00183	.00036	8.8782	.00737	.00376	.45904
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.12623	.01418	.00182	.02273	.05944	.02170	1.5587
SDev	.00041	.00112	.00003	.00003	.00010	.00235	.0083
%RSD	.32563	7.9107	1.7826	.12480	.17119	10.856	.53286
#1	.12663	.01380	.00186	.02274	.05932	.02298	1.5587
#2	.12581	.01544	.00181	.02269	.05948	.01898	1.5504
#3	.12624	.01330	.00179	.02275	.05951	.02313	1.5671
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11930	--	--	--	--	--	--
SDev	43.36099	--	--	--	--	--	--
%RSD	.3634665	--	--	--	--	--	--
#1	11969	--	--	--	--	--	--
#2	11937	--	--	--	--	--	--
#3	11883	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVWL8 Operator: KGS
Run Time: 08/13/03 12:50:28
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06224	.00261	.02945	.70154	.02884	.03068	.01011
SDev	.00111	.00162	.00089	.00088	.00072	.00159	.00063
%RSD	1.7752	62.007	3.0248	.12476	2.4965	5.1798	6.2399
#1	.06167	.00196	.03046	.70255	.02948	.03244	.00990
#2	.06154	.00141	.02878	.70113	.02806	.03022	.00961
#3	.06352	.00445	.02912	.70095	.02899	.02936	.01082
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.33544	.00022	.00135	7.6153	.03263	.00244	.33039
SDev	.00049	.00015	.00002	.0274	.00038	.00042	.00038
%RSD	.14537	67.659	1.7361	.36017	1.1649	17.170	.11498
#1	.33592	.00005	.00134	7.6375	.03292	.00289	.33064
#2	.33545	.00031	.00138	7.5847	.03276	.00207	.33058
#3	.33495	.00031	.00133	7.6239	.03220	.00234	.32996
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9029	.06024	.06324	2.5759	.08725	.46215	.01474
SDev	.0197	.00294	.00177	.0113	.00033	.00254	.00057
%RSD	.40229	4.8742	2.8045	.43806	.37465	.55004	3.8443
#1	4.9235	.05686	.06407	2.5850	.08756	.46425	.01538
#2	4.8842	.06221	.06121	2.5633	.08691	.45933	.01456
#3	4.9012	.06164	.06445	2.5795	.08727	.46289	.01429
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00699	.00042	.00057	7.1073	.00405	.00357	.42735
SDev	.00346	.00072	.00026	.0247	.00024	.00041	.00138
%RSD	49.445	169.64	45.682	.34745	6.0110	11.492	.32196
#1	.00591	-.00001	.00082	7.1257	.00398	.00398	.42835
#2	.00420	.00002	.00059	7.0792	.00384	.00316	.42578
#3	.01085	.00126	.00030	7.1170	.00432	.00356	.42792
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.10593	.01134	.00155	.01878	.04555	.01843	1.5271
SDev	.00056	.00088	.00001	.00007	.00029	.00212	.0043
%RSD	.52736	7.7487	.51854	.37535	.64210	11.511	.27893
#1	.10654	.01174	.00155	.01885	.04588	.01914	1.5295
#2	.10544	.01034	.00156	.01871	.04531	.02010	1.5222
#3	.10581	.01196	.00156	.01877	.04546	.01604	1.5296
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11875	--	--	--	--	--	--
SDev	48.71733	--	--	--	--	--	--
%RSD	.4102665	--	--	--	--	--	--
#1	11818	--	--	--	--	--	--
#2	11907	--	--	--	--	--	--
#3	11899	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVWMA Operator: KGS
Run Time: 08/13/03 12:54:56
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06061	.00471	.02539	.72729	.02559	.02498	.00981
SDev	.00136	.00060	.00162	.00722	.00260	.00125	.00182
%RSD	2.2505	12.695	6.3771	.99342	10.163	5.0182	18.595
#1	.05907	.00404	.02714	.73502	.02808	.02527	.00904
#2	.06167	.00520	.02395	.72616	.02289	.02607	.01190
#3	.06108	.00489	.02508	.72070	.02581	.02361	.00850
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.30911	.00020	.00135	8.3542	.03354	.00194	.29766
SDev	.00132	.00004	.00013	.0334	.00043	.00005	.00131
%RSD	.42702	21.327	9.8282	.40026	1.2939	2.6543	.44193
#1	.31064	.00015	.00126	8.3851	.03348	.00191	.29917
#2	.30829	.00024	.00151	8.3587	.03400	.00200	.29697
#3	.30842	.00021	.00130	8.3187	.03314	.00190	.29683
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.4358	.05629	.06276	2.9258	.08447	.47769	.01579
SDev	.0172	.00657	.00176	.0155	.00022	.00558	.00088
%RSD	.38774	11.672	2.8103	.52944	.26266	1.1680	5.5680
#1	4.4489	.05053	.06333	2.9406	.08466	.48295	.01538
#2	4.4421	.06345	.06079	2.9271	.08454	.47828	.01679
#3	4.4163	.05489	.06417	2.9097	.08423	.47184	.01518
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00891	.00262	.00027	10.243	.00426	.00326	.41779
SDev	.00163	.00035	.00033	.092	.00247	.00010	.00201
%RSD	18.252	13.247	120.87	.89924	57.980	3.0617	.48115
#1	.00742	.00236	.00015	10.268	.00279	.00322	.41992
#2	.01065	.00248	.00065	10.320	.00287	.00319	.41753
#3	.00867	.00301	.00002	10.141	.00711	.00337	.41592
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13603	.01062	.00151	.01826	.04219	.01790	1.4257
SDev	.00136	.00049	.00002	.00011	.00019	.00093	.0108
%RSD	.99858	4.5877	1.0590	.62472	.44209	5.1804	.75966
#1	.13689	.01108	.00151	.01839	.04240	.01791	1.4376
#2	.13674	.01011	.00152	.01818	.04205	.01696	1.4164
#3	.13447	.01067	.00149	.01822	.04213	.01881	1.4229
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11796	--	--	--	--	--	--
SDev	74.11198	--	--	--	--	--	--
%RSD	.6283009	--	--	--	--	--	--
#1	11714	--	--	--	--	--	--
#2	11815	--	--	--	--	--	--
#3	11858	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVWMD Operator: KGS
Run Time: 08/13/03 12:59:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05741	.00598	.02465	.63672	.02416	.02562	.00986
SDev	.00077	.00106	.00049	.01095	.00043	.00061	.00159
%RSD	1.3378	17.712	1.9957	1.7205	1.7876	2.3956	16.150
#1	.05659	.00660	.02425	.62442	.02382	.02509	.00802
#2	.05812	.00658	.02520	.64543	.02465	.02629	.01084
#3	.05753	.00475	.02450	.64032	.02401	.02547	.01071
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.29681	.00026	.00148	7.0129	.02912	.00193	.22609
SDev	.00338	.00009	.00018	.0806	.00072	.00014	.00242
%RSD	1.1396	36.858	12.145	1.1492	2.4843	7.2803	1.0692
#1	.29291	.00036	.00129	6.9201	.02835	.00180	.22330
#2	.29869	.00019	.00164	7.0537	.02978	.00190	.22734
#3	.29884	.00021	.00152	7.0649	.02924	.00208	.22762
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.2928	.05325	.05949	2.3607	.08034	.43193	.01373
SDev	.0454	.00230	.00009	.0273	.00089	.00912	.00016
%RSD	1.0574	4.3218	.14261	1.1558	1.1050	2.1113	1.1717
#1	4.2405	.05073	.05952	2.3294	.07932	.42142	.01356
#2	4.3206	.05524	.05955	2.3738	.08077	.43655	.01376
#3	4.3175	.05379	.05939	2.3790	.08093	.43781	.01387
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01214	.00290	.00029	5.6004	.00413	.00354	.39187
SDev	.00261	.00119	.00019	.0961	.00062	.00020	.00443
%RSD	21.487	40.879	66.626	1.7154	15.045	5.5381	1.1297
#1	.01509	.00236	.00007	5.5286	.00437	.00351	.38676
#2	.01122	.00426	.00037	5.7096	.00343	.00337	.39429
#3	.01012	.00208	.00043	5.5631	.00460	.00375	.39456
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09121	.01095	.00146	.01773	.04144	.01600	1.4248
SDev	.00122	.00038	.00002	.00021	.00065	.00273	.0152
%RSD	1.3358	3.5122	1.5391	1.1955	1.5618	17.072	1.0634
#1	.08985	.01111	.00144	.01748	.04070	.01588	1.4073
#2	.09220	.01051	.00146	.01784	.04173	.01879	1.4331
#3	.09159	.01123	.00148	.01786	.04189	.01333	1.4340
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11938	--	--	--	--	--	--
SDev	93.01482	--	--	--	--	--	--
%RSD	.7791220	--	--	--	--	--	--
#1	12045	--	--	--	--	--	--
#2	11875	--	--	--	--	--	--
#3	11896	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVWMF Operator: KGS
Run Time: 08/13/03 13:03:53
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06174	.00231	.02732	.82276	.02655	.02887	.00992
SDev	.00096	.00154	.00085	.00524	.00222	.00261	.00193
%RSD	1.5580	66.849	3.1254	.63680	8.3674	9.0373	19.477
#1	.06196	.00346	.02732	.82105	.02786	.02623	.00932
#2	.06258	.00055	.02647	.82864	.02399	.03145	.01209
#3	.06069	.00291	.02818	.81859	.02780	.02893	.00836
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.33041	.00017	.00138	8.5255	.03110	.00216	.26316
SDev	.00158	.00004	.00011	.0107	.00004	.00063	.00135
%RSD	.47902	24.887	8.2291	.12563	.13615	29.187	.51192
#1	.32998	.00013	.00151	8.5141	.03105	.00280	.26226
#2	.33216	.00017	.00131	8.5271	.03113	.00153	.26471
#3	.32909	.00021	.00132	8.5353	.03110	.00216	.26251
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0542	.06020	.06251	3.0742	.09344	.46984	.01440
SDev	.0038	.00462	.00161	.0059	.00044	.00483	.00090
%RSD	.07495	7.6710	2.5742	.19194	.47585	1.0285	6.2479
#1	5.0582	.05735	.06427	3.0674	.09293	.46480	.01409
#2	5.0507	.06553	.06110	3.0780	.09374	.47443	.01370
#3	5.0536	.05772	.06217	3.0772	.09365	.47028	.01541
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00726	-.00017	.00062	6.8885	.00228	.00377	.43911
SDev	.00159	.00248	.00015	.0701	.00178	.00018	.00079
%RSD	21.876	1499.8	23.994	1.0175	77.861	4.8512	.18008
#1	.00580	.00229	.00078	6.9433	.00425	.00377	.43863
#2	.00702	-.00267	.00050	6.9127	.00078	.00359	.44002
#3	.00895	-.00011	.00057	6.8095	.00182	.00395	.43868
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.10634	.01132	.00164	.01941	.04755	.01883	1.6499
SDev	.00064	.00005	.00002	.00005	.00012	.00167	.0073
%RSD	.59784	.44008	1.1723	.24813	.25787	8.8906	.44330
#1	.10566	.01128	.00165	.01941	.04768	.01694	1.6433
#2	.10693	.01130	.00162	.01945	.04754	.01943	1.6577
#3	.10642	.01137	.00166	.01936	.04743	.02012	1.6486
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11846	--	--	--	--	--	--
SDev	45.24809	--	--	--	--	--	--
%RSD	.3819616	--	--	--	--	--	--
#1	11834	--	--	--	--	--	--
#2	11808	--	--	--	--	--	--
#3	11896	--	--	--	--	--	--

Analysis Report QC Standard 08/13/03 01:12:45 PM page 1

Method: TRA10103 Sample Name: CCV4 Operator: KGS
Run Time: 08/13/03 13:08:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48903	.49657	.49550	25.150	.49553	.49545	.49444
SDev	.00332	.00627	.00445	.153	.00608	.00126	.00541
%RSD	.67898	1.2619	.89901	.60955	1.2265	.25424	1.0932
#1	.49025	.50131	.49660	25.187	.49723	.49535	.49374
#2	.49157	.49893	.49930	25.282	.50057	.49676	.50015
#3	.48527	.48947	.49060	24.982	.48878	.49425	.48941
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass
Value	.50000	.50000	.50000	25.000			.50000
Range	10.500	10.500	10.500	10.500			10.500

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0041	2.0209	.49336	49.624	1.9806	2.0050	2.0089
SDev	.0181	.0197	.00428	.439	.0180	.0183	.0156
%RSD	.90413	.97300	.86763	.88472	.90787	.91254	.77675
#1	2.0112	2.0228	.49305	49.608	1.9822	2.0059	2.0148
#2	2.0177	2.0394	.49779	50.071	1.9978	2.0228	2.0207
#3	1.9836	2.0003	.48924	49.193	1.9619	1.9863	1.9912
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	.50000	50.000	2.0000	2.0000	2.0000
Range	10.500	10.500	10.500	10.500	10.500	10.500	10.500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.961	.47722	.49492	49.581	2.0014	52.394	1.9506
SDev	.232	.00171	.00533	.418	.0180	.306	.0186
%RSD	.93114	.35872	1.0778	.84253	.90025	.58409	.95276
#1	24.974	.47525	.49774	49.611	2.0043	52.610	1.9498
#2	25.187	.47816	.49826	49.982	2.0178	52.528	1.9696
#3	24.723	.47826	.48877	49.149	1.9821	52.044	1.9324
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value	25.000			50.000	2.0000	50.000	2.0000
Range	10.500			10.500	10.500	10.500	10.500

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48941	.50015	.98720	49.140	.99021	2.0036	2.0278
SDev	.00352	.00766	.00690	.172	.00685	.0182	.0173
%RSD	.72007	1.5318	.69891	.35069	.69179	.90776	.85123
#1	.49156	.50618	.98925	49.061	.98466	2.0051	2.0297
#2	.49131	.50273	.99285	49.337	.99787	2.0209	2.0440
#3	.48534	.49153	.97951	49.021	.98810	1.9847	2.0097
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

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Value			1.0000	50.000	1.0000	2.0000	2.0000
Range			10.500	10.500	10.500	10.500	10.500
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8861	1.9585	2.0569	2.0339	2.0138	1.9434	1.9744
SDev	.0138	.0188	.0086	.0186	.0190	.0208	.0145
%RSD	.73261	.96145	.41838	.91212	.94345	1.0715	.73540
#1	1.8889	1.9564	2.0607	2.0407	2.0180	1.9512	1.9793
#2	1.8983	1.9783	2.0630	2.0480	2.0303	1.9592	1.9858
#3	1.8711	1.9408	2.0471	2.0129	1.9930	1.9198	1.9580
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Range	10.500	10.500	10.500	10.500	10.500	10.500	10.500
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11502	--	--	--	--	--	--
SDev	119.8159	--	--	--	--	--	--
%RSD	1.041730	--	--	--	--	--	--
#1	11418	--	--	--	--	--	--
#2	11447	--	--	--	--	--	--
#3	11639	--	--	--	--	--	--

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Method: TRA10103 Sample Name: CCB4 Operator: KGS
Run Time: 08/13/03 13:12:49
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00072	.00038	.00073	.03648	-.00009	.00235	.00010
SDev	.00023	.00057	.00093	.00563	.00180	.00136	.00043
%RSD	31.618	150.10	127.79	15.432	2096.8	57.860	424.33
#1	-.00072	-.00025	-.00025	.04085	-.00215	.00356	-.00023
#2	-.00049	.00053	.00160	.03013	.00109	.00261	-.00006
#3	-.00095	.00087	.00083	.03845	.00081	.00088	.00059
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.00305	.00505	.06005	.20005			.01005
Low	-.00305	-.00505	-.06005	-.20005			-.01005

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00005	.00002	.00006	.00297	.00060	.00039	-.00170
SDev	.00007	.00005	.00015	.00086	.00036	.00019	.00030
%RSD	156.14	341.97	246.61	29.139	60.478	47.117	17.657
#1	.00009	-.00003	.00019	.00397	.00080	.00054	-.00139
#2	-.00004	.00007	-.00010	.00246	.00018	.00019	-.00172
#3	.00009	-.00000	.00009	.00248	.00082	.00045	-.00199
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.20005	.00505	.00505	5.0000	.01005	.05005	.02505
Low	-.20005	-.00505	-.00505	-5.0000	-.01005	-.05005	-.02505

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00714	-.00070	-.00073	.00539	-.00000	-.05494	.00103
SDev	.00433	.00074	.00020	.00128	.00000	.00203	.00046
%RSD	60.668	105.52	27.716	23.845	63.201	3.6907	44.262
#1	.01120	-.00024	-.00096	.00626	-.00000	-.05617	.00084
#2	.00258	-.00031	-.00059	.00600	-.00000	-.05605	.00070
#3	.00763	-.00156	-.00065	.00391	-.00000	-.05260	.00155
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	.10005			5.0000	.01505	5.0000	.04005
Low	-.10005			-5.0000	-.01505	-5.0000	-.04005

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00219	-.00052	.00064	-.62118	.00356	.00026	.00081
SDev	.00064	.00115	.00027	.10205	.00218	.00012	.00005
%RSD	29.168	221.77	41.499	16.429	61.246	43.825	5.5877
#1	.00292	-.00183	.00087	-.58996	.00600	.00040	.00079
#2	.00173	-.00007	.00035	-.73519	.00283	.00020	.00086
#3	.00192	.00034	.00071	-.53838	.00183	.00020	.00079
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			.01005	5.0000	.01005	.05005	.02005
Low			-.01005	-5.0000	-.01005	-.05005	-.02005

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00142	.00158	.00016	.00005	.00027	.00202	-.00160
SDev	.00026	.00098	.00004	.00003	.00006	.00057	.00108
%RSD	18.543	62.319	24.246	59.347	23.725	28.174	67.441
#1	.00157	.00241	.00021	.00007	.00031	.00247	-.00052
#2	.00111	.00182	.00015	.00002	.00020	.00220	-.00267
#3	.00157	.00050	.00013	.00007	.00031	.00138	-.00159
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05005	.04005	.00505	.00505	.00505	.10005	.10005
Low	-.05005	-.04005	-.00505	-.00505	-.00505	-.10005	-.10005

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11854	--	--	--	--	--	--
SDev	27.97302	--	--	--	--	--	--
%RSD	.2359876	--	--	--	--	--	--
#1	11841	--	--	--	--	--	--
#2	11886	--	--	--	--	--	--
#3	11834	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVWMH Operator: KGS
Run Time: 08/13/03 13:17:17
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06598	.00436	.03162	1.1418	.03126	.03235	.01037
SDev	.00149	.00208	.00122	.0038	.00242	.00119	.00168
%RSD	2.2533	47.619	3.8479	.33263	7.7281	3.6651	16.183
#1	.06739	.00311	.03047	1.1439	.02896	.03349	.01226
#2	.06612	.00676	.03150	1.1374	.03105	.03242	.00908
#3	.06443	.00322	.03289	1.1441	.03378	.03113	.00976
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.37731	.00012	.00157	10.539	.03428	.00266	.61913
SDev	.00146	.00012	.00029	.029	.00030	.00019	.00231
%RSD	.38715	94.018	18.169	.27708	.86505	7.3348	.37388
#1	.37888	-.00001	.00186	10.559	.03447	.00288	.62054
#2	.37709	.00018	.00158	10.505	.03394	.00260	.62039
#3	.37598	.00020	.00129	10.552	.03442	.00250	.61646
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.0293	.06274	.06760	3.9921	.10584	.51929	.01581
SDev	.0248	.00335	.00060	.0111	.00029	.00281	.00023
%RSD	.41183	5.3362	.89423	.27908	.27604	.54073	1.4718
#1	6.0422	.06563	.06827	4.0037	.10615	.52069	.01556
#2	6.0007	.06352	.06742	3.9815	.10578	.51606	.01602
#3	6.0450	.05907	.06710	3.9910	.10557	.52113	.01585
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00912	.00199	.00071	5.6673	.00389	.00443	.48461
SDev	.00496	.00277	.00047	.0827	.00108	.00058	.00119
%RSD	54.417	139.40	66.439	1.4584	27.825	13.008	.24517
#1	.01170	-.00117	.00119	5.7332	.00513	.00479	.48581
#2	.01226	.00402	.00025	5.5746	.00338	.00377	.48343
#3	.00340	.00312	.00069	5.6941	.00315	.00474	.48460
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08659	.01225	.00184	.02283	.05522	.02184	1.9497
SDev	.00082	.00026	.00004	.00010	.00023	.00204	.0070
%RSD	.95021	2.0918	2.1603	.44918	.41556	9.3635	.35803
#1	.08727	.01251	.00186	.02294	.05544	.02412	1.9577
#2	.08567	.01199	.00180	.02274	.05498	.02017	1.9461
#3	.08682	.01227	.00187	.02280	.05522	.02122	1.9452
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11845	--	--	--	--	--	--
SDev	51.20759	--	--	--	--	--	--
%RSD	.4323304	--	--	--	--	--	--
#1	11787	--	--	--	--	--	--
#2	11862	--	--	--	--	--	--
#3	11885	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVWMJ Operator: KGS
Run Time: 08/13/03 13:21:46
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06683	.00420	.04833	.62258	.04759	.04982	.00958
SDev	.00088	.00217	.00167	.00696	.00278	.00057	.00178
%RSD	1.3086	51.746	3.4540	1.1185	5.8461	1.1358	18.616
#1	.06771	.00478	.04697	.62235	.04528	.05034	.01129
#2	.06683	.00180	.04783	.61573	.04680	.04988	.00773
#3	.06596	.00603	.05019	.62965	.05068	.04922	.00972
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.53241	.00014	.00163	6.6884	.04270	.00264	.36164
SDev	.00073	.00011	.00011	.0038	.00043	.00038	.00065
%RSD	.13783	76.355	6.7788	.05665	1.0003	14.371	.17986
#1	.53207	.00002	.00162	6.6928	.04319	.00295	.36122
#2	.53325	.00016	.00174	6.6860	.04242	.00222	.36239
#3	.53191	.00024	.00152	6.6864	.04250	.00276	.36132
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.190	.06552	.06748	2.1576	.14906	.47252	.01839
SDev	.009	.00340	.00126	.0044	.00034	.00302	.00056
%RSD	.07038	5.1913	1.8641	.20316	.22678	.64000	3.0422
#1	13.179	.06640	.06836	2.1617	.14943	.47104	.01902
#2	13.196	.06840	.06604	2.1530	.14878	.47053	.01794
#3	13.195	.06177	.06805	2.1581	.14896	.47600	.01821
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01240	.00011	.00082	7.0046	.00085	.00466	.44941
SDev	.00379	.00284	.00061	.0485	.00096	.00051	.00064
%RSD	30.570	2589.3	74.632	.69207	113.37	10.996	.14189
#1	.01660	-.00112	.00150	7.0599	.00183	.00521	.44931
#2	.00923	-.00191	.00032	6.9697	-.00009	.00419	.45009
#3	.01139	.00336	.00063	6.9842	.00080	.00458	.44883
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11077	.01582	.00151	.02278	.06760	.02548	1.6538
SDev	.00052	.00033	.00004	.00004	.00025	.00241	.0082
%RSD	.47020	2.1107	2.4354	.17762	.37388	9.4479	.49868
#1	.11132	.01611	.00148	.02280	.06789	.02309	1.6450
#2	.11068	.01545	.00155	.02281	.06748	.02546	1.6551
#3	.11029	.01589	.00149	.02274	.06743	.02790	1.6614
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11789	--	--	--	--	--	--
SDev	32.92217	--	--	--	--	--	--
%RSD	.2792640	--	--	--	--	--	--
#1	11751	--	--	--	--	--	--
#2	11803	--	--	--	--	--	--
#3	11813	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVWML Operator: KGS
Run Time: 08/13/03 13:26:14
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06006	.00312	.04020	.61739	.03950	.04162	.00920
SDev	.00105	.00049	.00109	.00119	.00186	.00101	.00147
%RSD	1.7515	15.845	2.7190	.19339	4.7152	2.4363	16.015
#1	.05939	.00359	.04033	.61647	.04026	.04048	.01058
#2	.05952	.00316	.04123	.61697	.04086	.04197	.00764
#3	.06128	.00260	.03905	.61874	.03738	.04242	.00937
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.47238	.00021	.00135	6.0363	.03491	.00175	.24997
SDev	.00106	.00009	.00013	.0100	.00041	.00034	.00099
%RSD	.22528	44.445	9.8503	.16587	1.1763	19.659	.39695
#1	.47157	.00013	.00147	6.0462	.03533	.00214	.24902
#2	.47359	.00018	.00120	6.0366	.03451	.00151	.25100
#3	.47199	.00031	.00138	6.0262	.03490	.00159	.24990
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	10.532	.05869	.06075	1.8808	.12639	.43599	.01645
SDev	.020	.00235	.00040	.0052	.00024	.00098	.00068
%RSD	.19348	4.0047	.66621	.27728	.19150	.22462	4.1283
#1	10.552	.05723	.06047	1.8845	.12646	.43506	.01709
#2	10.532	.05744	.06057	1.8829	.12659	.43702	.01650
#3	10.511	.06140	.06122	1.8748	.12612	.43589	.01574
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01159	-.00111	.00031	7.1663	.00197	.00365	.39973
SDev	.00250	.00199	.00081	.0678	.00052	.00051	.00085
%RSD	21.559	179.26	263.35	.94649	26.640	13.896	.21138
#1	.00908	.00085	.00120	7.2413	.00137	.00419	.40035
#2	.01159	-.00105	-.00039	7.1093	.00219	.00359	.40007
#3	.01408	-.00312	.00011	7.1483	.00235	.00318	.39877
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.10801	.01399	.00136	.02062	.06125	.02168	1.5845
SDev	.00103	.00016	.00001	.00007	.00022	.00202	.0047
%RSD	.95202	1.1813	1.0595	.31853	.36461	9.3258	.29752
#1	.10919	.01412	.00137	.02061	.06142	.02299	1.5797
#2	.10726	.01380	.00134	.02069	.06134	.02269	1.5892
#3	.10759	.01405	.00136	.02056	.06100	.01935	1.5847
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11830	--	--	--	--	--	--
SDev	30.92172	--	--	--	--	--	--
%RSD	.2613919	--	--	--	--	--	--
#1	11804	--	--	--	--	--	--
#2	11820	--	--	--	--	--	--
#3	11864	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVWMLS Operator: KGS
Run Time: 08/13/03 13:30:42
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49207	1.7876	.04015	2.2920	.03940	.04165	1.7164
SDev	.00104	.0017	.00109	.0044	.00300	.00302	.0027
%RSD	.21226	.09542	2.7132	.19400	7.6147	7.2523	.15525
#1	.49241	1.7858	.03981	2.2905	.03756	.04432	1.7180
#2	.49290	1.7892	.03927	2.2970	.03777	.04226	1.7179
#3	.49089	1.7878	.04137	2.2884	.04286	.03837	1.7134
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.1938	.04583	.04528	6.1805	.20686	.44766	.45431
SDev	.0020	.00007	.00031	.0110	.00096	.00071	.00067
%RSD	.09225	.16457	.68145	.17742	.46302	.15807	.14804
#1	2.1957	.04578	.04534	6.1831	.20743	.44790	.45406
#2	2.1940	.04591	.04556	6.1900	.20738	.44822	.45507
#3	2.1916	.04579	.04495	6.1685	.20575	.44687	.45379
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	11.390	.48690	.49465	1.8945	.56781	.47429	.44594
SDev	.020	.00622	.00154	.0042	.00107	.00359	.00131
%RSD	.17139	1.2774	.31154	.21966	.18849	.75621	.29343
#1	11.400	.48919	.49402	1.8909	.56804	.47468	.44736
#2	11.403	.49165	.49352	1.8991	.56874	.47767	.44568
#3	11.368	.47986	.49640	1.8936	.56664	.47053	.44479
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.7453	1.8087	.04309	9.8876	1.7127	.44028	.85076
SDev	.0014	.0026	.00022	.1325	.0108	.00121	.00215
%RSD	.08084	.14429	.51369	1.3398	.63210	.27387	.25307
#1	1.7446	1.8063	.04316	9.9177	1.7014	.44061	.85179
#2	1.7444	1.8115	.04326	10.002	1.7137	.44129	.85222
#3	1.7470	1.8082	.04284	9.7426	1.7230	.43894	.84829
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.96630	.01314	.88513	.91730	.05813	.02084	1.4646
SDev	.00148	.00045	.00333	.00101	.00007	.00140	.0019
%RSD	.15332	3.4425	.37662	.11014	.12447	6.7182	.12875
#1	.96758	.01263	.88352	.91827	.05820	.02106	1.4625
#2	.96663	.01349	.88897	.91740	.05806	.02211	1.4661
#3	.96468	.01331	.88291	.91625	.05814	.01934	1.4652
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11843	--	--	--	--	--	--
SDev	30.43195	--	--	--	--	--	--
%RSD	.2569557	--	--	--	--	--	--
#1	11813	--	--	--	--	--	--
#2	11843	--	--	--	--	--	--
#3	11874	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVWMLX Operator: KGS
Run Time: 08/13/03 13:35:11
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06097	.00250	.04162	.58969	.04190	.04106	.00980
SDev	.00014	.00047	.00170	.00276	.00195	.00183	.00065
%RSD	.22151	19.002	4.0793	.46797	4.6599	4.4608	6.6115
#1	.06107	.00239	.03970	.58656	.03965	.03981	.01053
#2	.06082	.00208	.04295	.59175	.04284	.04316	.00929
#3	.06102	.00301	.04220	.59078	.04320	.04021	.00957
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.47840	.00008	.00136	6.2204	.03515	.00260	.23290
SDev	.00037	.00007	.00002	.0430	.00031	.00027	.00040
%RSD	.07789	88.542	1.5279	.69049	.88011	10.490	.17317
#1	.47801	.00000	.00137	6.1727	.03488	.00233	.23262
#2	.47843	.00009	.00133	6.2560	.03549	.00288	.23336
#3	.47876	.00014	.00137	6.2326	.03509	.00260	.23271
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	10.831	.05763	.06263	1.9460	.12851	.47004	.01663
SDev	.056	.00353	.00174	.0124	.00089	.00399	.00067
%RSD	.51321	6.1343	2.7808	.63542	.69230	.84839	4.0016
#1	10.770	.06113	.06104	1.9321	.12749	.46582	.01588
#2	10.879	.05772	.06236	1.9557	.12915	.47375	.01688
#3	10.843	.05406	.06450	1.9503	.12888	.47055	.01713
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00645	.00052	.00052	7.8394	.00580	.00446	.39576
SDev	.00225	.00170	.00058	.0918	.00130	.00023	.00168
%RSD	34.897	324.73	111.54	1.1710	22.490	5.1624	.42439
#1	.00863	-.00072	.00061	7.8160	.00578	.00420	.39383
#2	.00658	-.00016	.00105	7.9407	.00711	.00460	.39687
#3	.00413	.00246	-.00010	7.7616	.00450	.00459	.39659
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11524	.01347	.00149	.02118	.05986	.01821	1.4310
SDev	.00131	.00075	.00002	.00003	.00030	.00192	.0037
%RSD	1.1383	5.5936	1.0991	.16572	.50321	10.543	.26025
#1	.11534	.01282	.00150	.02115	.05952	.01620	1.4269
#2	.11650	.01328	.00150	.02122	.06004	.01841	1.4342
#3	.11388	.01429	.00147	.02118	.06004	.02002	1.4320
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11766	--	--	--	--	--	--
SDev	12.13123	--	--	--	--	--	--
%RSD	.1031030	--	--	--	--	--	--
#1	11766	--	--	--	--	--	--
#2	11754	--	--	--	--	--	--
#3	11779	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVWMLP5 Operator: KGS
Run Time: 08/13/03 13:39:39
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01094	-.00016	.00870	.15080	.00819	.00972	.00233
SDev	.00059	.00017	.00014	.00470	.00115	.00191	.00097
%RSD	5.3843	102.57	1.5626	3.1145	14.074	19.617	41.721
#1	.01043	-.00015	.00875	.14554	.00877	.00870	.00320
#2	.01081	-.00033	.00855	.15228	.00687	.01193	.00252
#3	.01159	-.00000	.00881	.15458	.00894	.00855	.00128
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09422	.00002	.00025	1.1984	.00704	.00058	.04800
SDev	.00103	.00013	.00010	.0093	.00027	.00014	.00050
%RSD	1.0929	659.56	40.280	.77406	3.8794	23.752	1.0356
#1	.09310	.00009	.00020	1.1886	.00687	.00070	.04747
#2	.09443	.00010	.00036	1.2070	.00736	.00043	.04807
#3	.09512	-.00013	.00018	1.1995	.00691	.00061	.04846
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0887	.00987	.01148	.37029	.02482	.02958	.00387
SDev	.0142	.00073	.00125	.00239	.00007	.00228	.00043
%RSD	.67972	7.3517	10.850	.64573	.28159	7.7002	11.171
#1	2.0731	.01047	.01042	.36762	.02475	.02802	.00348
#2	2.1007	.01008	.01117	.37105	.02489	.03219	.00379
#3	2.0924	.00906	.01285	.37222	.02483	.02852	.00434
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00330	-.00189	.00031	.93796	.00205	.00072	.07971
SDev	.00265	.00155	.00023	.08447	.00110	.00011	.00080
%RSD	80.229	81.874	72.453	9.0062	53.626	15.632	.99797
#1	.00445	-.00244	.00047	.89568	.00106	.00078	.07883
#2	.00518	-.00309	.00041	1.0352	.00324	.00079	.07990
#3	.00027	-.00014	.00005	.88298	.00186	.00059	.08039
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02052	.00265	.00033	.00416	.01224	.00455	.30356
SDev	.00048	.00047	.00005	.00006	.00004	.00268	.00207
%RSD	2.3376	17.856	13.660	1.4311	.34218	58.929	.68158
#1	.02100	.00211	.00028	.00410	.01228	.00328	.30135
#2	.02053	.00285	.00036	.00417	.01223	.00764	.30389
#3	.02004	.00300	.00036	.00421	.01220	.00274	.30544
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11909	--	--	--	--	--	--
SDev	32.73793	--	--	--	--	--	--
%RSD	.2748903	--	--	--	--	--	--
#1	11943	--	--	--	--	--	--
#2	11878	--	--	--	--	--	--
#3	11908	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVWMN Operator: KGS
Run Time: 08/13/03 13:44:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06671	.00290	.04024	.64140	.04004	.04062	.00921
SDev	.00052	.00197	.00140	.00342	.00238	.00074	.00039
%RSD	.77363	67.947	3.4693	.53317	5.9548	1.8233	4.2592
#1	.06664	.00089	.04112	.64384	.04178	.03980	.00938
#2	.06623	.00297	.04096	.64288	.04103	.04083	.00876
#3	.06725	.00483	.03863	.63749	.03732	.04124	.00949
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.47403	.00023	.00132	6.7061	.03575	.00237	.30393
SDev	.00043	.00015	.00021	.0443	.00064	.00005	.00042
%RSD	.09103	64.534	15.975	.66125	1.8019	2.0963	.13985
#1	.47406	.00007	.00118	6.6652	.03536	.00240	.30389
#2	.47445	.00026	.00122	6.7000	.03540	.00240	.30437
#3	.47359	.00035	.00157	6.7532	.03650	.00231	.30352
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.1041	.06286	.06863	2.2019	.11793	.46785	.01625
SDev	.0396	.00427	.00151	.0076	.00050	.00344	.00031
%RSD	.43501	6.7871	2.2046	.34623	.42455	.73424	1.8988
#1	9.0642	.05991	.07000	2.1939	.11740	.46391	.01595
#2	9.1048	.06092	.06888	2.2027	.11799	.47019	.01623
#3	9.1434	.06775	.06701	2.2090	.11840	.46946	.01656
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00816	.00027	.00033	7.1099	.00307	.00389	.45845
SDev	.00408	.00132	.00038	.1377	.00090	.00040	.00145
%RSD	50.056	486.03	112.92	1.9365	29.334	10.393	.31733
#1	.00516	-.00124	-.00003	6.9800	.00204	.00375	.45723
#2	.00650	.00121	.00031	7.0954	.00371	.00434	.45806
#3	.01281	.00085	.00072	7.2542	.00345	.00357	.46006
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11193	.01342	.00144	.02184	.06003	.02119	1.5443
SDev	.00050	.00057	.00003	.00007	.00033	.00364	.0074
%RSD	.44668	4.2323	2.1561	.32087	.55145	17.161	.47675
#1	.11137	.01400	.00140	.02185	.06004	.01819	1.5361
#2	.11209	.01341	.00145	.02190	.05969	.02524	1.5469
#3	.11233	.01286	.00146	.02176	.06035	.02015	1.5501
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11904	--	--	--	--	--	--
SDev	22.92442	--	--	--	--	--	--
%RSD	.1925850	--	--	--	--	--	--
#1	11916	--	--	--	--	--	--
#2	11917	--	--	--	--	--	--
#3	11877	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVWMP Operator: KGS
Run Time: 08/13/03 13:48:36
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00011	-.00226	.00036	.16028	.00064	-.00019	.00044
SDev	.00067	.00260	.00205	.00338	.00281	.00139	.00074
%RSD	607.09	114.67	572.40	2.1110	442.00	715.50	167.22
#1	.00048	.00068	-.00033	.15738	-.00096	.00091	.00006
#2	-.00085	-.00323	.00267	.15945	.00388	.00026	.00129
#3	.00004	-.00423	-.00126	.16400	-.00102	-.00175	-.00003
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04383	.00006	.00001	1.9524	.01474	.00099	.01617
SDev	.00024	.00010	.00013	.0046	.00031	.00033	.00022
%RSD	.54843	176.99	2369.7	.23368	2.1035	32.922	1.3490
#1	.04381	.00004	.00001	1.9475	.01460	.00063	.01600
#2	.04360	.00017	-.00013	1.9534	.01453	.00108	.01610
#3	.04408	-.00004	.00013	1.9564	.01510	.00126	.01642
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08334	-.00316	.00141	.24825	.00092	.03034	.00490
SDev	.00843	.00352	.00079	.00335	.00000	.00237	.00106
%RSD	10.110	111.25	55.862	1.3488	.44668	7.8005	21.585
#1	.07366	-.00066	.00105	.24511	.00092	.02806	.00409
#2	.08905	-.00719	.00232	.24788	.00092	.03278	.00452
#3	.08730	-.00164	.00087	.25177	.00092	.03017	.00610
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00332	-.00505	.00053	7.7036	.00139	.00053	.01992
SDev	.00307	.00252	.00037	.1965	.00168	.00030	.00013
%RSD	92.631	49.974	69.486	2.5507	120.28	57.346	.65192
#1	.00681	-.00238	.00027	7.6174	.00013	.00020	.02003
#2	.00103	-.00537	.00037	7.5648	.00329	.00060	.01977
#3	.00211	-.00740	.00095	7.9284	.00075	.00080	.01995
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08393	.00188	.00019	.00308	.00213	.00348	.85006
SDev	.00037	.00048	.00004	.00004	.00014	.00230	.00710
%RSD	.44308	25.374	20.561	1.1880	6.4561	66.045	.83548
#1	.08352	.00153	.00018	.00304	.00205	.00493	.84186
#2	.08403	.00242	.00023	.00310	.00205	.00083	.85417
#3	.08424	.00168	.00016	.00311	.00229	.00467	.85414
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11790	--	--	--	--	--	--
SDev	31.58761	--	--	--	--	--	--
%RSD	.2679253	--	--	--	--	--	--
#1	11812	--	--	--	--	--	--
#2	11803	--	--	--	--	--	--
#3	11754	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVWMR Operator: KGS
Run Time: 08/13/03 13:53:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06344	.00472	.02554	.75883	.02429	.02806	.01036
SDev	.00405	.00182	.00127	.06264	.00243	.00288	.00167
%RSD	6.3802	38.554	4.9556	8.2544	9.9951	10.249	16.148
#1	.06135	.00331	.02416	.72557	.02162	.02924	.00941
#2	.06811	.00408	.02664	.83109	.02488	.03015	.01229
#3	.06087	.00677	.02584	.71984	.02637	.02478	.00937
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.31860	-.00015	.00154	7.8722	.03077	.00180	.34142
SDev	.02081	.00060	.00021	.5655	.00288	.00018	.02133
%RSD	6.5327	400.21	13.895	7.1835	9.3494	9.8967	6.2475
#1	.30655	.00016	.00155	7.5036	.02918	.00163	.32916
#2	.34263	-.00084	.00176	8.5233	.03409	.00179	.36605
#3	.30662	.00024	.00133	7.5896	.02904	.00199	.32905
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.5706	.06342	.06345	2.6755	.08550	.51058	.01481
SDev	.3223	.00824	.00252	.1893	.00618	.06043	.00158
%RSD	7.0514	12.994	3.9747	7.0751	7.2307	11.835	10.650
#1	4.3674	.06206	.06099	2.5530	.08167	.47695	.01466
#2	4.9422	.07226	.06603	2.8935	.09263	.58035	.01646
#3	4.4021	.05595	.06333	2.5799	.08219	.47446	.01332
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00970	.00223	.00096	9.2318	.00163	.00351	.43293
SDev	.00092	.00228	.00076	.6393	.00182	.00043	.02910
%RSD	9.4934	101.96	79.608	6.9252	111.66	12.161	6.7223
#1	.00913	.00040	.00101	8.9825	.00284	.00338	.41437
#2	.00920	.00152	.00170	9.9582	-.00046	.00399	.46647
#3	.01076	.00478	.00017	8.7547	.00253	.00316	.41794
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.16179	.01078	.00161	.01887	.04494	.02019	2.0808
SDev	.01383	.00108	.00010	.00124	.00297	.00452	.1689
%RSD	8.5468	10.063	6.1804	6.5682	6.6109	22.375	8.1184
#1	.15190	.01010	.00157	.01809	.04315	.01585	1.9572
#2	.17759	.01203	.00172	.02030	.04837	.02487	2.2733
#3	.15587	.01020	.00154	.01821	.04330	.01986	2.0120
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11464	--	--	--	--	--	--
SDev	685.7201	--	--	--	--	--	--
%RSD	5.981341	--	--	--	--	--	--
#1	11832	--	--	--	--	--	--
#2	10673	--	--	--	--	--	--
#3	11888	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FVWMT Operator: KGS
Run Time: 08/13/03 13:57:33
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00161	-.00129	.00058	.20654	-.00016	.00207	-.00056
SDev	.00037	.00083	.00155	.00099	.00197	.00107	.00025
%RSD	22.959	64.411	265.01	.47827	1237.8	51.798	45.630
#1	-.00203	-.00040	.00236	.20675	.00201	.00306	-.00029
#2	-.00145	-.00142	-.00049	.20546	-.00185	.00223	-.00058
#3	-.00135	-.00205	-.00011	.20740	-.00063	.00093	-.00080
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05855	.00010	.00004	1.6410	.01343	.00047	.00661
SDev	.00015	.00008	.00014	.0044	.00019	.00073	.00013
%RSD	.25032	84.746	338.61	.26883	1.4044	154.56	1.9184
#1	.05870	.00004	.00019	1.6391	.01330	.00090	.00651
#2	.05855	.00019	-.00009	1.6379	.01334	-.00037	.00658
#3	.05841	.00006	.00003	1.6461	.01364	.00090	.00675
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07740	-.00340	-.00072	.22214	.00082	.01644	.00490
SDev	.01206	.00156	.00035	.00479	.00018	.00123	.00073
%RSD	15.576	45.954	49.021	2.1544	21.757	7.5013	14.851
#1	.08313	-.00513	-.00049	.22430	.00092	.01650	.00510
#2	.06355	-.00209	-.00112	.21665	.00061	.01518	.00410
#3	.08553	-.00297	-.00054	.22546	.00092	.01765	.00551
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00564	-.00475	.00038	5.1299	.00389	-.00039	.01340
SDev	.00176	.00089	.00041	.0611	.00054	.00020	.00025
%RSD	31.239	18.732	106.78	1.1911	13.818	50.380	1.8499
#1	.00750	-.00435	.00042	5.1349	.00347	-.00040	.01360
#2	.00400	-.00413	-.00005	5.0664	.00370	-.00059	.01313
#3	.00540	-.00577	.00076	5.1883	.00450	-.00020	.01348
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05549	.00188	.00016	.00306	.00419	.00494	.76414
SDev	.00052	.00034	.00003	.00001	.00018	.00166	.00280
%RSD	.94007	18.243	16.868	.14984	4.2401	33.703	.36612
#1	.05578	.00168	.00018	.00307	.00416	.00384	.76348
#2	.05489	.00168	.00013	.00306	.00404	.00685	.76720
#3	.05580	.00227	.00015	.00306	.00439	.00411	.76172
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11787	--	--	--	--	--	--
SDev	16.17226	--	--	--	--	--	--
%RSD	.1372062	--	--	--	--	--	--
#1	11768	--	--	--	--	--	--
#2	11799	--	--	--	--	--	--
#3	11794	--	--	--	--	--	--

