



Laboratory Report Number: L12050050

Shane Lowe
CH2MHILL, Inc
CH2MHILL
Richmond Heights, MO 63117

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac's Ohio Valley Division (OVD). If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed below.

Laboratory Contact:
Kathy Albertson – Team Chemist/Data Specialist
(740) 373-4071
Kathy.Albertson@microbac.com

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on May 17 2012

David Vandenberg – Managing Director

State of Origin: NY
Accrediting Authority: Department of Health ID:10861
QAPP: WATERLOO



Record of Sample Receipt and Inspection

Comments/Discrepancies

This is the record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

There were no discrepancies.

Discrepancy	Resolution

Coolers

Cooler #	Temperature Gun	Temperature	COC #	Airbill #
0015124	G	2.0		1015923880160004575000795763092427
0014972	G	0.0		1002239580160004575000872087763794
0012113	G	1.0		1015923880160004575000795763092438
0014418	G	4.0		1ZE4F1930349693605

Inspection Checklist

#	Question	Result
1	Were shipping coolers sealed?	Yes
2	Were custody seals intact?	Yes
3	Were cooler temperatures in range of 0-6?	Yes
4	Was ice present?	Yes
5	Were COC's received/information complete/signed and dated?	Yes
6	Were sample containers intact and match COC?	Yes
7	Were sample labels intact and match COC?	Yes
8	Were the correct containers and volumes received?	Yes
9	Were samples received within EPA hold times?	Yes
10	Were correct preservatives used? (water only)	Yes
11	Were pH ranges acceptable? (voa's excluded)	Yes
12	Were VOA samples free of headspace (less than 6mm)?	Yes

Samples Received

Client ID	Laboratory ID	Date Collected	Date Received
MW-05I-050112	L12050050-01	05/01/2012 11:37	05/02/2012 09:54
MW-05I-050112	L12050050-02	05/01/2012 11:37	05/02/2012 09:54
MW-05S-050112	L12050050-03	05/01/2012 13:33	05/02/2012 09:54
MW-05S-050112	L12050050-04	05/01/2012 13:33	05/02/2012 09:54
MW-24-050112	L12050050-05	05/01/2012 09:30	05/02/2012 09:54
MW-24-050112	L12050050-06	05/01/2012 09:30	05/02/2012 09:54
MW-01-050112	L12050050-07	05/01/2012 12:15	05/02/2012 09:54
MW-01-050112	L12050050-08	05/01/2012 12:15	05/02/2012 09:54
TB-050112	L12050050-09	05/01/2012 08:05	05/02/2012 09:54

Microbac REPORT L12050050
PREPARED FOR CH2MHILL, Inc
WORK ID:

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1.0 Summary Data

1.1 Narratives



Login Number: L12050050
Department: Volatiles
Analyst: Mary Schilling

METHOD

Preparation SW-846 5030C/5035A

Analysis SW-846 8260B

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: Recoveries out of range were observed for the following analytes: trans-1,3-Dichloropropene. Please see the applicable QC report for a detailed presentation of the failures.

Matrix Spikes: Microbac Laboratories recommends site specific MS/MSD samples to avoid possible data qualifications.

SAMPLES

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Other: None.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak. In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak. This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline. There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous. Other situations involving integration errors may require in-depth review and technical

judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

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Narrative ID: 46416

Approved By: Michael Albertson





Login Number: L12050050
Department: Volatiles - GC
Analyst: Franci Bolden

Analysis RSK-175

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes/Sample Duplicates: The MS/MSD results were not associated with this sample delivery group (SDG), due to insufficient volume of sample. Microbac Laboratories recommends site specific MS/MSD samples to avoid possible data qualifications.

SAMPLES

Samples: Sample 05 required dilution analyses.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration

is not clearly covered by these four cases, then review and approval by the Laboratory Director or the QA/QC Supervisor will be required.

Narrative ID: 46041

Approved By: Michael Albertson





Login Number: L12050050
Department: Semivolatiles
Analyst: Cassie A. Augenstein

METHOD

Preparation 3520C

Analysis SW-846 8270C/40 CFR 264 App. IX

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: The percent difference was out of range for the following analytes: 2,4-Dinitrophenol, 2-Chloronaphthalene, Pentachlorophenol. Please see the applicable QC report for a detailed presentation of the failures.

Continuing Calibration and Tune: Recoveries out of range were observed for the following analytes: Benzoic Acid. Please see the applicable QC report for a detailed presentation of the failures.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: Recoveries out of range were observed for the following analytes/surrogates: 2,4,5-Trichlorophenol, 2,6-Dinitrotoluene, 2-Chloronaphthalene, 2-Nitroaniline, 3,3'-Dichlorobenzidine, 3-,4-Methylphenol, 3-Nitroaniline, 4-Bromophenyl Phenyl Ether, Benzo[b]fluoranthene, bis(2-Chloroethoxy)methane, Di-n-Butyl Phthalate, Dibenz[ah]anthracene, Diethylphthalate, Dimethylphthalate, Phenanthrene, Sym-Trinitrobenzene, 2,4,6-Tribromophenol, Phenol-d5. Please see the applicable QC report for a detailed presentation of the failures.

All hits in the LCS were biased high; there were no hits found above the reporting limit in the samples associated with the LCS.

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

SAMPLES

Samples: All acceptance criteria were met. The extracts were library searched using the NIST library and the top twenty TICs found were reported. Requested acid compounds listed as TICs in the Waterloo QAPP may not have been detected due to unknown extraction efficiency and chromatographic performance.

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into

multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

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Narrative ID: 46340

Approved By: Mike Cochran





Login Number: L12050050
Department: Semivolatiles
Analyst: Cassie A. Augenstein

METHOD

Preparation 3510C

Analysis SW-846 8270C

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

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

SAMPLES

Samples: All acceptance criteria were met.

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

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Narrative ID: 45942

Approved By: Mike Cochran





Login Number: L12050050
Department: Metals
Analyst: Kim Rhodes

METHOD

Preparation: SW-846 3005

Analysis: SW-846 6010

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG397233 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: WG397233 - Client samples 05 and 06 required dilution analyses in order to obtain results for sodium within the linear range.

Narrative ID: 46044

Approved By: Sheri Pfalzgraf

A handwritten signature in black ink that reads "Sheri L. Pfalzgraf".



Login Number: L12050050
Department: Metals
Analyst: Sheri Pfalzgraf

METHOD

Preparation: SW-846 3015

Analysis: SW-846 6020

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

Low Level Check: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG396925 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 46490

Approved By: Sheri Pfalzgraf

A handwritten signature in black ink that reads "Sheri L. Pfalzgraf".



Login Number: L12050050
Department: Metals - AA
Analyst: Pierce Morris

METHOD

Preparation: SW-846 7470

Analysis: SW-846 7470

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG397350 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 46053

Approved By: Sheri Pfalzgraf

A handwritten signature in black ink that reads "Sheri L. Pfalzgraf".



Login Number: L12050050
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis EPA 310.2 (Alkalinity)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 46529

Approved By: Deanna Hesson

A handwritten signature in cursive script that reads "Deanna Hesson".



Login Number: L12050050
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis EPA 353.2/SM4500-NO3 F (Nitrate)

HOLDING TIMES

Sample Analysis: Nitrate is reported as the difference of nitrate-nitrite (28 day hold) and nitrite (48 hour hold). Both analysis were analyzed within the appropriate hold time. The nitrate hold time is within compliance.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 46532

Approved By: Deanna Hesson

A handwritten signature in cursive script that reads "Deanna Hesson".



Login Number: L12050050
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis EPA 365.4 (Phosphorus)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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

Narrative ID: 46530

Approved By: Deanna Hesson

A handwritten signature in cursive script that reads "Deanna Hesson".



Login Number: L12050050
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis EPA 375.4/SM426C(15th ed) (Sulfate)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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

Narrative ID: 46531

Approved By: Deanna Hesson

A handwritten signature in cursive script that reads "Deanna Hesson".



Login Number: L12050050
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis Water: EPA 415.1/SM5310C/SW846 9060 (Total Organic Carbon)
Soil: Lloyd-Khan Methodology

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QAI/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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

Narrative ID: 46533

Approved By: Deanna Hesson

A handwritten signature in cursive script that reads "Deanna Hesson".

1.2 Certificate of Analysis

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: HPMS6
Client ID: MW-05I-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/07/2012 01:11
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: 6M107935
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1		U	5.00	2.00
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	10.0	2.50
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: HPMS6
Client ID: MW-05I-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/07/2012 01:11
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: 6M107935
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Cyclohexane	110-82-7		U	5.00	1.00
Dibromochloromethane	124-48-1		U	1.00	0.250
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
Ethyl benzene	100-41-4		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
Methyl acetate	79-20-9		U	5.00	1.00
Methyl tert-butyl ether	1634-04-4		U	1.00	0.500
Methylcyclohexane	108-87-2		U	5.00	1.00
Methylene chloride	75-09-2		U	5.00	0.250
m,p-Xylene	179601-23-1		U	1.00	0.500
o-Xylene	95-47-6		U	1.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250
Vinyl chloride	75-01-4		U	1.00	0.250
Epichlorohydrin	106-89-8			0.000	0.000

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	112	80	120	
Dibromofluoromethane	111	86	118	
p-Bromofluorobenzene	111	86	115	
Toluene-d8	105	88	110	

U	Not detected at or above adjusted sample detection limit.
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Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: HP16
Client ID: MW-05I-050112	Prep Method: 5021	Prep Date: N/A
Matrix: Water	Analytical Method: RSK175	Cal Date: 04/30/2012 15:04
Workgroup #: WG396966	Analyst: FJB	Run Date: 05/03/2012 16:33
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: 16G32172
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Methane	74-82-8	166		5.00	1.00
Carbon Dioxide	124-38-9	28500		10000	2500

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-05I-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 17:11
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: 4M60827
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
1,1'-Biphenyl	92-52-4		U	20.0	2.50
1,3,5-Trinitrobenzene	99-35-4		U	5.00	2.50
1,3-Dinitrobenzene	99-65-0		U	5.00	2.50
1,4-Dioxane	123-91-1		U	10.0	5.00
2,4,5-Trichlorophenol	95-95-4		U	5.00	2.50
2,4,6-Trichlorophenol	88-06-2		U	5.00	2.50
2,4-Dichlorophenol	120-83-2		U	5.00	2.50
2,4-Dimethylphenol	105-67-9		U	5.00	2.50
2,4-Dinitrophenol	51-28-5		U	25.0	12.5
2,4-Dinitrotoluene	121-14-2		U	5.00	2.50
2,6-Dinitrotoluene	606-20-2		U	5.00	2.50
2-Chloronaphthalene	91-58-7		U	5.00	2.50
2-Chlorophenol	95-57-8		U	5.00	2.50
2-Methylnaphthalene	91-57-6		U	5.00	2.50
2-Methylphenol	95-48-7		U	5.00	2.50
2-Nitroaniline	88-74-4		U	25.0	12.5
2-Nitrophenol	88-75-5		U	5.00	2.50
3-Nitroaniline	99-09-2		U	25.0	12.5
3,3'-Dichlorobenzidine	91-94-1		U	5.00	2.50
3-,4-Methylphenol	106-44-5		U	5.00	2.50
4-Bromophenyl-phenylether	101-55-3		U	5.00	2.50
4-Chloroaniline	106-47-8		U	5.00	2.50

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-05I-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 17:11
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: 4M60827
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
4-Nitrophenol	100-02-7		U	25.0	12.5
Acenaphthene	83-32-9		U	5.00	2.50
Acenaphthylene	208-96-8		U	5.00	2.50
Anthracene	120-12-7		U	5.00	2.50
Benzo(a)anthracene	56-55-3		U	5.00	2.50
Benzo(a)pyrene	50-32-8		U	5.00	2.50
Benzo(b)fluoranthene	205-99-2		U	5.00	2.50
Benzo(g,h,i)Perylene	191-24-2		U	5.00	2.50
Benzo(k)fluoranthene	207-08-9		U	5.00	2.50
Benzoic acid	65-85-0		U	20.0	10.0
Benzyl alcohol	100-51-6		U	5.00	2.50
Bis(2-Chloroethyl)ether	111-44-4		U	5.00	2.50
Bis(2-Chloroethoxy)Methane	111-91-1		U	5.00	2.50
bis(2-Ethylhexyl)phthalate	117-81-7		U	5.00	2.50
Butylbenzylphthalate	85-68-7		U	5.00	2.50
Carbazole	86-74-8		U	20.0	2.50
Chrysene	218-01-9		U	5.00	2.50
Di-N-Butylphthalate	84-74-2		U	5.00	2.50
Di-n-octylphthalate	117-84-0		U	5.00	2.50
Dibenzo(a,h)Anthracene	53-70-3		U	5.00	2.50
Dibenzofuran	132-64-9		U	5.00	2.50
Diethylphthalate	84-66-2		U	5.00	2.50
Dimethylphthalate	131-11-3		U	5.00	2.50
Fluoranthene	206-44-0		U	5.00	2.50
Fluorene	86-73-7		U	5.00	2.50
Hexachlorobenzene	118-74-1		U	5.00	2.50
Hexachlorobutadiene	87-68-3		U	5.00	2.50
Hexachlorocyclopentadiene	77-47-4		U	5.00	2.50
Hexachloroethane	67-72-1		U	5.00	2.50
Indeno(1,2,3-cd)pyrene	193-39-5		U	5.00	2.50
Isophorone	78-59-1		U	5.00	2.50
N-Nitrosodiphenylamine	86-30-6		U	5.00	2.50
Naphthalene	91-20-3		U	5.00	2.50

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-05I-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 17:11
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: 4M60827
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Nitrobenzene	98-95-3		U	5.00	2.50
Pentachlorophenol	87-86-5		U	25.0	12.5
Phenanthrene	85-01-8		U	5.00	2.50
Phenol	108-95-2		U	5.00	2.50
Pyrene	129-00-0		U	5.00	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	71.6	10	123	
2-Fluorobiphenyl	75.4	43	116	
2-Fluorophenol	67.1	21	100	
Nitrobenzene-d5	77.5	35	114	
p-Terphenyl-d14	82.1	33	141	
Phenol-d5	73.0	10	94	

U	Not detected at or above adjusted sample detection limit.
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Sample #: L12050050-01	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-05I-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 17:11
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: 4M60827
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
unknown		4.25		0.000	0.000
unknown		7.27		0.000	0.000

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: HPMS7
Client ID: MW-05I-050112	Prep Method: 3510C	Prep Date: 05/03/2012 09:30
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/04/2012 12:53
Workgroup #: WG397013	Analyst: CAA	Run Date: 05/04/2012 17:50
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: 7M54902
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
2-Methylnaphthalene	91-57-6		U	0.0549	0.0275
Acenaphthene	83-32-9		U	0.0549	0.0275
Acenaphthylene	208-96-8		U	0.0549	0.0275
Anthracene	120-12-7		U	0.0549	0.0275
Benzo(a)anthracene	56-55-3		U	0.0549	0.0275
Benzo(a)pyrene	50-32-8		U	0.0549	0.0275
Benzo(b)fluoranthene	205-99-2		U	0.0549	0.0275
Benzo(g,h,i)perylene	191-24-2		U	0.0549	0.0275
Benzo(k)fluoranthene	207-08-9		U	0.0549	0.0275
Chrysene	218-01-9		U	0.0549	0.0275
Dibenzo(a,h)anthracene	53-70-3		U	0.0549	0.0275
Fluoranthene	206-44-0		U	0.0549	0.0275
Fluorene	86-73-7		U	0.0549	0.0275
Indeno(1,2,3-cd)pyrene	193-39-5		U	0.0549	0.0275
Naphthalene	91-20-3		U	0.0549	0.0275
Phenanthrene	85-01-8		U	0.0549	0.0275
Pyrene	129-00-0		U	0.0549	0.0275

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2-Fluorobiphenyl	47.5	43	116	
Nitrobenzene-d5	51.4	35	114	
p-Terphenyl-d14	89.1	33	141	
U	Not detected at or above adjusted sample detection limit.			

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-05I-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 18:32
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: P2.050812.183232
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Aluminum, Total	7429-90-5		U	0.100	0.0500
Barium, Total	7440-39-3	0.164		0.0100	0.00250
Beryllium, Total	7440-41-7		U	0.00200	0.000500
Cadmium, Total	7440-43-9	0.000862		0.000500	0.000250
Calcium, Total	7440-70-2	101		0.200	0.100
Chromium, Total	7440-47-3		U	0.00500	0.00250
Cobalt, Total	7440-48-4		U	0.0200	0.00250
Copper, Total	7440-50-8		U	0.0200	0.00500
Iron, Total	7439-89-6	0.207		0.100	0.0250
Magnesium, Total	7439-95-4	42.5		0.500	0.250
Manganese, Total	7439-96-5	0.0359		0.0100	0.00500
Nickel, Total	7440-02-0		U	0.0400	0.00500
Potassium, Total	7440-09-7	3.45		1.00	0.250
Silver, Total	7440-22-4		U	0.0100	0.00500
Sodium, Total	7440-23-5	58.5		0.500	0.250
Vanadium, Total	7440-62-2	0.00920		0.0100	0.00500
Zinc, Total	7440-66-6		U	0.0200	0.00500
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-05I-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:10
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: NI.050312.141000
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Antimony, Total	7440-36-0		U	0.00100	0.000500
Arsenic, Total	7440-38-2	0.00214		0.00100	0.000500
Lead, Total	7439-92-1		U	0.00100	0.000500
Selenium, Total	7782-49-2	0.00212		0.00100	0.000500
Thallium, Total	7440-28-0	0.000167		0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: HYDRA
Client ID: MW-051-050112	Prep Method: 7470A	Prep Date: 05/07/2012 11:16
Matrix: Water	Analytical Method: 7470A	Cal Date: 05/09/2012 09:01
Workgroup #: WG397350	Analyst: PDM	Run Date: 05/09/2012 09:43
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: HY.050912.094346
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Mercury	7439-97-6		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-051-050112	Prep Method: 310.2	Prep Date: N/A
Matrix: Water	Analytical Method: 310.2	Cal Date: 05/04/2012 16:48
Workgroup #: WG397079	Analyst: DIH	Run Date: 05/04/2012 17:14
Collect Date: 05/01/2012 11:37	Dilution: 2	File ID: SC120504007.040
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Alkalinity, Total (as CaCO3)		344		40.0	20.0

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-051-050112	Prep Method: 353.2	Prep Date: N/A
Matrix: Water	Analytical Method: 353.2	Cal Date: 05/01/2012 15:43
Workgroup #: WG396816	Analyst: DIH	Run Date: 05/02/2012 14:04
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: SC12050708534901
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Nitrate (as N)	14797-55-8	0.0830		0.0500	0.0250

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-051-050112	Prep Method: 365.4	Prep Date: N/A
Matrix: Water	Analytical Method: 365.4	Cal Date: 05/08/2012 12:37
Workgroup #: WG397261	Analyst: DIH	Run Date: 05/08/2012 12:45
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: SC120508004.020
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Phosphorus, Total	7723-14-0		U	0.200	0.100

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-05I-050112	Prep Method: 365.4	Prep Date: N/A
Matrix: Water	Analytical Method: 365.4	Cal Date: 05/08/2012 12:37
Workgroup #: WG397261	Analyst: DIH	Run Date: 05/08/2012 12:45
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: SC120508004.020
Sample Tag: 01	Units: mg/L	

U	Not detected at or above adjusted sample detection limit.
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Sample #: L12050050-01	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-05I-050112	Prep Method: 375.4	Prep Date: N/A
Matrix: Water	Analytical Method: 375.4	Cal Date: 05/03/2012 07:30
Workgroup #: WG396835	Analyst: DIH	Run Date: 05/03/2012 07:52
Collect Date: 05/01/2012 11:37	Dilution: 4	File ID: SC120503001.046
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Sulfate	14808-79-8	83.5		20.0	10.0

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: TOC-VWP
Client ID: MW-05I-050112	Prep Method: 415.1	Prep Date: N/A
Matrix: Water	Analytical Method: 415.1	Cal Date: 12/06/2011 09:40
Workgroup #: WG396994	Analyst: DIH	Run Date: 05/04/2012 20:23
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: TC05042012.046
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Total Organic Carbon		3.83		1.00	0.500

Certificate of Analysis

Sample #: L12050050-02	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-05I-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 18:50
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: P2.050812.185026
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Aluminum, Dissolved	7429-90-5		U	0.100	0.0500
Barium, Dissolved	7440-39-3	0.154		0.0100	0.00250
Beryllium, Dissolved	7440-41-7		U	0.00200	0.000500
Cadmium, Dissolved	7440-43-9	0.000512		0.000500	0.000250
Calcium, Dissolved	7440-70-2	98.6		0.200	0.100
Chromium, Dissolved	7440-47-3		U	0.00500	0.00250
Cobalt, Dissolved	7440-48-4		U	0.0200	0.00250
Copper, Dissolved	7440-50-8		U	0.0200	0.00500
Iron, Dissolved	7439-89-6	0.174		0.100	0.0250
Magnesium, Dissolved	7439-95-4	42.8		0.500	0.250
Manganese, Dissolved	7439-96-5	0.0417		0.0100	0.00500
Nickel, Dissolved	7440-02-0		U	0.0400	0.00500
Potassium, Dissolved	7440-09-7	3.53		1.00	0.250
Silver, Dissolved	7440-22-4		U	0.0100	0.00500
Sodium, Dissolved	7440-23-5	61.3		0.500	0.250
Vanadium, Dissolved	7440-62-2	0.00760		0.0100	0.00500
Zinc, Dissolved	7440-66-6		U	0.0200	0.00500
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-02	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-05I-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:12
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: NI.050312.141247
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Antimony, Dissolved	7440-36-0		U	0.00100	0.000500
Arsenic, Dissolved	7440-38-2	0.00193		0.00100	0.000500
Lead, Dissolved	7439-92-1		U	0.00100	0.000500
Selenium, Dissolved	7782-49-2	0.00162		0.00100	0.000500
Thallium, Dissolved	7440-28-0	0.000172		0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Certificate of Analysis

Sample #: L12050050-02	PrePrep Method: N/A	Instrument: HYDRA
Client ID: MW-05I-050112	Prep Method: 7470A	Prep Date: 05/07/2012 11:16
Matrix: Water	Analytical Method: 7470A	Cal Date: 05/09/2012 09:01
Workgroup #: WG397350	Analyst: PDM	Run Date: 05/09/2012 09:50
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: HY.050912.095048
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Mercury, Dissolved	7439-97-6		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HPMS6
Client ID: MW-05S-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/07/2012 01:44
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: 6M107936
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1		U	5.00	2.00
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	10.0	2.50
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Acetone	67-64-1		U	10.0	2.50

Certificate of Analysis

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HPMS6
Client ID: MW-05S-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/07/2012 01:44
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: 6M107936
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Benzene	71-43-2		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
Cyclohexane	110-82-7		U	5.00	1.00
Dibromochloromethane	124-48-1		U	1.00	0.250
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
Ethyl benzene	100-41-4		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
Methyl acetate	79-20-9		U	5.00	1.00
Methyl tert-butyl ether	1634-04-4		U	1.00	0.500
Methylcyclohexane	108-87-2		U	5.00	1.00
Methylene chloride	75-09-2		U	5.00	0.250
m,p-Xylene	179601-23-1		U	1.00	0.500
o-Xylene	95-47-6		U	1.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250
Vinyl chloride	75-01-4		U	1.00	0.250
Epichlorohydrin	106-89-8			0.000	0.000

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	108	80	120	

Certificate of Analysis

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HPMS6
Client ID: MW-05S-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/07/2012 01:44
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: 6M107936
Sample Tag: 01	Units: ug/L	

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Dibromofluoromethane	106	86	118	
p-Bromofluorobenzene	105	86	115	
Toluene-d8	103	88	110	
U	Not detected at or above adjusted sample detection limit.			

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HP16
Client ID: MW-05S-050112	Prep Method: 5021	Prep Date: N/A
Matrix: Water	Analytical Method: RSK175	Cal Date: 04/30/2012 15:04
Workgroup #: WG396966	Analyst: FJB	Run Date: 05/03/2012 16:42
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: 16G32173
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Methane	74-82-8	49.3		5.00	1.00
Carbon Dioxide	124-38-9	53900		10000	2500

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-05S-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 17:45
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: 4M60828
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
unknown		4.64		0.000	0.000
unknown		7.10		0.000	0.000
unknown		7.60		0.000	0.000
unknown		5.43		0.000	0.000
unknown		7.86		0.000	0.000
unknown		4.16		0.000	0.000
unknown		8.14		0.000	0.000
unknown		5.26		0.000	0.000

Certificate of Analysis

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-05S-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 17:45
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: 4M60828
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
1,1'-Biphenyl	92-52-4		U	20.0	2.50
1,3,5-Trinitrobenzene	99-35-4		U	5.00	2.50
1,3-Dinitrobenzene	99-65-0		U	5.00	2.50
1,4-Dioxane	123-91-1		U	10.0	5.00
2,4,5-Trichlorophenol	95-95-4		U	5.00	2.50
2,4,6-Trichlorophenol	88-06-2		U	5.00	2.50
2,4-Dichlorophenol	120-83-2		U	5.00	2.50
2,4-Dimethylphenol	105-67-9		U	5.00	2.50
2,4-Dinitrophenol	51-28-5		U	25.0	12.5
2,4-Dinitrotoluene	121-14-2		U	5.00	2.50
2,6-Dinitrotoluene	606-20-2		U	5.00	2.50
2-Chloronaphthalene	91-58-7		U	5.00	2.50
2-Chlorophenol	95-57-8		U	5.00	2.50
2-Methylnaphthalene	91-57-6		U	5.00	2.50
2-Methylphenol	95-48-7		U	5.00	2.50
2-Nitroaniline	88-74-4		U	25.0	12.5
2-Nitrophenol	88-75-5		U	5.00	2.50
3-Nitroaniline	99-09-2		U	25.0	12.5
3,3'-Dichlorobenzidine	91-94-1		U	5.00	2.50
3-,4-Methylphenol	106-44-5		U	5.00	2.50
4-Bromophenyl-phenylether	101-55-3		U	5.00	2.50
4-Chloroaniline	106-47-8		U	5.00	2.50
4-Nitrophenol	100-02-7		U	25.0	12.5
Acenaphthene	83-32-9		U	5.00	2.50
Acenaphthylene	208-96-8		U	5.00	2.50
Anthracene	120-12-7		U	5.00	2.50
Benzo(a)anthracene	56-55-3		U	5.00	2.50
Benzo(a)pyrene	50-32-8		U	5.00	2.50
Benzo(b)fluoranthene	205-99-2		U	5.00	2.50
Benzo(g,h,i)Perylene	191-24-2		U	5.00	2.50
Benzo(k)fluoranthene	207-08-9		U	5.00	2.50
Benzoic acid	65-85-0		U	20.0	10.0
Benzyl alcohol	100-51-6		U	5.00	2.50

Certificate of Analysis

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-05S-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 17:45
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: 4M60828
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Bis(2-Chloroethyl)ether	111-44-4		U	5.00	2.50
Bis(2-Chloroethoxy)Methane	111-91-1		U	5.00	2.50
bis(2-Ethylhexyl)phthalate	117-81-7		U	5.00	2.50
Butylbenzylphthalate	85-68-7		U	5.00	2.50
Carbazole	86-74-8		U	20.0	2.50
Chrysene	218-01-9		U	5.00	2.50
Di-N-Butylphthalate	84-74-2		U	5.00	2.50
Di-n-octylphthalate	117-84-0		U	5.00	2.50
Dibenzo(a,h)Anthracene	53-70-3		U	5.00	2.50
Dibenzofuran	132-64-9		U	5.00	2.50
Diethylphthalate	84-66-2		U	5.00	2.50
Dimethylphthalate	131-11-3		U	5.00	2.50
Fluoranthene	206-44-0		U	5.00	2.50
Fluorene	86-73-7		U	5.00	2.50
Hexachlorobenzene	118-74-1		U	5.00	2.50
Hexachlorobutadiene	87-68-3		U	5.00	2.50
Hexachlorocyclopentadiene	77-47-4		U	5.00	2.50
Hexachloroethane	67-72-1		U	5.00	2.50
Indeno(1,2,3-cd)pyrene	193-39-5		U	5.00	2.50
Isophorone	78-59-1		U	5.00	2.50
N-Nitrosodiphenylamine	86-30-6		U	5.00	2.50
Naphthalene	91-20-3		U	5.00	2.50
Nitrobenzene	98-95-3		U	5.00	2.50
Pentachlorophenol	87-86-5		U	25.0	12.5
Phenanthrene	85-01-8		U	5.00	2.50
Phenol	108-95-2		U	5.00	2.50
Pyrene	129-00-0		U	5.00	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	91.4	10	123	
2-Fluorobiphenyl	95.2	43	116	
2-Fluorophenol	83.0	21	100	
Nitrobenzene-d5	97.9	35	114	
p-Terphenyl-d14	103	33	141	

Certificate of Analysis

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-05S-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 17:45
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: 4M60828
Sample Tag: 01	Units: ug/L	

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Phenol-d5	88.8	10	94	
U	Not detected at or above adjusted sample detection limit.			

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HPMS7
Client ID: MW-05S-050112	Prep Method: 3510C	Prep Date: 05/03/2012 09:30
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/04/2012 12:53
Workgroup #: WG397013	Analyst: CAA	Run Date: 05/04/2012 18:18
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: 7M54903
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
2-Methylnaphthalene	91-57-6		U	0.0538	0.0269
Acenaphthene	83-32-9		U	0.0538	0.0269
Acenaphthylene	208-96-8		U	0.0538	0.0269
Anthracene	120-12-7		U	0.0538	0.0269
Benzo(a)anthracene	56-55-3		U	0.0538	0.0269
Benzo(a)pyrene	50-32-8		U	0.0538	0.0269
Benzo(b)fluoranthene	205-99-2		U	0.0538	0.0269
Benzo(g,h,i)perylene	191-24-2		U	0.0538	0.0269
Benzo(k)fluoranthene	207-08-9		U	0.0538	0.0269
Chrysene	218-01-9		U	0.0538	0.0269
Dibenzo(a,h)anthracene	53-70-3		U	0.0538	0.0269
Fluoranthene	206-44-0		U	0.0538	0.0269
Fluorene	86-73-7		U	0.0538	0.0269
Indeno(1,2,3-cd)pyrene	193-39-5		U	0.0538	0.0269
Naphthalene	91-20-3		U	0.0538	0.0269
Phenanthrene	85-01-8		U	0.0538	0.0269
Pyrene	129-00-0		U	0.0538	0.0269

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2-Fluorobiphenyl	63.1	43	116	
Nitrobenzene-d5	67.5	35	114	
p-Terphenyl-d14	91.3	33	141	
U	Not detected at or above adjusted sample detection limit.			

Certificate of Analysis

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-05S-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 18:56
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: P2.050812.185624
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Aluminum, Total	7429-90-5		U	0.100	0.0500
Barium, Total	7440-39-3	0.0552		0.0100	0.00250
Beryllium, Total	7440-41-7		U	0.00200	0.000500
Cadmium, Total	7440-43-9	0.000381		0.000500	0.000250
Calcium, Total	7440-70-2	125		0.200	0.100
Chromium, Total	7440-47-3		U	0.00500	0.00250
Cobalt, Total	7440-48-4		U	0.0200	0.00250
Copper, Total	7440-50-8		U	0.0200	0.00500
Iron, Total	7439-89-6	0.124		0.100	0.0250
Magnesium, Total	7439-95-4	34.6		0.500	0.250
Manganese, Total	7439-96-5	0.0476		0.0100	0.00500
Nickel, Total	7440-02-0		U	0.0400	0.00500
Potassium, Total	7440-09-7	2.86		1.00	0.250
Silver, Total	7440-22-4		U	0.0100	0.00500
Sodium, Total	7440-23-5	40.2		0.500	0.250
Vanadium, Total	7440-62-2	0.00631		0.0100	0.00500
Zinc, Total	7440-66-6		U	0.0200	0.00500
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-05S-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:15
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: NI.050312.141534
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Antimony, Total	7440-36-0		U	0.00100	0.000500
Arsenic, Total	7440-38-2	0.00207		0.00100	0.000500
Lead, Total	7439-92-1		U	0.00100	0.000500
Selenium, Total	7782-49-2	0.00268		0.00100	0.000500
Thallium, Total	7440-28-0	0.000124		0.000200	0.000100

Certificate of Analysis

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-05S-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:15
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: NI.050312.141534
Sample Tag: 01	Units: mg/L	

U	Not detected at or above adjusted sample detection limit.
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Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HYDRA
Client ID: MW-05S-050112	Prep Method: 7470A	Prep Date: 05/07/2012 11:16
Matrix: Water	Analytical Method: 7470A	Cal Date: 05/09/2012 09:01
Workgroup #: WG397350	Analyst: PDM	Run Date: 05/09/2012 09:52
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: HY.050912.095231
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Mercury	7439-97-6		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-05S-050112	Prep Method: 310.2	Prep Date: N/A
Matrix: Water	Analytical Method: 310.2	Cal Date: 05/04/2012 16:48
Workgroup #: WG397079	Analyst: DIH	Run Date: 05/04/2012 17:15
Collect Date: 05/01/2012 13:33	Dilution: 2	File ID: SC120504007.041
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Alkalinity, Total (as CaCO3)		358		40.0	20.0

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-05S-050112	Prep Method: 353.2	Prep Date: N/A
Matrix: Water	Analytical Method: 353.2	Cal Date: 05/01/2012 15:43
Workgroup #: WG396816	Analyst: DIH	Run Date: 05/02/2012 14:04
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: SC12050708535301
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Nitrate (as N)	14797-55-8	0.115		0.0500	0.0250

Certificate of Analysis

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-05S-050112	Prep Method: 365.4	Prep Date: N/A
Matrix: Water	Analytical Method: 365.4	Cal Date: 05/08/2012 12:37
Workgroup #: WG397261	Analyst: DIH	Run Date: 05/08/2012 12:45
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: SC120508004.021
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Phosphorus, Total	7723-14-0		U	0.200	0.100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-05S-050112	Prep Method: 375.4	Prep Date: N/A
Matrix: Water	Analytical Method: 375.4	Cal Date: 05/03/2012 07:30
Workgroup #: WG396835	Analyst: DIH	Run Date: 05/03/2012 07:53
Collect Date: 05/01/2012 13:33	Dilution: 5	File ID: SC120503001.047
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Sulfate	14808-79-8	149		25.0	12.5

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: TOC-VWP
Client ID: MW-05S-050112	Prep Method: 415.1	Prep Date: N/A
Matrix: Water	Analytical Method: 415.1	Cal Date: 12/06/2011 09:40
Workgroup #: WG396994	Analyst: DIH	Run Date: 05/04/2012 20:47
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: TC05042012.047
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Total Organic Carbon		3.14		1.00	0.500

Certificate of Analysis

Sample #: L12050050-04	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-05S-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 19:03
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: P2.050812.190358
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Aluminum, Dissolved	7429-90-5		U	0.100	0.0500
Barium, Dissolved	7440-39-3	0.0529		0.0100	0.00250
Beryllium, Dissolved	7440-41-7		U	0.00200	0.000500
Cadmium, Dissolved	7440-43-9	0.000267		0.000500	0.000250
Calcium, Dissolved	7440-70-2	127		0.200	0.100
Chromium, Dissolved	7440-47-3		U	0.00500	0.00250
Cobalt, Dissolved	7440-48-4		U	0.0200	0.00250
Copper, Dissolved	7440-50-8		U	0.0200	0.00500
Iron, Dissolved	7439-89-6	0.111		0.100	0.0250
Magnesium, Dissolved	7439-95-4	35.0		0.500	0.250
Manganese, Dissolved	7439-96-5	0.0501		0.0100	0.00500
Nickel, Dissolved	7440-02-0		U	0.0400	0.00500
Potassium, Dissolved	7440-09-7	2.88		1.00	0.250
Silver, Dissolved	7440-22-4		U	0.0100	0.00500
Sodium, Dissolved	7440-23-5	40.8		0.500	0.250
Vanadium, Dissolved	7440-62-2	0.00509		0.0100	0.00500
Zinc, Dissolved	7440-66-6	0.00696		0.0200	0.00500
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-04	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-05S-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:18
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: NI.050312.141821
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Antimony, Dissolved	7440-36-0		U	0.00100	0.000500
Arsenic, Dissolved	7440-38-2	0.00173		0.00100	0.000500
Lead, Dissolved	7439-92-1		U	0.00100	0.000500
Selenium, Dissolved	7782-49-2	0.00285		0.00100	0.000500
Thallium, Dissolved	7440-28-0	0.000125		0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Certificate of Analysis

Sample #: L12050050-04	PrePrep Method: N/A	Instrument: HYDRA
Client ID: MW-05S-050112	Prep Method: 7470A	Prep Date: 05/07/2012 11:16
Matrix: Water	Analytical Method: 7470A	Cal Date: 05/09/2012 09:01
Workgroup #: WG397350	Analyst: PDM	Run Date: 05/09/2012 09:54
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: HY.050912.095413
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Mercury, Dissolved	7439-97-6		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HPMS6
Client ID: MW-24-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/07/2012 02:16
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: 6M107937
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1		U	5.00	2.00
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	10.0	2.50
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Acetone	67-64-1	8.05		10.0	2.50

Certificate of Analysis

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HPMS6
Client ID: MW-24-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/07/2012 02:16
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: 6M107937
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Benzene	71-43-2		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
Cyclohexane	110-82-7		U	5.00	1.00
Dibromochloromethane	124-48-1		U	1.00	0.250
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
Ethyl benzene	100-41-4		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
Methyl acetate	79-20-9		U	5.00	1.00
Methyl tert-butyl ether	1634-04-4		U	1.00	0.500
Methylcyclohexane	108-87-2		U	5.00	1.00
Methylene chloride	75-09-2		U	5.00	0.250
m,p-Xylene	179601-23-1		U	1.00	0.500
o-Xylene	95-47-6		U	1.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250
Vinyl chloride	75-01-4		U	1.00	0.250
Epichlorohydrin	106-89-8			0.000	0.000

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	109	80	120	

Certificate of Analysis

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HPMS6
Client ID: MW-24-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/07/2012 02:16
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: 6M107937
Sample Tag: 01	Units: ug/L	

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Dibromofluoromethane	109	86	118	
p-Bromofluorobenzene	107	86	115	
Toluene-d8	102	88	110	
U	Not detected at or above adjusted sample detection limit.			

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HP16
Client ID: MW-24-050112	Prep Method: 5021	Prep Date: N/A
Matrix: Water	Analytical Method: RSK175	Cal Date: 04/30/2012 15:04
Workgroup #: WG396966	Analyst: FJB	Run Date: 05/03/2012 16:51
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: 16G32174
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Methane	74-82-8	2920	E	5.00	1.00
Carbon Dioxide	124-38-9	246000		10000	2500
E	Semiquantitative result (out of calibration range)				

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HP16
Client ID: MW-24-050112	Prep Method: 5021	Prep Date: N/A
Matrix: Water	Analytical Method: RSK175	Cal Date: 04/30/2012 15:04
Workgroup #: WG397035	Analyst: MDA	Run Date: 05/04/2012 14:49
Collect Date: 05/01/2012 09:30	Dilution: 10	File ID: 16G32206
Sample Tag: DL01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Methane	74-82-8	2360		50.0	10.0
Carbon Dioxide	124-38-9	229000		100000	25000

Certificate of Analysis

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-24-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 18:21
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: 4M60829
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Butane, 2-methoxy-2-methyl-		6.01		0.000	0.000
unknown		8.33		0.000	0.000
unknown		25.5		0.000	0.000
Dodecanoic acid		24.0		0.000	0.000
unknown		5.32		0.000	0.000
Heptaethylene glycol		9.07		0.000	0.000
unknown		13.4		0.000	0.000
unknown		5.73		0.000	0.000
Hexagol		14.7		0.000	0.000
unknown		20.9		0.000	0.000
unknown		6.37		0.000	0.000
Hexagol		17.2		0.000	0.000
unknown		8.88		0.000	0.000
unknown		14.6		0.000	0.000
unknown		6.27		0.000	0.000

Certificate of Analysis

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-24-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 18:21
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: 4M60829
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
1,1'-Biphenyl	92-52-4		U	23.8	2.98
1,3,5-Trinitrobenzene	99-35-4		U	5.95	2.98
1,3-Dinitrobenzene	99-65-0		U	5.95	2.98
1,4-Dioxane	123-91-1		U	11.9	5.95
2,4,5-Trichlorophenol	95-95-4		U	5.95	2.98
2,4,6-Trichlorophenol	88-06-2		U	5.95	2.98
2,4-Dichlorophenol	120-83-2		U	5.95	2.98
2,4-Dimethylphenol	105-67-9		U	5.95	2.98
2,4-Dinitrophenol	51-28-5		U	29.8	14.9
2,4-Dinitrotoluene	121-14-2		U	5.95	2.98
2,6-Dinitrotoluene	606-20-2		U	5.95	2.98
2-Chloronaphthalene	91-58-7		U	5.95	2.98
2-Chlorophenol	95-57-8		U	5.95	2.98
2-Methylnaphthalene	91-57-6		U	5.95	2.98
2-Methylphenol	95-48-7		U	5.95	2.98
2-Nitroaniline	88-74-4		U	29.8	14.9
2-Nitrophenol	88-75-5		U	5.95	2.98
3-Nitroaniline	99-09-2		U	29.8	14.9
3,3'-Dichlorobenzidine	91-94-1		U	5.95	2.98
3-,4-Methylphenol	106-44-5		U	5.95	2.98
4-Bromophenyl-phenylether	101-55-3		U	5.95	2.98
4-Chloroaniline	106-47-8		U	5.95	2.98
4-Nitrophenol	100-02-7		U	29.8	14.9
Acenaphthene	83-32-9		U	5.95	2.98
Acenaphthylene	208-96-8		U	5.95	2.98
Anthracene	120-12-7		U	5.95	2.98
Benzo(a)anthracene	56-55-3		U	5.95	2.98
Benzo(a)pyrene	50-32-8		U	5.95	2.98
Benzo(b)fluoranthene	205-99-2		U	5.95	2.98
Benzo(g,h,i)Perylene	191-24-2		U	5.95	2.98
Benzo(k)fluoranthene	207-08-9		U	5.95	2.98
Benzoic acid	65-85-0		U	23.8	11.9
Benzyl alcohol	100-51-6		U	5.95	2.98

Certificate of Analysis

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-24-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 18:21
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: 4M60829
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Bis(2-Chloroethyl)ether	111-44-4		U	5.95	2.98
Bis(2-Chloroethoxy)Methane	111-91-1		U	5.95	2.98
bis(2-Ethylhexyl)phthalate	117-81-7		U	5.95	2.98
Butylbenzylphthalate	85-68-7		U	5.95	2.98
Carbazole	86-74-8		U	23.8	2.98
Chrysene	218-01-9		U	5.95	2.98
Di-N-Butylphthalate	84-74-2		U	5.95	2.98
Di-n-octylphthalate	117-84-0		U	5.95	2.98
Dibenzo(a,h)Anthracene	53-70-3		U	5.95	2.98
Dibenzofuran	132-64-9		U	5.95	2.98
Diethylphthalate	84-66-2		U	5.95	2.98
Dimethylphthalate	131-11-3		U	5.95	2.98
Fluoranthene	206-44-0		U	5.95	2.98
Fluorene	86-73-7		U	5.95	2.98
Hexachlorobenzene	118-74-1		U	5.95	2.98
Hexachlorobutadiene	87-68-3		U	5.95	2.98
Hexachlorocyclopentadiene	77-47-4		U	5.95	2.98
Hexachloroethane	67-72-1		U	5.95	2.98
Indeno(1,2,3-cd)pyrene	193-39-5		U	5.95	2.98
Isophorone	78-59-1		U	5.95	2.98
N-Nitrosodiphenylamine	86-30-6		U	5.95	2.98
Naphthalene	91-20-3		U	5.95	2.98
Nitrobenzene	98-95-3		U	5.95	2.98
Pentachlorophenol	87-86-5		U	29.8	14.9
Phenanthrene	85-01-8		U	5.95	2.98
Phenol	108-95-2		U	5.95	2.98
Pyrene	129-00-0		U	5.95	2.98

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	95.6	10	123	
2-Fluorobiphenyl	80.6	43	116	
2-Fluorophenol	71.2	21	100	
Nitrobenzene-d5	88.4	35	114	
p-Terphenyl-d14	50.5	33	141	

Certificate of Analysis

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-24-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 18:21
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: 4M60829
Sample Tag: 01	Units: ug/L	

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Phenol-d5	75.8	10	94	
U	Not detected at or above adjusted sample detection limit.			

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HPMS7
Client ID: MW-24-050112	Prep Method: 3510C	Prep Date: 05/03/2012 09:30
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/04/2012 12:53
Workgroup #: WG397013	Analyst: CAA	Run Date: 05/04/2012 18:46
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: 7M54904
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
2-Methylnaphthalene	91-57-6		U	0.0556	0.0278
Acenaphthene	83-32-9		U	0.0556	0.0278
Acenaphthylene	208-96-8		U	0.0556	0.0278
Anthracene	120-12-7		U	0.0556	0.0278
Benzo(a)anthracene	56-55-3		U	0.0556	0.0278
Benzo(a)pyrene	50-32-8		U	0.0556	0.0278
Benzo(b)fluoranthene	205-99-2		U	0.0556	0.0278
Benzo(g,h,i)perylene	191-24-2		U	0.0556	0.0278
Benzo(k)fluoranthene	207-08-9		U	0.0556	0.0278
Chrysene	218-01-9		U	0.0556	0.0278
Dibenzo(a,h)anthracene	53-70-3		U	0.0556	0.0278
Fluoranthene	206-44-0		U	0.0556	0.0278
Fluorene	86-73-7		U	0.0556	0.0278
Indeno(1,2,3-cd)pyrene	193-39-5		U	0.0556	0.0278
Naphthalene	91-20-3		U	0.0556	0.0278
Phenanthrene	85-01-8		U	0.0556	0.0278
Pyrene	129-00-0		U	0.0556	0.0278

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2-Fluorobiphenyl	55.4	43	116	
Nitrobenzene-d5	59.4	35	114	
p-Terphenyl-d14	65.3	33	141	
U	Not detected at or above adjusted sample detection limit.			

Certificate of Analysis

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-24-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 19:36
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: P2.050812.193656
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Aluminum, Total	7429-90-5	2.36		0.100	0.0500
Barium, Total	7440-39-3	0.123		0.0100	0.00250
Beryllium, Total	7440-41-7		U	0.00200	0.000500
Cadmium, Total	7440-43-9	0.00148		0.000500	0.000250
Calcium, Total	7440-70-2	190		0.200	0.100
Chromium, Total	7440-47-3	0.00547		0.00500	0.00250
Cobalt, Total	7440-48-4		U	0.0200	0.00250
Copper, Total	7440-50-8	0.0111		0.0200	0.00500
Iron, Total	7439-89-6	11.8		0.100	0.0250
Magnesium, Total	7439-95-4	57.8		0.500	0.250
Manganese, Total	7439-96-5	0.636		0.0100	0.00500
Nickel, Total	7440-02-0	0.00577		0.0400	0.00500
Potassium, Total	7440-09-7	8.73		1.00	0.250
Silver, Total	7440-22-4		U	0.0100	0.00500
Vanadium, Total	7440-62-2	0.0171		0.0100	0.00500
Zinc, Total	7440-66-6	0.102		0.0200	0.00500
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-24-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/09/2012 10:16
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/09/2012 12:55
Collect Date: 05/01/2012 09:30	Dilution: 100	File ID: P2.050912.125530
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Sodium, Total	7440-23-5	723		50.0	25.0
U	Not detected at or above adjusted sample detection limit.				

Certificate of Analysis

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-24-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:21
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: NI.050312.142109
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Antimony, Total	7440-36-0	0.000738		0.00100	0.000500
Arsenic, Total	7440-38-2	0.00926		0.00100	0.000500
Lead, Total	7439-92-1	0.00661		0.00100	0.000500
Selenium, Total	7782-49-2	0.00786		0.00100	0.000500
Thallium, Total	7440-28-0	0.000108		0.000200	0.000100

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HYDRA
Client ID: MW-24-050112	Prep Method: 7470A	Prep Date: 05/07/2012 11:16
Matrix: Water	Analytical Method: 7470A	Cal Date: 05/09/2012 09:01
Workgroup #: WG397350	Analyst: PDM	Run Date: 05/09/2012 09:56
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: HY.050912.095606
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Mercury	7439-97-6		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-24-050112	Prep Method: 310.2	Prep Date: N/A
Matrix: Water	Analytical Method: 310.2	Cal Date: 05/04/2012 16:48
Workgroup #: WG397079	Analyst: DIH	Run Date: 05/04/2012 17:25
Collect Date: 05/01/2012 09:30	Dilution: 20	File ID: SC120504007.045
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Alkalinity, Total (as CaCO3)		4370		400	200

Certificate of Analysis

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-24-050112	Prep Method: 353.2	Prep Date: N/A
Matrix: Water	Analytical Method: 353.2	Cal Date: 05/01/2012 15:43
Workgroup #: WG396816	Analyst: DIH	Run Date: 05/02/2012 14:04
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: SC12050708535501
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Nitrate (as N)	14797-55-8		U	0.0500	0.0250
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-24-050112	Prep Method: 365.4	Prep Date: N/A
Matrix: Water	Analytical Method: 365.4	Cal Date: 05/08/2012 12:37
Workgroup #: WG397261	Analyst: DIH	Run Date: 05/08/2012 12:46
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: SC120508004.022
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Phosphorus, Total	7723-14-0	0.302		0.200	0.100

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-24-050112	Prep Method: 375.4	Prep Date: N/A
Matrix: Water	Analytical Method: 375.4	Cal Date: 05/03/2012 07:30
Workgroup #: WG396835	Analyst: DIH	Run Date: 05/03/2012 07:54
Collect Date: 05/01/2012 09:30	Dilution: 10	File ID: SC120503001.049
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Sulfate	14808-79-8	265		50.0	25.0

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: TOC-VWP
Client ID: MW-24-050112	Prep Method: 415.1	Prep Date: N/A
Matrix: Water	Analytical Method: 415.1	Cal Date: 12/06/2011 09:40
Workgroup #: WG396994	Analyst: DIH	Run Date: 05/05/2012 09:12
Collect Date: 05/01/2012 09:30	Dilution: 5	File ID: TC05042012.084
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Total Organic Carbon		44.2		5.00	2.50

Certificate of Analysis

Sample #: L12050050-06	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-24-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 19:42
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: P2.050812.194253
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Aluminum, Dissolved	7429-90-5		U	0.100	0.0500
Barium, Dissolved	7440-39-3	0.0976		0.0100	0.00250
Beryllium, Dissolved	7440-41-7		U	0.00200	0.000500
Cadmium, Dissolved	7440-43-9	0.000811		0.000500	0.000250
Calcium, Dissolved	7440-70-2	186		0.200	0.100
Chromium, Dissolved	7440-47-3		U	0.00500	0.00250
Cobalt, Dissolved	7440-48-4		U	0.0200	0.00250
Copper, Dissolved	7440-50-8		U	0.0200	0.00500
Iron, Dissolved	7439-89-6	6.79		0.100	0.0250
Magnesium, Dissolved	7439-95-4	52.5		0.500	0.250
Manganese, Dissolved	7439-96-5	0.619		0.0100	0.00500
Nickel, Dissolved	7440-02-0		U	0.0400	0.00500
Potassium, Dissolved	7440-09-7	8.82		1.00	0.250
Silver, Dissolved	7440-22-4		U	0.0100	0.00500
Vanadium, Dissolved	7440-62-2	0.0183		0.0100	0.00500
Zinc, Dissolved	7440-66-6	0.00875		0.0200	0.00500
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-06	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-24-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/09/2012 10:16
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/09/2012 13:02
Collect Date: 05/01/2012 09:30	Dilution: 100	File ID: P2.050912.130224
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Sodium, Dissolved	7440-23-5	703		50.0	25.0
U	Not detected at or above adjusted sample detection limit.				

Certificate of Analysis

Sample #: L12050050-06	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-24-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:23
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: NI.050312.142356
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Antimony, Dissolved	7440-36-0		U	0.00100	0.000500
Arsenic, Dissolved	7440-38-2	0.00595		0.00100	0.000500
Lead, Dissolved	7439-92-1		U	0.00100	0.000500
Selenium, Dissolved	7782-49-2	0.00539		0.00100	0.000500
Thallium, Dissolved	7440-28-0		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-06	PrePrep Method: N/A	Instrument: HYDRA
Client ID: MW-24-050112	Prep Method: 7470A	Prep Date: 05/07/2012 11:16
Matrix: Water	Analytical Method: 7470A	Cal Date: 05/09/2012 09:01
Workgroup #: WG397350	Analyst: PDM	Run Date: 05/09/2012 09:58
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: HY.050912.095801
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Mercury, Dissolved	7439-97-6		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Certificate of Analysis

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: HPMS6
Client ID: MW-01-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/07/2012 02:49
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: 6M107938
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1		U	5.00	2.00
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	10.0	2.50
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3	1.34		1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250

Certificate of Analysis

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: HPMS6
Client ID: MW-01-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/07/2012 02:49
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: 6M107938
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Cyclohexane	110-82-7		U	5.00	1.00
Dibromochloromethane	124-48-1		U	1.00	0.250
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
Ethyl benzene	100-41-4		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
Methyl acetate	79-20-9		U	5.00	1.00
Methyl tert-butyl ether	1634-04-4		U	1.00	0.500
Methylcyclohexane	108-87-2		U	5.00	1.00
Methylene chloride	75-09-2		U	5.00	0.250
m,p-Xylene	179601-23-1		U	1.00	0.500
o-Xylene	95-47-6		U	1.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250
Vinyl chloride	75-01-4		U	1.00	0.250
Epichlorohydrin	106-89-8			0.000	0.000

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	109	80	120	
Dibromofluoromethane	107	86	118	
p-Bromofluorobenzene	107	86	115	
Toluene-d8	102	88	110	

U	Not detected at or above adjusted sample detection limit.
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Certificate of Analysis

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: HP16
Client ID: MW-01-050112	Prep Method: 5021	Prep Date: N/A
Matrix: Water	Analytical Method: RSK175	Cal Date: 04/30/2012 15:04
Workgroup #: WG397035	Analyst: MDA	Run Date: 05/04/2012 13:08
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: 16G32195
Sample Tag: 02	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Methane	74-82-8	62.5		5.00	1.00
Carbon Dioxide	124-38-9	14400		10000	2500

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-01-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 18:56
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: 4M60830
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Butane, 2-methoxy-2-methyl-		5.40		0.000	0.000
unknown		9.18		0.000	0.000
unknown		9.39		0.000	0.000
unknown		4.76		0.000	0.000
unknown		9.71		0.000	0.000
unknown		4.99		0.000	0.000
unknown		7.86		0.000	0.000
unknown		8.93		0.000	0.000
unknown		5.74		0.000	0.000

Certificate of Analysis

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-01-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 18:56
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: 4M60830
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
1,1'-Biphenyl	92-52-4		U	23.8	2.98
1,3,5-Trinitrobenzene	99-35-4		U	5.95	2.98
1,3-Dinitrobenzene	99-65-0		U	5.95	2.98
1,4-Dioxane	123-91-1		U	11.9	5.95
2,4,5-Trichlorophenol	95-95-4		U	5.95	2.98
2,4,6-Trichlorophenol	88-06-2		U	5.95	2.98
2,4-Dichlorophenol	120-83-2		U	5.95	2.98
2,4-Dimethylphenol	105-67-9		U	5.95	2.98
2,4-Dinitrophenol	51-28-5		U	29.8	14.9
2,4-Dinitrotoluene	121-14-2		U	5.95	2.98
2,6-Dinitrotoluene	606-20-2		U	5.95	2.98
2-Chloronaphthalene	91-58-7		U	5.95	2.98
2-Chlorophenol	95-57-8		U	5.95	2.98
2-Methylnaphthalene	91-57-6		U	5.95	2.98
2-Methylphenol	95-48-7		U	5.95	2.98
2-Nitroaniline	88-74-4		U	29.8	14.9
2-Nitrophenol	88-75-5		U	5.95	2.98
3-Nitroaniline	99-09-2		U	29.8	14.9
3,3'-Dichlorobenzidine	91-94-1		U	5.95	2.98
3-,4-Methylphenol	106-44-5		U	5.95	2.98
4-Bromophenyl-phenylether	101-55-3		U	5.95	2.98
4-Chloroaniline	106-47-8		U	5.95	2.98
4-Nitrophenol	100-02-7		U	29.8	14.9
Acenaphthene	83-32-9		U	5.95	2.98
Acenaphthylene	208-96-8		U	5.95	2.98
Anthracene	120-12-7		U	5.95	2.98
Benzo(a)anthracene	56-55-3		U	5.95	2.98
Benzo(a)pyrene	50-32-8		U	5.95	2.98
Benzo(b)fluoranthene	205-99-2		U	5.95	2.98
Benzo(g,h,i)Perylene	191-24-2		U	5.95	2.98
Benzo(k)fluoranthene	207-08-9		U	5.95	2.98
Benzoic acid	65-85-0		U	23.8	11.9
Benzyl alcohol	100-51-6		U	5.95	2.98

Certificate of Analysis

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-01-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 18:56
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: 4M60830
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Bis(2-Chloroethyl)ether	111-44-4		U	5.95	2.98
Bis(2-Chloroethoxy)Methane	111-91-1		U	5.95	2.98
bis(2-Ethylhexyl)phthalate	117-81-7	5.68		5.95	2.98
Butylbenzylphthalate	85-68-7		U	5.95	2.98
Carbazole	86-74-8		U	23.8	2.98
Chrysene	218-01-9		U	5.95	2.98
Di-N-Butylphthalate	84-74-2		U	5.95	2.98
Di-n-octylphthalate	117-84-0		U	5.95	2.98
Dibenzo(a,h)Anthracene	53-70-3		U	5.95	2.98
Dibenzofuran	132-64-9		U	5.95	2.98
Diethylphthalate	84-66-2		U	5.95	2.98
Dimethylphthalate	131-11-3		U	5.95	2.98
Fluoranthene	206-44-0		U	5.95	2.98
Fluorene	86-73-7		U	5.95	2.98
Hexachlorobenzene	118-74-1		U	5.95	2.98
Hexachlorobutadiene	87-68-3		U	5.95	2.98
Hexachlorocyclopentadiene	77-47-4		U	5.95	2.98
Hexachloroethane	67-72-1		U	5.95	2.98
Indeno(1,2,3-cd)pyrene	193-39-5		U	5.95	2.98
Isophorone	78-59-1		U	5.95	2.98
N-Nitrosodiphenylamine	86-30-6		U	5.95	2.98
Naphthalene	91-20-3		U	5.95	2.98
Nitrobenzene	98-95-3		U	5.95	2.98
Pentachlorophenol	87-86-5		U	29.8	14.9
Phenanthrene	85-01-8		U	5.95	2.98
Phenol	108-95-2		U	5.95	2.98
Pyrene	129-00-0		U	5.95	2.98

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	98.5	10	123	
2-Fluorobiphenyl	91.7	43	116	
2-Fluorophenol	80.1	21	100	
Nitrobenzene-d5	93.6	35	114	
p-Terphenyl-d14	78.0	33	141	

Certificate of Analysis

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-01-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 18:56
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: 4M60830
Sample Tag: 01	Units: ug/L	

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Phenol-d5	85.3	10	94	
U	Not detected at or above adjusted sample detection limit.			

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: HPMS7
Client ID: MW-01-050112	Prep Method: 3510C	Prep Date: 05/03/2012 09:30
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/04/2012 12:53
Workgroup #: WG397013	Analyst: CAA	Run Date: 05/04/2012 19:13
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: 7M54905
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
2-Methylnaphthalene	91-57-6		U	0.0546	0.0273
Acenaphthene	83-32-9		U	0.0546	0.0273
Acenaphthylene	208-96-8		U	0.0546	0.0273
Anthracene	120-12-7		U	0.0546	0.0273
Benzo(a)anthracene	56-55-3		U	0.0546	0.0273
Benzo(a)pyrene	50-32-8		U	0.0546	0.0273
Benzo(b)fluoranthene	205-99-2		U	0.0546	0.0273
Benzo(g,h,i)perylene	191-24-2		U	0.0546	0.0273
Benzo(k)fluoranthene	207-08-9		U	0.0546	0.0273
Chrysene	218-01-9		U	0.0546	0.0273
Dibenzo(a,h)anthracene	53-70-3		U	0.0546	0.0273
Fluoranthene	206-44-0		U	0.0546	0.0273
Fluorene	86-73-7		U	0.0546	0.0273
Indeno(1,2,3-cd)pyrene	193-39-5		U	0.0546	0.0273
Naphthalene	91-20-3		U	0.0546	0.0273
Phenanthrene	85-01-8		U	0.0546	0.0273
Pyrene	129-00-0		U	0.0546	0.0273

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2-Fluorobiphenyl	51.6	43	116	
Nitrobenzene-d5	55.3	35	114	
p-Terphenyl-d14	83.6	33	141	
U	Not detected at or above adjusted sample detection limit.			

Certificate of Analysis

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-01-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 19:48
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: P2.050812.194852
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Aluminum, Total	7429-90-5		U	0.100	0.0500
Barium, Total	7440-39-3	0.0649		0.0100	0.00250
Beryllium, Total	7440-41-7		U	0.00200	0.000500
Cadmium, Total	7440-43-9	0.000420		0.000500	0.000250
Calcium, Total	7440-70-2	64.9		0.200	0.100
Chromium, Total	7440-47-3		U	0.00500	0.00250
Cobalt, Total	7440-48-4		U	0.0200	0.00250
Copper, Total	7440-50-8		U	0.0200	0.00500
Iron, Total	7439-89-6	0.100		0.100	0.0250
Magnesium, Total	7439-95-4	7.82		0.500	0.250
Manganese, Total	7439-96-5	0.0710		0.0100	0.00500
Nickel, Total	7440-02-0		U	0.0400	0.00500
Potassium, Total	7440-09-7	3.20		1.00	0.250
Silver, Total	7440-22-4		U	0.0100	0.00500
Sodium, Total	7440-23-5	46.1		0.500	0.250
Vanadium, Total	7440-62-2	0.00968		0.0100	0.00500
Zinc, Total	7440-66-6	0.0182		0.0200	0.00500
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-01-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:26
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: NI.050312.142643
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Antimony, Total	7440-36-0	0.000978		0.00100	0.000500
Arsenic, Total	7440-38-2	0.00241		0.00100	0.000500
Lead, Total	7439-92-1	0.0132		0.00100	0.000500
Selenium, Total	7782-49-2	0.00175		0.00100	0.000500
Thallium, Total	7440-28-0	0.000105		0.000200	0.000100

Certificate of Analysis

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: HYDRA
Client ID: MW-01-050112	Prep Method: 7470A	Prep Date: 05/07/2012 11:16
Matrix: Water	Analytical Method: 7470A	Cal Date: 05/09/2012 09:01
Workgroup #: WG397350	Analyst: PDM	Run Date: 05/09/2012 09:59
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: HY.050912.095943
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Mercury	7439-97-6		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-01-050112	Prep Method: 310.2	Prep Date: N/A
Matrix: Water	Analytical Method: 310.2	Cal Date: 05/04/2012 16:48
Workgroup #: WG397079	Analyst: DIH	Run Date: 05/04/2012 16:55
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: SC120504007.021
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Alkalinity, Total (as CaCO3)		166		20.0	10.0

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-01-050112	Prep Method: 353.2	Prep Date: N/A
Matrix: Water	Analytical Method: 353.2	Cal Date: 05/01/2012 15:43
Workgroup #: WG396816	Analyst: DIH	Run Date: 05/02/2012 14:04
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: SC12050708540101
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Nitrate (as N)	14797-55-8	0.107		0.0500	0.0250

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-01-050112	Prep Method: 365.4	Prep Date: N/A
Matrix: Water	Analytical Method: 365.4	Cal Date: 05/08/2012 12:37
Workgroup #: WG397261	Analyst: DIH	Run Date: 05/08/2012 12:47
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: SC120508004.023
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Phosphorus, Total	7723-14-0		U	0.200	0.100

Certificate of Analysis

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-01-050112	Prep Method: 365.4	Prep Date: N/A
Matrix: Water	Analytical Method: 365.4	Cal Date: 05/08/2012 12:37
Workgroup #: WG397261	Analyst: DIH	Run Date: 05/08/2012 12:47
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: SC120508004.023
Sample Tag: 01	Units: mg/L	

U	Not detected at or above adjusted sample detection limit.
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Sample #: L12050050-07	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-01-050112	Prep Method: 375.4	Prep Date: N/A
Matrix: Water	Analytical Method: 375.4	Cal Date: 05/03/2012 07:30
Workgroup #: WG396835	Analyst: DIH	Run Date: 05/03/2012 07:55
Collect Date: 05/01/2012 12:15	Dilution: 4	File ID: SC120503001.050
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Sulfate	14808-79-8	72.6		20.0	10.0

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: TOC-VWP
Client ID: MW-01-050112	Prep Method: 415.1	Prep Date: N/A
Matrix: Water	Analytical Method: 415.1	Cal Date: 12/06/2011 09:40
Workgroup #: WG396994	Analyst: DIH	Run Date: 05/04/2012 21:42
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: TC05042012.049
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Total Organic Carbon		7.71		1.00	0.500

Certificate of Analysis

Sample #: L12050050-08	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-01-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 19:55
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: P2.050812.195547
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Aluminum, Dissolved	7429-90-5		U	0.100	0.0500
Barium, Dissolved	7440-39-3	0.0682		0.0100	0.00250
Beryllium, Dissolved	7440-41-7		U	0.00200	0.000500
Cadmium, Dissolved	7440-43-9	0.000282		0.000500	0.000250
Calcium, Dissolved	7440-70-2	67.7		0.200	0.100
Chromium, Dissolved	7440-47-3		U	0.00500	0.00250
Cobalt, Dissolved	7440-48-4		U	0.0200	0.00250
Copper, Dissolved	7440-50-8		U	0.0200	0.00500
Iron, Dissolved	7439-89-6		U	0.100	0.0250
Magnesium, Dissolved	7439-95-4	8.00		0.500	0.250
Manganese, Dissolved	7439-96-5	0.0705		0.0100	0.00500
Nickel, Dissolved	7440-02-0		U	0.0400	0.00500
Potassium, Dissolved	7440-09-7	3.29		1.00	0.250
Silver, Dissolved	7440-22-4		U	0.0100	0.00500
Sodium, Dissolved	7440-23-5	47.9		0.500	0.250
Vanadium, Dissolved	7440-62-2	0.00843		0.0100	0.00500
Zinc, Dissolved	7440-66-6	0.0173		0.0200	0.00500
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-08	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-01-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:35
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: NI.050312.143509
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Antimony, Dissolved	7440-36-0	0.000973		0.00100	0.000500
Arsenic, Dissolved	7440-38-2	0.00214		0.00100	0.000500
Lead, Dissolved	7439-92-1	0.00940		0.00100	0.000500
Selenium, Dissolved	7782-49-2	0.00141		0.00100	0.000500
Thallium, Dissolved	7440-28-0		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Certificate of Analysis

Sample #: L12050050-08	PrePrep Method: N/A	Instrument: HYDRA
Client ID: MW-01-050112	Prep Method: 7470A	Prep Date: 05/07/2012 11:16
Matrix: Water	Analytical Method: 7470A	Cal Date: 05/09/2012 09:01
Workgroup #: WG397350	Analyst: PDM	Run Date: 05/09/2012 10:01
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: HY.050912.100125
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Mercury, Dissolved	7439-97-6		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-09	PrePrep Method: N/A	Instrument: HPMS6
Client ID: TB-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/06/2012 22:29
Collect Date: 05/01/2012 08:05	Dilution: 1	File ID: 6M107930
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1		U	5.00	2.00
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	10.0	2.50
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Acetone	67-64-1		U	10.0	2.50

Certificate of Analysis

Sample #: L12050050-09	PrePrep Method: N/A	Instrument: HPMS6
Client ID: TB-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/06/2012 22:29
Collect Date: 05/01/2012 08:05	Dilution: 1	File ID: 6M107930
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Benzene	71-43-2		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
Cyclohexane	110-82-7		U	5.00	1.00
Dibromochloromethane	124-48-1		U	1.00	0.250
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
Ethyl benzene	100-41-4		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
Methyl acetate	79-20-9		U	5.00	1.00
Methyl tert-butyl ether	1634-04-4		U	1.00	0.500
Methylcyclohexane	108-87-2		U	5.00	1.00
Methylene chloride	75-09-2		U	5.00	0.250
m,p-Xylene	179601-23-1		U	1.00	0.500
o-Xylene	95-47-6		U	1.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250
Vinyl chloride	75-01-4		U	1.00	0.250
Epichlorohydrin	106-89-8			0.000	0.000

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	107	80	120	

Certificate of Analysis

Sample #: L12050050-09	PrePrep Method: N/A	Instrument: HPMS6
Client ID: TB-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/06/2012 22:29
Collect Date: 05/01/2012 08:05	Dilution: 1	File ID: 6M107930
Sample Tag: 01	Units: ug/L	

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Dibromofluoromethane	105	86	118	
p-Bromofluorobenzene	107	86	115	
Toluene-d8	101	88	110	
U	Not detected at or above adjusted sample detection limit.			

2.0 Full Sample Data Package

2.1 Volatiles Data

2.1.1 Volatiles GCMS Data (8260)

2.1.1.1 Summary Data



Login Number: L12050050
Department: Volatiles
Analyst: Mary Schilling

METHOD

Preparation SW-846 5030C/5035A

Analysis SW-846 8260B

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: Recoveries out of range were observed for the following analytes: trans-1,3-Dichloropropene. Please see the applicable QC report for a detailed presentation of the failures.

Matrix Spikes: Microbac Laboratories recommends site specific MS/MSD samples to avoid possible data qualifications.

SAMPLES

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Other: None.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak. In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak. This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline. There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous. Other situations involving integration errors may require in-depth review and technical

judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

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

Narrative ID: 46416

Approved By: Michael Albertson



Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: HPMS6
Client ID: MW-05I-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/07/2012 01:11
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: 6M107935
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1		U	5.00	2.00
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	10.0	2.50
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: HPMS6
Client ID: MW-05I-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/07/2012 01:11
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: 6M107935
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Cyclohexane	110-82-7		U	5.00	1.00
Dibromochloromethane	124-48-1		U	1.00	0.250
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
Ethyl benzene	100-41-4		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
Methyl acetate	79-20-9		U	5.00	1.00
Methyl tert-butyl ether	1634-04-4		U	1.00	0.500
Methylcyclohexane	108-87-2		U	5.00	1.00
Methylene chloride	75-09-2		U	5.00	0.250
m,p-Xylene	179601-23-1		U	1.00	0.500
o-Xylene	95-47-6		U	1.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250
Vinyl chloride	75-01-4		U	1.00	0.250
Epichlorohydrin	106-89-8			0.000	0.000

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	112	80	120	
Dibromofluoromethane	111	86	118	
p-Bromofluorobenzene	111	86	115	
Toluene-d8	105	88	110	

U	Not detected at or above adjusted sample detection limit.
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Certificate of Analysis

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HPMS6
Client ID: MW-05S-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/07/2012 01:44
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: 6M107936
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1		U	5.00	2.00
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	10.0	2.50
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250

Certificate of Analysis

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HPMS6
Client ID: MW-05S-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/07/2012 01:44
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: 6M107936
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Cyclohexane	110-82-7		U	5.00	1.00
Dibromochloromethane	124-48-1		U	1.00	0.250
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
Ethyl benzene	100-41-4		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
Methyl acetate	79-20-9		U	5.00	1.00
Methyl tert-butyl ether	1634-04-4		U	1.00	0.500
Methylcyclohexane	108-87-2		U	5.00	1.00
Methylene chloride	75-09-2		U	5.00	0.250
m,p-Xylene	179601-23-1		U	1.00	0.500
o-Xylene	95-47-6		U	1.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250
Vinyl chloride	75-01-4		U	1.00	0.250
Epichlorohydrin	106-89-8			0.000	0.000

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	108	80	120	
Dibromofluoromethane	106	86	118	
p-Bromofluorobenzene	105	86	115	
Toluene-d8	103	88	110	

U	Not detected at or above adjusted sample detection limit.
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Certificate of Analysis

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HPMS6
Client ID: MW-24-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/07/2012 02:16
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: 6M107937
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1		U	5.00	2.00
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	10.0	2.50
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Acetone	67-64-1	8.05		10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250

Certificate of Analysis

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HPMS6
Client ID: MW-24-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/07/2012 02:16
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: 6M107937
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Cyclohexane	110-82-7		U	5.00	1.00
Dibromochloromethane	124-48-1		U	1.00	0.250
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
Ethyl benzene	100-41-4		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
Methyl acetate	79-20-9		U	5.00	1.00
Methyl tert-butyl ether	1634-04-4		U	1.00	0.500
Methylcyclohexane	108-87-2		U	5.00	1.00
Methylene chloride	75-09-2		U	5.00	0.250
m,p-Xylene	179601-23-1		U	1.00	0.500
o-Xylene	95-47-6		U	1.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250
Vinyl chloride	75-01-4		U	1.00	0.250
Epichlorohydrin	106-89-8			0.000	0.000

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	109	80	120	
Dibromofluoromethane	109	86	118	
p-Bromofluorobenzene	107	86	115	
Toluene-d8	102	88	110	

U Not detected at or above adjusted sample detection limit.

Certificate of Analysis

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: HPMS6
Client ID: MW-01-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/07/2012 02:49
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: 6M107938
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1		U	5.00	2.00
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	10.0	2.50
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3	1.34		1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250

Certificate of Analysis

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: HPMS6
Client ID: MW-01-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/07/2012 02:49
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: 6M107938
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Cyclohexane	110-82-7		U	5.00	1.00
Dibromochloromethane	124-48-1		U	1.00	0.250
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
Ethyl benzene	100-41-4		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
Methyl acetate	79-20-9		U	5.00	1.00
Methyl tert-butyl ether	1634-04-4		U	1.00	0.500
Methylcyclohexane	108-87-2		U	5.00	1.00
Methylene chloride	75-09-2		U	5.00	0.250
m,p-Xylene	179601-23-1		U	1.00	0.500
o-Xylene	95-47-6		U	1.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250
Vinyl chloride	75-01-4		U	1.00	0.250
Epichlorohydrin	106-89-8			0.000	0.000

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	109	80	120	
Dibromofluoromethane	107	86	118	
p-Bromofluorobenzene	107	86	115	
Toluene-d8	102	88	110	

U	Not detected at or above adjusted sample detection limit.
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Certificate of Analysis

Sample #: L12050050-09	PrePrep Method: N/A	Instrument: HPMS6
Client ID: TB-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/06/2012 22:29
Collect Date: 05/01/2012 08:05	Dilution: 1	File ID: 6M107930
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1		U	5.00	2.00
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	10.0	2.50
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250

Certificate of Analysis

Sample #: L12050050-09	PrePrep Method: N/A	Instrument: HPMS6
Client ID: TB-050112	Prep Method: 5030B/5030C/5035A	Prep Date: N/A
Matrix: Water	Analytical Method: 8260B	Cal Date: 04/25/2012 14:42
Workgroup #: WG397130	Analyst: MES	Run Date: 05/06/2012 22:29
Collect Date: 05/01/2012 08:05	Dilution: 1	File ID: 6M107930
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Cyclohexane	110-82-7		U	5.00	1.00
Dibromochloromethane	124-48-1		U	1.00	0.250
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
Ethyl benzene	100-41-4		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
Methyl acetate	79-20-9		U	5.00	1.00
Methyl tert-butyl ether	1634-04-4		U	1.00	0.500
Methylcyclohexane	108-87-2		U	5.00	1.00
Methylene chloride	75-09-2		U	5.00	0.250
m,p-Xylene	179601-23-1		U	1.00	0.500
o-Xylene	95-47-6		U	1.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250
Vinyl chloride	75-01-4		U	1.00	0.250
Epichlorohydrin	106-89-8			0.000	0.000

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	107	80	120	
Dibromofluoromethane	105	86	118	
p-Bromofluorobenzene	107	86	115	
Toluene-d8	101	88	110	

U	Not detected at or above adjusted sample detection limit.
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2.1.1.2 QC Summary Data

Example 8260 Calculations

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

$$RF = [(Ax) (Cis)] / [(Ais) (Cx)]$$

Example

where:

Ax = Area of the characteristic ion for the compound being measured:	3399156
Cis = Concentration of the specific internal standard (ug/mL)	25
Ais = Area of the characteristic ion of the specific internal standard	846471
Cx = Concentration of the compound in the standard being measured (ug/mL)	100
 RF = Calculated Response Factor	 1.0039

2.0 Calculating the concentration (C) of a compound in water using the average RF: *

$$Cx = [(Ax) (Cis) (Vn)(D)] / [(Ais) (RF) (Vs)]$$

Example

where:

Ax = Area of the characteristic ion for the compound being measured	3122498
Cis = Concentration of the specific internal standard (ug/L)	25
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	611048
RF = Average RF from the ICAL	1.004
Vs = Purge volume of sample (mL)	10
Vn = Nominal purge volume of sample (mL) (10.0 mL)	10
Cx = Concentration of the compound in the sample being measured (ug/L)	127.2428

3.0 Calculating the concentration (C) of a compound in soil using the average RF: *

$$Cx = [(Ax) (Cis) (Wn)(D)] / [(Ais) (RF) (Ws)]$$

Example

where:

Ax = Area of the characteristic ion for the compound being measured	3122498
Cis = Concentration of the specific internal standard (ug/L)	25
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	611048
RF = Average RF from the ICAL	1.004
Ws = Weight of sample purged (g)	5
Wn = Nominal purge weight (g) (5.0 g)	5
Cx = Concentration of the compound in the sample being measured (ug/L)	127.2428

Dry weight correction:

Percent solids (PCT_S)	50
Cd = (Cx) (100)/PCT_S	254.4856

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

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, $y = mx + b$

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve = 0.213

b = intercept from curve = - 0.00642

Step 2: Calculate y from Quantitation Report

$$y = 86550/593147 = 0.1459$$

Step 3: Solve for x

$$x = (y - b)/m = [(0.1459 - (-0.00642))/0.213] = 0.7152$$

Step 4: Solve for analyte concentration Cx

$$Cx = Cis (x) = (25.0)(0.7152) = 17.88$$

Example Spreadsheet Calculation:

Slope from curve, m:	0.213
Intercept from curve, b:	-0.00642
Area of analyte, Ax:	86550
Area of Internal Standard, Ais:	593147
Concentration of IS, Cis	25.00
Response Ratio:	0.145917
Amount Ratio:	0.715195
Concentration:	17.87988
Units of Internal Standard:	ug/L

5.0 Concentration from Quadratic Regression

Step 1 - Retrieve Curve Data from Plot, $y = Ax^2 + Bx + C$

Where:

$$Ax^2 + Bx + (C - y) = 0$$

A, B, C = constants from the ICAL quadratic regression

y = Response ratio = Area of analyte/Area of internal standard (IS)

x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

$$y = Ax/Ais$$

Step 3: Solve for x using the quadratic formula

$$Ax^2 + Bx + C - y = 0$$

$$x = \frac{b \pm \sqrt{(b^2 - 4a(c - y))}}{2a} \quad \text{(Two possible solutions)}$$

Step 4: Solve for analyte concentration Cx

$$Cx = (Cis)(\text{Amount ratio})$$

Example Spreadsheet Calculation:

Value of A from plot:	-0.00629
Value of B from plot:	0.511
Value of C from plot:	-0.0276
Area of unknown from quantitation report:	293821
Area of IS from quantitation report:	784848
Response ratio, y:	0.374367
C - y:	-0.40197
Root 1 - Computed amount ratio, X1:	80.44567
Root 2 - Computed amount ratio, X2:	0.794396 use this solution
Concentration of IS, Cis:	25.00
Concentration of analyte, Cx:	19.86 ug/L

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS6 Dataset: 012512
 Analyst1: ADC Analyst2: NA
 Method: 8260B/OVAP SOP: MSV01 Rev: 14/0
 Method: 624 SOP: MSV10 Rev: 8
 Method: 5030B/5030C/5035A SOP: PAT01 Rev: 13
 Maintenance Log ID: 40412

Internal Standard: STD49576 Surrogate Standard: STD49251
 CCV: STD49665; STD49721 LCS: STD49523; STD49518 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG387849; WG387881

Comments:

File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
6M105367	WG387846-01 50ng BFB STD 8260	NA	1	1	STD49582	01/25/12 08:08
6M105368	WG387846-02 50ug/L CCV STD 8260	NA	1	1	STD49665	01/25/12 08:34
6M105369	WG387XXX-01 100ug/L A9 CCV STD 8260	NA	1	1	STD49484	01/25/12 09:07
6M105370	WG387849-01 VBLK0125 BLANK STD 826	NA	1	1		01/25/12 09:40
6M105371	WG388587-01 5ug/L 826A9FOO QC	NA	1	1	STD49721	01/25/12 10:12
6M105372	WG388587-02 20ug/L 826A9FOO QC	NA	1	1	STD49721	01/25/12 10:45
6M105373	WG388587-03 50ug/L 826A9FOO QC	NA	1	1	STD49721	01/25/12 11:17
6M105374	WG388587-04 100ug/L 826A9FOO QC	NA	1	1	STD49721	01/25/12 11:49
6M105375	WG388587-05 200ug/L 826A9FOO QC	NA	1	1	STD49721	01/25/12 12:22
6M105376	WG388587-06 300ug/L 826A9FOO QC	NA	1	1	STD49721	01/25/12 12:55
6M105377	WG388587-07 400ug/L 826A9FOO QC	NA	1	1	STD49721	01/25/12 13:27
6M105378	WG388587-08 100ug/L ALT 826A9FOO Q	NA	1	1	STD49721	01/25/12 14:00
6M105379	WG387849-02 20ug/L LCS STD 8260	NA	1	1	STD49523	01/25/12 14:32
6M105380	WG387849-03 20ug/L LCSDUP STD 8260	NA	1	1	STD49523	01/25/12 15:05
6M105381	L12010470-02 B 100X 826-SPE D1	<2	1	100		01/25/12 15:37
6M105382	L12010470-03 B 100X 826-SPE D1	<2	1	100		01/25/12 16:09
6M105383	L12010470-04 B 100X 826-SPE D1	<2	1	100		01/25/12 16:42
6M105384	L12010470-05 B 100X 826-SPE D1	<2	1	100		01/25/12 17:14
6M105385	L12010470-01 B 500X 826-SPE D1	<2	1	500		01/25/12 17:47
6M105386	L12010534-01 B 200X 826-SPE D1	<2	1	200		01/25/12 18:19
6M105387	L12010534-02 B 2X 826-SPE D1	<2	1	2		01/25/12 18:51
6M105388	L12010534-03 B 2X 826-SPE D1	<2	1	2		01/25/12 19:24
6M105389	L12010481-15 B 25X 826-SPE D1	<2	1	25		01/25/12 19:56
6M105390	RINSE	NA	1	1		01/25/12 20:29
6M105391	RINSE	NA	1	1		01/25/12 21:01
6M105392	RINSE	NA	1	1		01/25/12 21:33

Comments

Seq.	Rerun	Dil.	Reason	Analytes
3				
File ID: 6M105369				
Not needed, DNR.				
19	X	2000	Over Calibration Range	CIS12-DCE

Approved: January 26, 2012

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS6 Dataset: 012512
 Analyst1: ADC Analyst2: NA
 Method: 8260B/OVAP SOP: MSV01 Rev: 14/0
 Method: 624 SOP: MSV10 Rev: 8
 Method: 5030B/5030C/5035A SOP: PAT01 Rev: 13
 Maintenance Log ID: 40412

Internal Standard: STD49576 Surrogate Standard: STD49251
 CCV: STD49665; STD49721 LCS: STD49523; STD49518 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG387849; WG387881

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
File ID: 6M105385				
20	X	500	Over Calibration Range	TCE
File ID: 6M105386				

Approved: January 26, 2012

Page: 2

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS6 Dataset: 042512
 Analyst1: ADC Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 14
 Method: 5030C SOP: PAT01 Rev: 13

Maintenance Log ID: 41536

Internal Standard: STD51188 Surrogate Standard: STD51262
 CCV: STD51130 LCS: STD51176 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG396001 (ICAL)

Comments:

File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
6M107637	WG396001-01 50ng/L BFB STD 8260	NA	1	1	STD51241	04/25/12 08:52
6M107638	RINSE	NA	1	1	STD51130	04/25/12 09:17
6M107639	WG396001-02 0.3 ug/L STD 8260	NA	1	1	STD51130	04/25/12 09:49
6M107640	WG396001-03 0.4 ug/L STD 8260	NA	1	1	STD51130	04/25/12 10:22
6M107641	WG396001-04 1.0 ug/L STD 8260	NA	1	1	STD51130	04/25/12 10:54
6M107642	WG396001-05 2.0 ug/L STD 8260	NA	1	1	STD51130	04/25/12 11:27
6M107643	WG396001-06 5.0 ug/L STD 8260	NA	1	1	STD51130	04/25/12 11:59
6M107644	WG396001-07 20.0 ug/L STD 8260	NA	1	1	STD51130	04/25/12 12:32
6M107645	WG396001-08 50.0 ug/L STD 8260	NA	1	1	STD51130	04/25/12 13:04
6M107646	WG396001-09 100.0 ug/L STD 8260	NA	1	1	STD51130	04/25/12 13:37
6M107647	WG396001-10 200.0 ug/L STD 8260	NA	1	1	STD51130	04/25/12 14:10
6M107648	WG396001-11 300.0 ug/L STD 8260	NA	1	1	STD51130	04/25/12 14:42
6M107649	RINSE	NA	1	1	STD51130	04/25/12 15:15
6M107650	WG396001-12 50.0 ug/L ALT SRC 8260	NA	1	1	STD51176	04/25/12 15:46

Approved: May 01, 2012

Page: 1




Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS6 Dataset: 050612
 Analyst1: MES Analyst2: NA
 Method: 8260 SOP: MSV01 Rev: _____
 Method: 5030/5035 SOP: PAT01 Rev: _____

Maintenance Log ID: 41730

Internal Standard: STD51188 Surrogate Standard: STD51262
 CCV: STD51468 LCS: STD51372 MS/MSD: STD51372
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG397130

Comments:

File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
6M107918	WG397129-01 50ng BFB STD 8260	NA	1	1	STD51241	05/06/12 16:05
6M107919	WG397129-01 50ng BFB STD 8260	NA	1	1	STD51241	05/06/12 16:33
6M107920	WG397129-02 50ug/L CCV STD 8260	NA	1	1	STD51468	05/06/12 17:04
6M107921	WG397131-01 100ug/L A9CCV STD 8260	NA	1	1	STD51240	05/06/12 17:36
6M107922	WG397130-01 BLANK 5/6 8260	NA	1	1		05/06/12 18:09
6M107923	WG397130-02 20ug/L LCS 8260	NA	1	1	STD51372	05/06/12 18:42
6M107924	L12050010-02 MS A 826-SPE	<2	1	1	STD51372	05/06/12 19:14
6M107925	L12050010-03 MSD A 826-SPE	<2	1	1	STD51372	05/06/12 19:47
6M107926	L12040879-04 B 20X 826-SPE	<2	1	20		05/06/12 20:19
6M107927	L12050010-01 A 826-SPE	<2	1	1		05/06/12 20:52
6M107928	L12050013-03 A 826-A9	<2	1	1		05/06/12 21:24
6M107929	L12050011-06 A 826-SPE	<2	1	1		05/06/12 21:57
6M107930	L12050050-09 A 826-SPE	<2	1	1		05/06/12 22:29
6M107931	L12050008-01 A 826-SPE	<2	1	1		05/06/12 23:02
6M107932	L12050013-01 A 826-A9	<2	1	1		05/06/12 23:34
6M107933	L12050013-02 A 826-A9	<2	1	1		05/07/12 00:07
6M107934	L12050011-05 A 826-SPE	<2	1	1		05/07/12 00:39
6M107935	L12050050-01 A 826-SPE	<2	1	1		05/07/12 01:11
6M107936	L12050050-03 A 826-SPE	<2	1	1		05/07/12 01:44
6M107937	L12050050-05 A 826-SPE	<2	1	1		05/07/12 02:16
6M107938	L12050050-07 A 826-SPE	<2	1	1		05/07/12 02:49
6M107939	L12050011-01 A 826-SPE	<2	1	1		05/07/12 03:21
6M107940	L12050011-03 A 826-SPE	<2	1	1		05/07/12 03:54
6M107941	L12050008-02 A 20X 826-SPE	<2	1	20		05/07/12 04:26
6M107942	RINSE	NA	1	1		05/07/12 04:59
6M107943	RINSE	NA	1	1		05/07/12 05:31
6M107944	RINSE	NA	1	1		05/07/12 06:03

Comments

Seq.	Rerun	Dil.	Reason	Analytes
24				
File ID: 6M107941				
dnr rr 10x				

Approved: May 15, 2012

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Microbac Laboratories Inc.

Data Checklist

Date: 25-JAN-2012
 Analyst: ADC
 Analyst: NA
 Method: 8260B/624/OVAP
 Instrument: HPMS6
 Curve Workgroup: NA
 Runlog ID: 44829
 Analytical Workgroups: WG387849; WG387881

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	X
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	TMB
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
26-JAN-2012



Secondary Reviewer:
26-JAN-2012




Microbac Laboratories Inc.

Data Checklist

Date: 25-APR-2012
 Analyst: ADC
 Analyst: NA
 Method: 8260
 Instrument: HPMS8
 Curve Workgroup: WG396001
 Runlog ID: 46468
 Analytical Workgroups: _____

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	NA
TCL Hits	NA
Spectra of TCL Hits	NA
Surrogates	NA
Internal Standards Criteria	NA
Library Searches	NA
Calculations & Correct Factors	NA
Dilutions Run	NA
Reruns	NA
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	ADC
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
30-APR-2012



Secondary Reviewer:
01-MAY-2012




Microbac Laboratories Inc.

Data Checklist

Date: 06-MAY-2012
 Analyst: MES
 Analyst: NA
 Method: 8260
 Instrument: HPMS6
 Curve Workgroup: NA
 Runlog ID: 46754
 Analytical Workgroups: WG397130

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	X
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	NA
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	MES
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
15-MAY-2012



Secondary Reviewer:
15-MAY-2012




Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B
 Login Number: L12050050

AAB#: WG397130

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MW-05I-050112	01	05/01/12								14	05/07/12	5.6	14	
MW-05S-050112	03	05/01/12								14	05/07/12	5.5	14	
MW-24-050112	05	05/01/12								14	05/07/12	5.7	14	
MW-01-050112	07	05/01/12								14	05/07/12	5.6	14	
TB-050112	09	05/01/12								14	05/06/12	5.6	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2415631
 Report generated 05/15/2012 15:18



Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number:L12050050
Instrument Id:HPMS6
Workgroup (AAB#):WG397130

Method:8260
CAL ID: HPMS6 - 25-APR-12
Matrix:Water

Sample Number	Dilution	Tag	1	2	3	4
L12050050-01	1.00	01	112	111	111	105
L12050050-03	1.00	01	108	106	105	103
L12050050-05	1.00	01	109	109	107	102
L12050050-07	1.00	01	109	107	107	102
L12050050-09	1.00	01	107	105	107	101
WG397130-01	1.00	01	106	106	108	103
WG397130-02	1.00	01	102	103	105	100

Surrogates	Surrogate Limits	
1 - 1,2-Dichloroethane-d4	80	- 120
2 - Dibromofluoromethane	86	- 118
3 - p-Bromofluorobenzene	86	- 115
4 - Toluene-d8	88	- 110

Underline = Result out of surrogate limits

DL = surrogate diluted out

ND = surrogate not detected



METHOD BLANK SUMMARY

Login Number: L12050050 Work Group: WG397130
 Blank File ID: 6M107922 Blank Sample ID: WG397130-01
 Prep Date: 05/06/12 18:09 Instrument ID: HPMS6
 Analyzed Date: 05/06/12 18:09 Method: 8260B
 Analyst: MES

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG397130-02	6M107923	05/06/12 18:42	01
TB-050112	L12050050-09	6M107930	05/06/12 22:29	01
MW-05I-050112	L12050050-01	6M107935	05/07/12 01:11	01
MW-05S-050112	L12050050-03	6M107936	05/07/12 01:44	01
MW-24-050112	L12050050-05	6M107937	05/07/12 02:16	01
MW-01-050112	L12050050-07	6M107938	05/07/12 02:49	01

Report Name: BLANK_SUMMARY
 PDF File ID: 2415632
 Report generated 05/15/2012 15:18



METHOD BLANK REPORT

Login Number: L12050050 Prep Date: 05/06/12 18:09 Sample ID: WG397130-01
Instrument ID: HPMS6 Run Date: 05/06/12 18:09 Prep Method: 5030B/5030C/503
File ID: 6M107922 Analyst: MES Method: 8260B
Workgroup (AAB#): WG397130 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS6-25-APR-12

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.200	1.00	0.200	1	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	2.00	5.00	2.00	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
1,2,3-Trichlorobenzene	0.500	1.00	0.500	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
2-Butanone	2.50	10.0	2.50	1	U
2-Hexanone	2.50	10.0	2.50	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chloroethane	0.500	1.00	0.500	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.500	1.00	0.500	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
Cyclohexane	1.00	5.00	1.00	1	U
Dibromochloromethane	0.250	1.00	0.250	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
Ethyl benzene	0.250	1.00	0.250	1	U
Isopropylbenzene	0.250	1.00	0.250	1	U
Methyl acetate	1.00	5.00	1.00	1	U
Methyl tert-butyl ether	0.500	1.00	0.500	1	U
Methylcyclohexane	1.00	5.00	1.00	1	U
Methylene chloride	0.250	5.00	0.250	1	U

Report Name: BLANK

PDF ID: 2415633

15-MAY-2012 15:18



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L12050050 Prep Date: 05/06/12 18:09 Sample ID: WG397130-01
Instrument ID: HPMS6 Run Date: 05/06/12 18:09 Prep Method: 5030B/5030C/503
File ID: 6M107922 Analyst: MES Method: 8260B
Workgroup (AAB#): WG397130 Matrix: Water Units: ug/L
Contract #: _____ Cal ID: HPMS6-25-APR-12

Analytes	MDL	RL	Concentration	Dilution	Qualifier
m,p-Xylene	0.500	1.00	0.500	1	U
o-Xylene	0.250	1.00	0.250	1	U
Styrene	0.125	1.00	0.125	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
Vinyl chloride	0.250	1.00	0.250	1	U

Surrogates	% Recovery	Surrogate Limits		Qualifier
1,2-Dichloroethane-d4	106	80	- 120	PASS
Dibromofluoromethane	106	86	- 118	PASS
p-Bromofluorobenzene	108	86	- 115	PASS
Toluene-d8	103	88	- 110	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2415633
15-MAY-2012 15:18



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12050050 Run Date: 05/06/2012 Sample ID: WG397130-02
 Instrument ID: HPMS6 Run Time: 18:42 Prep Method: 5030B/5030C/503
 File ID: 6M107923 Analyst: MES Method: 8260B
 Workgroup (AAB#): WG397130 Matrix: Water Units: ug/L
 QC Key: WATERLOO Lot#: STD51372 Cal ID: HPMS6-25-APR-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,1,1-Trichloroethane	20.0	18.8	94.1	80 - 134	
1,1,2,2-Tetrachloroethane	20.0	19.7	98.5	79 - 125	
1,1,2-Trichloro-1,2,2-Trifluoroethane	20.0	17.7	88.5	80 - 130	
1,1,2-Trichloroethane	20.0	18.5	92.3	80 - 125	
1,1-Dichloroethane	20.0	19.0	94.9	80 - 125	
1,1-Dichloroethene	20.0	18.6	93.0	80 - 132	
1,2,3-Trichlorobenzene	20.0	19.6	98.2	55 - 140	
1,2,4-Trichlorobenzene	20.0	19.9	99.7	65 - 135	
1,2-Dibromo-3-chloropropane	20.0	18.6	92.8	50 - 130	
1,2-Dibromoethane	20.0	18.7	93.3	80 - 125	
1,2-Dichlorobenzene	20.0	18.6	92.8	80 - 125	
1,2-Dichloroethane	20.0	19.5	97.7	80 - 129	
cis-1,2-Dichloroethene	20.0	19.9	99.4	70 - 125	
trans-1,2-Dichloroethene	20.0	18.4	92.0	80 - 127	
1,2-Dichloropropane	20.0	20.2	101	80 - 120	
1,3-Dichlorobenzene	20.0	18.4	92.1	80 - 120	
1,4-Dichlorobenzene	20.0	17.8	89.1	80 - 120	
2-Butanone	20.0	22.7	113	30 - 150	
2-Hexanone	20.0	21.6	108	55 - 130	
4-Methyl-2-pentanone	20.0	21.1	106	64 - 140	
Acetone	20.0	21.5	108	40 - 142	
Benzene	20.0	19.0	95.1	80 - 121	
Bromochloromethane	20.0	20.4	102	65 - 130	
Bromodichloromethane	20.0	20.6	103	80 - 131	
Bromoform	20.0	19.7	98.4	70 - 130	
Bromomethane	20.0	16.4	81.8	30 - 145	
Carbon disulfide	20.0	20.2	101	58 - 138	
Carbon tetrachloride	20.0	19.8	99.2	65 - 140	
Chlorobenzene	20.0	17.6	88.0	80 - 120	
Chloroethane	20.0	18.5	92.5	60 - 135	
Chloroform	20.0	19.3	96.5	80 - 125	
Chloromethane	20.0	23.7	118	40 - 125	
cis-1,3-Dichloropropene	20.0	18.3	91.5	70 - 130	
Cyclohexane	20.0	20.2	101	80 - 130	
Dibromochloromethane	20.0	17.4	87.2	60 - 135	
Dichlorodifluoromethane	20.0	24.2	121	50 - 133	
Ethyl benzene	20.0	18.4	92.2	80 - 122	
Isopropylbenzene	20.0	16.0	80.1	80 - 122	
Methyl acetate	20.0	18.0	89.8	80 - 130	
Methyl tert-butyl ether	20.0	18.6	93.0	65 - 125	
Methylcyclohexane	20.0	21.3	107	80 - 130	

LCS - Modified 03/06/2008
 PDF File ID: 2415634
 Report generated: 05/15/2012 15:18



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12050050 Run Date: 05/06/2012 Sample ID: WG397130-02
 Instrument ID: HPMS6 Run Time: 18:42 Prep Method: 5030B/5030C/503
 File ID: 6M107923 Analyst: MES Method: 8260B
 Workgroup (AAB#): WG397130 Matrix: Water Units: ug/L
 QC Key: WATERLOO Lot#: STD51372 Cal ID: HPMS6-25-APR-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Methylene chloride	20.0	19.1	95.6	80 - 123	
m,p-Xylene	40.0	36.8	91.9	80 - 122	
o-Xylene	20.0	18.2	90.8	80 - 122	
Styrene	20.0	17.0	85.1	80 - 123	
Tetrachloroethene	20.0	18.7	93.5	80 - 124	
Toluene	20.0	18.0	89.9	80 - 124	
trans-1,3-Dichloropropene	20.0	15.7	78.7	80 - 130	*
Trichloroethene	20.0	19.3	96.3	80 - 122	
Trichlorofluoromethane	20.0	17.8	89.0	62 - 151	
Vinyl chloride	20.0	19.7	98.5	65 - 140	

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	102	80 - 120	PASS
Dibromofluoromethane	103	86 - 118	PASS
p-Bromofluorobenzene	105	86 - 115	PASS
Toluene-d8	100	88 - 110	PASS

* EXCEEDS %REC LIMIT

LCS - Modified 03/06/2008
 PDF File ID: 2415634
 Report generated: 05/15/2012 15:18



Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L12050050 Tune ID: WG387846-01
 Instrument: HPMS6 Run Date: 01/25/2012
 Analyst: ADC Run Time: 08:08
 Workgroup: WG387846 File ID: 6M105367
 Cal ID: HPMS6-29-NOV-11

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	20.4	3936	PASS
75.0	95.0	30.0	60.0	46.9	9059	PASS
95.0	95.0	100	100	100	19320	PASS
96.0	95.0	5.00	9.00	6.53	1262	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	91.6	17704	PASS
175	174	5.00	9.00	6.91	1223	PASS
176	174	95.0	101	96.1	17017	PASS
177	176	5.00	9.00	5.94	1011	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG388587-01	STD	01	01/25/2012 10:12	
WG388587-02	STD	01	01/25/2012 10:45	
WG388587-03	STD	01	01/25/2012 11:17	
WG388587-04	STD-CCV	01	01/25/2012 11:49	
WG388587-05	STD	01	01/25/2012 12:22	
WG388587-06	STD	01	01/25/2012 12:55	
WG388587-07	STD	01	01/25/2012 13:27	
WG388587-08	SSCV	01	01/25/2012 14:00	

* Sample past 12 hour tune limit



Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L12050050

Tune ID: WG396001-01

Instrument: HPMS6

Run Date: 04/25/2012

Analyst: ADC

Run Time: 08:52

Workgroup: WG396001

File ID: 6M107637

Cal ID: HPMS6-25-APR-12

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	21.9	4659	PASS
75.0	95.0	30.0	60.0	48.5	10324	PASS
95.0	95.0	100	100	100	21302	PASS
96.0	95.0	5.00	9.00	6.91	1471	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	76.2	16231	PASS
175	174	5.00	9.00	7.67	1245	PASS
176	174	95.0	101	100	16295	PASS
177	176	5.00	9.00	6.52	1063	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG396001-02	STD	01	04/25/2012 09:49	
WG396001-03	STD	01	04/25/2012 10:22	
WG396001-04	STD	01	04/25/2012 10:54	
WG396001-05	STD	01	04/25/2012 11:27	
WG396001-06	STD	01	04/25/2012 11:59	
WG396001-07	STD	01	04/25/2012 12:32	
WG396001-08	STD-CCV	01	04/25/2012 13:04	
WG396001-09	STD	01	04/25/2012 13:37	
WG396001-10	STD	01	04/25/2012 14:10	
WG396001-11	STD	01	04/25/2012 14:42	
WG396001-12	SSCV	01	04/25/2012 15:46	

* Sample past 12 hour tune limit



Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L12050050

Tune ID: WG397129-01

Instrument: HPMS6

Run Date: 05/06/2012

Analyst: MES

Run Time: 16:33

Workgroup: WG397129

File ID: 6M107919

Cal ID: HPMS6-25-APR-12

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	23.1	4121	PASS
75.0	95.0	30.0	60.0	49.7	8851	PASS
95.0	95.0	100	100	100	17817	PASS
96.0	95.0	5.00	9.00	6.02	1072	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	78.3	13954	PASS
175	174	5.00	9.00	6.54	913	PASS
176	174	95.0	101	97.6	13617	PASS
177	176	5.00	9.00	6.07	826	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG397129-02	CCV	01	05/06/2012 17:04	
WG397130-01	BLANK	01	05/06/2012 18:09	
WG397130-01	BLANK	01	05/06/2012 18:09	
WG397130-02	LCS	01	05/06/2012 18:42	
L12050050-09	TB-050112	01	05/06/2012 22:29	
L12050050-01	MW-05I-050112	01	05/07/2012 01:11	
L12050050-03	MW-05S-050112	01	05/07/2012 01:44	
L12050050-05	MW-24-050112	01	05/07/2012 02:16	
L12050050-07	MW-01-050112	01	05/07/2012 02:49	

* Sample past 12 hour tune limit



Calibration Table Report
 Method: A9FOOWTR.M
 Title: A9-FOO Water - IC: 01/25/12 - HPMS6
 Last Calibration: Thu Feb 02 09:44:46 2012
 Curve: WG388587
 Calibration Files

Compound	5							20							50							100							200							300							400							R^2		
	6M105371.D	6M105372.D	6M105373.D	6M105374.D	6M105375.D	6M105376.D	6M105377.D	6M105371.D	6M105372.D	6M105373.D	6M105374.D	6M105375.D	6M105376.D	6M105377.D	6M105371.D	6M105372.D	6M105373.D	6M105374.D	6M105375.D	6M105376.D	6M105377.D	6M105371.D	6M105372.D	6M105373.D	6M105374.D	6M105375.D	6M105376.D	6M105377.D	6M105371.D	6M105372.D	6M105373.D	6M105374.D	6M105375.D	6M105376.D	6M105377.D	Avg	%RSD	LINEAR														
Fluorobenzene	ISTD																																																			
Acetonitrile	0.018	0.021	0.024	0.024	0.024	0.025	0.025	0.023	11.902																																											
3-Chloro-1-propene	0.472	0.497	0.558	0.566	0.573	0.567	0.568	0.543	7.526																																											
2-Chloro-1,3-butadiene	0.409	0.461	0.530	0.541	0.554	0.549	0.549	0.513	10.953																																											
Ethyl Acetate	0.123	0.135	0.147	0.153	0.159	0.163	0.167	0.150	10.598																																											
Methacrylonitrile	0.050	0.054	0.064	0.065	0.068	0.070	0.070	0.063	12.553																																											
Isobutyl Alcohol		0.006	0.006	0.007	0.007	0.007	0.007	0.007	7.775																																											
1-Butanol			0.002	0.001	0.002	0.002	0.002	0.002	30.823	FAIL																																										
Methyl methacrylate	0.107	0.132	0.158	0.168	0.176	0.183	0.184	0.158	18.144	1.000																																										
2-Nitropropane	0.030	0.037	0.043	0.047	0.050	0.053	0.055	0.045	19.886	0.999																																										
Chlorobenzene-d5	ISTD																																																			
1,4-Dichlorobenzene-d4	ISTD																																																			
Cyclohexanone		0.017	0.023	0.025	0.029	0.032	0.032	0.026	22.204	0.998																																										

Thu Feb 02 09:47:01 2012



1,2,3-Trichloropropane		0.123	0.133	0.133	0.145	0.146	0.14	0.135	0.1363	5.8577		
trans-1,4-Dichloro-2-Butene				0.212	0.127	0.164	0.168	0.17	0.167	0.168	15.93	0.999
n-Propylbenzene	3.135	3.816	3.74	3.544	3.841	3.722	3.751	3.837	3.6735	6.461		
Bromobenzene	0.564	0.487	0.816	0.803	0.767	0.836	0.814	0.817	0.829	0.748	17.264	1
1,3,5-Trimethylbenzene		2.164	2.508	2.486	2.42	2.608	2.568	2.597	2.699	2.5061	6.4815	
2-Chlorotoluene		2.052	2.536	2.728	2.405	2.453	2.416	2.45	2.473	2.4391	7.6879	
4-Chlorotoluene		2.221	2.806	2.404	2.138	2.561	2.461	2.475	2.551	2.4521	8.4686	
a-Methylstyrene			1.094	1.106	1.103	1.377	1.387	1.438	1.491	1.2852	13.721	
tert-Butylbenzene			0.567	0.504	0.461	0.504	0.488	0.499	0.52	0.5061	6.4169	
1,2,4-Trimethylbenzene		2.28	2.744	2.674	2.495	2.742	2.702	2.754	2.806	2.6496	6.6453	
sec-Butylbenzene		2.583	3.077	2.843	2.681	2.912	2.856	2.879	2.958	2.8487	5.4395	
p-Isopropyltoluene		1.914	2.411	2.267	2.126	2.394	2.33	2.383	2.482	2.2883	8.1113	
1,3-Dichlorobenzene			1.27	1.464	1.479	1.363	1.514	1.473	1.469	1.4439	5.8813	
1,4-Dichlorobenzene	1.553	1.3	1.761	1.497	1.453	1.54	1.492	1.496	1.537	1.5143	7.8862	
n-Butylbenzene			1.71	2.061	1.961	1.836	2.088	2.048	2.059	1.9934	7.6504	
1,2-Dichlorobenzene	1.237	1.186	1.451	1.354	1.234	1.33	1.314	1.305	1.334	1.305	6.0024	
1,2-Dibromo-3-Chloropropane				0.053	0.059	0.081	0.082	0.084	0.086	0.0741	19.554	1
1,2,4-Trichlorobenzene		0.499	0.823	0.737	0.697	0.728	0.717	0.721	0.758	0.7103	13.127	
Hexachlorobutadiene		0.16	0.315	0.293	0.266	0.291	0.268	0.273	0.295	0.27	17.621	0.998
Naphthalene		1.109	1.376	1.36	1.243	1.399	1.448	1.439	1.447	1.3525	8.8321	
1,2,3-Trichlorobenzene	0.64	0.61	0.625	0.663	0.565	0.623	0.596	0.611	0.624	0.6174	4.4706	

Mon Apr 30 09:55:47 2012

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L12050050 Run Date: 04/25/2012 Sample ID: WG396001-12
 Instrument ID: HPMS6 Run Time: 15:46 Method: 8260B
 File ID: 6M107650 Analyst: ADC QC Key: WATERLOO
 ICal Workgroup: WG396001 Cal ID: HPMS6 - 25-APR-12

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	48.8	ug/L	0.448	2.40	25	
1,2-Dichloropropane	CCC	50.0	50.2	ug/L	0.286	0.400	25	
Chloroform	CCC	50.0	47.7	ug/L	0.489	4.50	25	
Ethylbenzene	CCC	50.0	50.0	ug/L	0.538	0	25	
Toluene	CCC	50.0	48.8	ug/L	1.60	2.50	25	
Vinyl Chloride	CCC	50.0	44.8	ug/L	0.372	10.4	25	
1,1,2,2-Tetrachloroethane	SPCC	50.0	52.6	ug/L	0.556	5.20	25	
1,1-Dichloroethane	SPCC	50.0	47.3	ug/L	0.537	5.30	25	
Bromoform	SPCC	50.0	52.3	ug/L	0.186	4.60	25	
Chlorobenzene	SPCC	50.0	46.9	ug/L	0.980	6.10	25	
Chloromethane	SPCC	50.0	52.5	ug/L	0.470	5.00	25	
1,1,1-Trichloroethane		50.0	48.8	ug/L	0.437	2.30	25	
1,1,2-Trichloro-1,2,2-Trifluoroethane		50.0	45.3	ug/L	0.258	9.40	25	
1,1,2-Trichloroethane		50.0	49.8	ug/L	0.263	0.500	25	
1,2,3-Trichlorobenzene		50.0	48.1	ug/L	0.594	3.70	25	
1,2,4-Trichlorobenzene		50.0	48.6	ug/L	0.691	2.70	25	
1,2-Dibromo-3-Chloropropane		50.0	48.0	ug/L	0.0804	4.00	25	
1,2-Dibromoethane		50.0	49.3	ug/L	0.256	1.50	25	
1,2-Dichlorobenzene		50.0	47.6	ug/L	1.24	4.80	25	
1,2-Dichloroethane		50.0	48.5	ug/L	0.341	3.00	25	
cis-1,2-Dichloroethene		50.0	49.7	ug/L	0.288	0.600	25	
trans-1,2-Dichloroethene		50.0	47.7	ug/L	0.265	4.60	25	
1,3-Dichlorobenzene		50.0	48.2	ug/L	1.39	3.60	25	
1,4-Dichlorobenzene		50.0	46.6	ug/L	1.41	6.70	25	
2-Butanone		50.0	53.0	ug/L	0.0702	5.90	25	
2-Hexanone		50.0	48.7	ug/L	0.123	2.60	25	
4-Methyl-2-Pentanone		50.0	53.4	ug/L	0.0531	6.90	25	
Acetone		50.0	43.4	ug/L	0.0411	13.2	25	
Benzene		50.0	48.1	ug/L	1.06	3.80	25	
Bromochloromethane		50.0	51.1	ug/L	0.158	2.20	25	
Bromodichloromethane		50.0	51.8	ug/L	0.355	3.50	25	
Bromomethane		50.0	44.2	ug/L	0.208	11.5	25	
Carbon Disulfide		50.0	47.0	ug/L	0.782	5.90	25	
Carbon Tetrachloride		50.0	50.3	ug/L	0.399	0.700	25	
Chloroethane		50.0	46.3	ug/L	0.217	7.50	25	
cis-1,3-Dichloropropene		50.0	48.0	ug/L	0.394	4.10	25	
Cyclohexane		50.0	49.9	ug/L	0.447	0.200	25	
Dibromochloromethane		50.0	47.4	ug/L	0.336	5.20	25	
Dichlorodifluoromethane		50.0	56.3	ug/L	0.370	12.7	25	
Isopropylbenzene		50.0	43.8	ug/L	1.37	12.5	25	
Methyl acetate		50.0	40.3	ug/L	0.151	19.5	25	
Methyl Tert Butyl Ether		50.0	47.0	ug/L	0.563	6.00	25	

ALT - Modified 09/06/2007
 Version 1.5 PDF File ID: 2415635
 Report generated 05/15/2012 15:18



Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L12050050 Run Date: 04/25/2012 Sample ID: WG396001-12
 Instrument ID: HPMS6 Run Time: 15:46 Method: 8260B
 File ID: 6M107650 Analyst: ADC QC Key: WATERLOO
 ICal Workgroup: WG396001 Cal ID: HPMS6 - 25-APR-12

Analyte	Expected	Found	Units	RF	%D	UCL	Q
Methylcyclohexane	50.0	52.0	ug/L	0.332	3.90	25	
Methylene Chloride	50.0	47.3	ug/L	0.269	5.40	25	
m-,p-Xylene	100	100	ug/L	0.660	0.200	25	
o-Xylene	50.0	48.9	ug/L	0.613	2.30	25	
Styrene	50.0	48.0	ug/L	1.08	4.10	25	
Tetrachloroethene	50.0	48.5	ug/L	0.372	3.00	25	
trans-1,3-Dichloropropene	50.0	43.7	ug/L	0.468	12.7	25	
Trichloroethene	50.0	48.8	ug/L	0.270	2.50	25	
Trichlorofluoromethane	50.0	44.8	ug/L	0.478	10.4	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
 SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
 Version 1.5 PDF File ID: 2415635
 Report generated 05/15/2012 15:18



CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/06/2012 Sample ID: WG397129-02
Instrument ID: HPMS6 Run Time: 17:04 Method: 8260B
File ID: 6M107920 Analyst: MES QC Key: WATERLOO
Workgroup (AAB#): WG397130 Cal ID: HPMS6 - 25-APR-12
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	50.8	ug/L	0.466	1.50	20	
1,2-Dichloropropane	CCC	50.0	51.9	ug/L	0.296	3.86	20	
Chloroform	CCC	50.0	49.9	ug/L	0.511	0.186	20	
Ethylbenzene	CCC	50.0	49.5	ug/L	0.533	1.06	20	
Toluene	CCC	50.0	47.9	ug/L	1.57	4.18	20	
Vinyl Chloride	CCC	50.0	47.6	ug/L	0.395	4.86	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	50.6	ug/L	0.535	1.26	20	
1,1-Dichloroethane	SPCC	50.0	49.9	ug/L	0.565	0.252	20	
Bromoform	SPCC	50.0	54.4	ug/L	0.194	8.86	20	
Chlorobenzene	SPCC	50.0	47.6	ug/L	0.994	4.75	20	
Chloromethane	SPCC	50.0	60.0	ug/L	0.536	19.9	20	
1,1,1-Trichloroethane		50.0	51.0	ug/L	0.456	1.91	20	
1,1,2-Trichloro-1,2,2-Trifluoroethane		50.0	47.3	ug/L	0.270	5.48	20	
1,1,2-Trichloroethane		50.0	47.7	ug/L	0.252	4.70	20	
1,2,3-Trichlorobenzene		50.0	51.1	ug/L	0.631	2.26	20	
1,2,4-Trichlorobenzene		50.0	53.3	ug/L	0.757	6.51	20	
1,2-Dibromo-3-Chloropropane		50.0	48.9	ug/L	0.0819	2.20	20	
1,2-Dibromoethane		50.0	47.8	ug/L	0.248	4.45	20	
1,2-Dichlorobenzene		50.0	49.4	ug/L	1.29	1.29	20	
1,2-Dichloroethane		50.0	50.6	ug/L	0.356	1.12	20	
cis-1,2-Dichloroethene		50.0	51.9	ug/L	0.301	3.73	20	
trans-1,2-Dichloroethene		50.0	50.2	ug/L	0.278	0.348	20	
1,3-Dichlorobenzene		50.0	50.5	ug/L	1.46	0.939	20	
1,4-Dichlorobenzene		50.0	48.2	ug/L	1.46	3.59	20	
2-Butanone		50.0	55.5	ug/L	0.0736	11.1	20	
2-Hexanone		50.0	54.0	ug/L	0.137	7.97	20	
4-Methyl-2-Pentanone		50.0	55.3	ug/L	0.0550	10.6	20	
Acetone		50.0	51.3	ug/L	0.0486	2.51	20	
Benzene		50.0	49.7	ug/L	1.10	0.569	20	
Bromochloromethane		50.0	53.4	ug/L	0.165	6.82	20	
Bromodichloromethane		50.0	51.8	ug/L	0.355	3.60	20	
Bromomethane		50.0	43.5	ug/L	0.205	13.0	20	
Carbon Disulfide		50.0	51.4	ug/L	0.854	2.72	20	
Carbon Tetrachloride		50.0	53.0	ug/L	0.420	5.97	20	
Chloroethane		50.0	50.3	ug/L	0.236	0.525	20	
cis-1,3-Dichloropropene		50.0	49.1	ug/L	0.403	1.85	20	
Cyclohexane		50.0	50.4	ug/L	0.452	0.823	20	
Dibromochloromethane		50.0	48.1	ug/L	0.342	3.71	20	
Dichlorodifluoromethane		50.0	52.8	ug/L	0.346	5.61	20	
Isopropylbenzene		50.0	50.6	ug/L	1.58	1.12	20	
Methyl acetate		50.0	49.8	ug/L	0.186	0.395	20	
Methyl Tert Butyl Ether		50.0	47.1	ug/L	0.564	5.72	20	

CCV - Modified 03/05/2008
PDF File ID: 2415637
Report generated 05/15/2012 15:18



CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/06/2012 Sample ID: WG397129-02
 Instrument ID: HPMS6 Run Time: 17:04 Method: 8260B
 File ID: 6M107920 Analyst: MES QC Key: WATERLOO
 Workgroup (AAB#): WG397130 Cal ID: HPMS6 - 25-APR-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	RF	%D	UCL	Q
Methylcyclohexane	50.0	52.2	ug/L	0.333	4.33	20	
Methylene Chloride	50.0	50.0	ug/L	0.284	0.0940	20	
m-,p-Xylene	100	100	ug/L	0.658	0.0154	20	
o-Xylene	50.0	49.2	ug/L	0.616	1.70	20	
Styrene	50.0	46.7	ug/L	1.06	6.52	20	
Tetrachloroethene	50.0	49.7	ug/L	0.381	0.606	20	
trans-1,3-Dichloropropene	50.0	46.9	ug/L	0.503	6.24	20	
Trichloroethene	50.0	50.7	ug/L	0.281	1.46	20	
Trichlorofluoromethane	50.0	47.7	ug/L	0.509	4.56	20	
1,2-Dichloroethene	100	102	ug/L	0.290	2.04	20	
Xylenes	150	149	ug/L	0.637	0.556	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
 SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
 PDF File ID: 2415637
 Report generated 05/15/2012 15:18



Microbac Laboratories Inc.
INTERNAL STANDARD AREA SUMMARY
(COMPARED TO CCV)

Login Number: L12050050
Instrument ID: HPMS6
Workgroup (AAB#): WG397130

CCV Number: WG397129-02
CAL ID: HPMS6-25-APR-12
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG397129-02	NA	NA	190870	384743	560032
Upper Limit	NA	NA	381740	769486	1120064
Lower Limit	NA	NA	95435	192372	280016
<u>L12050050-01</u>	1.00	01	132575	288872	410724
L12050050-03	1.00	01	135595	288912	420782
L12050050-05	1.00	01	133392	287120	410432
L12050050-07	1.00	01	130731	287634	413964
L12050050-09	1.00	01	144352	311337	443351
WG397130-01	1.00	01	154507	331341	477310
WG397130-02	1.00	01	173456	349504	502214

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits



Microbac Laboratories Inc.
INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO CCV)

Login Number: L12050050
Instrument ID: HPMS6
Workgroup (AAB#): WG397130

CCV Number: WG397129-02
CAL ID: HPMS6 - 25-APR-12
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG397129-02	NA	NA	18.6	15.03	10.54
Upper Limit	NA	NA	19.1	15.53	11.04
Lower Limit	NA	NA	18.1	14.53	10.04
<u>L12050050-01</u>	1.00	01	18.6	15.04	10.54
L12050050-03	1.00	01	18.6	15.03	10.54
L12050050-05	1.00	01	18.6	15.03	10.54
L12050050-07	1.00	01	18.6	15.03	10.54
L12050050-09	1.00	01	18.6	15.03	10.54
WG397130-01	1.00	01	18.6	15.03	10.54
WG397130-02	1.00	01	18.6	15.03	10.54

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits



2.1.1.3 Sample Data

Data File : C:\MSDCHEM\1\DATA\050612\6M107935.D Vial: 17
 Acq On : 7 May 2012 1:11 Operator: MES
 Sample : L12050050-01 A 826-SPE Inst : HPMS6
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 11 10:49:40 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	410724	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.04	117	288872	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	132575	25.00	ug/L	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	9.35	111	123708	27.8170	ug/L	0.00
Spiked Amount	25.000	Range 86 - 118	Recovery	=	111.28%	
43) 1,2-Dichloroethane-d4	10.08	65	122037	27.9610	ug/L	0.01
Spiked Amount	25.000	Range 80 - 120	Recovery	=	111.84%	
58) Toluene-d8	12.83	98	410857	26.1695	ug/L	0.00
Spiked Amount	25.000	Range 88 - 110	Recovery	=	104.68%	
80) p-Bromofluorobenzene	16.81	95	144040	27.6878	ug/L	0.00
Spiked Amount	25.000	Range 86 - 115	Recovery	=	110.76%	
Target Compounds						
13) Acetone	5.62	43	223	0.2865	ug/L #	Qvalue 46

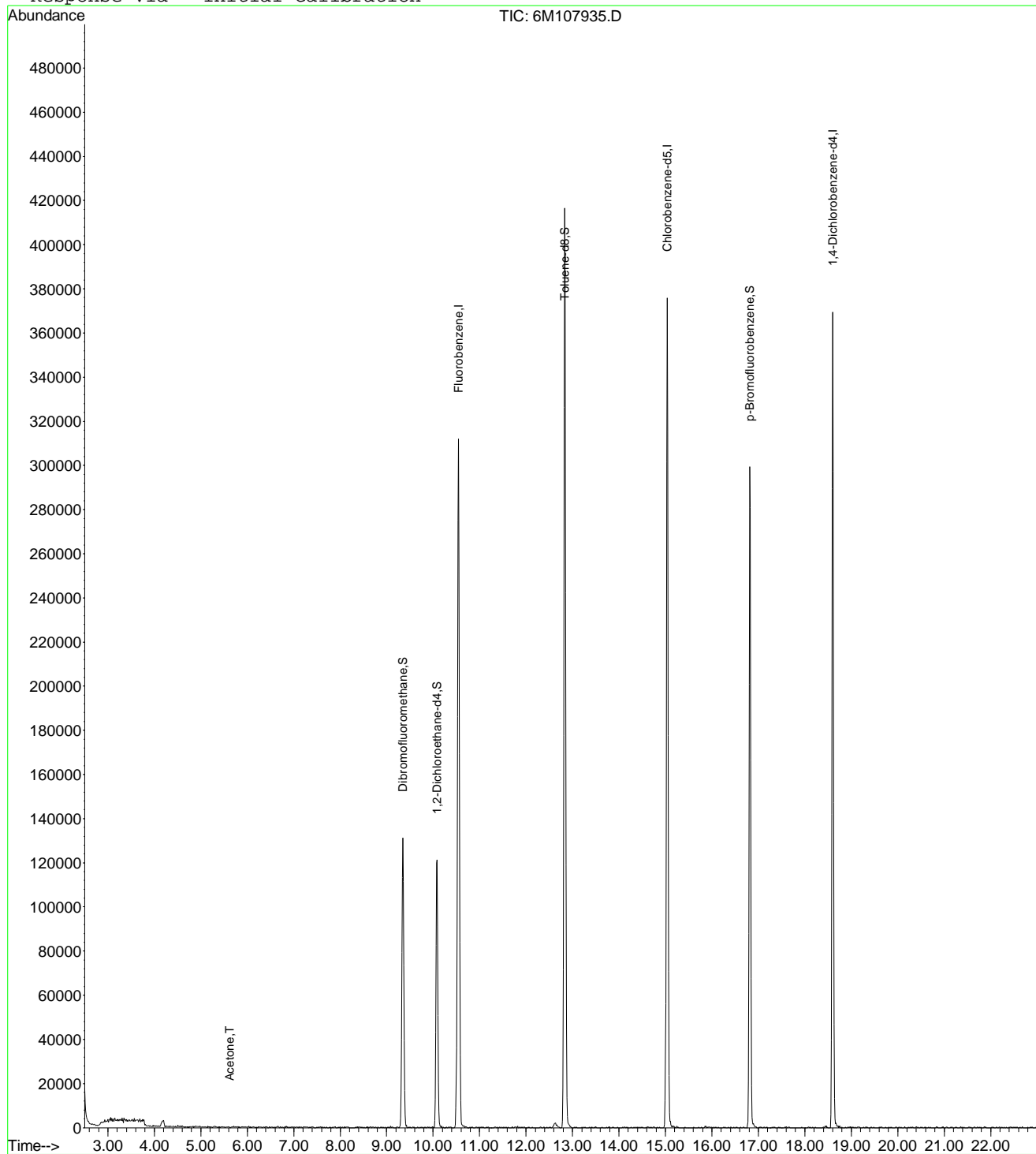
(#) = qualifier out of range (m) = manual integration
 6M107935.D 8260WTR.M Fri May 11 10:49:41 2012

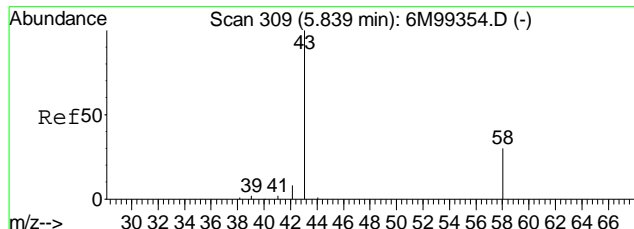
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 Acq On : 7 May 2012 1:11
 Sample : L12050050-01 A 826-SPE
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 11 10:49 2012

Vial: 17
 Operator: MES
 Inst : HPMS6
 Multiplr: 1.00

Quant Results File: 8260WTR.RES

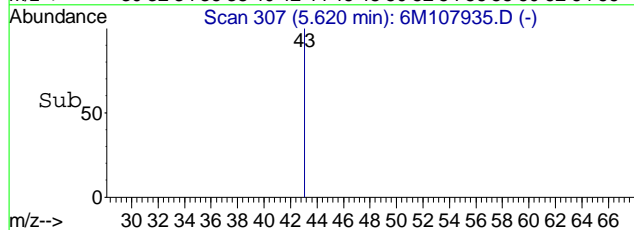
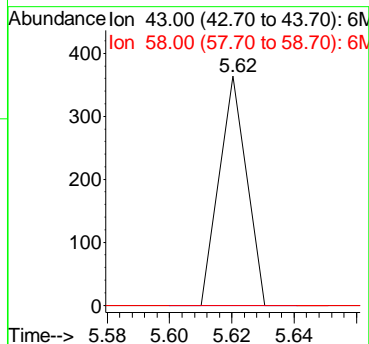
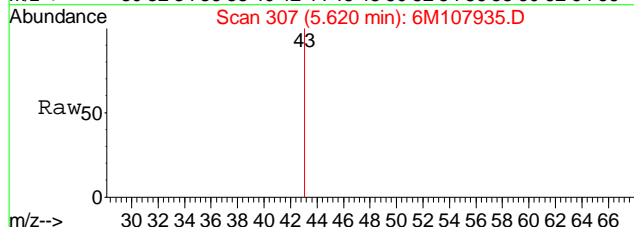
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 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration





#13
 Acetone
 Concen: 0.29 ug/L
 RT: 5.62 min Scan# 307
 Delta R.T. 0.01 min
 Lab File: 6M107935.D
 Acq: 7 May 2012 1:11

Tgt Ion	Ratio	Lower	Upper
43	100		
58	0.0	17.3	40.3#



Data File : C:\MSDCHEM\1\DATA\050612\6M107935.D Vial: 17
 Acq On : 7 May 2012 1:11 Operator: MES
 Sample : L12050050-01 A 826-SPE Inst : HPMS6
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Smoothing : ON Filtering: 5
 Sampling : 1 Min Area: 100 Area counts
 Start Thrs: 0.2 Max Peaks: 100
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 5

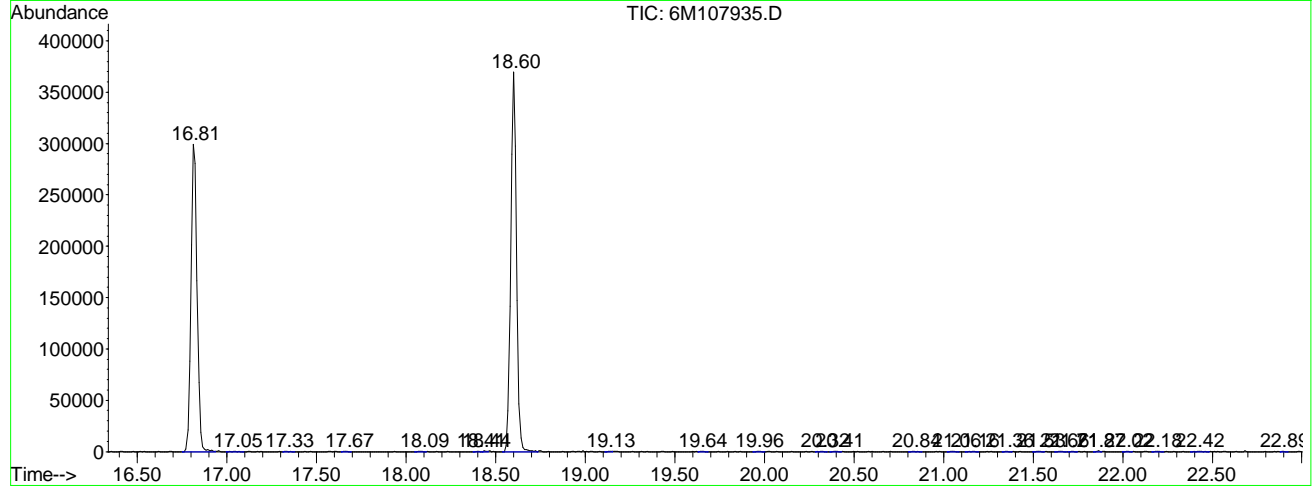
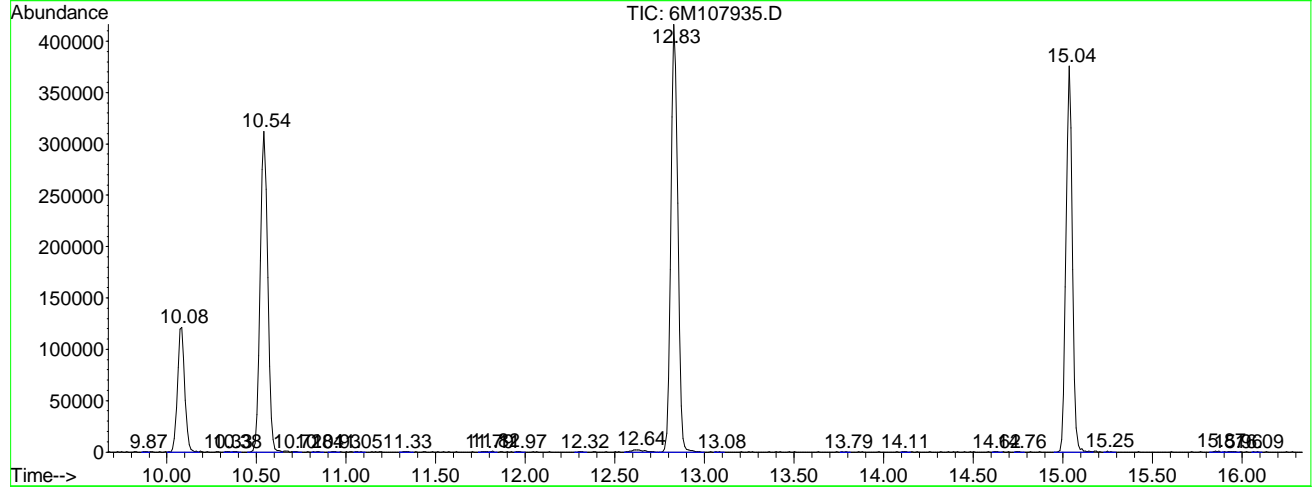
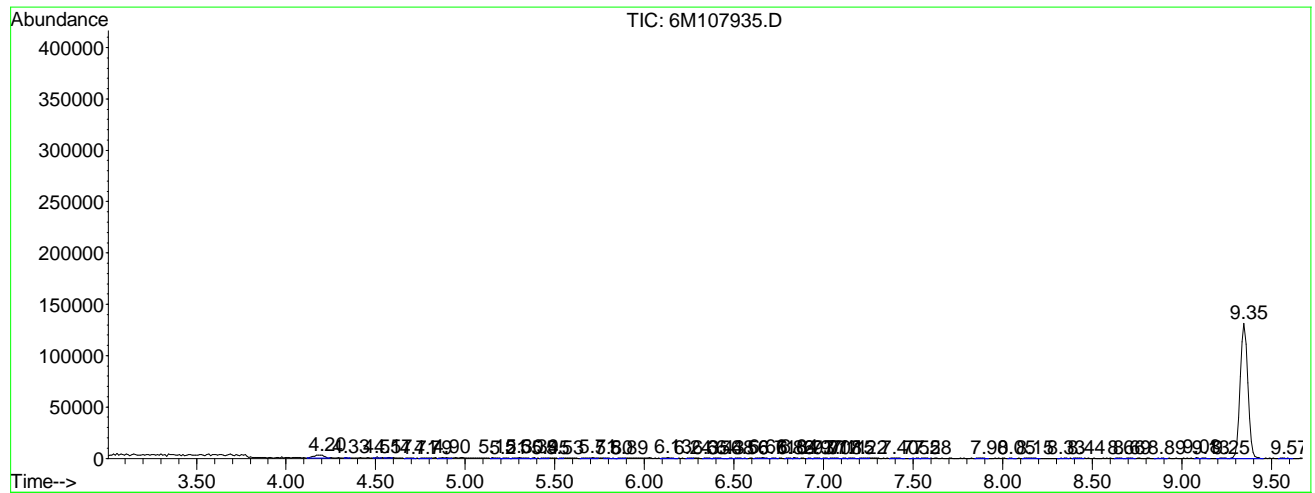
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.201	160	168	172	rBV4	2876	10346	0.93%	0.194%
2	4.334	180	181	183	rBV	507	516	0.05%	0.010%
3	4.507	196	198	200	rBV	863	741	0.07%	0.014%
4	4.568	202	204	206	rBV	548	571	0.05%	0.011%
5	4.711	213	218	219	rBB	547	1333	0.12%	0.025%
6	4.793	221	226	228	rBV	568	1900	0.17%	0.036%
7	4.895	231	236	239	rBV	784	2664	0.24%	0.050%
8	5.151	260	261	266	rBB	703	1451	0.13%	0.027%
9	5.212	266	267	271	rBB	449	950	0.09%	0.018%
10	5.304	271	276	282	rBB	718	2908	0.26%	0.055%
11	5.385	282	284	285	rBB	599	573	0.05%	0.011%
12	5.447	287	290	292	rBV	512	1273	0.11%	0.024%
13	5.528	297	298	300	rBV	404	686	0.06%	0.013%
14	5.712	309	316	319	rBV	830	2576	0.23%	0.048%
15	5.804	322	325	329	rVB	565	1197	0.11%	0.022%
16	5.886	329	333	334	rBV	490	1131	0.10%	0.021%
17	6.131	353	357	362	rBB	637	1844	0.17%	0.035%
18	6.243	367	368	371	rBV	454	938	0.08%	0.018%
19	6.345	376	378	381	rBB	354	842	0.08%	0.016%
20	6.427	381	386	388	rBB	527	1232	0.11%	0.023%
21	6.478	389	391	393	rBB	467	478	0.04%	0.009%
22	6.560	393	399	400	rBB	424	1178	0.11%	0.022%
23	6.662	404	409	412	rBB	659	1891	0.17%	0.036%
24	6.713	413	414	417	rBB	432	748	0.07%	0.014%
25	6.815	421	424	425	rBB	461	716	0.06%	0.013%
26	6.835	425	426	429	rBB	688	936	0.08%	0.018%
27	6.927	433	435	436	rBB	371	449	0.04%	0.008%
28	6.968	436	439	441	rBB	450	905	0.08%	0.017%
29	7.009	441	443	445	rBB	424	719	0.06%	0.014%
30	7.080	445	450	451	rBB	375	1107	0.10%	0.021%
31	7.111	452	453	455	rBB	518	542	0.05%	0.010%
32	7.152	455	457	460	rBB	344	809	0.07%	0.015%
33	7.223	461	464	467	rBV	468	1381	0.12%	0.026%
34	7.397	478	481	486	rBB	507	1351	0.12%	0.025%
35	7.520	489	493	495	rBB	329	579	0.05%	0.011%
36	7.581	495	499	500	rBB	472	942	0.08%	0.018%
37	7.897	525	530	532	rBB	443	1103	0.10%	0.021%
38	8.051	543	545	547	rBB	406	479	0.04%	0.009%
39	8.153	551	555	560	rBB	339	1373	0.12%	0.026%
40	8.326	570	572	576	rBB	346	608	0.05%	0.011%
41	8.439	578	583	584	rBB	383	1058	0.09%	0.020%
42	8.663	601	605	606	rBB	439	913	0.08%	0.017%

43	8.694	607	608	612	rBB	334	772	0.07%	0.014%
44	8.888	623	627	630	rBB	390	684	0.06%	0.013%
45	9.082	645	646	648	rBB	802	683	0.06%	0.013%
46	9.133	648	651	653	rBB	328	590	0.05%	0.011%
47	9.245	657	662	663	rBB	406	928	0.08%	0.017%
48	9.347	664	672	682	rBB	131281	389561	34.89%	7.316%
49	9.572	691	694	698	rBB	338	784	0.07%	0.015%
50	9.868	722	723	726	rBB	328	595	0.05%	0.011%
51	10.083	736	744	753	rBB	121330	341837	30.61%	6.420%
52	10.328	767	768	771	rBB	377	679	0.06%	0.013%
53	10.379	771	773	776	rBB	368	631	0.06%	0.012%
54	10.542	780	789	799	rBV	312138	903919	80.95%	16.976%
55	10.716	805	806	809	rVB	480	542	0.05%	0.010%
56	10.838	815	818	821	rBB	427	692	0.06%	0.013%
57	10.930	824	827	830	rBB	325	581	0.05%	0.011%
58	11.053	838	839	844	rBB	353	614	0.05%	0.012%
59	11.328	863	866	870	rBB	385	863	0.08%	0.016%
60	11.788	906	911	912	rBB	344	799	0.07%	0.015%
61	11.819	912	914	916	rBB	651	633	0.06%	0.012%
62	11.972	926	929	931	rBB	361	611	0.05%	0.011%
63	12.319	959	963	965	rBB	384	633	0.06%	0.012%
64	12.636	986	994	1004	rBB	2269	9882	0.88%	0.186%
65	12.830	1005	1013	1029	rBB	416615	1116647	100.00%	20.971%
66	13.085	1035	1038	1040	rBB	377	441	0.04%	0.008%
67	13.789	1104	1107	1109	rBB	469	477	0.04%	0.009%
68	14.106	1137	1138	1142	rBB	387	644	0.06%	0.012%
69	14.617	1187	1188	1192	rBB	461	709	0.06%	0.013%
70	14.760	1199	1202	1204	rBB	402	638	0.06%	0.012%
71	15.035	1221	1229	1242	rBV	375923	926959	83.01%	17.409%
72	15.250	1248	1250	1254	rBB	693	626	0.06%	0.012%
73	15.873	1306	1311	1313	rBB	678	1187	0.11%	0.022%
74	15.964	1313	1320	1322	rBB	366	1204	0.11%	0.023%
75	16.087	1329	1332	1334	rBB	370	443	0.04%	0.008%
76	16.812	1397	1403	1415	rBV	299368	710612	63.64%	13.346%
77	17.047	1421	1426	1430	rBB	348	804	0.07%	0.015%
78	17.333	1452	1454	1458	rBB	343	608	0.05%	0.011%
79	17.670	1484	1487	1489	rBB	383	614	0.05%	0.012%
80	18.088	1524	1528	1530	rBB	354	606	0.05%	0.011%
81	18.405	1556	1559	1560	rBB	373	453	0.04%	0.009%
82	18.436	1561	1562	1564	rBV	723	1031	0.09%	0.019%
83	18.599	1572	1578	1591	rBB	369587	835940	74.86%	15.700%
84	19.130	1628	1630	1632	rBV	376	625	0.06%	0.012%
85	19.641	1679	1680	1684	rBB	396	678	0.06%	0.013%
86	19.957	1709	1711	1715	rBB	395	631	0.06%	0.012%
87	20.325	1743	1747	1749	rBB	404	681	0.06%	0.013%
88	20.406	1751	1755	1757	rBB	443	654	0.06%	0.012%
89	20.835	1794	1797	1801	rBB	433	665	0.06%	0.012%
90	21.060	1815	1819	1821	rBB	347	611	0.05%	0.011%
91	21.162	1825	1829	1832	rBB	349	610	0.05%	0.011%
92	21.356	1845	1848	1850	rBB	471	512	0.05%	0.010%
93	21.530	1862	1865	1868	rBB	395	659	0.06%	0.012%
94	21.662	1874	1878	1880	rBB	359	637	0.06%	0.012%
95	21.714	1881	1883	1886	rBB	408	464	0.04%	0.009%
96	21.867	1895	1898	1899	rBB	626	582	0.05%	0.011%
97	22.020	1911	1913	1916	rBB	405	468	0.04%	0.009%
98	22.183	1927	1929	1933	rBB	332	595	0.05%	0.011%
99	22.418	1948	1952	1958	rBB	376	1017	0.09%	0.019%
100	22.888	1997	1998	2001	rBB	377	445	0.04%	0.008%

Sum of corrected areas: 5324627

File : C:\MSDCHEM\1\DATA\050612\6M107935.D
 Operator : MES
 Acquired : 7 May 2012 1:11 using AcqMethod 8260WTR
 Instrument : HPMS6
 Sample Name: L12050050-01 A 826-SPE
 Misc Info : 1,1
 Vial Number: 17
 Quant File :8260WTR.RES (RTE Integrator)



Data File : C:\MSDCHEM\1\DATA\050612\6M107936.D Vial: 18
 Acq On : 7 May 2012 1:44 Operator: MES
 Sample : L12050050-03 A 826-SPE Inst : HPMS6
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 11 10:49:42 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	420782	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.03	117	288912	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	135595	25.00	ug/L	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	9.35	111	121249	26.6124	ug/L	0.00
Spiked Amount	25.000	Range 86 - 118	Recovery	=	106.44%	
43) 1,2-Dichloroethane-d4	10.08	65	121168	27.0983	ug/L	0.00
Spiked Amount	25.000	Range 80 - 120	Recovery	=	108.40%	
58) Toluene-d8	12.83	98	405443	25.8210	ug/L	0.00
Spiked Amount	25.000	Range 88 - 110	Recovery	=	103.28%	
80) p-Bromofluorobenzene	16.81	95	139645	26.2451	ug/L	0.00
Spiked Amount	25.000	Range 86 - 115	Recovery	=	105.00%	
Target Compounds						
13) Acetone	5.62	43	568	0.7124	ug/L #	Qvalue 46

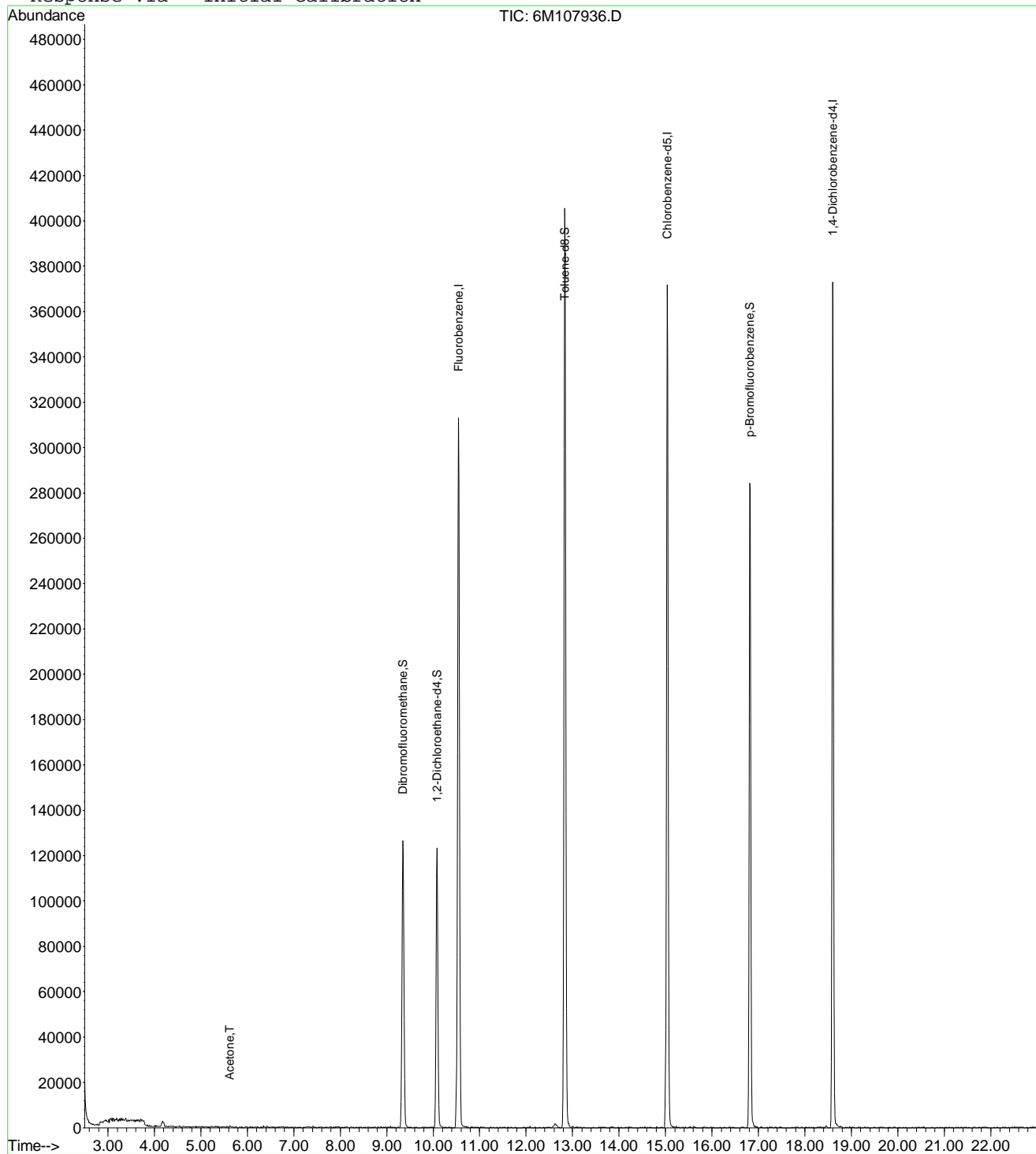
(#) = qualifier out of range (m) = manual integration
 6M107936.D 8260WTR.M Fri May 11 10:49:42 2012

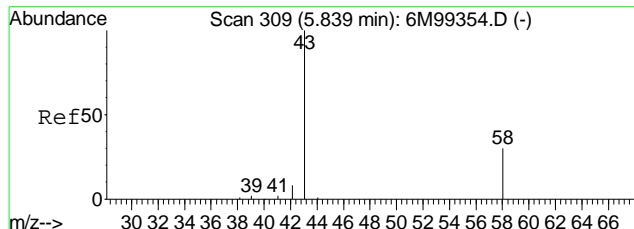
Data File : C:\MSDCHEM\1\DATA\050612\6M107936.D
 Acq On : 7 May 2012 1:44
 Sample : L12050050-03 A 826-SPE
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 11 10:49 2012

Vial: 18
 Operator: MES
 Inst : HPMS6
 Multiplr: 1.00

Quant Results File: 8260WTR.RES

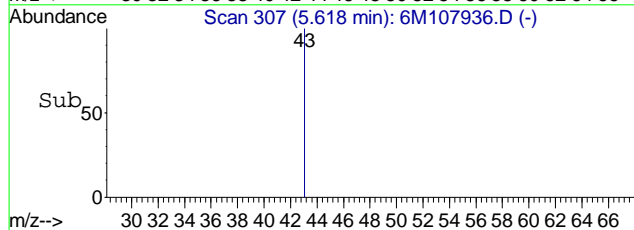
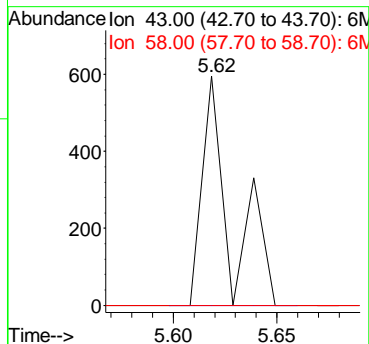
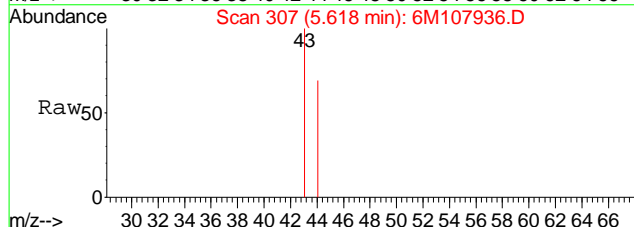
Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration





#13
 Acetone
 Concen: 0.71 ug/L
 RT: 5.62 min Scan# 307
 Delta R.T. 0.01 min
 Lab File: 6M107936.D
 Acq: 7 May 2012 1:44

Tgt Ion	Ratio	Lower	Upper
43	100		
58	0.0	17.3	40.3#



Data File : C:\MSDCHEM\1\DATA\050612\6M107936.D Vial: 18
 Acq On : 7 May 2012 1:44 Operator: MES
 Sample : L12050050-03 A 826-SPE Inst : HPMS6
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Smoothing : ON Filtering: 5
 Sampling : 1 Min Area: 100 Area counts
 Start Thrs: 0.2 Max Peaks: 100
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 5

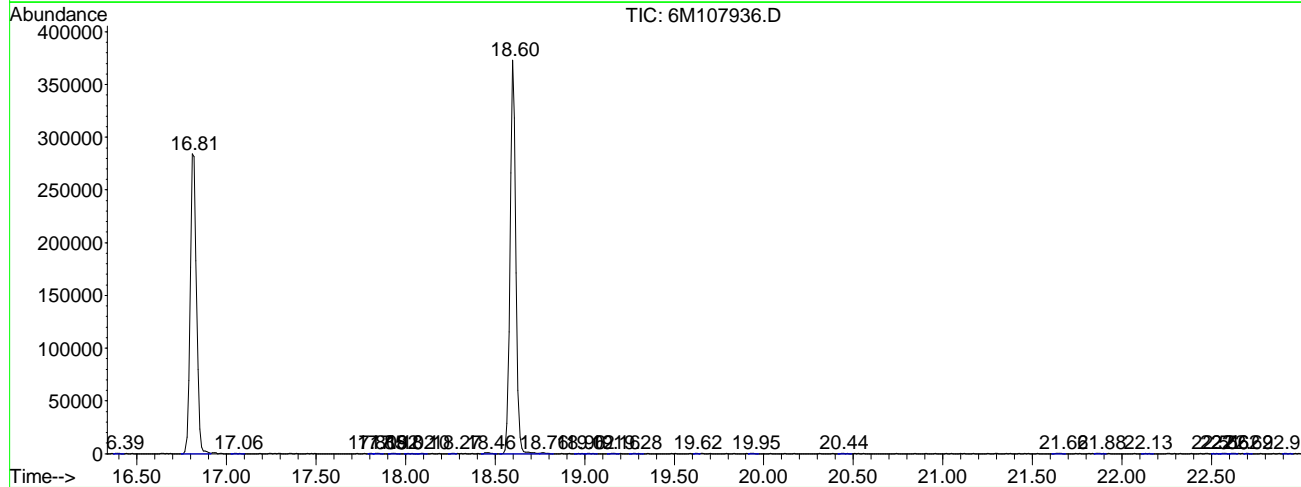
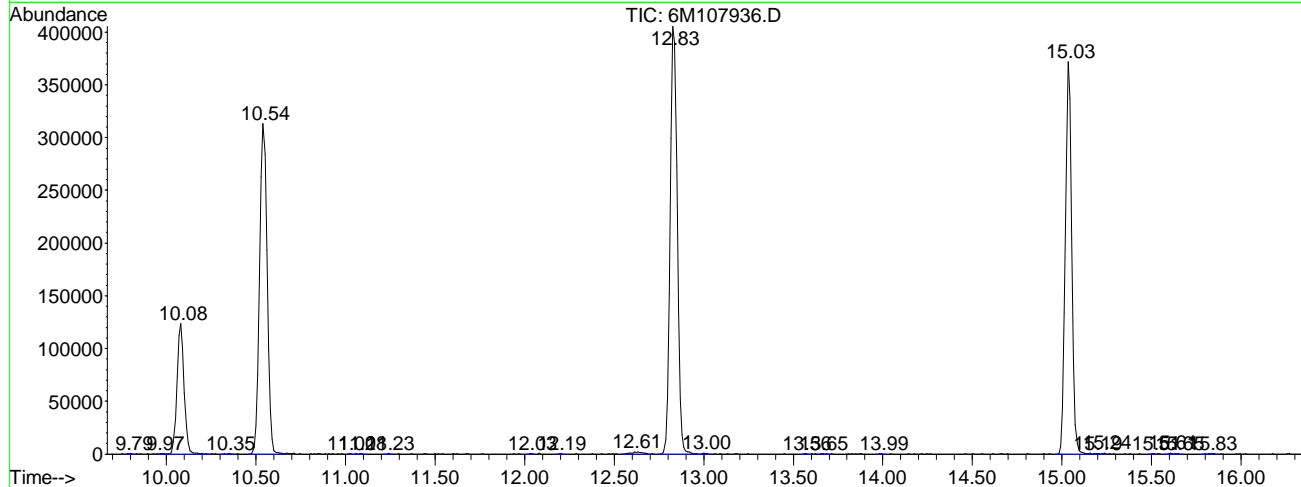
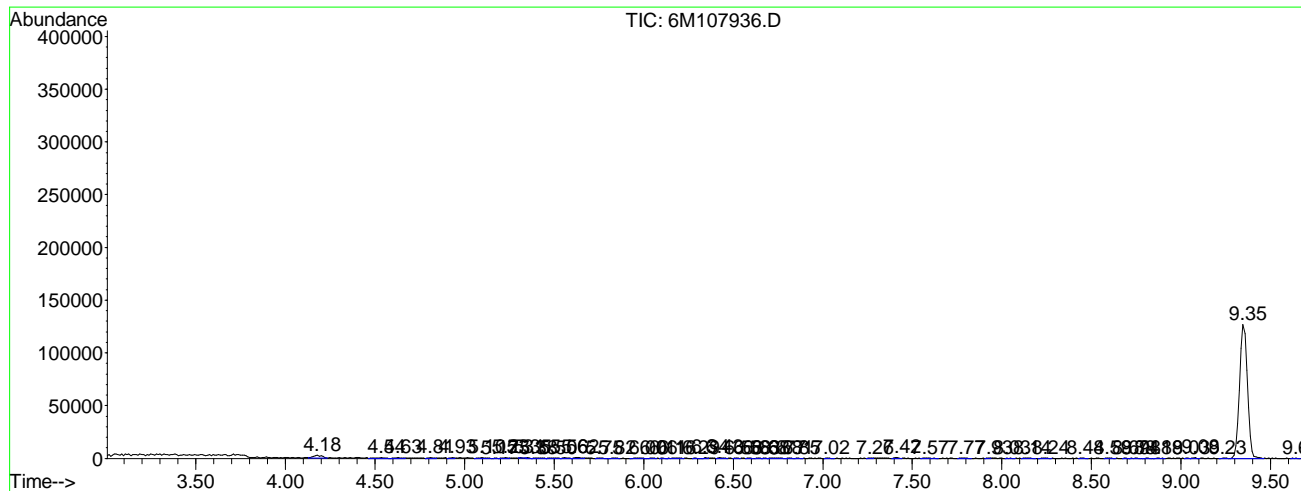
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.179	161	166	171	rVB4	2482	7719	0.69%	0.146%
2	4.536	194	201	205	rBB	960	3015	0.27%	0.057%
3	4.628	206	210	214	rBV	766	2327	0.21%	0.044%
4	4.812	225	228	231	rBV	621	1632	0.15%	0.031%
5	4.934	237	240	241	rBV	621	1175	0.11%	0.022%
6	5.098	252	256	261	rBB	594	2203	0.20%	0.042%
7	5.169	262	263	265	rBB	419	480	0.04%	0.009%
8	5.230	265	269	271	rBV	685	1696	0.15%	0.032%
9	5.312	276	277	280	rVV	661	881	0.08%	0.017%
10	5.353	280	281	283	rVB	811	774	0.07%	0.015%
11	5.384	283	284	291	rBB	464	1695	0.15%	0.032%
12	5.496	291	295	299	rBB	473	1653	0.15%	0.031%
13	5.557	299	301	305	rBB	684	1306	0.12%	0.025%
14	5.618	305	307	312	rBV	1007	2506	0.23%	0.047%
15	5.751	318	320	324	rBB	512	944	0.08%	0.018%
16	5.823	325	327	331	rBB	399	879	0.08%	0.017%
17	5.996	337	344	346	rBB	491	1411	0.13%	0.027%
18	6.058	347	350	351	rBB	467	698	0.06%	0.013%
19	6.109	353	355	357	rBB	479	490	0.04%	0.009%
20	6.160	357	360	366	rBB	408	1507	0.14%	0.028%
21	6.292	371	373	375	rBB	509	543	0.05%	0.010%
22	6.343	376	378	380	rBV	847	921	0.08%	0.017%
23	6.425	384	386	390	rBB	705	1306	0.12%	0.025%
24	6.527	393	396	397	rBB	379	640	0.06%	0.012%
25	6.578	400	401	404	rBB	394	648	0.06%	0.012%
26	6.629	405	406	409	rBB	391	650	0.06%	0.012%
27	6.680	409	411	412	rBB	549	536	0.05%	0.010%
28	6.772	412	420	421	rBB	465	1923	0.17%	0.036%
29	6.813	422	424	426	rBB	406	654	0.06%	0.012%
30	6.854	427	428	431	rBB	418	469	0.04%	0.009%
31	7.017	443	444	448	rBB	337	575	0.05%	0.011%
32	7.262	466	468	470	rBV	386	850	0.08%	0.016%
33	7.416	480	483	485	rBB	791	1321	0.12%	0.025%
34	7.569	496	498	505	rBB	408	1360	0.12%	0.026%
35	7.773	516	518	523	rBB	446	1189	0.11%	0.022%
36	7.926	531	533	534	rBV	424	702	0.06%	0.013%
37	8.028	542	543	547	rBB	404	463	0.04%	0.009%
38	8.141	551	554	558	rBB	488	1107	0.10%	0.021%
39	8.243	560	564	567	rBB	409	856	0.08%	0.016%
40	8.437	582	583	587	rBB	383	643	0.06%	0.012%
41	8.590	596	598	602	rBB	365	841	0.08%	0.016%
42	8.692	606	608	610	rBB	371	453	0.04%	0.009%

43	8.743	610	613	616	rBB	356	610	0.05%	0.012%
44	8.815	617	620	622	rBB	424	451	0.04%	0.009%
45	8.876	623	626	629	rBB	437	660	0.06%	0.012%
46	9.029	640	641	643	rBB	385	452	0.04%	0.009%
47	9.080	643	646	648	rBB	641	764	0.07%	0.014%
48	9.233	659	661	664	rBB	369	594	0.05%	0.011%
49	9.346	665	672	683	rBB	126689	383291	34.46%	7.231%
50	9.642	698	701	703	rBB	360	436	0.04%	0.008%
51	9.795	714	716	719	rBB	387	632	0.06%	0.012%
52	9.969	732	733	736	rBB	372	610	0.05%	0.012%
53	10.081	736	744	760	rBB	123376	341870	30.74%	6.449%
54	10.346	766	770	773	rBB	379	643	0.06%	0.012%
55	10.540	781	789	801	rBV	313081	912964	82.08%	17.223%
56	11.020	835	836	839	rBB	437	462	0.04%	0.009%
57	11.082	839	842	845	rBB	354	617	0.06%	0.012%
58	11.235	855	857	860	rBB	384	436	0.04%	0.008%
59	12.031	933	935	937	rBB	406	434	0.04%	0.008%
60	12.195	949	951	954	rBB	375	432	0.04%	0.008%
61	12.613	985	992	1001	rBB	1758	7892	0.71%	0.149%
62	12.828	1005	1013	1027	rBB	405661	1112237	100.00%	20.982%
63	13.001	1028	1030	1034	rBB	730	1104	0.10%	0.021%
64	13.563	1083	1085	1088	rBB	371	428	0.04%	0.008%
65	13.655	1093	1094	1099	rBB	382	622	0.06%	0.012%
66	13.992	1124	1127	1129	rBB	382	430	0.04%	0.008%
67	15.033	1222	1229	1242	rBB	371794	926312	83.28%	17.475%
68	15.187	1243	1244	1247	rVB	421	673	0.06%	0.013%
69	15.238	1247	1249	1251	rBB	723	657	0.06%	0.012%
70	15.513	1273	1276	1277	rBB	371	433	0.04%	0.008%
71	15.605	1282	1285	1287	rBB	645	806	0.07%	0.015%
72	15.646	1287	1289	1291	rBB	380	444	0.04%	0.008%
73	15.830	1302	1307	1311	rBB	402	1106	0.10%	0.021%
74	16.392	1360	1362	1365	rBB	340	615	0.06%	0.012%
75	16.810	1397	1403	1413	rBV	284392	692981	62.31%	13.073%
76	17.055	1424	1427	1431	rBB	440	723	0.07%	0.014%
77	17.801	1499	1500	1502	rBB	371	436	0.04%	0.008%
78	17.852	1502	1505	1507	rBB	377	659	0.06%	0.012%
79	17.923	1510	1512	1516	rBB	390	616	0.06%	0.012%
80	18.015	1519	1521	1525	rBB	409	474	0.04%	0.009%
81	18.097	1526	1529	1531	rBB	388	461	0.04%	0.009%
82	18.270	1543	1546	1547	rBB	367	431	0.04%	0.008%
83	18.464	1561	1565	1569	rBB	913	1900	0.17%	0.036%
84	18.597	1571	1578	1593	rBV	373091	838252	75.37%	15.813%
85	18.761	1593	1594	1600	rVB	685	1384	0.12%	0.026%
86	18.965	1612	1614	1617	rBB	433	451	0.04%	0.009%
87	19.016	1618	1619	1624	rBB	341	599	0.05%	0.011%
88	19.159	1630	1633	1636	rBB	374	621	0.06%	0.012%
89	19.281	1642	1645	1649	rBB	353	589	0.05%	0.011%
90	19.618	1677	1678	1680	rBB	383	428	0.04%	0.008%
91	19.945	1707	1710	1712	rBB	342	602	0.05%	0.011%
92	20.435	1756	1758	1763	rBB	370	606	0.05%	0.011%
93	21.661	1873	1878	1880	rBB	349	800	0.07%	0.015%
94	21.875	1896	1899	1902	rBB	350	779	0.07%	0.015%
95	22.130	1922	1924	1928	rBB	391	445	0.04%	0.008%
96	22.508	1960	1961	1964	rBB	424	475	0.04%	0.009%
97	22.559	1965	1966	1969	rBB	402	676	0.06%	0.013%
98	22.621	1970	1972	1974	rBB	390	631	0.06%	0.012%
99	22.692	1978	1979	1982	rBB	383	438	0.04%	0.008%
100	22.906	1999	2000	2004	rBB	437	688	0.06%	0.013%

Sum of corrected areas: 5300903

File : C:\MSDCHEM\1\DATA\050612\6M107936.D
 Operator : MES
 Acquired : 7 May 2012 1:44 using AcqMethod 8260WTR
 Instrument : HPMS6
 Sample Name: L12050050-03 A 826-SPE
 Misc Info : 1,1
 Vial Number: 18
 Quant File :8260WTR.RES (RTE Integrator)



Data File : C:\MSDCHEM\1\DATA\050612\6M107937.D Vial: 19
 Acq On : 7 May 2012 2:16 Operator: MES
 Sample : L12050050-05 A 826-SPE Inst : HPMS6
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 11 10:49:43 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	410432	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.03	117	287120	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	133392	25.00	ug/L	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	9.35	111	120612	27.1401	ug/L	0.00
Spiked Amount	25.000	Range 86 - 118	Recovery	=	108.56%	
43) 1,2-Dichloroethane-d4	10.08	65	118696	27.2149	ug/L	0.00
Spiked Amount	25.000	Range 80 - 120	Recovery	=	108.84%	
58) Toluene-d8	12.84	98	398473	25.5355	ug/L	0.00
Spiked Amount	25.000	Range 88 - 110	Recovery	=	102.16%	
80) p-Bromofluorobenzene	16.81	95	140091	26.7637	ug/L	0.00
Spiked Amount	25.000	Range 86 - 115	Recovery	=	107.04%	
Target Compounds						
5) 1,3-Butadiene	3.25	54	250	Below Cal	#	1
13) Acetone	5.61	43	6262	8.0522	ug/L	96
20) Carbon Disulfide	6.68	76	6265	0.4593	ug/L	# 75

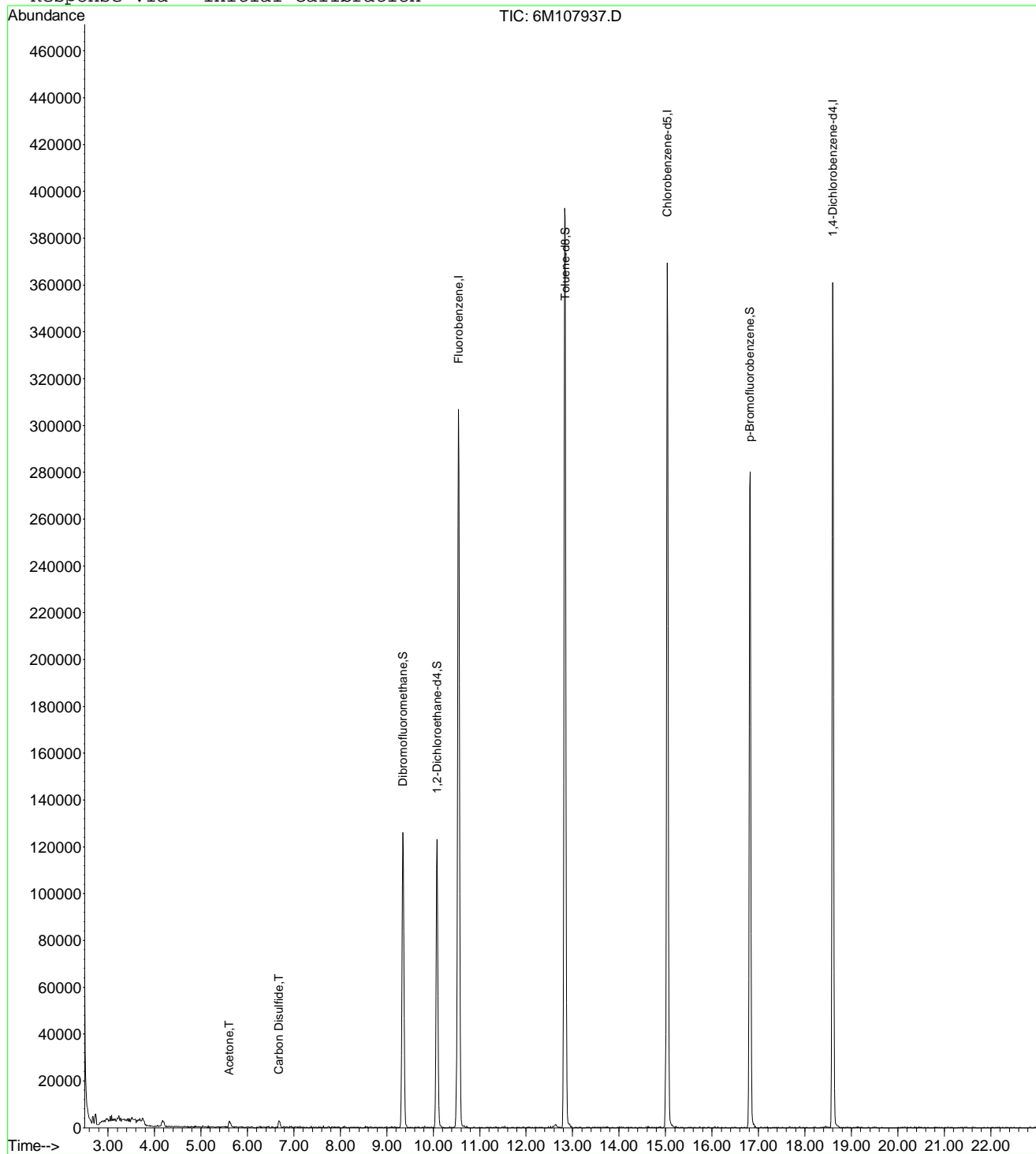
(#) = qualifier out of range (m) = manual integration
 6M107937.D 8260WTR.M Fri May 11 10:49:43 2012

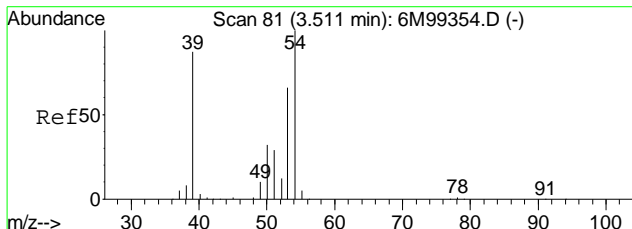
Data File : C:\MSDCHEM\1\DATA\050612\6M107937.D
 Acq On : 7 May 2012 2:16
 Sample : L12050050-05 A 826-SPE
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 11 10:49 2012

Vial: 19
 Operator: MES
 Inst : HPMS6
 Multiplr: 1.00

Quant Results File: 8260WTR.RES

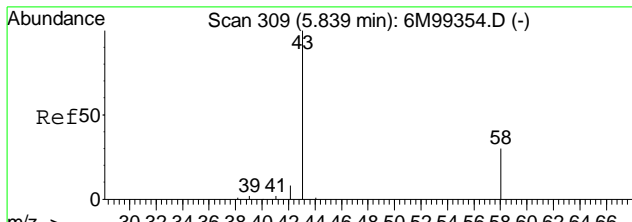
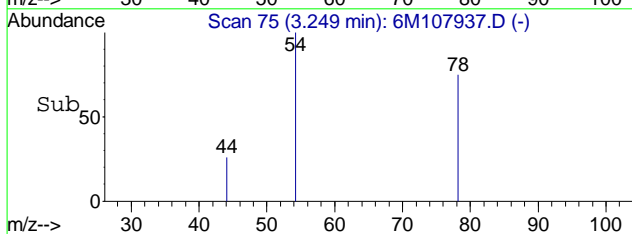
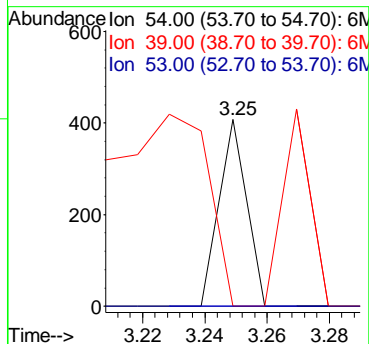
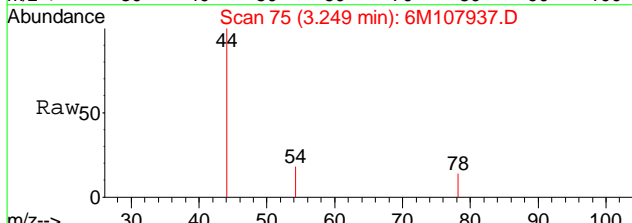
Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration





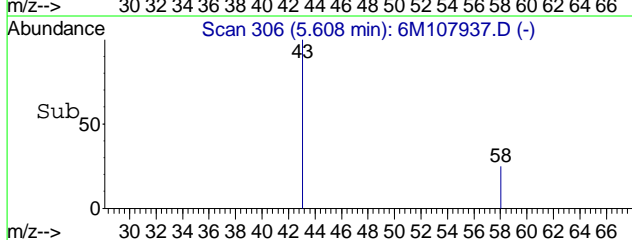
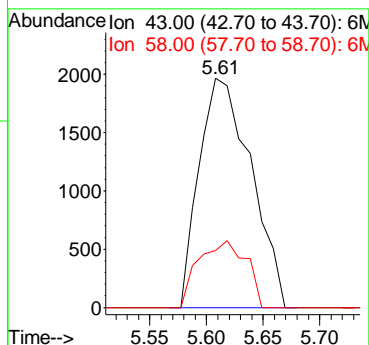
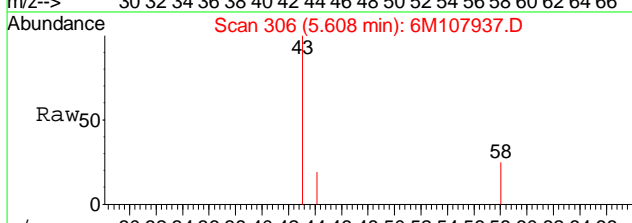
#5
 1,3-Butadiene
 Concen: Below Cal
 RT: 3.25 min Scan# 75
 Delta R.T. -0.09 min
 Lab File: 6M107937.D
 Acq: 7 May 2012 2:16

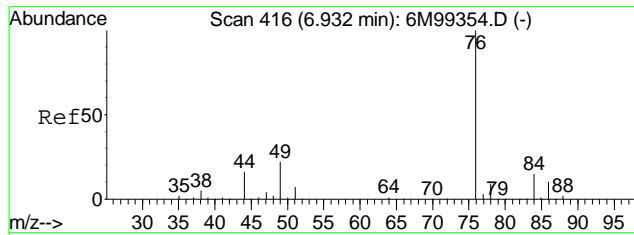
Tgt Ion	Ratio	Lower	Upper
54	100		
39	434.4	51.4	119.8#
53	0.0	40.2	93.8#



#13
 Acetone
 Concen: 8.05 ug/L
 RT: 5.61 min Scan# 306
 Delta R.T. -0.00 min
 Lab File: 6M107937.D
 Acq: 7 May 2012 2:16

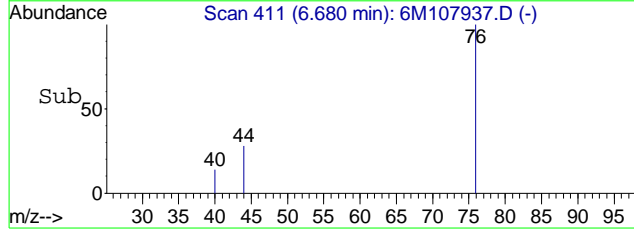
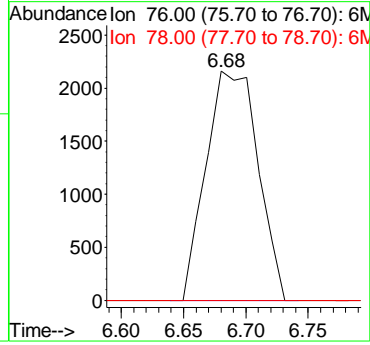
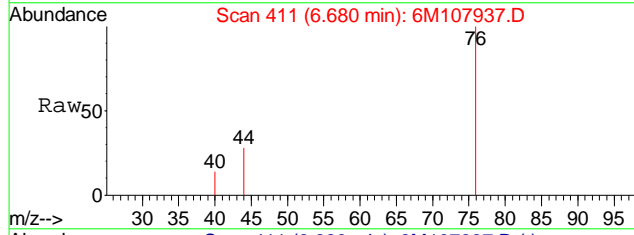
Tgt Ion	Ratio	Lower	Upper
43	100		
58	26.7	17.3	40.3





#20
 Carbon Disulfide
 Concen: 0.46 ug/L
 RT: 6.68 min Scan# 411
 Delta R.T. -0.00 min
 Lab File: 6M107937.D
 Acq: 7 May 2012 2:16

Tgt Ion	Ratio	Lower	Upper
76	100		
78	0.0	5.4	12.6#



Data File : C:\MSDCHEM\1\DATA\050612\6M107937.D Vial: 19
 Acq On : 7 May 2012 2:16 Operator: MES
 Sample : L12050050-05 A 826-SPE Inst : HPMS6
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Smoothing : ON Filtering: 5
 Sampling : 1 Min Area: 100 Area counts
 Start Thrs: 0.2 Max Peaks: 100
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 5

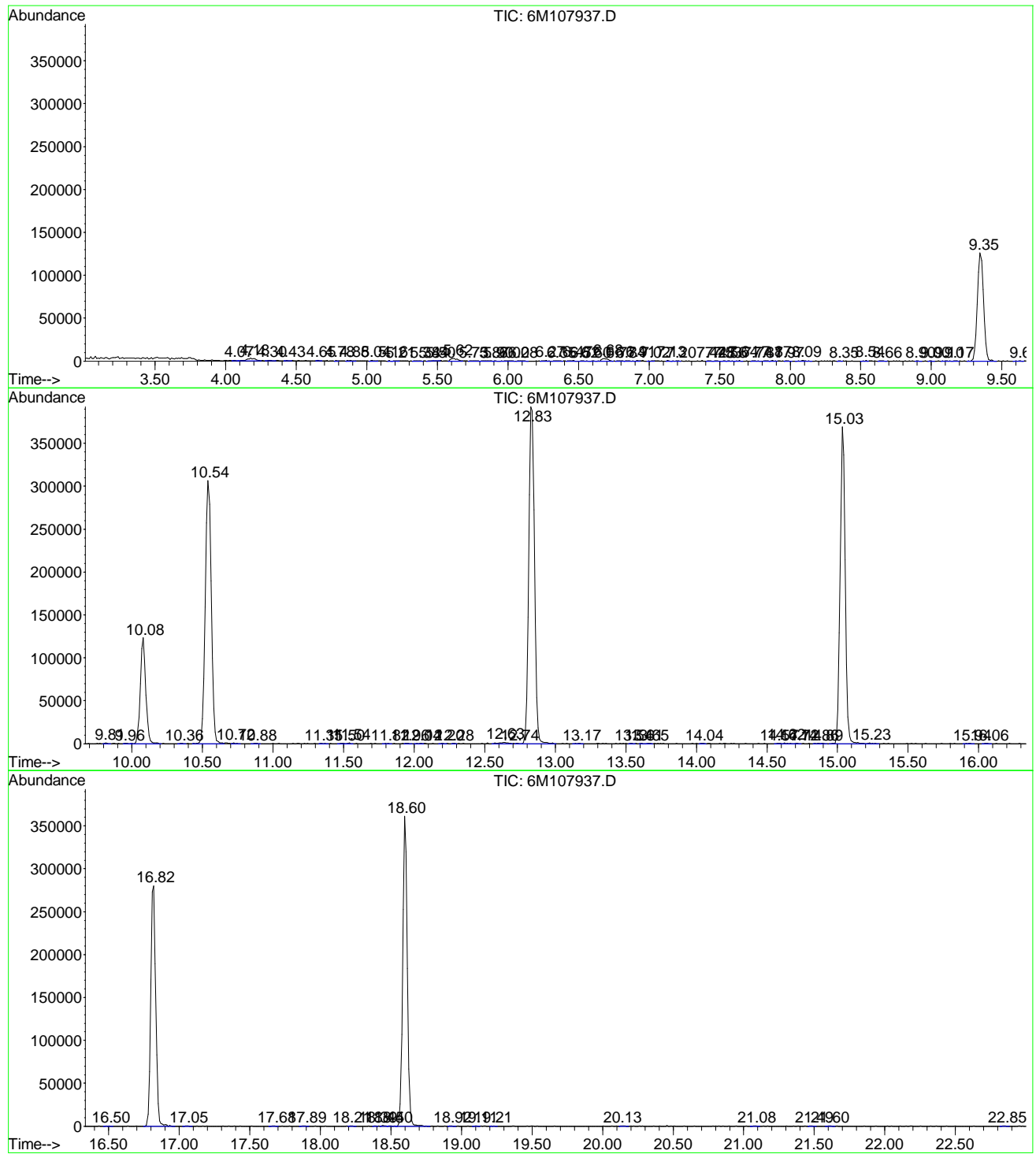
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.066	153	155	157	rBV	548	729	0.07%	0.014%
2	4.178	157	166	173	rVB3	2901	10985	1.00%	0.209%
3	4.301	176	178	183	rBV	477	1034	0.09%	0.020%
4	4.433	189	191	194	rBV	464	574	0.05%	0.011%
5	4.648	211	212	215	rBV	357	426	0.04%	0.008%
6	4.781	224	225	227	rBV	593	842	0.08%	0.016%
7	4.883	232	235	239	rBV	827	2209	0.20%	0.042%
8	5.036	248	250	254	rBV	817	1823	0.17%	0.035%
9	5.158	261	262	264	rBB	813	498	0.05%	0.009%
10	5.210	264	267	269	rBV	453	1136	0.10%	0.022%
11	5.383	278	284	285	rBB	466	1513	0.14%	0.029%
12	5.444	288	290	291	rBV	419	675	0.06%	0.013%
13	5.495	292	295	297	rVB	206	455	0.04%	0.009%
14	5.618	303	307	313	rBV2	2840	10067	0.92%	0.192%
15	5.730	317	318	325	rBB	422	1566	0.14%	0.030%
16	5.873	325	332	334	rBB	412	1769	0.16%	0.034%
17	5.904	334	335	338	rBB	437	502	0.05%	0.010%
18	6.016	339	346	349	rBB	500	1769	0.16%	0.034%
19	6.077	350	352	358	rBB	495	1465	0.13%	0.028%
20	6.272	367	371	374	rBB	628	1340	0.12%	0.026%
21	6.353	375	379	382	rBB	380	1321	0.12%	0.025%
22	6.466	385	390	392	rBB	641	1327	0.12%	0.025%
23	6.517	393	395	401	rBB	515	1036	0.09%	0.020%
24	6.598	402	403	405	rBB	371	422	0.04%	0.008%
25	6.680	406	411	417	rBB	3078	9391	0.86%	0.179%
26	6.772	419	420	425	rBB	416	1195	0.11%	0.023%
27	6.843	425	427	432	rBB	423	1131	0.10%	0.022%
28	6.915	433	434	436	rBV	684	823	0.08%	0.016%
29	7.017	441	444	446	rBV	434	848	0.08%	0.016%
30	7.129	454	455	458	rBB	654	713	0.07%	0.014%
31	7.201	458	462	464	rBB	360	802	0.07%	0.015%
32	7.415	482	483	486	rBB	387	645	0.06%	0.012%
33	7.476	487	489	492	rBB	365	649	0.06%	0.012%
34	7.528	493	494	496	rBB	402	439	0.04%	0.008%
35	7.558	496	497	502	rBB	348	615	0.06%	0.012%
36	7.640	502	505	507	rBB	829	704	0.06%	0.013%
37	7.742	513	515	520	rBB	431	944	0.09%	0.018%
38	7.813	521	522	526	rBB	404	815	0.07%	0.016%
39	7.875	526	528	531	rBB	584	751	0.07%	0.014%
40	7.967	536	537	541	rBB	421	669	0.06%	0.013%
41	8.089	544	549	555	rBB	703	1495	0.14%	0.028%
42	8.355	573	575	576	rBB	355	423	0.04%	0.008%

43	8.538	589	593	594	rBB	691	610	0.06%	0.012%
44	8.661	601	605	607	rBB	403	910	0.08%	0.017%
45	8.896	627	628	631	rBB	384	431	0.04%	0.008%
46	8.998	636	638	640	rBB	460	503	0.05%	0.010%
47	9.100	645	648	652	rBB	471	975	0.09%	0.019%
48	9.172	653	655	657	rBB	420	673	0.06%	0.013%
49	9.345	663	672	683	rBB	126119	381506	34.84%	7.265%
50	9.631	695	700	702	rBB	392	671	0.06%	0.013%
51	9.815	716	718	721	rBB	650	804	0.07%	0.015%
52	9.958	730	732	735	rBB	395	637	0.06%	0.012%
53	10.080	735	744	756	rBB	123236	332591	30.38%	6.334%
54	10.356	768	771	773	rBB	485	486	0.04%	0.009%
55	10.540	778	789	800	rBV	306878	898232	82.04%	17.105%
56	10.724	805	807	811	rBB	783	911	0.08%	0.017%
57	10.877	819	822	825	rBB	350	586	0.05%	0.011%
58	11.347	866	868	872	rBB	404	637	0.06%	0.012%
59	11.500	879	883	884	rBB	383	636	0.06%	0.012%
60	11.541	885	887	889	rBB	656	619	0.06%	0.012%
61	11.816	910	914	916	rBB	347	418	0.04%	0.008%
62	11.959	925	928	930	rBB	365	602	0.05%	0.011%
63	12.041	932	936	938	rBB	358	612	0.06%	0.012%
64	12.204	949	952	954	rBB	372	429	0.04%	0.008%
65	12.276	958	959	961	rBB	378	431	0.04%	0.008%
66	12.633	986	994	1000	rBB	1494	5807	0.53%	0.111%
67	12.735	1002	1004	1005	rBB	361	409	0.04%	0.008%
68	12.827	1006	1013	1030	rBB	392902	1094897	100.00%	20.851%
69	13.174	1042	1047	1049	rBB	342	586	0.05%	0.011%
70	13.542	1081	1083	1085	rBB	358	422	0.04%	0.008%
71	13.614	1088	1090	1092	rBB	369	428	0.04%	0.008%
72	13.654	1093	1094	1097	rBB	367	604	0.06%	0.012%
73	14.042	1130	1132	1134	rBB	346	587	0.05%	0.011%
74	14.573	1182	1184	1187	rBB	369	603	0.06%	0.011%
75	14.624	1188	1189	1195	rBB	694	823	0.08%	0.016%
76	14.716	1196	1198	1200	rBB	358	426	0.04%	0.008%
77	14.859	1209	1212	1214	rBB	341	600	0.05%	0.011%
78	14.890	1214	1215	1218	rBB	418	462	0.04%	0.009%
79	15.033	1220	1229	1245	rBB	369469	925311	84.51%	17.621%
80	15.227	1246	1248	1254	rBB	648	991	0.09%	0.019%
81	15.942	1313	1318	1320	rBB	340	608	0.06%	0.012%
82	16.064	1326	1330	1332	rBB	466	661	0.06%	0.013%
83	16.503	1369	1373	1375	rBB	357	416	0.04%	0.008%
84	16.820	1397	1404	1418	rBB	280366	685743	62.63%	13.059%
85	17.055	1424	1427	1430	rBB	347	605	0.06%	0.012%
86	17.678	1484	1488	1490	rBB	434	646	0.06%	0.012%
87	17.892	1505	1509	1511	rBB	412	637	0.06%	0.012%
88	18.209	1539	1540	1544	rBB	344	614	0.06%	0.012%
89	18.393	1556	1558	1559	rBB	362	415	0.04%	0.008%
90	18.444	1561	1563	1566	rBB	721	1196	0.11%	0.023%
91	18.505	1566	1569	1572	rBB	344	776	0.07%	0.015%
92	18.597	1572	1578	1595	rBB	361158	827738	75.60%	15.763%
93	18.924	1608	1610	1613	rBB	372	645	0.06%	0.012%
94	19.107	1625	1628	1630	rBB	366	409	0.04%	0.008%
95	19.209	1637	1638	1642	rBB	358	438	0.04%	0.008%
96	20.128	1727	1728	1733	rBB	358	817	0.07%	0.016%
97	21.078	1818	1821	1824	rBB	385	638	0.06%	0.012%
98	21.487	1858	1861	1863	rBB	318	572	0.05%	0.011%
99	21.599	1870	1872	1876	rBB	309	564	0.05%	0.011%
100	22.855	1991	1995	1997	rBB	347	617	0.06%	0.012%

Sum of corrected areas: 5251156

File : C:\MSDCHEM\1\DATA\050612\6M107937.D
 Operator : MES
 Acquired : 7 May 2012 2:16 using AcqMethod 8260WTR
 Instrument : HPMS6
 Sample Name: L12050050-05 A 826-SPE
 Misc Info : 1,1
 Vial Number: 19
 Quant File :8260WTR.RES (RTE Integrator)



Data File : C:\MSDCHEM\1\DATA\050612\6M107938.D Vial: 20
 Acq On : 7 May 2012 2:49 Operator: MES
 Sample : L12050050-07 A 826-SPE Inst : HPMS6
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 11 10:49:44 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	413964	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.03	117	287634	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	130731	25.00	ug/L	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	9.35	111	119647	26.6933	ug/L	0.00
Spiked Amount	25.000	Range 86 - 118	Recovery	=	106.76%	
43) 1,2-Dichloroethane-d4	10.08	65	120325	27.3530	ug/L	0.00
Spiked Amount	25.000	Range 80 - 120	Recovery	=	109.40%	
58) Toluene-d8	12.83	98	398213	25.4733	ug/L	0.00
Spiked Amount	25.000	Range 88 - 110	Recovery	=	101.88%	
80) p-Bromofluorobenzene	16.82	95	137643	26.8313	ug/L	0.00
Spiked Amount	25.000	Range 86 - 115	Recovery	=	107.32%	
Target Compounds						
13) Acetone	5.64	43	423	0.5393	ug/L #	46
33) Chloroform	9.02	83	11396	1.3436	ug/L	98

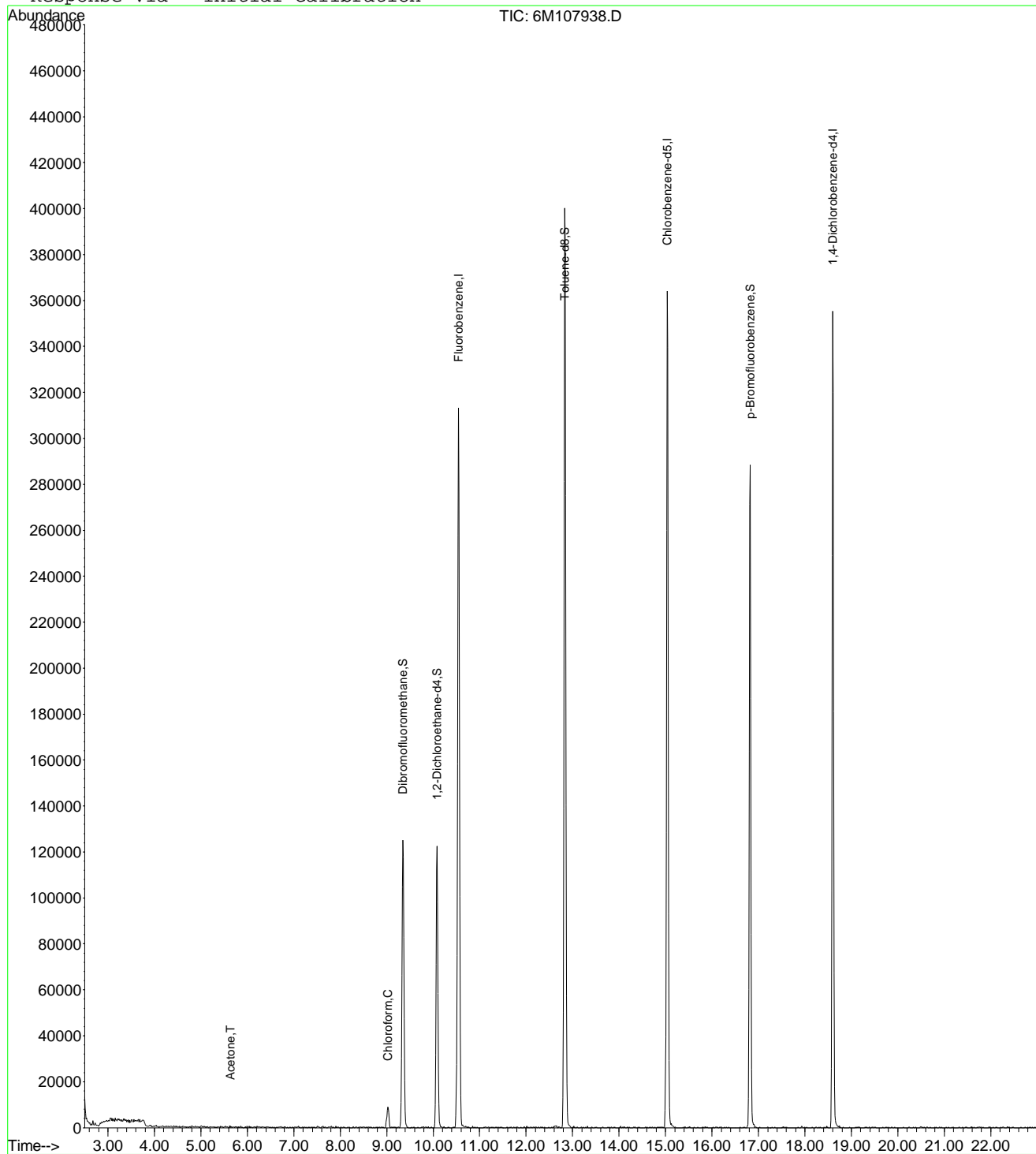
(#) = qualifier out of range (m) = manual integration
 6M107938.D 8260WTR.M Fri May 11 10:49:45 2012

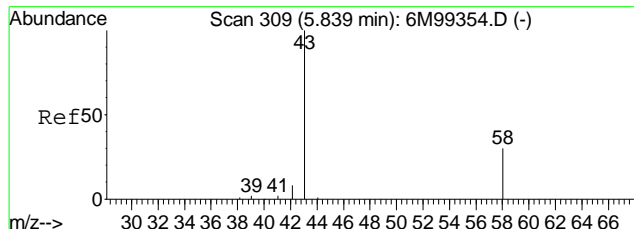
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 Acq On : 7 May 2012 2:49
 Sample : L12050050-07 A 826-SPE
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 11 10:49 2012

Vial: 20
 Operator: MES
 Inst : HPMS6
 Multiplr: 1.00

Quant Results File: 8260WTR.RES

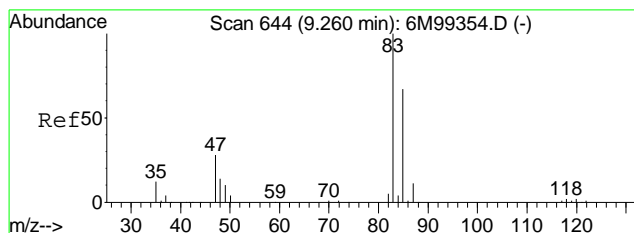
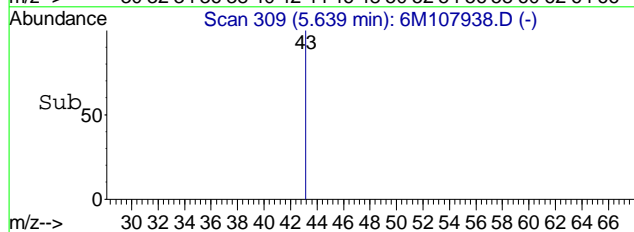
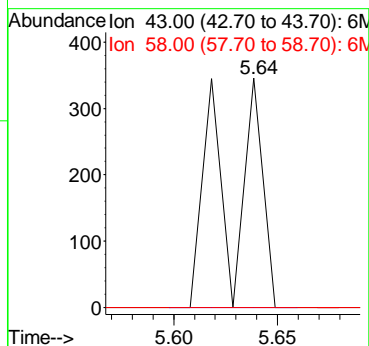
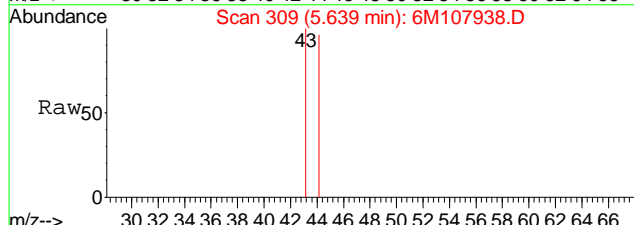
Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration





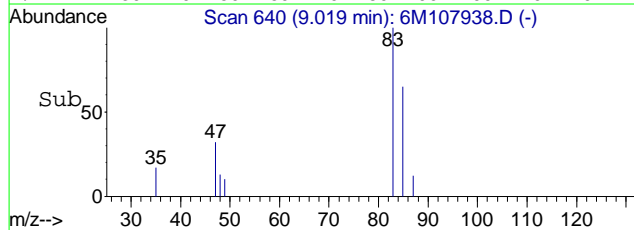
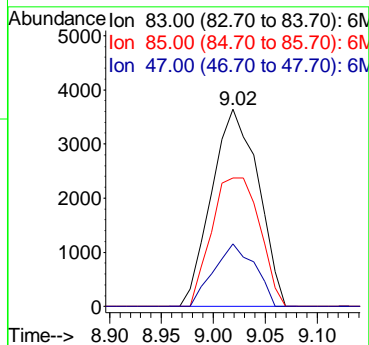
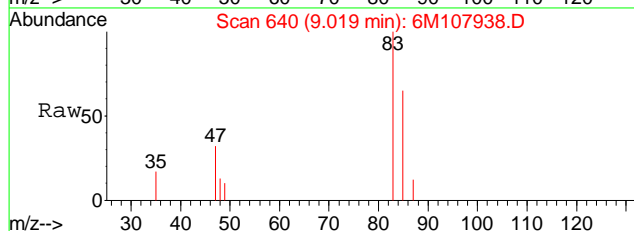
#13
 Acetone
 Concen: 0.54 ug/L
 RT: 5.64 min Scan# 309
 Delta R.T. 0.03 min
 Lab File: 6M107938.D
 Acq: 7 May 2012 2:49

Tgt Ion	Ratio	Lower	Upper
43	100		
58	0.0	17.3	40.3#



#33
 Chloroform
 Concen: 1.34 ug/L
 RT: 9.02 min Scan# 640
 Delta R.T. -0.00 min
 Lab File: 6M107938.D
 Acq: 7 May 2012 2:49

Tgt Ion	Ratio	Lower	Upper
83	100		
85	67.4	38.9	90.7
47	28.0	16.8	39.2



Data File : C:\MSDCHEM\1\DATA\050612\6M107938.D Vial: 20
 Acq On : 7 May 2012 2:49 Operator: MES
 Sample : L12050050-07 A 826-SPE Inst : HPMS6
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Smoothing : ON Filtering: 5
 Sampling : 1 Min Area: 100 Area counts
 Start Thrs: 0.2 Max Peaks: 100
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 5

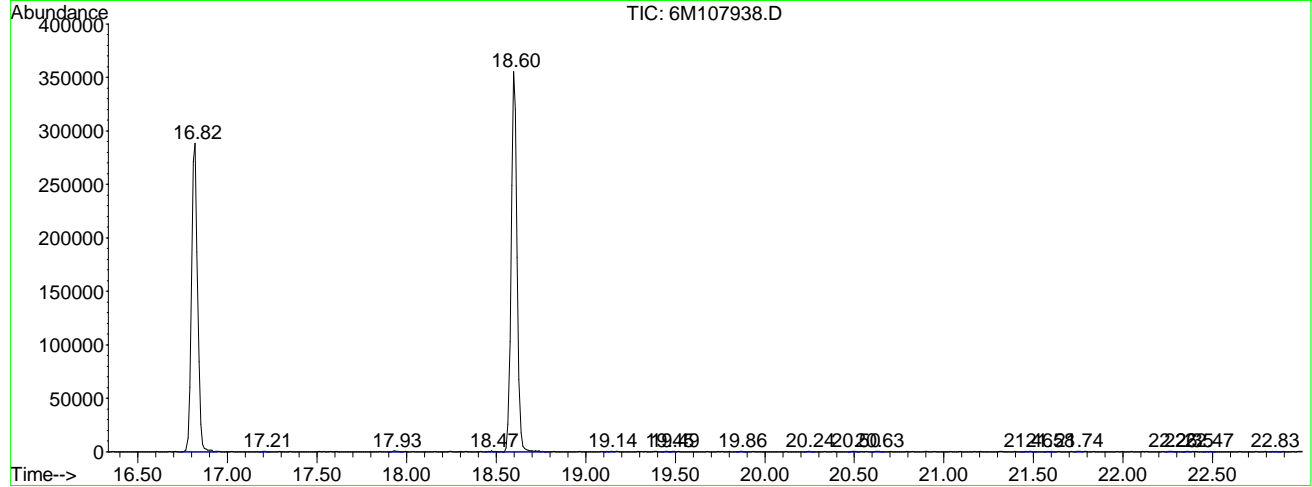
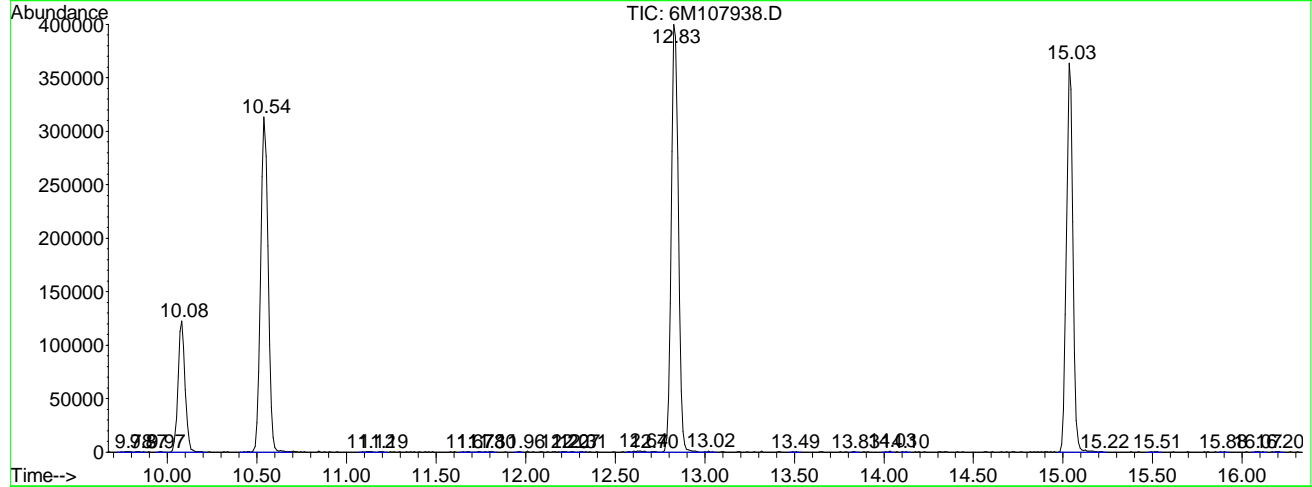
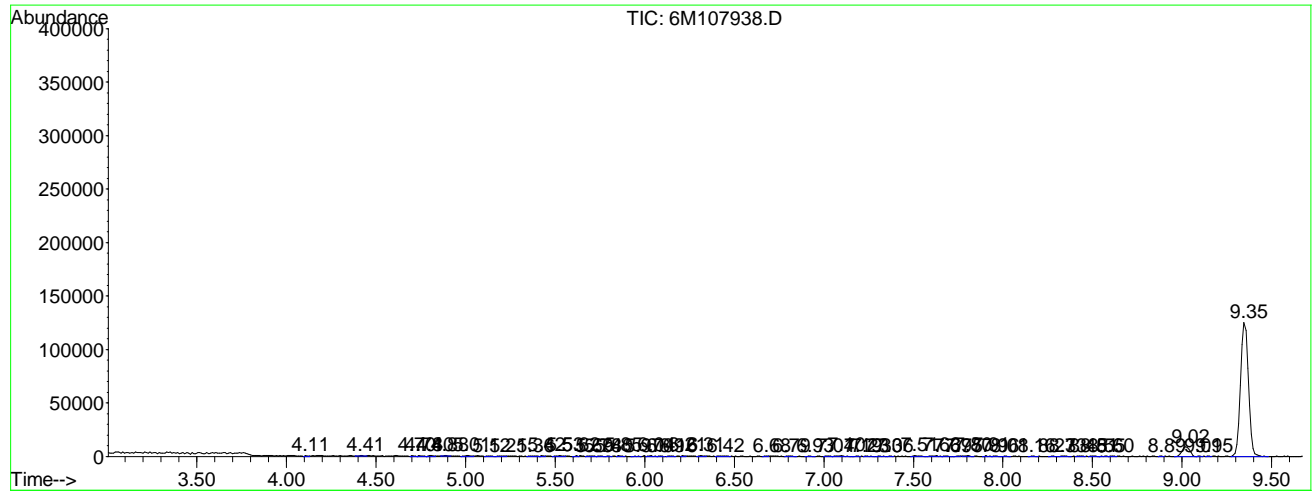
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.107	158	159	161	rBV	568	991	0.09%	0.019%
2	4.413	186	189	192	rBV	543	745	0.07%	0.014%
3	4.699	216	217	220	rBB	567	797	0.07%	0.015%
4	4.740	220	221	225	rBB	596	1104	0.10%	0.021%
5	4.801	225	227	230	rBV	820	1697	0.16%	0.032%
6	4.883	233	235	238	rVB	404	578	0.05%	0.011%
7	5.005	244	247	251	rBV	834	2265	0.21%	0.043%
8	5.118	257	258	262	rBB	449	1024	0.09%	0.020%
9	5.210	263	267	269	rBV	417	1334	0.12%	0.026%
10	5.363	280	282	287	rBB	500	1392	0.13%	0.027%
11	5.424	287	288	290	rBV	670	889	0.08%	0.017%
12	5.526	294	298	301	rBV	615	1680	0.15%	0.032%
13	5.618	305	307	308	rBB	848	520	0.05%	0.010%
14	5.690	312	314	318	rBB	385	1078	0.10%	0.021%
15	5.741	318	319	322	rBB	474	733	0.07%	0.014%
16	5.802	323	325	326	rBB	420	453	0.04%	0.009%
17	5.853	329	330	333	rBB	656	895	0.08%	0.017%
18	5.965	337	341	342	rBB	537	543	0.05%	0.010%
19	6.037	345	348	351	rBB	689	1093	0.10%	0.021%
20	6.088	351	353	355	rBB	375	602	0.06%	0.012%
21	6.159	356	360	361	rBB	420	959	0.09%	0.018%
22	6.210	364	365	367	rBV	733	845	0.08%	0.016%
23	6.313	373	375	378	rBV	561	1163	0.11%	0.022%
24	6.425	383	386	391	rBB	417	1604	0.15%	0.031%
25	6.680	409	411	412	rBV	391	663	0.06%	0.013%
26	6.793	421	422	427	rBB	476	945	0.09%	0.018%
27	6.925	432	435	437	rBB	394	470	0.04%	0.009%
28	7.038	442	446	447	rBB	326	779	0.07%	0.015%
29	7.099	447	452	457	rBB	681	1745	0.16%	0.033%
30	7.191	458	461	462	rBB	415	460	0.04%	0.009%
31	7.232	464	465	470	rBB	330	592	0.05%	0.011%
32	7.303	471	472	476	rBB	370	624	0.06%	0.012%
33	7.364	477	478	480	rBB	372	429	0.04%	0.008%
34	7.507	490	492	498	rBB	650	1452	0.13%	0.028%
35	7.630	499	504	507	rBB	704	1544	0.14%	0.030%
36	7.691	507	510	512	rBB	389	652	0.06%	0.012%
37	7.752	513	516	517	rBV	384	637	0.06%	0.012%
38	7.803	518	521	524	rVB	719	1161	0.11%	0.022%
39	7.906	529	531	534	rBB	733	682	0.06%	0.013%
40	7.957	534	536	539	rBB	359	632	0.06%	0.012%
41	8.008	540	541	544	rBB	391	442	0.04%	0.008%
42	8.161	554	556	559	rBB	357	435	0.04%	0.008%

43	8.273	565	567	570	rBB	439	457	0.04%	0.009%
44	8.334	571	573	577	rBB	392	869	0.08%	0.017%
45	8.447	580	584	585	rBB	404	878	0.08%	0.017%
46	8.508	587	590	593	rBB	388	836	0.08%	0.016%
47	8.549	593	594	598	rBB	368	654	0.06%	0.013%
48	8.600	598	599	602	rBB	340	599	0.05%	0.011%
49	8.886	625	627	628	rBB	355	425	0.04%	0.008%
50	9.019	634	640	646	rBB2	9086	27103	2.49%	0.518%
51	9.090	646	647	649	rBB2	368	431	0.04%	0.008%
52	9.151	651	653	654	rBB2	382	431	0.04%	0.008%
53	9.345	665	672	685	rBB	125239	381715	35.01%	7.298%
54	9.784	709	715	717	rBB	436	1078	0.10%	0.021%
55	9.866	718	723	724	rBB	339	811	0.07%	0.016%
56	9.968	730	733	735	rBB	371	426	0.04%	0.008%
57	10.081	737	744	757	rBB	122518	336719	30.88%	6.438%
58	10.540	776	789	804	rBV	313308	903219	82.84%	17.269%
59	11.122	841	846	850	rBB	403	1033	0.09%	0.020%
60	11.194	851	853	856	rBB	388	624	0.06%	0.012%
61	11.674	896	900	903	rBB	363	629	0.06%	0.012%
62	11.735	904	906	909	rBB	392	429	0.04%	0.008%
63	11.796	909	912	916	rBB	335	792	0.07%	0.015%
64	11.960	926	928	930	rBB	436	464	0.04%	0.009%
65	12.205	951	952	955	rBB	382	629	0.06%	0.012%
66	12.266	956	958	960	rBB	407	444	0.04%	0.008%
67	12.307	961	962	964	rBB	368	440	0.04%	0.008%
68	12.644	987	995	999	rBB	816	3289	0.30%	0.063%
69	12.705	1000	1001	1005	rBB	448	735	0.07%	0.014%
70	12.827	1006	1013	1028	rBB	400257	1090332	100.00%	20.847%
71	13.021	1029	1032	1036	rBB	672	847	0.08%	0.016%
72	13.491	1076	1078	1082	rBB	353	425	0.04%	0.008%
73	13.828	1110	1111	1114	rBB	407	461	0.04%	0.009%
74	14.032	1127	1131	1133	rBB	623	600	0.06%	0.011%
75	14.104	1137	1138	1142	rBB	453	500	0.05%	0.010%
76	15.033	1223	1229	1245	rBB	364027	917928	84.19%	17.550%
77	15.217	1245	1247	1249	rBB	360	422	0.04%	0.008%
78	15.513	1272	1276	1279	rBB	426	647	0.06%	0.012%
79	15.881	1311	1312	1316	rBB	395	451	0.04%	0.009%
80	16.075	1329	1331	1337	rBB	322	763	0.07%	0.015%
81	16.197	1341	1343	1346	rBB	383	632	0.06%	0.012%
82	16.820	1396	1404	1416	rBV	288454	680738	62.43%	13.015%
83	17.208	1439	1442	1444	rBB	383	429	0.04%	0.008%
84	17.933	1510	1513	1517	rBB	680	1053	0.10%	0.020%
85	18.474	1563	1566	1570	rBB	626	793	0.07%	0.015%
86	18.597	1572	1578	1596	rBB	355411	820552	75.26%	15.689%
87	19.138	1628	1631	1633	rBB	325	573	0.05%	0.011%
88	19.455	1659	1662	1663	rBB	406	474	0.04%	0.009%
89	19.485	1664	1665	1667	rBB	378	423	0.04%	0.008%
90	19.863	1700	1702	1705	rBB	379	446	0.04%	0.009%
91	20.241	1737	1739	1742	rBB	390	429	0.04%	0.008%
92	20.496	1761	1764	1767	rBB	482	672	0.06%	0.013%
93	20.629	1774	1777	1780	rBB	334	605	0.06%	0.012%
94	21.456	1856	1858	1863	rBB	306	559	0.05%	0.011%
95	21.579	1868	1870	1874	rBB	457	470	0.04%	0.009%
96	21.742	1885	1886	1889	rBB	356	612	0.06%	0.012%
97	22.263	1935	1937	1940	rBB	345	617	0.06%	0.012%
98	22.355	1944	1946	1948	rBB	433	459	0.04%	0.009%
99	22.467	1955	1957	1961	rBB	352	426	0.04%	0.008%
100	22.835	1992	1993	1997	rBB	355	420	0.04%	0.008%

Sum of corrected areas: 5230245

File : C:\MSDCHEM\1\DATA\050612\6M107938.D
 Operator : MES
 Acquired : 7 May 2012 2:49 using AcqMethod 8260WTR
 Instrument : HPMS6
 Sample Name: L12050050-07 A 826-SPE
 Misc Info : 1,1
 Vial Number: 20
 Quant File :8260WTR.RES (RTE Integrator)



Data File : C:\MSDCHEM\1\DATA\050612\6M107930.D Vial: 12
 Acq On : 6 May 2012 22:29 Operator: MES
 Sample : L12050050-09 A 826-SPE Inst : HPMS6
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 11 10:49:33 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	443351	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.03	117	311337	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	144352	25.00	ug/L	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	9.35	111	125614	26.1669	ug/L	0.00
Spiked Amount	25.000	Range 86 - 118	Recovery	=	104.68%	
43) 1,2-Dichloroethane-d4	10.08	65	125810	26.7042	ug/L	0.01
Spiked Amount	25.000	Range 80 - 120	Recovery	=	106.80%	
58) Toluene-d8	12.83	98	429038	25.3556	ug/L	0.00
Spiked Amount	25.000	Range 88 - 110	Recovery	=	101.44%	
80) p-Bromofluorobenzene	16.81	95	151854	26.8083	ug/L	0.00
Spiked Amount	25.000	Range 86 - 115	Recovery	=	107.24%	
Target Compounds						
3) Chloromethane	3.15	50	387	Below Cal	Qvalue # 43	
13) Acetone	5.62	43	202	0.2405	ug/L # 46	

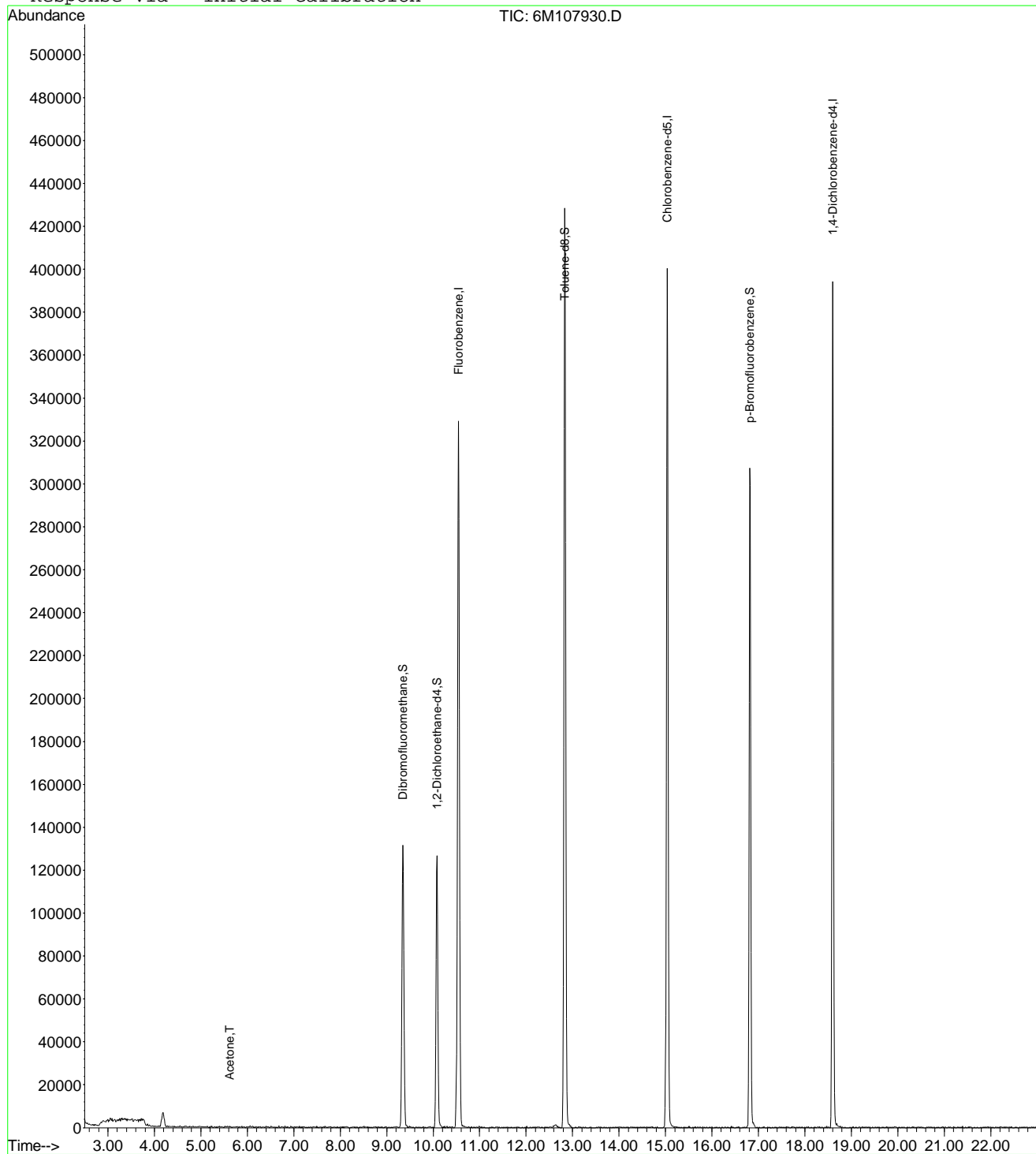
(#) = qualifier out of range (m) = manual integration
 6M107930.D 8260WTR.M Fri May 11 10:49:34 2012

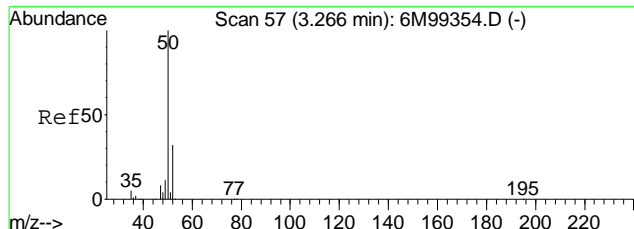
Data File : C:\MSDCHEM\1\DATA\050612\6M107930.D
Acq On : 6 May 2012 22:29
Sample : L12050050-09 A 826-SPE
Misc : 1,1
MS Integration Params: RTEINT.P
Quant Time: May 11 10:49 2012

Vial: 12
Operator: MES
Inst : HPMS6
Multiplr: 1.00

Quant Results File: 8260WTR.RES

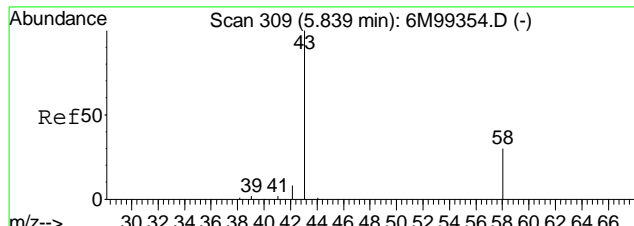
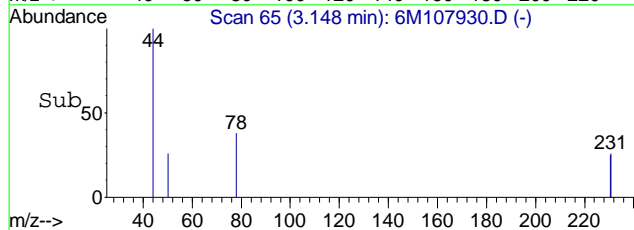
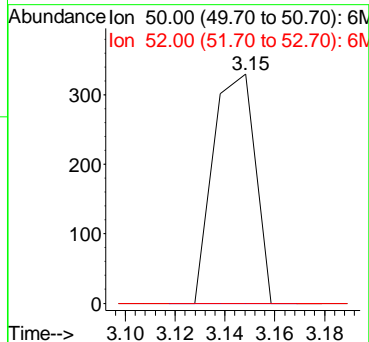
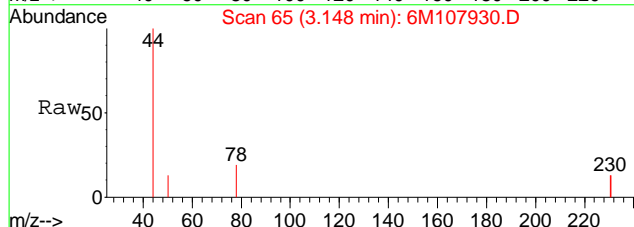
Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
Last Update : Wed Apr 25 15:22:20 2012
Response via : Initial Calibration





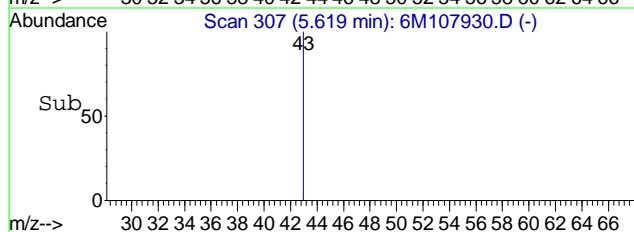
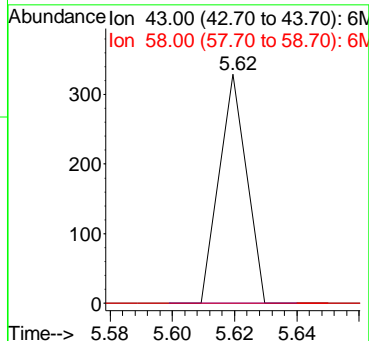
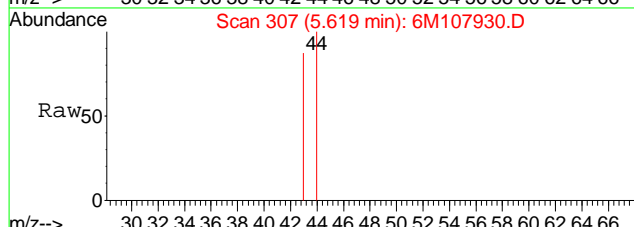
#3
 Chloromethane
 Concen: Below Cal
 RT: 3.15 min Scan# 65
 Delta R.T. 0.04 min
 Lab File: 6M107930.D
 Acq: 6 May 2012 22:29

Tgt Ion	Ratio	Lower	Upper
50	100		
52	0.0	18.8	44.0#



#13
 Acetone
 Concen: 0.24 ug/L
 RT: 5.62 min Scan# 307
 Delta R.T. 0.01 min
 Lab File: 6M107930.D
 Acq: 6 May 2012 22:29

Tgt Ion	Ratio	Lower	Upper
43	100		
58	0.0	17.3	40.3#



Data File : C:\MSDCHEM\1\DATA\050612\6M107930.D Vial: 12
 Acq On : 6 May 2012 22:29 Operator: MES
 Sample : L12050050-09 A 826-SPE Inst : HPMS6
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Smoothing : ON Filtering: 5
 Sampling : 1 Min Area: 100 Area counts
 Start Thrs: 0.2 Max Peaks: 100
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 5

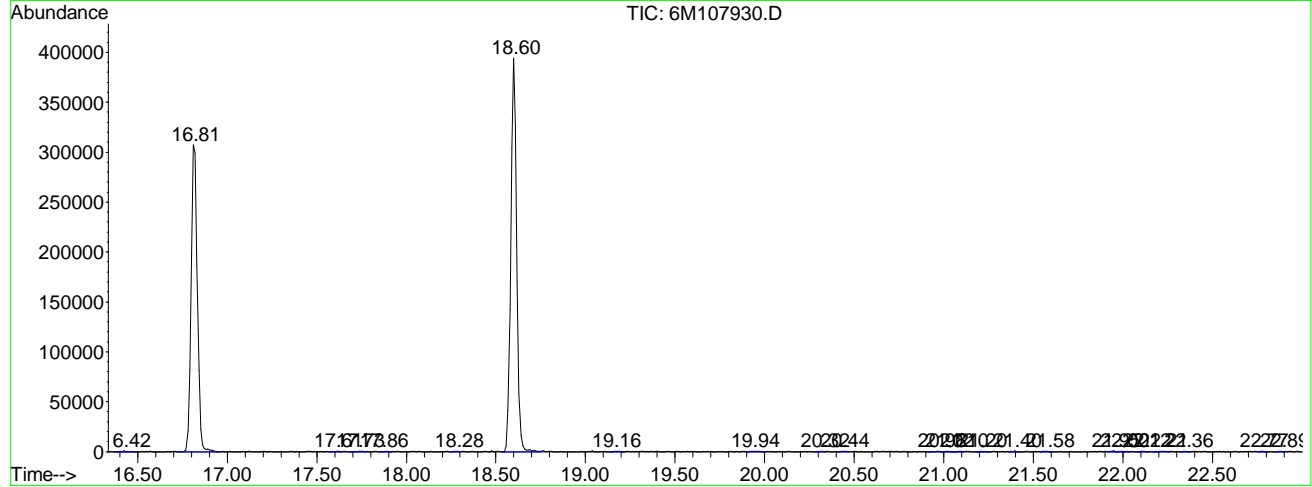
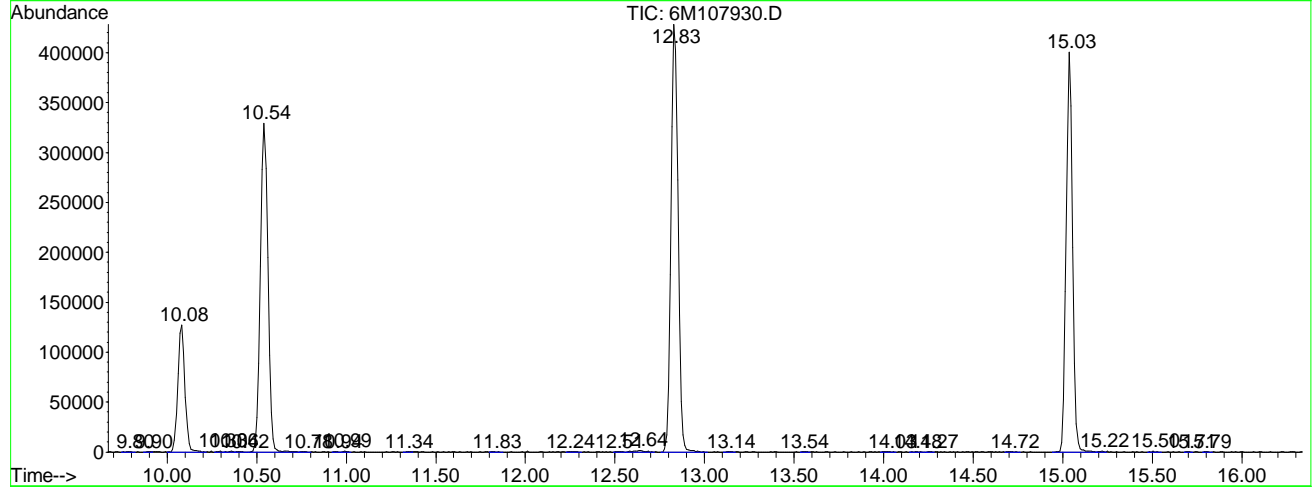
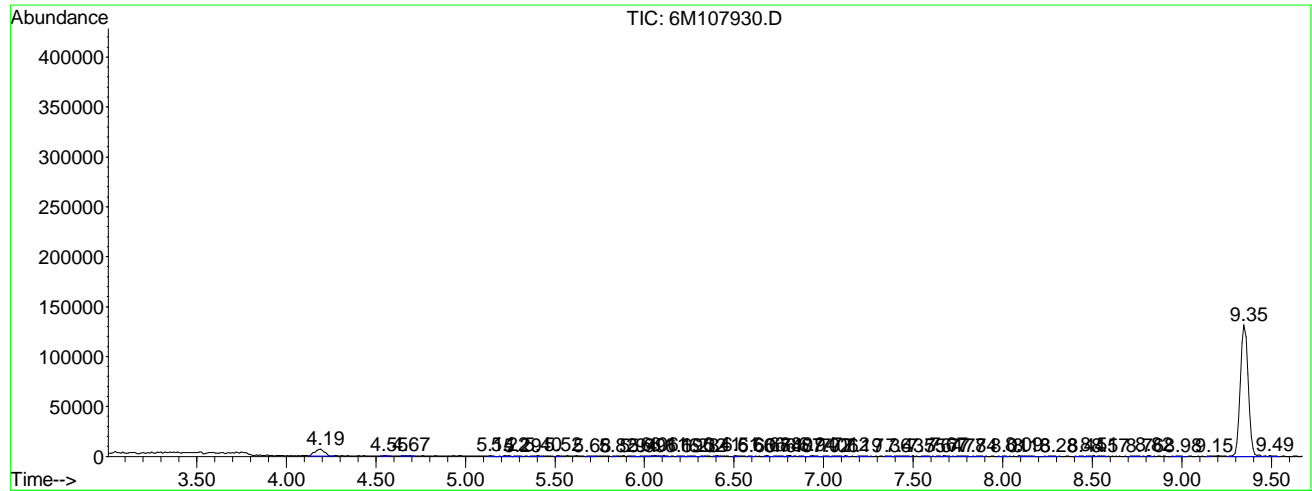
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.190	161	167	174	rBV4	6592	25103	2.14%	0.444%
2	4.547	200	202	205	rBV	503	644	0.05%	0.011%
3	4.670	211	214	218	rBV	445	978	0.08%	0.017%
4	5.139	259	260	263	rVB	806	953	0.08%	0.017%
5	5.221	264	268	272	rBB	729	1850	0.16%	0.033%
6	5.293	272	275	278	rBB	513	1237	0.11%	0.022%
7	5.405	281	286	289	rBV	798	2291	0.20%	0.040%
8	5.517	295	297	299	rBV	701	1227	0.10%	0.022%
9	5.681	312	313	318	rBV	422	1307	0.11%	0.023%
10	5.824	326	327	329	rBV	449	658	0.06%	0.012%
11	5.936	336	338	340	rVB	554	743	0.06%	0.013%
12	5.987	341	343	348	rBV	482	1779	0.15%	0.031%
13	6.058	348	350	352	rVV	781	1061	0.09%	0.019%
14	6.110	353	355	358	rVB	684	1179	0.10%	0.021%
15	6.191	361	363	367	rBB	468	1271	0.11%	0.022%
16	6.283	367	372	374	rBB	548	1413	0.12%	0.025%
17	6.324	374	376	377	rBV	423	651	0.06%	0.012%
18	6.406	381	384	386	rBV	669	1241	0.11%	0.022%
19	6.508	392	394	396	rBV	663	1067	0.09%	0.019%
20	6.600	400	403	404	rBB	424	662	0.06%	0.012%
21	6.681	409	411	413	rBB	981	1044	0.09%	0.018%
22	6.743	414	417	421	rBB	509	1420	0.12%	0.025%
23	6.804	421	423	426	rBV	776	1336	0.11%	0.024%
24	6.865	428	429	433	rBB	465	790	0.07%	0.014%
25	6.937	434	436	441	rBB	656	1365	0.12%	0.024%
26	7.018	441	444	446	rBB	436	895	0.08%	0.016%
27	7.059	446	448	453	rBB	453	1366	0.12%	0.024%
28	7.120	453	454	456	rBB	676	632	0.05%	0.011%
29	7.192	460	461	467	rBB	528	1479	0.13%	0.026%
30	7.355	475	477	480	rBB	342	803	0.07%	0.014%
31	7.427	480	484	490	rBB	436	1905	0.16%	0.034%
32	7.549	495	496	501	rBB	421	1127	0.10%	0.020%
33	7.641	503	505	507	rBB	461	769	0.07%	0.014%
34	7.672	507	508	512	rBB	660	1053	0.09%	0.019%
35	7.774	514	518	522	rBB	475	1649	0.14%	0.029%
36	7.835	523	524	530	rBB	387	1097	0.09%	0.019%
37	8.009	537	541	543	rBB	392	904	0.08%	0.016%
38	8.091	548	549	551	rBV	624	795	0.07%	0.014%
39	8.131	551	553	559	rVB	560	1474	0.13%	0.026%
40	8.285	561	568	570	rBB	417	1312	0.11%	0.023%
41	8.438	579	583	585	rBB	365	842	0.07%	0.015%
42	8.509	585	590	591	rBB	694	1247	0.11%	0.022%

43	8.570	593	596	597	rVB	418	651	0.06%	0.012%
44	8.765	609	615	616	rBB	520	1436	0.12%	0.025%
45	8.816	618	620	622	rBB	642	868	0.07%	0.015%
46	8.979	632	636	640	rBB	452	1115	0.10%	0.020%
47	9.153	651	653	654	rBV	415	702	0.06%	0.012%
48	9.347	663	672	684	rBV	131564	401797	34.25%	7.099%
49	9.490	685	686	691	rBB	752	1372	0.12%	0.024%
50	9.796	711	716	718	rBB	433	892	0.08%	0.016%
51	9.898	723	726	728	rBV	413	887	0.08%	0.016%
52	10.082	736	744	757	rBB	126865	351388	29.96%	6.209%
53	10.296	762	765	767	rBB	656	857	0.07%	0.015%
54	10.358	767	771	773	rBB	643	961	0.08%	0.017%
55	10.419	773	777	779	rBB	458	936	0.08%	0.017%
56	10.541	780	789	808	rBB	329358	963405	82.13%	17.022%
57	10.776	808	812	814	rBB	356	815	0.07%	0.014%
58	10.940	826	828	830	rBB	383	647	0.06%	0.011%
59	10.991	831	833	836	rBB	696	1117	0.10%	0.020%
60	11.338	865	867	870	rBV	371	852	0.07%	0.015%
61	11.828	912	915	919	rBB	387	818	0.07%	0.014%
62	12.236	954	955	962	rBB	377	1227	0.10%	0.022%
63	12.512	980	982	986	rBB	357	1006	0.09%	0.018%
64	12.645	987	995	1002	rBB	1341	6476	0.55%	0.114%
65	12.829	1006	1013	1031	rBB	428561	1173000	100.00%	20.726%
66	13.135	1040	1043	1046	rBB	446	950	0.08%	0.017%
67	13.543	1082	1083	1087	rBB	430	918	0.08%	0.016%
68	14.034	1126	1131	1134	rBB	385	1272	0.11%	0.022%
69	14.177	1142	1145	1150	rBB	353	820	0.07%	0.014%
70	14.268	1151	1154	1155	rBB	398	654	0.06%	0.012%
71	14.718	1194	1198	1202	rBB	450	1121	0.10%	0.020%
72	15.034	1220	1229	1244	rBB	400580	993766	84.72%	17.559%
73	15.218	1244	1247	1249	rBB	643	1078	0.09%	0.019%
74	15.504	1272	1275	1279	rBB	662	799	0.07%	0.014%
75	15.708	1292	1295	1296	rBB	361	648	0.06%	0.011%
76	15.790	1302	1303	1307	rBB	395	660	0.06%	0.012%
77	16.423	1361	1365	1371	rBB	685	1048	0.09%	0.019%
78	16.811	1395	1403	1417	rBB	307300	746852	63.67%	13.196%
79	17.608	1478	1481	1484	rBB	445	894	0.08%	0.016%
80	17.730	1489	1493	1497	rBB	492	1103	0.09%	0.019%
81	17.863	1505	1506	1511	rBB	386	675	0.06%	0.012%
82	18.282	1544	1547	1549	rBB	388	840	0.07%	0.015%
83	18.598	1572	1578	1593	rBV	394342	905506	77.20%	15.999%
84	19.160	1631	1633	1638	rBB	395	847	0.07%	0.015%
85	19.936	1706	1709	1715	rBB	466	1628	0.14%	0.029%
86	20.324	1743	1747	1748	rBB	466	705	0.06%	0.012%
87	20.436	1756	1758	1761	rBB	398	853	0.07%	0.015%
88	20.977	1805	1811	1813	rBB	547	982	0.08%	0.017%
89	21.018	1813	1815	1818	rBB	370	642	0.05%	0.011%
90	21.100	1819	1823	1824	rBB	360	639	0.05%	0.011%
91	21.202	1831	1833	1838	rBB	456	673	0.06%	0.012%
92	21.396	1849	1852	1854	rBB	701	637	0.05%	0.011%
93	21.580	1866	1870	1872	rBB	386	857	0.07%	0.015%
94	21.948	1903	1906	1908	rBB	626	813	0.07%	0.014%
95	21.999	1908	1911	1915	rBB	424	895	0.08%	0.016%
96	22.121	1919	1923	1925	rBB	351	642	0.05%	0.011%
97	22.213	1928	1932	1936	rBB	444	1379	0.12%	0.024%
98	22.356	1943	1946	1947	rBB	409	675	0.06%	0.012%
99	22.775	1985	1987	1990	rBB	387	677	0.06%	0.012%
100	22.887	1995	1998	1999	rBB	387	657	0.06%	0.012%

Sum of corrected areas: 5659649

File : C:\MSDCHEM\1\DATA\050612\6M107930.D
 Operator : MES
 Acquired : 6 May 2012 22:29 using AcqMethod 8260WTR
 Instrument : HPMS6
 Sample Name: L12050050-09 A 826-SPE
 Misc Info : 1,1
 Vial Number: 12
 Quant File :8260WTR.RES (RTE Integrator)



2.1.1.4 Standards Data

Data File : C:\MSDCHEM\2\DATA\012512\6M105371.D Vial: 5
 Acq On : 25 Jan 2012 10:12 Operator: ADC
 Sample : WG388587-01 5ug/L 826A9FOO QC Inst : HPMS6
 Misc : 1,1 STD49721 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 02 11:00:06 2012 Quant Results File: A9FOOWTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
 Title : A9-FOO Water - IC: 01/25/12 - HPMS6
 Last Update : Thu Feb 02 09:44:46 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WT

Internal Standards	R.T.	QIion	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.57	96	542118	25.00	ug/L	0.00
11) Chlorobenzene-d5	15.06	117	382891	25.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4	18.63	152	182930	25.00	ug/L	0.00

Target Compounds	R.T.	QIion	Response	Conc	Units	Qvalue
2) Acetonitrile	6.11	41	1900	3.8474	ug/L #	1
3) 3-Chloro-1-propene	6.51	41	51181	4.3471	ug/L	99
4) 2-Chloro-1,3-butadiene	8.01	53	44354	3.9841	ug/L #	29
5) Ethyl Acetate	8.76	43	13368	4.1127	ug/L #	100
6) Methacrylonitrile	8.93	67	5420	3.9672	ug/L	98
9) Methyl methacrylate	11.44	41	11648	9.5031	ug/L	99
10) 2-Nitropropane	11.80	43	3265	11.8335	ug/L	88

(#) = qualifier out of range (m) = manual integration
 6M105371.D A9FOOWTR.M Thu Feb 02 15:11:53 2012

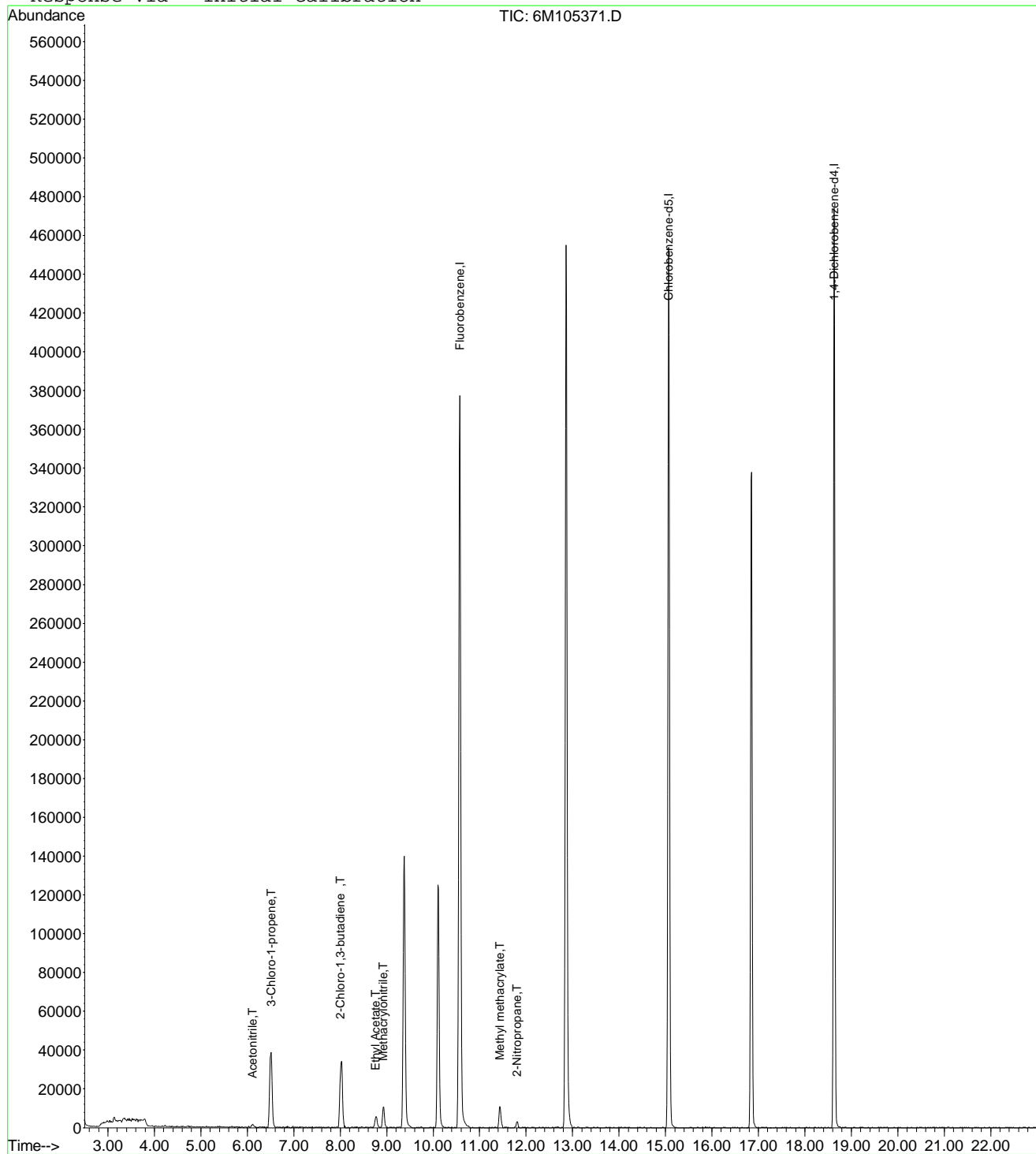


Data File : C:\MSDCHEM\2\DATA\012512\6M105371.D
Acq On : 25 Jan 2012 10:12
Sample : WG388587-01 5ug/L 826A9FOO QC
Misc : 1,1 STD49721
MS Integration Params: rteint.p
Quant Time: Feb 2 11:00 2012

Vial: 5
Operator: ADC
Inst : HPMS6
Multiplr: 1.00

Quant Results File: A9FOOWTR.RES

Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
Title : A9-FOO Water - IC: 01/25/12 - HPMS6
Last Update : Thu Feb 02 09:44:46 2012
Response via : Initial Calibration



6M105371.D A9FOOWTR.M

Thu Feb 02 15:11:54 2012

Page 2



Data File : C:\MSDCHEM\2\DATA\012512\6M105372.D Vial: 6
 Acq On : 25 Jan 2012 10:45 Operator: ADC
 Sample : WG388587-02 20ug/L 826A9FOO QC Inst : HPMS6
 Misc : 1,1 STD49721 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 02 11:00:07 2012 Quant Results File: A9FOOWTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
 Title : A9-FOO Water - IC: 01/25/12 - HPMS6
 Last Update : Thu Feb 02 09:44:46 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.57	96	527412	25.00	ug/L	0.00
11) Chlorobenzene-d5	15.06	117	368818	25.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4	18.63	152	180470	25.00	ug/L	0.00

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Acetonitrile	6.10	41	8738	18.1873	ug/L	92
3) 3-Chloro-1-propene	6.51	41	209591	18.2980	ug/L	99
4) 2-Chloro-1,3-butadiene	8.02	53	194300	17.9398	ug/L	98
5) Ethyl Acetate	8.76	43	57089	18.0532	ug/L #	100
6) Methacrylonitrile	8.93	67	22789	17.1456	ug/L	94
7) Isobutyl Alcohol	8.95	43	4943	35.3217	ug/L #	89
9) Methyl methacrylate	11.44	41	55796	20.8158	ug/L	98
10) 2-Nitropropane	11.81	43	15582	22.5273	ug/L	92
13) Cyclohexanone	16.56	55	2471	28.3472	ug/L	93

(#) = qualifier out of range (m) = manual integration
 6M105372.D A9FOOWTR.M Thu Feb 02 15:11:55 2012

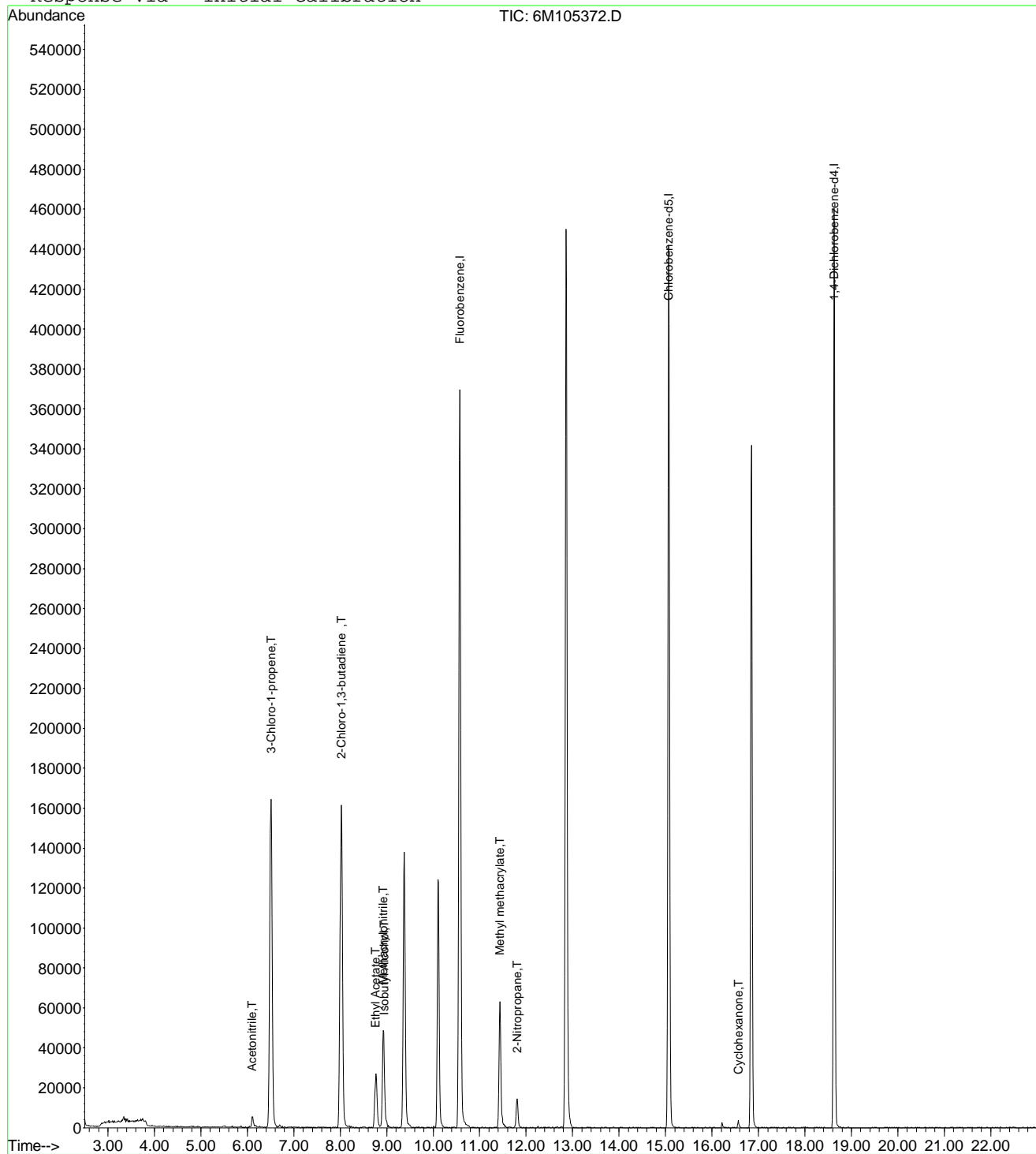


Data File : C:\MSDCHEM\2\DATA\012512\6M105372.D
 Acq On : 25 Jan 2012 10:45
 Sample : WG388587-02 20ug/L 826A9FOO QC
 Misc : 1,1 STD49721
 MS Integration Params: rteint.p
 Quant Time: Feb 2 11:00 2012

Vial: 6
 Operator: ADC
 Inst : HPMS6
 Multiplr: 1.00

Quant Results File: A9FOOWTR.RES

Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
 Title : A9-FOO Water - IC: 01/25/12 - HPMS6
 Last Update : Thu Feb 02 09:44:46 2012
 Response via : Initial Calibration



6M105372.D A9FOOWTR.M

Thu Feb 02 15:11:55 2012

Page 2



Data File : C:\MSDCHEM\2\DATA\012512\6M105373.D Vial: 7
 Acq On : 25 Jan 2012 11:17 Operator: ADC
 Sample : WG388587-03 50ug/L 826A9FOO QC Inst : HPMS6
 Misc : 1,1 STD49721 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 02 11:00:09 2012 Quant Results File: A9FOOWTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
 Title : A9-FOO Water - IC: 01/25/12 - HPMS6
 Last Update : Thu Feb 02 09:44:46 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.57	96	525930	25.00	ug/L	0.00
11) Chlorobenzene-d5	15.06	117	367927	25.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4	18.63	152	178601	25.00	ug/L	0.00

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Acetonitrile	6.11	41	24875	51.9208	ug/L	96
3) 3-Chloro-1-propene	6.51	41	587071	51.3977	ug/L	100
4) 2-Chloro-1,3-butadiene	8.02	53	557757	51.6431	ug/L	100
5) Ethyl Acetate	8.76	43	155016	49.1587	ug/L #	100
6) Methacrylonitrile	8.93	67	67503	50.9299	ug/L	98
7) Isobutyl Alcohol	8.95	43	13279	95.1565	ug/L #	97
9) Methyl methacrylate	11.44	41	165950	48.9606	ug/L	100
10) 2-Nitropropane	11.81	43	45288	48.2442	ug/L	97
13) Cyclohexanone	16.57	55	8212	52.4388	ug/L	99

(#) = qualifier out of range (m) = manual integration
 6M105373.D A9FOOWTR.M Thu Feb 02 15:11:56 2012

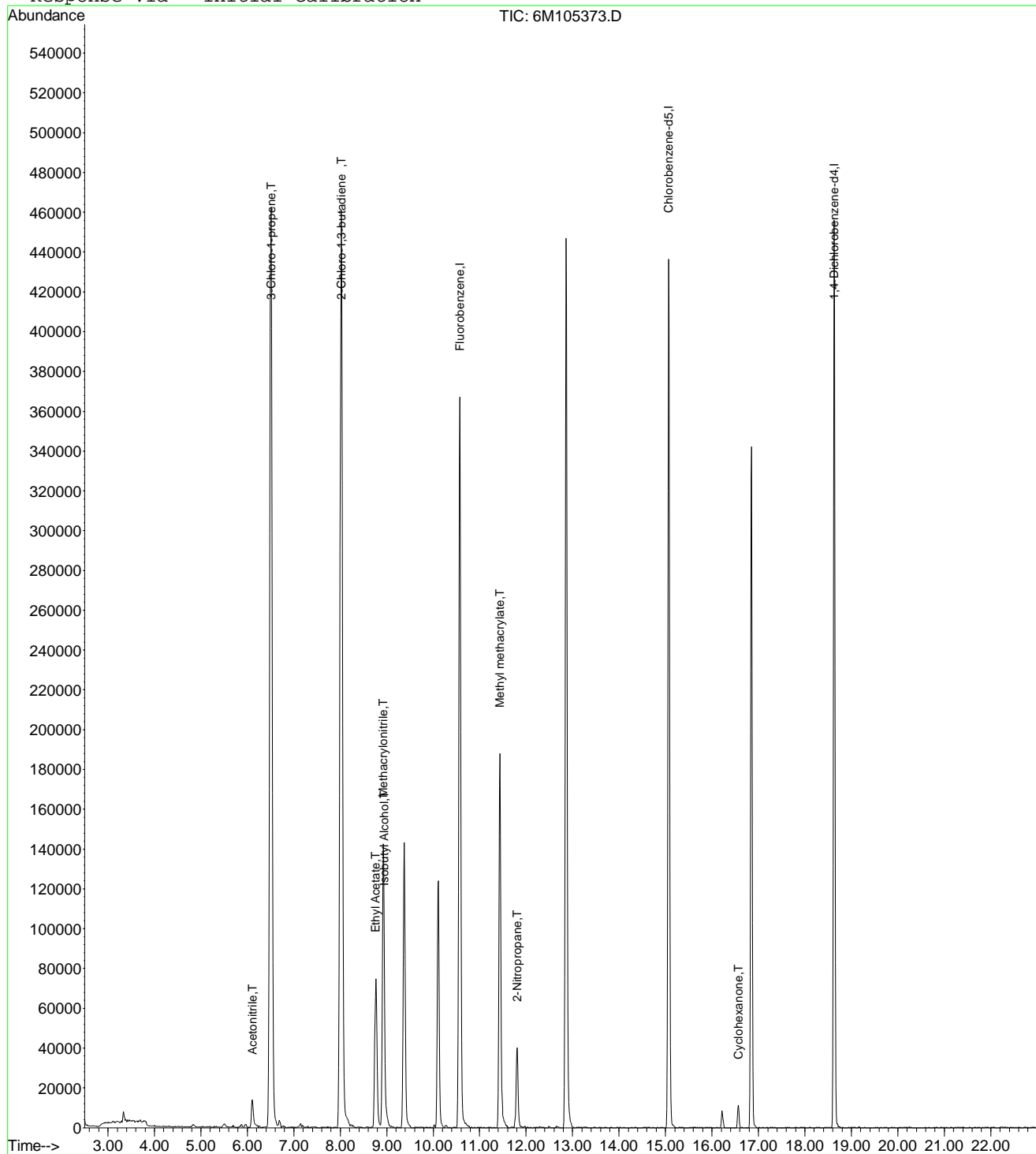


Data File : C:\MSDCHEM\2\DATA\012512\6M105373.D
 Acq On : 25 Jan 2012 11:17
 Sample : WG388587-03 50ug/L 826A9FOO QC
 Misc : 1,1 STD49721
 MS Integration Params: rteint.p
 Quant Time: Feb 2 11:00 2012

Vial: 7
 Operator: ADC
 Inst : HPMS6
 Multiplr: 1.00

Quant Results File: A9FOOWTR.RES

Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
 Title : A9-FOO Water - IC: 01/25/12 - HPMS6
 Last Update : Thu Feb 02 09:44:46 2012
 Response via : Initial Calibration



Data File : C:\MSDCHEM\2\DATA\012512\6M105374.D Vial: 8
 Acq On : 25 Jan 2012 11:49 Operator: ADC
 Sample : WG388587-04 100ug/L 826A9FOO QC Inst : HPMS6
 Misc : 1,1 STD49721 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 02 11:00:11 2012 Quant Results File: A9FOOWTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
 Title : A9-FOO Water - IC: 01/25/12 - HPMS6
 Last Update : Thu Feb 02 09:44:46 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.57	96	521985	25.00	ug/L	0.00
11) Chlorobenzene-d5	15.06	117	364007	25.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4	18.63	152	173837	25.00	ug/L	0.00

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Acetonitrile	6.11	41	49127	103.3162	ug/L	100
3) 3-Chloro-1-propene	6.51	41	1180872	104.1659	ug/L	100
4) 2-Chloro-1,3-butadiene	8.02	53	1129950	105.4136	ug/L	100
5) Ethyl Acetate	8.76	43	319926	102.2217	ug/L #	100
6) Methacrylonitrile	8.93	67	135748	103.1936	ug/L	100
7) Isobutyl Alcohol	8.95	43	27528	198.7549	ug/L	96
8) 1-Butanol	10.01	41	1808	50.3611	ug/L	100
9) Methyl methacrylate	11.44	41	351082	96.8724	ug/L	100
10) 2-Nitropropane	11.80	43	98910	95.2434	ug/L	100
13) Cyclohexanone	16.56	55	17278	92.2929	ug/L	100

(#) = qualifier out of range (m) = manual integration
 6M105374.D A9FOOWTR.M Thu Feb 02 15:11:57 2012

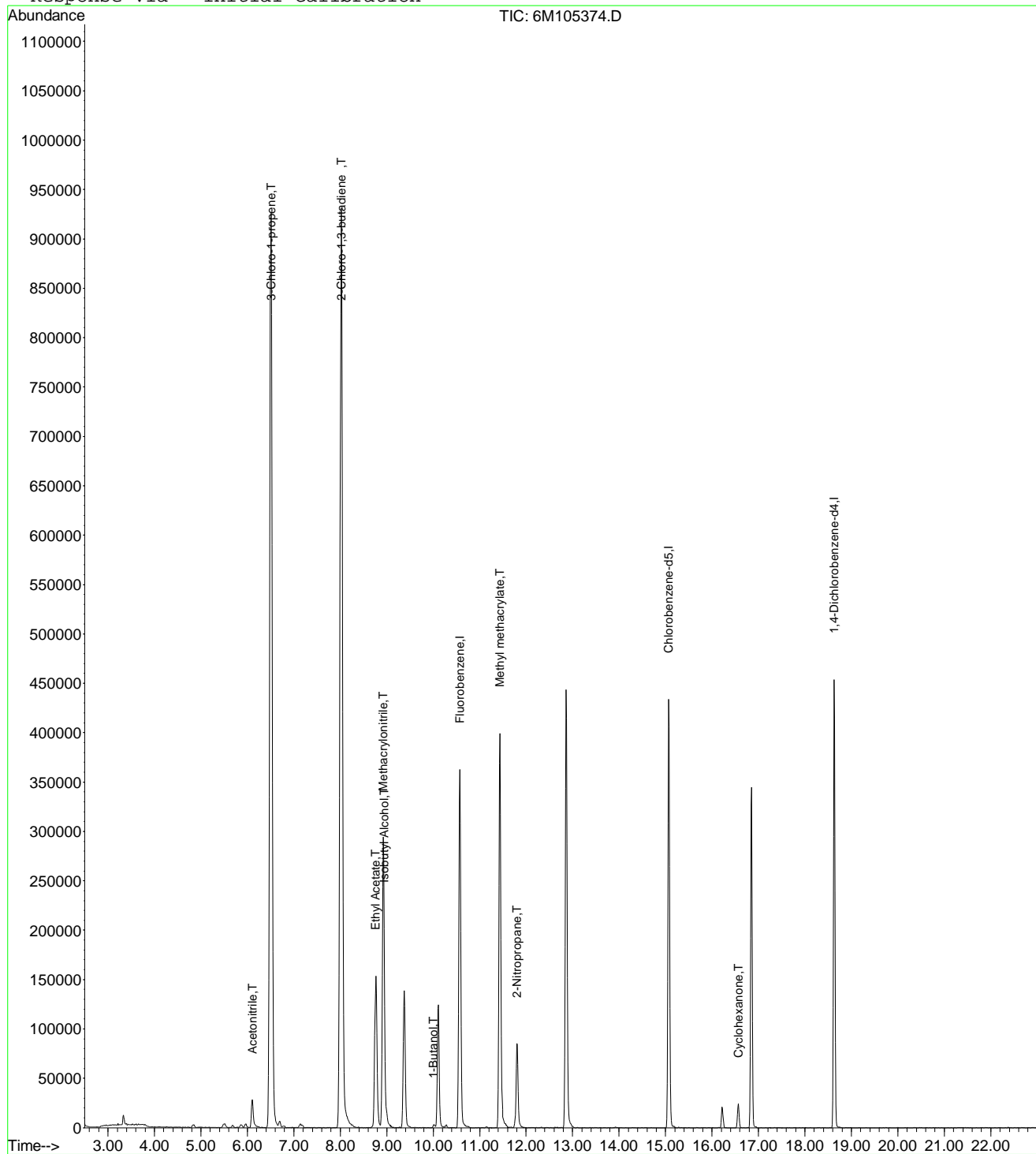


Data File : C:\MSDCHEM\2\DATA\012512\6M105374.D
 Acq On : 25 Jan 2012 11:49
 Sample : WG388587-04 100ug/L 826A9FOO QC
 Misc : 1,1 STD49721
 MS Integration Params: rteint.p
 Quant Time: Feb 2 11:00 2012

Vial: 8
 Operator: ADC
 Inst : HPMS6
 Multiplr: 1.00

Quant Results File: A9FOOWTR.RES

Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
 Title : A9-FOO Water - IC: 01/25/12 - HPMS6
 Last Update : Thu Feb 02 09:44:46 2012
 Response via : Initial Calibration



6M105374.D A9FOOWTR.M

Thu Feb 02 15:11:58 2012

Page 2



Data File : C:\MSDCHEM\2\DATA\012512\6M105375.D Vial: 9
 Acq On : 25 Jan 2012 12:22 Operator: ADC
 Sample : WG388587-05 200ug/L 826A9FOO QC Inst : HPMS6
 Misc : 1,1 STD49721 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 02 11:00:12 2012 Quant Results File: A9FOOWTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
 Title : A9-FOO Water - IC: 01/25/12 - HPMS6
 Last Update : Thu Feb 02 09:44:46 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.57	96	534922	25.00	ug/L	0.00
11) Chlorobenzene-d5	15.07	117	371767	25.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4	18.63	152	181349	25.00	ug/L	0.00

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Acetonitrile	6.10	41	104721	214.9064	ug/L	98
3) 3-Chloro-1-propene	6.51	41	2451072	210.9824	ug/L	99
4) 2-Chloro-1,3-butadiene	8.02	53	2371831	215.9180	ug/L	100
5) Ethyl Acetate	8.77	43	681737	212.5582	ug/L #	100
6) Methacrylonitrile	8.93	67	292287	216.8185	ug/L	98
7) Isobutyl Alcohol	8.95	43	58077	409.1804	ug/L #	92
8) 1-Butanol	10.01	41	6913	187.9020	ug/L	70
9) Methyl methacrylate	11.43	41	752659	195.4261	ug/L	99
10) 2-Nitropropane	11.80	43	216103	192.7634	ug/L	98
13) Cyclohexanone	16.56	55	41618	189.3675	ug/L	99

(#) = qualifier out of range (m) = manual integration
 6M105375.D A9FOOWTR.M Thu Feb 02 15:11:58 2012

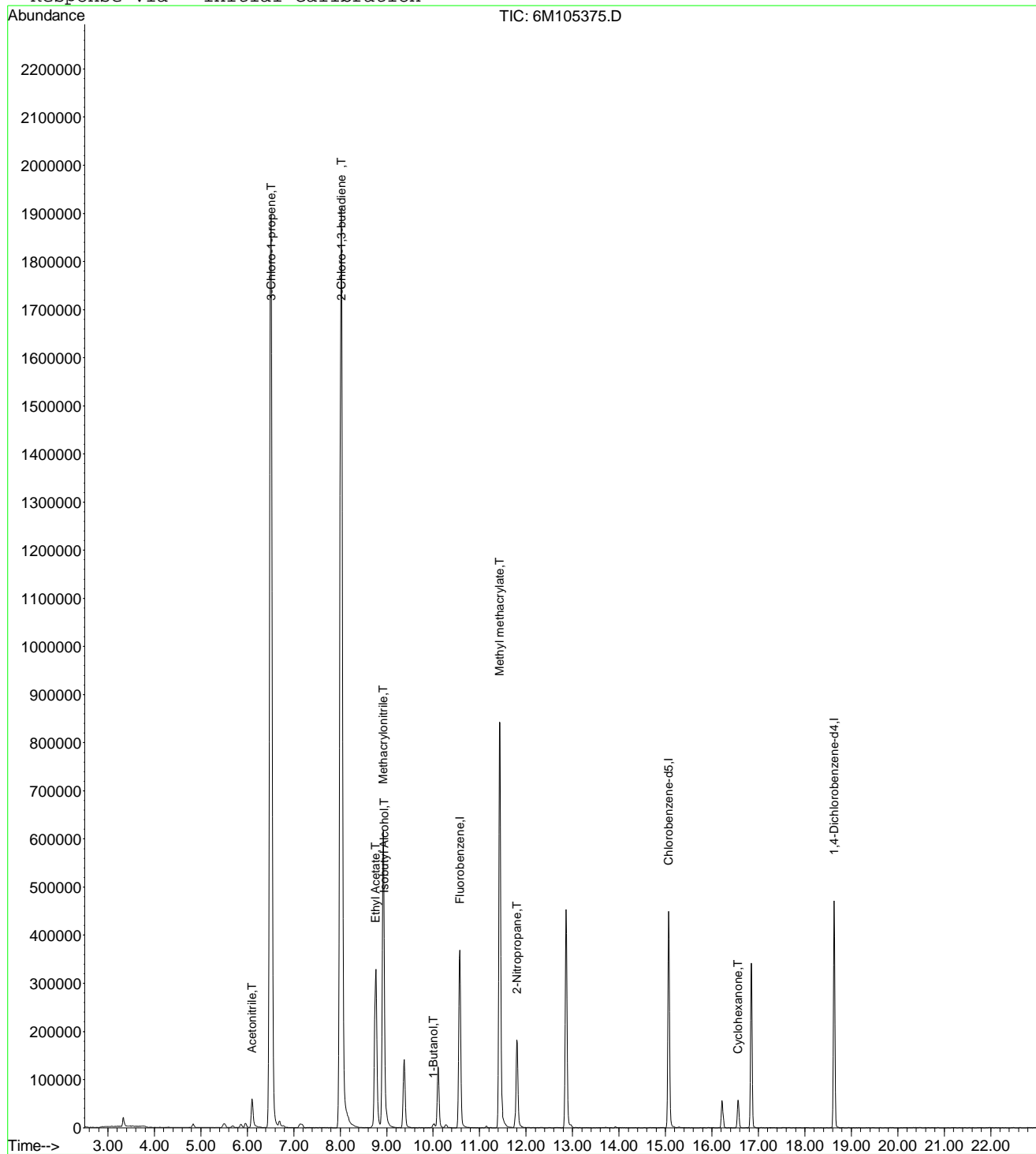


Data File : C:\MSDCHEM\2\DATA\012512\6M105375.D
 Acq On : 25 Jan 2012 12:22
 Sample : WG388587-05 200ug/L 826A9FOO QC
 Misc : 1,1 STD49721
 MS Integration Params: rteint.p
 Quant Time: Feb 2 11:00 2012

Vial: 9
 Operator: ADC
 Inst : HPMS6
 Multiplr: 1.00

Quant Results File: A9FOOWTR.RES

Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
 Title : A9-FOO Water - IC: 01/25/12 - HPMS6
 Last Update : Thu Feb 02 09:44:46 2012
 Response via : Initial Calibration



6M105375.D A9FOOWTR.M

Thu Feb 02 15:11:59 2012

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Data File : C:\MSDCHEM\2\DATA\012512\6M105376.D Vial: 10
 Acq On : 25 Jan 2012 12:55 Operator: ADC
 Sample : WG388587-06 300ug/L 826A9FOO QC Inst : HPMS6
 Misc : 1,1 STD49721 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 02 11:00:14 2012 Quant Results File: A9FOOWTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
 Title : A9-FOO Water - IC: 01/25/12 - HPMS6
 Last Update : Thu Feb 02 09:44:46 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.57	96	532868	25.00	ug/L	0.00
11) Chlorobenzene-d5	15.07	117	367343	25.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4	18.63	152	176868	25.00	ug/L	0.00

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Acetonitrile	6.10	41	156947	323.3252	ug/L	98
3) 3-Chloro-1-propene	6.51	41	3628216	313.5120	ug/L	100
4) 2-Chloro-1,3-butadiene	8.02	53	3511500	320.8992	ug/L	100
5) Ethyl Acetate	8.77	43	1044658	326.9686	ug/L #	100
6) Methacrylonitrile	8.93	67	444609	331.0823	ug/L	99
7) Isobutyl Alcohol	8.95	43	94189	666.1648	ug/L	96
8) 1-Butanol	10.00	41	12003	327.5106	ug/L	67
9) Methyl methacrylate	11.43	41	1170130	301.2810	ug/L	100
10) 2-Nitropropane	11.80	43	338961	298.2921	ug/L	96
13) Cyclohexanone	16.56	55	67793	304.1310	ug/L	99

(#) = qualifier out of range (m) = manual integration
 6M105376.D A9FOOWTR.M Thu Feb 02 15:12:00 2012

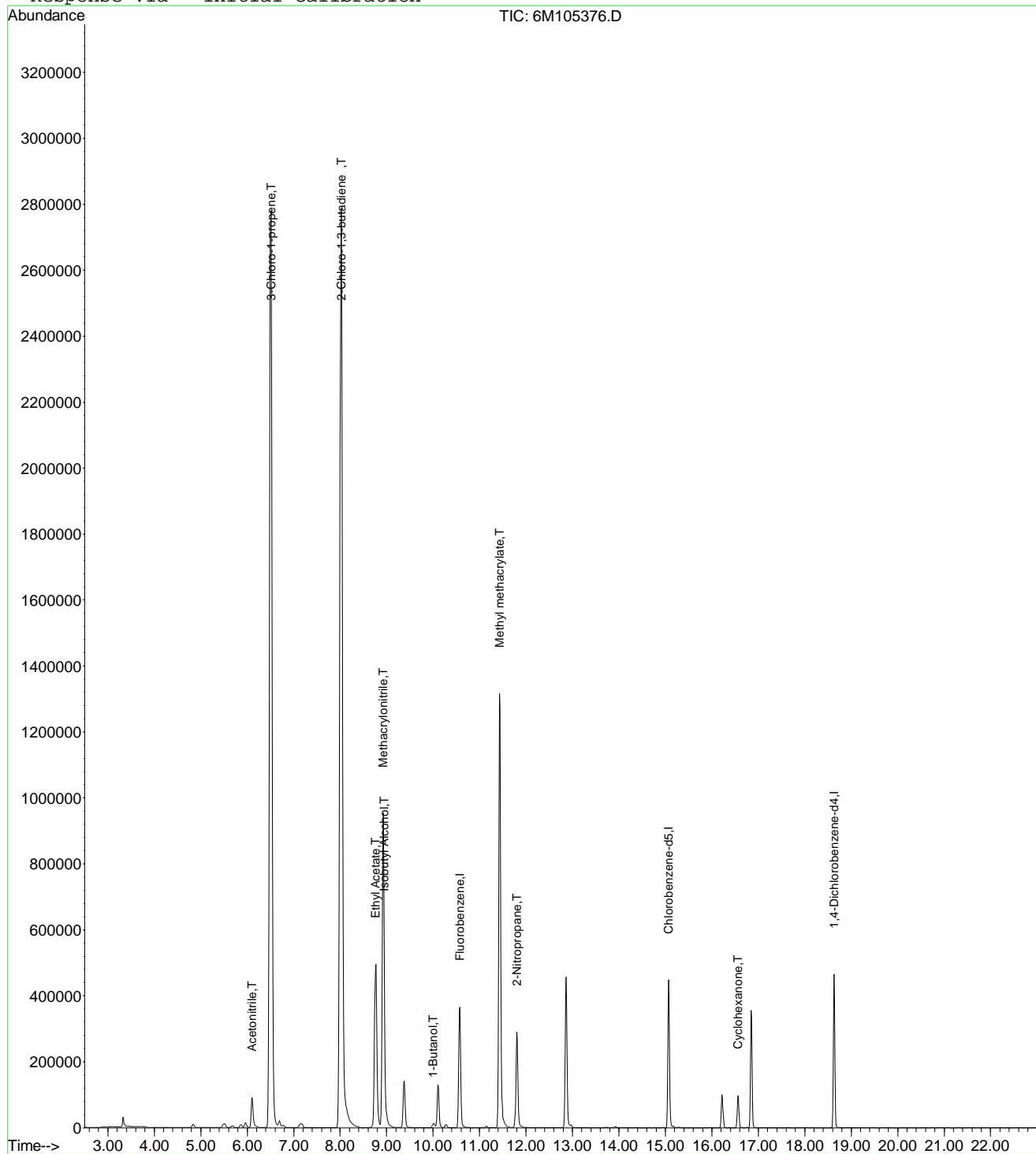


Data File : C:\MSDCHEM\2\DATA\012512\6M105376.D
 Acq On : 25 Jan 2012 12:55
 Sample : WG388587-06 300ug/L 826A9FOO QC
 Misc : 1,1 STD49721
 MS Integration Params: rteint.p
 Quant Time: Feb 2 11:00 2012

Vial: 10
 Operator: ADC
 Inst : HPMS6
 Multiplr: 1.00

Quant Results File: A9FOOWTR.RES

Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
 Title : A9-FOO Water - IC: 01/25/12 - HPMS6
 Last Update : Thu Feb 02 09:44:46 2012
 Response via : Initial Calibration



Data File : C:\MSDCHEM\2\DATA\012512\6M105377.D Vial: 11
 Acq On : 25 Jan 2012 13:27 Operator: ADC
 Sample : WG388587-07 400ug/L 826A9FOO QC Inst : HPMS6
 Misc : 1,1 STD49721 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 02 11:00:16 2012 Quant Results File: A9FOOWTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
 Title : A9-FOO Water - IC: 01/25/12 - HPMS6
 Last Update : Thu Feb 02 09:44:46 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.57	96	540011	25.00	ug/L	0.00
11) Chlorobenzene-d5	15.06	117	371362	25.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4	18.64	152	178768	25.00	ug/L	0.01

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Acetonitrile	6.10	41	215914	438.9189	ug/L	97
3) 3-Chloro-1-propene	6.51	41	4907559	418.4500	ug/L	99
4) 2-Chloro-1,3-butadiene	8.02	53	4745927	427.9707	ug/L	100
5) Ethyl Acetate	8.76	43	1446302	446.6917	ug/L #	100
6) Methacrylonitrile	8.93	67	604809	444.4194	ug/L	100
7) Isobutyl Alcohol	8.95	43	119029	830.7136	ug/L	87
8) 1-Butanol	10.01	41	17098	460.3604	ug/L	72
9) Methyl methacrylate	11.44	41	1591710	402.1410	ug/L	100
10) 2-Nitropropane	11.81	43	471553	406.0960	ug/L	94
13) Cyclohexanone	16.56	55	92310	403.4226	ug/L	98

(#) = qualifier out of range (m) = manual integration
 6M105377.D A9FOOWTR.M Thu Feb 02 15:12:01 2012

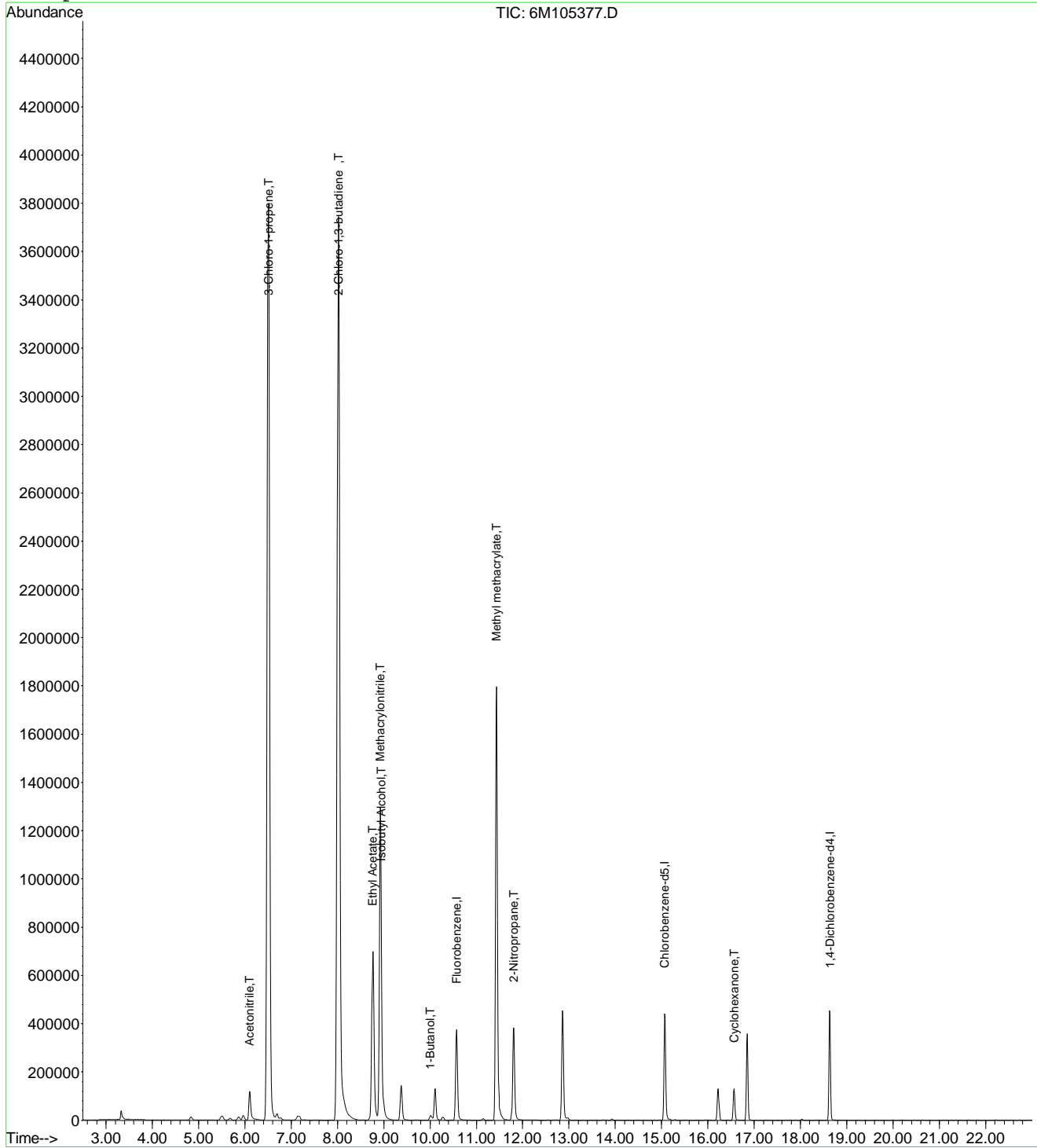


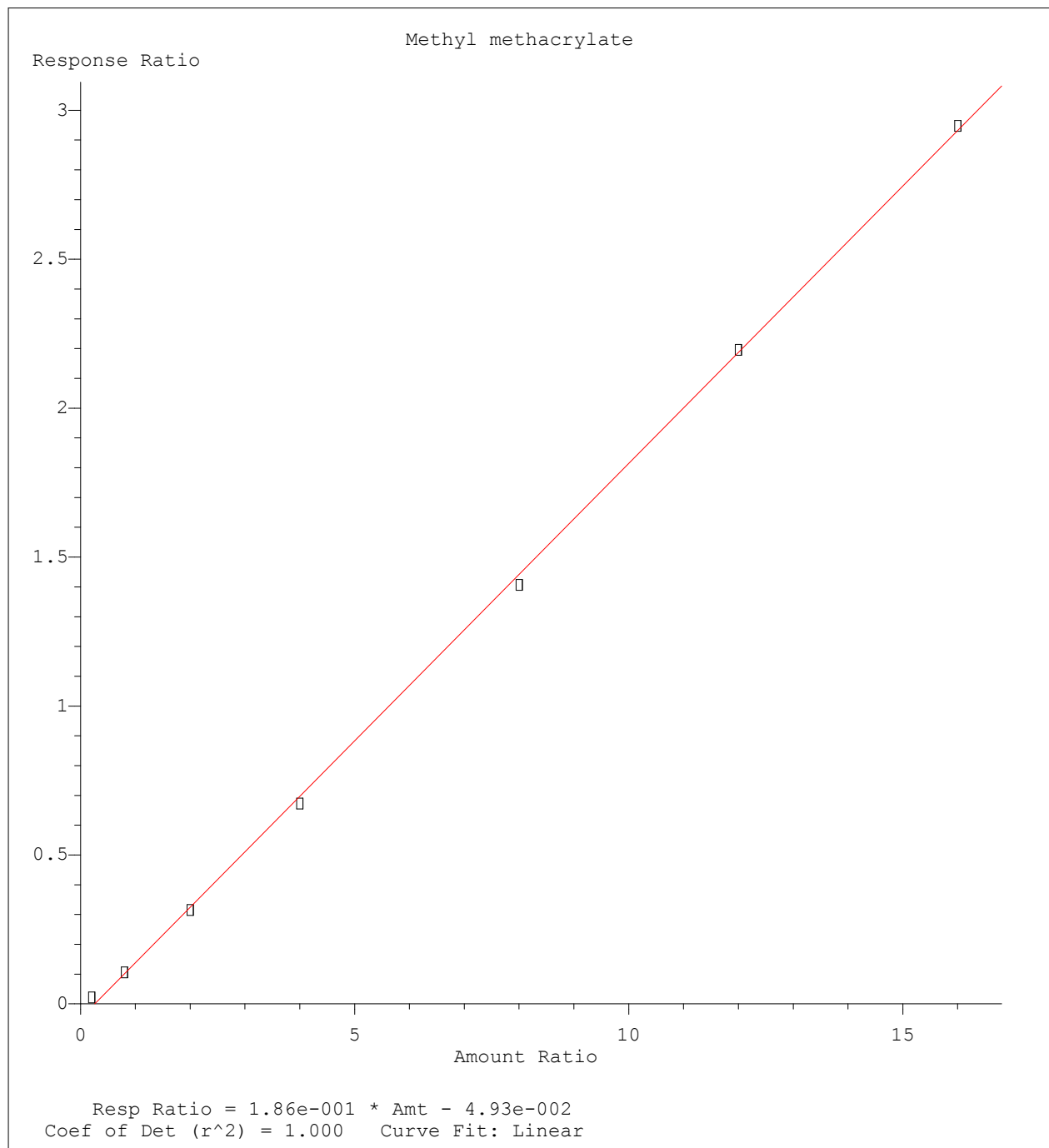
Data File : C:\MSDCHEM\2\DATA\012512\6M105377.D
Acq On : 25 Jan 2012 13:27
Sample : WG388587-07 400ug/L 826A9FOO QC
Misc : 1,1 STD49721
MS Integration Params: rteint.p
Quant Time: Feb 2 11:00 2012

Vial: 11
Operator: ADC
Inst : HPMS6
Multiplr: 1.00

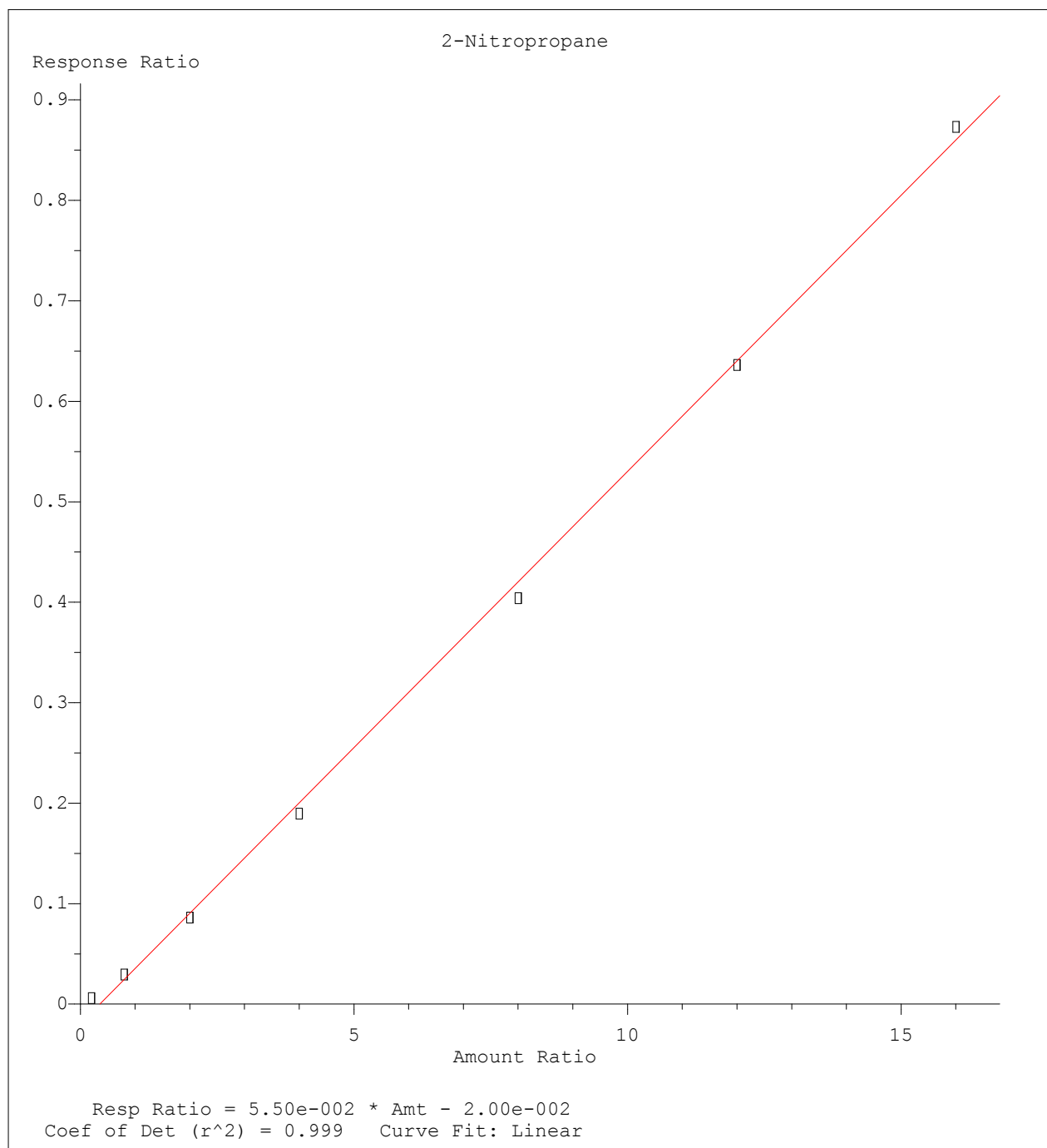
Quant Results File: A9FOOWTR.RES

Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
Title : A9-FOO Water - IC: 01/25/12 - HPMS6
Last Update : Thu Feb 02 09:44:46 2012
Response via : Initial Calibration

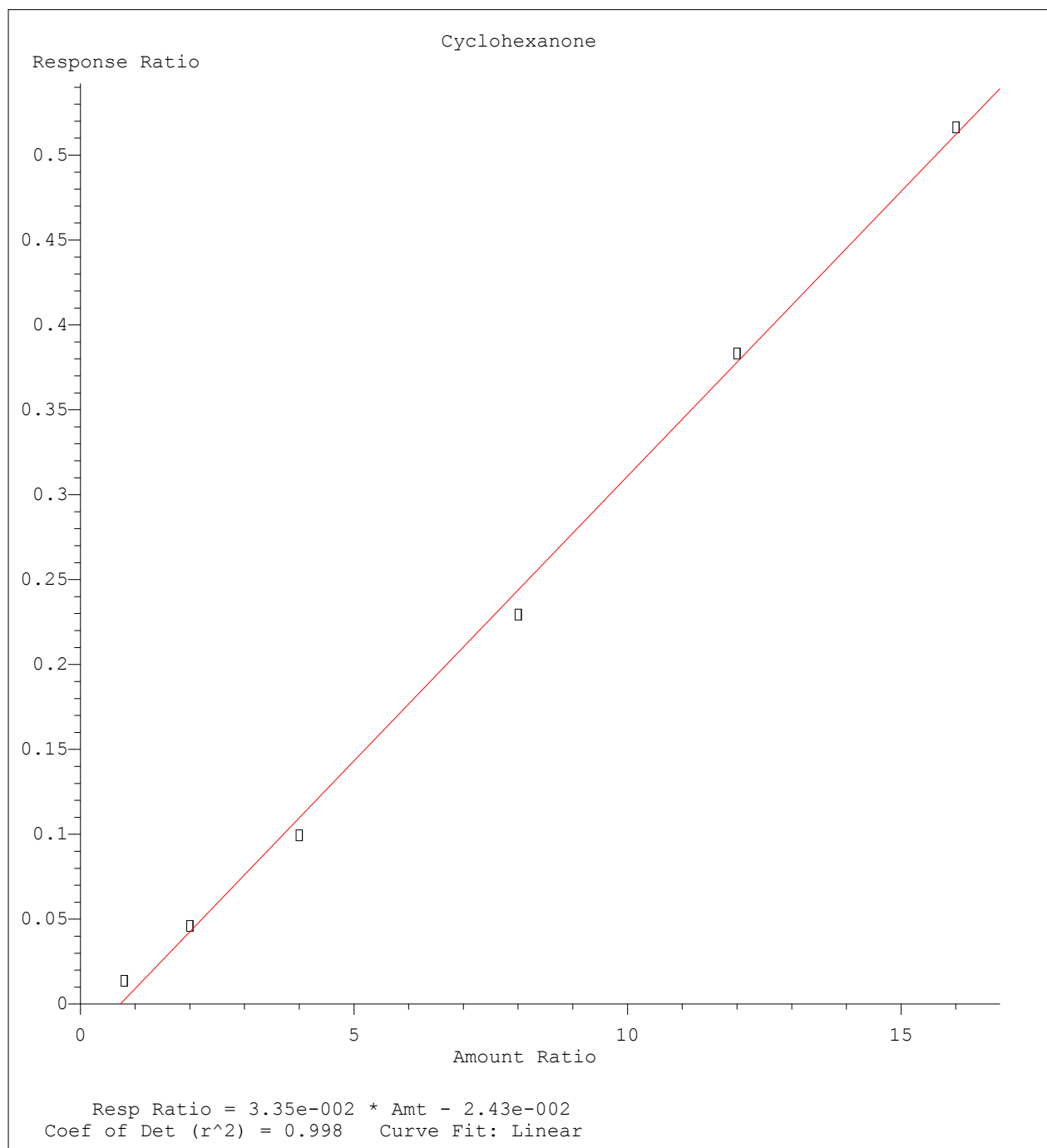




Method Name: C:\MSDCHEM\2\METHODS\A9FOOWTR.M
Calibration Table Last Updated: Thu Feb 02 09:44:46 2012



Method Name: C:\MSDCHEM\2\METHODS\A9FOOWTR.M
Calibration Table Last Updated: Thu Feb 02 09:44:46 2012



Method Name: C:\MSDCHEM\2\METHODS\A9FOOWTR.M
Calibration Table Last Updated: Thu Feb 02 09:44:46 2012

Data File : C:\MSDCHEM\2\DATA\012512\6M105378.D Vial: 12
 Acq On : 25 Jan 2012 14:00 Operator: ADC
 Sample : WG388587-08 100ug/L ALT 826A9FOO QC Inst : HPMS6
 Misc : 1,1 STD49721 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 02 11:00:18 2012 Quant Results File: A9FOOWTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
 Title : A9-FOO Water - IC: 01/25/12 - HPMS6
 Last Update : Thu Feb 02 09:44:46 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.57	96	512896	25.00	ug/L	0.00
11) Chlorobenzene-d5	15.06	117	362669	25.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4	18.63	152	178315	25.00	ug/L	0.00

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Acetonitrile	6.10	41	54059	115.7031	ug/L	98
3) 3-Chloro-1-propene	6.51	41	1081081	97.0531	ug/L	100
4) 2-Chloro-1,3-butadiene	8.02	53	1145123	108.7223	ug/L	100
5) Ethyl Acetate	8.76	43	375275	122.0315	ug/L #	100
6) Methacrylonitrile	8.93	67	141969	109.8352	ug/L	100
7) Isobutyl Alcohol	8.95	43	30619	224.9898	ug/L #	99
8) 1-Butanol	10.01	41	3160	89.5804	ug/L	61
9) Methyl methacrylate	11.44	41	366057	102.3896	ug/L	100
10) 2-Nitropropane	11.81	43	105557	102.6620	ug/L	97
13) Cyclohexanone	16.57	55	24853	122.1280	ug/L	96

(#) = qualifier out of range (m) = manual integration
 6M105378.D A9FOOWTR.M Thu Feb 02 15:12:02 2012

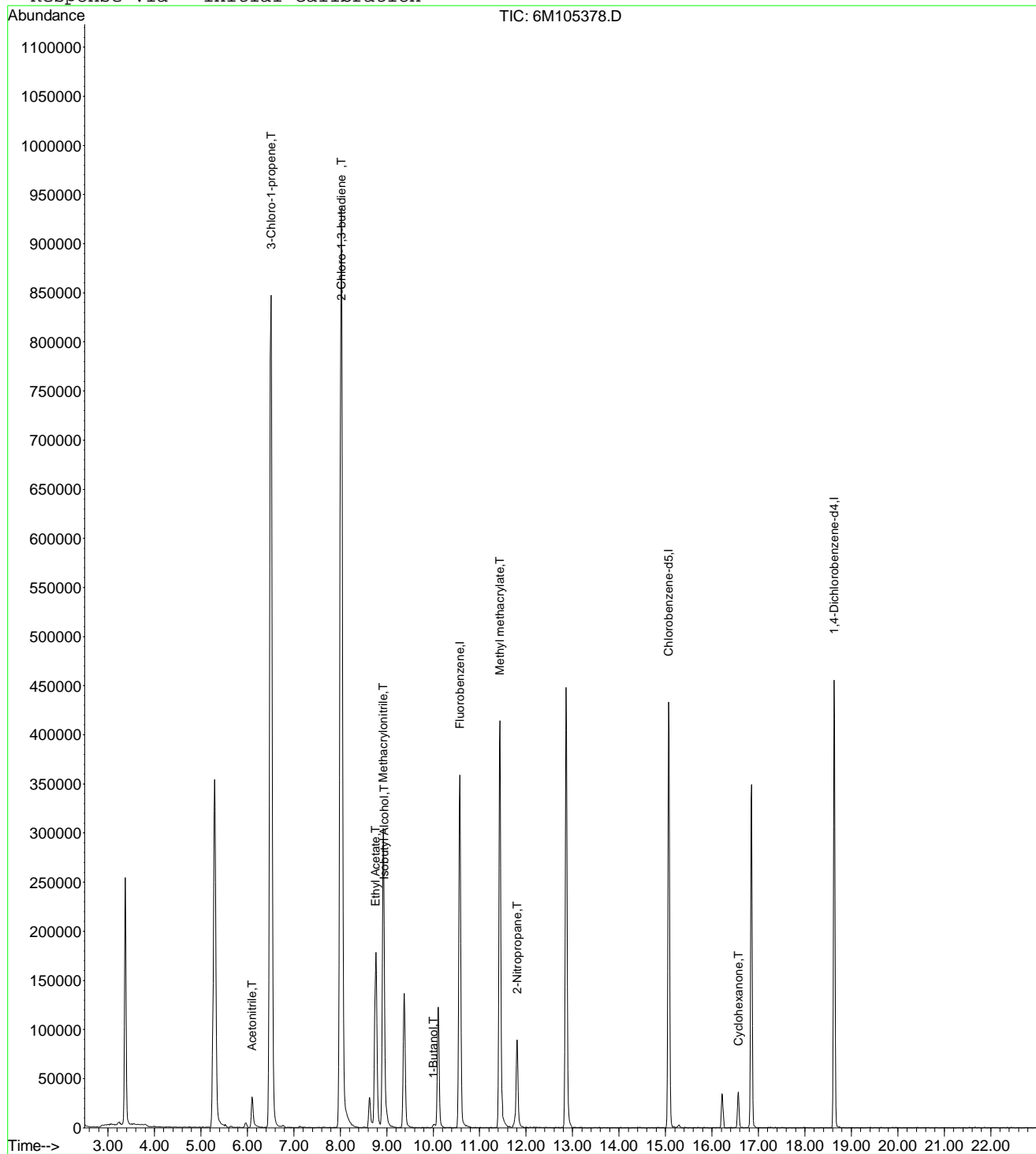


Data File : C:\MSDCHEM\2\DATA\012512\6M105378.D
 Acq On : 25 Jan 2012 14:00
 Sample : WG388587-08 100ug/L ALT 826A9FOO QC
 Misc : 1,1 STD49721
 MS Integration Params: rteint.p
 Quant Time: Feb 2 11:00 2012

Vial: 12
 Operator: ADC
 Inst : HPMS6
 Multiplr: 1.00

Quant Results File: A9FOOWTR.RES

Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
 Title : A9-FOO Water - IC: 01/25/12 - HPMS6
 Last Update : Thu Feb 02 09:44:46 2012
 Response via : Initial Calibration



6M105378.D A9FOOWTR.M

Thu Feb 02 15:12:03 2012

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Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\2\DATA\012512\6M105378.D Vial: 12
 Acq On : 25 Jan 2012 14:00 Operator: ADC
 Sample : WG388587-08 100ug/L ALT 826A9FOO QC Inst : HPMS6
 Misc : 1,1 STD49721 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
 Title : A9-FOO Water - IC: 01/25/12 - HPMS6
 Last Update : Thu Feb 02 09:44:46 2012
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
 Max. RRF Dev : 75% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Fluorobenzene	25.000	25.000	0.0	98	0.00
2 T	Acetonitrile	100.000	115.703	-15.7	110	0.00
3 T	3-Chloro-1-propene	100.000	97.053	2.9	92	0.00
4 T	2-Chloro-1,3-butadiene	100.000	108.722	-8.7	101	0.00
5 T	Ethyl Acetate	100.000	122.031	-22.0	117	0.00
6 T	Methacrylonitrile	100.000	109.835	-9.8	105	0.00
7 T	Isobutyl Alcohol	200.000	224.990	-12.5	111	0.00
8 T	1-Butanol	100.000	89.580	10.4	175	0.00
9 T	Methyl methacrylate	100.000	102.390	-2.4	104	0.00
10 T	2-Nitropropane	100.000	102.662	-2.7	107	0.01
11 I	Chlorobenzene-d5	25.000	25.000	0.0	100	0.00
12 I	1,4-Dichlorobenzene-d4	25.000	25.000	0.0	103	0.00
13 T	Cyclohexanone	100.000	122.128	-22.1	144	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 6M105378.D A9FOOWTR.M Thu Feb 02 11:06:34 2012



Data File : C:\MSDCHEM\1\DATA\042512\6M107639.D Vial: 3
 Acq On : 25 Apr 2012 9:49 Operator: ADC
 Sample : WG396001-02 0.3 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:08:24 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:04:52 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	625762	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.04	117	405212	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	186071	25.00	ug/L	0.00

System Monitoring Compounds

37) Dibromofluoromethane	0.00	111	0	0.0000	ug/L	
Spiked Amount	25.000	Range 86 - 118	Recovery	=	0.00%#	
43) 1,2-Dichloroethane-d4	0.00	65	0	0.0000	ug/L	
Spiked Amount	25.000	Range 80 - 120	Recovery	=	0.00%#	
58) Toluene-d8	0.00	98	0	0.0000	ug/L	
Spiked Amount	25.000	Range 88 - 110	Recovery	=	0.00%#	
80) p-Bromofluorobenzene	0.00	95	0	0.0000	ug/L	
Spiked Amount	25.000	Range 86 - 115	Recovery	=	0.00%#	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chloromethane	3.10	50	512	Below Cal	#	1
14) 1,1-Dichloroethene	5.84	61	3084	0.2687	ug/L	96
18) Methyl acetate	6.43	43	771	0.1648	ug/L	# 64
19) Methylene Chloride	6.66	84	2156	0.3032	ug/L	99
22) Methyl Tert Butyl Ether	6.94	73	4063	0.2712	ug/L	# 51
23) trans-1,2-Dichloroethene	7.16	96	1668	0.2402	ug/L	92
27) 1,1-Dichloroethane	7.85	63	3358	0.2367	ug/L	# 56
31) 2,2-Dichloropropane	8.71	77	3096	0.2887	ug/L	86
32) cis-1,2-Dichloroethene	8.79	96	2093	0.2885	ug/L	74
33) Chloroform	9.02	83	3699	0.2885	ug/L	# 90
35) Bromochloromethane	9.28	130	1033	0.3188	ug/L	# 38
38) 1,1,1-Trichloroethane	9.63	97	3315	0.2960	ug/L	81
40) 1,1-Dichloropropene	9.84	75	3075	0.3328	ug/L	# 71
42) Carbon Tetrachloride	10.00	117	2402	0.2423	ug/L	# 87
45) 1,2-Dichloroethane	10.21	62	1966	0.2232	ug/L	# 73
46) Benzene	10.24	78	8322	0.3010	ug/L	90
47) Trichloroethene	11.13	130	1635	0.2358	ug/L	87
49) 1,2-Dichloropropane	11.38	63	1143	0.1601	ug/L	# 35
51) Bromodichloromethane	11.71	83	2208	0.2575	ug/L	88
52) Dibromomethane	11.80	93	237	0.2826	ug/L	98
55) cis-1,3-Dichloropropene	12.48	75	1487	0.3509	ug/L	# 62
59) Toluene	12.94	91	6712	0.2521	ug/L	96
62) trans-1,3-Dichloropropene	13.19	75	967	0.4630	ug/L	# 53
63) 1,1,2-Trichloroethane	13.41	97	921	0.2153	ug/L	# 72
65) 1,3-Dichloropropane	13.79	76	1501	0.2058	ug/L	93
66) Tetrachloroethene	13.89	166	1784	0.2869	ug/L	73
67) Dibromochloromethane	14.19	129	1095	0.3599	ug/L	81
68) 1,2-Dibromoethane	14.50	107	265	0.3139	ug/L	# 2
70) Chlorobenzene	15.09	112	4491	0.2654	ug/L	94
71) 1,1,1,2-Tetrachloroethane	15.14	131	1441	0.2365	ug/L	# 23
72) Ethylbenzene	15.15	106	2526	0.2894	ug/L	89
73) m-,p-Xylene	15.26	106	5784	0.5421	ug/L	100
74) o-Xylene	15.92	106	2570	0.2530	ug/L	100
75) Styrene	15.96	104	3513	0.4275	ug/L	84
77) Isopropylbenzene	16.43	105	7162	0.2833	ug/L	89
83) n-Propylbenzene	17.02	91	7123	0.2605	ug/L	# 90
84) Bromobenzene	17.14	156	1260	0.3151	ug/L	92
85) 1,3,5-Trimethylbenzene	17.24	105	4964	0.2661	ug/L	91
86) 2-Chlorotoluene	17.31	91	5127	0.2824	ug/L	93
87) 4-Chlorotoluene	17.39	91	5576	0.3055	ug/L	# 80

(#) = qualifier out of range (m) = manual integration
 6M107639.D 8260WTR.M Wed Apr 25 15:08:24 2012

Data File : C:\MSDCHEM\1\DATA\042512\6M107639.D Vial: 3
 Acq On : 25 Apr 2012 9:49 Operator: ADC
 Sample : WG396001-02 0.3 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:08:24 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:04:52 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
89) tert-Butylbenzene	17.78	134	589	0.1564	ug/L #	1
90) 1,2,4-Trimethylbenzene	17.86	105	4759	0.2413	ug/L	89
91) sec-Butylbenzene	18.11	105	5777	0.2725	ug/L #	83
92) p-Isopropyltoluene	18.30	119	4803	0.2820	ug/L	82
93) 1,3-Dichlorobenzene	18.50	146	2837	0.2640	ug/L	82
94) 1,4-Dichlorobenzene	18.65	146	3467	0.3076	ug/L #	35
95) n-Butylbenzene	18.93	91	4596	0.3098	ug/L	83
96) 1,2-Dichlorobenzene	19.22	146	2763	0.2845	ug/L	79
98) 1,2,4-Trichlorobenzene	21.76	180	1456	0.2754	ug/L #	78
99) Hexachlorobutadiene	21.95	225	276	0.2317	ug/L #	18
100) Naphthalene	22.17	128	2777	0.2759	ug/L #	68
101) 1,2,3-Trichlorobenzene	22.53	180	1429	0.3110	ug/L #	81

(#) = qualifier out of range (m) = manual integration
 6M107639.D 8260WTR.M Wed Apr 25 15:08:24 2012

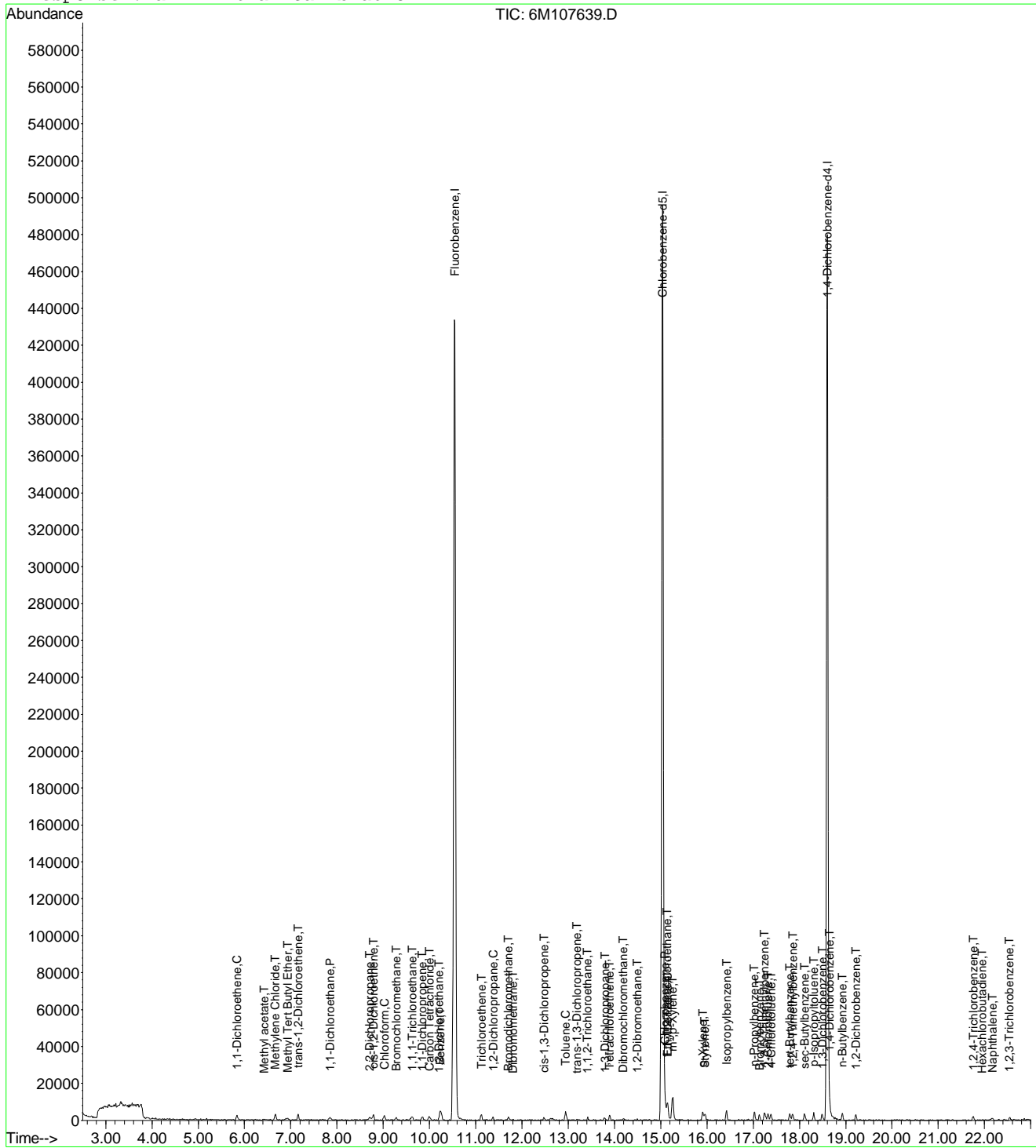
Page 2

Data File : C:\MSDCHEM\1\DATA\042512\6M107639.D
 Acq On : 25 Apr 2012 9:49
 Sample : WG396001-02 0.3 ug/L STD 8260
 Misc : 1,1 STD51130
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:08 2012

Vial: 3
 Operator: ADC
 Inst : HPMS6
 Multiplr: 1.00

Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:04:52 2012
 Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\042512\6M107640.D Vial: 4
 Acq On : 25 Apr 2012 10:22 Operator: ADC
 Sample : WG396001-03 0.4 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:15:49 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:04:52 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	591975	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.03	117	392542	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	176332	25.00	ug/L	0.00

System Monitoring Compounds

37) Dibromofluoromethane	0.00	111	0	0.0000	ug/L	
Spiked Amount	25.000	Range 86 - 118	Recovery	=	0.00%#	
43) 1,2-Dichloroethane-d4	0.00	65	0	0.0000	ug/L	
Spiked Amount	25.000	Range 80 - 120	Recovery	=	0.00%#	
58) Toluene-d8	0.00	98	0	0.0000	ug/L	
Spiked Amount	25.000	Range 88 - 110	Recovery	=	0.00%#	
80) p-Bromofluorobenzene	0.00	95	0	0.0000	ug/L	
Spiked Amount	25.000	Range 86 - 115	Recovery	=	0.00%#	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	2.72	85	3370	0.4340	ug/L	# 67
3) Chloromethane	3.12	50	8770	0.2050	ug/L	98
4) Vinyl Chloride	3.31	62	4143	0.4219	ug/L	97
6) Bromomethane	4.11	94	2300	0.4133	ug/L	88
7) Chloroethane	4.27	64	2030	0.3654	ug/L	# 63
8) Trichlorofluoromethane	4.72	101	4980	0.3944	ug/L	# 91
10) Isoprene	5.29	67	3535	0.3292	ug/L	89
12) 1,1,2-Trichloro-1,2,2-Trif	5.53	101	1497	0.2217	ug/L	# 54
14) 1,1-Dichloroethene	5.82	61	3418	0.3148	ug/L	93
16) Dimethyl Sulfide	6.12	62	3396	0.3939	ug/L	91
17) Iodomethane	6.37	142	1553	0.2501	ug/L	# 30
18) Methyl acetate	6.44	43	599	0.1353	ug/L	# 64
19) Methylene Chloride	6.67	84	2468	0.3669	ug/L	90
20) Carbon Disulfide	6.69	76	7622	0.3874	ug/L	91
22) Methyl Tert Butyl Ether	6.94	73	4459	0.3147	ug/L	# 62
23) trans-1,2-Dichloroethene	7.16	96	2011	0.3062	ug/L	60
24) n-Hexane	7.25	57	2779	0.3688	ug/L	96
27) 1,1-Dichloroethane	7.84	63	4770	0.3554	ug/L	88
31) 2,2-Dichloropropane	8.71	77	3393	0.3344	ug/L	85
32) cis-1,2-Dichloroethene	8.78	96	1875	0.2732	ug/L	84
33) Chloroform	9.02	83	4573	0.3770	ug/L	# 90
35) Bromochloromethane	9.27	130	896	0.2966	ug/L	94
36) Tetrahydrofuran	9.64	42	235	0.2305	ug/L	# 40
38) 1,1,1-Trichloroethane	9.62	97	3466	0.3271	ug/L	85
39) Cyclohexane	9.65	56	3456	0.3256	ug/L	90
40) 1,1-Dichloropropene	9.86	75	2506	0.2867	ug/L	93
42) Carbon Tetrachloride	10.01	117	2941	0.3136	ug/L	# 94
45) 1,2-Dichloroethane	10.20	62	2897	0.3477	ug/L	# 81
46) Benzene	10.24	78	9887	0.3781	ug/L	94
47) Trichloroethene	11.13	130	2204	0.3360	ug/L	80
48) Methylcyclohexane	11.20	83	2180	0.2882	ug/L	# 76
49) 1,2-Dichloropropane	11.36	63	2309	0.3420	ug/L	# 73
51) Bromodichloromethane	11.70	83	2679	0.3303	ug/L	93
52) Dibromomethane	11.80	93	450	0.3518	ug/L	# 8
55) cis-1,3-Dichloropropene	12.48	75	1938	0.4053	ug/L	# 68
56) Dimethyl Disulfide	12.75	79	1126	0.9500	ug/L	# 50
59) Toluene	12.95	91	8735	0.3386	ug/L	99
62) trans-1,3-Dichloropropene	13.19	75	1160	0.4893	ug/L	# 53
63) 1,1,2-Trichloroethane	13.42	97	1385	0.3343	ug/L	# 65
65) 1,3-Dichloropropane	13.78	76	1905	0.2696	ug/L	95

(#) = qualifier out of range (m) = manual integration
 6M107640.D 8260WTR.M Wed Apr 25 15:16:11 2012

Data File : C:\MSDCHEM\1\DATA\042512\6M107640.D Vial: 4
 Acq On : 25 Apr 2012 10:22 Operator: ADC
 Sample : WG396001-03 0.4 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:15:49 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:04:52 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
66) Tetrachloroethene	13.90	166	1822	0.3024	ug/L	91
67) Dibromochloromethane	14.20	129	1177	0.3807	ug/L	69
68) 1,2-Dibromoethane	14.50	107	467	0.3651	ug/L	82
69) 1-Chlorohexane	14.65	91	2262	0.3311	ug/L	94
70) Chlorobenzene	15.10	112	5879	0.3587	ug/L	96
71) 1,1,1,2-Tetrachloroethane	15.15	131	1852	0.3138	ug/L #	23
72) Ethylbenzene	15.15	106	2690	0.3182	ug/L	88
73) m-,p-Xylene	15.26	106	6094	0.5896	ug/L	72
74) o-Xylene	15.91	106	3290	0.3343	ug/L	100
75) Styrene	15.96	104	4365	0.4815	ug/L	92
76) Bromoform	16.49	173	398	0.1426	ug/L #	34
77) Isopropylbenzene	16.42	105	8284	0.3382	ug/L	96
79) 1,1,2,2-Tetrachloroethane	16.68	83	1107	0.2969	ug/L #	42
83) n-Propylbenzene	17.01	91	8846	0.3414	ug/L #	90
84) Bromobenzene	17.14	156	1373	0.3459	ug/L	76
85) 1,3,5-Trimethylbenzene	17.25	105	6105	0.3454	ug/L	94
86) 2-Chlorotoluene	17.31	91	5788	0.3364	ug/L #	93
87) 4-Chlorotoluene	17.37	91	6265	0.3622	ug/L #	87
88) a-Methylstyrene	17.73	118	2310	0.2548	ug/L	88
89) tert-Butylbenzene	17.78	134	851	0.2384	ug/L	48
90) 1,2,4-Trimethylbenzene	17.84	105	6432	0.3442	ug/L	81
91) sec-Butylbenzene	18.10	105	7287	0.3627	ug/L	90
92) p-Isopropyltoluene	18.30	119	5400	0.3346	ug/L	81
93) 1,3-Dichlorobenzene	18.50	146	3584	0.3519	ug/L	93
94) 1,4-Dichlorobenzene	18.65	146	3668	0.3434	ug/L	83
95) n-Butylbenzene	18.92	91	4824	0.3431	ug/L	84
96) 1,2-Dichlorobenzene	19.22	146	3346	0.3635	ug/L	94
98) 1,2,4-Trichlorobenzene	21.74	180	1409	0.2812	ug/L	70
99) Hexachlorobutadiene	21.94	225	450	0.3253	ug/L #	18
100) Naphthalene	22.17	128	3128	0.3279	ug/L #	68
101) 1,2,3-Trichlorobenzene	22.54	180	1720	0.3950	ug/L #	70

(#) = qualifier out of range (m) = manual integration
 6M107640.D 8260WTR.M Wed Apr 25 15:16:11 2012

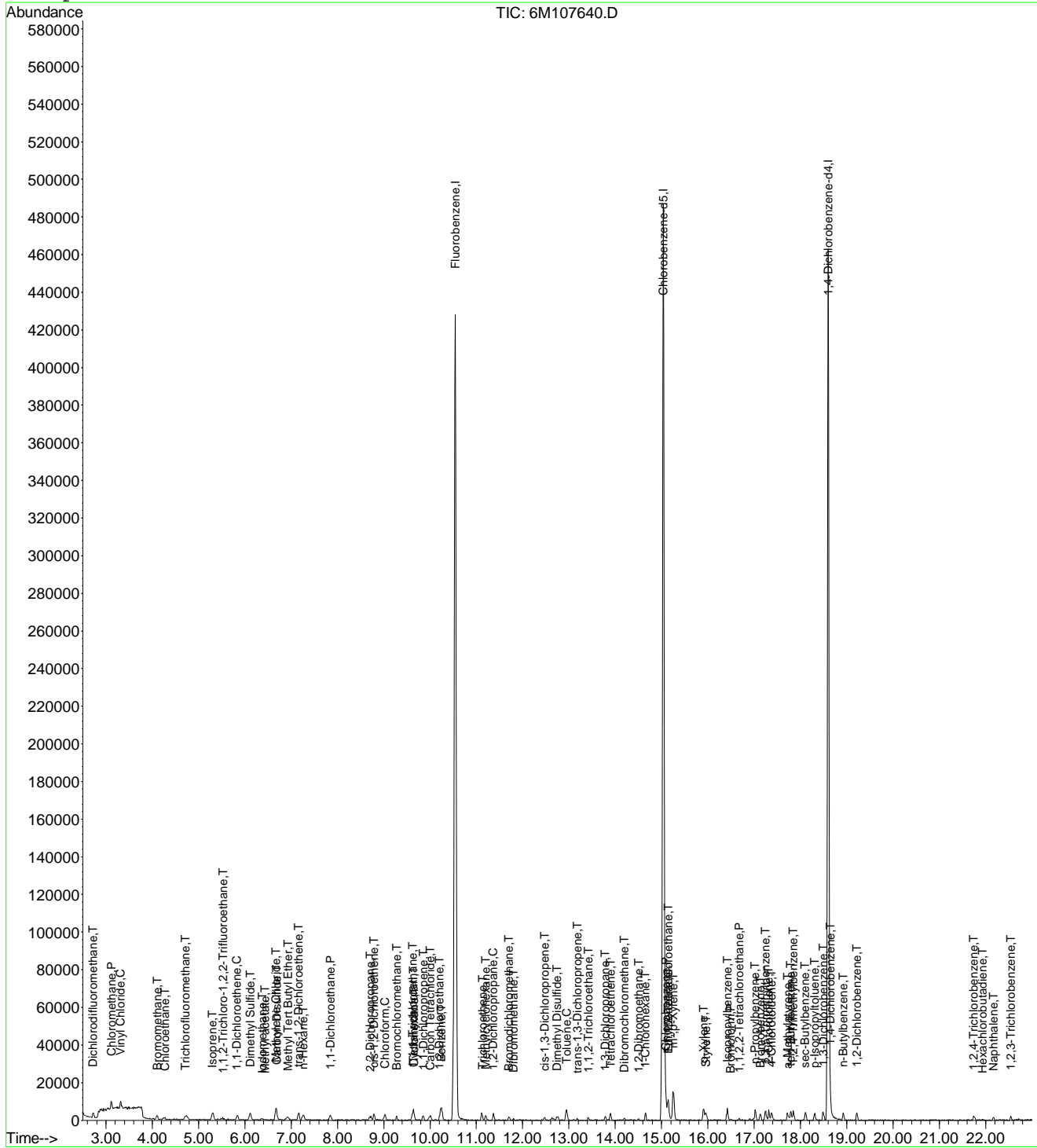
Page 2

Data File : C:\MSDCHEM\1\DATA\042512\6M107640.D
 Acq On : 25 Apr 2012 10:22
 Sample : WG396001-03 0.4 ug/L STD 8260
 Misc : 1,1 STD51130
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:15 2012

Vial: 4
 Operator: ADC
 Inst : HPMS6
 Multiplr: 1.00

Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:15:28 2012
 Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\042512\6M107641.D Vial: 5
 Acq On : 25 Apr 2012 10:54 Operator: ADC
 Sample : WG396001-04 1.0 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:15:49 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:15:28 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	581881	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.03	117	378697	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	176026	25.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Dibromofluoromethane	9.36	111	2819	0.4474	ug/L	0.00
Spiked Amount	25.000	Range 86 - 118	Recovery	=	1.80%#	
43) 1,2-Dichloroethane-d4	10.08	65	3292	0.5324	ug/L	0.00
Spiked Amount	25.000	Range 80 - 120	Recovery	=	2.12%#	
58) Toluene-d8	12.83	98	10550	0.5126	ug/L	0.00
Spiked Amount	25.000	Range 88 - 110	Recovery	=	2.04%#	
80) p-Bromofluorobenzene	16.82	95	3639	0.5268	ug/L	0.00
Spiked Amount	25.000	Range 86 - 115	Recovery	=	2.12%#	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	2.72	85	9155	1.1995	ug/L	94
3) Chloromethane	3.12	50	15738	0.8962	ug/L	92
4) Vinyl Chloride	3.31	62	12066	1.2499	ug/L	95
5) 1,3-Butadiene	3.36	54	9992	1.6783	ug/L #	72
6) Bromomethane	4.11	94	6430	1.1755	ug/L	95
7) Chloroethane	4.26	64	6255	1.1453	ug/L	93
8) Trichlorofluoromethane	4.73	101	14644	1.1798	ug/L	91
9) Diethyl ether	5.27	59	21000	4.9922	ug/L	99
10) Isoprene	5.29	67	10493	0.9942	ug/L	94
12) 1,1,2-Trichloro-1,2,2-Trif	5.52	101	8018	1.2078	ug/L	88
13) Acetone	5.61	43	499	0.4519	ug/L #	46
14) 1,1-Dichloroethene	5.84	61	11594	1.0862	ug/L	100
15) Tert-Butyl Alcohol	5.97	59	2587	9.1172	ug/L #	60
16) Dimethyl Sulfide	6.12	62	8242	0.9726	ug/L	97
17) Iodomethane	6.37	142	5055	0.8283	ug/L	94
18) Methyl acetate	6.42	43	4380	1.0066	ug/L #	71
19) Methylene Chloride	6.66	84	7513	1.1364	ug/L	99
20) Carbon Disulfide	6.68	76	20186	1.0438	ug/L	98
21) Acrylonitrile	6.89	53	242	0.1627	ug/L #	1
22) Methyl Tert Butyl Ether	6.93	73	15745	1.1304	ug/L	91
23) trans-1,2-Dichloroethene	7.16	96	6975	1.0803	ug/L	99
24) n-Hexane	7.26	57	8027	1.0837	ug/L	91
25) Diisopropyl ether	7.65	45	116212	4.9513	ug/L	98
26) Vinyl Acetate	7.86	43	3282	0.9617	ug/L #	77
27) 1,1-Dichloroethane	7.86	63	14623	1.1085	ug/L	93
28) Ethyl-Tert-Butyl ether	8.29	59	93335	4.9103	ug/L	99
29) 2-Butanone	8.50	43	1189	0.7825	ug/L #	56
30) Propionitrile	8.61	54	1634	3.7893	ug/L #	55
31) 2,2-Dichloropropane	8.71	77	11868	1.1901	ug/L	91
32) cis-1,2-Dichloroethene	8.78	96	7282	1.0794	ug/L	95
33) Chloroform	9.02	83	13286	1.1144	ug/L	99
34) 1-Bromopropane	9.17	122	683	0.6200	ug/L	69
35) Bromochloromethane	9.27	130	3890	1.1331	ug/L	93
36) Tetrahydrofuran	9.33	42	4906	4.8966	ug/L	95
38) 1,1,1-Trichloroethane	9.61	97	11387	1.0934	ug/L	98
39) Cyclohexane	9.65	56	10784	1.0336	ug/L	97
40) 1,1-Dichloropropene	9.85	75	8617	1.0029	ug/L	96
41) Tert-Amyl-Methyl ether	9.98	73	71707	5.0562	ug/L	99
42) Carbon Tetrachloride	10.00	117	10173	1.1036	ug/L	97
45) 1,2-Dichloroethane	10.21	62	9110	1.1124	ug/L #	91

(#) = qualifier out of range (m) = manual integration
 6M107641.D 8260WTR.M Wed Apr 25 15:16:42 2012

Data File : C:\MSDCHEM\1\DATA\042512\6M107641.D Vial: 5
 Acq On : 25 Apr 2012 10:54 Operator: ADC
 Sample : WG396001-04 1.0 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:15:49 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:15:28 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Benzene	10.24	78	27867	1.0841	ug/L	95
47) Trichloroethene	11.12	130	6929	1.0747	ug/L	98
48) Methylcyclohexane	11.21	83	7387	0.9934	ug/L	97
49) 1,2-Dichloropropane	11.37	63	6960	1.0487	ug/L	99
51) Bromodichloromethane	11.72	83	8511	1.0676	ug/L	99
52) Dibromomethane	11.81	93	2959	1.1364	ug/L	90
53) 2-Chloroethyl Vinyl Ether	12.12	63	1123	0.4421	ug/L #	44
54) 4-Methyl-2-Pentanone	12.16	58	188	0.1671	ug/L #	37
55) cis-1,3-Dichloropropene	12.47	75	8668	1.1098	ug/L	90
56) Dimethyl Disulfide	12.75	79	3486	1.3692	ug/L #	62
59) Toluene	12.95	91	27064	1.0875	ug/L	95
60) Ethyl Methacrylate	13.14	69	1734	1.2257	ug/L	80
61) Paraldehyde	12.94	89	610	9.1745	ug/L #	16
62) trans-1,3-Dichloropropene	13.19	75	5274	0.9971	ug/L #	78
63) 1,1,2-Trichloroethane	13.42	97	4311	1.0785	ug/L	91
64) 2-Hexanone	13.17	43	1113	0.6683	ug/L #	27
65) 1,3-Dichloropropane	13.79	76	6974	1.0231	ug/L	99
66) Tetrachloroethene	13.89	166	6427	1.1058	ug/L	98
67) Dibromochloromethane	14.20	129	4987	1.0947	ug/L	89
68) 1,2-Dibromoethane	14.50	107	3467	1.1276	ug/L	100
69) 1-Chlorohexane	14.66	91	6401	0.9713	ug/L	96
70) Chlorobenzene	15.10	112	17289	1.0934	ug/L	91
71) 1,1,1,2-Tetrachloroethane	15.15	131	5838	1.0253	ug/L #	49
72) Ethylbenzene	15.15	106	8158	1.0002	ug/L	90
73) m-,p-Xylene	15.26	106	21275	2.1338	ug/L	100
74) o-Xylene	15.91	106	9565	1.0075	ug/L	97
75) Styrene	15.96	104	13344	1.0124	ug/L	93
76) Bromoform	16.50	173	1973	0.7327	ug/L #	77
77) Isopropylbenzene	16.42	105	24157	1.0223	ug/L	98
79) 1,1,2,2-Tetrachloroethane	16.69	83	4008	1.0767	ug/L	98
81) 1,2,3-Trichloropropane	16.90	110	864	0.9002	ug/L	61
83) n-Propylbenzene	17.02	91	26872	1.0389	ug/L	97
84) Bromobenzene	17.14	156	5746	1.0994	ug/L	99
85) 1,3,5-Trimethylbenzene	17.25	105	17658	1.0007	ug/L	100
86) 2-Chlorotoluene	17.31	91	17858	1.0398	ug/L	98
87) 4-Chlorotoluene	17.38	91	19756	1.1443	ug/L	92
88) a-Methylstyrene	17.73	118	7700	0.8509	ug/L	97
89) tert-Butylbenzene	17.80	134	3992	1.1202	ug/L	74
90) 1,2,4-Trimethylbenzene	17.84	105	19324	1.0358	ug/L	98
91) sec-Butylbenzene	18.11	105	21668	1.0803	ug/L	99
92) p-Isopropyltoluene	18.30	119	16974	1.0535	ug/L	92
93) 1,3-Dichlorobenzene	18.49	146	10307	1.0138	ug/L	96
94) 1,4-Dichlorobenzene	18.65	146	12397	1.1627	ug/L	97
95) n-Butylbenzene	18.92	91	14513	1.0340	ug/L	98
96) 1,2-Dichlorobenzene	19.22	146	10218	1.1121	ug/L	90
98) 1,2,4-Trichlorobenzene	21.75	180	5795	1.1587	ug/L	84
99) Hexachlorobutadiene	21.96	225	2217	1.2044	ug/L	80
100) Naphthalene	22.17	128	9686	1.0171	ug/L	94
101) 1,2,3-Trichlorobenzene	22.55	180	4399	1.0120	ug/L	94

(#) = qualifier out of range (m) = manual integration
 6M107641.D 8260WTR.M Wed Apr 25 15:16:42 2012

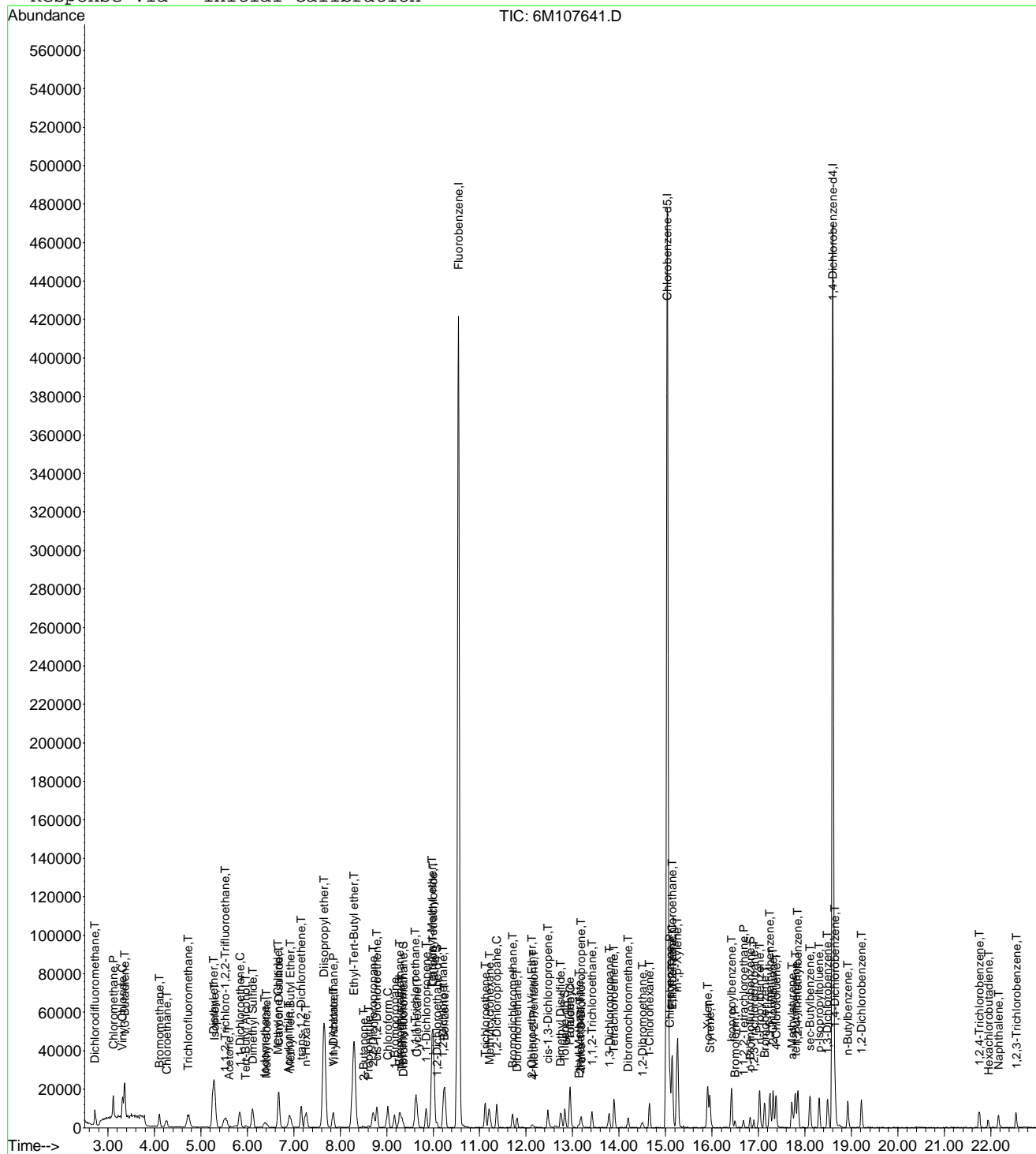
Page 2

Data File : C:\MSDCHEM\1\DATA\042512\6M107641.D
Acq On : 25 Apr 2012 10:54
Sample : WG396001-04 1.0 ug/L STD 8260
Misc : 1,1 STD51130
MS Integration Params: RTEINT.P
Quant Time: Apr 25 15:15 2012

Vial: 5
Operator: ADC
Inst : HPMS6
Multiplr: 1.00

Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
Last Update : Wed Apr 25 15:15:28 2012
Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\042512\6M107642.D Vial: 6
 Acq On : 25 Apr 2012 11:27 Operator: ADC
 Sample : WG396001-05 2.0 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:15:49 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:15:28 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	582585	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.03	117	377148	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	178106	25.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Dibromofluoromethane	9.35	111	6278	0.9952	ug/L	0.00
Spiked Amount	25.000	Range 86 - 118	Recovery	=	4.00%#	
43) 1,2-Dichloroethane-d4	10.07	65	6128	0.9899	ug/L	0.00
Spiked Amount	25.000	Range 80 - 120	Recovery	=	3.96%#	
58) Toluene-d8	12.83	98	20901	1.0197	ug/L	0.00
Spiked Amount	25.000	Range 88 - 110	Recovery	=	4.08%#	
80) p-Bromofluorobenzene	16.82	95	7075	1.0123	ug/L	0.00
Spiked Amount	25.000	Range 86 - 115	Recovery	=	4.04%#	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	2.73	85	15707	2.0554	ug/L	96
3) Chloromethane	3.12	50	27211	2.0071	ug/L	99
4) Vinyl Chloride	3.31	62	20520	2.1231	ug/L	99
5) 1,3-Butadiene	3.36	54	18300	3.0701	ug/L #	76
6) Bromomethane	4.10	94	12682	2.3156	ug/L	98
7) Chloroethane	4.26	64	10931	1.9990	ug/L	98
8) Trichlorofluoromethane	4.73	101	25474	2.0499	ug/L	94
9) Diethyl ether	5.27	59	105009	24.9331	ug/L	97
10) Isoprene	5.29	67	40120	3.7968	ug/L	100
11) Acrolein	5.52	56	390	8.8893	ug/L #	15
12) 1,1,2-Trichloro-1,2,2-Trif	5.53	101	12601	1.8958	ug/L	98
13) Acetone	5.64	43	1945	1.7593	ug/L #	46
14) 1,1-Dichloroethene	5.83	61	22196	2.0770	ug/L	94
15) Tert-Butyl Alcohol	5.98	59	14716	51.8000	ug/L #	87
16) Dimethyl Sulfide	6.11	62	34015	4.0093	ug/L	97
17) Iodomethane	6.37	142	19963	3.2671	ug/L	98
18) Methyl acetate	6.42	43	14583	3.3475	ug/L #	92
19) Methylene Chloride	6.67	84	13885	2.0976	ug/L	96
20) Carbon Disulfide	6.69	76	76928	3.9731	ug/L	100
21) Acrylonitrile	6.89	53	2226	1.4948	ug/L	94
22) Methyl Tert Butyl Ether	6.93	73	29291	2.1004	ug/L	97
23) trans-1,2-Dichloroethene	7.16	96	13838	2.1407	ug/L	99
24) n-Hexane	7.26	57	28491	3.8420	ug/L	99
25) Diisopropyl ether	7.65	45	566354	24.1008	ug/L	100
26) Vinyl Acetate	7.84	43	8091	2.3679	ug/L #	77
27) 1,1-Dichloroethane	7.84	63	28306	2.1432	ug/L	97
28) Ethyl-Tert-Butyl ether	8.28	59	461143	24.2310	ug/L	100
29) 2-Butanone	8.49	43	2585	1.6991	ug/L #	56
30) Propionitrile	8.60	54	10470	24.2506	ug/L	92
31) 2,2-Dichloropropane	8.71	77	21551	2.1584	ug/L	100
32) cis-1,2-Dichloroethene	8.78	96	14676	2.1728	ug/L	91
33) Chloroform	9.02	83	25059	2.0993	ug/L	98
34) 1-Bromopropane	9.17	122	2071	1.8777	ug/L	95
35) Bromochloromethane	9.27	130	7448	2.1197	ug/L	97
36) Tetrahydrofuran	9.30	42	23813	23.7385	ug/L	99
38) 1,1,1-Trichloroethane	9.61	97	21821	2.0927	ug/L	97
39) Cyclohexane	9.64	56	40320	3.8599	ug/L	98
40) 1,1-Dichloropropene	9.85	75	18675	2.1710	ug/L	99
41) Tert-Amyl-Methyl ether	9.99	73	343289	24.1768	ug/L	99
42) Carbon Tetrachloride	10.00	117	18775	2.0342	ug/L	99

(#) = qualifier out of range (m) = manual integration
 6M107642.D 8260WTR.M Wed Apr 25 15:17:16 2012

Data File : C:\MSDCHEM\1\DATA\042512\6M107642.D Vial: 6
 Acq On : 25 Apr 2012 11:27 Operator: ADC
 Sample : WG396001-05 2.0 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:15:49 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:15:28 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) 1,2-Dichloroethane	10.21	62	16880	2.0586	ug/L	92
46) Benzene	10.24	78	53190	2.0667	ug/L	99
47) Trichloroethene	11.12	130	13317	2.0629	ug/L	98
48) Methylcyclohexane	11.20	83	28758	3.8629	ug/L	99
49) 1,2-Dichloropropane	11.37	63	13749	2.0691	ug/L	99
51) Bromodichloromethane	11.71	83	15885	1.9901	ug/L	95
52) Dibromomethane	11.80	93	6053	2.0988	ug/L	97
53) 2-Chloroethyl Vinyl Ether	12.11	63	3443	1.3539	ug/L #	64
54) 4-Methyl-2-Pentanone	12.16	58	702	0.6231	ug/L #	37
55) cis-1,3-Dichloropropene	12.47	75	17241	2.0008	ug/L	97
56) Dimethyl Disulfide	12.76	79	16097	3.5875	ug/L	99
59) Toluene	12.95	91	50895	2.0535	ug/L	99
60) Ethyl Methacrylate	13.12	69	12992	3.6540	ug/L	90
61) Paraldehyde	13.17	89	1662	25.0994	ug/L #	46
62) trans-1,3-Dichloropropene	13.18	75	12945	1.9413	ug/L	95
63) 1,1,2-Trichloroethane	13.42	97	8570	2.1529	ug/L	95
64) 2-Hexanone	13.42	43	222	0.1338	ug/L #	27
65) 1,3-Dichloropropane	13.78	76	14724	2.1689	ug/L	97
66) Tetrachloroethene	13.90	166	12127	2.0951	ug/L	99
67) Dibromochloromethane	14.20	129	10086	2.0476	ug/L	95
68) 1,2-Dibromoethane	14.49	107	6715	1.9556	ug/L	89
69) 1-Chlorohexane	14.66	91	26182	3.9893	ug/L	98
70) Chlorobenzene	15.08	112	32042	2.0347	ug/L	97
71) 1,1,1,2-Tetrachloroethane	15.15	131	11635	2.0518	ug/L #	74
72) Ethylbenzene	15.15	106	15909	1.9585	ug/L	96
73) m-,p-Xylene	15.25	106	39276	3.9553	ug/L	95
74) o-Xylene	15.90	106	18716	1.9794	ug/L	96
75) Styrene	15.95	104	28586	1.9053	ug/L	96
76) Bromoform	16.50	173	5004	1.8660	ug/L	94
77) Isopropylbenzene	16.42	105	47392	2.0138	ug/L	99
79) 1,1,2,2-Tetrachloroethane	16.68	83	7637	2.0277	ug/L	99
81) 1,2,3-Trichloropropane	16.90	110	1898	1.9545	ug/L	62
82) trans-1,4-Dichloro-2-Butene	16.98	53	3015	2.5032	ug/L	93
83) n-Propylbenzene	17.02	91	53289	2.0362	ug/L	99
84) Bromobenzene	17.14	156	11443	2.0574	ug/L	97
85) 1,3,5-Trimethylbenzene	17.25	105	35419	1.9838	ug/L	99
86) 2-Chlorotoluene	17.31	91	38866	2.2367	ug/L	100
87) 4-Chlorotoluene	17.38	91	34257	1.9610	ug/L	98
88) a-Methylstyrene	17.73	118	31522	3.4427	ug/L	98
89) tert-Butylbenzene	17.79	134	7184	1.9923	ug/L	90
90) 1,2,4-Trimethylbenzene	17.85	105	38101	2.0184	ug/L	98
91) sec-Butylbenzene	18.11	105	40503	1.9957	ug/L	99
92) p-Isopropyltoluene	18.31	119	32296	1.9811	ug/L	99
93) 1,3-Dichlorobenzene	18.49	146	21069	2.0482	ug/L	99
94) 1,4-Dichlorobenzene	18.65	146	21327	1.9769	ug/L	83
95) n-Butylbenzene	18.92	91	27948	1.9680	ug/L	96
96) 1,2-Dichlorobenzene	19.22	146	19286	2.0744	ug/L	94
97) 1,2-Dibromo-3-Chloropropane	20.40	75	750	2.2556	ug/L	80
98) 1,2,4-Trichlorobenzene	21.75	180	10506	2.0761	ug/L	96
99) Hexachlorobutadiene	21.95	225	4168	2.1505	ug/L	96
100) Naphthalene	22.17	128	19377	2.0110	ug/L	100
101) 1,2,3-Trichlorobenzene	22.54	180	9449	2.1484	ug/L	94

(#) = qualifier out of range (m) = manual integration
 6M107642.D 8260WTR.M Wed Apr 25 15:17:16 2012

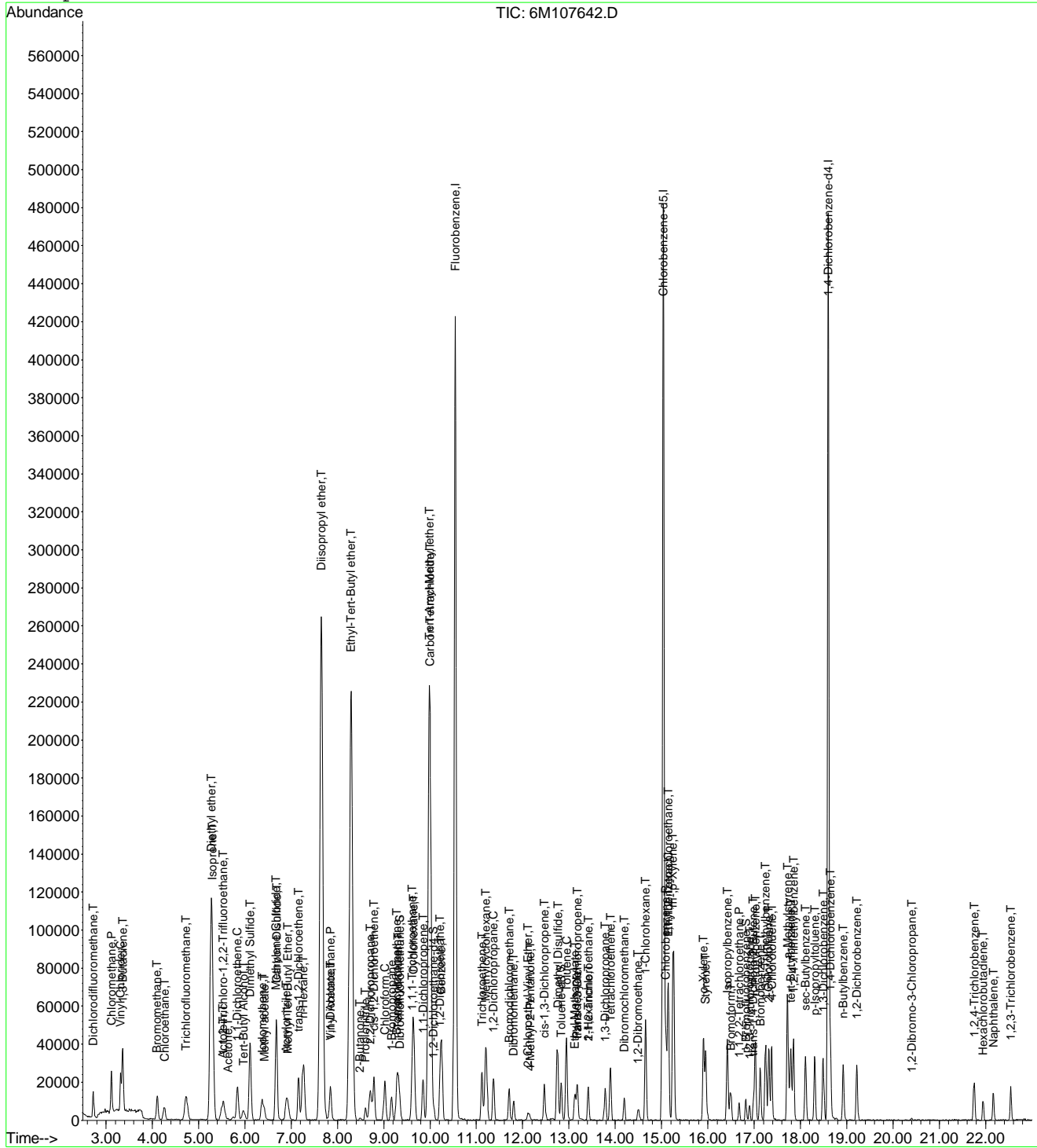
Page 2

Data File : C:\MSDCHEM\1\DATA\042512\6M107642.D
Acq On : 25 Apr 2012 11:27
Sample : WG396001-05 2.0 ug/L STD 8260
Misc : 1,1 STD51130
MS Integration Params: RTEINT.P
Quant Time: Apr 25 15:15 2012