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Method: TRA10103 Sample Name: CCV5 Operator: KGS
Run Time: 08/13/03 14:02:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48058	.49343	.48957	25.097	.48755	.49360	.48826
SDev	.00113	.00192	.00162	.173	.00172	.00202	.00133
%RSD	.23568	.38868	.33092	.68943	.35317	.40942	.27200
#1	.47973	.49362	.48871	25.269	.48609	.49398	.48916
#2	.48014	.49524	.49143	25.099	.48945	.49541	.48888
#3	.48187	.49142	.48855	24.923	.48712	.49142	.48673
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass
Value	.50000	.50000	.50000	25.000			.50000
Range	10.500	10.500	10.500	10.500			10.500

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9981	1.9876	.48773	48.621	1.9382	1.9786	2.0036
SDev	.0139	.0068	.00230	.263	.0073	.0070	.0170
%RSD	.69657	.34124	.47173	.54025	.37594	.35471	.84672
#1	2.0129	1.9817	.48557	48.345	1.9315	1.9728	2.0215
#2	1.9963	1.9950	.49015	48.868	1.9459	1.9864	2.0015
#3	1.9852	1.9861	.48746	48.650	1.9373	1.9765	1.9877
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	.50000	50.000	2.0000	2.0000	2.0000
Range	10.500	10.500	10.500	10.500	10.500	10.500	10.500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.607	.47019	.48577	49.267	1.9704	52.963	1.9252
SDev	.071	.00398	.00368	.149	.0052	.657	.0045
%RSD	.28973	.84637	.75815	.30179	.26433	1.2401	.23215
#1	24.541	.47291	.48314	49.191	1.9685	53.686	1.9211
#2	24.683	.47203	.48419	49.438	1.9764	52.801	1.9300
#3	24.596	.46562	.48998	49.171	1.9665	52.403	1.9245
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value	25.000			50.000	2.0000	50.000	2.0000
Range	10.500			10.500	10.500	10.500	10.500

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48576	.49725	.97910	48.838	.97768	1.9801	2.0070
SDev	.00276	.00275	.00358	.402	.00695	.0040	.0054
%RSD	.56732	.55208	.36513	.82415	.71070	.20382	.27036
#1	.48884	.49600	.98205	49.252	.96990	1.9794	2.0053
#2	.48490	.50040	.98013	48.813	.97989	1.9845	2.0130
#3	.48354	.49535	.97512	48.448	.98326	1.9765	2.0026
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value			1.0000	50.000	1.0000	2.0000	2.0000
Range			10.500	10.500	10.500	10.500	10.500
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8637	1.9265	2.0624	2.0156	2.0023	1.9018	1.9245
SDev	.0070	.0023	.0208	.0119	.0064	.0179	.0091
%RSD	.37443	.11994	1.0069	.58802	.31805	.94337	.47348
#1	1.8699	1.9251	2.0851	2.0272	2.0064	1.8842	1.9326
#2	1.8650	1.9292	2.0577	2.0161	2.0055	1.9201	1.9263
#3	1.8561	1.9252	2.0443	2.0035	1.9949	1.9011	1.9146
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Range	10.500	10.500	10.500	10.500	10.500	10.500	10.500
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11569	--	--	--	--	--	--
SDev	65.92101	--	--	--	--	--	--
%RSD	.5697899	--	--	--	--	--	--
#1	11509	--	--	--	--	--	--
#2	11560	--	--	--	--	--	--
#3	11640	--	--	--	--	--	--

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Method: TRA10103 Sample Name: CCB5 Operator: KGS
Run Time: 08/13/03 14:06:29
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00118	.00020	-.00075	.04995	-.00226	.00227	.00094
SDev	.00067	.00202	.00101	.00042	.00146	.00012	.00115
%RSD	56.450	1034.1	133.69	.83477	64.598	5.4557	122.46
#1	-.00114	.00228	-.00103	.04999	-.00262	.00215	.00202
#2	-.00054	.00005	-.00159	.04952	-.00351	.00225	-.00028
#3	-.00187	-.00175	.00036	.05035	-.00065	.00240	.00108
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.00305	.00505	.06005	.20005			.01005
Low	-.00305	-.00505	-.06005	-.20005			-.01005

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00001	.00009	.00019	-.00174	.00054	.00028	-.00275
SDev	.00003	.00003	.00019	.00114	.00034	.00041	.00014
%RSD	303.23	33.022	103.53	65.472	61.967	149.42	5.1585
#1	.00002	.00006	.00038	-.00050	.00093	.00036	-.00269
#2	-.00004	.00012	.00019	-.00274	.00036	-.00017	-.00291
#3	-.00000	.00008	-.00001	-.00199	.00033	.00064	-.00265
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.20005	.00505	.00505	5.0000	.01005	.05005	.02505
Low	-.20005	-.00505	-.00505	-5.0000	-.01005	-.05005	-.02505

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00116	.00053	-.00203	.00320	-.00000	-.05760	.00069
SDev	.00555	.00414	.00133	.00186	.00000	.00372	.00085
%RSD	480.40	787.69	65.560	58.126	110.49	6.4600	121.93
#1	.00455	.00329	-.00335	.00393	.00000	-.05374	.00014
#2	-.00654	.00251	-.00206	.00108	-.00000	-.05790	.00027
#3	-.00148	-.00423	-.00069	.00457	-.00001	-.06116	.00167
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	.10005			5.0000	.01505	5.0000	.04005
Low	-.10005			-5.0000	-.01505	-5.0000	-.04005

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00384	-.00162	.00069	-.59582	.00431	.00007	.00160
SDev	.00438	.00149	.00036	.11608	.00036	.00011	.00008
%RSD	114.10	91.740	52.674	19.482	8.4607	167.62	4.8442
#1	.00680	.00002	.00111	-.46183	.00393	.00000	.00152
#2	.00590	-.00287	.00048	-.65977	.00436	.00000	.00166
#3	-.00119	-.00202	.00048	-.66586	.00465	.00020	.00164
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			.01005	5.0000	.01005	.05005	.02005
Low			-.01005	-5.0000	-.01005	-.05005	-.02005

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00102	.00222	.00018	.00005	.00020	.00265	-.00601
SDev	.00112	.00023	.00005	.00003	.00011	.00167	.00121
%RSD	109.54	10.205	25.799	59.134	56.570	62.944	20.175
#1	.00217	.00227	.00023	.00007	.00031	.00083	-.00472
#2	.00096	.00241	.00015	.00002	.00008	.00410	-.00713
#3	-.00007	.00197	.00015	.00007	.00020	.00301	-.00617
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05005	.04005	.00505	.00505	.00505	.10005	.10005
Low	-.05005	-.04005	-.00505	-.00505	-.00505	-.10005	-.10005

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11873	--	--	--	--	--	--
SDev	70.09822	--	--	--	--	--	--
%RSD	.5903969	--	--	--	--	--	--
#1	11794	--	--	--	--	--	--
#2	11898	--	--	--	--	--	--
#3	11928	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV1AV Operator: KGS
Run Time: 08/13/03 14:10:58
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02967	.00131	.02160	.45410	.02282	.01914	.00210
SDev	.00045	.00114	.00055	.00295	.00134	.00128	.00114
%RSD	1.5292	87.102	2.5272	.64938	5.8585	6.6695	54.029
#1	.03016	.00066	.02221	.45635	.02410	.01842	.00190
#2	.02958	.00262	.02116	.45518	.02143	.02061	.00108
#3	.02926	.00064	.02142	.45076	.02294	.01838	.00333
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.24597	.00015	.00139	4.0416	.02098	.00138	.21172
SDev	.00025	.00006	.00013	.0244	.00042	.00024	.00080
%RSD	.10188	40.654	9.5785	.60282	2.0278	17.260	.37606
#1	.24573	.00009	.00141	4.0143	.02049	.00147	.21203
#2	.24623	.00015	.00125	4.0495	.02116	.00111	.21232
#3	.24595	.00021	.00151	4.0610	.02128	.00157	.21082
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.7552	.02245	.03327	1.1156	.05017	.27535	.01019
SDev	.0229	.00188	.00143	.0053	.00043	.00165	.00010
%RSD	.60883	8.3658	4.2883	.47909	.86198	.59801	.96513
#1	3.7318	.02071	.03488	1.1112	.04985	.27357	.01012
#2	3.7563	.02444	.03214	1.1141	.05000	.27682	.01015
#3	3.7774	.02219	.03279	1.1216	.05066	.27565	.01030
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00574	-.00091	.00019	6.6945	.00447	.00278	.22608
SDev	.00238	.00095	.00026	.0690	.00189	.00019	.00090
%RSD	41.482	105.07	139.12	1.0311	42.411	6.9543	.39748
#1	.00331	-.00066	-.00011	6.7735	.00285	.00297	.22504
#2	.00806	-.00010	.00038	6.6643	.00399	.00258	.22652
#3	.00585	-.00196	.00030	6.6457	.00655	.00278	.22666
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08700	.00744	.00063	.01065	.03119	.00811	1.1274
SDev	.00117	.00038	.00001	.00002	.00006	.00096	.0053
%RSD	1.3417	5.1192	2.1360	.20310	.20245	11.784	.46947
#1	.08669	.00772	.00064	.01063	.03112	.00819	1.1291
#2	.08829	.00759	.00062	.01066	.03121	.00903	1.1316
#3	.08601	.00700	.00062	.01067	.03124	.00712	1.1215
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11835	--	--	--	--	--	--
SDev	24.72113	--	--	--	--	--	--
%RSD	.2088811	--	--	--	--	--	--
#1	11863	--	--	--	--	--	--
#2	11827	--	--	--	--	--	--
#3	11815	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV1AW Operator: KGS
Run Time: 08/13/03 14:15:27
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02533	.00058	.01000	.41871	.00922	.01158	.00266
SDev	.00076	.00062	.00034	.00381	.00139	.00210	.00153
%RSD	3.0058	107.47	3.3946	.91047	15.057	18.160	57.607
#1	.02597	.00011	.00996	.42311	.00806	.01376	.00102
#2	.02449	.00128	.01036	.41635	.01075	.00957	.00289
#3	.02554	.00035	.00969	.41668	.00883	.01139	.00405
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.15516	.00019	.00113	5.3707	.01737	.00095	.20820
SDev	.00080	.00007	.00013	.0167	.00023	.00024	.00086
%RSD	.51235	37.729	11.266	.31074	1.3161	25.272	.41426
#1	.15607	.00010	.00100	5.3609	.01712	.00068	.20913
#2	.15459	.00023	.00112	5.3613	.01743	.00113	.20804
#3	.15482	.00022	.00126	5.3900	.01757	.00104	.20743
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0960	.02471	.02565	1.6922	.03925	.32078	.00948
SDev	.0006	.00311	.00046	.0015	.00025	.00399	.00038
%RSD	.03030	12.592	1.8036	.08808	.63036	1.2427	4.0302
#1	2.0953	.02690	.02551	1.6926	.03935	.32478	.00938
#2	2.0962	.02115	.02616	1.6906	.03897	.31680	.00915
#3	2.0965	.02608	.02527	1.6935	.03944	.32076	.00990
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01018	-.00421	.00050	10.661	.00317	.00226	.19177
SDev	.00265	.00085	.00009	.038	.00145	.00030	.00054
%RSD	26.075	20.062	18.570	.36046	45.866	13.164	.28024
#1	.00716	-.00341	.00041	10.684	.00150	.00220	.19219
#2	.01213	-.00413	.00049	10.617	.00388	.00258	.19117
#3	.01126	-.00510	.00059	10.682	.00413	.00199	.19196
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11926	.00523	.00074	.00924	.02132	.00850	1.1481
SDev	.00092	.00089	.00004	.00005	.00009	.00070	.0066
%RSD	.76871	16.921	4.9744	.49536	.41932	8.2758	.57870
#1	.12015	.00481	.00070	.00929	.02127	.00825	1.1539
#2	.11931	.00625	.00075	.00920	.02143	.00929	1.1408
#3	.11832	.00464	.00077	.00923	.02128	.00795	1.1496
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11789	--	--	--	--	--	--
SDev	55.57824	--	--	--	--	--	--
%RSD	.4714512	--	--	--	--	--	--
#1	11731	--	--	--	--	--	--
#2	11842	--	--	--	--	--	--
#3	11794	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV1AX Operator: KGS
Run Time: 08/13/03 14:19:55
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02344	.00041	.00945	.41619	.00895	.01046	.00318
SDev	.00054	.00051	.00066	.00309	.00230	.00280	.00184
%RSD	2.3169	123.16	7.0116	.74353	25.686	26.744	57.720
#1	.02389	-.00004	.00871	.41636	.00630	.01355	.00139
#2	.02283	.00096	.01000	.41301	.01013	.00973	.00506
#3	.02359	.00031	.00964	.41919	.01041	.00810	.00309
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13656	.00003	.00095	5.4475	.01683	.00123	.14936
SDev	.00060	.00015	.00013	.0424	.00032	.00066	.00078
%RSD	.44119	574.33	13.544	.77773	1.8989	53.620	.52398
#1	.13663	.00011	.00094	5.4405	.01665	.00068	.14921
#2	.13592	.00012	.00083	5.4091	.01663	.00105	.14866
#3	.13712	-.00015	.00109	5.4930	.01719	.00196	.15020
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8023	.02043	.02494	1.8057	.03482	.31340	.00875
SDev	.0222	.00497	.00203	.0164	.00036	.00363	.00142
%RSD	1.2298	24.350	8.1378	.91067	1.0358	1.1593	16.183
#1	1.7930	.02616	.02275	1.8014	.03465	.31357	.00902
#2	1.7862	.01786	.02531	1.7918	.03458	.30968	.00722
#3	1.8275	.01726	.02676	1.8238	.03524	.31694	.01001
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00693	-.00284	.00045	9.8036	.00244	.00248	.17787
SDev	.00217	.00158	.00005	.0134	.00138	.00031	.00116
%RSD	31.293	55.669	10.144	.13686	56.573	12.527	.65300
#1	.00924	-.00467	.00047	9.8108	.00360	.00222	.17767
#2	.00662	-.00186	.00039	9.7881	.00092	.00239	.17682
#3	.00494	-.00200	.00047	9.8119	.00279	.00282	.17912
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.10952	.00457	.00068	.00895	.01889	.00818	1.0643
SDev	.00265	.00090	.00003	.00005	.00023	.00199	.0100
%RSD	2.4200	19.714	3.8621	.59523	1.2216	24.271	.94020
#1	.10984	.00363	.00065	.00891	.01869	.00995	1.0642
#2	.10672	.00465	.00067	.00892	.01885	.00604	1.0544
#3	.11199	.00543	.00071	.00901	.01914	.00856	1.0744
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11702	--	--	--	--	--	--
SDev	70.03934	--	--	--	--	--	--
%RSD	.5985213	--	--	--	--	--	--
#1	11656	--	--	--	--	--	--
#2	11783	--	--	--	--	--	--
#3	11667	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV1A0 Operator: KGS
Run Time: 08/13/03 14:24:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02414	.00132	.00743	.37462	.00697	.00833	.00125
SDev	.00046	.00112	.00130	.00350	.00193	.00125	.00093
%RSD	1.8839	84.576	17.454	.93570	27.736	15.047	74.326
#1	.02368	.00260	.00692	.37851	.00693	.00691	.00153
#2	.02416	.00059	.00890	.37365	.00893	.00884	.00202
#3	.02459	.00077	.00646	.37170	.00506	.00926	.00022
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11774	.00018	.00061	4.5048	.01573	.00105	.13247
SDev	.00003	.00006	.00010	.0153	.00017	.00009	.00015
%RSD	.02614	33.929	15.853	.33943	1.0795	8.6003	.11680
#1	.11776	.00011	.00052	4.4874	.01554	.00096	.13244
#2	.11770	.00019	.00060	4.5160	.01586	.00114	.13233
#3	.11776	.00024	.00071	4.5110	.01579	.00105	.13264
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.5416	.02049	.02597	1.4726	.03965	.28485	.00801
SDev	.0075	.00075	.00082	.0027	.00014	.00134	.00017
%RSD	.48538	3.6413	3.1449	.18451	.36140	.47092	2.0674
#1	1.5390	.02018	.02543	1.4726	.03948	.28640	.00793
#2	1.5501	.02134	.02557	1.4752	.03976	.28416	.00820
#3	1.5358	.01994	.02691	1.4698	.03969	.28400	.00791
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00765	-.00185	.00032	6.1100	.00237	.00173	.18128
SDev	.00153	.00118	.00019	.0567	.00263	.00030	.00078
%RSD	20.000	63.793	59.239	.92814	110.85	17.644	.43083
#1	.00894	-.00056	.00011	6.1133	-.00046	.00180	.18044
#2	.00596	-.00210	.00037	6.0517	.00474	.00199	.18198
#3	.00806	-.00288	.00047	6.1649	.00283	.00139	.18142
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07916	.00499	.00062	.00996	.01704	.00795	1.0236
SDev	.00081	.00009	.00003	.00002	.00016	.00152	.0026
%RSD	1.0290	1.7840	4.2589	.22026	.93788	19.108	.25707
#1	.07826	.00509	.00062	.00993	.01687	.00768	1.0241
#2	.07938	.00494	.00065	.00998	.01709	.00658	1.0207
#3	.07985	.00493	.00059	.00996	.01718	.00958	1.0259
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11793	--	--	--	--	--	--
SDev	14.41831	--	--	--	--	--	--
%RSD	.1222601	--	--	--	--	--	--
#1	11781	--	--	--	--	--	--
#2	11790	--	--	--	--	--	--
#3	11809	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV1A1 Operator: KGS
Run Time: 08/13/03 14:28:53
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02629	.00097	.01020	.43447	.01064	.00932	.00244
SDev	.00039	.00136	.00061	.00186	.00118	.00089	.00102
%RSD	1.4774	140.14	5.9576	.42930	11.043	9.5967	41.851
#1	.02664	.00249	.00950	.43643	.00941	.00969	.00358
#2	.02634	-.00011	.01051	.43425	.01078	.00996	.00216
#3	.02587	.00053	.01060	.43272	.01174	.00830	.00159
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13982	.00011	.00097	5.2534	.01640	.00129	.18945
SDev	.00024	.00003	.00004	.0295	.00013	.00038	.00042
%RSD	.17002	26.128	4.5475	.56138	.80884	29.188	.22102
#1	.13969	.00012	.00101	5.2203	.01627	.00087	.18926
#2	.14010	.00013	.00099	5.2630	.01654	.00141	.18993
#3	.13968	.00008	.00092	5.2769	.01639	.00159	.18916
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8233	.02090	.02898	1.8262	.03357	.29620	.00786
SDev	.0135	.00379	.00133	.0105	.00003	.00199	.00017
%RSD	.74234	18.156	4.5713	.57546	.08822	.67143	2.1579
#1	1.8102	.02479	.02757	1.8142	.03354	.29399	.00775
#2	1.8225	.02070	.02916	1.8339	.03360	.29785	.00805
#3	1.8373	.01721	.03020	1.8306	.03357	.29676	.00776
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00797	-.00253	.00033	9.4375	.00448	.00245	.20665
SDev	.00480	.00058	.00009	.0517	.00225	.00042	.00109
%RSD	60.195	23.040	28.145	.54834	50.307	16.964	.52870
#1	.01351	-.00300	.00031	9.4795	.00284	.00198	.20544
#2	.00505	-.00269	.00044	9.4534	.00354	.00278	.20695
#3	.00535	-.00188	.00026	9.3797	.00705	.00258	.20756
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.10796	.00459	.00064	.00848	.01911	.00648	.99480
SDev	.00085	.00073	.00001	.00011	.00019	.00305	.00438
%RSD	.79015	15.951	2.2539	1.3287	1.0110	47.020	.43979
#1	.10723	.00375	.00064	.00837	.01890	.00875	.99298
#2	.10890	.00494	.00062	.00860	.01928	.00767	.99980
#3	.10776	.00508	.00064	.00848	.01915	.00302	.99163
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11813	--	--	--	--	--	--
SDev	10.23527	--	--	--	--	--	--
%RSD	.0866404	--	--	--	--	--	--
#1	11824	--	--	--	--	--	--
#2	11803	--	--	--	--	--	--
#3	11814	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV1A2 Operator: KGS
Run Time: 08/13/03 14:33:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03059	.00104	.01437	.44720	.01456	.01399	.00325
SDev	.00150	.00065	.00145	.00390	.00336	.00274	.00025
%RSD	4.8958	62.619	10.125	.87089	23.119	19.592	7.5652
#1	.03140	.00127	.01286	.45052	.01162	.01535	.00312
#2	.02887	.00031	.01577	.44818	.01823	.01084	.00353
#3	.03152	.00155	.01447	.44292	.01382	.01579	.00309
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18103	.00012	.00082	4.3974	.01754	.00146	.31837
SDev	.00042	.00004	.00005	.0222	.00010	.00055	.00096
%RSD	.23446	36.508	6.2821	.50581	.54527	37.566	.30099
#1	.18152	.00008	.00077	4.3973	.01749	.00095	.31937
#2	.18077	.00012	.00082	4.4197	.01765	.00204	.31745
#3	.18079	.00017	.00087	4.3752	.01749	.00140	.31830
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.3542	.02634	.03272	1.3291	.03847	.29231	.00847
SDev	.0190	.00592	.00074	.0075	.00026	.00507	.00033
%RSD	.80592	22.461	2.2574	.56255	.66543	1.7334	3.8937
#1	2.3441	.02998	.03210	1.3239	.03871	.29404	.00838
#2	2.3761	.01951	.03354	1.3377	.03820	.29628	.00884
#3	2.3424	.02952	.03252	1.3257	.03849	.28660	.00819
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00605	-.00145	.00030	7.2970	.00437	.00273	.20283
SDev	.00415	.00190	.00015	.0726	.00196	.00051	.00032
%RSD	68.637	131.01	51.440	.99508	44.886	18.489	.15555
#1	.01081	-.00349	.00036	7.3808	.00212	.00220	.20290
#2	.00323	-.00115	.00012	7.2549	.00569	.00321	.20310
#3	.00410	.00028	.00041	7.2552	.00530	.00278	.20248
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08968	.00570	.00063	.00949	.02330	.01044	1.0760
SDev	.00017	.00041	.00004	.00004	.00011	.00069	.0044
%RSD	.19497	7.2119	6.5425	.42388	.45109	6.6355	.41260
#1	.08987	.00585	.00060	.00950	.02325	.01018	1.0741
#2	.08952	.00601	.00068	.00952	.02342	.00992	1.0810
#3	.08966	.00523	.00062	.00944	.02324	.01123	1.0728
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11749	--	--	--	--	--	--
SDev	49.36156	--	--	--	--	--	--
%RSD	.4201458	--	--	--	--	--	--
#1	11737	--	--	--	--	--	--
#2	11706	--	--	--	--	--	--
#3	11803	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV1A3 Operator: KGS
Run Time: 08/13/03 14:37:50
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02055	.00087	.02650	.49812	.02485	.02980	.00266
SDev	.00033	.00290	.00157	.00935	.00226	.00040	.00057
%RSD	1.5936	334.07	5.9326	1.8774	9.1036	1.3518	21.564
#1	.02023	.00298	.02518	.48737	.02309	.02936	.00222
#2	.02054	-.00244	.02608	.50443	.02406	.03014	.00331
#3	.02088	.00206	.02824	.50255	.02740	.02991	.00245
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.31365	.00025	.00062	4.3550	.03222	.00143	.18946
SDev	.00306	.00005	.00006	.0692	.00078	.00023	.00197
%RSD	.97672	21.706	10.471	1.5899	2.4160	15.958	1.0410
#1	.31027	.00031	.00060	4.2750	.03133	.00119	.18719
#2	.31624	.00023	.00069	4.3951	.03274	.00146	.19076
#3	.31445	.00021	.00056	4.3948	.03261	.00164	.19043
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.0546	.02051	.02057	1.2725	.07558	.23820	.01597
SDev	.1136	.00239	.00149	.0188	.00092	.00844	.00046
%RSD	1.6107	11.646	7.2254	1.4760	1.2231	3.5452	2.8906
#1	6.9234	.02035	.02017	1.2508	.07453	.22854	.01569
#2	7.1193	.02298	.01933	1.2832	.07628	.24418	.01650
#3	7.1212	.01821	.02222	1.2835	.07593	.24187	.01572
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01112	-.00425	.00064	7.3036	.00240	.00259	.16023
SDev	.00296	.00290	.00030	.1231	.00031	.00072	.00225
%RSD	26.582	68.241	47.588	1.6861	13.026	27.935	1.4066
#1	.01370	-.00238	.00049	7.1814	.00211	.00198	.15763
#2	.00790	-.00760	.00099	7.4277	.00273	.00241	.16154
#3	.01177	-.00279	.00044	7.3018	.00237	.00339	.16152
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09605	.00874	.00063	.01216	.03890	.01187	1.2184
SDev	.00128	.00043	.00002	.00013	.00052	.00171	.0190
%RSD	1.3339	4.9419	2.7117	1.0989	1.3334	14.443	1.5586
#1	.09463	.00902	.00061	.01200	.03831	.01143	1.1965
#2	.09638	.00824	.00062	.01224	.03910	.01377	1.2288
#3	.09713	.00895	.00065	.01223	.03928	.01043	1.2300
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11801	--	--	--	--	--	--
SDev	90.52799	--	--	--	--	--	--
%RSD	.7671406	--	--	--	--	--	--
#1	11901	--	--	--	--	--	--
#2	11724	--	--	--	--	--	--
#3	11777	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV1A4 Operator: KGS
Run Time: 08/13/03 14:42:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01839	.00070	.02107	.38354	.01986	.02351	.00346
SDev	.00075	.00181	.00028	.00360	.00063	.00105	.00087
%RSD	4.0870	259.91	1.3380	.93879	3.1692	4.4600	25.233
#1	.01838	-.00121	.02121	.38538	.02057	.02248	.00246
#2	.01915	.00091	.02075	.37939	.01939	.02348	.00381
#3	.01764	.00240	.02126	.38584	.01961	.02458	.00409
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.26927	.00016	.00042	4.0155	.02245	.00150	.17526
SDev	.00174	.00004	.00004	.0093	.00018	.00028	.00140
%RSD	.64572	26.040	8.9952	.23149	.82164	18.429	.79805
#1	.27128	.00012	.00046	4.0259	.02256	.00157	.17687
#2	.26840	.00020	.00039	4.0082	.02256	.00120	.17438
#3	.26814	.00015	.00040	4.0123	.02224	.00174	.17452
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.1330	.01654	.01932	1.1455	.07609	.22280	.01148
SDev	.0160	.00407	.00105	.0044	.00016	.00203	.00073
%RSD	.22372	24.612	5.4187	.38195	.21597	.91168	6.3378
#1	7.1479	.01489	.02013	1.1501	.07628	.22466	.01229
#2	7.1161	.02118	.01813	1.1413	.07602	.22064	.01087
#3	7.1350	.01356	.01969	1.1453	.07597	.22310	.01129
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00974	-.00382	.00055	5.8398	.00188	.00273	.14566
SDev	.00441	.00162	.00011	.0530	.00054	.00013	.00020
%RSD	45.257	42.344	19.570	.90839	28.976	4.5912	.13650
#1	.00477	-.00420	.00047	5.7843	.00232	.00282	.14589
#2	.01317	-.00521	.00068	5.8451	.00127	.00259	.14555
#3	.01130	-.00204	.00052	5.8900	.00204	.00278	.14554
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07860	.00752	.00061	.01098	.03398	.00933	1.1599
SDev	.00153	.00052	.00003	.00008	.00009	.00177	.0079
%RSD	1.9498	6.9186	4.4864	.69354	.25823	18.942	.67683
#1	.08002	.00812	.00060	.01107	.03408	.00773	1.1688
#2	.07880	.00730	.00059	.01094	.03394	.01122	1.1538
#3	.07697	.00715	.00064	.01094	.03392	.00903	1.1571
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11769	--	--	--	--	--	--
SDev	79.19818	--	--	--	--	--	--
%RSD	.6729604	--	--	--	--	--	--
#1	11677	--	--	--	--	--	--
#2	11810	--	--	--	--	--	--
#3	11818	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV1A5 Operator: KGS
Run Time: 08/13/03 14:46:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02012	.00172	.02084	.40288	.02083	.02085	.00253
SDev	.00081	.00051	.00015	.00848	.00217	.00391	.00047
%RSD	4.0048	29.495	.71660	2.1039	10.419	18.755	18.494
#1	.02064	.00156	.02067	.41065	.01834	.02534	.00269
#2	.01919	.00131	.02096	.39384	.02233	.01824	.00201
#3	.02053	.00229	.02087	.40413	.02183	.01896	.00290
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.26570	.00019	.00084	4.2611	.02241	.00171	.18991
SDev	.00443	.00016	.00002	.0479	.00048	.00036	.00294
%RSD	1.6679	83.958	2.8138	1.1230	2.1618	21.052	1.5453
#1	.26973	.00006	.00085	4.2874	.02286	.00130	.19256
#2	.26096	.00036	.00081	4.2058	.02190	.00191	.18676
#3	.26641	.00014	.00084	4.2899	.02247	.00192	.19042
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.7271	.01846	.02095	1.2850	.06599	.22703	.01088
SDev	.0607	.00424	.00173	.0150	.00079	.00630	.00078
%RSD	1.0591	22.967	8.2437	1.1661	1.2013	2.7771	7.2033
#1	5.7645	.02335	.01929	1.2944	.06664	.23217	.01104
#2	5.6571	.01591	.02083	1.2677	.06510	.21999	.01003
#3	5.7597	.01612	.02273	1.2928	.06622	.22893	.01157
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01054	-.00269	.00066	5.2261	.00294	.00305	.16331
SDev	.00446	.00262	.00018	.1218	.00256	.00072	.00193
%RSD	42.287	97.436	26.729	2.3298	87.101	23.643	1.1792
#1	.01565	-.00547	.00081	5.3471	.00009	.00223	.16450
#2	.00858	-.00232	.00070	5.1036	.00367	.00334	.16109
#3	.00740	-.00027	.00046	5.2275	.00505	.00358	.16434
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07230	.00725	.00061	.01122	.03264	.01290	1.2117
SDev	.00200	.00029	.00002	.00021	.00043	.00276	.0173
%RSD	2.7688	4.0303	3.0289	1.8882	1.3160	21.403	1.4253
#1	.07386	.00694	.00063	.01142	.03290	.01580	1.2201
#2	.07004	.00752	.00061	.01100	.03214	.01030	1.1918
#3	.07300	.00730	.00059	.01124	.03288	.01259	1.2230
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11804	--	--	--	--	--	--
SDev	163.4227	--	--	--	--	--	--
%RSD	1.384473	--	--	--	--	--	--
#1	11635	--	--	--	--	--	--
#2	11961	--	--	--	--	--	--
#3	11815	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV1A6 Operator: KGS
Run Time: 08/13/03 14:51:16
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00098	-.00169	-.00063	.17138	-.00173	.00159	.00022
SDev	.00068	.00092	.00174	.00170	.00302	.00084	.00134
%RSD	70.061	54.233	277.07	.99290	174.41	52.755	620.90
#1	-.00045	-.00189	-.00243	.17003	-.00482	.00237	.00011
#2	-.00073	-.00069	-.00051	.17329	-.00161	.00169	.00161
#3	-.00175	-.00249	.00105	.17081	.00123	.00070	-.00107
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04199	.00018	.00025	1.8148	.01315	.00066	.00650
SDev	.00015	.00001	.00017	.0148	.00030	.00038	.00040
%RSD	.34945	5.0878	65.323	.81769	2.2725	57.276	6.0854
#1	.04182	.00018	.00033	1.7983	.01334	.00036	.00607
#2	.04209	.00019	.00037	1.8271	.01330	.00108	.00685
#3	.04206	.00018	.00006	1.8190	.01280	.00054	.00657
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06936	-.00303	.00005	.24385	.00082	.02244	.00552
SDev	.00449	.00348	.00118	.00302	.00018	.00257	.00141
%RSD	6.4762	115.03	2611.0	1.2389	21.511	11.462	25.517
#1	.06925	.00096	-.00116	.24067	.00061	.02000	.00595
#2	.07390	-.00460	.00121	.24668	.00092	.02512	.00667
#3	.06492	-.00544	.00009	.24420	.00091	.02219	.00395
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00504	-.00505	.00061	6.2598	.00176	.00007	.02088
SDev	.00621	.00280	.00038	.0839	.00233	.00042	.00027
%RSD	123.28	55.487	62.004	1.3399	132.82	602.21	1.2966
#1	.01084	-.00824	.00071	6.3113	.00388	-.00040	.02071
#2	.00580	-.00393	.00092	6.3050	.00213	.00040	.02119
#3	-.00152	-.00298	.00019	6.1630	-.00074	.00020	.02072
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07072	.00207	.00015	.00293	.00209	.00475	.75244
SDev	.00129	.00089	.00002	.00004	.00007	.00373	.00321
%RSD	1.8232	43.017	10.073	1.3395	3.3136	78.560	.42697
#1	.07117	.00123	.00013	.00295	.00206	.00768	.74931
#2	.07172	.00198	.00016	.00296	.00217	.00055	.75573
#3	.06926	.00301	.00015	.00289	.00205	.00602	.75228
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11786	--	--	--	--	--	--
SDev	32.16584	--	--	--	--	--	--
%RSD	.2729149	--	--	--	--	--	--
#1	11776	--	--	--	--	--	--
#2	11760	--	--	--	--	--	--
#3	11822	--	--	--	--	--	--