Vial: 6
Operator: ADC
Inst : HPMS6
Multiplr: 1.00

Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
Last Update : Wed Apr 25 15:15:28 2012
Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\042512\6M107643.D Vial: 7
 Acq On : 25 Apr 2012 11:59 Operator: ADC
 Sample : WG396001-06 5.0 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:22:33 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	575550	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.03	117	376063	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	177055	25.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Dibromofluoromethane	9.35	111	14601	2.3429	ug/L	0.00
Spiked Amount	25.000	Range 86 - 118	Recovery	=	9.36%#	
43) 1,2-Dichloroethane-d4	10.08	65	14760	2.4133	ug/L	0.00
Spiked Amount	25.000	Range 80 - 120	Recovery	=	9.64%#	
58) Toluene-d8	12.83	98	49480	2.4209	ug/L	0.00
Spiked Amount	25.000	Range 88 - 110	Recovery	=	9.68%#	
80) p-Bromofluorobenzene	16.82	95	17382	2.5018	ug/L	0.00
Spiked Amount	25.000	Range 86 - 115	Recovery	=	10.00%#	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	2.73	85	37947	5.0265	ug/L	95
3) Chloromethane	3.12	50	58571	5.1181	ug/L	97
4) Vinyl Chloride	3.31	62	46706	4.8915	ug/L	98
5) 1,3-Butadiene	3.35	54	44622	3.6880	ug/L	83
6) Bromomethane	4.11	94	24347	4.4999	ug/L	100
7) Chloroethane	4.25	64	25758	4.7681	ug/L	100
8) Trichlorofluoromethane	4.73	101	58962	4.8027	ug/L	99
9) Diethyl ether	5.26	59	210605	50.4880	ug/L	97
10) Isoprene	5.30	67	50690	4.8557	ug/L	99
11) Acrolein	5.51	56	1570	13.1948	ug/L	74
12) 1,1,2-Trichloro-1,2,2-Trif	5.52	101	30663	4.6697	ug/L	99
13) Acetone	5.62	43	5754	5.2763	ug/L #	70
14) 1,1-Dichloroethene	5.83	61	52701	4.9917	ug/L	97
15) Tert-Butyl Alcohol	5.98	59	29303	102.9244	ug/L #	94
16) Dimethyl Sulfide	6.11	62	40108	4.7852	ug/L	94
17) Iodomethane	6.36	142	28857	4.7804	ug/L	100
18) Methyl acetate	6.41	43	21484	4.9918	ug/L	95
19) Methylene Chloride	6.67	84	31639	4.8382	ug/L	98
20) Carbon Disulfide	6.69	76	89235	4.6651	ug/L	98
21) Acrylonitrile	6.88	53	6205	4.2230	ug/L	94
22) Methyl Tert Butyl Ether	6.91	73	63560	4.6135	ug/L	99
23) trans-1,2-Dichloroethene	7.16	96	30919	4.8415	ug/L	100
24) n-Hexane	7.26	57	33579	4.5834	ug/L	100
25) Diisopropyl ether	7.65	45	1156939	49.7305	ug/L	99
26) Vinyl Acetate	7.84	43	17599	5.2255	ug/L	92
27) 1,1-Dichloroethane	7.84	63	62138	4.7623	ug/L	98
28) Ethyl-Tert-Butyl ether	8.29	59	943556	49.9070	ug/L	99
29) 2-Butanone	8.49	43	7075	4.6396	ug/L	91
30) Propionitrile	8.61	54	21710	49.7760	ug/L	95
31) 2,2-Dichloropropane	8.71	77	47225	4.7876	ug/L	97
32) cis-1,2-Dichloroethene	8.78	96	33123	4.9637	ug/L	97
33) Chloroform	9.02	83	57332	4.8617	ug/L	100
34) 1-Bromopropane	9.17	122	5621	5.0224	ug/L	96
35) Bromochloromethane	9.27	130	17793	5.0523	ug/L	96
36) Tetrahydrofuran	9.30	42	48924	48.7869	ug/L	96
38) 1,1,1-Trichloroethane	9.62	97	49012	4.7578	ug/L	97
39) Cyclohexane	9.64	56	48367	4.6868	ug/L	99
40) 1,1-Dichloropropene	9.85	75	41863	4.9261	ug/L	97
41) Tert-Amyl-Methyl ether	9.99	73	690718	49.0690	ug/L	99
42) Carbon Tetrachloride	10.00	117	43100	4.7269	ug/L	97

(#) = qualifier out of range (m) = manual integration
 6M107643.D 8260WTR.M Wed Apr 25 15:22:47 2012

Data File : C:\MSDCHEM\1\DATA\042512\6M107643.D Vial: 7
 Acq On : 25 Apr 2012 11:59 Operator: ADC
 Sample : WG396001-06 5.0 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:22:33 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) 1,2-Dichloroethane	10.21	62	39847	4.9190	ug/L	98
46) Benzene	10.24	78	121550	4.7805	ug/L	97
47) Trichloroethene	11.12	130	29578	4.6379	ug/L	99
48) Methylcyclohexane	11.20	83	35302	4.7998	ug/L	98
49) 1,2-Dichloropropane	11.37	63	31224	4.7565	ug/L	95
50) 1,4-Dioxane	11.70	88	965	99.0876	ug/L	71
51) Bromodichloromethane	11.71	83	38570	4.8913	ug/L	94
52) Dibromomethane	11.81	93	13994	4.6249	ug/L	99
53) 2-Chloroethyl Vinyl Ether	12.10	63	10732	4.7663	ug/L	88
54) 4-Methyl-2-Pentanone	12.15	58	4414	3.8562	ug/L	99
55) cis-1,3-Dichloropropene	12.47	75	41204	4.5466	ug/L	96
56) Dimethyl Disulfide	12.75	79	19721	4.2676	ug/L	97
59) Toluene	12.95	91	118735	4.8046	ug/L	99
60) Ethyl Methacrylate	13.13	69	15829	4.2754	ug/L	97
61) Paraldehyde	13.17	89	2990	45.0606	ug/L	89
62) trans-1,3-Dichloropropene	13.18	75	32174	4.3127	ug/L	95
63) 1,1,2-Trichloroethane	13.42	97	19062	4.8024	ug/L	98
64) 2-Hexanone	13.40	43	4014	5.0659	ug/L	72
65) 1,3-Dichloropropane	13.78	76	32898	4.8600	ug/L	95
66) Tetrachloroethene	13.90	166	28254	4.8953	ug/L	98
67) Dibromochloromethane	14.20	129	23661	4.5872	ug/L	99
68) 1,2-Dibromoethane	14.50	107	18090	4.8561	ug/L	100
69) 1-Chlorohexane	14.66	91	31120	4.7554	ug/L	99
70) Chlorobenzene	15.09	112	74111	4.7197	ug/L	93
71) 1,1,1,2-Tetrachloroethane	15.15	131	26733	4.7279	ug/L	91
72) Ethylbenzene	15.15	106	39088	4.8260	ug/L	97
73) m-,p-Xylene	15.26	106	92973	9.3899	ug/L	98
74) o-Xylene	15.91	106	44107	4.6782	ug/L	98
75) Styrene	15.96	104	70107	4.3408	ug/L	97
76) Bromoform	16.50	173	12591	4.7089	ug/L	96
77) Isopropylbenzene	16.42	105	110378	4.7039	ug/L	99
79) 1,1,2,2-Tetrachloroethane	16.68	83	19305	5.1561	ug/L	96
81) 1,2,3-Trichloropropane	16.90	110	4706	4.8749	ug/L	90
82) trans-1,4-Dichloro-2-Butene	16.99	53	4507	3.7760	ug/L	99
83) n-Propylbenzene	17.02	91	125508	4.8242	ug/L	99
84) Bromobenzene	17.14	156	27148	4.7578	ug/L	96
85) 1,3,5-Trimethylbenzene	17.25	105	85678	4.8272	ug/L	96
86) 2-Chlorotoluene	17.32	91	85157	4.9297	ug/L	99
87) 4-Chlorotoluene	17.37	91	75711	4.3598	ug/L	99
88) a-Methylstyrene	17.72	118	39064	4.2917	ug/L	97
89) tert-Butylbenzene	17.79	134	16325	4.5542	ug/L	98
90) 1,2,4-Trimethylbenzene	17.85	105	88337	4.7075	ug/L	100
91) sec-Butylbenzene	18.11	105	94949	4.7062	ug/L	99
92) p-Isopropyltoluene	18.31	119	75290	4.6458	ug/L	98
93) 1,3-Dichlorobenzene	18.49	146	48257	4.7191	ug/L	99
94) 1,4-Dichlorobenzene	18.65	146	51458	4.7982	ug/L	95
95) n-Butylbenzene	18.92	91	65032	4.6065	ug/L	97
96) 1,2-Dichlorobenzene	19.22	146	43687	4.7270	ug/L	98
97) 1,2-Dibromo-3-Chloropropane	20.40	75	2080	4.4580	ug/L	80
98) 1,2,4-Trichlorobenzene	21.75	180	24696	4.9093	ug/L	95
99) Hexachlorobutadiene	21.95	225	9408	4.7534	ug/L	98
100) Naphthalene	22.17	128	43999	4.5934	ug/L	97
101) 1,2,3-Trichlorobenzene	22.54	180	19994	4.5729	ug/L	99

(#) = qualifier out of range (m) = manual integration
 6M107643.D 8260WTR.M Wed Apr 25 15:22:48 2012

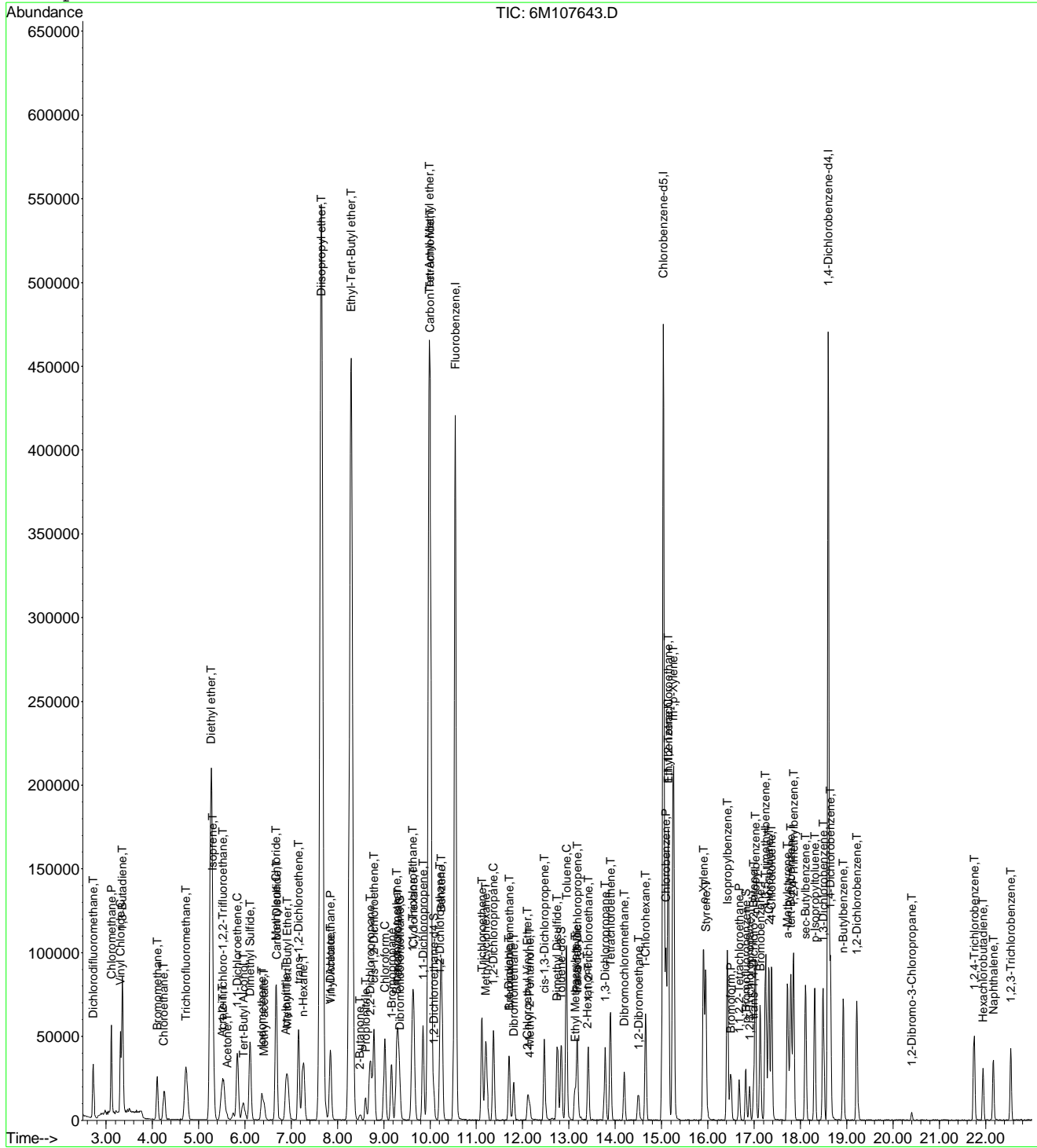
Page 2

Data File : C:\MSDCHEM\1\DATA\042512\6M107643.D
Acq On : 25 Apr 2012 11:59
Sample : WG396001-06 5.0 ug/L STD 8260
Misc : 1,1 STD51130
MS Integration Params: RTEINT.P
Quant Time: Apr 25 15:22 2012

Vial: 7
Operator: ADC
Inst : HPMS6
Multiplr: 1.00

Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
Last Update : Wed Apr 25 15:22:20 2012
Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\042512\6M107644.D Vial: 8
 Acq On : 25 Apr 2012 12:32 Operator: ADC
 Sample : WG396001-07 20.0 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:22:58 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	594227	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.03	117	383762	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	183925	25.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Dibromofluoromethane	9.35	111	58307	9.0621	ug/L	0.00
Spiked Amount	25.000	Range 86 - 118	Recovery	=	36.24%#	
43) 1,2-Dichloroethane-d4	10.07	65	57557	9.1150	ug/L	0.00
Spiked Amount	25.000	Range 80 - 120	Recovery	=	36.48%#	
58) Toluene-d8	12.83	98	187435	8.9867	ug/L	0.00
Spiked Amount	25.000	Range 88 - 110	Recovery	=	35.96%#	
80) p-Bromofluorobenzene	16.81	95	64661	8.9592	ug/L	0.00
Spiked Amount	25.000	Range 86 - 115	Recovery	=	35.84%#	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	2.73	85	158858	20.3809	ug/L	100
3) Chloromethane	3.12	50	234659	21.6813	ug/L	100
4) Vinyl Chloride	3.31	62	191525	19.4279	ug/L	98
5) 1,3-Butadiene	3.34	54	131957	23.4663	ug/L	96
6) Bromomethane	4.11	94	104168	18.6477	ug/L	99
7) Chloroethane	4.26	64	113251	20.3052	ug/L	99
8) Trichlorofluoromethane	4.73	101	255332	20.1443	ug/L	100
9) Diethyl ether	5.26	59	339919	78.9271	ug/L	99
10) Isoprene	5.30	67	218497	20.2725	ug/L	98
11) Acrolein	5.50	56	7970	32.4391	ug/L	98
12) 1,1,2-Trichloro-1,2,2-Trif	5.53	101	134612	19.8557	ug/L	98
13) Acetone	5.61	43	21788	19.3512	ug/L	95
14) 1,1-Dichloroethene	5.83	61	226043	20.7372	ug/L	100
15) Tert-Butyl Alcohol	5.97	59	43289	147.2701	ug/L	97
16) Dimethyl Sulfide	6.11	62	174474	20.1619	ug/L	99
17) Iodomethane	6.36	142	137221	22.0175	ug/L	98
18) Methyl acetate	6.42	43	88859	19.9975	ug/L	99
19) Methylene Chloride	6.67	84	134360	19.9002	ug/L	99
20) Carbon Disulfide	6.69	76	397265	20.1157	ug/L	100
21) Acrylonitrile	6.89	53	29729	19.5968	ug/L	99
22) Methyl Tert Butyl Ether	6.92	73	274821	19.3207	ug/L	100
23) trans-1,2-Dichloroethene	7.16	96	136845	20.7544	ug/L	100
24) n-Hexane	7.26	57	154306	20.4003	ug/L	98
25) Diisopropyl ether	7.65	45	1940470	80.7886	ug/L	99
26) Vinyl Acetate	7.83	43	66581	19.1479	ug/L	98
27) 1,1-Dichloroethane	7.84	63	269329	19.9929	ug/L	99
28) Ethyl-Tert-Butyl ether	8.28	59	1555823	79.7048	ug/L	100
29) 2-Butanone	8.48	43	29635	18.8229	ug/L	96
30) Propionitrile	8.60	54	36779	81.6752	ug/L	92
31) 2,2-Dichloropropane	8.71	77	202027	19.8373	ug/L	98
32) cis-1,2-Dichloroethene	8.78	96	145344	21.0963	ug/L	98
33) Chloroform	9.02	83	243884	20.0310	ug/L	99
34) 1-Bromopropane	9.17	122	25054	20.2993	ug/L	94
35) Bromochloromethane	9.27	130	76045	20.7517	ug/L	100
36) Tetrahydrofuran	9.31	42	80017	77.2848	ug/L	99
38) 1,1,1-Trichloroethane	9.61	97	217361	20.4370	ug/L	99
39) Cyclohexane	9.64	56	215903	20.2636	ug/L	99
40) 1,1-Dichloropropene	9.85	75	184496	21.0277	ug/L	99
41) Tert-Amyl-Methyl ether	9.99	73	1145087	78.7909	ug/L	100
42) Carbon Tetrachloride	10.00	117	196271	20.8489	ug/L	100

(#) = qualifier out of range (m) = manual integration
 6M107644.D 8260WTR.M Wed Apr 25 15:22:58 2012

Data File : C:\MSDCHEM\1\DATA\042512\6M107644.D Vial: 8
 Acq On : 25 Apr 2012 12:32 Operator: ADC
 Sample : WG396001-07 20.0 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:22:58 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) 1,2-Dichloroethane	10.21	62	169343	20.2481	ug/L	99
46) Benzene	10.24	78	529661	20.1764	ug/L	99
47) Trichloroethene	11.11	130	136718	20.7638	ug/L	100
48) Methylcyclohexane	11.20	83	155717	20.5066	ug/L	99
49) 1,2-Dichloropropane	11.37	63	137745	20.3236	ug/L	98
50) 1,4-Dioxane	11.73	88	2645	149.7640	ug/L	83
51) Bromodichloromethane	11.70	83	166255	20.4209	ug/L	98
52) Dibromomethane	11.80	93	64483	19.9008	ug/L	100
53) 2-Chloroethyl Vinyl Ether	12.10	63	52910	18.3848	ug/L	99
54) 4-Methyl-2-Pentanone	12.13	58	22023	18.6351	ug/L	99
55) cis-1,3-Dichloropropene	12.47	75	189292	19.5174	ug/L	98
56) Dimethyl Disulfide	12.75	79	101341	18.2378	ug/L	98
59) Toluene	12.95	91	515527	20.4420	ug/L	99
60) Ethyl Methacrylate	13.12	69	87414	19.3722	ug/L	99
61) Paraldehyde	13.17	89	4848	71.5957	ug/L	95
62) trans-1,3-Dichloropropene	13.18	75	152515	18.7487	ug/L	98
63) 1,1,2-Trichloroethane	13.42	97	83236	20.5493	ug/L	98
64) 2-Hexanone	13.39	43	33386	19.2631	ug/L	97
65) 1,3-Dichloropropane	13.78	76	147996	21.4248	ug/L	99
66) Tetrachloroethene	13.90	166	122076	20.7268	ug/L	98
67) Dibromochloromethane	14.20	129	108751	20.0645	ug/L	100
68) 1,2-Dibromoethane	14.49	107	79058	19.9718	ug/L	98
69) 1-Chlorohexane	14.66	91	140563	21.0482	ug/L	100
70) Chlorobenzene	15.10	112	328061	20.4731	ug/L	100
71) 1,1,1,2-Tetrachloroethane	15.14	131	119161	20.6515	ug/L	99
72) Ethylbenzene	15.15	106	172428	20.8615	ug/L	99
73) m-,p-Xylene	15.26	106	423993	41.9627	ug/L	100
74) o-Xylene	15.90	106	201450	20.9382	ug/L	99
75) Styrene	15.95	104	331150	19.2337	ug/L	100
76) Bromoform	16.49	173	58140	21.3073	ug/L	99
77) Isopropylbenzene	16.42	105	496925	20.7521	ug/L	99
79) 1,1,2,2-Tetrachloroethane	16.68	83	82099	21.1085	ug/L	98
81) 1,2,3-Trichloropropane	16.90	110	21336	21.2762	ug/L	93
82) trans-1,4-Dichloro-2-Butene	16.98	53	24139	19.5659	ug/L	100
83) n-Propylbenzene	17.01	91	565214	20.9139	ug/L	100
84) Bromobenzene	17.13	156	122973	20.3776	ug/L	99
85) 1,3,5-Trimethylbenzene	17.25	105	383800	20.8162	ug/L	100
86) 2-Chlorotoluene	17.31	91	360977	20.1164	ug/L	96
87) 4-Chlorotoluene	17.37	91	376791	20.8868	ug/L	96
88) a-Methylstyrene	17.72	118	202662	21.4336	ug/L	100
89) tert-Butylbenzene	17.79	134	74160	19.9158	ug/L	100
90) 1,2,4-Trimethylbenzene	17.85	105	403504	20.6998	ug/L	99
91) sec-Butylbenzene	18.11	105	428513	20.4461	ug/L	100
92) p-Isopropyltoluene	18.30	119	352322	20.9282	ug/L	99
93) 1,3-Dichlorobenzene	18.50	146	222773	20.9716	ug/L	100
94) 1,4-Dichlorobenzene	18.65	146	226621	20.3420	ug/L	100
95) n-Butylbenzene	18.92	91	307212	20.9484	ug/L	100
96) 1,2-Dichlorobenzene	19.22	146	195685	20.3823	ug/L	99
97) 1,2-Dibromo-3-Chloropropane	20.41	75	11859	19.8670	ug/L	98
98) 1,2,4-Trichlorobenzene	21.75	180	107171	20.5085	ug/L	100
99) Hexachlorobutadiene	21.95	225	42869	20.5058	ug/L	97
100) Naphthalene	22.16	128	205794	20.6821	ug/L	99
101) 1,2,3-Trichlorobenzene	22.54	180	91731	20.1965	ug/L	97

(#) = qualifier out of range (m) = manual integration
 6M107644.D 8260WTR.M Wed Apr 25 15:22:58 2012

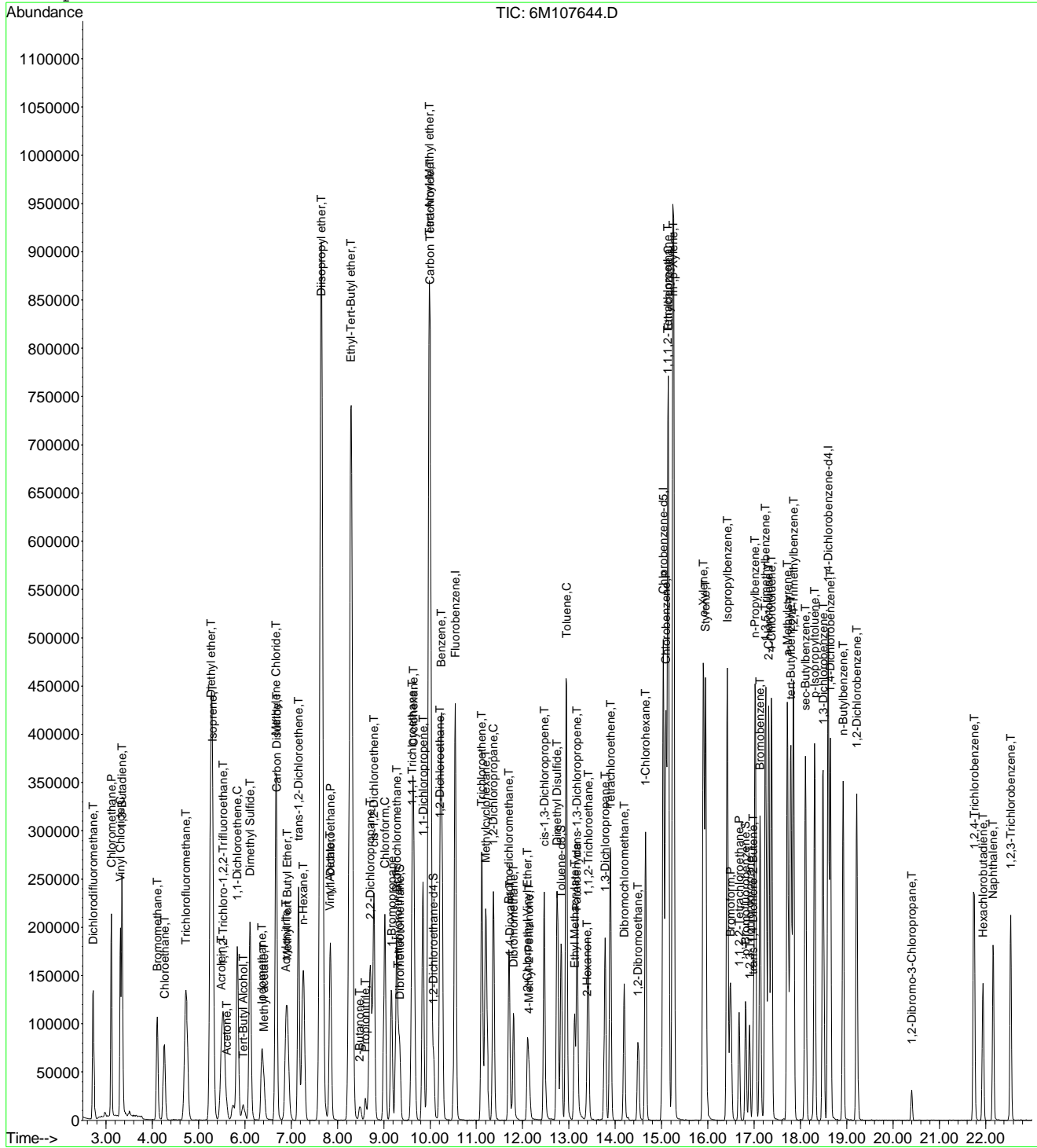
Page 2

Data File : C:\MSDCHEM\1\DATA\042512\6M107644.D
Acq On : 25 Apr 2012 12:32
Sample : WG396001-07 20.0 ug/L STD 8260
Misc : 1,1 STD51130
MS Integration Params: RTEINT.P
Quant Time: Apr 25 15:22 2012

Vial: 8
Operator: ADC
Inst : HPMS6
Multiplr: 1.00

Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
Last Update : Wed Apr 25 15:22:20 2012
Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\042512\6M107645.D Vial: 9
 Acq On : 25 Apr 2012 13:04 Operator: ADC
 Sample : WG396001-08 50.0 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:23:00 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	619560	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.03	117	408189	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	200465	25.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Dibromofluoromethane	9.35	111	173852	25.9154	ug/L	0.00
Spiked Amount	25.000	Range 86 - 118	Recovery	=	103.68%	
43) 1,2-Dichloroethane-d4	10.07	65	171150	25.9959	ug/L	0.00
Spiked Amount	25.000	Range 80 - 120	Recovery	=	104.00%	
58) Toluene-d8	12.83	98	565413	25.4867	ug/L	0.00
Spiked Amount	25.000	Range 88 - 110	Recovery	=	101.96%	
80) p-Bromofluorobenzene	16.81	95	203222	25.8344	ug/L	0.00
Spiked Amount	25.000	Range 86 - 115	Recovery	=	103.32%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	2.73	85	389869	47.9736	ug/L	100
3) Chloromethane	3.11	50	563326	50.7436	ug/L	100
4) Vinyl Chloride	3.30	62	447570	43.5442	ug/L	100
5) 1,3-Butadiene	3.34	54	277307	54.3268	ug/L	100
6) Bromomethane	4.10	94	267764	45.9739	ug/L	100
7) Chloroethane	4.25	64	283167	48.6941	ug/L	100
8) Trichlorofluoromethane	4.73	101	638353	48.3034	ug/L	100
9) Diethyl ether	5.26	59	444538	98.9985	ug/L	100
10) Isoprene	5.29	67	566599	50.4205	ug/L	100
11) Acrolein	5.50	56	26584	85.5644	ug/L	100
12) 1,1,2-Trichloro-1,2,2-Trif	5.52	101	341895	48.3686	ug/L	100
13) Acetone	5.61	43	58270	49.6368	ug/L	100
14) 1,1-Dichloroethene	5.83	61	575898	50.6727	ug/L	100
15) Tert-Butyl Alcohol	5.98	59	60766	198.2744	ug/L	100
16) Dimethyl Sulfide	6.11	62	448523	49.7113	ug/L	100
17) Iodomethane	6.36	142	364829	56.1443	ug/L	100
18) Methyl acetate	6.41	43	237429	51.2481	ug/L	100
19) Methylene Chloride	6.67	84	339978	48.2956	ug/L	100
20) Carbon Disulfide	6.68	76	1018674	49.4719	ug/L	100
21) Acrylonitrile	6.88	53	84022	53.1212	ug/L	100
22) Methyl Tert Butyl Ether	6.91	73	726233	48.9687	ug/L	100
23) trans-1,2-Dichloroethene	7.16	96	347320	50.5220	ug/L	100
24) n-Hexane	7.26	57	393526	49.8994	ug/L	100
25) Diisopropyl ether	7.65	45	2532589	101.1292	ug/L	100
26) Vinyl Acetate	7.84	43	182804	50.4227	ug/L	100
27) 1,1-Dichloroethane	7.85	63	685786	48.8260	ug/L	100
28) Ethyl-Tert-Butyl ether	8.28	59	2063658	101.3984	ug/L	100
29) 2-Butanone	8.49	43	85577	52.1325	ug/L	100
30) Propionitrile	8.60	54	49932	106.3502	ug/L	100
31) 2,2-Dichloropropane	8.71	77	518745	48.8534	ug/L	100
32) cis-1,2-Dichloroethene	8.79	96	364938	50.8040	ug/L	100
33) Chloroform	9.02	83	621509	48.9593	ug/L	100
34) 1-Bromopropane	9.17	122	63136	48.4718	ug/L	100
35) Bromochloromethane	9.28	130	195266	51.0311	ug/L	100
36) Tetrahydrofuran	9.31	42	111425	103.2199	ug/L	100
38) 1,1,1-Trichloroethane	9.62	97	559652	50.4687	ug/L	100
39) Cyclohexane	9.64	56	557070	50.1460	ug/L	100
40) 1,1-Dichloropropene	9.85	75	473524	51.7624	ug/L	100
41) Tert-Amyl-Methyl ether	9.99	73	1541516	101.7313	ug/L	100
42) Carbon Tetrachloride	10.00	117	505898	51.5417	ug/L	100

(#) = qualifier out of range (m) = manual integration
 6M107645.D 8260WTR.M Wed Apr 25 15:23:01 2012

Data File : C:\MSDCHEM\1\DATA\042512\6M107645.D Vial: 9
 Acq On : 25 Apr 2012 13:04 Operator: ADC
 Sample : WG396001-08 50.0 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:23:00 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) 1,2-Dichloroethane	10.21	62	437086	50.1247	ug/L	100
46) Benzene	10.25	78	1341106	48.9979	ug/L	100
47) Trichloroethene	11.12	130	349281	50.8774	ug/L	100
48) Methylcyclohexane	11.21	83	398780	50.3686	ug/L	100
49) 1,2-Dichloropropane	11.37	63	357464	50.5856	ug/L	100
50) 1,4-Dioxane	11.72	88	4923	213.5967	ug/L	100
51) Bromodichloromethane	11.71	83	437323	51.5196	ug/L	100
52) Dibromomethane	11.80	93	173176	50.9232	ug/L	100
53) 2-Chloroethyl Vinyl Ether	12.10	63	152980	48.9280	ug/L	100
54) 4-Methyl-2-Pentanone	12.13	58	67436	54.7289	ug/L	100
55) cis-1,3-Dichloropropene	12.47	75	501922	49.3167	ug/L	100
56) Dimethyl Disulfide	12.75	79	280946	47.2405	ug/L	100
59) Toluene	12.94	91	1346173	50.1850	ug/L	100
60) Ethyl Methacrylate	13.12	69	251664	50.9783	ug/L	100
61) Paraldehyde	13.17	89	7692	106.7982	ug/L	100
62) trans-1,3-Dichloropropene	13.18	75	436693	49.8740	ug/L	100
63) 1,1,2-Trichloroethane	13.41	97	219399	50.9238	ug/L	100
64) 2-Hexanone	13.38	43	107845	52.2262	ug/L	100
65) 1,3-Dichloropropane	13.78	76	395241	53.7933	ug/L	100
66) Tetrachloroethene	13.90	166	318010	50.7625	ug/L	100
67) Dibromochloromethane	14.20	129	291803	50.3565	ug/L	100
68) 1,2-Dibromoethane	14.49	107	214207	50.4864	ug/L	100
69) 1-Chlorohexane	14.66	91	369827	52.0648	ug/L	100
70) Chlorobenzene	15.10	112	849241	49.8264	ug/L	100
71) 1,1,1,2-Tetrachloroethane	15.14	131	319317	52.0283	ug/L	100
72) Ethylbenzene	15.15	106	453223	51.5526	ug/L	100
73) m-,p-Xylene	15.25	106	1122680	104.4627	ug/L	100
74) o-Xylene	15.90	106	534717	52.2512	ug/L	100
75) Styrene	15.95	104	907595	49.1867	ug/L	100
76) Bromoform	16.49	173	163380	56.2928	ug/L	100
77) Isopropylbenzene	16.42	105	1315619	51.6538	ug/L	100
79) 1,1,2,2-Tetrachloroethane	16.68	83	226876	53.5194	ug/L	100
81) 1,2,3-Trichloropropane	16.89	110	58346	53.3819	ug/L	100
82) trans-1,4-Dichloro-2-Butene	16.97	53	67259	50.0554	ug/L	100
83) n-Propylbenzene	17.02	91	1492386	50.6648	ug/L	100
84) Bromobenzene	17.13	156	326293	49.4507	ug/L	100
85) 1,3,5-Trimethylbenzene	17.25	105	1029566	51.2334	ug/L	100
86) 2-Chlorotoluene	17.31	91	968625	49.5254	ug/L	100
87) 4-Chlorotoluene	17.37	91	986711	50.1837	ug/L	100
88) a-Methylstyrene	17.72	118	556013	53.9522	ug/L	100
89) tert-Butylbenzene	17.79	134	195513	48.1732	ug/L	100
90) 1,2,4-Trimethylbenzene	17.84	105	1083235	50.9851	ug/L	100
91) sec-Butylbenzene	18.11	105	1145053	50.1274	ug/L	100
92) p-Isopropyltoluene	18.30	119	934094	50.9078	ug/L	100
93) 1,3-Dichlorobenzene	18.49	146	590408	50.9946	ug/L	100
94) 1,4-Dichlorobenzene	18.65	146	598306	49.2740	ug/L	100
95) n-Butylbenzene	18.93	91	821015	51.3648	ug/L	100
96) 1,2-Dichlorobenzene	19.22	146	526738	50.3377	ug/L	100
97) 1,2-Dibromo-3-Chloropropane	20.41	75	32970	49.0867	ug/L	100
98) 1,2,4-Trichlorobenzene	21.75	180	287652	50.5041	ug/L	100
99) Hexachlorobutadiene	21.95	225	107425	47.0134	ug/L	100
100) Naphthalene	22.16	128	580647	53.5397	ug/L	100
101) 1,2,3-Trichlorobenzene	22.54	180	238929	48.2649	ug/L	100

(#) = qualifier out of range (m) = manual integration
 6M107645.D 8260WTR.M Wed Apr 25 15:23:01 2012

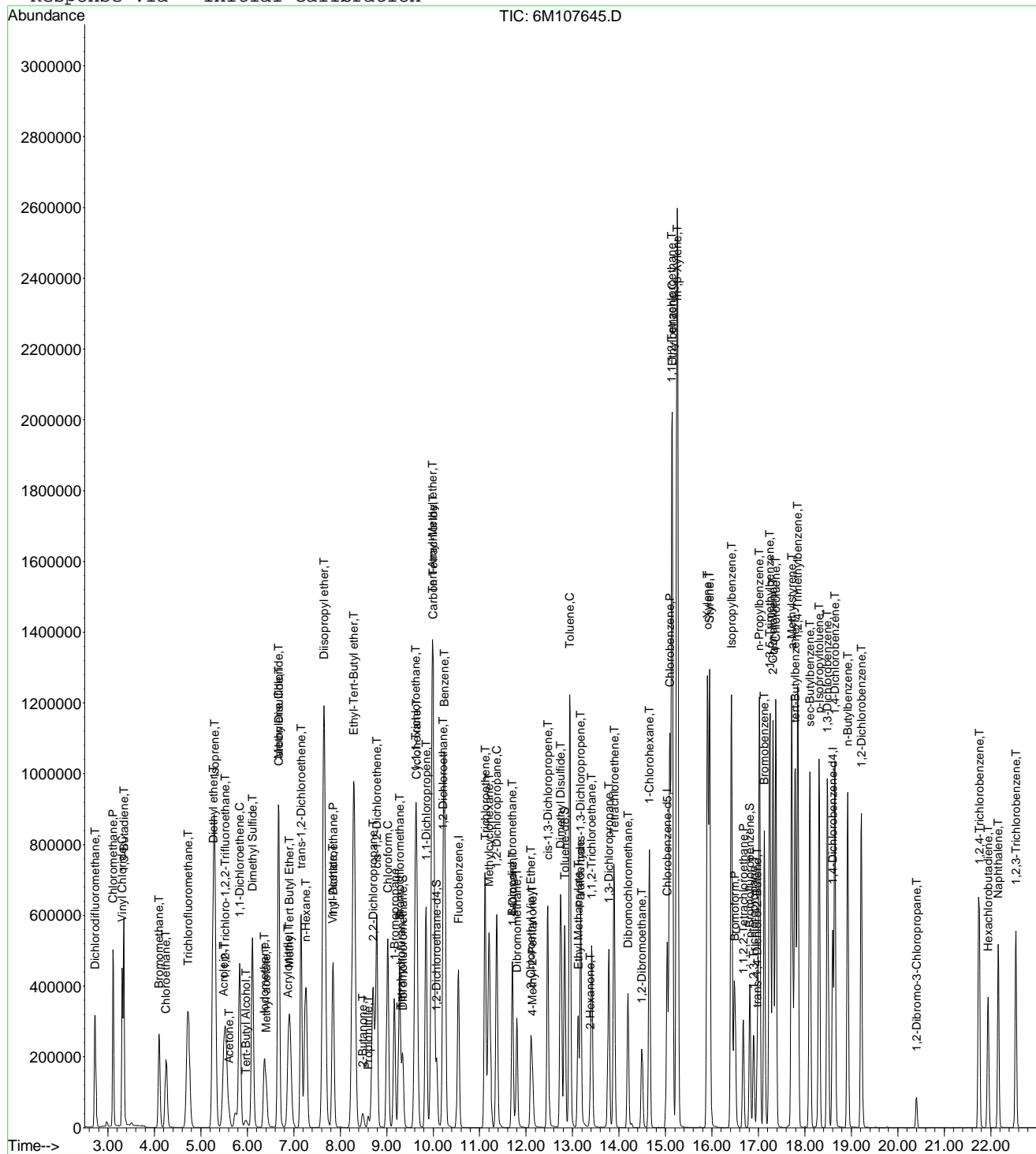
Page 2

Data File : C:\MSDCHEM\1\DATA\042512\6M107645.D
Acq On : 25 Apr 2012 13:04
Sample : WG396001-08 50.0 ug/L STD 8260
Misc : 1,1 STD51130
MS Integration Params: RTEINT.P
Quant Time: Apr 25 15:23 2012

Vial: 9
Operator: ADC
Inst : HPMS6
Multiplr: 1.00

Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
Last Update : Wed Apr 25 15:22:20 2012
Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\042512\6M107646.D Vial: 10
 Acq On : 25 Apr 2012 13:37 Operator: ADC
 Sample : WG396001-09 100.0 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:23:01 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	618856	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.04	117	410376	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	203764	25.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Dibromofluoromethane	9.35	111	352242	52.5671	ug/L	0.00
Spiked Amount	25.000	Range 86 - 118	Recovery	= 210.28%#		
43) 1,2-Dichloroethane-d4	10.07	65	347313	52.8133	ug/L	0.00
Spiked Amount	25.000	Range 80 - 120	Recovery	= 211.24%#		
58) Toluene-d8	12.83	98	1158157	51.9272	ug/L	0.00
Spiked Amount	25.000	Range 88 - 110	Recovery	= 207.72%#		
80) p-Bromofluorobenzene	16.81	95	411704	51.4901	ug/L	0.00
Spiked Amount	25.000	Range 86 - 115	Recovery	= 205.96%#		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	2.72	85	748050	92.1528	ug/L	100
3) Chloromethane	3.11	50	1080230	97.9977	ug/L	100
4) Vinyl Chloride	3.30	62	835012	81.3310	ug/L	99
5) 1,3-Butadiene	3.33	54	502511	104.1932	ug/L	99
6) Bromomethane	4.10	94	545004	93.6813	ug/L	98
7) Chloroethane	4.25	64	553741	95.3309	ug/L	100
8) Trichlorofluoromethane	4.72	101	1255933	95.1430	ug/L	99
9) Diethyl ether	5.26	59	903969	201.5426	ug/L	99
10) Isoprene	5.29	67	1146761	102.1641	ug/L	99
11) Acrolein	5.51	56	62004	188.7394	ug/L	100
12) 1,1,2-Trichloro-1,2,2-Trif	5.52	101	690733	97.8306	ug/L	99
13) Acetone	5.61	43	119353	101.7854	ug/L	98
14) 1,1-Dichloroethene	5.83	61	1151147	101.4035	ug/L	100
15) Tert-Butyl Alcohol	5.98	59	118369	386.6675	ug/L	99
16) Dimethyl Sulfide	6.11	62	922818	102.3954	ug/L	99
17) Iodomethane	6.37	142	706856	108.9033	ug/L	98
18) Methyl acetate	6.41	43	493386	106.6165	ug/L	99
19) Methylene Chloride	6.66	84	686038	97.5661	ug/L	100
20) Carbon Disulfide	6.68	76	2063105	100.3086	ug/L	100
21) Acrylonitrile	6.88	53	167946	106.3012	ug/L	98
22) Methyl Tert Butyl Ether	6.91	73	1453163	98.0959	ug/L	99
23) trans-1,2-Dichloroethene	7.15	96	694499	101.1384	ug/L	98
24) n-Hexane	7.26	57	793462	100.7261	ug/L	100
25) Diisopropyl ether	7.65	45	5110546	204.3022	ug/L	100
26) Vinyl Acetate	7.84	43	363097	100.2668	ug/L	100
27) 1,1-Dichloroethane	7.85	63	1396149	99.5149	ug/L	100
28) Ethyl-Tert-Butyl ether	8.29	59	4138115	203.5588	ug/L	100
29) 2-Butanone	8.48	43	172061	104.9368	ug/L	98
30) Propionitrile	8.60	54	102974	219.5740	ug/L	97
31) 2,2-Dichloropropane	8.72	77	1037187	97.7895	ug/L	99
32) cis-1,2-Dichloroethene	8.79	96	740781	103.2435	ug/L	100
33) Chloroform	9.02	83	1246716	98.3216	ug/L	99
34) 1-Bromopropane	9.16	122	128449	98.2947	ug/L	99
35) Bromochloromethane	9.28	130	387609	101.3625	ug/L	99
36) Tetrahydrofuran	9.31	42	226285	209.8603	ug/L	99
38) 1,1,1-Trichloroethane	9.61	97	1127271	101.7714	ug/L	100
39) Cyclohexane	9.64	56	1129505	101.7907	ug/L	99
40) 1,1-Dichloropropene	9.84	75	960862	105.1544	ug/L	98
41) Tert-Amyl-Methyl ether	9.99	73	3100244	204.8312	ug/L	99
42) Carbon Tetrachloride	10.00	117	1021779	104.2189	ug/L	99

(#) = qualifier out of range (m) = manual integration
 6M107646.D 8260WTR.M Wed Apr 25 15:23:02 2012

Data File : C:\MSDCHEM\1\DATA\042512\6M107646.D Vial: 10
 Acq On : 25 Apr 2012 13:37 Operator: ADC
 Sample : WG396001-09 100.0 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:23:01 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) 1,2-Dichloroethane	10.22	62	869687	99.8486	ug/L	99
46) Benzene	10.25	78	2712885	99.2291	ug/L	100
47) Trichloroethene	11.12	130	704332	102.7119	ug/L	100
48) Methylcyclohexane	11.21	83	804930	101.7838	ug/L	100
49) 1,2-Dichloropropane	11.37	63	726078	102.8660	ug/L	100
50) 1,4-Dioxane	11.72	88	11607	411.0347	ug/L	98
51) Bromodichloromethane	11.71	83	877519	103.4953	ug/L	100
52) Dibromomethane	11.80	93	339943	99.8692	ug/L	100
53) 2-Chloroethyl Vinyl Ether	12.11	63	313881	99.2820	ug/L	99
54) 4-Methyl-2-Pentanone	12.14	58	131959	107.2154	ug/L	99
55) cis-1,3-Dichloropropene	12.46	75	1013688	99.5026	ug/L	99
56) Dimethyl Disulfide	12.75	79	595788	99.4466	ug/L	100
59) Toluene	12.94	91	2739455	101.5820	ug/L	99
60) Ethyl Methacrylate	13.12	69	515704	103.0209	ug/L	98
61) Paraldehyde	13.17	89	16105	222.4154	ug/L #	16
62) trans-1,3-Dichloropropene	13.18	75	885834	100.2717	ug/L	99
63) 1,1,2-Trichloroethane	13.41	97	438573	101.2529	ug/L	99
64) 2-Hexanone	13.38	43	215037	100.5521	ug/L	97
65) 1,3-Dichloropropane	13.78	76	784256	106.1705	ug/L	100
66) Tetrachloroethene	13.89	166	636988	101.1377	ug/L	99
67) Dibromochloromethane	14.20	129	586579	100.5165	ug/L	98
68) 1,2-Dibromoethane	14.50	107	431014	100.7926	ug/L	98
69) 1-Chlorohexane	14.66	91	750548	105.1001	ug/L	99
70) Chlorobenzene	15.09	112	1718715	100.3026	ug/L	99
71) 1,1,1,2-Tetrachloroethane	15.14	131	656150	106.3409	ug/L	99
72) Ethylbenzene	15.15	106	944121	106.8184	ug/L	99
73) m-,p-Xylene	15.25	106	2328167	215.4760	ug/L	98
74) o-Xylene	15.90	106	1090889	106.0308	ug/L	99
75) Styrene	15.96	104	1884086	101.3111	ug/L	100
76) Bromoform	16.50	173	330321	113.2060	ug/L	99
77) Isopropylbenzene	16.43	105	2707188	105.7231	ug/L	99
79) 1,1,2,2-Tetrachloroethane	16.68	83	440046	102.1249	ug/L	100
81) 1,2,3-Trichloropropane	16.89	110	114094	102.6967	ug/L	98
82) trans-1,4-Dichloro-2-Butene	16.98	53	138810	101.6566	ug/L	100
83) n-Propylbenzene	17.02	91	3057377	102.1139	ug/L	100
84) Bromobenzene	17.13	156	666047	99.1964	ug/L	99
85) 1,3,5-Trimethylbenzene	17.25	105	2116324	103.6078	ug/L	100
86) 2-Chlorotoluene	17.31	91	1997279	100.4667	ug/L	99
87) 4-Chlorotoluene	17.37	91	2016953	100.9206	ug/L	100
88) a-Methylstyrene	17.72	118	1172399	111.9207	ug/L	96
89) tert-Butylbenzene	17.79	134	406794	98.6088	ug/L	98
90) 1,2,4-Trimethylbenzene	17.84	105	2244451	103.9303	ug/L	99
91) sec-Butylbenzene	18.11	105	2346530	101.0617	ug/L	99
92) p-Isopropyltoluene	18.30	119	1941960	104.1226	ug/L	99
93) 1,3-Dichlorobenzene	18.49	146	1197023	101.7150	ug/L	99
94) 1,4-Dichlorobenzene	18.65	146	1219336	98.7937	ug/L	100
95) n-Butylbenzene	18.93	91	1678452	103.3082	ug/L	100
96) 1,2-Dichlorobenzene	19.22	146	1063847	100.0205	ug/L	100
97) 1,2-Dibromo-3-Chloropropane	20.41	75	68854	99.7711	ug/L	95
98) 1,2,4-Trichlorobenzene	21.75	180	587994	101.5649	ug/L	100
99) Hexachlorobutadiene	21.95	225	222637	95.7513	ug/L	99
100) Naphthalene	22.16	128	1173188	106.4247	ug/L	100
101) 1,2,3-Trichlorobenzene	22.54	180	497602	98.8907	ug/L	97

(#) = qualifier out of range (m) = manual integration
 6M107646.D 8260WTR.M Wed Apr 25 15:23:02 2012

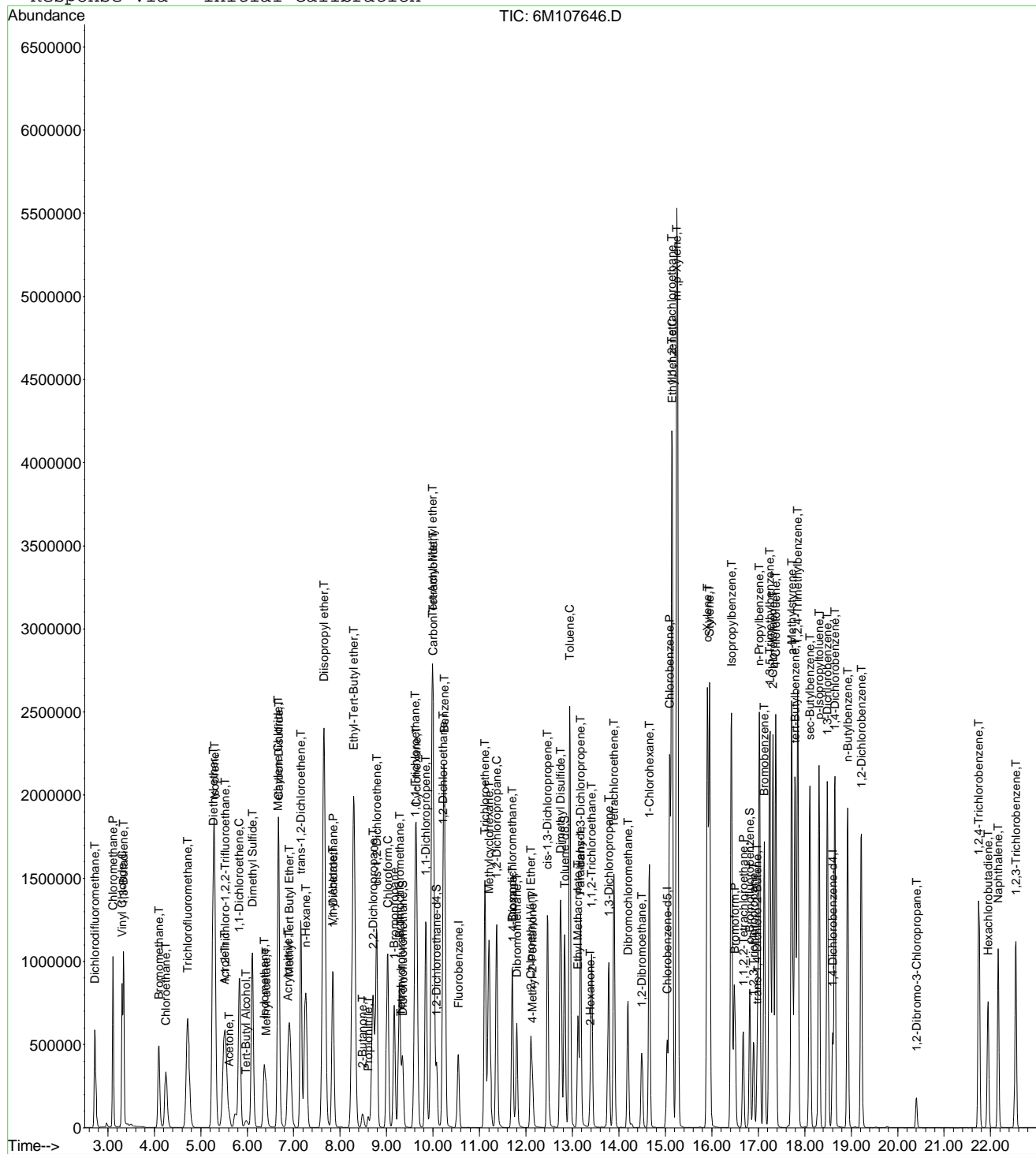
Page 2

Data File : C:\MSDCHEM\1\DATA\042512\6M107646.D
Acq On : 25 Apr 2012 13:37
Sample : WG396001-09 100.0 ug/L STD 8260
Misc : 1,1 STD51130
MS Integration Params: RTEINT.P
Quant Time: Apr 25 15:23 2012

Vial: 10
Operator: ADC
Inst : HPMS6
Multiplr: 1.00

Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
Last Update : Wed Apr 25 15:22:20 2012
Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\042512\6M107647.D Vial: 11
 Acq On : 25 Apr 2012 14:10 Operator: ADC
 Sample : WG396001-10 200.0 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:23:03 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	646443	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.04	117	427412	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	206804	25.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Dibromofluoromethane	9.35	111	748003	106.8650	ug/L	0.00
Spiked Amount	25.000	Range 86 - 118	Recovery = 427.44%#			
43) 1,2-Dichloroethane-d4	10.07	65	705535	102.7069	ug/L	0.00
Spiked Amount	25.000	Range 80 - 120	Recovery = 410.84%#			
58) Toluene-d8	12.83	98	2497059	107.4958	ug/L	0.00
Spiked Amount	25.000	Range 88 - 110	Recovery = 430.00%#			
80) p-Bromofluorobenzene	16.81	95	844107	104.0171	ug/L	0.00
Spiked Amount	25.000	Range 86 - 115	Recovery = 416.08%#			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	2.73	85	1471126	173.4950	ug/L	100
3) Chloromethane	3.11	50	2290270	199.5560	ug/L	100
4) Vinyl Chloride	3.30	62	1596234	148.8398	ug/L	100
5) 1,3-Butadiene	3.33	54	966749	197.7222	ug/L	100
6) Bromomethane	4.09	94	1188693	195.6060	ug/L	100
7) Chloroethane	4.25	64	1163931	191.8288	ug/L	98
8) Trichlorofluoromethane	4.72	101	2548054	184.7901	ug/L	99
9) Diethyl ether	5.27	59	2530	0.5400	ug/L #	76
10) Isoprene	5.29	67	2442948	208.3526	ug/L	100
11) Acrolein	5.51	56	149245	424.1108	ug/L	96
12) 1,1,2-Trichloro-1,2,2-Trif	5.52	101	1433620	194.3828	ug/L	99
13) Acetone	5.62	43	238655	194.8418	ug/L	98
14) 1,1-Dichloroethene	5.82	61	2432654	205.1455	ug/L	99
15) Tert-Butyl Alcohol	6.01	59	184	0.5754	ug/L #	60
16) Dimethyl Sulfide	6.11	62	1961365	208.3445	ug/L	99
17) Iodomethane	6.37	142	1472667	217.2072	ug/L	99
18) Methyl acetate	6.41	43	1031705	213.4286	ug/L	99
19) Methylene Chloride	6.67	84	1459127	198.6566	ug/L	99
20) Carbon Disulfide	6.68	76	4432597	206.3168	ug/L	99
21) Acrylonitrile	6.88	53	348621	211.2426	ug/L	98
22) Methyl Tert Butyl Ether	6.92	73	3003009	194.0673	ug/L	99
23) trans-1,2-Dichloroethene	7.15	96	1515128	211.2288	ug/L	99
24) n-Hexane	7.25	57	1668465	202.7646	ug/L	99
26) Vinyl Acetate	7.84	43	754935	199.5737	ug/L	99
27) 1,1-Dichloroethane	7.85	63	2952932	201.4973	ug/L	100
28) Ethyl-Tert-Butyl ether	8.02	59	3340	0.1573	ug/L #	63
29) 2-Butanone	8.49	43	331314	193.4393	ug/L	99
31) 2,2-Dichloropropane	8.71	77	2194398	198.0659	ug/L	98
32) cis-1,2-Dichloroethene	8.79	96	1581702	211.0362	ug/L	99
33) Chloroform	9.02	83	2637016	199.0920	ug/L	100
34) 1-Bromopropane	9.17	122	274833	200.9018	ug/L	100
35) Bromochloromethane	9.28	130	785715	196.6529	ug/L	99
36) Tetrahydrofuran	9.34	42	1607	1.4268	ug/L #	40
38) 1,1,1-Trichloroethane	9.61	97	2411233	208.3992	ug/L	100
39) Cyclohexane	9.64	56	2387897	206.0132	ug/L	99
40) 1,1-Dichloropropene	9.85	75	2045298	214.2804	ug/L	98
41) Tert-Amyl-Methyl ether	9.85	73	299091	18.9175	ug/L #	58
42) Carbon Tetrachloride	10.00	117	2118906	206.9000	ug/L	99
45) 1,2-Dichloroethane	10.22	62	1804814	198.3676	ug/L	99
46) Benzene	10.25	78	5713434	200.0619	ug/L	99

(#) = qualifier out of range (m) = manual integration
 6M107647.D 8260WTR.M Wed Apr 25 15:23:03 2012

Data File : C:\MSDCHEM\1\DATA\042512\6M107647.D Vial: 11
 Acq On : 25 Apr 2012 14:10 Operator: ADC
 Sample : WG396001-10 200.0 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:23:03 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
47) Trichloroethene	11.11	130	1494861	208.6910	ug/L	100
48) Methylcyclohexane	11.21	83	1702262	206.0660	ug/L	99
49) 1,2-Dichloropropane	11.37	63	1554158	210.7866	ug/L	99
50) 1,4-Dioxane	11.71	88	1997	124.8880	ug/L #	22
51) Bromodichloromethane	11.71	83	1854502	209.3874	ug/L	100
52) Dibromomethane	11.80	93	710088	199.4948	ug/L	100
53) 2-Chloroethyl Vinyl Ether	12.10	63	652112	196.3176	ug/L	99
54) 4-Methyl-2-Pentanone	12.13	58	255151	198.4609	ug/L	99
55) cis-1,3-Dichloropropene	12.47	75	2151902	202.0008	ug/L	98
56) Dimethyl Disulfide	12.75	79	1293328	205.8507	ug/L	99
59) Toluene	12.94	91	5823352	207.3295	ug/L	98
60) Ethyl Methacrylate	13.12	69	1033666	197.4734	ug/L	98
61) Paraldehyde	12.94	89	259279	3438.0061	ug/L #	30
62) trans-1,3-Dichloropropene	13.18	75	1859752	201.7652	ug/L	98
63) 1,1,2-Trichloroethane	13.41	97	893582	198.0776	ug/L	99
64) 2-Hexanone	13.38	43	425786	188.3874	ug/L	97
65) 1,3-Dichloropropane	13.78	76	1596551	207.5219	ug/L	100
66) Tetrachloroethene	13.89	166	1375597	209.7048	ug/L	98
67) Dibromochloromethane	14.20	129	1212662	199.3522	ug/L	99
68) 1,2-Dibromoethane	14.49	107	886699	198.8447	ug/L	99
69) 1-Chlorohexane	14.66	91	1647771	221.5424	ug/L	100
70) Chlorobenzene	15.10	112	3660131	205.0879	ug/L	99
71) 1,1,1,2-Tetrachloroethane	15.14	131	1390947	216.4427	ug/L	100
72) Ethylbenzene	15.15	106	2057569	223.5157	ug/L	95
73) m-,p-Xylene	15.25	106	4938761	438.8721	ug/L	93
74) o-Xylene	15.90	106	2312823	215.8386	ug/L	99
75) Styrene	15.95	104	3896316	200.9286	ug/L	98
76) Bromoform	16.50	173	649853	213.8375	ug/L	99
77) Isopropylbenzene	16.42	105	5635512	211.3100	ug/L	98
79) 1,1,2,2-Tetrachloroethane	16.68	83	864951	197.7851	ug/L	99
81) 1,2,3-Trichloropropane	16.90	110	223056	197.8227	ug/L	97
82) trans-1,4-Dichloro-2-Buten	16.98	53	276367	199.4429	ug/L	95
83) n-Propylbenzene	17.02	91	6347701	208.8916	ug/L	99
84) Bromobenzene	17.13	156	1371184	201.0997	ug/L	98
85) 1,3,5-Trimethylbenzene	17.25	105	4465299	215.3920	ug/L	99
86) 2-Chlorotoluene	17.31	91	4090941	202.7567	ug/L	100
87) 4-Chlorotoluene	17.37	91	4220740	208.0852	ug/L	100
88) a-Methylstyrene	17.72	118	2466859	232.0320	ug/L	96
89) tert-Butylbenzene	17.79	134	860399	205.4989	ug/L	97
90) 1,2,4-Trimethylbenzene	17.85	105	4642372	211.8071	ug/L	99
91) sec-Butylbenzene	18.11	105	4894530	207.7017	ug/L	98
92) p-Isopropyltoluene	18.30	119	4105898	216.9109	ug/L	100
93) 1,3-Dichlorobenzene	18.50	146	2514937	210.5612	ug/L	99
94) 1,4-Dichlorobenzene	18.65	146	2542186	202.9466	ug/L	100
95) n-Butylbenzene	18.93	91	3611518	219.0202	ug/L	99
96) 1,2-Dichlorobenzene	19.22	146	2206949	204.4422	ug/L	99
97) 1,2-Dibromo-3-Chloropropan	20.41	75	141917	201.5616	ug/L	98
98) 1,2,4-Trichlorobenzene	21.75	180	1254005	213.4216	ug/L	99
99) Hexachlorobutadiene	21.95	225	488050	206.6960	ug/L	99
100) Naphthalene	22.16	128	2393849	213.9636	ug/L	100
101) 1,2,3-Trichlorobenzene	22.54	180	1032672	202.2109	ug/L	98

(#) = qualifier out of range (m) = manual integration
 6M107647.D 8260WTR.M Wed Apr 25 15:23:03 2012

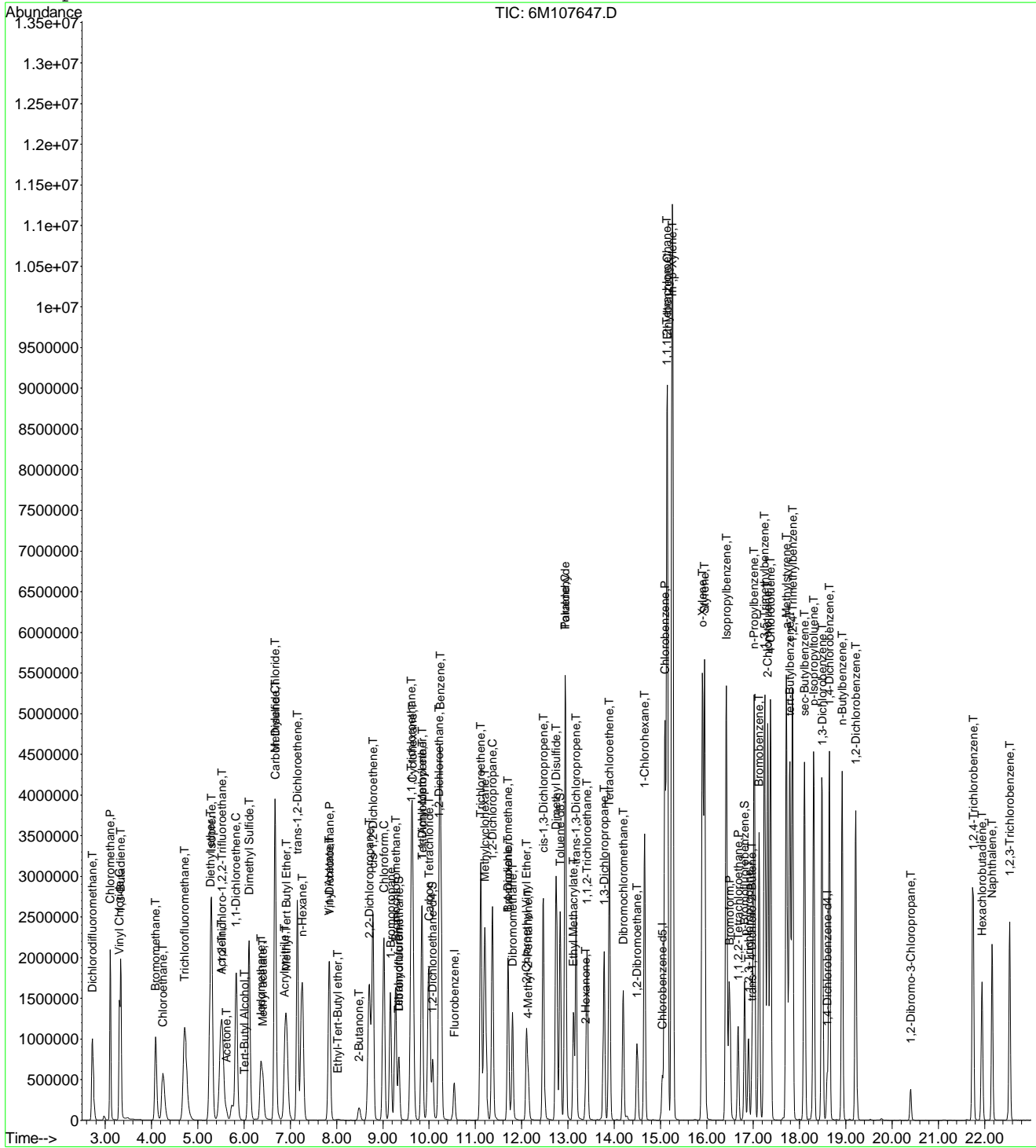
Page 2

Data File : C:\MSDCHEM\1\DATA\042512\6M107647.D
Acq On : 25 Apr 2012 14:10
Sample : WG396001-10 200.0 ug/L STD 8260
Misc : 1,1 STD51130
MS Integration Params: RTEINT.P
Quant Time: Apr 25 15:23 2012

Vial: 11
Operator: ADC
Inst : HPMS6
Multiplr: 1.00

Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
Last Update : Wed Apr 25 15:22:20 2012
Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\042512\6M107648.D Vial: 12
 Acq On : 25 Apr 2012 14:42 Operator: ADC
 Sample : WG396001-11 300.0 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:23:04 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	649576	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.03	117	418427	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	187665	25.00	ug/L	0.00

System Monitoring Compounds

37) Dibromofluoromethane	0.00	111	0	0.0000	ug/L	
Spiked Amount	25.000	Range 86 - 118	Recovery	=	0.00%#	
43) 1,2-Dichloroethane-d4	10.00	65	5879	0.8517	ug/L	-0.07
Spiked Amount	25.000	Range 80 - 120	Recovery	=	3.40%#	
58) Toluene-d8	12.84	98	579	0.0255	ug/L	0.00
Spiked Amount	25.000	Range 88 - 110	Recovery	=	0.12%#	
80) p-Bromofluorobenzene	16.83	95	1324	0.1798	ug/L	0.02
Spiked Amount	25.000	Range 86 - 115	Recovery	=	0.72%#	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	2.73	85	1114	0.1307	ug/L	# 67
3) Chloromethane	3.11	50	16042	0.7633	ug/L	95
5) 1,3-Butadiene	3.33	54	1417086	291.6036	ug/L	100
6) Bromomethane	4.09	94	42970	7.0368	ug/L	96
8) Trichlorofluoromethane	4.72	101	1720	0.1241	ug/L	# 58
9) Diethyl ether	5.27	59	1433924	304.5784	ug/L	99
11) Acrolein	5.51	56	215549	605.9515	ug/L	95
12) 1,1,2-Trichloro-1,2,2-Trif	5.54	101	1936	0.2612	ug/L	# 20
13) Acetone	5.62	43	366429	297.7157	ug/L	99
15) Tert-Butyl Alcohol	6.00	59	206479	642.5918	ug/L	98
17) Iodomethane	6.37	142	16577	2.4332	ug/L	99
18) Methyl acetate	6.42	43	611611	125.9136	ug/L	100
19) Methylene Chloride	6.67	84	4267	0.5781	ug/L	97
20) Carbon Disulfide	6.68	76	8026	0.3718	ug/L	# 75
21) Acrylonitrile	6.87	53	494473	298.1748	ug/L	91
24) n-Hexane	7.25	57	5569	0.6735	ug/L	89
25) Diisopropyl ether	7.65	45	7975502	303.7550	ug/L	100
26) Vinyl Acetate	7.83	43	1127218	296.5528	ug/L	99
28) Ethyl-Tert-Butyl ether	8.29	59	6614632	309.9935	ug/L	99
29) 2-Butanone	8.49	43	553348	321.5166	ug/L	99
30) Propionitrile	8.61	54	167232	339.7287	ug/L	98
34) 1-Bromopropane	9.17	122	415352	301.9461	ug/L	99
36) Tetrahydrofuran	9.30	42	363480	321.1550	ug/L	99
38) 1,1,1-Trichloroethane	9.62	97	1472	0.1266	ug/L	# 31
39) Cyclohexane	9.65	56	3911	0.3358	ug/L	# 73
40) 1,1-Dichloropropene	9.85	75	2008	0.2094	ug/L	# 80
41) Tert-Amyl-Methyl ether	9.99	73	4865256	306.2426	ug/L	99
42) Carbon Tetrachloride	9.99	117	1448	0.1407	ug/L	# 88
46) Benzene	10.24	78	5088	0.1773	ug/L	89
47) Trichloroethene	11.11	130	894	0.1242	ug/L	# 61
48) Methylcyclohexane	11.21	83	2929	0.3529	ug/L	93
50) 1,4-Dioxane	11.73	88	18424	586.5169	ug/L	79
53) 2-Chloroethyl Vinyl Ether	12.10	63	1026968	307.0190	ug/L	99
54) 4-Methyl-2-Pentanone	12.13	58	441037	341.3917	ug/L	98
55) cis-1,3-Dichloropropene	12.47	75	591	0.2620	ug/L	# 48
59) Toluene	12.95	91	6015	0.2188	ug/L	97
61) Paraldehyde	13.16	89	22698	307.4354	ug/L	90
64) 2-Hexanone	13.38	43	689282	309.5054	ug/L	99
66) Tetrachloroethene	13.90	166	1452	0.2261	ug/L	# 75
69) 1-Chlorohexane	14.66	91	2013	0.2765	ug/L	92

(#) = qualifier out of range (m) = manual integration
 6M107648.D 8260WTR.M Wed Apr 25 15:23:04 2012

Data File : C:\MSDCHEM\1\DATA\042512\6M107648.D Vial: 12
 Acq On : 25 Apr 2012 14:42 Operator: ADC
 Sample : WG396001-11 300.0 ug/L STD 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:23:04 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70) Chlorobenzene	15.08	112	4245	0.2430	ug/L #	12
72) Ethylbenzene	15.14	106	1381	0.1532	ug/L	91
73) m-,p-Xylene	15.25	106	3367	0.3056	ug/L	88
75) Styrene	15.96	104	1741	0.3282	ug/L	78
77) Isopropylbenzene	16.42	105	5543	0.2123	ug/L	98
83) n-Propylbenzene	17.02	91	7999	0.2901	ug/L #	97
84) Bromobenzene	17.12	156	218	0.1450	ug/L #	1
85) 1,3,5-Trimethylbenzene	17.25	105	5710	0.3035	ug/L	87
86) 2-Chlorotoluene	17.31	91	4189	0.2288	ug/L #	77
87) 4-Chlorotoluene	17.38	91	3877	0.2106	ug/L #	80
88) a-Methylstyrene	17.72	118	1541	0.1597	ug/L	88
89) tert-Butylbenzene	17.79	134	1679	0.4419	ug/L	58
90) 1,2,4-Trimethylbenzene	17.85	105	5618	0.2825	ug/L	86
91) sec-Butylbenzene	18.11	105	12345	0.5773	ug/L	91
92) p-Isopropyltoluene	18.31	119	9715	0.5656	ug/L	93
93) 1,3-Dichlorobenzene	18.51	146	3008	0.2775	ug/L	99
94) 1,4-Dichlorobenzene	18.64	146	3690	0.3246	ug/L #	53
95) n-Butylbenzene	18.93	91	11557	0.7724	ug/L	97
96) 1,2-Dichlorobenzene	19.23	146	3310	0.3379	ug/L	83
98) 1,2,4-Trichlorobenzene	21.75	180	6199	1.1626	ug/L	92
99) Hexachlorobutadiene	21.95	225	8938	4.2712	ug/L	96
100) Naphthalene	22.16	128	12830	1.2637	ug/L	89
101) 1,2,3-Trichlorobenzene	22.54	180	6412	1.3836	ug/L	90

(#) = qualifier out of range (m) = manual integration
 6M107648.D 8260WTR.M Wed Apr 25 15:23:04 2012

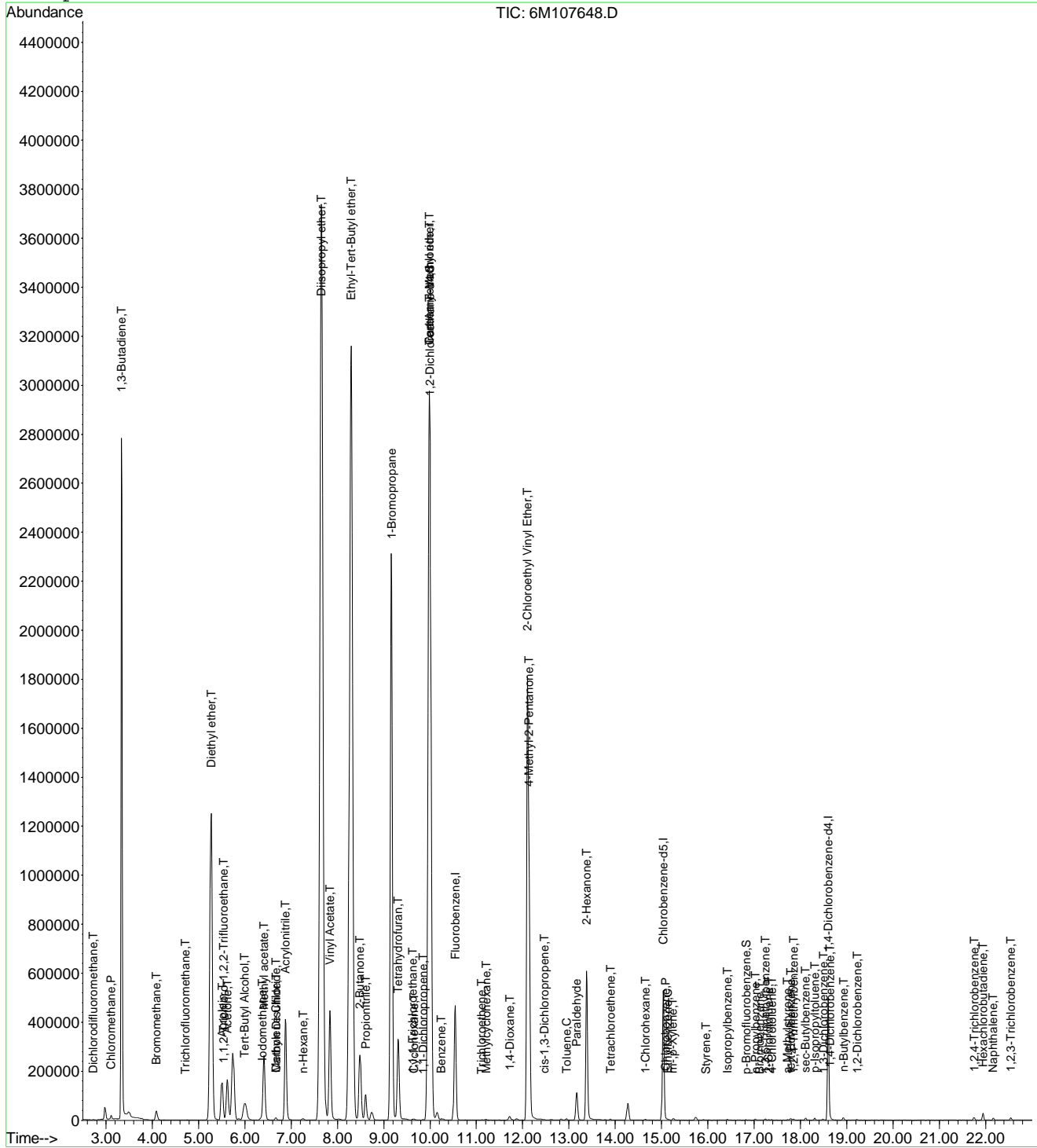
Page 2

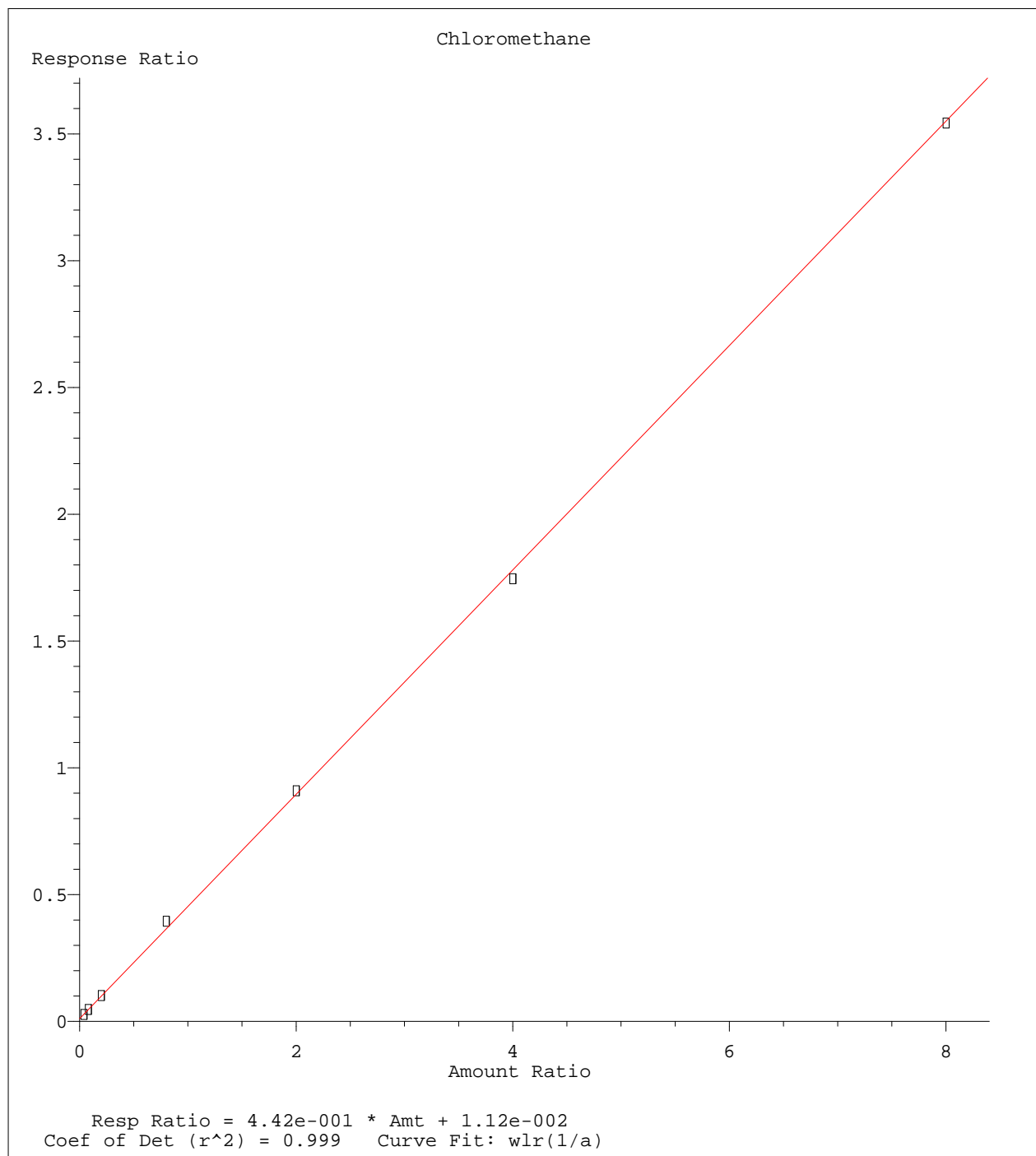
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 Acq On : 25 Apr 2012 14:42
 Sample : WG396001-11 300.0 ug/L STD 8260
 Misc : 1,1 STD51130
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 15:23 2012

Vial: 12
 Operator: ADC
 Inst : HPMS6
 Multiplr: 1.00

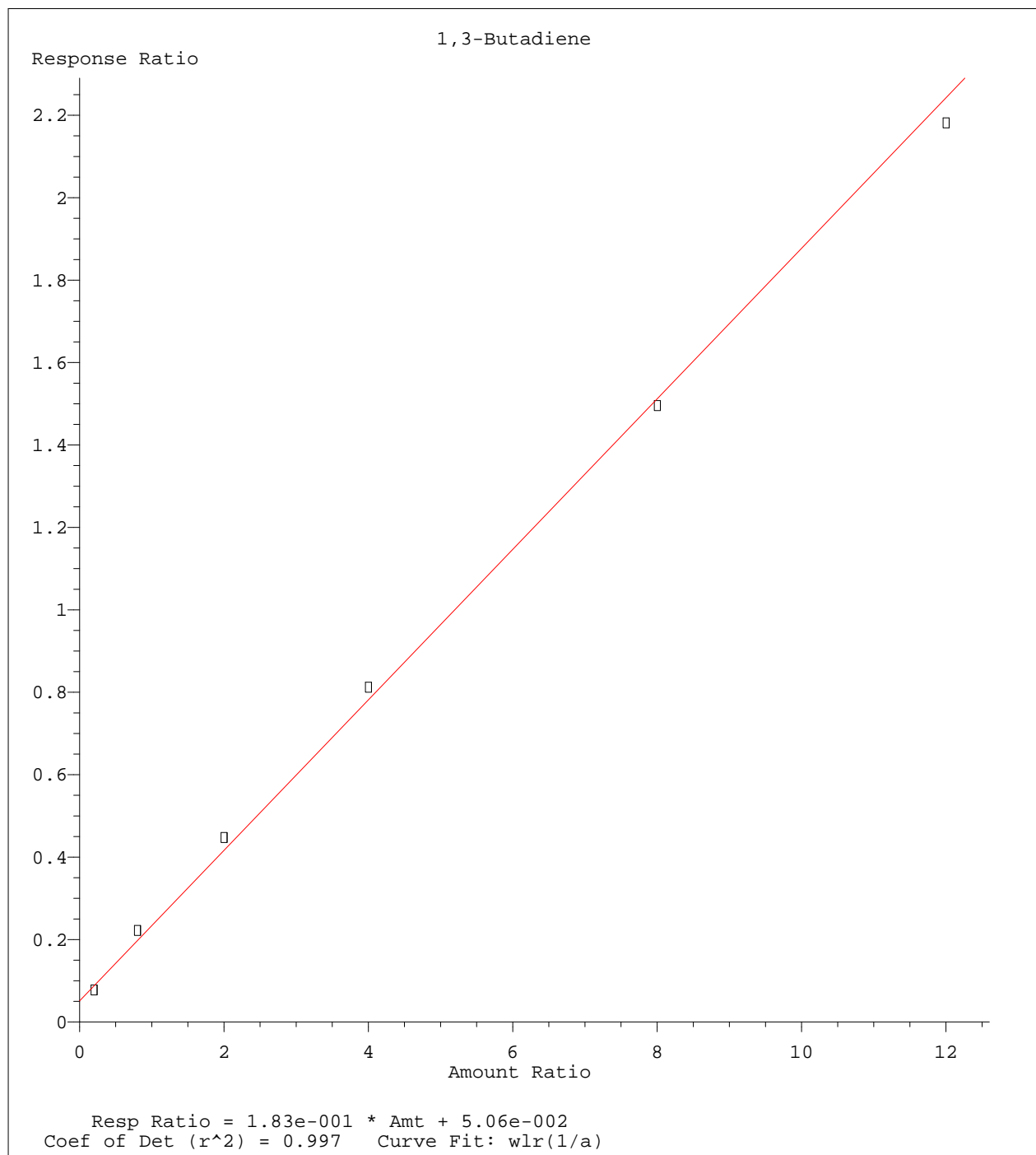
Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration

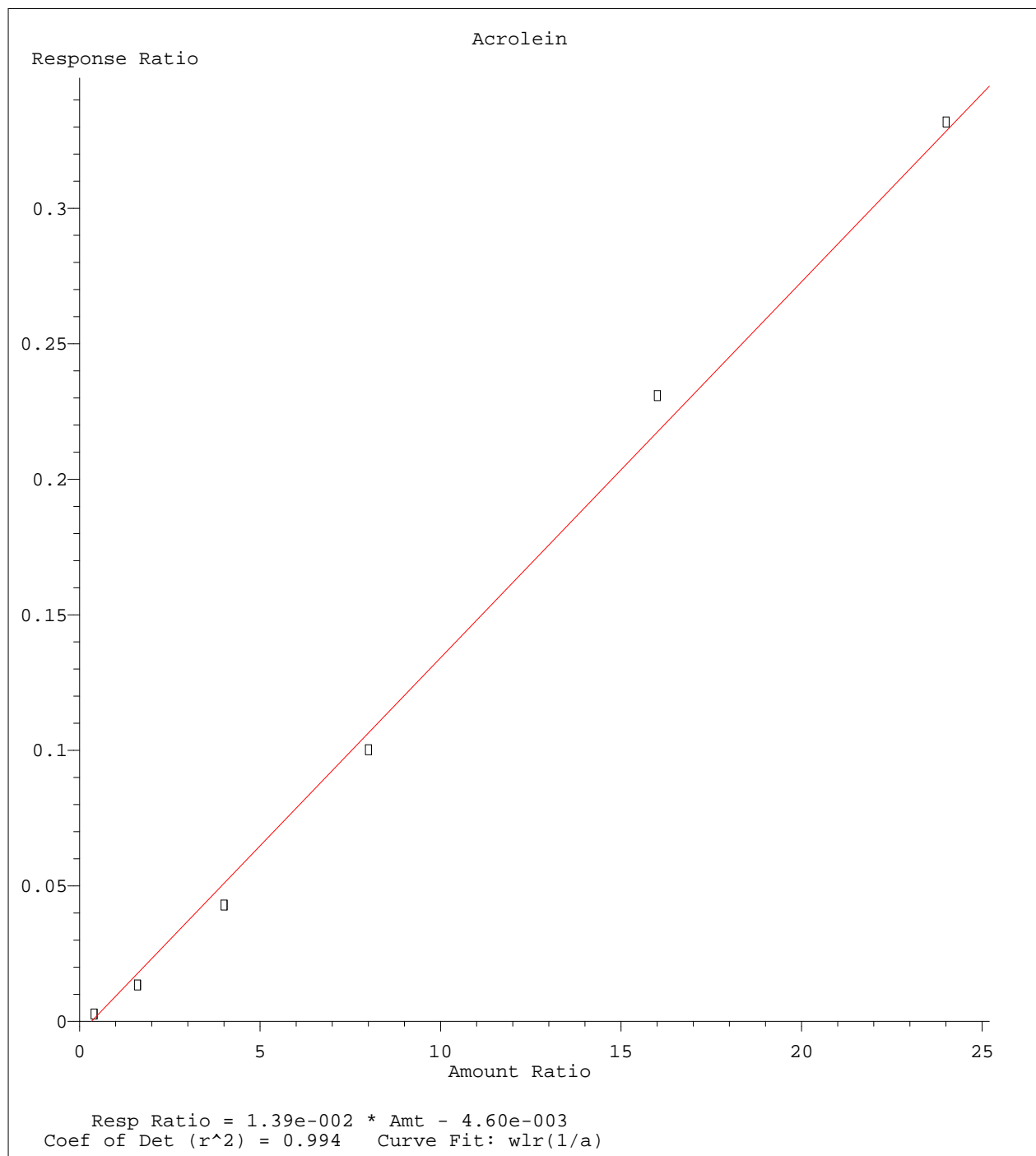




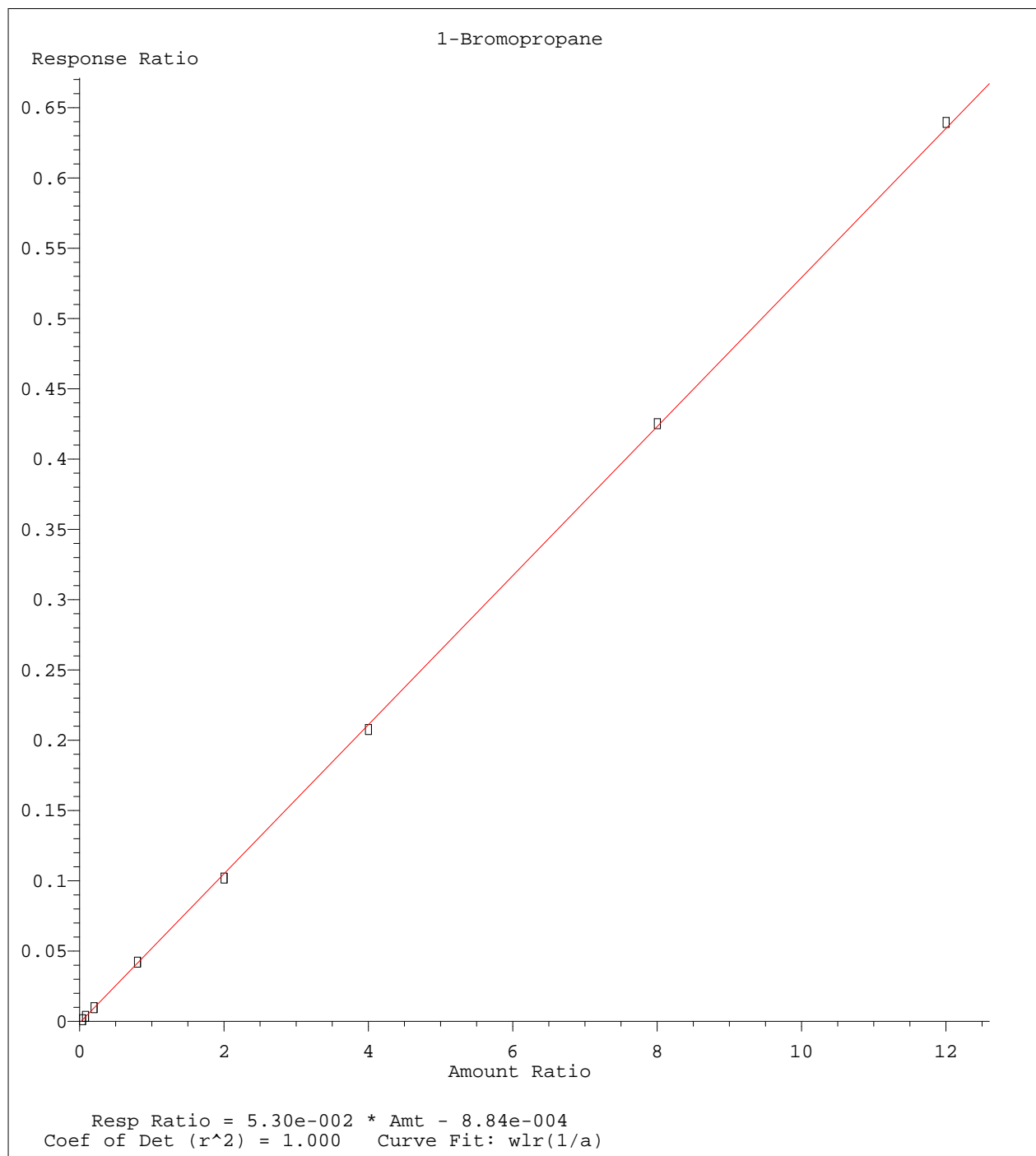
Method Name: C:\MSDCHEM\1\METHODS\8260WTR.M
Calibration Table Last Updated: Wed Apr 25 15:22:20 2012



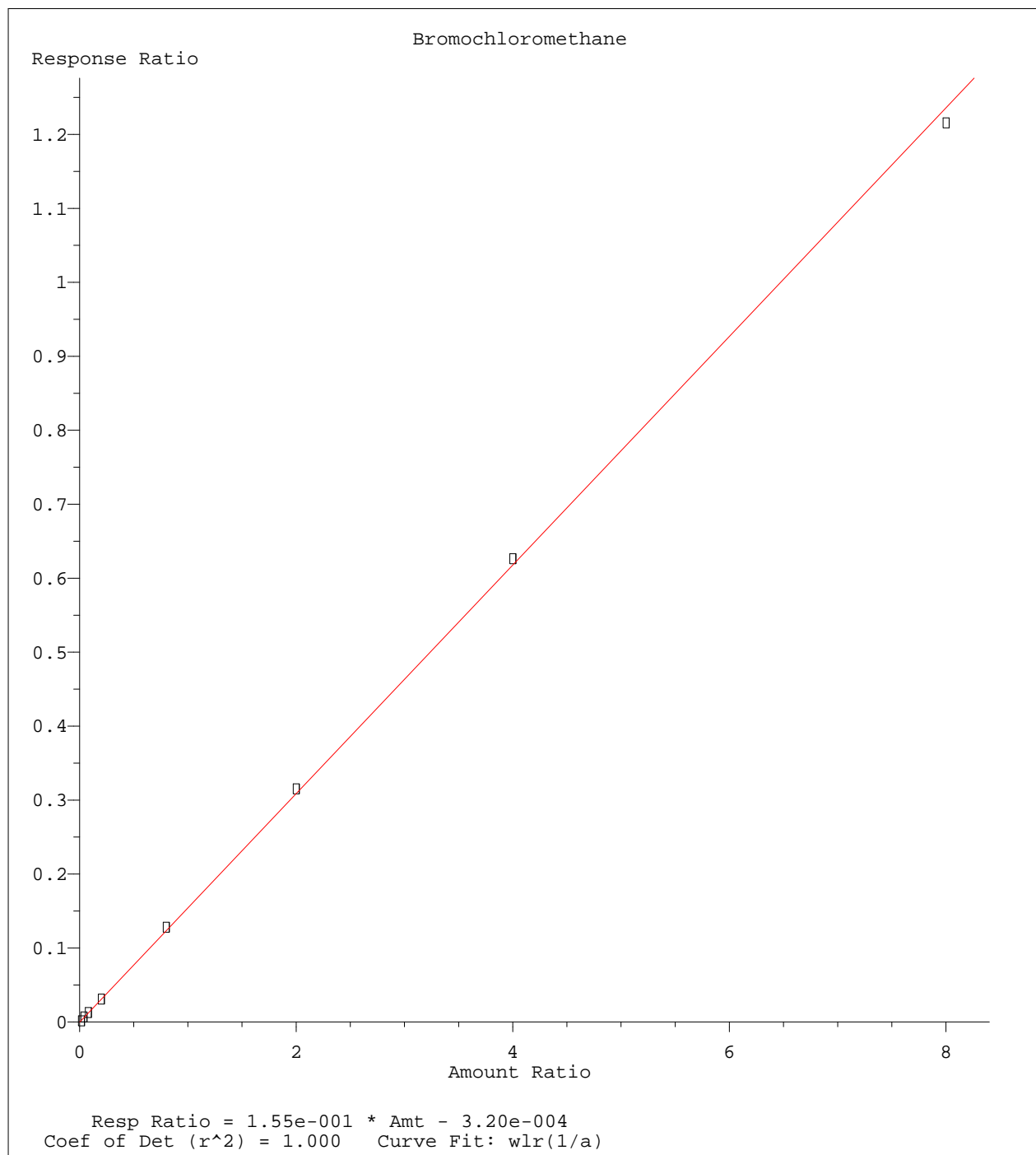
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Calibration Table Last Updated: Wed Apr 25 15:22:20 2012



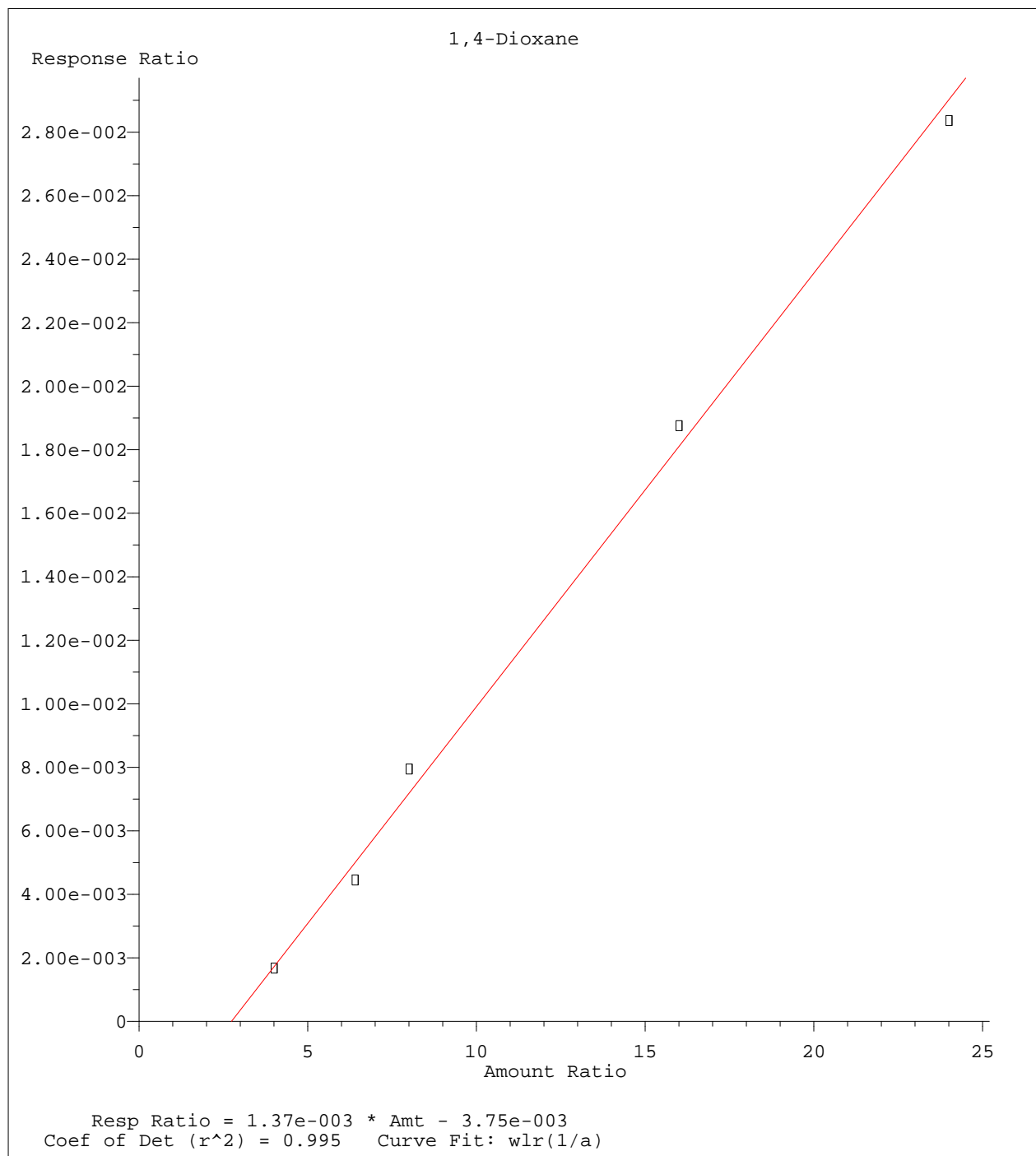
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Calibration Table Last Updated: Wed Apr 25 15:22:20 2012



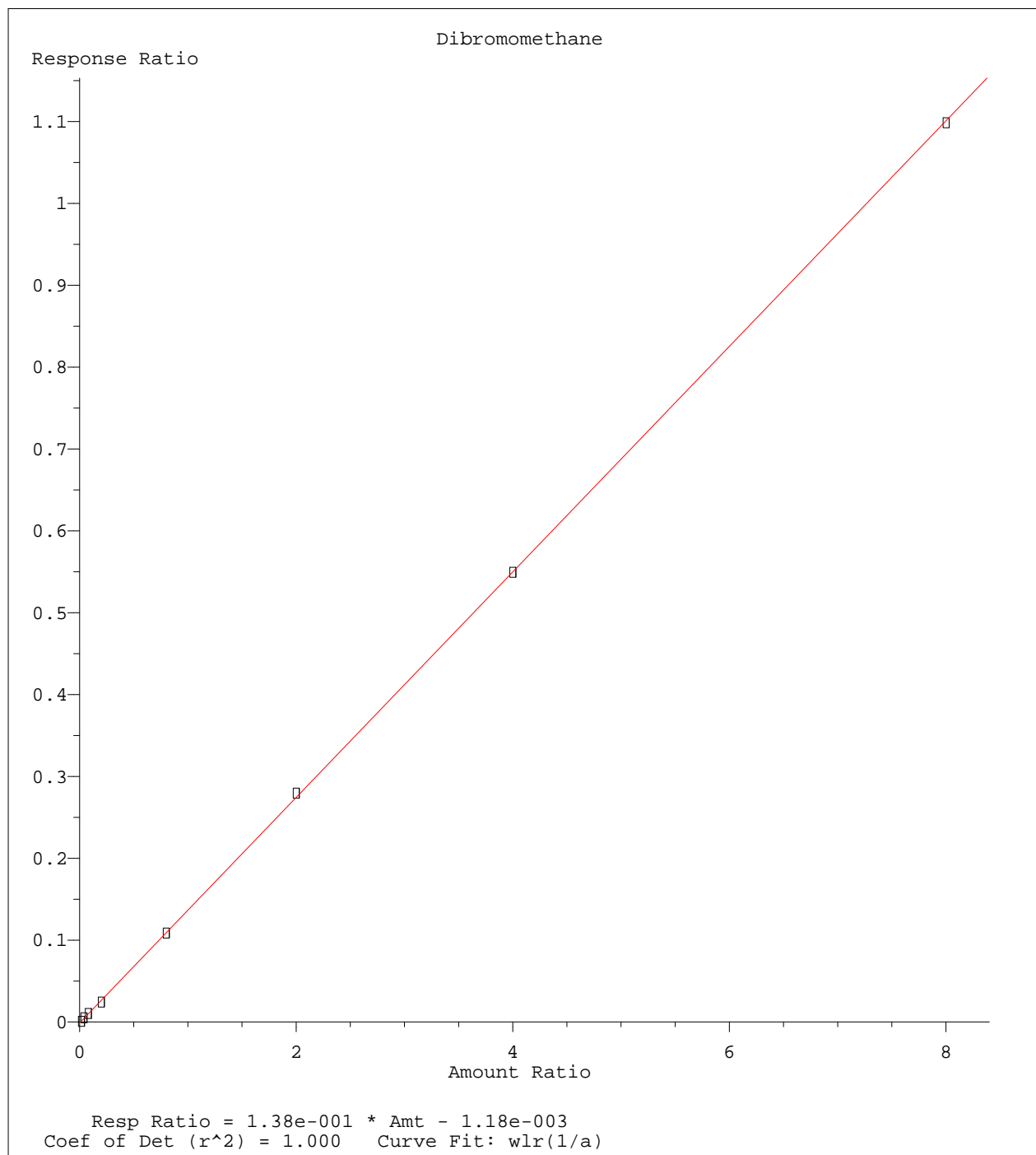
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Calibration Table Last Updated: Wed Apr 25 15:22:20 2012



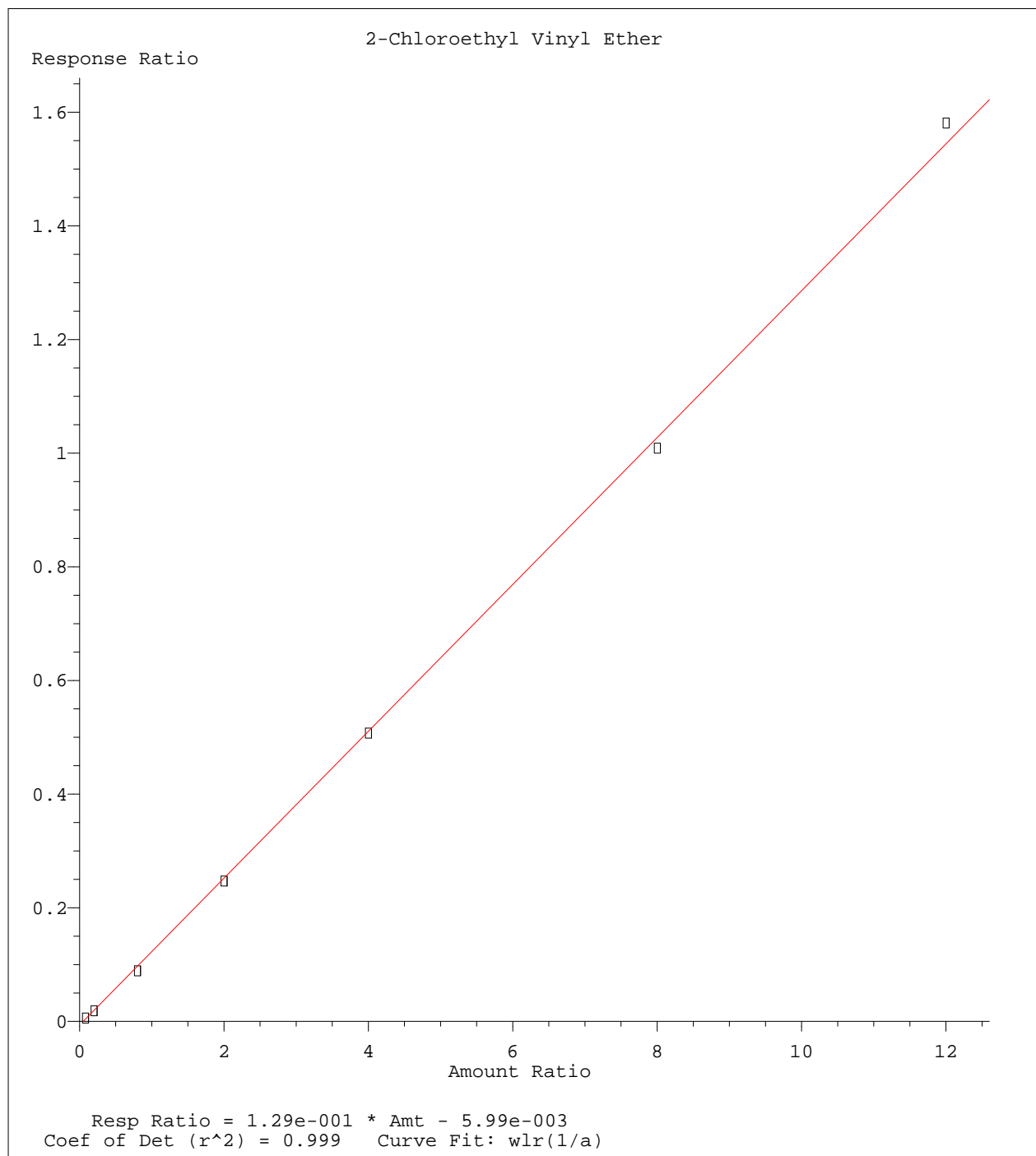
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Calibration Table Last Updated: Wed Apr 25 15:22:20 2012



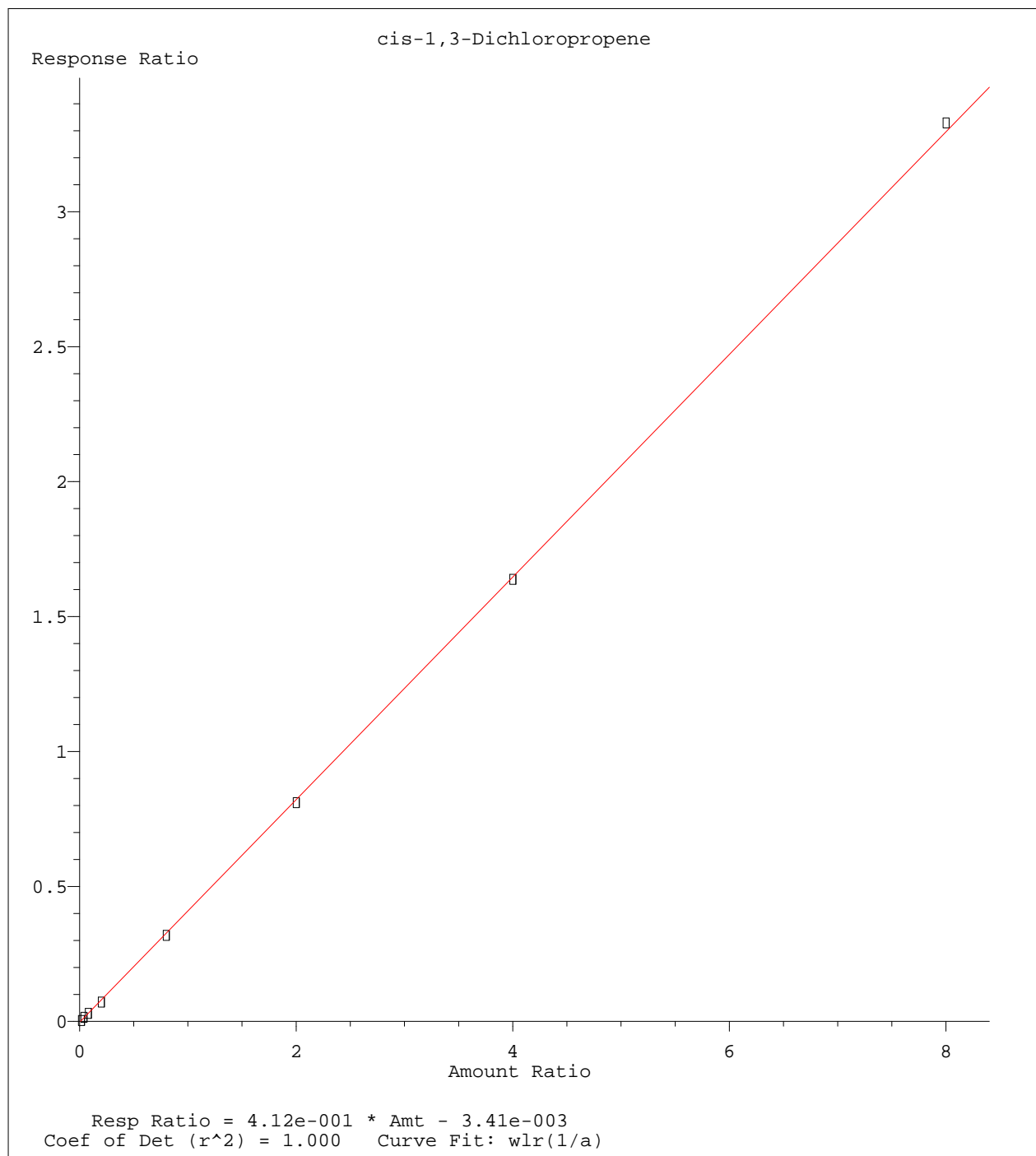
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 Calibration Table Last Updated: Wed Apr 25 15:22:20 2012



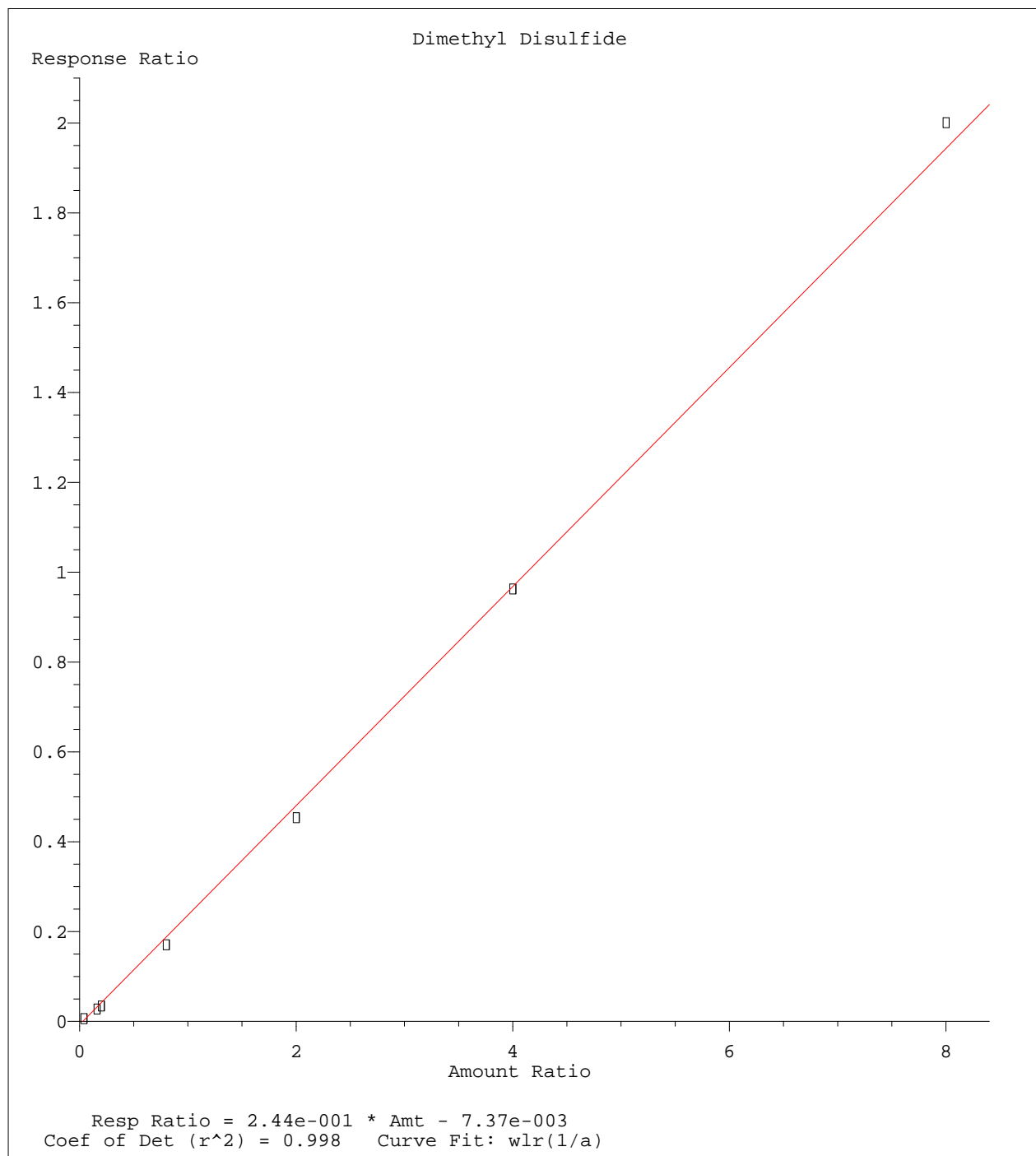
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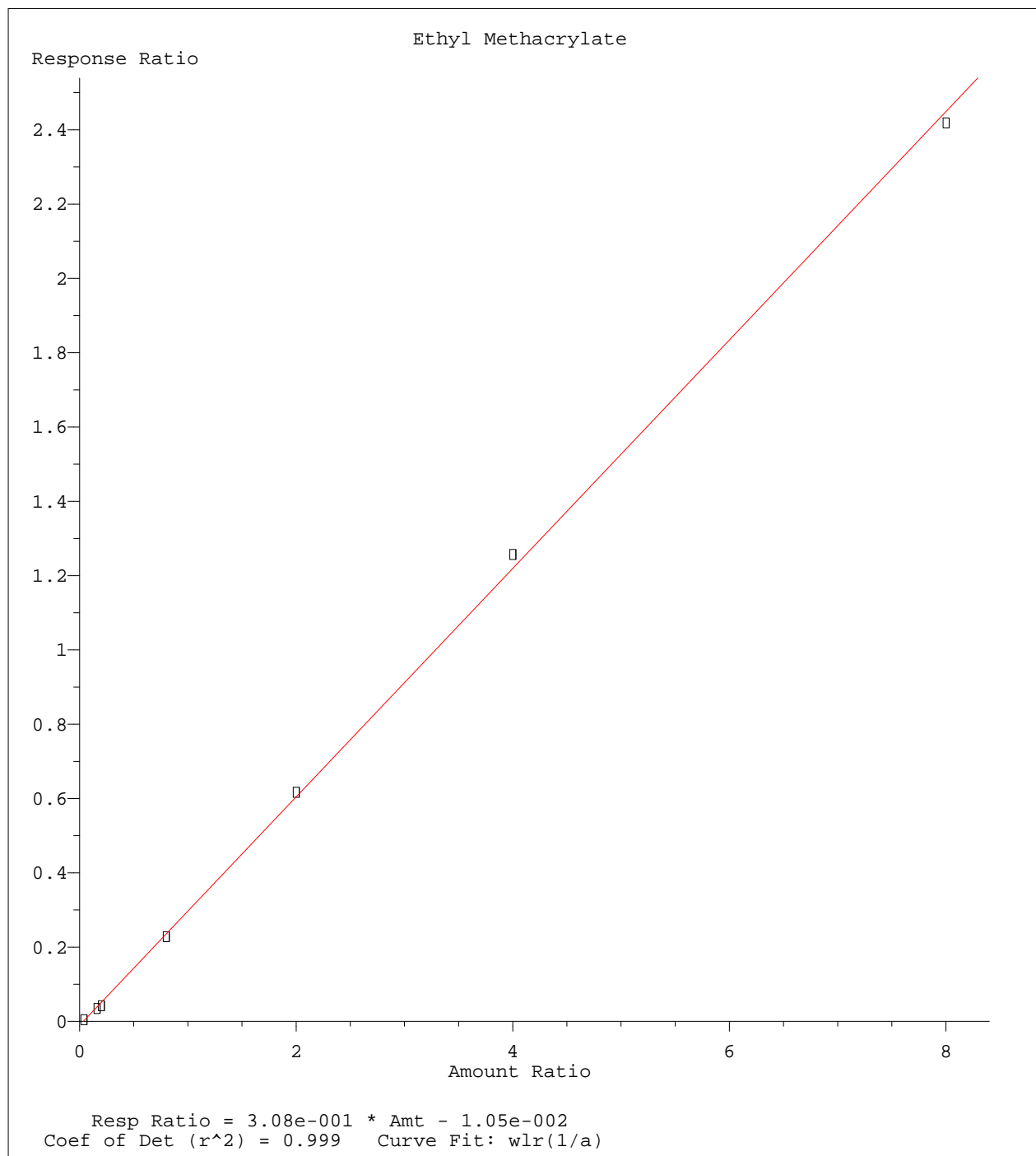
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Calibration Table Last Updated: Wed Apr 25 15:22:20 2012



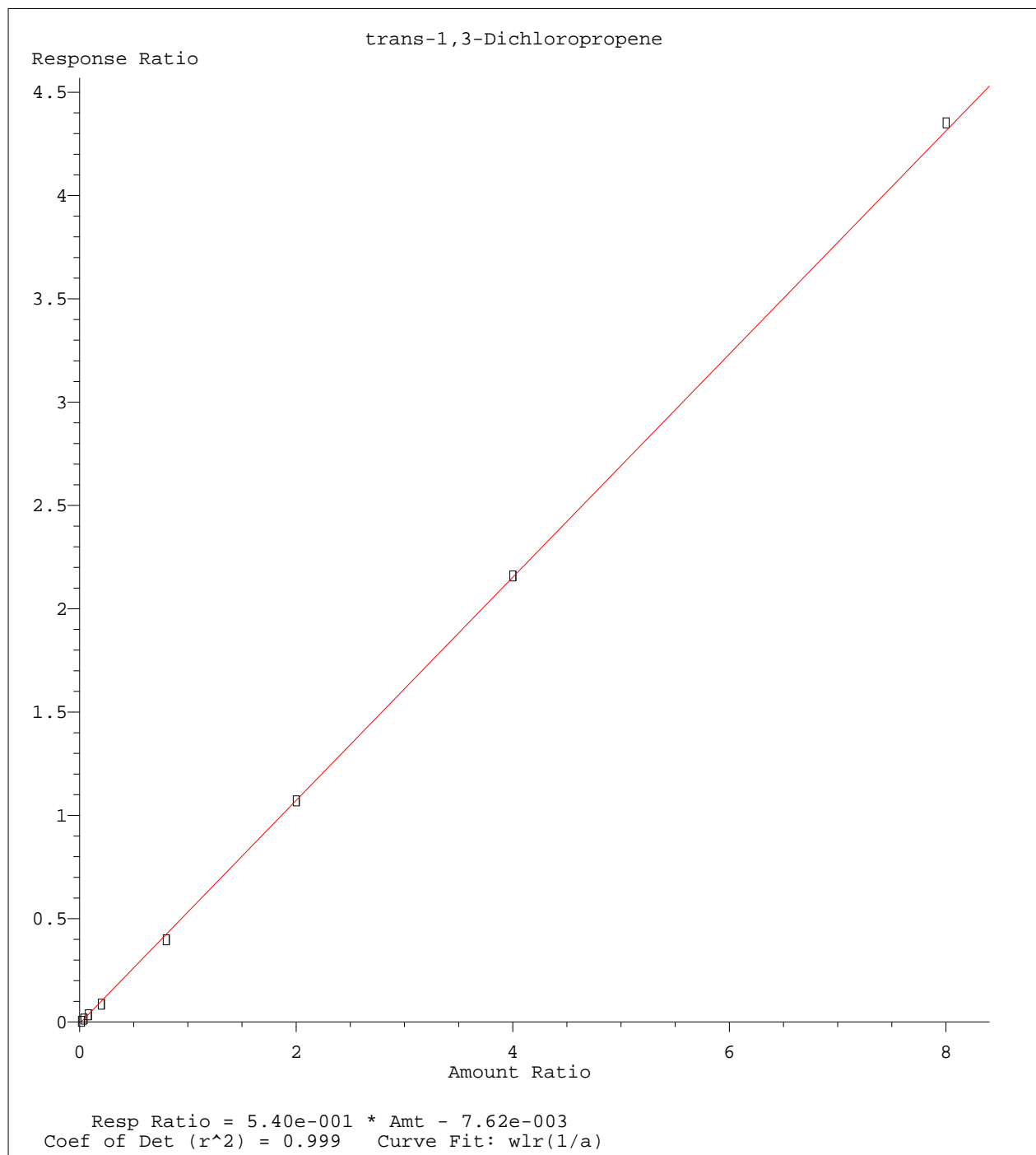
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Calibration Table Last Updated: Wed Apr 25 15:22:20 2012



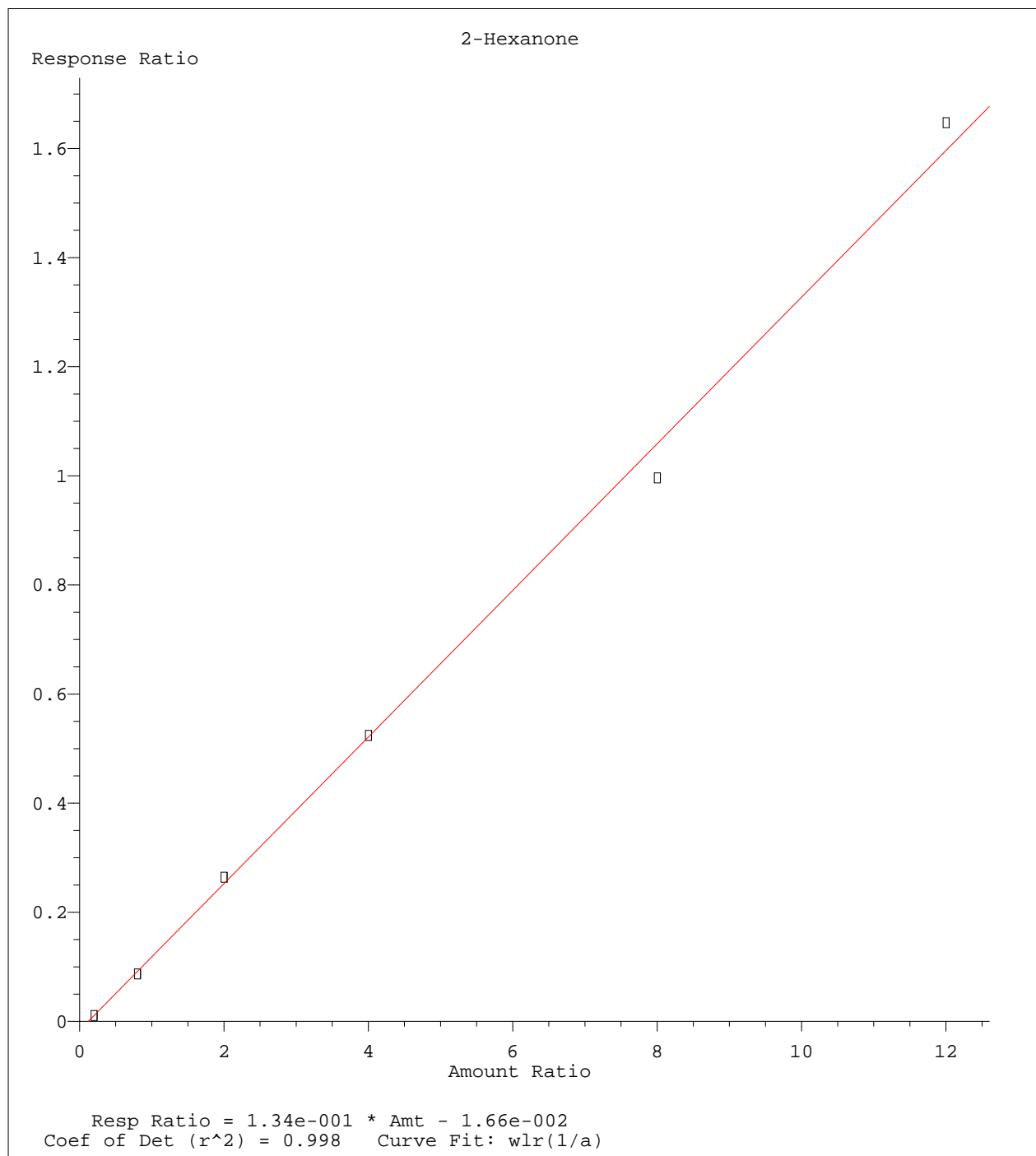
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 Calibration Table Last Updated: Wed Apr 25 15:22:20 2012



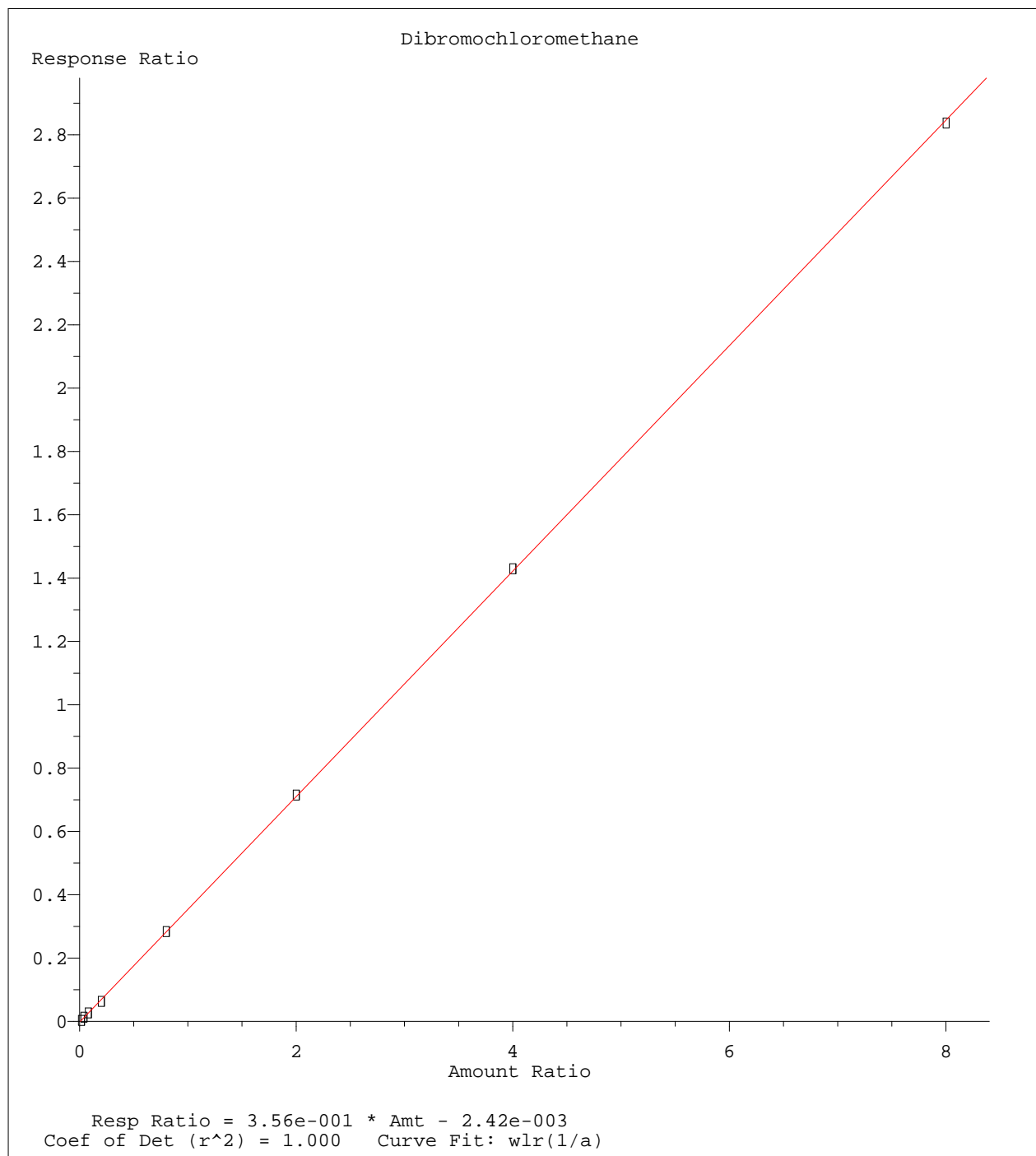
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Calibration Table Last Updated: Wed Apr 25 15:22:20 2012



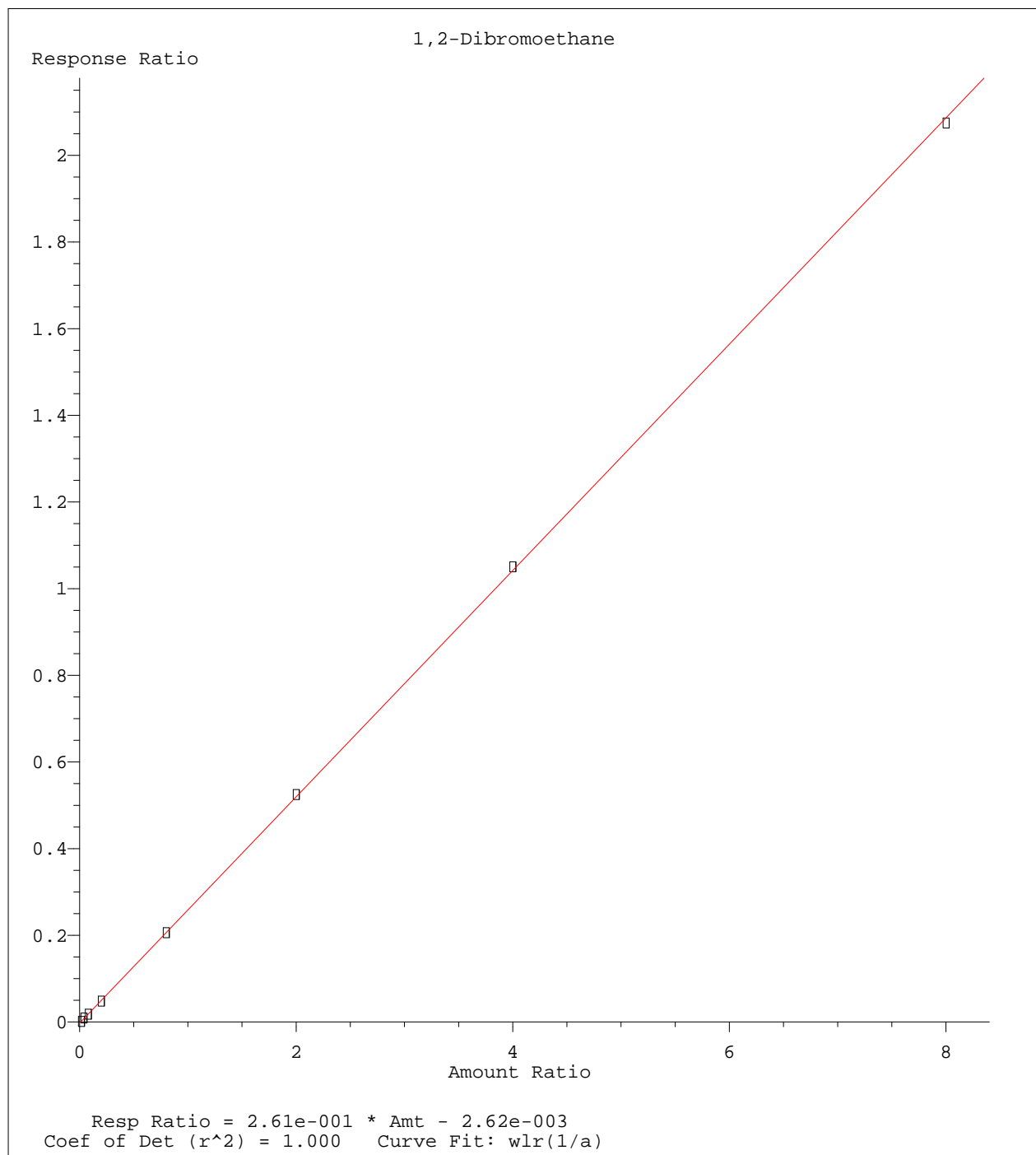
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Calibration Table Last Updated: Wed Apr 25 15:22:20 2012



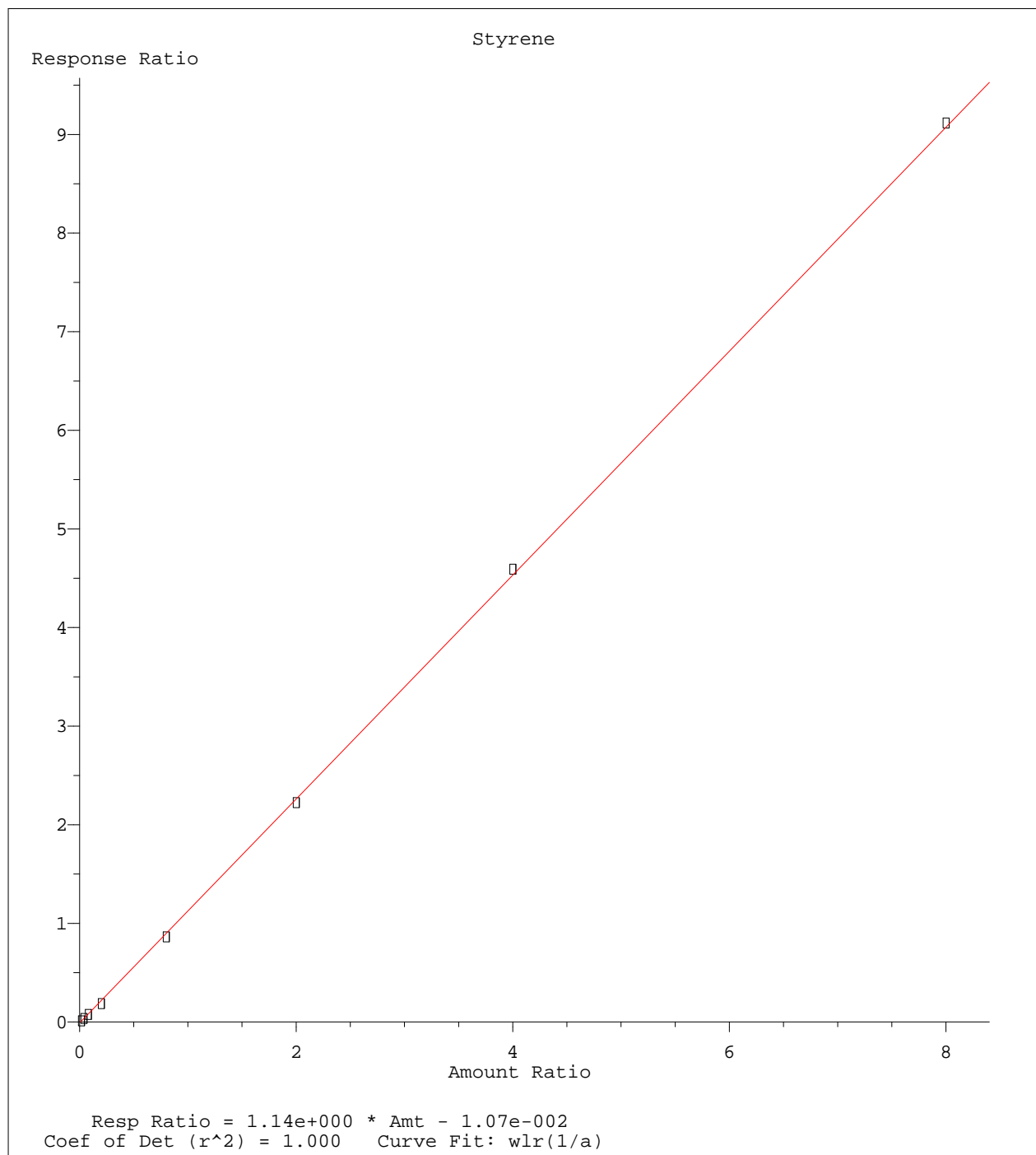
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Calibration Table Last Updated: Wed Apr 25 15:22:20 2012



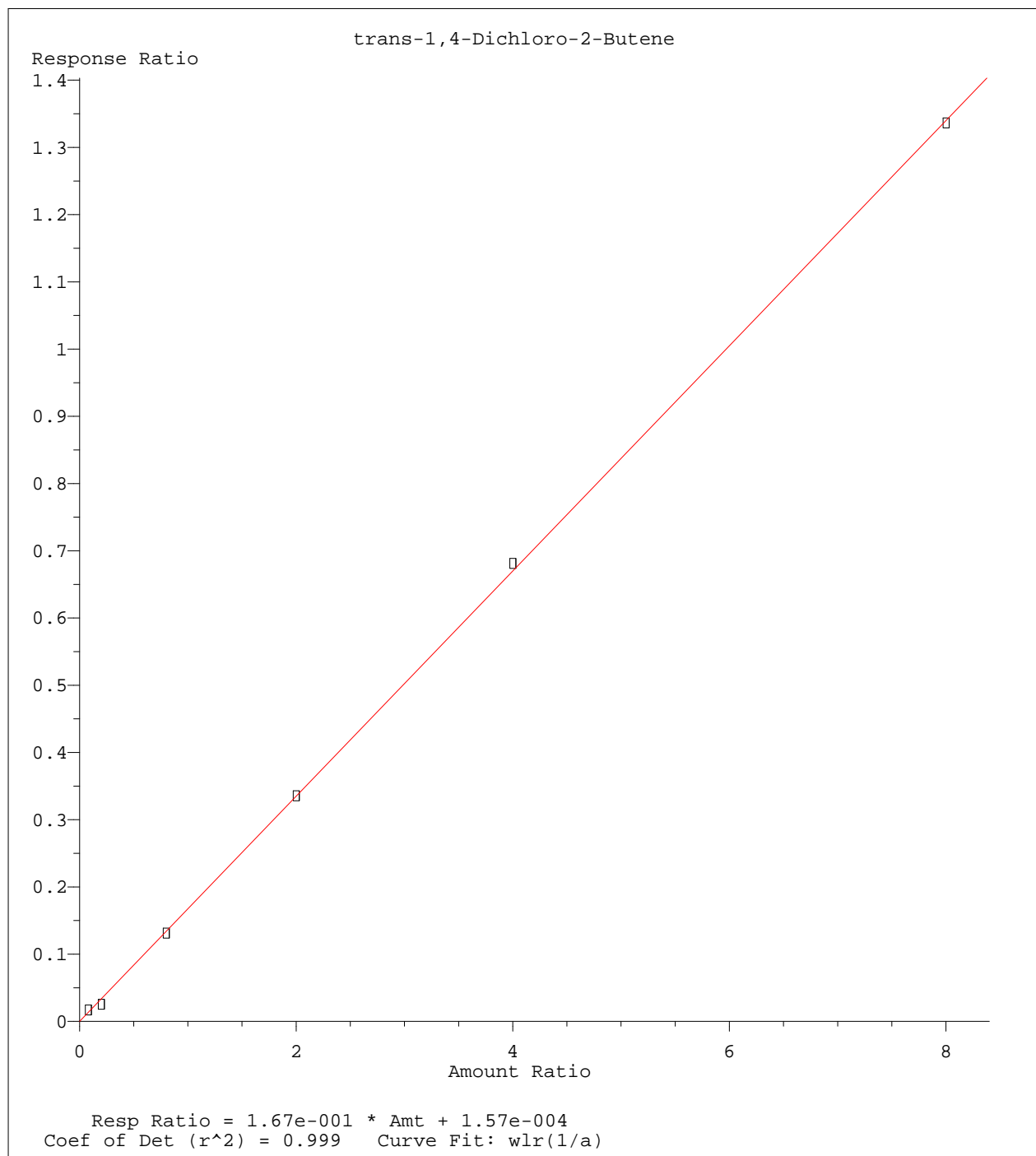
Method Name: C:\MSDCHEM\1\METHODS\8260WTR.M
Calibration Table Last Updated: Wed Apr 25 15:22:20 2012



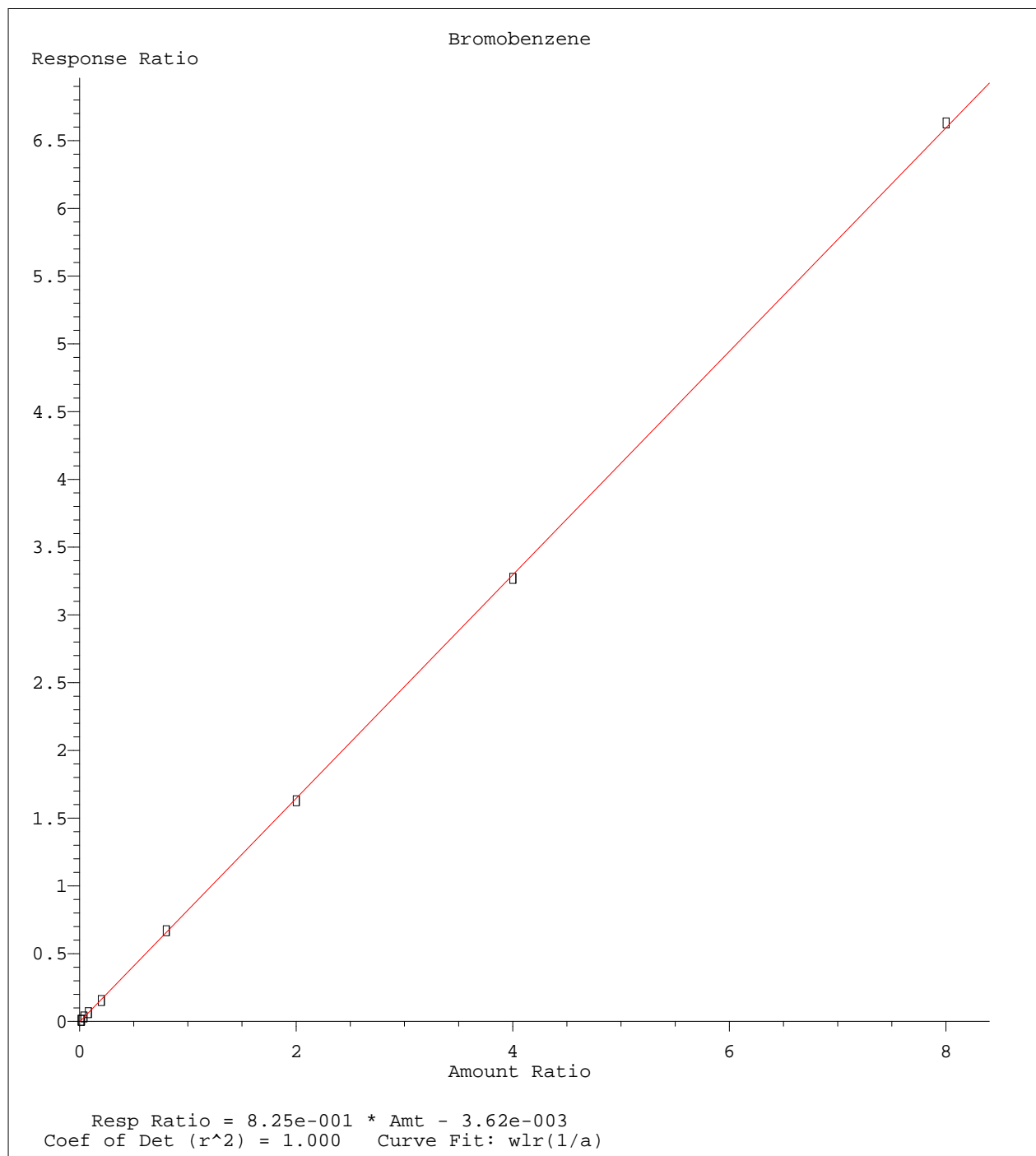
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Calibration Table Last Updated: Wed Apr 25 15:22:20 2012



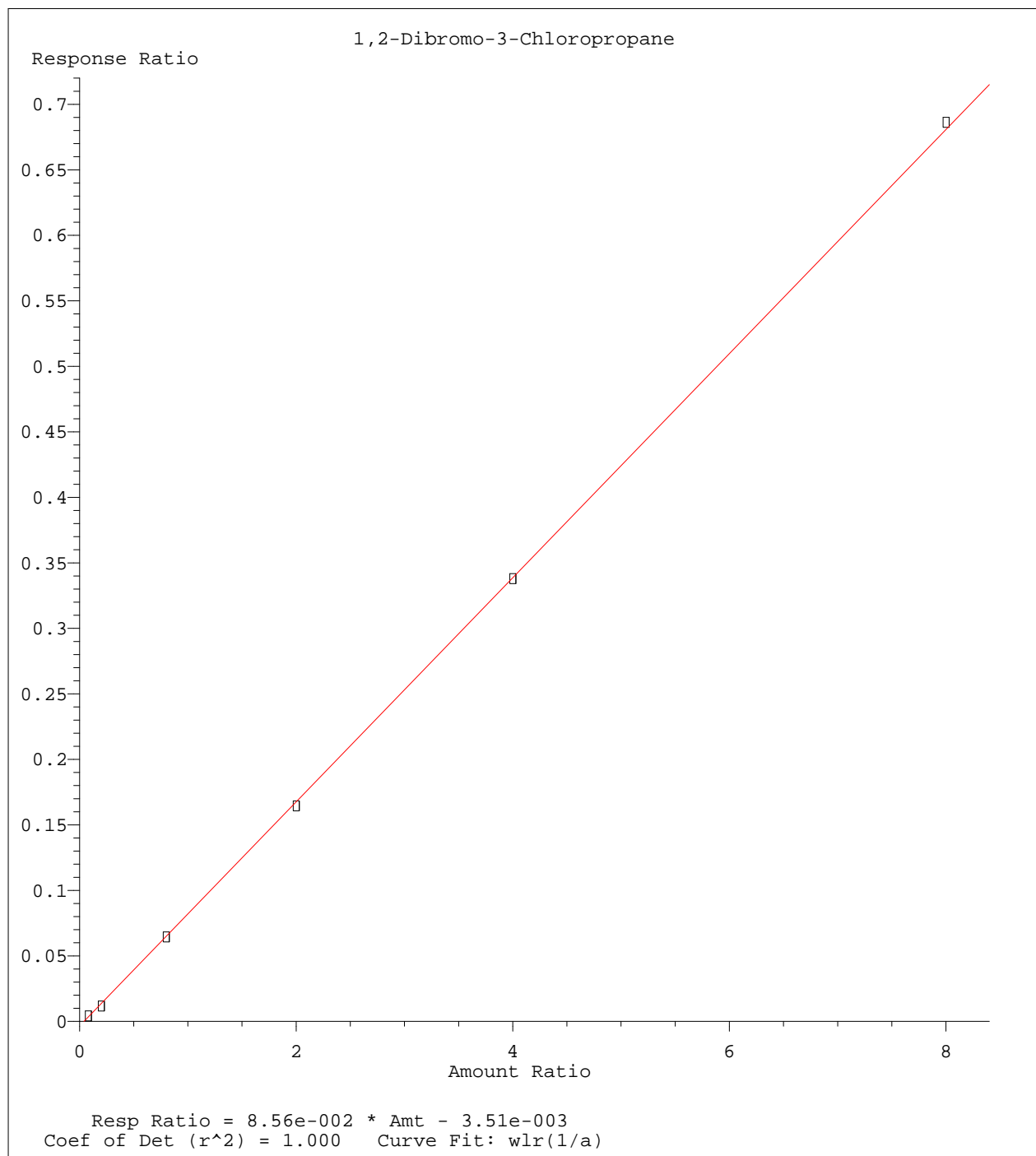
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Calibration Table Last Updated: Wed Apr 25 15:22:20 2012



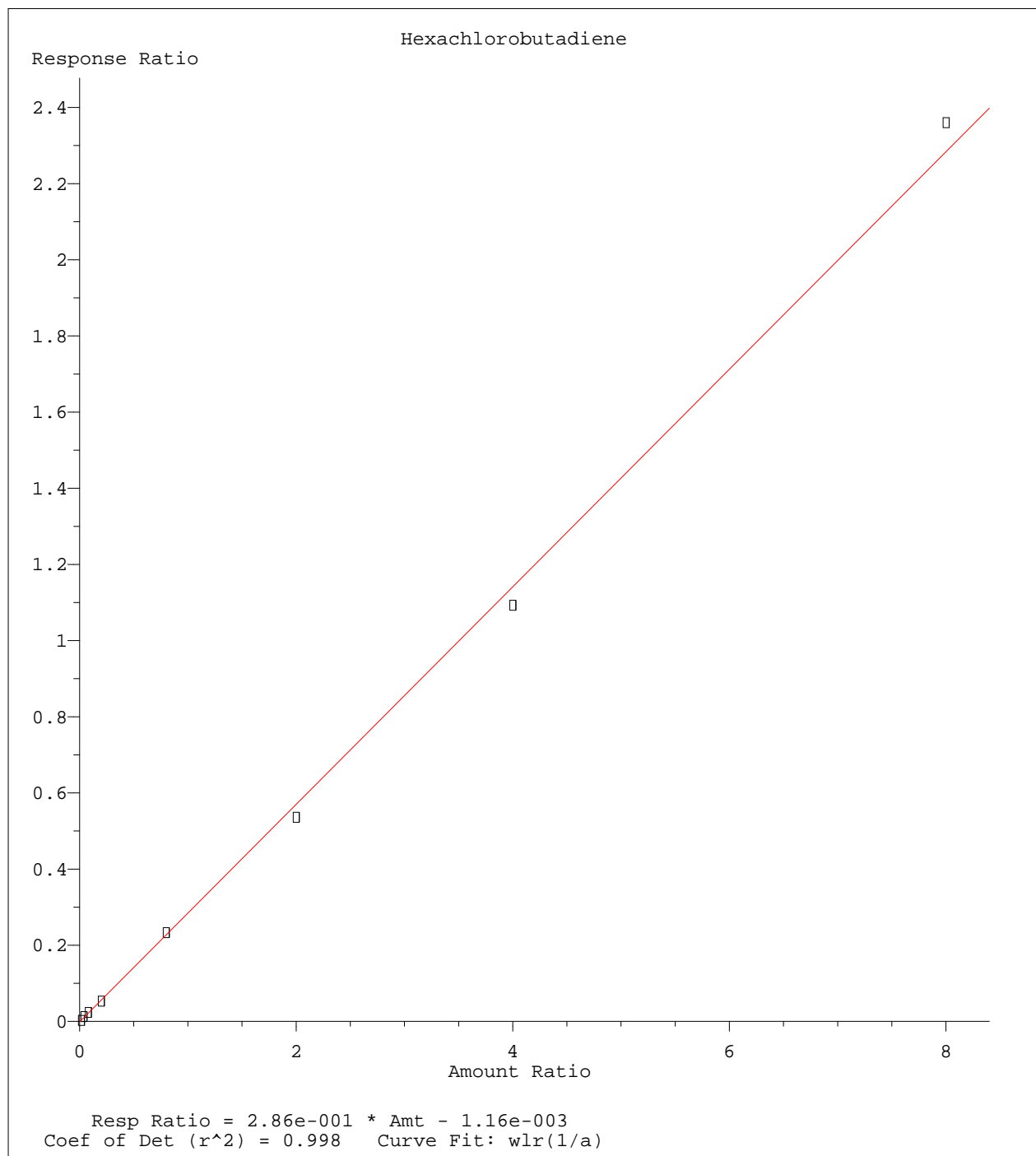
Method Name: C:\MSDCHEM\1\METHODS\8260WTR.M
 Calibration Table Last Updated: Wed Apr 25 15:22:20 2012



Method Name: C:\MSDCHEM\1\METHODS\8260WTR.M
Calibration Table Last Updated: Wed Apr 25 15:22:20 2012



Method Name: C:\MSDCHEM\1\METHODS\8260WTR.M
Calibration Table Last Updated: Wed Apr 25 15:22:20 2012



Method Name: C:\MSDCHEM\1\METHODS\8260WTR.M
Calibration Table Last Updated: Wed Apr 25 15:22:20 2012

Data File : C:\MSDCHEM\1\DATA\042512\6M107650.D Vial: 14
 Acq On : 25 Apr 2012 15:46 Operator: ADC
 Sample : WG396001-12 50.0 ug/L ALT SRC 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 16:09:39 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	627054	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.04	117	415006	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	203934	25.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Dibromofluoromethane	9.35	111	177547	26.1499	ug/L	0.00
Spiked Amount	25.000	Range 86 - 118	Recovery	=	104.60%	
43) 1,2-Dichloroethane-d4	10.07	65	177652	26.6610	ug/L	0.00
Spiked Amount	25.000	Range 80 - 120	Recovery	=	106.64%	
58) Toluene-d8	12.83	98	600469	26.6223	ug/L	0.00
Spiked Amount	25.000	Range 88 - 110	Recovery	=	106.48%	
80) p-Bromofluorobenzene	16.81	95	216971	27.1131	ug/L	0.00
Spiked Amount	25.000	Range 86 - 115	Recovery	=	108.44%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	2.72	85	463366	56.3361	ug/L	99
3) Chloromethane	3.11	50	589734	52.5093	ug/L	100
4) Vinyl Chloride	3.30	62	466091	44.8042	ug/L	99
5) 1,3-Butadiene	3.34	54	247860	47.1687	ug/L	99
6) Bromomethane	4.10	94	260778	44.2393	ug/L	100
7) Chloroethane	4.25	64	272240	46.2555	ug/L	99
8) Trichlorofluoromethane	4.73	101	599507	44.8218	ug/L	100
9) Diethyl ether	5.27	59	455104	100.1402	ug/L	99
10) Isoprene	5.30	67	511583	44.9807	ug/L	100
11) Acrolein	5.51	56	16740	56.3651	ug/L	100
12) 1,1,2-Trichloro-1,2,2-Trif	5.52	101	324004	45.2897	ug/L	99
13) Acetone	5.61	43	51583	43.4154	ug/L	95
14) 1,1-Dichloroethene	5.84	61	561416	48.8081	ug/L	99
15) Tert-Butyl Alcohol	5.98	59	59945	193.2579	ug/L	99
16) Dimethyl Sulfide	6.11	62	367255	40.2176	ug/L	100
17) Iodomethane	6.37	142	211784	32.2024	ug/L	99
18) Methyl acetate	6.42	43	188823	40.2696	ug/L	99
19) Methylene Chloride	6.67	84	336889	47.2849	ug/L	100
20) Carbon Disulfide	6.68	76	980289	47.0388	ug/L	100
21) Acrylonitrile	6.88	53	80798	50.4724	ug/L	98
22) Methyl Tert Butyl Ether	6.92	73	705537	47.0046	ug/L	100
23) trans-1,2-Dichloroethene	7.16	96	332046	47.7230	ug/L	100
24) n-Hexane	7.27	57	402378	50.4121	ug/L	99
25) Diisopropyl ether	7.65	45	2567846	101.3116	ug/L	100
26) Vinyl Acetate	7.84	43	586547	159.8534	ug/L	99
27) 1,1-Dichloroethane	7.85	63	672907	47.3365	ug/L	100
28) Ethyl-Tert-Butyl ether	8.30	59	2007921	97.4807	ug/L	100
29) 2-Butanone	8.48	43	87992	52.9631	ug/L	97
30) Propionitrile	8.60	54	52192	109.8353	ug/L	94
31) 2,2-Dichloropropane	8.72	77	552731	51.4320	ug/L	99
32) cis-1,2-Dichloroethene	8.79	96	361481	49.7214	ug/L	99
33) Chloroform	9.02	83	613189	47.7266	ug/L	100
34) 1-Bromopropane	9.18	122	71916	54.5003	ug/L	99
35) Bromochloromethane	9.28	130	197810	51.0781	ug/L	98
36) Tetrahydrofuran	9.31	42	112925	103.3592	ug/L	98
38) 1,1,1-Trichloroethane	9.61	97	548064	48.8330	ug/L	100
39) Cyclohexane	9.65	56	560998	49.8960	ug/L	99
40) 1,1-Dichloropropene	9.85	75	470661	50.8346	ug/L	99
41) Tert-Amyl-Methyl ether	9.99	73	1573902	102.6272	ug/L	99
42) Carbon Tetrachloride	10.00	117	500129	50.3450	ug/L	99

(#) = qualifier out of range (m) = manual integration
 6M107650.D 8260WTR.M Thu Apr 26 08:08:19 2012

Data File : C:\MSDCHEM\1\DATA\042512\6M107650.D Vial: 14
 Acq On : 25 Apr 2012 15:46 Operator: ADC
 Sample : WG396001-12 50.0 ug/L ALT SRC 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 25 16:09:39 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) 1,2-Dichloroethane	10.22	62	427893	48.4840	ug/L	99
46) Benzene	10.25	78	1331878	48.0792	ug/L	100
47) Trichloroethene	11.12	130	338809	48.7622	ug/L	100
48) Methylcyclohexane	11.21	83	416357	51.9602	ug/L	99
49) 1,2-Dichloropropane	11.37	63	359097	50.2094	ug/L	99
50) 1,4-Dioxane	11.73	88	3886	181.6561	ug/L	84
51) Bromodichloromethane	11.71	83	444712	51.7639	ug/L	100
52) Dibromomethane	11.80	93	168561	48.9820	ug/L	99
53) 2-Chloroethyl Vinyl Ether	12.11	63	140721	44.5749	ug/L	99
54) 4-Methyl-2-Pentanone	12.14	58	66644	53.4397	ug/L	98
55) cis-1,3-Dichloropropene	12.46	75	493966	47.9606	ug/L	100
56) Dimethyl Disulfide	12.75	79	271324	45.1120	ug/L	99
59) Toluene	12.94	91	1330075	48.7704	ug/L	100
60) Ethyl Methacrylate	13.12	69	260530	51.8919	ug/L	100
61) Paraldehyde	13.18	89	6616	90.3498	ug/L #	16
62) trans-1,3-Dichloropropene	13.18	75	388308	43.6637	ug/L	99
63) 1,1,2-Trichloroethane	13.41	97	217948	49.7561	ug/L	99
64) 2-Hexanone	13.38	43	101833	48.7242	ug/L	99
65) 1,3-Dichloropropane	13.78	76	394352	52.7907	ug/L	100
66) Tetrachloroethene	13.89	166	309061	48.5237	ug/L	98
67) Dibromochloromethane	14.20	129	279255	47.4095	ug/L	98
68) 1,2-Dibromoethane	14.50	107	212512	49.2702	ug/L	99
69) 1-Chlorohexane	14.66	91	384076	53.1826	ug/L	100
70) Chlorobenzene	15.09	112	813540	46.9477	ug/L	98
71) 1,1,1,2-Tetrachloroethane	15.14	131	306212	49.0735	ug/L	99
72) Ethylbenzene	15.15	106	446875	49.9956	ug/L	100
73) m-,p-Xylene	15.25	106	1095197	100.2316	ug/L	100
74) o-Xylene	15.90	106	508358	48.8595	ug/L	99
75) Styrene	15.96	104	899501	47.9533	ug/L	98
76) Bromoform	16.50	173	154270	52.2808	ug/L	99
77) Isopropylbenzene	16.43	105	1133027	43.7541	ug/L	100
79) 1,1,2,2-Tetrachloroethane	16.68	83	226800	52.5913	ug/L	98
81) 1,2,3-Trichloropropane	16.90	110	63769	57.3510	ug/L	98
82) trans-1,4-Dichloro-2-Butene	16.98	53	64366	47.0861	ug/L	100
83) n-Propylbenzene	17.02	91	1489148	49.6949	ug/L	100
84) Bromobenzene	17.13	156	322518	48.0502	ug/L	100
85) 1,3,5-Trimethylbenzene	17.25	105	1015062	49.6525	ug/L	99
86) 2-Chlorotoluene	17.31	91	951762	47.8354	ug/L	99
87) 4-Chlorotoluene	17.38	91	932263	46.6080	ug/L	100
88) a-Methylstyrene	17.72	118	576379	54.9770	ug/L	95
89) tert-Butylbenzene	17.79	134	191139	46.2944	ug/L	100
90) 1,2,4-Trimethylbenzene	17.84	105	1108696	51.2959	ug/L	99
91) sec-Butylbenzene	18.11	105	1131650	48.6979	ug/L	99
92) p-Isopropyltoluene	18.30	119	939170	50.3138	ug/L	100
93) 1,3-Dichlorobenzene	18.49	146	567527	48.1845	ug/L	99
94) 1,4-Dichlorobenzene	18.65	146	576032	46.6327	ug/L	100
95) n-Butylbenzene	18.93	91	829549	51.0159	ug/L	100
96) 1,2-Dichlorobenzene	19.22	146	506587	47.5885	ug/L	100
97) 1,2-Dibromo-3-Chloropropane	20.40	75	32790	48.0112	ug/L	98
98) 1,2,4-Trichlorobenzene	21.75	180	281879	48.6487	ug/L	99
99) Hexachlorobutadiene	21.95	225	103566	44.5588	ug/L	99
100) Naphthalene	22.16	128	567608	51.4471	ug/L	100
101) 1,2,3-Trichlorobenzene	22.54	180	242392	48.1315	ug/L	97

(#) = qualifier out of range (m) = manual integration
 6M107650.D 8260WTR.M Thu Apr 26 08:08:19 2012

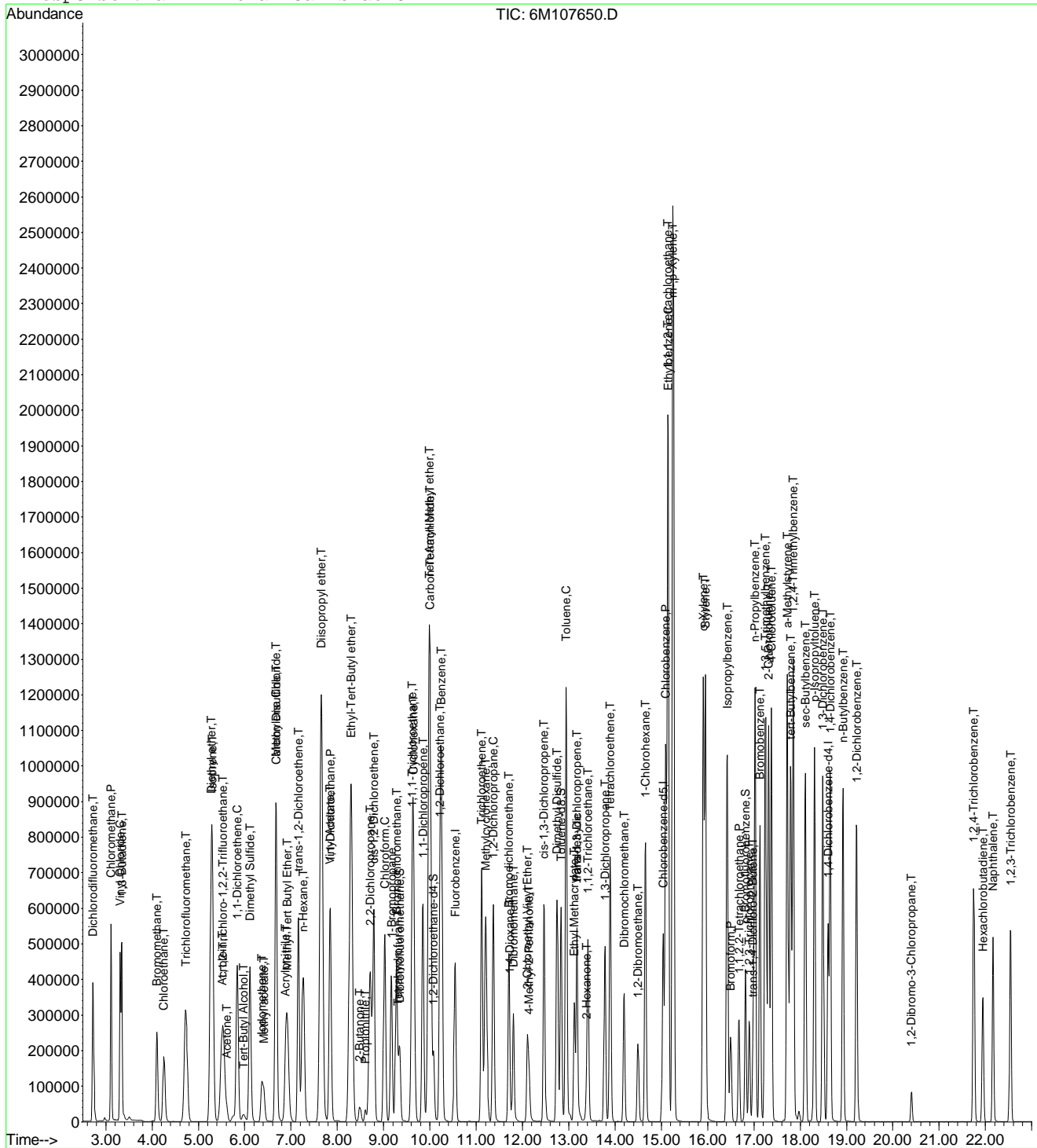
Page 2

Data File : C:\MSDCHEM\1\DATA\042512\6M107650.D
Acq On : 25 Apr 2012 15:46
Sample : WG396001-12 50.0 ug/L ALT SRC 8260
Misc : 1,1 STD51130
MS Integration Params: RTEINT.P
Quant Time: Apr 25 16:09 2012

Vial: 14
Operator: ADC
Inst : HPMS6
Multiplr: 1.00

Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
Last Update : Wed Apr 25 15:22:20 2012
Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\042512\6M107650.D Vial: 14
 Acq On : 25 Apr 2012 15:46 Operator: ADC
 Sample : WG396001-12 50.0 ug/L ALT SRC 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Fluorobenzene	25.0000	25.0000	0.0	101	0.00
2 T	Dichlorodifluoromethane	50.0000	56.3361	-12.7	119	0.00
3 P	Chloromethane	50.0000	52.5093	-5.0	105	0.00
4 C	Vinyl Chloride	50.0000	44.8042	10.4	104	0.00
5 T	1,3-Butadiene	50.0000	47.1687	5.7	89	0.00
6 T	Bromomethane	50.0000	44.2393	11.5	97	0.00
7 T	Chloroethane	50.0000	46.2555	7.5	96	0.00
8 T	Trichlorofluoromethane	50.0000	44.8218	10.4	94	0.00
9 T	Diethyl ether	100.0000	100.1402	-0.1	102	0.01
10 T	Isoprene	50.0000	44.9807	10.0	90	0.00
11 T	Acrolein	100.0000	56.3652	43.6#	63	0.01
12 T	1,1,2-Trichloro-1,2,2-Trifl	50.0000	45.2897	9.4	95	0.00
13 T	Acetone	50.0000	43.4154	13.2	89	0.00
14 C	1,1-Dichloroethene	50.0000	48.8081	2.4	97	0.00
15 T	Tert-Butyl Alcohol	200.0000	193.2579	3.4	99	0.00
16 T	Dimethyl Sulfide	50.0000	40.2176	19.6	82	0.00
17 T	Iodomethane	50.0000	32.2024	35.6#	58	0.00
18 T	Methyl acetate	50.0000	40.2696	19.5	80	0.01
19 T	Methylene Chloride	50.0000	47.2849	5.4	99	0.00
20 T	Carbon Disulfide	50.0000	47.0388	5.9	96	0.00
21 T	Acrylonitrile	50.0000	50.4724	-0.9	96	0.00
22 T	Methyl Tert Butyl Ether	50.0000	47.0046	6.0	97	0.01
23 T	trans-1,2-Dichloroethene	50.0000	47.7229	4.6	96	0.00
24 T	n-Hexane	50.0000	50.4121	-0.8	102	0.00
25 T	Diisopropyl ether	100.0000	101.3116	-1.3	101	0.00
26 T	Vinyl Acetate	50.0000	159.8534	-219.7#	321	0.00
27 P	1,1-Dichloroethane	50.0000	47.3365	5.3	98	0.00
28 T	Ethyl-Tert-Butyl ether	100.0000	97.4807	2.5	97	0.01
29 T	2-Butanone	50.0000	52.9631	-5.9	103	0.00
30 T	Propionitrile	100.0000	109.8353	-9.8	105	0.00
31 T	2,2-Dichloropropane	50.0000	51.4320	-2.9	107	0.00
32 T	cis-1,2-Dichloroethene	50.0000	49.7214	0.6	99	0.00
33 C	Chloroform	50.0000	47.7266	4.5	99	0.00
34	1-Bromopropane	50.0000	54.5003	-9.0	114	0.00
35 T	Bromochloromethane	50.0000	51.0781	-2.2	101	0.00
36 T	Tetrahydrofuran	100.0000	103.3593	-3.4	101	0.00
37 S	Dibromofluoromethane	25.0000	26.1499	-4.6	102	0.00
38 T	1,1,1-Trichloroethane	50.0000	48.8330	2.3	98	0.00
39 T	Cyclohexane	50.0000	49.8960	0.2	101	0.00
40 T	1,1-Dichloropropene	50.0000	50.8346	-1.7	99	0.00
41 T	Tert-Amyl-Methyl ether	100.0000	102.6272	-2.6	102	0.00
42 T	Carbon Tetrachloride	50.0000	50.3450	-0.7	99	0.00
43 S	1,2-Dichloroethane-d4	25.0000	26.6610	-6.6	104	0.00
44	Heptane	-1.0000	0.0000	0.0	103	0.00
45 T	1,2-Dichloroethane	50.0000	48.4840	3.0	98	0.00
46 T	Benzene	50.0000	48.0792	3.8	99	0.00
47 T	Trichloroethene	50.0000	48.7622	2.5	97	0.00
48 T	Methylcyclohexane	50.0000	51.9602	-3.9	104	0.00
49 C	1,2-Dichloropropane	50.0000	50.2094	-0.4	100	0.00
50 T	1,4-Dioxane	200.0000	181.6561	9.2	79	0.01
51 T	Bromodichloromethane	50.0000	51.7640	-3.5	102	0.00
52 T	Dibromomethane	50.0000	48.9820	2.0	97	0.00
53 T	2-Chloroethyl Vinyl Ether	50.0000	44.5749	10.9	92	0.00
54 T	4-Methyl-2-Pentanone	50.0000	53.4397	-6.9	99	0.00

(#) = Out of Range

6M107650.D 8260WTR.M

Thu Apr 26 08:08:12 2012

Page 1

Data File : C:\MSDCHEM\1\DATA\042512\6M107650.D Vial: 14
 Acq On : 25 Apr 2012 15:46 Operator: ADC
 Sample : WG396001-12 50.0 ug/L ALT SRC 8260 Inst : HPMS6
 Misc : 1,1 STD51130 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
55 T	cis-1,3-Dichloropropene	50.0000	47.9606	4.1	98	0.00
56 T	Dimethyl Disulfide	50.0000	45.1120	9.8	97	0.00
57 I	Chlorobenzene-d5	25.0000	25.0000	0.0	102	0.00
58 S	Toluene-d8	25.0000	26.6223	-6.5	106	0.00
59 C	Toluene	50.0000	48.7704	2.5	99	0.00
60 T	Ethyl Methacrylate	50.0000	51.8918	-3.8	104	0.00
61	Paraldehyde	100.0000	90.3498	9.7	86	0.01
62 T	trans-1,3-Dichloropropene	50.0000	43.6637	12.7	89	0.00
63 T	1,1,2-Trichloroethane	50.0000	49.7561	0.5	99	0.00
64 T	2-Hexanone	50.0000	48.7242	2.6	94	0.00
65 T	1,3-Dichloropropane	50.0000	52.7907	-5.6	100	0.00
66 T	Tetrachloroethene	50.0000	48.5237	3.0	97	0.00
67 T	Dibromochloromethane	50.0000	47.4095	5.2	96	0.00
68 T	1,2-Dibromoethane	50.0000	49.2702	1.5	99	0.00
69 T	1-Chlorohexane	50.0000	53.1826	-6.4	104	0.00
70 P	Chlorobenzene	50.0000	46.9477	6.1	96	0.00
71 T	1,1,1,2-Tetrachloroethane	50.0000	49.0735	1.9	96	0.00
72 C	Ethylbenzene	50.0000	49.9956	0.0	99	0.00
73 T	m-,p-Xylene	100.0000	100.2316	-0.2	98	0.00
74 T	o-Xylene	50.0000	48.8595	2.3	95	0.00
75 T	Styrene	50.0000	47.9533	4.1	99	0.00
76 P	Bromoform	50.0000	52.2808	-4.6	94	0.00
77 T	Isopropylbenzene	50.0000	43.7541	12.5	86	0.00
78 I	1,4-Dichlorobenzene-d4	25.0000	25.0000	0.0	102	0.00
79 P	1,1,2,2-Tetrachloroethane	50.0000	52.5913	-5.2	100	0.00
80 S	p-Bromofluorobenzene	25.0000	27.1131	-8.5	107	0.00
81 T	1,2,3-Trichloropropane	50.0000	57.3510	-14.7	109	0.00
82 T	trans-1,4-Dichloro-2-Butene	50.0000	47.0861	5.8	96	0.00
83 T	n-Propylbenzene	50.0000	49.6949	0.6	100	0.00
84 T	Bromobenzene	50.0000	48.0502	3.9	99	0.00
85 T	1,3,5-Trimethylbenzene	50.0000	49.6525	0.7	99	0.00
86 T	2-Chlorotoluene	50.0000	47.8354	4.3	98	0.00
87 T	4-Chlorotoluene	50.0000	46.6080	6.8	94	0.00
88 T	a-Methylstyrene	50.0000	54.9770	-10.0	104	0.00
89 T	tert-Butylbenzene	50.0000	46.2944	7.4	98	0.00
90 T	1,2,4-Trimethylbenzene	50.0000	51.2959	-2.6	102	0.00
91 T	sec-Butylbenzene	50.0000	48.6979	2.6	99	0.00
92 T	p-Isopropyltoluene	50.0000	50.3138	-0.6	101	0.00
93 T	1,3-Dichlorobenzene	50.0000	48.1845	3.6	96	0.00
94 T	1,4-Dichlorobenzene	50.0000	46.6327	6.7	96	0.00
95 T	n-Butylbenzene	50.0000	51.0159	-2.0	101	0.00
96 T	1,2-Dichlorobenzene	50.0000	47.5885	4.8	96	0.00
97 T	1,2-Dibromo-3-Chloropropane	50.0000	48.0112	4.0	99	0.00
98 T	1,2,4-Trichlorobenzene	50.0000	48.6487	2.7	98	0.00
99 T	Hexachlorobutadiene	50.0000	44.5588	10.9	96	0.00
100 T	Naphthalene	50.0000	51.4471	-2.9	98	0.00
101 T	1,2,3-Trichlorobenzene	50.0000	48.1315	3.7	101	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 6M107650.D 8260WTR.M Thu Apr 26 08:08:12 2012

Data File : C:\MSDCHEM\1\data\050612\6M107920.D Vial: 2
 Acq On : 6 May 2012 17:04 Operator: MES
 Sample : WG397129-02 50ug/L CCV STD 8260 Inst : HPMS6
 Misc : 1,1 STD51468 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 06 17:27:09 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	560032	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.03	117	384743	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	190870	25.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Dibromofluoromethane	9.35	111	158996	26.2202	ug/L	0.00
Spiked Amount	25.000	Range 86 - 118	Recovery	=	104.88%	
43) 1,2-Dichloroethane-d4	10.08	65	150228	25.2435	ug/L	0.00
Spiked Amount	25.000	Range 80 - 120	Recovery	=	100.96%	
58) Toluene-d8	12.83	98	523855	25.0524	ug/L	0.00
Spiked Amount	25.000	Range 88 - 110	Recovery	=	100.20%	
80) p-Bromofluorobenzene	16.82	95	198712	26.5309	ug/L	0.00
Spiked Amount	25.000	Range 86 - 115	Recovery	=	106.12%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	2.73	85	387913	52.8067	ug/L	99
3) Chloromethane	3.12	50	600547	59.9600	ug/L	98
4) Vinyl Chloride	3.31	62	441985	47.5716	ug/L	99
5) 1,3-Butadiene	3.34	54	246644	53.3448	ug/L	100
6) Bromomethane	4.11	94	229019	43.5012	ug/L	100
7) Chloroethane	4.25	64	264204	50.2624	ug/L	98
8) Trichlorofluoromethane	4.73	101	570050	47.7200	ug/L	99
9) Diethyl ether	5.27	59	454212	111.9048	ug/L	98
10) Isoprene	5.30	67	503809	49.5984	ug/L	98
11) Acrolein	5.51	56	20547	74.3633	ug/L	97
12) 1,1,2-Trichloro-1,2,2-Trif	5.53	101	301956	47.2590	ug/L	99
13) Acetone	5.61	43	54391	51.2573	ug/L	100
14) 1,1-Dichloroethene	5.83	61	521364	50.7505	ug/L	99
15) Tert-Butyl Alcohol	5.97	59	52775	190.5042	ug/L	93
16) Dimethyl Sulfide	6.11	62	415737	50.9753	ug/L	97
17) Iodomethane	6.37	142	289622	49.3081	ug/L	97
18) Methyl acetate	6.41	43	208563	49.8026	ug/L	98
19) Methylene Chloride	6.67	84	317859	49.9530	ug/L	97
20) Carbon Disulfide	6.69	76	955930	51.3594	ug/L	99
21) Acrylonitrile	6.87	53	81964	57.3282	ug/L	100
22) Methyl Tert Butyl Ether	6.91	73	631975	47.1425	ug/L	98
23) trans-1,2-Dichloroethene	7.16	96	311788	50.1742	ug/L	99
24) n-Hexane	7.26	57	387580	54.3693	ug/L	98
25) Diisopropyl ether	7.65	45	2446152	108.0602	ug/L	99
26) Vinyl Acetate	7.83	43	256060	78.1363	ug/L	98
27) 1,1-Dichloroethane	7.84	63	633202	49.8742	ug/L	99
28) Ethyl-Tert-Butyl ether	8.29	59	1886142	102.5270	ug/L	99
29) 2-Butanone	8.49	43	82391	55.5267	ug/L	97
30) Propionitrile	8.60	54	47703	112.4024	ug/L	95
31) 2,2-Dichloropropane	8.71	77	499462	52.0372	ug/L	99
32) cis-1,2-Dichloroethene	8.78	96	336760	51.8645	ug/L	99
33) Chloroform	9.02	83	572667	49.9069	ug/L	99
34) 1-Bromopropane	9.17	122	57126	48.5191	ug/L	98
35) Bromochloromethane	9.27	130	184733	53.4077	ug/L	97
36) Tetrahydrofuran	9.31	42	105078	107.6870	ug/L	98
38) 1,1,1-Trichloroethane	9.62	97	510733	50.9528	ug/L	98
39) Cyclohexane	9.64	56	506211	50.4114	ug/L	99
40) 1,1-Dichloropropene	9.85	75	430233	52.0292	ug/L	97
41) Tert-Amyl-Methyl ether	9.99	73	1364069	99.5894	ug/L	100
42) Carbon Tetrachloride	10.00	117	470085	52.9837	ug/L	99

(#) = qualifier out of range (m) = manual integration
 6M107920.D 8260WTR.M Sun May 06 17:27:09 2012

Data File : C:\MSDCHEM\1\data\050612\6M107920.D Vial: 2
 Acq On : 6 May 2012 17:04 Operator: MES
 Sample : WG397129-02 50ug/L CCV STD 8260 Inst : HPMS6
 Misc : 1,1 STD51468 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 06 17:27:09 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) 1,2-Dichloroethane	10.21	62	398513	50.5590	ug/L	97
46) Benzene	10.24	78	1230004	49.7154	ug/L	100
47) Trichloroethene	11.12	130	314812	50.7308	ug/L	99
48) Methylcyclohexane	11.21	83	373317	52.1645	ug/L	98
49) 1,2-Dichloropropane	11.37	63	331696	51.9285	ug/L	99
50) 1,4-Dioxane	11.71	88	4931	229.2844	ug/L	98
51) Bromodichloromethane	11.71	83	397471	51.8019	ug/L	100
52) Dibromomethane	11.80	93	152871	49.7356	ug/L	98
53) 2-Chloroethyl Vinyl Ether	12.10	63	122753	43.5637	ug/L	100
54) 4-Methyl-2-Pentanone	12.13	58	61607	55.3127	ug/L	96
55) cis-1,3-Dichloropropene	12.47	75	451452	49.0737	ug/L	99
56) Dimethyl Disulfide	12.75	79	247911	46.1347	ug/L	99
59) Toluene	12.95	91	1211290	47.9084	ug/L	100
60) Ethyl Methacrylate	13.12	69	221649	47.6904	ug/L	98
61) Paraldehyde	13.17	89	6312	92.9784	ug/L #	16
62) trans-1,3-Dichloropropene	13.18	75	386738	46.8816	ug/L	99
63) 1,1,2-Trichloroethane	13.42	97	193509	47.6517	ug/L	99
64) 2-Hexanone	13.38	43	105292	53.9867	ug/L	97
65) 1,3-Dichloropropane	13.78	76	345650	49.9107	ug/L	98
66) Tetrachloroethene	13.90	166	293453	49.6972	ug/L	99
67) Dibromochloromethane	14.20	129	262921	48.1448	ug/L	100
68) 1,2-Dibromoethane	14.49	107	191001	47.7739	ug/L	99
69) 1-Chlorohexane	14.66	91	344748	51.4918	ug/L	98
70) Chlorobenzene	15.09	112	765069	47.6234	ug/L	99
71) 1,1,1,2-Tetrachloroethane	15.15	131	286205	49.4750	ug/L	99
72) Ethylbenzene	15.15	106	409949	49.4720	ug/L	99
73) m-,p-Xylene	15.26	106	1013143	100.0154	ug/L	100
74) o-Xylene	15.91	106	474103	49.1513	ug/L	99
75) Styrene	15.95	104	812704	46.7400	ug/L	100
76) Bromoform	16.50	173	148894	54.4279	ug/L	100
77) Isopropylbenzene	16.42	105	1213813	50.5609	ug/L	100
79) 1,1,2,2-Tetrachloroethane	16.68	83	204348	50.6283	ug/L	100
81) 1,2,3-Trichloropropane	16.90	110	50968	48.9757	ug/L	99
82) trans-1,4-Dichloro-2-Butene	16.98	53	63546	49.6693	ug/L	96
83) n-Propylbenzene	17.02	91	1413477	50.3982	ug/L	100
84) Bromobenzene	17.14	156	306834	48.8406	ug/L	99
85) 1,3,5-Trimethylbenzene	17.25	105	949864	49.6434	ug/L	99
86) 2-Chlorotoluene	17.31	91	934368	50.1754	ug/L	99
87) 4-Chlorotoluene	17.38	91	854667	45.6531	ug/L	99
88) a-Methylstyrene	17.72	118	522312	53.2298	ug/L	100
89) tert-Butylbenzene	17.79	134	189017	48.9138	ug/L	96
90) 1,2,4-Trimethylbenzene	17.85	105	1008785	49.8678	ug/L	99
91) sec-Butylbenzene	18.11	105	1118259	51.4153	ug/L	99
92) p-Isopropyltoluene	18.31	119	914524	52.3467	ug/L	100
93) 1,3-Dichlorobenzene	18.49	146	556360	50.4694	ug/L	99
94) 1,4-Dichlorobenzene	18.65	146	557317	48.2057	ug/L	99
95) n-Butylbenzene	18.92	91	820804	53.9331	ug/L	100
96) 1,2-Dichlorobenzene	19.22	146	491712	49.3526	ug/L	98
97) 1,2-Dibromo-3-Chloropropane	20.40	75	31269	48.8985	ug/L	93
98) 1,2,4-Trichlorobenzene	21.75	180	288789	53.2526	ug/L	100
99) Hexachlorobutadiene	21.95	225	111841	51.3970	ug/L	99
100) Naphthalene	22.17	128	520447	50.4012	ug/L	100
101) 1,2,3-Trichlorobenzene	22.54	180	240990	51.1284	ug/L	98

(#) = qualifier out of range (m) = manual integration
 6M107920.D 8260WTR.M Sun May 06 17:27:09 2012

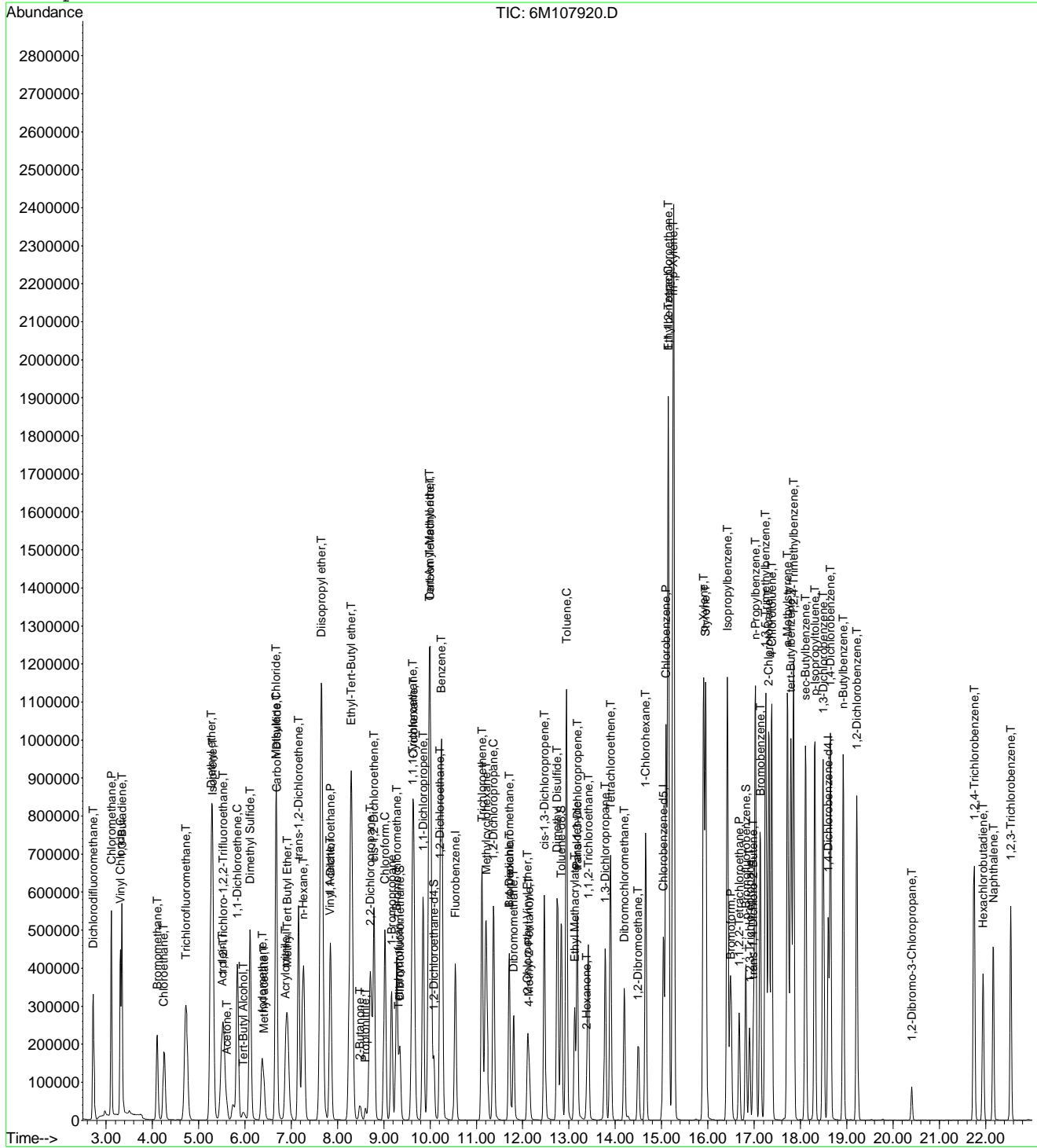
Page 2

Data File : C:\MSDchem\1\data\050612\6M107920.D
 Acq On : 6 May 2012 17:04
 Sample : WG397129-02 50ug/L CCV STD 8260
 Misc : 1,1 STD51468
 MS Integration Params: RTEINT.P
 Quant Time: May 6 17:27 2012

Vial: 2
 Operator: MES
 Inst : HPMS6
 Multiplr: 1.00

Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration



Continuing Calibration Area and RT check

Instrument: HPMS6
Initial cal date: 25 Apr 2012 13:04
CCV date: 6 May 2012 17:04
CCV Filename: 6M107920.D

	Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
	Amount	RT	Amount	RT	Amount	RT
InitCal	619560	10.54	408189	15.03	200465	18.60
CCV	560032	10.54	384743	15.03	190870	18.60

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\050612\6M107920.D
 Acq On : 6 May 2012 17:04
 Sample : WG397129-02 50ug/L CCV STD 8260
 Misc : 1,1 STD51468
 MS Integration Params: RTEINT.P

Vial: 2
 Operator: MES
 Inst : HPMS6
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Fluorobenzene	1.0000	1.0000	0.0	90	0.00
2 T	Dichlorodifluoromethane	0.3279	0.3463	-5.6	99	0.00
3 P	Chloromethane	0.5138	0.5362	-4.4	107	0.00
4 C	Vinyl Chloride	0.4148	0.3946	4.9	99	0.00
5 T	1,3-Butadiene	0.2435	0.2202	9.5	89	0.00
6 T	Bromomethane	0.2350	0.2045	13.0	86	0.00
7 T	Chloroethane	0.2347	0.2359	-0.5	93	0.00
8 T	Trichlorofluoromethane	0.5333	0.5089	4.6	89	0.00
9 T	Diethyl ether	0.1812	0.2028	-11.9	102	0.00
10 T	Isoprene	0.4535	0.4498	0.8	89	0.00
11 T	Acrolein	0.0111	0.0092	17.5	77	0.00
12 T	1,1,2-Trichloro-1,2,2-Trifl	0.2852	0.2696	5.5	88	0.00
13 T	Acetone	0.0474	0.0486	-2.5	93	0.00
14 C	1,1-Dichloroethene	0.4586	0.4655	-1.5	91	0.00
15 T	Tert-Butyl Alcohol	0.0124	0.0118	4.8	87	-0.01
16 T	Dimethyl Sulfide	0.3641	0.3712	-2.0	93	0.00
17 T	Iodomethane	0.2622	0.2586	1.4	79	0.00
18 T	Methyl acetate	0.1869	0.1862	0.4	88	0.00
19 T	Methylene Chloride	0.2841	0.2838	0.1	93	0.00
20 T	Carbon Disulfide	0.8309	0.8535	-2.7	94	0.00
21 T	Acrylonitrile	0.0638	0.0732	-14.7	98	0.00
22 T	Methyl Tert Butyl Ether	0.5984	0.5642	5.7	87	0.00
23 T	trans-1,2-Dichloroethene	0.2774	0.2784	-0.3	90	0.00
24 T	n-Hexane	0.3182	0.3460	-8.7	98	0.00
25 T	Diisopropyl ether	1.0105	1.0920	-8.1	97	0.00
26 T	Vinyl Acetate	0.1463	0.2286	-56.3#	140	0.00
27 P	1,1-Dichloroethane	0.5667	0.5653	0.3	92	0.00
28 T	Ethyl-Tert-Butyl ether	0.8212	0.8420	-2.5	91	0.00
29 T	2-Butanone	0.0662	0.0736	-11.1	96	0.00
30 T	Propionitrile	0.0190	0.0213	-12.3	96	0.00
31 T	2,2-Dichloropropane	0.4285	0.4459	-4.1	96	0.00
32 T	cis-1,2-Dichloroethene	0.2899	0.3007	-3.7	92	0.00
33 C	Chloroform	0.5122	0.5113	0.2	92	0.00
34	1-Bromopropane	0.0481	0.0510	-6.1	90	0.00
35 T	Bromochloromethane	0.1503	0.1649	-9.8	95	0.00
36 T	Tetrahydrofuran	0.0436	0.0469	-7.7	94	0.00
37 S	Dibromofluoromethane	0.2707	0.2839	-4.9	91	0.00
38 T	1,1,1-Trichloroethane	0.4475	0.4560	-1.9	91	0.00
39 T	Cyclohexane	0.4483	0.4520	-0.8	91	0.00
40 T	1,1-Dichloropropene	0.3691	0.3841	-4.1	91	0.00
41 T	Tert-Amyl-Methyl ether	0.6114	0.6089	0.4	88	0.00
42 T	Carbon Tetrachloride	0.3961	0.4197	-6.0	93	0.00
43 S	1,2-Dichloroethane-d4	0.2657	0.2682	-1.0	88	0.00
44	Heptane	0.0000	0.0000	0.0	89	0.00
45 T	1,2-Dichloroethane	0.3519	0.3558	-1.1	91	0.00
46 T	Benzene	1.1044	1.0982	0.6	92	0.00
47 T	Trichloroethene	0.2770	0.2811	-1.5	90	0.00
48 T	Methylcyclohexane	0.3195	0.3333	-4.3	94	0.00
49 C	1,2-Dichloropropane	0.2851	0.2961	-3.9	93	0.00
50 T	1,4-Dioxane	0.0009	0.0011	-23.6#	100	0.00
51 T	Bromodichloromethane	0.3425	0.3549	-3.6	91	0.00
52 T	Dibromomethane	0.1220	0.1365	-11.9	88	0.00
53 T	2-Chloroethyl Vinyl Ether	0.1124	0.1096	2.5	80	0.00
54 T	4-Methyl-2-Pentanone	0.0497	0.0550	-10.6	91	0.00

(#) = Out of Range

6M107920.D 8260WTR.M

Sun May 06 17:30:21 2012

Page 1

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\050612\6M107920.D Vial: 2
 Acq On : 6 May 2012 17:04 Operator: MES
 Sample : WG397129-02 50ug/L CCV STD 8260 Inst : HPMS6
 Misc : 1,1 STD51468 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
55 T	cis-1,3-Dichloropropene	0.3667	0.4031	-9.9	90	0.00
56 T	Dimethyl Disulfide	0.2035	0.2213	-8.8	88	0.00
57 I	Chlorobenzene-d5	1.0000	1.0000	0.0	94	0.00
58 S	Toluene-d8	1.3587	1.3616	-0.2	93	0.00
59 C	Toluene	1.6429	1.5741	4.2	90	0.00
60 T	Ethyl Methacrylate	0.2500	0.2880	-15.2	88	0.00
61	Paraldehyde	0.0044	0.0041	7.0	82	0.00
62 T	trans-1,3-Dichloropropene	0.4381	0.5026	-14.7	89	0.00
63 T	1,1,2-Trichloroethane	0.2639	0.2515	4.7	88	0.00
64 T	2-Hexanone	0.1145	0.1368	-19.5	98	0.00
65 T	1,3-Dichloropropane	0.4500	0.4492	0.2	87	0.00
66 T	Tetrachloroethene	0.3837	0.3814	0.6	92	0.00
67 T	Dibromochloromethane	0.3236	0.3417	-5.6	90	0.00
68 T	1,2-Dibromoethane	0.2260	0.2482	-9.8	89	0.00
69 T	1-Chlorohexane	0.4350	0.4480	-3.0	93	0.00
70 P	Chlorobenzene	1.0439	0.9943	4.8	90	0.00
71 T	1,1,1,2-Tetrachloroethane	0.3759	0.3719	1.1	90	0.00
72 C	Ethylbenzene	0.5384	0.5328	1.1	90	0.00
73 T	m-,p-Xylene	0.6582	0.6583	-0.0	90	0.00
74 T	o-Xylene	0.6268	0.6161	1.7	89	0.00
75 T	Styrene	0.9916	1.0562	-6.5	90	0.00
76 P	Bromoform	0.1778	0.1935	-8.9	91	0.00
77 T	Isopropylbenzene	1.5599	1.5774	-1.1	92	0.00
78 I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	95	0.00
79 P	1,1,2,2-Tetrachloroethane	0.5287	0.5353	-1.3	90	0.00
80 S	p-Bromofluorobenzene	0.9810	1.0411	-6.1	98	0.00
81 T	1,2,3-Trichloropropane	0.1363	0.1335	2.1	87	0.00
82 T	trans-1,4-Dichloro-2-Butene	0.1680	0.1665	0.9	94	0.00
83 T	n-Propylbenzene	3.6735	3.7027	-0.8	95	0.00
84 T	Bromobenzene	0.7480	0.8038	-7.5	94	0.00
85 T	1,3,5-Trimethylbenzene	2.5061	2.4882	0.7	92	0.00
86 T	2-Chlorotoluene	2.4391	2.4477	-0.4	96	0.00
87 T	4-Chlorotoluene	2.4520	2.2389	8.7	87	0.00
88 T	a-Methylstyrene	1.2852	1.3682	-6.5	94	0.00
89 T	tert-Butylbenzene	0.5061	0.4951	2.2	97	0.00
90 T	1,2,4-Trimethylbenzene	2.6496	2.6426	0.3	93	0.00
91 T	sec-Butylbenzene	2.8487	2.9294	-2.8	98	0.00
92 T	p-Isopropyltoluene	2.2883	2.3957	-4.7	98	0.00
93 T	1,3-Dichlorobenzene	1.4439	1.4574	-0.9	94	0.00
94 T	1,4-Dichlorobenzene	1.5143	1.4599	3.6	93	0.00
95 T	n-Butylbenzene	1.9934	2.1502	-7.9	100	0.00
96 T	1,2-Dichlorobenzene	1.3050	1.2881	1.3	93	0.00
97 T	1,2-Dibromo-3-Chloropropane	0.0741	0.0819	-10.6	95	0.00
98 T	1,2,4-Trichlorobenzene	0.7103	0.7565	-6.5	100	0.00
99 T	Hexachlorobutadiene	0.2700	0.2930	-8.5	104	0.00
100 T	Naphthalene	1.3525	1.3634	-0.8	90	0.00
101 T	1,2,3-Trichlorobenzene	0.6174	0.6313	-2.3	101	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 6M107920.D 8260WTR.M Sun May 06 17:30:21 2012

Data File : C:\MSDCHEM\1\DATA\050612\6M107920.D
 Acq On : 6 May 2012 17:04
 Sample : WG397129-02 50ug/L CCV STD 8260
 Misc : 1,1 STD51468
 MS Integration Params: RTEINT.P

Vial: 2
 Operator: MES
 Inst : HPMS6
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Fluorobenzene	25.0000	25.0000	0.0	90	0.00
2 T	Dichlorodifluoromethane	50.0000	52.8067	-5.6	99	0.00
3 P	Chloromethane	50.0000	59.9600	-19.9	107	0.00
4 C	Vinyl Chloride	50.0000	47.5716	4.9	99	0.00
5 T	1,3-Butadiene	50.0000	53.3448	-6.7	89	0.00
6 T	Bromomethane	50.0000	43.5012	13.0	86	0.00
7 T	Chloroethane	50.0000	50.2624	-0.5	93	0.00
8 T	Trichlorofluoromethane	50.0000	47.7200	4.6	89	0.00
9 T	Diethyl ether	100.0000	111.9048	-11.9	102	0.00
10 T	Isoprene	50.0000	49.5985	0.8	89	0.00
11 T	Acrolein	100.0000	74.3633	25.6#	77	0.00
12 T	1,1,2-Trichloro-1,2,2-Trifl	50.0000	47.2590	5.5	88	0.00
13 T	Acetone	50.0000	51.2573	-2.5	93	0.00
14 C	1,1-Dichloroethene	50.0000	50.7505	-1.5	91	0.00
15 T	Tert-Butyl Alcohol	200.0000	190.5043	4.7	87	-0.01
16 T	Dimethyl Sulfide	50.0000	50.9753	-2.0	93	0.00
17 T	Iodomethane	50.0000	49.3081	1.4	79	0.00
18 T	Methyl acetate	50.0000	49.8026	0.4	88	0.00
19 T	Methylene Chloride	50.0000	49.9530	0.1	93	0.00
20 T	Carbon Disulfide	50.0000	51.3594	-2.7	94	0.00
21 T	Acrylonitrile	50.0000	57.3282	-14.7	98	0.00
22 T	Methyl Tert Butyl Ether	50.0000	47.1425	5.7	87	0.00
23 T	trans-1,2-Dichloroethene	50.0000	50.1742	-0.3	90	0.00
24 T	n-Hexane	50.0000	54.3693	-8.7	98	0.00
25 T	Diisopropyl ether	100.0000	108.0602	-8.1	97	0.00
26 T	Vinyl Acetate	50.0000	78.1363	-56.3#	140	0.00
27 P	1,1-Dichloroethane	50.0000	49.8742	0.3	92	0.00
28 T	Ethyl-Tert-Butyl ether	100.0000	102.5270	-2.5	91	0.00
29 T	2-Butanone	50.0000	55.5267	-11.1	96	0.00
30 T	Propionitrile	100.0000	112.4024	-12.4	96	0.00
31 T	2,2-Dichloropropane	50.0000	52.0372	-4.1	96	0.00
32 T	cis-1,2-Dichloroethene	50.0000	51.8645	-3.7	92	0.00
33 C	Chloroform	50.0000	49.9069	0.2	92	0.00
34	1-Bromopropane	50.0000	48.5191	3.0	90	0.00
35 T	Bromochloromethane	50.0000	53.4077	-6.8	95	0.00
36 T	Tetrahydrofuran	100.0000	107.6870	-7.7	94	0.00
37 S	Dibromofluoromethane	25.0000	26.2202	-4.9	91	0.00
38 T	1,1,1-Trichloroethane	50.0000	50.9528	-1.9	91	0.00
39 T	Cyclohexane	50.0000	50.4114	-0.8	91	0.00
40 T	1,1-Dichloropropene	50.0000	52.0292	-4.1	91	0.00
41 T	Tert-Amyl-Methyl ether	100.0000	99.5894	0.4	88	0.00
42 T	Carbon Tetrachloride	50.0000	52.9837	-6.0	93	0.00
43 S	1,2-Dichloroethane-d4	25.0000	25.2435	-1.0	88	0.00
44	Heptane	-1.0000	0.0000	0.0	89	0.00
45 T	1,2-Dichloroethane	50.0000	50.5590	-1.1	91	0.00
46 T	Benzene	50.0000	49.7154	0.6	92	0.00
47 T	Trichloroethene	50.0000	50.7308	-1.5	90	0.00
48 T	Methylcyclohexane	50.0000	52.1645	-4.3	94	0.00
49 C	1,2-Dichloropropane	50.0000	51.9285	-3.9	93	0.00
50 T	1,4-Dioxane	200.0000	229.2844	-14.6	100	0.00
51 T	Bromodichloromethane	50.0000	51.8019	-3.6	91	0.00
52 T	Dibromomethane	50.0000	49.7357	0.5	88	0.00
53 T	2-Chloroethyl Vinyl Ether	50.0000	43.5637	12.9	80	0.00
54 T	4-Methyl-2-Pentanone	50.0000	55.3127	-10.6	91	0.00

(#) = Out of Range

6M107920.D 8260WTR.M

Sun May 06 17:30:23 2012

Page 1

Data File : C:\MSDCHEM\1\DATA\050612\6M107920.D Vial: 2
 Acq On : 6 May 2012 17:04 Operator: MES
 Sample : WG397129-02 50ug/L CCV STD 8260 Inst : HPMS6
 Misc : 1,1 STD51468 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Multiple Level Calibration

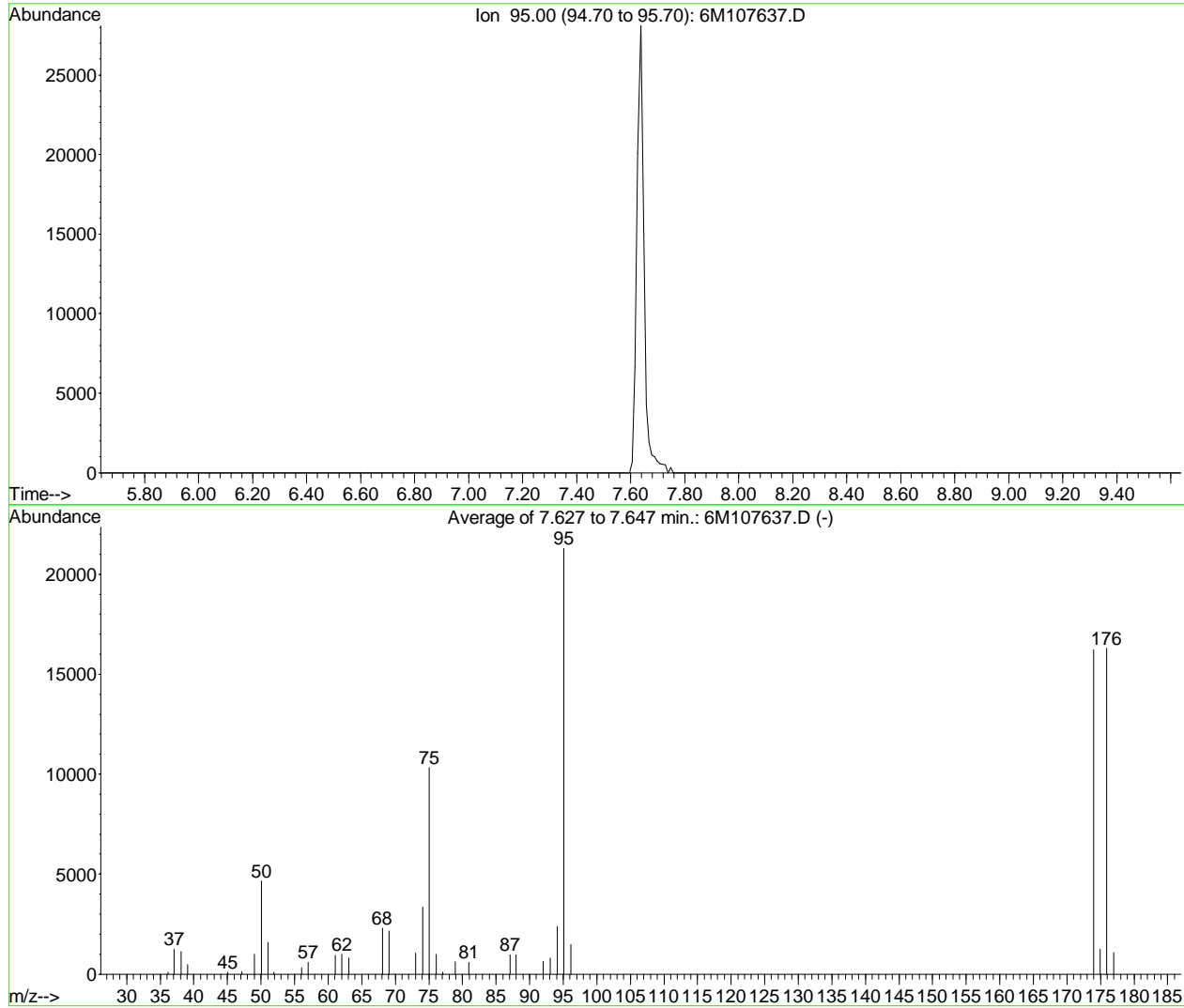
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
55 T	cis-1,3-Dichloropropene	50.0000	49.0737	1.9	90	0.00
56 T	Dimethyl Disulfide	50.0000	46.1347	7.7	88	0.00
57 I	Chlorobenzene-d5	25.0000	25.0000	0.0	94	0.00
58 S	Toluene-d8	25.0000	25.0524	-0.2	93	0.00
59 C	Toluene	50.0000	47.9085	4.2	90	0.00
60 T	Ethyl Methacrylate	50.0000	47.6904	4.6	88	0.00
61	Paraldehyde	100.0000	92.9784	7.0	82	0.00
62 T	trans-1,3-Dichloropropene	50.0000	46.8816	6.2	89	0.00
63 T	1,1,2-Trichloroethane	50.0000	47.6517	4.7	88	0.00
64 T	2-Hexanone	50.0000	53.9867	-8.0	98	0.00
65 T	1,3-Dichloropropane	50.0000	49.9107	0.2	87	0.00
66 T	Tetrachloroethene	50.0000	49.6972	0.6	92	0.00
67 T	Dibromochloromethane	50.0000	48.1448	3.7	90	0.00
68 T	1,2-Dibromoethane	50.0000	47.7739	4.5	89	0.00
69 T	1-Chlorohexane	50.0000	51.4918	-3.0	93	0.00
70 P	Chlorobenzene	50.0000	47.6234	4.8	90	0.00
71 T	1,1,1,2-Tetrachloroethane	50.0000	49.4750	1.1	90	0.00
72 C	Ethylbenzene	50.0000	49.4720	1.1	90	0.00
73 T	m-,p-Xylene	100.0000	100.0154	-0.0	90	0.00
74 T	o-Xylene	50.0000	49.1514	1.7	89	0.00
75 T	Styrene	50.0000	46.7400	6.5	90	0.00
76 P	Bromoform	50.0000	54.4279	-8.9	91	0.00
77 T	Isopropylbenzene	50.0000	50.5609	-1.1	92	0.00
78 I	1,4-Dichlorobenzene-d4	25.0000	25.0000	0.0	95	0.00
79 P	1,1,2,2-Tetrachloroethane	50.0000	50.6283	-1.3	90	0.00
80 S	p-Bromofluorobenzene	25.0000	26.5310	-6.1	98	0.00
81 T	1,2,3-Trichloropropane	50.0000	48.9757	2.0	87	0.00
82 T	trans-1,4-Dichloro-2-Butene	50.0000	49.6693	0.7	94	0.00
83 T	n-Propylbenzene	50.0000	50.3982	-0.8	95	0.00
84 T	Bromobenzene	50.0000	48.8406	2.3	94	0.00
85 T	1,3,5-Trimethylbenzene	50.0000	49.6434	0.7	92	0.00
86 T	2-Chlorotoluene	50.0000	50.1754	-0.4	96	0.00
87 T	4-Chlorotoluene	50.0000	45.6531	8.7	87	0.00
88 T	a-Methylstyrene	50.0000	53.2298	-6.5	94	0.00
89 T	tert-Butylbenzene	50.0000	48.9138	2.2	97	0.00
90 T	1,2,4-Trimethylbenzene	50.0000	49.8678	0.3	93	0.00
91 T	sec-Butylbenzene	50.0000	51.4153	-2.8	98	0.00
92 T	p-Isopropyltoluene	50.0000	52.3467	-4.7	98	0.00
93 T	1,3-Dichlorobenzene	50.0000	50.4694	-0.9	94	0.00
94 T	1,4-Dichlorobenzene	50.0000	48.2056	3.6	93	0.00
95 T	n-Butylbenzene	50.0000	53.9331	-7.9	100	0.00
96 T	1,2-Dichlorobenzene	50.0000	49.3526	1.3	93	0.00
97 T	1,2-Dibromo-3-Chloropropane	50.0000	48.8985	2.2	95	0.00
98 T	1,2,4-Trichlorobenzene	50.0000	53.2526	-6.5	100	0.00
99 T	Hexachlorobutadiene	50.0000	51.3969	-2.8	104	0.00
100 T	Naphthalene	50.0000	50.4012	-0.8	90	0.00
101 T	1,2,3-Trichlorobenzene	50.0000	51.1284	-2.3	101	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 6M107920.D 8260WTR.M Sun May 06 17:30:23 2012

2.1.1.5 Raw QC Data

Data File : C:\MSDCHEM\1\DATA\042512\6M107637.D Vial: 1
 Acq On : 25 Apr 2012 8:52 Operator: ADC
 Sample : WG396001-01 50ng/L BFB STD 8260 Inst : HPMS6
 Misc : 1,1 STD51241 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6

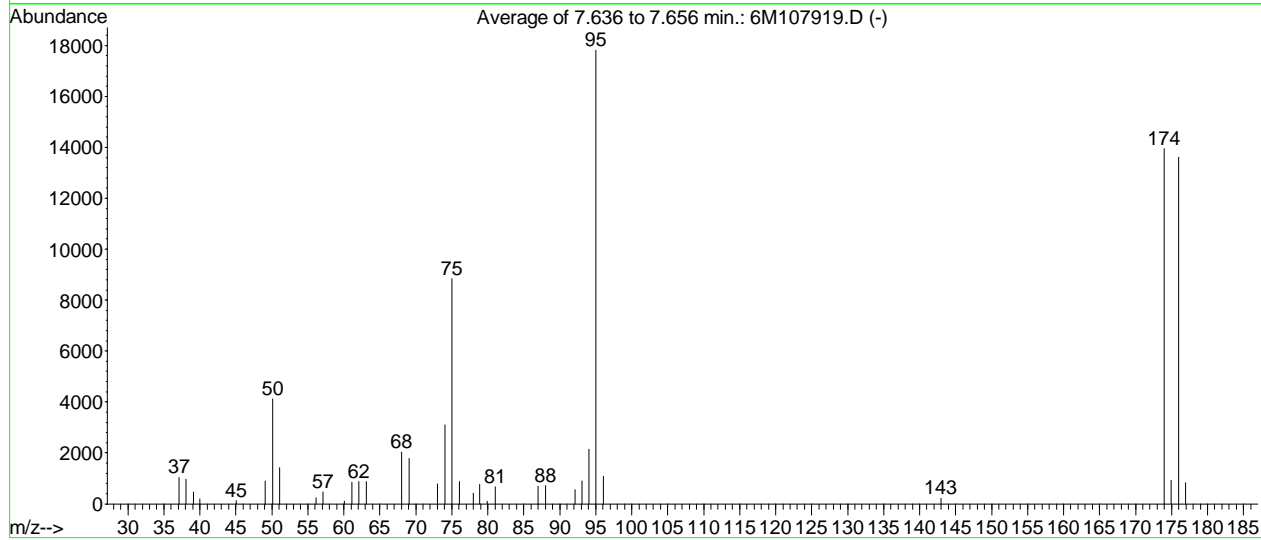
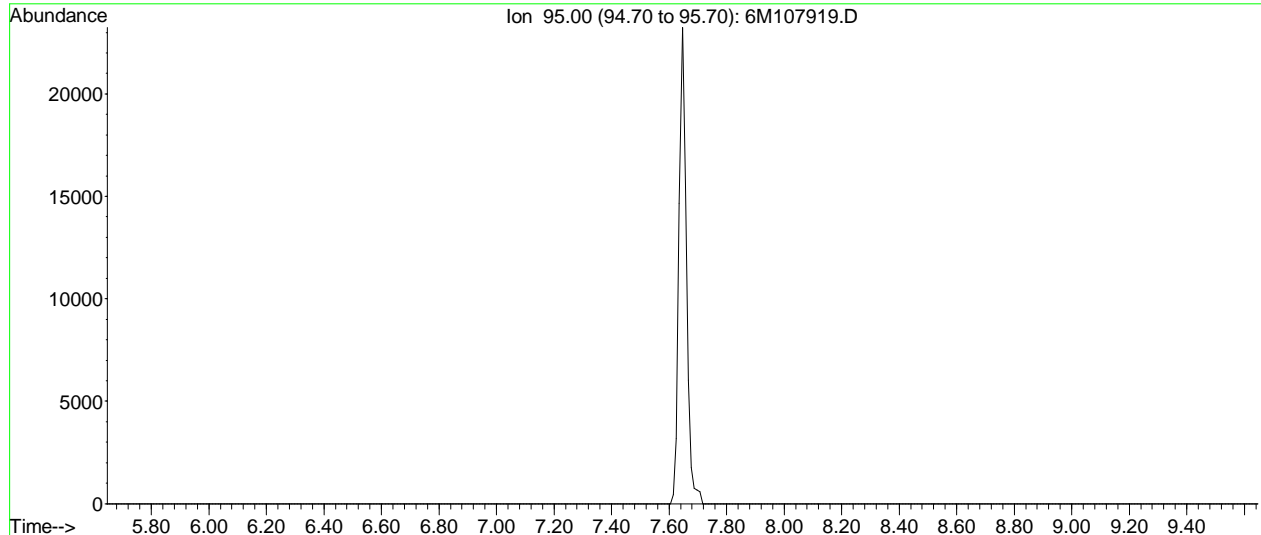


AutoFind: Scans 249, 250, 251; Background Corrected with Scan 244

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.9	4659	PASS
75	95	30	60	48.5	10324	PASS
95	95	100	100	100.0	21302	PASS
96	95	5	9	6.9	1471	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	76.2	16231	PASS
175	174	5	9	7.7	1245	PASS
176	174	95	101	100.4	16295	PASS
177	176	5	9	6.5	1063	PASS

6M107637.D 8260WTR.M Thu Apr 26 08:12:16 2012

Data File : C:\MSDCHEM\1\DATA\050612\6M107919.D Vial: 4
 Acq On : 6 May 2012 16:33 Operator: MES
 Sample : WG397129-01 50ng BFB STD 8260 Inst : HPMS6
 Misc : 1,1 STD51241 Multiplr: 1.00
 MS Integration Params: rteint.p
 Method : C:\MSDCHEM\1\METHODS\BFB.M (RTE Integrator)
 Title : SOP: OVL MSV01



AutoFind: Scans 250, 251, 252; Background Corrected with Scan 245

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.1	4121	PASS
75	95	30	60	49.7	8851	PASS
95	95	100	100	100.0	17817	PASS
96	95	5	9	6.0	1072	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	78.3	13954	PASS
175	174	5	9	6.5	913	PASS
176	174	95	101	97.6	13617	PASS
177	176	5	9	6.1	826	PASS

6M107919.D BFB.M Sun May 06 17:13:14 2012

Data File : C:\MSDCHEM\1\DATA\050612\6M107922.D Vial: 4
 Acq On : 6 May 2012 18:09 Operator: MES
 Sample : WG397130-01 BLANK 5/6 8260 Inst : HPMS6
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 11 10:49:26 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	477310	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.03	117	331341	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	154507	25.00	ug/L	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	9.35	111	137407	26.5871	ug/L	0.00
Spiked Amount	25.000	Range 86 - 118	Recovery	=	106.36%	
43) 1,2-Dichloroethane-d4	10.08	65	134882	26.5929	ug/L	0.00
Spiked Amount	25.000	Range 80 - 120	Recovery	=	106.36%	
58) Toluene-d8	12.83	98	464210	25.7780	ug/L	0.00
Spiked Amount	25.000	Range 88 - 110	Recovery	=	103.12%	
80) p-Bromofluorobenzene	16.81	95	163446	26.9583	ug/L	0.00
Spiked Amount	25.000	Range 86 - 115	Recovery	=	107.84%	
Target Compounds						
3) Chloromethane	3.09	50	411	Below Cal	Qvalue #	1

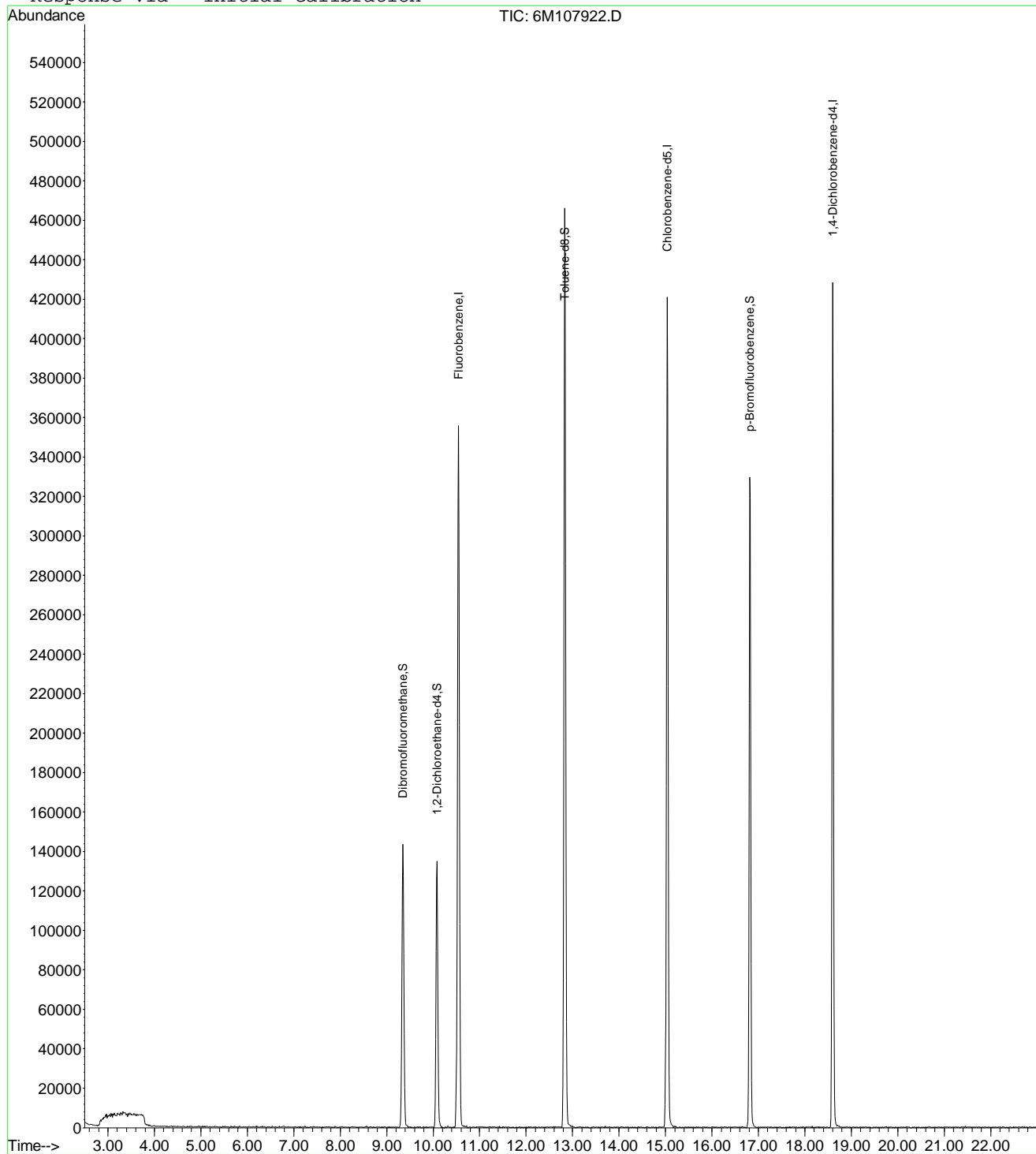
(#) = qualifier out of range (m) = manual integration
 6M107922.D 8260WTR.M Fri May 11 10:49:26 2012

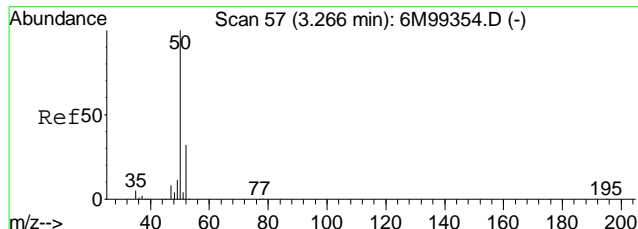
Data File : C:\MSDCHEM\1\DATA\050612\6M107922.D
 Acq On : 6 May 2012 18:09
 Sample : WG397130-01 BLANK 5/6 8260
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 11 10:49 2012

Vial: 4
 Operator: MES
 Inst : HPMS6
 Multiplr: 1.00

Quant Results File: 8260WTR.RES

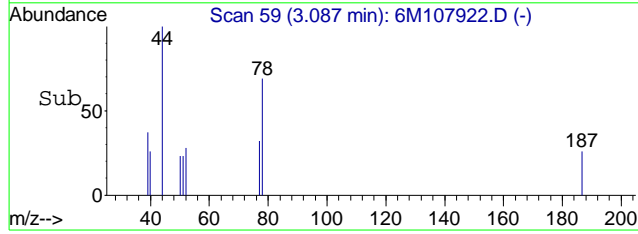
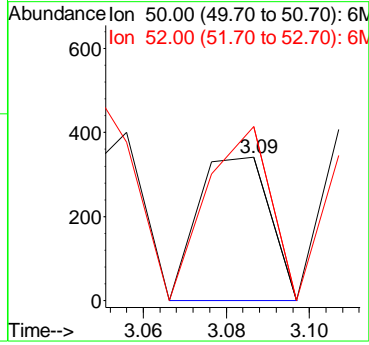
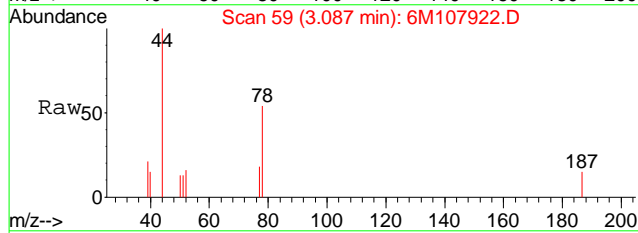
Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration





#3
 Chloromethane
 Concen: Below Cal
 RT: 3.09 min Scan# 59
 Delta R.T. -0.02 min
 Lab File: 6M107922.D
 Acq: 6 May 2012 18:09

Tgt Ion: 50 Resp: 411
 Ion Ratio Lower Upper
 50 100
 52 106.8 18.8 44.0#



Data File : C:\MSDCHEM\1\DATA\050612\6M107922.D Vial: 4
 Acq On : 6 May 2012 18:09 Operator: MES
 Sample : WG397130-01 BLANK 5/6 8260 Inst : HPMS6
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Smoothing : ON Filtering: 5
 Sampling : 1 Min Area: 100 Area counts
 Start Thrs: 0.2 Max Peaks: 100
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 5

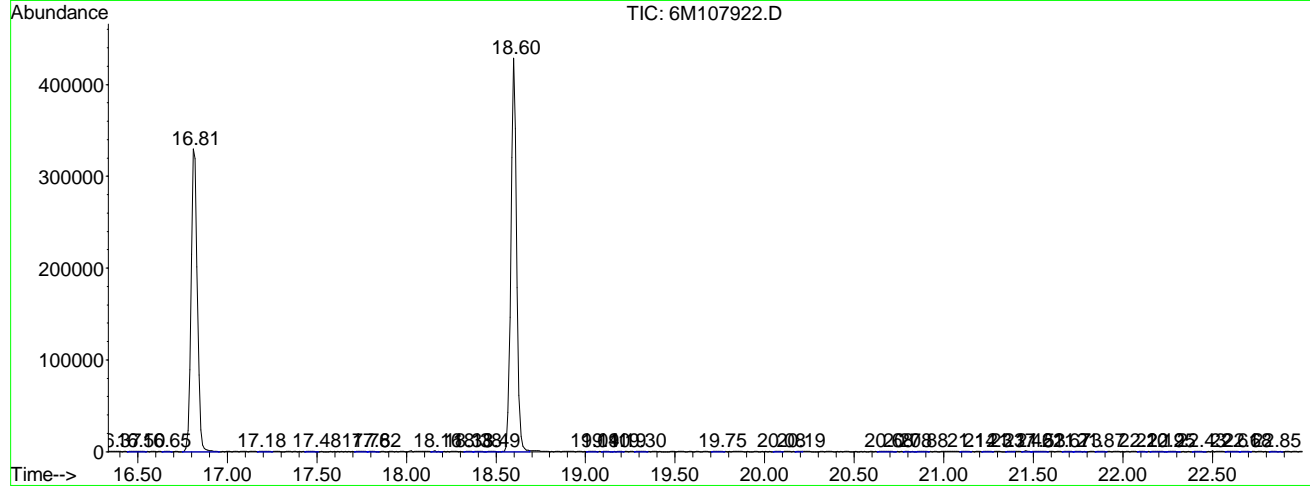
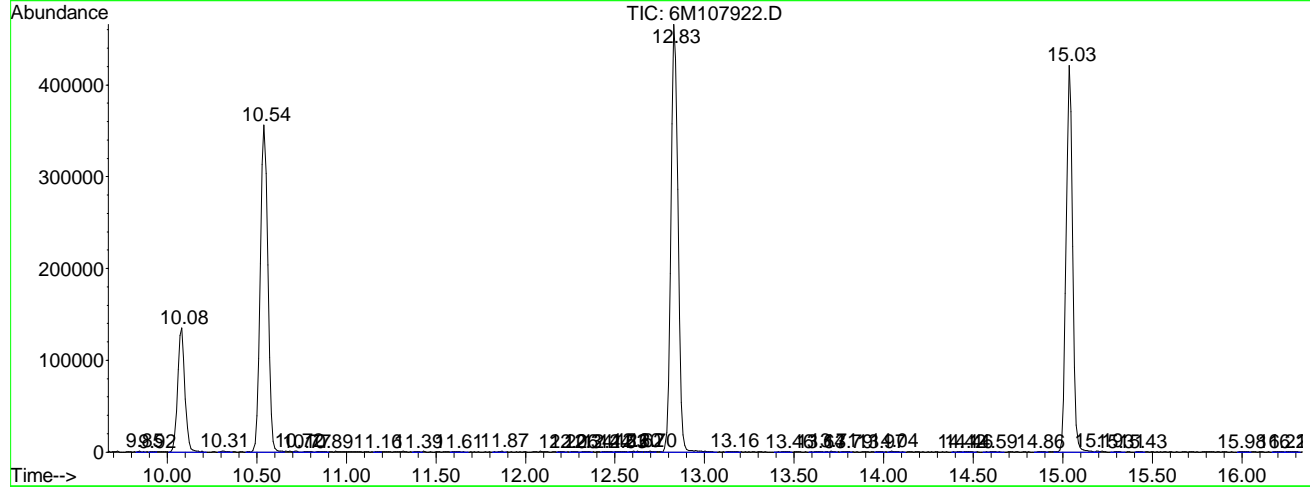
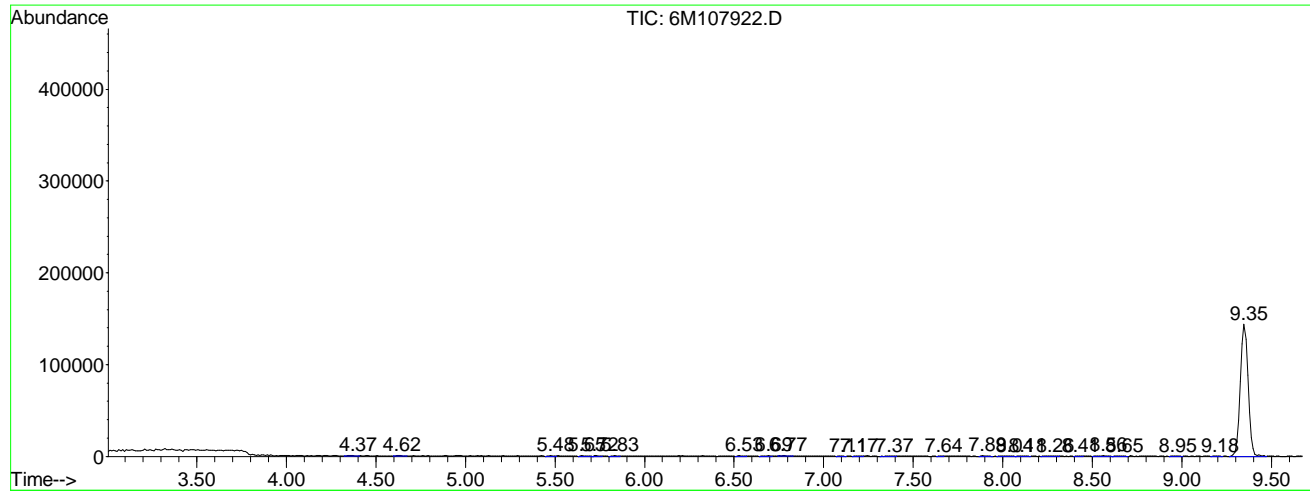
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.373	180	185	188	rBV	547	1078	0.08%	0.018%
2	4.618	207	209	214	rBV	536	951	0.07%	0.016%
3	5.476	290	293	296	rBV	834	1771	0.14%	0.029%
4	5.650	308	310	316	rBB	744	2106	0.17%	0.035%
5	5.721	316	317	321	rBV	821	1750	0.14%	0.029%
6	5.834	325	328	331	rBV	896	1934	0.15%	0.032%
7	6.528	394	396	400	rBV	718	1704	0.13%	0.028%
8	6.691	407	412	414	rBV	716	1743	0.14%	0.029%
9	6.773	417	420	425	rVB	517	1477	0.12%	0.024%
10	7.110	449	453	454	rBB	586	1019	0.08%	0.017%
11	7.171	458	459	464	rBV	422	1407	0.11%	0.023%
12	7.365	473	478	482	rBV	482	1956	0.15%	0.032%
13	7.641	504	505	508	rBV	463	1028	0.08%	0.017%
14	7.886	527	529	534	rBB	815	1647	0.13%	0.027%
15	8.039	537	544	547	rBB	629	2282	0.18%	0.038%
16	8.111	547	551	555	rBB	474	1532	0.12%	0.025%
17	8.264	561	566	571	rBV	500	2315	0.18%	0.038%
18	8.407	579	580	584	rBV	475	1166	0.09%	0.019%
19	8.560	589	595	600	rBB	709	2689	0.21%	0.044%
20	8.652	600	604	608	rBB	558	1709	0.13%	0.028%
21	8.948	631	633	638	rBB	513	1420	0.11%	0.023%
22	9.183	654	656	660	rBB	405	1151	0.09%	0.019%
23	9.346	664	672	684	rBB	143730	435303	34.23%	7.167%
24	9.847	719	721	724	rBB	698	905	0.07%	0.015%
25	9.918	726	728	730	rBV	470	911	0.07%	0.015%
26	10.082	737	744	757	rBB	135067	379619	29.85%	6.250%
27	10.306	764	766	771	rBB	800	1909	0.15%	0.031%
28	10.541	779	789	800	rBV	356011	1042383	81.97%	17.162%
29	10.725	805	807	809	rVB	1078	1202	0.09%	0.020%
30	10.766	810	811	816	rBB	477	1184	0.09%	0.019%
31	10.888	817	823	824	rBB	474	1372	0.11%	0.023%
32	11.164	849	850	853	rBV	418	985	0.08%	0.016%
33	11.389	870	872	875	rBB	415	914	0.07%	0.015%
34	11.613	891	894	900	rBB	470	1382	0.11%	0.023%
35	11.868	914	919	921	rBB	662	1029	0.08%	0.017%
36	12.195	949	951	954	rBB	634	1011	0.08%	0.017%
37	12.257	956	957	961	rBB	446	974	0.08%	0.016%
38	12.338	962	965	968	rBB	413	1073	0.08%	0.018%
39	12.440	973	975	980	rBB	422	1346	0.11%	0.022%
40	12.532	980	984	988	rBB	403	1451	0.11%	0.024%
41	12.604	988	991	992	rBB	698	974	0.08%	0.016%
42	12.624	992	993	996	rBV	697	1202	0.09%	0.020%

43	12.696	997	1000	1003	rVV	688	1510	0.12%	0.025%
44	12.828	1006	1013	1036	rVB	466196	1271609	100.00%	20.936%
45	13.155	1041	1045	1049	rBB	648	1835	0.14%	0.030%
46	13.461	1068	1075	1077	rBB	605	1522	0.12%	0.025%
47	13.635	1087	1092	1095	rBB	450	1397	0.11%	0.023%
48	13.707	1096	1099	1102	rVB	885	1250	0.10%	0.021%
49	13.788	1104	1107	1110	rBB	489	1154	0.09%	0.019%
50	13.972	1123	1125	1128	rBB	459	890	0.07%	0.015%
51	14.044	1130	1132	1139	rBB	677	1818	0.14%	0.030%
52	14.421	1165	1169	1171	rBB	485	1007	0.08%	0.017%
53	14.462	1171	1173	1178	rBB	430	1147	0.09%	0.019%
54	14.595	1182	1186	1193	rBB	507	1378	0.11%	0.023%
55	14.860	1210	1212	1217	rBB	514	1109	0.09%	0.018%
56	15.034	1221	1229	1243	rVB	421003	1061922	83.51%	17.483%
57	15.187	1243	1244	1246	rBV	768	1119	0.09%	0.018%
58	15.310	1252	1256	1259	rBB	425	948	0.07%	0.016%
59	15.432	1265	1268	1270	rBB	414	940	0.07%	0.015%
60	15.984	1321	1322	1328	rBB	470	1386	0.11%	0.023%
61	16.208	1340	1344	1347	rBB	442	1336	0.11%	0.022%
62	16.270	1347	1350	1355	rBB	616	1685	0.13%	0.028%
63	16.372	1356	1360	1364	rBB	392	1528	0.12%	0.025%
64	16.505	1367	1373	1377	rBB	436	1886	0.15%	0.031%
65	16.647	1386	1387	1391	rBB	647	1217	0.10%	0.020%
66	16.811	1397	1403	1417	rBB	329707	800292	62.94%	13.176%
67	17.178	1438	1439	1446	rBB	418	1491	0.12%	0.025%
68	17.485	1464	1469	1471	rBB	435	1102	0.09%	0.018%
69	17.761	1491	1496	1498	rBB	455	1364	0.11%	0.022%
70	17.822	1498	1502	1504	rBB	426	930	0.07%	0.015%
71	18.159	1533	1535	1539	rBB	739	940	0.07%	0.015%
72	18.332	1551	1552	1556	rBB	413	896	0.07%	0.015%
73	18.383	1556	1557	1562	rBB	407	1068	0.08%	0.018%
74	18.486	1563	1567	1570	rBB	391	1110	0.09%	0.018%
75	18.598	1571	1578	1587	rBV	428549	959442	75.45%	15.796%
76	19.037	1618	1621	1624	rBB	399	1092	0.09%	0.018%
77	19.098	1626	1627	1631	rBB	432	930	0.07%	0.015%
78	19.190	1632	1636	1638	rBB	461	968	0.08%	0.016%
79	19.302	1644	1647	1651	rBB	427	1319	0.10%	0.022%
80	19.752	1686	1691	1693	rBB	522	1425	0.11%	0.023%
81	20.079	1720	1723	1725	rBB	475	938	0.07%	0.015%
82	20.191	1732	1734	1736	rBV	527	952	0.07%	0.016%
83	20.681	1777	1782	1787	rBB	609	2009	0.16%	0.033%
84	20.783	1791	1792	1797	rBB	430	917	0.07%	0.015%
85	20.875	1798	1801	1805	rBB	449	1512	0.12%	0.025%
86	21.141	1822	1827	1828	rBB	437	1079	0.08%	0.018%
87	21.232	1834	1836	1840	rBB	412	1103	0.09%	0.018%
88	21.365	1847	1849	1852	rBV	489	1168	0.09%	0.019%
89	21.457	1856	1858	1861	rBB	743	1136	0.09%	0.019%
90	21.529	1861	1865	1870	rBB	397	1776	0.14%	0.029%
91	21.672	1878	1879	1884	rBB	380	1083	0.09%	0.018%
92	21.733	1884	1885	1891	rBB	447	1142	0.09%	0.019%
93	21.866	1896	1898	1902	rBB	409	1118	0.09%	0.018%
94	22.100	1919	1921	1924	rBB	456	946	0.07%	0.016%
95	22.192	1926	1930	1934	rBB	409	1574	0.12%	0.026%
96	22.254	1935	1936	1942	rBB	483	1226	0.10%	0.020%
97	22.427	1949	1953	1956	rBB	426	1073	0.08%	0.018%
98	22.611	1967	1971	1975	rBB	467	1550	0.12%	0.026%
99	22.682	1975	1978	1981	rBB	577	1352	0.11%	0.022%
100	22.846	1991	1994	1998	rBB	496	1283	0.10%	0.021%

Sum of corrected areas: 6073863

File : C:\MSDCHEM\1\DATA\050612\6M107922.D
 Operator : MES
 Acquired : 6 May 2012 18:09 using AcqMethod 8260WTR
 Instrument : HPMS6
 Sample Name: WG397130-01 BLANK 5/6 8260
 Misc Info : 1,1
 Vial Number: 4
 Quant File :8260WTR.RES (RTE Integrator)



Data File : C:\MSDCHEM\1\data\050612\6M107923.D

Vial: 5

Acq On : 6 May 2012 18:42

Operator: MES

Sample : WG397130-02 20ug/L LCS 8260

Inst : HPMS6

Misc : 1,1 STD51372

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: May 06 19:05:10 2012

Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)

Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6

Last Update : Wed Apr 25 15:22:20 2012

Response via : Initial Calibration

DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.54	96	502214	25.00	ug/L	0.00
57) Chlorobenzene-d5	15.03	117	349504	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	18.60	152	173456	25.00	ug/L	0.00

System Monitoring Compounds

37) Dibromofluoromethane	9.35	111	139419	25.6387	ug/L	0.00
Spiked Amount	25.000	Range 86 - 118	Recovery	=	102.56%	
43) 1,2-Dichloroethane-d4	10.08	65	135968	25.4777	ug/L	0.00
Spiked Amount	25.000	Range 80 - 120	Recovery	=	101.92%	
58) Toluene-d8	12.83	98	476917	25.1073	ug/L	0.00
Spiked Amount	25.000	Range 88 - 110	Recovery	=	100.44%	
80) p-Bromofluorobenzene	16.81	95	178433	26.2151	ug/L	0.00
Spiked Amount	25.000	Range 86 - 115	Recovery	=	104.88%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	2.73	85	159118	24.1545	ug/L	99
3) Chloromethane	3.12	50	215849	23.6532	ug/L	100
4) Vinyl Chloride	3.31	62	164071	19.6923	ug/L	100
5) 1,3-Butadiene	3.34	54	88937	17.3119	ug/L	96
6) Bromomethane	4.11	94	77193	16.3505	ug/L	99
7) Chloroethane	4.26	64	87247	18.5088	ug/L	98
8) Trichlorofluoromethane	4.73	101	190661	17.7981	ug/L	99
9) Diethyl ether	5.27	59	364423	100.1198	ug/L	98
10) Isoprene	5.30	67	158237	17.3714	ug/L	99
11) Acrolein	5.51	56	32682	125.4918	ug/L	97
12) 1,1,2-Trichloro-1,2,2-Trif	5.53	101	101371	17.6921	ug/L	100
13) Acetone	5.62	43	20475	21.5168	ug/L	92
14) 1,1-Dichloroethene	5.83	61	171348	18.5995	ug/L	100
15) Tert-Butyl Alcohol	5.97	59	47384	190.7358	ug/L	97
16) Dimethyl Sulfide	6.11	62	144647	19.7776	ug/L	99
17) Iodomethane	6.36	142	104908	19.9168	ug/L	100
18) Methyl acetate	6.41	43	67441	17.9582	ug/L	100
19) Methylene Chloride	6.67	84	109105	19.1204	ug/L	96
20) Carbon Disulfide	6.69	76	336586	20.1657	ug/L	100
21) Acrylonitrile	6.87	53	25998	20.2773	ug/L	98
22) Methyl Tert Butyl Ether	6.92	73	223672	18.6058	ug/L	98
23) trans-1,2-Dichloroethene	7.16	96	102555	18.4036	ug/L	99
24) n-Hexane	7.26	57	130580	20.4265	ug/L	98
25) Diisopropyl ether	7.65	45	2131711	105.0110	ug/L	99
26) Vinyl Acetate	7.84	43	142810	48.5953	ug/L	96
27) 1,1-Dichloroethane	7.84	63	216101	18.9808	ug/L	98
28) Ethyl-Tert-Butyl ether	8.29	59	1587778	96.2449	ug/L	99
29) 2-Butanone	8.49	43	30149	22.6579	ug/L	97
30) Propionitrile	8.60	54	43451	114.1705	ug/L	96
31) 2,2-Dichloropropane	8.71	77	159287	18.5062	ug/L	93
32) cis-1,2-Dichloroethene	8.78	96	115706	19.8715	ug/L	100
33) Chloroform	9.02	83	198689	19.3088	ug/L	99
34) 1-Bromopropane	9.17	122	22039	21.1111	ug/L	93
35) Bromochloromethane	9.27	130	63268	20.4291	ug/L	100
36) Tetrahydrofuran	9.30	42	92570	105.7902	ug/L	96
38) 1,1,1-Trichloroethane	9.62	97	169193	18.8226	ug/L	96
39) Cyclohexane	9.64	56	181785	20.1873	ug/L	99
40) 1,1-Dichloropropene	9.85	75	144287	19.4578	ug/L	98
41) Tert-Amyl-Methyl ether	9.99	73	1227829	99.9629	ug/L	99
42) Carbon Tetrachloride	10.00	117	157887	19.8443	ug/L	99

(#) = qualifier out of range (m) = manual integration
 6M107923.D 8260WTR.M Sun May 06 19:05:10 2012

Page 1

Data File : C:\MSDCHEM\1\data\050612\6M107923.D Vial: 5
 Acq On : 6 May 2012 18:42 Operator: MES
 Sample : WG397130-02 20ug/L LCS 8260 Inst : HPMS6
 Misc : 1,1 STD51372 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 06 19:05:10 2012 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
 Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
 Last Update : Wed Apr 25 15:22:20 2012
 Response via : Initial Calibration
 DataAcq Meth : 8260WTR

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) 1,2-Dichloroethane	10.21	62	138141	19.5435	ug/L	97
46) Benzene	10.24	78	421895	19.0157	ug/L	99
47) Trichloroethene	11.12	130	107219	19.2671	ug/L	100
48) Methylcyclohexane	11.21	83	136750	21.3083	ug/L	99
49) 1,2-Dichloropropane	11.37	63	115651	20.1901	ug/L	100
50) 1,4-Dioxane	11.71	88	2924	174.8065	ug/L	95
51) Bromodichloromethane	11.71	83	141784	20.6059	ug/L	100
52) Dibromomethane	11.80	93	54061	19.7428	ug/L	99
53) 2-Chloroethyl Vinyl Ether	12.10	63	45875	18.8308	ug/L	100
54) 4-Methyl-2-Pentanone	12.14	58	21110	21.1352	ug/L	98
55) cis-1,3-Dichloropropene	12.47	75	149927	18.3038	ug/L	100
56) Dimethyl Disulfide	12.75	79	78878	16.8558	ug/L	98
59) Toluene	12.95	91	413143	17.9880	ug/L	100
60) Ethyl Methacrylate	13.12	69	80074	19.4800	ug/L	95
61) Paraldehyde	13.16	89	4615	74.8351	ug/L #	60
62) trans-1,3-Dichloropropene	13.18	75	116155	15.7363	ug/L	99
63) 1,1,2-Trichloroethane	13.42	97	68116	18.4648	ug/L	99
64) 2-Hexanone	13.38	43	34820	21.6125	ug/L	93
65) 1,3-Dichloropropane	13.78	76	123748	19.6704	ug/L	95
66) Tetrachloroethene	13.90	166	100358	18.7096	ug/L	99
67) Dibromochloromethane	14.20	129	86007	17.4460	ug/L	95
68) 1,2-Dibromoethane	14.49	107	67247	18.6698	ug/L	97
69) 1-Chlorohexane	14.66	91	124064	20.3986	ug/L	99
70) Chlorobenzene	15.09	112	256753	17.5936	ug/L	98
71) 1,1,1,2-Tetrachloroethane	15.15	131	97736	18.5986	ug/L	98
72) Ethylbenzene	15.15	106	138865	18.4476	ug/L	98
73) m-,p-Xylene	15.26	106	338279	36.7612	ug/L	100
74) o-Xylene	15.91	106	159068	18.1537	ug/L	99
75) Styrene	15.95	104	266503	17.0236	ug/L	100
76) Bromoform	16.50	173	48905	19.6796	ug/L	98
77) Isopropylbenzene	16.42	105	349327	16.0182	ug/L	98
79) 1,1,2,2-Tetrachloroethane	16.68	83	72275	19.7042	ug/L	99
81) 1,2,3-Trichloropropane	16.90	110	20609	21.7916	ug/L	94
82) trans-1,4-Dichloro-2-Butene	16.98	53	21686	18.6374	ug/L	92
83) n-Propylbenzene	17.02	91	475326	18.6494	ug/L	100
84) Bromobenzene	17.14	156	104237	18.3265	ug/L	98
85) 1,3,5-Trimethylbenzene	17.25	105	322246	18.5326	ug/L	100
86) 2-Chlorotoluene	17.31	91	291773	17.2412	ug/L	95
87) 4-Chlorotoluene	17.37	91	301172	17.7026	ug/L	96
88) a-Methylstyrene	17.72	118	179337	20.1114	ug/L	98
89) tert-Butylbenzene	17.79	134	61252	17.4421	ug/L	97
90) 1,2,4-Trimethylbenzene	17.85	105	348783	18.9725	ug/L	100
91) sec-Butylbenzene	18.11	105	362417	18.3361	ug/L	99
92) p-Isopropyltoluene	18.30	119	306414	19.2997	ug/L	99
93) 1,3-Dichlorobenzene	18.49	146	184433	18.4102	ug/L	100
94) 1,4-Dichlorobenzene	18.65	146	187205	17.8181	ug/L	99
95) n-Butylbenzene	18.92	91	271412	19.6242	ug/L	100
96) 1,2-Dichlorobenzene	19.22	146	168006	18.5555	ug/L	96
97) 1,2-Dibromo-3-Chloropropane	20.40	75	10410	18.5630	ug/L	98
98) 1,2,4-Trichlorobenzene	21.75	180	98286	19.9435	ug/L	100
99) Hexachlorobutadiene	21.95	225	36331	18.4377	ug/L	99
100) Naphthalene	22.17	128	181029	19.2913	ug/L	100
101) 1,2,3-Trichlorobenzene	22.54	180	84102	19.6344	ug/L	99

(#) = qualifier out of range (m) = manual integration
 6M107923.D 8260WTR.M Sun May 06 19:05:11 2012

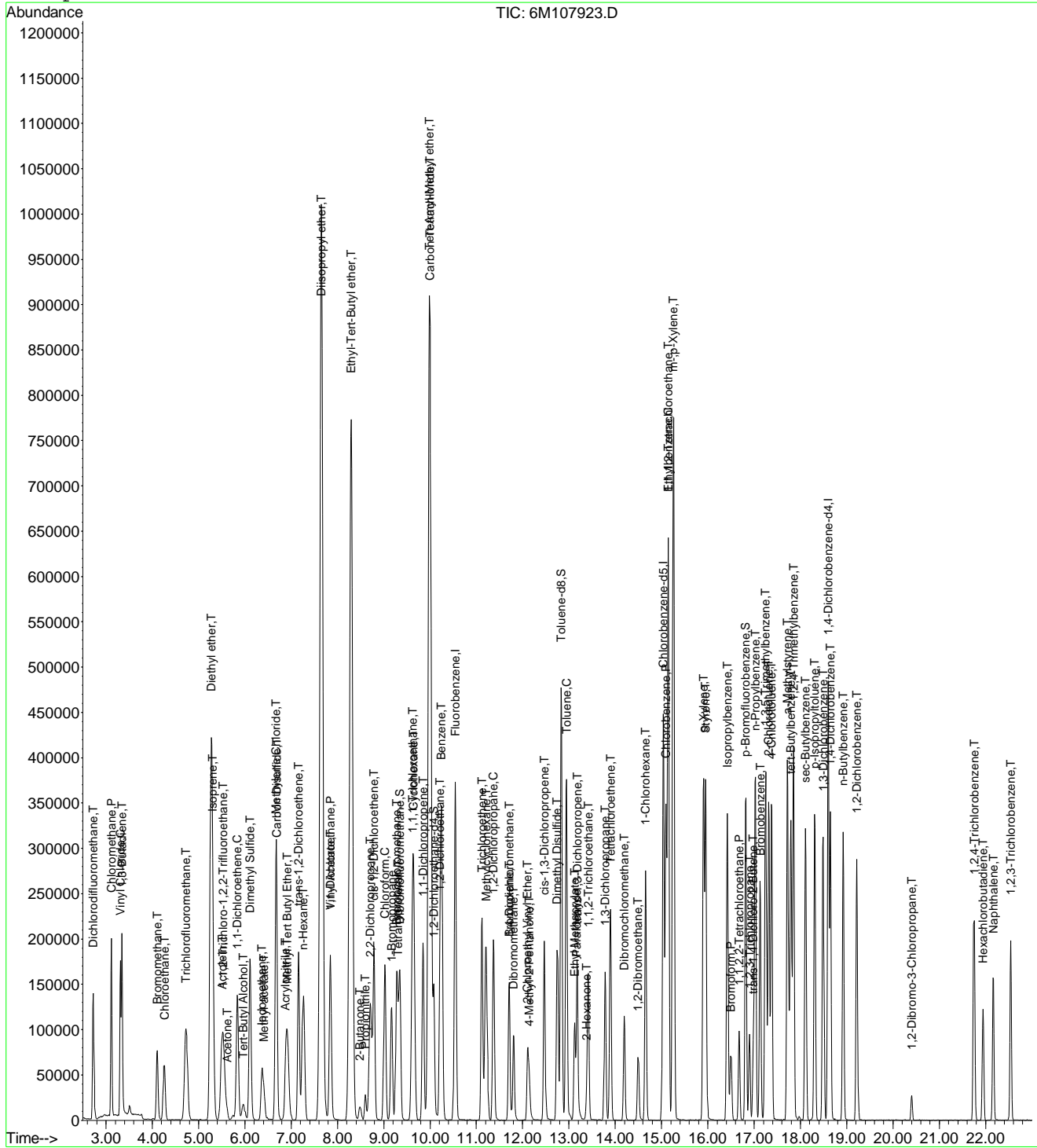
Page 2

Data File : C:\MSDchem\1\data\050612\6M107923.D
Acq On : 6 May 2012 18:42
Sample : WG397130-02 20ug/L LCS 8260
Misc : 1,1 STD51372
MS Integration Params: RTEINT.P
Quant Time: May 6 19:05 2012

Vial: 5
Operator: MES
Inst : HPMS6
Multiplr: 1.00

Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\1\METHODS\8260WTR.M (RTE Integrator)
Title : 8260B/624_WATER SOP:OVLMSV01 04/25/12 - HPMS6
Last Update : Wed Apr 25 15:22:20 2012
Response via : Initial Calibration



2.1.2 RSK 175

2.1.2.1 Summary Data



Login Number: L12050050
Department: Volatiles - GC
Analyst: Franci Bolden

Analysis RSK-175

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes/Sample Duplicates: The MS/MSD results were not associated with this sample delivery group (SDG), due to insufficient volume of sample. Microbac Laboratories recommends site specific MS/MSD samples to avoid possible data qualifications.

SAMPLES

Samples: Sample 05 required dilution analyses.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration

is not clearly covered by these four cases, then review and approval by the Laboratory Director or the QA/QC Supervisor will be required.

Narrative ID: 46041

Approved By: Michael Albertson



Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: HP16
Client ID: MW-05I-050112	Prep Method: 5021	Prep Date: N/A
Matrix: Water	Analytical Method: RSK175	Cal Date: 04/30/2012 15:04
Workgroup #: WG396966	Analyst: FJB	Run Date: 05/03/2012 16:33
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: 16G32172
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Methane	74-82-8	166		5.00	1.00
Carbon Dioxide	124-38-9	28500		10000	2500

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HP16
Client ID: MW-05S-050112	Prep Method: 5021	Prep Date: N/A
Matrix: Water	Analytical Method: RSK175	Cal Date: 04/30/2012 15:04
Workgroup #: WG396966	Analyst: FJB	Run Date: 05/03/2012 16:42
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: 16G32173
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Methane	74-82-8	49.3		5.00	1.00
Carbon Dioxide	124-38-9	53900		10000	2500

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HP16
Client ID: MW-24-050112	Prep Method: 5021	Prep Date: N/A
Matrix: Water	Analytical Method: RSK175	Cal Date: 04/30/2012 15:04
Workgroup #: WG396966	Analyst: FJB	Run Date: 05/03/2012 16:51
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: 16G32174
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Methane	74-82-8	2920	E	5.00	1.00
Carbon Dioxide	124-38-9	246000		10000	2500
E	Semiquantitative result (out of calibration range)				

Certificate of Analysis

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HP16
Client ID: MW-24-050112	Prep Method: 5021	Prep Date: N/A
Matrix: Water	Analytical Method: RSK175	Cal Date: 04/30/2012 15:04
Workgroup #: WG397035	Analyst: MDA	Run Date: 05/04/2012 14:49
Collect Date: 05/01/2012 09:30	Dilution: 10	File ID: 16G32206
Sample Tag: DL01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Methane	74-82-8	2360		50.0	10.0
Carbon Dioxide	124-38-9	229000		100000	25000

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: HP16
Client ID: MW-01-050112	Prep Method: 5021	Prep Date: N/A
Matrix: Water	Analytical Method: RSK175	Cal Date: 04/30/2012 15:04
Workgroup #: WG397035	Analyst: MDA	Run Date: 05/04/2012 13:08
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: 16G32195
Sample Tag: 02	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Methane	74-82-8	62.5		5.00	1.00
Carbon Dioxide	124-38-9	14400		10000	2500

2.1.2.2 QC Summary Data

RSK-175 - Example Calculation for Methane

1.0 Linear Calibration Models

Option A - Average RF Method

ICAL_x	ICAL_r	RF
1.67	19901	11917
6.67	69174	10371
16.7	176923	10594
66.7	685135	10272
133	1324853	9961
300	2845104	9484
Average RF:		10433

Where:

ICAL_x = the ICAL concentration

ICAL_r = the ICAL response (area)

RF = calibration factor = ICAL_r / ICAL_x

Option B - Agilent Linear Regression Constant

ICAL_x	ICAL_r	[ICAL_r]^2	[ICAL-x][ICAL-r]
1.67	19901	396049801	33235
6.67	69174	4785042276	461391
16.7	176923	31301747929	2954614
66.7	685135	4.6941E+11	45698505
133	1324853	1.75524E+12	176205449
300	2845104	8.09462E+12	853531200
Summation:		1.03557E+13	1078884393

Agilent Linear Regression Constant : **9598.567853**
 (1.03557E+13)/1078884393)

2.0 Calculate the concentration in extract, Cx

Where:

y = area response of methane from quant report

a = average RF (or Agilent regression constant)

Cx = y/a

1157414
10433.00
110.9377935

3.0 Calculate the concentration in sample

Cs = Cx (MW/Tf) (HS/S) (DF)

Where:

Cx = Concentration in extract

MW = molecular weight of analyte

TF = temperature factor = (22.4)(313/273)

HS = headspace volume

S = sample volume remaining after headspace removal

DF = dilution factor

Cs = calculated sample concentration

110.9377935 umol/mol
16.04 ug/umol
25.68 L/mol
0.015 L
0.00547 L
2
380.034301 ug/L

RSK-175 - Example Calculation for Carbon Dioxide

ICAL Plot - Quadratic Regression ($y = Ax^2 + Bx + C$)

$$Ax^2 + Bx + (C - y) = 0$$

Step 1 - Calculate the concentration in extract, Cx

Data from quadratic regression plot:

Value of A from plot:	0.916
Value of B from plot:	1540
Value of C from plot:	0
Response for methane from quantitation report (y):	8763828
Value of C - y	-8763828

Solving for Cx using the quadratic formula:

Root 1 - Computed Cx1:	2364.716284 umol/mol
Root 2 - Computed Cx2:	-4045.938991

Step 2 - Calculate the concentration in sample

$$C_s = C_x (MW/T_f) (HS/S) (DF)$$

Where:

Cx = Concentration in extract :	2364.716284 umol/mol
MW = molecular weight of analyte:	44.0 ug/umol
TF = temperature factor = (22.4)(313/273):	25.68 L/mol
HS = initial headspace volume (extraction log):	0.015 L
S = final volume (extraction log):	0.00547 L
DF = dilution factor:	10
Cs = calculated sample concentration:	111106.798 ug/L

Other Notes:

Temperature of headspace = 40 C = 313 K

Analyte	MW (g/mol)
Methane	16.04
Ethane	30.07
Ethene	28.05
Propane	44.1
Carbon Dioxide	44.0

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HP16 Dataset: 043012
 Analyst1: MDA Analyst2: NA
 Method: RSK175 SOP: RSK01 Rev: 16
 Method: 5021 SOP: RSK01 Rev: 16

Maintenance Log ID: _____

Internal Standard: NA Surrogate Standard: NA
 CCV: STD38726 LCS: STD45308 MS/MSD: STD45308
 Column 1 ID: RTQBOND Column 2 ID: RTQBOND
 Workgroups: WG396526, WG396527

Comments: files 16G63290 and 16G32099 not used

File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
16G32089	WG396526-01 133umol/mol CCV RSK175	NA	1	1	STD38726	04/30/12 13:15
16G32091	WG396526-01 0.67umol/mol ICAL RSK175	NA	1	1	STD38726	04/30/12 13:39
16G32092	WG396526-02 1.67umol/mol ICAL RSK175	NA	1	1	STD38726	04/30/12 13:49
16G32093	WG396526-03 33umol/mol ICAL RSK175	NA	1	1	STD38726	04/30/12 13:58
16G32094	WG396526-04 67umol/mol ICAL RSK175	NA	1	1	STD38726	04/30/12 14:07
16G32095	WG396526-05 133umol/mol ICAL RSK175	NA	1	1	STD38726	04/30/12 14:16
16G32096	WG396526-06 333umol/mol ICAL RSK175	NA	1	1	STD38726	04/30/12 14:26
16G32097	WG396526-07 533umol/mol ICAL RSK175	NA	1	1	STD38726	04/30/12 14:35
16G32098	WG396526-08 133umol/mol ICV RSK175	NA	1	1	STD45308	04/30/12 14:44
16G32100	WG396526-02 1.67umol/mol CCV RSK175	NA	1	1	STD38726	04/30/12 15:04
16G32101	WG396526-08 133umol/mol ICV RSK175	NA	1	1	STD45308	04/30/12 15:24
16G32102	WG396526-09 133umol/mol CCV RSK175	NA	1	1	STD38726	04/30/12 15:41
16G32103	WG396527-01 BLANK RSK175	NA	1	1		04/30/12 15:51
16G32104	WG396527-02 67umol/mol LCS RSK175	NA	1	1	STD45308	04/30/12 16:00
16G32105	L12040681-01 A RSK175	<2	1	1		04/30/12 16:14
16G32106	L12040898-03 A RSK175EXT	7	1	1		04/30/12 16:24
16G32107	L12040898-05 A RSK175EXT	7	1	1		04/30/12 16:33
16G32108	L12040898-08 A RSK175EXT	7	1	1		04/30/12 16:43
16G32109	L12040898-10 A RSK175EXT	7	1	1		04/30/12 16:52
16G32110	L12040898-12 A RSK175EXT	7	1	1		04/30/12 17:01
16G32111	L12040898-01 A RSK175EXT	7	1	1		04/30/12 17:11
16G32112	RINSE	NA	1	1		04/30/12 17:20
16G32113	WG396526-10 133umol/mol CCV RSK175	NA	1	1	STD38726	04/30/12 17:30
16G32114	L12040928-01 A RSK175EXT	7	1	1		04/30/12 17:39
16G32115	L12040928-08 MS A RSK175EXT	7	1	1	STD45308	04/30/12 17:48
16G32116	L12040928-10 MSD A RSK175EXT	7	1	1	STD45308	04/30/12 17:58
16G32117	L12040928-03 A RSK175EXT	7	1	1		04/30/12 18:07
16G32118	L12040935-01 A RSK175	<2	1	1		04/30/12 18:17
16G32119	L12040936-01 A RSK175	<2	1	1		04/30/12 18:26
16G32120	L12040933-01 A RSK175	<2	1	1		04/30/12 18:36
16G32121	L12040938-01 A RSK175	<2	1	1		04/30/12 18:45
16G32122	L12040939-01 A RSK175	<2	1	1		04/30/12 18:55
16G32123	L12040928-05 A RSK175	10	1	1		04/30/12 19:04
16G32125	WG396526-11 133umol/mol CCV RSK175	NA	1	1	STD38726	04/30/12 19:23

Approved: May 01, 2012

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: HP16 Dataset: 043012
 Analyst1: MDA Analyst2: NA
 Method: RSK175 SOP: RSK01 Rev: 16
 Method: 5021 SOP: RSK01 Rev: 16

Maintenance Log ID: _____

Internal Standard: NA Surrogate Standard: NA
 CCV: STD38726 LCS: STD45308 MS/MSD: STD45308
 Column 1 ID: RTQBOND Column 2 ID: RTQBOND
 Workgroups: WG396526, WG396527

Comments: files 16G63290 and 16G32099 not used

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1				
File ID: 16G32089				
dnr needs ical				
3				
File ID: 16G32092				
dnr rr				
9				
File ID: 16G32098				
dnr rr				
18				
File ID: 16G32109				
rr 20x methane				
19				
File ID: 16G32110				
rr conf methane				
20				
File ID: 16G32111				
rr 20x methane				

Approved: May 01, 2012

Page: 2

[Signature]



Microbac Laboratories Inc.

Instrument Run Log

Instrument: HP16 Dataset: 050312
 Analyst1: FJB Analyst2: NA
 Method: RSK175 SOP: RSK01 Rev: 16
 Method: 5021 SOP: RSK01 Rev: 16

Maintenance Log ID: 41598

Internal Standard: NA Surrogate Standard: NA
 CCV: STD38726 LCS: STD45308 MS/MSD: STD45308
 Column 1 ID: RTQBOND Column 2 ID: RTQBOND
 Workgroups: WG396966

Comments:

File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
16G32165	WG396965-01 133umol/mol CCV RSK175	NA	1	1	STD38726	05/03/12 15:23
16G32166	WG396966-01 BLANK RSK175	NA	1	1		05/03/12 15:37
16G32167	WG396966-02 67umol/mol LCS RSK175	NA	1	1	STD45308	05/03/12 15:46
16G32168	L12050013-01 5X B RSK175 D1	<2	1	5		05/03/12 15:56
16G32169	L12050010-12 50X B RSK175 D1	<2	1	50		05/03/12 16:05
16G32170	L12050010-13 5X B RSK175 D1	<2	1	5		05/03/12 16:14
16G32171	L12050013-02 B RSK175	<2	1	1		05/03/12 16:23
16G32172	L12050050-01 A RSK175	7	1	1		05/03/12 16:33
16G32173	L12050050-03 A RSK175	7	1	1		05/03/12 16:42
16G32174	L12050050-05 A RSK175	7	1	1		05/03/12 16:51
16G32175	L12050050-07 A RSK175	7	1	1		05/03/12 17:00
16G32176	WG396965-02 133umol/mol CCV RSK175	NA	1	1	STD38726	05/03/12 17:09
16G32177	L12050061-01 A RSK175	<2	1	1		05/03/12 17:19
16G32178	L12050062-01 A RSK175	<2	1	1		05/03/12 17:28
16G32179	L12050063-01 A RSK175	<2	1	1		05/03/12 17:37
16G32180	L12050064-01 A RSK175	<2	1	1		05/03/12 17:46
16G32181	L12050065-01 A RSK175	<2	1	1		05/03/12 17:55
16G32182	L12050010-07 REF A RSK175	<2	1	1		05/03/12 18:04
16G32183	L12050010-08 MS A RSK175	<2	1	1	STD45308	05/03/12 18:13
16G32184	L12050010-09 MSD A RSK175	<2	1	1	STD45308	05/03/12 18:23
16G32185	L12050010-14 A RSK175	<2	1	1		05/03/12 18:32
16G32186	L12050010-15 A RSK175	<2	1	1		05/03/12 18:41
16G32187	WG396965-03 133umol/mol CCV RSK175	NA	1	1	STD38726	05/03/12 18:50
16G32188	L12050051-01 A RSK175	<2	1	1		05/03/12 18:59
16G32189	L12050051-02 A RSK175	<2	1	1		05/03/12 19:08
16G32190	WG396965-04 133umol/mol CCV RSK175	NA	1	1	STD38726	05/03/12 19:18

Comments

Seq.	Rerun	Dil.	Reason	Analytes
10				
File ID: 16G32174				
rr 10x methane				
11				

Approved: May 04, 2012

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: HP16 Dataset: 050312
 Analyst1: FJB Analyst2: NA
 Method: RSK175 SOP: RSK01 Rev: 16
 Method: 5021 SOP: RSK01 Rev: 16

Maintenance Log ID: 41598

Internal Standard: NA Surrogate Standard: NA
 CCV: STD38726 LCS: STD45308 MS/MSD: STD45308
 Column 1 ID: RTQBOND Column 2 ID: RTQBOND
 Workgroups: WG396966

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
File ID: 16G32175				
rr st				
13				
File ID: 16G32177				
rr ccv				
14				
File ID: 16G32178				
rr ccv				
15				
File ID: 16G32179				
rr ccv				
16				
File ID: 16G32180				
rr ccv				
17				
File ID: 16G32181				
rr ccv				
21				
File ID: 16G32185				
rr 50x methane				
22				
File ID: 16G32186				
rr 50x methane				
24				
File ID: 16G32188				
rr ccv				
25				
File ID: 16G32189				
rr ccv				

Approved: May 04, 2012

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HP16 Dataset: 050412
 Analyst1: MDA Analyst2: NA
 Method: RSK175 SOP: RSK01 Rev: 16
 Method: 5021 SOP: RSK01 Rev: 16

Maintenance Log ID: _____

Internal Standard: NA Surrogate Standard: NA
 CCV: STD38726 LCS: STD45308 MS/MSD: NA
 Column 1 ID: RTQBOND Column 2 ID: RTQBOND
 Workgroups: WG397035, WG397036

Comments:

File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
16G32191	WG397034-01 133umol/mol CCV RSK175	NA	1	1	STD38726	05/04/12 12:31
16G32192	WG397035-01 BLANK RSK175	NA	1	1		05/04/12 12:41
16G32193	WG397035-02 67umol/mol LCS RSK175	NA	1	1	STD45308	05/04/12 12:50
16G32194	WG397035-03 67umol/mol LCSD RSK175	NA	1	1	STD45308	05/04/12 12:59
16G32195	L12050050-07 B RSK175EXT	7	1	1		05/04/12 13:08
16G32196	L12050051-01 B RSK175	<2	1	1		05/04/12 13:18
16G32197	L12050051-02 B RSK175	<2	1	1		05/04/12 13:26
16G32198	L12050061-01 B RSK175	<2	1	1		05/04/12 13:35
16G32199	L12050062-01 B RSK175	<2	1	1		05/04/12 13:45
16G32200	L12050063-01 B RSK175	<2	1	1		05/04/12 13:54
16G32201	L12050064-01 B RSK175	<2	1	1		05/04/12 14:03
16G32202	WG397034-02 133umol/mol CCV RSK175	NA	1	1	STD38726	05/04/12 14:12
16G32203	L12050065-01 B RSK175-SPE	<2	1	1		05/04/12 14:21
16G32204	L12050010-14 B RSK175 50X	<2	1	50		05/04/12 14:30
16G32205	L12050010-15 B RSK175 50X	<2	1	50		05/04/12 14:39
16G32206	L12050050-05 B RSK175EXT 10X	7	1	10		05/04/12 14:49
16G32207	L12050099-01 A RSK175EXT	7	1	1		05/04/12 14:58
16G32208	L12050099-03 A RSK175EXT	7	1	1		05/04/12 15:07
16G32209	L12050099-05 A RSK175EXT	7	1	1		05/04/12 15:16
16G32210	L12050099-07 A RSK175EXT	7	1	1		05/04/12 15:25
16G32211	L12050099-09 A RSK175EXT	7	1	1		05/04/12 15:34
16G32212	L12050051-07 A RSK175	<2	1	1		05/04/12 15:43
16G32213	WG397034-03 133umol/mol CCV RSK175	NA	1	1	STD38726	05/04/12 15:52
16G32214	L12050051-08 A RSK175	<2	1	1		05/04/12 16:02
16G32215	L12050051-11 A RSK175	<2	1	1		05/04/12 16:11
16G32216	L12050051-12 A RSK175	<2	1	1		05/04/12 16:20
16G32217	WG397034-04 133umol/mol CCV RSK175	NA	1	1	STD397034	05/04/12 16:29
16G32218	WG397036-01 BLANK RSK175	NA	1	1		05/04/12 16:44
16G32219	WG397036-02 67umol/mol LCS RSK175	NA	1	1	STD45308	05/04/12 16:53
16G32220	WG397036-03 67umol/mol LCSD RSK175	NA	1	1	STD45308	05/04/12 17:02
16G32221	WG397036-01 BLANK RSK175	NA	1	1		05/04/12 17:11
16G32222	L12050051-03 A RSK175	<2	1	1		05/04/12 17:20
16G32223	L12050051-04 A RSK175	<2	1	1		05/04/12 17:29
16G32224	L12050051-05 A RSK175	<2	1	1		05/04/12 17:38

Approved: May 08, 2012

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HP16 Dataset: 050412
 Analyst1: MDA Analyst2: NA
 Method: RSK175 SOP: RSK01 Rev: 16
 Method: 5021 SOP: RSK01 Rev: 16

Maintenance Log ID: _____

Internal Standard: NA Surrogate Standard: NA
 CCV: STD38726 LCS: STD45308 MS/MSD: NA
 Column 1 ID: RTQBOND Column 2 ID: RTQBOND
 Workgroups: WG397035, WG397036

Comments:

File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
16G32225	L12050051-06 A RSK175	<2	1	1		05/04/12 17:47
16G32226	L12050051-13 A RSK175	<2	1	1		05/04/12 17:56
16G32227	L12050052-01 A RSK175	<2	1	1		05/04/12 18:05
16G32228	L12050052-02 A RSK175	<2	1	1		05/04/12 18:14
16G32229	WG397034-05 133umol/mol CCV RSK175	NA	1	1	STD38726	05/04/12 18:24
16G32230	L12050052-03 A RSK175	<2	1	1		05/04/12 18:33
16G32231	L12050052-04 A RSK175	<2	1	1		05/04/12 18:42
16G32232	L12050052-05 A RSK175	<2	1	1		05/04/12 18:51
16G32233	L12050052-06 A RSK175	<2	1	1		05/04/12 19:00
16G32234	L12050052-07 A RSK175	<2	1	1		05/04/12 19:09
16G32235	L12050052-08 A RSK175	<2	1	1		05/04/12 19:18
16G32236	L12050052-09 A RSK175	<2	1	1		05/04/12 19:27
16G32237	L12050052-10 A RSK175	<2	1	1		05/04/12 19:37
16G32238	L12050052-11 A RSK175	<2	1	1		05/04/12 19:46
16G32239	L12050052-12 A RSK175	<2	1	1		05/04/12 19:55
16G32240	WG397034-06 133umol/mol CCV RSK175	NA	1	1	STD38726	05/04/12 20:04
16G32241	L12050052-13 A RSK175	<2	1	1		05/04/12 20:13
16G32242	L12050052-14 A RSK175	7	1	1		05/04/12 20:22
16G32243	L12050052-15 A RSK175	<2	1	1		05/04/12 20:32
16G32244	WG397034-07 133umol/mol CCV RSK175	NA	1	1	STD38726	05/04/12 20:41

Comments

Seq.	Rerun	Dil.	Reason	Analytes
11				
File ID: 16G32201				
rr st ccv				
17				
File ID: 16G32207				
rr 5x methane				
28				
File ID: 16G32218				
dnr rr				
37				
File ID: 16G32227				

Approved: May 08, 2012

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HP16 Dataset: 050412
 Analyst1: MDA Analyst2: NA
 Method: RSK175 SOP: RSK01 Rev: 16
 Method: 5021 SOP: RSK01 Rev: 16

Maintenance Log ID: _____

Internal Standard: NA Surrogate Standard: NA
 CCV: STD38726 LCS: STD45308 MS/MSD: NA
 Column 1 ID: RTQBOND Column 2 ID: RTQBOND
 Workgroups: WG397035, WG397036

Comments: **Comments**

Seq.	Rerun	Dil.	Reason	Analytes
			rr 50x methane	
38			File ID: 16G32228	
			dnr rr st	
40			File ID: 16G32230	
			rr 50x methane	
41			File ID: 16G32231	
			dnr rr st	
43			File ID: 16G32233	
			rr 20x methane	
44			File ID: 16G32234	
			dnr rr st	
46			File ID: 16G32236	
			rr 50x methane	
47			File ID: 16G32237	
			rr 20x methane	
48			File ID: 16G32238	
			dnr rr st	
49			File ID: 16G32239	
			rr 50x methane, ethene	
51			File ID: 16G32241	
			rr 25x methane, ethene	
52			File ID: 16G32242	
			rr 25x methane	

Approved: May 08, 2012

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Microbac Laboratories Inc.
UPLOAD BATCH EXTRACTION INFORMATION

Batch #: B154145

	Initial Amount		Nominal Amount		Spike Amount		Surrogate Spike Amount		Final Amount		Final Nominal Amount		Temp (C)
WG396526-01	15	mL	15	mL					5.47	mL	5.47	mL	40
WG396526-03	15	mL	15	mL					5.47	mL	5.47	mL	40
WG396526-04	15	mL	15	mL					5.47	mL	5.47	mL	40
WG396526-05	15	mL	15	mL					5.47	mL	5.47	mL	40
WG396526-06	15	mL	15	mL					5.47	mL	5.47	mL	40
WG396526-07	15	mL	15	mL					5.47	mL	5.47	mL	40
WG396526-02	15	mL	15	mL					5.47	mL	5.47	mL	40
WG396526-08	15	mL	15	mL					5.47	mL	5.47	mL	40



Microbac Laboratories Inc.
UPLOAD BATCH EXTRACTION INFORMATION

Batch #: B154157

	Initial Amount		Nominal Amount		Spike Amount		Surrogate Spike Amount		Final Amount		Final Nominal Amount		Temp (C)
WG396526-08	15	mL	15	mL					5.47	mL	5.47	mL	40



Microbac Laboratories Inc.
UPLOAD BATCH EXTRACTION INFORMATION

Batch #: B154250

	Initial Amount		Nominal Amount		Spike Amount		Surrogate Spike Amount		Final Amount		Final Nominal Amount		Temp (C)
WG396965-01	15	mL	15	mL					5.47	mL	5.47	mL	40
WG396965-02	15	mL	15	mL					5.47	mL	5.47	mL	40
WG396965-03	15	mL	15	mL					5.47	mL	5.47	mL	40
WG396965-04	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050010-08	15	mL	15	mL	.1	mL			5.47	mL	5.47	mL	40
L12050010-15	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050051-01	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050051-02	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050013-02	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050050-05	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050063-01	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050010-09	15	mL	15	mL	.1	mL			5.47	mL	5.47	mL	40
L12050010-14	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050013-01	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050010-12	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050050-01	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050050-03	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050061-01	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050064-01	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050065-01	15	mL	15	mL					5.47	mL	5.47	mL	40
WG396966-03	15	mL	15	mL					5.47	mL	5.47	mL	40
WG396966-02	15	mL	15	mL	.1	mL			5.47	mL	5.47	mL	40
L12050010-07	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050050-07	15	mL	15	mL					5.47	mL	5.47	mL	40
WG396966-01	15	mL	15	mL					5.47	mL	5.47	mL	40
WG396966-05	15	mL	15	mL	.1	mL			5.47	mL	5.47	mL	40
L12050062-01	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050010-13	15	mL	15	mL					5.47	mL	5.47	mL	40
WG396966-04	15	mL	15	mL	.1	mL			5.47	mL	5.47	mL	40



Microbac Laboratories Inc.
UPLOAD BATCH EXTRACTION INFORMATION

Batch #: B154335

	Initial Amount		Nominal Amount		Spike Amount		Surrogate Spike Amount		Final Amount		Final Nominal Amount		Temp (C)
WG397034-01	15	mL	15	mL					5.47	mL	5.47	mL	40
WG397034-02	15	mL	15	mL					5.47	mL	5.47	mL	40
WG397034-03	15	mL	15	mL					5.47	mL	5.47	mL	40
WG397034-04	15	mL	15	mL					5.47	mL	5.47	mL	40
WG397034-05	15	mL	15	mL					5.47	mL	5.47	mL	40
WG397034-06	15	mL	15	mL					5.47	mL	5.47	mL	40
WG397034-07	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050062-01	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050050-05	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050051-04	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050052-02	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050052-08	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050064-01	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050010-14	15	mL	15	mL					5.47	mL	5.47	mL	40
WG397036-01	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050052-04	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050052-05	15	mL	15	mL					5.47	mL	5.47	mL	40
WG397035-01	15	mL	15	mL					5.47	mL	5.47	mL	40
WG397035-03	15	mL	15	mL	.1	mL			5.47	mL	5.47	mL	40
L12050051-01	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050051-02	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050010-15	15	mL	15	mL					5.47	mL	5.47	mL	40
WG397036-03	15	mL	15	mL	.1	mL			5.47	mL	5.47	mL	40
L12050051-05	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050052-10	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050099-07	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050052-03	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050052-07	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050052-09	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050099-03	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050099-09	15	mL	15	mL					5.47	mL	5.47	mL	40
WG397036-02	15	mL	15	mL	.1	mL			5.47	mL	5.47	mL	40
L12050052-01	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050052-11	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050052-12	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050052-15	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050061-01	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050099-01	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050051-11	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050052-14	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050050-07	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050051-07	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050051-12	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050051-06	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050051-13	15	mL	15	mL					5.47	mL	5.47	mL	40



Microbac Laboratories Inc.
UPLOAD BATCH EXTRACTION INFORMATION

Batch #: B154335

L12050052-13	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050051-03	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050051-08	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050099-05	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050065-01	15	mL	15	mL					5.47	mL	5.47	mL	40
L12050052-06	15	mL	15	mL					5.47	mL	5.47	mL	40
WG397035-02	15	mL	15	mL	.1	mL			5.47	mL	5.47	mL	40
L12050063-01	15	mL	15	mL					5.47	mL	5.47	mL	40



Microbac Laboratories Inc.
UPLOAD BATCH EXTRACTION INFORMATION

Batch #: B154388

	Initial Amount		Nominal Amount		Spike Amount		Surrogate Spike Amount		Final Amount		Final Nominal Amount		Temp (C)
L12050050-05	15	mL	15	mL					5.47	mL	5.47	mL	40



Microbac Laboratories Inc.

Data Checklist

Date: 30-APR-2012
 Analyst: MDA
 Analyst: NA
 Method: RSK175
 Instrument: HP16
 Curve Workgroup: NA
 Runlog ID: 46475
 Analytical Workgroups: WG396526, WG396527

Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	NA
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	NA
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	NA
MS/MSD/Duplicates	X
Samples	X
Surrogates	NA
Calculations & Correct Factors	NA
Dilutions Run	NA
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	MDA
Secondary Reviewer	FJB
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the resonableness of the results	X

Primary Reviewer:
01-MAY-2012



Secondary Reviewer:
01-MAY-2012




Microbac Laboratories Inc.

Data Checklist

Date: 03-MAY-2012
 Analyst: FJB
 Analyst: NA
 Method: RSK175
 Instrument: HP16
 Curve Workgroup: NA
 Runlog ID: 46544
 Analytical Workgroups: WG396966

Initial Calibration	X
Average RF	X
Linear Req or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	NA
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	NA
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	NA
MS/MSD/Duplicates	X
Samples	X
Surrogates	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	FJB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the resonableness of the results	X

Primary Reviewer:
04-MAY-2012

Secondary Reviewer:
04-MAY-2012





Microbac Laboratories Inc.

Data Checklist

Date: 04-MAY-2012
 Analyst: MDA
 Analyst: NA
 Method: RSK175
 Instrument: HP16
 Curve Workgroup: NA
 Runlog ID: 46589
 Analytical Workgroups: WG397035, WG397036

Initial Calibration	X
Average RF	X
Linear Req or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	NA
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	NA
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	NA
MS/MSD/Duplicates	NA
Samples	X
Surrogates	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	MDA
Secondary Reviewer	FJB
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the resonableness of the results	X

Primary Reviewer:
07-MAY-2012



Secondary Reviewer:
08-MAY-2012




Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method: RSK175
 Login Number: L12050050

AAB#: WG396966

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MW-05I-050112	01	05/01/12								7		05/03/12	2.2	7
MW-05S-050112	03	05/01/12								7		05/03/12	2.1	7
MW-24-050112	05	05/01/12								7		05/03/12	2.3	7

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2402025
 Report generated 05/09/2012 10:13



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method: RSK175
 Login Number: L12050050

AAB#: WG397035

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MW-24-050112	05	05/01/12									05/04/12	3.2	7	
MW-01-050112	07	05/01/12									05/04/12	3	7	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2402025
 Report generated 05/09/2012 10:13



METHOD BLANK SUMMARY

Login Number: L12050050 Work Group: WG396966
 Blank File ID: 16G32166 Blank Sample ID: WG396966-01
 Prep Date: 05/03/12 15:37 Instrument ID: HP16
 Analyzed Date: 05/03/12 15:37 Method: RSK175
 Analyst: FJB

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG396966-02	16G32167	05/03/12 15:46	01
MW-05I-050112	L12050050-01	16G32172	05/03/12 16:33	01
MW-05S-050112	L12050050-03	16G32173	05/03/12 16:42	01
MW-24-050112	L12050050-05	16G32174	05/03/12 16:51	01

Report Name: BLANK_SUMMARY
 PDF File ID: 2402026
 Report generated 05/09/2012 10:13



METHOD BLANK SUMMARY

Login Number: L12050050 Work Group: WG397035
 Blank File ID: 16G32192 Blank Sample ID: WG397035-01
 Prep Date: 05/04/12 12:41 Instrument ID: HP16
 Analyzed Date: 05/04/12 12:41 Method: RSK175
 Analyst: MDA

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG397035-02	16G32193	05/04/12 12:50	01
LCS2	WG397035-03	16G32194	05/04/12 12:59	01
MW-01-050112	L12050050-07	16G32195	05/04/12 13:08	02
MW-24-050112	L12050050-05	16G32206	05/04/12 14:49	DL01

Report Name: BLANK_SUMMARY
 PDF File ID: 2402026
 Report generated 05/09/2012 10:13



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L12050050 Prep Date: 05/03/12 15:37 Sample ID: WG396966-01
Instrument ID: HP16 Run Date: 05/03/12 15:37 Prep Method: 5021
File ID: 16G32166 Analyst: FJB Method: RSK175
Workgroup (AAB#): WG396966 Matrix: Water Units: ug/L
Contract #: Cal ID: HP16-30-APR-12

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Methane	1.00	5.0	1.00	1	U
Carbon Dioxide	2500	10000	2500	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2402027
09-MAY-2012 10:13



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L12050050 Prep Date: 05/04/12 12:41 Sample ID: WG397035-01
Instrument ID: HP16 Run Date: 05/04/12 12:41 Prep Method: 5021
File ID: 16G32192 Analyst: MDA Method: RSK175
Workgroup (AAB#): WG397035 Matrix: Water Units: ug/L
Contract #: Cal ID: HP16-30-APR-12

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Methane	1.00	5.0	1.00	1	U
Carbon Dioxide	2500	10000	2500	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2402027
09-MAY-2012 10:13



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396966-02
Instrument ID: HP16 Run Time: 15:46 Prep Method: 5021
File ID: 16G32167 Analyst: FJB Method: RSK175
Workgroup (AAB#): WG396966 Matrix: Water Units: ug/L
QC Key: WATERLOO Lot#: STD45308 Cal ID: HP16-30-APR-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Methane	116	102	87.9	56 - 140	
Carbon Dioxide	31300	25300	80.7	10 - 200	

LCS - Modified 03/06/2008
PDF File ID: 2402028
Report generated: 05/04/2012 10:40



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12050050 Analyst: MDA Prep Method: 5021
 Instrument ID: HP16 Matrix: Water Method: RSK175
 Workgroup (AAB#): WG397035 Units: ug/L
 QC Key: WATERLOO Lot #: STD45308
 Sample ID: WG397035-02 LCS File ID: 16G32193 Run Date: 05/04/2012 12:50
 Sample ID: WG397035-03 LCS2 File ID: 16G32194 Run Date: 05/04/2012 12:59

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Methane	116	100	85.9	116	98.9	84.9	1.15	56 - 140	40	
Carbon Dioxide	31300	27900	89.0	31300	21900	69.8	24.3	10 - 200	40	

LCS_LCS2 - Modified 03/06/2008
 PDF File ID: 2404548
 Report generated: 05/09/2012 10:13



Calibration Table Report
 Method: RSK2EXT.M
 Title: RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Calibration: Mon Apr 30 15:17:04 2012
 Curve:WG396526
 Calibration Files

Compound	0.66 16G32091.D	1.67 16G32100.D	33.3 16G32093.D	66.6 16G32094.D	133 16G32095.D	333 16G32096.D	533 16G32097.D	Avg	%RSD
methane		203409.458	166274.873	164502.812	172395.311	183639.278	197763.296	181331.000	9.070
ethene		310720.367	265124.455	268111.375	281538.282	306679.841	346282.858	296410.000	10.451
acetylene		349238.625	276348.807	255178.068	265686.413	301455.297		289581.000	12.955
ethane	282839.208	323174.294	278994.374	277864.668	291118.608	316353.022	357350.712	303956.000	9.767
propane	398712.601	472806.682	395734.605	397888.898	418106.154	456661.938	532205.243	438874.000	11.679
Signal #2								0.000	0.000
carbon dioxide		6531.748	4738.622	5195.669	5476.001	5711.500	6596.531	5708.350	12.930

Mon Apr 30 15:18:58 2012

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L12050050 Run Date: 04/30/2012 Sample ID: WG396526-08
Instrument ID: HP16 Run Time: 15:24 Method: RSK175
File ID: 16G32101 Analyst: MDA QC Key: WATERLOO
ICal Workgroup: WG396526 Cal ID: HP16 - 30-APR-12

Analyte	Expected	Found	Units	RF	%D	UCL	Q
methane	228	216	ug/L	172000	5.30	20	
carbon dioxide	62700	57900	ug/L	5280	7.50	30	

* Exceeds %D Limit

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 2406945
Report generated 05/09/2012 10:13



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396965-01
 Instrument ID: HP16 Run Time: 15:23 Method: RSK175
 File ID: 16G32165 Analyst: FJB QC Key: WATERLOO
 Workgroup (AAB#): WG396966 Cal ID: HP16 - 30-APR-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	RF	%D	UCL	Q
methane	228	215	ug/L	171000	5.82	20	
carbon dioxide	62700	59800	ug/L	5450	4.57	30	

* Exceeds %D Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2402031
 Report generated 05/09/2012 10:13



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396965-02
 Instrument ID: HP16 Run Time: 17:09 Method: RSK175
 File ID: 16G32176 Analyst: FJB QC Key: WATERLOO
 Workgroup (AAB#): WG396966 Cal ID: HP16 - 30-APR-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	RF	%D	UCL	Q
methane	228	218	ug/L	173000	4.41	20	
carbon dioxide	62700	57300	ug/L	5220	8.58	30	

* Exceeds %D Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2402031
 Report generated 05/09/2012 10:13



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/04/2012 Sample ID: WG397034-01
Instrument ID: HP16 Run Time: 12:31 Method: RSK175
File ID: 16G32191 Analyst: MDA QC Key: WATERLOO
Workgroup (AAB#): WG397035 Cal ID: HP16 - 30-APR-12
Matrix: WATER

Analyte	Expected	Found	UNITS	RF	%D	UCL	Q
methane	228	210	ug/L	167000	7.90	20	
carbon dioxide	62700	59600	ug/L	5430	4.84	30	

* Exceeds %D Criteria

CCV - Modified 03/05/2008
PDF File ID: 2402031
Report generated 05/09/2012 10:13



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/04/2012 Sample ID: WG397034-02
 Instrument ID: HP16 Run Time: 14:12 Method: RSK175
 File ID: 16G32202 Analyst: MDA QC Key: WATERLOO
 Workgroup (AAB#): WG397035 Cal ID: HP16 - 30-APR-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	RF	%D	UCL	Q
methane	228	204	ug/L	163000	10.3	20	
carbon dioxide	62700	53500	ug/L	4870	14.6	30	

* Exceeds %D Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2402031
 Report generated 05/09/2012 10:13



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/04/2012 Sample ID: WG397034-03
 Instrument ID: HP16 Run Time: 15:52 Method: RSK175
 File ID: 16G32213 Analyst: MDA QC Key: WATERLOO
 Workgroup (AAB#): WG397035 Cal ID: HP16 - 30-APR-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	RF	%D	UCL	Q
methane	228	214	ug/L	170000	6.03	20	
carbon dioxide	62700	54200	ug/L	4940	13.4	30	

* Exceeds %D Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2402031
 Report generated 05/09/2012 10:13



2.1.2.3 Sample Data

Signal #1 : C:\MSDchem\1\DATA\050312\16G32172.D\FID1A.CH Vial: 8
 Signal #2 : C:\MSDchem\1\DATA\050312\16G32172.D\TCD2B.CH
 Acq On : 03 May 2012 16:33 Operator: FJB
 Sample : L12050050-01 A RSK175 Inst : HP16
 Misc : 1,1 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 03 16:38:14 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

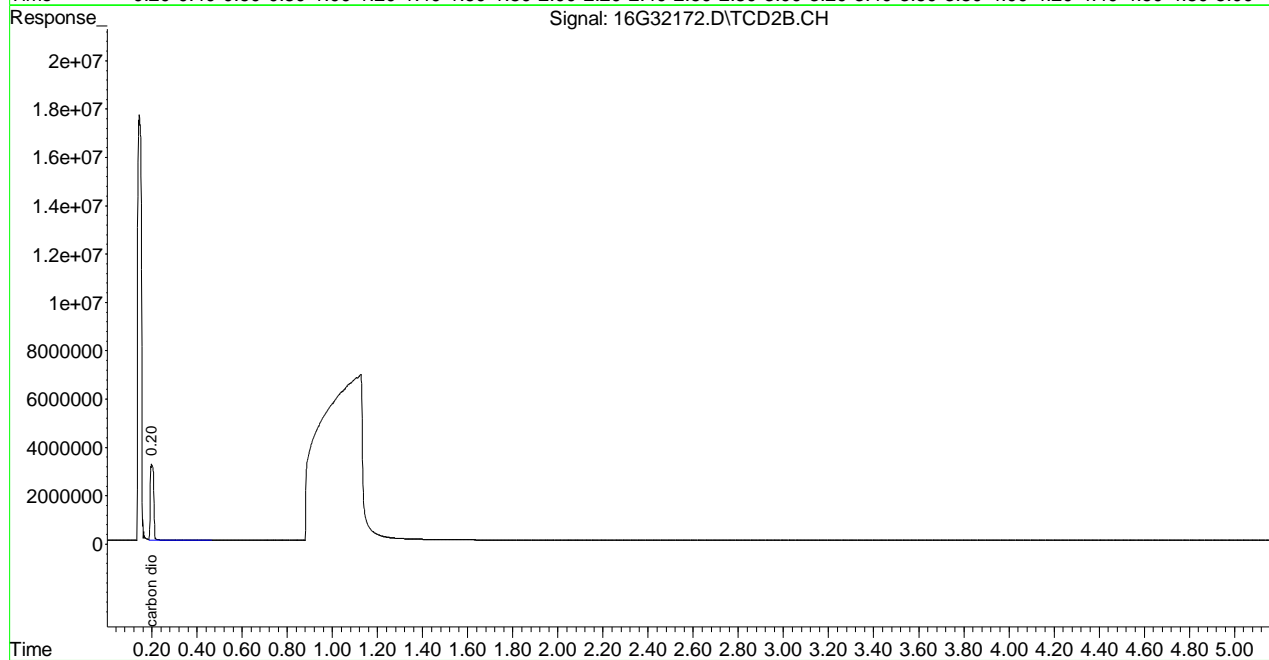
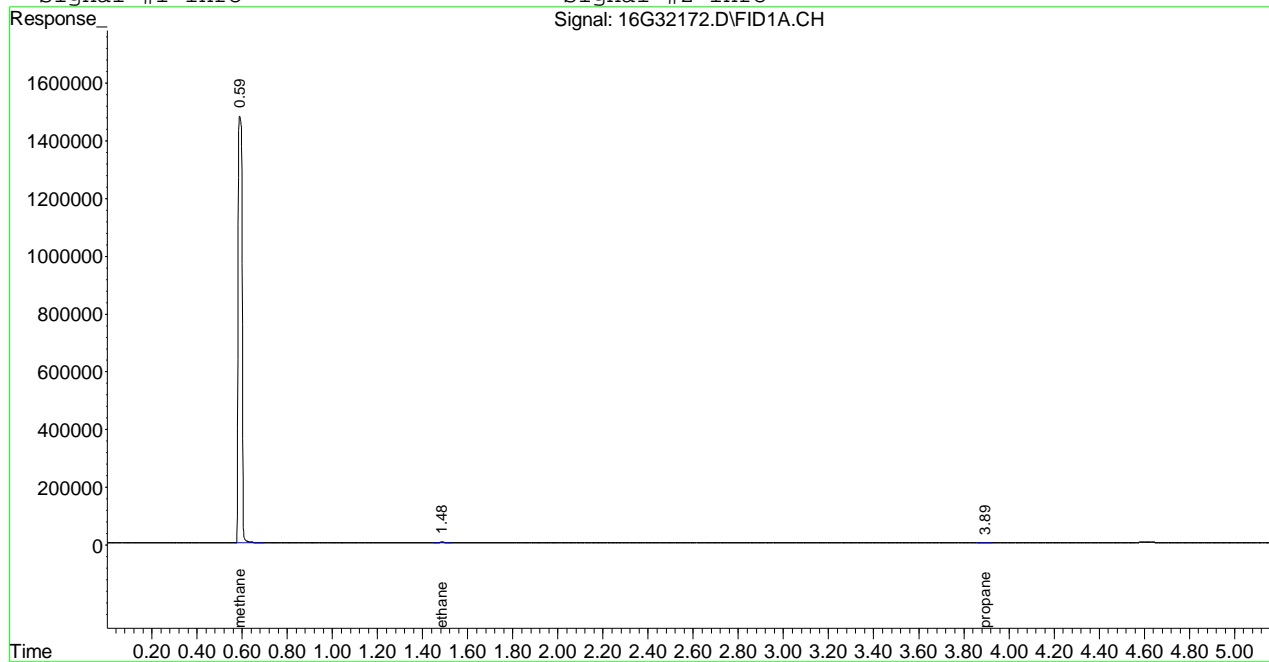
Target Compounds			
1) T methane	0.59	17547437	96.770 umol/
2) T ethene	0.00	0	N.D. umol/
3) T acetylene	0.00	0	N.D. umol/
4) T ethane	1.48	18939	0.062 umol/
5) T propane	3.90	3259	0.007 umol/
7) T carbon dioxide	0.20	34657475	6071.370 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32172.D RSK2EXT.M Thu May 03 16:38:15 2012

Signal #1 : C:\MSDchem\1\DATA\050312\16G32172.D\FID1A.CH Vial: 8
Signal #2 : C:\MSDchem\1\DATA\050312\16G32172.D\TCD2B.CH
Acq On : 03 May 2012 16:33 Operator: FJB
Sample : L12050050-01 A RSK175 Inst : HP16
Misc : 1,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: May 3 16:38 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
Title : RSK175 HP16 (SOP: OVL RSK01) 043012
Last Update : Mon Apr 30 15:17:04 2012
Response via : Multiple Level Calibration
DataAcq Meth : RSK2EXT.M

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



Signal #1 : C:\MSDchem\1\DATA\050312\16G32173.D\FID1A.CH Vial: 9
 Signal #2 : C:\MSDchem\1\DATA\050312\16G32173.D\TCD2B.CH
 Acq On : 03 May 2012 16:42 Operator: FJB
 Sample : L12050050-03 A RSK175 Inst : HP16
 Misc : 1,1 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 03 16:47:19 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

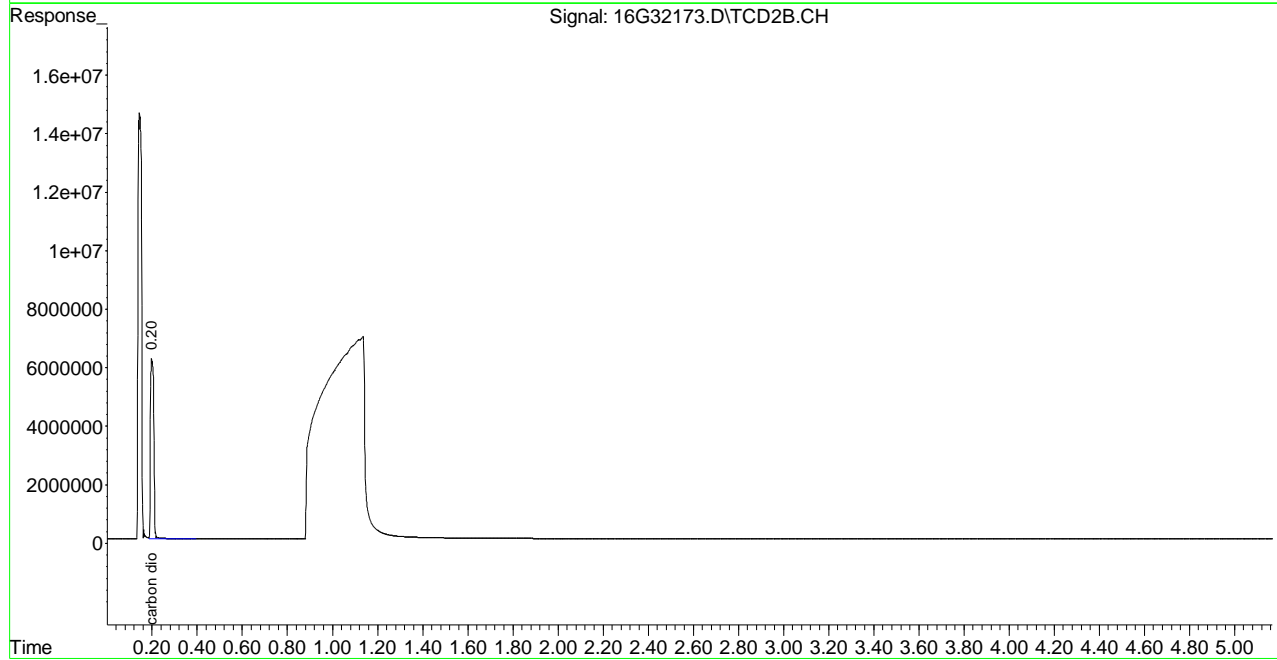
Target Compounds			
1) T methane	0.59	5223743	28.808 umol/
2) T ethene	0.00	0	N.D. umol/
3) T acetylene	0.00	0	N.D. umol/
4) T ethane	0.00	0	N.D. umol/
5) T propane	0.00	0	N.D. umol/
7) T carbon dioxide	0.20	65510471	11476.263 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32173.D RSK2EXT.M Thu May 03 16:47:19 2012

Signal #1 : C:\MSDCHEM\1\DATA\050312\16G32173.D\FID1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\050312\16G32173.D\TCD2B.CH
Acq On : 03 May 2012 16:42 Operator: FJB
Sample : L12050050-03 A RSK175 Inst : HP16
Misc : 1,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: May 3 16:47 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
Title : RSK175 HP16 (SOP: OVL RSK01) 043012
Last Update : Mon Apr 30 15:17:04 2012
Response via : Multiple Level Calibration
DataAcq Meth : RSK2EXT.M

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



Signal #1 : C:\MSDchem\1\DATA\050312\16G32174.D\FID1A.CH Vial: 10
 Signal #2 : C:\MSDchem\1\DATA\050312\16G32174.D\TCD2B.CH
 Acq On : 03 May 2012 16:51 Operator: FJB
 Sample : L12050050-05 A RSK175 Inst : HP16
 Misc : 1,1 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 03 16:56:27 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

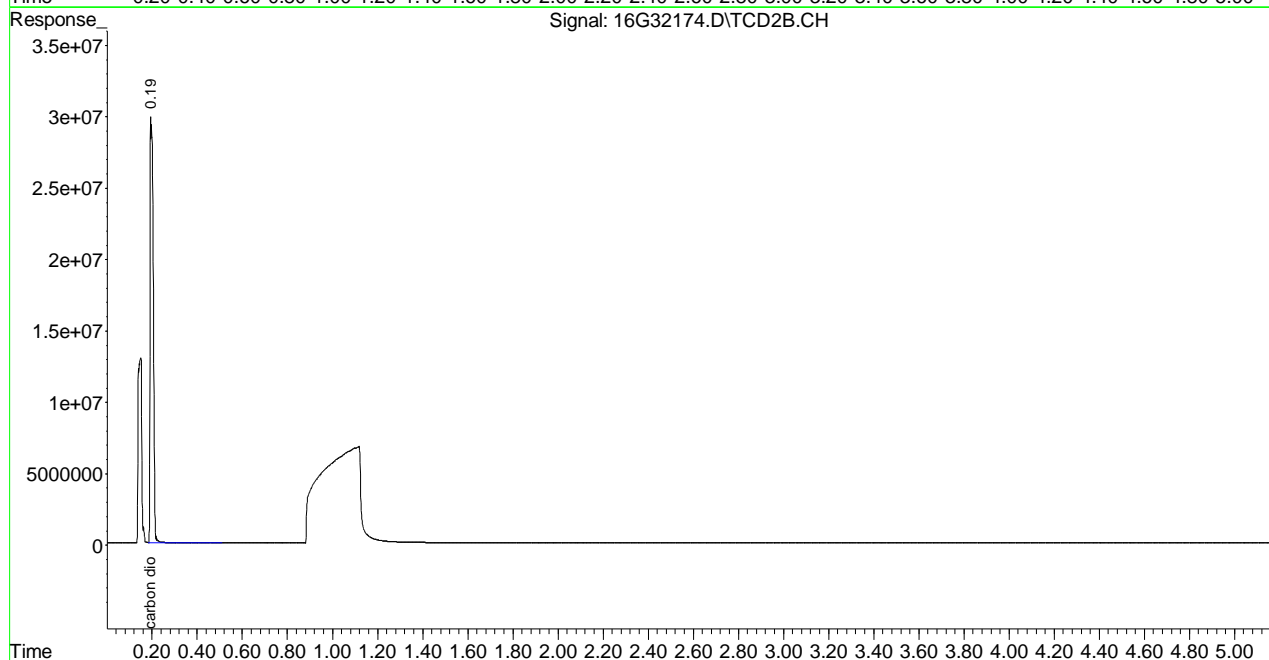
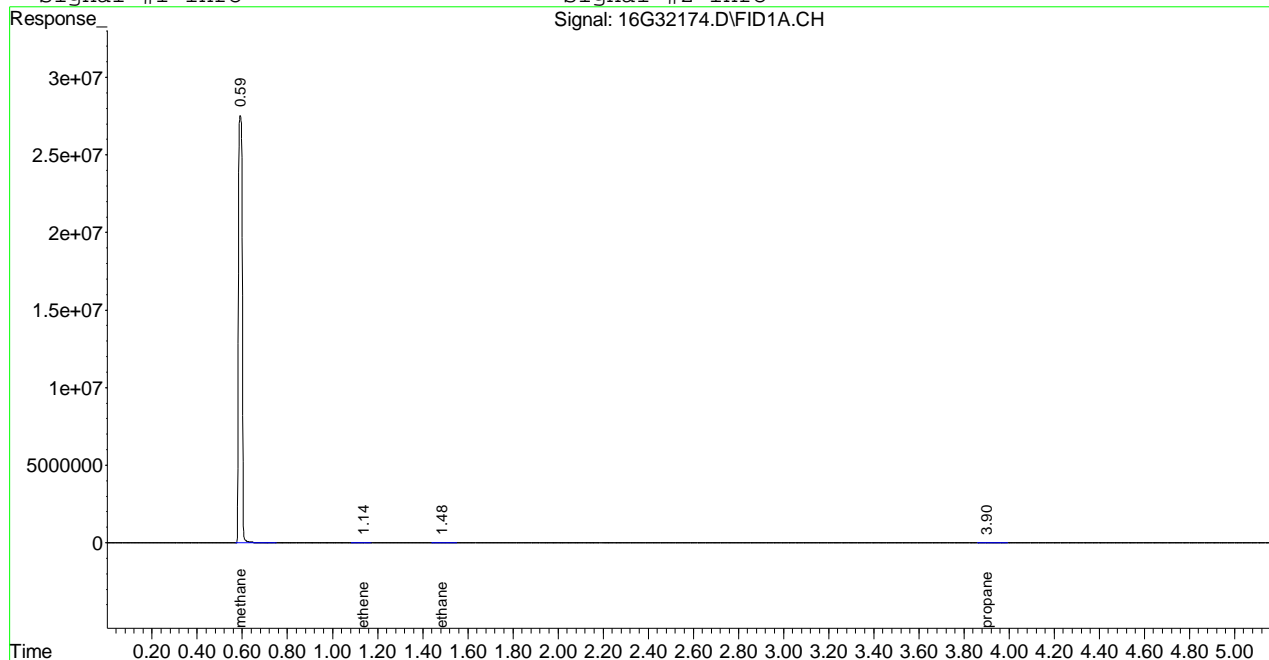
Target Compounds			
1) T methane	0.59	308735105	1702.607 umol/
2) T ethene	1.13	4016	0.014 umol/
3) T acetylene	0.00	0	N.D. umol/
4) T ethane	1.49	35658	0.117 umol/
5) T propane	3.90	16043	0.037 umol/
7) T carbon dioxide	0.20	299135280	52403.152 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32174.D RSK2EXT.M Thu May 03 16:56:27 2012

Signal #1 : C:\MSDchem\1\DATA\050312\16G32174.D\FID1A.CH Vial: 10
Signal #2 : C:\MSDchem\1\DATA\050312\16G32174.D\TCD2B.CH
Acq On : 03 May 2012 16:51 Operator: FJB
Sample : L12050050-05 A RSK175 Inst : HP16
Misc : 1,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: May 3 16:56 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
Title : RSK175 HP16 (SOP: OVL RSK01) 043012
Last Update : Mon Apr 30 15:17:04 2012
Response via : Multiple Level Calibration
DataAcq Meth : RSK2EXT.M

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



Signal #1 : C:\MSDCHEM\1\DATA\050412\16G32206.D\FID1A.CH Vial: 16
 Signal #2 : C:\MSDCHEM\1\DATA\050412\16G32206.D\TCD2B.CH
 Acq On : 04 May 2012 14:49 Operator: MDA
 Sample : L12050050-05 B RSK175EXT 10X Inst : HP16
 Misc : 1,10 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 07 08:15:02 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc	Units

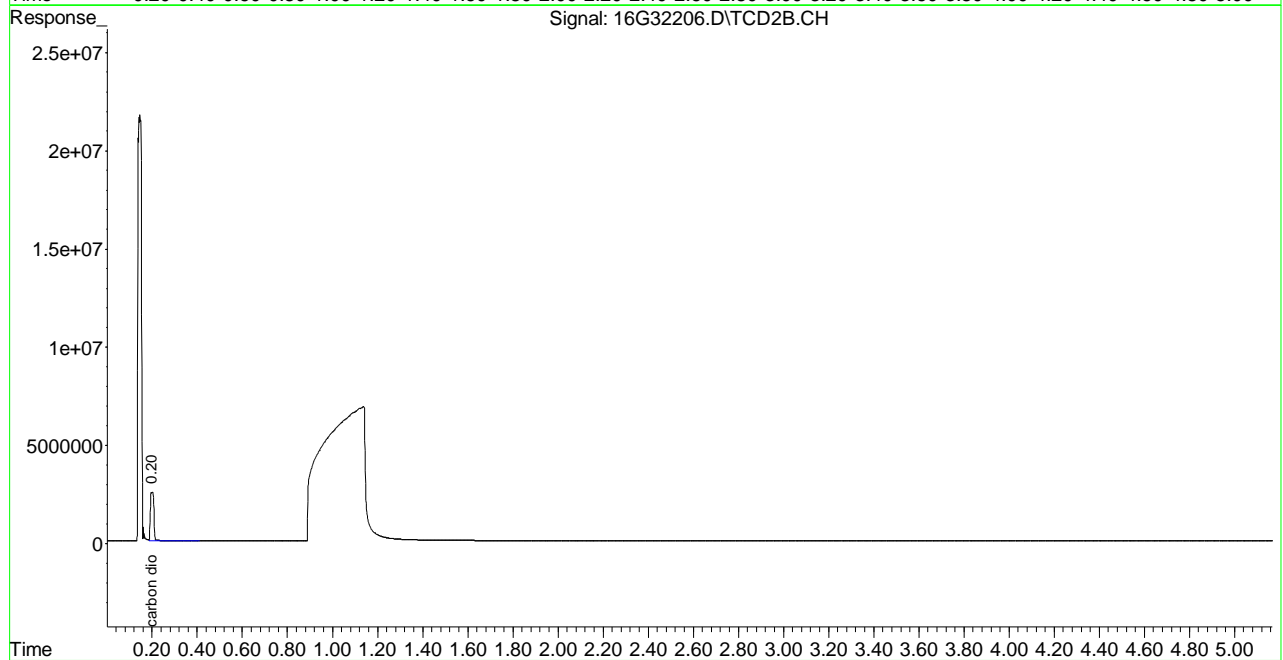
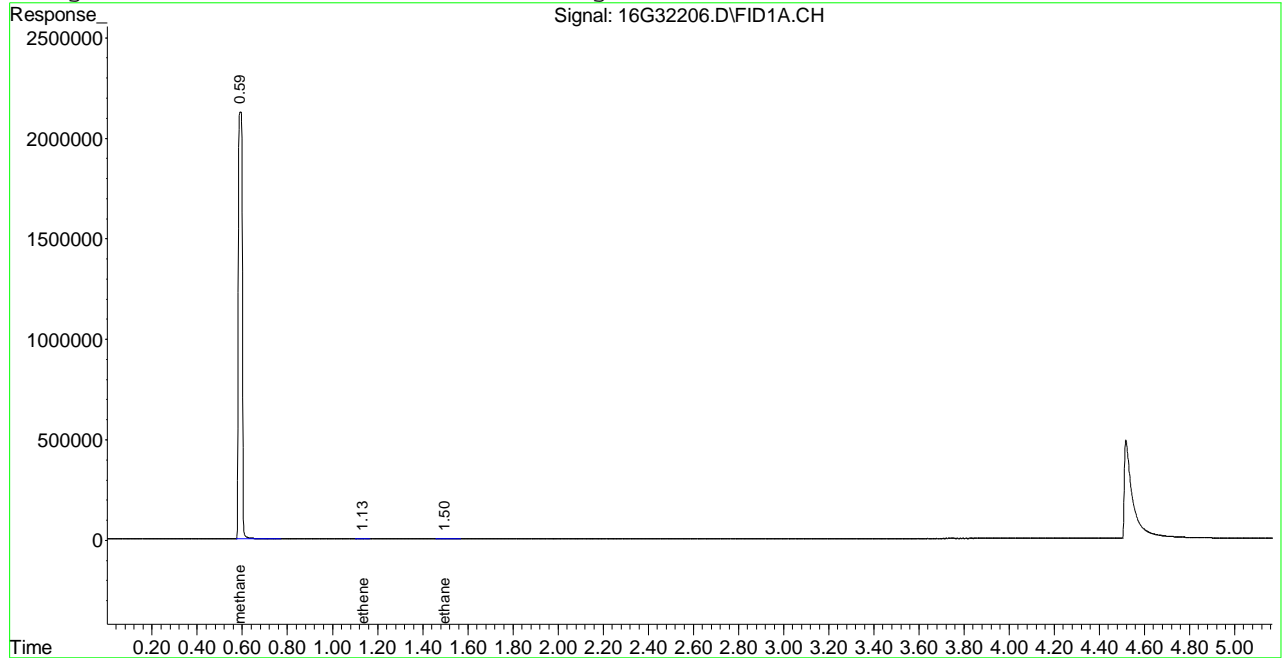
Target Compounds				
1) T methane	0.59	24984956	137.787	umol/
2) T ethene	1.13	5681	0.019	umol/
3) T acetylene	0.00	0	N.D.	umol/
4) T ethane	1.50	7578	0.025	umol/
5) T propane	0.00	0	N.D.	umol/
7) T carbon dioxide	0.20	27831738	4875.623	umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32206.D RSK2EXT.M Mon May 07 08:15:02 2012

Signal #1 : C:\MSDCHEM\1\DATA\050412\16G32206.D\FID1A.CH Vial: 16
Signal #2 : C:\MSDCHEM\1\DATA\050412\16G32206.D\TCD2B.CH
Acq On : 04 May 2012 14:49 Operator: MDA
Sample : L12050050-05 B RSK175EXT 10X Inst : HP16
Misc : 1,10 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: May 7 8:15 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
Title : RSK175 HP16 (SOP: OVL RSK01) 043012
Last Update : Mon Apr 30 15:17:04 2012
Response via : Multiple Level Calibration
DataAcq Meth : RSK2EXT.M

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



Signal #1 : C:\MSDchem\1\DATA\050412\16G32195.D\FID1A.CH Vial: 5
 Signal #2 : C:\MSDchem\1\DATA\050412\16G32195.D\TCD2B.CH
 Acq On : 04 May 2012 13:08 Operator: MDA
 Sample : L12050050-07 B RSK175EXT Inst : HP16
 Misc : 1,1 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 04 13:14:05 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

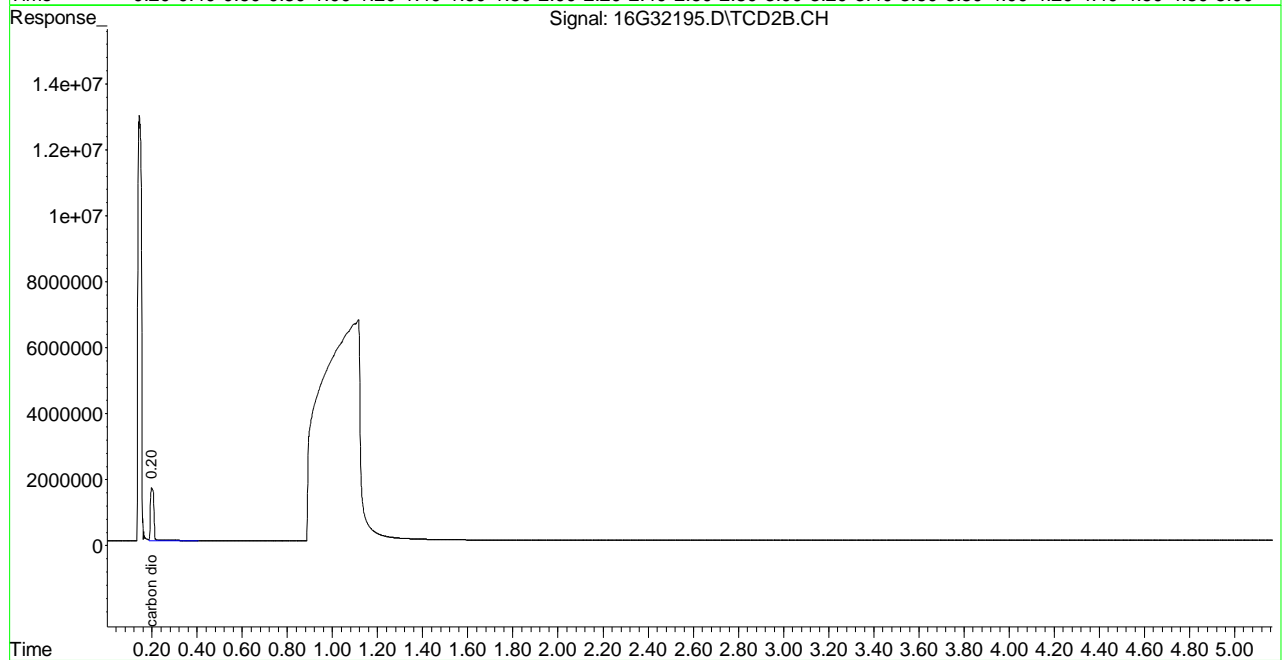
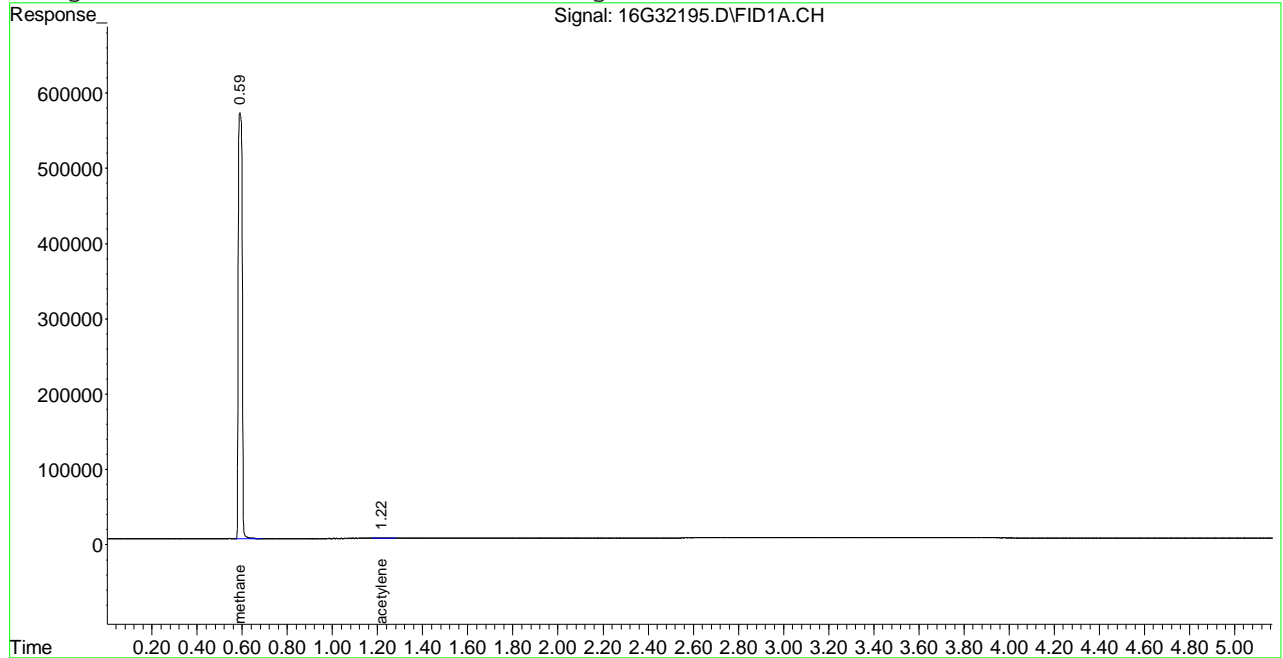
Target Compounds			
1) T methane	0.59	6616453	36.488 umol/
2) T ethene	0.00	0	N.D. umol/
3) T acetylene	1.22	2965	0.010 umol/
4) T ethane	0.00	0	N.D. umol/
5) T propane	0.00	0	N.D. umol/
7) T carbon dioxide	0.20	17433315	3054.005 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32195.D RSK2EXT.M Fri May 04 13:14:05 2012

Signal #1 : C:\MSDchem\1\DATA\050412\16G32195.D\FID1A.CH Vial: 5
Signal #2 : C:\MSDchem\1\DATA\050412\16G32195.D\TCD2B.CH
Acq On : 04 May 2012 13:08 Operator: MDA
Sample : L12050050-07 B RSK175EXT Inst : HP16
Misc : 1,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: May 4 13:14 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
Title : RSK175 HP16 (SOP: OVL RSK01) 043012
Last Update : Mon Apr 30 15:17:04 2012
Response via : Multiple Level Calibration
DataAcq Meth : RSK2EXT.M

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



2.1.2.4 Standards Data

Signal #1 : C:\MSDCHEM\1\DATA\043012\16G32091.D\FID1A.CH Vial: 1
 Signal #2 : C:\MSDCHEM\1\DATA\043012\16G32091.D\TCD2B.CH
 Acq On : 30 Apr 2012 13:39 Operator: MDA
 Sample : WG396526-01 0.67umol/mol ICAL RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: Apr 30 14:43:35 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 14:42:42 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc	Units

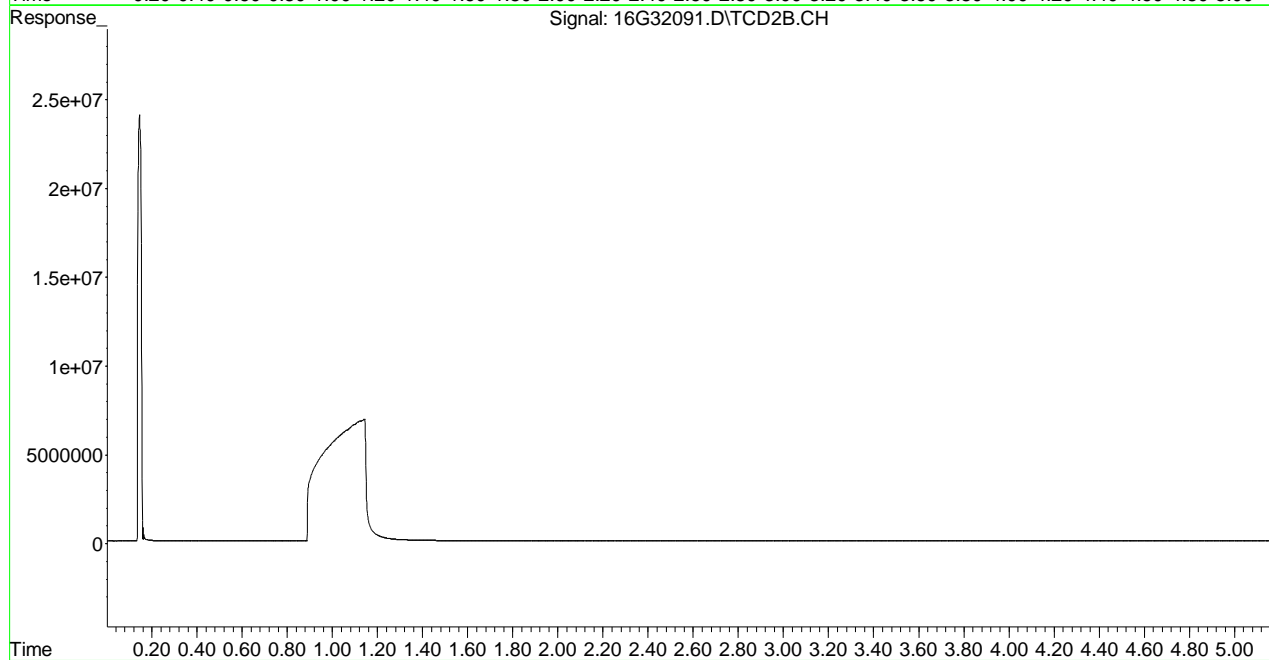
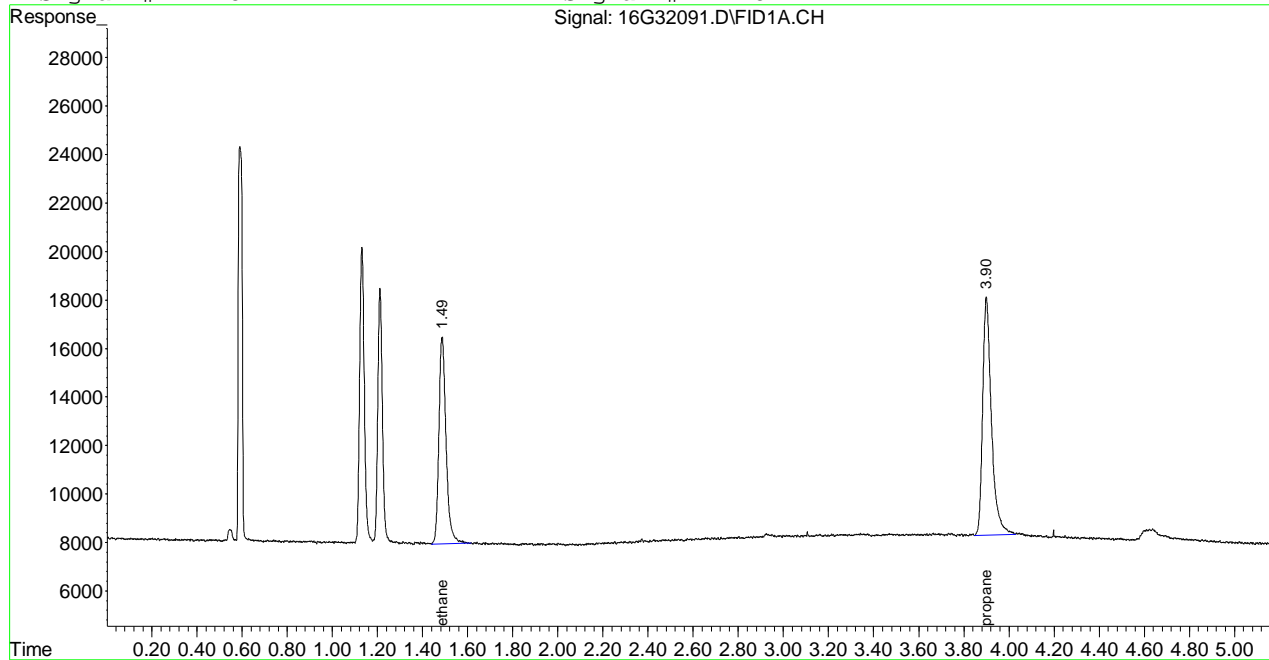
Target Compounds				
1) T methane	0.00	0	N.D.	umol/d
2) T ethene	0.00	0	N.D.	umol/d
3) T acetylene	0.00	0	N.D.	umol/d
4) T ethane	1.49	188654	0.648	umol/
5) T propane	3.90	265941	0.638	umol/
7) T carbon dioxide	0.00	0	N.D.	umol/d

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32091.D RSK2EXT.M Mon Apr 30 14:45:33 2012

Signal #1 : C:\MSDCHEM\1\DATA\043012\16G32091.D\FID1A.CH Vial: 1
 Signal #2 : C:\MSDCHEM\1\DATA\043012\16G32091.D\TCD2B.CH
 Acq On : 30 Apr 2012 13:39 Operator: MDA
 Sample : WG396526-01 0.67umol/mol ICAL RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: Apr 30 14:45 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 14:42:42 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : RSK2EXT.M

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



Signal #1 : C:\MSDchem\1\DATA\043012\16G32093.D\FID1A.CH Vial: 3
 Signal #2 : C:\MSDchem\1\DATA\043012\16G32093.D\TCD2B.CH
 Acq On : 30 Apr 2012 13:58 Operator: MDA
 Sample : WG396526-03 33umol/mol ICAL RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: Apr 30 14:04:00 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 23 16:53:59 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

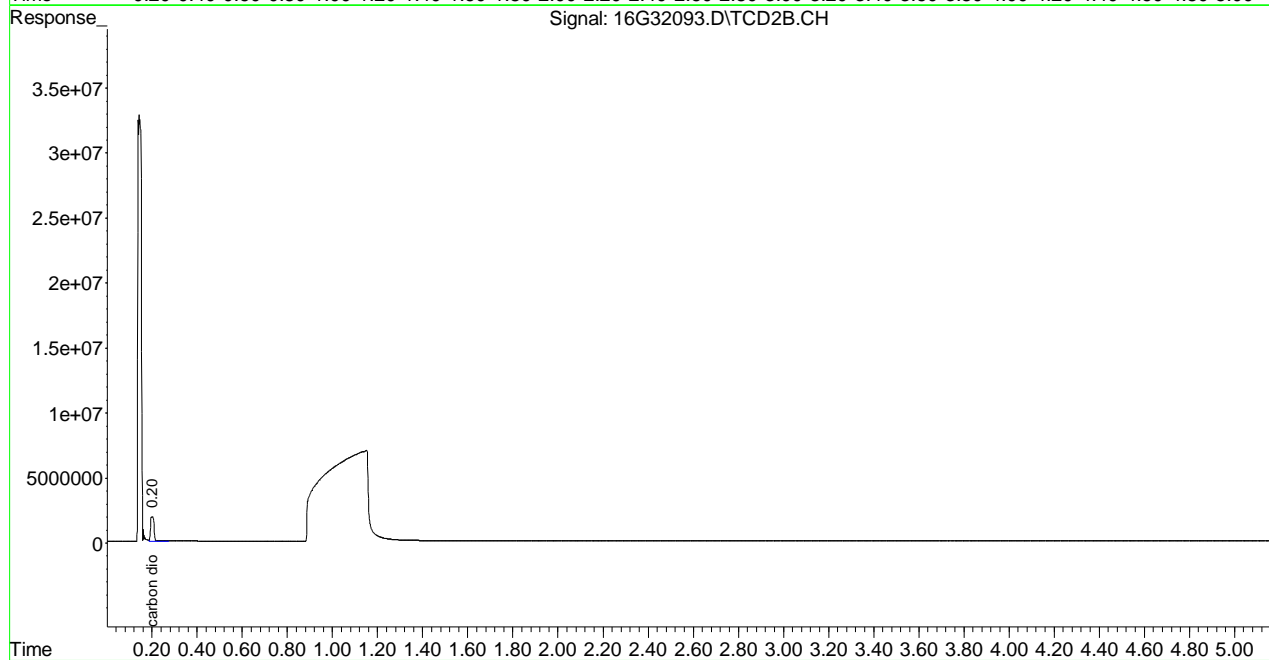
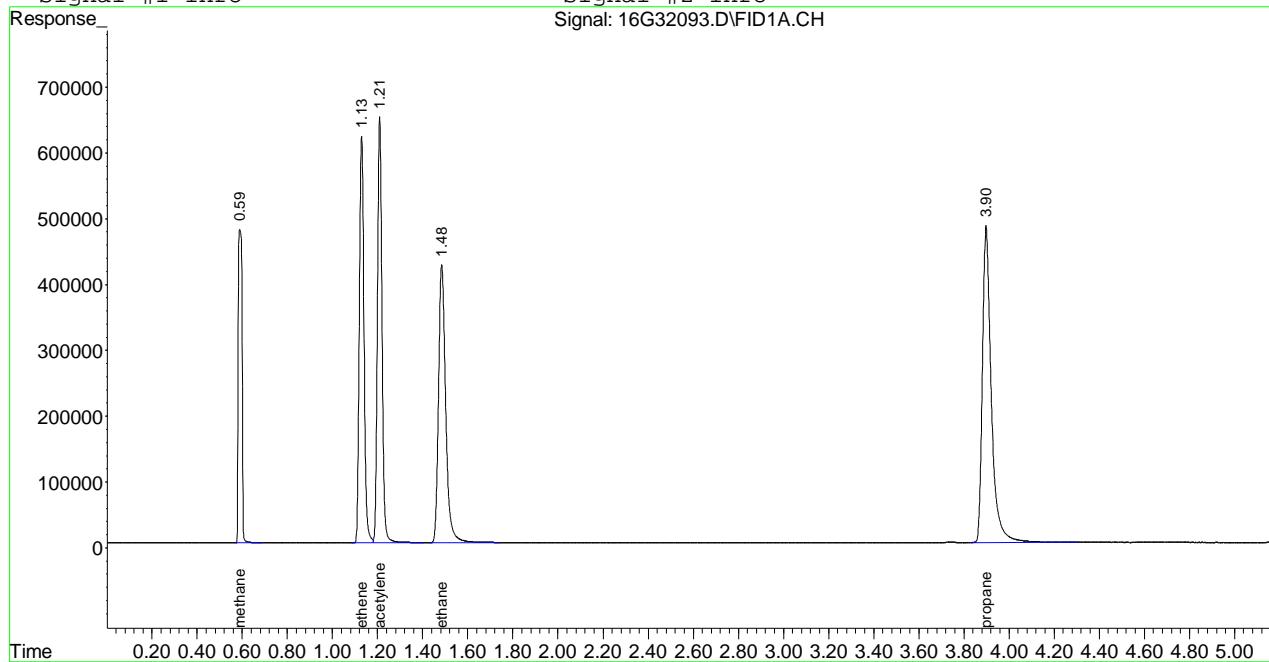
Target Compounds			
1) T methane	0.59	5543604	28.647 umol/
2) T ethene	1.13	8839249	28.434 umol/
3) T acetylene	1.21	9213469	29.702 umol/
4) T ethane	1.48	9301672	29.165 umol/
5) T propane	3.90	13193792	28.593 umol/
7) T carbon dioxide	0.20	20541926	3441.116 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32093.D RSK2EXT.M Mon Apr 30 14:04:00 2012

Signal #1 : C:\MSDchem\1\DATA\043012\16G32093.D\FID1A.CH Vial: 3
 Signal #2 : C:\MSDchem\1\DATA\043012\16G32093.D\TCD2B.CH
 Acq On : 30 Apr 2012 13:58 Operator: MDA
 Sample : WG396526-03 33umol/mol ICAL RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: Apr 30 14:04 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 23 16:53:59 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : RSK2EXT.M

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



Signal #1 : C:\MSDchem\1\DATA\043012\16G32094.D\FID1A.CH Vial: 4
 Signal #2 : C:\MSDchem\1\DATA\043012\16G32094.D\TCD2B.CH
 Acq On : 30 Apr 2012 14:07 Operator: MDA
 Sample : WG396526-04 67umol/mol ICAL RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: Apr 30 14:13:09 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 23 16:53:59 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

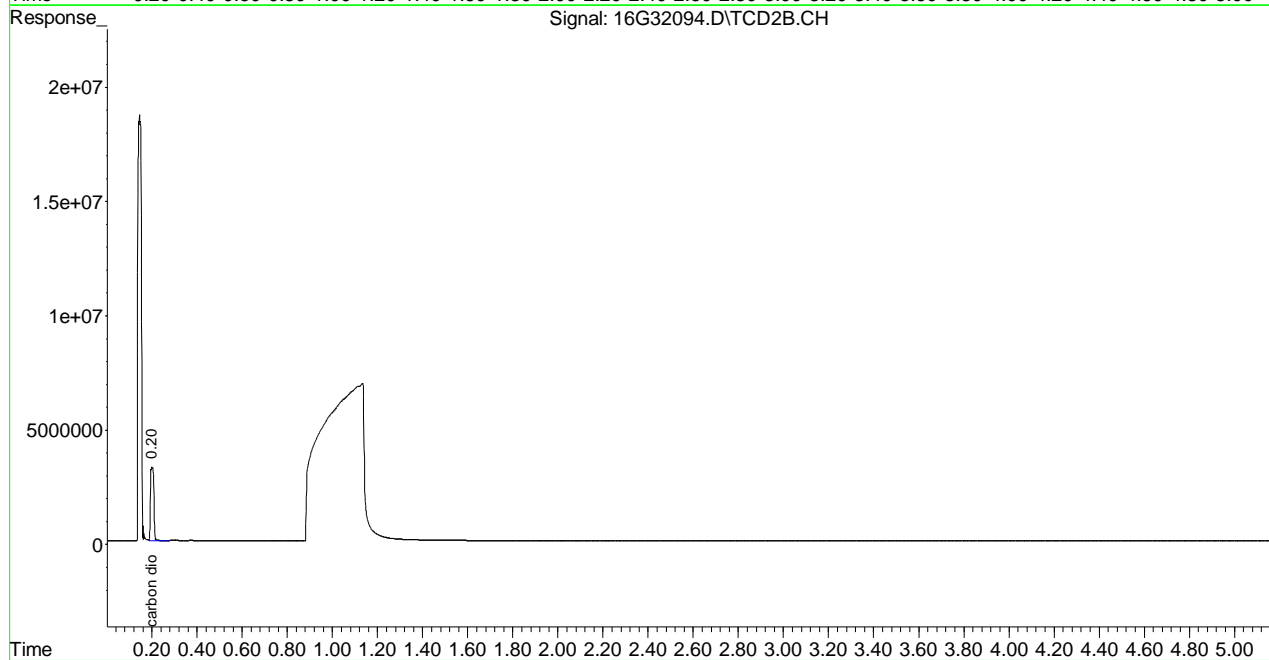
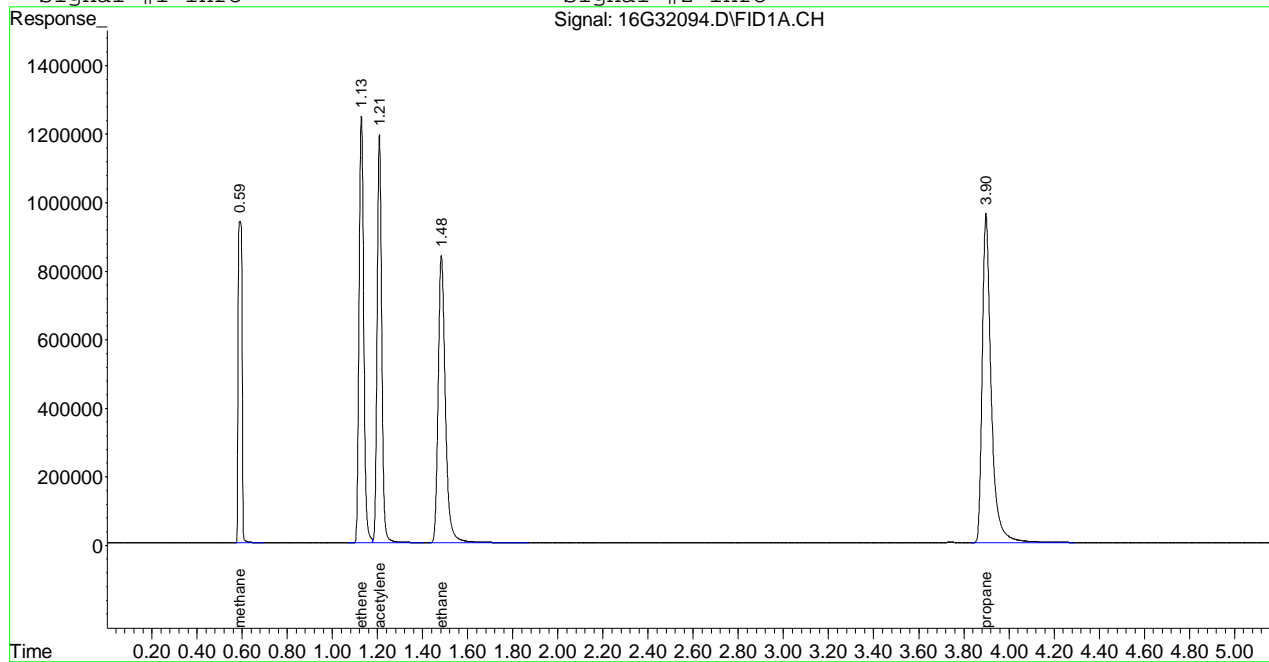
Target Compounds			
1) T methane	0.59	10967402	56.675 umol/
2) T ethene	1.13	17874985	57.501 umol/
3) T acetylene	1.21	17012722	54.845 umol/
4) T ethane	1.48	18525237	58.085 umol/
5) T propane	3.90	26527253	57.489 umol/
7) T carbon dioxide	0.20	34639522	5802.700 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32094.D RSK2EXT.M Mon Apr 30 14:13:09 2012