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Method: TRA10103 Sample Name: CCV6 Operator: KGS
Run Time: 08/13/03 14:55:45
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.47190	.48913	.48317	24.846	.48031	.48889	.48601
SDev	.00741	.00849	.00705	.271	.00887	.00340	.00443
%RSD	1.5714	1.7357	1.4592	1.0900	1.8471	.69588	.91188
#1	.46448	.48072	.47704	24.534	.47261	.48591	.48307
#2	.47191	.48897	.48160	24.985	.47833	.48817	.48386
#3	.47931	.49770	.49087	25.019	.49001	.49260	.49111
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass
Value	.50000	.50000	.50000	25.000			.50000
Range	10.500	10.500	10.500	10.500			10.500

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9801	1.9546	.48268	47.758	1.8995	1.9519	1.9781
SDev	.0169	.0289	.00741	.856	.0286	.0296	.0166
%RSD	.85604	1.4769	1.5359	1.7925	1.5056	1.5160	.83919
#1	1.9609	1.9296	.47607	47.023	1.8747	1.9257	1.9589
#2	1.9866	1.9479	.48127	47.553	1.8932	1.9461	1.9879
#3	1.9929	1.9862	.49069	48.698	1.9308	1.9840	1.9874
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	.50000	50.000	2.0000	2.0000	2.0000
Range	10.500	10.500	10.500	10.500	10.500	10.500	10.500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.245	.45996	.47787	48.950	1.9403	52.767	1.9038
SDev	.377	.00548	.00842	.741	.0276	.591	.0288
%RSD	1.5547	1.1917	1.7629	1.5140	1.4237	1.1192	1.5145
#1	23.904	.45503	.46920	48.244	1.9158	52.107	1.8804
#2	24.180	.45900	.47836	48.883	1.9350	53.246	1.8950
#3	24.650	.46586	.48603	49.722	1.9702	52.948	1.9360
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value	25.000			50.000	2.0000	50.000	2.0000
Range	10.500			10.500	10.500	10.500	10.500

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.47588	.49574	.96838	48.271	.96110	1.9543	1.9866
SDev	.00861	.00843	.01065	.558	.01992	.0260	.0275
%RSD	1.8093	1.7005	1.0997	1.1552	2.0726	1.3299	1.3842
#1	.46732	.48742	.95747	47.628	.94205	1.9300	1.9606
#2	.47579	.49555	.96893	48.620	.95947	1.9512	1.9837
#3	.48454	.50427	.97874	48.565	.98179	1.9817	2.0154
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

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Value			1.0000	50.000	1.0000	2.0000	2.0000
Range			10.500	10.500	10.500	10.500	10.500
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8376	1.8944	2.0477	1.9854	1.9887	1.8799	1.8637
SDev	.0173	.0280	.0232	.0179	.0234	.0283	.0215
%RSD	.93887	1.4797	1.1351	.90158	1.1781	1.5070	1.1561
#1	1.8184	1.8696	2.0210	1.9657	1.9659	1.8609	1.8406
#2	1.8427	1.8889	2.0635	1.9896	1.9874	1.8663	1.8673
#3	1.8518	1.9248	2.0586	2.0007	2.0127	1.9125	1.8833
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Range	10.500	10.500	10.500	10.500	10.500	10.500	10.500
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11569	--	--	--	--	--	--
SDev	77.44434	--	--	--	--	--	--
%RSD	.6694288	--	--	--	--	--	--
#1	11639	--	--	--	--	--	--
#2	11581	--	--	--	--	--	--
#3	11486	--	--	--	--	--	--

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Method: TRA10103 Sample Name: CCB6 Operator: KGS
Run Time: 08/13/03 15:00:13
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00101	-.00147	.00070	.06017	.00089	.00031	.00002
SDev	.00032	.00043	.00048	.00373	.00063	.00113	.00178
%RSD	32.218	28.909	68.816	6.1904	70.622	367.89	7216.1
#1	-.00134	-.00193	.00115	.06114	.00160	.00025	.00163
#2	-.00070	-.00109	.00075	.06332	.00039	.00147	-.00188
#3	-.00097	-.00139	.00019	.05606	.00069	-.00080	.00032
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.00305	.00505	.06005	.20005			.01005
Low	-.00305	-.00505	-.06005	-.20005			-.01005

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00008	.00007	.00014	-.00573	.00036	.00033	-.00392
SDev	.00004	.00004	.00007	.00001	.00010	.00011	.00035
%RSD	53.155	62.130	47.266	.13063	26.765	31.937	9.0105
#1	.00006	.00010	.00007	-.00574	.00025	.00027	-.00424
#2	.00006	.00002	.00019	-.00574	.00044	.00027	-.00399
#3	.00013	.00009	.00016	-.00572	.00039	.00045	-.00354
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.20005	.00505	.00505	5.0000	.01005	.05005	.02505
Low	-.20005	-.00505	-.00505	-5.0000	-.01005	-.05005	-.02505

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00144	-.00127	-.00087	.00463	-.00010	-.06284	.00066
SDev	.00862	.00101	.00006	.00231	.00018	.00137	.00059
%RSD	599.52	79.282	7.3885	49.872	173.22	2.1768	89.293
#1	-.01083	-.00225	-.00089	.00275	.00000	-.06429	-.00000
#2	.00043	-.00024	-.00093	.00393	-.00030	-.06266	.00085
#3	.00609	-.00132	-.00080	.00721	-.00000	-.06158	.00113
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	.10005			5.0000	.01505	5.0000	.04005
Low	-.10005			-5.0000	-.01505	-5.0000	-.04005

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00079	-.00260	.00050	-.68992	.00350	.00033	.00163
SDev	.00153	.00014	.00028	.09839	.00074	.00011	.00004
%RSD	193.13	5.2607	55.844	14.262	21.049	34.122	2.5725
#1	-.00090	-.00245	.00024	-.80242	.00417	.00040	.00161
#2	.00206	-.00267	.00079	-.61990	.00271	.00020	.00161
#3	.00122	-.00270	.00045	-.64745	.00363	.00040	.00168
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			.01005	5.0000	.01005	.05005	.02005
Low			-.01005	-5.0000	-.01005	-.05005	-.02005

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00084	.00207	.00016	.00002	.00015	.00293	-.01067
SDev	.00026	.00034	.00004	.00000	.00007	.00293	.00134
%RSD	30.949	16.501	24.230	1.5107	43.464	99.953	12.522
#1	.00069	.00168	.00021	.00002	.00008	-.00027	-.01195
#2	.00114	.00227	.00016	.00002	.00019	.00357	-.01077
#3	.00069	.00227	.00013	.00002	.00020	.00548	-.00928
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05005	.04005	.00505	.00505	.00505	.10005	.10005
Low	-.05005	-.04005	-.00505	-.00505	-.00505	-.10005	-.10005

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11800	--	--	--	--	--	--
SDev	20.11479	--	--	--	--	--	--
%RSD	.1704601	--	--	--	--	--	--
#1	11797	--	--	--	--	--	--
#2	11782	--	--	--	--	--	--
#3	11822	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV1A7 Operator: KGS
Run Time: 08/13/03 15:04:42
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02338	.00004	.00717	.36231	.00748	.00656	.00149
SDev	.00053	.00078	.00072	.01136	.00147	.00103	.00104
%RSD	2.2797	2194.7	9.9695	3.1353	19.661	15.770	69.664
#1	.02393	.00057	.00653	.37524	.00592	.00774	.00041
#2	.02286	-.00086	.00705	.35776	.00766	.00581	.00248
#3	.02334	.00039	.00794	.35393	.00885	.00613	.00158
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11194	.00014	.00064	4.3087	.01631	.00145	.17178
SDev	.00115	.00018	.00014	.0129	.00062	.00058	.00212
%RSD	1.0254	129.25	21.593	.29883	3.8013	39.983	1.2353
#1	.11322	-.00006	.00066	4.3226	.01673	.00169	.17423
#2	.11102	.00020	.00077	4.3061	.01660	.00186	.17067
#3	.11158	.00029	.00049	4.2972	.01560	.00079	.17044
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.3815	.01878	.02567	1.3538	.03302	.27219	.00712
SDev	.0075	.00230	.00037	.0109	.00008	.00622	.00073
%RSD	.54224	12.261	1.4508	.80488	.23315	2.2868	10.274
#1	1.3901	.02129	.02524	1.3636	.03311	.27884	.00737
#2	1.3779	.01677	.02591	1.3556	.03297	.27122	.00769
#3	1.3764	.01828	.02587	1.3421	.03299	.26650	.00629
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00569	-.00279	.00051	7.6025	.00445	.00237	.17977
SDev	.00169	.00033	.00030	.2066	.00116	.00051	.00101
%RSD	29.743	11.908	59.276	2.7175	26.112	21.606	.56236
#1	.00676	-.00252	.00078	7.8184	.00551	.00220	.18090
#2	.00374	-.00316	.00057	7.5826	.00464	.00295	.17944
#3	.00657	-.00269	.00018	7.4066	.00321	.00197	.17896
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09115	.00482	.00061	.00864	.01540	.00802	.90766
SDev	.00080	.00047	.00003	.00013	.00003	.00262	.01246
%RSD	.88117	9.7683	4.4581	1.4859	.17580	32.716	1.3728
#1	.09206	.00525	.00060	.00879	.01537	.01098	.92205
#2	.09052	.00431	.00064	.00856	.01541	.00708	.90028
#3	.09088	.00490	.00059	.00857	.01542	.00600	.90066
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11864	--	--	--	--	--	--
SDev	88.73296	--	--	--	--	--	--
%RSD	.7478867	--	--	--	--	--	--
#1	11762	--	--	--	--	--	--
#2	11920	--	--	--	--	--	--
#3	11912	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV1A7S Operator: KGS
Run Time: 08/13/03 15:09:11
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.46002	1.8066	.00825	2.1656	.00730	.01015	1.7441
SDev	.01194	.0398	.00146	.0620	.00269	.00134	.0418
%RSD	2.5951	2.2038	17.699	2.8616	36.900	13.204	2.3987
#1	.45025	1.7787	.00671	2.1216	.00428	.01159	1.7099
#2	.45648	1.7890	.00842	2.1387	.00816	.00893	1.7316
#3	.47333	1.8522	.00962	2.2365	.00946	.00994	1.7907
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8813	.04634	.04547	4.5275	.19224	.45308	.36348
SDev	.0492	.00091	.00123	.1092	.00449	.01135	.00908
%RSD	2.6165	1.9578	2.7075	2.4125	2.3335	2.5042	2.4977
#1	1.8427	.04562	.04462	4.4408	.18865	.44404	.35672
#2	1.8645	.04604	.04491	4.4914	.19079	.44938	.35992
#3	1.9367	.04736	.04688	4.6502	.19727	.46581	.37380
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4172	.45187	.46409	1.4872	.48418	.29636	.44802
SDev	.0667	.01012	.01376	.0397	.01212	.01588	.01231
%RSD	2.7589	2.2384	2.9654	2.6680	2.5023	5.3571	2.7467
#1	2.3713	.44884	.45096	1.4533	.47476	.28604	.43817
#2	2.3865	.44362	.46290	1.4773	.47992	.28841	.44406
#3	2.4937	.46316	.47841	1.5308	.49784	.31465	.46181
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.7432	1.8381	.04359	7.0760	1.7499	.44472	.63262
SDev	.0331	.0437	.00091	.1219	.0530	.01162	.01559
%RSD	1.8998	2.3789	2.0817	1.7226	3.0281	2.6131	2.4643
#1	1.7273	1.8041	.04308	7.0503	1.7029	.43510	.62014
#2	1.7211	1.8227	.04306	6.9691	1.7395	.44143	.62762
#3	1.7813	1.8874	.04464	7.2088	1.8073	.45763	.65009
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.93170	.00506	.90425	.91331	.01662	.00501	1.0125
SDev	.02298	.00054	.02165	.02376	.00056	.00227	.0277
%RSD	2.4661	10.668	2.3944	2.6014	3.3864	45.278	2.7330
#1	.91301	.00446	.89045	.89452	.01620	.00573	.99156
#2	.92474	.00552	.89310	.90540	.01641	.00684	1.0021
#3	.95736	.00519	.92921	.94002	.01726	.00247	1.0439
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11736	--	--	--	--	--	--
SDev	237.0136	--	--	--	--	--	--
%RSD	2.019581	--	--	--	--	--	--
#1	11908	--	--	--	--	--	--
#2	11833	--	--	--	--	--	--
#3	11466	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV1A7X Operator: KGS
Run Time: 08/13/03 15:13:40
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02380	.00050	.00964	.38749	.00955	.00983	.00242
SDev	.00053	.00018	.00144	.00549	.00181	.00153	.00096
%RSD	2.2419	36.900	14.976	1.4163	18.939	15.519	39.767
#1	.02388	.00056	.01036	.39376	.00977	.01155	.00349
#2	.02429	.00065	.01058	.38511	.01124	.00927	.00165
#3	.02323	.00029	.00798	.38359	.00764	.00866	.00211
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.12272	.00016	.00054	4.6716	.01668	.00123	.12886
SDev	.00060	.00006	.00025	.0242	.00053	.00032	.00061
%RSD	.49041	38.516	46.007	.51762	3.1723	25.586	.47036
#1	.12342	.00009	.00080	4.6955	.01723	.00105	.12955
#2	.12233	.00019	.00032	4.6471	.01617	.00105	.12862
#3	.12242	.00020	.00049	4.6721	.01665	.00160	.12842
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.5662	.02016	.02561	1.5108	.03706	.29099	.00848
SDev	.0114	.00306	.00170	.0059	.00023	.00535	.00065
%RSD	.72798	15.177	6.6442	.39275	.61895	1.8385	7.6735
#1	1.5791	.02368	.02398	1.5173	.03733	.29716	.00921
#2	1.5572	.01811	.02737	1.5057	.03695	.28820	.00826
#3	1.5624	.01869	.02549	1.5093	.03691	.28762	.00797
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00318	-.00084	.00010	7.6013	.00484	.00228	.15705
SDev	.00147	.00055	.00064	.1455	.00418	.00030	.00080
%RSD	46.370	66.174	645.72	1.9139	86.197	13.179	.50762
#1	.00459	-.00146	.00058	7.7680	.00944	.00223	.15786
#2	.00329	-.00067	-.00063	7.4998	.00129	.00201	.15627
#3	.00165	-.00039	.00034	7.5360	.00380	.00260	.15701
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09025	.00517	.00075	.00948	.01732	.00893	1.0168
SDev	.00151	.00052	.00004	.00006	.00011	.00129	.0033
%RSD	1.6742	10.135	5.8939	.62325	.65842	14.485	.32455
#1	.09175	.00515	.00079	.00955	.01736	.00971	1.0206
#2	.08873	.00571	.00075	.00945	.01719	.00744	1.0151
#3	.09028	.00466	.00070	.00944	.01741	.00964	1.0146
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11676	--	--	--	--	--	--
SDev	70.85743	--	--	--	--	--	--
%RSD	.6068396	--	--	--	--	--	--
#1	11595	--	--	--	--	--	--
#2	11712	--	--	--	--	--	--
#3	11723	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV1A7P5 Operator: KGS
Run Time: 08/13/03 15:18:09
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00376	-.00106	.00243	.12261	.00243	.00244	.00053
SDev	.00019	.00148	.00064	.00051	.00179	.00168	.00195
%RSD	5.1283	139.82	26.421	.41688	73.795	69.063	370.65
#1	.00393	.00019	.00208	.12295	.00163	.00296	.00009
#2	.00355	-.00269	.00317	.12286	.00448	.00055	-.00117
#3	.00379	-.00067	.00204	.12202	.00117	.00380	.00266
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02230	.00007	-.00000	.82739	.00312	.00027	.03072
SDev	.00003	.00005	.00010	.00302	.00029	.00015	.00005
%RSD	.12005	66.497	3001.1	.36526	9.1979	57.039	.14703
#1	.02228	.00003	.00012	.83013	.00326	.00036	.03070
#2	.02233	.00006	-.00006	.82415	.00279	.00009	.03077
#3	.02229	.00012	-.00007	.82789	.00330	.00036	.03068
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.26561	.00122	.00503	.26289	.00606	.00061	.00173
SDev	.00209	.00237	.00103	.00136	.00002	.00252	.00030
%RSD	.78814	195.06	20.428	.51803	.40036	413.28	17.262
#1	.26786	.00122	.00529	.26134	.00609	.00333	.00197
#2	.26525	-.00116	.00590	.26343	.00605	-.00164	.00181
#3	.26372	.00358	.00390	.26391	.00605	.00014	.00139
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00069	-.00193	.00010	.89362	.00301	.00046	.03553
SDev	.00348	.00256	.00010	.04158	.00250	.00023	.00021
%RSD	503.40	132.79	104.34	4.6532	83.008	49.996	.60235
#1	-.00150	.00103	.00016	.88079	.00077	.00059	.03539
#2	-.00114	-.00347	-.00002	.85996	.00570	.00019	.03542
#3	.00471	-.00335	.00016	.94010	.00255	.00059	.03577
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01479	.00094	.00014	.00171	.00320	.00138	.16461
SDev	.00066	.00073	.00002	.00001	.00011	.00027	.00131
%RSD	4.4923	78.084	10.556	.39595	3.4023	19.592	.79626
#1	.01471	.00094	.00015	.00172	.00310	.00138	.16509
#2	.01417	.00021	.00013	.00171	.00320	.00112	.16312
#3	.01549	.00168	.00015	.00171	.00332	.00166	.16561
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11883	--	--	--	--	--	--
SDev	43.13363	--	--	--	--	--	--
%RSD	.3629801	--	--	--	--	--	--
#1	11833	--	--	--	--	--	--
#2	11908	--	--	--	--	--	--
#3	11908	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV1A8 Operator: KGS
Run Time: 08/13/03 15:22:38
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00144	-.00247	.00010	.18411	-.00130	.00290	-.00004
SDev	.00071	.00145	.00114	.00314	.00228	.00138	.00108
%RSD	49.481	58.576	1178.3	1.7070	175.47	47.517	2625.4
#1	-.00073	-.00086	.00077	.18646	-.00040	.00313	.00060
#2	-.00216	-.00291	.00074	.18534	.00039	.00142	.00057
#3	-.00144	-.00365	-.00122	.18054	-.00390	.00414	-.00129
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03976	.00009	.00026	1.6461	.01303	.00054	-.00014
SDev	.00021	.00011	.00008	.0128	.00032	.00045	.00013
%RSD	.52074	118.07	29.637	.77686	2.4650	83.737	90.749
#1	.03959	.00004	.00025	1.6321	.01275	.00054	-.00011
#2	.03999	.00002	.00019	1.6573	.01297	.00099	-.00003
#3	.03971	.00021	.00035	1.6489	.01338	.00009	-.00029
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06189	-.00405	-.00014	.20376	.00071	.01621	.00461
SDev	.00522	.00259	.00085	.00219	.00017	.00312	.00065
%RSD	8.4378	64.010	607.07	1.0729	24.364	19.244	14.122
#1	.06279	-.00308	.00044	.20345	.00091	.01276	.00422
#2	.06660	-.00699	.00026	.20609	.00061	.01883	.00425
#3	.05627	-.00208	-.00112	.20175	.00061	.01703	.00536
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00378	-.00559	.00027	6.9023	.00328	-.00020	.00997
SDev	.00246	.00099	.00019	.0297	.00203	.00000	.00021
%RSD	65.178	17.633	69.676	.43046	61.887	.19478	2.1552
#1	.00635	-.00445	.00006	6.8810	.00561	-.00020	.00980
#2	.00353	-.00612	.00032	6.8896	.00195	-.00020	.01021
#3	.00145	-.00620	.00043	6.9362	.00226	-.00020	.00991
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06961	.00133	.00015	.00270	.00198	.00457	.69289
SDev	.00056	.00023	.00003	.00004	.00018	.00110	.00334
%RSD	.80672	16.951	16.928	1.3566	9.1084	24.102	.48264
#1	.06915	.00109	.00015	.00268	.00193	.00575	.68942
#2	.07024	.00153	.00018	.00275	.00217	.00439	.69609
#3	.06944	.00138	.00013	.00268	.00182	.00357	.69316
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11813	--	--	--	--	--	--
SDev	28.54482	--	--	--	--	--	--
%RSD	.2416378	--	--	--	--	--	--
#1	11840	--	--	--	--	--	--
#2	11783	--	--	--	--	--	--
#3	11816	--	--	--	--	--	--

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Method: TRA10103 Sample Name: FV2N2Z10 Operator: KGS
Run Time: 08/13/03 15:28:22
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00060	-.00097	-.00064	.07460	-.00229	.00266	-.00101
SDev	.00060	.00205	.00084	.00280	.00192	.00144	.00044
%RSD	100.22	211.47	131.07	3.7523	83.935	53.874	43.166
#1	-.00007	-.00008	-.00151	.07320	-.00442	.00432	-.00056
#2	-.00126	.00049	.00016	.07782	-.00069	.00187	-.00103
#3	-.00048	-.00332	-.00057	.07278	-.00175	.00180	-.00143
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	10.000	10.000	10.000	500.00			10.000
Low	-.00300	-.00500	-.06000	-.20000			-.01000

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00004	-.00014	.00011	-.00659	.00024	-.00027	-.00531
SDev	.00006	.00004	.00015	.00077	.00012	.00033	.00019
%RSD	146.22	27.994	140.55	11.623	50.707	118.77	3.6674
#1	.00005	-.00018	.00001	-.00658	.00026	-.00030	-.00541
#2	-.00002	-.00011	.00003	-.00736	.00011	-.00058	-.00543
#3	.00010	-.00012	.00029	-.00583	.00035	.00006	-.00508
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	10.000	500.00	20.000	20.000	10.000
Low	-.05000	-.00500	-.00500	-5.0000	-.01000	-.05000	-.02500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01184	.00250	-.00215	-.00102	-.00040	-.05049	.00078
SDev	.00739	.00146	.00077	.00230	.00018	.00574	.00051
%RSD	62.386	58.312	35.868	226.23	44.890	11.372	64.988
#1	-.01756	.00414	-.00217	-.00222	-.00030	-.05644	.00073
#2	-.01446	.00206	-.00292	-.00247	-.00061	-.05006	.00030
#3	-.00350	.00132	-.00137	.00164	-.00030	-.04498	.00132
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	400.00			500.00	20.000	100.00	20.000
Low	-.10000			-5.0000	-.01500	-5.0000	-.04000

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00613	-.00452	.00053	287.18	.00200	-.00020	.00100
SDev	.00456	.00090	.00044	2.35	.00153	.00041	.00010
%RSD	74.392	19.899	82.303	.81979	76.330	203.57	10.064
#1	.00882	-.00453	.00064	284.73	.00035	-.00020	.00105
#2	.00870	-.00361	.00005	289.43	.00337	-.00061	.00088
#3	.00086	-.00541	.00091	287.38	.00229	.00021	.00106
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			2.0000	600.00	20.000	20.000	10.000
Low			-.01000	-5.0000	-.01000	-.05000	-.02000
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00105	-.00024	.00029	.00008	-.00002	.00593	-.00230
SDev	.00040	.00017	.00008	.00000	.00014	.00260	.00130
%RSD	38.437	72.789	27.270	.54186	557.15	43.757	56.713
#1	.00090	-.00043	.00021	.00008	-.00018	.00443	-.00299
#2	.00075	-.00014	.00029	.00008	.00005	.00443	-.00311
#3	.00151	-.00014	.00037	.00008	.00005	.00893	-.00080
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.000	10.000	4.0000	10.000	10.000	10.000	10.000
Low	-.50000	-.04000	-.05000	-.05000	-.05000	-.10000	-.10000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11527	--	--	--	--	--	--
SDev	22.20099	--	--	--	--	--	--
%RSD	.1926024	--	--	--	--	--	--
#1	11552	--	--	--	--	--	--
#2	11518	--	--	--	--	--	--
#3	11510	--	--	--	--	--	--

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Method: TRA10103 Sample Name: CCV7 Operator: KGS
Run Time: 08/13/03 15:32:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.46688	.48683	.47768	24.414	.47573	.48158	.47957
SDev	.01200	.00966	.00937	.608	.00862	.01117	.01285
%RSD	2.5700	1.9833	1.9623	2.4918	1.8118	2.3200	2.6798
#1	.45325	.47569	.46709	23.729	.46582	.46963	.46474
#2	.47585	.49276	.48491	24.891	.48149	.49176	.48710
#3	.47155	.49203	.48104	24.622	.47989	.48336	.48689
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass
Value	.50000	.50000	.50000	25.000			.50000
Range	10.500	10.500	10.500	10.500			10.500

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9535	1.9230	.47780	46.972	1.8627	1.9254	1.9388
SDev	.0490	.0494	.01235	1.239	.0484	.0501	.0484
%RSD	2.5070	2.5690	2.5840	2.6377	2.6010	2.5998	2.4956
#1	1.8988	1.8666	.46360	45.551	1.8072	1.8684	1.8847
#2	1.9932	1.9587	.48602	47.827	1.8965	1.9622	1.9780
#3	1.9684	1.9438	.48378	47.539	1.8844	1.9455	1.9537
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	.50000	50.000	2.0000	2.0000	2.0000
Range	10.500	10.500	10.500	10.500	10.500	10.500	10.500

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	23.846	.45285	.47389	48.382	1.9071	52.050	1.8846
SDev	.615	.01297	.01152	1.266	.0496	1.289	.0517
%RSD	2.5795	2.8640	2.4306	2.6177	2.6001	2.4759	2.7423
#1	23.144	.43819	.46077	46.937	1.8506	50.644	1.8254
#2	24.292	.46285	.48234	49.299	1.9434	53.175	1.9204
#3	24.101	.45749	.47857	48.910	1.9273	52.330	1.9080
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value	25.000			50.000	2.0000	50.000	2.0000
Range	10.500			10.500	10.500	10.500	10.500

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.47073	.49487	.95122	47.386	.95326	1.9255	1.9623
SDev	.01051	.00931	.02435	1.047	.02992	.0488	.0486
%RSD	2.2325	1.8821	2.5602	2.2085	3.1386	2.5348	2.4766
#1	.45866	.48419	.92360	46.194	.91887	1.8699	1.9069
#2	.47565	.50131	.96963	48.152	.97332	1.9615	1.9978
#3	.47787	.49910	.96041	47.812	.96759	1.9450	1.9823
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value			1.0000	50.000	1.0000	2.0000	2.0000
Range			10.500	10.500	10.500	10.500	10.500
Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8107	1.8612	2.0185	1.9469	1.9653	1.8454	1.8035
SDev	.0490	.0510	.0495	.0489	.0494	.0454	.0457
%RSD	2.7082	2.7401	2.4525	2.5119	2.5140	2.4586	2.5314
#1	Q1.7554	1.8030	1.9635	1.8921	1.9092	1.7935	Q1.7518
#2	1.8489	1.8980	2.0595	1.9861	2.0023	1.8775	1.8383
#3	1.8278	1.8825	2.0324	1.9625	1.9845	1.8651	1.8205
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Range	10.500	10.500	10.500	10.500	10.500	10.500	10.500
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11686	--	--	--	--	--	--
SDev	217.8608	--	--	--	--	--	--
%RSD	1.864267	--	--	--	--	--	--
#1	11928	--	--	--	--	--	--
#2	11505	--	--	--	--	--	--
#3	11625	--	--	--	--	--	--

Analysis Report 08/13/03 03:41:44 PM page 1

Method: TRA10103 Sample Name: CCB7 Operator: KGS
Run Time: 08/13/03 15:37:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	Pb	Se	Sb	Al	Sb\1	Sb\2	As
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00032	.00017	-.00101	.07213	-.00177	.00052	-.00064
SDev	.00045	.00122	.00166	.00089	.00257	.00127	.00076
%RSD	139.12	731.06	164.99	1.2349	145.02	242.54	117.90
#1	-.00034	-.00116	-.00258	.07256	-.00371	-.00032	-.00061
#2	.00013	.00042	-.00117	.07272	-.00274	.00198	.00010
#3	-.00077	.00124	.00073	.07110	.00114	-.00009	-.00141
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.00305	.00505	.06005	.20005			.01005
Low	-.00305	-.00505	-.06005	-.20005			-.01005

Elem	Ba	Be	Cd	Ca	Cr	Co	Cu
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00004	.00018	.00009	-.00373	.00031	-.00003	-.00480
SDev	.00003	.00003	.00002	.00112	.00025	.00028	.00024
%RSD	79.663	18.503	25.317	30.155	82.639	1086.1	4.8980
#1	-.00004	.00016	.00010	-.00274	.00055	-.00026	-.00505
#2	-.00006	.00022	.00010	-.00349	.00032	-.00009	-.00476
#3	-.00001	.00016	.00006	-.00495	.00005	.00028	-.00459
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.20005	.00505	.00505	5.0000	.01005	.05005	.02505
Low	-.20005	-.00505	-.00505	-5.0000	-.01005	-.05005	-.02505

Elem	Fe	Pb/1	Pb/2	Mg	Mn	K_	Ni
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00117	.00150	-.00124	.00147	-.00010	-.06743	.00075
SDev	.00238	.00321	.00094	.00143	.00046	.00559	.00067
%RSD	202.99	213.68	76.242	96.649	450.78	8.2869	89.414
#1	-.00097	.00205	-.00153	.00273	.00030	-.07058	.00126
#2	-.00364	.00440	-.00200	-.00008	.00000	-.06098	.00099
#3	.00110	-.00195	-.00018	.00177	-.00061	-.07074	-.00001
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	.10005			5.0000	.01505	5.0000	.04005
Low	-.10005			-5.0000	-.01505	-5.0000	-.04005

Elem	Se/1	Se/2	Ag	Na	Tl	V_	Zn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00382	-.00166	.00027	-.77505	.00232	-.00007	.00128
SDev	.00395	.00320	.00023	.11372	.00210	.00023	.00016
%RSD	103.35	193.39	85.428	14.673	90.293	346.77	12.206
#1	.00421	-.00385	.00027	-.74732	.00363	.00020	.00131
#2	.00756	-.00314	.00050	-.67775	.00344	-.00020	.00143
#3	-.00031	.00202	.00004	-.90007	-.00010	-.00020	.00112
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High			.01005	5.0000	.01005	.05005	.02005
Low			-.01005	-5.0000	-.01005	-.05005	-.02005

Elem	B_	Mo	Li	Sr	Ti	Sn	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00117	.00138	.00018	.00002	.00008	.00122	-.01564
SDev	.00049	.00074	.00005	.00000	.00001	.00331	.00112
%RSD	42.217	53.196	25.627	6.1493	8.0018	272.36	7.1549
#1	.00097	.00138	.00020	.00002	.00008	.00193	-.01529
#2	.00173	.00212	.00021	.00002	.00008	.00412	-.01690
#3	.00081	.00065	.00013	.00002	.00009	-.00239	-.01475
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05005	.04005	.00505	.00505	.00505	.10005	.10005
Low	-.05005	-.04005	-.00505	-.00505	-.00505	-.10005	-.10005

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11869	--	--	--	--	--	--
SDev	80.89880	--	--	--	--	--	--
%RSD	.6815922	--	--	--	--	--	--
#1	11874	--	--	--	--	--	--
#2	11786	--	--	--	--	--	--
#3	11948	--	--	--	--	--	--

Raw Data
Mercury

STL Knoxville
Mercury Analysis Cover Sheet

Analyst	KND	Instrument	Leeman Hydra AA Mercury Analyzer
Run Date	8/12/03	Chart Name	H081203

Daily Maintenance		As Needed Maintenance	
☑	Check tubing.	☐	Adjust/change Hg lamp (typically, every 3 months/every year, respectively).
☑	Check maintenance schedule flags.	☐	Clean optical cell.
		☐	Lubricate pump and autosampler arm.
		☐	Check gas tank level. The instrument automatically flags the analyst when the pressure is too low.
		☐	Change the drying tube.

```
--------------------------------------------------------------------------------
:       Instrument Upload                                    Run Log - Page  1 :
:       Started Wed Aug 13 07:44:46 2003 by DAWSONK                            :
:       Data File: UPL$KNX_DATA_ROOT:<LHG>H081203.PRN;1                        :
--------------------------------------------------------------------------------
```

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
1	CK2ICV	1.00	12-AUG-2003	14:24:54			HG
2	ICB	1.00	12-AUG-2003	14:26:46			HG
3	CRA	1.00	12-AUG-2003	14:29:15			HG
4	CK3CCV	1.00	12-AUG-2003	14:31:09			HG
5	CK1CCB	1.00	12-AUG-2003	14:33:29			HG
6	FV34MB	1.00	12-AUG-2003	14:35:40	3224131	H3H120000	HG
7	FV34MC	1.00	12-AUG-2003	14:37:38	3224131	H3H120000	HG
8	FVPFJ	1.00	12-AUG-2003	14:39:28	3224131	H3H060105	HG
9	FVXG5	1.00	12-AUG-2003	14:41:40	3224131	H3H080204	HG
10	FVXHQ	1.00	12-AUG-2003	14:43:38	3224131	H3H080204	HG
11	FVXHV	1.00	12-AUG-2003	14:45:38	3224131	H3H080204	HG
12	FVXH2	1.00	12-AUG-2003	14:47:30	3224131	H3H080204	HG
13	FVXH7	1.00	12-AUG-2003	14:49:25	3224131	H3H080204	HG
14	FVXH7S	1.00	12-AUG-2003	14:51:35	3224131	H3H080204	HG
15	FVXH7D	1.00	12-AUG-2003	14:53:27	3224131	H3H080204	HG
16	CK3CCV	1.00	12-AUG-2003	14:55:18			HG
17	CK1CCB	1.00	12-AUG-2003	14:57:11			HG
18	FVXJL	1.00	12-AUG-2003	14:59:05	3224131	H3H080204	HG
19	FVXJQ	1.00	12-AUG-2003	15:00:55	3224131	H3H080204	HG
20	FVXJ0	1.00	12-AUG-2003	15:02:43	3224131	H3H080204	HG
21	FV08D	1.00	12-AUG-2003	15:04:44	3224131	H3H090101	HG
22	FV08E	1.00	12-AUG-2003	15:07:04	3224131	H3H090101	HG
23	FV08F	1.00	12-AUG-2003	15:08:54	3224131	H3H090101	HG
24	FV08H	1.00	12-AUG-2003	15:10:43	3224131	H3H090101	HG
25	FV08J	1.00	12-AUG-2003	15:13:36	3224131	H3H090101	HG
26	FV08K	1.00	12-AUG-2003	15:16:08	3224131	H3H090101	HG
27	FV08L	1.00	12-AUG-2003	15:17:58	3224131	H3H090101	HG
28	CK3CCV	1.00	12-AUG-2003	15:20:07			HG
29	CK1CCB	1.00	12-AUG-2003	15:22:38			HG
30	FV08M	1.00	12-AUG-2003	15:24:26	3224131	H3H090101	HG
31	FV08N	1.00	12-AUG-2003	15:26:25	3224131	H3H090101	HG
32	FV08P	1.00	12-AUG-2003	15:28:53	3224131	H3H090101	HG
33	FV08Q	1.00	12-AUG-2003	15:30:42	3224131	H3H090101	HG
34	FV34QB	1.00	12-AUG-2003	15:32:45	3224133	H3H120000	HG
35	FV34QC	1.00	12-AUG-2003	15:34:55	3224133	H3H120000	HG
36	CK3CCV	1.00	12-AUG-2003	15:37:07			HG
37	CK1CCB	1.00	12-AUG-2003	15:38:56			HG
38	FVQLE	1.00	12-AUG-2003	15:41:06	3224133	H3H060245	HG
39	FVQLES	1.00	12-AUG-2003	15:43:16	3224133	H3H060245	HG
40	FVQLED	1.00	12-AUG-2003	15:45:28	3224133	H3H060245	HG
41	FVQL0	1.00	12-AUG-2003	15:47:18	3224133	H3H060245	HG
42	CK3CCV	1.00	12-AUG-2003	15:49:08			HG
43	CK1CCB	1.00	12-AUG-2003	15:51:10			HG
44	FVQL2	1.00	12-AUG-2003	15:52:59	3224133	H3H060245	HG

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```
--------------------------------------------------------------------------------
:       Instrument Upload                                    Run Log - Page  2 :
:       Started Wed Aug 13 07:44:46 2003 by DAWSONK                            :
:       Data File: UPL$KNX_DATA_ROOT:<LHG>H081203.PRN;1                        :
--------------------------------------------------------------------------------
```

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
45	FVQL7	1.00	12-AUG-2003	15:54:52	3224133	H3H060245	HG
46	FVQL8	1.00	12-AUG-2003	15:56:51	3224133	H3H060245	HG
47	FV2NL	1.00	12-AUG-2003	15:58:53	3224133	H3H110119	HG
48	FV2N2	1.00	12-AUG-2003	16:00:57	3224133	H3H110119	HG
49	FV2PW	1.00	12-AUG-2003	16:02:51	3224133	H3H110119	HG
50	FV2P7	1.00	12-AUG-2003	16:04:41	3224133	H3H110119	HG
51	FV2QG	1.00	12-AUG-2003	16:06:32	3224133	H3H110119	HG
52	FV2QR	1.00	12-AUG-2003	16:08:23	3224133	H3H110119	HG
53	CK3CCV	1.00	12-AUG-2003	16:10:32			HG
54	CK1CCB	1.00	12-AUG-2003	16:12:22			HG

---------- End of Report ----------

STL Knoxville

Method Information

Method Name: 7pt.std/SW-846 7470A/7471A/0.2 RL **Element:** Hg **Chart Number:** **H081203.PRN**

Instrument Calibrated Every X Hours:	24	**Number Of Standards To Calibrate With:**	6
Correlation Coefficient Must Be:	0.995	**Run ICV Immediately After Calibration:**	Yes
CRA Need To Be Run:	No	**Number Of Samples Between CCVS:**	10
Duplicate RPD:	20	**Calculate Dupe's By CLP Or SW-846:**	SW-846 Protocol

CRA Recovery Range:	100	**CRA Conc:**	0.2
ICV Recovery Range:	10.5	**ICV Conc:**	2.5
CCV Recovery Range:	20.5	**CCV Conc:**	5
LCS Recovery Range:	10.5	**LCS Spike Level:**	5
MS/MSD Recovery Range:	20.5	**MS Spike Level:**	1

Letter To Signify Blanks:	B	**Position To Signify Blanks:**	6
Letter To Signify LCS's:	C	**Position To Signify LCS's:**	6
Letter To Signify LCSD's:	L	**Position To Signify LCSD's:**	6
LetterToSignifyDilutions:	Z	**Position To Signify Dilutions:**	6
Letter To Signify Duplicates:	X	**Position To Signify Duplicates:**	6
Letter To Signify MS's:	S	**Position To Signify MS's:**	6
Letter To Signify MSD's:	D	**Position To Signify MSD's:**	6
Letters To Signify MSA's:	MSA+	**Position To Signify MSA's:**	6
Number Of Additions:	3		

Standard 1 Conc:	0.1	**Standard 2 Conc:**	0.2	**Standard 3 Conc:**	0.5	**Standard 4 Conc:**	1
Standard 5 Conc:	5	**Standard 6 Conc:**	10	**Standard 7 Conc:**	0	**Standard 8 Conc:**	0

ICB/CCB Check Level: 0.201 **Prep Blank Check Level:** 0.201 **Report Limit:** 0.2

IDL: 0.02 **Date Of IDL:** 5/12/03

STL Knoxville

Mercury Data Review Checklist

Method: 7pt.std/SW-846 7470A/7471A/0.2 RL **Lot Number(s):**

Analyst:	KND			Instrument:	Leeman Hydra AA Mercury Analyzer		
Run Date:	Aug-12-03	Calibration Number:	1	Chart Name:	H081203.PRN	Element:	Hg

A. Calibration/Instrument Run QC		N/A	Yes	No	Comments
1.	Instrument calibrated every 24 hours?		X		Calibration was 2 hours and 3 minutes long
2.	Instrument calibrated using a minimum of a blank and 5 standards?		X		
3.	Do standard absorbances increase as standard concentrations increase?		X		
4.	Instrument calibrated with standards at the SOP levels?		X		
5.	Correlation coefficient greater than or equal to 0.995?		X		Correlation coefficient was 0.9999
6.	ICV analyzed directly after calibration?		X		
7.	ICV within specified control limits?		X		
8.	ICB analyzed immediately after ICV?		X		
9.	ICB within acceptable range?		X		
10.	CRA analyzed at the beginning of the run?	X			
11.	CRA results within acceptable range?	X			
12.	All CCV's within specified control limits?		X		
13.	All CCB's within acceptable range?		X		
14.	All CCB's analyzed immediately after CCV's?		X		
B. Client Sample and QC Sample Results					
1.	Were all sample results within the linear range of the instrument ?		X		
2.	Were there any samples with results more negative than Report Limit?			X	
C. Preparation/Matrix QC					
1.	Was one method blank prepared for each batch?		X		
2.	Were all method blanks less than the specified level?		X		
3.	Was a Laboratory Control Sample prepared for each batch?		X		
4.	Were all Laboratory Control Sample's within QC limits?		X		
5.	Was an OS/Dup or MS/MSD pair run at required frequency?		X		
6.	Were all Matrix Spike recoveries (MS and MSD's) within QC limits?		X		
7.	Were duplicate samples (OS/Dup or MS/MSD) RPD within QC limits?		X		
D. Other					
1.	Current IDL data on file?			X	IDL's were due on 8/12/03
2.	Current MDL data on file?		X		

Comments:

Analyst: KND **Date:** 8/13/03

Analyst Comments: IDL currently being performed.
Client is aware of the holding times being blown on samples from lot H3H110119.

WinHg Database 1.215

File Utility Help

Protocol 7ptcurve Dataset/Proto H081203 /7ptcurve

Protocol | Line info | Cal Curve | Report | Ctrl Chart | Viewer

Reset

Calib Coeffs

New Cal

Update Coeffs

Spike Coeffs

A

B 6.08037e-6

C -2.19757e-2

rho .999951

☑ Calibrated

☑ Accepted

Accept

Type Linear

Rel. Abs. 1641914

Accepted

New

Include S1 Rep 1 ☑

Conc. 10.0

S	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3
01	.00000	-.013	-.013	1483	0	1483		
02	.10000	.099	-.001	19933	0%	19932		
03	.20000	.166	-.034	30891	0%	30891		
04	.50000	.498	-.002	85508	0%	85508		
05	1.0000	1.01	.014	170450	0%	170449		
06	5.0000	5.07	.074	838111	0%	838110		

Ready CAP NUM

WinHg Database 1.215

File Utility Help

Protocol 7ptcurve Dataset/Proto H081203 /7ptcurve

Protocol | Line info | Cal Curve | Report | Ctrl Chart | Viewer

Reset

Calib Coeffs

New Cal

Update Coeffs

Spike Coeffs

A

B 6.08037e-6

C -2.19757e-2

rho .999951

☑ Calibrated

☑ Accepted

Accept

Type Linear

Rel. Abs. 1641914

Accepted

New

Include S1 Rep 1 ☑

Conc. 10.0

S	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3
02	.10000	.099	-.001	19933	0%	19932		
03	.20000	.166	-.034	30891	0%	30891		
04	.50000	.498	-.002	85508	0%	85508		
05	1.0000	1.01	.014	170450	0%	170449		
06	5.0000	5.07	.074	838111	0%	838110		
07	10.000	9.96	-.039	1641915	0%	1641914		

Ready CAP NUM

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
-------------------------------------------------------------------------------

*** Standard: 1 Rep: 1              Seq:  0       14:09:41 12 Aug 03   HG

Hg    .000    ppb      1483

*** Standard: 2 Rep: 1              Seq:  1       14:11:41 12 Aug 03   HG

Hg    .100    ppb      19932

*** Standard: 3 Rep: 1              Seq:  2       14:13:36 12 Aug 03   HG

Hg    .200    ppb      30891

*** Standard: 4 Rep: 1              Seq:  3       14:15:25 12 Aug 03   HG

Hg    .500    ppb      85508

*** Standard: 5 Rep: 1              Seq:  4       14:17:17 12 Aug 03   HG

Hg    1.00    ppb      170449

*** Standard: 6 Rep: 1              Seq:  5       14:19:28 12 Aug 03   HG

Hg    5.00    ppb      838110

*** Standard: 7 Rep: 1              Seq:  6       14:21:18 12 Aug 03   HG

Hg    10.0    ppb      1641914

*** Check Standard: 2  Ck2icv       Seq:  7       14:24:54 12 Aug 03   HG
Line   Flag  %Rcv.   Found    True  Units      SD/RSD
Hg           101.     2.52    2.50  ppb        .000  %

*** Sample ID: ICB                   Seq:  8       14:26:46 12 Aug 03   HG
                            ICB
Hg   -.041    ppb       .000  %  -.041

*** Sample ID: CRA                   Seq:  9       14:29:15 12 Aug 03   HG
                            CRA
Hg    .185    ppb       .000  %   .185

*** Check Standard: 3  Ck3ccv       Seq:  10      14:31:09 12 Aug 03   HG
Line   Flag  %Rcv.   Found    True  Units      SD/RSD
Hg           102.     5.09    5.00  ppb        .000  %

*** Check Standard: 1  Ck1ccb       Seq:  11      14:33:29 12 Aug 03   HG
Line   Flag  Found Range(+/-) Units      SD/RSD
Hg          -.001     .101     ppb        .000  %

*** Sample ID: FV34MB                Seq:  12      14:35:40 12 Aug 03   HG
                            3224131
Hg   -.026    ppb       .000  %  -.026

*** Sample ID: FV34MC                Seq:  13      14:37:38 12 Aug 03   HG

Hg    4.85    ppb       .000  %   4.85

*** Sample ID: FVPFJ                 Seq:  14      14:39:28 12 Aug 03   HG

Hg    .574    ppb       .000  %   .574
```

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
-------------------------------------------------------------------------------

*** Sample ID: FVXG5                Seq:  15     14:41:40 12 Aug 03   HG

Hg    .129    ppb       .000  %   .129

*** Sample ID: FVXHQ                Seq:  16     14:43:38 12 Aug 03   HG

Hg    .164    ppb       .000  %   .164

*** Sample ID: FVXHV                Seq:  17     14:45:38 12 Aug 03   HG

Hg    .022    ppb       .000  %   .022

*** Sample ID: FVXH2                Seq:  18     14:47:30 12 Aug 03   HG

Hg    .015    ppb       .000  %   .015

*** Sample ID: FVXH7                Seq:  19     14:49:25 12 Aug 03   HG

Hg    .223    ppb       .000  %   .223

*** Sample ID: FVXH7S               Seq:  20     14:51:35 12 Aug 03   HG

Hg    1.23    ppb       .000  %   1.23

*** Sample ID: FVXH7D               Seq:  21     14:53:27 12 Aug 03   HG

Hg    1.33    ppb       .000  %   1.33

*** Check Standard: 3  Ck3ccv       Seq:  22     14:55:18 12 Aug 03   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          102.     5.11    5.00   ppb        .000  %

*** Check Standard: 1  Ck1ccb       Seq:  23     14:57:11 12 Aug 03   HG
Line  Flag  Found Range(+/-) Units      SD/RSD
Hg         -.022     .101     ppb        .000  %

*** Sample ID: FVXJL                Seq:  24     14:59:05 12 Aug 03   HG

Hg    .192    ppb       .000  %   .192

*** Sample ID: FVXJQ                Seq:  25     15:00:55 12 Aug 03   HG

Hg    .194    ppb       .000  %   .194

*** Sample ID: FVXJ0                Seq:  26     15:02:43 12 Aug 03   HG

Hg    .244    ppb       .000  %   .244

*** Sample ID: FV08D                Seq:  27     15:04:44 12 Aug 03   HG

Hg    .372    ppb       .000  %   .372

*** Sample ID: FV08E                Seq:  28     15:07:04 12 Aug 03   HG

Hg    .655    ppb       .000  %   .655

*** Sample ID: FV08F                Seq:  29     15:08:54 12 Aug 03   HG

Hg    1.08    ppb       .000  %   1.08
```

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
-------------------------------------------------------------------------------

*** Sample ID: FV08H                    Seq:  30     15:10:43 12 Aug 03   HG

Hg    1.89    ppb       .000  %   1.89

*** Sample ID: FV08J                    Seq:  31     15:13:36 12 Aug 03   HG

Hg    .444    ppb       .000  %   .444

*** Sample ID: FV08K                    Seq:  32     15:16:08 12 Aug 03   HG

Hg    .573    ppb       .000  %   .573

*** Sample ID: FV08L                    Seq:  33     15:17:58 12 Aug 03   HG

Hg    .401    ppb       .000  %   .401

*** Check Standard: 3  Ck3ccv           Seq:  34     15:20:07 12 Aug 03   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          105.     5.24    5.00   ppb        .000  %

*** Check Standard: 1  Ck1ccb           Seq:  35     15:22:38 12 Aug 03   HG
Line  Flag  Found Range(+/-) Units      SD/RSD
Hg         -.008     .101     ppb        .000  %

*** Sample ID: FV08M                    Seq:  36     15:24:26 12 Aug 03   HG

Hg    1.07    ppb       .000  %   1.07

*** Sample ID: FV08N                    Seq:  37     15:26:25 12 Aug 03   HG

Hg    .595    ppb       .000  %   .595

*** Sample ID: FV08P                    Seq:  38     15:28:53 12 Aug 03   HG

Hg    .463    ppb       .000  %   .463

*** Sample ID: FV08Q                    Seq:  39     15:30:42 12 Aug 03   HG

Hg    .799    ppb       .000  %   .799

*** Sample ID: FV34QB                   Seq:  40     15:32:45 12 Aug 03   HG
                              3224133
Hg   -.015    ppb       .000  %  -.015

*** Sample ID: FV34QC                   Seq:  41     15:34:55 12 Aug 03   HG

Hg    4.95    ppb       .000  %   4.95

*** Check Standard: 3  Ck3ccv           Seq:  42     15:37:07 12 Aug 03   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          104.     5.19    5.00   ppb        .000  %

*** Check Standard: 1  Ck1ccb           Seq:  43     15:38:56 12 Aug 03   HG
Line  Flag  Found Range(+/-) Units      SD/RSD
Hg         -.024     .101     ppb        .000  %

*** Sample ID: FVQLE                    Seq:  44     15:41:06 12 Aug 03   HG

Hg   -.028    ppb       .000  %  -.028
```

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
-------------------------------------------------------------------------------

*** Sample ID: FVQLES                Seq:  45     15:43:16 12 Aug 03   HG

Hg    1.03    ppb       .000  %   1.03

*** Sample ID: FVQLED                Seq:  46     15:45:28 12 Aug 03   HG

Hg    1.07    ppb       .000  %   1.07

*** Sample ID: FVQL0                 Seq:  47     15:47:18 12 Aug 03   HG

Hg   -.002    ppb       .000  %  -.002

*** Check Standard: 3  Ck3ccv        Seq:  48     15:49:08 12 Aug 03   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          102.     5.08    5.00   ppb        .000  %

*** Check Standard: 1  Ck1ccb        Seq:  49     15:51:10 12 Aug 03   HG
Line  Flag  Found Range(+/-) Units      SD/RSD
Hg         -.013     .101     ppb        .000  %