Signal #1 : C:\MSDchem\1\DATA\043012\16G32094.D\FID1A.CH Vial: 4
 Signal #2 : C:\MSDchem\1\DATA\043012\16G32094.D\TCD2B.CH
 Acq On : 30 Apr 2012 14:07 Operator: MDA
 Sample : WG396526-04 67umol/mol ICAL RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: Apr 30 14:13 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 23 16:53:59 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : RSK2EXT.M

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



Signal #1 : C:\MSDchem\1\DATA\043012\16G32095.D\FID1A.CH Vial: 5
 Signal #2 : C:\MSDchem\1\DATA\043012\16G32095.D\TCD2B.CH
 Acq On : 30 Apr 2012 14:16 Operator: MDA
 Sample : WG396526-05 133umol/mol ICAL RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: Apr 30 14:22:09 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 23 16:53:59 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

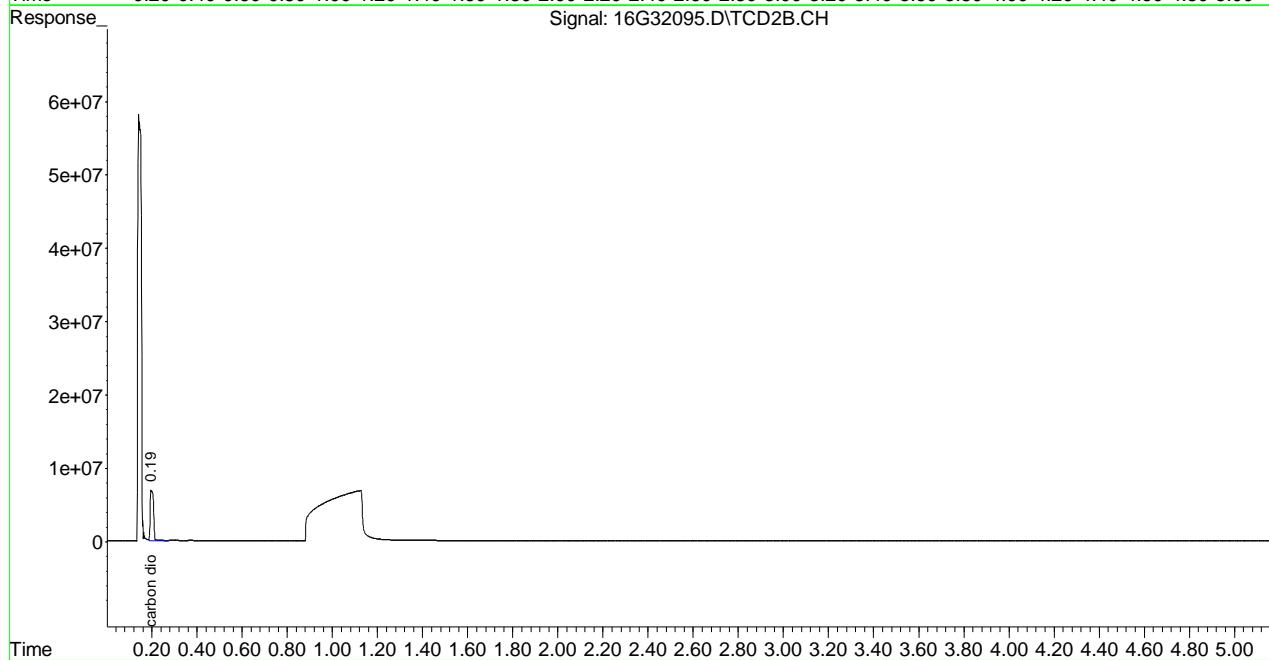
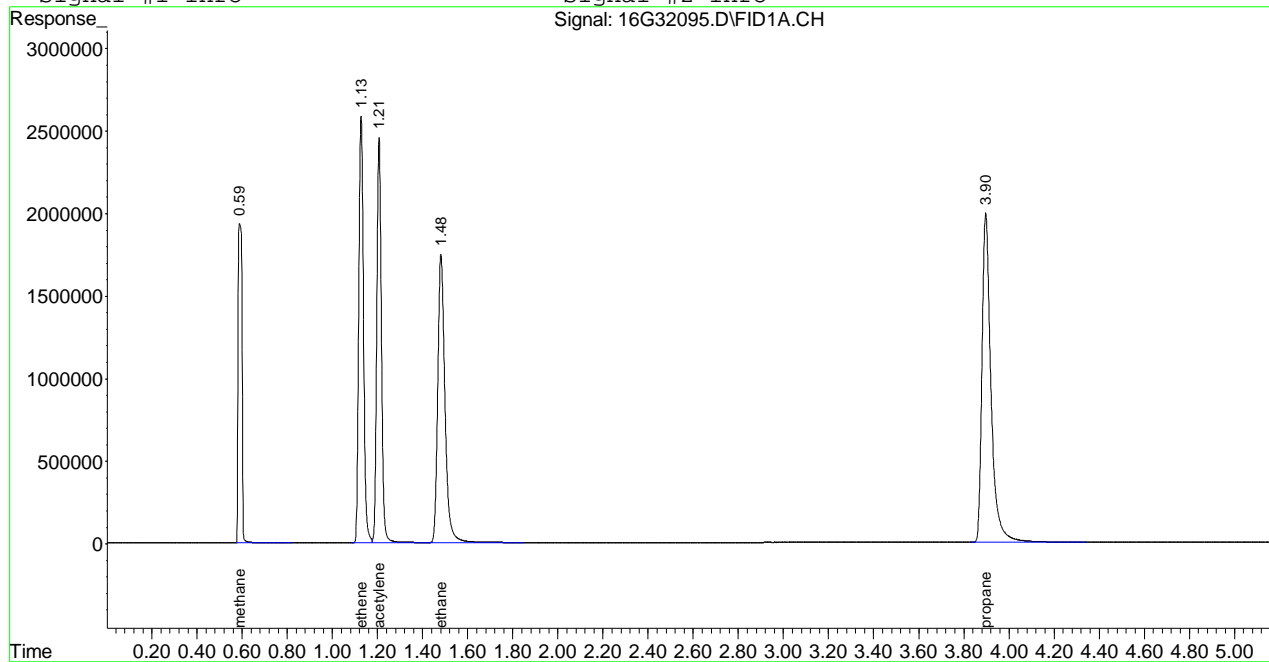
Target Compounds			
1) T methane	0.59	22928576	118.486 umol/
2) T ethene	1.13	37444591	120.453 umol/
3) T acetylene	1.21	35336293	113.917 umol/
4) T ethane	1.48	38718775	121.400 umol/
5) T propane	3.90	55608118	120.511 umol/
7) T carbon dioxide	0.20	73011522	12230.652 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32095.D RSK2EXT.M Mon Apr 30 14:22:09 2012

Signal #1 : C:\MSDchem\1\DATA\043012\16G32095.D\FID1A.CH Vial: 5
 Signal #2 : C:\MSDchem\1\DATA\043012\16G32095.D\TCD2B.CH
 Acq On : 30 Apr 2012 14:16 Operator: MDA
 Sample : WG396526-05 133umol/mol ICAL RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: Apr 30 14:22 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 23 16:53:59 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : RSK2EXT.M

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



Signal #1 : C:\MSDchem\1\DATA\043012\16G32096.D\FID1A.CH Vial: 6
 Signal #2 : C:\MSDchem\1\DATA\043012\16G32096.D\TCD2B.CH
 Acq On : 30 Apr 2012 14:26 Operator: MDA
 Sample : WG396526-06 333umol/mol ICAL RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: Apr 30 14:31:51 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 23 16:53:59 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

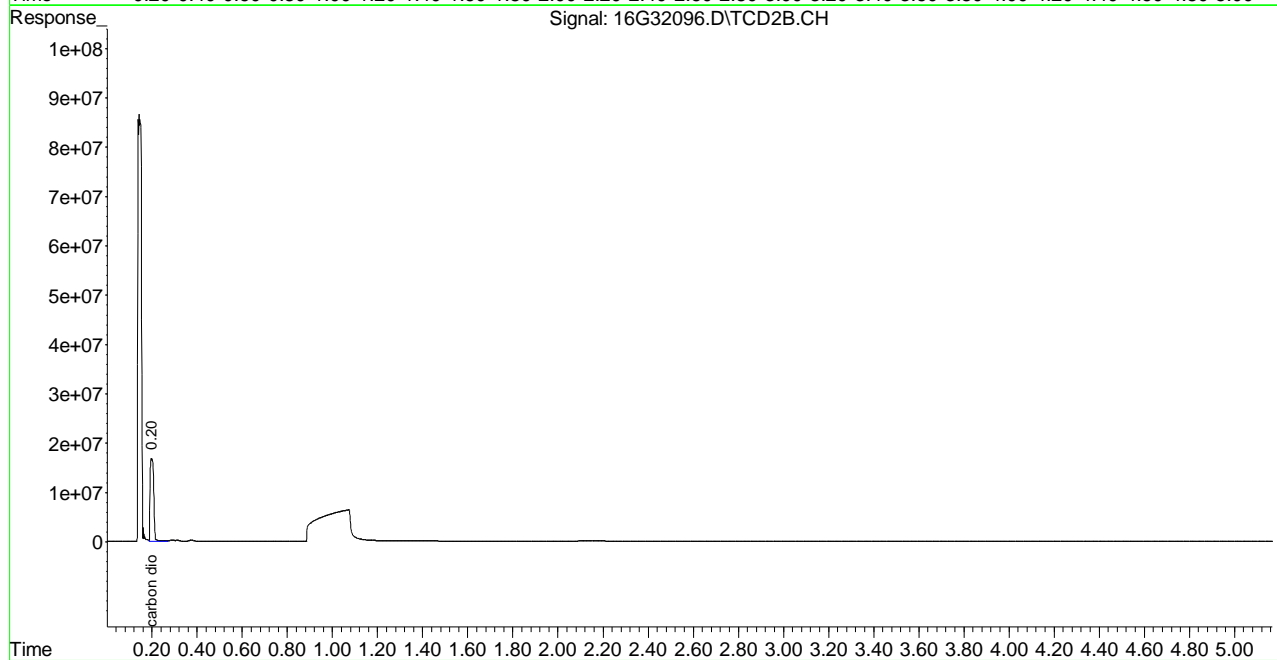
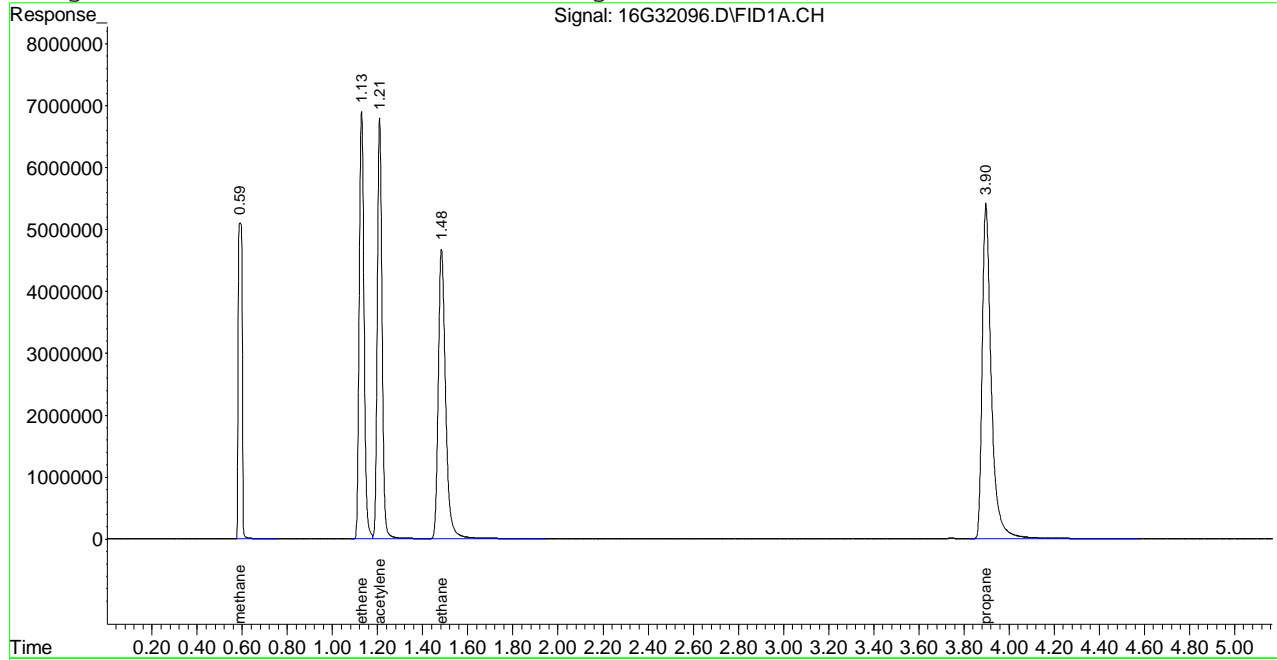
Target Compounds			
1) T methane	0.59	61151880	316.010 umol/
2) T ethene	1.13	102124387	328.518 umol/
3) T acetylene	1.21	100384614	323.619 umol/
4) T ethane	1.48	105345556	330.304 umol/
5) T propane	3.90	152068426	329.556 umol/
7) T carbon dioxide	0.20	190381445	31892.078 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32096.D RSK2EXT.M Mon Apr 30 14:31:51 2012

Signal #1 : C:\MSDchem\1\DATA\043012\16G32096.D\FID1A.CH Vial: 6
 Signal #2 : C:\MSDchem\1\DATA\043012\16G32096.D\TCD2B.CH
 Acq On : 30 Apr 2012 14:26 Operator: MDA
 Sample : WG396526-06 333umol/mol ICAL RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: Apr 30 14:31 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 23 16:53:59 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : RSK2EXT.M

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



Signal #1 : C:\MSDchem\1\DATA\043012\16G32097.D\FID1A.CH Vial: 7
 Signal #2 : C:\MSDchem\1\DATA\043012\16G32097.D\TCD2B.CH
 Acq On : 30 Apr 2012 14:35 Operator: MDA
 Sample : WG396526-07 533umol/mol ICAL RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: Apr 30 14:40:49 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 23 16:53:59 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

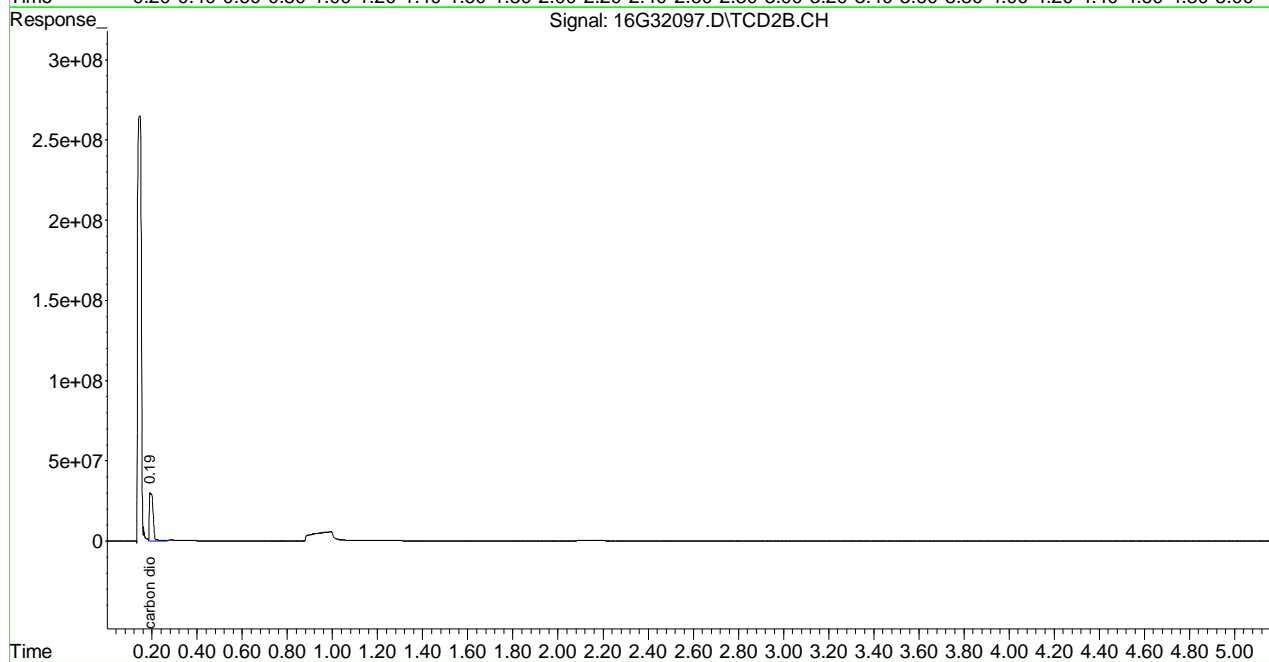
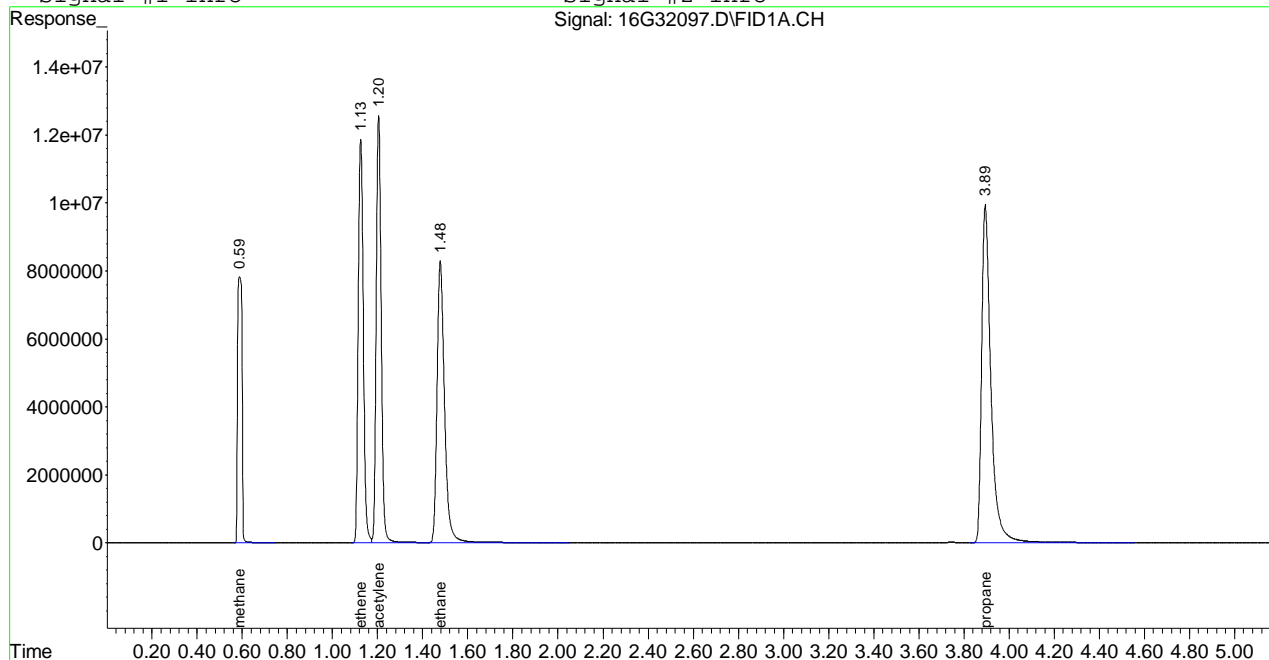
Target Compounds			
1) T methane	0.59	105407837	544.709 umol/
2) T ethene	1.13	184568763	593.729 umol/
3) T acetylene	1.20	194109593	625.769 umol/
4) T ethane	1.48	190467929	597.199 umol/
5) T propane	3.89	283665394	614.747 umol/
7) T carbon dioxide	0.19	351812796	58934.531 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32097.D RSK2EXT.M Mon Apr 30 14:40:49 2012

Signal #1 : C:\MSDchem\1\DATA\043012\16G32097.D\FID1A.CH Vial: 7
 Signal #2 : C:\MSDchem\1\DATA\043012\16G32097.D\TCD2B.CH
 Acq On : 30 Apr 2012 14:35 Operator: MDA
 Sample : WG396526-07 533umol/mol ICAL RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: Apr 30 14:40 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 23 16:53:59 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : RSK2EXT.M

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



Signal #1 : C:\MSDchem\1\DATA\043012\16G32100.D\FID1A.CH Vial: 10
 Signal #2 : C:\MSDchem\1\DATA\043012\16G32100.D\TCD2B.CH
 Acq On : 30 Apr 2012 15:04 Operator: MDA
 Sample : WG396526-02 1.67umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: Apr 30 15:09:45 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 14:45:53 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

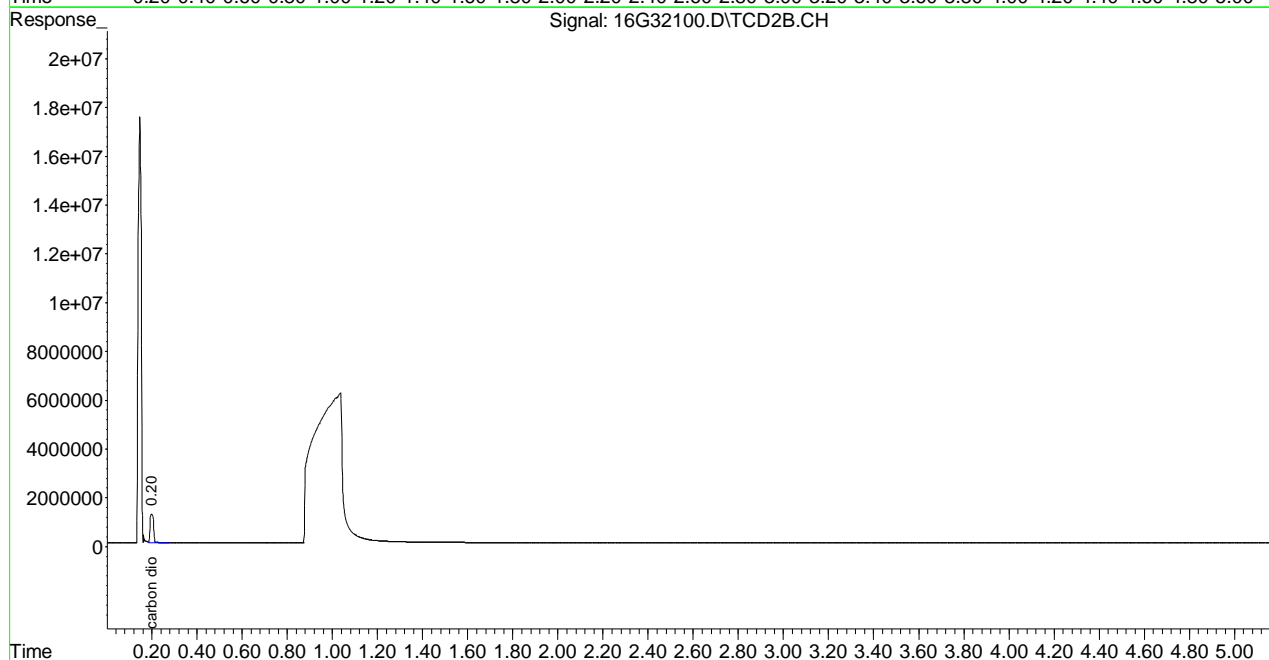
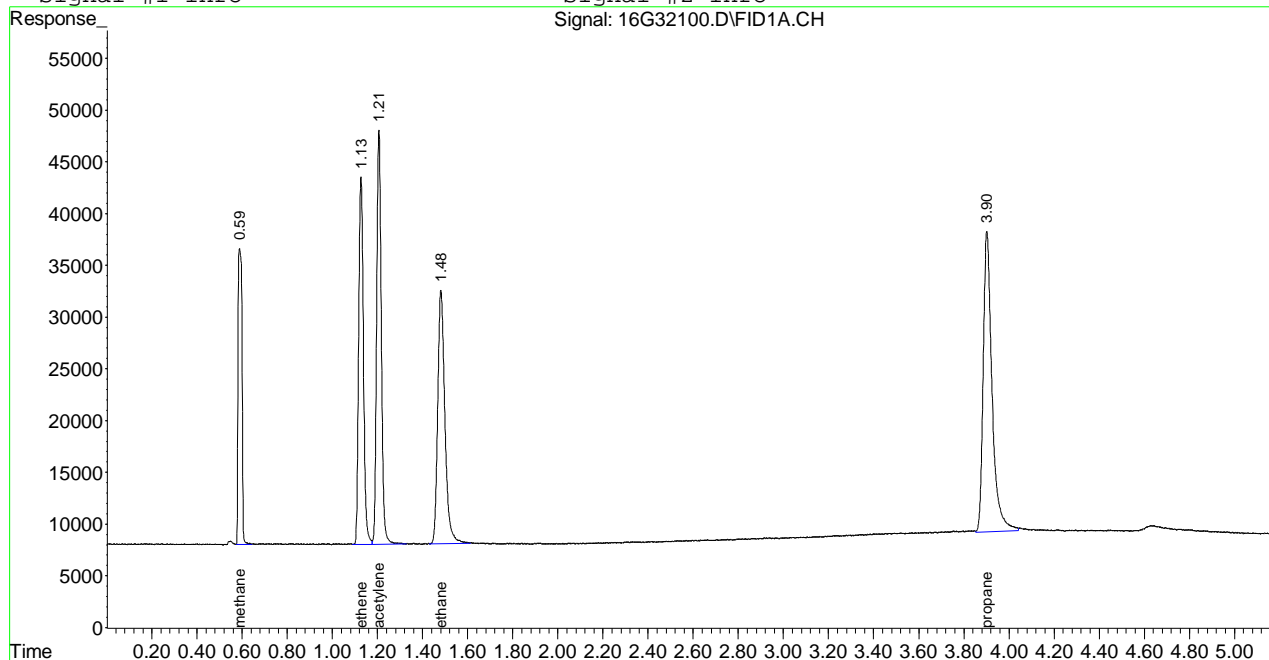
Target Compounds			
1) T methane	0.59	339694	1.927 umol/
2) T ethene	1.13	518903	1.845 umol/
3) T acetylene	1.21	583229	2.112 umol/
4) T ethane	1.48	539701	1.855 umol/
5) T propane	3.90	789587	1.895 umol/
7) T carbon dioxide	0.20	13063496	2368.342 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32100.D RSK2EXT.M Mon Apr 30 15:09:45 2012

Signal #1 : C:\MSDchem\1\DATA\043012\16G32100.D\FID1A.CH Vial: 10
 Signal #2 : C:\MSDchem\1\DATA\043012\16G32100.D\TCD2B.CH
 Acq On : 30 Apr 2012 15:04 Operator: MDA
 Sample : WG396526-02 1.67umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: Apr 30 15:09 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 14:45:53 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : RSK2EXT.M

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



Signal #1 : C:\MSDchem\1\DATA\043012\16G32101.D\FID1A.CH Vial: 11
 Signal #2 : C:\MSDchem\1\DATA\043012\16G32101.D\TCD2B.CH
 Acq On : 30 Apr 2012 15:24 Operator: MDA
 Sample : WG396526-08 133umol/mol ICV RSK175 Inst : HP16
 Misc : 1,1 STD45308 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: Apr 30 15:29:41 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

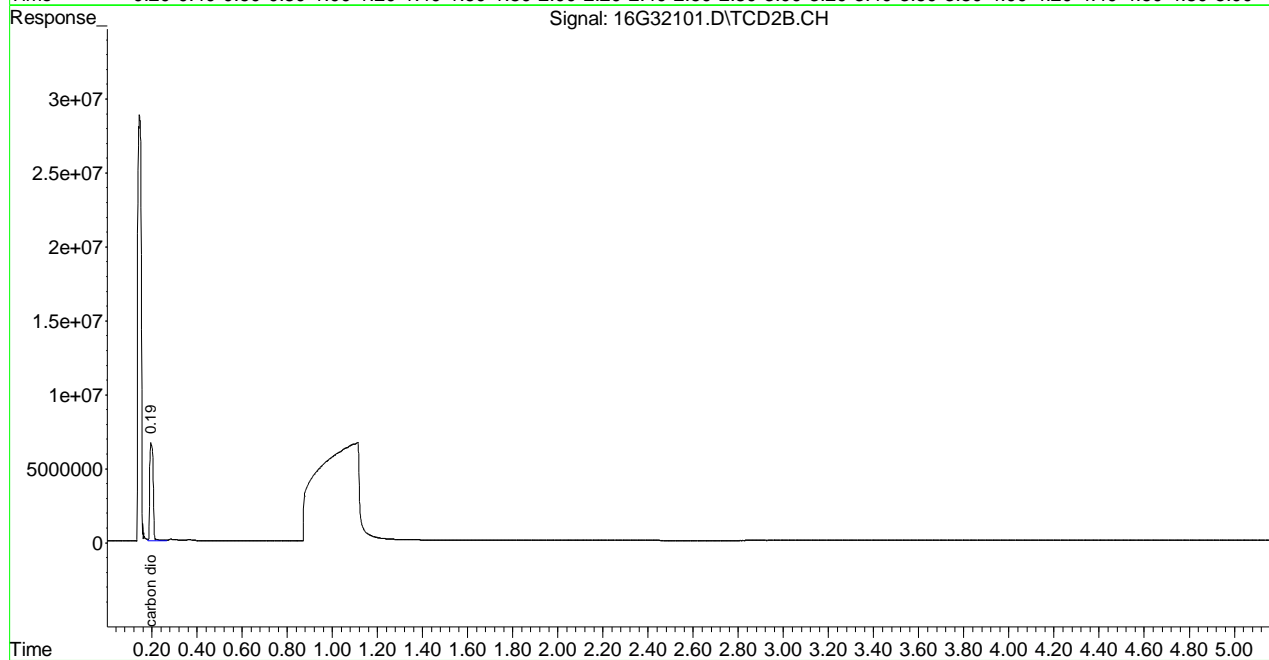
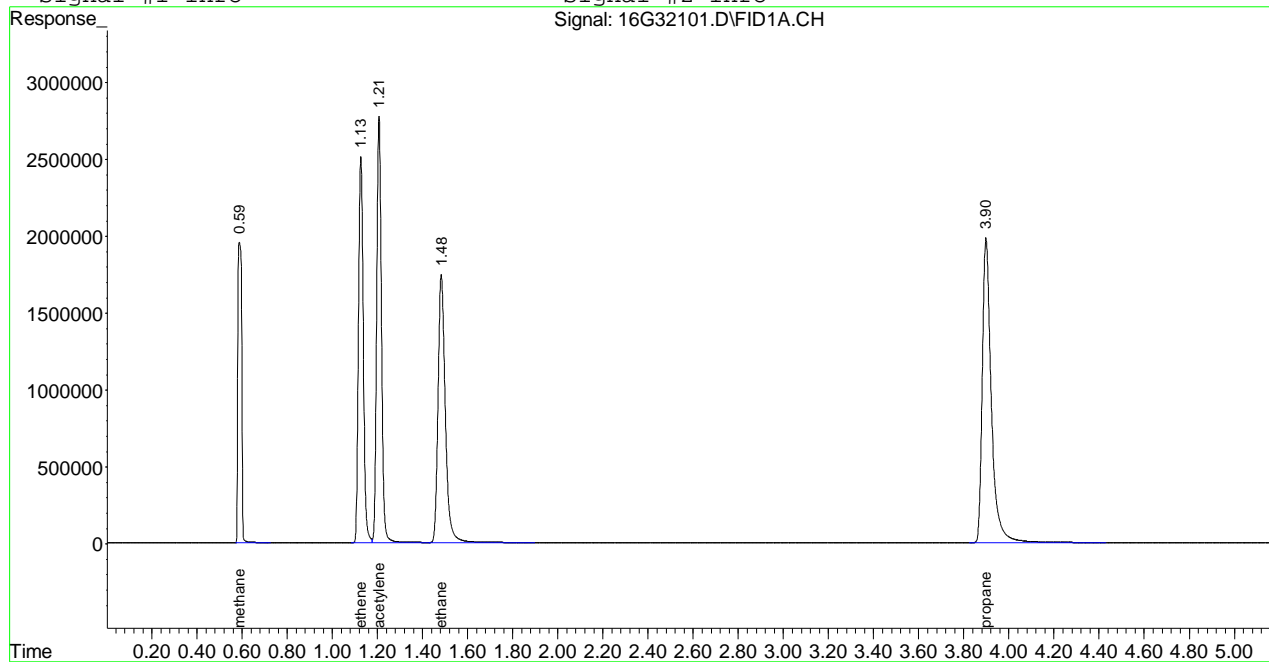
Target Compounds			
1) T methane	0.59	22836049	125.936 umol/
2) T ethene	1.13	37088559	125.126 umol/
3) T acetylene	1.21	41185177	142.223 umol/
4) T ethane	1.48	38937915	128.104 umol/
5) T propane	3.90	55298984	126.002 umol/
7) T carbon dioxide	0.20	70387680	12330.663 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32101.D RSK2EXT.M Mon Apr 30 15:29:41 2012

Signal #1 : C:\MSDchem\1\DATA\043012\16G32101.D\FID1A.CH Vial: 11
 Signal #2 : C:\MSDchem\1\DATA\043012\16G32101.D\TCD2B.CH
 Acq On : 30 Apr 2012 15:24 Operator: MDA
 Sample : WG396526-08 133umol/mol ICV RSK175 Inst : HP16
 Misc : 1,1 STD45308 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: Apr 30 15:29 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : RSK2EXT.M

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



Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\043012\16G32101.D\FID1A.CH Vial: 11
 Signal #2 : C:\MSDCHEM\1\DATA\043012\16G32101.D\TCD2B.CH
 Acq On : 30 Apr 2012 15:24 Operator: MDA
 Sample : WG396526-08 133umol/mol ICV RSK175 Inst : HP16
 Misc : 1,1 STD45308 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 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 : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 T	methane	133.000	125.936	5.3	100	0.00
2 T	ethene	133.000	125.126	5.9	99	0.00
3 T	acetylene	133.000	142.223	-6.9	117	0.00
4 T	ethane	133.000	128.104	3.7	101	0.00
5 T	propane	133.000	126.002	5.3	99	0.00

Signal #2
 7 T carbon dioxide 13333.000 12330.663 7.5 96 0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 16G32101.D RSK2EXT.M Mon Apr 30 15:31:36 2012

Signal #1 : C:\MSDCHEM\1\DATA\043012\16G32101.D\FID1A.CH Vial: 11
 Signal #2 : C:\MSDCHEM\1\DATA\043012\16G32101.D\TCD2B.CH
 Acq On : 30 Apr 2012 15:24 Operator: MDA
 Sample : WG396526-08 133umol/mol ICV RSK175 Inst : HP16
 Misc : 1,1 STD45308 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 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 : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)
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Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 16G32101.D RSK2EXT.M Mon Apr 30 15:31:36 2012

Signal #1 : C:\MSDchem\1\DATA\050312\16G32165.D\FID1A.CH Vial: 1
 Signal #2 : C:\MSDchem\1\DATA\050312\16G32165.D\TCD2B.CH
 Acq On : 03 May 2012 15:23 Operator: FJB
 Sample : WG396965-01 133umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 03 15:28:54 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

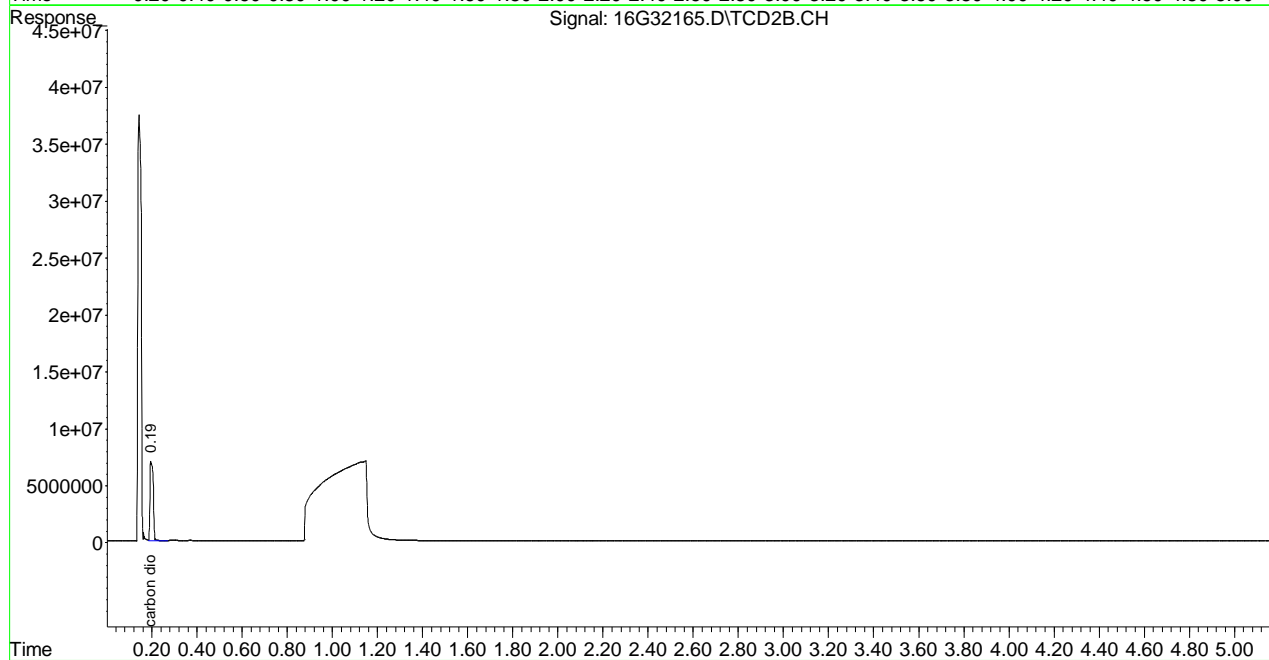
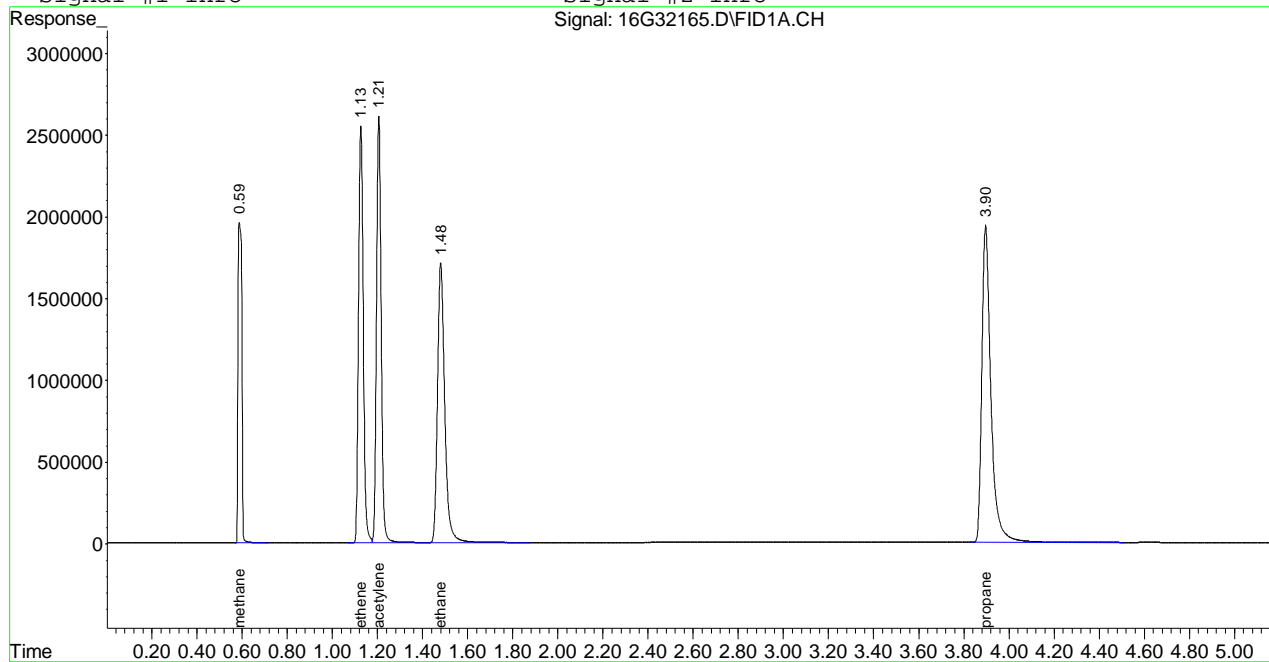
Target Compounds			
1) T methane	0.59	22713300	125.259 umol/
2) T ethene	1.13	37077409	125.088 umol/
3) T acetylene	1.21	37885527	130.829 umol/
4) T ethane	1.48	38076001	125.268 umol/
5) T propane	3.90	54330339	123.795 umol/
7) T carbon dioxide	0.20	72633111	12724.022 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32165.D RSK2EXT.M Thu May 03 15:28:54 2012

Signal #1 : C:\MSDchem\1\DATA\050312\16G32165.D\FID1A.CH Vial: 1
 Signal #2 : C:\MSDchem\1\DATA\050312\16G32165.D\TCD2B.CH
 Acq On : 03 May 2012 15:23 Operator: FJB
 Sample : WG396965-01 133umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 3 15:28 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : RSK2EXT.M

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



Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\050312\16G32165.D\FID1A.CH Vial: 1
 Signal #2 : C:\MSDCHEM\1\DATA\050312\16G32165.D\TCD2B.CH
 Acq On : 03 May 2012 15:23 Operator: FJB
 Sample : WG396965-01 133umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 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 : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 T	methane	133.000	125.259	5.8	99	0.00
2 T	ethene	133.000	125.088	5.9	99	0.00
3 T	acetylene	133.000	130.829	1.6	107	0.00
4 T	ethane	133.000	125.268	5.8	98	0.00
5 T	propane	133.000	123.795	6.9	98	0.00

Signal #2
 7 T carbon dioxide 13333.000 12724.022 4.6 99 0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 16G32165.D RSK2EXT.M Fri May 04 07:59:52 2012

Signal #1 : C:\MSDCHEM\1\DATA\050312\16G32165.D\FID1A.CH Vial: 1
 Signal #2 : C:\MSDCHEM\1\DATA\050312\16G32165.D\TCD2B.CH
 Acq On : 03 May 2012 15:23 Operator: FJB
 Sample : WG396965-01 133umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 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 : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)
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Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 16G32165.D RSK2EXT.M Fri May 04 07:59:52 2012

Signal #1 : C:\MSDchem\1\DATA\050312\16G32176.D\FID1A.CH Vial: 12
 Signal #2 : C:\MSDchem\1\DATA\050312\16G32176.D\TCD2B.CH
 Acq On : 03 May 2012 17:09 Operator: FJB
 Sample : WG396965-02 133umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 03 17:14:41 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

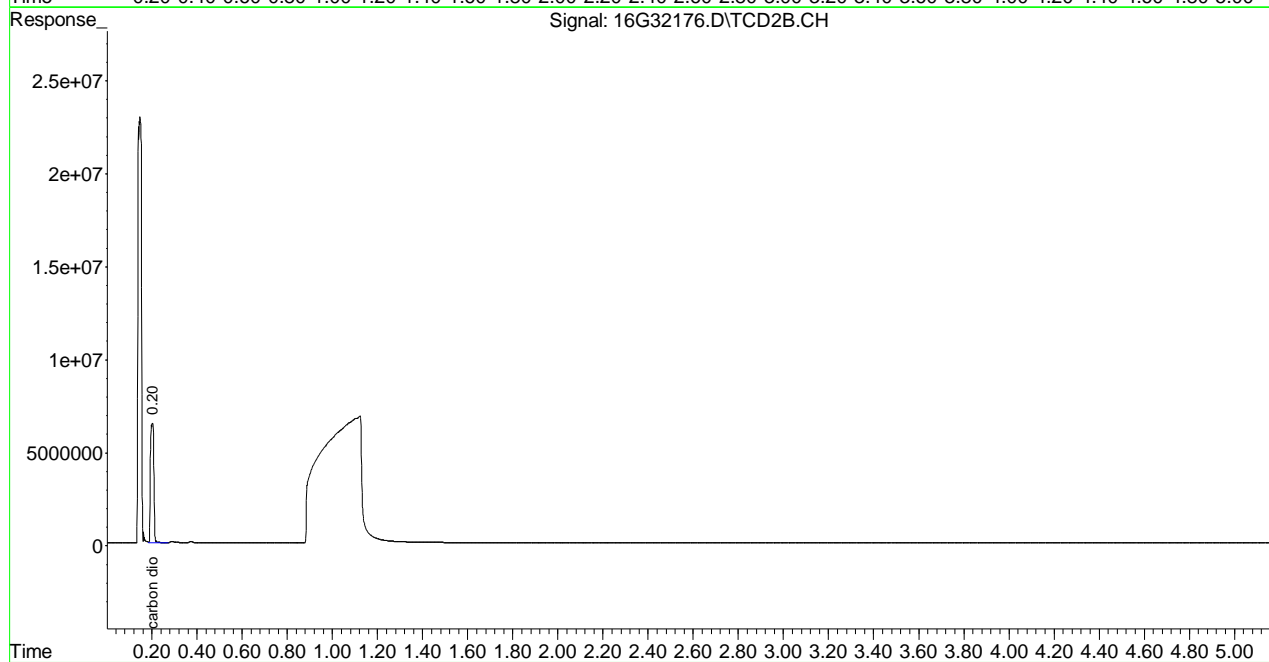
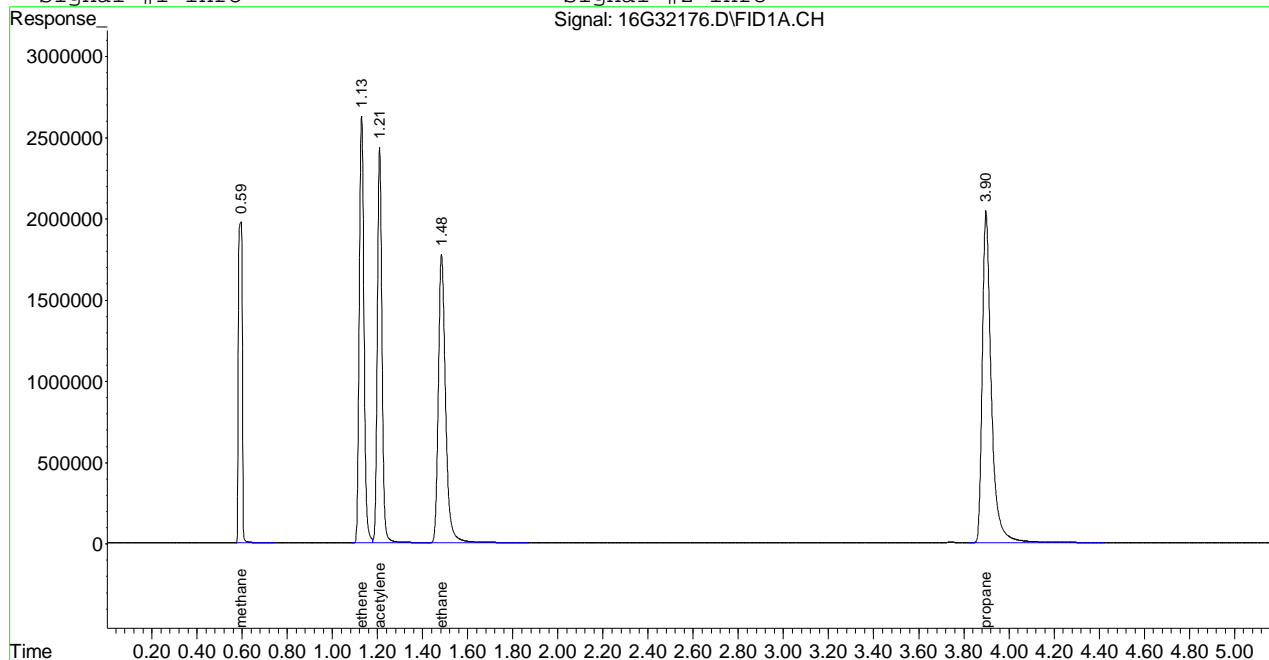
Target Compounds			
1) T methane	0.59	23053041	127.132 umol/
2) T ethene	1.13	37950472	128.034 umol/
3) T acetylene	1.21	35004707	120.880 umol/
4) T ethane	1.48	39358480	129.487 umol/
5) T propane	3.90	56727761	129.258 umol/
7) T carbon dioxide	0.20	69579084	12189.011 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32176.D RSK2EXT.M Thu May 03 17:14:41 2012

Signal #1 : C:\MSDchem\1\DATA\050312\16G32176.D\FID1A.CH Vial: 12
 Signal #2 : C:\MSDchem\1\DATA\050312\16G32176.D\TCD2B.CH
 Acq On : 03 May 2012 17:09 Operator: FJB
 Sample : WG396965-02 133umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 3 17:14 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : RSK2EXT.M

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



Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\050312\16G32176.D\FID1A.CH Vial: 12
 Signal #2 : C:\MSDCHEM\1\DATA\050312\16G32176.D\TCD2B.CH
 Acq On : 03 May 2012 17:09 Operator: FJB
 Sample : WG396965-02 133umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 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 : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 T	methane	133.000	127.132	4.4	101	0.00
2 T	ethene	133.000	128.034	3.7	101	0.00
3 T	acetylene	133.000	120.880	9.1	99	0.00
4 T	ethane	133.000	129.487	2.6	102	0.00
5 T	propane	133.000	129.258	2.8	102	0.00

Signal #2
 7 T carbon dioxide 13333.000 12189.011 8.6 95 0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 16G32176.D RSK2EXT.M Fri May 04 07:59:56 2012

Signal #1 : C:\MSDCHEM\1\DATA\050312\16G32176.D\FID1A.CH Vial: 12
 Signal #2 : C:\MSDCHEM\1\DATA\050312\16G32176.D\TCD2B.CH
 Acq On : 03 May 2012 17:09 Operator: FJB
 Sample : WG396965-02 133umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 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 : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)
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Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 16G32176.D RSK2EXT.M Fri May 04 07:59:56 2012

Signal #1 : C:\MSDchem\1\DATA\050412\16G32191.D\FID1A.CH Vial: 1
 Signal #2 : C:\MSDchem\1\DATA\050412\16G32191.D\TCD2B.CH
 Acq On : 04 May 2012 12:31 Operator: MDA
 Sample : WG397034-01 133umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 04 12:37:12 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

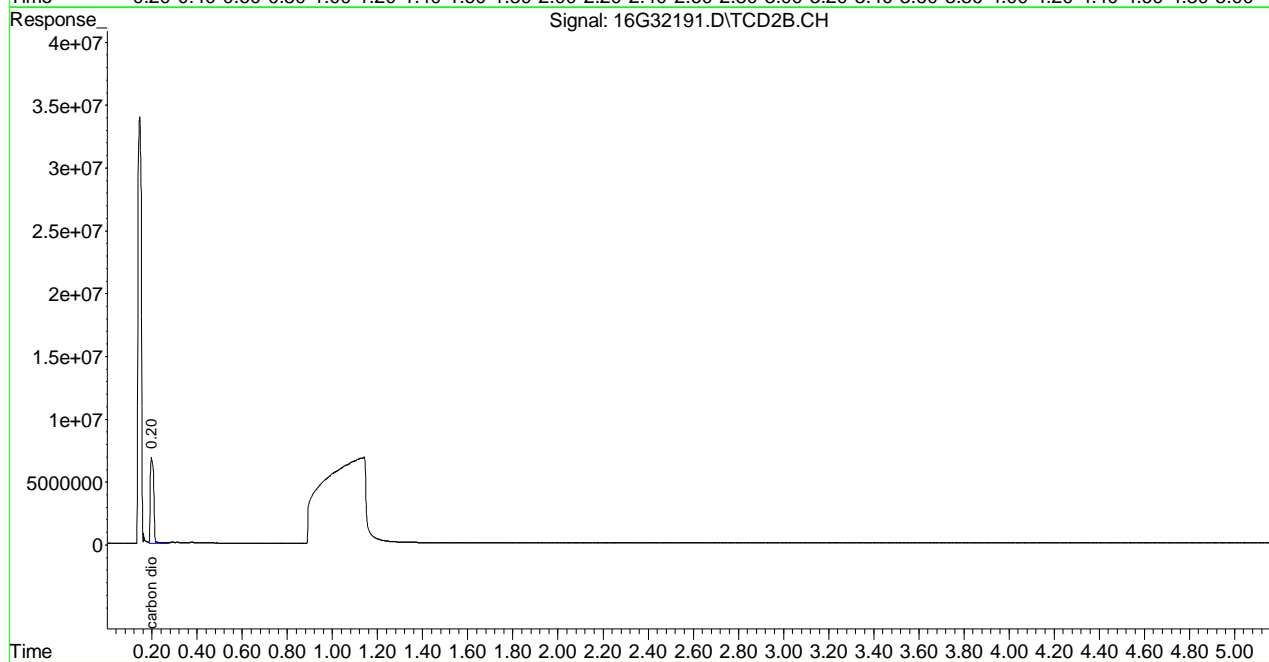
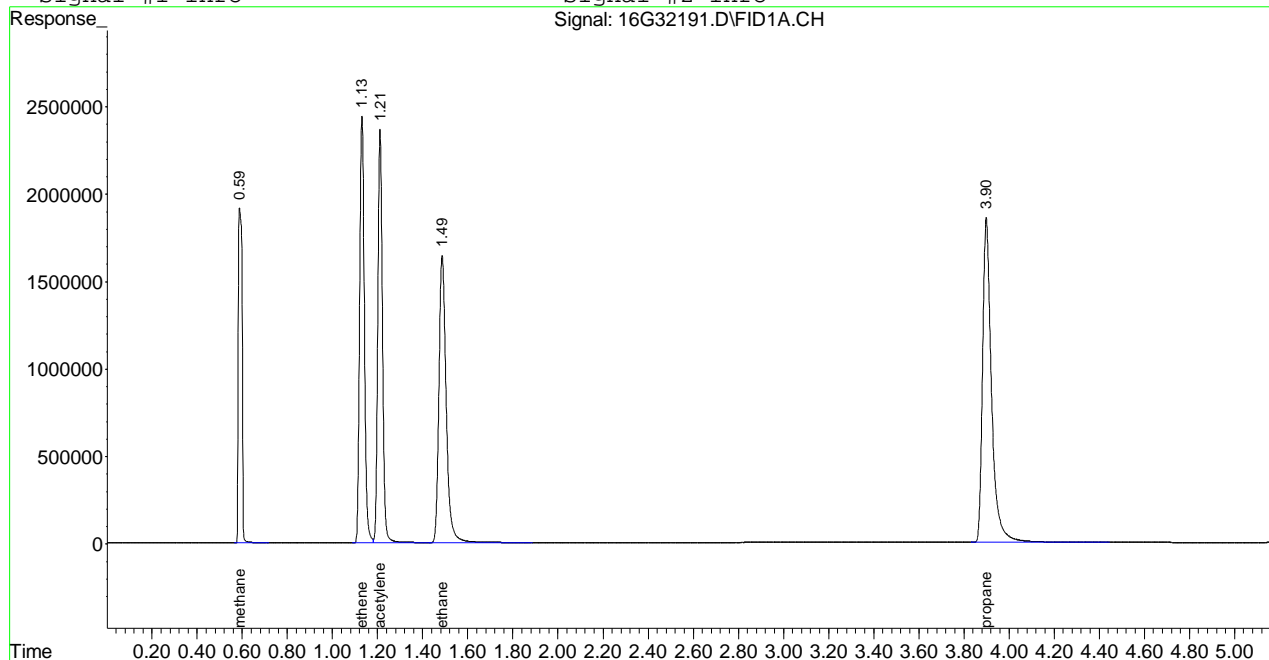
Target Compounds			
1) T methane	0.59	22210724	122.487 umol/
2) T ethene	1.13	35569921	120.003 umol/
3) T acetylene	1.21	34304903	118.464 umol/
4) T ethane	1.49	36600628	120.414 umol/
5) T propane	3.90	51437250	117.203 umol/
7) T carbon dioxide	0.20	72429458	12688.346 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32191.D RSK2EXT.M Fri May 04 12:37:12 2012

Signal #1 : C:\MSDchem\1\DATA\050412\16G32191.D\FID1A.CH Vial: 1
Signal #2 : C:\MSDchem\1\DATA\050412\16G32191.D\TCD2B.CH
Acq On : 04 May 2012 12:31 Operator: MDA
Sample : WG397034-01 133umol/mol CCV RSK175 Inst : HP16
Misc : 1,1 STD38726 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: May 4 12:37 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
Title : RSK175 HP16 (SOP: OVL RSK01) 043012
Last Update : Mon Apr 30 15:17:04 2012
Response via : Multiple Level Calibration
DataAcq Meth : RSK2EXT.M

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



Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\050412\16G32191.D\FID1A.CH Vial: 1
 Signal #2 : C:\MSDCHEM\1\DATA\050412\16G32191.D\TCD2B.CH
 Acq On : 04 May 2012 12:31 Operator: MDA
 Sample : WG397034-01 133umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 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 : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 T	methane	133.000	122.487	7.9	97	0.00
2 T	ethene	133.000	120.003	9.8	95	0.00
3 T	acetylene	133.000	118.464	10.9	97	0.00
4 T	ethane	133.000	120.414	9.5	95	0.00
5 T	propane	133.000	117.203	11.9	92	0.00

Signal #2
 7 T carbon dioxide 13333.000 12688.346 4.8 99 0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 16G32191.D RSK2EXT.M Fri May 04 12:39:36 2012

Signal #1 : C:\MSDCHEM\1\DATA\050412\16G32191.D\FID1A.CH Vial: 1
 Signal #2 : C:\MSDCHEM\1\DATA\050412\16G32191.D\TCD2B.CH
 Acq On : 04 May 2012 12:31 Operator: MDA
 Sample : WG397034-01 133umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 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 : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)
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Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 16G32191.D RSK2EXT.M Fri May 04 12:39:36 2012

Signal #1 : C:\MSDchem\1\DATA\050412\16G32202.D\FID1A.CH Vial: 12
 Signal #2 : C:\MSDchem\1\DATA\050412\16G32202.D\TCD2B.CH
 Acq On : 04 May 2012 14:12 Operator: MDA
 Sample : WG397034-02 133umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 04 14:17:32 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

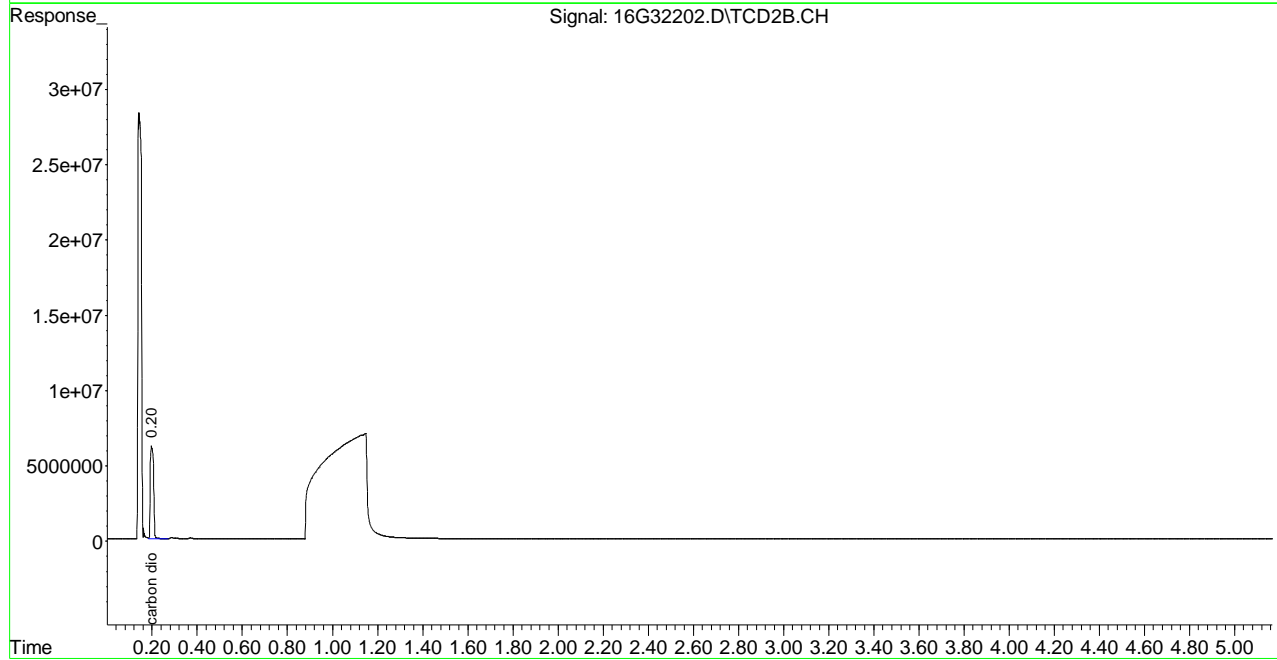
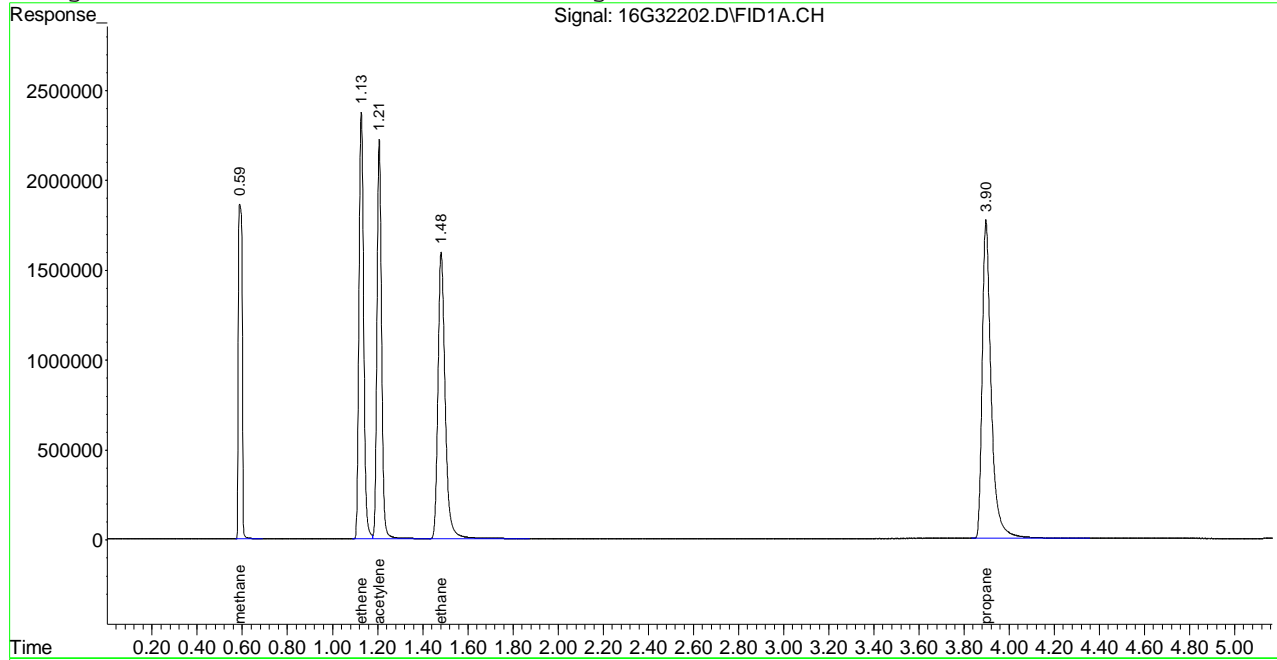
Target Compounds			
1) T methane	0.59	21639483	119.337 umol/
2) T ethene	1.13	34138506	115.173 umol/
3) T acetylene	1.21	31748915	109.637 umol/
4) T ethane	1.48	35258758	115.999 umol/
5) T propane	3.90	49187298	112.076 umol/
7) T carbon dioxide	0.20	64972289	11381.983 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32202.D RSK2EXT.M Fri May 04 14:17:32 2012

Signal #1 : C:\MSDchem\1\DATA\050412\16G32202.D\FID1A.CH Vial: 12
Signal #2 : C:\MSDchem\1\DATA\050412\16G32202.D\TCD2B.CH
Acq On : 04 May 2012 14:12 Operator: MDA
Sample : WG397034-02 133umol/mol CCV RSK175 Inst : HP16
Misc : 1,1 STD38726 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: May 4 14:17 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
Title : RSK175 HP16 (SOP: OVL RSK01) 043012
Last Update : Mon Apr 30 15:17:04 2012
Response via : Multiple Level Calibration
DataAcq Meth : RSK2EXT.M

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



Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\050412\16G32202.D\FID1A.CH Vial: 12
 Signal #2 : C:\MSDCHEM\1\DATA\050412\16G32202.D\TCD2B.CH
 Acq On : 04 May 2012 14:12 Operator: MDA
 Sample : WG397034-02 133umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 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 : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 T	methane	133.000	119.337	10.3	94	0.00
2 T	ethene	133.000	115.173	13.4	91	0.00
3 T	acetylene	133.000	109.637	17.6#	90	0.00
4 T	ethane	133.000	115.999	12.8	91	0.00
5 T	propane	133.000	112.076	15.7#	88	0.00

Signal #2
 7 T carbon dioxide 13333.000 11381.983 14.6 89 0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 16G32202.D RSK2EXT.M Fri May 04 14:17:46 2012

Signal #1 : C:\MSDCHEM\1\DATA\050412\16G32202.D\FID1A.CH Vial: 12
 Signal #2 : C:\MSDCHEM\1\DATA\050412\16G32202.D\TCD2B.CH
 Acq On : 04 May 2012 14:12 Operator: MDA
 Sample : WG397034-02 133umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 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 : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)
----------	--------	-------	------	-------	----------

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 16G32202.D RSK2EXT.M Fri May 04 14:17:46 2012

Signal #1 : C:\MSDchem\1\DATA\050412\16G32213.D\FID1A.CH Vial: 23
 Signal #2 : C:\MSDchem\1\DATA\050412\16G32213.D\TCD2B.CH
 Acq On : 04 May 2012 15:52 Operator: MDA
 Sample : WG397034-03 133umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 04 15:57:51 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

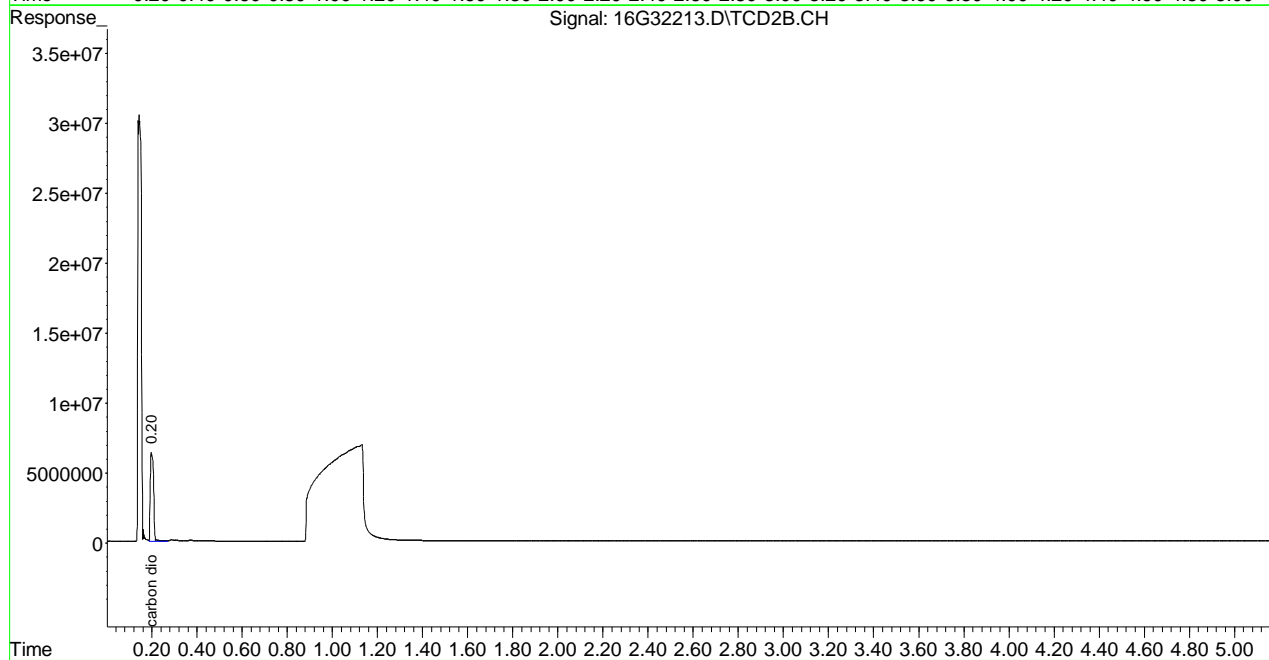
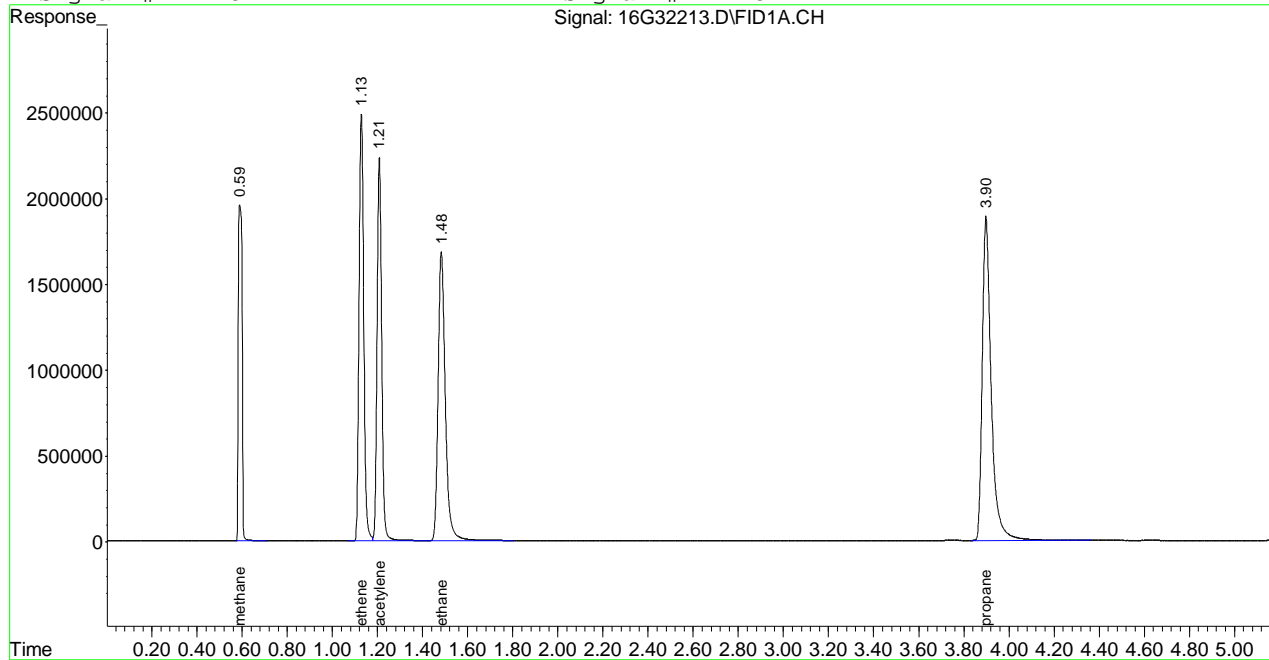
Target Compounds			
1) T methane	0.59	22661953	124.976 umol/
2) T ethene	1.13	35792672	120.754 umol/
3) T acetylene	1.21	31983558	110.448 umol/
4) T ethane	1.48	37159984	122.254 umol/
5) T propane	3.90	52190672	118.920 umol/
7) T carbon dioxide	0.20	65876274	11540.345 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32213.D RSK2EXT.M Fri May 04 15:57:51 2012

Signal #1 : C:\MSDchem\1\DATA\050412\16G32213.D\FID1A.CH Vial: 23
 Signal #2 : C:\MSDchem\1\DATA\050412\16G32213.D\TCD2B.CH
 Acq On : 04 May 2012 15:52 Operator: MDA
 Sample : WG397034-03 133umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 4 15:57 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : RSK2EXT.M

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



Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\050412\16G32213.D\FID1A.CH Vial: 23
 Signal #2 : C:\MSDCHEM\1\DATA\050412\16G32213.D\TCD2B.CH
 Acq On : 04 May 2012 15:52 Operator: MDA
 Sample : WG397034-03 133umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 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 : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 T	methane	133.000	124.976	6.0	99	0.00
2 T	ethene	133.000	120.754	9.2	96	0.00
3 T	acetylene	133.000	110.448	17.0#	91	0.00
4 T	ethane	133.000	122.254	8.1	96	0.00
5 T	propane	133.000	118.920	10.6	94	0.00

Signal #2
 7 T carbon dioxide 13333.000 11540.345 13.4 90 0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 16G32213.D RSK2EXT.M Fri May 04 16:06:07 2012

Signal #1 : C:\MSDCHEM\1\DATA\050412\16G32213.D\FID1A.CH Vial: 23
 Signal #2 : C:\MSDCHEM\1\DATA\050412\16G32213.D\TCD2B.CH
 Acq On : 04 May 2012 15:52 Operator: MDA
 Sample : WG397034-03 133umol/mol CCV RSK175 Inst : HP16
 Misc : 1,1 STD38726 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 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 : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)
----------	--------	-------	------	-------	----------

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 16G32213.D RSK2EXT.M Fri May 04 16:06:07 2012

Microbac Laboratories Inc.
Daily Retention Time Window Determination

Login #: L12050050 Run Date: 05/03/2012 Sample ID: WG396965-01
 Instrument: HP16 Run Time: 15:23 Method: RSK175
 Workgroup (AAB#): WG396966 File ID: 16G32165

RT Standard	Analysis Date	File ID	Analyst
WG388995-01	02/07/2012	16G30048	FJB
WG388902-01	02/06/2012	16G30023A	FJB
WG388437-01	01/31/2012	16G30009	ADC

Analyte	RT #1	RT #2	RT #3	STD	Lower	Upper
METHANE	.58	.59	.58	.59	0.560	0.620
ETHENE	1.12	1.13	1.11	1.13	1.100	1.160
ETHANE	1.47	1.48	1.46	1.48	1.450	1.510
PROPANE	3.89	3.89	3.89	3.9	3.870	3.930
CARBON DIOXIDE	.2	.2	.19	.2	0.170	0.230
ACETYLENE	1.2	1.21	1.19	1.21	1.180	1.240

RT_WIN - Modified 01/06/2010
 PDF File ID: 2402032
 Report generated 05/09/2012 10:13



Microbac Laboratories Inc.
Daily Retention Time Window Determination

Login #: L12050050 Run Date: 05/04/2012 Sample ID: WG397034-01
 Instrument: HP16 Run Time: 12:31 Method: RSK175
 Workgroup (AAB#): WG397035 File ID: 16G32191

RT Standard	Analysis Date	File ID	Analyst
WG388995-01	02/07/2012	16G30048	FJB
WG388902-01	02/06/2012	16G30023A	FJB
WG388437-01	01/31/2012	16G30009	ADC

Analyte	RT #1	RT #2	RT #3	STD	Lower	Upper
METHANE	.58	.59	.58	.59	0.560	0.620
ETHENE	1.12	1.13	1.11	1.13	1.100	1.160
ETHANE	1.47	1.48	1.46	1.49	1.460	1.520
PROPANE	3.89	3.89	3.89	3.9	3.870	3.930
CARBON DIOXIDE	.2	.2	.19	.2	0.170	0.230
ACETYLENE	1.2	1.21	1.19	1.21	1.180	1.240

RT_WIN - Modified 01/06/2010
 PDF File ID: 2402032
 Report generated 05/09/2012 10:13



2.1.2.5 Raw QC Data

Signal #1 : C:\MSDCHEM\1\DATA\050312\16G32166.D\FID1A.CH Vial: 2
 Signal #2 : C:\MSDCHEM\1\DATA\050312\16G32166.D\TCD2B.CH
 Acq On : 03 May 2012 15:37 Operator: FJB
 Sample : WG396966-01 BLANK RSK175 Inst : HP16
 Misc : 1,1 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 03 15:42:49 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

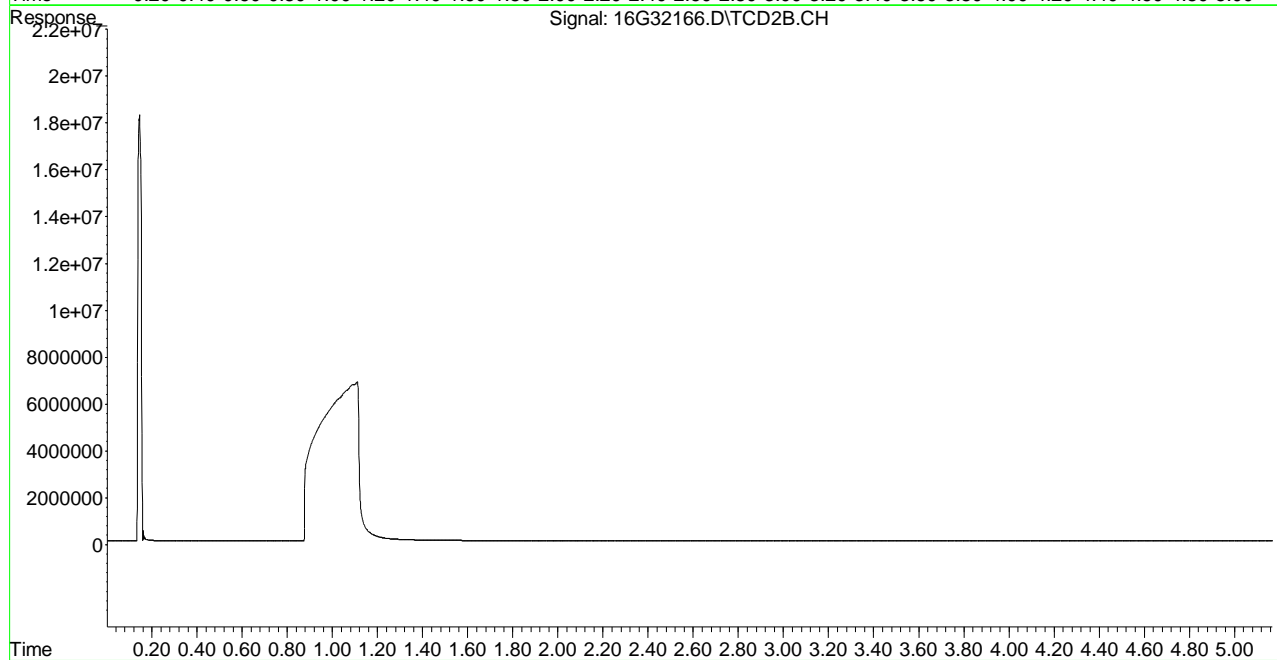
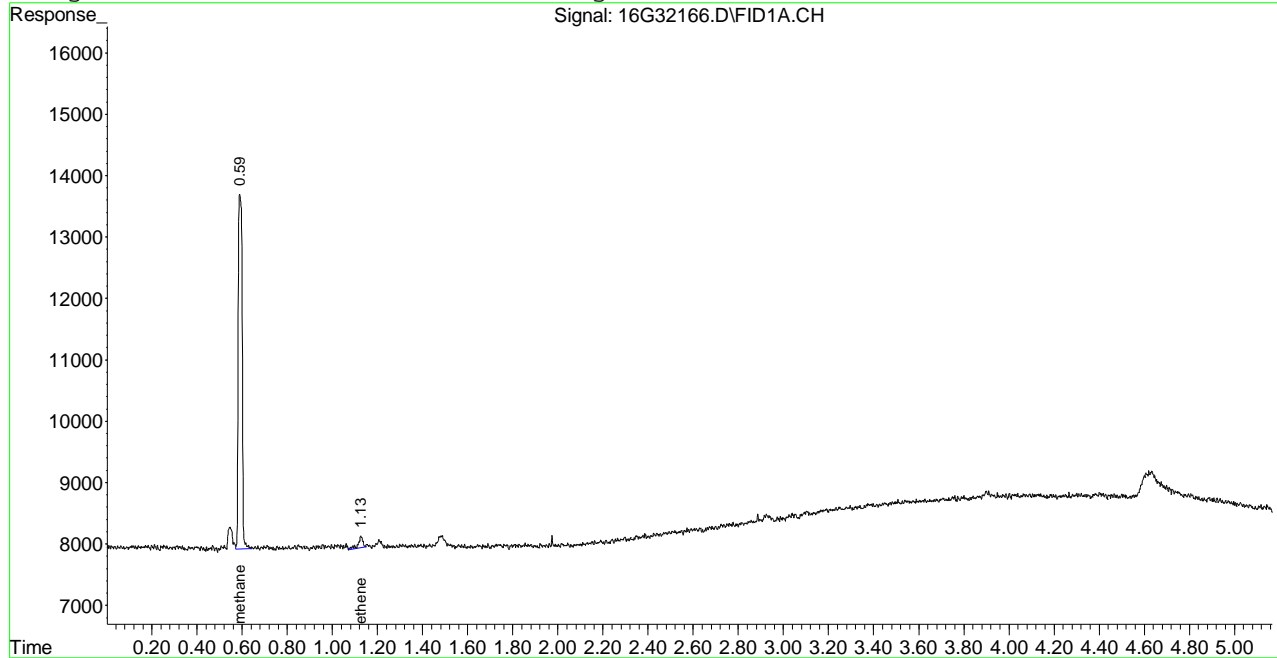
Target Compounds			
1) T methane	0.59	68637	0.379 umol/
2) T ethene	1.13	2714	0.009 umol/
3) T acetylene	0.00	0	N.D. umol/
4) T ethane	0.00	0	N.D. umol/
5) T propane	0.00	0	N.D. umol/
7) T carbon dioxide	0.00	0	N.D. umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32166.D RSK2EXT.M Fri May 04 08:01:41 2012

Signal #1 : C:\MSDCHEM\1\DATA\050312\16G32166.D\FID1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\050312\16G32166.D\TCD2B.CH
Acq On : 03 May 2012 15:37 Operator: FJB
Sample : WG396966-01 BLANK RSK175 Inst : HP16
Misc : 1,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: May 3 15:42 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
Title : RSK175 HP16 (SOP: OVL RSK01) 043012
Last Update : Mon Apr 30 15:17:04 2012
Response via : Multiple Level Calibration
DataAcq Meth : RSK2EXT.M

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



Signal #1 : C:\MSDCHEM\1\DATA\050412\16G32192.D\FID1A.CH Vial: 2
 Signal #2 : C:\MSDCHEM\1\DATA\050412\16G32192.D\TCD2B.CH
 Acq On : 04 May 2012 12:41 Operator: MDA
 Sample : WG397035-01 BLANK RSK175 Inst : HP16
 Misc : 1,1 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 04 12:46:35 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

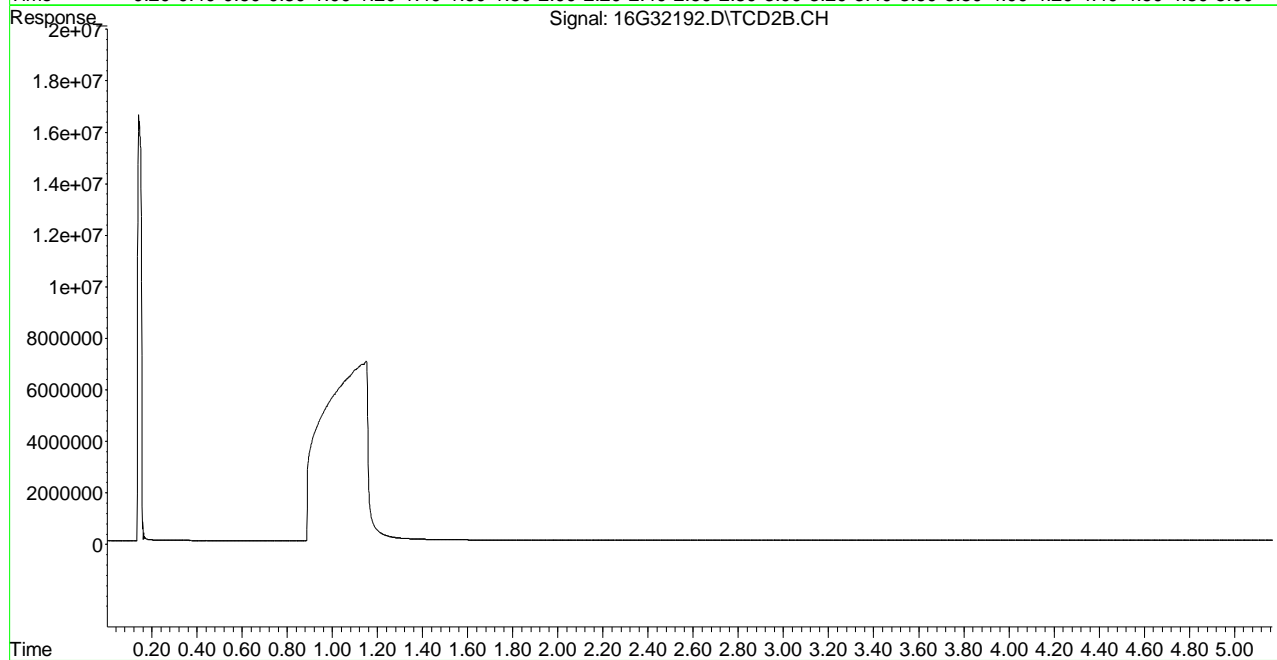
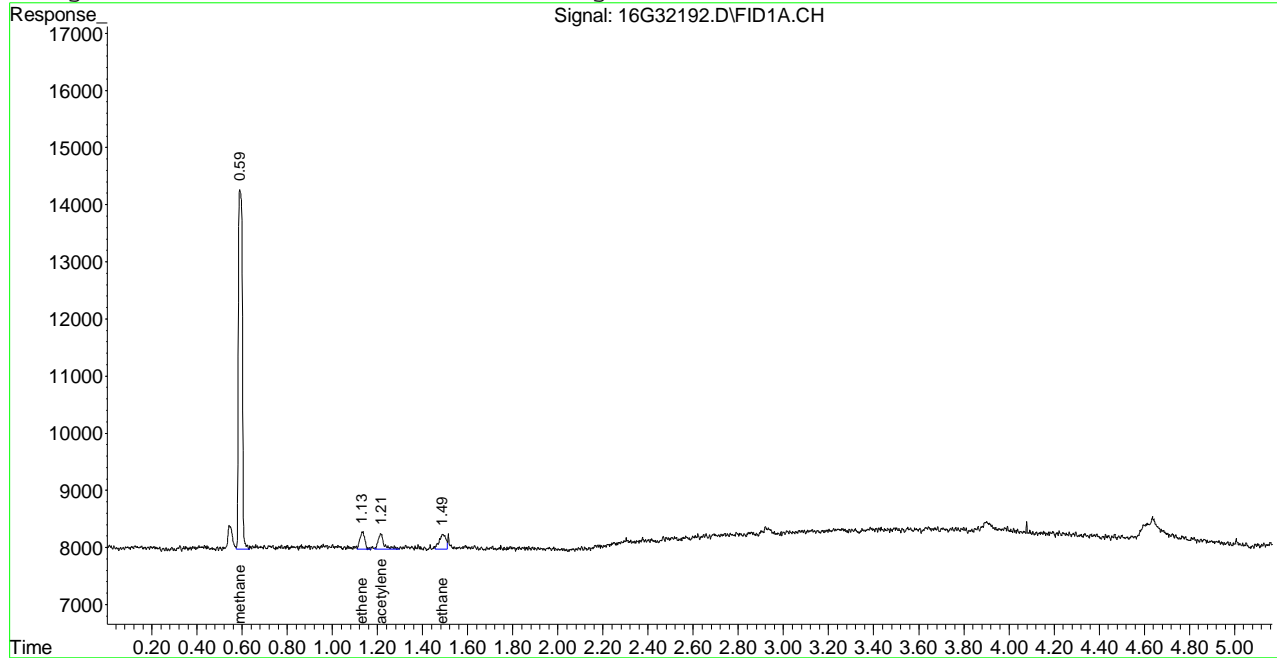
Target Compounds			
1) T methane	0.59	74670	0.412 umol/
2) T ethene	1.13	4738	0.016 umol/
3) T acetylene	1.21	5195	0.018 umol/
4) T ethane	1.49	5350	0.018 umol/
5) T propane	0.00	0	N.D. umol/
7) T carbon dioxide	0.00	0	N.D. umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32192.D RSK2EXT.M Fri May 04 12:47:34 2012

Signal #1 : C:\MSDCHEM\1\DATA\050412\16G32192.D\FID1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\050412\16G32192.D\TCD2B.CH
Acq On : 04 May 2012 12:41 Operator: MDA
Sample : WG397035-01 BLANK RSK175 Inst : HP16
Misc : 1,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
Quant Time: May 4 12:46 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
Title : RSK175 HP16 (SOP: OVL RSK01) 043012
Last Update : Mon Apr 30 15:17:04 2012
Response via : Multiple Level Calibration
DataAcq Meth : RSK2EXT.M

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



Signal #1 : C:\MSDchem\1\DATA\050312\16G32167.D\FID1A.CH Vial: 3
 Signal #2 : C:\MSDchem\1\DATA\050312\16G32167.D\TCD2B.CH
 Acq On : 03 May 2012 15:46 Operator: FJB
 Sample : WG396966-02 67umol/mol LCS RSK175 Inst : HP16
 Misc : 1,1 STD45308 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 03 15:52:00 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

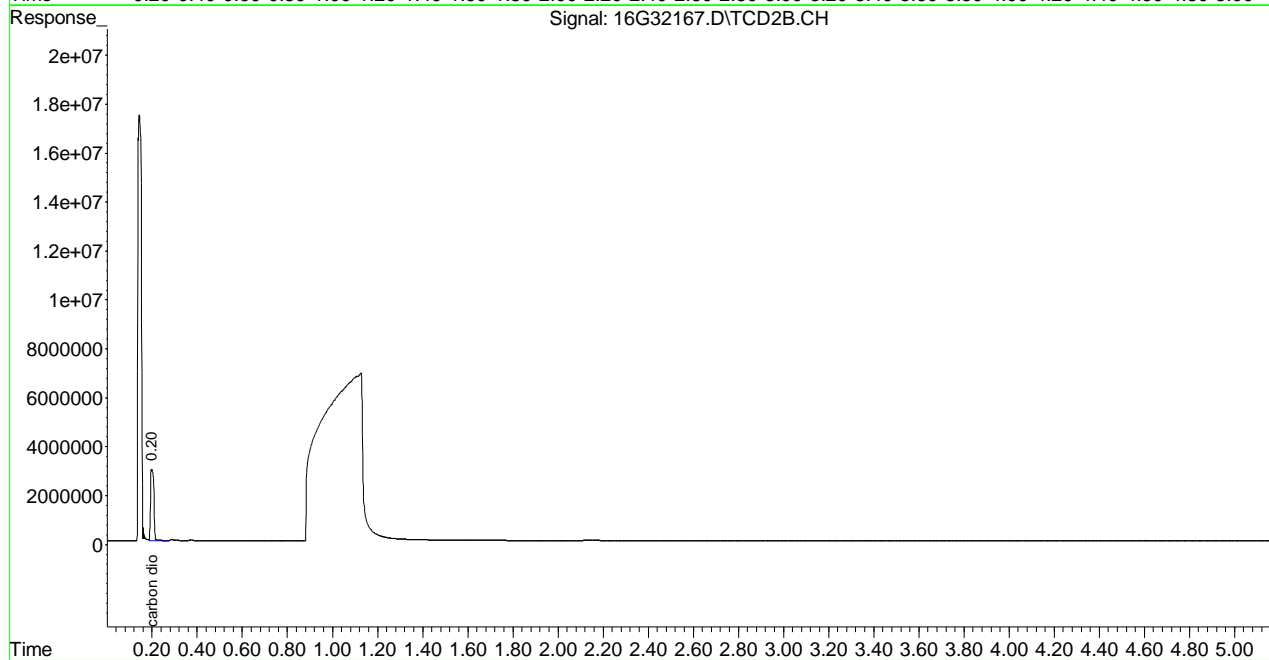
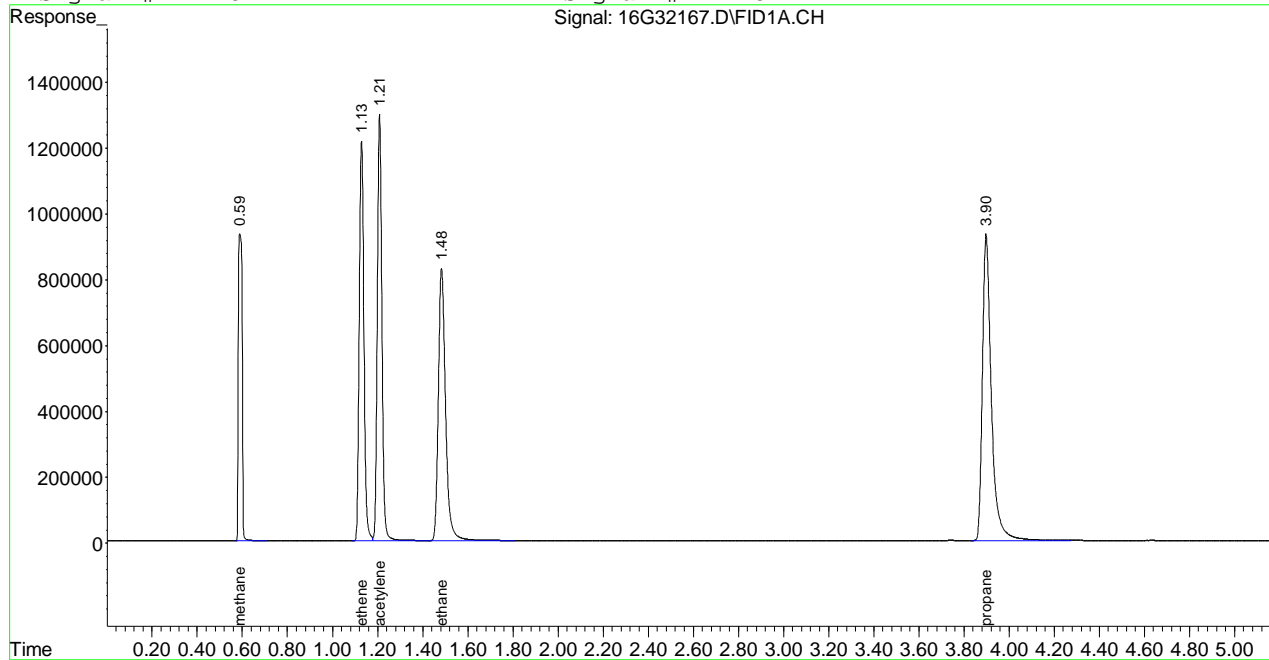
Target Compounds			
1) T methane	0.59	10834321	59.749 umol/
2) T ethene	1.13	17381285	58.639 umol/
3) T acetylene	1.21	18476969	63.806 umol/
4) T ethane	1.48	18277409	60.132 umol/
5) T propane	3.90	25767262	58.712 umol/
7) T carbon dioxide	0.20	30708421	5379.566 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32167.D RSK2EXT.M Thu May 03 15:52:00 2012

Signal #1 : C:\MSDchem\1\DATA\050312\16G32167.D\FID1A.CH Vial: 3
 Signal #2 : C:\MSDchem\1\DATA\050312\16G32167.D\TCD2B.CH
 Acq On : 03 May 2012 15:46 Operator: FJB
 Sample : WG396966-02 67umol/mol LCS RSK175 Inst : HP16
 Misc : 1,1 STD45308 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 3 15:52 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : RSK2EXT.M

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



Signal #1 : C:\MSDchem\1\DATA\050412\16G32193.D\FID1A.CH Vial: 3
 Signal #2 : C:\MSDchem\1\DATA\050412\16G32193.D\TCD2B.CH
 Acq On : 04 May 2012 12:50 Operator: MDA
 Sample : WG397035-02 67umol/mol LCS RSK175 Inst : HP16
 Misc : 1,1 STD45308 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 04 12:55:41 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

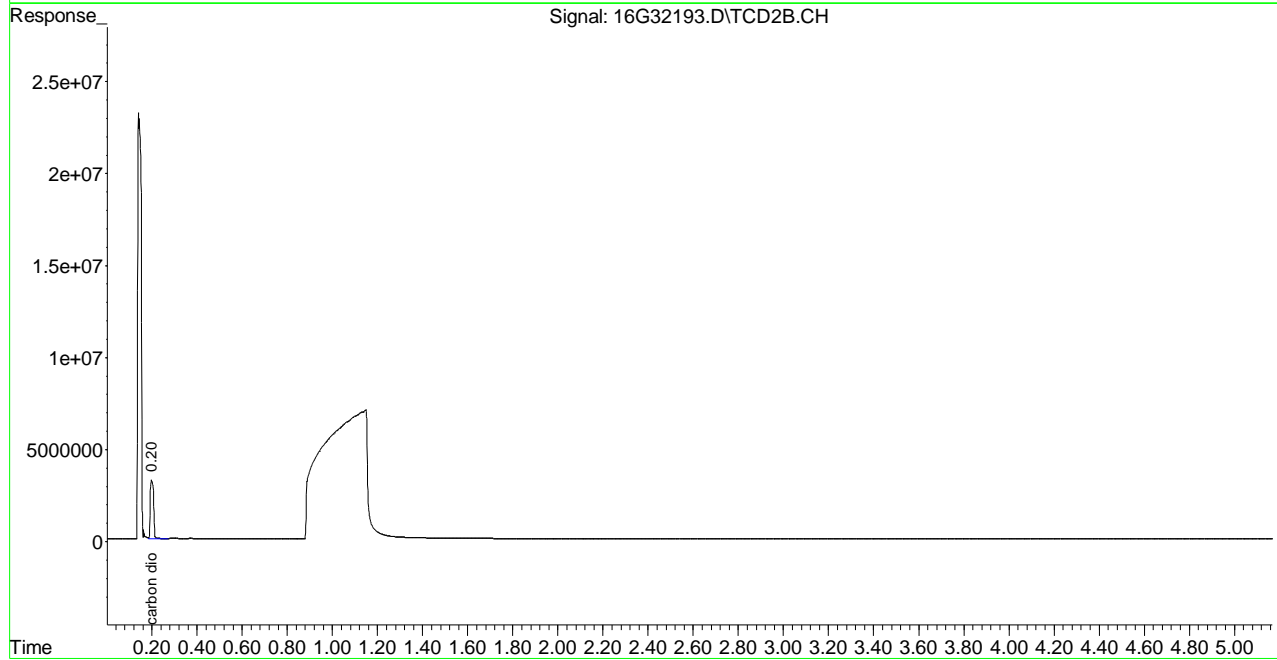
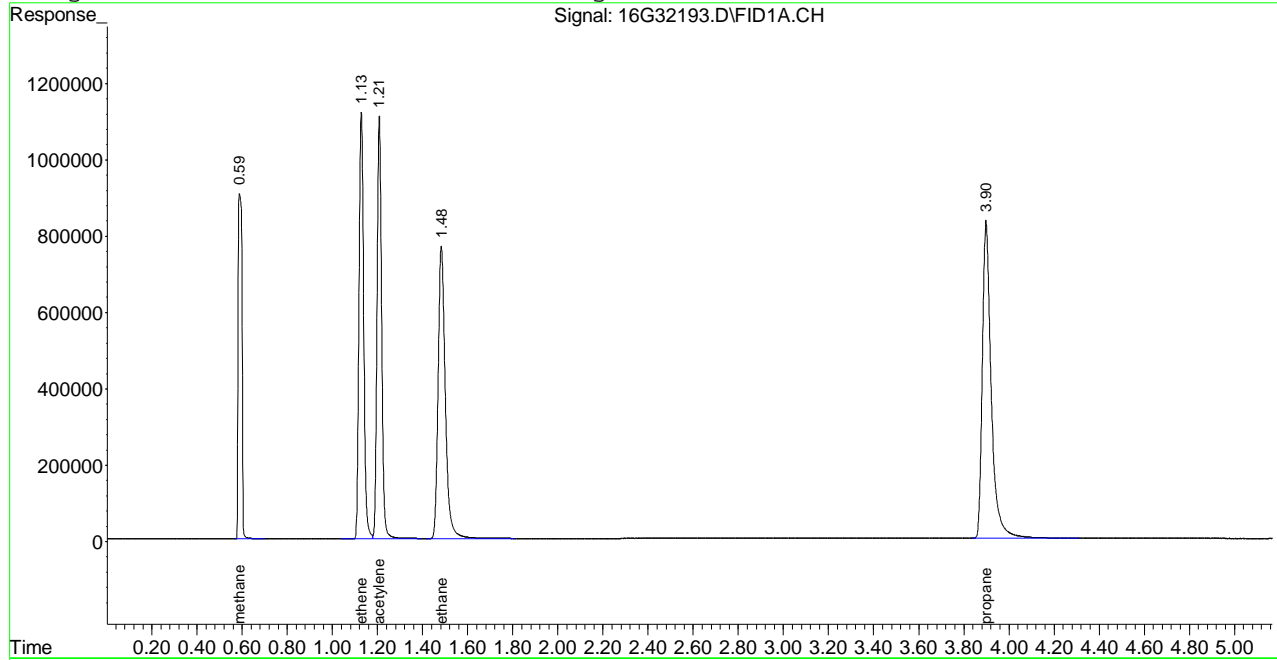
Target Compounds			
1) T methane	0.59	10593406	58.420 umol/
2) T ethene	1.13	16071584	54.221 umol/
3) T acetylene	1.21	15823143	54.641 umol/
4) T ethane	1.48	16930110	55.699 umol/
5) T propane	3.90	22879764	52.133 umol/
7) T carbon dioxide	0.20	33878313	5934.875 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32193.D RSK2EXT.M Fri May 04 12:55:41 2012

Signal #1 : C:\MSDchem\1\DATA\050412\16G32193.D\FID1A.CH Vial: 3
 Signal #2 : C:\MSDchem\1\DATA\050412\16G32193.D\TCD2B.CH
 Acq On : 04 May 2012 12:50 Operator: MDA
 Sample : WG397035-02 67umol/mol LCS RSK175 Inst : HP16
 Misc : 1,1 STD45308 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 4 12:55 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : RSK2EXT.M

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



Signal #1 : C:\MSDchem\1\DATA\050412\16G32194.D\FID1A.CH Vial: 4
 Signal #2 : C:\MSDchem\1\DATA\050412\16G32194.D\TCD2B.CH
 Acq On : 04 May 2012 12:59 Operator: MDA
 Sample : WG397035-03 67umol/mol LCSD RSK175 Inst : HP16
 Misc : 1,1 STD45308 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 04 13:04:42 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Initial Calibration
 DataAcq Meth : RSK2EXT.M

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

Compound	R.T.	Response	Conc Units

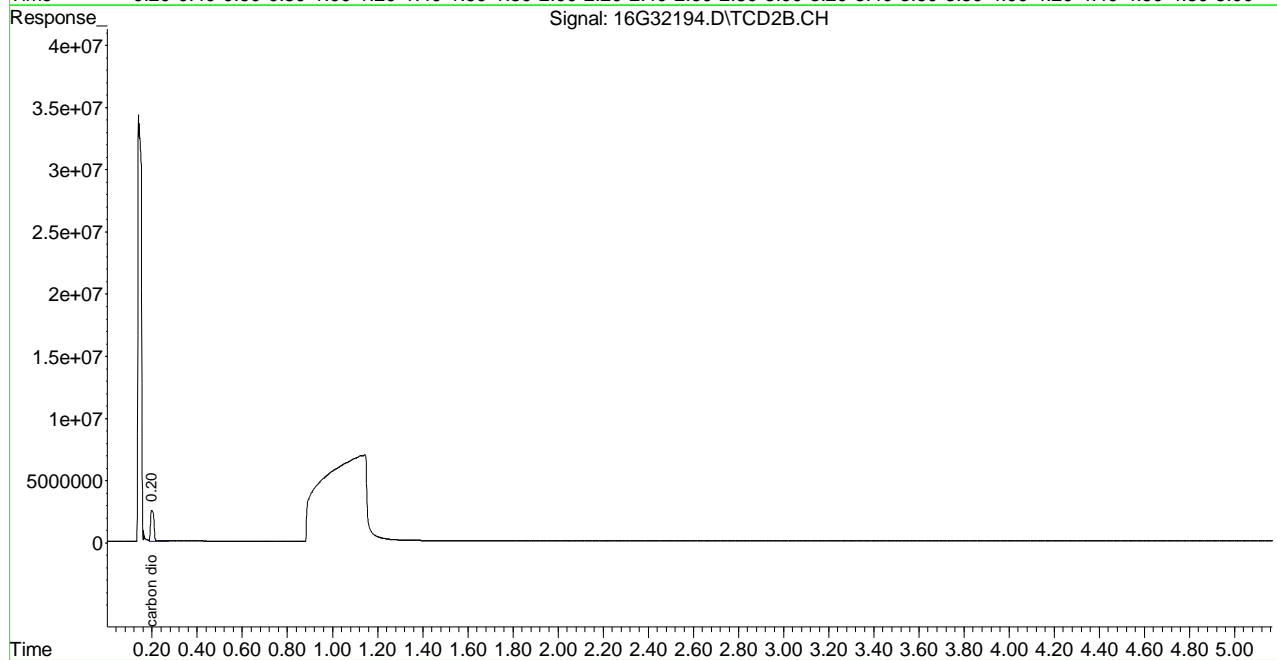
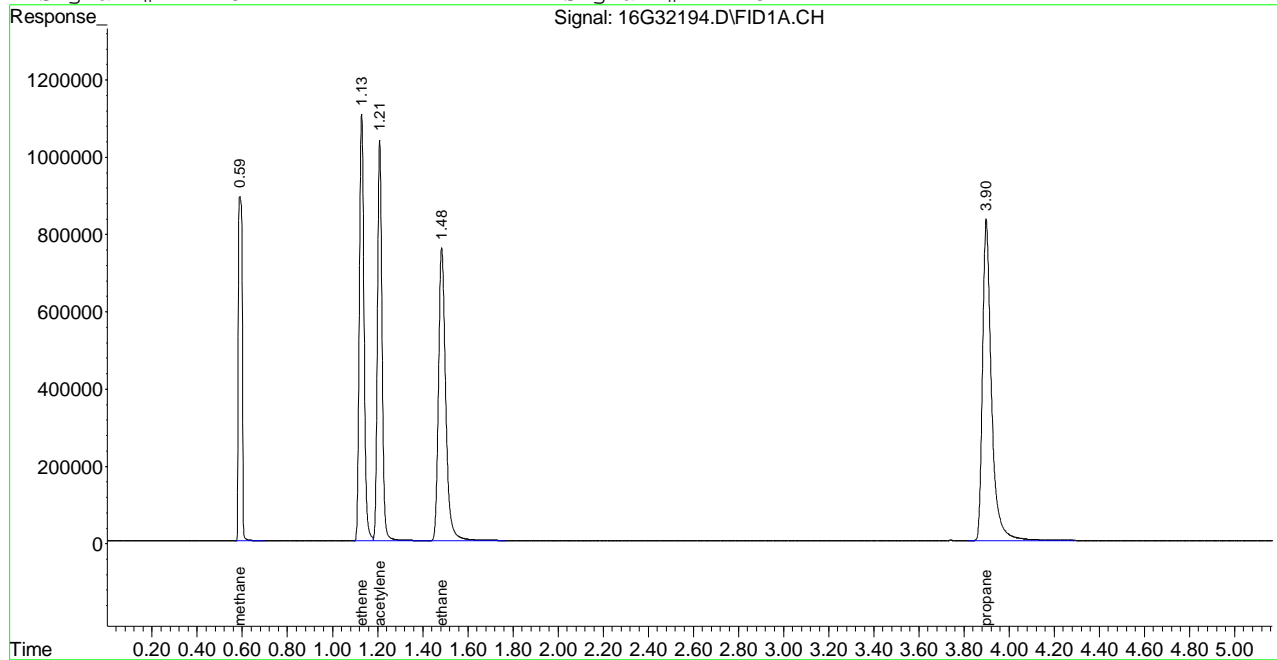
Target Compounds			
1) T methane	0.59	10471224	57.747 umol/
2) T ethene	1.13	15843904	53.453 umol/
3) T acetylene	1.21	14804694	51.124 umol/
4) T ethane	1.48	16747831	55.099 umol/
5) T propane	3.90	22917790	52.220 umol/
7) T carbon dioxide	0.20	26548728	4650.862 umol/

 (f)=RT Delta > 1/2 Window (m)=manual int.
 16G32194.D RSK2EXT.M Fri May 04 13:04:42 2012

Signal #1 : C:\MSDchem\1\DATA\050412\16G32194.D\FID1A.CH Vial: 4
 Signal #2 : C:\MSDchem\1\DATA\050412\16G32194.D\TCD2B.CH
 Acq On : 04 May 2012 12:59 Operator: MDA
 Sample : WG397035-03 67umol/mol LCSD RSK175 Inst : HP16
 Misc : 1,1 STD45308 Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e
 Quant Time: May 4 13:04 2012 Quant Results File: RSK2EXT.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK2EXT.M (Chemstation Integrator)
 Title : RSK175 HP16 (SOP: OVL RSK01) 043012
 Last Update : Mon Apr 30 15:17:04 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : RSK2EXT.M

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



2.2 Semivolatiles Data

2.2.1 Semivolatiles GC/MS Data (8270)

2.2.1.1 Summary Data



Login Number: L12050050
Department: Semivolatiles
Analyst: Cassie A. Augenstein

METHOD

Preparation 3520C

Analysis SW-846 8270C/40 CFR 264 App. IX

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: The percent difference was out of range for the following analytes: 2,4-Dinitrophenol, 2-Chloronaphthalene, Pentachlorophenol. Please see the applicable QC report for a detailed presentation of the failures.

Continuing Calibration and Tune: Recoveries out of range were observed for the following analytes: Benzoic Acid. Please see the applicable QC report for a detailed presentation of the failures.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: Recoveries out of range were observed for the following analytes/surrogates: 2,4,5-Trichlorophenol, 2,6-Dinitrotoluene, 2-Chloronaphthalene, 2-Nitroaniline, 3,3'-Dichlorobenzidine, 3-,4-Methylphenol, 3-Nitroaniline, 4-Bromophenyl Phenyl Ether, Benzo[b]fluoranthene, bis(2-Chloroethoxy)methane, Di-n-Butyl Phthalate, Dibenz[ah]anthracene, Diethylphthalate, Dimethylphthalate, Phenanthrene, Sym-Trinitrobenzene, 2,4,6-Tribromophenol, Phenol-d5. Please see the applicable QC report for a detailed presentation of the failures.

All hits in the LCS were biased high; there were no hits found above the reporting limit in the samples associated with the LCS.

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

SAMPLES

Samples: All acceptance criteria were met. The extracts were library searched using the NIST library and the top twenty TICs found were reported. Requested acid compounds listed as TICs in the Waterloo QAPP may not have been detected due to unknown extraction efficiency and chromatographic performance.

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into

multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

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

Narrative ID: 46340

Approved By: Mike Cochran



Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-05I-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 17:11
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: 4M60827
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
unknown		4.25		0.000	0.000
unknown		7.27		0.000	0.000

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-05I-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 17:11
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: 4M60827
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
1,1'-Biphenyl	92-52-4		U	20.0	2.50
1,3,5-Trinitrobenzene	99-35-4		U	5.00	2.50
1,3-Dinitrobenzene	99-65-0		U	5.00	2.50
1,4-Dioxane	123-91-1		U	10.0	5.00
2,4,5-Trichlorophenol	95-95-4		U	5.00	2.50
2,4,6-Trichlorophenol	88-06-2		U	5.00	2.50
2,4-Dichlorophenol	120-83-2		U	5.00	2.50
2,4-Dimethylphenol	105-67-9		U	5.00	2.50
2,4-Dinitrophenol	51-28-5		U	25.0	12.5
2,4-Dinitrotoluene	121-14-2		U	5.00	2.50
2,6-Dinitrotoluene	606-20-2		U	5.00	2.50
2-Chloronaphthalene	91-58-7		U	5.00	2.50
2-Chlorophenol	95-57-8		U	5.00	2.50
2-Methylnaphthalene	91-57-6		U	5.00	2.50
2-Methylphenol	95-48-7		U	5.00	2.50
2-Nitroaniline	88-74-4		U	25.0	12.5
2-Nitrophenol	88-75-5		U	5.00	2.50
3-Nitroaniline	99-09-2		U	25.0	12.5
3,3'-Dichlorobenzidine	91-94-1		U	5.00	2.50
3-,4-Methylphenol	106-44-5		U	5.00	2.50
4-Bromophenyl-phenylether	101-55-3		U	5.00	2.50
4-Chloroaniline	106-47-8		U	5.00	2.50
4-Nitrophenol	100-02-7		U	25.0	12.5
Acenaphthene	83-32-9		U	5.00	2.50
Acenaphthylene	208-96-8		U	5.00	2.50
Anthracene	120-12-7		U	5.00	2.50
Benzo(a)anthracene	56-55-3		U	5.00	2.50
Benzo(a)pyrene	50-32-8		U	5.00	2.50
Benzo(b)fluoranthene	205-99-2		U	5.00	2.50
Benzo(g,h,i)Perylene	191-24-2		U	5.00	2.50
Benzo(k)fluoranthene	207-08-9		U	5.00	2.50
Benzoic acid	65-85-0		U	20.0	10.0
Benzyl alcohol	100-51-6		U	5.00	2.50

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-05I-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 17:11
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: 4M60827
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Bis(2-Chloroethyl)ether	111-44-4		U	5.00	2.50
Bis(2-Chloroethoxy)Methane	111-91-1		U	5.00	2.50
bis(2-Ethylhexyl)phthalate	117-81-7		U	5.00	2.50
Butylbenzylphthalate	85-68-7		U	5.00	2.50
Carbazole	86-74-8		U	20.0	2.50
Chrysene	218-01-9		U	5.00	2.50
Di-N-Butylphthalate	84-74-2		U	5.00	2.50
Di-n-octylphthalate	117-84-0		U	5.00	2.50
Dibenzo(a,h)Anthracene	53-70-3		U	5.00	2.50
Dibenzofuran	132-64-9		U	5.00	2.50
Diethylphthalate	84-66-2		U	5.00	2.50
Dimethylphthalate	131-11-3		U	5.00	2.50
Fluoranthene	206-44-0		U	5.00	2.50
Fluorene	86-73-7		U	5.00	2.50
Hexachlorobenzene	118-74-1		U	5.00	2.50
Hexachlorobutadiene	87-68-3		U	5.00	2.50
Hexachlorocyclopentadiene	77-47-4		U	5.00	2.50
Hexachloroethane	67-72-1		U	5.00	2.50
Indeno(1,2,3-cd)pyrene	193-39-5		U	5.00	2.50
Isophorone	78-59-1		U	5.00	2.50
N-Nitrosodiphenylamine	86-30-6		U	5.00	2.50
Naphthalene	91-20-3		U	5.00	2.50
Nitrobenzene	98-95-3		U	5.00	2.50
Pentachlorophenol	87-86-5		U	25.0	12.5
Phenanthrene	85-01-8		U	5.00	2.50
Phenol	108-95-2		U	5.00	2.50
Pyrene	129-00-0		U	5.00	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	71.6	10	123	
2-Fluorobiphenyl	75.4	43	116	
2-Fluorophenol	67.1	21	100	
Nitrobenzene-d5	77.5	35	114	
p-Terphenyl-d14	82.1	33	141	

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-05I-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 17:11
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: 4M60827
Sample Tag: 01	Units: ug/L	

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Phenol-d5	73.0	10	94	
U	Not detected at or above adjusted sample detection limit.			

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-05S-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 17:45
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: 4M60828
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
unknown		4.64		0.000	0.000
unknown		7.10		0.000	0.000
unknown		7.60		0.000	0.000
unknown		5.43		0.000	0.000
unknown		7.86		0.000	0.000
unknown		4.16		0.000	0.000
unknown		8.14		0.000	0.000
unknown		5.26		0.000	0.000

Certificate of Analysis

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-05S-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 17:45
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: 4M60828
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
1,1'-Biphenyl	92-52-4		U	20.0	2.50
1,3,5-Trinitrobenzene	99-35-4		U	5.00	2.50
1,3-Dinitrobenzene	99-65-0		U	5.00	2.50
1,4-Dioxane	123-91-1		U	10.0	5.00
2,4,5-Trichlorophenol	95-95-4		U	5.00	2.50
2,4,6-Trichlorophenol	88-06-2		U	5.00	2.50
2,4-Dichlorophenol	120-83-2		U	5.00	2.50
2,4-Dimethylphenol	105-67-9		U	5.00	2.50
2,4-Dinitrophenol	51-28-5		U	25.0	12.5
2,4-Dinitrotoluene	121-14-2		U	5.00	2.50
2,6-Dinitrotoluene	606-20-2		U	5.00	2.50
2-Chloronaphthalene	91-58-7		U	5.00	2.50
2-Chlorophenol	95-57-8		U	5.00	2.50
2-Methylnaphthalene	91-57-6		U	5.00	2.50
2-Methylphenol	95-48-7		U	5.00	2.50
2-Nitroaniline	88-74-4		U	25.0	12.5
2-Nitrophenol	88-75-5		U	5.00	2.50
3-Nitroaniline	99-09-2		U	25.0	12.5
3,3'-Dichlorobenzidine	91-94-1		U	5.00	2.50
3-,4-Methylphenol	106-44-5		U	5.00	2.50
4-Bromophenyl-phenylether	101-55-3		U	5.00	2.50
4-Chloroaniline	106-47-8		U	5.00	2.50
4-Nitrophenol	100-02-7		U	25.0	12.5
Acenaphthene	83-32-9		U	5.00	2.50
Acenaphthylene	208-96-8		U	5.00	2.50
Anthracene	120-12-7		U	5.00	2.50
Benzo(a)anthracene	56-55-3		U	5.00	2.50
Benzo(a)pyrene	50-32-8		U	5.00	2.50
Benzo(b)fluoranthene	205-99-2		U	5.00	2.50
Benzo(g,h,i)Perylene	191-24-2		U	5.00	2.50
Benzo(k)fluoranthene	207-08-9		U	5.00	2.50
Benzoic acid	65-85-0		U	20.0	10.0
Benzyl alcohol	100-51-6		U	5.00	2.50

Certificate of Analysis

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-05S-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 17:45
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: 4M60828
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Bis(2-Chloroethyl)ether	111-44-4		U	5.00	2.50
Bis(2-Chloroethoxy)Methane	111-91-1		U	5.00	2.50
bis(2-Ethylhexyl)phthalate	117-81-7		U	5.00	2.50
Butylbenzylphthalate	85-68-7		U	5.00	2.50
Carbazole	86-74-8		U	20.0	2.50
Chrysene	218-01-9		U	5.00	2.50
Di-N-Butylphthalate	84-74-2		U	5.00	2.50
Di-n-octylphthalate	117-84-0		U	5.00	2.50
Dibenzo(a,h)Anthracene	53-70-3		U	5.00	2.50
Dibenzofuran	132-64-9		U	5.00	2.50
Diethylphthalate	84-66-2		U	5.00	2.50
Dimethylphthalate	131-11-3		U	5.00	2.50
Fluoranthene	206-44-0		U	5.00	2.50
Fluorene	86-73-7		U	5.00	2.50
Hexachlorobenzene	118-74-1		U	5.00	2.50
Hexachlorobutadiene	87-68-3		U	5.00	2.50
Hexachlorocyclopentadiene	77-47-4		U	5.00	2.50
Hexachloroethane	67-72-1		U	5.00	2.50
Indeno(1,2,3-cd)pyrene	193-39-5		U	5.00	2.50
Isophorone	78-59-1		U	5.00	2.50
N-Nitrosodiphenylamine	86-30-6		U	5.00	2.50
Naphthalene	91-20-3		U	5.00	2.50
Nitrobenzene	98-95-3		U	5.00	2.50
Pentachlorophenol	87-86-5		U	25.0	12.5
Phenanthrene	85-01-8		U	5.00	2.50
Phenol	108-95-2		U	5.00	2.50
Pyrene	129-00-0		U	5.00	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	91.4	10	123	
2-Fluorobiphenyl	95.2	43	116	
2-Fluorophenol	83.0	21	100	
Nitrobenzene-d5	97.9	35	114	
p-Terphenyl-d14	103	33	141	

Certificate of Analysis

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-05S-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 17:45
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: 4M60828
Sample Tag: 01	Units: ug/L	

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Phenol-d5	88.8	10	94	
U	Not detected at or above adjusted sample detection limit.			

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-24-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 18:21
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: 4M60829
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
1,1'-Biphenyl	92-52-4		U	23.8	2.98
1,3,5-Trinitrobenzene	99-35-4		U	5.95	2.98
1,3-Dinitrobenzene	99-65-0		U	5.95	2.98
1,4-Dioxane	123-91-1		U	11.9	5.95
2,4,5-Trichlorophenol	95-95-4		U	5.95	2.98
2,4,6-Trichlorophenol	88-06-2		U	5.95	2.98
2,4-Dichlorophenol	120-83-2		U	5.95	2.98
2,4-Dimethylphenol	105-67-9		U	5.95	2.98
2,4-Dinitrophenol	51-28-5		U	29.8	14.9
2,4-Dinitrotoluene	121-14-2		U	5.95	2.98
2,6-Dinitrotoluene	606-20-2		U	5.95	2.98
2-Chloronaphthalene	91-58-7		U	5.95	2.98
2-Chlorophenol	95-57-8		U	5.95	2.98
2-Methylnaphthalene	91-57-6		U	5.95	2.98
2-Methylphenol	95-48-7		U	5.95	2.98
2-Nitroaniline	88-74-4		U	29.8	14.9
2-Nitrophenol	88-75-5		U	5.95	2.98
3-Nitroaniline	99-09-2		U	29.8	14.9
3,3'-Dichlorobenzidine	91-94-1		U	5.95	2.98
3-,4-Methylphenol	106-44-5		U	5.95	2.98
4-Bromophenyl-phenylether	101-55-3		U	5.95	2.98
4-Chloroaniline	106-47-8		U	5.95	2.98

Certificate of Analysis

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-24-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 18:21
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: 4M60829
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
4-Nitrophenol	100-02-7		U	29.8	14.9
Acenaphthene	83-32-9		U	5.95	2.98
Acenaphthylene	208-96-8		U	5.95	2.98
Anthracene	120-12-7		U	5.95	2.98
Benzo(a)anthracene	56-55-3		U	5.95	2.98
Benzo(a)pyrene	50-32-8		U	5.95	2.98
Benzo(b)fluoranthene	205-99-2		U	5.95	2.98
Benzo(g,h,i)Perylene	191-24-2		U	5.95	2.98
Benzo(k)fluoranthene	207-08-9		U	5.95	2.98
Benzoic acid	65-85-0		U	23.8	11.9
Benzyl alcohol	100-51-6		U	5.95	2.98
Bis(2-Chloroethyl)ether	111-44-4		U	5.95	2.98
Bis(2-Chloroethoxy)Methane	111-91-1		U	5.95	2.98
bis(2-Ethylhexyl)phthalate	117-81-7		U	5.95	2.98
Butylbenzylphthalate	85-68-7		U	5.95	2.98
Carbazole	86-74-8		U	23.8	2.98
Chrysene	218-01-9		U	5.95	2.98
Di-N-Butylphthalate	84-74-2		U	5.95	2.98
Di-n-octylphthalate	117-84-0		U	5.95	2.98
Dibenzo(a,h)Anthracene	53-70-3		U	5.95	2.98
Dibenzofuran	132-64-9		U	5.95	2.98
Diethylphthalate	84-66-2		U	5.95	2.98
Dimethylphthalate	131-11-3		U	5.95	2.98
Fluoranthene	206-44-0		U	5.95	2.98
Fluorene	86-73-7		U	5.95	2.98
Hexachlorobenzene	118-74-1		U	5.95	2.98
Hexachlorobutadiene	87-68-3		U	5.95	2.98
Hexachlorocyclopentadiene	77-47-4		U	5.95	2.98
Hexachloroethane	67-72-1		U	5.95	2.98
Indeno(1,2,3-cd)pyrene	193-39-5		U	5.95	2.98
Isophorone	78-59-1		U	5.95	2.98
N-Nitrosodiphenylamine	86-30-6		U	5.95	2.98
Naphthalene	91-20-3		U	5.95	2.98

Certificate of Analysis

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-24-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 18:21
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: 4M60829
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Nitrobenzene	98-95-3		U	5.95	2.98
Pentachlorophenol	87-86-5		U	29.8	14.9
Phenanthrene	85-01-8		U	5.95	2.98
Phenol	108-95-2		U	5.95	2.98
Pyrene	129-00-0		U	5.95	2.98

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	95.6	10	123	
2-Fluorobiphenyl	80.6	43	116	
2-Fluorophenol	71.2	21	100	
Nitrobenzene-d5	88.4	35	114	
p-Terphenyl-d14	50.5	33	141	
Phenol-d5	75.8	10	94	

U Not detected at or above adjusted sample detection limit.

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-24-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 18:21
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: 4M60829
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Butane, 2-methoxy-2-methyl-		6.01		0.000	0.000
unknown		8.33		0.000	0.000
unknown		25.5		0.000	0.000
Dodecanoic acid		24.0		0.000	0.000
unknown		5.32		0.000	0.000
Heptaethylene glycol		9.07		0.000	0.000
unknown		13.4		0.000	0.000
unknown		5.73		0.000	0.000
Hexagol		14.7		0.000	0.000
unknown		20.9		0.000	0.000
unknown		6.37		0.000	0.000

Certificate of Analysis

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-24-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 18:21
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: 4M60829
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Hexagol		17.2		0.000	0.000
unknown		8.88		0.000	0.000
unknown		14.6		0.000	0.000
unknown		6.27		0.000	0.000

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-01-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 18:56
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: 4M60830
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Butane, 2-methoxy-2-methyl-		5.40		0.000	0.000
unknown		9.18		0.000	0.000
unknown		9.39		0.000	0.000
unknown		4.76		0.000	0.000
unknown		9.71		0.000	0.000
unknown		4.99		0.000	0.000
unknown		7.86		0.000	0.000
unknown		8.93		0.000	0.000
unknown		5.74		0.000	0.000

Certificate of Analysis

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-01-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 18:56
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: 4M60830
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
1,1'-Biphenyl	92-52-4		U	23.8	2.98
1,3,5-Trinitrobenzene	99-35-4		U	5.95	2.98
1,3-Dinitrobenzene	99-65-0		U	5.95	2.98
1,4-Dioxane	123-91-1		U	11.9	5.95
2,4,5-Trichlorophenol	95-95-4		U	5.95	2.98
2,4,6-Trichlorophenol	88-06-2		U	5.95	2.98
2,4-Dichlorophenol	120-83-2		U	5.95	2.98
2,4-Dimethylphenol	105-67-9		U	5.95	2.98
2,4-Dinitrophenol	51-28-5		U	29.8	14.9
2,4-Dinitrotoluene	121-14-2		U	5.95	2.98
2,6-Dinitrotoluene	606-20-2		U	5.95	2.98
2-Chloronaphthalene	91-58-7		U	5.95	2.98
2-Chlorophenol	95-57-8		U	5.95	2.98
2-Methylnaphthalene	91-57-6		U	5.95	2.98
2-Methylphenol	95-48-7		U	5.95	2.98
2-Nitroaniline	88-74-4		U	29.8	14.9
2-Nitrophenol	88-75-5		U	5.95	2.98
3-Nitroaniline	99-09-2		U	29.8	14.9
3,3'-Dichlorobenzidine	91-94-1		U	5.95	2.98
3-,4-Methylphenol	106-44-5		U	5.95	2.98
4-Bromophenyl-phenylether	101-55-3		U	5.95	2.98
4-Chloroaniline	106-47-8		U	5.95	2.98
4-Nitrophenol	100-02-7		U	29.8	14.9
Acenaphthene	83-32-9		U	5.95	2.98
Acenaphthylene	208-96-8		U	5.95	2.98
Anthracene	120-12-7		U	5.95	2.98
Benzo(a)anthracene	56-55-3		U	5.95	2.98
Benzo(a)pyrene	50-32-8		U	5.95	2.98
Benzo(b)fluoranthene	205-99-2		U	5.95	2.98
Benzo(g,h,i)Perylene	191-24-2		U	5.95	2.98
Benzo(k)fluoranthene	207-08-9		U	5.95	2.98
Benzoic acid	65-85-0		U	23.8	11.9
Benzyl alcohol	100-51-6		U	5.95	2.98

Certificate of Analysis

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-01-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 18:56
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: 4M60830
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
Bis(2-Chloroethyl)ether	111-44-4		U	5.95	2.98
Bis(2-Chloroethoxy)Methane	111-91-1		U	5.95	2.98
bis(2-Ethylhexyl)phthalate	117-81-7	5.68		5.95	2.98
Butylbenzylphthalate	85-68-7		U	5.95	2.98
Carbazole	86-74-8		U	23.8	2.98
Chrysene	218-01-9		U	5.95	2.98
Di-N-Butylphthalate	84-74-2		U	5.95	2.98
Di-n-octylphthalate	117-84-0		U	5.95	2.98
Dibenzo(a,h)Anthracene	53-70-3		U	5.95	2.98
Dibenzofuran	132-64-9		U	5.95	2.98
Diethylphthalate	84-66-2		U	5.95	2.98
Dimethylphthalate	131-11-3		U	5.95	2.98
Fluoranthene	206-44-0		U	5.95	2.98
Fluorene	86-73-7		U	5.95	2.98
Hexachlorobenzene	118-74-1		U	5.95	2.98
Hexachlorobutadiene	87-68-3		U	5.95	2.98
Hexachlorocyclopentadiene	77-47-4		U	5.95	2.98
Hexachloroethane	67-72-1		U	5.95	2.98
Indeno(1,2,3-cd)pyrene	193-39-5		U	5.95	2.98
Isophorone	78-59-1		U	5.95	2.98
N-Nitrosodiphenylamine	86-30-6		U	5.95	2.98
Naphthalene	91-20-3		U	5.95	2.98
Nitrobenzene	98-95-3		U	5.95	2.98
Pentachlorophenol	87-86-5		U	29.8	14.9
Phenanthrene	85-01-8		U	5.95	2.98
Phenol	108-95-2		U	5.95	2.98
Pyrene	129-00-0		U	5.95	2.98

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2,4,6-Tribromophenol	98.5	10	123	
2-Fluorobiphenyl	91.7	43	116	
2-Fluorophenol	80.1	21	100	
Nitrobenzene-d5	93.6	35	114	
p-Terphenyl-d14	78.0	33	141	

Certificate of Analysis

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: HPMS4
Client ID: MW-01-050112	Prep Method: 3520C	Prep Date: 05/07/2012 11:00
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/19/2012 13:23
Workgroup #: WG397604	Analyst: CAA	Run Date: 05/12/2012 18:56
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: 4M60830
Sample Tag: 01	Units: ug/L	

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Phenol-d5	85.3	10	94	
U	Not detected at or above adjusted sample detection limit.			

2.2.1.2 QC Summary Data

Example 8270 Calculations

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

$$RF = [(Ax) (Cis)] / [(Ais) (Cx)]$$

Example

where:

Ax = Area of the characteristic ion for the compound being measured:	1261197
Cis = Concentration of the specific internal standard (ug/mL)	40
Ais = Area of the characteristic ion of the specific internal standard	608044
Cx = Concentration of the compound in the standard being measured (ug/mL)	50
 RF = Calculated Response Factor	 1.65935

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

$$Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Vi)]$$

Example

where:

Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Vi = Initial volume of sample extracted from prep log (mL)	1021
 Cx = Concentration of the compound in the sample being measured (ug/mL)	 0.016947
Cx = Concentration of the compound in the sample being measured (ug/L)	16.947

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

$$Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Wi)]$$

Example

where:

Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Wi = Initial weight of sample extracted (g) from prep log	30
Cx = Concentration of the compound in the sample being measured (ug/g)	0.576763
Cx = Concentration of the compound in the sample being measured (ug/kg)	576.7627

Dry weight correction:

Percent solids (PCT_S)	50
Cd = (Cx) (100)/PCT_S	1153.525 ug/kg

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

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, $y = mx + b$

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve plot

b = intercept from curve plot

Step 2: Calculate y from Quantitation Report

y = 16790/784838 = 0.02139

Step 3: Solve for x

$$x = (y - b)/m = [(0.02139 - (-0.0435))/0.0783] = 0.829$$

Step 4: Solve for analyte concentration Cx

$$Cx = Cis (x) = (25.0)(0.829) = 20.72 \text{ ug/L}$$

Example Spreadsheet Calculation:

Slope from curve, m:	0.0783
Intercept from curve, b:	-0.0435
Area of analyte, Ax:	16790
Area of Internal Standard, Ais:	784484
Concentration of IS, Cis:	25.00 ug/L
Response Ratio (y):	0.021403
Amount Ratio:	0.828897
Concentration (Cx):	20.72241 ug/L

5.0 Concentration from Quadratic Regression**Step 1 - Retrieve Curve Data from Plot, $y = Ax^2 + Bx + C$**

Where:

$$Ax^2 + Bx + (C - y) = 0$$

A, B, C = constants from the ICAL quadratic regression

y = Response ratio = Area of analyte/Area of internal standard (IS)

x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

$$y = Ax/Ais$$

Step 3: Solve for x using the quadratic formula

$$Ax^2 + Bx + C - y = 0$$

$$x = \frac{b \pm \sqrt{(b^2 - 4a(c - y))}}{2a} \quad (\text{Two possible solutions})$$

Step 4: Solve for analyte concentration Cx

$$Cx = (Cis)(\text{Amount ratio})$$

Example Spreadsheet Calculation:

Value of A from plot:	0.0259
Value of B from plot:	0.0596
Value of C from plot:	-0.0165
Area of analyte from quantitation report:	203233
Area of IS from quantitation report:	1425653
Response ratio, y:	0.142554
C - y:	-0.15905
Root 1 - Computed amount ratio, X1:	-3.88278
Root 2 - Computed amount ratio, X2:	1.581623 use this solution
Concentration of IS, Cis:	40.00
Concentration of analyte, Cx:	63.26 ug/L

Microbac Laboratories Inc.
Continuous Sample Extract Log

Workgroup: WG397140 TIME ON: 15:30 OFF: 10:30 ON: 18:40 OFF: 12:40
 Analyst: CSH Methylene Chloride Lot #: COA16058
 Spike Analyst: CSH 1:1 H2SO4 Lot #: RGT17192
 Method: 3520C 10N NaOH Lot #: RGT17312
 Run Date: 05/07/2012 11:00 Sodium Sulfate, Anhydrous, Granular (Lot # COA15998)
 SOP: EXB01 Revision 16
 Spike Witness: CAF
 Surr Solution: STD50249

	SAMPLE #	Type	Reference	Prod	pH	Init Amnt	Surr Amnt	Spike Amnt	Spike Sol	Final Vol	Color
1	L12050011-01	SAMP		27-SPE-DIO<2>12		1000 mL	.5 mL			1 mL	Transparent
2	L12050011-03	SAMP		27-SPE-DIO<2>12		1000 mL	.5 mL			1 mL	Transparent
3	L12050011-05	SAMP		27-SPE-DIO<2>12		890 mL	.5 mL			1 mL	Transparent
4	L12050050-01	SAMP		27-SPE-DIO<2>12		1000 mL	.5 mL			1 mL	Transparent
5	L12050050-03	SAMP		27-SPE-DIO<2>12		1000 mL	.5 mL			1 mL	Transparent
6	L12050050-05	SAMP		27-SPE-DIO<2>12		840 mL	.5 mL			1 mL	Colored
7	L12050050-07	SAMP		27-SPE-DIO<2>12		840 mL	.5 mL			1 mL	Transparent
8	L12050099-01	SAMP		27-SPE-DIO<2>12		980 mL	.5 mL			1 mL	Transparent
9	L12050099-03	SAMP		27-SPE-DIO<2>12		850 mL	.5 mL			1 mL	Transparent
10	L12050099-05	SAMP		27-SPE-DIO<2>12		900 mL	.5 mL			1 mL	Transparent
11	L12050099-07	SAMP		27-SPE-DIO<2>12		870 mL	.5 mL			1 mL	Transparent
12	L12050099-09	SAMP		27-SPE-DIO<2>12		890 mL	.5 mL			1 mL	Transparent
13	L12050153-01	SAMP		27-SPE-DIO<2>12		900 mL	.5 mL			1 mL	Transparent
14	L12050153-03	SAMP		27-SPE-DIO<2>12		1000 mL	.5 mL			1 mL	Transparent
15	L12050153-05	SAMP		27-SPE-DIO<2>12		900 mL	.5 mL			1 mL	Colored
16	L12050153-07	SAMP		27-SPE-DIO<2>12		1000 mL	.5 mL			1 mL	Colored
17	L12050171-01	RS01		27-SPE-DIO<2>12		900 mL	.5 mL			1 mL	Colored
18	L12050171-03	MS01	L12050171-01	27-SPE-DIO<2>12		900 mL	.5 mL	1 mL	STD51286	1 mL	Colored
19	L12050171-05	SD01	L12050171-01	27-SPE-DIO<2>12		880 mL	.5 mL	1 mL	STD51286	1 mL	Colored
20	L12050171-07	SAMP		27-SPE-DIO<2>12		790 mL	.5 mL			1 mL	Transparent
21	WG397140-01	REF	L12050171-01	27-SPE-DIO<2>12		900 mL	.5 mL			1 mL	Colored
22	WG397140-02	BLANK		27-SPE-DIO<2>12		1000 mL	.5 mL			1 mL	Transparent
23	WG397140-03	LCS		27-SPE-DIO<2>12		1000 mL	.5 mL	.5 mL	STD51286	1 mL	Colored
24	WG397140-04	MS	L12050171-01	27-SPE-DIO<2>12		900 mL	.5 mL	1 mL	STD51286	1 mL	Colored
25	WG397140-05	MSD	L12050171-01	27-SPE-DIO<2>12		880 mL	.5 mL	1 mL	STD51286	1 mL	Colored

Analyst: Chris Hill

Reviewer: Cheryl A. Flowers



Microbac Laboratories Inc.
Instrument Run Log

Instrument: HPMS4 Dataset: 041912
 Analyst1: CAA Analyst2: NA
 Method: 8270C SOP: MSS01 Rev: 19

Maintenance Log ID: 41422 Syringe Filter Lot#: _____

Column 1 ID: RXI-5MS Column 2 ID: NA
 Workgroups: WG395647, WG395777
 Internal STD: COA16051 Surrogate STD: NA Calibration STD: _____
 CCV STD: _____ LCS STD: _____ MS/MSD STD: _____

Comments: ICAL: a,a-dimethylphenethylamine, p-phenylenediamine, 1- and 2-naphthylamine, benzidine, and 3,3'-dimethylbenzidine fails.
 Alt Src: 2-chloronaphthalene, 1,4-naphthoquinone, >25% but <30% biased high; 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol, sym-trinitrobenzene, pentachlorophenol, methapyrilen, famphur >30% biased high; 4-nitroquinoline 1-oxide >20% but <25% biased high; 3-nitroaniline >20% but <25% biased low.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M60436	BAKEOUT	1	1		04/19/12 07:58
2	4M60437	WG395394-01 50PPM DFTPP STD	1	1	STD50659	04/19/12 08:26
3	4M60438	WG395394-02 50PPM Megamix STD	1	1	STD50886	04/19/12 08:46
4	4M60439	WG395394-02 50PPM Megamix STD	1	1	STD50886	04/19/12 09:22
5	4M60440	WG395394-03 3PPM Megamix STD	1	1	STD50886	04/19/12 09:56
6	4M60441	WG395394-04 10PPM Megamix STD	1	1	STD50886	04/19/12 10:30
7	4M60442	WG395394-05 15PPM Megamix STD	1	1	STD50886	04/19/12 11:05
8	4M60443	WG395394-06 25PPM Megamix STD	1	1	STD50886	04/19/12 11:40
9	4M60444	WG395394-07 80PPM Megamix STD	1	1	STD50886	04/19/12 12:14
10	4M60445	WG395394-08 100PPM Megamix STD	1	1	STD50886	04/19/12 12:48
11	4M60446	WG395394-09 120PPM Megamix STD	1	1	STD50886	04/19/12 13:23
12	4M60447	WG395394-10 50PPM Megamix Alt Src STD	1	1	STD50596	04/19/12 13:58
13	4M60448	WG395394-11 50PPM 1,4-Dioxane Alt Src ST	1	1	STD50848	04/19/12 14:33
14	4M60449	WG395521-02 BLK 04/18	7	1	SOIL	04/19/12 15:08
15	4M60450	WG395521-03 LCS 04/18	7	1	SOIL	04/19/12 15:43
16	4M60451	WG394868-02 BLK 04/11	1	1		04/19/12 16:18
17	4M60452	WG394868-03 LCS 04/11	1	1		04/19/12 16:52
23	4M60453	L12040365-01 REF	1	1		04/19/12 17:26
24	4M60454	L12040365-02 MS	1	1		04/19/12 18:00
25	4M60455	L12040365-03 MSD	1	1		04/19/12 18:35
21	4M60456	L12040567-01	7	1	SOIL	04/19/12 19:10
22	4M60457	L12040384-03	7	1	SOIL	04/19/12 19:45

Comments

Seq.	Rerun	Dil.	Reason	Analytes
3	X			
			WG395394-02 50PPM Megamix STD - Run time too short.	
4				
			WG395394-02 50PPM Megamix STD - New column, run ICAL.	
22	X	5	Over Calibration Range	#14, 20, 32, 40, 57, 68, 70, 71, 72, 73, 75, 79, 81, 95, 96, 103, 104, 107, 131
			L12040384-03	

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Approved: 20-APR-12




Microbac Laboratories Inc.
Instrument Run Log

Instrument: HPMS4 Dataset: 050112
 Analyst1: CAA Analyst2: NA
 Method: 8270C SOP: MSS01 Rev: 19

Maintenance Log ID: 41572 Syringe Filter Lot#: _____

Column 1 ID: RXI-5MS Column 2 ID: NA
 Workgroups: WG396716, WG396824
 Internal STD: COA16051 Surrogate STD: NA Calibration STD: _____
 CCV STD: _____ LCS STD: _____ MS/MSD STD: _____

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M60599	WG396671-01 50PPM DFTPP STD	1	1	STD50659	05/01/12 12:55
2	4M60600	WG396671-01 50PPM DFTPP STD	1	1	STD50659	05/01/12 13:11
3	4M60601	WG396671-02 50PPM Megamix STD	1	1	STD50886	05/01/12 13:31
4	4M60602	WG396709-01 50PPM TCL STD	1	1	STD51428	05/01/12 14:05
5	4M60603	WG396709-02 3PPM TCL STD	1	1	STD51428	05/01/12 14:39
6	4M60604	WG396709-03 10PPM TCL STD	1	1	STD51428	05/01/12 15:13
7	4M60605	WG396709-04 25PPM TCL STD	1	1	STD51428	05/01/12 15:47
8	4M60606	WG396709-05 80PPM TCL STD	1	1	STD51428	05/01/12 16:22
9	4M60607	WG396709-06 100PPM TCL STD	1	1	STD51428	05/01/12 16:57
10	4M60608	WG396709-07 50PPM TCL Alt Src STD	1	1	STD51166	05/01/12 17:31
11	4M60609	WG396102-01 BLK 04/25	1	1		05/01/12 18:05
12	4M60610	WG396102-02 LCS 04/25	1	1		05/01/12 18:39
13	4M60611	WG396102-03 LCS DUP 04/25	1	1		05/01/12 19:13
14	4M60612	WG396595-01 BLK 05/01	7	1	SOIL	05/01/12 19:47
15	4M60613	WG396595-02 LCS 05/01	7	1	SOIL	05/01/12 20:21
16	4M60614	WG396595-03 LCS DUP 05/01	7	1	SOIL	05/01/12 20:56
17	4M60615	L12040844-01	1	1		05/01/12 21:30
18	4M60616	L12040844-03	1	1		05/01/12 22:04
19	4M60617	L12040844-05	1	1		05/01/12 22:38
20	4M60618	L12040916-04	7	1	SOIL	05/01/12 23:12
21	4M60619	L12040916-01	7	1	SOIL	05/01/12 23:46
22	4M60620	L12040916-03	7	1	SOIL	05/02/12 00:20
23	4M60621	L12040916-02 10X	7	10	SOIL	05/02/12 00:54

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1	X			
			WG396671-01 50PPM DFTPP STD - Tune failed.	
4				
			WG396709-01 50PPM TCL STD - Run ICAL due to new column.	
12				
			WG396102-02 LCS 04/25 - 2 analytes high.	
13				
			WG396102-03 LCS DUP 04/25 - 2 analytes high.	

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Approved: 03-MAY-12

Eri C. Zimm



Microbac Laboratories Inc.
Instrument Run Log

Instrument: HPMS4 _____ Dataset: 050112 _____
 Analyst1: CAA _____ Analyst2: NA _____
 Method: 8270C _____ SOP: MSS01 _____ Rev: 19 _____

Maintenance Log ID: 41572 _____ Syringe Filter Lot#: _____

Column 1 ID: RXI-5MS _____ Column 2 ID: NA _____
 Workgroups: WG396716, WG396824 _____
 Internal STD: COA16051 _____ Surrogate STD: NA _____
 CCV STD: _____ LCS STD: _____

Comments

Seq.	Rerun	Dil.	Reason	Analytes
15				
			WG396595-02 LCS 05/01 - 2 analytes high.	
16				
			WG396595-03 LCS DUP 05/01 - 7 analytes high.	
21				
			L12040916-01 - Needs re-extracted due to LCS/LCS DUP.	
22				
			L12040916-03 - Needs re-extracted due to LCS/LCS DUP.	
23	X	20	Over Calibration Range	#103, 112, 115
			L12040916-02 10X - Needs re-extracted due to LCS/LCS DUP, Sample was analyzed at a dilution due to extract appearance and viscosity.	

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Approved: 03-MAY-12




Microbac Laboratories Inc.
Instrument Run Log

Instrument: HPMS4 Dataset: 051212
 Analyst1: CAA Analyst2: NA
 Method: 8270C SOP: MSS01 Rev: 19

Maintenance Log ID: 41703 Syringe Filter Lot#: _____

Column 1 ID: RXI-5MS Column 2 ID: NA
 Workgroups: WG397828, WG397604
 Internal STD: COA16051 Surrogate STD: NA Calibration STD: _____
 CCV STD: _____ LCS STD: _____ MS/MSD STD: _____

Comments: Currently investigating high LCS recoveries.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M60816	WG397824-01 50PPM DFTPP STD	1	1	STD50659	05/12/12 11:02
2	4M60817	WG397824-02 50PPM Megamix STD	1	1	STD50886	05/12/12 11:22
3	4M60818	WG397825-01 50PPM TCL STD	1	1	STD51428	05/12/12 11:57
4	4M60819	WG397434-02 BLK 05/09	1	1		05/12/12 12:32
5	4M60820	WG397434-03 LCS 05/09	1	1		05/12/12 13:07
6	4M60821	WG397140-02 BLK 05/07	1	1		05/12/12 13:42
7	4M60822	WG397140-03 LCS 05/07	1	1		05/12/12 14:17
8	4M60823	L12050134-08	1	1		05/12/12 14:52
9	4M60824	L12050011-01	1	1		05/12/12 15:27
10	4M60825	L12050011-03	1	1		05/12/12 16:01
11	4M60826	L12050011-05	1	1		05/12/12 16:36
12	4M60827	L12050050-01	1	1		05/12/12 17:11
13	4M60828	L12050050-03	1	1		05/12/12 17:45
14	4M60829	L12050050-05	1	1		05/12/12 18:21
15	4M60830	L12050050-07	1	1		05/12/12 18:56
16	4M60831	L12050099-01	1	1		05/12/12 19:31
17	4M60832	L12050099-03	1	1		05/12/12 20:06
18	4M60833	L12050099-05	1	1		05/12/12 20:41
19	4M60834	L12050099-07	1	1		05/12/12 21:15
20	4M60835	L12050099-09	1	1		05/12/12 21:50
21	4M60836	L12050153-01	1	1		05/12/12 22:24
22	4M60837	L12050153-03	1	1		05/12/12 22:58

Comments

Seq.	Rerun	Dil.	Reason	Analytes
5				
			WG397434-03 LCS 05/09 - 38 analytes high; SS FBP, NBZ high.	
7				
			WG397140-03 LCS 05/07 - 1 analyte low, 16 high; SS TBP, PHL high.	
9				
			L12050011-01 - SS TBP, PHL high.	
10				
			L12050011-03 - SS TBP, PHL high.	

Page: 1

Approved: 14-MAY-12




Microbac Laboratories Inc.
Instrument Run Log

Instrument: HPMS4 _____ Dataset: 051212 _____
 Analyst1: CAA _____ Analyst2: NA _____
 Method: 8270C _____ SOP: MSS01 _____ Rev: 19 _____

Maintenance Log ID: 41703 _____ Syringe Filter Lot#: _____

Column 1 ID: RXI-5MS _____ Column 2 ID: NA _____
 Workgroups: WG397828, WG397604 _____
 Internal STD: COA16051 _____ Surrogate STD: NA _____
 CCV STD: _____ LCS STD: _____

Comments

Seq.	Rerun	Dil.	Reason	Analytes
11				
			L12050011-05 - SS PHL high.	
22				
			L12050153-03 - SS PHL high.	

Page: 2

Approved: 14-MAY-12




Microbac Laboratories Inc.

Data Checklist

Date: 19-APR-2012
Analyst: CAA
Analyst: NA
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 46308
Analytical Workgroups: L12040365, L12040567, L12040384

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	NA
% D/% Drift	NA
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	X
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
20-APR-2012

Cassio D. Augenstein

Secondary Reviewer:
20-APR-2012

Michael Cohen

CHECKLIST1 - Modified 03/05/2008

Generated: APR-20-2012 11:32:28



Microbac Laboratories Inc.

Data Checklist

Date: 01-MAY-2012
 Analyst: CAA
 Analyst: NA
 Method: 8270
 Instrument: HPMS4
 Curve Workgroup: NA
 Runlog ID: 46517
 Analytical Workgroups: L12040844, L12040916

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	X
Calculations & correct factors	X
Compounds above calibration range	X
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	ECL

Primary Reviewer:
02-MAY-2012

Cassio D. Augenstein

Secondary Reviewer:
03-MAY-2012

Eri C. Zimm

CHECKLIST1 - Modified 03/05/2008

Generated: MAY-03-2012 14:47:41



Microbac Laboratories Inc.

Data Checklist

Date: 12-MAY-2012
 Analyst: CAA
 Analyst: NA
 Method: 8270
 Instrument: HPMS4
 Curve Workgroup: NA
 Runlog ID: 46726
 Analytical Workgroups: L12050134, L12050011, L12050050, L12050099, L12050153

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	X
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
14-MAY-2012

Cassio D. Augenstein

Secondary Reviewer:
14-MAY-2012

Michael Cohen



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8270C
 Login Number: L12050050

AAB#: WG397604

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MW-05I-050112	01	05/01/12					05/07/12	6	7		05/12/12	5.3	40	
MW-05S-050112	03	05/01/12					05/07/12	5.9	7		05/12/12	5.3	40	
MW-24-050112	05	05/01/12					05/07/12	6.1	7		05/12/12	5.3	40	
MW-01-050112	07	05/01/12					05/07/12	5.9	7		05/12/12	5.3	40	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2413598
 Report generated 05/14/2012 16:08



Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L12050050
Instrument Id: HPMS4
Workgroup (AAB#): WG397604

Method: 8270
CAL ID: HPMS4-19-APR-12
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4	5	6
L12050050-01	1.00	01	71.6	75.4	67.1	77.5	82.1	73.0
L12050050-03	1.00	01	91.4	95.2	83.0	97.9	103	88.8
L12050050-05	1.00	01	95.6	80.6	71.2	88.4	50.5	75.8
L12050050-07	1.00	01	98.5	91.7	80.1	93.6	78.0	85.3
WG397140-02	1.00	01	106	91.7	85.3	96.8	125	90.8
WG397140-03	1.00	01	<u>124</u>	106	98.3	106	134	<u>103</u>

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

Underline = Result out of surrogate limits

DL = surrogate diluted out

ND = surrogate not detected



METHOD BLANK SUMMARY

Login Number: L12050050
Blank File ID: 4M60821
Prep Date: 05/07/12 11:00
Analyzed Date: 05/12/12 13:42
Analyst: CAA

Work Group: WG397604
Blank Sample ID: WG397140-02
Instrument ID: HPMS4
Method: 8270C

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG397140-03	4M60822	05/12/12 14:17	01
MW-05I-050112	L12050050-01	4M60827	05/12/12 17:11	01
MW-05S-050112	L12050050-03	4M60828	05/12/12 17:45	01
MW-24-050112	L12050050-05	4M60829	05/12/12 18:21	01
MW-01-050112	L12050050-07	4M60830	05/12/12 18:56	01

Report Name: BLANK_SUMMARY
PDF File ID: 2413599
Report generated 05/14/2012 16:08



METHOD BLANK REPORT

Login Number: L12050050 Prep Date: 05/07/12 11:00 Sample ID: WG397140-02
Instrument ID: HPMS4 Run Date: 05/12/12 13:42 Prep Method: 3520C
File ID: 4M60821 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG397604 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS4-19-APR-12

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1'-Biphenyl	2.50	20.0	2.50	1	U
1,3,5-Trinitrobenzene	2.50	5.00	2.50	1	U
1,3-Dinitrobenzene	2.50	5.00	2.50	1	U
1,4-Dioxane	5.00	10.0	5.00	1	U
2,4,5-Trichlorophenol	2.50	5.00	2.50	1	U
2,4,6-Trichlorophenol	2.50	5.00	2.50	1	U
2,4-Dichlorophenol	2.50	5.00	2.50	1	U
2,4-Dimethylphenol	2.50	5.00	2.50	1	U
2,4-Dinitrophenol	12.5	25.0	12.5	1	U
2,4-Dinitrotoluene	2.50	5.00	2.50	1	U
2,6-Dinitrotoluene	2.50	5.00	2.50	1	U
2-Chloronaphthalene	2.50	5.00	2.50	1	U
2-Chlorophenol	2.50	5.00	2.50	1	U
2-Methylnaphthalene	2.50	5.00	2.50	1	U
2-Methylphenol	2.50	5.00	2.50	1	U
2-Nitroaniline	12.5	25.0	12.5	1	U
2-Nitrophenol	2.50	5.00	2.50	1	U
3-Nitroaniline	12.5	25.0	12.5	1	U
3,3'-Dichlorobenzidine	2.50	5.00	2.50	1	U
3-,4-Methylphenol	2.50	5.00	2.50	1	U
4-Bromophenyl-phenylether	2.50	5.00	2.50	1	U
4-Chloroaniline	2.50	5.00	2.50	1	U
4-Nitrophenol	12.5	25.0	12.5	1	U
Acenaphthene	2.50	5.00	2.50	1	U
Acenaphthylene	2.50	5.00	2.50	1	U
Anthracene	2.50	5.00	2.50	1	U
Benzo(a)anthracene	2.50	5.00	2.50	1	U
Benzo(a)pyrene	2.50	5.00	2.50	1	U
Benzo(b)fluoranthene	2.50	5.00	2.50	1	U
Benzo(g,h,i)Perylene	2.50	5.00	2.50	1	U
Benzo(k)fluoranthene	2.50	5.00	2.50	1	U
Benzoic acid	10.0	20.0	10.0	1	U
Benzyl alcohol	2.50	5.00	2.50	1	U
Bis(2-Chloroethyl)ether	2.50	5.00	2.50	1	U
Bis(2-Chloroethoxy)Methane	2.50	5.00	2.50	1	U
bis(2-Ethylhexyl)phthalate	2.50	5.00	2.50	1	U
Butylbenzylphthalate	2.50	5.00	2.50	1	U
Carbazole	2.50	20.0	2.50	1	U
Chrysene	2.50	5.00	2.50	1	U
Di-N-Butylphthalate	2.50	5.00	2.50	1	U
Di-n-octylphthalate	2.50	5.00	2.50	1	U
Dibenzo(a,h)Anthracene	2.50	5.00	2.50	1	U

Report Name: BLANK

PDF ID: 2413600

14-MAY-2012 16:08



METHOD BLANK REPORT

Login Number: L12050050 Prep Date: 05/07/12 11:00 Sample ID: WG397140-02
Instrument ID: HPMS4 Run Date: 05/12/12 13:42 Prep Method: 3520C
File ID: 4M60821 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG397604 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS4-19-APR-12

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Dibenzofuran	2.50	5.00	2.50	1	U
Diethylphthalate	2.50	5.00	2.50	1	U
Dimethylphthalate	2.50	5.00	2.50	1	U
Fluoranthene	2.50	5.00	2.50	1	U
Fluorene	2.50	5.00	2.50	1	U
Hexachlorobenzene	2.50	5.00	2.50	1	U
Hexachlorobutadiene	2.50	5.00	2.50	1	U
Hexachlorocyclopentadiene	2.50	5.00	2.50	1	U
Hexachloroethane	2.50	5.00	2.50	1	U
Indeno(1,2,3-cd)pyrene	2.50	5.00	2.50	1	U
Isophorone	2.50	5.00	2.50	1	U
N-Nitrosodiphenylamine	2.50	5.00	2.50	1	U
Naphthalene	2.50	5.00	2.50	1	U
Nitrobenzene	2.50	5.00	2.50	1	U
Pentachlorophenol	12.5	25.0	12.5	1	U
Phenanthrene	2.50	5.00	2.50	1	U
Phenol	2.50	5.00	2.50	1	U
Pyrene	2.50	5.00	2.50	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	106	10 - 123	PASS
2-Fluorobiphenyl	91.7	43 - 116	PASS
2-Fluorophenol	85.3	21 - 100	PASS
Nitrobenzene-d5	96.8	35 - 114	PASS
p-Terphenyl-d14	125	33 - 141	PASS
Phenol-d5	90.8	10 - 94	PASS

MDL Method Detection Limit

RL Reporting/Practical Quantitation Limit

ND Analyte Not detected at or above reporting limit

* |Analyte concentration| > RL

Report Name: BLANK

PDF ID: 2413600

14-MAY-2012 16:08



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12050050 Run Date: 05/12/2012 Sample ID: WG397140-03
 Instrument ID: HPMS4 Run Time: 14:17 Prep Method: 3520C
 File ID: 4M60822 Analyst: CAA Method: 8270C
 Workgroup (AAB#): WG397604 Matrix: Water Units: ug/L
 QC Key: WATERLOO Lot#: STD51286 Cal ID: HPMS4-19-APR-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,1'-Biphenyl	50.0	46.9	93.8	40 - 140	
1,3,5-Trinitrobenzene	50.0	67.9	136	10 - 120	*
1,3-Dinitrobenzene	50.0	59.7	119	30 - 130	
1,4-Dioxane	50.0	37.4	74.8	50 - 150	
2,4,5-Trichlorophenol	50.0	61.3	123	35 - 120	*
2,4,6-Trichlorophenol	50.0	57.4	115	30 - 120	
2,4-Dichlorophenol	50.0	52.9	106	20 - 110	
2,4-Dimethylphenol	50.0	50.5	101	20 - 120	
2,4-Dinitrophenol	50.0	57.1	114	20 - 140	
2,4-Dinitrotoluene	50.0	65.3	131	50 - 139	
2,6-Dinitrotoluene	50.0	61.5	123	50 - 120	*
2-Chloronaphthalene	50.0	61.9	124	25 - 120	*
2-Chlorophenol	50.0	48.2	96.4	25 - 110	
2-Methylnaphthalene	50.0	50.3	101	25 - 120	
2-Methylphenol	50.0	49.3	98.5	20 - 110	
2-Nitroaniline	50.0	58.2	116	45 - 115	*
2-Nitrophenol	50.0	50.3	101	20 - 115	
3-Nitroaniline	50.0	84.7	169	40 - 120	*
3,3'-Dichlorobenzidine	50.0	89.3	179	30 - 140	*
3-,4-Methylphenol	50.0	56.7	113	20 - 110	*
4-Bromophenyl-phenylether	50.0	62.6	125	40 - 115	*
4-Chloroaniline	50.0	55.2	110	25 - 120	
4-Nitrophenol	50.0	57.5	115	10 - 132	
Acenaphthene	50.0	54.4	109	30 - 120	
Acenaphthylene	50.0	57.7	115	30 - 120	
Anthracene	50.0	56.0	112	55 - 130	
Benzo(a)anthracene	50.0	61.5	123	60 - 130	
Benzo(a)pyrene	50.0	65.1	130	55 - 135	
Benzo(b)fluoranthene	50.0	68.3	137	45 - 125	*
Benzo(g,h,i)Perylene	50.0	66.2	132	45 - 140	
Benzo(k)fluoranthene	50.0	63.3	127	55 - 140	
Benzoic acid	50.0		0	10 - 100	*
Benzyl alcohol	50.0	51.0	102	20 - 110	
Bis(2-Chloroethyl)ether	50.0	48.4	96.8	25 - 110	
Bis(2-Chloroethoxy)Methane	50.0	58.0	116	20 - 105	*
bis(2-Ethylhexyl)phthalate	50.0	68.0	136	50 - 150	
Butylbenzylphthalate	50.0	70.1	140	55 - 150	
Carbazole	50.0	63.0	126	50 - 130	
Chrysene	50.0	63.5	127	55 - 130	
Di-N-Butylphthalate	50.0	64.7	129	55 - 118	*
Di-n-octylphthalate	50.0	71.4	143	40 - 146	

LCS - Modified 03/06/2008
 PDF File ID: 2413601
 Report generated: 05/14/2012 16:08



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12050050 Run Date: 05/12/2012 Sample ID: WG397140-03
 Instrument ID: HPMS4 Run Time: 14:17 Prep Method: 3520C
 File ID: 4M60822 Analyst: CAA Method: 8270C
 Workgroup (AAB#): WG397604 Matrix: Water Units: ug/L
 QC Key: WATERLOO Lot#: STD51286 Cal ID: HPMS4-19-APR-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Dibenzo(a,h)Anthracene	50.0	68.0	136	45 - 125	*
Dibenzofuran	50.0	57.5	115	35 - 115	
Diethylphthalate	50.0	64.8	130	45 - 120	*
Dimethylphthalate	50.0	63.1	126	25 - 112	*
Fluoranthene	50.0	61.7	123	50 - 137	
Fluorene	50.0	58.2	116	40 - 120	
Hexachlorobenzene	50.0	61.6	123	50 - 130	
Hexachlorobutadiene	50.0	41.5	82.9	24 - 105	
Hexachlorocyclopentadiene	50.0	30.3	60.6	20 - 143	
Hexachloroethane	50.0	30.0	60.0	25 - 95	
Indeno(1,2,3-cd)pyrene	50.0	67.6	135	50 - 135	
Isophorone	50.0	53.9	108	30 - 110	
N-Nitrosodiphenylamine	100	105	105	40 - 110	
Naphthalene	50.0	48.5	97.1	25 - 110	
Nitrobenzene	50.0	54.3	109	30 - 110	
Pentachlorophenol	50.0	61.6	123	40 - 140	
Phenanthrene	50.0	61.7	123	55 - 120	*
Phenol	50.0	49.6	99.3	10 - 120	
Pyrene	50.0	63.6	127	55 - 130	

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	124	10 - 123	FAIL
2-Fluorobiphenyl	106	43 - 116	PASS
2-Fluorophenol	98.3	21 - 100	PASS
Nitrobenzene-d5	106	35 - 114	PASS
p-Terphenyl-d14	134	33 - 141	PASS
Phenol-d5	103	10 - 94	FAIL

* EXCEEDS %REC LIMIT

LCS - Modified 03/06/2008
 PDF File ID: 2413601
 Report generated: 05/14/2012 16:08



Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L12050050 Tune ID: WG395394-01
 Instrument: HPMS4 Run Date: 04/19/2012
 Analyst: CAA Run Time: 08:26
 Workgroup: WG395394 File ID: 4M60437
 Cal ID: HPMS4-19-APR-12

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	40.7	46389	PASS
68.0	69.0	0	2.00	0.659	296	PASS
69.0	198	0	100	39.4	44901	PASS
70.0	69.0	0	2.00	0	0	PASS
127	198	40.0	60.0	49.8	56768	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	114077	PASS
199	198	5.00	9.00	6.83	7794	PASS
275	198	10.0	30.0	24.0	27400	PASS
365	198	1.00	100	2.91	3319	PASS
441	443	0.0100	100	76.9	16803	PASS
442	198	40.0	100	98.8	112693	PASS
443	442	17.0	23.0	19.4	21851	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG395394-02	STD-CCV	01	04/19/2012 09:22	
WG395394-03	STD	01	04/19/2012 09:56	
WG395394-04	STD	01	04/19/2012 10:30	
WG395394-05	STD	01	04/19/2012 11:05	
WG395394-06	STD	01	04/19/2012 11:40	
WG395394-07	STD	01	04/19/2012 12:14	
WG395394-08	STD	01	04/19/2012 12:48	
WG395394-09	STD	01	04/19/2012 13:23	
WG395394-10	SSCV	01	04/19/2012 13:58	
WG395394-11	SSCV	01	04/19/2012 14:33	

* Sample past 12 hour tune limit



Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L12050050

Tune ID: WG396671-01

Instrument: HPMS4

Run Date: 05/01/2012

Analyst: CAA

Run Time: 13:11

Workgroup: WG396671

File ID: 4M60600

Cal ID: HPMS4-19-APR-12

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	36.0	62456	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	39.0	67664	PASS
70.0	69.0	0	2.00	0	0	PASS
127	198	40.0	60.0	50.1	86805	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	173418	PASS
199	198	5.00	9.00	6.70	11620	PASS
275	198	10.0	30.0	24.6	42746	PASS
365	198	1.00	100	2.76	4791	PASS
441	443	0.0100	100	80.8	27090	PASS
442	198	40.0	100	97.5	169160	PASS
443	442	17.0	23.0	19.8	33546	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG396709-01	STD-CCV	01	05/01/2012 14:05	
WG396709-02	STD	01	05/01/2012 14:39	
WG396709-03	STD	01	05/01/2012 15:13	
WG396709-04	STD	01	05/01/2012 15:47	
WG396709-05	STD	01	05/01/2012 16:22	
WG396709-06	STD	01	05/01/2012 16:57	
WG396709-07	SSCV	01	05/01/2012 17:31	

* Sample past 12 hour tune limit



Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L12050050 Tune ID: WG397824-01
 Instrument: HPMS4 Run Date: 05/12/2012
 Analyst: CAA Run Time: 11:02
 Workgroup: WG397824 File ID: 4M60816
 Cal ID: HPMS4-19-APR-12

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	35.7	89354	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	37.7	94325	PASS
70.0	69.0	0	2.00	0.389	367	PASS
127	198	40.0	60.0	50.3	125853	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	249962	PASS
199	198	5.00	9.00	6.83	17080	PASS
275	198	10.0	30.0	24.1	60320	PASS
365	198	1.00	100	2.87	7186	PASS
441	443	0.0100	100	81.4	40104	PASS
442	198	40.0	100	98.9	247146	PASS
443	442	17.0	23.0	19.9	49288	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG397824-02	CCV	01	05/12/2012 11:22	
WG397825-01	CCV	01	05/12/2012 11:57	
WG397140-02	BLANK	01	05/12/2012 13:42	
WG397140-02	BLANK	01	05/12/2012 13:42	
WG397140-03	LCS	01	05/12/2012 14:17	
L12050050-01	MW-05I-050112	01	05/12/2012 17:11	
L12050050-03	MW-05S-050112	01	05/12/2012 17:45	
L12050050-05	MW-24-050112	01	05/12/2012 18:21	
L12050050-07	MW-01-050112	01	05/12/2012 18:56	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
 PDF File ID: 2413606
 Report generated 05/14/2012 16:08



Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L12050050
 Analytical Method: 8270C
 ICAL Workgroup: WG395394

Instrument ID: HPMS4
 Initial Calibration Date: 19-APR-12 13:23
 Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD (R ²)
2,4,6-Trichlorophenol	CCC	0.3673	2.63		
2,4-Dichlorophenol	CCC	0.2857	5.98		
2-Nitrophenol	CCC	0.1988	2.83		
Acenaphthene	CCC	1.181	8.52		
Benzo[a]pyrene	CCC	1.055	1.74		
Di-n-Octyl Phthalate	CCC	1.292	1.30		
Fluoranthene	CCC	1.112	8.91		
Hexachlorobutadiene	CCC	0.1661	7.56		
Pentachlorophenol	CCC	0.1399	1.49		
Phenol	CCC	1.516	6.15		
2,4-Dinitrophenol	SPCC	0.1506	18.0	1.00000	
4-Nitrophenol	SPCC	0.2330	9.39		
Hexachlorocyclopentadiene	SPCC	0.2711	6.05		
n-Nitrosodipropylamine	SPCC	0.8546	11.1		
1,3-Dinitrobenzene		0.2427	2.31		
1,4-Dioxane		0.4985	3.57		
2,4,5-Trichlorophenol		0.3781	2.62		
2,4-Dimethylphenol		0.3413	13.6		
2,4-Dinitrotoluene		0.4023	3.16		
2,6-Dinitrotoluene		0.3161	2.33		
2-Chloronaphthalene		1.129	5.90		
2-Chlorophenol		1.357	4.28		
2-Methylnaphthalene		0.6882	8.15		
2-Methylphenol		1.045	5.05		
2-Nitroaniline		0.3238	2.12		
3,3'-Dichlorobenzidine		0.2427	18.9	0.99900	
3-Nitroaniline		0.2332	11.0		
4-Bromophenyl Phenyl Ether		0.2024	6.28		
4-Chloroaniline		0.3902	10.4		
Acenaphthylene		1.814	9.50		
Anthracene		1.088	8.21		
Benzo[a]anthracene		1.061	6.56		
Benzo[b]fluoranthene		1.157	4.65		
Benzo[ghi]perylene		0.9723	2.25		
Benzo[k]fluoranthene		1.072	4.72		
Benzoic Acid		0.2352	10.4		
Benzyl Alcohol		0.8788	2.67		
Butyl Benzyl Phthalate		0.5442	5.54		
Carbazole		0.9526	5.16		
Chrysene		0.9961	8.13		
Di-n-Butyl Phthalate		1.183	7.95		
Dibenz[ah]anthracene		0.9802	1.55		
Dibenzofuran		1.582	8.47		
Diethylphthalate		1.260	6.91		
Dimethylphthalate		1.266	7.30		

INT_CAL - Modified 03/06/2008
 PDF File ID: 2413602
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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L12050050
Analytical Method: 8270C
ICAL Workgroup: WG395394

Instrument ID: HPMS4
Initial Calibration Date: 19-APR-12 13:23
Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R)	QUAD (R ²)
Fluorene	1.344	8.89		
Hexachlorobenzene	0.2212	7.78		
Hexachloroethane	0.5705	3.33		
Indeno[1,2,3-cd]pyrene	1.175	1.51		
Isophorone	0.6155	6.91		
Naphthalene	1.059	9.10		
Nitrobenzene	0.3372	5.94		
Phenanthrene	1.061	9.08		
Pyrene	1.196	7.44		
Sym-Trinitrobenzene	0.1582	11.2		
bis(2-Chloroethoxy)methane	0.4677	9.37		
bis(2-Chloroethyl)ether	0.9490	7.24		
bis(2-Ethylhexyl)phthalate	0.7426	4.79		

R = Correlation coefficient; 0.995 minimum
R² = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

INT_CAL - Modified 03/06/2008
PDF File ID: 2413602
Report generated 05/14/2012 16:08



Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L12050050
Analytical Method: 8270C
ICAL Workgroup: WG396709

Instrument ID: HPMS4
Initial Calibration Date: 01-MAY-12 16:57
Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R)	QUAD (R ²)
1,1'-Biphenyl	1.642	6.66		

R = Correlation coefficient; 0.995 minimum
R² = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

INT_CAL - Modified 03/06/2008
PDF File ID: 2413602
Report generated 05/14/2012 16:08



Microbac Laboratories Inc.
INITIAL CALIBRATION DATA

Login Number: L12050050
Analytical Method: 8270C

Instrument ID: HPMS4
Initial Calibration Date: 19-APR-12 13:23
Column ID: F

Analyte	WG395394-02			WG395394-03			WG395394-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	50.0	302655.000	0.3692	3.00	15865.0000	0.3732	10.0	48642.0000	0.3812
2,4-Dichlorophenol	50.0	406146.000	0.2843	3.00	23297.0000	0.3097	10.0	68171.0000	0.3052
2-Nitrophenol	50.0	296019.000	0.2072	3.00	14686.0000	0.1953	10.0	44266.0000	0.1982
Acenaphthene	50.0	959014.000	1.170	3.00	54687.0000	1.286	10.0	164631.000	1.290
Benzo[a]pyrene	50.0	1420992.00	1.050	3.00	76197.0000	1.089	10.0	230518.000	1.068
Di-n-Octyl Phthalate	50.0	1737436.00	1.283	3.00	92158.0000	1.317	10.0	278406.000	1.290
Fluoranthene	50.0	1596911.00	1.089	3.00	93933.0000	1.257	10.0	276101.000	1.217
Hexachlorobutadiene	50.0	236674.000	0.1657	3.00	13857.0000	0.1842	10.0	39698.0000	0.1777
Pentachlorophenol	50.0	206843.000	0.1411	NA	NA	NA	10.0	31968.0000	0.1409
Phenol	50.0	548117.000	1.480	3.00	33658.0000	1.678	10.0	94119.0000	1.582
2,4-Dinitrophenol	50.0	130897.000	0.1597	NA	NA	NA	NA	NA	NA
4-Nitrophenol	50.0	186191.000	0.2271	NA	NA	NA	10.0	32506.0000	0.2547
Hexachlorocyclopentadiene	50.0	244269.000	0.2980	3.00	10305.0000	0.2424	10.0	34278.0000	0.2686
n-Nitrosodipropylamine	50.0	311009.000	0.8398	3.00	19190.0000	0.9568	10.0	56111.0000	0.9434
1,3-Dinitrobenzene	50.0	201353.000	0.2456	3.00	9788.00000	0.2302	10.0	31289.0000	0.2452
1,4-Dioxane	50.0	185033.000	0.4996	3.00	9565.00000	0.4769	10.0	31667.0000	0.5324
2,4,5-Trichlorophenol	50.0	308844.000	0.3768	3.00	16640.0000	0.3914	10.0	49310.0000	0.3864
2,4-Dimethylphenol	50.0	463322.000	0.3243	3.00	33490.0000	0.4453	10.0	81553.0000	0.3651
2,4-Dinitrotoluene	50.0	332745.000	0.4059	3.00	17015.0000	0.4002	10.0	53272.0000	0.4175
2,6-Dinitrotoluene	50.0	256989.000	0.3135	3.00	13905.0000	0.3271	10.0	41342.0000	0.3240
2-Chloronaphthalene	50.0	906729.000	1.106	3.00	52303.0000	1.230	10.0	153572.000	1.204
2-Chlorophenol	50.0	497875.000	1.344	3.00	29118.0000	1.452	10.0	83952.0000	1.412
2-Methylnaphthalene	50.0	967916.000	0.6775	3.00	57527.0000	0.7649	10.0	167733.000	0.7510
2-Methylphenol	50.0	380206.000	1.027	3.00	22411.0000	1.117	10.0	64478.0000	1.084
2-Nitroaniline	50.0	261334.000	0.3188	3.00	13815.0000	0.3250	10.0	42993.0000	0.3369
3,3'-Dichlorobenzidine	50.0	322552.000	0.2327	3.00	25330.0000	0.3536	10.0	53915.0000	0.2449
3-Nitroaniline	50.0	174456.000	0.2128	NA	NA	NA	10.0	29679.0000	0.2326
4-Bromophenyl Phenyl Ether	50.0	293263.000	0.2000	3.00	16506.0000	0.2208	10.0	49608.0000	0.2187
4-Chloroaniline	50.0	522329.000	0.3656	3.00	34347.0000	0.4567	10.0	88805.0000	0.3976
Acenaphthylene	50.0	1459231.00	1.780	3.00	86364.0000	2.031	10.0	253419.000	1.986
Anthracene	50.0	1564112.00	1.067	3.00	91274.0000	1.221	10.0	268336.000	1.183
Benzo[a]anthracene	50.0	1436678.00	1.036	3.00	83823.0000	1.170	10.0	248867.000	1.130
Benzo[b]fluoranthene	50.0	1510511.00	1.116	3.00	87582.0000	1.251	10.0	261129.000	1.210
Benzo[ghi]perylene	50.0	1336874.00	0.9874	3.00	70328.0000	1.005	10.0	213268.000	0.9878
Benzo[k]fluoranthene	50.0	1477424.00	1.091	3.00	80556.0000	1.151	10.0	242271.000	1.122
Benzoic Acid	50.0	336174.000	0.2353	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	50.0	323130.000	0.8725	3.00	18359.0000	0.9154	10.0	52708.0000	0.8862
Butyl Benzyl Phthalate	50.0	736908.000	0.5316	3.00	42313.0000	0.5907	10.0	126613.000	0.5751
Carbazole	50.0	1383835.00	0.9437	3.00	80012.0000	1.071	10.0	214134.000	0.9439
Chrysene	50.0	1327816.00	0.9578	3.00	81007.0000	1.131	10.0	234491.000	1.065
Di-n-Butyl Phthalate	50.0	1699050.00	1.159	3.00	98435.0000	1.317	10.0	291024.000	1.283
Dibenz[ah]anthracene	50.0	1352159.00	0.9987	3.00	67905.0000	0.9703	10.0	213369.000	0.9883

INT_CAL - Modified 03/06/2008
PDF File ID: 2413602
Report generated 05/14/2012 16:08



Microbac Laboratories Inc.
INITIAL CALIBRATION DATA

Login Number: L12050050
Analytical Method: 8270C

Instrument ID: HPMS4
Initial Calibration Date: 19-APR-12 13:23
Column ID: F

Analyte	WG395394-02			WG395394-03			WG395394-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Dibenzofuran	50.0	1276287.00	1.557	3.00	75169.0000	1.768	10.0	219802.000	1.723
Diethylphthalate	50.0	1020028.00	1.244	3.00	58814.0000	1.383	10.0	172211.000	1.350
Dimethylphthalate	50.0	1022202.00	1.247	3.00	59595.0000	1.402	10.0	173033.000	1.356
Fluorene	50.0	1088180.00	1.328	3.00	64601.0000	1.520	10.0	186598.000	1.462
Hexachlorobenzene	50.0	321319.000	0.2191	3.00	18694.0000	0.2501	10.0	54193.0000	0.2389
Hexachloroethane	50.0	207953.000	0.5615	3.00	11768.0000	0.5867	10.0	35410.0000	0.5953
Indeno[1,2,3-cd]pyrene	50.0	1616295.00	1.194	3.00	82885.0000	1.184	10.0	254952.000	1.181
Isophorone	50.0	857268.000	0.6000	3.00	51229.0000	0.6811	10.0	147532.000	0.6606
Naphthalene	50.0	1478551.00	1.035	3.00	89968.0000	1.196	10.0	258782.000	1.159
Nitrobenzene	50.0	471369.000	0.3299	3.00	28033.0000	0.3727	10.0	78736.0000	0.3525
Phenanthrene	50.0	1519697.00	1.036	3.00	90590.0000	1.212	10.0	263680.000	1.162
Pyrene	50.0	1618198.00	1.167	3.00	96680.0000	1.350	10.0	278837.000	1.267
Sym-Trinitrobenzene	50.0	245626.000	0.1675	3.00	9014.00000	0.1206	10.0	33591.0000	0.1481
bis(2-Chloroethoxy)methane	50.0	654041.000	0.4578	3.00	39621.0000	0.5268	10.0	115030.000	0.5150
bis(2-Chloroethyl)ether	50.0	334727.000	0.9039	3.00	21246.0000	1.059	10.0	60185.0000	1.012
bis(2-Ethylhexyl)phthalate	50.0	1020072.00	0.7358	3.00	56427.0000	0.7877	10.0	171936.000	0.7810

INT_CAL - Modified 03/06/2008
PDF File ID: 2413602
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Microbac Laboratories Inc.
INITIAL CALIBRATION DATA

Login Number: L12050050
Analytical Method: 8270C

Instrument ID: HPMS4
Initial Calibration Date: 19-APR-12 13:23
Column ID: F

Analyte	WG395394-05			WG395394-06			WG395394-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	15.0	77554.0000	0.3761	25.0	124477.000	0.3645	80.0	439102.000	0.3649
2,4-Dichlorophenol	15.0	106895.000	0.2950	25.0	170393.000	0.2845	80.0	591204.000	0.2792
2-Nitrophenol	15.0	73595.0000	0.2031	25.0	120323.000	0.2009	80.0	428368.000	0.2023
Acenaphthene	15.0	263554.000	1.278	25.0	408883.000	1.197	80.0	1355981.00	1.127
Benzo[a]pyrene	15.0	370228.000	1.061	25.0	586115.000	1.029	80.0	2027472.00	1.059
Di-n-Octyl Phthalate	15.0	449194.000	1.288	25.0	719604.000	1.263	80.0	2511032.00	1.312
Fluoranthene	15.0	437692.000	1.180	25.0	683155.000	1.108	80.0	2265098.00	1.057
Hexachlorobutadiene	15.0	63330.0000	0.1748	25.0	100093.000	0.1671	80.0	335869.000	0.1586
Pentachlorophenol	15.0	53277.0000	0.1436	25.0	85623.0000	0.1389	80.0	297153.000	0.1387
Phenol	15.0	149867.000	1.583	25.0	235368.000	1.495	80.0	801301.000	1.483
2,4-Dinitrophenol	15.0	22655.0000	0.1099	25.0	42104.0000	0.1233	80.0	201666.000	0.1676
4-Nitrophenol	15.0	53528.0000	0.2596	25.0	85342.0000	0.2499	80.0	267741.000	0.2225
Hexachlorocyclopentadiene	15.0	57593.0000	0.2793	25.0	93776.0000	0.2746	80.0	336327.000	0.2795
n-Nitrosodipropylamine	15.0	89924.0000	0.9501	25.0	138764.000	0.8815	80.0	435156.000	0.8054
1,3-Dinitrobenzene	15.0	49953.0000	0.2423	25.0	82367.0000	0.2412	80.0	300061.000	0.2493
1,4-Dioxane	15.0	48051.0000	0.5077	25.0	77889.0000	0.4948	80.0	257642.000	0.4768
2,4,5-Trichlorophenol	15.0	80341.0000	0.3896	25.0	126653.000	0.3709	80.0	450522.000	0.3744
2,4-Dimethylphenol	15.0	122457.000	0.3379	25.0	197889.000	0.3304	80.0	674316.000	0.3184
2,4-Dinitrotoluene	15.0	86594.0000	0.4200	25.0	136727.000	0.4004	80.0	484503.000	0.4026
2,6-Dinitrotoluene	15.0	66191.0000	0.3210	25.0	106277.000	0.3112	80.0	380371.000	0.3161
2-Chloronaphthalene	15.0	241377.000	1.171	25.0	384238.000	1.125	80.0	1316383.00	1.094
2-Chlorophenol	15.0	131982.000	1.394	25.0	209656.000	1.332	80.0	725693.000	1.343
2-Methylnaphthalene	15.0	262619.000	0.7247	25.0	413423.000	0.6902	80.0	1399298.00	0.6608
2-Methylphenol	15.0	103944.000	1.098	25.0	163750.000	1.040	80.0	561625.000	1.039
2-Nitroaniline	15.0	67899.0000	0.3293	25.0	110145.000	0.3226	80.0	389293.000	0.3235
3,3'-Dichlorobenzidine	15.0	83197.0000	0.2350	25.0	128645.000	0.2212	80.0	433623.000	0.2166
3-Nitroaniline	15.0	44675.0000	0.2167	25.0	69340.0000	0.2031	80.0	283165.000	0.2353
4-Bromophenyl Phenyl Ether	15.0	77958.0000	0.2101	25.0	122053.000	0.1980	80.0	414109.000	0.1933
4-Chloroaniline	15.0	129166.000	0.3565	25.0	194712.000	0.3251	80.0	840914.000	0.3971
Acenaphthylene	15.0	404588.000	1.962	25.0	629983.000	1.845	80.0	2059422.00	1.711
Anthracene	15.0	425502.000	1.147	25.0	667031.000	1.082	80.0	2228606.00	1.040
Benzo[a]anthracene	15.0	392679.000	1.109	25.0	614266.000	1.056	80.0	2052367.00	1.025
Benzo[b]fluoranthene	15.0	406702.000	1.166	25.0	655699.000	1.151	80.0	2178762.00	1.138
Benzo[ghi]perylene	15.0	337233.000	0.9668	25.0	544579.000	0.9557	80.0	1882226.00	0.9835
Benzo[k]fluoranthene	15.0	363539.000	1.042	25.0	603465.000	1.059	80.0	2073723.00	1.084
Benzoic Acid	15.0	73064.0000	0.2016	25.0	127036.000	0.2121	80.0	518434.000	0.2448
Benzyl Alcohol	15.0	85215.0000	0.9003	25.0	135966.000	0.8638	80.0	480683.000	0.8896
Butyl Benzyl Phthalate	15.0	199823.000	0.5644	25.0	316262.000	0.5438	80.0	1058648.00	0.5288
Carbazole	15.0	352808.000	0.9510	25.0	569024.000	0.9231	80.0	2025195.00	0.9454
Chrysene	15.0	373919.000	1.056	25.0	577331.000	0.9926	80.0	1906476.00	0.9524
Di-n-Butyl Phthalate	15.0	464423.000	1.252	25.0	730780.000	1.186	80.0	2430902.00	1.135
Dibenz[ah]anthracene	15.0	340635.000	0.9766	25.0	543273.000	0.9534	80.0	1911785.00	0.9989

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Microbac Laboratories Inc.
INITIAL CALIBRATION DATA

Login Number: L12050050
Analytical Method: 8270C

Instrument ID: HPMS4
Initial Calibration Date: 19-APR-12 13:23
Column ID: F

Analyte	WG395394-05			WG395394-06			WG395394-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Dibenzofuran	15.0	345492.000	1.676	25.0	542792.000	1.590	80.0	1809858.00	1.504
Diethylphthalate	15.0	273892.000	1.328	25.0	427533.000	1.252	80.0	1465764.00	1.218
Dimethylphthalate	15.0	275007.000	1.334	25.0	432481.000	1.267	80.0	1452767.00	1.207
Fluorene	15.0	294134.000	1.427	25.0	461256.000	1.351	80.0	1524152.00	1.267
Hexachlorobenzene	15.0	85076.0000	0.2293	25.0	133370.000	0.2164	80.0	454706.000	0.2123
Hexachloroethane	15.0	55844.0000	0.5900	25.0	87874.0000	0.5582	80.0	310495.000	0.5746
Indeno[1,2,3-cd]pyrene	15.0	406105.000	1.164	25.0	649328.000	1.140	80.0	2284765.00	1.194
Isophorone	15.0	231590.000	0.6391	25.0	370301.000	0.6182	80.0	1254518.00	0.5924
Naphthalene	15.0	408896.000	1.128	25.0	637382.000	1.064	80.0	2143165.00	1.012
Nitrobenzene	15.0	126438.000	0.3489	25.0	200659.000	0.3350	80.0	698206.000	0.3297
Phenanthrene	15.0	414064.000	1.116	25.0	651360.000	1.057	80.0	2157063.00	1.007
Pyrene	15.0	443567.000	1.253	25.0	695786.000	1.196	80.0	2297635.00	1.148
Sym-Trinitrobenzene	15.0	57944.0000	0.1562	25.0	97026.0000	0.1574	80.0	374190.000	0.1747
bis(2-Chloroethoxy)methane	15.0	180101.000	0.4970	25.0	285147.000	0.4760	80.0	937865.000	0.4429
bis(2-Chloroethyl)ether	15.0	94566.0000	0.9991	25.0	149268.000	0.9483	80.0	497418.000	0.9206
bis(2-Ethylhexyl)phthalate	15.0	273457.000	0.7724	25.0	431927.000	0.7426	80.0	1454801.00	0.7267

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Microbac Laboratories Inc.
INITIAL CALIBRATION DATA

Login Number: L12050050
Analytical Method: 8270C

Instrument ID: HPMS4
Initial Calibration Date: 19-APR-12 13:23
Column ID: F

Analyte	WG395394-08			WG395394-09		
	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	100	535987.000	0.3570	120	669686.000	0.3523
2,4-Dichlorophenol	100	715757.000	0.2655	120	900159.000	0.2624
2-Nitrophenol	100	514984.000	0.1910	120	659346.000	0.1922
Acenaphthene	100	1612771.00	1.074	120	1951899.00	1.027
Benzo[a]pyrene	100	2422076.00	1.044	120	2982535.00	1.043
Di-n-Octyl Phthalate	100	3002395.00	1.294	120	3682000.00	1.288
Fluoranthene	100	2684844.00	1.005	120	3249661.00	0.9809
Hexachlorobutadiene	100	411451.000	0.1526	120	507887.000	0.1481
Pentachlorophenol	100	367513.000	0.1376	120	458736.000	0.1385
Phenol	100	991961.000	1.432	120	1231425.00	1.391
2,4-Dinitrophenol	100	256771.000	0.1710	120	327279.000	0.1722
4-Nitrophenol	100	320939.000	0.2137	120	386132.000	0.2032
Hexachlorocyclopentadiene	100	403426.000	0.2687	120	490221.000	0.2579
n-Nitrosodipropylamine	100	522498.000	0.7543	120	624493.000	0.7052
1,3-Dinitrobenzene	100	365872.000	0.2437	120	463456.000	0.2438
1,4-Dioxane	100	348759.000	0.5035	120	439725.000	0.4965
2,4,5-Trichlorophenol	100	556900.000	0.3709	120	692553.000	0.3644
2,4-Dimethylphenol	100	831386.000	0.3084	120	1031288.00	0.3007
2,4-Dinitrotoluene	100	583421.000	0.3886	120	727634.000	0.3828
2,6-Dinitrotoluene	100	466415.000	0.3106	120	580776.000	0.3056
2-Chloronaphthalene	100	1597789.00	1.064	120	1980928.00	1.042
2-Chlorophenol	100	903123.000	1.304	120	1130760.00	1.277
2-Methylnaphthalene	100	1696852.00	0.6294	120	2083523.00	0.6074
2-Methylphenol	100	686225.000	0.9906	120	853772.000	0.9640
2-Nitroaniline	100	478820.000	0.3189	120	598982.000	0.3151
3,3'-Dichlorobenzidine	100	535244.000	0.2164	120	679065.000	0.2212
3-Nitroaniline	100	384870.000	0.2563	120	523691.000	0.2755
4-Bromophenyl Phenyl Ether	100	505367.000	0.1892	120	625697.000	0.1889
4-Chloroaniline	100	1131551.00	0.4197	120	1382212.00	0.4030
Acenaphthylene	100	2438377.00	1.624	120	2981097.00	1.568
Anthracene	100	2652184.00	0.9930	120	3213859.00	0.9701
Benzo[a]anthracene	100	2445804.00	0.9887	120	2986908.00	0.9731
Benzo[b]fluoranthene	100	2654859.00	1.144	120	3081081.00	1.078
Benzo[ghi]perylene	100	2198670.00	0.9474	120	2700031.00	0.9446
Benzo[k]fluoranthene	100	2404348.00	1.036	120	2836726.00	0.9924
Benzoic Acid	100	675656.000	0.2506	120	915551.000	0.2669
Benzyl Alcohol	100	594299.000	0.8579	120	747792.000	0.8444
Butyl Benzyl Phthalate	100	1272202.00	0.5143	120	1549387.00	0.5048
Carbazole	100	2461069.00	0.9215	120	3053064.00	0.9215
Chrysene	100	2259995.00	0.9136	120	2763239.00	0.9003
Di-n-Butyl Phthalate	100	2883140.00	1.080	120	3504116.00	1.058
Dibenz[ah]anthracene	100	2261465.00	0.9745	120	2804015.00	0.9810

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Microbac Laboratories Inc.
INITIAL CALIBRATION DATA

Login Number: L12050050
Analytical Method: 8270C

Instrument ID: HPMS4
Initial Calibration Date: 19-APR-12 13:23
Column ID: F

Analyte	WG395394-08			WG395394-09		
	CONC	RESP	RF	CONC	RESP	RF
Dibenzofuran	100	2178444.00	1.451	120	2633898.00	1.386
Diethylphthalate	100	1756256.00	1.170	120	2162475.00	1.138
Dimethylphthalate	100	1760527.00	1.173	120	2165968.00	1.140
Fluorene	100	1832624.00	1.221	120	2243623.00	1.180
Hexachlorobenzene	100	543444.000	0.2035	120	663561.000	0.2003
Hexachloroethane	100	384708.000	0.5553	120	480318.000	0.5424
Indeno[1,2,3-cd]pyrene	100	2721409.00	1.173	120	3353339.00	1.173
Isophorone	100	1546209.00	0.5735	120	1916721.00	0.5588
Naphthalene	100	2577401.00	0.9560	120	3171066.00	0.9245
Nitrobenzene	100	854248.000	0.3168	120	1069745.00	0.3119
Phenanthrene	100	2552198.00	0.9556	120	3120483.00	0.9419
Pyrene	100	2734557.00	1.105	120	3331157.00	1.085
Sym-Trinitrobenzene	100	450708.000	0.1688	120	571928.000	0.1726
bis(2-Chloroethoxy)methane	100	1134885.00	0.4209	120	1390586.00	0.4054
bis(2-Chloroethyl)ether	100	615863.000	0.8890	120	761552.000	0.8599
bis(2-Ethylhexyl)phthalate	100	1738038.00	0.7026	120	2123921.00	0.6920

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Microbac Laboratories Inc.
INITIAL CALIBRATION DATA

Login Number: L12050050
Analytical Method: 8270C

Instrument ID: HPMS4
Initial Calibration Date: 01-MAY-12 16:57
Column ID: F

Analyte	WG396709-01			WG396709-02			WG396709-03		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1'-Biphenyl	50.0	861006.000	1.619	3.00	52218.0000	1.758	10.0	178056.000	1.725

INT_CAL - Modified 03/06/2008
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Microbac Laboratories Inc.
INITIAL CALIBRATION DATA

Login Number: L12050050
Analytical Method: 8270C

Instrument ID: HPMS4
Initial Calibration Date: 01-MAY-12 16:57
Column ID: F

Analyte	WG396709-04			WG396709-05			WG396709-06		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1'-Biphenyl	25.0	424267.000	1.719	80.0	1307719.00	1.536	100	1556681.00	1.495

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L12050050 Run Date: 04/19/2012 Sample ID: WG395394-10
 Instrument ID: HPMS4 Run Time: 13:58 Method: 8270C
 File ID: 4M60447 Analyst: CAA QC Key: WATERLOO
 ICal Workgroup: WG395394 Cal ID: HPMS4 - 19-APR-12

Analyte		Expected	Found	Units	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	57700	ug/L	0.424	15.5	25	
2,4-Dichlorophenol	CCC	50000	53800	ug/L	0.307	7.50	25	
2-Nitrophenol	CCC	50000	58700	ug/L	0.233	17.4	25	
Acenaphthene	CCC	50000	56400	ug/L	1.33	12.9	25	
Benzo[a]pyrene	CCC	50000	56200	ug/L	1.19	12.4	25	
Di-n-Octyl Phthalate	CCC	50000	58500	ug/L	1.51	17.0	25	
Fluoranthene	CCC	50000	53900	ug/L	1.20	7.90	25	
Hexachlorobutadiene	CCC	50000	55500	ug/L	0.184	10.9	25	
n-Nitrosodiphenylamine	CCC	50000	55300	ug/L	0.715	10.5	25	
Pentachlorophenol	CCC	50000	65800	ug/L	0.184	31.6	25	*
Phenol	CCC	50000	55000	ug/L	1.67	10.1	25	
2,4-Dinitrophenol	SPCC	50000	77300	ug/L	0.258	54.6	25	*
4-Nitrophenol	SPCC	50000	58600	ug/L	0.273	17.1	25	
Hexachlorocyclopentadiene	SPCC	50000	55500	ug/L	0.301	11.0	25	
n-Nitrosodipropylamine	SPCC	50000	56200	ug/L	0.960	12.4	25	
1,3-Dinitrobenzene		50000	52900	ug/L	0.257	5.70	25	
2,4,5-Trichlorophenol		50000	58300	ug/L	0.441	16.7	25	
2,4-Dimethylphenol		50000	51900	ug/L	0.355	3.90	25	
2,4-Dinitrotoluene		50000	57000	ug/L	0.459	14.0	25	
2,6-Dinitrotoluene		50000	57700	ug/L	0.365	15.4	25	
2-Chloronaphthalene		50000	64600	ug/L	1.46	29.3	25	*
2-Chlorophenol		50000	55800	ug/L	1.51	11.5	25	
2-Methylnaphthalene		50000	54300	ug/L	0.748	8.60	25	
2-Methylphenol		50000	54700	ug/L	1.14	9.30	25	
2-Nitroaniline		50000	58000	ug/L	0.375	16.0	25	
3-Nitroaniline		50000	39600	ug/L	0.185	20.8	25	
3,3'-Dichlorobenzidine		50000	52000	ug/L	0.231	4.00	25	
3-,4-Methylphenol		50000	54100	ug/L	1.47	8.20	25	
4-Bromophenyl Phenyl Ether		50000	53200	ug/L	0.215	6.30	25	
4-Chloroaniline		50000	48900	ug/L	0.381	2.20	25	
Acenaphthylene		50000	57000	ug/L	2.07	14.0	25	
Anthracene		50000	55100	ug/L	1.20	10.2	25	
Benzo[a]anthracene		50000	54200	ug/L	1.15	8.40	25	
Benzo[b]fluoranthene		50000	54600	ug/L	1.26	9.10	25	
Benzo[ghi]perylene		50000	54600	ug/L	1.06	9.10	25	
Benzo[k]fluoranthene		50000	51500	ug/L	1.10	3.00	25	
Benzoic Acid		50000	59700	ug/L	0.281	19.3	25	
Benzyl Alcohol		50000	58800	ug/L	1.03	17.5	25	
bis(2-Chloroethyl)ether		50000	54000	ug/L	1.03	8.10	25	
bis(2-Chloroethoxy)methane		50000	56800	ug/L	0.531	13.5	25	
bis(2-Ethylhexyl)phthalate		50000	56700	ug/L	0.842	13.4	25	
Butyl Benzyl Phthalate		50000	58500	ug/L	0.637	17.0	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L12050050 Run Date: 04/19/2012 Sample ID: WG395394-10
 Instrument ID: HPMS4 Run Time: 13:58 Method: 8270C
 File ID: 4M60447 Analyst: CAA QC Key: WATERLOO
 ICal Workgroup: WG395394 Cal ID: HPMS4 - 19-APR-12

Analyte	Expected	Found	Units	RF	%D	UCL	Q
Carbazole	50000	53700	ug/L	1.02	7.40	25	
Chrysene	50000	56500	ug/L	1.12	12.9	25	
Di-n-Butyl Phthalate	50000	54500	ug/L	1.29	8.90	25	
Dibenz[ah]anthracene	50000	55500	ug/L	1.09	11.0	25	
Dibenzofuran	50000	56700	ug/L	1.79	13.4	25	
Diethylphthalate	50000	56200	ug/L	1.42	12.4	25	
Dimethylphthalate	50000	55300	ug/L	1.40	10.6	25	
Fluorene	50000	55600	ug/L	1.50	11.3	25	
Hexachlorobenzene	50000	52000	ug/L	0.230	3.90	25	
Hexachloroethane	50000	54700	ug/L	0.624	9.30	25	
Indeno[1,2,3-cd]pyrene	50000	55600	ug/L	1.31	11.2	25	
Isophorone	50000	52700	ug/L	0.649	5.50	25	
Naphthalene	50000	54200	ug/L	1.15	8.40	25	
Nitrobenzene	50000	54200	ug/L	0.366	8.40	25	
Phenanthrene	50000	55400	ug/L	1.17	10.7	25	
Pyrene	50000	56100	ug/L	1.34	12.2	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
 SPCC System Performance Check Compounds



Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L12050050 Run Date: 04/19/2012 Sample ID: WG395394-11
Instrument ID: HPMS4 Run Time: 14:33 Method: 8270C
File ID: 4M60448 Analyst: CAA QC Key: WATERLOO
ICal Workgroup: WG395394 Cal ID: HPMS4 - 19-APR-12

Analyte	Expected	Found	Units	RF	%D	UCL	Q
1,4-Dioxane	50000	59900	ug/L	0.598	19.9	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 2413605
Report generated 05/14/2012 16:08



Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L12050050 Run Date: 05/01/2012 Sample ID: WG396709-07
Instrument ID: HPMS4 Run Time: 17:31 Method: 8270C
File ID: 4M60608 Analyst: CAA QC Key: WATERLOO
ICal Workgroup: WG396709 Cal ID: HPMS4 - 01-MAY-12

Analyte	Expected	Found	Units	RF	%D	UCL	Q
1,1'-Biphenyl	50000	47400	ug/L	1.56	5.20	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 2413605
Report generated 05/14/2012 16:08



CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/12/2012 Sample ID: WG397824-02
Instrument ID: HPMS4 Run Time: 11:22 Method: 8270C
File ID: 4M60817 Analyst: CAA QC Key: WATERLOO
Workgroup (AAB#): WG397604 Cal ID: HPMS4 - 19-APR-12
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	52100	ug/L	0.383	4.14	20	
2,4-Dichlorophenol	CCC	50000	51400	ug/L	0.294	2.83	20	
2-Nitrophenol	CCC	50000	53000	ug/L	0.211	6.03	20	
Acenaphthene	CCC	50000	49100	ug/L	1.16	1.77	20	
Benzo[a]pyrene	CCC	50000	51800	ug/L	1.09	3.58	20	
Di-n-Octyl Phthalate	CCC	50000	53800	ug/L	1.39	7.60	20	
Fluoranthene	CCC	50000	49300	ug/L	1.10	1.30	20	
Hexachlorobutadiene	CCC	50000	52500	ug/L	0.175	5.10	20	
n-Nitrosodiphenylamine	CCC	50000	49800	ug/L	0.645	0.416	20	
Pentachlorophenol	CCC	50000	47100	ug/L	0.132	5.81	20	
Phenol	CCC	50000	48900	ug/L	1.48	2.25	20	
1,4-Dichlorobenzene	CCC	50000	48900	ug/L	1.51	2.12	20	
4-Chloro-3-Methylphenol	CCC	50000	50200	ug/L	0.291	0.474	20	
2,4-Dinitrophenol	SPCC	50000	46900	ug/L	0.147	6.11	20	
4-Nitrophenol	SPCC	50000	48800	ug/L	0.227	2.50	20	
Hexachlorocyclopentadiene	SPCC	50000	51000	ug/L	0.277	1.98	20	
n-Nitrosodipropylamine	SPCC	50000	49600	ug/L	0.848	0.797	20	
Sym-Trinitrobenzene		50000	56200	ug/L	0.178	12.3	20	
1,3-Dinitrobenzene		50000	53400	ug/L	0.259	6.78	20	
1,4-Dioxane		50000	45400	ug/L	0.453	9.17	20	
2,4,5-Trichlorophenol		50000	52000	ug/L	0.393	4.02	20	
2,4-Dimethylphenol		50000	46400	ug/L	0.317	7.22	20	
2,4-Dinitrotoluene		50000	52400	ug/L	0.422	4.84	20	
2,6-Dinitrotoluene		50000	52000	ug/L	0.329	4.05	20	
2-Chloronaphthalene		50000	51300	ug/L	1.16	2.58	20	
2-Chlorophenol		50000	49000	ug/L	1.33	1.93	20	
2-Methylnaphthalene		50000	49500	ug/L	0.681	0.997	20	
2-Methylphenol		50000	47200	ug/L	0.986	5.66	20	
2-Nitroaniline		50000	50700	ug/L	0.329	1.49	20	
3-Nitroaniline		50000	47100	ug/L	0.220	5.87	20	
3,3'-Dichlorobenzidine		50000	57400	ug/L	0.255	14.7	20	
3-,4-Methylphenol		50000	47500	ug/L	1.29	5.04	20	
4-Bromophenyl Phenyl Ether		50000	51200	ug/L	0.207	2.45	20	
4-Chloroaniline		50000	55000	ug/L	0.429	10.1	20	
Acenaphthylene		50000	49500	ug/L	1.80	1.02	20	
Anthracene		50000	48700	ug/L	1.06	2.64	20	
Benzo[a]anthracene		50000	49900	ug/L	1.06	0.179	20	
Benzo[b]fluoranthene		50000	54700	ug/L	1.27	9.39	20	
Benzo[ghi]perylene		50000	53200	ug/L	1.03	6.37	20	
Benzo[k]fluoranthene		50000	49900	ug/L	1.07	0.273	20	
Benzoic Acid		50000	11200	ug/L	0.0526	77.6	20	*
Benzyl Alcohol		50000	48500	ug/L	0.853	2.99	20	

CCV - Modified 03/05/2008
PDF File ID: 2413607
Report generated 05/14/2012 16:09



CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/12/2012 Sample ID: WG397824-02
 Instrument ID: HPMS4 Run Time: 11:22 Method: 8270C
 File ID: 4M60817 Analyst: CAA QC Key: WATERLOO
 Workgroup (AAB#): WG397604 Cal ID: HPMS4 - 19-APR-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	RF	%D	UCL	Q
bis(2-Chloroethyl)ether	50000	46700	ug/L	0.887	6.54	20	
bis(2-Chloroethoxy)methane	50000	51200	ug/L	0.479	2.45	20	
bis(2-Ethylhexyl)phthalate	50000	51700	ug/L	0.767	3.34	20	
Butyl Benzyl Phthalate	50000	51600	ug/L	0.561	3.14	20	
Carbazole	50000	49900	ug/L	0.950	0.240	20	
Chrysene	50000	49300	ug/L	0.983	1.37	20	
Di-n-Butyl Phthalate	50000	50300	ug/L	1.19	0.573	20	
Dibenz[ah]anthracene	50000	55200	ug/L	1.08	10.4	20	
Dibenzofuran	50000	49800	ug/L	1.57	0.440	20	
Diethylphthalate	50000	51000	ug/L	1.28	1.91	20	
Dimethylphthalate	50000	50500	ug/L	1.28	0.941	20	
Fluorene	50000	49700	ug/L	1.34	0.689	20	
Hexachlorobenzene	50000	52600	ug/L	0.233	5.12	20	
Hexachloroethane	50000	49600	ug/L	0.566	0.869	20	
Indeno[1,2,3-cd]pyrene	50000	54500	ug/L	1.28	9.08	20	
Isophorone	50000	49700	ug/L	0.612	0.578	20	
Naphthalene	50000	49000	ug/L	1.04	2.01	20	
Nitrobenzene	50000	51400	ug/L	0.347	2.80	20	
Phenanthrene	50000	48300	ug/L	1.02	3.48	20	
Pyrene	50000	50500	ug/L	1.21	0.959	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
 SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
 PDF File ID: 2413607
 Report generated 05/14/2012 16:09



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/12/2012 Sample ID: WG397825-01
Instrument ID: HPMS4 Run Time: 11:57 Method: 8270C
File ID: 4M60818 Analyst: CAA QC Key: WATERLOO
Workgroup (AAB#): WG397604 Cal ID: HPMS4 - 01-MAY-12
Matrix: WATER

Analyte	Expected	Found	UNITS	RF	%D	UCL	Q
1,1'-Biphenyl	50000	49500	ug/L	1.63	1.02	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 2413607
Report generated 05/14/2012 16:09



Microbac Laboratories Inc.
INTERNAL STANDARD AREA SUMMARY
(COMPARED TO CCV)

Login Number: L12050050
Instrument ID: HPMS4
Workgroup (AAB#): WG397604

CCV Number: WG397824-02
CAL ID: HPMS4-19-APR-12
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG397824-02	NA	NA	379992	798531	1334202	1412784	1243573	1443768
Upper Limit	NA	NA	759984	1597062	2668404	2825568	2487146	2887536
Lower Limit	NA	NA	189996	399266	667101	706392	621787	721884
<u>L12050050-01</u>	1.00	01	<u>258376</u>	<u>537669</u>	<u>923846</u>	<u>970624</u>	<u>883720</u>	<u>971077</u>
L12050050-03	1.00	01	254102	526337	905139	953730	885690	955594
L12050050-05	1.00	01	257288	537825	907462	956397	894967	961810
L12050050-07	1.00	01	261172	541912	918607	970127	891380	968257
WG397140-02	1.00	01	270729	559392	951577	1008897	919790	1005180
WG397140-03	1.00	01	262198	562715	959585	999831	885225	1021385

- IS-1 - 1,4-Dichlorobenzene-d4
- IS-2 - Acenaphthene-d10
- IS-3 - Chrysene-d12
- IS-4 - Naphthalene-D8
- IS-5 - Perylene-d12
- IS-6 - Phenanthrene-d10

Underline = Response outside limits



Microbac Laboratories Inc.
INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO CCV)

Login Number: L12050050
Instrument ID: HPMS4
Workgroup (AAB#): WG397604

CCV Number: WG397824-02
CAL ID: HPMS4-19-APR-12
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG397824-02	NA	NA	7.23	10.32	15.6	8.51	18.33	11.92
Upper Limit	NA	NA	7.73	10.82	16.1	9.01	18.83	12.42
Lower Limit	NA	NA	6.73	9.82	15.1	8.01	17.83	11.42
<u>L12050050-01</u>	1.00	01	7.23	10.32	15.6	8.51	18.33	11.92
L12050050-03	1.00	01	7.23	10.32	15.6	8.51	18.32	11.92
L12050050-05	1.00	01	7.23	10.32	15.6	8.51	18.33	11.92
L12050050-07	1.00	01	7.23	10.32	15.6	8.51	18.33	11.92
WG397140-02	1.00	01	7.23	10.32	15.6	8.51	18.33	11.92
WG397140-03	1.00	01	7.23	10.32	15.61	8.51	18.34	11.92

- IS-1 - 1,4-Dichlorobenzene-d4
- IS-2 - Acenaphthene-d10
- IS-3 - Chrysene-d12
- IS-4 - Naphthalene-D8
- IS-5 - Perylene-d12
- IS-6 - Phenanthrene-d10

Underline = Response outside limits



2.2.1.3 Sample Data

Data File : I:\MSDCHEM\1\DATA\051212\4M60827.D Vial: 12
 Acq On : 12 May 2012 17:11 Operator: CAA
 Sample : L12050050-01 Inst : HPMS4
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:40:50 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Mon May 14 11:40:35 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.23	152	258376	40.00	ug/ml	0.00
30) Naphthalene-d8	8.51	136	970624	40.00	ug/ml	0.00
54) Acenaphthene-d10	10.32	164	537669	40.00	ug/ml	0.00
87) Phenanthrene-d10	11.92	188	971077	40.00	ug/ml	0.00
113) Chrysene-d12	15.60	240	923846	40.00	ug/ml	-0.01
128) Perylene-d12	18.33	264	883720	40.00	ug/ml	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
8) 2-Fluorophenol	6.00	112	525630	67.0975	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery =	67.10%		
12) Phenol-d5	6.83	99	669174	72.9869	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery =	72.99%		
31) Nitrobenzene-d5	7.79	82	318296	38.7722	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	77.54%		
59) 2-Fluorobiphenyl	9.58	172	676886	37.7011	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	75.40%		
86) 2,4,6-Tribromophenol	11.14	330	171588	71.5648	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery =	71.56%		
117) p-Terphenyl-d14	13.95	244	698947	41.0480	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	82.10%		

Target Compounds Qvalue

 (#) = qualifier out of range (m) = manual integration
 4M60827.D MEGAMIX.M Mon May 14 11:46:30 2012

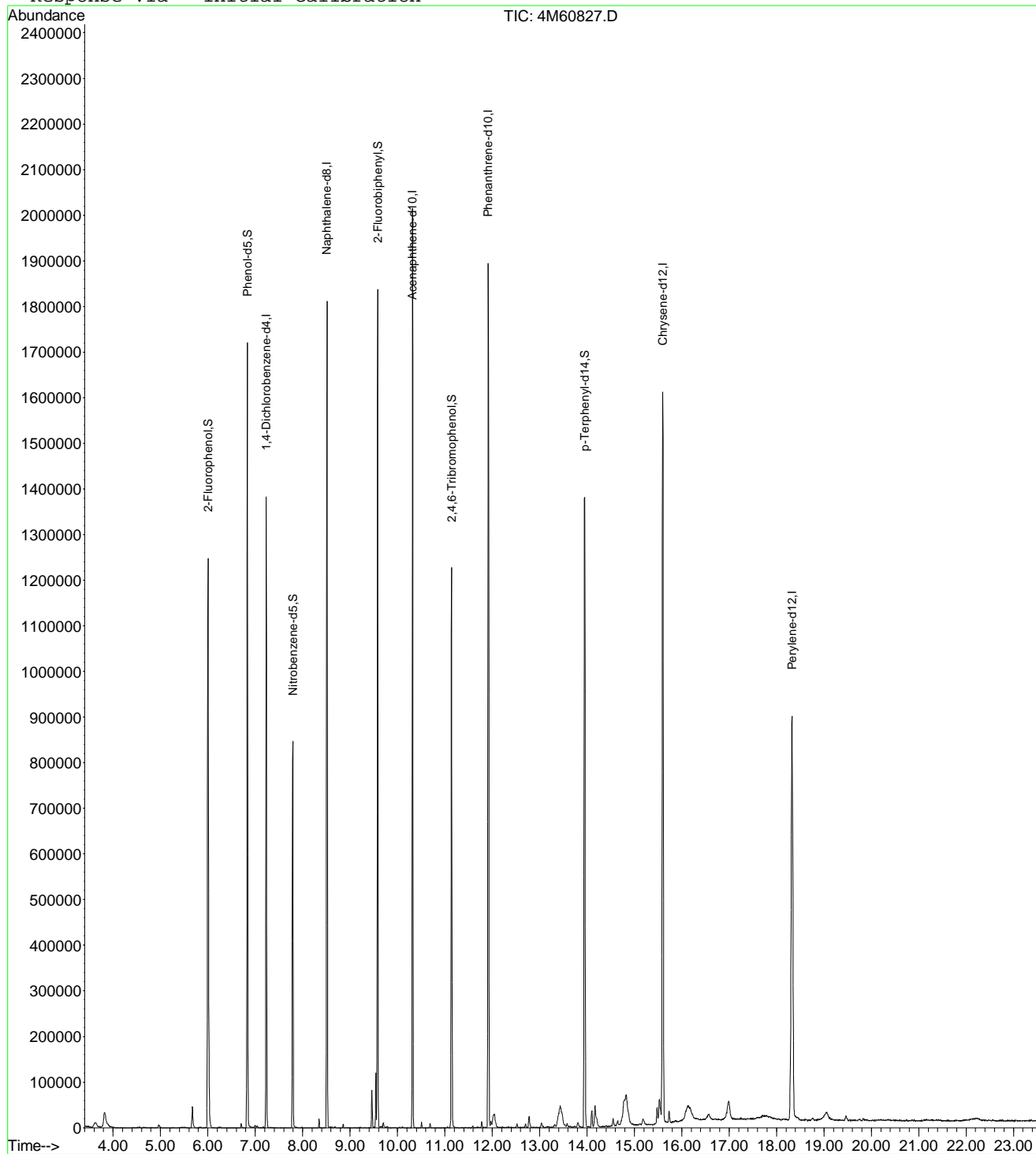
Page 1

Data File : I:\MSDCHEM\1\DATA\051212\4M60827.D
 Acq On : 12 May 2012 17:11
 Sample : L12050050-01
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:40 2012

Vial: 12
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Mon May 14 11:40:35 2012
 Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\051212\4M60827.D Vial: 12
Acq On : 12 May 2012 17:11 Operator: CAA
Sample : L12050050-01 Inst : HPMS4
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 14 11:54:27 2012 Quant Results File: TCL.RES

Quant Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
Last Update : Mon May 14 11:53:23 2012
Response via : Initial Calibration
DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.23	152	258376	40.00	ug/mL	0.00
3) Naphthalene-d8	8.51	136	970624	40.00	ug/mL	0.00
5) Acenaphthene-d10	10.32	164	537669	40.00	ug/mL	0.00
7) Phenanthrene-d10	11.92	188	971077	40.00	ug/mL	0.00

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
4M60827.D TCL.M Mon May 14 11:54:27 2012

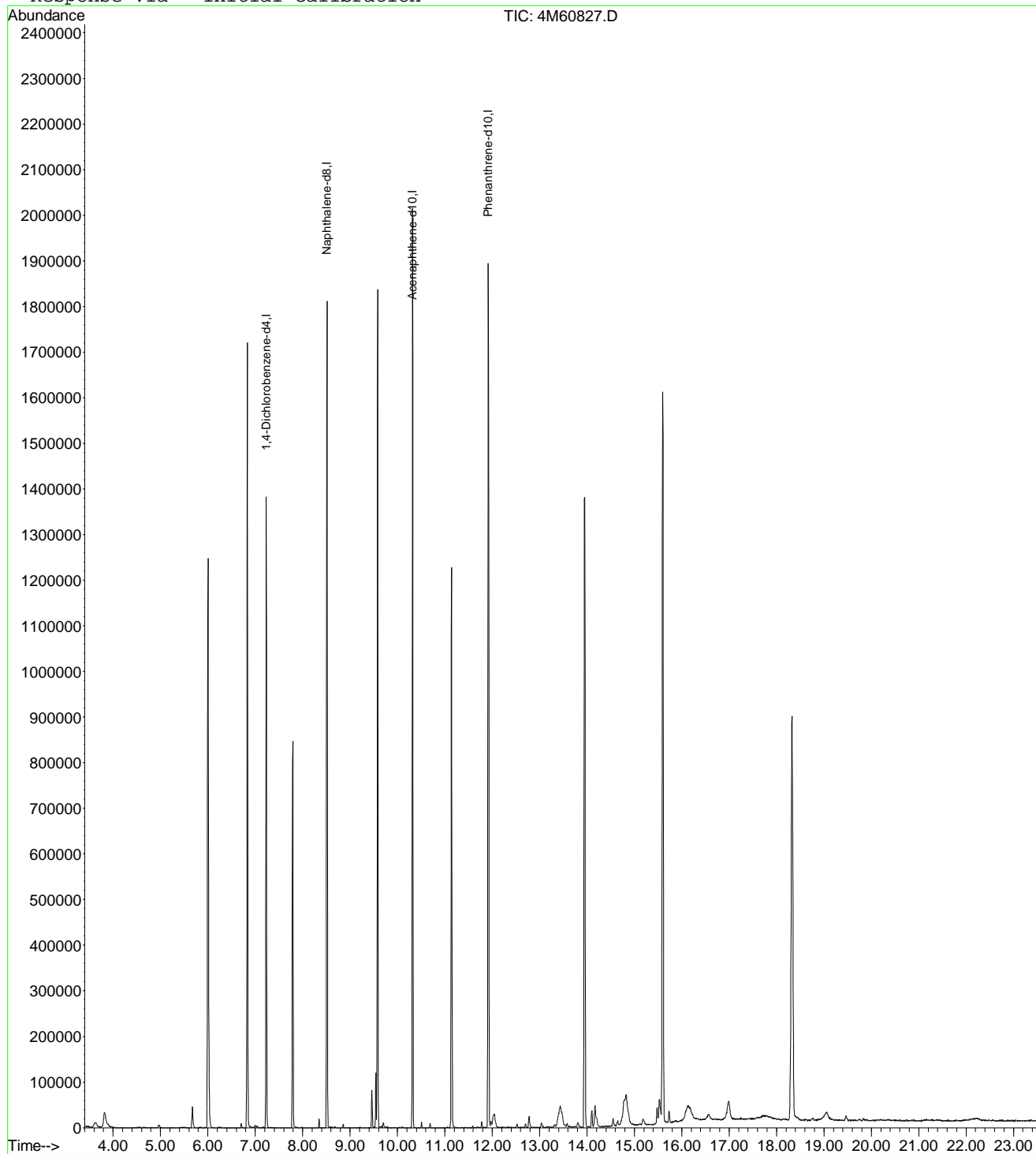
Page 1

Data File : I:\MSDCHEM\1\DATA\051212\4M60827.D
 Acq On : 12 May 2012 17:11
 Sample : L12050050-01
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:54 2012

Vial: 12
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: TCL.RES

Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Mon May 14 11:53:23 2012
 Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\051212\4M60827.D Vial: 12
 Acq On : 12 May 2012 17:11 Operator: CAA
 Sample : L12050050-01 Inst : HPMS4
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: LSCINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Smoothing : ON Filtering: 5
 Sampling : 1 Min Area: 1 % of largest Peak
 Start Thrs: 0.05 Max Peaks: 100
 Stop Thrs : 0 Peak Location: TOP

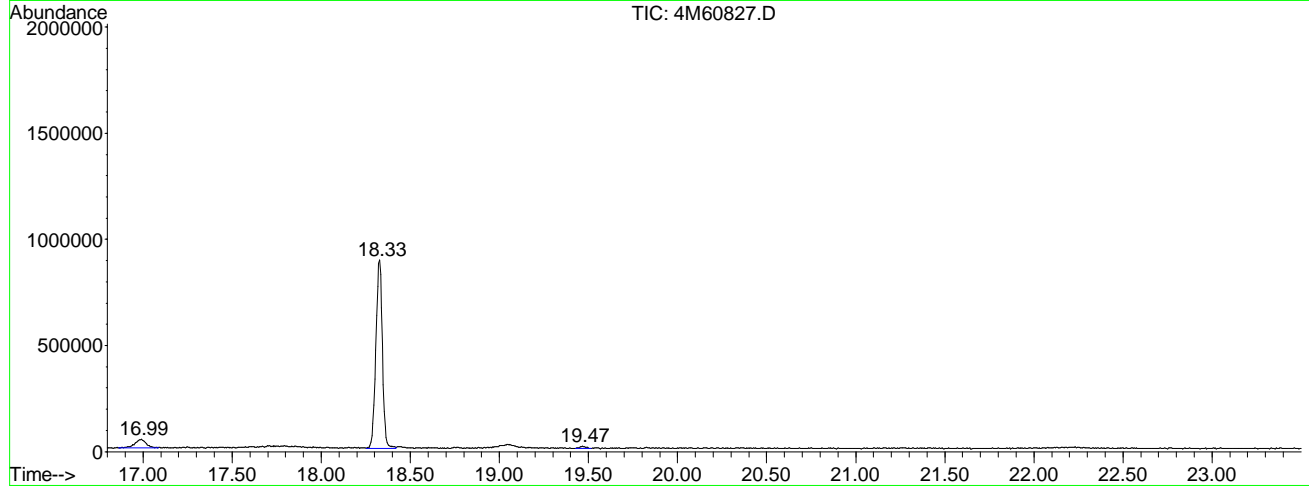
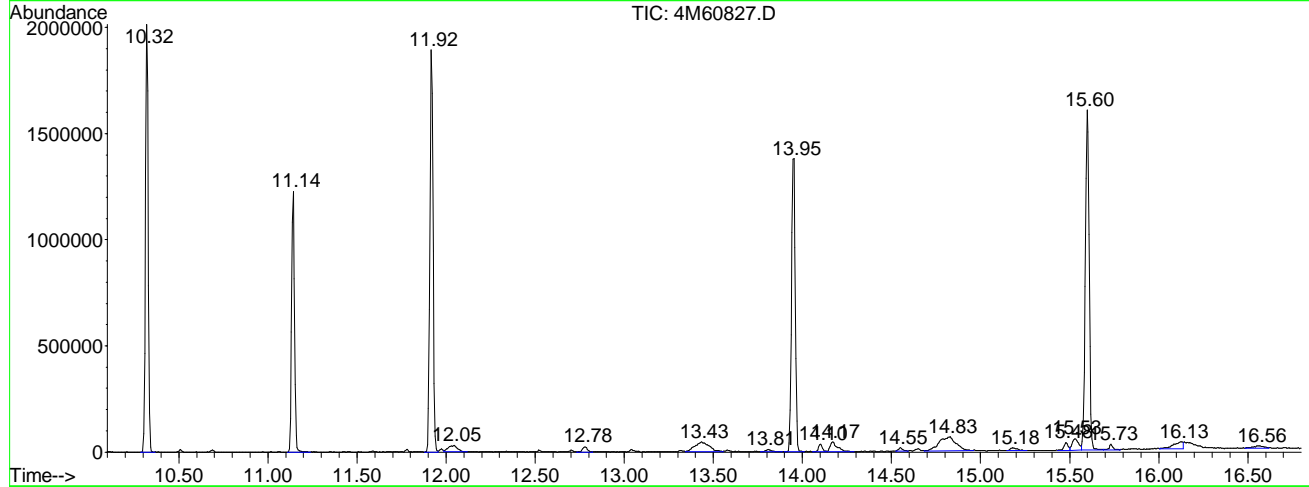
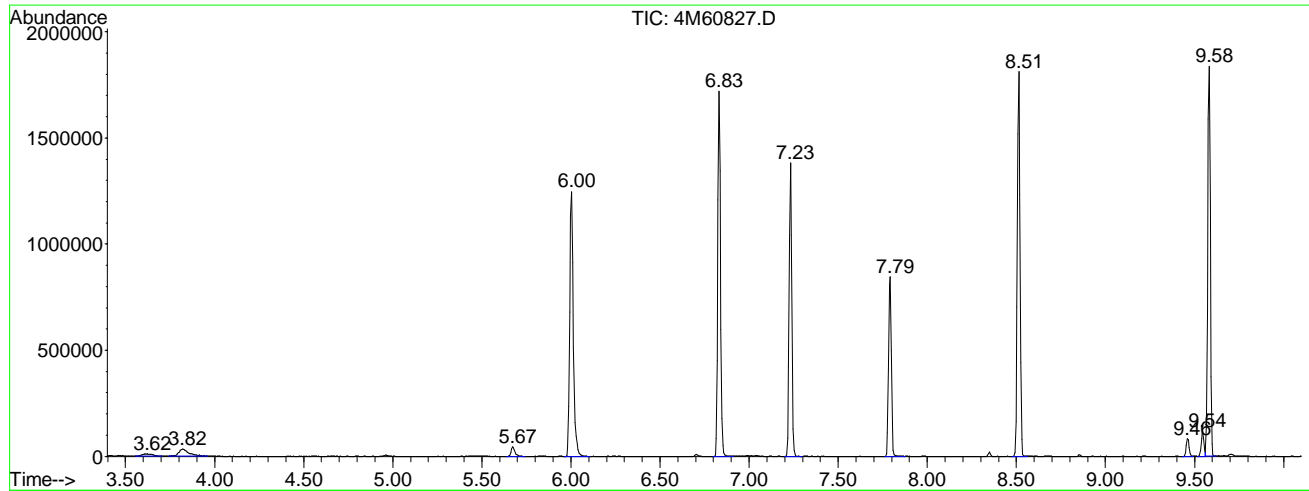
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.621	31	43	58	rBV7	10717	46997	1.96%	0.192%
2	3.818	66	80	106	rBV3	33373	138988	5.79%	0.569%
3	5.672	421	427	439	rBB	46229	68794	2.87%	0.282%
4	6.003	482	489	507	rBB	1247742	1740001	72.53%	7.122%
5	6.831	638	644	659	rBV	1721297	1823238	76.00%	7.463%
6	7.232	713	719	730	rBB	1383197	1469836	61.27%	6.016%
7	7.793	818	824	839	rBB	846726	927603	38.67%	3.797%
8	8.514	952	959	968	rBV	1812332	1920861	80.07%	7.863%
9	9.460	1131	1136	1142	rBV	82299	92762	3.87%	0.380%
10	9.545	1147	1152	1155	rBV	120212	120577	5.03%	0.494%
11	9.582	1155	1159	1166	rVB	1836815	1885284	78.59%	7.717%
12	10.320	1291	1297	1305	rBB	2015891	2109867	87.95%	8.636%
13	11.142	1445	1451	1468	rBB	1227654	1381522	57.59%	5.655%
14	11.917	1589	1596	1603	rBV	1894704	2332730	97.24%	9.549%
15	12.045	1609	1620	1633	rVB4	30071	110132	4.59%	0.451%
16	12.782	1749	1758	1765	rBV2	24579	47388	1.98%	0.194%
17	13.434	1863	1880	1902	rVB2	46788	247946	10.34%	1.015%
18	13.808	1942	1950	1964	rVB2	10887	24049	1.00%	0.098%
19	13.952	1967	1977	1987	rBV2	1380791	1982772	82.65%	8.116%
20	14.102	1997	2005	2010	rBV3	36005	52380	2.18%	0.214%
21	14.171	2010	2018	2039	rVB	46725	130360	5.43%	0.534%
22	14.551	2084	2089	2096	rBV2	17628	29109	1.21%	0.119%
23	14.828	2114	2141	2165	rVV2	65844	435778	18.17%	1.784%
24	15.181	2201	2207	2221	rBV7	13215	37148	1.55%	0.152%
25	15.480	2254	2263	2267	rBV2	36542	60994	2.54%	0.250%
26	15.528	2267	2272	2279	rVV3	54363	137470	5.73%	0.563%
27	15.598	2279	2285	2302	rVV	1603399	2398946	100.00%	9.820%
28	15.731	2302	2310	2319	rVB2	25838	39532	1.65%	0.162%
29	16.127	2361	2384	2386	rBV5	33777	129758	5.41%	0.531%
30	16.565	2451	2466	2476	rBV8	11398	45063	1.88%	0.184%
31	16.992	2522	2546	2563	rBV4	40540	178840	7.45%	0.732%
32	18.327	2782	2796	2813	rBV	885777	2258553	94.15%	9.245%
33	19.465	3002	3009	3017	rVB4	11260	24889	1.04%	0.102%

Sum of corrected areas: 24430167

File : I:\MSDCHEM\1\DATA\051212\4M60827.D
 Operator : CAA
 Acquired : 12 May 2012 17:11 using AcqMethod BNATEST
 Instrument : HPMS4
 Sample Name: L12050050-01
 Misc Info : 1,1
 Vial Number: 12
 Quant File : MEGAMIX.RES (RTE Integrator)



Data File : I:\MSDCHEM\1\DATA\051212\4M60827.D
 Acq On : 12 May 2012 17:11
 Sample : L12050050-01
 Misc : 1,1
 MS Integration Params: LSCINT.P

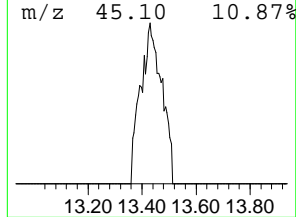
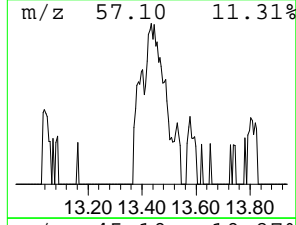
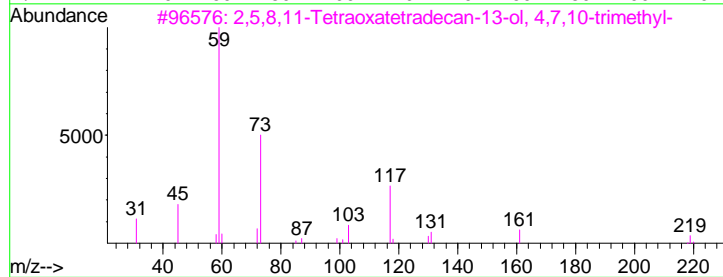
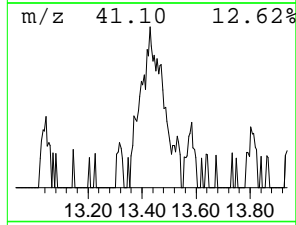
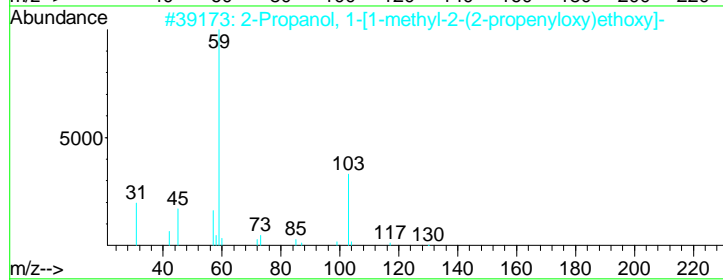
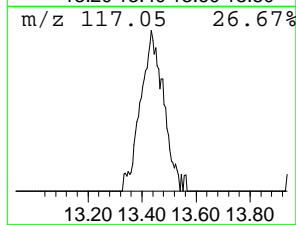
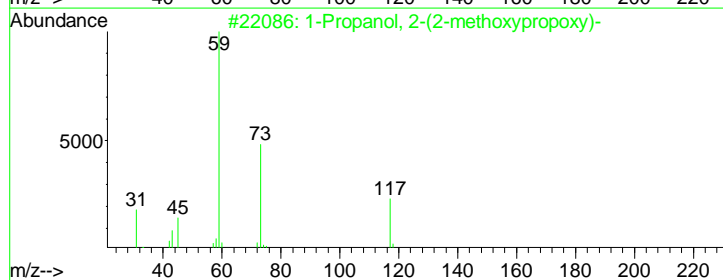
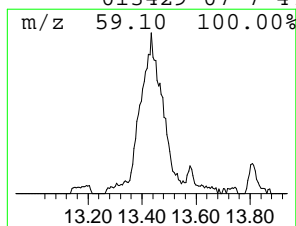
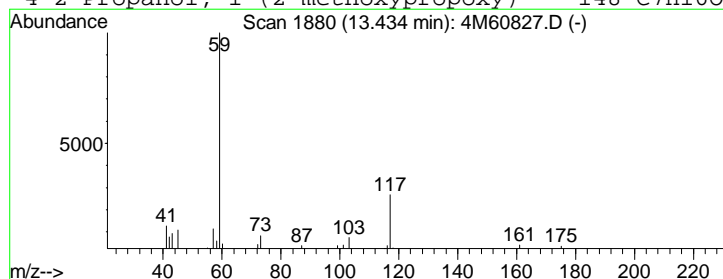
Vial: 12
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 1 1-Propanol, 2-(2-methoxypro... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.43	4.25 ug/ml	247946	Phenanthrene-d10	11.92

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1-Propanol, 2-(2-methoxypropoxy)-	148	C7H16O3	013588-28-8	53
2		2-Propanol, 1-[1-methyl-2-(2-pro...	174	C9H18O3	055956-25-7	50
3		2,5,8,11-Tetraoxatetradecan-13-o...	264	C13H28O5	020324-34-9	50
4		2-Propanol, 1-(2-methoxypropoxy)-	148	C7H16O3	013429-07-7	47



Data File : I:\MSDCHEM\1\DATA\051212\4M60827.D
 Acq On : 12 May 2012 17:11
 Sample : L12050050-01
 Misc : 1,1
 MS Integration Params: LSCINT.P

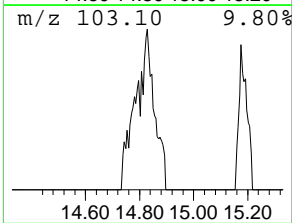
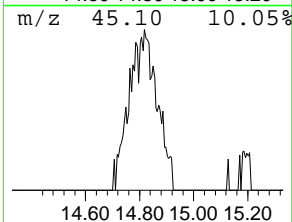
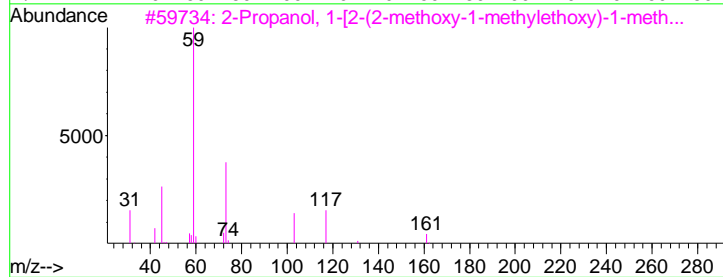
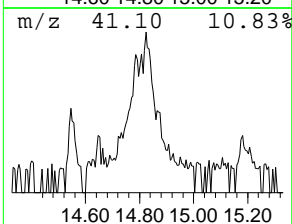
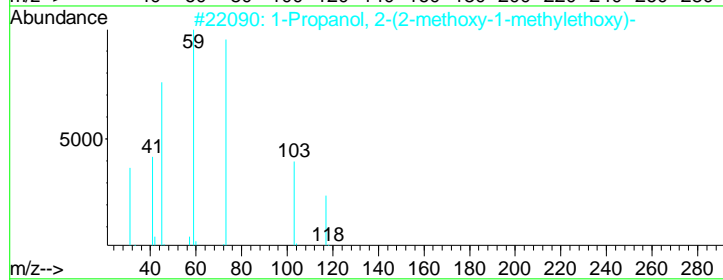
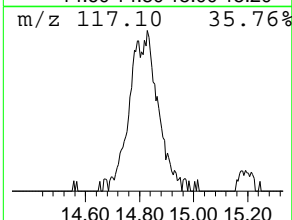
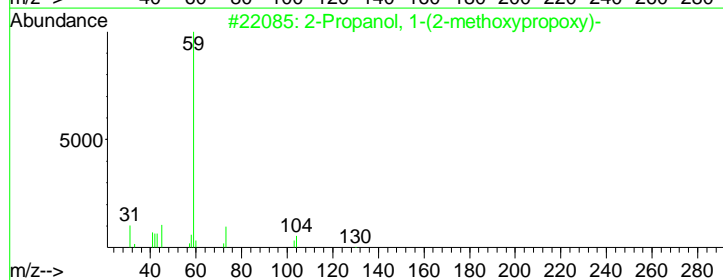
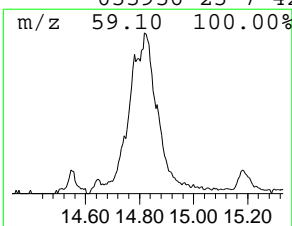
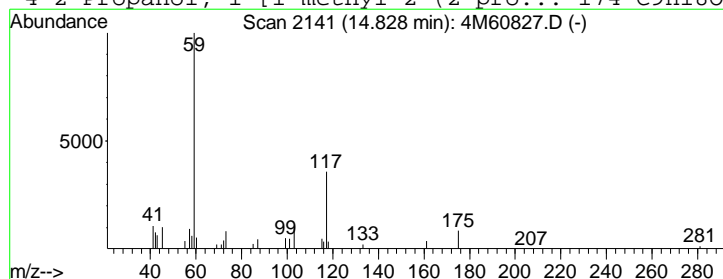
Vial: 12
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 2 2-Propanol, 1-(2-methoxypro... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.83	7.27 ug/ml	435778	Chrysene-d12	15.60

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2-Propanol, 1-(2-methoxypropoxy)-	148	C7H16O3	013429-07-7	43
2		1-Propanol, 2-(2-methoxy-1-methy...	148	C7H16O3	055956-21-3	42
3		2-Propanol, 1-[2-(2-methoxy-1-me...	206	C10H22O4	020324-33-8	42
4		2-Propanol, 1-[1-methyl-2-(2-pro...	174	C9H18O3	055956-25-7	42



Tentatively Identified Compound (LSC) summary

Operator ID: CAA Date Acquired: 12 May 2012 17:11
 Data File: I:\MSDCHEM\1\DATA\051212\4M60827.D
 Name: L12050050-01
 Misc: 1,1
 Method: I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title: OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library Searched: I:\DATABASE\NIST02.L

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
1-Propanol, 2-(2-...	13.43	4.3	ug/ml	247946	4	11.92	2332730	40.0
2-Propanol, 1-(2-...	14.83	7.3	ug/ml	435778	5	15.60	2398950	40.0

Data File : I:\MSDCHEM\1\DATA\051212\4M60828.D Vial: 13
 Acq On : 12 May 2012 17:45 Operator: CAA
 Sample : L12050050-03 Inst : HPMS4
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:40:50 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Mon May 14 11:40:35 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.23	152	254102	40.00	ug/ml	0.00
30) Naphthalene-d8	8.51	136	953730	40.00	ug/ml	0.00
54) Acenaphthene-d10	10.32	164	526337	40.00	ug/ml	0.00
87) Phenanthrene-d10	11.92	188	955594	40.00	ug/ml	0.00
113) Chrysene-d12	15.60	240	905139	40.00	ug/ml	-0.01
128) Perylene-d12	18.32	264	885690	40.00	ug/ml	-0.02

System Monitoring Compounds

8) 2-Fluorophenol	6.00	112	639630	83.0232	ug/ml	0.00
Spiked Amount	100.000	Range	21 - 100	Recovery	=	83.02%
12) Phenol-d5	6.83	99	801004	88.8351	ug/ml	0.00
Spiked Amount	100.000	Range	10 - 94	Recovery	=	88.84%
31) Nitrobenzene-d5	7.79	82	395022	48.9706	ug/ml	0.00
Spiked Amount	50.000	Range	35 - 114	Recovery	=	97.94%
59) 2-Fluorobiphenyl	9.58	172	836545	47.5970	ug/ml	0.00
Spiked Amount	50.000	Range	43 - 116	Recovery	=	95.20%
86) 2,4,6-Tribromophenol	11.14	330	214578	91.4216	ug/ml	0.00
Spiked Amount	100.000	Range	10 - 123	Recovery	=	91.42%
117) p-Terphenyl-d14	13.95	244	861118	51.6173	ug/ml	0.00
Spiked Amount	50.000	Range	33 - 141	Recovery	=	103.24%

Target Compounds

Qvalue

 (#) = qualifier out of range (m) = manual integration
 4M60828.D MEGAMIX.M Mon May 14 11:46:30 2012

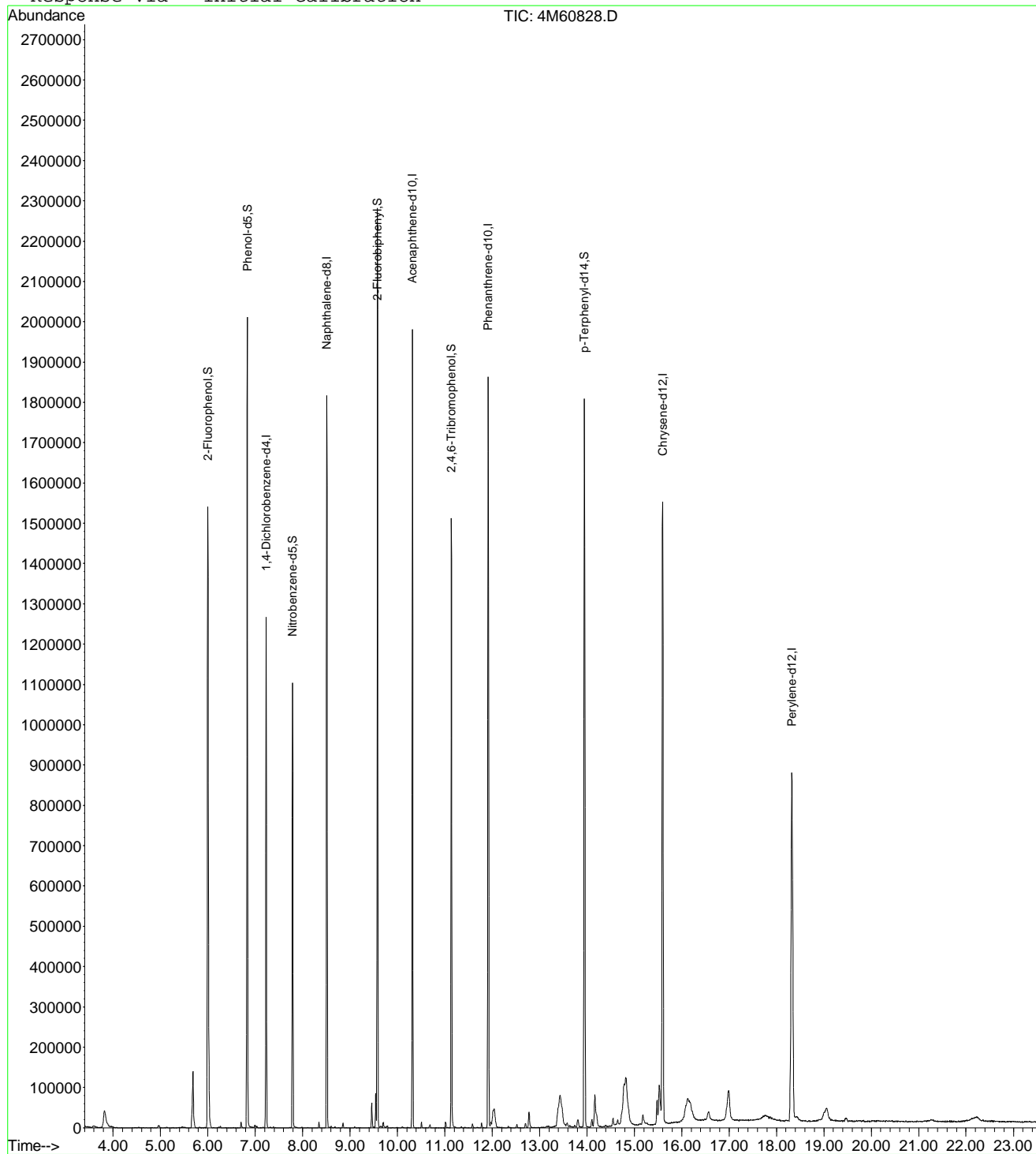
Page 1

Data File : I:\MSDCHEM\1\DATA\051212\4M60828.D
 Acq On : 12 May 2012 17:45
 Sample : L12050050-03
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:40 2012

Vial: 13
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Mon May 14 11:40:35 2012
 Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\051212\4M60828.D Vial: 13
 Acq On : 12 May 2012 17:45 Operator: CAA
 Sample : L12050050-03 Inst : HPMS4
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:54:27 2012 Quant Results File: TCL.RES

Quant Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Mon May 14 11:53:23 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.23	152	254102	40.00	ug/mL	0.00
3) Naphthalene-d8	8.51	136	953730	40.00	ug/mL	0.00
5) Acenaphthene-d10	10.32	164	526337	40.00	ug/mL	0.00
7) Phenanthrene-d10	11.92	188	955594	40.00	ug/mL	0.00

Target Compounds Qvalue

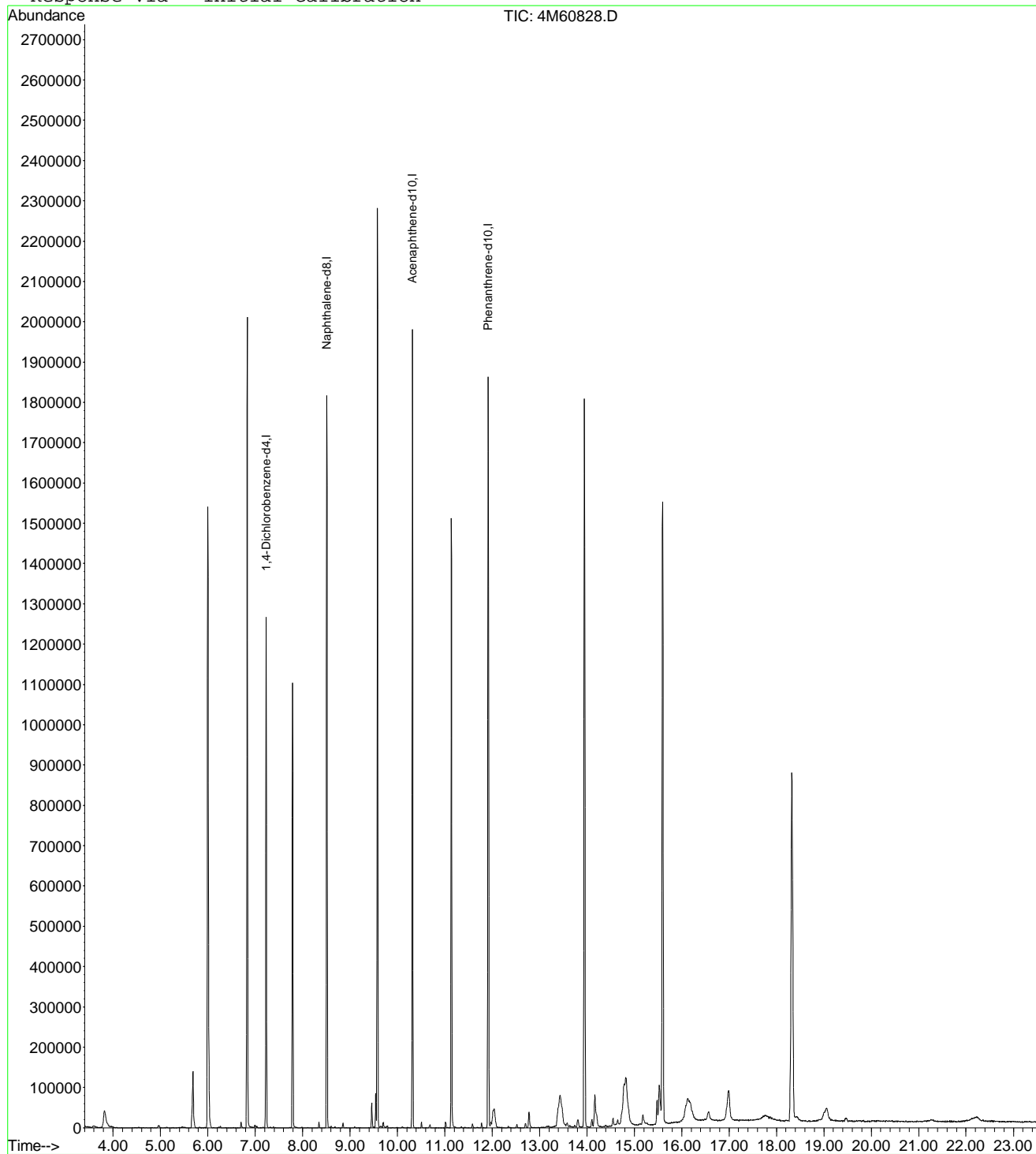
 (#) = qualifier out of range (m) = manual integration
 4M60828.D TCL.M Mon May 14 11:54:28 2012

Data File : I:\MSDCHEM\1\DATA\051212\4M60828.D
 Acq On : 12 May 2012 17:45
 Sample : L12050050-03
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:54 2012

Vial: 13
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: TCL.RES

Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Mon May 14 11:53:23 2012
 Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\051212\4M60828.D Vial: 13
 Acq On : 12 May 2012 17:45 Operator: CAA
 Sample : L12050050-03 Inst : HPMS4
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: LSCINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Smoothing : ON Filtering: 5
 Sampling : 1 Min Area: 1 % of largest Peak
 Start Thrs: 0.05 Max Peaks: 100
 Stop Thrs : 0 Peak Location: TOP

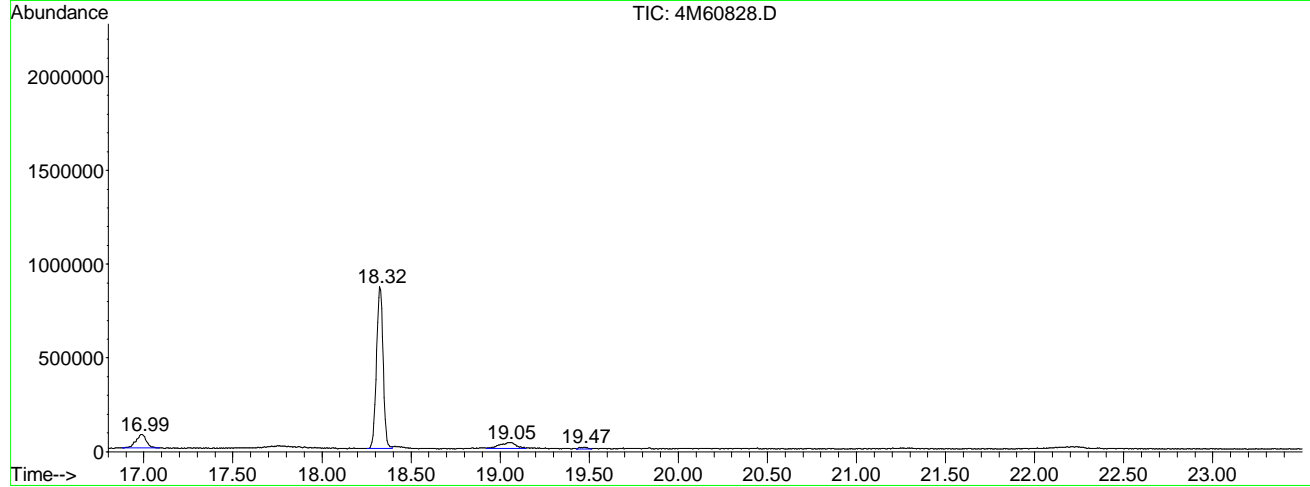
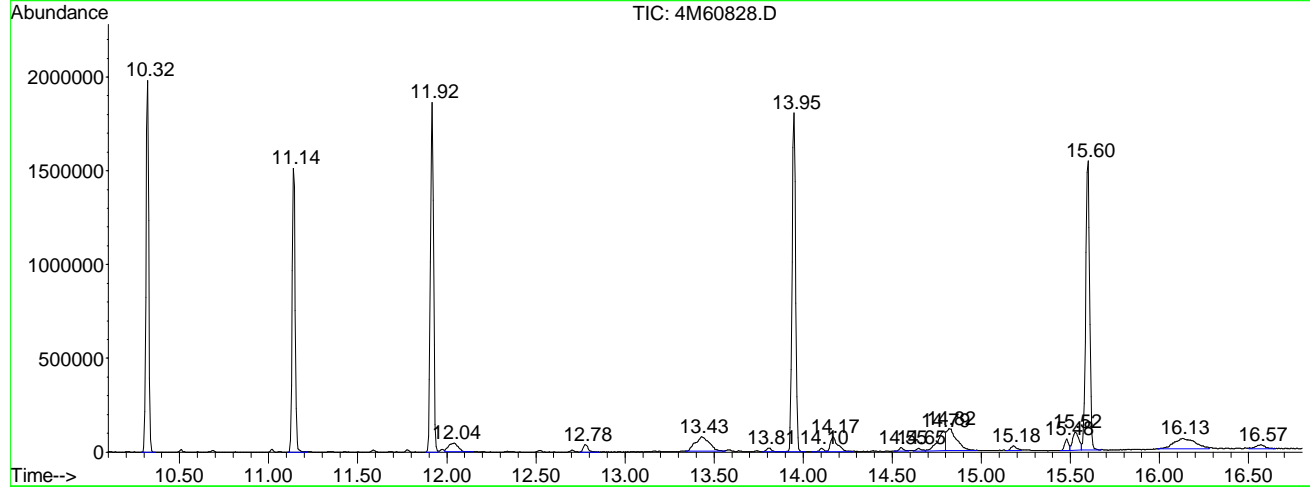
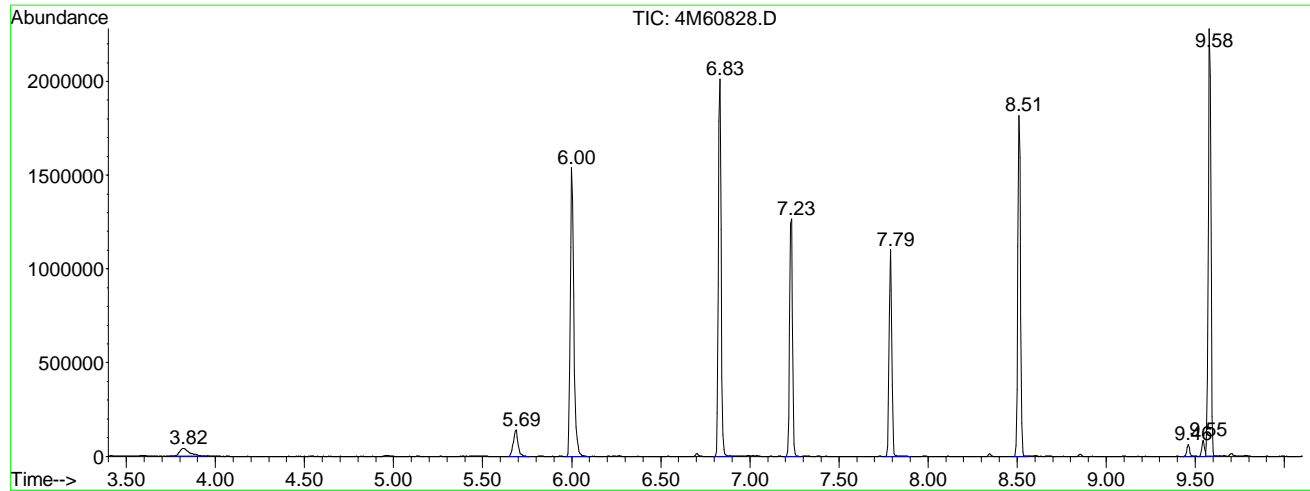
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.820	67	80	103	rBV3	41785	167865	6.83%	0.597%
2	5.689	421	430	442	rBB2	139545	257063	10.47%	0.914%
3	5.999	482	488	505	rBB	1540578	2110158	85.92%	7.504%
4	6.833	637	644	657	rBV	2011279	2178050	88.68%	7.745%
5	7.233	712	719	728	rBB	1267413	1447572	58.94%	5.147%
6	7.789	817	823	843	rBB	1103991	1154747	47.02%	4.106%
7	8.510	952	958	968	rBV	1817064	1886647	76.82%	6.709%
8	9.461	1130	1136	1141	rBV2	62033	67188	2.74%	0.239%
9	9.546	1147	1152	1154	rBV	85198	89523	3.65%	0.318%
10	9.578	1154	1158	1166	rVB	2281395	2345228	95.49%	8.339%
11	10.321	1290	1297	1304	rBB	1980648	2071542	84.35%	7.366%
12	11.138	1444	1450	1464	rBV	1512870	1731939	70.52%	6.159%
13	11.918	1589	1596	1602	rBV	1863416	2289163	93.21%	8.140%
14	12.041	1609	1619	1638	rVB4	46473	178783	7.28%	0.636%
15	12.778	1751	1757	1770	rBB2	39569	74361	3.03%	0.264%
16	13.430	1862	1879	1903	rBV2	77928	434881	17.71%	1.546%
17	13.809	1943	1950	1963	rVB2	18912	41644	1.70%	0.148%
18	13.948	1966	1976	1987	rVV	1807278	2456003	100.00%	8.733%
19	14.103	1994	2005	2010	rBV3	20014	30686	1.25%	0.109%
20	14.167	2010	2017	2037	rVB2	79687	211726	8.62%	0.753%
21	14.547	2082	2088	2096	rBV2	20220	38926	1.58%	0.138%
22	14.648	2101	2107	2114	rVV7	14801	32242	1.31%	0.115%
23	14.787	2114	2133	2135	rVV3	102850	318869	12.98%	1.134%
24	14.819	2135	2139	2167	rVB2	116950	461694	18.80%	1.642%
25	15.182	2199	2207	2215	rBV4	24378	56523	2.30%	0.201%
26	15.481	2256	2263	2266	rBV	60414	94295	3.84%	0.335%
27	15.524	2266	2271	2278	rVV3	96657	244156	9.94%	0.868%
28	15.599	2278	2285	2298	rVB	1542418	2348759	95.63%	8.352%
29	16.128	2358	2384	2412	rBV2	56205	477711	19.45%	1.699%
30	16.566	2454	2466	2480	rVB7	21388	71343	2.90%	0.254%
31	16.993	2525	2546	2563	rBV4	72326	293774	11.96%	1.045%
32	18.323	2782	2795	2808	rBV	864202	2235351	91.02%	7.949%
33	19.050	2907	2931	2948	rVB7	30996	194467	7.92%	0.692%
34	19.467	3002	3009	3017	rVB7	10235	29164	1.19%	0.104%

Sum of corrected areas: 28122043

File : I:\MSDCHEM\1\DATA\051212\4M60828.D
 Operator : CAA
 Acquired : 12 May 2012 17:45 using AcqMethod BNATEST
 Instrument : HPMS4
 Sample Name: L12050050-03
 Misc Info : 1,1
 Vial Number: 13
 Quant File : MEGAMIX.RES (RTE Integrator)



Data File : I:\MSDCHEM\1\DATA\051212\4M60828.D
 Acq On : 12 May 2012 17:45
 Sample : L12050050-03
 Misc : 1,1
 MS Integration Params: LSCINT.P

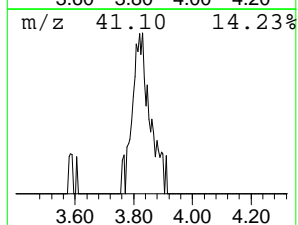
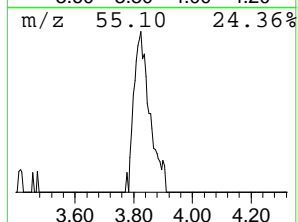
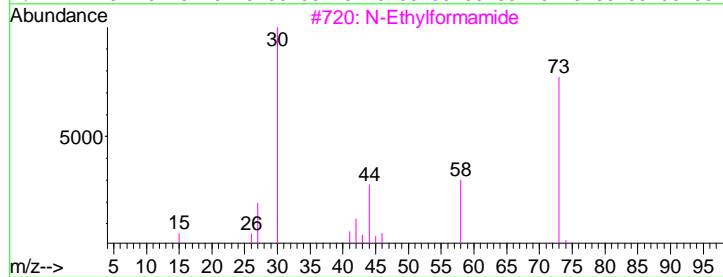
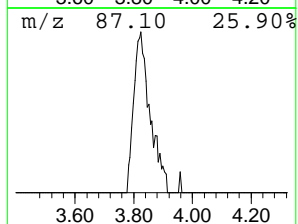
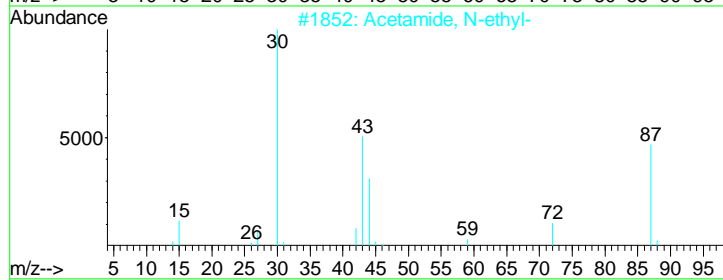
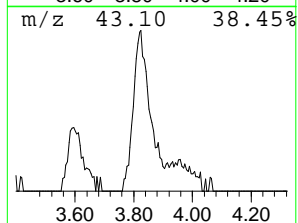
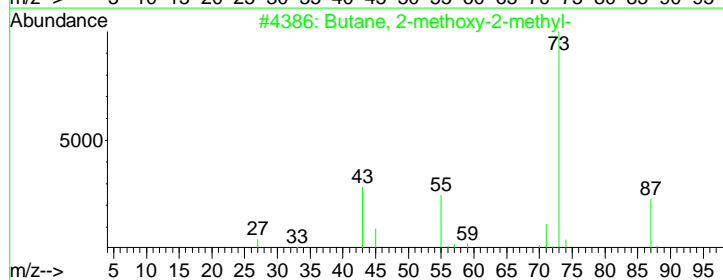
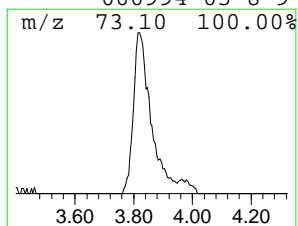
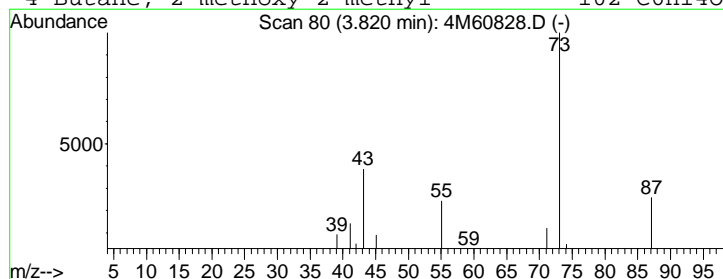
Vial: 13
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 1 Butane, 2-methoxy-2-methyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.82	4.64 ug/ml	167865	1,4-Dichlorobenzene-d4	7.23

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Butane, 2-methoxy-2-methyl-	102	C6H14O	000994-05-8	74
2			Acetamide, N-ethyl-	87	C4H9NO	000625-50-3	9
3			N-Ethylformamide	73	C3H7NO	000627-45-2	9
4			Butane, 2-methoxy-2-methyl-	102	C6H14O	000994-05-8	9



Data File : I:\MSDCHEM\1\DATA\051212\4M60828.D
 Acq On : 12 May 2012 17:45
 Sample : L12050050-03
 Misc : 1,1
 MS Integration Params: LSCINT.P

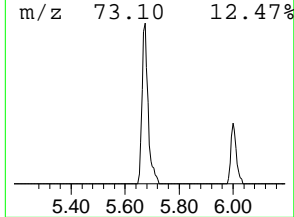
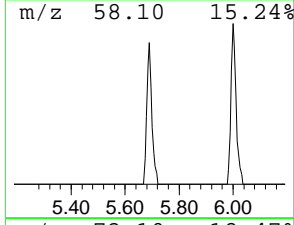
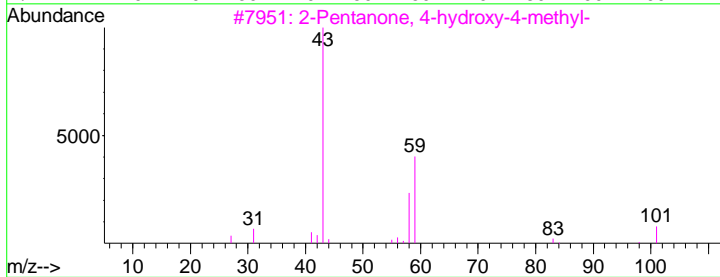
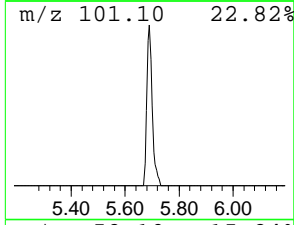
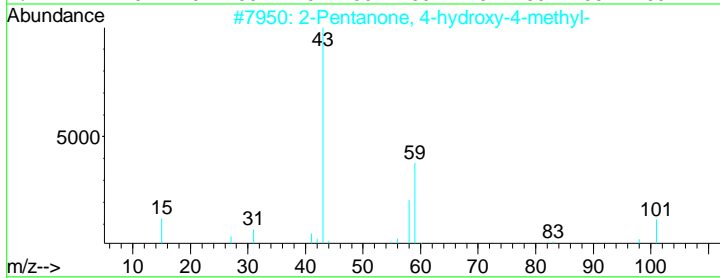
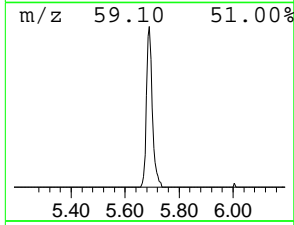
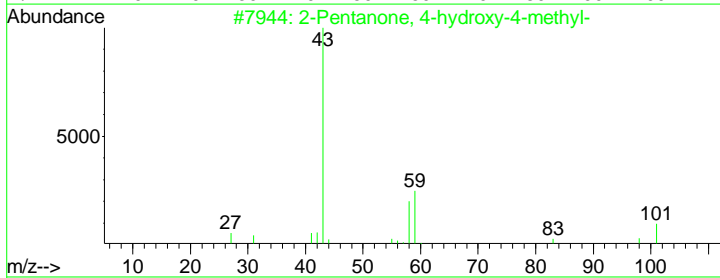
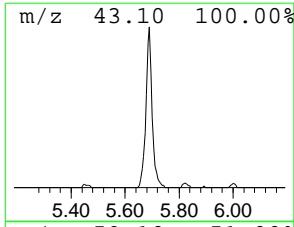
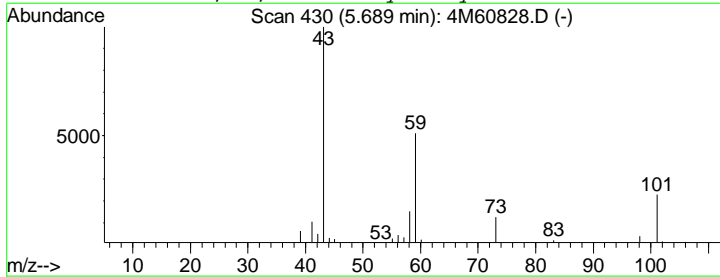
Vial: 13
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 2 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.69	7.10 ug/ml	257063	1,4-Dichlorobenzene-d4	7.23

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	59
2			2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	42
3			2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	39
4			Acetic acid, 1,1-dimethylethyl e...	116	C6H12O2	000540-88-5	36



Data File : I:\MSDCHEM\1\DATA\051212\4M60828.D
 Acq On : 12 May 2012 17:45
 Sample : L12050050-03
 Misc : 1,1
 MS Integration Params: LSCINT.P

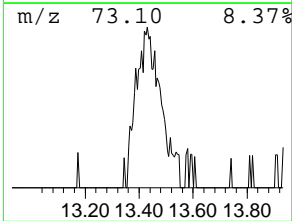
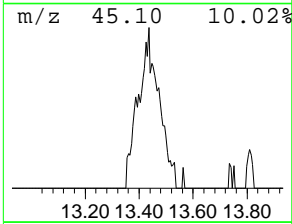
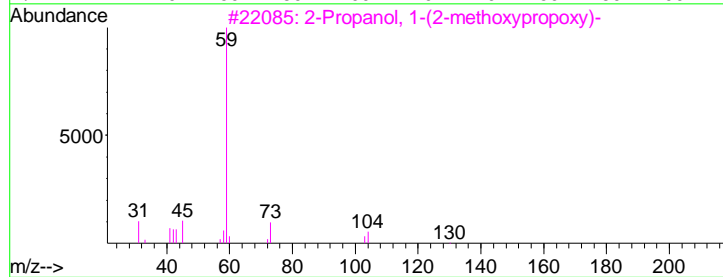
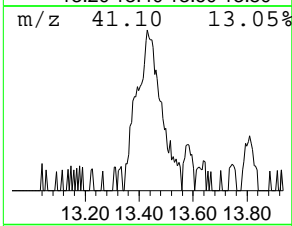
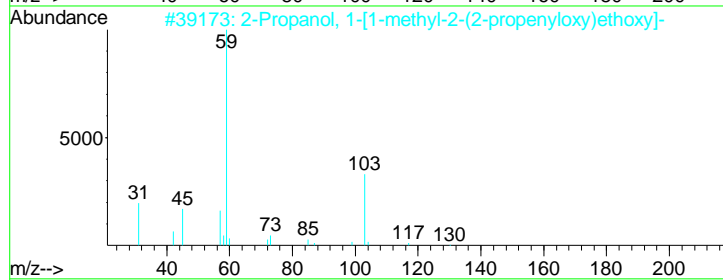
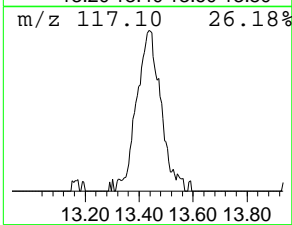
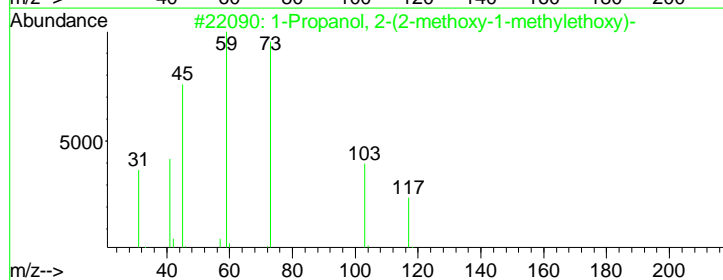
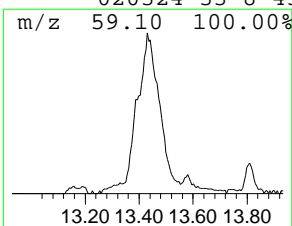
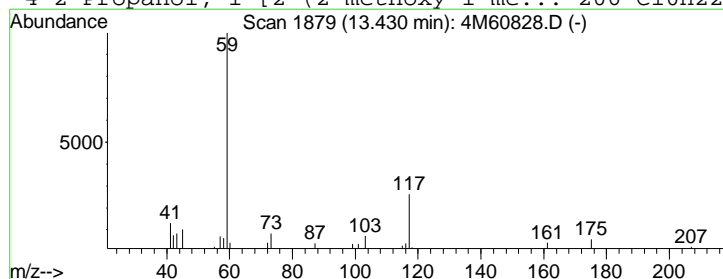
Vial: 13
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 3 1-Propanol, 2-(2-methoxy-1-... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.43	7.60 ug/ml	434881	Phenanthrene-d10	11.92

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1-Propanol, 2-(2-methoxy-1-methy...	148	C7H16O3	055956-21-3	53
2		2-Propanol, 1-[1-methyl-2-(2-pro...	174	C9H18O3	055956-25-7	50
3		2-Propanol, 1-(2-methoxypropoxy)-	148	C7H16O3	013429-07-7	47
4		2-Propanol, 1-[2-(2-methoxy-1-me...	206	C10H22O4	020324-33-8	45



Data File : I:\MSDCHEM\1\DATA\051212\4M60828.D
 Acq On : 12 May 2012 17:45
 Sample : L12050050-03
 Misc : 1,1
 MS Integration Params: LSCINT.P

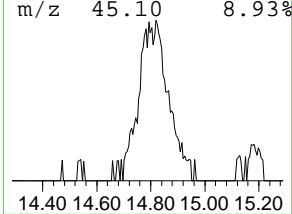
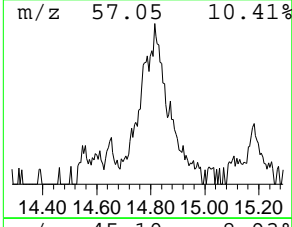
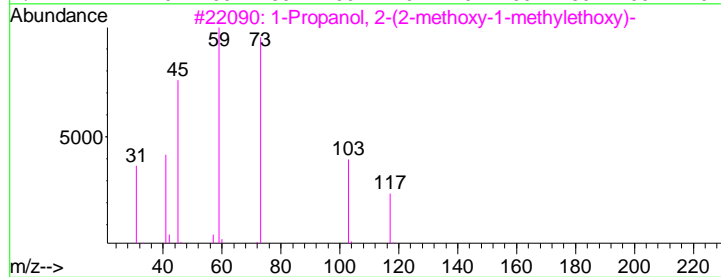
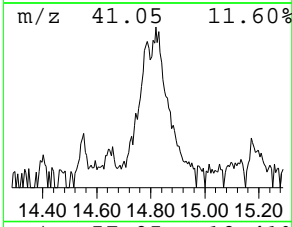
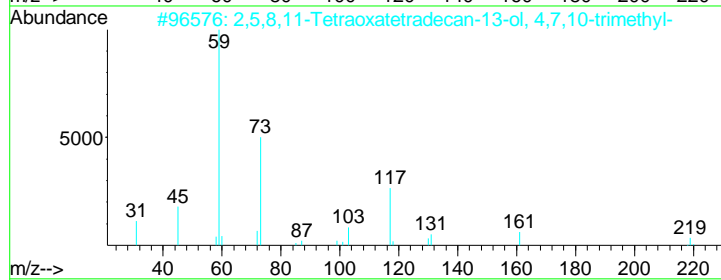
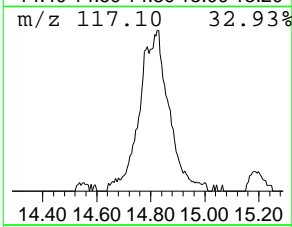
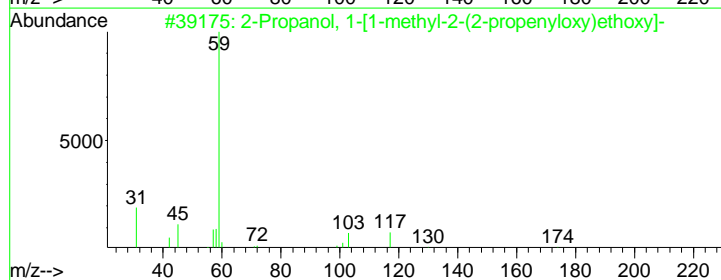
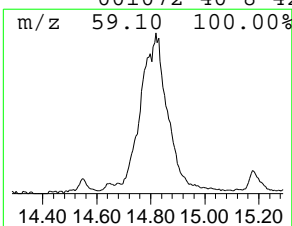
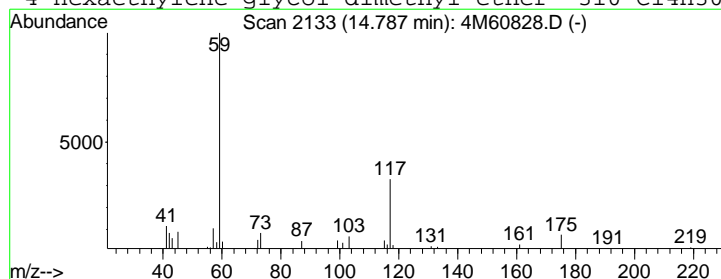
Vial: 13
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 4 2-Propanol, 1-[1-methyl-2-(... Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.79	5.43 ug/ml	318869	Chrysene-d12	15.60

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2-Propanol, 1-[1-methyl-2-(2-pro...	174	C9H18O3	055956-25-7	50
2		2,5,8,11-Tetraoxatetradecan-13-o...	264	C13H28O5	020324-34-9	50
3		1-Propanol, 2-(2-methoxy-1-methy...	148	C7H16O3	055956-21-3	45
4		Hexaethylene glycol dimethyl ether	310	C14H30O7	001072-40-8	42



Data File : I:\MSDCHEM\1\DATA\051212\4M60828.D
 Acq On : 12 May 2012 17:45
 Sample : L12050050-03
 Misc : 1,1
 MS Integration Params: LSCINT.P

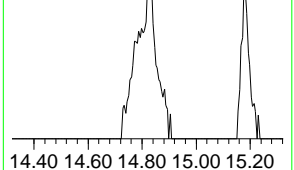
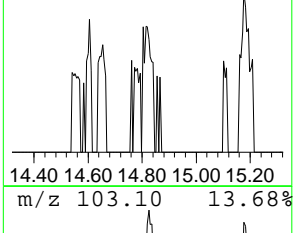
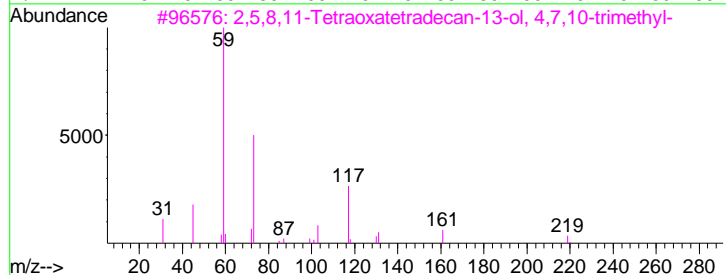
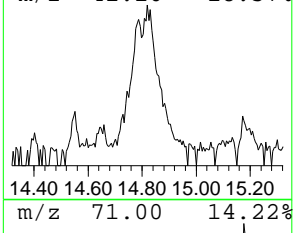
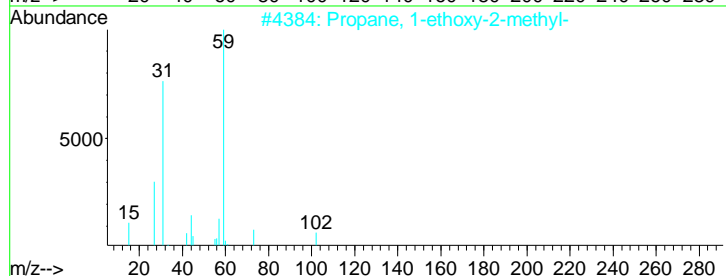
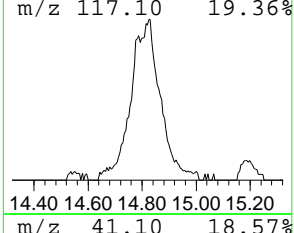
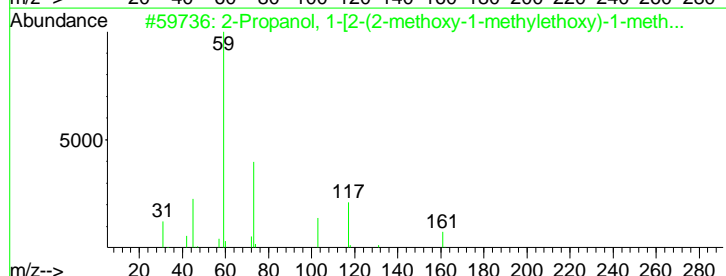
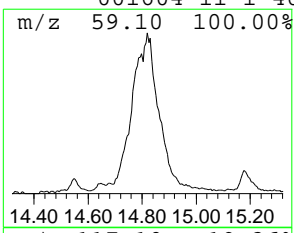
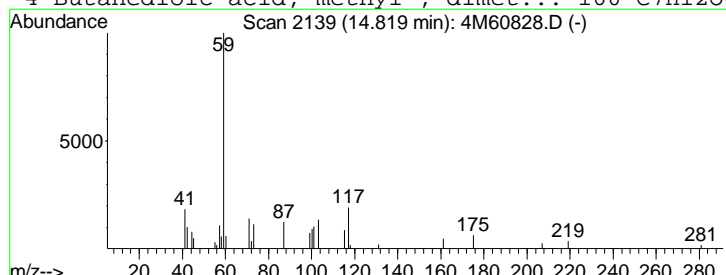
Vial: 13
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 5 2-Propanol, 1-[2-(2-methoxy... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.82	7.86 ug/ml	461694	Chrysene-d12	15.60

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2-Propanol, 1-[2-(2-methoxy-1-me...	206	C10H22O4	020324-33-8	50
2		Propane, 1-ethoxy-2-methyl-	102	C6H14O	000627-02-1	43
3		2,5,8,11-Tetraoxatetradecan-13-o...	264	C13H28O5	020324-34-9	42
4		Butanedioic acid, methyl-, dimet...	160	C7H12O4	001604-11-1	40



Data File : I:\MSDCHEM\1\DATA\051212\4M60828.D
 Acq On : 12 May 2012 17:45
 Sample : L12050050-03
 Misc : 1,1
 MS Integration Params: LSCINT.P

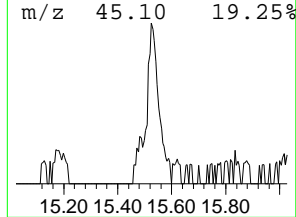
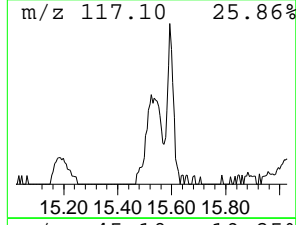
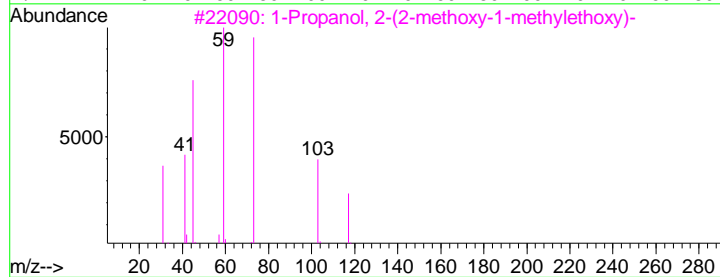
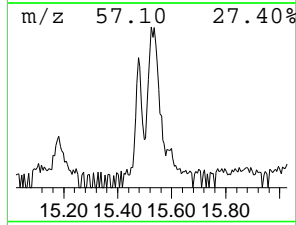
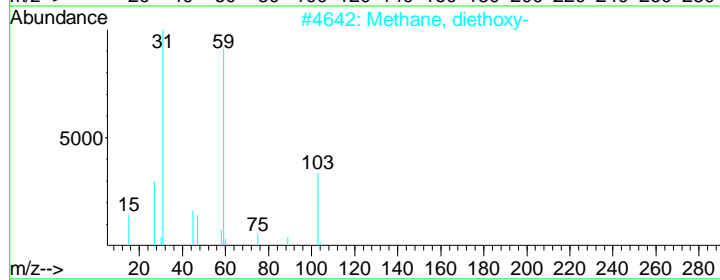
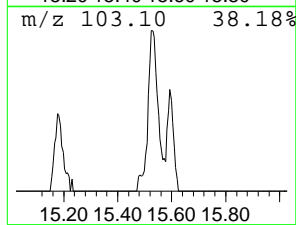
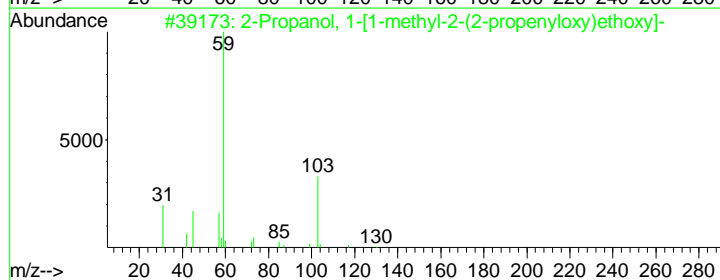
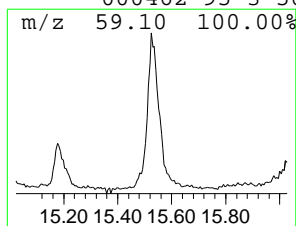
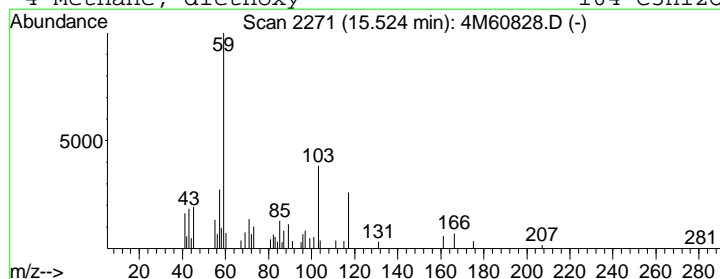
Vial: 13
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 6 2-Propanol, 1-[1-methyl-2-(... Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.52	4.16 ug/ml	244156	Chrysene-d12	15.60

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			2-Propanol, 1-[1-methyl-2-(2-pro...	174	C9H18O3	055956-25-7	53
2			Methane, diethoxy-	104	C5H12O2	000462-95-3	53
3			1-Propanol, 2-(2-methoxy-1-methy...	148	C7H16O3	055956-21-3	50
4			Methane, diethoxy-	104	C5H12O2	000462-95-3	50



Data File : I:\MSDCHEM\1\DATA\051212\4M60828.D
 Acq On : 12 May 2012 17:45
 Sample : L12050050-03
 Misc : 1,1
 MS Integration Params: LSCINT.P

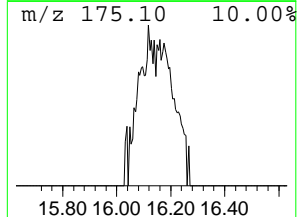
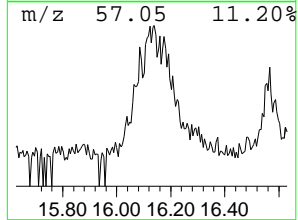
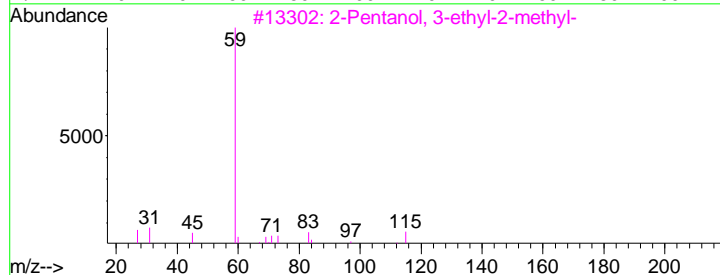
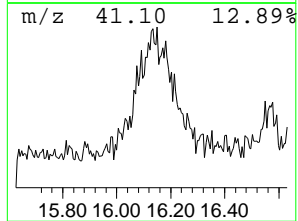
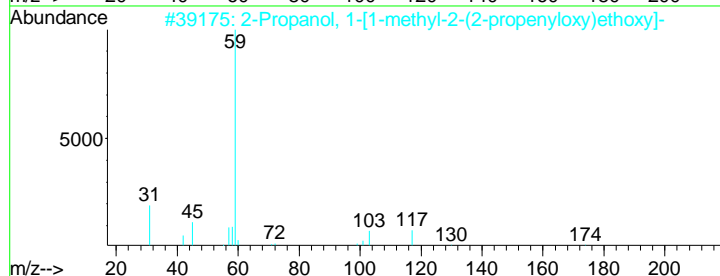
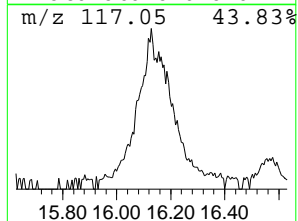
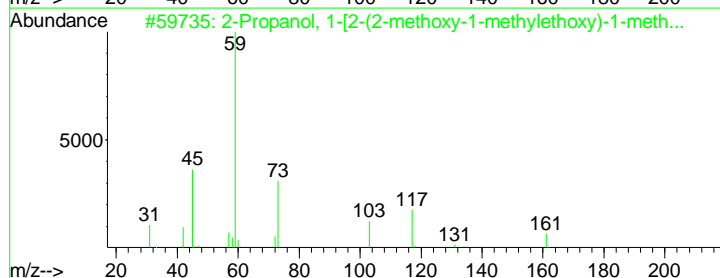
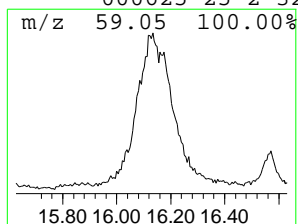
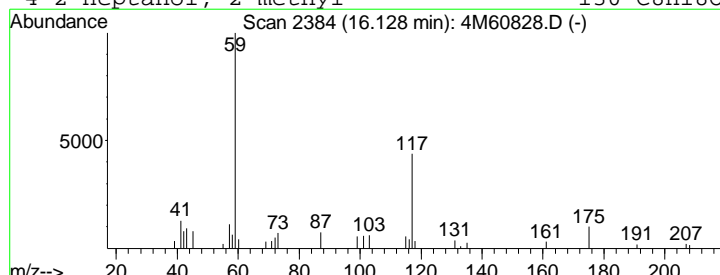
Vial: 13
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 7 2-Propanol, 1-[2-(2-methoxy... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.13	8.14 ug/ml	477711	Chrysene-d12	15.60

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2-Propanol, 1-[2-(2-methoxy-1-me...	206	C10H22O4	020324-33-8	38
2		2-Propanol, 1-[1-methyl-2-(2-pro...	174	C9H18O3	055956-25-7	37
3		2-Pentanol, 3-ethyl-2-methyl-	130	C8H18O	019780-63-3	32
4		2-Heptanol, 2-methyl-	130	C8H18O	000625-25-2	32



Data File : I:\MSDCHEM\1\DATA\051212\4M60828.D
 Acq On : 12 May 2012 17:45
 Sample : L12050050-03
 Misc : 1,1
 MS Integration Params: LSCINT.P

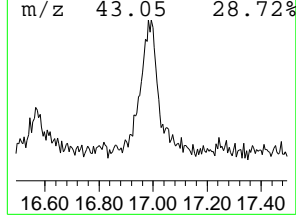
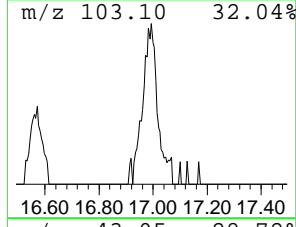
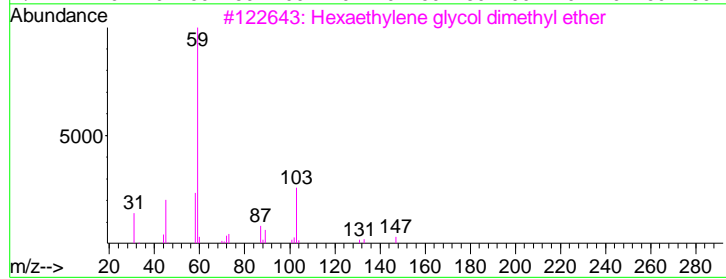
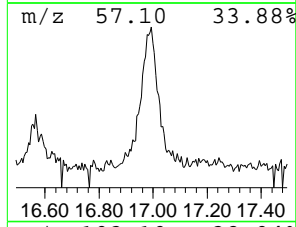
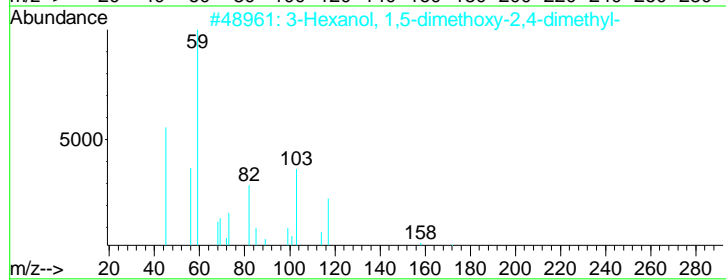
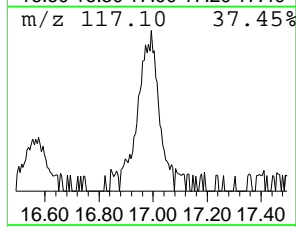
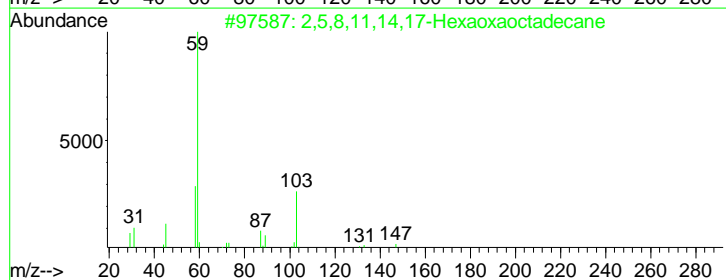
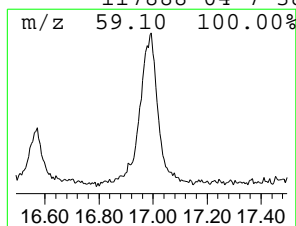
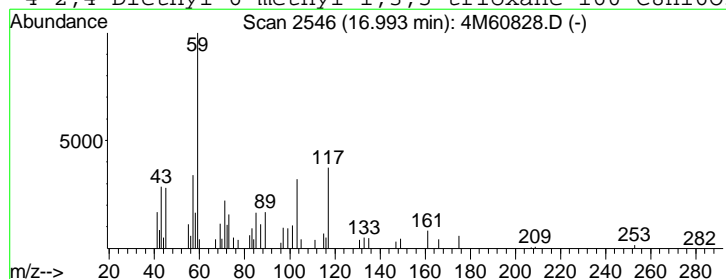
Vial: 13
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 8 2,5,8,11,14,17-Hexaoxaoctad... Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.99	5.26 ug/ml	293774	Perylene-d12	18.32

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2,5,8,11,14,17-Hexaoxaoctadecane	266	C12H26O6	001191-87-3	50
2		3-Hexanol, 1,5-dimethoxy-2,4-dim...	190	C10H22O3	013897-22-8	50
3		Hexaethylene glycol dimethyl ether	310	C14H30O7	001072-40-8	40
4		2,4-Diethyl-6-methyl-1,3,5-trioxane	160	C8H16O3	117888-04-7	38



Tentatively Identified Compound (LSC) summary

Operator ID: CAA Date Acquired: 12 May 2012 17:45
Data File: I:\MSDCHEM\1\DATA\051212\4M60828.D
Name: L12050050-03
Misc: 1,1
Method: I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title: OVD MSS01 8270/625 Initial Calibration 04/19/12
Library Searched: I:\DATABASE\NIST02.L

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
Butane, 2-methoxy...	3.82	4.6	ug/ml	167865	1	7.23	1447570	40.0
2-Pentanone, 4-hy...	5.69	7.1	ug/ml	257063	1	7.23	1447570	40.0
1-Propanol, 2-(2-...	13.43	7.6	ug/ml	434881	4	11.92	2289160	40.0
2-Propanol, 1-[1-...	14.79	5.4	ug/ml	318869	5	15.60	2348760	40.0
2-Propanol, 1-[2-...	14.82	7.9	ug/ml	461694	5	15.60	2348760	40.0
2-Propanol, 1-[1-...	15.52	4.2	ug/ml	244156	5	15.60	2348760	40.0
2-Propanol, 1-[2-...	16.13	8.1	ug/ml	477711	5	15.60	2348760	40.0
2,5,8,11,14,17-He...	16.99	5.3	ug/ml	293774	6	18.32	2235350	40.0

Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D Vial: 14
 Acq On : 12 May 2012 18:21 Operator: CAA
 Sample : L12050050-05 Inst : HPMS4
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:40:51 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Mon May 14 11:40:35 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.23	152	257288	40.00	ug/ml	0.00
30) Naphthalene-d8	8.51	136	956397	40.00	ug/ml	0.00
54) Acenaphthene-d10	10.32	164	537825	40.00	ug/ml	0.00
87) Phenanthrene-d10	11.92	188	961810	40.00	ug/ml	0.00
113) Chrysene-d12	15.60	240	907462	40.00	ug/ml	-0.01
128) Perylene-d12	18.33	264	894967	40.00	ug/ml	-0.01
System Monitoring Compounds						
8) 2-Fluorophenol	6.00	112	555517	71.2125	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery =	71.21%		
12) Phenol-d5	6.83	99	692033	75.7993	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery =	75.80%		
31) Nitrobenzene-d5	7.79	82	357482	44.1932	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	88.38%		
59) 2-Fluorobiphenyl	9.58	172	723422	40.2814	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	80.56%		
86) 2,4,6-Tribromophenol	11.14	330	229288	95.6022	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery =	95.60%		
117) p-Terphenyl-d14	13.95	244	422157	25.2402	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	50.48%		
Target Compounds						
97) Dimethoate	11.62	87	4782	Below Cal	#	22
110) Methapyrilene	13.07	58	10336	Below Cal	#	32

(#) = qualifier out of range (m) = manual integration
 4M60829.D MEGAMIX.M Mon May 14 11:46:31 2012

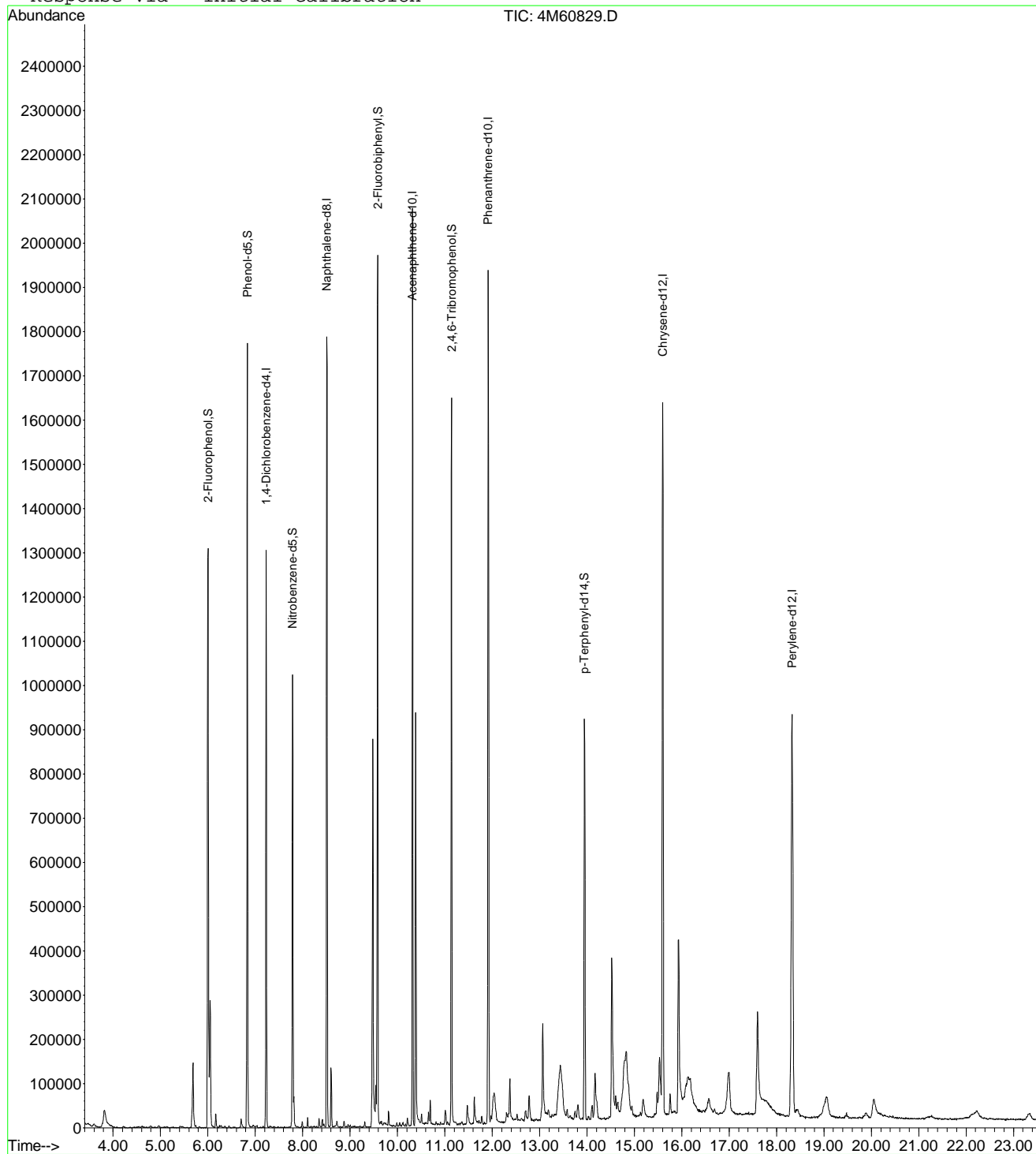
Page 1

Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D
 Acq On : 12 May 2012 18:21
 Sample : L12050050-05
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:40 2012

Vial: 14
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Mon May 14 11:40:35 2012
 Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D Vial: 14
 Acq On : 12 May 2012 18:21 Operator: CAA
 Sample : L12050050-05 Inst : HPMS4
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:54:28 2012 Quant Results File: TCL.RES

Quant Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Mon May 14 11:53:23 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.23	152	257288	40.00	ug/mL	0.00
3) Naphthalene-d8	8.51	136	956397	40.00	ug/mL	0.00
5) Acenaphthene-d10	10.32	164	537825	40.00	ug/mL	0.00
7) Phenanthrene-d10	11.92	188	961810	40.00	ug/mL	0.00

Target Compounds Qvalue

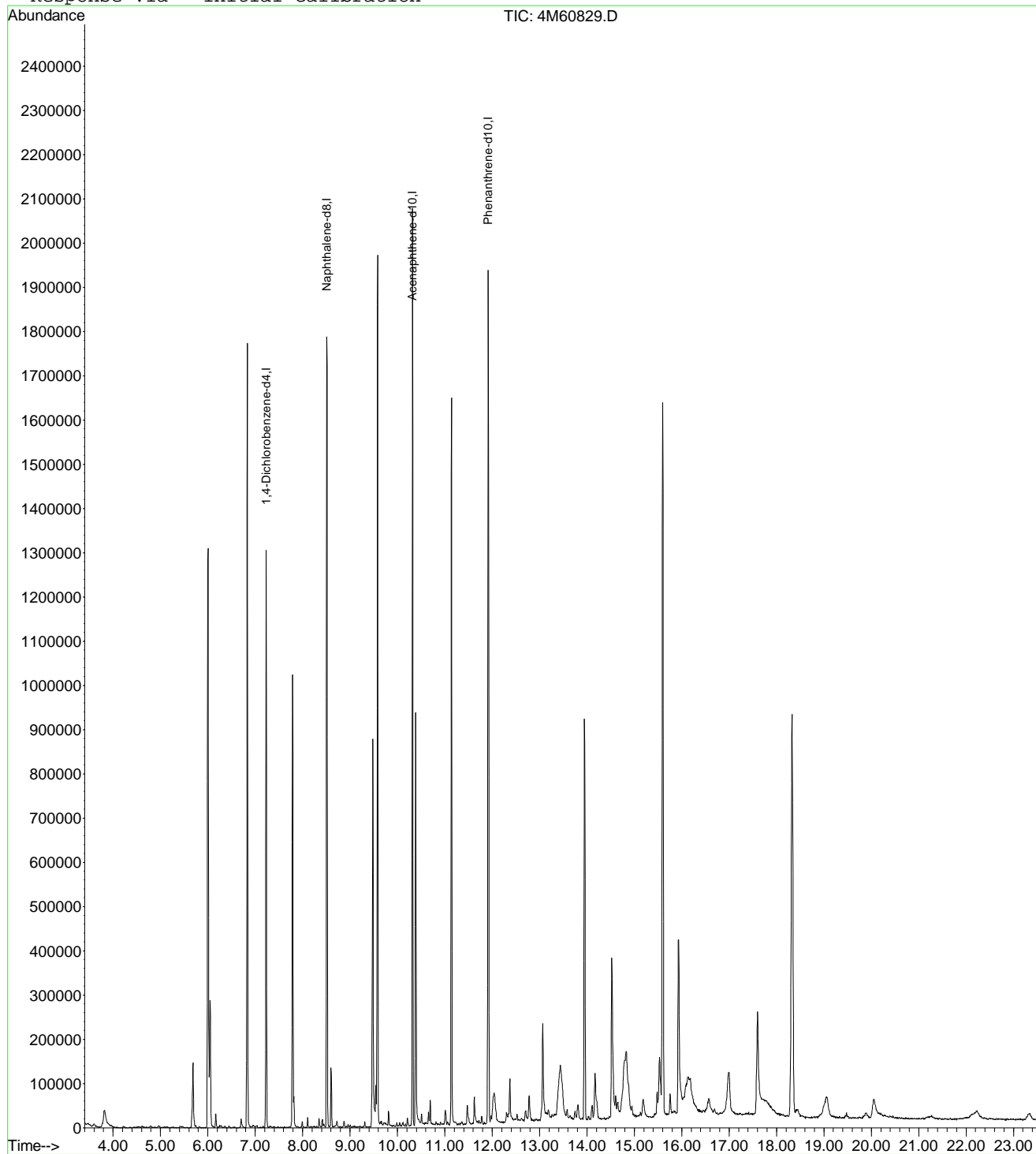
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 4M60829.D TCL.M Mon May 14 11:54:28 2012

Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D
 Acq On : 12 May 2012 18:21
 Sample : L12050050-05
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:54 2012

Vial: 14
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: TCL.RES

Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Mon May 14 11:53:23 2012
 Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D Vial: 14
 Acq On : 12 May 2012 18:21 Operator: CAA
 Sample : L12050050-05 Inst : HPMS4
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: LSCINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Smoothing : ON Filtering: 5
 Sampling : 1 Min Area: 1 % of largest Peak
 Start Thrs: 0.05 Max Peaks: 100
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 5

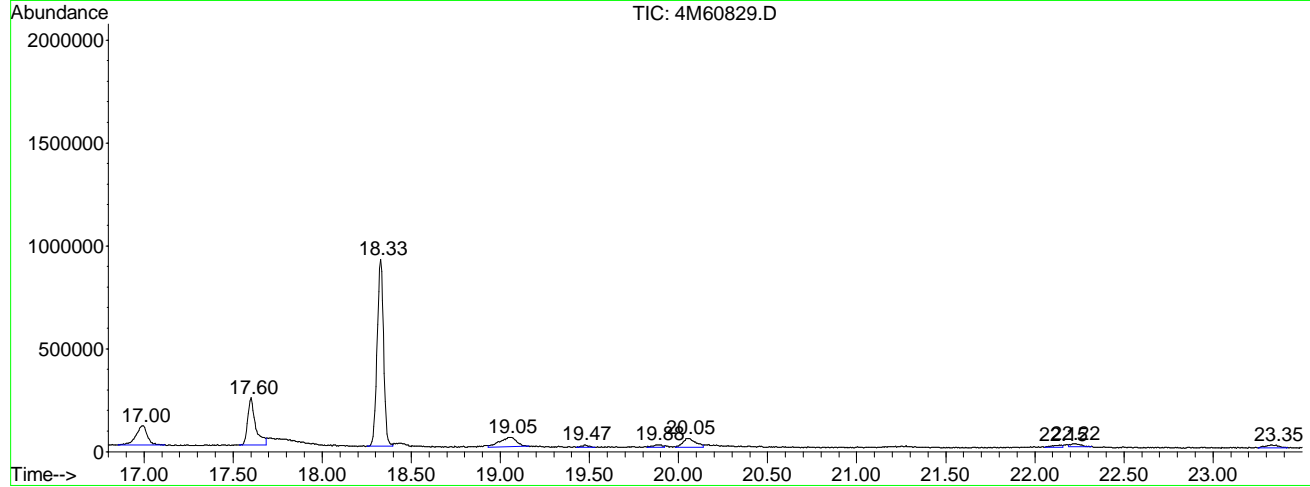
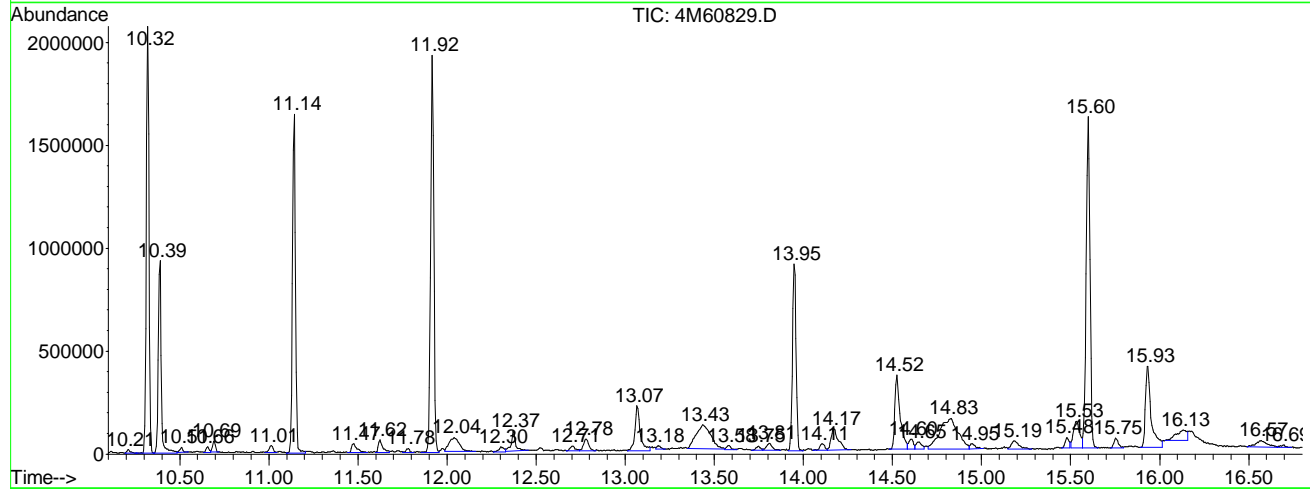
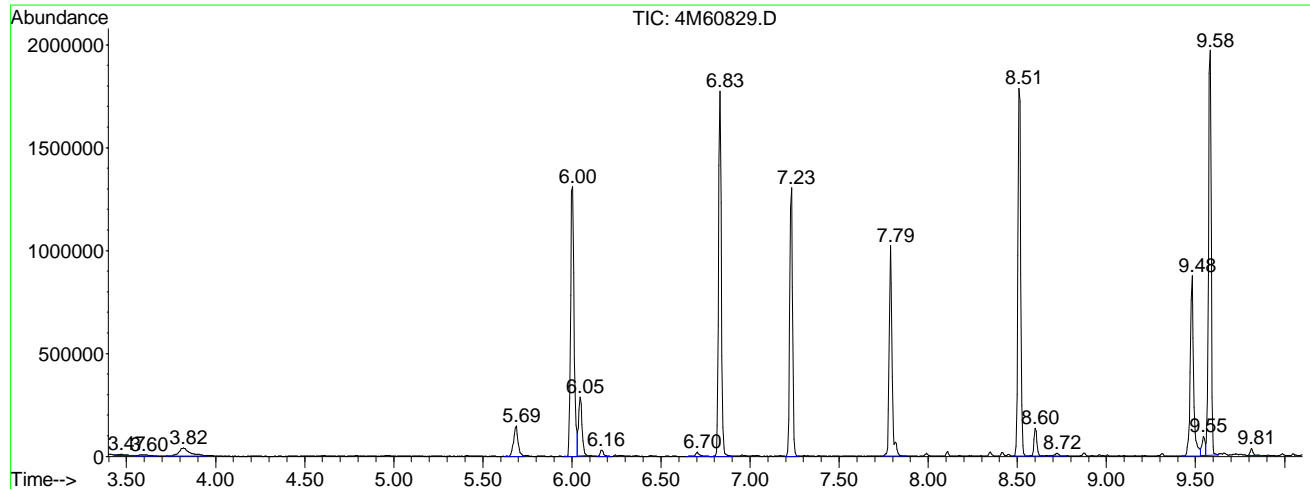
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.471	8	15	29	rVB4	6725	26494	1.11%	0.077%
2	3.599	29	39	52	rVB2	6851	24502	1.02%	0.071%
3	3.819	62	80	104	rBV3	38977	185179	7.73%	0.535%
4	5.688	418	430	438	rBV2	146481	257055	10.73%	0.743%
5	6.003	480	489	494	rBV	1310008	1795098	74.96%	5.186%
6	6.046	494	497	507	rVB	285414	379147	15.83%	1.095%
7	6.164	515	519	529	rBB	30987	41682	1.74%	0.120%
8	6.703	609	620	634	rBB2	19800	32566	1.36%	0.094%
9	6.832	635	644	657	rBV	1774271	1908553	79.70%	5.514%
10	7.232	713	719	726	rBV	1305344	1467899	61.30%	4.241%
11	7.788	815	823	839	rBV	1023375	1142306	47.70%	3.300%
12	8.509	952	958	969	rVB	1786386	1933774	80.75%	5.587%
13	8.600	969	975	984	rVB	134681	152516	6.37%	0.441%
14	8.723	989	998	1007	rVB5	14500	26550	1.11%	0.077%
15	9.481	1129	1140	1149	rBV	877267	1140369	47.62%	3.294%
16	9.545	1149	1152	1154	rVV	91159	107779	4.50%	0.311%
17	9.583	1154	1159	1167	rVB	1965218	2083471	87.00%	6.019%
18	9.812	1199	1202	1213	rVB	33836	37930	1.58%	0.110%
19	10.208	1273	1276	1285	rBV2	18818	28520	1.19%	0.082%
20	10.320	1285	1297	1303	rVV	2075034	2132877	89.06%	6.162%
21	10.389	1303	1310	1328	rBV	934671	1074589	44.87%	3.104%
22	10.512	1328	1333	1339	rVB2	22619	26682	1.11%	0.077%
23	10.656	1356	1360	1363	rBV2	27451	30395	1.27%	0.088%
24	10.694	1363	1367	1371	rVB2	53231	57805	2.41%	0.167%
25	11.014	1420	1427	1432	rBV3	33180	54139	2.26%	0.156%
26	11.143	1443	1451	1463	rBV	1644838	1904646	79.53%	5.502%
27	11.474	1507	1513	1527	rBV	43374	89892	3.75%	0.260%
28	11.623	1536	1541	1551	rBV	60901	98793	4.13%	0.285%
29	11.784	1565	1571	1576	rVB2	18381	26100	1.09%	0.075%
30	11.917	1584	1596	1603	rBV	1930815	2394777	100.00%	6.918%
31	12.040	1609	1619	1641	rVB4	66363	267582	11.17%	0.773%
32	12.302	1660	1668	1673	rBV8	24370	47990	2.00%	0.139%
33	12.371	1673	1681	1696	rVB2	95128	162754	6.80%	0.470%
34	12.708	1737	1744	1751	rBV6	24111	52039	2.17%	0.150%
35	12.783	1751	1758	1767	rVB	56768	115680	4.83%	0.334%
36	13.066	1801	1811	1825	rBV	219765	456463	19.06%	1.319%
37	13.183	1831	1833	1840	rVB7	17608	25973	1.08%	0.075%
38	13.434	1864	1880	1903	rVV	117076	671950	28.06%	1.941%
39	13.584	1903	1908	1915	rVB3	19843	30347	1.27%	0.088%
40	13.750	1932	1939	1943	rBV5	18642	31829	1.33%	0.092%
41	13.808	1943	1950	1961	rVB5	33962	78015	3.26%	0.225%
42	13.947	1970	1976	1985	rVB	907261	1247584	52.10%	3.604%

43	14.107	1996	2006	2011	rBV5	31827	59913	2.50%	0.173%
44	14.172	2011	2018	2035	rVB2	103051	286499	11.96%	0.828%
45	14.524	2076	2084	2095	rBV	360996	736529	30.76%	2.128%
46	14.604	2095	2099	2103	rVV5	49366	92044	3.84%	0.266%
47	14.652	2103	2108	2113	rVV7	34782	77325	3.23%	0.223%
48	14.829	2117	2141	2160	rVV	148354	1048297	43.77%	3.028%
49	14.952	2160	2164	2174	rVB8	23850	49662	2.07%	0.143%
50	15.187	2201	2208	2225	rVB5	39910	118711	4.96%	0.343%
51	15.480	2257	2263	2266	rBV2	50212	74436	3.11%	0.215%
52	15.534	2267	2273	2279	rVV2	129200	319094	13.32%	0.922%
53	15.598	2279	2285	2295	rVB	1609643	2384739	99.58%	6.889%
54	15.753	2309	2314	2322	rBV6	47427	83950	3.51%	0.243%
55	15.934	2340	2348	2363	rBV	392005	863192	36.04%	2.494%
56	16.132	2366	2385	2390	rBV3	48917	215996	9.02%	0.624%
57	16.570	2452	2467	2484	rVV10	32761	144480	6.03%	0.417%
58	16.693	2484	2490	2498	rVB8	11679	24111	1.01%	0.070%
59	16.998	2520	2547	2568	rVB5	93742	428237	17.88%	1.237%
60	17.601	2648	2660	2676	rBV	230199	705071	29.44%	2.037%
61	18.328	2782	2796	2809	rBV	908962	2295742	95.86%	6.632%
62	19.054	2909	2932	2951	rVB6	45564	302537	12.63%	0.874%
63	19.471	3002	3010	3020	rVB6	12380	27696	1.16%	0.080%
64	19.882	3076	3087	3094	rBV9	12323	44094	1.84%	0.127%
65	20.053	3106	3119	3135	rBV4	42232	208413	8.70%	0.602%
66	22.147	3494	3511	3513	rBV4	9191	36466	1.52%	0.105%
67	22.217	3519	3524	3542	rVB4	15462	58917	2.46%	0.170%
68	23.355	3718	3737	3748	rVB4	14861	78425	3.27%	0.227%

Sum of corrected areas: 34614867

File : I:\MSDCHEM\1\DATA\051212\4M60829.D
 Operator : CAA
 Acquired : 12 May 2012 18:21 using AcqMethod BNATEST
 Instrument : HPMS4
 Sample Name: L12050050-05
 Misc Info : 1,1
 Vial Number: 14
 Quant File :MEGAMIX.RES (RTE Integrator)



Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D
 Acq On : 12 May 2012 18:21
 Sample : L12050050-05
 Misc : 1,1
 MS Integration Params: LSCINT.P

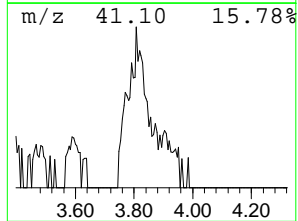
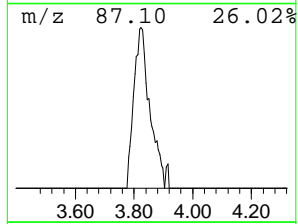
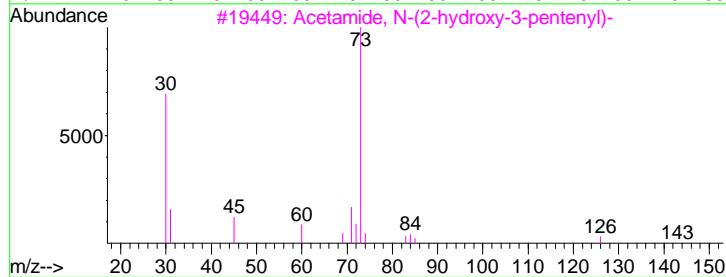
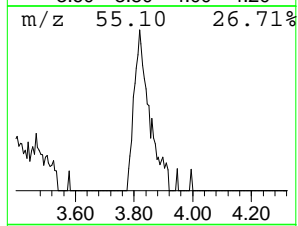
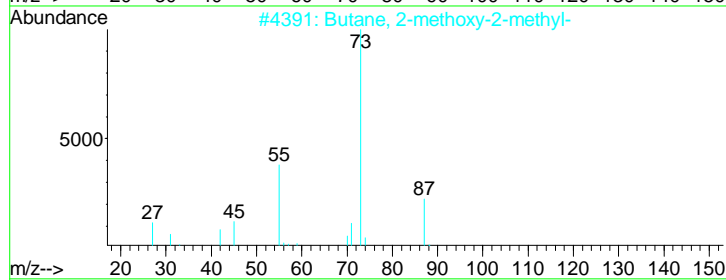
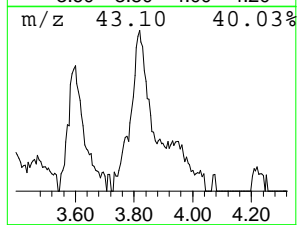
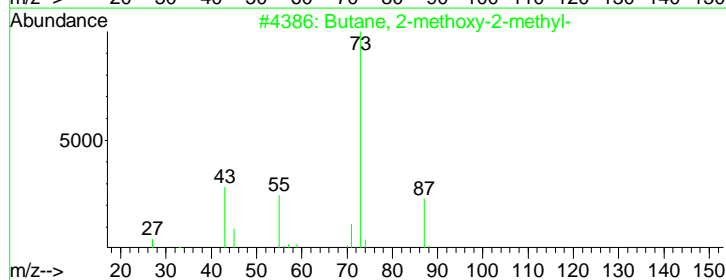
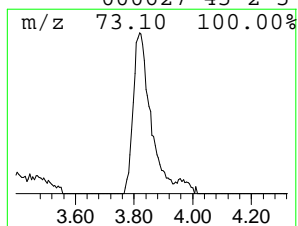
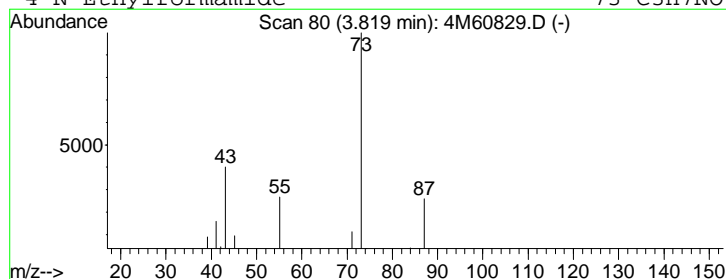
Vial: 14
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 1 Butane, 2-methoxy-2-methyl- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.82	5.05 ug/ml	185179	1,4-Dichlorobenzene-d4	7.23

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Butane, 2-methoxy-2-methyl-	102	C6H14O	000994-05-8	78
2			Butane, 2-methoxy-2-methyl-	102	C6H14O	000994-05-8	64
3			Acetamide, N-(2-hydroxy-3-penten...	143	C7H13NO2	093393-95-4	9
4			N-Ethylformamide	73	C3H7NO	000627-45-2	5



Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D
 Acq On : 12 May 2012 18:21
 Sample : L12050050-05
 Misc : 1,1
 MS Integration Params: LSCINT.P

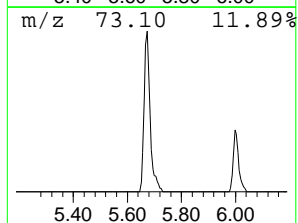
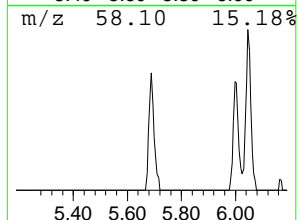
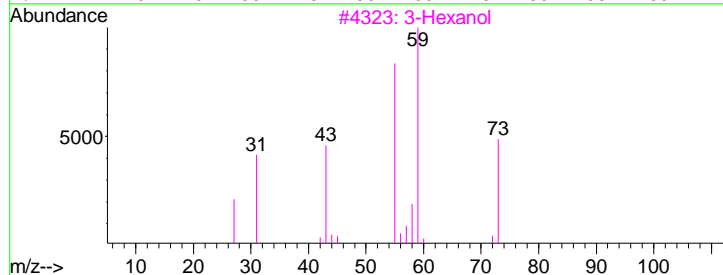
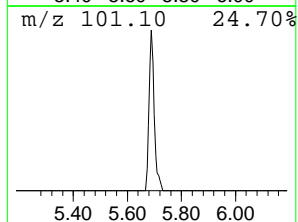
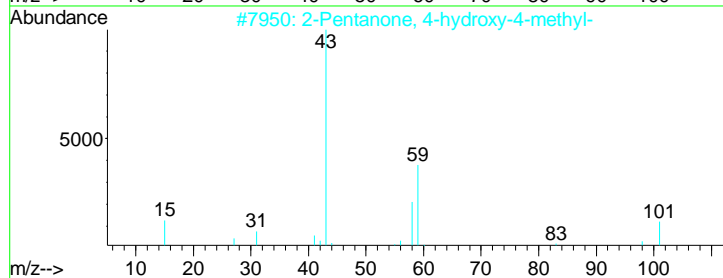
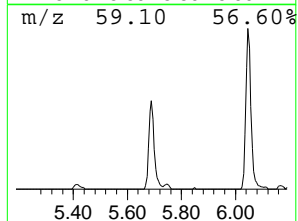
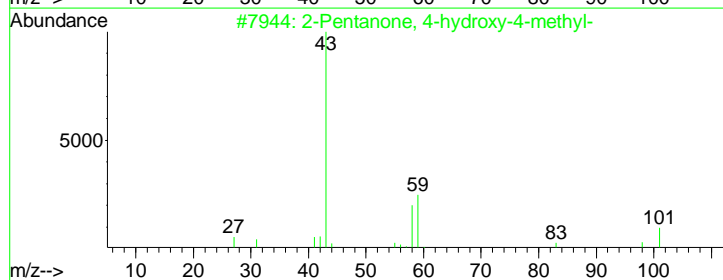
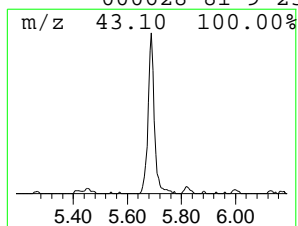
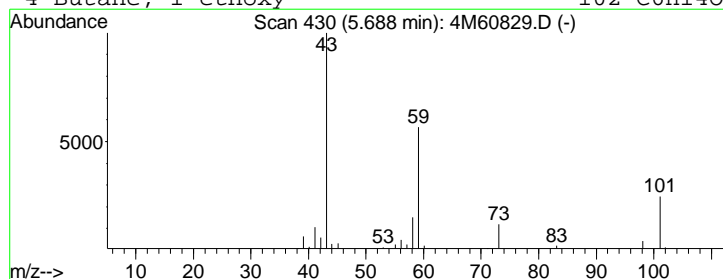
Vial: 14
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 2 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.69	7.00 ug/ml	257055	1,4-Dichlorobenzene-d4	7.23

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	59
2			2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	42
3			3-Hexanol	102	C6H14O	000623-37-0	25
4			Butane, 1-ethoxy-	102	C6H14O	000628-81-9	23



Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D
 Acq On : 12 May 2012 18:21
 Sample : L12050050-05
 Misc : 1,1
 MS Integration Params: LSCINT.P

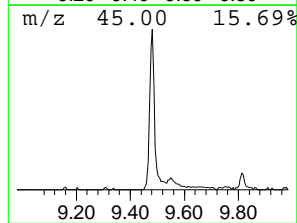
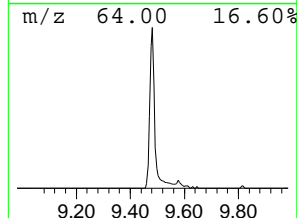
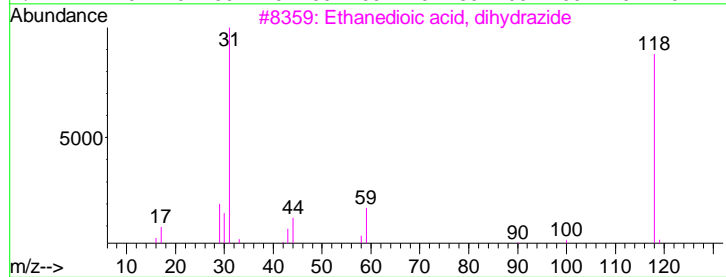
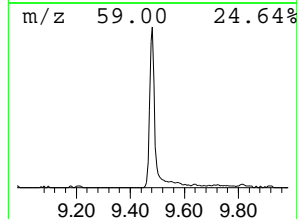
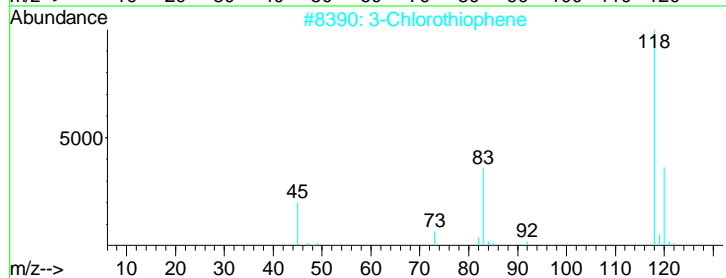
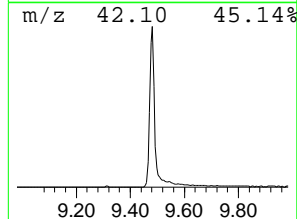
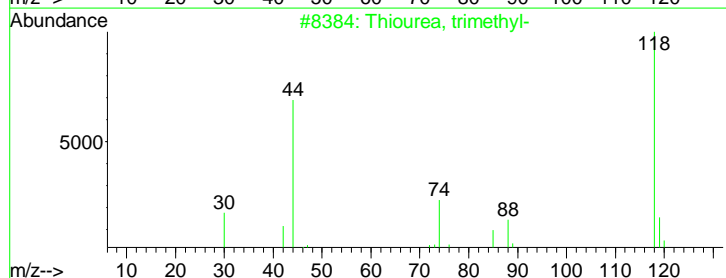
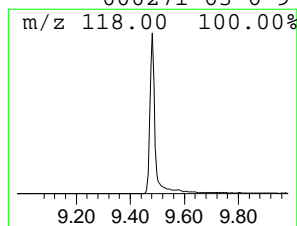
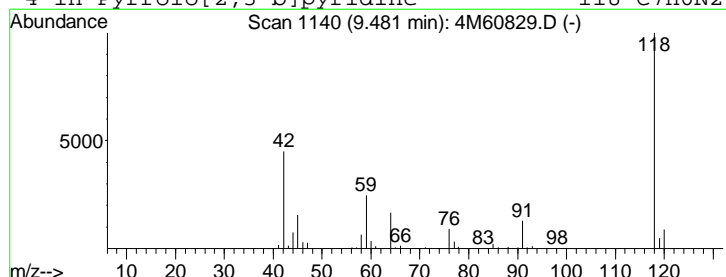
Vial: 14
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 3 Thiourea, trimethyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.48	21.39 ug/ml	1140370	Acenaphthene-d10	10.32

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Thiourea, trimethyl-	118	C4H10N2S	002489-77-2	9
2		3-Chlorothiophene	118	C4H3ClS	017249-80-8	9
3		Ethanedioic acid, dihydrazide	118	C2H6N4O2	000996-98-5	9
4		1H-Pyrrolo[2,3-b]pyridine	118	C7H6N2	000271-63-6	9



Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D
 Acq On : 12 May 2012 18:21
 Sample : L12050050-05
 Misc : 1,1
 MS Integration Params: LSCINT.P

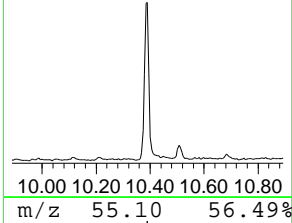
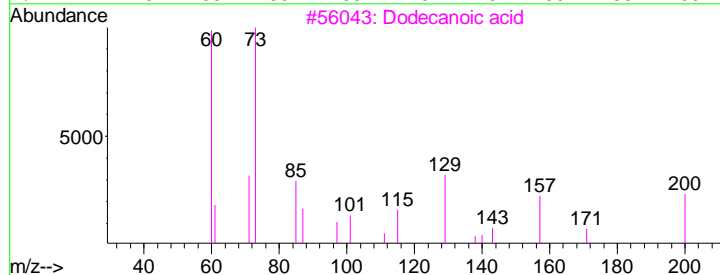
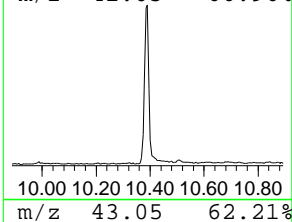
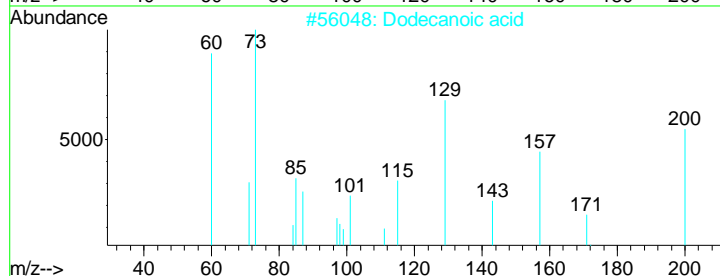
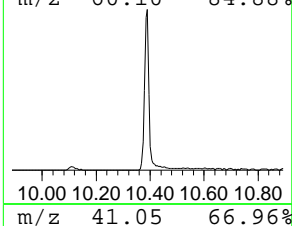
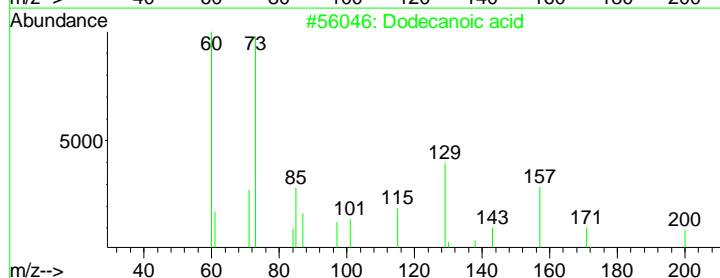
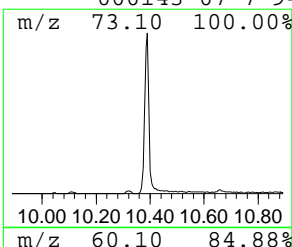
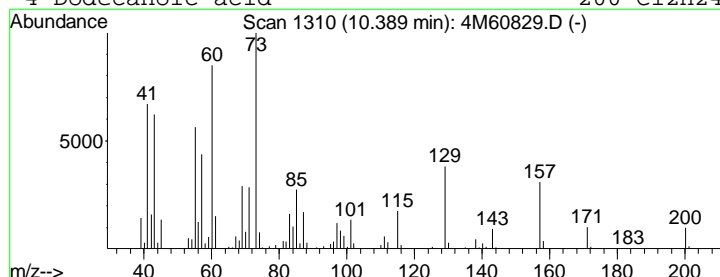
Vial: 14
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 4 Dodecanoic acid Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.39	20.15 ug/ml	1074590	Acenaphthene-d10	10.32

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Dodecanoic acid	200	C12H24O2	000143-07-7	99
2		Dodecanoic acid	200	C12H24O2	000143-07-7	98
3		Dodecanoic acid	200	C12H24O2	000143-07-7	95
4		Dodecanoic acid	200	C12H24O2	000143-07-7	94



Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D
 Acq On : 12 May 2012 18:21
 Sample : L12050050-05
 Misc : 1,1
 MS Integration Params: LSCINT.P

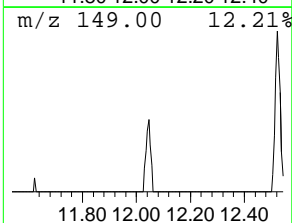
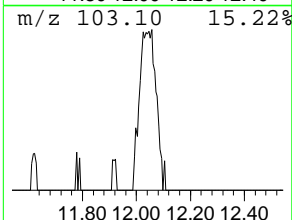
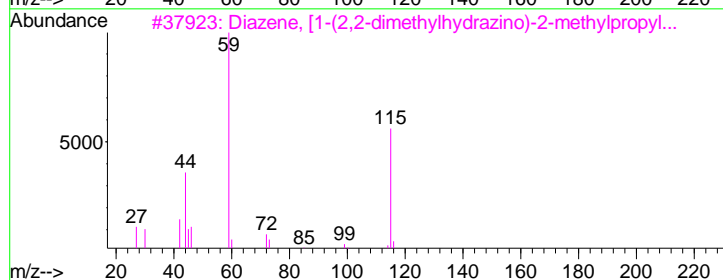
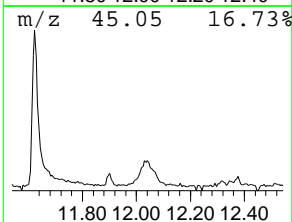
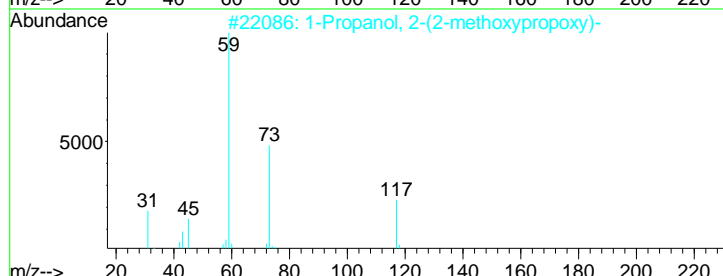
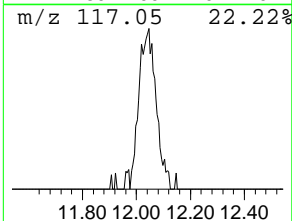
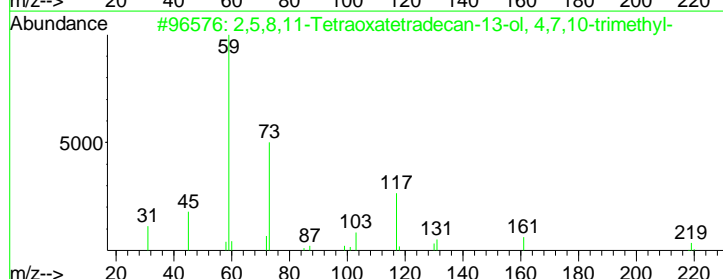
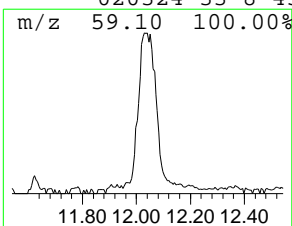
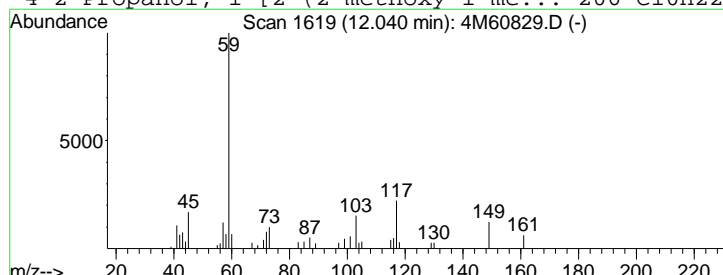
Vial: 14
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 5 2,5,8,11-Tetraoxatetradecan... Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.04	4.47 ug/ml	267582	Phenanthrene-d10	11.92

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2,5,8,11-Tetraoxatetradecan-13-o...	264	C13H28O5	020324-34-9	50
2		1-Propanol, 2-(2-methoxypropoxy)-	148	C7H16O3	013588-28-8	50
3		Diazene, [1-(2,2-dimethylhydrazin...	172	C8H20N4	061940-94-1	47
4		2-Propanol, 1-[2-(2-methoxy-1-me...	206	C10H22O4	020324-33-8	45



Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D
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 Sample : L12050050-05
 Misc : 1,1
 MS Integration Params: LSCINT.P

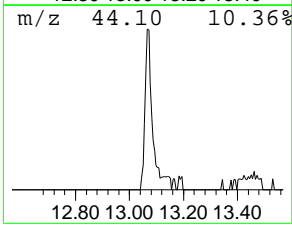
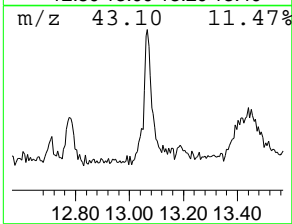
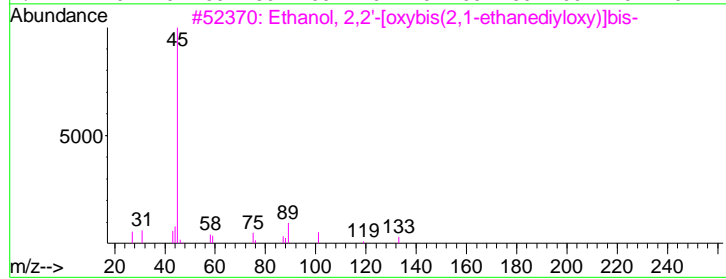
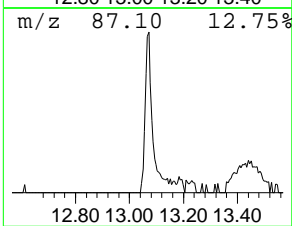
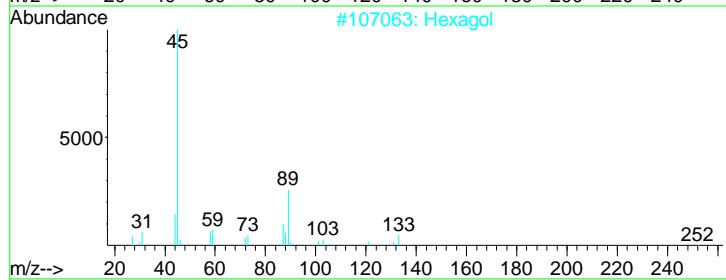
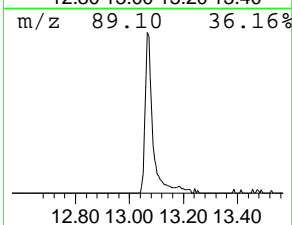
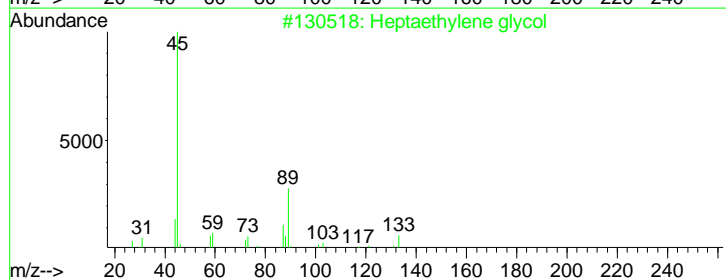
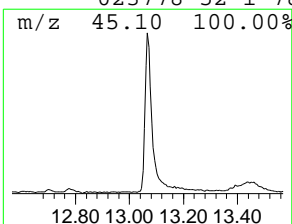
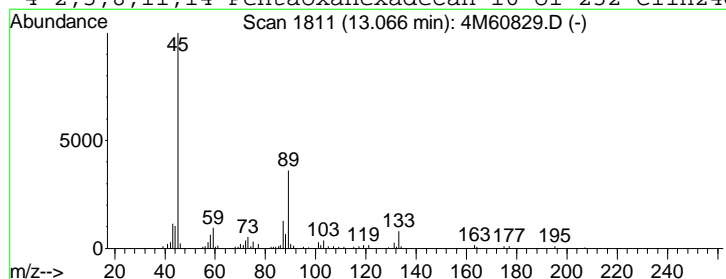
Vial: 14
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 6 Heptaethylene glycol Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.07	7.62 ug/ml	456463	Phenanthrene-d10	11.92

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Heptaethylene glycol	326	C14H30O8	005617-32-3	91
2		Hexagol	282	C12H26O7	002615-15-8	86
3		Ethanol, 2,2'-[oxybis(2,1-ethane...	194	C8H18O5	000112-60-7	78
4		2,5,8,11,14-Pentaoxahexadecan-16-ol	252	C11H24O6	023778-52-1	78



Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D
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 Misc : 1,1
 MS Integration Params: LSCINT.P

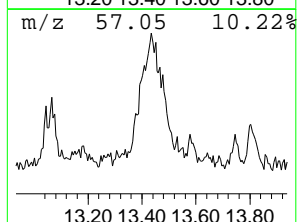
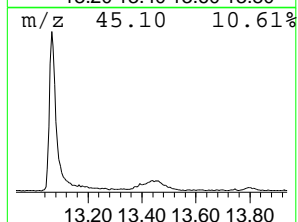
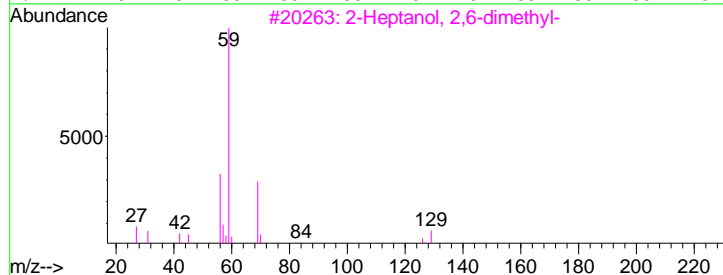
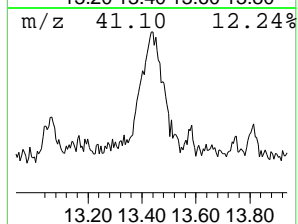
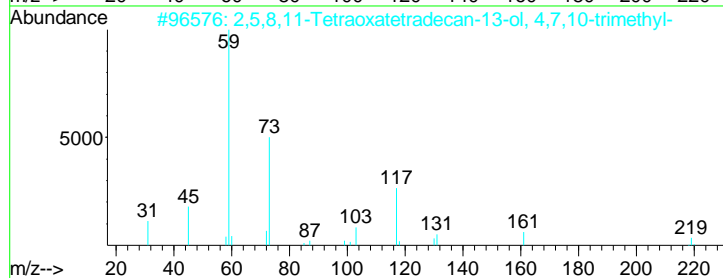
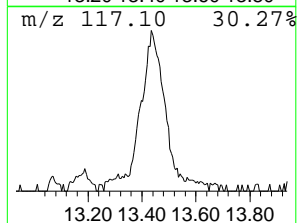
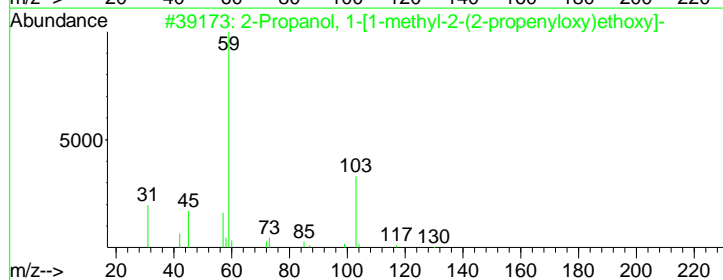
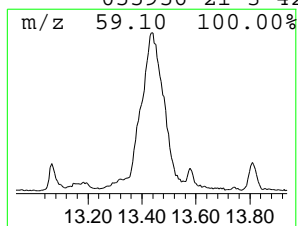
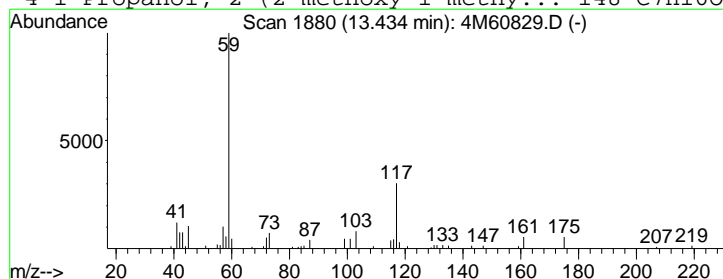
Vial: 14
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 7 2-Propanol, 1-[1-methyl-2-(... Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.43	11.22 ug/ml	671950	Phenanthrene-d10	11.92

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2-Propanol, 1-[1-methyl-2-(2-pro...	174	C9H18O3	055956-25-7	50
2		2,5,8,11-Tetraoxatetradecan-13-o...	264	C13H28O5	020324-34-9	50
3		2-Heptanol, 2,6-dimethyl-	144	C9H20O	013254-34-7	43
4		1-Propanol, 2-(2-methoxy-1-methy...	148	C7H16O3	055956-21-3	42



Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D
 Acq On : 12 May 2012 18:21
 Sample : L12050050-05
 Misc : 1,1
 MS Integration Params: LSCINT.P

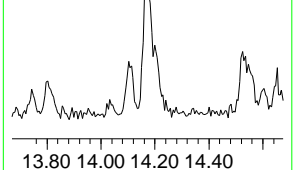
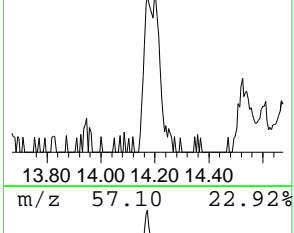
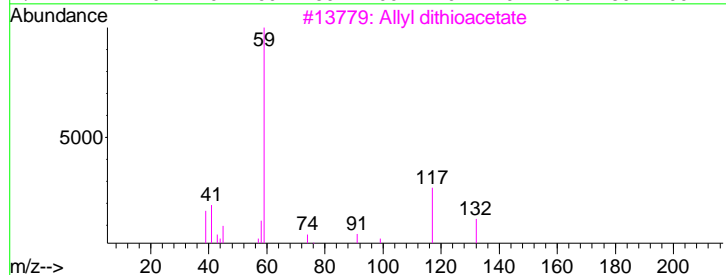
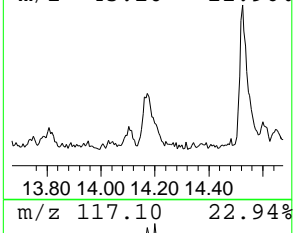
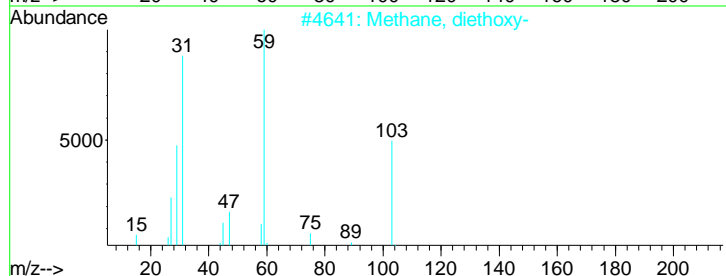
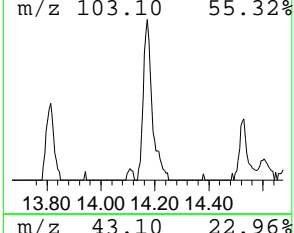
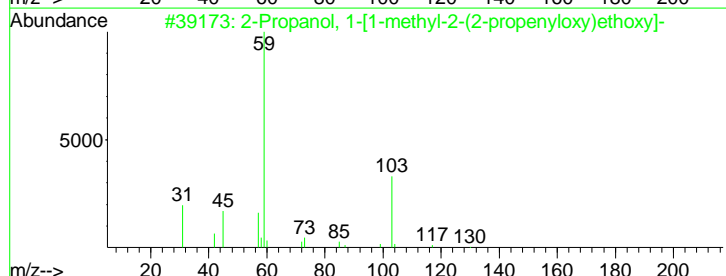
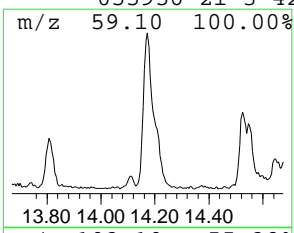
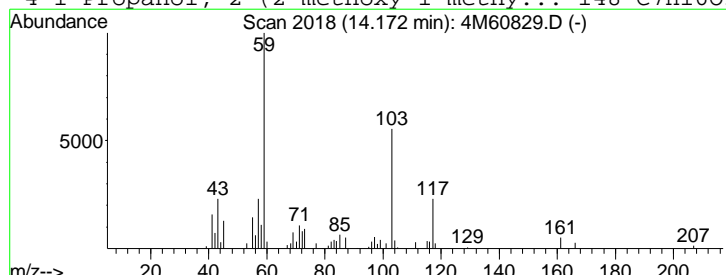
Vial: 14
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 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 8 2-Propanol, 1-[1-methyl-2-(... Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.17	4.81 ug/ml	286499	Chrysene-d12	15.60

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2-Propanol, 1-[1-methyl-2-(2-pro...	174	C9H18O3	055956-25-7	64
2		Methane, diethoxy-	104	C5H12O2	000462-95-3	58
3		Allyl dithioacetate	132	C5H8S2	027249-83-8	47
4		1-Propanol, 2-(2-methoxy-1-methy...	148	C7H16O3	055956-21-3	42



Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D
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 Sample : L12050050-05
 Misc : 1,1
 MS Integration Params: LSCINT.P

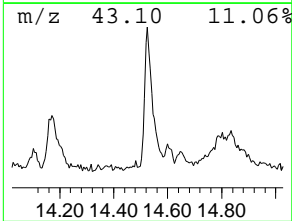
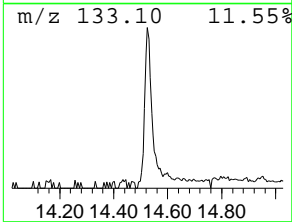
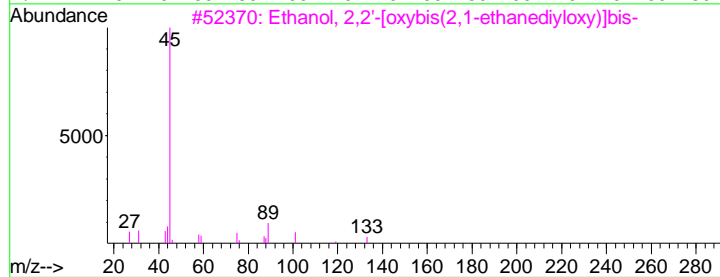
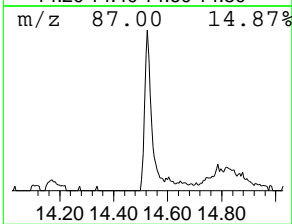
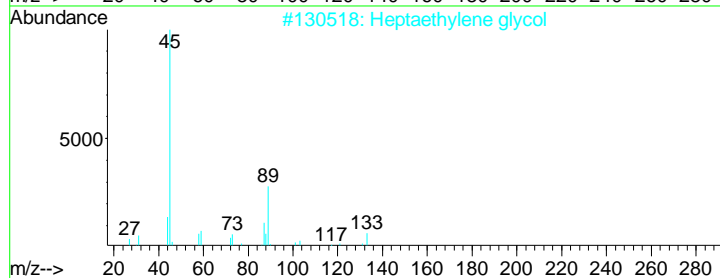
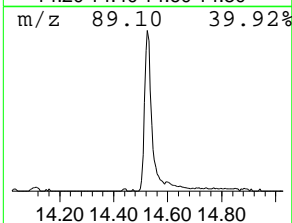
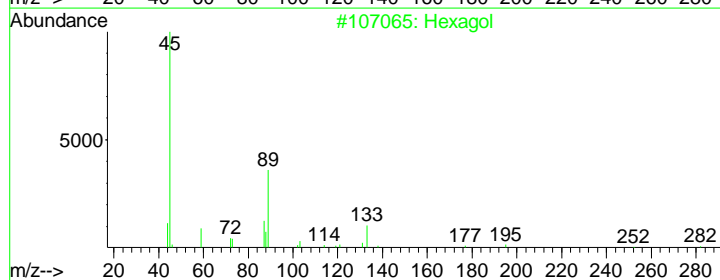
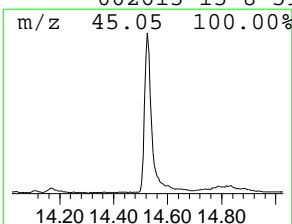
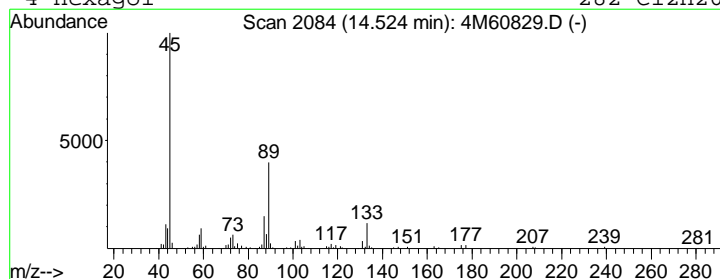
Vial: 14
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 9 Hexagol Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.52	12.35 ug/ml	736529	Chrysene-d12	15.60

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Hexagol	282	C12H26O7	002615-15-8	90
2		Heptaethylene glycol	326	C14H30O8	005617-32-3	90
3		Ethanol, 2,2'-[oxybis(2,1-ethane...	194	C8H18O5	000112-60-7	72
4		Hexagol	282	C12H26O7	002615-15-8	59



Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D
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 Sample : L12050050-05
 Misc : 1,1
 MS Integration Params: LSCINT.P

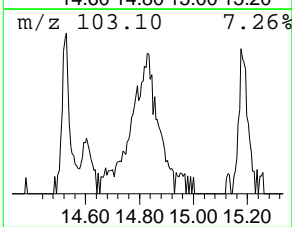
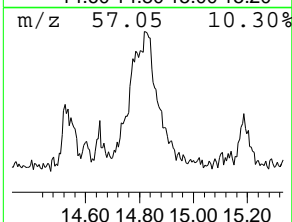
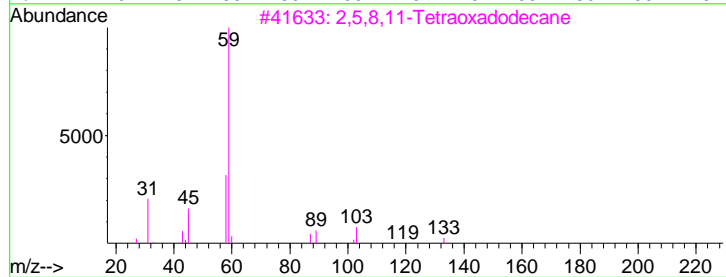
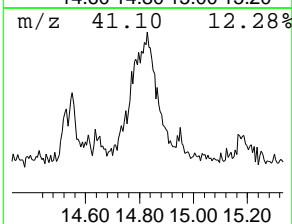
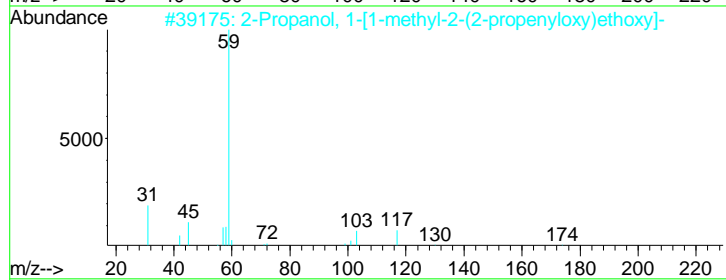
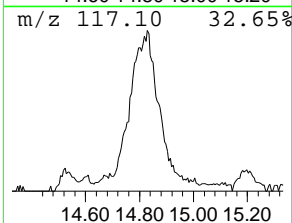
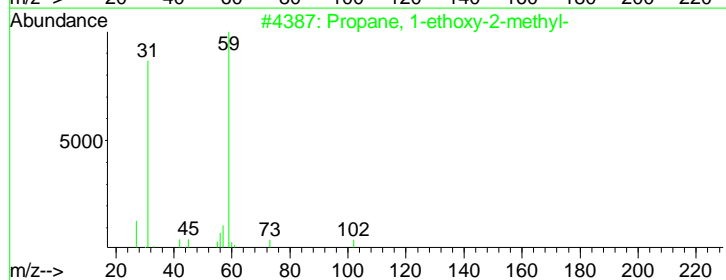
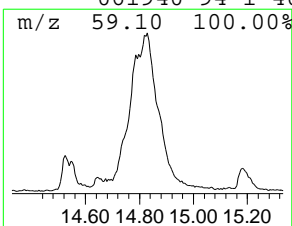
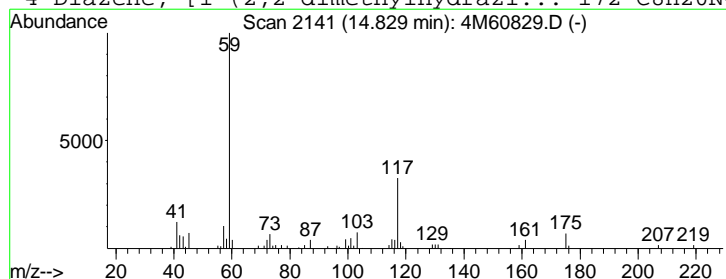
Vial: 14
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 10 Propane, 1-ethoxy-2-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.83	17.58 ug/ml	1048300	Chrysene-d12	15.60

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Propane, 1-ethoxy-2-methyl-	102	C6H14O	000627-02-1	46
2		2-Propanol, 1-[1-methyl-2-(2-pro...	174	C9H18O3	055956-25-7	42
3		2,5,8,11-Tetraoxadodecane	178	C8H18O4	000112-49-2	40
4		Diazene, [1-(2,2-dimethylhydrazi...	172	C8H20N4	061940-94-1	40



Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D
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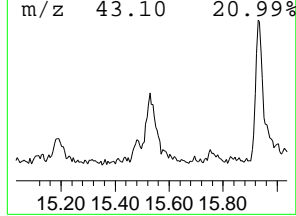
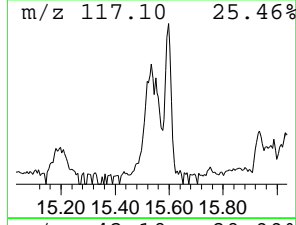
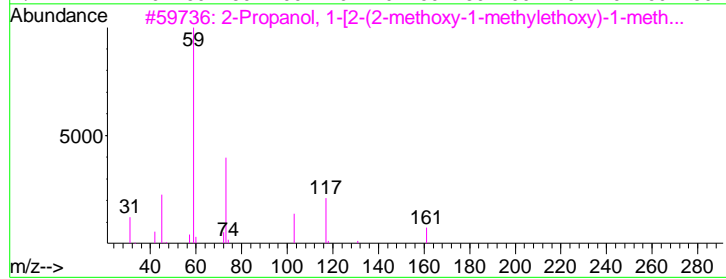
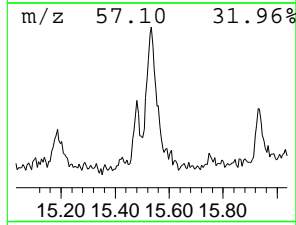
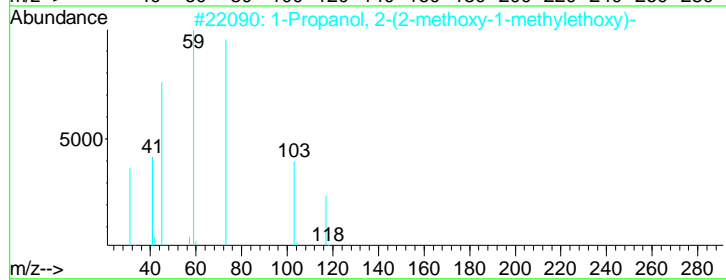
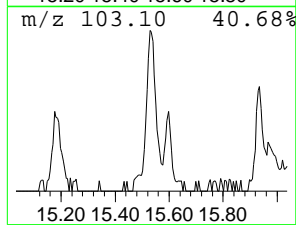
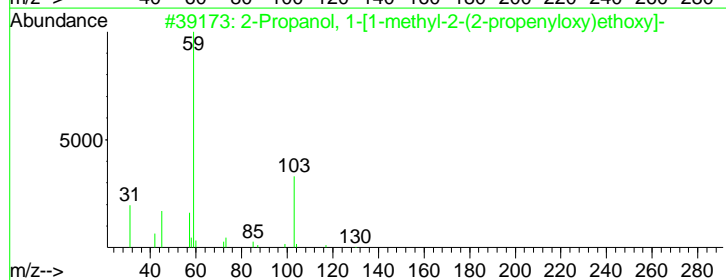
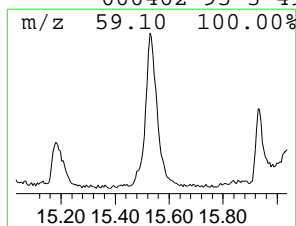
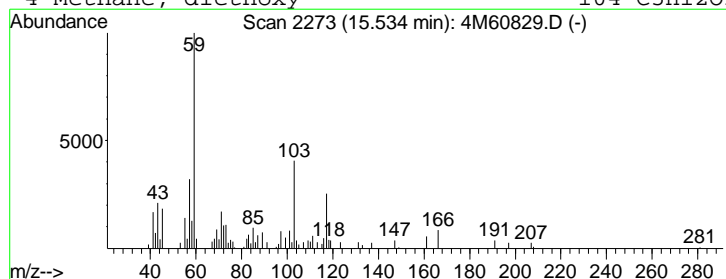
Vial: 14
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 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 11 2-Propanol, 1-[1-methyl-2-(... Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.53	5.35 ug/ml	319094	Chrysene-d12	15.60

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2-Propanol, 1-[1-methyl-2-(2-pro...	174	C9H18O3	055956-25-7	59
2		1-Propanol, 2-(2-methoxy-1-methy...	148	C7H16O3	055956-21-3	59
3		2-Propanol, 1-[2-(2-methoxy-1-me...	206	C10H22O4	020324-33-8	50
4		Methane, diethoxy-	104	C5H12O2	000462-95-3	49



Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D
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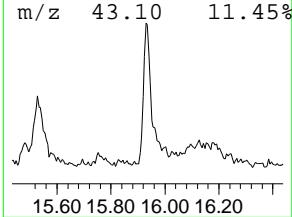
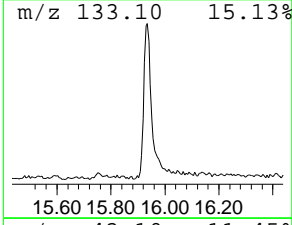
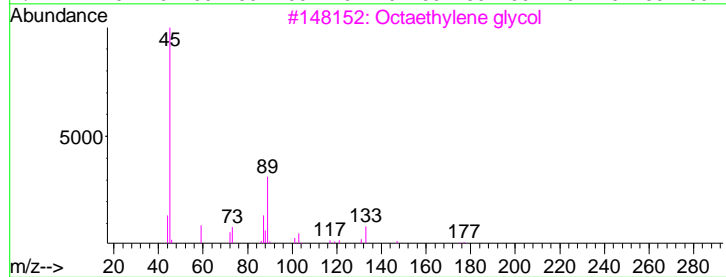
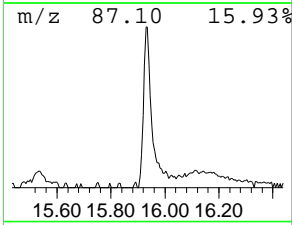
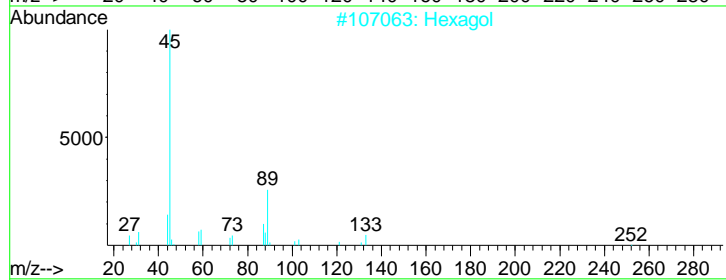
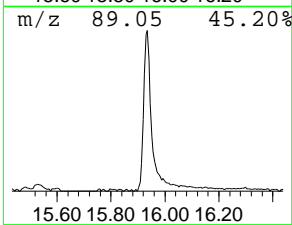
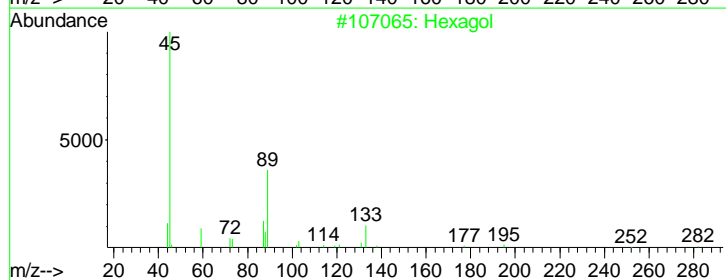
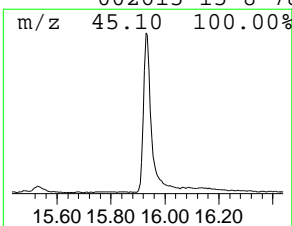
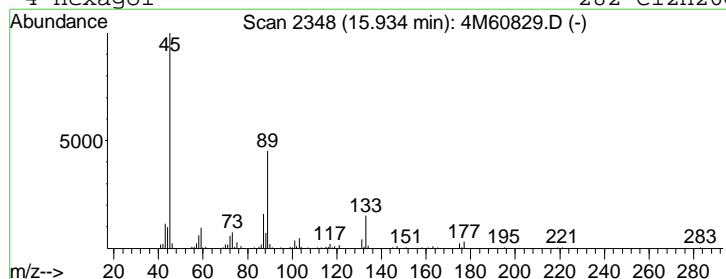
Vial: 14
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 12 Hexagol Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.93	14.48 ug/ml	863192	Chrysene-d12	15.60

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Hexagol	282	C12H26O7	002615-15-8	90
2		Hexagol	282	C12H26O7	002615-15-8	83
3		Octaethylene glycol	370	C16H34O9	1000289-34-2	80
4		Hexagol	282	C12H26O7	002615-15-8	78



Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D
 Acq On : 12 May 2012 18:21
 Sample : L12050050-05
 Misc : 1,1
 MS Integration Params: LSCINT.P

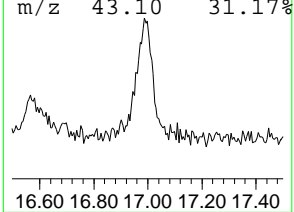
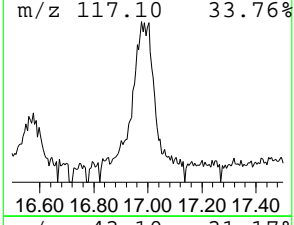
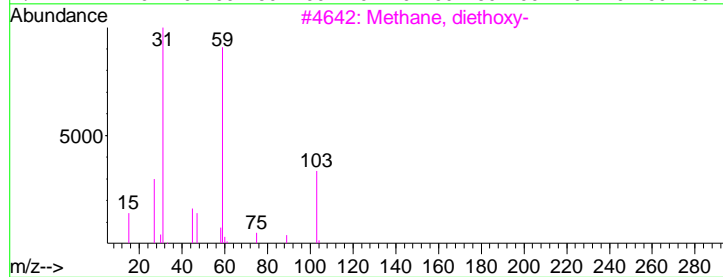
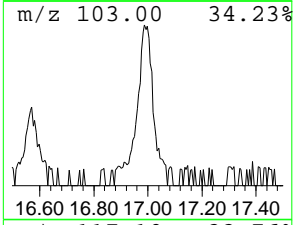
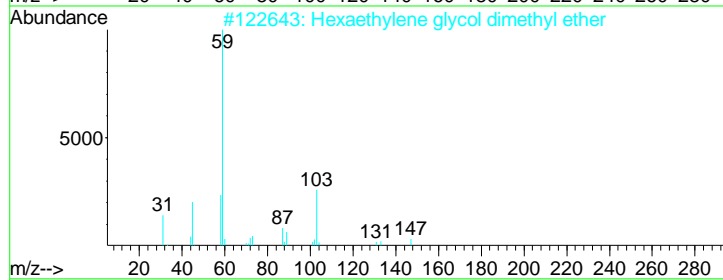
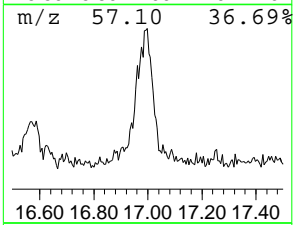
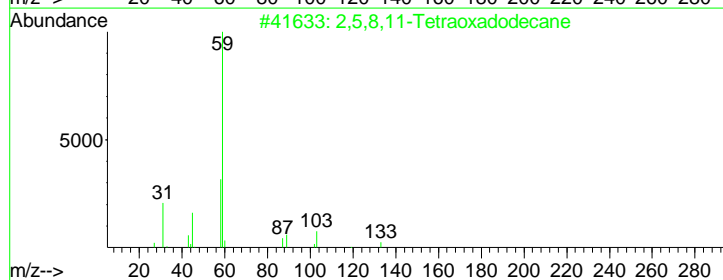
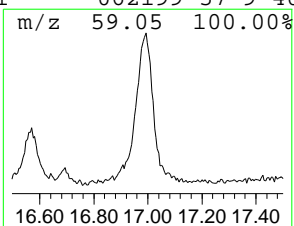
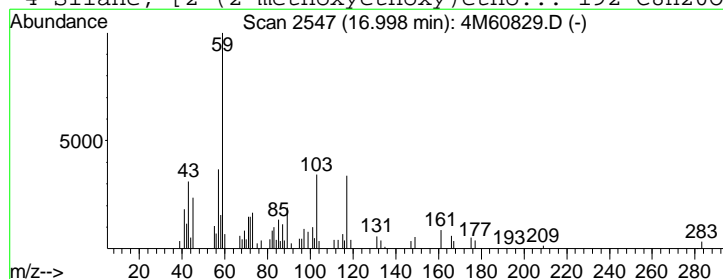
Vial: 14
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 13 2,5,8,11-Tetraoxadodecane Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.00	7.46 ug/ml	428237	Perylene-d12	18.33

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			2,5,8,11-Tetraoxadodecane	178	C8H18O4	000112-49-2	50
2			Hexaethylene glycol dimethyl ether	310	C14H30O7	001072-40-8	47
3			Methane, diethoxy-	104	C5H12O2	000462-95-3	43
4			Silane, [2-(2-methoxyethoxy)etho...	192	C8H20O3Si	062199-57-9	40



Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D
 Acq On : 12 May 2012 18:21
 Sample : L12050050-05
 Misc : 1,1
 MS Integration Params: LSCINT.P

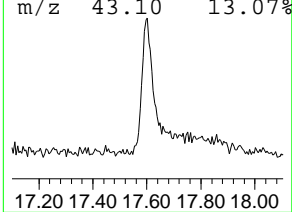
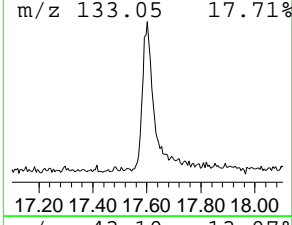
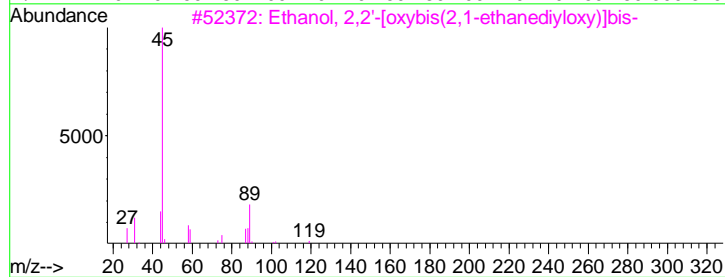
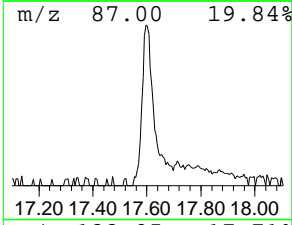
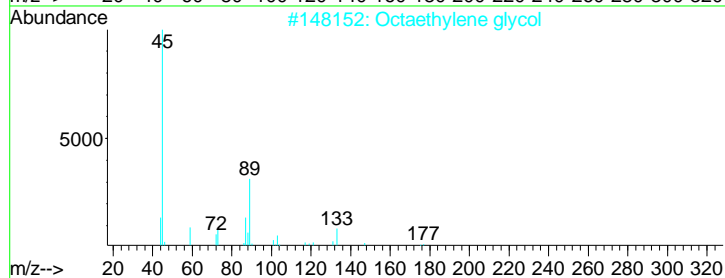
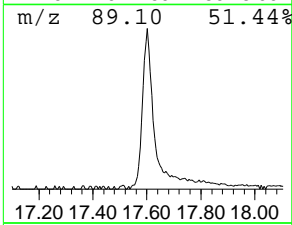
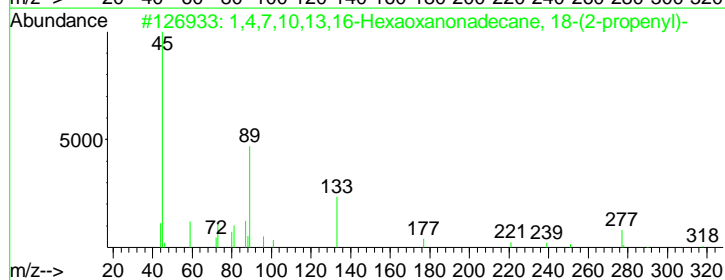
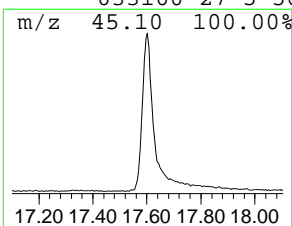
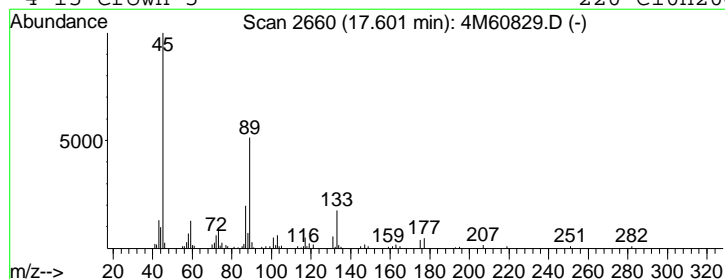
Vial: 14
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 14 1,4,7,10,13,16-Hexaoxonad... Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.60	12.28 ug/ml	705071	Perylene-d12	18.33

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1,4,7,10,13,16-Hexaoxonadecane...	318	C16H30O6	1000163-64-0	72
2		Octaethylene glycol	370	C16H34O9	1000289-34-2	64
3		Ethanol, 2,2'-[oxybis(2,1-ethane...	194	C8H18O5	000112-60-7	64
4		15-Crown-5	220	C10H20O5	033100-27-5	56



Data File : I:\MSDCHEM\1\DATA\051212\4M60829.D
 Acq On : 12 May 2012 18:21
 Sample : L12050050-05
 Misc : 1,1
 MS Integration Params: LSCINT.P

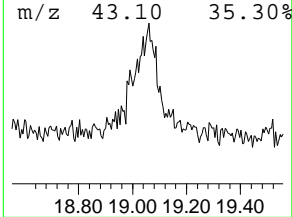
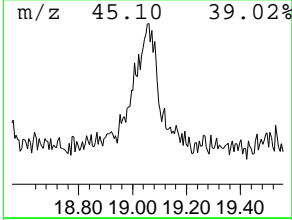
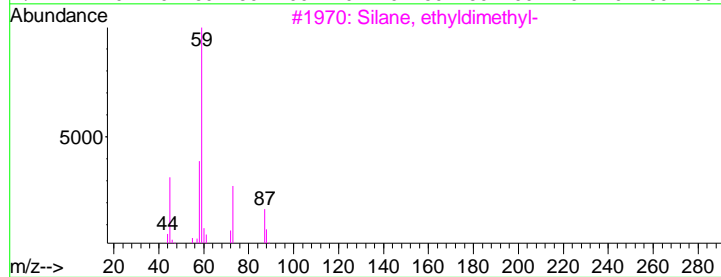
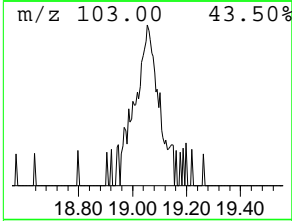
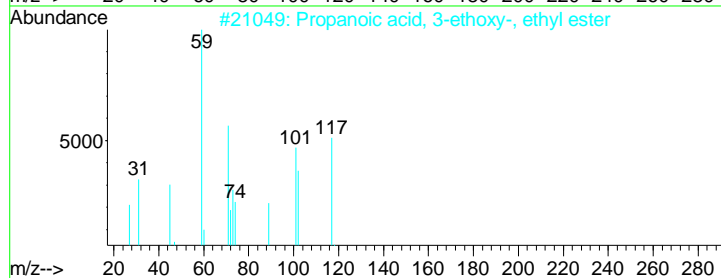
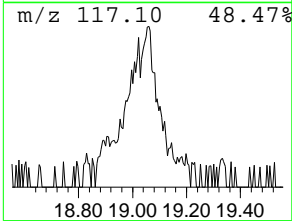
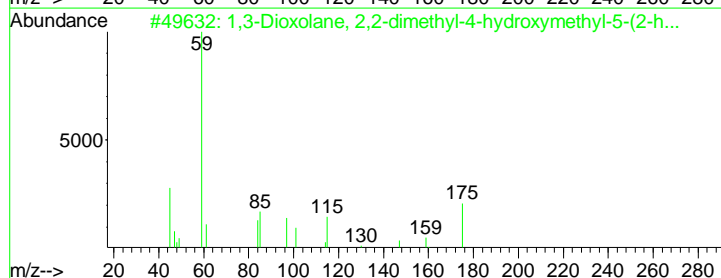
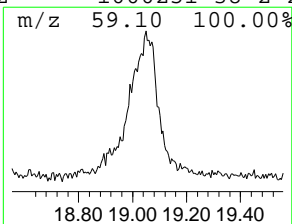
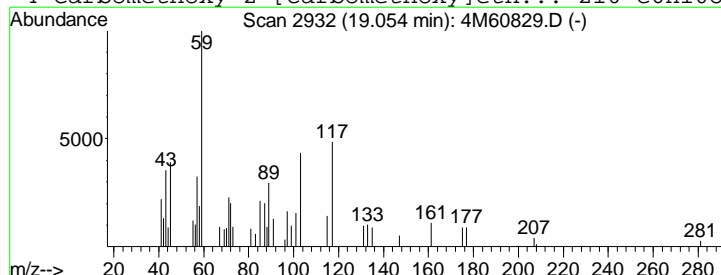
Vial: 14
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 15 1,3-Dioxolane, 2,2-dimethyl... Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.05	5.27 ug/ml	302537	Perylene-d12	18.33

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1,3-Dioxolane, 2,2-dimethyl-4-hy...	190	C9H18O4	1000195-95-6	35
2		Propanoic acid, 3-ethoxy-, ethyl...	146	C7H14O3	000763-69-9	33
3		Silane, ethyldimethyl-	88	C4H12Si	000758-21-4	32
4		Carbomethoxy-2-[carbomethoxy]eth...	210	C6H10O4S2	1000251-38-2	25



Operator ID: CAA Date Acquired: 12 May 2012 18:21
Data File: I:\MSDCHEM\1\DATA\051212\4M60829.D
Name: L12050050-05
Misc: 1,1
Method: I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title: OVD MSS01 8270/625 Initial Calibration 04/19/12
Library Searched: I:\DATABASE\NIST02.L

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
Butane, 2-methoxy...	3.82	5.0	ug/ml	185179	1	7.23	1467900	40.0
2-Pentanone, 4-hy...	5.69	7.0	ug/ml	257055	1	7.23	1467900	40.0
Thiourea, trimethyl-	9.48	21.4	ug/ml	1140370	3	10.32	2132880	40.0
Dodecanoic acid	10.39	20.2	ug/ml	1074590	3	10.32	2132880	40.0
2,5,8,11-Tetraoxa...	12.04	4.5	ug/ml	267582	4	11.92	2394780	40.0
Heptaethylene glycol	13.07	7.6	ug/ml	456463	4	11.92	2394780	40.0
2-Propanol, 1-[1-...	13.43	11.2	ug/ml	671950	4	11.92	2394780	40.0
2-Propanol, 1-[1-...	14.17	4.8	ug/ml	286499	5	15.60	2384740	40.0
Hexagol	14.52	12.4	ug/ml	736529	5	15.60	2384740	40.0
Propane, 1-ethoxy...	14.83	17.6	ug/ml	1048300	5	15.60	2384740	40.0
2-Propanol, 1-[1-...	15.53	5.4	ug/ml	319094	5	15.60	2384740	40.0
Hexagol	15.93	14.5	ug/ml	863192	5	15.60	2384740	40.0
2,5,8,11-Tetraoxa...	17.00	7.5	ug/ml	428237	6	18.33	2295740	40.0
1,4,7,10,13,16-He...	17.60	12.3	ug/ml	705071	6	18.33	2295740	40.0
1,3-Dioxolane, 2,...	19.05	5.3	ug/ml	302537	6	18.33	2295740	40.0

Data File : I:\MSDCHEM\1\DATA\051212\4M60830.D Vial: 15
 Acq On : 12 May 2012 18:56 Operator: CAA
 Sample : L12050050-07 Inst : HPMS4
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:40:51 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Mon May 14 11:40:35 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.23	152	261172	40.00	ug/ml	0.00
30) Naphthalene-d8	8.51	136	970127	40.00	ug/ml	0.00
54) Acenaphthene-d10	10.32	164	541912	40.00	ug/ml	0.00
87) Phenanthrene-d10	11.92	188	968257	40.00	ug/ml	0.00
113) Chrysene-d12	15.60	240	918607	40.00	ug/ml	0.00
128) Perylene-d12	18.33	264	891380	40.00	ug/ml	0.00
System Monitoring Compounds						
8) 2-Fluorophenol	6.00	112	634653	80.1472	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery =	80.15%		
12) Phenol-d5	6.83	99	790428	85.2891	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery =	85.29%		
31) Nitrobenzene-d5	7.79	82	383927	46.7907	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	93.58%		
59) 2-Fluorobiphenyl	9.58	172	829670	45.8491	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	91.70%		
86) 2,4,6-Tribromophenol	11.15	330	237995	98.4842	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery =	98.48%		
117) p-Terphenyl-d14	13.95	244	660141	38.9901	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	77.98%		
Target Compounds						
110) Methapyrilene	12.81	58	166	Below Cal	# 1	
124) bis(2-Ethylhexyl)phthalate	15.48	149	81301	4.7672	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60830.D MEGAMIX.M Mon May 14 11:46:32 2012

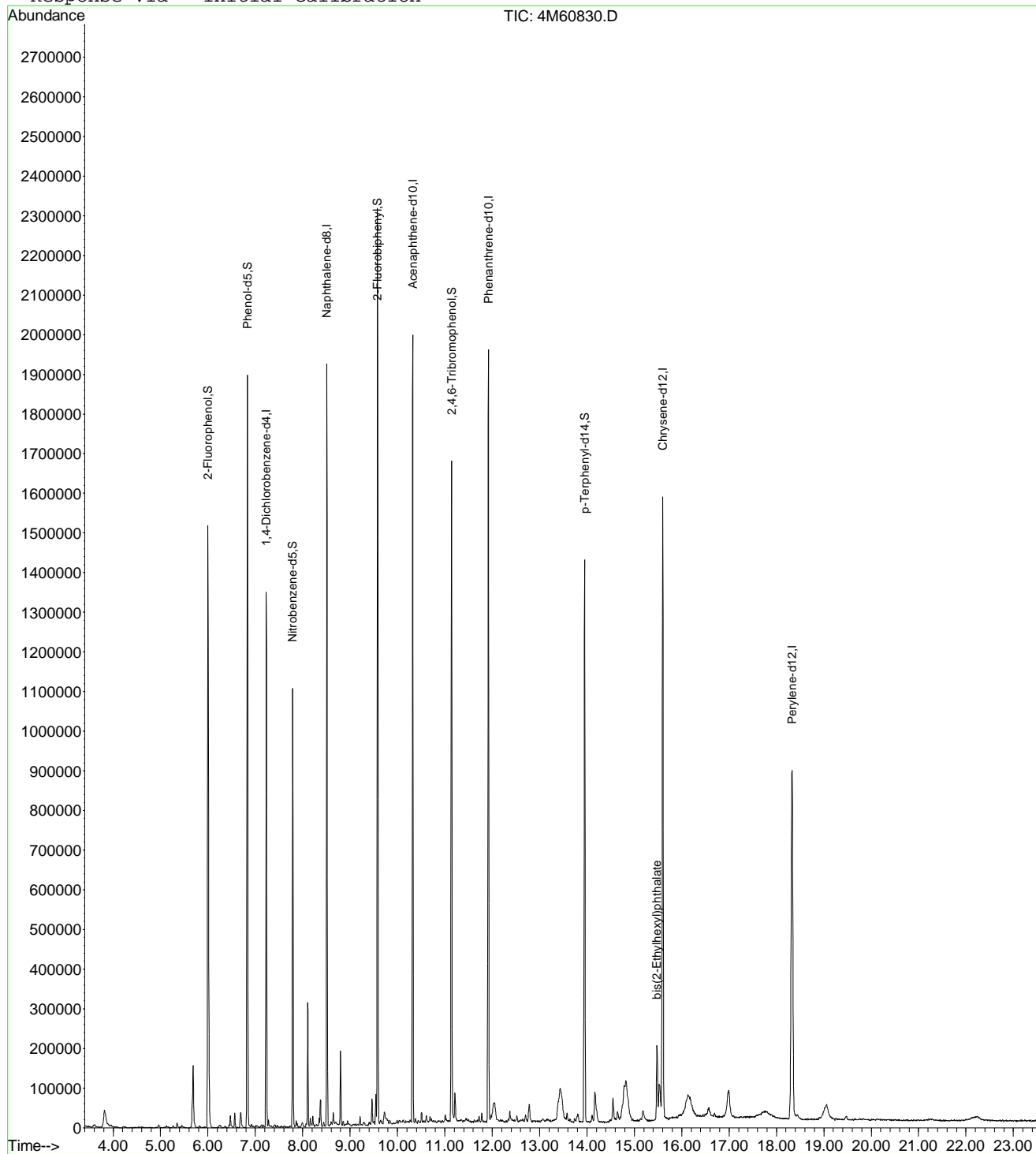
Page 1

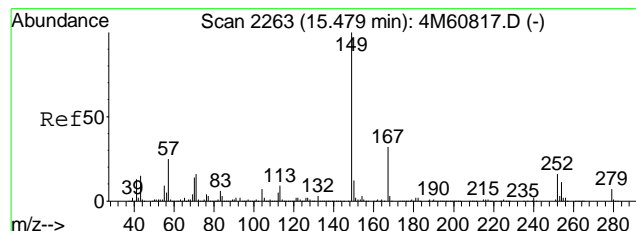
Data File : I:\MSDCHEM\1\DATA\051212\4M60830.D
 Acq On : 12 May 2012 18:56
 Sample : L12050050-07
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:40 2012

Vial: 15
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: MEGAMIX.RES

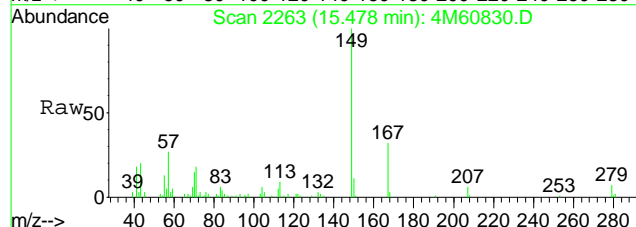
Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Mon May 14 11:40:35 2012
 Response via : Initial Calibration



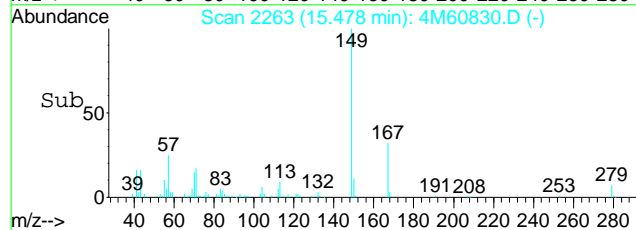
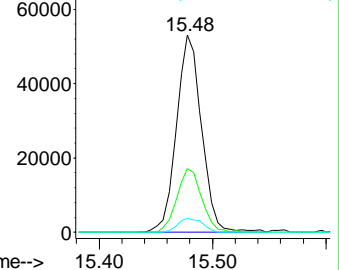


#124
 bis(2-Ethylhexyl)phthalate
 Concen: 4.77 ug/ml
 RT: 15.48 min Scan# 2263
 Delta R.T. -0.00 min
 Lab File: 4M60830.D
 Acq: 12 May 2012 18:56

Tgt Ion	Ratio	Lower	Upper
149	100		
167	32.0	25.4	38.0
279	6.9	6.2	9.2



Abundance Ion 149.00 (148.70 to 149.70);
 Ion 167.00 (166.70 to 167.70);
 Ion 279.10 (278.80 to 279.80);



Data File : I:\MSDCHEM\1\DATA\051212\4M60830.D Vial: 15
 Acq On : 12 May 2012 18:56 Operator: CAA
 Sample : L12050050-07 Inst : HPMS4
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:54:28 2012 Quant Results File: TCL.RES

Quant Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Mon May 14 11:53:23 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.23	152	261172	40.00	ug/mL	0.00
3) Naphthalene-d8	8.51	136	970127	40.00	ug/mL	0.00
5) Acenaphthene-d10	10.32	164	541912	40.00	ug/mL	0.00
7) Phenanthrene-d10	11.92	188	968257	40.00	ug/mL	0.00

Target Compounds Qvalue

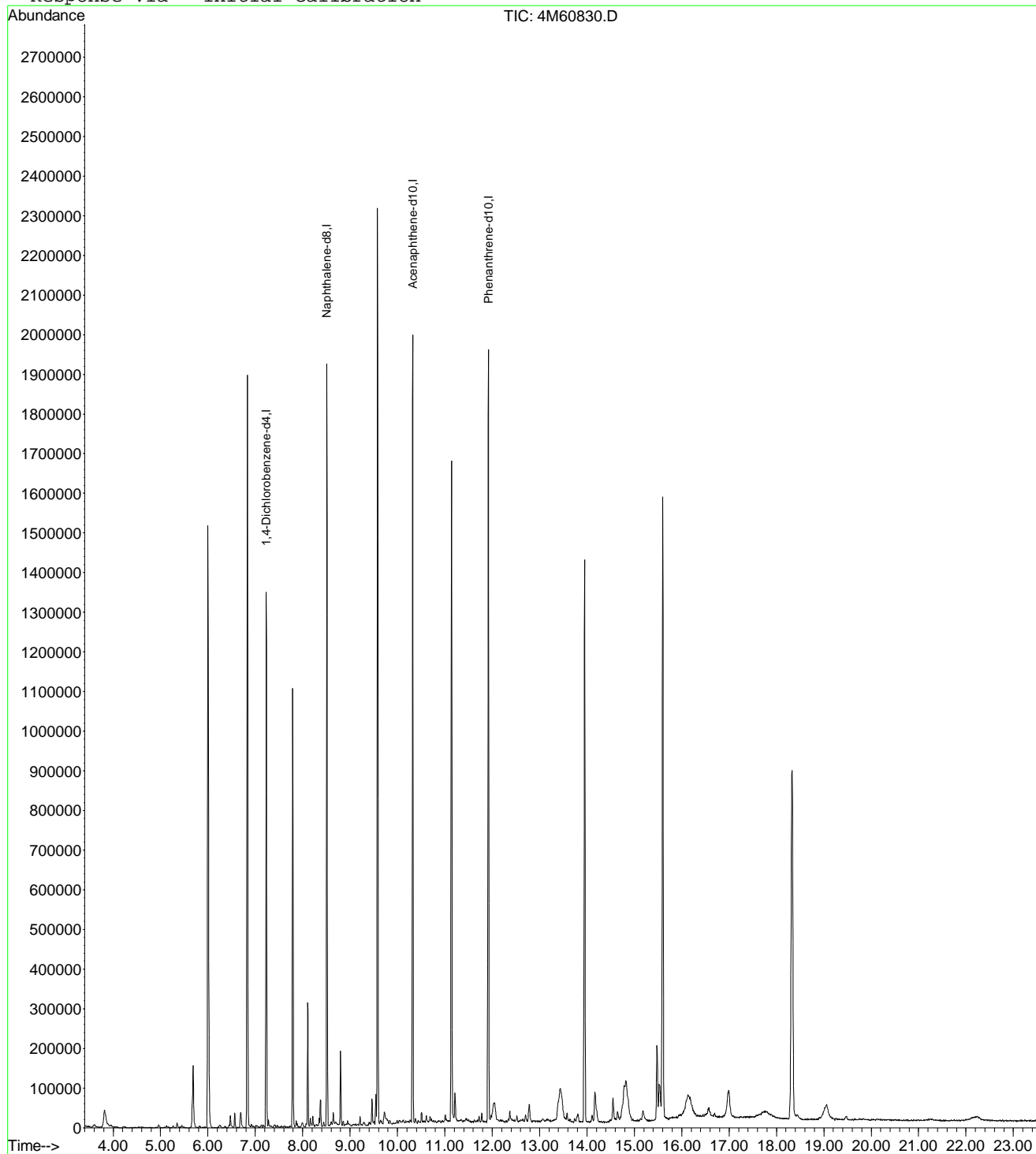
 (#) = qualifier out of range (m) = manual integration
 4M60830.D TCL.M Mon May 14 11:54:29 2012

Data File : I:\MSDCHEM\1\DATA\051212\4M60830.D
 Acq On : 12 May 2012 18:56
 Sample : L12050050-07
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:54 2012

Vial: 15
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: TCL.RES

Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Mon May 14 11:53:23 2012
 Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\051212\4M60830.D Vial: 15
 Acq On : 12 May 2012 18:56 Operator: CAA
 Sample : L12050050-07 Inst : HPMS4
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: LSCINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Smoothing : ON Filtering: 5
 Sampling : 1 Min Area: 1 % of largest Peak
 Start Thrs: 0.05 Max Peaks: 100
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 5

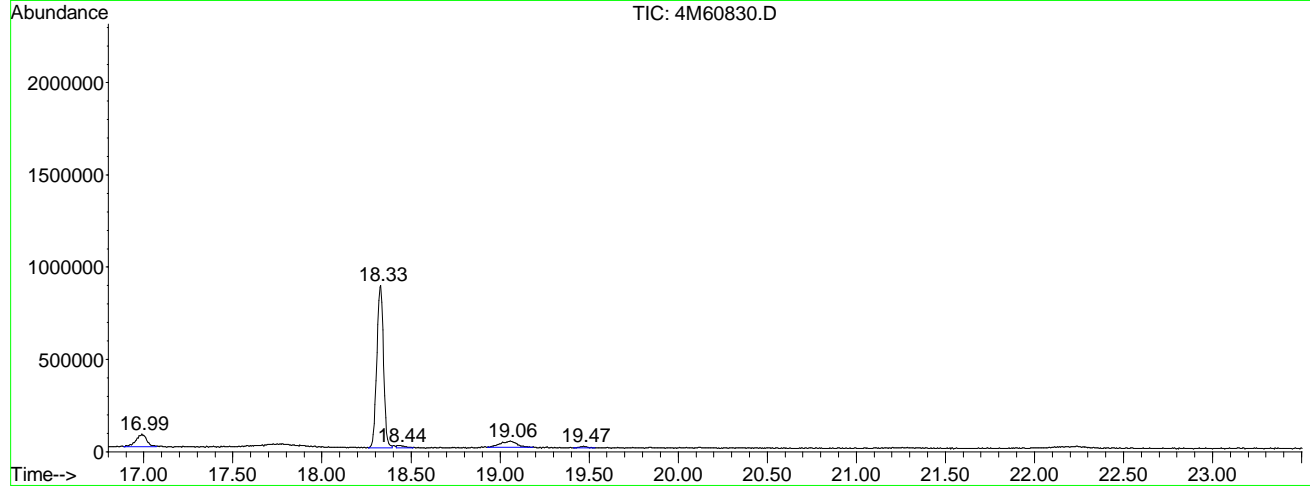
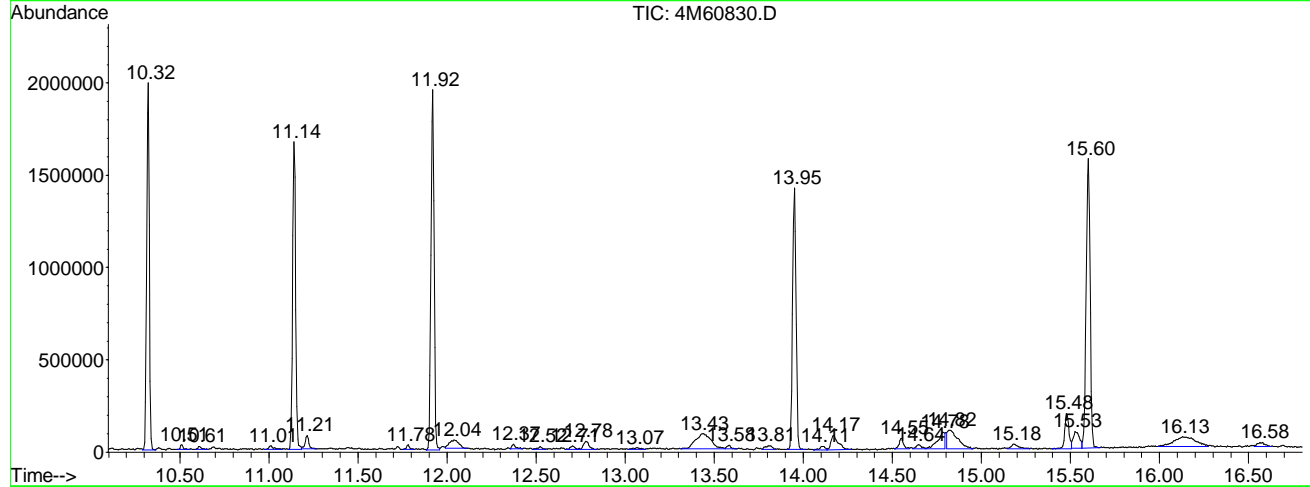
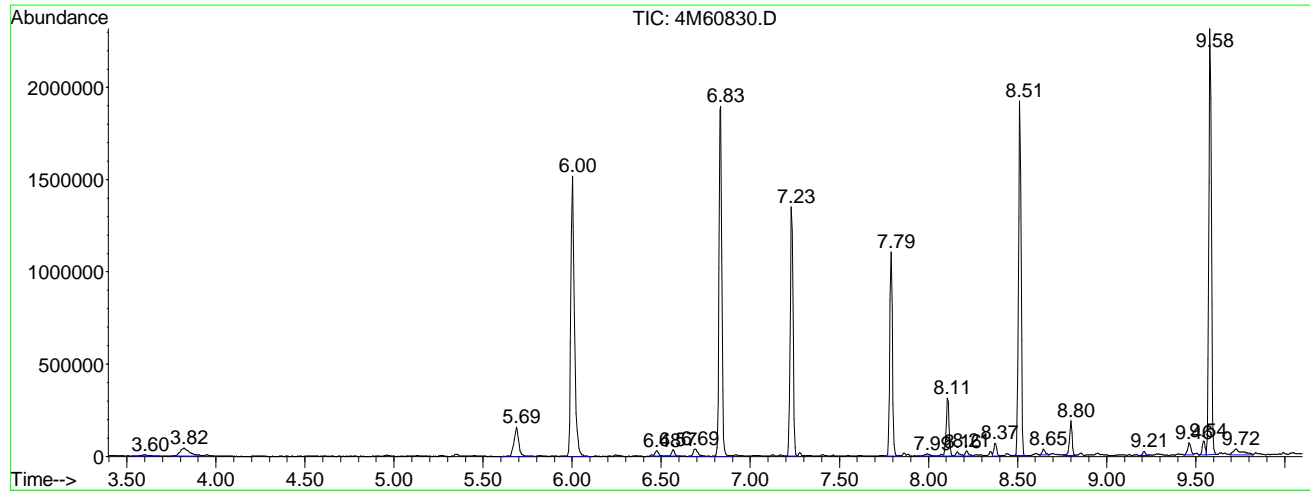
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.602	27	40	54	rBV3	7251	25272	1.05%	0.084%
2	3.821	68	81	100	rBV3	43227	168582	7.00%	0.563%
3	5.686	415	430	449	rBB2	156928	286444	11.90%	0.957%
4	6.001	483	489	507	rVB	1518699	2101844	87.33%	7.019%
5	6.476	574	578	587	rVB	29227	41685	1.73%	0.139%
6	6.567	589	595	601	rVB2	36836	43908	1.82%	0.147%
7	6.690	610	618	630	rBB4	38020	73392	3.05%	0.245%
8	6.834	635	645	657	rBV	1898129	2169525	90.15%	7.245%
9	7.230	714	719	725	rBV	1349787	1486463	61.76%	4.964%
10	7.791	817	824	832	rBV	1106385	1139405	47.34%	3.805%
11	7.994	852	862	870	rBV6	12204	26421	1.10%	0.088%
12	8.106	872	883	890	rBV2	313899	384731	15.99%	1.285%
13	8.165	890	894	900	rVV2	21202	30249	1.26%	0.101%
14	8.213	900	903	910	rVB2	26434	31019	1.29%	0.104%
15	8.373	930	933	939	rVB	68269	76134	3.16%	0.254%
16	8.512	952	959	966	rBV	1923372	1950850	81.06%	6.515%
17	8.645	980	984	990	rBV2	30567	37612	1.56%	0.126%
18	8.800	1005	1013	1018	rVB	188377	195119	8.11%	0.652%
19	9.212	1085	1090	1095	rBV	22155	24435	1.02%	0.082%
20	9.463	1132	1137	1142	rBV2	65385	84903	3.53%	0.284%
21	9.543	1147	1152	1155	rVV	75892	84903	3.53%	0.284%
22	9.580	1155	1159	1166	rVB	2309492	2365938	98.31%	7.901%
23	9.724	1180	1186	1204	rVB8	30682	101379	4.21%	0.339%
24	10.323	1292	1298	1305	rVV	1987582	2145245	89.14%	7.164%
25	10.510	1328	1333	1341	rBV2	25524	32209	1.34%	0.108%
26	10.611	1348	1352	1360	rBV3	16801	25924	1.08%	0.087%
27	11.012	1420	1427	1438	rBV8	19214	42470	1.76%	0.142%
28	11.140	1445	1451	1459	rBV	1666525	1931444	80.25%	6.450%
29	11.215	1459	1465	1474	rVB2	71463	104939	4.36%	0.350%
30	11.781	1566	1571	1577	rBV3	24057	29681	1.23%	0.099%
31	11.920	1590	1597	1604	rBV	1950433	2376166	98.73%	7.935%
32	12.043	1610	1620	1632	rVB5	43501	169289	7.03%	0.565%
33	12.374	1678	1682	1691	rBV5	23946	34997	1.45%	0.117%
34	12.524	1702	1710	1715	rVB	16717	27992	1.16%	0.093%
35	12.705	1737	1744	1749	rVV6	16766	27471	1.14%	0.092%
36	12.780	1749	1758	1769	rVB	44049	92464	3.84%	0.309%
37	13.069	1803	1812	1820	rBV10	9242	29204	1.21%	0.098%
38	13.432	1858	1880	1904	rBV2	80491	484860	20.15%	1.619%
39	13.581	1904	1908	1916	rVB2	19839	30908	1.28%	0.103%
40	13.806	1943	1950	1956	rVB7	21261	56674	2.35%	0.189%
41	13.950	1969	1977	1988	rVB	1419417	1938674	80.55%	6.474%
42	14.110	1997	2007	2011	rBV5	19585	42887	1.78%	0.143%

43	14.169	2011	2018	2036	rVB3	77776	220232	9.15%	0.735%
44	14.554	2082	2090	2098	rBV4	57203	98705	4.10%	0.330%
45	14.645	2101	2107	2115	rVV7	22326	44617	1.85%	0.149%
46	14.783	2115	2133	2135	rVV2	88559	252029	10.47%	0.842%
47	14.821	2137	2140	2164	rVB3	100731	397095	16.50%	1.326%
48	15.184	2201	2208	2224	rVB4	27085	81150	3.37%	0.271%
49	15.478	2248	2263	2268	rBV	189674	315622	13.11%	1.054%
50	15.526	2268	2272	2279	rVV3	89398	221332	9.20%	0.739%
51	15.601	2279	2286	2298	rVB	1569008	2406695	100.00%	8.037%
52	16.130	2359	2385	2412	rBV2	53911	451364	18.75%	1.507%
53	16.578	2460	2469	2478	rVB2	20906	60608	2.52%	0.202%
54	16.990	2527	2546	2561	rBV4	67681	274405	11.40%	0.916%
55	18.331	2784	2797	2809	rBV	880154	2278216	94.66%	7.608%
56	18.437	2813	2817	2830	rVB10	10395	30909	1.28%	0.103%
57	19.057	2909	2933	2956	rVB9	36704	227811	9.47%	0.761%
58	19.468	3000	3010	3021	rBV8	9520	30931	1.29%	0.103%

Sum of corrected areas: 29945432

File : I:\MSDCHEM\1\DATA\051212\4M60830.D
 Operator : CAA
 Acquired : 12 May 2012 18:56 using AcqMethod BNATEST
 Instrument : HPMS4
 Sample Name: L12050050-07
 Misc Info : 1,1
 Vial Number: 15
 Quant File :MEGAMIX.RES (RTE Integrator)



Data File : I:\MSDCHEM\1\DATA\051212\4M60830.D
 Acq On : 12 May 2012 18:56
 Sample : L12050050-07
 Misc : 1,1
 MS Integration Params: LSCINT.P

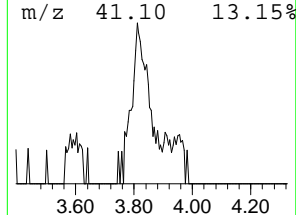
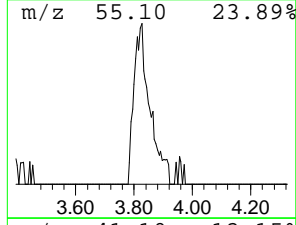
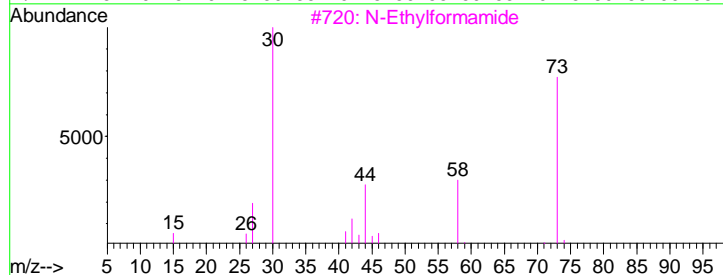
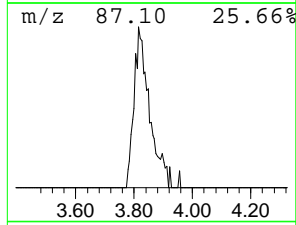
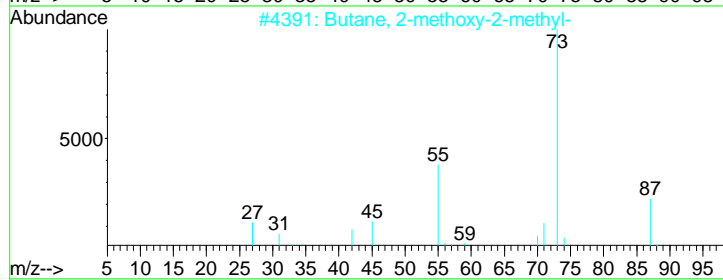
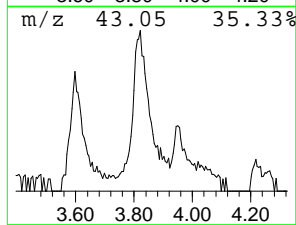
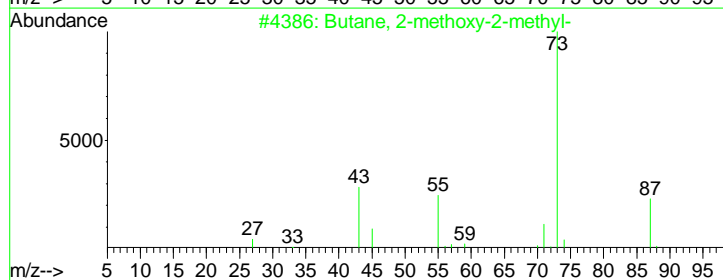
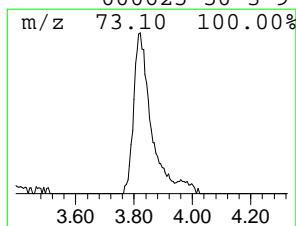
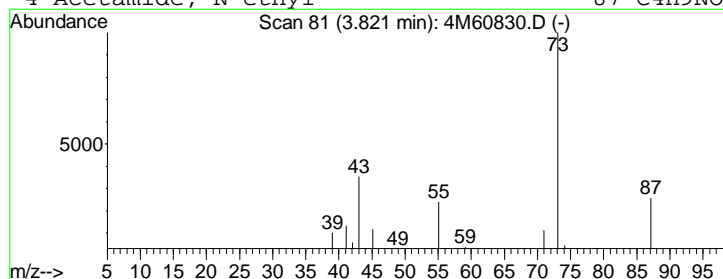
Vial: 15
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 1 Butane, 2-methoxy-2-methyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.82	4.54 ug/ml	168582	1,4-Dichlorobenzene-d4	7.23

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Butane, 2-methoxy-2-methyl-	102	C6H14O	000994-05-8	74
2			Butane, 2-methoxy-2-methyl-	102	C6H14O	000994-05-8	43
3			N-Ethylformamide	73	C3H7NO	000627-45-2	9
4			Acetamide, N-ethyl-	87	C4H9NO	000625-50-3	9



Data File : I:\MSDCHEM\1\DATA\051212\4M60830.D
 Acq On : 12 May 2012 18:56
 Sample : L12050050-07
 Misc : 1,1
 MS Integration Params: LSCINT.P

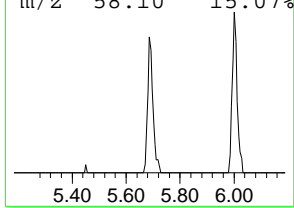
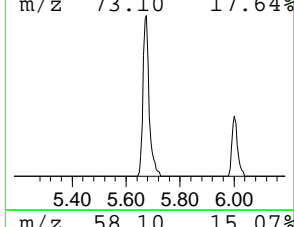
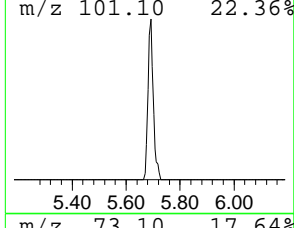
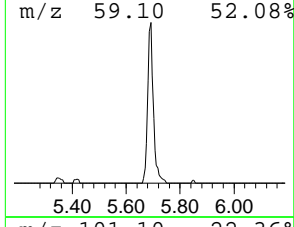
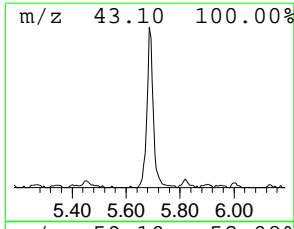
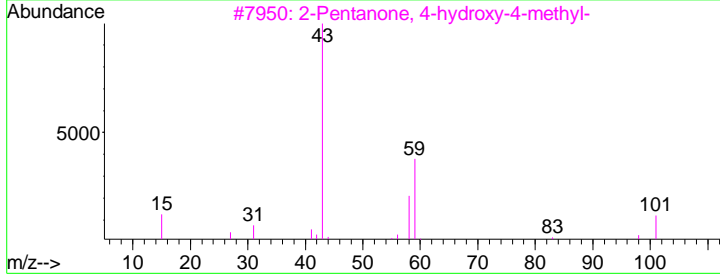
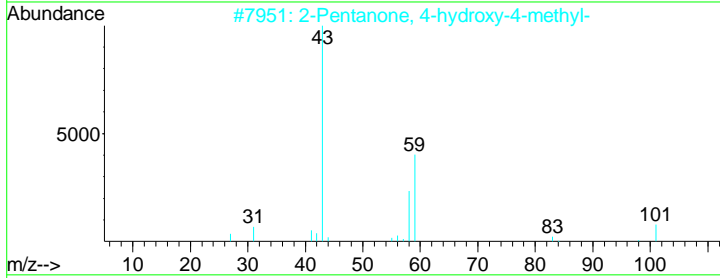
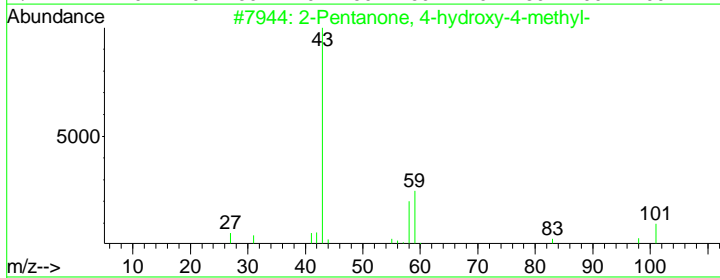
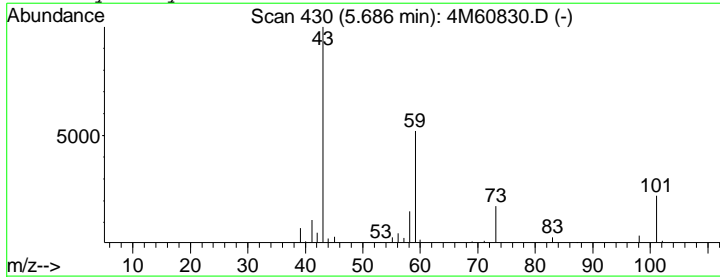
Vial: 15
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 2 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.69	7.71 ug/ml	286444	1,4-Dichlorobenzene-d4	7.23

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	59
2			2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	50
3			2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	42
4			4-Hydroxy-3-hexanone	116	C6H12O2	004984-85-4	32



Data File : I:\MSDCHEM\1\DATA\051212\4M60830.D
 Acq On : 12 May 2012 18:56
 Sample : L12050050-07
 Misc : 1,1
 MS Integration Params: LSCINT.P

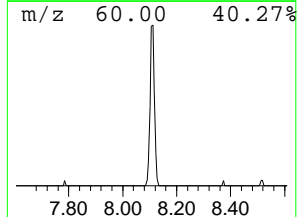
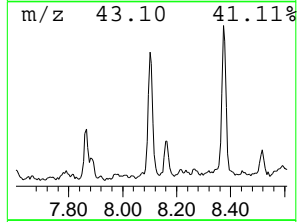
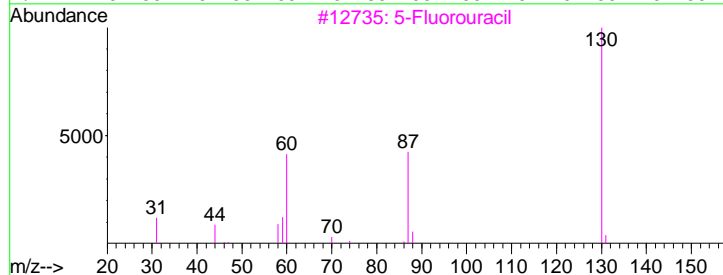
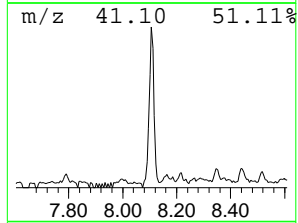
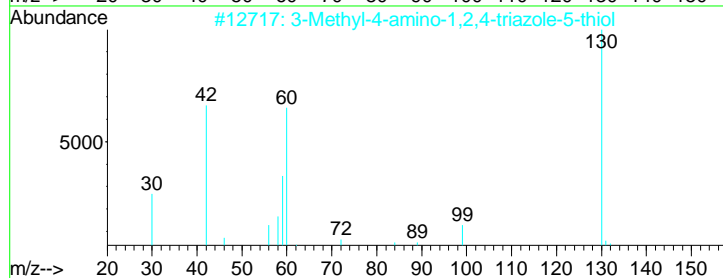
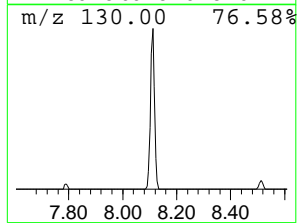
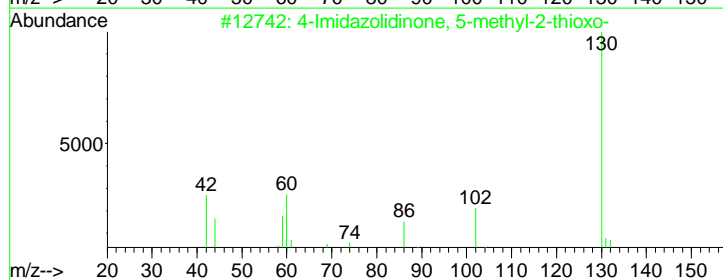
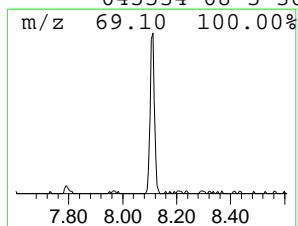
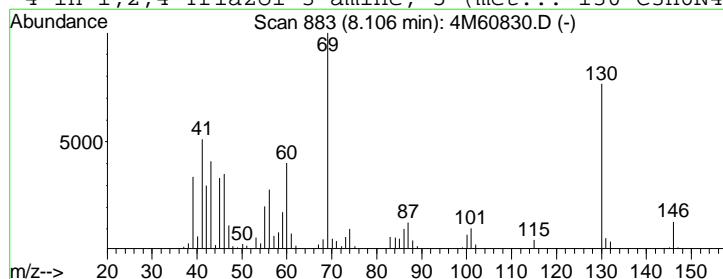
Vial: 15
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 3 4-Imidazolidinone, 5-methyl... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.11	7.89 ug/ml	384731	Naphthalene-d8	8.51

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	4-Imidazolidinone, 5-methyl-2-th...	130	C4H6N2OS	033368-94-4	38
2		3-Methyl-4-amino-1,2,4-triazole-...	130	C3H6N4S	020939-15-5	38
3		5-Fluorouracil	130	C4H3FN2O2	000051-21-8	35
4		1H-1,2,4-Triazol-3-amine, 5-(met...	130	C3H6N4S	045534-08-5	30



Data File : I:\MSDCHEM\1\DATA\051212\4M60830.D
Acq On : 12 May 2012 18:56
Sample : L12050050-07
Misc : 1,1
MS Integration Params: LSCINT.P

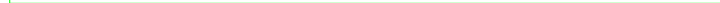
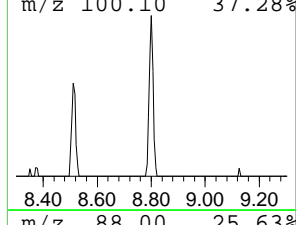
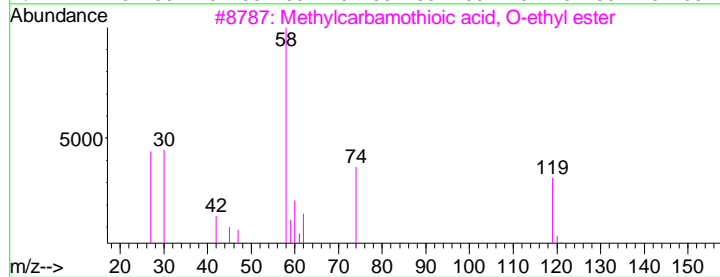
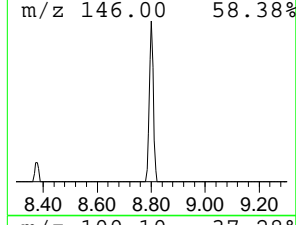
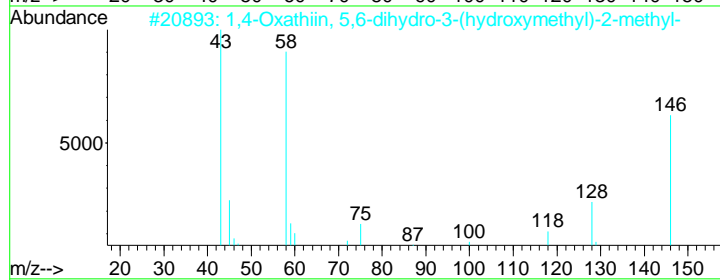
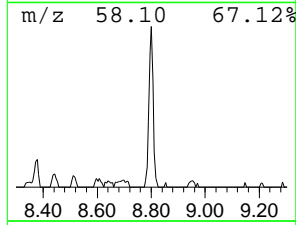
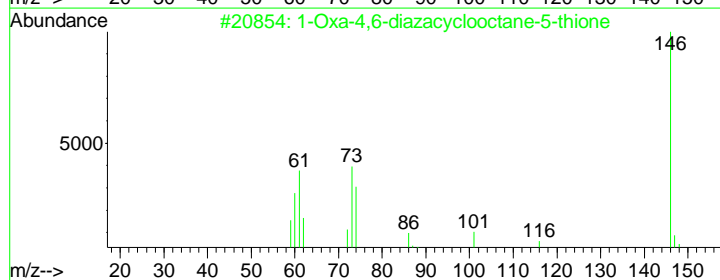
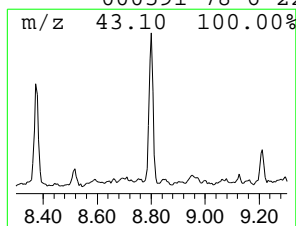
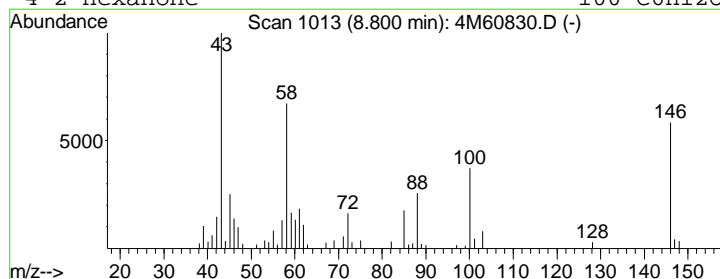
Vial: 15
Operator: CAA
Inst : HPMS4
Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
Library : I:\DATABASE\NIST02.L

Peak Number 4 1-Oxa-4,6-diazacyclooctane-... Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.80	4.00 ug/ml	195119	Naphthalene-d8	8.51

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1-Oxa-4,6-diazacyclooctane-5-thione	146	C5H10N2OS	074804-37-8	43
2		1,4-Oxathiin, 5,6-dihydro-3-(hyd...	146	C6H10O2S	107954-67-6	38
3		Methylcarbamothioic acid, O-ethy...	119	C4H9NOS	000817-73-2	25
4		2-Hexanone	100	C6H12O	000591-78-6	22



Data File : I:\MSDCHEM\1\DATA\051212\4M60830.D
 Acq On : 12 May 2012 18:56
 Sample : L12050050-07
 Misc : 1,1
 MS Integration Params: LSCINT.P

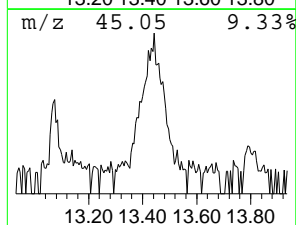
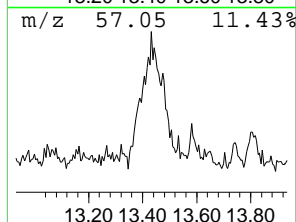
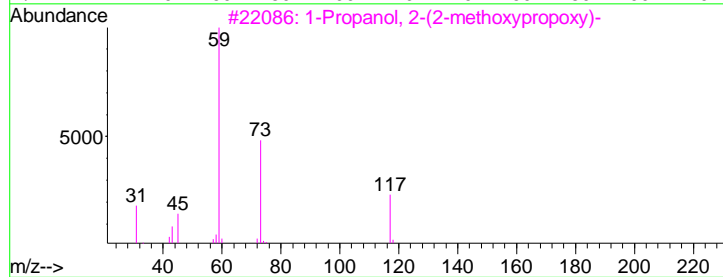
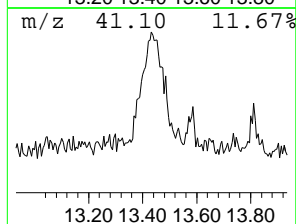
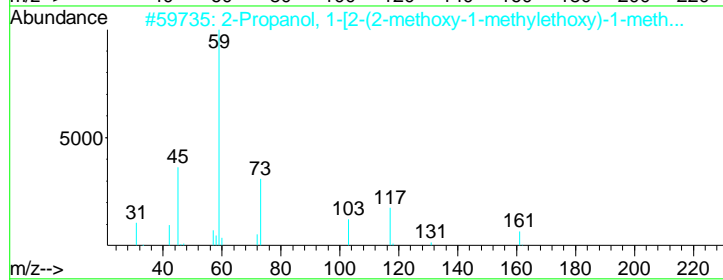
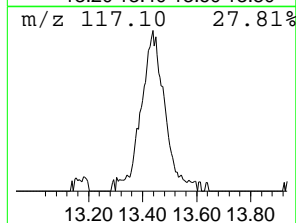
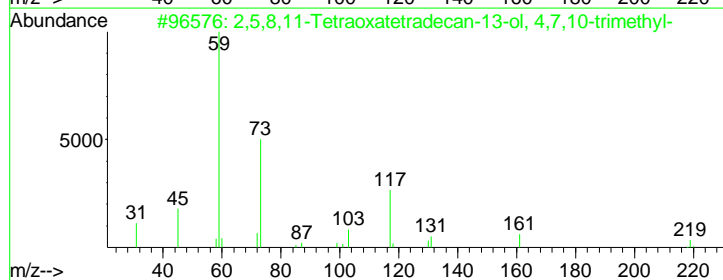
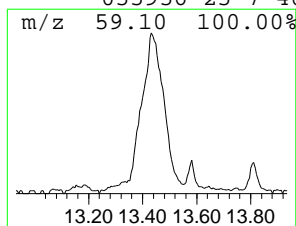
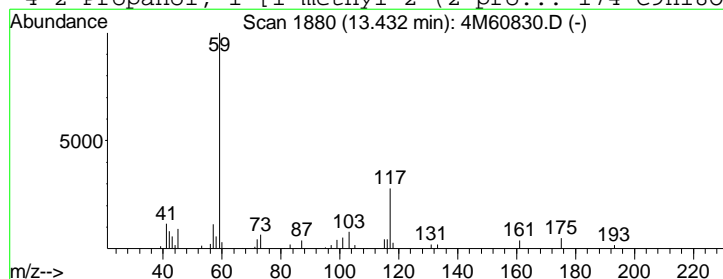
Vial: 15
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 5 2,5,8,11-Tetraoxatetradecan... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.43	8.16 ug/ml	484860	Phenanthrene-d10	11.92

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2,5,8,11-Tetraoxatetradecan-13-o...	264	C13H28O5	020324-34-9	50
2		2-Propanol, 1-[2-(2-methoxy-1-me...	206	C10H22O4	020324-33-8	45
3		1-Propanol, 2-(2-methoxypropoxy)-	148	C7H16O3	013588-28-8	42
4		2-Propanol, 1-[1-methyl-2-(2-pro...	174	C9H18O3	055956-25-7	40



Data File : I:\MSDCHEM\1\DATA\051212\4M60830.D
 Acq On : 12 May 2012 18:56
 Sample : L12050050-07
 Misc : 1,1
 MS Integration Params: LSCINT.P

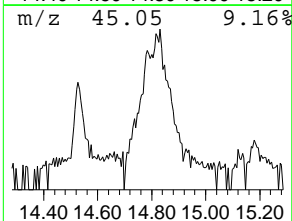
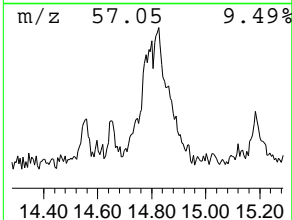
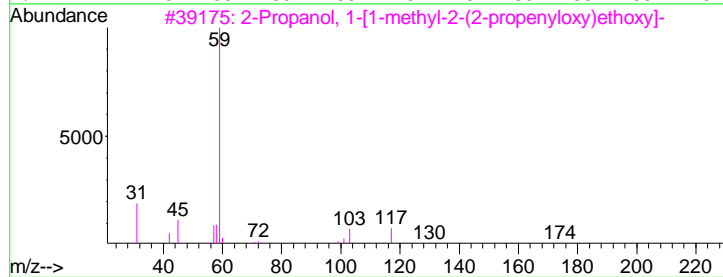
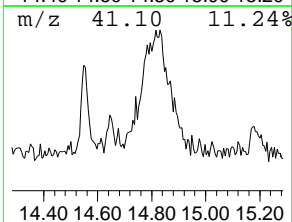
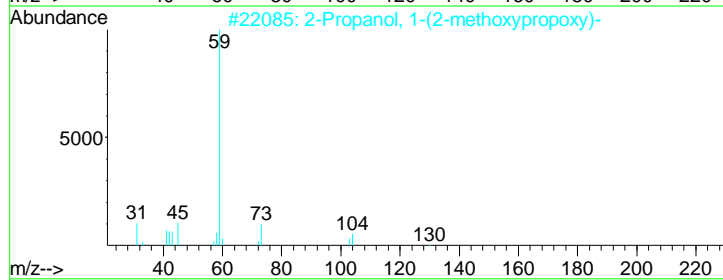
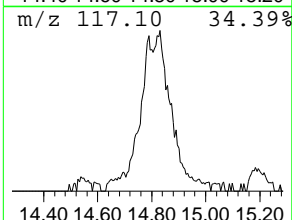
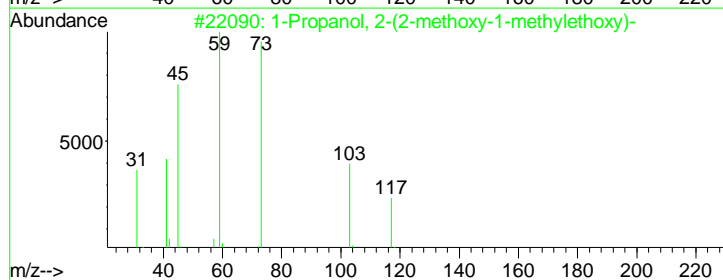
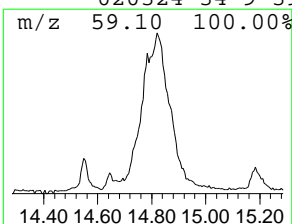
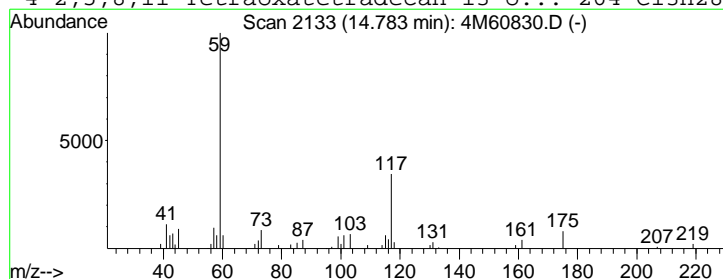
Vial: 15
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 6 1-Propanol, 2-(2-methoxy-1-... Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.78	4.19 ug/ml	252029	Chrysene-d12	15.60

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1-Propanol, 2-(2-methoxy-1-methy...	148	C7H16O3	055956-21-3	53
2		2-Propanol, 1-(2-methoxypropoxy)-	148	C7H16O3	013429-07-7	47
3		2-Propanol, 1-[1-methyl-2-(2-pro...	174	C9H18O3	055956-25-7	40
4		2,5,8,11-Tetraoxatetradecan-13-o...	264	C13H28O5	020324-34-9	39



Data File : I:\MSDCHEM\1\DATA\051212\4M60830.D
 Acq On : 12 May 2012 18:56
 Sample : L12050050-07
 Misc : 1,1
 MS Integration Params: LSCINT.P

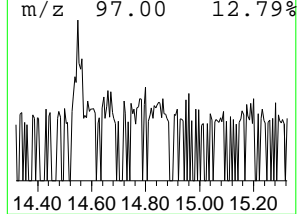
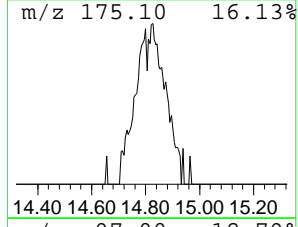
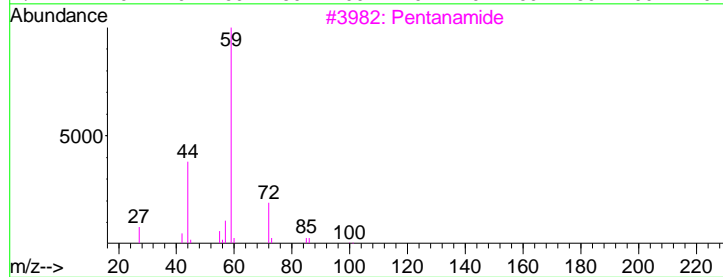
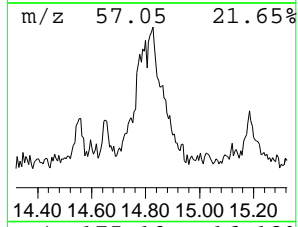
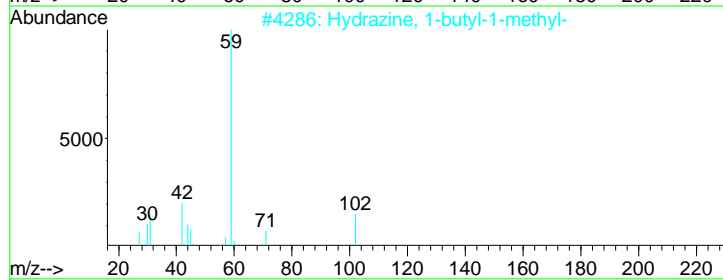
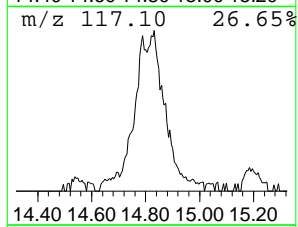
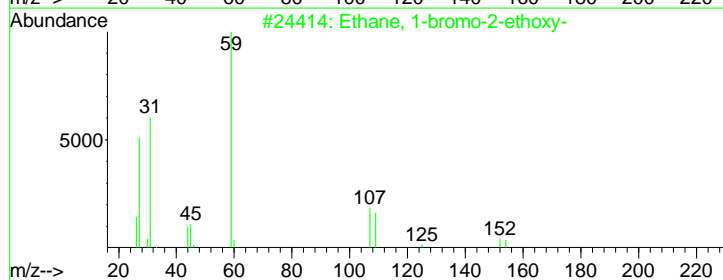
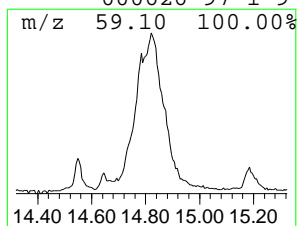
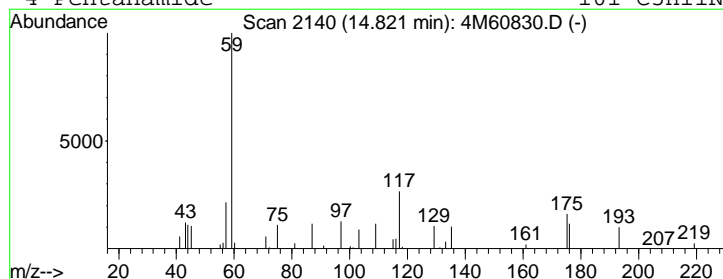
Vial: 15
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 7 Ethane, 1-bromo-2-ethoxy- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.82	6.60 ug/ml	397095	Chrysene-d12	15.60

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Ethane, 1-bromo-2-ethoxy-	152	C4H9BrO	000592-55-2	23
2		Hydrazine, 1-butyl-1-methyl-	102	C5H14N2	020240-62-4	17
3		Pentanamide	101	C5H11NO	000626-97-1	9
4		Pentanamide	101	C5H11NO	000626-97-1	9



Data File : I:\MSDCHEM\1\DATA\051212\4M60830.D
 Acq On : 12 May 2012 18:56
 Sample : L12050050-07
 Misc : 1,1
 MS Integration Params: LSCINT.P

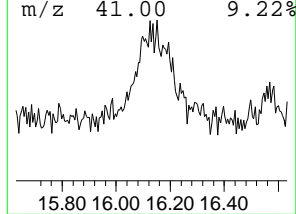
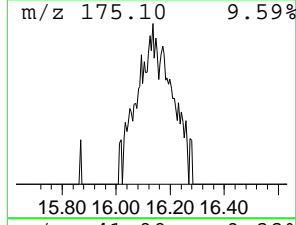
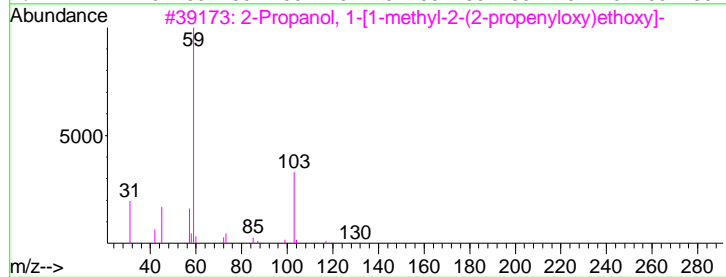
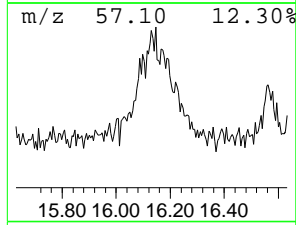
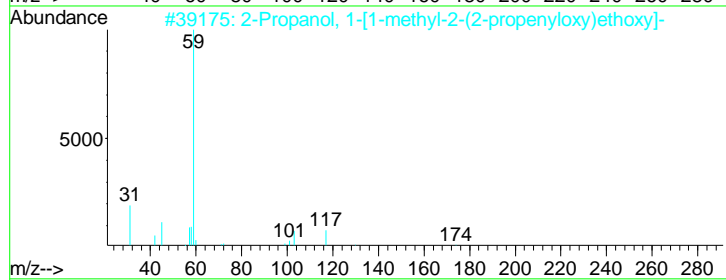
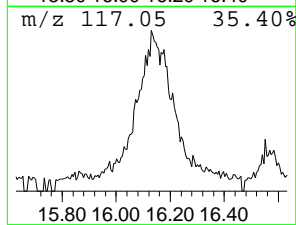
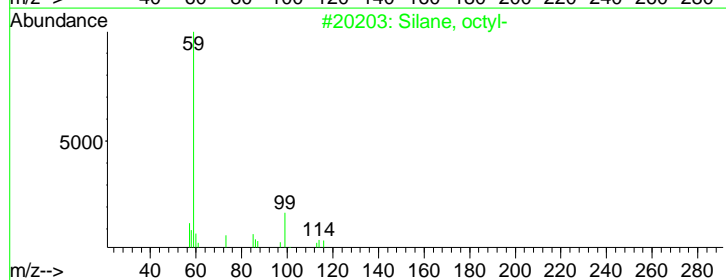
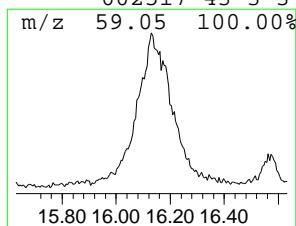
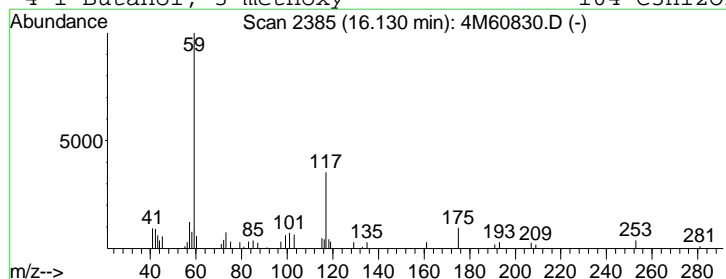
Vial: 15
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 8 Silane, octyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.13	7.50 ug/ml	451364	Chrysene-d12	15.60

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Silane, octyl-	144	C8H20Si	000871-92-1	47
2		2-Propanol, 1-[1-methyl-2-(2-pro...	174	C9H18O3	055956-25-7	40
3		2-Propanol, 1-[1-methyl-2-(2-pro...	174	C9H18O3	055956-25-7	38
4		1-Butanol, 3-methoxy-	104	C5H12O2	002517-43-3	37



Data File : I:\MSDCHEM\1\DATA\051212\4M60830.D
Acq On : 12 May 2012 18:56
Sample : L12050050-07
Misc : 1,1
MS Integration Params: LSCINT.P

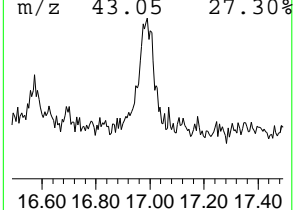
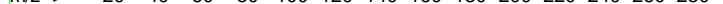
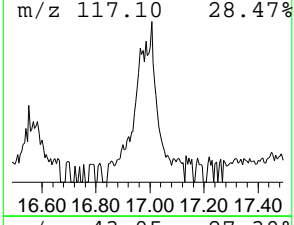
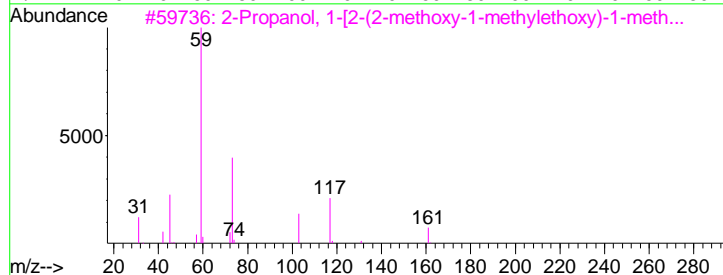
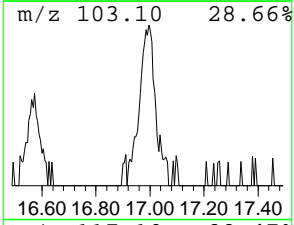
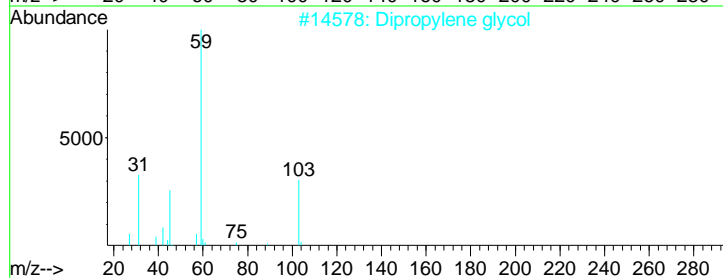
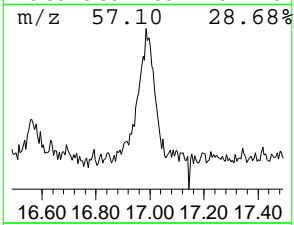
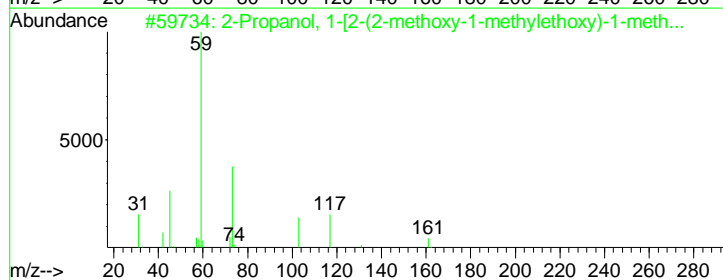
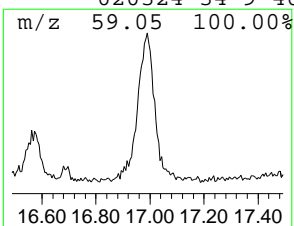
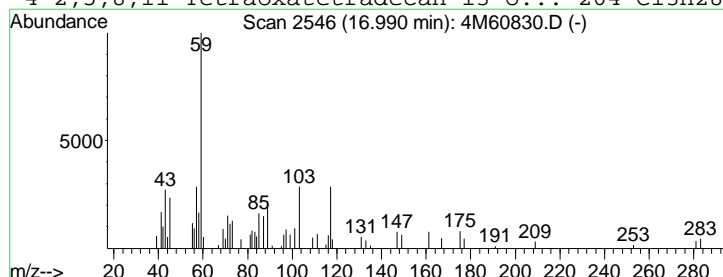
Vial: 15
Operator: CAA
Inst : HPMS4
Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
Library : I:\DATABASE\NIST02.L

Peak Number 9 2-Propanol, 1-[2-(2-methoxy... Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.99	4.82 ug/ml	274405	Perylene-d12	18.33

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2-Propanol, 1-[2-(2-methoxy-1-me...	206	C10H22O4	020324-33-8	53
2		Dipropylene glycol	134	C6H14O3	025265-71-8	43
3		2-Propanol, 1-[2-(2-methoxy-1-me...	206	C10H22O4	020324-33-8	40
4		2,5,8,11-Tetraoxatetradecan-13-o...	264	C13H28O5	020324-34-9	40



Tentatively Identified Compound (LSC) summary

Operator ID: CAA Date Acquired: 12 May 2012 18:56
Data File: I:\MSDCHEM\1\DATA\051212\4M60830.D
Name: L12050050-07
Misc: 1,1
Method: I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title: OVD MSS01 8270/625 Initial Calibration 04/19/12
Library Searched: I:\DATABASE\NIST02.L

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
Butane, 2-methoxy...	3.82	4.5	ug/ml	168582	1	7.23	1486460	40.0
2-Pentanone, 4-hy...	5.69	7.7	ug/ml	286444	1	7.23	1486460	40.0
4-Imidazolidinone...	8.11	7.9	ug/ml	384731	2	8.51	1950850	40.0
1-Oxa-4,6-diazacy...	8.80	4.0	ug/ml	195119	2	8.51	1950850	40.0
2,5,8,11-Tetraoxa...	13.43	8.2	ug/ml	484860	4	11.92	2376170	40.0
1-Propanol, 2-(2-...	14.78	4.2	ug/ml	252029	5	15.60	2406700	40.0
Ethane, 1-bromo-2...	14.82	6.6	ug/ml	397095	5	15.60	2406700	40.0
Silane, octyl-	16.13	7.5	ug/ml	451364	5	15.60	2406700	40.0
2-Propanol, 1-[2-...	16.99	4.8	ug/ml	274405	6	18.33	2278220	40.0

2.2.1.4 Standards Data

Data File : I:\MSDCHEM\1\DATA\041912\4M60439.D Vial: 2
 Acq On : 19 Apr 2012 9:22 Operator: CAA
 Sample : WG395394-02 50PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:19:43 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:19:39 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.29	152	296263	40.00	ug/ml	0.00
30) Naphthalene-d8	8.58	136	1142981	40.00	ug/ml	0.00
54) Acenaphthene-d10	10.39	164	655776	40.00	ug/ml	0.00
87) Phenanthrene-d10	11.99	188	1173140	40.00	ug/ml	0.00
113) Chrysene-d12	15.70	240	1109018	40.00	ug/ml	0.00
128) Perylene-d12	18.49	264	1083134	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
8) 2-Fluorophenol	6.05	112	443615	49.9857	ug/ml	0.02
Spiked Amount 100.000	Range 21 - 100		Recovery =	49.99%		
12) Phenol-d5	6.88	99	512467	51.0378	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery =	51.04%		
31) Nitrobenzene-d5	7.85	82	474197	50.7286	ug/ml	0.01
Spiked Amount 50.000	Range 35 - 114		Recovery =	101.46%		
59) 2-Fluorobiphenyl	9.64	172	1079454	55.4126	ug/ml	0.01
Spiked Amount 50.000	Range 43 - 116		Recovery =	110.82%		
86) 2,4,6-Tribromophenol	11.21	330	148910	57.2081	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery =	57.21%		
117) p-Terphenyl-d14	14.03	244	994996	52.9278	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	105.86%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.27	88	185033	51.6833	ug/ml#	92
3) n-Nitrosodimethylamine	4.70	74	263504	47.4424	ug/ml	99
4) Pyridine	4.72	79	466167	47.5330	ug/ml	98
5) 2-Picoline	5.50	93	511992	48.6122	ug/ml	100
6) n-Nitrosomethylethylamine	5.62	88	220837	47.4416	ug/ml	99
7) Methyl Methanesulfonate	5.90	80	248543	48.2213	ug/ml	99
9) n-Nitrosodiethylamine	6.29	102	240287	50.0469	ug/ml	98
10) Ethyl Methanesulfonate	6.54	79	323582	48.8787	ug/ml	99
11) Aniline	6.98	93	793273m	58.6766	ug/ml	
13) Phenol	6.89	94	548117	51.6690	ug/ml	100
14) bis(2-Chloroethyl)ether	7.00	63	334727	52.9904	ug/ml#	1
15) Pentachloroethane	7.02	167	187038	54.0943	ug/ml	99
16) 2-Chlorophenol	7.11	128	497875	51.1341	ug/ml	100
17) 1,3-Dichlorobenzene	7.26	146	546516	52.0870	ug/ml	100
18) 1,4-Dichlorobenzene	7.30	146	561209	52.9415	ug/ml	99
19) Benzyl Alcohol	7.39	108	323130	51.4484	ug/ml	99
20) 1,2-Dichlorobenzene	7.50	146	521321	54.2387	ug/ml	99
21) 2-Methylphenol	7.49	107	380206	51.9649	ug/ml	100
22) bis(2-Chloroisopropyl)eth	7.54	45	683034	50.3930	ug/ml	99
23) 3-,4-Methylphenol	7.62	107	494212	51.1333	ug/ml	100
24) n-Nitrosopyrrolidine	7.67	100	225885	55.1278	ug/ml	100
25) n-Nitrosodipropylamine	7.67	70	311009	59.5407	ug/ml	99
26) Acetophenone	7.68	105	610408	57.6225	ug/ml	99
27) n-Nitrosomorpholine	7.68	56	283563	56.4602	ug/ml	99
28) o-Toluidine	7.73	106	774939	53.5779	ug/ml	100
29) Hexachloroethane	7.81	117	207953	50.4010	ug/ml	99
32) Nitrobenzene	7.87	77	471369	51.3132	ug/ml	99
33) n-Nitrosopiperidine	8.01	114	252949	50.5594	ug/ml	98
34) Isophorone	8.08	82	857268	52.5914	ug/ml	99
35) 2-Nitrophenol	8.19	139	296019m	46.4787	ug/ml	
36) 2,4-Dimethylphenol	8.15	122	463322	52.6785	ug/ml	99
37) 0,0,0-Triethyl Phosphoroth	8.25	198	241610	57.3154	ug/ml	98
38) bis(2-Chloroethoxy)methane	8.25	93	654041	56.2488	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60439.D MEGAMIX.M Fri Apr 20 08:18:56 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60439.D Vial: 2
 Acq On : 19 Apr 2012 9:22 Operator: CAA
 Sample : WG395394-02 50PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:19:43 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:19:39 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Benzoic Acid	8.20	105	336174	73.2728	ug/ml	98
40) 2,4-Dichlorophenol	8.41	162	406146	52.5201	ug/ml	99
41) a,a-Dimethylphenethylamine	8.41	58	352764	51.6751	ug/ml	99
42) 1,2,4-Trichlorobenzene	8.52	180	454080	53.5984	ug/ml	100
43) Naphthalene	8.60	128	1478551	57.1286	ug/ml	100
44) 4-Chloroaniline	8.62	127	522329	52.6511	ug/ml	99
45) 2,6-Dichlorophenol	8.64	162	419189	53.0993	ug/ml	99
46) Hexachloropropene	8.71	213	274106	51.7151	ug/ml	100
47) Hexachlorobutadiene	8.74	225	236674	55.3981	ug/ml	99
48) n-Nitrosodi-n-Butylamine	8.94	84	394852	52.2669	ug/ml	98
49) p-Phenylenediamine	9.06	108	32834	52.7401	ug/ml	98
50) 4-Chloro-3-Methylphenol	9.06	107	409911	53.7336	ug/ml	100
51) Safrole	9.16	162	391403	54.0904	ug/ml	99
52) 2-Methylnaphthalene	9.29	142	967916	55.2571	ug/ml	100
53) 1-Methylnaphthalene	9.40	142	914409	54.9794	ug/ml	100
55) 1,2,4,5-Tetrachlorobenzene	9.49	216	420466	54.1164	ug/ml	100
56) Hexachlorocyclopentadiene	9.50	237	244269	59.3737	ug/ml	99
57) 2,4,6-Trichlorophenol	9.57	196	302655	52.9876	ug/ml	98
58) 2,4,5-Trichlorophenol	9.62	196	308844	53.9056	ug/ml	99
60) Isosafrole	9.68	162	410694	52.1570	ug/ml	97
61) 2-Chloronaphthalene	9.79	162	906729	52.6084	ug/ml	99
62) 1-Chloronaphthalene	9.83	162	864129	53.6130	ug/ml	100
63) 2-Nitroaniline	9.89	65	261334	50.5913	ug/ml	98
64) 1,4-Naphthoquinone	9.95	158	378469	58.4376	ug/ml	99
65) Dimethylphthalate	10.05	163	1022202	54.3128	ug/ml	100
66) 1,3-Dinitrobenzene	10.10	168	201353	50.3149	ug/ml	99
67) 2,6-Dinitrotoluene	10.15	165	256989	51.4076	ug/ml	100
68) Acenaphthylene	10.24	152	1459231	55.8004	ug/ml	100
69) 3-Nitroaniline	10.31	138	174456	67.4649	ug/ml#	68
70) 2,4-Dinitrophenol	10.41	184	130897	51.1568	ug/ml	78
71) Acenaphthene	10.42	154	959014	56.1434	ug/ml	99
72) 4-Nitrophenol	10.40	65	186191	50.9475	ug/ml	99
73) 2,4-Dinitrotoluene	10.56	165	332745	54.9652	ug/ml	98
74) Pentachlorobenzene	10.60	250	385447	55.3704	ug/ml	99
75) Dibenzofuran	10.57	168	1276287	57.1887	ug/ml	99
76) 2,3,4,6-Tetrachlorophenol	10.67	232	227393	59.5614	ug/ml	99
77) 1-Naphthylamine	10.65	143	73636	134.9308	ug/ml#	18
78) 2-Naphthylamine	10.72	143	24431	63.2418	ug/ml#	91
79) Diethylphthalate	10.76	149	1020028	54.9216	ug/ml	100
80) Thionazin	10.86	107	172379	55.2578	ug/ml	99
81) Fluorene	10.94	166	1088180	55.7218	ug/ml	99
82) 4-Chlorophenyl Phenyl Ether	10.88	204	515271	56.5666	ug/ml	100
83) 4-Nitroaniline	10.95	138	223285	53.1737	ug/ml	96
84) 5-Nitro-o-Toluidine	10.94	152	233161	57.0574	ug/ml	94
85) 1,2-Diphenylhydrazine	11.05	77	983010	53.6394	ug/ml	98
88) 4,6-Dinitro-2-Methylphenol	10.98	198	184821	44.9291	ug/ml	97
89) n-Nitrosodiphenylamine	11.01	169	929531	53.8800	ug/ml	99
90) SulfoTEPP	11.20	322	169813	53.6919	ug/ml	97
91) Sym-Trinitrobenzene	11.28	75	245626	47.8546	ug/ml	98
92) Diallate	11.33	86	380783	55.9524	ug/ml	99
93) Phenacetin	11.32	108	503393	55.1920	ug/ml	99
94) Phorate	11.35	75	609588	53.7949	ug/ml#	99
95) 4-Bromophenyl Phenyl Ether	11.42	248	293263	53.0441	ug/ml	99
96) Hexachlorobenzene	11.63	284	321319	54.1592	ug/ml	98

(#) = qualifier out of range (m) = manual integration
 4M60439.D MEGAMIX.M Fri Apr 20 08:18:56 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60439.D Vial: 2
 Acq On : 19 Apr 2012 9:22 Operator: CAA
 Sample : WG395394-02 50PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:19:43 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:19:39 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97) Dimethoate	11.56	87	339058	61.7901	ug/ml	100
98) 4-Aminobiphenyl	11.72	169	362625	53.7158	ug/ml	100
99) Pentachlorophenol	11.81	266	206843	60.4342	ug/ml	98
100) Pronamide	11.75	173	474797	52.5004	ug/ml	99
101) Pentachloronitrobenzene	11.90	237	112466	52.7533	ug/ml	98
102) Disulfoton	11.94	88	525023	51.7079	ug/ml	99
103) Phenanthrene	12.03	178	1519697	53.8500	ug/ml	100
104) Anthracene	12.08	178	1564112	53.9305	ug/ml	100
105) Carbazole	12.24	167	1383835	51.1066	ug/ml	100
106) Parathion Methyl	12.41	109	332197	61.4956	ug/ml	98
107) Di-n-Butyl Phthalate	12.60	149	1699050	53.3192	ug/ml	100
108) Parathion Ethyl	12.89	97	202803	51.9363	ug/ml	97
109) 4-Nitroquinoline 1-Oxide	12.99	190	164563	87.9970	ug/ml	99
110) Methapyrilene	13.05	58	313634	53.4102	ug/ml	99
111) Isodrin	13.40	193	164002	52.0160	ug/ml	99
112) Fluoranthene	13.58	202	1596911	54.0089	ug/ml	99
114) Benzidine	13.69	184	13235	391.6902	ug/ml	100
115) Pyrene	13.91	202	1618198	52.1353	ug/ml	100
116) Aramite	13.94	185	96625	51.3784	ug/ml	99
118) p-(Dimethylamino)azobenzen	14.25	225	344938	52.1731	ug/ml	96
119) Chlorobenzilate	14.29	251	452662	52.1067	ug/ml	98
120) Famphur	14.70	218	19662	24.2241	ug/ml#	52
121) Butyl Benzyl Phthalate	14.72	149	736908	49.5460	ug/ml	99
122) 3,3'-Dimethylbenzidine	14.73	212	265248	88.0533	ug/ml	97
123) 2-Acetylaminofluorene	15.15	181	672726	50.6242	ug/ml	99
124) bis(2-Ethylhexyl)phthalate	15.57	149	1020072	51.9755	ug/ml	100
125) 3,3'-Dichlorobenzidine	15.58	252	322552	62.1461	ug/ml	99
126) Benzo[a]anthracene	15.66	228	1436678	52.4916	ug/ml	100
127) Chrysene	15.73	228	1327816	51.8780	ug/ml	99
129) Di-n-Octyl Phthalate	16.55	149	1737436	49.8326	ug/ml	99
130) 7,12-Dimethylbenz[a]anthra	17.62	256	693312	52.0347	ug/ml	99
131) Benzo[b]fluoranthene	17.62	252	1510511	48.9916	ug/ml	99
132) Benzo[k]fluoranthene	17.67	252	1477424	55.0736	ug/ml	96
133) Benzo[a]pyrene	18.36	252	1420992	50.6605	ug/ml	100
134) 3-Methylcholanthrene	19.26	268	780637	51.2505	ug/ml	99
135) Indeno[1,2,3-cd]pyrene	21.62	276	1616295	49.1334	ug/ml	99
136) Dibenz[ah]anthracene	21.61	278	1352159	49.3321	ug/ml	100
137) Benzo[ghi]perylene	22.55	276	1336874	49.0395	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60439.D MEGAMIX.M Fri Apr 20 08:18:56 2012

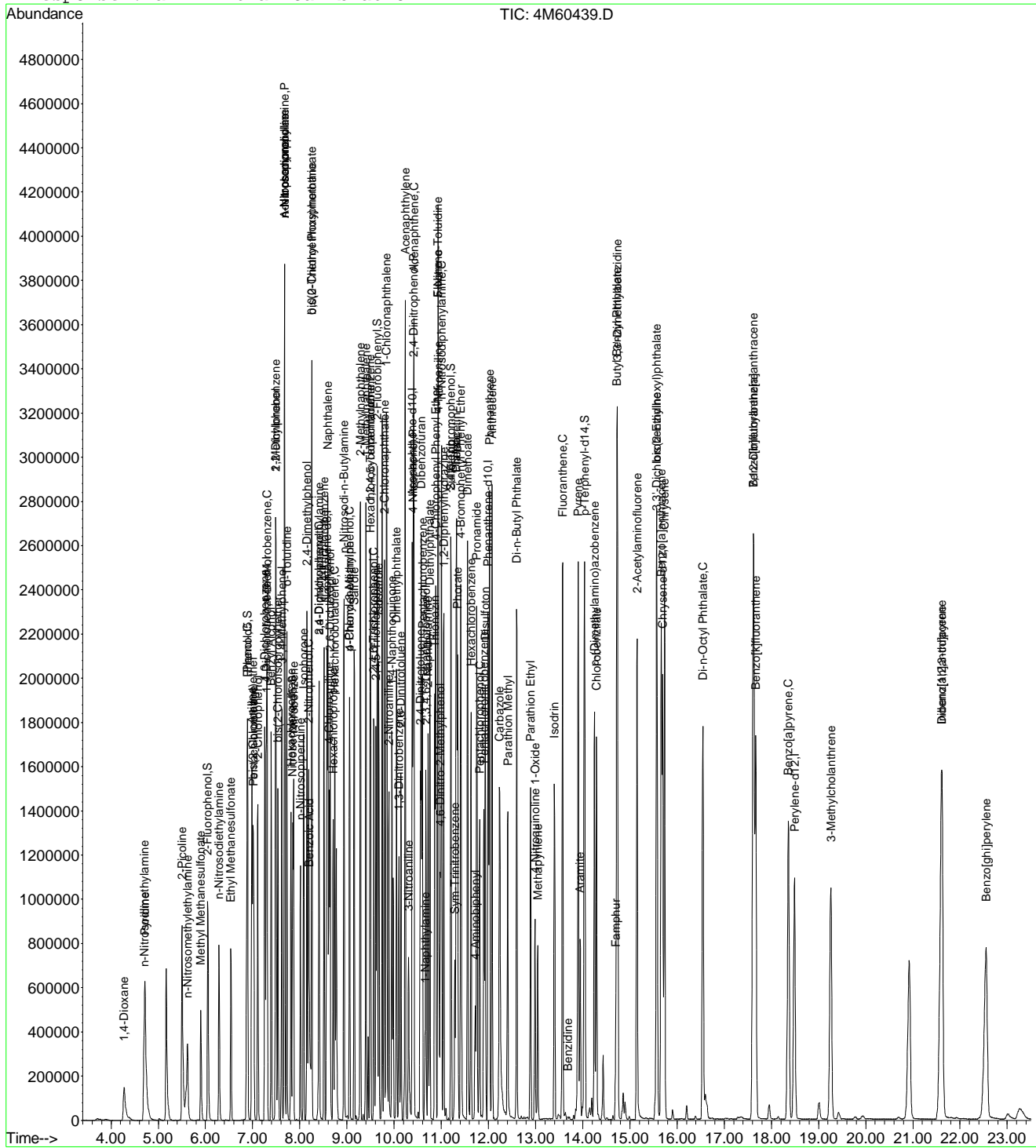
Page 3

Data File : I:\MSDCHEM\1\DATA\041912\4M60439.D
Acq On : 19 Apr 2012 9:22
Sample : WG395394-02 50PPM Megamix STD
Misc : 1,1 STD50886
MS Integration Params: RTEINT.P
Quant Time: Apr 19 14:20 2012

Vial: 2
Operator: CAA
Inst : HPMS4
Multiplr: 1.00

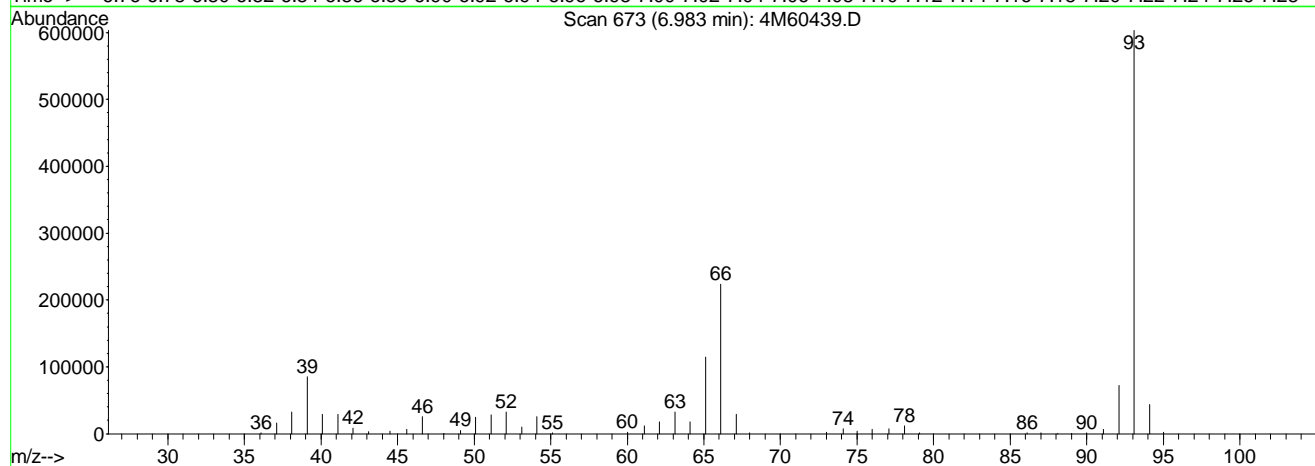
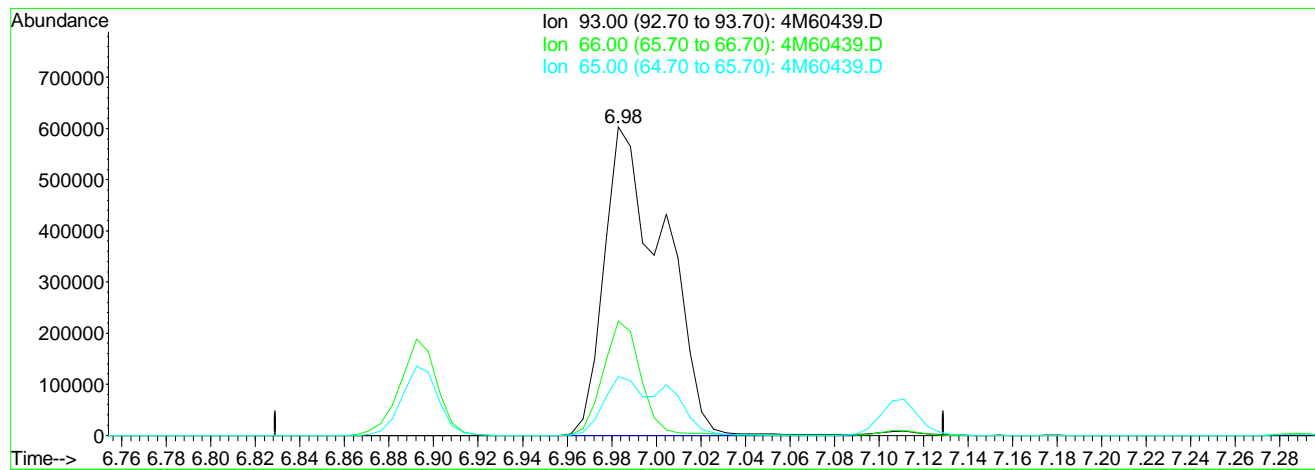
Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
Last Update : Thu Apr 19 14:27:47 2012
Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\041912\4M60439.D Vial: 2
 Acq On : 19 Apr 2012 9:22 Operator: CAA
 Sample : WG395394-02 50PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:19 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:19:39 2012
 Response via : Multiple Level Calibration



TIC: 4M60439.D

(11) Aniline

6.98min 83.11ug/ml

response 1123623

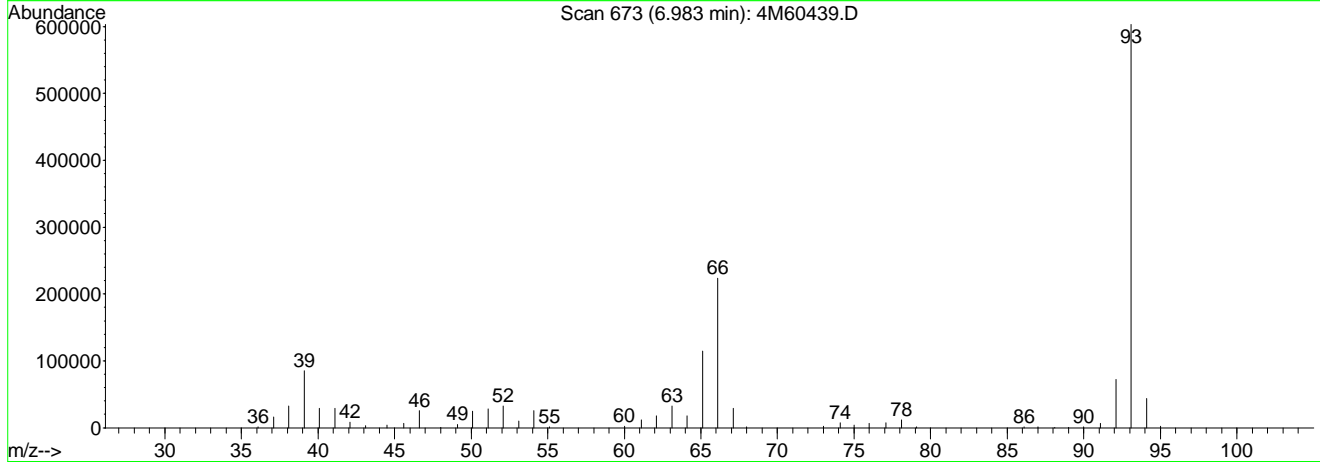
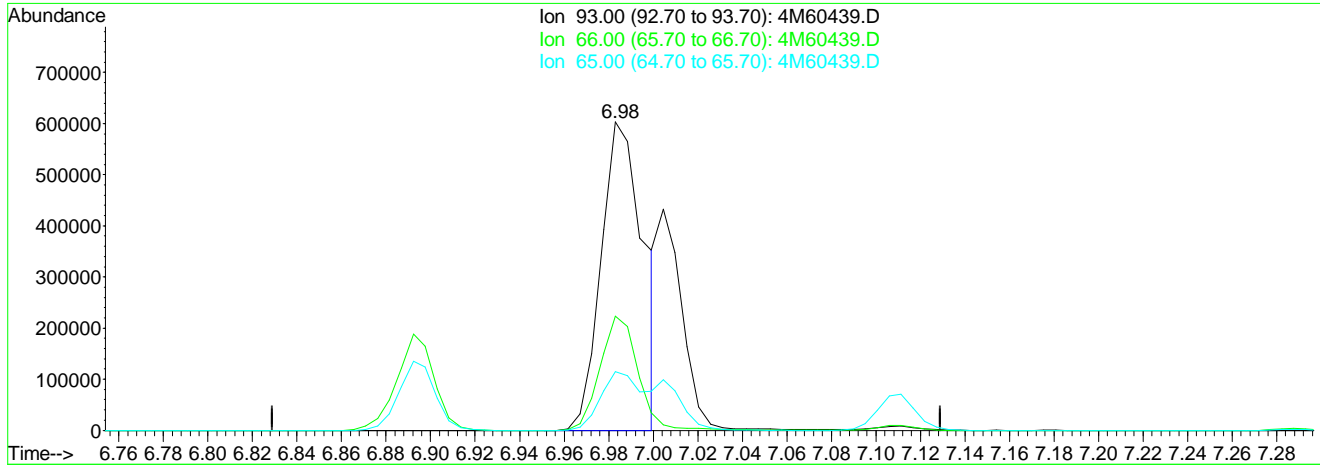
Ion	Exp%	Act%
93.00	100	100
66.00	42.70	23.58#
65.00	19.20	20.60
0.00	0.00	0.00

Data File : I:\MSDCHEM\1\DATA\041912\4M60439.D
 Acq On : 19 Apr 2012 9:22
 Sample : WG395394-02 50PPM Megamix STD
 Misc : 1,1 STD50886
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:19 2012

Vial: 2
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:19:39 2012
 Response via : Multiple Level Calibration



TIC: 4M60439.D

(11) Aniline

6.98min 58.68ug/ml mint
 response 793273

Ion	Exp%	Act%
93.00	100	100
66.00	42.70	33.40
65.00	19.20	29.18#
0.00	0.00	0.00

4M60439.D MEGAMIX.M

Thu Apr 19

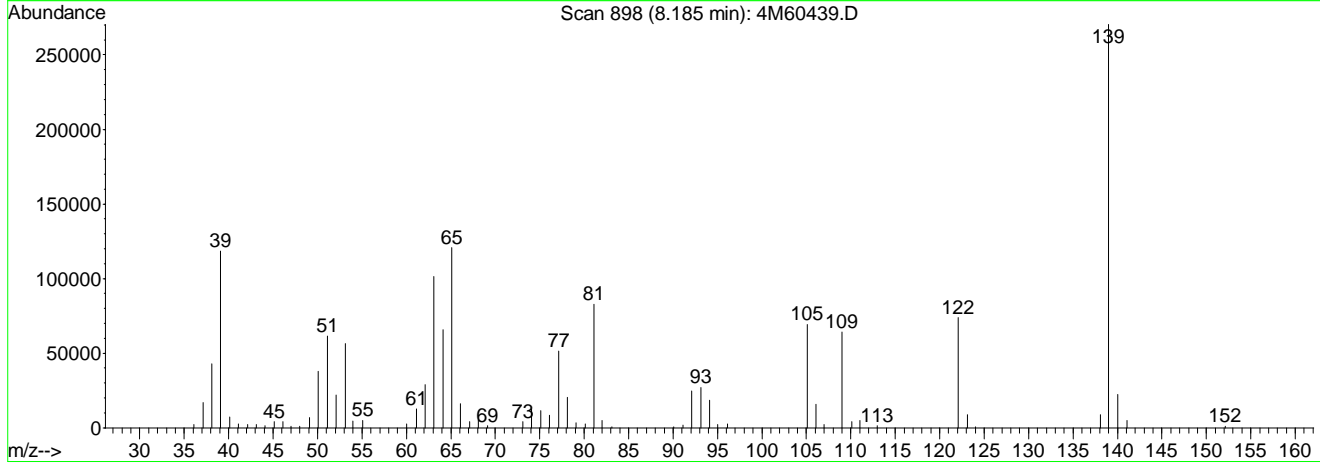
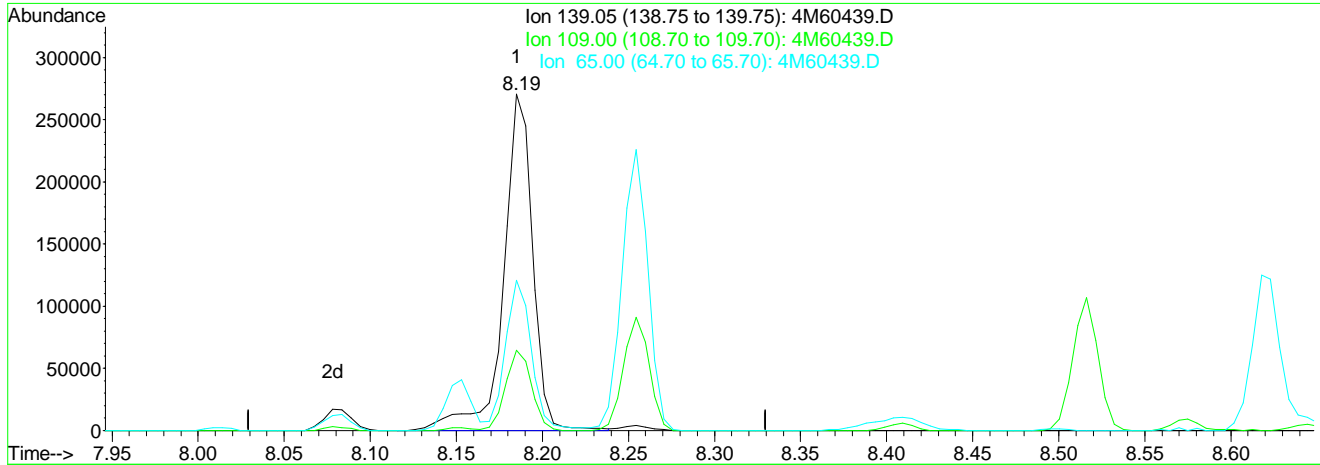
Analyst: 04/20/2012 09:30 Supervisor: 04/20/2012 11:41
 C. Casanova; 2012 *Michael Casanova*
 #3 - Improperly integrated isomers and/or coeluting compounds

Data File : I:\MSDCHEM\1\DATA\041912\4M60439.D
 Acq On : 19 Apr 2012 9:22
 Sample : WG395394-02 50PPM Megamix STD
 Misc : 1,1 STD50886
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:19 2012

Vial: 2
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:19:39 2012
 Response via : Multiple Level Calibration



TIC: 4M60439.D

(35) 2-Nitrophenol (C)

8.19min 50.19ug/ml

response 319686

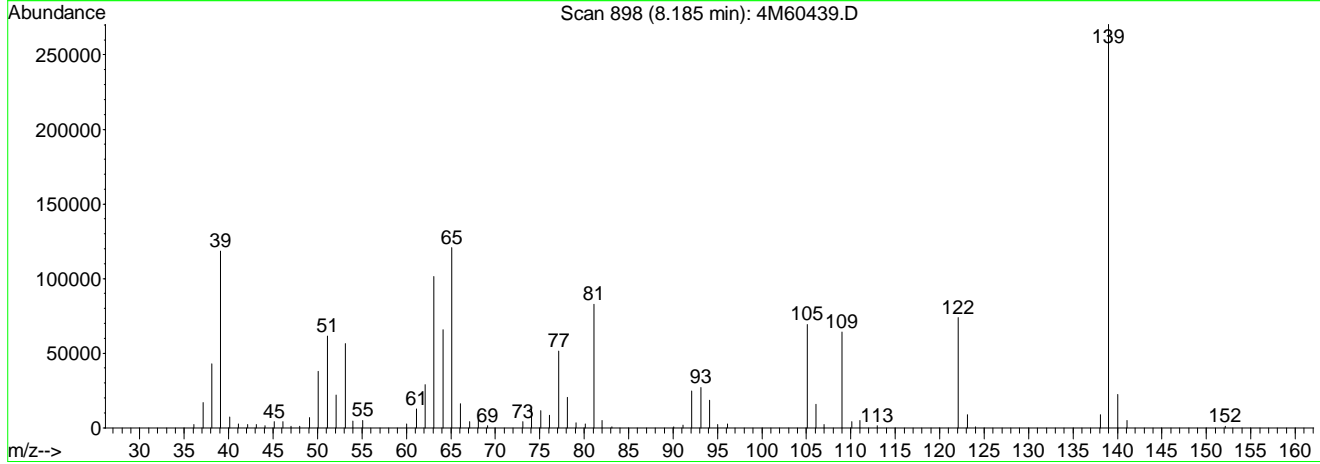
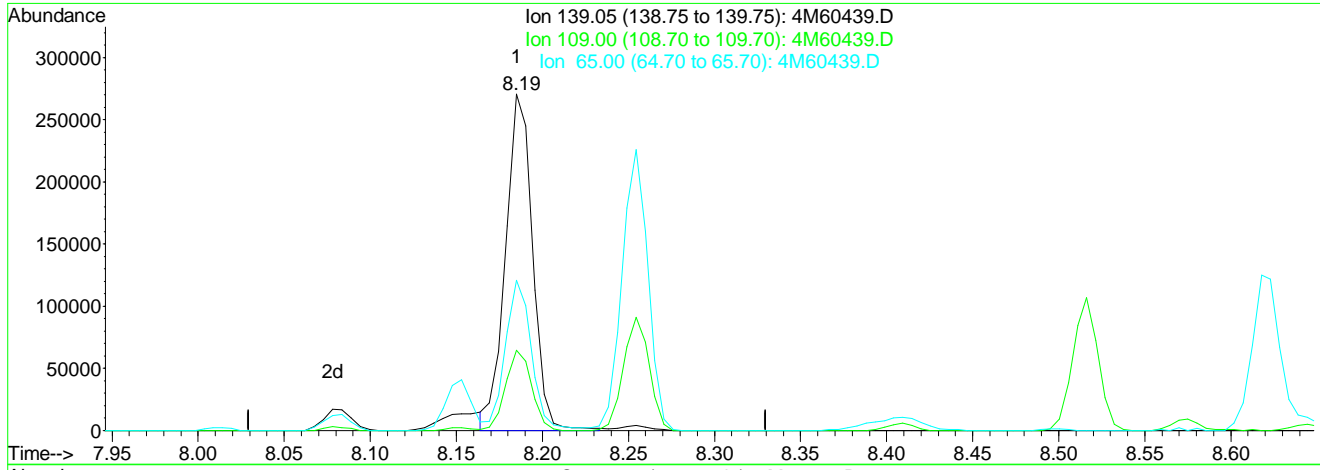
Ion	Exp%	Act%
139.05	100	100
109.00	16.10	21.09
65.00	37.90	40.29
0.00	0.00	0.00

Data File : I:\MSDCHEM\1\DATA\041912\4M60439.D
 Acq On : 19 Apr 2012 9:22
 Sample : WG395394-02 50PPM Megamix STD
 Misc : 1,1 STD50886
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:20 2012

Vial: 2
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:19:39 2012
 Response via : Multiple Level Calibration



TIC: 4M60439.D

(35) 2-Nitrophenol (C)

8.19min 46.48ug/ml mint

response 296019

Ion	Exp%	Act%
139.05	100	100
109.00	16.10	22.78#
65.00	37.90	43.51
0.00	0.00	0.00

4M60439.D MEGAMIX.M

Thu Apr 19

Analyst: 04/20/2012 09:30 Supervisor: 04/20/2012 11:41
 C. A. Augustin 2012 *Michael Carlson*
 #3 - Improperly integrated isomers and/or coeluting compounds

Data File : I:\MSDCHEM\1\DATA\041912\4M60440.D Vial: 3
 Acq On : 19 Apr 2012 9:56 Operator: CAA
 Sample : WG395394-03 3PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:20:38 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:20:34 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.29	152	267420	40.00	ug/ml	0.00
30) Naphthalene-d8	8.57	136	1002832	40.00	ug/ml	0.00
54) Acenaphthene-d10	10.38	164	566848	40.00	ug/ml	0.00
87) Phenanthrene-d10	11.99	188	996557	40.00	ug/ml	0.00
113) Chrysene-d12	15.69	240	955111	40.00	ug/ml	0.00
128) Perylene-d12	18.48	264	933139	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
8) 2-Fluorophenol	6.05	112	25566	3.1943	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery =	3.19%#		
12) Phenol-d5	6.88	99	30625	3.3848	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery =	3.38%#		
31) Nitrobenzene-d5	7.84	82	27396	3.3468	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	6.70%#		
59) 2-Fluorobiphenyl	9.64	172	63455	3.7601	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	7.52%#		
86) 2,4,6-Tribromophenol	11.20	330	7756	3.4260	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery =	3.43%#		
117) p-Terphenyl-d14	14.03	244	59375	3.6668	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	7.34%#		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.28	88	9565	2.9573	ug/ml#	96
3) n-Nitrosodimethylamine	4.70	74	15443	3.0935	ug/ml	99
4) Pyridine	4.72	79	28330	3.2140	ug/ml	98
5) 2-Picoline	5.51	93	30545	3.2216	ug/ml	98
6) n-Nitrosomethylethylamine	5.62	88	12711	3.0354	ug/ml	96
7) Methyl Methanesulfonate	5.90	80	15638	3.3789	ug/ml	99
9) n-Nitrosodiethylamine	6.29	102	13711	3.1676	ug/ml	91
10) Ethyl Methanesulfonate	6.54	79	19752	3.3165	ug/ml	99
11) Aniline	6.98	93	44787m	3.5962	ug/ml	
13) Phenol	6.89	94	33658	3.5179	ug/ml	98
14) bis(2-Chloroethyl)ether	7.01	63	21246	3.7316	ug/ml	93
15) Pentachloroethane	7.02	167	11139	3.5663	ug/ml	98
16) 2-Chlorophenol	7.11	128	29118	3.3159	ug/ml	99
17) 1,3-Dichlorobenzene	7.26	146	33383	3.5287	ug/ml	97
18) 1,4-Dichlorobenzene	7.30	146	33902	3.5447	ug/ml	93
19) Benzyl Alcohol	7.39	108	18359	3.2357	ug/ml	99
20) 1,2-Dichlorobenzene	7.50	146	31736	3.6527	ug/ml	99
21) 2-Methylphenol	7.48	107	22411	3.3934	ug/ml	96
22) bis(2-Chloroisopropyl)eth	7.53	45	42714	3.5051	ug/ml	96
23) 3-,4-Methylphenol	7.61	107	29104	3.3376	ug/ml	98
24) n-Nitrosopyrrolidine	7.66	100	13086	3.5346	ug/ml	81
25) n-Nitrosodipropylamine	7.67	70	19190	4.0606	ug/ml	93
26) Acetophenone	7.68	105	38723	4.0393	ug/ml	99
27) n-Nitrosomorpholine	7.67	56	18655	4.1044	ug/ml	96
28) o-Toluidine	7.72	106	46596	3.5537	ug/ml	97
29) Hexachloroethane	7.81	117	11768	3.1652	ug/ml	97
32) Nitrobenzene	7.87	77	28033	3.4846	ug/ml	95
33) n-Nitrosopiperidine	8.01	114	14470	3.2997	ug/ml	96
34) Isophorone	8.08	82	51229	3.5834	ug/ml	98
35) 2-Nitrophenol	8.19	139	14686	2.7155	ug/ml	97
36) 2,4-Dimethylphenol	8.15	122	33490	4.3356	ug/ml	82
37) 0,0,0-Triethyl Phosphoroth	8.25	198	14464	3.8966	ug/ml	99
38) bis(2-Chloroethoxy)methane	8.25	93	39621	3.8831	ug/ml	97

(#) = qualifier out of range (m) = manual integration
 4M60440.D MEGAMIX.M Fri Apr 20 08:18:57 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60440.D

Vial: 3

Acq On : 19 Apr 2012 9:56

Operator: CAA

Sample : WG395394-03 3PPM Megamix STD

Inst : HPMS4

Misc : 1,1 STD50886

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Apr 19 14:20:38 2012

Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)

Title : OVD MSS01 8270/625 Initial Calibration 04/19/12

Last Update : Thu Apr 19 14:20:34 2012

Response via : Initial Calibration

DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Benzoic Acid	8.17	105	8942	2.1054	ug/ml#	1
40) 2,4-Dichlorophenol	8.40	162	23297	3.4366	ug/ml	98
41) a,a-Dimethylphenethylamine	8.36	58	55768	9.3752	ug/ml#	90
42) 1,2,4-Trichlorobenzene	8.51	180	27461	3.6967	ug/ml	99
43) Naphthalene	8.59	128	89968	3.9514	ug/ml	98
44) 4-Chloroaniline	8.62	127	34347	3.8389	ug/ml	97
45) 2,6-Dichlorophenol	8.64	162	23700	3.4202	ug/ml	99
46) Hexachloropropene	8.71	213	13146	2.8310	ug/ml	99
47) Hexachlorobutadiene	8.74	225	13857	3.6903	ug/ml	98
48) n-Nitrosodi-n-Butylamine	8.93	84	23037	3.4699	ug/ml	97
49) p-Phenylenediamine	9.05	108	1961	3.5847	ug/ml#	86
50) 4-Chloro-3-Methylphenol	9.05	107	23094	3.4473	ug/ml	100
51) Safrole	9.15	162	22407	3.5239	ug/ml	99
52) 2-Methylnaphthalene	9.28	142	57527	3.7383	ug/ml	100
53) 1-Methylnaphthalene	9.40	142	54666	3.7433	ug/ml	99
55) 1,2,4,5-Tetrachlorobenzene	9.49	216	24923	3.7091	ug/ml	98
56) Hexachlorocyclopentadiene	9.50	237	10305	2.8713	ug/ml	99
57) 2,4,6-Trichlorophenol	9.57	196	15865	3.2084	ug/ml	99
58) 2,4,5-Trichlorophenol	9.61	196	16640	3.3537	ug/ml	100
60) Isosafrole	9.67	162	22170	3.2560	ug/ml	99
61) 2-Chloronaphthalene	9.79	162	52303	3.5118	ug/ml	100
62) 1-Chloronaphthalene	9.83	162	50840	3.6501	ug/ml	99
63) 2-Nitroaniline	9.88	65	13815	3.0889	ug/ml	97
64) 1,4-Naphthoquinone	9.95	158	20970	3.7456	ug/ml	99
65) Dimethylphthalate	10.04	163	59595	3.6590	ug/ml	100
66) 1,3-Dinitrobenzene	10.10	168	9788	2.8306	ug/ml	95
67) 2,6-Dinitrotoluene	10.14	165	13905	3.2192	ug/ml	99
68) Acenaphthylene	10.23	152	86364	3.8139	ug/ml	99
69) 3-Nitroaniline	10.30	138	13846	5.5954	ug/ml	97
70) 2,4-Dinitrophenol	10.40	184	1897	0.8479	ug/ml#	1
71) Acenaphthene	10.41	154	54687	3.6907	ug/ml	97
72) 4-Nitrophenol	10.39	65	10863	3.4363	ug/ml	81
73) 2,4-Dinitrotoluene	10.55	165	17015	3.2414	ug/ml	95
74) Pentachlorobenzene	10.60	250	21881	3.6269	ug/ml	99
75) Dibenzofuran	10.57	168	75169	3.8854	ug/ml	99
76) 2,3,4,6-Tetrachlorophenol	10.67	232	13262	4.0116	ug/ml	99
77) 1-Naphthylamine	10.65	143	47479	86.5695	ug/ml#	66
78) 2-Naphthylamine	10.71	143	39183	118.9922	ug/ml#	57
79) Diethylphthalate	10.75	149	58814	3.6587	ug/ml	99
80) Thionazin	10.85	107	9631	3.5646	ug/ml	94
81) Fluorene	10.93	166	64601	3.8179	ug/ml	100
82) 4-Chlorophenyl Phenyl Ether	10.88	204	29324	3.7112	ug/ml	98
83) 4-Nitroaniline	10.93	138	13701	3.7580	ug/ml	94
84) 5-Nitro-o-Toluidine	10.93	152	16758	4.6699	ug/ml	99
85) 1,2-Diphenylhydrazine	11.04	77	57128	3.6092	ug/ml	97
88) 4,6-Dinitro-2-Methylphenol	10.97	198	4516	1.2952	ug/ml#	24
89) n-Nitrosodiphenylamine	11.00	169	53933	3.6688	ug/ml	98
90) Sulfolon	11.20	322	9525	3.5392	ug/ml	97
91) Sym-Trinitrobenzene	11.27	75	9014	2.0672	ug/ml	95
92) Diallate	11.32	86	22249	3.8474	ug/ml	99
93) Phenacetin	11.30	108	25981	3.3474	ug/ml	96
94) Phorate	11.34	75	33359	3.4677	ug/ml#	99
95) 4-Bromophenyl Phenyl Ether	11.41	248	16506	3.5090	ug/ml	99
96) Hexachlorobenzene	11.63	284	18694	3.7029	ug/ml	98

(#) = qualifier out of range (m) = manual integration
 4M60440.D MEGAMIX.M Fri Apr 20 08:18:57 2012

Page 2

Data File : I:\MSDCHEM\1\DATA\041912\4M60440.D Vial: 3
 Acq On : 19 Apr 2012 9:56 Operator: CAA
 Sample : WG395394-03 3PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:20:38 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:20:34 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

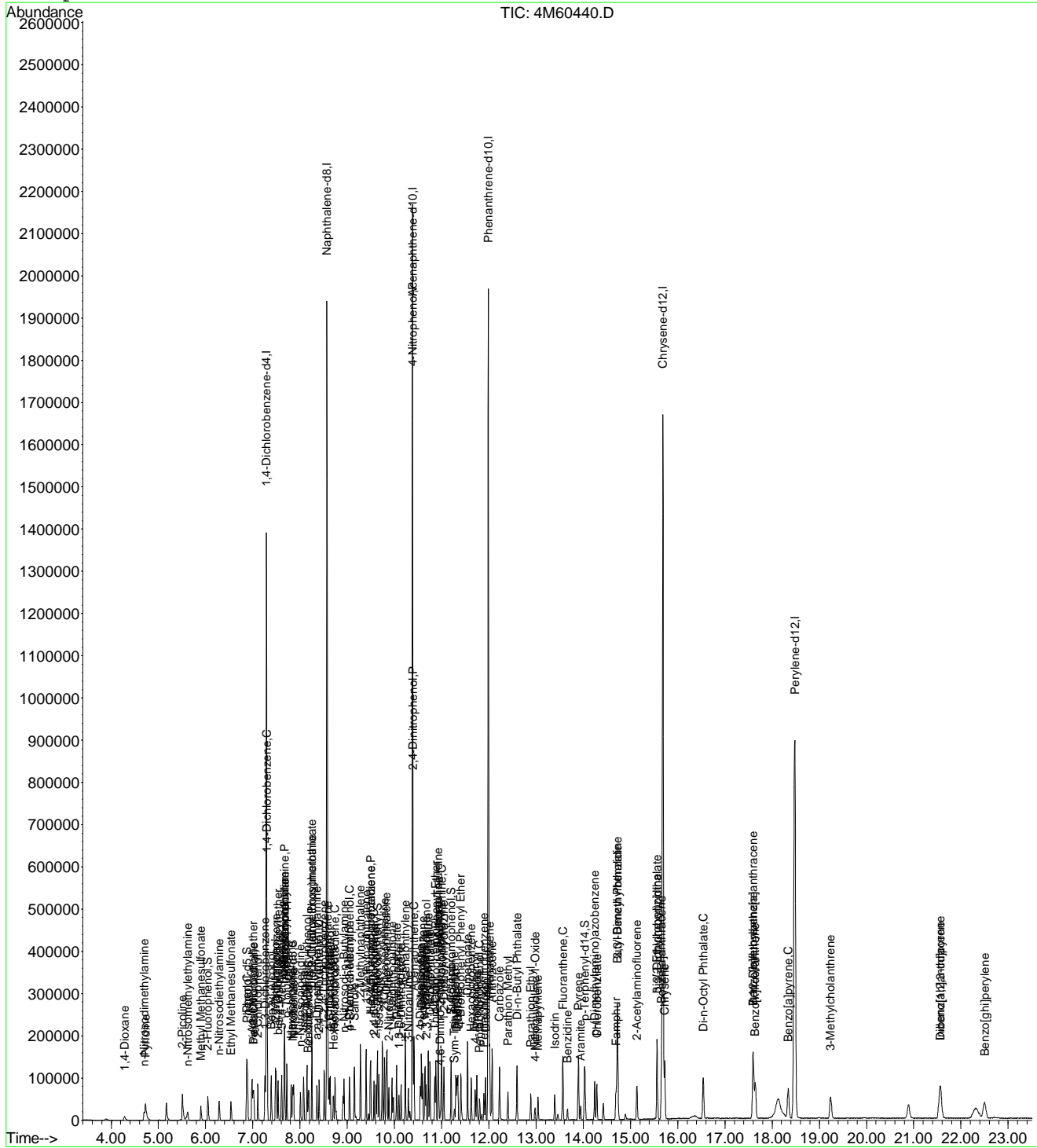
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97) Dimethoate	11.55	87	21420	4.5998	ug/ml	98
98) 4-Aminobiphenyl	11.71	169	41614	7.2373	ug/ml	97
99) Pentachlorophenol	11.80	266	8880	3.0117	ug/ml	98
100) Pronamide	11.74	173	25508	3.3192	ug/ml	97
101) Pentachloronitrobenzene	11.90	237	5928	3.2762	ug/ml	97
102) Disulfoton	11.93	88	28465	3.3040	ug/ml	99
103) Phenanthrene	12.02	178	90590	3.7776	ug/ml	99
104) Anthracene	12.07	178	91274	3.7046	ug/ml	98
105) Carbazole	12.22	167	80012	3.4770	ug/ml	99
106) Parathion Methyl	12.40	109	17383	3.7794	ug/ml	98
107) Di-n-Butyl Phthalate	12.59	149	98435	3.6392	ug/ml	99
108) Parathion Ethyl	12.89	97	9681	2.9175	ug/ml	96
109) 4-Nitroquinoline 1-Oxide	12.98	190	3299	1.9642	ug/ml#	85
110) Methapyrilene	13.04	58	24373	5.0309	ug/ml	99
111) Isodrin	13.40	193	9498	3.5484	ug/ml	91
112) Fluoranthene	13.57	202	93933	3.7393	ug/ml	99
114) Benzidine	13.67	184	21581	507.2340	ug/ml	100
115) Pyrene	13.90	202	96680	3.6213	ug/ml	97
116) Aramite	13.94	185	4927	3.0431	ug/ml	98
118) p-(Dimethylamino)azobenzen	14.24	225	17540	3.0800	ug/ml	96
119) Chlorobenzilate	14.29	251	24175	3.2299	ug/ml	100
120) Famphur	14.69	218	29261	86.4005	ug/ml#	22
121) Butyl Benzyl Phthalate	14.71	149	42313	3.3153	ug/ml	97
122) 3,3'-Dimethylbenzidine	14.72	212	63234	24.2278	ug/ml#	91
123) 2-Acetylaminofluorene	15.14	181	30635	2.6744	ug/ml	98
124) bis(2-Ethylhexyl)phthalate	15.56	149	56427	3.3419	ug/ml	99
125) 3,3'-Dichlorobenzidine	15.56	252	25330	5.5922	ug/ml	98
126) Benzo[a]anthracene	15.65	228	83823	3.5545	ug/ml	99
127) Chrysene	15.72	228	81007	3.6768	ug/ml	97
129) Di-n-Octyl Phthalate	16.54	149	92158	3.0712	ug/ml	98
130) 7,12-Dimethylbenz[a]anthra	17.60	256	36761	3.1959	ug/ml	99
131) Benzo[b]fluoranthene	17.59	252	87582	3.3057	ug/ml	98
132) Benzo[k]fluoranthene	17.64	252	80556	3.4657	ug/ml	96
133) Benzo[a]pyrene	18.34	252	76197	3.1529	ug/ml	96
134) 3-Methylcholanthrene	19.24	268	40955	3.1188	ug/ml	96
135) Indeno[1,2,3-cd]pyrene	21.56	276	82885	2.9287	ug/ml	98
136) Dibenz[ah]anthracene	21.56	278	67905	2.8804	ug/ml	98
137) Benzo[ghi]perylene	22.50	276	70328	3.0021	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60440.D MEGAMIX.M Fri Apr 20 08:18:57 2012

Page 3

Data File : I:\MSDCHEM\1\DATA\041912\4M60440.D Vial: 3
Acq On : 19 Apr 2012 9:56 Operator: CAA
Sample : WG395394-03 3PPM Megamix STD Inst : HPMS4
Misc : 1,1 STD50886 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 19 14:20 2012 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
Last Update : Thu Apr 19 14:27:47 2012
Response via : Initial Calibration



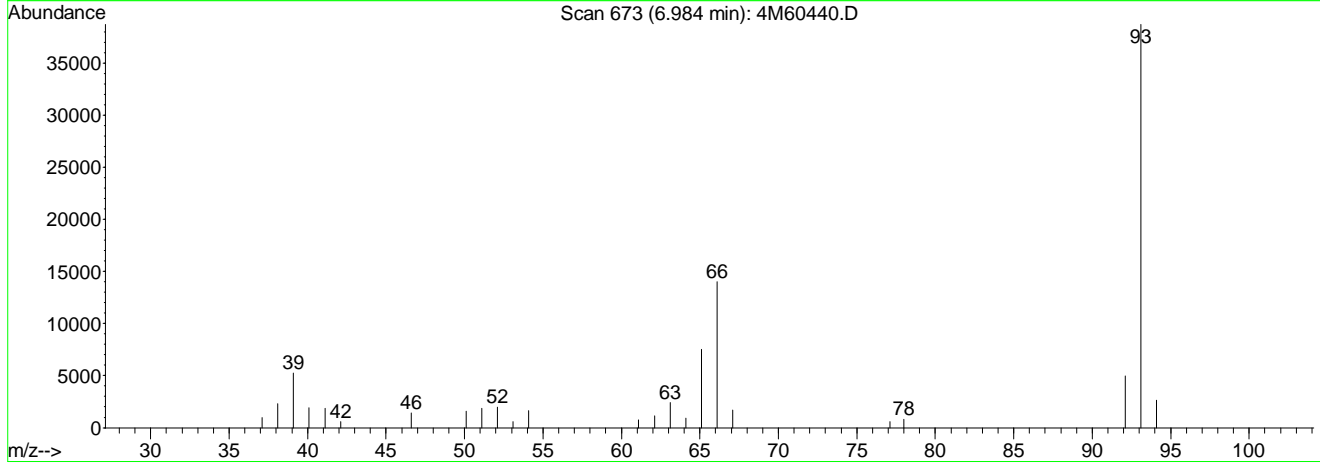
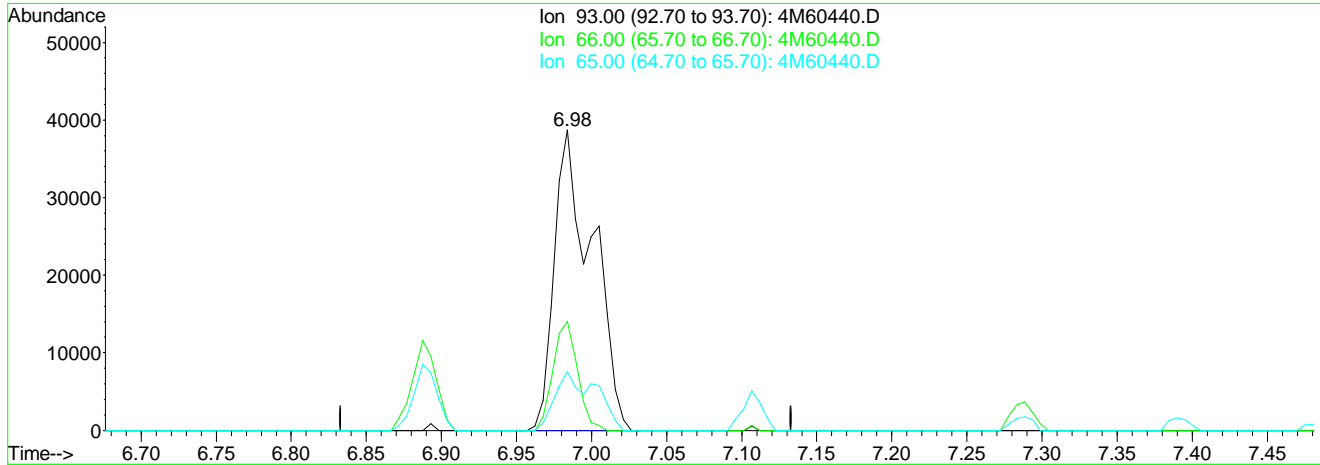
Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041912\4M60440.D
 Acq On : 19 Apr 2012 9:56
 Sample : WG395394-03 3PPM Megamix STD
 Misc : 1,1 STD50886
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:20 2012

Vial: 3
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:20:34 2012
 Response via : Multiple Level Calibration



TIC: 4M60440.D

(11) Aniline

6.98min 5.47ug/ml

response 68174

Ion	Exp%	Act%
93.00	100	100
66.00	33.40	23.15
65.00	29.20	12.96#
0.00	0.00	0.00

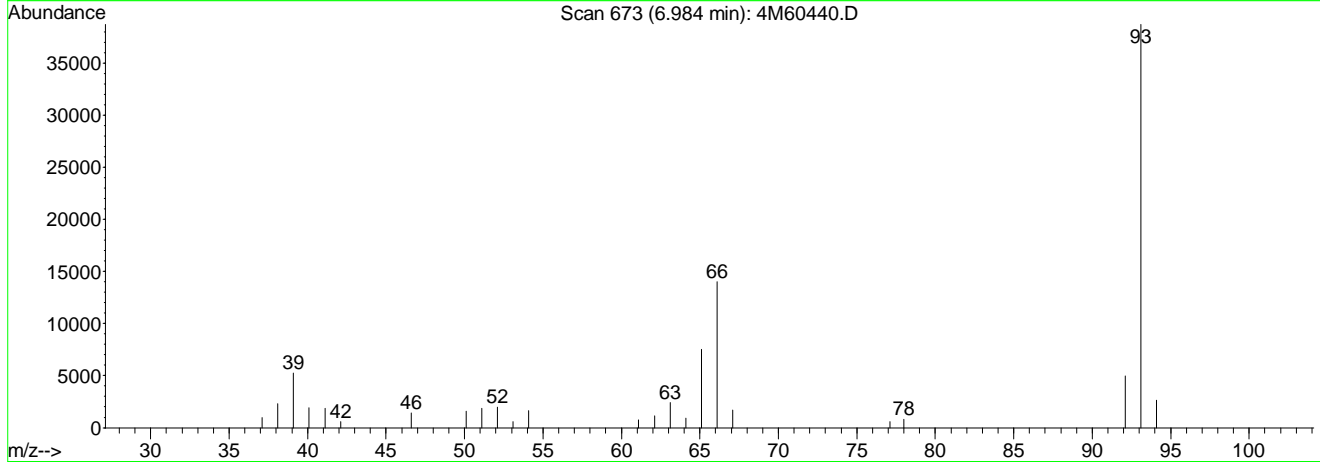
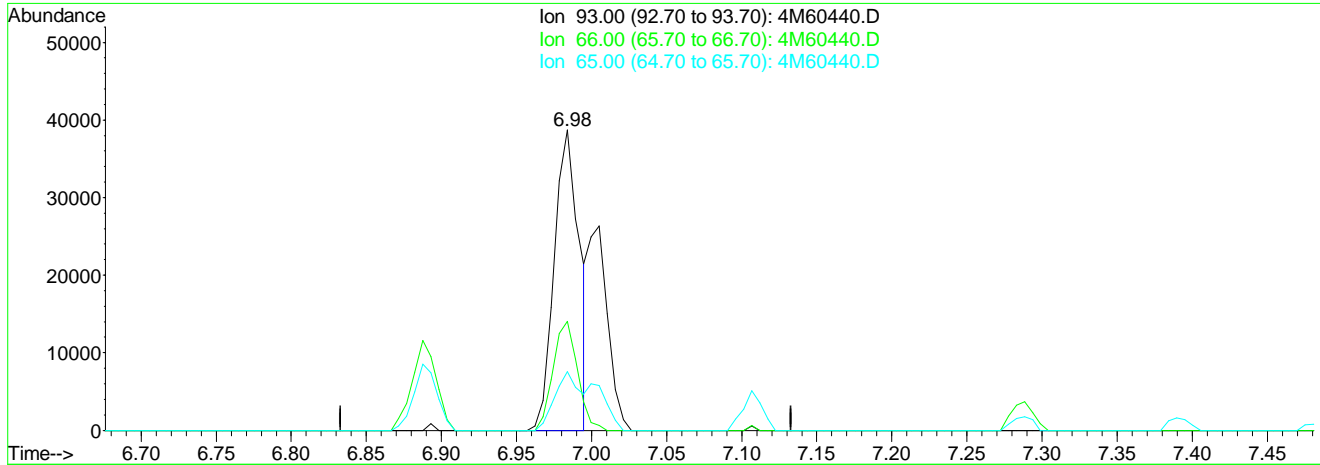
Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041912\4M60440.D
 Acq On : 19 Apr 2012 9:56
 Sample : WG395394-03 3PPM Megamix STD
 Misc : 1,1 STD50886
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:20 2012

Vial: 3
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:20:34 2012
 Response via : Multiple Level Calibration



TIC: 4M60440.D

(11) Aniline

6.98min 3.60ug/ml mint

response 44787

Ion	Exp%	Act%
93.00	100	100
66.00	33.40	35.24
65.00	29.20	19.73
0.00	0.00	0.00

4M60440.D MEGAMIX.M

Thu Apr 19

Analyst: 04/20/2012 09:30
 Supervisor: 04/20/2012 11:41
 2012
 #3 - Improperly integrated isomers and/or coeluting compounds

Data File : I:\MSDCHEM\1\DATA\041912\4M60441.D Vial: 4
 Acq On : 19 Apr 2012 10:30 Operator: CAA
 Sample : WG395394-04 10PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:21:20 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:21:15 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.29	152	237916	40.00	ug/ml	0.00
30) Naphthalene-d8	8.57	136	893365	40.00	ug/ml	0.00
54) Acenaphthene-d10	10.38	164	510408	40.00	ug/ml	0.00
87) Phenanthrene-d10	11.99	188	907450	40.00	ug/ml	0.00
113) Chrysene-d12	15.69	240	880602	40.00	ug/ml	0.00
128) Perylene-d12	18.48	264	863619	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
8) 2-Fluorophenol	6.05	112	74839	10.5102	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery =	10.51%#		
12) Phenol-d5	6.87	99	89308	11.0947	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery =	11.09%		
31) Nitrobenzene-d5	7.85	82	79268	10.8702	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	21.74%#		
59) 2-Fluorobiphenyl	9.64	172	182928	12.0385	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	24.08%#		
86) 2,4,6-Tribromophenol	11.21	330	24080	11.8125	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery =	11.81%		
117) p-Terphenyl-d14	14.03	244	174505	11.6887	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	23.38%#		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.27	88	31667	11.0052	ug/ml#	97
3) n-Nitrosodimethylamine	4.69	74	45531	10.2516	ug/ml	99
4) Pyridine	4.72	79	80103	10.2145	ug/ml	98
5) 2-Picoline	5.51	93	87458	10.3683	ug/ml	99
6) n-Nitrosomethylethylamine	5.62	88	37875	10.1662	ug/ml	99
7) Methyl Methanesulfonate	5.90	80	45007	10.9305	ug/ml	99
9) n-Nitrosodiethylamine	6.29	102	40366	10.4819	ug/ml	94
10) Ethyl Methanesulfonate	6.54	79	57135	10.7831	ug/ml	98
11) Aniline	6.98	93	121534m	10.9685	ug/ml	
13) Phenol	6.89	94	94119	11.0570	ug/ml	99
14) bis(2-Chloroethyl)ether	7.00	63	60185	11.8819	ug/ml	94
15) Pentachloroethane	7.02	167	31625	11.3809	ug/ml	99
16) 2-Chlorophenol	7.10	128	83952	10.7458	ug/ml	99
17) 1,3-Dichlorobenzene	7.26	146	94834	11.2675	ug/ml	99
18) 1,4-Dichlorobenzene	7.30	146	97326	11.4381	ug/ml	99
19) Benzyl Alcohol	7.39	108	52708	10.4415	ug/ml	98
20) 1,2-Dichlorobenzene	7.49	146	91150	11.7921	ug/ml	99
21) 2-Methylphenol	7.48	107	64478	10.9737	ug/ml	98
22) bis(2-Chloroisopropyl)eth	7.53	45	123081	11.3525	ug/ml	98
23) 3-,4-Methylphenol	7.61	107	83719	10.7913	ug/ml	99
24) n-Nitrosopyrrolidine	7.66	100	38063	11.5559	ug/ml	82
25) n-Nitrosodipropylamine	7.67	70	56111	13.3456	ug/ml	94
26) Acetophenone	7.68	105	108025	12.6657	ug/ml	100
27) n-Nitrosomorpholine	7.67	56	52883	13.0781	ug/ml	98
28) o-Toluidine	7.72	106	128542	11.0191	ug/ml	100
29) Hexachloroethane	7.81	117	35410	10.7053	ug/ml	99
32) Nitrobenzene	7.86	77	78736	10.9863	ug/ml	98
33) n-Nitrosopiperidine	8.01	114	42184	10.7982	ug/ml	96
34) Isophorone	8.08	82	147532	11.5841	ug/ml	99
35) 2-Nitrophenol	8.18	139	44266	9.1879	ug/ml	95
36) 2,4-Dimethylphenol	8.15	122	81553	11.8506	ug/ml	96
37) 0,0,0-Triethyl Phosphoroth	8.25	198	41424	12.5273	ug/ml	98
38) bis(2-Chloroethoxy)methane	8.25	93	115030	12.6553	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60441.D MEGAMIX.M Fri Apr 20 08:18:57 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60441.D Vial: 4
 Acq On : 19 Apr 2012 10:30 Operator: CAA
 Sample : WG395394-04 10PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:21:20 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:21:15 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Benzoic Acid	8.18	105	38328	10.1302	ug/ml	84
40) 2,4-Dichlorophenol	8.40	162	68171	11.2881	ug/ml	99
41) a,a-Dimethylphenethylamine	8.36	58	62751	11.8367	ug/ml#	95
42) 1,2,4-Trichlorobenzene	8.51	180	77810	11.7582	ug/ml	99
43) Naphthalene	8.59	128	258782	12.7584	ug/ml	96
44) 4-Chloroaniline	8.62	127	88805	11.1416	ug/ml	96
45) 2,6-Dichlorophenol	8.64	162	69040	11.1842	ug/ml	98
46) Hexachloropropene	8.71	213	41492	10.0305	ug/ml	99
47) Hexachlorobutadiene	8.74	225	39698	11.8674	ug/ml	100
48) n-Nitrosodi-n-Butylamine	8.93	84	67459	11.4059	ug/ml	97
49) p-Phenylenediamine	9.05	108	5791	11.8831	ug/ml#	85
50) 4-Chloro-3-Methylphenol	9.05	107	67645	11.3347	ug/ml	99
51) Safrole	9.15	162	65447	11.5540	ug/ml	99
52) 2-Methylnaphthalene	9.28	142	167733	12.2356	ug/ml	98
53) 1-Methylnaphthalene	9.40	142	156615	12.0384	ug/ml	99
55) 1,2,4,5-Tetrachlorobenzene	9.49	216	72062	11.9105	ug/ml	100
56) Hexachlorocyclopentadiene	9.50	237	34278	10.6059	ug/ml	100
57) 2,4,6-Trichlorophenol	9.57	196	48642	10.9247	ug/ml	99
58) 2,4,5-Trichlorophenol	9.61	196	49310	11.0367	ug/ml	99
60) Isosafrole	9.67	162	67366	10.9881	ug/ml	99
61) 2-Chloronaphthalene	9.79	162	153572	11.4518	ug/ml	99
62) 1-Chloronaphthalene	9.83	162	147201	11.7373	ug/ml	100
63) 2-Nitroaniline	9.88	65	42993	10.6758	ug/ml	97
64) 1,4-Naphthoquinone	9.95	158	64199	12.7348	ug/ml	97
65) Dimethylphthalate	10.05	163	173033	11.7986	ug/ml	99
66) 1,3-Dinitrobenzene	10.10	168	31289	10.0491	ug/ml	97
67) 2,6-Dinitrotoluene	10.14	165	41342	10.6297	ug/ml	99
68) Acenaphthylene	10.23	152	253419	12.4289	ug/ml	99
69) 3-Nitroaniline	10.30	138	29679	13.3200	ug/ml	99
70) 2,4-Dinitrophenol	10.40	184	11443	5.6802	ug/ml#	1
71) Acenaphthene	10.42	154	164631	12.3393	ug/ml	99
72) 4-Nitrophenol	10.39	65	32506	11.4198	ug/ml	86
73) 2,4-Dinitrotoluene	10.55	165	53272	11.2705	ug/ml	97
74) Pentachlorobenzene	10.59	250	64824	11.9333	ug/ml	100
75) Dibenzofuran	10.57	168	219802	12.6180	ug/ml	99
76) 2,3,4,6-Tetrachlorophenol	10.67	232	41388	13.9028	ug/ml	99
77) 1-Naphthylamine	10.65	143	63582	128.5872	ug/ml#	71
78) 2-Naphthylamine	10.72	143	35313	119.1207	ug/ml#	57
79) Diethylphthalate	10.75	149	172211	11.8976	ug/ml	99
80) Thionazin	10.85	107	27611	11.3495	ug/ml	98
81) Fluorene	10.93	166	186598	12.2474	ug/ml	100
82) 4-Chlorophenyl Phenyl Ether	10.88	204	86184	12.1137	ug/ml	98
83) 4-Nitroaniline	10.93	138	38627	11.7665	ug/ml	95
84) 5-Nitro-o-Toluidine	10.93	152	41441	12.8248	ug/ml	96
85) 1,2-Diphenylhydrazine	11.05	77	166954	11.7142	ug/ml	98
88) 4,6-Dinitro-2-Methylphenol	10.98	198	20886	6.5785	ug/ml	71
89) n-Nitrosodiphenylamine	11.00	169	156643	11.7021	ug/ml	99
90) Sulfofatep	11.20	322	28246	11.5258	ug/ml	95
91) Sym-Trinitrobenzene	11.27	75	33591	8.4597	ug/ml	98
92) Diallate	11.32	86	63954	12.1454	ug/ml	95
93) Phenacetin	11.30	108	80247	11.3541	ug/ml	97
94) Phorate	11.34	75	102381	11.6879	ug/ml#	97
95) 4-Bromophenyl Phenyl Ether	11.41	248	49608	11.5817	ug/ml	100
96) Hexachlorobenzene	11.62	284	54193	11.7885	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60441.D MEGAMIX.M Fri Apr 20 08:18:58 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60441.D Vial: 4
 Acq On : 19 Apr 2012 10:30 Operator: CAA
 Sample : WG395394-04 10PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:21:20 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:21:15 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97) Dimethoate	11.55	87	62939	14.8427	ug/ml	98
98) 4-Aminobiphenyl	11.71	169	98626	18.8359	ug/ml	97
99) Pentachlorophenol	11.81	266	31968	11.9067	ug/ml	98
100) Pronamide	11.75	173	78302	11.1894	ug/ml	99
101) Pentachloronitrobenzene	11.90	237	18446	11.1953	ug/ml	99
102) Disulfoton	11.93	88	86426	11.0169	ug/ml	99
103) Phenanthrene	12.02	178	263680	12.0752	ug/ml	98
104) Anthracene	12.07	178	268336	11.9607	ug/ml	98
105) Carbazole	12.23	167	214134	10.2193	ug/ml	99
106) Parathion Methyl	12.40	109	55579	13.2701	ug/ml	98
107) Di-n-Butyl Phthalate	12.60	149	291024	11.8159	ug/ml	99
108) Parathion Ethyl	12.89	97	31594	10.4558	ug/ml	98
109) 4-Nitroquinoline 1-Oxide	12.98	190	17706	11.5758	ug/ml	96
110) Methapyrilene	13.04	58	76529	17.3496	ug/ml	98
111) Isodrin	13.40	193	27779	11.3971	ug/ml	99
112) Fluoranthene	13.57	202	276101	12.0704	ug/ml	99
114) Benzidine	13.67	184	13210	330.6398	ug/ml	100
115) Pyrene	13.90	202	278837	11.3279	ug/ml	98
116) Aramite	13.94	185	14726	9.8644	ug/ml	98
118) p-(Dimethylamino)azobenzen	14.24	225	56140	10.6923	ug/ml	98
119) Chlorobenzilate	14.29	251	73396	10.6356	ug/ml	99
120) Famphur	14.69	218	57425	183.9087	ug/ml#	24
121) Butyl Benzyl Phthalate	14.72	149	126613	10.7599	ug/ml	98
122) 3,3'-Dimethylbenzidine	14.72	212	148095	61.5331	ug/ml#	91
123) 2-Acetylaminofluorene	15.14	181	99751	9.4447	ug/ml	98
124) bis(2-Ethylhexyl)phthalate	15.57	149	171936	11.0447	ug/ml	100
125) 3,3'-Dichlorobenzidine	15.57	252	53915	12.9107	ug/ml	98
126) Benzo[a]anthracene	15.66	228	248867	11.4461	ug/ml	98
127) Chrysene	15.73	228	234491	11.5438	ug/ml	99
129) Di-n-Octyl Phthalate	16.54	149	278406	10.0246	ug/ml	100
130) 7,12-Dimethylbenz[a]anthra	17.61	256	115574	10.8566	ug/ml	100
131) Benzo[b]fluoranthene	17.60	252	261129	10.6494	ug/ml	98
132) Benzo[k]fluoranthene	17.64	252	242271	11.2620	ug/ml	99
133) Benzo[a]pyrene	18.34	252	230518	10.3063	ug/ml	99
134) 3-Methylcholanthrene	19.24	268	125354	10.3142	ug/ml	98
135) Indeno[1,2,3-cd]pyrene	21.57	276	254952	9.7339	ug/ml	100
136) Dibenz[ah]anthracene	21.57	278	213369	9.7794	ug/ml	100
137) Benzo[ghi]perylene	22.51	276	213268	9.8367	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60441.D MEGAMIX.M Fri Apr 20 08:18:58 2012

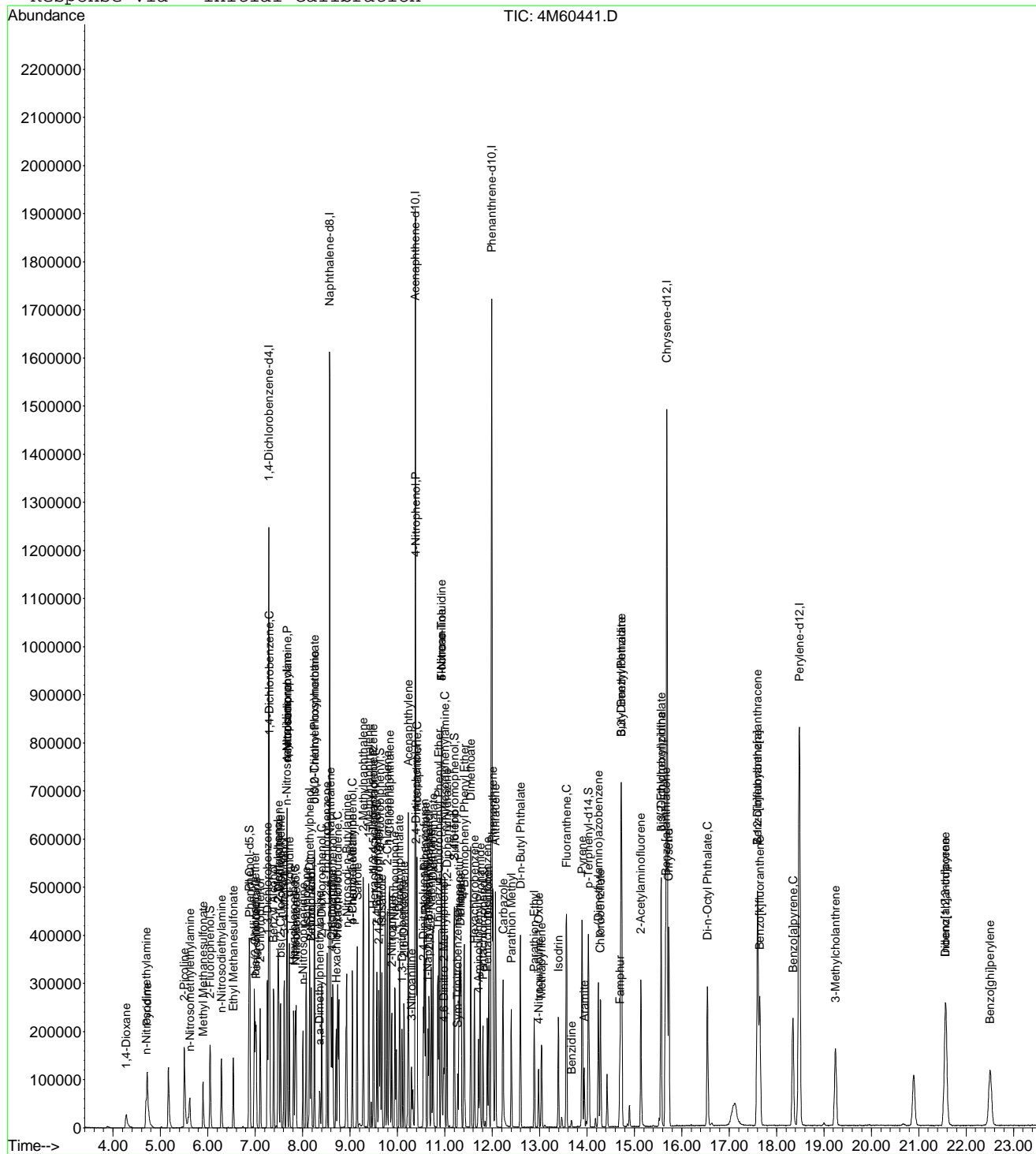
Page 3

Data File : I:\MSDCHEM\1\DATA\041912\4M60441.D
Acq On : 19 Apr 2012 10:30
Sample : WG395394-04 10PPM Megamix STD
Misc : 1,1 STD50886
MS Integration Params: RTEINT.P
Quant Time: Apr 19 14:21 2012

Vial: 4
Operator: CAA
Inst : HPMS4
Multiplr: 1.00

Quant Results File: MEGAMIX.RES

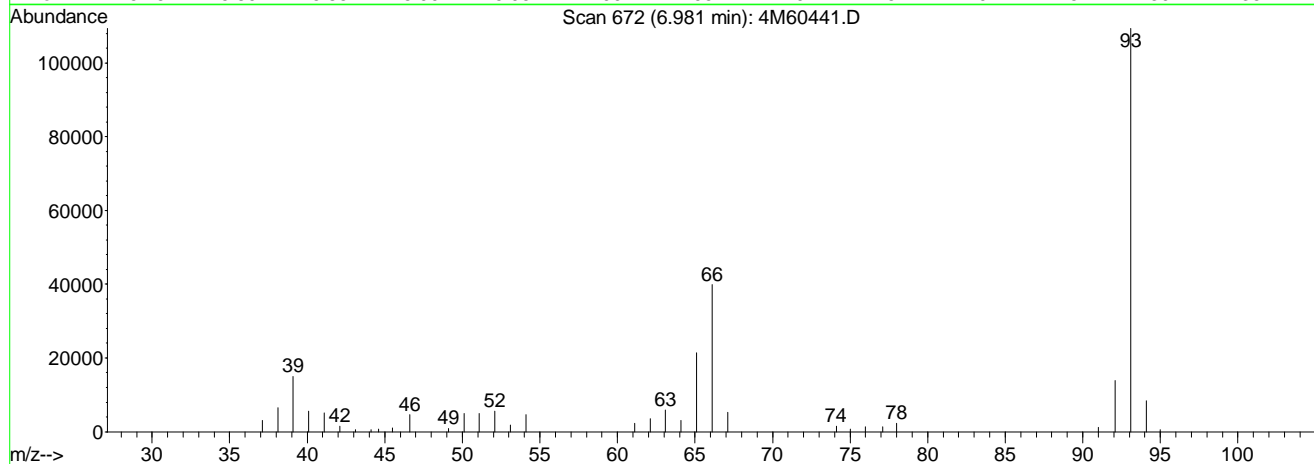
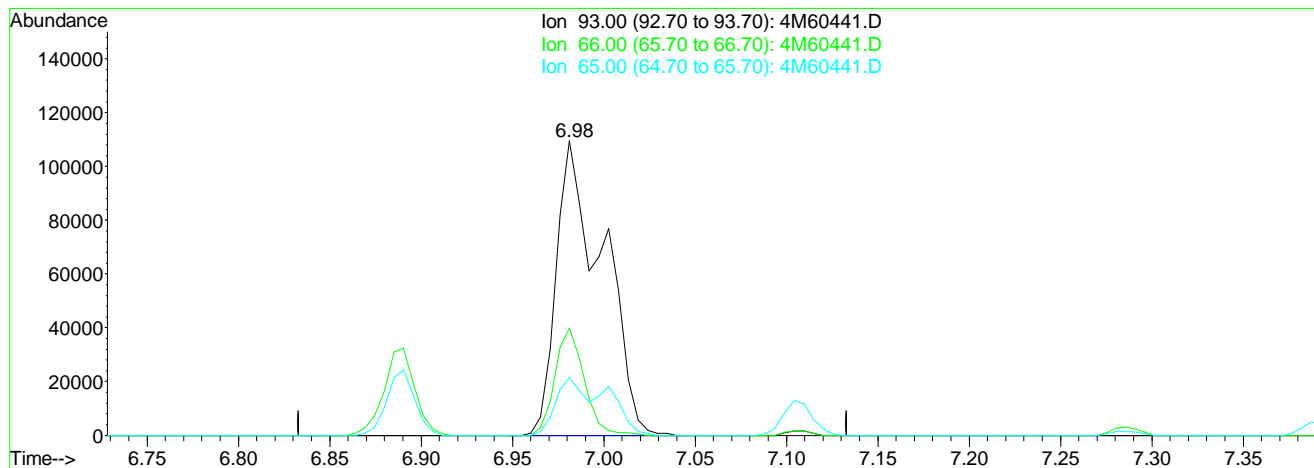
Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
Last Update : Thu Apr 19 14:27:47 2012
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041912\4M60441.D Vial: 4
 Acq On : 19 Apr 2012 10:30 Operator: CAA
 Sample : WG395394-04 10PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:21 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:21:15 2012
 Response via : Multiple Level Calibration



TIC: 4M60441.D

(11) Aniline		
6.98min	17.54ug/ml	
response	194344	
Ion	Exp%	Act%
93.00	100	100
66.00	33.40	23.04
65.00	29.20	12.50#
0.00	0.00	0.00

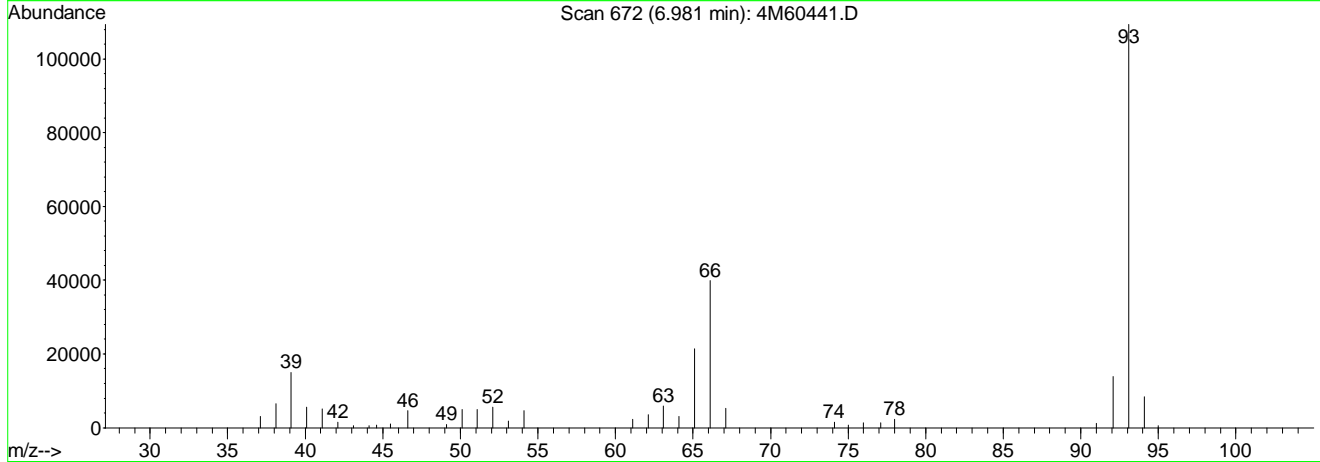
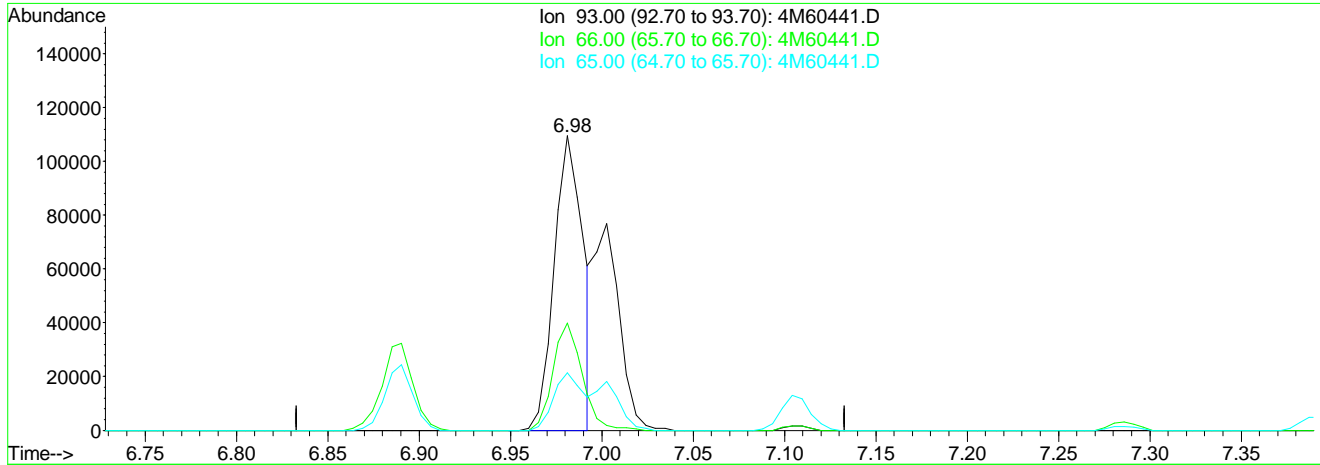
4M60441.D MEGAMIX.M Thu Apr 19 14:21:27 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60441.D
 Acq On : 19 Apr 2012 10:30
 Sample : WG395394-04 10PPM Megamix STD
 Misc : 1,1 STD50886
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:21 2012

Vial: 4
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:21:15 2012
 Response via : Multiple Level Calibration



TIC: 4M60441.D

(11) Aniline

6.98min 10.97ug/ml mint

response 121534

Ion	Exp%	Act%
93.00	100	100
66.00	33.40	36.85
65.00	29.20	19.98
0.00	0.00	0.00

4M60441.D MEGAMIX.M

Thu Apr 19

Analyst: 04/20/2012 09:30 Supervisor: 04/20/2012 11:41
 2012
 #3 - Improperly integrated isomers and/or coeluting compounds

Data File : I:\MSDCHEM\1\DATA\041912\4M60442.D Vial: 5
 Acq On : 19 Apr 2012 11:05 Operator: CAA
 Sample : WG395394-05 15PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:21:57 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:21:52 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.29	152	252402	40.00	ug/ml	0.00
30) Naphthalene-d8	8.57	136	966303	40.00	ug/ml	0.00
54) Acenaphthene-d10	10.38	164	549854	40.00	ug/ml	0.00
87) Phenanthrene-d10	11.99	188	989287	40.00	ug/ml	0.00
113) Chrysene-d12	15.69	240	944089	40.00	ug/ml	0.00
128) Perylene-d12	18.49	264	930153	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
8) 2-Fluorophenol	6.05	112	118944	15.7465	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery =	15.75%#		
12) Phenol-d5	6.88	99	140595	16.4648	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery =	16.46%		
31) Nitrobenzene-d5	7.84	82	127406	16.1551	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	32.32%#		
59) 2-Fluorobiphenyl	9.64	172	291596	17.8160	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	35.64%#		
86) 2,4,6-Tribromophenol	11.20	330	38783	17.6561	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery =	17.66%		
117) p-Terphenyl-d14	14.03	244	275546	17.2170	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	34.44%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.28	88	48051	15.7424	ug/ml#	92
3) n-Nitrosodimethylamine	4.70	74	71932	15.2678	ug/ml	99
4) Pyridine	4.72	79	126437	15.1998	ug/ml	97
5) 2-Picoline	5.50	93	139778	15.6227	ug/ml	99
6) n-Nitrosomethylethylamine	5.62	88	58800	14.8778	ug/ml	97
7) Methyl Methanesulfonate	5.90	80	70448	16.1286	ug/ml	99
9) n-Nitrosodiethylamine	6.29	102	64773	15.8558	ug/ml	96
10) Ethyl Methanesulfonate	6.54	79	90293	16.0645	ug/ml	99
11) Aniline	6.98	93	195396m	16.6176	ug/ml	
13) Phenol	6.89	94	149867	16.5965	ug/ml	99
14) bis(2-Chloroethyl)ether	7.01	63	94566	17.5992	ug/ml	93
15) Pentachloroethane	7.02	167	50396	17.0967	ug/ml	99
16) 2-Chlorophenol	7.11	128	131982	15.9250	ug/ml	99
17) 1,3-Dichlorobenzene	7.26	146	149885	16.7875	ug/ml	99
18) 1,4-Dichlorobenzene	7.30	146	152167	16.8578	ug/ml	99
19) Benzyl Alcohol	7.39	108	85215	15.9128	ug/ml	99
20) 1,2-Dichlorobenzene	7.50	146	142731	17.4059	ug/ml	99
21) 2-Methylphenol	7.48	107	103944	16.6758	ug/ml	99
22) bis(2-Chloroisopropyl)eth	7.53	45	194064	16.8751	ug/ml	97
23) 3-,4-Methylphenol	7.61	107	131799	16.0137	ug/ml	99
24) n-Nitrosopyrrolidine	7.66	100	61466	17.5913	ug/ml	87
25) n-Nitrosodipropylamine	7.67	70	89924	20.1613	ug/ml	96
26) Acetophenone	7.68	105	172180	19.0288	ug/ml	99
27) n-Nitrosomorpholine	7.67	56	83300	19.4199	ug/ml	97
28) o-Toluidine	7.72	106	205090	16.5720	ug/ml	98
29) Hexachloroethane	7.81	117	55844	15.9158	ug/ml	99
32) Nitrobenzene	7.87	77	126438	16.3131	ug/ml	98
33) n-Nitrosopiperidine	8.01	114	67685	16.0179	ug/ml	97
34) Isophorone	8.08	82	231590	16.8128	ug/ml	99
35) 2-Nitrophenol	8.19	139	73595	14.1257	ug/ml	96
36) 2,4-Dimethylphenol	8.15	122	122457	16.4488	ug/ml	100
37) 0,0,0-Triethyl Phosphoroth	8.25	198	64972	18.1660	ug/ml	99
38) bis(2-Chloroethoxy)methane	8.25	93	180101	18.3204	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60442.D MEGAMIX.M Fri Apr 20 08:18:58 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60442.D Vial: 5
 Acq On : 19 Apr 2012 11:05 Operator: CAA
 Sample : WG395394-05 15PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:21:57 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:21:52 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Benzoic Acid	8.18	105	73064	17.8534	ug/ml	90
40) 2,4-Dichlorophenol	8.40	162	106895	16.3636	ug/ml	99
41) a,a-Dimethylphenethylamine	8.37	58	73395	12.7979	ug/ml#	96
42) 1,2,4-Trichlorobenzene	8.52	180	122401	17.1017	ug/ml	100
43) Naphthalene	8.59	128	408896	18.6367	ug/ml	97
44) 4-Chloroaniline	8.62	127	129166	14.9764	ug/ml	96
45) 2,6-Dichlorophenol	8.64	162	109450	16.3930	ug/ml	100
46) Hexachloropropene	8.71	213	66756	14.9227	ug/ml	99
47) Hexachlorobutadiene	8.74	225	63330	17.5040	ug/ml	100
48) n-Nitrosodi-n-Butylamine	8.93	84	106657	16.6717	ug/ml	95
49) p-Phenylenediamine	9.05	108	8853	16.7908	ug/ml	96
50) 4-Chloro-3-Methylphenol	9.05	107	108882	16.8671	ug/ml	99
51) Safrole	9.15	162	103443	16.8843	ug/ml	99
52) 2-Methylnaphthalene	9.28	142	262619	17.7117	ug/ml	99
53) 1-Methylnaphthalene	9.40	142	247209	17.5689	ug/ml	100
55) 1,2,4,5-Tetrachlorobenzene	9.49	216	114900	17.6324	ug/ml	100
56) Hexachlorocyclopentadiene	9.50	237	57593	16.5303	ug/ml	99
57) 2,4,6-Trichlorophenol	9.57	196	77554	16.1689	ug/ml	99
58) 2,4,5-Trichlorophenol	9.61	196	80341	16.6924	ug/ml	99
60) Isosafrole	9.67	162	107208	16.2343	ug/ml	99
61) 2-Chloronaphthalene	9.79	162	241377	16.7103	ug/ml	99
62) 1-Chloronaphthalene	9.83	162	230497	17.0641	ug/ml	100
63) 2-Nitroaniline	9.88	65	67899	15.6511	ug/ml	98
64) 1,4-Naphthoquinone	9.95	158	102741	18.9200	ug/ml	97
65) Dimethylphthalate	10.04	163	275007	17.4083	ug/ml	99
66) 1,3-Dinitrobenzene	10.10	168	49953	14.8927	ug/ml	97
67) 2,6-Dinitrotoluene	10.14	165	66191	15.7994	ug/ml	99
68) Acenaphthylene	10.23	152	404588	18.4211	ug/ml	98
69) 3-Nitroaniline	10.30	138	44675	18.4840	ug/ml	99
70) 2,4-Dinitrophenol	10.40	184	22655	10.4391	ug/ml#	1
71) Acenaphthene	10.41	154	263554	18.3383	ug/ml	99
72) 4-Nitrophenol	10.39	65	53528	17.4427	ug/ml	87
73) 2,4-Dinitrotoluene	10.55	165	86594	17.0065	ug/ml	99
74) Pentachlorobenzene	10.59	250	101642	17.3695	ug/ml	99
75) Dibenzofuran	10.57	168	345492	18.4118	ug/ml	100
76) 2,3,4,6-Tetrachlorophenol	10.67	232	65906	20.5458	ug/ml	99
77) 1-Naphthylamine	10.65	143	62212	115.5239	ug/ml#	77
78) 2-Naphthylamine	10.72	143	27301	85.8289	ug/ml#	77
79) Diethylphthalate	10.76	149	273892	17.5667	ug/ml	100
80) Thionazin	10.85	107	44504	16.9829	ug/ml	99
81) Fluorene	10.93	166	294134	17.9213	ug/ml	100
82) 4-Chlorophenyl Phenyl Ether	10.88	204	136246	17.7779	ug/ml	100
83) 4-Nitroaniline	10.94	138	61583	17.4160	ug/ml	98
84) 5-Nitro-o-Toluidine	10.93	152	65039	18.6866	ug/ml	99
85) 1,2-Diphenylhydrazine	11.05	77	264481	17.2284	ug/ml	99
88) 4,6-Dinitro-2-Methylphenol	10.98	198	38138	11.0187	ug/ml	81
89) n-Nitrosodiphenylamine	11.00	169	247141	16.9381	ug/ml	99
90) SulfoTEPP	11.20	322	44742	16.7478	ug/ml	96
91) Sym-Trinitrobenzene	11.27	75	57944	13.3865	ug/ml	98
92) Diallate	11.33	86	101940	17.7602	ug/ml	94
93) Phenacetin	11.31	108	129651	16.8282	ug/ml	100
94) Phorate	11.34	75	162275	16.9952	ug/ml#	99
95) 4-Bromophenyl Phenyl Ether	11.41	248	77958	16.6955	ug/ml	99
96) Hexachlorobenzene	11.63	284	85076	16.9764	ug/ml	100

(#) = qualifier out of range (m) = manual integration
 4M60442.D MEGAMIX.M Fri Apr 20 08:18:58 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60442.D Vial: 5
 Acq On : 19 Apr 2012 11:05 Operator: CAA
 Sample : WG395394-05 15PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:21:57 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:21:52 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97) Dimethoate	11.55	87	100546	21.7536	ug/ml	99
98) 4-Aminobiphenyl	11.71	169	125719	22.0160	ug/ml	99
99) Pentachlorophenol	11.81	266	53277	18.1856	ug/ml	99
100) Pronamide	11.75	173	123932	16.2463	ug/ml	99
101) Pentachloronitrobenzene	11.90	237	29537	16.4436	ug/ml	98
102) Disulfoton	11.93	88	138935	16.2473	ug/ml	99
103) Phenanthrene	12.02	178	414064	17.3948	ug/ml	99
104) Anthracene	12.07	178	425502	17.3986	ug/ml	98
105) Carbazole	12.23	167	352808	15.4486	ug/ml	99
106) Parathion Methyl	12.41	109	90258	19.7673	ug/ml	99
107) Di-n-Butyl Phthalate	12.60	149	464423	17.2979	ug/ml	99
108) Parathion Ethyl	12.89	97	50171	15.2292	ug/ml	98
109) 4-Nitroquinoline 1-Oxide	12.98	190	31003	18.5569	ug/ml	95
110) Methapyrilene	13.04	58	121476	25.2884	ug/ml	99
111) Isodrin	13.40	193	43714	16.4517	ug/ml	99
112) Fluoranthene	13.57	202	437692	17.5532	ug/ml	99
114) Benzidine	13.68	184	11666	263.6683	ug/ml	100
115) Pyrene	13.90	202	443567	16.8109	ug/ml	98
116) Aramite	13.94	185	24312	15.1911	ug/ml	98
118) p-(Dimethylamino)azobenzen	14.24	225	89804	15.9546	ug/ml	99
119) Chlorobenzilate	14.29	251	119126	16.1020	ug/ml	100
120) Famphur	14.69	218	70075	209.3298	ug/ml#	26
121) Butyl Benzyl Phthalate	14.72	149	199823	15.8416	ug/ml	99
122) 3,3'-Dimethylbenzidine	14.72	212	173622	67.2103	ug/ml#	92
123) 2-Acetylaminofluorene	15.14	181	165637	14.6291	ug/ml	99
124) bis(2-Ethylhexyl)phthalate	15.56	149	273457	16.3862	ug/ml	100
125) 3,3'-Dichlorobenzidine	15.57	252	83197	18.6011	ug/ml	98
126) Benzo[a]anthracene	15.66	228	392679	16.8472	ug/ml	99
127) Chrysene	15.73	228	373919	17.1718	ug/ml	98
129) Di-n-Octyl Phthalate	16.54	149	449194	15.0178	ug/ml	99
130) 7,12-Dimethylbenz[a]anthra	17.61	256	185164	16.1494	ug/ml	99
131) Benzo[b]fluoranthene	17.60	252	406702	15.4009	ug/ml	97
132) Benzo[k]fluoranthene	17.65	252	363539	15.6903	ug/ml	96
133) Benzo[a]pyrene	18.35	252	370228	15.3691	ug/ml	100
134) 3-Methylcholanthrene	19.25	268	200144	15.2897	ug/ml	99
135) Indeno[1,2,3-cd]pyrene	21.57	276	406105	14.3976	ug/ml	100
136) Dibenz[ah]anthracene	21.58	278	340635	14.4981	ug/ml	100
137) Benzo[ghi]perylene	22.51	276	337233	14.4441	ug/ml	100

(#) = qualifier out of range (m) = manual integration
 4M60442.D MEGAMIX.M Fri Apr 20 08:18:58 2012

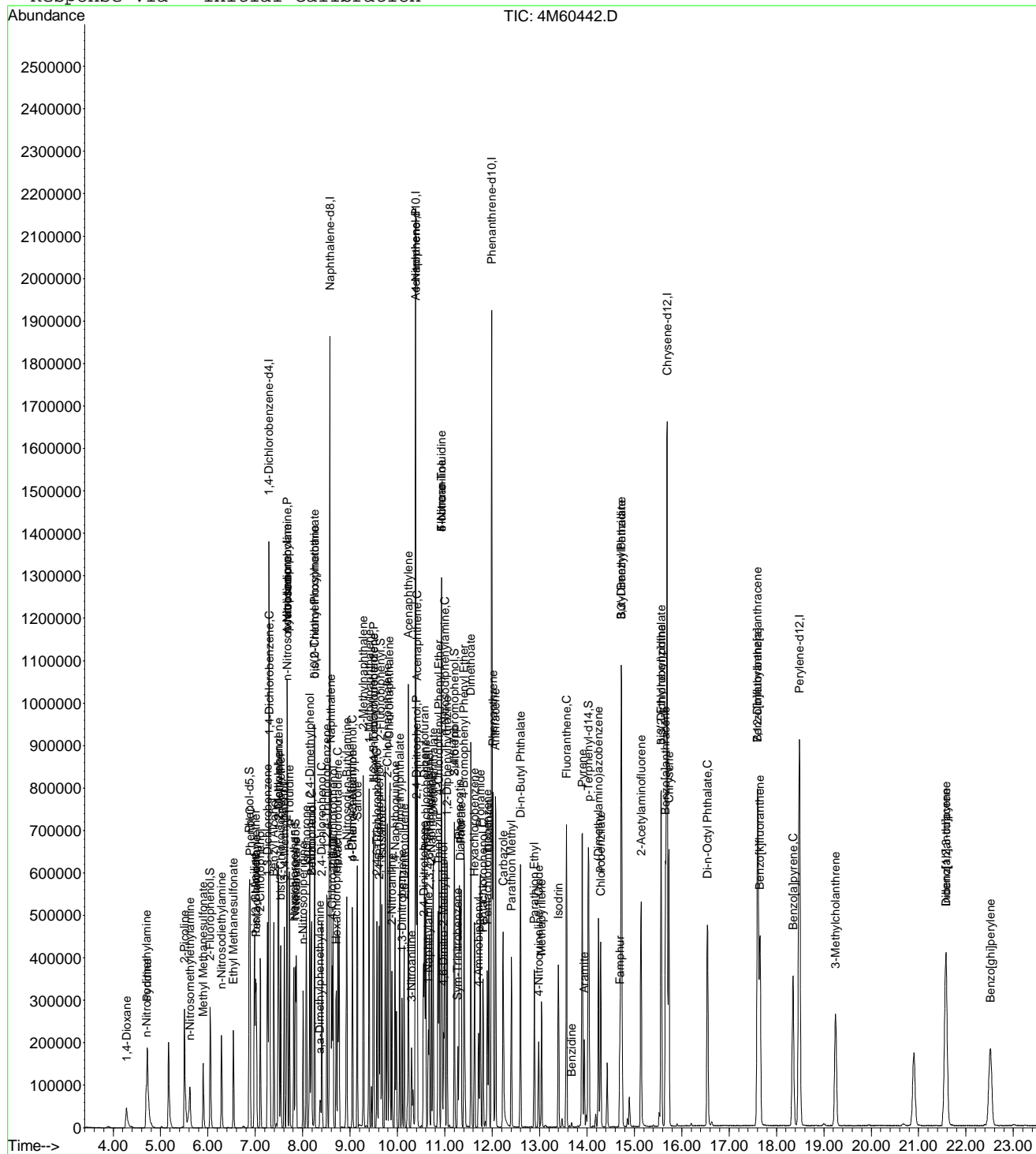
Page 3

Data File : I:\MSDCHEM\1\DATA\041912\4M60442.D
Acq On : 19 Apr 2012 11:05
Sample : WG395394-05 15PPM Megamix STD
Misc : 1,1 STD50886
MS Integration Params: RTEINT.P
Quant Time: Apr 19 14:22 2012

Vial: 5
Operator: CAA
Inst : HPMS4
Multiplr: 1.00

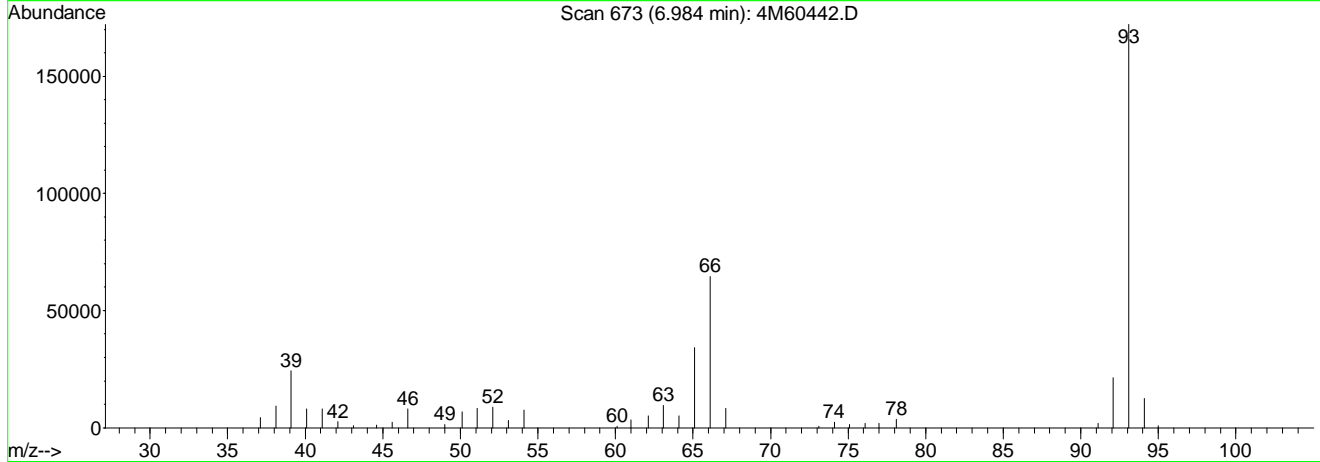
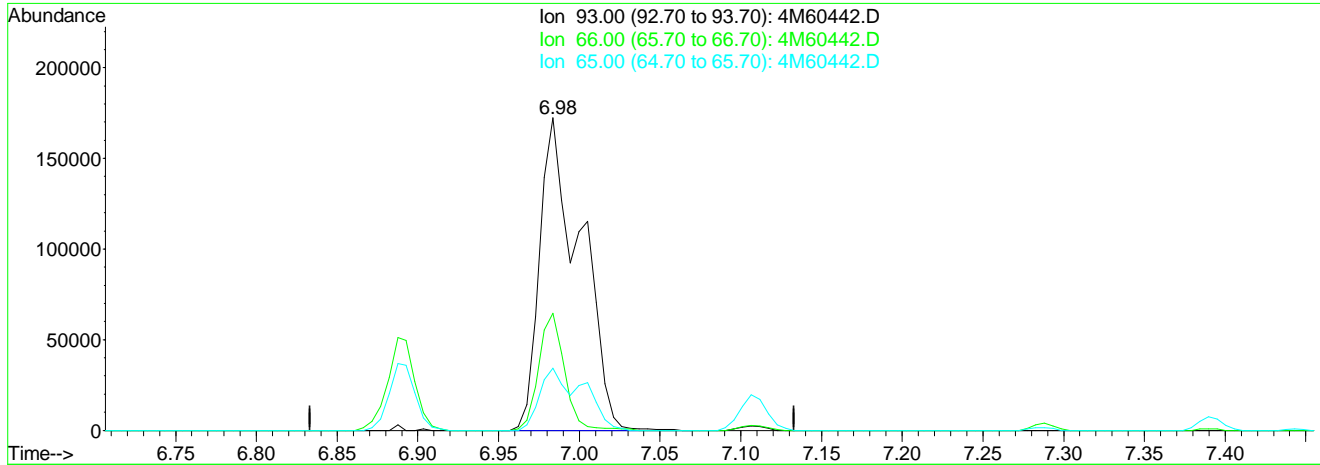
Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
Last Update : Thu Apr 19 14:27:47 2012
Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\041912\4M60442.D Vial: 5
 Acq On : 19 Apr 2012 11:05 Operator: CAA
 Sample : WG395394-05 15PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:21 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:21:52 2012
 Response via : Multiple Level Calibration



TIC: 4M60442.D

(11) Aniline
 6.98min 25.75ug/ml
 response 302824

Ion	Exp%	Act%
93.00	100	100
66.00	33.40	23.55
65.00	29.20	12.97#
0.00	0.00	0.00

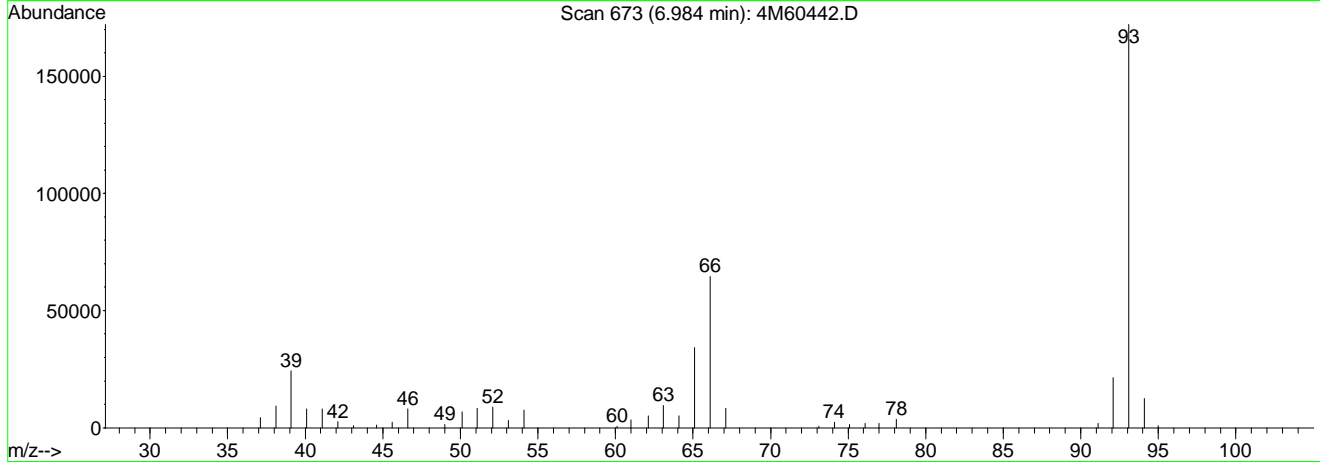
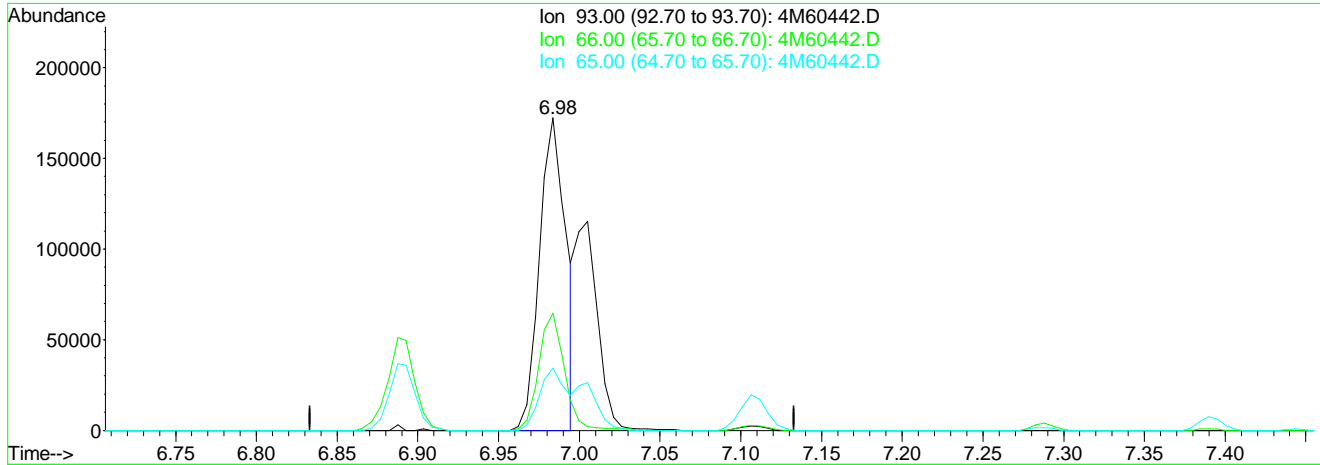
Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041912\4M60442.D
 Acq On : 19 Apr 2012 11:05
 Sample : WG395394-05 15PPM Megamix STD
 Misc : 1,1 STD50886
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:22 2012

Vial: 5
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:21:52 2012
 Response via : Multiple Level Calibration



TIC: 4M60442.D

(11) Aniline

6.98min 16.62ug/ml mint

response 195396

Ion	Exp%	Act%
93.00	100	100
66.00	33.40	36.49
65.00	29.20	20.10
0.00	0.00	0.00

4M60442.D MEGAMIX.M

Thu Apr 19

Analyst: 04/20/2012 09:30 Supervisor: 04/20/2012 11:41
 CAA [Signature] 2012 [Signature]
 #3 - Improperly integrated isomers and/or coeluting compounds

Data File : I:\MSDCHEM\1\DATA\041912\4M60443.D Vial: 6
 Acq On : 19 Apr 2012 11:40 Operator: CAA
 Sample : WG395394-06 25PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:22:35 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:22:30 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.29	152	251859	40.00	ug/ml	0.00
30) Naphthalene-d8	8.57	136	958408	40.00	ug/ml	0.00
54) Acenaphthene-d10	10.38	164	546360	40.00	ug/ml	0.00
87) Phenanthrene-d10	11.99	188	986327	40.00	ug/ml	0.00
113) Chrysene-d12	15.69	240	930598	40.00	ug/ml	0.00
128) Perylene-d12	18.49	264	911708	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
8) 2-Fluorophenol	6.05	112	187826	24.9204	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery =	24.92%		
12) Phenol-d5	6.88	99	220672	25.8999	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery =	25.90%		
31) Nitrobenzene-d5	7.85	82	200637	25.6549	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	51.30%		
59) 2-Fluorobiphenyl	9.64	172	454252	27.9314	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	55.86%		
86) 2,4,6-Tribromophenol	11.20	330	62078	28.4293	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery =	28.43%		
117) p-Terphenyl-d14	14.03	244	431075	27.3274	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	54.66%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.28	88	77889	25.5754	ug/ml#	95
3) n-Nitrosodimethylamine	4.70	74	114218	24.2984	ug/ml	99
4) Pyridine	4.72	79	203079	24.4719	ug/ml	98
5) 2-Picoline	5.50	93	219318	24.5677	ug/ml	99
6) n-Nitrosomethylethylamine	5.62	88	94375	23.9340	ug/ml	99
7) Methyl Methanesulfonate	5.90	80	108121	24.8109	ug/ml	98
9) n-Nitrosodiethylamine	6.29	102	101760	24.9614	ug/ml	96
10) Ethyl Methanesulfonate	6.54	79	142679	25.4450	ug/ml	99
11) Aniline	6.98	93	310572m	26.4470	ug/ml	
13) Phenol	6.89	94	235368	26.1219	ug/ml	100
14) bis(2-Chloroethyl)ether	7.01	63	149268	27.8377	ug/ml	95
15) Pentachloroethane	7.02	167	78501	26.6919	ug/ml	99
16) 2-Chlorophenol	7.11	128	209656	25.3543	ug/ml	99
17) 1,3-Dichlorobenzene	7.26	146	234893	26.3671	ug/ml	99
18) 1,4-Dichlorobenzene	7.30	146	239433	26.5850	ug/ml	100
19) Benzyl Alcohol	7.39	108	135966	25.4390	ug/ml	99
20) 1,2-Dichlorobenzene	7.50	146	225337	27.5383	ug/ml	100
21) 2-Methylphenol	7.48	107	163750	26.3224	ug/ml	99
22) bis(2-Chloroisopropyl)eth	7.53	45	307427	26.7945	ug/ml	97
23) 3-,4-Methylphenol	7.61	107	210193	25.5926	ug/ml	99
24) n-Nitrosopyrrolidine	7.66	100	96394	27.6474	ug/ml	88
25) n-Nitrosodipropylamine	7.67	70	138764	31.1716	ug/ml	96
26) Acetophenone	7.68	105	268006	29.6774	ug/ml	100
27) n-Nitrosomorpholine	7.67	56	128746	30.0714	ug/ml	98
28) o-Toluidine	7.72	106	324491	26.2693	ug/ml	99
29) Hexachloroethane	7.81	117	87874	25.1004	ug/ml	98
32) Nitrobenzene	7.87	77	200659	26.1102	ug/ml	98
33) n-Nitrosopiperidine	8.01	114	106588	25.4309	ug/ml	96
34) Isophorone	8.08	82	370301	27.1074	ug/ml	99
35) 2-Nitrophenol	8.19	139	120323	23.2944	ug/ml	98
36) 2,4-Dimethylphenol	8.15	122	197889	26.8008	ug/ml	98
37) 0,0,0-Triethyl Phosphoroth	8.26	198	103085	29.0643	ug/ml	99
38) bis(2-Chloroethoxy)methane	8.25	93	285147	29.2502	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60443.D MEGAMIX.M Fri Apr 20 08:18:59 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60443.D Vial: 6
 Acq On : 19 Apr 2012 11:40 Operator: CAA
 Sample : WG395394-06 25PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:22:35 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:22:30 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Benzoic Acid	8.19	105	127036	31.1628	ug/ml	90
40) 2,4-Dichlorophenol	8.41	162	170393	26.3004	ug/ml	99
41) a,a-Dimethylphenethylamine	8.38	58	97737	17.2142	ug/ml#	97
42) 1,2,4-Trichlorobenzene	8.52	180	192530	27.1248	ug/ml	99
43) Naphthalene	8.59	128	637382	29.2863	ug/ml	97
44) 4-Chloroaniline	8.62	127	194712	22.7374	ug/ml	96
45) 2,6-Dichlorophenol	8.64	162	173593	26.2152	ug/ml	100
46) Hexachloropropene	8.71	213	106935	24.1143	ug/ml	99
47) Hexachlorobutadiene	8.74	225	100093	27.8939	ug/ml	100
48) n-Nitrosodi-n-Butylamine	8.93	84	168379	26.5383	ug/ml	97
49) p-Phenylenediamine	9.05	108	14125	27.0078	ug/ml	98
50) 4-Chloro-3-Methylphenol	9.05	107	175243	27.3693	ug/ml	97
51) Safrole	9.15	162	166181	27.3506	ug/ml	100
52) 2-Methylnaphthalene	9.28	142	413423	28.1125	ug/ml	99
53) 1-Methylnaphthalene	9.40	142	390373	27.9738	ug/ml	100
55) 1,2,4,5-Tetrachlorobenzene	9.49	216	181138	27.9777	ug/ml	99
56) Hexachlorocyclopentadiene	9.50	237	93776	27.0522	ug/ml	100
57) 2,4,6-Trichlorophenol	9.57	196	124477	26.1166	ug/ml	98
58) 2,4,5-Trichlorophenol	9.61	196	126653	26.4824	ug/ml	99
60) Isosafrole	9.68	162	170282	25.9554	ug/ml	100
61) 2-Chloronaphthalene	9.79	162	384238	26.7768	ug/ml	99
62) 1-Chloronaphthalene	9.83	162	365802	27.2618	ug/ml	100
63) 2-Nitroaniline	9.89	65	110145	25.5516	ug/ml	96
64) 1,4-Naphthoquinone	9.95	158	165305	30.6431	ug/ml	99
65) Dimethylphthalate	10.05	163	432481	27.5512	ug/ml	100
66) 1,3-Dinitrobenzene	10.10	168	82367	24.7157	ug/ml	98
67) 2,6-Dinitrotoluene	10.14	165	106277	25.5326	ug/ml	99
68) Acenaphthylene	10.23	152	629983	28.8655	ug/ml	99
69) 3-Nitroaniline	10.30	138	69340	28.4118	ug/ml	99
70) 2,4-Dinitrophenol	10.40	184	42104	19.4953	ug/ml	39
71) Acenaphthene	10.41	154	408883	28.6279	ug/ml	99
72) 4-Nitrophenol	10.40	65	85342	27.9403	ug/ml	89
73) 2,4-Dinitrotoluene	10.55	165	136727	27.0216	ug/ml	99
74) Pentachlorobenzene	10.60	250	162118	27.8837	ug/ml	100
75) Dibenzofuran	10.57	168	542792	29.1117	ug/ml	100
76) 2,3,4,6-Tetrachlorophenol	10.67	232	102501	32.1454	ug/ml	99
77) 1-Naphthylamine	10.65	143	55264	101.0285	ug/ml#	89
78) 2-Naphthylamine	10.72	143	38583	124.7686	ug/ml#	54
79) Diethylphthalate	10.76	149	427533	27.5970	ug/ml	100
80) Thionazin	10.85	107	71253	27.3692	ug/ml	99
81) Fluorene	10.93	166	461256	28.2831	ug/ml	99
82) 4-Chlorophenyl Phenyl Ether	10.88	204	215309	28.2731	ug/ml	99
83) 4-Nitroaniline	10.94	138	96685	27.5294	ug/ml	97
84) 5-Nitro-o-Toluidine	10.93	152	97405	28.1533	ug/ml	98
85) 1,2-Diphenylhydrazine	11.05	77	421079	27.6104	ug/ml	99
88) 4,6-Dinitro-2-Methylphenol	10.98	198	66527	19.2798	ug/ml	90
89) n-Nitrosodiphenylamine	11.00	169	391279	26.9071	ug/ml	99
90) Sulfoltepp	11.20	322	70926	26.6304	ug/ml	96
91) Sym-Trinitrobenzene	11.28	75	97026	22.4845	ug/ml	99
92) Diallate	11.33	86	163182	28.5241	ug/ml	95
93) Phenacetin	11.31	108	208486	27.1506	ug/ml	99
94) Phorate	11.34	75	260404	27.3639	ug/ml#	98
95) 4-Bromophenyl Phenyl Ether	11.41	248	122053	26.2210	ug/ml	99
96) Hexachlorobenzene	11.63	284	133370	26.6963	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60443.D MEGAMIX.M Fri Apr 20 08:18:59 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60443.D Vial: 6
 Acq On : 19 Apr 2012 11:40 Operator: CAA
 Sample : WG395394-06 25PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:22:35 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:22:30 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97) Dimethoate	11.55	87	154209	33.4716	ug/ml	99
98) 4-Aminobiphenyl	11.71	169	167715	29.4842	ug/ml	99
99) Pentachlorophenol	11.81	266	85623	29.2700	ug/ml	99
100) Pronamide	11.75	173	198719	26.1362	ug/ml	99
101) Pentachloronitrobenzene	11.90	237	47519	26.5373	ug/ml	99
102) Disulfoton	11.93	88	220757	25.9018	ug/ml	99
103) Phenanthrene	12.02	178	651360	27.4516	ug/ml	99
104) Anthracene	12.08	178	667031	27.3617	ug/ml	99
105) Carbazole	12.23	167	569024	24.9971	ug/ml	99
106) Parathion Methyl	12.41	109	144012	31.6358	ug/ml	99
107) Di-n-Butyl Phthalate	12.60	149	730780	27.3060	ug/ml	99
108) Parathion Ethyl	12.89	97	82899	25.2432	ug/ml	99
109) 4-Nitroquinoline 1-Oxide	12.98	190	56861	33.9937	ug/ml	97
110) Methapyrilene	13.04	58	182955	38.2863	ug/ml	99
111) Isodrin	13.40	193	69419	26.2080	ug/ml	99
112) Fluoranthene	13.57	202	683155	27.4859	ug/ml	99
114) Benzidine	13.68	184	9929	216.8924	ug/ml	100
115) Pyrene	13.90	202	695786	26.7571	ug/ml	99
116) Aramite	13.95	185	39406	24.9824	ug/ml	99
118) p-(Dimethylamino)azobenzen	14.24	225	144249	26.0011	ug/ml	99
119) Chlorobenzilate	14.29	251	187083	25.6530	ug/ml	99
120) Famphur	14.69	218	67775	205.3943	ug/ml#	30
121) Butyl Benzyl Phthalate	14.72	149	316262	25.4441	ug/ml	99
122) 3,3'-Dimethylbenzidine	14.73	212	189128	74.3485	ug/ml#	95
123) 2-Acetylaminofluorene	15.14	181	269699	24.1635	ug/ml	99
124) bis(2-Ethylhexyl)phthalate	15.56	149	431927	26.2614	ug/ml	100
125) 3,3'-Dichlorobenzidine	15.57	252	128645	29.2133	ug/ml	99
126) Benzo[a]anthracene	15.66	228	614266	26.7373	ug/ml	99
127) Chrysene	15.73	228	577331	26.8970	ug/ml	99
129) Di-n-Octyl Phthalate	16.55	149	719604	24.5485	ug/ml	100
130) 7,12-Dimethylbenz[a]anthra	17.61	256	292522	26.0290	ug/ml	100
131) Benzo[b]fluoranthene	17.60	252	655699	25.3338	ug/ml	100
132) Benzo[k]fluoranthene	17.66	252	603465	26.5885	ug/ml	96
133) Benzo[a]pyrene	18.35	252	586115	24.8256	ug/ml	100
134) 3-Methylcholanthrene	19.26	268	318636	24.8357	ug/ml	99
135) Indeno[1,2,3-cd]pyrene	21.58	276	649328	23.4969	ug/ml	99
136) Dibenz[ah]anthracene	21.58	278	543273	23.5997	ug/ml	100
137) Benzo[ghi]perylene	22.52	276	544579	23.8089	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60443.D MEGAMIX.M Fri Apr 20 08:18:59 2012

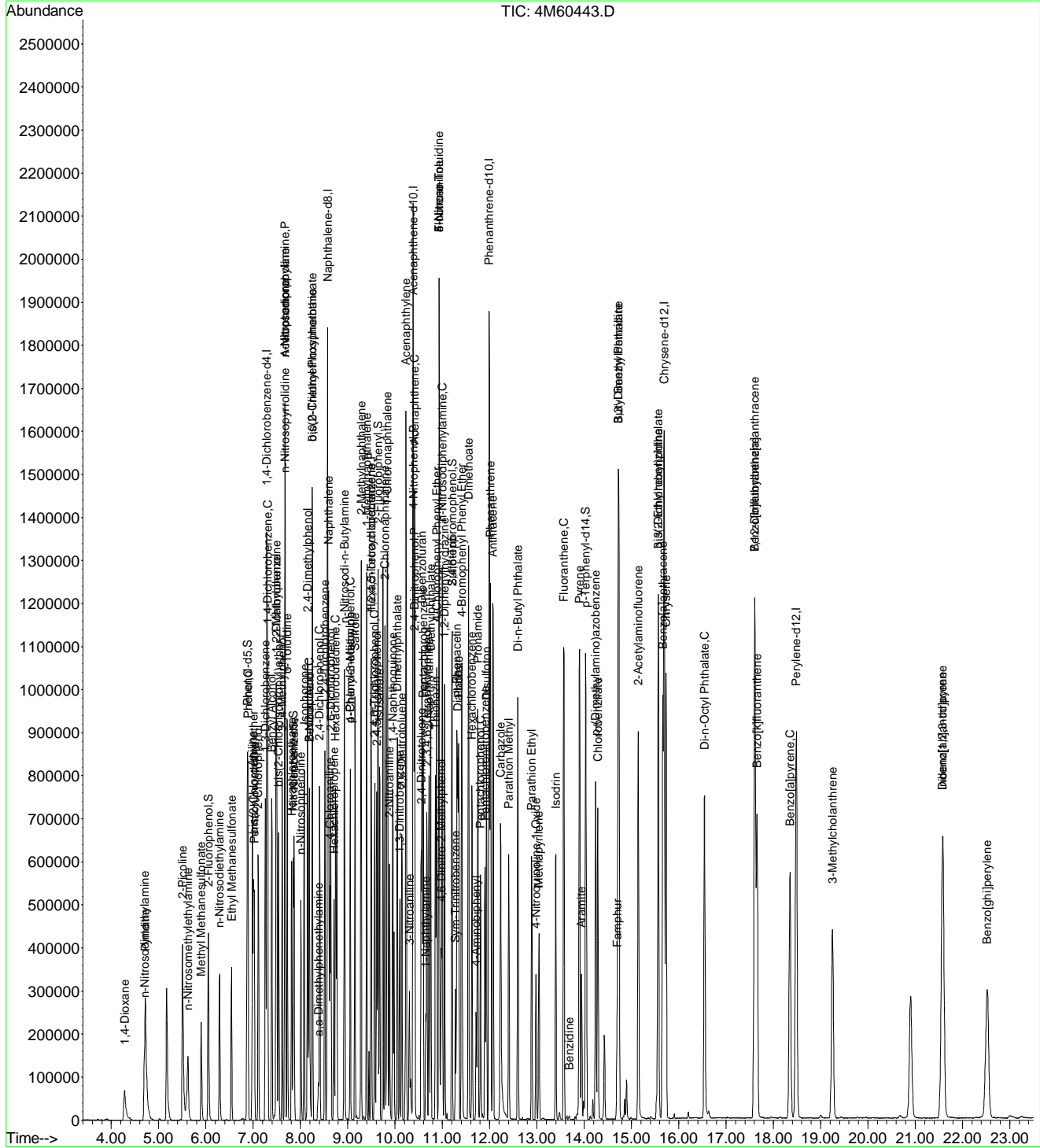
Page 3

Data File : I:\MSDCHEM\1\DATA\041912\4M60443.D
Acq On : 19 Apr 2012 11:40
Sample : WG395394-06 25PPM Megamix STD
Misc : 1,1 STD50886
MS Integration Params: RTEINT.P
Quant Time: Apr 19 14:22 2012

Vial: 6
Operator: CAA
Inst : HPMS4
Multiplr: 1.00

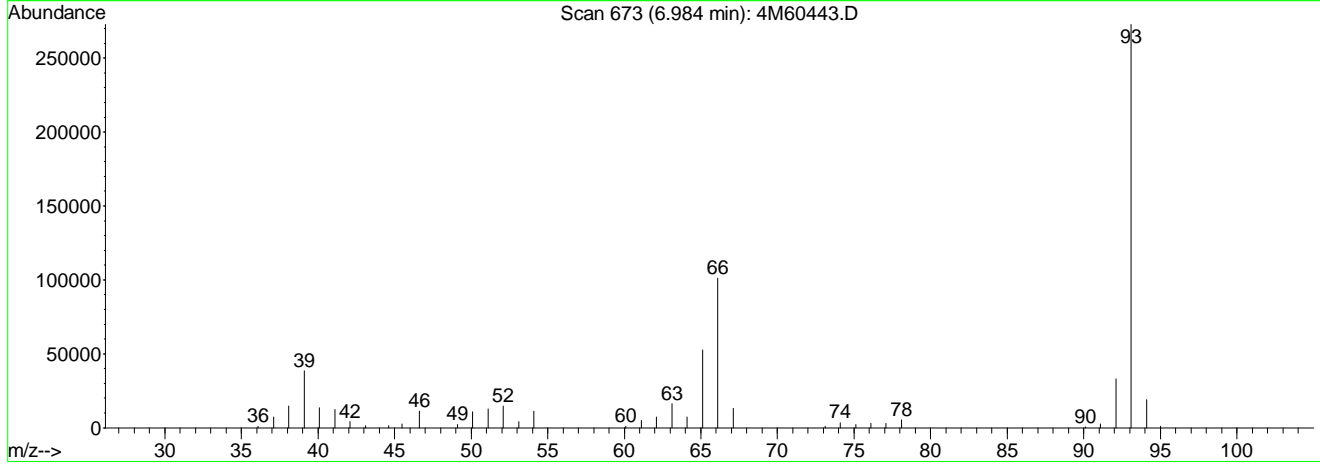
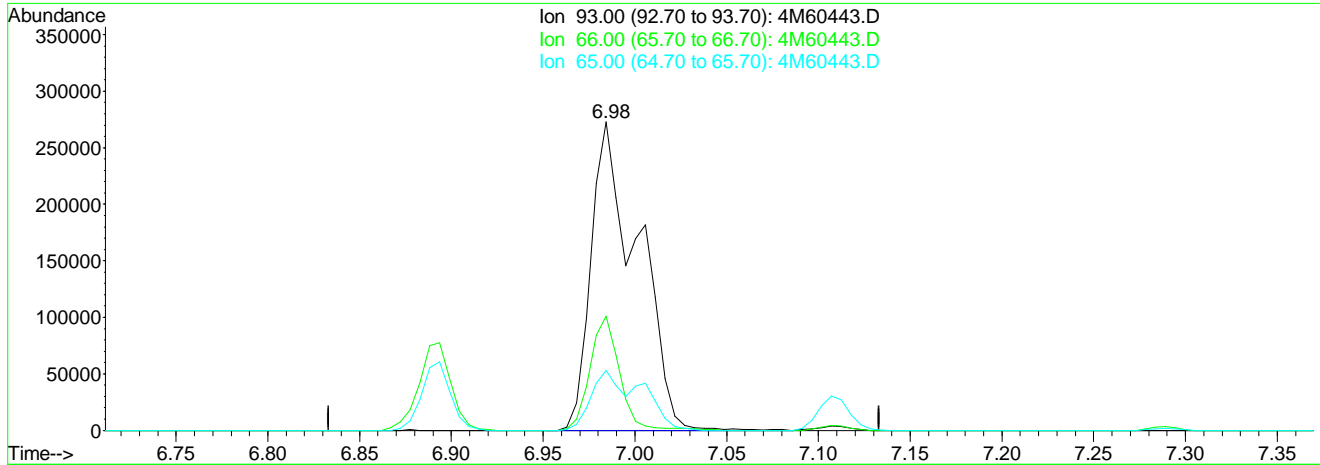
Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
Last Update : Thu Apr 19 14:27:47 2012
Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\041912\4M60443.D Vial: 6
 Acq On : 19 Apr 2012 11:40 Operator: CAA
 Sample : WG395394-06 25PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:22 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:22:30 2012
 Response via : Multiple Level Calibration



TIC: 4M60443.D

(11) Aniline

6.98min 41.26ug/ml

response 484578

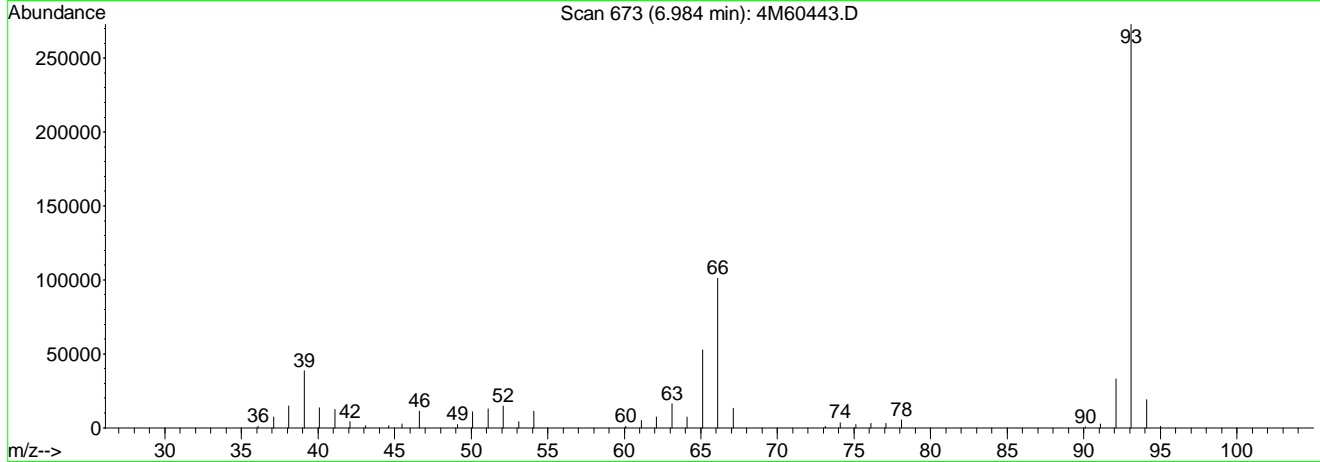
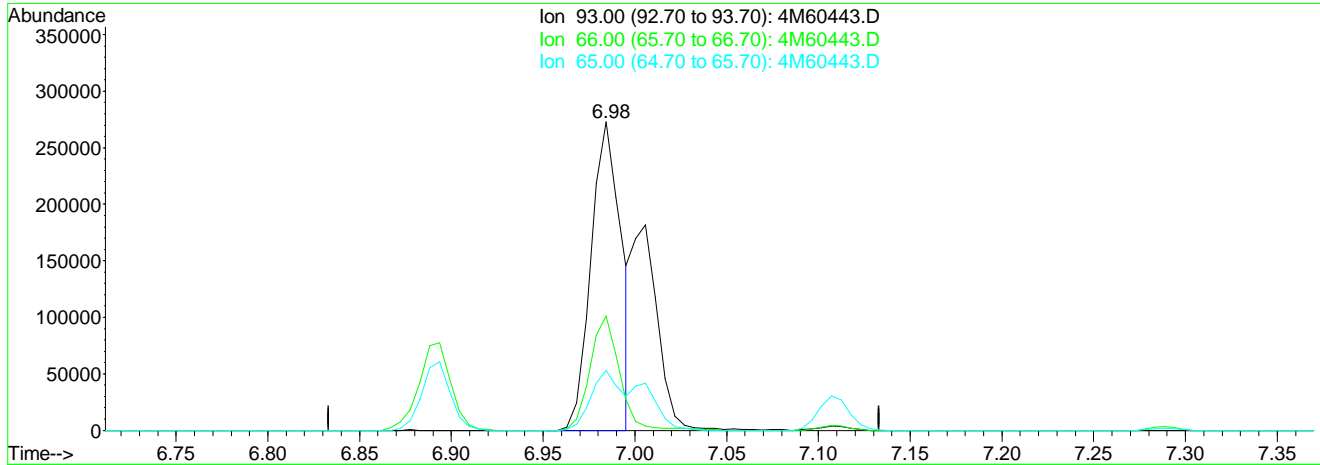
Ion	Exp%	Act%
93.00	100	100
66.00	33.40	23.25
65.00	29.20	12.52#
0.00	0.00	0.00

Data File : I:\MSDCHEM\1\DATA\041912\4M60443.D
 Acq On : 19 Apr 2012 11:40
 Sample : WG395394-06 25PPM Megamix STD
 Misc : 1,1 STD50886
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:22 2012

Vial: 6
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:22:30 2012
 Response via : Multiple Level Calibration



TIC: 4M60443.D

(11) Aniline

6.98min 26.45ug/ml mint

response 310572

Ion	Exp%	Act%
93.00	100	100
66.00	33.40	36.28
65.00	29.20	19.53
0.00	0.00	0.00

4M60443.D MEGAMIX.M

Thu Apr 19

Analyst: 04/20/2012 09:30 Supervisor: 04/20/2012 11:41
 C. Caswell-Augustin; 2012 *Michael Caswell*
 #3 - Improperly integrated isomers and/or coeluting compounds

Data File : I:\MSDCHEM\1\DATA\041912\4M60444.D Vial: 7
 Acq On : 19 Apr 2012 12:14 Operator: CAA
 Sample : WG395394-07 80PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:23:13 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:23:08 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.29	152	270164	40.00	ug/ml	0.00
30) Naphthalene-d8	8.57	136	1058817	40.00	ug/ml	0.00
54) Acenaphthene-d10	10.39	164	601708	40.00	ug/ml	0.00
87) Phenanthrene-d10	11.99	188	1071121	40.00	ug/ml	0.00
113) Chrysene-d12	15.70	240	1000898	40.00	ug/ml	0.00
128) Perylene-d12	18.49	264	956917	40.00	ug/ml	0.00

System Monitoring Compounds

8) 2-Fluorophenol	6.05	112	651614	80.6215	ug/ml	0.00
Spiked Amount	100.000	Range	21 - 100	Recovery	=	80.62%
12) Phenol-d5	6.88	99	752005	82.3170	ug/ml	0.00
Spiked Amount	100.000	Range	10 - 94	Recovery	=	82.32%
31) Nitrobenzene-d5	7.85	82	700987	81.1704	ug/ml	0.00
Spiked Amount	50.000	Range	35 - 114	Recovery	=	162.34%#
59) 2-Fluorobiphenyl	9.64	172	1529924	85.4454	ug/ml	0.00
Spiked Amount	50.000	Range	43 - 116	Recovery	=	170.90%#
86) 2,4,6-Tribromophenol	11.21	330	205907	85.5052	ug/ml	0.00
Spiked Amount	100.000	Range	10 - 123	Recovery	=	85.51%
117) p-Terphenyl-d14	14.04	244	1400284	82.5257	ug/ml	0.00
Spiked Amount	50.000	Range	33 - 141	Recovery	=	165.06%#

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.28	88	257642	78.8478	ug/ml#	92
3) n-Nitrosodimethylamine	4.70	74	398328	79.0505	ug/ml	100
4) Pyridine	4.72	79	702917	79.0184	ug/ml	98
5) 2-Picoline	5.50	93	762562	79.6884	ug/ml	99
6) n-Nitrosomethylethylamine	5.62	88	335039	79.2579	ug/ml	99
7) Methyl Methanesulfonate	5.90	80	364051	77.9508	ug/ml	99
9) n-Nitrosodiethylamine	6.29	102	356938	81.6560	ug/ml	99
10) Ethyl Methanesulfonate	6.55	79	484164	80.5222	ug/ml	99
11) Aniline	6.98	93	1181846m	93.7545	ug/ml	
13) Phenol	6.90	94	801301	82.9291	ug/ml	100
14) bis(2-Chloroethyl)ether	7.00	63	497418	86.4828	ug/ml	100
15) Pentachloroethane	7.02	167	273643	86.7763	ug/ml	99
16) 2-Chlorophenol	7.11	128	725693	81.8315	ug/ml	99
17) 1,3-Dichlorobenzene	7.26	146	799543	83.6879	ug/ml	99
18) 1,4-Dichlorobenzene	7.30	146	813532	84.2171	ug/ml	100
19) Benzyl Alcohol	7.39	108	480683	83.8309	ug/ml	99
20) 1,2-Dichlorobenzene	7.50	146	750912	85.5217	ug/ml	100
21) 2-Methylphenol	7.49	107	561625	84.1364	ug/ml	99
22) bis(2-Chloroisopropyl)eth	7.54	45	1032624	83.9235	ug/ml	99
23) 3-,4-Methylphenol	7.62	107	733181	83.2134	ug/ml	100
24) n-Nitrosopyrrolidine	7.68	100	327343	87.5230	ug/ml	95
25) n-Nitrosodipropylamine	7.68	70	435156	91.0943	ug/ml	99
26) Acetophenone	7.68	105	860801	88.8129	ug/ml	100
27) n-Nitrosomorpholine	7.68	56	397862	86.5753	ug/ml	99
28) o-Toluidine	7.73	106	1155789	87.1781	ug/ml	100
29) Hexachloroethane	7.81	117	310495	82.7247	ug/ml	98
32) Nitrobenzene	7.87	77	698206	82.2707	ug/ml	99
33) n-Nitrosopiperidine	8.01	114	377476	81.5355	ug/ml	99
34) Isophorone	8.08	82	1254518	83.1403	ug/ml	100
35) 2-Nitrophenol	8.19	139	428368	75.2069	ug/ml	98
36) 2,4-Dimethylphenol	8.15	122	674316	82.6362	ug/ml	100
37) 0,0,0-Triethyl Phosphoroth	8.26	198	341314	87.0588	ug/ml	100
38) bis(2-Chloroethoxy)methane	8.26	93	937865	87.0855	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60444.D MEGAMIX.M Fri Apr 20 08:19:00 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60444.D Vial: 7
 Acq On : 19 Apr 2012 12:14 Operator: CAA
 Sample : WG395394-07 80PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:23:13 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:23:08 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Benzoic Acid	8.21	105	518434	113.7758	ug/ml#	75
40) 2,4-Dichlorophenol	8.41	162	591204	82.5988	ug/ml	99
41) a,a-Dimethylphenethylamine	8.43	58	961556	154.8459	ug/ml	98
42) 1,2,4-Trichlorobenzene	8.52	180	659109	84.0934	ug/ml	100
43) Naphthalene	8.60	128	2143165	89.1050	ug/ml	98
44) 4-Chloroaniline	8.62	127	840914	88.5412	ug/ml	100
45) 2,6-Dichlorophenol	8.64	162	616497	84.2773	ug/ml	100
46) Hexachloropropene	8.71	213	395486	80.8426	ug/ml	100
47) Hexachlorobutadiene	8.74	225	335869	84.6848	ug/ml	99
48) n-Nitrosodi-n-Butylamine	8.94	84	585181	83.4905	ug/ml	98
49) p-Phenylenediamine	9.06	108	49839	86.2185	ug/ml	93
50) 4-Chloro-3-Methylphenol	9.06	107	603833	85.3273	ug/ml	100
51) Safrole	9.15	162	568977	84.7565	ug/ml	100
52) 2-Methylnaphthalene	9.28	142	1399298	86.1316	ug/ml	100
53) 1-Methylnaphthalene	9.40	142	1329751	86.2523	ug/ml	100
55) 1,2,4,5-Tetrachlorobenzene	9.49	216	595962	83.6137	ug/ml	99
56) Hexachlorocyclopentadiene	9.51	237	336327	87.8983	ug/ml	99
57) 2,4,6-Trichlorophenol	9.57	196	439102	83.6396	ug/ml	99
58) 2,4,5-Trichlorophenol	9.62	196	450522	85.5336	ug/ml	99
60) Isosafrole	9.68	162	602738	83.4485	ug/ml	99
61) 2-Chloronaphthalene	9.79	162	1316383	83.3430	ug/ml	100
62) 1-Chloronaphthalene	9.83	162	1231825	83.3956	ug/ml	99
63) 2-Nitroaniline	9.89	65	389293	81.9939	ug/ml	100
64) 1,4-Naphthoquinone	9.95	158	517634	87.1575	ug/ml	99
65) Dimethylphthalate	10.06	163	1452767	84.0445	ug/ml	100
66) 1,3-Dinitrobenzene	10.10	168	300061	81.7587	ug/ml	100
67) 2,6-Dinitrotoluene	10.15	165	380371	82.9628	ug/ml	99
68) Acenaphthylene	10.24	152	2059422	85.6892	ug/ml	99
69) 3-Nitroaniline	10.31	138	283165	101.9547	ug/ml	100
70) 2,4-Dinitrophenol	10.41	184	201666	84.5715	ug/ml	85
71) Acenaphthene	10.42	154	1355981	86.2034	ug/ml	100
72) 4-Nitrophenol	10.41	65	267741	79.4179	ug/ml	99
73) 2,4-Dinitrotoluene	10.56	165	484503	86.9438	ug/ml	100
74) Pentachlorobenzene	10.60	250	543917	84.9318	ug/ml	99
75) Dibenzofuran	10.57	168	1809858	88.1523	ug/ml	99
76) 2,3,4,6-Tetrachlorophenol	10.67	232	315686	89.7842	ug/ml	99
77) 1-Naphthylamine	10.65	143	106768	170.5477	ug/ml#	89
78) 2-Naphthylamine	10.72	143	31352	93.0336	ug/ml	95
79) Diethylphthalate	10.76	149	1465764	85.9268	ug/ml	99
80) Thionazin	10.86	107	247858	86.4534	ug/ml	99
81) Fluorene	10.93	166	1524152	84.8688	ug/ml	99
82) 4-Chlorophenyl Phenyl Ether	10.88	204	732168	87.2764	ug/ml	99
83) 4-Nitroaniline	10.95	138	344564	89.1086	ug/ml	98
84) 5-Nitro-o-Toluidine	10.94	152	359517	94.2582	ug/ml	99
85) 1,2-Diphenylhydrazine	11.05	77	1430564	85.2157	ug/ml	100
88) 4,6-Dinitro-2-Methylphenol	10.98	198	289337	77.2686	ug/ml	97
89) n-Nitrosodiphenylamine	11.01	169	1335543	84.6041	ug/ml	99
90) Sulfotepp	11.20	322	235004	81.2649	ug/ml	98
91) Sym-Trinitrobenzene	11.29	75	374190	79.8745	ug/ml	99
92) Diallate	11.33	86	544965	87.7632	ug/ml	99
93) Phenacetin	11.32	108	721724	86.6007	ug/ml	100
94) Phorate	11.35	75	880600	85.2698	ug/ml#	100
95) 4-Bromophenyl Phenyl Ether	11.41	248	414109	81.9579	ug/ml	99
96) Hexachlorobenzene	11.63	284	454706	83.8308	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60444.D MEGAMIX.M Fri Apr 20 08:19:00 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60444.D Vial: 7
 Acq On : 19 Apr 2012 12:14 Operator: CAA
 Sample : WG395394-07 80PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:23:13 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:23:08 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97) Dimethoate	11.56	87	438351	87.6686	ug/ml	99
98) 4-Aminobiphenyl	11.72	169	583198	94.6458	ug/ml	100
99) Pentachlorophenol	11.81	266	297153	93.2093	ug/ml	100
100) Pronamide	11.75	173	682115	82.6482	ug/ml	99
101) Pentachloronitrobenzene	11.90	237	162254	83.4353	ug/ml	99
102) Disulfoton	11.93	88	763049	82.5061	ug/ml	99
103) Phenanthrene	12.03	178	2157063	83.7416	ug/ml	99
104) Anthracene	12.08	178	2228606	84.2260	ug/ml	100
105) Carbazole	12.24	167	2025195	81.9628	ug/ml	99
106) Parathion Methyl	12.41	109	447959	90.6288	ug/ml	98
107) Di-n-Butyl Phthalate	12.60	149	2430902	83.7002	ug/ml	99
108) Parathion Ethyl	12.89	97	293192	82.2551	ug/ml	99
109) 4-Nitroquinoline 1-Oxide	12.99	190	223202	121.5060	ug/ml	98
110) Methapyrilene	13.05	58	381546	73.9269	ug/ml	98
111) Isodrin	13.40	193	234719	81.6215	ug/ml	99
112) Fluoranthene	13.58	202	2265098	83.9667	ug/ml	99
114) Benzidine	13.70	184	13667	256.8055	ug/ml	100
115) Pyrene	13.90	202	2297635	82.1817	ug/ml	100
116) Aramite	13.94	185	138283	81.4971	ug/ml	99
118) p-(Dimethylamino)azobenzen	14.25	225	497250	83.3444	ug/ml	98
119) Chlorobenzilate	14.29	251	649202	82.7656	ug/ml	99
120) Famphur	14.69	218	3581	10.0901	ug/ml#	4
121) Butyl Benzyl Phthalate	14.72	149	1058648	79.2528	ug/ml	99
122) 3,3'-Dimethylbenzidine	14.73	212	292271	107.0859	ug/ml	97
123) 2-Acetylaminofluorene	15.16	181	966286	80.4830	ug/ml	99
124) bis(2-Ethylhexyl)phthalate	15.57	149	1454801	82.2789	ug/ml	99
125) 3,3'-Dichlorobenzidine	15.58	252	433623	91.6318	ug/ml	100
126) Benzo[a]anthracene	15.67	228	2052367	83.0550	ug/ml	100
127) Chrysene	15.73	228	1906476	82.5964	ug/ml	100
129) Di-n-Octyl Phthalate	16.55	149	2511032	81.6537	ug/ml	100
130) 7,12-Dimethylbenz[a]anthra	17.63	256	985135	83.4888	ug/ml	99
131) Benzo[b]fluoranthene	17.63	252	2178762	80.1704	ug/ml	99
132) Benzo[k]fluoranthene	17.67	252	2073723	87.0583	ug/ml	99
133) Benzo[a]pyrene	18.36	252	2027472	81.8288	ug/ml	99
134) 3-Methylcholanthrene	19.27	268	1108175	82.2952	ug/ml	100
135) Indeno[1,2,3-cd]pyrene	21.63	276	2284765	78.8399	ug/ml	98
136) Dibenz[ah]anthracene	21.63	278	1911785	79.1941	ug/ml	99
137) Benzo[ghi]perylene	22.57	276	1882226	78.4731	ug/ml	98

(#) = qualifier out of range (m) = manual integration
 4M60444.D MEGAMIX.M Fri Apr 20 08:19:00 2012

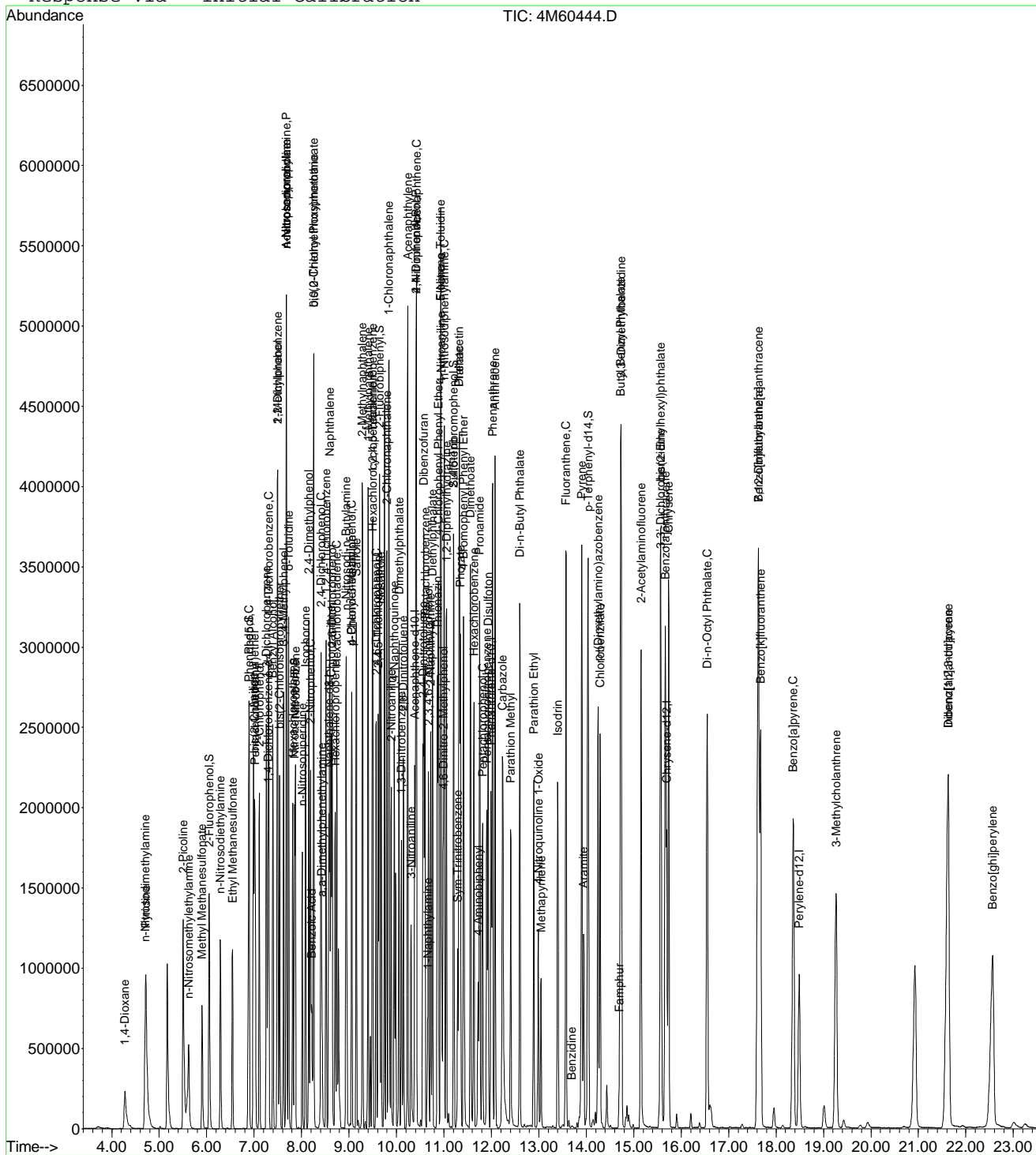
Page 3

Data File : I:\MSDCHEM\1\DATA\041912\4M60444.D
Acq On : 19 Apr 2012 12:14
Sample : WG395394-07 80PPM Megamix STD
Misc : 1,1 STD50886
MS Integration Params: RTEINT.P
Quant Time: Apr 19 14:23 2012

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

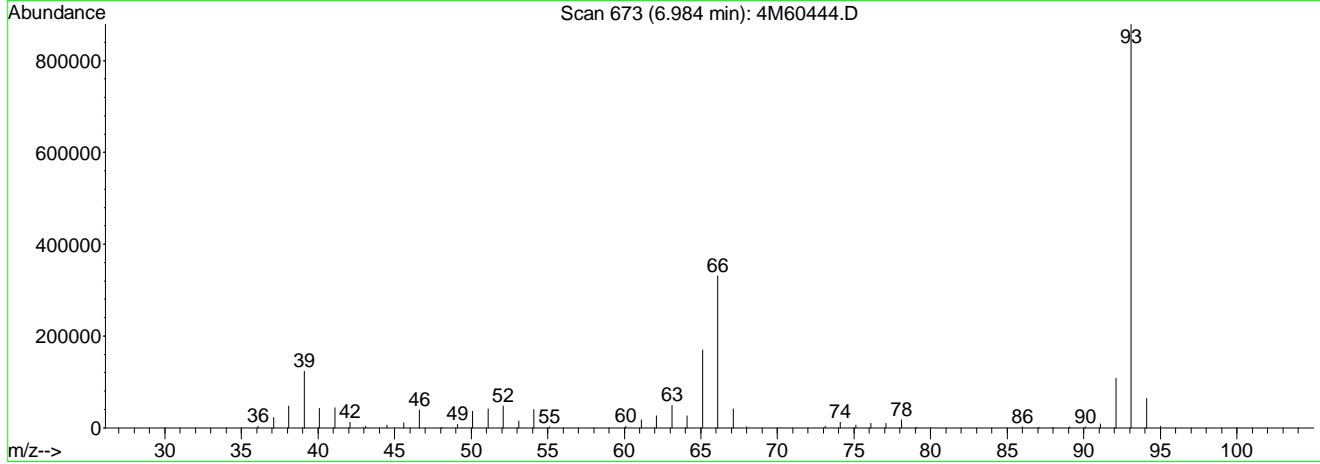
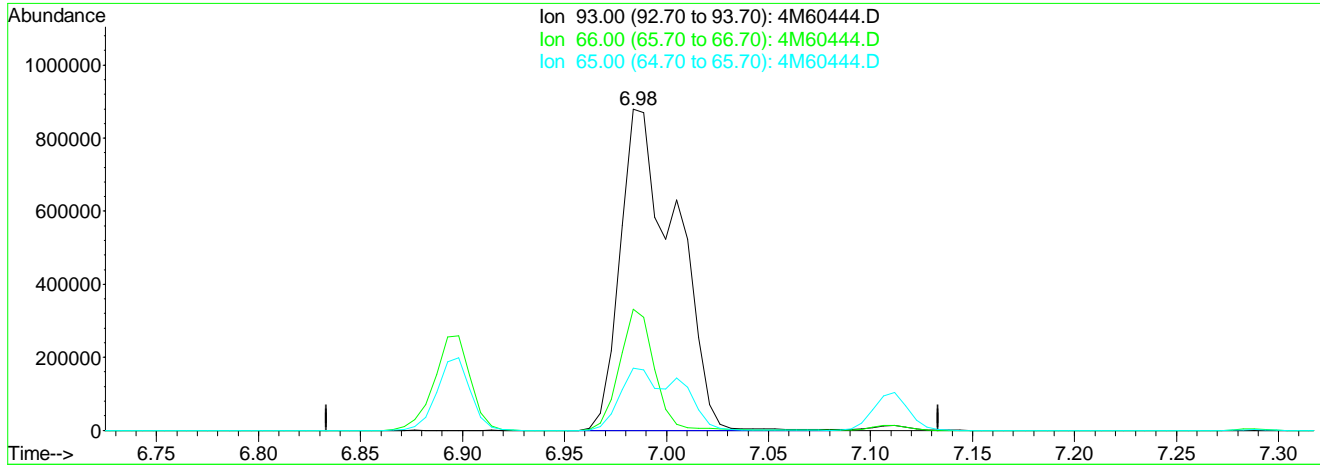
Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
Last Update : Thu Apr 19 14:27:47 2012
Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\041912\4M60444.D Vial: 7
 Acq On : 19 Apr 2012 12:14 Operator: CAA
 Sample : WG395394-07 80PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:23 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:23:08 2012
 Response via : Multiple Level Calibration



TIC: 4M60444.D

(11) Aniline

6.98min 132.60ug/ml

response 1671557

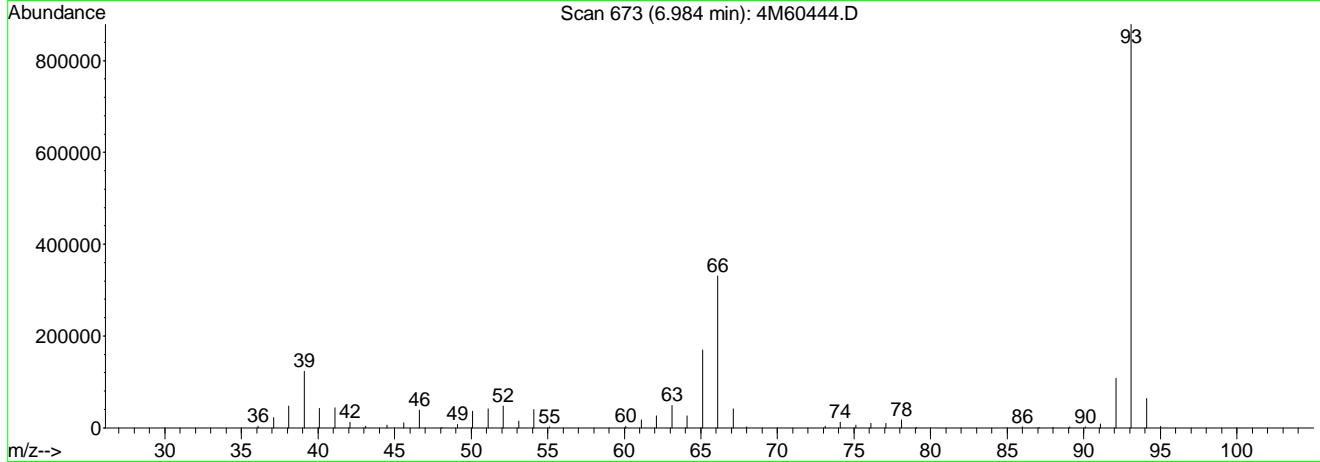
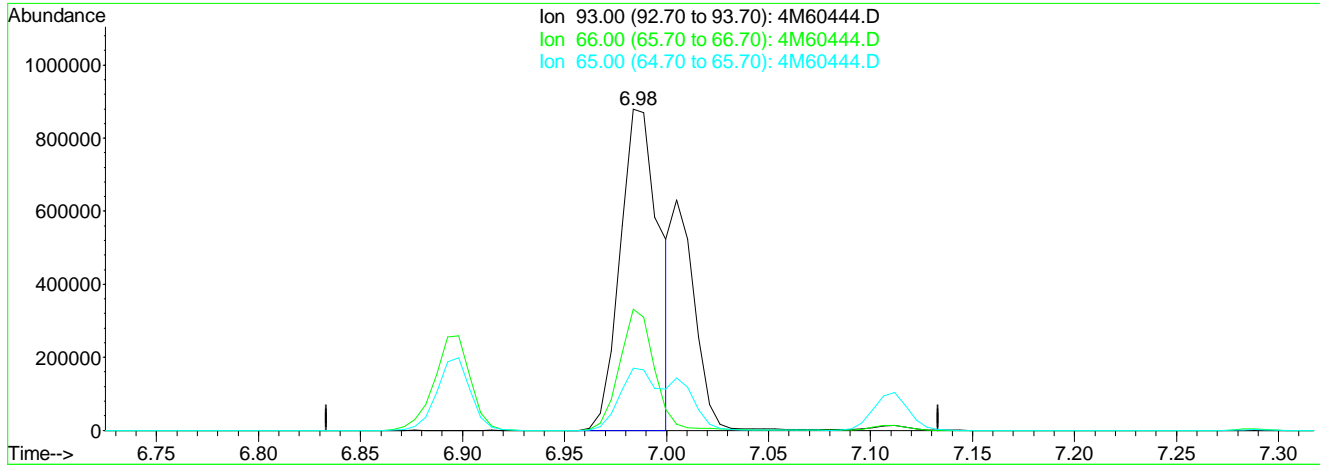
Ion	Exp%	Act%
93.00	100	100
66.00	33.40	23.77
65.00	29.20	20.73
0.00	0.00	0.00

Data File : I:\MSDCHEM\1\DATA\041912\4M60444.D
 Acq On : 19 Apr 2012 12:14
 Sample : WG395394-07 80PPM Megamix STD
 Misc : 1,1 STD50886
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:23 2012

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

Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:23:08 2012
 Response via : Multiple Level Calibration



TIC: 4M60444.D

(11) Aniline

6.98min 93.75ug/ml mint

response 1181846

Ion	Exp%	Act%
93.00	100	100
66.00	33.40	33.62
65.00	29.20	29.32
0.00	0.00	0.00

4M60444.D MEGAMIX.M

Thu Apr 19

Analyst: 04/20/2012 09:30
 Supervisor: 04/20/2012 11:41
 2012
 #3 - Improperly integrated isomers and/or coeluting compounds

Data File : I:\MSDCHEM\1\DATA\041912\4M60445.D Vial: 8
 Acq On : 19 Apr 2012 12:48 Operator: CAA
 Sample : WG395394-08 100PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:23:50 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:23:45 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.29	152	277093	40.00	ug/ml	0.00
30) Naphthalene-d8	8.58	136	1078447	40.00	ug/ml	0.00
54) Acenaphthene-d10	10.39	164	600594	40.00	ug/ml	0.00
87) Phenanthrene-d10	11.99	188	1068325	40.00	ug/ml	0.00
113) Chrysene-d12	15.70	240	989532	40.00	ug/ml	0.00
128) Perylene-d12	18.49	264	928281	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
8) 2-Fluorophenol	6.05	112	808410	97.6350	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery =	97.64%		
12) Phenol-d5	6.88	99	931008	99.2563	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery =	99.26%#		
31) Nitrobenzene-d5	7.85	82	869918	99.4444	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	198.88%#		
59) 2-Fluorobiphenyl	9.64	172	1852192	103.1326	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	206.26%#		
86) 2,4,6-Tribromophenol	11.21	330	252049	103.7522	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery =	103.75%		
117) p-Terphenyl-d14	14.04	244	1670972	99.7576	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	199.52%#		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.28	88	348759	104.6802	ug/ml#	98
3) n-Nitrosodimethylamine	4.70	74	499944	97.0836	ug/ml	100
4) Pyridine	4.72	79	880375	96.9922	ug/ml	99
5) 2-Picoline	5.50	93	952597	97.3185	ug/ml	99
6) n-Nitrosomethylethylamine	5.62	88	418420	96.7300	ug/ml	99
7) Methyl Methanesulfonate	5.90	80	448121	94.4502	ug/ml	98
9) n-Nitrosodiethylamine	6.29	102	441347	98.2623	ug/ml	98
10) Ethyl Methanesulfonate	6.55	79	604359	98.0919	ug/ml	100
11) Aniline	6.98	93	1502899m	111.4042	ug/ml	
13) Phenol	6.90	94	991961	99.7934	ug/ml	100
14) bis(2-Chloroethyl)ether	7.01	63	615863	103.3093	ug/ml	99
15) Pentachloroethane	7.02	167	336576	102.9292	ug/ml	99
16) 2-Chlorophenol	7.11	128	903123	99.2327	ug/ml	99
17) 1,3-Dichlorobenzene	7.26	146	980717	99.8635	ug/ml	100
18) 1,4-Dichlorobenzene	7.30	146	997434	100.2398	ug/ml	100
19) Benzyl Alcohol	7.40	108	594299	100.4024	ug/ml	99
20) 1,2-Dichlorobenzene	7.50	146	918764	101.0157	ug/ml	99
21) 2-Methylphenol	7.49	107	686225	99.5164	ug/ml	99
22) bis(2-Chloroisopropyl)eth	7.53	45	1273668	100.6058	ug/ml	99
23) 3-,4-Methylphenol	7.62	107	905262	99.5585	ug/ml	100
24) n-Nitrosopyrrolidine	7.68	100	400577	103.3389	ug/ml	92
25) n-Nitrosodipropylamine	7.68	70	522498	104.9775	ug/ml	99
26) Acetophenone	7.68	105	1037851	102.8813	ug/ml	99
27) n-Nitrosomorpholine	7.69	56	482861	99.9546	ug/ml	98
28) o-Toluidine	7.73	106	1417866	102.5014	ug/ml	99
29) Hexachloroethane	7.81	117	384708	99.7029	ug/ml	96
32) Nitrobenzene	7.87	77	854248	99.1471	ug/ml	100
33) n-Nitrosopiperidine	8.01	114	464532	98.8152	ug/ml	99
34) Isophorone	8.08	82	1546209	100.7548	ug/ml	100
35) 2-Nitrophenol	8.19	139	514984	93.0486	ug/ml	96
36) 2,4-Dimethylphenol	8.15	122	831386	100.0156	ug/ml	100
37) 0,0,0-Triethyl Phosphoroth	8.26	198	412901	102.5849	ug/ml	99
38) bis(2-Chloroethoxy)methane	8.26	93	1134885	103.0111	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60445.D MEGAMIX.M Fri Apr 20 08:19:00 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60445.D Vial: 8
 Acq On : 19 Apr 2012 12:48 Operator: CAA
 Sample : WG395394-08 100PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:23:50 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:23:45 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Benzoic Acid	8.22	105	675656	132.0678	ug/ml#	79
40) 2,4-Dichlorophenol	8.41	162	715757	98.4931	ug/ml	100
41) a,a-Dimethylphenethylamine	8.42	58	2329298m	277.3952	ug/ml	
42) 1,2,4-Trichlorobenzene	8.52	180	805702	100.8798	ug/ml	100
43) Naphthalene	8.60	128	2577401	104.1802	ug/ml	97
44) 4-Chloroaniline	8.62	127	1131551	112.1001	ug/ml	97
45) 2,6-Dichlorophenol	8.65	162	757150	101.3496	ug/ml	100
46) Hexachloropropene	8.71	213	480526	97.2421	ug/ml	100
47) Hexachlorobutadiene	8.74	225	411451	101.6490	ug/ml	100
48) n-Nitrosodi-n-Butylamine	8.94	84	730096	101.9649	ug/ml	98
49) p-Phenylenediamine	9.06	108	69011	116.1156	ug/ml#	66
50) 4-Chloro-3-Methylphenol	9.06	107	739247	102.0278	ug/ml	98
51) Safrole	9.15	162	691788	100.8683	ug/ml	100
52) 2-Methylnaphthalene	9.28	142	1696852	102.0818	ug/ml	100
53) 1-Methylnaphthalene	9.40	142	1602525	101.6631	ug/ml	99
55) 1,2,4,5-Tetrachlorobenzene	9.49	216	719693	100.9510	ug/ml	99
56) Hexachlorocyclopentadiene	9.50	237	403426	104.4331	ug/ml	99
57) 2,4,6-Trichlorophenol	9.57	196	535987	101.9054	ug/ml	99
58) 2,4,5-Trichlorophenol	9.62	196	556900	105.1055	ug/ml	100
60) Isosafrole	9.68	162	735707	101.7585	ug/ml	99
61) 2-Chloronaphthalene	9.79	162	1597789	101.2240	ug/ml	100
62) 1-Chloronaphthalene	9.83	162	1490493	101.3021	ug/ml	99
63) 2-Nitroaniline	9.89	65	478820	100.8695	ug/ml	100
64) 1,4-Naphthoquinone	9.95	158	566749	95.6915	ug/ml	99
65) Dimethylphthalate	10.06	163	1760527	101.8244	ug/ml	99
66) 1,3-Dinitrobenzene	10.10	168	365872	99.8897	ug/ml	99
67) 2,6-Dinitrotoluene	10.15	165	466415	101.7222	ug/ml	99
68) Acenaphthylene	10.24	152	2438377	101.2894	ug/ml	98
69) 3-Nitroaniline	10.31	138	384870	124.0693	ug/ml	99
70) 2,4-Dinitrophenol	10.41	184	256771	106.1183	ug/ml	74
71) Acenaphthene	10.42	154	1612771	101.9313	ug/ml	100
72) 4-Nitrophenol	10.41	65	320939	95.7301	ug/ml	98
73) 2,4-Dinitrotoluene	10.56	165	583421	103.9974	ug/ml	100
74) Pentachlorobenzene	10.60	250	653861	101.7974	ug/ml	99
75) Dibenzofuran	10.57	168	2178444	105.3824	ug/ml	99
76) 2,3,4,6-Tetrachlorophenol	10.68	232	391859	110.4735	ug/ml	99
77) 1-Naphthylamine	10.65	143	204822	257.5666	ug/ml	94
78) 2-Naphthylamine	10.72	143	53289	152.3377	ug/ml	89
79) Diethylphthalate	10.76	149	1756256	102.5694	ug/ml	99
80) Thionazin	10.86	107	300709	104.5573	ug/ml	99
81) Fluorene	10.93	166	1832624	101.8970	ug/ml	99
82) 4-Chlorophenyl Phenyl Ether	10.88	204	885933	104.8310	ug/ml	99
83) 4-Nitroaniline	10.95	138	432847	109.9973	ug/ml	98
84) 5-Nitro-o-Toluidine	10.94	152	465662	118.2046	ug/ml	98
85) 1,2-Diphenylhydrazine	11.05	77	1719707	102.3736	ug/ml	100
88) 4,6-Dinitro-2-Methylphenol	10.99	198	361668	97.7089	ug/ml	95
89) n-Nitrosodiphenylamine	11.01	169	1620487	102.3203	ug/ml	99
90) Sulfolon	11.20	322	282824	98.1810	ug/ml	99
91) Sym-Trinitrobenzene	11.29	75	450708	96.7069	ug/ml	99
92) Diethylphthalate	11.33	86	651475	104.3468	ug/ml	97
93) Phenacetin	11.32	108	873920	104.4740	ug/ml	99
94) Phorate	11.35	75	1057354	102.4913	ug/ml#	99
95) 4-Bromophenyl Phenyl Ether	11.41	248	505367	100.3772	ug/ml	100
96) Hexachlorobenzene	11.63	284	543444	100.1408	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60445.D MEGAMIX.M Fri Apr 20 08:19:01 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60445.D Vial: 8
 Acq On : 19 Apr 2012 12:48 Operator: CAA
 Sample : WG395394-08 100PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:23:50 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:23:45 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97) Dimethoate	11.56	87	501935	100.9365	ug/ml	99
98) 4-Aminobiphenyl	11.72	169	862423	134.3000	ug/ml	100
99) Pentachlorophenol	11.81	266	367513	111.8825	ug/ml	99
100) Pronamide	11.75	173	823842	100.0678	ug/ml	100
101) Pentachloronitrobenzene	11.90	237	193570	99.6174	ug/ml	99
102) Disulfoton	11.93	88	922033	100.0754	ug/ml	100
103) Phenanthrene	12.03	178	2552198	99.2497	ug/ml	99
104) Anthracene	12.08	178	2652184	100.4170	ug/ml	99
105) Carbazole	12.24	167	2461069	99.8497	ug/ml	99
106) Parathion Methyl	12.41	109	520215	104.5338	ug/ml	98
107) Di-n-Butyl Phthalate	12.60	149	2883140	99.5732	ug/ml	99
108) Parathion Ethyl	12.89	97	355174	100.0641	ug/ml	99
109) 4-Nitroquinoline 1-Oxide	12.99	190	263646	131.3569	ug/ml	99
110) Methapyrilene	13.04	58	422454	85.8738	ug/ml	97
111) Isodrin	13.40	193	283018	98.8367	ug/ml	98
112) Fluoranthene	13.57	202	2684844	99.6277	ug/ml	98
114) Benzidine	13.71	184	19802	246.1112	ug/ml	100
115) Pyrene	13.91	202	2734557	99.2391	ug/ml	99
116) Aramite	13.94	185	163546	97.8929	ug/ml	100
118) p-(Dimethylamino)azobenzen	14.25	225	595098	100.7242	ug/ml	97
119) Chlorobenzilate	14.29	251	776046	99.9442	ug/ml	99
120) Famphur	14.69	218	1795	5.1158	ug/ml#	1
121) Butyl Benzyl Phthalate	14.72	149	1272202	97.2772	ug/ml	100
122) 3,3'-Dimethylbenzidine	14.73	212	375596	134.3617	ug/ml	98
123) 2-Acetylaminofluorene	15.16	181	1158799	97.9644	ug/ml	98
124) bis(2-Ethylhexyl)phthalate	15.57	149	1738038	99.6497	ug/ml	99
125) 3,3'-Dichlorobenzidine	15.58	252	535244	112.0420	ug/ml	100
126) Benzo[a]anthracene	15.67	228	2445804	100.0289	ug/ml	99
127) Chrysene	15.74	228	2259995	99.1082	ug/ml	99
129) Di-n-Octyl Phthalate	16.55	149	3002395	100.8005	ug/ml	99
130) 7,12-Dimethylbenz[a]anthra	17.63	256	1177849	102.3467	ug/ml	100
131) Benzo[b]fluoranthene	17.63	252	2654859	100.7327	ug/ml	99
132) Benzo[k]fluoranthene	17.68	252	2404348	102.9880	ug/ml	99
133) Benzo[a]pyrene	18.37	252	2422076	100.8122	ug/ml	99
134) 3-Methylcholanthrene	19.27	268	1309867	100.1318	ug/ml	99
135) Indeno[1,2,3-cd]pyrene	21.64	276	2721409	97.4416	ug/ml	98
136) Dibenz[ah]anthracene	21.64	278	2261465	97.0489	ug/ml	98
137) Benzo[ghi]perylene	22.58	276	2198670	95.3121	ug/ml	98

(#) = qualifier out of range (m) = manual integration
 4M60445.D MEGAMIX.M Fri Apr 20 08:19:01 2012

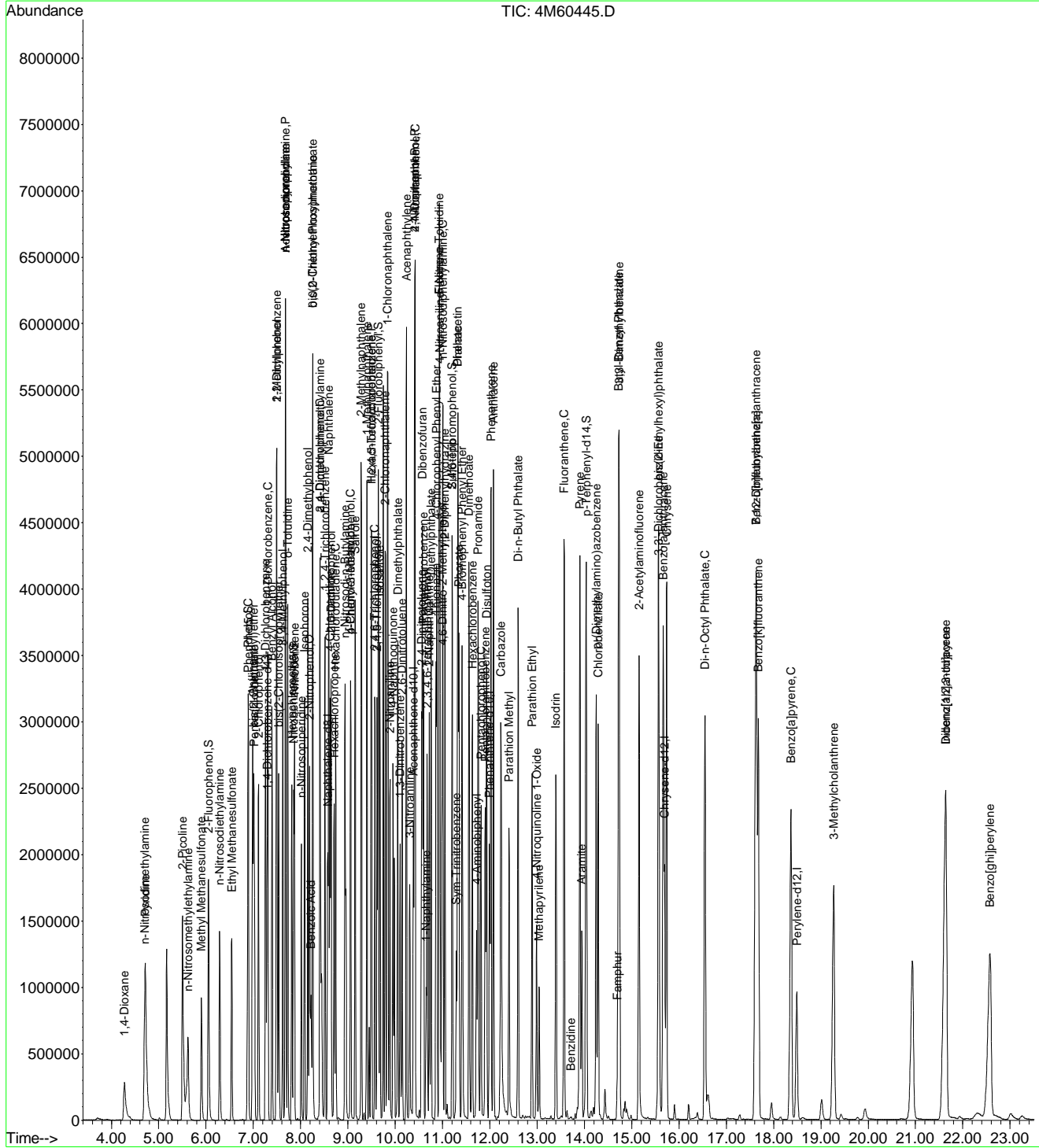
Page 3

Data File : I:\MSDCHEM\1\DATA\041912\4M60445.D
Acq On : 19 Apr 2012 12:48
Sample : WG395394-08 100PPM Megamix STD
Misc : 1,1 STD50886
MS Integration Params: RTEINT.P
Quant Time: Apr 19 14:24 2012

Vial: 8
Operator: CAA
Inst : HPMS4
Multiplr: 1.00

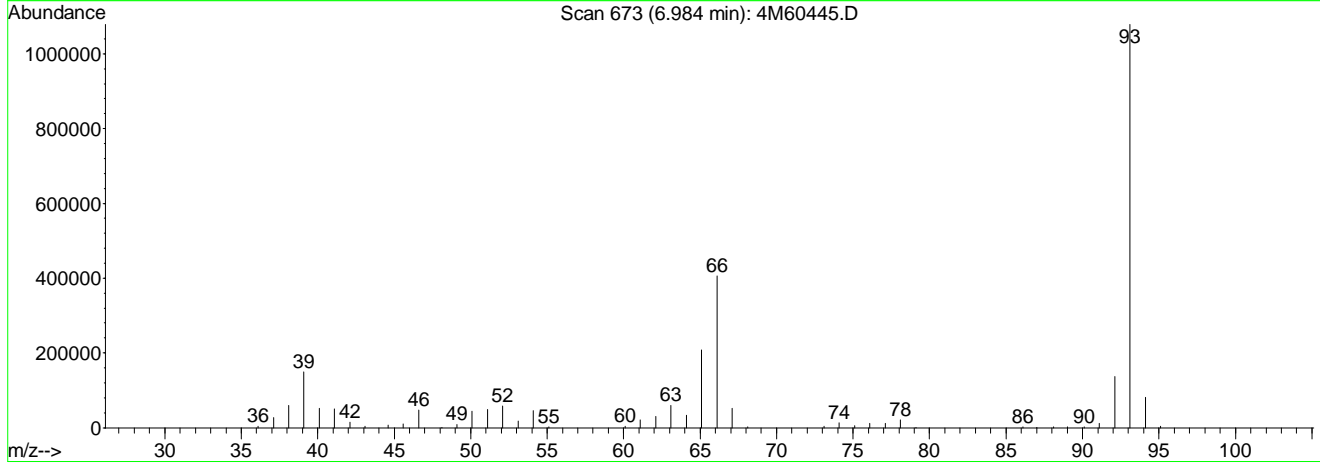
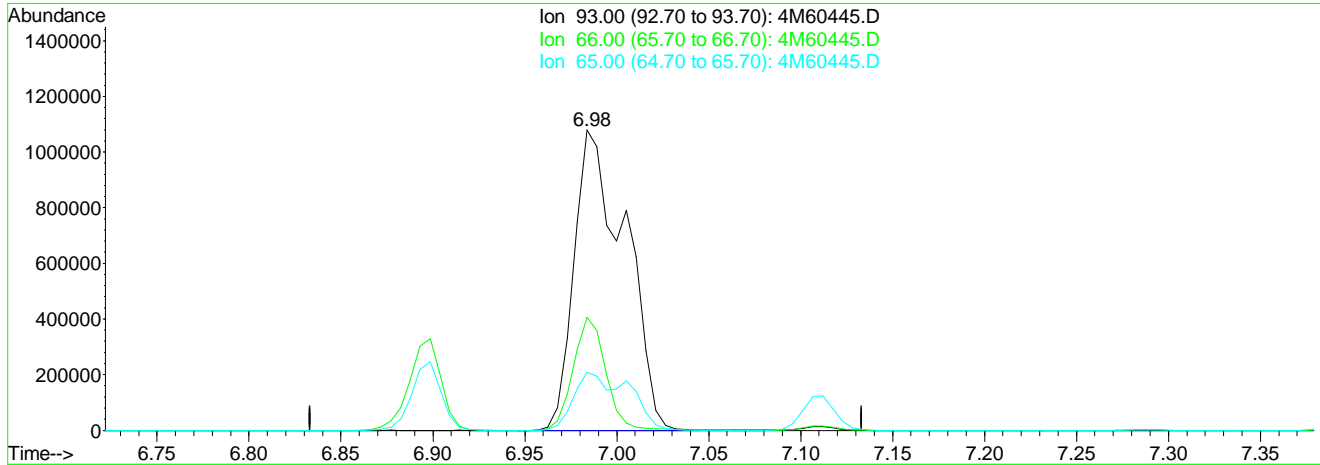
Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
Last Update : Thu Apr 19 14:27:47 2012
Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\041912\4M60445.D Vial: 8
 Acq On : 19 Apr 2012 12:48 Operator: CAA
 Sample : WG395394-08 100PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:23 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:23:45 2012
 Response via : Multiple Level Calibration



TIC: 4M60445.D

(11) Aniline

6.98min 154.36ug/ml
 response 2082404

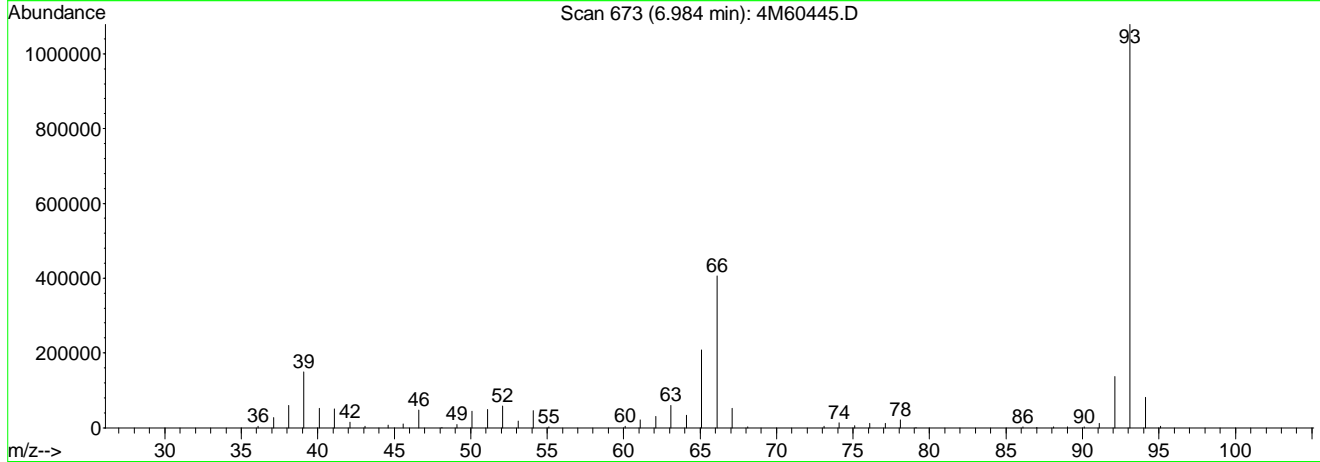
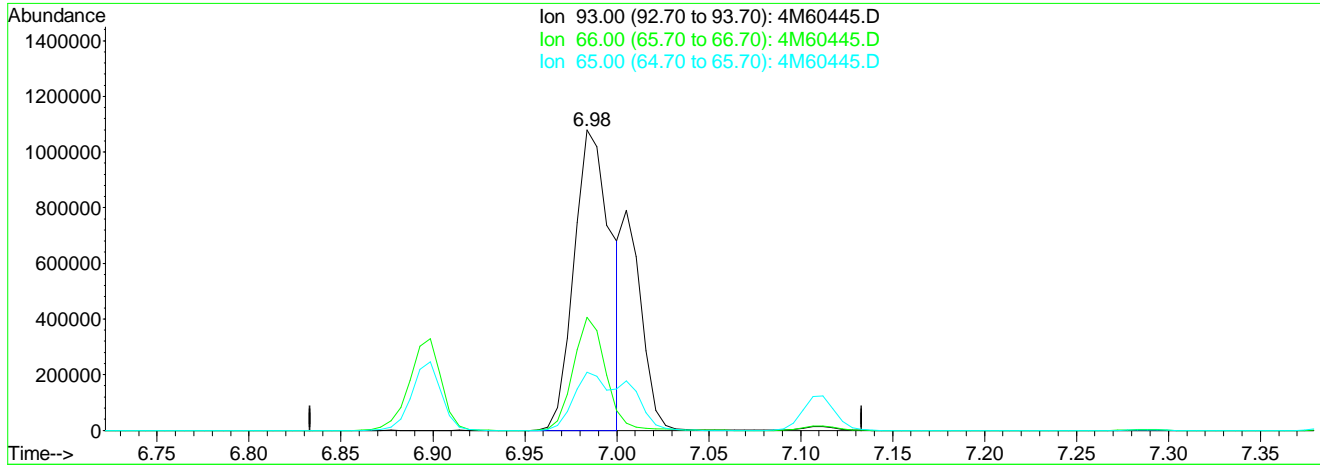
Ion	Exp%	Act%
93.00	100	100
66.00	33.40	23.95
65.00	29.20	20.71
0.00	0.00	0.00

Data File : I:\MSDCHEM\1\DATA\041912\4M60445.D
 Acq On : 19 Apr 2012 12:48
 Sample : WG395394-08 100PPM Megamix STD
 Misc : 1,1 STD50886
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:23 2012

Vial: 8
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:23:45 2012
 Response via : Multiple Level Calibration



TIC: 4M60445.D

(11) Aniline

6.98min 111.40ug/ml mint

response 1502899

Ion	Exp%	Act%
93.00	100	100
66.00	33.40	33.18
65.00	29.20	28.70
0.00	0.00	0.00

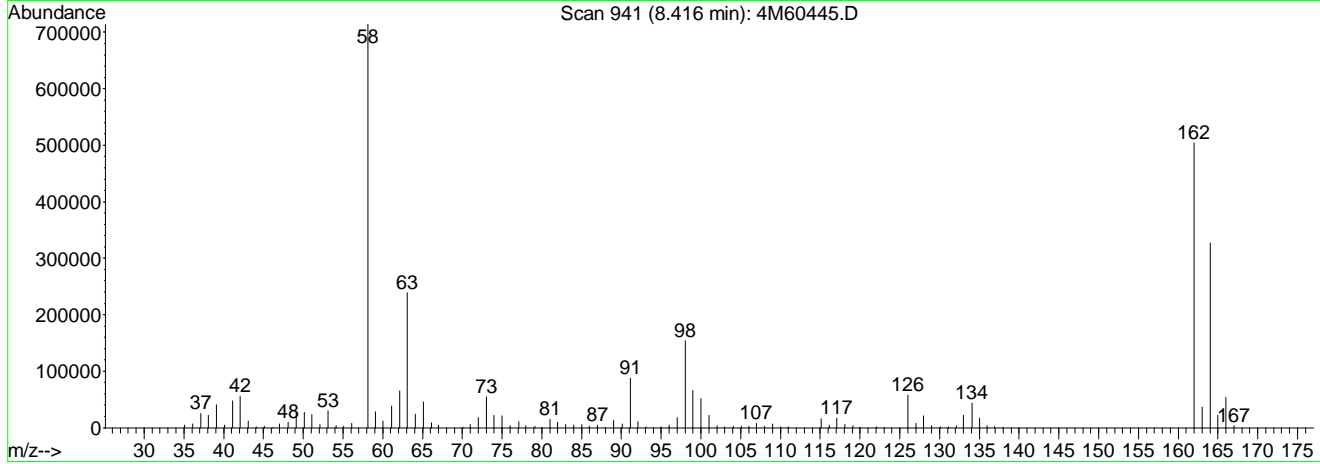
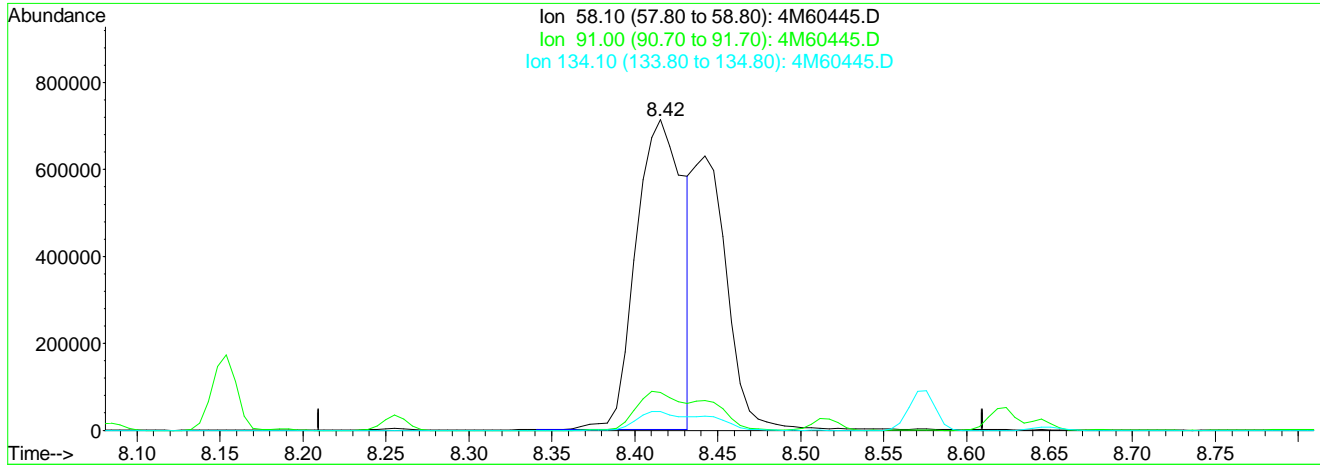
4M60445.D MEGAMIX.M

Thu Apr 19

Analyst: 04/20/2012 09:30 Supervisor: 04/20/2012 11:41
 C. A. A. 2012
 #3 - Improperly integrated isomers and/or coeluting compounds

Data File : I:\MSDCHEM\1\DATA\041912\4M60445.D Vial: 8
 Acq On : 19 Apr 2012 12:48 Operator: CAA
 Sample : WG395394-08 100PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:23 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:23:45 2012
 Response via : Multiple Level Calibration



TIC: 4M60445.D

(41) a,a-Dimethylphenethylamine

8.42min 169.94ug/ml

response 1426957

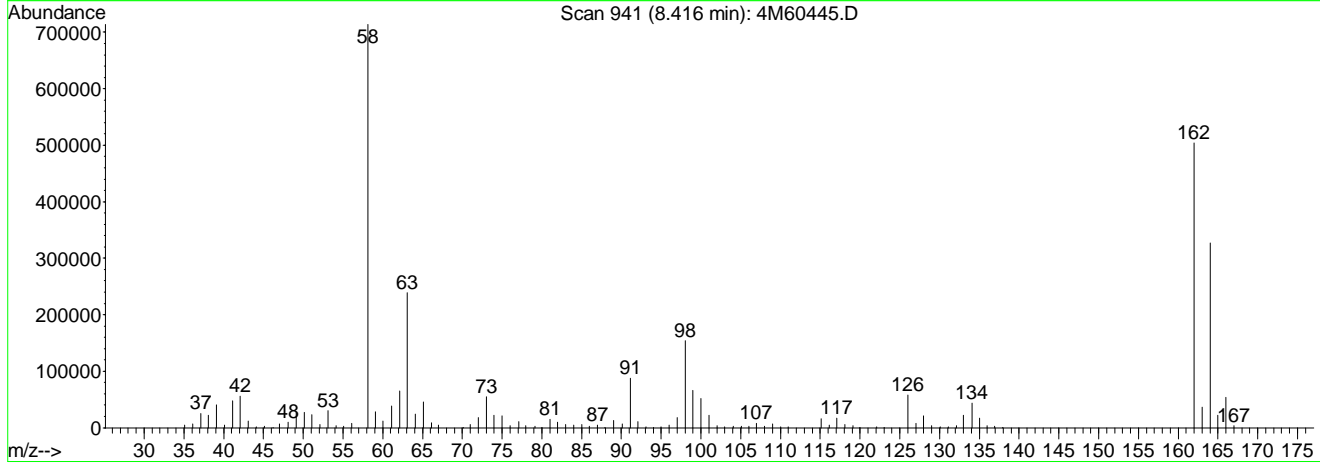
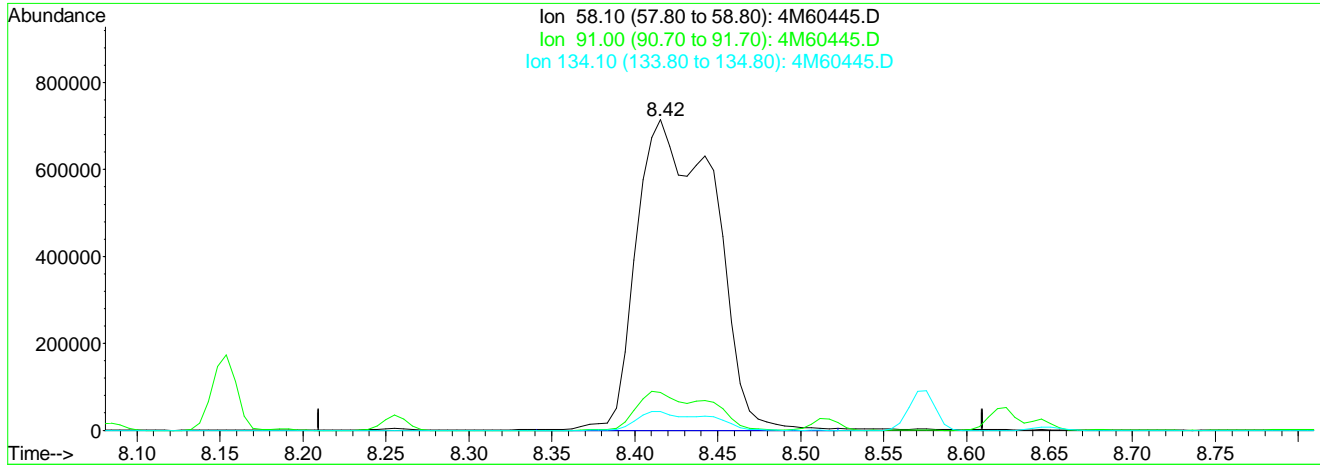
Ion	Exp%	Act%
58.10	100	100
91.00	12.60	11.82
134.10	6.20	5.67
0.00	0.00	0.00

Data File : I:\MSDCHEM\1\DATA\041912\4M60445.D
 Acq On : 19 Apr 2012 12:48
 Sample : WG395394-08 100PPM Megamix STD
 Misc : 1,1 STD50886
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:24 2012

Vial: 8
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:23:45 2012
 Response via : Multiple Level Calibration



TIC: 4M60445.D

(41) a,a-Dimethylphenethylamine

8.42min 277.40ug/ml mint

response 2329298

Ion	Exp%	Act%
58.10	100	100
91.00	12.60	7.24#
134.10	6.20	3.48#
0.00	0.00	0.00

4M60445.D MEGAMIX.M

Thu Apr 19

Analyst: 04/20/2012 09:30
 Supervisor: 04/20/2012 11:41
 C. Casaroli-Augustinus 2012
 #2 - Data system splits the peak incorrectly or integrates a false peak as a rider peak

Data File : I:\MSDCHEM\1\DATA\041912\4M60446.D Vial: 9
 Acq On : 19 Apr 2012 13:23 Operator: CAA
 Sample : WG395394-09 120PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:24:33 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:24:28 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.29	152	295204	40.00	ug/ml	0.00
30) Naphthalene-d8	8.58	136	1143324	40.00	ug/ml	0.00
54) Acenaphthene-d10	10.39	164	633567	40.00	ug/ml	0.00
87) Phenanthrene-d10	12.00	188	1104340	40.00	ug/ml	0.00
113) Chrysene-d12	15.70	240	1023127	40.00	ug/ml	0.00
128) Perylene-d12	18.50	264	952814	40.00	ug/ml	0.00

System Monitoring Compounds

8) 2-Fluorophenol	6.05	112	1017185	116.1120	ug/ml	0.00
Spiked Amount	100.000	Range	21 - 100	Recovery	=	116.11%#
12) Phenol-d5	6.89	99	1168891	116.9594	ug/ml	0.00
Spiked Amount	100.000	Range	10 - 94	Recovery	=	116.96%#
31) Nitrobenzene-d5	7.85	82	1081184	116.7280	ug/ml	0.00
Spiked Amount	50.000	Range	35 - 114	Recovery	=	233.46%#
59) 2-Fluorobiphenyl	9.64	172	2267884	117.9312	ug/ml	0.00
Spiked Amount	50.000	Range	43 - 116	Recovery	=	235.86%#
86) 2,4,6-Tribromophenol	11.21	330	314255	120.1918	ug/ml	0.00
Spiked Amount	100.000	Range	10 - 123	Recovery	=	120.19%
117) p-Terphenyl-d14	14.03	244	2038815	117.3604	ug/ml	0.00
Spiked Amount	50.000	Range	33 - 141	Recovery	=	234.72%#

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.27	88	439725	122.1350	ug/ml#	88
3) n-Nitrosodimethylamine	4.70	74	632381	116.4857	ug/ml	98
4) Pyridine	4.72	79	1110745	115.9641	ug/ml	98
5) 2-Picoline	5.50	93	1204707	116.4905	ug/ml	99
6) n-Nitrosomethylethylamine	5.62	88	533756	117.0434	ug/ml	99
7) Methyl Methanesulfonate	5.91	80	549270	110.8694	ug/ml	98
9) n-Nitrosodiethylamine	6.29	102	557116	116.8629	ug/ml	98
10) Ethyl Methanesulfonate	6.55	79	761495	116.8640	ug/ml	100
11) Aniline	6.99	93	1742391m	113.7271	ug/ml	
13) Phenol	6.90	94	1231425	116.1180	ug/ml	100
14) bis(2-Chloroethyl)ether	7.01	63	761552	118.2493	ug/ml	98
15) Pentachloroethane	7.02	167	419665	118.9879	ug/ml	99
16) 2-Chlorophenol	7.11	128	1130760	116.7897	ug/ml	99
17) 1,3-Dichlorobenzene	7.26	146	1221367	116.6035	ug/ml	99
18) 1,4-Dichlorobenzene	7.30	146	1248304	117.1596	ug/ml	100
19) Benzyl Alcohol	7.40	108	747792	118.0213	ug/ml	98
20) 1,2-Dichlorobenzene	7.50	146	1123630	114.9645	ug/ml	100
21) 2-Methylphenol	7.49	107	853772	115.8294	ug/ml	99
22) bis(2-Chloroisopropyl)eth	7.54	45	1585443	117.1658	ug/ml	100
23) 3-,4-Methylphenol	7.62	107	1136454	117.1605	ug/ml	99
24) n-Nitrosopyrrolidine	7.69	100	494488	117.8479	ug/ml	88
25) n-Nitrosodipropylamine	7.68	70	624493	115.0549	ug/ml	98
26) Acetophenone	7.68	105	1272038	116.3509	ug/ml	99
27) n-Nitrosomorpholine	7.69	56	585852	109.4485	ug/ml	97
28) o-Toluidine	7.73	106	1776423	118.8174	ug/ml	100
29) Hexachloroethane	7.81	117	480318	116.8146	ug/ml	97
32) Nitrobenzene	7.88	77	1069745	117.5181	ug/ml	99
33) n-Nitrosopiperidine	8.02	114	584415	117.4946	ug/ml	100
34) Isophorone	8.08	82	1916721	117.3865	ug/ml	99
35) 2-Nitrophenol	8.19	139	659346	116.7203	ug/ml	98
36) 2,4-Dimethylphenol	8.15	122	1031288	116.6170	ug/ml	99
37) 0,0,0-Triethyl Phosphoroth	8.26	198	516466	119.4681	ug/ml	100
38) bis(2-Chloroethoxy)methane	8.25	93	1390586	117.4347	ug/ml	96

(#) = qualifier out of range (m) = manual integration
 4M60446.D MEGAMIX.M Fri Apr 20 08:19:01 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60446.D Vial: 9
 Acq On : 19 Apr 2012 13:23 Operator: CAA
 Sample : WG395394-09 120PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:24:33 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:24:28 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Benzoic Acid	8.23	105	915551m	149.2026	ug/ml	
40) 2,4-Dichlorophenol	8.41	162	900159	117.1034	ug/ml	100
41) a,a-Dimethylphenethylamine	8.43	58	3126203m	175.9425	ug/ml	
42) 1,2,4-Trichlorobenzene	8.52	180	1011531	118.7749	ug/ml	99
43) Naphthalene	8.60	128	3171066	118.6040	ug/ml	100
44) 4-Chloroaniline	8.62	127	1382212	123.0297	ug/ml	98
45) 2,6-Dichlorophenol	8.64	162	951046	119.1835	ug/ml	100
46) Hexachloropropene	8.71	213	598624	115.0699	ug/ml	99
47) Hexachlorobutadiene	8.74	225	507887	117.2560	ug/ml	99
48) n-Nitrosodi-n-Butylamine	8.94	84	920957	120.0550	ug/ml#	88
49) p-Phenylenediamine	9.06	108	85039	128.7343	ug/ml#	70
50) 4-Chloro-3-Methylphenol	9.06	107	927332	119.3638	ug/ml	98
51) Safrole	9.16	162	867771	118.4686	ug/ml	100
52) 2-Methylnaphthalene	9.29	142	2083523	116.9852	ug/ml	100
53) 1-Methylnaphthalene	9.40	142	1993434	118.1192	ug/ml	100
55) 1,2,4,5-Tetrachlorobenzene	9.49	216	888172	117.3675	ug/ml	99
56) Hexachlorocyclopentadiene	9.50	237	490221	118.0325	ug/ml	99
57) 2,4,6-Trichlorophenol	9.57	196	669686	119.8369	ug/ml	98
58) 2,4,5-Trichlorophenol	9.62	196	692553	121.1238	ug/ml	100
60) Isosafrole	9.68	162	919807	119.5987	ug/ml	98
61) 2-Chloronaphthalene	9.79	162	1980928	118.3415	ug/ml	99
62) 1-Chloronaphthalene	9.84	162	1800099	115.1895	ug/ml	99
63) 2-Nitroaniline	9.89	65	598982	119.1975	ug/ml	99
64) 1,4-Naphthoquinone	9.96	158	608672	98.4253	ug/ml	99
65) Dimethylphthalate	10.06	163	2165968	117.4868	ug/ml	99
66) 1,3-Dinitrobenzene	10.11	168	463456	119.9429	ug/ml	100
67) 2,6-Dinitrotoluene	10.15	165	580776	118.9713	ug/ml	99
68) Acenaphthylene	10.24	152	2981097	116.5105	ug/ml	98
69) 3-Nitroaniline	10.31	138	523691	145.2699	ug/ml	100
70) 2,4-Dinitrophenol	10.41	184	327279	125.2754	ug/ml	66
71) Acenaphthene	10.42	154	1951899	115.3402	ug/ml	99
72) 4-Nitrophenol	10.41	65	386132	110.2412	ug/ml	96
73) 2,4-Dinitrotoluene	10.56	165	727634	120.8692	ug/ml	98
74) Pentachlorobenzene	10.60	250	812777	118.5532	ug/ml	100
75) Dibenzofuran	10.58	168	2633898	118.1646	ug/ml	98
76) 2,3,4,6-Tetrachlorophenol	10.68	232	524408	134.7472	ug/ml	99
77) 1-Naphthylamine	10.65	143	622864	453.0629	ug/ml#	74
78) 2-Naphthylamine	10.72	143	230585	512.0727	ug/ml#	64
79) Diethylphthalate	10.76	149	2162475	118.3166	ug/ml	99
80) Thionazin	10.87	107	368362	119.2258	ug/ml	99
81) Fluorene	10.94	166	2243623	117.1179	ug/ml	99
82) 4-Chlorophenyl Phenyl Ether	10.88	204	1082920	119.0368	ug/ml	99
83) 4-Nitroaniline	10.95	138	549333	127.0437	ug/ml	97
84) 5-Nitro-o-Toluidine	10.94	152	619633	138.6193	ug/ml	97
85) 1,2-Diphenylhydrazine	11.05	77	2100584	117.4922	ug/ml	99
88) 4,6-Dinitro-2-Methylphenol	11.00	198	463462	122.4587	ug/ml	91
89) n-Nitrosodiphenylamine	11.01	169	1990000	120.3593	ug/ml	98
90) SulfoTEPP	11.21	322	351340	118.2475	ug/ml	98
91) Sym-Trinitrobenzene	11.30	75	571928	119.9420	ug/ml	99
92) Diallate	11.33	86	776821	118.2900	ug/ml	96
93) Phenacetin	11.33	108	1047444	118.9704	ug/ml	99
94) Phorate	11.35	75	1287348	119.7104	ug/ml#	99
95) 4-Bromophenyl Phenyl Ether	11.42	248	625697	119.7732	ug/ml	99
96) Hexachlorobenzene	11.64	284	663561	117.7232	ug/ml	98

(#) = qualifier out of range (m) = manual integration
 4M60446.D MEGAMIX.M Fri Apr 20 08:19:01 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60446.D Vial: 9
 Acq On : 19 Apr 2012 13:23 Operator: CAA
 Sample : WG395394-09 120PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:24:33 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:24:28 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97) Dimethoate	11.57	87	584529	113.1904	ug/ml	99
98) 4-Aminobiphenyl	11.72	169	1329903	179.9601	ug/ml	99
99) Pentachlorophenol	11.82	266	458736	128.2299	ug/ml	99
100) Pronamide	11.76	173	1019977	119.6949	ug/ml	99
101) Pentachloronitrobenzene	11.91	237	235684	116.9232	ug/ml	100
102) Disulfoton	11.94	88	1131291	118.6386	ug/ml	99
103) Phenanthrene	12.03	178	3120483	117.2080	ug/ml	98
104) Anthracene	12.08	178	3213859	117.2735	ug/ml	98
105) Carbazole	12.24	167	3053064	119.6914	ug/ml	98
106) Parathion Methyl	12.41	109	617507	117.7994	ug/ml	98
107) Di-n-Butyl Phthalate	12.60	149	3504116	116.9376	ug/ml	99
108) Parathion Ethyl	12.90	97	436504	118.9029	ug/ml	98
109) 4-Nitroquinoline 1-Oxide	12.99	190	313238	133.4652	ug/ml	99
110) Methapyrilene	13.05	58	474669	98.5639	ug/ml	97
111) Isodrin	13.40	193	345670	116.8596	ug/ml	95
112) Fluoranthene	13.58	202	3249661	116.4558	ug/ml	98
114) Benzidine	13.72	184	31724	228.4870	ug/ml	100
115) Pyrene	13.91	202	3331157	116.9710	ug/ml	98
116) Aramite	13.95	185	199458	116.3650	ug/ml	100
118) p-(Dimethylamino)azobenzen	14.25	225	726842	118.4507	ug/ml	96
119) Chlorobenzilate	14.30	251	954917	118.6141	ug/ml	99
120) Famphur	14.70	218	2140	5.8988	ug/ml#	3
121) Butyl Benzyl Phthalate	14.72	149	1549387	115.8308	ug/ml	100
122) 3,3'-Dimethylbenzidine	14.73	212	503849	152.9940	ug/ml	99
123) 2-Acetylaminofluorene	15.16	181	1459431	120.0732	ug/ml	99
124) bis(2-Ethylhexyl)phthalate	15.57	149	2123921	117.7673	ug/ml	99
125) 3,3'-Dichlorobenzidine	15.58	252	679065	131.2368	ug/ml	99
126) Benzo[a]anthracene	15.67	228	2986908	117.8500	ug/ml	98
127) Chrysene	15.74	228	2763239	117.2485	ug/ml	99
129) Di-n-Octyl Phthalate	16.55	149	3682000	120.1551	ug/ml	99
130) 7,12-Dimethylbenz[a]anthra	17.64	256	1443439	121.0144	ug/ml	99
131) Benzo[b]fluoranthene	17.65	252	3081081	112.7355	ug/ml	96
132) Benzo[k]fluoranthene	17.69	252	2836726	117.6277	ug/ml	98
133) Benzo[a]pyrene	18.38	252	2982535	120.4719	ug/ml	98
134) 3-Methylcholanthrene	19.28	268	1615024	120.0160	ug/ml	99
135) Indeno[1,2,3-cd]pyrene	21.66	276	3353339	117.9707	ug/ml	97
136) Dibenz[ah]anthracene	21.65	278	2804015	118.2735	ug/ml	98
137) Benzo[ghi]perylene	22.59	276	2700031	116.0476	ug/ml	97

(#) = qualifier out of range (m) = manual integration
 4M60446.D MEGAMIX.M Fri Apr 20 08:19:01 2012

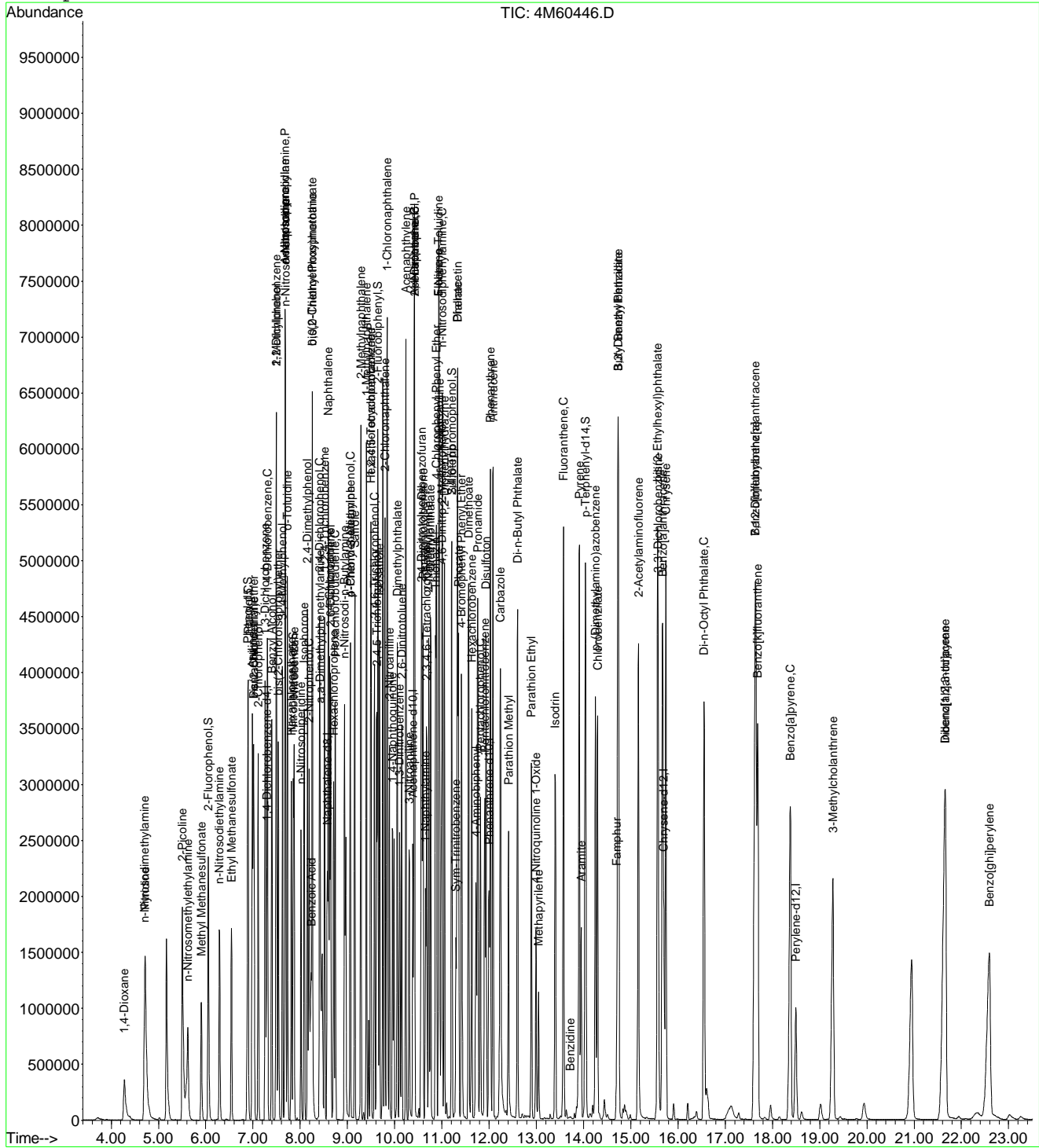
Page 3

Data File : I:\MSDCHEM\1\DATA\041912\4M60446.D
Acq On : 19 Apr 2012 13:23
Sample : WG395394-09 120PPM Megamix STD
Misc : 1,1 STD50886
MS Integration Params: RTEINT.P
Quant Time: Apr 19 14:25 2012

Vial: 9
Operator: CAA
Inst : HPMS4
Multiplr: 1.00

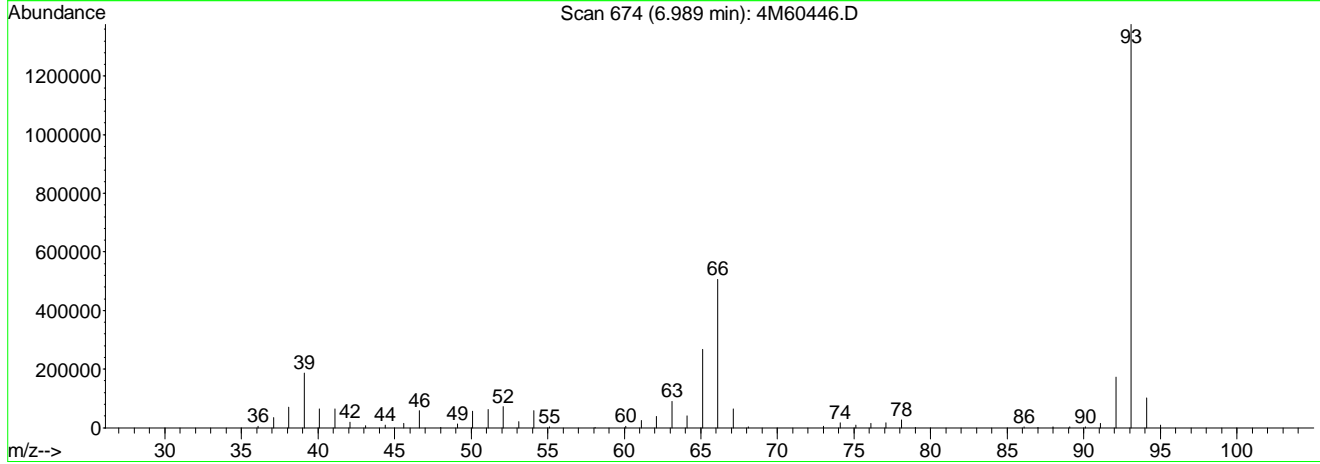
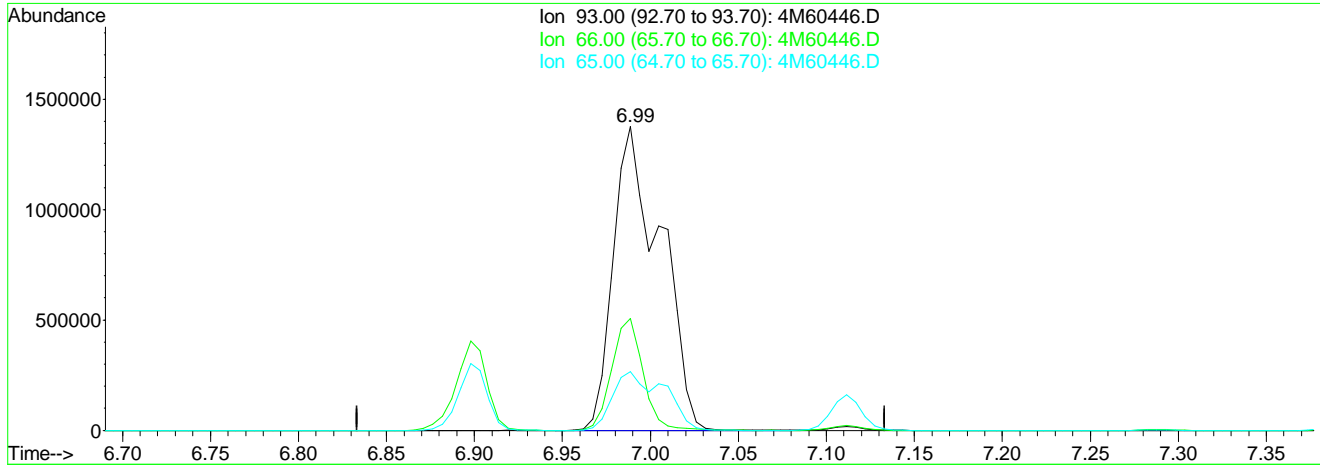
Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
Last Update : Thu Apr 19 14:27:47 2012
Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\041912\4M60446.D Vial: 9
 Acq On : 19 Apr 2012 13:23 Operator: CAA
 Sample : WG395394-09 120PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:24 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:24:28 2012
 Response via : Multiple Level Calibration



TIC: 4M60446.D

(11) Aniline

6.99min 168.68ug/ml

response 2584301

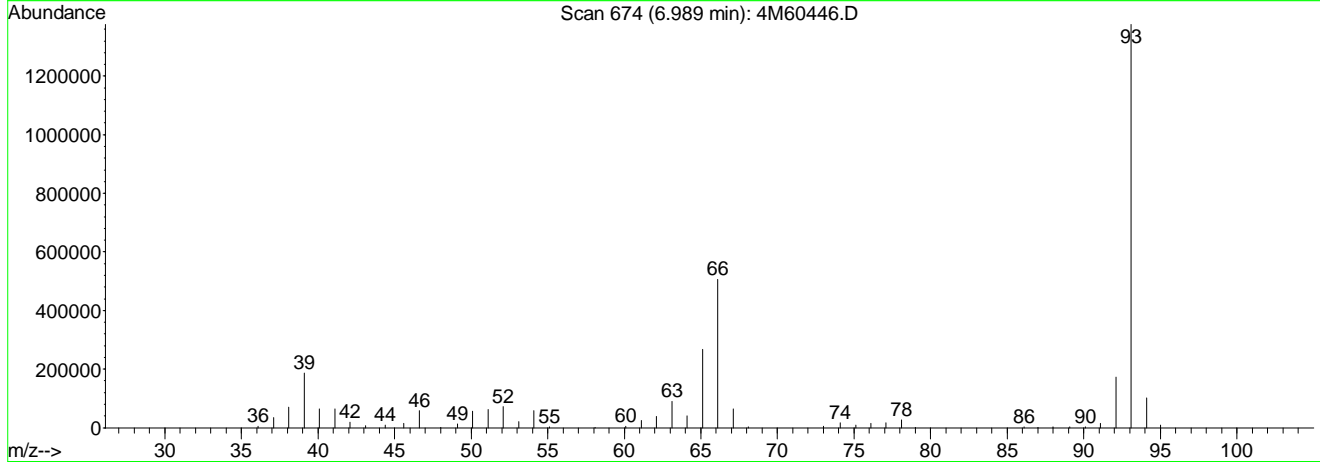
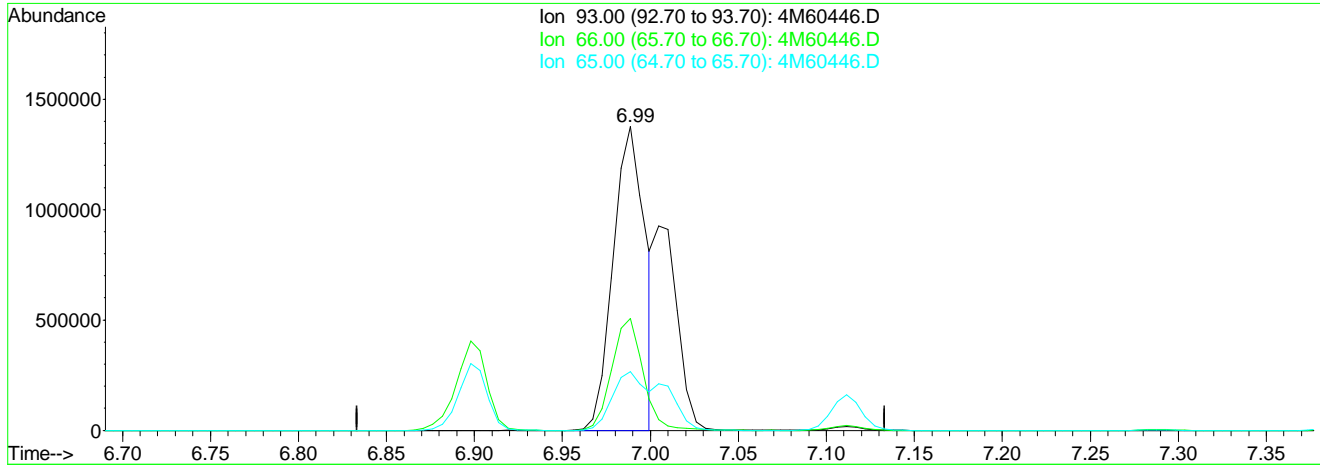
Ion	Exp%	Act%
93.00	100	100
66.00	33.40	24.12
65.00	29.20	20.98
0.00	0.00	0.00

Data File : I:\MSDCHEM\1\DATA\041912\4M60446.D
 Acq On : 19 Apr 2012 13:23
 Sample : WG395394-09 120PPM Megamix STD
 Misc : 1,1 STD50886
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:24 2012

Vial: 9
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:24:28 2012
 Response via : Multiple Level Calibration



TIC: 4M60446.D

(11) Aniline

6.99min 113.73ug/ml mint

response 1742391

Ion	Exp%	Act%
93.00	100	100
66.00	33.40	35.78
65.00	29.20	31.12
0.00	0.00	0.00

4M60446.D MEGAMIX.M

Thu Apr 19

Analyst: 04/20/2012 09:30

Supervisor: 04/20/2012 11:41

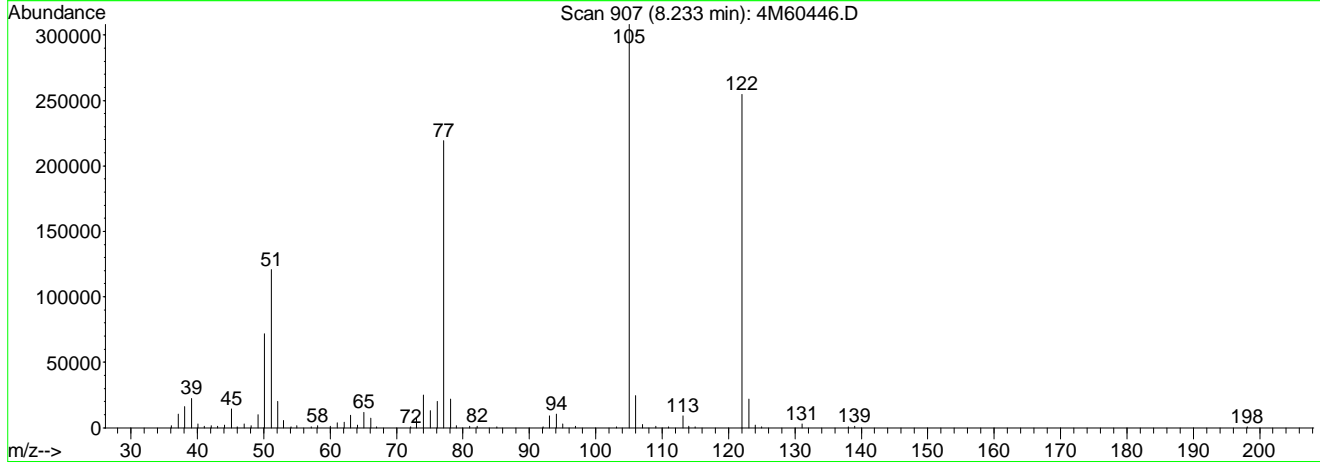
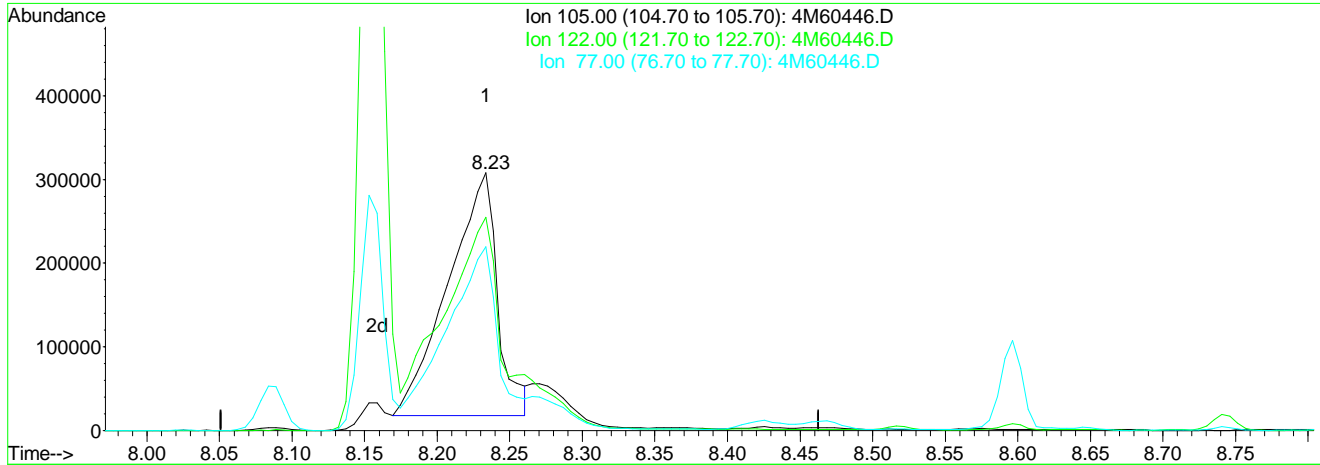
Carroll Augustin 2012

Michael Carlson

#3 - Improperly integrated isomers and/or coeluting compounds

Data File : I:\MSDCHEM\1\DATA\041912\4M60446.D Vial: 9
 Acq On : 19 Apr 2012 13:23 Operator: CAA
 Sample : WG395394-09 120PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:24 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:24:28 2012
 Response via : Single Level Calibration



TIC: 4M60446.D

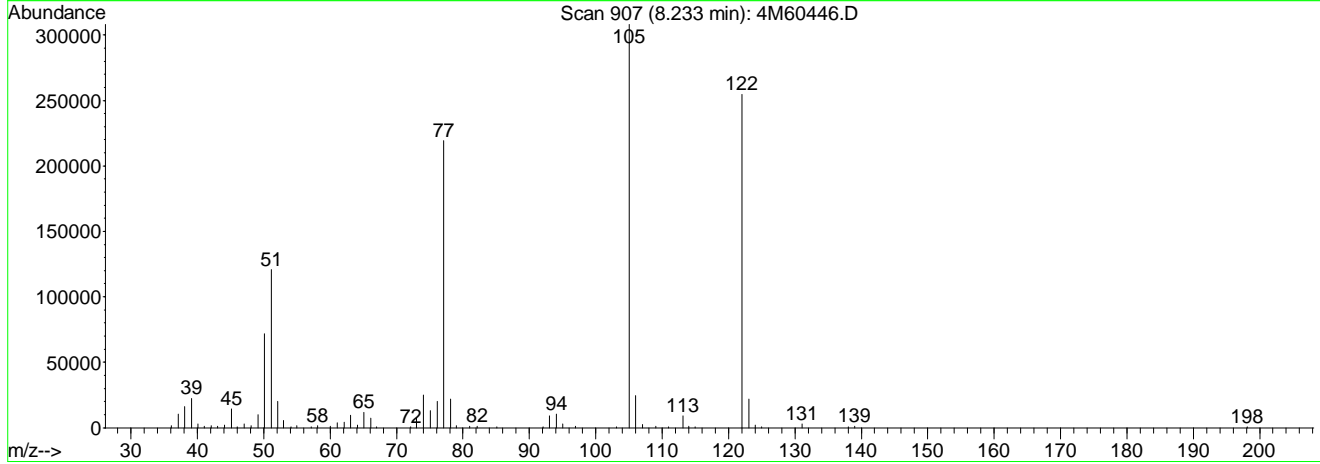
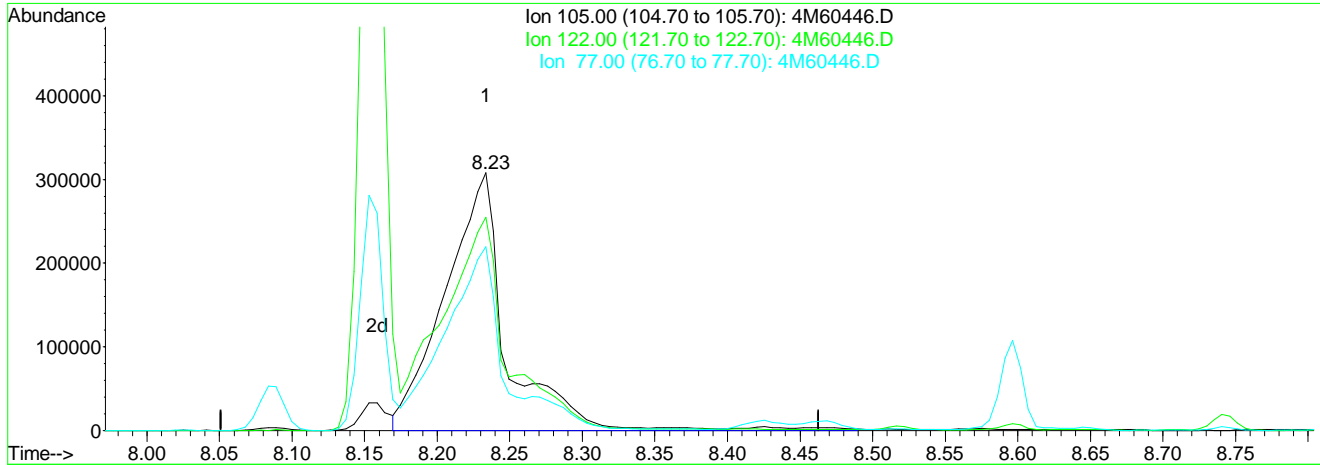
(39) Benzoic Acid		
8.23min	111.58ug/ml	
response	684707	
Ion	Exp%	Act%
105.00	100	100
122.00	87.10	111.94
77.00	70.40	62.20
0.00	0.00	0.00

Data File : I:\MSDCHEM\1\DATA\041912\4M60446.D
 Acq On : 19 Apr 2012 13:23
 Sample : WG395394-09 120PPM Megamix STD
 Misc : 1,1 STD50886
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:24 2012

Vial: 9
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:24:28 2012
 Response via : Single Level Calibration



TIC: 4M60446.D

(39) Benzoic Acid

8.23min 149.20ug/ml mint

response 915551

Ion	Exp%	Act%
105.00	100	100
122.00	87.10	83.72
77.00	70.40	46.52
0.00	0.00	0.00

4M60446.D MEGAMIX.M

Thu Apr 19

Analyst: 04/20/2012 09:30

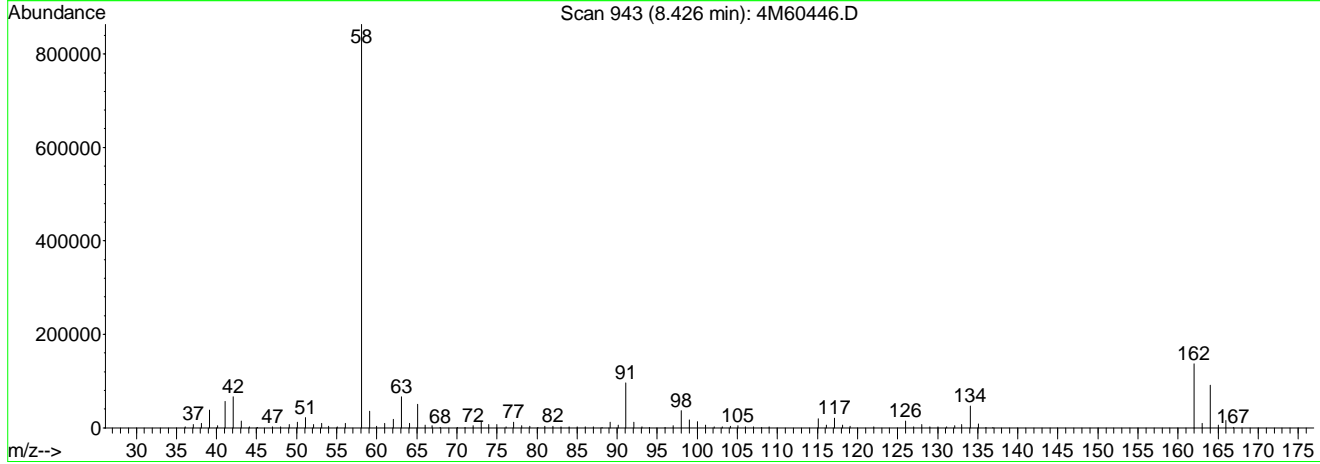
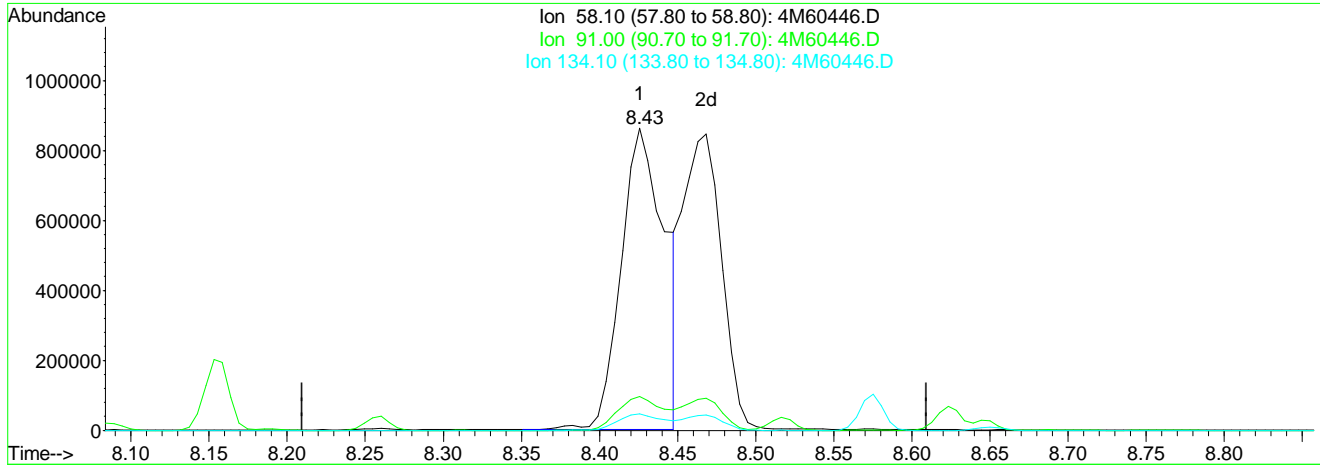
Supervisor: 04/20/2012 11:41