*** Sample ID: FVQL2                 Seq:  50     15:52:59 12 Aug 03   HG

Hg    .106    ppb       .000  %   .106

*** Sample ID: FVQL7                 Seq:  51     15:54:52 12 Aug 03   HG

Hg   -.018    ppb       .000  %  -.018

*** Sample ID: FVQL8                 Seq:  52     15:56:51 12 Aug 03   HG

Hg   -.010    ppb       .000  %  -.010

*** Sample ID: FV2NL                 Seq:  53     15:58:53 12 Aug 03   HG

Hg   -.021    ppb       .000  %  -.021

*** Sample ID: FV2N2                 Seq:  54     16:00:57 12 Aug 03   HG

Hg   -.003    ppb       .000  %  -.003

*** Sample ID: FV2PW                 Seq:  55     16:02:51 12 Aug 03   HG

Hg   -.018    ppb       .000  %  -.018

*** Sample ID: FV2P7                 Seq:  56     16:04:41 12 Aug 03   HG

Hg   -.019    ppb       .000  %  -.019

*** Sample ID: FV2QG                 Seq:  57     16:06:32 12 Aug 03   HG

Hg   -.076    ppb       .000  %  -.076

*** Sample ID: FV2QR                 Seq:  58     16:08:23 12 Aug 03   HG

Hg   -.005    ppb       .000  %  -.005

*** Check Standard: 3  Ck3ccv        Seq:  59     16:10:32 12 Aug 03   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          103.     5.14    5.00   ppb        .000  %
```

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Check Standard: 1 Ck1ccb Seq: 60 16:12:22 12 Aug 03 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.024	.101	ppb	.000 %

Miscellaneous Data

STL Knoxville ICP Data Review / Narrative Checklist
Method: 6010B/200.7 - KNOX-MT-0007, Rev 1

Lot / SDG #:	H3H080204				
Chart Name:	S081303			**Instrument:**	ST1
Report Type:	☐ Report	☑ Level 4 Package	☐ QDS	☐ Forms Only	☐ Other _____

A. Calibration/Instrument Run QC	1st ✓ NA	1st ✓ Yes	1st ✓ No	**Why is data reportable?**	2nd ✓ NA	2nd ✓ Yes	2nd ✓ No
1. Instrument calibrated per SOP?		✓				✓	
2. ICV analyzed at beginning of run & within limits? (6010B = 90 - 110%R and <5% RSD) (200.7 = 95 - 105%R and <3% RSD)		✓				✓	
3. CCV analyzed at appropriate frequency and within control limits? (6010B & SDWA 200.7=90 - 110%R & <5%RSD) (CWA 200.7 = 95 – 105%R)		✓		If no, list details: _____		✓	
4. ICB/CCB analyzed at appropriate frequency and within +/- RL?		✓		If no, list details: _____		✓	
5. ICSA/ICSAB run at required frequency? (6010B & SDWA 200.7 = beginning of run) (CWA 200.7 = beginning **and end** of run)		✓				✓	
6. ICSAB interferents and analytes within limits? (80 - 120%R)		✓				✓	
7. ICSA criteria for non-interfering elements met? (RLs ≤10 ppb within +/- 2x **SOP** RL from zero) (RLs >10 ppb within +/- 1x **SOP** RL from zero) *If no, list analytes:* _____		✓		☐ [ics1] Results outside limits due to contamination. ☐ [ics2] Interfering elements not present in sample at level which would result in false result >±2x RL. ☐ [ics3] Concentration of affected analyte in sample is more than 10x analyte signal in ICSA. ☐ Element not reported.		✓	
B. Client Sample and QC Sample Results	NA	Yes	No		NA	Yes	No
1. Were samples with concentrations > the linear range for any parameter diluted and reanalyzed?	✓			Dilution Chart #: _____	✓		
2. Were RLs elevated due to matrix effects? *If yes, list sample ID:* _____	✓			☐ [elev3] All RLs elevated due to difficult matrix.	✓		
3. Internal standard (IS) response ±30% of ICB IS? *If no, list sample ID:* _____		✓		☐ [is] High IS response. Sample(s) rerun at dilution. ☐ Low IS response. Sample(s) reanalyzed.		✓	
C. Preparation/Matrix QC	NA	Yes	No		NA	Yes	No
1. Method blank done per prep batch and < RL?		✓		☐ **[mb3] No analyte >RL in associated samples.*** ☐ **[mb4] Sample results >20x blank.** ☐ **[mb5] Insufficient sample for reanalysis.***		✓	
2. LCS done per prep batch and within QC limits? (6010B = inhouse limits) (200.7 = 85 - 115%R)		✓		☐ **[lcs2] Insufficient sample for reanalysis.** ☐ **[lcs3] LCS recovery > QC limits and sample results are < RL.***		✓	
3. MS/MSD or MS/DUP run at required frequency?		✓		☐ [lcsd] Insufficient sample – lcs/lcsd analyzed.		✓	
4. MS %R or MS/MSD %R & RPD within QC limits? ☐ No QC reported ☑ Batch QC reported ☐ Client QC reported			✓	☐ [ms1] ☐ [msd1] LCS acceptable - matrix effects. ☐ [ms2] ☐ [msd2] Native analyte > 4x spike level. ☐ [ms3] ☑ [msd3] Matrix effects and native analyte > 4x spike level. ☐ [batch] Batch QC on client's sample outside limits.			✓
5. DUP RPD within limits? (0-20 RPD for results ≥5xRL; ±RL if result <5xRL)	✓			☐ [rpd] LCS showed acceptable results. Results indicate lack of sample homogeneity.	✓		
6. PDS or PDS/PDSD run at required frequency?	✓				✓		
7. PDS/PDSD within limits? (75-125%R) **Reminder:** Place copy of PDS results in Sample Data Summary and QC Summary sections of report.	✓			☐ [pds1] ☐ [pdsd1] LCS acceptable - matrix effects. ☐ [pds2] ☐ [pdsd2] Native analyte > 4x spike level. ☐ [pds3] ☐ [pdsd3] Matrix effects and native analyte > 4x spike level.	✓		

*Such action must be taken in consultation with client.

STL Knoxville ICP Data Review / Narrative Checklist
Method: 6010B/200.7 - KNOX-MT-0007, Rev 1
Page 2 of 2

Chart Name:	S081303

C. Preparation/Matrix QC (continued)	1st ✓ NA	1st ✓ Yes	1st ✓ No	Why is data reportable?	2nd ✓ NA	2nd ✓ Yes	2nd ✓ No
8. Serial dilution done per prep batch? ☑ Client sample ☐ Batch sample		✓				✓	
9. Serial dilution results within limits? (10% D for analytes >50x IDL) *If no, list serial dilution ID/elements:* FVXH7-K			✓	☑ [ser] Physical or chemical interference due to sample matrix.			✓
D. Other	NA	Yes	No		NA	Yes	No
1. Are nonconformances documented appropriately?	✓			NCM #	✓		
2. Calculations checked for error? (Document manual calculation checks in comments section.)		✓				✓	
3. Were all spreadsheets reviewed?	✓				✓		
4. All client/project specific requirements met? (Review PM checklists, Lot Summary or Client Analysis Summary, and any applicable QAS.)		✓		Changes to PM checklists, etc.: Date:		✓	
5. Final report acceptable? (Check QuantIMS and QDS forms to assure that **results, RLs, MDLs, units, flags, dilution factors,** & preparation / analysis **dates** are correct.)		✓				✓	
6. Are results present for all samples? MTM 08-20-03		✓				✓	
7. Are all deviations noted in narrative?	X	✓				✓	
8. For air train projects, was the appropriate autotext selected and reviewed to assure that the train fractions analyzed match the autotext statements?	✓			☐ [MMT1] Multi-metals trains analyzed for ICP & Hg. ☐ [MMT2] Multi-metals trains analyzed for ICP only. ☐ [MMT4] Combined FH/BH analyzed for ICP only.	✓		
9. For PM10 projects, was the appropriate autotext selected?	✓			☐ [pm10] PM10 filters analyzed for ICP & Hg. ☐ [pm10icp] PM10 filters analyzed for ICP only.	✓		
10. For SEP projects, was the appropriate autotext selected?	✓			☐ [SEP] Samples analyzed by SEP for As only.	✓		
11. Are all QC Summary Forms correct?		✓				✓	
12. Current IDL/LR/IEC data referenced in QC forms?		✓				✓	
13. Was a Filter Lot Check report included for PM10 filters?	✓			☐ [fb1] Filter Lot Check Report in Misc. Section. ☐ [fb2] Filter Lot Check Report after LCS report.	✓		
14. Is the original DRC & Quality Check Report behind narrative with copy in report?			✓			✓	
15. Was the chart scanned properly? (Check .pdf file.)		✓				✓	

1st Level Reviewer: [illegible] **Date:** 8/18/03

Comments:

FVXG5 (Cu) 90.33 µg/g × 0.05L / 0.5g ÷ 0.801 = 11.3 µg/g

RL (Cu) 25.0 µg/g × 0.05L / 0.5g ÷ 0.801 = 3.1 µg/g

2nd Level Reviewer: Nena T. Meehan **Date:** 08-20-03

Comments:

FVXH7 (Pb): 0.13070 µg/ml × 50 ml / 0.5g ÷ 0.836 = 15.63 µg/g

RL: 3.0 µg/L × 0.05L / 0.5g ÷ 0.836 = 0.359 µg/g

NOTE: Nonconformance memos are required for **bold** and *italicized* [autotext] statements: **Bold** = deficiency, *italicized* = anomoly.

STL Knoxville

Data Quality Checks

Internal Standard

Date	Time	Lab ID	Problem
18-Aug-03	*2:34 PM*		*There were 76 results successfully verified.*

Relative Standard Deviation

Date	Time	Lab ID	Problem
18-Aug-03	*2:34 PM*		*There were 176 results successfully verified.*

STL Knoxville

Mercury Data Final Report Checklist

Method 7pt.std/SW-846 7470A/7471A/0.2 RL

LOT Number: H3H080204

Analyst:	KND			**Instrument:**	Leeman Hydra AA Mercury Analyzer		
Run Date:	Aug-12-03	**Calibration Number:**	1	**Chart Name:**	H081203.PRN	**Element:**	Hg

	Review Items	1st Level N/A	1st Level Yes	1st Level No	Comments	2nd Level
1.	Was the data for this Lot evaluated using the Mercury Data Review Software?		✓			✓
2.	Was data evaluated using the correct method criteria? (Review Mercury Data Review Software method table)		✓			✓
3.	All client/project specific requirements met?		✓			✓
4.	Sample analysis done within holding time (HT)? *If no, list samples:*		✓		☐ [HT1] HT expired upon receipt. ☐ [HT2] Analysis requested after HT expired. ☐ See Comment number	✓
5.	Are all noncomformances documented appropriately?	✓				✓
6.	Final report acceptable?		✓			✓
	* Results correct?		✓			✓
	* Report Limits calculated correctly?		✓			✓
	* Are units correct?		✓			✓
	* Appropriate flags used?		✓			✓
	* Deviations noted in narrative?	✓				✓
	* Dilution factors correct?		✓			✓
	* Preparation/analysis dates correct?		✓			✓
7.	Were MS Run #'s assigned properly?		✓			✓
8.	Were calculations checked for error?		✓			✓
9.	Are all QC Summary forms correct?		✓			✓
10.	Was the chart scanned properly? (Check .pdf file)		✓			✓

Initial Review: 8 **Date:** 8/20/03

Comments:

FVXH78 $1.23\,\mu g/g \times \frac{0.05L}{0.3g} \div 0.836 = 0.245\,\mu g/g$

Second Review: Nena J. Meeker **Date:** 08-20-03

Comments:

FVXG5: $0.129\,\mu g/L \times \frac{0.05L}{0.3g} \div 0.801 = 0.0268\,\mu g/g$

RL: $0.20\,\mu g/L \times$ " $\div$ " $= 0.0416\,\mu g/g$

NTM
08-20-03

RQC057 Severn Trent Laboratories, Inc. Run Date: 8/12/03
METALS PREP LOG/BATCH SUMMARY Time: 12:29:27

BATCH NUMBER: **3224241** PREP DATE: 8/12/03 14:00 COMP DATE: 8/12/03 17:00
DUE DATE 8/22/03 INITIALS: 3050B

LOT NUMBER	WORK ORDER	QC	ICP/WEIGHT	HG/WEIGHT	GFA/WEIGHT	FLA/WEIGH
			0.5g/50.0mL			
H3H080204	FVXG5	01	X _____g	_____g	_____g	_____g
SOLID	TO DUE DATE:		8/22/03			
H3H080204	FVXHQ	01	X _____g	_____g	_____g	_____g
SOLID	TO DUE DATE:		8/22/03			
H3H080204	FVXHV	01	X _____g	_____g	_____g	_____g
SOLID	TO DUE DATE:		8/22/03			
H3H080204	FVXH2	01	X _____g	_____g	_____g	_____g
SOLID	TO DUE DATE:		8/22/03			
H3H080204	FVXH7	01	X _____g	_____g	_____g	_____g
SOLID	TO DUE DATE:		8/22/03			
	FVXH7S		_____g	_____g	_____g	_____g
	FVXH7D		_____g	_____g	_____g	_____g
H3H080204	FVXJL	01	X _____g	_____g	_____g	_____g
SOLID	TO DUE DATE:		8/22/03			
H3H080204	FVXJQ	01	X _____g	_____g	_____g	_____g
SOLID	TO DUE DATE:		8/22/03			
H3H080204	FVXJ0	01	X _____g	_____g	_____g	_____g
SOLID	TO DUE DATE:		8/22/03			
H3H110119	FV2NL	01	X _____g	_____g	_____g	_____g
WASTE	TO DUE DATE:		8/25/03			
H3H110119	FV2N2	01	X _____g	_____g	_____g	_____g
WASTE	TO DUE DATE:		8/25/03			
H3H110119	FV2PW	01	X _____g	_____g	_____g	_____g
WASTE	TO DUE DATE:		8/25/03			
H3H110119	FV2P7	01	X _____g	_____g	_____g	_____g
WASTE	TO DUE DATE:		8/25/03			
H3H110119	FV2QG	01	X _____g	_____g	_____g	_____g
WASTE	TO DUE DATE:		8/25/03			
H3H110119	FV2QR	01	X _____g	_____g	_____g	_____g
WASTE	TO DUE DATE:		8/25/03			
	FV2QRS		_____g	_____g	_____g	_____g

RQC057

Severn Trent Laboratories, Inc.
METALS PREP LOG/BATCH SUMMARY

Run Date: 8/12/03
Time: 12:29:27

BATCH NUMBER: **3224241**

PREP DATE: 8/12/03 14:00 COMP DATE: 8/12/03 17:00
DUE DATE 8/22/03 INITIALS: JH

LOT NUMBER	WORK ORDER	QC	ICP/WEIGHT	HG/WEIGHT	GFA/WEIGHT	FLA/WEIGH
			0.5g/50.0mL			
	FV2QRD		_____g	_____g	_____g	_____g
H3H120000	FV4JXB	01	X _____g	_____g	_____g	_____g
SOLID	DUE DATE:		0/00/00			
	FV4JXC		_____g	_____g	_____g	_____g

LEVEL 2
BLANK AND CHECK STANDARD ON BATCH _____
MS/MSD AND PDS ON BATCH _____
CURVE PREPPED FOR HG _____
CORRECT SPIKES ADDED _____
SPIKING SOLUTIONS DOCUMENTED ON BATCH LOG_____

COMMENTS: _____
B-BLANK/C-LCS/D-MSD/I-REANALYSIS/L-LCSD/P-SERIAL DLTN/S-MS/X-SAMP DUP/Y-SAMP CONF/Z-PDS
SPIKING WITNESSED BY _____

ICP ELEMENTS WITHIN THE BATCH:

AG AL AS BA BE CA CD CO CR CU FE KX MG MN NA NI PB SB SE TL VX ZN

MS/MSD 1:	ICP - 1	ICP - 2	GFAA	HG	ODD
MS/MSD 2:	ICP - 1	ICP - 2	GFAA	HG	ODD
MS/MSD 3:	ICP - 1	ICP - 2	GFAA	HG	ODD
CHECK :	ICP - 1	ICP - 2	GFAA	HG	ODD
CHECK DUP:	ICP - 1	ICP - 2	GFAA	HG	ODD
STANDARD NUMBERS	_____	_____	____	___	___

STL Knoxville
Metals Prep Spiking Form

Analyst: LDW Date: 8/12/03 Batch: 3224241

1st Level Review & Relinquished By: LDW Date/Time: 8/13/03

2nd Level Review & Received By: dgs Date/Time: 8-13-03/13:00

Acid Lot Numbers:

Nitric Acid: X45040 Hydrochloric Acid: X44A17

30% Hydrogen Peroxide: X52A08 Hydrofluoric Acid: _____

Spiking Standards:

(MS) 0.05 ml of _____ into 50 ml Exp. Date: _____

(LCS) 0.25 ml of _____ into 50 ml Exp. Date: _____

0.5 ml of TMEB145014 into 50 ml Exp. Date: 2·04

0.5 ml of TMEB145015 into 50 ml Exp. Date: 3·04

0.5 ml of TMEB142067 into 50 ml Exp. Date: 2·04

0.5 ml of _____ into 50 ml Exp. Date: _____

1.0 ml of _____ into 100 ml Exp. Date: _____

1.0 ml of _____ into 100 ml Exp. Date: _____

1.0 ml of _____ into 100 ml Exp. Date: _____

1.0 ml of _____ into 100 ml Exp. Date: _____

ICP SOPs

		(Circle Method Used)
KNOX-IP-0007	CLP Water/Soils	ILM03.0 ILM04.0
KNOX -IP-0004	Soils/Waste	3050B
KNOX -IP-0005	Aqueous	3005A 3010A 200.7
KNOX-IP-0001	Pb in Filters	Air-Pb
KNOX-IP-0003	Total Metals in Filters	Air-Total
KNOX-MT-0006	MMT	Air-Train
KNOX-IP-0002	NC Groundwaters	3030C
KNOX-MT-0008	SEP for As	3010A

Comments: _____

RQC057

Severn Trent Laboratories, Inc.
METALS PREP LOG/BATCH SUMMARY

Run Date: 8/12/03
Time: 6:53:03

BATCH NUMBER: **3224131**

PREP DATE: 8/12/03 9:00
DUE DATE 8/22/03

COMP DATE: 8/12/03 12:00
INITIALS: KND

LOT NUMBER	WORK ORDER	QC	ICP/WEIGHT	HG/WEIGHT	GFA/WEIGHT	FLA/WEIGH
H3H060105 SOLID	FVPFJ TO DUE DATE: 8/22/03	01	____g	X 0.3g / 50ml	____g	____g
H3H080204 SOLID	FVXG5 TO DUE DATE: 8/22/03	01	____g	X ____g	____g	____g
H3H080204 SOLID	FVXHQ TO DUE DATE: 8/22/03	01	____g	X ____g	____g	____g
H3H080204 SOLID	FVXHV TO DUE DATE: 8/22/03	01	____g	X ____g	____g	____g
H3H080204 SOLID	FVXH2 TO DUE DATE: 8/22/03	01	____g	X ____g	____g	____g
H3H080204 SOLID	FVXH7 TO DUE DATE: 8/22/03	01	____g	X ____g	____g	____g
	FVXH7S		____g	____g	____g	____g
	FVXH7D		____g	____g	____g	____g
H3H080204 SOLID	FVXJL TO DUE DATE: 8/22/03	01	____g	X ____g	____g	____g
H3H080204 SOLID	FVXJQ TO DUE DATE: 8/22/03	01	____g	X ____g	____g	____g
H3H080204 SOLID	FVXJ0 TO DUE DATE: 8/22/03	01	____g	X ____g	____g	____g
H3H090101 SOLID	FV08D TO DUE DATE: 8/26/03	01	____g	X ____g	____g	____g
H3H090101 SOLID	FV08E TO DUE DATE: 8/26/03	01	____g	X ____g	____g	____g
H3H090101 SOLID	FV08F TO DUE DATE: 8/26/03	01	____g	X ____g	____g	____g
H3H090101 SOLID	FV08H TO DUE DATE: 8/26/03	01	____g	X ____g	____g	____g
H3H090101 SOLID	FV08J TO DUE DATE: 8/26/03	01	____g	X ____g	____g	____g

RQC057

Severn Trent Laboratories, Inc.
METALS PREP LOG/BATCH SUMMARY

Run Date: 8/12/03
Time: 6:53:03

BATCH NUMBER: **3224131**

PREP DATE: 8/12/03 9:00 COMP DATE: 8/12/03 12:00
DUE DATE 8/22/03 INITIALS: KND

LOT NUMBER	WORK ORDER	QC	ICP/WEIGHT	HG/WEIGHT	GFA/WEIGHT	FLA/WEIGH
H3H090101	FV08K	01	_____g	X 0.3g / 50ml g	_____g	_____g
SOLID	TO DUE DATE:		8/26/03			
H3H090101	FV08L	01	_____g	X _____g	_____g	_____g
SOLID	TO DUE DATE:		8/26/03			
H3H090101	FV08M	01	_____g	X _____g	_____g	_____g
SOLID	TO DUE DATE:		8/26/03			
H3H090101	FV08N	01	_____g	X _____g	_____g	_____g
SOLID	TO DUE DATE:		8/26/03			
H3H090101	FV08P	01	_____g	X _____g	_____g	_____g
SOLID	TO DUE DATE:		8/26/03			
H3H090101	FV08Q	01	_____g	X _____g	_____g	_____g
SOLID	TO DUE DATE:		8/26/03			
H3H120000	FV34MB	01	_____g	X _____g	_____g	_____g
SOLID	DUE DATE:		0/00/00			
	FV34MC		_____g	_____g	_____g	_____g

LEVEL 2
BLANK AND CHECK STANDARD ON BATCH _____
MS/MSD AND PDS ON BATCH _____
CURVE PREPPED FOR HG _____
CORRECT SPIKES ADDED _____
SPIKING SOLUTIONS DOCUMENTED ON BATCH LOG_____

COMMENTS: _____
B-BLANK/C-LCS/D-MSD/I-REANALYSIS/L-LCSD/P-SERIAL DLTN/S-MS/X-SAMP DUP/Y-SAMP CONF/Z-PDS
SPIKING WITNESSED BY _____

STL Knoxville
Mercury Prep Spiking Form

Analyst: KND Date: 8/12/03 Batch: 3224131 Bath Temp: 94°
(Acceptance range 90°–95°C)

θ 7470A/245.1: KNOX-MT-0009, Rev. 2
θ CLP-aqueous: KNOX-MT-0011, Rev. 0
θ Hg in filters: KNOX-IP-0003, Rev. 2
θ MMT train: KNOX-MT-0006, Rev. 5
X 7471/245.5: KNOX-MT-0010, Rev. 2
θ CLP-soil: KNOX-MT-0012, Rev. 0
θ Ontario Hydro: KNOX-IP-0006, Rev. 1

Standard Type	Standard ID	Intermediate Std.		Volume Used (ml)	Final Volume (ml)	Final Concentration (ug/L)
		Source	Conc.(ug/L)			
Calibration Std 1	N/A		N/A	N/A	50	Blank
Calibration Std 2	I-CAL-2731-2-4	Spex	100	0.1	50	0.2
Calibration Std 3	I-CAL-		100	0.25	50	0.5
Calibration Std 4	I-CAL-		100	0.5	50	1.0
Calibration Std 5	I-CAL-		100	2.5	50	5.0
Calibration Std 6	I-CAL-		100	5.0	50	10.0

Standard Type	Standard ID	Intermediate Std.		Amount Used	Final Volume/ Weight	Final Concentration
		Source	Conc.(ug/L)			
ICV	I-VER-2730-2-4	Ultra	100	1.25 ml	50 ml	2.5 ug/L
CCV	I-CAL-2731-2-4	Spex	100	2.5 ml	50 ml	5.0 ug/L
CRA	I-CAL-		100	0.1 ml	50 ml	0.2 ug/L
Aqueous LCS	I-CAL-		100	2.5 ml	50 ml	5.0 ug/L
Aqueous MS	I-CAL-		100	0.5 ml	50 ml	1.0 ug/L
Soil LCS	I-CAL-2731-2-4	Spex	100	2.5 ml	0.3 g	0.83 mg/kg
Soil MS	I-CAL-		100	0.5 ml	0.3 g	0.17 mg/kg
CLP Soil LCS	ERA Lot #		100	0.2 g	0.2 g	____ mg/kg
CLP Soil MS	I-CAL-		100	1.0 ml	0.2 g	0.5 mg/kg
TCLP MS	I-CAL-		100	2.5 ml	50 ml	5.0 ug/L
Air (MMT)	I-CAL-		100	0.5 ml	2.5 ml	20 ug/L

Standard Type	Std ID	Intermediate Std.		Amount Used @ ICP prep/final volume	ICP Sample Volume used @ Hg prep	Final Conc. @ Hg prep	Final Concentration
		Source	Conc.(ug/L)				
Air(PM-10)LCS	I-CAL-		10,000	0.250 ml/50ml	5.0 ml	5.0 ug/l	11.25 ug
Air (PM-10) MS	I-CAL-		10,000	0.050 ml/50ml	5.0 ml	1.0 ug/l	2.25 ug

REAGENTS

Conc. H_2SO_4 Lot #:	NA	5% $KMnO_4$ ID #:	B-2640-8-C
Conc. HNO_3 Lot #:	Y14043	5% $K_2S_2O_8$ ID #:	D-2638-5-A
Conc. HCL Lot #:	X44A17	$SnCl_2$ Solution ID #:	A-2637-29-C
12% NaCl NH_2OH HCL ID #:	C-2639-4-A	Aqua Regia ID #:	E-2628-8-A

Percent Moisture

STL KNOXVILLE SAMPLE MOISTURE CONTENT WORKSHEET

LOT #: H3H080204
INITIATED BY: MFH
FINAL WT. BY JMH
ENTERED BY: JMH
QC BATCH #: 3223210
Prefix: FVX
DATE/TIME INTO OVEN: 081003 1930
DATE/TIME OUT OF OVEN: 081103 0820

Analyst/Date: JMH 081103

Reviewer/Date: DHW 8/11/03

#MOISTUR.XLS--Rev. 5

	LAB SAMPLE ID	PAN WT (g)	GROSS WET WT (g)	GROSS DRY WT (g)	SAMPLE WET WT (g)	SAMPLE DRY WT (g)	GC LAB: 10/ DRY FCT	DRYNESS FACTOR	PERCENT MOISTURE	ANALYSIS DATE	ANALYSIS TIME
1	FVX G51A5	1.143	6.220	5.209	5.077	4.066	12.49	0.801	19.91	081103	1043
2	FVX G51A6	1.157	6.413	5.428	5.256	4.271	12.31	0.813	18.74	081103	1044
3	FVX HQ	1.150	6.622	5.344	5.472	4.194	13.05	0.766	23.36	081103	1044
4	FVX HV	1.161	9.586	8.749	8.425	7.588	11.10	0.901	9.93	081103	1045
5	FVX H2	1.149	7.912	7.253	6.763	6.104	11.08	0.903	9.74	081103	1045
6	FVX H7	1.147	7.235	6.235	6.088	5.088	11.97	0.836	16.43	081103	1046
7	FVX JL	1.147	7.399	5.815	6.252	4.668	13.39	0.747	25.34	081103	1046
8	FVX JQ	1.151	8.982	7.107	7.831	5.956	13.15	0.761	23.94	081103	1047
9	FVX J0	1.153	8.265	6.153	7.112	5.000	14.22	0.703	29.70	081103	1047
10											
11											
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RPD 1.25

NOTES:

1 - Dryness Factor = Dry wt./Wet wt.
2 - % Moisture = 100 X (Wet Wt. - Dry Wt.)/Wet Wt.
3 - % Solids = 100 - % Moisture, or 100 X Dryness Factor

Sample Receipt Documentation

H3H080204

REFERENCE DOCUMENT NO.: PBC080603 STL

Shaw
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN-OF-CUSTODY RECORD

PAGE 1 OF 2

Project Name/No: PBOW
Sample Team Member: David Kessler
Profit Center: Knoxville
Project Manager: Steve Downey
Project No.: 843656
Required Report Date: 21 Days

Sample Shipment Date: 8/7/03
Laboratory Destination: STL - Knoxville
Laboratory Contact: Jamie McKinney
Project Contact/Phone: Maureen McMyler/865-690-3211
Carrier Waybill No.: 836531447472

Bill To: Greg Massingale
Shaw E&I
312 Directors Drive
Knoxville, TN 37923

Report To: Maureen McMyler
Shaw E&I
312 Directors Drive
Knoxville, TN 37923

Sample Number	Sample Type/ Description	Date/Time Collected	Container Type	Sample Volume	Pre-servative	Requested Testing Program	Cooler ID	Condition on Receipt	Disposal Record
DB0001	Soil (SS)	8/6/03 0930	1 - ~~Amber~~ CWM	8 oz	Cool	Explosives by 8330			
			1 - ~~Amber~~ CWM	8 oz	Cool	Tal Metals by 6010B/7471A			
			1 - ~~Amber~~ CWM	8 oz	Cool	PAH by 3540C/8310		Rec'd temp. 3°C	
								custody seals intact	
DB0002		8/6/03 1030	1-CWM	8 oz	Cool	EXPLOSIVES BY 8330		1 Cooler	
			1-CWM	8 oz	Cool	TAL METAL BY 6010B/7471A		836531447472	
			1-CWM	8 oz	Cool	PAH BY 3540C/8310		MFH 8-8-03	
DB0003		8/6/03 0815	1-CWM	8 oz	Cool	EXPLOSIVES BY 8330			
			1-CWM	8 oz	Cool	TAL METALS BY 6010B/7471A			
			1-CWM	8 oz	Cool	PAH BY 3540C/8310			
DB0004		8/6/03 0815	1-CWM	8 oz	Cool	EXPLOSIVES BY 8330			
			1-CWM	8 oz	Cool	TAL METALS BY 6010B/7471A			
			1-CWM	8 oz	Cool	PAH BY 3540C/8310			

Special Instructions:

Possible Hazard Identification: Use caution when handling.
Non-haz: X Flammable: ___ Poison B: ___ Unknown: ___

Sample Disposal:
Return to Client: ___ Disposal by Lab: X Archive: ___

Turnaround Time:
Normal: X Rush: ___

Level of QC Required:
I. ___ II. ___ III. ___ Project Specific: ___

1. Relinquished by: David Kessler Date: 8/7/03 Time: 1000
2. Relinquished by: Date: Time:
3. Relinquished by: Date: Time:

1. Received by: Matthew F. Howard Date: 8-8-03 Time: 09:15
2. Received by: Date: Time:
2. Received by: Date: Time:

Comments:

N:Shared\Common\DamGroup\Field Forms\PLUBKCOC4.XLS7/30/2003

726

H3H D6D2D4

Shaw
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN-OF-CUSTODY RECORD

REFERENCE DOCUMENT NO.: PB 080603572 0

Project Name/No.: PBOW

Laboratory Destination: STL - Knoxville

Sample Shipment Date: 08-07-03 0

Sample Number	Sample Type/ Description	Date/Time Collected	Container Type	Sample Volume	Pre-servative	Requested Testing Program	Cooler ID	Condition on Receipt	Disposal Record
DB0006	Soil (SS)	8/6/03 1400	1-CWM	8 OZ	Cool	EXPLOSIVES BY 8330			
			1-CWM	8 OZ	Cool	TAL METALS BY 6010B/7471A			
			1-CWM	8 OZ	Cool	PAH BY 3540C/8310			
DB0006-MS	Soil (SS)	8/6/03 1400	1-CWM	8 OZ	Cool	EXPLOSIVES BY 8330			
			1-CWM	8 OZ	Cool	TAL METALS BY 6010B/7471A			
			1-CWM	8 OZ	Cool	PAH BY 3540C/8310			
DB0006-MSD	Soil (SS)	8/6/03 1400	1-CWM	8 OZ	Cool	EXPLOSIVES BY 8330			
			1-CWM	8 OZ	Cool	TAL METALS BY 6010B/7471A			
			1-CWM	8 OZ	Cool	PAH BY 3540C/8310			
DB0007	Soil (SS)	8/6/03 1430	1-CWM	8 OZ	Cool	EXPLOSIVES BY 8330			
			1-CWM	8 OZ	Cool	TAL METALS BY 6010B/7471A			
			1-CWM	8 OZ	Cool	PAH BY 3540C/8310			
DB 0008	Soil (SS)	8/6/03 1510	1-CWM	8 OZ	Cool	EXPLOSIVES BY 8330			
			1-CWM	8 OZ	Cool	TAL METALS BY 6010B/7471A			
			1-CWM	8 OZ	Cool	PAH BY 3540C/8310			
DB0009	Soil (SS)	8/6/03 1600	1-CWM	8 OZ	Cool	EXPLOSIVES BY 8330			
			1-CWM	8 OZ	Cool	TAL METALS BY 6010B/7471A			
			1-CWM	8 OZ	Cool	PAH BY 3540C/8310			

STL KNOXVILLE
SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

CLIENT: Shaw E+I PROJECT: PBOW Lot No.: 1-3H080204

TO BE COMPLETED BY SAMPLE RECEIPT ASSOCIATE:

1. Sample Receipt:	YES	NO	NA
a. Do sample container labels match COC? (IDs, Dates, Times)	✓		
b. Is the cooler temperature within acceptance limits? (NOTE: North Carolina, 1668, 1613B: 0-4°C; VOST: 10°C)	✓		
c. Were samples received with correct chemical preservative (excluding Encore)?			✓
d. Were custody seals present/intact on cooler and/or containers?	✓		
e. Were all of the samples listed on the COC received?	✓		
f. Were all of the sample containers received intact?	✓		
g. Were containers received for VOAs received without headspace?			✓
h. Were samples received in the appropriate containers?	✓		
i. Did you check for residual chlorine, if necessary?			✓
j. Were samples received within 1/2 of the holding time?	✓		
k. Were samples screened for radioactivity?			✓
l. Were client's sample documents (RFA/COC) received?	✓		
m. Has the RFA/COC been relinquished? (Signed, Dated, Timed)	✓		
n. Are test/parameters listed for each sample?	✓		
o. Is the matrix of the samples noted?	✓		
p. Is the date/time of sample collection noted?	✓		
q. Is the client and project name/No. identified?	✓		
r. Was the sampler identified on the RFA/COC?		✓	

SAMPLE RECEIVING ASSOCIATE: Matthew F Howard DATE: 8-8-03

TO BE COMPLETED BY PROJECT MANAGER :

1. Project manager "Sample Greet":	YES	NO	NA
a. Quote number to be logged-in under 48670			
b. Informed Login associates of special instructions ?			X

PROJECT MANAGER : pm DATE: 8/14/03

Client Sample ID	Analysis Requested	Condition (see legend)	Comments/Action

☐ Client informed on _____ by _____. Person contacted: _____.

☐ Noted actions in comments section above.

☐ No action necessary; process as is.

Project Manager: _____ Date: _____

STL KNOXVILLE

SAMPLE LOG-IN (LOT SUMMARY) REVIEW CHECKLIST

CLIENT: Shaw PROJECT: PBOW Lot No.: H3H080204

TO BE COMPLETED BY PROJECT MANAGER:

	YES	NO	NA
1. Client Documents (Request for Analysis/Chain of Custody):			
a. Was QuanTIMS lot number documented on all paperwork?	X		
b. Was RFA/COC signed upon receipt, including date/time?	X		
c. Is preservative check (pH) noted on RFA/COC?			X
d. Is cooler temperature & custody seal condition noted on COC?	X		
2. Log-in (Lot Folder) Review:	YES	NO	NA
a. Do client IDs on Client Summaries match RFA/COC?	X		
b. Were tests/parameters assigned correctly?	X		
c. Were correct analytical and report due dates assigned?	X		
d. Has the correct fax due date been assigned to the lot?			X
e. Is the correct report format noted in the lot summary?	X		
f. Is percent moisture logged for samples requiring this analysis?	X		
g. Are client assigned QC samples properly defined?	X		
3. Contract/Subcontract Review:	YES	NO	NA
a. Is there a contract number or PO for this work?			X
b If the purchase order number is given, is it noted in Lot header?			X
c. If samples were subcontracted, was copy of COC and associated sample receipt documentation in the folder?		X	
4. SDG Review:	YES	NO	NA
a. If SDG is required, is SDG form in Lot folder?			X
b Is SDG number noted in Lot header & sample comments?			X
c. If SDG is complete, has the due date been revised & marked closed?			X
5. Checklist Review:	YES	NO	NA
a. Has Sample Receipt Checklist been filled-out?	X		
b. Was there a CUR?			X
c. Were all issues resolved?			X

LOT FOLDER REVIEWED BY: pm DATE: 8/14/03

4.7°C
8/9/03

Severn Trent Laboratories, Inc
SAMPLE ANALYSIS REQUISITION

LABORATORY: STL Denver
4955 Yarrow Street
Arvada CO 80002,

NEED ANALYTICAL REPORT BY
8/21/03

ATTN:

LAB PURCHASE ORDER: SR051199

CLIENT CODE: 506155 PROJECT MANAGER: Jamie A. McKinney

NUMBER OF SAMPLES IN LOT: 0000

SAMPLE I.D.	SAMPLING DATE	ANALYSIS REQUIRED
H3H080204-001 FVXG5-1-AA	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-002 FVXHQ-1-AH	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-003 FVXHV-1-AH	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-004 FVXH2-1-AH	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-005 FVXH7-1-AU	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-005-D FVXH7-1-AW	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-005-S FVXH7-1-AV	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-006 FVXJL-1-AH	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-007 FVXJQ-1-AH	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310
H3H080204-008 FVXJ0-1-AH	8/06/03	Hydrocarbons, Polynuclear Aromatic (HPLC - 8310) (LC8310_S) METHOD: 8310

NEED DETECTION LIMIT AND ANALYSIS DATE INCLUDED IN REPORT.

SHIPPING METHOD: FEDX DATE: 8/08/03

SEND REPORT TO: JAMIE MCKINNEY

SAMPLE RECEIVED BY: [signature] DATE: 8/8/03

PLEASE SEND A SIGNED COPY OF THIS FORM WITH REPORT AT COMPLETION OF ANALYSIS.

THANK YOU.

STL Knoxville

INT: _____ 8/08/03 11:51:03

STL Denver
4955 Yarrow Street
Arvada CO 80002,

RELINQUISHED BY: Andrew D. Flores DATE/TIME: 08-08-03 15:15

RELINQUISHED BY: _____ DATE/TIME: _____

RECEIVED FOR LAB BY: [signature] DATE/TIME: 8/8/03 0845

PLEASE RETURN ORIGINAL SAMPLE ANALYSIS REQUISITION

STL Denver

Sample Receiving Checklist

Lot #: H3H080204 Date/Time Received: 8/9/03 0845

Company Name & Sampling Site: STL Knoxvill

*Cooler #(s): 1

Temperatures (°C): 4.7

PM to Complete This Section: *Yes* *No*
Residual chlorine check required: ☐ ☐
Time Zone:
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking & Labeling Check Points:

N/A	Yes	No		Initials
☐	☑	☐	1. Cooler seals intact. (N/A if hand delivered)	
	☑	☐	2. Chain of custody present.	
	☐	☑	3. Bottles broken and/or are leaking, comment if yes.	
	☐	☑	4. Multiphase samples present? If yes, comment below.	
			PHOTOGRAPH BROKEN BOTTLES	
	☐	☐	5. Proper container & preservatives used (ref. Attachment D of SOP# DEN-QA-0003)	NA
☐	☐	☐	6. pH of all samples checked and meet requirements, note exceptions.	
	☐	☐	7. Chain of custody includes "received by" and "relinquished" by signatures, dates, and times.	
	☐	☐	8. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.	
	☐	☐	9. Chain of custody agrees with bottle count, comment if no.	
	☐	☐	10. Chain of custody agrees with labels, comment if no.	
☐	☐	☐	11. VOA samples filled completely, comment if no.	
☐	☐	☐	12. VOA vials preserved, check label. Preservative ☐HCl ☐4±2°C ☐Sodium Thiosulfate	
	☐	☐	13. Did samples require preservation with sodium thiosulfate?	
☐	☐	☐	14. If yes to #12, did the samples contain residual chlorine?	
☐	☐	☐	15. Sediment present in dissolved/filtered bottles.	
	☐	☐	16. Are analyses with short holding times requested?	
	☐	☐	17. Was a quick Turn Around (TAT) requested?	
☐	☐	☐	18. Is extra sample volume provided for MS, MSD or matrix duplicates?	
			DOUBLECHECK METALS,SAMPLE LABELS & SUBCONTRACT	
☐	☐	☐	19. Subcontract COC signed and sent with samples to bottle prep?	
	☐	☐	20. Were sample labels double-checked by a second person?	
☐	☐	☐	21. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?	
☐	☐	☐	22. If applicable, were AFCEE Metals placed in the walkin refrigerator?	
☐	☐	☐	23. Were special instructions in LIMS read and followed?	

Document any problems and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

Southeast ACCUTEST Laboratories

08/27/03

Technical Report for

Shaw E & I, Inc.

PBOW

843656

Accutest Job Number: F18977

Report to:

Total number of pages in report: 68

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Sample Summary

Shaw E & I, Inc.

Job No: F18977

PBOW
Project No: 843656

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F18977-1	08/06/03	08:15	DK	08/08/03	SO	Soil	DB0005

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Accutest Laboratories

Report of Analysis

Client Sample ID:	DB0005		
Lab Sample ID:	F18977-1	Date Sampled:	08/06/03
Matrix:	SO - Soil	Date Received:	08/08/03
Method:	EPA 8310 SW846 3550B	Percent Solids:	91.0
Project:	PBOW		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE017258.D	1	08/14/03	SM	08/13/03	OP8218	GEE726
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.73	0.18	mg/kg	
208-96-8	Acenaphthylene	ND	0.73	0.18	mg/kg	
120-12-7	Anthracene	ND	0.37	0.18	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.37	0.091	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.073	0.018	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.073	0.018	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.073	0.018	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.073	0.018	mg/kg	
218-01-9	Chrysene	ND	0.37	0.091	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.073	0.018	mg/kg	
206-44-0	Fluoranthene	ND	0.37	0.091	mg/kg	
86-73-7	Fluorene	ND	0.37	0.18	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.073	0.018	mg/kg	
91-20-3	Naphthalene	ND	0.37	0.091	mg/kg	
90-12-0	1-Methylnaphthalene	ND	0.37	0.091	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.37	0.091	mg/kg	
85-01-8	Phenanthrene	ND	0.37	0.18	mg/kg	
129-00-0	Pyrene	ND	0.37	0.091	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	98%		38-139%
92-94-4	p-Terphenyl	102%		46-149%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	DB0005		
Lab Sample ID:	F18977-1	Date Sampled:	08/06/03
Matrix:	SO - Soil	Date Received:	08/08/03
Method:	SW846 8330A SW846 8330A	Percent Solids:	91.0
Project:	PBOW		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG007405.D	1	08/20/03	NJ	08/19/03	OP8256	GGG361
Run #2							

	Initial Weight	Final Volume
Run #1	2.09 g	20.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
2691-41-0	HMX	ND	0.48	0.096	mg/kg	
121-82-4	RDX	ND	0.48	0.096	mg/kg	
99-65-0	1,3-Dinitrobenzene	ND	0.48	0.096	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.48	0.12	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.48	0.096	mg/kg	
35572-78-2	2-amino-4,6-Dinitrotoluene	ND	0.48	0.096	mg/kg	
19406-51-0	4-amino-2,6-Dinitrotoluene	ND	0.48	0.096	mg/kg	
98-95-3	Nitrobenzene	ND	0.48	0.096	mg/kg	
88-72-2	o-Nitrotoluene	ND	0.48	0.096	mg/kg	
99-08-1	m-Nitrotoluene	ND	0.48	0.096	mg/kg	
99-99-0	p-Nitrotoluene	ND	0.48	0.096	mg/kg	
479-45-8	Tetryl	ND	0.48	0.096	mg/kg	
99-35-4	1,3,5-Trinitrobenzene	ND	0.48	0.096	mg/kg	
118-96-7	2,4,6-Trinitrotoluene	ND	0.48	0.096	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	100%		63-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	DB0005		
Lab Sample ID:	F18977-1	Date Sampled:	08/06/03
Matrix:	SO - Soil	Date Received:	08/08/03
		Percent Solids:	91.0
Project:	PBOW		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	2780	22	1.5	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Antimony	0.41 U	6.6	0.41	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Arsenic	1.4	0.55	0.19	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Barium	10.1 B	22	0.19	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Beryllium	0.066 U	0.55	0.066	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Cadmium	0.022 U	0.44	0.022	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Calcium	576	550	7.4	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Chromium	2.1	1.1	0.11	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Cobalt	0.93 B	5.5	0.088	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Copper	1.7 B	2.7	0.15	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Iron	3160	11	2.4	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Lead	5.5 B	11	0.18	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Magnesium	411 B	550	4.8	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Manganese	36.5	1.6	0.12	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Mercury	0.045 B	0.085	0.0022	mg/kg	1	08/11/03	08/11/03	LIR	SW846 7471A	SW846 7471A
Nickel	2.8 B	4.4	0.11	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Potassium	130 B	550	15	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Selenium	0.83 B	11	0.22	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Silver	0.12 U	1.1	0.12	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Sodium	29 U	550	29	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Thallium	0.20 U	1.1	0.20	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Vanadium	3.5 B	5.5	0.088	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B
Zinc	16.6	2.2	0.34	mg/kg	1	08/20/03	08/20/03	DM	SW846 6010B	SW846 3050B

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Blank Spike Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8218-BS	EE017260.D	2	08/14/03	SM	08/13/03	OP8218	GEE726

The QC reported here applies to the following samples: Method: EPA 8310

F18977-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	3330	2960	89	42-128
208-96-8	Acenaphthylene	3330	3070	92	42-127
120-12-7	Anthracene	3330	3320	100	55-124
56-55-3	Benzo(a)anthracene	1670	1760	106	59-128
50-32-8	Benzo(a)pyrene	1670	1730	104	51-127
205-99-2	Benzo(b)fluoranthene	1670	1790	107	60-130
191-24-2	Benzo(g,h,i)perylene	1670	1810	109	60-130
207-08-9	Benzo(k)fluoranthene	1670	1810	109	61-132
218-01-9	Chrysene	1670	1800	108	62-130
53-70-3	Dibenzo(a,h)anthracene	1670	1800	108	61-131
206-44-0	Fluoranthene	3330	3460	104	56-130
86-73-7	Fluorene	3330	3250	98	46-128
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1780	107	61-130
91-20-3	Naphthalene	3330	2870	86	34-130
90-12-0	1-Methylnaphthalene	3330	2920	88	37-126
91-57-6	2-Methylnaphthalene	3330	2970	89	37-126
85-01-8	Phenanthrene	3330	3310	99	49-130
129-00-0	Pyrene	3330	3440	103	56-128

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	100%	38-139%
92-94-4	p-Terphenyl	105%	46-149%

Blank Spike Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8256-BS	GG007403.D	1	08/20/03	NJ	08/19/03	OP8256	GGG361

The QC reported here applies to the following samples: Method: SW846 8330A

F18977-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
2691-41-0	HMX	2500	2410	96	73-132
121-82-4	RDX	2500	2650	106	75-131
99-65-0	1,3-Dinitrobenzene	2500	2460	98	77-128
606-20-2	2,6-Dinitrotoluene	2500	2340	94	82-124
121-14-2	2,4-Dinitrotoluene	2500	2650	106	75-135
35572-78-2	2-amino-4,6-Dinitrotoluene	2500	2540	102	86-125
19406-51-0	4-amino-2,6-Dinitrotoluene	2500	2530	101	82-146
98-95-3	Nitrobenzene	2500	2590	104	78-129
88-72-2	o-Nitrotoluene	2500	2670	107	83-126
99-08-1	m-Nitrotoluene	2500	2710	108	82-126
99-99-0	p-Nitrotoluene	2500	2620	105	79-127
479-45-8	Tetryl	2500	2530	101	23-142
99-35-4	1,3,5-Trinitrobenzene	2500	2520	101	76-131
118-96-7	2,4,6-Trinitrotoluene	2500	2340	94	73-127

CAS No.	Surrogate Recoveries	BSP	Limits
610-39-9	3,4-Dinitrotoluene	100%	63-139%

Method Blank Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8218-MB	EE017246.D	1	08/14/03	SM	08/13/03	OP8218	GEE726

The QC reported here applies to the following samples: Method: EPA 8310

F18977-1

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	670	170	ug/kg	
208-96-8	Acenaphthylene	ND	670	170	ug/kg	
120-12-7	Anthracene	ND	330	170	ug/kg	
56-55-3	Benzo(a)anthracene	ND	330	83	ug/kg	
50-32-8	Benzo(a)pyrene	ND	67	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	67	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	67	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	67	17	ug/kg	
218-01-9	Chrysene	ND	330	83	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	67	17	ug/kg	
206-44-0	Fluoranthene	ND	330	83	ug/kg	
86-73-7	Fluorene	ND	330	170	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	67	17	ug/kg	
91-20-3	Naphthalene	ND	330	83	ug/kg	
90-12-0	1-Methylnaphthalene	ND	330	83	ug/kg	
91-57-6	2-Methylnaphthalene	ND	330	83	ug/kg	
85-01-8	Phenanthrene	ND	330	170	ug/kg	
129-00-0	Pyrene	ND	330	83	ug/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	97%	38-139%
92-94-4	p-Terphenyl	107%	46-149%

Method Blank Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8218-MB	EE017264.D	1	08/15/03	SM	08/13/03	OP8218	GEE727

The QC reported here applies to the following samples: Method: EPA 8310

F18977-1

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	670	170	ug/kg	
208-96-8	Acenaphthylene	ND	670	170	ug/kg	
120-12-7	Anthracene	ND	330	170	ug/kg	
56-55-3	Benzo(a)anthracene	ND	330	83	ug/kg	
50-32-8	Benzo(a)pyrene	ND	67	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	67	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	67	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	67	17	ug/kg	
218-01-9	Chrysene	ND	330	83	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	67	17	ug/kg	
206-44-0	Fluoranthene	ND	330	83	ug/kg	
86-73-7	Fluorene	ND	330	170	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	67	17	ug/kg	
91-20-3	Naphthalene	ND	330	83	ug/kg	
90-12-0	1-Methylnaphthalene	ND	330	83	ug/kg	
91-57-6	2-Methylnaphthalene	ND	330	83	ug/kg	
85-01-8	Phenanthrene	ND	330	170	ug/kg	
129-00-0	Pyrene	ND	330	83	ug/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	97%	38-139%
92-94-4	p-Terphenyl	106%	46-149%

Method Blank Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8256-MB	GG007404.D	1	08/20/03	NJ	08/19/03	OP8256	GGG361

The QC reported here applies to the following samples: Method: SW846 8330A

F18977-1

CAS No.	Compound	Result	RL	MDL	Units	Q
2691-41-0	HMX	ND	500	100	ug/kg	
121-82-4	RDX	ND	500	100	ug/kg	
99-65-0	1,3-Dinitrobenzene	ND	500	100	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	500	130	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	500	100	ug/kg	
35572-78-2	2-amino-4,6-Dinitrotoluene	ND	500	100	ug/kg	
19406-51-0	4-amino-2,6-Dinitrotoluene	ND	500	100	ug/kg	
98-95-3	Nitrobenzene	ND	500	100	ug/kg	
88-72-2	o-Nitrotoluene	ND	500	100	ug/kg	
99-08-1	m-Nitrotoluene	ND	500	100	ug/kg	
99-99-0	p-Nitrotoluene	ND	500	100	ug/kg	
479-45-8	Tetryl	ND	500	100	ug/kg	
99-35-4	1,3,5-Trinitrobenzene	ND	500	100	ug/kg	
118-96-7	2,4,6-Trinitrotoluene	ND	500	100	ug/kg	

CAS No.	Surrogate Recoveries		Limits
610-39-9	3,4-Dinitrotoluene	101%	63-139%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8218-MS	EE017250.D	1	08/14/03	SM	08/13/03	OP8218	GEE726
OP8218-MSD	EE017251.D	1	08/14/03	SM	08/13/03	OP8218	GEE726
F18907-3	EE017249.D	1	08/14/03	SM	08/13/03	OP8218	GEE726

The QC reported here applies to the following samples: Method: EPA 8310

F18977-1

CAS No.	Compound	F18907-3 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		3920	3490	89	2980	78	16	21-149/37
208-96-8	Acenaphthylene	ND		3920	3540	90	3170	83	11	34-129/32
120-12-7	Anthracene	ND		3920	3920	100	3610	94	8	49-131/32
56-55-3	Benzo(a)anthracene	ND		1960	1990	102	1830	95	8	64-121/32
50-32-8	Benzo(a)pyrene	ND		1960	2000	102	1830	95	9	53-126/33
205-99-2	Benzo(b)fluoranthene	ND		1960	2020	103	1860	97	8	62-121/31
191-24-2	Benzo(g,h,i)perylene	ND		1960	2060	105	1880	98	9	60-124/35
207-08-9	Benzo(k)fluoranthene	ND		1960	2040	104	1880	98	8	48-139/30
218-01-9	Chrysene	ND		1960	2020	103	1860	97	8	64-126/29
53-70-3	Dibenzo(a,h)anthracene	ND		1960	2030	104	1860	97	9	63-126/25
206-44-0	Fluoranthene	ND		3920	3960	101	3590	93	10	64-120/33
86-73-7	Fluorene	ND		3920	3740	95	3340	87	11	44-127/34
193-39-5	Indeno(1,2,3-cd)pyrene	ND		1960	2030	104	1860	97	9	59-124/32
91-20-3	Naphthalene	ND		3920	3280	84	2890	75	13	21-136/33
90-12-0	1-Methylnaphthalene	ND		3920	3390	87	2990	78	13	17-143/45
91-57-6	2-Methylnaphthalene	ND		3920	3430	88	3040	79	12	21-139/48
85-01-8	Phenanthrene	ND		3920	3790	97	3400	88	11	42-139/38
129-00-0	Pyrene	ND		3920	3900	100	3560	93	9	60-124/32

CAS No.	Surrogate Recoveries	MS	MSD	F18907-3	Limits
84-15-1	o-Terphenyl	98%	90%	90%	38-139%
92-94-4	p-Terphenyl	103%	95%	100%	46-149%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8256-MS	GG007406.D	1	08/20/03	NJ	08/19/03	OP8256	GGG361
OP8256-MSD	GG007407.D	1	08/20/03	NJ	08/19/03	OP8256	GGG361
F18977-1	GG007405.D	1	08/20/03	NJ	08/19/03	OP8256	GGG361

The QC reported here applies to the following samples: Method: SW846 8330A

F18977-1

CAS No.	Compound	F18977-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
2691-41-0	HMX	ND		2430	2360	97	2550	104	8	70-135/23
121-82-4	RDX	ND		2430	2400	99	2590	105	8	63-139/27
99-65-0	1,3-Dinitrobenzene	ND		2430	2440	101	2590	105	6	75-130/15
606-20-2	2,6-Dinitrotoluene	ND		2430	2310	95	2410	98	4	71-140/13
121-14-2	2,4-Dinitrotoluene	ND		2430	2670	110	2830	115	6	62-151/21
35572-78-2	2-amino-4,6-Dinitrotoluene	ND		2430	2490	103	2650	108	6	69-139/24
19406-51-0	4-amino-2,6-Dinitrotoluene	ND		2430	2530	104	2670	108	5	63-138/28
98-95-3	Nitrobenzene	ND		2430	2560	105	2730	111	6	76-134/17
88-72-2	o-Nitrotoluene	ND		2430	2620	108	2750	112	5	70-144/22
99-08-1	m-Nitrotoluene	ND		2430	2610	108	2790	113	7	80-131/21
99-99-0	p-Nitrotoluene	ND		2430	2540	105	2660	108	5	76-135/19
479-45-8	Tetryl	ND		2430	2270	94	2360	96	4	40-147/33
99-35-4	1,3,5-Trinitrobenzene	ND		2430	2380	98	2510	102	5	67-135/15
118-96-7	2,4,6-Trinitrotoluene	ND		2430	2320	96	2480	101	7	59-143/29

CAS No.	Surrogate Recoveries	MS	MSD	F18977-1	Limits
610-39-9	3,4-Dinitrotoluene	104%	107%	100%	63-139%

Semivolatile Surrogate Recovery Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Method: EPA 8310 Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S2 [a]
F18977-1	EE017258.D	98.0	102.0
OP8218-BS	EE017260.D	100.0	105.0
OP8218-MB	EE017246.D	97.0	107.0
OP8218-MB	EE017264.D	97.0	106.0
OP8218-MS	EE017250.D	98.0	103.0
OP8218-MSD	EE017251.D	90.0	95.0

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	38-139%
S2 = p-Terphenyl	46-149%

(a) Recovery from GC signal #1

Semivolatile Surrogate Recovery Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Method: SW846 8330A Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]
F18977-1	GG007405.D	100.0
OP8256-BS	GG007403.D	100.0
OP8256-MB	GG007404.D	101.0
OP8256-MS	GG007406.D	104.0
OP8256-MSD	GG007407.D	107.0

Surrogate Compounds	Recovery Limits
S1 = 3,4-Dinitrotoluene	63-139%

(a) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Check Std:	GEE726-CC699	Injection Date:	08/14/03
Lab File ID:	EE017252.D	Injection Time:	19:01
Instrument ID:	GCEE	Method:	EPA 8310

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	7.69	7.69	10.13	10.13

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
ZZZZZZ	EE017254.D	08/14/03	19:43	7.65		10.10	
ZZZZZZ	EE017255.D	08/14/03	20:04	7.65		10.10	
ZZZZZZ	EE017256.D	08/14/03	20:25	7.64		10.10	
ZZZZZZ	EE017257.D	08/14/03	20:47	7.65		10.10	
F18977-1	EE017258.D	08/14/03	21:08	7.64		10.10	
OP8218-BS	EE017260.D	08/14/03	21:50	7.66		10.12	
GEE726-ECC699	EE017261.D	08/14/03	22:11	7.68	7.68	10.12	10.12

Surrogate
Compounds

S1 = o-Terphenyl
S2 = p-Terphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Check Std:	GGG361-CC357	Injection Date:	08/20/03
Lab File ID:	GG007399.D	Injection Time:	04:05
Instrument ID:	GCGG	Method:	SW846 8330A

	S1 [a] RT	S1 [b] RT
Check Std	17.08	17.09

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
F19008-17	GG007400.D	08/20/03	04:34	17.02	
OP8247-MS	GG007401.D	08/20/03	05:03	17.03	
OP8247-MSD	GG007402.D	08/20/03	05:33	17.04	
OP8256-BS	GG007403.D	08/20/03	06:02	17.06	
OP8256-MB	GG007404.D	08/20/03	06:31	17.05	
F18977-1	GG007405.D	08/20/03	07:00	17.06	
OP8256-MS	GG007406.D	08/20/03	07:29	17.07	
OP8256-MSD	GG007407.D	08/20/03	07:58	17.05	
GGG361-ECC357	GG007408.D	08/20/03	08:27	17.07	17.07

Surrogate Compounds

S1 = 3,4-Dinitrotoluene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Check Std:	GEE726-CC699	Injection Date:	08/14/03
Lab File ID:	EE017242.D	Injection Time:	15:29
Instrument ID:	GCEE	Method:	EPA 8310

	S1 [a] RT	S2 [a] RT
Check Std	7.66	10.06

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT
OP8205-MB	EE017243.D	08/14/03	15:50	7.67	10.07
ZZZZZZ	EE017244.D	08/14/03	16:11	7.67	10.08
OP8218-MB	EE017246.D	08/14/03	16:54	7.63	10.05
ZZZZZZ	EE017247.D	08/14/03	17:15	7.66	10.08
ZZZZZZ	EE017248.D	08/14/03	17:36	7.65	10.09
F18907-3	EE017249.D	08/14/03	17:57	7.65	10.09
OP8218-MS	EE017250.D	08/14/03	18:18	7.68	10.12
OP8218-MSD	EE017251.D	08/14/03	18:40	7.66	10.12

Surrogate Compounds

S1 = o-Terphenyl
S2 = p-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Check Std:	GEE727-CC699	Injection Date:	08/15/03
Lab File ID:	EE017263.D	Injection Time:	08:54
Instrument ID:	GCEE	Method:	EPA 8310

	S1 [a] RT	S2 [a] RT
Check Std	7.67	10.12

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT
OP8218-MB	EE017264.D	08/15/03	09:15	7.64	10.09
ZZZZZZ	EE017265.D	08/15/03	09:36	7.67	10.11
ZZZZZZ	EE017266.D	08/15/03	09:57	7.67	10.11
ZZZZZZ	EE017270.D	08/15/03	11:23	7.65	10.09
ZZZZZZ	EE017271.D	08/15/03	11:44	7.68	10.12
ZZZZZZ	EE017272.D	08/15/03	12:05	7.67	10.13
ZZZZZZ	EE017273.D	08/15/03	12:26	7.68	10.11

Surrogate Compounds

S1 = o-Terphenyl
S2 = p-Terphenyl

(a) Retention time from GC signal #1

Initial Calibration Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample: GEE699-ICC699
Lab FileID: EE016614.D

Response Factor Report G1315A

Method : C:\HPCHEM\2\METHODS\8310_32.M (Chemstation Integrator)
Title : PAH's BY EPA 8310
Last Update : Mon Jul 14 14:26:39 2003
Response via : Initial Calibration

Calibration Files
L1 =EE016611.D L2 =EE016612.D L3 =EE016613.D
L4 =EE016614.D L5 =EE016615.D L6 =EE016616.D

		Compound	L1	L2	L3	L4	L5	L6	Avg		%RSD
1)		Naphthalene	6.821	6.763	6.861	6.759	6.489	6.582	6.713	E5	2.16
2)		Acenaphthylene	2.656	2.654	2.744	2.685	2.591	2.631	2.660	E5	1.93
3)		1-Methyl Naphthalen	5.653	5.661	5.772	5.690	5.473	5.550	5.633	E5	1.89
4)		2-Methyl Naphthalen	5.556	5.628	5.745	5.658	5.448	5.519	5.592	E5	1.90
5)		Acenaphthene	4.348	4.359	4.456	4.377	4.193	4.248	4.330	E5	2.18
6)		Fluorene	1.567	1.563	1.603	1.582	1.517	1.538	1.562	E6	1.97
7)		Phenanthrene	1.392	1.371	1.405	1.382	1.325	1.343	1.370	E6	2.23
8)	S	O-Terphenyl	5.110	5.101	5.219	5.147	4.949	5.028	5.092	E5	1.85
9)		Anthracene	1.736	1.719	1.598	1.484	1.422	1.409	1.561	E5	9.31
10)		Fluoranthene	1.142	1.153	1.162	1.151	1.108	1.122	1.140	E6	1.82
11)		Pyrene	1.814	1.818	1.817	1.776	1.690	1.694	1.768	E6	3.45
12)	S	P-Terphenyl	2.056	2.003	2.015	1.999	1.917	1.944	1.989	E6	2.54
13)		Benzo(a)Anthracene	3.121	3.014	3.022	2.996	2.866	2.905	2.987	E6	3.04
14)		Chrysene	3.793	3.761	3.756	3.698	3.516	3.532	3.676	E6	3.31
15)		Benzo(b)Fluoranthen	1.373	1.370	1.381	1.369	1.313	1.335	1.357	E6	1.97
16)		Benzo(k)Fluoranthen	7.673	7.890	8.055	7.970	7.658	7.779	7.838	E5	2.06
17)		Benzo(a) Pyrene	1.461	1.484	1.492	1.482	1.423	1.452	1.466	E6	1.76
18)		Dibenzo(a,h)anthrac	1.068	1.071	1.086	1.076	1.035	1.054	1.065	E6	1.70
19)		Benzo(g,h,i) Peryle	7.067	7.478	7.594	7.547	7.246	7.363	7.383	E5	2.70
20)		Indeno(1,2,3-cd)pyr	5.831	5.686	5.785	5.738	5.515	5.611	5.694	E5	2.05