2012

#2 - Data system splits the peak incorrectly or integrates a false peak as a rider peak

Data File : I:\MSDCHEM\1\DATA\041912\4M60446.D Vial: 9
 Acq On : 19 Apr 2012 13:23 Operator: CAA
 Sample : WG395394-09 120PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:24 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:24:28 2012
 Response via : Multiple Level Calibration



TIC: 4M60446.D

(41) a,a-Dimethylphenethylamine

8.43min 93.27ug/ml

response 1657316

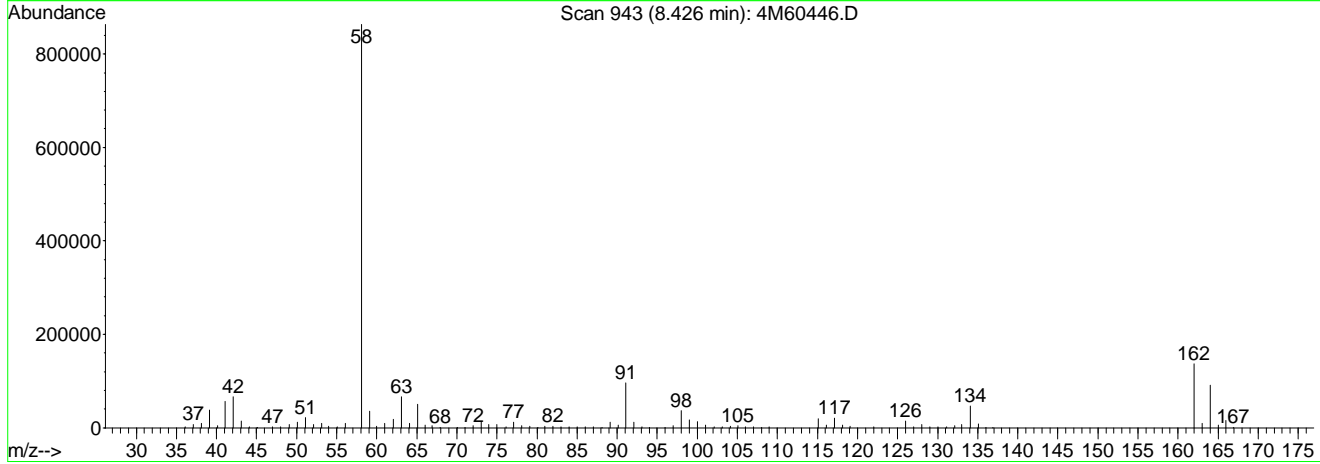
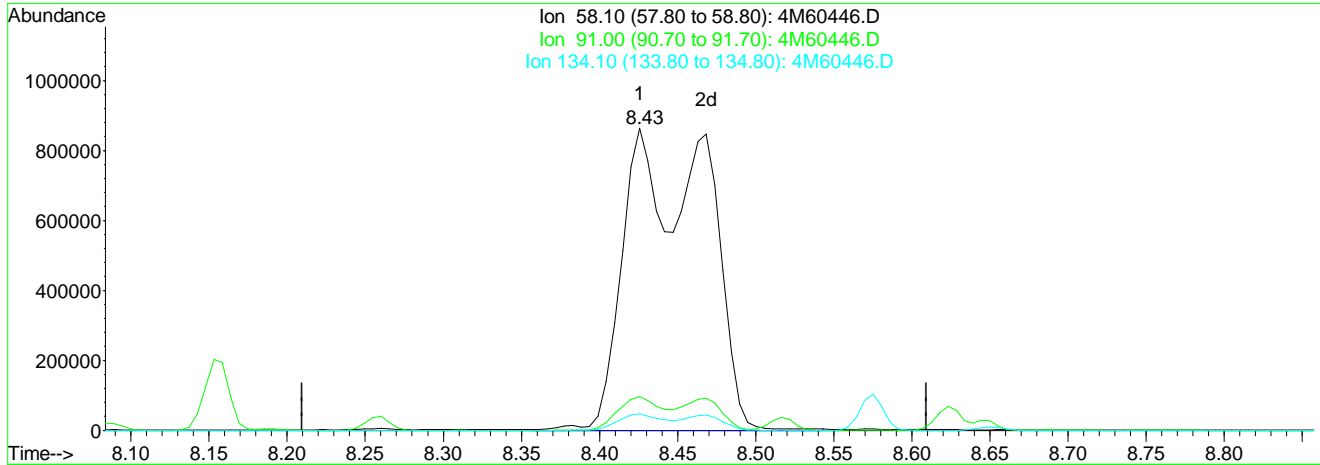
Ion	Exp%	Act%
58.10	100	100
91.00	12.60	11.80
134.10	6.20	5.71
0.00	0.00	0.00

Data File : I:\MSDCHEM\1\DATA\041912\4M60446.D
 Acq On : 19 Apr 2012 13:23
 Sample : WG395394-09 120PPM Megamix STD
 Misc : 1,1 STD50886
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:25 2012

Vial: 9
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:24:28 2012
 Response via : Multiple Level Calibration



TIC: 4M60446.D

(41) a,a-Dimethylphenethylamine

8.43min 175.94ug/ml mint

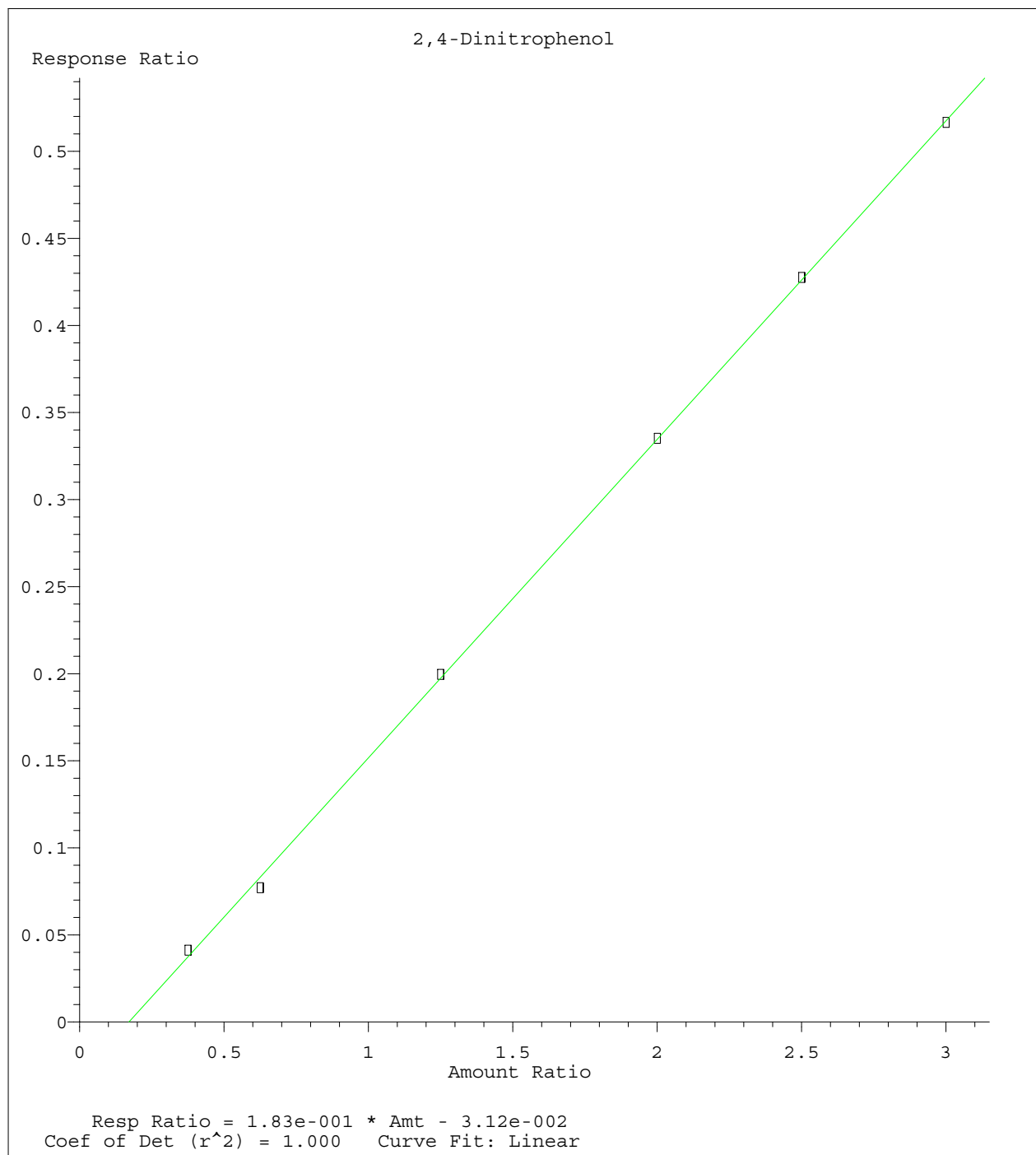
response 3126203

Ion	Exp%	Act%
58.10	100	100
91.00	12.60	6.25#
134.10	6.20	3.03#
0.00	0.00	0.00

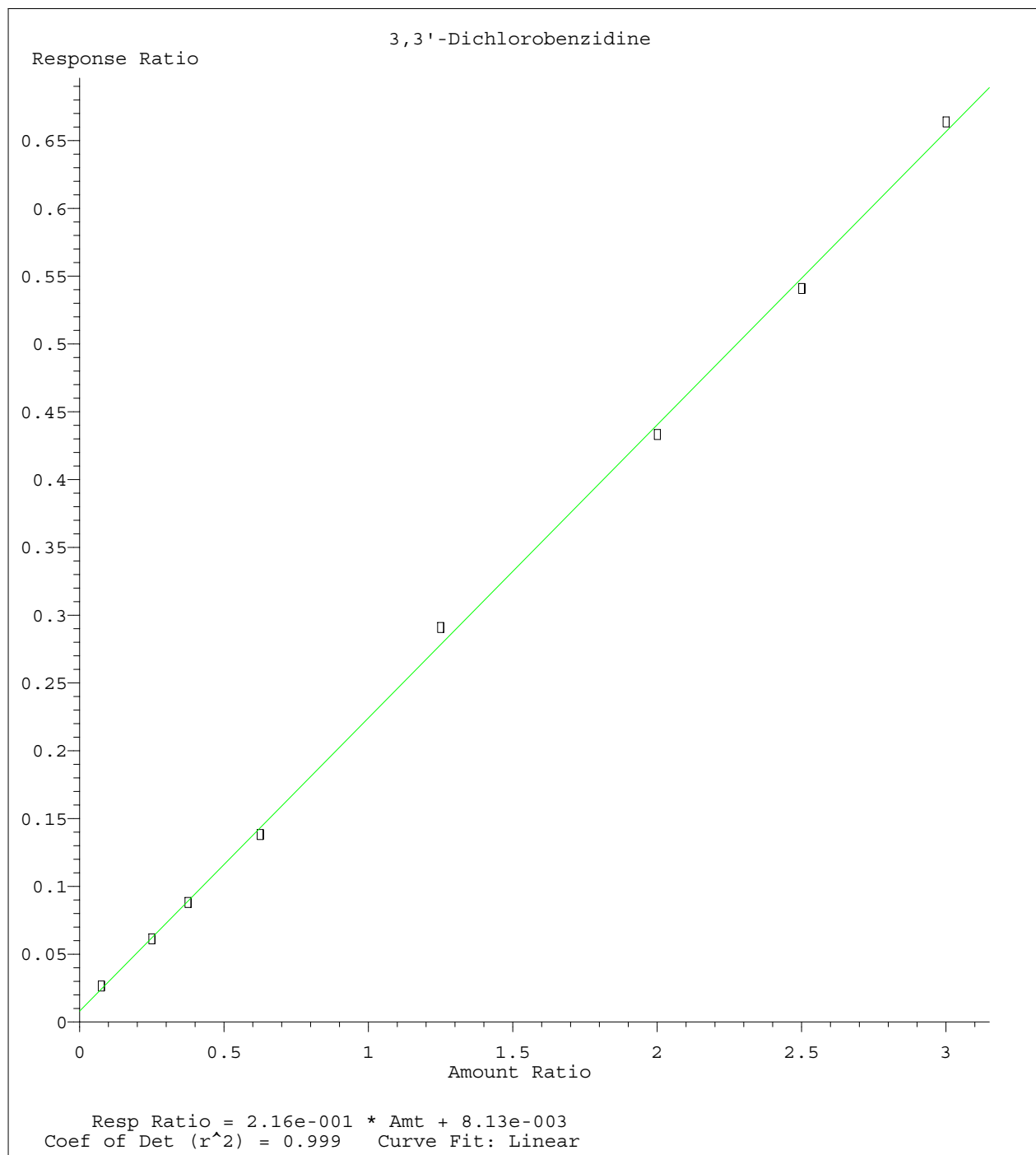
4M60446.D MEGAMIX.M

Thu Apr 19

Analyst: 04/20/2012 09:30
 Supervisor: 04/20/2012 11:41
 2012
 #2 - Data system splits the peak incorrectly or integrates a false peak as a rider peak



Method Name: I:\MSDCHEM\1\METHODS\MEGAMIX.M
Calibration Table Last Updated: Fri Apr 20 08:27:42 2012



Method Name: I:\MSDCHEM\1\METHODS\MEGAMIX.M
Calibration Table Last Updated: Fri Apr 20 08:27:42 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60447.D Vial: 10
 Acq On : 19 Apr 2012 13:58 Operator: CAA
 Sample : WG395394-10 50PPM Megamix Alt Src STD Inst : HPMS4
 Misc : 1,1 STD50596 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Apr 19 14:27:58 2012

Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:27:47 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.29	152	256286	40.00	ug/ml	0.00
30) Naphthalene-d8	8.57	136	986779	40.00	ug/ml	0.00
54) Acenaphthene-d10	10.38	164	526241	40.00	ug/ml	0.00
87) Phenanthrene-d10	11.99	188	955907	40.00	ug/ml	0.00
113) Chrysene-d12	15.69	240	888081	40.00	ug/ml	0.00
128) Perylene-d12	18.49	264	842099	40.00	ug/ml	0.00

System Monitoring Compounds

8) 2-Fluorophenol	0.00	112	0	0.0000	ug/ml	
Spiked Amount	100.000	Range	21 - 100	Recovery	=	0.00%#
12) Phenol-d5	0.00	99	0	0.0000	ug/ml	
Spiked Amount	100.000	Range	10 - 94	Recovery	=	0.00%#
31) Nitrobenzene-d5	7.81	82	39246	4.7024	ug/ml	-0.04
Spiked Amount	50.000	Range	35 - 114	Recovery	=	9.40%#
59) 2-Fluorobiphenyl	9.62	172	163	0.0093	ug/ml	-0.03
Spiked Amount	50.000	Range	43 - 116	Recovery	=	0.02%#
86) 2,4,6-Tribromophenol	0.00	330	0	0.0000	ug/ml	
Spiked Amount	100.000	Range	10 - 123	Recovery	=	0.00%#
117) p-Terphenyl-d14	0.00	244	0	0.0000	ug/ml	
Spiked Amount	50.000	Range	33 - 141	Recovery	=	0.00%#

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) n-Nitrosodimethylamine	4.70	74	276126	58.3812	ug/ml	99
4) Pyridine	4.72	79	488797	58.2919	ug/ml	96
5) 2-Picoline	5.50	93	472924	51.8312	ug/ml	100
6) n-Nitrosomethylethylamine	5.62	88	213170	54.1601	ug/ml	96
7) Methyl Methanesulfonate	5.90	80	251495	56.2801	ug/ml	97
9) n-Nitrosodiethylamine	6.29	102	220952	52.3624	ug/ml	96
10) Ethyl Methanesulfonate	6.54	79	323437	55.2616	ug/ml	99
11) Aniline	6.99	93	722468m	53.7589	ug/ml	
13) Phenol	6.89	94	534518	55.0450	ug/ml	96
14) bis(2-Chloroethyl)ether	7.00	63	328519	54.0297	ug/ml	95
15) Pentachloroethane	7.02	167	179705	54.8681	ug/ml	99
16) 2-Chlorophenol	7.11	128	484796	55.7509	ug/ml	99
17) 1,3-Dichlorobenzene	7.26	146	516293	53.3428	ug/ml	100
18) 1,4-Dichlorobenzene	7.30	146	536363	54.3336	ug/ml	99
19) Benzyl Alcohol	7.39	108	330847	58.7617	ug/ml	99
20) 1,2-Dichlorobenzene	7.50	146	497579	54.2754	ug/ml	99
21) 2-Methylphenol	7.48	107	365939	54.6506	ug/ml	99
22) bis(2-Chloroisopropyl)ethe	7.54	45	675914	54.1456	ug/ml	97
23) 3-,4-Methylphenol	7.62	107	470754	54.0846	ug/ml	99
24) n-Nitrosopyrrolidine	7.67	100	208831	53.1426	ug/ml	91
25) n-Nitrosodipropylamine	7.67	70	307584	56.1778	ug/ml	99
26) Acetophenone	7.68	105	592221	55.0002	ug/ml	100
27) n-Nitrosomorpholine	7.68	56	276958	52.9339	ug/ml	98
28) o-Toluidine	7.72	106	697310	51.2251	ug/ml	100
29) Hexachloroethane	7.82	117	199783	54.6536	ug/ml	96
32) Nitrobenzene	7.87	77	450915	54.2075	ug/ml	99
33) n-Nitrosopiperidine	8.01	114	225543	50.6524	ug/ml	96
34) Isophorone	8.08	82	800833	52.7444	ug/ml	99
35) 2-Nitrophenol	8.18	139	287863m	58.7056	ug/ml	
36) 2,4-Dimethylphenol	8.15	122	437384	51.9463	ug/ml	99
37) 0,0,0-Triethyl Phosphoroth	8.25	198	205339	48.8480	ug/ml#	40
38) bis(2-Chloroethoxy)methane	8.25	93	654932	56.7589	ug/ml#	94
39) Benzoic Acid	8.21	105	346193	59.6587	ug/ml	98

(#) = qualifier out of range (m) = manual integration
 4M60447.D MEGAMIX.M Fri Apr 20 08:39:53 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60447.D Vial: 10
 Acq On : 19 Apr 2012 13:58 Operator: CAA
 Sample : WG395394-10 50PPM Megamix Alt Src STD Inst : HPMS4
 Misc : 1,1 STD50596 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:27:58 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:27:47 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) 2,4-Dichlorophenol	8.41	162	379014	53.7708	ug/ml	100
41) a,a-Dimethylphenethylamine	8.40	58	245419	20.5941	ug/ml	99
42) 1,2,4-Trichlorobenzene	8.52	180	417438	52.1552	ug/ml	100
43) Naphthalene	8.60	128	1415927	54.1805	ug/ml	99
44) 4-Chloroaniline	8.62	127	470468	48.8813	ug/ml	99
45) 2,6-Dichlorophenol	8.64	162	401989	55.2675	ug/ml	99
46) Hexachloropropene	8.71	213	247910	55.2660	ug/ml	99
47) Hexachlorobutadiene	8.74	225	227254	55.4605	ug/ml	99
48) n-Nitrosodi-n-Butylamine	8.94	84	294849	42.0146	ug/ml#	86
49) p-Phenylenediamine	9.05	108	30477	50.1895	ug/ml	97
50) 4-Chloro-3-Methylphenol	9.05	107	384557	53.7631	ug/ml	100
51) Safrole	9.16	162	374856	55.1030	ug/ml	99
52) 2-Methylnaphthalene	9.28	142	922336	54.3242	ug/ml	99
53) 1-Methylnaphthalene	9.40	142	844148	52.5880	ug/ml	100
55) 1,2,4,5-Tetrachlorobenzene	9.49	216	391219	56.7302	ug/ml	99
56) Hexachlorocyclopentadiene	9.50	237	197932	55.4902	ug/ml	100
57) 2,4,6-Trichlorophenol	9.57	196	279030	57.7433	ug/ml	99
58) 2,4,5-Trichlorophenol	9.62	196	290230	58.3464	ug/ml	100
60) Isosafrole	9.67	162	386331	58.0944	ug/ml	99
61) 2-Chloronaphthalene	9.79	162	960412	64.6318	ug/ml	100
62) 1-Chloronaphthalene	9.83	162	808109	57.4329	ug/ml	100
63) 2-Nitroaniline	9.89	65	246949	57.9777	ug/ml	99
64) 1,4-Naphthoquinone	9.95	158	378234	64.4567	ug/ml	99
65) Dimethylphthalate	10.05	163	920406	55.2812	ug/ml	100
66) 1,3-Dinitrobenzene	10.10	168	168742	52.8536	ug/ml	98
67) 2,6-Dinitrotoluene	10.14	165	239977	57.6995	ug/ml	99
68) Acenaphthylene	10.24	152	1360420	57.0190	ug/ml	100
69) 3-Nitroaniline	10.30	138	121424	39.5804	ug/ml	100
70) 2,4-Dinitrophenol	10.41	184	169659	77.2850	ug/ml	47
71) Acenaphthene	10.42	154	876985	56.4328	ug/ml	98
72) 4-Nitrophenol	10.40	65	179487	58.5610	ug/ml	96
73) 2,4-Dinitrotoluene	10.56	165	301594	56.9906	ug/ml	97
74) Pentachlorobenzene	10.60	250	337611	54.3733	ug/ml	99
75) Dibenzofuran	10.57	168	1179664	56.6917	ug/ml	99
76) 2,3,4,6-Tetrachlorophenol	10.67	232	214281	55.8583	ug/ml	99
77) 1-Naphthylamine	10.72	143	22712	5.0751	ug/ml	87
78) 2-Naphthylamine	10.72	143	24316	8.9264	ug/ml	87
79) Diethylphthalate	10.76	149	931578	56.1811	ug/ml	100
80) Thionazin	10.86	107	138070	50.0423	ug/ml	97
81) Fluorene	10.94	166	984153	55.6484	ug/ml	99
82) 4-Chlorophenyl Phenyl Ethe	10.88	204	450483	54.2093	ug/ml	99
83) 4-Nitroaniline	10.95	138	203824	53.6740	ug/ml	98
84) 5-Nitro-o-Toluidine	10.94	152	205250	49.1581	ug/ml	99
85) 1,2-Diphenylhydrazine	11.05	77	945859	58.6519	ug/ml	98
88) 4,6-Dinitro-2-Methylphenol	10.98	198	198538	66.7184	ug/ml#	54
89) n-Nitrosodiphenylamine	11.00	169	854618	55.2550	ug/ml	99
90) Sulfotepp	11.20	322	144797	52.3998	ug/ml	92
91) Sym-Trinitrobenzene	11.28	75	251346	66.4719	ug/ml	98
92) Diallate	11.33	86	357858	56.7344	ug/ml	93
93) Phenacetin	11.31	108	474657	58.5779	ug/ml	99
94) Phorate	11.35	75	562933	55.9411	ug/ml#	98
95) 4-Bromophenyl Phenyl Ether	11.42	248	257123	53.1649	ug/ml	99
96) Hexachlorobenzene	11.63	284	274708	51.9612	ug/ml	97
97) Dimethoate	11.56	87	306288	57.6192	ug/ml	96

(#) = qualifier out of range (m) = manual integration
 4M60447.D MEGAMIX.M Fri Apr 20 08:39:54 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60447.D Vial: 10
 Acq On : 19 Apr 2012 13:58 Operator: CAA
 Sample : WG395394-10 50PPM Megamix Alt Src STD Inst : HPMS4
 Misc : 1,1 STD50596 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:27:58 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:27:47 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
98) 4-Aminobiphenyl	11.72	169	299707	53.6701	ug/ml	100
99) Pentachlorophenol	11.81	266	219981	65.8011	ug/ml	100
100) Pronamide	11.75	173	435376	56.0268	ug/ml	100
101) Pentachloronitrobenzene	11.90	237	100661	54.9377	ug/ml	99
102) Disulfoton	11.93	88	465671	53.8412	ug/ml	99
103) Phenanthrene	12.02	178	1403448	55.3523	ug/ml	100
104) Anthracene	12.08	178	1431854	55.0760	ug/ml	100
105) Carbazole	12.23	167	1222576	53.7063	ug/ml	99
106) Parathion Methyl	12.41	109	309666	58.5249	ug/ml	98
107) Di-n-Butyl Phthalate	12.60	149	1540149	54.4568	ug/ml	100
108) Parathion Ethyl	12.89	97	176185	54.6918	ug/ml	98
109) 4-Nitroquinoline 1-Oxide	12.99	190	144361	61.3308	ug/ml	98
110) Methapyrilene	13.05	58	407182	Below Cal		97
111) Isodrin	13.40	193	153389	56.3232	ug/ml	98
112) Fluoranthene	13.57	202	1432961	53.9334	ug/ml	99
114) Benzidine	13.68	184	3158	2.5513	ug/ml	100
115) Pyrene	13.91	202	1489985	56.0937	ug/ml	100
116) Aramite	13.95	185	79710	52.9951	ug/ml	99
118) p-(Dimethylamino)azobenzen	14.25	225	308031	56.1665	ug/ml	95
119) Chlorobenzilate	14.29	251	405945	56.1581	ug/ml	97
120) Famphur	14.70	218	32734	103.9507	ug/ml#	65
121) Butyl Benzyl Phthalate	14.72	149	707095	58.5249	ug/ml	99
122) 3,3'-Dimethylbenzidine	14.73	212	122499	14.5948	ug/ml#	90
123) 2-Acetylaminofluorene	15.15	181	590016	57.0856	ug/ml	99
124) bis(2-Ethylhexyl)phthalate	15.57	149	934893	56.7035	ug/ml	100
125) 3,3'-Dichlorobenzidine	15.58	252	256765	51.9984	ug/ml	99
126) Benzo[a]anthracene	15.67	228	1277312	54.2153	ug/ml	100
127) Chrysene	15.73	228	1248555	56.4561	ug/ml	99
129) Di-n-Octyl Phthalate	16.54	149	1590286	58.4774	ug/ml	99
130) 7,12-Dimethylbenz[a]anthra	17.62	256	644600	59.1079	ug/ml	99
131) Benzo[b]fluoranthene	17.62	252	1328651	54.5618	ug/ml	98
132) Benzo[k]fluoranthene	17.67	252	1162236	51.4888	ug/ml	95
133) Benzo[a]pyrene	18.36	252	1248294	56.1868	ug/ml	99
134) 3-Methylcholanthrene	19.26	268	701245	58.1339	ug/ml	99
135) Indeno[1,2,3-cd]pyrene	21.60	276	1375274	55.5825	ug/ml	97
136) Dibenz[ah]anthracene	21.60	278	1145050	55.4891	ug/ml	98
137) Benzo[ghi]perylene	22.55	276	1116722	54.5580	ug/ml	98

(#) = qualifier out of range (m) = manual integration
 4M60447.D MEGAMIX.M Fri Apr 20 08:39:54 2012

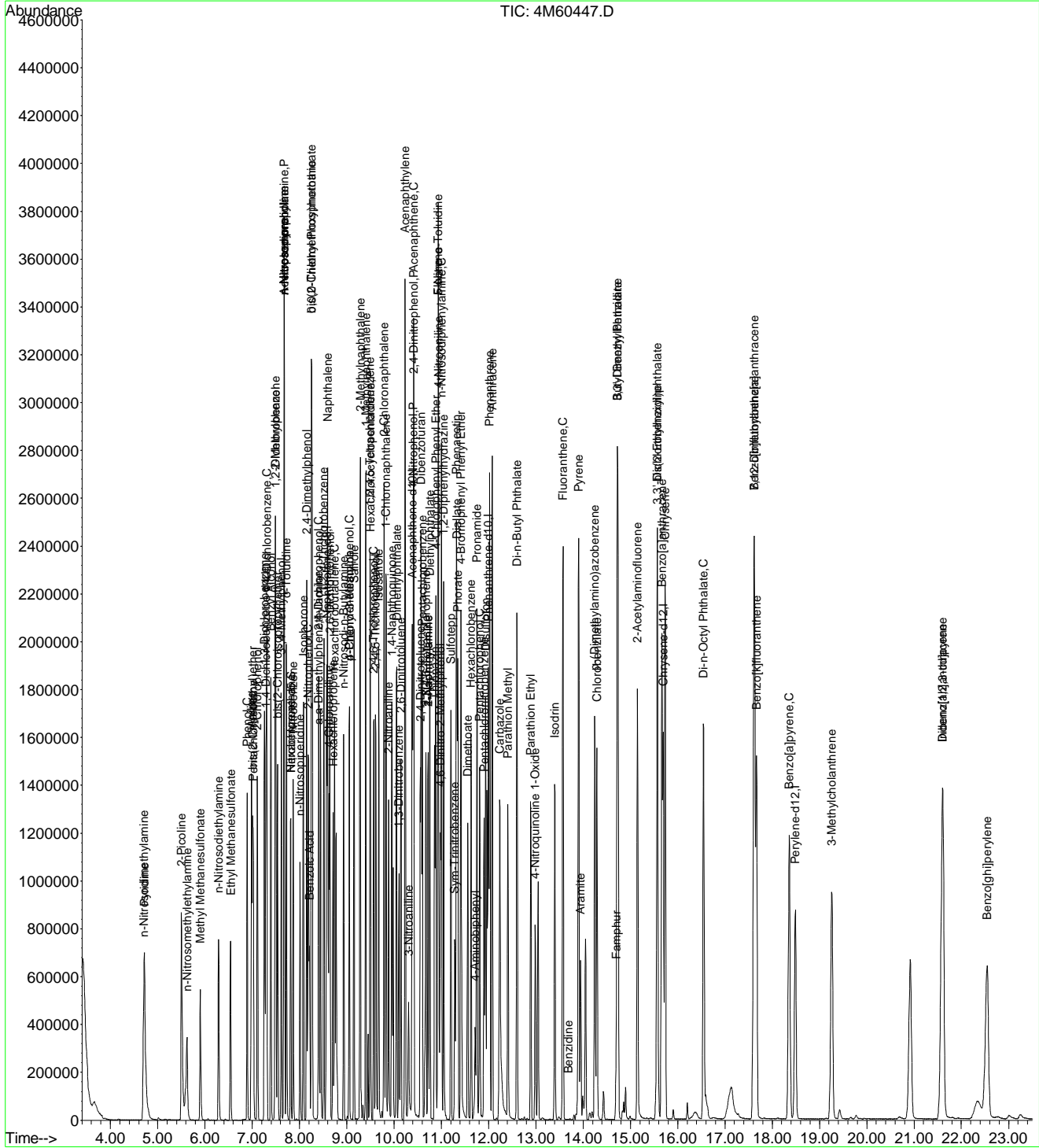
Page 3

Data File : I:\MSDCHEM\1\DATA\041912\4M60447.D
Acq On : 19 Apr 2012 13:58
Sample : WG395394-10 50PPM Megamix Alt Src STD
Misc : 1,1 STD50596
MS Integration Params: RTEINT.P
Quant Time: Apr 19 14:28 2012

Vial: 10
Operator: CAA
Inst : HPMS4
Multiplr: 1.00

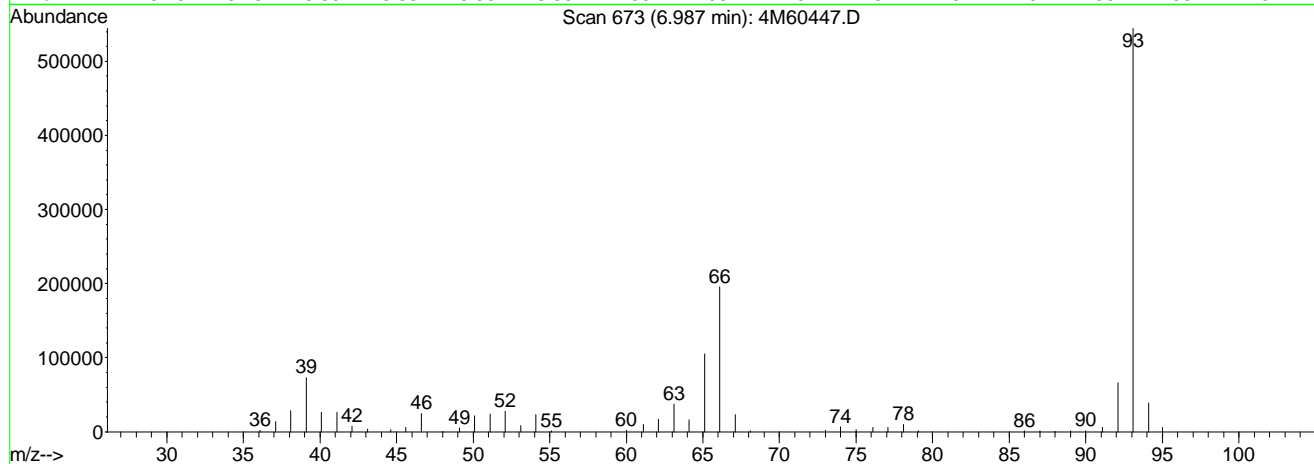
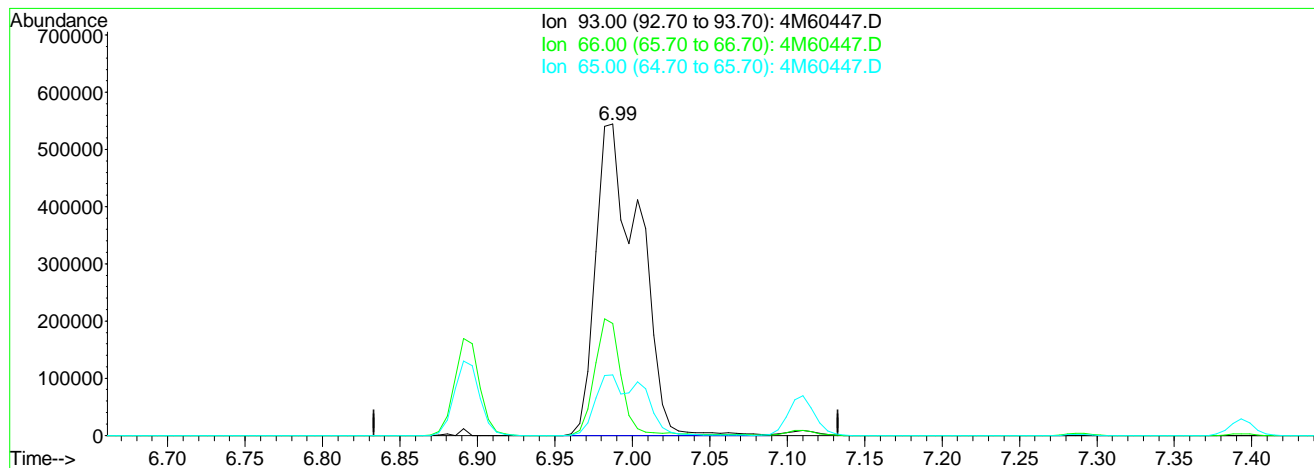
Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
Last Update : Fri Apr 20 08:27:42 2012
Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\041912\4M60447.D Vial: 10
 Acq On : 19 Apr 2012 13:58 Operator: CAA
 Sample : WG395394-10 50PPM Megamix Alt Src STD Inst : HPMS4
 Misc : 1,1 STD50596 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:27 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:27:47 2012
 Response via : Multiple Level Calibration



TIC: 4M60447.D

(11) Aniline

6.99min 79.16ug/ml

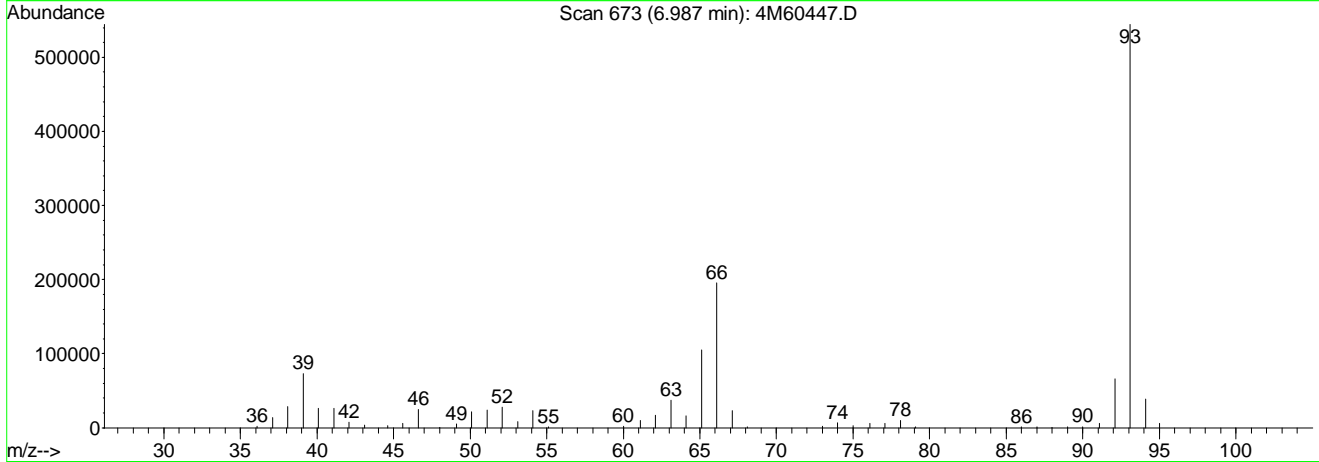
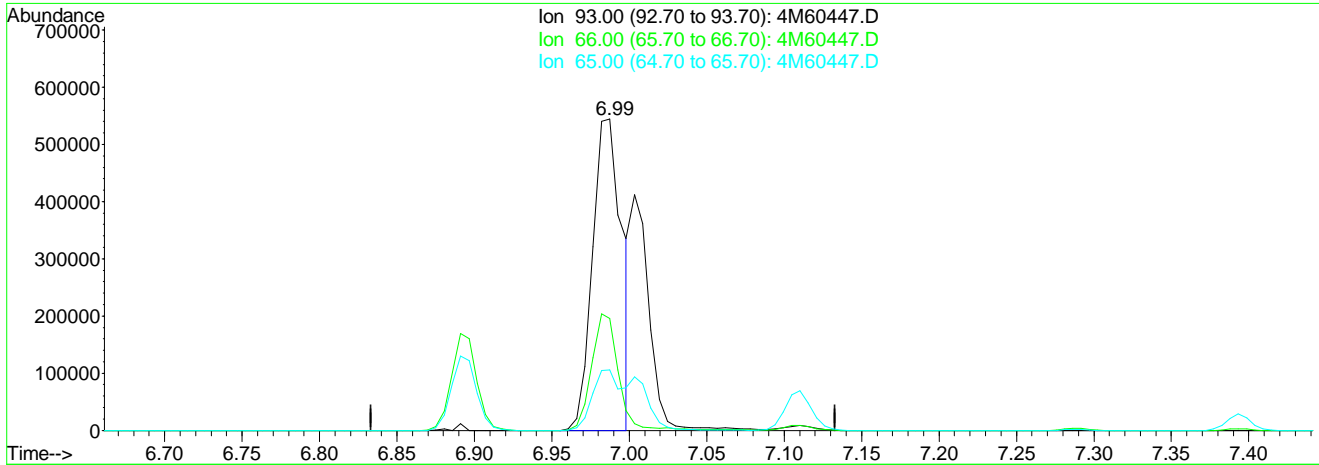
response 1063901

Ion	Exp%	Act%
93.00	100	100
66.00	33.40	23.26
65.00	29.20	13.53#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\041912\4M60447.D Vial: 10
 Acq On : 19 Apr 2012 13:58 Operator: CAA
 Sample : WG395394-10 50PPM Megamix Alt Src STD Inst : HPMS4
 Misc : 1,1 STD50596 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:28 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:27:47 2012
 Response via : Multiple Level Calibration



TIC: 4M60447.D

(11) Aniline

6.99min 53.76ug/ml mint
 response 722468

Ion	Exp%	Act%
93.00	100	100
66.00	33.40	34.25
65.00	29.20	19.93
0.00	0.00	0.00

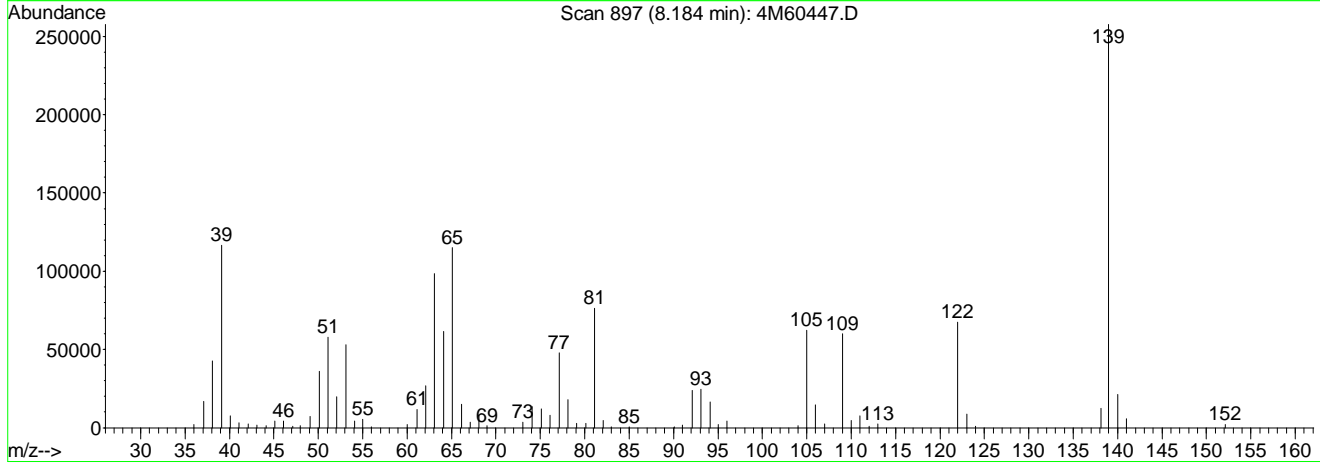
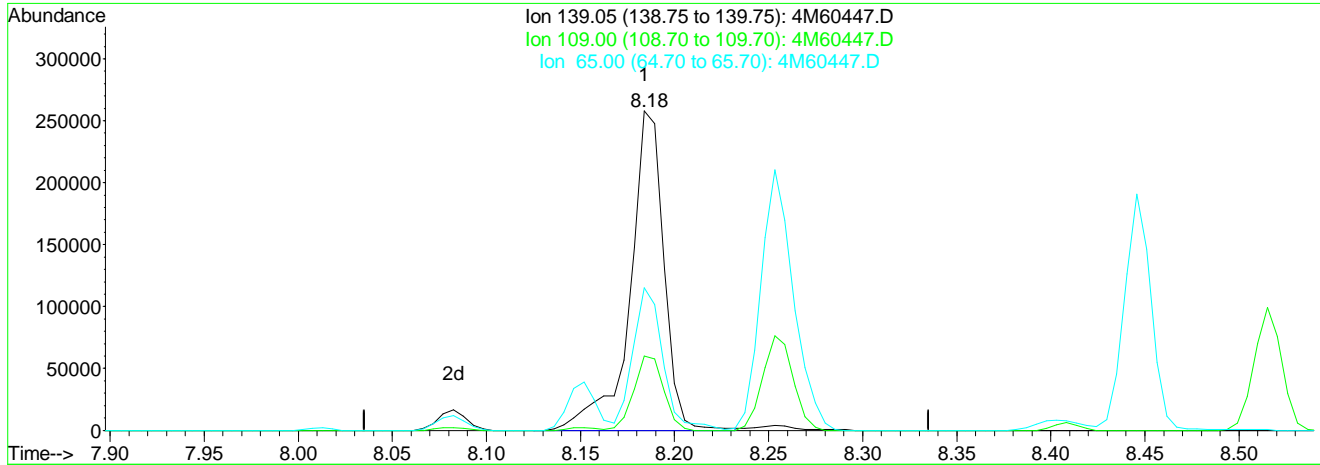
4M60447.D MEGAMIX.M

Thu Apr 19 2012

Analyst: 04/20/2012 09:30 Supervisor: 04/20/2012 11:41
 C. A. A. 2012
 #3 - Improperly integrated isomers and/or coeluting compounds

Data File : I:\MSDCHEM\1\DATA\041912\4M60447.D Vial: 10
 Acq On : 19 Apr 2012 13:58 Operator: CAA
 Sample : WG395394-10 50PPM Megamix Alt Src STD Inst : HPMS4
 Misc : 1,1 STD50596 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:28 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:27:47 2012
 Response via : Multiple Level Calibration



TIC: 4M60447.D

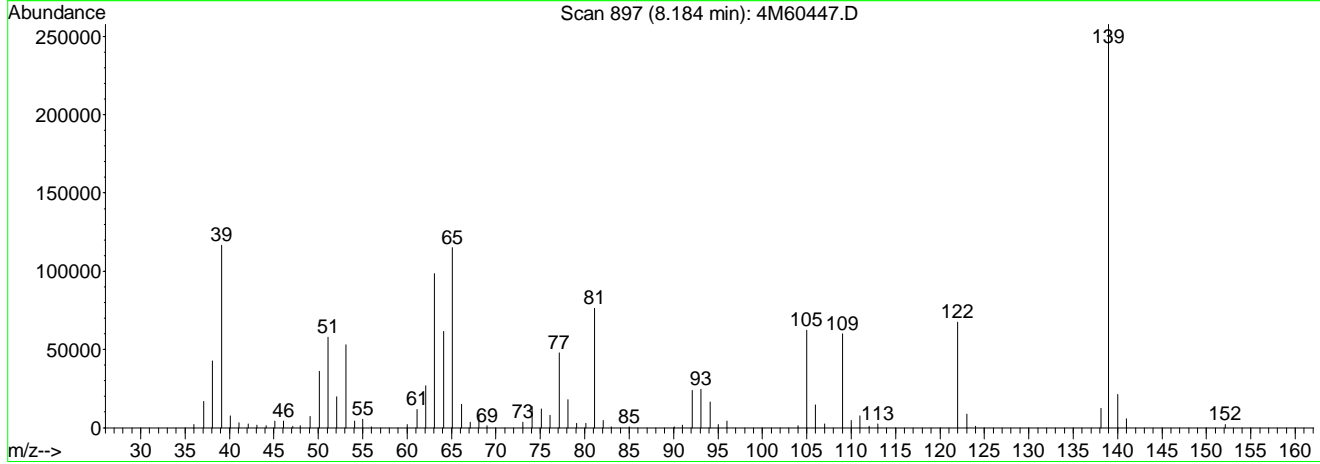
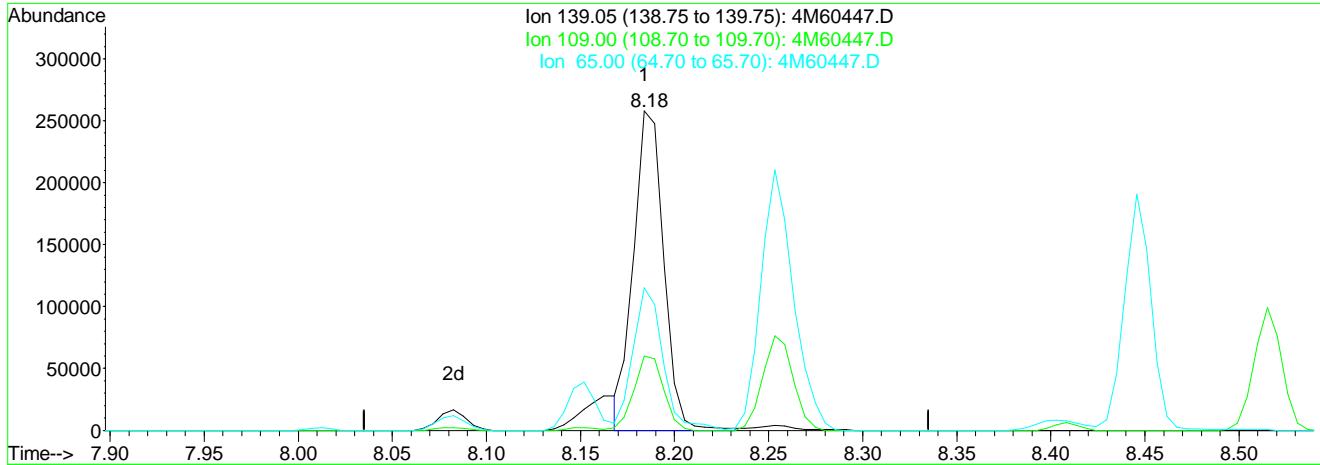
(35) 2-Nitrophenol (C)
 8.18min 65.94ug/ml
 response 323358

Ion	Exp%	Act%
139.05	100	100
109.00	22.80	20.32
65.00	43.50	39.41
0.00	0.00	0.00

4M60447.D MEGAMIX.M Thu Apr 19 14:28:25 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60447.D Vial: 10
 Acq On : 19 Apr 2012 13:58 Operator: CAA
 Sample : WG395394-10 50PPM Megamix Alt Src STD Inst : HPMS4
 Misc : 1,1 STD50596 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:28 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:27:47 2012
 Response via : Multiple Level Calibration



TIC: 4M60447.D

(35) 2-Nitrophenol (C)
 8.18min 58.71ug/ml mint
 response 287863

Ion	Exp%	Act%
139.05	100	100
109.00	22.80	22.82
65.00	43.50	44.27
0.00	0.00	0.00

4M60447.D MEGAMIX.M

Thu Apr 19

Analyst: 04/20/2012 09:31 Supervisor: 04/20/2012 11:41
 C. A. A. 2012
 #3 - Improperly integrated isomers and/or coeluting compounds

Data File : I:\MSDCHEM\1\DATA\041912\4M60448.D Vial: 11
 Acq On : 19 Apr 2012 14:33 Operator: CAA
 Sample : WG395394-11 50PPM 1,4-Dioxane Alt Src ST Inst : HPMS4
 Misc : 1,1 STD50848 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:57:16 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Thu Apr 19 14:27:47 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.29	152	241408	40.00	ug/ml	0.00
30) Naphthalene-d8	8.57	136	908072	40.00	ug/ml	0.00
54) Acenaphthene-d10	10.38	164	500473	40.00	ug/ml	0.00
87) Phenanthrene-d10	11.99	188	872547	40.00	ug/ml	0.00
113) Chrysene-d12	15.68	240	832225	40.00	ug/ml	-0.01
128) Perylene-d12	18.48	264	818814	40.00	ug/ml	-0.01

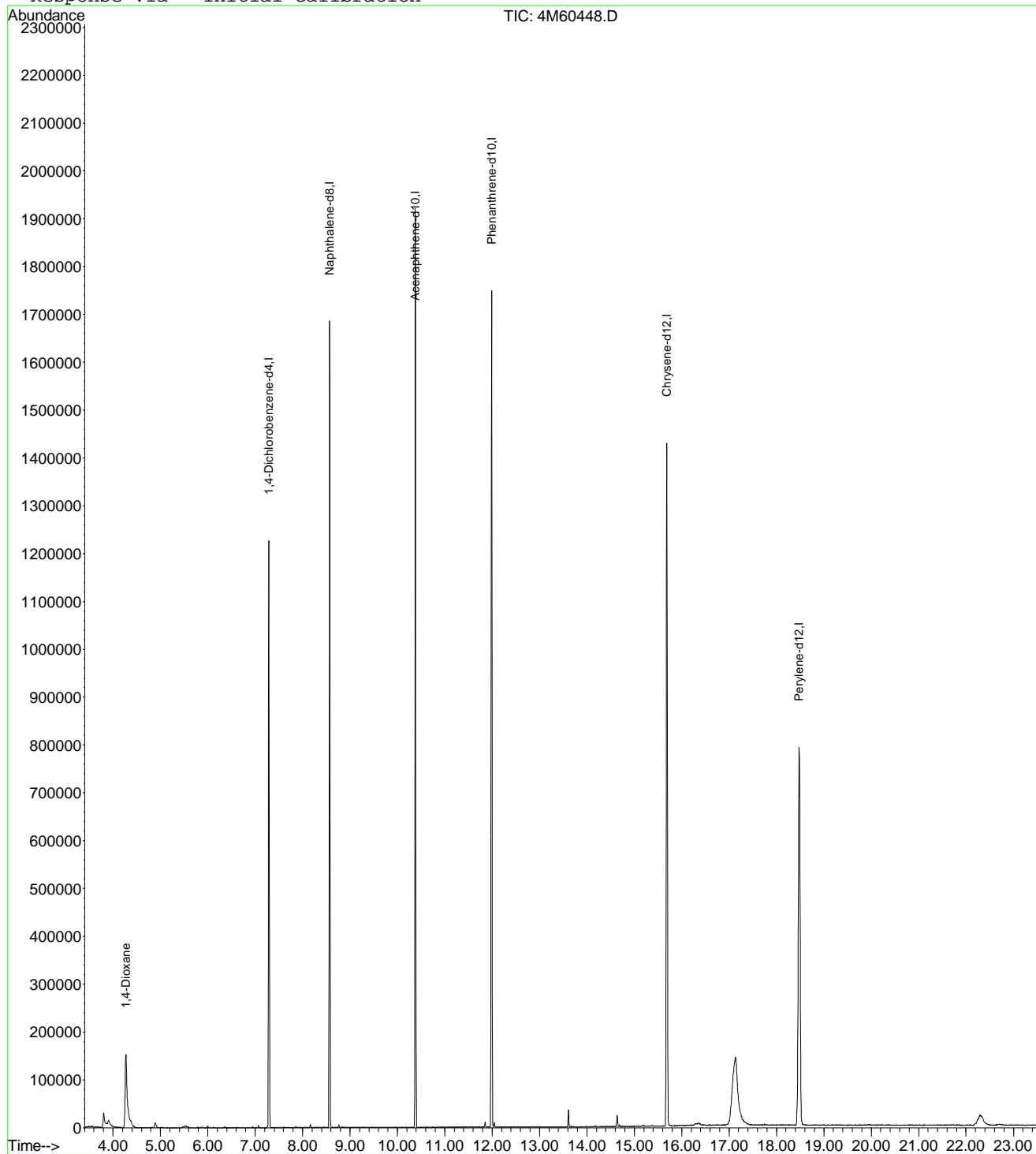
System Monitoring Compounds						
8) 2-Fluorophenol	0.00	112	0	0.0000	ug/ml	
Spiked Amount	100.000	Range 21 - 100	Recovery =	0.00%#		
12) Phenol-d5	0.00	99	0	0.0000	ug/ml	
Spiked Amount	100.000	Range 10 - 94	Recovery =	0.00%#		
31) Nitrobenzene-d5	0.00	82	0	0.0000	ug/ml	
Spiked Amount	50.000	Range 35 - 114	Recovery =	0.00%#		
59) 2-Fluorobiphenyl	0.00	172	0	0.0000	ug/ml	
Spiked Amount	50.000	Range 43 - 116	Recovery =	0.00%#		
86) 2,4,6-Tribromophenol	0.00	330	0	0.0000	ug/ml	
Spiked Amount	100.000	Range 10 - 123	Recovery =	0.00%#		
117) p-Terphenyl-d14	0.00	244	0	0.0000	ug/ml	
Spiked Amount	50.000	Range 33 - 141	Recovery =	0.00%#		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.27	88	180346	59.9411	ug/ml#	91

(#) = qualifier out of range (m) = manual integration
 4M60448.D MEGAMIX.M Fri Apr 20 08:40:02 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60448.D Vial: 11
 Acq On : 19 Apr 2012 14:33 Operator: CAA
 Sample : WG395394-11 50PPM 1,4-Dioxane Alt Src ST Inst : HPMS4
 Misc : 1,1 STD50848 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 19 14:57 2012 Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Fri Apr 20 08:27:42 2012
 Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\050112\4M60602.D Vial: 3
 Acq On : 1 May 2012 14:05 Operator: CAA
 Sample : WG396709-01 50PPM TCL STD Inst : HPMS4
 Misc : 1,1 STD51428 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 02 13:30:27 2012 Quant Results File: TCL.RES

Quant Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Wed May 02 13:30:22 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.29	152	198785	40.00	ug/mL	0.00
3) Naphthalene-d8	8.57	136	762076	40.00	ug/mL	0.00
5) Acenaphthene-d10	10.38	164	425534	40.00	ug/mL	0.00
7) Phenanthrene-d10	11.99	188	753240	40.00	ug/mL	0.00
						Qvalue
Target Compounds						
2) Benzaldehyde	6.87	105	268493	42.7758	ug/L	98
4) Caprolactam	8.92	55	133062	37.9131	ug/L	91
6) 1,1'-Biphenyl	9.74	154	861006	45.0609	ug/L	99
8) Atrazine	11.55	200	212957	46.6791	ug/L	99

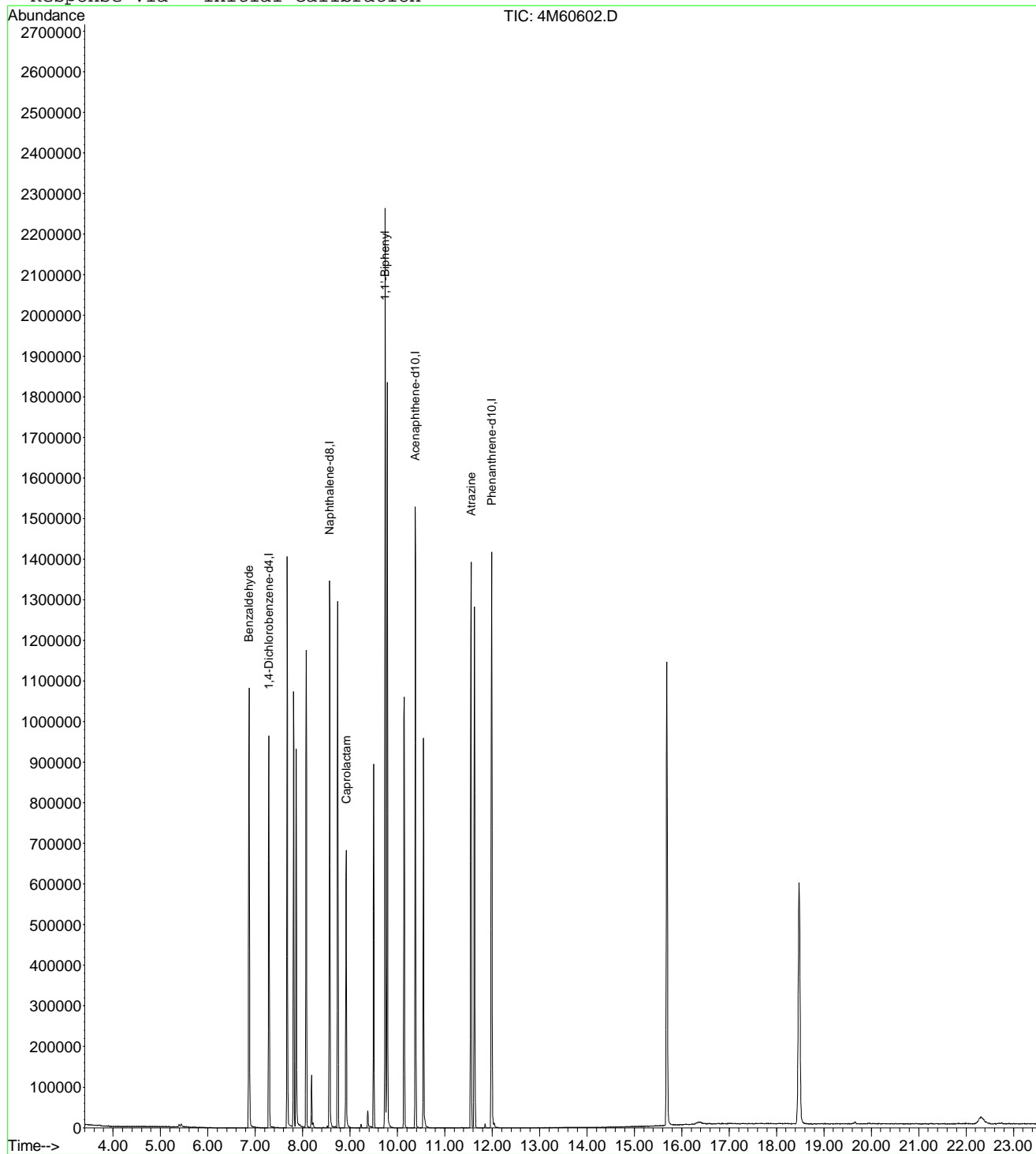
 (#) = qualifier out of range (m) = manual integration
 4M60602.D TCL.M Wed May 02 13:54:27 2012

Data File : I:\MSDCHEM\1\DATA\050112\4M60602.D
 Acq On : 1 May 2012 14:05
 Sample : WG396709-01 50PPM TCL STD
 Misc : 1,1 STD51428
 MS Integration Params: RTEINT.P
 Quant Time: May 2 13:30 2012

Vial: 3
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: TCL.RES

Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Wed May 02 13:31:17 2012
 Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\050112\4M60603.D Vial: 4
 Acq On : 1 May 2012 14:39 Operator: CAA
 Sample : WG396709-02 3PPM TCL STD Inst : HPMS4
 Misc : 1,1 STD51428 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 02 13:30:40 2012 Quant Results File: TCL.RES

Quant Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Wed May 02 13:30:35 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIion	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.29	152	184318	40.00	ug/mL	0.00
3) Naphthalene-d8	8.57	136	711419	40.00	ug/mL	0.00
5) Acenaphthene-d10	10.38	164	396131	40.00	ug/mL	0.00
7) Phenanthrene-d10	11.99	188	705172	40.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	6.87	105	14982	2.6370	ug/L	99
4) Caprolactam	8.90	55	5902	1.8906	ug/L	95
6) 1,1'-Biphenyl	9.74	154	52218	2.9644	ug/L	97
8) Atrazine	11.55	200	11811	2.7850	ug/L	96

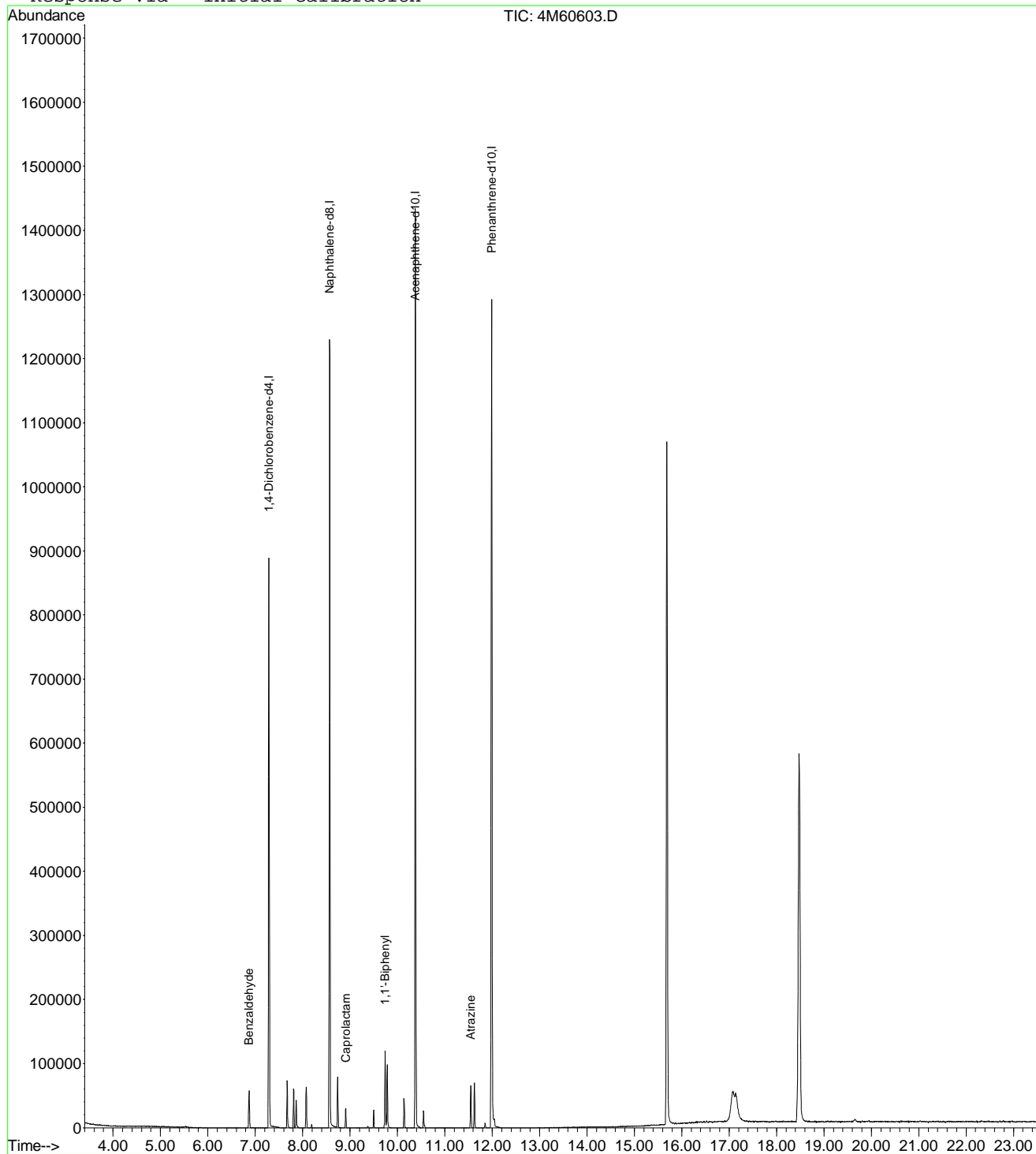
 (#) = qualifier out of range (m) = manual integration
 4M60603.D TCL.M Wed May 02 13:54:27 2012

Data File : I:\MSDCHEM\1\DATA\050112\4M60603.D
 Acq On : 1 May 2012 14:39
 Sample : WG396709-02 3PPM TCL STD
 Misc : 1,1 STD51428
 MS Integration Params: RTEINT.P
 Quant Time: May 2 13:30 2012

Vial: 4
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: TCL.RES

Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Wed May 02 13:31:17 2012
 Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\050112\4M60604.D Vial: 5
 Acq On : 1 May 2012 15:13 Operator: CAA
 Sample : WG396709-03 10PPM TCL STD Inst : HPMS4
 Misc : 1,1 STD51428 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 02 13:30:50 2012 Quant Results File: TCL.RES

Quant Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Wed May 02 13:30:46 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIion	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.29	152	191577	40.00	ug/mL	0.00
3) Naphthalene-d8	8.57	136	738266	40.00	ug/mL	0.00
5) Acenaphthene-d10	10.38	164	412816	40.00	ug/mL	0.00
7) Phenanthrene-d10	11.99	188	727410	40.00	ug/mL	0.00
						Qvalue
Target Compounds						
2) Benzaldehyde	6.87	105	50350	8.7940	ug/L	97
4) Caprolactam	8.91	55	22867	7.4092	ug/L	98
6) 1,1'-Biphenyl	9.74	154	178056	9.9808	ug/L	98
8) Atrazine	11.55	200	40993	9.5590	ug/L	99

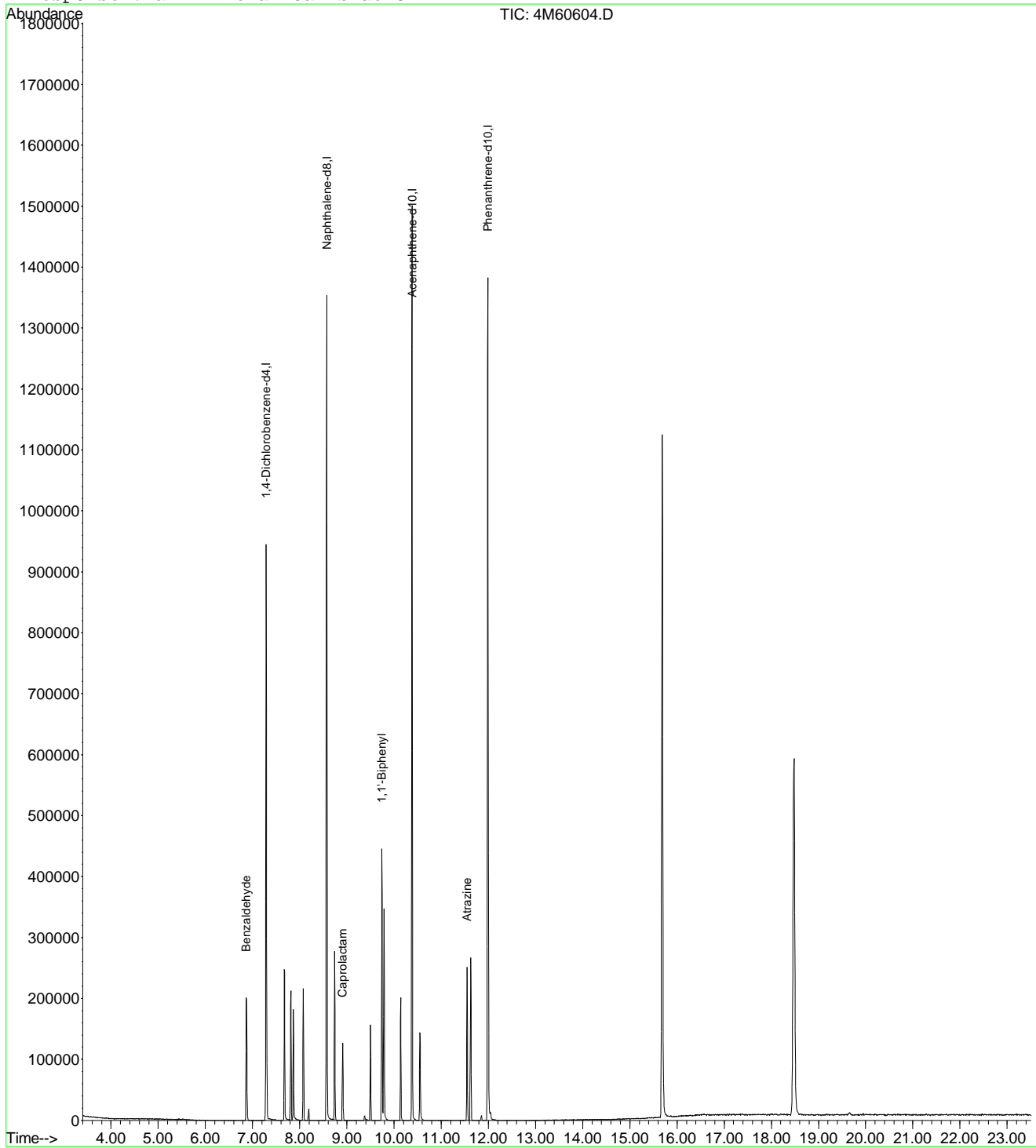
 (#) = qualifier out of range (m) = manual integration
 4M60604.D TCL.M Wed May 02 13:54:27 2012

Data File : I:\MSDCHEM\1\DATA\050112\4M60604.D
Acq On : 1 May 2012 15:13
Sample : WG396709-03 10PPM TCL STD
Misc : 1,1 STD51428
MS Integration Params: RTEINT.P
Quant Time: May 2 13:30 2012

Vial: 5
Operator: CAA
Inst : HPMS4
Multiplr: 1.00

Quant Results File: TCL.RES

Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
Last Update : Wed May 02 13:31:17 2012
Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\050112\4M60605.D Vial: 6
 Acq On : 1 May 2012 15:47 Operator: CAA
 Sample : WG396709-04 25PPM TCL STD Inst : HPMS4
 Misc : 1,1 STD51428 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 02 13:30:57 2012 Quant Results File: TCL.RES

Quant Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Wed May 02 13:30:53 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.29	152	188543	40.00	ug/mL	0.00
3) Naphthalene-d8	8.57	136	712737	40.00	ug/mL	0.00
5) Acenaphthene-d10	10.38	164	395022	40.00	ug/mL	0.00
7) Phenanthrene-d10	11.99	188	719816	40.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	6.87	105	124002	22.8836	ug/L	99
4) Caprolactam	8.91	55	58452	20.9951	ug/L	99
6) 1,1'-Biphenyl	9.74	154	424267	25.6276	ug/L	99
8) Atrazine	11.55	200	100051	24.1908	ug/L	100

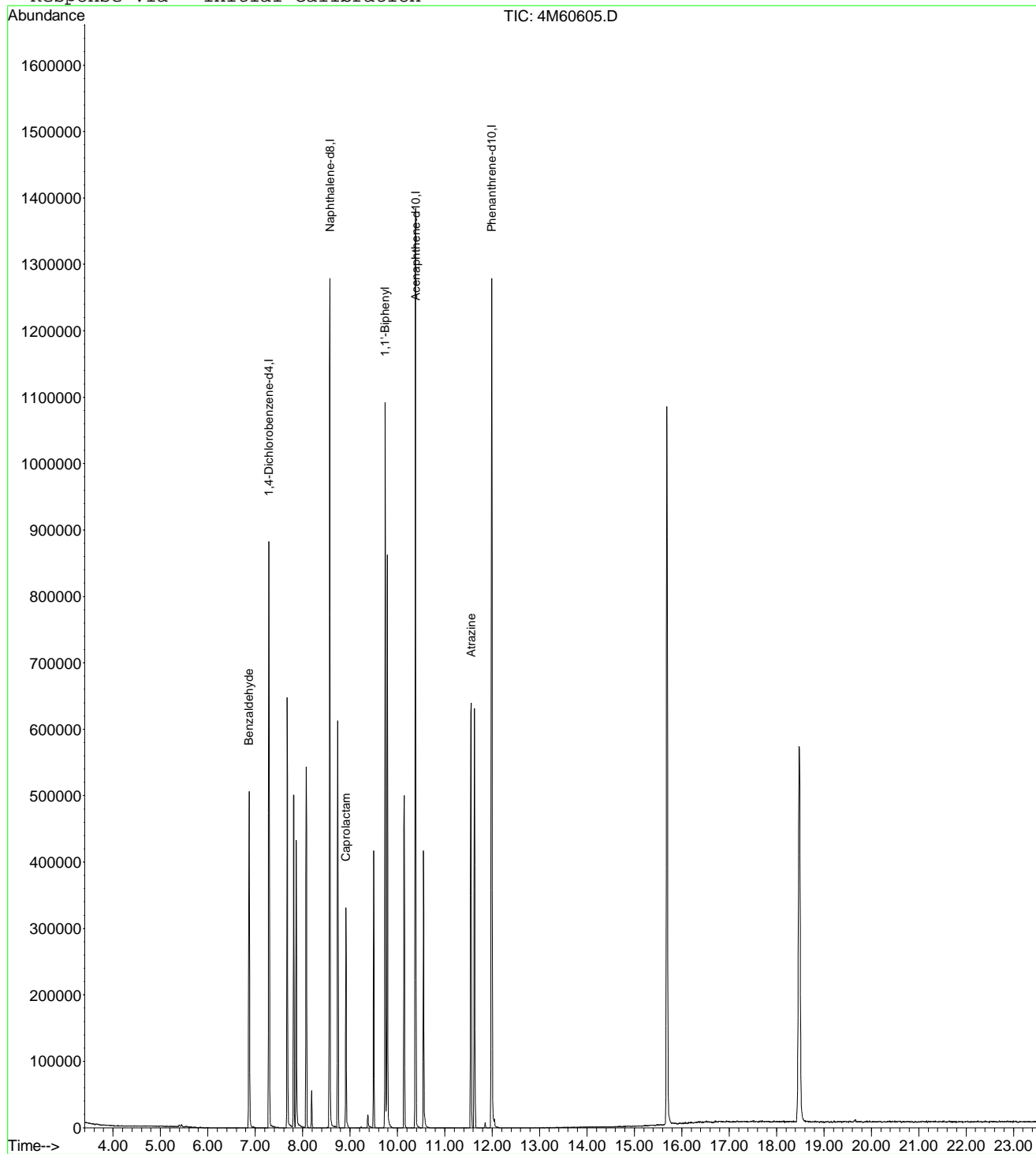
 (#) = qualifier out of range (m) = manual integration
 4M60605.D TCL.M Wed May 02 13:54:28 2012

Data File : I:\MSDCHEM\1\DATA\050112\4M60605.D
 Acq On : 1 May 2012 15:47
 Sample : WG396709-04 25PPM TCL STD
 Misc : 1,1 STD51428
 MS Integration Params: RTEINT.P
 Quant Time: May 2 13:30 2012

Vial: 6
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: TCL.RES

Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Wed May 02 13:31:17 2012
 Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\050112\4M60606.D Vial: 7
 Acq On : 1 May 2012 16:22 Operator: CAA
 Sample : WG396709-05 80PPM TCL STD Inst : HPMS4
 Misc : 1,1 STD51428 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 02 13:31:06 2012 Quant Results File: TCL.RES

Quant Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Wed May 02 13:31:01 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIion	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.29	152	195973	40.00	ug/mL	0.00
3) Naphthalene-d8	8.57	136	750611	40.00	ug/mL	0.00
5) Acenaphthene-d10	10.38	164	425817	40.00	ug/mL	0.00
7) Phenanthrene-d10	11.99	188	761381	40.00	ug/mL	0.00
						Qvalue
Target Compounds						
2) Benzaldehyde	6.87	105	417733	76.8196	ug/L	98
4) Caprolactam	8.92	55	207764	75.5069	ug/L	100
6) 1,1'-Biphenyl	9.75	154	1307719	74.3741	ug/L	99
8) Atrazine	11.56	200	333290	77.7524	ug/L	100

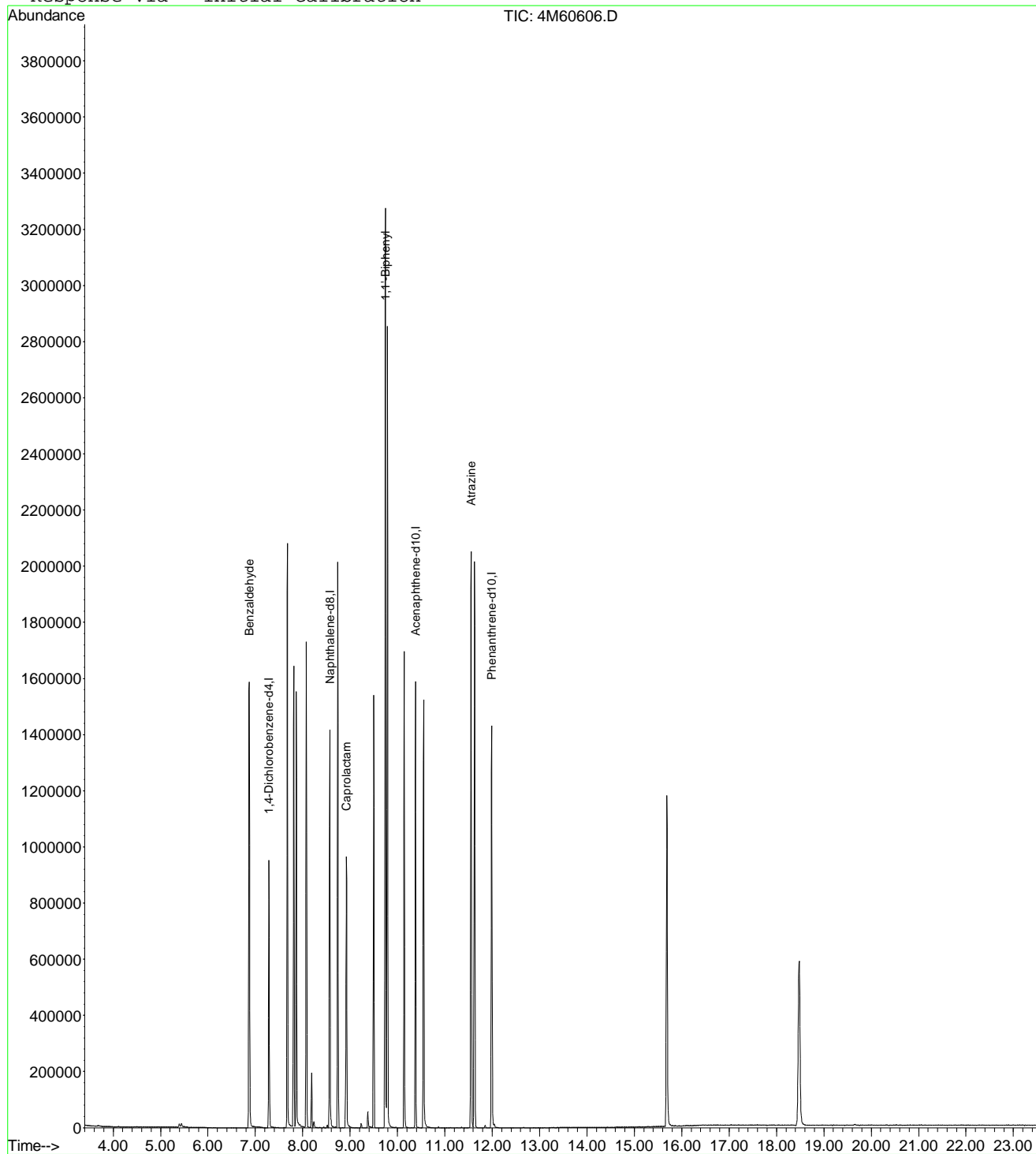
 (#) = qualifier out of range (m) = manual integration
 4M60606.D TCL.M Wed May 02 13:54:28 2012

Data File : I:\MSDCHEM\1\DATA\050112\4M60606.D
 Acq On : 1 May 2012 16:22
 Sample : WG396709-05 80PPM TCL STD
 Misc : 1,1 STD51428
 MS Integration Params: RTEINT.P
 Quant Time: May 2 13:31 2012

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

Quant Results File: TCL.RES

Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Wed May 02 13:31:17 2012
 Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\050112\4M60607.D Vial: 8
 Acq On : 1 May 2012 16:57 Operator: CAA
 Sample : WG396709-06 100PPM TCL STD Inst : HPMS4
 Misc : 1,1 STD51428 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 02 13:31:13 2012 Quant Results File: TCL.RES

Quant Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Wed May 02 13:31:09 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.29	152	191003	40.00	ug/mL	0.00
3) Naphthalene-d8	8.57	136	734165	40.00	ug/mL	0.00
5) Acenaphthene-d10	10.38	164	416593	40.00	ug/mL	0.00
7) Phenanthrene-d10	11.99	188	754784	40.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	6.87	105	505674	97.6192	ug/L	100
4) Caprolactam	8.93	55	256887	101.2638	ug/L	100
6) 1,1'-Biphenyl	9.75	154	1556681	90.9597	ug/L	99
8) Atrazine	11.56	200	400523	95.1187	ug/L	99

 (#) = qualifier out of range (m) = manual integration
 4M60607.D TCL.M Wed May 02 13:54:29 2012

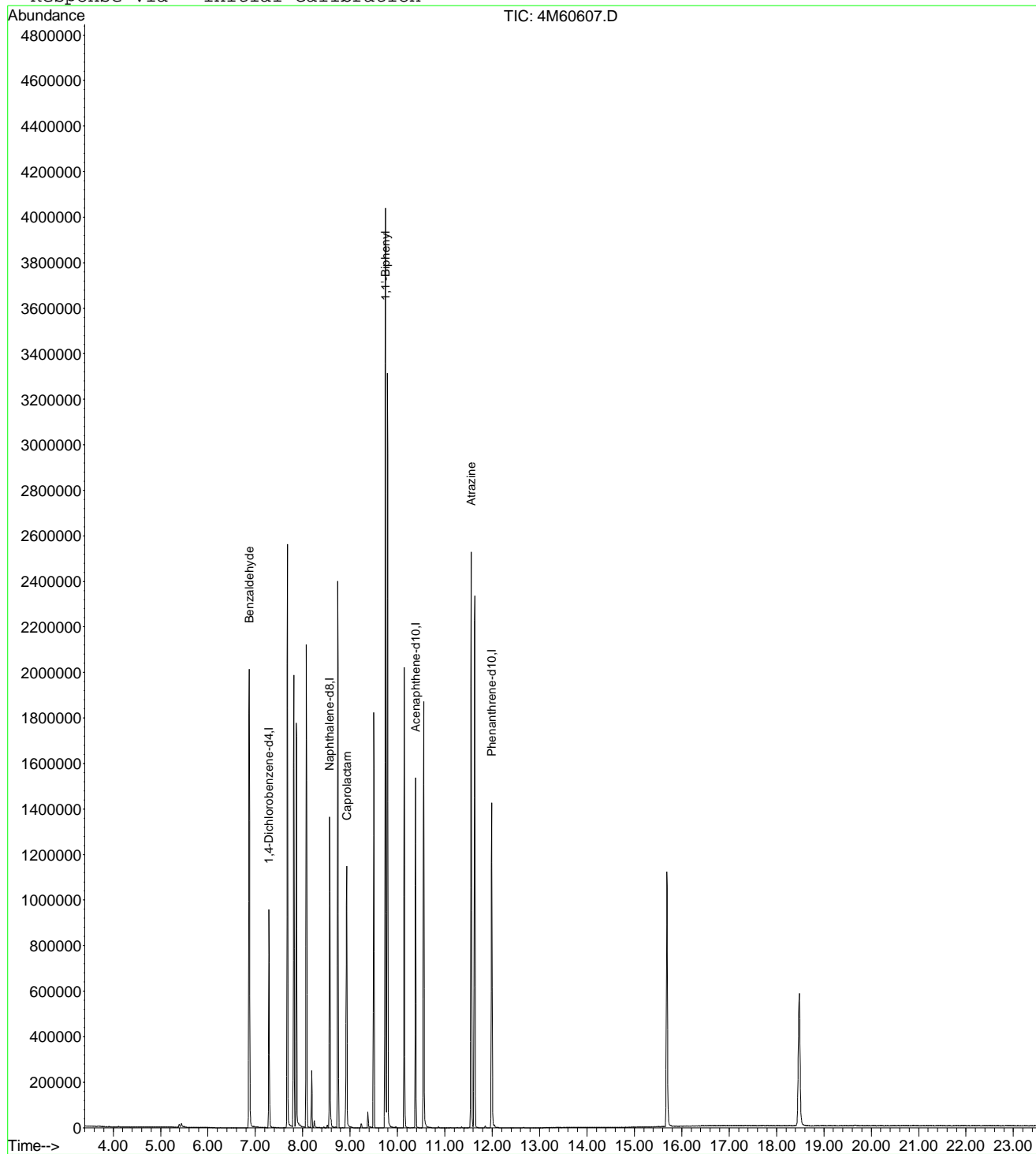
Page 1

Data File : I:\MSDCHEM\1\DATA\050112\4M60607.D
 Acq On : 1 May 2012 16:57
 Sample : WG396709-06 100PPM TCL STD
 Misc : 1,1 STD51428
 MS Integration Params: RTEINT.P
 Quant Time: May 2 13:31 2012

Vial: 8
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: TCL.RES

Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Wed May 02 13:31:17 2012
 Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\050112\4M60608.D Vial: 9
 Acq On : 1 May 2012 17:31 Operator: CAA
 Sample : WG396709-07 50PPM TCL Alt Src STD Inst : HPMS4
 Misc : 1,1 STD51166 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 02 13:31:31 2012 Quant Results File: TCL.RES

Quant Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Wed May 02 13:31:17 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIion	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.29	152	209920	40.00	ug/mL	0.00
3) Naphthalene-d8	8.57	136	790964	40.00	ug/mL	0.00
5) Acenaphthene-d10	10.38	164	444492	40.00	ug/mL	0.00
7) Phenanthrene-d10	11.99	188	786510	40.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	6.87	105	244497	43.7269	ug/L	99
4) Caprolactam	8.92	55	129633	50.1859	ug/L	99
6) 1,1'-Biphenyl	9.74	154	864997	47.4149	ug/L	100
8) Atrazine	11.55	200	219418	50.4008	ug/L	100

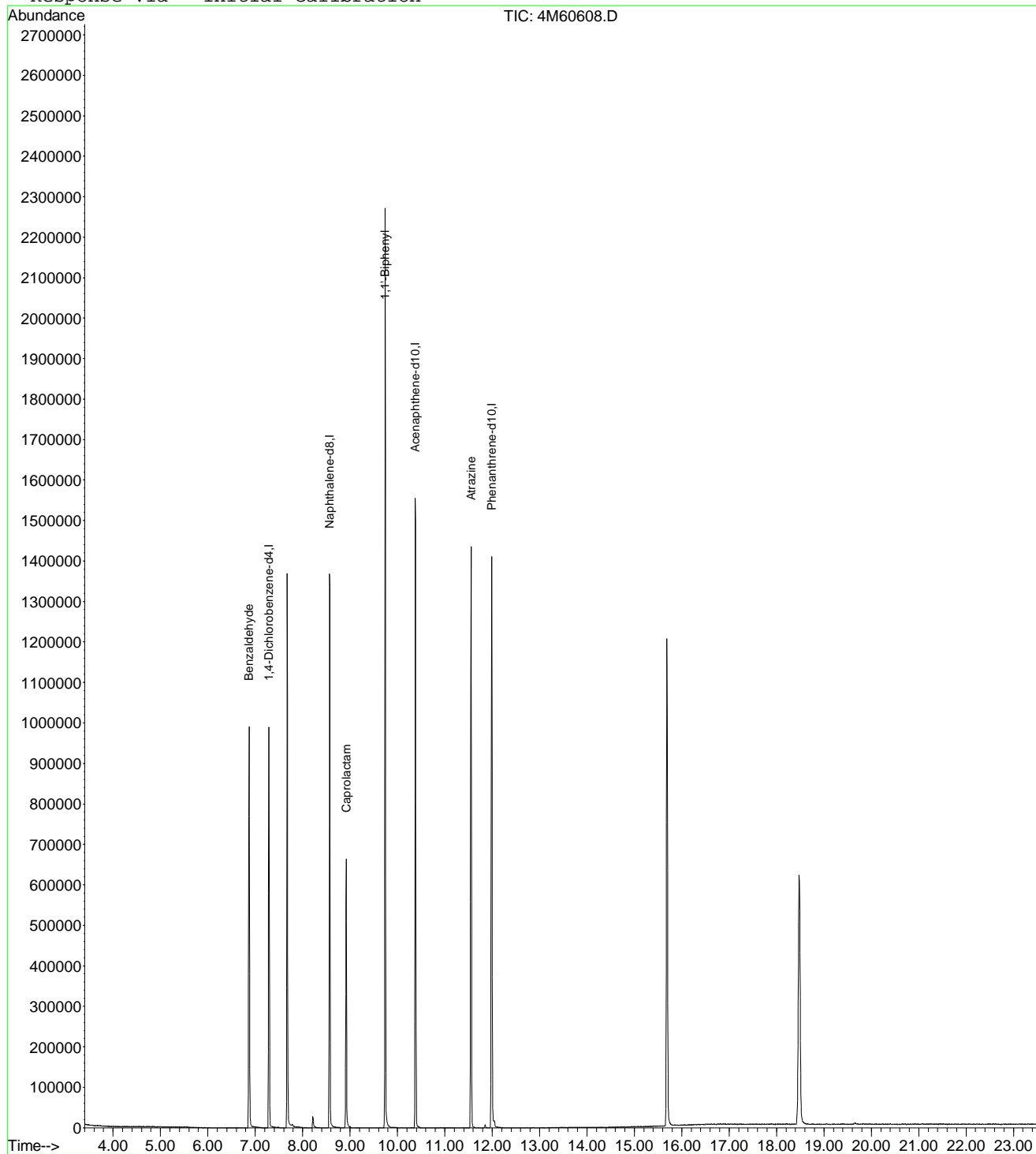
 (#) = qualifier out of range (m) = manual integration
 4M60608.D TCL.M Wed May 02 13:54:37 2012

Data File : I:\MSDCHEM\1\DATA\050112\4M60608.D
 Acq On : 1 May 2012 17:31
 Sample : WG396709-07 50PPM TCL Alt Src STD
 Misc : 1,1 STD51166
 MS Integration Params: RTEINT.P
 Quant Time: May 2 13:31 2012

Vial: 9
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: TCL.RES

Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Wed May 02 13:31:17 2012
 Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\051212\4M60817.D Vial: 2
 Acq On : 12 May 2012 11:22 Operator: CAA
 Sample : WG397824-02 50PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 12 11:49:23 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Fri May 11 08:14:43 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.23	152	379992	40.00	ug/ml	0.00
30) Naphthalene-d8	8.51	136	1412784	40.00	ug/ml	0.00
54) Acenaphthene-d10	10.32	164	798531	40.00	ug/ml	0.00
87) Phenanthrene-d10	11.92	188	1443768	40.00	ug/ml	0.00
113) Chrysene-d12	15.60	240	1334202	40.00	ug/ml	0.00
128) Perylene-d12	18.33	264	1243573	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
8) 2-Fluorophenol	6.00	112	555748	48.2372	ug/ml	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery =	48.24%		
12) Phenol-d5	6.84	99	668726	49.5943	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery =	49.59%		
31) Nitrobenzene-d5	7.79	82	619359	51.8330	ug/ml	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	103.66%		
59) 2-Fluorobiphenyl	9.58	172	1335874	50.0988	ug/ml	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	100.20%		
86) 2,4,6-Tribromophenol	11.14	330	191250	53.7078	ug/ml	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery =	53.71%		
117) p-Terphenyl-d14	13.95	244	1255295	51.0472	ug/ml	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	102.10%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.22	88	215082	45.4150	ug/ml#	93
3) n-Nitrosodimethylamine	4.64	74	332264	47.3804	ug/ml	95
4) Pyridine	4.66	79	576188	46.3440	ug/ml	89
5) 2-Picoline	5.45	93	643585	47.5725	ug/ml	98
6) n-Nitrosomethylethylamine	5.56	88	277896	47.6196	ug/ml	92
7) Methyl Methanesulfonate	5.85	80	331000	49.9579	ug/ml	96
9) n-Nitrosodiethylamine	6.23	102	290633	46.4533	ug/ml	94
10) Ethyl Methanesulfonate	6.49	79	418765	48.2564	ug/ml	98
11) Aniline	6.93	93	988079m	49.5877	ug/ml	
13) Phenol	6.85	94	703723	48.8774	ug/ml	99
14) bis(2-Chloroethyl)ether	6.95	63	421298	46.7317	ug/ml	96
15) Pentachloroethane	6.96	167	245273	50.5079	ug/ml	97
16) 2-Chlorophenol	7.05	128	632231	49.0365	ug/ml	98
17) 1,3-Dichlorobenzene	7.20	146	691533	48.1884	ug/ml	99
18) 1,4-Dichlorobenzene	7.25	146	716308	48.9395	ug/ml	100
19) Benzyl Alcohol	7.34	108	404925	48.5056	ug/ml	96
20) 1,2-Dichlorobenzene	7.44	146	652795	48.0251	ug/ml	100
21) 2-Methylphenol	7.43	107	468291	47.1685	ug/ml	97
22) bis(2-Chloroisopropyl)eth	7.48	45	734110	39.6628	ug/ml	92
23) 3-,4-Methylphenol	7.57	107	612726	47.4784	ug/ml	99
24) n-Nitrosopyrrolidine	7.61	100	290168	49.8022	ug/ml	92
25) n-Nitrosodipropylamine	7.62	70	402666	49.6016	ug/ml	95
26) Acetophenone	7.63	105	764448	47.8827	ug/ml	98
27) n-Nitrosomorpholine	7.63	56	328854	43.4218	ug/ml	93
28) o-Toluidine	7.67	106	956544	47.3927	ug/ml	99
29) Hexachloroethane	7.75	117	268639	49.5655	ug/ml	99
32) Nitrobenzene	7.81	77	612162	51.4014	ug/ml	98
33) n-Nitrosopiperidine	7.96	114	311881	48.9219	ug/ml	94
34) Isophorone	8.02	82	1080625	49.7112	ug/ml	100
35) 2-Nitrophenol	8.13	139	372198	53.0166	ug/ml	96
36) 2,4-Dimethylphenol	8.10	122	559250	46.3918	ug/ml	98
37) 0,0,0-Triethyl Phosphoroth	8.20	198	303821	50.4821	ug/ml	98
38) bis(2-Chloroethoxy)methane	8.20	93	846228	51.2235	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60817.D MEGAMIX.M Mon May 14 11:40:33 2012

Data File : I:\MSDCHEM\1\DATA\051212\4M60817.D Vial: 2
 Acq On : 12 May 2012 11:22 Operator: CAA
 Sample : WG397824-02 50PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 12 11:49:23 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Fri May 11 08:14:43 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Benzoic Acid	8.13	105	92948m	11.1877	ug/ml	
40) 2,4-Dichlorophenol	8.35	162	518862	51.4147	ug/ml	100
41) a,a-Dimethylphenethylamine	8.35	58	811053	47.5367	ug/ml	97
42) 1,2,4-Trichlorobenzene	8.45	180	594488	51.8791	ug/ml	99
43) Naphthalene	8.53	128	1833150	48.9942	ug/ml	97
44) 4-Chloroaniline	8.56	127	758246	55.0259	ug/ml	97
45) 2,6-Dichlorophenol	8.59	162	531803	51.0682	ug/ml	99
46) Hexachloropropene	8.65	213	362616	56.4618	ug/ml	99
47) Hexachlorobutadiene	8.68	225	308283	52.5492	ug/ml	100
48) n-Nitrosodi-n-Butylamine	8.88	84	503834	50.1456	ug/ml	94
49) p-Phenylenediamine	9.00	108	41408	47.6288	ug/ml	99
50) 4-Chloro-3-Methylphenol	9.00	107	514466	50.2371	ug/ml	98
51) Safrole	9.09	162	493322	50.6507	ug/ml	99
52) 2-Methylnaphthalene	9.22	142	1203293	49.5017	ug/ml	99
53) 1-Methylnaphthalene	9.34	142	1137074	49.4767	ug/ml	99
55) 1,2,4,5-Tetrachlorobenzene	9.43	216	541257	51.7239	ug/ml	100
56) Hexachlorocyclopentadiene	9.44	237	275977	50.9878	ug/ml	99
57) 2,4,6-Trichlorophenol	9.51	196	381818	52.0715	ug/ml	99
58) 2,4,5-Trichlorophenol	9.56	196	392581	52.0108	ug/ml	100
60) Isosafrole	9.62	162	507901	50.3323	ug/ml	100
61) 2-Chloronaphthalene	9.73	162	1156497	51.2892	ug/ml	99
62) 1-Chloronaphthalene	9.77	162	1077410	50.4620	ug/ml	99
63) 2-Nitroaniline	9.83	65	327994	50.7473	ug/ml	99
64) 1,4-Naphthoquinone	9.89	158	427631	48.0252	ug/ml	98
65) Dimethylphthalate	9.99	163	1275112	50.4707	ug/ml	100
66) 1,3-Dinitrobenzene	10.05	168	258644	53.3884	ug/ml	98
67) 2,6-Dinitrotoluene	10.09	165	328321	52.0228	ug/ml	99
68) Acenaphthylene	10.17	152	1791733	49.4895	ug/ml	100
69) 3-Nitroaniline	10.24	138	219101	47.0666	ug/ml	99
70) 2,4-Dinitrophenol	10.34	184	146582	46.9428	ug/ml	86
71) Acenaphthene	10.36	154	1158185	49.1146	ug/ml	100
72) 4-Nitrophenol	10.35	65	226740	48.7525	ug/ml	95
73) 2,4-Dinitrotoluene	10.49	165	420938	52.4193	ug/ml	97
74) Pentachlorobenzene	10.53	250	492718	52.2950	ug/ml	99
75) Dibenzofuran	10.51	168	1571815	49.7801	ug/ml	99
76) 2,3,4,6-Tetrachlorophenol	10.61	232	279476	48.0111	ug/ml	98
77) 1-Naphthylamine	10.59	143	130968	19.2862	ug/ml	97
78) 2-Naphthylamine	10.66	143	51181	12.3819	ug/ml#	75
79) Diethylphthalate	10.70	149	1282150	50.9568	ug/ml	100
80) Thionazin	10.79	107	208975	49.9144	ug/ml	94
81) Fluorene	10.87	166	1332546	49.6553	ug/ml	100
82) 4-Chlorophenyl Phenyl Ether	10.82	204	645654	51.2021	ug/ml	99
83) 4-Nitroaniline	10.88	138	300782	52.1980	ug/ml	99
84) 5-Nitro-o-Toluidine	10.87	152	318955	50.3425	ug/ml	99
85) 1,2-Diphenylhydrazine	10.99	77	1241940	50.7515	ug/ml	99
88) 4,6-Dinitro-2-Methylphenol	10.92	198	227714	50.6652	ug/ml	92
89) n-Nitrosodiphenylamine	10.94	169	1163164	49.7919	ug/ml	99
90) Sulfolon	11.14	322	223065	53.4466	ug/ml	99
91) Sym-Trinitrobenzene	11.23	75	320717	56.1573	ug/ml	97
92) Diallate	11.26	86	479895	50.3733	ug/ml	91
93) Phenacetin	11.25	108	633582	51.7696	ug/ml	99
94) Phorate	11.28	75	769905	50.6559	ug/ml#	98
95) 4-Bromophenyl Phenyl Ether	11.34	248	374163	51.2228	ug/ml	99
96) Hexachlorobenzene	11.56	284	419691	52.5600	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60817.D MEGAMIX.M Mon May 14 11:40:33 2012

Data File : I:\MSDCHEM\1\DATA\051212\4M60817.D Vial: 2
 Acq On : 12 May 2012 11:22 Operator: CAA
 Sample : WG397824-02 50PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 12 11:49:23 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Fri May 11 08:14:43 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97) Dimethoate	11.49	87	437047	53.6795	ug/ml	98
98) 4-Aminobiphenyl	11.65	169	511029	58.4551	ug/ml	99
99) Pentachlorophenol	11.74	266	237796	47.0946	ug/ml	99
100) Pronamide	11.69	173	592669	50.4965	ug/ml	99
101) Pentachloronitrobenzene	11.83	237	153211	55.3627	ug/ml	97
102) Disulfoton	11.86	88	657063	50.2992	ug/ml	99
103) Phenanthrene	11.95	178	1848204	48.2622	ug/ml	99
104) Anthracene	12.00	178	1911460	48.6796	ug/ml	100
105) Carbazole	12.16	167	1714980	49.8801	ug/ml	98
106) Parathion Methyl	12.33	109	406561	50.8734	ug/ml	100
107) Di-n-Butyl Phthalate	12.52	149	2148058	50.2867	ug/ml	99
108) Parathion Ethyl	12.81	97	261632	53.7727	ug/ml	97
109) 4-Nitroquinoline 1-Oxide	12.91	190	76847	21.8802	ug/ml	93
110) Methapyrilene	12.96	58	337328	40.1830	ug/ml	88
111) Isodrin	13.32	193	198332	48.2174	ug/ml	99
112) Fluoranthene	13.49	202	1980305	49.3484	ug/ml	99
114) Benzidine	13.60	184	6067	3.2625	ug/ml	100
115) Pyrene	13.82	202	2014432	50.4796	ug/ml	100
116) Aramite	13.87	185	125542	55.5575	ug/ml	98
118) p-(Dimethylamino)azobenzen	14.16	225	426079	51.7136	ug/ml	97
119) Chlorobenzilate	14.21	251	580235	53.4294	ug/ml	99
120) Famphur	14.61	218	42802	90.4739	ug/ml#	68
121) Butyl Benzyl Phthalate	14.63	149	936083	51.5713	ug/ml	98
122) 3,3'-Dimethylbenzidine	14.65	212	415119	32.9207	ug/ml#	95
123) 2-Acetylaminofluorene	15.07	181	844119	54.3622	ug/ml	98
124) bis(2-Ethylhexyl)phthalate	15.48	149	1279905	51.6721	ug/ml	99
125) 3,3'-Dichlorobenzidine	15.49	252	424455	57.3669	ug/ml	99
126) Benzo[a]anthracene	15.57	228	1766595	49.9106	ug/ml	99
127) Chrysene	15.64	228	1638495	49.3151	ug/ml	100
129) Di-n-Octyl Phthalate	16.44	149	2160680	53.8016	ug/ml	97
130) 7,12-Dimethylbenz[a]anthra	17.49	256	865707	53.7549	ug/ml	99
131) Benzo[b]fluoranthene	17.49	252	1966827	54.6936	ug/ml	98
132) Benzo[k]fluoranthene	17.53	252	1662165	49.8637	ug/ml	97
133) Benzo[a]pyrene	18.21	252	1699125	51.7887	ug/ml	98
134) 3-Methylcholanthrene	19.08	268	922876	51.8078	ug/ml	99
135) Indeno[1,2,3-cd]pyrene	21.37	276	1992764	54.5377	ug/ml	97
136) Dibenz[ah]anthracene	21.37	278	1682296	55.2049	ug/ml	98
137) Benzo[ghi]perylene	22.28	276	1607558	53.1829	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60817.D MEGAMIX.M Mon May 14 11:40:33 2012

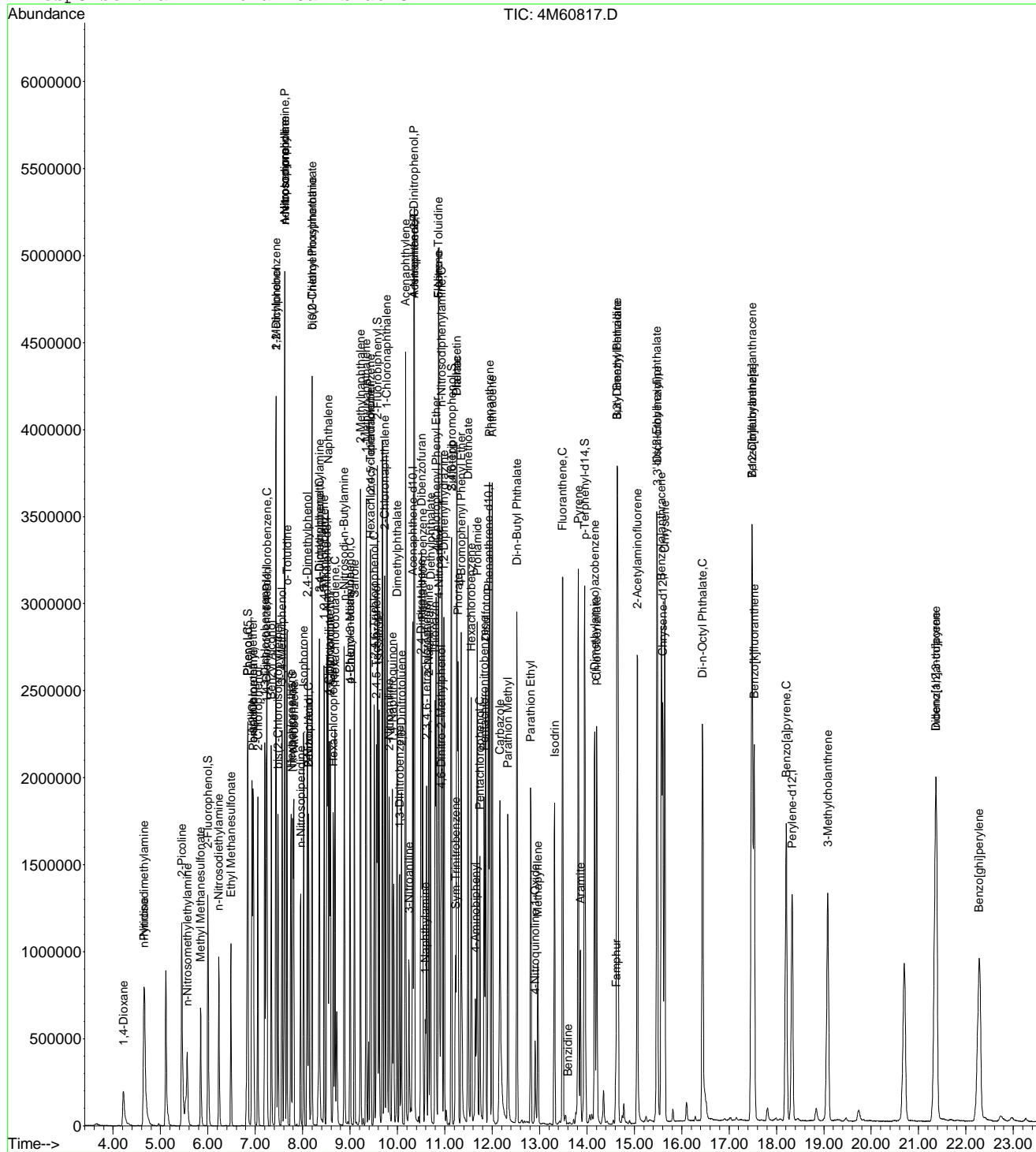
Page 3

Data File : I:\MSDCHEM\1\DATA\051212\4M60817.D
Acq On : 12 May 2012 11:22
Sample : WG397824-02 50PPM Megamix STD
Misc : 1,1 STD50886
MS Integration Params: RTEINT.P
Quant Time: May 13 11:44 2012

Vial: 2
Operator: CAA
Inst : HPMS4
Multiplr: 1.00

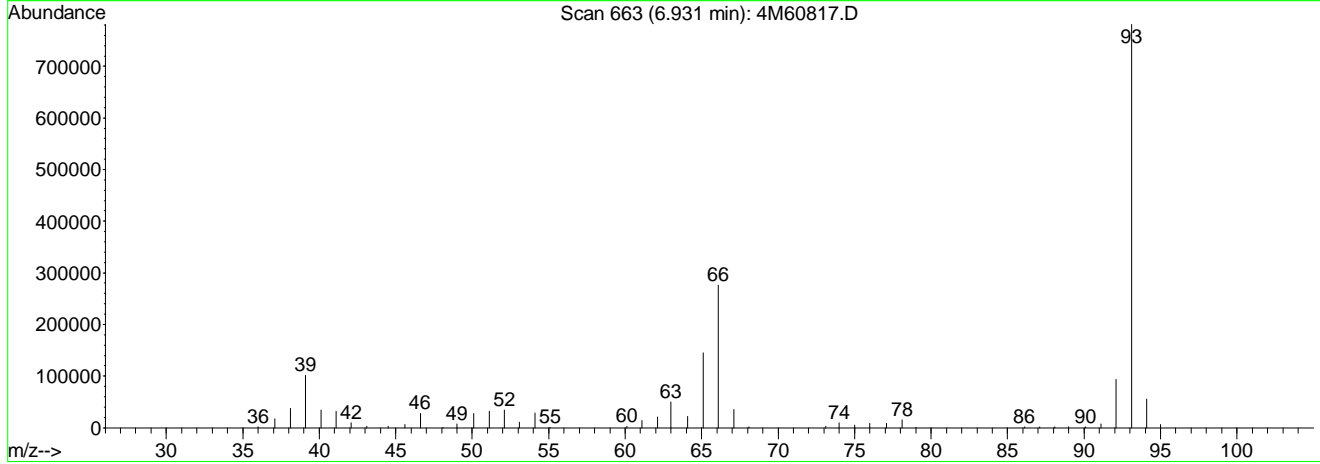
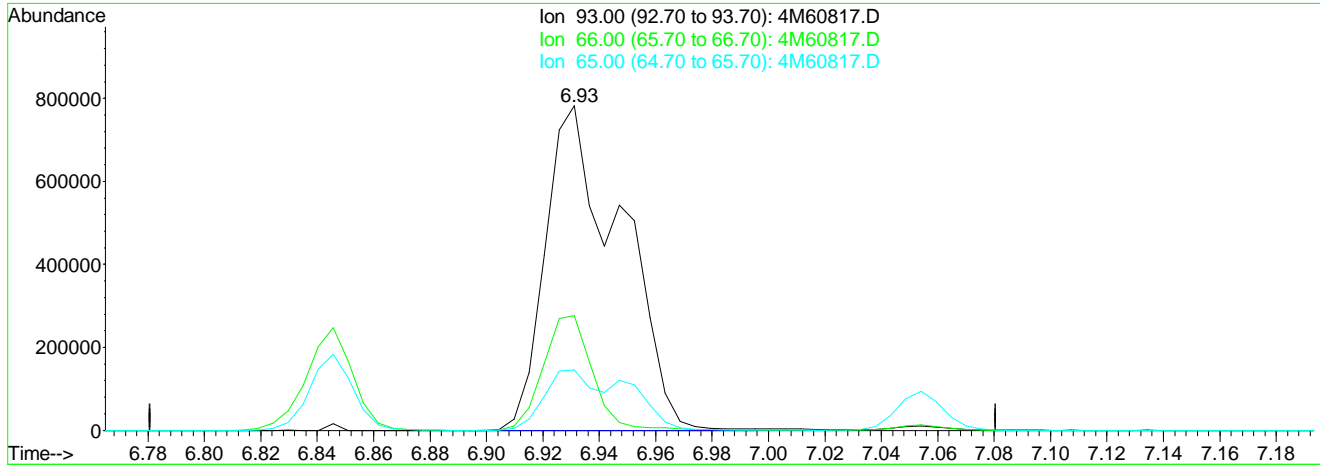
Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
Last Update : Mon May 14 11:40:21 2012
Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\051212\4M60817.D Vial: 2
 Acq On : 12 May 2012 11:22 Operator: CAA
 Sample : WG397824-02 50PPM Megamix STD Inst : HPMS4
 Misc : 1,1 STD50886 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 12 11:49 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Fri May 11 08:14:43 2012
 Response via : Multiple Level Calibration



TIC: 4M60817.D

(11) Aniline

6.93min 73.00ug/ml

response 1454568

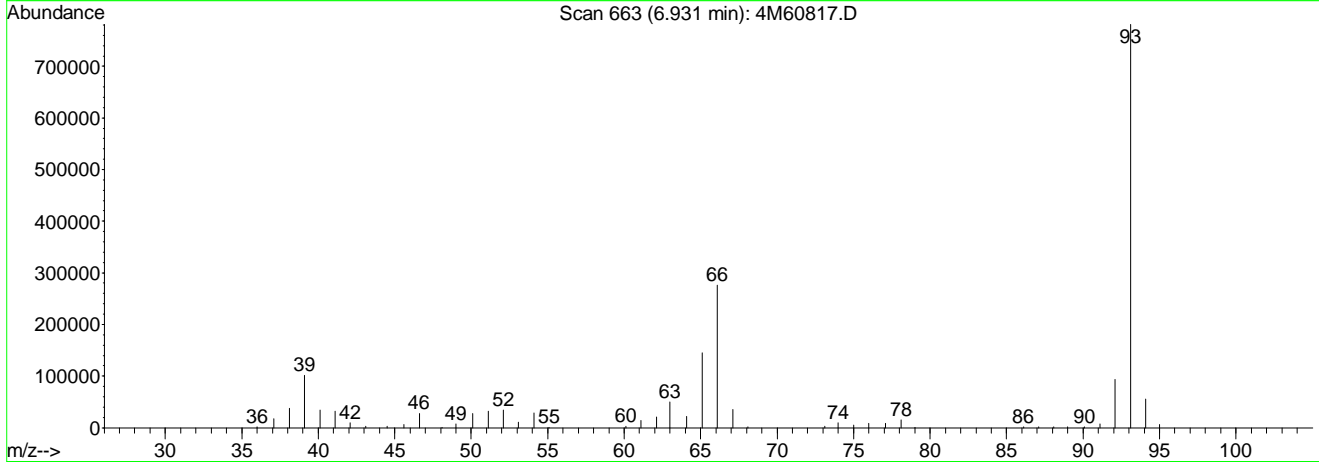
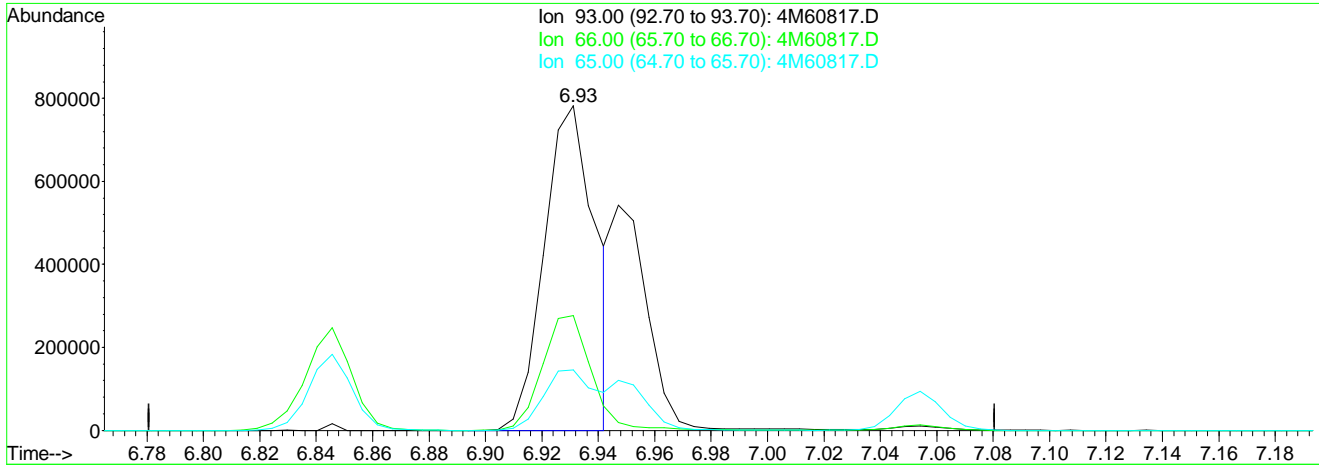
Ion	Exp%	Act%
93.00	100	100
66.00	33.40	23.27
65.00	29.20	13.17#
0.00	0.00	0.00

Data File : I:\MSDCHEM\1\DATA\051212\4M60817.D
 Acq On : 12 May 2012 11:22
 Sample : WG397824-02 50PPM Megamix STD
 Misc : 1,1 STD50886
 MS Integration Params: RTEINT.P
 Quant Time: May 13 11:43 2012

Vial: 2
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Fri May 11 08:14:43 2012
 Response via : Multiple Level Calibration



TIC: 4M60817.D

(11) Aniline

6.93min 49.59ug/ml mint

response 988079

Ion	Exp%	Act%
93.00	100	100
66.00	33.40	34.26
65.00	29.20	19.39
0.00	0.00	0.00

4M60817.D MEGAMIX.M

Sun May 13

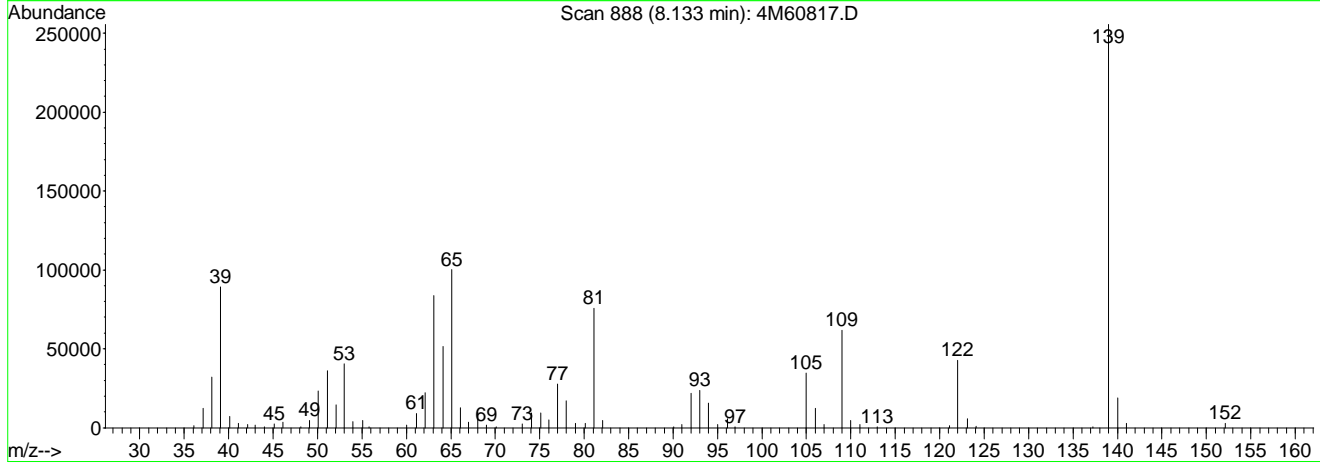
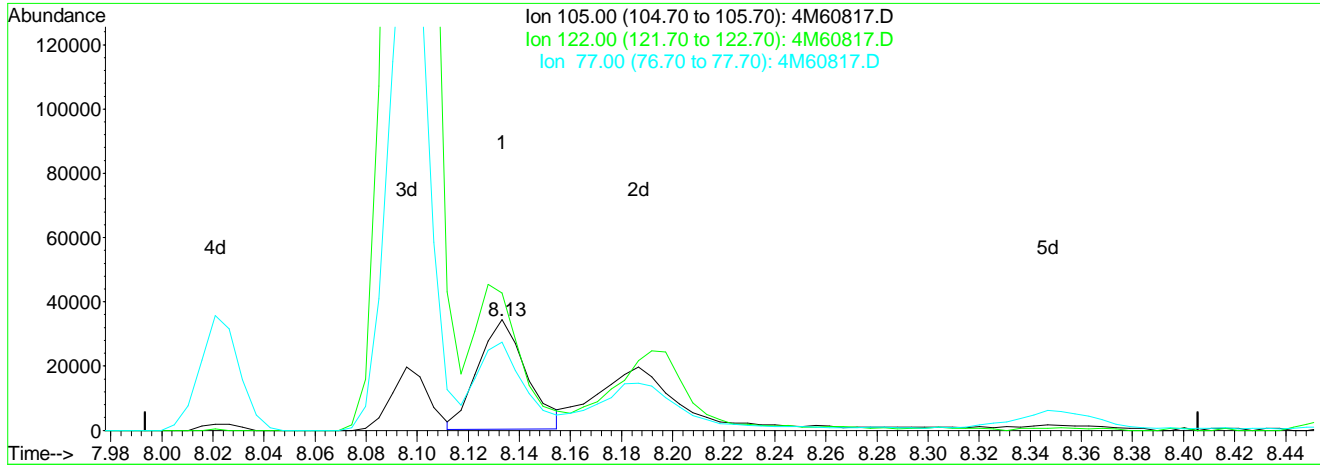
Analyst: 05/14/2012 13:56
 Supervisor: 05/14/2012 15:22
 2012
 #3 - Improperly integrated isomers and/or coeluting compounds

Data File : I:\MSDCHEM\1\DATA\051212\4M60817.D
 Acq On : 12 May 2012 11:22
 Sample : WG397824-02 50PPM Megamix STD
 Misc : 1,1 STD50886
 MS Integration Params: RTEINT.P
 Quant Time: May 13 11:43 2012

Vial: 2
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Fri May 11 08:14:43 2012
 Response via : Single Level Calibration



TIC: 4M60817.D

(39) Benzoic Acid

8.13min 5.40ug/ml

response 44882

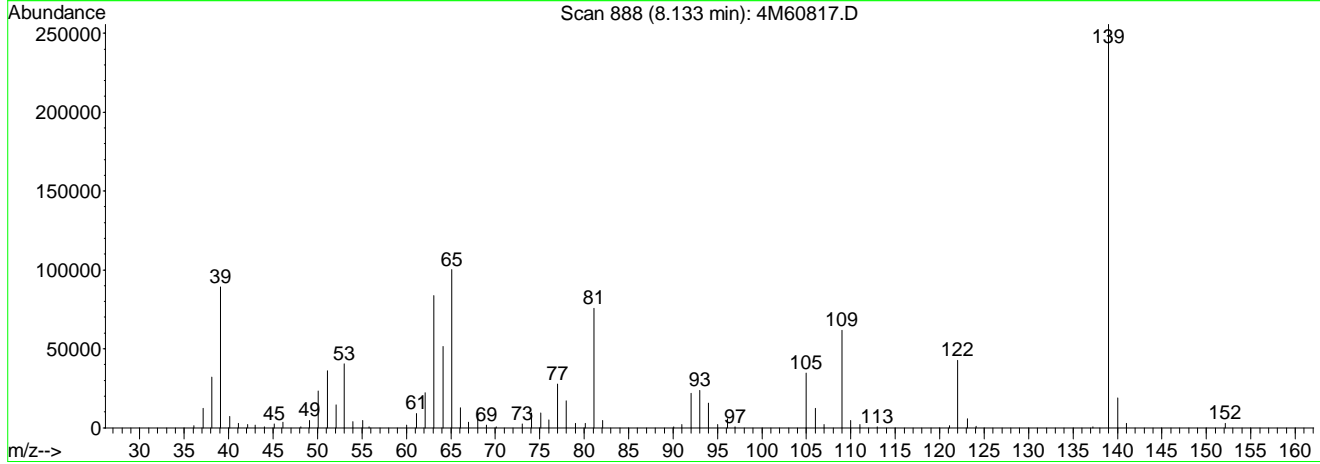
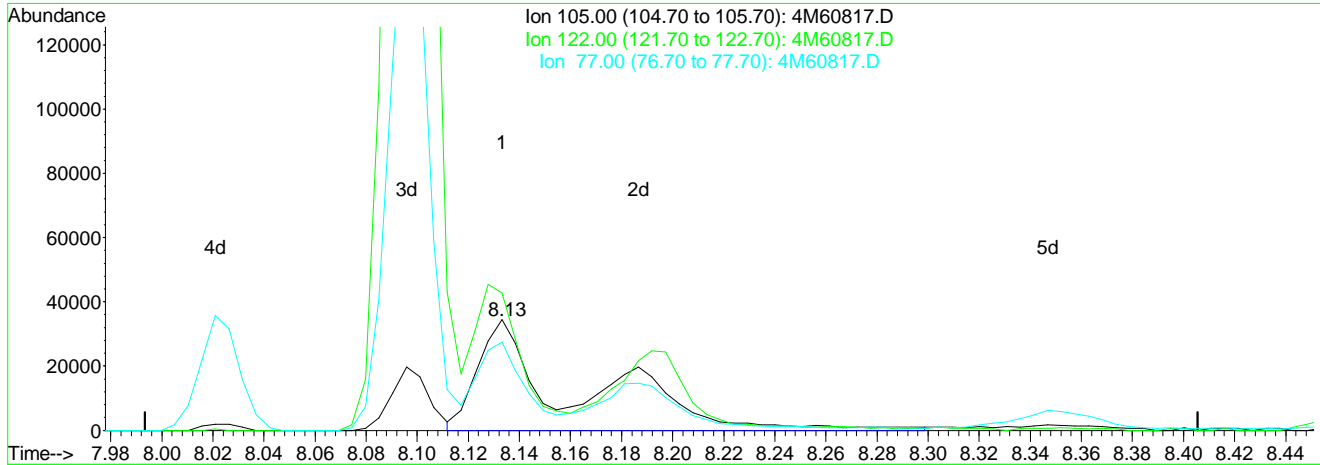
Ion	Exp%	Act%
105.00	100	100
122.00	87.10	126.40#
77.00	70.40	76.39
0.00	0.00	0.00

Data File : I:\MSDCHEM\1\DATA\051212\4M60817.D
 Acq On : 12 May 2012 11:22
 Sample : WG397824-02 50PPM Megamix STD
 Misc : 1,1 STD50886
 MS Integration Params: RTEINT.P
 Quant Time: May 13 11:44 2012

Vial: 2
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Fri May 11 08:14:43 2012
 Response via : Single Level Calibration



TIC: 4M60817.D

(39) Benzoic Acid

8.13min 11.19ug/ml mint

response 92948

Ion	Exp%	Act%
105.00	100	100
122.00	87.10	61.04
77.00	70.40	36.89#
0.00	0.00	0.00

4M60817.D MEGAMIX.M

Sun May 13

Analyst: 05/14/2012 13:56 Supervisor: 05/14/2012 15:22
 CAA [Signature] 2012 [Signature]
 #2 - Data system splits the peak incorrectly or integrates a false peak as a rider peak

Data File : I:\MSDCHEM\1\DATA\051212\4M60818.D Vial: 3
 Acq On : 12 May 2012 11:57 Operator: CAA
 Sample : WG397825-01 50PPM TCL STD Inst : HPMS4
 Misc : 1,1 STD51428 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 12 12:23:31 2012 Quant Results File: TCL.RES

Quant Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Fri May 11 09:00:11 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.23	152	309271	40.00	ug/mL	0.00
3) Naphthalene-d8	8.51	136	1134960	40.00	ug/mL	0.00
5) Acenaphthene-d10	10.32	164	640791	40.00	ug/mL	0.00
7) Phenanthrene-d10	11.92	188	1155753	40.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	6.81	105	419864	50.9681	ug/L	99
4) Caprolactam	8.86	55	203636	54.9411	ug/L	99
6) 1,1'-Biphenyl	9.69	154	1301607	49.4912	ug/L	99
8) Atrazine	11.49	200	329914	51.5709	ug/L	99

 (#) = qualifier out of range (m) = manual integration
 4M60818.D TCL.M Mon May 14 11:53:22 2012

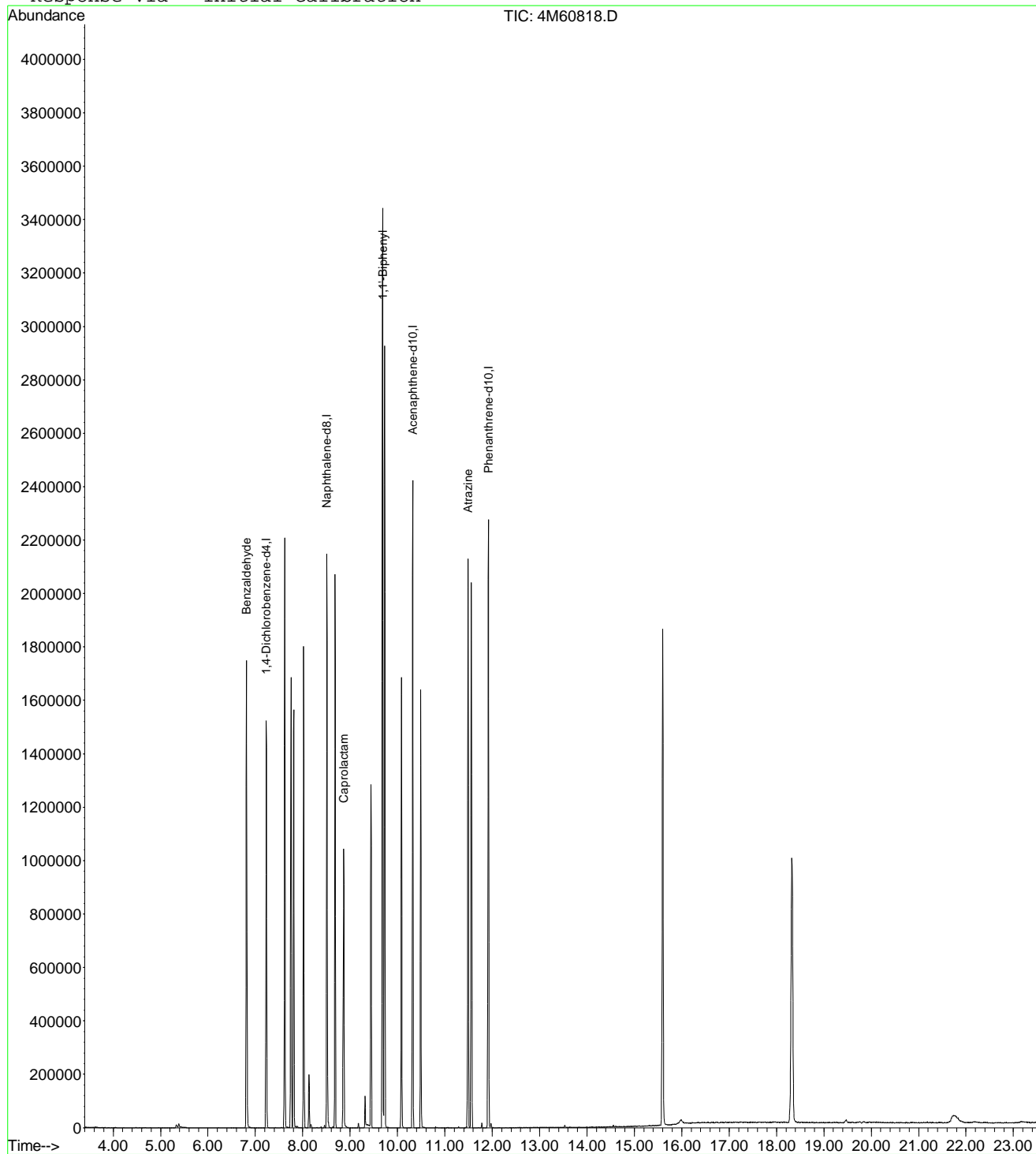
Page 1

Data File : I:\MSDCHEM\1\DATA\051212\4M60818.D
 Acq On : 12 May 2012 11:57
 Sample : WG397825-01 50PPM TCL STD
 Misc : 1,1 STD51428
 MS Integration Params: RTEINT.P
 Quant Time: May 12 12:23 2012

Vial: 3
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

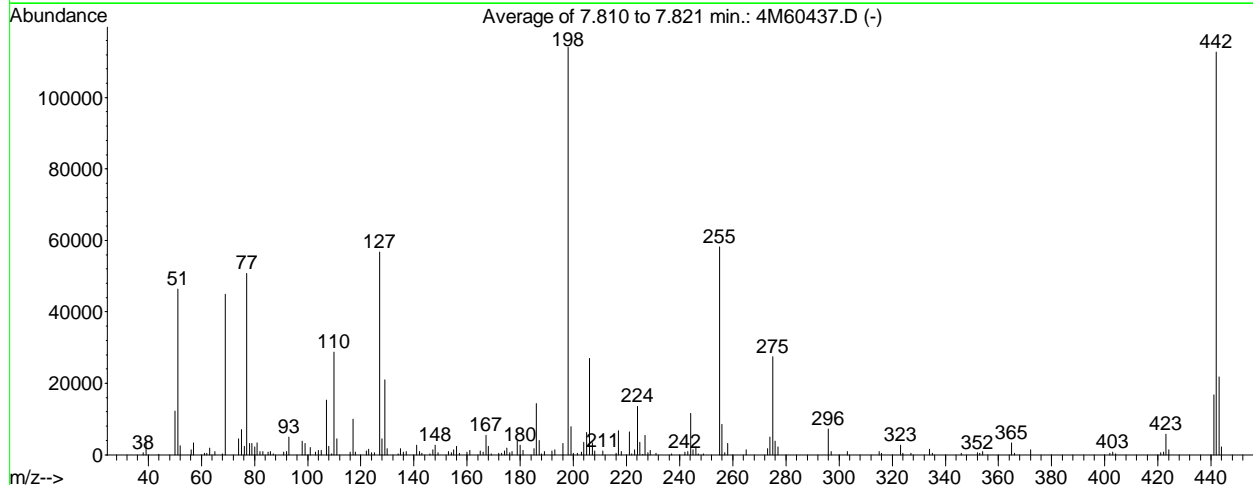
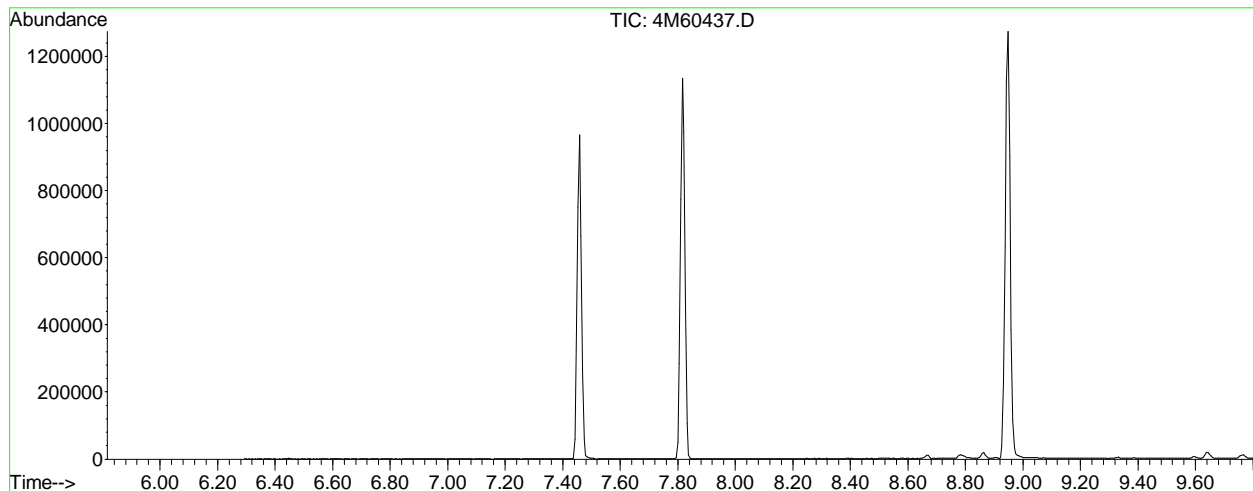
Quant Results File: TCL.RES

Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Mon May 14 11:14:52 2012
 Response via : Initial Calibration



2.2.1.5 Raw QC Data

Data File : I:\MSDCHEM\1\DATA\041912\4M60437.D Vial: 1
 Acq On : 19 Apr 2012 8:26 Operator: CAA
 Sample : WG395394-01 50PPM DFTPP STD Inst : HPMS4
 Misc : 1,1 STD50659 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
 Title : DFTPP



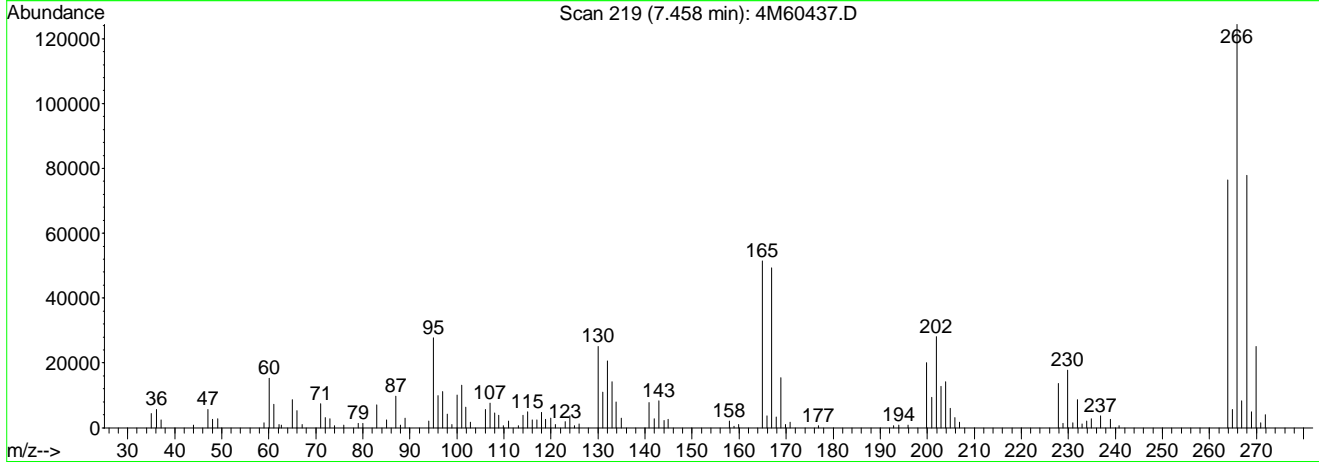
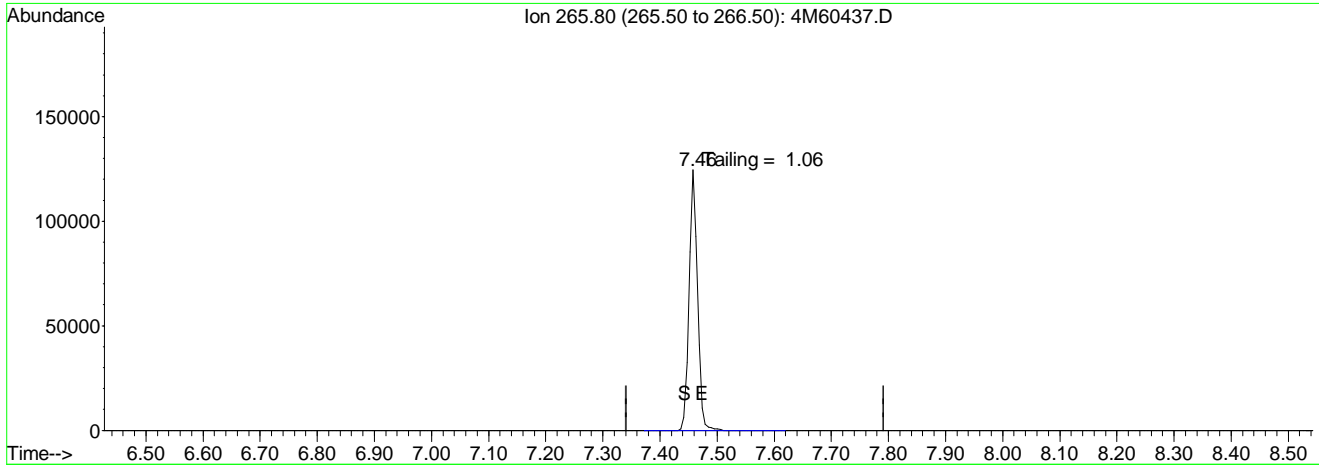
AutoFind: Scans 285, 286, 287; Background Corrected with Scan 279

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	40.7	46389	PASS
68	69	0.00	2	0.7	296	PASS
69	198	0.00	100	39.4	44901	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	49.8	56768	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	114077	PASS
199	198	5	9	6.8	7794	PASS
275	198	10	30	24.0	27400	PASS
365	198	1	100	2.9	3319	PASS
441	443	0.01	100	76.9	16803	PASS
442	198	40	100	98.8	112693	PASS
443	442	17	23	19.4	21851	PASS

4M60437.D DFTPP.M Fri Apr 20 08:17:55 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60437.D Vial: 1
 Acq On : 19 Apr 2012 8:26 Operator: CAA
 Sample : WG395394-01 50PPM DFTPP STD Inst : HPMS4
 Misc : 1,1 STD50659 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 20 8:18 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
 Title : DFTPP
 Last Update : Fri Apr 20 08:18:06 2012
 Response via : Single Level Calibration



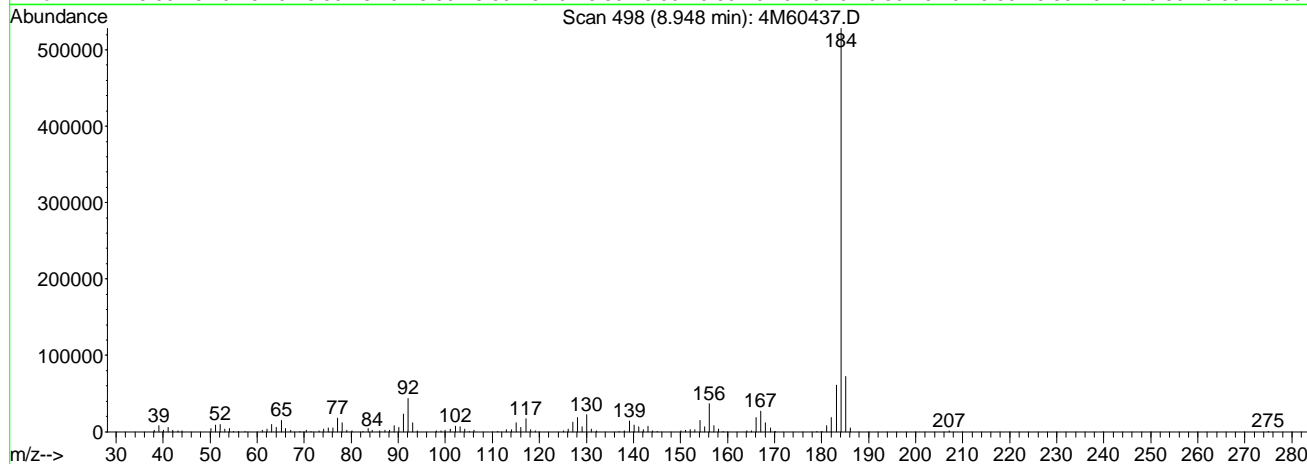
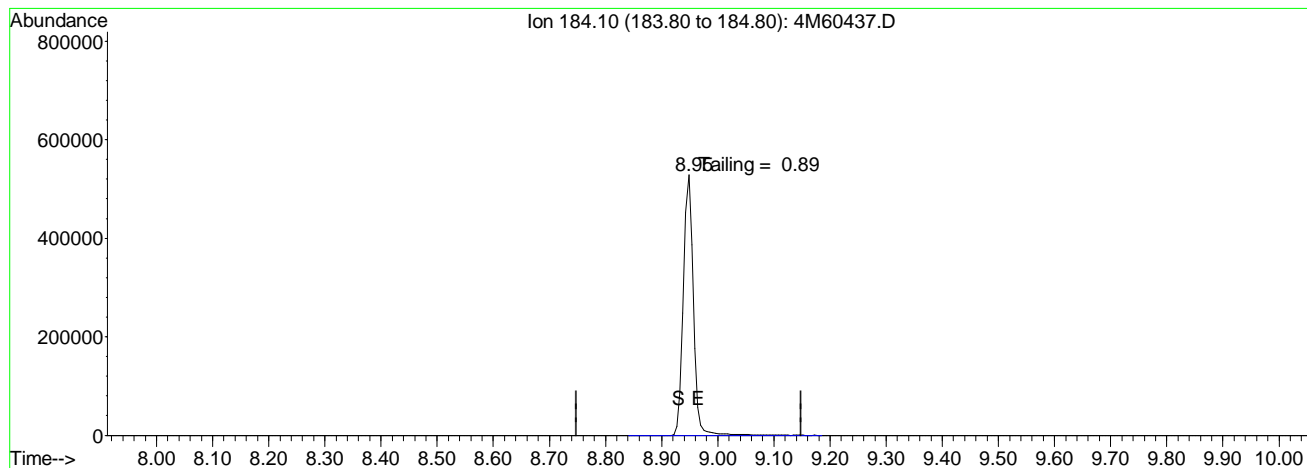
TIC: 4M60437.D

(1) Pentachlorophenol		
7.46min 0.00ug/ml		
response 128509		
Ion	Exp%	Act%
265.80	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

4M60437.D DFTPP.M Fri Apr 20 08:18:15 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60437.D Vial: 1
 Acq On : 19 Apr 2012 8:26 Operator: CAA
 Sample : WG395394-01 50PPM DFTPP STD Inst : HPMS4
 Misc : 1,1 STD50659 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 20 8:18 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
 Title : DFTPP
 Last Update : Fri Apr 20 08:18:06 2012
 Response via : Single Level Calibration



TIC: 4M60437.D

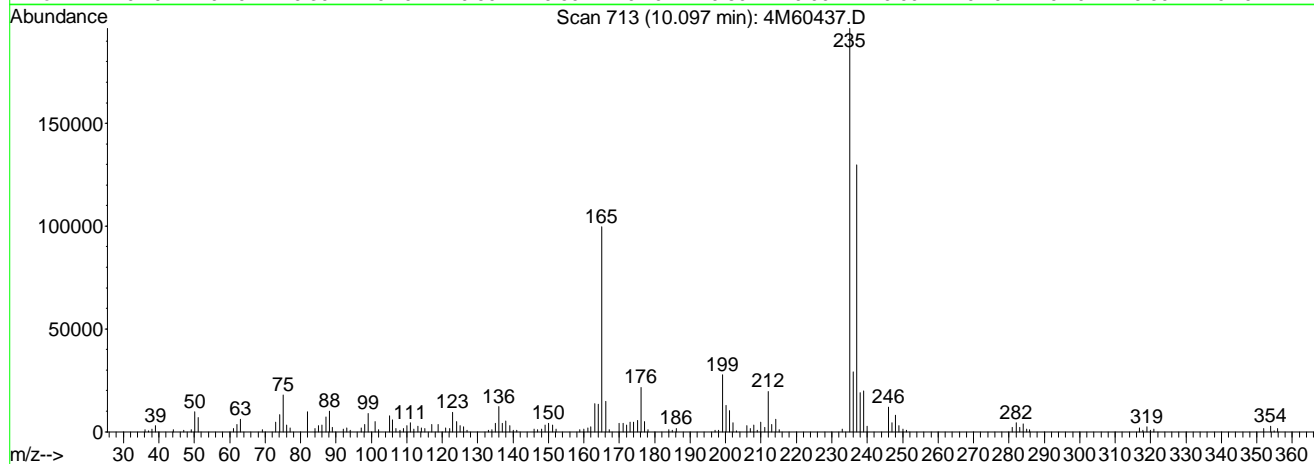
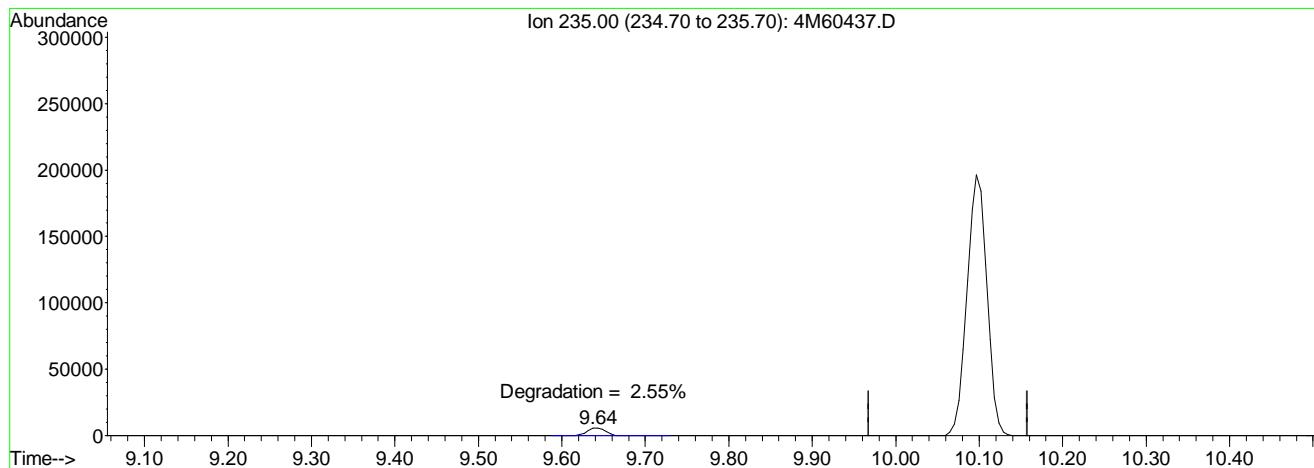
(2) Benzidine
 8.95min 0.00ug/ml
 response 651083

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

4M60437.D DFTPP.M Fri Apr 20 08:18:21 2012

Data File : I:\MSDCHEM\1\DATA\041912\4M60437.D Vial: 1
 Acq On : 19 Apr 2012 8:26 Operator: CAA
 Sample : WG395394-01 50PPM DFTPP STD Inst : HPMS4
 Misc : 1,1 STD50659 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 20 8:18 2012 Quant Results File: temp.res

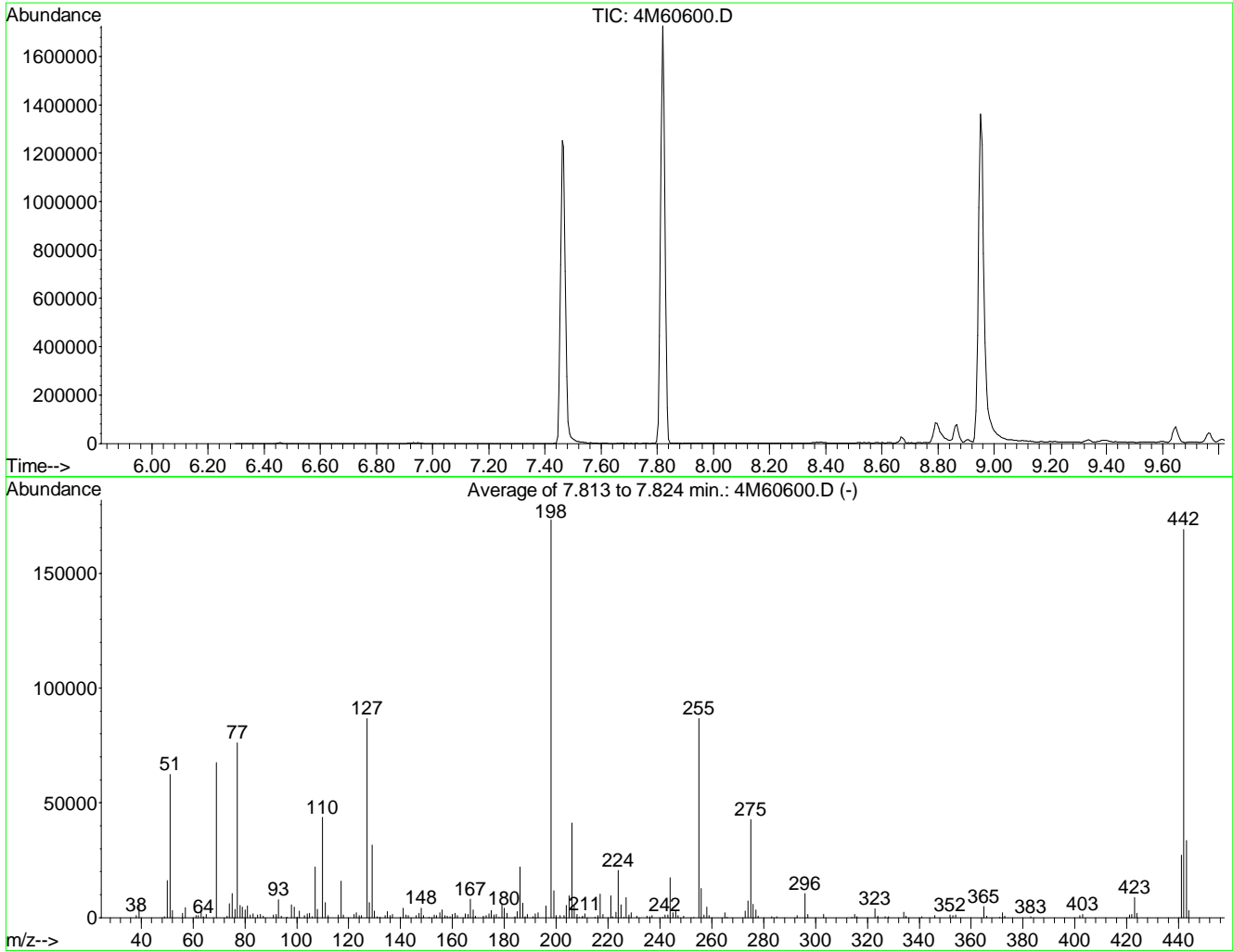
Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
 Title : DFTPP
 Last Update : Fri Apr 20 08:18:06 2012
 Response via : Single Level Calibration



TIC: 4M60437.D

(3) DDT		
10.10min	0.00ug/ml	
response	324289	
Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data File : I:\MSDCHEM\1\DATA\050112\4M60600.D Vial: 1
 Acq On : 1 May 2012 13:11 Operator: CAA
 Sample : WG396671-01 50PPM DFTPP STD Inst : HPMS4
 Misc : 1,1 STD50659 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
 Title : DFTPP



AutoFind: Scans 285, 286, 287; Background Corrected with Scan 279

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	36.0	62456	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	39.0	67664	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	50.1	86805	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	173418	PASS
199	198	5	9	6.7	11620	PASS
275	198	10	30	24.6	42746	PASS
365	198	1	100	2.8	4791	PASS
441	443	0.01	100	80.8	27090	PASS
442	198	40	100	97.5	169160	PASS
443	442	17	23	19.8	33546	PASS

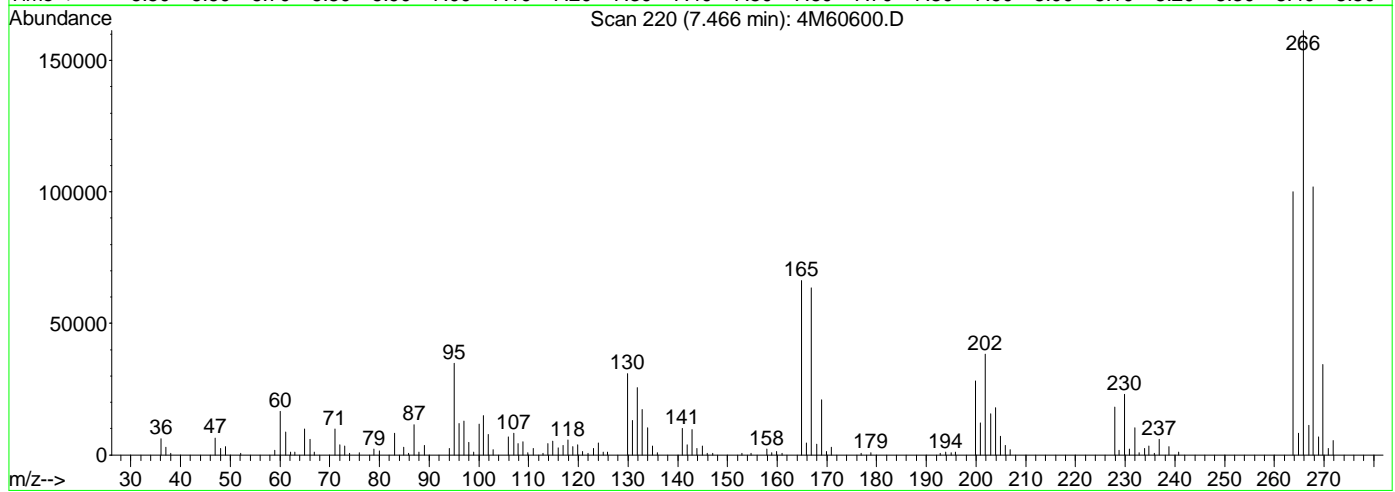
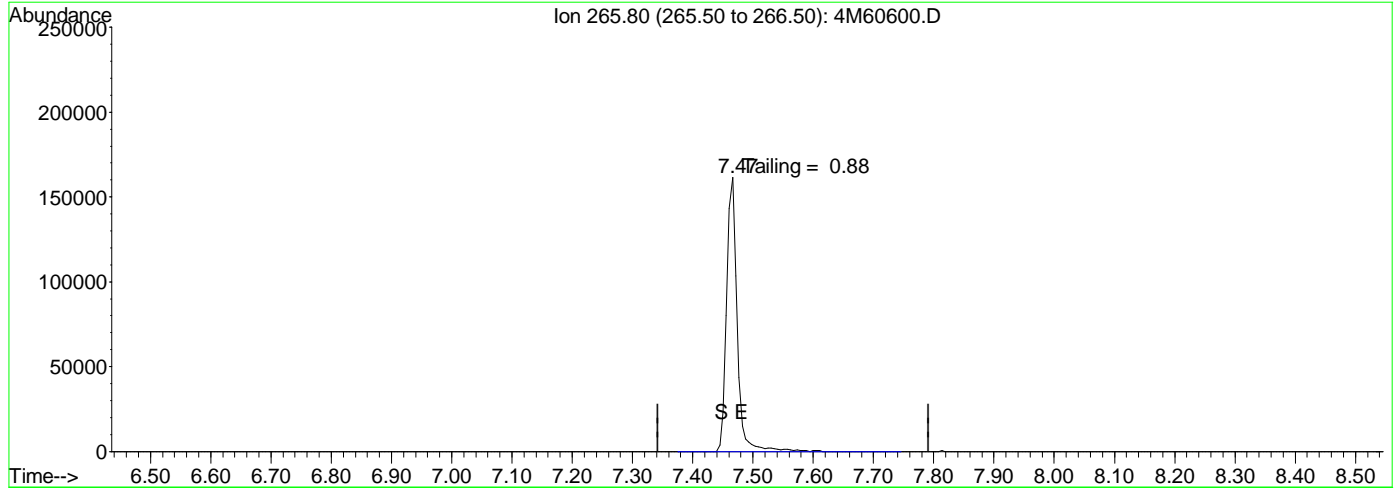
Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\050112\4M60600.D
 Acq On : 1 May 2012 13:11
 Sample : WG396671-01 50PPM DFTPP STD
 Misc : 1,1 STD50659
 MS Integration Params: RTEINT.P
 Quant Time: May 1 13:24 2012

Vial: 1
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
 Title : DFTPP
 Last Update : Fri Apr 20 08:18:06 2012
 Response via : Single Level Calibration



TIC: 4M60600.D

(1) Pentachlorophenol

7.47min 0.00ug/ml

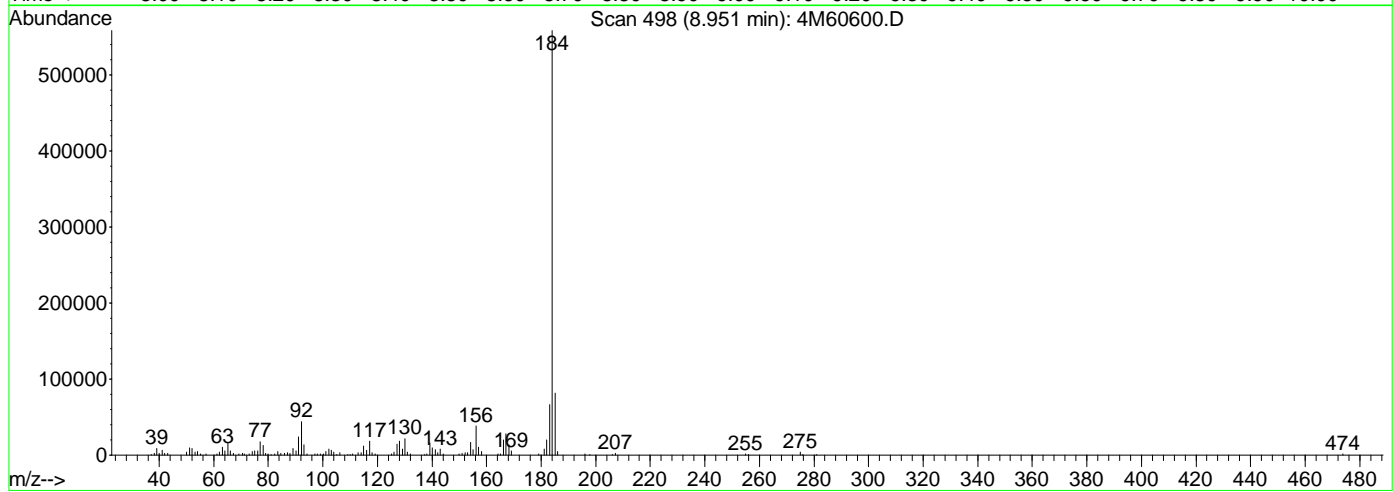
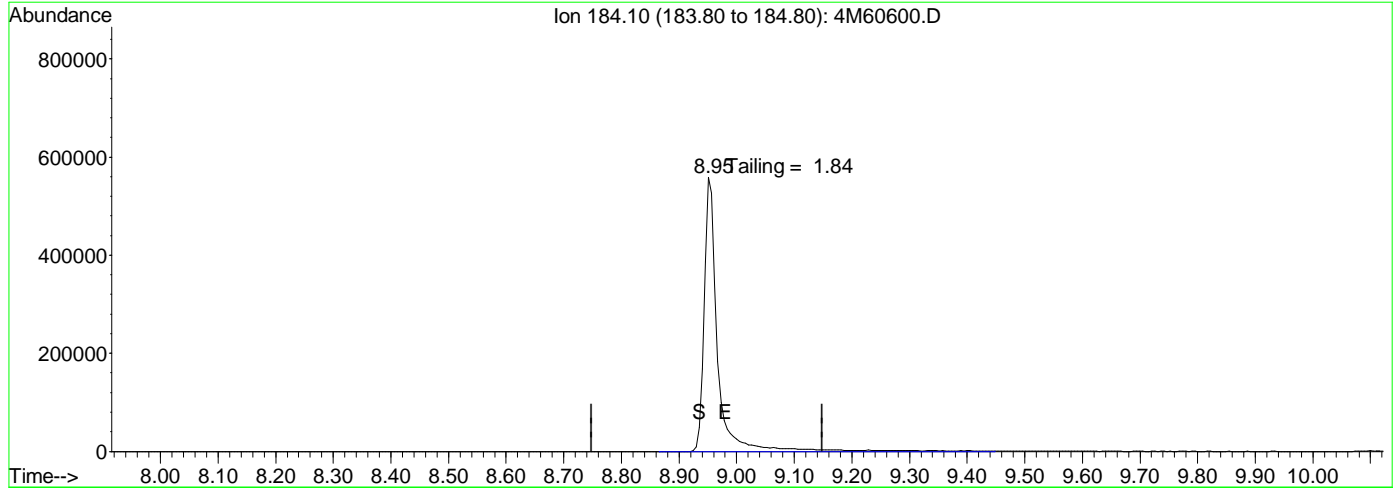
response 195050

Ion	Exp%	Act%
265.80	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\050112\4M60600.D Vial: 1
 Acq On : 1 May 2012 13:11 Operator: CAA
 Sample : WG396671-01 50PPM DFTPP STD Inst : HPMS4
 Misc : 1,1 STD50659 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 1 13:24 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
 Title : DFTPP
 Last Update : Fri Apr 20 08:18:06 2012
 Response via : Single Level Calibration



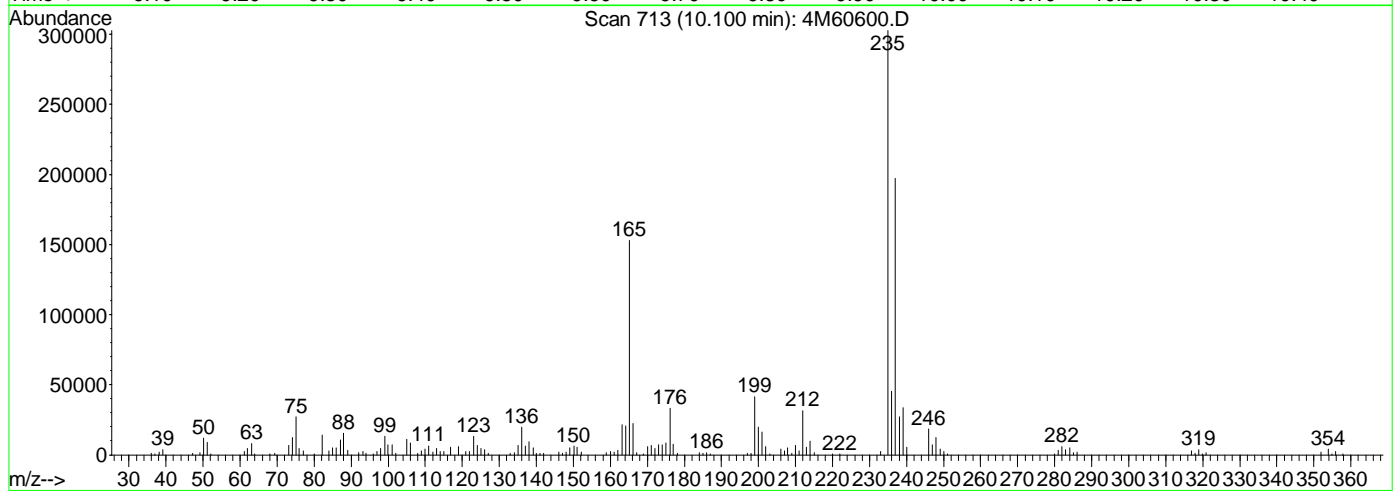
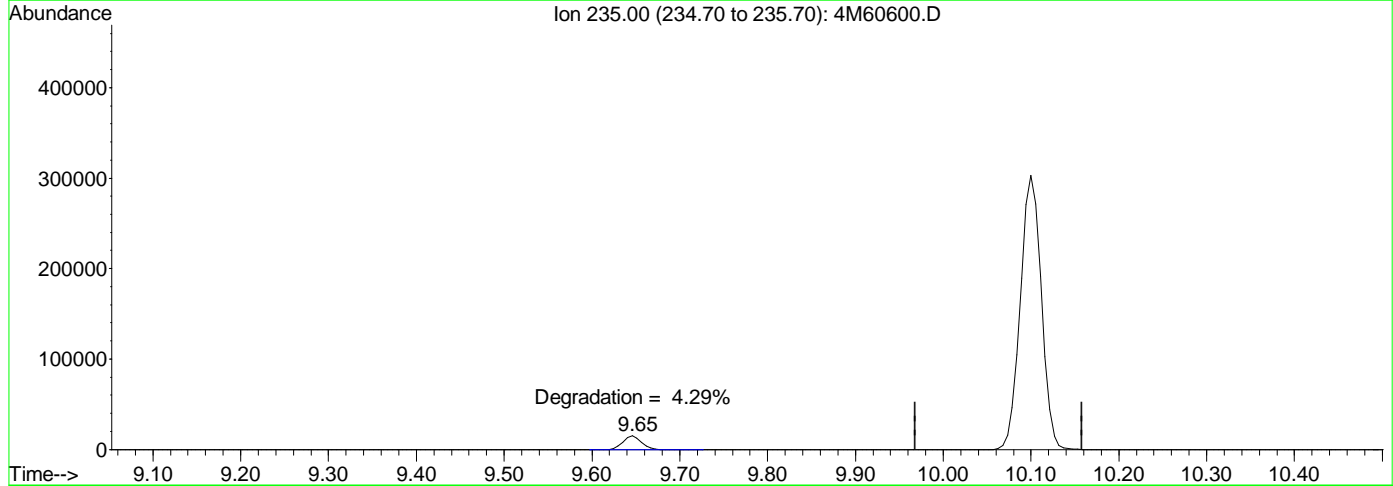
TIC: 4M60600.D

(2) Benzidine		
8.95min	0.00ug/ml	
response	874364	
Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\050112\4M60600.D Vial: 1
 Acq On : 1 May 2012 13:11 Operator: CAA
 Sample : WG396671-01 50PPM DFTPP STD Inst : HPMS4
 Misc : 1,1 STD50659 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 1 13:24 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
 Title : DFTPP
 Last Update : Fri Apr 20 08:18:06 2012
 Response via : Single Level Calibration



TIC: 4M60600.D

(3) DDT

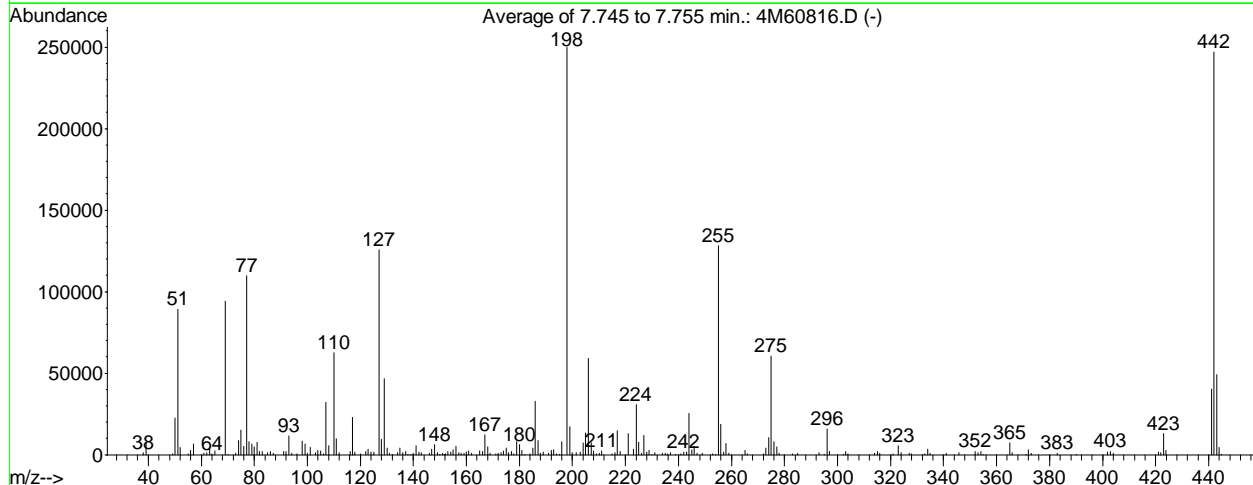
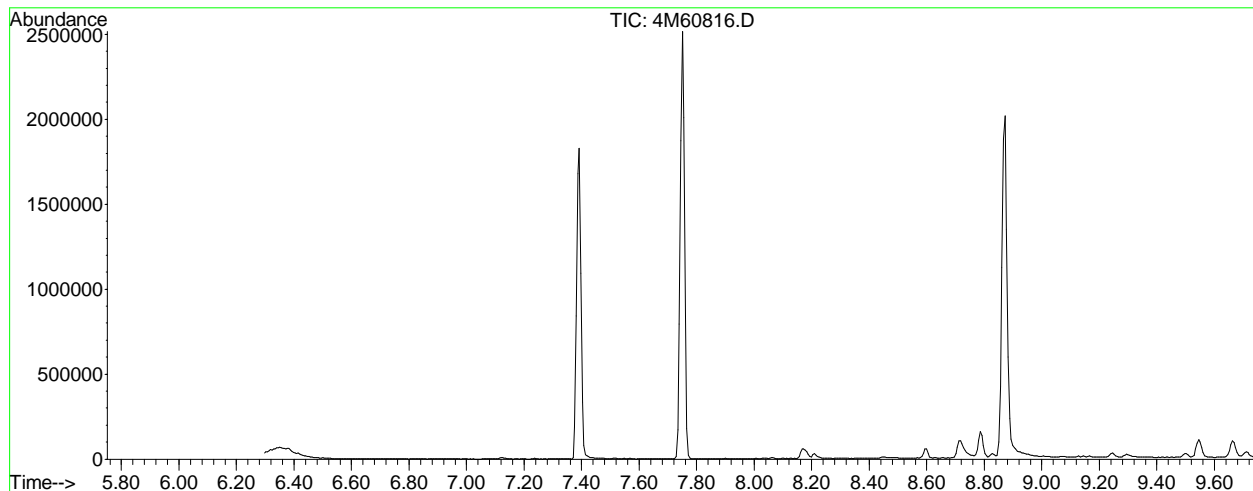
10.10min 0.00ug/ml

response 501767

Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

DFTPP

Data File : I:\MSDCHEM\1\DATA\051212\4M60816.D Vial: 1
 Acq On : 12 May 2012 11:02 Operator: CAA
 Sample : WG397824-01 50PPM DFTPP STD Inst : HPMS4
 Misc : 1,1 STD50659 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
 Title : DFTPP



AutoFind: Scans 272, 273, 274; Background Corrected with Scan 266

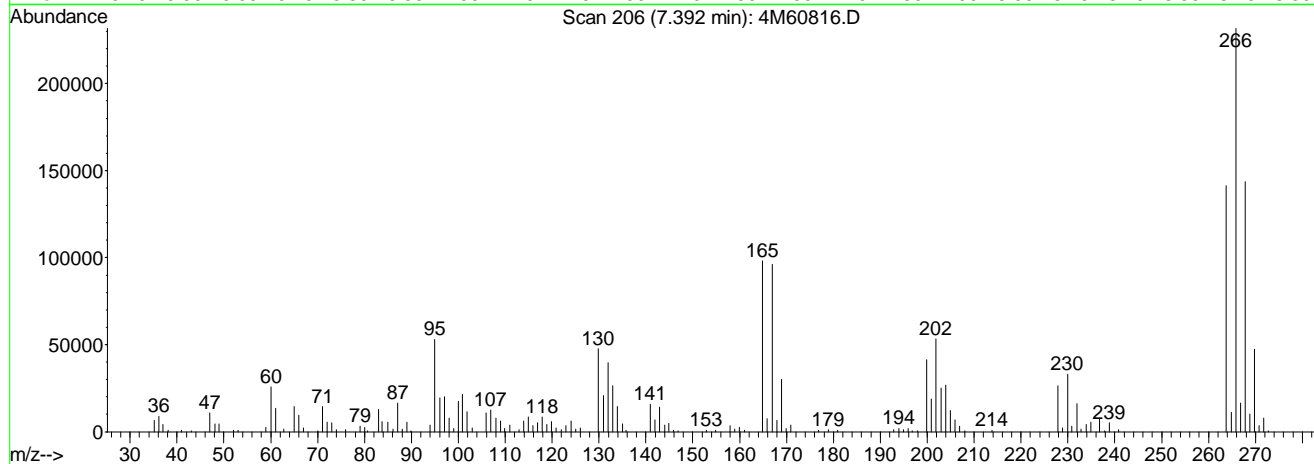
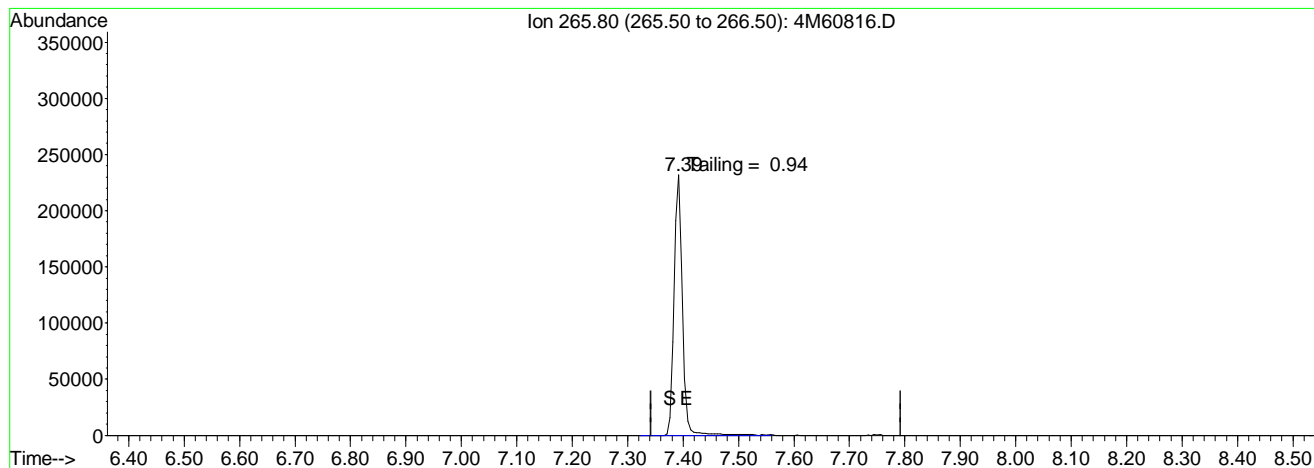
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	35.7	89354	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	37.7	94325	PASS
70	69	0.00	2	0.4	367	PASS
127	198	40	60	50.3	125853	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	249962	PASS
199	198	5	9	6.8	17080	PASS
275	198	10	30	24.1	60320	PASS
365	198	1	100	2.9	7186	PASS
441	443	0.01	100	81.4	40104	PASS
442	198	40	100	98.9	247146	PASS
443	442	17	23	19.9	49288	PASS

4M60816.D DFTPP.M Mon May 14 11:39:55 2012

Quantitation Report (Qedit)

Data File : I:\MSDCHEM\1\DATA\051212\4M60816.D Vial: 1
 Acq On : 12 May 2012 11:02 Operator: CAA
 Sample : WG397824-01 50PPM DFTPP STD Inst : HPMS4
 Misc : 1,1 STD50659 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 12 11:21 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
 Title : DFTPP
 Last Update : Fri Apr 20 08:18:06 2012
 Response via : Single Level Calibration



TIC: 4M60816.D

(1) Pentachlorophenol

7.39min 0.00ug/ml

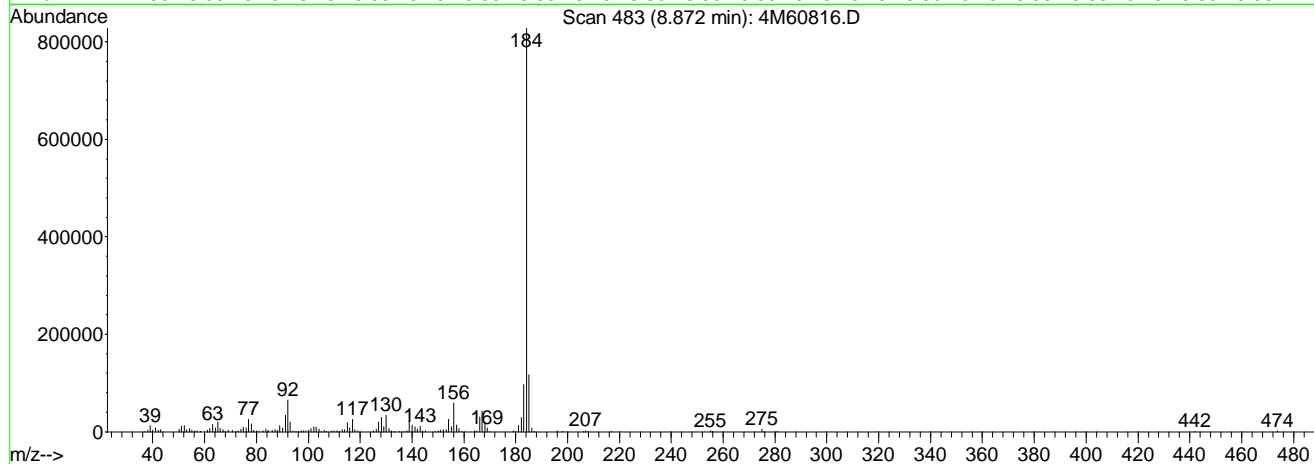
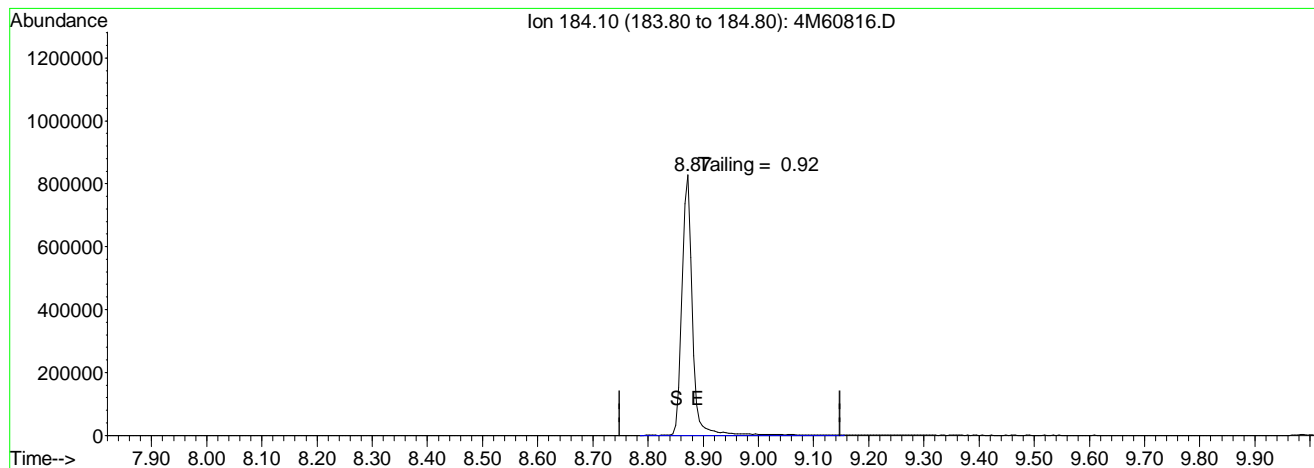
response 243616

Ion	Exp%	Act%
265.80	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

4M60816.D DFTPP.M Mon May 14 11:40:01 2012

Data File : I:\MSDCHEM\1\DATA\051212\4M60816.D Vial: 1
 Acq On : 12 May 2012 11:02 Operator: CAA
 Sample : WG397824-01 50PPM DFTPP STD Inst : HPMS4
 Misc : 1,1 STD50659 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 12 11:21 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
 Title : DFTPP
 Last Update : Fri Apr 20 08:18:06 2012
 Response via : Single Level Calibration



TIC: 4M60816.D

(2) Benzidine

8.87min 0.00ug/ml

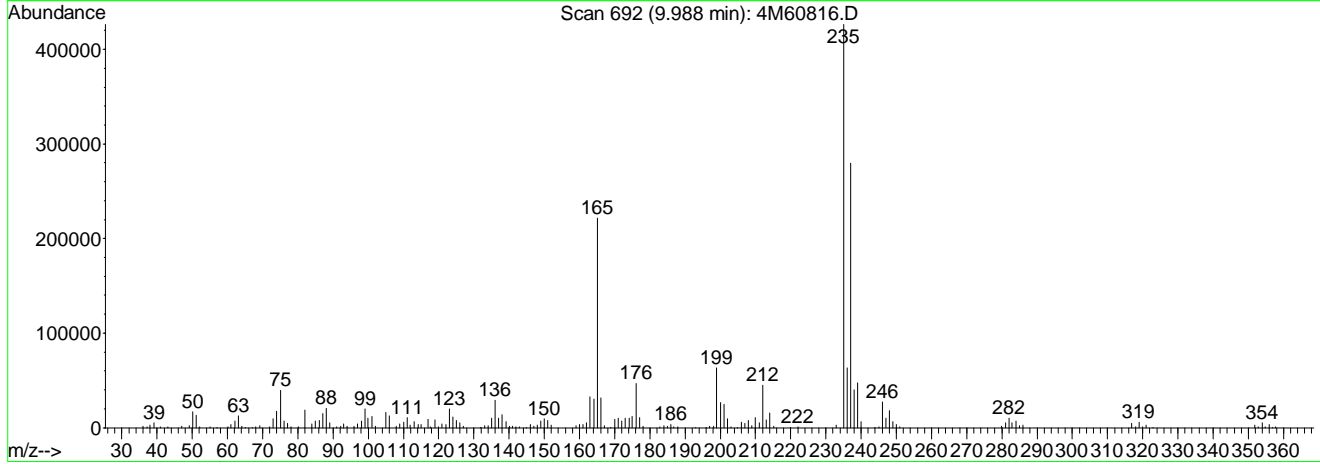
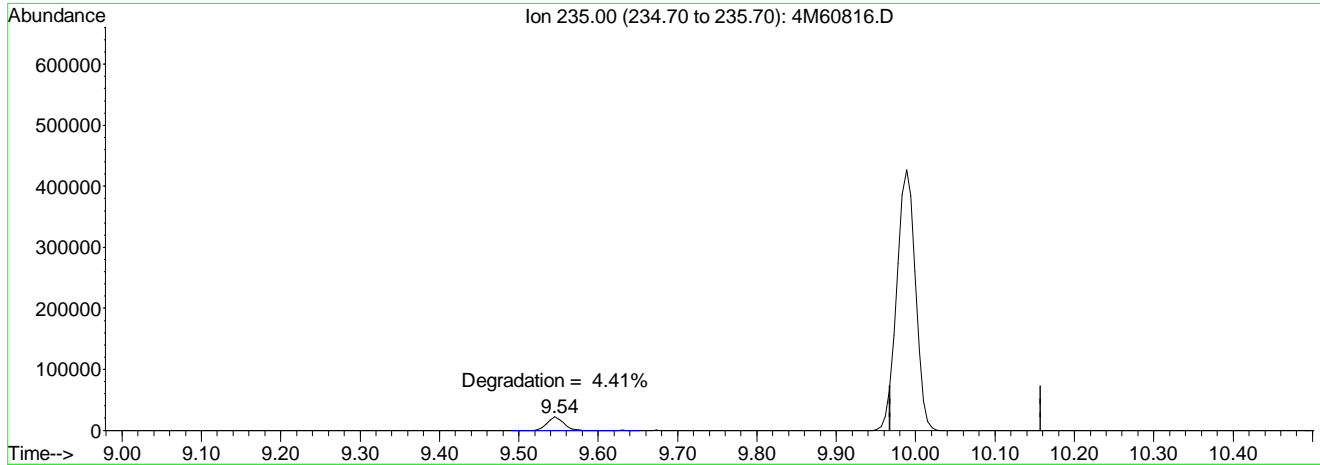
response 1070077

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

4M60816.D DFTPP.M Mon May 14 11:40:06 2012

Data File : I:\MSDCHEM\1\DATA\051212\4M60816.D Vial: 1
 Acq On : 12 May 2012 11:02 Operator: CAA
 Sample : WG397824-01 50PPM DFTPP STD Inst : HPMS4
 Misc : 1,1 STD50659 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 12 11:21 2012 Quant Results File: temp.res

Method : I:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
 Title : DFTPP
 Last Update : Fri Apr 20 08:18:06 2012
 Response via : Single Level Calibration



TIC: 4M60816.D

(3) DDT		
9.99min	0.00ug/ml	
response	530088	
Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data File : I:\MSDCHEM\1\DATA\051212\4M60821.D Vial: 6
 Acq On : 12 May 2012 13:42 Operator: CAA
 Sample : WG397140-02 BLK 05/07 Inst : HPMS4
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:40:47 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Mon May 14 11:40:35 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.23	152	270729	40.00	ug/ml	0.00
30) Naphthalene-d8	8.51	136	1008897	40.00	ug/ml	0.00
54) Acenaphthene-d10	10.32	164	559392	40.00	ug/ml	0.00
87) Phenanthrene-d10	11.92	188	1005180	40.00	ug/ml	0.00
113) Chrysene-d12	15.60	240	951577	40.00	ug/ml	-0.01
128) Perylene-d12	18.33	264	919790	40.00	ug/ml	-0.01

System Monitoring Compounds						
8) 2-Fluorophenol	6.00	112	700315	85.3173	ug/ml	0.00
Spiked Amount	100.000	Range	21 - 100	Recovery	=	85.32%
12) Phenol-d5	6.83	99	872250	90.7954	ug/ml	0.00
Spiked Amount	100.000	Range	10 - 94	Recovery	=	90.80%
31) Nitrobenzene-d5	7.79	82	413147	48.4170	ug/ml	0.00
Spiked Amount	50.000	Range	35 - 114	Recovery	=	96.84%
59) 2-Fluorobiphenyl	9.58	172	856811	45.8693	ug/ml	0.00
Spiked Amount	50.000	Range	43 - 116	Recovery	=	91.74%
86) 2,4,6-Tribromophenol	11.14	330	264800	106.1523	ug/ml	0.00
Spiked Amount	100.000	Range	10 - 123	Recovery	=	106.15%
117) p-Terphenyl-d14	13.95	244	1096770	62.5345	ug/ml	0.00
Spiked Amount	50.000	Range	33 - 141	Recovery	=	125.06%

Target Compounds Qvalue

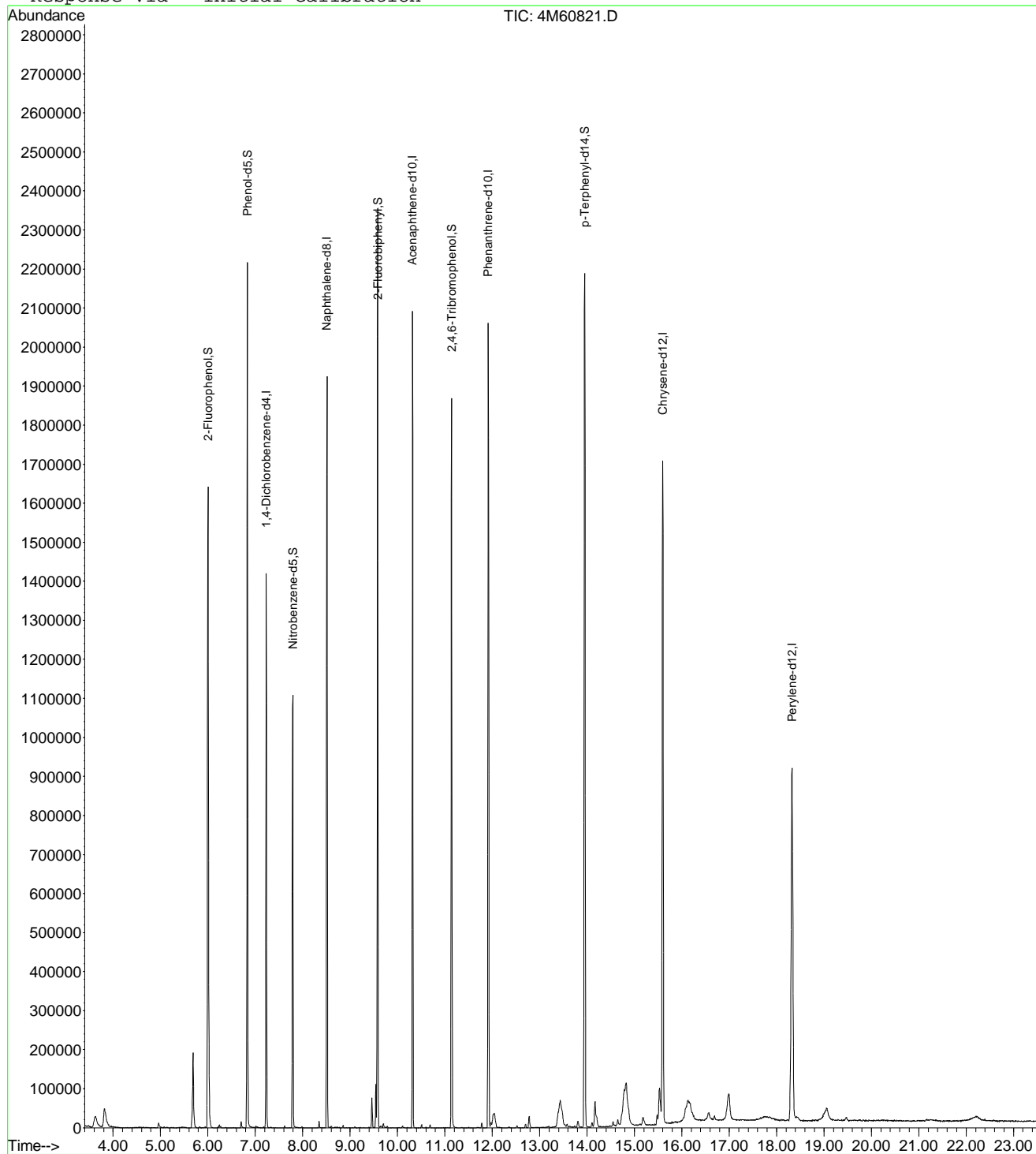
(#) = qualifier out of range (m) = manual integration
 4M60821.D MEGAMIX.M Mon May 14 11:46:26 2012

Data File : I:\MSDCHEM\1\DATA\051212\4M60821.D
 Acq On : 12 May 2012 13:42
 Sample : WG397140-02 BLK 05/07
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:40 2012

Vial: 6
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Mon May 14 11:40:35 2012
 Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\051212\4M60821.D Vial: 6
 Acq On : 12 May 2012 13:42 Operator: CAA
 Sample : WG397140-02 BLK 05/07 Inst : HPMS4
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:53:47 2012 Quant Results File: TCL.RES

Quant Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Mon May 14 11:53:23 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIion	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.23	152	270729	40.00	ug/mL	0.00
3) Naphthalene-d8	8.51	136	1008897	40.00	ug/mL	0.00
5) Acenaphthene-d10	10.32	164	559392	40.00	ug/mL	0.00
7) Phenanthrene-d10	11.92	188	1005180	40.00	ug/mL	0.00

Target Compounds Qvalue

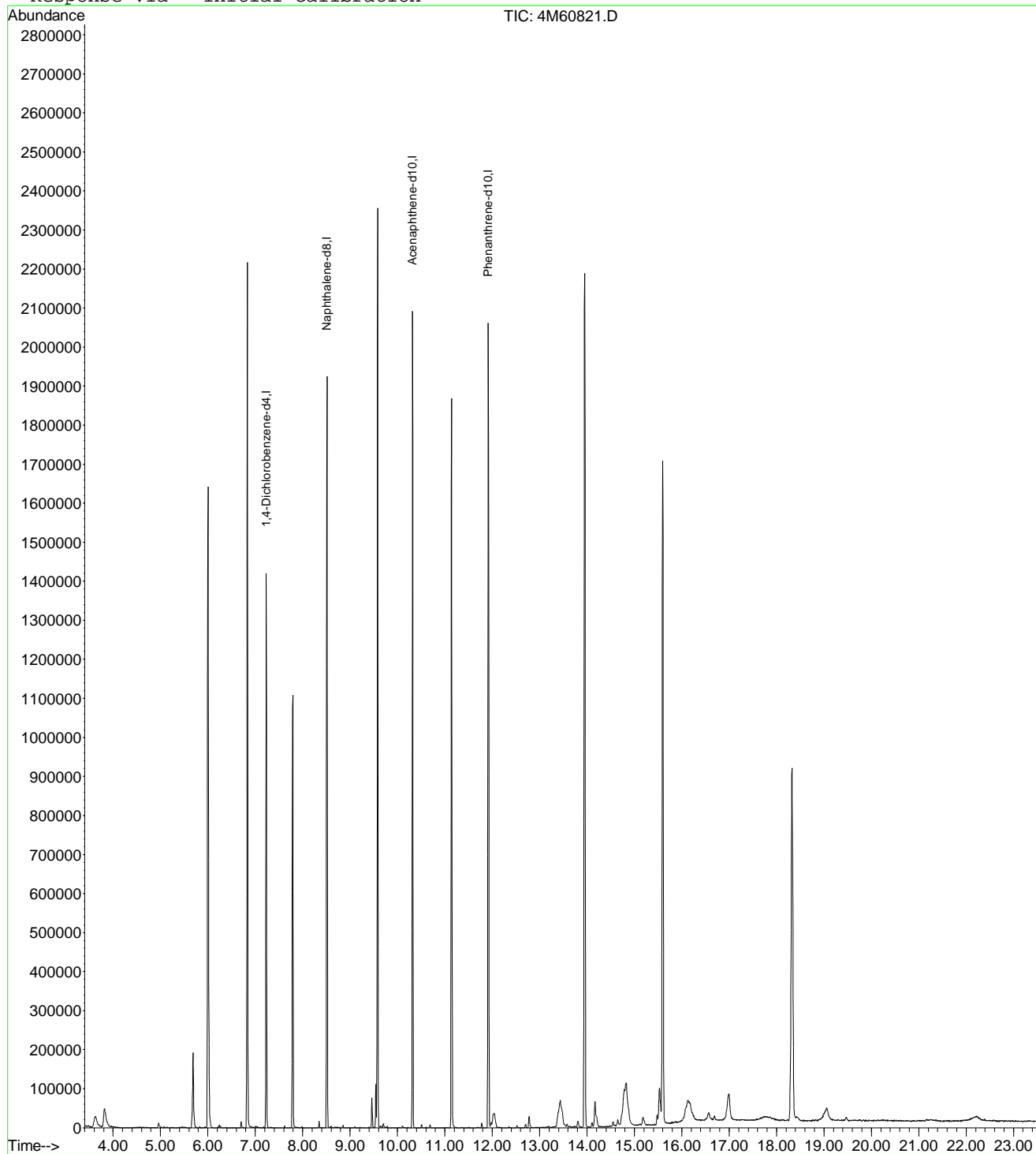
 (#) = qualifier out of range (m) = manual integration
 4M60821.D TCL.M Mon May 14 11:53:47 2012

Data File : I:\MSDCHEM\1\DATA\051212\4M60821.D
 Acq On : 12 May 2012 13:42
 Sample : WG397140-02 BLK 05/07
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:53 2012

Vial: 6
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Results File: TCL.RES

Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Mon May 14 11:53:23 2012
 Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\051212\4M60821.D Vial: 6
 Acq On : 12 May 2012 13:42 Operator: CAA
 Sample : WG397140-02 BLK 05/07 Inst : HPMS4
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: LSCINT.P

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Smoothing : ON Filtering: 5
 Sampling : 1 Min Area: 1 % of largest Peak
 Start Thrs: 0.05 Max Peaks: 100
 Stop Thrs : 0 Peak Location: TOP

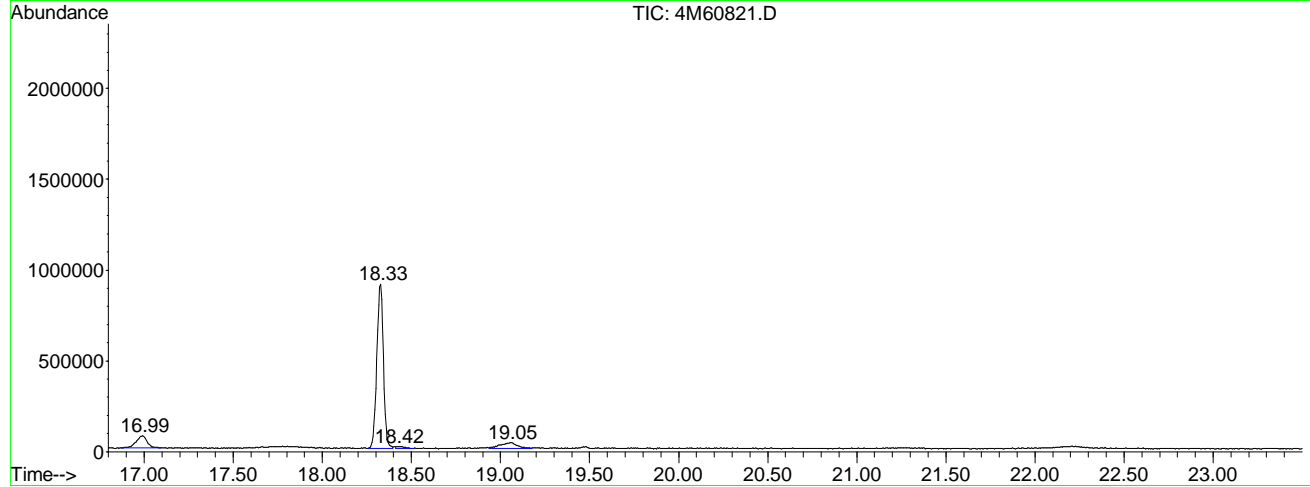
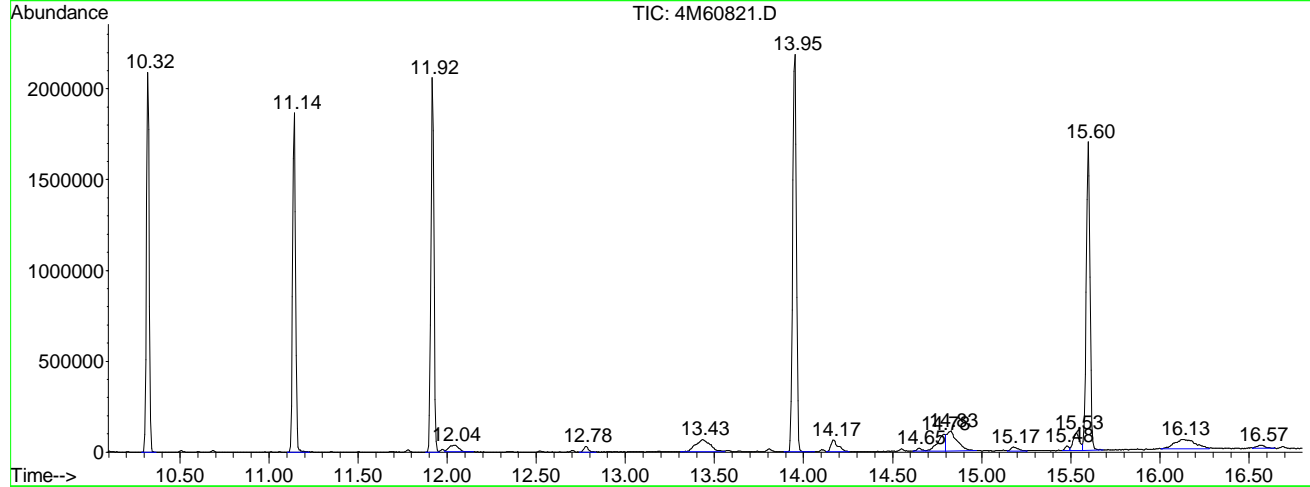
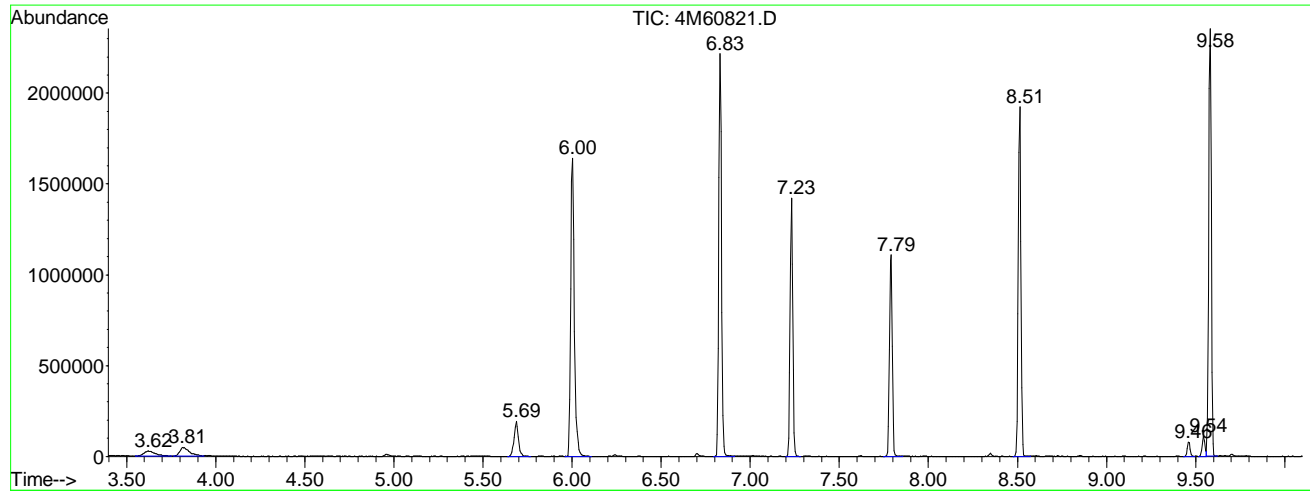
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.620	30	43	67	rBV4	28394	135908	4.31%	0.449%
2	3.812	70	79	101	rVV3	46339	176958	5.61%	0.585%
3	5.687	421	430	444	rBB2	191783	320520	10.17%	1.060%
4	6.002	481	489	508	rBB	1642481	2314010	73.40%	7.651%
5	6.830	637	644	659	rBV	2217083	2372285	75.25%	7.844%
6	7.231	713	719	728	rBB	1420476	1530003	48.53%	5.059%
7	7.792	816	824	836	rBV	1108486	1215823	38.57%	4.020%
8	8.513	952	959	970	rBV	1925398	2001396	63.48%	6.617%
9	9.459	1131	1136	1142	rBB	77052	84924	2.69%	0.281%
10	9.544	1147	1152	1155	rBV	111113	121028	3.84%	0.400%
11	9.582	1155	1159	1166	rVB	2355696	2404394	76.27%	7.950%
12	10.319	1291	1297	1305	rBB	2092005	2198715	69.74%	7.270%
13	11.142	1444	1451	1466	rBB	1868865	2139855	67.88%	7.075%
14	11.916	1589	1596	1603	rBV	2061713	2409635	76.43%	7.967%
15	12.039	1609	1619	1638	rVB3	36549	141945	4.50%	0.469%
16	12.776	1751	1757	1767	rBB3	28925	52032	1.65%	0.172%
17	13.433	1857	1880	1903	rBV	68365	376699	11.95%	1.246%
18	13.952	1966	1977	1997	rBV2	2188012	3152634	100.00%	10.424%
19	14.171	2010	2018	2033	rVB3	64953	173392	5.50%	0.573%
20	14.646	2101	2107	2113	rBV4	16993	32523	1.03%	0.108%
21	14.785	2114	2133	2135	rVV2	92687	278747	8.84%	0.922%
22	14.828	2135	2141	2167	rVB2	107876	439646	13.95%	1.454%
23	15.175	2200	2206	2220	rVB2	19752	56665	1.80%	0.187%
24	15.479	2258	2263	2266	rBV3	26366	42488	1.35%	0.140%
25	15.533	2266	2273	2279	rVV3	94226	241488	7.66%	0.798%
26	15.597	2279	2285	2300	rVB	1698765	2478124	78.60%	8.194%
27	16.131	2362	2385	2412	rBV3	52128	421618	13.37%	1.394%
28	16.569	2458	2467	2480	rVB6	17664	55281	1.75%	0.183%
29	16.991	2524	2546	2564	rBV5	67234	292519	9.28%	0.967%
30	18.327	2783	2796	2809	rBV	904718	2342842	74.31%	7.746%
31	18.418	2812	2813	2830	rVB10	10721	34606	1.10%	0.114%
32	19.053	2910	2932	2954	rVB9	32458	205724	6.53%	0.680%

Sum of corrected areas: 30244427

File : I:\MSDCHEM\1\DATA\051212\4M60821.D
 Operator : CAA
 Acquired : 12 May 2012 13:42 using AcqMethod BNATEST
 Instrument : HPMS4
 Sample Name: WG397140-02 BLK 05/07
 Misc Info : 1,1
 Vial Number: 6
 Quant File : MEGAMIX.RES (RTE Integrator)



Data File : I:\MSDCHEM\1\DATA\051212\4M60821.D
 Acq On : 12 May 2012 13:42
 Sample : WG397140-02 BLK 05/07
 Misc : 1,1
 MS Integration Params: LSCINT.P

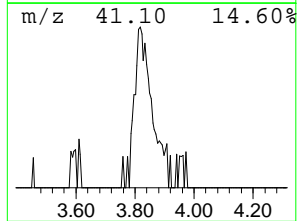
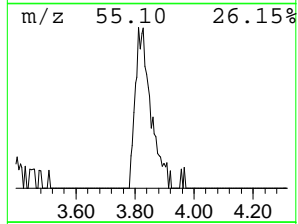
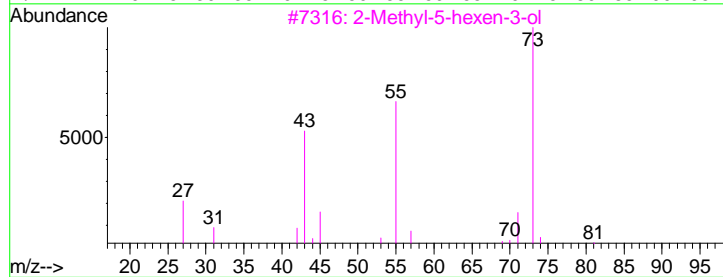
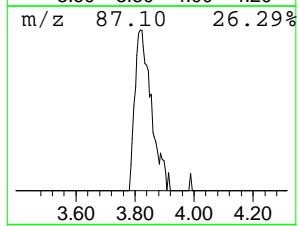
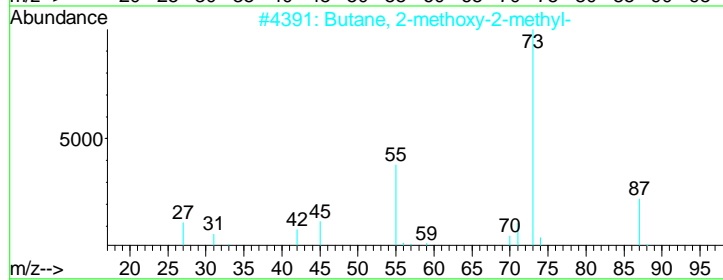
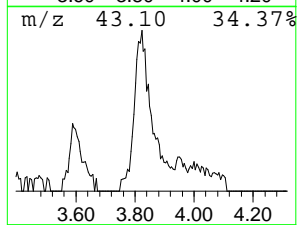
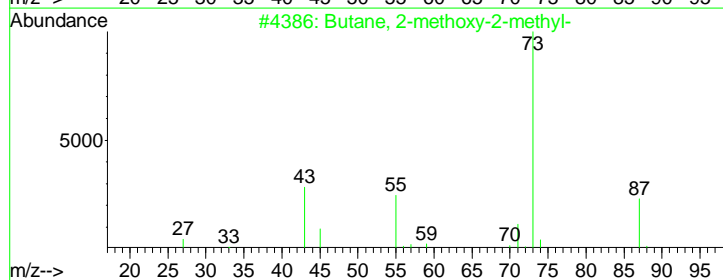
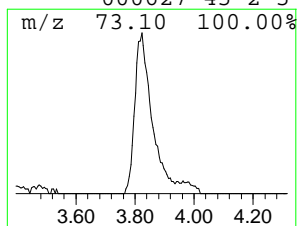
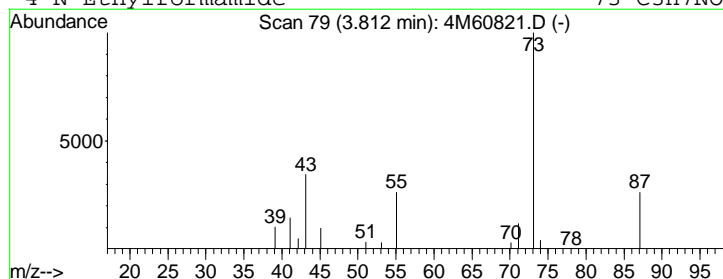
Vial: 6
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 1 Butane, 2-methoxy-2-methyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.81	4.63 ug/ml	176958	1,4-Dichlorobenzene-d4	7.23

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Butane, 2-methoxy-2-methyl-	102	C6H14O	000994-05-8	64
2			Butane, 2-methoxy-2-methyl-	102	C6H14O	000994-05-8	9
3			2-Methyl-5-hexen-3-ol	114	C7H14O	032815-70-6	9
4			N-Ethylformamide	73	C3H7NO	000627-45-2	5



Data File : I:\MSDCHEM\1\DATA\051212\4M60821.D
 Acq On : 12 May 2012 13:42
 Sample : WG397140-02 BLK 05/07
 Misc : 1,1
 MS Integration Params: LSCINT.P

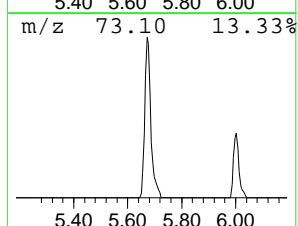
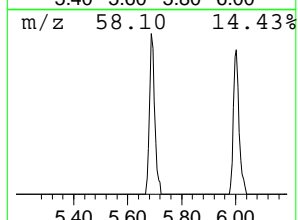
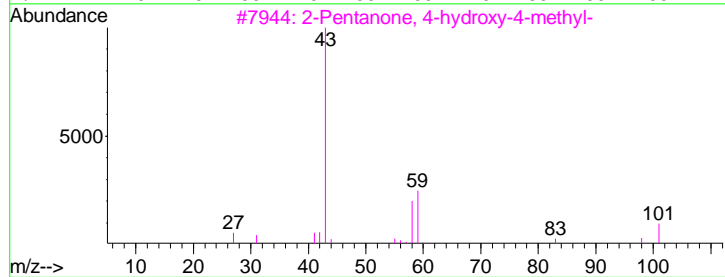
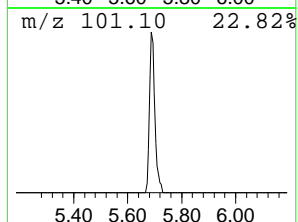
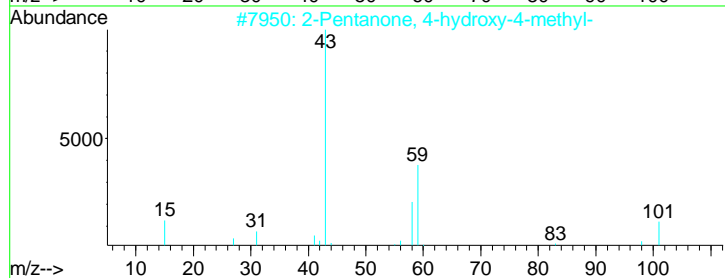
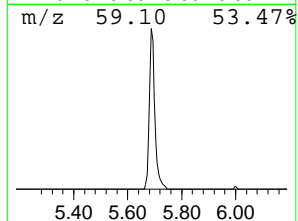
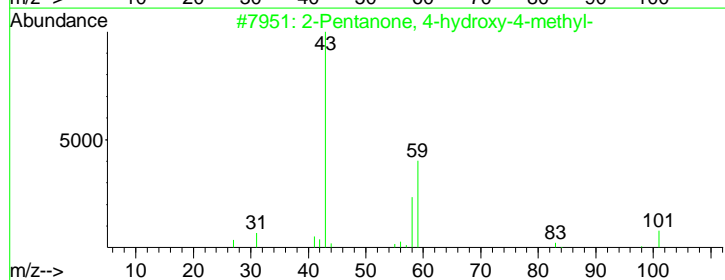
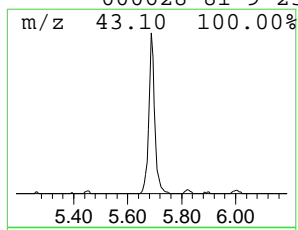
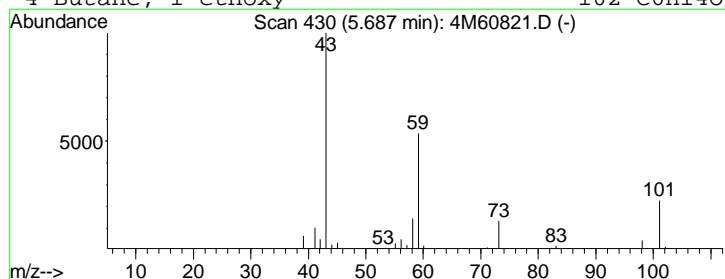
Vial: 6
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 2 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.69	8.38 ug/ml	320520	1,4-Dichlorobenzene-d4	7.23

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	50
2			2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	42
3			2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	36
4			Butane, 1-ethoxy-	102	C6H14O	000628-81-9	23



Data File : I:\MSDCHEM\1\DATA\051212\4M60821.D
 Acq On : 12 May 2012 13:42
 Sample : WG397140-02 BLK 05/07
 Misc : 1,1
 MS Integration Params: LSCINT.P

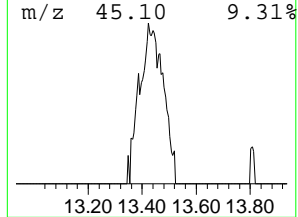
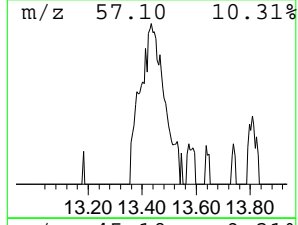
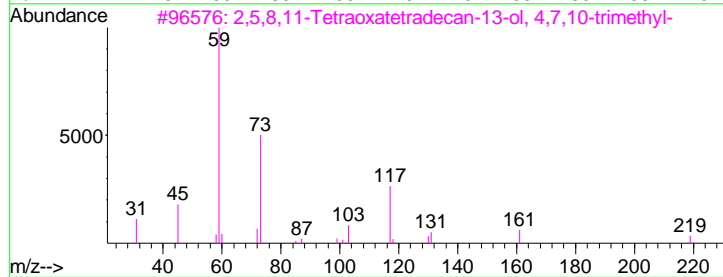
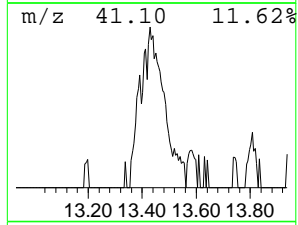
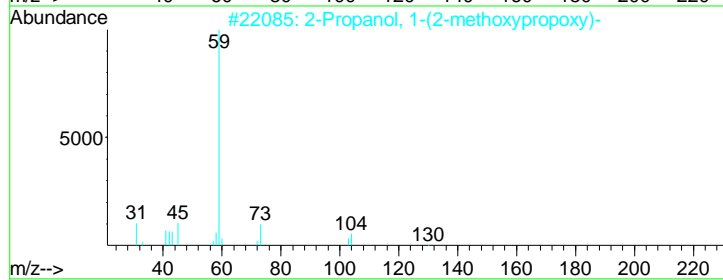
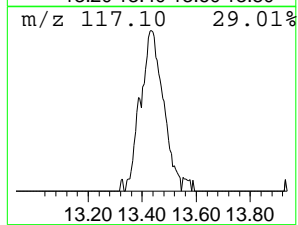
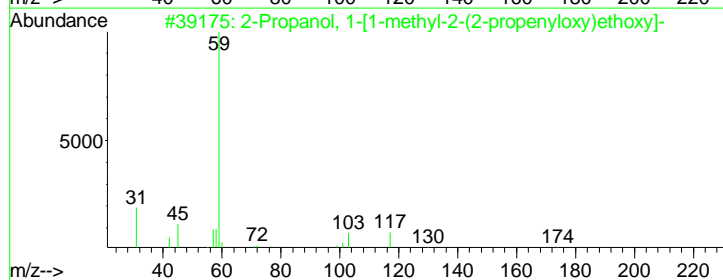
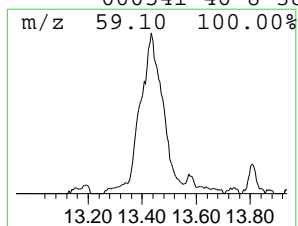
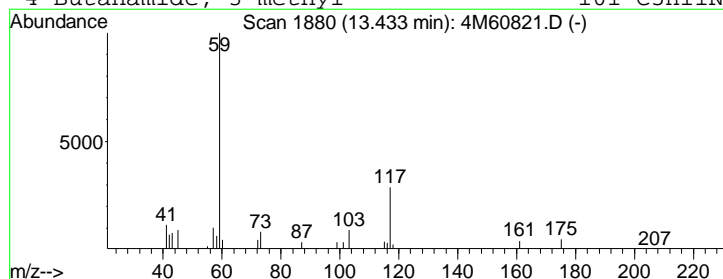
Vial: 6
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 3 2-Propanol, 1-[1-methyl-2-(... Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.43	6.25 ug/ml	376699	Phenanthrene-d10	11.92

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2-Propanol, 1-[1-methyl-2-(2-pro...	174	C9H18O3	055956-25-7	53
2		2-Propanol, 1-(2-methoxypropoxy)-	148	C7H16O3	013429-07-7	47
3		2,5,8,11-Tetraoxatetradecan-13-o...	264	C13H28O5	020324-34-9	39
4		Butanamide, 3-methyl-	101	C5H11NO	000541-46-8	38



Data File : I:\MSDCHEM\1\DATA\051212\4M60821.D
 Acq On : 12 May 2012 13:42
 Sample : WG397140-02 BLK 05/07
 Misc : 1,1
 MS Integration Params: LSCINT.P

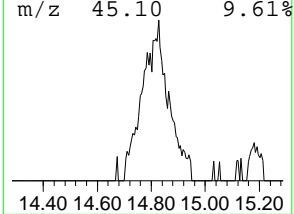
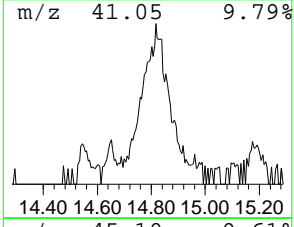
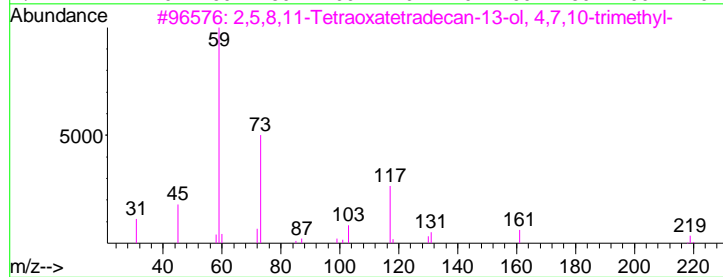
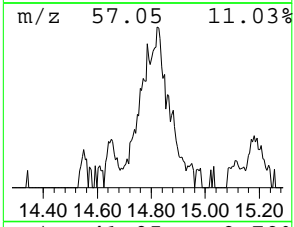
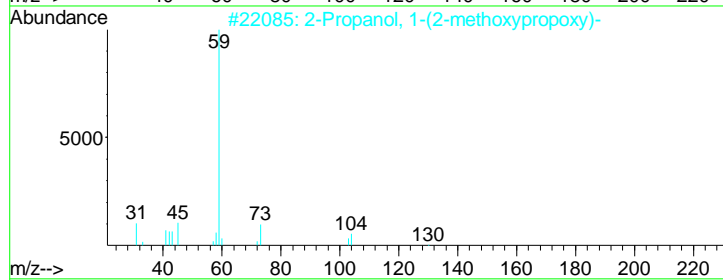
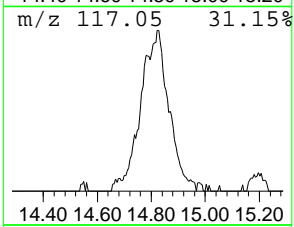
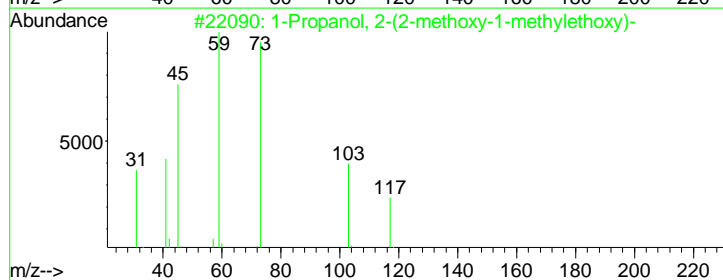
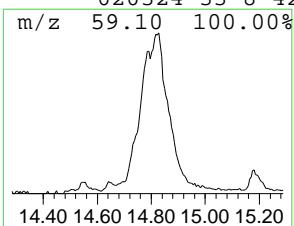
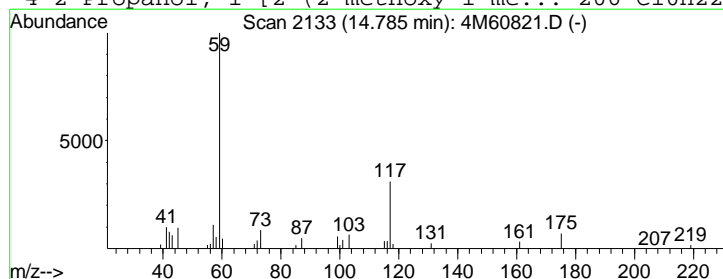
Vial: 6
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 4 1-Propanol, 2-(2-methoxy-1-... Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.78	4.50 ug/ml	278747	Chrysene-d12	15.60

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1-Propanol, 2-(2-methoxy-1-methy...	148	C7H16O3	055956-21-3	59
2		2-Propanol, 1-(2-methoxypropoxy)-	148	C7H16O3	013429-07-7	50
3		2,5,8,11-Tetraoxatetradecan-13-o...	264	C13H28O5	020324-34-9	45
4		2-Propanol, 1-[2-(2-methoxy-1-me...	206	C10H22O4	020324-33-8	42



Data File : I:\MSDCHEM\1\DATA\051212\4M60821.D
 Acq On : 12 May 2012 13:42
 Sample : WG397140-02 BLK 05/07
 Misc : 1,1
 MS Integration Params: LSCINT.P

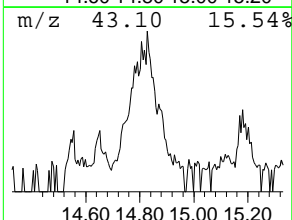
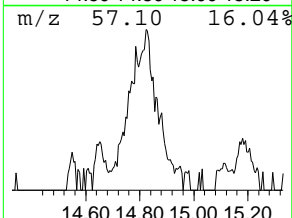
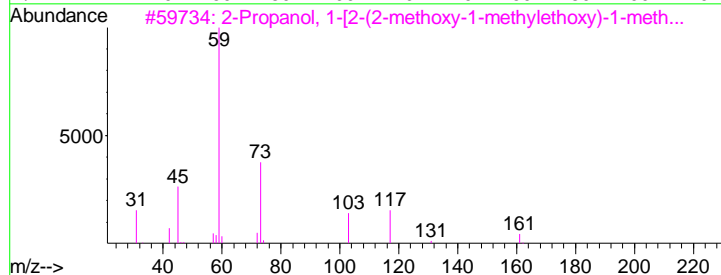
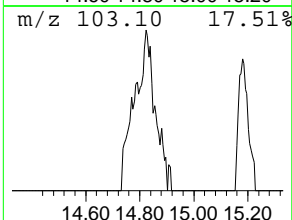
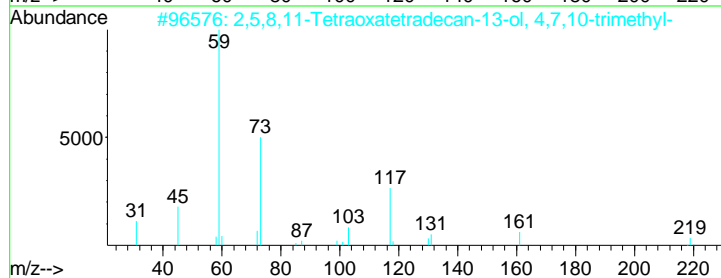
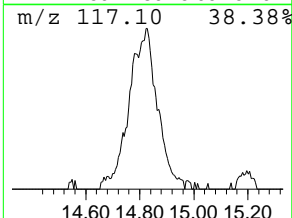
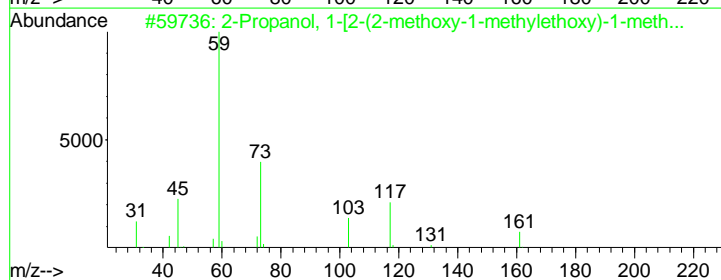
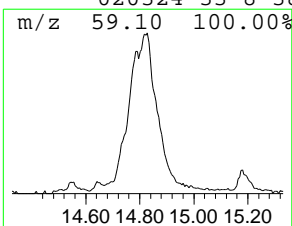
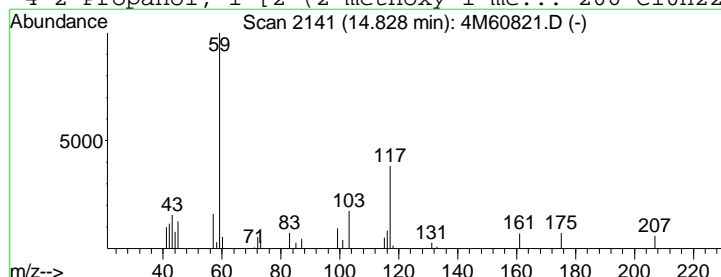
Vial: 6
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 5 2-Propanol, 1-[2-(2-methoxy... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.83	7.10 ug/ml	439646	Chrysene-d12	15.60

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2-Propanol, 1-[2-(2-methoxy-1-me...	206	C10H22O4	020324-33-8	40
2		2,5,8,11-Tetraoxatetradecan-13-o...	264	C13H28O5	020324-34-9	40
3		2-Propanol, 1-[2-(2-methoxy-1-me...	206	C10H22O4	020324-33-8	38
4		2-Propanol, 1-[2-(2-methoxy-1-me...	206	C10H22O4	020324-33-8	38



Data File : I:\MSDCHEM\1\DATA\051212\4M60821.D
 Acq On : 12 May 2012 13:42
 Sample : WG397140-02 BLK 05/07
 Misc : 1,1
 MS Integration Params: LSCINT.P

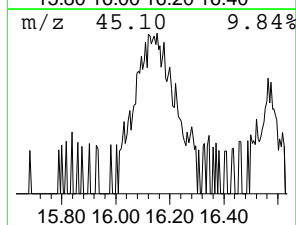
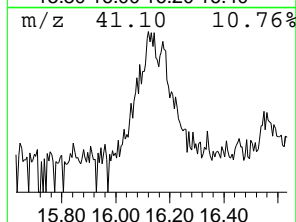
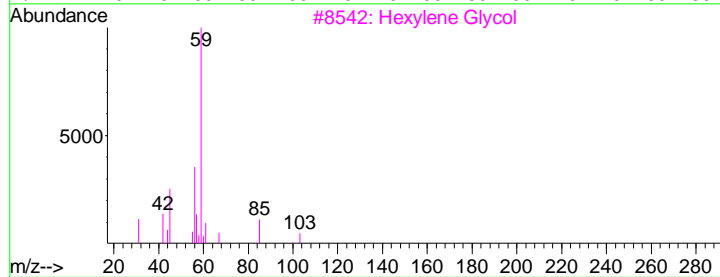
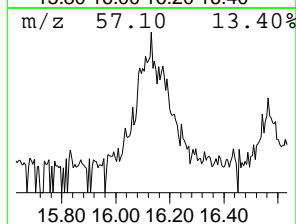
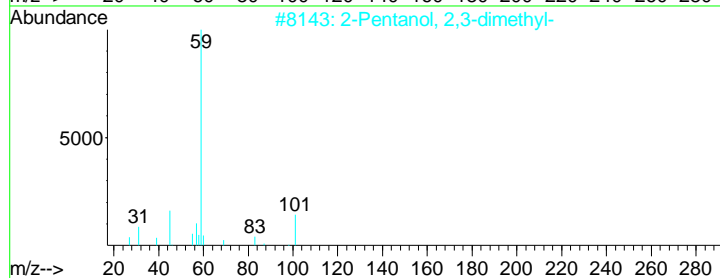
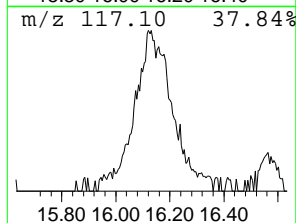
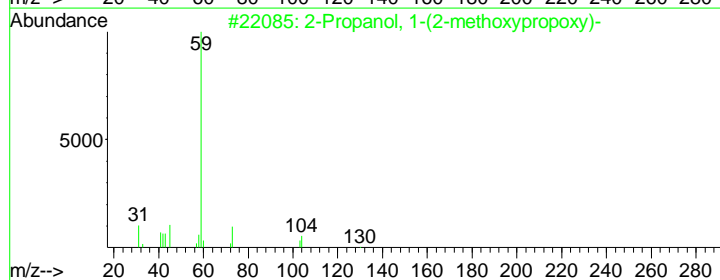
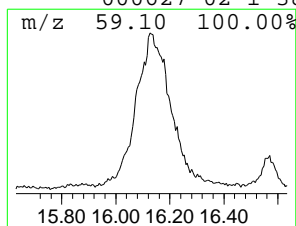
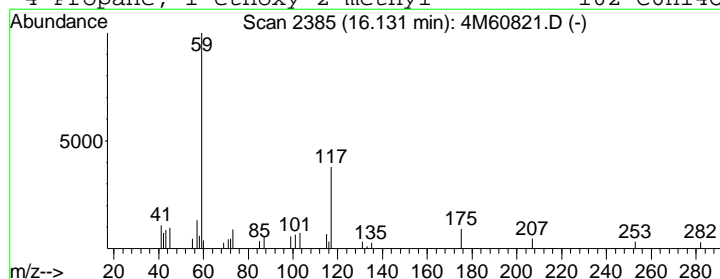
Vial: 6
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 6 2-Propanol, 1-(2-methoxypro... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.13	6.81 ug/ml	421618	Chrysene-d12	15.60

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2-Propanol, 1-(2-methoxyprooxy)-	148	C7H16O3	013429-07-7	47
2		2-Pentanol, 2,3-dimethyl-	116	C7H16O	004911-70-0	43
3		Hexylene Glycol	118	C6H14O2	000107-41-5	43
4		Propane, 1-ethoxy-2-methyl-	102	C6H14O	000627-02-1	38



Data File : I:\MSDCHEM\1\DATA\051212\4M60821.D
 Acq On : 12 May 2012 13:42
 Sample : WG397140-02 BLK 05/07
 Misc : 1,1
 MS Integration Params: LSCINT.P

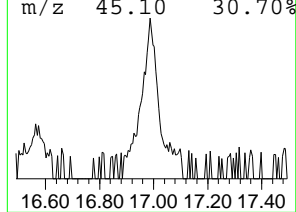
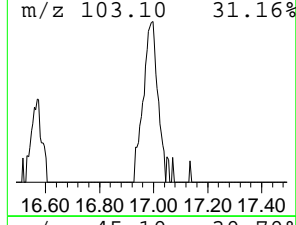
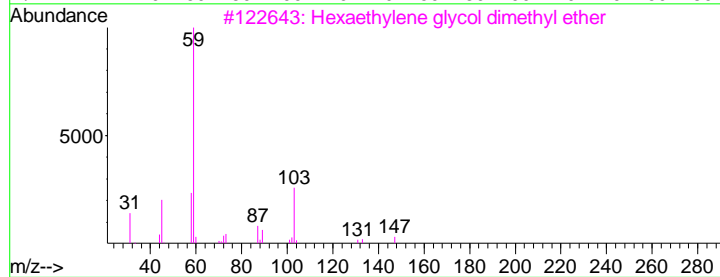
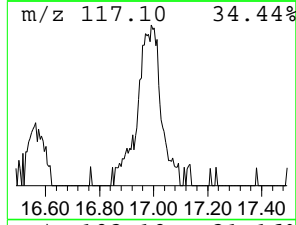
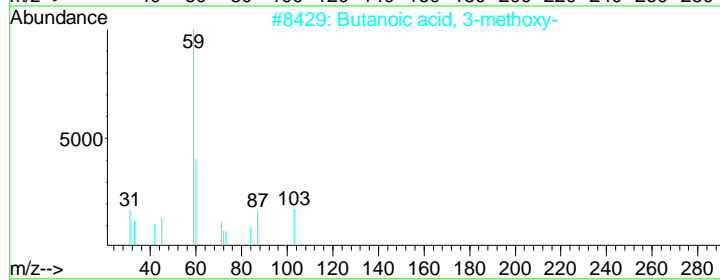
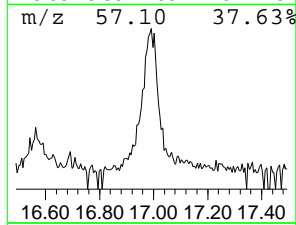
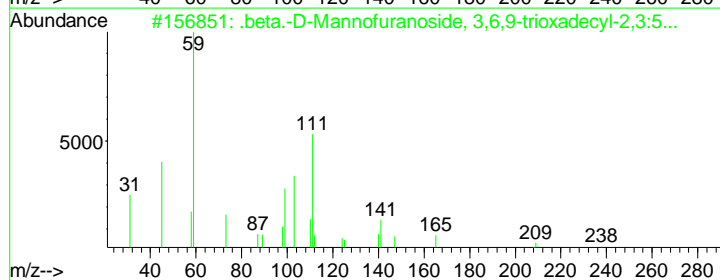
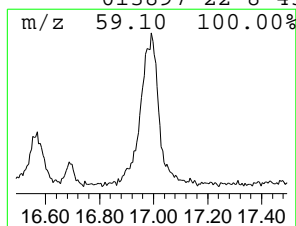
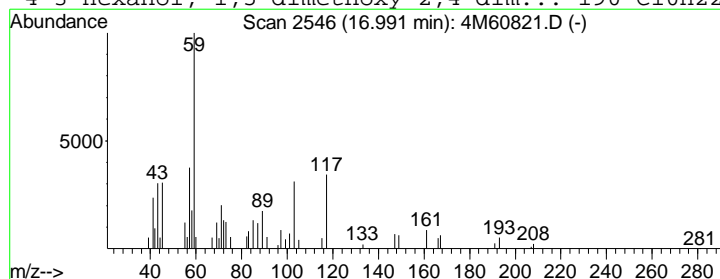
Vial: 6
 Operator: CAA
 Inst : HPMS4
 Multiplr: 1.00

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Library : I:\DATABASE\NIST02.L

 Peak Number 7 .beta.-D-Mannofuranoside, 3... Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.99	4.99 ug/ml	292519	Perylene-d12	18.33

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		.beta.-D-Mannofuranoside, 3,6,9-...	402	C17H32B2O9	1000155-77-2	53
2		Butanoic acid, 3-methoxy-	118	C5H10O3	010024-70-1	53
3		Hexaethylene glycol dimethyl ether	310	C14H30O7	001072-40-8	47
4		3-Hexanol, 1,5-dimethoxy-2,4-dim...	190	C10H22O3	013897-22-8	43



Tentatively Identified Compound (LSC) summary

Operator ID: CAA Date Acquired: 12 May 2012 13:42
Data File: I:\MSDCHEM\1\DATA\051212\4M60821.D
Name: WG397140-02 BLK 05/07
Misc: 1,1
Method: I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title: OVD MSS01 8270/625 Initial Calibration 04/19/12
Library Searched: I:\DATABASE\NIST02.L

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
Butane, 2-methoxy...	3.81	4.6	ug/ml	176958	1	7.23	1530000	40.0
2-Pentanone, 4-hy...	5.69	8.4	ug/ml	320520	1	7.23	1530000	40.0
2-Propanol, 1-[1-...	13.43	6.3	ug/ml	376699	4	11.92	2409640	40.0
1-Propanol, 2-(2-...	14.78	4.5	ug/ml	278747	5	15.60	2478120	40.0
2-Propanol, 1-[2-...	14.83	7.1	ug/ml	439646	5	15.60	2478120	40.0
2-Propanol, 1-(2-...	16.13	6.8	ug/ml	421618	5	15.60	2478120	40.0
.beta.-D-Mannofur...	16.99	5.0	ug/ml	292519	6	18.33	2342840	40.0

Data File : I:\MSDCHEM\1\DATA\051212\4M60822.D Vial: 7
 Acq On : 12 May 2012 14:17 Operator: CAA
 Sample : WG397140-03 LCS 05/07 Inst : HPMS4
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:40:47 2012 Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Mon May 14 11:40:35 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.23	152	262198	40.00	ug/ml	0.00
30) Naphthalene-d8	8.51	136	999831	40.00	ug/ml	0.00
54) Acenaphthene-d10	10.32	164	562715	40.00	ug/ml	0.00
87) Phenanthrene-d10	11.92	188	1021385	40.00	ug/ml	0.00
113) Chrysene-d12	15.61	240	959585	40.00	ug/ml	0.00
128) Perylene-d12	18.34	264	885225	40.00	ug/ml	0.00

System Monitoring Compounds

8) 2-Fluorophenol	6.01	112	781447	98.2989	ug/ml	0.00
Spiked Amount	100.000	Range	21 - 100	Recovery	=	98.30%
12) Phenol-d5	6.83	99	961393	103.3307	ug/ml	0.00
Spiked Amount	100.000	Range	10 - 94	Recovery	=	103.33%#
31) Nitrobenzene-d5	7.79	82	446357	52.7832	ug/ml	0.00
Spiked Amount	50.000	Range	35 - 114	Recovery	=	105.56%
59) 2-Fluorobiphenyl	9.58	172	999516	53.1931	ug/ml	0.00
Spiked Amount	50.000	Range	43 - 116	Recovery	=	106.38%
86) 2,4,6-Tribromophenol	11.15	330	310740	123.8330	ug/ml	0.00
Spiked Amount	100.000	Range	10 - 123	Recovery	=	123.83%#
117) p-Terphenyl-d14	13.95	244	1184471	66.9713	ug/ml	0.00
Spiked Amount	50.000	Range	33 - 141	Recovery	=	133.94%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.22	88	122177	37.3878	ug/ml#	97
3) n-Nitrosodimethylamine	4.64	74	233748	48.3069	ug/ml	96
4) Pyridine	4.66	79	311040	36.2569	ug/ml	88
5) 2-Picoline	5.45	93	380573	40.7693	ug/ml	99
6) n-Nitrosomethylethylamine	5.56	88	179595	44.6008	ug/ml	93
7) Methyl Methanesulfonate	5.85	80	214398	46.8967	ug/ml	96
9) n-Nitrosodiethylamine	6.24	102	195041	45.1797	ug/ml	97
10) Ethyl Methanesulfonate	6.49	79	266242	44.4637	ug/ml	98
11) Aniline	6.93	93	558354	40.6104	ug/ml	90
13) Phenol	6.85	94	493205	49.6453	ug/ml	93
14) bis(2-Chloroethyl)ether	6.95	63	301133	48.4090	ug/ml#	38
15) Pentachloroethane	6.96	167	118968	35.5046	ug/ml	98
16) 2-Chlorophenol	7.05	128	428905	48.2114	ug/ml	98
17) 1,3-Dichlorobenzene	7.20	146	340556	34.3925	ug/ml	100
18) 1,4-Dichlorobenzene	7.25	146	365107	36.1514	ug/ml	99
19) Benzyl Alcohol	7.34	108	293563	50.9641	ug/ml	93
20) 1,2-Dichlorobenzene	7.44	146	355063	37.8566	ug/ml	100
21) 2-Methylphenol	7.44	107	337550	49.2742	ug/ml	97
22) bis(2-Chloroisopropyl)ethe	7.48	45	529550	41.4643	ug/ml	92
23) 3-,4-Methylphenol	7.56	107	504484	56.6529	ug/ml	91
24) n-Nitrosopyrrolidine	7.61	100	212857	52.9458	ug/ml	97
25) n-Nitrosodipropylamine	7.62	70	312672	55.8194	ug/ml	94
26) Acetophenone	7.63	105	1060545	96.2731	ug/ml	98
27) n-Nitrosomorpholine	7.63	56	238434	45.6266	ug/ml	94
28) o-Toluidine	7.67	106	549410	39.4501	ug/ml	99
29) Hexachloroethane	7.75	117	112250	30.0152	ug/ml	98
32) Nitrobenzene	7.81	77	457842	54.3217	ug/ml	97
33) n-Nitrosopiperidine	7.96	114	214716	47.5914	ug/ml	98
34) Isophorone	8.02	82	829814	53.9397	ug/ml	99
35) 2-Nitrophenol	8.13	139	249970	50.3123	ug/ml	95
36) 2,4-Dimethylphenol	8.10	122	430743	50.4897	ug/ml	99
37) 0,0,0-Triethyl Phosphoroth	8.20	198	228651	53.6837	ug/ml	98
38) bis(2-Chloroethoxy)methane	8.20	93	678139	58.0029	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60822.D MEGAMIX.M Mon May 14 11:43:32 2012

Data File : I:\MSDCHEM\1\DATA\051212\4M60822.D
 Acq On : 12 May 2012 14:17
 Sample : WG397140-03 LCS 05/07
 Misc : 1,1

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

MS Integration Params: RTEINT.P

Quant Time: May 14 11:40:47 2012

Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Mon May 14 11:40:35 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) 2,4-Dichlorophenol	8.35	162	377474	52.8532	ug/ml	100
41) a,a-Dimethylphenethylamine	8.36	58	1009158	83.5773	ug/ml	98
42) 1,2,4-Trichlorobenzene	8.46	180	345566	42.6118	ug/ml	99
43) Naphthalene	8.53	128	1285360	48.5423	ug/ml	97
44) 4-Chloroaniline	8.56	127	537961	55.1642	ug/ml	97
45) 2,6-Dichlorophenol	8.59	162	380460	51.6248	ug/ml	99
46) Hexachloropropene	8.65	213	112648	24.7845	ug/ml	100
47) Hexachlorobutadiene	8.68	225	172124	41.4579	ug/ml	100
48) n-Nitrosodi-n-Butylamine	8.88	84	381110	53.5975	ug/ml	94
49) p-Phenylenediamine	9.00	108	38808	63.0747	ug/ml#	65
50) 4-Chloro-3-Methylphenol	9.00	107	413732	57.0868	ug/ml	99
51) Safrole	9.09	162	336425	48.8082	ug/ml	99
52) 2-Methylnaphthalene	9.22	142	864863	50.2742	ug/ml	99
53) 1-Methylnaphthalene	9.34	142	763206	46.9249	ug/ml	99
55) 1,2,4,5-Tetrachlorobenzene	9.43	216	374222	50.7481	ug/ml	100
56) Hexachlorocyclopentadiene	9.44	237	115480	30.2763	ug/ml	100
57) 2,4,6-Trichlorophenol	9.51	196	296420	57.3659	ug/ml	100
58) 2,4,5-Trichlorophenol	9.56	196	325821	61.2558	ug/ml	99
60) Isosafrole	9.62	162	622170	87.4943	ug/ml	100
61) 2-Chloronaphthalene	9.73	162	983580	61.9006	ug/ml	99
62) 1-Chloronaphthalene	9.77	162	759999	50.5126	ug/ml	99
63) 2-Nitroaniline	9.83	65	264886	58.1579	ug/ml	99
64) 1,4-Naphthoquinone	9.90	158	311774	49.6871	ug/ml	97
65) Dimethylphthalate	9.99	163	1123592	63.1107	ug/ml	100
66) 1,3-Dinitrobenzene	10.05	168	203715	59.6720	ug/ml	95
67) 2,6-Dinitrotoluene	10.09	165	273591	61.5177	ug/ml	97
68) Acenaphthylene	10.17	152	1471532	57.6783	ug/ml	100
69) 3-Nitroaniline	10.24	138	277931	84.7245	ug/ml	98
70) 2,4-Dinitrophenol	10.35	184	129496	57.1191	ug/ml	91
71) Acenaphthene	10.36	154	903573	54.3749	ug/ml	100
72) 4-Nitrophenol	10.36	65	188476	57.5079	ug/ml	97
73) 2,4-Dinitrotoluene	10.49	165	369248	65.2521	ug/ml	98
74) Pentachlorobenzene	10.54	250	368895	55.5607	ug/ml	99
75) Dibenzofuran	10.51	168	1278416	57.4552	ug/ml	99
76) 2,3,4,6-Tetrachlorophenol	10.66	232	233829	57.0031	ug/ml	96
77) 1-Naphthylamine	10.59	143	703642	147.0405	ug/ml#	66
78) 2-Naphthylamine	10.66	143	616273	211.5701	ug/ml#	58
79) Diethylphthalate	10.70	149	1148749	64.7876	ug/ml	100
80) Thionazin	10.80	107	187185	63.4462	ug/ml	93
81) Fluorene	10.87	166	1100317	58.1841	ug/ml	99
82) 4-Chlorophenyl Phenyl Ethe	10.82	204	532636	59.9407	ug/ml	100
83) 4-Nitroaniline	10.88	138	292523	72.0386	ug/ml	97
84) 5-Nitro-o-Toluidine	10.87	152	310617	69.5719	ug/ml	95
85) 1,2-Diphenylhydrazine	10.99	77	1028323	59.6323	ug/ml	98
88) 4,6-Dinitro-2-Methylphenol	10.92	198	209559	65.9075	ug/ml	79
89) n-Nitrosodiphenylamine	10.94	169	1743117	105.4756	ug/ml	99
90) Sulfotepp	11.14	322	178457	60.4407	ug/ml	96
91) Sym-Trinitrobenzene	11.23	75	274180	67.8622	ug/ml	97
92) Diallate	11.26	86	751016	111.4323	ug/ml#	80
93) Phenacetin	11.25	108	533536	61.6231	ug/ml	94
94) Phorate	11.28	75	668895	62.2097	ug/ml#	100
95) 4-Bromophenyl Phenyl Ether	11.35	248	323495	62.6006	ug/ml	99
96) Hexachlorobenzene	11.56	284	347930	61.5922	ug/ml	99
97) Dimethoate	11.49	87	418833	79.9348	ug/ml	98

(#) = qualifier out of range (m) = manual integration
 4M60822.D MEGAMIX.M Mon May 14 11:43:32 2012

Page 2

Data File : I:\MSDCHEM\1\DATA\051212\4M60822.D
 Acq On : 12 May 2012 14:17
 Sample : WG397140-03 LCS 05/07
 Misc : 1,1

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

MS Integration Params: RTEINT.P
 Quant Time: May 14 11:40:47 2012

Quant Results File: MEGAMIX.RES

Quant Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
 Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
 Last Update : Mon May 14 11:40:35 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
98) 4-Aminobiphenyl	11.64	169	803295	96.0106	ug/ml	100
99) Pentachlorophenol	11.74	266	219941	61.5716	ug/ml	99
100) Pronamide	11.69	173	500977	60.3358	ug/ml	100
101) Pentachloronitrobenzene	11.83	237	124379	63.5305	ug/ml	98
102) Disulfoton	11.86	88	570201	61.7006	ug/ml	98
103) Phenanthrene	11.95	178	1672748	61.7442	ug/ml	100
104) Anthracene	12.01	178	1554870	55.9737	ug/ml	100
105) Carbazole	12.16	167	1532512	63.0057	ug/ml	100
106) Parathion Methyl	12.34	109	383140	67.7689	ug/ml	99
107) Di-n-Butyl Phthalate	12.53	149	1956174	64.7326	ug/ml	100
108) Parathion Ethyl	12.82	97	237178	68.9055	ug/ml	96
109) 4-Nitroquinoline 1-Oxide	12.91	190	54995	22.1291	ug/ml	90
110) Methapyrilene	12.97	58	409635	99.0417	ug/ml	88
111) Isodrin	13.31	193	171258	58.8532	ug/ml	99
112) Fluoranthene	13.49	202	1750902	61.6753	ug/ml	99
114) Benzidine	13.59	184	298307	223.0401	ug/ml	100
115) Pyrene	13.82	202	1825422	63.6011	ug/ml	100
118) p-(Dimethylamino)azobenzen	14.16	225	362102	61.1059	ug/ml	98
119) Chlorobenzilate	14.21	251	488320	62.5200	ug/ml	96
120) Famphur	14.61	218	163719	481.1678	ug/ml#	32
121) Butyl Benzyl Phthalate	14.63	149	914517	70.0525	ug/ml	98
122) 3,3'-Dimethylbenzidine	14.65	212	459349	50.6497	ug/ml#	94
123) 2-Acetylaminofluorene	15.06	181	698716	62.5651	ug/ml	99
124) bis(2-Ethylhexyl)phthalate	15.48	149	1210773	67.9641	ug/ml	99
125) 3,3'-Dichlorobenzidine	15.49	252	470631	89.2553	ug/ml	100
126) Benzo[a]anthracene	15.57	228	1565479	61.4952	ug/ml	100
127) Chrysene	15.64	228	1518274	63.5364	ug/ml	100
129) Di-n-Octyl Phthalate	16.45	149	2041261	71.4037	ug/ml	97
130) 7,12-Dimethylbenz[a]anthra	17.49	256	693741	60.5149	ug/ml	99
131) Benzo[b]fluoranthene	17.48	252	1747524	68.2670	ug/ml	97
132) Benzo[k]fluoranthene	17.53	252	1502428	63.3172	ug/ml	97
133) Benzo[a]pyrene	18.21	252	1520893	65.1217	ug/ml	99
134) 3-Methylcholanthrene	19.08	268	746157	58.8436	ug/ml	99
135) Indeno[1,2,3-cd]pyrene	21.37	276	1758897	67.6237	ug/ml	98
136) Dibenz[ah]anthracene	21.37	278	1475632	68.0254	ug/ml	99
137) Benzo[ghi]perylene	22.28	276	1424989	66.2269	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 4M60822.D MEGAMIX.M Mon May 14 11:43:32 2012

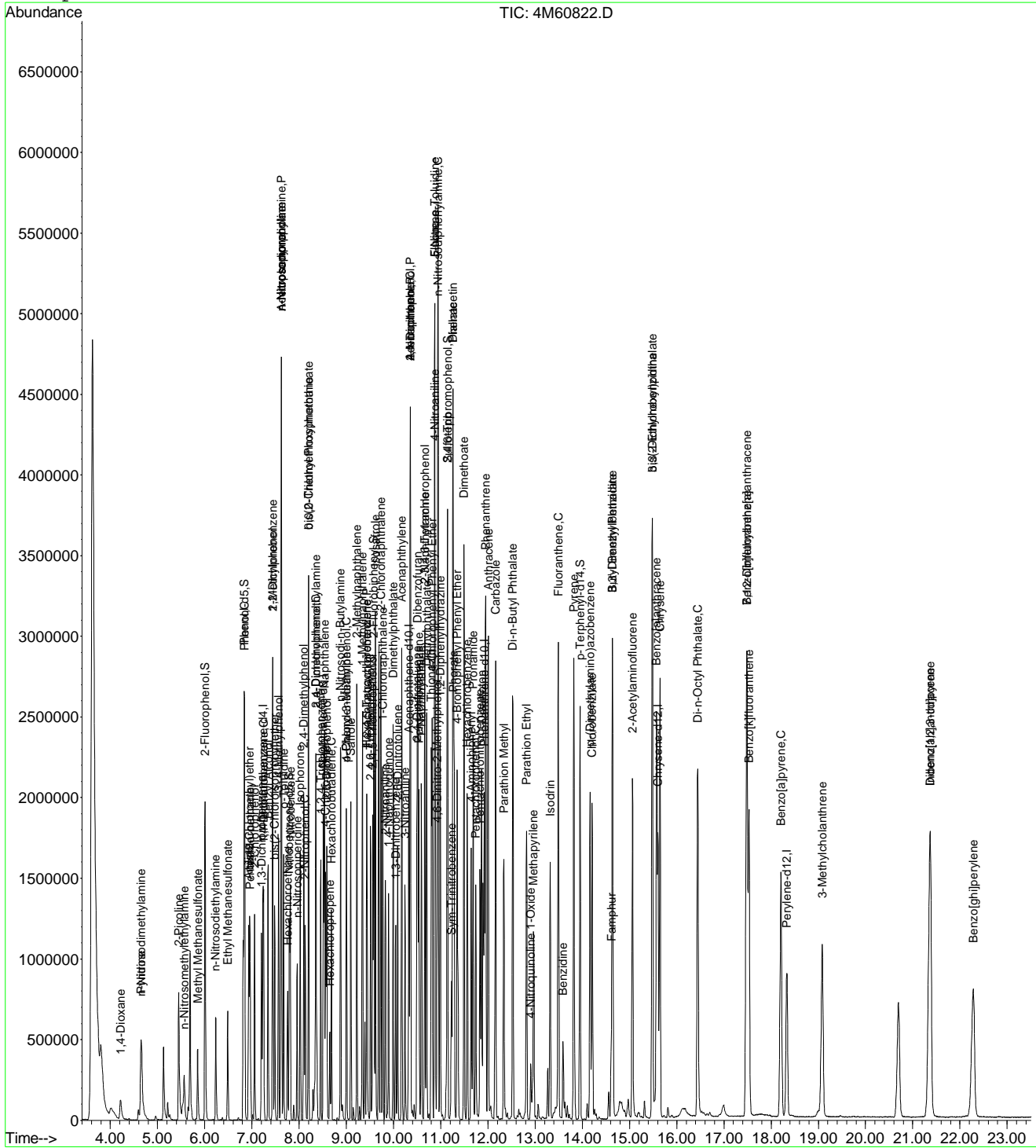
Page 3

Data File : I:\MSDCHEM\1\DATA\051212\4M60822.D
Acq On : 12 May 2012 14:17
Sample : WG397140-03 LCS 05/07
Misc : 1,1
MS Integration Params: RTEINT.P
Quant Time: May 14 11:40 2012

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

Quant Results File: MEGAMIX.RES

Method : I:\MSDCHEM\1\METHODS\MEGAMIX.M (RTE Integrator)
Title : OVD MSS01 8270/625 Initial Calibration 04/19/12
Last Update : Mon May 14 11:40:35 2012
Response via : Initial Calibration



Data File : I:\MSDCHEM\1\DATA\051212\4M60822.D Vial: 7
 Acq On : 12 May 2012 14:17 Operator: CAA
 Sample : WG397140-03 LCS 05/07 Inst : HPMS4
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 14 11:53:51 2012 Quant Results File: TCL.RES

Quant Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
 Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
 Last Update : Mon May 14 11:53:23 2012
 Response via : Initial Calibration
 DataAcq Meth : BNATEST

Internal Standards	R.T.	QIion	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.23	152	262198	40.00	ug/mL	0.00
3) Naphthalene-d8	8.51	136	999831	40.00	ug/mL	0.00
5) Acenaphthene-d10	10.32	164	562715	40.00	ug/mL	0.00
7) Phenanthrene-d10	11.92	188	1021385	40.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	6.81	105	257318	36.8443	ug/L	98
4) Caprolactam	8.88	55	216871	66.4199	ug/L	90
6) 1,1'-Biphenyl	9.69	154	1083638	46.9202	ug/L	99
8) Atrazine	11.49	200	294810	52.1461	ug/L	99

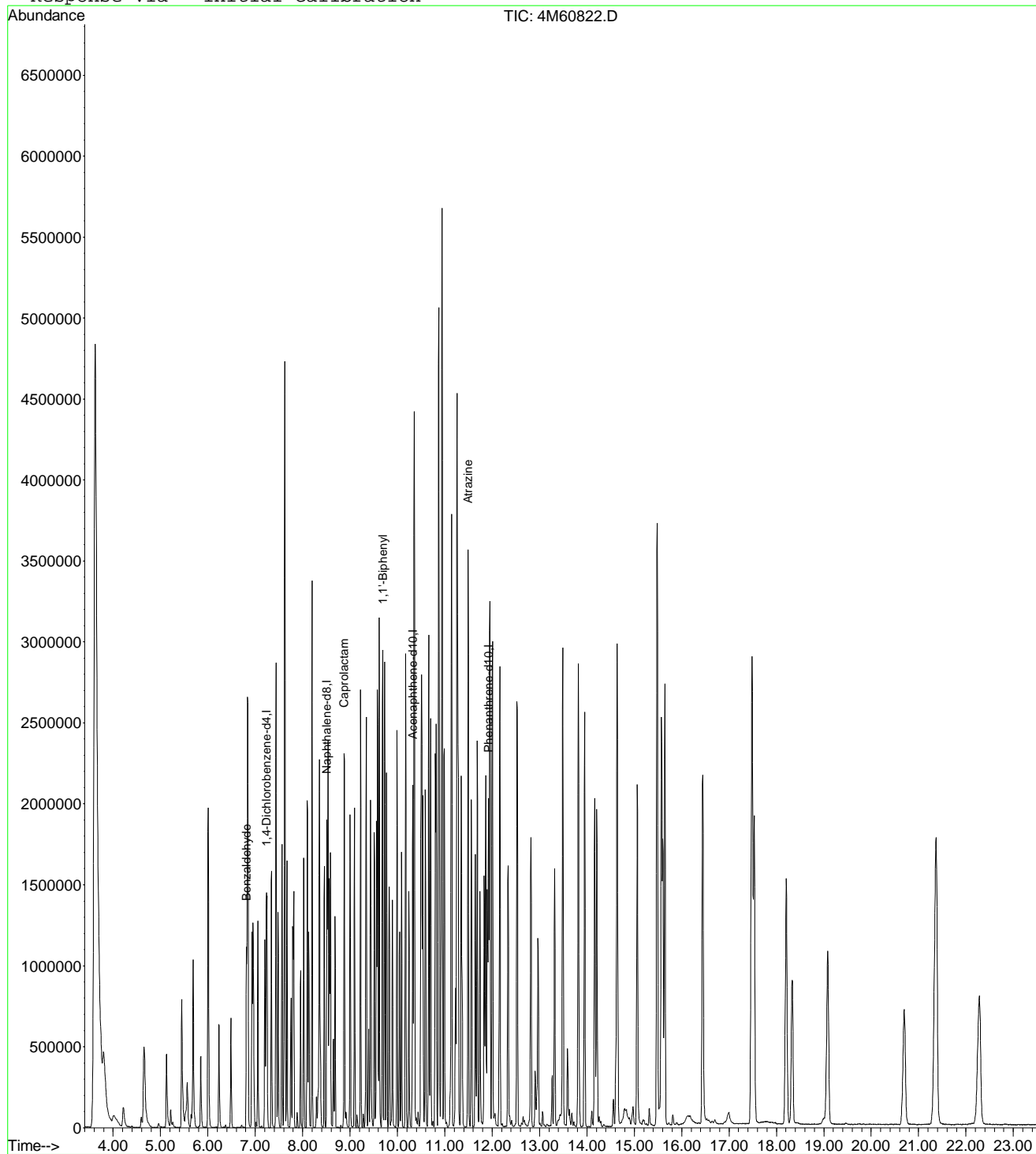
 (#) = qualifier out of range (m) = manual integration
 4M60822.D TCL.M Mon May 14 11:53:51 2012

Data File : I:\MSDCHEM\1\DATA\051212\4M60822.D
Acq On : 12 May 2012 14:17
Sample : WG397140-03 LCS 05/07
Misc : 1,1
MS Integration Params: RTEINT.P
Quant Time: May 14 11:53 2012

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

Quant Results File: TCL.RES

Method : I:\MSDCHEM\1\METHODS\TCL.M (RTE Integrator)
Title : OVD MSS01 827-TCL INITIAL CALIBRATION 05/01/12
Last Update : Mon May 14 11:53:23 2012
Response via : Initial Calibration



2.2.2 Semivolatiles GC/MS Data (827-PAHL)

2.2.2.1 Summary Data



Login Number: L12050050
Department: Semivolatiles
Analyst: Cassie A. Augenstein

METHOD

Preparation 3510C

Analysis SW-846 8270C

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

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

SAMPLES

Samples: All acceptance criteria were met.

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

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

Narrative ID: 45942

Approved By: Mike Cochran



Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: HPMS7
Client ID: MW-05I-050112	Prep Method: 3510C	Prep Date: 05/03/2012 09:30
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/04/2012 12:53
Workgroup #: WG397013	Analyst: CAA	Run Date: 05/04/2012 17:50
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: 7M54902
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
2-Methylnaphthalene	91-57-6		U	0.0549	0.0275
Acenaphthene	83-32-9		U	0.0549	0.0275
Acenaphthylene	208-96-8		U	0.0549	0.0275
Anthracene	120-12-7		U	0.0549	0.0275
Benzo(a)anthracene	56-55-3		U	0.0549	0.0275
Benzo(a)pyrene	50-32-8		U	0.0549	0.0275
Benzo(b)fluoranthene	205-99-2		U	0.0549	0.0275
Benzo(g,h,i)perylene	191-24-2		U	0.0549	0.0275
Benzo(k)fluoranthene	207-08-9		U	0.0549	0.0275
Chrysene	218-01-9		U	0.0549	0.0275
Dibenzo(a,h)anthracene	53-70-3		U	0.0549	0.0275
Fluoranthene	206-44-0		U	0.0549	0.0275
Fluorene	86-73-7		U	0.0549	0.0275
Indeno(1,2,3-cd)pyrene	193-39-5		U	0.0549	0.0275
Naphthalene	91-20-3		U	0.0549	0.0275
Phenanthrene	85-01-8		U	0.0549	0.0275
Pyrene	129-00-0		U	0.0549	0.0275

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2-Fluorobiphenyl	47.5	43	116	
Nitrobenzene-d5	51.4	35	114	
p-Terphenyl-d14	89.1	33	141	
U	Not detected at or above adjusted sample detection limit.			

Certificate of Analysis

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HPMS7
Client ID: MW-05S-050112	Prep Method: 3510C	Prep Date: 05/03/2012 09:30
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/04/2012 12:53
Workgroup #: WG397013	Analyst: CAA	Run Date: 05/04/2012 18:18
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: 7M54903
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
2-Methylnaphthalene	91-57-6		U	0.0538	0.0269
Acenaphthene	83-32-9		U	0.0538	0.0269
Acenaphthylene	208-96-8		U	0.0538	0.0269
Anthracene	120-12-7		U	0.0538	0.0269
Benzo(a)anthracene	56-55-3		U	0.0538	0.0269
Benzo(a)pyrene	50-32-8		U	0.0538	0.0269
Benzo(b)fluoranthene	205-99-2		U	0.0538	0.0269
Benzo(g,h,i)perylene	191-24-2		U	0.0538	0.0269
Benzo(k)fluoranthene	207-08-9		U	0.0538	0.0269
Chrysene	218-01-9		U	0.0538	0.0269
Dibenzo(a,h)anthracene	53-70-3		U	0.0538	0.0269
Fluoranthene	206-44-0		U	0.0538	0.0269
Fluorene	86-73-7		U	0.0538	0.0269
Indeno(1,2,3-cd)pyrene	193-39-5		U	0.0538	0.0269
Naphthalene	91-20-3		U	0.0538	0.0269
Phenanthrene	85-01-8		U	0.0538	0.0269
Pyrene	129-00-0		U	0.0538	0.0269

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2-Fluorobiphenyl	63.1	43	116	
Nitrobenzene-d5	67.5	35	114	
p-Terphenyl-d14	91.3	33	141	
U	Not detected at or above adjusted sample detection limit.			

Certificate of Analysis

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HPMS7
Client ID: MW-24-050112	Prep Method: 3510C	Prep Date: 05/03/2012 09:30
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/04/2012 12:53
Workgroup #: WG397013	Analyst: CAA	Run Date: 05/04/2012 18:46
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: 7M54904
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
2-Methylnaphthalene	91-57-6		U	0.0556	0.0278
Acenaphthene	83-32-9		U	0.0556	0.0278
Acenaphthylene	208-96-8		U	0.0556	0.0278
Anthracene	120-12-7		U	0.0556	0.0278
Benzo(a)anthracene	56-55-3		U	0.0556	0.0278
Benzo(a)pyrene	50-32-8		U	0.0556	0.0278
Benzo(b)fluoranthene	205-99-2		U	0.0556	0.0278
Benzo(g,h,i)perylene	191-24-2		U	0.0556	0.0278
Benzo(k)fluoranthene	207-08-9		U	0.0556	0.0278
Chrysene	218-01-9		U	0.0556	0.0278
Dibenzo(a,h)anthracene	53-70-3		U	0.0556	0.0278
Fluoranthene	206-44-0		U	0.0556	0.0278
Fluorene	86-73-7		U	0.0556	0.0278
Indeno(1,2,3-cd)pyrene	193-39-5		U	0.0556	0.0278
Naphthalene	91-20-3		U	0.0556	0.0278
Phenanthrene	85-01-8		U	0.0556	0.0278
Pyrene	129-00-0		U	0.0556	0.0278

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2-Fluorobiphenyl	55.4	43	116	
Nitrobenzene-d5	59.4	35	114	
p-Terphenyl-d14	65.3	33	141	
U	Not detected at or above adjusted sample detection limit.			

Certificate of Analysis

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: HPMS7
Client ID: MW-01-050112	Prep Method: 3510C	Prep Date: 05/03/2012 09:30
Matrix: Water	Analytical Method: 8270C	Cal Date: 04/04/2012 12:53
Workgroup #: WG397013	Analyst: CAA	Run Date: 05/04/2012 19:13
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: 7M54905
Sample Tag: 01	Units: ug/L	

Analyte	CAS #	Result	Qual	RL	MDL
2-Methylnaphthalene	91-57-6		U	0.0546	0.0273
Acenaphthene	83-32-9		U	0.0546	0.0273
Acenaphthylene	208-96-8		U	0.0546	0.0273
Anthracene	120-12-7		U	0.0546	0.0273
Benzo(a)anthracene	56-55-3		U	0.0546	0.0273
Benzo(a)pyrene	50-32-8		U	0.0546	0.0273
Benzo(b)fluoranthene	205-99-2		U	0.0546	0.0273
Benzo(g,h,i)perylene	191-24-2		U	0.0546	0.0273
Benzo(k)fluoranthene	207-08-9		U	0.0546	0.0273
Chrysene	218-01-9		U	0.0546	0.0273
Dibenzo(a,h)anthracene	53-70-3		U	0.0546	0.0273
Fluoranthene	206-44-0		U	0.0546	0.0273
Fluorene	86-73-7		U	0.0546	0.0273
Indeno(1,2,3-cd)pyrene	193-39-5		U	0.0546	0.0273
Naphthalene	91-20-3		U	0.0546	0.0273
Phenanthrene	85-01-8		U	0.0546	0.0273
Pyrene	129-00-0		U	0.0546	0.0273

Surrogate	Recovery	Lower Limit	Upper Limit	Q
2-Fluorobiphenyl	51.6	43	116	
Nitrobenzene-d5	55.3	35	114	
p-Terphenyl-d14	83.6	33	141	
U	Not detected at or above adjusted sample detection limit.			

2.2.2.2 QC Summary Data

Example 8270 Calculations

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

$$RF = [(Ax) (Cis)] / [(Ais) (Cx)]$$

where:

Ax = Area of the characteristic ion for the compound being measured:	1261197
Cis = Concentration of the specific internal standard (ug/mL)	40
Ais = Area of the characteristic ion of the specific internal standard	608044
Cx = Concentration of the compound in the standard being measured (ug/mL)	50
 RF = Calculated Response Factor	 1.65935

Example

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

$$Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Vi)]$$

where:

Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Vi = Initial volume of sample extracted from prep log (mL)	1021
 Cx = Concentration of the compound in the sample being measured (ug/mL)	 0.016947
Cx = Concentration of the compound in the sample being measured (ug/L)	16.947

Example

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

$$Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Wi)]$$

where:

Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Wi = Initial weight of sample extracted (g) from prep log	30
Cx = Concentration of the compound in the sample being measured (ug/g)	0.576763
Cx = Concentration of the compound in the sample being measured (ug/kg)	576.7627

Example

Dry weight correction:

Percent solids (PCT_S)	50
Cd = (Cx) (100)/PCT_S	1153.525 ug/kg

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

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, $y = mx + b$

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve plot

b = intercept from curve plot

Step 2: Calculate y from Quantitation Report

y = 16790/784838 = 0.02139

Step 3: Solve for x

$$x = (y - b)/m = [(0.02139 - (-0.0435))/0.0783] = 0.829$$

Step 4: Solve for analyte concentration Cx

$$Cx = Cis (x) = (25.0)(0.829) = 20.72 \text{ ug/L}$$

Example Spreadsheet Calculation:

Slope from curve, m:	0.0783
Intercept from curve, b:	-0.0435
Area of analyte, Ax:	16790
Area of Internal Standard, Ais:	784484
Concentration of IS, Cis	25.00 ug/L
Response Ratio (y) :	0.021403
Amount Ratio:	0.828897
Concentration (Cx):	20.72241 ug/L

5.0 Concentration from Quadratic Regression**Step 1 - Retrieve Curve Data from Plot, $y = Ax^2 + Bx + C$**

Where:

$$Ax^2 + Bx + (C - y) = 0$$

A, B, C = constants from the ICAL quadratic regression

y = Response ratio = Area of analyte/Area of internal standard (IS)

x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

$$y = Ax/Ais$$

Step 3: Solve for x using the quadratic formula

$$Ax^2 + Bx + C - y = 0$$

$$x = \frac{b \pm \sqrt{(b^2 - 4a(c - y))}}{2a} \quad (\text{Two possible solutions})$$

Step 4: Solve for analyte concentration Cx

$$Cx = (Cis)(\text{Amount ratio})$$

Example Spreadsheet Calculation:

Value of A from plot:	0.0259
Value of B from plot:	0.0596
Value of C from plot:	-0.0165
Area of analyte from quantitation report:	203233
Area of IS from quantitation report:	1425653
Response ratio, y:	0.142554
C - y:	-0.15905
Root 1 - Computed amount ratio, X1:	-3.88278
Root 2 - Computed amount ratio, X2:	1.581623 use this solution
Concentration of IS, Cis:	40.00
Concentration of analyte, Cx:	63.26 ug/L

Microbac Laboratories Inc.
Sample Extract Log

Workgroup: WG396861
 Analyst: CAF
 Spike Analyst: CAF
 Method: 3510C
 Run Date: 05/03/2012 09:30
 SOP: EXA01 Revision 15
 Spike Witness: CPD
 Surr Solution: STD50786

Methylene Chloride Lot #: COA16058
 Sodium Sulfate, Anhydrous, Granular (Lot # COA16124)

	SAMPLE #	Type	Reference	pH	Prod	Init Amnt	Surr Amnt	Spike Amnt	Spike Sol	Final Vol	Color
1	L12040891-08	SAMP		N	827-PAHL-SP	1000 mL	.25 mL			1 mL	Transparent
2	L12040928-01	RS01		N	827-PAHL	1000 mL	.25 mL			1 mL	Transparent
3	L12040928-03	SAMP		N	827-PAHL	910 mL	.25 mL			1 mL	Transparent
4	L12040928-08	MS01	L12040928-01	N	827-PAHL	1000 mL	.25 mL	1 mL	STD50386	1 mL	Transparent
5	L12040928-10	SD01	L12040928-01	N	827-PAHL	1000 mL	.25 mL	1 mL	STD50386	1 mL	Transparent
6	L12040963-01	SAMP		N	827-PAHL	940 mL	.25 mL			1 mL	Transparent
7	L12040963-03	SAMP		N	827-PAHL	1000 mL	.25 mL			1 mL	Transparent
8	L12040963-07	SAMP		N	827-PAHL	920 mL	.25 mL			1 mL	Colored
9	L12050011-01	SAMP		N	827-PAHL	1000 mL	.25 mL			1 mL	Transparent
10	L12050011-03	SAMP		N	827-PAHL	945 mL	.25 mL			1 mL	Transparent
11	L12050011-05	SAMP		N	827-PAHL	920 mL	.25 mL			1 mL	Transparent
12	L12050013-01	SAMP		N	827-PAHL	1000 mL	.25 mL			1 mL	Transparent
13	L12050013-02	SAMP		N	827-PAHL	1000 mL	.25 mL			1 mL	Transparent
14	L12050047-03	SAMP		N	827-PAHL	1000 mL	.25 mL			1 mL	Colored
15	L12050050-01	SAMP		N	827-PAHL	910 mL	.25 mL			1 mL	Colored
16	L12050050-03	SAMP		N	827-PAHL	930 mL	.25 mL			1 mL	Transparent
17	L12050050-05	SAMP		N	827-PAHL	900 mL	.25 mL			1 mL	Colored
18	L12050050-07	SAMP		N	827-PAHL	915 mL	.25 mL			1 mL	Transparent
19	WG396861-01	REF	L12040928-01	N	827-PAHL	1000 mL	.25 mL			1 mL	Transparent
20	WG396861-02	BLANK		N	827-PAHL	1000 mL	.25 mL			1 mL	Transparent
21	WG396861-03	LCS		N	827-PAHL	1000 mL	.25 mL	1 mL	STD50386	1 mL	Transparent
22	WG396861-04	MS	L12040928-01	N	827-PAHL	1000 mL	.25 mL	1 mL	STD50386	1 mL	Transparent
23	WG396861-05	MSD	L12040928-01	N	827-PAHL	1000 mL	.25 mL	1 mL	STD50386	1 mL	Transparent

L12040891-08 REEXT OUT OF HOLD

Analyst: Cheryl A. Flowers

Reviewer: [Signature]



Microbac Laboratories Inc.
Instrument Run Log

Instrument: HPMS7 Dataset: 040412
 Analyst1: CAA Analyst2: NA
 Method: 8270L SOP: MSS03 Rev: 10

Maintenance Log ID: 41246 Syringe Filter Lot#: _____

Workgroups: WG394108 Column 1 ID: RXI-5MS Column 2 ID: NA
 Internal STD: STD50749 Surrogate STD: NA Calibration STD: _____
 CCV STD: _____ LCS STD: _____ MS/MSD STD: _____

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	7M54726	WG394111-01 5PPM DFTPP STD	1	1	STD50659	04/04/12 08:53
2	7M54727	WG394111-02 1PPM PAHL STD	1	1	STD49560	04/04/12 09:10
3	7M54728	WG394111-02 1PPM PAHL STD	1	1	STD49560	04/04/12 09:39
4	7M54729	WG394111-03 10PPM PAHL STD	1	1	STD49560	04/04/12 10:35
5	7M54730	WG394111-04 5PPM PAHL STD	1	1	STD49560	04/04/12 11:03
6	7M54731	WG394111-05 2.5PPM PAHL STD	1	1	STD49560	04/04/12 11:30
7	7M54732	WG394111-06 0.5PPM PAHL STD	1	1	STD49560	04/04/12 11:58
8	7M54733	WG394111-07 0.1PPM PAHL STD	1	1	STD49560	04/04/12 12:26
9	7M54734	WG394111-08 0.05PPM PAHL STD	1	1	STD49560	04/04/12 12:53
10	7M54735	WG394111-09 1PPM PAHL Alt Src STD	1	1	STD49584	04/04/12 13:21
11	7M54736	WG393926-01 BLK 04/03	7	1	SOIL	04/04/12 13:49
12	7M54737	WG393926-02 LCS 04/03	7	1	SOIL	04/04/12 14:17
13	7M54738	WG393926-03 LCS DUP 04/03	7	1	SOIL	04/04/12 14:45
14	7M54739	L12040002-01 LOD	7	1	SOIL	04/04/12 15:12
15	7M54740	L12040004-01 LOQ	7	1	SOIL	04/04/12 15:40
16	7M54741	L12040039-04	7	1	SOIL	04/04/12 16:08
17	7M54742	L12040039-08	7	1	SOIL	04/04/12 16:36

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2	X			
			WG394111-02 1PPM PAHL STD - Pyrene fails high.	
3				
			WG394111-02 1PPM PAHL STD - Pyrene fails high, run ICAL.	
17	X	10	Over Calibration Range	#3, 4, 5
			L12040039-08 - SS NBZ high - SMI.	

Page: 1

Approved: 09-APR-12

Michael Cohen



Microbac Laboratories Inc.
Instrument Run Log

Instrument: HPMS7 Dataset: 050412
 Analyst1: CAA Analyst2: NA
 Method: 8270L SOP: MSS03 Rev: 19

Maintenance Log ID: 41607 Syringe Filter Lot#: _____

Column 1 ID: RXI-5MS Column 2 ID: NA
 Workgroups: WG396780, WG397013
 Internal STD: STD51409 Surrogate STD: NA Calibration STD: _____
 CCV STD: _____ LCS STD: _____ MS/MSD STD: _____

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	7M54883	WG397019-01 5PPM DFTPP STD	1	1	STD50659	05/04/12 09:16
2	7M54884	WG397019-02 1PPM PAHL STD	1	1	STD49560	05/04/12 09:33
3	7M54885	WG396861-02 BLK 05/03	1	1		05/04/12 10:01
4	7M54886	WG396861-03 LCS 05/03	1	1		05/04/12 10:28
5	7M54887	L12040891-08 RE	1	1		05/04/12 10:56
6	7M54888	L12040891-05 10X RE	7	10	SOIL	05/04/12 11:24
7	7M54889	L12040928-01 REF	1	1		05/04/12 11:51
8	7M54890	L12040928-03	1	1		05/04/12 12:19
9	7M54891	L12040928-08 MS	1	1		05/04/12 12:46
10	7M54892	L12040928-10 MSD	1	1		05/04/12 13:14
11	7M54893	L12040963-01	1	1		05/04/12 13:41
12	7M54894	L12040963-03	1	1		05/04/12 14:09
13	7M54895	L12040963-07	1	1		05/04/12 14:36
14	7M54896	L12050011-01	1	1		05/04/12 15:04
15	7M54897	L12050011-03	1	1		05/04/12 15:32
16	7M54898	L12050011-05	1	1		05/04/12 15:59
17	7M54899	L12050013-01	1	1		05/04/12 16:27
18	7M54900	L12050013-02	1	1		05/04/12 16:55
19	7M54901	L12050047-03	1	1		05/04/12 17:22
20	7M54902	L12050050-01	1	1		05/04/12 17:50
21	7M54903	L12050050-03	1	1		05/04/12 18:18
22	7M54904	L12050050-05	1	1		05/04/12 18:46
23	7M54905	L12050050-07	1	1		05/04/12 19:13

Comments

Seq.	Rerun	Dil.	Reason	Analytes
9				
			L12040928-08 MS - SS FBP low.	
19				
			L12050047-03 - SS FBP low, needs re-extracted.	

Page: 1

Approved: 07-MAY-12




Microbac Laboratories Inc.

Data Checklist

Date: 04-APR-2012
Analyst: CAA
Analyst: NA
Method: 8270L
Instrument: HPMS7
Curve Workgroup: NA
Runlog ID: 46039
Analytical Workgroups: L12040002, L12040004, L12040039

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	NA
Pentachlorophenol/benzidine tailing (MS)	NA
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	NA
% D/% Drift	NA
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	X
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
05-APR-2012

Cassio D. Augenstein

Secondary Reviewer:
09-APR-2012

Michael Cohen



Microbac Laboratories Inc.

Data Checklist

Date: 04-MAY-2012
 Analyst: CAA
 Analyst: NA
 Method: 8270L
 Instrument: HPMS7
 Curve Workgroup: NA
 Runlog ID: 46571
 Analytical Workgroups: L12040891, 040928, 040963, 050011, 050013, 050047, 050050

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	NA
Pentachlorophenol/benzidine tailing (MS)	NA
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
07-MAY-2012

Cassio D. Augenstein

Secondary Reviewer:
07-MAY-2012

Michael Cohen



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8270C
 Login Number: L12050050

AAB#: WG397013

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MW-05I-050112	01	05/01/12					05/03/12	1.9	7		05/04/12	1.3	40	
MW-05S-050112	03	05/01/12					05/03/12	1.8	7		05/04/12	1.4	40	
MW-24-050112	05	05/01/12					05/03/12	2	7		05/04/12	1.4	40	
MW-01-050112	07	05/01/12					05/03/12	1.9	7		05/04/12	1.4	40	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2403575
 Report generated 05/07/2012 15:38



Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L12050050
Instrument Id: HPMS7
Workgroup (AAB#): WG397013

Method: 8270L
CAL ID: HPMS7-04-APR-12
Matrix: Water

Sample Number	Dilution	Tag	1	2	3
L12050050-01	1.00	01	47.5	51.4	89.1
L12050050-03	1.00	01	63.1	67.5	91.3
L12050050-05	1.00	01	55.4	59.4	65.3
L12050050-07	1.00	01	51.6	55.3	83.6
WG396861-02	1.00	01	70.9	73.5	89.0
WG396861-03	1.00	01	64.7	67.2	86.7

Surrogates	Surrogate Limits		
1 - 2-Fluorobiphenyl	43	-	116
2 - Nitrobenzene-d5	35	-	114
3 - p-Terphenyl-d14	33	-	141

Underline = Result out of surrogate limits

DL = surrogate diluted out

ND = surrogate not detected



METHOD BLANK SUMMARY

Login Number: L12050050
Blank File ID: 7M54885
Prep Date: 05/03/12 09:30
Analyzed Date: 05/04/12 10:01
Analyst: CAA

Work Group: WG397013
Blank Sample ID: WG396861-02
Instrument ID: HPMS7
Method: 8270C

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG396861-03	7M54886	05/04/12 10:28	01
MW-05I-050112	L12050050-01	7M54902	05/04/12 17:50	01
MW-05S-050112	L12050050-03	7M54903	05/04/12 18:18	01
MW-24-050112	L12050050-05	7M54904	05/04/12 18:46	01
MW-01-050112	L12050050-07	7M54905	05/04/12 19:13	01

Report Name: BLANK_SUMMARY
PDF File ID: 2403576
Report generated 05/07/2012 15:38



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L12050050 Prep Date: 05/03/12 09:30 Sample ID: WG396861-02
Instrument ID: HPMS7 Run Date: 05/04/12 10:01 Prep Method: 3510C
File ID: 7M54885 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG397013 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS7-04-APR-12

Analytes	MDL	RL	Concentration	Dilution	Qualifier
2-Methylnaphthalene	0.0250	0.0500	0.0250	1	U
Acenaphthene	0.0250	0.0500	0.0250	1	U
Acenaphthylene	0.0250	0.0500	0.0250	1	U
Anthracene	0.0250	0.0500	0.0250	1	U
Benzo(a)anthracene	0.0250	0.0500	0.0250	1	U
Benzo(a)pyrene	0.0250	0.0500	0.0250	1	U
Benzo(b)fluoranthene	0.0250	0.0500	0.0250	1	U
Benzo(g,h,i)perylene	0.0250	0.0500	0.0250	1	U
Benzo(k)fluoranthene	0.0250	0.0500	0.0250	1	U
Chrysene	0.0250	0.0500	0.0250	1	U
Dibenzo(a,h)anthracene	0.0250	0.0500	0.0250	1	U
Fluoranthene	0.0250	0.0500	0.0250	1	U
Fluorene	0.0250	0.0500	0.0250	1	U
Indeno(1,2,3-cd)pyrene	0.0250	0.0500	0.0250	1	U
Naphthalene	0.0250	0.0500	0.0250	1	U
Phenanthrene	0.0250	0.0500	0.0250	1	U
Pyrene	0.0250	0.0500	0.0250	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
2-Fluorobiphenyl	70.9	43 - 116	PASS
Nitrobenzene-d5	73.5	35 - 114	PASS
p-Terphenyl-d14	89.0	33 - 141	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2403577
07-MAY-2012 15:38



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12050050 Run Date: 05/04/2012 Sample ID: WG396861-03
 Instrument ID: HPMS7 Run Time: 10:28 Prep Method: 3510C
 File ID: 7M54886 Analyst: CAA Method: 8270C
 Workgroup (AAB#): WG397013 Matrix: Water Units: ug/L
 QC Key: WATERLOO Lot#: STD50386 Cal ID: HPMS7-04-APR-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
2-Methylnaphthalene	1.00	0.771	77.1	30 - 105	
Acenaphthene	1.00	0.731	73.1	30 - 110	
Acenaphthylene	1.00	0.715	71.5	30 - 115	
Anthracene	1.00	0.787	78.7	30 - 130	
Benzo(a)anthracene	1.00	0.781	78.1	50 - 150	
Benzo(a)pyrene	1.00	0.877	87.7	50 - 140	
Benzo(b)fluoranthene	1.00	0.846	84.6	40 - 150	
Benzo(g,h,i)perylene	1.00	0.815	81.5	30 - 150	
Benzo(k)fluoranthene	1.00	0.862	86.2	40 - 150	
Chrysene	1.00	0.860	86.0	45 - 145	
Dibenzo(a,h)anthracene	1.00	0.775	77.5	25 - 155	
Fluoranthene	1.00	0.893	89.3	40 - 150	
Fluorene	1.00	0.696	69.6	30 - 120	
Indeno(1,2,3-cd)pyrene	1.00	0.837	83.7	35 - 150	
Naphthalene	1.00	0.699	69.9	30 - 100	
Phenanthrene	1.00	0.764	76.4	30 - 130	
Pyrene	1.00	0.840	84.0	50 - 150	

Surrogates	% Recovery	Surrogate Limits	Qualifier
2-Fluorobiphenyl	64.7	43 - 116	PASS
Nitrobenzene-d5	67.2	35 - 114	PASS
p-Terphenyl-d14	86.7	33 - 141	PASS

* EXCEEDS %REC LIMIT

LCS - Modified 03/06/2008
 PDF File ID: 2403578
 Report generated: 05/07/2012 15:38



Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L12050050 Tune ID: WG394111-01
 Instrument: HPMS7 Run Date: 04/04/2012
 Analyst: CAA Run Time: 08:53
 Workgroup: WG394111 File ID: 7M54726
 Cal ID: HPMS7-04-APR-12

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	50.9	302042	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	49.9	296108	PASS
70.0	69.0	0	2.00	0.173	512	PASS
127	198	40.0	60.0	59.2	351488	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	593642	PASS
199	198	5.00	9.00	7.09	42109	PASS
275	198	10.0	30.0	23.3	138533	PASS
365	198	1.00	100	2.46	14602	PASS
441	443	0.0100	100	72.5	60485	PASS
442	198	40.0	100	70.5	418261	PASS
443	442	17.0	23.0	20.0	83453	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG394111-02	STD-CCV	01	04/04/2012 09:39	
WG394111-03	STD	01	04/04/2012 10:35	
WG394111-04	STD	01	04/04/2012 11:03	
WG394111-05	STD	01	04/04/2012 11:30	
WG394111-06	STD	01	04/04/2012 11:58	
WG394111-07	STD	01	04/04/2012 12:26	
WG394111-08	STD	01	04/04/2012 12:53	
WG394111-09	SSCV	01	04/04/2012 13:21	

* Sample past 12 hour tune limit



Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L12050050
Instrument: HPMS7
Analyst: CAA
Workgroup: WG397019

Tune ID: WG397019-01
Run Date: 05/04/2012
Run Time: 09:16
File ID: 7M54883

Cal ID: HPMS7-04-APR-12

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	45.8	127689	PASS
68.0	69.0	0	2.00	1.51	1929	PASS
69.0	198	0	100	46.0	128140	PASS
70.0	69.0	0	2.00	0.900	1153	PASS
127	198	40.0	60.0	58.7	163690	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	278826	PASS
199	198	5.00	9.00	6.72	18729	PASS
275	198	10.0	30.0	24.4	67989	PASS
365	198	1.00	100	2.81	7827	PASS
441	443	0.0100	100	80.9	31421	PASS
442	198	40.0	100	71.4	199200	PASS
443	442	17.0	23.0	19.5	38842	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG397019-02	CCV	01	05/04/2012 09:33	
WG396861-02	BLANK	01	05/04/2012 10:01	
WG396861-03	LCS	01	05/04/2012 10:28	
L12050050-01	MW-05I-050112	01	05/04/2012 17:50	
L12050050-03	MW-05S-050112	01	05/04/2012 18:18	
L12050050-05	MW-24-050112	01	05/04/2012 18:46	
L12050050-07	MW-01-050112	01	05/04/2012 19:13	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 2403583
Report generated 05/07/2012 15:38



Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L12050050
 Analytical Method: 8270C
 ICAL Workgroup: WG394111

Instrument ID: HPMS7
 Initial Calibration Date: 04-APR-12 12:53
 Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD (R ²)
Acenaphthene	CCC	1.265	8.40		
Benzo[a]pyrene	CCC	1.284	7.43		
Fluoranthene	CCC	1.303	11.3		
2-Methylnaphthalene		0.7214	6.62		
Acenaphthylene		2.211	7.32		
Anthracene		1.249	3.76		
Benzo[a]anthracene		1.297	7.77		
Benzo[b]fluoranthene		1.380	7.88		
Benzo[ghi]perylene		1.240	5.94		
Benzo[k]fluoranthene		1.305	10.2		
Chrysene		1.291	10.9		
Dibenz[ah]anthracene		1.190	4.82		
Fluorene		1.503	12.2		
Indeno[1,2,3-cd]pyrene		1.406	4.98		
Naphthalene		1.184	11.0		
Phenanthrene		1.244	7.24		
Pyrene		1.607	11.0		

R = Correlation coefficient; 0.995 minimum
 R² = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

INT_CAL - Modified 03/06/2008
 PDF File ID: 2403579
 Report generated 05/07/2012 15:38



Microbac Laboratories Inc.
INITIAL CALIBRATION DATA

Login Number: L12050050
Analytical Method: 8270C

Instrument ID: HPMS7
Initial Calibration Date: 04-APR-12 12:53
Column ID: F

Analyte	WG394111-02			WG394111-03			WG394111-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Acenaphthene	1.00	101608.000	1.193	10.0	743637.000	1.162	5.00	356386.000	1.212
Benzo[a]pyrene	1.00	148527.000	1.275	10.0	1081378.000	1.179	5.00	525392.000	1.241
Fluoranthene	1.00	183927.000	1.284	10.0	1136279.000	1.081	5.00	627208.000	1.292
2-Methylnaphthalene	1.00	112240.000	0.7314	10.0	851242.000	0.6603	5.00	396960.000	0.7307
Acenaphthylene	1.00	169525.000	1.991	10.0	1359329.000	2.123	5.00	644671.000	2.192
Anthracene	1.00	177663.000	1.240	10.0	1226008.000	1.166	5.00	603655.000	1.244
Benzo[a]anthracene	1.00	151964.000	1.287	10.0	1071059.000	1.159	5.00	597051.000	1.276
Benzo[b]fluoranthene	1.00	153733.000	1.320	10.0	1150949.000	1.254	5.00	633809.000	1.496
Benzo[ghi]perylene	1.00	144004.000	1.236	10.0	1226855.000	1.337	5.00	511152.000	1.207
Benzo[k]fluoranthene	1.00	143781.000	1.234	10.0	1050437.000	1.145	5.00	559677.000	1.321
Chrysene	1.00	148985.000	1.261	10.0	1017304.000	1.101	5.00	566428.000	1.210
Dibenz[ah]anthracene	1.00	142338.000	1.222	10.0	1055300.000	1.150	5.00	503437.000	1.189
Fluorene	1.00	126450.000	1.485	10.0	903709.000	1.412	5.00	440591.000	1.498
Indeno[1,2,3-cd]pyrene	1.00	167498.000	1.438	10.0	1239153.000	1.351	5.00	591189.000	1.396
Naphthalene	1.00	174314.000	1.136	10.0	1299479.000	1.008	5.00	598766.000	1.102
Phenanthrene	1.00	174346.000	1.217	10.0	1204227.000	1.145	5.00	578333.000	1.192
Pyrene	1.00	208192.000	1.763	10.0	1269832.000	1.374	5.00	697024.000	1.489

INT_CAL - Modified 03/06/2008
PDF File ID: 2403579
Report generated 05/07/2012 15:38



Login Number: L12050050
Analytical Method: 8270C

Instrument ID: HPMS7
Initial Calibration Date: 04-APR-12 12:53
Column ID: F

Analyte	WG394111-05			WG394111-06			WG394111-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Acenaphthene	2.50	175018.000	1.349	0.500	43592.0000	1.197	0.100	8476.00000	1.458
Benzo[a]pyrene	2.50	260806.000	1.271	0.500	65422.0000	1.279	0.100	13356.0000	1.486
Fluoranthene	2.50	284981.000	1.161	0.500	66304.0000	1.367	0.100	13816.0000	1.494
2-Methylnaphthalene	2.50	175530.000	0.6506	0.500	48164.0000	0.7742	0.100	8513.00000	0.7607
Acenaphthylene	2.50	301490.000	2.323	0.500	77288.0000	2.122	0.100	14501.0000	2.494
Anthracene	2.50	307296.000	1.252	0.500	61358.0000	1.265	0.100	12272.0000	1.327
Benzo[a]anthracene	2.50	266063.000	1.267	0.500	59958.0000	1.285	0.100	12524.0000	1.497
Benzo[b]fluoranthene	2.50	285961.000	1.394	0.500	68495.0000	1.340	0.100	13954.0000	1.552
Benzo[ghi]perylene	2.50	255121.000	1.244	0.500	56433.0000	1.104	0.100	11654.0000	1.297
Benzo[k]fluoranthene	2.50	257800.000	1.257	0.500	66287.0000	1.296	0.100	14143.0000	1.573
Chrysene	2.50	258320.000	1.230	0.500	61514.0000	1.318	0.100	12906.0000	1.543
Dibenz[ah]anthracene	2.50	256480.000	1.250	0.500	55466.0000	1.085	0.100	11135.0000	1.239
Fluorene	2.50	216247.000	1.666	0.500	46685.0000	1.282	0.100	10569.0000	1.817
Indeno[1,2,3-cd]pyrene	2.50	302188.000	1.473	0.500	65450.0000	1.280	0.100	13218.0000	1.471
Naphthalene	2.50	307088.000	1.138	0.500	75307.0000	1.211	0.100	15669.0000	1.400
Phenanthrene	2.50	309124.000	1.260	0.500	59636.0000	1.230	0.100	13238.0000	1.431
Pyrene	2.50	314739.000	1.499	0.500	74252.0000	1.591	0.100	15836.0000	1.893

INT_CAL - Modified 03/06/2008
PDF File ID: 2403579
Report generated 05/07/2012 15:38



Login Number: L12050050
 Analytical Method: 8270C

Instrument ID: HPMS7
 Initial Calibration Date: 04-APR-12 12:53
 Column ID: F

Analyte	WG394111-08		
	CONC	RESP	RF
Acenaphthene	0.0500	3814.00000	1.286
Benzo[a]pyrene	0.0500	5055.00000	1.260
Fluoranthene	0.0500	6400.00000	1.443
2-Methylnaphthalene	0.0500	4045.00000	0.7420
Acenaphthylene	0.0500	6622.00000	2.232
Anthracene	0.0500	5552.00000	1.252
Benzo[a]anthracene	0.0500	6304.00000	1.312
Benzo[b]fluoranthene	0.0500	5216.00000	1.301
Benzo[ghi]perylene	0.0500	5026.00000	1.253
Benzo[k]fluoranthene	0.0500	5257.00000	1.311
Chrysene	0.0500	6585.00000	1.371
Dibenz[ah]anthracene	0.0500	4789.00000	1.194
Fluorene	0.0500	4039.00000	1.361
Indeno[1,2,3-cd]pyrene	0.0500	5744.00000	1.432
Naphthalene	0.0500	7045.00000	1.292
Phenanthrene	0.0500	5467.00000	1.233
Pyrene	0.0500	7890.00000	1.643

INT_CAL - Modified 03/06/2008
 PDF File ID: 2403579
 Report generated 05/07/2012 15:38



Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L12050050 Run Date: 04/04/2012 Sample ID: WG394111-09
 Instrument ID: HPMS7 Run Time: 13:21 Method: 8270C
 File ID: 7M54735 Analyst: CAA QC Key: WATERLOO
 ICal Workgroup: WG394111 Cal ID: HPMS7 - 04-APR-12

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Acenaphthene	CCC	1000	983	ug/L	1.24	1.70	30	
Benzo[a]pyrene	CCC	1000	944	ug/L	1.21	5.60	30	
Fluoranthene	CCC	1000	887	ug/L	1.16	11.4	30	
2-Methylnaphthalene		1000	1020	ug/L	0.737	2.20	30	
Acenaphthylene		1000	1060	ug/L	2.34	6.00	30	
Anthracene		1000	981	ug/L	1.23	1.90	30	
Benzo[a]anthracene		1000	921	ug/L	1.19	7.90	30	
Benzo[b]fluoranthene		1000	863	ug/L	1.19	13.8	30	
Benzo[ghi]perylene		1000	986	ug/L	1.22	1.40	30	
Benzo[k]fluoranthene		1000	887	ug/L	1.16	11.3	30	
Chrysene		1000	935	ug/L	1.21	6.50	30	
Dibenz[ah]anthracene		1000	978	ug/L	1.16	2.20	30	
Fluorene		1000	973	ug/L	1.46	2.70	30	
Indeno[1,2,3-cd]pyrene		1000	995	ug/L	1.40	0.500	30	
Naphthalene		1000	944	ug/L	1.12	5.60	30	
Phenanthrene		1000	936	ug/L	1.16	6.40	30	
Pyrene		1000	940	ug/L	1.51	6.10	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
 SPCC System Performance Check Compounds



CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/04/2012 Sample ID: WG397019-02
Instrument ID: HPMS7 Run Time: 09:33 Method: 8270C
File ID: 7M54884 Analyst: CAA QC Key: WATERLOO
Workgroup (AAB#): WG397013 Cal ID: HPMS7 - 04-APR-12
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Acenaphthene	CCC	1000	1000	ug/L	1.27	0.190	20	
Benzo[a]pyrene	CCC	1000	970	ug/L	1.25	3.04	20	
Fluoranthene	CCC	1000	981	ug/L	1.28	1.94	20	
2-Methylnaphthalene		1000	1030	ug/L	0.740	2.54	20	
Acenaphthylene		1000	967	ug/L	2.14	3.30	20	
Anthracene		1000	945	ug/L	1.18	5.53	20	
Benzo[a]anthracene		1000	939	ug/L	1.22	6.06	20	
Benzo[b]fluoranthene		1000	889	ug/L	1.23	11.2	20	
Benzo[ghi]perylene		1000	975	ug/L	1.21	2.49	20	
Benzo[k]fluoranthene		1000	962	ug/L	1.26	3.83	20	
Chrysene		1000	966	ug/L	1.25	3.45	20	
Dibenz[ah]anthracene		1000	1010	ug/L	1.20	0.840	20	
Fluorene		1000	925	ug/L	1.39	7.52	20	
Indeno[1,2,3-cd]pyrene		1000	1000	ug/L	1.41	0.390	20	
Naphthalene		1000	969	ug/L	1.15	3.13	20	
Phenanthrene		1000	898	ug/L	1.12	10.2	20	
Pyrene		1000	940	ug/L	1.51	6.03	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 2403584
Report generated 05/07/2012 15:38



Microbac Laboratories Inc.
INTERNAL STANDARD AREA SUMMARY
(COMPARED TO CCV)

Login Number: L12050050
Instrument ID: HPMS7
Workgroup (AAB#): WG397013

CCV Number: WG397019-02
CAL ID: HPMS7-04-APR-12
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5
WG397019-02	NA	NA	57510	90937	97284	90339	95286
Upper Limit	NA	NA	115020	181874	194568	180678	190572
Lower Limit	NA	NA	28755	45469	48642	45170	47643
<u>L12050050-01</u>	1.00	01	61406	94791	97423	91589	101758
L12050050-03	1.00	01	61036	95450	98139	92629	102423
L12050050-05	1.00	01	60935	96092	97237	93246	100286
L12050050-07	1.00	01	62127	97611	99942	93536	104496
WG396861-02	1.00	01	60234	93901	98769	92437	99121
WG396861-03	1.00	01	59985	95903	99929	93096	96353

IS-1 - Acenaphthene-d10
IS-2 - Chrysene-d12
IS-3 - Naphthalene-d8
IS-4 - Perylene-d12
IS-5 - Phenanthrene-d10

Underline = Response outside limits



Microbac Laboratories Inc.
INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO CCV)

Login Number: L12050050
Instrument ID: HPMS7
Workgroup (AAB#): WG397013

CCV Number: WG397019-02
CAL ID: HPMS7-04-APR-12
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5
WG397019-02	NA	NA	8.22	13.47	6.03	15.7	10.09
Upper Limit	NA	NA	8.72	13.97	6.53	16.2	10.59
Lower Limit	NA	NA	7.72	12.97	5.53	15.2	9.59
<u>L12050050-01</u>	1.00	01	8.22	13.47	6.03	15.7	10.09
L12050050-03	1.00	01	8.22	13.47	6.02	15.7	10.09
L12050050-05	1.00	01	8.22	13.47	6.03	15.7	10.08
L12050050-07	1.00	01	8.22	13.47	6.03	15.7	10.09
WG396861-02	1.00	01	8.22	13.47	6.02	15.7	10.09
WG396861-03	1.00	01	8.22	13.47	6.02	15.7	10.08

- IS-1 - Acenaphthene-d10
- IS-2 - Chrysene-d12
- IS-3 - Naphthalene-d8
- IS-4 - Perylene-d12
- IS-5 - Phenanthrene-d10

Underline = Response outside limits



2.2.2.3 Sample Data

Data File : C:\MSDCHEM\1\DATA\050412\7M54902.D Vial: 20
 Acq On : 4 May 2012 5:50 pm Operator: CAA
 Sample : L12050050-01 Inst : HPMS7
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 07 08:46:34 2012 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Mon May 07 08:46:11 2012
 Response via : Initial Calibration
 DataAcq Meth : PAHLSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.03	136	97423	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.22	164	61406	1.00	ug/ml	-0.01
11) Phenanthrene-d10	10.09	188	101758	1.00	ug/ml	0.00
15) Chrysene-d12	13.47	240	94791	1.00	ug/ml	-0.01
20) Perylene-d12	15.70	264	91589	1.00	ug/ml	-0.01

System Monitoring Compounds						
2) Nitrobenzene-d5	5.18	82	52237	1.2839	ug/ml	0.00
Spiked Amount	2.500	Range 35 - 114	Recovery	=	51.20%	
7) 2-Fluorobiphenyl	7.33	172	120488	1.1863	ug/ml	-0.01
Spiked Amount	2.500	Range 43 - 116	Recovery	=	47.60%	
17) p-Terphenyl-d14	12.08	244	195955	2.2282	ug/ml	-0.01
Spiked Amount	2.500	Range 33 - 141	Recovery	=	89.20%	

Target Compounds Qvalue

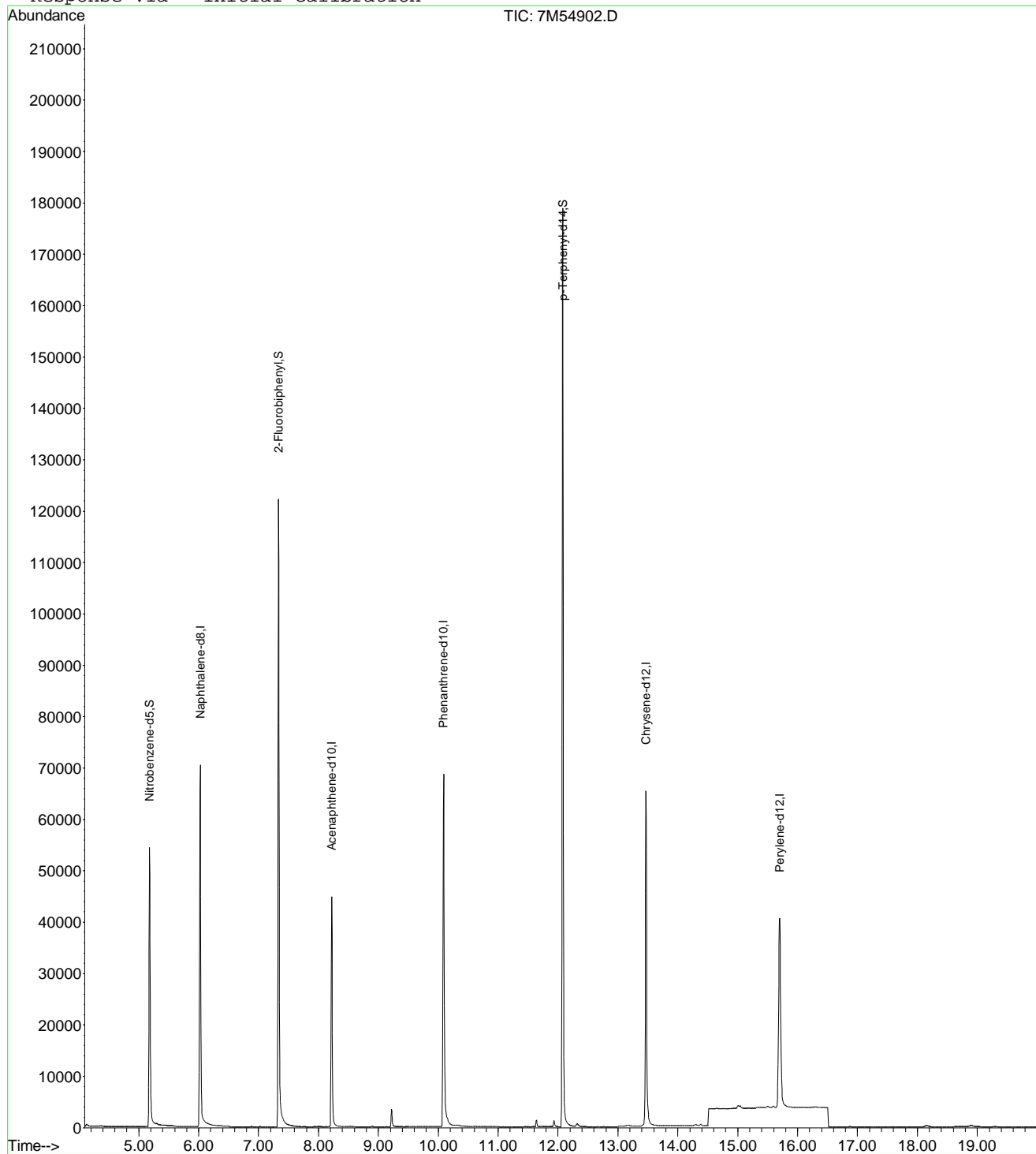
 (#) = qualifier out of range (m) = manual integration
 7M54902.D SIMPAHL.M Mon May 07 08:55:34 2012

Data File : C:\MSDCHEM\1\DATA\050412\7M54902.D
 Acq On : 4 May 2012 5:50 pm
 Sample : L12050050-01
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 7 8:46 2012

Vial: 20
 Operator: CAA
 Inst : HPMS7
 Multiplr: 1.00

Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Mon May 07 08:46:11 2012
 Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\050412\7M54903.D Vial: 21
 Acq On : 4 May 2012 6:18 pm Operator: CAA
 Sample : L12050050-03 Inst : HPMS7
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 07 08:46:34 2012 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Mon May 07 08:46:11 2012
 Response via : Initial Calibration
 DataAcq Meth : PAHLSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.02	136	98139	1.00	ug/ml	-0.01
6) Acenaphthene-d10	8.22	164	61036	1.00	ug/ml	-0.01
11) Phenanthrene-d10	10.09	188	102423	1.00	ug/ml	0.00
15) Chrysene-d12	13.47	240	95450	1.00	ug/ml	-0.01
20) Perylene-d12	15.70	264	92629	1.00	ug/ml	-0.02

System Monitoring Compounds						
2) Nitrobenzene-d5	5.18	82	69123	1.6865	ug/ml	0.00
Spiked Amount	2.500	Range 35 - 114	Recovery	=	67.60%	
7) 2-Fluorobiphenyl	7.33	172	159323	1.5782	ug/ml	-0.01
Spiked Amount	2.500	Range 43 - 116	Recovery	=	63.20%	
17) p-Terphenyl-d14	12.07	244	202165	2.2830	ug/ml	-0.02
Spiked Amount	2.500	Range 33 - 141	Recovery	=	91.20%	

Target Compounds Qvalue

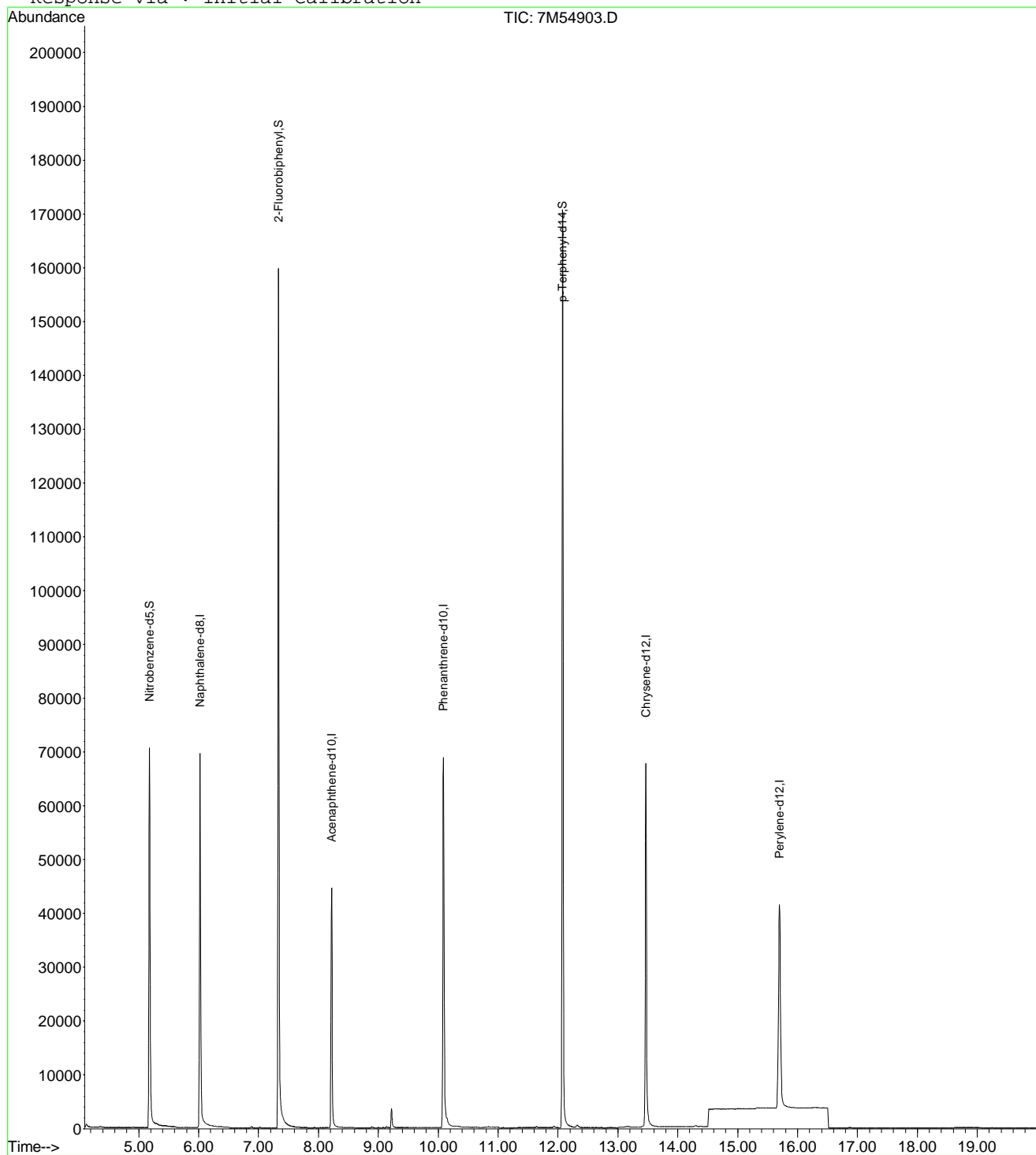
 (#) = qualifier out of range (m) = manual integration
 7M54903.D SIMPAHL.M Mon May 07 08:55:35 2012

Data File : C:\MSDCHEM\1\DATA\050412\7M54903.D
 Acq On : 4 May 2012 6:18 pm
 Sample : L12050050-03
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 7 8:46 2012

Vial: 21
 Operator: CAA
 Inst : HPMS7
 Multiplr: 1.00

Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Mon May 07 08:46:11 2012
 Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\050412\7M54904.D Vial: 22
 Acq On : 4 May 2012 6:46 pm Operator: CAA
 Sample : L12050050-05 Inst : HPMS7
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 07 08:46:35 2012 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Mon May 07 08:46:11 2012
 Response via : Initial Calibration
 DataAcq Meth : PAHLSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.03	136	97237	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.22	164	60935	1.00	ug/ml	-0.01
11) Phenanthrene-d10	10.08	188	100286	1.00	ug/ml	-0.01
15) Chrysene-d12	13.47	240	96092	1.00	ug/ml	-0.01
20) Perylene-d12	15.70	264	93246	1.00	ug/ml	-0.02

System Monitoring Compounds						
2) Nitrobenzene-d5	5.18	82	60336	1.4858	ug/ml	0.00
Spiked Amount	2.500	Range 35 - 114	Recovery	=	59.60%	
7) 2-Fluorobiphenyl	7.33	172	139496	1.3841	ug/ml	-0.01
Spiked Amount	2.500	Range 43 - 116	Recovery	=	55.20%	
17) p-Terphenyl-d14	12.08	244	145560	1.6328	ug/ml	-0.01
Spiked Amount	2.500	Range 33 - 141	Recovery	=	65.20%	

Target Compounds Qvalue

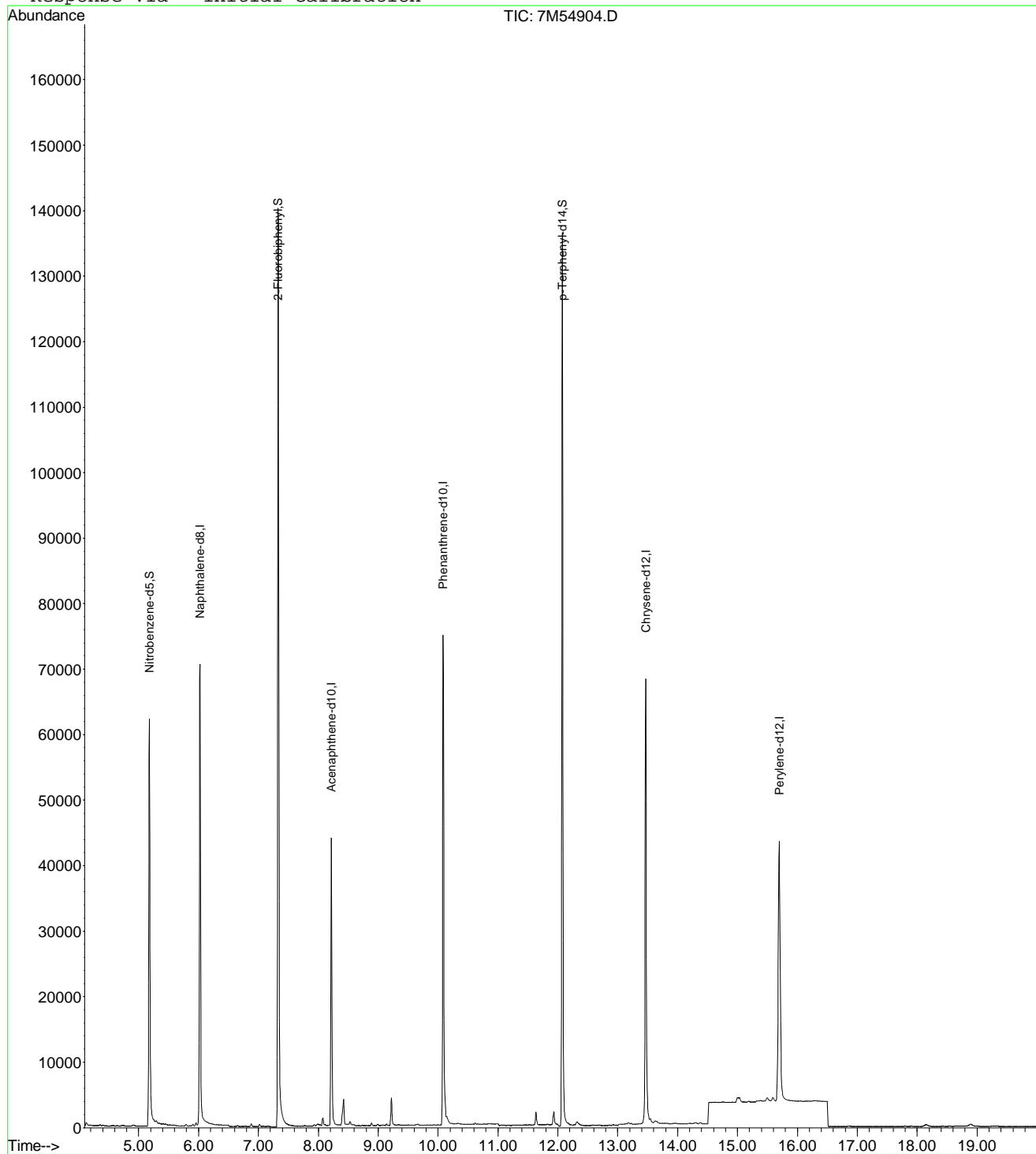
 (#) = qualifier out of range (m) = manual integration
 7M54904.D SIMPAHL.M Mon May 07 08:55:35 2012

Data File : C:\MSDCHEM\1\DATA\050412\7M54904.D
 Acq On : 4 May 2012 6:46 pm
 Sample : L12050050-05
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 7 8:46 2012

Vial: 22
 Operator: CAA
 Inst : HPMS7
 Multiplr: 1.00

Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Mon May 07 08:46:11 2012
 Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\050412\7M54905.D Vial: 23
 Acq On : 4 May 2012 7:13 pm Operator: CAA
 Sample : L12050050-07 Inst : HPMS7
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 07 08:46:35 2012 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Mon May 07 08:46:11 2012
 Response via : Initial Calibration
 DataAcq Meth : PAHLSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.03	136	99942	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.22	164	62127	1.00	ug/ml	-0.01
11) Phenanthrene-d10	10.09	188	104496	1.00	ug/ml	0.00
15) Chrysene-d12	13.47	240	97611	1.00	ug/ml	-0.01
20) Perylene-d12	15.70	264	93536	1.00	ug/ml	-0.02

System Monitoring Compounds						
2) Nitrobenzene-d5	5.18	82	57748	1.3835	ug/ml	0.00
Spiked Amount	2.500	Range 35 - 114	Recovery	=	55.20%	
7) 2-Fluorobiphenyl	7.33	172	132631	1.2907	ug/ml	-0.01
Spiked Amount	2.500	Range 43 - 116	Recovery	=	51.60%	
17) p-Terphenyl-d14	12.08	244	189355	2.0910	ug/ml	-0.01
Spiked Amount	2.500	Range 33 - 141	Recovery	=	83.60%	

Target Compounds Qvalue

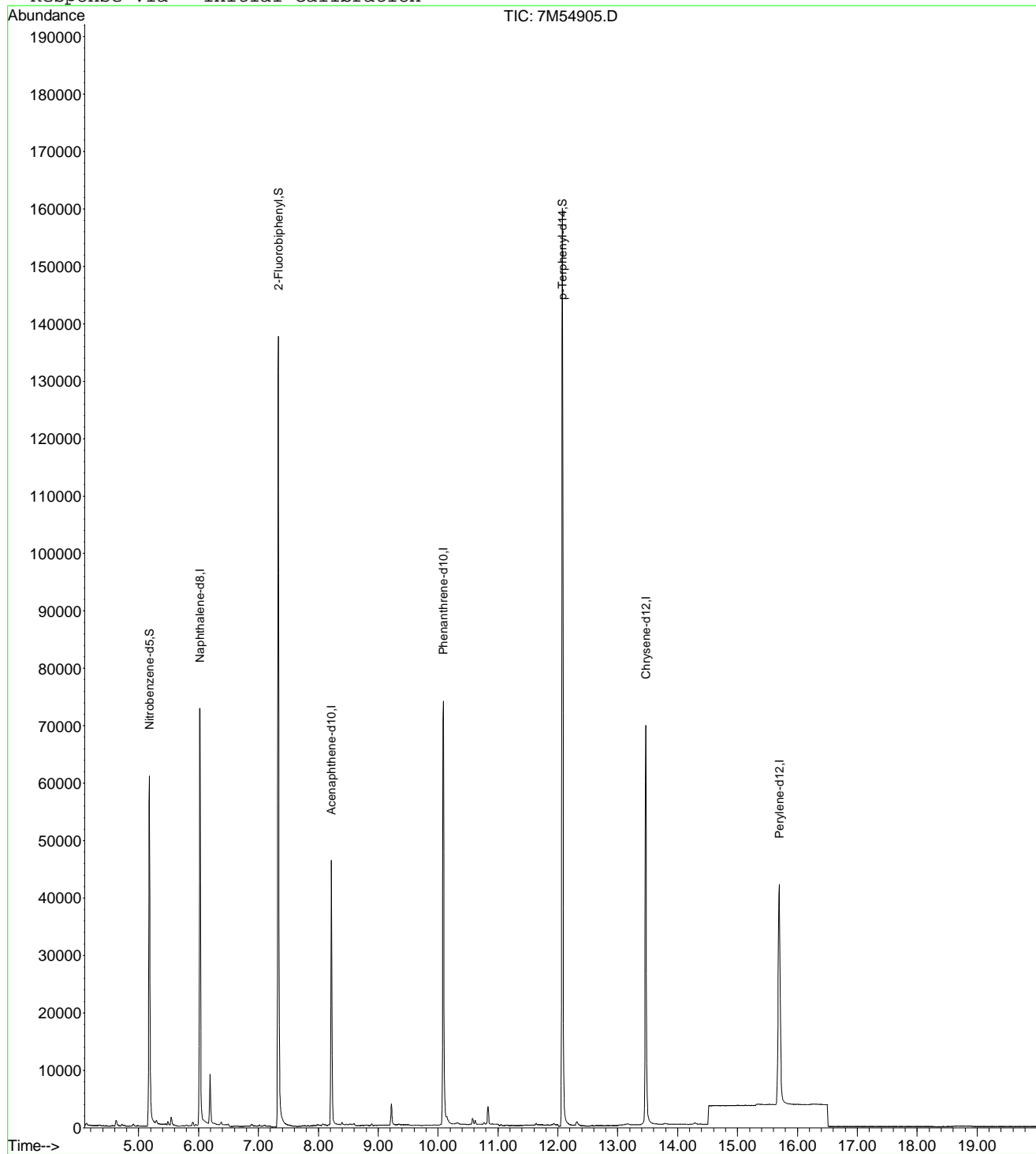
 (#) = qualifier out of range (m) = manual integration
 7M54905.D SIMPAHL.M Mon May 07 08:55:36 2012

Data File : C:\MSDCHEM\1\DATA\050412\7M54905.D
 Acq On : 4 May 2012 7:13 pm
 Sample : L12050050-07
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 7 8:46 2012

Vial: 23
 Operator: CAA
 Inst : HPMS7
 Multiplr: 1.00

Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Mon May 07 08:46:11 2012
 Response via : Initial Calibration



2.2.2.4 Standards Data

Data File : C:\MSDCHEM\1\DATA\040412\7M54728.D Vial: 2
 Acq On : 4 Apr 2012 9:39 am Operator: CAA
 Sample : WG394111-02 1PPM PAHL STD Inst : HPMS7
 Misc : 1,1 STD49560 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 05 10:56:38 2012 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Thu Apr 05 10:56:28 2012
 Response via : Initial Calibration
 DataAcq Meth : PAHLSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.03	136	153463	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.23	164	85143	1.00	ug/ml	0.00
11) Phenanthrene-d10	10.10	188	143225	1.00	ug/ml	0.00
15) Chrysene-d12	13.48	240	118114	1.00	ug/ml	0.00
20) Perylene-d12	15.71	264	116508	1.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Nitrobenzene-d5	5.18	82	63871	0.9809	ug/ml	0.00
Spiked Amount	2.500	Range	35 - 114	Recovery	=	39.20%
7) 2-Fluorobiphenyl	7.35	172	137427	1.0163	ug/ml	0.00
Spiked Amount	2.500	Range	43 - 116	Recovery	=	40.80%#
17) p-Terphenyl-d14	12.09	244	118698	1.1101	ug/ml	0.00
Spiked Amount	2.500	Range	33 - 141	Recovery	=	44.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.05	128	174314	0.9550	ug/ml	100
4) 2-Methylnaphthalene	6.89	142	112240	1.0173	ug/ml	100
5) 1-Methylnaphthalene	7.03	142	119453	1.0871	ug/ml	99
8) Acenaphthylene	8.04	152	169525	0.9990	ug/ml	100
9) Acenaphthene	8.27	154	101608	0.9584	ug/ml	100
10) Fluorene	8.90	166	126450	1.0464	ug/ml	100
12) Phenanthrene	10.13	178	174346	0.9841	ug/ml	100
13) Anthracene	10.18	178	177663	1.0067	ug/ml	100
14) Fluoranthene	11.65	202	183927	0.9372	ug/ml	100
16) Pyrene	11.94	202	208192	1.1119	ug/ml	100
18) Benzo[a]anthracene	13.46	228	151964	0.9952	ug/ml	100
19) Chrysene	13.51	228	148985	0.9748	ug/ml	100
21) Benzo[b]fluoranthene	15.01	252	153733	0.9700	ug/ml	96
22) Benzo[k]fluoranthene	15.05	252	143781	0.9822	ug/ml	96
23) Benzo[a]pyrene	15.61	252	148527	0.9919	ug/ml	100
24) Indeno[1,2,3-cd]pyrene	18.16	276	167498	0.9689	ug/ml	100
25) Dibenz[ah]anthracene	18.16	278	142338	0.9814	ug/ml	100
26) Benzo[ghi]perylene	18.91	276	144004	0.9548	ug/ml	100

(#) = qualifier out of range (m) = manual integration
 7M54728.D SIMPAHL.M Thu Apr 05 13:50:13 2012

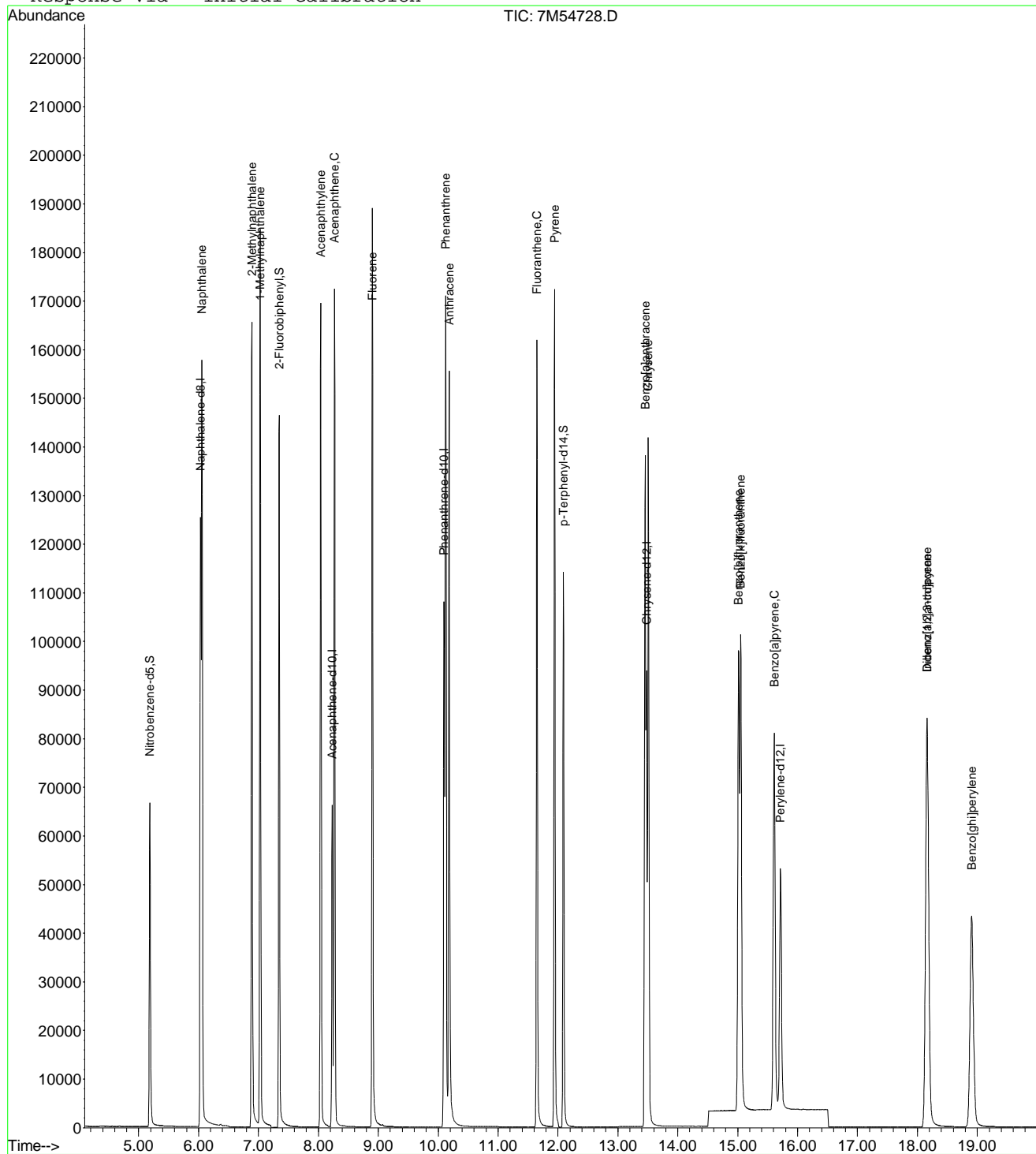
Page 1

Data File : C:\MSDCHEM\1\DATA\040412\7M54728.D
 Acq On : 4 Apr 2012 9:39 am
 Sample : WG394111-02 1PPM PAHL STD
 Misc : 1,1 STD49560
 MS Integration Params: RTEINT.P
 Quant Time: Apr 5 10:56 2012

Vial: 2
 Operator: CAA
 Inst : HPMS7
 Multiplr: 1.00

Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Thu Apr 05 10:58:29 2012
 Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\040412\7M54729.D Vial: 3
 Acq On : 4 Apr 2012 10:35 am Operator: CAA
 Sample : WG394111-03 10PPM PAHL STD Inst : HPMS7
 Misc : 1,1 STD49560 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 05 10:56:53 2012 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Thu Apr 05 10:56:49 2012
 Response via : Initial Calibration
 DataAcq Meth : PAHLSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.04	136	128908	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.24	164	64023	1.00	ug/ml	0.00
11) Phenanthrene-d10	10.10	188	105133	1.00	ug/ml	0.00
15) Chrysene-d12	13.49	240	92409	1.00	ug/ml	0.00
20) Perylene-d12	15.73	264	91750	1.00	ug/ml	0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Nitrobenzene-d5	5.19	82	514649	10.5523	ug/ml	0.00
Spiked Amount	2.500	Range	35 - 114	Recovery	=	422.00%#
7) 2-Fluorobiphenyl	7.35	172	982495	10.8849	ug/ml	0.00
Spiked Amount	2.500	Range	43 - 116	Recovery	=	435.20%#
17) p-Terphenyl-d14	12.09	244	752352	9.8300	ug/ml	0.00
Spiked Amount	2.500	Range	33 - 141	Recovery	=	393.20%#

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.06	128	1299479	9.4803	ug/ml	98
4) 2-Methylnaphthalene	6.90	142	851242	10.1225	ug/ml	100
5) 1-Methylnaphthalene	7.03	142	819176	9.7675	ug/ml	100
8) Acenaphthylene	8.04	152	1359329	12.0426	ug/ml	98
9) Acenaphthene	8.27	154	743637	10.6172	ug/ml	99
10) Fluorene	8.91	166	903709	11.2386	ug/ml	99
12) Phenanthrene	10.13	178	1204227	10.3551	ug/ml	98
13) Anthracene	10.19	178	1226008	10.6044	ug/ml	98
14) Fluoranthene	11.65	202	1136279	8.8360	ug/ml	98
16) Pyrene	11.95	202	1269832	9.4356	ug/ml	99
18) Benzo[a]anthracene	13.46	228	1071059	10.0680	ug/ml	98
19) Chrysene	13.51	228	1017304	9.5093	ug/ml	98
21) Benzo[b]fluoranthene	15.03	252	1150949	10.3919	ug/ml	98
22) Benzo[k]fluoranthene	15.06	252	1050437	10.2151	ug/ml	98
23) Benzo[a]pyrene	15.62	252	1081378	10.2910	ug/ml	98
24) Indeno[1,2,3-cd]pyrene	18.19	276	1239153	10.1969	ug/ml	100
25) Dibenz[ah]anthracene	18.19	278	1055300	10.3692	ug/ml	100
26) Benzo[ghi]perylene	18.93	276	1226855	11.5835	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 7M54729.D SIMPAHL.M Thu Apr 05 13:50:24 2012

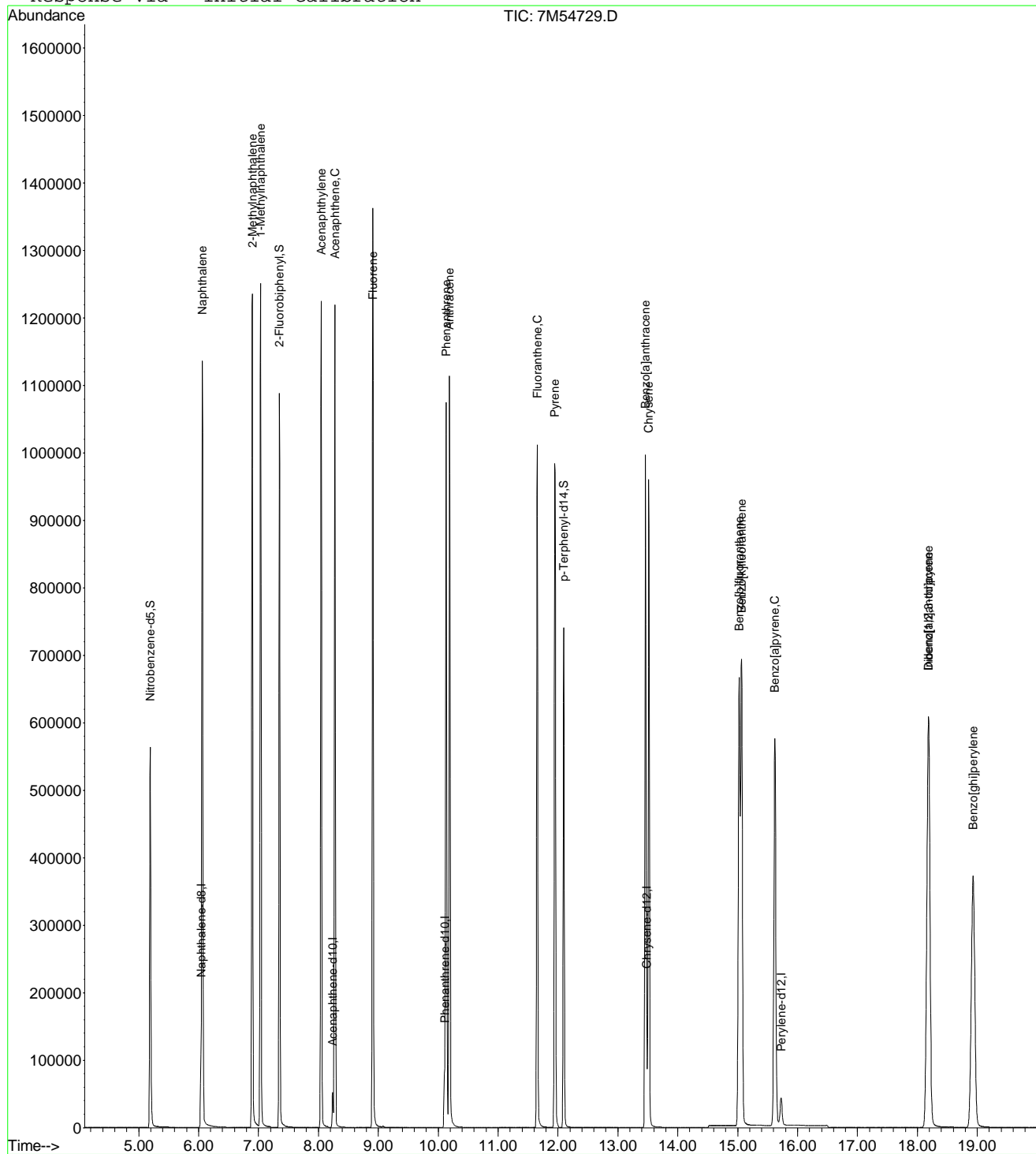
Page 1

Data File : C:\MSDCHEM\1\DATA\040412\7M54729.D
 Acq On : 4 Apr 2012 10:35 am
 Sample : WG394111-03 10PPM PAHL STD
 Misc : 1,1 STD49560
 MS Integration Params: RTEINT.P
 Quant Time: Apr 5 10:56 2012

Vial: 3
 Operator: CAA
 Inst : HPMS7
 Multiplr: 1.00

Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Thu Apr 05 10:58:29 2012
 Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\040412\7M54730.D Vial: 4
 Acq On : 4 Apr 2012 11:03 am Operator: CAA
 Sample : WG394111-04 5PPM PAHL STD Inst : HPMS7
 Misc : 1,1 STD49560 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 05 10:57:08 2012 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Thu Apr 05 10:57:04 2012
 Response via : Initial Calibration
 DataAcq Meth : PAHLSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.03	136	108655	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.23	164	58819	1.00	ug/ml	0.00
11) Phenanthrene-d10	10.10	188	97058	1.00	ug/ml	0.00
15) Chrysene-d12	13.48	240	93620	1.00	ug/ml	0.00
20) Perylene-d12	15.71	264	84709	1.00	ug/ml	0.00

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Nitrobenzene-d5		5.18	82	227669	5.6709	ug/ml	0.00
Spiked Amount	2.500	Range	35 - 114	Recovery	=	226.80%#	
7) 2-Fluorobiphenyl		7.34	172	476716	5.7218	ug/ml	0.00
Spiked Amount	2.500	Range	43 - 116	Recovery	=	228.80%#	
17) p-Terphenyl-d14		12.09	244	401697	5.1543	ug/ml	0.00
Spiked Amount	2.500	Range	33 - 141	Recovery	=	206.00%#	

Target Compounds		R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene		6.06	128	598766	5.2004	ug/ml	99
4) 2-Methylnaphthalene		6.89	142	396960	5.6167	ug/ml	100
5) 1-Methylnaphthalene		7.03	142	401769	5.7396	ug/ml	100
8) Acenaphthylene		8.04	152	644671	6.1053	ug/ml	99
9) Acenaphthene		8.27	154	356386	5.5560	ug/ml	100
10) Fluorene		8.90	166	440591	5.9040	ug/ml	100
12) Phenanthrene		10.13	178	578333	5.3513	ug/ml	100
13) Anthracene		10.18	178	603655	5.6342	ug/ml	99
14) Fluoranthene		11.64	202	627208	5.3565	ug/ml	99
16) Pyrene		11.94	202	697024	5.0790	ug/ml	100
18) Benzo[a]anthracene		13.45	228	597051	5.5085	ug/ml	98
19) Chrysene		13.51	228	566428	5.2679	ug/ml	99
21) Benzo[b]fluoranthene		15.01	252	633809	6.1547	ug/ml	99
22) Benzo[k]fluoranthene		15.05	252	559677	5.8368	ug/ml	99
23) Benzo[a]pyrene		15.60	252	525392	5.3975	ug/ml	99
24) Indeno[1,2,3-cd]pyrene		18.16	276	591189	5.3721	ug/ml	100
25) Dibenz[ah]anthracene		18.16	278	503437	5.4570	ug/ml	100
26) Benzo[ghi]perylene		18.90	276	511152	5.2233	ug/ml	100