Signal #2											
1)		Naphthalene	3.938	4.040	4.079	4.026	3.857	3.922	3.977	E5	2.13
2)		Acenaphthylene	2.759	2.734	2.756	2.712	2.594	2.647	2.700	E5	2.45
3)		1-Methyl Naphthalen	2.519	2.494	2.530	2.489	2.383	2.430	2.474	E5	2.29
4)		2-Methyl Naphthalen	3.354	3.437	3.508	3.447	3.306	3.362	3.402	E5	2.19
5)		Acenaphthene	1.657	1.590	1.611	1.563	1.481	1.507	1.568	E5	4.19
6)		Fluorene	1.765	1.753	1.789	1.770	1.694	1.720	1.749	E6	2.01
7)		Phenanthrene	4.713	4.677	4.707	4.619	4.387	4.406	4.585	E6	3.27
8)	S	O-Terphenyl	8.211	8.417	8.545	8.461	8.087	8.242	8.327	E5	2.09
9)		Anthracene	1.019	0.999	0.944	0.838	0.713	0.636	0.858	E7	18.34
		----- Quadratic regression ----- Coefficient = 0.9994									
		Response Ratio = 699303.91852 + 10161464.27280 *A + -96685.79837 *A^2									
10)		Fluoranthene	1.106	1.180	1.166	1.159	1.110	1.132	1.142	E6	2.71
11)		Pyrene	1.010	1.044	1.055	1.043	0.996	1.022	1.028	E6	2.21
12)	S	P-Terphenyl	1.005	0.985	0.995	0.985	0.945	0.959	0.979	E6	2.30
13)		Benzo(a)Anthracene	2.280	2.215	2.234	2.210	2.118	2.151	2.201	E6	2.65
14)		Chrysene	3.116	3.081	3.099	3.062	2.932	2.969	3.043	E6	2.45
15)		Benzo(b)Fluoranthen	1.229	1.235	1.239	1.226	1.173	1.188	1.215	E6	2.26
16)		Benzo(k)Fluoranthen	1.838	1.794	1.813	1.795	1.723	1.748	1.785	E6	2.39
17)		Benzo(a) Pyrene	1.201	1.212	1.216	1.203	1.152	1.166	1.192	E6	2.20
18)		Dibenzo(a,h)anthrac	2.845	2.800	2.817	2.770	2.639	2.661	2.755	E6	3.10
19)		Benzo(g,h,i) Peryle	1.188	1.208	1.225	1.216	1.166	1.183	1.198	E6	1.86
20)		Indeno(1,2,3-cd)pyr	7.674	7.880	7.978	7.922	7.612	7.734	7.800	E5	1.89

(#) = Out of Range

Initial Calibration Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample: GEE699-ICC699
Lab FileID: EE016614.D

8310_32.M Tue Jul 15 13:03:49 2003

Continuing Calibration Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample: GEE726-CC699
Lab FileID: EE017252.D

Evaluate Continuing Calibration Report

Signal #1 : E:\HPCHEM\1\DATA\0814PAH\EE017252.D\DAD1B.CH Vial: 3
Signal #2 : E:\HPCHEM\1\DATA\0814PAH\EE017252.D\DAD1A.CH
Acq On : 14-Aug-2003, 19:01:15 Operator: SARAHM
Sample : CC699-20 Inst : G1315A
Misc : op8218,gee726,30.0,,,5,,soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\2\METHODS\8310_32.M (Chemstation Integrator)
Title : PAH's BY EPA 8310
Last Update : Tue Aug 05 08:03:12 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Naphthalene	20.000	21.009	-5.0	104	0.00
2		Acenaphthylene	20.000	20.740	-3.7	103	-0.02
3		1-Methyl Naphthalene	20.000	20.901	-4.5	103	-0.01
4		2-Methyl Naphthalene	20.000	21.137	-5.7	104	-0.02
5		Acenaphthene	20.000	20.619	-3.1	102	-0.01
6		Fluorene	20.000	21.140	-5.7	104	-0.01
7		Phenanthrene	20.000	21.022	-5.1	104	-0.01
8	S	O-Terphenyl	20.000	20.576	-2.9	102	0.01
9		Anthracene	20.000	21.297	-6.5	112	-0.02
10		Fluoranthene	20.000	21.325	-6.6	106	-0.02
11		Pyrene	20.000	20.916	-4.6	104	0.00
12	S	P-Terphenyl	20.000	21.059	-5.3	105	0.00
13		Benzo(a)Anthracene	10.000	10.583	-5.8	106	0.00
14		Chrysene	10.000	10.675	-6.8	106	0.00
15		Benzo(b)Fluoranthene	10.000	10.688	-6.9	106	0.00
16		Benzo(k)Fluoranthene	10.000	10.800	-8.0	106	0.00
17		Benzo(a) Pyrene	10.000	10.793	-7.9	107	0.00
18		Dibenzo(a,h)anthracene	10.000	10.730	-7.3	106	0.00
19		Benzo(g,h,i) Perylene	10.000	10.819	-8.2	106	0.00
20		Indeno(1,2,3-cd)pyrene	10.000	10.676	-6.8	106	0.01

Signal #2

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Naphthalene	20.000	21.243	-6.2	105	0.00
2		Acenaphthylene	20.000	20.792	-4.0	104	-0.02
3		1-Methyl Naphthalene	20.000	20.835	-4.2	104	-0.01
4		2-Methyl Naphthalene	20.000	21.188	-5.9	105	-0.02
5		Acenaphthene	20.000	20.194	-1.0	101	-0.01
6		Fluorene	20.000	21.026	-5.1	104	-0.01
7		Phenanthrene	20.000	20.945	-4.7	104	-0.01
8	S	O-Terphenyl	20.000	19.936	0.3	98	0.01
9		Anthracene	20.000	21.646	-8.2	105	-0.02
10		Fluoranthene	20.000	22.240	-11.2	110	-0.02
11		Pyrene	20.000	21.104	-5.5	104	0.00
12	S	P-Terphenyl	20.000	21.025	-5.1	104	0.00
13		Benzo(a)Anthracene	10.000	10.580	-5.8	105	0.00
14		Chrysene	10.000	10.644	-6.4	106	0.00
15		Benzo(b)Fluoranthene	10.000	10.663	-6.6	106	0.00

Continuing Calibration Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample: GEE726-CC699
Lab FileID: EE017252.D

16	Benzo(k)Fluoranthene	10.000	10.685	-6.9	106	0.00
17	Benzo(a) Pyrene	10.000	10.804	-8.0	107	0.00
18	Dibenzo(a,h)anthracene	10.000	10.665	-6.6	106	0.00
19	Benzo(g,h,i) Perylene	10.000	10.767	-7.7	106	0.00
20	Indeno(1,2,3-cd)pyrene	10.000	10.772	-7.7	106	0.01

Average % D = 5.8

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EE016614.D 8310_32.M Fri Aug 15 13:30:00 2003

Continuing Calibration Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample: GEE726-ECC699
Lab FileID: EE017261.D

Evaluate Continuing Calibration Report

Signal #1 : E:\HPCHEM\1\DATA\0814PAH\EE017261.D\DAD1B.CH Vial: 3
Signal #2 : E:\HPCHEM\1\DATA\0814PAH\EE017261.D\DAD1A.CH
Acq On : 14-Aug-2003, 22:11:46 Operator: SARAHM
Sample : ECC699-20 Inst : G1315A
Misc : op8218,gee726,30.0,,,5,,soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\2\METHODS\8310_32.M (Chemstation Integrator)
Title : PAH's BY EPA 8310
Last Update : Tue Aug 05 08:03:12 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Naphthalene	20.000	21.135	-5.7	105	-0.02
2		Acenaphthylene	20.000	20.807	-4.0	103	-0.02
3		1-Methyl Naphthalene	20.000	21.022	-5.1	104	-0.02
4		2-Methyl Naphthalene	20.000	21.294	-6.5	105	-0.02
5		Acenaphthene	20.000	20.741	-3.7	103	-0.02
6		Fluorene	20.000	21.253	-6.3	105	-0.02
7		Phenanthrene	20.000	21.140	-5.7	105	-0.02
8	S	O-Terphenyl	20.000	20.688	-3.4	102	0.00
9		Anthracene	20.000	21.472	-7.4	113	-0.03
10		Fluoranthene	20.000	21.453	-7.3	106	-0.03
11		Pyrene	20.000	21.025	-5.1	105	-0.02
12	S	P-Terphenyl	20.000	21.215	-6.1	106	-0.02
13		Benzo(a)Anthracene	10.000	10.677	-6.8	106	-0.02
14		Chrysene	10.000	10.760	-7.6	107	-0.02
15		Benzo(b)Fluoranthene	10.000	10.800	-8.0	107	-0.01
16		Benzo(k)Fluoranthene	10.000	10.901	-9.0	107	-0.01
17		Benzo(a) Pyrene	10.000	10.883	-8.8	108	0.00
18		Dibenzo(a,h)anthracene	10.000	10.749	-7.5	106	0.00
19		Benzo(g,h,i) Perylene	10.000	10.907	-9.1	107	0.00
20		Indeno(1,2,3-cd)pyrene	10.000	10.788	-7.9	107	0.00

Signal #2

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Naphthalene	20.000	21.374	-6.9	106	-0.02
2		Acenaphthylene	20.000	20.868	-4.3	104	-0.02
3		1-Methyl Naphthalene	20.000	20.928	-4.6	104	-0.02
4		2-Methyl Naphthalene	20.000	21.326	-6.6	105	-0.02
5		Acenaphthene	20.000	20.252	-1.3	102	-0.02
6		Fluorene	20.000	21.152	-5.8	104	-0.02
7		Phenanthrene	20.000	21.056	-5.3	105	-0.02
8	S	O-Terphenyl	20.000	20.023	-0.1	99	0.00
9		Anthracene	20.000	21.717	-8.6	105	-0.03
10		Fluoranthene	20.000	22.385	-11.9	110	-0.03
11		Pyrene	20.000	21.228	-6.1	105	-0.02
12	S	P-Terphenyl	20.000	21.172	-5.9	105	-0.02
13		Benzo(a)Anthracene	10.000	10.661	-6.6	106	-0.02
14		Chrysene	10.000	10.720	-7.2	107	-0.02
15		Benzo(b)Fluoranthene	10.000	10.748	-7.5	106	-0.01

Continuing Calibration Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample: GEE726-ECC699
Lab FileID: EE017261.D

16	Benzo(k)Fluoranthene	10.000	10.765	-7.7	107	-0.01
17	Benzo(a) Pyrene	10.000	10.884	-8.8	108	0.00
18	Dibenzo(a,h)anthracene	10.000	10.748	-7.5	107	0.00
19	Benzo(g,h,i) Perylene	10.000	10.842	-8.4	107	0.00
20	Indeno(1,2,3-cd)pyrene	10.000	10.873	-8.7	107	0.00

Average % D = 6.5

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EE016614.D 8310_32.M Fri Aug 15 13:30:01 2003

Initial Calibration Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample: GGG357-ICC357
Lab FileID: GG007264.D

Response Factor Report G1315B

Method : C:\HPCHEM\3\METHODS\8330_RP.M (Chemstation Integrator)
Title : Explosives by 8330
Last Update : Fri Aug 08 13:20:58 2003
Response via : Initial Calibration

Calibration Files
20 =GG007261.D 100 =GG007262.D 250 =GG007263.D
500 =GG007264.D 750 =GG007265.D 1000 =GG007266.D 2000 =GG007267.D

	Compound	20	100	250	500	750	1000	2000	Avg		%RSD
1)	HMX	2.580	2.424	2.687	2.566	2.487	2.491	2.510	2.535	E3	3.35
2)	1,3,5-Trinitroben	6.867	6.519	7.357	6.941	6.733	6.582	6.786	6.826	E3	4.06
3)	RDX	3.103	3.016	3.398	3.193	3.087	3.022	3.113	3.133	E3	4.18
4)	1,3-Dinitrobenzen	9.139	8.855	9.951	9.407	9.173	8.898	9.188	9.230	E3	3.99
5)	Nitrobenzene	5.546	5.267	5.852	5.633	5.489	5.199	5.429	5.488	E3	4.02
6)	2,4,6-Trinitrotol	6.523	6.182	6.930	6.589	6.363	6.226	6.422	6.462	E3	3.91
7)	Tetryl	4.995	4.711	5.331	5.063	4.926	4.840	5.006	4.982	E3	3.89
8)	2,6-Dinitrotoluen	3.709	3.637	3.893	3.647	3.577	3.580	3.585	3.661	E3	3.08
9)	2,4-Dinitrotoluen	8.784	8.647	9.935	9.418	9.151	8.777	9.180	9.127	E3	4.92
10)S	3,4-Dinitrotoluen	3.914	3.622	4.040	3.821	3.730	3.626	3.739	3.785	E3	4.03
11)	o-Nitrotoluene	3.614	3.379	3.714	3.575	3.493	3.270	3.479	3.503	E3	4.24
12)	p-Nitrotoluene	2.929	2.581	2.961	2.873	2.827	2.639	2.808	2.802	E3	5.10
13)	4-Amino-2,6-Dinit	4.355	3.996	4.589	4.366	4.251	4.130	4.273	4.280	E3	4.40
14)	m-Nitrotoluene	3.825	3.475	3.914	3.814	3.731	3.487	3.683	3.704	E3	4.56
15)	2-Amino-4,6-Dinit	5.709	5.479	6.186	5.879	5.661	5.560	5.742	5.745	E3	4.06

Signal #2

1)	HMX	7.374	7.036	7.911	7.518	7.300	7.142	7.358	7.377	E3	3.84
2)	1,3,5-Trinitroben	1.350	1.294	1.460	1.378	1.341	1.310	1.350	1.355	E4	4.00
3)	RDX	5.081	4.931	5.518	5.211	5.066	4.962	5.126	5.128	E3	3.83
4)	1,3-Dinitrobenzen	1.090	1.026	1.153	1.092	1.063	1.032	1.065	1.074	E4	3.99
5)	Nitrobenzene	2.495	2.441	2.702	2.602	2.536	2.409	2.512	2.528	E3	3.92
6)	2,4,6-Trinitrotol	9.526	8.895	9.968	9.432	9.129	8.933	9.206	9.299	E3	4.05
7)	Tetryl	8.516	8.390	9.578	9.088	8.862	8.706	9.006	8.878	E3	4.48
8)	2,6-Dinitrotoluen	5.085	5.091	5.745	5.405	5.266	5.114	5.290	5.285	E3	4.46
9)	2,4-Dinitrotoluen	7.682	7.420	8.372	7.901	7.699	7.480	7.724	7.754	E3	4.07
10)S	3,4-Dinitrotoluen	5.128	4.812	5.436	5.105	4.977	4.846	5.015	5.046	E3	4.14
11)	o-Nitrotoluene	2.267	2.073	2.287	2.226	2.212	2.129	2.251	2.207	E3	3.52
12)	p-Nitrotoluene	1.376	1.283	1.371	1.370	1.343	1.272	1.356	1.339	E3	3.25
13)	4-Amino-2,6-Dinit	1.181	1.092	1.248	1.186	1.151	1.128	1.164	1.165	E4	4.21
14)	m-Nitrotoluene	2.009	1.848	2.014	1.995	1.949	1.844	1.943	1.943	E3	3.68
15)	2-Amino-4,6-Dinit	0.967	0.913	1.028	0.979	0.942	0.927	0.956	0.959	E4	3.95

(#) = Out of Range

8330_RP.M Thu Aug 14 10:11:44 2003

Continuing Calibration Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample: GGG361-CC357
Lab FileID: GG007399.D

Evaluate Continuing Calibration Report

Signal #1 : G:\HPCHEM\1\DATA\0819EXP\GG007399.D\DAD1B.CH Vial: 2
Signal #2 : G:\HPCHEM\1\DATA\0819EXP\GG007399.D\DAD1A.CH
Acq On : 20-Aug-2003, 04:05:45 Operator: nareshj
Sample : CC357-500 Inst : G1315B
Misc : op8247,ggg361,2.00,,,20,,soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\3\METHODS\8330_RP.M (Chemstation Integrator)
Title : Explosives by 8330
Last Update : Tue Aug 19 12:20:38 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	HMX	500.000	506.936	-1.4	100	0.00
2	1,3,5-Trinitrobenzene	500.000	510.616	-2.1	100	0.00
3	RDX	500.000	508.833	-1.8	100	0.01
4	1,3-Dinitrobenzene	500.000	515.113	-3.0	101	0.01
5	Nitrobenzene	500.000	524.780	-5.0	102	0.02
6	2,4,6-Trinitrotoluene	500.000	510.248	-2.0	100	0.01
7	Tetryl	500.000	510.048	-2.0	100	0.02
8	2,6-Dinitrotoluene	500.000	482.853	3.4	97	0.02
9	2,4-Dinitrotoluene	500.000	528.206	-5.6	102	0.02
10 S	3,4-Dinitrotoluene	500.000	514.658	-2.9	102	0.02
11	o-Nitrotoluene	500.000	524.611	-4.9	103	0.02
12	p-Nitrotoluene	500.000	521.521	-4.3	102	0.02
13	4-Amino-2,6-Dinitrotoluene	500.000	517.075	-3.4	101	0.04
14	m-Nitrotoluene	500.000	532.352	-6.5	103	0.02
15	2-Amino-4,6-Dinitrotoluene	500.000	514.147	-2.8	100	0.04

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	HMX	500.000	509.876	-2.0	100	0.00
2	1,3,5-Trinitrobenzene	500.000	510.760	-2.2	100	0.00
3	RDX	500.000	508.636	-1.7	100	0.01
4	1,3-Dinitrobenzene	500.000	514.514	-2.9	101	0.01
5	Nitrobenzene	500.000	527.295	-5.5	102	0.02
6	2,4,6-Trinitrotoluene	500.000	508.881	-1.8	100	0.01
7	Tetryl	500.000	514.740	-2.9	101	0.01
8	2,6-Dinitrotoluene	500.000	501.193	-0.2	98	0.02
9	2,4-Dinitrotoluene	500.000	525.190	-5.0	103	0.02
10 S	3,4-Dinitrotoluene	500.000	517.168	-3.4	102	0.02
11	o-Nitrotoluene	500.000	513.265	-2.7	102	0.02
12	p-Nitrotoluene	500.000	515.177	-3.0	101	0.02
13	4-Amino-2,6-Dinitrotoluen	500.000	510.641	-2.1	100	0.04
14	m-Nitrotoluene	500.000	526.656	-5.3	103	0.02
15	2-Amino-4,6-Dinitrotoluen	500.000	511.565	-2.3	100	0.04

Average % D = 3.1

Continuing Calibration Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample: GGG361-CC357
Lab FileID: GG007399.D

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GG007264.D 8330_RP.M Wed Aug 20 12:55:16 2003

Continuing Calibration Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample: GGG361-ECC357
Lab FileID: GG007408.D

Evaluate Continuing Calibration Report

Signal #1 : G:\HPCHEM\1\DATA\0819EXP\GG007408.D\DAD1B.CH Vial: 3
Signal #2 : G:\HPCHEM\1\DATA\0819EXP\GG007408.D\DAD1A.CH
Acq On : 20-Aug-2003, 08:27:47 Operator: nareshj
Sample : ECC357-750 Inst : G1315B
Misc : op8256,ggg361,2.00,,,20,,soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\3\METHODS\8330_RP.M (Chemstation Integrator)
Title : Explosives by 8330
Last Update : Tue Aug 19 12:20:38 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	HMX	750.000	740.415	1.3	101	0.00
2	1,3,5-Trinitrobenzene	750.000	744.364	0.8	101	0.00
3	RDX	750.000	741.695	1.1	100	0.00
4	1,3-Dinitrobenzene	750.000	749.233	0.1	101	0.00
5	Nitrobenzene	750.000	762.344	-1.6	102	0.01
6	2,4,6-Trinitrotoluene	750.000	744.655	0.7	101	0.00
7	Tetryl	750.000	739.032	1.5	100	0.00
8	2,6-Dinitrotoluene	750.000	703.041	6.3	96	0.00
9	2,4-Dinitrotoluene	750.000	767.522	-2.3	102	0.00
10 S	3,4-Dinitrotoluene	750.000	748.408	0.2	101	0.00
11	o-Nitrotoluene	750.000	758.892	-1.2	101	0.00
12	p-Nitrotoluene	750.000	752.173	-0.3	99	0.00
13	4-Amino-2,6-Dinitrotoluene	750.000	752.753	-0.4	101	0.02
14	m-Nitrotoluene	750.000	765.743	-2.1	101	0.00
15	2-Amino-4,6-Dinitrotoluene	750.000	746.342	0.5	101	0.02

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	HMX	750.000	745.497	0.6	100	0.00
2	1,3,5-Trinitrobenzene	750.000	744.245	0.8	100	0.00
3	RDX	750.000	740.135	1.3	100	0.00
4	1,3-Dinitrobenzene	750.000	745.989	0.5	101	0.00
5	Nitrobenzene	750.000	762.429	-1.7	101	0.01
6	2,4,6-Trinitrotoluene	750.000	742.526	1.0	101	0.00
7	Tetryl	750.000	744.953	0.7	100	0.00
8	2,6-Dinitrotoluene	750.000	727.747	3.0	97	0.00
9	2,4-Dinitrotoluene	750.000	762.462	-1.7	102	0.00
10 S	3,4-Dinitrotoluene	750.000	748.204	0.2	101	0.00
11	o-Nitrotoluene	750.000	770.309	-2.7	102	0.00
12	p-Nitrotoluene	750.000	745.893	0.5	99	0.01
13	4-Amino-2,6-Dinitrotoluen	750.000	749.897	0.0	101	0.02
14	m-Nitrotoluene	750.000	767.778	-2.4	102	0.01
15	2-Amino-4,6-Dinitrotoluen	750.000	746.981	0.4	101	0.02

Average % D = 1.3

Continuing Calibration Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample: GGG361-ECC357
Lab FileID: GG007408.D

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GG007265.D 8330_RP.M Wed Aug 20 12:54:27 2003

Continuing Calibration Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample: GEE726-CC699
Lab FileID: EE017242.D

Evaluate Continuing Calibration Report

Signal #1 : E:\HPCHEM\1\DATA\0814PAH\EE017242.D\DAD1B.CH Vial: 2
Signal #2 : E:\HPCHEM\1\DATA\0814PAH\EE017242.D\DAD1A.CH
Acq On : 14-Aug-2003, 15:29:40 Operator: SARAHM
Sample : CC699-10 Inst : G1315A
Misc : op8218,gee726,1000,,,1,,water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\2\METHODS\8310_32.M (Chemstation Integrator)
Title : PAH's BY EPA 8310
Last Update : Tue Aug 05 08:03:12 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Naphthalene	10.000	10.780	-7.8	105	-0.04
2		Acenaphthylene	10.000	10.622	-6.2	103	-0.05
3		1-Methyl Naphthalene	10.000	10.716	-7.2	105	-0.04
4		2-Methyl Naphthalene	10.000	10.906	-9.1	106	-0.04
5		Acenaphthene	10.000	10.518	-5.2	102	-0.03
6		Fluorene	10.000	10.908	-9.1	106	-0.04
7		Phenanthrene	10.000	10.869	-8.7	106	-0.05
8	S	O-Terphenyl	10.000	10.566	-5.7	103	-0.02
9		Anthracene	10.000	11.755	-17.6#	115	-0.07
10		Fluoranthene	10.000	11.050	-10.5	108	-0.07
11		Pyrene	10.000	10.965	-9.6	107	-0.06
12	S	P-Terphenyl	10.000	10.979	-9.8	108	-0.08
13		Benzo(a)Anthracene	5.000	5.558	-11.2	110	-0.07
14		Chrysene	5.000	5.628	-12.6	110	-0.07
15		Benzo(b)Fluoranthene	5.000	5.578	-11.6	110	-0.06
16		Benzo(k)Fluoranthene	5.000	5.649	-13.0	110	-0.06
17		Benzo(a) Pyrene	5.000	5.656	-13.1	111	-0.06
18		Dibenzo(a,h)anthracene	5.000	5.614	-12.3	110	-0.08
19		Benzo(g,h,i) Perylene	5.000	5.680	-13.6	110	-0.07
20		Indeno(1,2,3-cd)pyrene	5.000	5.613	-12.3	110	-0.09

Signal #2

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Naphthalene	10.000	10.885	-8.8	106	-0.04
2		Acenaphthylene	10.000	10.724	-7.2	105	-0.05
3		1-Methyl Naphthalene	10.000	10.664	-6.6	104	-0.04
4		2-Methyl Naphthalene	10.000	10.868	-8.7	105	-0.04
5		Acenaphthene	10.000	10.111	-1.1	98	-0.03
6		Fluorene	10.000	10.835	-8.4	106	-0.04
7		Phenanthrene	10.000	10.877	-8.8	106	-0.05
8	S	O-Terphenyl	10.000	9.959	0.4	97	-0.02
9		Anthracene	10.000	11.044	-10.4	107	-0.06
10		Fluoranthene	10.000	11.383	-13.8	112	-0.07
11		Pyrene	10.000	10.938	-9.4	107	-0.06
12	S	P-Terphenyl	10.000	11.001	-10.0	108	-0.08
13		Benzo(a)Anthracene	5.000	5.569	-11.4	110	-0.07
14		Chrysene	5.000	5.603	-12.1	110	-0.07
15		Benzo(b)Fluoranthene	5.000	5.595	-11.9	110	-0.06

Continuing Calibration Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample: GEE726-CC699
Lab FileID: EE017242.D

16	Benzo(k)Fluoranthene	5.000	5.589	-11.8	110	-0.06
17	Benzo(a) Pyrene	5.000	5.675	-13.5	111	-0.06
18	Dibenzo(a,h)anthracene	5.000	5.628	-12.6	110	-0.08
19	Benzo(g,h,i) Perylene	5.000	5.665	-13.3	111	-0.07
20	Indeno(1,2,3-cd)pyrene	5.000	5.651	-13.0	110	-0.09

Average % D = 10.0

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EE016613.D 8310_32.M Fri Aug 15 13:30:36 2003

Continuing Calibration Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample: GEE727-CC699
Lab FileID: EE017263.D

Evaluate Continuing Calibration Report

Signal #1 : E:\HPCHEM\1\DATA\0815PAH\EE017263.D\DAD1B.CH Vial: 2
Signal #2 : E:\HPCHEM\1\DATA\0815PAH\EE017263.D\DAD1A.CH
Acq On : 15-Aug-2003, 08:54:24 Operator: SARAHM
Sample : CC699-10 Inst : G1315A
Misc : op8218,gee727,30.0,,,5,,soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\2\METHODS\8310_32.M (Chemstation Integrator)
Title : PAH's BY EPA 8310
Last Update : Tue Aug 05 08:03:12 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Naphthalene	10.000	10.892	-8.9	107	-0.02
2		Acenaphthylene	10.000	10.773	-7.7	104	-0.03
3		1-Methyl Naphthalene	10.000	10.796	-8.0	105	-0.02
4		2-Methyl Naphthalene	10.000	10.842	-8.4	106	-0.02
5		Acenaphthene	10.000	10.607	-6.1	103	-0.02
6		Fluorene	10.000	10.828	-8.3	105	-0.02
7		Phenanthrene	10.000	10.799	-8.0	105	-0.02
8	S	O-Terphenyl	10.000	10.573	-5.7	103	0.00
9		Anthracene	10.000	11.404	-14.0	111	-0.03
10		Fluoranthene	10.000	11.051	-10.5	108	-0.03
11		Pyrene	10.000	10.973	-9.7	107	-0.02
12	S	P-Terphenyl	10.000	10.949	-9.5	108	-0.03
13		Benzo(a)Anthracene	5.000	5.503	-10.1	109	-0.02
14		Chrysene	5.000	5.579	-11.6	109	-0.02
15		Benzo(b)Fluoranthene	5.000	5.544	-10.9	109	-0.01
16		Benzo(k)Fluoranthene	5.000	5.615	-12.3	109	-0.01
17		Benzo(a) Pyrene	5.000	5.618	-12.4	110	-0.01
18		Dibenzo(a,h)anthracene	5.000	5.564	-11.3	109	0.00
19		Benzo(g,h,i) Perylene	5.000	5.618	-12.4	109	0.00
20		Indeno(1,2,3-cd)pyrene	5.000	5.548	-11.0	109	0.00

Signal #2

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Naphthalene	10.000	11.028	-10.3	108	-0.02
2		Acenaphthylene	10.000	10.866	-8.7	106	-0.03
3		1-Methyl Naphthalene	10.000	10.761	-7.6	105	-0.02
4		2-Methyl Naphthalene	10.000	10.811	-8.1	105	-0.02
5		Acenaphthene	10.000	10.224	-2.2	100	-0.02
6		Fluorene	10.000	10.794	-7.9	106	-0.02
7		Phenanthrene	10.000	10.919	-9.2	106	-0.02
8	S	O-Terphenyl	10.000	10.323	-3.2	101	0.00
9		Anthracene	10.000	11.048	-10.5	107	-0.03
10		Fluoranthene	10.000	11.585	-15.9#	113	-0.03
11		Pyrene	10.000	11.003	-10.0	107	-0.02
12	S	P-Terphenyl	10.000	10.940	-9.4	108	-0.03
13		Benzo(a)Anthracene	5.000	5.510	-10.2	109	-0.02
14		Chrysene	5.000	5.554	-11.1	109	-0.02
15		Benzo(b)Fluoranthene	5.000	5.564	-11.3	109	-0.01

Continuing Calibration Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample: GEE727-CC699
Lab FileID: EE017263.D

16	Benzo(k)Fluoranthene	5.000	5.554	-11.1	109	-0.01
17	Benzo(a) Pyrene	5.000	5.638	-12.8	111	-0.01
18	Dibenzo(a,h)anthracene	5.000	5.582	-11.6	109	0.00
19	Benzo(g,h,i) Perylene	5.000	5.598	-12.0	109	0.00
20	Indeno(1,2,3-cd)pyrene	5.000	5.590	-11.8	109	0.00

Average % D = 9.8

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EE016613.D 8310_32.M Mon Aug 18 11:41:24 2003

Continuing Calibration Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample: GEE727-CC699
Lab FileID: EE017274.D

Evaluate Continuing Calibration Report

Signal #1 : E:\HPCHEM\1\DATA\0815PAH\EE017274.D\DAD1B.CH Vial: 3
Signal #2 : E:\HPCHEM\1\DATA\0815PAH\EE017274.D\DAD1A.CH
Acq On : 15-Aug-2003, 12:47:51 Operator: SARAHM
Sample : CC699-20 Inst : G1315A
Misc : op8223,gee727,1000,,,1,,water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\2\METHODS\8310_32.M (Chemstation Integrator)
Title : PAH's BY EPA 8310
Last Update : Tue Aug 05 08:03:12 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Naphthalene	20.000	21.556	-7.8	107	0.00
2		Acenaphthylene	20.000	21.209	-6.0	105	-0.02
3		1-Methyl Naphthalene	20.000	21.388	-6.9	106	-0.01
4		2-Methyl Naphthalene	20.000	21.672	-8.4	107	-0.01
5		Acenaphthene	20.000	20.983	-4.9	104	0.00
6		Fluorene	20.000	21.652	-8.3	107	-0.01
7		Phenanthrene	20.000	21.546	-7.7	107	-0.02
8	S	O-Terphenyl	20.000	21.049	-5.2	104	0.00
9		Anthracene	20.000	22.015	-10.1	116	-0.03
10		Fluoranthene	20.000	21.856	-9.3	108	-0.04
11		Pyrene	20.000	21.408	-7.0	107	-0.02
12	S	P-Terphenyl	20.000	21.609	-8.0	107	-0.03
13		Benzo(a)Anthracene	10.000	10.879	-8.8	108	-0.03
14		Chrysene	10.000	10.965	-9.6	109	-0.03
15		Benzo(b)Fluoranthene	10.000	10.977	-9.8	109	-0.03
16		Benzo(k)Fluoranthene	10.000	11.103	-11.0	109	-0.04
17		Benzo(a) Pyrene	10.000	11.109	-11.1	110	-0.04
18		Dibenzo(a,h)anthracene	10.000	11.064	-10.6	110	-0.05
19		Benzo(g,h,i) Perylene	10.000	11.123	-11.2	109	-0.04
20		Indeno(1,2,3-cd)pyrene	10.000	10.986	-9.9	109	-0.05

Signal #2

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1		Naphthalene	20.000	21.792	-9.0	108	0.00
2		Acenaphthylene	20.000	21.250	-6.3	106	-0.02
3		1-Methyl Naphthalene	20.000	21.098	-5.5	105	-0.01
4		2-Methyl Naphthalene	20.000	21.347	-6.7	105	-0.01
5		Acenaphthene	20.000	19.527	2.4	98	0.00
6		Fluorene	20.000	21.312	-6.6	105	-0.01
7		Phenanthrene	20.000	21.386	-6.9	106	-0.02
8	S	O-Terphenyl	20.000	20.048	-0.2	99	0.00
9		Anthracene	20.000	22.245	-11.2	107	-0.03
10		Fluoranthene	20.000	22.733	-13.7	112	-0.04
11		Pyrene	20.000	21.587	-7.9	106	-0.02
12	S	P-Terphenyl	20.000	21.579	-7.9	107	-0.03
13		Benzo(a)Anthracene	10.000	10.864	-8.6	108	-0.03
14		Chrysene	10.000	10.933	-9.3	109	-0.03
15		Benzo(b)Fluoranthene	10.000	10.958	-9.6	109	-0.03

Continuing Calibration Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample: GEE727-CC699
Lab FileID: EE017274.D

16	Benzo(k)Fluoranthene	10.000	10.984	-9.8	109	-0.04
17	Benzo(a) Pyrene	10.000	11.111	-11.1	110	-0.04
18	Dibenzo(a,h)anthracene	10.000	10.943	-9.4	109	-0.05
19	Benzo(g,h,i) Perylene	10.000	11.059	-10.6	109	-0.04
20	Indeno(1,2,3-cd)pyrene	10.000	11.067	-10.7	109	-0.05

Average % D = 8.4

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EE016614.D 8310_32.M Mon Aug 18 11:40:44 2003

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

File ID: H20811S1.PRN Date Analyzed: 08/11/03 Methods: SW846 7471A
Analyst: LIR Run ID: MA3423
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:44	MA3423-ICV1	1		
10:46	MA3423-ICB1	1		
10:47	MA3423-CRI1	1		
10:49	MA3423-CCV1	1		
10:51	MA3423-CCB1	1		
10:53	MP5755-MB1	1		
10:54	MP5755-B1	1		
10:56	F18888-1	1		(sample used for QC only; not part of login F18977)
10:58	MP5755-D1	1		
11:00	MP5755-S1	1		
11:01	MP5755-S2	1		
11:03	ZZZZZZ	1		
11:05	ZZZZZZ	1		
11:07	MA3423-CCV2	1		
11:08	MA3423-CCB2	1		
11:10	ZZZZZZ	1		
11:12	ZZZZZZ	1		
11:14	ZZZZZZ	1		
11:16	ZZZZZZ	1		
11:18	ZZZZZZ	1		
11:20	ZZZZZZ	1		
11:21	F18977-1	1		
---------->	Last reportable sample/prep for job F18977			
11:26	MA3423-CCV3	1		
11:28	MA3423-CCB3	1		
---------->	Last reportable CCB for job F18977			
11:50	MA3423-CRI2	1		
11:52	MA3423-CCV4	1		
11:54	MA3423-CCB4	1		

Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

File ID: H20811S1.PRN
QC Limits: result < RL

Date Analyzed: 08/11/03
Run ID: MA3423

Methods: SW846 7471A
Units: ug/l