(#) = qualifier out of range (m) = manual integration
 7M54730.D SIMPAHL.M Thu Apr 05 13:50:25 2012

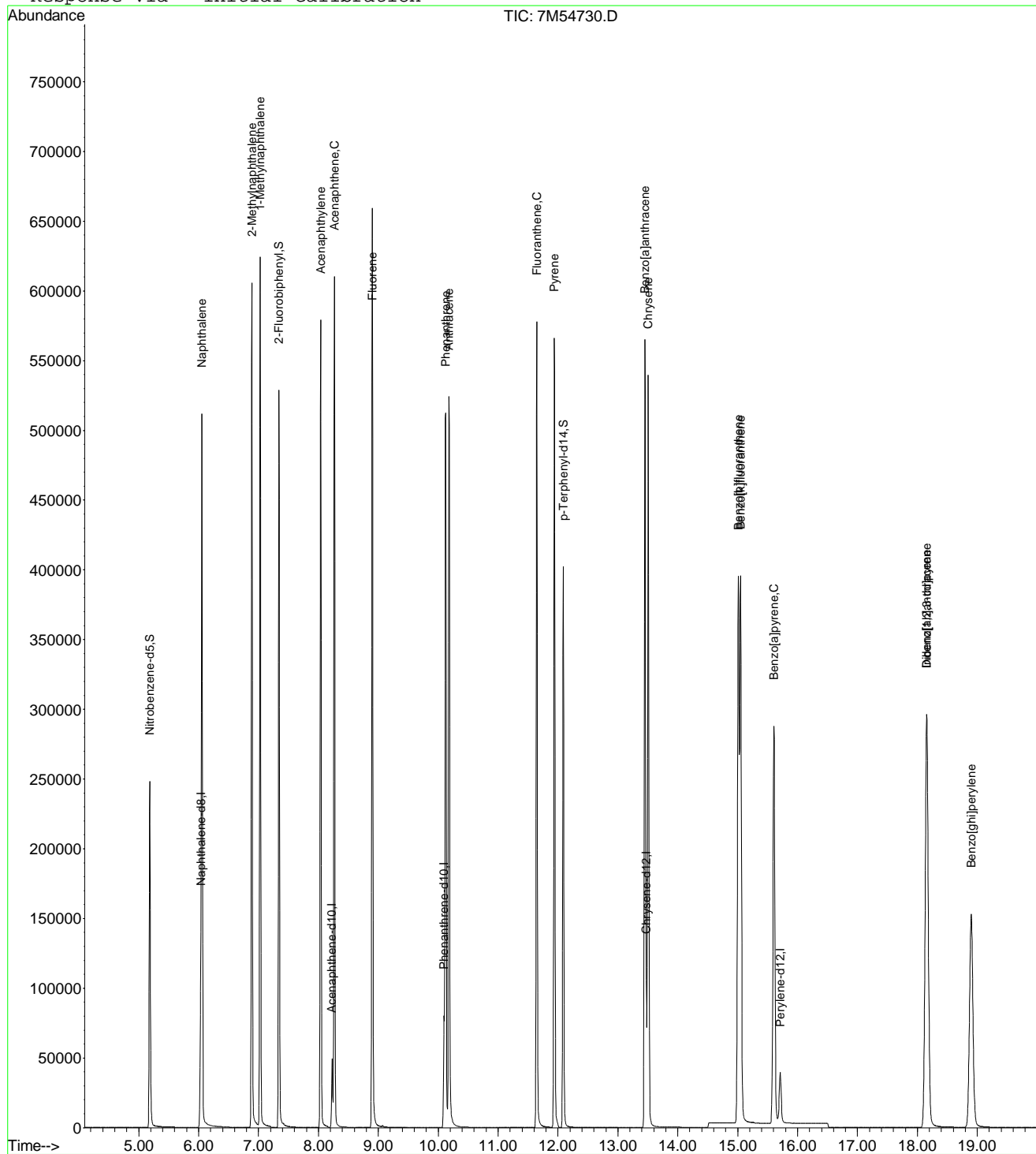
Page 1

Data File : C:\MSDCHEM\1\DATA\040412\7M54730.D
 Acq On : 4 Apr 2012 11:03 am
 Sample : WG394111-04 5PPM PAHL STD
 Misc : 1,1 STD49560
 MS Integration Params: RTEINT.P
 Quant Time: Apr 5 10:57 2012

Vial: 4
 Operator: CAA
 Inst : HPMS7
 Multiplr: 1.00

Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Thu Apr 05 10:58:29 2012
 Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\040412\7M54731.D Vial: 5
 Acq On : 4 Apr 2012 11:30 am Operator: CAA
 Sample : WG394111-05 2.5PPM PAHL STD Inst : HPMS7
 Misc : 1,1 STD49560 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 05 10:57:22 2012 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Thu Apr 05 10:57:18 2012
 Response via : Initial Calibration
 DataAcq Meth : PAHLSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.03	136	107923	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.23	164	51916	1.00	ug/ml	0.00
11) Phenanthrene-d10	10.10	188	98158	1.00	ug/ml	0.00
15) Chrysene-d12	13.48	240	84003	1.00	ug/ml	0.00
20) Perylene-d12	15.71	264	82066	1.00	ug/ml	0.00

System Monitoring Compounds						
2) Nitrobenzene-d5	5.18	82	112962	2.5073	ug/ml	0.00
Spiked Amount	2.500	Range 35 - 114	Recovery	=	100.40%	
7) 2-Fluorobiphenyl	7.34	172	212151	2.5509	ug/ml	0.00
Spiked Amount	2.500	Range 43 - 116	Recovery	=	102.00%	
17) p-Terphenyl-d14	12.09	244	187122	2.4047	ug/ml	0.00
Spiked Amount	2.500	Range 33 - 141	Recovery	=	96.00%	

Target Compounds						Qvalue
3) Naphthalene	6.05	128	307088	2.4019	ug/ml	100
4) 2-Methylnaphthalene	6.89	142	175530	2.2161	ug/ml	100
5) 1-Methylnaphthalene	7.03	142	176814	2.2516	ug/ml	100
8) Acenaphthylene	8.04	152	301490	2.8308	ug/ml	99
9) Acenaphthene	8.27	154	175018	2.7418	ug/ml	94
10) Fluorene	8.90	166	216247	2.8919	ug/ml	100
12) Phenanthrene	10.12	178	309124	2.5215	ug/ml	100
13) Anthracene	10.18	178	307296	2.5122	ug/ml	100
14) Fluoranthene	11.65	202	284981	2.1436	ug/ml	100
16) Pyrene	11.94	202	314739	2.3011	ug/ml	100
18) Benzo[a]anthracene	13.45	228	266063	2.4304	ug/ml	100
19) Chrysene	13.51	228	258320	2.3925	ug/ml	99
21) Benzo[b]fluoranthene	15.01	252	285961	2.5037	ug/ml	96
22) Benzo[k]fluoranthene	15.05	252	257800	2.4437	ug/ml	96
23) Benzo[a]pyrene	15.60	252	260806	2.4638	ug/ml	100
24) Indeno[1,2,3-cd]pyrene	18.16	276	302188	2.5265	ug/ml	100
25) Dibenz[ah]anthracene	18.16	278	256480	2.5534	ug/ml	100
26) Benzo[ghi]perylene	18.89	276	255121	2.4055	ug/ml	100

 (#) = qualifier out of range (m) = manual integration
 7M54731.D SIMPAHL.M Thu Apr 05 13:50:26 2012

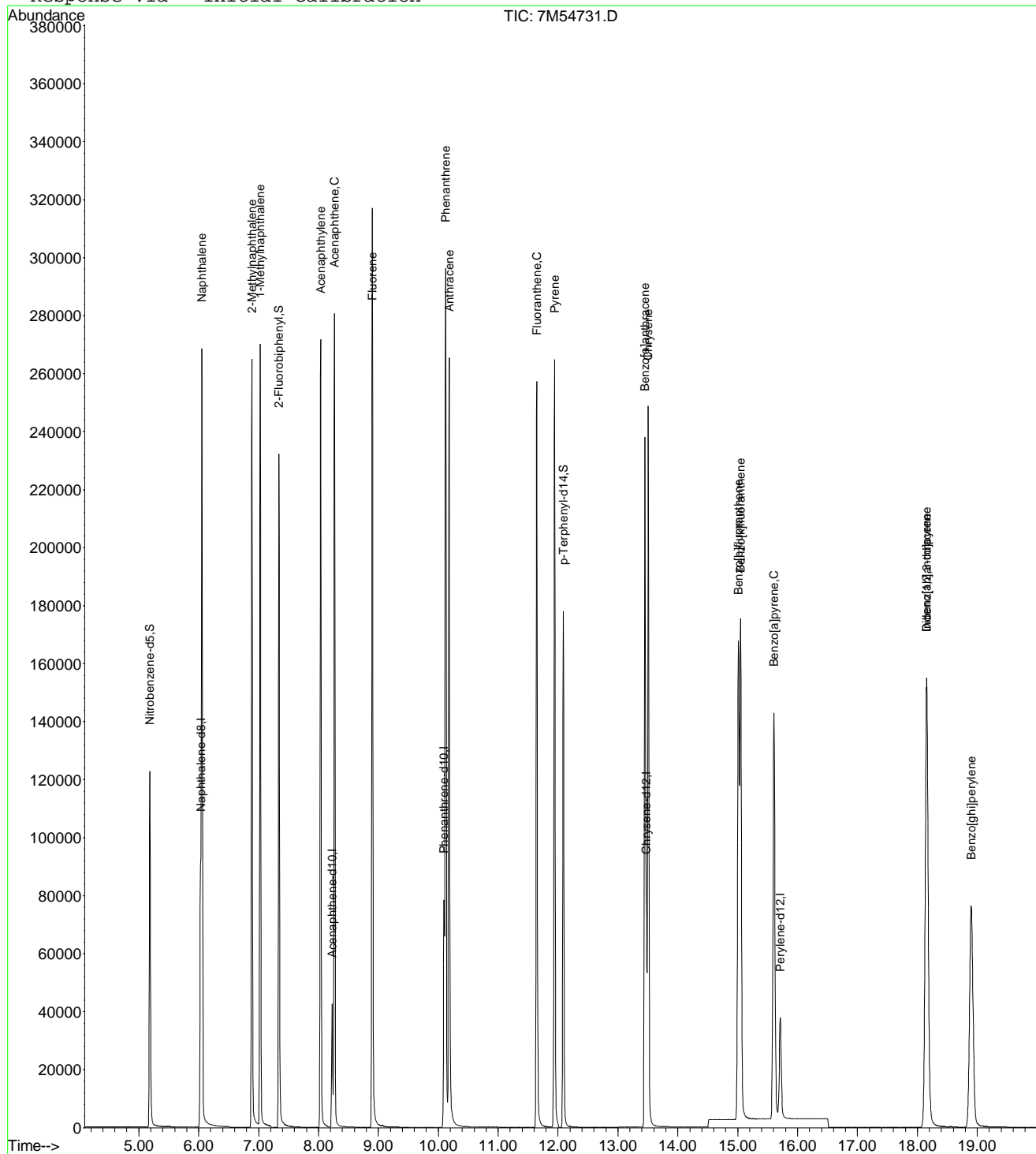
Page 1

Data File : C:\MSDCHEM\1\DATA\040412\7M54731.D
 Acq On : 4 Apr 2012 11:30 am
 Sample : WG394111-05 2.5PPM PAHL STD
 Misc : 1,1 STD49560
 MS Integration Params: RTEINT.P
 Quant Time: Apr 5 10:57 2012

Vial: 5
 Operator: CAA
 Inst : HPMS7
 Multiplr: 1.00

Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Thu Apr 05 10:58:29 2012
 Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\040412\7M54732.D Vial: 6
 Acq On : 4 Apr 2012 11:58 am Operator: CAA
 Sample : WG394111-06 0.5PPM PAHL STD Inst : HPMS7
 Misc : 1,1 STD49560 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 05 10:57:36 2012 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Thu Apr 05 10:57:31 2012
 Response via : Initial Calibration
 DataAcq Meth : PAHLSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.03	136	124416	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.23	164	72846	1.00	ug/ml	0.00
11) Phenanthrene-d10	10.09	188	97007	1.00	ug/ml	0.00
15) Chrysene-d12	13.48	240	93356	1.00	ug/ml	0.00
20) Perylene-d12	15.71	264	102269	1.00	ug/ml	0.00

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Nitrobenzene-d5		5.18	82	25264	0.4849	ug/ml	0.00
Spiked Amount	2.500	Range	35 - 114	Recovery	=	19.20%#	
7) 2-Fluorobiphenyl		7.34	172	59769	0.5074	ug/ml	0.00
Spiked Amount	2.500	Range	43 - 116	Recovery	=	20.40%#	
17) p-Terphenyl-d14		12.09	244	43554	0.5033	ug/ml	0.00
Spiked Amount	2.500	Range	33 - 141	Recovery	=	20.00%#	

Target Compounds		R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene		6.05	128	75307	0.5106	ug/ml	100
4) 2-Methylnaphthalene		6.89	142	48164	0.5252	ug/ml	100
5) 1-Methylnaphthalene		7.03	142	49560	0.5450	ug/ml	100
8) Acenaphthylene		8.04	152	77288	0.5039	ug/ml	99
9) Acenaphthene		8.27	154	43592	0.4783	ug/ml	100
10) Fluorene		8.90	166	46685	0.4326	ug/ml	99
12) Phenanthrene		10.12	178	59636	0.4896	ug/ml	99
13) Anthracene		10.18	178	61358	0.5065	ug/ml	99
14) Fluoranthene		11.65	202	66304	0.5157	ug/ml	100
16) Pyrene		11.94	202	74252	0.4885	ug/ml	100
18) Benzo[a]anthracene		13.45	228	59958	0.4920	ug/ml	100
19) Chrysene		13.51	228	61514	0.5123	ug/ml	99
21) Benzo[b]fluoranthene		15.01	252	68495	0.4786	ug/ml	100
22) Benzo[k]fluoranthene		15.05	252	66287	0.5040	ug/ml	99
23) Benzo[a]pyrene		15.60	252	65422	0.4974	ug/ml	99
24) Indeno[1,2,3-cd]pyrene		18.16	276	65450	0.4291	ug/ml	100
25) Dibenz[ah]anthracene		18.16	278	55466	0.4329	ug/ml	100
26) Benzo[ghi]perylene		18.90	276	56433	0.4188	ug/ml	100

(#) = qualifier out of range (m) = manual integration
 7M54732.D SIMPAHL.M Thu Apr 05 13:50:26 2012

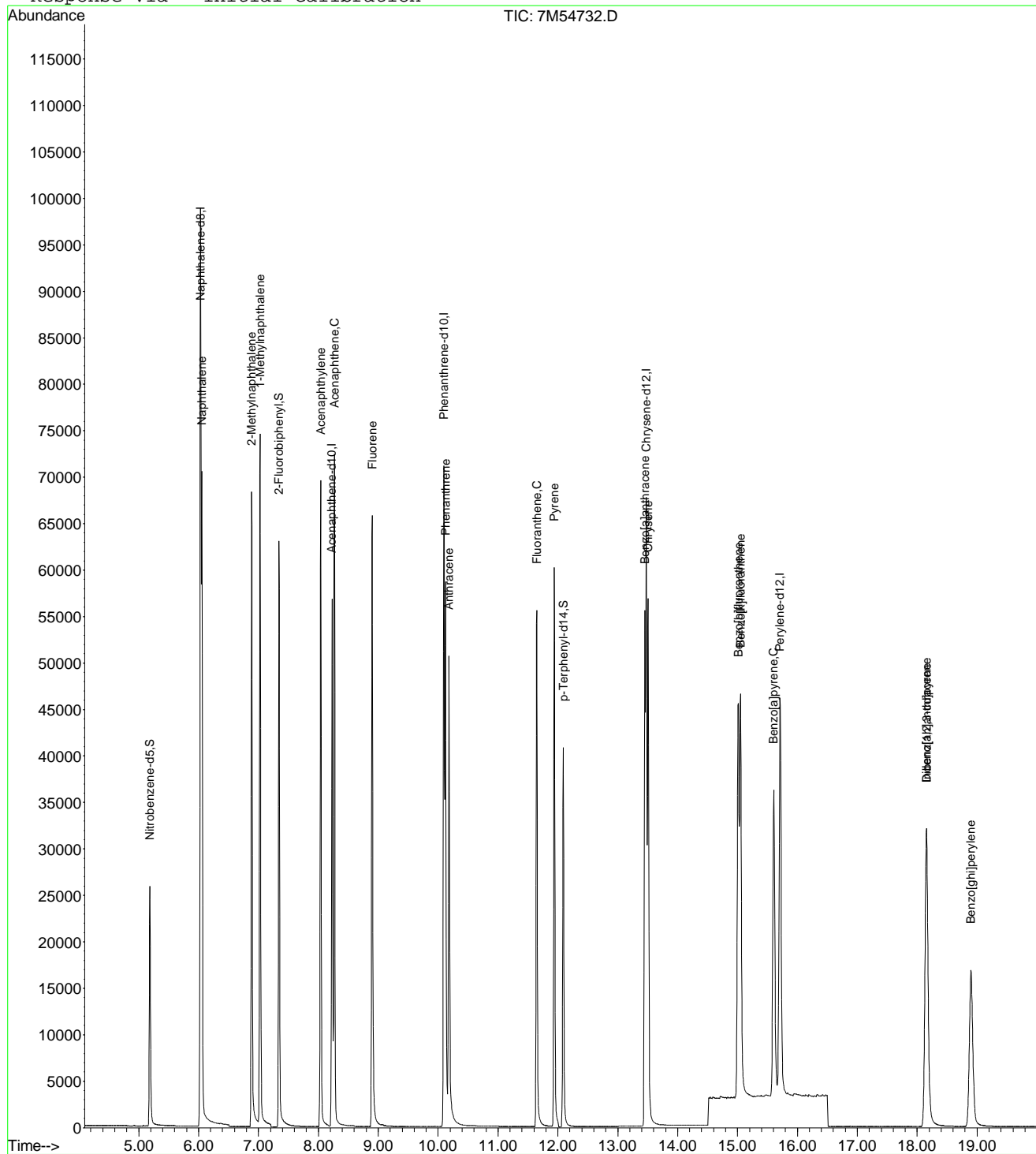
Page 1

Data File : C:\MSDCHEM\1\DATA\040412\7M54732.D
 Acq On : 4 Apr 2012 11:58 am
 Sample : WG394111-06 0.5PPM PAHL STD
 Misc : 1,1 STD49560
 MS Integration Params: RTEINT.P
 Quant Time: Apr 5 10:57 2012

Vial: 6
 Operator: CAA
 Inst : HPMS7
 Multiplr: 1.00

Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Thu Apr 05 10:58:29 2012
 Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\040412\7M54733.D Vial: 7
 Acq On : 4 Apr 2012 12:26 pm Operator: CAA
 Sample : WG394111-07 0.1PPM PAHL STD Inst : HPMS7
 Misc : 1,1 STD49560 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 05 10:57:49 2012 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Thu Apr 05 10:57:45 2012
 Response via : Initial Calibration
 DataAcq Meth : PAHLSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.03	136	111904	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.23	164	58154	1.00	ug/ml	0.00
11) Phenanthrene-d10	10.10	188	92508	1.00	ug/ml	0.00
15) Chrysene-d12	13.48	240	83643	1.00	ug/ml	0.00
20) Perylene-d12	15.71	264	89887	1.00	ug/ml	0.00

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Nitrobenzene-d5		5.18	82	5189	0.1113	ug/ml	0.00
Spiked Amount	2.500	Range	35 - 114	Recovery	=	4.40%#	
7) 2-Fluorobiphenyl		7.35	172	10392	0.1100	ug/ml	0.00
Spiked Amount	2.500	Range	43 - 116	Recovery	=	4.40%#	
17) p-Terphenyl-d14		12.09	244	9041	0.1167	ug/ml	0.00
Spiked Amount	2.500	Range	33 - 141	Recovery	=	4.80%#	

Target Compounds		R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene		6.05	128	15669	0.1186	ug/ml	99
4) 2-Methylnaphthalene		6.89	142	8513	0.1029	ug/ml	100
5) 1-Methylnaphthalene		7.03	142	8710	0.1041	ug/ml	100
8) Acenaphthylene		8.04	152	14501	0.1174	ug/ml	93
9) Acenaphthene		8.27	154	8476	0.1173	ug/ml	99
10) Fluorene		8.90	166	10569	0.1243	ug/ml	100
12) Phenanthrene		10.13	178	13238	0.1141	ug/ml	99
13) Anthracene		10.18	178	12272	0.1062	ug/ml	99
14) Fluoranthene		11.64	202	13816	0.1127	ug/ml	99
16) Pyrene		11.94	202	15836	0.1165	ug/ml	96
18) Benzo[a]anthracene		13.45	228	12524	0.1149	ug/ml	99
19) Chrysene		13.51	228	12906	0.1199	ug/ml	100
21) Benzo[b]fluoranthene		15.01	252	13954	0.1108	ug/ml#	80
22) Benzo[k]fluoranthene		15.05	252	14143	0.1224	ug/ml#	53
23) Benzo[a]pyrene		15.61	252	13356	0.1158	ug/ml	89
24) Indeno[1,2,3-cd]pyrene		18.16	276	13218	0.1025	ug/ml	100
25) Dibenz[ah]anthracene		18.16	278	11135	0.1026	ug/ml	100
26) Benzo[ghi]perylene		18.91	276	11654	0.1023	ug/ml	99

(#) = qualifier out of range (m) = manual integration
 7M54733.D SIMPAHL.M Thu Apr 05 13:50:27 2012

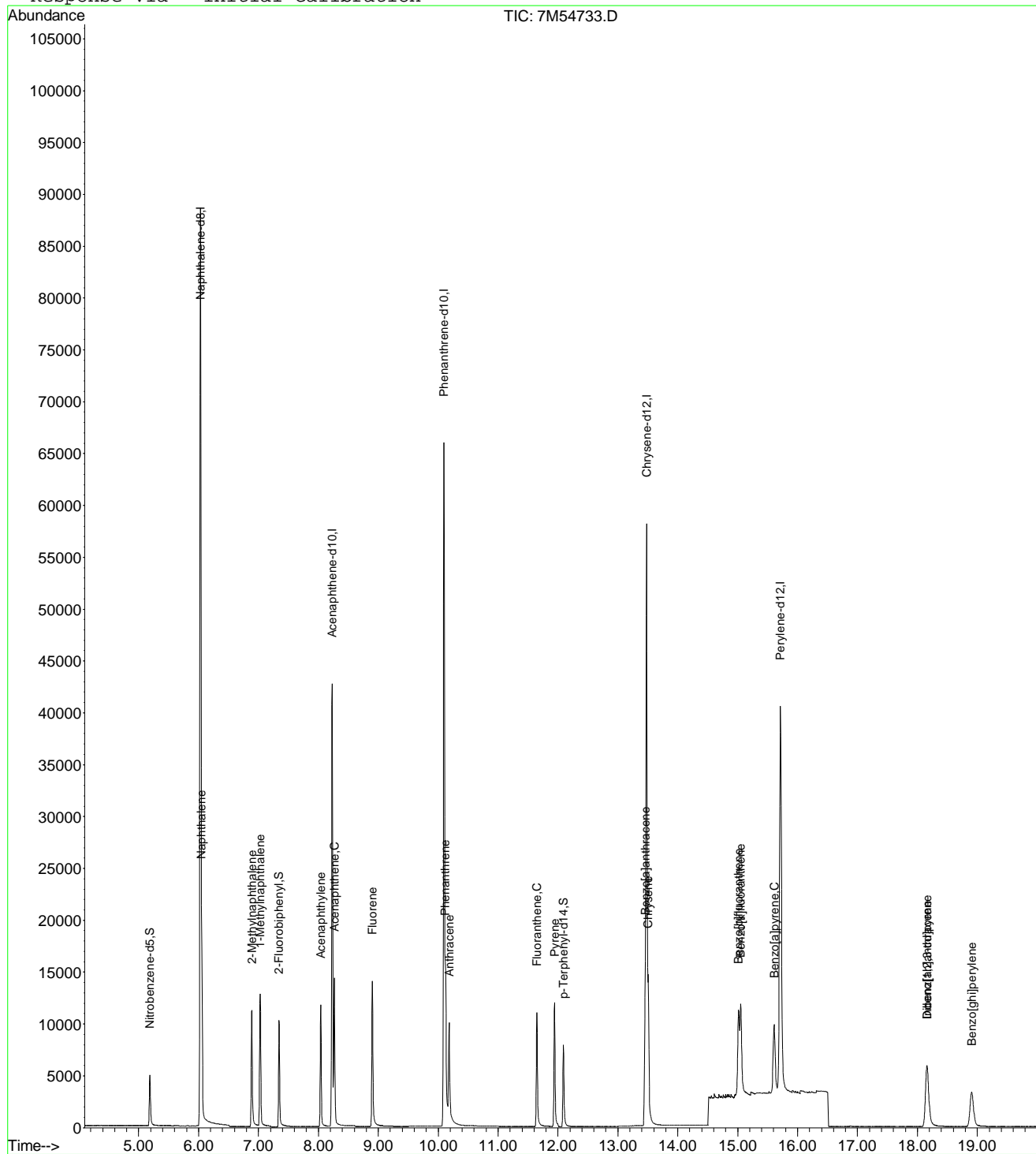
Page 1

Data File : C:\MSDCHEM\1\DATA\040412\7M54733.D
 Acq On : 4 Apr 2012 12:26 pm
 Sample : WG394111-07 0.1PPM PAHL STD
 Misc : 1,1 STD49560
 MS Integration Params: RTEINT.P
 Quant Time: Apr 5 10:57 2012

Vial: 7
 Operator: CAA
 Inst : HPMS7
 Multiplr: 1.00

Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Thu Apr 05 10:58:29 2012
 Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\040412\7M54734.D Vial: 8
 Acq On : 4 Apr 2012 12:53 pm Operator: CAA
 Sample : WG394111-08 0.05PPM PAHL STD Inst : HPMS7
 Misc : 1,1 STD49560 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 05 10:58:18 2012 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Thu Apr 05 10:58:13 2012
 Response via : Initial Calibration
 DataAcq Meth : PAHLSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.03	136	109028	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.23	164	59339	1.00	ug/ml	0.00
11) Phenanthrene-d10	10.09	188	88697	1.00	ug/ml	0.00
15) Chrysene-d12	13.48	240	96074	1.00	ug/ml	0.00
20) Perylene-d12	15.71	264	80216	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.18	82	2183	0.0475	ug/ml	0.00
Spiked Amount	2.500	Range 35 - 114	Recovery	=	2.00%#	
7) 2-Fluorobiphenyl	7.34	172	5179	0.0537	ug/ml	0.00
Spiked Amount	2.500	Range 43 - 116	Recovery	=	2.00%#	
17) p-Terphenyl-d14	12.09	244	4381	0.0489	ug/ml	0.00
Spiked Amount	2.500	Range 33 - 141	Recovery	=	2.00%#	
Target Compounds						
					Qvalue	
3) Naphthalene	6.05	128	7045	0.0548	ug/ml	99
4) 2-Methylnaphthalene	6.89	142	4045	0.0513	ug/ml	100
5) 1-Methylnaphthalene	7.03	142	4209	0.0527	ug/ml	98
8) Acenaphthylene	8.04	152	6622	0.0516	ug/ml	92
9) Acenaphthene	8.27	154	3814	0.0512	ug/ml	100
10) Fluorene	8.90	166	4039	0.0455	ug/ml	100
12) Phenanthrene	10.12	178	5467	0.0492	ug/ml	99
13) Anthracene	10.18	178	5552	0.0505	ug/ml	98
14) Fluoranthene	11.65	202	6400	0.0549	ug/ml	98
16) Pyrene	11.94	202	7890	0.0504	ug/ml	91
18) Benzo[a]anthracene	13.46	228	6304	0.0506	ug/ml	100
19) Chrysene	13.51	228	6585	0.0532	ug/ml	99
21) Benzo[b]fluoranthene	15.01	252	5216	0.0465	ug/ml	96
22) Benzo[k]fluoranthene	15.05	252	5257	0.0502	ug/ml#	53
23) Benzo[a]pyrene	15.61	252	5055	0.0490	ug/ml	99
24) Indeno[1,2,3-cd]pyrene	18.16	276	5744	0.0508	ug/ml	100
25) Dibenz[ah]anthracene	18.16	278	4789	0.0501	ug/ml	100
26) Benzo[ghi]perylene	18.91	276	5026	0.0503	ug/ml	100

(#) = qualifier out of range (m) = manual integration
 7M54734.D SIMPAHL.M Thu Apr 05 13:50:28 2012

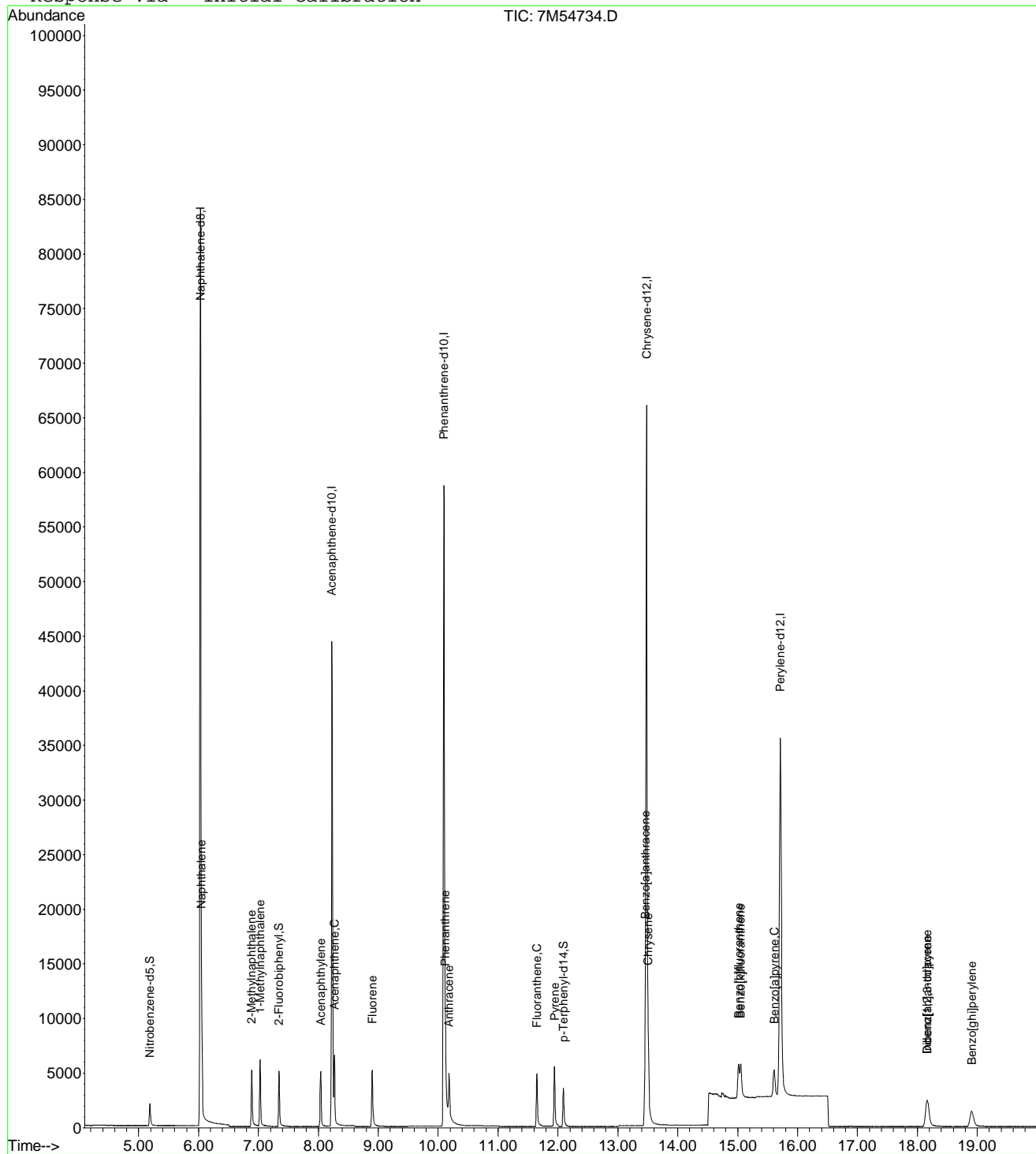
Page 1

Data File : C:\MSDCHEM\1\DATA\040412\7M54734.D
 Acq On : 4 Apr 2012 12:53 pm
 Sample : WG394111-08 0.05PPM PAHL STD
 Misc : 1,1 STD49560
 MS Integration Params: RTEINT.P
 Quant Time: Apr 5 10:58 2012

Vial: 8
 Operator: CAA
 Inst : HPMS7
 Multiplr: 1.00

Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Thu Apr 05 10:58:29 2012
 Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\040412\7M54735.D Vial: 9
 Acq On : 4 Apr 2012 1:21 pm Operator: CAA
 Sample : WG394111-09 1PPM PAHL Alt Src STD Inst : HPMS7
 Misc : 1,1 STD49584 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Apr 05 14:06:24 2012 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Thu Apr 05 13:51:14 2012
 Response via : Initial Calibration
 DataAcq Meth : PAHLSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.03	136	120214	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.23	164	64322	1.00	ug/ml	0.00
11) Phenanthrene-d10	10.09	188	106999	1.00	ug/ml	0.00
15) Chrysene-d12	13.48	240	92251	1.00	ug/ml	0.00
20) Perylene-d12	15.71	264	93409	1.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Nitrobenzene-d5	5.20	82	39	0.0008	ug/ml	0.01
Spiked Amount	2.500	Range	35 - 114	Recovery	=	0.00%#
7) 2-Fluorobiphenyl	7.34	172	27	0.0003	ug/ml	0.00
Spiked Amount	2.500	Range	43 - 116	Recovery	=	0.00%#
17) p-Terphenyl-d14	12.09	244	82	0.0010	ug/ml	0.00
Spiked Amount	2.500	Range	33 - 141	Recovery	=	0.00%#

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.06	128	134414	0.9444	ug/ml	100
4) 2-Methylnaphthalene	6.89	142	88598	1.0216	ug/ml	100
5) 1-Methylnaphthalene	7.03	142	87630	0.9897	ug/ml	100
8) Acenaphthylene	8.04	152	150796	1.0604	ug/ml	99
9) Acenaphthene	8.27	154	80009	0.9833	ug/ml	100
10) Fluorene	8.90	166	94027	0.9726	ug/ml	100
12) Phenanthrene	10.12	178	124612	0.9362	ug/ml	100
13) Anthracene	10.18	178	131148	0.9810	ug/ml	100
14) Fluoranthene	11.65	202	123616	0.8865	ug/ml	100
16) Pyrene	11.94	202	139306	0.9395	ug/ml	99
18) Benzo[a]anthracene	13.45	228	110200	0.9207	ug/ml	99
19) Chrysene	13.51	228	111347	0.9352	ug/ml	100
21) Benzo[b]fluoranthene	15.01	252	111147	0.8625	ug/ml	100
22) Benzo[k]fluoranthene	15.05	252	108157	0.8870	ug/ml	99
23) Benzo[a]pyrene	15.60	252	113304	0.9444	ug/ml	99
24) Indeno[1,2,3-cd]pyrene	18.16	276	130669	0.9952	ug/ml	100
25) Dibenz[ah]anthracene	18.16	278	108696	0.9781	ug/ml	100
26) Benzo[ghi]perylene	18.91	276	114195	0.9863	ug/ml	100

(#) = qualifier out of range (m) = manual integration
 7M54735.D SIMPAHL.M Thu Apr 05 14:06:31 2012

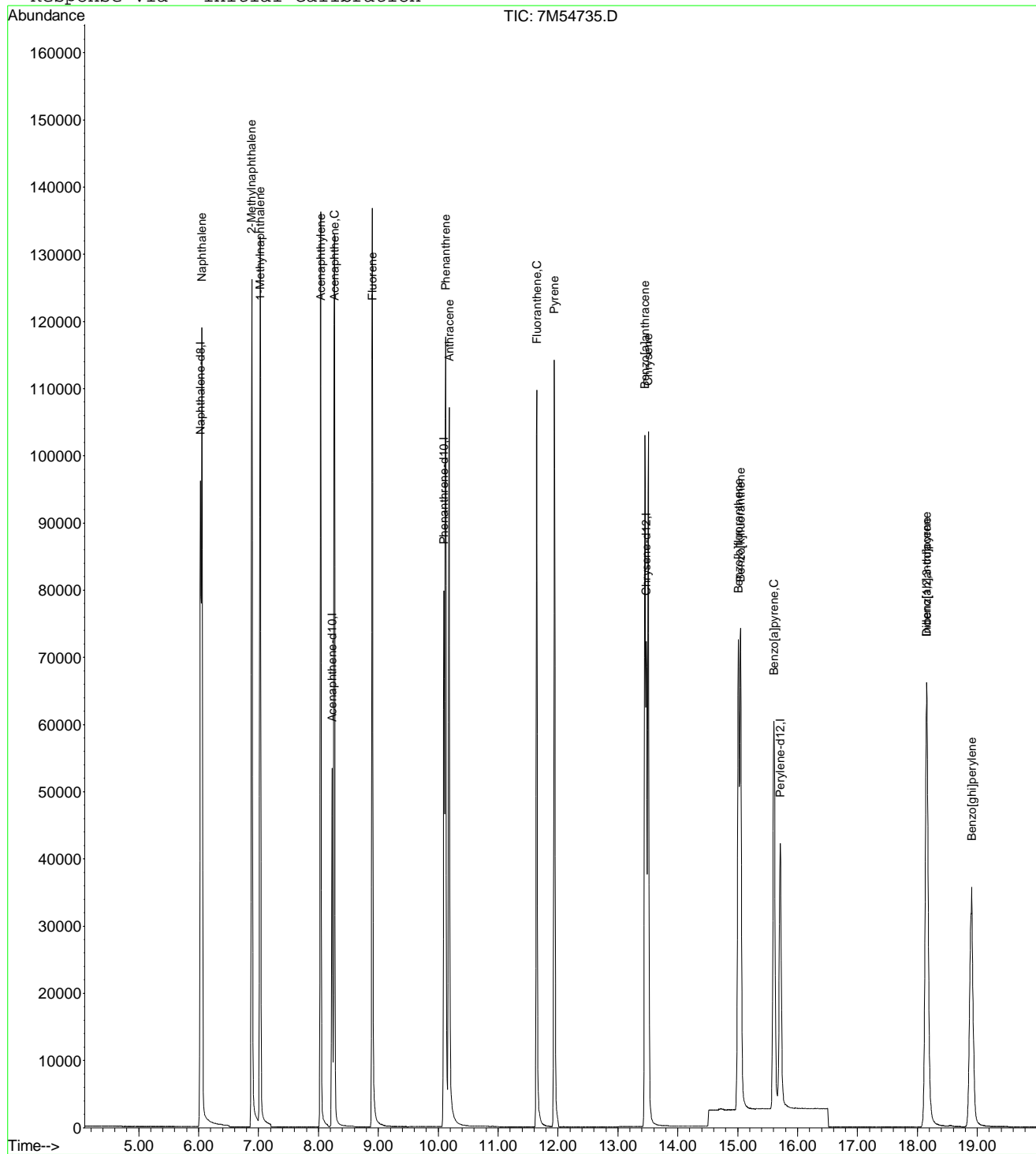
Page 1

Data File : C:\MSDCHEM\1\DATA\040412\7M54735.D
 Acq On : 4 Apr 2012 1:21 pm
 Sample : WG394111-09 1PPM PAHL Alt Src STD
 Misc : 1,1 STD49584
 MS Integration Params: RTEINT.P
 Quant Time: Apr 5 14:06 2012

Vial: 9
 Operator: CAA
 Inst : HPMS7
 Multiplr: 1.00

Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Thu Apr 05 13:51:14 2012
 Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\050412\7M54884.D Vial: 2
 Acq On : 4 May 2012 9:33 am Operator: CAA
 Sample : WG397019-02 1PPM PAHL STD Inst : HPMS7
 Misc : 1,1 STD49560 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 04 09:53:37 2012 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Thu May 03 09:35:04 2012
 Response via : Initial Calibration
 DataAcq Meth : PAHLSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.03	136	97284	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.22	164	57510	1.00	ug/ml	-0.01
11) Phenanthrene-d10	10.09	188	95286	1.00	ug/ml	0.00
15) Chrysene-d12	13.47	240	90937	1.00	ug/ml	-0.01
20) Perylene-d12	15.70	264	90339	1.00	ug/ml	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Nitrobenzene-d5	5.18	82	38224	0.9408	ug/ml	0.00
Spiked Amount	2.500	Range	35 - 114	Recovery	=	37.60%
7) 2-Fluorobiphenyl	7.33	172	88845	0.9340	ug/ml	-0.01
Spiked Amount	2.500	Range	43 - 116	Recovery	=	37.20%#
17) p-Terphenyl-d14	12.08	244	78147	0.9263	ug/ml	-0.01
Spiked Amount	2.500	Range	33 - 141	Recovery	=	37.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.05	128	111576	0.9687	ug/ml	100
4) 2-Methylnaphthalene	6.88	142	71968	1.0254	ug/ml	99
5) 1-Methylnaphthalene	7.02	142	73700	1.0285	ug/ml	100
8) Acenaphthylene	8.03	152	122961	0.9670	ug/ml	100
9) Acenaphthene	8.26	154	72886	1.0019	ug/ml	94
10) Fluorene	8.89	166	79944	0.9248	ug/ml	100
12) Phenanthrene	10.12	178	106412	0.8978	ug/ml	99
13) Anthracene	10.18	178	112468	0.9447	ug/ml	99
14) Fluoranthene	11.64	202	121771	0.9806	ug/ml	100
16) Pyrene	11.93	202	137346	0.9397	ug/ml	100
18) Benzo[a]anthracene	13.44	228	110842	0.9394	ug/ml	99
19) Chrysene	13.50	228	113309	0.9655	ug/ml	100
21) Benzo[b]fluoranthene	15.00	252	110724	0.8885	ug/ml	100
22) Benzo[k]fluoranthene	15.04	252	113401	0.9617	ug/ml	95
23) Benzo[a]pyrene	15.60	252	112499	0.9696	ug/ml	100
24) Indeno[1,2,3-cd]pyrene	18.14	276	127479	1.0039	ug/ml	100
25) Dibenz[ah]anthracene	18.15	278	108383	1.0084	ug/ml	100
26) Benzo[ghi]perylene	18.89	276	109193	0.9751	ug/ml	100

 (#) = qualifier out of range (m) = manual integration
 7M54884.D SIMPAHL.M Mon May 07 08:46:09 2012

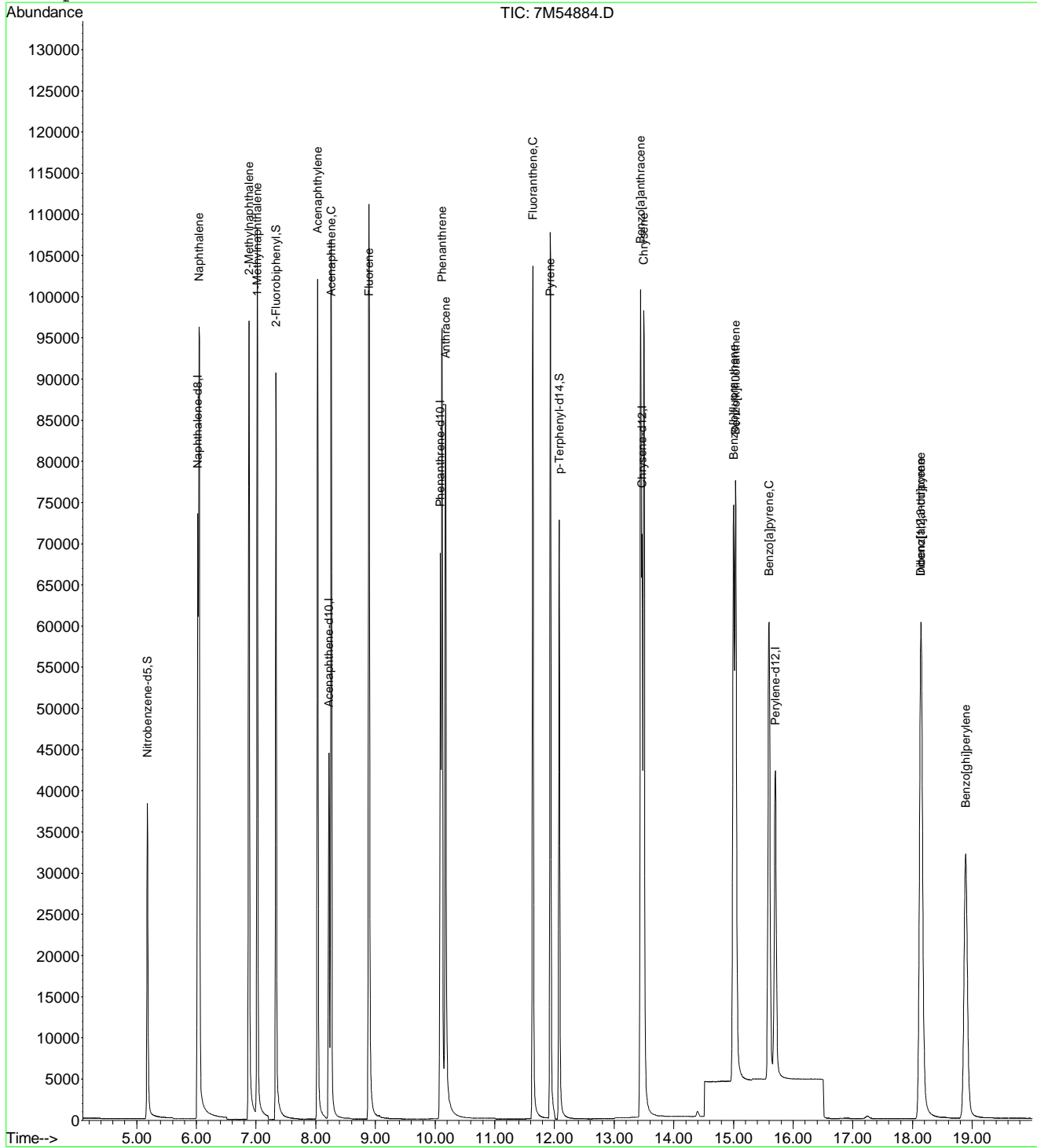
Page 1

Data File : C:\MSDCHEM\1\DATA\050412\7M54884.D
 Acq On : 4 May 2012 9:33 am
 Sample : WG397019-02 1PPM PAHL STD
 Misc : 1,1 STD49560
 MS Integration Params: RTEINT.P
 Quant Time: May 4 9:53 2012

Vial: 2
 Operator: CAA
 Inst : HPMS7
 Multiplr: 1.00

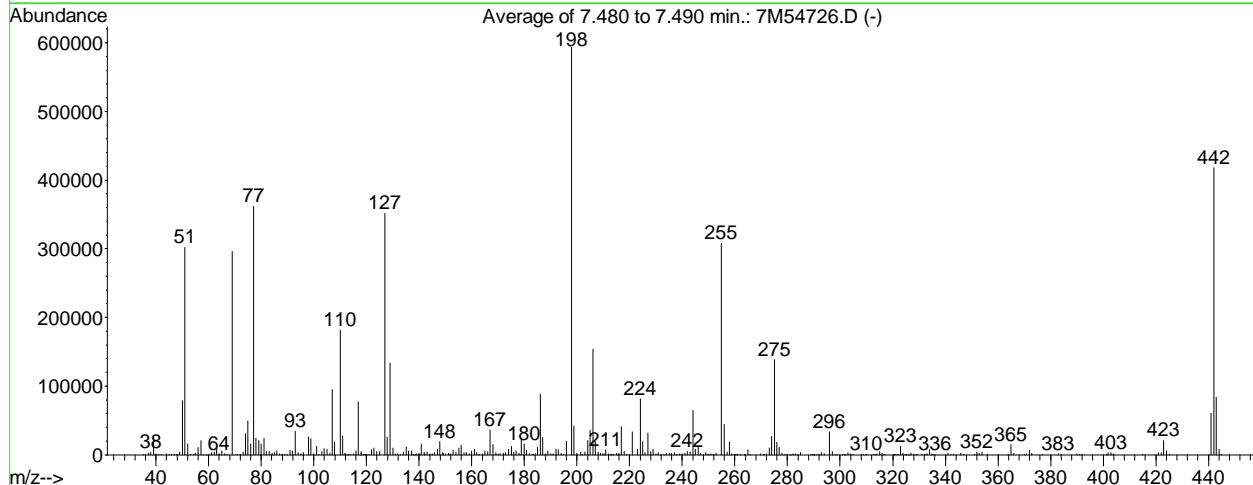
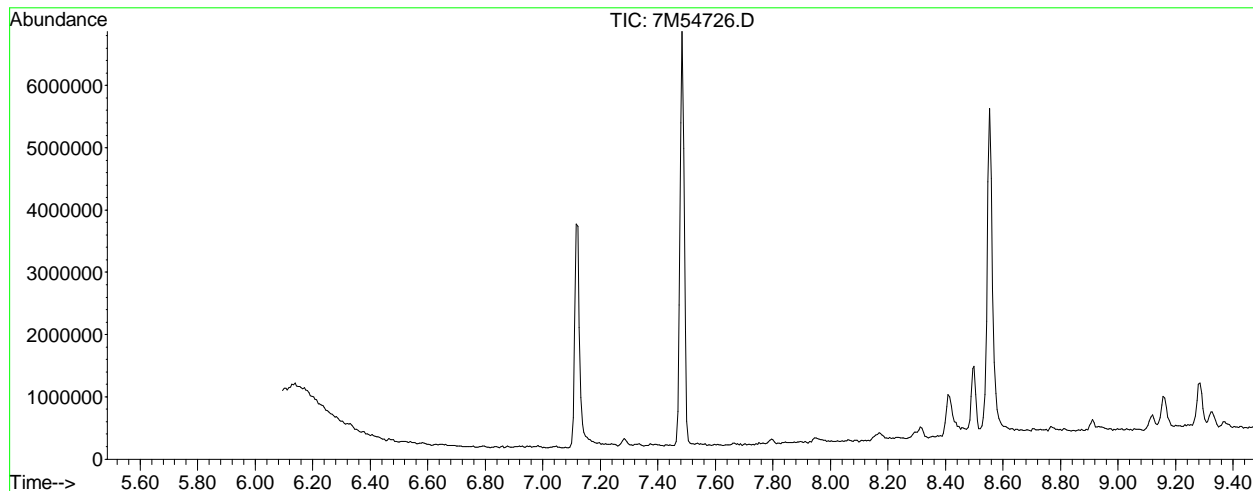
Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Thu May 03 09:35:04 2012
 Response via : Initial Calibration



2.2.2.5 Raw QC Data

Data File : C:\MSDCHEM\1\DATA\040412\7M54726.D Vial: 1
 Acq On : 4 Apr 2012 8:53 am Operator: CAA
 Sample : WG394111-01 5PPM DFTPP STD Inst : HPMS7
 Misc : 1,1 STD50659 Multiplr: 1.00
 MS Integration Params: rteint.p
 Method : C:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
 Title : DFTPP

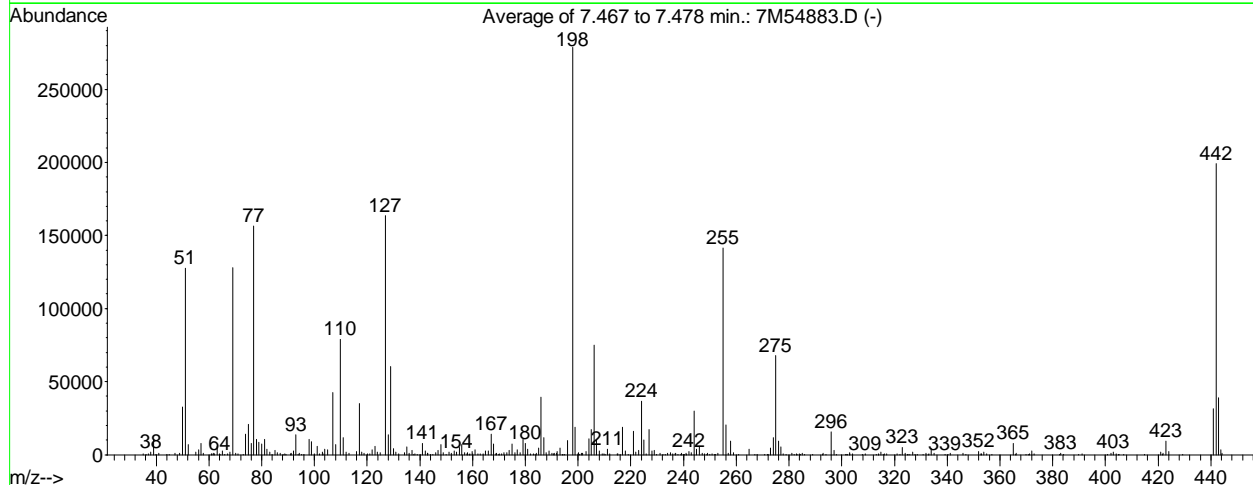
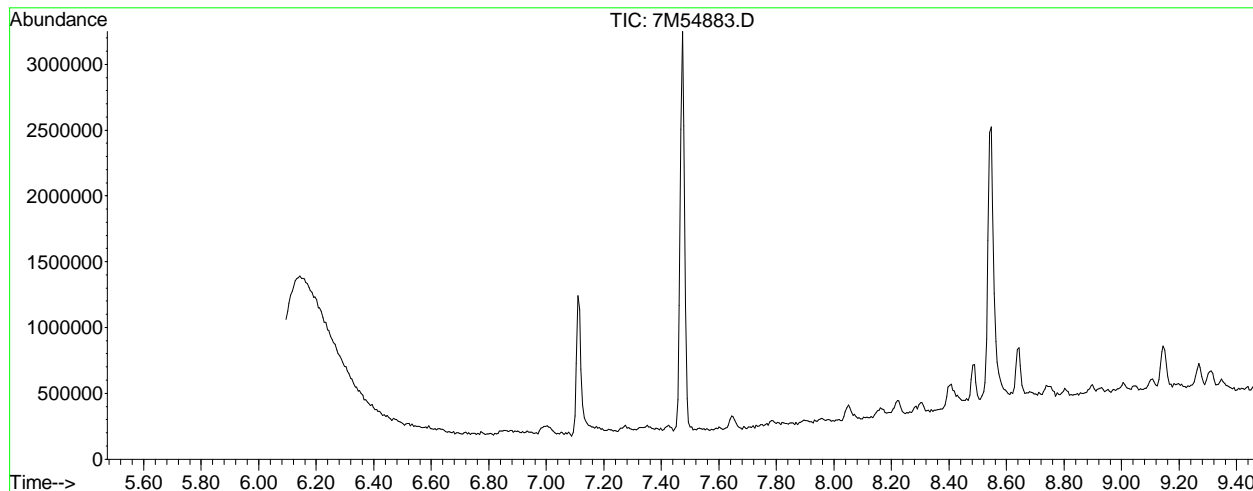


AutoFind: Scans 260, 261, 262; Background Corrected with Scan 254

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	50.9	302042	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.9	296108	PASS
70	69	0.00	2	0.2	512	PASS
127	198	40	60	59.2	351488	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	593642	PASS
199	198	5	9	7.1	42109	PASS
275	198	10	30	23.3	138533	PASS
365	198	1	100	2.5	14602	PASS
441	443	0.01	100	72.5	60485	PASS
442	198	40	100	70.5	418261	PASS
443	442	17	23	20.0	83453	PASS

7M54726.D DFTPP.M Thu Apr 05 13:50:01 2012

Data File : C:\MSDCHEM\1\DATA\050412\7M54883.D Vial: 1
 Acq On : 4 May 2012 9:16 am Operator: CAA
 Sample : WG397019-01 5PPM DFTPP STD Inst : HPMS7
 Misc : 1,1 STD50659 Multiplr: 1.00
 MS Integration Params: rteint.p
 Method : C:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
 Title : DFTPP



AutoFind: Scans 258, 259, 260; Background Corrected with Scan 250

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.8	127689	PASS
68	69	0.00	2	1.5	1929	PASS
69	198	0.00	100	46.0	128140	PASS
70	69	0.00	2	0.9	1153	PASS
127	198	40	60	58.7	163690	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	278826	PASS
199	198	5	9	6.7	18729	PASS
275	198	10	30	24.4	67989	PASS
365	198	1	100	2.8	7827	PASS
441	443	0.01	100	80.9	31421	PASS
442	198	40	100	71.4	199200	PASS
443	442	17	23	19.5	38842	PASS

7M54883.D DFTPP.M Mon May 07 08:45:51 2012

Data File : C:\MSDCHEM\1\DATA\050412\7M54885.D Vial: 3
 Acq On : 4 May 2012 10:01 am Operator: CAA
 Sample : WG396861-02 BLK 05/03 Inst : HPMS7
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 07 08:46:28 2012 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Mon May 07 08:46:11 2012
 Response via : Initial Calibration
 DataAcq Meth : PAHLSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.02	136	98769	1.00	ug/ml	-0.01
6) Acenaphthene-d10	8.22	164	60234	1.00	ug/ml	-0.01
11) Phenanthrene-d10	10.09	188	99121	1.00	ug/ml	0.00
15) Chrysene-d12	13.47	240	93901	1.00	ug/ml	-0.01
20) Perylene-d12	15.70	264	92437	1.00	ug/ml	-0.02

System Monitoring Compounds						
2) Nitrobenzene-d5	5.17	82	75826	1.8382	ug/ml	0.00
Spiked Amount	2.500	Range 35 - 114	Recovery	=	73.60%	
7) 2-Fluorobiphenyl	7.33	172	176488	1.7715	ug/ml	-0.01
Spiked Amount	2.500	Range 43 - 116	Recovery	=	70.80%	
17) p-Terphenyl-d14	12.08	244	193768	2.2242	ug/ml	-0.01
Spiked Amount	2.500	Range 33 - 141	Recovery	=	88.80%	

Target Compounds Qvalue

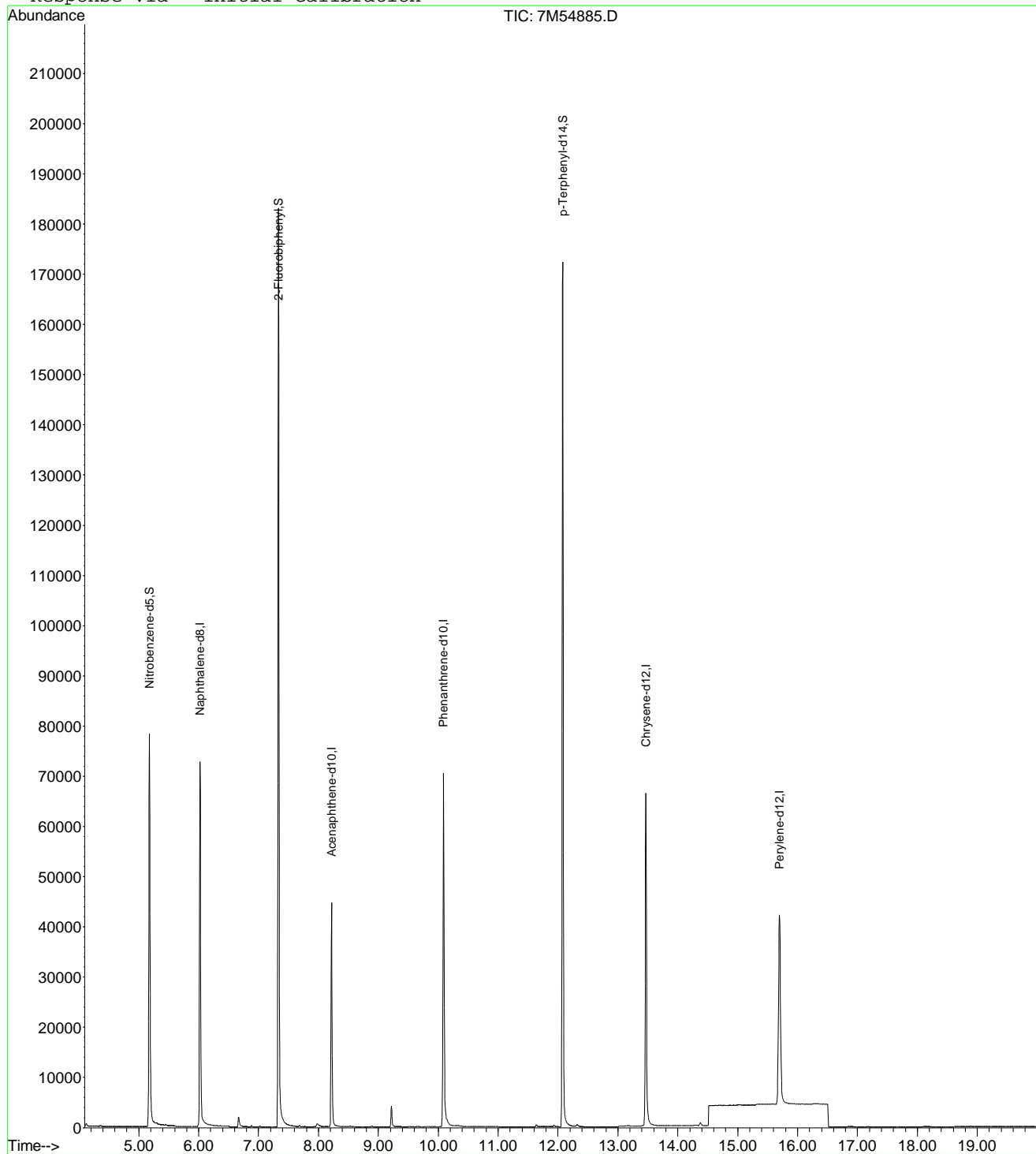
 (#) = qualifier out of range (m) = manual integration
 7M54885.D SIMPAHL.M Mon May 07 08:55:21 2012

Data File : C:\MSDCHEM\1\DATA\050412\7M54885.D
 Acq On : 4 May 2012 10:01 am
 Sample : WG396861-02 BLK 05/03
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 7 8:46 2012

Vial: 3
 Operator: CAA
 Inst : HPMS7
 Multiplr: 1.00

Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Mon May 07 08:46:11 2012
 Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\050412\7M54886.D Vial: 4
 Acq On : 4 May 2012 10:28 am Operator: CAA
 Sample : WG396861-03 LCS 05/03 Inst : HPMS7
 Misc : 1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 07 08:46:29 2012 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Mon May 07 08:46:11 2012
 Response via : Initial Calibration
 DataAcq Meth : PAHLSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.02	136	99929	1.00	ug/ml	-0.01
6) Acenaphthene-d10	8.22	164	59985	1.00	ug/ml	-0.02
11) Phenanthrene-d10	10.08	188	96353	1.00	ug/ml	-0.01
15) Chrysene-d12	13.47	240	95903	1.00	ug/ml	-0.01
20) Perylene-d12	15.70	264	93096	1.00	ug/ml	-0.02

System Monitoring Compounds						
2) Nitrobenzene-d5	5.18	82	70128	1.6804	ug/ml	0.00
Spiked Amount	2.500	Range	35 - 114	Recovery	=	67.20%
7) 2-Fluorobiphenyl	7.33	172	160374	1.6165	ug/ml	-0.01
Spiked Amount	2.500	Range	43 - 116	Recovery	=	64.80%
17) p-Terphenyl-d14	12.07	244	192938	2.1685	ug/ml	-0.02
Spiked Amount	2.500	Range	33 - 141	Recovery	=	86.80%

Target Compounds						Qvalue
3) Naphthalene	6.04	128	82754	0.6995	ug/ml	100
4) 2-Methylnaphthalene	6.88	142	55557	0.7706	ug/ml	100
5) 1-Methylnaphthalene	7.02	142	52491	0.7132	ug/ml	99
8) Acenaphthylene	8.03	152	94886	0.7155	ug/ml	95
9) Acenaphthene	8.26	154	55443	0.7307	ug/ml	93
10) Fluorene	8.89	166	62719	0.6956	ug/ml	100
12) Phenanthrene	10.11	178	91537	0.7637	ug/ml	99
13) Anthracene	10.17	178	94763	0.7871	ug/ml	99
14) Fluoranthene	11.63	202	112176	0.8934	ug/ml	99
16) Pyrene	11.93	202	129482	0.8400	ug/ml	99
18) Benzo[a]anthracene	13.44	228	97215	0.7813	ug/ml	99
19) Chrysene	13.50	228	106429	0.8599	ug/ml	99
21) Benzo[b]fluoranthene	15.00	252	108590	0.8455	ug/ml	96
22) Benzo[k]fluoranthene	15.03	252	104777	0.8622	ug/ml	95
23) Benzo[a]pyrene	15.59	252	104894	0.8772	ug/ml	100
24) Indeno[1,2,3-cd]pyrene	18.14	276	109561	0.8372	ug/ml	100
25) Dibenz[ah]anthracene	18.14	278	85860	0.7752	ug/ml	100
26) Benzo[ghi]perylene	18.88	276	94018	0.8147	ug/ml	100

(#) = qualifier out of range (m) = manual integration
 7M54886.D SIMPAHL.M Mon May 07 08:49:09 2012

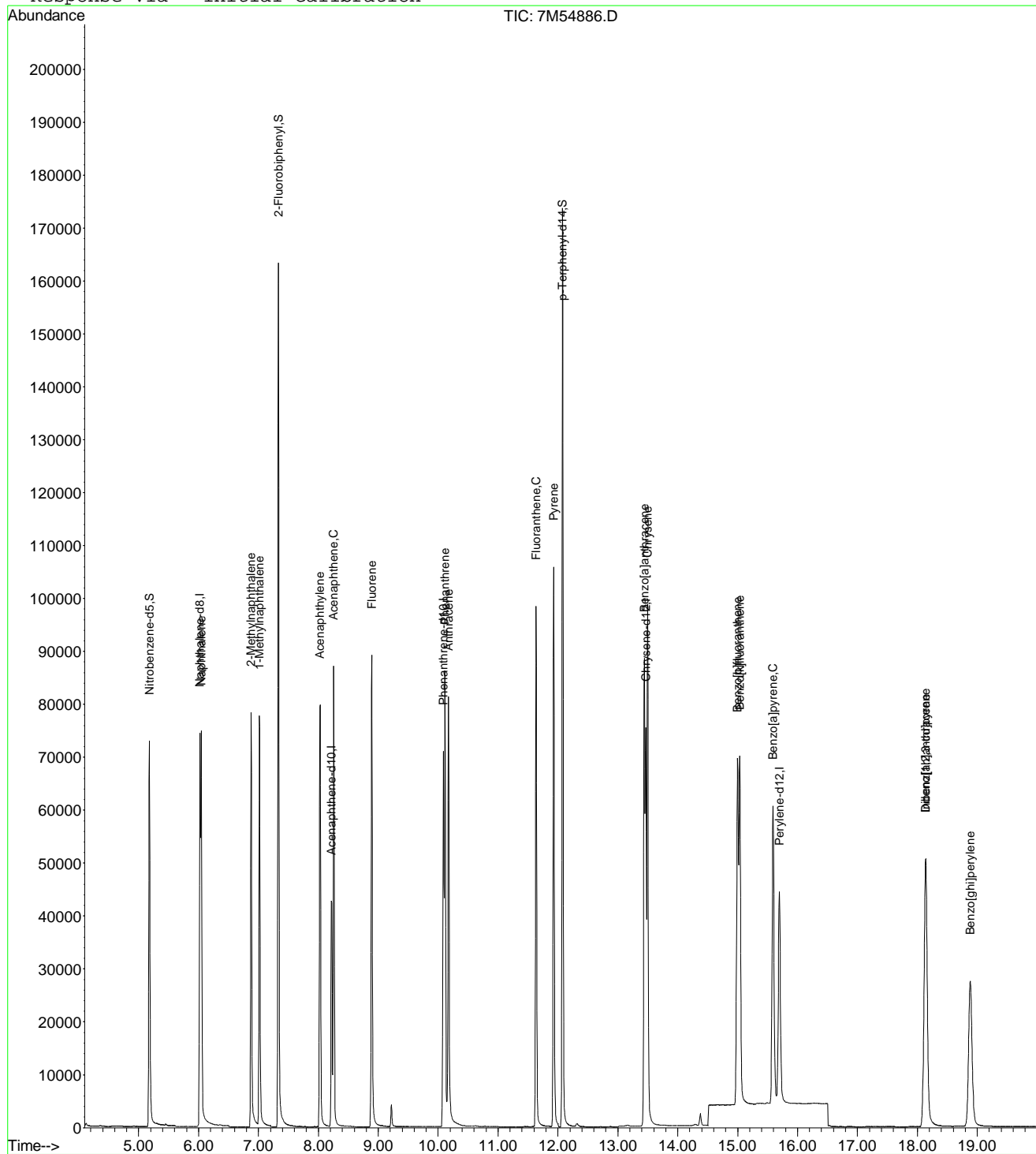
Page 1

Data File : C:\MSDCHEM\1\DATA\050412\7M54886.D
 Acq On : 4 May 2012 10:28 am
 Sample : WG396861-03 LCS 05/03
 Misc : 1,1
 MS Integration Params: RTEINT.P
 Quant Time: May 7 8:46 2012

Vial: 4
 Operator: CAA
 Inst : HPMS7
 Multiplr: 1.00

Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
 Title : OVD MSS03 SIMPAHL ICAL 04/04/12
 Last Update : Mon May 07 08:46:11 2012
 Response via : Initial Calibration



2.3 Metals Data

2.3.1 Metals I C P Data

2.3.1.1 Summary Data



Login Number: L12050050
Department: Metals
Analyst: Kim Rhodes

METHOD

Preparation: SW-846 3005

Analysis: SW-846 6010

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG397233 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: WG397233 - Client samples 05 and 06 required dilution analyses in order to obtain results for sodium within the linear range.

Narrative ID: 46044

Approved By: Sheri Pfalzgraf

A handwritten signature in black ink that reads "Sheri L. Pfalzgraf".

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-05I-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 18:32
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: P2.050812.183232
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Aluminum, Total	7429-90-5		U	0.100	0.0500
Barium, Total	7440-39-3	0.164		0.0100	0.00250
Beryllium, Total	7440-41-7		U	0.00200	0.000500
Cadmium, Total	7440-43-9	0.000862		0.000500	0.000250
Calcium, Total	7440-70-2	101		0.200	0.100
Chromium, Total	7440-47-3		U	0.00500	0.00250
Cobalt, Total	7440-48-4		U	0.0200	0.00250
Copper, Total	7440-50-8		U	0.0200	0.00500
Iron, Total	7439-89-6	0.207		0.100	0.0250
Magnesium, Total	7439-95-4	42.5		0.500	0.250
Manganese, Total	7439-96-5	0.0359		0.0100	0.00500
Nickel, Total	7440-02-0		U	0.0400	0.00500
Potassium, Total	7440-09-7	3.45		1.00	0.250
Silver, Total	7440-22-4		U	0.0100	0.00500
Sodium, Total	7440-23-5	58.5		0.500	0.250
Vanadium, Total	7440-62-2	0.00920		0.0100	0.00500
Zinc, Total	7440-66-6		U	0.0200	0.00500
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-02	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-05I-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 18:50
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: P2.050812.185026
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Aluminum, Dissolved	7429-90-5		U	0.100	0.0500
Barium, Dissolved	7440-39-3	0.154		0.0100	0.00250
Beryllium, Dissolved	7440-41-7		U	0.00200	0.000500
Cadmium, Dissolved	7440-43-9	0.000512		0.000500	0.000250
Calcium, Dissolved	7440-70-2	98.6		0.200	0.100
Chromium, Dissolved	7440-47-3		U	0.00500	0.00250

Certificate of Analysis

Sample #: L12050050-02	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-05I-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 18:50
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: P2.050812.185026
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Cobalt, Dissolved	7440-48-4		U	0.0200	0.00250
Copper, Dissolved	7440-50-8		U	0.0200	0.00500
Iron, Dissolved	7439-89-6	0.174		0.100	0.0250
Magnesium, Dissolved	7439-95-4	42.8		0.500	0.250
Manganese, Dissolved	7439-96-5	0.0417		0.0100	0.00500
Nickel, Dissolved	7440-02-0		U	0.0400	0.00500
Potassium, Dissolved	7440-09-7	3.53		1.00	0.250
Silver, Dissolved	7440-22-4		U	0.0100	0.00500
Sodium, Dissolved	7440-23-5	61.3		0.500	0.250
Vanadium, Dissolved	7440-62-2	0.00760		0.0100	0.00500
Zinc, Dissolved	7440-66-6		U	0.0200	0.00500
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-05S-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 18:56
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: P2.050812.185624
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Aluminum, Total	7429-90-5		U	0.100	0.0500
Barium, Total	7440-39-3	0.0552		0.0100	0.00250
Beryllium, Total	7440-41-7		U	0.00200	0.000500
Cadmium, Total	7440-43-9	0.000381		0.000500	0.000250
Calcium, Total	7440-70-2	125		0.200	0.100
Chromium, Total	7440-47-3		U	0.00500	0.00250
Cobalt, Total	7440-48-4		U	0.0200	0.00250
Copper, Total	7440-50-8		U	0.0200	0.00500
Iron, Total	7439-89-6	0.124		0.100	0.0250
Magnesium, Total	7439-95-4	34.6		0.500	0.250
Manganese, Total	7439-96-5	0.0476		0.0100	0.00500
Nickel, Total	7440-02-0		U	0.0400	0.00500

Certificate of Analysis

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-05S-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 18:56
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: P2.050812.185624
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Potassium, Total	7440-09-7	2.86		1.00	0.250
Silver, Total	7440-22-4		U	0.0100	0.00500
Sodium, Total	7440-23-5	40.2		0.500	0.250
Vanadium, Total	7440-62-2	0.00631		0.0100	0.00500
Zinc, Total	7440-66-6		U	0.0200	0.00500
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-04	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-05S-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 19:03
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: P2.050812.190358
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Aluminum, Dissolved	7429-90-5		U	0.100	0.0500
Barium, Dissolved	7440-39-3	0.0529		0.0100	0.00250
Beryllium, Dissolved	7440-41-7		U	0.00200	0.000500
Cadmium, Dissolved	7440-43-9	0.000267		0.000500	0.000250
Calcium, Dissolved	7440-70-2	127		0.200	0.100
Chromium, Dissolved	7440-47-3		U	0.00500	0.00250
Cobalt, Dissolved	7440-48-4		U	0.0200	0.00250
Copper, Dissolved	7440-50-8		U	0.0200	0.00500
Iron, Dissolved	7439-89-6	0.111		0.100	0.0250
Magnesium, Dissolved	7439-95-4	35.0		0.500	0.250
Manganese, Dissolved	7439-96-5	0.0501		0.0100	0.00500
Nickel, Dissolved	7440-02-0		U	0.0400	0.00500
Potassium, Dissolved	7440-09-7	2.88		1.00	0.250
Silver, Dissolved	7440-22-4		U	0.0100	0.00500
Sodium, Dissolved	7440-23-5	40.8		0.500	0.250
Vanadium, Dissolved	7440-62-2	0.00509		0.0100	0.00500
Zinc, Dissolved	7440-66-6	0.00696		0.0200	0.00500
U	Not detected at or above adjusted sample detection limit.				

Certificate of Analysis

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-24-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 19:36
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: P2.050812.193656
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Aluminum, Total	7429-90-5	2.36		0.100	0.0500
Barium, Total	7440-39-3	0.123		0.0100	0.00250
Beryllium, Total	7440-41-7		U	0.00200	0.000500
Cadmium, Total	7440-43-9	0.00148		0.000500	0.000250
Calcium, Total	7440-70-2	190		0.200	0.100
Chromium, Total	7440-47-3	0.00547		0.00500	0.00250
Cobalt, Total	7440-48-4		U	0.0200	0.00250
Copper, Total	7440-50-8	0.0111		0.0200	0.00500
Iron, Total	7439-89-6	11.8		0.100	0.0250
Magnesium, Total	7439-95-4	57.8		0.500	0.250
Manganese, Total	7439-96-5	0.636		0.0100	0.00500
Nickel, Total	7440-02-0	0.00577		0.0400	0.00500
Potassium, Total	7440-09-7	8.73		1.00	0.250
Silver, Total	7440-22-4		U	0.0100	0.00500
Vanadium, Total	7440-62-2	0.0171		0.0100	0.00500
Zinc, Total	7440-66-6	0.102		0.0200	0.00500
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-24-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/09/2012 10:16
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/09/2012 12:55
Collect Date: 05/01/2012 09:30	Dilution: 100	File ID: P2.050912.125530
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Sodium, Total	7440-23-5	723		50.0	25.0
U	Not detected at or above adjusted sample detection limit.				

Certificate of Analysis

Sample #: L12050050-06	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-24-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 19:42
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: P2.050812.194253
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Aluminum, Dissolved	7429-90-5		U	0.100	0.0500
Barium, Dissolved	7440-39-3	0.0976		0.0100	0.00250
Beryllium, Dissolved	7440-41-7		U	0.00200	0.000500
Cadmium, Dissolved	7440-43-9	0.000811		0.000500	0.000250
Calcium, Dissolved	7440-70-2	186		0.200	0.100
Chromium, Dissolved	7440-47-3		U	0.00500	0.00250
Cobalt, Dissolved	7440-48-4		U	0.0200	0.00250
Copper, Dissolved	7440-50-8		U	0.0200	0.00500
Iron, Dissolved	7439-89-6	6.79		0.100	0.0250
Magnesium, Dissolved	7439-95-4	52.5		0.500	0.250
Manganese, Dissolved	7439-96-5	0.619		0.0100	0.00500
Nickel, Dissolved	7440-02-0		U	0.0400	0.00500
Potassium, Dissolved	7440-09-7	8.82		1.00	0.250
Silver, Dissolved	7440-22-4		U	0.0100	0.00500
Vanadium, Dissolved	7440-62-2	0.0183		0.0100	0.00500
Zinc, Dissolved	7440-66-6	0.00875		0.0200	0.00500
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-06	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-24-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/09/2012 10:16
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/09/2012 13:02
Collect Date: 05/01/2012 09:30	Dilution: 100	File ID: P2.050912.130224
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Sodium, Dissolved	7440-23-5	703		50.0	25.0
U	Not detected at or above adjusted sample detection limit.				

Certificate of Analysis

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-01-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 19:48
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: P2.050812.194852
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Aluminum, Total	7429-90-5		U	0.100	0.0500
Barium, Total	7440-39-3	0.0649		0.0100	0.00250
Beryllium, Total	7440-41-7		U	0.00200	0.000500
Cadmium, Total	7440-43-9	0.000420		0.000500	0.000250
Calcium, Total	7440-70-2	64.9		0.200	0.100
Chromium, Total	7440-47-3		U	0.00500	0.00250
Cobalt, Total	7440-48-4		U	0.0200	0.00250
Copper, Total	7440-50-8		U	0.0200	0.00500
Iron, Total	7439-89-6	0.100		0.100	0.0250
Magnesium, Total	7439-95-4	7.82		0.500	0.250
Manganese, Total	7439-96-5	0.0710		0.0100	0.00500
Nickel, Total	7440-02-0		U	0.0400	0.00500
Potassium, Total	7440-09-7	3.20		1.00	0.250
Silver, Total	7440-22-4		U	0.0100	0.00500
Sodium, Total	7440-23-5	46.1		0.500	0.250
Vanadium, Total	7440-62-2	0.00968		0.0100	0.00500
Zinc, Total	7440-66-6	0.0182		0.0200	0.00500
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-08	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-01-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 19:55
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: P2.050812.195547
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Aluminum, Dissolved	7429-90-5		U	0.100	0.0500
Barium, Dissolved	7440-39-3	0.0682		0.0100	0.00250
Beryllium, Dissolved	7440-41-7		U	0.00200	0.000500
Cadmium, Dissolved	7440-43-9	0.000282		0.000500	0.000250
Calcium, Dissolved	7440-70-2	67.7		0.200	0.100
Chromium, Dissolved	7440-47-3		U	0.00500	0.00250

Certificate of Analysis

Sample #: L12050050-08	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MW-01-050112	Prep Method: 3005A	Prep Date: 05/07/2012 08:07
Matrix: Water	Analytical Method: 6010B	Cal Date: 05/08/2012 09:08
Workgroup #: WG397233	Analyst: KHR	Run Date: 05/08/2012 19:55
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: P2.050812.195547
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Cobalt, Dissolved	7440-48-4		U	0.0200	0.00250
Copper, Dissolved	7440-50-8		U	0.0200	0.00500
Iron, Dissolved	7439-89-6		U	0.100	0.0250
Magnesium, Dissolved	7439-95-4	8.00		0.500	0.250
Manganese, Dissolved	7439-96-5	0.0705		0.0100	0.00500
Nickel, Dissolved	7440-02-0		U	0.0400	0.00500
Potassium, Dissolved	7440-09-7	3.29		1.00	0.250
Silver, Dissolved	7440-22-4		U	0.0100	0.00500
Sodium, Dissolved	7440-23-5	47.9		0.500	0.250
Vanadium, Dissolved	7440-62-2	0.00843		0.0100	0.00500
Zinc, Dissolved	7440-66-6	0.0173		0.0200	0.00500
U	Not detected at or above adjusted sample detection limit.				

2.3.1.2 QC Summary Data

Example 6010 Calculations
Perkin Elmer Optima 4300 DV

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and three standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system in ug/mL (ppm)

Vf = Final volume (mL)

Vi = Initial volume (mL)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/mL (mg/L)

Example:

0.1

50

50

1

0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (mg/L) (ppm)

Vf = Final volume (mL)

Vi = Initial weight (g)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/g (mg/kg)

Example:

0.1

50

1

1

5

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:

Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

$Cdry$ = Concentration calculated as dry weight (mg/kg)

Example:

5

80

6.25

Microbac Laboratories Inc.
Metals Digest Log

Workgroup: WG397165

Analyst: REK

Spike Analyst: REK

Method: 3005A

Run Date: 05/07/2012 08:07

Hotblock Start Temp: 94.6 @ 06:45

Hotblock End Temp: 94.9 @ 10:45

SOP: ME401 Revision 14

Spike Solution: STD51357

Spike Witness: VC

ICP;WG377974 Filter Lot COA15714

HNO3 Lot #: COA16033

Digestion Tubes Lot #: COA16074

HCL Lot #: COA16113

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Spike Amount	Due Date
1	WG397165-02	BLANK	1	50 mL	50 mL		
2	WG397165-03	LCS	1	50 mL	50 mL	5 mL	
3	WG397165-01	REF	1	50 mL	50 mL		
4	L12050050-01	SAMP	1	50 mL	50 mL		05/16/12
5	L12050050-02	SAMP	1	50 mL	50 mL		05/16/12
6	L12050050-03	SAMP	1	50 mL	50 mL		05/16/12
7	L12050050-04	SAMP	1	50 mL	50 mL		05/16/12
8	L12050050-05	SAMP	1	50 mL	50 mL		05/16/12
9	L12050050-06	SAMP	1	50 mL	50 mL		05/16/12
10	L12050050-07	SAMP	1	50 mL	50 mL		05/16/12
11	L12050050-08	SAMP	1	50 mL	50 mL		05/16/12
12	L12050099-01	SAMP	1	50 mL	50 mL		05/17/12
13	L12050099-02	SAMP	1	50 mL	50 mL		05/17/12
14	L12050099-03	SAMP	1	50 mL	50 mL		05/17/12
15	L12050099-04	SAMP	1	50 mL	50 mL		05/17/12
16	L12050099-05	SAMP	1	50 mL	50 mL		05/17/12
17	L12050099-06	SAMP	1	50 mL	50 mL		05/17/12
18	L12050099-07	SAMP	1	50 mL	50 mL		05/17/12
19	L12050099-08	SAMP	1	50 mL	50 mL		05/17/12
20	L12050099-09	SAMP	1	50 mL	50 mL		05/17/12
21	L12050099-10	SAMP	1	50 mL	50 mL		05/17/12
22	WG397165-04	MS	1	50 mL	50 mL	5 mL	
23	WG397165-05	MSD	1	50 mL	50 mL	5 mL	

L12050050-05 filtered digestate

Analyst: *REK*

Reviewer: *Brenda Gregory*



Microbac Laboratories Inc.
Instrument Run Log

Instrument: PE-ICP2 Dataset: 050812H.CSV
 Analyst1: KHR Analyst2: N/A
 Method: 6010 SOP: ME600E Rev: 12
 Maintenance Log ID: 41636

Calibration Std: STD51542 ICV Std: STD51543 Post Spike: STD51356
 ICSA: STD51272 ICSAB: STD51413 Int. Std: RG17310
 CCV: STD51453 LLCCV: STD51542

396793, 396721, 397343, 397233

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	P2.050812.084125	WG397368-01	Calibration Point		1		05/08/12 08:41
2	P2.050812.084819	WG397368-02	Calibration Point		1		05/08/12 08:48
3	P2.050812.085513	WG397368-03	Calibration Point		1		05/08/12 08:55
4	P2.050812.090208	WG397368-04	Calibration Point		1		05/08/12 09:02
5	P2.050812.090808	WG397368-05	Calibration Point		1		05/08/12 09:08
6	P2.050812.091408	WG397368-06	Initial Calibration Verification		1		05/08/12 09:14
7	P2.050812.092008	WG397368-07	Initial Calib Blank		1		05/08/12 09:20
8	P2.050812.092701	WG397368-08	LLICV		1		05/08/12 09:27
9	P2.050812.093445	WG397368-09	Low Level Initial Calibration V		1		05/08/12 09:34
10	P2.050812.094140	WG397368-10	Low Level Initial Calibration V		1		05/08/12 09:41
11	P2.050812.094835	WG397368-11	Interference Check		1		05/08/12 09:48
12	P2.050812.095431	WG397368-12	Interference Check		1		05/08/12 09:54
13	P2.050812.100027	WG397368-13	CCV		1		05/08/12 10:00
14	P2.050812.100628	WG397368-14	CCB		1		05/08/12 10:06
15	P2.050812.101321	WG396754-02	Method/Prep Blank	50/50	1		05/08/12 10:13
16	P2.050812.102016	WG396754-03	Laboratory Control S	50/50	1		05/08/12 10:20
17	P2.050812.102615	WG396754-01	Reference Sample		1	L12050011-01	05/08/12 10:26
18	P2.050812.103216	WG396754-04	Matrix Spike	50/50	1	L12050011-01	05/08/12 10:32
19	P2.050812.103817	WG396754-05	Matrix Spike Duplica	50/50	1	L12050011-01	05/08/12 10:38
20	P2.050812.104418	L12050013-01	CLAMW23-120429	50/50	1		05/08/12 10:44
21	P2.050812.105115	L12050013-02	CLAMW24-120429	50/50	1		05/08/12 10:51
22	P2.050812.105824	WG396793-03	Post Digestion Spike		1	L12050013-02	05/08/12 10:58
23	P2.050812.110422	WG396793-04	Serial Dilution		5	L12050013-02	05/08/12 11:04
24	P2.050812.111119	WG397368-15	CCV		1		05/08/12 11:11
25	P2.050812.111720	WG397368-16	CCB		1		05/08/12 11:17
26	P2.050812.112420	WG396793-03	Post Digestion Spike		1	L12050013-02	05/08/12 11:24
27	P2.050812.113024	L12050013-01	CLAMW23-120429	50/50	100		05/08/12 11:30
28	P2.050812.113719	L12050013-02	CLAMW24-120429	50/50	100		05/08/12 11:37
29	P2.050812.114413	WG396793-03	Post Digestion Spike		100	L12050013-02	05/08/12 11:44
30	P2.050812.115012	WG396793-04	Serial Dilution		500	L12050013-02	05/08/12 11:50
31	P2.050812.115707	WG397368-17	CCV		1		05/08/12 11:57
32	P2.050812.120308	WG397368-18	CCB		1		05/08/12 12:03
33	P2.050812.121001	WG397368-19	Low Level Continuing Calibra		1		05/08/12 12:10
34	P2.050812.121655	WG397368-20	Low Level Continuing Calibra		1		05/08/12 12:16

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Shari L. Bahgat



Microbac Laboratories Inc.
Instrument Run Log

Instrument: PE-ICP2 Dataset: 050812H.CSV
 Analyst1: KHR Analyst2: N/A
 Method: 6010 SOP: ME600E Rev: 12
 Maintenance Log ID: 41636

Calibration Std: STD51542 ICV Std: STD51543 Post Spike: STD51356
 ICSA: STD51272 ICSAB: STD51413 Int. Std: RG17310
 CCV: STD51453 LLCCV: STD51542

396793, 396721, 397343, 397233

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	P2.050812.131202	WG396609-02	Method/Prep Blank	50/50	1		05/08/12 13:12
36	P2.050812.131858	WG396609-03	Laboratory Control S	50/50	1		05/08/12 13:18
37	P2.050812.132458	WG396609-01	Reference Sample		1	L12040898-03	05/08/12 13:24
38	P2.050812.133200	WG396609-04	Matrix Spike	50/50	1	L12040898-03	05/08/12 13:32
39	P2.050812.133805	WG396609-05	Matrix Spike Duplica	50/50	1	L12040898-03	05/08/12 13:38
40	P2.050812.134407	L12040898-04	MW-22-042512	50/50	1		05/08/12 13:44
41	P2.050812.135110	L12040898-05	MW-23-042512	50/50	1		05/08/12 13:51
42	P2.050812.135809	L12040898-06	MW-23-042512	50/50	1		05/08/12 13:58
43	P2.050812.140508	WG396721-01	Post Digestion Spike		1	L12040898-06	05/08/12 14:05
44	P2.050812.141108	WG396721-02	Serial Dilution		5	L12040898-06	05/08/12 14:11
45	P2.050812.141808	WG397368-21	CCV		1		05/08/12 14:18
46	P2.050812.142409	WG397368-22	CCB		1		05/08/12 14:24
47	P2.050812.143102	L12040898-08	MW-30-042512	50/50	1		05/08/12 14:31
48	P2.050812.143702	L12040898-09	MW-30-042512	50/50	1		05/08/12 14:37
49	P2.050812.144443	L12040898-10	MW-32-042512	50/50	1		05/08/12 14:44
50	P2.050812.145043	L12040898-11	MW-32-042512	50/50	1		05/08/12 14:50
51	P2.050812.145648	L12040898-12	DUP-GW-042512	50/50	1		05/08/12 14:56
52	P2.050812.150251	L12040898-13	DUP-GW-042512	50/50	1		05/08/12 15:02
53	P2.050812.150849	L12040898-14	EB-042512-GW	50/50	1		05/08/12 15:08
54	P2.050812.151543	WG396609-01	Reference Sample		100	L12040898-03	05/08/12 15:15
55	P2.050812.152237	WG396609-04	Matrix Spike	50/50	100	L12040898-03	05/08/12 15:22
56	P2.050812.152932	WG396609-05	Matrix Spike Duplica	50/50	100	L12040898-03	05/08/12 15:29
57	P2.050812.153626	WG397368-23	CCV		1		05/08/12 15:36
58	P2.050812.154227	WG397368-24	CCB		1		05/08/12 15:42
59	P2.050812.154920	L12040898-05	MW-23-042512	50/50	100		05/08/12 15:49
60	P2.050812.155615	L12040898-06	MW-23-042512	50/50	100		05/08/12 15:56
61	P2.050812.160310	WG396721-01	Post Digestion Spike		100	L12040898-06	05/08/12 16:03
62	P2.050812.160909	WG396721-02	Serial Dilution		500	L12040898-06	05/08/12 16:09
63	P2.050812.161604	L12040898-08	MW-30-042512	50/50	100		05/08/12 16:16
64	P2.050812.162300	L12040898-09	MW-30-042512	50/50	100		05/08/12 16:23
65	P2.050812.162957	L12040898-10	MW-32-042512	50/50	100		05/08/12 16:29
66	P2.050812.163654	L12040898-11	MW-32-042512	50/50	100		05/08/12 16:36
67	P2.050812.164349	L12040898-12	DUP-GW-042512	50/50	100		05/08/12 16:43
68	P2.050812.165043	L12040898-13	DUP-GW-042512	50/50	100		05/08/12 16:50

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Shari L. Bahgat



Microbac Laboratories Inc.
Instrument Run Log

Instrument: PE-ICP2 Dataset: 050812H.CSV
 Analyst1: KHR Analyst2: N/A
 Method: 6010 SOP: ME600E Rev: 12
 Maintenance Log ID: 41636

Calibration Std: STD51542 ICV Std: STD51543 Post Spike: STD51356
 ICSA: STD51272 ICSAB: STD51413 Int. Std: RG17310
 CCV: STD51453 LLCCV: STD51542

396793, 396721, 397343, 397233

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	P2.050812.165737	WG397368-25	CCV		1		05/08/12 16:57
70	P2.050812.170338	WG397368-26	CCB		1		05/08/12 17:03
71	P2.050812.171031	WG397313-01	Method/Prep Blank	1/50	1		05/08/12 17:10
72	P2.050812.171726	WG397313-02	Laboratory Control S	1/50	1		05/08/12 17:17
73	P2.050812.172324	WG397313-03	Laboratory Control S	1/50	1		05/08/12 17:23
74	P2.050812.172923	L12050130-01	T1360	1/50	1		05/08/12 17:29
75	P2.050812.173521	L12050130-02	T1362	1/50	1		05/08/12 17:35
76	P2.050812.174119	L12050130-03	T1363	1/50	1		05/08/12 17:41
77	P2.050812.174718	L12050130-04	T1365	1/50	1		05/08/12 17:47
78	P2.050812.175318	WG397343-01	Post Digestion Spike		1	L12050130-04	05/08/12 17:53
79	P2.050812.175918	WG397343-02	Serial Dilution		5	L12050130-04	05/08/12 17:59
80	P2.050812.180644	WG397368-27	CCV		1		05/08/12 18:06
81	P2.050812.181245	WG397368-28	CCB		1		05/08/12 18:12
82	P2.050812.181938	WG397165-02	Method/Prep Blank	50/50	1		05/08/12 18:19
83	P2.050812.182633	WG397165-03	Laboratory Control S	50/50	1		05/08/12 18:26
84	P2.050812.183232	L12050050-01	MW-05I-050112		1	WG397165-01	05/08/12 18:32
85	P2.050812.183830	WG397165-04	Matrix Spike	50/50	1	L12050050-01	05/08/12 18:38
86	P2.050812.184428	WG397165-05	Matrix Spike Duplica	50/50	1	L12050050-01	05/08/12 18:44
87	P2.050812.185026	L12050050-02	MW-05I-050112	50/50	1		05/08/12 18:50
88	P2.050812.185624	L12050050-03	MW-05S-050112	50/50	1		05/08/12 18:56
89	P2.050812.190358	L12050050-04	MW-05S-050112	50/50	1		05/08/12 19:03
90	P2.050812.191058	WG397233-01	Post Digestion Spike		1	L12050050-04	05/08/12 19:10
91	P2.050812.191702	WG397233-02	Serial Dilution		5	L12050050-04	05/08/12 19:17
92	P2.050812.192401	WG397368-29	CCV		1		05/08/12 19:24
93	P2.050812.193003	WG397368-30	CCB		1		05/08/12 19:30
94	P2.050812.193656	L12050050-05	MW-24-050112	50/50	1		05/08/12 19:36
95	P2.050812.194253	L12050050-06	MW-24-050112	50/50	1		05/08/12 19:42
96	P2.050812.194852	L12050050-07	MW-01-050112	50/50	1		05/08/12 19:48
97	P2.050812.195547	L12050050-08	MW-01-050112	50/50	1		05/08/12 19:55
98	P2.050812.200243	L12050099-01	MW-13-050212	50/50	1		05/08/12 20:02
99	P2.050812.200842	L12050099-02	MW-13-050212	50/50	1		05/08/12 20:08
100	P2.050812.201441	L12050099-03	MW-26-050212	50/50	1		05/08/12 20:14
101	P2.050812.202040	L12050099-04	MW-26-050212	50/50	1		05/08/12 20:20
102	P2.050812.202639	L12050099-05	MW-25-050212	50/50	1		05/08/12 20:26

Page: 3 Approved: May 09, 2012

Shari L. Bahgat



Microbac Laboratories Inc.
Instrument Run Log

Instrument: PE-ICP2 Dataset: 050812H.CSV
 Analyst1: KHR Analyst2: N/A
 Method: 6010 SOP: ME600E Rev: 12
 Maintenance Log ID: 41636

Calibration Std: STD51542 ICV Std: STD51543 Post Spike: STD51356
 ICSA: STD51272 ICSAB: STD51413 Int. Std: RGT17310
 CCV: STD51453 LLCCV: STD51542

396793, 396721, 397343, 397233

Workgroups:

Comments:

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Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	P2.050812.203238	WG397368-31	CCV		1		05/08/12 20:32
104	P2.050812.203839	WG397368-32	CCB		1		05/08/12 20:38
105	P2.050812.204532	L12050099-06	MW-25-050212	50/50	1		05/08/12 20:45
106	P2.050812.205131	L12050099-07	PZ-03-050212	50/50	1		05/08/12 20:51
107	P2.050812.205736	L12050099-08	PZ-03-050212	50/50	1		05/08/12 20:57
108	P2.050812.210340	L12050099-09	DUP-GW-050212	50/50	1		05/08/12 21:03
109	P2.050812.210941	L12050099-10	DUP-GW-050212	50/50	1		05/08/12 21:09
110	P2.050812.211541	WG397368-33	CCV		1		05/08/12 21:15
111	P2.050812.212142	WG397368-34	CCB		1		05/08/12 21:21
112	P2.050812.212835	WG397368-35	Interference Check		1		05/08/12 21:28
113	P2.050812.213432	WG397368-36	Interference Check		1		05/08/12 21:34
114	P2.050812.214028	WG397368-37	CCV		1		05/08/12 21:40
115	P2.050812.214629	WG397368-38	CCB		1		05/08/12 21:46

Comments

Seq.	Rerun	Dil.	Reason	Analytes
8			The LLICV was not loaded into the autosampler during the initial analysis and was reanalyzed at 09:34.	

Page: 4 Approved: May 09, 2012

Shari L. Bahgat



Microbac Laboratories Inc.
Instrument Run Log

Instrument: PE-ICP2 Dataset: 050912H.CSV
 Analyst1: KHR Analyst2: N/A
 Method: 6010 SOP: ME600E Rev: 12
 Maintenance Log ID: 41651

Calibration Std: STD51542 ICV Std: STD51543 Post Spike: STD51356
 ICSA: STD51272 ICSAB: STD51413 Int. Std: RG17310
 CCV: STD51453 LLCCV: _____

396298, 396721, 397233, 397342, 397515, 397519

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	P2.050912.094959	WG397533-01	Calibration Point		1		05/09/12 09:49
2	P2.050912.095653	WG397533-02	Calibration Point		1		05/09/12 09:56
3	P2.050912.100348	WG397533-03	Calibration Point		1		05/09/12 10:03
4	P2.050912.101043	WG397533-04	Calibration Point		1		05/09/12 10:10
5	P2.050912.101642	WG397533-05	Calibration Point		1		05/09/12 10:16
6	P2.050912.102243	WG397533-06	Initial Calibration Verification		1		05/09/12 10:22
7	P2.050912.102841	WG397533-07	Initial Calib Blank		1		05/09/12 10:28
8	P2.050912.103534	WG397533-08	Interference Check		1		05/09/12 10:35
9	P2.050912.104147	WG397533-09	Interference Check		1		05/09/12 10:41
10	P2.050912.104744	WG397533-10	CCV		1		05/09/12 10:47
11	P2.050912.105345	WG397533-11	CCB		1		05/09/12 10:53
12	P2.050912.110038	WG396210-02	Method/Prep Blank	50/50	1		05/09/12 11:00
13	P2.050912.110735	WG396210-03	Laboratory Control S	50/50	1		05/09/12 11:07
14	P2.050912.111332	WG396210-01	Reference Sample		1	L12040844-01	05/09/12 11:13
15	P2.050912.111930	WG396210-04	Matrix Spike	50/50	1	L12040844-01	05/09/12 11:19
16	P2.050912.112530	WG396210-05	Matrix Spike Duplica	50/50	1	L12040844-01	05/09/12 11:25
17	P2.050912.113130	L12040844-02	MW-16I-042412	50/50	1		05/09/12 11:31
18	P2.050912.113729	L12040844-03	MW-16S-042412	50/50	1		05/09/12 11:37
19	P2.050912.114329	WG396298-03	Post Digestion Spike		1	L12040844-03	05/09/12 11:43
20	P2.050912.114929	WG396298-04	Serial Dilution		5	L12040844-03	05/09/12 11:49
21	P2.050912.115527	WG397533-12	CCV		1		05/09/12 11:55
22	P2.050912.120128	WG397533-13	CCB		1		05/09/12 12:01
23	P2.050912.120822	L12040844-04	MW-16S-042412	50/50	1		05/09/12 12:08
24	P2.050912.122146	L12040844-05	MW-07-042412	50/50	1		05/09/12 12:21
25	P2.050912.122745	L12040844-06	MW-07-042412	50/50	1		05/09/12 12:27
26	P2.050912.123446	L12040844-05	MW-07-042412	50/50	100		05/09/12 12:34
27	P2.050912.124143	L12040844-06	MW-07-042412	50/50	100		05/09/12 12:41
28	P2.050912.124836	L12040898-04	MW-22-042512	50/50	100		05/09/12 12:48
29	P2.050912.125530	L12050050-05	MW-24-050112	50/50	100		05/09/12 12:55
30	P2.050912.130224	L12050050-06	MW-24-050112	50/50	100		05/09/12 13:02
31	P2.050912.130919	L12050099-07	PZ-03-050212	50/50	100		05/09/12 13:09
32	P2.050912.131613	L12050099-08	PZ-03-050212	50/50	100		05/09/12 13:16
33	P2.050912.132307	WG397533-14	CCV		1		05/09/12 13:23
34	P2.050912.132908	WG397533-15	CCB		1		05/09/12 13:29

Page: 1 Approved: May 10, 2012

Shari L. Bahgat



Microbac Laboratories Inc.
Instrument Run Log

Instrument: PE-ICP2 Dataset: 050912H.CSV
 Analyst1: KHR Analyst2: N/A
 Method: 6010 SOP: ME600E Rev: 12
 Maintenance Log ID: 41651

Calibration Std: STD51542 ICV Std: STD51543 Post Spike: STD51356
 ICSA: STD51272 ICSAB: STD51413 Int. Std: RG17310
 CCV: STD51453 LLCCV: _____

396298, 396721, 397233, 397342, 397515, 397519

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	P2.050912.133601	WG397533-16	Interference Check		1		05/09/12 13:36
36	P2.050912.134157	WG397533-17	Interference Check		1		05/09/12 13:41
37	P2.050912.134754	WG397533-18	CCV		1		05/09/12 13:47
38	P2.050912.135355	WG397533-19	CCB		1		05/09/12 13:53
39	P2.050912.140048	WG397293-02	Method/Prep Blank	50/50	1		05/09/12 14:00
40	P2.050912.140743	WG397293-03	Laboratory Control S	50/50	1		05/09/12 14:07
41	P2.050912.141342	WG397293-01	Reference Sample		10	L12050104-53	05/09/12 14:13
42	P2.050912.142039	WG397293-04	Matrix Spike	50/50	10	L12050104-53	05/09/12 14:20
43	P2.050912.142639	WG397293-05	Matrix Spike Duplica	50/50	10	L12050104-53	05/09/12 14:26
44	P2.050912.143241	L12050150-30	LEACHATE	50/50	5		05/09/12 14:32
45	P2.050912.143843	L12050220-01	001	50/50	100		05/09/12 14:38
46	P2.050912.144447	L12050104-47	SPE-G-MW-47-DIS	50/50	10		05/09/12 14:44
47	P2.050912.145147	WG397342-01	Post Digestion Spike		10	L12050104-47	05/09/12 14:51
48	P2.050912.145748	WG397342-02	Serial Dilution		50	L12050104-47	05/09/12 14:57
49	P2.050912.150441	WG397533-20	CCV		1		05/09/12 15:04
50	P2.050912.151042	WG397533-21	CCB		1		05/09/12 15:10
51	P2.050912.151735	L12050223-05	40BF05312FB		1		05/09/12 15:17
52	P2.050912.152341	L12050104-43	SPE-G-MW-46-DIS	50/50	10		05/09/12 15:23
53	P2.050912.152938	L12050104-44	SPE-G-MW-46D	50/50	10		05/09/12 15:29
54	P2.050912.153633	L12050104-45	SPE-G-MW-46D-DIS	50/50	10		05/09/12 15:36
55	P2.050912.154232	L12050104-46	SPE-G-MW-47	50/50	10		05/09/12 15:42
56	P2.050912.154831	L12050104-48	SPE-G-MW-60	50/50	10		05/09/12 15:48
57	P2.050912.155527	L12050104-49	SPE-G-MW-60-DIS	50/50	10		05/09/12 15:55
58	P2.050912.160256	L12050104-50	SPE-K-FB-1		10		05/09/12 16:02
59	P2.050912.160954	L12050104-54	SPE-K-FB-2		10		05/09/12 16:09
60	P2.050912.161650	L12050104-55	SPE-K-FB-2-DIS		10		05/09/12 16:16
61	P2.050912.162347	WG397533-22	CCV		1		05/09/12 16:23
62	P2.050912.162948	WG397533-23	CCB		1		05/09/12 16:29
63	P2.050912.163641	L12050220-01	001	50/50	500		05/09/12 16:36
64	P2.050912.164240	WG397463-02	Method/Prep Blank	5/50	1		05/09/12 16:42
65	P2.050912.164935	WG397463-03	Laboratory Control S	5/50	1		05/09/12 16:49
66	P2.050912.165535	WG397445-01	TCLP Fluid Blank 1		1		05/09/12 16:55
67	P2.050912.170235	WG397445-02	TCLP Fluid Blank 2		1		05/09/12 17:02
68	P2.050912.170931	L12050168-01	FLY ASH	5/50	1		05/09/12 17:09

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Shari L. Bahgat



Microbac Laboratories Inc.

Instrument Run Log

Instrument: PE-ICP2 Dataset: 050912H.CSV
 Analyst1: KHR Analyst2: N/A
 Method: 6010 SOP: ME600E Rev: 12
 Maintenance Log ID: 41651

Calibration Std: STD51542 ICV Std: STD51543 Post Spike: STD51356
 ICSA: STD51272 ICSAB: STD51413 Int. Std: RGT17310
 CCV: STD51453 LLCCV: _____

396298, 396721, 397233, 397342, 397515, 397519

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	P2.050912.171532	L12050168-02	BOTTOM ASH	5/50	1		05/09/12 17:15
70	P2.050912.172230	L12050177-01	2050150-01	5/50	1		05/09/12 17:22
71	P2.050912.172928	WG397515-01	Post Digestion Spike		1	L12050177-02	05/09/12 17:29
72	P2.050912.173526	WG397515-02	Serial Dilution		5	L12050177-02	05/09/12 17:35
73	P2.050912.174220	WG397533-24	CCV		1		05/09/12 17:42
74	P2.050912.174821	WG397533-25	CCB		1		05/09/12 17:48
75	P2.050912.175514	L12050177-02	2050150-02	5/50	1		05/09/12 17:55
76	P2.050912.180125	L12050177-03	2050150-03	5/50	1		05/09/12 18:01
77	P2.050912.180820	WG397463-01	Reference Sample		1	L12050214-02	05/09/12 18:08
78	P2.050912.181419	WG397463-04	Matrix Spike	5/50	1	L12050214-02	05/09/12 18:14
79	P2.050912.182019	WG397463-05	Matrix Spike Duplica	5/50	1	L12050214-02	05/09/12 18:20
80	P2.050912.182619	L12050227-01	ARMSTRONG	5/50	1		05/09/12 18:26
81	P2.050912.183315	WG397533-26	CCV		1		05/09/12 18:33
82	P2.050912.183915	WG397533-27	CCB		1		05/09/12 18:39
83	P2.050912.184609	WG397432-03	Method/Prep Blank	50/50	1		05/09/12 18:46
84	P2.050912.185303	WG397432-04	Laboratory Control S	50/50	1		05/09/12 18:53
85	P2.050912.185902	L12050236-01	010	50/50	10		05/09/12 18:59
86	P2.050912.190556	L12050236-02	010	50/50	10		05/09/12 19:05
87	P2.050912.191250	L12050236-03	012	50/50	10		05/09/12 19:12
88	P2.050912.191945	L12050236-04	012	50/50	10		05/09/12 19:19
89	P2.050912.192640	L12050236-05	016	50/50	10		05/09/12 19:26
90	P2.050912.193335	L12050236-06	016	50/50	10		05/09/12 19:33
91	P2.050912.194031	WG397519-01	Post Digestion Spike		10	L12050236-06	05/09/12 19:40
92	P2.050912.194631	WG397519-02	Serial Dilution		5	L12050236-06	05/09/12 19:46
93	P2.050912.195326	WG397533-28	CCV		1		05/09/12 19:53
94	P2.050912.195928	WG397533-29	CCB		1		05/09/12 19:59
95	P2.050912.200621	L12050236-07	017	50/50	10		05/09/12 20:06
96	P2.050912.201318	L12050236-08	017	50/50	10		05/09/12 20:13
97	P2.050912.202040	L12050236-09	018	50/50	10		05/09/12 20:20
98	P2.050912.202735	L12050236-10	018		10	WG397432-01	05/09/12 20:27
99	P2.050912.203433	WG397432-06	Matrix Spike	50/50	10	L12050236-10	05/09/12 20:34
100	P2.050912.204031	WG397432-05	Duplicate	50/50	10	L12050236-10	05/09/12 20:40
101	P2.050912.204726	L12050253-01	C-004		1	WG397432-02	05/09/12 20:47
102	P2.050912.205422	WG397432-07	Matrix Spike	50/50	1	L12050253-01	05/09/12 20:54

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Shari L. Bahgat



Microbac Laboratories Inc.

Instrument Run Log

Instrument: PE-ICP2 _____ Dataset: 050912H.CSV _____
 Analyst1: KHR _____ Analyst2: N/A _____
 Method: 6010 _____ SOP: ME600E _____ Rev: 12 _____
 Maintenance Log ID: 41651 _____

Calibration Std: STD51542 _____ ICV Std: STD51543 _____ Post Spike: STD51356 _____
 ICSA: STD51272 _____ ICSAB: STD51413 _____ Int. Std: RGT17310 _____
 CCV: STD51453 _____ LLCCV: _____

396298, 396721, 397233, 397342, 397515, 397519 _____

Workgroups:

Comments:

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Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	P2.050912.210021	L12050223-05	40BF05312FB	50/50	1		05/09/12 21:00
104	P2.050912.210716	WG397533-30	CCV		1		05/09/12 21:07
105	P2.050912.211317	WG397533-31	CCB		1		05/09/12 21:13

Comments

Seq.	Rerun	Dil.	Reason	Analytes
51			The wrong sample was analyzed at 15:17, therefore, L1205022305 was analyzed at 21:00.	

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Shari L. Baharuf



Microbac Laboratories Inc.

Data Checklist

Date: 08-MAY-2012
 Analyst: KHR
 Analyst: NA
 Method: 6010
 Instrument: PE-ICP2
 Curve Workgroup: 397368
 Runlog ID: 46614
 Analytical Workgroups: 396793, 396721, 397343, 397233

Calibration/Linearity	X
ICV/CCV	X
ICV RSD <= 3% (EPA 200.7 only)	
ICB/CCB	X
ICSA/ICSAB	X
CRI	X
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	X
Client Forms	X
Level X	
Level 3	
Level 4	013, 898, 050, 099
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	KHR
Secondary Reviewer	SLP
Comments	

Primary Reviewer:
09-MAY-2012

Secondary Reviewer:
09-MAY-2012

Kim H. Rhodes

Shari L. Bahgat



Microbac Laboratories Inc.

Data Checklist

Date: 09-MAY-2012
 Analyst: KHR
 Analyst: NA
 Method: 6010
 Instrument: PE-ICP2
 Curve Workgroup: 397533
 Runlog ID: 46645
 Analytical Workgroups: 396298, 396721, 397233, 397342, 397515, 397519

Calibration/Linearity	X
ICV/CCV	X
ICV RSD <= 3% (EPA 200.7 only)	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	X
Client Forms	X
Level X	
Level 3	
Level 4	844, 898, 050, 099, 223
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	KHR
Secondary Reviewer	SLP
Comments	

Primary Reviewer:
10-MAY-2012

Secondary Reviewer:
10-MAY-2012

Kim H. Rhodes

Shari L. Bahgat



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method:6010B
 Login Number:L12050050

AAB#:WG397233

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MW-05I-050112	01	05/01/12					05/07/12	5.9	180		05/08/12	7.3	180	
MW-05I-050112	02	05/01/12					05/07/12	5.9	180		05/08/12	7.3	180	
MW-05S-050112	03	05/01/12					05/07/12	5.8	180		05/08/12	7.2	180	
MW-05S-050112	04	05/01/12					05/07/12	5.8	180		05/08/12	7.2	180	
MW-24-050112	05	05/01/12					05/07/12	5.9	180		05/09/12	8.1	180	
MW-24-050112	05	05/01/12					05/07/12	5.9	180		05/08/12	7.4	180	
MW-24-050112	06	05/01/12					05/07/12	5.9	180		05/09/12	8.1	180	
MW-24-050112	06	05/01/12					05/07/12	5.9	180		05/08/12	7.4	180	
MW-01-050112	07	05/01/12					05/07/12	5.8	180		05/08/12	7.3	180	
MW-01-050112	08	05/01/12					05/07/12	5.8	180		05/08/12	7.3	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID:2407049
 Report generated 05/10/2012 08:00



METHOD BLANK SUMMARY

Login Number: L12050050
 Blank File ID: P2.050812.181938
 Prep Date: 05/07/12 08:07
 Analyzed Date: 05/08/12 18:19
 Analyst: KHR

Work Group: WG397233
 Blank Sample ID: WG397165-02
 Instrument ID: PE-ICP2
 Method: 6010B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG397165-03	P2.050812.182633	05/08/12 18:26	01
MW-05I-050112	L12050050-01	P2.050812.183232	05/08/12 18:32	01
MW-05I-050112	L12050050-02	P2.050812.185026	05/08/12 18:50	01
MW-05S-050112	L12050050-03	P2.050812.185624	05/08/12 18:56	01
MW-05S-050112	L12050050-04	P2.050812.190358	05/08/12 19:03	01
MW-24-050112	L12050050-05	P2.050812.193656	05/08/12 19:36	01
MW-24-050112	L12050050-06	P2.050812.194253	05/08/12 19:42	01
MW-01-050112	L12050050-07	P2.050812.194852	05/08/12 19:48	01
MW-01-050112	L12050050-08	P2.050812.195547	05/08/12 19:55	01
MW-24-050112	L12050050-05	P2.050912.125530	05/09/12 12:55	DL01
MW-24-050112	L12050050-06	P2.050912.130224	05/09/12 13:02	DL01

Report Name: BLANK_SUMMARY
 PDF File ID: 2407050
 Report generated 05/10/2012 08:00



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L12050050 Prep Date: 05/07/12 08:07 Sample ID: WG397165-02
 Instrument ID: PE-ICP2 Run Date: 05/08/12 18:19 Prep Method: 3005A
 File ID: P2.050812.181938 Analyst: KHR Method: 6010B
 Workgroup (AAB#): WG397233 Matrix: Water Units: mg/L
 Contract #: _____ Cal ID: PE-ICP-08-MAY-12

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Aluminum, Total	0.0500	0.100	0.0500	1	U
Barium, Total	0.00250	0.0100	-0.00299	1	U
Beryllium, Total	0.000500	0.00200	0.000500	1	U
Cadmium, Total	0.000250	0.000500	0.000250	1	U
Calcium, Total	0.100	0.200	0.100	1	U
Chromium, Total	0.00250	0.00500	0.00250	1	U
Cobalt, Total	0.00250	0.0200	0.00250	1	U
Copper, Total	0.00500	0.0200	0.00500	1	U
Iron, Total	0.0250	0.100	0.0250	1	U
Magnesium, Total	0.250	0.500	0.250	1	U
Manganese, Total	0.00500	0.0100	0.00500	1	U
Nickel, Total	0.00500	0.0400	0.00500	1	U
Potassium, Total	0.250	1.00	0.250	1	U
Silver, Total	0.00500	0.0100	0.00500	1	U
Sodium, Total	0.250	0.500	0.250	1	U
Vanadium, Total	0.00500	0.0100	0.00500	1	U
Zinc, Total	0.00500	0.0200	0.00500	1	U

MDL Method Detection Limit
 RL Reporting/Practical Quantitation Limit
 ND Analyte Not detected at or above reporting limit
 * |Analyte concentration| > RL

Report Name: BLANK
 PDF ID: 2407051
 09-MAY-2012 11:47



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12050050 Run Date: 05/08/2012 Sample ID: WG397165-03
 Instrument ID: PE-ICP2 Run Time: 18:26 Prep Method: 3005A
 File ID: P2.050812.182633 Analyst: KHR Method: 6010B
 Workgroup (AAB#): WG397233 Matrix: Water Units: mg/L
 QC Key: WATERLOO Lot#: STD51357 Cal ID: PE-ICP-08-MAY-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Aluminum, Total	5.00	5.00	100	85 - 115	
Barium, Total	0.500	0.496	99.2	85 - 115	
Beryllium, Total	0.0250	0.0241	96.5	85 - 115	
Cadmium, Total	0.0250	0.0236	94.5	85 - 115	
Calcium, Total	5.00	5.03	101	85 - 115	
Chromium, Total	0.250	0.249	99.7	85 - 115	
Cobalt, Total	0.100	0.0993	99.3	85 - 115	
Copper, Total	0.250	0.255	102	85 - 115	
Iron, Total	2.00	1.91	95.5	85 - 115	
Magnesium, Total	5.00	4.86	97.1	85 - 115	
Manganese, Total	0.250	0.251	100	85 - 115	
Nickel, Total	0.250	0.252	101	85 - 115	
Potassium, Total	25.0	24.8	99.2	85 - 115	
Silver, Total	0.200	0.199	99.3	85 - 115	
Sodium, Total	25.0	25.4	102	85 - 115	
Vanadium, Total	0.500	0.510	102	85 - 115	
Zinc, Total	0.500	0.494	98.8	85 - 115	

LCS - Modified 03/06/2008
 PDF File ID: 2407052
 Report generated: 05/09/2012 11:47



MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L12050050 Cal ID: PE-ICP2- Worknum: WG397233
 Instrument ID: PE-ICP2 Contract #: _____ Method: 6010B
 Parent ID: WG397165-01 File ID: P2.050812.183232 Dil: 1 Matrix: WATER
 Sample ID: WG397165-04 MS File ID: P2.050812.183830 Dil: 1 Units: mg/L
 Sample ID: WG397165-05 MSD File ID: P2.050812.184428 Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Aluminum, Total	ND	5.00	5.31	106	5.00	5.16	103	2.72	85 - 115	20	
Barium, Total	0.164	0.500	0.695	106	0.500	0.675	102	2.84	85 - 115	20	
Beryllium, Total	ND	0.0250	0.0254	102	0.0250	0.0244	97.5	4.11	85 - 115	20	
Cadmium, Total	0.000862	0.0250	0.0248	95.7	0.0250	0.0238	91.6	4.18	85 - 115	20	
Calcium, Total	101	5.00	119	352	5.00	115	281	3.06	85 - 115	20	*
Chromium, Total	ND	0.250	0.261	104	0.250	0.252	101	3.39	85 - 115	20	
Cobalt, Total	ND	0.100	0.100	100	0.100	0.0982	98.2	2.27	85 - 115	20	
Copper, Total	ND	0.250	0.261	104	0.250	0.250	99.9	4.42	85 - 115	20	
Iron, Total	0.207	2.00	2.22	101	2.00	2.15	97.0	3.55	85 - 115	20	
Magnesium, Total	42.5	5.00	51.1	174	5.00	50.3	156	1.71	85 - 115	20	*
Manganese, Total	0.0359	0.250	0.302	107	0.250	0.294	103	2.89	85 - 115	20	
Nickel, Total	ND	0.250	0.254	102	0.250	0.247	98.7	2.92	85 - 115	20	
Potassium, Total	3.45	25.0	29.9	106	25.0	29.3	103	2.06	85 - 115	20	
Silver, Total	ND	0.200	0.210	105	0.200	0.201	101	4.27	85 - 115	20	
Sodium, Total	58.5	25.0	94.0	142	25.0	92.6	137	1.43	85 - 115	20	*
Vanadium, Total	0.00920	0.500	0.544	107	0.500	0.528	104	3.02	85 - 115	20	
Zinc, Total	ND	0.500	0.493	98.6	0.500	0.478	95.6	3.09	85 - 115	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

Microbac Laboratories Inc.
Serial Dilution Report

Login: L12050050 **Worknum:** WG397233
Instrument: PE-ICP2 **Method:** 6010B
Serial Dil: WG397233-02 **File ID:** P2.050812.191702 **Dil:** 5 **Units:** mg/L
Sample: L12050050-04 **File ID:** P2.050812.190358 **Dil:** 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Aluminum	ND	U	ND	U		
Barium	0.0529	X	0.0431	F	18.60	
Beryllium	ND	U	ND	U		
Cadmium	0.000267	F	0.00153	F	472.00	
Calcium	127		126		0.67	
Chromium	ND	U	ND	U		
Cobalt	ND	U	ND	U		
Copper	ND	U	ND	U		
Iron	0.111	X	ND	U		
Magnesium	35.0		35.4		1.21	
Manganese	0.0501	X	0.0405	F	19.20	
Nickel	ND	U	ND	U		
Potassium	2.88	X	2.68	F	6.77	
Silver	ND	U	ND	U		
Sodium	40.8		40.8		0.06	
Vanadium	0.00509	F	ND	U		
Zinc	0.00696	F	ND	U		

U = Result is below MDL.
F = Result is greater than or equal to MDL and less than the RL.
X = Result is greater than or equal to RL and less than 50 times the MDL.
E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008
PDF File ID: 2407047
05/09/2012 11:47



Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L12050050

Worknum: WG397233

Instrument ID: PE-ICP2

Method: 6010B

Post Spike ID: WG397233-01

File ID: P2.050812.191058

Dil: 1

Units: mg/L

Sample ID: L12050050-04

File ID: P2.050812.190358

Dil: 1

Matrix: Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ALUMINUM	5.07		0	U	5	101.3	75 - 125	
BARIUM	0.541		0.0529		.5	98.6	75 - 125	
BERYLLIUM	0.0240		0	U	.025	96.2	75 - 125	
CADMIUM	0.0235		0.000267	F	.025	93.0	75 - 125	
CALCIUM	132		127		5	341.4	75 - 125	N
CHROMIUM	0.247		0	U	.25	98.8	75 - 125	
COBALT	0.0964		0	U	.1	96.4	75 - 125	
COPPER	0.245		0	U	.25	98.1	75 - 125	
IRON	2.01		0.111		2	95.5	75 - 125	
MAGNESIUM	36.8		35.0		5	106.4	75 - 125	
MANGANESE	0.298		0.0501		.25	101.0	75 - 125	
NICKEL	0.252		0	U	.25	100.7	75 - 125	
POTASSIUM	27.9		2.88		25	101.1	75 - 125	
SILVER	0.199		0	U	.2	99.3	75 - 125	
SODIUM	65.1		40.8		25	113.6	75 - 125	
VANADIUM	0.517		0.00509	F	.5	102.4	75 - 125	
ZINC	0.491		0.00696	F	.5	96.9	75 - 125	

N = % Recovery exceeds control limits

F = Result is between MDL and RL

U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 2407048
Report generated: 05/09/2012 11:47



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L12050050 Workgroup (AAB#): WG397233
Analytical Method: 6010B Instrument ID: PE-ICP2
ICAL Worknum: WG397368 Initial Calibration Date: 08-MAY-2012 09:08

	WG397368-01		WG397368-02		WG397368-03		WG397368-04		WG397368-05		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ALUMINUM	0	12.7	.1	756	.2	1530	10	75900	20	148000	.999931	
BARIUM	0	-185	.01	1600	.02	3230	1	160000	2	313000	.999933	
BERYLLIUM	0	-1730	.0005	634	.001	1240	.05	62500	.1	127000	.999979	
CADMIUM	0	75.8	.0005	19.1	.001	40.4	.05	2750	.1	5560	.999999	
CALCIUM	0	-68.2	NA	NA	.2	90.3	10	4600	20	9440	.999917	
CHROMIUM	0	190	.005	548	.01	1120	5	56000	1	109000	.999894	
COBALT	0	-0.202	.002	73.1	.004	157	.1	7920	.4	15400	.999899	
COPPER	0	-696	.005	1310	.01	2680	.5	135000	1	269000	.999992	
IRON	0	59.5	.04	634	.08	1280	4	64800	8	127000	.999951	
MAGNESIUM	0	27.6	.1	361	.2	733	10	36100	20	70900	.999963	
MANGANESE	0	399	.005	4420	.01	8620	.5	436000	1	836000	.999774	
NICKEL	0	-183	.005	349	.01	729	.5	34800	1	67800	.999909	
POTASSIUM	0	-31.7	.5	1890	1	3600	50	166000	100	326000	1	
SILVER	0	-195	.004	1240	.008	2430	.4	126000	.8	251000	.999996	
SODIUM	0	1370	.5	10000	1	19700	50	990000	100	1880000	1	
VANADIUM	0	15000	.01	2260	.02	4120	1	199000	2	385000	.999873	
ZINC	0	48.7	.01	427	.02	848	1	42700	2	84100	.999997	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
* = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L12050050 Workgroup (AAB#): WG397233
Analytical Method: 6010B Instrument ID: PE-ICP2
ICAL Worknum: WG397533 Initial Calibration Date: 09-MAY-2012 10:16

	WG397533-01		WG397533-02		WG397533-03		WG397533-04		WG397533-05		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ALUMINUM	0	-5.02	.1	815	.2	1640	10	80200	20	159000	.99999	
BARIUM	0	-154	.01	1530	.02	3070	1	154000	2	299000	.999904	
BERYLLIUM	0	-1630	.0005	570	.001	1220	.05	64100	.1	124000	.999892	
CADMIUM	0	82.2	.0005	33.7	.001	52.7	.05	2830	.1	5500	.999902	
CALCIUM	0	-77.6	NA	NA	.2	91.0	10	4910	20	9790	.999999	
CHROMIUM	0	169	.005	542	.01	1090	5	54600	1	106000	.999893	
COBALT	0	3.68	.002	77.3	.004	150	.1	7660	.4	14900	.999929	
COPPER	0	-714	.005	1350	.01	2730	.5	144000	1	281000	.999941	
IRON	0	29.8	.04	625	.08	1290	4	64200	8	130000	.999991	
MAGNESIUM	0	22.9	.1	364	.2	722	10	35900	20	72300	.999994	
MANGANESE	0	362	.005	4350	.01	8290	.5	425000	1	815000	.99979	
NICKEL	0	-184	.005	350	.01	694	.5	33900	1	65700	.999877	
POTASSIUM	0	28.0	.5	1900	1	3670	50	174000	100	340000	1	
SILVER	0	-92.8	.004	1300	.008	2500	.4	131000	.8	252000	.999836	
SODIUM	0	1140	.5	10500	1	21100	50	1050000	100	2050000	1	
VANADIUM	0	15700	.01	1880	.02	3890	1	196000	2	382000	.999913	
ZINC	0	4.94	.01	410	.02	813	1	40600	2	77800	.999779	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
* = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L12050050 Run Date: 05/08/2012 Sample ID: WG397368-07
 Instrument ID: PE-ICP2 Run Time: 09:20 Method: 6010B
 File ID: P2.050812.092008 Analyst: KHR Units: mg/L
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP2 - 08-MAY-12
 Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
ALUMINUM	.05	.1	.05	U
BARIUM	.0025	.01	.0025	U
BERYLLIUM	.0005	.002	.0005	U
CADMIUM	.00025	.0005	.00025	U
CALCIUM	.1	.2	.1	U
CHROMIUM	.0025	.005	.0025	U
COBALT	.0025	.02	.0025	U
COPPER	.005	.02	.005	U
IRON	.025	.1	.025	U
MAGNESIUM	.25	.5	.25	U
MANGANESE	.005	.01	.005	U
NICKEL	.005	.04	.005	U
POTASSIUM	.25	1	.25	U
SILVER	.005	.01	.005	U
SODIUM	.25	.5	.25	U
VANADIUM	.005	.01	.005	U
ZINC	.005	.02	.005	U

ICB - Modified 07/14/2009
 PDF File ID: 2407058
 Report generated 05/10/2012 08:00



Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397533-07
 Instrument ID: PE-ICP2 Run Time: 10:28 Method: 6010B
 File ID: P2.050912.102841 Analyst: KHR Units: mg/L
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP2 - 09-MAY-12
 Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
ALUMINUM	.05	.1	.05	U
BARIUM	.0025	.01	.0025	U
BERYLLIUM	.0005	.002	.0005	U
CADMIUM	.00025	.0005	.00025	U
CALCIUM	.1	.2	.1	U
CHROMIUM	.0025	.005	.0025	U
COBALT	.0025	.02	.0025	U
COPPER	.005	.02	.005	U
IRON	.025	.1	.025	U
MAGNESIUM	.25	.5	.25	U
MANGANESE	.005	.01	.005	U
NICKEL	.005	.04	.005	U
POTASSIUM	.25	1	.25	U
SILVER	.005	.01	.005	U
SODIUM	.25	.5	.25	U
VANADIUM	.005	.01	.005	U
ZINC	.005	.02	.005	U

ICB - Modified 07/14/2009
 PDF File ID: 2407058
 Report generated 05/10/2012 08:00



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/08/2012 Sample ID: WG397368-14
 Instrument ID: PE-ICP2 Run Time: 10:06 Method: 6010B
 File ID: P2.050812.100628 Analyst: KHR Units: mg/L
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 08-MAY-12
 Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Barium	0.00250	0.0100	-0.00315	F
Beryllium	0.000500	0.00200	0.000500	U
Cadmium	0.000250	0.000500	0.000250	U
Calcium	0.100	0.200	0.100	U
Chromium	0.00250	0.00500	0.00250	U
Cobalt	0.00250	0.0200	0.00250	U
Copper	0.00500	0.0200	0.00500	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Manganese	0.00500	0.0100	0.00500	U
Nickel	0.00500	0.0400	0.00500	U
Potassium	0.250	1.00	0.250	U
Silver	0.00500	0.0100	0.00500	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	0.00500	U

U = Result is less than MDL.
 F = Result is between MDL and RL.
 * = Result is above RL.

CCB - Modified 03/05/2008
 PDF File ID: 2407061
 Report generated 05/10/2012 08:00



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/08/2012 Sample ID: WG397368-28
 Instrument ID: PE-ICP2 Run Time: 18:12 Method: 6010B
 File ID: P2.050812.181245 Analyst: KHR Units: mg/L
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 08-MAY-12
 Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Barium	0.00250	0.0100	-0.00310	F
Beryllium	0.000500	0.00200	0.000500	U
Cadmium	0.000250	0.000500	0.000272	F
Calcium	0.100	0.200	0.100	U
Chromium	0.00250	0.00500	0.00250	U
Cobalt	0.00250	0.0200	0.00250	U
Copper	0.00500	0.0200	0.00500	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Manganese	0.00500	0.0100	0.00500	U
Nickel	0.00500	0.0400	0.00500	U
Potassium	0.250	1.00	0.250	U
Silver	0.00500	0.0100	0.00500	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	0.00500	U

U = Result is less than MDL.
 F = Result is between MDL and RL.
 * = Result is above RL.

CCB - Modified 03/05/2008
 PDF File ID: 2407061
 Report generated 05/10/2012 08:00



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/08/2012 Sample ID: WG397368-30
 Instrument ID: PE-ICP2 Run Time: 19:30 Method: 6010B
 File ID: P2.050812.193003 Analyst: KHR Units: mg/L
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 08-MAY-12
 Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Barium	0.00250	0.0100	-0.00302	F
Beryllium	0.000500	0.00200	0.000500	U
Cadmium	0.000250	0.000500	0.000250	U
Calcium	0.100	0.200	0.100	U
Chromium	0.00250	0.00500	0.00250	U
Cobalt	0.00250	0.0200	0.00250	U
Copper	0.00500	0.0200	0.00500	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Manganese	0.00500	0.0100	0.00500	U
Nickel	0.00500	0.0400	0.00500	U
Potassium	0.250	1.00	0.250	U
Silver	0.00500	0.0100	0.00500	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	0.00500	U

U = Result is less than MDL.
 F = Result is between MDL and RL.
 * = Result is above RL.

CCB - Modified 03/05/2008
 PDF File ID: 2407061
 Report generated 05/10/2012 08:00



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/08/2012 Sample ID: WG397368-32
 Instrument ID: PE-ICP2 Run Time: 20:38 Method: 6010B
 File ID: P2.050812.203839 Analyst: KHR Units: mg/L
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 08-MAY-12
 Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Barium	0.00250	0.0100	-0.00296	F
Beryllium	0.000500	0.00200	0.000500	U
Cadmium	0.000250	0.000500	0.000346	F
Calcium	0.100	0.200	0.100	U
Chromium	0.00250	0.00500	0.00250	U
Cobalt	0.00250	0.0200	0.00250	U
Copper	0.00500	0.0200	0.00500	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Manganese	0.00500	0.0100	0.00500	U
Nickel	0.00500	0.0400	0.00500	U
Potassium	0.250	1.00	0.250	U
Silver	0.00500	0.0100	0.00500	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	0.00500	U

U = Result is less than MDL.
 F = Result is between MDL and RL.
 * = Result is above RL.

CCB - Modified 03/05/2008
 PDF File ID: 2407061
 Report generated 05/10/2012 08:00



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/08/2012 Sample ID: WG397368-34
 Instrument ID: PE-ICP2 Run Time: 21:21 Method: 6010B
 File ID: P2.050812.212142 Analyst: KHR Units: mg/L
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 08-MAY-12
 Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Barium	0.00250	0.0100	-0.00295	F
Beryllium	0.000500	0.00200	0.000500	U
Cadmium	0.000250	0.000500	0.000365	F
Calcium	0.100	0.200	0.100	U
Chromium	0.00250	0.00500	0.00250	U
Cobalt	0.00250	0.0200	0.00250	U
Copper	0.00500	0.0200	0.00500	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Manganese	0.00500	0.0100	0.00500	U
Nickel	0.00500	0.0400	0.00500	U
Potassium	0.250	1.00	0.250	U
Silver	0.00500	0.0100	0.00500	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	0.00500	U

U = Result is less than MDL.
 F = Result is between MDL and RL.
 * = Result is above RL.

CCB - Modified 03/05/2008
 PDF File ID: 2407061
 Report generated 05/10/2012 08:00



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/08/2012 Sample ID: WG397368-38
 Instrument ID: PE-ICP2 Run Time: 21:46 Method: 6010B
 File ID: P2.050812.214629 Analyst: KHR Units: mg/L
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 08-MAY-12
 Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Barium	0.00250	0.0100	-0.00295	F
Beryllium	0.000500	0.00200	0.000500	U
Cadmium	0.000250	0.000500	0.000311	F
Calcium	0.100	0.200	0.100	U
Chromium	0.00250	0.00500	0.00250	U
Cobalt	0.00250	0.0200	0.00250	U
Copper	0.00500	0.0200	0.00500	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Manganese	0.00500	0.0100	0.00500	U
Nickel	0.00500	0.0400	0.00500	U
Potassium	0.250	1.00	0.250	U
Silver	0.00500	0.0100	0.00500	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	0.00500	U

U = Result is less than MDL.
 F = Result is between MDL and RL.
 * = Result is above RL.

CCB - Modified 03/05/2008
 PDF File ID: 2407061
 Report generated 05/10/2012 08:00



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397533-11
 Instrument ID: PE-ICP2 Run Time: 10:53 Method: 6010B
 File ID: P2.050912.105345 Analyst: KHR Units: mg/L
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 09-MAY-12
 Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Barium	0.00250	0.0100	-0.00369	F
Beryllium	0.000500	0.00200	0.000500	U
Cadmium	0.000250	0.000500	-0.000315	F
Calcium	0.100	0.200	0.100	U
Chromium	0.00250	0.00500	0.00250	U
Cobalt	0.00250	0.0200	0.00250	U
Copper	0.00500	0.0200	0.00500	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Manganese	0.00500	0.0100	0.00500	U
Nickel	0.00500	0.0400	0.00500	U
Potassium	0.250	1.00	0.250	U
Silver	0.00500	0.0100	0.00500	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	-0.00552	F

U = Result is less than MDL.
 F = Result is between MDL and RL.
 * = Result is above RL.

CCB - Modified 03/05/2008
 PDF File ID: 2407061
 Report generated 05/10/2012 08:00



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397533-13
 Instrument ID: PE-ICP2 Run Time: 12:01 Method: 6010B
 File ID: P2.050912.120128 Analyst: KHR Units: mg/L
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 09-MAY-12
 Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Barium	0.00250	0.0100	-0.00365	F
Beryllium	0.000500	0.00200	0.000500	U
Cadmium	0.000250	0.000500	0.000250	U
Calcium	0.100	0.200	0.100	U
Chromium	0.00250	0.00500	0.00250	U
Cobalt	0.00250	0.0200	0.00250	U
Copper	0.00500	0.0200	0.00500	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Manganese	0.00500	0.0100	0.00500	U
Nickel	0.00500	0.0400	0.00500	U
Potassium	0.250	1.00	0.250	U
Silver	0.00500	0.0100	0.00500	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	-0.00571	F

U = Result is less than MDL.
 F = Result is between MDL and RL.
 * = Result is above RL.

CCB - Modified 03/05/2008
 PDF File ID: 2407061
 Report generated 05/10/2012 08:00



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397533-15
 Instrument ID: PE-ICP2 Run Time: 13:29 Method: 6010B
 File ID: P2.050912.132908 Analyst: KHR Units: mg/L
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 09-MAY-12
 Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Barium	0.00250	0.0100	-0.00375	F
Beryllium	0.000500	0.00200	0.000500	U
Cadmium	0.000250	0.000500	-0.000297	F
Calcium	0.100	0.200	0.100	U
Chromium	0.00250	0.00500	0.00250	U
Cobalt	0.00250	0.0200	0.00250	U
Copper	0.00500	0.0200	0.00500	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Manganese	0.00500	0.0100	0.00500	U
Nickel	0.00500	0.0400	0.00500	U
Potassium	0.250	1.00	0.250	U
Silver	0.00500	0.0100	0.00500	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	-0.00568	F

U = Result is less than MDL.
 F = Result is between MDL and RL.
 * = Result is above RL.

CCB - Modified 03/05/2008
 PDF File ID: 2407061
 Report generated 05/10/2012 08:00



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397533-19
 Instrument ID: PE-ICP2 Run Time: 13:53 Method: 6010B
 File ID: P2.050912.135355 Analyst: KHR Units: mg/L
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 09-MAY-12
 Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Barium	0.00250	0.0100	-0.00369	F
Beryllium	0.000500	0.00200	0.000500	U
Cadmium	0.000250	0.000500	0.000250	U
Calcium	0.100	0.200	0.100	U
Chromium	0.00250	0.00500	0.00250	U
Cobalt	0.00250	0.0200	0.00250	U
Copper	0.00500	0.0200	0.00500	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Manganese	0.00500	0.0100	0.00500	U
Nickel	0.00500	0.0400	0.00500	U
Potassium	0.250	1.00	0.250	U
Silver	0.00500	0.0100	0.00500	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	-0.00558	F

U = Result is less than MDL.
 F = Result is between MDL and RL.
 * = Result is above RL.

CCB - Modified 03/05/2008
 PDF File ID: 2407061
 Report generated 05/10/2012 08:00



Microbac Laboratories Inc.
 INITIAL CALIBRATION VERIFICATION (ICV)
 (Alternate Source)

Login Number: L12050050 Run Date: 05/08/2012 Sample ID: WG397368-06
 Instrument ID: PE-ICP2 Run Time: 09:14 Method: 6010B
 File ID: P2.050812.091408 Analyst: KHR Units: mg/L
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 08-MAY-12
 QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Aluminum	10	9.86	98.6	90 - 110	
Barium	1	0.992	99.2	90 - 110	
Beryllium	.05	0.0487	97.5	90 - 110	
Cadmium	.05	0.0476	95.1	90 - 110	
Calcium	10	9.94	99.4	90 - 110	
Chromium	.5	0.498	99.6	90 - 110	
Cobalt	.2	0.197	98.4	90 - 110	
Copper	.5	0.493	98.5	90 - 110	
Iron	4	3.97	99.4	90 - 110	
Magnesium	10	9.88	98.8	90 - 110	
Manganese	.5	0.495	98.9	90 - 110	
Nickel	.5	0.515	103	90 - 110	
Potassium	50	48.7	97.4	90 - 110	
Silver	.4	0.384	95.9	90 - 110	
Sodium	50	48.9	97.8	90 - 110	
Vanadium	1	0.970	97.0	90 - 110	
Zinc	1	0.996	99.6	90 - 110	

* Exceeds LIMITS Limit



Microbac Laboratories Inc.
 INITIAL CALIBRATION VERIFICATION (ICV)
 (Alternate Source)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397533-06
 Instrument ID: PE-ICP2 Run Time: 10:22 Method: 6010B
 File ID: P2.050912.102243 Analyst: KHR Units: mg/L
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 09-MAY-12
 QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Aluminum	10	9.81	98.1	90 - 110	
Barium	1	1.00	100	90 - 110	
Beryllium	.05	0.0490	98.0	90 - 110	
Cadmium	.05	0.0484	96.8	90 - 110	
Calcium	10	10.2	102	90 - 110	
Chromium	.5	0.498	99.6	90 - 110	
Cobalt	.2	0.197	98.3	90 - 110	
Copper	.5	0.503	101	90 - 110	
Iron	4	3.92	98.1	90 - 110	
Magnesium	10	9.71	97.1	90 - 110	
Manganese	.5	0.505	101	90 - 110	
Nickel	.5	0.503	101	90 - 110	
Potassium	50	48.4	96.8	90 - 110	
Silver	.4	0.396	98.9	90 - 110	
Sodium	50	48.5	97.0	90 - 110	
Vanadium	1	0.981	98.1	90 - 110	
Zinc	1	1.01	101	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
 PDF File ID: 2407057
 Report generated 05/10/2012 08:00



CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/08/2012 Sample ID: WG397368-13
Instrument ID: PE-ICP2 Run Time: 10:00 Method: 6010B
File ID: P2.050812.100027 Analyst: KHR QC Key: WATERLOO
Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 08-MAY-12
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	9.91	mg/L	99.1	90 - 110	
Barium	1.00	1.00	mg/L	100	90 - 110	
Beryllium	0.0500	0.0498	mg/L	99.6	90 - 110	
Cadmium	0.0500	0.0489	mg/L	97.8	90 - 110	
Calcium	10.0	10.4	mg/L	104	90 - 110	
Chromium	0.500	0.503	mg/L	101	90 - 110	
Cobalt	0.200	0.198	mg/L	99.2	90 - 110	
Copper	0.500	0.511	mg/L	102	90 - 110	
Iron	4.00	3.96	mg/L	99.1	90 - 110	
Magnesium	10.0	9.84	mg/L	98.4	90 - 110	
Manganese	0.500	0.510	mg/L	102	90 - 110	
Nickel	0.500	0.505	mg/L	101	90 - 110	
Potassium	50.0	48.6	mg/L	97.3	90 - 110	
Silver	0.400	0.409	mg/L	102	90 - 110	
Sodium	50.0	48.9	mg/L	97.8	90 - 110	
Vanadium	1.00	1.01	mg/L	101	90 - 110	
Zinc	1.00	1.00	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria



CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/08/2012 Sample ID: WG397368-27
Instrument ID: PE-ICP2 Run Time: 18:06 Method: 6010B
File ID: P2.050812.180644 Analyst: KHR QC Key: WATERLOO
Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 08-MAY-12
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	10.1	mg/L	101	90 - 110	
Barium	1.00	1.01	mg/L	101	90 - 110	
Beryllium	0.0500	0.0502	mg/L	100	90 - 110	
Cadmium	0.0500	0.0492	mg/L	98.4	90 - 110	
Calcium	10.0	10.7	mg/L	107	90 - 110	
Chromium	0.500	0.507	mg/L	101	90 - 110	
Cobalt	0.200	0.200	mg/L	100	90 - 110	
Copper	0.500	0.527	mg/L	105	90 - 110	
Iron	4.00	3.94	mg/L	98.5	90 - 110	
Magnesium	10.0	9.79	mg/L	97.9	90 - 110	
Manganese	0.500	0.517	mg/L	103	90 - 110	
Nickel	0.500	0.510	mg/L	102	90 - 110	
Potassium	50.0	49.4	mg/L	98.8	90 - 110	
Silver	0.400	0.413	mg/L	103	90 - 110	
Sodium	50.0	50.0	mg/L	100	90 - 110	
Vanadium	1.00	1.04	mg/L	104	90 - 110	
Zinc	1.00	0.996	mg/L	99.6	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2407060
Report generated 05/10/2012 08:00



CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/08/2012 Sample ID: WG397368-29
Instrument ID: PE-ICP2 Run Time: 19:24 Method: 6010B
File ID: P2.050812.192401 Analyst: KHR QC Key: WATERLOO
Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 08-MAY-12
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	10.1	mg/L	101	90 - 110	
Barium	1.00	1.01	mg/L	101	90 - 110	
Beryllium	0.0500	0.0493	mg/L	98.5	90 - 110	
Cadmium	0.0500	0.0483	mg/L	96.7	90 - 110	
Calcium	10.0	10.5	mg/L	105	90 - 110	
Chromium	0.500	0.507	mg/L	101	90 - 110	
Cobalt	0.200	0.199	mg/L	99.4	90 - 110	
Copper	0.500	0.518	mg/L	104	90 - 110	
Iron	4.00	3.92	mg/L	98.1	90 - 110	
Magnesium	10.0	9.76	mg/L	97.6	90 - 110	
Manganese	0.500	0.514	mg/L	103	90 - 110	
Nickel	0.500	0.509	mg/L	102	90 - 110	
Potassium	50.0	49.4	mg/L	98.8	90 - 110	
Silver	0.400	0.407	mg/L	102	90 - 110	
Sodium	50.0	49.8	mg/L	99.5	90 - 110	
Vanadium	1.00	1.03	mg/L	103	90 - 110	
Zinc	1.00	0.996	mg/L	99.6	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2407060
Report generated 05/10/2012 08:00



CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/08/2012 Sample ID: WG397368-31
 Instrument ID: PE-ICP2 Run Time: 20:32 Method: 6010B
 File ID: P2.050812.203238 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 08-MAY-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	10.0	mg/L	100	90 - 110	
Barium	1.00	1.01	mg/L	101	90 - 110	
Beryllium	0.0500	0.0504	mg/L	101	90 - 110	
Cadmium	0.0500	0.0502	mg/L	100	90 - 110	
Calcium	10.0	10.6	mg/L	106	90 - 110	
Chromium	0.500	0.509	mg/L	102	90 - 110	
Cobalt	0.200	0.200	mg/L	100	90 - 110	
Copper	0.500	0.516	mg/L	103	90 - 110	
Iron	4.00	4.00	mg/L	99.9	90 - 110	
Magnesium	10.0	9.91	mg/L	99.1	90 - 110	
Manganese	0.500	0.513	mg/L	103	90 - 110	
Nickel	0.500	0.505	mg/L	101	90 - 110	
Potassium	50.0	49.1	mg/L	98.3	90 - 110	
Silver	0.400	0.414	mg/L	104	90 - 110	
Sodium	50.0	49.8	mg/L	99.5	90 - 110	
Vanadium	1.00	1.02	mg/L	102	90 - 110	
Zinc	1.00	1.02	mg/L	102	90 - 110	

* Exceeds LIMITS Criteria



CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/08/2012 Sample ID: WG397368-33
Instrument ID: PE-ICP2 Run Time: 21:15 Method: 6010B
File ID: P2.050812.211541 Analyst: KHR QC Key: WATERLOO
Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 08-MAY-12
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	10.2	mg/L	102	90 - 110	
Barium	1.00	1.03	mg/L	103	90 - 110	
Beryllium	0.0500	0.0520	mg/L	104	90 - 110	
Cadmium	0.0500	0.0512	mg/L	102	90 - 110	
Calcium	10.0	10.8	mg/L	108	90 - 110	
Chromium	0.500	0.519	mg/L	104	90 - 110	
Cobalt	0.200	0.201	mg/L	101	90 - 110	
Copper	0.500	0.533	mg/L	107	90 - 110	
Iron	4.00	4.08	mg/L	102	90 - 110	
Magnesium	10.0	10.1	mg/L	101	90 - 110	
Manganese	0.500	0.522	mg/L	104	90 - 110	
Nickel	0.500	0.514	mg/L	103	90 - 110	
Potassium	50.0	49.6	mg/L	99.2	90 - 110	
Silver	0.400	0.426	mg/L	107	90 - 110	
Sodium	50.0	50.9	mg/L	102	90 - 110	
Vanadium	1.00	1.04	mg/L	104	90 - 110	
Zinc	1.00	1.04	mg/L	104	90 - 110	

* Exceeds LIMITS Criteria



CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/08/2012 Sample ID: WG397368-37
 Instrument ID: PE-ICP2 Run Time: 21:40 Method: 6010B
 File ID: P2.050812.214028 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 08-MAY-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	9.76	mg/L	97.6	90 - 110	
Barium	1.00	0.979	mg/L	97.9	90 - 110	
Beryllium	0.0500	0.0494	mg/L	98.7	90 - 110	
Cadmium	0.0500	0.0491	mg/L	98.2	90 - 110	
Calcium	10.0	10.3	mg/L	103	90 - 110	
Chromium	0.500	0.492	mg/L	98.4	90 - 110	
Cobalt	0.200	0.194	mg/L	97.0	90 - 110	
Copper	0.500	0.503	mg/L	101	90 - 110	
Iron	4.00	3.90	mg/L	97.6	90 - 110	
Magnesium	10.0	9.67	mg/L	96.7	90 - 110	
Manganese	0.500	0.497	mg/L	99.4	90 - 110	
Nickel	0.500	0.491	mg/L	98.2	90 - 110	
Potassium	50.0	47.8	mg/L	95.5	90 - 110	
Silver	0.400	0.405	mg/L	101	90 - 110	
Sodium	50.0	48.4	mg/L	96.7	90 - 110	
Vanadium	1.00	0.987	mg/L	98.7	90 - 110	
Zinc	1.00	0.987	mg/L	98.7	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2407060
 Report generated 05/10/2012 08:00



CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397533-10
 Instrument ID: PE-ICP2 Run Time: 10:47 Method: 6010B
 File ID: P2.050912.104744 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 09-MAY-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	9.68	mg/L	96.8	90 - 110	
Barium	1.00	1.00	mg/L	100	90 - 110	
Beryllium	0.0500	0.0486	mg/L	97.2	90 - 110	
Cadmium	0.0500	0.0479	mg/L	95.8	90 - 110	
Calcium	10.0	10.1	mg/L	101	90 - 110	
Chromium	0.500	0.497	mg/L	99.4	90 - 110	
Cobalt	0.200	0.196	mg/L	98.1	90 - 110	
Copper	0.500	0.489	mg/L	97.7	90 - 110	
Iron	4.00	3.89	mg/L	97.3	90 - 110	
Magnesium	10.0	9.68	mg/L	96.8	90 - 110	
Manganese	0.500	0.504	mg/L	101	90 - 110	
Nickel	0.500	0.498	mg/L	99.7	90 - 110	
Potassium	50.0	47.7	mg/L	95.4	90 - 110	
Silver	0.400	0.397	mg/L	99.3	90 - 110	
Sodium	50.0	48.3	mg/L	96.5	90 - 110	
Vanadium	1.00	0.988	mg/L	98.8	90 - 110	
Zinc	1.00	1.01	mg/L	101	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2407060
 Report generated 05/10/2012 08:00



CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397533-12
 Instrument ID: PE-ICP2 Run Time: 11:55 Method: 6010B
 File ID: P2.050912.115527 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 09-MAY-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	9.77	mg/L	97.7	90 - 110	
Barium	1.00	1.00	mg/L	100	90 - 110	
Beryllium	0.0500	0.0503	mg/L	101	90 - 110	
Cadmium	0.0500	0.0496	mg/L	99.3	90 - 110	
Calcium	10.0	10.3	mg/L	103	90 - 110	
Chromium	0.500	0.500	mg/L	100	90 - 110	
Cobalt	0.200	0.197	mg/L	98.4	90 - 110	
Copper	0.500	0.499	mg/L	99.9	90 - 110	
Iron	4.00	3.98	mg/L	99.5	90 - 110	
Magnesium	10.0	9.91	mg/L	99.1	90 - 110	
Manganese	0.500	0.503	mg/L	101	90 - 110	
Nickel	0.500	0.499	mg/L	99.8	90 - 110	
Potassium	50.0	47.9	mg/L	95.8	90 - 110	
Silver	0.400	0.410	mg/L	103	90 - 110	
Sodium	50.0	48.2	mg/L	96.3	90 - 110	
Vanadium	1.00	0.986	mg/L	98.6	90 - 110	
Zinc	1.00	1.02	mg/L	102	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2407060
 Report generated 05/10/2012 08:00



CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397533-14
Instrument ID: PE-ICP2 Run Time: 13:23 Method: 6010B
File ID: P2.050912.132307 Analyst: KHR QC Key: WATERLOO
Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 09-MAY-12
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	9.70	mg/L	97.0	90 - 110	
Barium	1.00	1.01	mg/L	101	90 - 110	
Beryllium	0.0500	0.0495	mg/L	98.9	90 - 110	
Cadmium	0.0500	0.0490	mg/L	97.9	90 - 110	
Calcium	10.0	10.1	mg/L	101	90 - 110	
Chromium	0.500	0.498	mg/L	99.6	90 - 110	
Cobalt	0.200	0.199	mg/L	99.5	90 - 110	
Copper	0.500	0.490	mg/L	98.0	90 - 110	
Iron	4.00	3.96	mg/L	99.0	90 - 110	
Magnesium	10.0	9.87	mg/L	98.7	90 - 110	
Manganese	0.500	0.507	mg/L	101	90 - 110	
Nickel	0.500	0.502	mg/L	100	90 - 110	
Potassium	50.0	48.5	mg/L	97.0	90 - 110	
Silver	0.400	0.401	mg/L	100	90 - 110	
Sodium	50.0	47.4	mg/L	94.9	90 - 110	
Vanadium	1.00	0.995	mg/L	99.5	90 - 110	
Zinc	1.00	1.02	mg/L	102	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2407060
Report generated 05/10/2012 08:00



CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397533-18
 Instrument ID: PE-ICP2 Run Time: 13:47 Method: 6010B
 File ID: P2.050912.134754 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG397233 Cal ID: PE-ICP - 09-MAY-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	10.1	mg/L	101	90 - 110	
Barium	1.00	1.05	mg/L	105	90 - 110	
Beryllium	0.0500	0.0521	mg/L	104	90 - 110	
Cadmium	0.0500	0.0509	mg/L	102	90 - 110	
Calcium	10.0	10.5	mg/L	105	90 - 110	
Chromium	0.500	0.524	mg/L	105	90 - 110	
Cobalt	0.200	0.205	mg/L	102	90 - 110	
Copper	0.500	0.514	mg/L	103	90 - 110	
Iron	4.00	4.18	mg/L	105	90 - 110	
Magnesium	10.0	10.4	mg/L	104	90 - 110	
Manganese	0.500	0.529	mg/L	106	90 - 110	
Nickel	0.500	0.525	mg/L	105	90 - 110	
Potassium	50.0	49.7	mg/L	99.5	90 - 110	
Silver	0.400	0.424	mg/L	106	90 - 110	
Sodium	50.0	50.0	mg/L	100	90 - 110	
Vanadium	1.00	1.03	mg/L	103	90 - 110	
Zinc	1.00	1.08	mg/L	108	90 - 110	

* Exceeds LIMITS Criteria



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L12050050
Instrument ID: PE-ICP2
Sol. A: WG397368-11
Sol. AB: WG397368-12

File ID: P2.050812.094835
File ID: P2.050812.095431

Workgroup (AAB#): WG397233
Method: 6010B
Units: mg/L
Matrix: Water

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Aluminum	250	243	97.2	250	249	99.6	
Barium	NS	-0.000680	NS	0.250	0.241	96.4	
Beryllium	NS	-0.000920	NS	0.250	0.237	94.8	
Cadmium	NS	0.0000800	NS	0.500	0.401	80.2	
Calcium	250	250	100	250	255	102	
Chromium	NS	-0.00261	NS	0.250	0.242	96.8	
Cobalt	NS	-0.00234	NS	0.250	0.226	90.4	
Copper	NS	0.00237	NS	0.250	0.243	97.2	
Iron	100	90.9	90.9	100	92.6	92.6	
Magnesium	250	244	97.6	250	249	99.6	
Manganese	NS	-0.00319	NS	0.250	0.234	93.6	
Nickel	NS	-0.00127	NS	0.500	0.464	92.8	
Potassium	NS	-0.0611	NS	5.00	4.68	93.6	
Silver	NS	-0.000480	NS	0.500	0.489	97.8	
Sodium	NS	0.0371	NS	5.00	4.74	94.8	
Vanadium	NS	-0.00294	NS	0.250	0.238	95.2	
Zinc	NS	0.00142	NS	0.500	0.456	91.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L12050050
Instrument ID: PE-ICP2
Sol. A: WG397368-35
Sol. AB: WG397368-36

File ID: P2.050812.212835
File ID: P2.050812.213432

Workgroup (AAB#): WG397233
Method: 6010B
Units: mg/L
Matrix: Water

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Aluminum	250	248	99.2	250	253	101	
Barium	NS	-0.000570	NS	0.250	0.245	98.0	
Beryllium	NS	-0.000910	NS	0.250	0.251	100	
Cadmium	NS	0.000340	NS	0.500	0.422	84.4	
Calcium	250	259	104	250	269	108	
Chromium	NS	-0.00297	NS	0.250	0.246	98.4	
Cobalt	NS	-0.00242	NS	0.250	0.230	92.0	
Copper	NS	0.00213	NS	0.250	0.255	102	
Iron	100	92.9	92.9	100	93.5	93.5	
Magnesium	250	248	99.2	250	251	100	
Manganese	NS	-0.00277	NS	0.250	0.238	95.2	
Nickel	NS	-0.00127	NS	0.500	0.471	94.2	
Potassium	NS	-0.0527	NS	5.00	4.74	94.8	
Silver	NS	-0.0000900	NS	0.500	0.515	103	
Sodium	NS	0.0238	NS	5.00	4.87	97.4	
Vanadium	NS	0.00113	NS	0.250	0.244	97.6	
Zinc	NS	0.00117	NS	0.500	0.467	93.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L12050050
Instrument ID: PE-ICP2
Sol. A: WG397533-08
Sol. AB: WG397533-09

File ID: P2.050912.103534
File ID: P2.050912.104147

Workgroup (AAB#): WG397233
Method: 6010B
Units: mg/L
Matrix: Water

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Aluminum	250	252	101	250	254	102	
Barium	NS	-0.00120	NS	0.250	0.247	98.8	
Beryllium	NS	-0.000990	NS	0.250	0.247	98.8	
Cadmium	NS	-0.000250	NS	0.500	0.414	82.8	
Calcium	250	262	105	250	263	105	
Chromium	NS	-0.00295	NS	0.250	0.248	99.2	
Cobalt	NS	-0.00265	NS	0.250	0.231	92.4	
Copper	NS	0.00141	NS	0.250	0.247	98.8	
Iron	100	94.3	94.3	100	94.7	94.7	
Magnesium	250	255	102	250	256	102	
Manganese	NS	-0.00269	NS	0.250	0.240	96.0	
Nickel	NS	-0.00139	NS	0.500	0.476	95.2	
Potassium	NS	-0.0504	NS	5.00	4.71	94.2	
Silver	NS	-0.00288	NS	0.500	0.506	101	
Sodium	NS	0.00897	NS	5.00	4.99	99.8	
Vanadium	NS	0.00196	NS	0.250	0.245	98.0	
Zinc	NS	-0.00270	NS	0.500	0.473	94.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L12050050
Instrument ID: PE-ICP2
Sol. A: WG397533-16
Sol. AB: WG397533-17

File ID: P2.050912.133601
File ID: P2.050912.134157

Workgroup (AAB#): WG397233
Method: 6010B
Units: mg/L
Matrix: Water

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Aluminum	250	241	96.4	250	252	101	
Barium	NS	-0.00136	NS	0.250	0.251	100	
Beryllium	NS	-0.000730	NS	0.250	0.249	99.6	
Cadmium	NS	-0.000260	NS	0.500	0.420	84.0	
Calcium	250	255	102	250	261	104	
Chromium	NS	-0.00261	NS	0.250	0.252	101	
Cobalt	NS	-0.00246	NS	0.250	0.236	94.4	
Copper	NS	0.00142	NS	0.250	0.246	98.4	
Iron	100	93.1	93.1	100	95.5	95.5	
Magnesium	250	250	100	250	258	103	
Manganese	NS	-0.00269	NS	0.250	0.243	97.2	
Nickel	NS	-0.00142	NS	0.500	0.483	96.6	
Potassium	NS	-0.0601	NS	5.00	4.71	94.2	
Silver	NS	-0.00300	NS	0.500	0.508	102	
Sodium	NS	-0.000440	NS	5.00	4.96	99.2	
Vanadium	NS	-0.00284	NS	0.250	0.245	98.0	
Zinc	NS	-0.00261	NS	0.500	0.489	97.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L12050050

Date: 12/30/2011

Instrument ID: PE-ICP2

Method: 6010B

Analyte	Wave Length	AG	AL	AS	B	BA
ALUMINUM	396.15	0	0	0.206	0	0
ANTIMONY	206.84	0	0	-0.740	0	0
ARSENIC	188.98	0	0.0776	0	0	0
BARIUM	233.53	0	0	0	0	0
BERYLLIUM	234.86	0	0	0	0	0
BORON	249.68	0	1.12	0	0	0
CADMIUM	228.80	0	0	3.00	0	0
CALCIUM	227.55	0	0.195	10.0	0	0
CHROMIUM	267.72	0	-0.00252	0	0	0
COBALT	228.62	0	0	0	0	0.337
COPPER	327.39	0	0	0	0	0
IRON	239.56	0	0	0	0	0
LEAD	220.35	0	-0.0265	0	0	0
LITHIUM	670.78	0	0	0	0	0
MAGNESIUM	279.08	0	0	0	0	0
MANGANESE	257.61	-0.185	0	-0.231	-0.0949	-0.230
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
POTASSIUM	766.49	0	0	0	0	0
SELENIUM	196.03	0	0.147	0	0	0
SILICON	251.61	0	0	0	0	0
SILVER	328.07	0	0	0	0	0
SODIUM	589.59	0	0	0	0	0
STRONTIUM	407.77	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.93	0	0	0	0	0
TITANIUM	334.94	0	0	0	0	0
VANADIUM	290.88	0	0	0.200	0	0.0400
ZINC	206.20	0	0	0	0	0

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Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L12050050

Date: 12/30/2011

Instrument ID: PE-ICP2

Method: 6010B

Analyte	Wave Length	BE	CA	CD	CO	CR
ALUMINUM	396.15	0	0	0	0	0
ANTIMONY	206.84	0	0	0	0	6.33
ARSENIC	188.98	0	0.0200	0	0	-6.59
BARIUM	233.53	0	0	0	0	0
BERYLLIUM	234.86	0	0	0	0	-0.0733
BORON	249.68	0	0	24.1	5.90	1.50
CADMIUM	228.80	0	0	0	0	0
CALCIUM	227.55	0	0	0	300	0
CHROMIUM	267.72	0	0	0	0	0
COBALT	228.62	0	0	0	0	-0.244
COPPER	327.39	0	0	0	0.380	-0.0400
IRON	239.56	0	0	0	1.91	0
LEAD	220.35	0	-0.0480	0	0.116	-0.0700
LITHIUM	670.78	0	0	0	0	0
MAGNESIUM	279.08	0	0	0	0	0
MANGANESE	257.61	-1.04	0	-0.755	-0.0418	-0.110
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	-0.566	0
POTASSIUM	766.49	0	0	0	0	0
SELENIUM	196.03	0	-0.300	0	-1.52	0
SILICON	251.61	0	0	0	0	0
SILVER	328.07	0	0	0	0	0
SODIUM	589.59	0	0	0	0	0
STRONTIUM	407.77	0	0	0	0	0
THALLIUM	190.80	0	0.400	0	3.48	0
TIN	189.93	0	0	0	0	0
TITANIUM	334.94	0	-0.0100	0	0	0.297
VANADIUM	290.88	0	0	0	0	0
ZINC	206.20	0	0	0	0	-3.64

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Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L12050050

Date: 12/30/2011

Instrument ID: PE-ICP2

Method: 6010B

Analyte	Wave Length	CU	FE	K	LI	MG
ALUMINUM	396.15	0	0.0192	0	0	0
ANTIMONY	206.84	0	0	0	0	0
ARSENIC	188.98	0	-0.00250	0	0	0
BARIUM	233.53	0	-0.0187	0	0	0
BERYLLIUM	234.86	0	0.210	0	0	0
BORON	249.68	0	-4.66	0	0	0
CADMIUM	228.80	0	-0.00420	0	0	0
CALCIUM	227.55	-2.00	100	0	0	0.104
CHROMIUM	267.72	0	0.0391	0	0	0
COBALT	228.62	0	0.0262	0	0	0
COPPER	327.39	0	-0.0688	0	0.154	0
IRON	239.56	0	0	0	0	0.0276
LEAD	220.35	0.740	0.0440	0	0	0
LITHIUM	670.78	0	0	0	0	0
MAGNESIUM	279.08	0	0.540	0	0	0
MANGANESE	257.61	-0.0457	-0.0580	-0.0181	-0.794	0.0147
MOLYBDENUM	202.03	0	-0.0494	0	0	0
NICKEL	231.60	0	0	0	0	0
POTASSIUM	766.49	0	0	0	0	0
SELENIUM	196.03	0	-0.465	0	0	0
SILICON	251.61	0	0	0	0	0
SILVER	328.07	0.0717	0.0240	0	0	0
SODIUM	589.59	0	0	0	0	0
STRONTIUM	407.77	0	0.120	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.93	0	0	0	0	0
TITANIUM	334.94	0	0	0	0	0
VANADIUM	290.88	0	0.134	0	0	0
ZINC	206.20	-0.200	0.0198	0	0	0

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Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L12050050

Date: 12/30/2011

Instrument ID: PE-ICP2

Method: 6010B

Analyte	Wave Length	MN	MO	NA	NI	PB
ALUMINUM	396.15	0	13.5	0	0	0
ANTIMONY	206.84	0	-7.69	0	0	0
ARSENIC	188.98	0	6.00	0	0	0
BARIUM	233.53	0	-0.548	0	0	0
BERYLLIUM	234.86	-0.131	-1.50	0	-0.00974	0
BORON	249.68	0	-2.20	0	0	0
CADMIUM	228.80	0	-0.00900	0	-0.398	0
CALCIUM	227.55	0	-8.00	0	-900	0
CHROMIUM	267.72	0.434	-0.00100	0	0	0
COBALT	228.62	0	-0.125	0	0.129	0
COPPER	327.39	0	-0.0774	0	0.150	0.257
IRON	239.56	0.480	0	0	0	0.407
LEAD	220.35	0.100	-5.00	0	0.100	0
LITHIUM	670.78	0	0	0	0	0
MAGNESIUM	279.08	0	-5.00	0	0	0.0252
MANGANESE	257.61	0	-0.0482	-0.00916	-0.0340	-0.0413
MOLYBDENUM	202.03	-0.209	0	0	0.120	0
NICKEL	231.60	0	0	0	0	0
POTASSIUM	766.49	0	0	1.00	0	0
SELENIUM	196.03	0.451	0.300	0	0.0940	0
SILICON	251.61	0	15.0	0	0	0
SILVER	328.07	0.130	0.100	0	0	0
SODIUM	589.59	0	0	0	0	0
STRONTIUM	407.77	0	0	0	0	0
THALLIUM	190.80	-1.50	1.20	0	0	0
TIN	189.93	0	0	0	0	0
TITANIUM	334.94	0	0	0	0	0
VANADIUM	290.88	0	0.578	0	0	0
ZINC	206.20	0	0.180	0	-0.200	-0.100

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Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L12050050

Date: 12/30/2011

Instrument ID: PE-ICP2

Method: 6010B

Analyte	Wave Length	SB	SE	SI	SN	SR
ALUMINUM	396.15	0	0	0	0	0
ANTIMONY	206.84	0	0	0	0	0
ARSENIC	188.98	0	0	0	0	0
BARIUM	233.53	0	0	0	0	0
BERYLLIUM	234.86	0	0	0	0	0
BORON	249.68	0	0	0	0	0
CADMIUM	228.80	0	0	0	0	0
CALCIUM	227.55	0	0	0	0	0
CHROMIUM	267.72	0	0	0	0	0
COBALT	228.62	0	0	0	0	0
COPPER	327.39	0	0.148	0	0	0
IRON	239.56	0	0	0	0	0
LEAD	220.35	-0.0100	0	0	0	0
LITHIUM	670.78	0	0	0	0	0
MAGNESIUM	279.08	0	-0.0924	0	0	0
MANGANESE	257.61	-0.0505	-0.0281	-0.185	-0.0445	-0.625
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	-0.0500	-0.0100	0	0	0
POTASSIUM	766.49	0	0	0	0	0
SELENIUM	196.03	0	0	0	0	0
SILICON	251.61	0	0	0	0	0
SILVER	328.07	0	0	0	0	0.200
SODIUM	589.59	0	0	0	0	0
STRONTIUM	407.77	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.93	0	0	0	0	0
TITANIUM	334.94	0	0	0	0	0
VANADIUM	290.88	0	0	0	0	0
ZINC	206.20	-0.300	0	0	0	0

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Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L12050050
 Instrument ID: PE-ICP2

Date: 12/30/2011
 Method: 6010B

Analyte	Wave Length	TI	TL	V	ZN
ALUMINUM	396.15	0	0	0	0
ANTIMONY	206.84	0	0	0.000100	0
ARSENIC	188.98	0	0	0.0930	0
BARIUM	233.53	0	0	-2.29	0
BERYLLIUM	234.86	0	0	0	0
BORON	249.68	0	0	0	0
CADMIUM	228.80	0	0	0.0800	0
CALCIUM	227.55	3.00	0	60.0	0
CHROMIUM	267.72	0	0	-0.567	-0.0400
COBALT	228.62	2.21	0	0	0
COPPER	327.39	-1.05	0	-0.700	-0.0613
IRON	239.56	0	0	0	0
LEAD	220.35	0	0	0.0560	0
LITHIUM	670.78	0	0	0	0
MAGNESIUM	279.08	0	0	0	0
MANGANESE	257.61	-0.00931	-0.0414	-0.0601	-0.0552
MOLYBDENUM	202.03	0	0	-0.288	0
NICKEL	231.60	0	0.617	0	0
POTASSIUM	766.49	0	0	0	0
SELENIUM	196.03	-0.220	0	-0.126	0
SILICON	251.61	0	0	0	0
SILVER	328.07	0	0	-1.67	0
SODIUM	589.59	0	0	0	0
STRONTIUM	407.77	0	0	0	0
THALLIUM	190.80	-12.0	0	-1.41	0
TIN	189.93	0	0	0	0
TITANIUM	334.94	0	0	0	0
VANADIUM	290.88	0	0	0	0
ZINC	206.20	0	0	-0.100	0

CORR_FACTORS - Modified 03/05/2008
 PDF File ID: 2407055
 Report generated: 05/10/2012 08:00



Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L12050050
Instrument ID: PE-ICP2

Date: 03/27/2012
Method: 6010B

Analyte	Integration Time (Sec.)	Concentration (mg/L)
Aluminum	10.00	450.0
Antimony	10.00	45.0
Arsenic	10.00	9.0
Barium	10.00	9.0
Beryllium	10.00	4.5
Boron	10.00	45.0
Cadmium	10.00	4.5
Calcium	10.00	450.0
Chromium	10.00	45.0
Cobalt	10.00	45.0
Copper	10.00	45.0
Iron	10.00	450.0
Lead	10.00	90.0
Lithium	10.00	1.8
Magnesium	10.00	450.0
Manganese	10.00	27.0
Molybdenum	10.00	45.0
Nickel	10.00	45.0
Potassium	10.00	90.0
Selenium	10.00	45.0
Silicon	10.00	36.0
Silver	10.00	4.5
Sodium	10.00	360.0
Strontium	10.00	1.8
Thallium	10.00	45.0
Tin	10.00	45.0
Titanium	10.00	9.0
Vanadium	10.00	45.0
Zinc	10.00	45.0

Comments:

All analytes passed acceptance criteria at the specified concentration.

LINEAR_RANGE - Modified 03/06/2008
PDF File ID: 2407054
Report generated: 05/10/2012 08:00



2.3.1.3 Raw Data

=====
Analysis Begun

Start Time: 5/8/2012 8:41:22 AM Plasma On Time: 5/8/2012 6:43:32 AM
Logged In Analyst: peicp2 eTechnique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N40114 Autosampler Model: Cetac

Sample Information File: C:\pe\peicp2\Sample Information\TUESDAY1.sif
Batch ID:
Results Data Set: 050812H
Results Library: C:\pe\peicp2\Results\Results.mdb

=====
Method Loaded
Method Name: 200.7-6010 PE-ICP2.1 Method Last Saved: 5/7/2012 8:30:37 AM
IEC File: CA227_LiBeMOD.iec SM File:
Method Description: STANDARD

=====
Sequence No.: 1 Autosampler Location: 1
Sample ID: S0 Date Collected: 5/8/2012 8:41:25 AM
Analyst: Sample Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

=====
Nebulizer Parameters: S0
Analyte Back Pressure Flow
All 152.0 kPa 0.50 L/min

=====
Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Y 371.029	2353736.5	16742.70	0.71%		
YRADIAL	305679.3	8183.48	2.68%		
Ga 417.206	1381118.2	14609.83	1.06%		
GaRADIAL	91957.9	886.99	0.96%		
Ag 328.068†	-195.4	74.44	38.09%	[0.00]	mg/L
Al 396.153†	12.7	4.21	33.24%	[0.00]	mg/L
As 188.979†	-26.1	2.95	11.33%	[0.00]	mg/L
Ba 233.527†	-184.9	17.45	9.44%	[0.00]	mg/L
Be 234.861†	-1730.6	29.41	1.70%	[0.00]	mg/L
B 249.677†	77.3	2.88	3.73%	[0.00]	mg/L
Ca 227.546†	-68.2	5.13	7.51%	[0.00]	mg/L
Cd 228.802†	75.8	6.06	8.00%	[0.00]	mg/L
Co 228.616†	-0.2	10.01	>999.9%	[0.00]	mg/L
Cr 267.716†	189.5	11.16	5.89%	[0.00]	mg/L
Cu 327.393†	-696.1	160.99	23.13%	[0.00]	mg/L
Fe 239.562†	59.5	1.33	2.23%	[0.00]	mg/L
Mg 279.077†	27.6	1.87	6.78%	[0.00]	mg/L
Mn 257.610†	399.2	2.51	0.63%	[0.00]	mg/L
Mo 202.031†	81.9	6.27	7.65%	[0.00]	mg/L
Ni 231.604†	-183.3	11.32	6.17%	[0.00]	mg/L
Pb 220.353†	-90.1	9.35	10.39%	[0.00]	mg/L
Sb 206.836†	4.1	1.49	36.46%	[0.00]	mg/L
Se 196.026†	20.0	4.35	21.81%	[0.00]	mg/L
Si 251.611†	574.3	19.16	3.34%	[0.00]	mg/L
Sn 189.927†	173.0	5.50	3.18%	[0.00]	mg/L
Ti 334.940†	729.9	120.36	16.49%	[0.00]	mg/L
Tl 190.801†	-72.5	5.78	7.97%	[0.00]	mg/L
V 290.880†	15024.7	192.65	1.28%	[0.00]	mg/L
Zn 206.200†	48.7	4.76	9.79%	[0.00]	mg/L
K 766.490†	-31.7	51.34	161.81%	[0.00]	mg/L
Na 589.592†	1366.7	412.66	30.19%	[0.00]	mg/L
Sr 407.771†	-882.6	15.33	1.74%	[0.00]	mg/L
Li 670.784†	6.2	24.20	393.50%	[0.00]	mg/L

=====
Sequence No.: 2 Autosampler Location: 2
Sample ID: S1 Date Collected: 5/8/2012 8:48:19 AM

Approved: May 09, 2012
Tom H. Rhodes

Analyst:
Initial Sample Wt:
Dilution:

Sample Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: S1

Analyte	Back Pressure	Flow
All	152.0 kPa	0.50 L/min

Mean Data: S1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2338551.6	17403.59	0.74%	
YRADIAL	311098.1	4477.83	1.44%	
Ga 417.206	1401595.1	7841.92	0.56%	
GaRADIAL	93419.8	1095.67	1.17%	
Ag 328.068†	1237.2	43.97	3.55%	[0.0040] mg/L
Al 396.153†	755.7	6.65	0.88%	[0.10] mg/L
Ba 233.527†	1598.3	22.70	1.42%	[0.010] mg/L
Be 234.861†	634.3	14.60	2.30%	[0.0005] mg/L
Cd 228.802†	19.1	11.79	61.74%	[0.00050] mg/L
Co 228.616†	73.1	3.00	4.10%	[0.0020] mg/L
Cr 267.716†	548.3	6.10	1.11%	[0.0050] mg/L
Cu 327.393†	1305.5	77.95	5.97%	[0.0050] mg/L
Fe 239.562†	633.9	6.86	1.08%	[0.040] mg/L
Mg 279.077†	360.6	10.36	2.87%	[0.10] mg/L
Mn 257.610†	4415.1	32.48	0.74%	[0.0050] mg/L
Mo 202.031†	379.8	4.88	1.29%	[0.010] mg/L
Ni 231.604†	349.4	15.25	4.36%	[0.0050] mg/L
Pb 220.353†	41.1	12.06	29.35%	[0.0050] mg/L
Sb 206.836†	51.0	2.18	4.28%	[0.012] mg/L
Si 251.611†	2079.2	13.12	0.63%	[0.050] mg/L
Sn 189.927†	107.0	9.49	8.88%	[0.010] mg/L
Ti 334.940†	10146.1	275.84	2.72%	[0.010] mg/L
V 290.880†	2259.7	597.60	26.45%	[0.010] mg/L
Zn 206.200†	426.6	2.43	0.57%	[0.010] mg/L
K 766.490†	1888.0	32.52	1.72%	[0.50] mg/L
Na 589.592†	10011.3	201.03	2.01%	[0.50] mg/L
Sr 407.771†	27496.7	299.53	1.09%	[0.010] mg/L
Li 670.784†	1715.2	29.98	1.75%	[0.010] mg/L

=====

Sequence No.: 3
Sample ID: S2
Analyst:
Initial Sample Wt:
Dilution:

Sampler Location: 3
Date Collected: 5/8/2012 8:55:13 AM
Sample Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: S2

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: S2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2323641.9	19225.65	0.83%	
YRADIAL	305349.8	2245.99	0.74%	
Ga 417.206	1400861.3	21733.18	1.55%	
GaRADIAL	92400.2	2223.90	2.41%	
Ag 328.068†	2430.3	80.40	3.31%	[0.0080] mg/L
Al 396.153†	1533.5	19.55	1.27%	[0.20] mg/L
As 188.979†	22.6	2.86	12.67%	[0.0080] mg/L
Ba 233.527†	3229.6	9.27	0.29%	[0.020] mg/L
Be 234.861†	1236.4	5.95	0.48%	[0.0010] mg/L
B 249.677†	797.8	21.95	2.75%	[0.010] mg/L
Ca 227.546†	90.3	0.64	0.70%	[0.20] mg/L
Cd 228.802†	40.4	12.25	30.35%	[0.0010] mg/L
Co 228.616†	156.5	9.13	5.84%	[0.0040] mg/L
Cr 267.716†	1123.0	6.37	0.57%	[0.010] mg/L

Approved: May 09, 2012

Tom H. Rhodes

Cu 327.393†	2677.4	82.07	3.07%	[0.010]	mg/L
Fe 239.562†	1281.8	23.45	1.83%	[0.080]	mg/L
Mg 279.077†	732.7	16.81	2.29%	[0.20]	mg/L
Mn 257.610†	8620.2	137.90	1.60%	[0.010]	mg/L
Mo 202.031†	743.1	0.66	0.09%	[0.020]	mg/L
Ni 231.604†	728.9	22.19	3.04%	[0.010]	mg/L
Pb 220.353†	104.4	9.83	9.41%	[0.010]	mg/L
Sb 206.836†	94.6	3.13	3.30%	[0.024]	mg/L
Se 196.026†	8.9	3.68	41.43%	[0.0080]	mg/L
Si 251.611†	4233.6	94.58	2.23%	[0.10]	mg/L
Sn 189.927†	214.8	7.14	3.32%	[0.020]	mg/L
Ti 334.940†	19914.6	115.15	0.58%	[0.020]	mg/L
Tl 190.801†	32.1	13.12	40.83%	[0.010]	mg/L
V 290.880†	4120.6	154.92	3.76%	[0.020]	mg/L
Zn 206.200†	848.0	2.45	0.29%	[0.020]	mg/L
K 766.490†	3596.1	38.23	1.06%	[1.00]	mg/L
Na 589.592†	19740.1	629.78	3.19%	[1.00]	mg/L
Sr 407.771†	55599.5	1199.84	2.16%	[0.020]	mg/L
Li 670.784†	3337.8	101.24	3.03%	[0.020]	mg/L

Sequence No.: 4
 Sample ID: S3
 Analyst:
 Initial Sample Wt:
 Dilution:

Sampler Location: 4
 Date Collected: 5/8/2012 9:02:08 AM
 Sample Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Nebulizer Parameters: S3

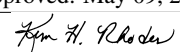
Analyte	Back Pressure	Flow
All	152.0 kPa	0.50 L/min

Mean Data: S3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2220154.0	25301.70	1.14%	
YRADIAL	299520.1	553.77	0.18%	
Ga 417.206	1355905.3	24066.79	1.77%	
GaRADIAL	90114.0	704.92	0.78%	
Ag 328.068†	126162.5	3677.15	2.91%	[0.40] mg/L
Al 396.153†	75903.0	265.10	0.35%	[10.00] mg/L
As 188.979†	1119.5	27.19	2.43%	[0.40] mg/L
Ba 233.527†	160004.4	207.60	0.13%	[1.00] mg/L
Be 234.861†	62466.0	1933.21	3.09%	[0.05] mg/L
B 249.677†	41959.7	1208.94	2.88%	[0.50] mg/L
Ca 227.546†	4603.0	138.71	3.01%	[10.00] mg/L
Cd 228.802†	2754.6	110.10	4.00%	[0.05] mg/L
Co 228.616†	7920.2	77.54	0.98%	[0.20] mg/L
Cr 267.716†	55962.0	333.96	0.60%	[0.50] mg/L
Cu 327.393†	135365.1	4442.79	3.28%	[0.50] mg/L
Fe 239.562†	64833.9	593.02	0.91%	[4.00] mg/L
Mg 279.077†	36068.8	234.45	0.65%	[10.00] mg/L
Mn 257.610†	436291.2	2294.48	0.53%	[0.50] mg/L
Mo 202.031†	37547.9	47.48	0.13%	[1.00] mg/L
Ni 231.604†	34839.6	265.51	0.76%	[0.50] mg/L
Pb 220.353†	5689.3	50.63	0.89%	[0.50] mg/L
Sb 206.836†	4958.1	140.24	2.83%	[1.20] mg/L
Se 196.026†	711.5	24.52	3.45%	[0.40] mg/L
Si 251.611†	210409.8	5335.92	2.54%	[5.00] mg/L
Sn 189.927†	10659.8	94.97	0.89%	[1.00] mg/L
Ti 334.940†	1016158.8	2607.59	0.26%	[1.00] mg/L
Tl 190.801†	1995.2	12.38	0.62%	[0.50] mg/L
V 290.880†	199076.2	2270.80	1.14%	[1.00] mg/L
Zn 206.200†	42700.2	171.93	0.40%	[1.00] mg/L
K 766.490†	165931.5	647.28	0.39%	[50.00] mg/L
Na 589.592†	990385.3	15503.64	1.57%	[50.00] mg/L
Sr 407.771†	2769281.1	26844.54	0.97%	[1.00] mg/L
Li 670.784†	157996.5	645.73	0.41%	[1.00] mg/L

Sequence No.: 5

Sampler Location: 5

Approved: May 09, 2012


Sample ID: S4
 Analyst:
 Initial Sample Wt:
 Dilution:

Sample Collected: 5/8/2012 9:08:08 AM
 Sample Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Nebulizer Parameters: S4

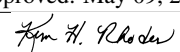
Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: S4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2207096.7	8253.97	0.37%	
YRADIAL	301792.2	1308.04	0.43%	
Ga 417.206	1328170.7	28902.14	2.18%	
GaRADIAL	92294.3	858.99	0.93%	
Ag 328.068†	250875.9	6684.74	2.66%	[0.80] mg/L
Al 396.153†	148200.6	307.08	0.21%	[20.00] mg/L
As 188.979†	2262.9	43.50	1.92%	[0.80] mg/L
Ba 233.527†	312527.3	409.30	0.13%	[2.00] mg/L
Be 234.861†	126639.8	3051.58	2.41%	[0.10] mg/L
B 249.677†	85166.0	2281.02	2.68%	[1.00] mg/L
Ca 227.546†	9443.1	258.71	2.74%	[20.00] mg/L
Cd 228.802†	5563.0	222.20	3.99%	[0.10] mg/L
Co 228.616†	15390.8	103.25	0.67%	[0.40] mg/L
Cr 267.716†	108644.1	414.01	0.38%	[1.00] mg/L
Cu 327.393†	268579.5	5871.68	2.19%	[1.00] mg/L
Fe 239.562†	127067.1	160.63	0.13%	[8.00] mg/L
Mg 279.077†	70867.0	283.18	0.40%	[20.00] mg/L
Mn 257.610†	835764.5	4674.20	0.56%	[1.00] mg/L
Mo 202.031†	73914.7	236.56	0.32%	[2.00] mg/L
Ni 231.604†	67775.7	363.60	0.54%	[1.00] mg/L
Pb 220.353†	11059.5	46.70	0.42%	[1.00] mg/L
Sb 206.836†	9967.5	269.29	2.70%	[2.40] mg/L
Se 196.026†	1440.1	45.79	3.18%	[0.80] mg/L
Si 251.611†	416899.9	8345.07	2.00%	[10.00] mg/L
Sn 189.927†	20792.9	105.23	0.51%	[2.00] mg/L
Ti 334.940†	2003396.4	2239.59	0.11%	[2.00] mg/L
Tl 190.801†	3867.8	6.74	0.17%	[1.00] mg/L
V 290.880†	385301.1	2711.79	0.70%	[2.00] mg/L
Zn 206.200†	84050.9	337.96	0.40%	[2.00] mg/L
K 766.490†	326066.5	2989.36	0.92%	[100.00] mg/L
Na 589.592†	1884180.1	10120.29	0.54%	[100.00] mg/L
Sr 407.771†	5301346.9	6796.61	0.13%	[2.00] mg/L
Li 670.784†	308947.3	2804.24	0.91%	[2.00] mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	4	Lin, Calc Int	60.3	313900	0.00000	0.999996	
Al 396.153	4	Lin, Calc Int	245.2	7431	0.00000	0.999931	
As 188.979	3	Wt. Lin	0.0	2814	0.00000	0.999985	
Ba 233.527	4	Lin, Calc Int	509.7	156700	0.00000	0.999933	
Be 234.861	4	Lin, Calc Int	-115.4	1264000	0.00000	0.999979	
B 249.677	3	Lin, Calc Int	-137.9	85080	0.00000	0.999972	
Ca 227.546	3	Lin, Calc Int	-23.5	471.2	0.00000	0.999917	
Cd 228.802	4	Lin, Calc Int	-10.8	55650	0.00000	0.999990	
Co 228.616	4	Lin, Calc Int	27.6	38620	0.00000	0.999899	
Cr 267.716	4	Lin, Calc Int	217.3	109000	0.00000	0.999894	
Cu 327.393	4	Lin, Calc Int	119.6	268900	0.00000	0.999992	
Fe 239.562	4	Lin, Calc Int	165.0	15920	0.00000	0.999951	
Mg 279.077	4	Lin, Calc Int	88.6	3551	0.00000	0.999963	
Mn 257.610	4	Lin, Calc Int	2448.9	840200	0.00000	0.999774	
Mo 202.031	4	Lin, Calc Int	78.0	37030	0.00000	0.999970	
Ni 231.604	4	Lin, Calc Int	137.8	67990	0.00000	0.999909	
Pb 220.353	4	Lin, Calc Int	13.5	11110	0.00000	0.999897	
Sb 206.836	4	Lin, Calc Int	-4.4	4151	0.00000	0.999997	
Se 196.026	3	Wt. Lin	-5.5	1800	0.00000	0.999992	
Si 251.611	4	Lin, Calc Int	262.6	41740	0.00000	0.999990	

Approved: May 09, 2012


Sn 189.927	4	Lin, Calc Int	35.9	10430	0.00000	0.999925
Ti 334.940	4	Lin, Calc Int	1804.3	1003000	0.00000	0.999975
Tl 190.801	3	Lin, Calc Int	8.2	3882	0.00000	0.999858
V 290.880	4	Lin, Calc Int	988.5	193300	0.00000	0.999873
Zn 206.200	4	Lin, Calc Int	88.4	42110	0.00000	0.999970
K 766.490	4	Non Lin, Calc Int	141.1	3373	-1.13312	1.000000
Na 589.592	4	Non Lin, Calc Int	-462.9	20790	-19.40140	1.000000
Sr 407.771	4	Lin, Calc Int	15890.4	2665000	0.00000	0.999767
Li 670.784	4	Lin, Calc Int	569.8	154800	0.00000	0.999941

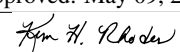
Sequence No.: 6
 Sample ID: ICV 2nd Vendor
 Analyst:
 Initial Sample Wt:
 Dilution:

u&osampler Location: 11
 a&e Collected: 5/8/2012 9:14:08 AM
 a&a Type: Original
 nitial Sample Vol:
 a&ple Prep Vol:

Nebulizer Parameters: ICV 2nd Vendor
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: ICV 2nd Vendor

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2278962.6				29776.63	1.31%
YRADIAL	304127.0				2940.19	0.97%
Ga 417.206	1387164.6				13187.50	0.95%
GaRADIAL	91994.2				134.24	0.15%
Ag 328.068†	119372.2	0.384 mg/L	0.0071	0.384 mg/L	0.0071	1.86%
QC value within limits for Ag 328.068		Recovery = 95.90%				
Al 396.153†	74038.5	9.86 mg/L	0.009	9.86 mg/L	0.009	0.10%
QC value within limits for Al 396.153		Recovery = 98.63%				
As 188.979†	1095.7	0.385 mg/L	0.0023	0.385 mg/L	0.0023	0.59%
QC value within limits for As 188.979		Recovery = 96.14%				
Ba 233.527†	155898.2	0.992 mg/L	0.0117	0.992 mg/L	0.0117	1.18%
QC value within limits for Ba 233.527		Recovery = 99.19%				
Be 234.861†	62082.8	0.0487 mg/L	0.00070	0.0487 mg/L	0.00070	1.44%
QC value within limits for Be 234.861		Recovery = 97.48%				
B 249.677†	42064.4	0.492 mg/L	0.0112	0.492 mg/L	0.0112	2.27%
QC value within limits for B 249.677		Recovery = 98.44%				
Ca 227.546†	4440.3	9.94 mg/L	0.119	9.94 mg/L	0.119	1.20%
QC value within limits for Ca 227.546		Recovery = 99.45%				
Cd 228.802†	2710.8	0.0476 mg/L	0.00133	0.0476 mg/L	0.00133	2.81%
QC value within limits for Cd 228.802		Recovery = 95.14%				
Co 228.616†	7659.4	0.197 mg/L	0.0029	0.197 mg/L	0.0029	1.45%
QC value within limits for Co 228.616		Recovery = 98.40%				
Cr 267.716†	54459.5	0.498 mg/L	0.0044	0.498 mg/L	0.0044	0.89%
QC value within limits for Cr 267.716		Recovery = 99.57%				
Cu 327.393†	132110.2	0.493 mg/L	0.0096	0.493 mg/L	0.0096	1.95%
QC value within limits for Cu 327.393		Recovery = 98.51%				
Fe 239.562†	63467.0	3.97 mg/L	0.007	3.97 mg/L	0.007	0.18%
QC value within limits for Fe 239.562		Recovery = 99.37%				
Mg 279.077†	35127.4	9.88 mg/L	0.026	9.88 mg/L	0.026	0.26%
QC value within limits for Mg 279.077		Recovery = 98.84%				
Mn 257.610†	417572.2	0.495 mg/L	0.0063	0.495 mg/L	0.0063	1.27%
QC value within limits for Mn 257.610		Recovery = 98.94%				
Mo 202.031†	36561.4	0.986 mg/L	0.0111	0.986 mg/L	0.0111	1.13%
QC value within limits for Mo 202.031		Recovery = 98.60%				
Ni 231.604†	35200.1	0.515 mg/L	0.0075	0.515 mg/L	0.0075	1.46%
QC value within limits for Ni 231.604		Recovery = 103.07%				
Pb 220.353†	5499.8	0.495 mg/L	0.0050	0.495 mg/L	0.0050	1.01%
QC value within limits for Pb 220.353		Recovery = 99.05%				
Sb 206.836†	4943.3	1.19 mg/L	0.016	1.19 mg/L	0.016	1.32%
QC value within limits for Sb 206.836		Recovery = 99.23%				
Se 196.026†	703.6	0.395 mg/L	0.0082	0.395 mg/L	0.0082	2.07%
QC value within limits for Se 196.026		Recovery = 98.87%				
Si 251.611†	203786.5	4.87 mg/L	0.050	4.87 mg/L	0.050	1.04%
QC value within limits for Si 251.611		Recovery = 97.31%				
Sn 189.927†	10655.1	1.02 mg/L	0.015	1.02 mg/L	0.015	1.43%
QC value within limits for Sn 189.927		Recovery = 101.84%				

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Ti 334.940†	998801.9	0.995 mg/L	0.0058	0.995 mg/L	0.0058	0.58%
QC value within limits for Ti 334.940		Recovery = 99.48%				
Tl 190.801†	1959.9	0.517 mg/L	0.0028	0.517 mg/L	0.0028	0.55%
QC value within limits for Tl 190.801		Recovery = 103.40%				
V 290.880†	188690.3	0.970 mg/L	0.0031	0.970 mg/L	0.0031	0.32%
QC value within limits for V 290.880		Recovery = 96.97%				
Zn 206.200†	41822.7	0.996 mg/L	0.0108	0.996 mg/L	0.0108	1.08%
QC value within limits for Zn 206.200		Recovery = 99.58%				
K 766.490†	161804.4	48.7 mg/L	0.04	48.7 mg/L	0.04	0.09%
QC value within limits for K 766.490		Recovery = 97.37%				
Na 589.592†	969386.7	48.9 mg/L	0.49	48.9 mg/L	0.49	1.01%
QC value within limits for Na 589.592		Recovery = 97.78%				
Sr 407.771†	2708767.0	1.01 mg/L	0.020	1.01 mg/L	0.020	1.98%
QC value within limits for Sr 407.771		Recovery = 101.03%				
Li 670.784†	154783.4	0.996 mg/L	0.0099	0.996 mg/L	0.0099	0.99%
QC value within limits for Li 670.784		Recovery = 99.60%				

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

u&osampler Location: 1

Date Collected: 5/8/2012 9:20:08 AM

Sample Type: Original

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: ICB

Analyte	Back Pressure	Flow
All	152.0 kPa	0.50 L/min

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2338127.6				6092.32	0.26%
YRADIAL	306324.6				7645.21	2.50%
Ga 417.206	1396204.5				36870.25	2.64%
GaRADIAL	92622.1				796.64	0.86%
Ag 328.068†	3.4	-0.00019 mg/L	0.000147	-0.00019 mg/L	0.000147	78.02%
QC value within limits for Ag 328.068		Recovery = Not calculated				
Al 396.153†	-1.1	-0.0330 mg/L	0.00228	-0.0330 mg/L	0.00228	6.92%
QC value within limits for Al 396.153		Recovery = Not calculated				
As 188.979†	1.7	0.00061 mg/L	0.002013	0.00061 mg/L	0.002013	331.14%
QC value within limits for As 188.979		Recovery = Not calculated				
Ba 233.527†	4.4	-0.00323 mg/L	0.000137	-0.00323 mg/L	0.000137	4.26%
QC value within limits for Ba 233.527		Recovery = Not calculated				
Be 234.861†	28.3	0.00011 mg/L	0.000020	0.00011 mg/L	0.000020	17.72%
QC value within limits for Be 234.861		Recovery = Not calculated				
B 249.677†	555.1	0.00815 mg/L	0.000386	0.00815 mg/L	0.000386	4.73%
QC value within limits for B 249.677		Recovery = Not calculated				
Ca 227.546†	-3.5	0.0405 mg/L	0.03618	0.0405 mg/L	0.03618	89.24%
QC value within limits for Ca 227.546		Recovery = Not calculated				
Cd 228.802†	2.1	0.00023 mg/L	0.000137	0.00023 mg/L	0.000137	60.27%
QC value within limits for Cd 228.802		Recovery = Not calculated				
Co 228.616†	-2.0	-0.00076 mg/L	0.000244	-0.00076 mg/L	0.000244	31.94%
QC value within limits for Co 228.616		Recovery = Not calculated				
Cr 267.716†	0.8	-0.00199 mg/L	0.000146	-0.00199 mg/L	0.000146	7.35%
QC value within limits for Cr 267.716		Recovery = Not calculated				
Cu 327.393†	11.2	-0.00041 mg/L	0.000135	-0.00041 mg/L	0.000135	33.36%
QC value within limits for Cu 327.393		Recovery = Not calculated				
Fe 239.562†	11.0	-0.00967 mg/L	0.000201	-0.00967 mg/L	0.000201	2.08%
QC value within limits for Fe 239.562		Recovery = Not calculated				
Mg 279.077†	-6.6	-0.0268 mg/L	0.00220	-0.0268 mg/L	0.00220	8.20%
QC value within limits for Mg 279.077		Recovery = Not calculated				
Mn 257.610†	15.7	-0.00290 mg/L	0.000002	-0.00290 mg/L	0.000002	0.08%
QC value within limits for Mn 257.610		Recovery = Not calculated				
Mo 202.031†	14.7	-0.00171 mg/L	0.000293	-0.00171 mg/L	0.000293	17.14%
QC value within limits for Mo 202.031		Recovery = Not calculated				
Ni 231.604†	0.3	-0.00202 mg/L	0.000299	-0.00202 mg/L	0.000299	14.78%
QC value within limits for Ni 231.604		Recovery = Not calculated				
Pb 220.353†	-12.5	-0.00234 mg/L	0.001785	-0.00234 mg/L	0.001785	76.32%
QC value within limits for Pb 220.353		Recovery = Not calculated				

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Sb 206.836†	-6.8	-0.00057 mg/L	0.000990	-0.00057 mg/L	0.000990	172.79%
QC value within limits for Sb 206.836		Recovery = Not calculated				
Se 196.026†	-3.0	0.00139 mg/L	0.000947	0.00139 mg/L	0.000947	68.27%
QC value within limits for Se 196.026		Recovery = Not calculated				
Si 251.611†	27.2	-0.00562 mg/L	0.000653	-0.00562 mg/L	0.000653	11.61%
QC value within limits for Si 251.611		Recovery = Not calculated				
Sn 189.927†	27.0	-0.00086 mg/L	0.000105	-0.00086 mg/L	0.000105	12.24%
QC value within limits for Sn 189.927		Recovery = Not calculated				
Ti 334.940†	162.5	-0.00163 mg/L	0.000186	-0.00163 mg/L	0.000186	11.43%
QC value within limits for Ti 334.940		Recovery = Not calculated				
Tl 190.801†	-6.1	-0.00370 mg/L	0.002120	-0.00370 mg/L	0.002120	57.26%
QC value within limits for Tl 190.801		Recovery = Not calculated				
V 290.880†	637.3	-0.00181 mg/L	0.002274	-0.00181 mg/L	0.002274	125.38%
QC value within limits for V 290.880		Recovery = Not calculated				
Zn 206.200†	-3.8	-0.00221 mg/L	0.000048	-0.00221 mg/L	0.000048	2.20%
QC value within limits for Zn 206.200		Recovery = Not calculated				
K 766.490†	68.8	-0.0215 mg/L	0.01843	-0.0215 mg/L	0.01843	85.90%
QC value within limits for K 766.490		Recovery = Not calculated				
Na 589.592†	-197.3	0.0128 mg/L	0.01000	0.0128 mg/L	0.01000	78.22%
QC value within limits for Na 589.592		Recovery = Not calculated				
Sr 407.771†	22.5	-0.00596 mg/L	0.000052	-0.00596 mg/L	0.000052	0.87%
QC value within limits for Sr 407.771		Recovery = Not calculated				
Li 670.784†	1.7	-0.00367 mg/L	0.000077	-0.00367 mg/L	0.000077	2.10%
QC value within limits for Li 670.784		Recovery = Not calculated				

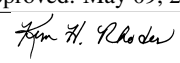
Sequence No.: 8
 Sample ID: LLICV
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 14
 a&e Collected: 5/8/2012 9:27:01 AM
 a&a Type: Original
 n&tial Sample Vol:
 a&ple Prep Vol:

Nebulizer Parameters: LLICV
 Analyte Back Pressure Flow
 All 151.0 kPa 0.50 L/min

Mean Data: LLICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	5734563.6				333258.49	5.81%
YRADIAL	657217.4				57685.49	8.78%
Ga 417.206	2734238.6				157171.49	5.75%
GaRADIAL	192742.7				19726.31	10.23%
Ag 328.068†	164.2	0.00021 mg/L	0.000050	0.00021 mg/L	0.000050	23.77%
Al 396.153†	-16.7	-0.0351 mg/L	0.00073	-0.0351 mg/L	0.00073	2.07%
As 188.979†	4.6	0.00165 mg/L	0.000774	0.00165 mg/L	0.000774	47.03%
Ba 233.527†	60.0	-0.00285 mg/L	0.000096	-0.00285 mg/L	0.000096	3.37%
Be 234.861†	438.0	0.00044 mg/L	0.000068	0.00044 mg/L	0.000068	15.43%
B 249.677†	125.5	0.00311 mg/L	0.000144	0.00311 mg/L	0.000144	4.63%
Ca 227.546†	7.4	0.0644 mg/L	0.00593	0.0644 mg/L	0.00593	9.22%
Cd 228.802†	-24.3	-0.00025 mg/L	0.000038	-0.00025 mg/L	0.000038	15.42%
Co 228.616†	0.1	-0.00071 mg/L	0.000125	-0.00071 mg/L	0.000125	17.54%
Cr 267.716†	-92.2	-0.00287 mg/L	0.000073	-0.00287 mg/L	0.000073	2.55%
Cu 327.393†	489.1	0.00135 mg/L	0.000379	0.00135 mg/L	0.000379	28.16%
Fe 239.562†	-46.5	-0.0133 mg/L	0.00036	-0.0133 mg/L	0.00036	2.70%
Mg 279.077†	-21.3	-0.0310 mg/L	0.00126	-0.0310 mg/L	0.00126	4.07%
Mn 257.610†	-190.4	-0.00315 mg/L	0.000015	-0.00315 mg/L	0.000015	0.46%
Mo 202.031†	-25.4	-0.00282 mg/L	0.000062	-0.00282 mg/L	0.000062	2.20%
Ni 231.604†	67.1	-0.00104 mg/L	0.000239	-0.00104 mg/L	0.000239	22.94%
Pb 220.353†	44.4	0.00277 mg/L	0.000290	0.00277 mg/L	0.000290	10.47%
Sb 206.836†	6.6	0.00262 mg/L	0.000757	0.00262 mg/L	0.000757	28.93%
Se 196.026†	-1.7	0.00214 mg/L	0.002418	0.00214 mg/L	0.002418	113.20%
Si 251.611†	-260.2	-0.0125 mg/L	0.00053	-0.0125 mg/L	0.00053	4.23%
Sn 189.927†	-65.0	-0.00968 mg/L	0.000870	-0.00968 mg/L	0.000870	8.99%
Ti 334.940†	-82.4	-0.00187 mg/L	0.000017	-0.00187 mg/L	0.000017	0.88%
Tl 190.801†	22.9	0.00361 mg/L	0.001793	0.00361 mg/L	0.001793	49.65%
V 290.880†	-10104.2	-0.0574 mg/L	0.00214	-0.0574 mg/L	0.00214	3.74%
Zn 206.200†	-44.3	-0.00318 mg/L	0.000012	-0.00318 mg/L	0.000012	0.37%
K 766.490†	106.9	-0.0101 mg/L	0.01224	-0.0101 mg/L	0.01224	120.83%

Approved: May 09, 2012


Na 589.592†	-1082.1	-0.0298 mg/L	0.00301	-0.0298 mg/L	0.00301	10.11%
Sr 407.771†	-259.2	-0.00606 mg/L	0.000011	-0.00606 mg/L	0.000011	0.18%
Li 670.784†	-32.6	-0.00389 mg/L	0.000234	-0.00389 mg/L	0.000234	6.02%

User canceled analysis.

=====
Analysis Begun

Start Time: 5/8/2012 9:34:44 AM	lbsma On Time: 5/8/2012 6:43:32 AM
Logged In Analyst: peicp2	eTechnique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N40114	Autosampler Model: Cetac

Sample Information File: C:\pe\peicp2\Sample Information\TUESDAY1.sif
 Batch ID:
 Results Data Set: 050812H
 Results Library: C:\pe\peicp2\Results\Results.mdb

Sequence No.: 8	Autosampler Location: 14
Sample ID: LLICV	Time Collected: 5/8/2012 9:34:45 AM
Analyst: KHR	Sample Type: Original
Initial Sample Wt:	Initial Sample Vol:
Dilution:	Sample Prep Vol:

 Nebulizer Parameters: LLICV
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: LLICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2321557.8				31545.51	1.36%
YRADIAL	310632.3				5465.89	1.76%
Ga 417.206	1411578.3				33112.97	2.35%
GARADIAL	92886.0				1131.07	1.22%
Ag 328.068†	1364.8	0.00418 mg/L	0.000147	0.00418 mg/L	0.000147	3.51%
Al 396.153†	778.6	0.0712 mg/L	0.00045	0.0712 mg/L	0.00045	0.63%
As 188.979†	5.6	0.00193 mg/L	0.000828	0.00193 mg/L	0.000828	42.89%
Ba 233.527†	1619.1	0.00708 mg/L	0.000045	0.00708 mg/L	0.000045	0.64%
Be 234.861†	646.4	0.00060 mg/L	0.000045	0.00060 mg/L	0.000045	7.54%
B 249.677†	760.1	0.0105 mg/L	0.00037	0.0105 mg/L	0.00037	3.48%
Ca 227.546†	48.6	0.156 mg/L	0.0079	0.156 mg/L	0.0079	5.05%
Cd 228.802†	30.8	0.00074 mg/L	0.000077	0.00074 mg/L	0.000077	10.35%
Co 228.616†	78.4	0.00131 mg/L	0.000201	0.00131 mg/L	0.000201	15.38%
Cr 267.716†	565.6	0.00320 mg/L	0.000179	0.00320 mg/L	0.000179	5.61%
Cu 327.393†	1411.5	0.00482 mg/L	0.000374	0.00482 mg/L	0.000374	7.77%
Fe 239.562†	631.7	0.0293 mg/L	0.00062	0.0293 mg/L	0.00062	2.11%
Mg 279.077†	359.7	0.0765 mg/L	0.00274	0.0765 mg/L	0.00274	3.59%
Mn 257.610†	4526.8	0.00248 mg/L	0.000106	0.00248 mg/L	0.000106	4.29%
Mo 202.031†	389.1	0.00841 mg/L	0.000170	0.00841 mg/L	0.000170	2.02%
Ni 231.604†	362.8	0.00331 mg/L	0.000212	0.00331 mg/L	0.000212	6.40%
Pb 220.353†	34.4	0.00190 mg/L	0.000484	0.00190 mg/L	0.000484	25.52%
Sb 206.836†	47.5	0.0125 mg/L	0.00037	0.0125 mg/L	0.00037	3.00%
Se 196.026†	13.4	0.0105 mg/L	0.00271	0.0105 mg/L	0.00271	25.66%
Si 251.611†	2119.2	0.0444 mg/L	0.00127	0.0444 mg/L	0.00127	2.86%
Sn 189.927†	122.6	0.00831 mg/L	0.000850	0.00831 mg/L	0.000850	10.23%
Ti 334.940†	10247.2	0.00844 mg/L	0.000138	0.00844 mg/L	0.000138	1.64%
Tl 190.801†	12.6	0.00127 mg/L	0.001334	0.00127 mg/L	0.001334	104.91%
V 290.880†	2555.4	0.00810 mg/L	0.001387	0.00810 mg/L	0.001387	17.14%
Zn 206.200†	546.1	0.0109 mg/L	0.00017	0.0109 mg/L	0.00017	1.53%
K 766.490†	1900.4	0.521 mg/L	0.0053	0.521 mg/L	0.0053	1.03%
Na 589.592†	10521.0	0.529 mg/L	0.0109	0.529 mg/L	0.0109	2.07%
Sr 407.771†	27882.2	0.00450 mg/L	0.000211	0.00450 mg/L	0.000211	4.68%
Li 670.784†	1719.5	0.00743 mg/L	0.000043	0.00743 mg/L	0.000043	0.58%

Sequence No.: 9	Autosampler Location: 15
Sample ID: LLICV	Time Collected: 5/8/2012 9:41:40 AM
Analyst: KHR	Sample Type: Original
Initial Sample Wt:	Initial Sample Vol:

Approved: May 09, 2012 <i>John H. Rhodes</i>

Dilution: sample Prep Vol:

Nebulizer Parameters: LLICV

Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: LLICV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2322377.8					25713.69	1.11%
YRADIAL	312115.3					2204.41	0.71%
Ga 417.206	1437315.7					1948.98	0.14%
GaRADIAL	93083.8					1935.24	2.08%
Ag 328.068†	2489.2	0.00780 mg/L		0.000300	0.00780 mg/L	0.000300	3.85%
Al 396.153†	1512.6	0.169 mg/L		0.0010	0.169 mg/L	0.0010	0.61%
As 188.979†	18.6	0.00651 mg/L		0.000872	0.00651 mg/L	0.000872	13.40%
Ba 233.527†	3271.7	0.0176 mg/L		0.00007	0.0176 mg/L	0.00007	0.40%
Be 234.861†	1247.4	0.00107 mg/L		0.000044	0.00107 mg/L	0.000044	4.07%
B 249.677†	1058.3	0.0140 mg/L		0.00038	0.0140 mg/L	0.00038	2.73%
Ca 227.546†	82.1	0.232 mg/L		0.0105	0.232 mg/L	0.0105	4.52%
Cd 228.802†	52.0	0.00111 mg/L		0.000107	0.00111 mg/L	0.000107	9.65%
Co 228.616†	158.4	0.00337 mg/L		0.000144	0.00337 mg/L	0.000144	4.27%
Cr 267.716†	1128.6	0.00837 mg/L		0.000042	0.00837 mg/L	0.000042	0.50%
Cu 327.393†	2726.7	0.00973 mg/L		0.000336	0.00973 mg/L	0.000336	3.46%
Fe 239.562†	1255.6	0.0685 mg/L		0.00033	0.0685 mg/L	0.00033	0.48%
Mg 279.077†	711.6	0.176 mg/L		0.0020	0.176 mg/L	0.0020	1.12%
Mn 257.610†	8705.5	0.00746 mg/L		0.000106	0.00746 mg/L	0.000106	1.43%
Mo 202.031†	760.4	0.0184 mg/L		0.00016	0.0184 mg/L	0.00016	0.85%
Ni 231.604†	722.1	0.00859 mg/L		0.000017	0.00859 mg/L	0.000017	0.19%
Pb 220.353†	105.3	0.00829 mg/L		0.001279	0.00829 mg/L	0.001279	15.43%
Sb 206.836†	92.4	0.0233 mg/L		0.00112	0.0233 mg/L	0.00112	4.79%
Se 196.026†	12.6	0.0101 mg/L		0.00190	0.0101 mg/L	0.00190	18.80%
Si 251.611†	4153.7	0.0930 mg/L		0.00094	0.0930 mg/L	0.00094	1.01%
Sn 189.927†	218.1	0.0175 mg/L		0.00087	0.0175 mg/L	0.00087	4.97%
Ti 334.940†	20140.3	0.0183 mg/L		0.00025	0.0183 mg/L	0.00025	1.39%
Tl 190.801†	34.1	0.00694 mg/L		0.001795	0.00694 mg/L	0.001795	25.88%
V 290.880†	4399.1	0.0176 mg/L		0.00177	0.0176 mg/L	0.00177	10.05%
Zn 206.200†	965.9	0.0209 mg/L		0.00024	0.0209 mg/L	0.00024	1.15%
K 766.490†	3532.9	1.01 mg/L		0.005	1.01 mg/L	0.005	0.46%
Na 589.592†	19572.2	0.965 mg/L		0.0297	0.965 mg/L	0.0297	3.08%
Sr 407.771†	54446.8	0.0145 mg/L		0.00026	0.0145 mg/L	0.00026	1.83%
Li 670.784†	3323.0	0.0178 mg/L		0.00053	0.0178 mg/L	0.00053	2.99%

Sequence No.: 10
 Sample ID: ICSA
 Analyst:
 Initial Sample Wt:
 Dilution:

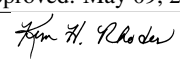
autosampler Location: 12
 Date Collected: 5/8/2012 9:48:35 AM
 Sample Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Nebulizer Parameters: ICSA

Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2154479.3					17834.27	0.83%
YRADIAL	301702.3					4337.51	1.44%
Ga 417.206	1350628.6					30801.05	2.28%
GaRADIAL	91862.3					1031.36	1.12%
Ag 328.068†	-12734.7	-0.00048 mg/L		0.000546	-0.00048 mg/L	0.000546	114.75%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153†	1807304.7	243 mg/L		2.8	243 mg/L	2.8	1.14%
QC value within limits for Al 396.153 Recovery = 97.27%							
As 188.979†	-21.0	-0.00148 mg/L		0.002505	-0.00148 mg/L	0.002505	169.52%
QC value within limits for As 188.979 Recovery = Not calculated							
Ba 233.527†	759.8	-0.00068 mg/L		0.000171	-0.00068 mg/L	0.000171	24.93%

Approved: May 09, 2012


QC value within limits for Ba	233.527	Recovery = Not calculated			
Be 234.861†	24348.5	-0.00092 mg/L	0.000550	-0.00092 mg/L	0.000550 60.07%
QC value within limits for Be	234.861	Recovery = Not calculated			
B 249.677†	3937.1	0.00882 mg/L	0.001527	0.00882 mg/L	0.001527 17.32%
QC value within limits for B	249.677	Recovery = Not calculated			
Ca 227.546†	116967.6	250 mg/L	8.1	250 mg/L	8.1 3.23%
QC value within limits for Ca	227.546	Recovery = 100.19%			
Cd 228.802†	1.3	0.00008 mg/L	0.000186	0.00008 mg/L	0.000186 223.24%
QC value within limits for Cd	228.802	Recovery = Not calculated			
Co 228.616†	26.1	-0.00234 mg/L	0.000248	-0.00234 mg/L	0.000248 10.62%
QC value within limits for Co	228.616	Recovery = Not calculated			
Cr 267.716†	85.5	-0.00261 mg/L	0.000195	-0.00261 mg/L	0.000195 7.46%
QC value within limits for Cr	267.716	Recovery = Not calculated			
Cu 327.393†	-1290.0	0.00237 mg/L	0.000286	0.00237 mg/L	0.000286 12.03%
QC value within limits for Cu	327.393	Recovery = Not calculated			
Fe 239.562†	1447005.9	90.9 mg/L	2.29	90.9 mg/L	2.29 2.52%
QC value within limits for Fe	239.562	Recovery = 90.86%			
Mg 279.077†	866423.1	244 mg/L	5.6	244 mg/L	5.6 2.30%
QC value within limits for Mg	279.077	Recovery = 97.58%			
Mn 257.610†	-2367.1	-0.00319 mg/L	0.000379	-0.00319 mg/L	0.000379 11.91%
QC value within limits for Mn	257.610	Recovery = Not calculated			
Mo 202.031†	-55.8	0.00085 mg/L	0.000614	0.00085 mg/L	0.000614 72.60%
QC value within limits for Mo	202.031	Recovery = Not calculated			
Ni 231.604†	50.9	-0.00127 mg/L	0.000329	-0.00127 mg/L	0.000329 25.85%
QC value within limits for Ni	231.604	Recovery = Not calculated			
Pb 220.353†	-384.3	-0.00157 mg/L	0.002690	-0.00157 mg/L	0.002690 171.49%
QC value within limits for Pb	220.353	Recovery = Not calculated			
Sb 206.836†	-29.8	-0.00278 mg/L	0.000981	-0.00278 mg/L	0.000981 35.24%
QC value within limits for Sb	206.836	Recovery = Not calculated			
Se 196.026†	-55.1	-0.00342 mg/L	0.001411	-0.00342 mg/L	0.001411 41.31%
QC value within limits for Se	196.026	Recovery = Not calculated			
Si 251.611†	-415.0	-0.0162 mg/L	0.00031	-0.0162 mg/L	0.00031 1.90%
QC value within limits for Si	251.611	Recovery = Not calculated			
Sn 189.927†	-363.3	-0.0383 mg/L	0.00104	-0.0383 mg/L	0.00104 2.71%
QC value within limits for Sn	189.927	Recovery = Not calculated			
Ti 334.940†	-39686.4	-0.00410 mg/L	0.003721	-0.00410 mg/L	0.003721 90.68%
QC value within limits for Ti	334.940	Recovery = Not calculated			
Tl 190.801†	-47.1	-0.00812 mg/L	0.004836	-0.00812 mg/L	0.004836 59.54%
QC value within limits for Tl	190.801	Recovery = Not calculated			
V 290.880†	4422.0	-0.00294 mg/L	0.003783	-0.00294 mg/L	0.003783 128.74%
QC value within limits for V	290.880	Recovery = Not calculated			
Zn 206.200†	221.3	0.00142 mg/L	0.000463	0.00142 mg/L	0.000463 32.70%
QC value within limits for Zn	206.200	Recovery = Not calculated			
K 766.490†	-64.9	-0.0611 mg/L	0.01901	-0.0611 mg/L	0.01901 31.10%
QC value within limits for K	766.490	Recovery = Not calculated			
Na 589.592†	307.7	0.0371 mg/L	0.01064	0.0371 mg/L	0.01064 28.70%
QC value within limits for Na	589.592	Recovery = Not calculated			
Sr 407.771†	2745.3	-0.0104 mg/L	0.00023	-0.0104 mg/L	0.00023 2.18%
QC value less than the lower limit for Sr	407.771	Recovery = Not calculated			
Li 670.784†	293.6	-0.00178 mg/L	0.000327	-0.00178 mg/L	0.000327 18.33%
QC value within limits for Li	670.784	Recovery = Not calculated			
QC Failed. Continue with analysis.					

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Sequence No.: 11                               u&sampler Location: 13
Sample ID: ICSAB                             a&e Collected: 5/8/2012 9:54:31 AM
Analyst:                                       a&a Type: Original
Initial Sample Wt:                             n&itial Sample Vol:
Dilution:                                     a&mple Prep Vol:
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Nebulizer Parameters: ICSAB
Analyte           Back Pressure   Flow
All              153.0 kPa       0.50 L/min
    
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Mean Data: ICSAB
    
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Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2148087.3				31061.54	1.45%
YRADIAL	306061.8				3097.57	1.01%
Ga 417.206	1356956.2				33219.28	2.45%

Approved: May 09, 2012
[Signature]

GarADIAL	93038.9					413.06	0.44%
Ag 328.068†	140474.6	0.489 mg/L	0.0160	0.489 mg/L		0.0160	3.27%
QC value within limits for Ag	328.068	Recovery = 97.77%					
Al 396.153†	1854239.1	249 mg/L	2.5	249 mg/L		2.5	0.99%
QC value within limits for Al	396.153	Recovery = 99.80%					
As 188.979†	624.9	0.228 mg/L	0.0049	0.228 mg/L		0.0049	2.15%
QC value within limits for As	188.979	Recovery = 91.30%					
Ba 233.527†	38670.0	0.241 mg/L	0.0008	0.241 mg/L		0.0008	0.32%
QC value within limits for Ba	233.527	Recovery = 96.46%					
Be 234.861†	325869.9	0.237 mg/L	0.0081	0.237 mg/L		0.0081	3.40%
QC value within limits for Be	234.861	Recovery = 94.88%					
B 249.677†	4338.2	0.00139 mg/L	0.002443	0.00139 mg/L		0.002443	175.30%
QC value within limits for B	249.677	Recovery = Not calculated					
Ca 227.546†	119036.7	255 mg/L	7.0	255 mg/L		7.0	2.75%
QC value within limits for Ca	227.546	Recovery = 102.10%					
Cd 228.802†	22357.6	0.401 mg/L	0.0113	0.401 mg/L		0.0113	2.81%
QC value within limits for Cd	228.802	Recovery = 80.30%					
Co 228.616†	8866.3	0.226 mg/L	0.0039	0.226 mg/L		0.0039	1.71%
QC value within limits for Co	228.616	Recovery = 90.58%					
Cr 267.716†	26761.0	0.242 mg/L	0.0023	0.242 mg/L		0.0023	0.93%
QC value within limits for Cr	267.716	Recovery = 96.85%					
Cu 327.393†	63483.3	0.243 mg/L	0.0062	0.243 mg/L		0.0062	2.56%
QC value within limits for Cu	327.393	Recovery = 97.37%					
Fe 239.562†	1474351.3	92.6 mg/L	0.38	92.6 mg/L		0.38	0.41%
QC value within limits for Fe	239.562	Recovery = 92.57%					
Mg 279.077†	883480.1	249 mg/L	0.9	249 mg/L		0.9	0.36%
QC value within limits for Mg	279.077	Recovery = 99.50%					
Mn 257.610†	196850.3	0.234 mg/L	0.0016	0.234 mg/L		0.0016	0.68%
QC value within limits for Mn	257.610	Recovery = 93.63%					
Mo 202.031†	-72.4	0.00065 mg/L	0.000486	0.00065 mg/L		0.000486	75.01%
QC value within limits for Mo	202.031	Recovery = Not calculated					
Ni 231.604†	31716.0	0.464 mg/L	0.0060	0.464 mg/L		0.0060	1.29%
QC value within limits for Ni	231.604	Recovery = 92.81%					
Pb 220.353†	4825.5	0.468 mg/L	0.0061	0.468 mg/L		0.0061	1.31%
QC value within limits for Pb	220.353	Recovery = 93.61%					
Sb 206.836†	1956.8	0.474 mg/L	0.0168	0.474 mg/L		0.0168	3.54%
QC value within limits for Sb	206.836	Recovery = 94.87%					
Se 196.026†	369.0	0.233 mg/L	0.0068	0.233 mg/L		0.0068	2.91%
QC value within limits for Se	196.026	Recovery = 93.14%					
Si 251.611†	-280.8	-0.0130 mg/L	0.00042	-0.0130 mg/L		0.00042	3.23%
QC value within limits for Si	251.611	Recovery = Not calculated					
Sn 189.927†	-371.0	-0.0390 mg/L	0.00133	-0.0390 mg/L		0.00133	3.41%
QC value within limits for Sn	189.927	Recovery = Not calculated					
Ti 334.940†	-40300.7	-0.00413 mg/L	0.003431	-0.00413 mg/L		0.003431	83.08%
QC value within limits for Ti	334.940	Recovery = Not calculated					
Tl 190.801†	1803.4	0.469 mg/L	0.0082	0.469 mg/L		0.0082	1.74%
QC value within limits for Tl	190.801	Recovery = 93.78%					
V 290.880†	51060.3	0.238 mg/L	0.0031	0.238 mg/L		0.0031	1.29%
QC value within limits for V	290.880	Recovery = 95.13%					
Zn 206.200†	19279.7	0.456 mg/L	0.0054	0.456 mg/L		0.0054	1.18%
QC value within limits for Zn	206.200	Recovery = 91.27%					
K 766.490†	15907.4	4.68 mg/L	0.046	4.68 mg/L		0.046	0.99%
QC value within limits for K	766.490	Recovery = 93.55%					
Na 589.592†	97609.7	4.74 mg/L	0.040	4.74 mg/L		0.040	0.84%
QC value within limits for Na	589.592	Recovery = 94.78%					
Sr 407.771†	2723.3	-0.0105 mg/L	0.00016	-0.0105 mg/L		0.00016	1.48%
QC value less than the lower limit for Sr	407.771	Recovery = Not calculated					
Li 670.784†	269.0	-0.00194 mg/L	0.000418	-0.00194 mg/L		0.000418	21.49%
QC value within limits for Li	670.784	Recovery = Not calculated					
QC Failed. Continue with analysis.							

Sequence No.: 12

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

u&osampler Location: 6

ame Collected: 5/8/2012 10:00:27 AM

ama Type: Original

nitial Sample Vol:

ample Prep Vol:

Nebulizer Parameters: CCV

Analyte

All

Back Pressure

153.0 kPa

Flow

0.50 L/min

Approved: May 09, 2012

John H. Rhodes

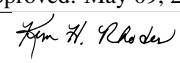
Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2249884.0				36979.83	1.64%
YRADIAL	311110.3				3408.06	1.10%
Ga 417.206	1340089.5				39666.13	2.96%
GaRADIAL	92270.0				590.58	0.64%
Ag 328.068†	127289.9	0.409 mg/L	0.0154	0.409 mg/L	0.0154	3.77%
QC value within limits for Ag	328.068	Recovery = 102.22%				
Al 396.153†	74424.0	9.91 mg/L	0.012	9.91 mg/L	0.012	0.12%
QC value within limits for Al	396.153	Recovery = 99.13%				
As 188.979†	1122.0	0.394 mg/L	0.0102	0.394 mg/L	0.0102	2.59%
QC value within limits for As	188.979	Recovery = 98.46%				
Ba 233.527†	157483.4	1.00 mg/L	0.016	1.00 mg/L	0.016	1.57%
QC value within limits for Ba	233.527	Recovery = 100.20%				
Be 234.861†	63433.8	0.0498 mg/L	0.00175	0.0498 mg/L	0.00175	3.51%
QC value within limits for Be	234.861	Recovery = 99.64%				
B 249.677†	42611.7	0.499 mg/L	0.0199	0.499 mg/L	0.0199	4.00%
QC value within limits for B	249.677	Recovery = 99.72%				
Ca 227.546†	4678.1	10.4 mg/L	0.33	10.4 mg/L	0.33	3.19%
QC value within limits for Ca	227.546	Recovery = 104.40%				
Cd 228.802†	2788.6	0.0489 mg/L	0.00232	0.0489 mg/L	0.00232	4.75%
QC value within limits for Cd	228.802	Recovery = 97.85%				
Co 228.616†	7722.4	0.198 mg/L	0.0036	0.198 mg/L	0.0036	1.81%
QC value within limits for Co	228.616	Recovery = 99.23%				
Cr 267.716†	55004.3	0.503 mg/L	0.0056	0.503 mg/L	0.0056	1.11%
QC value within limits for Cr	267.716	Recovery = 100.57%				
Cu 327.393†	137125.8	0.511 mg/L	0.0199	0.511 mg/L	0.0199	3.90%
QC value within limits for Cu	327.393	Recovery = 102.25%				
Fe 239.562†	63281.1	3.96 mg/L	0.003	3.96 mg/L	0.003	0.08%
QC value within limits for Fe	239.562	Recovery = 99.07%				
Mg 279.077†	34986.6	9.84 mg/L	0.050	9.84 mg/L	0.050	0.50%
QC value within limits for Mg	279.077	Recovery = 98.44%				
Mn 257.610†	430006.9	0.510 mg/L	0.0103	0.510 mg/L	0.0103	2.02%
QC value within limits for Mn	257.610	Recovery = 101.90%				
Mo 202.031†	37082.6	1.00 mg/L	0.018	1.00 mg/L	0.018	1.75%
QC value within limits for Mo	202.031	Recovery = 100.02%				
Ni 231.604†	34513.0	0.505 mg/L	0.0094	0.505 mg/L	0.0094	1.87%
QC value within limits for Ni	231.604	Recovery = 101.05%				
Pb 220.353†	5579.6	0.502 mg/L	0.0077	0.502 mg/L	0.0077	1.53%
QC value within limits for Pb	220.353	Recovery = 100.48%				
Sb 206.836†	5040.9	1.21 mg/L	0.041	1.21 mg/L	0.041	3.37%
QC value within limits for Sb	206.836	Recovery = 101.19%				
Se 196.026†	721.4	0.405 mg/L	0.0161	0.405 mg/L	0.0161	3.98%
QC value within limits for Se	196.026	Recovery = 101.34%				
Si 251.611†	212325.1	5.07 mg/L	0.158	5.07 mg/L	0.158	3.11%
QC value within limits for Si	251.611	Recovery = 101.40%				
Sn 189.927†	10281.3	0.983 mg/L	0.0162	0.983 mg/L	0.0162	1.65%
QC value within limits for Sn	189.927	Recovery = 98.25%				
Ti 334.940†	998005.3	0.994 mg/L	0.0039	0.994 mg/L	0.0039	0.39%
QC value within limits for Ti	334.940	Recovery = 99.41%				
Tl 190.801†	1967.9	0.519 mg/L	0.0046	0.519 mg/L	0.0046	0.89%
QC value within limits for Tl	190.801	Recovery = 103.83%				
V 290.880†	197075.9	1.01 mg/L	0.009	1.01 mg/L	0.009	0.88%
QC value within limits for V	290.880	Recovery = 101.30%				
Zn 206.200†	42204.4	1.00 mg/L	0.015	1.00 mg/L	0.015	1.45%
QC value within limits for Zn	206.200	Recovery = 100.50%				
K 766.490†	161674.5	48.6 mg/L	0.48	48.6 mg/L	0.48	0.99%
QC value within limits for K	766.490	Recovery = 97.29%				
Na 589.592†	969977.5	48.9 mg/L	0.46	48.9 mg/L	0.46	0.93%
QC value within limits for Na	589.592	Recovery = 97.84%				
Sr 407.771†	2652961.4	0.989 mg/L	0.0180	0.989 mg/L	0.0180	1.82%
QC value within limits for Sr	407.771	Recovery = 98.94%				
Li 670.784†	159701.8	1.03 mg/L	0.009	1.03 mg/L	0.009	0.88%
QC value within limits for Li	670.784	Recovery = 102.78%				

All analyte(s) passed QC.

=====
 Sequence No.: 13
 Sample ID: CCB

=====
 u&osampler Location: 1
 a&e Collected: 5/8/2012 10:06:28 AM

Approved: May 09, 2012


Analyst:
Initial Sample Wt:
Dilution:

ama Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte Back Pressure Flow
All 153.0 kPa 0.50 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2320447.3				14623.29	0.63%
YRADIAL	306081.3				1552.90	0.51%
Ga 417.206	1389322.2				2456.05	0.18%
GaRADIAL	91757.8				2049.91	2.23%
Ag 328.068†	88.8	0.00009 mg/L	0.000248	0.00009 mg/L	0.000248	291.74%
QC value within limits for Ag	328.068	Recovery =	Not calculated			
Al 396.153†	2.8	-0.0325 mg/L	0.00179	-0.0325 mg/L	0.00179	5.50%
QC value within limits for Al	396.153	Recovery =	Not calculated			
As 188.979†	-4.4	-0.00157 mg/L	0.001227	-0.00157 mg/L	0.001227	78.17%
QC value within limits for As	188.979	Recovery =	Not calculated			
Ba 233.527†	16.4	-0.00315 mg/L	0.000109	-0.00315 mg/L	0.000109	3.46%
QC value within limits for Ba	233.527	Recovery =	Not calculated			
Be 234.861†	23.0	0.00011 mg/L	0.000035	0.00011 mg/L	0.000035	31.94%
QC value within limits for Be	234.861	Recovery =	Not calculated			
B 249.677†	271.5	0.00481 mg/L	0.000094	0.00481 mg/L	0.000094	1.96%
QC value within limits for B	249.677	Recovery =	Not calculated			
Ca 227.546†	-9.2	0.0286 mg/L	0.02903	0.0286 mg/L	0.02903	101.48%
QC value within limits for Ca	227.546	Recovery =	Not calculated			
Cd 228.802†	2.6	0.00025 mg/L	0.000172	0.00025 mg/L	0.000172	69.40%
QC value within limits for Cd	228.802	Recovery =	Not calculated			
Co 228.616†	5.3	-0.00058 mg/L	0.000220	-0.00058 mg/L	0.000220	38.13%
QC value within limits for Co	228.616	Recovery =	Not calculated			
Cr 267.716†	0.5	-0.00199 mg/L	0.000157	-0.00199 mg/L	0.000157	7.92%
QC value within limits for Cr	267.716	Recovery =	Not calculated			
Cu 327.393†	61.8	-0.00022 mg/L	0.000318	-0.00022 mg/L	0.000318	145.99%
QC value within limits for Cu	327.393	Recovery =	Not calculated			
Fe 239.562†	65.3	-0.00625 mg/L	0.000606	-0.00625 mg/L	0.000606	9.68%
QC value within limits for Fe	239.562	Recovery =	Not calculated			
Mg 279.077†	35.7	-0.0149 mg/L	0.00142	-0.0149 mg/L	0.00142	9.54%
QC value within limits for Mg	279.077	Recovery =	Not calculated			
Mn 257.610†	13.6	-0.00290 mg/L	0.000012	-0.00290 mg/L	0.000012	0.41%
QC value within limits for Mn	257.610	Recovery =	Not calculated			
Mo 202.031†	11.0	-0.00181 mg/L	0.000038	-0.00181 mg/L	0.000038	2.11%
QC value within limits for Mo	202.031	Recovery =	Not calculated			
Ni 231.604†	-0.5	-0.00203 mg/L	0.000232	-0.00203 mg/L	0.000232	11.40%
QC value within limits for Ni	231.604	Recovery =	Not calculated			
Pb 220.353†	-17.8	-0.00282 mg/L	0.000792	-0.00282 mg/L	0.000792	28.05%
QC value within limits for Pb	220.353	Recovery =	Not calculated			
Sb 206.836†	0.5	0.00120 mg/L	0.000164	0.00120 mg/L	0.000164	13.65%
QC value within limits for Sb	206.836	Recovery =	Not calculated			
Se 196.026†	-0.3	0.00288 mg/L	0.002042	0.00288 mg/L	0.002042	70.80%
QC value within limits for Se	196.026	Recovery =	Not calculated			
Si 251.611†	-8.3	-0.00647 mg/L	0.000136	-0.00647 mg/L	0.000136	2.10%
QC value within limits for Si	251.611	Recovery =	Not calculated			
Sn 189.927†	13.7	-0.00213 mg/L	0.000526	-0.00213 mg/L	0.000526	24.69%
QC value within limits for Sn	189.927	Recovery =	Not calculated			
Ti 334.940†	84.3	-0.00171 mg/L	0.000087	-0.00171 mg/L	0.000087	5.08%
QC value within limits for Ti	334.940	Recovery =	Not calculated			
Tl 190.801†	-5.7	-0.00359 mg/L	0.001216	-0.00359 mg/L	0.001216	33.83%
QC value within limits for Tl	190.801	Recovery =	Not calculated			
V 290.880†	580.1	-0.00211 mg/L	0.000950	-0.00211 mg/L	0.000950	45.04%
QC value within limits for V	290.880	Recovery =	Not calculated			
Zn 206.200†	-4.8	-0.00223 mg/L	0.000152	-0.00223 mg/L	0.000152	6.83%
QC value within limits for Zn	206.200	Recovery =	Not calculated			
K 766.490†	50.1	-0.0270 mg/L	0.00385	-0.0270 mg/L	0.00385	14.25%
QC value within limits for K	766.490	Recovery =	Not calculated			
Na 589.592†	-61.8	0.0193 mg/L	0.01724	0.0193 mg/L	0.01724	89.36%
QC value within limits for Na	589.592	Recovery =	Not calculated			
Sr 407.771†	205.5	-0.00589 mg/L	0.000073	-0.00589 mg/L	0.000073	1.24%

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QC value within limits for Sr 407.771 Recovery = Not calculated
Li 670.784† 74.1 -0.00320 mg/L 0.000219 -0.00320 mg/L 0.000219 6.85%
QC value within limits for Li 670.784 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 14
Sample ID: PBW 2T WG396754-02
Analyst: KHR
Initial Sample Wt:
Dilution:
autosampler Location: 16
Date Collected: 5/8/2012 10:13:21 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: PBW 2T WG396754-02
Analyte Back Pressure Flow
All 152.0 kPa 0.50 L/min

Table with 8 columns: Analyte, Mean Corrected Intensity, Conc. Units, Calib. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li with their respective values.

Sequence No.: 15
Sample ID: LCSW 2T WG396754-03
Analyst: KHR
Initial Sample Wt:
Dilution:
autosampler Location: 17
Date Collected: 5/8/2012 10:20:16 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LCSW 2T WG396754-03
Analyte Back Pressure Flow
All 152.0 kPa 0.50 L/min

Table with 8 columns: Analyte, Mean Corrected Intensity, Conc. Units, Calib. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Shows data for Y 371.029.

Approved: May 09, 2012
[Signature]

YRADIAL	313386.2				4313.62	1.38%
Ga 417.206	1408598.4				40880.76	2.90%
GarADIAL	93574.4				1086.77	1.16%
Ag 328.068†	63589.6	0.204 mg/L	0.0082	0.204 mg/L	0.0082	4.00%
Al 396.153†	38417.7	5.10 mg/L	0.023	5.10 mg/L	0.023	0.44%
As 188.979†	554.5	0.195 mg/L	0.0051	0.195 mg/L	0.0051	2.64%
Ba 233.527†	80702.7	0.512 mg/L	0.0048	0.512 mg/L	0.0048	0.94%
Be 234.861†	31573.2	0.0248 mg/L	0.00097	0.0248 mg/L	0.00097	3.89%
B 249.677†	84711.6	0.995 mg/L	0.0396	0.995 mg/L	0.0396	3.98%
Ca 227.546†	2254.2	5.07 mg/L	0.172	5.07 mg/L	0.172	3.39%
Cd 228.802†	1376.1	0.0242 mg/L	0.00122	0.0242 mg/L	0.00122	5.03%
Co 228.616†	3933.0	0.101 mg/L	0.0001	0.101 mg/L	0.0001	0.13%
Cr 267.716†	28143.2	0.256 mg/L	0.0030	0.256 mg/L	0.0030	1.19%
Cu 327.393†	68484.4	0.255 mg/L	0.0097	0.255 mg/L	0.0097	3.80%
Fe 239.562†	32005.9	2.00 mg/L	0.009	2.00 mg/L	0.009	0.47%
Mg 279.077†	18097.3	5.08 mg/L	0.066	5.08 mg/L	0.066	1.29%
Mn 257.610†	217701.7	0.257 mg/L	0.0029	0.257 mg/L	0.0029	1.14%
Mo 202.031†	19123.2	0.515 mg/L	0.0061	0.515 mg/L	0.0061	1.18%
Ni 231.604†	17740.7	0.259 mg/L	0.0017	0.259 mg/L	0.0017	0.67%
Pb 220.353†	2827.1	0.254 mg/L	0.0017	0.254 mg/L	0.0017	0.67%
Sb 206.836†	2492.7	0.601 mg/L	0.0213	0.601 mg/L	0.0213	3.55%
Se 196.026†	358.7	0.203 mg/L	0.0093	0.203 mg/L	0.0093	4.58%
Si 251.611†	107983.6	2.58 mg/L	0.088	2.58 mg/L	0.088	3.42%
Sn 189.927†	5708.7	0.544 mg/L	0.0014	0.544 mg/L	0.0014	0.25%
Ti 334.940†	513312.5	0.510 mg/L	0.0016	0.510 mg/L	0.0016	0.31%
Tl 190.801†	1024.0	0.269 mg/L	0.0023	0.269 mg/L	0.0023	0.87%
V 290.880†	101148.2	0.517 mg/L	0.0046	0.517 mg/L	0.0046	0.89%
Zn 206.200†	21859.1	0.519 mg/L	0.0073	0.519 mg/L	0.0073	1.41%
K 766.490†	84436.0	25.2 mg/L	0.14	25.2 mg/L	0.14	0.56%
Na 589.592†	511175.8	25.2 mg/L	0.52	25.2 mg/L	0.52	2.05%
Sr 407.771†	1369994.4	0.508 mg/L	0.0144	0.508 mg/L	0.0144	2.84%
Li 670.784†	84442.6	0.542 mg/L	0.0032	0.542 mg/L	0.0032	0.59%

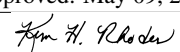
Sequence No.: 16
 Sample ID: L1205001101 WG396754-01
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u\osampler Location: 18
 a\ne Collected: 5/8/2012 10:26:15 AM
 a\ne Type: Original
 n\itial Sample Vol:
 a\mple Prep Vol:

Nebulizer Parameters: L1205001101 WG396754-01
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: L1205001101 WG396754-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1983283.6				14272.80	0.72%
YRADIAL	299121.2				3929.79	1.31%
Ga 417.206	1380511.0				40014.98	2.90%
GarADIAL	93251.9				1097.35	1.18%
Ag 328.068†	988.3	0.00339 mg/L	0.000277	0.00339 mg/L	0.000277	8.18%
Al 396.153†	2037.5	0.241 mg/L	0.0032	0.241 mg/L	0.0032	1.33%
As 188.979†	-5.6	-0.00184 mg/L	0.002622	-0.00184 mg/L	0.002622	142.80%
Ba 233.527†	17346.9	0.107 mg/L	0.0003	0.107 mg/L	0.0003	0.30%
Be 234.861†	856.9	0.00045 mg/L	0.000048	0.00045 mg/L	0.000048	10.75%
B 249.677†	15313.8	0.181 mg/L	0.0067	0.181 mg/L	0.0067	3.69%
Ca 227.546†	128208.8	272 mg/L	11.2	272 mg/L	11.2	4.11%
Cd 228.802†	17.9	0.00052 mg/L	0.000162	0.00052 mg/L	0.000162	31.20%
Co 228.616†	20.5	-0.00017 mg/L	0.000599	-0.00017 mg/L	0.000599	353.01%
Cr 267.716†	209.1	-0.00001 mg/L	0.000076	-0.00001 mg/L	0.000076	598.58%
Cu 327.393†	-144.3	-0.00088 mg/L	0.000340	-0.00088 mg/L	0.000340	38.48%
Fe 239.562†	25565.2	1.59 mg/L	0.012	1.59 mg/L	0.012	0.78%
Mg 279.077†	157796.1	44.4 mg/L	0.41	44.4 mg/L	0.41	0.92%
Mn 257.610†	278290.9	0.328 mg/L	0.0012	0.328 mg/L	0.0012	0.35%
Mo 202.031†	116.9	0.00121 mg/L	0.000121	0.00121 mg/L	0.000121	10.04%
Ni 231.604†	177.1	0.00058 mg/L	0.000515	0.00058 mg/L	0.000515	88.37%
Pb 220.353†	-18.9	-0.00103 mg/L	0.001413	-0.00103 mg/L	0.001413	137.64%
Sb 206.836†	-4.7	0.00000 mg/L	0.000364	0.00000 mg/L	0.000364	>999.9%
Se 196.026†	-0.1	0.00336 mg/L	0.004142	0.00336 mg/L	0.004142	123.25%

Approved: May 09, 2012


Si 251.611†	352863.5	8.45 mg/L	0.267	8.45 mg/L	0.267	3.16%
Sn 189.927†	-408.7	-0.0426 mg/L	0.00122	-0.0426 mg/L	0.00122	2.86%
Ti 334.940†	-39527.4	-0.00037 mg/L	0.003837	-0.00037 mg/L	0.003837	>999.9%
Tl 190.801†	-36.9	-0.0124 mg/L	0.00086	-0.0124 mg/L	0.00086	6.96%
V 290.880†	5105.5	0.0199 mg/L	0.00129	0.0199 mg/L	0.00129	6.49%
Zn 206.200†	484.2	0.00937 mg/L	0.000268	0.00937 mg/L	0.000268	2.86%
K 766.490†	47235.1	14.0 mg/L	0.12	14.0 mg/L	0.12	0.88%
Na 589.592†	Saturated2					
Sr 407.771†	3629627.5	1.35 mg/L	0.018	1.35 mg/L	0.018	1.35%
Li 670.784†	4863.6	0.0277 mg/L	0.00044	0.0277 mg/L	0.00044	1.60%

Sequence No.: 17 u&osampler Location: 19
 Sample ID: L1205001101S WG396754-04 ame Collected: 5/8/2012 10:32:16 AM
 Analyst: KHR ama Type: Original
 Initial Sample Wt: nitial Sample Vol:
 Dilution: ample Prep Vol:

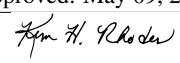
Nebulizer Parameters: L1205001101S WG396754-04
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: L1205001101S WG396754-04

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1942287.9					29016.22	1.49%
YRADIAL	285350.2					1510.16	0.53%
Ga 417.206	1329498.0					18004.29	1.35%
GaRADIAL	90018.5					905.52	1.01%
Ag 328.068†	63356.0	0.204 mg/L		0.0056	0.204 mg/L	0.0056	2.72%
Al 396.153†	40516.7	5.38 mg/L		0.034	5.38 mg/L	0.034	0.63%
As 188.979†	535.3	0.188 mg/L		0.0014	0.188 mg/L	0.0014	0.76%
Ba 233.527†	96142.4	0.610 mg/L		0.0040	0.610 mg/L	0.0040	0.66%
Be 234.861†	31365.4	0.0243 mg/L		0.00060	0.0243 mg/L	0.00060	2.47%
B 249.677†	97366.2	1.14 mg/L		0.034	1.14 mg/L	0.034	2.96%
Ca 227.546†	137778.9	293 mg/L		8.4	293 mg/L	8.4	2.85%
Cd 228.802†	1322.7	0.0233 mg/L		0.00088	0.0233 mg/L	0.00088	3.77%
Co 228.616†	3728.1	0.0954 mg/L		0.00204	0.0954 mg/L	0.00204	2.13%
Cr 267.716†	27429.8	0.250 mg/L		0.0012	0.250 mg/L	0.0012	0.50%
Cu 327.393†	65769.2	0.245 mg/L		0.0064	0.245 mg/L	0.0064	2.61%
Fe 239.562†	57949.8	3.63 mg/L		0.028	3.63 mg/L	0.028	0.77%
Mg 279.077†	184532.5	52.0 mg/L		0.07	52.0 mg/L	0.07	0.13%
Mn 257.610†	503644.4	0.597 mg/L		0.0069	0.597 mg/L	0.0069	1.15%
Mo 202.031†	18726.8	0.504 mg/L		0.0083	0.504 mg/L	0.0083	1.65%
Ni 231.604†	16876.7	0.246 mg/L		0.0038	0.246 mg/L	0.0038	1.54%
Pb 220.353†	2627.3	0.238 mg/L		0.0043	0.238 mg/L	0.0043	1.80%
Sb 206.836†	2362.6	0.570 mg/L		0.0112	0.570 mg/L	0.0112	1.96%
Se 196.026†	340.4	0.193 mg/L		0.0014	0.193 mg/L	0.0014	0.74%
Si 251.611†	503079.5	12.0 mg/L		0.17	12.0 mg/L	0.17	1.39%
Sn 189.927†	4919.8	0.468 mg/L		0.0066	0.468 mg/L	0.0066	1.41%
Ti 334.940†	468521.6	0.509 mg/L		0.0020	0.509 mg/L	0.0020	0.39%
Tl 190.801†	674.8	0.178 mg/L		0.0015	0.178 mg/L	0.0015	0.85%
V 290.880†	105092.3	0.536 mg/L		0.0016	0.536 mg/L	0.0016	0.30%
Zn 206.200†	20759.5	0.493 mg/L		0.0033	0.493 mg/L	0.0033	0.67%
K 766.490†	131653.1	39.5 mg/L		0.30	39.5 mg/L	0.30	0.75%
Na 589.592†	Saturated2						
Sr 407.771†	5234941.9	1.95 mg/L		0.006	1.95 mg/L	0.006	0.29%
Li 670.784†	82736.1	0.531 mg/L		0.0038	0.531 mg/L	0.0038	0.71%

Sequence No.: 18 u&osampler Location: 20
 Sample ID: L1205001101SD WG396754-05 ame Collected: 5/8/2012 10:38:17 AM
 Analyst: KHR ama Type: Original
 Initial Sample Wt: nitial Sample Vol:
 Dilution: ample Prep Vol:

Nebulizer Parameters: L1205001101SD WG396754-05
 Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Approved: May 09, 2012


 Mean Data: L1205001101SD WG396754-05

Analyte	Mean Corrected		Calib.		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
Y 371.029	1984654.1						15366.78	0.77%
YRADIAL	289021.9						6065.52	2.10%
Ga 417.206	1351500.8						42802.55	3.17%
GaRADIAL	91042.8						598.41	0.66%
Ag 328.068†	62369.5	0.201	mg/L	0.0077	0.201	mg/L	0.0077	3.84%
Al 396.153†	39865.0	5.30	mg/L	0.021	5.30	mg/L	0.021	0.40%
As 188.979†	531.8	0.187	mg/L	0.0045	0.187	mg/L	0.0045	2.42%
Ba 233.527†	93735.4	0.595	mg/L	0.0054	0.595	mg/L	0.0054	0.92%
Be 234.861†	30828.1	0.0239	mg/L	0.00096	0.0239	mg/L	0.00096	4.01%
B 249.677†	96231.2	1.13	mg/L	0.038	1.13	mg/L	0.038	3.37%
Ca 227.546†	131191.2	279	mg/L	7.9	279	mg/L	7.9	2.82%
Cd 228.802†	1299.3	0.0229	mg/L	0.00133	0.0229	mg/L	0.00133	5.82%
Co 228.616†	3636.5	0.0931	mg/L	0.00086	0.0931	mg/L	0.00086	0.93%
Cr 267.716†	26967.5	0.246	mg/L	0.0011	0.246	mg/L	0.0011	0.44%
Cu 327.393†	65053.1	0.242	mg/L	0.0070	0.242	mg/L	0.0070	2.88%
Fe 239.562†	56469.9	3.53	mg/L	0.020	3.53	mg/L	0.020	0.58%
Mg 279.077†	176388.4	49.7	mg/L	0.68	49.7	mg/L	0.68	1.36%
Mn 257.610†	484722.5	0.574	mg/L	0.0058	0.574	mg/L	0.0058	1.02%
Mo 202.031†	18354.4	0.494	mg/L	0.0020	0.494	mg/L	0.0020	0.40%
Ni 231.604†	16583.0	0.242	mg/L	0.0008	0.242	mg/L	0.0008	0.33%
Pb 220.353†	2547.6	0.231	mg/L	0.0024	0.231	mg/L	0.0024	1.05%
Sb 206.836†	2333.8	0.563	mg/L	0.0234	0.563	mg/L	0.0234	4.16%
Se 196.026†	333.1	0.189	mg/L	0.0063	0.189	mg/L	0.0063	3.36%
Si 251.611†	483968.0	11.6	mg/L	0.31	11.6	mg/L	0.31	2.66%
Sn 189.927†	4874.5	0.464	mg/L	0.0032	0.464	mg/L	0.0032	0.68%
Ti 334.940†	458737.9	0.497	mg/L	0.0055	0.497	mg/L	0.0055	1.11%
Tl 190.801†	666.6	0.176	mg/L	0.0016	0.176	mg/L	0.0016	0.91%
V 290.880†	102308.0	0.522	mg/L	0.0024	0.522	mg/L	0.0024	0.45%
Zn 206.200†	20681.8	0.491	mg/L	0.0047	0.491	mg/L	0.0047	0.95%
K 766.490†	127898.6	38.4	mg/L	0.29	38.4	mg/L	0.29	0.75%
Na 589.592†	Saturated2							
Sr 407.771†	4969343.2	1.85	mg/L	0.070	1.85	mg/L	0.070	3.78%
Li 670.784†	81013.1	0.520	mg/L	0.0003	0.520	mg/L	0.0003	0.05%

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 Sequence No.: 19
 Sample ID: L1205001301
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

=====
 u&osampler Location: 21
 ame Collected: 5/8/2012 10:44:18 AM
 a&a Type: Original
 n&tial Sample Vol:
 a&ple Prep Vol:

 Nebulizer Parameters: L1205001301

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

 Mean Data: L1205001301

Analyte	Mean Corrected		Calib.		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
Y 371.029	1877477.1						12495.60	0.67%
YRADIAL	278773.7						4530.67	1.63%
Ga 417.206	1357374.5						13139.59	0.97%
GaRADIAL	90453.0						1407.56	1.56%
Ag 328.068†	1430.8	0.00441	mg/L	0.000317	0.00441	mg/L	0.000317	7.18%
Al 396.153†	-90.3	-0.0453	mg/L	0.00128	-0.0453	mg/L	0.00128	2.82%
As 188.979†	18.7	0.00662	mg/L	0.000845	0.00662	mg/L	0.000845	12.76%
Ba 233.527†	2310.0	0.0115	mg/L	0.00006	0.0115	mg/L	0.00006	0.50%
Be 234.861†	256.5	0.00030	mg/L	0.000021	0.00030	mg/L	0.000021	7.06%
B 249.677†	39642.8	0.468	mg/L	0.0017	0.468	mg/L	0.0017	0.36%
Ca 227.546†	162431.2	345	mg/L	0.2	345	mg/L	0.2	0.06%
Cd 228.802†	35.0	0.00079	mg/L	0.000226	0.00079	mg/L	0.000226	28.71%
Co 228.616†	18.9	-0.00007	mg/L	0.000198	-0.00007	mg/L	0.000198	268.70%
Cr 267.716†	481.7	0.00244	mg/L	0.000187	0.00244	mg/L	0.000187	7.66%
Cu 327.393†	-149.7	-0.00109	mg/L	0.000667	-0.00109	mg/L	0.000667	61.08%
Fe 239.562†	42.4	-0.0122	mg/L	0.00015	-0.0122	mg/L	0.00015	1.21%
Mg 279.077†	791468.2	223	mg/L	0.9	223	mg/L	0.9	0.42%

Approved: May 09, 2012

John H. Rhodes

Mn 257.610†	4353.0	0.00227 mg/L	0.000044	0.00227 mg/L	0.000044	1.93%
Mo 202.031†	130.0	0.00142 mg/L	0.000783	0.00142 mg/L	0.000783	55.25%
Ni 231.604†	142.4	0.00007 mg/L	0.000220	0.00007 mg/L	0.000220	297.16%
Pb 220.353†	-18.0	-0.00008 mg/L	0.000703	-0.00008 mg/L	0.000703	875.48%
Sb 206.836†	-2.6	0.00045 mg/L	0.001419	0.00045 mg/L	0.001419	318.72%
Se 196.026†	26.2	0.0176 mg/L	0.00324	0.0176 mg/L	0.00324	18.44%
Si 251.611†	183735.4	4.40 mg/L	0.036	4.40 mg/L	0.036	0.82%
Sn 189.927†	-519.1	-0.0532 mg/L	0.00096	-0.0532 mg/L	0.00096	1.80%
Ti 334.940†	-67286.3	-0.0171 mg/L	0.00239	-0.0171 mg/L	0.00239	13.96%
Tl 190.801†	-54.0	-0.0168 mg/L	0.00340	-0.0168 mg/L	0.00340	20.30%
V 290.880†	5632.0	0.0182 mg/L	0.00114	0.0182 mg/L	0.00114	6.26%
Zn 206.200†	142.4	0.00131 mg/L	0.000129	0.00131 mg/L	0.000129	9.87%
K 766.490†	23266.3	6.87 mg/L	0.030	6.87 mg/L	0.030	0.44%
Na 589.592†	Saturated2					
Sr 407.771†	Saturated2					
Li 670.784†	27310.3	0.173 mg/L	0.0046	0.173 mg/L	0.0046	2.68%

Sequence No.: 20

Sample ID: L1205001302

Analyst: KHR

Initial Sample Wt:

Dilution:

u\osampler Location: 22

ame Collected: 5/8/2012 10:51:15 AM

ama Type: Original

nitial Sample Vol:

asmp\le Prep Vol:

Nebulizer Parameters: L1205001302

Analyte	Back Pressure	Flow
All	152.0 kPa	0.50 L/min

Mean Data: L1205001302

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2082840.9				17065.49	0.82%
YRADIAL	297345.3				2662.26	0.90%
Ga 417.206	1447473.2				20240.12	1.40%
GaRADIAL	95949.6				2517.86	2.62%
Ag 328.068†	965.5	0.00242 mg/L	0.000071	0.00242 mg/L	0.000071	2.95%
Al 396.153†	-63.4	-0.0416 mg/L	0.00181	-0.0416 mg/L	0.00181	4.35%
As 188.979†	3.3	0.00116 mg/L	0.000979	0.00116 mg/L	0.000979	84.38%
Ba 233.527†	4061.6	0.0227 mg/L	0.00022	0.0227 mg/L	0.00022	0.96%
Be 234.861†	237.7	0.00027 mg/L	0.000012	0.00027 mg/L	0.000012	4.35%
B 249.677†	37234.1	0.439 mg/L	0.0099	0.439 mg/L	0.0099	2.26%
Ca 227.546†	104104.0	221 mg/L	4.1	221 mg/L	4.1	1.84%
Cd 228.802†	63.4	0.00133 mg/L	0.000076	0.00133 mg/L	0.000076	5.70%
Co 228.616†	3.0	-0.00054 mg/L	0.000187	-0.00054 mg/L	0.000187	34.48%
Cr 267.716†	425.1	0.00191 mg/L	0.000242	0.00191 mg/L	0.000242	12.65%
Cu 327.393†	-260.2	-0.00146 mg/L	0.000333	-0.00146 mg/L	0.000333	22.73%
Fe 239.562†	524.0	0.0200 mg/L	0.00050	0.0200 mg/L	0.00050	2.52%
Mg 279.077†	448575.0	126 mg/L	1.3	126 mg/L	1.3	1.06%
Mn 257.610†	2017.7	-0.00051 mg/L	0.000030	-0.00051 mg/L	0.000030	5.97%
Mo 202.031†	113.9	0.00098 mg/L	0.000181	0.00098 mg/L	0.000181	18.58%
Ni 231.604†	-0.3	-0.00202 mg/L	0.000189	-0.00202 mg/L	0.000189	9.32%
Pb 220.353†	-1.4	0.00042 mg/L	0.001036	0.00042 mg/L	0.001036	244.11%
Sb 206.836†	-8.1	-0.00090 mg/L	0.001059	-0.00090 mg/L	0.001059	117.07%
Se 196.026†	37.8	0.0241 mg/L	0.00635	0.0241 mg/L	0.00635	26.38%
Si 251.611†	201154.5	4.81 mg/L	0.073	4.81 mg/L	0.073	1.52%
Sn 189.927†	-390.3	-0.0409 mg/L	0.00073	-0.0409 mg/L	0.00073	1.79%
Ti 334.940†	-43427.1	-0.0119 mg/L	0.00149	-0.0119 mg/L	0.00149	12.53%
Tl 190.801†	-51.7	-0.0159 mg/L	0.00288	-0.0159 mg/L	0.00288	18.04%
V 290.880†	3353.4	0.00894 mg/L	0.001348	0.00894 mg/L	0.001348	15.07%
Zn 206.200†	53.3	-0.00082 mg/L	0.000167	-0.00082 mg/L	0.000167	20.38%
K 766.490†	4308.9	0.939 mg/L	0.0068	0.939 mg/L	0.0068	0.72%
Na 589.592†	4465692.9	298 mg/L	14.5	298 mg/L	14.5	4.89%
Sr 407.771†	6703505.1	2.50 mg/L	0.037	2.50 mg/L	0.037	1.47%
Li 670.784†	11768.9	0.0723 mg/L	0.00181	0.0723 mg/L	0.00181	2.50%

Sequence No.: 21

Sample ID: L1205001302PS WG396793-03

Analyst: KHR

Initial Sample Wt:

u\osampler Location: 23

ame Collected: 5/8/2012 10:58:24 AM

ama Type: Original

nitial Sample Vol:

Approved: May 09, 2012

John H. Rhodes

Dilution:

sample Prep Vol:

Nebulizer Parameters: L1205001302PS WG396793-03

Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: L1205001302PS WG396793-03

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2108234.2					33786.14	1.60%
YRADIAL	303264.8					2378.40	0.78%
Ga 417.206	1415210.5					19913.36	1.41%
GaRADIAL	93505.9					178.73	0.19%
Ag 328.068†	59530.8	0.191 mg/L		0.0049	0.191 mg/L	0.0049	2.56%
Al 396.153†	36574.7	4.85 mg/L		0.021	4.85 mg/L	0.021	0.44%
As 188.979†	521.9	0.183 mg/L		0.0031	0.183 mg/L	0.0031	1.72%
Ba 233.527†	80208.4	0.509 mg/L		0.0041	0.509 mg/L	0.0041	0.81%
Be 234.861†	29246.7	0.0230 mg/L		0.00054	0.0230 mg/L	0.00054	2.34%
B 249.677†	115516.0	1.36 mg/L		0.038	1.36 mg/L	0.038	2.81%
Ca 227.546†	99801.9	212 mg/L		5.3	212 mg/L	5.3	2.48%
Cd 228.802†	1330.7	0.0235 mg/L		0.00076	0.0235 mg/L	0.00076	3.25%
Co 228.616†	3676.6	0.0942 mg/L		0.00163	0.0942 mg/L	0.00163	1.73%
Cr 267.716†	26877.1	0.245 mg/L		0.0008	0.245 mg/L	0.0008	0.31%
Cu 327.393†	62838.7	0.234 mg/L		0.0057	0.234 mg/L	0.0057	2.42%
Fe 239.562†	30528.7	1.90 mg/L		0.012	1.90 mg/L	0.012	0.64%
Mg 279.077†	415302.1	117 mg/L		0.7	117 mg/L	0.7	0.58%
Mn 257.610†	208915.5	0.246 mg/L		0.0022	0.246 mg/L	0.0022	0.90%
Mo 202.031†	18366.6	0.494 mg/L		0.0031	0.494 mg/L	0.0031	0.62%
Ni 231.604†	16797.2	0.245 mg/L		0.0041	0.245 mg/L	0.0041	1.69%
Pb 220.353†	2649.5	0.240 mg/L		0.0045	0.240 mg/L	0.0045	1.86%
Sb 206.836†	2324.2	0.560 mg/L		0.0100	0.560 mg/L	0.0100	1.78%
Se 196.026†	372.8	0.211 mg/L		0.0042	0.211 mg/L	0.0042	2.01%
Si 251.611†	287921.7	6.89 mg/L		0.134	6.89 mg/L	0.134	1.94%
Sn 189.927†	-389.7	-0.0408 mg/L		0.00310	-0.0408 mg/L	0.00310	7.60%
Ti 334.940†	465019.4	0.493 mg/L		0.0027	0.493 mg/L	0.0027	0.54%
Tl 190.801†	856.3	0.225 mg/L		0.0039	0.225 mg/L	0.0039	1.72%
V 290.880†	101457.9	0.516 mg/L		0.0020	0.516 mg/L	0.0020	0.39%
Zn 206.200†	19708.0	0.468 mg/L		0.0009	0.468 mg/L	0.0009	0.20%
K 766.490†	84482.1	24.9 mg/L		0.15	24.9 mg/L	0.15	0.60%
Na 589.592†	4651993.1	319 mg/L		1.0	319 mg/L	1.0	0.30%
Sr 407.771†	7119189.8	2.66 mg/L		0.025	2.66 mg/L	0.025	0.93%
Li 670.784†	91048.3	0.584 mg/L		0.0063	0.584 mg/L	0.0063	1.07%

Sequence No.: 22

Sample ID: L1205001302DL WG396793-04

Analyst: KHR

Initial Sample Wt:

Dilution:

autosampler Location: 24

Sample Collected: 5/8/2012 11:04:22 AM

Sample Type: Original

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: L1205001302DL WG396793-04

Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: L1205001302DL WG396793-04

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2247826.6					5022.95	0.22%
YRADIAL	306778.2					8676.72	2.83%
Ga 417.206	1488310.0					17003.25	1.14%
GaRADIAL	94728.1					2254.79	2.38%
Ag 328.068†	281.8	0.00061 mg/L		0.000378	0.00061 mg/L	0.000378	61.89%
Al 396.153†	-4.9	-0.0336 mg/L		0.00156	-0.0336 mg/L	0.00156	4.66%
As 188.979†	-9.1	-0.00323 mg/L		0.001381	-0.00323 mg/L	0.001381	42.74%
Ba 233.527†	854.9	0.00220 mg/L		0.000096	0.00220 mg/L	0.000096	4.35%
Be 234.861†	173.4	0.00023 mg/L		0.000013	0.00023 mg/L	0.000013	5.83%
B 249.677†	8410.1	0.100 mg/L		0.0027	0.100 mg/L	0.0027	2.68%
Ca 227.546†	19483.3	41.4 mg/L		0.76	41.4 mg/L	0.76	1.85%

Approved: May 09, 2012

John H. Rhodes

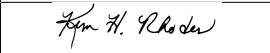
Cd 228.802†	19.5	0.00056	mg/L	0.000166	0.00056	mg/L	0.000166	29.73%
Co 228.616†	6.0	-0.00054	mg/L	0.000197	-0.00054	mg/L	0.000197	36.44%
Cr 267.716†	130.6	-0.00079	mg/L	0.000189	-0.00079	mg/L	0.000189	23.82%
Cu 327.393†	79.4	-0.00016	mg/L	0.000469	-0.00016	mg/L	0.000469	291.58%
Fe 239.562†	106.0	-0.00419	mg/L	0.000188	-0.00419	mg/L	0.000188	4.48%
Mg 279.077†	87220.4	24.5	mg/L	0.30	24.5	mg/L	0.30	1.23%
Mn 257.610†	441.8	-0.00239	mg/L	0.000010	-0.00239	mg/L	0.000010	0.41%
Mo 202.031†	49.9	-0.00076	mg/L	0.000036	-0.00076	mg/L	0.000036	4.77%
Ni 231.604†	10.0	-0.00188	mg/L	0.000277	-0.00188	mg/L	0.000277	14.79%
Pb 220.353†	15.9	0.00055	mg/L	0.000755	0.00055	mg/L	0.000755	138.43%
Sb 206.836†	-0.8	0.00086	mg/L	0.000648	0.00086	mg/L	0.000648	75.16%
Se 196.026†	1.5	0.00392	mg/L	0.002528	0.00392	mg/L	0.002528	64.50%
Si 251.611†	40524.3	0.965	mg/L	0.0111	0.965	mg/L	0.0111	1.15%
Sn 189.927†	-221.1	-0.0246	mg/L	0.00076	-0.0246	mg/L	0.00076	3.10%
Ti 334.940†	-8102.2	-0.00366	mg/L	0.000148	-0.00366	mg/L	0.000148	4.04%
Tl 190.801†	-32.2	-0.0105	mg/L	0.00097	-0.0105	mg/L	0.00097	9.24%
V 290.880†	1500.8	0.00201	mg/L	0.002294	0.00201	mg/L	0.002294	113.97%
Zn 206.200†	54.7	-0.00081	mg/L	0.000075	-0.00081	mg/L	0.000075	9.30%
K 766.490†	869.2	0.169	mg/L	0.0053	0.169	mg/L	0.0053	3.13%
Na 589.592†	927857.4	46.7	mg/L	1.08	46.7	mg/L	1.08	2.31%
Sr 407.771†	1345394.3	0.498	mg/L	0.0149	0.498	mg/L	0.0149	2.98%
Li 670.784†	2418.9	0.0119	mg/L	0.00036	0.0119	mg/L	0.00036	2.98%

Sequence No.: 23 u&osampler Location: 6
 Sample ID: CCV a&e Collected: 5/8/2012 11:11:19 AM
 Analyst: a&a Type: Original
 Initial Sample Wt: nitial Sample Vol:
 Dilution: a&ple Prep Vol:

 Nebulizer Parameters: CCV
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2260242.7				14445.09	0.64%
YRADIAL	311381.6				874.20	0.28%
Ga 417.206	1349128.6				30797.82	2.28%
GaRADIAL	92895.2				1009.16	1.09%
Ag 328.068†	128329.2	0.412 mg/L	0.0129	0.412 mg/L	0.0129	3.13%
QC value within limits for Ag	328.068	Recovery = 103.06%				
Al 396.153†	74403.9	9.91 mg/L	0.036	9.91 mg/L	0.036	0.37%
QC value within limits for Al	396.153	Recovery = 99.10%				
As 188.979†	1128.2	0.396 mg/L	0.0041	0.396 mg/L	0.0041	1.03%
QC value within limits for As	188.979	Recovery = 99.00%				
Ba 233.527†	159517.4	1.02 mg/L	0.009	1.02 mg/L	0.009	0.92%
QC value within limits for Ba	233.527	Recovery = 101.50%				
Be 234.861†	63766.7	0.0501 mg/L	0.00149	0.0501 mg/L	0.00149	2.97%
QC value within limits for Be	234.861	Recovery = 100.19%				
B 249.677†	43990.9	0.515 mg/L	0.0178	0.515 mg/L	0.0178	3.47%
QC value within limits for B	249.677	Recovery = 102.96%				
Ca 227.546†	4708.0	10.5 mg/L	0.23	10.5 mg/L	0.23	2.19%
QC value within limits for Ca	227.546	Recovery = 105.05%				
Cd 228.802†	2825.7	0.0496 mg/L	0.00174	0.0496 mg/L	0.00174	3.51%
QC value within limits for Cd	228.802	Recovery = 99.17%				
Co 228.616†	7783.9	0.200 mg/L	0.0023	0.200 mg/L	0.0023	1.17%
QC value within limits for Co	228.616	Recovery = 100.03%				
Cr 267.716†	55743.5	0.510 mg/L	0.0049	0.510 mg/L	0.0049	0.96%
QC value within limits for Cr	267.716	Recovery = 101.93%				
Cu 327.393†	137792.1	0.514 mg/L	0.0149	0.514 mg/L	0.0149	2.90%
QC value within limits for Cu	327.393	Recovery = 102.74%				
Fe 239.562†	62851.0	3.94 mg/L	0.018	3.94 mg/L	0.018	0.45%
QC value within limits for Fe	239.562	Recovery = 98.40%				
Mg 279.077†	35035.9	9.86 mg/L	0.034	9.86 mg/L	0.034	0.35%
QC value within limits for Mg	279.077	Recovery = 98.58%				
Mn 257.610†	434402.6	0.515 mg/L	0.0049	0.515 mg/L	0.0049	0.94%
QC value within limits for Mn	257.610	Recovery = 102.95%				
Mo 202.031†	37435.9	1.01 mg/L	0.006	1.01 mg/L	0.006	0.57%

Approved: May 09, 2012


Ni	231.604†	34676.5	0.508 mg/L	0.0046	0.508 mg/L	0.0046	0.90%
Pb	220.353†	5657.3	0.509 mg/L	0.0047	0.509 mg/L	0.0047	0.92%
Sb	206.836†	5063.9	1.22 mg/L	0.027	1.22 mg/L	0.027	2.19%
Se	196.026†	726.7	0.408 mg/L	0.0097	0.408 mg/L	0.0097	2.37%
Si	251.611†	213907.1	5.11 mg/L	0.128	5.11 mg/L	0.128	2.51%
Sn	189.927†	10469.7	1.00 mg/L	0.012	1.00 mg/L	0.012	1.16%
Ti	334.940†	998538.7	0.995 mg/L	0.0018	0.995 mg/L	0.0018	0.18%
Tl	190.801†	1994.9	0.526 mg/L	0.0040	0.526 mg/L	0.0040	0.77%
V	290.880†	199955.0	1.03 mg/L	0.011	1.03 mg/L	0.011	1.10%
Zn	206.200†	42707.6	1.02 mg/L	0.009	1.02 mg/L	0.009	0.91%
K	766.490†	161729.5	48.7 mg/L	0.21	48.7 mg/L	0.21	0.44%
Na	589.592†	957154.5	48.2 mg/L	1.02	48.2 mg/L	1.02	2.12%
Sr	407.771†	2639341.1	0.984 mg/L	0.0156	0.984 mg/L	0.0156	1.59%
Li	670.784†	158069.2	1.02 mg/L	0.006	1.02 mg/L	0.006	0.57%

Sequence No.: 24 autosampler Location: 1
 Sample ID: CCB Date Collected: 5/8/2012 11:17:20 AM
 Analyst: Date Type: Original
 Initial Sample Wt: Initial Sample Vol:
 Dilution: Sample Prep Vol:

Nebulizer Parameters: CCB
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2329073.2				27470.80	1.18%
YRADIAL	307999.7				1881.95	0.61%
Ga 417.206	1377345.8				19364.46	1.41%
GaRADIAL	92144.5				2396.90	2.60%
Ag 328.068†	138.8	0.00024 mg/L	0.000155	0.00024 mg/L	0.000155	63.67%
Al 396.153†	19.4	-0.0303 mg/L	0.00130	-0.0303 mg/L	0.00130	4.29%
As 188.979†	0.1	0.00002 mg/L	0.000306	0.00002 mg/L	0.000306	>999.9%
Ba 233.527†	34.5	-0.00303 mg/L	0.000162	-0.00303 mg/L	0.000162	5.34%
Be 234.861†	35.6	0.00012 mg/L	0.000011	0.00012 mg/L	0.000011	9.19%
B 249.677†	1040.0	0.0138 mg/L	0.00032	0.0138 mg/L	0.00032	2.34%
Ca 227.546†	-2.4	0.0431 mg/L	0.00397	0.0431 mg/L	0.00397	9.22%
Cd 228.802†	5.6	0.00029 mg/L	0.000152	0.00029 mg/L	0.000152	51.67%
Co 228.616†	7.6	-0.00052 mg/L	0.000247	-0.00052 mg/L	0.000247	47.64%
Cr 267.716†	-3.6	-0.00203 mg/L	0.000041	-0.00203 mg/L	0.000041	2.04%
Cu 327.393†	58.3	-0.00023 mg/L	0.000212	-0.00023 mg/L	0.000212	91.95%

Approved: May 09, 2012
 [Signature]

QC value within limits	for Cu	327.393	Recovery =	Not calculated			
Fe 239.562†		13.6	-0.00951 mg/L	0.000034	-0.00951 mg/L	0.000034	0.36%
QC value within limits	for Fe	239.562	Recovery =	Not calculated			
Mg 279.077†		9.6	-0.0223 mg/L	0.00459	-0.0223 mg/L	0.00459	20.62%
QC value within limits	for Mg	279.077	Recovery =	Not calculated			
Mn 257.610†		13.5	-0.00290 mg/L	0.000020	-0.00290 mg/L	0.000020	0.69%
QC value within limits	for Mn	257.610	Recovery =	Not calculated			
Mo 202.031†		11.4	-0.00180 mg/L	0.000128	-0.00180 mg/L	0.000128	7.11%
QC value within limits	for Mo	202.031	Recovery =	Not calculated			
Ni 231.604†		11.1	-0.00186 mg/L	0.000153	-0.00186 mg/L	0.000153	8.22%
QC value within limits	for Ni	231.604	Recovery =	Not calculated			
Pb 220.353†		-16.3	-0.00268 mg/L	0.000236	-0.00268 mg/L	0.000236	8.79%
QC value within limits	for Pb	220.353	Recovery =	Not calculated			
Sb 206.836†		-1.7	0.00066 mg/L	0.001353	0.00066 mg/L	0.001353	205.44%
QC value within limits	for Sb	206.836	Recovery =	Not calculated			
Se 196.026†		-5.1	0.00023 mg/L	0.004022	0.00023 mg/L	0.004022	>999.9%
QC value within limits	for Se	196.026	Recovery =	Not calculated			
Si 251.611†		194.7	-0.00161 mg/L	0.000828	-0.00161 mg/L	0.000828	51.53%
QC value within limits	for Si	251.611	Recovery =	Not calculated			
Sn 189.927†		18.8	-0.00164 mg/L	0.000612	-0.00164 mg/L	0.000612	37.37%
QC value within limits	for Sn	189.927	Recovery =	Not calculated			
Ti 334.940†		260.2	-0.00153 mg/L	0.000010	-0.00153 mg/L	0.000010	0.66%
QC value within limits	for Ti	334.940	Recovery =	Not calculated			
Tl 190.801†		-1.5	-0.00252 mg/L	0.001089	-0.00252 mg/L	0.001089	43.28%
QC value within limits	for Tl	190.801	Recovery =	Not calculated			
V 290.880†		565.6	-0.00218 mg/L	0.001014	-0.00218 mg/L	0.001014	46.42%
QC value within limits	for V	290.880	Recovery =	Not calculated			
Zn 206.200†		-12.4	-0.00241 mg/L	0.000071	-0.00241 mg/L	0.000071	2.95%
QC value within limits	for Zn	206.200	Recovery =	Not calculated			
K 766.490†		99.0	-0.0125 mg/L	0.01231	-0.0125 mg/L	0.01231	98.29%
QC value within limits	for K	766.490	Recovery =	Not calculated			
Na 589.592†		468.1	0.0448 mg/L	0.00687	0.0448 mg/L	0.00687	15.35%
QC value within limits	for Na	589.592	Recovery =	Not calculated			
Sr 407.771†		262.6	-0.00587 mg/L	0.000032	-0.00587 mg/L	0.000032	0.54%
QC value within limits	for Sr	407.771	Recovery =	Not calculated			
Li 670.784†		55.1	-0.00332 mg/L	0.000530	-0.00332 mg/L	0.000530	15.95%
QC value within limits	for Li	670.784	Recovery =	Not calculated			

All analyte(s) passed QC.
User canceled analysis.

Approved: May 09, 2012

John H. Rhodes

=====
 Analysis Begun

Start Time: 5/8/2012 11:24:18 AM Plasma On Time: 5/8/2012 6:43:32 AM
 Logged In Analyst: peicp2 eTechnique: ICP Continuous
 Spectrometer Model: Optima 4300 DV, S/N 077N40114 Autosampler Model: Cetac

Sample Information File: C:\pe\peicp2\Sample Information\TUESDAY1.sif
 Batch ID:
 Results Data Set: 050812H
 Results Library: C:\pe\peicp2\Results\Results.mdb

=====
 Sequence No.: 1 Autosampler Location: 31
 Sample ID: L1205001302PS WG396793-03 Date Collected: 5/8/2012 11:24:20 AM
 Analyst: KHR Sample Type: Original
 Initial Sample Wt: Initial Sample Vol:
 Dilution: Sample Prep Vol:

 Nebulizer Parameters: L1205001302PS WG396793-03
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

 Mean Data: L1205001302PS WG396793-03

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2079126.6				14545.02	0.70%
YRADIAL	293931.4				4379.22	1.49%
Ga 417.206	1353689.2				45818.21	3.38%
GaRADIAL	91193.9				1342.39	1.47%
Ag 328.068†	62683.2	0.201 mg/L	0.0091	0.201 mg/L	0.0091	4.55%
Al 396.153†	37804.5	5.02 mg/L	0.029	5.02 mg/L	0.029	0.59%
As 188.979†	551.4	0.193 mg/L	0.0059	0.193 mg/L	0.0059	3.04%
Ba 233.527†	82261.1	0.522 mg/L	0.0037	0.522 mg/L	0.0037	0.70%
Be 234.861†	30735.2	0.0242 mg/L	0.00110	0.0242 mg/L	0.00110	4.54%
B 249.677†	121440.6	1.43 mg/L	0.065	1.43 mg/L	0.065	4.55%
Ca 227.546†	104798.9	223 mg/L	8.4	223 mg/L	8.4	3.75%
Cd 228.802†	1414.5	0.0249 mg/L	0.00131	0.0249 mg/L	0.00131	5.24%
Co 228.616†	3784.7	0.0969 mg/L	0.00079	0.0969 mg/L	0.00079	0.81%
Cr 267.716†	27633.0	0.252 mg/L	0.0040	0.252 mg/L	0.0040	1.59%
Cu 327.393†	65564.3	0.244 mg/L	0.0085	0.244 mg/L	0.0085	3.50%
Fe 239.562†	31549.8	1.97 mg/L	0.020	1.97 mg/L	0.020	1.00%
Mg 279.077†	432626.0	122 mg/L	1.0	122 mg/L	1.0	0.79%
Mn 257.610†	214416.6	0.253 mg/L	0.0008	0.253 mg/L	0.0008	0.31%
Mo 202.031†	18876.3	0.508 mg/L	0.0035	0.508 mg/L	0.0035	0.69%
Ni 231.604†	17286.1	0.252 mg/L	0.0016	0.252 mg/L	0.0016	0.62%
Pb 220.353†	2718.4	0.246 mg/L	0.0028	0.246 mg/L	0.0028	1.14%
Sb 206.836†	2437.2	0.588 mg/L	0.0251	0.588 mg/L	0.0251	4.28%
Se 196.026†	404.9	0.229 mg/L	0.0052	0.229 mg/L	0.0052	2.26%
Si 251.611†	302989.4	7.25 mg/L	0.256	7.25 mg/L	0.256	3.54%
Sn 189.927†	4950.9	0.471 mg/L	0.0051	0.471 mg/L	0.0051	1.07%
Ti 334.940†	476978.5	0.507 mg/L	0.0054	0.507 mg/L	0.0054	1.07%
Tl 190.801†	886.3	0.233 mg/L	0.0029	0.233 mg/L	0.0029	1.24%
V 290.880†	103895.6	0.529 mg/L	0.0059	0.529 mg/L	0.0059	1.12%
Zn 206.200†	20634.4	0.490 mg/L	0.0086	0.490 mg/L	0.0086	1.76%
K 766.490†	86576.8	25.5 mg/L	0.12	25.5 mg/L	0.12	0.45%
Na 589.592†	4765504.6	333 mg/L	10.1	333 mg/L	10.1	3.04%
Sr 407.771†	7380804.5	2.76 mg/L	0.061	2.76 mg/L	0.061	2.21%
Li 670.784†	93535.8	0.600 mg/L	0.0062	0.600 mg/L	0.0062	1.04%

=====
 Sequence No.: 2 Autosampler Location: 27
 Sample ID: L1205001301 0.01 Date Collected: 5/8/2012 11:30:24 AM
 Analyst: KHR Sample Type: Original
 Initial Sample Wt: Initial Sample Vol:
 Dilution: Sample Prep Vol:

 Nebulizer Parameters: L1205001301 0.01

Approved: May 09, 2012

[Signature]

Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: L1205001301 0.01

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2279509.5					16833.06	0.74%
YRADIAL	302822.5					7434.59	2.46%
Ga 417.206	1447738.0					12148.04	0.84%
GaRADIAL	92995.7					809.63	0.87%
Ag 328.068†	80.1	0.00005	mg/L	0.000285	0.00005	mg/L	0.000285
Al 396.153†	10.9	-0.0314	mg/L	0.00171	-0.0314	mg/L	0.00171
As 188.979†	3.1	0.00111	mg/L	0.001097	0.00111	mg/L	0.001097
Ba 233.527†	85.1	-0.00271	mg/L	0.000084	-0.00271	mg/L	0.000084
Be 234.861†	296.2	0.00033	mg/L	0.000025	0.00033	mg/L	0.000025
B 249.677†	1494.5	0.0192	mg/L	0.00065	0.0192	mg/L	0.00065
Ca 227.546†	1485.6	3.20	mg/L	0.108	3.20	mg/L	0.108
Cd 228.802†	-4.6	0.00010	mg/L	0.000036	0.00010	mg/L	0.000036
Co 228.616†	9.9	-0.00046	mg/L	0.000089	-0.00046	mg/L	0.000089
Cr 267.716†	-7.5	-0.00206	mg/L	0.000068	-0.00206	mg/L	0.000068
Cu 327.393†	169.1	0.00018	mg/L	0.000300	0.00018	mg/L	0.000300
Fe 239.562†	-3.5	-0.0106	mg/L	0.00043	-0.0106	mg/L	0.00043
Mg 279.077†	8646.8	2.41	mg/L	0.060	2.41	mg/L	0.060
Mn 257.610†	84.4	-0.00281	mg/L	0.000007	-0.00281	mg/L	0.000007
Mo 202.031†	-2.3	-0.00217	mg/L	0.000102	-0.00217	mg/L	0.000102
Ni 231.604†	-14.5	-0.00224	mg/L	0.000160	-0.00224	mg/L	0.000160
Pb 220.353†	-12.2	-0.00229	mg/L	0.000345	-0.00229	mg/L	0.000345
Sb 206.836†	-3.7	0.00019	mg/L	0.001294	0.00019	mg/L	0.001294
Se 196.026†	-4.8	0.00038	mg/L	0.001769	0.00038	mg/L	0.001769
Si 251.611†	1938.0	0.0402	mg/L	0.00215	0.0402	mg/L	0.00215
Sn 189.927†	-99.3	-0.0130	mg/L	0.00015	-0.0130	mg/L	0.00015
Ti 334.940†	-557.5	-0.00187	mg/L	0.000073	-0.00187	mg/L	0.000073
Tl 190.801†	8.3	0.00001	mg/L	0.001863	0.00001	mg/L	0.001863
V 290.880†	1539.3	0.00279	mg/L	0.001097	0.00279	mg/L	0.001097
Zn 206.200†	34.8	-0.00129	mg/L	0.000119	-0.00129	mg/L	0.000119
K 766.490†	556.0	0.111	mg/L	0.0137	0.111	mg/L	0.0137
Na 589.592†	254285.8	12.4	mg/L	0.84	12.4	mg/L	0.84
Sr 407.771†	145758.3	0.0487	mg/L	0.00150	0.0487	mg/L	0.00150
Li 670.784†	395.8	-0.00112	mg/L	0.000816	-0.00112	mg/L	0.000816

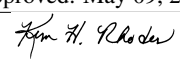
Sequence No.: 3
 Sample ID: L1205001302 0.01
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

autosampler Location: 28
 Date Collected: 5/8/2012 11:37:19 AM
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Nebulizer Parameters: L1205001302 0.01
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: L1205001302 0.01

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2263697.1					21885.44	0.97%
YRADIAL	298513.8					6411.97	2.15%
Ga 417.206	1417830.1					13733.89	0.97%
GaRADIAL	90326.6					803.56	0.89%
Ag 328.068†	144.0	0.00026	mg/L	0.000156	0.00026	mg/L	0.000156
Al 396.153†	-2.2	-0.0332	mg/L	0.00057	-0.0332	mg/L	0.00057
As 188.979†	5.4	0.00190	mg/L	0.001942	0.00190	mg/L	0.001942
Ba 233.527†	99.4	-0.00262	mg/L	0.000040	-0.00262	mg/L	0.000040
Be 234.861†	280.1	0.00031	mg/L	0.000011	0.00031	mg/L	0.000011
B 249.677†	1261.9	0.0165	mg/L	0.00046	0.0165	mg/L	0.00046
Ca 227.546†	1020.1	2.21	mg/L	0.087	2.21	mg/L	0.087
Cd 228.802†	-3.0	0.00013	mg/L	0.000039	0.00013	mg/L	0.000039
Co 228.616†	11.3	-0.00042	mg/L	0.000115	-0.00042	mg/L	0.000115
Cr 267.716†	-17.6	-0.00215	mg/L	0.000105	-0.00215	mg/L	0.000105
Cu 327.393†	-48.0	-0.00062	mg/L	0.000145	-0.00062	mg/L	0.000145

Approved: May 09, 2012


Fe 239.562†	-19.8	-0.0116	mg/L	0.00027	-0.0116	mg/L	0.00027	2.35%
Mg 279.077†	5589.3	1.55	mg/L	0.037	1.55	mg/L	0.037	2.39%
Mn 257.610†	56.2	-0.00285	mg/L	0.000009	-0.00285	mg/L	0.000009	0.33%
Mo 202.031†	4.6	-0.00198	mg/L	0.000104	-0.00198	mg/L	0.000104	5.26%
Ni 231.604†	-6.6	-0.00212	mg/L	0.000340	-0.00212	mg/L	0.000340	16.03%
Pb 220.353†	-2.3	-0.00141	mg/L	0.002108	-0.00141	mg/L	0.002108	149.70%
Sb 206.836†	-4.2	0.00006	mg/L	0.000742	0.00006	mg/L	0.000742	>999.9%
Se 196.026†	-6.4	-0.00050	mg/L	0.000936	-0.00050	mg/L	0.000936	185.94%
Si 251.611†	2202.5	0.0465	mg/L	0.00265	0.0465	mg/L	0.00265	5.71%
Sn 189.927†	-92.9	-0.0123	mg/L	0.00060	-0.0123	mg/L	0.00060	4.89%
Ti 334.940†	-456.6	-0.00192	mg/L	0.000184	-0.00192	mg/L	0.000184	9.59%
Tl 190.801†	12.9	0.00120	mg/L	0.000253	0.00120	mg/L	0.000253	21.01%
V 290.880†	1518.8	0.00270	mg/L	0.000454	0.00270	mg/L	0.000454	16.78%
Zn 206.200†	29.6	-0.00141	mg/L	0.000023	-0.00141	mg/L	0.000023	1.63%
K 766.490†	116.1	-0.0103	mg/L	0.02065	-0.0103	mg/L	0.02065	199.98%
Na 589.592†	59983.0	2.92	mg/L	0.109	2.92	mg/L	0.109	3.74%
Sr 407.771†	83744.9	0.0254	mg/L	0.00042	0.0254	mg/L	0.00042	1.64%
Li 670.784†	164.3	-0.00262	mg/L	0.000320	-0.00262	mg/L	0.000320	12.21%

Sequence No.: 4
 Sample ID: L1205001302PS WG396793-03
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 29
 a&e Collected: 5/8/2012 11:44:13 AM
 a&a Type: Original
 n&tial Sample Vol:
 a&ple Prep Vol:

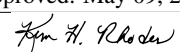
Nebulizer Parameters: L1205001302PS WG396793-03
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: L1205001302PS WG396793-03

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2209592.3					24939.98	1.13%
YRADIAL	301113.7					4260.16	1.41%
Ga 417.206	1345746.4					24221.99	1.80%
GaRADIAL	89956.4					1001.77	1.11%
Ag 328.068†	68507.4	0.220	mg/L	0.0069	0.220	0.0069	3.12%
Al 396.153†	39531.3	5.25	mg/L	0.015	5.25	0.015	0.28%
As 188.979†	605.9	0.213	mg/L	0.0046	0.213	0.0046	2.16%
Ba 233.527†	84408.0	0.536	mg/L	0.0076	0.536	0.0076	1.41%
Be 234.861†	34989.6	0.0275	mg/L	0.00065	0.0275	0.00065	2.37%
B 249.677†	92852.0	1.09	mg/L	0.037	1.09	0.037	3.40%
Ca 227.546†	3555.3	7.84	mg/L	0.159	7.84	0.159	2.03%
Cd 228.802†	1511.1	0.0266	mg/L	0.00093	0.0266	0.00093	3.50%
Co 228.616†	4155.2	0.106	mg/L	0.0012	0.106	0.0012	1.10%
Cr 267.716†	29427.3	0.268	mg/L	0.0027	0.268	0.0027	1.02%
Cu 327.393†	71157.2	0.265	mg/L	0.0083	0.265	0.0083	3.14%
Fe 239.562†	33217.4	2.08	mg/L	0.010	2.08	0.010	0.49%
Mg 279.077†	23524.9	6.61	mg/L	0.032	6.61	0.032	0.49%
Mn 257.610†	227271.1	0.268	mg/L	0.0044	0.268	0.0044	1.64%
Mo 202.031†	19822.3	0.534	mg/L	0.0085	0.534	0.0085	1.60%
Ni 231.604†	18654.1	0.272	mg/L	0.0041	0.272	0.0041	1.50%
Pb 220.353†	3012.2	0.271	mg/L	0.0026	0.271	0.0026	0.97%
Sb 206.836†	2716.0	0.655	mg/L	0.0113	0.655	0.0113	1.73%
Se 196.026†	410.9	0.232	mg/L	0.0087	0.232	0.0087	3.73%
Si 251.611†	117656.2	2.81	mg/L	0.077	2.81	0.077	2.74%
Sn 189.927†	-142.1	-0.0171	mg/L	0.00059	-0.0171	0.00059	3.45%
Ti 334.940†	529574.2	0.527	mg/L	0.0032	0.527	0.0032	0.60%
Tl 190.801†	1089.6	0.286	mg/L	0.0039	0.286	0.0039	1.35%
V 290.880†	106387.5	0.544	mg/L	0.0058	0.544	0.0058	1.06%
Zn 206.200†	23676.1	0.563	mg/L	0.0042	0.563	0.0042	0.75%
K 766.490†	86114.5	25.7	mg/L	0.27	25.7	0.27	1.03%
Na 589.592†	587834.9	29.1	mg/L	0.58	29.1	0.58	1.98%
Sr 407.771†	1496353.6	0.555	mg/L	0.0169	0.555	0.0169	3.04%
Li 670.784†	85875.1	0.551	mg/L	0.0045	0.551	0.0045	0.82%

Sequence No.: 5
 Sample ID: L1205001302DL WG396793-04

u&osampler Location: 30
 a&e Collected: 5/8/2012 11:50:12 AM

Approved: May 09, 2012


Analyst: KHR
Initial Sample Wt:
Dilution:

ama Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L1205001302DL WG396793-04
Analyte Back Pressure Flow
All 152.0 kPa 0.50 L/min

Mean Data: L1205001302DL WG396793-04

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li with their respective values.

Sequence No.: 6
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

autosampler Location: 6
Sample Collected: 5/8/2012 11:57:07 AM
ama Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV
Analyte Back Pressure Flow
All 152.0 kPa 0.50 L/min

Mean Data: CCV

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Includes QC values for Ag and Al.

Approved: May 09, 2012
[Signature]

QC value within limits for As	188.979	Recovery = 101.13%					
Ba 233.527†	160994.1	1.02 mg/L	0.012	1.02 mg/L	0.012	1.16%	
QC value within limits for Ba	233.527	Recovery = 102.45%					
Be 234.861†	65789.6	0.0517 mg/L	0.00111	0.0517 mg/L	0.00111	2.15%	
QC value within limits for Be	234.861	Recovery = 103.33%					
B 249.677†	44939.7	0.526 mg/L	0.0135	0.526 mg/L	0.0135	2.57%	
QC value within limits for B	249.677	Recovery = 105.17%					
Ca 227.546†	4780.8	10.7 mg/L	0.33	10.7 mg/L	0.33	3.07%	
QC value within limits for Ca	227.546	Recovery = 106.68%					
Cd 228.802†	2898.2	0.0508 mg/L	0.00212	0.0508 mg/L	0.00212	4.17%	
QC value within limits for Cd	228.802	Recovery = 101.69%					
Co 228.616†	7825.4	0.201 mg/L	0.0020	0.201 mg/L	0.0020	0.98%	
QC value within limits for Co	228.616	Recovery = 100.54%					
Cr 267.716†	56364.1	0.515 mg/L	0.0026	0.515 mg/L	0.0026	0.50%	
QC value within limits for Cr	267.716	Recovery = 103.07%					
Cu 327.393†	140396.3	0.523 mg/L	0.0121	0.523 mg/L	0.0121	2.31%	
QC value within limits for Cu	327.393	Recovery = 104.69%					
Fe 239.562†	65247.7	4.09 mg/L	0.077	4.09 mg/L	0.077	1.88%	
QC value within limits for Fe	239.562	Recovery = 102.16%					
Mg 279.077†	36067.3	10.1 mg/L	0.19	10.1 mg/L	0.19	1.87%	
QC value within limits for Mg	279.077	Recovery = 101.49%					
Mn 257.610†	438497.4	0.520 mg/L	0.0077	0.520 mg/L	0.0077	1.47%	
QC value within limits for Mn	257.610	Recovery = 103.93%					
Mo 202.031†	37806.8	1.02 mg/L	0.011	1.02 mg/L	0.011	1.08%	
QC value within limits for Mo	202.031	Recovery = 101.97%					
Ni 231.604†	35099.2	0.514 mg/L	0.0077	0.514 mg/L	0.0077	1.49%	
QC value within limits for Ni	231.604	Recovery = 102.77%					
Pb 220.353†	5649.3	0.509 mg/L	0.0015	0.509 mg/L	0.0015	0.30%	
QC value within limits for Pb	220.353	Recovery = 101.75%					
Sb 206.836†	5176.8	1.25 mg/L	0.032	1.25 mg/L	0.032	2.59%	
QC value within limits for Sb	206.836	Recovery = 103.91%					
Se 196.026†	737.7	0.414 mg/L	0.0132	0.414 mg/L	0.0132	3.17%	
QC value within limits for Se	196.026	Recovery = 103.61%					
Si 251.611†	218907.1	5.23 mg/L	0.070	5.23 mg/L	0.070	1.33%	
QC value within limits for Si	251.611	Recovery = 104.55%					
Sn 189.927†	10482.7	1.00 mg/L	0.006	1.00 mg/L	0.006	0.59%	
QC value within limits for Sn	189.927	Recovery = 100.19%					
Ti 334.940†	1022876.9	1.02 mg/L	0.005	1.02 mg/L	0.005	0.49%	
QC value within limits for Ti	334.940	Recovery = 101.89%					
Tl 190.801†	1992.4	0.526 mg/L	0.0020	0.526 mg/L	0.0020	0.37%	
QC value within limits for Tl	190.801	Recovery = 105.16%					
V 290.880†	200757.7	1.03 mg/L	0.003	1.03 mg/L	0.003	0.33%	
QC value within limits for V	290.880	Recovery = 103.20%					
Zn 206.200†	43534.9	1.04 mg/L	0.004	1.04 mg/L	0.004	0.37%	
QC value within limits for Zn	206.200	Recovery = 103.67%					
K 766.490†	166349.0	50.1 mg/L	0.23	50.1 mg/L	0.23	0.45%	
QC value within limits for K	766.490	Recovery = 100.15%					
Na 589.592†	997947.7	50.4 mg/L	0.88	50.4 mg/L	0.88	1.76%	
QC value within limits for Na	589.592	Recovery = 100.81%					
Sr 407.771†	2704930.1	1.01 mg/L	0.028	1.01 mg/L	0.028	2.76%	
QC value within limits for Sr	407.771	Recovery = 100.89%					
Li 670.784†	163562.5	1.05 mg/L	0.005	1.05 mg/L	0.005	0.51%	
QC value within limits for Li	670.784	Recovery = 105.27%					

All analyte(s) passed QC.

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=====
Sequence No.: 7                               u&osampler Location: 1
Sample ID: CCB                               a&me Collected: 5/8/2012 12:03:08 PM
Analyst:                                     a&na Type: Original
Initial Sample Wt:                           n&itial Sample Vol:
Dilution:                                   a&mple Prep Vol:
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Nebulizer Parameters: CCB
Analyte      Back Pressure  Flow
All          152.0 kPa     0.50 L/min
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Mean Data: CCB
Analyte      Mean Corrected      Calib.      Sample
Intensity    Conc. Units         Std.Dev.    Conc. Units      Std.Dev.      RSD
Y 371.029    2295220.6           15583.99    0.68%
-----
    
```

Approved: May 09, 2012
John H. Rhodes

YRADIAL	306906.7					5870.54	1.91%
Ga 417.206	1370387.3					7733.16	0.56%
GaRADIAL	91553.1					1420.33	1.55%
Ag 328.068†	64.5	0.00001 mg/L	0.000496	0.00001 mg/L		0.000496	>999.9%
QC value within limits for Ag 328.068		Recovery = Not calculated					
Al 396.153†	17.4	-0.0305 mg/L	0.00062	-0.0305 mg/L		0.00062	2.03%
QC value within limits for Al 396.153		Recovery = Not calculated					
As 188.979†	-2.7	-0.00096 mg/L	0.001305	-0.00096 mg/L		0.001305	135.22%
QC value within limits for As 188.979		Recovery = Not calculated					
Ba 233.527†	27.4	-0.00308 mg/L	0.000060	-0.00308 mg/L		0.000060	1.96%
QC value within limits for Ba 233.527		Recovery = Not calculated					
Be 234.861†	56.5	0.00014 mg/L	0.000009	0.00014 mg/L		0.000009	6.69%
QC value within limits for Be 234.861		Recovery = Not calculated					
B 249.677†	1060.8	0.0141 mg/L	0.00043	0.0141 mg/L		0.00043	3.06%
QC value within limits for B 249.677		Recovery = Not calculated					
Ca 227.546†	-11.2	0.0245 mg/L	0.01976	0.0245 mg/L		0.01976	80.67%
QC value within limits for Ca 227.546		Recovery = Not calculated					
Cd 228.802†	4.4	0.00028 mg/L	0.000217	0.00028 mg/L		0.000217	78.56%
QC value within limits for Cd 228.802		Recovery = Not calculated					
Co 228.616†	2.5	-0.00065 mg/L	0.000151	-0.00065 mg/L		0.000151	23.26%
QC value within limits for Co 228.616		Recovery = Not calculated					
Cr 267.716†	-8.1	-0.00207 mg/L	0.000067	-0.00207 mg/L		0.000067	3.23%
QC value within limits for Cr 267.716		Recovery = Not calculated					
Cu 327.393†	0.8	-0.00044 mg/L	0.000295	-0.00044 mg/L		0.000295	66.62%
QC value within limits for Cu 327.393		Recovery = Not calculated					
Fe 239.562†	18.1	-0.00922 mg/L	0.000281	-0.00922 mg/L		0.000281	3.05%
QC value within limits for Fe 239.562		Recovery = Not calculated					
Mg 279.077†	12.4	-0.0215 mg/L	0.00176	-0.0215 mg/L		0.00176	8.17%
QC value within limits for Mg 279.077		Recovery = Not calculated					
Mn 257.610†	10.4	-0.00290 mg/L	0.000014	-0.00290 mg/L		0.000014	0.47%
QC value within limits for Mn 257.610		Recovery = Not calculated					
Mo 202.031†	10.7	-0.00182 mg/L	0.000314	-0.00182 mg/L		0.000314	17.26%
QC value within limits for Mo 202.031		Recovery = Not calculated					
Ni 231.604†	11.8	-0.00185 mg/L	0.000185	-0.00185 mg/L		0.000185	9.99%
QC value within limits for Ni 231.604		Recovery = Not calculated					
Pb 220.353†	-22.9	-0.00327 mg/L	0.001740	-0.00327 mg/L		0.001740	53.13%
QC value within limits for Pb 220.353		Recovery = Not calculated					
Sb 206.836†	-2.6	0.00045 mg/L	0.000945	0.00045 mg/L		0.000945	211.77%
QC value within limits for Sb 206.836		Recovery = Not calculated					
Se 196.026†	-0.3	0.00289 mg/L	0.001314	0.00289 mg/L		0.001314	45.39%
QC value within limits for Se 196.026		Recovery = Not calculated					
Si 251.611†	84.0	-0.00426 mg/L	0.000306	-0.00426 mg/L		0.000306	7.19%
QC value within limits for Si 251.611		Recovery = Not calculated					
Sn 189.927†	16.3	-0.00188 mg/L	0.000865	-0.00188 mg/L		0.000865	46.03%
QC value within limits for Sn 189.927		Recovery = Not calculated					
Ti 334.940†	151.1	-0.00164 mg/L	0.000022	-0.00164 mg/L		0.000022	1.36%
QC value within limits for Ti 334.940		Recovery = Not calculated					
Tl 190.801†	-5.4	-0.00352 mg/L	0.001167	-0.00352 mg/L		0.001167	33.16%
QC value within limits for Tl 190.801		Recovery = Not calculated					
V 290.880†	1103.8	0.00060 mg/L	0.002390	0.00060 mg/L		0.002390	398.86%
QC value within limits for V 290.880		Recovery = Not calculated					
Zn 206.200†	-9.5	-0.00234 mg/L	0.000134	-0.00234 mg/L		0.000134	5.73%
QC value within limits for Zn 206.200		Recovery = Not calculated					
K 766.490†	48.4	-0.0275 mg/L	0.03435	-0.0275 mg/L		0.03435	124.86%
QC value within limits for K 766.490		Recovery = Not calculated					
Na 589.592†	-38.2	0.0204 mg/L	0.00240	0.0204 mg/L		0.00240	11.73%
QC value within limits for Na 589.592		Recovery = Not calculated					
Sr 407.771†	162.7	-0.00590 mg/L	0.000008	-0.00590 mg/L		0.000008	0.14%
QC value within limits for Sr 407.771		Recovery = Not calculated					
Li 670.784†	-78.6	-0.00419 mg/L	0.000852	-0.00419 mg/L		0.000852	20.34%
QC value within limits for Li 670.784		Recovery = Not calculated					

All analyte(s) passed QC.

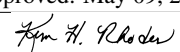
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Sequence No.: 8                               u&osampler Location: 25
Sample ID: LLCCV                             a&e Collected: 5/8/2012 12:10:01 PM
Analyst: KHR                                 a&a Type: Original
Initial Sample Wt:                           nitial Sample Vol:
Dilution:                                   a&ple Prep Vol:
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Nebulizer Parameters: LLCCV

Approved: May 09, 2012



Analyte Back Pressure Flow
All 152.0 kPa 0.50 L/min

Mean Data: LLCCV

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, YRADIAL, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li with their respective intensity and concentration values.

Sequence No.: 9 Sample ID: LLCCV Analyst: KHR Initial Sample Wt: Dilution: autosampler Location: 26 Date Collected: 5/8/2012 12:16:55 PM Data Type: Original Initial Sample Vol: Sample Prep Vol:

Nebulizer Parameters: LLCCV

Analyte Back Pressure Flow
All 152.0 kPa 0.50 L/min

Mean Data: LLCCV

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, YRADIAL, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu with their respective intensity and concentration values.

Approved: May 09, 2012
[Signature]

Fe 239.562†	1280.9	0.0701 mg/L	0.00083	0.0701 mg/L	0.00083	1.18%
Mg 279.077†	731.3	0.181 mg/L	0.0058	0.181 mg/L	0.0058	3.23%
Mn 257.610†	8721.4	0.00748 mg/L	0.000109	0.00748 mg/L	0.000109	1.46%
Mo 202.031†	765.2	0.0186 mg/L	0.00005	0.0186 mg/L	0.00005	0.27%
Ni 231.604†	743.5	0.00890 mg/L	0.000236	0.00890 mg/L	0.000236	2.65%
Pb 220.353†	92.9	0.00717 mg/L	0.000139	0.00717 mg/L	0.000139	1.94%
Sb 206.836†	94.4	0.0238 mg/L	0.00256	0.0238 mg/L	0.00256	10.77%
Se 196.026†	10.7	0.00905 mg/L	0.001995	0.00905 mg/L	0.001995	22.05%
Si 251.611†	4308.2	0.0967 mg/L	0.00103	0.0967 mg/L	0.00103	1.07%
Sn 189.927†	228.7	0.0185 mg/L	0.00081	0.0185 mg/L	0.00081	4.37%
Ti 334.940†	20259.6	0.0184 mg/L	0.00019	0.0184 mg/L	0.00019	1.05%
Tl 190.801†	43.4	0.00934 mg/L	0.001549	0.00934 mg/L	0.001549	16.58%
V 290.880†	4686.4	0.0191 mg/L	0.00240	0.0191 mg/L	0.00240	12.55%
Zn 206.200†	962.0	0.0208 mg/L	0.00031	0.0208 mg/L	0.00031	1.47%
K 766.490†	3618.1	1.03 mg/L	0.006	1.03 mg/L	0.006	0.61%
Na 589.592†	19907.8	0.981 mg/L	0.0112	0.981 mg/L	0.0112	1.14%
Sr 407.771†	54974.3	0.0147 mg/L	0.00042	0.0147 mg/L	0.00042	2.86%
Li 670.784†	3410.6	0.0183 mg/L	0.00054	0.0183 mg/L	0.00054	2.95%

Approved: May 09, 2012

John H. Rhodes

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Analysis Begun

Start Time: 5/8/2012 1:12:00 PM Plasma On Time: 5/8/2012 6:43:32 AM
Logged In Analyst: peicp2 eTechnique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N40114 Autosampler Model: Cetac

Sample Information File: C:\pe\peicp2\Sample Information\TUESDAY1.sif
Batch ID:
Results Data Set: 050812H
Results Library: C:\pe\peicp2\Results\Results.mdb

=====
Method Loaded Method Last Saved: 5/8/2012 8:44:51 AM
Method Name: 200.7-6010 PE-ICP2.1 SM File:
IEC File: CA227_LiBeMOD.iec
Method Description: STANDARD

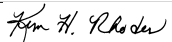
=====
Sequence No.: 1 Autosampler Location: 32
Sample ID: PBW 94 WG396609-02 Date Collected: 5/8/2012 1:12:02 PM
Analyst: KHR Sample Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: PBW 94 WG396609-02
Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: PBW 94 WG396609-02

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2358098.1					5529.63	0.23%
YRADIAL	319105.0					4971.56	1.56%
Ga 417.206	1495076.9					32890.27	2.20%
GaRADIAL	97209.7					1512.85	1.56%
Ag 328.068†	25.4	-0.00012	mg/L	0.000401	-0.00012	0.000401	347.64%
Al 396.153†	7.2	-0.0319	mg/L	0.00101	-0.0319	0.00101	3.16%
As 188.979†	0.6	0.00021	mg/L	0.002376	0.00021	0.002376	>999.9%
Ba 233.527†	75.1	-0.00277	mg/L	0.000033	-0.00277	0.000033	1.20%
Be 234.861†	202.9	0.00025	mg/L	0.000033	0.00025	0.000033	12.88%
B 249.677†	194.3	0.00391	mg/L	0.000149	0.00391	0.000149	3.80%
Ca 227.546†	9.7	0.0687	mg/L	0.01569	0.0687	0.01569	22.85%
Cd 228.802†	0.7	0.00020	mg/L	0.000169	0.00020	0.000169	82.72%
Co 228.616†	0.9	-0.00069	mg/L	0.000101	-0.00069	0.000101	14.59%
Cr 267.716†	-19.5	-0.00217	mg/L	0.000099	-0.00217	0.000099	4.56%
Cu 327.393†	-3.0	-0.00046	mg/L	0.000295	-0.00046	0.000295	64.33%
Fe 239.562†	22.0	-0.00898	mg/L	0.000150	-0.00898	0.000150	1.67%
Mg 279.077†	5.0	-0.0236	mg/L	0.00157	-0.0236	0.00157	6.66%
Mn 257.610†	747.3	-0.00203	mg/L	0.000016	-0.00203	0.000016	0.79%
Mo 202.031†	-0.9	-0.00213	mg/L	0.000247	-0.00213	0.000247	11.59%
Ni 231.604†	2.8	-0.00198	mg/L	0.000407	-0.00198	0.000407	20.50%
Pb 220.353†	-8.6	-0.00199	mg/L	0.001192	-0.00199	0.001192	59.77%
Sb 206.836†	-0.6	0.00093	mg/L	0.000343	0.00093	0.000343	36.97%
Se 196.026†	-4.1	0.00078	mg/L	0.000892	0.00078	0.000892	114.38%
Si 251.611†	-26.5	-0.00690	mg/L	0.000725	-0.00690	0.000725	10.51%
Sn 189.927†	-62.7	-0.00946	mg/L	0.000141	-0.00946	0.000141	1.49%
Ti 334.940†	138.3	-0.00165	mg/L	0.000146	-0.00165	0.000146	8.88%
Tl 190.801†	9.3	0.00026	mg/L	0.001705	0.00026	0.001705	649.55%
V 290.880†	840.4	-0.00076	mg/L	0.001782	-0.00076	0.001782	233.49%
Zn 206.200†	14.8	-0.00176	mg/L	0.000040	-0.00176	0.000040	2.26%
K 766.490†	160.4	0.00571	mg/L	0.019253	0.00571	0.019253	337.30%
Na 589.592†	-74.1	0.0187	mg/L	0.02074	0.0187	0.02074	110.87%
Sr 407.771†	44.0	-0.00595	mg/L	0.000006	-0.00595	0.000006	0.10%
Li 670.784†	-2.5	-0.00370	mg/L	0.000612	-0.00370	0.000612	16.55%

=====
Sequence No.: 2 Autosampler Location: 33
Sample ID: LCSW 94 WG396609-03 Date Collected: 5/8/2012 1:18:58 PM

Approved: May 09, 2012


Analyst: KHR
Initial Sample Wt:
Dilution:

ama Type: Original
nitial Sample Vol:
aample Prep Vol:

Nebulizer Parameters: LCSW 94 WG396609-03

Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: LCSW 94 WG396609-03

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li with their respective intensity and concentration values.

Sequence No.: 3
Sample ID: L1204089803 WG396609-01
Analyst: KHR
Initial Sample Wt:
Dilution:

uikosampler Location: 34
ame Collected: 5/8/2012 1:24:58 PM
ama Type: Original
nitial Sample Vol:
aample Prep Vol:

Nebulizer Parameters: L1204089803 WG396609-01

Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: L1204089803 WG396609-01

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, Ga, Ag, Al, As, Ba, Be with their respective intensity and concentration values.

Approved: May 09, 2012
John H. Rhodes

B 249.677†	12517.4	0.148 mg/L	0.0018	0.148 mg/L	0.0018	1.21%
Ca 227.546†	71509.5	152 mg/L	2.2	152 mg/L	2.2	1.45%
Cd 228.802†	1212.7	0.0220 mg/L	0.00029	0.0220 mg/L	0.00029	1.34%
Co 228.616†	15.7	-0.00026 mg/L	0.000336	-0.00026 mg/L	0.000336	128.16%
Cr 267.716†	554.9	0.00314 mg/L	0.000128	0.00314 mg/L	0.000128	4.07%
Cu 327.393†	3294.1	0.0118 mg/L	0.00039	0.0118 mg/L	0.00039	3.28%
Fe 239.562†	1361.5	0.0742 mg/L	0.00090	0.0742 mg/L	0.00090	1.21%
Mg 279.077†	165658.4	46.6 mg/L	0.61	46.6 mg/L	0.61	1.31%
Mn 257.610†	26453.3	0.0286 mg/L	0.00006	0.0286 mg/L	0.00006	0.20%
Mo 202.031†	281.6	0.00551 mg/L	0.000500	0.00551 mg/L	0.000500	9.07%
Ni 231.604†	255.0	0.00173 mg/L	0.000378	0.00173 mg/L	0.000378	21.88%
Pb 220.353†	2.2	0.00017 mg/L	0.001829	0.00017 mg/L	0.001829	>999.9%
Sb 206.836†	-2.4	0.00048 mg/L	0.000335	0.00048 mg/L	0.000335	69.23%
Se 196.026†	22.0	0.0153 mg/L	0.00313	0.0153 mg/L	0.00313	20.47%
Si 251.611†	223386.3	5.35 mg/L	0.017	5.35 mg/L	0.017	0.32%
Sn 189.927†	-364.0	-0.0384 mg/L	0.00038	-0.0384 mg/L	0.00038	1.00%
Ti 334.940†	-29787.4	-0.00871 mg/L	0.000927	-0.00871 mg/L	0.000927	10.64%
Tl 190.801†	-45.8	-0.0143 mg/L	0.00236	-0.0143 mg/L	0.00236	16.50%
V 290.880†	3538.5	0.0120 mg/L	0.00441	0.0120 mg/L	0.00441	36.85%
Zn 206.200†	34489.3	0.817 mg/L	0.0017	0.817 mg/L	0.0017	0.21%
K 766.490†	44287.9	12.6 mg/L	0.07	12.6 mg/L	0.07	0.58%
Na 589.592†	6760939.8	536 mg/L	0.0	536 mg/L	0.0	0.00%
Sr 407.771†	4164841.1	1.55 mg/L	0.039	1.55 mg/L	0.039	2.50%
Li 670.784†	5555.2	0.0322 mg/L	0.00097	0.0322 mg/L	0.00097	3.02%

Sequence No.: 4

Sample ID: L1204089803S WG396609-04

Analyst: KHR

Initial Sample Wt:

Dilution:

Sampler Location: 35

Date Collected: 5/8/2012 1:32:00 PM

Sample Type: Original

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: L1204089803S WG396609-04

Analyte Back Pressure Flow
All 155.0 kPa 0.50 L/min

Mean Data: L1204089803S WG396609-04

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2043188.2			5737.62	0.28%	
YRADIAL	293741.7			6616.94	2.25%	
Ga 417.206	1364401.1			35804.76	2.62%	
GaRADIAL	92014.0			2749.35	2.99%	
Ag 328.068†	62036.2	0.199 mg/L	0.0072	0.199 mg/L	0.0072	3.61%
Al 396.153†	39460.8	5.24 mg/L	0.040	5.24 mg/L	0.040	0.77%
As 188.979†	549.9	0.193 mg/L	0.0037	0.193 mg/L	0.0037	1.93%
Ba 233.527†	93828.9	0.596 mg/L	0.0030	0.596 mg/L	0.0030	0.51%
Be 234.861†	30301.0	0.0238 mg/L	0.00087	0.0238 mg/L	0.00087	3.67%
B 249.677†	96944.7	1.14 mg/L	0.044	1.14 mg/L	0.044	3.88%
Ca 227.546†	78659.3	167 mg/L	6.1	167 mg/L	6.1	3.65%
Cd 228.802†	2597.0	0.0462 mg/L	0.00159	0.0462 mg/L	0.00159	3.44%
Co 228.616†	3842.7	0.0984 mg/L	0.00051	0.0984 mg/L	0.00051	0.52%
Cr 267.716†	28040.5	0.255 mg/L	0.0028	0.255 mg/L	0.0028	1.09%
Cu 327.393†	70435.8	0.262 mg/L	0.0096	0.262 mg/L	0.0096	3.67%
Fe 239.562†	32627.8	2.04 mg/L	0.031	2.04 mg/L	0.031	1.52%
Mg 279.077†	184602.3	52.0 mg/L	0.58	52.0 mg/L	0.58	1.12%
Mn 257.610†	240814.4	0.284 mg/L	0.0015	0.284 mg/L	0.0015	0.54%
Mo 202.031†	19328.1	0.520 mg/L	0.0050	0.520 mg/L	0.0050	0.96%
Ni 231.604†	17696.9	0.258 mg/L	0.0013	0.258 mg/L	0.0013	0.50%
Pb 220.353†	2755.0	0.249 mg/L	0.0010	0.249 mg/L	0.0010	0.38%
Sb 206.836†	2422.3	0.584 mg/L	0.0156	0.584 mg/L	0.0156	2.67%
Se 196.026†	373.2	0.211 mg/L	0.0066	0.211 mg/L	0.0066	3.11%
Si 251.611†	345800.9	8.27 mg/L	0.253	8.27 mg/L	0.253	3.05%
Sn 189.927†	5336.5	0.508 mg/L	0.0044	0.508 mg/L	0.0044	0.87%
Ti 334.940†	496609.0	0.518 mg/L	0.0014	0.518 mg/L	0.0014	0.27%
Tl 190.801†	915.5	0.241 mg/L	0.0021	0.241 mg/L	0.0021	0.87%
V 290.880†	105082.2	0.537 mg/L	0.0059	0.537 mg/L	0.0059	1.10%
Zn 206.200†	53935.5	1.28 mg/L	0.007	1.28 mg/L	0.007	0.52%
K 766.490†	129072.3	38.2 mg/L	0.24	38.2 mg/L	0.24	0.64%
Na 589.592†	7452152.9	536 mg/L	0.0	536 mg/L	0.0	0.00%

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Sr 407.771†	5618146.7	2.10 mg/L	0.052	2.10 mg/L	0.052	2.47%
Li 670.784†	89247.5	0.573 mg/L	0.0045	0.573 mg/L	0.0045	0.79%

Sequence No.: 5 u&osampler Location: 36
 Sample ID: L1204089803SD WG396609-05 a&e Collected: 5/8/2012 1:38:05 PM
 Analyst: KHR a&a Type: Original
 Initial Sample Wt: n&i&tial Sample Vol:
 Dilution: a&mple Prep Vol:

Nebulizer Parameters: L1204089803SD WG396609-05
 Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: L1204089803SD WG396609-05

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2037421.4					28810.52	1.41%
YRADIAL	295806.6					2913.09	0.98%
Ga 417.206	1354048.5					19352.66	1.43%
GaRADIAL	91646.1					1072.23	1.17%
Ag 328.068†	62152.3	0.199 mg/L		0.0031	0.199 mg/L	0.0031	1.53%
Al 396.153†	39284.7	5.22 mg/L		0.017	5.22 mg/L	0.017	0.32%
As 188.979†	550.3	0.193 mg/L		0.0028	0.193 mg/L	0.0028	1.44%
Ba 233.527†	92772.1	0.589 mg/L		0.0143	0.589 mg/L	0.0143	2.43%
Be 234.861†	30234.9	0.0238 mg/L		0.00035	0.0238 mg/L	0.00035	1.48%
B 249.677†	96726.6	1.14 mg/L		0.021	1.14 mg/L	0.021	1.86%
Ca 227.546†	76222.8	162 mg/L		3.8	162 mg/L	3.8	2.34%
Cd 228.802†	2561.8	0.0456 mg/L		0.00094	0.0456 mg/L	0.00094	2.07%
Co 228.616†	3848.8	0.0985 mg/L		0.00186	0.0985 mg/L	0.00186	1.89%
Cr 267.716†	27693.3	0.252 mg/L		0.0039	0.252 mg/L	0.0039	1.54%
Cu 327.393†	70837.1	0.264 mg/L		0.0051	0.264 mg/L	0.0051	1.94%
Fe 239.562†	32263.0	2.01 mg/L		0.024	2.01 mg/L	0.024	1.22%
Mg 279.077†	177054.7	49.8 mg/L		0.51	49.8 mg/L	0.51	1.03%
Mn 257.610†	238429.4	0.281 mg/L		0.0070	0.281 mg/L	0.0070	2.50%
Mo 202.031†	19163.7	0.516 mg/L		0.0065	0.516 mg/L	0.0065	1.26%
Ni 231.604†	17715.6	0.258 mg/L		0.0042	0.258 mg/L	0.0042	1.61%
Pb 220.353†	2746.3	0.248 mg/L		0.0028	0.248 mg/L	0.0028	1.13%
Sb 206.836†	2436.3	0.587 mg/L		0.0108	0.587 mg/L	0.0108	1.84%
Se 196.026†	374.9	0.212 mg/L		0.0065	0.212 mg/L	0.0065	3.06%
Si 251.611†	337276.4	8.07 mg/L		0.101	8.07 mg/L	0.101	1.25%
Sn 189.927†	5389.8	0.513 mg/L		0.0103	0.513 mg/L	0.0103	2.00%
Ti 334.940†	499319.5	0.520 mg/L		0.0031	0.520 mg/L	0.0031	0.60%
Tl 190.801†	920.1	0.242 mg/L		0.0015	0.242 mg/L	0.0015	0.62%
V 290.880†	105035.1	0.536 mg/L		0.0064	0.536 mg/L	0.0064	1.19%
Zn 206.200†	52257.6	1.24 mg/L		0.028	1.24 mg/L	0.028	2.26%
K 766.490†	128048.1	37.9 mg/L		0.57	37.9 mg/L	0.57	1.51%
Na 589.592†	7264064.2	536 mg/L		0.0	536 mg/L	0.0	0.00%
Sr 407.771†	5428325.3	2.03 mg/L		0.025	2.03 mg/L	0.025	1.23%
Li 670.784†	89990.3	0.578 mg/L		0.0125	0.578 mg/L	0.0125	2.16%

Sequence No.: 6 u&osampler Location: 37
 Sample ID: L1204089804 a&e Collected: 5/8/2012 1:44:07 PM
 Analyst: KHR a&a Type: Original
 Initial Sample Wt: n&i&tial Sample Vol:
 Dilution: a&mple Prep Vol:

Nebulizer Parameters: L1204089804
 Analyte Back Pressure Flow
 All 155.0 kPa 0.50 L/min

Mean Data: L1204089804

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2050728.1					29050.47	1.42%
YRADIAL	302105.6					4668.30	1.55%
Ga 417.206	1465159.8					9889.48	0.67%

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GarADIAL	95648.7					1733.44	1.81%
Ag 328.068†	579.9	0.00133	mg/L	0.000484	0.00133	mg/L	0.000484 36.40%
Al 396.153†	-4.9	-0.0340	mg/L	0.00116	-0.0340	mg/L	0.00116 3.42%
As 188.979†	9.4	0.00332	mg/L	0.002234	0.00332	mg/L	0.002234 67.37%
Ba 233.527†	16588.0	0.103	mg/L	0.0012	0.103	mg/L	0.0012 1.14%
Be 234.861†	300.4	0.00031	mg/L	0.000004	0.00031	mg/L	0.000004 1.40%
B 249.677†	13822.9	0.164	mg/L	0.0013	0.164	mg/L	0.0013 0.82%
Ca 227.546†	63636.5	135	mg/L	1.8	135	mg/L	1.8 1.34%
Cd 228.802†	5.1	0.00027	mg/L	0.000055	0.00027	mg/L	0.000055 20.45%
Co 228.616†	9.6	-0.00043	mg/L	0.000264	-0.00043	mg/L	0.000264 60.95%
Cr 267.716†	443.0	0.00208	mg/L	0.000223	0.00208	mg/L	0.000223 10.69%
Cu 327.393†	-218.6	-0.00128	mg/L	0.000620	-0.00128	mg/L	0.000620 48.56%
Fe 239.562†	2056.1	0.118	mg/L	0.0010	0.118	mg/L	0.0010 0.87%
Mg 279.077†	171187.1	48.2	mg/L	0.62	48.2	mg/L	0.62 1.29%
Mn 257.610†	45506.1	0.0513	mg/L	0.00076	0.0513	mg/L	0.00076 1.49%
Mo 202.031†	249.8	0.00466	mg/L	0.000259	0.00466	mg/L	0.000259 5.56%
Ni 231.604†	347.1	0.00308	mg/L	0.000199	0.00308	mg/L	0.000199 6.45%
Pb 220.353†	2.0	0.00001	mg/L	0.001273	0.00001	mg/L	0.001273 >999.9%
Sb 206.836†	-0.9	0.00085	mg/L	0.001277	0.00085	mg/L	0.001277 149.85%
Se 196.026†	14.1	0.0109	mg/L	0.00074	0.0109	mg/L	0.00074 6.77%
Si 251.611†	242688.3	5.81	mg/L	0.027	5.81	mg/L	0.027 0.47%
Sn 189.927†	-351.6	-0.0372	mg/L	0.00056	-0.0372	mg/L	0.00056 1.51%
Ti 334.940†	-27499.4	-0.00894	mg/L	0.001104	-0.00894	mg/L	0.001104 12.36%
Tl 190.801†	-43.3	-0.0136	mg/L	0.00349	-0.0136	mg/L	0.00349 25.65%
V 290.880†	3460.8	0.0115	mg/L	0.00249	0.0115	mg/L	0.00249 21.60%
Zn 206.200†	128.7	0.00098	mg/L	0.000173	0.00098	mg/L	0.000173 17.79%
K 766.490†	45222.0	12.9	mg/L	0.05	12.9	mg/L	0.05 0.42%
Na 589.592†	6802141.9	536	mg/L	0.0	536	mg/L	0.0 0.00%
Sr 407.771†	5330677.1	1.99	mg/L	0.036	1.99	mg/L	0.036 1.82%
Li 670.784†	5128.8	0.0294	mg/L	0.00064	0.0294	mg/L	0.00064 2.17%

Sequence No.: 7

Sample ID: L1204089805

Analyst: KHR

Initial Sample Wt:

Dilution:

uakosampler Location: 38

ame Collected: 5/8/2012 1:51:10 PM

ama Type: Original

nitial Sample Vol:

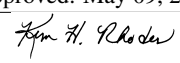
ample Prep Vol:

Nebulizer Parameters: L1204089805

Analyte	Back Pressure	Flow
All	155.0 kPa	0.50 L/min

Mean Data: L1204089805

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Std.Dev.	RSD
Y 371.029	1884506.9					11399.98	0.60%
YRADIAL	284024.9					2869.43	1.01%
Ga 417.206	1387381.8					10018.65	0.72%
GarADIAL	92787.9					2117.62	2.28%
Ag 328.068†	947.9	0.00271	mg/L	0.000183	0.00271	mg/L	0.000183 6.75%
Al 396.153†	137.6	-0.0149	mg/L	0.00138	-0.0149	mg/L	0.00138 9.26%
As 188.979†	114.0	0.0405	mg/L	0.00198	0.0405	mg/L	0.00198 4.89%
Ba 233.527†	13291.4	0.0816	mg/L	0.00043	0.0816	mg/L	0.00043 0.53%
Be 234.861†	283.7	0.00031	mg/L	0.000017	0.00031	mg/L	0.000017 5.51%
B 249.677†	14641.3	0.174	mg/L	0.0020	0.174	mg/L	0.0020 1.16%
Ca 227.546†	99900.0	212	mg/L	2.0	212	mg/L	2.0 0.93%
Cd 228.802†	28.9	0.00051	mg/L	0.000106	0.00051	mg/L	0.000106 20.92%
Co 228.616†	15.4	-0.00040	mg/L	0.000373	-0.00040	mg/L	0.000373 94.25%
Cr 267.716†	1586.8	0.0126	mg/L	0.00011	0.0126	mg/L	0.00011 0.85%
Cu 327.393†	-337.6	-0.00165	mg/L	0.000219	-0.00165	mg/L	0.000219 13.24%
Fe 239.562†	1294.2	0.0706	mg/L	0.00065	0.0706	mg/L	0.00065 0.92%
Mg 279.077†	61864.8	17.4	mg/L	0.16	17.4	mg/L	0.16 0.92%
Mn 257.610†	74733.1	0.0860	mg/L	0.00045	0.0860	mg/L	0.00045 0.53%
Mo 202.031†	307.8	0.00625	mg/L	0.000203	0.00625	mg/L	0.000203 3.25%
Ni 231.604†	333.7	0.00289	mg/L	0.000153	0.00289	mg/L	0.000153 5.29%
Pb 220.353†	3.9	0.00079	mg/L	0.000937	0.00079	mg/L	0.000937 118.17%
Sb 206.836†	-8.0	-0.00088	mg/L	0.000545	-0.00088	mg/L	0.000545 61.68%
Se 196.026†	-6.5	-0.00052	mg/L	0.003987	-0.00052	mg/L	0.003987 768.90%
Si 251.611†	753118.2	18.0	mg/L	0.06	18.0	mg/L	0.06 0.33%
Sn 189.927†	-408.5	-0.0426	mg/L	0.00068	-0.0426	mg/L	0.00068 1.59%

Approved: May 09, 2012


Ti 334.940†	30991.5	0.0609 mg/L	0.00141	0.0609 mg/L	0.00141	2.31%
Tl 190.801†	-67.6	-0.0191 mg/L	0.00142	-0.0191 mg/L	0.00142	7.39%
V 290.880†	8941.8	0.0407 mg/L	0.00091	0.0407 mg/L	0.00091	2.24%
Zn 206.200†	57.0	-0.00064 mg/L	0.000204	-0.00064 mg/L	0.000204	31.99%
K 766.490†	35041.7	10.4 mg/L	0.05	10.4 mg/L	0.05	0.49%
Na 589.592†	Saturated2					
Sr 407.771†	2924518.0	1.09 mg/L	0.012	1.09 mg/L	0.012	1.10%
Li 670.784†	7367.2	0.0439 mg/L	0.00166	0.0439 mg/L	0.00166	3.77%

Sequence No.: 8
 Sample ID: L1204089806
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 39
 a&e Collected: 5/8/2012 1:58:09 PM
 a&a Type: Original
 n&tial Sample Vol:
 a&ple Prep Vol:

Nebulizer Parameters: L1204089806
 Analyte Back Pressure Flow
 All 155.0 kPa 0.50 L/min

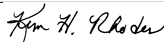
Mean Data: L1204089806

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1889191.4				14963.29	0.79%
YRADIAL	284104.1				4384.38	1.54%
Ga 417.206	1398634.1				17246.32	1.23%
GaRADIAL	92379.9				3070.15	3.32%
Ag 328.068†	785.7	0.00217 mg/L	0.000133	0.00217 mg/L	0.000133	6.13%
Al 396.153†	14.9	-0.0314 mg/L	0.00110	-0.0314 mg/L	0.00110	3.50%
As 188.979†	115.3	0.0409 mg/L	0.00256	0.0409 mg/L	0.00256	6.26%
Ba 233.527†	13522.7	0.0830 mg/L	0.00075	0.0830 mg/L	0.00075	0.91%
Be 234.861†	304.4	0.00034 mg/L	0.000015	0.00034 mg/L	0.000015	4.33%
B 249.677†	14699.9	0.174 mg/L	0.0025	0.174 mg/L	0.0025	1.43%
Ca 227.546†	101110.5	215 mg/L	2.2	215 mg/L	2.2	1.02%
Cd 228.802†	30.1	0.00053 mg/L	0.000229	0.00053 mg/L	0.000229	43.42%
Co 228.616†	10.4	-0.00046 mg/L	0.000200	-0.00046 mg/L	0.000200	43.25%
Cr 267.716†	1279.0	0.00976 mg/L	0.000211	0.00976 mg/L	0.000211	2.16%
Cu 327.393†	-442.0	-0.00208 mg/L	0.000499	-0.00208 mg/L	0.000499	24.05%
Fe 239.562†	646.2	0.0299 mg/L	0.00032	0.0299 mg/L	0.00032	1.06%
Mg 279.077†	62245.8	17.5 mg/L	0.13	17.5 mg/L	0.13	0.72%
Mn 257.610†	76653.2	0.0883 mg/L	0.00103	0.0883 mg/L	0.00103	1.16%
Mo 202.031†	295.3	0.00591 mg/L	0.000237	0.00591 mg/L	0.000237	4.01%
Ni 231.604†	328.0	0.00280 mg/L	0.000101	0.00280 mg/L	0.000101	3.61%
Pb 220.353†	-16.6	-0.00104 mg/L	0.001770	-0.00104 mg/L	0.001770	170.60%
Sb 206.836†	-5.5	-0.00028 mg/L	0.000716	-0.00028 mg/L	0.000716	254.71%
Se 196.026†	-0.2	0.00297 mg/L	0.002216	0.00297 mg/L	0.002216	74.58%
Si 251.611†	772043.3	18.5 mg/L	0.29	18.5 mg/L	0.29	1.57%
Sn 189.927†	-405.5	-0.0423 mg/L	0.00071	-0.0423 mg/L	0.00071	1.67%
Ti 334.940†	2239.7	0.0326 mg/L	0.00153	0.0326 mg/L	0.00153	4.69%
Tl 190.801†	-54.7	-0.0162 mg/L	0.00227	-0.0162 mg/L	0.00227	14.01%
V 290.880†	7915.6	0.0354 mg/L	0.00261	0.0354 mg/L	0.00261	7.38%
Zn 206.200†	57.4	-0.00065 mg/L	0.000120	-0.00065 mg/L	0.000120	18.39%
K 766.490†	35531.7	10.5 mg/L	0.09	10.5 mg/L	0.09	0.87%
Na 589.592†	Saturated2					
Sr 407.771†	2917271.6	1.08 mg/L	0.024	1.08 mg/L	0.024	2.26%
Li 670.784†	7482.4	0.0446 mg/L	0.00206	0.0446 mg/L	0.00206	4.60%

Sequence No.: 9
 Sample ID: L1204089806PS WG396721-03
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 40
 a&e Collected: 5/8/2012 2:05:08 PM
 a&a Type: Original
 n&tial Sample Vol:
 a&ple Prep Vol:

Nebulizer Parameters: L1204089806PS WG396721-03
 Analyte Back Pressure Flow
 All 155.0 kPa 0.50 L/min

Approved: May 09, 2012


Mean Data: L1204089806PS WG396721-03

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1926273.0				15352.40	0.80%
YRADIAL	290133.8				4798.72	1.65%
Ga 417.206	1317089.9				36467.91	2.77%
GarADIAL	89871.4				1452.91	1.62%
Ag 328.068†	63411.0	0.203 mg/L	0.0080	0.203 mg/L	0.0080	3.95%
Al 396.153†	37902.5	5.03 mg/L	0.020	5.03 mg/L	0.020	0.39%
As 188.979†	651.5	0.229 mg/L	0.0067	0.229 mg/L	0.0067	2.92%
Ba 233.527†	89789.7	0.570 mg/L	0.0018	0.570 mg/L	0.0018	0.32%
Be 234.861†	30596.6	0.0241 mg/L	0.00087	0.0241 mg/L	0.00087	3.62%
B 249.677†	96700.8	1.14 mg/L	0.045	1.14 mg/L	0.045	3.98%
Ca 227.546†	100415.3	213 mg/L	8.3	213 mg/L	8.3	3.88%
Cd 228.802†	1364.3	0.0238 mg/L	0.00136	0.0238 mg/L	0.00136	5.71%
Co 228.616†	3694.6	0.0945 mg/L	0.00092	0.0945 mg/L	0.00092	0.97%
Cr 267.716†	27783.1	0.253 mg/L	0.0025	0.253 mg/L	0.0025	0.98%
Cu 327.393†	66424.7	0.247 mg/L	0.0082	0.247 mg/L	0.0082	3.30%
Fe 239.562†	30885.1	1.93 mg/L	0.019	1.93 mg/L	0.019	0.99%
Mg 279.077†	73508.7	20.7 mg/L	0.16	20.7 mg/L	0.16	0.75%
Mn 257.610†	279189.9	0.330 mg/L	0.0016	0.330 mg/L	0.0016	0.47%
Mo 202.031†	18713.7	0.504 mg/L	0.0029	0.504 mg/L	0.0029	0.57%
Ni 231.604†	17115.2	0.250 mg/L	0.0010	0.250 mg/L	0.0010	0.39%
Pb 220.353†	2585.8	0.234 mg/L	0.0026	0.234 mg/L	0.0026	1.10%
Sb 206.836†	2384.2	0.575 mg/L	0.0198	0.575 mg/L	0.0198	3.45%
Se 196.026†	348.4	0.197 mg/L	0.0022	0.197 mg/L	0.0022	1.12%
Si 251.611†	851385.5	20.4 mg/L	0.54	20.4 mg/L	0.54	2.66%
Sn 189.927†	-430.9	-0.0448 mg/L	0.00363	-0.0448 mg/L	0.00363	8.12%
Ti 334.940†	520752.2	0.549 mg/L	0.0036	0.549 mg/L	0.0036	0.66%
Tl 190.801†	822.0	0.217 mg/L	0.0011	0.217 mg/L	0.0011	0.51%
V 290.880†	107306.4	0.549 mg/L	0.0065	0.549 mg/L	0.0065	1.19%
Zn 206.200†	20501.2	0.487 mg/L	0.0059	0.487 mg/L	0.0059	1.21%
K 766.490†	115655.4	34.7 mg/L	0.34	34.7 mg/L	0.34	0.98%
Na 589.592†	Saturated2					
Sr 407.771†	3944361.1	1.47 mg/L	0.026	1.47 mg/L	0.026	1.76%
Li 670.784†	87369.7	0.561 mg/L	0.0030	0.561 mg/L	0.0030	0.53%

Sequence No.: 10

Sample ID: L1204089806DL WG396721-04

Analyst: KHR

Initial Sample Wt:

Dilution:

uSampler Location: 41

aM Collected: 5/8/2012 2:11:08 PM

aM Type: Original

nitial Sample Vol:

aMple Prep Vol:

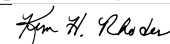
Nebulizer Parameters: L1204089806DL WG396721-04

Analyte	Back Pressure	Flow
All	155.0 kPa	0.50 L/min

Mean Data: L1204089806DL WG396721-04

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2110081.1				29680.84	1.41%
YRADIAL	293852.1				1812.90	0.62%
Ga 417.206	1415365.1				19301.48	1.36%
GarADIAL	92381.9				2092.19	2.26%
Ag 328.068†	245.6	0.00057 mg/L	0.000565	0.00057 mg/L	0.000565	99.56%
Al 396.153†	3.9	-0.0325 mg/L	0.00099	-0.0325 mg/L	0.00099	3.04%
As 188.979†	21.2	0.00751 mg/L	0.001942	0.00751 mg/L	0.001942	25.88%
Ba 233.527†	2747.9	0.0143 mg/L	0.00008	0.0143 mg/L	0.00008	0.56%
Be 234.861†	162.1	0.00022 mg/L	0.000012	0.00022 mg/L	0.000012	5.40%
B 249.677†	3677.5	0.0448 mg/L	0.00096	0.0448 mg/L	0.00096	2.14%
Ca 227.546†	19726.0	41.9 mg/L	0.82	41.9 mg/L	0.82	1.96%
Cd 228.802†	11.7	0.00036 mg/L	0.000087	0.00036 mg/L	0.000087	24.07%
Co 228.616†	-2.7	-0.00079 mg/L	0.000249	-0.00079 mg/L	0.000249	31.69%
Cr 267.716†	272.3	0.00051 mg/L	0.000019	0.00051 mg/L	0.000019	3.79%
Cu 327.393†	-152.3	-0.00101 mg/L	0.000318	-0.00101 mg/L	0.000318	31.57%
Fe 239.562†	127.0	-0.00246 mg/L	0.000081	-0.00246 mg/L	0.000081	3.29%
Mg 279.077†	13531.6	3.79 mg/L	0.033	3.79 mg/L	0.033	0.87%
Mn 257.610†	15890.6	0.0160 mg/L	0.00024	0.0160 mg/L	0.00024	1.50%
Mo 202.031†	91.3	0.00037 mg/L	0.000053	0.00037 mg/L	0.000053	14.44%

Approved: May 09, 2012



Ni 231.604†	62.3	-0.00111 mg/L	0.000182	-0.00111 mg/L	0.000182	16.45%
Pb 220.353†	-2.8	-0.00114 mg/L	0.000712	-0.00114 mg/L	0.000712	62.32%
Sb 206.836†	-0.0	0.00106 mg/L	0.001345	0.00106 mg/L	0.001345	126.43%
Se 196.026†	-0.6	0.00276 mg/L	0.001680	0.00276 mg/L	0.001680	60.95%
Si 251.611†	170510.1	4.08 mg/L	0.038	4.08 mg/L	0.038	0.94%
Sn 189.927†	-226.4	-0.0252 mg/L	0.00118	-0.0252 mg/L	0.00118	4.68%
Ti 334.940†	984.2	0.00547 mg/L	0.000440	0.00547 mg/L	0.000440	8.04%
Tl 190.801†	-22.5	-0.00788 mg/L	0.000518	-0.00788 mg/L	0.000518	6.57%
V 290.880†	3286.4	0.0118 mg/L	0.00037	0.0118 mg/L	0.00037	3.17%
Zn 206.200†	29.2	-0.00140 mg/L	0.000191	-0.00140 mg/L	0.000191	13.67%
K 766.490†	7407.4	1.62 mg/L	0.042	1.62 mg/L	0.042	2.59%
Na 589.592†	5739211.6	536 mg/L	0.0	536 mg/L	0.0	0.00%
Sr 407.771†	597951.1	0.218 mg/L	0.0042	0.218 mg/L	0.0042	1.93%
Li 670.784†	1640.3	0.00691 mg/L	0.000674	0.00691 mg/L	0.000674	9.75%

Sequence No.: 11
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

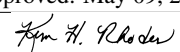
u&osampler Location: 6
 a&e Collected: 5/8/2012 2:18:08 PM
 a&a Type: Original
 n&ital Sample Vol:
 a&le Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	155.0 kPa	0.50 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2218090.6				31771.64	1.43%
YRADIAL	313655.6				3073.92	0.98%
Ga 417.206	1344500.5				36587.76	2.72%
GA RADIAL	93481.5				573.20	0.61%
Ag 328.068†	125821.2	0.404 mg/L	0.0094	0.404 mg/L	0.0094	2.31%
QC value within limits for Ag		328.068 Recovery = 101.06%				
Al 396.153†	75600.4	10.1 mg/L	0.03	10.1 mg/L	0.03	0.28%
QC value within limits for Al		396.153 Recovery = 100.72%				
As 188.979†	1117.3	0.392 mg/L	0.0096	0.392 mg/L	0.0096	2.45%
QC value within limits for As		188.979 Recovery = 98.05%				
Ba 233.527†	157385.7	1.00 mg/L	0.028	1.00 mg/L	0.028	2.81%
QC value within limits for Ba		233.527 Recovery = 100.14%				
Be 234.861†	62295.7	0.0489 mg/L	0.00107	0.0489 mg/L	0.00107	2.19%
QC value within limits for Be		234.861 Recovery = 97.85%				
B 249.677†	43197.7	0.506 mg/L	0.0153	0.506 mg/L	0.0153	3.02%
QC value within limits for B		249.677 Recovery = 101.10%				
Ca 227.546†	4738.9	10.6 mg/L	0.35	10.6 mg/L	0.35	3.33%
QC value within limits for Ca		227.546 Recovery = 105.66%				
Cd 228.802†	2756.4	0.0484 mg/L	0.00220	0.0484 mg/L	0.00220	4.54%
QC value within limits for Cd		228.802 Recovery = 96.71%				
Co 228.616†	7756.8	0.199 mg/L	0.0034	0.199 mg/L	0.0034	1.69%
QC value within limits for Co		228.616 Recovery = 99.65%				
Cr 267.716†	54711.8	0.500 mg/L	0.0110	0.500 mg/L	0.0110	2.21%
QC value within limits for Cr		267.716 Recovery = 100.04%				
Cu 327.393†	138613.5	0.517 mg/L	0.0136	0.517 mg/L	0.0136	2.62%
QC value within limits for Cu		327.393 Recovery = 103.36%				
Fe 239.562†	62746.7	3.93 mg/L	0.025	3.93 mg/L	0.025	0.63%
QC value within limits for Fe		239.562 Recovery = 98.24%				
Mg 279.077†	34826.5	9.80 mg/L	0.059	9.80 mg/L	0.059	0.60%
QC value within limits for Mg		279.077 Recovery = 97.99%				
Mn 257.610†	431436.0	0.511 mg/L	0.0142	0.511 mg/L	0.0142	2.77%
QC value within limits for Mn		257.610 Recovery = 102.24%				
Mo 202.031†	36993.7	0.998 mg/L	0.0234	0.998 mg/L	0.0234	2.34%
QC value within limits for Mo		202.031 Recovery = 99.78%				
Ni 231.604†	34322.6	0.502 mg/L	0.0134	0.502 mg/L	0.0134	2.68%
QC value within limits for Ni		231.604 Recovery = 100.49%				
Pb 220.353†	5634.7	0.507 mg/L	0.0070	0.507 mg/L	0.0070	1.39%
QC value within limits for Pb		220.353 Recovery = 101.48%				
Sb 206.836†	5032.0	1.21 mg/L	0.038	1.21 mg/L	0.038	3.11%
QC value within limits for Sb		206.836 Recovery = 101.01%				
Se 196.026†	717.5	0.403 mg/L	0.0095	0.403 mg/L	0.0095	2.35%

Approved: May 09, 2012


Ni	231.604†	QC value within limits for Ni	231.604	Recovery = Not calculated					
			2.3	-0.00199 mg/L	0.000258	-0.00199 mg/L	0.000258	12.94%	
Pb	220.353†	QC value within limits for Pb	220.353	Recovery = Not calculated					
			-18.3	-0.00286 mg/L	0.000610	-0.00286 mg/L	0.000610	21.32%	
Sb	206.836†	QC value within limits for Sb	206.836	Recovery = Not calculated					
			2.2	0.00161 mg/L	0.000472	0.00161 mg/L	0.000472	29.36%	
Se	196.026†	QC value within limits for Se	196.026	Recovery = Not calculated					
			-0.5	0.00277 mg/L	0.001506	0.00277 mg/L	0.001506	54.44%	
Si	251.611†	QC value within limits for Si	251.611	Recovery = Not calculated					
			505.4	0.00584 mg/L	0.001589	0.00584 mg/L	0.001589	27.23%	
Sn	189.927†	QC value within limits for Sn	189.927	Recovery = Not calculated					
			9.4	-0.00254 mg/L	0.000366	-0.00254 mg/L	0.000366	14.39%	
Ti	334.940†	QC value within limits for Ti	334.940	Recovery = Not calculated					
			137.7	-0.00165 mg/L	0.000187	-0.00165 mg/L	0.000187	11.30%	
Tl	190.801†	QC value within limits for Tl	190.801	Recovery = Not calculated					
			-7.0	-0.00392 mg/L	0.001937	-0.00392 mg/L	0.001937	49.43%	
V	290.880†	QC value within limits for V	290.880	Recovery = Not calculated					
			988.6	0.00000 mg/L	0.001615	0.00000 mg/L	0.001615	>999.9%	
Zn	206.200†	QC value within limits for Zn	206.200	Recovery = Not calculated					
			-31.7	-0.00287 mg/L	0.000105	-0.00287 mg/L	0.000105	3.67%	
K	766.490†	QC value within limits for K	766.490	Recovery = Not calculated					
			154.3	0.00384 mg/L	0.020255	0.00384 mg/L	0.020255	527.47%	
Na	589.592†	QC value within limits for Na	589.592	Recovery = Not calculated					
			846.6	0.0630 mg/L	0.00590	0.0630 mg/L	0.00590	9.37%	
Sr	407.771†	QC value within limits for Sr	407.771	Recovery = Not calculated					
			174.7	-0.00590 mg/L	0.000030	-0.00590 mg/L	0.000030	0.51%	
Li	670.784†	QC value within limits for Li	670.784	Recovery = Not calculated					
			14.2	-0.00359 mg/L	0.000423	-0.00359 mg/L	0.000423	11.79%	

All analyte(s) passed QC.

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Sequence No.: 13                               autosampler Location: 42
Sample ID: L1204089808                         Date Collected: 5/8/2012 2:31:02 PM
Analyst: KHR                                   Sample Type: Original
Initial Sample Wt:                             Initial Sample Vol:
Dilution:                                     Sample Prep Vol:
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Nebulizer Parameters: L1204089808
Analyte          Back Pressure  Flow
All              155.0 kPa      0.50 L/min
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Mean Data: L1204089808
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Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2061670.9				18672.26	0.91%
YRADIAL	296340.5				1396.42	0.47%
Ga 417.206	1372021.8				49663.97	3.62%
GaRADIAL	93368.4				82.80	0.09%
Ag 328.068†	460.1	0.00136 mg/L	0.000704	0.00136 mg/L	0.000704	51.66%
Al 396.153†	652.4	0.0548 mg/L	0.00831	0.0548 mg/L	0.00831	15.16%
As 188.979†	10.2	0.00366 mg/L	0.001974	0.00366 mg/L	0.001974	53.97%
Ba 233.527†	6851.1	0.0404 mg/L	0.00025	0.0404 mg/L	0.00025	0.62%
Be 234.861†	462.6	0.00036 mg/L	0.000015	0.00036 mg/L	0.000015	4.27%
B 249.677†	12328.8	0.146 mg/L	0.0076	0.146 mg/L	0.0076	5.20%
Ca 227.546†	38460.1	81.7 mg/L	3.98	81.7 mg/L	3.98	4.88%
Cd 228.802†	32.7	0.00076 mg/L	0.000150	0.00076 mg/L	0.000150	19.74%
Co 228.616†	16.1	-0.00041 mg/L	0.000286	-0.00041 mg/L	0.000286	69.07%
Cr 267.716†	994.1	0.00715 mg/L	0.000140	0.00715 mg/L	0.000140	1.96%
Cu 327.393†	89.4	-0.00002 mg/L	0.000316	-0.00002 mg/L	0.000316	>999.9%
Fe 239.562†	8091.6	0.498 mg/L	0.0076	0.498 mg/L	0.0076	1.53%
Mg 279.077†	52593.0	14.8 mg/L	0.21	14.8 mg/L	0.21	1.45%
Mn 257.610†	94318.3	0.109 mg/L	0.0022	0.109 mg/L	0.0022	1.99%
Mo 202.031†	117.8	0.00113 mg/L	0.000218	0.00113 mg/L	0.000218	19.26%
Ni 231.604†	141.5	0.00006 mg/L	0.000465	0.00006 mg/L	0.000465	810.48%
Pb 220.353†	-6.0	-0.00119 mg/L	0.001452	-0.00119 mg/L	0.001452	121.54%
Sb 206.836†	-6.8	-0.00060 mg/L	0.001912	-0.00060 mg/L	0.001912	316.54%
Se 196.026†	-5.6	0.00010 mg/L	0.002329	0.00010 mg/L	0.002329	>999.9%
Si 251.611†	409218.4	9.80 mg/L	0.320	9.80 mg/L	0.320	3.27%
Sn 189.927†	-313.2	-0.0335 mg/L	0.00186	-0.0335 mg/L	0.00186	5.55%

Approved: May 09, 2012

John H. Rhodes

Ti 334.940†	43319.0	0.0536 mg/L	0.00142	0.0536 mg/L	0.00142	2.65%
Tl 190.801†	-14.1	-0.00528 mg/L	0.002443	-0.00528 mg/L	0.002443	46.29%
V 290.880†	5701.6	0.0239 mg/L	0.00208	0.0239 mg/L	0.00208	8.69%
Zn 206.200†	271.1	0.00439 mg/L	0.000299	0.00439 mg/L	0.000299	6.82%
K 766.490†	27391.9	8.10 mg/L	0.144	8.10 mg/L	0.144	1.78%
Na 589.592†	Saturated2					
Sr 407.771†	2232517.8	0.830 mg/L	0.0043	0.830 mg/L	0.0043	0.52%
Li 670.784†	2779.3	0.0143 mg/L	0.00025	0.0143 mg/L	0.00025	1.74%

Sequence No.: 14
 Sample ID: L1204089809
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

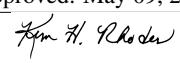
u&osampler Location: 43
 Date Collected: 5/8/2012 2:37:02 PM
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Nebulizer Parameters: L1204089809
 Analyte Back Pressure Flow
 All 155.0 kPa 0.50 L/min

Mean Data: L1204089809

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2040850.7				28522.73	1.40%
YRADIAL	297527.7				3700.99	1.24%
Ga 417.206	1355396.4				19216.49	1.42%
GaRADIAL	93054.7				693.59	0.75%
Ag 328.068†	507.6	0.00147 mg/L	0.000219	0.00147 mg/L	0.000219	14.93%
Al 396.153†	147.3	-0.0132 mg/L	0.00825	-0.0132 mg/L	0.00825	62.47%
As 188.979†	10.7	0.00384 mg/L	0.003190	0.00384 mg/L	0.003190	83.07%
Ba 233.527†	7222.9	0.0428 mg/L	0.00138	0.0428 mg/L	0.00138	3.23%
Be 234.861†	530.2	0.00043 mg/L	0.000117	0.00043 mg/L	0.000117	27.17%
B 249.677†	12645.2	0.150 mg/L	0.0034	0.150 mg/L	0.0034	2.25%
Ca 227.546†	41495.9	88.1 mg/L	2.44	88.1 mg/L	2.44	2.77%
Cd 228.802†	27.9	0.00067 mg/L	0.000300	0.00067 mg/L	0.000300	44.53%
Co 228.616†	23.7	-0.00014 mg/L	0.000337	-0.00014 mg/L	0.000337	241.64%
Cr 267.716†	634.4	0.00385 mg/L	0.000118	0.00385 mg/L	0.000118	3.07%
Cu 327.393†	-57.8	-0.00061 mg/L	0.000272	-0.00061 mg/L	0.000272	44.54%
Fe 239.562†	6704.1	0.410 mg/L	0.0091	0.410 mg/L	0.0091	2.22%
Mg 279.077†	55173.1	15.5 mg/L	0.18	15.5 mg/L	0.18	1.18%
Mn 257.610†	102458.3	0.119 mg/L	0.0022	0.119 mg/L	0.0022	1.84%
Mo 202.031†	122.7	0.00126 mg/L	0.000109	0.00126 mg/L	0.000109	8.67%
Ni 231.604†	91.6	-0.00068 mg/L	0.000523	-0.00068 mg/L	0.000523	77.45%
Pb 220.353†	-22.7	-0.00266 mg/L	0.002011	-0.00266 mg/L	0.002011	75.63%
Sb 206.836†	-5.1	-0.00016 mg/L	0.000923	-0.00016 mg/L	0.000923	585.72%
Se 196.026†	-0.8	0.00269 mg/L	0.001748	0.00269 mg/L	0.001748	64.97%
Si 251.611†	409807.4	9.81 mg/L	0.163	9.81 mg/L	0.163	1.66%
Sn 189.927†	-329.9	-0.0351 mg/L	0.00068	-0.0351 mg/L	0.00068	1.95%
Ti 334.940†	8943.0	0.0203 mg/L	0.00124	0.0203 mg/L	0.00124	6.08%
Tl 190.801†	-33.5	-0.0107 mg/L	0.00195	-0.0107 mg/L	0.00195	18.22%
V 290.880†	5295.6	0.0218 mg/L	0.00077	0.0218 mg/L	0.00077	3.55%
Zn 206.200†	17.3	-0.00166 mg/L	0.000381	-0.00166 mg/L	0.000381	22.88%
K 766.490†	28600.6	8.46 mg/L	0.074	8.46 mg/L	0.074	0.87%
Na 589.592†	Saturated2					
Sr 407.771†	2252998.8	0.838 mg/L	0.0060	0.838 mg/L	0.0060	0.71%
Li 670.784†	3065.4	0.0161 mg/L	0.00015	0.0161 mg/L	0.00015	0.92%

User canceled analysis.

Approved: May 09, 2012


Analyte Back Pressure Flow
All 155.0 kPa 0.50 L/min

Mean Data: L1204089811

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li with their respective values.

Sequence No.: 3

Sample ID: L1204089812

Analyst: KHR

Initial Sample Wt:

Dilution:

autosampler Location: 46

Time Collected: 5/8/2012 2:56:48 PM

Sample Type: Original

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: L1204089812

Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: L1204089812

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu with their respective values.

Approved: May 09, 2012
[Signature]

Fe 239.562†	7004.2	0.429 mg/L	0.0083	0.429 mg/L	0.0083	1.92%
Mg 279.077†	51999.7	14.6 mg/L	0.15	14.6 mg/L	0.15	1.02%
Mn 257.610†	94531.0	0.110 mg/L	0.0005	0.110 mg/L	0.0005	0.42%
Mo 202.031†	121.1	0.00122 mg/L	0.000186	0.00122 mg/L	0.000186	15.27%
Ni 231.604†	121.0	-0.00024 mg/L	0.000584	-0.00024 mg/L	0.000584	240.68%
Pb 220.353†	-8.7	-0.00143 mg/L	0.001753	-0.00143 mg/L	0.001753	122.43%
Sb 206.836†	-4.9	-0.00013 mg/L	0.001161	-0.00013 mg/L	0.001161	861.86%
Se 196.026†	2.2	0.00440 mg/L	0.001375	0.00440 mg/L	0.001375	31.23%
Si 251.611†	405750.6	9.72 mg/L	0.256	9.72 mg/L	0.256	2.64%
Sn 189.927†	-312.3	-0.0334 mg/L	0.00078	-0.0334 mg/L	0.00078	2.34%
Ti 334.940†	35566.8	0.0460 mg/L	0.00168	0.0460 mg/L	0.00168	3.65%
Tl 190.801†	-29.5	-0.00935 mg/L	0.000690	-0.00935 mg/L	0.000690	7.38%
V 290.880†	5138.6	0.0210 mg/L	0.00223	0.0210 mg/L	0.00223	10.60%
Zn 206.200†	21.1	-0.00155 mg/L	0.000272	-0.00155 mg/L	0.000272	17.61%
K 766.490†	27253.9	8.06 mg/L	0.056	8.06 mg/L	0.056	0.70%
Na 589.592†	Saturated2					
Sr 407.771†	2099770.4	0.780 mg/L	0.0057	0.780 mg/L	0.0057	0.72%
Li 670.784†	2817.9	0.0145 mg/L	0.00045	0.0145 mg/L	0.00045	3.07%

Sequence No.: 4 u\osampler Location: 47
Sample ID: L1204089813 a\ne Collected: 5/8/2012 3:02:51 PM
Analyst: KHR a\ne Type: Original
Initial Sample Wt: n\tial Sample Vol:
Dilution: a\ne Prep Vol:

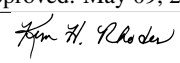
Nebulizer Parameters: L1204089813

Analyte	Back Pressure	Flow
All	154.0 kPa	0.50 L/min

Mean Data: L1204089813

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2059068.9					5019.24	0.24%
YRADIAL	293719.6					3237.73	1.10%
Ga 417.206	1364359.8					48653.36	3.57%
GaRADIAL	90675.4					868.97	0.96%
Ag 328.068†	574.7	0.00168 mg/L	0.000774	0.00168 mg/L	0.000774	45.94%	
Al 396.153†	131.4	-0.0154 mg/L	0.00166	-0.0154 mg/L	0.00166	10.80%	
As 188.979†	3.5	0.00129 mg/L	0.003031	0.00129 mg/L	0.003031	235.62%	
Ba 233.527†	7351.0	0.0436 mg/L	0.00024	0.0436 mg/L	0.00024	0.55%	
Be 234.861†	392.6	0.00032 mg/L	0.000040	0.00032 mg/L	0.000040	12.61%	
B 249.677†	12410.7	0.147 mg/L	0.0046	0.147 mg/L	0.0046	3.12%	
Ca 227.546†	41024.6	87.1 mg/L	3.99	87.1 mg/L	3.99	4.58%	
Cd 228.802†	37.3	0.00086 mg/L	0.000411	0.00086 mg/L	0.000411	48.02%	
Co 228.616†	24.9	-0.00010 mg/L	0.000149	-0.00010 mg/L	0.000149	148.63%	
Cr 267.716†	602.7	0.00356 mg/L	0.000108	0.00356 mg/L	0.000108	3.04%	
Cu 327.393†	-95.3	-0.00075 mg/L	0.000597	-0.00075 mg/L	0.000597	79.29%	
Fe 239.562†	6879.0	0.421 mg/L	0.0075	0.421 mg/L	0.0075	1.79%	
Mg 279.077†	56504.4	15.9 mg/L	0.17	15.9 mg/L	0.17	1.05%	
Mn 257.610†	102211.2	0.119 mg/L	0.0009	0.119 mg/L	0.0009	0.74%	
Mo 202.031†	121.9	0.00124 mg/L	0.000378	0.00124 mg/L	0.000378	30.49%	
Ni 231.604†	133.7	-0.00006 mg/L	0.000424	-0.00006 mg/L	0.000424	742.61%	
Pb 220.353†	-7.5	-0.00130 mg/L	0.000199	-0.00130 mg/L	0.000199	15.29%	
Sb 206.836†	-5.9	-0.00035 mg/L	0.001186	-0.00035 mg/L	0.001186	343.17%	
Se 196.026†	0.9	0.00366 mg/L	0.001523	0.00366 mg/L	0.001523	41.61%	
Si 251.611†	421409.4	10.1 mg/L	0.35	10.1 mg/L	0.35	3.45%	
Sn 189.927†	-328.6	-0.0350 mg/L	0.00070	-0.0350 mg/L	0.00070	2.02%	
Ti 334.940†	5554.3	0.0168 mg/L	0.00113	0.0168 mg/L	0.00113	6.72%	
Tl 190.801†	-26.3	-0.00891 mg/L	0.005407	-0.00891 mg/L	0.005407	60.69%	
V 290.880†	4843.8	0.0195 mg/L	0.00279	0.0195 mg/L	0.00279	14.36%	
Zn 206.200†	2.7	-0.00201 mg/L	0.000017	-0.00201 mg/L	0.000017	0.83%	
K 766.490†	29226.4	8.65 mg/L	0.143	8.65 mg/L	0.143	1.65%	
Na 589.592†	Saturated2						
Sr 407.771†	2233125.0	0.830 mg/L	0.0085	0.830 mg/L	0.0085	1.03%	
Li 670.784†	3089.1	0.0163 mg/L	0.00046	0.0163 mg/L	0.00046	2.86%	

Sequence No.: 5 u\osampler Location: 48
Sample ID: L1204089814 a\ne Collected: 5/8/2012 3:08:49 PM

Approved: May 09, 2012


Analyst: KHR
Initial Sample Wt:
Dilution:

ama Type: Original
nitial Sample Vol:
aample Prep Vol:

Nebulizer Parameters: L1204089814

Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: L1204089814

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li with their respective values.

Sequence No.: 6
Sample ID: L1204089803 WG396609-01
Analyst: KHR
Initial Sample Wt:
Dilution:

autosampler Location: 49
Time Collected: 5/8/2012 3:15:43 PM
ama Type: Original
nitial Sample Vol:
aample Prep Vol:

Nebulizer Parameters: L1204089803 WG396609-01

Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: L1204089803 WG396609-01

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, Ga, Ag, Al, As, Ba, Be with their respective values.

Approved: May 09, 2012
[Signature]

B 249.677†	463.3	0.00707	mg/L	0.000112	0.00707	mg/L	0.000112	1.58%
Ca 227.546†	738.8	1.62	mg/L	0.030	1.62	mg/L	0.030	1.84%
Cd 228.802†	8.1	0.00033	mg/L	0.000079	0.00033	mg/L	0.000079	23.63%
Co 228.616†	10.6	-0.00044	mg/L	0.000369	-0.00044	mg/L	0.000369	83.75%
Cr 267.716†	-20.6	-0.00218	mg/L	0.000090	-0.00218	mg/L	0.000090	4.13%
Cu 327.393†	-19.0	-0.00052	mg/L	0.000311	-0.00052	mg/L	0.000311	60.14%
Fe 239.562†	-24.2	-0.0119	mg/L	0.00009	-0.0119	mg/L	0.00009	0.75%
Mg 279.077†	1768.4	0.473	mg/L	0.0075	0.473	mg/L	0.0075	1.58%
Mn 257.610†	337.8	-0.00251	mg/L	0.000022	-0.00251	mg/L	0.000022	0.89%
Mo 202.031†	-3.2	-0.00219	mg/L	0.000263	-0.00219	mg/L	0.000263	11.99%
Ni 231.604†	-4.2	-0.00209	mg/L	0.000443	-0.00209	mg/L	0.000443	21.23%
Pb 220.353†	-8.2	-0.00194	mg/L	0.001648	-0.00194	mg/L	0.001648	84.84%
Sb 206.836†	-7.7	-0.00077	mg/L	0.001220	-0.00077	mg/L	0.001220	157.67%
Se 196.026†	-4.1	0.00078	mg/L	0.002509	0.00078	mg/L	0.002509	323.06%
Si 251.611†	3075.9	0.0674	mg/L	0.00045	0.0674	mg/L	0.00045	0.66%
Sn 189.927†	-83.7	-0.0115	mg/L	0.00074	-0.0115	mg/L	0.00074	6.46%
Ti 334.940†	-208.7	-0.00176	mg/L	0.000090	-0.00176	mg/L	0.000090	5.09%
Tl 190.801†	8.2	-0.00001	mg/L	0.003039	-0.00001	mg/L	0.003039	>999.9%
V 290.880†	1116.5	0.00065	mg/L	0.001370	0.00065	mg/L	0.001370	210.20%
Zn 206.200†	553.8	0.0110	mg/L	0.00036	0.0110	mg/L	0.00036	3.30%
K 766.490†	559.0	0.120	mg/L	0.0040	0.120	mg/L	0.0040	3.34%
Na 589.592†	75441.1	3.66	mg/L	0.046	3.66	mg/L	0.046	1.25%
Sr 407.771†	43505.0	0.0103	mg/L	0.00051	0.0103	mg/L	0.00051	4.89%
Li 670.784†	46.2	-0.00338	mg/L	0.000197	-0.00338	mg/L	0.000197	5.82%

Sequence No.: 7

Sample ID: L1204089803S WG396609-04

Analyst: KHR

Initial Sample Wt:

Dilution:

Sampler Location: 50

Date Collected: 5/8/2012 3:22:37 PM

Sample Type: Original

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: L1204089803S WG396609-04

Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: L1204089803S WG396609-04

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD	
Y 371.029	2301233.8					16373.66	0.71%	
YRADIAL	312629.5					6554.13	2.10%	
Ga 417.206	1431038.6					19956.30	1.39%	
GaRADIAL	94544.7					969.22	1.03%	
Ag 328.068†	704.2	0.00207	mg/L	0.000063	0.00207	mg/L	0.000063	3.06%
Al 396.153†	404.5	0.0212	mg/L	0.00086	0.0212	mg/L	0.00086	4.06%
As 188.979†	10.8	0.00382	mg/L	0.001865	0.00382	mg/L	0.001865	48.77%
Ba 233.527†	1063.1	0.00353	mg/L	0.000010	0.00353	mg/L	0.000010	0.29%
Be 234.861†	631.1	0.00059	mg/L	0.000023	0.00059	mg/L	0.000023	3.94%
B 249.677†	1292.2	0.0168	mg/L	0.00045	0.0168	mg/L	0.00045	2.70%
Ca 227.546†	727.8	1.60	mg/L	0.012	1.60	mg/L	0.012	0.73%
Cd 228.802†	24.7	0.00062	mg/L	0.000139	0.00062	mg/L	0.000139	22.29%
Co 228.616†	51.1	0.00060	mg/L	0.000062	0.00060	mg/L	0.000062	10.22%
Cr 267.716†	275.1	0.00053	mg/L	0.000053	0.00053	mg/L	0.000053	9.93%
Cu 327.393†	653.1	0.00199	mg/L	0.000220	0.00199	mg/L	0.000220	11.04%
Fe 239.562†	285.4	0.00755	mg/L	0.000611	0.00755	mg/L	0.000611	8.09%
Mg 279.077†	1962.7	0.528	mg/L	0.0123	0.528	mg/L	0.0123	2.32%
Mn 257.610†	2642.4	0.00023	mg/L	0.000027	0.00023	mg/L	0.000027	11.37%
Mo 202.031†	188.4	0.00299	mg/L	0.000200	0.00299	mg/L	0.000200	6.70%
Ni 231.604†	196.4	0.00086	mg/L	0.000098	0.00086	mg/L	0.000098	11.42%
Pb 220.353†	20.6	0.00066	mg/L	0.000582	0.00066	mg/L	0.000582	88.58%
Sb 206.836†	22.1	0.00639	mg/L	0.001218	0.00639	mg/L	0.001218	19.06%
Se 196.026†	-6.4	-0.00050	mg/L	0.001941	-0.00050	mg/L	0.001941	387.40%
Si 251.611†	4066.8	0.0911	mg/L	0.00157	0.0911	mg/L	0.00157	1.73%
Sn 189.927†	-16.5	-0.00503	mg/L	0.000803	-0.00503	mg/L	0.000803	15.97%
Ti 334.940†	4932.0	0.00336	mg/L	0.000111	0.00336	mg/L	0.000111	3.32%
Tl 190.801†	15.1	0.00183	mg/L	0.001837	0.00183	mg/L	0.001837	100.49%
V 290.880†	2383.7	0.00720	mg/L	0.000776	0.00720	mg/L	0.000776	10.77%
Zn 206.200†	646.2	0.0133	mg/L	0.00016	0.0133	mg/L	0.00016	1.21%
K 766.490†	1425.8	0.377	mg/L	0.0144	0.377	mg/L	0.0144	3.81%
Na 589.592†	79055.3	3.84	mg/L	0.022	3.84	mg/L	0.022	0.57%

Approved: May 09, 2012

John H. Rhodes

Sr 407.771†	57327.0	0.0155 mg/L	0.00043	0.0155 mg/L	0.00043	2.76%
Li 670.784†	927.9	0.00231 mg/L	0.000297	0.00231 mg/L	0.000297	12.84%

Sequence No.: 8
 Sample ID: L1204089803SD WG396609-05
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 51
 ame Collected: 5/8/2012 3:29:32 PM
 ama Type: Original
 nitial Sample Vol:
 ample Prep Vol:

Nebulizer Parameters: L1204089803SD WG396609-05
 Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: L1204089803SD WG396609-05

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2369444.5					2082.26	0.09%
YRADIAL	317351.4					7026.72	2.21%
Ga 417.206	1497456.8					15871.57	1.06%
GaRADIAL	95642.3					1202.42	1.26%
Ag 328.068†	725.1	0.00212 mg/L		0.000299	0.00212 mg/L	0.000299	14.07%
Al 396.153†	386.6	0.0188 mg/L		0.00054	0.0188 mg/L	0.00054	2.86%
As 188.979†	12.2	0.00432 mg/L		0.000653	0.00432 mg/L	0.000653	15.10%
Ba 233.527†	1016.1	0.00323 mg/L		0.000058	0.00323 mg/L	0.000058	1.80%
Be 234.861†	681.0	0.00063 mg/L		0.000031	0.00063 mg/L	0.000031	4.86%
B 249.677†	1208.4	0.0158 mg/L		0.00012	0.0158 mg/L	0.00012	0.74%
Ca 227.546†	677.1	1.49 mg/L		0.018	1.49 mg/L	0.018	1.19%
Cd 228.802†	12.5	0.00040 mg/L		0.000145	0.00040 mg/L	0.000145	36.44%
Co 228.616†	46.4	0.00048 mg/L		0.000159	0.00048 mg/L	0.000159	32.72%
Cr 267.716†	244.5	0.00025 mg/L		0.000084	0.00025 mg/L	0.000084	33.39%
Cu 327.393†	803.1	0.00255 mg/L		0.000477	0.00255 mg/L	0.000477	18.74%
Fe 239.562†	279.7	0.00719 mg/L		0.000325	0.00719 mg/L	0.000325	4.52%
Mg 279.077†	1838.9	0.493 mg/L		0.0020	0.493 mg/L	0.0020	0.41%
Mn 257.610†	2513.2	0.00008 mg/L		0.000027	0.00008 mg/L	0.000027	34.74%
Mo 202.031†	179.0	0.00273 mg/L		0.000123	0.00273 mg/L	0.000123	4.52%
Ni 231.604†	187.5	0.00073 mg/L		0.000190	0.00073 mg/L	0.000190	26.07%
Pb 220.353†	25.4	0.00109 mg/L		0.000632	0.00109 mg/L	0.000632	57.98%
Sb 206.836†	17.3	0.00522 mg/L		0.000775	0.00522 mg/L	0.000775	14.84%
Se 196.026†	-2.2	0.00182 mg/L		0.002607	0.00182 mg/L	0.002607	142.89%
Si 251.611†	3661.9	0.0814 mg/L		0.00153	0.0814 mg/L	0.00153	1.88%
Sn 189.927†	-31.6	-0.00647 mg/L		0.000580	-0.00647 mg/L	0.000580	8.97%
Ti 334.940†	4737.9	0.00315 mg/L		0.000052	0.00315 mg/L	0.000052	1.65%
Tl 190.801†	25.1	0.00441 mg/L		0.000473	0.00441 mg/L	0.000473	10.72%
V 290.880†	1618.3	0.00324 mg/L		0.000584	0.00324 mg/L	0.000584	18.02%
Zn 206.200†	606.5	0.0123 mg/L		0.00026	0.0123 mg/L	0.00026	2.08%
K 766.490†	1315.5	0.345 mg/L		0.0169	0.345 mg/L	0.0169	4.89%
Na 589.592†	73843.3	3.59 mg/L		0.123	3.59 mg/L	0.123	3.43%
Sr 407.771†	54150.6	0.0143 mg/L		0.00016	0.0143 mg/L	0.00016	1.11%
Li 670.784†	841.4	0.00175 mg/L		0.000294	0.00175 mg/L	0.000294	16.75%

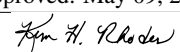
Sequence No.: 9
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

u&osampler Location: 6
 ame Collected: 5/8/2012 3:36:26 PM
 ama Type: Original
 nitial Sample Vol:
 ample Prep Vol:

Nebulizer Parameters: CCV
 Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2308542.2					3318.64	0.14%
YRADIAL	312068.3					3469.75	1.11%
Ga 417.206	1392739.1					24204.13	1.74%

Approved: May 09, 2012


Ag	328.068†	122386.2	0.393 mg/L	0.0132	0.393 mg/L	0.0132	0.81%
	QC value within limits for Ag	328.068	Recovery = 98.30%				3.35%
Al	396.153†	74791.3	9.96 mg/L	0.031	9.96 mg/L	0.031	0.31%
	QC value within limits for Al	396.153	Recovery = 99.65%				
As	188.979†	1082.7	0.380 mg/L	0.0057	0.380 mg/L	0.0057	1.50%
	QC value within limits for As	188.979	Recovery = 95.00%				
Ba	233.527†	153489.9	0.977 mg/L	0.0050	0.977 mg/L	0.0050	0.51%
	QC value within limits for Ba	233.527	Recovery = 97.66%				
Be	234.861†	60929.9	0.0478 mg/L	0.00127	0.0478 mg/L	0.00127	2.65%
	QC value within limits for Be	234.861	Recovery = 95.68%				
B	249.677†	41581.6	0.487 mg/L	0.0189	0.487 mg/L	0.0189	3.88%
	QC value within limits for B	249.677	Recovery = 97.32%				
Ca	227.546†	4537.3	10.1 mg/L	0.21	10.1 mg/L	0.21	2.07%
	QC value within limits for Ca	227.546	Recovery = 101.31%				
Cd	228.802†	2691.8	0.0472 mg/L	0.00162	0.0472 mg/L	0.00162	3.42%
	QC value within limits for Cd	228.802	Recovery = 94.47%				
Co	228.616†	7511.8	0.193 mg/L	0.0004	0.193 mg/L	0.0004	0.19%
	QC value within limits for Co	228.616	Recovery = 96.50%				
Cr	267.716†	53546.6	0.489 mg/L	0.0060	0.489 mg/L	0.0060	1.22%
	QC value within limits for Cr	267.716	Recovery = 97.89%				
Cu	327.393†	132536.5	0.494 mg/L	0.0207	0.494 mg/L	0.0207	4.18%
	QC value within limits for Cu	327.393	Recovery = 98.83%				
Fe	239.562†	62548.6	3.92 mg/L	0.018	3.92 mg/L	0.018	0.47%
	QC value within limits for Fe	239.562	Recovery = 97.92%				
Mg	279.077†	34703.2	9.76 mg/L	0.041	9.76 mg/L	0.041	0.42%
	QC value within limits for Mg	279.077	Recovery = 97.64%				
Mn	257.610†	419094.9	0.497 mg/L	0.0025	0.497 mg/L	0.0025	0.51%
	QC value within limits for Mn	257.610	Recovery = 99.30%				
Mo	202.031†	36173.8	0.976 mg/L	0.0109	0.976 mg/L	0.0109	1.12%
	QC value within limits for Mo	202.031	Recovery = 97.56%				
Ni	231.604†	33625.6	0.492 mg/L	0.0026	0.492 mg/L	0.0026	0.53%
	QC value within limits for Ni	231.604	Recovery = 98.44%				
Pb	220.353†	5457.6	0.491 mg/L	0.0010	0.491 mg/L	0.0010	0.20%
	QC value within limits for Pb	220.353	Recovery = 98.29%				
Sb	206.836†	4846.6	1.17 mg/L	0.027	1.17 mg/L	0.027	2.30%
	QC value within limits for Sb	206.836	Recovery = 97.29%				
Se	196.026†	689.1	0.387 mg/L	0.0096	0.387 mg/L	0.0096	2.48%
	QC value within limits for Se	196.026	Recovery = 96.85%				
Si	251.611†	205085.4	4.90 mg/L	0.112	4.90 mg/L	0.112	2.28%
	QC value within limits for Si	251.611	Recovery = 97.93%				
Sn	189.927†	10175.4	0.972 mg/L	0.0017	0.972 mg/L	0.0017	0.18%
	QC value within limits for Sn	189.927	Recovery = 97.24%				
Ti	334.940†	978316.3	0.974 mg/L	0.0197	0.974 mg/L	0.0197	2.03%
	QC value within limits for Ti	334.940	Recovery = 97.44%				
Tl	190.801†	1924.0	0.508 mg/L	0.0059	0.508 mg/L	0.0059	1.16%
	QC value within limits for Tl	190.801	Recovery = 101.51%				
V	290.880†	191833.7	0.986 mg/L	0.0128	0.986 mg/L	0.0128	1.30%
	QC value within limits for V	290.880	Recovery = 98.59%				
Zn	206.200†	41067.1	0.978 mg/L	0.0090	0.978 mg/L	0.0090	0.92%
	QC value within limits for Zn	206.200	Recovery = 97.78%				
K	766.490†	162037.7	48.8 mg/L	0.26	48.8 mg/L	0.26	0.54%
	QC value within limits for K	766.490	Recovery = 97.51%				
Na	589.592†	974716.9	49.2 mg/L	0.28	49.2 mg/L	0.28	0.57%
	QC value within limits for Na	589.592	Recovery = 98.34%				
Sr	407.771†	2687967.4	1.00 mg/L	0.017	1.00 mg/L	0.017	1.74%
	QC value within limits for Sr	407.771	Recovery = 100.25%				
Li	670.784†	161061.2	1.04 mg/L	0.017	1.04 mg/L	0.017	1.63%
	QC value within limits for Li	670.784	Recovery = 103.65%				

All analyte(s) passed QC.

Sequence No.: 10

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

u&osampler Location: 1

a&e Collected: 5/8/2012 3:42:27 PM

a&a Type: Original

nitial Sample Vol:

a&ple Prep Vol:

Nebulizer Parameters: CCB

Analyte

Back Pressure

Flow

All

154.0 kPa

0.50 L/min

Approved: May 09, 2012

Tom H. Rhodes

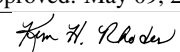
 Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2361693.4				22243.15	0.94%
YRADIAL	314455.1				4352.46	1.38%
Ga 417.206	1442029.0				15532.60	1.08%
GaRADIAL	94502.8				2916.29	3.09%
Ag 328.068†	30.2	-0.00010 mg/L	0.000097	-0.00010 mg/L	0.000097	94.23%
QC value within limits for Ag		328.068	Recovery =	Not calculated		
Al 396.153†	2.9	-0.0325 mg/L	0.00075	-0.0325 mg/L	0.00075	2.31%
QC value within limits for Al		396.153	Recovery =	Not calculated		
As 188.979†	4.2	0.00147 mg/L	0.001942	0.00147 mg/L	0.001942	131.88%
QC value within limits for As		188.979	Recovery =	Not calculated		
Ba 233.527†	20.3	-0.00312 mg/L	0.000084	-0.00312 mg/L	0.000084	2.68%
QC value within limits for Ba		233.527	Recovery =	Not calculated		
Be 234.861†	107.7	0.00018 mg/L	0.000003	0.00018 mg/L	0.000003	1.65%
QC value within limits for Be		234.861	Recovery =	Not calculated		
B 249.677†	411.1	0.00646 mg/L	0.000468	0.00646 mg/L	0.000468	7.24%
QC value within limits for B		249.677	Recovery =	Not calculated		
Ca 227.546†	-3.0	0.0419 mg/L	0.03247	0.0419 mg/L	0.03247	77.57%
QC value within limits for Ca		227.546	Recovery =	Not calculated		
Cd 228.802†	-1.3	0.00016 mg/L	0.000066	0.00016 mg/L	0.000066	41.01%
QC value within limits for Cd		228.802	Recovery =	Not calculated		
Co 228.616†	4.4	-0.00060 mg/L	0.000102	-0.00060 mg/L	0.000102	16.93%
QC value within limits for Co		228.616	Recovery =	Not calculated		
Cr 267.716†	-18.7	-0.00216 mg/L	0.000067	-0.00216 mg/L	0.000067	3.10%
QC value within limits for Cr		267.716	Recovery =	Not calculated		
Cu 327.393†	3.4	-0.00044 mg/L	0.000272	-0.00044 mg/L	0.000272	62.42%
QC value within limits for Cu		327.393	Recovery =	Not calculated		
Fe 239.562†	-9.8	-0.0110 mg/L	0.00041	-0.0110 mg/L	0.00041	3.71%
QC value within limits for Fe		239.562	Recovery =	Not calculated		
Mg 279.077†	12.1	-0.0216 mg/L	0.00103	-0.0216 mg/L	0.00103	4.76%
QC value within limits for Mg		279.077	Recovery =	Not calculated		
Mn 257.610†	14.8	-0.00290 mg/L	0.000005	-0.00290 mg/L	0.000005	0.16%
QC value within limits for Mn		257.610	Recovery =	Not calculated		
Mo 202.031†	7.1	-0.00192 mg/L	0.000355	-0.00192 mg/L	0.000355	18.52%
QC value within limits for Mo		202.031	Recovery =	Not calculated		
Ni 231.604†	15.5	-0.00180 mg/L	0.000267	-0.00180 mg/L	0.000267	14.87%
QC value within limits for Ni		231.604	Recovery =	Not calculated		
Pb 220.353†	-18.3	-0.00287 mg/L	0.001163	-0.00287 mg/L	0.001163	40.57%
QC value within limits for Pb		220.353	Recovery =	Not calculated		
Sb 206.836†	-2.2	0.00053 mg/L	0.000686	0.00053 mg/L	0.000686	128.62%
QC value within limits for Sb		206.836	Recovery =	Not calculated		
Se 196.026†	3.2	0.00485 mg/L	0.003714	0.00485 mg/L	0.003714	76.62%
QC value within limits for Se		196.026	Recovery =	Not calculated		
Si 251.611†	321.9	0.00144 mg/L	0.000572	0.00144 mg/L	0.000572	39.72%
QC value within limits for Si		251.611	Recovery =	Not calculated		
Sn 189.927†	4.6	-0.00300 mg/L	0.001106	-0.00300 mg/L	0.001106	36.84%
QC value within limits for Sn		189.927	Recovery =	Not calculated		
Ti 334.940†	-23.9	-0.00181 mg/L	0.000034	-0.00181 mg/L	0.000034	1.87%
QC value within limits for Ti		334.940	Recovery =	Not calculated		
Tl 190.801†	-2.1	-0.00268 mg/L	0.002064	-0.00268 mg/L	0.002064	77.02%
QC value within limits for Tl		190.801	Recovery =	Not calculated		
V 290.880†	648.9	-0.00175 mg/L	0.000301	-0.00175 mg/L	0.000301	17.15%
QC value within limits for V		290.880	Recovery =	Not calculated		
Zn 206.200†	-31.5	-0.00286 mg/L	0.000068	-0.00286 mg/L	0.000068	2.38%
QC value within limits for Zn		206.200	Recovery =	Not calculated		
K 766.490†	83.3	-0.0172 mg/L	0.03130	-0.0172 mg/L	0.03130	182.14%
QC value within limits for K		766.490	Recovery =	Not calculated		
Na 589.592†	597.9	0.0510 mg/L	0.00705	0.0510 mg/L	0.00705	13.80%
QC value within limits for Na		589.592	Recovery =	Not calculated		
Sr 407.771†	155.4	-0.00591 mg/L	0.000035	-0.00591 mg/L	0.000035	0.59%
QC value within limits for Sr		407.771	Recovery =	Not calculated		
Li 670.784†	45.0	-0.00339 mg/L	0.000240	-0.00339 mg/L	0.000240	7.09%
QC value within limits for Li		670.784	Recovery =	Not calculated		

All analyte(s) passed QC.

=====
 Sequence No.: 11
 Sample ID: L1204089805 0.01

=====
 u&osampler Location: 52
 a&e Collected: 5/8/2012 3:49:20 PM

Approved: May 09, 2012


Analyst: KHR
Initial Sample Wt:
Dilution:

ama Type: Original
nitial Sample Vol:
aample Prep Vol:

Nebulizer Parameters: L1204089805 0.01
Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: L1204089805 0.01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2270997.2				16939.20	0.75%
YRADIAL	303412.4				6863.72	2.26%
Ga 417.206	1454136.3				27289.99	1.88%
GarADIAL	93269.4				1136.90	1.22%
Ag 328.068†	102.8	0.00014 mg/L	0.000540	0.00014 mg/L	0.000540	397.32%
Al 396.153†	-12.0	-0.0345 mg/L	0.00034	-0.0345 mg/L	0.00034	0.99%
As 188.979†	6.2	0.00219 mg/L	0.001488	0.00219 mg/L	0.001488	67.82%
Ba 233.527†	189.2	-0.00205 mg/L	0.000057	-0.00205 mg/L	0.000057	2.77%
Be 234.861†	317.4	0.00034 mg/L	0.000017	0.00034 mg/L	0.000017	5.02%
B 249.677†	394.8	0.00627 mg/L	0.000100	0.00627 mg/L	0.000100	1.60%
Ca 227.546†	966.4	2.10 mg/L	0.051	2.10 mg/L	0.051	2.44%
Cd 228.802†	-9.0	0.00002 mg/L	0.000051	0.00002 mg/L	0.000051	247.72%
Co 228.616†	7.1	-0.00053 mg/L	0.000058	-0.00053 mg/L	0.000058	10.83%
Cr 267.716†	-27.0	-0.00224 mg/L	0.000141	-0.00224 mg/L	0.000141	6.29%
Cu 327.393†	38.5	-0.00030 mg/L	0.000266	-0.00030 mg/L	0.000266	88.00%
Fe 239.562†	-34.8	-0.0125 mg/L	0.00012	-0.0125 mg/L	0.00012	0.98%
Mg 279.077†	701.3	0.173 mg/L	0.0062	0.173 mg/L	0.0062	3.61%
Mn 257.610†	870.5	-0.00188 mg/L	0.000006	-0.00188 mg/L	0.000006	0.34%
Mo 202.031†	-1.2	-0.00214 mg/L	0.000214	-0.00214 mg/L	0.000214	10.01%
Ni 231.604†	0.5	-0.00202 mg/L	0.000175	-0.00202 mg/L	0.000175	8.67%
Pb 220.353†	-7.3	-0.00186 mg/L	0.000568	-0.00186 mg/L	0.000568	30.51%
Sb 206.836†	-5.6	-0.00028 mg/L	0.000940	-0.00028 mg/L	0.000940	338.75%
Se 196.026†	-3.7	0.00099 mg/L	0.002485	0.00099 mg/L	0.002485	249.99%
Si 251.611†	8973.7	0.209 mg/L	0.0048	0.209 mg/L	0.0048	2.29%
Sn 189.927†	-94.0	-0.0125 mg/L	0.00047	-0.0125 mg/L	0.00047	3.78%
Ti 334.940†	257.2	-0.00123 mg/L	0.000073	-0.00123 mg/L	0.000073	5.97%
Tl 190.801†	5.9	-0.00059 mg/L	0.002047	-0.00059 mg/L	0.002047	347.19%
V 290.880†	1628.8	0.00331 mg/L	0.001605	0.00331 mg/L	0.001605	48.50%
Zn 206.200†	13.1	-0.00181 mg/L	0.000063	-0.00181 mg/L	0.000063	3.49%
K 766.490†	606.5	0.124 mg/L	0.0289	0.124 mg/L	0.0289	23.31%
Na 589.592†	286491.8	14.0 mg/L	0.27	14.0 mg/L	0.27	1.92%
Sr 407.771†	29592.7	0.00510 mg/L	0.000246	0.00510 mg/L	0.000246	4.82%
Li 670.784†	96.7	-0.00306 mg/L	0.000331	-0.00306 mg/L	0.000331	10.82%

Sequence No.: 12
Sample ID: L1204089806 0.01
Analyst: KHR
Initial Sample Wt:
Dilution:

u@sampler Location: 53
ame Collected: 5/8/2012 3:56:15 PM
ama Type: Original
nitial Sample Vol:
aample Prep Vol:

Nebulizer Parameters: L1204089806 0.01
Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: L1204089806 0.01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2251474.4				26257.47	1.17%
YRADIAL	302777.3				3362.65	1.11%
Ga 417.206	1451500.8				17340.98	1.19%
GarADIAL	93744.3				3064.35	3.27%
Ag 328.068†	147.0	0.00028 mg/L	0.000267	0.00028 mg/L	0.000267	96.05%
Al 396.153†	-4.1	-0.0334 mg/L	0.00060	-0.0334 mg/L	0.00060	1.79%
As 188.979†	7.3	0.00260 mg/L	0.001624	0.00260 mg/L	0.001624	62.42%
Ba 233.527†	187.1	-0.00206 mg/L	0.000085	-0.00206 mg/L	0.000085	4.13%
Be 234.861†	319.5	0.00035 mg/L	0.000016	0.00035 mg/L	0.000016	4.74%

Approved: May 09, 2012
John H. Rhodes

B 249.677†	349.9	0.00574	mg/L	0.000248	0.00574	mg/L	0.000248	4.32%
Ca 227.546†	1002.9	2.18	mg/L	0.025	2.18	mg/L	0.025	1.16%
Cd 228.802†	-12.6	-0.00005	mg/L	0.000159	-0.00005	mg/L	0.000159	339.54%
Co 228.616†	9.0	-0.00048	mg/L	0.000049	-0.00048	mg/L	0.000049	10.10%
Cr 267.716†	-21.9	-0.00219	mg/L	0.000027	-0.00219	mg/L	0.000027	1.23%
Cu 327.393†	-58.6	-0.00066	mg/L	0.000363	-0.00066	mg/L	0.000363	54.79%
Fe 239.562†	-34.1	-0.0125	mg/L	0.00081	-0.0125	mg/L	0.00081	6.50%
Mg 279.077†	707.5	0.174	mg/L	0.0015	0.174	mg/L	0.0015	0.84%
Mn 257.610†	929.3	-0.00181	mg/L	0.000038	-0.00181	mg/L	0.000038	2.08%
Mo 202.031†	-5.3	-0.00225	mg/L	0.000025	-0.00225	mg/L	0.000025	1.09%
Ni 231.604†	-1.2	-0.00204	mg/L	0.000076	-0.00204	mg/L	0.000076	3.71%
Pb 220.353†	-1.4	-0.00133	mg/L	0.000744	-0.00133	mg/L	0.000744	56.01%
Sb 206.836†	-13.3	-0.00212	mg/L	0.000402	-0.00212	mg/L	0.000402	19.00%
Se 196.026†	-10.7	-0.00289	mg/L	0.000499	-0.00289	mg/L	0.000499	17.27%
Si 251.611†	9003.9	0.209	mg/L	0.0056	0.209	mg/L	0.0056	2.69%
Sn 189.927†	-100.3	-0.0131	mg/L	0.00066	-0.0131	mg/L	0.00066	5.09%
Ti 334.940†	37.7	-0.00143	mg/L	0.000065	-0.00143	mg/L	0.000065	4.57%
Tl 190.801†	13.5	0.00136	mg/L	0.002200	0.00136	mg/L	0.002200	162.06%
V 290.880†	1735.8	0.00386	mg/L	0.001157	0.00386	mg/L	0.001157	29.96%
Zn 206.200†	16.6	-0.00172	mg/L	0.000187	-0.00172	mg/L	0.000187	10.86%
K 766.490†	675.5	0.144	mg/L	0.0249	0.144	mg/L	0.0249	17.27%
Na 589.592†	290036.5	14.2	mg/L	0.35	14.2	mg/L	0.35	2.47%
Sr 407.771†	30522.3	0.00544	mg/L	0.000196	0.00544	mg/L	0.000196	3.60%
Li 670.784†	124.6	-0.00288	mg/L	0.000570	-0.00288	mg/L	0.000570	19.82%

Sequence No.: 13

Sample ID: L1204089806PS WG396721-03

Analyst: KHR

Initial Sample Wt:

Dilution:

Sampler Location: 54

Date Collected: 5/8/2012 4:03:10 PM

Sample Type: Original

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: L1204089806PS WG396721-03

Analyte	Back Pressure	Flow
All	154.0 kPa	0.50 L/min

Mean Data: L1204089806PS WG396721-03

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD	
Y 371.029	2236556.9					12230.34	0.55%	
YRADIAL	310581.6					5363.09	1.73%	
Ga 417.206	1351149.3					21018.01	1.56%	
GaRADIAL	92314.4					1379.68	1.49%	
Ag 328.068†	66671.1	0.214	mg/L	0.0060	0.214	mg/L	0.0060	2.80%
Al 396.153†	38950.9	5.17	mg/L	0.008	5.17	mg/L	0.008	0.16%
As 188.979†	590.8	0.207	mg/L	0.0048	0.207	mg/L	0.0048	2.31%
Ba 233.527†	81478.8	0.517	mg/L	0.0061	0.517	mg/L	0.0061	1.17%
Be 234.861†	34013.3	0.0268	mg/L	0.00062	0.0268	mg/L	0.00062	2.33%
B 249.677†	89993.4	1.06	mg/L	0.028	1.06	mg/L	0.028	2.61%
Ca 227.546†	3468.2	7.65	mg/L	0.175	7.65	mg/L	0.175	2.29%
Cd 228.802†	1449.7	0.0255	mg/L	0.00093	0.0255	mg/L	0.00093	3.63%
Co 228.616†	4017.7	0.103	mg/L	0.0010	0.103	mg/L	0.0010	1.00%
Cr 267.716†	28305.8	0.258	mg/L	0.0039	0.258	mg/L	0.0039	1.50%
Cu 327.393†	70156.9	0.261	mg/L	0.0061	0.261	mg/L	0.0061	2.32%
Fe 239.562†	32059.1	2.00	mg/L	0.004	2.00	mg/L	0.004	0.18%
Mg 279.077†	18920.1	5.31	mg/L	0.015	5.31	mg/L	0.015	0.28%
Mn 257.610†	221006.1	0.260	mg/L	0.0023	0.260	mg/L	0.0023	0.90%
Mo 202.031†	19178.0	0.516	mg/L	0.0012	0.516	mg/L	0.0012	0.23%
Ni 231.604†	18106.2	0.264	mg/L	0.0020	0.264	mg/L	0.0020	0.77%
Pb 220.353†	2909.1	0.261	mg/L	0.0010	0.261	mg/L	0.0010	0.39%
Sb 206.836†	2648.5	0.639	mg/L	0.0158	0.639	mg/L	0.0158	2.48%
Se 196.026†	402.2	0.227	mg/L	0.0082	0.227	mg/L	0.0082	3.61%
Si 251.611†	122774.4	2.93	mg/L	0.063	2.93	mg/L	0.063	2.14%
Sn 189.927†	-141.5	-0.0170	mg/L	0.00029	-0.0170	mg/L	0.00029	1.70%
Ti 334.940†	520153.0	0.518	mg/L	0.0008	0.518	mg/L	0.0008	0.15%
Tl 190.801†	1061.7	0.279	mg/L	0.0054	0.279	mg/L	0.0054	1.94%
V 290.880†	102935.1	0.527	mg/L	0.0103	0.527	mg/L	0.0103	1.95%
Zn 206.200†	22769.8	0.541	mg/L	0.0081	0.541	mg/L	0.0081	1.49%
K 766.490†	85552.9	25.5	mg/L	0.23	25.5	mg/L	0.23	0.89%
Na 589.592†	807959.4	40.4	mg/L	1.02	40.4	mg/L	1.02	2.53%

Approved: May 09, 2012

Tom H. Rhodes

GarADIAL	97029.4					1336.43	1.38%
Ag 328.068†	115.3	0.00017 mg/L	0.000448	0.00017 mg/L	0.000448	256.45%	
Al 396.153†	-4.6	-0.0335 mg/L	0.00066	-0.0335 mg/L	0.00066	1.96%	
As 188.979†	6.1	0.00215 mg/L	0.001560	0.00215 mg/L	0.001560	72.54%	
Ba 233.527†	115.8	-0.00252 mg/L	0.000098	-0.00252 mg/L	0.000098	3.89%	
Be 234.861†	353.0	0.00037 mg/L	0.000004	0.00037 mg/L	0.000004	1.18%	
B 249.677†	452.5	0.00695 mg/L	0.000183	0.00695 mg/L	0.000183	2.64%	
Ca 227.546†	361.6	0.815 mg/L	0.0130	0.815 mg/L	0.0130	1.60%	
Cd 228.802†	-14.5	-0.00008 mg/L	0.000154	-0.00008 mg/L	0.000154	197.66%	
Co 228.616†	10.2	-0.00045 mg/L	0.000082	-0.00045 mg/L	0.000082	18.14%	
Cr 267.716†	-36.0	-0.00232 mg/L	0.000029	-0.00232 mg/L	0.000029	1.23%	
Cu 327.393†	-58.2	-0.00066 mg/L	0.000142	-0.00066 mg/L	0.000142	21.51%	
Fe 239.562†	35.7	-0.00812 mg/L	0.000459	-0.00812 mg/L	0.000459	5.66%	
Mg 279.077†	557.4	0.132 mg/L	0.0034	0.132 mg/L	0.0034	2.55%	
Mn 257.610†	1062.0	-0.00165 mg/L	0.000012	-0.00165 mg/L	0.000012	0.71%	
Mo 202.031†	-3.0	-0.00219 mg/L	0.000332	-0.00219 mg/L	0.000332	15.19%	
Ni 231.604†	1.2	-0.00201 mg/L	0.000372	-0.00201 mg/L	0.000372	18.51%	
Pb 220.353†	0.7	-0.00115 mg/L	0.000411	-0.00115 mg/L	0.000411	35.79%	
Sb 206.836†	-12.1	-0.00183 mg/L	0.000756	-0.00183 mg/L	0.000756	41.35%	
Se 196.026†	-8.6	-0.00169 mg/L	0.002879	-0.00169 mg/L	0.002879	170.38%	
Si 251.611†	4502.4	0.102 mg/L	0.0013	0.102 mg/L	0.0013	1.27%	
Sn 189.927†	-79.9	-0.0111 mg/L	0.00105	-0.0111 mg/L	0.00105	9.48%	
Ti 334.940†	389.4	-0.00129 mg/L	0.000043	-0.00129 mg/L	0.000043	3.37%	
Tl 190.801†	12.7	0.00115 mg/L	0.002563	0.00115 mg/L	0.002563	223.31%	
V 290.880†	1340.5	0.00182 mg/L	0.002268	0.00182 mg/L	0.002268	124.73%	
Zn 206.200†	19.3	-0.00166 mg/L	0.000105	-0.00166 mg/L	0.000105	6.31%	
K 766.490†	402.7	0.0710 mg/L	0.02100	0.0710 mg/L	0.02100	29.58%	
Na 589.592†	135856.9	6.60 mg/L	0.144	6.60 mg/L	0.144	2.19%	
Sr 407.771†	23125.7	0.00270 mg/L	0.000169	0.00270 mg/L	0.000169	6.27%	
Li 670.784†	1.4	-0.00367 mg/L	0.001012	-0.00367 mg/L	0.001012	27.57%	

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Sequence No.: 16                               ukosampler Location: 57
Sample ID: L1204089809 0.01                   aMe Collected: 5/8/2012 4:23:00 PM
Analyst: KHR                                  aMa Type: Original
Initial Sample Wt:                             nitial Sample Vol:
Dilution:                                     aMple Prep Vol:
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Nebulizer Parameters: L1204089809 0.01
Analyte      Back Pressure  Flow
All          154.0 kPa      0.50 L/min
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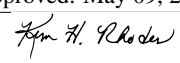
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Mean Data: L1204089809 0.01
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Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	2266712.0						12325.17	0.54%
YRADIAL	312154.3						3678.26	1.18%
Ga 417.206	1448826.4						3198.32	0.22%
GarADIAL	95371.6						2033.47	2.13%
Ag 328.068†	77.5	0.00005 mg/L	0.000121	0.00005 mg/L	0.00005 mg/L	0.000121	224.54%	
Al 396.153†	-16.4	-0.0350 mg/L	0.00100	-0.0350 mg/L	0.00100	2.85%		
As 188.979†	5.6	0.00199 mg/L	0.002329	0.00199 mg/L	0.002329	117.03%		
Ba 233.527†	110.0	-0.00255 mg/L	0.000103	-0.00255 mg/L	0.000103	4.05%		
Be 234.861†	322.2	0.00035 mg/L	0.000019	0.00035 mg/L	0.000019	5.34%		
B 249.677†	405.6	0.00640 mg/L	0.000076	0.00640 mg/L	0.000076	1.19%		
Ca 227.546†	387.5	0.870 mg/L	0.0013	0.870 mg/L	0.0013	0.14%		
Cd 228.802†	-9.4	0.00001 mg/L	0.000114	0.00001 mg/L	0.000114	776.39%		
Co 228.616†	3.5	-0.00062 mg/L	0.000106	-0.00062 mg/L	0.000106	17.02%		
Cr 267.716†	-36.2	-0.00232 mg/L	0.000067	-0.00232 mg/L	0.000067	2.89%		
Cu 327.393†	34.7	-0.00032 mg/L	0.000120	-0.00032 mg/L	0.000120	37.83%		
Fe 239.562†	14.3	-0.00946 mg/L	0.000214	-0.00946 mg/L	0.000214	2.26%		
Mg 279.077†	592.7	0.142 mg/L	0.0009	0.142 mg/L	0.0009	0.66%		
Mn 257.610†	1130.0	-0.00157 mg/L	0.000023	-0.00157 mg/L	0.000023	1.47%		
Mo 202.031†	-10.1	-0.00238 mg/L	0.000222	-0.00238 mg/L	0.000222	9.33%		
Ni 231.604†	-3.9	-0.00208 mg/L	0.000104	-0.00208 mg/L	0.000104	4.97%		
Pb 220.353†	-2.4	-0.00143 mg/L	0.000969	-0.00143 mg/L	0.000969	67.92%		
Sb 206.836†	-8.2	-0.00089 mg/L	0.001030	-0.00089 mg/L	0.001030	115.49%		
Se 196.026†	-12.4	-0.00383 mg/L	0.002530	-0.00383 mg/L	0.002530	66.04%		
Si 251.611†	4614.7	0.104 mg/L	0.0003	0.104 mg/L	0.0003	0.25%		
Sn 189.927†	-83.2	-0.0114 mg/L	0.00034	-0.0114 mg/L	0.00034	2.95%		

Approved: May 09, 2012


Ti 334.940†	-12.8	-0.00168	mg/L	0.000038	-0.00168	mg/L	0.000038	2.27%
Tl 190.801†	8.8	0.00014	mg/L	0.002266	0.00014	mg/L	0.002266	>999.9%
V 290.880†	1316.0	0.00169	mg/L	0.001033	0.00169	mg/L	0.001033	61.05%
Zn 206.200†	10.2	-0.00188	mg/L	0.000100	-0.00188	mg/L	0.000100	5.36%
K 766.490†	429.9	0.0787	mg/L	0.02351	0.0787	mg/L	0.02351	29.86%
Na 589.592†	142297.0	6.91	mg/L	0.157	6.91	mg/L	0.157	2.27%
Sr 407.771†	23424.6	0.00281	mg/L	0.000236	0.00281	mg/L	0.000236	8.40%
Li 670.784†	16.2	-0.00358	mg/L	0.000026	-0.00358	mg/L	0.000026	0.72%

Sequence No.: 17
 Sample ID: L1204089810 0.01
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 58
 a&e Collected: 5/8/2012 4:29:57 PM
 a&a Type: Original
 n&tial Sample Vol:
 a&ple Prep Vol:

Nebulizer Parameters: L1204089810 0.01
 Analyte Back Pressure Flow
 All 155.0 kPa 0.50 L/min

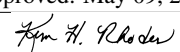
Mean Data: L1204089810 0.01

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	2318873.7						23991.51	1.03%
YRADIAL	312095.8						4310.66	1.38%
Ga 417.206	1521558.5						3883.89	0.26%
GaRADIAL	97141.3						1615.81	1.66%
Ag 328.068†	29.2	-0.00010	mg/L	0.000262	-0.00010	mg/L	0.000262	270.64%
Al 396.153†	152.5	-0.0123	mg/L	0.00231	-0.0123	mg/L	0.00231	18.75%
As 188.979†	3.2	0.00114	mg/L	0.001192	0.00114	mg/L	0.001192	104.33%
Ba 233.527†	186.6	-0.00206	mg/L	0.000111	-0.00206	mg/L	0.000111	5.37%
Be 234.861†	388.6	0.00040	mg/L	0.000011	0.00040	mg/L	0.000011	2.77%
B 249.677†	406.4	0.00640	mg/L	0.000170	0.00640	mg/L	0.000170	2.66%
Ca 227.546†	54.4	0.164	mg/L	0.0086	0.164	mg/L	0.0086	5.27%
Cd 228.802†	-16.9	-0.00012	mg/L	0.000177	-0.00012	mg/L	0.000177	151.35%
Co 228.616†	7.5	-0.00053	mg/L	0.000084	-0.00053	mg/L	0.000084	15.75%
Cr 267.716†	109.4	-0.00099	mg/L	0.000161	-0.00099	mg/L	0.000161	16.33%
Cu 327.393†	-4.7	-0.00046	mg/L	0.000400	-0.00046	mg/L	0.000400	87.77%
Fe 239.562†	118.5	-0.00292	mg/L	0.000819	-0.00292	mg/L	0.000819	28.03%
Mg 279.077†	660.1	0.161	mg/L	0.0035	0.161	mg/L	0.0035	2.20%
Mn 257.610†	159.4	-0.00273	mg/L	0.000013	-0.00273	mg/L	0.000013	0.48%
Mo 202.031†	1.2	-0.00207	mg/L	0.000099	-0.00207	mg/L	0.000099	4.76%
Ni 231.604†	8.1	-0.00191	mg/L	0.000159	-0.00191	mg/L	0.000159	8.32%
Pb 220.353†	-5.3	-0.00169	mg/L	0.000442	-0.00169	mg/L	0.000442	26.13%
Sb 206.836†	-4.8	-0.00008	mg/L	0.000044	-0.00008	mg/L	0.000044	55.21%
Se 196.026†	-5.2	0.00020	mg/L	0.001351	0.00020	mg/L	0.001351	666.86%
Si 251.611†	4009.5	0.0898	mg/L	0.00059	0.0898	mg/L	0.00059	0.66%
Sn 189.927†	-71.7	-0.0103	mg/L	0.00072	-0.0103	mg/L	0.00072	7.00%
Ti 334.940†	6194.9	0.00440	mg/L	0.000085	0.00440	mg/L	0.000085	1.93%
Tl 190.801†	16.6	0.00224	mg/L	0.002970	0.00224	mg/L	0.002970	132.58%
V 290.880†	1463.2	0.00245	mg/L	0.002360	0.00245	mg/L	0.002360	96.24%
Zn 206.200†	208.6	0.00285	mg/L	0.000145	0.00285	mg/L	0.000145	5.11%
K 766.490†	837.6	0.188	mg/L	0.0196	0.188	mg/L	0.0196	10.41%
Na 589.592†	374834.7	18.4	mg/L	0.34	18.4	mg/L	0.34	1.85%
Sr 407.771†	42711.8	0.0101	mg/L	0.00031	0.0101	mg/L	0.00031	3.08%
Li 670.784†	72.1	-0.00321	mg/L	0.000494	-0.00321	mg/L	0.000494	15.36%

Sequence No.: 18
 Sample ID: L1204089811 0.01
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 59
 a&e Collected: 5/8/2012 4:36:54 PM
 a&a Type: Original
 n&tial Sample Vol:
 a&ple Prep Vol:

Nebulizer Parameters: L1204089811 0.01
 Analyte Back Pressure Flow
 All 155.0 kPa 0.50 L/min

Approved: May 09, 2012


Mean Data: L1204089811 0.01

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, Al, Ga, Ag, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li.

Sequence No.: 19

Sample ID: L1204089812 0.01

Analyst: KHR

Initial Sample Wt:

Dilution:

Sampler Location: 60

Time Collected: 5/8/2012 4:43:49 PM

Sample Type: Original

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: L1204089812 0.01

Table with 3 columns: Analyte, Back Pressure, Flow. Row for All: 155.0 kPa, 0.50 L/min.

Mean Data: L1204089812 0.01

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, Al, Ga, Ag, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo.

Approved: May 09, 2012
[Signature]

Ni 231.604†	-18.7	-0.00230	mg/L	0.000312	-0.00230	mg/L	0.000312	13.54%
Pb 220.353†	-8.2	-0.00194	mg/L	0.000887	-0.00194	mg/L	0.000887	45.61%
Sb 206.836†	-7.3	-0.00067	mg/L	0.001373	-0.00067	mg/L	0.001373	203.51%
Se 196.026†	-8.0	-0.00138	mg/L	0.001267	-0.00138	mg/L	0.001267	91.67%
Si 251.611†	4423.8	0.0997	mg/L	0.00290	0.0997	mg/L	0.00290	2.91%
Sn 189.927†	-80.1	-0.0111	mg/L	0.00039	-0.0111	mg/L	0.00039	3.50%
Ti 334.940†	293.2	-0.00138	mg/L	0.000180	-0.00138	mg/L	0.000180	13.02%
Tl 190.801†	12.0	0.00096	mg/L	0.000257	0.00096	mg/L	0.000257	26.77%
V 290.880†	1359.5	0.00192	mg/L	0.001465	0.00192	mg/L	0.001465	76.44%
Zn 206.200†	-2.2	-0.00217	mg/L	0.000249	-0.00217	mg/L	0.000249	11.47%
K 766.490†	397.1	0.0693	mg/L	0.01575	0.0693	mg/L	0.01575	22.74%
Na 589.592†	136701.1	6.64	mg/L	0.234	6.64	mg/L	0.234	3.52%
Sr 407.771†	22690.7	0.00253	mg/L	0.000082	0.00253	mg/L	0.000082	3.24%
Li 670.784†	38.1	-0.00343	mg/L	0.000469	-0.00343	mg/L	0.000469	13.65%

Sequence No.: 20

Sample ID: L1204089813 0.01

Analyst: KHR

Initial Sample Wt:

Dilution:

u@sampler Location: 61

a@e Collected: 5/8/2012 4:50:43 PM

a@a Type: Original

n@tial Sample Vol:

a@ple Prep Vol:

Nebulizer Parameters: L1204089813 0.01

Analyte	Back Pressure	Flow
All	155.0 kPa	0.50 L/min

Mean Data: L1204089813 0.01

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Y 371.029	2250401.3					37309.51	1.66%
YRADIAL	309778.2					1924.04	0.62%
Ga 417.206	1424537.9					21910.89	1.54%
GarADIAL	95212.7					2677.39	2.81%
Ag 328.068†	62.4	0.00001	mg/L	0.000196	0.00001	0.000196	>999.9%
Al 396.153†	-23.3	-0.0360	mg/L	0.00067	-0.0360	0.00067	1.85%
As 188.979†	2.8	0.00098	mg/L	0.000387	0.00098	0.000387	39.34%
Ba 233.527†	103.7	-0.00259	mg/L	0.000057	-0.00259	0.000057	2.21%
Be 234.861†	318.3	0.00034	mg/L	0.000020	0.00034	0.000020	5.75%
B 249.677†	273.0	0.00484	mg/L	0.000154	0.00484	0.000154	3.19%
Ca 227.546†	388.2	0.872	mg/L	0.0254	0.872	0.0254	2.92%
Cd 228.802†	-11.1	-0.00001	mg/L	0.000125	-0.00001	0.000125	>999.9%
Co 228.616†	8.8	-0.00049	mg/L	0.000200	-0.00049	0.000200	41.22%
Cr 267.716†	-39.0	-0.00235	mg/L	0.000116	-0.00235	0.000116	4.96%
Cu 327.393†	-79.9	-0.00074	mg/L	0.000443	-0.00074	0.000443	59.74%
Fe 239.562†	10.7	-0.00969	mg/L	0.000337	-0.00969	0.000337	3.48%
Mg 279.077†	594.2	0.142	mg/L	0.0033	0.142	0.0033	2.30%
Mn 257.610†	1107.2	-0.00160	mg/L	0.000007	-0.00160	0.000007	0.45%
Mo 202.031†	-16.3	-0.00254	mg/L	0.000084	-0.00254	0.000084	3.31%
Ni 231.604†	-16.8	-0.00227	mg/L	0.000143	-0.00227	0.000143	6.29%
Pb 220.353†	-14.0	-0.00247	mg/L	0.000758	-0.00247	0.000758	30.72%
Sb 206.836†	-8.6	-0.00099	mg/L	0.000112	-0.00099	0.000112	11.30%
Se 196.026†	-5.6	-0.00003	mg/L	0.001306	-0.00003	0.001306	>999.9%
Si 251.611†	4593.2	0.104	mg/L	0.0016	0.104	0.0016	1.58%
Sn 189.927†	-80.8	-0.0112	mg/L	0.00075	-0.0112	0.00075	6.71%
Ti 334.940†	-55.6	-0.00172	mg/L	0.000120	-0.00172	0.000120	6.97%
Tl 190.801†	13.5	0.00136	mg/L	0.001313	0.00136	0.001313	96.69%
V 290.880†	1727.9	0.00382	mg/L	0.000243	0.00382	0.000243	6.36%
Zn 206.200†	-10.0	-0.00236	mg/L	0.000016	-0.00236	0.000016	0.66%
K 766.490†	398.2	0.0693	mg/L	0.01775	0.0693	0.01775	25.63%
Na 589.592†	143330.0	6.96	mg/L	0.199	6.96	0.199	2.86%
Sr 407.771†	23819.1	0.00296	mg/L	0.000104	0.00296	0.000104	3.51%
Li 670.784†	35.6	-0.00345	mg/L	0.000230	-0.00345	0.000230	6.66%

Sequence No.: 21

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

u@sampler Location: 6

a@e Collected: 5/8/2012 4:57:37 PM

a@a Type: Original

n@tial Sample Vol:

a@ple Prep Vol:

Approved: May 09, 2012

John H. Rhodes

Nebulizer Parameters: CCV

Analyte Back Pressure Flow
 All 156.0 kPa 0.50 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2258793.4				15788.64	0.70%
YRADIAL	315921.7				3977.51	1.26%
Ga 417.206	1376251.7				26204.99	1.90%
GaRADIAL	94408.3				1622.01	1.72%
Ag 328.068†	122129.7	0.392 mg/L	0.0103	0.392 mg/L	0.0103	2.62%
QC value within limits for Ag		328.068	Recovery = 98.08%			
Al 396.153†	73022.3	9.73 mg/L	0.043	9.73 mg/L	0.043	0.44%
QC value within limits for Al		396.153	Recovery = 97.27%			
As 188.979†	1076.6	0.378 mg/L	0.0054	0.378 mg/L	0.0054	1.44%
QC value within limits for As		188.979	Recovery = 94.46%			
Ba 233.527†	152295.0	0.969 mg/L	0.0064	0.969 mg/L	0.0064	0.66%
QC value within limits for Ba		233.527	Recovery = 96.89%			
Be 234.861†	60032.4	0.0472 mg/L	0.00088	0.0472 mg/L	0.00088	1.87%
QC value within limits for Be		234.861	Recovery = 94.31%			
B 249.677†	41481.5	0.485 mg/L	0.0132	0.485 mg/L	0.0132	2.72%
QC value within limits for B		249.677	Recovery = 97.10%			
Ca 227.546†	4565.0	10.2 mg/L	0.24	10.2 mg/L	0.24	2.39%
QC value within limits for Ca		227.546	Recovery = 101.84%			
Cd 228.802†	2655.0	0.0466 mg/L	0.00151	0.0466 mg/L	0.00151	3.24%
QC value within limits for Cd		228.802	Recovery = 93.17%			
Co 228.616†	7475.8	0.192 mg/L	0.0014	0.192 mg/L	0.0014	0.73%
QC value within limits for Co		228.616	Recovery = 96.03%			
Cr 267.716†	53235.1	0.487 mg/L	0.0038	0.487 mg/L	0.0038	0.79%
QC value within limits for Cr		267.716	Recovery = 97.32%			
Cu 327.393†	134285.4	0.501 mg/L	0.0136	0.501 mg/L	0.0136	2.71%
QC value within limits for Cu		327.393	Recovery = 100.13%			
Fe 239.562†	60559.2	3.79 mg/L	0.051	3.79 mg/L	0.051	1.34%
QC value within limits for Fe		239.562	Recovery = 94.80%			
Mg 279.077†	33746.8	9.49 mg/L	0.128	9.49 mg/L	0.128	1.34%
QC value within limits for Mg		279.077	Recovery = 94.95%			
Mn 257.610†	417804.2	0.495 mg/L	0.0030	0.495 mg/L	0.0030	0.61%
QC value within limits for Mn		257.610	Recovery = 99.00%			
Mo 202.031†	35955.4	0.970 mg/L	0.0051	0.970 mg/L	0.0051	0.53%
QC value within limits for Mo		202.031	Recovery = 96.97%			
Ni 231.604†	33387.9	0.489 mg/L	0.0010	0.489 mg/L	0.0010	0.21%
QC value within limits for Ni		231.604	Recovery = 97.74%			
Pb 220.353†	5438.6	0.490 mg/L	0.0036	0.490 mg/L	0.0036	0.73%
QC value within limits for Pb		220.353	Recovery = 97.94%			
Sb 206.836†	4816.5	1.16 mg/L	0.022	1.16 mg/L	0.022	1.87%
QC value within limits for Sb		206.836	Recovery = 96.69%			
Se 196.026†	687.7	0.387 mg/L	0.0047	0.387 mg/L	0.0047	1.21%
QC value within limits for Se		196.026	Recovery = 96.64%			
Si 251.611†	204367.9	4.88 mg/L	0.075	4.88 mg/L	0.075	1.54%
QC value within limits for Si		251.611	Recovery = 97.59%			
Sn 189.927†	10070.1	0.962 mg/L	0.0074	0.962 mg/L	0.0074	0.76%
QC value within limits for Sn		189.927	Recovery = 96.23%			
Ti 334.940†	982777.7	0.979 mg/L	0.0027	0.979 mg/L	0.0027	0.28%
QC value within limits for Ti		334.940	Recovery = 97.89%			
Tl 190.801†	1929.4	0.509 mg/L	0.0043	0.509 mg/L	0.0043	0.85%
QC value within limits for Tl		190.801	Recovery = 101.80%			
V 290.880†	192180.1	0.988 mg/L	0.0062	0.988 mg/L	0.0062	0.62%
QC value within limits for V		290.880	Recovery = 98.78%			
Zn 206.200†	39839.3	0.949 mg/L	0.0076	0.949 mg/L	0.0076	0.80%
QC value within limits for Zn		206.200	Recovery = 94.86%			
K 766.490†	159819.5	48.1 mg/L	0.30	48.1 mg/L	0.30	0.62%
QC value within limits for K		766.490	Recovery = 96.15%			
Na 589.592†	957143.0	48.2 mg/L	0.79	48.2 mg/L	0.79	1.63%
QC value within limits for Na		589.592	Recovery = 96.48%			
Sr 407.771†	2625811.3	0.979 mg/L	0.0172	0.979 mg/L	0.0172	1.76%
QC value within limits for Sr		407.771	Recovery = 97.92%			
Li 670.784†	160516.0	1.03 mg/L	0.001	1.03 mg/L	0.001	0.11%
QC value within limits for Li		670.784	Recovery = 103.30%			
All analyte(s) passed QC.						

Approved: May 09, 2012

Tom H. Rhodes

Sequence No.: 22
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Sampler Location: 1
 Date Collected: 5/8/2012 5:03:38 PM
 Sample Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte Back Pressure Flow
 All 156.0 kPa 0.50 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2283172.0				23663.14	1.04%
YRADIAL	311977.8				2070.53	0.66%
Ga 417.206	1399112.0				5055.98	0.36%
GaRADIAL	94088.4				3866.19	4.11%
Ag 328.068†	59.0	-0.00001 mg/L	0.000199	-0.00001 mg/L	0.000199	>999.9%
QC value within limits for Ag	328.068	Recovery = Not calculated				
Al 396.153†	2.6	-0.0325 mg/L	0.00093	-0.0325 mg/L	0.00093	2.87%
QC value within limits for Al	396.153	Recovery = Not calculated				
As 188.979†	2.5	0.00087 mg/L	0.001219	0.00087 mg/L	0.001219	140.79%
QC value within limits for As	188.979	Recovery = Not calculated				
Ba 233.527†	15.7	-0.00315 mg/L	0.000057	-0.00315 mg/L	0.000057	1.79%
QC value within limits for Ba	233.527	Recovery = Not calculated				
Be 234.861†	75.0	0.00015 mg/L	0.000011	0.00015 mg/L	0.000011	7.21%
QC value within limits for Be	234.861	Recovery = Not calculated				
B 249.677†	327.7	0.00548 mg/L	0.000237	0.00548 mg/L	0.000237	4.32%
QC value within limits for B	249.677	Recovery = Not calculated				
Ca 227.546†	-10.8	0.0252 mg/L	0.01954	0.0252 mg/L	0.01954	77.64%
QC value within limits for Ca	227.546	Recovery = Not calculated				
Cd 228.802†	0.1	0.00019 mg/L	0.000252	0.00019 mg/L	0.000252	132.02%
QC value within limits for Cd	228.802	Recovery = Not calculated				
Co 228.616†	0.9	-0.00069 mg/L	0.000238	-0.00069 mg/L	0.000238	34.39%
QC value within limits for Co	228.616	Recovery = Not calculated				
Cr 267.716†	-17.7	-0.00215 mg/L	0.000060	-0.00215 mg/L	0.000060	2.76%
QC value within limits for Cr	267.716	Recovery = Not calculated				
Cu 327.393†	-138.0	-0.00096 mg/L	0.000272	-0.00096 mg/L	0.000272	28.36%
QC value within limits for Cu	327.393	Recovery = Not calculated				
Fe 239.562†	-13.9	-0.0112 mg/L	0.00013	-0.0112 mg/L	0.00013	1.12%
QC value within limits for Fe	239.562	Recovery = Not calculated				
Mg 279.077†	-1.9	-0.0255 mg/L	0.00099	-0.0255 mg/L	0.00099	3.88%
QC value within limits for Mg	279.077	Recovery = Not calculated				
Mn 257.610†	16.4	-0.00290 mg/L	0.000033	-0.00290 mg/L	0.000033	1.15%
QC value within limits for Mn	257.610	Recovery = Not calculated				
Mo 202.031†	8.6	-0.00188 mg/L	0.000319	-0.00188 mg/L	0.000319	16.99%
QC value within limits for Mo	202.031	Recovery = Not calculated				
Ni 231.604†	1.8	-0.00200 mg/L	0.000117	-0.00200 mg/L	0.000117	5.85%
QC value within limits for Ni	231.604	Recovery = Not calculated				
Pb 220.353†	-10.8	-0.00219 mg/L	0.000718	-0.00219 mg/L	0.000718	32.82%
QC value within limits for Pb	220.353	Recovery = Not calculated				
Sb 206.836†	2.2	0.00161 mg/L	0.001438	0.00161 mg/L	0.001438	89.12%
QC value within limits for Sb	206.836	Recovery = Not calculated				
Se 196.026†	-6.4	-0.00051 mg/L	0.002708	-0.00051 mg/L	0.002708	532.60%
QC value within limits for Se	196.026	Recovery = Not calculated				
Si 251.611†	151.4	-0.00264 mg/L	0.000686	-0.00264 mg/L	0.000686	25.94%
QC value within limits for Si	251.611	Recovery = Not calculated				
Sn 189.927†	-4.7	-0.00389 mg/L	0.000675	-0.00389 mg/L	0.000675	17.34%
QC value within limits for Sn	189.927	Recovery = Not calculated				
Ti 334.940†	81.9	-0.00171 mg/L	0.000108	-0.00171 mg/L	0.000108	6.31%
QC value within limits for Ti	334.940	Recovery = Not calculated				
Tl 190.801†	-0.5	-0.00227 mg/L	0.001903	-0.00227 mg/L	0.001903	83.99%
QC value within limits for Tl	190.801	Recovery = Not calculated				
V 290.880†	967.4	-0.00011 mg/L	0.000906	-0.00011 mg/L	0.000906	852.20%
QC value within limits for V	290.880	Recovery = Not calculated				
Zn 206.200†	-29.1	-0.00281 mg/L	0.000226	-0.00281 mg/L	0.000226	8.05%
QC value within limits for Zn	206.200	Recovery = Not calculated				
K 766.490†	89.9	-0.0152 mg/L	0.02108	-0.0152 mg/L	0.02108	138.55%

Approved: May 09, 2012

John H. Rhodes

QC value within limits for K 766.490 Recovery = Not calculated
 Na 589.592† -40.2 0.0203 mg/L 0.00725 0.0203 mg/L 0.00725 35.64%
 QC value within limits for Na 589.592 Recovery = Not calculated
 Sr 407.771† 66.5 -0.00594 mg/L 0.000022 -0.00594 mg/L 0.000022 0.38%
 QC value within limits for Sr 407.771 Recovery = Not calculated
 Li 670.784† -2.6 -0.00370 mg/L 0.000556 -0.00370 mg/L 0.000556 15.04%
 QC value within limits for Li 670.784 Recovery = Not calculated
 All analyte(s) passed QC.

Sequence No.: 23 u&osampler Location: 62
 Sample ID: PBW 32 WG397313-01 a&e Collected: 5/8/2012 5:10:31 PM
 Analyst: KHR a&a Type: Original
 Initial Sample Wt: n&tial Sample Vol:
 Dilution: a&ple Prep Vol:

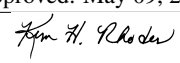
Nebulizer Parameters: PBW 32 WG397313-01
 Analyte Back Pressure Flow
 All 156.0 kPa 0.50 L/min

Mean Data: PBW 32 WG397313-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2347174.6				10144.59	0.43%
YRADIAL	318701.4				6125.87	1.92%
Ga 417.206	1390841.3				27707.67	1.99%
GaRADIAL	96304.6				1581.78	1.64%
Ag 328.068†	-52.6	-0.00036 mg/L	0.000066	-0.00036 mg/L	0.000066	18.13%
Al 396.153†	32.2	-0.0286 mg/L	0.00137	-0.0286 mg/L	0.00137	4.78%
As 188.979†	-11.9	-0.00424 mg/L	0.001480	-0.00424 mg/L	0.001480	34.90%
Ba 233.527†	-17.4	-0.00336 mg/L	0.000131	-0.00336 mg/L	0.000131	3.90%
Be 234.861†	-391.0	-0.00022 mg/L	0.000013	-0.00022 mg/L	0.000013	6.20%
B 249.677†	221.9	0.00422 mg/L	0.000028	0.00422 mg/L	0.000028	0.67%
Ca 227.546†	-31.9	-0.0203 mg/L	0.01489	-0.0203 mg/L	0.01489	73.50%
Cd 228.802†	24.2	0.00065 mg/L	0.000205	0.00065 mg/L	0.000205	31.55%
Co 228.616†	-2.3	-0.00077 mg/L	0.000232	-0.00077 mg/L	0.000232	30.00%
Cr 267.716†	21.8	-0.00179 mg/L	0.000035	-0.00179 mg/L	0.000035	1.96%
Cu 327.393†	784.3	0.00247 mg/L	0.000156	0.00247 mg/L	0.000156	6.33%
Fe 239.562†	44.9	-0.00754 mg/L	0.000375	-0.00754 mg/L	0.000375	4.97%
Mg 279.077†	11.9	-0.0216 mg/L	0.00233	-0.0216 mg/L	0.00233	10.76%
Mn 257.610†	999.7	-0.00173 mg/L	0.000024	-0.00173 mg/L	0.000024	1.39%
Mo 202.031†	40.8	-0.00101 mg/L	0.000396	-0.00101 mg/L	0.000396	39.38%
Ni 231.604†	-58.4	-0.00288 mg/L	0.000301	-0.00288 mg/L	0.000301	10.43%
Pb 220.353†	-17.6	-0.00280 mg/L	0.000607	-0.00280 mg/L	0.000607	21.65%
Sb 206.836†	1.0	0.00130 mg/L	0.000452	0.00130 mg/L	0.000452	34.72%
Se 196.026†	4.6	0.00564 mg/L	0.002105	0.00564 mg/L	0.002105	37.32%
Si 251.611†	114.5	-0.00354 mg/L	0.000482	-0.00354 mg/L	0.000482	13.61%
Sn 189.927†	-36.7	-0.00696 mg/L	0.000131	-0.00696 mg/L	0.000131	1.88%
Ti 334.940†	350.6	-0.00145 mg/L	0.000223	-0.00145 mg/L	0.000223	15.35%
Tl 190.801†	-19.8	-0.00723 mg/L	0.003367	-0.00723 mg/L	0.003367	46.60%
V 290.880†	710.2	-0.00144 mg/L	0.001915	-0.00144 mg/L	0.001915	133.30%
Zn 206.200†	71.0	-0.00043 mg/L	0.000084	-0.00043 mg/L	0.000084	19.70%
K 766.490†	133.7	-0.00224 mg/L	0.013168	-0.00224 mg/L	0.013168	588.81%
Na 589.592†	376.0	0.0404 mg/L	0.00870	0.0404 mg/L	0.00870	21.55%
Sr 407.771†	297.2	-0.00585 mg/L	0.000006	-0.00585 mg/L	0.000006	0.10%
Li 670.784†	-39.9	-0.00394 mg/L	0.000313	-0.00394 mg/L	0.000313	7.95%

Sequence No.: 24 u&osampler Location: 63
 Sample ID: LCSW 32 WG397313-02 a&e Collected: 5/8/2012 5:17:26 PM
 Analyst: KHR a&a Type: Original
 Initial Sample Wt: n&tial Sample Vol:
 Dilution: a&ple Prep Vol:

Nebulizer Parameters: LCSW 32 WG397313-02
 Analyte Back Pressure Flow
 All 156.0 kPa 0.50 L/min

Approved: May 09, 2012


Mean Data: LCSW 32 WG397313-02

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Y 371.029	2278052.5					11573.61	0.51%
YRADIAL	319939.4					1175.24	0.37%
Ga 417.206	1362811.6					22145.87	1.63%
GarADIAL	93813.5					398.20	0.42%
Ag 328.068†	60219.3	0.193 mg/L	0.0063	0.193 mg/L	0.0063	0.0063	3.24%
Al 396.153†	36899.0	4.90 mg/L	0.017	4.90 mg/L	0.017	0.017	0.34%
As 188.979†	497.7	0.174 mg/L	0.0018	0.174 mg/L	0.0018	0.0018	1.05%
Ba 233.527†	75098.5	0.476 mg/L	0.0051	0.476 mg/L	0.0051	0.0051	1.08%
Be 234.861†	28145.5	0.0222 mg/L	0.00056	0.0222 mg/L	0.00056	0.00056	2.51%
B 249.677†	77261.1	0.908 mg/L	0.0324	0.908 mg/L	0.0324	0.0324	3.57%
Ca 227.546†	2108.1	4.74 mg/L	0.107	4.74 mg/L	0.107	0.107	2.26%
Cd 228.802†	1316.9	0.0233 mg/L	0.00077	0.0233 mg/L	0.00077	0.00077	3.30%
Co 228.616†	3709.7	0.0949 mg/L	0.00043	0.0949 mg/L	0.00043	0.00043	0.46%
Cr 267.716†	26735.3	0.243 mg/L	0.0050	0.243 mg/L	0.0050	0.0050	2.05%
Cu 327.393†	67254.9	0.251 mg/L	0.0078	0.251 mg/L	0.0078	0.0078	3.12%
Fe 239.562†	29777.8	1.86 mg/L	0.014	1.86 mg/L	0.014	0.014	0.77%
Mg 279.077†	16654.1	4.67 mg/L	0.048	4.67 mg/L	0.048	0.048	1.02%
Mn 257.610†	205508.6	0.242 mg/L	0.0014	0.242 mg/L	0.0014	0.0014	0.59%
Mo 202.031†	18197.9	0.490 mg/L	0.0048	0.490 mg/L	0.0048	0.0048	0.98%
Ni 231.604†	16262.7	0.237 mg/L	0.0013	0.237 mg/L	0.0013	0.0013	0.54%
Pb 220.353†	2552.8	0.229 mg/L	0.0017	0.229 mg/L	0.0017	0.0017	0.75%
Sb 206.836†	2360.6	0.569 mg/L	0.0116	0.569 mg/L	0.0116	0.0116	2.05%
Se 196.026†	319.6	0.181 mg/L	0.0019	0.181 mg/L	0.0019	0.0019	1.07%
Si 251.611†	100659.5	2.40 mg/L	0.053	2.40 mg/L	0.053	0.053	2.22%
Sn 189.927†	5335.2	0.508 mg/L	0.0020	0.508 mg/L	0.0020	0.0020	0.40%
Ti 334.940†	496228.1	0.493 mg/L	0.0028	0.493 mg/L	0.0028	0.0028	0.56%
Tl 190.801†	906.0	0.238 mg/L	0.0081	0.238 mg/L	0.0081	0.0081	3.42%
V 290.880†	96671.4	0.494 mg/L	0.0107	0.494 mg/L	0.0107	0.0107	2.16%
Zn 206.200†	19194.2	0.456 mg/L	0.0081	0.456 mg/L	0.0081	0.0081	1.77%
K 766.490†	80665.0	24.0 mg/L	0.19	24.0 mg/L	0.19	0.19	0.80%
Na 589.592†	492025.2	24.2 mg/L	0.28	24.2 mg/L	0.28	0.28	1.16%
Sr 407.771†	1308206.8	0.485 mg/L	0.0080	0.485 mg/L	0.0080	0.0080	1.65%
Li 670.784†	84223.7	0.540 mg/L	0.0075	0.540 mg/L	0.0075	0.0075	1.38%

Sequence No.: 25

Sample ID: LCSW 32 WG397313-03

Analyst: KHR

Initial Sample Wt:

Dilution:

Sampler Location: 64

Time Collected: 5/8/2012 5:23:24 PM

Sample Type: Original

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: LCSW 32 WG397313-03

Analyte	Back Pressure	Flow
All	156.0 kPa	0.50 L/min

Mean Data: LCSW 32 WG397313-03

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Y 371.029	2282729.7					10054.46	0.44%
YRADIAL	317112.2					749.44	0.24%
Ga 417.206	1319009.1					39986.27	3.03%
GarADIAL	93468.0					1181.60	1.26%
Ag 328.068†	62894.2	0.202 mg/L	0.0065	0.202 mg/L	0.0065	0.0065	3.24%
Al 396.153†	37281.8	4.95 mg/L	0.030	4.95 mg/L	0.030	0.030	0.61%
As 188.979†	516.5	0.181 mg/L	0.0083	0.181 mg/L	0.0083	0.0083	4.58%
Ba 233.527†	76249.2	0.483 mg/L	0.0047	0.483 mg/L	0.0047	0.0047	0.97%
Be 234.861†	29638.1	0.0233 mg/L	0.00086	0.0233 mg/L	0.00086	0.00086	3.69%
B 249.677†	81238.7	0.955 mg/L	0.0383	0.955 mg/L	0.0383	0.0383	4.01%
Ca 227.546†	2173.5	4.88 mg/L	0.147	4.88 mg/L	0.147	0.147	3.01%
Cd 228.802†	1368.9	0.0242 mg/L	0.00128	0.0242 mg/L	0.00128	0.00128	5.29%
Co 228.616†	3713.9	0.0951 mg/L	0.00055	0.0951 mg/L	0.00055	0.00055	0.58%
Cr 267.716†	27181.1	0.247 mg/L	0.0026	0.247 mg/L	0.0026	0.0026	1.06%
Cu 327.393†	70304.6	0.262 mg/L	0.0086	0.262 mg/L	0.0086	0.0086	3.28%
Fe 239.562†	30296.7	1.89 mg/L	0.011	1.89 mg/L	0.011	0.011	0.59%
Mg 279.077†	16987.7	4.77 mg/L	0.077	4.77 mg/L	0.077	0.077	1.61%
Mn 257.610†	208408.7	0.245 mg/L	0.0033	0.245 mg/L	0.0033	0.0033	1.33%
Mo 202.031†	18430.0	0.496 mg/L	0.0060	0.496 mg/L	0.0060	0.0060	1.22%

Approved: May 09, 2012

John H. Rhodes

Ni 231.604†	16572.6	0.242 mg/L	0.0018	0.242 mg/L	0.0018	0.74%
Pb 220.353†	2570.3	0.231 mg/L	0.0025	0.231 mg/L	0.0025	1.10%
Sb 206.836†	2439.9	0.588 mg/L	0.0200	0.588 mg/L	0.0200	3.40%
Se 196.026†	338.1	0.192 mg/L	0.0084	0.192 mg/L	0.0084	4.38%
Si 251.611†	105242.0	2.51 mg/L	0.062	2.51 mg/L	0.062	2.48%
Sn 189.927†	5405.4	0.515 mg/L	0.0035	0.515 mg/L	0.0035	0.67%
Ti 334.940†	500191.6	0.497 mg/L	0.0022	0.497 mg/L	0.0022	0.44%
Tl 190.801†	899.9	0.237 mg/L	0.0028	0.237 mg/L	0.0028	1.17%
V 290.880†	98173.6	0.502 mg/L	0.0065	0.502 mg/L	0.0065	1.29%
Zn 206.200†	19509.7	0.464 mg/L	0.0026	0.464 mg/L	0.0026	0.55%
K 766.490†	81297.3	24.2 mg/L	0.10	24.2 mg/L	0.10	0.42%
Na 589.592†	496713.7	24.5 mg/L	0.35	24.5 mg/L	0.35	1.44%
Sr 407.771†	1323568.0	0.491 mg/L	0.0064	0.491 mg/L	0.0064	1.30%
Li 670.784†	84270.6	0.541 mg/L	0.0052	0.541 mg/L	0.0052	0.96%

Sequence No.: 26

Sample ID: L1205013001

Analyst: KHR

Initial Sample Wt:

Dilution:

u@sampler Location: 65

Time Collected: 5/8/2012 5:29:23 PM

Time Type: Original

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: L1205013001

Analyte	Back Pressure	Flow
All	155.0 kPa	0.50 L/min

Mean Data: L1205013001

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Y 371.029	2330090.6					28626.00	1.23%
YRADIAL	317646.0					3284.43	1.03%
Ga 417.206	1406304.8					47786.58	3.40%
GaRADIAL	94829.0					1029.26	1.09%
Ag 328.068†	126.3	0.00034 mg/L	0.000332	0.000332	0.00034 mg/L	0.000332	96.99%
Al 396.153†	14439.7	1.91 mg/L	0.047	0.047	1.91 mg/L	0.047	2.48%
As 188.979†	-14.2	-0.00507 mg/L	0.000613	0.000613	-0.00507 mg/L	0.000613	12.10%
Ba 233.527†	1852.1	0.00858 mg/L	0.000080	0.000080	0.00858 mg/L	0.000080	0.93%
Be 234.861†	34.6	0.00006 mg/L	0.000092	0.000092	0.00006 mg/L	0.000092	155.32%
B 249.677†	1626.3	0.0198 mg/L	0.00148	0.00148	0.0198 mg/L	0.00148	7.46%
Ca 227.546†	741.4	1.99 mg/L	0.044	0.044	1.99 mg/L	0.044	2.20%
Cd 228.802†	18.0	0.00105 mg/L	0.000248	0.000248	0.00105 mg/L	0.000248	23.69%
Co 228.616†	5163.0	0.133 mg/L	0.0018	0.0018	0.133 mg/L	0.0018	1.37%
Cr 267.716†	185.9	-0.00031 mg/L	0.000116	0.000116	-0.00031 mg/L	0.000116	37.55%
Cu 327.393†	1201.7	0.00391 mg/L	0.000644	0.000644	0.00391 mg/L	0.000644	16.46%
Fe 239.562†	4802.1	0.291 mg/L	0.0058	0.0058	0.291 mg/L	0.0058	2.01%
Mg 279.077†	2266.0	0.613 mg/L	0.0174	0.0174	0.613 mg/L	0.0174	2.83%
Mn 257.610†	8609.7	0.00734 mg/L	0.000127	0.000127	0.00734 mg/L	0.000127	1.73%
Mo 202.031†	98.9	0.00058 mg/L	0.000353	0.000353	0.00058 mg/L	0.000353	60.50%
Ni 231.604†	31700.4	0.464 mg/L	0.0024	0.0024	0.464 mg/L	0.0024	0.52%
Pb 220.353†	-39.2	-0.00442 mg/L	0.001897	0.001897	-0.00442 mg/L	0.001897	42.89%
Sb 206.836†	-6.7	-0.00030 mg/L	0.000877	0.000877	-0.00030 mg/L	0.000877	296.64%
Se 196.026†	5.0	0.00613 mg/L	0.003222	0.003222	0.00613 mg/L	0.003222	52.56%
Si 251.611†	14996.6	0.353 mg/L	0.0439	0.0439	0.353 mg/L	0.0439	12.44%
Sn 189.927†	-67.0	-0.00987 mg/L	0.000550	0.000550	-0.00987 mg/L	0.000550	5.57%
Ti 334.940†	4336.9	0.00277 mg/L	0.000718	0.000718	0.00277 mg/L	0.000718	25.96%
Tl 190.801†	-10.3	-0.00482 mg/L	0.002557	0.002557	-0.00482 mg/L	0.002557	53.05%
V 290.880†	1620.0	0.00320 mg/L	0.001016	0.001016	0.00320 mg/L	0.001016	31.69%
Zn 206.200†	2250.6	0.0514 mg/L	0.00060	0.00060	0.0514 mg/L	0.00060	1.16%
K 766.490†	1102.0	0.262 mg/L	0.0281	0.0281	0.262 mg/L	0.0281	10.75%
Na 589.592†	473117.0	23.3 mg/L	0.03	0.03	23.3 mg/L	0.03	0.12%
Sr 407.771†	48579.4	0.0122 mg/L	0.00018	0.00018	0.0122 mg/L	0.00018	1.45%
Li 670.784†	40387.2	0.257 mg/L	0.0015	0.0015	0.257 mg/L	0.0015	0.57%

Sequence No.: 27

Sample ID: L1205013002

Analyst: KHR

Initial Sample Wt:

Dilution:

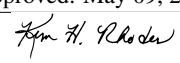
u@sampler Location: 66

Time Collected: 5/8/2012 5:35:21 PM

Time Type: Original

Initial Sample Vol:

Sample Prep Vol:

Approved: May 09, 2012


Nebulizer Parameters: L1205013002

Analyte Back Pressure Flow
 All 155.0 kPa 0.50 L/min

Mean Data: L1205013002

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2296859.8					38420.56	1.67%
YRADIAL	313712.6					2468.46	0.79%
Ga 417.206	1385236.0					37441.99	2.70%
GaRADIAL	95346.4					1542.55	1.62%
Ag 328.068†	48.2	0.00008	mg/L	0.000117	0.00008	0.000117	138.95%
Al 396.153†	14230.7	1.88	mg/L	0.025	1.88	0.025	1.35%
As 188.979†	-11.3	-0.00405	mg/L	0.000995	-0.00405	0.000995	24.55%
Ba 233.527†	2186.5	0.0107	mg/L	0.00011	0.0107	0.00011	1.04%
Be 234.861†	-111.7	-0.00005	mg/L	0.000078	-0.00005	0.000078	154.56%
B 249.677†	1326.0	0.0163	mg/L	0.00080	0.0163	0.00080	4.90%
Ca 227.546†	835.4	2.17	mg/L	0.027	2.17	0.027	1.25%
Cd 228.802†	32.8	0.00128	mg/L	0.000255	0.00128	0.000255	19.87%
Co 228.616†	4926.3	0.127	mg/L	0.0026	0.127	0.0026	2.04%
Cr 267.716†	183.9	-0.00033	mg/L	0.000197	-0.00033	0.000197	60.42%
Cu 327.393†	1113.8	0.00359	mg/L	0.000445	0.00359	0.000445	12.40%
Fe 239.562†	4390.5	0.265	mg/L	0.0032	0.265	0.0032	1.20%
Mg 279.077†	2292.7	0.621	mg/L	0.0049	0.621	0.0049	0.79%
Mn 257.610†	10254.2	0.00930	mg/L	0.000334	0.00930	0.000334	3.59%
Mo 202.031†	106.4	0.00078	mg/L	0.000279	0.00078	0.000279	35.57%
Ni 231.604†	30062.0	0.440	mg/L	0.0102	0.440	0.0102	2.31%
Pb 220.353†	-48.1	-0.00523	mg/L	0.000609	-0.00523	0.000609	11.64%
Sb 206.836†	-7.5	-0.00049	mg/L	0.001007	-0.00049	0.001007	207.15%
Se 196.026†	7.6	0.00755	mg/L	0.001013	0.00755	0.001013	13.42%
Si 251.611†	47990.7	1.14	mg/L	0.028	1.14	0.028	2.49%
Sn 189.927†	-67.6	-0.00992	mg/L	0.000756	-0.00992	0.000756	7.62%
Ti 334.940†	6718.2	0.00517	mg/L	0.000112	0.00517	0.000112	2.16%
Tl 190.801†	-14.7	-0.00591	mg/L	0.000843	-0.00591	0.000843	14.26%
V 290.880†	1873.4	0.00452	mg/L	0.001499	0.00452	0.001499	33.16%
Zn 206.200†	2711.7	0.0624	mg/L	0.00102	0.0624	0.00102	1.63%
K 766.490†	1493.0	0.375	mg/L	0.0211	0.375	0.0211	5.63%
Na 589.592†	517073.8	25.5	mg/L	0.21	25.5	0.21	0.81%
Sr 407.771†	53047.7	0.0139	mg/L	0.00015	0.0139	0.00015	1.10%
Li 670.784†	43281.9	0.276	mg/L	0.0029	0.276	0.0029	1.04%

Sequence No.: 28

Sample ID: L1205013003

Analyst: KHR

Initial Sample Wt:

Dilution:

u&osampler Location: 67

ame Collected: 5/8/2012 5:41:19 PM

ama Type: Original

nitial Sample Vol:

ample Prep Vol:

Nebulizer Parameters: L1205013003

Analyte Back Pressure Flow
 All 155.0 kPa 0.50 L/min

Mean Data: L1205013003

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2319060.7					47598.27	2.05%
YRADIAL	323054.9					1031.85	0.32%
Ga 417.206	1447380.0					30107.15	2.08%
GaRADIAL	97157.4					503.46	0.52%
Ag 328.068†	25.5	0.00027	mg/L	0.000406	0.00027	0.000406	152.37%
Al 396.153†	46246.1	6.19	mg/L	0.036	6.19	0.036	0.58%
As 188.979†	-11.2	-0.00401	mg/L	0.000501	-0.00401	0.000501	12.48%
Ba 233.527†	7253.6	0.0431	mg/L	0.00055	0.0431	0.00055	1.28%
Be 234.861†	233.0	0.00010	mg/L	0.000081	0.00010	0.000081	80.33%
B 249.677†	3055.2	0.0344	mg/L	0.00225	0.0344	0.00225	6.54%
Ca 227.546†	1807.1	5.17	mg/L	0.073	5.17	0.073	1.42%
Cd 228.802†	-55.5	0.00100	mg/L	0.000432	0.00100	0.000432	43.15%
Co 228.616†	18297.7	0.473	mg/L	0.0092	0.473	0.0092	1.94%

Approved: May 09, 2012

Khr H. Rhodes

Table with 8 columns: Element, Value 1, Value 2, Value 3, Value 4, Value 5, Value 6, Value 7. Lists various elements like Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li with their respective values.

Sequence No.: 29 Sample ID: L1205013004 Analyst: KHR Initial Sample Wt: Dilution: uikosampler Location: 68 Date Collected: 5/8/2012 5:47:18 PM alpha Type: Original Initial Sample Vol: Sample Prep Vol:

Nebulizer Parameters: L1205013004 Analyte Back Pressure Flow All 155.0 kPa 0.50 L/min

Table with 8 columns: Analyte, Mean Corrected Intensity, Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists elements from Y to Li with their mean corrected intensity, concentration, standard deviation, and relative standard deviation.

Approved: May 09, 2012 [Signature]

Sequence No.: 30
 Sample ID: L1205013004PS WG397343-01
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 69
 a&e Collected: 5/8/2012 5:53:18 PM
 a&a Type: Original
 n&tial Sample Vol:
 a&ple Prep Vol:

 Nebulizer Parameters: L1205013004PS WG397343-01
 Analyte Back Pressure Flow
 All 155.0 kPa 0.50 L/min

 Mean Data: L1205013004PS WG397343-01

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Y 371.029	2286879.9					19242.13	0.84%	
YRADIAL	319005.6					4101.10	1.29%	
Ga 417.206	1391988.1					42517.85	3.05%	
GaRADIAL	94166.5					1170.73	1.24%	
Ag 328.068†	59993.8	0.193 mg/L	0.0079	0.193 mg/L	0.0079	4.11%		
Al 396.153†	75412.3	10.1 mg/L	0.15	10.1 mg/L	0.15	1.44%		
As 188.979†	502.4	0.176 mg/L	0.0069	0.176 mg/L	0.0069	3.90%		
Ba 233.527†	80935.0	0.513 mg/L	0.0042	0.513 mg/L	0.0042	0.81%		
Be 234.861†	28870.7	0.0226 mg/L	0.00096	0.0226 mg/L	0.00096	4.24%		
B 249.677†	80201.9	0.940 mg/L	0.0404	0.940 mg/L	0.0404	4.29%		
Ca 227.546†	3706.1	9.09 mg/L	0.320	9.09 mg/L	0.320	3.52%		
Cd 228.802†	1234.1	0.0231 mg/L	0.00159	0.0231 mg/L	0.00159	6.90%		
Co 228.616†	17331.2	0.447 mg/L	0.0026	0.447 mg/L	0.0026	0.59%		
Cr 267.716†	27053.0	0.246 mg/L	0.0035	0.246 mg/L	0.0035	1.42%		
Cu 327.393†	71625.9	0.267 mg/L	0.0084	0.267 mg/L	0.0084	3.14%		
Fe 239.562†	41458.3	2.59 mg/L	0.051	2.59 mg/L	0.051	1.97%		
Mg 279.077†	21111.3	5.93 mg/L	0.113	5.93 mg/L	0.113	1.91%		
Mn 257.610†	228627.1	0.270 mg/L	0.0029	0.270 mg/L	0.0029	1.06%		
Mo 202.031†	18285.1	0.492 mg/L	0.0042	0.492 mg/L	0.0042	0.85%		
Ni 231.604†	98219.2	1.44 mg/L	0.015	1.44 mg/L	0.015	1.04%		
Pb 220.353†	2596.8	0.234 mg/L	0.0024	0.234 mg/L	0.0024	1.03%		
Sb 206.836†	2371.6	0.572 mg/L	0.0202	0.572 mg/L	0.0202	3.54%		
Se 196.026†	319.7	0.182 mg/L	0.0101	0.182 mg/L	0.0101	5.53%		
Si 251.611†	145006.6	3.46 mg/L	0.093	3.46 mg/L	0.093	2.69%		
Sn 189.927†	-128.0	-0.0157 mg/L	0.00055	-0.0157 mg/L	0.00055	3.47%		
Ti 334.940†	510281.9	0.508 mg/L	0.0022	0.508 mg/L	0.0022	0.44%		
Tl 190.801†	916.4	0.241 mg/L	0.0026	0.241 mg/L	0.0026	1.06%		
V 290.880†	97974.4	0.501 mg/L	0.0071	0.501 mg/L	0.0071	1.42%		
Zn 206.200†	25493.8	0.606 mg/L	0.0083	0.606 mg/L	0.0083	1.37%		
K 766.490†	84625.4	25.2 mg/L	0.19	25.2 mg/L	0.19	0.77%		
Na 589.592†	983343.0	49.6 mg/L	1.32	49.6 mg/L	1.32	2.66%		
Sr 407.771†	1481324.1	0.550 mg/L	0.0161	0.550 mg/L	0.0161	2.94%		
Li 670.784†	135675.6	0.873 mg/L	0.0094	0.873 mg/L	0.0094	1.08%		

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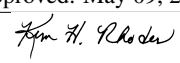
Sequence No.: 31
 Sample ID: L1205013004DL WG397343-02
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 70
 a&e Collected: 5/8/2012 5:59:18 PM
 a&a Type: Original
 n&tial Sample Vol:
 a&ple Prep Vol:

 Nebulizer Parameters: L1205013004DL WG397343-02
 Analyte Back Pressure Flow
 All 155.0 kPa 0.50 L/min

 Mean Data: L1205013004DL WG397343-02

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Y 371.029	2336177.8					1261.36	0.05%	
YRADIAL	319450.1					5355.67	1.68%	
Ga 417.206	1502251.6					21303.58	1.42%	
GaRADIAL	97780.0					3976.03	4.07%	
Ag 328.068†	11.3	-0.00009 mg/L	0.000374	-0.00009 mg/L	0.000374	407.62%		
Al 396.153†	8515.3	1.11 mg/L	0.041	1.11 mg/L	0.041	3.65%		
As 188.979†	-2.7	-0.00096 mg/L	0.001872	-0.00096 mg/L	0.001872	195.13%		

Approved: May 09, 2012


Ba 233.527†	1252.6	0.00475 mg/L	0.000069	0.00475 mg/L	0.000069	1.45%
Be 234.861†	125.9	0.00016 mg/L	0.000011	0.00016 mg/L	0.000011	6.88%
B 249.677†	903.0	0.0117 mg/L	0.00058	0.0117 mg/L	0.00058	4.99%
Ca 227.546†	290.3	0.885 mg/L	0.0096	0.885 mg/L	0.0096	1.08%
Cd 228.802†	-15.0	0.00022 mg/L	0.000120	0.00022 mg/L	0.000120	53.93%
Co 228.616†	3018.1	0.0774 mg/L	0.00036	0.0774 mg/L	0.00036	0.46%
Cr 267.716†	70.6	-0.00136 mg/L	0.000017	-0.00136 mg/L	0.000017	1.29%
Cu 327.393†	558.7	0.00157 mg/L	0.000201	0.00157 mg/L	0.000201	12.79%
Fe 239.562†	2531.5	0.148 mg/L	0.0047	0.148 mg/L	0.0047	3.14%
Mg 279.077†	958.8	0.245 mg/L	0.0068	0.245 mg/L	0.0068	2.76%
Mn 257.610†	5111.0	0.00317 mg/L	0.000028	0.00317 mg/L	0.000028	0.90%
Mo 202.031†	34.9	-0.00116 mg/L	0.000262	-0.00116 mg/L	0.000262	22.65%
Ni 231.604†	18915.2	0.276 mg/L	0.0006	0.276 mg/L	0.0006	0.22%
Pb 220.353†	-12.8	-0.00218 mg/L	0.001207	-0.00218 mg/L	0.001207	55.38%
Sb 206.836†	-0.1	0.00119 mg/L	0.000169	0.00119 mg/L	0.000169	14.19%
Se 196.026†	0.8	0.00365 mg/L	0.001550	0.00365 mg/L	0.001550	42.52%
Si 251.611†	7039.0	0.162 mg/L	0.0043	0.162 mg/L	0.0043	2.64%
Sn 189.927†	-16.8	-0.00506 mg/L	0.000340	-0.00506 mg/L	0.000340	6.72%
Ti 334.940†	945.1	-0.00076 mg/L	0.000039	-0.00076 mg/L	0.000039	5.10%
Tl 190.801†	-9.8	-0.00468 mg/L	0.001468	-0.00468 mg/L	0.001468	31.33%
V 290.880†	974.1	-0.00010 mg/L	0.001083	-0.00010 mg/L	0.001083	>999.9%
Zn 206.200†	1417.0	0.0316 mg/L	0.00027	0.0316 mg/L	0.00027	0.84%
K 766.490†	719.8	0.167 mg/L	0.0054	0.167 mg/L	0.0054	3.23%
Na 589.592†	103522.5	5.03 mg/L	0.198	5.03 mg/L	0.198	3.93%
Sr 407.771†	25299.3	0.00352 mg/L	0.000085	0.00352 mg/L	0.000085	2.41%
Li 670.784†	10912.6	0.0668 mg/L	0.00280	0.0668 mg/L	0.00280	4.19%

Sequence No.: 32
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

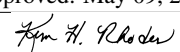
Sampler Location: 6
 Date Collected: 5/8/2012 6:06:44 PM
 Sample Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	155.0 kPa	0.50 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2222900.6				7771.02	0.35%
YRADIAL	314230.6				3929.32	1.25%
Ga 417.206	1332191.3				22266.04	1.67%
GA RADIAL	93217.5				1815.25	1.95%
Ag 328.068†	128649.6	0.413 mg/L	0.0101	0.413 mg/L	0.0101	2.45%
QC value within limits for Ag		328.068 Recovery = 103.31%				
Al 396.153†	75919.6	10.1 mg/L	0.04	10.1 mg/L	0.04	0.36%
QC value within limits for Al		396.153 Recovery = 101.14%				
As 188.979†	1128.0	0.396 mg/L	0.0058	0.396 mg/L	0.0058	1.45%
QC value within limits for As		188.979 Recovery = 98.97%				
Ba 233.527†	158979.2	1.01 mg/L	0.011	1.01 mg/L	0.011	1.10%
QC value within limits for Ba		233.527 Recovery = 101.16%				
Be 234.861†	63885.6	0.0502 mg/L	0.00102	0.0502 mg/L	0.00102	2.03%
QC value within limits for Be		234.861 Recovery = 100.38%				
B 249.677†	43800.5	0.513 mg/L	0.0141	0.513 mg/L	0.0141	2.74%
QC value within limits for B		249.677 Recovery = 102.51%				
Ca 227.546†	4806.7	10.7 mg/L	0.24	10.7 mg/L	0.24	2.21%
QC value within limits for Ca		227.546 Recovery = 107.16%				
Cd 228.802†	2804.7	0.0492 mg/L	0.00171	0.0492 mg/L	0.00171	3.47%
QC value within limits for Cd		228.802 Recovery = 98.41%				
Co 228.616†	7786.7	0.200 mg/L	0.0013	0.200 mg/L	0.0013	0.67%
QC value within limits for Co		228.616 Recovery = 100.04%				
Cr 267.716†	55466.0	0.507 mg/L	0.0054	0.507 mg/L	0.0054	1.07%
QC value within limits for Cr		267.716 Recovery = 101.42%				
Cu 327.393†	141310.5	0.527 mg/L	0.0143	0.527 mg/L	0.0143	2.72%
QC value within limits for Cu		327.393 Recovery = 105.37%				
Fe 239.562†	62909.2	3.94 mg/L	0.051	3.94 mg/L	0.051	1.30%
QC value within limits for Fe		239.562 Recovery = 98.49%				
Mg 279.077†	34784.8	9.79 mg/L	0.121	9.79 mg/L	0.121	1.23%

Approved: May 09, 2012


Mn	257.610†	436147.8	0.517 mg/L	0.0062	0.517 mg/L	0.0062	1.19%
Mo	202.031†	37557.8	1.01 mg/L	0.012	1.01 mg/L	0.012	1.21%
Ni	231.604†	34845.4	0.510 mg/L	0.0057	0.510 mg/L	0.0057	1.13%
Pb	220.353†	5628.8	0.507 mg/L	0.0030	0.507 mg/L	0.0030	0.59%
Sb	206.836†	5103.2	1.23 mg/L	0.023	1.23 mg/L	0.023	1.83%
Se	196.026†	731.0	0.411 mg/L	0.0070	0.411 mg/L	0.0070	1.71%
Si	251.611†	216154.4	5.16 mg/L	0.105	5.16 mg/L	0.105	2.03%
Sn	189.927†	10490.5	1.00 mg/L	0.007	1.00 mg/L	0.007	0.67%
Ti	334.940†	1022541.6	1.02 mg/L	0.005	1.02 mg/L	0.005	0.52%
Tl	190.801†	1988.6	0.525 mg/L	0.0008	0.525 mg/L	0.0008	0.15%
V	290.880†	201332.2	1.04 mg/L	0.004	1.04 mg/L	0.004	0.43%
Zn	206.200†	41820.8	0.996 mg/L	0.0149	0.996 mg/L	0.0149	1.50%
K	766.490†	164067.9	49.4 mg/L	0.12	49.4 mg/L	0.12	0.25%
Na	589.592†	990353.1	50.0 mg/L	1.11	50.0 mg/L	1.11	2.22%
Sr	407.771†	2713804.9	1.01 mg/L	0.014	1.01 mg/L	0.014	1.35%
Li	670.784†	164946.3	1.06 mg/L	0.009	1.06 mg/L	0.009	0.89%

All analyte(s) passed QC.

Sequence No.: 33
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

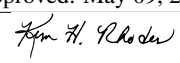
u&osampler Location: 1
Date Collected: 5/8/2012 6:12:45 PM
Date Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	155.0 kPa	0.50 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2324661.3				16995.03	0.73%
YRADIAL	314559.4				8225.09	2.61%
Ga 417.206	1431229.6				25932.16	1.81%
GaRADIAL	94339.7				121.87	0.13%
Ag 328.068†	19.1	-0.00014 mg/L	0.000193	-0.00014 mg/L	0.000193	139.98%
QC value within limits for Ag 328.068			Recovery =	Not calculated		
Al 396.153†	-1.7	-0.0331 mg/L	0.00069	-0.0331 mg/L	0.00069	2.09%
QC value within limits for Al 396.153			Recovery =	Not calculated		
As 188.979†	-3.8	-0.00137 mg/L	0.001952	-0.00137 mg/L	0.001952	142.72%
QC value within limits for As 188.979			Recovery =	Not calculated		
Ba 233.527†	23.8	-0.00310 mg/L	0.000158	-0.00310 mg/L	0.000158	5.09%
QC value within limits for Ba 233.527			Recovery =	Not calculated		
Be 234.861†	121.7	0.00019 mg/L	0.000019	0.00019 mg/L	0.000019	9.93%
QC value within limits for Be 234.861			Recovery =	Not calculated		
B 249.677†	520.6	0.00774 mg/L	0.000338	0.00774 mg/L	0.000338	4.37%
QC value within limits for B 249.677			Recovery =	Not calculated		
Ca 227.546†	-3.1	0.0415 mg/L	0.02788	0.0415 mg/L	0.02788	67.23%
QC value within limits for Ca 227.546			Recovery =	Not calculated		
Cd 228.802†	4.0	0.00027 mg/L	0.000072	0.00027 mg/L	0.000072	26.47%
QC value within limits for Cd 228.802			Recovery =	Not calculated		
Co 228.616†	0.9	-0.00069 mg/L	0.000264	-0.00069 mg/L	0.000264	38.22%

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Cr	267.716†	QC value within limits for Co	228.616	Recovery = Not calculated				
			-11.4	-0.00210 mg/L	0.000098	-0.00210 mg/L	0.000098	4.67%
Cu	327.393†	QC value within limits for Cr	267.716	Recovery = Not calculated				
			50.3	-0.00026 mg/L	0.000042	-0.00026 mg/L	0.000042	16.25%
Fe	239.562†	QC value within limits for Cu	327.393	Recovery = Not calculated				
			-16.5	-0.0114 mg/L	0.00038	-0.0114 mg/L	0.00038	3.34%
Mg	279.077†	QC value within limits for Fe	239.562	Recovery = Not calculated				
			2.7	-0.0242 mg/L	0.00360	-0.0242 mg/L	0.00360	14.86%
Mn	257.610†	QC value within limits for Mg	279.077	Recovery = Not calculated				
			13.3	-0.00290 mg/L	0.000011	-0.00290 mg/L	0.000011	0.39%
Mo	202.031†	QC value within limits for Mn	257.610	Recovery = Not calculated				
			14.7	-0.00171 mg/L	0.000082	-0.00171 mg/L	0.000082	4.82%
Ni	231.604†	QC value within limits for Mo	202.031	Recovery = Not calculated				
			5.0	-0.00195 mg/L	0.000229	-0.00195 mg/L	0.000229	11.75%
Pb	220.353†	QC value within limits for Ni	231.604	Recovery = Not calculated				
			-15.9	-0.00265 mg/L	0.001085	-0.00265 mg/L	0.001085	40.95%
Sb	206.836†	QC value within limits for Pb	220.353	Recovery = Not calculated				
			1.9	0.00153 mg/L	0.001311	0.00153 mg/L	0.001311	85.77%
Se	196.026†	QC value within limits for Sb	206.836	Recovery = Not calculated				
			-0.7	0.00270 mg/L	0.001734	0.00270 mg/L	0.001734	64.29%
Si	251.611†	QC value within limits for Se	196.026	Recovery = Not calculated				
			208.4	-0.00128 mg/L	0.000610	-0.00128 mg/L	0.000610	47.63%
Sn	189.927†	QC value within limits for Si	251.611	Recovery = Not calculated				
			-5.1	-0.00393 mg/L	0.000248	-0.00393 mg/L	0.000248	6.32%
Ti	334.940†	QC value within limits for Sn	189.927	Recovery = Not calculated				
			185.2	-0.00161 mg/L	0.000061	-0.00161 mg/L	0.000061	3.82%
Tl	190.801†	QC value within limits for Ti	334.940	Recovery = Not calculated				
			0.6	-0.00198 mg/L	0.002349	-0.00198 mg/L	0.002349	118.71%
V	290.880†	QC value within limits for Tl	190.801	Recovery = Not calculated				
			725.4	-0.00136 mg/L	0.001580	-0.00136 mg/L	0.001580	116.41%
Zn	206.200†	QC value within limits for V	290.880	Recovery = Not calculated				
			-38.3	-0.00303 mg/L	0.000122	-0.00303 mg/L	0.000122	4.03%
K	766.490†	QC value within limits for Zn	206.200	Recovery = Not calculated				
			78.8	-0.0185 mg/L	0.01153	-0.0185 mg/L	0.01153	62.23%
Na	589.592†	QC value within limits for K	766.490	Recovery = Not calculated				
			370.5	0.0401 mg/L	0.02717	0.0401 mg/L	0.02717	67.77%
Sr	407.771†	QC value within limits for Na	589.592	Recovery = Not calculated				
			280.9	-0.00586 mg/L	0.000068	-0.00586 mg/L	0.000068	1.15%
Li	670.784†	QC value within limits for Sr	407.771	Recovery = Not calculated				
			33.9	-0.00346 mg/L	0.000239	-0.00346 mg/L	0.000239	6.90%
		QC value within limits for Li	670.784	Recovery = Not calculated				

All analyte(s) passed QC.

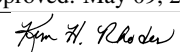
Sequence No.: 34
 Sample ID: PBW AF WG397165-02
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 71
 Date Collected: 5/8/2012 6:19:38 PM
 Sample Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Nebulizer Parameters: PBW AF WG397165-02
 Analyte Back Pressure Flow
 All 155.0 kPa 0.50 L/min

Mean Data: PBW AF WG397165-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2341256.0				27814.91	1.19%
YRADIAL	325531.0				1366.82	0.42%
Ga 417.206	1491538.3				34733.19	2.33%
GarADIAL	98688.7				2956.09	3.00%
Ag 328.068†	57.1	-0.00001 mg/L	0.000117	-0.00001 mg/L	0.000117	814.71%
Al 396.153†	-9.8	-0.0342 mg/L	0.00141	-0.0342 mg/L	0.00141	4.14%
As 188.979†	1.0	0.00034 mg/L	0.001576	0.00034 mg/L	0.001576	467.60%
Ba 233.527†	40.7	-0.00299 mg/L	0.000122	-0.00299 mg/L	0.000122	4.07%
Be 234.861†	209.8	0.00026 mg/L	0.000031	0.00026 mg/L	0.000031	11.82%
B 249.677†	387.1	0.00618 mg/L	0.000166	0.00618 mg/L	0.000166	2.69%
Ca 227.546†	-0.9	0.0462 mg/L	0.00781	0.0462 mg/L	0.00781	16.91%
Cd 228.802†	-6.6	0.00007 mg/L	0.000199	0.00007 mg/L	0.000199	278.52%
Co 228.616†	2.5	-0.00065 mg/L	0.000185	-0.00065 mg/L	0.000185	28.58%

Approved: May 09, 2012


Cr 267.716†	-27.2	-0.00224	mg/L	0.000087	-0.00224	mg/L	0.000087	3.88%
Cu 327.393†	27.9	-0.00034	mg/L	0.000412	-0.00034	mg/L	0.000412	120.19%
Fe 239.562†	-19.0	-0.0115	mg/L	0.00028	-0.0115	mg/L	0.00028	2.46%
Mg 279.077†	2.0	-0.0244	mg/L	0.00075	-0.0244	mg/L	0.00075	3.06%
Mn 257.610†	75.2	-0.00283	mg/L	0.000018	-0.00283	mg/L	0.000018	0.64%
Mo 202.031†	5.8	-0.00195	mg/L	0.000286	-0.00195	mg/L	0.000286	14.68%
Ni 231.604†	9.9	-0.00188	mg/L	0.000212	-0.00188	mg/L	0.000212	11.28%
Pb 220.353†	-11.9	-0.00229	mg/L	0.000839	-0.00229	mg/L	0.000839	36.67%
Sb 206.836†	-4.1	0.00009	mg/L	0.001564	0.00009	mg/L	0.001564	>999.9%
Se 196.026†	-1.4	0.00229	mg/L	0.002969	0.00229	mg/L	0.002969	129.57%
Si 251.611†	210.9	-0.00122	mg/L	0.000790	-0.00122	mg/L	0.000790	64.96%
Sn 189.927†	-63.0	-0.00948	mg/L	0.000091	-0.00948	mg/L	0.000091	0.96%
Ti 334.940†	130.6	-0.00166	mg/L	0.000122	-0.00166	mg/L	0.000122	7.37%
Tl 190.801†	1.9	-0.00164	mg/L	0.002238	-0.00164	mg/L	0.002238	136.10%
V 290.880†	946.0	-0.00022	mg/L	0.000557	-0.00022	mg/L	0.000557	257.17%
Zn 206.200†	63.2	-0.00062	mg/L	0.000218	-0.00062	mg/L	0.000218	35.38%
K 766.490†	27.2	-0.0338	mg/L	0.01511	-0.0338	mg/L	0.01511	44.72%
Na 589.592†	-51.8	0.0198	mg/L	0.01006	0.0198	mg/L	0.01006	50.87%
Sr 407.771†	28.1	-0.00595	mg/L	0.000032	-0.00595	mg/L	0.000032	0.53%
Li 670.784†	28.2	-0.00350	mg/L	0.000509	-0.00350	mg/L	0.000509	14.56%

Sequence No.: 35
 Sample ID: LCSW AF WG397165-03
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 72
 a&e Collected: 5/8/2012 6:26:33 PM
 a&a Type: Original
 n&i&tial Sample Vol:
 a&mple Prep Vol:

Nebulizer Parameters: LCSW AF WG397165-03
 Analyte Back Pressure Flow
 All 155.0 kPa 0.50 L/min

Mean Data: LCSW AF WG397165-03

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2240401.8				13848.62	0.62%
YRADIAL	311713.1				2517.50	0.81%
Ga 417.206	1391428.1				30686.53	2.21%
GaRADIAL	92923.8				141.91	0.15%
Ag 328.068†	61867.2	0.199 mg/L	0.0067	0.199 mg/L	0.0067	3.35%
Al 396.153†	37679.2	5.00 mg/L	0.016	5.00 mg/L	0.016	0.32%
As 188.979†	537.0	0.188 mg/L	0.0049	0.188 mg/L	0.0049	2.59%
Ba 233.527†	78237.9	0.496 mg/L	0.0052	0.496 mg/L	0.0052	1.04%
Be 234.861†	30639.5	0.0241 mg/L	0.00064	0.0241 mg/L	0.00064	2.66%
B 249.677†	83611.8	0.982 mg/L	0.0344	0.982 mg/L	0.0344	3.50%
Ca 227.546†	2238.3	5.03 mg/L	0.141	5.03 mg/L	0.141	2.81%
Cd 228.802†	1339.8	0.0236 mg/L	0.00111	0.0236 mg/L	0.00111	4.69%
Co 228.616†	3878.3	0.0993 mg/L	0.00095	0.0993 mg/L	0.00095	0.95%
Cr 267.716†	27367.3	0.249 mg/L	0.0016	0.249 mg/L	0.0016	0.63%
Cu 327.393†	68391.8	0.255 mg/L	0.0088	0.255 mg/L	0.0088	3.45%
Fe 239.562†	30581.9	1.91 mg/L	0.010	1.91 mg/L	0.010	0.54%
Mg 279.077†	17304.9	4.86 mg/L	0.049	4.86 mg/L	0.049	1.01%
Mn 257.610†	212972.2	0.251 mg/L	0.0029	0.251 mg/L	0.0029	1.17%
Mo 202.031†	18546.9	0.499 mg/L	0.0041	0.499 mg/L	0.0041	0.83%
Ni 231.604†	17278.5	0.252 mg/L	0.0036	0.252 mg/L	0.0036	1.43%
Pb 220.353†	2784.0	0.250 mg/L	0.0033	0.250 mg/L	0.0033	1.31%
Sb 206.836†	2442.8	0.589 mg/L	0.0181	0.589 mg/L	0.0181	3.07%
Se 196.026†	350.0	0.198 mg/L	0.0079	0.198 mg/L	0.0079	3.99%
Si 251.611†	105852.2	2.52 mg/L	0.055	2.52 mg/L	0.055	2.17%
Sn 189.927†	5629.6	0.536 mg/L	0.0041	0.536 mg/L	0.0041	0.76%
Ti 334.940†	506192.7	0.503 mg/L	0.0011	0.503 mg/L	0.0011	0.22%
Tl 190.801†	1016.4	0.267 mg/L	0.0024	0.267 mg/L	0.0024	0.91%
V 290.880†	99755.3	0.510 mg/L	0.0017	0.510 mg/L	0.0017	0.34%
Zn 206.200†	20792.0	0.494 mg/L	0.0046	0.494 mg/L	0.0046	0.93%
K 766.490†	83169.1	24.8 mg/L	0.17	24.8 mg/L	0.17	0.68%
Na 589.592†	514940.9	25.4 mg/L	0.19	25.4 mg/L	0.19	0.76%
Sr 407.771†	1373184.8	0.509 mg/L	0.0033	0.509 mg/L	0.0033	0.65%
Li 670.784†	85680.2	0.550 mg/L	0.0065	0.550 mg/L	0.0065	1.19%

Approved: May 09, 2012
[Signature]

Sequence No.: 36
 Sample ID: L1205005001 WG397165-01
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 73
 a&e Collected: 5/8/2012 6:32:32 PM
 a&a Type: Original
 n&tial Sample Vol:
 a&ple Prep Vol:

 Nebulizer Parameters: L1205005001 WG397165-01
 Analyte Back Pressure Flow
 All 155.0 kPa 0.50 L/min

Mean Data: L1205005001 WG397165-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2180090.4				9139.05	0.42%
YRADIAL	306397.9				322.68	0.11%
Ga 417.206	1420028.7				49090.17	3.46%
GaRADIAL	94260.5				940.61	1.00%
Ag 328.068†	601.7	0.00183 mg/L	0.000354	0.00183 mg/L	0.000354	19.33%
Al 396.153†	152.8	-0.0125 mg/L	0.00434	-0.0125 mg/L	0.00434	34.72%
As 188.979†	-4.1	-0.00146 mg/L	0.001110	-0.00146 mg/L	0.001110	75.98%
Ba 233.527†	26173.9	0.164 mg/L	0.0017	0.164 mg/L	0.0017	1.04%
Be 234.861†	389.9	0.00036 mg/L	0.000016	0.00036 mg/L	0.000016	4.60%
B 249.677†	9633.0	0.115 mg/L	0.0052	0.115 mg/L	0.0052	4.53%
Ca 227.546†	47680.3	101 mg/L	4.8	101 mg/L	4.8	4.71%
Cd 228.802†	36.6	0.00086 mg/L	0.000251	0.00086 mg/L	0.000251	29.09%
Co 228.616†	60.8	0.00084 mg/L	0.000294	0.00084 mg/L	0.000294	35.00%
Cr 267.716†	164.1	-0.00047 mg/L	0.000045	-0.00047 mg/L	0.000045	9.54%
Cu 327.393†	42.5	-0.00029 mg/L	0.000601	-0.00029 mg/L	0.000601	208.89%
Fe 239.562†	3467.9	0.207 mg/L	0.0054	0.207 mg/L	0.0054	2.62%
Mg 279.077†	150854.4	42.5 mg/L	0.13	42.5 mg/L	0.13	0.31%
Mn 257.610†	32577.5	0.0359 mg/L	0.00050	0.0359 mg/L	0.00050	1.38%
Mo 202.031†	131.3	0.00146 mg/L	0.000241	0.00146 mg/L	0.000241	16.49%
Ni 231.604†	217.3	0.00117 mg/L	0.000521	0.00117 mg/L	0.000521	44.49%
Pb 220.353†	-16.0	-0.00189 mg/L	0.001337	-0.00189 mg/L	0.001337	70.94%
Sb 206.836†	-7.7	-0.00076 mg/L	0.001313	-0.00076 mg/L	0.001313	171.93%
Se 196.026†	1.3	0.00387 mg/L	0.001006	0.00387 mg/L	0.001006	26.00%
Si 251.611†	263225.9	6.30 mg/L	0.203	6.30 mg/L	0.203	3.22%
Sn 189.927†	-320.1	-0.0341 mg/L	0.00047	-0.0341 mg/L	0.00047	1.38%
Ti 334.940†	-16012.7	-0.00257 mg/L	0.001474	-0.00257 mg/L	0.001474	57.37%
Tl 190.801†	-19.3	-0.00731 mg/L	0.002881	-0.00731 mg/L	0.002881	39.41%
V 290.880†	2987.9	0.00920 mg/L	0.000946	0.00920 mg/L	0.000946	10.29%
Zn 206.200†	126.0	0.00089 mg/L	0.000314	0.00089 mg/L	0.000314	35.51%
K 766.490†	11945.0	3.45 mg/L	0.044	3.45 mg/L	0.044	1.28%
Na 589.592†	1149470.7	58.5 mg/L	0.52	58.5 mg/L	0.52	0.88%
Sr 407.771†	Saturated2					
Li 670.784†	4693.7	0.0266 mg/L	0.00065	0.0266 mg/L	0.00065	2.45%

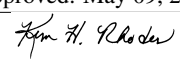
=====
 Sequence No.: 37
 Sample ID: L1205005001S WG397165-04
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 74
 a&e Collected: 5/8/2012 6:38:30 PM
 a&a Type: Original
 n&tial Sample Vol:
 a&ple Prep Vol:

 Nebulizer Parameters: L1205005001S WG397165-04
 Analyte Back Pressure Flow
 All 155.0 kPa 0.50 L/min

Mean Data: L1205005001S WG397165-04

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2135256.5				27477.76	1.29%
YRADIAL	300031.9				3361.79	1.12%
Ga 417.206	1345133.8				23835.04	1.77%
GaRADIAL	91617.3				1652.63	1.80%
Ag 328.068†	65376.6	0.210 mg/L	0.0049	0.210 mg/L	0.0049	2.31%
Al 396.153†	39937.4	5.31 mg/L	0.025	5.31 mg/L	0.025	0.46%
As 188.979†	564.3	0.198 mg/L	0.0037	0.198 mg/L	0.0037	1.85%

Approved: May 09, 2012


Ba 233.527†	109354.1	0.695 mg/L	0.0110	0.695 mg/L	0.0110	1.58%
Be 234.861†	32317.3	0.0254 mg/L	0.00058	0.0254 mg/L	0.00058	2.30%
B 249.677†	99778.3	1.17 mg/L	0.032	1.17 mg/L	0.032	2.72%
Ca 227.546†	55871.4	119 mg/L	2.7	119 mg/L	2.7	2.26%
Cd 228.802†	1406.9	0.0248 mg/L	0.00105	0.0248 mg/L	0.00105	4.23%
Co 228.616†	3924.1	0.100 mg/L	0.0016	0.100 mg/L	0.0016	1.54%
Cr 267.716†	28654.4	0.261 mg/L	0.0032	0.261 mg/L	0.0032	1.22%
Cu 327.393†	70060.9	0.261 mg/L	0.0057	0.261 mg/L	0.0057	2.19%
Fe 239.562†	35602.8	2.22 mg/L	0.010	2.22 mg/L	0.010	0.45%
Mg 279.077†	181649.1	51.1 mg/L	0.12	51.1 mg/L	0.12	0.23%
Mn 257.610†	256073.2	0.302 mg/L	0.0061	0.302 mg/L	0.0061	2.00%
Mo 202.031†	19640.3	0.529 mg/L	0.0058	0.529 mg/L	0.0058	1.11%
Ni 231.604†	17425.1	0.254 mg/L	0.0056	0.254 mg/L	0.0056	2.21%
Pb 220.353†	2853.2	0.257 mg/L	0.0043	0.257 mg/L	0.0043	1.68%
Sb 206.836†	2565.7	0.619 mg/L	0.0121	0.619 mg/L	0.0121	1.96%
Se 196.026†	366.9	0.208 mg/L	0.0050	0.208 mg/L	0.0050	2.42%
Si 251.611†	407170.4	9.74 mg/L	0.183	9.74 mg/L	0.183	1.88%
Sn 189.927†	5525.3	0.526 mg/L	0.0074	0.526 mg/L	0.0074	1.40%
Ti 334.940†	516542.4	0.531 mg/L	0.0023	0.531 mg/L	0.0023	0.44%
Tl 190.801†	985.5	0.259 mg/L	0.0006	0.259 mg/L	0.0006	0.22%
V 290.880†	106530.2	0.544 mg/L	0.0035	0.544 mg/L	0.0035	0.65%
Zn 206.200†	20743.3	0.493 mg/L	0.0069	0.493 mg/L	0.0069	1.40%
K 766.490†	100279.7	29.9 mg/L	0.24	29.9 mg/L	0.24	0.81%
Na 589.592†	1781530.1	94.0 mg/L	3.47	94.0 mg/L	3.47	3.69%
Sr 407.771†	Saturated2					
Li 670.784†	93016.4	0.597 mg/L	0.0069	0.597 mg/L	0.0069	1.16%

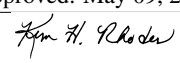
Sequence No.: 38
 Sample ID: L1205005001SD WG397165-05
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u\osampler Location: 75
 a\ne Collected: 5/8/2012 6:44:28 PM
 a\ne Type: Original
 n\itial Sample Vol:
 a\mple Prep Vol:

Nebulizer Parameters: L1205005001SD WG397165-05
 Analyte Back Pressure Flow
 All 155.0 kPa 0.50 L/min

Mean Data: L1205005001SD WG397165-05

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2125810.6				35980.33	1.69%
YRADIAL	300745.9				3765.08	1.25%
Ga 417.206	1360529.7				32531.82	2.39%
GA RADIAL	91291.5				1508.89	1.65%
Ag 328.068†	62642.7	0.201 mg/L	0.0062	0.201 mg/L	0.0062	3.10%
Al 396.153†	38873.0	5.16 mg/L	0.049	5.16 mg/L	0.049	0.95%
As 188.979†	548.1	0.192 mg/L	0.0030	0.192 mg/L	0.0030	1.58%
Ba 233.527†	106304.6	0.675 mg/L	0.0074	0.675 mg/L	0.0074	1.09%
Be 234.861†	31012.3	0.0244 mg/L	0.00091	0.0244 mg/L	0.00091	3.73%
B 249.677†	95884.1	1.13 mg/L	0.041	1.13 mg/L	0.041	3.66%
Ca 227.546†	54187.5	115 mg/L	3.9	115 mg/L	3.9	3.38%
Cd 228.802†	1349.1	0.0238 mg/L	0.00123	0.0238 mg/L	0.00123	5.19%
Co 228.616†	3836.3	0.0982 mg/L	0.00164	0.0982 mg/L	0.00164	1.67%
Cr 267.716†	27705.1	0.252 mg/L	0.0046	0.252 mg/L	0.0046	1.81%
Cu 327.393†	67035.4	0.250 mg/L	0.0064	0.250 mg/L	0.0064	2.56%
Fe 239.562†	34368.4	2.15 mg/L	0.025	2.15 mg/L	0.025	1.17%
Mg 279.077†	178570.4	50.3 mg/L	0.45	50.3 mg/L	0.45	0.89%
Mn 257.610†	248857.8	0.294 mg/L	0.0045	0.294 mg/L	0.0045	1.55%
Mo 202.031†	19047.2	0.513 mg/L	0.0069	0.513 mg/L	0.0069	1.34%
Ni 231.604†	16926.9	0.247 mg/L	0.0039	0.247 mg/L	0.0039	1.57%
Pb 220.353†	2785.3	0.251 mg/L	0.0050	0.251 mg/L	0.0050	1.99%
Sb 206.836†	2458.5	0.593 mg/L	0.0151	0.593 mg/L	0.0151	2.56%
Se 196.026†	351.0	0.199 mg/L	0.0070	0.199 mg/L	0.0070	3.50%
Si 251.611†	394810.8	9.45 mg/L	0.230	9.45 mg/L	0.230	2.43%
Sn 189.927†	5474.5	0.522 mg/L	0.0093	0.522 mg/L	0.0093	1.78%
Ti 334.940†	498838.1	0.512 mg/L	0.0035	0.512 mg/L	0.0035	0.69%
Tl 190.801†	959.3	0.252 mg/L	0.0051	0.252 mg/L	0.0051	2.03%
V 290.880†	103393.4	0.528 mg/L	0.0050	0.528 mg/L	0.0050	0.94%
Zn 206.200†	20115.3	0.478 mg/L	0.0023	0.478 mg/L	0.0023	0.49%

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YRADIAL	298942.9					5786.81	1.94%
Ga 417.206	1473076.0					26741.01	1.82%
GarADIAL	95933.1					1654.89	1.73%
Ag 328.068†	654.1	0.00169 mg/L	0.000137	0.00169 mg/L	0.000137	8.09%	
Al 396.153†	-6.7	-0.0339 mg/L	0.00085	-0.0339 mg/L	0.00085	2.52%	
As 188.979†	3.0	0.00105 mg/L	0.001012	0.00105 mg/L	0.001012	96.14%	
Ba 233.527†	9164.6	0.0552 mg/L	0.00084	0.0552 mg/L	0.00084	1.51%	
Be 234.861†	271.1	0.00028 mg/L	0.000021	0.00028 mg/L	0.000021	7.28%	
B 249.677†	5086.0	0.0613 mg/L	0.00166	0.0613 mg/L	0.00166	2.71%	
Ca 227.546†	58891.9	125 mg/L	2.2	125 mg/L	2.2	1.77%	
Cd 228.802†	10.8	0.00038 mg/L	0.000138	0.00038 mg/L	0.000138	36.09%	
Co 228.616†	0.6	-0.00066 mg/L	0.000122	-0.00066 mg/L	0.000122	18.32%	
Cr 267.716†	169.4	-0.00043 mg/L	0.000186	-0.00043 mg/L	0.000186	43.34%	
Cu 327.393†	-99.4	-0.00083 mg/L	0.000366	-0.00083 mg/L	0.000366	43.94%	
Fe 239.562†	2152.7	0.124 mg/L	0.0020	0.124 mg/L	0.0020	1.63%	
Mg 279.077†	123065.5	34.6 mg/L	0.48	34.6 mg/L	0.48	1.37%	
Mn 257.610†	42449.7	0.0476 mg/L	0.00090	0.0476 mg/L	0.00090	1.89%	
Mo 202.031†	86.6	0.00025 mg/L	0.000243	0.00025 mg/L	0.000243	96.96%	
Ni 231.604†	65.1	-0.00106 mg/L	0.000196	-0.00106 mg/L	0.000196	18.45%	
Pb 220.353†	6.2	0.00030 mg/L	0.001056	0.00030 mg/L	0.001056	350.74%	
Sb 206.836†	-5.3	-0.00019 mg/L	0.000438	-0.00019 mg/L	0.000438	226.34%	
Se 196.026†	0.2	0.00322 mg/L	0.003111	0.00322 mg/L	0.003111	96.61%	
Si 251.611†	308601.1	7.39 mg/L	0.072	7.39 mg/L	0.072	0.98%	
Sn 189.927†	-336.3	-0.0357 mg/L	0.00077	-0.0357 mg/L	0.00077	2.15%	
Ti 334.940†	-24250.4	-0.00721 mg/L	0.001541	-0.00721 mg/L	0.001541	21.38%	
Tl 190.801†	-44.3	-0.0138 mg/L	0.00418	-0.0138 mg/L	0.00418	30.16%	
V 290.880†	2387.5	0.00631 mg/L	0.000264	0.00631 mg/L	0.000264	4.18%	
Zn 206.200†	126.0	0.00089 mg/L	0.000155	0.00089 mg/L	0.000155	17.52%	
K 766.490†	9902.8	2.86 mg/L	0.046	2.86 mg/L	0.046	1.61%	
Na 589.592†	803685.2	40.2 mg/L	0.66	40.2 mg/L	0.66	1.63%	
Sr 407.771†	3579218.6	1.33 mg/L	0.020	1.33 mg/L	0.020	1.50%	
Li 670.784†	6032.5	0.0353 mg/L	0.00077	0.0353 mg/L	0.00077	2.18%	

Sequence No.: 41
 Sample ID: L1205005004
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 78
 a&e Collected: 5/8/2012 7:03:58 PM
 a&a Type: Original
 n&itial Sample Vol:
 a&mple Prep Vol:

Nebulizer Parameters: L1205005004
 Analyte Back Pressure Flow
 All 155.0 kPa 0.50 L/min

Mean Data: L1205005004

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2183075.9				29417.25	1.35%
YRADIAL	301617.5				4324.75	1.43%
Ga 417.206	1476997.4				8775.87	0.59%
GarADIAL	96212.7				2412.97	2.51%
Ag 328.068†	561.7	0.00138 mg/L	0.000120	0.00138 mg/L	0.000120	8.69%
Al 396.153†	25.5	-0.0296 mg/L	0.00142	-0.0296 mg/L	0.00142	4.81%
As 188.979†	-4.2	-0.00149 mg/L	0.001221	-0.00149 mg/L	0.001221	81.96%
Ba 233.527†	8806.0	0.0529 mg/L	0.00066	0.0529 mg/L	0.00066	1.24%
Be 234.861†	301.6	0.00031 mg/L	0.000022	0.00031 mg/L	0.000022	7.07%
B 249.677†	5025.3	0.0606 mg/L	0.00083	0.0606 mg/L	0.00083	1.36%
Ca 227.546†	59955.5	127 mg/L	0.0	127 mg/L	0.0	0.04%
Cd 228.802†	3.8	0.00027 mg/L	0.000125	0.00027 mg/L	0.000125	46.75%
Co 228.616†	-0.2	-0.00068 mg/L	0.000128	-0.00068 mg/L	0.000128	18.78%
Cr 267.716†	123.9	-0.00085 mg/L	0.000145	-0.00085 mg/L	0.000145	17.06%
Cu 327.393†	77.2	-0.00018 mg/L	0.000275	-0.00018 mg/L	0.000275	154.52%
Fe 239.562†	1947.1	0.111 mg/L	0.0024	0.111 mg/L	0.0024	2.13%
Mg 279.077†	124339.8	35.0 mg/L	0.42	35.0 mg/L	0.42	1.20%
Mn 257.610†	44504.7	0.0501 mg/L	0.00110	0.0501 mg/L	0.00110	2.20%
Mo 202.031†	84.2	0.00019 mg/L	0.000575	0.00019 mg/L	0.000575	309.82%
Ni 231.604†	73.1	-0.00095 mg/L	0.000064	-0.00095 mg/L	0.000064	6.78%
Pb 220.353†	4.0	0.00012 mg/L	0.002327	0.00012 mg/L	0.002327	>999.9%
Sb 206.836†	-1.4	0.00073 mg/L	0.000750	0.00073 mg/L	0.000750	102.81%
Se 196.026†	0.4	0.00328 mg/L	0.004893	0.00328 mg/L	0.004893	149.08%

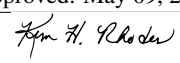
Approved: May 09, 2012


Table with 7 columns: Element, Concentration 1, Concentration 2, Concentration 3, Concentration 4, Concentration 5, Concentration 6. Rows include Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li.

Sequence No.: 42
Sample ID: L1205005004PS WG397233-01
Analyst: KHR
Initial Sample Wt:
Dilution:
u\osampler Location: 79
a\ne Collected: 5/8/2012 7:10:58 PM
a\nta Type: Original
n\itial Sample Vol:
a\mple Prep Vol:

Nebulizer Parameters: L1205005004PS WG397233-01
Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: L1205005004PS WG397233-01

Table with 7 columns: Analyte, Mean Corrected Intensity, Conc. Units, Calib. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Rows include Y, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Tl, V, Zn, K, Na, Sr, Li.

Sequence No.: 43
Sample ID: L1205005004DL WG397233-02
Analyst: KHR
Initial Sample Wt:
Dilution:
u\osampler Location: 80
a\ne Collected: 5/8/2012 7:17:02 PM
a\nta Type: Original
n\itial Sample Vol:
a\mple Prep Vol:

Nebulizer Parameters: L1205005004DL WG397233-02
Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Approved: May 09, 2012
[Signature]

Mean Data: L1205005004DL WG397233-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2256004.2				24318.33	1.08%
YRADIAL	308031.5				7414.85	2.41%
Ga 417.206	1450816.2				19869.48	1.37%
GaRADIAL	94058.3				1614.25	1.72%
Ag 328.068†	273.7	0.00064 mg/L	0.000273	0.00064 mg/L	0.000273	42.82%
Al 396.153†	14.2	-0.0310 mg/L	0.00053	-0.0310 mg/L	0.00053	1.71%
As 188.979†	-1.1	-0.00041 mg/L	0.000945	-0.00041 mg/L	0.000945	228.49%
Ba 233.527†	1860.6	0.00862 mg/L	0.000067	0.00862 mg/L	0.000067	0.77%
Be 234.861†	147.5	0.00021 mg/L	0.000019	0.00021 mg/L	0.000019	9.16%
B 249.677†	1690.6	0.0215 mg/L	0.00089	0.0215 mg/L	0.00089	4.14%
Ca 227.546†	11892.3	25.3 mg/L	0.45	25.3 mg/L	0.45	1.77%
Cd 228.802†	6.1	0.00031 mg/L	0.000049	0.00031 mg/L	0.000049	16.11%
Co 228.616†	10.2	-0.00044 mg/L	0.000108	-0.00044 mg/L	0.000108	24.46%
Cr 267.716†	45.9	-0.00157 mg/L	0.000062	-0.00157 mg/L	0.000062	3.93%
Cu 327.393†	137.5	0.00006 mg/L	0.000099	0.00006 mg/L	0.000099	160.49%
Fe 239.562†	390.9	0.0140 mg/L	0.00078	0.0140 mg/L	0.00078	5.57%
Mg 279.077†	25239.0	7.08 mg/L	0.141	7.08 mg/L	0.141	1.99%
Mn 257.610†	9246.1	0.00809 mg/L	0.000186	0.00809 mg/L	0.000186	2.30%
Mo 202.031†	45.6	-0.00087 mg/L	0.000064	-0.00087 mg/L	0.000064	7.36%
Ni 231.604†	13.3	-0.00183 mg/L	0.000258	-0.00183 mg/L	0.000258	14.13%
Pb 220.353†	-2.3	-0.00123 mg/L	0.000956	-0.00123 mg/L	0.000956	77.92%
Sb 206.836†	-3.5	0.00023 mg/L	0.000993	0.00023 mg/L	0.000993	425.09%
Se 196.026†	-2.2	0.00185 mg/L	0.002080	0.00185 mg/L	0.002080	112.25%
Si 251.611†	65138.7	1.55 mg/L	0.022	1.55 mg/L	0.022	1.39%
Sn 189.927†	-175.3	-0.0203 mg/L	0.00010	-0.0203 mg/L	0.00010	0.47%
Ti 334.940†	-4843.8	-0.00283 mg/L	0.000216	-0.00283 mg/L	0.000216	7.64%
Tl 190.801†	-16.2	-0.00635 mg/L	0.001734	-0.00635 mg/L	0.001734	27.30%
V 290.880†	1596.7	0.00296 mg/L	0.000489	0.00296 mg/L	0.000489	16.51%
Zn 206.200†	117.9	0.00069 mg/L	0.000277	0.00069 mg/L	0.000277	40.26%
K 766.490†	1977.3	0.536 mg/L	0.0139	0.536 mg/L	0.0139	2.60%
Na 589.592†	167842.5	8.16 mg/L	0.144	8.16 mg/L	0.144	1.77%
Sr 407.771†	735949.8	0.270 mg/L	0.0096	0.270 mg/L	0.0096	3.55%
Li 670.784†	1144.1	0.00371 mg/L	0.000400	0.00371 mg/L	0.000400	10.79%

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Sequence No.: 44	u&osampler Location: 6
Sample ID: CCV	ame Collected: 5/8/2012 7:24:01 PM
Analyst:	ama Type: Original
Initial Sample Wt:	nitial Sample Vol:
Dilution:	ample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	154.0 kPa	0.50 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2235377.5				13562.86	0.61%
YRADIAL	310792.1				3123.35	1.00%
Ga 417.206	1360191.3				26098.47	1.92%
GaRADIAL	92953.0				1315.74	1.42%
Ag 328.068†	126842.8	0.407 mg/L	0.0075	0.407 mg/L	0.0075	1.84%
QC value within limits for Ag 328.068		Recovery = 101.87%				
Al 396.153†	75575.9	10.1 mg/L	0.02	10.1 mg/L	0.02	0.17%
QC value within limits for Al 396.153		Recovery = 100.68%				
As 188.979†	1104.6	0.388 mg/L	0.0059	0.388 mg/L	0.0059	1.51%
QC value within limits for As 188.979		Recovery = 96.89%				
Ba 233.527†	158563.9	1.01 mg/L	0.015	1.01 mg/L	0.015	1.47%
QC value within limits for Ba 233.527		Recovery = 100.89%				
Be 234.861†	62715.8	0.0493 mg/L	0.00076	0.0493 mg/L	0.00076	1.54%
QC value within limits for Be 234.861		Recovery = 98.53%				
B 249.677†	43441.8	0.508 mg/L	0.0124	0.508 mg/L	0.0124	2.44%
QC value within limits for B 249.677		Recovery = 101.68%				
Ca 227.546†	4702.4	10.5 mg/L	0.26	10.5 mg/L	0.26	2.48%

Approved: May 09, 2012
<i>John H. Rhodes</i>

Cd	228.802†	2753.9	0.0483 mg/L	0.00168	0.0483 mg/L	0.00168	3.48%
Co	228.616†	7733.3	0.199 mg/L	0.0024	0.199 mg/L	0.0024	1.23%
Cr	267.716†	55497.9	0.507 mg/L	0.0072	0.507 mg/L	0.0072	1.42%
Cu	327.393†	138887.4	0.518 mg/L	0.0151	0.518 mg/L	0.0151	2.92%
Fe	239.562†	62670.1	3.92 mg/L	0.016	3.92 mg/L	0.016	0.42%
Mg	279.077†	34669.7	9.76 mg/L	0.071	9.76 mg/L	0.071	0.73%
Mn	257.610†	434060.5	0.514 mg/L	0.0086	0.514 mg/L	0.0086	1.67%
Mo	202.031†	37517.2	1.01 mg/L	0.015	1.01 mg/L	0.015	1.45%
Ni	231.604†	34795.2	0.509 mg/L	0.0102	0.509 mg/L	0.0102	2.00%
Pb	220.353†	5623.2	0.506 mg/L	0.0052	0.506 mg/L	0.0052	1.02%
Sb	206.836†	4986.7	1.20 mg/L	0.023	1.20 mg/L	0.023	1.95%
Se	196.026†	705.6	0.397 mg/L	0.0065	0.397 mg/L	0.0065	1.64%
Si	251.611†	211769.5	5.06 mg/L	0.079	5.06 mg/L	0.079	1.57%
Sn	189.927†	10391.4	0.993 mg/L	0.0092	0.993 mg/L	0.0092	0.92%
Ti	334.940†	1015430.1	1.01 mg/L	0.000	1.01 mg/L	0.000	0.05%
Tl	190.801†	1988.7	0.525 mg/L	0.0053	0.525 mg/L	0.0053	1.01%
V	290.880†	199949.3	1.03 mg/L	0.006	1.03 mg/L	0.006	0.57%
Zn	206.200†	41825.4	0.996 mg/L	0.0246	0.996 mg/L	0.0246	2.47%
K	766.490†	164109.3	49.4 mg/L	0.23	49.4 mg/L	0.23	0.46%
Na	589.592†	985899.5	49.8 mg/L	0.51	49.8 mg/L	0.51	1.03%
Sr	407.771†	2699686.2	1.01 mg/L	0.006	1.01 mg/L	0.006	0.64%
Li	670.784†	166833.7	1.07 mg/L	0.006	1.07 mg/L	0.006	0.58%

Sequence No.: 45 **u**osampler Location: 1
 Sample ID: CCB **a**me Collected: 5/8/2012 7:30:03 PM
 Analyst: **a**na Type: Original
 Initial Sample Wt: **n**itial Sample Vol:
 Dilution: **a**mple Prep Vol:

Nebulizer Parameters: CCB
 Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2310279.4				18220.34	0.79%
YRADIAL	306337.9				961.91	0.31%
Ga 417.206	1425219.3				23778.61	1.67%
GaRADIAL	91777.6				2639.95	2.88%
Ag 328.068†	57.2	-0.00001 mg/L	0.000291	-0.00001 mg/L	0.000291	>999.9%
QC value within limits for Ag						
Al 396.153†	9.6	-0.0316 mg/L	0.00025	-0.0316 mg/L	0.00025	0.79%
QC value within limits for Al						
As 188.979†	0.6	0.00022 mg/L	0.000406	0.00022 mg/L	0.000406	182.28%

Approved: May 09, 2012
[Signature]

Ba	233.527†	QC value within limits for Ba	233.527	Recovery = Not calculated	0.000091	-0.00302 mg/L	0.000091	3.02%
Be	234.861†	QC value within limits for Be	234.861	Recovery = Not calculated	0.000025	0.00016 mg/L	0.000025	15.50%
B	249.677†	QC value within limits for B	249.677	Recovery = Not calculated	0.00019	0.0108 mg/L	0.00019	1.72%
Ca	227.546†	QC value within limits for Ca	227.546	Recovery = Not calculated	0.01457	0.0456 mg/L	0.01457	31.98%
Cd	228.802†	QC value within limits for Cd	228.802	Recovery = Not calculated	0.000153	0.00025 mg/L	0.000153	62.51%
Co	228.616†	QC value within limits for Co	228.616	Recovery = Not calculated	0.000158	-0.00053 mg/L	0.000158	29.95%
Cr	267.716†	QC value within limits for Cr	267.716	Recovery = Not calculated	0.000041	-0.00210 mg/L	0.000041	1.94%
Cu	327.393†	QC value within limits for Cu	327.393	Recovery = Not calculated	0.000464	-0.00030 mg/L	0.000464	152.24%
Fe	239.562†	QC value within limits for Fe	239.562	Recovery = Not calculated	0.00040	-0.0112 mg/L	0.00040	3.61%
Mg	279.077†	QC value within limits for Mg	279.077	Recovery = Not calculated	0.00187	-0.0238 mg/L	0.00187	7.86%
Mn	257.610†	QC value within limits for Mn	257.610	Recovery = Not calculated	0.000013	-0.00288 mg/L	0.000013	0.45%
Mo	202.031†	QC value within limits for Mo	202.031	Recovery = Not calculated	0.000265	-0.00182 mg/L	0.000265	14.57%
Ni	231.604†	QC value within limits for Ni	231.604	Recovery = Not calculated	0.000221	-0.00194 mg/L	0.000221	11.42%
Pb	220.353†	QC value within limits for Pb	220.353	Recovery = Not calculated	0.001011	-0.00230 mg/L	0.001011	43.90%
Sb	206.836†	QC value within limits for Sb	206.836	Recovery = Not calculated	0.000813	0.00018 mg/L	0.000813	463.05%
Se	196.026†	QC value within limits for Se	196.026	Recovery = Not calculated	0.002372	0.00012 mg/L	0.002372	>999.9%
Si	251.611†	QC value within limits for Si	251.611	Recovery = Not calculated	0.000291	-0.00351 mg/L	0.000291	8.30%
Sn	189.927†	QC value within limits for Sn	189.927	Recovery = Not calculated	0.001184	-0.00356 mg/L	0.001184	33.25%
Ti	334.940†	QC value within limits for Ti	334.940	Recovery = Not calculated	0.000092	-0.00171 mg/L	0.000092	5.38%
Tl	190.801†	QC value within limits for Tl	190.801	Recovery = Not calculated	0.001604	-0.00246 mg/L	0.001604	65.12%
V	290.880†	QC value within limits for V	290.880	Recovery = Not calculated	0.000721	-0.00021 mg/L	0.000721	350.77%
Zn	206.200†	QC value within limits for Zn	206.200	Recovery = Not calculated	0.000150	-0.00282 mg/L	0.000150	5.33%
K	766.490†	QC value within limits for K	766.490	Recovery = Not calculated	0.016200	-0.00851 mg/L	0.016200	190.26%
Na	589.592†	QC value within limits for Na	589.592	Recovery = Not calculated	0.00410	0.0330 mg/L	0.00410	12.45%
Sr	407.771†	QC value within limits for Sr	407.771	Recovery = Not calculated	0.000017	-0.00581 mg/L	0.000017	0.30%
Li	670.784†	QC value within limits for Li	670.784	Recovery = Not calculated	0.000429	-0.00363 mg/L	0.000429	11.81%

All analyte(s) passed QC.

```

Sequence No.: 46
Sample ID: L1205005005
Analyst: KHR
Initial Sample Wt:
Dilution:
=====
uSampler Location: 81
Date Collected: 5/8/2012 7:36:56 PM
Sample Type: Original
Initial Sample Vol:
Sample Prep Vol:

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Nebulizer Parameters: L1205005005
Analyte      Back Pressure  Flow
All          154.0 kPa     0.50 L/min

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Mean Data: L1205005005
Analyte      Mean Corrected  Calib.  Sample
Intensity    Conc. Units    Std.Dev.  Conc. Units  Std.Dev.  RSD
Y 371.029    2059919.9      21089.28  1.02%

```

Approved: May 09, 2012
John H. R. de la

YRADIAL	302101.9				1866.78	0.62%
Ga 417.206	1403206.7				28660.34	2.04%
GarADIAL	92352.0				1076.18	1.17%
Ag 328.068†	-567.9	0.00317 mg/L	0.000822	0.00317 mg/L	0.000822	25.97%
Al 396.153†	17755.7	2.36 mg/L	0.014	2.36 mg/L	0.014	0.59%
As 188.979†	11.5	0.00530 mg/L	0.001492	0.00530 mg/L	0.001492	28.15%
Ba 233.527†	19862.2	0.123 mg/L	0.0023	0.123 mg/L	0.0023	1.87%
Be 234.861†	3301.1	0.00015 mg/L	0.000114	0.00015 mg/L	0.000114	78.29%
B 249.677†	8972.7	0.102 mg/L	0.0021	0.102 mg/L	0.0021	2.06%
Ca 227.546†	89346.4	190 mg/L	5.0	190 mg/L	5.0	2.61%
Cd 228.802†	73.2	0.00148 mg/L	0.000155	0.00148 mg/L	0.000155	10.52%
Co 228.616†	129.9	0.00228 mg/L	0.000073	0.00228 mg/L	0.000073	3.23%
Cr 267.716†	773.5	0.00547 mg/L	0.000304	0.00547 mg/L	0.000304	5.56%
Cu 327.393†	2842.5	0.0111 mg/L	0.00045	0.0111 mg/L	0.00045	4.08%
Fe 239.562†	187366.3	11.8 mg/L	0.12	11.8 mg/L	0.12	1.03%
Mg 279.077†	205511.5	57.8 mg/L	0.55	57.8 mg/L	0.55	0.96%
Mn 257.610†	536864.9	0.636 mg/L	0.0093	0.636 mg/L	0.0093	1.47%
Mo 202.031†	229.2	0.00480 mg/L	0.000392	0.00480 mg/L	0.000392	8.17%
Ni 231.604†	529.7	0.00577 mg/L	0.000540	0.00577 mg/L	0.000540	9.36%
Pb 220.353†	42.6	0.00312 mg/L	0.001429	0.00312 mg/L	0.001429	45.76%
Sb 206.836†	-7.4	-0.00030 mg/L	0.001446	-0.00030 mg/L	0.001446	475.49%
Se 196.026†	-4.2	0.00404 mg/L	0.005091	0.00404 mg/L	0.005091	126.09%
Si 251.611†	573961.7	13.7 mg/L	0.18	13.7 mg/L	0.18	1.31%
Sn 189.927†	-364.6	-0.0384 mg/L	0.00066	-0.0384 mg/L	0.00066	1.72%
Ti 334.940†	14778.2	0.0414 mg/L	0.00388	0.0414 mg/L	0.00388	9.39%
Tl 190.801†	-39.9	-0.0127 mg/L	0.00200	-0.0127 mg/L	0.00200	15.67%
V 290.880†	4943.9	0.0171 mg/L	0.00108	0.0171 mg/L	0.00108	6.35%
Zn 206.200†	4382.5	0.102 mg/L	0.0015	0.102 mg/L	0.0015	1.50%
K 766.490†	29511.1	8.73 mg/L	0.013	8.73 mg/L	0.013	0.15%
Na 589.592†	Saturated2					
Sr 407.771†	Saturated2					
Li 670.784†	4110.1	0.0229 mg/L	0.00033	0.0229 mg/L	0.00033	1.46%

Sequence No.: 47
 Sample ID: L1205005006
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 82
 a&e Collected: 5/8/2012 7:42:53 PM
 a&a Type: Original
 n&itial Sample Vol:
 a&mple Prep Vol:

Nebulizer Parameters: L1205005006
 Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: L1205005006

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2038970.1				12725.21	0.62%
YRADIAL	295698.9				5474.08	1.85%
Ga 417.206	1346735.5				34485.28	2.56%
GarADIAL	90685.4				1084.79	1.20%
Ag 328.068†	33.1	0.00288 mg/L	0.000467	0.00288 mg/L	0.000467	16.20%
Al 396.153†	-23.7	-0.0357 mg/L	0.00312	-0.0357 mg/L	0.00312	8.74%
As 188.979†	7.9	0.00351 mg/L	0.000571	0.00351 mg/L	0.000571	16.28%
Ba 233.527†	15834.6	0.0976 mg/L	0.00094	0.0976 mg/L	0.00094	0.96%
Be 234.861†	1937.6	0.00017 mg/L	0.000102	0.00017 mg/L	0.000102	58.79%
B 249.677†	8230.9	0.0954 mg/L	0.00235	0.0954 mg/L	0.00235	2.46%
Ca 227.546†	87546.2	186 mg/L	5.2	186 mg/L	5.2	2.80%
Cd 228.802†	35.6	0.00081 mg/L	0.000280	0.00081 mg/L	0.000280	34.48%
Co 228.616†	75.3	0.00110 mg/L	0.000761	0.00110 mg/L	0.000761	69.22%
Cr 267.716†	217.1	0.00024 mg/L	0.000292	0.00024 mg/L	0.000292	120.96%
Cu 327.393†	-223.1	-0.00073 mg/L	0.000313	-0.00073 mg/L	0.000313	43.02%
Fe 239.562†	108255.6	6.79 mg/L	0.127	6.79 mg/L	0.127	1.86%
Mg 279.077†	186623.3	52.5 mg/L	0.30	52.5 mg/L	0.30	0.58%
Mn 257.610†	522397.6	0.619 mg/L	0.0119	0.619 mg/L	0.0119	1.93%
Mo 202.031†	247.5	0.00505 mg/L	0.000648	0.00505 mg/L	0.000648	12.83%
Ni 231.604†	212.3	0.00110 mg/L	0.000232	0.00110 mg/L	0.000232	21.13%
Pb 220.353†	-21.4	-0.00261 mg/L	0.000336	-0.00261 mg/L	0.000336	12.86%
Sb 206.836†	-3.9	0.00039 mg/L	0.001345	0.00039 mg/L	0.001345	344.86%
Se 196.026†	-10.5	-0.00090 mg/L	0.000918	-0.00090 mg/L	0.000918	102.51%

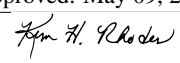
Approved: May 09, 2012


Table with 8 columns: Element, Value, Unit, etc. Rows include Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li with various numerical values and units like mg/L.

Sequence No.: 48, Sample ID: L1205005007, Analyst: KHR, Initial Sample Wt., Dilution: ... uikosampler Location: 83, Date Collected: 5/8/2012 7:48:52 PM, alpha Type: Original, Initial Sample Vol., Sample Prep Vol.

Nebulizer Parameters: L1205005007. Analyte Back Pressure Flow: All 154.0 kPa 0.50 L/min

Mean Data: L1205005007. Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Rows include Y, YRADIAL, Ga, GaRADIAL, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li.

Sequence No.: 49, Sample ID: L1205005008, Analyst: KHR, Initial Sample Wt., Dilution: ... uikosampler Location: 84, Date Collected: 5/8/2012 7:55:47 PM, alpha Type: Original, Initial Sample Vol., Sample Prep Vol.

Nebulizer Parameters: L1205005008. Analyte Back Pressure Flow: All 153.0 kPa 0.50 L/min

Approved: May 09, 2012
[Signature]

Mean Data: L1205005008

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	2199891.7						42419.96	1.93%
YRADIAL	302832.2						1230.32	0.41%
Ga 417.206	1475329.8						17438.68	1.18%
GaRADIAL	95561.2						2612.81	2.73%
Ag 328.068†	468.2	0.00124	mg/L	0.000094	0.00124	mg/L	0.000094	7.54%
Al 396.153†	-8.4	-0.0342	mg/L	0.00263	-0.0342	mg/L	0.00263	7.69%
As 188.979†	-4.4	-0.00159	mg/L	0.000764	-0.00159	mg/L	0.000764	47.93%
Ba 233.527†	11189.8	0.0682	mg/L	0.00119	0.0682	mg/L	0.00119	1.75%
Be 234.861†	219.0	0.00027	mg/L	0.000033	0.00027	mg/L	0.000033	12.26%
B 249.677†	2677.5	0.0331	mg/L	0.00028	0.0331	mg/L	0.00028	0.84%
Ca 227.546†	31879.8	67.7	mg/L	1.26	67.7	mg/L	1.26	1.86%
Cd 228.802†	4.5	0.00028	mg/L	0.000142	0.00028	mg/L	0.000142	50.38%
Co 228.616†	9.8	-0.00045	mg/L	0.000127	-0.00045	mg/L	0.000127	28.04%
Cr 267.716†	86.4	-0.00119	mg/L	0.000063	-0.00119	mg/L	0.000063	5.27%
Cu 327.393†	730.0	0.00226	mg/L	0.000424	0.00226	mg/L	0.000424	18.77%
Fe 239.562†	450.3	0.0178	mg/L	0.00041	0.0178	mg/L	0.00041	2.32%
Mg 279.077†	28497.3	8.00	mg/L	0.026	8.00	mg/L	0.026	0.33%
Mn 257.610†	61645.6	0.0705	mg/L	0.00182	0.0705	mg/L	0.00182	2.59%
Mo 202.031†	100.5	0.00063	mg/L	0.000103	0.00063	mg/L	0.000103	16.35%
Ni 231.604†	138.3	0.00001	mg/L	0.000131	0.00001	mg/L	0.000131	>999.9%
Pb 220.353†	117.1	0.00982	mg/L	0.000820	0.00982	mg/L	0.000820	8.35%
Sb 206.836†	0.1	0.00109	mg/L	0.000641	0.00109	mg/L	0.000641	58.57%
Se 196.026†	-0.1	0.00299	mg/L	0.002945	0.00299	mg/L	0.002945	98.52%
Si 251.611†	153036.0	3.66	mg/L	0.075	3.66	mg/L	0.075	2.06%
Sn 189.927†	-309.9	-0.0332	mg/L	0.00040	-0.0332	mg/L	0.00040	1.21%
Ti 334.940†	-13081.4	-0.00468	mg/L	0.000453	-0.00468	mg/L	0.000453	9.68%
Tl 190.801†	-30.9	-0.0103	mg/L	0.00219	-0.0103	mg/L	0.00219	21.23%
V 290.880†	2660.5	0.00843	mg/L	0.000198	0.00843	mg/L	0.000198	2.34%
Zn 206.200†	815.2	0.0173	mg/L	0.00060	0.0173	mg/L	0.00060	3.47%
K 766.490†	11389.8	3.29	mg/L	0.034	3.29	mg/L	0.034	1.03%
Na 589.592†	950952.5	47.9	mg/L	0.90	47.9	mg/L	0.90	1.88%
Sr 407.771†	994103.5	0.366	mg/L	0.0073	0.366	mg/L	0.0073	1.98%
Li 670.784†	1853.1	0.00829	mg/L	0.000359	0.00829	mg/L	0.000359	4.33%

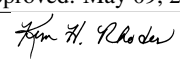
=====
Sequence No.: 50 **u&osampler Location:** 85
Sample ID: L1205009901 **ame Collected:** 5/8/2012 8:02:43 PM
Analyst: KHR **ama Type:** Original
Initial Sample Wt: **ntial Sample Vol:**
Dilution: **ample Prep Vol:**

Nebulizer Parameters: L1205009901

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: L1205009901

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	2219085.7						30393.24	1.37%
YRADIAL	302759.1						3957.77	1.31%
Ga 417.206	1409074.4						34641.07	2.46%
GaRADIAL	94530.2						1217.66	1.29%
Ag 328.068†	-155.8	0.00250	mg/L	0.000589	0.00250	mg/L	0.000589	23.59%
Al 396.153†	357.4	0.0158	mg/L	0.01515	0.0158	mg/L	0.01515	95.74%
As 188.979†	6.9	0.00324	mg/L	0.002505	0.00324	mg/L	0.002505	77.22%
Ba 233.527†	27743.6	0.174	mg/L	0.0025	0.174	mg/L	0.0025	1.46%
Be 234.861†	2347.5	0.00028	mg/L	0.000105	0.00028	mg/L	0.000105	37.10%
B 249.677†	4427.9	0.0504	mg/L	0.00169	0.0504	mg/L	0.00169	3.35%
Ca 227.546†	55568.0	118	mg/L	3.4	118	mg/L	3.4	2.90%
Cd 228.802†	49.8	0.00106	mg/L	0.000195	0.00106	mg/L	0.000195	18.38%
Co 228.616†	41.4	0.00015	mg/L	0.000281	0.00015	mg/L	0.000281	191.08%
Cr 267.716†	239.5	0.00047	mg/L	0.000108	0.00047	mg/L	0.000108	23.22%
Cu 327.393†	17.9	0.00024	mg/L	0.000327	0.00024	mg/L	0.000327	135.33%
Fe 239.562†	120858.5	7.58	mg/L	0.037	7.58	mg/L	0.037	0.49%
Mg 279.077†	57167.9	16.1	mg/L	0.07	16.1	mg/L	0.07	0.43%

Approved: May 09, 2012


Mn 257.610†	207530.8	0.244 mg/L	0.0045	0.244 mg/L	0.0045	1.83%
Mo 202.031†	171.2	0.00294 mg/L	0.000170	0.00294 mg/L	0.000170	5.76%
Ni 231.604†	140.6	0.00004 mg/L	0.000386	0.00004 mg/L	0.000386	871.95%
Pb 220.353†	5.1	-0.00060 mg/L	0.000583	-0.00060 mg/L	0.000583	96.46%
Sb 206.836†	-11.0	-0.00130 mg/L	0.001867	-0.00130 mg/L	0.001867	143.49%
Se 196.026†	-7.0	0.00135 mg/L	0.001587	0.00135 mg/L	0.001587	117.25%
Si 251.611†	305304.0	7.31 mg/L	0.155	7.31 mg/L	0.155	2.12%
Sn 189.927†	-333.0	-0.0354 mg/L	0.00036	-0.0354 mg/L	0.00036	1.02%
Ti 334.940†	-17299.8	-0.00134 mg/L	0.001920	-0.00134 mg/L	0.001920	143.22%
Tl 190.801†	-28.5	-0.00989 mg/L	0.001326	-0.00989 mg/L	0.001326	13.41%
V 290.880†	2516.7	0.00628 mg/L	0.001125	0.00628 mg/L	0.001125	17.92%
Zn 206.200†	253.6	0.00378 mg/L	0.000198	0.00378 mg/L	0.000198	5.23%
K 766.490†	14910.0	4.32 mg/L	0.048	4.32 mg/L	0.048	1.11%
Na 589.592†	1305945.5	67.0 mg/L	0.09	67.0 mg/L	0.09	0.13%
Sr 407.771†	2124495.5	0.789 mg/L	0.0045	0.789 mg/L	0.0045	0.57%
Li 670.784†	2731.7	0.0140 mg/L	0.00068	0.0140 mg/L	0.00068	4.84%

Sequence No.: 51 u&osampler Location: 86
 Sample ID: L1205009902 ame Collected: 5/8/2012 8:08:42 PM
 Analyst: KHR ama Type: Original
 Initial Sample Wt: nitial Sample Vol:
 Dilution: amle Prep Vol:

Nebulizer Parameters: L1205009902
 Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: L1205009902

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2219054.0				6082.11	0.27%
YRADIAL	303441.2				2493.54	0.82%
Ga 417.206	1425599.5				35222.47	2.47%
GARADIAL	94311.1				469.41	0.50%
Ag 328.068†	32.5	0.00225 mg/L	0.000057	0.00225 mg/L	0.000057	2.54%
Al 396.153†	-12.7	-0.0342 mg/L	0.00353	-0.0342 mg/L	0.00353	10.32%
As 188.979†	2.6	0.00152 mg/L	0.000913	0.00152 mg/L	0.000913	59.89%
Ba 233.527†	26349.3	0.165 mg/L	0.0010	0.165 mg/L	0.0010	0.58%
Be 234.861†	1887.0	0.00035 mg/L	0.000075	0.00035 mg/L	0.000075	21.57%
B 249.677†	4182.5	0.0483 mg/L	0.00130	0.0483 mg/L	0.00130	2.69%
Ca 227.546†	54408.1	116 mg/L	3.6	116 mg/L	3.6	3.09%
Cd 228.802†	21.6	0.00057 mg/L	0.000239	0.00057 mg/L	0.000239	41.99%
Co 228.616†	41.2	0.00020 mg/L	0.000492	0.00020 mg/L	0.000492	248.32%
Cr 267.716†	135.4	-0.00055 mg/L	0.000162	-0.00055 mg/L	0.000162	29.24%
Cu 327.393†	-185.1	-0.00068 mg/L	0.000254	-0.00068 mg/L	0.000254	37.66%
Fe 239.562†	90343.4	5.66 mg/L	0.075	5.66 mg/L	0.075	1.33%
Mg 279.077†	55867.8	15.7 mg/L	0.15	15.7 mg/L	0.15	0.93%
Mn 257.610†	202713.5	0.239 mg/L	0.0023	0.239 mg/L	0.0023	0.98%
Mo 202.031†	178.3	0.00304 mg/L	0.000372	0.00304 mg/L	0.000372	12.23%
Ni 231.604†	103.0	-0.00051 mg/L	0.000422	-0.00051 mg/L	0.000422	82.85%
Pb 220.353†	-4.2	-0.00130 mg/L	0.002415	-0.00130 mg/L	0.002415	185.20%
Sb 206.836†	-7.5	-0.00052 mg/L	0.000678	-0.00052 mg/L	0.000678	130.83%
Se 196.026†	-9.1	-0.00035 mg/L	0.004695	-0.00035 mg/L	0.004695	>999.9%
Si 251.611†	292723.8	7.01 mg/L	0.142	7.01 mg/L	0.142	2.02%
Sn 189.927†	-337.9	-0.0358 mg/L	0.00014	-0.0358 mg/L	0.00014	0.40%
Ti 334.940†	-18442.0	-0.00285 mg/L	0.001387	-0.00285 mg/L	0.001387	48.72%
Tl 190.801†	-20.4	-0.00782 mg/L	0.001030	-0.00782 mg/L	0.001030	13.18%
V 290.880†	2754.6	0.00782 mg/L	0.001571	0.00782 mg/L	0.001571	20.08%
Zn 206.200†	22.8	-0.00167 mg/L	0.000181	-0.00167 mg/L	0.000181	10.85%
K 766.490†	14352.1	4.15 mg/L	0.031	4.15 mg/L	0.031	0.74%
Na 589.592†	1282646.8	65.8 mg/L	0.56	65.8 mg/L	0.56	0.84%
Sr 407.771†	2069304.6	0.768 mg/L	0.0064	0.768 mg/L	0.0064	0.83%
Li 670.784†	2688.7	0.0137 mg/L	0.00088	0.0137 mg/L	0.00088	6.42%

Sequence No.: 52 u&osampler Location: 87
 Sample ID: L1205009903 ame Collected: 5/8/2012 8:14:41 PM
 Analyst: KHR ama Type: Original
 Initial Sample Wt: nitial Sample Vol:

Approved: May 09, 2012
Tom H. Rhodes

Dilution: sample Prep Vol:

Nebulizer Parameters: L1205009903

Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: L1205009903

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2189273.3					26954.10	1.23%
YRADIAL	299480.5					1993.37	0.67%
Ga 417.206	1406338.9					30854.80	2.19%
GaRADIAL	92576.5					1059.10	1.14%
Ag 328.068†	618.3	0.00195	mg/L	0.000197	0.00195	0.000197	10.10%
Al 396.153†	-17.4	-0.0352	mg/L	0.00610	-0.0352	0.00610	17.31%
As 188.979†	-9.8	-0.00343	mg/L	0.002422	-0.00343	0.002422	70.68%
Ba 233.527†	25189.8	0.157	mg/L	0.0042	0.157	0.0042	2.69%
Be 234.861†	465.3	0.00035	mg/L	0.000023	0.00035	0.000023	6.79%
B 249.677†	4059.5	0.0490	mg/L	0.00054	0.0490	0.00054	1.10%
Ca 227.546†	47395.0	101	mg/L	2.5	101	2.5	2.51%
Cd 228.802†	43.3	0.00099	mg/L	0.000306	0.00099	0.000306	30.88%
Co 228.616†	41.9	0.00034	mg/L	0.000263	0.00034	0.000263	77.52%
Cr 267.716†	100.4	-0.00104	mg/L	0.000253	-0.00104	0.000253	24.34%
Cu 327.393†	788.7	0.00253	mg/L	0.000404	0.00253	0.000404	15.95%
Fe 239.562†	10022.5	0.619	mg/L	0.0116	0.619	0.0116	1.88%
Mg 279.077†	66696.9	18.8	mg/L	0.40	18.8	0.40	2.15%
Mn 257.610†	210921.2	0.248	mg/L	0.0070	0.248	0.0070	2.82%
Mo 202.031†	69.3	-0.00015	mg/L	0.000012	-0.00015	0.000012	8.19%
Ni 231.604†	301.1	0.00240	mg/L	0.000421	0.00240	0.000421	17.50%
Pb 220.353†	-7.6	-0.00130	mg/L	0.001168	-0.00130	0.001168	89.57%
Sb 206.836†	-5.7	-0.00028	mg/L	0.000924	-0.00028	0.000924	331.10%
Se 196.026†	-0.1	0.00313	mg/L	0.003178	0.00313	0.003178	101.51%
Si 251.611†	170874.1	4.09	mg/L	0.038	4.09	0.038	0.93%
Sn 189.927†	-334.2	-0.0355	mg/L	0.00036	-0.0355	0.00036	1.01%
Ti 334.940†	-16038.8	-0.00269	mg/L	0.001618	-0.00269	0.001618	60.24%
Tl 190.801†	-25.0	-0.00898	mg/L	0.003773	-0.00898	0.003773	42.03%
V 290.880†	2855.6	0.00907	mg/L	0.000373	0.00907	0.000373	4.11%
Zn 206.200†	5273.5	0.123	mg/L	0.0017	0.123	0.0017	1.36%
K 766.490†	12492.4	3.60	mg/L	0.112	3.60	0.112	3.11%
Na 589.592†	1282674.4	65.8	mg/L	0.37	65.8	0.37	0.57%
Sr 407.771†	1221167.7	0.450	mg/L	0.0018	0.450	0.0018	0.39%
Li 670.784†	3452.6	0.0186	mg/L	0.00042	0.0186	0.00042	2.24%

Sequence No.: 53

Sample ID: L1205009904

Analyst: KHR

Initial Sample Wt:

Dilution:

autosampler Location: 88

Time Collected: 5/8/2012 8:20:40 PM

Sample Type: Original

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: L1205009904

Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: L1205009904

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2193355.0					21048.89	0.96%
YRADIAL	297282.3					3511.73	1.18%
Ga 417.206	1375504.0					35526.30	2.58%
GaRADIAL	91330.8					1611.19	1.76%
Ag 328.068†	738.0	0.00232	mg/L	0.000532	0.00232	0.000532	22.93%
Al 396.153†	-66.0	-0.0418	mg/L	0.00286	-0.0418	0.00286	6.84%
As 188.979†	-11.2	-0.00391	mg/L	0.004356	-0.00391	0.004356	111.34%
Ba 233.527†	25263.9	0.158	mg/L	0.0015	0.158	0.0015	0.97%
Be 234.861†	411.3	0.00031	mg/L	0.000081	0.00031	0.000081	26.37%
B 249.677†	4056.3	0.0490	mg/L	0.00110	0.0490	0.00110	2.24%
Ca 227.546†	47513.5	101	mg/L	2.8	101	2.8	2.78%

Approved: May 09, 2012

Kym H. Rhodes

Element	Value 1	Value 2	Unit 1	Unit 2	Value 3	Value 4	Value 5	Value 6
Cd 228.802†	40.5	0.00094	mg/L	0.000426	0.00094	mg/L	0.000426	45.18%
Co 228.616†	48.7	0.00052	mg/L	0.000190	0.00052	mg/L	0.000190	36.80%
Cr 267.716†	99.0	-0.00105	mg/L	0.000141	-0.00105	mg/L	0.000141	13.36%
Cu 327.393†	372.0	0.00098	mg/L	0.000100	0.00098	mg/L	0.000100	10.26%
Fe 239.562†	9713.4	0.599	mg/L	0.0055	0.599	mg/L	0.0055	0.92%
Mg 279.077†	66595.6	18.7	mg/L	0.15	18.7	mg/L	0.15	0.79%
Mn 257.610†	216046.6	0.254	mg/L	0.0005	0.254	mg/L	0.0005	0.19%
Mo 202.031†	79.2	0.00012	mg/L	0.000208	0.00012	mg/L	0.000208	172.83%
Ni 231.604†	305.3	0.00247	mg/L	0.000468	0.00247	mg/L	0.000468	18.96%
Pb 220.353†	-18.6	-0.00229	mg/L	0.001878	-0.00229	mg/L	0.001878	81.91%
Sb 206.836†	-9.6	-0.00122	mg/L	0.001083	-0.00122	mg/L	0.001083	88.68%
Se 196.026†	-4.6	0.00061	mg/L	0.002140	0.00061	mg/L	0.002140	353.50%
Si 251.611†	172961.2	4.14	mg/L	0.096	4.14	mg/L	0.096	2.32%
Sn 189.927†	-339.2	-0.0360	mg/L	0.00067	-0.0360	mg/L	0.00067	1.86%
Ti 334.940†	-15865.5	-0.00248	mg/L	0.001132	-0.00248	mg/L	0.001132	45.75%
Tl 190.801†	-31.6	-0.0107	mg/L	0.00110	-0.0107	mg/L	0.00110	10.27%
V 290.880†	2687.7	0.00820	mg/L	0.001002	0.00820	mg/L	0.001002	12.22%
Zn 206.200†	5077.4	0.118	mg/L	0.0007	0.118	mg/L	0.0007	0.60%
K 766.490†	12150.9	3.50	mg/L	0.091	3.50	mg/L	0.091	2.59%
Na 589.592†	1267847.5	65.0	mg/L	0.35	65.0	mg/L	0.35	0.54%
Sr 407.771†	1196028.6	0.441	mg/L	0.0025	0.441	mg/L	0.0025	0.58%
Li 670.784†	3302.6	0.0176	mg/L	0.00033	0.0176	mg/L	0.00033	1.90%

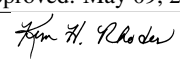
Sequence No.: 54
 Sample ID: L1205009905
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 89
 a&e Collected: 5/8/2012 8:26:39 PM
 a&a Type: Original
 n&i&tial Sample Vol:
 a&mple Prep Vol:

Nebulizer Parameters: L1205009905
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: L1205009905

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD	
Y 371.029	2265522.5					15478.44	0.68%	
YRADIAL	302765.6					3332.86	1.10%	
Ga 417.206	1414489.1					18958.99	1.34%	
GaRADIAL	92906.1					1515.98	1.63%	
Ag 328.068†	589.4	0.00187	mg/L	0.000349	0.00187	mg/L	0.000349	18.62%
Al 396.153†	140.0	-0.0141	mg/L	0.00471	-0.0141	mg/L	0.00471	33.50%
As 188.979†	-7.1	-0.00248	mg/L	0.003360	-0.00248	mg/L	0.003360	135.53%
Ba 233.527†	16262.0	0.101	mg/L	0.0019	0.101	mg/L	0.0019	1.91%
Be 234.861†	465.5	0.00034	mg/L	0.000074	0.00034	mg/L	0.000074	21.91%
B 249.677†	3110.5	0.0379	mg/L	0.00081	0.0379	mg/L	0.00081	2.13%
Ca 227.546†	33906.0	72.0	mg/L	1.91	72.0	mg/L	1.91	2.66%
Cd 228.802†	56.5	0.00122	mg/L	0.000019	0.00122	mg/L	0.000019	1.59%
Co 228.616†	19.3	-0.00024	mg/L	0.000142	-0.00024	mg/L	0.000142	59.71%
Cr 267.716†	93.9	-0.00110	mg/L	0.000130	-0.00110	mg/L	0.000130	11.88%
Cu 327.393†	5543.7	0.0202	mg/L	0.00102	0.0202	mg/L	0.00102	5.04%
Fe 239.562†	8937.1	0.551	mg/L	0.0036	0.551	mg/L	0.0036	0.65%
Mg 279.077†	46144.4	13.0	mg/L	0.15	13.0	mg/L	0.15	1.15%
Mn 257.610†	25486.0	0.0275	mg/L	0.00054	0.0275	mg/L	0.00054	1.98%
Mo 202.031†	66.7	-0.00027	mg/L	0.000114	-0.00027	mg/L	0.000114	42.20%
Ni 231.604†	300.3	0.00239	mg/L	0.000635	0.00239	mg/L	0.000635	26.54%
Pb 220.353†	88.1	0.00721	mg/L	0.001287	0.00721	mg/L	0.001287	17.85%
Sb 206.836†	-2.9	0.00039	mg/L	0.001917	0.00039	mg/L	0.001917	498.00%
Se 196.026†	-2.5	0.00182	mg/L	0.003581	0.00182	mg/L	0.003581	196.71%
Si 251.611†	120374.5	2.88	mg/L	0.037	2.88	mg/L	0.037	1.30%
Sn 189.927†	-295.8	-0.0318	mg/L	0.00061	-0.0318	mg/L	0.00061	1.93%
Ti 334.940†	-10375.4	-0.00134	mg/L	0.000743	-0.00134	mg/L	0.000743	55.63%
Tl 190.801†	-21.5	-0.00780	mg/L	0.003377	-0.00780	mg/L	0.003377	43.32%
V 290.880†	2138.3	0.00552	mg/L	0.001260	0.00552	mg/L	0.001260	22.83%
Zn 206.200†	12966.8	0.306	mg/L	0.0030	0.306	mg/L	0.0030	0.99%
K 766.490†	9996.6	2.87	mg/L	0.029	2.87	mg/L	0.029	1.00%
Na 589.592†	1083372.8	55.0	mg/L	0.28	55.0	mg/L	0.28	0.51%
Sr 407.771†	843110.7	0.309	mg/L	0.0017	0.309	mg/L	0.0017	0.53%
Li 670.784†	2270.7	0.0110	mg/L	0.00045	0.0110	mg/L	0.00045	4.08%

Approved: May 09, 2012


Sequence No.: 55
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Sampler Location: 6
Date Collected: 5/8/2012 8:32:38 PM
Sample Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte Back Pressure Flow
All 152.0 kPa 0.50 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2270190.6				23386.74	1.03%
YRADIAL	309718.3				4254.96	1.37%
Ga 417.206	1346183.0				38753.89	2.88%
GaRADIAL	91252.9				990.98	1.09%
Ag 328.068†	128879.8	0.414 mg/L	0.0133	0.414 mg/L	0.0133	3.20%
QC value within limits for Ag		328.068	Recovery = 103.50%			
Al 396.153†	75414.0	10.0 mg/L	0.01	10.0 mg/L	0.01	0.06%
QC value within limits for Al		396.153	Recovery = 100.46%			
As 188.979†	1139.5	0.400 mg/L	0.0116	0.400 mg/L	0.0116	2.89%
QC value within limits for As		188.979	Recovery = 100.01%			
Ba 233.527†	159121.8	1.01 mg/L	0.006	1.01 mg/L	0.006	0.57%
QC value within limits for Ba		233.527	Recovery = 101.25%			
Be 234.861†	64142.7	0.0504 mg/L	0.00168	0.0504 mg/L	0.00168	3.33%
QC value within limits for Be		234.861	Recovery = 100.75%			
B 249.677†	43621.2	0.510 mg/L	0.0166	0.510 mg/L	0.0166	3.25%
QC value within limits for B		249.677	Recovery = 102.08%			
Ca 227.546†	4745.5	10.6 mg/L	0.37	10.6 mg/L	0.37	3.48%
QC value within limits for Ca		227.546	Recovery = 105.84%			
Cd 228.802†	2860.7	0.0502 mg/L	0.00188	0.0502 mg/L	0.00188	3.74%
QC value within limits for Cd		228.802	Recovery = 100.38%			
Co 228.616†	7779.8	0.200 mg/L	0.0032	0.200 mg/L	0.0032	1.59%
QC value within limits for Co		228.616	Recovery = 99.96%			
Cr 267.716†	55636.6	0.509 mg/L	0.0006	0.509 mg/L	0.0006	0.11%
QC value within limits for Cr		267.716	Recovery = 101.73%			
Cu 327.393†	138307.2	0.516 mg/L	0.0165	0.516 mg/L	0.0165	3.20%
QC value within limits for Cu		327.393	Recovery = 103.13%			
Fe 239.562†	63798.8	4.00 mg/L	0.009	4.00 mg/L	0.009	0.22%
QC value within limits for Fe		239.562	Recovery = 99.89%			
Mg 279.077†	35203.1	9.91 mg/L	0.035	9.91 mg/L	0.035	0.36%
QC value within limits for Mg		279.077	Recovery = 99.05%			
Mn 257.610†	432767.2	0.513 mg/L	0.0040	0.513 mg/L	0.0040	0.78%
QC value within limits for Mn		257.610	Recovery = 102.56%			
Mo 202.031†	37361.8	1.01 mg/L	0.006	1.01 mg/L	0.006	0.61%
QC value within limits for Mo		202.031	Recovery = 100.77%			
Ni 231.604†	34503.9	0.505 mg/L	0.0046	0.505 mg/L	0.0046	0.90%
QC value within limits for Ni		231.604	Recovery = 101.02%			
Pb 220.353†	5640.7	0.508 mg/L	0.0073	0.508 mg/L	0.0073	1.43%
QC value within limits for Pb		220.353	Recovery = 101.59%			
Sb 206.836†	5104.0	1.23 mg/L	0.034	1.23 mg/L	0.034	2.73%
QC value within limits for Sb		206.836	Recovery = 102.45%			
Se 196.026†	730.6	0.410 mg/L	0.0123	0.410 mg/L	0.0123	2.99%
QC value within limits for Se		196.026	Recovery = 102.62%			
Si 251.611†	213789.2	5.10 mg/L	0.130	5.10 mg/L	0.130	2.55%
QC value within limits for Si		251.611	Recovery = 102.10%			
Sn 189.927†	10496.2	1.00 mg/L	0.013	1.00 mg/L	0.013	1.27%
QC value within limits for Sn		189.927	Recovery = 100.32%			
Ti 334.940†	1013019.4	1.01 mg/L	0.009	1.01 mg/L	0.009	0.92%
QC value within limits for Ti		334.940	Recovery = 100.91%			
Tl 190.801†	1990.6	0.525 mg/L	0.0052	0.525 mg/L	0.0052	1.00%
QC value within limits for Tl		190.801	Recovery = 105.04%			
V 290.880†	199336.2	1.02 mg/L	0.008	1.02 mg/L	0.008	0.81%
QC value within limits for V		290.880	Recovery = 102.47%			
Zn 206.200†	42683.8	1.02 mg/L	0.002	1.02 mg/L	0.002	0.19%
QC value within limits for Zn		206.200	Recovery = 101.64%			
K 766.490†	163282.2	49.1 mg/L	0.46	49.1 mg/L	0.46	0.93%

Approved: May 09, 2012
Tom H. Rhodes

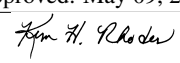
QC value within limits for K 766.490 Recovery = 98.27%
 Na 589.592† 985674.7 49.8 mg/L 0.77 49.8 mg/L 0.77 1.55%
 QC value within limits for Na 589.592 Recovery = 99.50%
 Sr 407.771† 2659505.1 0.992 mg/L 0.0150 0.992 mg/L 0.0150 1.52%
 QC value within limits for Sr 407.771 Recovery = 99.18%
 Li 670.784† 162601.2 1.05 mg/L 0.007 1.05 mg/L 0.007 0.67%
 QC value within limits for Li 670.784 Recovery = 104.65%
 All analyte(s) passed QC.

Sequence No.: 56 u&osampler Location: 1
 Sample ID: CCB a&e Collected: 5/8/2012 8:38:39 PM
 Analyst: a&a Type: Original
 Initial Sample Wt: n&tial Sample Vol:
 Dilution: a&ple Prep Vol:

Nebulizer Parameters: CCB
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2363646.2				45192.01	1.91%
YRADIAL	312809.0				5485.90	1.75%
Ga 417.206	1403920.5				4075.80	0.29%
GaRADIAL	92961.5				1292.75	1.39%
Ag 328.068†	134.2	0.00023 mg/L	0.000355	0.00023 mg/L	0.000355	155.14%
QC value within limits for Ag 328.068		Recovery = Not calculated				
Al 396.153†	17.2	-0.0306 mg/L	0.00075	-0.0306 mg/L	0.00075	2.45%
QC value within limits for Al 396.153		Recovery = Not calculated				
As 188.979†	-0.4	-0.00014 mg/L	0.001732	-0.00014 mg/L	0.001732	>999.9%
QC value within limits for As 188.979		Recovery = Not calculated				
Ba 233.527†	45.1	-0.00296 mg/L	0.000124	-0.00296 mg/L	0.000124	4.18%
QC value within limits for Ba 233.527		Recovery = Not calculated				
Be 234.861†	55.4	0.00014 mg/L	0.000032	0.00014 mg/L	0.000032	23.37%
QC value within limits for Be 234.861		Recovery = Not calculated				
B 249.677†	405.9	0.00639 mg/L	0.000189	0.00639 mg/L	0.000189	2.96%
QC value within limits for B 249.677		Recovery = Not calculated				
Ca 227.546†	-11.0	0.0247 mg/L	0.00613	0.0247 mg/L	0.00613	24.80%
QC value within limits for Ca 227.546		Recovery = Not calculated				
Cd 228.802†	8.4	0.00035 mg/L	0.000217	0.00035 mg/L	0.000217	62.68%
QC value within limits for Cd 228.802		Recovery = Not calculated				
Co 228.616†	13.5	-0.00037 mg/L	0.000221	-0.00037 mg/L	0.000221	60.48%
QC value within limits for Co 228.616		Recovery = Not calculated				
Cr 267.716†	-7.2	-0.00206 mg/L	0.000131	-0.00206 mg/L	0.000131	6.38%
QC value within limits for Cr 267.716		Recovery = Not calculated				
Cu 327.393†	65.7	-0.00020 mg/L	0.000338	-0.00020 mg/L	0.000338	166.48%
QC value within limits for Cu 327.393		Recovery = Not calculated				
Fe 239.562†	-9.8	-0.0110 mg/L	0.00037	-0.0110 mg/L	0.00037	3.41%
QC value within limits for Fe 239.562		Recovery = Not calculated				
Mg 279.077†	1.6	-0.0245 mg/L	0.00356	-0.0245 mg/L	0.00356	14.52%
QC value within limits for Mg 279.077		Recovery = Not calculated				
Mn 257.610†	17.9	-0.00289 mg/L	0.000010	-0.00289 mg/L	0.000010	0.36%
QC value within limits for Mn 257.610		Recovery = Not calculated				
Mo 202.031†	17.3	-0.00164 mg/L	0.000047	-0.00164 mg/L	0.000047	2.88%
QC value within limits for Mo 202.031		Recovery = Not calculated				
Ni 231.604†	7.9	-0.00191 mg/L	0.000240	-0.00191 mg/L	0.000240	12.59%
QC value within limits for Ni 231.604		Recovery = Not calculated				
Pb 220.353†	-25.0	-0.00347 mg/L	0.000261	-0.00347 mg/L	0.000261	7.53%
QC value within limits for Pb 220.353		Recovery = Not calculated				
Sb 206.836†	-5.5	-0.00024 mg/L	0.000780	-0.00024 mg/L	0.000780	318.69%
QC value within limits for Sb 206.836		Recovery = Not calculated				
Se 196.026†	-3.5	0.00112 mg/L	0.003923	0.00112 mg/L	0.003923	350.77%
QC value within limits for Se 196.026		Recovery = Not calculated				
Si 251.611†	141.2	-0.00289 mg/L	0.000158	-0.00289 mg/L	0.000158	5.48%
QC value within limits for Si 251.611		Recovery = Not calculated				
Sn 189.927†	0.6	-0.00339 mg/L	0.000899	-0.00339 mg/L	0.000899	26.54%
QC value within limits for Sn 189.927		Recovery = Not calculated				
Ti 334.940†	236.2	-0.00156 mg/L	0.000017	-0.00156 mg/L	0.000017	1.06%

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QC value within limits for Ti 334.940 Recovery = Not calculated
 Tl 190.801† 1.6 -0.00173 mg/L 0.003033 -0.00173 mg/L 0.003033 175.70%
 QC value within limits for Tl 190.801 Recovery = Not calculated
 V 290.880† 719.4 -0.00139 mg/L 0.001555 -0.00139 mg/L 0.001555 111.96%
 QC value within limits for V 290.880 Recovery = Not calculated
 Zn 206.200† -32.5 -0.00289 mg/L 0.000062 -0.00289 mg/L 0.000062 2.15%
 QC value within limits for Zn 206.200 Recovery = Not calculated
 K 766.490† 75.4 -0.0195 mg/L 0.01097 -0.0195 mg/L 0.01097 56.22%
 QC value within limits for K 766.490 Recovery = Not calculated
 Na 589.592† 145.6 0.0293 mg/L 0.00348 0.0293 mg/L 0.00348 11.88%
 QC value within limits for Na 589.592 Recovery = Not calculated
 Sr 407.771† 469.1 -0.00579 mg/L 0.000020 -0.00579 mg/L 0.000020 0.34%
 QC value within limits for Sr 407.771 Recovery = Not calculated
 Li 670.784† 60.7 -0.00329 mg/L 0.000103 -0.00329 mg/L 0.000103 3.14%
 QC value within limits for Li 670.784 Recovery = Not calculated
 All analyte(s) passed QC.

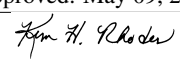
Sequence No.: 57 u\osampler Location: 90
 Sample ID: L1205009906 a\ne Collected: 5/8/2012 8:45:32 PM
 Analyst: KHR a\ne Type: Original
 Initial Sample Wt: n\itial Sample Vol:
 Dilution: a\mple Prep Vol:

Nebulizer Parameters: L1205009906
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: L1205009906

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2218689.1				9440.02	0.43%
YRADIAL	305051.5				4365.99	1.43%
Ga 417.206	1414100.6				33643.00	2.38%
GA RADIAL	93260.3				378.50	0.41%
Ag 328.068†	473.1	0.00143 mg/L	0.000561	0.00143 mg/L	0.000561	39.25%
Al 396.153†	-98.9	-0.0463 mg/L	0.00540	-0.0463 mg/L	0.00540	11.66%
As 188.979†	-4.6	-0.00162 mg/L	0.002555	-0.00162 mg/L	0.002555	157.81%
Ba 233.527†	16505.2	0.102 mg/L	0.0011	0.102 mg/L	0.0011	1.07%
Be 234.861†	448.3	0.00036 mg/L	0.000094	0.00036 mg/L	0.000094	25.70%
B 249.677†	3046.1	0.0372 mg/L	0.00074	0.0372 mg/L	0.00074	1.99%
Ca 227.546†	33848.0	71.9 mg/L	2.16	71.9 mg/L	2.16	3.01%
Cd 228.802†	56.1	0.00121 mg/L	0.000250	0.00121 mg/L	0.000250	20.69%
Co 228.616†	17.1	-0.00029 mg/L	0.000150	-0.00029 mg/L	0.000150	51.75%
Cr 267.716†	92.6	-0.00111 mg/L	0.000245	-0.00111 mg/L	0.000245	22.02%
Cu 327.393†	4156.7	0.0151 mg/L	0.00080	0.0151 mg/L	0.00080	5.30%
Fe 239.562†	6195.3	0.378 mg/L	0.0081	0.378 mg/L	0.0081	2.13%
Mg 279.077†	46947.2	13.2 mg/L	0.33	13.2 mg/L	0.33	2.48%
Mn 257.610†	25111.5	0.0270 mg/L	0.00014	0.0270 mg/L	0.00014	0.53%
Mo 202.031†	77.0	0.00000 mg/L	0.000098	0.00000 mg/L	0.000098	>999.9%
Ni 231.604†	324.7	0.00275 mg/L	0.000428	0.00275 mg/L	0.000428	15.53%
Pb 220.353†	16.3	0.00076 mg/L	0.002232	0.00076 mg/L	0.002232	294.27%
Sb 206.836†	-4.9	-0.00009 mg/L	0.000802	-0.00009 mg/L	0.000802	892.94%
Se 196.026†	-0.3	0.00300 mg/L	0.002268	0.00300 mg/L	0.002268	75.58%
Si 251.611†	120219.1	2.87 mg/L	0.070	2.87 mg/L	0.070	2.42%
Sn 189.927†	-299.7	-0.0322 mg/L	0.00100	-0.0322 mg/L	0.00100	3.10%
Ti 334.940†	-11326.3	-0.00230 mg/L	0.000935	-0.00230 mg/L	0.000935	40.61%
Tl 190.801†	-34.0	-0.0110 mg/L	0.00265	-0.0110 mg/L	0.00265	24.00%
V 290.880†	2321.5	0.00649 mg/L	0.000680	0.00649 mg/L	0.000680	10.48%
Zn 206.200†	12283.1	0.290 mg/L	0.0073	0.290 mg/L	0.0073	2.53%
K 766.490†	10001.2	2.87 mg/L	0.047	2.87 mg/L	0.047	1.63%
Na 589.592†	1110841.5	56.4 mg/L	0.19	56.4 mg/L	0.19	0.34%
Sr 407.771†	851646.5	0.312 mg/L	0.0042	0.312 mg/L	0.0042	1.36%
Li 670.784†	2235.6	0.0108 mg/L	0.00022	0.0108 mg/L	0.00022	2.05%

Sequence No.: 58 u\osampler Location: 91
 Sample ID: L1205009907 a\ne Collected: 5/8/2012 8:51:31 PM
 Analyst: KHR a\ne Type: Original
 Initial Sample Wt: n\itial Sample Vol:

Approved: May 09, 2012


Dilution: sample Prep Vol:

Nebulizer Parameters: L1205009907

Analyte Back Pressure Flow
 All 151.0 kPa 0.50 L/min

Mean Data: L1205009907

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2085428.7					4407.19	0.21%
YRADIAL	297785.7					1364.47	0.46%
Ga 417.206	1354088.4					41483.53	3.06%
GaRADIAL	91833.9					609.07	0.66%
Ag 328.068†	750.1	0.00387	mg/L	0.000582	0.00387	0.000582	15.05%
Al 396.153†	-86.3	-0.0442	mg/L	0.00444	-0.0442	0.00444	10.05%
As 188.979†	51.4	0.0187	mg/L	0.00125	0.0187	0.00125	6.70%
Ba 233.527†	5229.1	0.0300	mg/L	0.00022	0.0300	0.00022	0.73%
Be 234.861†	1303.7	0.00031	mg/L	0.000062	0.00031	0.000062	20.08%
B 249.677†	20603.9	0.242	mg/L	0.0100	0.242	0.0100	4.12%
Ca 227.546†	104407.9	222	mg/L	7.8	222	7.8	3.52%
Cd 228.802†	49.9	0.00099	mg/L	0.000405	0.00099	0.000405	40.78%
Co 228.616†	33.9	0.00014	mg/L	0.000077	0.00014	0.000077	57.28%
Cr 267.716†	267.7	0.00060	mg/L	0.000238	0.00060	0.000238	39.64%
Cu 327.393†	-327.0	-0.00138	mg/L	0.000518	-0.00138	0.000518	37.46%
Fe 239.562†	60515.0	3.79	mg/L	0.036	3.79	0.036	0.94%
Mg 279.077†	354874.4	99.9	mg/L	0.45	99.9	0.45	0.45%
Mn 257.610†	276943.9	0.327	mg/L	0.0033	0.327	0.0033	1.02%
Mo 202.031†	102.9	0.00093	mg/L	0.000347	0.00093	0.000347	37.13%
Ni 231.604†	264.0	0.00186	mg/L	0.000137	0.00186	0.000137	7.38%
Pb 220.353†	-39.0	-0.00347	mg/L	0.002879	-0.00347	0.002879	82.86%
Sb 206.836†	-9.4	-0.00104	mg/L	0.000659	-0.00104	0.000659	63.23%
Se 196.026†	-0.3	0.00396	mg/L	0.003753	0.00396	0.003753	94.69%
Si 251.611†	508034.1	12.2	mg/L	0.33	12.2	0.33	2.68%
Sn 189.927†	-380.2	-0.0399	mg/L	0.00051	-0.0399	0.00051	1.27%
Ti 334.940†	-34528.9	-0.00296	mg/L	0.003246	-0.00296	0.003246	109.58%
Tl 190.801†	-45.9	-0.0146	mg/L	0.00319	-0.0146	0.00319	21.74%
V 290.880†	3963.9	0.0122	mg/L	0.00016	0.0122	0.00016	1.29%
Zn 206.200†	21.5	-0.00166	mg/L	0.000258	-0.00166	0.000258	15.60%
K 766.490†	24340.7	6.66	mg/L	0.060	6.66	0.060	0.91%
Na 589.592†	7358096.4	536	mg/L	0.0	536	0.0	0.00%
Sr 407.771†	Saturated2						
Li 670.784†	9758.5	0.0593	mg/L	0.00062	0.0593	0.00062	1.04%

Sequence No.: 59

Sample ID: L1205009908

Analyst: KHR

Initial Sample Wt:

Dilution:

autosampler Location: 92

Time Collected: 5/8/2012 8:57:36 PM

Sample Type: Original

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: L1205009908

Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: L1205009908

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2118175.9					30008.87	1.42%
YRADIAL	299104.8					3919.29	1.31%
Ga 417.206	1353649.6					23159.07	1.71%
GaRADIAL	91685.4					751.62	0.82%
Ag 328.068†	664.5	0.00326	mg/L	0.000241	0.00326	0.000241	7.40%
Al 396.153†	-42.3	-0.0384	mg/L	0.00824	-0.0384	0.00824	21.47%
As 188.979†	52.9	0.0191	mg/L	0.00113	0.0191	0.00113	5.90%
Ba 233.527†	5212.4	0.0299	mg/L	0.00031	0.0299	0.00031	1.03%
Be 234.861†	1120.1	0.00033	mg/L	0.000101	0.00033	0.000101	30.78%
B 249.677†	19751.9	0.232	mg/L	0.0056	0.232	0.0056	2.43%
Ca 227.546†	97103.1	206	mg/L	4.2	206	4.2	2.03%

Approved: May 09, 2012

Khr H. Rhodes

Cd 228.802†	56.7	0.00111 mg/L	0.000340	0.00111 mg/L	0.000340	30.50%
Co 228.616†	39.3	0.00029 mg/L	0.000392	0.00029 mg/L	0.000392	136.39%
Cr 267.716†	271.9	0.00061 mg/L	0.000111	0.00061 mg/L	0.000111	18.04%
Cu 327.393†	-248.8	-0.00115 mg/L	0.000384	-0.00115 mg/L	0.000384	33.32%
Fe 239.562†	48524.2	3.03 mg/L	0.046	3.03 mg/L	0.046	1.50%
Mg 279.077†	355850.6	100 mg/L	1.0	100 mg/L	1.0	0.97%
Mn 257.610†	239661.4	0.282 mg/L	0.0071	0.282 mg/L	0.0071	2.53%
Mo 202.031†	102.7	0.00088 mg/L	0.000177	0.00088 mg/L	0.000177	20.03%
Ni 231.604†	170.9	0.00049 mg/L	0.000623	0.00049 mg/L	0.000623	127.19%
Pb 220.353†	-33.3	-0.00300 mg/L	0.001419	-0.00300 mg/L	0.001419	47.35%
Sb 206.836†	-7.9	-0.00071 mg/L	0.000674	-0.00071 mg/L	0.000674	94.51%
Se 196.026†	-4.7	0.00126 mg/L	0.004665	0.00126 mg/L	0.004665	370.86%
Si 251.611†	487497.5	11.7 mg/L	0.20	11.7 mg/L	0.20	1.69%
Sn 189.927†	-384.7	-0.0403 mg/L	0.00130	-0.0403 mg/L	0.00130	3.21%
Ti 334.940†	-31889.6	-0.00266 mg/L	0.002877	-0.00266 mg/L	0.002877	108.26%
Tl 190.801†	-35.8	-0.0120 mg/L	0.00234	-0.0120 mg/L	0.00234	19.55%
V 290.880†	3707.7	0.0110 mg/L	0.00229	0.0110 mg/L	0.00229	20.83%
Zn 206.200†	34.0	-0.00134 mg/L	0.000293	-0.00134 mg/L	0.000293	21.81%
K 766.490†	21279.7	5.75 mg/L	0.092	5.75 mg/L	0.092	1.60%
Na 589.592†	6360954.6	536 mg/L	0.0	536 mg/L	0.0	0.00%
Sr 407.771†	Saturated2					
Li 670.784†	9558.1	0.0581 mg/L	0.00218	0.0581 mg/L	0.00218	3.76%

Sequence No.: 60 u&osampler Location: 93
Sample ID: L1205009909 ame Collected: 5/8/2012 9:03:40 PM
Analyst: KHR ama Type: Original
Initial Sample Wt: nitial Sample Vol:
Dilution: ample Prep Vol:

Nebulizer Parameters: L1205009909
Analyte Back Pressure Flow
All 151.0 kPa 0.50 L/min

Mean Data: L1205009909

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2263186.4					38166.64	1.69%
YRADIAL	303531.1					1392.49	0.46%
Ga 417.206	1387789.7					32043.24	2.31%
GaRADIAL	93288.6					331.35	0.36%
Ag 328.068†	764.2	0.00243 mg/L	0.000551	0.000551	0.00243 mg/L	0.000551	22.70%
Al 396.153†	15.7	-0.0308 mg/L	0.00615	0.00615	-0.0308 mg/L	0.00615	19.99%
As 188.979†	-7.3	-0.00254 mg/L	0.002075	0.002075	-0.00254 mg/L	0.002075	81.57%
Ba 233.527†	24354.0	0.152 mg/L	0.0018	0.0018	0.152 mg/L	0.0018	1.19%
Be 234.861†	581.9	0.00043 mg/L	0.000068	0.000068	0.00043 mg/L	0.000068	15.79%
B 249.677†	4028.6	0.0487 mg/L	0.00206	0.00206	0.0487 mg/L	0.00206	4.23%
Ca 227.546†	45976.2	97.6 mg/L	3.50	3.50	97.6 mg/L	3.50	3.58%
Cd 228.802†	48.9	0.00109 mg/L	0.000278	0.000278	0.00109 mg/L	0.000278	25.63%
Co 228.616†	44.5	0.00040 mg/L	0.000069	0.000069	0.00040 mg/L	0.000069	17.04%
Cr 267.716†	87.8	-0.00116 mg/L	0.000103	0.000103	-0.00116 mg/L	0.000103	8.90%
Cu 327.393†	702.5	0.00221 mg/L	0.000211	0.000211	0.00221 mg/L	0.000211	9.53%
Fe 239.562†	10660.3	0.659 mg/L	0.0092	0.0092	0.659 mg/L	0.0092	1.40%
Mg 279.077†	64191.6	18.1 mg/L	0.07	0.07	18.1 mg/L	0.07	0.41%
Mn 257.610†	207403.1	0.244 mg/L	0.0043	0.0043	0.244 mg/L	0.0043	1.77%
Mo 202.031†	69.7	-0.00014 mg/L	0.000091	0.000091	-0.00014 mg/L	0.000091	65.87%
Ni 231.604†	309.8	0.00253 mg/L	0.000629	0.000629	0.00253 mg/L	0.000629	24.85%
Pb 220.353†	-2.9	-0.00090 mg/L	0.001943	0.001943	-0.00090 mg/L	0.001943	215.49%
Sb 206.836†	-6.0	-0.00034 mg/L	0.001533	0.001533	-0.00034 mg/L	0.001533	445.55%
Se 196.026†	0.2	0.00330 mg/L	0.002092	0.002092	0.00330 mg/L	0.002092	63.40%
Si 251.611†	167121.3	4.00 mg/L	0.090	0.090	4.00 mg/L	0.090	2.24%
Sn 189.927†	-318.2	-0.0340 mg/L	0.00019	0.00019	-0.0340 mg/L	0.00019	0.56%
Ti 334.940†	-14664.7	-0.00177 mg/L	0.001411	0.001411	-0.00177 mg/L	0.001411	79.82%
Tl 190.801†	-25.7	-0.00916 mg/L	0.004255	0.004255	-0.00916 mg/L	0.004255	46.45%
V 290.880†	1806.5	0.00365 mg/L	0.000181	0.000181	0.00365 mg/L	0.000181	4.94%
Zn 206.200†	4900.1	0.114 mg/L	0.0005	0.0005	0.114 mg/L	0.0005	0.42%
K 766.490†	11650.3	3.35 mg/L	0.059	0.059	3.35 mg/L	0.059	1.77%
Na 589.592†	1217354.3	62.2 mg/L	0.15	0.15	62.2 mg/L	0.15	0.25%
Sr 407.771†	1149735.3	0.423 mg/L	0.0034	0.0034	0.423 mg/L	0.0034	0.80%
Li 670.784†	3193.5	0.0169 mg/L	0.00104	0.00104	0.0169 mg/L	0.00104	6.13%

Approved: May 09, 2012
Kym H. Rhodes

Sequence No.: 61
Sample ID: L1205009910
Analyst: KHR
Initial Sample Wt:
Dilution:
u&osampler Location: 94
Date Collected: 5/8/2012 9:09:41 PM
Sample Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L1205009910
Analyte Back Pressure Flow
All 152.0 kPa 0.50 L/min

Mean Data: L1205009910. Table with columns: Analyte, Mean Corrected Intensity, Conc. Units, Calib. Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, RADIUM, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, V, Zn, K, Na, Sr, Li.

Sequence No.: 62
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:
u&osampler Location: 6
Date Collected: 5/8/2012 9:15:41 PM
Sample Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV
Analyte Back Pressure Flow
All 152.0 kPa 0.50 L/min

Mean Data: CCV. Table with columns: Analyte, Mean Corrected Intensity, Conc. Units, Calib. Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists elements Y, RADIUM, Ga, Ag.

Approved: May 09, 2012
[Signature]

Al	396.153†	76280.4	10.2 mg/L	0.02	10.2 mg/L	0.02	0.22%
QC value within limits for Al 396.153 Recovery = 101.62%							
As	188.979†	1160.2	0.407 mg/L	0.0076	0.407 mg/L	0.0076	1.86%
QC value within limits for As 188.979 Recovery = 101.82%							
Ba	233.527†	161392.2	1.03 mg/L	0.012	1.03 mg/L	0.012	1.21%
QC value within limits for Ba 233.527 Recovery = 102.70%							
Be	234.861†	66224.8	0.0520 mg/L	0.00146	0.0520 mg/L	0.00146	2.82%
QC value within limits for Be 234.861 Recovery = 104.02%							
B	249.677†	45114.9	0.528 mg/L	0.0173	0.528 mg/L	0.0173	3.28%
QC value within limits for B 249.677 Recovery = 105.58%							
Ca	227.546†	4853.0	10.8 mg/L	0.29	10.8 mg/L	0.29	2.68%
QC value within limits for Ca 227.546 Recovery = 108.20%							
Cd	228.802†	2919.1	0.0512 mg/L	0.00170	0.0512 mg/L	0.00170	3.32%
QC value within limits for Cd 228.802 Recovery = 102.41%							
Co	228.616†	7823.6	0.201 mg/L	0.0017	0.201 mg/L	0.0017	0.85%
QC value within limits for Co 228.616 Recovery = 100.53%							
Cr	267.716†	56779.2	0.519 mg/L	0.0108	0.519 mg/L	0.0108	2.08%
QC value within limits for Cr 267.716 Recovery = 103.83%							
Cu	327.393†	143040.4	0.533 mg/L	0.0157	0.533 mg/L	0.0157	2.94%
QC value within limits for Cu 327.393 Recovery = 106.66%							
Fe	239.562†	65189.6	4.08 mg/L	0.007	4.08 mg/L	0.007	0.17%
QC value within limits for Fe 239.562 Recovery = 102.07%							
Mg	279.077†	35885.4	10.1 mg/L	0.06	10.1 mg/L	0.06	0.64%
QC value within limits for Mg 279.077 Recovery = 100.98%							
Mn	257.610†	440258.7	0.522 mg/L	0.0063	0.522 mg/L	0.0063	1.21%
QC value within limits for Mn 257.610 Recovery = 104.35%							
Mo	202.031†	37973.0	1.02 mg/L	0.017	1.02 mg/L	0.017	1.66%
QC value within limits for Mo 202.031 Recovery = 102.42%							
Ni	231.604†	35085.2	0.514 mg/L	0.0048	0.514 mg/L	0.0048	0.93%
QC value within limits for Ni 231.604 Recovery = 102.73%							
Pb	220.353†	5675.8	0.511 mg/L	0.0065	0.511 mg/L	0.0065	1.28%
QC value within limits for Pb 220.353 Recovery = 102.22%							
Sb	206.836†	5219.6	1.26 mg/L	0.031	1.26 mg/L	0.031	2.47%
QC value within limits for Sb 206.836 Recovery = 104.77%							
Se	196.026†	749.0	0.421 mg/L	0.0118	0.421 mg/L	0.0118	2.81%
QC value within limits for Se 196.026 Recovery = 105.18%							
Si	251.611†	221163.6	5.28 mg/L	0.128	5.28 mg/L	0.128	2.42%
QC value within limits for Si 251.611 Recovery = 105.63%							
Sn	189.927†	10573.7	1.01 mg/L	0.010	1.01 mg/L	0.010	1.02%
QC value within limits for Sn 189.927 Recovery = 101.06%							
Ti	334.940†	1022303.8	1.02 mg/L	0.008	1.02 mg/L	0.008	0.82%
QC value within limits for Ti 334.940 Recovery = 101.83%							
Tl	190.801†	1999.7	0.528 mg/L	0.0071	0.528 mg/L	0.0071	1.35%
QC value within limits for Tl 190.801 Recovery = 105.55%							
V	290.880†	202897.4	1.04 mg/L	0.025	1.04 mg/L	0.025	2.36%
QC value within limits for V 290.880 Recovery = 104.31%							
Zn	206.200†	43480.4	1.04 mg/L	0.017	1.04 mg/L	0.017	1.60%
QC value within limits for Zn 206.200 Recovery = 103.54%							
K	766.490†	164856.7	49.6 mg/L	0.38	49.6 mg/L	0.38	0.76%
QC value within limits for K 766.490 Recovery = 99.24%							
Na	589.592†	1006928.9	50.9 mg/L	0.43	50.9 mg/L	0.43	0.85%
QC value within limits for Na 589.592 Recovery = 101.76%							
Sr	407.771†	2704456.5	1.01 mg/L	0.001	1.01 mg/L	0.001	0.13%
QC value within limits for Sr 407.771 Recovery = 100.87%							
Li	670.784†	163362.1	1.05 mg/L	0.006	1.05 mg/L	0.006	0.56%
QC value within limits for Li 670.784 Recovery = 105.14%							

All analyte(s) passed QC.

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Sequence No.: 63                               u&osampler Location: 1
Sample ID: CCB                                 a&e Collected: 5/8/2012 9:21:42 PM
Analyst:                                       a&a Type: Original
Initial Sample Wt:                             n&tial Sample Vol:
Dilution:                                     a&ple Prep Vol:
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Nebulizer Parameters: CCB
Analyte          Back Pressure   Flow
All              152.0 kPa       0.50 L/min
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Approved: May 09, 2012

[Signature]

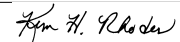
Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2314880.2				15803.84	0.68%
YRADIAL	305279.0				7690.63	2.52%
Ga 417.206	1397030.1				22609.88	1.62%
GaRADIAL	90884.1				4107.67	4.52%
Ag 328.068†	166.3	0.00034 mg/L	0.000279	0.00034 mg/L	0.000279	83.11%
QC value within limits for Ag	328.068	Recovery =	Not calculated			
Al 396.153†	19.4	-0.0303 mg/L	0.00042	-0.0303 mg/L	0.00042	1.38%
QC value within limits for Al	396.153	Recovery =	Not calculated			
As 188.979†	-2.9	-0.00103 mg/L	0.002087	-0.00103 mg/L	0.002087	203.28%
QC value within limits for As	188.979	Recovery =	Not calculated			
Ba 233.527†	48.2	-0.00295 mg/L	0.000127	-0.00295 mg/L	0.000127	4.31%
QC value within limits for Ba	233.527	Recovery =	Not calculated			
Be 234.861†	26.3	0.00011 mg/L	0.000028	0.00011 mg/L	0.000028	24.61%
QC value within limits for Be	234.861	Recovery =	Not calculated			
B 249.677†	388.3	0.00618 mg/L	0.000250	0.00618 mg/L	0.000250	4.04%
QC value within limits for B	249.677	Recovery =	Not calculated			
Ca 227.546†	-9.1	0.0286 mg/L	0.00886	0.0286 mg/L	0.00886	30.95%
QC value within limits for Ca	227.546	Recovery =	Not calculated			
Cd 228.802†	9.2	0.00036 mg/L	0.000177	0.00036 mg/L	0.000177	48.56%
QC value within limits for Cd	228.802	Recovery =	Not calculated			
Co 228.616†	10.5	-0.00044 mg/L	0.000017	-0.00044 mg/L	0.000017	3.78%
QC value within limits for Co	228.616	Recovery =	Not calculated			
Cr 267.716†	-5.2	-0.00204 mg/L	0.000185	-0.00204 mg/L	0.000185	9.05%
QC value within limits for Cr	267.716	Recovery =	Not calculated			
Cu 327.393†	54.2	-0.00024 mg/L	0.000532	-0.00024 mg/L	0.000532	217.28%
QC value within limits for Cu	327.393	Recovery =	Not calculated			
Fe 239.562†	0.9	-0.0103 mg/L	0.00044	-0.0103 mg/L	0.00044	4.24%
QC value within limits for Fe	239.562	Recovery =	Not calculated			
Mg 279.077†	5.8	-0.0233 mg/L	0.00177	-0.0233 mg/L	0.00177	7.60%
QC value within limits for Mg	279.077	Recovery =	Not calculated			
Mn 257.610†	42.9	-0.00286 mg/L	0.000012	-0.00286 mg/L	0.000012	0.41%
QC value within limits for Mn	257.610	Recovery =	Not calculated			
Mo 202.031†	26.1	-0.00140 mg/L	0.000166	-0.00140 mg/L	0.000166	11.84%
QC value within limits for Mo	202.031	Recovery =	Not calculated			
Ni 231.604†	6.7	-0.00193 mg/L	0.000328	-0.00193 mg/L	0.000328	17.03%
QC value within limits for Ni	231.604	Recovery =	Not calculated			
Pb 220.353†	-20.7	-0.00308 mg/L	0.002401	-0.00308 mg/L	0.002401	77.99%
QC value within limits for Pb	220.353	Recovery =	Not calculated			
Sb 206.836†	-1.8	0.00063 mg/L	0.000651	0.00063 mg/L	0.000651	102.68%
QC value within limits for Sb	206.836	Recovery =	Not calculated			
Se 196.026†	0.5	0.00333 mg/L	0.001009	0.00333 mg/L	0.001009	30.33%
QC value within limits for Se	196.026	Recovery =	Not calculated			
Si 251.611†	168.9	-0.00223 mg/L	0.000314	-0.00223 mg/L	0.000314	14.07%
QC value within limits for Si	251.611	Recovery =	Not calculated			
Sn 189.927†	-7.5	-0.00416 mg/L	0.000188	-0.00416 mg/L	0.000188	4.53%
QC value within limits for Sn	189.927	Recovery =	Not calculated			
Ti 334.940†	289.0	-0.00150 mg/L	0.000094	-0.00150 mg/L	0.000094	6.28%
QC value within limits for Ti	334.940	Recovery =	Not calculated			
Tl 190.801†	1.4	-0.00176 mg/L	0.001340	-0.00176 mg/L	0.001340	76.20%
QC value within limits for Tl	190.801	Recovery =	Not calculated			
V 290.880†	1084.4	0.00050 mg/L	0.001260	0.00050 mg/L	0.001260	252.55%
QC value within limits for V	290.880	Recovery =	Not calculated			
Zn 206.200†	-22.2	-0.00264 mg/L	0.000175	-0.00264 mg/L	0.000175	6.61%
QC value within limits for Zn	206.200	Recovery =	Not calculated			
K 766.490†	117.2	-0.00712 mg/L	0.014767	-0.00712 mg/L	0.014767	207.42%
QC value within limits for K	766.490	Recovery =	Not calculated			
Na 589.592†	295.0	0.0365 mg/L	0.01220	0.0365 mg/L	0.01220	33.47%
QC value within limits for Na	589.592	Recovery =	Not calculated			
Sr 407.771†	674.5	-0.00571 mg/L	0.000075	-0.00571 mg/L	0.000075	1.31%
QC value within limits for Sr	407.771	Recovery =	Not calculated			
Li 670.784†	-3.0	-0.00370 mg/L	0.000214	-0.00370 mg/L	0.000214	5.79%
QC value within limits for Li	670.784	Recovery =	Not calculated			

All analyte(s) passed QC.

Sequence No.: 64
 Sample ID: ICSA
 Analyst:
 Initial Sample Wt:

Sampler Location: 12
 Date Collected: 5/8/2012 9:28:35 PM
 Data Type: Original
 Initial Sample Vol:

Approved: May 09, 2012


Dilution:

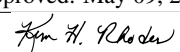
Sample Prep Vol:

Nebulizer Parameters: ICSA

Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2118841.4				6196.89	0.29%
YRADIAL	299811.2				4347.41	1.45%
Ga 417.206	1319911.2				20353.46	1.54%
GaRADIAL	90559.4				706.89	0.78%
Ag 328.068†	-12901.8	-0.00009 mg/L	0.000432	-0.00009 mg/L	0.000432	485.77%
QC value within limits for Ag		328.068	Recovery =	Not calculated		
Al 396.153†	1845230.4	248 mg/L	2.8	248 mg/L	2.8	1.11%
QC value within limits for Al		396.153	Recovery =	99.31%		
As 188.979†	-20.7	-0.00123 mg/L	0.003181	-0.00123 mg/L	0.003181	259.28%
QC value within limits for As		188.979	Recovery =	Not calculated		
Ba 233.527†	785.7	-0.00057 mg/L	0.000272	-0.00057 mg/L	0.000272	47.48%
QC value within limits for Ba		233.527	Recovery =	Not calculated		
Be 234.861†	24930.5	-0.00091 mg/L	0.000188	-0.00091 mg/L	0.000188	20.56%
QC value within limits for Be		234.861	Recovery =	Not calculated		
B 249.677†	4454.7	0.0140 mg/L	0.00197	0.0140 mg/L	0.00197	14.04%
QC value within limits for B		249.677	Recovery =	Not calculated		
Ca 227.546†	120826.2	259 mg/L	6.0	259 mg/L	6.0	2.32%
QC value within limits for Ca		227.546	Recovery =	103.49%		
Cd 228.802†	15.8	0.00034 mg/L	0.000169	0.00034 mg/L	0.000169	49.76%
QC value within limits for Cd		228.802	Recovery =	Not calculated		
Co 228.616†	25.1	-0.00242 mg/L	0.000153	-0.00242 mg/L	0.000153	6.32%
QC value within limits for Co		228.616	Recovery =	Not calculated		
Cr 267.716†	48.4	-0.00297 mg/L	0.000137	-0.00297 mg/L	0.000137	4.60%
QC value within limits for Cr		267.716	Recovery =	Not calculated		
Cu 327.393†	-1402.2	0.00213 mg/L	0.000204	0.00213 mg/L	0.000204	9.57%
QC value within limits for Cu		327.393	Recovery =	Not calculated		
Fe 239.562†	1479704.1	92.9 mg/L	1.21	92.9 mg/L	1.21	1.30%
QC value within limits for Fe		239.562	Recovery =	92.91%		
Mg 279.077†	880842.0	248 mg/L	3.4	248 mg/L	3.4	1.39%
QC value within limits for Mg		279.077	Recovery =	99.20%		
Mn 257.610†	-2063.3	-0.00277 mg/L	0.000365	-0.00277 mg/L	0.000365	13.21%
QC value within limits for Mn		257.610	Recovery =	Not calculated		
Mo 202.031†	-56.3	0.00094 mg/L	0.000201	0.00094 mg/L	0.000201	21.52%
QC value within limits for Mo		202.031	Recovery =	Not calculated		
Ni 231.604†	50.8	-0.00127 mg/L	0.000792	-0.00127 mg/L	0.000792	62.16%
QC value within limits for Ni		231.604	Recovery =	Not calculated		
Pb 220.353†	-412.6	-0.00339 mg/L	0.001377	-0.00339 mg/L	0.001377	40.62%
QC value within limits for Pb		220.353	Recovery =	Not calculated		
Sb 206.836†	-29.6	-0.00265 mg/L	0.002098	-0.00265 mg/L	0.002098	79.17%
QC value within limits for Sb		206.836	Recovery =	Not calculated		
Se 196.026†	-52.0	-0.00114 mg/L	0.004519	-0.00114 mg/L	0.004519	396.41%
QC value within limits for Se		196.026	Recovery =	Not calculated		
Si 251.611†	-182.0	-0.0106 mg/L	0.00039	-0.0106 mg/L	0.00039	3.68%
QC value within limits for Si		251.611	Recovery =	Not calculated		
Sn 189.927†	-387.3	-0.0406 mg/L	0.00109	-0.0406 mg/L	0.00109	2.68%
QC value within limits for Sn		189.927	Recovery =	Not calculated		
Ti 334.940†	-38719.6	-0.00191 mg/L	0.002621	-0.00191 mg/L	0.002621	137.12%
QC value within limits for Ti		334.940	Recovery =	Not calculated		
Tl 190.801†	-57.7	-0.0107 mg/L	0.00288	-0.0107 mg/L	0.00288	26.94%
QC value within limits for Tl		190.801	Recovery =	Not calculated		
V 290.880†	5292.5	0.00113 mg/L	0.003680	0.00113 mg/L	0.003680	324.57%
QC value within limits for V		290.880	Recovery =	Not calculated		
Zn 206.200†	212.6	0.00117 mg/L	0.000582	0.00117 mg/L	0.000582	49.88%
QC value within limits for Zn		206.200	Recovery =	Not calculated		
K 766.490†	-36.6	-0.0527 mg/L	0.02891	-0.0527 mg/L	0.02891	54.86%
QC value within limits for K		766.490	Recovery =	Not calculated		
Na 589.592†	31.4	0.0238 mg/L	0.01091	0.0238 mg/L	0.01091	45.87%
QC value within limits for Na		589.592	Recovery =	Not calculated		
Sr 407.771†	2823.8	-0.0105 mg/L	0.00015	-0.0105 mg/L	0.00015	1.46%
QC value less than the lower limit for Sr		407.771	Recovery =	Not calculated		
Li 670.784†	250.7	-0.00206 mg/L	0.000341	-0.00206 mg/L	0.000341	16.54%

Approved: May 09, 2012


QC value within limits for Li 670.784 Recovery = Not calculated
 QC Failed. Continue with analysis.

Sequence No.: 65
 Sample ID: ICSAB
 Analyst:
 Initial Sample Wt:
 Dilution:

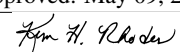
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 ame Collected: 5/8/2012 9:34:32 PM
 ama Type: Original
 nitial Sample Vol:
 ample Prep Vol:

Nebulizer Parameters: ICSAB

Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2147249.0				15664.75	0.73%
YRADIAL	302734.2				1209.09	0.40%
Ga 417.206	1302758.1				25787.38	1.98%
GaRADIAL	91333.2				582.24	0.64%
Ag 328.068†	148429.2	0.515 mg/L	0.0118	0.515 mg/L	0.0118	2.29%
QC value within limits for Ag	328.068	253 mg/L	102.93%			
Al 396.153†	1883251.0	253 mg/L	2.3	253 mg/L	2.3	0.92%
QC value within limits for Al	396.153	253 mg/L	101.36%			
As 188.979†	665.5	0.243 mg/L	0.0029	0.243 mg/L	0.0029	1.19%
QC value within limits for As	188.979	0.243 mg/L	97.10%			
Ba 233.527†	39338.2	0.245 mg/L	0.0034	0.245 mg/L	0.0034	1.37%
QC value within limits for Ba	233.527	0.245 mg/L	98.16%			
Be 234.861†	343937.5	0.251 mg/L	0.0040	0.251 mg/L	0.0040	1.58%
QC value within limits for Be	234.861	0.251 mg/L	100.51%			
B 249.677†	4281.0	-0.00021 mg/L	0.003675	-0.00021 mg/L	0.003675	>999.9%
QC value within limits for B	249.677	269 mg/L	Not calculated			
Ca 227.546†	125279.5	269 mg/L	6.0	269 mg/L	6.0	2.23%
QC value within limits for Ca	227.546	0.422 mg/L	107.41%			
Cd 228.802†	23494.3	0.422 mg/L	0.0096	0.422 mg/L	0.0096	2.28%
QC value within limits for Cd	228.802	0.230 mg/L	84.37%			
Co 228.616†	8997.0	0.230 mg/L	0.0022	0.230 mg/L	0.0022	0.94%
QC value within limits for Co	228.616	0.246 mg/L	91.92%			
Cr 267.716†	27215.5	0.246 mg/L	0.0007	0.246 mg/L	0.0007	0.29%
QC value within limits for Cr	267.716	0.255 mg/L	98.51%			
Cu 327.393†	66610.2	0.255 mg/L	0.0037	0.255 mg/L	0.0037	1.46%
QC value within limits for Cu	327.393	93.5 mg/L	102.06%			
Fe 239.562†	1489641.7	93.5 mg/L	1.10	93.5 mg/L	1.10	1.17%
QC value within limits for Fe	239.562	251 mg/L	93.53%			
Mg 279.077†	892161.3	251 mg/L	2.6	251 mg/L	2.6	1.04%
QC value within limits for Mg	279.077	0.238 mg/L	100.48%			
Mn 257.610†	200467.2	0.238 mg/L	0.0021	0.238 mg/L	0.0021	0.86%
QC value within limits for Mn	257.610	0.471 mg/L	95.37%			
Mo 202.031†	-61.6	0.00099 mg/L	0.000307	0.00099 mg/L	0.000307	30.95%
QC value within limits for Mo	202.031	0.471 mg/L	Not calculated			
Ni 231.604†	32159.3	0.471 mg/L	0.0038	0.471 mg/L	0.0038	0.81%
QC value within limits for Ni	231.604	0.471 mg/L	94.11%			
Pb 220.353†	4855.3	0.471 mg/L	0.0050	0.471 mg/L	0.0050	1.05%
QC value within limits for Pb	220.353	0.498 mg/L	94.28%			
Sb 206.836†	2055.3	0.498 mg/L	0.0144	0.498 mg/L	0.0144	2.90%
QC value within limits for Sb	206.836	0.244 mg/L	99.62%			
Se 196.026†	388.8	0.244 mg/L	0.0101	0.244 mg/L	0.0101	4.12%
QC value within limits for Se	196.026	-0.0116 mg/L	97.64%			
Si 251.611†	-222.2	-0.0116 mg/L	0.00068	-0.0116 mg/L	0.00068	5.89%
QC value within limits for Si	251.611	-0.0406 mg/L	Not calculated			
Sn 189.927†	-387.4	-0.0406 mg/L	0.00121	-0.0406 mg/L	0.00121	2.97%
QC value within limits for Sn	189.927	0.475 mg/L	Not calculated			
Ti 334.940†	-39224.4	-0.00107 mg/L	0.003560	-0.00107 mg/L	0.003560	332.46%
QC value within limits for Ti	334.940	0.475 mg/L	Not calculated			
Tl 190.801†	1826.7	0.475 mg/L	0.0026	0.475 mg/L	0.0026	0.55%
QC value within limits for Tl	190.801	0.244 mg/L	95.00%			
V 290.880†	52249.7	0.244 mg/L	0.0013	0.244 mg/L	0.0013	0.51%
QC value within limits for V	290.880	0.467 mg/L	97.51%			
Zn 206.200†	19722.7	0.467 mg/L	0.0005	0.467 mg/L	0.0005	0.11%

Approved: May 09, 2012


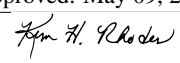
QC value within limits for Zn 206.200 Recovery = 93.38%
 K 766.490† 16128.4 4.74 mg/L 0.045 4.74 mg/L 0.045 0.95%
 QC value within limits for K 766.490 Recovery = 94.86%
 Na 589.592† 100230.5 4.87 mg/L 0.003 4.87 mg/L 0.003 0.05%
 QC value within limits for Na 589.592 Recovery = 97.32%
 Sr 407.771† 2983.5 -0.0107 mg/L 0.00014 -0.0107 mg/L 0.00014 1.36%
 QC value less than the lower limit for Sr 407.771 Recovery = Not calculated
 Li 670.784† 268.8 -0.00194 mg/L 0.000311 -0.00194 mg/L 0.000311 15.99%
 QC value within limits for Li 670.784 Recovery = Not calculated
 QC Failed. Continue with analysis.

Sequence No.: 66 ukosampler Location: 6
 Sample ID: CCV ana Collected: 5/8/2012 9:40:28 PM
 Analyst: ana Type: Original
 Initial Sample Wt: nitial Sample Vol:
 Dilution: ample Prep Vol:

Nebulizer Parameters: CCV
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2316871.5				24923.46	1.08%
YRADIAL	313588.7				1362.07	0.43%
Ga 417.206	1362264.4				31208.13	2.29%
GaRADIAL	93038.0				479.58	0.52%
Ag 328.068†	126112.3	0.405 mg/L	0.0128	0.405 mg/L	0.0128	3.15%
QC value within limits for Ag 328.068			Recovery = 101.27%			
Al 396.153†	73270.3	9.76 mg/L	0.054	9.76 mg/L	0.054	0.55%
QC value within limits for Al 396.153			Recovery = 97.60%			
As 188.979†	1112.5	0.391 mg/L	0.0095	0.391 mg/L	0.0095	2.44%
QC value within limits for As 188.979			Recovery = 97.65%			
Ba 233.527†	153934.4	0.979 mg/L	0.0070	0.979 mg/L	0.0070	0.71%
QC value within limits for Ba 233.527			Recovery = 97.94%			
Be 234.861†	62860.2	0.0494 mg/L	0.00141	0.0494 mg/L	0.00141	2.86%
QC value within limits for Be 234.861			Recovery = 98.74%			
B 249.677†	42448.7	0.497 mg/L	0.0169	0.497 mg/L	0.0169	3.40%
QC value within limits for B 249.677			Recovery = 99.34%			
Ca 227.546†	4623.1	10.3 mg/L	0.29	10.3 mg/L	0.29	2.80%
QC value within limits for Ca 227.546			Recovery = 103.11%			
Cd 228.802†	2797.9	0.0491 mg/L	0.00194	0.0491 mg/L	0.00194	3.95%
QC value within limits for Cd 228.802			Recovery = 98.19%			
Co 228.616†	7554.3	0.194 mg/L	0.0028	0.194 mg/L	0.0028	1.43%
QC value within limits for Co 228.616			Recovery = 97.04%			
Cr 267.716†	53847.0	0.492 mg/L	0.0050	0.492 mg/L	0.0050	1.02%
QC value within limits for Cr 267.716			Recovery = 98.45%			
Cu 327.393†	135042.2	0.503 mg/L	0.0141	0.503 mg/L	0.0141	2.80%
QC value within limits for Cu 327.393			Recovery = 100.69%			
Fe 239.562†	62316.0	3.90 mg/L	0.025	3.90 mg/L	0.025	0.65%
QC value within limits for Fe 239.562			Recovery = 97.56%			
Mg 279.077†	34376.1	9.67 mg/L	0.036	9.67 mg/L	0.036	0.38%
QC value within limits for Mg 279.077			Recovery = 96.72%			
Mn 257.610†	419478.4	0.497 mg/L	0.0047	0.497 mg/L	0.0047	0.94%
QC value within limits for Mn 257.610			Recovery = 99.39%			
Mo 202.031†	36073.4	0.973 mg/L	0.0080	0.973 mg/L	0.0080	0.82%
QC value within limits for Mo 202.031			Recovery = 97.29%			
Ni 231.604†	33542.7	0.491 mg/L	0.0053	0.491 mg/L	0.0053	1.07%
QC value within limits for Ni 231.604			Recovery = 98.20%			
Pb 220.353†	5464.9	0.492 mg/L	0.0062	0.492 mg/L	0.0062	1.25%
QC value within limits for Pb 220.353			Recovery = 98.41%			
Sb 206.836†	4999.2	1.20 mg/L	0.032	1.20 mg/L	0.032	2.64%
QC value within limits for Sb 206.836			Recovery = 100.35%			
Se 196.026†	715.0	0.402 mg/L	0.0072	0.402 mg/L	0.0072	1.80%
QC value within limits for Se 196.026			Recovery = 100.45%			
Si 251.611†	209427.4	5.00 mg/L	0.093	5.00 mg/L	0.093	1.86%
QC value within limits for Si 251.611			Recovery = 100.02%			
Sn 189.927†	10112.8	0.966 mg/L	0.0126	0.966 mg/L	0.0126	1.31%

Approved: May 09, 2012


Ti	334.940†	985121.9	0.981 mg/L	0.0042	0.42%
QC value within limits for Ti 334.940 Recovery = 98.12%					
Tl	190.801†	1923.6	0.508 mg/L	0.0065	1.29%
QC value within limits for Tl 190.801 Recovery = 101.51%					
V	290.880†	192074.4	0.987 mg/L	0.0109	1.10%
QC value within limits for V 290.880 Recovery = 98.72%					
Zn	206.200†	41469.1	0.987 mg/L	0.0040	0.40%
QC value within limits for Zn 206.200 Recovery = 98.74%					
K	766.490†	158769.3	47.8 mg/L	0.80	1.68%
QC value within limits for K 766.490 Recovery = 95.51%					
Na	589.592†	959445.1	48.4 mg/L	0.41	0.86%
QC value within limits for Na 589.592 Recovery = 96.72%					
Sr	407.771†	2596140.3	0.968 mg/L	0.0168	1.74%
QC value within limits for Sr 407.771 Recovery = 96.81%					
Li	670.784†	157205.0	1.01 mg/L	0.022	2.18%
QC value within limits for Li 670.784 Recovery = 101.16%					
All analyte(s) passed QC.					

Sequence No.: 67
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

u&osampler Location: 1
ame Collected: 5/8/2012 9:46:29 PM
ama Type: Original
ntitial Sample Vol:
ample Prep Vol:

Nebulizer Parameters: CCB
Analyte Back Pressure Flow
All 152.0 kPa 0.50 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2349778.4				15778.62	0.67%
YRADIAL	308485.4				4124.55	1.34%
Ga 417.206	1399162.2				9342.95	0.67%
GaRADIAL	91570.2				2470.52	2.70%
Ag 328.068†	120.0	0.00018 mg/L	0.000655	0.00018 mg/L	0.000655	354.43%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153†	14.9	-0.0309 mg/L	0.00019	-0.0309 mg/L	0.00019	0.63%
QC value within limits for Al 396.153 Recovery = Not calculated						
As 188.979†	-2.9	-0.00103 mg/L	0.000591	-0.00103 mg/L	0.000591	57.25%
QC value within limits for As 188.979 Recovery = Not calculated						
Ba 233.527†	47.9	-0.00295 mg/L	0.000130	-0.00295 mg/L	0.000130	4.41%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 234.861†	63.6	0.00014 mg/L	0.000008	0.00014 mg/L	0.000008	5.72%
QC value within limits for Be 234.861 Recovery = Not calculated						
B 249.677†	421.5	0.00657 mg/L	0.000236	0.00657 mg/L	0.000236	3.59%
QC value within limits for B 249.677 Recovery = Not calculated						
Ca 227.546†	-11.3	0.0243 mg/L	0.03139	0.0243 mg/L	0.03139	129.09%
QC value within limits for Ca 227.546 Recovery = Not calculated						
Cd 228.802†	6.2	0.00031 mg/L	0.000248	0.00031 mg/L	0.000248	79.77%
QC value within limits for Cd 228.802 Recovery = Not calculated						
Co 228.616†	12.1	-0.00040 mg/L	0.000228	-0.00040 mg/L	0.000228	56.79%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-2.6	-0.00202 mg/L	0.000057	-0.00202 mg/L	0.000057	2.84%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 327.393†	189.3	0.00026 mg/L	0.000083	0.00026 mg/L	0.000083	32.40%
QC value within limits for Cu 327.393 Recovery = Not calculated						
Fe 239.562†	49.1	-0.00728 mg/L	0.000064	-0.00728 mg/L	0.000064	0.88%
QC value within limits for Fe 239.562 Recovery = Not calculated						
Mg 279.077†	30.8	-0.0163 mg/L	0.00104	-0.0163 mg/L	0.00104	6.40%
QC value within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610†	42.4	-0.00287 mg/L	0.000015	-0.00287 mg/L	0.000015	0.53%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	12.7	-0.00177 mg/L	0.000243	-0.00177 mg/L	0.000243	13.76%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604†	16.8	-0.00178 mg/L	0.000275	-0.00178 mg/L	0.000275	15.47%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Pb 220.353†	-24.3	-0.00340 mg/L	0.000110	-0.00340 mg/L	0.000110	3.25%

Approved: May 09, 2012
[Signature]

=====
Analysis Begun

Start Time: 5/9/2012 9:49:56 AM Plasma On Time: 12:00:00 AM
Logged In Analyst: peicp2 Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N40114 Autosampler Model: Cetac

Sample Information File: C:\pe\peicp2\Sample Information\WEDNESDAY1.sif
Batch ID:
Results Data Set: 050912H
Results Library: C:\pe\peicp2\Results\Results.mdb

=====
Method Loaded
Method Name: 200.7-6010 PE-ICP2.1 Method Last Saved: 5/7/2012 8:30:37 AM
IEC File: CA227_LiBeMOD.iec SM File:
Method Description: STANDARD

=====
Sequence No.: 1 Autosampler Location: 1
Sample ID: S0 Date Collected: 5/9/2012 9:49:59 AM
Analyst: Sample Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: S0
Analyte Back Pressure Flow
All 156.0 kPa 0.50 L/min

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Y 371.029	2303799.6	32526.26	1.41%		
YRADIAL	319172.0	2192.01	0.69%		
Ga 417.206	1414578.2	5471.16	0.39%		
GaRADIAL	96422.6	2104.20	2.18%		
Ag 328.068†	-92.8	22.98	24.76%	[0.00]	mg/L
Al 396.153†	-5.0	7.11	141.72%	[0.00]	mg/L
As 188.979†	-25.9	3.60	13.92%	[0.00]	mg/L
Ba 233.527†	-153.7	9.73	6.33%	[0.00]	mg/L
Be 234.861†	-1633.9	24.41	1.49%	[0.00]	mg/L
B 249.677†	16.4	4.86	29.69%	[0.00]	mg/L
Ca 227.546†	-77.6	16.20	20.86%	[0.00]	mg/L
Cd 228.802†	82.2	9.30	11.32%	[0.00]	mg/L
Co 228.616†	3.7	2.87	78.15%	[0.00]	mg/L
Cr 267.716†	169.3	11.04	6.52%	[0.00]	mg/L
Cu 327.393†	-714.2	38.21	5.35%	[0.00]	mg/L
Fe 239.562†	29.8	2.77	9.28%	[0.00]	mg/L
Mg 279.077†	22.9	17.67	77.01%	[0.00]	mg/L
Mn 257.610†	362.4	21.91	6.05%	[0.00]	mg/L
Mo 202.031†	87.8	4.58	5.22%	[0.00]	mg/L
Ni 231.604†	-183.6	28.32	15.43%	[0.00]	mg/L
Pb 220.353†	-105.1	7.79	7.41%	[0.00]	mg/L
Sb 206.836†	-3.0	5.62	187.70%	[0.00]	mg/L
Se 196.026†	16.2	3.75	23.10%	[0.00]	mg/L
Si 251.611†	515.0	11.58	2.25%	[0.00]	mg/L
Sn 189.927†	49.8	9.53	19.15%	[0.00]	mg/L
Ti 334.940†	675.0	56.38	8.35%	[0.00]	mg/L
Tl 190.801†	-69.5	10.72	15.42%	[0.00]	mg/L
V 290.880†	15698.8	206.38	1.31%	[0.00]	mg/L
Zn 206.200†	4.9	5.24	106.07%	[0.00]	mg/L
K 766.490†	28.0	32.64	116.66%	[0.00]	mg/L
Na 589.592†	1143.3	156.92	13.72%	[0.00]	mg/L
Sr 407.771†	-876.2	19.94	2.28%	[0.00]	mg/L
Li 670.784†	29.1	93.58	322.12%	[0.00]	mg/L

=====
Sequence No.: 2 Autosampler Location: 2
Sample ID: S1 Date Collected: 5/9/2012 9:56:53 AM

Approved: May 10, 2012
Tom H. Rhodes

Analyst:
Initial Sample Wt:
Dilution:

Sample Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: S1

Analyte Back Pressure Flow
All 156.0 kPa 0.50 L/min

Mean Data: S1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2319637.9	21016.60	0.91%	
YRADIAL	319217.0	2254.94	0.71%	
Ga 417.206	1395199.3	20198.91	1.45%	
GaRADIAL	95535.2	2320.20	2.43%	
Ag 328.068†	1304.3	25.75	1.97%	[0.0040] mg/L
Al 396.153†	814.8	5.77	0.71%	[0.10] mg/L
Ba 233.527†	1525.0	11.47	0.75%	[0.010] mg/L
Be 234.861†	569.8	34.40	6.04%	[0.0005] mg/L
Cd 228.802†	33.7	7.29	21.62%	[0.00050] mg/L
Co 228.616†	77.3	6.03	7.80%	[0.0020] mg/L
Cr 267.716†	542.2	13.25	2.44%	[0.0050] mg/L
Cu 327.393†	1351.6	77.92	5.76%	[0.0050] mg/L
Fe 239.562†	624.8	4.24	0.68%	[0.040] mg/L
Mg 279.077†	364.1	6.84	1.88%	[0.10] mg/L
Mn 257.610†	4350.7	50.56	1.16%	[0.0050] mg/L
Mo 202.031†	357.8	10.50	2.94%	[0.010] mg/L
Ni 231.604†	349.7	8.80	2.52%	[0.0050] mg/L
Pb 220.353†	51.8	3.97	7.68%	[0.0050] mg/L
Sb 206.836†	57.3	2.56	4.47%	[0.012] mg/L
Si 251.611†	2187.8	34.67	1.58%	[0.050] mg/L
Sn 189.927†	104.1	10.28	9.88%	[0.010] mg/L
Ti 334.940†	9985.5	63.41	0.63%	[0.010] mg/L
V 290.880†	1877.5	258.57	13.77%	[0.010] mg/L
Zn 206.200†	409.5	5.53	1.35%	[0.010] mg/L
K 766.490†	1902.1	12.73	0.67%	[0.50] mg/L
Na 589.592†	10523.3	185.63	1.76%	[0.50] mg/L
Sr 407.771†	28711.3	763.81	2.66%	[0.010] mg/L
Li 670.784†	1836.9	53.24	2.90%	[0.010] mg/L

Sequence No.: 3

Sample ID: S2

Analyst:
Initial Sample Wt:
Dilution:

Sampler Location: 3

Sample Collected: 5/9/2012 10:03:48 AM

Sample Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: S2

Analyte Back Pressure Flow
All 157.0 kPa 0.50 L/min

Mean Data: S2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2323531.4	10343.72	0.45%	
YRADIAL	319233.7	9560.64	2.99%	
Ga 417.206	1441366.8	15226.61	1.06%	
GaRADIAL	96389.2	391.68	0.41%	
Ag 328.068†	2503.2	104.89	4.19%	[0.0080] mg/L
Al 396.153†	1644.5	29.78	1.81%	[0.20] mg/L
As 188.979†	18.3	4.69	25.58%	[0.0080] mg/L
Ba 233.527†	3071.2	10.94	0.36%	[0.020] mg/L
Be 234.861†	1215.7	30.53	2.51%	[0.0010] mg/L
B 249.677†	854.5	16.47	1.93%	[0.010] mg/L
Ca 227.546†	91.0	1.88	2.07%	[0.20] mg/L
Cd 228.802†	52.7	6.47	12.28%	[0.0010] mg/L
Co 228.616†	149.9	2.08	1.39%	[0.0040] mg/L
Cr 267.716†	1085.3	11.77	1.08%	[0.010] mg/L

Approved: May 10, 2012

John H. Rhodes

Cu 327.393†	2725.7	95.34	3.50%	[0.010]	mg/L
Fe 239.562†	1294.3	33.29	2.57%	[0.080]	mg/L
Mg 279.077†	722.2	24.39	3.38%	[0.20]	mg/L
Mn 257.610†	8294.4	134.78	1.62%	[0.010]	mg/L
Mo 202.031†	718.5	3.02	0.42%	[0.020]	mg/L
Ni 231.604†	693.8	17.03	2.46%	[0.010]	mg/L
Pb 220.353†	113.4	13.17	11.62%	[0.010]	mg/L
Sb 206.836†	100.8	4.33	4.29%	[0.024]	mg/L
Se 196.026†	10.0	3.91	39.13%	[0.0080]	mg/L
Si 251.611†	4258.9	46.86	1.10%	[0.10]	mg/L
Sn 189.927†	202.6	5.30	2.62%	[0.020]	mg/L
Ti 334.940†	19775.4	372.76	1.88%	[0.020]	mg/L
Tl 190.801†	38.7	2.74	7.08%	[0.010]	mg/L
V 290.880†	3891.6	326.31	8.38%	[0.020]	mg/L
Zn 206.200†	813.5	7.88	0.97%	[0.020]	mg/L
K 766.490†	3668.7	80.22	2.19%	[1.00]	mg/L
Na 589.592†	21147.8	197.81	0.94%	[1.00]	mg/L
Sr 407.771†	58453.6	2447.85	4.19%	[0.020]	mg/L
Li 670.784†	3709.7	1.30	0.04%	[0.020]	mg/L

Sequence No.: 4
 Sample ID: S3
 Analyst:
 Initial Sample Wt:
 Dilution:

u&osampler Location: 4
 ame Collected: 5/9/2012 10:10:43 AM
 ama Type: Original
 nitial Sample Vol:
 ample Prep Vol:

Nebulizer Parameters: S3

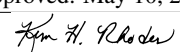
Analyte	Back Pressure	Flow
All	156.0 kPa	0.50 L/min

Mean Data: S3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2179896.4	49263.45	2.26%	
YRADIAL	312410.8	2107.12	0.67%	
Ga 417.206	1340297.8	26590.60	1.98%	
GaRADIAL	93537.5	679.71	0.73%	
Ag 328.068†	130716.8	2433.88	1.86%	[0.40] mg/L
Al 396.153†	80155.5	195.02	0.24%	[10.00] mg/L
As 188.979†	1140.1	17.61	1.54%	[0.40] mg/L
Ba 233.527†	153925.7	4564.68	2.97%	[1.00] mg/L
Be 234.861†	64102.3	835.94	1.30%	[0.05] mg/L
B 249.677†	43962.7	783.51	1.78%	[0.50] mg/L
Ca 227.546†	4905.7	114.60	2.34%	[10.00] mg/L
Cd 228.802†	2831.9	88.78	3.13%	[0.05] mg/L
Co 228.616†	7656.5	231.77	3.03%	[0.20] mg/L
Cr 267.716†	54644.3	1459.88	2.67%	[0.50] mg/L
Cu 327.393†	143837.7	2496.74	1.74%	[0.50] mg/L
Fe 239.562†	64237.6	170.77	0.27%	[4.00] mg/L
Mg 279.077†	35880.9	8.96	0.02%	[10.00] mg/L
Mn 257.610†	424973.2	12869.30	3.03%	[0.50] mg/L
Mo 202.031†	36668.5	1030.72	2.81%	[1.00] mg/L
Ni 231.604†	33929.5	1086.04	3.20%	[0.50] mg/L
Pb 220.353†	5525.4	137.66	2.49%	[0.50] mg/L
Sb 206.836†	5141.9	90.87	1.77%	[1.20] mg/L
Se 196.026†	735.7	22.09	3.00%	[0.40] mg/L
Si 251.611†	216031.4	2227.53	1.03%	[5.00] mg/L
Sn 189.927†	10329.2	297.58	2.88%	[1.00] mg/L
Ti 334.940†	1011845.2	7976.66	0.79%	[1.00] mg/L
Tl 190.801†	1968.3	48.40	2.46%	[0.50] mg/L
V 290.880†	196323.3	5555.81	2.83%	[1.00] mg/L
Zn 206.200†	40587.0	1246.56	3.07%	[1.00] mg/L
K 766.490†	174421.4	1908.05	1.09%	[50.00] mg/L
Na 589.592†	1046426.0	16747.27	1.60%	[50.00] mg/L
Sr 407.771†	2835236.4	8295.72	0.29%	[1.00] mg/L
Li 670.784†	180760.9	743.29	0.41%	[1.00] mg/L

Sequence No.: 5

u&osampler Location: 5

Approved: May 10, 2012


Sample ID: S4
 Analyst:
 Initial Sample Wt:
 Dilution:

Sample Collected: 5/9/2012 10:16:42 AM
 Sample Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Nebulizer Parameters: S4

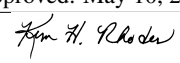
Analyte Back Pressure Flow
 All 156.0 kPa 0.50 L/min

Mean Data: S4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2152947.7	15996.61	0.74%	
YRADIAL	308088.6	2807.88	0.91%	
Ga 417.206	1354577.5	22985.11	1.70%	
GaRADIAL	93984.5	948.53	1.01%	
Ag 328.068†	252017.6	4842.26	1.92%	[0.80] mg/L
Al 396.153†	158854.7	461.74	0.29%	[20.00] mg/L
As 188.979†	2221.8	48.17	2.17%	[0.80] mg/L
Ba 233.527†	299255.2	4226.62	1.41%	[2.00] mg/L
Be 234.861†	124458.4	2419.28	1.94%	[0.10] mg/L
B 249.677†	86713.5	1828.84	2.11%	[1.00] mg/L
Ca 227.546†	9789.0	246.39	2.52%	[20.00] mg/L
Cd 228.802†	5504.1	173.39	3.15%	[0.10] mg/L
Co 228.616†	14946.4	74.11	0.50%	[0.40] mg/L
Cr 267.716†	106074.4	918.52	0.87%	[1.00] mg/L
Cu 327.393†	281454.2	5228.86	1.86%	[1.00] mg/L
Fe 239.562†	129640.6	1294.39	1.00%	[8.00] mg/L
Mg 279.077†	72258.6	586.19	0.81%	[20.00] mg/L
Mn 257.610†	815336.3	13348.12	1.64%	[1.00] mg/L
Mo 202.031†	72344.4	795.28	1.10%	[2.00] mg/L
Ni 231.604†	65714.8	1106.43	1.68%	[1.00] mg/L
Pb 220.353†	10817.7	51.18	0.47%	[1.00] mg/L
Sb 206.836†	10007.5	204.83	2.05%	[2.40] mg/L
Se 196.026†	1436.7	30.90	2.15%	[0.80] mg/L
Si 251.611†	417178.0	6555.96	1.57%	[10.00] mg/L
Sn 189.927†	20232.0	56.82	0.28%	[2.00] mg/L
Ti 334.940†	2015448.3	11210.62	0.56%	[2.00] mg/L
Tl 190.801†	3827.3	55.87	1.46%	[1.00] mg/L
V 290.880†	382236.3	1763.59	0.46%	[2.00] mg/L
Zn 206.200†	77780.8	1594.81	2.05%	[2.00] mg/L
K 766.490†	340297.8	2243.64	0.66%	[100.00] mg/L
Na 589.592†	2054363.1	15159.66	0.74%	[100.00] mg/L
Sr 407.771†	5669951.1	69216.30	1.22%	[2.00] mg/L
Li 670.784†	344234.8	5142.67	1.49%	[2.00] mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	4	Lin, Calc Int	594.9	316500	0.00000	0.999836	
Al 396.153	4	Lin, Calc Int	114.6	7950	0.00000	0.999990	
As 188.979	3	Wt. Lin	-4.2	2821	0.00000	0.999901	
Ba 233.527	4	Lin, Calc Int	568.9	150100	0.00000	0.999904	
Be 234.861	4	Lin, Calc Int	207.8	1250000	0.00000	0.999892	
B 249.677	3	Lin, Calc Int	104.6	86830	0.00000	0.999974	
Ca 227.546	3	Lin, Calc Int	-1.1	489.7	0.00000	0.999999	
Cd 228.802	4	Lin, Calc Int	11.2	55220	0.00000	0.999902	
Co 228.616	4	Lin, Calc Int	23.8	37480	0.00000	0.999929	
Cr 267.716	4	Lin, Calc Int	211.5	106500	0.00000	0.999893	
Cu 327.393	4	Lin, Calc Int	342.2	282300	0.00000	0.999941	
Fe 239.562	4	Lin, Calc Int	-80.6	16190	0.00000	0.999991	
Mg 279.077	4	Lin, Calc Int	-30.2	3610	0.00000	0.999994	
Mn 257.610	4	Lin, Calc Int	2285.4	819500	0.00000	0.999790	
Mo 202.031	4	Lin, Calc Int	59.0	36240	0.00000	0.999978	
Ni 231.604	4	Lin, Calc Int	151.6	65960	0.00000	0.999877	
Pb 220.353	4	Lin, Calc Int	15.4	10850	0.00000	0.999946	
Sb 206.836	4	Lin, Calc Int	19.7	4183	0.00000	0.999912	
Se 196.026	3	Wt. Lin	-4.6	1826	0.00000	0.999907	
Si 251.611	4	Lin, Calc Int	986.2	41900	0.00000	0.999852	

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Sn 189.927	4	Lin, Calc Int	27.5	10140	0.00000	0.999948
Ti 334.940	4	Lin, Calc Int	366.1	1008000	0.00000	0.999998
Tl 190.801	3	Lin, Calc Int	10.1	3837	0.00000	0.999892
V 290.880	4	Lin, Calc Int	659.3	191800	0.00000	0.999913
Zn 206.200	4	Lin, Calc Int	228.9	39090	0.00000	0.999779
K 766.490	4	Non Lin, Calc Int	71.2	3572	-1.69563	1.000000
Na 589.592	4	Non Lin, Calc Int	-97.0	21320	-7.71575	1.000000
Sr 407.771	4	Lin, Calc Int	693.7	2835000	0.00000	1.000000
Li 670.784	4	Lin, Calc Int	1196.3	173100	0.00000	0.999709

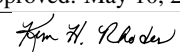
Sequence No.: 6
 Sample ID: ICV 2nd Vendor
 Analyst:
 Initial Sample Wt:
 Dilution:

u&osampler Location: 11
 ame Collected: 5/9/2012 10:22:43 AM
 ama Type: Original
 nitial Sample Vol:
 ample Prep Vol:

Nebulizer Parameters: ICV 2nd Vendor
 Analyte Back Pressure Flow
 All 156.0 kPa 0.50 L/min

Mean Data: ICV 2nd Vendor

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2232202.8				23212.40	1.04%
YRADIAL	316650.5				3528.44	1.11%
Ga 417.206	1364843.0				10119.32	0.74%
GaRADIAL	94804.9				1357.23	1.43%
Ag 328.068†	124719.1	0.396 mg/L	0.0070	0.396 mg/L	0.0070	1.77%
QC value within limits for Ag		328.068	Recovery = 98.92%			
Al 396.153†	78626.9	9.81 mg/L	0.028	9.81 mg/L	0.028	0.28%
QC value within limits for Al		396.153	Recovery = 98.09%			
As 188.979†	1109.0	0.390 mg/L	0.0034	0.390 mg/L	0.0034	0.86%
QC value within limits for As		188.979	Recovery = 97.46%			
Ba 233.527†	150625.6	1.000 mg/L	0.0127	1.000 mg/L	0.0127	1.27%
QC value within limits for Ba		233.527	Recovery = 99.97%			
Be 234.861†	62019.6	0.0490 mg/L	0.00080	0.0490 mg/L	0.00080	1.62%
QC value within limits for Be		234.861	Recovery = 98.04%			
B 249.677†	43433.6	0.495 mg/L	0.0076	0.495 mg/L	0.0076	1.54%
QC value within limits for B		249.677	Recovery = 99.04%			
Ca 227.546†	4761.4	10.2 mg/L	0.16	10.2 mg/L	0.16	1.55%
QC value within limits for Ca		227.546	Recovery = 101.85%			
Cd 228.802†	2759.8	0.0484 mg/L	0.00096	0.0484 mg/L	0.00096	1.99%
QC value within limits for Cd		228.802	Recovery = 96.82%			
Co 228.616†	7425.4	0.197 mg/L	0.0030	0.197 mg/L	0.0030	1.54%
QC value within limits for Co		228.616	Recovery = 98.32%			
Cr 267.716†	53189.4	0.498 mg/L	0.0047	0.498 mg/L	0.0047	0.94%
QC value within limits for Cr		267.716	Recovery = 99.60%			
Cu 327.393†	141983.6	0.503 mg/L	0.0060	0.503 mg/L	0.0060	1.19%
QC value within limits for Cu		327.393	Recovery = 100.68%			
Fe 239.562†	63437.2	3.92 mg/L	0.016	3.92 mg/L	0.016	0.40%
QC value within limits for Fe		239.562	Recovery = 98.07%			
Mg 279.077†	34964.3	9.71 mg/L	0.062	9.71 mg/L	0.062	0.64%
QC value within limits for Mg		279.077	Recovery = 97.10%			
Mn 257.610†	415960.2	0.505 mg/L	0.0071	0.505 mg/L	0.0071	1.40%
QC value within limits for Mn		257.610	Recovery = 101.08%			
Mo 202.031†	34974.5	0.964 mg/L	0.0064	0.964 mg/L	0.0064	0.66%
QC value within limits for Mo		202.031	Recovery = 96.43%			
Ni 231.604†	33355.6	0.503 mg/L	0.0064	0.503 mg/L	0.0064	1.28%
QC value within limits for Ni		231.604	Recovery = 100.61%			
Pb 220.353†	5374.3	0.495 mg/L	0.0065	0.495 mg/L	0.0065	1.32%
QC value within limits for Pb		220.353	Recovery = 99.07%			
Sb 206.836†	5158.8	1.23 mg/L	0.011	1.23 mg/L	0.011	0.90%
QC value within limits for Sb		206.836	Recovery = 102.28%			
Se 196.026†	718.6	0.397 mg/L	0.0084	0.397 mg/L	0.0084	2.11%
QC value within limits for Se		196.026	Recovery = 99.37%			
Si 251.611†	210812.9	5.00 mg/L	0.050	5.00 mg/L	0.050	0.99%
QC value within limits for Si		251.611	Recovery = 99.95%			
Sn 189.927†	10376.9	1.02 mg/L	0.014	1.02 mg/L	0.014	1.36%
QC value within limits for Sn		189.927	Recovery = 102.05%			

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Ti 334.940†	993077.4	0.986 mg/L	0.0058	0.986 mg/L	0.0058	0.59%
QC value within limits for Ti 334.940 Recovery = 98.58%						
Tl 190.801†	1918.9	0.512 mg/L	0.0033	0.512 mg/L	0.0033	0.64%
QC value within limits for Tl 190.801 Recovery = 102.34%						
V 290.880†	188989.9	0.981 mg/L	0.0104	0.981 mg/L	0.0104	1.06%
QC value within limits for V 290.880 Recovery = 98.10%						
Zn 206.200†	39525.4	1.01 mg/L	0.012	1.01 mg/L	0.012	1.22%
QC value within limits for Zn 206.200 Recovery = 101.00%						
K 766.490†	169128.4	48.4 mg/L	0.12	48.4 mg/L	0.12	0.26%
QC value within limits for K 766.490 Recovery = 96.79%						
Na 589.592†	1015882.7	48.5 mg/L	0.79	48.5 mg/L	0.79	1.64%
QC value within limits for Na 589.592 Recovery = 97.03%						
Sr 407.771†	2775789.0	0.979 mg/L	0.0124	0.979 mg/L	0.0124	1.26%
QC value within limits for Sr 407.771 Recovery = 97.88%						
Li 670.784†	174555.2	1.00 mg/L	0.008	1.00 mg/L	0.008	0.77%
QC value within limits for Li 670.784 Recovery = 100.14%						

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

u&osampler Location: 1

ame Collected: 5/9/2012 10:28:41 AM

ama Type: Original

nitial Sample Vol:

ample Prep Vol:

Nebulizer Parameters: ICB

Analyte	Back Pressure	Flow
All	155.0 kPa	0.50 L/min

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2306806.0				23388.65	1.01%
YRADIAL	317218.0				4273.17	1.35%
Ga 417.206	1409178.1				12916.06	0.92%
GarADIAL	95699.5				1554.30	1.62%
Ag 328.068†	-112.7	-0.00224 mg/L	0.000367	-0.00224 mg/L	0.000367	16.39%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153†	3.6	-0.0138 mg/L	0.00094	-0.0138 mg/L	0.00094	6.77%
QC value within limits for Al 396.153 Recovery = Not calculated						
As 188.979†	1.2	0.00195 mg/L	0.001976	0.00195 mg/L	0.001976	101.41%
QC value within limits for As 188.979 Recovery = Not calculated						
Ba 233.527†	3.2	-0.00377 mg/L	0.000040	-0.00377 mg/L	0.000040	1.06%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 234.861†	-45.8	-0.00021 mg/L	0.000041	-0.00021 mg/L	0.000041	19.75%
QC value within limits for Be 234.861 Recovery = Not calculated						
B 249.677†	598.1	0.00569 mg/L	0.000306	0.00569 mg/L	0.000306	5.37%
QC value within limits for B 249.677 Recovery = Not calculated						
Ca 227.546†	1.7	0.00392 mg/L	0.014705	0.00392 mg/L	0.014705	374.94%
QC value within limits for Ca 227.546 Recovery = Not calculated						
Cd 228.802†	-1.8	-0.00025 mg/L	0.000156	-0.00025 mg/L	0.000156	63.09%
QC value within limits for Cd 228.802 Recovery = Not calculated						
Co 228.616†	-1.2	-0.00067 mg/L	0.000111	-0.00067 mg/L	0.000111	16.58%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	7.2	-0.00192 mg/L	0.000120	-0.00192 mg/L	0.000120	6.27%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 327.393†	67.6	-0.00097 mg/L	0.000408	-0.00097 mg/L	0.000408	41.91%
QC value within limits for Cu 327.393 Recovery = Not calculated						
Fe 239.562†	10.6	0.00564 mg/L	0.000310	0.00564 mg/L	0.000310	5.51%
QC value within limits for Fe 239.562 Recovery = Not calculated						
Mg 279.077†	11.3	0.0114 mg/L	0.00191	0.0114 mg/L	0.00191	16.66%
QC value within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610†	26.4	-0.00276 mg/L	0.000013	-0.00276 mg/L	0.000013	0.47%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-6.4	-0.00181 mg/L	0.000354	-0.00181 mg/L	0.000354	19.60%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604†	-7.3	-0.00241 mg/L	0.000177	-0.00241 mg/L	0.000177	7.36%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Pb 220.353†	2.1	-0.00123 mg/L	0.000721	-0.00123 mg/L	0.000721	58.49%
QC value within limits for Pb 220.353 Recovery = Not calculated						

Approved: May 10, 2012

John H. Rhodes

Sb	206.836†	1.2	-0.00441 mg/L	0.000491	-0.00441 mg/L	0.000491	11.14%
	QC value within limits	for Sb	206.836	Recovery =	Not calculated		
Se	196.026†	4.9	0.00523 mg/L	0.002975	0.00523 mg/L	0.002975	56.86%
	QC value within limits	for Se	196.026	Recovery =	Not calculated		
Si	251.611†	50.4	-0.0223 mg/L	0.00014	-0.0223 mg/L	0.00014	0.62%
	QC value within limits	for Si	251.611	Recovery =	Not calculated		
Sn	189.927†	12.5	-0.00148 mg/L	0.000226	-0.00148 mg/L	0.000226	15.25%
	QC value within limits	for Sn	189.927	Recovery =	Not calculated		
Ti	334.940†	219.4	-0.00014 mg/L	0.000084	-0.00014 mg/L	0.000084	58.63%
	QC value within limits	for Ti	334.940	Recovery =	Not calculated		
Tl	190.801†	-4.7	-0.00387 mg/L	0.001582	-0.00387 mg/L	0.001582	40.92%
	QC value within limits	for Tl	190.801	Recovery =	Not calculated		
V	290.880†	193.4	-0.00243 mg/L	0.000506	-0.00243 mg/L	0.000506	20.81%
	QC value within limits	for V	290.880	Recovery =	Not calculated		
Zn	206.200†	5.4	-0.00573 mg/L	0.000076	-0.00573 mg/L	0.000076	1.33%
	QC value within limits	for Zn	206.200	Recovery =	Not calculated		
K	766.490†	73.8	0.00070 mg/L	0.025193	0.00070 mg/L	0.025193	>999.9%
	QC value within limits	for K	766.490	Recovery =	Not calculated		
Na	589.592†	77.8	0.00820 mg/L	0.008802	0.00820 mg/L	0.008802	107.32%
	QC value within limits	for Na	589.592	Recovery =	Not calculated		
Sr	407.771†	-45.5	-0.00026 mg/L	0.000029	-0.00026 mg/L	0.000029	11.13%
	QC value within limits	for Sr	407.771	Recovery =	Not calculated		
Li	670.784†	32.8	-0.00672 mg/L	0.000774	-0.00672 mg/L	0.000774	11.52%
	QC value within limits	for Li	670.784	Recovery =	Not calculated		

All analyte(s) passed QC.

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Sequence No.: 8                               u&osampler Location: 12
Sample ID: ICSA                               a&e Collected: 5/9/2012 10:35:34 AM
Analyst:                                       a&a Type: Original
Initial Sample Wt:                             n&tial Sample Vol:
Dilution:                                     a&ple Prep Vol:
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Nebulizer Parameters: ICSA
Analyte      Back Pressure  Flow
All          155.0 kPa      0.50 L/min
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Mean Data: ICSA							
Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD	
Y 371.029	2048063.7				23496.97	1.15%	
YRADIAL	298649.0				3525.48	1.18%	
Ga 417.206	1296400.4				27135.43	2.09%	
GaRADIAL	91670.2				887.97	0.97%	
Ag 328.068†	-13555.0	-0.00288 mg/L	0.001752	-0.00288 mg/L	0.001752	60.83%	
	QC value within limits	for Ag	328.068	Recovery =	Not calculated		
Al 396.153†	2000719.9	252 mg/L	5.6	252 mg/L	5.6	2.21%	
	QC value within limits	for Al	396.153	Recovery =	100.66%		
As 188.979†	-15.4	0.00228 mg/L	0.001640	0.00228 mg/L	0.001640	71.84%	
	QC value within limits	for As	188.979	Recovery =	Not calculated		
Ba 233.527†	744.6	-0.00120 mg/L	0.000272	-0.00120 mg/L	0.000272	22.72%	
	QC value within limits	for Ba	233.527	Recovery =	Not calculated		
Be 234.861†	25250.1	-0.00099 mg/L	0.001054	-0.00099 mg/L	0.001054	106.13%	
	QC value within limits	for Be	234.861	Recovery =	Not calculated		
B 249.677†	4494.5	0.0100 mg/L	0.00416	0.0100 mg/L	0.00416	41.56%	
	QC value within limits	for B	249.677	Recovery =	Not calculated		
Ca 227.546†	127195.0	262 mg/L	6.9	262 mg/L	6.9	2.62%	
	QC value within limits	for Ca	227.546	Recovery =	104.80%		
Cd 228.802†	6.4	-0.00025 mg/L	0.000260	-0.00025 mg/L	0.000260	104.99%	
	QC value within limits	for Cd	228.802	Recovery =	Not calculated		
Co 228.616†	13.9	-0.00265 mg/L	0.000389	-0.00265 mg/L	0.000389	14.64%	
	QC value within limits	for Co	228.616	Recovery =	Not calculated		
Cr 267.716†	50.2	-0.00295 mg/L	0.000224	-0.00295 mg/L	0.000224	7.59%	
	QC value within limits	for Cr	267.716	Recovery =	Not calculated		
Cu 327.393†	-1492.3	0.00141 mg/L	0.000263	0.00141 mg/L	0.000263	18.60%	
	QC value within limits	for Cu	327.393	Recovery =	Not calculated		
Fe 239.562†	1526685.3	94.3 mg/L	1.95	94.3 mg/L	1.95	2.07%	
	QC value within limits	for Fe	239.562	Recovery =	94.31%		
Mg 279.077†	920540.5	255 mg/L	5.4	255 mg/L	5.4	2.12%	
	QC value within limits	for Mg	279.077	Recovery =	101.99%		

Approved: May 10, 2012
Tom H. Rhodes

Mn 257.610†	-2083.8	-0.00269 mg/L	0.000591	-0.00269 mg/L	0.000591	21.98%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-78.3	0.00084 mg/L	0.000219	0.00084 mg/L	0.000219	26.04%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604†	59.5	-0.00139 mg/L	0.000607	-0.00139 mg/L	0.000607	43.63%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Pb 220.353†	-380.9	-0.00110 mg/L	0.001325	-0.00110 mg/L	0.001325	119.98%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	-27.7	-0.00785 mg/L	0.001971	-0.00785 mg/L	0.001971	25.11%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-47.6	0.00150 mg/L	0.005057	0.00150 mg/L	0.005057	337.45%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	483.9	-0.0119 mg/L	0.00049	-0.0119 mg/L	0.00049	4.12%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-317.6	-0.0340 mg/L	0.00058	-0.0340 mg/L	0.00058	1.71%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 334.940†	-40262.1	-0.00133 mg/L	0.003278	-0.00133 mg/L	0.003278	245.74%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-54.4	-0.0104 mg/L	0.00601	-0.0104 mg/L	0.00601	57.52%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 290.880†	5163.1	0.00196 mg/L	0.000713	0.00196 mg/L	0.000713	36.45%
QC value within limits for V 290.880 Recovery = Not calculated						
Zn 206.200†	194.1	-0.00270 mg/L	0.000629	-0.00270 mg/L	0.000629	23.28%
QC value within limits for Zn 206.200 Recovery = Not calculated						
K 766.490†	-108.9	-0.0504 mg/L	0.01081	-0.0504 mg/L	0.01081	21.44%
QC value within limits for K 766.490 Recovery = Not calculated						
Na 589.592†	94.1	0.00897 mg/L	0.007568	0.00897 mg/L	0.007568	84.41%
QC value within limits for Na 589.592 Recovery = Not calculated						
Sr 407.771†	2944.8	-0.00492 mg/L	0.000157	-0.00492 mg/L	0.000157	3.18%
QC value within limits for Sr 407.771 Recovery = Not calculated						
Li 670.784†	280.5	-0.00529 mg/L	0.000498	-0.00529 mg/L	0.000498	9.41%
QC value within limits for Li 670.784 Recovery = Not calculated						

All analyte(s) passed QC.
User canceled analysis.

Approved: May 10, 2012

John H. Rhodes

=====
Analysis Begun

Start Time: 5/9/2012 10:41:45 AM Plasma On Time: 12:00:00 AM
 Logged In Analyst: peicp2 eTechnique: ICP Continuous
 Spectrometer Model: Optima 4300 DV, S/N 077N40114 Autosampler Model: Cetac

Sample Information File: C:\pe\peicp2\Sample Information\WEDNESDAY1.sif
 Batch ID:
 Results Data Set: 050912H
 Results Library: C:\pe\peicp2\Results\Results.mdb

=====
 Sequence No.: 1 Autosampler Location: 13
 Sample ID: ICSAB Date Collected: 5/9/2012 10:41:47 AM
 Analyst: Sample Type: Original
 Initial Sample Wt: Initial Sample Vol:
 Dilution: Sample Prep Vol:

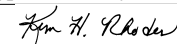
Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	156.0 kPa	0.50 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2071509.9				18942.94	0.91%
YRADIAL	306874.9				5258.79	1.71%
Ga 417.206	1325619.2				19122.05	1.44%
GaRADIAL	93782.6				1137.48	1.21%
Ag 328.068†	147340.5	0.506 mg/L	0.0117	0.506 mg/L	0.0117	2.31%
QC value within limits for Ag	328.068	Recovery = 101.23%				
Al 396.153†	2018296.9	254 mg/L	2.3	254 mg/L	2.3	0.91%
QC value within limits for Al	396.153	Recovery = 101.54%				
As 188.979†	645.5	0.237 mg/L	0.0044	0.237 mg/L	0.0044	1.85%
QC value within limits for As	188.979	Recovery = 94.65%				
Ba 233.527†	38012.7	0.247 mg/L	0.0039	0.247 mg/L	0.0039	1.57%
QC value within limits for Ba	233.527	Recovery = 98.79%				
Be 234.861†	335750.0	0.247 mg/L	0.0019	0.247 mg/L	0.0019	0.76%
QC value within limits for Be	234.861	Recovery = 98.98%				
B 249.677†	4389.1	-0.00310 mg/L	0.006981	-0.00310 mg/L	0.006981	225.07%
QC value within limits for B	249.677	Recovery = Not calculated				
Ca 227.546†	127582.7	263 mg/L	5.8	263 mg/L	5.8	2.21%
QC value within limits for Ca	227.546	Recovery = 105.26%				
Cd 228.802†	22879.7	0.414 mg/L	0.0048	0.414 mg/L	0.0048	1.15%
QC value within limits for Cd	228.802	Recovery = 82.72%				
Co 228.616†	8787.5	0.231 mg/L	0.0039	0.231 mg/L	0.0039	1.68%
QC value within limits for Co	228.616	Recovery = 92.54%				
Cr 267.716†	26748.4	0.248 mg/L	0.0014	0.248 mg/L	0.0014	0.56%
QC value within limits for Cr	267.716	Recovery = 99.18%				
Cu 327.393†	67895.3	0.247 mg/L	0.0059	0.247 mg/L	0.0059	2.37%
QC value within limits for Cu	327.393	Recovery = 98.90%				
Fe 239.562†	1532482.7	94.7 mg/L	1.85	94.7 mg/L	1.85	1.96%
QC value within limits for Fe	239.562	Recovery = 94.67%				
Mg 279.077†	922609.9	256 mg/L	5.2	256 mg/L	5.2	2.02%
QC value within limits for Mg	279.077	Recovery = 102.22%				
Mn 257.610†	196434.7	0.240 mg/L	0.0038	0.240 mg/L	0.0038	1.57%
QC value within limits for Mn	257.610	Recovery = 95.87%				
Mo 202.031†	-60.0	0.00153 mg/L	0.000541	0.00153 mg/L	0.000541	35.29%
QC value within limits for Mo	202.031	Recovery = Not calculated				
Ni 231.604†	31550.7	0.476 mg/L	0.0056	0.476 mg/L	0.0056	1.19%
QC value within limits for Ni	231.604	Recovery = 95.12%				
Pb 220.353†	4790.4	0.476 mg/L	0.0099	0.476 mg/L	0.0099	2.08%
QC value within limits for Pb	220.353	Recovery = 95.14%				
Sb 206.836†	2061.9	0.490 mg/L	0.0065	0.490 mg/L	0.0065	1.32%
QC value within limits for Sb	206.836	Recovery = 98.03%				
Se 196.026†	390.8	0.242 mg/L	0.0043	0.242 mg/L	0.0043	1.79%
QC value within limits for Se	196.026	Recovery = 96.75%				
Si 251.611†	-154.9	-0.0272 mg/L	0.00022	-0.0272 mg/L	0.00022	0.80%

Approved: May 10, 2012



QC value within limits for Si	251.611	Recovery = Not calculated				
Sn 189.927†	-319.6	-0.0342 mg/L	0.00167	-0.0342 mg/L	0.00167	4.87%
QC value within limits for Sn	189.927	Recovery = Not calculated				
Ti 334.940†	-40760.1	-0.00178 mg/L	0.003243	-0.00178 mg/L	0.003243	181.83%
QC value within limits for Ti	334.940	Recovery = Not calculated				
Tl 190.801†	1800.4	0.473 mg/L	0.0027	0.473 mg/L	0.0027	0.58%
QC value within limits for Tl	190.801	Recovery = 94.64%				
V 290.880†	51715.9	0.245 mg/L	0.0014	0.245 mg/L	0.0014	0.55%
QC value within limits for V	290.880	Recovery = 97.84%				
Zn 206.200†	18685.6	0.473 mg/L	0.0035	0.473 mg/L	0.0035	0.73%
QC value within limits for Zn	206.200	Recovery = 94.55%				
K 766.490†	16857.3	4.71 mg/L	0.039	4.71 mg/L	0.039	0.83%
QC value within limits for K	766.490	Recovery = 94.10%				
Na 589.592†	105972.8	4.99 mg/L	0.020	4.99 mg/L	0.020	0.39%
QC value within limits for Na	589.592	Recovery = 99.70%				
Sr 407.771†	2953.7	-0.00493 mg/L	0.000092	-0.00493 mg/L	0.000092	1.86%
QC value within limits for Sr	407.771	Recovery = Not calculated				
Li 670.784†	312.2	-0.00511 mg/L	0.000215	-0.00511 mg/L	0.000215	4.20%
QC value within limits for Li	670.784	Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 2

Sampler Location: 6

Sample ID: CCV

Date Collected: 5/9/2012 10:47:44 AM

Analyst:

Sample Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	155.0 kPa	0.50 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2241291.8				31119.19	1.39%
YRADIAL	320661.5				1536.04	0.48%
Ga 417.206	1392021.9				34713.97	2.49%
GaRADIAL	95918.3				621.63	0.65%
Ag 328.068†	125251.0	0.397 mg/L	0.0107	0.397 mg/L	0.0107	2.70%
QC value within limits for Ag	328.068	Recovery = 99.34%				
Al 396.153†	77646.3	9.68 mg/L	0.012	9.68 mg/L	0.012	0.12%
QC value within limits for Al	396.153	Recovery = 96.84%				
As 188.979†	1094.2	0.384 mg/L	0.0075	0.384 mg/L	0.0075	1.94%
QC value within limits for As	188.979	Recovery = 96.12%				
Ba 233.527†	150657.8	1.000 mg/L	0.0148	1.000 mg/L	0.0148	1.48%
QC value within limits for Ba	233.527	Recovery = 100.00%				
Be 234.861†	61451.4	0.0486 mg/L	0.00120	0.0486 mg/L	0.00120	2.46%
QC value within limits for Be	234.861	Recovery = 97.16%				
B 249.677†	42391.9	0.483 mg/L	0.0137	0.483 mg/L	0.0137	2.84%
QC value within limits for B	249.677	Recovery = 96.65%				
Ca 227.546†	4706.1	10.1 mg/L	0.30	10.1 mg/L	0.30	3.01%
QC value within limits for Ca	227.546	Recovery = 100.67%				
Cd 228.802†	2729.1	0.0479 mg/L	0.00191	0.0479 mg/L	0.00191	3.99%
QC value within limits for Cd	228.802	Recovery = 95.76%				
Co 228.616†	7407.1	0.196 mg/L	0.0039	0.196 mg/L	0.0039	1.99%
QC value within limits for Co	228.616	Recovery = 98.12%				
Cr 267.716†	53055.9	0.497 mg/L	0.0045	0.497 mg/L	0.0045	0.91%
QC value within limits for Cr	267.716	Recovery = 99.35%				
Cu 327.393†	137780.0	0.489 mg/L	0.0144	0.489 mg/L	0.0144	2.94%
QC value within limits for Cu	327.393	Recovery = 97.70%				
Fe 239.562†	62906.4	3.89 mg/L	0.017	3.89 mg/L	0.017	0.44%
QC value within limits for Fe	239.562	Recovery = 97.25%				
Mg 279.077†	34856.2	9.68 mg/L	0.042	9.68 mg/L	0.042	0.44%
QC value within limits for Mg	279.077	Recovery = 96.80%				
Mn 257.610†	414550.7	0.504 mg/L	0.0069	0.504 mg/L	0.0069	1.37%
QC value within limits for Mn	257.610	Recovery = 100.74%				
Mo 202.031†	35796.0	0.987 mg/L	0.0136	0.987 mg/L	0.0136	1.38%
QC value within limits for Mo	202.031	Recovery = 98.70%				
Ni 231.604†	33045.5	0.498 mg/L	0.0079	0.498 mg/L	0.0079	1.59%

Approved: May 10, 2012

[Signature]

Pb	QC value within limits for Pb	220.353	Recovery = 99.67%	0.498 mg/L	0.0073	1.46%
Sb	QC value within limits for Sb	206.836	Recovery = 99.64%	1.18 mg/L	0.030	2.56%
Se	QC value within limits for Se	196.026	Recovery = 98.14%	0.392 mg/L	0.0119	3.04%
Si	QC value within limits for Si	251.611	Recovery = 97.88%	4.92 mg/L	0.103	2.10%
Sn	QC value within limits for Sn	189.927	Recovery = 98.48%	0.976 mg/L	0.0154	1.58%
Ti	QC value within limits for Ti	334.940	Recovery = 97.60%	0.966 mg/L	0.0033	0.34%
Tl	QC value within limits for Tl	190.801	Recovery = 96.62%	0.514 mg/L	0.0046	0.90%
V	QC value within limits for V	290.880	Recovery = 102.74%	0.988 mg/L	0.0039	0.39%
Zn	QC value within limits for Zn	206.200	Recovery = 98.83%	1.01 mg/L	0.024	2.33%
K	QC value within limits for K	766.490	Recovery = 101.11%	47.7 mg/L	0.04	0.08%
Na	QC value within limits for Na	589.592	Recovery = 95.44%	48.3 mg/L	0.28	0.59%
Sr	QC value within limits for Sr	407.771	Recovery = 96.51%	0.970 mg/L	0.0044	0.46%
Li	QC value within limits for Li	670.784	Recovery = 96.95%	0.997 mg/L	0.0041	0.41%
	QC value within limits for Li	670.784	Recovery = 99.74%			

All analyte(s) passed QC.