Metal	RL	IDL	ICB raw	ICB final	CCB raw	CCB final	CCB raw	CCB final	CCB raw	CCB final
Mercury	1.0	.022	0.017	<1.0	0.021	<1.0	0.096	<1.0	0.10	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

File ID: H20811S1.PRN Date Analyzed: 08/11/03 Methods: SW846 7471A
QC Limits: 80 to 120 % Recovery Run ID: MA3423 Units: ug/l

Metal	ICV True	ICV Results	% Rec	CCV True	CCV Results	% Rec	CCV True	CCV Results	% Rec
Mercury	3.0	3.2	106.7	3.0	3.2	106.7	3.0	3.3	110.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

File ID: H20811S1.PRN
QC Limits: 80 to 120 % Recovery

Date Analyzed: 08/11/03
Run ID: MA3423

Methods: SW846 7471A
Units: ug/l

Metal	CCV True	CCV Results	% Rec
Mercury	3.0	3.3	110.0

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

File ID: H20811S1.PRN
QC Limits: to % Recovery

Date Analyzed: 08/11/03
Run ID: MA3423

Methods: SW846 7471A
Units: ug/l

Metal	CRI True	CRIA True	CRI Results	% Rec
Mercury	0.20		0.19	95.0

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

File ID: IR082003.ASC Date Analyzed: 08/20/03 Methods: SW846 6010B
Analyst: DM Run ID: MA3437
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:25	MA3437-ICV1	1		
10:28	MA3437-ICB1	1		
10:31	MA3437-CRI1	1		
10:43	MA3437-ICSA1	1		
10:44	MA3437-ICSAB1	1		
10:48	MA3437-CCV1	1		
10:53	MA3437-CCB1	1		
10:56	MP5772-MB1	1		
11:00	MP5772-B1	1		
11:06	F19055-1	1		(sample used for QC only; not part of login F18977)
11:09	MP5772-D1	1		
11:13	MP5772-SD1	5		
11:16	MP5772-S1	1		
11:20	MP5772-S2	1		
11:28	ZZZZZZ	1		
11:31	ZZZZZZ	1		
11:35	MA3437-CCV2	1		
11:39	MA3437-CCB2	1		
11:43	ZZZZZZ	1		
11:46	ZZZZZZ	1		
11:50	ZZZZZZ	1		
11:53	ZZZZZZ	1		
11:57	ZZZZZZ	1		
12:00	ZZZZZZ	1		
12:04	ZZZZZZ	1		
12:07	ZZZZZZ	1		
12:11	MP5772-MB2	1		
12:15	MA3437-CCV3	1		
12:19	MA3437-CCB3	1		
12:45	MP5782-MB1	1		
12:48	MP5782-B1	1		
12:53	F19104-1	1		(sample used for QC only; not part of login F18977)
12:56	MP5782-D1	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

File ID: IR082003.ASC Date Analyzed: 08/20/03 Methods: SW846 6010B
Analyst: DM Run ID: MA3437
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	13:00	MP5782-SD1	5		
	13:03	MP5782-S1	1		
	13:07	MP5782-S2	1		
	13:11	F18977-1	1		
	13:15	ZZZZZZ	1		
	13:18	ZZZZZZ	1		
	13:22	MA3437-CCV4	1		
	13:26	MA3437-CCB4	1		
	13:30	ZZZZZZ	1		
	13:33	F18832-1	1		(sample used for QC only; not part of login F18977)
	13:37	MP5782-D2	1		
---------->	Last reportable sample/prep for job F18977				
	13:40	ZZZZZZ	1		
	13:44	ZZZZZZ	1		
	13:48	ZZZZZZ	1		
	13:51	ZZZZZZ	1		
	13:55	ZZZZZZ	1		
	13:59	ZZZZZZ	1		
	14:02	MA3437-CRI2	1		
	14:06	MA3437-CCV5	1		
	14:10	MA3437-CCB5	1		
---------->	Last reportable CCB for job F18977				
	14:16	MP5781-MB1	1		
	14:20	MP5781-B1	1		
	14:24	T5012-1	10		(sample used for QC only; not part of login F18977)
	14:28	MP5781-SD1	50		
	14:31	MP5781-S1	10		
	14:35	MP5781-S2	10		
	14:39	ZZZZZZ	10		
	14:43	ZZZZZZ	10		
	14:46	ZZZZZZ	10		
	14:50	ZZZZZZ	10		
	14:53	MA3437-CCV6	1		
	14:58	MA3437-CCB6	1		
	15:01	ZZZZZZ	10		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

File ID: IR082003.ASC Date Analyzed: 08/20/03 Methods: SW846 6010B
Analyst: DM Run ID: MA3437
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:05	ZZZZZZ	10		
15:08	ZZZZZZ	10		
15:12	ZZZZZZ	10		
15:15	ZZZZZZ	10		
15:19	ZZZZZZ	10		
15:22	ZZZZZZ	10		
15:26	ZZZZZZ	10		
15:29	ZZZZZZ	10		
15:33	ZZZZZZ	10		
15:37	MA3437-CCV7	1		
15:41	MA3437-CCB7	1		
15:45	ZZZZZZ	10		
15:48	ZZZZZZ	10		
15:52	ZZZZZZ	10		
15:55	ZZZZZZ	10		
15:59	MA3437-CCV8	1		
16:03	MA3437-CCB8	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

File ID: IR082003.ASC Date Analyzed: 08/20/03 Methods: SW846 6010B
Analyst: DM Run ID: MA3437
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1
10:25	MA3437-ICV1	6837
10:28	MA3437-ICB1	6980 R
10:31	MA3437-CRI1	7054
10:43	MA3437-ICSA1	6162
10:44	MA3437-ICSAB1	6275
10:48	MA3437-CCV1	6821
10:53	MA3437-CCB1	7020
10:56	MP5772-MB1	7058
11:00	MP5772-B1	6942
11:06	F19055-1	7075
11:09	MP5772-D1	7081
11:13	MP5772-SD1	7109
11:16	MP5772-S1	6968
11:20	MP5772-S2	6988
11:28	ZZZZZZ	6964
11:31	ZZZZZZ	6888
11:35	MA3437-CCV2	6866
11:39	MA3437-CCB2	7019
11:43	ZZZZZZ	6990
11:46	ZZZZZZ	6933
11:50	ZZZZZZ	6943
11:53	ZZZZZZ	6940
11:57	ZZZZZZ	6974
12:00	ZZZZZZ	7047
12:04	ZZZZZZ	7124
12:07	ZZZZZZ	6675
12:11	MP5772-MB2	7166
12:15	MA3437-CCV3	6698
12:19	MA3437-CCB3	6914
12:45	MP5782-MB1	6836
12:48	MP5782-B1	6740
12:53	F19104-1	7309
12:56	MP5782-D1	7240
13:00	MP5782-SD1	7181

INTERNAL STANDARD SUMMARY

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

File ID: IR082003.ASC Date Analyzed: 08/20/03 Methods: SW846 6010B
Analyst: DM Run ID: MA3437
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1
13:03	MP5782-S1	7116
13:07	MP5782-S2	7223
13:11	F18977-1	7155
13:15	ZZZZZZ	6798
13:18	ZZZZZZ	6941
13:22	MA3437-CCV4	6948
13:26	MA3437-CCB4	7055
13:30	ZZZZZZ	7095
13:33	F18832-1	7541
13:37	MP5782-D2	7650
13:40	ZZZZZZ	7206
13:44	ZZZZZZ	7251
13:48	ZZZZZZ	7201
13:51	ZZZZZZ	7243
13:55	ZZZZZZ	7253
13:59	ZZZZZZ	7212
14:02	MA3437-CRI2	7127
14:06	MA3437-CCV5	6870
14:10	MA3437-CCB5	7036
14:16	MP5781-MB1	7097
14:20	MP5781-B1	6975
14:24	T5012-1	6724
14:28	MP5781-SD1	7032
14:31	MP5781-S1	6743
14:35	MP5781-S2	6674
14:39	ZZZZZZ	6821
14:43	ZZZZZZ	6638
14:46	ZZZZZZ	7225
14:50	ZZZZZZ	6647
14:53	MA3437-CCV6	6959
14:58	MA3437-CCB6	7084
15:01	ZZZZZZ	6522
15:05	ZZZZZZ	6465
15:08	ZZZZZZ	6538

INTERNAL STANDARD SUMMARY

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

File ID: IR082003.ASC Date Analyzed: 08/20/03 Methods: SW846 6010B
Analyst: DM Run ID: MA3437
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1
15:12	ZZZZZZ	6553
15:15	ZZZZZZ	6994
15:19	ZZZZZZ	7083
15:22	ZZZZZZ	7152
15:26	ZZZZZZ	7088
15:29	ZZZZZZ	7084
15:33	ZZZZZZ	6985
15:37	MA3437-CCV7	6827
15:41	MA3437-CCB7	7121
15:45	ZZZZZZ	7147
15:48	ZZZZZZ	7033
15:52	ZZZZZZ	7017
15:55	ZZZZZZ	6964
15:59	MA3437-CCV8	6869
16:03	MA3437-CCB8	6981

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

File ID: IR082003.ASC
QC Limits: result < RL

Date Analyzed: 08/20/03
Run ID: MA3437

Methods: SW846 6010B
Units: ug/l

Metal	RL	IDL	ICB raw	final	CCB raw	final	CCB raw	final	CCB raw	final
Aluminum	200	6.6	-1.2	<200	30.2	<200	-21	<200	-20	<200
Antimony	5.0	1.5	1.5	<5.0	3.4	<5.0	0.18	<5.0	0.060	<5.0
Arsenic	10	2.8	-2.0	<10	0.78	<10	-2.2	<10	-1.7	<10
Barium	200	.49	-0.22	<200	-0.84	<200	-0.93	<200	-0.84	<200
Beryllium	5.0	.26	-0.23	<5.0	-1.1	<5.0	-1.1	<5.0	-1.1	<5.0
Cadmium	5.0	.26	-0.47	<5.0	-1.1	<5.0	-1.2	<5.0	-1.2	<5.0
Calcium	1000	3.8	-4.4	<1000	27.6	<1000	1.8	<1000	-6.2	<1000
Chromium	10	.43	-0.59	<10	-0.63	<10	-0.92	<10	-0.82	<10
Cobalt	50	.5	-0.15	<50	-0.75	<50	-1.2	<50	-0.60	<50
Copper	25	.44	-0.31	<25	-0.30	<25	-0.50	<25	-0.24	<25
Iron	300	7.1	-14	<300	27.2	<300	6.2	<300	4.3	<300
Lead	5.0	1.2	0.35	<5.0	-1.0	<5.0	-0.77	<5.0	-0.40	<5.0
Magnesium	5000	9.9	-4.1	<5000	28.0	<5000	-17	<5000	-14	<5000
Manganese	15	.16	-0.33	<15	-1.1	<15	-1.1	<15	-1.0	<15
Molybdenum	50	.75	anr							
Nickel	40	1.1	-0.72	<40	-0.98	<40	-1.1	<40	-1.4	<40
Potassium	5000	14	-23	<5000	-5.4	<5000	-11	<5000	-24	<5000
Selenium	10	2	0.75	<10	0.030	<10	-2.6	<10	-0.030	<10
Silver	10	.55	0.31	<10	0.11	<10	0.89	<10	0.39	<10
Sodium	5000	150	-55	<5000	95.6	<5000	30.6	<5000	32.2	<5000
Thallium	10	1.5	-3.1	<10	5.5	<10	3.9	<10	3.8	<10
Tin	50	2.2	anr							
Vanadium	50	.47	-0.14	<50	-0.30	<50	-0.63	<50	-0.66	<50
Zinc	20	.59	-0.42	<20	-0.89	<20	-0.96	<20	-0.85	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

File ID: IR082003.ASC
QC Limits: result < RL

Date Analyzed: 08/20/03
Run ID: MA3437

Methods: SW846 6010B
Units: ug/l

Metal	RL	IDL	CCB raw	final	CCB raw	final
Aluminum	200	6.6	-12	<200	-17	<200
Antimony	5.0	1.5	1.9	<5.0	1.1	<5.0
Arsenic	10	2.8	-0.91	<10	-0.060	<10
Barium	200	.49	-0.74	<200	-1.1	<200
Beryllium	5.0	.26	-0.92	<5.0	-1.2	<5.0
Cadmium	5.0	.26	-1.1	<5.0	-1.6	<5.0
Calcium	1000	3.8	57.3	<1000	-19	<1000
Chromium	10	.43	-0.57	<10	-1.0	<10
Cobalt	50	.5	-0.73	<50	-1.1	<50
Copper	25	.44	-0.13	<25	-1.1	<25
Iron	300	7.1	9.2	<300	-1.0	<300
Lead	5.0	1.2	-2.2	<5.0	-3.0	<5.0
Magnesium	5000	9.9	-15	<5000	-21	<5000
Manganese	15	.16	-0.88	<15	-1.4	<15
Molybdenum	50	.75	anr			
Nickel	40	1.1	-0.50	<40	-1.8	<40
Potassium	5000	14	-19	<5000	-22	<5000
Selenium	10	2	-2.2	<10	-1.1	<10
Silver	10	.55	-0.22	<10	-1.6	<10
Sodium	5000	150	69.4	<5000	41.7	<5000
Thallium	10	1.5	5.4	<10	7.2	<10
Tin	50	2.2	anr			
Vanadium	50	.47	-0.68	<50	-1.1	<50
Zinc	20	.59	-0.36	<20	-1.6	<20

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

File ID: IR082003.ASC
QC Limits: 90 to 110 % Recovery

Date Analyzed: 08/20/03
Run ID: MA3437

Methods: SW846 6010B
Units: ug/l

Metal	ICV True	ICV Results	% Rec	CCV True	CCV Results	% Rec	CCV True	CCV Results	% Rec
Aluminum	40000	41600	104.0	40000	41900	104.8	40000	41500	103.8
Antimony	2000	2020	101.0	2000	2030	101.5	2000	2020	101.0
Arsenic	2000	2000	100.0	2000	2010	100.5	2000	2010	100.5
Barium	2000	1990	99.5	2000	2000	100.0	2000	1960	98.0
Beryllium	2000	2020	101.0	2000	2030	101.5	2000	2040	102.0
Cadmium	2000	2040	102.0	2000	2050	102.5	2000	2060	103.0
Calcium	40000	41700	104.3	40000	41800	104.5	40000	41800	104.5
Chromium	2000	1930	96.5	2000	1940	97.0	2000	1940	97.0
Cobalt	2000	2000	100.0	2000	2000	100.0	2000	2000	100.0
Copper	2000	1950	97.5	2000	1950	97.5	2000	1930	96.5
Iron	40000	41900	104.8	40000	42100	105.3	40000	41900	104.8
Lead	2000	1990	99.5	2000	2000	100.0	2000	2020	101.0
Magnesium	40000	41300	103.3	40000	41500	103.8	40000	41400	103.5
Manganese	2000	2000	100.0	2000	2000	100.0	2000	2000	100.0
Molybdenum	anr								
Nickel	2000	2060	103.0	2000	2070	103.5	2000	2060	103.0
Potassium	40000	37500	93.8	40000	37700	94.3	40000	37600	94.0
Selenium	2000	2010	100.5	2000	2000	100.0	2000	2010	100.5
Silver	250	239	95.6	250	239	95.6	250	240	96.0
Sodium	40000	41000	102.5	40000	41300	103.3	40000	41300	103.3
Thallium	2000	1870	93.5	2000	1870	93.5	2000	1870	93.5
Tin	anr								
Vanadium	2000	2040	102.0	2000	2040	102.0	2000	2030	101.5
Zinc	2000	2000	100.0	2000	2000	100.0	2000	2010	100.5

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

File ID: IR082003.ASC
QC Limits: 90 to 110 % Recovery

Date Analyzed: 08/20/03
Run ID: MA3437

Methods: SW846 6010B
Units: ug/l

Metal	CCV True	CCV Results	% Rec	CCV True	CCV Results	% Rec	CCV True	CCV Results	% Rec
Aluminum	40000	41400	103.5	40000	41400	103.5	40000	41700	104.3
Antimony	2000	2000	100.0	2000	2020	101.0	2000	2030	101.5
Arsenic	2000	1970	98.5	2000	2020	101.0	2000	2020	101.0
Barium	2000	1970	98.5	2000	1950	97.5	2000	1980	99.0
Beryllium	2000	2010	100.5	2000	2040	102.0	2000	2040	102.0
Cadmium	2000	2020	101.0	2000	2070	103.5	2000	2070	103.5
Calcium	40000	41000	102.5	40000	41900	104.8	40000	42000	105.0
Chromium	2000	1920	96.0	2000	1940	97.0	2000	1950	97.5
Cobalt	2000	1970	98.5	2000	2010	100.5	2000	2020	101.0
Copper	2000	1940	97.0	2000	1930	96.5	2000	1940	97.0
Iron	40000	41300	103.3	40000	42000	105.0	40000	42100	105.3
Lead	2000	1980	99.0	2000	2010	100.5	2000	2020	101.0
Magnesium	40000	40400	101.0	40000	41600	104.0	40000	41800	104.5
Manganese	2000	1970	98.5	2000	2000	100.0	2000	2010	100.5
Molybdenum	anr								
Nickel	2000	2030	101.5	2000	2070	103.5	2000	2080	104.0
Potassium	40000	38000	95.0	40000	37500	93.8	40000	37900	94.8
Selenium	2000	1970	98.5	2000	2010	100.5	2000	2030	101.5
Silver	250	240	96.0	250	238	95.2	250	239	95.6
Sodium	40000	41100	102.8	40000	41200	103.0	40000	41700	104.3
Thallium	2000	1840	92.0	2000	1880	94.0	2000	1880	94.0
Tin	anr								
Vanadium	2000	2010	100.5	2000	2030	101.5	2000	2040	102.0
Zinc	2000	1950	97.5	2000	2030	101.5	2000	2030	101.5

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

File ID: IR082003.ASC
QC Limits: 70 to 130 % Recovery

Date Analyzed: 08/20/03
Run ID: MA3437

Methods: SW846 6010B
Units: ug/l

Metal	CRI True	CRIA True	CRI Results	% Rec	CRI Results	% Rec
Aluminum	400		394	98.5	405	101.3
Antimony	10		8.3	83.0	10.1	101.0
Arsenic	20		19.2	96.0	19.5	97.5
Barium	400		391	97.8	386	96.5
Beryllium	10		9.2	92.0	8.5	85.0
Cadmium	10		8.8	88.0	8.3	83.0
Calcium	2000		2070	103.5	2100	105.0
Chromium	20		18.6	93.0	19.0	95.0
Cobalt	100		101	101.0	102	102.0
Copper	50		49.2	98.4	48.8	97.6
Iron	600		663	110.5	676	112.7
Lead	10		8.5	85.0	7.7	77.0
Magnesium	10000		10200	102.0	10400	104.0
Manganese	30		29.5	98.3	29.1	97.0
Molybdenum	100		anr			
Nickel	80		83.1	103.9	84.0	105.0
Potassium	10000		7480	74.8	7520	75.2
Selenium	10		9.4	94.0	8.3	83.0
Silver	20		20.4	102.0	20.1	100.5
Sodium	10000		8540	85.4	8860	88.6
Thallium	20		23.2	116.0	21.0	105.0
Tin	100		anr			
Vanadium	100		99.5	99.5	99.8	99.8
Zinc	40		42.1	105.3	46.0	115.0

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

File ID: IR082003.ASC
QC Limits: 80 to 120 % Recovery

Date Analyzed: 08/20/03
Run ID: MA3437

Methods: SW846 6010B
Units: ug/l

Metal	ICSA True	ICSAB True	ICSA Results	% Rec	ICSAB Results	% Rec
Aluminum	500000	500000	526000	105.2	491000	98.2
Antimony		1000	-3.2		962	96.2
Arsenic		1000	-1.9		959	95.9
Barium		500	0.090		516	103.2
Beryllium		500	-2.1		522	104.4
Cadmium		1000	-1.7		1010	101.0
Calcium	500000	500000	492000	98.4	459000	91.8
Chromium		500	0.40		477	95.4
Cobalt		500	-1.5		482	96.4
Copper		500	-6.3		493	98.6
Iron	200000	200000	203000	101.5	182000	91.0
Lead		1000	-0.020		986	98.6
Magnesium	500000	500000	535000	107.0	509000	101.8
Manganese		500	-2.4		487	97.4
Molybdenum		1000	-5.8		898	89.8
Nickel		1000	1.5		975	97.5
Potassium			8.1		-340	
Selenium		1000	0.25		968	96.8
Silver		1000	-0.95		1070	107.0
Sodium			187		660	
Thallium		1000	3.5		913	91.3
Tin		1000	-7.5		950	95.0
Vanadium		500	14.9		520	104.0
Zinc		1000	-5.9		976	97.6

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

QC Batch ID: MP5755
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 08/11/03

Metal	RL	IDL	MB raw	final
Mercury	0.083	.0018	0.0053	<0.083

Associated samples MP5755: F18977-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

QC Batch ID: MP5755
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 08/11/03 08/11/03

Metal	F18888-1 Original	DUP	RPD	QC Limits	F18888-1 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.038	0.021	57.6	0-68	0.038	0.35	0.26	121.9	47-157

Associated samples MP5755: F18977-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

QC Batch ID: MP5755
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 08/11/03

Metal	F18888-1 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.038	0.36	0.26	125.8	2.8	

Associated samples MP5755: F18977-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

QC Batch ID: MP5755
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 08/11/03

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.27	0.25	108.0	80-120

Associated samples MP5755: F18977-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

QC Batch ID: MP5782
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 08/20/03

Metal	RL	IDL	MB raw	final
Aluminum	20	.66	-4.0	<20
Antimony	6.0	.15	-0.019	<6.0
Arsenic	0.50	.28	-0.37	<0.50
Barium	20	.049	-0.21	<20
Beryllium	0.50	.026	-0.23	<0.50
Cadmium	0.40	.026	-0.23	<0.40
Calcium	500	.38	-3.0	<500
Chromium	1.0	.043	-0.17	<1.0
Cobalt	5.0	.05	-0.22	<5.0
Copper	2.5	.044	-0.13	<2.5
Iron	10	.71	-3.3	<10
Lead	10	.12	-0.32	<10
Magnesium	500	.99	-4.3	<500
Manganese	1.5	.016	-0.22	<1.5
Molybdenum	5.0	.075	anr	
Nickel	4.0	.11	-0.18	<4.0
Potassium	500	1.4	-2.9	<500
Selenium	10	.2	-0.20	<10
Silver	1.0	.055	0.067	<1.0
Sodium	500	15	-0.72	<500
Thallium	1.0	.15	0.094	<1.0
Tin	5.0	.22	anr	
Vanadium	5.0	.047	-0.16	<5.0
Zinc	2.0	.059	0.14	<2.0

Associated samples MP5782: F18977-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

QC Batch ID: MP5782
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:			08/20/03					08/20/03	
Metal	F19104-1 Original	DUP	RPD	QC Limits	F19104-1 Original	MS	Spikelot MPFLICP	% Rec	QC Limits
Aluminum	2630	2490	5.5	0-20	2630	5610	3140	94.9	75-125
Antimony	0.0	0.0	NC	0-20	0.0	8.8	110	8.1N (b)	75-125
Arsenic	1.6	1.3	20.7 (a)	0-20	1.6	338	433	77.6	75-113
Barium	44.8	43.2	3.6	0-20	44.8	380	433	77.4	75-122
Beryllium	0.034	0.0	200.0(a)	0-20	0.034	9.4	11	86.5	75-120
Cadmium	0.0	0.0	NC	0-20	0.0	8.9	11	82.2	75-116
Calcium	268	263	1.9	0-20	268	2630	2710	87.2	75-125
Chromium	3.8	3.5	8.2	0-20	3.8	37.1	43.3	76.9	75-125
Cobalt	2.6	2.5	3.9	0-20	2.6	92.3	108	82.8	80-112
Copper	1.4	1.4	0.0	0-20	1.4	45.5	54.2	81.4	75-125
Iron	4040	3520	13.8	0-20	4040	5500	2920	49.9N(b)	75-125
Lead	7.3	6.8	7.1	0-20	7.3	97.6	108	83.4	75-121
Magnesium	170	161	5.4	0-20	170	2500	2710	86.0	75-125
Manganese	182	167	8.6	0-20	182	233	108	47.1N(b)	75-125
Molybdenum	anr								
Nickel	1.8	1.6	11.8	0-20	1.8	93.1	108	84.3	75-122
Potassium	93.3	91.1	2.4	0-20	93.3	1980	2710	69.7N(b)	75-125
Selenium	0.92	0.40	78.8 (a)	0-20	0.92	352	433	81.0	75-110
Silver	0.097	0.097	0.0	0-20	0.097	8.7	11	79.4	75-120
Sodium	0.0	0.00	NC	0-20	0.0	2140	2710	79.0	75-125
Thallium	0.0	0.0	NC	0-20	0.0	363	433	83.8	75-118
Tin	anr								
Vanadium	6.9	6.4	7.5	0-20	6.9	92.6	108	80.0	80-118
Zinc	6.1	5.7	6.8	0-20	6.1	96.3	108	83.3	75-125

Associated samples MP5782: F18977-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.
(b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

QC Batch ID: MP5782
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:					08/20/03				08/20/03	
Metal	F19104-1 Original	MSD	Spikelot MPFLICP	% Rec	MSD RPD	QC Limit	F18832-1 Original	DUP	RPD	QC Limits
Aluminum	2630	6100	3080	112.7	8.4		5600	5560	0.7	0-20
Antimony	0.0	13.7	106	12.9N(a)	43.6		8.8	8.8	0.0	0-20
Arsenic	1.6	364	425	85.3	7.4		177	174	1.7	0-20
Barium	44.8	409	425	85.8	7.4		214	208	2.8	0-20
Beryllium	0.034	10.2	10.6	95.8	8.2		82.5	79.0	4.3	0-20
Cadmium	0.0	9.7	11	91.4	8.6		130	123	5.5	0-20
Calcium	268	2830	2650	96.5	7.3		3690	3610	2.2	0-20
Chromium	3.8	42.8	42.5	91.8	14.3		108	103	4.7	0-20
Cobalt	2.6	99.4	106	91.2	7.4		123	118	4.1	0-20
Copper	1.4	49.2	53.1	90.1	7.8		90.2	84.3	6.8	0-20
Iron	4040	6670	2870	91.8	19.2		8630	8780	1.7	0-20
Lead	7.3	105	106	92.0	7.3		156	153	1.9	0-20
Magnesium	170	2670	2650	94.2	6.6		2040	2020	1.0	0-20
Manganese	182	262	106	75.4	11.7		282	274	2.9	0-20
Molybdenum	anr									
Nickel	1.8	101	106	93.4	8.1		68.4	65.5	4.3	0-20
Potassium	93.3	2120	2650	76.4	6.8		1470	1460	0.7	0-20
Selenium	0.92	377	425	88.6	6.9		168	164	2.4	0-20
Silver	0.097	9.4	11	87.6	7.7		135	127	6.1	0-20
Sodium	0.0	2270	2650	85.5	5.9		748	711	5.1	0-20
Thallium	0.0	387	425	91.1	6.4		127	120	5.7	0-20
Tin	anr									
Vanadium	6.9	101	106	88.6	8.7		79.1	77.6	1.9	0-20
Zinc	6.1	105	106	93.2	8.6		222	216	2.7	0-20

Associated samples MP5782: F18977-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

QC Batch ID: MP5782
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 08/20/03

Metal	BSP Result	Spikelot MPFLICP	% Rec	QC Limits
Aluminum	3040	2900	104.8	80-120
Antimony	97.5	100	97.5	80-120
Arsenic	374	400	93.5	80-120
Barium	382	400	95.5	80-120
Beryllium	10.2	10	102.0	80-120
Cadmium	9.8	10	98.0	80-120
Calcium	2630	2500	105.2	80-120
Chromium	38.2	40	95.5	80-120
Cobalt	98.9	100	98.9	80-120
Copper	49.1	50	98.2	80-120
Iron	2860	2700	105.9	80-120
Lead	100	100	100.0	80-120
Magnesium	2530	2500	101.2	80-120
Manganese	97.9	100	97.9	80-120
Molybdenum	anr			
Nickel	100	100	100.0	80-120
Potassium	2070	2500	82.8	80-120
Selenium	385	400	96.3	80-120
Silver	9.9	10	99.0	80-120
Sodium	2370	2500	94.8	80-120
Thallium	401	400	100.3	80-120
Tin	anr			
Vanadium	98.3	100	98.3	80-120
Zinc	97.9	100	97.9	80-120

Associated samples MP5782: F18977-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F18977
Account: ITTNKNOX - Shaw E & I, Inc.
Project: PBOW

QC Batch ID: MP5782
Matrix Type: SOLID

Methods: SW846 6010B
Units: ug/l

Prep Date: 08/20/03

Metal	F19104-1 Original	SDL 1:5	RPD	QC Limits
Aluminum	24300	25500	5.0	0-10
Antimony	0.00	0.00	NC	0-10
Arsenic	15.2	0.00	100.0(a)	0-10
Barium	413	435	5.1	0-10
Beryllium	0.310	0.00	100.0(a)	0-10
Cadmium	0.00	0.00	NC	0-10
Calcium	2470	2720	9.9	0-10
Chromium	34.8	33.8	3.0	0-10
Cobalt	24.3	18.2	25.3 (a)	0-10
Copper	13.4	7.71	42.2 (a)	0-10
Iron	37300	40400	8.3	0-10
Lead	66.9	65.5	2.2	0-10
Magnesium	1570	1580	0.3	0-10
Manganese	1680	1820	8.3	0-10
Molybdenum	anr			
Nickel	17.0	5.79	65.9 (a)	0-10
Potassium	861	772	10.0	0-10
Selenium	8.49	0.00	100.0(a)	0-10
Silver	0.900	0.00	100.0(a)	0-10
Sodium	0.00	0.00	NC	0-10
Thallium	0.00	0.00	NC	0-10
Tin	anr			
Vanadium	63.4	61.4	3.1	0-10
Zinc	56.1	55.4	1.3	0-10

Associated samples MP5782: F18977-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Instrument Detection Limits

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Instrument ID: LEEMANHG2 Effective Date: 08/26/02

Analyte	IDL ug/l
Mercury	.022

The above applies to the following instrument runs:
MA3423

Instrument Detection Limits

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Instrument ID: TJATRACE1 Effective Date: 04/14/02

Analyte	IDL ug/l
Aluminum	6.56
Antimony	1.52
Arsenic	2.83
Barium	.49
Beryllium	.26
Cadmium	.26
Calcium	3.82
Chromium	.43
Cobalt	.5
Copper	.44
Iron	7.11
Lead	1.22
Magnesium	9.88
Manganese	.16
Molybdenum	.75
Nickel	1.08
Potassium	13.85
Selenium	1.98
Silver	.55
Sodium	145.01
Thallium	1.49
Tin	2.18
Vanadium	.47
Zinc	.59

The above applies to the following instrument runs:
MA3437

Instrument Linear Ranges

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Instrument ID: TJATRACE1 Effective Date: 10/10/02

Analyte	Linear Range ug/l
Aluminum	1000000
Antimony	100000
Arsenic	20000
Barium	20000
Beryllium	20000
Cadmium	20000
Calcium	500000
Chromium	100000
Cobalt	100000
Copper	100000
Iron	1000000
Lead	100000
Magnesium	1000000
Manganese	20000
Molybdenum	50000
Nickel	100000
Potassium	250000
Selenium	50000
Silver	1000
Sodium	250000
Thallium	100000
Tin	100000
Vanadium	100000
Zinc	50000

The above applies to the following instrument runs:
MA3437

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Percent Solids Raw Data Summary

Percent Solids Raw Data Summary

Job Number: F18977
Account: ITTNKNOX Shaw E & I, Inc.
Project: PBOW

Sample: F18977-1 Analyzed: 14-AUG-03 by LE Method: EPA 160.3 M
ClientID: DB0005

Wet Weight (Total)	6.65	g
Tare Weight	1	g
Dry Weight (Total)	6.14	g
Solids, Percent	91	%

Shaw™
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN-OF-CUSTODY RECORD

F18977

REFERENCE DOCUMENT NO.: PB080603ACC

PAGE 1 OF 1

Project Name/No: PBOW
Sample Team Member: David Kessler
Profit Center: Knoxville
Project Manager: Steve Downey
Project No.: 843656
Required Report Date: 21 Days

Sample Shipment Date: 8/7/03
Laboratory Destination: Accutest
Laboratory Contact: Sue Bell
Project Contact/Phone: Maureen McMyler/865-690-3211
Carrier Waybill No.: 836531447483

Bill To: Greg Massingale
Shaw E&I
312 Directors Drive
Knoxville, TN 37923

Report To: Maureen McMyler
Shaw E&I
312 Directors Drive
Knoxville, TN 37923

Sample Number	Sample Type/ Description	Date/Time Collected	Container Type	Sample Volume	Pre-servative	Requested Testing Program	Cooler ID	Condition on Receipt	Disposal Record
DB0005	SOIL (SS)	8/6/03 0815	1 - ~~Amber~~ CWM	8 oz	Cool	Explosives by 8330			
			1 - ~~Amber~~ CWM	8 oz	Cool	Tal Metals by 6010B/7471A			
			1 - ~~Amber~~ CWM	8 oz	Cool	PAH by 3540C/8310			

DIK

Special Instructions:

Possible Hazard Identification: Use caution when handling.
Non-haz: X Flammable: Poison B: Unknown:

Sample Disposal:
Return to Client: Disposal by Lab: X Archive:

Turnaround Time:
Normal: X Rush:

Level of QC Required:
I. X II. III. Project Specific:

1. Relinquished by: David Kessler Date: 8/7/03 Time: 1000
2. Relinquished by: FED EX Date: Time:
3. Relinquished by Date: Time:

1. Received by: FED EX Date: Time:
2. Received by: Muna Mohammed Date: 8/8/03 Time: 0920
2. Received by: Date: Time:

Comments: 3.4°C

N:Shared\Common\CamGroup\Field Forms\PLUBKCOC1.XLS7/30/2003

ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Accutest's Job Number: F18977

Client: Shaw Project: PBOW

Date Received: 8/8/03 Time Received: 0920

# of Coolers Received: 1 Cooler Temperatures: 3.4

Delivery Method: (FedEx) UPS Accutest Courier Greyhound Delivery Other

Air Bill Number: 836531447483

Cooler Custody Seals Intact ?	(Yes)	No	
Chain of Custody Provided ?	(Yes)	No	
COC Match Bottle Label ID's ?	(Yes)	No	
Sample Labels Present on all bottles ?	(Yes)	No	
All Analyses Marked On COC ?	(Yes)	No	
Are All Bottles Intact ?	(Yes)	No	
Samples Preserved Correctly ?	(Yes)	No	
Correct Number of Containers Used ?	(Yes)	No	
Sufficient Sample Volume ?	(Yes)	No	
Trip Blank Provided ?	Yes	(No)	
Trip Blank on COC ?	Yes	(No)	
Trip Blank Intact ?	Yes	No	(N/A)
Trip Blank Matrix ?	Soil	Water	(N/A)

Number of Encores ? 0

Number of Soil Field Kits ? 0

Summary of Comments:

Signature: Muna Mohammed Date: 8/8/03

ASBD/HW 05/11/03