```

=====
Sequence No.: 3                               u&osampler Location: 1
Sample ID: CCB                               ame Collected: 5/9/2012 10:53:45 AM
Analyst:                                     ana Type: Original
Initial Sample Wt:                          nitial Sample Vol:
Dilution:                                   aample Prep Vol:
=====

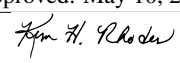
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Nebulizer Parameters: CCB
Analyte      Back Pressure    Flow
All          155.0 kPa         0.50 L/min
-----

```

Mean Data: CCB		Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029		2299127.9				25663.70	1.12%
YRADIAL		316886.4				3730.36	1.18%
Ga 417.206		1420515.5				18866.56	1.33%
GaRADIAL		95056.7				2236.93	2.35%
Ag 328.068†		71.0	-0.00165 mg/L	0.000111	-0.00165 mg/L	0.000111	6.73%
QC value within limits for Ag		328.068	Recovery = Not calculated				
Al 396.153†		29.3	-0.0106 mg/L	0.00093	-0.0106 mg/L	0.00093	8.80%
QC value within limits for Al		396.153	Recovery = Not calculated				
As 188.979†		-0.7	0.00127 mg/L	0.002607	0.00127 mg/L	0.002607	205.22%
QC value within limits for As		188.979	Recovery = Not calculated				
Ba 233.527†		14.7	-0.00369 mg/L	0.000054	-0.00369 mg/L	0.000054	1.46%
QC value within limits for Ba		233.527	Recovery = Not calculated				
Be 234.861†		-16.3	-0.00018 mg/L	0.000012	-0.00018 mg/L	0.000012	6.52%
QC value within limits for Be		234.861	Recovery = Not calculated				
B 249.677†		433.0	0.00379 mg/L	0.000399	0.00379 mg/L	0.000399	10.52%
QC value within limits for B		249.677	Recovery = Not calculated				
Ca 227.546†		0.4	0.00141 mg/L	0.010131	0.00141 mg/L	0.010131	718.85%
QC value within limits for Ca		227.546	Recovery = Not calculated				
Cd 228.802†		-5.8	-0.00031 mg/L	0.000159	-0.00031 mg/L	0.000159	50.42%
QC value within limits for Cd		228.802	Recovery = Not calculated				
Co 228.616†		5.5	-0.00049 mg/L	0.000314	-0.00049 mg/L	0.000314	64.29%
QC value within limits for Co		228.616	Recovery = Not calculated				
Cr 267.716†		4.8	-0.00194 mg/L	0.000040	-0.00194 mg/L	0.000040	2.03%
QC value within limits for Cr		267.716	Recovery = Not calculated				
Cu 327.393†		-17.0	-0.00127 mg/L	0.000494	-0.00127 mg/L	0.000494	38.84%
QC value within limits for Cu		327.393	Recovery = Not calculated				
Fe 239.562†		52.4	0.00822 mg/L	0.000900	0.00822 mg/L	0.000900	10.96%

Approved: May 10, 2012


Mg	279.077†	QC value within limits for Mg	279.077	Recovery = Not calculated	0.0159 mg/L	0.00245	15.35%
Mn	257.610†	QC value within limits for Mn	257.610	Recovery = Not calculated	0.000016 mg/L	-0.00274	0.59%
Mo	202.031†	QC value within limits for Mo	202.031	Recovery = Not calculated	0.000230 mg/L	-0.00157	14.66%
Ni	231.604†	QC value within limits for Ni	231.604	Recovery = Not calculated	0.000375 mg/L	-0.00227	16.54%
Pb	220.353†	QC value within limits for Pb	220.353	Recovery = Not calculated	0.000663 mg/L	-0.00123	53.78%
Sb	206.836†	QC value within limits for Sb	206.836	Recovery = Not calculated	0.000936 mg/L	-0.00363	25.77%
Se	196.026†	QC value within limits for Se	196.026	Recovery = Not calculated	0.002628 mg/L	0.00247	106.27%
Si	251.611†	QC value within limits for Si	251.611	Recovery = Not calculated	0.00043 mg/L	-0.0227	1.88%
Sn	189.927†	QC value within limits for Sn	189.927	Recovery = Not calculated	0.000564 mg/L	-0.00172	32.73%
Ti	334.940†	QC value within limits for Ti	334.940	Recovery = Not calculated	0.000195 mg/L	-0.00026	75.51%
Tl	190.801†	QC value within limits for Tl	190.801	Recovery = Not calculated	0.000812 mg/L	-0.00236	34.35%
V	290.880†	QC value within limits for V	290.880	Recovery = Not calculated	0.000723 mg/L	-0.00008	934.97%
Zn	206.200†	QC value within limits for Zn	206.200	Recovery = Not calculated	0.000204 mg/L	-0.00552	3.69%
K	766.490†	QC value within limits for K	766.490	Recovery = Not calculated	0.006314 mg/L	-0.00888	71.09%
Na	589.592†	QC value within limits for Na	589.592	Recovery = Not calculated	0.0203 mg/L	0.00233	11.46%
Sr	407.771†	QC value within limits for Sr	407.771	Recovery = Not calculated	0.000032 mg/L	-0.00015	21.13%
Li	670.784†	QC value within limits for Li	670.784	Recovery = Not calculated	0.000306 mg/L	-0.00715	4.27%

All analyte(s) passed QC.

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=====
Sequence No.: 4                               uksampler Location: 34
Sample ID: PBW 02 WG396210-02                ame Collected: 5/9/2012 11:00:38 AM
Analyst: KHR                                 ama Type: Original
Initial Sample Wt:                           nitial Sample Vol:
Dilution:                                    ample Prep Vol:
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Nebulizer Parameters: PBW 02 WG396210-02
Analyte          Back Pressure      Flow
All              154.0 kPa            0.50 L/min
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```

Mean Data: PBW 02 WG396210-02							
Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD	
Y 371.029	2323627.8				16977.86	0.73%	
YRADIAL	318943.8				5153.64	1.62%	
Ga 417.206	1451688.3				19503.99	1.34%	
GarADIAL	97048.4				1672.26	1.72%	
Ag 328.068†	73.6	-0.00164 mg/L	0.000469	-0.00164 mg/L	0.000469	28.54%	
Al 396.153†	24.2	-0.0113 mg/L	0.00186	-0.0113 mg/L	0.00186	16.53%	
As 188.979†	-3.0	0.00046 mg/L	0.002304	0.00046 mg/L	0.002304	500.42%	
Ba 233.527†	25.4	-0.00362 mg/L	0.000180	-0.00362 mg/L	0.000180	4.98%	
Be 234.861†	60.2	-0.00012 mg/L	0.000020	-0.00012 mg/L	0.000020	16.76%	
B 249.677†	322.7	0.00252 mg/L	0.000171	0.00252 mg/L	0.000171	6.81%	
Ca 227.546†	2.6	0.00591 mg/L	0.006593	0.00591 mg/L	0.006593	111.60%	
Cd 228.802†	2.7	-0.00016 mg/L	0.000298	-0.00016 mg/L	0.000298	189.10%	
Co 228.616†	7.8	-0.00043 mg/L	0.000179	-0.00043 mg/L	0.000179	41.73%	
Cr 267.716†	8.5	-0.00191 mg/L	0.000077	-0.00191 mg/L	0.000077	4.05%	
Cu 327.393†	-101.4	-0.00157 mg/L	0.000233	-0.00157 mg/L	0.000233	14.83%	
Fe 239.562†	80.9	0.00998 mg/L	0.001245	0.00998 mg/L	0.001245	12.48%	
Mg 279.077†	10.3	0.0112 mg/L	0.00172	0.0112 mg/L	0.00172	15.36%	
Mn 257.610†	99.9	-0.00267 mg/L	0.000023	-0.00267 mg/L	0.000023	0.86%	
Mo 202.031†	-0.2	-0.00164 mg/L	0.000117	-0.00164 mg/L	0.000117	7.13%	

Approved: May 10, 2012

Tom H. Rhodes

Ni 231.604†	4.5	-0.00223	mg/L	0.000382	-0.00223	mg/L	0.000382	17.13%
Pb 220.353†	-0.7	-0.00149	mg/L	0.000198	-0.00149	mg/L	0.000198	13.27%
Sb 206.836†	6.5	-0.00314	mg/L	0.000897	-0.00314	mg/L	0.000897	28.59%
Se 196.026†	9.0	0.00746	mg/L	0.001277	0.00746	mg/L	0.001277	17.12%
Si 251.611†	83.7	-0.0215	mg/L	0.00040	-0.0215	mg/L	0.00040	1.84%
Sn 189.927†	-13.7	-0.00407	mg/L	0.000188	-0.00407	mg/L	0.000188	4.63%
Ti 334.940†	68.3	-0.00029	mg/L	0.000248	-0.00029	mg/L	0.000248	84.54%
Tl 190.801†	-0.2	-0.00271	mg/L	0.000514	-0.00271	mg/L	0.000514	18.98%
V 290.880†	482.7	-0.00092	mg/L	0.001552	-0.00092	mg/L	0.001552	168.15%
Zn 206.200†	54.7	-0.00448	mg/L	0.000173	-0.00448	mg/L	0.000173	3.86%
K 766.490†	32.4	-0.0109	mg/L	0.01912	-0.0109	mg/L	0.01912	175.63%
Na 589.592†	-21.0	0.00357	mg/L	0.006444	0.00357	mg/L	0.006444	180.65%
Sr 407.771†	-67.7	-0.00027	mg/L	0.000022	-0.00027	mg/L	0.000022	8.20%
Li 670.784†	-28.5	-0.00707	mg/L	0.000323	-0.00707	mg/L	0.000323	4.57%

Sequence No.: 5

Sample ID: LCSW 02 WG396210-03

Analyst: KHR

Initial Sample Wt:

Dilution:

u&osampler Location: 35

a&e Collected: 5/9/2012 11:07:35 AM

a&a Type: Original

n&ital Sample Vol:

a&mp;le Prep Vol:

Nebulizer Parameters: LCSW 02 WG396210-03

Analyte	Back Pressure	Flow
All	154.0 kPa	0.50 L/min

Mean Data: LCSW 02 WG396210-03

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD	
Y 371.029	2242520.0					15651.13	0.70%	
YRADIAL	315142.2					3600.70	1.14%	
Ga 417.206	1376091.0					42827.93	3.11%	
GaRADIAL	94146.7					2028.36	2.15%	
Ag 328.068†	65278.6	0.206	mg/L	0.0061	0.206	mg/L	0.0061	2.97%
Al 396.153†	40471.1	5.04	mg/L	0.015	5.04	mg/L	0.015	0.29%
As 188.979†	560.1	0.198	mg/L	0.0059	0.198	mg/L	0.0059	2.99%
Ba 233.527†	76799.7	0.508	mg/L	0.0048	0.508	mg/L	0.0048	0.95%
Be 234.861†	31915.8	0.0252	mg/L	0.00090	0.0252	mg/L	0.00090	3.58%
B 249.677†	88171.7	1.01	mg/L	0.029	1.01	mg/L	0.029	2.85%
Ca 227.546†	2378.6	5.10	mg/L	0.167	5.10	mg/L	0.167	3.29%
Cd 228.802†	1410.6	0.0247	mg/L	0.00110	0.0247	mg/L	0.00110	4.48%
Co 228.616†	3807.9	0.101	mg/L	0.0008	0.101	mg/L	0.0008	0.82%
Cr 267.716†	27252.3	0.254	mg/L	0.0008	0.254	mg/L	0.0008	0.33%
Cu 327.393†	72854.0	0.258	mg/L	0.0081	0.258	mg/L	0.0081	3.13%
Fe 239.562†	32503.6	2.01	mg/L	0.017	2.01	mg/L	0.017	0.83%
Mg 279.077†	18368.4	5.10	mg/L	0.039	5.10	mg/L	0.039	0.76%
Mn 257.610†	209727.4	0.253	mg/L	0.0031	0.253	mg/L	0.0031	1.24%
Mo 202.031†	18371.1	0.506	mg/L	0.0047	0.506	mg/L	0.0047	0.93%
Ni 231.604†	17233.2	0.259	mg/L	0.0023	0.259	mg/L	0.0023	0.89%
Pb 220.353†	2742.1	0.252	mg/L	0.0008	0.252	mg/L	0.0008	0.30%
Sb 206.836†	2569.1	0.609	mg/L	0.0189	0.609	mg/L	0.0189	3.10%
Se 196.026†	371.9	0.207	mg/L	0.0037	0.207	mg/L	0.0037	1.81%
Si 251.611†	111526.9	2.63	mg/L	0.080	2.63	mg/L	0.080	3.04%
Sn 189.927†	5562.9	0.546	mg/L	0.0041	0.546	mg/L	0.0041	0.75%
Ti 334.940†	501508.7	0.498	mg/L	0.0013	0.498	mg/L	0.0013	0.26%
Tl 190.801†	998.9	0.265	mg/L	0.0067	0.265	mg/L	0.0067	2.52%
V 290.880†	98707.0	0.511	mg/L	0.0044	0.511	mg/L	0.0044	0.85%
Zn 206.200†	20383.3	0.518	mg/L	0.0045	0.518	mg/L	0.0045	0.88%
K 766.490†	86751.3	24.5	mg/L	0.10	24.5	mg/L	0.10	0.43%
Na 589.592†	531795.4	25.2	mg/L	0.70	25.2	mg/L	0.70	2.80%
Sr 407.771†	1412239.4	0.498	mg/L	0.0078	0.498	mg/L	0.0078	1.58%
Li 670.784†	90656.4	0.517	mg/L	0.0074	0.517	mg/L	0.0074	1.43%

Sequence No.: 6

Sample ID: L1204084401 WG396210-01

Analyst: KHR

Initial Sample Wt:

Dilution:

u&osampler Location: 36

a&e Collected: 5/9/2012 11:13:32 AM

a&a Type: Original

n&ital Sample Vol:

a&mp;le Prep Vol:

Approved: May 10, 2012

Kym H. Rhodes

Nebulizer Parameters: L1204084401 WG396210-01
 Analyte Back Pressure Flow
 All 155.0 kPa 0.50 L/min

Mean Data: L1204084401 WG396210-01

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2147363.2					18519.82	0.86%
YRADIAL	302427.7					1429.40	0.47%
Ga 417.206	1408517.4					36687.49	2.60%
GaRADIAL	94293.8					917.86	0.97%
Ag 328.068†	-468.2	0.00064	mg/L	0.000460	0.00064	0.000460	71.57%
Al 396.153†	7.6	-0.0123	mg/L	0.00283	-0.0123	0.00283	23.04%
As 188.979†	-13.0	-0.00207	mg/L	0.000928	-0.00207	0.000928	44.89%
Ba 233.527†	21098.3	0.136	mg/L	0.0024	0.136	0.0024	1.77%
Be 234.861†	2458.4	-0.00027	mg/L	0.000092	-0.00027	0.000092	34.65%
B 249.677†	9149.4	0.100	mg/L	0.0027	0.100	0.0027	2.72%
Ca 227.546†	68136.3	139	mg/L	4.4	139	4.4	3.12%
Cd 228.802†	148.8	0.00249	mg/L	0.000243	0.00249	0.000243	9.77%
Co 228.616†	23.6	-0.00025	mg/L	0.000256	-0.00025	0.000256	102.76%
Cr 267.716†	94.6	-0.00077	mg/L	0.000090	-0.00077	0.000090	11.69%
Cu 327.393†	390.2	0.00094	mg/L	0.000418	0.00094	0.000418	44.42%
Fe 239.562†	151839.9	9.38	mg/L	0.069	9.38	0.069	0.73%
Mg 279.077†	102094.9	28.3	mg/L	0.16	28.3	0.16	0.58%
Mn 257.610†	218714.8	0.264	mg/L	0.0045	0.264	0.0045	1.72%
Mo 202.031†	38.8	-0.00004	mg/L	0.000310	-0.00004	0.000310	770.22%
Ni 231.604†	180.2	0.00044	mg/L	0.000497	0.00044	0.000497	113.84%
Pb 220.353†	6.1	-0.00072	mg/L	0.001352	-0.00072	0.001352	187.49%
Sb 206.836†	-0.0	-0.00436	mg/L	0.001957	-0.00436	0.001957	44.90%
Se 196.026†	-2.4	0.00396	mg/L	0.000960	0.00396	0.000960	24.21%
Si 251.611†	264823.5	6.30	mg/L	0.126	6.30	0.126	2.01%
Sn 189.927†	-282.0	-0.0305	mg/L	0.00021	-0.0305	0.00021	0.67%
Ti 334.940†	-22313.8	-0.00162	mg/L	0.002048	-0.00162	0.002048	126.21%
Tl 190.801†	-22.3	-0.00897	mg/L	0.003531	-0.00897	0.003531	39.35%
V 290.880†	2166.2	0.00564	mg/L	0.002823	0.00564	0.002823	50.10%
Zn 206.200†	3240.1	0.0768	mg/L	0.00065	0.0768	0.00065	0.84%
K 766.490†	15641.5	4.30	mg/L	0.084	4.30	0.084	1.94%
Na 589.592†	1394441.6	67.0	mg/L	0.24	67.0	0.24	0.35%
Sr 407.771†	1947553.6	0.684	mg/L	0.0044	0.684	0.0044	0.65%
Li 670.784†	5496.0	0.0248	mg/L	0.00063	0.0248	0.00063	2.56%

Sequence No.: 7
 Sample ID: L1204084401S WG396210-04
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 37
 ame Collected: 5/9/2012 11:19:30 AM
 ama Type: Original
 nitial Sample Vol:
 ample Prep Vol:

Nebulizer Parameters: L1204084401S WG396210-04
 Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: L1204084401S WG396210-04

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2145766.0					5193.96	0.24%
YRADIAL	302501.7					4320.87	1.43%
Ga 417.206	1418510.3					33093.98	2.33%
GaRADIAL	93446.5					1336.39	1.43%
Ag 328.068†	60662.8	0.195	mg/L	0.0060	0.195	0.0060	3.07%
Al 396.153†	40232.4	5.01	mg/L	0.009	5.01	0.009	0.18%
As 188.979†	527.5	0.187	mg/L	0.0047	0.187	0.0047	2.52%
Ba 233.527†	95899.5	0.635	mg/L	0.0026	0.635	0.0026	0.40%
Be 234.861†	32386.7	0.0235	mg/L	0.00061	0.0235	0.00061	2.60%
B 249.677†	92721.0	1.06	mg/L	0.034	1.06	0.034	3.23%
Ca 227.546†	71862.6	147	mg/L	4.6	147	4.6	3.13%
Cd 228.802†	1428.1	0.0250	mg/L	0.00102	0.0250	0.00102	4.10%
Co 228.616†	3643.5	0.0959	mg/L	0.00049	0.0959	0.00049	0.51%

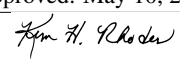
Approved: May 10, 2012


Table with 8 columns: Element, Value 1, Unit 1, Value 2, Unit 2, Value 3, Unit 3, Value 4, Unit 4. Lists elements like Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li with their respective measurements.

Sequence No.: 8 Sample ID: L1204084401SD WG396210-05 Analyst: KHR Initial Sample Wt: Dilution: u&osampler Location: 38 Date Collected: 5/9/2012 11:25:30 AM alpha Type: Original Initial Sample Vol: Sample Prep Vol:

Nebulizer Parameters: L1204084401SD WG396210-05 Analyte Back Pressure Flow All 154.0 kPa 0.50 L/min

Mean Data: L1204084401SD WG396210-05. Table with 8 columns: Analyte, Mean Corrected Intensity, Conc. Units, Calib. Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists elements like Y, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li.

Approved: May 10, 2012 [Signature]

Sequence No.: 9
 Sample ID: L1204084402
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 39
 a&e Collected: 5/9/2012 11:31:30 AM
 a&a Type: Original
 n&tial Sample Vol:
 a&ple Prep Vol:

Nebulizer Parameters: L1204084402

Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: L1204084402

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2208968.8				17259.62	0.78%
YRADIAL	310422.2				3797.12	1.22%
Ga 417.206	1447395.3				18704.34	1.29%
GaRADIAL	96786.8				1327.63	1.37%
Ag 328.068†	-355.6	0.00083 mg/L	0.000329	0.00083 mg/L	0.000329	39.84%
Al 396.153†	-52.8	-0.0199 mg/L	0.00772	-0.0199 mg/L	0.00772	38.74%
As 188.979†	-3.1	0.00141 mg/L	0.000725	0.00141 mg/L	0.000725	51.38%
Ba 233.527†	20802.6	0.135 mg/L	0.0019	0.135 mg/L	0.0019	1.39%
Be 234.861†	2379.7	-0.00024 mg/L	0.000013	-0.00024 mg/L	0.000013	5.55%
B 249.677†	9614.6	0.106 mg/L	0.0034	0.106 mg/L	0.0034	3.21%
Ca 227.546†	67970.4	139 mg/L	4.5	139 mg/L	4.5	3.22%
Cd 228.802†	41.5	0.00053 mg/L	0.000117	0.00053 mg/L	0.000117	22.05%
Co 228.616†	27.3	-0.00014 mg/L	0.000216	-0.00014 mg/L	0.000216	154.48%
Cr 267.716†	95.7	-0.00077 mg/L	0.000127	-0.00077 mg/L	0.000127	16.37%
Cu 327.393†	-71.9	-0.00073 mg/L	0.000393	-0.00073 mg/L	0.000393	53.89%
Fe 239.562†	145589.8	9.00 mg/L	0.142	9.00 mg/L	0.142	1.58%
Mg 279.077†	100654.9	27.9 mg/L	0.43	27.9 mg/L	0.43	1.53%
Mn 257.610†	214404.1	0.259 mg/L	0.0048	0.259 mg/L	0.0048	1.86%
Mo 202.031†	35.7	-0.00015 mg/L	0.000163	-0.00015 mg/L	0.000163	111.87%
Ni 231.604†	205.1	0.00081 mg/L	0.000693	0.00081 mg/L	0.000693	85.04%
Pb 220.353†	20.4	0.00063 mg/L	0.001825	0.00063 mg/L	0.001825	287.78%
Sb 206.836†	-0.3	-0.00444 mg/L	0.001118	-0.00444 mg/L	0.001118	25.18%
Se 196.026†	-6.7	0.00147 mg/L	0.003217	0.00147 mg/L	0.003217	218.98%
Si 251.611†	263400.4	6.26 mg/L	0.094	6.26 mg/L	0.094	1.50%
Sn 189.927†	-278.1	-0.0301 mg/L	0.00045	-0.0301 mg/L	0.00045	1.49%
Ti 334.940†	-22303.4	-0.00166 mg/L	0.001752	-0.00166 mg/L	0.001752	105.32%
Tl 190.801†	-30.7	-0.0112 mg/L	0.00192	-0.0112 mg/L	0.00192	17.21%
V 290.880†	1929.4	0.00447 mg/L	0.001633	0.00447 mg/L	0.001633	36.53%
Zn 206.200†	2982.6	0.0703 mg/L	0.00051	0.0703 mg/L	0.00051	0.72%
K 766.490†	15447.3	4.25 mg/L	0.051	4.25 mg/L	0.051	1.21%
Na 589.592†	1398520.7	67.2 mg/L	0.27	67.2 mg/L	0.27	0.39%
Sr 407.771†	1942627.5	0.682 mg/L	0.0030	0.682 mg/L	0.0030	0.44%
Li 670.784†	5453.7	0.0246 mg/L	0.00132	0.0246 mg/L	0.00132	5.35%

Sequence No.: 10
 Sample ID: L1204084403
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

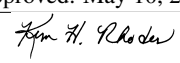
u&osampler Location: 40
 a&e Collected: 5/9/2012 11:37:29 AM
 a&a Type: Original
 n&tial Sample Vol:
 a&ple Prep Vol:

Nebulizer Parameters: L1204084403

Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: L1204084403

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2174166.0				13255.13	0.61%
YRADIAL	307051.1				1231.93	0.40%
Ga 417.206	1417460.6				2987.85	0.21%
GaRADIAL	95442.9				510.34	0.53%
Ag 328.068†	-2505.0	0.00050 mg/L	0.000581	0.00050 mg/L	0.000581	116.02%
Al 396.153†	-30.6	-0.0154 mg/L	0.01063	-0.0154 mg/L	0.01063	69.17%
As 188.979†	-10.0	0.00057 mg/L	0.000490	0.00057 mg/L	0.000490	85.92%

Approved: May 10, 2012


Ba 233.527†	25247.5	0.164 mg/L	0.0033	0.164 mg/L	0.0033	2.01%
Be 234.861†	6644.4	-0.00007 mg/L	0.000060	-0.00007 mg/L	0.000060	87.89%
B 249.677†	8280.0	0.0840 mg/L	0.00145	0.0840 mg/L	0.00145	1.73%
Ca 227.546†	65860.2	135 mg/L	0.8	135 mg/L	0.8	0.61%
Cd 228.802†	25.9	0.00023 mg/L	0.000210	0.00023 mg/L	0.000210	91.16%
Co 228.616†	17.0	-0.00081 mg/L	0.000137	-0.00081 mg/L	0.000137	16.93%
Cr 267.716†	16.5	-0.00102 mg/L	0.000060	-0.00102 mg/L	0.000060	5.85%
Cu 327.393†	-377.9	-0.00059 mg/L	0.000613	-0.00059 mg/L	0.000613	104.57%
Fe 239.562†	381941.5	23.6 mg/L	0.07	23.6 mg/L	0.07	0.28%
Mg 279.077†	90199.1	25.0 mg/L	0.23	25.0 mg/L	0.23	0.91%
Mn 257.610†	358065.7	0.435 mg/L	0.0094	0.435 mg/L	0.0094	2.17%
Mo 202.031†	15.1	0.00004 mg/L	0.000061	0.00004 mg/L	0.000061	154.94%
Ni 231.604†	84.8	-0.00101 mg/L	0.000603	-0.00101 mg/L	0.000603	59.68%
Pb 220.353†	19.8	-0.00082 mg/L	0.000701	-0.00082 mg/L	0.000701	85.14%
Sb 206.836†	-6.3	-0.00533 mg/L	0.002600	-0.00533 mg/L	0.002600	48.81%
Se 196.026†	-6.3	0.00600 mg/L	0.004410	0.00600 mg/L	0.004410	73.54%
Si 251.611†	342659.9	8.16 mg/L	0.092	8.16 mg/L	0.092	1.13%
Sn 189.927†	-291.4	-0.0314 mg/L	0.00063	-0.0314 mg/L	0.00063	2.00%
Ti 334.940†	-21533.6	-0.00155 mg/L	0.001485	-0.00155 mg/L	0.001485	96.06%
Tl 190.801†	-22.5	-0.00918 mg/L	0.004053	-0.00918 mg/L	0.004053	44.15%
V 290.880†	2345.5	0.00441 mg/L	0.001880	0.00441 mg/L	0.001880	42.64%
Zn 206.200†	234.5	-0.00032 mg/L	0.000184	-0.00032 mg/L	0.000184	57.12%
K 766.490†	14456.2	3.97 mg/L	0.024	3.97 mg/L	0.024	0.61%
Na 589.592†	1431738.9	68.9 mg/L	0.45	68.9 mg/L	0.45	0.65%
Sr 407.771†	1699190.2	0.596 mg/L	0.0049	0.596 mg/L	0.0049	0.82%
Li 670.784†	5187.0	0.0231 mg/L	0.00023	0.0231 mg/L	0.00023	1.00%

Sequence No.: 11
 Sample ID: L1204084403PS WG396298-03
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u\osampler Location: 41
 a\ne Collected: 5/9/2012 11:43:29 AM
 a\ne Type: Original
 n\itial Sample Vol:
 a\mple Prep Vol:

Nebulizer Parameters: L1204084403PS WG396298-03
 Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: L1204084403PS WG396298-03

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2160448.4				33055.86	1.53%
YRADIAL	300365.2				2683.04	0.89%
Ga 417.206	1383604.6				34849.00	2.52%
GARADIAL	92612.6				1131.41	1.22%
Ag 328.068†	61475.9	0.204 mg/L	0.0058	0.204 mg/L	0.0058	2.87%
Al 396.153†	40718.0	5.07 mg/L	0.014	5.07 mg/L	0.014	0.28%
As 188.979†	542.4	0.194 mg/L	0.0060	0.194 mg/L	0.0060	3.08%
Ba 233.527†	99163.8	0.656 mg/L	0.0157	0.656 mg/L	0.0157	2.40%
Be 234.861†	37389.3	0.0248 mg/L	0.00104	0.0248 mg/L	0.00104	4.20%
B 249.677†	95210.7	1.08 mg/L	0.029	1.08 mg/L	0.029	2.68%
Ca 227.546†	64026.9	131 mg/L	4.1	131 mg/L	4.1	3.13%
Cd 228.802†	1378.7	0.0241 mg/L	0.00107	0.0241 mg/L	0.00107	4.43%
Co 228.616†	3716.1	0.0976 mg/L	0.00203	0.0976 mg/L	0.00203	2.08%
Cr 267.716†	27013.9	0.253 mg/L	0.0033	0.253 mg/L	0.0033	1.30%
Cu 327.393†	69449.3	0.247 mg/L	0.0068	0.247 mg/L	0.0068	2.76%
Fe 239.562†	380827.8	23.5 mg/L	0.24	23.5 mg/L	0.24	1.00%
Mg 279.077†	100071.7	27.7 mg/L	0.27	27.7 mg/L	0.27	0.96%
Mn 257.610†	538706.8	0.655 mg/L	0.0169	0.655 mg/L	0.0169	2.57%
Mo 202.031†	18439.9	0.509 mg/L	0.0114	0.509 mg/L	0.0114	2.24%
Ni 231.604†	16773.2	0.252 mg/L	0.0061	0.252 mg/L	0.0061	2.43%
Pb 220.353†	2748.0	0.252 mg/L	0.0046	0.252 mg/L	0.0046	1.83%
Sb 206.836†	2531.0	0.601 mg/L	0.0146	0.601 mg/L	0.0146	2.43%
Se 196.026†	361.4	0.207 mg/L	0.0038	0.207 mg/L	0.0038	1.82%
Si 251.611†	428216.4	10.2 mg/L	0.18	10.2 mg/L	0.18	1.73%
Sn 189.927†	-286.0	-0.0309 mg/L	0.00125	-0.0309 mg/L	0.00125	4.05%
Ti 334.940†	485519.9	0.501 mg/L	0.0019	0.501 mg/L	0.0019	0.38%
Tl 190.801†	935.1	0.248 mg/L	0.0020	0.248 mg/L	0.0020	0.83%
V 290.880†	100125.1	0.514 mg/L	0.0075	0.514 mg/L	0.0075	1.47%
Zn 206.200†	20181.7	0.512 mg/L	0.0079	0.512 mg/L	0.0079	1.54%

Approved: May 10, 2012

K 766.490†	101069.0	28.6 mg/L	0.05	28.6 mg/L	0.05	0.17%
Na 589.592†	1846427.2	89.5 mg/L	0.27	89.5 mg/L	0.27	0.30%
Sr 407.771†	2994712.3	1.05 mg/L	0.005	1.05 mg/L	0.005	0.48%
Li 670.784†	94444.3	0.539 mg/L	0.0079	0.539 mg/L	0.0079	1.47%

Sequence No.: 12 u\osampler Location: 42
 Sample ID: L1204084403DL WG396298-04 a\te Collected: 5/9/2012 11:49:29 AM
 Analyst: KHR a\ta Type: Original
 Initial Sample Wt: n\itial Sample Vol:
 Dilution: a\mple Prep Vol:

Nebulizer Parameters: L1204084403DL WG396298-04
 Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: L1204084403DL WG396298-04

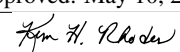
Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2325029.5					18646.09	0.80%
YRADIAL	312625.5					536.24	0.17%
Ga 417.206	1404608.0					36184.42	2.58%
GaRADIAL	93862.0					958.53	1.02%
Ag 328.068†	-381.1	-0.00099 mg/L		0.000241	-0.00099 mg/L	0.000241	24.27%
Al 396.153†	17.7	-0.0116 mg/L		0.00433	-0.0116 mg/L	0.00433	37.45%
As 188.979†	-8.7	-0.00105 mg/L		0.001277	-0.00105 mg/L	0.001277	121.43%
Ba 233.527†	5224.9	0.0309 mg/L		0.00041	0.0309 mg/L	0.00041	1.32%
Be 234.861†	1453.8	-0.00007 mg/L		0.000079	-0.00007 mg/L	0.000079	120.47%
B 249.677†	2610.5	0.0268 mg/L		0.00159	0.0268 mg/L	0.00159	5.94%
Ca 227.546†	13146.3	27.0 mg/L		1.05	27.0 mg/L	1.05	3.89%
Cd 228.802†	16.9	0.00010 mg/L		0.000330	0.00010 mg/L	0.000330	326.62%
Co 228.616†	9.0	-0.00052 mg/L		0.000163	-0.00052 mg/L	0.000163	31.16%
Cr 267.716†	7.8	-0.00175 mg/L		0.000084	-0.00175 mg/L	0.000084	4.79%
Cu 327.393†	-73.1	-0.00107 mg/L		0.000303	-0.00107 mg/L	0.000303	28.29%
Fe 239.562†	77668.6	4.80 mg/L		0.037	4.80 mg/L	0.037	0.77%
Mg 279.077†	18133.1	5.03 mg/L		0.061	5.03 mg/L	0.061	1.22%
Mn 257.610†	71540.7	0.0846 mg/L		0.00027	0.0846 mg/L	0.00027	0.32%
Mo 202.031†	23.2	-0.00074 mg/L		0.000239	-0.00074 mg/L	0.000239	32.49%
Ni 231.604†	77.5	-0.00112 mg/L		0.000694	-0.00112 mg/L	0.000694	61.86%
Pb 220.353†	3.8	-0.00132 mg/L		0.001898	-0.00132 mg/L	0.001898	143.39%
Sb 206.836†	2.0	-0.00405 mg/L		0.001796	-0.00405 mg/L	0.001796	44.31%
Se 196.026†	-1.7	0.00298 mg/L		0.001842	0.00298 mg/L	0.001842	61.87%
Si 251.611†	71285.3	1.68 mg/L		0.035	1.68 mg/L	0.035	2.11%
Sn 189.927†	-172.1	-0.0197 mg/L		0.00080	-0.0197 mg/L	0.00080	4.09%
Ti 334.940†	-4183.8	-0.00048 mg/L		0.000276	-0.00048 mg/L	0.000276	56.87%
Tl 190.801†	-9.4	-0.00524 mg/L		0.001438	-0.00524 mg/L	0.001438	27.45%
V 290.880†	624.1	-0.00107 mg/L		0.001662	-0.00107 mg/L	0.001662	154.66%
Zn 206.200†	126.4	-0.00273 mg/L		0.000122	-0.00273 mg/L	0.000122	4.48%
K 766.490†	3012.2	0.810 mg/L		0.0186	0.810 mg/L	0.0186	2.30%
Na 589.592†	290300.7	13.7 mg/L		0.04	13.7 mg/L	0.04	0.29%
Sr 407.771†	338878.3	0.119 mg/L		0.0010	0.119 mg/L	0.0010	0.84%
Li 670.784†	1103.8	-0.00053 mg/L		0.000318	-0.00053 mg/L	0.000318	59.48%

Sequence No.: 13 u\osampler Location: 6
 Sample ID: CCV a\te Collected: 5/9/2012 11:55:27 AM
 Analyst: a\ta Type: Original
 Initial Sample Wt: n\itial Sample Vol:
 Dilution: a\mple Prep Vol:

Nebulizer Parameters: CCV
 Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2287865.5					20805.72	0.91%

Approved: May 10, 2012


YRADIAL	317409.5				1166.63	0.37%
Ga 417.206	1374470.0				53280.18	3.88%
GaRADIAL	94186.7				296.07	0.31%
Ag 328.068†	129364.3	0.410 mg/L	0.0148	0.410 mg/L	0.0148	3.60%
QC value within limits for Ag	328.068	Recovery = 102.60%				
Al 396.153†	78336.6	9.77 mg/L	0.040	9.77 mg/L	0.040	0.41%
QC value within limits for Al	396.153	Recovery = 97.71%				
As 188.979†	1134.0	0.399 mg/L	0.0141	0.399 mg/L	0.0141	3.53%
QC value within limits for As	188.979	Recovery = 99.65%				
Ba 233.527†	150937.5	1.00 mg/L	0.017	1.00 mg/L	0.017	1.72%
QC value within limits for Ba	233.527	Recovery = 100.18%				
Be 234.861†	63651.8	0.0503 mg/L	0.00200	0.0503 mg/L	0.00200	3.97%
QC value within limits for Be	234.861	Recovery = 100.64%				
B 249.677†	44348.4	0.506 mg/L	0.0192	0.506 mg/L	0.0192	3.79%
QC value within limits for B	249.677	Recovery = 101.14%				
Ca 227.546†	4801.1	10.3 mg/L	0.43	10.3 mg/L	0.43	4.18%
QC value within limits for Ca	227.546	Recovery = 102.64%				
Cd 228.802†	2830.3	0.0496 mg/L	0.00240	0.0496 mg/L	0.00240	4.83%
QC value within limits for Cd	228.802	Recovery = 99.28%				
Co 228.616†	7427.6	0.197 mg/L	0.0034	0.197 mg/L	0.0034	1.74%
QC value within limits for Co	228.616	Recovery = 98.39%				
Cr 267.716†	53404.7	0.500 mg/L	0.0080	0.500 mg/L	0.0080	1.60%
QC value within limits for Cr	267.716	Recovery = 100.01%				
Cu 327.393†	140821.7	0.499 mg/L	0.0193	0.499 mg/L	0.0193	3.86%
QC value within limits for Cu	327.393	Recovery = 99.86%				
Fe 239.562†	64359.3	3.98 mg/L	0.032	3.98 mg/L	0.032	0.81%
QC value within limits for Fe	239.562	Recovery = 99.50%				
Mg 279.077†	35678.3	9.91 mg/L	0.059	9.91 mg/L	0.059	0.60%
QC value within limits for Mg	279.077	Recovery = 99.08%				
Mn 257.610†	413893.5	0.503 mg/L	0.0098	0.503 mg/L	0.0098	1.95%
QC value within limits for Mn	257.610	Recovery = 100.58%				
Mo 202.031†	35766.4	0.986 mg/L	0.0116	0.986 mg/L	0.0116	1.18%
QC value within limits for Mo	202.031	Recovery = 98.62%				
Ni 231.604†	33100.2	0.499 mg/L	0.0081	0.499 mg/L	0.0081	1.62%
QC value within limits for Ni	231.604	Recovery = 99.84%				
Pb 220.353†	5408.0	0.498 mg/L	0.0064	0.498 mg/L	0.0064	1.28%
QC value within limits for Pb	220.353	Recovery = 99.69%				
Sb 206.836†	5106.6	1.21 mg/L	0.049	1.21 mg/L	0.049	4.02%
QC value within limits for Sb	206.836	Recovery = 101.24%				
Se 196.026†	733.8	0.406 mg/L	0.0178	0.406 mg/L	0.0178	4.39%
QC value within limits for Se	196.026	Recovery = 101.45%				
Si 251.611†	213757.0	5.07 mg/L	0.145	5.07 mg/L	0.145	2.85%
QC value within limits for Si	251.611	Recovery = 101.35%				
Sn 189.927†	10012.1	0.984 mg/L	0.0133	0.984 mg/L	0.0133	1.35%
QC value within limits for Sn	189.927	Recovery = 98.45%				
Ti 334.940†	978363.7	0.971 mg/L	0.0027	0.971 mg/L	0.0027	0.28%
QC value within limits for Ti	334.940	Recovery = 97.12%				
Tl 190.801†	1923.7	0.513 mg/L	0.0021	0.513 mg/L	0.0021	0.41%
QC value within limits for Tl	190.801	Recovery = 102.55%				
V 290.880†	189908.5	0.986 mg/L	0.0105	0.986 mg/L	0.0105	1.07%
QC value within limits for V	290.880	Recovery = 98.57%				
Zn 206.200†	40062.1	1.02 mg/L	0.015	1.02 mg/L	0.015	1.43%
QC value within limits for Zn	206.200	Recovery = 102.37%				
K 766.490†	167388.1	47.9 mg/L	0.46	47.9 mg/L	0.46	0.96%
QC value within limits for K	766.490	Recovery = 95.77%				
Na 589.592†	1008564.1	48.2 mg/L	0.88	48.2 mg/L	0.88	1.84%
QC value within limits for Na	589.592	Recovery = 96.32%				
Sr 407.771†	2724902.7	0.961 mg/L	0.0113	0.961 mg/L	0.0113	1.18%
QC value within limits for Sr	407.771	Recovery = 96.08%				
Li 670.784†	170477.2	0.978 mg/L	0.0004	0.978 mg/L	0.0004	0.04%
QC value within limits for Li	670.784	Recovery = 97.78%				

All analyte(s) passed QC.

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Sequence No.: 14	u&osampler Location: 1
Sample ID: CCB	ame Collected: 5/9/2012 12:01:28 PM
Analyst:	ama Type: Original
Initial Sample Wt:	nitial Sample Vol:
Dilution:	ample Prep Vol:

Nebulizer Parameters: CCB

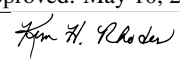
Approved: May 10, 2012
<i>Tom H. Rhodes</i>

Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

 Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2330950.5				55965.63	2.40%
YRADIAL	314879.9				3757.46	1.19%
Ga 417.206	1458478.7				22325.78	1.53%
GaRADIAL	94254.5				1659.64	1.76%
Ag 328.068†	-134.7	-0.00230 mg/L	0.000415	-0.00230 mg/L	0.000415	18.02%
QC value within limits for Ag	328.068	Recovery = Not calculated				
Al 396.153†	69.3	-0.00559 mg/L	0.000320	-0.00559 mg/L	0.000320	5.73%
QC value within limits for Al	396.153	Recovery = Not calculated				
As 188.979†	1.4	0.00201 mg/L	0.000869	0.00201 mg/L	0.000869	43.30%
QC value within limits for As	188.979	Recovery = Not calculated				
Ba 233.527†	21.7	-0.00365 mg/L	0.000109	-0.00365 mg/L	0.000109	2.99%
QC value within limits for Ba	233.527	Recovery = Not calculated				
Be 234.861†	9.4	-0.00016 mg/L	0.000042	-0.00016 mg/L	0.000042	25.67%
QC value within limits for Be	234.861	Recovery = Not calculated				
B 249.677†	811.5	0.00814 mg/L	0.000371	0.00814 mg/L	0.000371	4.56%
QC value within limits for B	249.677	Recovery = Not calculated				
Ca 227.546†	11.1	0.0235 mg/L	0.02710	0.0235 mg/L	0.02710	115.31%
QC value within limits for Ca	227.546	Recovery = Not calculated				
Cd 228.802†	4.3	-0.00014 mg/L	0.000056	-0.00014 mg/L	0.000056	41.22%
QC value within limits for Cd	228.802	Recovery = Not calculated				
Co 228.616†	3.9	-0.00053 mg/L	0.000152	-0.00053 mg/L	0.000152	28.48%
QC value within limits for Co	228.616	Recovery = Not calculated				
Cr 267.716†	-1.9	-0.00201 mg/L	0.000036	-0.00201 mg/L	0.000036	1.77%
QC value within limits for Cr	267.716	Recovery = Not calculated				
Cu 327.393†	39.6	-0.00107 mg/L	0.000282	-0.00107 mg/L	0.000282	26.36%
QC value within limits for Cu	327.393	Recovery = Not calculated				
Fe 239.562†	67.3	0.00914 mg/L	0.000344	0.00914 mg/L	0.000344	3.77%
QC value within limits for Fe	239.562	Recovery = Not calculated				
Mg 279.077†	25.6	0.0154 mg/L	0.00042	0.0154 mg/L	0.00042	2.71%
QC value within limits for Mg	279.077	Recovery = Not calculated				
Mn 257.610†	45.2	-0.00273 mg/L	0.000019	-0.00273 mg/L	0.000019	0.70%
QC value within limits for Mn	257.610	Recovery = Not calculated				
Mo 202.031†	1.4	-0.00159 mg/L	0.000080	-0.00159 mg/L	0.000080	5.03%
QC value within limits for Mo	202.031	Recovery = Not calculated				
Ni 231.604†	14.5	-0.00208 mg/L	0.000243	-0.00208 mg/L	0.000243	11.70%
QC value within limits for Ni	231.604	Recovery = Not calculated				
Pb 220.353†	2.7	-0.00117 mg/L	0.001807	-0.00117 mg/L	0.001807	154.55%
QC value within limits for Pb	220.353	Recovery = Not calculated				
Sb 206.836†	4.8	-0.00355 mg/L	0.000717	-0.00355 mg/L	0.000717	20.21%
QC value within limits for Sb	206.836	Recovery = Not calculated				
Se 196.026†	5.9	0.00577 mg/L	0.001094	0.00577 mg/L	0.001094	18.95%
QC value within limits for Se	196.026	Recovery = Not calculated				
Si 251.611†	76.1	-0.0217 mg/L	0.000084	-0.0217 mg/L	0.000084	3.88%
QC value within limits for Si	251.611	Recovery = Not calculated				
Sn 189.927†	1.9	-0.00253 mg/L	0.000447	-0.00253 mg/L	0.000447	17.66%
QC value within limits for Sn	189.927	Recovery = Not calculated				
Ti 334.940†	225.1	-0.00014 mg/L	0.000109	-0.00014 mg/L	0.000109	80.74%
QC value within limits for Ti	334.940	Recovery = Not calculated				
Tl 190.801†	6.8	-0.00087 mg/L	0.000330	-0.00087 mg/L	0.000330	38.04%
QC value within limits for Tl	190.801	Recovery = Not calculated				
V 290.880†	454.0	-0.00107 mg/L	0.002227	-0.00107 mg/L	0.002227	207.64%
QC value within limits for V	290.880	Recovery = Not calculated				
Zn 206.200†	6.3	-0.00571 mg/L	0.000153	-0.00571 mg/L	0.000153	2.67%
QC value within limits for Zn	206.200	Recovery = Not calculated				
K 766.490†	46.7	-0.00689 mg/L	0.019031	-0.00689 mg/L	0.019031	276.25%
QC value within limits for K	766.490	Recovery = Not calculated				
Na 589.592†	338.0	0.0204 mg/L	0.01285	0.0204 mg/L	0.01285	62.97%
QC value within limits for Na	589.592	Recovery = Not calculated				
Sr 407.771†	347.2	-0.00012 mg/L	0.000031	-0.00012 mg/L	0.000031	24.93%
QC value within limits for Sr	407.771	Recovery = Not calculated				
Li 670.784†	-49.6	-0.00720 mg/L	0.000385	-0.00720 mg/L	0.000385	5.35%
QC value within limits for Li	670.784	Recovery = Not calculated				

All analyte(s) passed QC.

Approved: May 10, 2012


Sequence No.: 15
 Sample ID: L1204084404
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 43
 a&e Collected: 5/9/2012 12:08:22 PM
 a&a Type: Original
 nitial Sample Vol:
 a&ple Prep Vol:

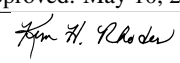
 Nebulizer Parameters: L1204084404

Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: L1204084404

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2178777.4					15282.30	0.70%
YRADIAL	300186.9					3422.64	1.14%
Ga 417.206	1416235.3					46592.96	3.29%
GaRADIAL	93965.1					499.90	0.53%
Ag 328.068†	-2666.8	0.00033	mg/L	0.000361	0.00033	0.000361	110.66%
Al 396.153†	-61.3	-0.0192	mg/L	0.00426	-0.0192	0.00426	22.24%
As 188.979†	-7.4	0.00156	mg/L	0.001817	0.00156	0.001817	116.35%
Ba 233.527†	26494.1	0.172	mg/L	0.0010	0.172	0.0010	0.61%
Be 234.861†	6588.6	-0.00028	mg/L	0.000105	-0.00028	0.000105	36.75%
B 249.677†	8305.6	0.0840	mg/L	0.00342	0.0840	0.00342	4.07%
Ca 227.546†	68125.9	140	mg/L	6.3	140	6.3	4.51%
Cd 228.802†	26.6	0.00024	mg/L	0.000284	0.00024	0.000284	119.72%
Co 228.616†	9.6	-0.00103	mg/L	0.000380	-0.00103	0.000380	37.01%
Cr 267.716†	18.6	-0.00098	mg/L	0.000050	-0.00098	0.000050	5.08%
Cu 327.393†	-447.2	-0.00077	mg/L	0.000113	-0.00077	0.000113	14.78%
Fe 239.562†	394526.4	24.4	mg/L	0.22	24.4	0.22	0.88%
Mg 279.077†	94535.1	26.2	mg/L	0.42	26.2	0.42	1.62%
Mn 257.610†	372317.6	0.452	mg/L	0.0030	0.452	0.0030	0.67%
Mo 202.031†	23.7	0.00032	mg/L	0.000256	0.00032	0.000256	80.86%
Ni 231.604†	93.6	-0.00088	mg/L	0.000456	-0.00088	0.000456	52.07%
Pb 220.353†	21.8	-0.00068	mg/L	0.000762	-0.00068	0.000762	112.57%
Sb 206.836†	-0.1	-0.00383	mg/L	0.001506	-0.00383	0.001506	39.35%
Se 196.026†	-5.6	0.00663	mg/L	0.001488	0.00663	0.001488	22.45%
Si 251.611†	354391.9	8.44	mg/L	0.298	8.44	0.298	3.54%
Sn 189.927†	-290.7	-0.0314	mg/L	0.00039	-0.0314	0.00039	1.23%
Ti 334.940†	-22169.8	-0.00148	mg/L	0.002130	-0.00148	0.002130	143.65%
Tl 190.801†	-29.2	-0.0110	mg/L	0.00165	-0.0110	0.00165	15.07%
V 290.880†	2293.3	0.00398	mg/L	0.000938	0.00398	0.000938	23.55%
Zn 206.200†	86.4	-0.00412	mg/L	0.000140	-0.00412	0.000140	3.40%
K 766.490†	15318.8	4.21	mg/L	0.090	4.21	0.090	2.13%
Na 589.592†	1474401.4	71.0	mg/L	0.44	71.0	0.44	0.62%
Sr 407.771†	1770569.2	0.621	mg/L	0.0052	0.621	0.0052	0.84%
Li 670.784†	5459.7	0.0246	mg/L	0.00067	0.0246	0.00067	2.73%

User canceled analysis.

Approved: May 10, 2012


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 Analysis Begun

Start Time: 5/9/2012 12:21:44 PM Plasma On Time: 12:00:00 AM
 Logged In Analyst: peicp2 eTechnique: ICP Continuous
 Spectrometer Model: Optima 4300 DV, S/N 077N40114 Autosampler Model: Cetac

Sample Information File: C:\pe\peicp2\Sample Information\WEDNESDAY1.sif
 Batch ID:
 Results Data Set: 050912H
 Results Library: C:\pe\peicp2\Results\Results.mdb

=====
 Sequence No.: 1 Autosampler Location: 44
 Sample ID: L1204084405 Date Collected: 5/9/2012 12:21:46 PM
 Analyst: KHR Sample Type: Original
 Initial Sample Wt: Initial Sample Vol:
 Dilution: Sample Prep Vol:

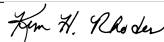
 Nebulizer Parameters: L1204084405
 Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

 Mean Data: L1204084405

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2082223.3				18680.92	0.90%
YRADIAL	294794.0				1162.43	0.39%
Ga 417.206	1341837.3				23826.54	1.78%
GaRADIAL	92124.5				1239.19	1.35%
Ag 328.068†	463.2	-0.00041 mg/L	0.000754	-0.00041 mg/L	0.000754	185.26%
Al 396.153†	2533.4	0.304 mg/L	0.0097	0.304 mg/L	0.0097	3.19%
As 188.979†	2.2	0.00227 mg/L	0.002010	0.00227 mg/L	0.002010	88.45%
Ba 233.527†	16541.8	0.106 mg/L	0.0013	0.106 mg/L	0.0013	1.20%
Be 234.861†	193.0	-0.00006 mg/L	0.000054	-0.00006 mg/L	0.000054	94.89%
B 249.677†	6549.2	0.0741 mg/L	0.00285	0.0741 mg/L	0.00285	3.84%
Ca 227.546†	52253.1	107 mg/L	3.1	107 mg/L	3.1	2.88%
Cd 228.802†	157.1	0.00263 mg/L	0.000318	0.00263 mg/L	0.000318	12.09%
Co 228.616†	18.9	-0.00013 mg/L	0.000351	-0.00013 mg/L	0.000351	269.91%
Cr 267.716†	355.6	0.00138 mg/L	0.000148	0.00138 mg/L	0.000148	10.71%
Cu 327.393†	974.5	0.00226 mg/L	0.000317	0.00226 mg/L	0.000317	14.03%
Fe 239.562†	3418.6	0.216 mg/L	0.0042	0.216 mg/L	0.0042	1.95%
Mg 279.077†	54652.8	15.1 mg/L	0.21	15.1 mg/L	0.21	1.36%
Mn 257.610†	10211.6	0.00969 mg/L	0.000149	0.00969 mg/L	0.000149	1.54%
Mo 202.031†	290.8	0.00643 mg/L	0.000418	0.00643 mg/L	0.000418	6.50%
Ni 231.604†	296.2	0.00220 mg/L	0.000694	0.00220 mg/L	0.000694	31.60%
Pb 220.353†	-3.3	-0.00083 mg/L	0.003096	-0.00083 mg/L	0.003096	372.23%
Sb 206.836†	4.3	-0.00364 mg/L	0.001102	-0.00364 mg/L	0.001102	30.24%
Se 196.026†	16.9	0.0118 mg/L	0.00280	0.0118 mg/L	0.00280	23.68%
Si 251.611†	309427.3	7.36 mg/L	0.114	7.36 mg/L	0.114	1.55%
Sn 189.927†	-277.5	-0.0301 mg/L	0.00116	-0.0301 mg/L	0.00116	3.85%
Ti 334.940†	-13476.3	0.00228 mg/L	0.001499	0.00228 mg/L	0.001499	65.87%
Tl 190.801†	-25.7	-0.00938 mg/L	0.005260	-0.00938 mg/L	0.005260	56.06%
V 290.880†	9249.1	0.0444 mg/L	0.00076	0.0444 mg/L	0.00076	1.71%
Zn 206.200†	1705.8	0.0378 mg/L	0.00083	0.0378 mg/L	0.00083	2.19%
K 766.490†	15233.4	4.25 mg/L	0.069	4.25 mg/L	0.069	1.62%
Na 589.592†	Saturated2					
Sr 407.771†	2505161.7	0.881 mg/L	0.0137	0.881 mg/L	0.0137	1.55%
Li 670.784†	4560.0	0.0194 mg/L	0.00040	0.0194 mg/L	0.00040	2.08%

=====
 Sequence No.: 2 Autosampler Location: 45
 Sample ID: L1204084406 Date Collected: 5/9/2012 12:27:45 PM
 Analyst: KHR Sample Type: Original
 Initial Sample Wt: Initial Sample Vol:
 Dilution: Sample Prep Vol:

 Nebulizer Parameters: L1204084406

Approved: May 10, 2012


Analyte Back Pressure Flow
All 153.0 kPa 0.50 L/min

Mean Data: L1204084406

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li with their respective values.

Sequence No.: 3
Sample ID: L1204084405 0.01
Analyst: KHR
Initial Sample Wt:
Dilution:
autosampler Location: 46
Date Collected: 5/9/2012 12:34:46 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L1204084405 0.01
Analyte Back Pressure Flow
All 153.0 kPa 0.50 L/min

Mean Data: L1204084405 0.01

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu with their respective values.

Approved: May 10, 2012
[Signature]

Analyst: KHR
Initial Sample Wt:
Dilution:

ama Type: Original
nitial Sample Vol:
aample Prep Vol:

Nebulizer Parameters: L1204089804 0.01
Analyte Back Pressure Flow
All 153.0 kPa 0.50 L/min

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li with their respective values.

Sequence No.: 6
Sample ID: L1205005005 0.01
Analyst: KHR
Initial Sample Wt:
Dilution:
autosampler Location: 49
ame Collected: 5/9/2012 12:55:30 PM
ama Type: Original
nitial Sample Vol:
aample Prep Vol:

Nebulizer Parameters: L1205005005 0.01
Analyte Back Pressure Flow
All 153.0 kPa 0.50 L/min

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, Ga, Ag, Al, As, Ba, Be with their respective values.

Approved: May 10, 2012
[Signature]

B 249.677†	329.1	0.00254	mg/L	0.000303	0.00254	mg/L	0.000303	11.94%
Ca 227.546†	851.0	1.74	mg/L	0.034	1.74	mg/L	0.034	1.96%
Cd 228.802†	-11.8	-0.00043	mg/L	0.000047	-0.00043	mg/L	0.000047	10.74%
Co 228.616†	6.0	-0.00048	mg/L	0.000049	-0.00048	mg/L	0.000049	10.24%
Cr 267.716†	-8.0	-0.00206	mg/L	0.000086	-0.00206	mg/L	0.000086	4.19%
Cu 327.393†	-55.3	-0.00140	mg/L	0.000171	-0.00140	mg/L	0.000171	12.26%
Fe 239.562†	2098.0	0.135	mg/L	0.0013	0.135	mg/L	0.0013	0.93%
Mg 279.077†	2361.7	0.663	mg/L	0.0082	0.663	mg/L	0.0082	1.24%
Mn 257.610†	5603.1	0.00405	mg/L	0.000106	0.00405	mg/L	0.000106	2.62%
Mo 202.031†	-14.4	-0.00202	mg/L	0.000146	-0.00202	mg/L	0.000146	7.24%
Ni 231.604†	1.9	-0.00227	mg/L	0.000242	-0.00227	mg/L	0.000242	10.66%
Pb 220.353†	13.5	-0.00017	mg/L	0.000791	-0.00017	mg/L	0.000791	465.10%
Sb 206.836†	2.6	-0.00406	mg/L	0.000320	-0.00406	mg/L	0.000320	7.87%
Se 196.026†	-0.6	0.00224	mg/L	0.000818	0.00224	mg/L	0.000818	36.51%
Si 251.611†	6445.9	0.130	mg/L	0.0023	0.130	mg/L	0.0023	1.76%
Sn 189.927†	-48.9	-0.00754	mg/L	0.000149	-0.00754	mg/L	0.000149	1.97%
Ti 334.940†	6.1	-0.00010	mg/L	0.000058	-0.00010	mg/L	0.000058	60.56%
Tl 190.801†	13.8	0.00095	mg/L	0.000513	0.00095	mg/L	0.000513	54.13%
V 290.880†	583.2	-0.00044	mg/L	0.001310	-0.00044	mg/L	0.001310	300.75%
Zn 206.200†	85.3	-0.00370	mg/L	0.000247	-0.00370	mg/L	0.000247	6.69%
K 766.490†	484.5	0.108	mg/L	0.0069	0.108	mg/L	0.0069	6.39%
Na 589.592†	153659.6	7.23	mg/L	0.296	7.23	mg/L	0.296	4.10%
Sr 407.771†	143447.3	0.0503	mg/L	0.00075	0.0503	mg/L	0.00075	1.50%
Li 670.784†	68.3	-0.00652	mg/L	0.000074	-0.00652	mg/L	0.000074	1.13%

Sequence No.: 7

Sample ID: L1205005006 0.01

Analyst: KHR

Initial Sample Wt:

Dilution:

Sampler Location: 50

Date Collected: 5/9/2012 1:02:24 PM

Sample Type: Original

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: L1205005006 0.01

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: L1205005006 0.01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2320197.0				21891.92	0.94%
YRADIAL	312911.4				2914.31	0.93%
Ga 417.206	1473085.8				27374.49	1.86%
GaRADIAL	95643.6				3668.86	3.84%
Ag 328.068†	7.8	-0.00183 mg/L	0.000166	-0.00183 mg/L	0.000166	9.06%
Al 396.153†	1.5	-0.0141 mg/L	0.00129	-0.0141 mg/L	0.00129	9.15%
As 188.979†	4.7	0.00317 mg/L	0.002510	0.00317 mg/L	0.002510	79.15%
Ba 233.527†	175.0	-0.00263 mg/L	0.000107	-0.00263 mg/L	0.000107	4.07%
Be 234.861†	183.4	-0.00004 mg/L	0.000023	-0.00004 mg/L	0.000023	61.97%
B 249.677†	282.1	0.00203 mg/L	0.000301	0.00203 mg/L	0.000301	14.85%
Ca 227.546†	804.7	1.65 mg/L	0.039	1.65 mg/L	0.039	2.38%
Cd 228.802†	-16.3	-0.00051 mg/L	0.000127	-0.00051 mg/L	0.000127	24.58%
Co 228.616†	2.7	-0.00057 mg/L	0.000198	-0.00057 mg/L	0.000198	35.05%
Cr 267.716†	-13.9	-0.00211 mg/L	0.000027	-0.00211 mg/L	0.000027	1.29%
Cu 327.393†	-68.0	-0.00145 mg/L	0.000148	-0.00145 mg/L	0.000148	10.21%
Fe 239.562†	1120.2	0.0742 mg/L	0.00071	0.0742 mg/L	0.00071	0.96%
Mg 279.077†	2044.7	0.575 mg/L	0.0084	0.575 mg/L	0.0084	1.46%
Mn 257.610†	5571.3	0.00401 mg/L	0.000090	0.00401 mg/L	0.000090	2.24%
Mo 202.031†	-10.4	-0.00191 mg/L	0.000082	-0.00191 mg/L	0.000082	4.31%
Ni 231.604†	6.5	-0.00220 mg/L	0.000360	-0.00220 mg/L	0.000360	16.37%
Pb 220.353†	8.7	-0.00062 mg/L	0.000711	-0.00062 mg/L	0.000711	115.22%
Sb 206.836†	0.1	-0.00467 mg/L	0.001209	-0.00467 mg/L	0.001209	25.90%
Se 196.026†	-1.2	0.00189 mg/L	0.001116	0.00189 mg/L	0.001116	59.11%
Si 251.611†	4363.1	0.0806 mg/L	0.00231	0.0806 mg/L	0.00231	2.87%
Sn 189.927†	-47.2	-0.00737 mg/L	0.000531	-0.00737 mg/L	0.000531	7.20%
Ti 334.940†	-268.3	-0.00038 mg/L	0.000035	-0.00038 mg/L	0.000035	9.13%
Tl 190.801†	5.5	-0.00121 mg/L	0.002399	-0.00121 mg/L	0.002399	197.98%
V 290.880†	503.4	-0.00084 mg/L	0.000440	-0.00084 mg/L	0.000440	52.39%
Zn 206.200†	44.0	-0.00475 mg/L	0.000037	-0.00475 mg/L	0.000037	0.79%
K 766.490†	472.4	0.105 mg/L	0.0099	0.105 mg/L	0.0099	9.41%
Na 589.592†	149478.2	7.03 mg/L	0.229	7.03 mg/L	0.229	3.26%

Approved: May 10, 2012

John H. Rhodes

Sr 407.771†	118224.1	0.0414 mg/L	0.00041	0.0414 mg/L	0.00041	1.00%
Li 670.784†	42.1	-0.00667 mg/L	0.000076	-0.00667 mg/L	0.000076	1.14%

Sequence No.: 8
 Sample ID: L1205009907 0.01
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 51
 ame Collected: 5/9/2012 1:09:19 PM
 ama Type: Original
 nitial Sample Vol:
 ample Prep Vol:

Nebulizer Parameters: L1205009907 0.01
 Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: L1205009907 0.01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2232450.6				21432.69	0.96%
YRADIAL	306719.8				2200.26	0.72%
Ga 417.206	1451634.4				10284.75	0.71%
GaRADIAL	94463.9				3462.31	3.67%
Ag 328.068†	-76.6	-0.00211 mg/L	0.000369	-0.00211 mg/L	0.000369	17.47%
Al 396.153†	-1.8	-0.0145 mg/L	0.00142	-0.0145 mg/L	0.00142	9.77%
As 188.979†	9.4	0.00485 mg/L	0.002658	0.00485 mg/L	0.002658	54.84%
Ba 233.527†	51.6	-0.00345 mg/L	0.000054	-0.00345 mg/L	0.000054	1.55%
Be 234.861†	173.4	-0.00004 mg/L	0.000011	-0.00004 mg/L	0.000011	29.87%
B 249.677†	386.3	0.00324 mg/L	0.000196	0.00324 mg/L	0.000196	6.04%
Ca 227.546†	968.3	1.98 mg/L	0.011	1.98 mg/L	0.011	0.54%
Cd 228.802†	-11.3	-0.00043 mg/L	0.000115	-0.00043 mg/L	0.000115	26.49%
Co 228.616†	2.7	-0.00057 mg/L	0.000353	-0.00057 mg/L	0.000353	62.49%
Cr 267.716†	-14.0	-0.00212 mg/L	0.000110	-0.00212 mg/L	0.000110	5.18%
Cu 327.393†	-64.8	-0.00144 mg/L	0.000329	-0.00144 mg/L	0.000329	22.91%
Fe 239.562†	638.0	0.0444 mg/L	0.00162	0.0444 mg/L	0.00162	3.65%
Mg 279.077†	3950.2	1.10 mg/L	0.055	1.10 mg/L	0.055	5.01%
Mn 257.610†	3041.2	0.00092 mg/L	0.000035	0.00092 mg/L	0.000035	3.78%
Mo 202.031†	-21.4	-0.00222 mg/L	0.000224	-0.00222 mg/L	0.000224	10.08%
Ni 231.604†	3.3	-0.00225 mg/L	0.000518	-0.00225 mg/L	0.000518	23.07%
Pb 220.353†	19.6	0.00040 mg/L	0.000239	0.00040 mg/L	0.000239	60.42%
Sb 206.836†	3.5	-0.00386 mg/L	0.000264	-0.00386 mg/L	0.000264	6.85%
Se 196.026†	-2.9	0.00094 mg/L	0.001906	0.00094 mg/L	0.001906	202.03%
Si 251.611†	5458.2	0.107 mg/L	0.0013	0.107 mg/L	0.0013	1.19%
Sn 189.927†	-60.8	-0.00872 mg/L	0.000747	-0.00872 mg/L	0.000747	8.57%
Ti 334.940†	-414.0	-0.00048 mg/L	0.000050	-0.00048 mg/L	0.000050	10.61%
Tl 190.801†	1.5	-0.00225 mg/L	0.001639	-0.00225 mg/L	0.001639	72.95%
V 290.880†	893.3	0.00118 mg/L	0.001066	0.00118 mg/L	0.001066	90.03%
Zn 206.200†	27.1	-0.00518 mg/L	0.000182	-0.00518 mg/L	0.000182	3.51%
K 766.490†	426.6	0.0954 mg/L	0.01077	0.0954 mg/L	0.01077	11.29%
Na 589.592†	86400.9	4.06 mg/L	0.222	4.06 mg/L	0.222	5.46%
Sr 407.771†	139554.8	0.0489 mg/L	0.00098	0.0489 mg/L	0.00098	2.00%
Li 670.784†	120.4	-0.00621 mg/L	0.000052	-0.00621 mg/L	0.000052	0.83%

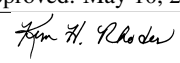
Sequence No.: 9
 Sample ID: L1205009908 0.01
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 52
 ame Collected: 5/9/2012 1:16:13 PM
 ama Type: Original
 nitial Sample Vol:
 ample Prep Vol:

Nebulizer Parameters: L1205009908 0.01
 Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: L1205009908 0.01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2328056.4				2988.76	0.13%
YRADIAL	312756.8				5596.64	1.79%
Ga 417.206	1467933.8				12344.47	0.84%

Approved: May 10, 2012


GarADIAL	96375.1					3003.36	3.12%
Ag 328.068†	-9.5	-0.00191 mg/L	0.000362	-0.00191 mg/L	0.000362	18.94%	
Al 396.153†	-2.5	-0.0146 mg/L	0.00032	-0.0146 mg/L	0.00032	2.16%	
As 188.979†	0.5	0.00168 mg/L	0.001942	0.00168 mg/L	0.001942	115.45%	
Ba 233.527†	57.6	-0.00341 mg/L	0.000142	-0.00341 mg/L	0.000142	4.18%	
Be 234.861†	155.1	-0.00005 mg/L	0.000024	-0.00005 mg/L	0.000024	46.51%	
B 249.677†	336.9	0.00267 mg/L	0.000310	0.00267 mg/L	0.000310	11.58%	
Ca 227.546†	863.4	1.76 mg/L	0.013	1.76 mg/L	0.013	0.74%	
Cd 228.802†	-8.0	-0.00036 mg/L	0.000039	-0.00036 mg/L	0.000039	10.90%	
Co 228.616†	3.0	-0.00056 mg/L	0.000165	-0.00056 mg/L	0.000165	29.57%	
Cr 267.716†	-15.3	-0.00213 mg/L	0.000071	-0.00213 mg/L	0.000071	3.35%	
Cu 327.393†	971.2	0.00223 mg/L	0.000258	0.00223 mg/L	0.000258	11.55%	
Fe 239.562†	492.6	0.0354 mg/L	0.00164	0.0354 mg/L	0.00164	4.64%	
Mg 279.077†	3948.2	1.10 mg/L	0.058	1.10 mg/L	0.058	5.23%	
Mn 257.610†	2451.1	0.00020 mg/L	0.000021	0.00020 mg/L	0.000021	10.39%	
Mo 202.031†	-12.5	-0.00197 mg/L	0.000193	-0.00197 mg/L	0.000193	9.76%	
Ni 231.604†	10.3	-0.00214 mg/L	0.000125	-0.00214 mg/L	0.000125	5.83%	
Pb 220.353†	7.6	-0.00072 mg/L	0.001191	-0.00072 mg/L	0.001191	166.22%	
Sb 206.836†	0.3	-0.00462 mg/L	0.000699	-0.00462 mg/L	0.000699	15.12%	
Se 196.026†	-1.9	0.00151 mg/L	0.002183	0.00151 mg/L	0.002183	144.58%	
Si 251.611†	5043.5	0.0969 mg/L	0.00117	0.0969 mg/L	0.00117	1.21%	
Sn 189.927†	-47.8	-0.00743 mg/L	0.000885	-0.00743 mg/L	0.000885	11.91%	
Ti 334.940†	-178.2	-0.00027 mg/L	0.000564	-0.00027 mg/L	0.000564	205.66%	
Tl 190.801†	2.3	-0.00206 mg/L	0.002255	-0.00206 mg/L	0.002255	109.72%	
V 290.880†	255.1	-0.00214 mg/L	0.000178	-0.00214 mg/L	0.000178	8.31%	
Zn 206.200†	76.1	-0.00393 mg/L	0.000168	-0.00393 mg/L	0.000168	4.27%	
K 766.490†	262.4	0.0500 mg/L	0.02249	0.0500 mg/L	0.02249	44.96%	
Na 589.592†	73852.6	3.47 mg/L	0.344	3.47 mg/L	0.344	9.90%	
Sr 407.771†	147381.2	0.0517 mg/L	0.00254	0.0517 mg/L	0.00254	4.92%	
Li 670.784†	92.6	-0.00638 mg/L	0.000110	-0.00638 mg/L	0.000110	1.73%	

Sequence No.: 10
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

uakosampler Location: 6
 ake Collected: 5/9/2012 1:23:07 PM
 aka Type: Original
 nital Sample Vol:
 ample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	154.0 kPa	0.50 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2255395.3				28048.65	1.24%
YRADIAL	315971.9				2131.02	0.67%
Ga 417.206	1381788.4				26661.33	1.93%
GarADIAL	95089.1				217.73	0.23%
Ag 328.068†	126470.7	0.401 mg/L	0.0110	0.401 mg/L	0.0110	2.74%
QC value within limits for Ag		328.068 Recovery = 100.31%				
Al 396.153†	77747.2	9.70 mg/L	0.041	9.70 mg/L	0.041	0.42%
QC value within limits for Al		396.153 Recovery = 96.97%				
As 188.979†	1117.8	0.393 mg/L	0.0055	0.393 mg/L	0.0055	1.41%
QC value within limits for As		188.979 Recovery = 98.21%				
Ba 233.527†	151974.6	1.01 mg/L	0.011	1.01 mg/L	0.011	1.11%
QC value within limits for Ba		233.527 Recovery = 100.87%				
Be 234.861†	62581.3	0.0495 mg/L	0.00150	0.0495 mg/L	0.00150	3.03%
QC value within limits for Be		234.861 Recovery = 98.94%				
B 249.677†	42826.3	0.488 mg/L	0.0161	0.488 mg/L	0.0161	3.29%
QC value within limits for B		249.677 Recovery = 97.63%				
Ca 227.546†	4730.4	10.1 mg/L	0.22	10.1 mg/L	0.22	2.16%
QC value within limits for Ca		227.546 Recovery = 101.21%				
Cd 228.802†	2790.9	0.0490 mg/L	0.00120	0.0490 mg/L	0.00120	2.45%
QC value within limits for Cd		228.802 Recovery = 97.93%				
Co 228.616†	7514.7	0.199 mg/L	0.0030	0.199 mg/L	0.0030	1.52%
QC value within limits for Co		228.616 Recovery = 99.54%				
Cr 267.716†	53191.6	0.498 mg/L	0.0028	0.498 mg/L	0.0028	0.57%
QC value within limits for Cr		267.716 Recovery = 99.61%				
Cu 327.393†	138230.9	0.490 mg/L	0.0120	0.490 mg/L	0.0120	2.45%

Approved: May 10, 2012

John H. Rhodes

Table with columns for element, QC value, within limits, and Recovery. Elements include Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li. All analyte(s) passed QC.

Sequence No.: 11 Sample ID: CCB Analyst: Initial Sample Wt: Dilution: uosampler Location: 1 Date Collected: 5/9/2012 1:29:08 PM Sample Type: Original Initial Sample Vol: Sample Prep Vol:

Nebulizer Parameters: CCB Analyte Back Pressure Flow All 154.0 kPa 0.50 L/min

Mean Data: CCB Table with columns for Analyte, Mean Corrected Intensity, Conc. Units, Calib. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Elements include Y, Ga, Ag, Al, As, Ba, Be, B, Ca.

Approved: May 10, 2012 [Signature]

Table with columns for element (Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li), QC value, within limits, for element, and Recovery = Not calculated. Includes a final note: 'All analyte(s) passed QC.'

Sequence No.: 12 Sample ID: ICSA Analyst: Initial Sample Wt: Dilution: u\osampler Location: 12 ame Collected: 5/9/2012 1:36:01 PM ana Type: Original nitial Sample Vol: ample Prep Vol:

Nebulizer Parameters: ICSA Analyte Back Pressure Flow All 153.0 kPa 0.50 L/min

Mean Data: ICSA Table with columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists elements Y, Ga, Ag, Al, As with their respective values.

Approved: May 10, 2012 [Signature]

QC value within limits for As	188.979	Recovery = Not calculated					
Ba 233.527†	715.3	-0.00136 mg/L	0.000121	-0.00136 mg/L	0.000121	8.90%	
QC value within limits for Ba	233.527	Recovery = Not calculated					
Be 234.861†	25247.7	-0.00073 mg/L	0.000005	-0.00073 mg/L	0.000005	0.71%	
QC value within limits for Be	234.861	Recovery = Not calculated					
B 249.677†	4552.7	0.0112 mg/L	0.00231	0.0112 mg/L	0.00231	20.64%	
QC value within limits for B	249.677	Recovery = Not calculated					
Ca 227.546†	123920.9	255 mg/L	7.7	255 mg/L	7.7	3.00%	
QC value within limits for Ca	227.546	Recovery = 102.11%					
Cd 228.802†	5.6	-0.00026 mg/L	0.000201	-0.00026 mg/L	0.000201	78.85%	
QC value within limits for Cd	228.802	Recovery = Not calculated					
Co 228.616†	20.1	-0.00246 mg/L	0.000238	-0.00246 mg/L	0.000238	9.70%	
QC value within limits for Co	228.616	Recovery = Not calculated					
Cr 267.716†	69.9	-0.00261 mg/L	0.000137	-0.00261 mg/L	0.000137	5.24%	
QC value within limits for Cr	267.716	Recovery = Not calculated					
Cu 327.393†	-1462.4	0.00142 mg/L	0.000077	0.00142 mg/L	0.000077	5.41%	
QC value within limits for Cu	327.393	Recovery = Not calculated					
Fe 239.562†	1507239.1	93.1 mg/L	0.56	93.1 mg/L	0.56	0.61%	
QC value within limits for Fe	239.562	Recovery = 93.11%					
Mg 279.077†	903700.1	250 mg/L	1.5	250 mg/L	1.5	0.62%	
QC value within limits for Mg	279.077	Recovery = 100.12%					
Mn 257.610†	-2056.3	-0.00269 mg/L	0.000522	-0.00269 mg/L	0.000522	19.41%	
QC value within limits for Mn	257.610	Recovery = Not calculated					
Mo 202.031†	-75.9	0.00085 mg/L	0.000271	0.00085 mg/L	0.000271	31.99%	
QC value within limits for Mo	202.031	Recovery = Not calculated					
Ni 231.604†	57.7	-0.00142 mg/L	0.000666	-0.00142 mg/L	0.000666	46.90%	
QC value within limits for Ni	231.604	Recovery = Not calculated					
Pb 220.353†	-369.6	-0.00175 mg/L	0.001700	-0.00175 mg/L	0.001700	97.20%	
QC value within limits for Pb	220.353	Recovery = Not calculated					
Sb 206.836†	-21.9	-0.00653 mg/L	0.000509	-0.00653 mg/L	0.000509	7.80%	
QC value within limits for Sb	206.836	Recovery = Not calculated					
Se 196.026†	-53.5	-0.00194 mg/L	0.007271	-0.00194 mg/L	0.007271	374.06%	
QC value within limits for Se	196.026	Recovery = Not calculated					
Si 251.611†	532.7	-0.0108 mg/L	0.00037	-0.0108 mg/L	0.00037	3.45%	
QC value within limits for Si	251.611	Recovery = Not calculated					
Sn 189.927†	-332.5	-0.0355 mg/L	0.00062	-0.0355 mg/L	0.00062	1.74%	
QC value within limits for Sn	189.927	Recovery = Not calculated					
Ti 334.940†	-38839.9	-0.00093 mg/L	0.003373	-0.00093 mg/L	0.003373	364.12%	
QC value within limits for Ti	334.940	Recovery = Not calculated					
Tl 190.801†	-37.6	-0.00634 mg/L	0.006408	-0.00634 mg/L	0.006408	101.00%	
QC value within limits for Tl	190.801	Recovery = Not calculated					
V 290.880†	4184.3	-0.00284 mg/L	0.002267	-0.00284 mg/L	0.002267	79.91%	
QC value within limits for V	290.880	Recovery = Not calculated					
Zn 206.200†	196.7	-0.00261 mg/L	0.001060	-0.00261 mg/L	0.001060	40.64%	
QC value within limits for Zn	206.200	Recovery = Not calculated					
K 766.490†	-143.4	-0.0601 mg/L	0.00896	-0.0601 mg/L	0.00896	14.91%	
QC value within limits for K	766.490	Recovery = Not calculated					
Na 589.592†	-106.5	-0.00044 mg/L	0.007323	-0.00044 mg/L	0.007323	>999.9%	
QC value within limits for Na	589.592	Recovery = Not calculated					
Sr 407.771†	2846.8	-0.00481 mg/L	0.000165	-0.00481 mg/L	0.000165	3.43%	
QC value within limits for Sr	407.771	Recovery = Not calculated					
Li 670.784†	226.2	-0.00560 mg/L	0.000477	-0.00560 mg/L	0.000477	8.51%	
QC value within limits for Li	670.784	Recovery = Not calculated					

All analyte(s) passed QC.

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Sequence No.: 13                               u&osampler Location: 13
Sample ID: ICSAB                               a&me Collected: 5/9/2012 1:41:57 PM
Analyst:                                       a&ma Type: Original
Initial Sample Wt:                             n&itial Sample Vol:
Dilution:                                     a&ample Prep Vol:
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Nebulizer Parameters: ICSAB
Analyte          Back Pressure      Flow
All              153.0 kPa          0.50 L/min
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Mean Data: ICSAB							
Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD	
Y 371.029	2074687.2				28558.40	1.38%	

Approved: May 10, 2012
John H. R. R. R.

YRADIAL	299509.5				2166.16	0.72%
Ga 417.206	1333745.3				47756.12	3.58%
GaRADIAL	91995.8				415.86	0.45%
Ag 328.068†	147758.0	0.508 mg/L	0.0205	0.508 mg/L	0.0205	4.03%
QC value within limits for Ag	328.068	Recovery = 101.56%				
Al 396.153†	2005543.0	252 mg/L	0.8	252 mg/L	0.8	0.33%
QC value within limits for Al	396.153	Recovery = 100.90%				
As 188.979†	648.0	0.238 mg/L	0.0099	0.238 mg/L	0.0099	4.16%
QC value within limits for As	188.979	Recovery = 95.06%				
Ba 233.527†	38629.7	0.251 mg/L	0.0036	0.251 mg/L	0.0036	1.43%
QC value within limits for Ba	233.527	Recovery = 100.42%				
Be 234.861†	338532.0	0.249 mg/L	0.0101	0.249 mg/L	0.0101	4.03%
QC value within limits for Be	234.861	Recovery = 99.79%				
B 249.677†	4397.2	-0.00356 mg/L	0.002994	-0.00356 mg/L	0.002994	84.05%
QC value within limits for B	249.677	Recovery = Not calculated				
Ca 227.546†	126372.2	261 mg/L	10.8	261 mg/L	10.8	4.14%
QC value within limits for Ca	227.546	Recovery = 104.28%				
Cd 228.802†	23226.1	0.420 mg/L	0.0161	0.420 mg/L	0.0161	3.83%
QC value within limits for Cd	228.802	Recovery = 83.98%				
Co 228.616†	8978.9	0.236 mg/L	0.0033	0.236 mg/L	0.0033	1.39%
QC value within limits for Co	228.616	Recovery = 94.57%				
Cr 267.716†	27198.5	0.252 mg/L	0.0018	0.252 mg/L	0.0018	0.71%
QC value within limits for Cr	267.716	Recovery = 100.90%				
Cu 327.393†	67419.3	0.246 mg/L	0.0085	0.246 mg/L	0.0085	3.44%
QC value within limits for Cu	327.393	Recovery = 98.25%				
Fe 239.562†	1546253.2	95.5 mg/L	0.63	95.5 mg/L	0.63	0.66%
QC value within limits for Fe	239.562	Recovery = 95.52%				
Mg 279.077†	932561.8	258 mg/L	1.8	258 mg/L	1.8	0.70%
QC value within limits for Mg	279.077	Recovery = 103.32%				
Mn 257.610†	198924.2	0.243 mg/L	0.0024	0.243 mg/L	0.0024	1.00%
QC value within limits for Mn	257.610	Recovery = 97.09%				
Mo 202.031†	-78.5	0.00106 mg/L	0.000379	0.00106 mg/L	0.000379	35.70%
QC value within limits for Mo	202.031	Recovery = Not calculated				
Ni 231.604†	32056.8	0.483 mg/L	0.0051	0.483 mg/L	0.0051	1.05%
QC value within limits for Ni	231.604	Recovery = 96.66%				
Pb 220.353†	4863.7	0.482 mg/L	0.0093	0.482 mg/L	0.0093	1.92%
QC value within limits for Pb	220.353	Recovery = 96.42%				
Sb 206.836†	2058.5	0.489 mg/L	0.0213	0.489 mg/L	0.0213	4.36%
QC value within limits for Sb	206.836	Recovery = 97.87%				
Se 196.026†	394.1	0.244 mg/L	0.0122	0.244 mg/L	0.0122	4.99%
QC value within limits for Se	196.026	Recovery = 97.59%				
Si 251.611†	-133.0	-0.0267 mg/L	0.00090	-0.0267 mg/L	0.00090	3.37%
QC value within limits for Si	251.611	Recovery = Not calculated				
Sn 189.927†	-322.7	-0.0345 mg/L	0.00063	-0.0345 mg/L	0.00063	1.82%
QC value within limits for Sn	189.927	Recovery = Not calculated				
Ti 334.940†	-40815.3	-0.00221 mg/L	0.004523	-0.00221 mg/L	0.004523	204.66%
QC value within limits for Ti	334.940	Recovery = Not calculated				
Tl 190.801†	1817.1	0.478 mg/L	0.0041	0.478 mg/L	0.0041	0.86%
QC value within limits for Tl	190.801	Recovery = 95.51%				
V 290.880†	51901.2	0.245 mg/L	0.0022	0.245 mg/L	0.0022	0.89%
QC value within limits for V	290.880	Recovery = 98.14%				
Zn 206.200†	19312.8	0.489 mg/L	0.0041	0.489 mg/L	0.0041	0.83%
QC value within limits for Zn	206.200	Recovery = 97.76%				
K 766.490†	16868.6	4.71 mg/L	0.053	4.71 mg/L	0.053	1.12%
QC value within limits for K	766.490	Recovery = 94.17%				
Na 589.592†	105400.1	4.96 mg/L	0.006	4.96 mg/L	0.006	0.12%
QC value within limits for Na	589.592	Recovery = 99.16%				
Sr 407.771†	2967.5	-0.00487 mg/L	0.000242	-0.00487 mg/L	0.000242	4.96%
QC value within limits for Sr	407.771	Recovery = Not calculated				
Li 670.784†	242.4	-0.00551 mg/L	0.000295	-0.00551 mg/L	0.000295	5.34%
QC value within limits for Li	670.784	Recovery = Not calculated				

All analyte(s) passed QC.

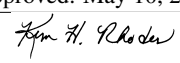
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Sequence No.: 14                               u&osampler Location: 6
Sample ID: CCV                                 a&e Collected: 5/9/2012 1:47:54 PM
Analyst:                                       a&a Type: Original
Initial Sample Wt:                             nitial Sample Vol:
Dilution:                                     a&mp;le Prep Vol:
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Nebulizer Parameters: CCV

Approved: May 10, 2012

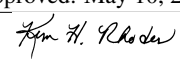


Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

 Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2233801.3				14781.98	0.66%
YRADIAL	307607.4				2124.66	0.69%
Ga 417.206	1348929.6				13974.67	1.04%
GaRADIAL	92603.0				324.32	0.35%
Ag 328.068†	133675.4	0.424 mg/L	0.0059	0.424 mg/L	0.0059	1.38%
QC value within limits for Ag		328.068	Recovery = 106.04%			
Al 396.153†	81061.2	10.1 mg/L	0.01	10.1 mg/L	0.01	0.10%
QC value within limits for Al		396.153	Recovery = 101.11%			
As 188.979†	1154.1	0.405 mg/L	0.0051	0.405 mg/L	0.0051	1.25%
QC value within limits for As		188.979	Recovery = 101.37%			
Ba 233.527†	158491.4	1.05 mg/L	0.017	1.05 mg/L	0.017	1.66%
QC value within limits for Ba		233.527	Recovery = 105.22%			
Be 234.861†	65953.7	0.0521 mg/L	0.00074	0.0521 mg/L	0.00074	1.43%
QC value within limits for Be		234.861	Recovery = 104.28%			
B 249.677†	45015.6	0.513 mg/L	0.0085	0.513 mg/L	0.0085	1.66%
QC value within limits for B		249.677	Recovery = 102.64%			
Ca 227.546†	4923.7	10.5 mg/L	0.16	10.5 mg/L	0.16	1.54%
QC value within limits for Ca		227.546	Recovery = 105.39%			
Cd 228.802†	2902.2	0.0509 mg/L	0.00136	0.0509 mg/L	0.00136	2.67%
QC value within limits for Cd		228.802	Recovery = 101.86%			
Co 228.616†	7720.6	0.205 mg/L	0.0020	0.205 mg/L	0.0020	0.98%
QC value within limits for Co		228.616	Recovery = 102.28%			
Cr 267.716†	55957.4	0.524 mg/L	0.0083	0.524 mg/L	0.0083	1.58%
QC value within limits for Cr		267.716	Recovery = 104.81%			
Cu 327.393†	145058.3	0.514 mg/L	0.0068	0.514 mg/L	0.0068	1.33%
QC value within limits for Cu		327.393	Recovery = 102.88%			
Fe 239.562†	67647.8	4.18 mg/L	0.019	4.18 mg/L	0.019	0.46%
QC value within limits for Fe		239.562	Recovery = 104.58%			
Mg 279.077†	37453.9	10.4 mg/L	0.05	10.4 mg/L	0.05	0.48%
QC value within limits for Mg		279.077	Recovery = 104.00%			
Mn 257.610†	435009.7	0.529 mg/L	0.0083	0.529 mg/L	0.0083	1.57%
QC value within limits for Mn		257.610	Recovery = 105.74%			
Mo 202.031†	37434.4	1.03 mg/L	0.016	1.03 mg/L	0.016	1.51%
QC value within limits for Mo		202.031	Recovery = 103.23%			
Ni 231.604†	34810.6	0.525 mg/L	0.0086	0.525 mg/L	0.0086	1.64%
QC value within limits for Ni		231.604	Recovery = 105.02%			
Pb 220.353†	5585.0	0.515 mg/L	0.0034	0.515 mg/L	0.0034	0.67%
QC value within limits for Pb		220.353	Recovery = 102.97%			
Sb 206.836†	5242.6	1.25 mg/L	0.021	1.25 mg/L	0.021	1.71%
QC value within limits for Sb		206.836	Recovery = 103.95%			
Se 196.026†	745.4	0.412 mg/L	0.0087	0.412 mg/L	0.0087	2.10%
QC value within limits for Se		196.026	Recovery = 103.06%			
Si 251.611†	222107.1	5.27 mg/L	0.028	5.27 mg/L	0.028	0.53%
QC value within limits for Si		251.611	Recovery = 105.33%			
Sn 189.927†	10337.8	1.02 mg/L	0.010	1.02 mg/L	0.010	0.96%
QC value within limits for Sn		189.927	Recovery = 101.66%			
Ti 334.940†	1020827.7	1.01 mg/L	0.001	1.01 mg/L	0.001	0.12%
QC value within limits for Ti		334.940	Recovery = 101.34%			
Tl 190.801†	1979.6	0.528 mg/L	0.0017	0.528 mg/L	0.0017	0.33%
QC value within limits for Tl		190.801	Recovery = 105.59%			
V 290.880†	199345.0	1.03 mg/L	0.020	1.03 mg/L	0.020	1.92%
QC value within limits for V		290.880	Recovery = 103.49%			
Zn 206.200†	42094.3	1.08 mg/L	0.010	1.08 mg/L	0.010	0.89%
QC value within limits for Zn		206.200	Recovery = 107.59%			
K 766.490†	173674.4	49.7 mg/L	0.27	49.7 mg/L	0.27	0.55%
QC value within limits for K		766.490	Recovery = 99.46%			
Na 589.592†	1046162.1	50.0 mg/L	0.43	50.0 mg/L	0.43	0.86%
QC value within limits for Na		589.592	Recovery = 99.97%			
Sr 407.771†	2894430.6	1.02 mg/L	0.024	1.02 mg/L	0.024	2.33%
QC value within limits for Sr		407.771	Recovery = 102.06%			
Li 670.784†	172827.8	0.991 mg/L	0.0094	0.991 mg/L	0.0094	0.95%
QC value within limits for Li		670.784	Recovery = 99.14%			

All analyte(s) passed QC.

Approved: May 10, 2012


Sequence No.: 15
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

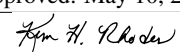
Udosampler Location: 1
 Date Collected: 5/9/2012 1:53:55 PM
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2332750.9				23382.56	1.00%
YRADIAL	318108.5				5604.73	1.76%
Ga 417.206	1456310.8				8258.05	0.57%
GaRADIAL	96306.8				1105.48	1.15%
Ag 328.068†	51.4	-0.00172 mg/L	0.000120	-0.00172 mg/L	0.000120	6.97%
QC value within limits for Ag	328.068	Recovery = Not calculated				
Al 396.153†	101.7	-0.00151 mg/L	0.001477	-0.00151 mg/L	0.001477	98.13%
QC value within limits for Al	396.153	Recovery = Not calculated				
As 188.979†	0.2	0.00160 mg/L	0.001421	0.00160 mg/L	0.001421	88.85%
QC value within limits for As	188.979	Recovery = Not calculated				
Ba 233.527†	14.7	-0.00369 mg/L	0.000064	-0.00369 mg/L	0.000064	1.72%
QC value within limits for Ba	233.527	Recovery = Not calculated				
Be 234.861†	-18.4	-0.00018 mg/L	0.000031	-0.00018 mg/L	0.000031	16.53%
QC value within limits for Be	234.861	Recovery = Not calculated				
B 249.677†	318.6	0.00247 mg/L	0.000106	0.00247 mg/L	0.000106	4.31%
QC value within limits for B	249.677	Recovery = Not calculated				
Ca 227.546†	7.3	0.0156 mg/L	0.01720	0.0156 mg/L	0.01720	110.27%
QC value within limits for Ca	227.546	Recovery = Not calculated				
Cd 228.802†	0.1	-0.00021 mg/L	0.000192	-0.00021 mg/L	0.000192	91.81%
QC value within limits for Cd	228.802	Recovery = Not calculated				
Co 228.616†	4.9	-0.00051 mg/L	0.000103	-0.00051 mg/L	0.000103	20.25%
QC value within limits for Co	228.616	Recovery = Not calculated				
Cr 267.716†	7.2	-0.00192 mg/L	0.000055	-0.00192 mg/L	0.000055	2.86%
QC value within limits for Cr	267.716	Recovery = Not calculated				
Cu 327.393†	89.0	-0.00090 mg/L	0.000286	-0.00090 mg/L	0.000286	31.90%
QC value within limits for Cu	327.393	Recovery = Not calculated				
Fe 239.562†	131.2	0.0131 mg/L	0.00032	0.0131 mg/L	0.00032	2.41%
QC value within limits for Fe	239.562	Recovery = Not calculated				
Mg 279.077†	69.7	0.0276 mg/L	0.00201	0.0276 mg/L	0.00201	7.26%
QC value within limits for Mg	279.077	Recovery = Not calculated				
Mn 257.610†	80.9	-0.00269 mg/L	0.000040	-0.00269 mg/L	0.000040	1.47%
QC value within limits for Mn	257.610	Recovery = Not calculated				
Mo 202.031†	-0.8	-0.00165 mg/L	0.000027	-0.00165 mg/L	0.000027	1.64%
QC value within limits for Mo	202.031	Recovery = Not calculated				
Ni 231.604†	4.2	-0.00223 mg/L	0.000311	-0.00223 mg/L	0.000311	13.93%
QC value within limits for Ni	231.604	Recovery = Not calculated				
Pb 220.353†	14.6	-0.00008 mg/L	0.001088	-0.00008 mg/L	0.001088	>999.9%
QC value within limits for Pb	220.353	Recovery = Not calculated				
Sb 206.836†	4.4	-0.00364 mg/L	0.000883	-0.00364 mg/L	0.000883	24.24%
QC value within limits for Sb	206.836	Recovery = Not calculated				
Se 196.026†	5.2	0.00536 mg/L	0.001916	0.00536 mg/L	0.001916	35.77%
QC value within limits for Se	196.026	Recovery = Not calculated				
Si 251.611†	46.5	-0.0224 mg/L	0.00036	-0.0224 mg/L	0.00036	1.62%
QC value within limits for Si	251.611	Recovery = Not calculated				
Sn 189.927†	0.2	-0.00269 mg/L	0.000543	-0.00269 mg/L	0.000543	20.16%
QC value within limits for Sn	189.927	Recovery = Not calculated				
Ti 334.940†	280.1	-0.00008 mg/L	0.000038	-0.00008 mg/L	0.000038	46.17%
QC value within limits for Ti	334.940	Recovery = Not calculated				
Tl 190.801†	-6.2	-0.00426 mg/L	0.001035	-0.00426 mg/L	0.001035	24.29%
QC value within limits for Tl	190.801	Recovery = Not calculated				
V 290.880†	-116.2	-0.00405 mg/L	0.001331	-0.00405 mg/L	0.001331	32.90%
QC value within limits for V	290.880	Recovery = Not calculated				
Zn 206.200†	11.7	-0.00558 mg/L	0.000024	-0.00558 mg/L	0.000024	0.44%
QC value within limits for Zn	206.200	Recovery = Not calculated				
K 766.490†	58.5	-0.00357 mg/L	0.014043	-0.00357 mg/L	0.014043	393.19%
QC value within limits for K	766.490	Recovery = Not calculated				
Na 589.592†	23.0	0.00563 mg/L	0.004425	0.00563 mg/L	0.004425	78.58%

Approved: May 10, 2012


QC value within limits for Na 589.592 Recovery = Not calculated
 Sr 407.771† 349.9 -0.00012 mg/L 0.000040 -0.00012 mg/L 0.000040 32.94%
 QC value within limits for Sr 407.771 Recovery = Not calculated
 Li 670.784† -15.9 -0.00700 mg/L 0.000251 -0.00700 mg/L 0.000251 3.59%
 QC value within limits for Li 670.784 Recovery = Not calculated
 All analyte(s) passed QC.

Sequence No.: 16 u\osampler Location: 14
 Sample ID: PBW 06 WG397293-02 a\ne Collected: 5/9/2012 2:00:48 PM
 Analyst: KHR a\ne Type: Original
 Initial Sample Wt: n\itial Sample Vol:
 Dilution: a\mple Prep Vol:

Nebulizer Parameters: PBW 06 WG397293-02
 Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

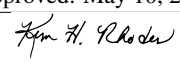
Mean Data: PBW 06 WG397293-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2315647.7				19413.12	0.84%
YRADIAL	313138.7				2982.10	0.95%
Ga 417.206	1471496.1				16403.57	1.11%
GaRADIAL	97071.8				2586.16	2.66%
Ag 328.068†	-165.7	-0.00240 mg/L	0.000116	-0.00240 mg/L	0.000116	4.81%
Al 396.153†	38.6	-0.00944 mg/L	0.001574	-0.00944 mg/L	0.001574	16.67%
As 188.979†	-1.7	0.00092 mg/L	0.003442	0.00092 mg/L	0.003442	375.79%
Ba 233.527†	18.0	-0.00367 mg/L	0.000056	-0.00367 mg/L	0.000056	1.53%
Be 234.861†	32.0	-0.00014 mg/L	0.000009	-0.00014 mg/L	0.000009	6.26%
B 249.677†	258.7	0.00178 mg/L	0.000090	0.00178 mg/L	0.000090	5.03%
Ca 227.546†	16.6	0.0347 mg/L	0.00624	0.0347 mg/L	0.00624	17.97%
Cd 228.802†	-0.3	-0.00021 mg/L	0.000192	-0.00021 mg/L	0.000192	89.62%
Co 228.616†	4.5	-0.00052 mg/L	0.000140	-0.00052 mg/L	0.000140	27.11%
Cr 267.716†	4.3	-0.00195 mg/L	0.000064	-0.00195 mg/L	0.000064	3.31%
Cu 327.393†	-31.2	-0.00132 mg/L	0.000324	-0.00132 mg/L	0.000324	24.51%
Fe 239.562†	60.5	0.00872 mg/L	0.000927	0.00872 mg/L	0.000927	10.63%
Mg 279.077†	19.0	0.0136 mg/L	0.00330	0.0136 mg/L	0.00330	24.30%
Mn 257.610†	174.2	-0.00258 mg/L	0.000018	-0.00258 mg/L	0.000018	0.70%
Mo 202.031†	-1.0	-0.00166 mg/L	0.000310	-0.00166 mg/L	0.000310	18.65%
Ni 231.604†	12.5	-0.00211 mg/L	0.000094	-0.00211 mg/L	0.000094	4.46%
Pb 220.353†	4.8	-0.00098 mg/L	0.000497	-0.00098 mg/L	0.000497	50.69%
Sb 206.836†	3.6	-0.00384 mg/L	0.001104	-0.00384 mg/L	0.001104	28.74%
Se 196.026†	4.5	0.00501 mg/L	0.000934	0.00501 mg/L	0.000934	18.64%
Si 251.611†	83.1	-0.0215 mg/L	0.00029	-0.0215 mg/L	0.00029	1.37%
Sn 189.927†	-15.0	-0.00419 mg/L	0.000800	-0.00419 mg/L	0.000800	19.07%
Ti 334.940†	173.0	-0.00019 mg/L	0.000073	-0.00019 mg/L	0.000073	39.58%
Tl 190.801†	4.0	-0.00161 mg/L	0.000378	-0.00161 mg/L	0.000378	23.52%
V 290.880†	142.6	-0.00270 mg/L	0.001827	-0.00270 mg/L	0.001827	67.75%
Zn 206.200†	70.9	-0.00406 mg/L	0.000103	-0.00406 mg/L	0.000103	2.55%
K 766.490†	2.0	-0.0194 mg/L	0.01069	-0.0194 mg/L	0.01069	55.11%
Na 589.592†	-187.5	-0.00424 mg/L	0.006886	-0.00424 mg/L	0.006886	162.35%
Sr 407.771†	-56.9	-0.00027 mg/L	0.000023	-0.00027 mg/L	0.000023	8.52%
Li 670.784†	-31.6	-0.00709 mg/L	0.000413	-0.00709 mg/L	0.000413	5.83%

Sequence No.: 17 u\osampler Location: 15
 Sample ID: LCSW 06 WG397293-03 a\ne Collected: 5/9/2012 2:07:43 PM
 Analyst: KHR a\ne Type: Original
 Initial Sample Wt: n\itial Sample Vol:
 Dilution: a\mple Prep Vol:

Nebulizer Parameters: LCSW 06 WG397293-03
 Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: LCSW 06 WG397293-03
 Mean Corrected Calib. Sample

Approved: May 10, 2012


Analyte	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.	RSD
Y 371.029	2263184.2				14602.28	0.65%
YRADIAL	315942.9				825.27	0.26%
Ga 417.206	1419993.9				24213.07	1.71%
GaRADIAL	95103.3				743.77	0.78%
Ag 328.068†	64291.6	0.203 mg/L	0.0059	0.203 mg/L	0.0059	2.89%
Al 396.153†	40291.9	5.02 mg/L	0.006	5.02 mg/L	0.006	0.13%
As 188.979†	556.5	0.196 mg/L	0.0033	0.196 mg/L	0.0033	1.70%
Ba 233.527†	78397.7	0.519 mg/L	0.0108	0.519 mg/L	0.0108	2.08%
Be 234.861†	31443.6	0.0248 mg/L	0.00067	0.0248 mg/L	0.00067	2.71%
B 249.677†	86172.9	0.989 mg/L	0.0278	0.989 mg/L	0.0278	2.81%
Ca 227.546†	2314.4	4.97 mg/L	0.095	4.97 mg/L	0.095	1.92%
Cd 228.802†	1381.0	0.0241 mg/L	0.00092	0.0241 mg/L	0.00092	3.80%
Co 228.616†	3856.7	0.102 mg/L	0.0006	0.102 mg/L	0.0006	0.59%
Cr 267.716†	27559.8	0.257 mg/L	0.0071	0.257 mg/L	0.0071	2.76%
Cu 327.393†	70621.9	0.250 mg/L	0.0041	0.250 mg/L	0.0041	1.63%
Fe 239.562†	32692.3	2.02 mg/L	0.014	2.02 mg/L	0.014	0.70%
Mg 279.077†	18589.7	5.17 mg/L	0.042	5.17 mg/L	0.042	0.82%
Mn 257.610†	213766.2	0.258 mg/L	0.0037	0.258 mg/L	0.0037	1.43%
Mo 202.031†	18688.4	0.515 mg/L	0.0112	0.515 mg/L	0.0112	2.19%
Ni 231.604†	17352.8	0.261 mg/L	0.0044	0.261 mg/L	0.0044	1.67%
Pb 220.353†	2784.5	0.256 mg/L	0.0019	0.256 mg/L	0.0019	0.73%
Sb 206.836†	2525.6	0.598 mg/L	0.0117	0.598 mg/L	0.0117	1.95%
Se 196.026†	364.1	0.203 mg/L	0.0057	0.203 mg/L	0.0057	2.80%
Si 251.611†	109532.1	2.59 mg/L	0.035	2.59 mg/L	0.035	1.36%
Sn 189.927†	5665.7	0.556 mg/L	0.0026	0.556 mg/L	0.0026	0.46%
Ti 334.940†	506644.4	0.503 mg/L	0.0005	0.503 mg/L	0.0005	0.10%
Tl 190.801†	1007.6	0.267 mg/L	0.0054	0.267 mg/L	0.0054	2.03%
V 290.880†	99122.1	0.513 mg/L	0.0113	0.513 mg/L	0.0113	2.20%
Zn 206.200†	20845.0	0.530 mg/L	0.0187	0.530 mg/L	0.0187	3.53%
K 766.490†	87769.2	24.8 mg/L	0.11	24.8 mg/L	0.11	0.42%
Na 589.592†	534446.4	25.3 mg/L	0.09	25.3 mg/L	0.09	0.37%
Sr 407.771†	1439273.2	0.507 mg/L	0.0073	0.507 mg/L	0.0073	1.43%
Li 670.784†	89537.0	0.510 mg/L	0.0066	0.510 mg/L	0.0066	1.29%

Sequence No.: 18

Sample ID: L1205010453 WG397293-01

Analyst: KHR

Initial Sample Wt:

Dilution:

u&osampler Location: 16

Time Collected: 5/9/2012 2:13:42 PM

Time Type: Original

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: L1205010453 WG397293-01

Analyte	Back Pressure	Flow
All	154.0 kPa	0.50 L/min

Mean Data: L1205010453 WG397293-01

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2315423.1					6333.59	0.27%
YRADIAL	314279.2					3851.19	1.23%
Ga 417.206	1464014.8					45740.16	3.12%
GaRADIAL	94553.8					1579.09	1.67%
Ag 328.068†	298.1	-0.00175 mg/L	0.000253	0.000253	-0.00175 mg/L	0.000253	14.47%
Al 396.153†	28322.6	3.55 mg/L	0.015	0.015	3.55 mg/L	0.015	0.41%
As 188.979†	-4.2	0.00000 mg/L	0.000761	0.000761	0.00000 mg/L	0.000761	>999.9%
Ba 233.527†	35.9	-0.00350 mg/L	0.000163	0.000163	-0.00350 mg/L	0.000163	4.65%
Be 234.861†	3531.6	0.00326 mg/L	0.000077	0.000077	0.00326 mg/L	0.000077	2.38%
B 249.677†	2898.2	0.0297 mg/L	0.00151	0.00151	0.0297 mg/L	0.00151	5.09%
Ca 227.546†	6552.7	13.5 mg/L	0.47	0.47	13.5 mg/L	0.47	3.48%
Cd 228.802†	1406.5	0.0264 mg/L	0.00095	0.00095	0.0264 mg/L	0.00095	3.59%
Co 228.616†	11146.3	0.297 mg/L	0.0028	0.0028	0.297 mg/L	0.0028	0.95%
Cr 267.716†	93.2	0.00450 mg/L	0.000153	0.000153	0.00450 mg/L	0.000153	3.41%
Cu 327.393†	137037.4	0.493 mg/L	0.0164	0.0164	0.493 mg/L	0.0164	3.32%
Fe 239.562†	2252.2	0.143 mg/L	0.0014	0.0014	0.143 mg/L	0.0014	0.96%
Mg 279.077†	23214.7	6.44 mg/L	0.062	0.062	6.44 mg/L	0.062	0.96%
Mn 257.610†	5159646.9	6.30 mg/L	0.008	0.008	6.30 mg/L	0.008	0.12%
Mo 202.031†	-80.1	-0.00252 mg/L	0.000623	0.000623	-0.00252 mg/L	0.000623	24.73%
Ni 231.604†	10956.8	0.164 mg/L	0.0022	0.0022	0.164 mg/L	0.0022	1.37%
Pb 220.353†	28.7	-0.00247 mg/L	0.000384	0.000384	-0.00247 mg/L	0.000384	15.58%

Approved: May 10, 2012

John H. Rhodes

Table with 8 columns: Element, Value 1, Value 2, Unit 1, Unit 2, Value 3, Value 4, Percentage. Rows include Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li.

Sequence No.: 19
Sample ID: L1205010453S WG397293-04
Analyst: KHR
Initial Sample Wt:
Dilution:
u&osampler Location: 17
a&e Collected: 5/9/2012 2:20:39 PM
a&a Type: Original
n&itial Sample Vol:
a&mple Prep Vol:

Nebulizer Parameters: L1205010453S WG397293-04
Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: L1205010453S WG397293-04
Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Rows include Y, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li.

Sequence No.: 20
Sample ID: L1205010453SD WG397293-05
Analyst: KHR
Initial Sample Wt:
Dilution:
u&osampler Location: 18
a&e Collected: 5/9/2012 2:26:39 PM
a&a Type: Original
n&itial Sample Vol:
a&mple Prep Vol:

Nebulizer Parameters: L1205010453SD WG397293-05

Approved: May 10, 2012
[Signature]

Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: L1205010453SD WG397293-05

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Std.Dev.	RSD
Y 371.029	2326814.9					24634.70	1.06%
YRADIAL	318950.8					6309.47	1.98%
Ga 417.206	1414659.8					30006.35	2.12%
GaRADIAL	94404.9					1087.35	1.15%
Ag 328.068†	6847.7	0.0191	mg/L	0.00103	0.0191	0.00103	5.38%
Al 396.153†	32479.5	4.07	mg/L	0.045	4.07	0.045	1.10%
As 188.979†	60.7	0.0227	mg/L	0.00305	0.0227	0.00305	13.42%
Ba 233.527†	7983.1	0.0494	mg/L	0.00051	0.0494	0.00051	1.03%
Be 234.861†	7072.1	0.00606	mg/L	0.000189	0.00606	0.000189	3.12%
B 249.677†	11803.2	0.132	mg/L	0.0042	0.132	0.0042	3.16%
Ca 227.546†	7164.9	14.7	mg/L	0.39	14.7	0.39	2.63%
Cd 228.802†	1624.4	0.0302	mg/L	0.00085	0.0302	0.00085	2.80%
Co 228.616†	11652.7	0.310	mg/L	0.0043	0.310	0.0043	1.39%
Cr 267.716†	2881.0	0.0307	mg/L	0.00014	0.0307	0.00014	0.47%
Cu 327.393†	150887.4	0.542	mg/L	0.0149	0.542	0.0149	2.75%
Fe 239.562†	5513.3	0.345	mg/L	0.0080	0.345	0.0080	2.33%
Mg 279.077†	24694.0	6.85	mg/L	0.140	6.85	0.140	2.04%
Mn 257.610†	5126753.9	6.26	mg/L	0.106	6.26	0.106	1.69%
Mo 202.031†	1750.3	0.0480	mg/L	0.00095	0.0480	0.00095	1.98%
Ni 231.604†	13064.6	0.195	mg/L	0.0022	0.195	0.0022	1.13%
Pb 220.353†	278.3	0.0206	mg/L	0.00094	0.0206	0.00094	4.54%
Sb 206.836†	254.0	0.0559	mg/L	0.00287	0.0559	0.00287	5.14%
Se 196.026†	39.7	0.0226	mg/L	0.00365	0.0226	0.00365	16.12%
Si 251.611†	94012.0	2.22	mg/L	0.024	2.22	0.024	1.09%
Sn 189.927†	426.7	0.0394	mg/L	0.00146	0.0394	0.00146	3.71%
Ti 334.940†	46116.0	0.0476	mg/L	0.00077	0.0476	0.00077	1.63%
Tl 190.801†	86.7	0.0142	mg/L	0.00211	0.0142	0.00211	14.90%
V 290.880†	9920.8	0.0480	mg/L	0.00025	0.0480	0.00025	0.53%
Zn 206.200†	5559435.5	142	mg/L	1.3	142	1.3	0.89%
K 766.490†	13879.2	3.86	mg/L	0.055	3.86	0.055	1.41%
Na 589.592†	264575.4	12.5	mg/L	0.01	12.5	0.01	0.11%
Sr 407.771†	404968.4	0.142	mg/L	0.0011	0.142	0.0011	0.78%
Li 670.784†	14328.6	0.0759	mg/L	0.00116	0.0759	0.00116	1.53%

Sequence No.: 21

Sample ID: L1205015030 0.2

Analyst: KHR

Initial Sample Wt:

Dilution:

u&osampler Location: 19

ame Collected: 5/9/2012 2:32:41 PM

a&a Type: Original

nitial Sample Vol:

ample Prep Vol:

Nebulizer Parameters: L1205015030 0.2

Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: L1205015030 0.2

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Std.Dev.	RSD
Y 371.029	2116593.1					19434.79	0.92%
YRADIAL	303309.4					3036.23	1.00%
Ga 417.206	1404951.5					35732.84	2.54%
GaRADIAL	94308.1					958.94	1.02%
Ag 328.068†	-10079.8	0.00257	mg/L	0.001584	0.00257	0.001584	61.52%
Al 396.153†	102002.9	12.8	mg/L	0.04	12.8	0.04	0.29%
As 188.979†	-8.4	0.00749	mg/L	0.001449	0.00749	0.001449	19.36%
Ba 233.527†	294525.8	1.96	mg/L	0.017	1.96	0.017	0.87%
Be 234.861†	21927.9	-0.00066	mg/L	0.000631	-0.00066	0.000631	95.86%
B 249.677†	69134.9	0.759	mg/L	0.0184	0.759	0.0184	2.42%
Ca 227.546†	150560.8	309	mg/L	8.7	309	8.7	2.82%
Cd 228.802†	47.0	0.00054	mg/L	0.000356	0.00054	0.000356	65.75%
Co 228.616†	494.8	0.00926	mg/L	0.000180	0.00926	0.000180	1.94%
Cr 267.716†	4051.8	0.0387	mg/L	0.00020	0.0387	0.00020	0.51%
Cu 327.393†	5933.8	0.0271	mg/L	0.00058	0.0271	0.00058	2.15%

Approved: May 10, 2012

Kym H. Rhodes

Fe 239.562†	1344076.6	83.0 mg/L	1.22	83.0 mg/L	1.22	1.47%
Mg 279.077†	80440.3	22.2 mg/L	0.11	22.2 mg/L	0.11	0.50%
Mn 257.610†	3896626.3	4.75 mg/L	0.060	4.75 mg/L	0.060	1.26%
Mo 202.031†	-3.8	0.00336 mg/L	0.000227	0.00336 mg/L	0.000227	6.76%
Ni 231.604†	1704.3	0.0235 mg/L	0.00038	0.0235 mg/L	0.00038	1.62%
Pb 220.353†	151.1	0.00703 mg/L	0.001800	0.00703 mg/L	0.001800	25.60%
Sb 206.836†	-0.1	-0.00194 mg/L	0.001867	-0.00194 mg/L	0.001867	96.39%
Se 196.026†	-32.4	0.00816 mg/L	0.002589	0.00816 mg/L	0.002589	31.72%
Si 251.611†	751668.5	17.9 mg/L	0.28	17.9 mg/L	0.28	1.54%
Sn 189.927†	-279.8	-0.0303 mg/L	0.00117	-0.0303 mg/L	0.00117	3.87%
Ti 334.940†	217576.5	0.262 mg/L	0.0044	0.262 mg/L	0.0044	1.69%
Tl 190.801†	-68.2	-0.0221 mg/L	0.00292	-0.0221 mg/L	0.00292	13.22%
V 290.880†	13671.4	0.0541 mg/L	0.00257	0.0541 mg/L	0.00257	4.75%
Zn 206.200†	25626.1	0.648 mg/L	0.0015	0.648 mg/L	0.0015	0.24%
K 766.490†	75560.5	21.2 mg/L	0.04	21.2 mg/L	0.04	0.21%
Na 589.592†	2656423.9	131 mg/L	0.7	131 mg/L	0.7	0.55%
Sr 407.771†	Saturated2					
Li 670.784†	1025.5	-0.00099 mg/L	0.000282	-0.00099 mg/L	0.000282	28.60%

Sequence No.: 22 u&osampler Location: 20
 Sample ID: L1205022001 0.01 Date Collected: 5/9/2012 2:38:43 PM
 Analyst: KHR Date Type: Original
 Initial Sample Wt: Initial Sample Vol:
 Dilution: Sample Prep Vol:

Nebulizer Parameters: L1205022001 0.01
 Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: L1205022001 0.01

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2078297.0					21601.04	1.04%
YRADIAL	298974.7					4369.45	1.46%
Ga 417.206	1328231.8					16623.61	1.25%
GaRADIAL	92090.5					1592.30	1.73%
Ag 328.068†	757.7	0.00110 mg/L	0.000213	0.00110 mg/L	0.000213	19.29%	
Al 396.153†	18.2	-0.0119 mg/L	0.00626	-0.0119 mg/L	0.00626	52.42%	
As 188.979†	-7.9	-0.00115 mg/L	0.001537	-0.00115 mg/L	0.001537	133.39%	
Ba 233.527†	1153477.4	7.68 mg/L	0.073	7.68 mg/L	0.073	0.95%	
Be 234.861†	593.3	0.00002 mg/L	0.000107	0.00002 mg/L	0.000107	465.36%	
B 249.677†	36743.2	0.421 mg/L	0.0093	0.421 mg/L	0.0093	2.20%	
Ca 227.546†	85670.6	175 mg/L	2.9	175 mg/L	2.9	1.64%	
Cd 228.802†	22.2	0.00017 mg/L	0.000087	0.00017 mg/L	0.000087	52.63%	
Co 228.616†	-360.0	-0.0128 mg/L	0.00058	-0.0128 mg/L	0.00058	4.54%	
Cr 267.716†	128.0	-0.00073 mg/L	0.000200	-0.00073 mg/L	0.000200	27.18%	
Cu 327.393†	-287.0	-0.00224 mg/L	0.000348	-0.00224 mg/L	0.000348	15.51%	
Fe 239.562†	21406.2	1.33 mg/L	0.026	1.33 mg/L	0.026	1.96%	
Mg 279.077†	62344.3	17.3 mg/L	0.27	17.3 mg/L	0.27	1.56%	
Mn 257.610†	88745.0	0.106 mg/L	0.0015	0.106 mg/L	0.0015	1.39%	
Mo 202.031†	50.5	-0.00014 mg/L	0.000519	-0.00014 mg/L	0.000519	359.12%	
Ni 231.604†	67.6	-0.00126 mg/L	0.000570	-0.00126 mg/L	0.000570	45.30%	
Pb 220.353†	-9.9	-0.00111 mg/L	0.000782	-0.00111 mg/L	0.000782	70.67%	
Sb 206.836†	2.7	-0.00399 mg/L	0.000376	-0.00399 mg/L	0.000376	9.41%	
Se 196.026†	7.5	0.00700 mg/L	0.001763	0.00700 mg/L	0.001763	25.18%	
Si 251.611†	6623.3	0.135 mg/L	0.0021	0.135 mg/L	0.0021	1.57%	
Sn 189.927†	-318.8	-0.0342 mg/L	0.00133	-0.0342 mg/L	0.00133	3.89%	
Ti 334.940†	-28019.7	-0.00191 mg/L	0.002247	-0.00191 mg/L	0.002247	117.57%	
Tl 190.801†	-33.1	-0.0117 mg/L	0.00302	-0.0117 mg/L	0.00302	25.88%	
V 290.880†	2176.2	0.00694 mg/L	0.000836	0.00694 mg/L	0.000836	12.04%	
Zn 206.200†	471.8	0.00618 mg/L	0.003274	0.00618 mg/L	0.003274	52.98%	
K 766.490†	23717.0	6.27 mg/L	0.231	6.27 mg/L	0.231	3.68%	
Na 589.592†	6836816.3	370 mg/L	11.4	370 mg/L	11.4	3.09%	
Sr 407.771†	Saturated3						
Li 670.784†	113966.0	0.651 mg/L	0.0088	0.651 mg/L	0.0088	1.34%	

Sequence No.: 23 u&osampler Location: 21
 Sample ID: L1205010447 0.1 Date Collected: 5/9/2012 2:44:47 PM

Approved: May 10, 2012
Tom H. Rhodes

Analyst: KHR
Initial Sample Wt:
Dilution:

ama Type: Original
nitial Sample Vol:
aample Prep Vol:

Nebulizer Parameters: L1205010447 0.1
Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: L1205010447 0.1

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li with their respective values.

Sequence No.: 24
Sample ID: L1205010447PS WG397342-01
Analyst: KHR
Initial Sample Wt:
Dilution:

autosampler Location: 22
Time Collected: 5/9/2012 2:51:47 PM
ama Type: Original
nitial Sample Vol:
aample Prep Vol:

Nebulizer Parameters: L1205010447PS WG397342-01
Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: L1205010447PS WG397342-01

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists elements like Y, Ga, Ag, Al, As, Ba, Be with their respective values.

Approved: May 10, 2012
[Signature]

B 249.677†	85527.0	0.982 mg/L	0.0329	0.982 mg/L	0.0329	3.35%
Ca 227.546†	13367.5	27.5 mg/L	0.98	27.5 mg/L	0.98	3.57%
Cd 228.802†	1369.9	0.0239 mg/L	0.00110	0.0239 mg/L	0.00110	4.58%
Co 228.616†	3762.3	0.0994 mg/L	0.00205	0.0994 mg/L	0.00205	2.06%
Cr 267.716†	27103.3	0.253 mg/L	0.0007	0.253 mg/L	0.0007	0.27%
Cu 327.393†	67866.2	0.240 mg/L	0.0074	0.240 mg/L	0.0074	3.07%
Fe 239.562†	32046.0	1.98 mg/L	0.021	1.98 mg/L	0.021	1.04%
Mg 279.077†	39502.1	11.0 mg/L	0.11	11.0 mg/L	0.11	1.04%
Mn 257.610†	210703.1	0.255 mg/L	0.0031	0.255 mg/L	0.0031	1.22%
Mo 202.031†	18306.5	0.504 mg/L	0.0024	0.504 mg/L	0.0024	0.48%
Ni 231.604†	16947.8	0.254 mg/L	0.0015	0.254 mg/L	0.0015	0.61%
Pb 220.353†	2770.2	0.255 mg/L	0.0050	0.255 mg/L	0.0050	1.97%
Sb 206.836†	2535.8	0.601 mg/L	0.0180	0.601 mg/L	0.0180	2.99%
Se 196.026†	365.4	0.203 mg/L	0.0059	0.203 mg/L	0.0059	2.89%
Si 251.611†	127285.3	3.01 mg/L	0.076	3.01 mg/L	0.076	2.52%
Sn 189.927†	-173.8	-0.0199 mg/L	0.00016	-0.0199 mg/L	0.00016	0.79%
Ti 334.940†	493118.2	0.493 mg/L	0.0025	0.493 mg/L	0.0025	0.51%
Tl 190.801†	965.5	0.256 mg/L	0.0033	0.256 mg/L	0.0033	1.30%
V 290.880†	96984.3	0.502 mg/L	0.0034	0.502 mg/L	0.0034	0.68%
Zn 206.200†	25699.4	0.654 mg/L	0.0043	0.654 mg/L	0.0043	0.66%
K 766.490†	87491.0	24.7 mg/L	0.10	24.7 mg/L	0.10	0.41%
Na 589.592†	566956.2	26.9 mg/L	0.29	26.9 mg/L	0.29	1.06%
Sr 407.771†	2041571.7	0.719 mg/L	0.0118	0.719 mg/L	0.0118	1.64%
Li 670.784†	87086.6	0.496 mg/L	0.0042	0.496 mg/L	0.0042	0.84%

Sequence No.: 25

Sample ID: L1205010447DL WG397342-02

Analyst: KHR

Initial Sample Wt:

Dilution:

Sampler Location: 23

Date Collected: 5/9/2012 2:57:48 PM

Sample Type: Original

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: L1205010447DL WG397342-02

Analyte	Back Pressure	Flow
All	154.0 kPa	0.50 L/min

Mean Data: L1205010447DL WG397342-02

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2281124.1					7663.16	0.34%
YRADIAL	309617.1					3458.50	1.12%
Ga 417.206	1417153.3					23717.51	1.67%
GaRADIAL	93804.8					936.22	1.00%
Ag 328.068†	-91.9	-0.00218 mg/L		0.000078	-0.00218 mg/L	0.000078	3.58%
Al 396.153†	14.4	-0.0125 mg/L		0.00145	-0.0125 mg/L	0.00145	11.58%
As 188.979†	-0.6	0.00131 mg/L		0.001148	0.00131 mg/L	0.001148	87.73%
Ba 233.527†	118.0	-0.00300 mg/L		0.000202	-0.00300 mg/L	0.000202	6.71%
Be 234.861†	-54.0	-0.00021 mg/L		0.000025	-0.00021 mg/L	0.000025	11.70%
B 249.677†	841.7	0.00850 mg/L		0.000500	0.00850 mg/L	0.000500	5.89%
Ca 227.546†	2079.8	4.25 mg/L		0.079	4.25 mg/L	0.079	1.86%
Cd 228.802†	1.9	-0.00018 mg/L		0.000134	-0.00018 mg/L	0.000134	76.23%
Co 228.616†	-3.5	-0.00073 mg/L		0.000188	-0.00073 mg/L	0.000188	25.79%
Cr 267.716†	1.5	-0.00197 mg/L		0.000106	-0.00197 mg/L	0.000106	5.35%
Cu 327.393†	39.8	-0.00107 mg/L		0.000362	-0.00107 mg/L	0.000362	33.82%
Fe 239.562†	31.2	0.00688 mg/L		0.000435	0.00688 mg/L	0.000435	6.32%
Mg 279.077†	4393.4	1.23 mg/L		0.013	1.23 mg/L	0.013	1.06%
Mn 257.610†	345.6	-0.00237 mg/L		0.000071	-0.00237 mg/L	0.000071	2.98%
Mo 202.031†	-1.6	-0.00167 mg/L		0.000126	-0.00167 mg/L	0.000126	7.54%
Ni 231.604†	-7.5	-0.00241 mg/L		0.000219	-0.00241 mg/L	0.000219	9.09%
Pb 220.353†	3.5	-0.00107 mg/L		0.000932	-0.00107 mg/L	0.000932	87.37%
Sb 206.836†	6.2	-0.00323 mg/L		0.000627	-0.00323 mg/L	0.000627	19.41%
Se 196.026†	4.5	0.00500 mg/L		0.003629	0.00500 mg/L	0.003629	72.59%
Si 251.611†	4203.6	0.0768 mg/L		0.00231	0.0768 mg/L	0.00231	3.01%
Sn 189.927†	-50.7	-0.00772 mg/L		0.000511	-0.00772 mg/L	0.000511	6.62%
Ti 334.940†	-641.4	-0.00036 mg/L		0.000027	-0.00036 mg/L	0.000027	7.46%
Tl 190.801†	-12.1	-0.00582 mg/L		0.000875	-0.00582 mg/L	0.000875	15.04%
V 290.880†	94.0	-0.00298 mg/L		0.001847	-0.00298 mg/L	0.001847	61.95%
Zn 206.200†	1277.2	0.0268 mg/L		0.00073	0.0268 mg/L	0.00073	2.71%
K 766.490†	467.1	0.110 mg/L		0.0049	0.110 mg/L	0.0049	4.48%
Na 589.592†	7436.8	0.353 mg/L		0.0024	0.353 mg/L	0.0024	0.68%

Approved: May 10, 2012

John H. Rhodes

Sr 407.771†	121717.4	0.0426 mg/L	0.00029	0.0426 mg/L	0.00029	0.68%
Li 670.784†	109.1	-0.00628 mg/L	0.000451	-0.00628 mg/L	0.000451	7.18%

Sequence No.: 26
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

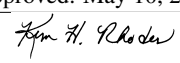
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 ame Collected: 5/9/2012 3:04:41 PM
 ama Type: Original
 nitial Sample Vol:
 ample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	154.0 kPa	0.50 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2230692.4				5470.25	0.25%
YRADIAL	310335.3				4236.00	1.36%
Ga 417.206	1372562.8				20078.31	1.46%
GaRADIAL	93268.4				1378.83	1.48%
Ag 328.068†	129152.9	0.410 mg/L	0.0098	0.410 mg/L	0.0098	2.40%
QC value within limits for Ag	328.068	Recovery = 102.45%				
Al 396.153†	79298.8	9.89 mg/L	0.031	9.89 mg/L	0.031	0.31%
QC value within limits for Al	396.153	Recovery = 98.90%				
As 188.979†	1127.0	0.396 mg/L	0.0067	0.396 mg/L	0.0067	1.68%
QC value within limits for As	188.979	Recovery = 98.99%				
Ba 233.527†	155266.6	1.03 mg/L	0.006	1.03 mg/L	0.006	0.56%
QC value within limits for Ba	233.527	Recovery = 103.07%				
Be 234.861†	63587.1	0.0503 mg/L	0.00105	0.0503 mg/L	0.00105	2.09%
QC value within limits for Be	234.861	Recovery = 100.54%				
B 249.677†	43943.1	0.501 mg/L	0.0124	0.501 mg/L	0.0124	2.47%
QC value within limits for B	249.677	Recovery = 100.19%				
Ca 227.546†	4806.4	10.3 mg/L	0.20	10.3 mg/L	0.20	1.92%
QC value within limits for Ca	227.546	Recovery = 102.89%				
Cd 228.802†	2811.0	0.0493 mg/L	0.00164	0.0493 mg/L	0.00164	3.33%
QC value within limits for Cd	228.802	Recovery = 98.64%				
Co 228.616†	7636.5	0.202 mg/L	0.0007	0.202 mg/L	0.0007	0.34%
QC value within limits for Co	228.616	Recovery = 101.17%				
Cr 267.716†	54730.3	0.512 mg/L	0.0071	0.512 mg/L	0.0071	1.38%
QC value within limits for Cr	267.716	Recovery = 102.50%				
Cu 327.393†	140605.8	0.499 mg/L	0.0104	0.499 mg/L	0.0104	2.09%
QC value within limits for Cu	327.393	Recovery = 99.71%				
Fe 239.562†	65507.0	4.05 mg/L	0.033	4.05 mg/L	0.033	0.83%
QC value within limits for Fe	239.562	Recovery = 101.27%				
Mg 279.077†	36440.3	10.1 mg/L	0.05	10.1 mg/L	0.05	0.50%
QC value within limits for Mg	279.077	Recovery = 101.19%				
Mn 257.610†	427781.9	0.520 mg/L	0.0022	0.520 mg/L	0.0022	0.43%
QC value within limits for Mn	257.610	Recovery = 103.97%				
Mo 202.031†	36814.8	1.02 mg/L	0.009	1.02 mg/L	0.009	0.89%
QC value within limits for Mo	202.031	Recovery = 101.51%				
Ni 231.604†	34178.1	0.516 mg/L	0.0035	0.516 mg/L	0.0035	0.68%
QC value within limits for Ni	231.604	Recovery = 103.10%				
Pb 220.353†	5555.8	0.512 mg/L	0.0022	0.512 mg/L	0.0022	0.43%
QC value within limits for Pb	220.353	Recovery = 102.42%				
Sb 206.836†	5086.8	1.21 mg/L	0.020	1.21 mg/L	0.020	1.67%
QC value within limits for Sb	206.836	Recovery = 100.85%				
Se 196.026†	729.3	0.403 mg/L	0.0086	0.403 mg/L	0.0086	2.12%
QC value within limits for Se	196.026	Recovery = 100.85%				
Si 251.611†	215299.5	5.10 mg/L	0.077	5.10 mg/L	0.077	1.52%
QC value within limits for Si	251.611	Recovery = 102.08%				
Sn 189.927†	10263.6	1.01 mg/L	0.004	1.01 mg/L	0.004	0.44%
QC value within limits for Sn	189.927	Recovery = 100.93%				
Ti 334.940†	999552.0	0.992 mg/L	0.0022	0.992 mg/L	0.0022	0.23%
QC value within limits for Ti	334.940	Recovery = 99.23%				
Tl 190.801†	1957.4	0.522 mg/L	0.0068	0.522 mg/L	0.0068	1.30%
QC value within limits for Tl	190.801	Recovery = 104.37%				
V 290.880†	194977.0	1.01 mg/L	0.015	1.01 mg/L	0.015	1.49%
QC value within limits for V	290.880	Recovery = 101.21%				
Zn 206.200†	41180.8	1.05 mg/L	0.012	1.05 mg/L	0.012	1.16%

Approved: May 10, 2012


K	766.490†	QC value within limits for Zn 206.200	Recovery = 105.24%	49.2 mg/L	0.46	0.93%
		171903.9	49.2 mg/L			
Na	589.592†	QC value within limits for K 766.490	Recovery = 98.42%	49.6 mg/L	1.61	3.24%
		1037836.9	49.6 mg/L			
Sr	407.771†	QC value within limits for Na 589.592	Recovery = 99.17%	1.01 mg/L	0.031	3.12%
		2862726.7	1.01 mg/L			
Li	670.784†	QC value within limits for Sr 407.771	Recovery = 100.95%	0.988 mg/L	0.0116	1.17%
		172275.5	0.988 mg/L			
		QC value within limits for Li 670.784	Recovery = 98.82%			

All analyte(s) passed QC.

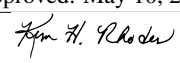
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Sequence No.: 27                               ukosampler Location: 1
Sample ID: CCB                                 Date Collected: 5/9/2012 3:10:42 PM
Analyst:                                       alpha Type: Original
Initial Sample Wt:                             nitial Sample Vol:
Dilution:                                     ample Prep Vol:
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Nebulizer Parameters: CCB
Analyte      Back Pressure  Flow
All          153.0 kPa    0.50 L/min
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Mean Data: CCB							
Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD	
Y 371.029	2314935.0				20098.99	0.87%	
YRADIAL	308135.7				10054.28	3.26%	
Ga 417.206	1423959.4				7212.98	0.51%	
GaRADIAL	93104.2				1478.60	1.59%	
Ag 328.068†	-81.8	-0.00214 mg/L	0.000307	-0.00214 mg/L	0.000307	14.34%	QC value within limits for Ag 328.068 Recovery = Not calculated
Al 396.153†	34.5	-0.00995 mg/L	0.000515	-0.00995 mg/L	0.000515	5.18%	QC value within limits for Al 396.153 Recovery = Not calculated
As 188.979†	-0.9	0.00120 mg/L	0.000817	0.00120 mg/L	0.000817	68.16%	QC value within limits for As 188.979 Recovery = Not calculated
Ba 233.527†	8.4	-0.00373 mg/L	0.000061	-0.00373 mg/L	0.000061	1.63%	QC value within limits for Ba 233.527 Recovery = Not calculated
Be 234.861†	-56.5	-0.00021 mg/L	0.000024	-0.00021 mg/L	0.000024	11.19%	QC value within limits for Be 234.861 Recovery = Not calculated
B 249.677†	659.7	0.00640 mg/L	0.000128	0.00640 mg/L	0.000128	1.99%	QC value within limits for B 249.677 Recovery = Not calculated
Ca 227.546†	2.9	0.00649 mg/L	0.005863	0.00649 mg/L	0.005863	90.27%	QC value within limits for Ca 227.546 Recovery = Not calculated
Cd 228.802†	-1.7	-0.00024 mg/L	0.000203	-0.00024 mg/L	0.000203	83.96%	QC value within limits for Cd 228.802 Recovery = Not calculated
Co 228.616†	1.0	-0.00061 mg/L	0.000124	-0.00061 mg/L	0.000124	20.43%	QC value within limits for Co 228.616 Recovery = Not calculated
Cr 267.716†	4.5	-0.00195 mg/L	0.000026	-0.00195 mg/L	0.000026	1.33%	QC value within limits for Cr 267.716 Recovery = Not calculated
Cu 327.393†	115.1	-0.00080 mg/L	0.000252	-0.00080 mg/L	0.000252	31.26%	QC value within limits for Cu 327.393 Recovery = Not calculated
Fe 239.562†	38.1	0.00733 mg/L	0.000200	0.00733 mg/L	0.000200	2.73%	QC value within limits for Fe 239.562 Recovery = Not calculated
Mg 279.077†	22.3	0.0145 mg/L	0.00284	0.0145 mg/L	0.00284	19.58%	QC value within limits for Mg 279.077 Recovery = Not calculated
Mn 257.610†	82.4	-0.00269 mg/L	0.000016	-0.00269 mg/L	0.000016	0.60%	QC value within limits for Mn 257.610 Recovery = Not calculated
Mo 202.031†	-0.2	-0.00164 mg/L	0.000089	-0.00164 mg/L	0.000089	5.44%	QC value within limits for Mo 202.031 Recovery = Not calculated
Ni 231.604†	-8.3	-0.00242 mg/L	0.000029	-0.00242 mg/L	0.000029	1.18%	QC value within limits for Ni 231.604 Recovery = Not calculated
Pb 220.353†	7.4	-0.00074 mg/L	0.001078	-0.00074 mg/L	0.001078	146.34%	QC value within limits for Pb 220.353 Recovery = Not calculated
Sb 206.836†	4.6	-0.00360 mg/L	0.001396	-0.00360 mg/L	0.001396	38.79%	QC value within limits for Sb 206.836 Recovery = Not calculated
Se 196.026†	-0.7	0.00215 mg/L	0.001762	0.00215 mg/L	0.001762	81.81%	QC value within limits for Se 196.026 Recovery = Not calculated
Si 251.611†	68.7	-0.0219 mg/L	0.000026	-0.0219 mg/L	0.000026	1.20%	QC value within limits for Si 251.611 Recovery = Not calculated
Sn 189.927†	-2.8	-0.00299 mg/L	0.001125	-0.00299 mg/L	0.001125	37.56%	

Approved: May 10, 2012


QC value within limits for Sn 189.927 Recovery = Not calculated
 Ti 334.940† 102.7 -0.00026 mg/L 0.000135 -0.00026 mg/L 0.000135 51.94%
 QC value within limits for Ti 334.940 Recovery = Not calculated
 Tl 190.801† -0.1 -0.00268 mg/L 0.003142 -0.00268 mg/L 0.003142 117.04%
 QC value within limits for Tl 190.801 Recovery = Not calculated
 V 290.880† -71.6 -0.00381 mg/L 0.000386 -0.00381 mg/L 0.000386 10.13%
 QC value within limits for V 290.880 Recovery = Not calculated
 Zn 206.200† 44.8 -0.00473 mg/L 0.000201 -0.00473 mg/L 0.000201 4.26%
 QC value within limits for Zn 206.200 Recovery = Not calculated
 K 766.490† 11.9 -0.0166 mg/L 0.01553 -0.0166 mg/L 0.01553 93.60%
 QC value within limits for K 766.490 Recovery = Not calculated
 Na 589.592† -231.2 -0.00629 mg/L 0.004607 -0.00629 mg/L 0.004607 73.22%
 QC value within limits for Na 589.592 Recovery = Not calculated
 Sr 407.771† 217.3 -0.00017 mg/L 0.000027 -0.00017 mg/L 0.000027 15.78%
 QC value within limits for Sr 407.771 Recovery = Not calculated
 Li 670.784† -7.7 -0.00695 mg/L 0.000300 -0.00695 mg/L 0.000300 4.31%
 QC value within limits for Li 670.784 Recovery = Not calculated
 All analyte(s) passed QC.

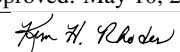
Sequence No.: 28 u&osampler Location: 24
 Sample ID: L1205022305 a&e Collected: 5/9/2012 3:17:35 PM
 Analyst: KHR a&a Type: Original
 Initial Sample Wt: n&tial Sample Vol:
 Dilution: a&ple Prep Vol:

Nebulizer Parameters: L1205022305
 Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: L1205022305

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2886415.4					25193.97	0.87%
YRADIAL	402061.4					3539.62	0.88%
Ga 417.206	1370598.1					31244.31	2.28%
GaRADIAL	91923.8					880.49	0.96%
Ag 328.068†	66357.2	0.204 mg/L		0.0064	0.204 mg/L	0.0064	3.13%
Al 396.153†	320619.5	40.3 mg/L		0.20	40.3 mg/L	0.20	0.50%
As 188.979†	592.3	0.209 mg/L		0.0029	0.209 mg/L	0.0029	1.38%
Ba 233.527†	55618.4	0.367 mg/L		0.0047	0.367 mg/L	0.0047	1.29%
Be 234.861†	67929.9	0.0573 mg/L		0.00147	0.0573 mg/L	0.00147	2.57%
B 249.677†	111942.4	1.27 mg/L		0.041	1.27 mg/L	0.041	3.26%
Ca 227.546†	73871.2	152 mg/L		4.3	152 mg/L	4.3	2.82%
Cd 228.802†	15585.1	0.289 mg/L		0.0076	0.289 mg/L	0.0076	2.63%
Co 228.616†	79173.7	2.11 mg/L		0.028	2.11 mg/L	0.028	1.34%
Cr 267.716†	20538.1	0.202 mg/L		0.0004	0.202 mg/L	0.0004	0.22%
Cu 327.393†	1490471.1	5.30 mg/L		0.145	5.30 mg/L	0.145	2.74%
Fe 239.562†	39438.0	2.43 mg/L		0.033	2.43 mg/L	0.033	1.36%
Mg 279.077†	182285.3	50.5 mg/L		0.34	50.5 mg/L	0.34	0.67%
Mn 257.610†	28753235.0	35.1 mg/L		0.40	35.1 mg/L	0.40	1.15%
Mo 202.031†	13246.1	0.372 mg/L		0.0037	0.372 mg/L	0.0037	1.00%
Ni 231.604†	86004.1	1.30 mg/L		0.014	1.30 mg/L	0.014	1.11%
Pb 220.353†	2169.0	0.179 mg/L		0.0028	0.179 mg/L	0.0028	1.58%
Sb 206.836†	2276.3	0.538 mg/L		0.0181	0.538 mg/L	0.0181	3.36%
Se 196.026†	410.9	0.218 mg/L		0.0047	0.218 mg/L	0.0047	2.15%
Si 251.611†	899638.9	21.4 mg/L		0.36	21.4 mg/L	0.36	1.68%
Sn 189.927†	3598.7	0.352 mg/L		0.0084	0.352 mg/L	0.0084	2.38%
Ti 334.940†	336567.8	0.356 mg/L		0.0011	0.356 mg/L	0.0011	0.31%
Tl 190.801†	640.8	0.133 mg/L		0.0146	0.133 mg/L	0.0146	10.94%
V 290.880†	67538.9	0.347 mg/L		0.0021	0.347 mg/L	0.0021	0.61%
Zn 206.200†	11569970.3	296 mg/L		1.0	296 mg/L	1.0	0.34%
K 766.490†	137289.8	39.0 mg/L		0.25	39.0 mg/L	0.25	0.64%
Na 589.592†	2603519.3	128 mg/L		1.4	128 mg/L	1.4	1.10%
Sr 407.771†	2967537.2	1.04 mg/L		0.007	1.04 mg/L	0.007	0.66%
Li 670.784†	138280.1	0.792 mg/L		0.0120	0.792 mg/L	0.0120	1.51%

Sequence No.: 29 u&osampler Location: 25
 Sample ID: L1205010443 0.1 a&e Collected: 5/9/2012 3:23:41 PM

Approved: May 10, 2012


Analyst: KHR
 Initial Sample Wt:
 Dilution:

ana Type: Original
 nitial Sample Vol:
 aample Prep Vol:

Nebulizer Parameters: L1205010443 0.1
 Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: L1205010443 0.1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2318567.1				35764.74	1.54%
YRADIAL	310602.0				1587.51	0.51%
Ga 417.206	1432244.6				46703.20	3.26%
GaRADIAL	94410.1				900.22	0.95%
Ag 328.068†	235.5	-0.00104 mg/L	0.000208	-0.00104 mg/L	0.000208	19.91%
Al 396.153†	1423.9	0.165 mg/L	0.0031	0.165 mg/L	0.0031	1.89%
As 188.979†	-5.2	-0.00029 mg/L	0.000771	-0.00029 mg/L	0.000771	262.72%
Ba 233.527†	456.8	-0.00075 mg/L	0.000111	-0.00075 mg/L	0.000111	14.73%
Be 234.861†	278.1	0.00000 mg/L	0.000025	0.00000 mg/L	0.000025	591.84%
B 249.677†	1205.5	0.0126 mg/L	0.00080	0.0126 mg/L	0.00080	6.36%
Ca 227.546†	11373.7	23.2 mg/L	0.96	23.2 mg/L	0.96	4.13%
Cd 228.802†	19.7	0.00016 mg/L	0.000205	0.00016 mg/L	0.000205	130.73%
Co 228.616†	30.3	0.00017 mg/L	0.000188	0.00017 mg/L	0.000188	109.52%
Cr 267.716†	71.2	-0.00130 mg/L	0.000188	-0.00130 mg/L	0.000188	14.52%
Cu 327.393†	243.6	-0.00030 mg/L	0.000309	-0.00030 mg/L	0.000309	101.90%
Fe 239.562†	4315.3	0.271 mg/L	0.0041	0.271 mg/L	0.0041	1.51%
Mg 279.077†	22098.8	6.13 mg/L	0.025	6.13 mg/L	0.025	0.40%
Mn 257.610†	6103.6	0.00469 mg/L	0.003572	0.00469 mg/L	0.003572	76.17%
Saturated within auto integration window (code 4)						
Mo 202.031†	33.6	-0.00069 mg/L	0.000143	-0.00069 mg/L	0.000143	20.75%
Ni 231.604†	140.8	-0.00016 mg/L	0.000312	-0.00016 mg/L	0.000312	192.08%
Pb 220.353†	12.0	-0.00012 mg/L	0.002332	-0.00012 mg/L	0.002332	>999.9%
Sb 206.836†	2.8	-0.00403 mg/L	0.000630	-0.00403 mg/L	0.000630	15.63%
Se 196.026†	-0.7	0.00224 mg/L	0.002487	0.00224 mg/L	0.002487	111.04%
Si 251.611†	30702.4	0.709 mg/L	0.0191	0.709 mg/L	0.0191	2.69%
Sn 189.927†	-157.4	-0.0182 mg/L	0.00022	-0.0182 mg/L	0.00022	1.19%
Ti 334.940†	-2320.4	0.00082 mg/L	0.000439	0.00082 mg/L	0.000439	53.52%
Tl 190.801†	-2.6	-0.00334 mg/L	0.003560	-0.00334 mg/L	0.003560	106.45%
V 290.880†	356.6	-0.00178 mg/L	0.000479	-0.00178 mg/L	0.000479	26.87%
Zn 206.200†	17117.2	0.432 mg/L	0.0789	0.432 mg/L	0.0789	18.27%
K 766.490†	1945.5	0.523 mg/L	0.0209	0.523 mg/L	0.0209	3.99%
Na 589.592†	30345.4	1.43 mg/L	0.023	1.43 mg/L	0.023	1.63%
Sr 407.771†	356302.3	0.125 mg/L	0.0006	0.125 mg/L	0.0006	0.44%
Li 670.784†	472.9	-0.00418 mg/L	0.000098	-0.00418 mg/L	0.000098	2.35%

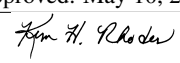
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Sequence No.: 30	autosampler Location: 26
Sample ID: L1205010444 0.1	ana Collected: 5/9/2012 3:29:38 PM
Analyst: KHR	ana Type: Original
Initial Sample Wt:	nitial Sample Vol:
Dilution:	aample Prep Vol:

Nebulizer Parameters: L1205010444 0.1
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: L1205010444 0.1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2321127.3				17206.95	0.74%
YRADIAL	307009.5				3259.25	1.06%
Ga 417.206	1505118.6				13316.48	0.88%
GaRADIAL	96012.7				1695.06	1.77%
Ag 328.068†	176.7	-0.00135 mg/L	0.000569	-0.00135 mg/L	0.000569	42.19%
Al 396.153†	97.5	-0.00208 mg/L	0.002633	-0.00208 mg/L	0.002633	126.48%
As 188.979†	-5.7	-0.00050 mg/L	0.002044	-0.00050 mg/L	0.002044	405.33%
Ba 233.527†	198.5	-0.00247 mg/L	0.000024	-0.00247 mg/L	0.000024	0.98%

Approved: May 10, 2012


Be 234.861†	3.8	-0.00017	mg/L	0.000013	-0.00017	mg/L	0.000013	7.81%
B 249.677†	872.1	0.00884	mg/L	0.000302	0.00884	mg/L	0.000302	3.42%
Ca 227.546†	10922.3	22.3	mg/L	0.29	22.3	mg/L	0.29	1.28%
Cd 228.802†	3.8	-0.00013	mg/L	0.000058	-0.00013	mg/L	0.000058	43.52%
Co 228.616†	2.7	-0.00055	mg/L	0.000101	-0.00055	mg/L	0.000101	18.32%
Cr 267.716†	53.9	-0.00147	mg/L	0.000112	-0.00147	mg/L	0.000112	7.62%
Cu 327.393†	113.0	-0.00079	mg/L	0.000252	-0.00079	mg/L	0.000252	31.81%
Fe 239.562†	278.4	0.0221	mg/L	0.00048	0.0221	mg/L	0.00048	2.18%
Mg 279.077†	22986.1	6.38	mg/L	0.092	6.38	mg/L	0.092	1.45%
Mn 257.610†	3433.4	0.00142	mg/L	0.000877	0.00142	mg/L	0.000877	61.62%
Mo 202.031†	26.3	-0.00090	mg/L	0.000062	-0.00090	mg/L	0.000062	6.88%
Ni 231.604†	72.7	-0.00119	mg/L	0.000144	-0.00119	mg/L	0.000144	12.04%
Pb 220.353†	18.3	0.00045	mg/L	0.001290	0.00045	mg/L	0.001290	289.39%
Sb 206.836†	10.9	-0.00209	mg/L	0.000491	-0.00209	mg/L	0.000491	23.51%
Se 196.026†	-0.4	0.00233	mg/L	0.002360	0.00233	mg/L	0.002360	101.26%
Si 251.611†	19240.9	0.436	mg/L	0.0057	0.436	mg/L	0.0057	1.30%
Sn 189.927†	-167.1	-0.0192	mg/L	0.00058	-0.0192	mg/L	0.00058	3.03%
Ti 334.940†	-4246.0	-0.00123	mg/L	0.000241	-0.00123	mg/L	0.000241	19.63%
Tl 190.801†	-12.7	-0.00603	mg/L	0.001499	-0.00603	mg/L	0.001499	24.87%
V 290.880†	-55.3	-0.00390	mg/L	0.001604	-0.00390	mg/L	0.001604	41.17%
Zn 206.200†	16007.6	0.404	mg/L	0.0124	0.404	mg/L	0.0124	3.07%
K 766.490†	2087.5	0.563	mg/L	0.0192	0.563	mg/L	0.0192	3.41%
Na 589.592†	29721.9	1.40	mg/L	0.025	1.40	mg/L	0.025	1.78%
Sr 407.771†	401417.0	0.141	mg/L	0.0023	0.141	mg/L	0.0023	1.65%
Li 670.784†	448.4	-0.00432	mg/L	0.000525	-0.00432	mg/L	0.000525	12.14%

Sequence No.: 31
 Sample ID: L1205010445 0.1
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 27
 a&e Collected: 5/9/2012 3:36:33 PM
 a&a Type: Original
 n&tial Sample Vol:
 a&mple Prep Vol:

Nebulizer Parameters: L1205010445 0.1
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: L1205010445 0.1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	2319091.8						31032.86	1.34%
YRADIAL	311091.7						5194.85	1.67%
Ga 417.206	1415337.8						29450.10	2.08%
GaRADIAL	94541.0						1372.79	1.45%
Ag 328.068†	-710.5	-0.00061	mg/L	0.000204	-0.00061	mg/L	0.000204	33.51%
Al 396.153†	2760.3	0.334	mg/L	0.0026	0.334	mg/L	0.0026	0.77%
As 188.979†	2.5	0.00357	mg/L	0.001044	0.00357	mg/L	0.001044	29.23%
Ba 233.527†	128.4	-0.00317	mg/L	0.000178	-0.00317	mg/L	0.000178	5.63%
Be 234.861†	2918.6	0.00065	mg/L	0.000125	0.00065	mg/L	0.000125	19.40%
B 249.677†	6868.9	0.0714	mg/L	0.00426	0.0714	mg/L	0.00426	5.97%
Ca 227.546†	10091.3	21.0	mg/L	0.61	21.0	mg/L	0.61	2.89%
Cd 228.802†	2344.4	0.0428	mg/L	0.00106	0.0428	mg/L	0.00106	2.48%
Co 228.616†	5757.6	0.153	mg/L	0.0020	0.153	mg/L	0.0020	1.32%
Cr 267.716†	84.8	0.00235	mg/L	0.000162	0.00235	mg/L	0.000162	6.89%
Cu 327.393†	259712.1	0.925	mg/L	0.0218	0.925	mg/L	0.0218	2.36%
Fe 239.562†	170608.1	10.5	mg/L	0.06	10.5	mg/L	0.06	0.57%
Mg 279.077†	38578.0	10.7	mg/L	0.16	10.7	mg/L	0.16	1.46%
Mn 257.610†	6774183.4	8.27	mg/L	0.038	8.27	mg/L	0.038	0.45%
Mo 202.031†	-41.4	-0.00053	mg/L	0.000834	-0.00053	mg/L	0.000834	157.71%
Ni 231.604†	12109.1	0.181	mg/L	0.0030	0.181	mg/L	0.0030	1.66%
Pb 220.353†	56.5	-0.00282	mg/L	0.001789	-0.00282	mg/L	0.001789	63.42%
Sb 206.836†	0.1	-0.00427	mg/L	0.001701	-0.00427	mg/L	0.001701	39.85%
Se 196.026†	3.5	0.00524	mg/L	0.005021	0.00524	mg/L	0.005021	95.82%
Si 251.611†	58729.5	1.38	mg/L	0.017	1.38	mg/L	0.017	1.24%
Sn 189.927†	-165.0	-0.0190	mg/L	0.00040	-0.0190	mg/L	0.00040	2.10%
Ti 334.940†	-3675.9	-0.00092	mg/L	0.000425	-0.00092	mg/L	0.000425	46.29%
Tl 190.801†	1.6	-0.0107	mg/L	0.00176	-0.0107	mg/L	0.00176	16.45%
V 290.880†	535.5	-0.00259	mg/L	0.001035	-0.00259	mg/L	0.001035	39.95%
Zn 206.200†	3112800.8	79.6	mg/L	0.49	79.6	mg/L	0.49	0.61%
K 766.490†	4738.8	1.30	mg/L	0.032	1.30	mg/L	0.032	2.44%

Approved: May 10, 2012
John H. Rhodes

Na 589.592†	161590.6	7.61 mg/L	0.038	7.61 mg/L	0.038	0.50%
Sr 407.771†	213265.0	0.0745 mg/L	0.00020	0.0745 mg/L	0.00020	0.27%
Li 670.784†	5305.8	0.0237 mg/L	0.00045	0.0237 mg/L	0.00045	1.89%

Sequence No.: 32 uKosampler Location: 28
 Sample ID: L1205010446 0.1 Time Collected: 5/9/2012 3:42:32 PM
 Analyst: KHR Sample Type: Original
 Initial Sample Wt: Initial Sample Vol:
 Dilution: Sample Prep Vol:

Nebulizer Parameters: L1205010446 0.1
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: L1205010446 0.1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2280076.6				14079.72	0.62%
YRADIAL	307487.5				4857.18	1.58%
Ga 417.206	1407815.2				36486.32	2.59%
GaRADIAL	93125.2				1491.03	1.60%
Ag 328.068†	-891.6	-0.00045 mg/L	0.000508	-0.00045 mg/L	0.000508	112.51%
Al 396.153†	2434.6	0.294 mg/L	0.0091	0.294 mg/L	0.0091	3.09%
As 188.979†	-1.4	0.00239 mg/L	0.000888	0.00239 mg/L	0.000888	37.08%
Ba 233.527†	133.8	-0.00318 mg/L	0.000196	-0.00318 mg/L	0.000196	6.16%
Be 234.861†	3300.0	0.00061 mg/L	0.000092	0.00061 mg/L	0.000092	15.06%
B 249.677†	7061.6	0.0728 mg/L	0.00207	0.0728 mg/L	0.00207	2.84%
Ca 227.546†	10880.1	22.7 mg/L	0.64	22.7 mg/L	0.64	2.83%
Cd 228.802†	2381.5	0.0435 mg/L	0.00134	0.0435 mg/L	0.00134	3.07%
Co 228.616†	6163.7	0.163 mg/L	0.0007	0.163 mg/L	0.0007	0.40%
Cr 267.716†	84.5	0.00260 mg/L	0.000159	0.00260 mg/L	0.000159	6.13%
Cu 327.393†	247045.7	0.880 mg/L	0.0328	0.880 mg/L	0.0328	3.73%
Fe 239.562†	200302.1	12.4 mg/L	0.10	12.4 mg/L	0.10	0.79%
Mg 279.077†	41883.1	11.6 mg/L	0.13	11.6 mg/L	0.13	1.13%
Mn 257.610†	7350079.2	8.97 mg/L	0.069	8.97 mg/L	0.069	0.77%
Mo 202.031†	-58.6	-0.00076 mg/L	0.000263	-0.00076 mg/L	0.000263	34.43%
Ni 231.604†	13326.7	0.200 mg/L	0.0003	0.200 mg/L	0.0003	0.13%
Pb 220.353†	37.1	-0.00514 mg/L	0.002885	-0.00514 mg/L	0.002885	56.13%
Sb 206.836†	0.2	-0.00418 mg/L	0.000824	-0.00418 mg/L	0.000824	19.72%
Se 196.026†	2.8	0.00522 mg/L	0.003396	0.00522 mg/L	0.003396	65.10%
Si 251.611†	61496.2	1.44 mg/L	0.036	1.44 mg/L	0.036	2.52%
Sn 189.927†	-174.1	-0.0199 mg/L	0.00159	-0.0199 mg/L	0.00159	8.00%
Ti 334.940†	-4154.0	-0.00115 mg/L	0.000280	-0.00115 mg/L	0.000280	24.35%
Tl 190.801†	-8.7	-0.0141 mg/L	0.00382	-0.0141 mg/L	0.00382	27.12%
V 290.880†	1021.3	-0.00037 mg/L	0.001689	-0.00037 mg/L	0.001689	457.27%
Zn 206.200†	3299286.4	84.4 mg/L	0.80	84.4 mg/L	0.80	0.95%
K 766.490†	5012.1	1.38 mg/L	0.025	1.38 mg/L	0.025	1.83%
Na 589.592†	175735.8	8.27 mg/L	0.019	8.27 mg/L	0.019	0.24%
Sr 407.771†	226499.5	0.0792 mg/L	0.00024	0.0792 mg/L	0.00024	0.30%
Li 670.784†	5371.1	0.0241 mg/L	0.00090	0.0241 mg/L	0.00090	3.74%

Sequence No.: 33 uKosampler Location: 29
 Sample ID: L1205010448 0.1 Time Collected: 5/9/2012 3:48:31 PM
 Analyst: KHR Sample Type: Original
 Initial Sample Wt: Initial Sample Vol:
 Dilution: Sample Prep Vol:

Nebulizer Parameters: L1205010448 0.1
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: L1205010448 0.1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2250434.2				8563.75	0.38%
YRADIAL	301475.4				6713.70	2.23%

Approved: May 10, 2012
Tom H. Rhodes

Sn 189.927†	-227.6	-0.0252 mg/L	0.00144	-0.0252 mg/L	0.00144	5.74%
Ti 334.940†	-8680.8	-0.00218 mg/L	0.000326	-0.00218 mg/L	0.000326	14.91%
Tl 190.801†	-27.6	-0.0100 mg/L	0.00050	-0.0100 mg/L	0.00050	4.96%
V 290.880†	772.1	0.00028 mg/L	0.001106	0.00028 mg/L	0.001106	397.70%
Zn 206.200†	381512.2	9.75 mg/L	0.142	9.75 mg/L	0.142	1.45%
K 766.490†	3108.9	0.846 mg/L	0.0065	0.846 mg/L	0.0065	0.77%
Na 589.592†	97136.6	4.57 mg/L	0.113	4.57 mg/L	0.113	2.48%
Sr 407.771†	793978.3	0.279 mg/L	0.0080	0.279 mg/L	0.0080	2.85%
Li 670.784†	1704.6	0.00294 mg/L	0.000209	0.00294 mg/L	0.000209	7.11%

User canceled analysis.

Approved: May 10, 2012
John H. Rhodes

=====
Analysis Begun

Start Time: 5/9/2012 4:02:54 PM Plasma On Time: 12:00:00 AM
Logged In Analyst: peicp2 eTechnique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N40114 Autosampler Model: Cetac

Sample Information File: C:\pe\peicp2\Sample Information\WEDNESDAY1.sif
Batch ID:
Results Data Set: 050912H
Results Library: C:\pe\peicp2\Results\Results.mdb

=====
Sequence No.: 1 Autosampler Location: 31
Sample ID: L1205010450 0.1 Date Collected: 5/9/2012 4:02:56 PM
Analyst: KHR Sample Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: L1205010450 0.1
Analyte Back Pressure Flow
All 152.0 kPa 0.50 L/min

Mean Data: L1205010450 0.1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2328213.3				22717.60	0.98%
YRADIAL	311132.4				3186.06	1.02%
Ga 417.206	1431795.7				25836.53	1.80%
GaRADIAL	94487.5				1452.41	1.54%
Ag 328.068†	9.4	-0.00186 mg/L	0.000184	-0.00186 mg/L	0.000184	9.91%
Al 396.153†	21.4	-0.0116 mg/L	0.00076	-0.0116 mg/L	0.00076	6.57%
As 188.979†	-3.6	0.00025 mg/L	0.000859	0.00025 mg/L	0.000859	342.51%
Ba 233.527†	-0.3	-0.00379 mg/L	0.000147	-0.00379 mg/L	0.000147	3.88%
Be 234.861†	-102.4	-0.00025 mg/L	0.000053	-0.00025 mg/L	0.000053	20.99%
B 249.677†	390.8	0.00330 mg/L	0.000195	0.00330 mg/L	0.000195	5.91%
Ca 227.546†	7.8	0.0163 mg/L	0.01667	0.0163 mg/L	0.01667	102.01%
Cd 228.802†	-0.9	-0.00022 mg/L	0.000043	-0.00022 mg/L	0.000043	19.33%
Co 228.616†	4.5	-0.00052 mg/L	0.000174	-0.00052 mg/L	0.000174	33.65%
Cr 267.716†	-1.2	-0.00200 mg/L	0.000105	-0.00200 mg/L	0.000105	5.26%
Cu 327.393†	-2.5	-0.00122 mg/L	0.000116	-0.00122 mg/L	0.000116	9.53%
Fe 239.562†	15.8	0.00595 mg/L	0.000247	0.00595 mg/L	0.000247	4.15%
Mg 279.077†	10.0	0.0111 mg/L	0.00058	0.0111 mg/L	0.00058	5.26%
Mn 257.610†	1026.9	-0.00154 mg/L	0.000101	-0.00154 mg/L	0.000101	6.58%
Mo 202.031†	1.0	-0.00160 mg/L	0.000190	-0.00160 mg/L	0.000190	11.84%
Ni 231.604†	-7.1	-0.00240 mg/L	0.000226	-0.00240 mg/L	0.000226	9.38%
Pb 220.353†	-1.7	-0.00158 mg/L	0.001537	-0.00158 mg/L	0.001537	97.48%
Sb 206.836†	8.8	-0.00260 mg/L	0.000702	-0.00260 mg/L	0.000702	26.98%
Se 196.026†	3.6	0.00451 mg/L	0.002923	0.00451 mg/L	0.002923	64.85%
Si 251.611†	89.0	-0.0214 mg/L	0.00028	-0.0214 mg/L	0.00028	1.31%
Sn 189.927†	-9.7	-0.00367 mg/L	0.000579	-0.00367 mg/L	0.000579	15.77%
Ti 334.940†	78.9	-0.00028 mg/L	0.000038	-0.00028 mg/L	0.000038	13.63%
Tl 190.801†	-3.1	-0.00345 mg/L	0.000694	-0.00345 mg/L	0.000694	20.10%
V 290.880†	-189.1	-0.00443 mg/L	0.000378	-0.00443 mg/L	0.000378	8.53%
Zn 206.200†	1087.9	0.0220 mg/L	0.00182	0.0220 mg/L	0.00182	8.28%
K 766.490†	50.2	-0.00590 mg/L	0.023058	-0.00590 mg/L	0.023058	390.92%
Na 589.592†	-254.7	-0.00740 mg/L	0.006005	-0.00740 mg/L	0.006005	81.19%
Sr 407.771†	76.5	-0.00022 mg/L	0.000030	-0.00022 mg/L	0.000030	13.57%
Li 670.784†	-60.2	-0.00726 mg/L	0.000136	-0.00726 mg/L	0.000136	1.87%

=====
Sequence No.: 2 Autosampler Location: 32
Sample ID: L1205010454 0.1 Date Collected: 5/9/2012 4:09:54 PM
Analyst: KHR Sample Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: L1205010454 0.1

Approved: May 10, 2012
[Signature]

Analyte Back Pressure Flow
All 153.0 kPa 0.50 L/min

Mean Data: L1205010454 0.1

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, YRADIAL, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li.

Sequence No.: 3
Sample ID: L1205010455 0.1
Analyst: KHR
Initial Sample Wt:
Dilution:
autosampler Location: 33
Date Collected: 5/9/2012 4:16:50 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L1205010455 0.1
Analyte Back Pressure Flow
All 153.0 kPa 0.50 L/min

Mean Data: L1205010455 0.1

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, YRADIAL, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu.

Approved: May 10, 2012
[Signature]

Fe 239.562†	7.2	0.00542 mg/L	0.000115	0.00542 mg/L	0.000115	2.12%
Mg 279.077†	15.1	0.0125 mg/L	0.00258	0.0125 mg/L	0.00258	20.59%
Mn 257.610†	630.1	-0.00202 mg/L	0.000062	-0.00202 mg/L	0.000062	3.05%
Mo 202.031†	-4.0	-0.00174 mg/L	0.000212	-0.00174 mg/L	0.000212	12.17%
Ni 231.604†	-13.0	-0.00249 mg/L	0.000248	-0.00249 mg/L	0.000248	9.94%
Pb 220.353†	8.7	-0.00062 mg/L	0.001017	-0.00062 mg/L	0.001017	162.98%
Sb 206.836†	9.1	-0.00252 mg/L	0.000908	-0.00252 mg/L	0.000908	36.03%
Se 196.026†	-0.2	0.00242 mg/L	0.000263	0.00242 mg/L	0.000263	10.88%
Si 251.611†	58.6	-0.0221 mg/L	0.00037	-0.0221 mg/L	0.00037	1.66%
Sn 189.927†	-10.1	-0.00372 mg/L	0.000335	-0.00372 mg/L	0.000335	9.03%
Ti 334.940†	93.5	-0.00027 mg/L	0.000099	-0.00027 mg/L	0.000099	36.85%
Tl 190.801†	-2.3	-0.00326 mg/L	0.001510	-0.00326 mg/L	0.001510	46.33%
V 290.880†	-262.6	-0.00481 mg/L	0.002369	-0.00481 mg/L	0.002369	49.28%
Zn 206.200†	574.0	0.00881 mg/L	0.000905	0.00881 mg/L	0.000905	10.27%
K 766.490†	56.8	-0.00405 mg/L	0.026371	-0.00405 mg/L	0.026371	650.41%
Na 589.592†	-18.7	0.00367 mg/L	0.010909	0.00367 mg/L	0.010909	296.93%
Sr 407.771†	162.8	-0.00019 mg/L	0.000049	-0.00019 mg/L	0.000049	26.06%
Li 670.784†	-34.1	-0.00711 mg/L	0.000480	-0.00711 mg/L	0.000480	6.75%

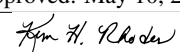
Sequence No.: 4
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

uSampler Location: 6
 Date Collected: 5/9/2012 4:23:47 PM
 Sample Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Nebulizer Parameters: CCV
 Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2265316.8				36578.92	1.61%
YRADIAL	309151.1				2911.01	0.94%
Ga 417.206	1364548.5				15925.06	1.17%
GaRADIAL	93592.4				1124.38	1.20%
Ag 328.068†	130037.2	0.413 mg/L	0.0091	0.413 mg/L	0.0091	2.21%
QC value within limits for Ag		328.068	Recovery = 103.14%			
Al 396.153†	78382.6	9.78 mg/L	0.039	9.78 mg/L	0.039	0.40%
QC value within limits for Al		396.153	Recovery = 97.76%			
As 188.979†	1135.4	0.399 mg/L	0.0069	0.399 mg/L	0.0069	1.74%
QC value within limits for As		188.979	Recovery = 99.74%			
Ba 233.527†	154696.4	1.03 mg/L	0.012	1.03 mg/L	0.012	1.19%
QC value within limits for Ba		233.527	Recovery = 102.69%			
Be 234.861†	64466.8	0.0510 mg/L	0.00107	0.0510 mg/L	0.00107	2.09%
QC value within limits for Be		234.861	Recovery = 101.94%			
B 249.677†	43871.4	0.500 mg/L	0.0099	0.500 mg/L	0.0099	1.98%
QC value within limits for B		249.677	Recovery = 100.03%			
Ca 227.546†	4759.4	10.2 mg/L	0.22	10.2 mg/L	0.22	2.12%
QC value within limits for Ca		227.546	Recovery = 101.89%			
Cd 228.802†	2825.9	0.0496 mg/L	0.00138	0.0496 mg/L	0.00138	2.78%
QC value within limits for Cd		228.802	Recovery = 99.14%			
Co 228.616†	7560.8	0.200 mg/L	0.0037	0.200 mg/L	0.0037	1.84%
QC value within limits for Co		228.616	Recovery = 100.17%			
Cr 267.716†	54259.1	0.508 mg/L	0.0050	0.508 mg/L	0.0050	0.99%
QC value within limits for Cr		267.716	Recovery = 101.61%			
Cu 327.393†	140132.9	0.497 mg/L	0.0081	0.497 mg/L	0.0081	1.62%
QC value within limits for Cu		327.393	Recovery = 99.38%			
Fe 239.562†	65458.6	4.05 mg/L	0.029	4.05 mg/L	0.029	0.72%
QC value within limits for Fe		239.562	Recovery = 101.20%			
Mg 279.077†	36376.0	10.1 mg/L	0.03	10.1 mg/L	0.03	0.27%
QC value within limits for Mg		279.077	Recovery = 101.01%			
Mn 257.610†	425224.0	0.517 mg/L	0.0070	0.517 mg/L	0.0070	1.36%
QC value within limits for Mn		257.610	Recovery = 103.35%			
Mo 202.031†	36528.3	1.01 mg/L	0.012	1.01 mg/L	0.012	1.20%
QC value within limits for Mo		202.031	Recovery = 100.72%			
Ni 231.604†	33838.6	0.510 mg/L	0.0072	0.510 mg/L	0.0072	1.40%
QC value within limits for Ni		231.604	Recovery = 102.07%			
Pb 220.353†	5499.4	0.507 mg/L	0.0087	0.507 mg/L	0.0087	1.71%

Approved: May 10, 2012


Sb	206.836†	5116.2	1.22 mg/L	0.023	1.22 mg/L	0.023	1.91%
Se	196.026†	727.9	0.403 mg/L	0.0088	0.403 mg/L	0.0088	2.18%
Si	251.611†	216817.6	5.14 mg/L	0.080	5.14 mg/L	0.080	1.55%
Sn	189.927†	10159.9	0.999 mg/L	0.0163	0.999 mg/L	0.0163	1.63%
Ti	334.940†	985565.0	0.978 mg/L	0.0045	0.978 mg/L	0.0045	0.46%
Tl	190.801†	1929.0	0.514 mg/L	0.0052	0.514 mg/L	0.0052	1.02%
V	290.880†	193145.0	1.00 mg/L	0.013	1.00 mg/L	0.013	1.34%
Zn	206.200†	41624.3	1.06 mg/L	0.012	1.06 mg/L	0.012	1.10%
K	766.490†	168623.0	48.2 mg/L	0.29	48.2 mg/L	0.29	0.60%
Na	589.592†	1003551.4	47.9 mg/L	0.49	47.9 mg/L	0.49	1.02%
Sr	407.771†	2783876.9	0.982 mg/L	0.0094	0.982 mg/L	0.0094	0.96%
Li	670.784†	165075.3	0.947 mg/L	0.0040	0.947 mg/L	0.0040	0.42%

QC value within limits for Pb 220.353 Recovery = 101.38%
 QC value within limits for Sb 206.836 Recovery = 101.43%
 QC value within limits for Se 196.026 Recovery = 100.66%
 QC value within limits for Si 251.611 Recovery = 102.81%
 QC value within limits for Sn 189.927 Recovery = 99.90%
 QC value within limits for Ti 334.940 Recovery = 97.84%
 QC value within limits for Tl 190.801 Recovery = 102.85%
 QC value within limits for V 290.880 Recovery = 100.26%
 QC value within limits for Zn 206.200 Recovery = 106.37%
 QC value within limits for K 766.490 Recovery = 96.50%
 QC value within limits for Na 589.592 Recovery = 95.83%
 QC value within limits for Sr 407.771 Recovery = 98.16%
 QC value within limits for Li 670.784 Recovery = 94.66%

All analyte(s) passed QC.

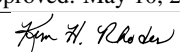
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 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

uSampler Location: 1
 Date Collected: 5/9/2012 4:29:48 PM
 Sample Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Nebulizer Parameters: CCB
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2338319.5				23716.21	1.01%
YRADIAL	313021.2				5369.24	1.72%
Ga 417.206	1445479.7				23600.94	1.63%
GaRADIAL	95381.8				1329.74	1.39%
Ag 328.068†	-41.8	-0.00202 mg/L	0.000046	-0.00202 mg/L	0.000046	2.29%
QC value within limits for Ag 328.068						
Al 396.153†	19.5	-0.0118 mg/L	0.00049	-0.0118 mg/L	0.00049	4.12%
QC value within limits for Al 396.153						
As 188.979†	-1.2	0.00111 mg/L	0.000856	0.00111 mg/L	0.000856	77.38%
QC value within limits for As 188.979						
Ba 233.527†	-10.1	-0.00386 mg/L	0.000073	-0.00386 mg/L	0.000073	1.88%
QC value within limits for Ba 233.527						
Be 234.861†	-49.0	-0.00021 mg/L	0.000033	-0.00021 mg/L	0.000033	16.03%
QC value within limits for Be 234.861						
B 249.677†	417.1	0.00361 mg/L	0.000212	0.00361 mg/L	0.000212	5.87%
QC value within limits for B 249.677						
Ca 227.546†	9.0	0.0189 mg/L	0.02186	0.0189 mg/L	0.02186	115.92%
QC value within limits for Ca 227.546						
Cd 228.802†	-3.9	-0.00028 mg/L	0.000205	-0.00028 mg/L	0.000205	73.22%
QC value within limits for Cd 228.802						
Co 228.616†	-2.2	-0.00069 mg/L	0.000260	-0.00069 mg/L	0.000260	37.44%
QC value within limits for Co 228.616						
Cr 267.716†	-3.2	-0.00202 mg/L	0.000116	-0.00202 mg/L	0.000116	5.73%
QC value within limits for Cr 267.716						
Cu 327.393†	73.4	-0.00095 mg/L	0.000049	-0.00095 mg/L	0.000049	5.17%
QC value within limits for Cu 327.393						
Fe 239.562†	19.0	0.00615 mg/L	0.000270	0.00615 mg/L	0.000270	4.38%
QC value within limits for Fe 239.562						
Mg 279.077†	14.0	0.0122 mg/L	0.00283	0.0122 mg/L	0.00283	23.19%

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Mn	257.610†	QC value within limits for Mn 257.610	Recovery = Not calculated	0.000019	-0.00243 mg/L	0.000019	0.77%
Mo	202.031†	QC value within limits for Mo 202.031	Recovery = Not calculated	0.000201	-0.00173 mg/L	0.000201	11.59%
Ni	231.604†	QC value within limits for Ni 231.604	Recovery = Not calculated	0.000307	-0.00233 mg/L	0.000307	13.17%
Pb	220.353†	QC value within limits for Pb 220.353	Recovery = Not calculated	0.001035	-0.00094 mg/L	0.001035	109.61%
Sb	206.836†	QC value within limits for Sb 206.836	Recovery = Not calculated	0.001836	-0.00277 mg/L	0.001836	66.29%
Se	196.026†	QC value within limits for Se 196.026	Recovery = Not calculated	0.001477	0.00376 mg/L	0.001477	39.26%
Si	251.611†	QC value within limits for Si 251.611	Recovery = Not calculated	0.00037	-0.0230 mg/L	0.00037	1.61%
Sn	189.927†	QC value within limits for Sn 189.927	Recovery = Not calculated	0.000866	-0.00302 mg/L	0.000866	28.71%
Ti	334.940†	QC value within limits for Ti 334.940	Recovery = Not calculated	0.000105	-0.00028 mg/L	0.000105	38.20%
Tl	190.801†	QC value within limits for Tl 190.801	Recovery = Not calculated	0.002394	-0.00174 mg/L	0.002394	137.66%
V	290.880†	QC value within limits for V 290.880	Recovery = Not calculated	0.000715	-0.00468 mg/L	0.000715	15.26%
Zn	206.200†	QC value within limits for Zn 206.200	Recovery = Not calculated	0.000297	0.00239 mg/L	0.000297	12.40%
K	766.490†	QC value within limits for K 766.490	Recovery = Not calculated	0.016590	-0.00986 mg/L	0.016590	168.19%
Na	589.592†	QC value within limits for Na 589.592	Recovery = Not calculated	0.009012	0.00364 mg/L	0.009012	247.58%
Sr	407.771†	QC value within limits for Sr 407.771	Recovery = Not calculated	0.000008	-0.00013 mg/L	0.000008	5.73%
Li	670.784†	QC value within limits for Li 670.784	Recovery = Not calculated	0.000145	-0.00715 mg/L	0.000145	2.03%

All analyte(s) passed QC.

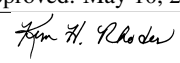
Sequence No.: 6
 Sample ID: L1205022001 500X
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 53
 a&me Collected: 5/9/2012 4:36:41 PM
 a&na Type: Original
 nitial Sample Vol:
 a&nple Prep Vol:

Nebulizer Parameters: L1205022001 500X
 Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: L1205022001 500X

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2212796.1					21918.40	0.99%
YRADIAL	300033.4					3267.35	1.09%
Ga 417.206	1369551.2					31772.83	2.32%
GaRADIAL	91447.0					1041.64	1.14%
Ag 328.068†	254.3	-0.00095 mg/L	0.000300	0.000300	-0.00095 mg/L	0.000300	31.58%
Al 396.153†	20.4	-0.0118 mg/L	0.00401	0.00401	-0.0118 mg/L	0.00401	34.04%
As 188.979†	-11.4	-0.00250 mg/L	0.001786	0.001786	-0.00250 mg/L	0.001786	71.32%
Ba 233.527†	237322.0	1.58 mg/L	0.023	0.023	1.58 mg/L	0.023	1.49%
Be 234.861†	105.1	-0.00014 mg/L	0.000165	0.000165	-0.00014 mg/L	0.000165	116.36%
B 249.677†	7630.0	0.0866 mg/L	0.00454	0.00454	0.0866 mg/L	0.00454	5.25%
Ca 227.546†	16379.1	33.5 mg/L	1.03	1.03	33.5 mg/L	1.03	3.09%
Cd 228.802†	23.0	0.00022 mg/L	0.000380	0.000380	0.00022 mg/L	0.000380	174.10%
Co 228.616†	-57.8	-0.00270 mg/L	0.000066	0.000066	-0.00270 mg/L	0.000066	2.43%
Cr 267.716†	42.4	-0.00158 mg/L	0.000072	0.000072	-0.00158 mg/L	0.000072	4.54%
Cu 327.393†	-28.6	-0.00131 mg/L	0.000259	0.000259	-0.00131 mg/L	0.000259	19.69%
Fe 239.562†	4394.6	0.276 mg/L	0.0053	0.0053	0.276 mg/L	0.0053	1.93%
Mg 279.077†	12753.3	3.54 mg/L	0.055	0.055	3.54 mg/L	0.055	1.57%
Mn 257.610†	18641.7	0.0200 mg/L	0.00039	0.00039	0.0200 mg/L	0.00039	1.97%
Mo 202.031†	36.7	-0.00060 mg/L	0.000268	0.000268	-0.00060 mg/L	0.000268	44.82%
Ni 231.604†	48.0	-0.00157 mg/L	0.000400	0.000400	-0.00157 mg/L	0.000400	25.53%
Pb 220.353†	6.3	-0.00061 mg/L	0.000612	0.000612	-0.00061 mg/L	0.000612	100.27%

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Sb 206.836†	-2.7	-0.00533 mg/L	0.001083	-0.00533 mg/L	0.001083	20.31%
Se 196.026†	-2.1	0.00145 mg/L	0.000641	0.00145 mg/L	0.000641	44.34%
Si 251.611†	1368.4	0.00913 mg/L	0.001159	0.00913 mg/L	0.001159	12.70%
Sn 189.927†	-192.3	-0.0217 mg/L	0.00032	-0.0217 mg/L	0.00032	1.45%
Ti 334.940†	-5657.7	-0.00096 mg/L	0.000506	-0.00096 mg/L	0.000506	52.93%
Tl 190.801†	-6.9	-0.00452 mg/L	0.003802	-0.00452 mg/L	0.003802	84.09%
V 290.880†	1183.8	0.00254 mg/L	0.000696	0.00254 mg/L	0.000696	27.45%
Zn 206.200†	414.0	0.00471 mg/L	0.000366	0.00471 mg/L	0.000366	7.76%
K 766.490†	4788.0	1.25 mg/L	0.046	1.25 mg/L	0.046	3.70%
Na 589.592†	1422480.8	68.4 mg/L	0.66	68.4 mg/L	0.66	0.96%
Sr 407.771†	Saturated2					
Li 670.784†	23713.9	0.130 mg/L	0.0019	0.130 mg/L	0.0019	1.49%

Sequence No.: 7
 Sample ID: PBW 11 WG397463-02
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 54
 a&e Collected: 5/9/2012 4:42:40 PM
 a&a Type: Original
 n&itial Sample Vol:
 a&mple Prep Vol:

Nebulizer Parameters: PBW 11 WG397463-02
 Analyte Back Pressure Flow
 All 152.0 kPa 0.50 L/min

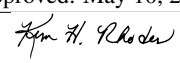
Mean Data: PBW 11 WG397463-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2356930.2				12139.25	0.52%
YRADIAL	314133.7				2334.40	0.74%
Ga 417.206	1387769.5				26428.47	1.90%
GaRADIAL	95485.6				2728.80	2.86%
Ag 328.068†	-69.7	-0.00211 mg/L	0.000520	-0.00211 mg/L	0.000520	24.66%
Al 396.153†	170.2	0.00705 mg/L	0.001329	0.00705 mg/L	0.001329	18.84%
As 188.979†	-16.0	-0.00415 mg/L	0.001323	-0.00415 mg/L	0.001323	31.92%
Ba 233.527†	-48.2	-0.00411 mg/L	0.000069	-0.00411 mg/L	0.000069	1.69%
Be 234.861†	-686.8	-0.00072 mg/L	0.000005	-0.00072 mg/L	0.000005	0.74%
B 249.677†	401.5	0.00341 mg/L	0.000392	0.00341 mg/L	0.000392	11.47%
Ca 227.546†	2.9	0.00581 mg/L	0.015522	0.00581 mg/L	0.015522	267.32%
Cd 228.802†	30.2	0.00036 mg/L	0.000205	0.00036 mg/L	0.000205	56.33%
Co 228.616†	-2.6	-0.00070 mg/L	0.000267	-0.00070 mg/L	0.000267	37.88%
Cr 267.716†	54.2	-0.00148 mg/L	0.000066	-0.00148 mg/L	0.000066	4.46%
Cu 327.393†	442.0	0.00035 mg/L	0.000326	0.00035 mg/L	0.000326	92.51%
Fe 239.562†	92.8	0.0107 mg/L	0.00140	0.0107 mg/L	0.00140	13.06%
Mg 279.077†	50.7	0.0224 mg/L	0.00134	0.0224 mg/L	0.00134	5.97%
Mn 257.610†	777.5	-0.00184 mg/L	0.000007	-0.00184 mg/L	0.000007	0.38%
Mo 202.031†	32.9	-0.00072 mg/L	0.000250	-0.00072 mg/L	0.000250	34.57%
Ni 231.604†	-72.0	-0.00339 mg/L	0.000385	-0.00339 mg/L	0.000385	11.36%
Pb 220.353†	11.1	-0.00040 mg/L	0.001017	-0.00040 mg/L	0.001017	255.24%
Sb 206.836†	10.1	-0.00230 mg/L	0.000867	-0.00230 mg/L	0.000867	37.78%
Se 196.026†	18.1	0.0124 mg/L	0.00062	0.0124 mg/L	0.00062	4.99%
Si 251.611†	379.4	-0.0145 mg/L	0.00358	-0.0145 mg/L	0.00358	24.76%
Sn 189.927†	23.3	-0.00042 mg/L	0.000364	-0.00042 mg/L	0.000364	87.50%
Ti 334.940†	304.1	-0.00006 mg/L	0.000089	-0.00006 mg/L	0.000089	149.70%
Tl 190.801†	-22.9	-0.00861 mg/L	0.000992	-0.00861 mg/L	0.000992	11.52%
V 290.880†	-481.2	-0.00595 mg/L	0.001964	-0.00595 mg/L	0.001964	33.01%
Zn 206.200†	315.9	0.00221 mg/L	0.000279	0.00221 mg/L	0.000279	12.64%
K 766.490†	101.5	0.00845 mg/L	0.030805	0.00845 mg/L	0.030805	364.48%
Na 589.592†	166.3	0.0124 mg/L	0.00902	0.0124 mg/L	0.00902	73.04%
Sr 407.771†	631.7	-0.00002 mg/L	0.000051	-0.00002 mg/L	0.000051	232.56%
Li 670.784†	-52.5	-0.00721 mg/L	0.000165	-0.00721 mg/L	0.000165	2.29%

Sequence No.: 8
 Sample ID: LCSW 11 WG397463-03
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 55
 a&e Collected: 5/9/2012 4:49:35 PM
 a&a Type: Original
 n&itial Sample Vol:
 a&mple Prep Vol:

Nebulizer Parameters: LCSW 11 WG397463-03

Approved: May 10, 2012


Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: LCSW 11 WG397463-03

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2309645.7					33210.64	1.44%
YRADIAL	317137.1					4017.58	1.27%
Ga 417.206	1349437.1					20051.27	1.49%
GaRADIAL	95023.2					1325.68	1.40%
Ag 328.068†	63297.8	0.200 mg/L		0.0032	0.200 mg/L	0.0032	1.61%
Al 396.153†	38719.7	4.82 mg/L		0.040	4.82 mg/L	0.040	0.82%
As 188.979†	527.5	0.186 mg/L		0.0042	0.186 mg/L	0.0042	2.28%
Ba 233.527†	75284.3	0.498 mg/L		0.0070	0.498 mg/L	0.0070	1.41%
Be 234.861†	29907.0	0.0236 mg/L		0.00050	0.0236 mg/L	0.00050	2.11%
B 249.677†	81090.8	0.931 mg/L		0.0131	0.931 mg/L	0.0131	1.40%
Ca 227.546†	2197.3	4.72 mg/L		0.094	4.72 mg/L	0.094	1.99%
Cd 228.802†	1382.6	0.0242 mg/L		0.00092	0.0242 mg/L	0.00092	3.80%
Co 228.616†	3635.9	0.0960 mg/L		0.00189	0.0960 mg/L	0.00189	1.96%
Cr 267.716†	26729.7	0.249 mg/L		0.0042	0.249 mg/L	0.0042	1.69%
Cu 327.393†	69739.7	0.247 mg/L		0.0038	0.247 mg/L	0.0038	1.56%
Fe 239.562†	31203.6	1.93 mg/L		0.034	1.93 mg/L	0.034	1.74%
Mg 279.077†	17524.3	4.87 mg/L		0.095	4.87 mg/L	0.095	1.95%
Mn 257.610†	206039.2	0.249 mg/L		0.0040	0.249 mg/L	0.0040	1.60%
Mo 202.031†	18121.7	0.499 mg/L		0.0066	0.499 mg/L	0.0066	1.33%
Ni 231.604†	16780.0	0.252 mg/L		0.0041	0.252 mg/L	0.0041	1.63%
Pb 220.353†	2527.3	0.232 mg/L		0.0054	0.232 mg/L	0.0054	2.32%
Sb 206.836†	2487.5	0.589 mg/L		0.0106	0.589 mg/L	0.0106	1.80%
Se 196.026†	342.9	0.191 mg/L		0.0007	0.191 mg/L	0.0007	0.35%
Si 251.611†	107127.7	2.53 mg/L		0.026	2.53 mg/L	0.026	1.04%
Sn 189.927†	-38.5	-0.00651 mg/L		0.000514	-0.00651 mg/L	0.000514	7.89%
Ti 334.940†	489013.3	0.485 mg/L		0.0020	0.485 mg/L	0.0020	0.42%
Tl 190.801†	868.4	0.231 mg/L		0.0008	0.231 mg/L	0.0008	0.33%
V 290.880†	94722.0	0.490 mg/L		0.0086	0.490 mg/L	0.0086	1.76%
Zn 206.200†	19728.2	0.501 mg/L		0.0038	0.501 mg/L	0.0038	0.75%
K 766.490†	82836.9	23.4 mg/L		0.15	23.4 mg/L	0.15	0.64%
Na 589.592†	510857.1	24.2 mg/L		0.57	24.2 mg/L	0.57	2.37%
Sr 407.771†	1397173.2	0.493 mg/L		0.0118	0.493 mg/L	0.0118	2.39%
Li 670.784†	84665.9	0.482 mg/L		0.0020	0.482 mg/L	0.0020	0.42%

Sequence No.: 9

Sample ID: FBLK1 WG397445-01

Analyst: KHR

Initial Sample Wt:

Dilution:

autosampler Location: 56

Date Collected: 5/9/2012 4:55:35 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

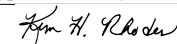
Nebulizer Parameters: FBLK1 WG397445-01

Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: FBLK1 WG397445-01

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2219417.7					11973.64	0.54%
YRADIAL	314911.1					3717.32	1.18%
Ga 417.206	1416675.5					9339.39	0.66%
GaRADIAL	94791.6					1270.58	1.34%
Ag 328.068†	-107.7	-0.00221 mg/L		0.000361	-0.00221 mg/L	0.000361	16.29%
Al 396.153†	168.3	0.00678 mg/L		0.000793	0.00678 mg/L	0.000793	11.71%
As 188.979†	-18.1	-0.00490 mg/L		0.002257	-0.00490 mg/L	0.002257	46.10%
Ba 233.527†	-38.1	-0.00404 mg/L		0.000062	-0.00404 mg/L	0.000062	1.52%
Be 234.861†	-615.6	-0.00066 mg/L		0.000019	-0.00066 mg/L	0.000019	2.83%
B 249.677†	521.8	0.00480 mg/L		0.000252	0.00480 mg/L	0.000252	5.26%
Ca 227.546†	3.8	0.00767 mg/L		0.035310	0.00767 mg/L	0.035310	460.43%
Cd 228.802†	24.6	0.00027 mg/L		0.000207	0.00027 mg/L	0.000207	78.13%
Co 228.616†	-7.2	-0.00083 mg/L		0.000121	-0.00083 mg/L	0.000121	14.62%
Cr 267.716†	116.6	-0.00089 mg/L		0.000070	-0.00089 mg/L	0.000070	7.89%
Cu 327.393†	620.5	0.00099 mg/L		0.000502	0.00099 mg/L	0.000502	50.74%

Approved: May 10, 2012



Fe 239.562†	229.7	0.0192	mg/L	0.00031	0.0192	mg/L	0.00031	1.60%
Mg 279.077†	78.3	0.0300	mg/L	0.00196	0.0300	mg/L	0.00196	6.52%
Mn 257.610†	1579.6	-0.00086	mg/L	0.000046	-0.00086	mg/L	0.000046	5.37%
Mo 202.031†	48.3	-0.00030	mg/L	0.000258	-0.00030	mg/L	0.000258	86.77%
Ni 231.604†	-77.2	-0.00346	mg/L	0.000185	-0.00346	mg/L	0.000185	5.35%
Pb 220.353†	-13.9	-0.00271	mg/L	0.001158	-0.00271	mg/L	0.001158	42.81%
Sb 206.836†	12.3	-0.00177	mg/L	0.000771	-0.00177	mg/L	0.000771	43.57%
Se 196.026†	13.7	0.0100	mg/L	0.00157	0.0100	mg/L	0.00157	15.65%
Si 251.611†	1440.2	0.0108	mg/L	0.00151	0.0108	mg/L	0.00151	13.95%
Sn 189.927†	9.5	-0.00178	mg/L	0.000589	-0.00178	mg/L	0.000589	33.10%
Ti 334.940†	995.7	0.00063	mg/L	0.000145	0.00063	mg/L	0.000145	23.20%
Tl 190.801†	-37.2	-0.0123	mg/L	0.00116	-0.0123	mg/L	0.00116	9.45%
V 290.880†	452.8	-0.00108	mg/L	0.002231	-0.00108	mg/L	0.002231	206.66%
Zn 206.200†	390.0	0.00411	mg/L	0.000365	0.00411	mg/L	0.000365	8.88%
K 766.490†	174.4	-0.118	mg/L	0.0094	-0.118	mg/L	0.0094	8.00%
Na 589.592†	2961525.1	147	mg/L	2.3	147	mg/L	2.3	1.54%
Sr 407.771†	621.4	-0.00003	mg/L	0.000008	-0.00003	mg/L	0.000008	29.26%
Li 670.784†	-45.1	-0.00717	mg/L	0.000122	-0.00717	mg/L	0.000122	1.71%

Sequence No.: 10

Sample ID: FBLK2 WG397445-02

Analyst: KHR

Initial Sample Wt:

Dilution:

u&osampler Location: 57

a&e Collected: 5/9/2012 5:02:35 PM

a&a Type: Original

n&tial Sample Vol:

a&ple Prep Vol:

Nebulizer Parameters: FBLK2 WG397445-02

Analyte	Back Pressure	Flow
All	154.0 kPa	0.50 L/min

Mean Data: FBLK2 WG397445-02

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD	
Y 371.029	2422190.0					20830.75	0.86%	
YRADIAL	329457.7					1881.51	0.57%	
Ga 417.206	1476055.8					18043.47	1.22%	
GaRADIAL	101342.5					3809.24	3.76%	
Ag 328.068†	-86.2	-0.00210	mg/L	0.000068	-0.00210	mg/L	0.000068	3.23%
Al 396.153†	709.6	0.0749	mg/L	0.00064	0.0749	mg/L	0.00064	0.85%
As 188.979†	-16.1	-0.00418	mg/L	0.000449	-0.00418	mg/L	0.000449	10.75%
Ba 233.527†	18.8	-0.00367	mg/L	0.000069	-0.00367	mg/L	0.000069	1.89%
Be 234.861†	-487.7	-0.00059	mg/L	0.000009	-0.00059	mg/L	0.000009	1.59%
B 249.677†	377.5	0.00308	mg/L	0.000176	0.00308	mg/L	0.000176	5.70%
Ca 227.546†	40.0	0.0850	mg/L	0.01707	0.0850	mg/L	0.01707	20.08%
Cd 228.802†	17.1	0.00013	mg/L	0.000305	0.00013	mg/L	0.000305	242.92%
Co 228.616†	-2.3	-0.00070	mg/L	0.000118	-0.00070	mg/L	0.000118	16.91%
Cr 267.716†	220.0	0.00008	mg/L	0.000072	0.00008	mg/L	0.000072	90.72%
Cu 327.393†	620.2	0.00100	mg/L	0.000343	0.00100	mg/L	0.000343	34.41%
Fe 239.562†	2278.1	0.146	mg/L	0.0021	0.146	mg/L	0.0021	1.41%
Mg 279.077†	239.1	0.0745	mg/L	0.00234	0.0745	mg/L	0.00234	3.14%
Mn 257.610†	5158.0	0.00351	mg/L	0.000105	0.00351	mg/L	0.000105	3.00%
Mo 202.031†	35.6	-0.00064	mg/L	0.000076	-0.00064	mg/L	0.000076	11.83%
Ni 231.604†	-47.7	-0.00302	mg/L	0.000098	-0.00302	mg/L	0.000098	3.25%
Pb 220.353†	24.3	0.00081	mg/L	0.001821	0.00081	mg/L	0.001821	223.94%
Sb 206.836†	11.6	-0.00194	mg/L	0.000775	-0.00194	mg/L	0.000775	40.01%
Se 196.026†	19.4	0.0132	mg/L	0.00079	0.0132	mg/L	0.00079	5.98%
Si 251.611†	4082.9	0.0739	mg/L	0.00061	0.0739	mg/L	0.00061	0.82%
Sn 189.927†	10.8	-0.00165	mg/L	0.000407	-0.00165	mg/L	0.000407	24.58%
Ti 334.940†	974.6	0.00062	mg/L	0.000080	0.00062	mg/L	0.000080	12.94%
Tl 190.801†	-26.7	-0.00962	mg/L	0.001514	-0.00962	mg/L	0.001514	15.74%
V 290.880†	-695.6	-0.00709	mg/L	0.002375	-0.00709	mg/L	0.002375	33.50%
Zn 206.200†	376.0	0.00376	mg/L	0.000152	0.00376	mg/L	0.000152	4.05%
K 766.490†	362.3	0.0814	mg/L	0.00483	0.0814	mg/L	0.00483	5.94%
Na 589.592†	1526.5	0.0762	mg/L	0.00598	0.0762	mg/L	0.00598	7.85%
Sr 407.771†	1465.8	0.00027	mg/L	0.000013	0.00027	mg/L	0.000013	4.88%
Li 670.784†	5.2	-0.00688	mg/L	0.000092	-0.00688	mg/L	0.000092	1.33%

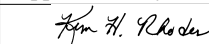
Sequence No.: 11

Sample ID: L1205016801

u&osampler Location: 58

a&e Collected: 5/9/2012 5:09:31 PM

Approved: May 10, 2012



Analyst: KHR
Initial Sample Wt:
Dilution:

alpha Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L1205016801

Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: L1205016801

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2326377.7				39413.01	1.69%
YRADIAL	318456.8				3314.04	1.04%
Ga 417.206	1435777.1				34031.97	2.37%
GaRADIAL	95356.2				1504.66	1.58%
Ag 328.068†	-7.1	-0.00171 mg/L	0.000471	-0.00171 mg/L	0.000471	27.45%
Al 396.153†	7348.6	0.910 mg/L	0.0069	0.910 mg/L	0.0069	0.76%
As 188.979†	-16.9	-0.00445 mg/L	0.001004	-0.00445 mg/L	0.001004	22.58%
Ba 233.527†	6093.3	0.0368 mg/L	0.00078	0.0368 mg/L	0.00078	2.13%
Be 234.861†	5066.1	0.00378 mg/L	0.000217	0.00378 mg/L	0.000217	5.75%
B 249.677†	20566.8	0.235 mg/L	0.0113	0.235 mg/L	0.0113	4.79%
Ca 227.546†	3354.4	6.93 mg/L	0.206	6.93 mg/L	0.206	2.98%
Cd 228.802†	229.8	0.00422 mg/L	0.000302	0.00422 mg/L	0.000302	7.15%
Co 228.616†	2486.6	0.0657 mg/L	0.00097	0.0657 mg/L	0.00097	1.47%
Cr 267.716†	776.2	0.00532 mg/L	0.000242	0.00532 mg/L	0.000242	4.54%
Cu 327.393†	13191.8	0.0456 mg/L	0.00180	0.0456 mg/L	0.00180	3.94%
Fe 239.562†	8223.3	0.513 mg/L	0.0028	0.513 mg/L	0.0028	0.54%
Mg 279.077†	3326.5	0.930 mg/L	0.0071	0.930 mg/L	0.0071	0.77%
Mn 257.610†	35339.1	0.0404 mg/L	0.00098	0.0404 mg/L	0.00098	2.42%
Mo 202.031†	163.9	0.00293 mg/L	0.000384	0.00293 mg/L	0.000384	13.10%
Ni 231.604†	6011.8	0.0888 mg/L	0.00134	0.0888 mg/L	0.00134	1.51%
Pb 220.353†	479.5	0.0429 mg/L	0.00239	0.0429 mg/L	0.00239	5.58%
Sb 206.836†	4.5	-0.00364 mg/L	0.001351	-0.00364 mg/L	0.001351	37.08%
Se 196.026†	16.9	0.0120 mg/L	0.00261	0.0120 mg/L	0.00261	21.81%
Si 251.611†	13707.6	0.304 mg/L	0.0071	0.304 mg/L	0.0071	2.35%
Sn 189.927†	-61.6	-0.00879 mg/L	0.000604	-0.00879 mg/L	0.000604	6.87%
Ti 334.940†	2362.0	0.00301 mg/L	0.000174	0.00301 mg/L	0.000174	5.80%
Tl 190.801†	-16.6	-0.00704 mg/L	0.002317	-0.00704 mg/L	0.002317	32.93%
V 290.880†	428.2	-0.00131 mg/L	0.001505	-0.00131 mg/L	0.001505	114.75%
Zn 206.200†	16928.8	0.427 mg/L	0.0071	0.427 mg/L	0.0071	1.65%
K 766.490†	6032.6	1.52 mg/L	0.024	1.52 mg/L	0.024	1.56%
Na 589.592†	3035000.2	151 mg/L	1.3	151 mg/L	1.3	0.87%
Sr 407.771†	405050.4	0.142 mg/L	0.0015	0.142 mg/L	0.0015	1.08%
Li 670.784†	10772.8	0.0553 mg/L	0.00088	0.0553 mg/L	0.00088	1.60%

Sequence No.: 12

Sample ID: L1205016802

Analyst: KHR
Initial Sample Wt:
Dilution:

autosampler Location: 59
Date Collected: 5/9/2012 5:15:32 PM
alpha Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L1205016802

Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: L1205016802

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2182898.9				26984.56	1.24%
YRADIAL	305761.9				4944.63	1.62%
Ga 417.206	1403294.9				23656.43	1.69%
GaRADIAL	93920.8				4340.03	4.62%
Ag 328.068†	-71.8	-0.00207 mg/L	0.000335	-0.00207 mg/L	0.000335	16.19%
Al 396.153†	606.7	0.0618 mg/L	0.00198	0.0618 mg/L	0.00198	3.21%
As 188.979†	-21.6	-0.00615 mg/L	0.001678	-0.00615 mg/L	0.001678	27.29%
Ba 233.527†	14626.9	0.0936 mg/L	0.00233	0.0936 mg/L	0.00233	2.49%
Be 234.861†	-323.1	-0.00044 mg/L	0.000015	-0.00044 mg/L	0.000015	3.32%

Approved: May 10, 2012

John H. Rhodes

B 249.677†	12498.1	0.143	mg/L	0.0022	0.143	mg/L	0.0022	1.57%
Ca 227.546†	4843.1	9.89	mg/L	0.185	9.89	mg/L	0.185	1.87%
Cd 228.802†	30.7	0.00039	mg/L	0.000142	0.00039	mg/L	0.000142	36.76%
Co 228.616†	36.5	0.00031	mg/L	0.000058	0.00031	mg/L	0.000058	18.78%
Cr 267.716†	374.8	0.00154	mg/L	0.000042	0.00154	mg/L	0.000042	2.73%
Cu 327.393†	1099.7	0.00269	mg/L	0.000177	0.00269	mg/L	0.000177	6.56%
Fe 239.562†	1437.7	0.0938	mg/L	0.00287	0.0938	mg/L	0.00287	3.06%
Mg 279.077†	2844.4	0.796	mg/L	0.0147	0.796	mg/L	0.0147	1.84%
Mn 257.610†	21778.6	0.0238	mg/L	0.00057	0.0238	mg/L	0.00057	2.39%
Mo 202.031†	115.9	0.00158	mg/L	0.000044	0.00158	mg/L	0.000044	2.77%
Ni 231.604†	104.4	-0.00071	mg/L	0.000168	-0.00071	mg/L	0.000168	23.69%
Pb 220.353†	9.2	-0.00051	mg/L	0.001679	-0.00051	mg/L	0.001679	331.81%
Sb 206.836†	8.7	-0.00265	mg/L	0.000464	-0.00265	mg/L	0.000464	17.47%
Se 196.026†	20.1	0.0136	mg/L	0.00460	0.0136	mg/L	0.00460	33.97%
Si 251.611†	21219.7	0.483	mg/L	0.0092	0.483	mg/L	0.0092	1.91%
Sn 189.927†	-83.0	-0.0109	mg/L	0.00096	-0.0109	mg/L	0.00096	8.83%
Ti 334.940†	529.2	0.00165	mg/L	0.000816	0.00165	mg/L	0.000816	49.58%
Tl 190.801†	-44.5	-0.0142	mg/L	0.00232	-0.0142	mg/L	0.00232	16.31%
V 290.880†	1342.2	0.00352	mg/L	0.001303	0.00352	mg/L	0.001303	36.99%
Zn 206.200†	1543.7	0.0336	mg/L	0.00041	0.0336	mg/L	0.00041	1.22%
K 766.490†	2201.9	0.442	mg/L	0.0110	0.442	mg/L	0.0110	2.49%
Na 589.592†	3110759.2	155	mg/L	6.5	155	mg/L	6.5	4.20%
Sr 407.771†	71108.4	0.0246	mg/L	0.00037	0.0246	mg/L	0.00037	1.49%
Li 670.784†	2079.4	0.00510	mg/L	0.000687	0.00510	mg/L	0.000687	13.47%

Sequence No.: 13
 Sample ID: L1205017701
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

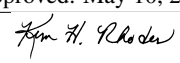
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 a&e Collected: 5/9/2012 5:22:30 PM
 a&a Type: Original
 nitial Sample Vol:
 a&ple Prep Vol:

Nebulizer Parameters: L1205017701

Analyte	Back Pressure	Flow
All	154.0 kPa	0.50 L/min

Mean Data: L1205017701

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Std.Dev.	RSD	
Y 371.029	2181141.8				9803.69	0.45%		
YRADIAL	303697.7				2852.08	0.94%		
Ga 417.206	1412459.4				31998.05	2.27%		
GaRADIAL	94160.7				3077.15	3.27%		
Ag 328.068†	-163.4	-0.00239	mg/L	0.000277	-0.00239	mg/L	0.000277	11.56%
Al 396.153†	1376.7	0.158	mg/L	0.0024	0.158	mg/L	0.0024	1.53%
As 188.979†	-19.5	-0.00546	mg/L	0.001360	-0.00546	mg/L	0.001360	24.91%
Ba 233.527†	253.9	-0.00209	mg/L	0.000045	-0.00209	mg/L	0.000045	2.14%
Be 234.861†	-689.2	-0.00069	mg/L	0.000054	-0.00069	mg/L	0.000054	7.76%
B 249.677†	13039.2	0.149	mg/L	0.0062	0.149	mg/L	0.0062	4.15%
Ca 227.546†	315.2	2.16	mg/L	0.025	2.16	mg/L	0.025	1.17%
Cd 228.802†	20.3	0.00027	mg/L	0.000251	0.00027	mg/L	0.000251	92.02%
Co 228.616†	116.8	0.00226	mg/L	0.000203	0.00226	mg/L	0.000203	8.99%
Cr 267.716†	169.0	0.00003	mg/L	0.000107	0.00003	mg/L	0.000107	426.13%
Cu 327.393†	673.3	0.00157	mg/L	0.000257	0.00157	mg/L	0.000257	16.43%
Fe 239.562†	589.3	0.0414	mg/L	0.00037	0.0414	mg/L	0.00037	0.90%
Mg 279.077†	1544.5	0.436	mg/L	0.0044	0.436	mg/L	0.0044	1.02%
Mn 257.610†	87141.2	0.104	mg/L	0.0019	0.104	mg/L	0.0019	1.80%
Mo 202.031†	503.8	0.0123	mg/L	0.00042	0.0123	mg/L	0.00042	3.41%
Ni 231.604†	119945.6	1.82	mg/L	0.029	1.82	mg/L	0.029	1.58%
Pb 220.353†	1.0	-0.00101	mg/L	0.000825	-0.00101	mg/L	0.000825	81.80%
Sb 206.836†	4.9	-0.00218	mg/L	0.000570	-0.00218	mg/L	0.000570	26.22%
Se 196.026†	15.9	0.0119	mg/L	0.00317	0.0119	mg/L	0.00317	26.65%
Si 251.611†	35266.8	0.818	mg/L	0.0326	0.818	mg/L	0.0326	3.98%
Sn 189.927†	-3.7	-0.00308	mg/L	0.000671	-0.00308	mg/L	0.000671	21.74%
Ti 334.940†	5587.2	0.00528	mg/L	0.001120	0.00528	mg/L	0.001120	21.22%
Tl 190.801†	-45.0	-0.0144	mg/L	0.00079	-0.0144	mg/L	0.00079	5.48%
V 290.880†	716.5	0.00028	mg/L	0.002083	0.00028	mg/L	0.002083	746.19%
Zn 206.200†	418273.6	10.7	mg/L	0.16	10.7	mg/L	0.16	1.50%
K 766.490†	1351.1	0.210	mg/L	0.0016	0.210	mg/L	0.0016	0.78%
Na 589.592†	2999528.5	149	mg/L	6.1	149	mg/L	6.1	4.13%

Approved: May 10, 2012


Sr 407.771†	8289.3	0.00267 mg/L	0.000029	0.00267 mg/L	0.000029	1.08%
Li 670.784†	49.9	-0.00662 mg/L	0.000011	-0.00662 mg/L	0.000011	0.16%

Sequence No.: 14
 Sample ID: L1205017701PS WG397515-01
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 61
 ame Collected: 5/9/2012 5:29:28 PM
 ama Type: Original
 nitial Sample Vol:
 ample Prep Vol:

Nebulizer Parameters: L1205017701PS WG397515-01
 Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: L1205017701PS WG397515-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2226963.0				25589.04	1.15%
YRADIAL	311852.1				624.15	0.20%
Ga 417.206	1359678.0				46890.73	3.45%
GaRADIAL	93361.6				682.97	0.73%
Ag 328.068†	63556.3	0.201 mg/L	0.0081	0.201 mg/L	0.0081	4.04%
Al 396.153†	40435.4	5.04 mg/L	0.024	5.04 mg/L	0.024	0.47%
As 188.979†	531.7	0.187 mg/L	0.0056	0.187 mg/L	0.0056	2.98%
Ba 233.527†	76661.6	0.507 mg/L	0.0057	0.507 mg/L	0.0057	1.12%
Be 234.861†	30101.6	0.0237 mg/L	0.00082	0.0237 mg/L	0.00082	3.46%
B 249.677†	93952.4	1.08 mg/L	0.046	1.08 mg/L	0.046	4.26%
Ca 227.546†	2632.4	6.89 mg/L	0.169	6.89 mg/L	0.169	2.45%
Cd 228.802†	1377.5	0.0242 mg/L	0.00168	0.0242 mg/L	0.00168	6.93%
Co 228.616†	3839.6	0.101 mg/L	0.0010	0.101 mg/L	0.0010	1.02%
Cr 267.716†	27243.7	0.254 mg/L	0.0022	0.254 mg/L	0.0022	0.85%
Cu 327.393†	70476.6	0.250 mg/L	0.0100	0.250 mg/L	0.0100	3.99%
Fe 239.562†	32149.6	1.99 mg/L	0.010	1.99 mg/L	0.010	0.48%
Mg 279.077†	19162.6	5.33 mg/L	0.021	5.33 mg/L	0.021	0.40%
Mn 257.610†	284180.8	0.345 mg/L	0.0050	0.345 mg/L	0.0050	1.44%
Mo 202.031†	18793.6	0.517 mg/L	0.0046	0.517 mg/L	0.0046	0.88%
Ni 231.604†	118424.0	1.79 mg/L	0.023	1.79 mg/L	0.023	1.30%
Pb 220.353†	2570.8	0.237 mg/L	0.0037	0.237 mg/L	0.0037	1.56%
Sb 206.836†	2472.4	0.587 mg/L	0.0232	0.587 mg/L	0.0232	3.96%
Se 196.026†	344.2	0.192 mg/L	0.0098	0.192 mg/L	0.0098	5.09%
Si 251.611†	140951.6	3.34 mg/L	0.109	3.34 mg/L	0.109	3.27%
Sn 189.927†	-52.4	-0.00788 mg/L	0.000932	-0.00788 mg/L	0.000932	11.83%
Ti 334.940†	506335.5	0.503 mg/L	0.0027	0.503 mg/L	0.0027	0.53%
Tl 190.801†	874.9	0.233 mg/L	0.0020	0.233 mg/L	0.0020	0.85%
V 290.880†	97357.3	0.504 mg/L	0.0024	0.504 mg/L	0.0024	0.48%
Zn 206.200†	387545.0	9.91 mg/L	0.157	9.91 mg/L	0.157	1.59%
K 766.490†	85838.5	24.1 mg/L	0.23	24.1 mg/L	0.23	0.96%
Na 589.592†	3167135.3	158 mg/L	1.0	158 mg/L	1.0	0.62%
Sr 407.771†	1422842.1	0.502 mg/L	0.0035	0.502 mg/L	0.0035	0.69%
Li 670.784†	85722.7	0.488 mg/L	0.0003	0.488 mg/L	0.0003	0.06%

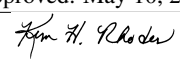
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 Sample ID: L1205017701DL WG397515-02
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 62
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 ama Type: Original
 nitial Sample Vol:
 ample Prep Vol:

Nebulizer Parameters: L1205017701DL WG397515-02
 Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: L1205017701DL WG397515-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2242649.8				16366.17	0.73%
YRADIAL	305209.0				9034.69	2.96%
Ga 417.206	1433198.3				33575.68	2.34%

Approved: May 10, 2012


GarADIAL	94843.6					717.64	0.76%
Ag 328.068†	-77.2	-0.00212 mg/L	0.000328	-0.00212 mg/L	0.000328	15.47%	
Al 396.153†	287.2	0.0216 mg/L	0.00077	0.0216 mg/L	0.00077	3.56%	
As 188.979†	-1.0	0.00113 mg/L	0.002551	0.00113 mg/L	0.002551	225.39%	
Ba 233.527†	31.1	-0.00358 mg/L	0.000124	-0.00358 mg/L	0.000124	3.46%	
Be 234.861†	-170.4	-0.00030 mg/L	0.000029	-0.00030 mg/L	0.000029	9.77%	
B 249.677†	3227.0	0.0360 mg/L	0.00061	0.0360 mg/L	0.00061	1.71%	
Ca 227.546†	65.7	0.442 mg/L	0.0118	0.442 mg/L	0.0118	2.67%	
Cd 228.802†	-2.2	-0.00023 mg/L	0.000120	-0.00023 mg/L	0.000120	51.54%	
Co 228.616†	19.4	-0.00016 mg/L	0.000281	-0.00016 mg/L	0.000281	172.89%	
Cr 267.716†	33.1	-0.00159 mg/L	0.000131	-0.00159 mg/L	0.000131	8.25%	
Cu 327.393†	221.2	-0.00035 mg/L	0.000636	-0.00035 mg/L	0.000636	184.26%	
Fe 239.562†	123.4	0.0126 mg/L	0.00012	0.0126 mg/L	0.00012	0.98%	
Mg 279.077†	333.2	0.101 mg/L	0.0016	0.101 mg/L	0.0016	1.59%	
Mn 257.610†	17351.7	0.0185 mg/L	0.00030	0.0185 mg/L	0.00030	1.60%	
Mo 202.031†	93.9	0.00097 mg/L	0.000142	0.00097 mg/L	0.000142	14.66%	
Ni 231.604†	24378.1	0.367 mg/L	0.0060	0.367 mg/L	0.0060	1.63%	
Pb 220.353†	-0.1	-0.00136 mg/L	0.000149	-0.00136 mg/L	0.000149	10.92%	
Sb 206.836†	4.7	-0.00330 mg/L	0.001327	-0.00330 mg/L	0.001327	40.15%	
Se 196.026†	1.3	0.00335 mg/L	0.001598	0.00335 mg/L	0.001598	47.70%	
Si 251.611†	7433.9	0.154 mg/L	0.0098	0.154 mg/L	0.0098	6.34%	
Sn 189.927†	2.9	-0.00243 mg/L	0.000321	-0.00243 mg/L	0.000321	13.21%	
Ti 334.940†	982.6	0.00063 mg/L	0.000157	0.00063 mg/L	0.000157	24.79%	
Tl 190.801†	-5.5	-0.00410 mg/L	0.000699	-0.00410 mg/L	0.000699	17.08%	
V 290.880†	413.9	-0.00128 mg/L	0.002123	-0.00128 mg/L	0.002123	165.27%	
Zn 206.200†	87147.3	2.22 mg/L	0.033	2.22 mg/L	0.033	1.49%	
K 766.490†	510.2	0.0933 mg/L	0.01650	0.0933 mg/L	0.01650	17.68%	
Na 589.592†	623304.3	29.6 mg/L	0.87	29.6 mg/L	0.87	2.94%	
Sr 407.771†	1701.1	0.00035 mg/L	0.000041	0.00035 mg/L	0.000041	11.76%	
Li 670.784†	87.3	-0.00641 mg/L	0.000054	-0.00641 mg/L	0.000054	0.84%	

Sequence No.: 16
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

autosampler Location: 6
 Date Collected: 5/9/2012 5:42:20 PM
 Sample Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	154.0 kPa	0.50 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2179350.5				11844.86	0.54%
YRADIAL	308364.2				2716.13	0.88%
Ga 417.206	1332358.0				40850.68	3.07%
GarADIAL	93419.0				849.66	0.91%
Ag 328.068†	131969.2	0.419 mg/L	0.0157	0.419 mg/L	0.0157	3.75%
QC value within limits for Ag		328.068	Recovery = 104.69%			
Al 396.153†	80995.6	10.1 mg/L	0.02	10.1 mg/L	0.02	0.16%
QC value within limits for Al		396.153	Recovery = 101.02%			
As 188.979†	1161.3	0.408 mg/L	0.0117	0.408 mg/L	0.0117	2.86%
QC value within limits for As		188.979	Recovery = 102.01%			
Ba 233.527†	158888.1	1.05 mg/L	0.006	1.05 mg/L	0.006	0.54%
QC value within limits for Ba		233.527	Recovery = 105.48%			
Be 234.861†	65289.8	0.0516 mg/L	0.00188	0.0516 mg/L	0.00188	3.64%
QC value within limits for Be		234.861	Recovery = 103.25%			
B 249.677†	44711.2	0.510 mg/L	0.0199	0.510 mg/L	0.0199	3.90%
QC value within limits for B		249.677	Recovery = 101.94%			
Ca 227.546†	4945.8	10.6 mg/L	0.37	10.6 mg/L	0.37	3.48%
QC value within limits for Ca		227.546	Recovery = 105.81%			
Cd 228.802†	2881.2	0.0506 mg/L	0.00245	0.0506 mg/L	0.00245	4.85%
QC value within limits for Cd		228.802	Recovery = 101.10%			
Co 228.616†	7846.1	0.208 mg/L	0.0016	0.208 mg/L	0.0016	0.78%
QC value within limits for Co		228.616	Recovery = 103.95%			
Cr 267.716†	55601.6	0.521 mg/L	0.0026	0.521 mg/L	0.0026	0.50%
QC value within limits for Cr		267.716	Recovery = 104.14%			
Cu 327.393†	144787.3	0.513 mg/L	0.0186	0.513 mg/L	0.0186	3.62%

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Fe	239.562†	66543.2	4.11 mg/L	0.016	0.39%
QC value within limits for Cu 327.393 Recovery = 102.68%					
Mg	279.077†	37109.6	10.3 mg/L	0.06	0.61%
QC value within limits for Fe 239.562 Recovery = 102.87%					
Mn	257.610†	437313.8	0.531 mg/L	0.0020	0.37%
QC value within limits for Mg 279.077 Recovery = 103.05%					
Mo	202.031†	37463.9	1.03 mg/L	0.007	0.72%
QC value within limits for Mn 257.610 Recovery = 106.30%					
Ni	231.604†	34748.1	0.524 mg/L	0.0023	0.45%
QC value within limits for Mo 202.031 Recovery = 103.31%					
Pb	220.353†	5691.1	0.525 mg/L	0.0047	0.89%
QC value within limits for Ni 231.604 Recovery = 104.83%					
Sb	206.836†	5252.7	1.25 mg/L	0.043	3.47%
QC value within limits for Pb 220.353 Recovery = 104.92%					
Se	196.026†	742.0	0.410 mg/L	0.0085	2.08%
QC value within limits for Sb 206.836 Recovery = 104.15%					
Si	251.611†	221436.7	5.25 mg/L	0.177	3.37%
QC value within limits for Se 196.026 Recovery = 102.59%					
Sn	189.927†	10520.3	1.03 mg/L	0.008	0.82%
QC value within limits for Si 251.611 Recovery = 105.01%					
Ti	334.940†	1023865.7	1.02 mg/L	0.005	0.48%
QC value within limits for Sn 189.927 Recovery = 103.46%					
Tl	190.801†	1998.6	0.533 mg/L	0.0017	0.31%
QC value within limits for Ti 334.940 Recovery = 101.64%					
V	290.880†	199453.7	1.04 mg/L	0.017	1.60%
QC value within limits for Tl 190.801 Recovery = 106.59%					
Zn	206.200†	42194.0	1.08 mg/L	0.010	0.92%
QC value within limits for V 290.880 Recovery = 103.55%					
K	766.490†	174396.7	49.9 mg/L	0.31	0.63%
QC value within limits for Zn 206.200 Recovery = 107.84%					
Na	589.592†	1040707.5	49.7 mg/L	1.11	2.23%
QC value within limits for K 766.490 Recovery = 99.88%					
Sr	407.771†	2901983.8	1.02 mg/L	0.019	1.82%
QC value within limits for Na 589.592 Recovery = 99.44%					
Li	670.784†	174268.5	1.000 mg/L	0.0107	1.07%
QC value within limits for Sr 407.771 Recovery = 102.33%					
QC value within limits for Li 670.784 Recovery = 99.97%					

Sequence No.: 17 u&osampler Location: 1
 Sample ID: CCB ame Collected: 5/9/2012 5:48:21 PM
 Analyst: ama Type: Original
 Initial Sample Wt: nitial Sample Vol:
 Dilution: aample Prep Vol:

Nebulizer Parameters: CCB
 Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: CCB	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2294395.2				36341.49	1.58%
YRADIAL	309504.6				3220.20	1.04%
Ga 417.206	1428025.8				29471.65	2.06%
GaRADIAL	94206.4				2543.61	2.70%
Ag 328.068†	-48.6	-0.00204 mg/L	0.000195	-0.00204 mg/L	0.000195	9.56%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153†	13.1	-0.0127 mg/L	0.00128	-0.0127 mg/L	0.00128	10.10%
QC value within limits for Al 396.153 Recovery = Not calculated						
As 188.979†	-3.1	0.00040 mg/L	0.001052	0.00040 mg/L	0.001052	260.41%
QC value within limits for As 188.979 Recovery = Not calculated						
Ba 233.527†	-7.0	-0.00384 mg/L	0.000054	-0.00384 mg/L	0.000054	1.40%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 234.861†	-72.9	-0.00023 mg/L	0.000021	-0.00023 mg/L	0.000021	9.11%
QC value within limits for Be 234.861 Recovery = Not calculated						
B 249.677†	613.6	0.00587 mg/L	0.000526	0.00587 mg/L	0.000526	8.96%
QC value within limits for B 249.677 Recovery = Not calculated						
Ca 227.546†	-0.7	-0.00098 mg/L	0.013584	-0.00098 mg/L	0.013584	>999.9%

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John H. Rhodes

Cd	228.802†	QC value within limits for Cd	228.802	Recovery = Not calculated	-3.9	-0.00028 mg/L	0.000015	-0.00028 mg/L	0.000015	5.37%
Co	228.616†	QC value within limits for Co	228.616	Recovery = Not calculated	-2.1	-0.00069 mg/L	0.000078	-0.00069 mg/L	0.000078	11.27%
Cr	267.716†	QC value within limits for Cr	267.716	Recovery = Not calculated	6.5	-0.00193 mg/L	0.000136	-0.00193 mg/L	0.000136	7.05%
Cu	327.393†	QC value within limits for Cu	327.393	Recovery = Not calculated	24.7	-0.00112 mg/L	0.000104	-0.00112 mg/L	0.000104	9.23%
Fe	239.562†	QC value within limits for Fe	239.562	Recovery = Not calculated	12.5	0.00575 mg/L	0.000634	0.00575 mg/L	0.000634	11.03%
Mg	279.077†	QC value within limits for Mg	279.077	Recovery = Not calculated	6.1	0.0100 mg/L	0.00051	0.0100 mg/L	0.00051	5.06%
Mn	257.610†	QC value within limits for Mn	257.610	Recovery = Not calculated	200.3	-0.00255 mg/L	0.000046	-0.00255 mg/L	0.000046	1.82%
Mo	202.031†	QC value within limits for Mo	202.031	Recovery = Not calculated	-0.0	-0.00163 mg/L	0.000044	-0.00163 mg/L	0.000044	2.73%
Ni	231.604†	QC value within limits for Ni	231.604	Recovery = Not calculated	-3.1	-0.00234 mg/L	0.000118	-0.00234 mg/L	0.000118	5.02%
Pb	220.353†	QC value within limits for Pb	220.353	Recovery = Not calculated	9.1	-0.00058 mg/L	0.001800	-0.00058 mg/L	0.001800	308.07%
Sb	206.836†	QC value within limits for Sb	206.836	Recovery = Not calculated	4.9	-0.00353 mg/L	0.000291	-0.00353 mg/L	0.000291	8.23%
Se	196.026†	QC value within limits for Se	196.026	Recovery = Not calculated	-2.7	0.00106 mg/L	0.002400	0.00106 mg/L	0.002400	227.33%
Si	251.611†	QC value within limits for Si	251.611	Recovery = Not calculated	73.0	-0.0218 mg/L	0.00056	-0.0218 mg/L	0.00056	2.55%
Sn	189.927†	QC value within limits for Sn	189.927	Recovery = Not calculated	-1.7	-0.00289 mg/L	0.000484	-0.00289 mg/L	0.000484	16.78%
Ti	334.940†	QC value within limits for Ti	334.940	Recovery = Not calculated	155.6	-0.00021 mg/L	0.000211	-0.00021 mg/L	0.000211	101.26%
Tl	190.801†	QC value within limits for Tl	190.801	Recovery = Not calculated	1.7	-0.00221 mg/L	0.001119	-0.00221 mg/L	0.001119	50.60%
V	290.880†	QC value within limits for V	290.880	Recovery = Not calculated	6.9	-0.00340 mg/L	0.002791	-0.00340 mg/L	0.002791	82.00%
Zn	206.200†	QC value within limits for Zn	206.200	Recovery = Not calculated	184.7	-0.00115 mg/L	0.000828	-0.00115 mg/L	0.000828	72.14%
K	766.490†	QC value within limits for K	766.490	Recovery = Not calculated	36.0	-0.00988 mg/L	0.012544	-0.00988 mg/L	0.012544	126.99%
Na	589.592†	QC value within limits for Na	589.592	Recovery = Not calculated	68.8	0.00778 mg/L	0.006891	0.00778 mg/L	0.006891	88.57%
Sr	407.771†	QC value within limits for Sr	407.771	Recovery = Not calculated	355.9	-0.00012 mg/L	0.000017	-0.00012 mg/L	0.000017	14.55%
Li	670.784†	QC value within limits for Li	670.784	Recovery = Not calculated	26.5	-0.00676 mg/L	0.000472	-0.00676 mg/L	0.000472	6.99%

All analyte(s) passed QC.

Sequence No.: 18

u\osampler Location: 63

Sample ID: L1205017702

a\ne Collected: 5/9/2012 5:55:14 PM

Analyst: KHR

a\ne Type: Original

Initial Sample Wt:

n\itial Sample Vol:

Dilution:

a\mple Prep Vol:

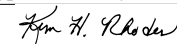
Nebulizer Parameters: L1205017702

Analyte	Back Pressure	Flow
All	154.0 kPa	0.50 L/min

Mean Data: L1205017702

Analyte	Mean Corrected	Calib. Conc. Units	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity			Conc. Units		
Y 371.029	2102606.4				20949.74	1.00%
YRADIAL	303477.9				1923.98	0.63%
Ga 417.206	1323232.7				50871.39	3.84%
GARADIAL	94566.0				787.58	0.83%
Ag 328.068†	-140755.7	-0.0856 mg/L	0.00928	-0.0856 mg/L	0.00928	10.84%
Al 396.153†	-186.1	0.0617 mg/L	0.00575	0.0617 mg/L	0.00575	9.33%
As 188.979†	-225.1	0.0118 mg/L	0.00273	0.0118 mg/L	0.00273	23.09%
Ba 233.527†	5359.3	0.0114 mg/L	0.00043	0.0114 mg/L	0.00043	3.79%
Be 234.861†	218066.5	-0.00694 mg/L	0.006031	-0.00694 mg/L	0.006031	86.89%

Approved: May 10, 2012



B 249.677†	52188.2	0.248 mg/L	0.0138	0.248 mg/L	0.0138	5.58%
Ca 227.546†	-4483.6	11.2 mg/L	2.55	11.2 mg/L	2.55	22.88%
Cd 228.802†	-61.6	-0.00222 mg/L	0.000185	-0.00222 mg/L	0.000185	8.31%
Co 228.616†	2186.2	0.0361 mg/L	0.00094	0.0361 mg/L	0.00094	2.60%
Cr 267.716†	-2718.7	0.00064 mg/L	0.000910	0.00064 mg/L	0.000910	142.67%
Cu 327.393†	-9807.6	0.0333 mg/L	0.00329	0.0333 mg/L	0.00329	9.90%
Fe 239.562†	13234484.1	818 mg/L	9.8	818 mg/L	9.8	1.20%
Mg 279.077†	2028.2	0.128 mg/L	0.0248	0.128 mg/L	0.0248	19.36%
Mn 257.610†	8420360.4	10.3 mg/L	0.07	10.3 mg/L	0.07	0.72%
Mo 202.031†	-1083.0	0.0107 mg/L	0.00046	0.0107 mg/L	0.00046	4.31%
Ni 231.604†	56115.8	0.848 mg/L	0.0105	0.848 mg/L	0.0105	1.24%
Pb 220.353†	1011.7	0.0149 mg/L	0.00623	0.0149 mg/L	0.00623	41.78%
Sb 206.836†	-60.5	0.0115 mg/L	0.00310	0.0115 mg/L	0.00310	26.86%
Se 196.026†	-391.9	0.0305 mg/L	0.01329	0.0305 mg/L	0.01329	43.63%
Si 251.611†	-775.4	-0.0417 mg/L	0.00073	-0.0417 mg/L	0.00073	1.76%
Sn 189.927†	-214.9	-0.0239 mg/L	0.00358	-0.0239 mg/L	0.00358	14.99%
Ti 334.940†	-464.0	-0.00219 mg/L	0.000679	-0.00219 mg/L	0.000679	31.05%
Tl 190.801†	-13.6	-0.0163 mg/L	0.00380	-0.0163 mg/L	0.00380	23.31%
V 290.880†	15696.0	-0.0508 mg/L	0.00271	-0.0508 mg/L	0.00271	5.35%
Zn 206.200†	307727.4	7.85 mg/L	0.120	7.85 mg/L	0.120	1.53%
K 766.490†	1043.8	0.119 mg/L	0.0075	0.119 mg/L	0.0075	6.29%
Na 589.592†	3085625.2	153 mg/L	2.7	153 mg/L	2.7	1.79%
Sr 407.771†	12665.1	0.00442 mg/L	0.000041	0.00442 mg/L	0.000041	0.94%
Li 670.784†	-21.1	-0.00703 mg/L	0.000598	-0.00703 mg/L	0.000598	8.51%

Sequence No.: 19

Sample ID: L1205017703

Analyst: KHR

Initial Sample Wt:

Dilution:

u&osampler Location: 64

ane Collected: 5/9/2012 6:01:25 PM

ana Type: Original

nitial Sample Vol:

ample Prep Vol:

Nebulizer Parameters: L1205017703

Analyte	Back Pressure	Flow
All	154.0 kPa	0.50 L/min

Mean Data: L1205017703

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2313102.3					19486.06	0.84%
YRADIAL	313234.4					2335.19	0.75%
Ga 417.206	1458041.3					5616.01	0.39%
GaRADIAL	97634.0					2225.43	2.28%
Ag 328.068†	-168.5	-0.00240 mg/L	0.000302	0.000302	-0.00240 mg/L	0.000302	12.57%
Al 396.153†	171.2	0.00455 mg/L	0.000959	0.000959	0.00455 mg/L	0.000959	21.10%
As 188.979†	-12.4	-0.00310 mg/L	0.002733	0.002733	-0.00310 mg/L	0.002733	88.15%
Ba 233.527†	7.4	-0.00371 mg/L	0.000123	0.000123	-0.00371 mg/L	0.000123	3.30%
Be 234.861†	-558.1	-0.00061 mg/L	0.000025	0.000025	-0.00061 mg/L	0.000025	4.11%
B 249.677†	1980.1	0.0216 mg/L	0.00022	0.00022	0.0216 mg/L	0.00022	1.01%
Ca 227.546†	2376.1	4.85 mg/L	0.032	0.032	4.85 mg/L	0.032	0.66%
Cd 228.802†	31.6	0.00038 mg/L	0.000060	0.000060	0.00038 mg/L	0.000060	15.81%
Co 228.616†	-9.6	-0.00082 mg/L	0.000011	0.000011	-0.00082 mg/L	0.000011	1.34%
Cr 267.716†	190.5	-0.00021 mg/L	0.000082	0.000082	-0.00021 mg/L	0.000082	40.06%
Cu 327.393†	677.6	0.00119 mg/L	0.000300	0.000300	0.00119 mg/L	0.000300	25.08%
Fe 239.562†	780.7	0.0532 mg/L	0.00200	0.00200	0.0532 mg/L	0.00200	3.76%
Mg 279.077†	3830.9	1.07 mg/L	0.006	0.006	1.07 mg/L	0.006	0.52%
Mn 257.610†	4248.3	0.00240 mg/L	0.000036	0.000036	0.00240 mg/L	0.000036	1.48%
Mo 202.031†	1412.7	0.0374 mg/L	0.00032	0.00032	0.0374 mg/L	0.00032	0.85%
Ni 231.604†	-4.1	-0.00235 mg/L	0.000427	0.000427	-0.00235 mg/L	0.000427	18.12%
Pb 220.353†	4.1	-0.00099 mg/L	0.001024	0.001024	-0.00099 mg/L	0.001024	103.14%
Sb 206.836†	9.9	-0.00231 mg/L	0.000916	0.000916	-0.00231 mg/L	0.000916	39.72%
Se 196.026†	11.8	0.00900 mg/L	0.003773	0.003773	0.00900 mg/L	0.003773	41.90%
Si 251.611†	2666.1	0.0397 mg/L	0.00073	0.00073	0.0397 mg/L	0.00073	1.85%
Sn 189.927†	-43.3	-0.00699 mg/L	0.000392	0.000392	-0.00699 mg/L	0.000392	5.61%
Ti 334.940†	54.2	0.00042 mg/L	0.000229	0.000229	0.00042 mg/L	0.000229	54.66%
Tl 190.801†	-34.4	-0.0116 mg/L	0.00293	0.00293	-0.0116 mg/L	0.00293	25.19%
V 290.880†	-273.6	-0.00491 mg/L	0.001707	0.001707	-0.00491 mg/L	0.001707	34.79%
Zn 206.200†	285.2	0.00144 mg/L	0.000232	0.000232	0.00144 mg/L	0.000232	16.16%
K 766.490†	11737.8	3.21 mg/L	0.013	0.013	3.21 mg/L	0.013	0.41%
Na 589.592†	1197874.8	57.4 mg/L	1.23	1.23	57.4 mg/L	1.23	2.14%

Approved: May 10, 2012

John H. Rhodes

Sr 407.771†	41761.0	0.0144 mg/L	0.00025	0.0144 mg/L	0.00025	1.77%
Li 670.784†	117.8	-0.00623 mg/L	0.000022	-0.00623 mg/L	0.000022	0.35%

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Sequence No.: 20                               u&osampler Location: 65
Sample ID: L1205021402 WG397463-01          a&e Collected: 5/9/2012 6:08:20 PM
Analyst: KHR                                  a&a Type: Original
Initial Sample Wt:                             n&tial Sample Vol:
Dilution:                                     a&ple Prep Vol:
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Nebulizer Parameters: L1205021402 WG397463-01
Analyte          Back Pressure    Flow
All              155.0 kPa          0.50 L/min
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Mean Data: L1205021402 WG397463-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2230435.0				16480.94	0.74%
YRADIAL	307903.2				1368.94	0.44%
Ga 417.206	1367094.6				24821.17	1.82%
GaRADIAL	93772.2				1221.53	1.30%
Ag 328.068†	291.5	-0.00085 mg/L	0.000572	-0.00085 mg/L	0.000572	67.61%
Al 396.153†	1680.0	0.197 mg/L	0.0059	0.197 mg/L	0.0059	2.99%
As 188.979†	-31.0	-0.00944 mg/L	0.002588	-0.00944 mg/L	0.002588	27.42%
Ba 233.527†	10237.3	0.0644 mg/L	0.00090	0.0644 mg/L	0.00090	1.40%
Be 234.861†	-244.7	-0.00043 mg/L	0.000092	-0.00043 mg/L	0.000092	21.39%
B 249.677†	8896.6	0.101 mg/L	0.0025	0.101 mg/L	0.0025	2.51%
Ca 227.546†	35593.6	72.7 mg/L	1.66	72.7 mg/L	1.66	2.28%
Cd 228.802†	50.2	0.00075 mg/L	0.000338	0.00075 mg/L	0.000338	44.97%
Co 228.616†	6.7	-0.00046 mg/L	0.000160	-0.00046 mg/L	0.000160	34.46%
Cr 267.716†	150.4	-0.00056 mg/L	0.000015	-0.00056 mg/L	0.000015	2.60%
Cu 327.393†	411.0	0.00027 mg/L	0.000697	0.00027 mg/L	0.000697	262.67%
Fe 239.562†	5677.6	0.356 mg/L	0.0034	0.356 mg/L	0.0034	0.95%
Mg 279.077†	6040.3	1.68 mg/L	0.012	1.68 mg/L	0.012	0.70%
Mn 257.610†	98600.6	0.118 mg/L	0.0004	0.118 mg/L	0.0004	0.30%
Mo 202.031†	96.2	0.00107 mg/L	0.000163	0.00107 mg/L	0.000163	15.25%
Ni 231.604†	35.6	-0.00175 mg/L	0.000583	-0.00175 mg/L	0.000583	33.31%
Pb 220.353†	-6.0	-0.00146 mg/L	0.001239	-0.00146 mg/L	0.001239	85.02%
Sb 206.836†	8.5	-0.00267 mg/L	0.001421	-0.00267 mg/L	0.001421	53.17%
Se 196.026†	14.5	0.0105 mg/L	0.00136	0.0105 mg/L	0.00136	12.89%
Si 251.611†	10621.3	0.230 mg/L	0.0088	0.230 mg/L	0.0088	3.81%
Sn 189.927†	-229.2	-0.0253 mg/L	0.00039	-0.0253 mg/L	0.00039	1.54%
Ti 334.940†	-9574.3	0.00104 mg/L	0.000855	0.00104 mg/L	0.000855	81.89%
Tl 190.801†	-59.2	-0.0183 mg/L	0.00193	-0.0183 mg/L	0.00193	10.55%
V 290.880†	1085.7	0.00212 mg/L	0.001086	0.00212 mg/L	0.001086	51.16%
Zn 206.200†	244.5	0.00039 mg/L	0.000118	0.00039 mg/L	0.000118	30.70%
K 766.490†	1082.8	0.129 mg/L	0.0045	0.129 mg/L	0.0045	3.48%
Na 589.592†	3099771.4	154 mg/L	0.4	154 mg/L	0.4	0.26%
Sr 407.771†	490455.9	0.171 mg/L	0.0022	0.171 mg/L	0.0022	1.30%
Li 670.784†	92.3	-0.00638 mg/L	0.000284	-0.00638 mg/L	0.000284	4.45%

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Sequence No.: 21                               u&osampler Location: 66
Sample ID: L1205021402S WG397463-04          a&e Collected: 5/9/2012 6:14:19 PM
Analyst: KHR                                  a&a Type: Original
Initial Sample Wt:                             n&tial Sample Vol:
Dilution:                                     a&ple Prep Vol:
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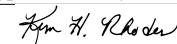
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Nebulizer Parameters: L1205021402S WG397463-04
Analyte          Back Pressure    Flow
All              154.0 kPa          0.50 L/min
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Mean Data: L1205021402S WG397463-04

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2161899.7				22973.58	1.06%
YRADIAL	313158.5				4186.27	1.34%
Ga 417.206	1339601.1				19582.66	1.46%

Approved: May 10, 2012



GarADIAL	93962.8					691.74	0.74%
Ag 328.068†	62924.9	0.199 mg/L	0.0028	0.199 mg/L	0.0028	1.42%	1.42%
Al 396.153†	39582.8	4.93 mg/L	0.024	4.93 mg/L	0.024	0.48%	0.48%
As 188.979†	515.1	0.182 mg/L	0.0005	0.182 mg/L	0.0005	0.29%	0.29%
Ba 233.527†	84996.1	0.562 mg/L	0.0077	0.562 mg/L	0.0077	1.38%	1.38%
Be 234.861†	29807.1	0.0235 mg/L	0.00032	0.0235 mg/L	0.00032	1.36%	1.36%
B 249.677†	89631.2	1.03 mg/L	0.016	1.03 mg/L	0.016	1.56%	1.56%
Ca 227.546†	39064.3	80.0 mg/L	1.26	80.0 mg/L	1.26	1.58%	1.58%
Cd 228.802†	1362.3	0.0238 mg/L	0.00089	0.0238 mg/L	0.00089	3.75%	3.75%
Co 228.616†	3644.6	0.0962 mg/L	0.00153	0.0962 mg/L	0.00153	1.59%	1.59%
Cr 267.716†	26670.8	0.249 mg/L	0.0029	0.249 mg/L	0.0029	1.16%	1.16%
Cu 327.393†	69539.1	0.246 mg/L	0.0036	0.246 mg/L	0.0036	1.45%	1.45%
Fe 239.562†	31035.4	1.92 mg/L	0.004	1.92 mg/L	0.004	0.22%	0.22%
Mg 279.077†	23170.0	6.44 mg/L	0.034	6.44 mg/L	0.034	0.53%	0.53%
Mn 257.610†	300441.9	0.364 mg/L	0.0075	0.364 mg/L	0.0075	2.05%	2.05%
Mo 202.031†	18421.9	0.507 mg/L	0.0082	0.507 mg/L	0.0082	1.61%	1.61%
Ni 231.604†	16667.9	0.250 mg/L	0.0034	0.250 mg/L	0.0034	1.35%	1.35%
Pb 220.353†	2551.9	0.235 mg/L	0.0035	0.235 mg/L	0.0035	1.49%	1.49%
Sb 206.836†	2460.2	0.583 mg/L	0.0087	0.583 mg/L	0.0087	1.49%	1.49%
Se 196.026†	360.3	0.201 mg/L	0.0036	0.201 mg/L	0.0036	1.79%	1.79%
Si 251.611†	121020.6	2.86 mg/L	0.012	2.86 mg/L	0.012	0.42%	0.42%
Sn 189.927†	-236.5	-0.0260 mg/L	0.00092	-0.0260 mg/L	0.00092	3.54%	3.54%
Ti 334.940†	488643.6	0.496 mg/L	0.0008	0.496 mg/L	0.0008	0.15%	0.15%
Tl 190.801†	809.8	0.215 mg/L	0.0095	0.215 mg/L	0.0095	4.42%	4.42%
V 290.880†	97759.2	0.506 mg/L	0.0019	0.506 mg/L	0.0019	0.37%	0.37%
Zn 206.200†	19451.4	0.494 mg/L	0.0053	0.494 mg/L	0.0053	1.07%	1.07%
K 766.490†	85324.6	24.0 mg/L	0.23	24.0 mg/L	0.23	0.95%	0.95%
Na 589.592†	3658916.7	184 mg/L	3.6	184 mg/L	3.6	1.95%	1.95%
Sr 407.771†	1888489.3	0.664 mg/L	0.0200	0.664 mg/L	0.0200	3.01%	3.01%
Li 670.784†	86021.7	0.490 mg/L	0.0076	0.490 mg/L	0.0076	1.55%	1.55%

Sequence No.: 22

Sample ID: L1205021402SD WG397463-05

Analyst: KHR

Initial Sample Wt:

Dilution:

Sampler Location: 67

Date Collected: 5/9/2012 6:20:19 PM

Sample Type: Original

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: L1205021402SD WG397463-05

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: L1205021402SD WG397463-05

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Units	Conc.			Units
Y 371.029	2162149.0					39655.68	1.83%	
YRADIAL	306649.2					961.28	0.31%	
Ga 417.206	1342697.7					35074.62	2.61%	
GarADIAL	93047.3					526.49	0.57%	
Ag 328.068†	63857.2	0.202 mg/L	0.0061	0.202 mg/L	0.0061	3.03%	3.03%	
Al 396.153†	39800.9	4.96 mg/L	0.016	4.96 mg/L	0.016	0.32%	0.32%	
As 188.979†	522.9	0.184 mg/L	0.0045	0.184 mg/L	0.0045	2.43%	2.43%	
Ba 233.527†	85898.7	0.568 mg/L	0.0111	0.568 mg/L	0.0111	1.95%	1.95%	
Be 234.861†	30301.5	0.0239 mg/L	0.00063	0.0239 mg/L	0.00063	2.65%	2.65%	
B 249.677†	91017.8	1.05 mg/L	0.032	1.05 mg/L	0.032	3.07%	3.07%	
Ca 227.546†	39031.2	79.9 mg/L	2.81	79.9 mg/L	2.81	3.52%	3.52%	
Cd 228.802†	1379.0	0.0241 mg/L	0.00106	0.0241 mg/L	0.00106	4.37%	4.37%	
Co 228.616†	3708.9	0.0980 mg/L	0.00178	0.0980 mg/L	0.00178	1.82%	1.82%	
Cr 267.716†	27224.6	0.254 mg/L	0.0047	0.254 mg/L	0.0047	1.83%	1.83%	
Cu 327.393†	70379.7	0.249 mg/L	0.0073	0.249 mg/L	0.0073	2.94%	2.94%	
Fe 239.562†	31683.5	1.96 mg/L	0.028	1.96 mg/L	0.028	1.42%	1.42%	
Mg 279.077†	23555.5	6.54 mg/L	0.047	6.54 mg/L	0.047	0.72%	0.72%	
Mn 257.610†	303281.6	0.368 mg/L	0.0087	0.368 mg/L	0.0087	2.37%	2.37%	
Mo 202.031†	18616.3	0.513 mg/L	0.0101	0.513 mg/L	0.0101	1.97%	1.97%	
Ni 231.604†	17001.1	0.255 mg/L	0.0048	0.255 mg/L	0.0048	1.88%	1.88%	
Pb 220.353†	2605.3	0.240 mg/L	0.0041	0.240 mg/L	0.0041	1.73%	1.73%	
Sb 206.836†	2493.3	0.591 mg/L	0.0202	0.591 mg/L	0.0202	3.41%	3.41%	
Se 196.026†	363.4	0.202 mg/L	0.0038	0.202 mg/L	0.0038	1.90%	1.90%	
Si 251.611†	121852.9	2.88 mg/L	0.065	2.88 mg/L	0.065	2.26%	2.26%	
Sn 189.927†	-223.8	-0.0248 mg/L	0.00053	-0.0248 mg/L	0.00053	2.13%	2.13%	

Approved: May 10, 2012

[Signature]

Ti 334.940†	489168.0	0.497 mg/L	0.0037	0.497 mg/L	0.0037	0.74%
Tl 190.801†	837.9	0.223 mg/L	0.0044	0.223 mg/L	0.0044	2.00%
V 290.880†	98796.4	0.511 mg/L	0.0069	0.511 mg/L	0.0069	1.35%
Zn 206.200†	19804.0	0.503 mg/L	0.0075	0.503 mg/L	0.0075	1.50%
K 766.490†	85493.5	24.0 mg/L	0.13	24.0 mg/L	0.13	0.54%
Na 589.592†	3621757.7	182 mg/L	1.1	182 mg/L	1.1	0.59%
Sr 407.771†	1903651.5	0.670 mg/L	0.0025	0.670 mg/L	0.0025	0.38%
Li 670.784†	85136.0	0.485 mg/L	0.0037	0.485 mg/L	0.0037	0.76%

Sequence No.: 23

Sample ID: L1205022701

Analyst: KHR

Initial Sample Wt:

Dilution:

u&osampler Location: 68

a&e Collected: 5/9/2012 6:26:19 PM

a&a Type: Original

n&tial Sample Vol:

a&ple Prep Vol:

Nebulizer Parameters: L1205022701

Analyte	Back Pressure	Flow
All	154.0 kPa	0.50 L/min

Mean Data: L1205022701

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2190867.4					20621.20	0.94%
YRADIAL	306994.7					5172.60	1.68%
Ga 417.206	1476254.1					23973.17	1.62%
GaRADIAL	97327.9					1455.09	1.50%
Ag 328.068†	996.5	0.00132 mg/L	0.000060	0.00132 mg/L	0.000060	4.55%	
Al 396.153†	748.1	0.0796 mg/L	0.00116	0.0796 mg/L	0.00116	1.46%	
As 188.979†	-29.0	-0.00876 mg/L	0.003217	-0.00876 mg/L	0.003217	36.71%	
Ba 233.527†	4490.9	0.0261 mg/L	0.00020	0.0261 mg/L	0.00020	0.76%	
Be 234.861†	-366.0	-0.00050 mg/L	0.000013	-0.00050 mg/L	0.000013	2.67%	
B 249.677†	1947.0	0.0211 mg/L	0.00068	0.0211 mg/L	0.00068	3.22%	
Ca 227.546†	118596.7	242 mg/L	9.1	242 mg/L	9.1	3.74%	
Cd 228.802†	21.9	0.00024 mg/L	0.000181	0.00024 mg/L	0.000181	76.81%	
Co 228.616†	-7.6	-0.00075 mg/L	0.000263	-0.00075 mg/L	0.000263	35.14%	
Cr 267.716†	218.9	0.00007 mg/L	0.000074	0.00007 mg/L	0.000074	99.16%	
Cu 327.393†	196.9	-0.00055 mg/L	0.000753	-0.00055 mg/L	0.000753	138.16%	
Fe 239.562†	2971.4	0.189 mg/L	0.0018	0.189 mg/L	0.0018	0.97%	
Mg 279.077†	222.6	0.0699 mg/L	0.00665	0.0699 mg/L	0.00665	9.50%	
Mn 257.610†	7983.0	0.00696 mg/L	0.000068	0.00696 mg/L	0.000068	0.98%	
Mo 202.031†	98.9	0.00111 mg/L	0.000309	0.00111 mg/L	0.000309	27.79%	
Ni 231.604†	-63.0	-0.00324 mg/L	0.000168	-0.00324 mg/L	0.000168	5.19%	
Pb 220.353†	0.4	0.00055 mg/L	0.000484	0.00055 mg/L	0.000484	88.07%	
Sb 206.836†	4.1	-0.00374 mg/L	0.002119	-0.00374 mg/L	0.002119	56.60%	
Se 196.026†	34.8	0.0216 mg/L	0.00133	0.0216 mg/L	0.00133	6.13%	
Si 251.611†	10936.7	0.237 mg/L	0.0042	0.237 mg/L	0.0042	1.75%	
Sn 189.927†	-314.3	-0.0337 mg/L	0.00039	-0.0337 mg/L	0.00039	1.16%	
Ti 334.940†	-45098.9	-0.00876 mg/L	0.001364	-0.00876 mg/L	0.001364	15.56%	
Tl 190.801†	-80.3	-0.0241 mg/L	0.00285	-0.0241 mg/L	0.00285	11.83%	
V 290.880†	1023.6	0.00187 mg/L	0.002785	0.00187 mg/L	0.002785	149.05%	
Zn 206.200†	246.5	0.00044 mg/L	0.000124	0.00044 mg/L	0.000124	27.87%	
K 766.490†	18901.5	5.28 mg/L	0.030	5.28 mg/L	0.030	0.57%	
Na 589.592†	195774.8	9.22 mg/L	0.197	9.22 mg/L	0.197	2.13%	
Sr 407.771†	437532.3	0.149 mg/L	0.0029	0.149 mg/L	0.0029	1.96%	
Li 670.784†	611.8	-0.00338 mg/L	0.000099	-0.00338 mg/L	0.000099	2.93%	

Sequence No.: 24

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

u&osampler Location: 6

a&e Collected: 5/9/2012 6:33:15 PM

a&a Type: Original

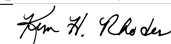
n&tial Sample Vol:

a&ple Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Approved: May 10, 2012



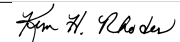
Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2243017.2				44320.58	1.98%
YRADIAL	308163.6				4364.78	1.42%
Ga 417.206	1362821.9				24586.76	1.80%
GA RADIAL	93089.1				1563.86	1.68%
Ag 328.068†	126958.4	0.403 mg/L	0.0141	0.403 mg/L	0.0141	3.50%
QC value within limits for Ag		328.068	Recovery = 100.70%			
Al 396.153†	78987.7	9.85 mg/L	0.027	9.85 mg/L	0.027	0.27%
QC value within limits for Al		396.153	Recovery = 98.53%			
As 188.979†	1117.9	0.393 mg/L	0.0060	0.393 mg/L	0.0060	1.52%
QC value within limits for As		188.979	Recovery = 98.21%			
Ba 233.527†	152201.7	1.01 mg/L	0.009	1.01 mg/L	0.009	0.87%
QC value within limits for Ba		233.527	Recovery = 101.03%			
Be 234.861†	63725.4	0.0504 mg/L	0.00153	0.0504 mg/L	0.00153	3.04%
QC value within limits for Be		234.861	Recovery = 100.74%			
B 249.677†	43683.5	0.498 mg/L	0.0191	0.498 mg/L	0.0191	3.83%
QC value within limits for B		249.677	Recovery = 99.60%			
Ca 227.546†	4715.3	10.1 mg/L	0.21	10.1 mg/L	0.21	2.08%
QC value within limits for Ca		227.546	Recovery = 101.06%			
Cd 228.802†	2783.6	0.0488 mg/L	0.00157	0.0488 mg/L	0.00157	3.22%
QC value within limits for Cd		228.802	Recovery = 97.66%			
Co 228.616†	7480.5	0.198 mg/L	0.0048	0.198 mg/L	0.0048	2.41%
QC value within limits for Co		228.616	Recovery = 99.09%			
Cr 267.716†	53397.0	0.500 mg/L	0.0038	0.500 mg/L	0.0038	0.77%
QC value within limits for Cr		267.716	Recovery = 99.99%			
Cu 327.393†	138969.5	0.493 mg/L	0.0163	0.493 mg/L	0.0163	3.30%
QC value within limits for Cu		327.393	Recovery = 98.55%			
Fe 239.562†	65402.1	4.04 mg/L	0.033	4.04 mg/L	0.033	0.82%
QC value within limits for Fe		239.562	Recovery = 101.11%			
Mg 279.077†	36373.4	10.1 mg/L	0.08	10.1 mg/L	0.08	0.81%
QC value within limits for Mg		279.077	Recovery = 101.00%			
Mn 257.610†	411910.4	0.500 mg/L	0.0045	0.500 mg/L	0.0045	0.89%
QC value within limits for Mn		257.610	Recovery = 100.09%			
Mo 202.031†	36046.6	0.994 mg/L	0.0055	0.994 mg/L	0.0055	0.55%
QC value within limits for Mo		202.031	Recovery = 99.39%			
Ni 231.604†	34372.6	0.518 mg/L	0.0114	0.518 mg/L	0.0114	2.20%
QC value within limits for Ni		231.604	Recovery = 103.69%			
Pb 220.353†	5405.9	0.498 mg/L	0.0096	0.498 mg/L	0.0096	1.92%
QC value within limits for Pb		220.353	Recovery = 99.66%			
Sb 206.836†	5042.2	1.20 mg/L	0.025	1.20 mg/L	0.025	2.04%
QC value within limits for Sb		206.836	Recovery = 99.96%			
Se 196.026†	720.3	0.398 mg/L	0.0086	0.398 mg/L	0.0086	2.17%
QC value within limits for Se		196.026	Recovery = 99.62%			
Si 251.611†	211603.6	5.02 mg/L	0.135	5.02 mg/L	0.135	2.68%
QC value within limits for Si		251.611	Recovery = 100.32%			
Sn 189.927†	10010.2	0.984 mg/L	0.0233	0.984 mg/L	0.0233	2.36%
QC value within limits for Sn		189.927	Recovery = 98.43%			
Ti 334.940†	989318.1	0.982 mg/L	0.0026	0.982 mg/L	0.0026	0.26%
QC value within limits for Ti		334.940	Recovery = 98.21%			
Tl 190.801†	1913.5	0.510 mg/L	0.0047	0.510 mg/L	0.0047	0.93%
QC value within limits for Tl		190.801	Recovery = 102.05%			
V 290.880†	189469.2	0.983 mg/L	0.0054	0.983 mg/L	0.0054	0.55%
QC value within limits for V		290.880	Recovery = 98.34%			
Zn 206.200†	40346.3	1.03 mg/L	0.010	1.03 mg/L	0.010	1.00%
QC value within limits for Zn		206.200	Recovery = 103.10%			
K 766.490†	169440.6	48.5 mg/L	0.27	48.5 mg/L	0.27	0.56%
QC value within limits for K		766.490	Recovery = 96.98%			
Na 589.592†	1025138.4	49.0 mg/L	1.32	49.0 mg/L	1.32	2.70%
QC value within limits for Na		589.592	Recovery = 97.93%			
Sr 407.771†	2853384.5	1.01 mg/L	0.025	1.01 mg/L	0.025	2.44%
QC value within limits for Sr		407.771	Recovery = 100.62%			
Li 670.784†	169128.0	0.970 mg/L	0.0056	0.970 mg/L	0.0056	0.58%
QC value within limits for Li		670.784	Recovery = 97.00%			

All analyte(s) passed QC.

Sequence No.: 25
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:

Sampler Location: 1
 Date Collected: 5/9/2012 6:39:15 PM
 Data Type: Original
 Initial Sample Vol:

Approved: May 10, 2012


Dilution:

Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	154.0 kPa	0.50 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2337176.2				24742.81	1.06%
YRADIAL	310934.6				5092.88	1.64%
Ga 417.206	1433430.3				29708.07	2.07%
GaRADIAL	94801.9				1895.88	2.00%
Ag 328.068†	-144.2	-0.00234 mg/L	0.000254	-0.00234 mg/L	0.000254	10.86%
QC value within limits for Ag	328.068	Recovery =	Not calculated			
Al 396.153†	29.2	-0.0106 mg/L	0.00192	-0.0106 mg/L	0.00192	18.09%
QC value within limits for Al	396.153	Recovery =	Not calculated			
As 188.979†	-0.8	0.00125 mg/L	0.001235	0.00125 mg/L	0.001235	98.89%
QC value within limits for As	188.979	Recovery =	Not calculated			
Ba 233.527†	5.9	-0.00375 mg/L	0.000104	-0.00375 mg/L	0.000104	2.77%
QC value within limits for Ba	233.527	Recovery =	Not calculated			
Be 234.861†	-75.7	-0.00023 mg/L	0.000023	-0.00023 mg/L	0.000023	10.22%
QC value within limits for Be	234.861	Recovery =	Not calculated			
B 249.677†	702.1	0.00689 mg/L	0.000524	0.00689 mg/L	0.000524	7.61%
QC value within limits for B	249.677	Recovery =	Not calculated			
Ca 227.546†	0.0	0.00065 mg/L	0.026493	0.00065 mg/L	0.026493	>999.9%
QC value within limits for Ca	227.546	Recovery =	Not calculated			
Cd 228.802†	-2.2	-0.00025 mg/L	0.000009	-0.00025 mg/L	0.000009	3.77%
QC value within limits for Cd	228.802	Recovery =	Not calculated			
Co 228.616†	5.7	-0.00048 mg/L	0.000144	-0.00048 mg/L	0.000144	29.75%
QC value within limits for Co	228.616	Recovery =	Not calculated			
Cr 267.716†	5.9	-0.00193 mg/L	0.000031	-0.00193 mg/L	0.000031	1.60%
QC value within limits for Cr	267.716	Recovery =	Not calculated			
Cu 327.393†	35.9	-0.00109 mg/L	0.000458	-0.00109 mg/L	0.000458	42.23%
QC value within limits for Cu	327.393	Recovery =	Not calculated			
Fe 239.562†	66.3	0.00907 mg/L	0.000688	0.00907 mg/L	0.000688	7.59%
QC value within limits for Fe	239.562	Recovery =	Not calculated			
Mg 279.077†	9.3	0.0109 mg/L	0.00301	0.0109 mg/L	0.00301	27.66%
QC value within limits for Mg	279.077	Recovery =	Not calculated			
Mn 257.610†	185.5	-0.00256 mg/L	0.000025	-0.00256 mg/L	0.000025	0.96%
QC value within limits for Mn	257.610	Recovery =	Not calculated			
Mo 202.031†	1.7	-0.00158 mg/L	0.000291	-0.00158 mg/L	0.000291	18.37%
QC value within limits for Mo	202.031	Recovery =	Not calculated			
Ni 231.604†	-5.5	-0.00238 mg/L	0.000168	-0.00238 mg/L	0.000168	7.07%
QC value within limits for Ni	231.604	Recovery =	Not calculated			
Pb 220.353†	6.4	-0.00084 mg/L	0.001158	-0.00084 mg/L	0.001158	138.56%
QC value within limits for Pb	220.353	Recovery =	Not calculated			
Sb 206.836†	6.5	-0.00315 mg/L	0.000702	-0.00315 mg/L	0.000702	22.31%
QC value within limits for Sb	206.836	Recovery =	Not calculated			
Se 196.026†	0.3	0.00270 mg/L	0.001366	0.00270 mg/L	0.001366	50.65%
QC value within limits for Se	196.026	Recovery =	Not calculated			
Si 251.611†	49.7	-0.0223 mg/L	0.00041	-0.0223 mg/L	0.00041	1.85%
QC value within limits for Si	251.611	Recovery =	Not calculated			
Sn 189.927†	-3.8	-0.00309 mg/L	0.000337	-0.00309 mg/L	0.000337	10.89%
QC value within limits for Sn	189.927	Recovery =	Not calculated			
Ti 334.940†	147.8	-0.00022 mg/L	0.000087	-0.00022 mg/L	0.000087	40.42%
QC value within limits for Ti	334.940	Recovery =	Not calculated			
Tl 190.801†	-7.7	-0.00465 mg/L	0.001482	-0.00465 mg/L	0.001482	31.89%
QC value within limits for Tl	190.801	Recovery =	Not calculated			
V 290.880†	-198.7	-0.00448 mg/L	0.001324	-0.00448 mg/L	0.001324	29.58%
QC value within limits for V	290.880	Recovery =	Not calculated			
Zn 206.200†	120.1	-0.00280 mg/L	0.000096	-0.00280 mg/L	0.000096	3.44%
QC value within limits for Zn	206.200	Recovery =	Not calculated			
K 766.490†	81.5	0.00285 mg/L	0.020131	0.00285 mg/L	0.020131	706.30%
QC value within limits for K	766.490	Recovery =	Not calculated			
Na 589.592†	91.6	0.00885 mg/L	0.004854	0.00885 mg/L	0.004854	54.84%
QC value within limits for Na	589.592	Recovery =	Not calculated			
Sr 407.771†	532.7	-0.00006 mg/L	0.000010	-0.00006 mg/L	0.000010	17.78%
QC value within limits for Sr	407.771	Recovery =	Not calculated			
Li 670.784†	-11.6	-0.00698 mg/L	0.000208	-0.00698 mg/L	0.000208	2.98%

Approved: May 10, 2012

John H. Rhodes

QC value within limits for Li 670.784 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 26 u&osampler Location: 71
Sample ID: PBW A7 WG397432-03 a&me Collected: 5/9/2012 6:46:09 PM
Analyst: KHR a&ma Type: Original
Initial Sample Wt: n&itial Sample Vol:
Dilution: a&mple Prep Vol:

Nebulizer Parameters: PBW A7 WG397432-03
Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: PBW A7 WG397432-03

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li with their respective values.

Sequence No.: 27 u&osampler Location: 72
Sample ID: LCSW A7 WG397432-04 a&me Collected: 5/9/2012 6:53:03 PM
Analyst: KHR a&ma Type: Original
Initial Sample Wt: n&itial Sample Vol:
Dilution: a&mple Prep Vol:

Nebulizer Parameters: LCSW A7 WG397432-04
Analyte Back Pressure Flow
All 153.0 kPa 0.50 L/min

Mean Data: LCSW A7 WG397432-04

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists elements Y, Ga with their respective values.

Approved: May 10, 2012
John H. Rhodes

Table with columns for element name, concentration, and percentage. Elements include Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li.

Sequence No.: 28
Sample ID: L1205023601 0.1
Analyst: KHR
Initial Sample Wt:
Dilution:
uatosampler Location: 73
Time Collected: 5/9/2012 6:59:02 PM
Sample Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L1205023601 0.1
Analyte Back Pressure Flow
All 154.0 kPa 0.50 L/min

Mean Data: L1205023601 0.1
Table with columns: Analyte, Mean Corrected Intensity, Conc. Units, Calib. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD.

Approved: May 10, 2012
[Signature]

Mean Data: L1205023603 0.1

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Si, Sn, Ti, Tl, V, Zn, K, Na, Sr, Li.

Sequence No.: 31

Sample ID: L1205023604 0.1

Analyst: KHR

Initial Sample Wt:

Dilution:

Sampler Location: 76

Time Collected: 5/9/2012 7:19:45 PM

Sample Type: Original

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: L1205023604 0.1

Table with 3 columns: Analyte, Back Pressure, Flow. Shows values for All analytes.

Mean Data: L1205023604 0.1

Table with 8 columns: Analyte, Mean Corrected Intensity, Calib. Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Y, Ga, Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo.

Approved: May 10, 2012
[Signature]

Ni 231.604†	24.8	-0.00192	mg/L	0.000410	-0.00192	mg/L	0.000410	21.39%
Pb 220.353†	28.5	0.00143	mg/L	0.000640	0.00143	mg/L	0.000640	44.76%
Sb 206.836†	-1.2	-0.00499	mg/L	0.000988	-0.00499	mg/L	0.000988	19.79%
Se 196.026†	-1.9	0.00147	mg/L	0.001203	0.00147	mg/L	0.001203	82.03%
Si 251.611†	7031.1	0.144	mg/L	0.0105	0.144	mg/L	0.0105	7.25%
Sn 189.927†	-205.7	-0.0230	mg/L	0.00045	-0.0230	mg/L	0.00045	1.98%
Ti 334.940†	-5687.8	-0.00182	mg/L	0.000168	-0.00182	mg/L	0.000168	9.19%
Tl 190.801†	-16.8	-0.00707	mg/L	0.003943	-0.00707	mg/L	0.003943	55.73%
V 290.880†	1178.7	0.00129	mg/L	0.001271	0.00129	mg/L	0.001271	98.49%
Zn 206.200†	139.1	-0.00230	mg/L	0.000517	-0.00230	mg/L	0.000517	22.42%
K 766.490†	5068.1	1.38	mg/L	0.108	1.38	mg/L	0.108	7.80%
Na 589.592†	330594.0	15.6	mg/L	1.24	15.6	mg/L	1.24	7.93%
Sr 407.771†	146206.4	0.0507	mg/L	0.00225	0.0507	mg/L	0.00225	4.44%
Li 670.784†	695.5	-0.00289	mg/L	0.000927	-0.00289	mg/L	0.000927	32.06%

Sequence No.: 32

Sample ID: L1205023605 0.1

Analyst: KHR

Initial Sample Wt:

Dilution:

uSampler Location: 77

Date Collected: 5/9/2012 7:26:40 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: L1205023605 0.1

Analyte	Back Pressure	Flow
All	153.0 kPa	0.50 L/min

Mean Data: L1205023605 0.1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD	
Y 371.029	2174156.3					12510.53	0.58%	
YRADIAL	295710.3					5091.88	1.72%	
Ga 417.206	1457570.4					23502.14	1.61%	
GARADIAL	94807.1					1809.30	1.91%	
Ag 328.068†	126.0	-0.00148	mg/L	0.000235	-0.00148	mg/L	0.000235	15.84%
Al 396.153†	2.0	-0.0141	mg/L	0.00247	-0.0141	mg/L	0.00247	17.57%
As 188.979†	2.5	0.00241	mg/L	0.003063	0.00241	mg/L	0.003063	127.24%
Ba 233.527†	146.5	-0.00282	mg/L	0.000156	-0.00282	mg/L	0.000156	5.55%
Be 234.861†	131.3	-0.00006	mg/L	0.000013	-0.00006	mg/L	0.000013	22.14%
B 249.677†	402.8	0.00344	mg/L	0.000121	0.00344	mg/L	0.000121	3.51%
Ca 227.546†	14879.7	30.4	mg/L	2.20	30.4	mg/L	2.20	7.25%
Cd 228.802†	1.6	-0.00019	mg/L	0.000143	-0.00019	mg/L	0.000143	76.90%
Co 228.616†	9.6	-0.00036	mg/L	0.000120	-0.00036	mg/L	0.000120	33.03%
Cr 267.716†	133.8	-0.00073	mg/L	0.000215	-0.00073	mg/L	0.000215	29.54%
Cu 327.393†	-56.9	-0.00142	mg/L	0.000164	-0.00142	mg/L	0.000164	11.57%
Fe 239.562†	114.3	0.0110	mg/L	0.00037	0.0110	mg/L	0.00037	3.37%
Mg 279.077†	192892.7	53.4	mg/L	0.92	53.4	mg/L	0.92	1.73%
Mn 257.610†	40616.0	0.0468	mg/L	0.00232	0.0468	mg/L	0.00232	4.97%
Mo 202.031†	7.7	-0.00140	mg/L	0.000061	-0.00140	mg/L	0.000061	4.35%
Ni 231.604†	89.5	-0.00094	mg/L	0.000253	-0.00094	mg/L	0.000253	26.92%
Pb 220.353†	26.9	0.00127	mg/L	0.001216	0.00127	mg/L	0.001216	95.75%
Sb 206.836†	-0.1	-0.00472	mg/L	0.000801	-0.00472	mg/L	0.000801	16.96%
Se 196.026†	-0.4	0.00232	mg/L	0.003003	0.00232	mg/L	0.003003	129.59%
Si 251.611†	9349.6	0.200	mg/L	0.0136	0.200	mg/L	0.0136	6.83%
Sn 189.927†	-213.2	-0.0237	mg/L	0.00155	-0.0237	mg/L	0.00155	6.51%
Ti 334.940†	-6295.0	-0.00205	mg/L	0.000244	-0.00205	mg/L	0.000244	11.93%
Tl 190.801†	-12.3	-0.00597	mg/L	0.002464	-0.00597	mg/L	0.002464	41.28%
V 290.880†	1473.7	0.00286	mg/L	0.003626	0.00286	mg/L	0.003626	127.00%
Zn 206.200†	128.8	-0.00257	mg/L	0.000343	-0.00257	mg/L	0.000343	13.36%
K 766.490†	3841.5	1.04	mg/L	0.004	1.04	mg/L	0.004	0.36%
Na 589.592†	438180.2	20.7	mg/L	0.99	20.7	mg/L	0.99	4.78%
Sr 407.771†	158803.6	0.0551	mg/L	0.00072	0.0551	mg/L	0.00072	1.31%
Li 670.784†	349.4	-0.00489	mg/L	0.000110	-0.00489	mg/L	0.000110	2.25%

Sequence No.: 33

Sample ID: L1205023606 0.1

Analyst: KHR

Initial Sample Wt:

Dilution:

uSampler Location: 78

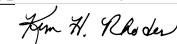
Date Collected: 5/9/2012 7:33:35 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Approved: May 10, 2012



Nebulizer Parameters: L1205023606 0.1

Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: L1205023606 0.1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2175542.2					20248.30	0.93%
YRADIAL	296907.0					2941.15	0.99%
Ga 417.206	1470494.3					8286.47	0.56%
GaRADIAL	94832.9					2261.77	2.39%
Ag 328.068†	212.1	-0.00121	mg/L	0.000408	-0.00121	0.000408	33.65%
Al 396.153†	-12.8	-0.0159	mg/L	0.00150	-0.0159	0.00150	9.41%
As 188.979†	-2.6	0.00060	mg/L	0.003015	0.00060	0.003015	498.54%
Ba 233.527†	191.5	-0.00252	mg/L	0.000107	-0.00252	0.000107	4.26%
Be 234.861†	137.9	-0.00005	mg/L	0.000016	-0.00005	0.000016	28.77%
B 249.677†	411.7	0.00355	mg/L	0.000069	0.00355	0.000069	1.95%
Ca 227.546†	13643.6	27.9	mg/L	0.90	27.9	0.90	3.24%
Cd 228.802†	-7.2	-0.00034	mg/L	0.000163	-0.00034	0.000163	48.05%
Co 228.616†	2.4	-0.00056	mg/L	0.000147	-0.00056	0.000147	26.25%
Cr 267.716†	143.2	-0.00064	mg/L	0.000008	-0.00064	0.000008	1.20%
Cu 327.393†	-72.7	-0.00147	mg/L	0.000063	-0.00147	0.000063	4.26%
Fe 239.562†	16.0	0.00501	mg/L	0.000546	0.00501	0.000546	10.90%
Mg 279.077†	173251.7	48.0	mg/L	0.99	48.0	0.99	2.05%
Mn 257.610†	28344.8	0.0318	mg/L	0.00028	0.0318	0.00028	0.88%
Mo 202.031†	16.8	-0.00116	mg/L	0.000145	-0.00116	0.000145	12.53%
Ni 231.604†	70.3	-0.00123	mg/L	0.000293	-0.00123	0.000293	23.77%
Pb 220.353†	32.6	0.00179	mg/L	0.000969	0.00179	0.000969	54.19%
Sb 206.836†	3.6	-0.00383	mg/L	0.000532	-0.00383	0.000532	13.87%
Se 196.026†	-3.3	0.00073	mg/L	0.003243	0.00073	0.003243	446.17%
Si 251.611†	8508.2	0.180	mg/L	0.0047	0.180	0.0047	2.62%
Sn 189.927†	-202.2	-0.0227	mg/L	0.00052	-0.0227	0.00052	2.29%
Ti 334.940†	-5665.4	-0.00180	mg/L	0.000183	-0.00180	0.000183	10.15%
Tl 190.801†	-10.4	-0.00545	mg/L	0.000968	-0.00545	0.000968	17.76%
V 290.880†	1406.9	0.00265	mg/L	0.002200	0.00265	0.002200	83.04%
Zn 206.200†	120.7	-0.00277	mg/L	0.000361	-0.00277	0.000361	13.01%
K 766.490†	3456.7	0.930	mg/L	0.0517	0.930	0.0517	5.57%
Na 589.592†	394614.5	18.6	mg/L	1.07	18.6	1.07	5.74%
Sr 407.771†	141726.2	0.0491	mg/L	0.00085	0.0491	0.00085	1.73%
Li 670.784†	309.5	-0.00512	mg/L	0.000092	-0.00512	0.000092	1.80%

Sequence No.: 34

Sample ID: L1205023606PS WG397519-01
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 79

ame Collected: 5/9/2012 7:40:31 PM
 ama Type: Original
 nitial Sample Vol:
 ample Prep Vol:

Nebulizer Parameters: L1205023606PS WG397519-01

Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: L1205023606PS WG397519-01

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2228634.8					17757.51	0.80%
YRADIAL	310033.9					3774.47	1.22%
Ga 417.206	1428947.3					30002.82	2.10%
GaRADIAL	95020.6					383.70	0.40%
Ag 328.068†	62370.6	0.197	mg/L	0.0050	0.197	0.0050	2.52%
Al 396.153†	38986.8	4.86	mg/L	0.016	4.86	0.016	0.32%
As 188.979†	557.2	0.197	mg/L	0.0022	0.197	0.0022	1.10%
Ba 233.527†	76430.8	0.505	mg/L	0.0044	0.505	0.0044	0.87%
Be 234.861†	31559.5	0.0249	mg/L	0.00045	0.0249	0.00045	1.80%
B 249.677†	85626.4	0.983	mg/L	0.0248	0.983	0.0248	2.52%
Ca 227.546†	16942.5	34.8	mg/L	0.81	34.8	0.81	2.34%
Cd 228.802†	1338.0	0.0233	mg/L	0.00081	0.0233	0.00081	3.47%
Co 228.616†	3705.7	0.0979	mg/L	0.00120	0.0979	0.00120	1.23%

Approved: May 10, 2012

John H. Rhodes

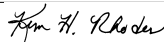
Cr 267.716†	26521.9	0.247 mg/L	0.0017	0.247 mg/L	0.0017	0.71%
Cu 327.393†	63113.5	0.223 mg/L	0.0044	0.223 mg/L	0.0044	1.96%
Fe 239.562†	31652.8	1.96 mg/L	0.013	1.96 mg/L	0.013	0.66%
Mg 279.077†	172152.0	47.7 mg/L	0.32	47.7 mg/L	0.32	0.67%
Mn 257.610†	235830.2	0.285 mg/L	0.0034	0.285 mg/L	0.0034	1.20%
Mo 202.031†	18060.7	0.497 mg/L	0.0048	0.497 mg/L	0.0048	0.96%
Ni 231.604†	17213.1	0.258 mg/L	0.0030	0.258 mg/L	0.0030	1.16%
Pb 220.353†	2749.7	0.253 mg/L	0.0029	0.253 mg/L	0.0029	1.14%
Sb 206.836†	2497.8	0.592 mg/L	0.0149	0.592 mg/L	0.0149	2.52%
Se 196.026†	372.2	0.207 mg/L	0.0043	0.207 mg/L	0.0043	2.07%
Si 251.611†	115527.3	2.73 mg/L	0.049	2.73 mg/L	0.049	1.79%
Sn 189.927†	-216.3	-0.0240 mg/L	0.00045	-0.0240 mg/L	0.00045	1.89%
Ti 334.940†	485910.9	0.487 mg/L	0.0029	0.487 mg/L	0.0029	0.60%
Tl 190.801†	977.5	0.259 mg/L	0.0021	0.259 mg/L	0.0021	0.82%
V 290.880†	96755.8	0.499 mg/L	0.0011	0.499 mg/L	0.0011	0.23%
Zn 206.200†	20445.9	0.520 mg/L	0.0046	0.520 mg/L	0.0046	0.88%
K 766.490†	88326.8	25.0 mg/L	0.07	25.0 mg/L	0.07	0.28%
Na 589.592†	904096.0	43.1 mg/L	0.93	43.1 mg/L	0.93	2.15%
Sr 407.771†	1559996.6	0.549 mg/L	0.0100	0.549 mg/L	0.0100	1.83%
Li 670.784†	86574.4	0.493 mg/L	0.0021	0.493 mg/L	0.0021	0.43%

Sequence No.: 35
 Sample ID: L1205023606DL WG397519-02
 Analyst: KHR
 Initial Sample Wt:
 Dilution:
 ukosampler Location: 80
 ahe Collected: 5/9/2012 7:46:31 PM
 aha Type: Original
 nitial Sample Vol:
 ample Prep Vol:

Nebulizer Parameters: L1205023606DL WG397519-02
 Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: L1205023606DL WG397519-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2242377.9				3415.89	0.15%
YRADIAL	304842.9				5313.59	1.74%
Ga 417.206	1422158.9				7549.10	0.53%
GaRADIAL	94218.9				2501.86	2.66%
Ag 328.068†	94.8	-0.00158 mg/L	0.000091	-0.00158 mg/L	0.000091	5.78%
Al 396.153†	4.3	-0.0137 mg/L	0.00201	-0.0137 mg/L	0.00201	14.60%
As 188.979†	1.6	0.00208 mg/L	0.000736	0.00208 mg/L	0.000736	35.40%
Ba 233.527†	37.1	-0.00354 mg/L	0.000094	-0.00354 mg/L	0.000094	2.66%
Be 234.861†	73.3	-0.00011 mg/L	0.000014	-0.00011 mg/L	0.000014	13.19%
B 249.677†	611.1	0.00585 mg/L	0.000367	0.00585 mg/L	0.000367	6.28%
Ca 227.546†	2769.6	5.65 mg/L	0.062	5.65 mg/L	0.062	1.10%
Cd 228.802†	-11.5	-0.00042 mg/L	0.000056	-0.00042 mg/L	0.000056	13.36%
Co 228.616†	-0.2	-0.00064 mg/L	0.000155	-0.00064 mg/L	0.000155	24.24%
Cr 267.716†	29.3	-0.00171 mg/L	0.000051	-0.00171 mg/L	0.000051	3.00%
Cu 327.393†	-67.5	-0.00145 mg/L	0.000335	-0.00145 mg/L	0.000335	23.09%
Fe 239.562†	11.3	0.00548 mg/L	0.000186	0.00548 mg/L	0.000186	3.40%
Mg 279.077†	34600.8	9.59 mg/L	0.500	9.59 mg/L	0.500	5.21%
Mn 257.610†	5728.3	0.00420 mg/L	0.000070	0.00420 mg/L	0.000070	1.66%
Mo 202.031†	-8.3	-0.00186 mg/L	0.000025	-0.00186 mg/L	0.000025	1.36%
Ni 231.604†	-3.5	-0.00235 mg/L	0.000125	-0.00235 mg/L	0.000125	5.31%
Pb 220.353†	13.7	-0.00012 mg/L	0.001727	-0.00012 mg/L	0.001727	>999.9%
Sb 206.836†	0.5	-0.00458 mg/L	0.000987	-0.00458 mg/L	0.000987	21.54%
Se 196.026†	-3.4	0.00068 mg/L	0.002151	0.00068 mg/L	0.002151	314.60%
Si 251.611†	1760.0	0.0185 mg/L	0.00063	0.0185 mg/L	0.00063	3.40%
Sn 189.927†	-92.9	-0.0119 mg/L	0.00071	-0.0119 mg/L	0.00071	5.96%
Ti 334.940†	-1153.9	-0.00066 mg/L	0.000113	-0.00066 mg/L	0.000113	17.16%
Tl 190.801†	2.2	-0.00208 mg/L	0.000093	-0.00208 mg/L	0.000093	4.49%
V 290.880†	881.5	0.00091 mg/L	0.001225	0.00091 mg/L	0.001225	134.82%
Zn 206.200†	113.2	-0.00298 mg/L	0.000206	-0.00298 mg/L	0.000206	6.91%
K 766.490†	709.7	0.175 mg/L	0.0299	0.175 mg/L	0.0299	17.10%
Na 589.592†	81386.4	3.83 mg/L	0.324	3.83 mg/L	0.324	8.47%
Sr 407.771†	28489.1	0.00968 mg/L	0.000537	0.00968 mg/L	0.000537	5.55%
Li 670.784†	-25.1	-0.00706 mg/L	0.000606	-0.00706 mg/L	0.000606	8.58%

Approved: May 10, 2012


Sequence No.: 36
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

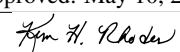
Udosampler Location: 6
 Date Collected: 5/9/2012 7:53:26 PM
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2269906.6				13686.55	0.60%
YRADIAL	313606.1				3094.89	0.99%
Ga 417.206	1374897.1				27063.92	1.97%
GaRADIAL	94408.6				476.16	0.50%
Ag 328.068†	127945.2	0.406 mg/L	0.0067	0.406 mg/L	0.0067	1.66%
QC value within limits for Ag			101.48%			
Al 396.153†	78428.2	9.78 mg/L	0.014	9.78 mg/L	0.014	0.14%
QC value within limits for Al			97.82%			
As 188.979†	1124.6	0.395 mg/L	0.0070	0.395 mg/L	0.0070	1.77%
QC value within limits for As			98.81%			
Ba 233.527†	152810.7	1.01 mg/L	0.013	1.01 mg/L	0.013	1.29%
QC value within limits for Ba			101.43%			
Be 234.861†	63322.5	0.0500 mg/L	0.00109	0.0500 mg/L	0.00109	2.18%
QC value within limits for Be			100.10%			
B 249.677†	43176.2	0.492 mg/L	0.0110	0.492 mg/L	0.0110	2.23%
QC value within limits for B			98.43%			
Ca 227.546†	4739.9	10.1 mg/L	0.25	10.1 mg/L	0.25	2.48%
QC value within limits for Ca			101.43%			
Cd 228.802†	2807.4	0.0493 mg/L	0.00163	0.0493 mg/L	0.00163	3.32%
QC value within limits for Cd			98.51%			
Co 228.616†	7556.0	0.200 mg/L	0.0015	0.200 mg/L	0.0015	0.73%
QC value within limits for Co			100.09%			
Cr 267.716†	53537.3	0.501 mg/L	0.0053	0.501 mg/L	0.0053	1.05%
QC value within limits for Cr			100.26%			
Cu 327.393†	138659.8	0.492 mg/L	0.0070	0.492 mg/L	0.0070	1.42%
QC value within limits for Cu			98.33%			
Fe 239.562†	65210.2	4.03 mg/L	0.001	4.03 mg/L	0.001	0.03%
QC value within limits for Fe			100.81%			
Mg 279.077†	36303.9	10.1 mg/L	0.04	10.1 mg/L	0.04	0.39%
QC value within limits for Mg			100.81%			
Mn 257.610†	419871.6	0.510 mg/L	0.0092	0.510 mg/L	0.0092	1.81%
QC value within limits for Mn			102.04%			
Mo 202.031†	35917.8	0.990 mg/L	0.0145	0.990 mg/L	0.0145	1.46%
QC value within limits for Mo			99.04%			
Ni 231.604†	33408.1	0.504 mg/L	0.0095	0.504 mg/L	0.0095	1.89%
QC value within limits for Ni			100.77%			
Pb 220.353†	5473.0	0.504 mg/L	0.0020	0.504 mg/L	0.0020	0.39%
QC value within limits for Pb			100.89%			
Sb 206.836†	5093.3	1.21 mg/L	0.031	1.21 mg/L	0.031	2.56%
QC value within limits for Sb			100.98%			
Se 196.026†	726.6	0.402 mg/L	0.0082	0.402 mg/L	0.0082	2.03%
QC value within limits for Se			100.48%			
Si 251.611†	213186.6	5.05 mg/L	0.103	5.05 mg/L	0.103	2.04%
QC value within limits for Si			101.08%			
Sn 189.927†	10131.2	0.996 mg/L	0.0041	0.996 mg/L	0.0041	0.41%
QC value within limits for Sn			99.62%			
Ti 334.940†	986148.3	0.979 mg/L	0.0011	0.979 mg/L	0.0011	0.11%
QC value within limits for Ti			97.89%			
Tl 190.801†	1924.3	0.513 mg/L	0.0047	0.513 mg/L	0.0047	0.92%
QC value within limits for Tl			102.61%			
V 290.880†	190961.9	0.991 mg/L	0.0068	0.991 mg/L	0.0068	0.68%
QC value within limits for V			99.12%			
Zn 206.200†	40813.1	1.04 mg/L	0.008	1.04 mg/L	0.008	0.74%
QC value within limits for Zn			104.29%			
K 766.490†	167664.5	48.0 mg/L	0.23	48.0 mg/L	0.23	0.48%
QC value within limits for K			95.93%			
Na 589.592†	1008163.3	48.1 mg/L	0.10	48.1 mg/L	0.10	0.20%

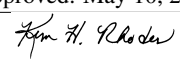
Approved: May 10, 2012


QC value within limits for Na 589.592 Recovery = 96.28%
 Sr 407.771† 2801088.1 0.988 mg/L 0.0077 0.988 mg/L 0.0077 0.78%
 QC value within limits for Sr 407.771 Recovery = 98.77%
 Li 670.784† 165751.9 0.951 mg/L 0.0082 0.951 mg/L 0.0082 0.86%
 QC value within limits for Li 670.784 Recovery = 95.05%
 All analyte(s) passed QC.

Sequence No.: 37 u&osampler Location: 1
 Sample ID: CCB ame Collected: 5/9/2012 7:59:28 PM
 Analyst: ama Type: Original
 Initial Sample Wt: nitial Sample Vol:
 Dilution: ample Prep Vol:

Nebulizer Parameters: CCB
 Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: CCB							
Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD	
Y 371.029	2342897.7				14683.99	0.63%	
YRADIAL	316925.5				2677.61	0.84%	
Ga 417.206	1441835.7				23470.97	1.63%	
GaRADIAL	95964.3				2672.40	2.78%	
Ag 328.068†	-1.7	-0.00189 mg/L	0.000158	-0.00189 mg/L	0.000158	8.36%	
QC value within limits for Ag 328.068		Recovery = Not calculated					
Al 396.153†	21.8	-0.0116 mg/L	0.00103	-0.0116 mg/L	0.00103	8.91%	
QC value within limits for Al 396.153		Recovery = Not calculated					
As 188.979†	-2.6	0.00060 mg/L	0.001374	0.00060 mg/L	0.001374	230.36%	
QC value within limits for As 188.979		Recovery = Not calculated					
Ba 233.527†	8.5	-0.00373 mg/L	0.000102	-0.00373 mg/L	0.000102	2.73%	
QC value within limits for Ba 233.527		Recovery = Not calculated					
Be 234.861†	-57.1	-0.00021 mg/L	0.000007	-0.00021 mg/L	0.000007	3.07%	
QC value within limits for Be 234.861		Recovery = Not calculated					
B 249.677†	580.3	0.00549 mg/L	0.000457	0.00549 mg/L	0.000457	8.33%	
QC value within limits for B 249.677		Recovery = Not calculated					
Ca 227.546†	13.9	0.0289 mg/L	0.01666	0.0289 mg/L	0.01666	57.61%	
QC value within limits for Ca 227.546		Recovery = Not calculated					
Cd 228.802†	0.1	-0.00020 mg/L	0.000168	-0.00020 mg/L	0.000168	82.30%	
QC value within limits for Cd 228.802		Recovery = Not calculated					
Co 228.616†	4.8	-0.00051 mg/L	0.000020	-0.00051 mg/L	0.000020	3.89%	
QC value within limits for Co 228.616		Recovery = Not calculated					
Cr 267.716†	8.6	-0.00191 mg/L	0.000038	-0.00191 mg/L	0.000038	1.98%	
QC value within limits for Cr 267.716		Recovery = Not calculated					
Cu 327.393†	31.6	-0.00110 mg/L	0.000480	-0.00110 mg/L	0.000480	43.68%	
QC value within limits for Cu 327.393		Recovery = Not calculated					
Fe 239.562†	30.6	0.00687 mg/L	0.000396	0.00687 mg/L	0.000396	5.76%	
QC value within limits for Fe 239.562		Recovery = Not calculated					
Mg 279.077†	10.8	0.0113 mg/L	0.00368	0.0113 mg/L	0.00368	32.54%	
QC value within limits for Mg 279.077		Recovery = Not calculated					
Mn 257.610†	142.0	-0.00262 mg/L	0.000023	-0.00262 mg/L	0.000023	0.88%	
QC value within limits for Mn 257.610		Recovery = Not calculated					
Mo 202.031†	8.3	-0.00140 mg/L	0.000125	-0.00140 mg/L	0.000125	8.91%	
QC value within limits for Mo 202.031		Recovery = Not calculated					
Ni 231.604†	-1.5	-0.00232 mg/L	0.000327	-0.00232 mg/L	0.000327	14.08%	
QC value within limits for Ni 231.604		Recovery = Not calculated					
Pb 220.353†	2.0	-0.00124 mg/L	0.000500	-0.00124 mg/L	0.000500	40.44%	
QC value within limits for Pb 220.353		Recovery = Not calculated					
Sb 206.836†	7.0	-0.00303 mg/L	0.000202	-0.00303 mg/L	0.000202	6.68%	
QC value within limits for Sb 206.836		Recovery = Not calculated					
Se 196.026†	2.0	0.00360 mg/L	0.001743	0.00360 mg/L	0.001743	48.45%	
QC value within limits for Se 196.026		Recovery = Not calculated					
Si 251.611†	56.0	-0.0222 mg/L	0.00015	-0.0222 mg/L	0.00015	0.66%	
QC value within limits for Si 251.611		Recovery = Not calculated					
Sn 189.927†	-5.2	-0.00323 mg/L	0.000297	-0.00323 mg/L	0.000297	9.18%	
QC value within limits for Sn 189.927		Recovery = Not calculated					
Ti 334.940†	361.3	0.00000 mg/L	0.000024	0.00000 mg/L	0.000024	>999.9%	
QC value within limits for Ti 334.940		Recovery = Not calculated					
Tl 190.801†	2.7	-0.00196 mg/L	0.000861	-0.00196 mg/L	0.000861	44.02%	

Approved: May 10, 2012


QC value within limits for Tl 190.801 Recovery = Not calculated
 V 290.880† 17.7 -0.00335 mg/L 0.000728 -0.00335 mg/L 0.000728 21.74%
 QC value within limits for V 290.880 Recovery = Not calculated
 Zn 206.200† 72.8 -0.00401 mg/L 0.000209 -0.00401 mg/L 0.000209 5.21%
 QC value within limits for Zn 206.200 Recovery = Not calculated
 K 766.490† 81.2 0.00279 mg/L 0.005966 0.00279 mg/L 0.005966 214.04%
 QC value within limits for K 766.490 Recovery = Not calculated
 Na 589.592† 124.2 0.0104 mg/L 0.00563 0.0104 mg/L 0.00563 54.20%
 QC value within limits for Na 589.592 Recovery = Not calculated
 Sr 407.771† 476.4 -0.00008 mg/L 0.000026 -0.00008 mg/L 0.000026 33.60%
 QC value within limits for Sr 407.771 Recovery = Not calculated
 Li 670.784† -56.4 -0.00724 mg/L 0.000690 -0.00724 mg/L 0.000690 9.53%
 QC value within limits for Li 670.784 Recovery = Not calculated
 All analyte(s) passed QC.

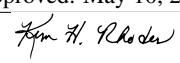
Sequence No.: 38 u\osampler Location: 81
 Sample ID: L1205023607 0.1 a\ne Collected: 5/9/2012 8:06:21 PM
 Analyst: KHR a\ba Type: Original
 Initial Sample Wt: n\itial Sample Vol:
 Dilution: a\mple Prep Vol:

Nebulizer Parameters: L1205023607 0.1
 Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: L1205023607 0.1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Y 371.029	2140613.3						12164.37	0.57%
YRADIAL	293952.6						9065.64	3.08%
Ga 417.206	1468724.0						18927.84	1.29%
GaRADIAL	93426.0						861.70	0.92%
Ag 328.068†	172.9	-0.00134 mg/L	0.000340	-0.00134 mg/L	0.000340	25.40%		
Al 396.153†	-19.9	-0.0168 mg/L	0.00033	-0.0168 mg/L	0.00033	1.95%		
As 188.979†	1.3	0.00196 mg/L	0.002029	0.00196 mg/L	0.002029	103.45%		
Ba 233.527†	166.4	-0.00268 mg/L	0.000137	-0.00268 mg/L	0.000137	5.10%		
Be 234.861†	158.5	-0.00004 mg/L	0.000006	-0.00004 mg/L	0.000006	15.05%		
B 249.677†	432.7	0.00379 mg/L	0.000061	0.00379 mg/L	0.000061	1.62%		
Ca 227.546†	19092.9	39.0 mg/L	3.35	39.0 mg/L	3.35	8.58%		
Cd 228.802†	-9.2	-0.00038 mg/L	0.000075	-0.00038 mg/L	0.000075	19.68%		
Co 228.616†	-1.3	-0.00065 mg/L	0.000131	-0.00065 mg/L	0.000131	20.13%		
Cr 267.716†	184.8	-0.00025 mg/L	0.000157	-0.00025 mg/L	0.000157	63.52%		
Cu 327.393†	-49.1	-0.00139 mg/L	0.000509	-0.00139 mg/L	0.000509	36.54%		
Fe 239.562†	31.2	0.00498 mg/L	0.000339	0.00498 mg/L	0.000339	6.80%		
Mg 279.077†	347071.5	96.2 mg/L	2.83	96.2 mg/L	2.83	2.94%		
Mn 257.610†	10206.8	0.00967 mg/L	0.000637	0.00967 mg/L	0.000637	6.59%		
Mo 202.031†	18.7	-0.00111 mg/L	0.000353	-0.00111 mg/L	0.000353	31.83%		
Ni 231.604†	47.3	-0.00158 mg/L	0.000161	-0.00158 mg/L	0.000161	10.22%		
Pb 220.353†	18.3	0.00057 mg/L	0.000407	0.00057 mg/L	0.000407	71.57%		
Sb 206.836†	2.0	-0.00422 mg/L	0.001701	-0.00422 mg/L	0.001701	40.30%		
Se 196.026†	-3.1	0.00084 mg/L	0.001252	0.00084 mg/L	0.001252	148.19%		
Si 251.611†	12601.8	0.277 mg/L	0.0211	0.277 mg/L	0.0211	7.60%		
Sn 189.927†	-231.5	-0.0255 mg/L	0.00101	-0.0255 mg/L	0.00101	3.94%		
Ti 334.940†	-8063.2	-0.00251 mg/L	0.000346	-0.00251 mg/L	0.000346	13.76%		
Tl 190.801†	-26.4	-0.00963 mg/L	0.004039	-0.00963 mg/L	0.004039	41.95%		
V 290.880†	1405.4	0.00139 mg/L	0.002149	0.00139 mg/L	0.002149	154.69%		
Zn 206.200†	154.4	-0.00191 mg/L	0.000254	-0.00191 mg/L	0.000254	13.30%		
K 766.490†	2496.5	0.674 mg/L	0.0294	0.674 mg/L	0.0294	4.37%		
Na 589.592†	113112.4	5.32 mg/L	0.325	5.32 mg/L	0.325	6.10%		
Sr 407.771†	213104.7	0.0741 mg/L	0.00187	0.0741 mg/L	0.00187	2.52%		
Li 670.784†	1255.3	0.00034 mg/L	0.000582	0.00034 mg/L	0.000582	171.06%		

Sequence No.: 39 u\osampler Location: 82
 Sample ID: L1205023608 0.1 a\ne Collected: 5/9/2012 8:13:18 PM
 Analyst: KHR a\ba Type: Original
 Initial Sample Wt: n\itial Sample Vol:
 Dilution: a\mple Prep Vol:

Approved: May 10, 2012


Nebulizer Parameters: L1205023608 0.1

Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: L1205023608 0.1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2223671.6					35940.06	1.62%
YRADIAL	302501.1					4791.13	1.58%
Ga 417.206	1519025.4					26646.75	1.75%
GaRADIAL	98763.9					510.53	0.52%
Ag 328.068†	68.0	-0.00168	mg/L	0.000102	-0.00168	0.000102	6.06%
Al 396.153†	-6.7	-0.0152	mg/L	0.00196	-0.0152	0.00196	12.91%
As 188.979†	1.8	0.00215	mg/L	0.002367	0.00215	0.002367	110.17%
Ba 233.527†	217.2	-0.00234	mg/L	0.000080	-0.00234	0.000080	3.43%
Be 234.861†	178.8	-0.00002	mg/L	0.000012	-0.00002	0.000012	50.18%
B 249.677†	400.9	0.00343	mg/L	0.000061	0.00343	0.000061	1.78%
Ca 227.546†	16126.4	32.9	mg/L	2.13	32.9	2.13	6.47%
Cd 228.802†	-17.2	-0.00053	mg/L	0.000162	-0.00053	0.000162	30.73%
Co 228.616†	-4.7	-0.00075	mg/L	0.000161	-0.00075	0.000161	21.54%
Cr 267.716†	169.7	-0.00039	mg/L	0.000086	-0.00039	0.000086	21.94%
Cu 327.393†	-69.3	-0.00146	mg/L	0.000282	-0.00146	0.000282	19.26%
Fe 239.562†	6.3	0.00366	mg/L	0.000630	0.00366	0.000630	17.21%
Mg 279.077†	307663.5	85.2	mg/L	5.85	85.2	5.85	6.87%
Mn 257.610†	4294.2	0.00245	mg/L	0.000134	0.00245	0.000134	5.49%
Mo 202.031†	8.4	-0.00140	mg/L	0.000320	-0.00140	0.000320	22.94%
Ni 231.604†	35.4	-0.00176	mg/L	0.000312	-0.00176	0.000312	17.76%
Pb 220.353†	26.7	0.00131	mg/L	0.001502	0.00131	0.001502	115.11%
Sb 206.836†	1.6	-0.00433	mg/L	0.000331	-0.00433	0.000331	7.64%
Se 196.026†	-2.0	0.00140	mg/L	0.002063	0.00140	0.002063	147.49%
Si 251.611†	10634.1	0.230	mg/L	0.0158	0.230	0.0158	6.86%
Sn 189.927†	-215.9	-0.0240	mg/L	0.00089	-0.0240	0.00089	3.72%
Ti 334.940†	-7015.3	-0.00238	mg/L	0.000213	-0.00238	0.000213	8.96%
Tl 190.801†	-15.2	-0.00670	mg/L	0.001445	-0.00670	0.001445	21.57%
V 290.880†	752.0	-0.00173	mg/L	0.003850	-0.00173	0.003850	222.07%
Zn 206.200†	134.9	-0.00241	mg/L	0.000234	-0.00241	0.000234	9.70%
K 766.490†	2194.6	0.590	mg/L	0.0531	0.590	0.0531	8.99%
Na 589.592†	100775.5	4.74	mg/L	0.385	4.74	0.385	8.13%
Sr 407.771†	191958.3	0.0668	mg/L	0.00473	0.0668	0.00473	7.09%
Li 670.784†	1035.8	-0.00093	mg/L	0.000915	-0.00093	0.000915	98.66%

Sequence No.: 40

Sample ID: L1205023609 0.1

Analyst: KHR

Initial Sample Wt:

Dilution:

u&osampler Location: 83

ame Collected: 5/9/2012 8:20:40 PM

ama Type: Original

nitial Sample Vol:

ample Prep Vol:

Nebulizer Parameters: L1205023609 0.1

Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: L1205023609 0.1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2185922.2					13005.33	0.59%
YRADIAL	300885.6					7206.22	2.40%
Ga 417.206	1478262.7					24333.66	1.65%
GaRADIAL	96177.3					489.70	0.51%
Ag 328.068†	217.5	-0.00120	mg/L	0.000088	-0.00120	0.000088	7.37%
Al 396.153†	105.6	-0.00104	mg/L	0.002644	-0.00104	0.002644	254.05%
As 188.979†	1.2	0.00194	mg/L	0.003368	0.00194	0.003368	173.40%
Ba 233.527†	263.3	-0.00204	mg/L	0.000070	-0.00204	0.000070	3.42%
Be 234.861†	187.8	-0.00001	mg/L	0.000021	-0.00001	0.000021	171.65%
B 249.677†	282.4	0.00206	mg/L	0.000066	0.00206	0.000066	3.20%
Ca 227.546†	20242.4	41.3	mg/L	0.99	41.3	0.99	2.40%
Cd 228.802†	-15.7	-0.00050	mg/L	0.000032	-0.00050	0.000032	6.46%
Co 228.616†	30.4	0.00019	mg/L	0.000269	0.00019	0.000269	137.83%

Approved: May 10, 2012

John H. Rhodes

Cr 267.716†	140.5	-0.00066	mg/L	0.000055	-0.00066	mg/L	0.000055	8.29%
Cu 327.393†	-85.5	-0.00152	mg/L	0.000238	-0.00152	mg/L	0.000238	15.65%
Fe 239.562†	16.0	0.00510	mg/L	0.001694	0.00510	mg/L	0.001694	33.23%
Mg 279.077†	155830.7	43.2	mg/L	0.29	43.2	mg/L	0.29	0.68%
Mn 257.610†	46660.9	0.0542	mg/L	0.00022	0.0542	mg/L	0.00022	0.41%
Mo 202.031†	10.7	-0.00132	mg/L	0.000205	-0.00132	mg/L	0.000205	15.49%
Ni 231.604†	111.7	-0.00060	mg/L	0.000275	-0.00060	mg/L	0.000275	45.57%
Pb 220.353†	36.2	0.00222	mg/L	0.001656	0.00222	mg/L	0.001656	74.73%
Sb 206.836†	1.1	-0.00445	mg/L	0.000652	-0.00445	mg/L	0.000652	14.67%
Se 196.026†	-4.8	-0.00014	mg/L	0.000694	-0.00014	mg/L	0.000694	509.79%
Si 251.611†	5473.5	0.107	mg/L	0.0024	0.107	mg/L	0.0024	2.27%
Sn 189.927†	-236.1	-0.0260	mg/L	0.00057	-0.0260	mg/L	0.00057	2.20%
Ti 334.940†	-8454.0	-0.00255	mg/L	0.000176	-0.00255	mg/L	0.000176	6.90%
Tl 190.801†	-10.4	-0.00550	mg/L	0.002269	-0.00550	mg/L	0.002269	41.25%
V 290.880†	1193.9	0.00166	mg/L	0.001622	0.00166	mg/L	0.001622	97.46%
Zn 206.200†	204.9	-0.00062	mg/L	0.000403	-0.00062	mg/L	0.000403	64.92%
K 766.490†	1891.5	0.481	mg/L	0.0223	0.481	mg/L	0.0223	4.63%
Na 589.592†	598984.7	28.4	mg/L	0.86	28.4	mg/L	0.86	3.03%
Sr 407.771†	138948.8	0.0479	mg/L	0.00045	0.0479	mg/L	0.00045	0.95%
Li 670.784†	1492.9	0.00171	mg/L	0.000105	0.00171	mg/L	0.000105	6.14%

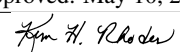
Sequence No.: 41
 Sample ID: L1205023610 WG397432-01
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 84
 a&e Collected: 5/9/2012 8:27:35 PM
 a&a Type: Original
 n&itial Sample Vol:
 a&mple Prep Vol:

Nebulizer Parameters: L1205023610 WG397432-01
 Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: L1205023610 WG397432-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2211345.2				13882.09	0.63%
YRADIAL	307085.2				7756.60	2.53%
Ga 417.206	1491331.5				16248.38	1.09%
GaRADIAL	96539.0				804.65	0.83%
Ag 328.068†	226.0	-0.00117 mg/L	0.000188	-0.00117 mg/L	0.000188	16.12%
Al 396.153†	-15.1	-0.0162 mg/L	0.00148	-0.0162 mg/L	0.00148	9.10%
As 188.979†	5.5	0.00345 mg/L	0.002267	0.00345 mg/L	0.002267	65.62%
Ba 233.527†	239.4	-0.00220 mg/L	0.000106	-0.00220 mg/L	0.000106	4.83%
Be 234.861†	160.6	-0.00004 mg/L	0.000022	-0.00004 mg/L	0.000022	55.56%
B 249.677†	250.9	0.00170 mg/L	0.000159	0.00170 mg/L	0.000159	9.38%
Ca 227.546†	19708.3	40.2 mg/L	1.30	40.2 mg/L	1.30	3.24%
Cd 228.802†	-14.4	-0.00048 mg/L	0.000159	-0.00048 mg/L	0.000159	32.90%
Co 228.616†	2.5	-0.00055 mg/L	0.000192	-0.00055 mg/L	0.000192	34.89%
Cr 267.716†	127.9	-0.00078 mg/L	0.000229	-0.00078 mg/L	0.000229	29.23%
Cu 327.393†	-161.7	-0.00179 mg/L	0.000039	-0.00179 mg/L	0.000039	2.16%
Fe 239.562†	-6.8	0.00362 mg/L	0.000400	0.00362 mg/L	0.000400	11.06%
Mg 279.077†	169031.5	46.8 mg/L	2.71	46.8 mg/L	2.71	5.79%
Mn 257.610†	287.3	-0.00244 mg/L	0.000007	-0.00244 mg/L	0.000007	0.29%
Mo 202.031†	18.0	-0.00113 mg/L	0.000062	-0.00113 mg/L	0.000062	5.52%
Ni 231.604†	-19.9	-0.00260 mg/L	0.000145	-0.00260 mg/L	0.000145	5.58%
Pb 220.353†	24.4	0.00115 mg/L	0.001468	0.00115 mg/L	0.001468	127.76%
Sb 206.836†	2.8	-0.00404 mg/L	0.001360	-0.00404 mg/L	0.001360	33.64%
Se 196.026†	-4.2	0.00021 mg/L	0.002631	0.00021 mg/L	0.002631	>999.9%
Si 251.611†	4137.1	0.0752 mg/L	0.00415	0.0752 mg/L	0.00415	5.52%
Sn 189.927†	-235.1	-0.0259 mg/L	0.00052	-0.0259 mg/L	0.00052	2.00%
Ti 334.940†	-8271.3	-0.00253 mg/L	0.000344	-0.00253 mg/L	0.000344	13.58%
Tl 190.801†	-17.8	-0.00738 mg/L	0.001691	-0.00738 mg/L	0.001691	22.90%
V 290.880†	1094.9	0.00105 mg/L	0.002261	0.00105 mg/L	0.002261	214.89%
Zn 206.200†	87.2	-0.00363 mg/L	0.000267	-0.00363 mg/L	0.000267	7.35%
K 766.490†	1696.2	0.424 mg/L	0.0175	0.424 mg/L	0.0175	4.12%
Na 589.592†	657309.1	31.2 mg/L	2.65	31.2 mg/L	2.65	8.48%
Sr 407.771†	148913.6	0.0514 mg/L	0.00220	0.0514 mg/L	0.00220	4.27%
Li 670.784†	1490.9	0.00170 mg/L	0.001096	0.00170 mg/L	0.001096	64.38%

Approved: May 10, 2012


Sequence No.: 42
 Sample ID: L1205023610DU WG397432-06
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 85
 a&e Collected: 5/9/2012 8:34:33 PM
 a&a Type: Original
 n&tial Sample Vol:
 a&ple Prep Vol:

 Nebulizer Parameters: L1205023610DU WG397432-06
 Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: L1205023610DU WG397432-06

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2205024.1					34712.78	1.57%
YRADIAL	302103.2					2199.06	0.73%
Ga 417.206	1396460.8					16187.78	1.16%
GaRADIAL	93599.0					778.82	0.83%
Ag 328.068†	6998.3	0.0204	mg/L	0.00107	0.0204 mg/L	0.00107	5.24%
Al 396.153†	4270.2	0.519	mg/L	0.0110	0.519 mg/L	0.0110	2.13%
As 188.979†	57.8	0.0217	mg/L	0.00358	0.0217 mg/L	0.00358	16.47%
Ba 233.527†	8501.3	0.0528	mg/L	0.00079	0.0528 mg/L	0.00079	1.49%
Be 234.861†	3602.1	0.00269	mg/L	0.000158	0.00269 mg/L	0.000158	5.87%
B 249.677†	9298.7	0.106	mg/L	0.0045	0.106 mg/L	0.0045	4.26%
Ca 227.546†	22935.0	46.9	mg/L	1.89	46.9 mg/L	1.89	4.03%
Cd 228.802†	151.2	0.00246	mg/L	0.000342	0.00246 mg/L	0.000342	13.91%
Co 228.616†	413.9	0.0104	mg/L	0.00004	0.0104 mg/L	0.00004	0.39%
Cr 267.716†	3017.1	0.0264	mg/L	0.00052	0.0264 mg/L	0.00052	1.96%
Cu 327.393†	7055.5	0.0239	mg/L	0.00091	0.0239 mg/L	0.00091	3.82%
Fe 239.562†	3500.4	0.220	mg/L	0.0058	0.220 mg/L	0.0058	2.65%
Mg 279.077†	163187.8	45.2	mg/L	0.26	45.2 mg/L	0.26	0.58%
Mn 257.610†	22346.2	0.0245	mg/L	0.00042	0.0245 mg/L	0.00042	1.71%
Mo 202.031†	1934.6	0.0518	mg/L	0.00064	0.0518 mg/L	0.00064	1.24%
Ni 231.604†	1855.4	0.0258	mg/L	0.00080	0.0258 mg/L	0.00080	3.09%
Pb 220.353†	304.8	0.0271	mg/L	0.00151	0.0271 mg/L	0.00151	5.56%
Sb 206.836†	260.1	0.0574	mg/L	0.00325	0.0574 mg/L	0.00325	5.65%
Se 196.026†	42.2	0.0257	mg/L	0.00168	0.0257 mg/L	0.00168	6.55%
Si 251.611†	15961.7	0.357	mg/L	0.0104	0.357 mg/L	0.0104	2.93%
Sn 189.927†	373.0	0.0341	mg/L	0.00089	0.0341 mg/L	0.00089	2.62%
Ti 334.940†	45073.0	0.0514	mg/L	0.00158	0.0514 mg/L	0.00158	3.09%
Tl 190.801†	88.9	0.0212	mg/L	0.00156	0.0212 mg/L	0.00156	7.37%
V 290.880†	11683.8	0.0563	mg/L	0.00158	0.0563 mg/L	0.00158	2.80%
Zn 206.200†	2272.6	0.0525	mg/L	0.00074	0.0525 mg/L	0.00074	1.41%
K 766.490†	11098.8	3.06	mg/L	0.045	3.06 mg/L	0.045	1.47%
Na 589.592†	686497.4	32.6	mg/L	0.25	32.6 mg/L	0.25	0.77%
Sr 407.771†	299053.4	0.104	mg/L	0.0010	0.104 mg/L	0.0010	1.00%
Li 670.784†	10989.8	0.0566	mg/L	0.00198	0.0566 mg/L	0.00198	3.50%

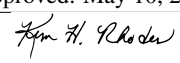
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 Sequence No.: 43
 Sample ID: L1205023610MS WG397432-05
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u&osampler Location: 86
 a&e Collected: 5/9/2012 8:40:31 PM
 a&a Type: Original
 n&tial Sample Vol:
 a&ple Prep Vol:

 Nebulizer Parameters: L1205023610MS WG397432-05
 Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: L1205023610MS WG397432-05

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2223779.2					26343.15	1.18%
YRADIAL	304446.1					1690.05	0.56%
Ga 417.206	1507722.8					20760.62	1.38%
GaRADIAL	96999.9					2310.81	2.38%
Ag 328.068†	153.1	-0.00140	mg/L	0.000061	-0.00140 mg/L	0.000061	4.38%
Al 396.153†	-9.3	-0.0155	mg/L	0.00094	-0.0155 mg/L	0.00094	6.10%
As 188.979†	3.3	0.00267	mg/L	0.002958	0.00267 mg/L	0.002958	110.59%

Approved: May 10, 2012


Ba 233.527†	254.0	-0.00210	mg/L	0.000078	-0.00210	mg/L	0.000078	3.71%
Be 234.861†	184.7	-0.00002	mg/L	0.000015	-0.00002	mg/L	0.000015	72.50%
B 249.677†	221.5	0.00136	mg/L	0.000091	0.00136	mg/L	0.000091	6.70%
Ca 227.546†	19606.8	40.0	mg/L	1.06	40.0	mg/L	1.06	2.64%
Cd 228.802†	-13.6	-0.00046	mg/L	0.000133	-0.00046	mg/L	0.000133	28.52%
Co 228.616†	1.9	-0.00057	mg/L	0.000300	-0.00057	mg/L	0.000300	53.06%
Cr 267.716†	125.1	-0.00081	mg/L	0.000217	-0.00081	mg/L	0.000217	26.76%
Cu 327.393†	-254.6	-0.00212	mg/L	0.000331	-0.00212	mg/L	0.000331	15.59%
Fe 239.562†	-9.3	0.00356	mg/L	0.000417	0.00356	mg/L	0.000417	11.70%
Mg 279.077†	151613.1	42.0	mg/L	0.60	42.0	mg/L	0.60	1.43%
Mn 257.610†	254.3	-0.00248	mg/L	0.000021	-0.00248	mg/L	0.000021	0.86%
Mo 202.031†	1.5	-0.00159	mg/L	0.000240	-0.00159	mg/L	0.000240	15.14%
Ni 231.604†	-2.7	-0.00234	mg/L	0.000296	-0.00234	mg/L	0.000296	12.69%
Pb 220.353†	20.9	0.00083	mg/L	0.000709	0.00083	mg/L	0.000709	85.76%
Sb 206.836†	3.6	-0.00384	mg/L	0.001485	-0.00384	mg/L	0.001485	38.64%
Se 196.026†	1.9	0.00358	mg/L	0.004111	0.00358	mg/L	0.004111	114.70%
Si 251.611†	4205.1	0.0768	mg/L	0.00186	0.0768	mg/L	0.00186	2.42%
Sn 189.927†	-233.3	-0.0257	mg/L	0.00051	-0.0257	mg/L	0.00051	1.98%
Ti 334.940†	-8296.8	-0.00259	mg/L	0.000251	-0.00259	mg/L	0.000251	9.69%
Tl 190.801†	-15.1	-0.00668	mg/L	0.001980	-0.00668	mg/L	0.001980	29.61%
V 290.880†	974.4	0.00055	mg/L	0.002325	0.00055	mg/L	0.002325	422.60%
Zn 206.200†	79.4	-0.00383	mg/L	0.000162	-0.00383	mg/L	0.000162	4.22%
K 766.490†	1864.8	0.475	mg/L	0.0124	0.475	mg/L	0.0124	2.61%
Na 589.592†	580960.6	27.5	mg/L	0.90	27.5	mg/L	0.90	3.26%
Sr 407.771†	135113.3	0.0465	mg/L	0.00031	0.0465	mg/L	0.00031	0.67%
Li 670.784†	1473.7	0.00160	mg/L	0.000488	0.00160	mg/L	0.000488	30.45%

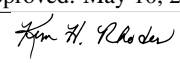
Sequence No.: 44
 Sample ID: L1205025301 WG397432-02
 Analyst: KHR
 Initial Sample Wt:
 Dilution:

u\osampler Location: 87
 a\ne Collected: 5/9/2012 8:47:26 PM
 a\ne Type: Original
 n\itial Sample Vol:
 a\mple Prep Vol:

Nebulizer Parameters: L1205025301 WG397432-02
 Analyte Back Pressure Flow
 All 154.0 kPa 0.50 L/min

Mean Data: L1205025301 WG397432-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2237604.7				13181.91	0.59%
YRADIAL	306844.2				5827.34	1.90%
Ga 417.206	1507509.0				22811.60	1.51%
GA RADIAL	98115.3				2086.27	2.13%
Ag 328.068†	219.1	-0.00117 mg/L	0.000350	-0.00117 mg/L	0.000350	29.94%
Al 396.153†	5846.7	0.721 mg/L	0.0093	0.721 mg/L	0.0093	1.29%
As 188.979†	-8.7	-0.00159 mg/L	0.001298	-0.00159 mg/L	0.001298	81.84%
Ba 233.527†	13092.1	0.0834 mg/L	0.00103	0.0834 mg/L	0.00103	1.24%
Be 234.861†	213.7	-0.00001 mg/L	0.000020	-0.00001 mg/L	0.000020	148.10%
B 249.677†	3199.6	0.0356 mg/L	0.00147	0.0356 mg/L	0.00147	4.13%
Ca 227.546†	27434.8	56.0 mg/L	1.86	56.0 mg/L	1.86	3.32%
Cd 228.802†	-3.0	-0.00025 mg/L	0.000189	-0.00025 mg/L	0.000189	75.87%
Co 228.616†	9.9	-0.00038 mg/L	0.000361	-0.00038 mg/L	0.000361	95.35%
Cr 267.716†	134.2	-0.00074 mg/L	0.000078	-0.00074 mg/L	0.000078	10.57%
Cu 327.393†	1765.0	0.00504 mg/L	0.000079	0.00504 mg/L	0.000079	1.57%
Fe 239.562†	1343.4	0.0878 mg/L	0.00211	0.0878 mg/L	0.00211	2.40%
Mg 279.077†	32945.2	9.13 mg/L	0.158	9.13 mg/L	0.158	1.73%
Mn 257.610†	12944.1	0.0130 mg/L	0.00006	0.0130 mg/L	0.00006	0.44%
Mo 202.031†	67.3	0.00024 mg/L	0.000154	0.00024 mg/L	0.000154	65.33%
Ni 231.604†	342.4	0.00290 mg/L	0.000270	0.00290 mg/L	0.000270	9.33%
Pb 220.353†	19.4	0.00092 mg/L	0.001570	0.00092 mg/L	0.001570	170.78%
Sb 206.836†	3.7	-0.00382 mg/L	0.002473	-0.00382 mg/L	0.002473	64.69%
Se 196.026†	8.4	0.00716 mg/L	0.001984	0.00716 mg/L	0.001984	27.71%
Si 251.611†	190946.0	4.53 mg/L	0.042	4.53 mg/L	0.042	0.94%
Sn 189.927†	-248.5	-0.0272 mg/L	0.00069	-0.0272 mg/L	0.00069	2.52%
Ti 334.940†	-10210.0	-0.00209 mg/L	0.000424	-0.00209 mg/L	0.000424	20.31%
Tl 190.801†	-23.6	-0.00890 mg/L	0.002328	-0.00890 mg/L	0.002328	26.15%
V 290.880†	833.7	0.00065 mg/L	0.001483	0.00065 mg/L	0.001483	226.46%
Zn 206.200†	754.1	0.0134 mg/L	0.00014	0.0134 mg/L	0.00014	1.05%

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K 766.490†	12874.2	3.56 mg/L	0.056	3.56 mg/L	0.056	1.57%
Na 589.592†	665071.4	31.6 mg/L	0.72	31.6 mg/L	0.72	2.28%
Sr 407.771†	297194.1	0.103 mg/L	0.0013	0.103 mg/L	0.0013	1.30%
Li 670.784†	663.6	-0.00308 mg/L	0.000122	-0.00308 mg/L	0.000122	3.98%

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=====
Sequence No.: 45                               u@sampler Location: 88
Sample ID: L1205025301MS WG397432-07         a@e Collected: 5/9/2012 8:54:22 PM
Analyst: KHR                                  a@a Type: Original
Initial Sample Wt:                            n@tial Sample Vol:
Dilution:                                    a@mple Prep Vol:
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Nebulizer Parameters: L1205025301MS WG397432-07
Analyte      Back Pressure  Flow
All          153.0 kPa     0.50 L/min
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```

Mean Data: L1205025301MS WG397432-07

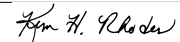
Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Y 371.029	2252220.3				16124.35	0.72%	
YRADIAL	313480.3				4334.62	1.38%	
Ga 417.206	1433305.3				9136.97	0.64%	
GaRADIAL	95694.6				1830.01	1.91%	
Ag 328.068†	61688.2	0.195 mg/L	0.0045	0.195 mg/L	0.0045	2.30%	
Al 396.153†	44848.7	5.59 mg/L	0.028	5.59 mg/L	0.028	0.50%	
As 188.979†	530.5	0.187 mg/L	0.0006	0.187 mg/L	0.0006	0.34%	
Ba 233.527†	86969.3	0.576 mg/L	0.0031	0.576 mg/L	0.0031	0.55%	
Be 234.861†	30704.4	0.0242 mg/L	0.00057	0.0242 mg/L	0.00057	2.37%	
B 249.677†	85767.3	0.985 mg/L	0.0275	0.985 mg/L	0.0275	2.80%	
Ca 227.546†	31710.0	65.0 mg/L	1.72	65.0 mg/L	1.72	2.65%	
Cd 228.802†	1322.4	0.0231 mg/L	0.00085	0.0231 mg/L	0.00085	3.68%	
Co 228.616†	3660.5	0.0966 mg/L	0.00096	0.0966 mg/L	0.00096	0.99%	
Cr 267.716†	26194.3	0.244 mg/L	0.0049	0.244 mg/L	0.0049	1.99%	
Cu 327.393†	66884.3	0.237 mg/L	0.0052	0.237 mg/L	0.0052	2.21%	
Fe 239.562†	32123.8	1.99 mg/L	0.026	1.99 mg/L	0.026	1.29%	
Mg 279.077†	49063.8	13.6 mg/L	0.09	13.6 mg/L	0.09	0.63%	
Mn 257.610†	214976.9	0.260 mg/L	0.0013	0.260 mg/L	0.0013	0.51%	
Mo 202.031†	17957.3	0.494 mg/L	0.0069	0.494 mg/L	0.0069	1.39%	
Ni 231.604†	17137.2	0.257 mg/L	0.0020	0.257 mg/L	0.0020	0.78%	
Pb 220.353†	2665.3	0.246 mg/L	0.0032	0.246 mg/L	0.0032	1.32%	
Sb 206.836†	2434.5	0.577 mg/L	0.0041	0.577 mg/L	0.0041	0.72%	
Se 196.026†	348.3	0.194 mg/L	0.0008	0.194 mg/L	0.0008	0.43%	
Si 251.611†	307012.6	7.30 mg/L	0.076	7.30 mg/L	0.076	1.05%	
Sn 189.927†	5380.0	0.528 mg/L	0.0053	0.528 mg/L	0.0053	1.00%	
Ti 334.940†	477694.2	0.483 mg/L	0.0015	0.483 mg/L	0.0015	0.32%	
Tl 190.801†	926.3	0.246 mg/L	0.0026	0.246 mg/L	0.0026	1.06%	
V 290.880†	94512.2	0.489 mg/L	0.0114	0.489 mg/L	0.0114	2.34%	
Zn 206.200†	19964.3	0.507 mg/L	0.0049	0.507 mg/L	0.0049	0.96%	
K 766.490†	97654.0	27.6 mg/L	0.06	27.6 mg/L	0.06	0.21%	
Na 589.592†	1185606.7	56.8 mg/L	0.75	56.8 mg/L	0.75	1.31%	
Sr 407.771†	1677735.7	0.590 mg/L	0.0024	0.590 mg/L	0.0024	0.41%	
Li 670.784†	86524.0	0.493 mg/L	0.0014	0.493 mg/L	0.0014	0.29%	

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Sequence No.: 46                               u@sampler Location: 89
Sample ID: L1205022305                         a@e Collected: 5/9/2012 9:00:21 PM
Analyst: KHR                                  a@a Type: Original
Initial Sample Wt:                            n@tial Sample Vol:
Dilution:                                    a@mple Prep Vol:
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Nebulizer Parameters: L1205022305
Analyte      Back Pressure  Flow
All          154.0 kPa     0.50 L/min
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Mean Data: L1205022305

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Y 371.029	2326019.2				30525.39	1.31%	

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YRADIAL	321466.7					7084.78	2.20%
Ga 417.206	1519044.8					34236.75	2.25%
GA RADIAL	98208.2					1462.43	1.49%
Ag 328.068†	-32.4	-0.00198 mg/L	0.000350	-0.00198 mg/L	0.000350	17.67%	
Al 396.153†	50.3	-0.00797 mg/L	0.000440	-0.00797 mg/L	0.000440	5.52%	
As 188.979†	-5.3	-0.00037 mg/L	0.000371	-0.00037 mg/L	0.000371	100.53%	
Ba 233.527†	16.8	-0.00368 mg/L	0.000120	-0.00368 mg/L	0.000120	3.26%	
Be 234.861†	-1.7	-0.00017 mg/L	0.000041	-0.00017 mg/L	0.000041	23.91%	
B 249.677†	565.8	0.00532 mg/L	0.000205	0.00532 mg/L	0.000205	3.86%	
Ca 227.546†	20.2	0.0417 mg/L	0.02032	0.0417 mg/L	0.02032	48.72%	
Cd 228.802†	-5.9	-0.00031 mg/L	0.000094	-0.00031 mg/L	0.000094	30.33%	
Co 228.616†	1.4	-0.00060 mg/L	0.000197	-0.00060 mg/L	0.000197	32.78%	
Cr 267.716†	27.6	-0.00173 mg/L	0.000173	-0.00173 mg/L	0.000173	10.03%	
Cu 327.393†	223.8	-0.00042 mg/L	0.000324	-0.00042 mg/L	0.000324	77.41%	
Fe 239.562†	32.9	0.00701 mg/L	0.000300	0.00701 mg/L	0.000300	4.27%	
Mg 279.077†	14.9	0.0124 mg/L	0.00191	0.0124 mg/L	0.00191	15.34%	
Mn 257.610†	93.2	-0.00268 mg/L	0.000018	-0.00268 mg/L	0.000018	0.66%	
Mo 202.031†	1.2	-0.00160 mg/L	0.000072	-0.00160 mg/L	0.000072	4.50%	
Ni 231.604†	-3.4	-0.00235 mg/L	0.000010	-0.00235 mg/L	0.000010	0.41%	
Pb 220.353†	-2.0	-0.00161 mg/L	0.000780	-0.00161 mg/L	0.000780	48.53%	
Sb 206.836†	7.1	-0.00301 mg/L	0.000617	-0.00301 mg/L	0.000617	20.46%	
Se 196.026†	-1.1	0.00192 mg/L	0.002442	0.00192 mg/L	0.002442	127.33%	
Si 251.611†	392.7	-0.0141 mg/L	0.00038	-0.0141 mg/L	0.00038	2.71%	
Sn 189.927†	-22.4	-0.00493 mg/L	0.000684	-0.00493 mg/L	0.000684	13.88%	
Ti 334.940†	8.0	-0.00035 mg/L	0.000148	-0.00035 mg/L	0.000148	42.62%	
Tl 190.801†	-11.0	-0.00553 mg/L	0.003167	-0.00553 mg/L	0.003167	57.32%	
V 290.880†	247.5	-0.00215 mg/L	0.000807	-0.00215 mg/L	0.000807	37.53%	
Zn 206.200†	113.4	-0.00297 mg/L	0.000226	-0.00297 mg/L	0.000226	7.60%	
K 766.490†	8.8	-0.0175 mg/L	0.01993	-0.0175 mg/L	0.01993	113.76%	
Na 589.592†	578.1	0.0317 mg/L	0.00737	0.0317 mg/L	0.00737	23.25%	
Sr 407.771†	968.9	0.00010 mg/L	0.000024	0.00010 mg/L	0.000024	25.13%	
Li 670.784†	-65.1	-0.00729 mg/L	0.000423	-0.00729 mg/L	0.000423	5.81%	

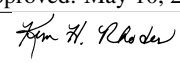
Sequence No.: 47
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

u&osampler Location: 6
 a&e Collected: 5/9/2012 9:07:16 PM
 a&a Type: Original
 n&itial Sample Vol:
 a&mple Prep Vol:

Nebulizer Parameters: CCV
 Analyte Back Pressure Flow
 All 153.0 kPa 0.50 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2264105.0				20285.29	0.90%
YRADIAL	312074.6				9393.26	3.01%
Ga 417.206	1369469.3				46182.67	3.37%
GA RADIAL	93878.5				3095.22	3.30%
Ag 328.068†	128386.9	0.407 mg/L	0.0160	0.407 mg/L	0.0160	3.93%
QC value within limits for Ag 328.068		Recovery = 101.83%				
Al 396.153†	78579.2	9.80 mg/L	0.026	9.80 mg/L	0.026	0.27%
QC value within limits for Al 396.153		Recovery = 98.01%				
As 188.979†	1133.1	0.398 mg/L	0.0125	0.398 mg/L	0.0125	3.14%
QC value within limits for As 188.979		Recovery = 99.57%				
Ba 233.527†	152066.0	1.01 mg/L	0.016	1.01 mg/L	0.016	1.59%
QC value within limits for Ba 233.527		Recovery = 100.93%				
Be 234.861†	63514.0	0.0502 mg/L	0.00190	0.0502 mg/L	0.00190	3.79%
QC value within limits for Be 234.861		Recovery = 100.41%				
B 249.677†	43529.0	0.496 mg/L	0.0179	0.496 mg/L	0.0179	3.61%
QC value within limits for B 249.677		Recovery = 99.24%				
Ca 227.546†	4776.0	10.2 mg/L	0.43	10.2 mg/L	0.43	4.17%
QC value within limits for Ca 227.546		Recovery = 102.16%				
Cd 228.802†	2809.7	0.0493 mg/L	0.00238	0.0493 mg/L	0.00238	4.84%
QC value within limits for Cd 228.802		Recovery = 98.56%				
Co 228.616†	7509.5	0.199 mg/L	0.0028	0.199 mg/L	0.0028	1.42%
QC value within limits for Co 228.616		Recovery = 99.48%				
Cr 267.716†	53467.7	0.501 mg/L	0.0042	0.501 mg/L	0.0042	0.83%

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Cu	327.393†	QC value within limits for Cu 327.393	Recovery = 100.13%	0.496 mg/L	0.0206	4.16%
Fe	239.562†	QC value within limits for Fe 239.562	Recovery = 99.27%	4.02 mg/L	0.047	1.16%
Mg	279.077†	QC value within limits for Mg 279.077	Recovery = 100.56%	10.0 mg/L	0.10	1.01%
Mn	257.610†	QC value within limits for Mn 257.610	Recovery = 100.45%	0.508 mg/L	0.0090	1.77%
Mo	202.031†	QC value within limits for Mo 202.031	Recovery = 101.69%	0.990 mg/L	0.0091	0.91%
Ni	231.604†	QC value within limits for Ni 231.604	Recovery = 99.02%	0.503 mg/L	0.0075	1.49%
Pb	220.353†	QC value within limits for Pb 220.353	Recovery = 100.58%	0.503 mg/L	0.0056	1.11%
Sb	206.836†	QC value within limits for Sb 206.836	Recovery = 100.55%	1.21 mg/L	0.044	3.64%
Se	196.026†	QC value within limits for Se 196.026	Recovery = 101.03%	0.405 mg/L	0.0171	4.22%
Si	251.611†	QC value within limits for Si 251.611	Recovery = 101.25%	5.07 mg/L	0.151	2.98%
Sn	189.927†	QC value within limits for Sn 189.927	Recovery = 101.44%	0.992 mg/L	0.0119	1.20%
Ti	334.940†	QC value within limits for Ti 334.940	Recovery = 99.20%	0.977 mg/L	0.0029	0.30%
Tl	190.801†	QC value within limits for Tl 190.801	Recovery = 97.72%	0.513 mg/L	0.0018	0.35%
V	290.880†	QC value within limits for V 290.880	Recovery = 102.55%	0.990 mg/L	0.0057	0.58%
Zn	206.200†	QC value within limits for Zn 206.200	Recovery = 99.02%	1.04 mg/L	0.012	1.20%
K	766.490†	QC value within limits for K 766.490	Recovery = 103.63%	48.1 mg/L	0.23	0.47%
Na	589.592†	QC value within limits for Na 589.592	Recovery = 96.12%	49.0 mg/L	1.89	3.86%
Sr	407.771†	QC value within limits for Sr 407.771	Recovery = 98.06%	0.997 mg/L	0.0315	3.16%
Li	670.784†	QC value within limits for Li 670.784	Recovery = 99.73%	0.963 mg/L	0.0059	0.61%

All analyte(s) passed QC.

Sequence No.: 48
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

u&osampler Location: 1
a&e Collected: 5/9/2012 9:13:17 PM
a&a Type: Original
n&itial Sample Vol:
a&mple Prep Vol:

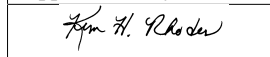
Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	154.0 kPa	0.50 L/min

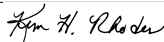
Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2325982.9				38576.91	1.66%
YRADIAL	317375.0				2463.79	0.78%
Ga 417.206	1428815.7				9496.86	0.66%
GaRADIAL	96020.8				3539.00	3.69%
Ag 328.068†	-33.0	-0.00199 mg/L	0.000264	-0.00199 mg/L	0.000264	13.26%
QC value within limits for Ag 328.068		Recovery = Not calculated				
Al 396.153†	30.0	-0.0105 mg/L	0.00105	-0.0105 mg/L	0.00105	9.97%
QC value within limits for Al 396.153		Recovery = Not calculated				
As 188.979†	-2.3	0.00071 mg/L	0.001807	0.00071 mg/L	0.001807	253.98%
QC value within limits for As 188.979		Recovery = Not calculated				
Ba 233.527†	4.3	-0.00376 mg/L	0.000091	-0.00376 mg/L	0.000091	2.42%
QC value within limits for Ba 233.527		Recovery = Not calculated				
Be 234.861†	-56.6	-0.00021 mg/L	0.000016	-0.00021 mg/L	0.000016	7.70%
QC value within limits for Be 234.861		Recovery = Not calculated				
B 249.677†	483.3	0.00437 mg/L	0.000271	0.00437 mg/L	0.000271	6.19%

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	QC value within limits	for B 249.677	Recovery = Not calculated			
Ca	227.546†	1.9	0.00442 mg/L	0.020401	0.00442 mg/L	0.020401 461.92%
	QC value within limits	for Ca 227.546	Recovery = Not calculated			
Cd	228.802†	-7.1	-0.00034 mg/L	0.000181	-0.00034 mg/L	0.000181 54.09%
	QC value within limits	for Cd 228.802	Recovery = Not calculated			
Co	228.616†	0.4	-0.00062 mg/L	0.000107	-0.00062 mg/L	0.000107 17.20%
	QC value within limits	for Co 228.616	Recovery = Not calculated			
Cr	267.716†	10.8	-0.00189 mg/L	0.000076	-0.00189 mg/L	0.000076 4.03%
	QC value within limits	for Cr 267.716	Recovery = Not calculated			
Cu	327.393†	42.2	-0.00106 mg/L	0.000211	-0.00106 mg/L	0.000211 19.87%
	QC value within limits	for Cu 327.393	Recovery = Not calculated			
Fe	239.562†	29.0	0.00677 mg/L	0.000067	0.00677 mg/L	0.000067 0.99%
	QC value within limits	for Fe 239.562	Recovery = Not calculated			
Mg	279.077†	20.8	0.0141 mg/L	0.00055	0.0141 mg/L	0.00055 3.93%
	QC value within limits	for Mg 279.077	Recovery = Not calculated			
Mn	257.610†	152.6	-0.00260 mg/L	0.000015	-0.00260 mg/L	0.000015 0.57%
	QC value within limits	for Mn 257.610	Recovery = Not calculated			
Mo	202.031†	3.7	-0.00153 mg/L	0.000311	-0.00153 mg/L	0.000311 20.36%
	QC value within limits	for Mo 202.031	Recovery = Not calculated			
Ni	231.604†	-1.9	-0.00232 mg/L	0.000133	-0.00232 mg/L	0.000133 5.70%
	QC value within limits	for Ni 231.604	Recovery = Not calculated			
Pb	220.353†	3.0	-0.00115 mg/L	0.001135	-0.00115 mg/L	0.001135 98.96%
	QC value within limits	for Pb 220.353	Recovery = Not calculated			
Sb	206.836†	2.5	-0.00410 mg/L	0.001530	-0.00410 mg/L	0.001530 37.33%
	QC value within limits	for Sb 206.836	Recovery = Not calculated			
Se	196.026†	1.1	0.00310 mg/L	0.003823	0.00310 mg/L	0.003823 123.37%
	QC value within limits	for Se 196.026	Recovery = Not calculated			
Si	251.611†	81.4	-0.0216 mg/L	0.00061	-0.0216 mg/L	0.00061 2.82%
	QC value within limits	for Si 251.611	Recovery = Not calculated			
Sn	189.927†	-4.0	-0.00311 mg/L	0.000087	-0.00311 mg/L	0.000087 2.80%
	QC value within limits	for Sn 189.927	Recovery = Not calculated			
Ti	334.940†	247.8	-0.00012 mg/L	0.000147	-0.00012 mg/L	0.000147 126.82%
	QC value within limits	for Ti 334.940	Recovery = Not calculated			
Tl	190.801†	-2.9	-0.00341 mg/L	0.001605	-0.00341 mg/L	0.001605 47.01%
	QC value within limits	for Tl 190.801	Recovery = Not calculated			
V	290.880†	-99.8	-0.00396 mg/L	0.003169	-0.00396 mg/L	0.003169 80.03%
	QC value within limits	for V 290.880	Recovery = Not calculated			
Zn	206.200†	67.2	-0.00416 mg/L	0.000225	-0.00416 mg/L	0.000225 5.41%
	QC value within limits	for Zn 206.200	Recovery = Not calculated			
K	766.490†	47.9	-0.00653 mg/L	0.012492	-0.00653 mg/L	0.012492 191.16%
	QC value within limits	for K 766.490	Recovery = Not calculated			
Na	589.592†	6.1	0.00484 mg/L	0.009787	0.00484 mg/L	0.009787 202.22%
	QC value within limits	for Na 589.592	Recovery = Not calculated			
Sr	407.771†	535.5	-0.00006 mg/L	0.000025	-0.00006 mg/L	0.000025 43.85%
	QC value within limits	for Sr 407.771	Recovery = Not calculated			
Li	670.784†	-17.9	-0.00701 mg/L	0.000390	-0.00701 mg/L	0.000390 5.57%
	QC value within limits	for Li 670.784	Recovery = Not calculated			
All analyte(s) passed QC.						

Approved: May 10, 2012


2.3.2 Metals ICP-MS Data

2.3.2.1 Summary Data



Login Number: L12050050
Department: Metals
Analyst: Sheri Pfalzgraf

METHOD

Preparation: SW-846 3015

Analysis: SW-846 6020

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

Low Level Check: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG396925 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 46490

Approved By: Sheri Pfalzgraf

A handwritten signature in black ink that reads "Sheri L. Pfalzgraf".

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-05I-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:10
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: NI.050312.141000
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Antimony, Total	7440-36-0		U	0.00100	0.000500
Arsenic, Total	7440-38-2	0.00214		0.00100	0.000500
Lead, Total	7439-92-1		U	0.00100	0.000500
Selenium, Total	7782-49-2	0.00212		0.00100	0.000500
Thallium, Total	7440-28-0	0.000167		0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-02	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-05I-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:12
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: NI.050312.141247
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Antimony, Dissolved	7440-36-0		U	0.00100	0.000500
Arsenic, Dissolved	7440-38-2	0.00193		0.00100	0.000500
Lead, Dissolved	7439-92-1		U	0.00100	0.000500
Selenium, Dissolved	7782-49-2	0.00162		0.00100	0.000500
Thallium, Dissolved	7440-28-0	0.000172		0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-05S-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:15
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: NI.050312.141534
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Antimony, Total	7440-36-0		U	0.00100	0.000500
Arsenic, Total	7440-38-2	0.00207		0.00100	0.000500
Lead, Total	7439-92-1		U	0.00100	0.000500

Certificate of Analysis

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-05S-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:15
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: NI.050312.141534
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Selenium, Total	7782-49-2	0.00268		0.00100	0.000500
Thallium, Total	7440-28-0	0.000124		0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-04	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-05S-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:18
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: NI.050312.141821
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Antimony, Dissolved	7440-36-0		U	0.00100	0.000500
Arsenic, Dissolved	7440-38-2	0.00173		0.00100	0.000500
Lead, Dissolved	7439-92-1		U	0.00100	0.000500
Selenium, Dissolved	7782-49-2	0.00285		0.00100	0.000500
Thallium, Dissolved	7440-28-0	0.000125		0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-24-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:21
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: NI.050312.142109
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Antimony, Total	7440-36-0	0.000738		0.00100	0.000500
Arsenic, Total	7440-38-2	0.00926		0.00100	0.000500
Lead, Total	7439-92-1	0.00661		0.00100	0.000500
Selenium, Total	7782-49-2	0.00786		0.00100	0.000500
Thallium, Total	7440-28-0	0.000108		0.000200	0.000100

Certificate of Analysis

Sample #: L12050050-06	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-24-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:23
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: NI.050312.142356
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Antimony, Dissolved	7440-36-0		U	0.00100	0.000500
Arsenic, Dissolved	7440-38-2	0.00595		0.00100	0.000500
Lead, Dissolved	7439-92-1		U	0.00100	0.000500
Selenium, Dissolved	7782-49-2	0.00539		0.00100	0.000500
Thallium, Dissolved	7440-28-0		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-01-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:26
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: NI.050312.142643
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Antimony, Total	7440-36-0	0.000978		0.00100	0.000500
Arsenic, Total	7440-38-2	0.00241		0.00100	0.000500
Lead, Total	7439-92-1	0.0132		0.00100	0.000500
Selenium, Total	7782-49-2	0.00175		0.00100	0.000500
Thallium, Total	7440-28-0	0.000105		0.000200	0.000100

Sample #: L12050050-08	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-01-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:35
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: NI.050312.143509
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Antimony, Dissolved	7440-36-0	0.000973		0.00100	0.000500
Arsenic, Dissolved	7440-38-2	0.00214		0.00100	0.000500
Lead, Dissolved	7439-92-1	0.00940		0.00100	0.000500
Selenium, Dissolved	7782-49-2	0.00141		0.00100	0.000500

Certificate of Analysis

Sample #: L12050050-08	PrePrep Method: N/A	Instrument: ICP-MS2
Client ID: MW-01-050112	Prep Method: 3015	Prep Date: 05/03/2012 07:03
Matrix: Water	Analytical Method: 6020	Cal Date: 05/03/2012 10:49
Workgroup #: WG396925	Analyst: SLP	Run Date: 05/03/2012 14:35
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: NI.050312.143509
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Thallium, Dissolved	7440-28-0		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

2.3.2.2 QC Summary Data

Example 6020 Calculations
Perkin Elmer NexION 300X

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and three standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (ug/L)

Vf = Final volume

Vi = Initial volume

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in (ug/L)

Example:

0.1

100

40

1

0.25

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (ug/L)

Vf = Final volume

Vi = Initial volume

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in (ug/kg)

Example:

0.1

200

0.5

1

40

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:

Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

$Cdry$ = Concentration calculated as dry weight (ug/kg)

Example:

40

80

50

50 ug/kg = 0.050 mg/kg

Perkin Elmer NexION ICP/MS

STANDARDS KEY

QC Std 1 - ICV

QC Std 2 - ICB

QC Std 3 - LLICV

QC Std 4 - ICSA

QC Std 5 - ICSAB

QC Std 6 - CCV

QC Std 7 - CCB

QC Std 8 - LLCCV

Calibration Solutions

Analyte	Stock Conc. (mg/L)	S1 (mg/L)	S2 (mg/L)	S3 (mg/L)	S4 (mg/L)
Al	10	0	0.00005	0.05	0.1
Sb	10	0	0.00005	0.05	0.1
As	10	0	0.00005	0.05	0.1
Ba	10	0	0.00005	0.05	0.1
Be	10	0	0.00005	0.05	0.1
Ca	1000	0	0.005	5	10
Cd	10	0	0.0005	0.05	0.1
Cr	10	0	0.0005	0.05	0.1
Co	10	0	0.0005	0.05	0.1
Cu	10	0	0.0005	0.05	0.1
Fe	1000	0	0.005	5	10
Pb	10	0	0.00005	0.05	0.1
Mg	1000	0	0.005	5	10
Mn	10	0	0.00005	0.05	0.1
Ni	10	0	0.00005	0.05	0.1
K	1000	0	0.005	5	10
Se	10	0	0.00005	0.05	0.1
Ag	10	0	0.00005	0.05	0.1
Na	1000	0	0.005	5	10
Tl	10	0	0.00005	0.05	0.1
V	10	0	0.00005	0.05	0.1
U	1000	0	0.00005	0.05	0.1
Zn	10	0	0.00005	0.05	0.1

Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup: WG396868
Analyst: VC
Spike Analyst: VC
Run Date: 05/03/2012 07:03
Method: 3015
Balance: BAL016
Instrument: MW-2

SOP: ME407 Revision 12
Spike Solution: STD49281
Spike Witness: REK
HNO3 Lot #: COA16033
Digestion Tubes Lot #: COA16074
MS WG# 392559 Lot #: COA15974

SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG396868-02	BLANK	1	40 mL	100 mL	206.434 g	206.426 g	
2	WG396840-01	FBLK	18	40 mL	100 mL	206.192 g	206.176 g	
3	WG396868-03	LCS	1	40 mL	100 mL	208.077 g	208.068 g	.25 mL
4	L12050035-02	SAMP	18	40 mL	100 mL	208.743 g	208.732 g	05/07/12
5	L12050046-01	SAMP	1	40 mL	100 mL	206.424 g	206.405 g	05/11/12
6	L12050046-02	SAMP	1	40 mL	100 mL	205.356 g	205.336 g	05/11/12
7	L12050046-03	SAMP	1	40 mL	100 mL	205.92 g	205.891 g	05/11/12
8	L12050050-01	SAMP	1	40 mL	100 mL	207.761 g	207.73 g	05/16/12
9	L12050050-02	SAMP	1	40 mL	100 mL	206.898 g	206.877 g	05/16/12
10	L12050050-03	SAMP	1	40 mL	100 mL	205.891 g	205.876 g	05/16/12
11	L12050050-04	SAMP	1	40 mL	100 mL	207.676 g	207.656 g	05/16/12
12	L12050050-05	SAMP	1	40 mL	100 mL	208.676 g	208.655 g	05/16/12
13	L12050050-06	SAMP	1	40 mL	100 mL	207.233 g	207.207 g	05/16/12
14	L12050050-07	SAMP	1	40 mL	100 mL	207.203 g	207.186 g	05/16/12
15	L12050050-08	SAMP	1	40 mL	100 mL	208.841 g	208.827 g	05/16/12
16	WG396868-01	REF	2	40 mL	100 mL	206.792 g	206.775 g	
17	L12050073-01	SAMP	2	40 mL	100 mL	206.792 g	206.775 g	05/04/12
18	WG396868-06	DUP	1	40 mL	100 mL	206.695 g	206.683 g	
19	WG396868-04	MS	1	40 mL	100 mL	207.21 g	207.192 g	.25 mL
20	WG396868-05	MSD	1	40 mL	100 mL	207.322 g	207.308 g	.25 mL

L12050050-05 filtered digestate

Analyst: Vicki Collier

Reviewer: [Signature]



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-MS2 Dataset: 050312CA.REP
 Analyst1: SLP Analyst2: N/A
 Method: 6020 SOP: N/A Rev: _____
 Maintenance Log ID: 41585

Calibration Std: STD51139 ICV Std: STD51141 Post Spike: STD47984
 ICSA: STD51140 ICSAB: STD51239 Int. Std: RG17150
 CCV: STD51215 LLCCV: STD50968

396772, 396528,

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	NI.050312.103828	Blank	Blank		1		05/03/12 10:38
2	NI.050312.104115	WG396950-01	Calibration Point		1		05/03/12 10:41
3	NI.050312.104402	WG396950-02	Calibration Point		1		05/03/12 10:44
4	NI.050312.104650	WG396950-03	Calibration Point		1		05/03/12 10:46
5	NI.050312.104937	WG396950-04	Calibration Point		1		05/03/12 10:49
6	NI.050312.105226	WG396950-05	Initial Calibration Verification		1		05/03/12 10:52
7	NI.050312.105516	WG396950-06	Initial Calib Blank		1		05/03/12 10:55
8	NI.050312.105805	WG396950-07	Low Level Initial Calibration V		1		05/03/12 10:58
9	NI.050312.110052	WG396950-08	Interference Check		1		05/03/12 11:00
10	NI.050312.110339	WG396950-09	Interference Check		1		05/03/12 11:03
11	NI.050312.110629	WG396950-10	CCV		1		05/03/12 11:06
12	NI.050312.110916	WG396950-11	CCB		1		05/03/12 11:09
13	NI.050312.111205	WG396746-02	Method/Prep Blank	40/100	1		05/03/12 11:12
14	NI.050312.111452	WG396746-03	Laboratory Control S	40/100	1		05/03/12 11:14
15	NI.050312.111740	L12040898-01	MW-21-042512	40/100	5		05/03/12 11:17
16	NI.050312.112027	L12040898-01	MW-21-042512	40/100	1000		05/03/12 11:20
17	NI.050312.112314	L12040898-02	MW-21-042512	40/100	5		05/03/12 11:23
18	NI.050312.112601	L12040898-02	MW-21-042512	40/100	1000		05/03/12 11:26
19	NI.050312.112848	L12050011-01	MW-29-043012	40/100	1		05/03/12 11:28
20	NI.050312.113136	WG396772-02	Serial Dilution		5	L12050011-01	05/03/12 11:31
21	NI.050312.113423	WG396772-01	Post Digestion Spike		1	L12050011-01	05/03/12 11:34
22	NI.050312.113710	L12050011-02	MW-29-043012	40/100	1		05/03/12 11:37
23	NI.050312.114000	WG396950-12	CCV		1		05/03/12 11:40
24	NI.050312.114247	WG396950-13	CCB		1		05/03/12 11:42
25	NI.050312.114536	L12050011-03	DUP-GW-043012	40/100	1		05/03/12 11:45
26	NI.050312.114823	L12050011-04	DUP-GW-043012	40/100	1		05/03/12 11:48
27	NI.050312.115110	L12050011-05	EB-043012-GW	40/100	1		05/03/12 11:51
28	NI.050312.115358	L12050013-01	CLAMW23-120429	40/100	1		05/03/12 11:53
29	NI.050312.115645	WG396746-01	Reference Sample		1	L12050013-02	05/03/12 11:56
30	NI.050312.115932	WG396746-04	Matrix Spike	40/100	1	L12050013-02	05/03/12 11:59
31	NI.050312.120219	WG396746-05	Matrix Spike Duplica	40/100	1	L12050013-02	05/03/12 12:02
32	NI.050312.120506	L12050017-01	2401 MW-1A	40/100	1		05/03/12 12:05
33	NI.050312.120755	WG396950-14	Interference Check		1		05/03/12 12:07
34	NI.050312.121043	WG396950-15	Interference Check		1		05/03/12 12:10

Page: 1 Approved: May 03, 2012

Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-MS2 Dataset: 050312CA.REP
 Analyst1: SLP Analyst2: N/A
 Method: 6020 SOP: N/A Rev: _____
 Maintenance Log ID: 41585

Calibration Std: STD51139 ICV Std: STD51141 Post Spike: STD47984
 ICSA: STD51140 ICSAB: STD51239 Int. Std: RG17150
 CCV: STD51215 LLCCV: STD50968

396772, 396528,

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	NI.050312.121333	WG396950-16	CCV		1		05/03/12 12:13
36	NI.050312.121620	WG396950-17	CCB		1		05/03/12 12:16
37	NI.050312.121938	WG396950-18	Low Level Continuing Calibra		1		05/03/12 12:19
38	NI.050312.122728	L12050017-02	2401 MW-2A	40/100	1		05/03/12 12:27
39	NI.050312.123015	L12050017-03	2401 MW-3A	40/100	1		05/03/12 12:30
40	NI.050312.123302	L12050017-04	2401 MW-5A	40/100	1		05/03/12 12:33
41	NI.050312.123549	L12050017-05	2401 MW-7	40/100	1		05/03/12 12:35
42	NI.050312.123836	L12050017-06	2401 MW-11	40/100	1		05/03/12 12:38
43	NI.050312.124124	L12050017-07	2401 MW-12	40/100	1		05/03/12 12:41
44	NI.050312.124411	L12050017-08	2401 CD-4	40/100	1		05/03/12 12:44
45	NI.050312.124658	L12050017-09	2401 CD-4D	40/100	1		05/03/12 12:46
46	NI.050312.124945	L12050017-10	2401 US-1	40/100	1		05/03/12 12:49
47	NI.050312.125232	L12050017-11	2401 DS-1	40/100	1		05/03/12 12:52
48	NI.050312.125522	WG396950-19	CCV		1		05/03/12 12:55
49	NI.050312.125810	WG396950-20	CCB		1		05/03/12 12:58
50	NI.050312.130100	WG396479-01	Reference Sample		1	L12040944-04	05/03/12 13:01
51	NI.050312.130347	WG396479-04	Matrix Spike	.507/200	1	L12040944-04	05/03/12 13:03
52	NI.050312.130634	WG396479-05	Matrix Spike Duplica	.522/200	1	L12040944-04	05/03/12 13:06
53	NI.050312.130925	WG396950-21	CCV		1		05/03/12 13:09
54	NI.050312.131212	WG396950-22	CCB		1		05/03/12 13:12
55	NI.050312.132807	WG396868-02	Method/Prep Blank	40/100	1		05/03/12 13:28
56	NI.050312.133054	WG396868-03	Laboratory Control S	40/100	1		05/03/12 13:30
57	NI.050312.133341	WG396840-01	Fluid Blank		1		05/03/12 13:33
58	NI.050312.133628	L12050035-02	2770-SSP0027		1		05/03/12 13:36
59	NI.050312.133915	WG396925-02	Serial Dilution	40/100	5	L12050035-02	05/03/12 13:39
60	NI.050312.134203	WG396925-01	Post Digestion Spike	40/100	1	L12050035-02	05/03/12 13:42
61	NI.050312.134450	WG396868-01	Reference Sample	40/100	1	L12050073-01	05/03/12 13:44
62	NI.050312.134737	WG396868-06	Duplicate	40/100	1	L12050073-01	05/03/12 13:47
63	NI.050312.135024	WG396868-04	Matrix Spike		1	L12050073-01	05/03/12 13:50
64	NI.050312.135311	WG396868-05	Matrix Spike Duplica		1	L12050073-01	05/03/12 13:53
65	NI.050312.135601	WG396950-23	CCV		1		05/03/12 13:56
66	NI.050312.135848	WG396950-24	CCB		1		05/03/12 13:58
67	NI.050312.140138	L12050046-01	LH18/24-SP650-6624-GRAB	40/100	1		05/03/12 14:01
68	NI.050312.140425	L12050046-02	LH18/24-SP650-6624-COMP	40/100	1		05/03/12 14:04

Page: 2 Approved: May 03, 2012

Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-MS2 Dataset: 050312CA.REP
 Analyst1: SLP Analyst2: N/A
 Method: 6020 SOP: N/A Rev: _____
 Maintenance Log ID: 41585

Calibration Std: STD51139 ICV Std: STD51141 Post Spike: STD47984
 ICSA: STD51140 ICSAB: STD51239 Int. Std: RGT17150
 CCV: STD51215 LLCCV: STD50968

396772, 396528,

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	NI.050312.140713	L12050046-03	DUP 05-120501	40/100	1		05/03/12 14:07
70	NI.050312.141000	L12050050-01	MW-05I-050112	40/100	1		05/03/12 14:10
71	NI.050312.141247	L12050050-02	MW-05I-050112	40/100	1		05/03/12 14:12
72	NI.050312.141534	L12050050-03	MW-05S-050112	40/100	1		05/03/12 14:15
73	NI.050312.141821	L12050050-04	MW-05S-050112	40/100	1		05/03/12 14:18
74	NI.050312.142109	L12050050-05	MW-24-050112	40/100	1		05/03/12 14:21
75	NI.050312.142356	L12050050-06	MW-24-050112	40/100	1		05/03/12 14:23
76	NI.050312.142643	L12050050-07	MW-01-050112	40/100	1		05/03/12 14:26
77	NI.050312.142933	WG396950-25	CCV		1		05/03/12 14:29
78	NI.050312.143220	WG396950-26	CCB		1		05/03/12 14:32
79	NI.050312.143509	L12050050-08	MW-01-050112	40/100	1		05/03/12 14:35
80	NI.050312.143758	WG396950-27	Interference Check		1		05/03/12 14:37
81	NI.050312.144045	WG396950-28	Interference Check		1		05/03/12 14:40
82	NI.050312.144335	WG396950-29	CCV		1		05/03/12 14:43
83	NI.050312.144622	WG396950-30	CCB		1		05/03/12 14:46
84	NI.050312.145817	WG396883-02	Method/Prep Blank		1		05/03/12 14:58
85	NI.050312.150104	WG396883-03	Laboratory Control S		20		05/03/12 15:01
86	NI.050312.150352	WG396841-01	TCLP Fluid Blank 1		1		05/03/12 15:03
87	NI.050312.150639	WG396841-02	TCLP Fluid Blank 2		1		05/03/12 15:06
88	NI.050312.150926	WG396883-01	Reference Sample		20	L12050035-01	05/03/12 15:09
89	NI.050312.151213	WG396883-04	Matrix Spike		20	L12050035-01	05/03/12 15:12
90	NI.050312.151500	WG396883-05	Matrix Spike Duplica		20	L12050035-01	05/03/12 15:15
91	NI.050312.151748	L12050025-01	HSBH RED		20		05/03/12 15:17
92	NI.050312.152035	WG396927-02	Serial Dilution		100	L12050025-01	05/03/12 15:20
93	NI.050312.152322	WG396927-01	Post Digestion Spike		20	L12050025-01	05/03/12 15:23
94	NI.050312.152612	WG396950-31	CCV		1		05/03/12 15:26
95	NI.050312.152859	WG396950-32	CCB		1		05/03/12 15:28

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Maren Beery



Microbac Laboratories Inc.

Data Checklist

Date: 03-MAY-2012
 Analyst: SLP
 Analyst: NA
 Method: 6020
 Instrument: ICP-MS2
 Curve Workgroup: 396950
 Runlog ID: 46530
 Analytical Workgroups: 396772, 396528, 396925, 396927

Calibration/Linearity	X
ICV/CCV	X
ICV RSD <= 3% (EPA 200.7 only)	
ICB/CCB	X
ICSA/ICSAB	X
CRI	X
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	0898, 0011, 0017, 0944, 0035, 0046, 00
Client Forms	X
Level X	
Level 3	0046
Level 4	0898, 0011, 0944, 0035, 0050
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	SLP
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
04-MAY-2012

Shirley L. Pabon

Secondary Reviewer:
07-MAY-2012

Maren Berry



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method:6020
 Login Number:L12050050

AAB#:WG396925

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MW-05I-050112	01	05/01/12					05/03/12	1.8	180		05/03/12	2.1	180	
MW-05I-050112	02	05/01/12					05/03/12	1.8	180		05/03/12	2.1	180	
MW-05S-050112	03	05/01/12					05/03/12	1.7	180		05/03/12	2	180	
MW-05S-050112	04	05/01/12					05/03/12	1.7	180		05/03/12	2	180	
MW-24-050112	05	05/01/12					05/03/12	1.9	180		05/03/12	2.2	180	
MW-24-050112	06	05/01/12					05/03/12	1.9	180		05/03/12	2.2	180	
MW-01-050112	07	05/01/12					05/03/12	1.8	180		05/03/12	2.1	180	
MW-01-050112	08	05/01/12					05/03/12	1.8	180		05/03/12	2.1	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2401539
 Report generated 05/03/2012 15:42



METHOD BLANK SUMMARY

Login Number: L12050050 Work Group: WG396925
 Blank File ID: NI.050312.132807 Blank Sample ID: WG396868-02
 Prep Date: 05/03/12 07:03 Instrument ID: ICP-MS2
 Analyzed Date: 05/03/12 13:28 Method: 6020
 Analyst: SLP

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG396868-03	NI.050312.133054	05/03/12 13:30	01
DUP	WG396868-06	NI.050312.133915	05/03/12 13:39	01
MW-05I-050112	L12050050-01	NI.050312.141000	05/03/12 14:10	01
MW-05I-050112	L12050050-02	NI.050312.141247	05/03/12 14:12	01
MW-05S-050112	L12050050-03	NI.050312.141534	05/03/12 14:15	01
MW-05S-050112	L12050050-04	NI.050312.141821	05/03/12 14:18	01
MW-24-050112	L12050050-05	NI.050312.142109	05/03/12 14:21	01
MW-24-050112	L12050050-06	NI.050312.142356	05/03/12 14:23	01
MW-01-050112	L12050050-07	NI.050312.142643	05/03/12 14:26	01
MW-01-050112	L12050050-08	NI.050312.143509	05/03/12 14:35	01

Report Name: BLANK_SUMMARY
 PDF File ID: 2401540
 Report generated 05/03/2012 15:42



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L12050050 Prep Date: 05/03/12 07:03 Sample ID: WG396868-02
 Instrument ID: ICP-MS2 Run Date: 05/03/12 13:28 Prep Method: 3015
 File ID: NI.050312.132807 Analyst: SLP Method: 6020
 Workgroup (AAB#): WG396925 Matrix: Water Units: mg/L
 Contract #: _____ Cal ID: ICP-MS - 03-MAY-12

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Antimony, Total	0.000500	0.00100	0.000500	1	U
Arsenic, Total	0.000500	0.00100	0.000500	1	U
Lead, Total	0.000500	0.00100	0.000500	1	U
Selenium, Total	0.000500	0.00100	0.000500	1	U
Thallium, Total	0.000100	0.000200	0.000100	1	U

MDL Method Detection Limit
 RL Reporting/Practical Quantitation Limit
 ND Analyte Not detected at or above reporting limit
 * |Analyte concentration| > RL

Report Name: BLANK
 PDF ID: 2401541
 03-MAY-2012 15:42



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396868-03
Instrument ID: ICP-MS2 Run Time: 13:30 Prep Method: 3015
File ID: NI.050312.133054 Analyst: SLP Method: 6020
Workgroup (AAB#): WG396925 Matrix: Water Units: mg/L
QC Key: WATERLOO Lot#: STD49281 Cal ID: ICP-MS - 03-MAY-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Antimony, Total	0.0625	0.0650	104	80 - 120	
Arsenic, Total	0.0625	0.0638	102	80 - 120	
Lead, Total	0.0625	0.0655	105	80 - 120	
Selenium, Total	0.0625	0.0646	103	80 - 120	
Thallium, Total	0.0625	0.0644	103	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 2401542
Report generated: 05/03/2012 15:42



MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L12050050 Cal ID: ICP-MS2- Worknum: WG396925
 Instrument ID: ICP-MS2 Contract #: _____ Method: 6020
 Parent ID: WG396868-01 File ID: NI.050312.133628 Dil: 1 Matrix: WATER
 Sample ID: WG396868-04 MS File ID: NI.050312.134203 Dil: 1 Units: mg/L
 Sample ID: WG396868-05 MSD File ID: NI.050312.134450 Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Antimony, Total	0.00111	0.0625	0.0652	102	0.0625	0.0658	103	0.967	80 - 120	20	
Arsenic, Total	0.0189	0.0625	0.0803	98.3	0.0625	0.0817	101	1.76	80 - 120	20	
Lead, Total	ND	0.0625	0.0644	103	0.0625	0.0648	104	0.521	80 - 120	20	
Selenium, Total	0.00202	0.0625	0.0642	99.4	0.0625	0.0670	104	4.40	80 - 120	20	
Thallium, Total	0.00141	0.0625	0.0654	102	0.0625	0.0650	102	0.716	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

Microbac Laboratories Inc.
Serial Dilution Report

Login: L12050050 Worknum: WG396925
Instrument: ICP-MS2 Method: 6020
Serial Dil: WG396925-02 File ID: NI.050312.135024 Dil: 5 Units: ug/L
Sample: L12050035-02 File ID: NI.050312.134737 Dil: 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Antimony	0.253	F	ND	U		
Arsenic	2.74	X	2.90	X	5.75	
Lead	ND	U	ND	U		
Selenium	12.5	X	14.0	X	12.10	
Thallium	0.0445	F	ND	U		

U = Result is below MDL.
F = Result is greater than or equal to MDL and less than the RL.
X = Result is greater than or equal to RL and less than 100 times the MDL.
E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 100 times the MDL.

SERIAL_DIL - Modified 09/22/2008
PDF File ID: 2401537
05/03/2012 15:42



Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L12050050

Worknum: WG396925

Instrument ID: ICP-MS2

Method: 6020

Post Spike ID: WG396925-01

File ID: NI.050312.135311

Dil: 1

Units: ug/L

Sample ID: L12050035-02

File ID: NI.050312.134737

Dil: 1

Matrix: Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ANTIMONY	55.0		0.253	F	50	109.4	75 - 125	
ARSENIC	59.1		2.74		50	112.7	75 - 125	
LEAD	55.0		0	U	50	110.0	75 - 125	
SELENIUM	73.8		12.5		50	122.5	75 - 125	
THALLIUM	55.1		0.0445	F	50	110.2	75 - 125	

N = % Recovery exceeds control limits

F = Result is between MDL and RL

U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 2401538
Report generated: 05/03/2012 15:42



Microbac Laboratories Inc.
Initial Calibration Summary

Login:	<u>L12050050</u>	Workgroup (AAB#):	<u>WG396925</u>
Analytical Method:	<u>6020</u>	Instrument ID:	<u>ICP-MS2</u>
ICAL Worknum:	<u>WG396950</u>	Initial Calibration Date:	<u>03-MAY-2012 10:49</u>

	WG396950-01		WG396950-02		WG396950-03		WG396950-04		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ANTIMONY	0	32.9	.4	675	50	608000	100	1200000	1	
ARSENIC	0	-252	.4	-140	50	63200	100	124000	1	
LEAD	0	1570	.4	4450	50	2740000	100	5340000	.999999	
SELENIUM	0	19.6	.4	37.1	50	6340	100	12400	1	
THALLIUM	0	5.70	.4	892	50	888000	100	1740000	.999982	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
* = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396950-06
Instrument ID: ICP-MS2 Run Time: 10:55 Method: 6020
File ID: NI.050312.105516 Analyst: SLP Units: ug/L
Workgroup (AAB#): WG396925 Cal ID: ICP-MS2 - 03-MAY-12
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.2	.4	.2	U
LEAD	.2	.4	.2	U
ANTIMONY	.2	.4	.2	U
SELENIUM	.2	.4	.2	U
THALLIUM	.04	.08	.04	U

ICB - Modified 07/14/2009
PDF File ID: 2401548
Report generated 05/03/2012 15:42



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396950-11
 Instrument ID: ICP-MS2 Run Time: 11:09 Method: 6020
 File ID: NI.050312.110916 Analyst: SLP Units: ug/L
 Workgroup (AAB#): WG396925 Cal ID: ICP-MS - 03-MAY-12
 Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.400	0.200	U
Arsenic	0.200	0.400	0.200	U
Lead	0.200	0.400	0.200	U
Selenium	0.200	0.400	0.200	U
Thallium	0.0400	0.0800	0.0400	U

U = Result is less than MDL.
 F = Result is between MDL and RL.
 * = Result is above RL.

CCB - Modified 03/05/2008
 PDF File ID: 2401551
 Report generated 05/03/2012 15:42



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396950-13
 Instrument ID: ICP-MS2 Run Time: 11:42 Method: 6020
 File ID: NI.050312.114247 Analyst: SLP Units: ug/L
 Workgroup (AAB#): WG396925 Cal ID: ICP-MS - 03-MAY-12
 Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.400	0.200	U
Arsenic	0.200	0.400	0.200	U
Lead	0.200	0.400	0.200	U
Selenium	0.200	0.400	0.200	U
Thallium	0.0400	0.0800	0.0400	U

U = Result is less than MDL.
 F = Result is between MDL and RL.
 * = Result is above RL.

CCB - Modified 03/05/2008
 PDF File ID: 2401551
 Report generated 05/03/2012 15:42



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396950-17
 Instrument ID: ICP-MS2 Run Time: 12:16 Method: 6020
 File ID: NI.050312.121620 Analyst: SLP Units: ug/L
 Workgroup (AAB#): WG396925 Cal ID: ICP-MS - 03-MAY-12
 Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.400	0.200	U
Arsenic	0.200	0.400	0.200	U
Lead	0.200	0.400	0.200	U
Selenium	0.200	0.400	0.200	U
Thallium	0.0400	0.0800	0.0400	U

U = Result is less than MDL.
 F = Result is between MDL and RL.
 * = Result is above RL.

CCB - Modified 03/05/2008
 PDF File ID: 2401551
 Report generated 05/03/2012 15:42



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396950-22
 Instrument ID: ICP-MS2 Run Time: 13:12 Method: 6020
 File ID: NI.050312.131212 Analyst: SLP Units: ug/L
 Workgroup (AAB#): WG396925 Cal ID: ICP-MS - 03-MAY-12
 Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.400	0.200	U
Arsenic	0.200	0.400	0.200	U
Lead	0.200	0.400	0.200	U
Selenium	0.200	0.400	0.200	U
Thallium	0.0400	0.0800	0.0400	U

U = Result is less than MDL.
 F = Result is between MDL and RL.
 * = Result is above RL.

CCB - Modified 03/05/2008
 PDF File ID: 2401551
 Report generated 05/03/2012 15:42



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396950-24
 Instrument ID: ICP-MS2 Run Time: 13:58 Method: 6020
 File ID: NI.050312.135848 Analyst: SLP Units: ug/L
 Workgroup (AAB#): WG396925 Cal ID: ICP-MS - 03-MAY-12
 Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.400	0.200	U
Arsenic	0.200	0.400	0.200	U
Lead	0.200	0.400	0.200	U
Selenium	0.200	0.400	0.200	U
Thallium	0.0400	0.0800	0.0400	U

U = Result is less than MDL.
 F = Result is between MDL and RL.
 * = Result is above RL.

CCB - Modified 03/05/2008
 PDF File ID: 2401551
 Report generated 05/03/2012 15:42



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396950-26
 Instrument ID: ICP-MS2 Run Time: 14:32 Method: 6020
 File ID: NI.050312.143220 Analyst: SLP Units: ug/L
 Workgroup (AAB#): WG396925 Cal ID: ICP-MS - 03-MAY-12
 Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.400	0.200	U
Arsenic	0.200	0.400	0.200	U
Lead	0.200	0.400	0.200	U
Selenium	0.200	0.400	0.200	U
Thallium	0.0400	0.0800	0.0400	U

U = Result is less than MDL.
 F = Result is between MDL and RL.
 * = Result is above RL.

CCB - Modified 03/05/2008
 PDF File ID: 2401551
 Report generated 05/03/2012 15:42



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396950-30
Instrument ID: ICP-MS2 Run Time: 14:46 Method: 6020
File ID: NI.050312.144622 Analyst: SLP Units: ug/L
Workgroup (AAB#): WG396925 Cal ID: ICP-MS - 03-MAY-12
Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.400	0.200	U
Arsenic	0.200	0.400	0.200	U
Lead	0.200	0.400	0.200	U
Selenium	0.200	0.400	0.200	U
Thallium	0.0400	0.0800	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2401551
Report generated 05/03/2012 15:42



Microbac Laboratories Inc.
 INITIAL CALIBRATION VERIFICATION (ICV)
 (Alternate Source)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396950-05
 Instrument ID: ICP-MS2 Run Time: 10:52 Method: 6020
 File ID: NI.050312.105226 Analyst: SLP Units: ug/L
 Workgroup (AAB#): WG396925 Cal ID: ICP-MS - 03-MAY-12
 QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Antimony	50	50.7	101	90 - 110	
Arsenic	50	50.1	100	90 - 110	
Lead	50	50.5	101	90 - 110	
Selenium	50	50.7	101	90 - 110	
Thallium	50	50.1	100	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
 PDF File ID: 2401547
 Report generated 05/03/2012 15:42



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396950-10
 Instrument ID: ICP-MS2 Run Time: 11:06 Method: 6020
 File ID: NI.050312.110629 Analyst: SLP QC Key: WATERLOO
 Workgroup (AAB#): WG396925 Cal ID: ICP-MS - 03-MAY-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS		Q
Antimony	50.0	50.1	ug/L	100	90 - 110		
Arsenic	50.0	49.0	ug/L	98.0	90 - 110		
Lead	50.0	50.0	ug/L	100	90 - 110		
Selenium	50.0	49.1	ug/L	98.3	90 - 110		
Thallium	50.0	49.9	ug/L	99.7	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2401550
 Report generated 05/03/2012 15:42



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396950-12
 Instrument ID: ICP-MS2 Run Time: 11:40 Method: 6020
 File ID: NI.050312.114000 Analyst: SLP QC Key: WATERLOO
 Workgroup (AAB#): WG396925 Cal ID: ICP-MS - 03-MAY-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS		Q
Antimony	50.0	50.1	ug/L	100	90 - 110		
Arsenic	50.0	49.6	ug/L	99.3	90 - 110		
Lead	50.0	50.6	ug/L	101	90 - 110		
Selenium	50.0	49.9	ug/L	99.8	90 - 110		
Thallium	50.0	50.8	ug/L	102	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2401550
 Report generated 05/03/2012 15:42



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396950-16
 Instrument ID: ICP-MS2 Run Time: 12:13 Method: 6020
 File ID: NI.050312.121333 Analyst: SLP QC Key: WATERLOO
 Workgroup (AAB#): WG396925 Cal ID: ICP-MS - 03-MAY-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS		Q
Antimony	50.0	52.9	ug/L	106	90 - 110		
Arsenic	50.0	50.6	ug/L	101	90 - 110		
Lead	50.0	50.6	ug/L	101	90 - 110		
Selenium	50.0	54.3	ug/L	109	90 - 110		
Thallium	50.0	50.7	ug/L	101	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2401550
 Report generated 05/03/2012 15:42



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396950-21
 Instrument ID: ICP-MS2 Run Time: 13:09 Method: 6020
 File ID: NI.050312.130925 Analyst: SLP QC Key: WATERLOO
 Workgroup (AAB#): WG396925 Cal ID: ICP-MS - 03-MAY-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS		Q
Antimony	50.0	51.5	ug/L	103	90 - 110		
Arsenic	50.0	50.5	ug/L	101	90 - 110		
Lead	50.0	50.8	ug/L	102	90 - 110		
Selenium	50.0	51.3	ug/L	103	90 - 110		
Thallium	50.0	50.5	ug/L	101	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2401550
 Report generated 05/03/2012 15:42



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396950-23
 Instrument ID: ICP-MS2 Run Time: 13:56 Method: 6020
 File ID: NI.050312.135601 Analyst: SLP QC Key: WATERLOO
 Workgroup (AAB#): WG396925 Cal ID: ICP-MS - 03-MAY-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS		Q
Antimony	50.0	51.7	ug/L	103	90 - 110		
Arsenic	50.0	50.4	ug/L	101	90 - 110		
Lead	50.0	50.7	ug/L	101	90 - 110		
Selenium	50.0	53.6	ug/L	107	90 - 110		
Thallium	50.0	50.3	ug/L	101	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2401550
 Report generated 05/03/2012 15:42



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396950-25
 Instrument ID: ICP-MS2 Run Time: 14:29 Method: 6020
 File ID: NI.050312.142933 Analyst: SLP QC Key: WATERLOO
 Workgroup (AAB#): WG396925 Cal ID: ICP-MS - 03-MAY-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS		Q
Antimony	50.0	51.6	ug/L	103	90 - 110		
Arsenic	50.0	50.3	ug/L	101	90 - 110		
Lead	50.0	51.0	ug/L	102	90 - 110		
Selenium	50.0	51.9	ug/L	104	90 - 110		
Thallium	50.0	50.8	ug/L	102	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2401550
 Report generated 05/03/2012 15:42



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/03/2012 Sample ID: WG396950-29
 Instrument ID: ICP-MS2 Run Time: 14:43 Method: 6020
 File ID: NI.050312.144335 Analyst: SLP QC Key: WATERLOO
 Workgroup (AAB#): WG396925 Cal ID: ICP-MS - 03-MAY-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS		Q
Antimony	50.0	51.2	ug/L	102	90 - 110		
Arsenic	50.0	49.8	ug/L	99.5	90 - 110		
Lead	50.0	51.2	ug/L	102	90 - 110		
Selenium	50.0	51.6	ug/L	103	90 - 110		
Thallium	50.0	50.7	ug/L	101	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2401550
 Report generated 05/03/2012 15:42



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L12050050
Instrument ID: ICP-MS2
Sol. A: WG396950-08
Sol. AB: WG396950-09

File ID: NI.050312.110052
File ID: NI.050312.110339

Workgroup (AAB#): WG396925
Method: 6020
Units: ug/L
Matrix: Water

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Antimony	NS	0.0516	NS	100	105	105	
Arsenic	NS	0.00240	NS	100	106	106	
Lead	NS	0.0292	NS	100	103	103	
Selenium	NS	-0.0502	NS	100	107	107	
Thallium	NS	0.0196	NS	100	101	101	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L12050050
Instrument ID: ICP-MS2
Sol. A: WG396950-14
Sol. AB: WG396950-15

File ID: NI.050312.120755
File ID: NI.050312.121043

Workgroup (AAB#): WG396925
Method: 6020
Units: ug/L
Matrix: Water

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Antimony	NS	0.0487	NS	100	107	107	
Arsenic	NS	0.0742	NS	100	105	105	
Lead	NS	0.0294	NS	100	103	103	
Selenium	NS	0.144	NS	100	110	110	
Thallium	NS	0.0231	NS	100	101	101	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L12050050
Instrument ID: ICP-MS2
Sol. A: WG396950-27
Sol. AB: WG396950-28

File ID: NI.050312.143758
File ID: NI.050312.144045

Workgroup (AAB#): WG396925
Method: 6020
Units: ug/L
Matrix: Water

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Antimony	NS	0.0421	NS	100	107	107	
Arsenic	NS	-0.00140	NS	100	105	105	
Lead	NS	0.0280	NS	100	106	106	
Selenium	NS	-0.00400	NS	100	108	108	
Thallium	NS	0.0257	NS	100	102	102	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.

INTERNAL STANDARD REPORT

Login: L12050050 Analytical Method: 6020
 Analytical Workgroup: WG396925 Matrix: 1
 Instrument: ICP-MS2 Analyst: SLP
 ICAL Date: 03-MAY-2012 10:41

Sample	Type	Run Date	BISMUTH	GERMANIUM	INDIUM	TERBIUM
			% Rec	% Rec	% Rec	% Rec
L12050050-01	SAMP	03-MAY-2012 14:10	81.351	97.342	98.967	103.958
L12050050-02	SAMP	03-MAY-2012 14:12	81.948	99.017	101.475	104.728
L12050050-03	SAMP	03-MAY-2012 14:15	86.826	96.697	101.577	101.404
L12050050-04	SAMP	03-MAY-2012 14:18	85.915	97.269	101.599	101.525
L12050050-05	SAMP	03-MAY-2012 14:21	66.996	87.12	90.185	99.005
L12050050-06	SAMP	03-MAY-2012 14:23	68.46	87.383	89.923	96.455
L12050050-07	SAMP	03-MAY-2012 14:26	92.2	101.932	105.287	104.785
L12050050-08	SAMP	03-MAY-2012 14:35	92.82	101.109	106.923	104.88
WG396868-02	BLANK	03-MAY-2012 13:28	96.94	99.028	105.169	100.106
WG396868-03	LCS	03-MAY-2012 13:30	99.257	102.098	108.452	104.486
WG396925-01	PSPK	03-MAY-2012 13:53	86.342	95.172	102.188	103.693
WG396925-02	SERIAL	03-MAY-2012 13:50	93.765	91.326	99.643	98.571
WG396950-05	ICV	03-MAY-2012 10:52	97.12	99.301	99.28	101.392
WG396950-06	ICB	03-MAY-2012 10:55	98.485	98.46	97.711	98.914
WG396950-07	LLICV	03-MAY-2012 10:58	99.932	100.044	99.995	99.75
WG396950-08	ICS	03-MAY-2012 11:00	94.856	98.633	97.62	99.63
WG396950-09	ICS	03-MAY-2012 11:03	95.427	98.212	98.895	103.179
WG396950-10	CCV	03-MAY-2012 11:06	99.065	104.686	103.526	104.181
WG396950-11	CCB	03-MAY-2012 11:09	98.483	99.124	98.563	98.459
WG396950-12	CCV	03-MAY-2012 11:40	97.343	103.929	104.368	105.475
WG396950-13	CCB	03-MAY-2012 11:42	98.663	98.917	102.275	101.052
WG396950-14	ICS	03-MAY-2012 12:07	93.354	97.384	104.588	105.678
WG396950-15	ICS	03-MAY-2012 12:10	94.052	96.456	103.89	104.253
WG396950-16	CCV	03-MAY-2012 12:13	95.878	99.02	106.087	105.869
WG396950-17	CCB	03-MAY-2012 12:16	95.671	94.526	102.858	99.604
WG396950-18	LLCCV	03-MAY-2012 12:19	97.495	97.046	105.76	101.888
WG396950-21	CCV	03-MAY-2012 13:09	95.399	98.281	105.178	103.511
WG396950-22	CCB	03-MAY-2012 13:12	94.729	93.425	100.985	99.763
WG396950-23	CCV	03-MAY-2012 13:56	97.799	100.723	108.228	106.391
WG396950-24	CCB	03-MAY-2012 13:58	96.254	97.231	103.41	100.209
WG396950-25	CCV	03-MAY-2012 14:29	94.476	99.898	104.411	104.472
WG396950-26	CCB	03-MAY-2012 14:32	94.654	98.125	101.122	99.66
WG396950-27	ICS	03-MAY-2012 14:37	92.769	98.875	104.085	105.381
WG396950-28	ICS	03-MAY-2012 14:40	93.118	98.501	102.765	103.796
WG396950-29	CCV	03-MAY-2012 14:43	94.15	100.816	105.914	104.073
WG396950-30	CCB	03-MAY-2012 14:46	92.069	94.214	98.765	96.002

Acceptance criteria: 30% - 120% Underlined recoveries are out of range
 Acceptance criteria for CCVs and CCBs for method SW846-6020: 80% - 120%

INT_STD_ICPMS - Modified 07/28/2010
 PDF File ID: 2401545
 Report generated: 05/03/2012 15:42



Microbac Laboratories Inc.

INTERNAL STANDARD REPORT

Login: L12050050 Analytical Method: 6020
 Analytical Workgroup: WG396925 Matrix: 18
 Instrument: ICP-MS2 Analyst: SLP
 ICAL Date: 03-MAY-2012 10:41

Sample	Type	Run Date	BISMUTH	GERMANIUM	INDIUM	TERBIUM
			% Rec	% Rec	% Rec	% Rec
L12050035-02	SAMP	03-MAY-2012 13:47	85.288	94.544	99.864	101.806

Acceptance criteria: 30% - 120% Underlined recoveries are out of range
 Acceptance criteria for CCVs and CCBs for method SW846-6020: 80% - 120%

INT_STD_ICPMS - Modified 07/28/2010
 PDF File ID: 2401545
 Report generated: 05/03/2012 15:42



Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L12050050 Date: 03/16/2012
Instrument ID: ICP-MS2 Method: 6020

Analyte	Integration Time (Sec.)	Concentration (ug/L)
Antimony	1.00	100.0
Arsenic	1.00	100.0
Barium	1.00	100.0
Cadmium	1.00	100.0
Chromium	1.00	100.0
Cobalt	1.00	100.0
Copper	1.00	100.0
Lead	1.00	100.0
Manganese	1.00	100.0
Nickel	1.00	100.0
Selenium	1.00	100.0
Silver	1.00	100.0
Thallium	1.00	100.0
Uranium	1.00	100.0
Vanadium	1.00	100.0
Zinc	1.00	100.0

Comments:

All analytes passed acceptance criteria at the specified concentration.



2.3.2.3 Raw Data

MassCal File Name

Mass Calibration File Name Default.tun
MassCal File Path C:\NexIONData\MassCal\Default.tun
Peak Search Window: 1.00

Sample Information

Sample Date/Time: Thursday, May 03, 2012 09:53:00

Mass Calibration and Resolution

Analyte	E Mass	Meas Mass	Mass C DAC Val	Res DAC Value	Meas Peak WCustom Res
Li	7.016	7.025	1327	2020	0.725
Mg	23.985	24.025	4715	2019	0.723
In	114.904	114.875	22865	2023	0.682
U	238.050	238.025	47468	2035	0.672

Relative Std. Dev.

Mass	Meas. Intens. RSD
5.525	11.899
5.575	1.743
5.625	2.616
5.675	1.378
5.725	2.646
5.775	1.886
5.825	2.497
5.875	3.191
5.925	2.214
5.975	1.783
6.025	1.786
6.075	1.238
6.125	2.348
6.175	0.989
6.225	0.774
6.275	2.838
6.325	4.490
6.375	91.287
6.425	108.653
6.475	30.496
6.525	7.362
6.575	4.479
6.625	2.593
6.675	2.204
6.725	1.286
6.775	0.698
6.825	2.108
6.875	2.354

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Approved: May 04, 2012

Shui L. Bahgat

6.925	1.323
6.975	2.435
7.025	1.473
7.075	1.778
7.125	0.958
7.175	1.168
7.225	1.166
7.275	2.929
7.325	7.740
7.375	223.607
7.425	223.607
7.475	
7.525	
7.575	223.607
7.625	136.931
7.675	136.931
7.725	136.931
7.775	136.931
7.825	162.980
7.875	223.607
7.925	149.071
7.975	223.607
8.025	
8.075	141.421
8.125	
8.175	
8.225	223.607
8.275	136.931
8.325	223.607
8.375	223.607
8.425	136.931
8.475	91.287
22.525	4.472
22.575	1.473
22.625	0.810
22.675	1.050
22.725	0.610
22.775	0.564
22.825	0.775
22.875	0.370
22.925	0.746
22.975	0.683
23.025	0.544
23.075	1.089
23.125	1.079
23.175	1.043
23.225	0.664

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Approved: May 04, 2012

Shui L. Bahgat

23.275	0.797
23.325	0.465
23.375	108.653
23.425	104.583
23.475	47.507
23.525	2.362
23.575	4.059
23.625	1.552
23.675	1.825
23.725	2.110
23.775	2.293
23.825	1.154
23.875	0.855
23.925	1.569
23.975	0.580
24.025	0.697
24.075	0.809
24.125	0.555
24.175	0.901
24.225	0.548
24.275	0.894
24.325	2.126
24.375	91.287
24.425	136.931
24.475	44.605
24.525	13.686
24.575	1.772
24.625	3.436
24.675	2.642
24.725	1.199
24.775	2.680
24.825	2.958
24.875	1.190
24.925	2.816
24.975	2.162
25.025	1.070
25.075	2.688
25.125	2.050
25.175	0.854
25.225	3.010
25.275	1.719
25.325	13.871
25.375	
25.425	100.000
25.475	19.444
113.525	15.230
113.575	6.681

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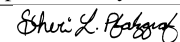
Approved: May 04, 2012

Shui L. Bahag

113.625	4.482
113.675	2.980
113.725	1.856
113.775	2.226
113.825	1.472
113.875	1.852
113.925	1.784
113.975	1.848
114.025	2.191
114.075	1.725
114.125	2.719
114.175	3.952
114.225	9.030
114.275	11.076
114.325	70.711
114.375	26.413
114.425	20.613
114.475	5.647
114.525	5.437
114.575	2.252
114.625	2.456
114.675	0.874
114.725	1.450
114.775	1.632
114.825	1.675
114.875	2.209
114.925	1.354
114.975	0.983
115.025	0.705
115.075	2.121
115.125	1.579
115.175	2.267
115.225	4.685
115.275	7.370
115.325	83.853
115.375	136.931
115.425	36.377
115.475	36.388
115.525	12.947
115.575	8.474
115.625	2.801
115.675	1.734
115.725	3.055
115.775	2.192
115.825	4.744
115.875	2.024
115.925	2.004

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115.975	3.467
116.025	3.838
116.075	1.978
116.125	4.377
116.175	5.391
116.225	5.904
116.275	22.268
116.325	136.931
116.375	
116.425	39.123
116.475	33.503
236.525	
236.575	
236.625	
236.675	
236.725	
236.775	
236.825	
236.875	
236.925	
236.975	223.607
237.025	
237.075	
237.125	
237.175	
237.225	
237.275	
237.325	223.607
237.375	
237.425	91.287
237.475	141.421
237.525	39.033
237.575	12.246
237.625	6.065
237.675	3.899
237.725	3.746
237.775	1.179
237.825	1.039
237.875	1.081
237.925	0.615
237.975	1.274
238.025	1.190
238.075	1.320
238.125	1.487
238.175	1.255
238.225	2.230
238.275	1.560

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Shui L. Bahgat

238.325	3.116
238.375	4.611
238.425	4.869
238.475	10.767
238.525	26.352
238.575	149.071
238.625	
238.675	
238.725	
238.775	
238.825	
238.875	
238.925	
238.975	
239.025	223.607
239.075	
239.125	223.607
239.175	223.607
239.225	
239.275	
239.325	
239.375	
239.425	
239.475	

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Approved: May 04, 2012

Shui L. Bahay

Daily Performance Report

Sample ID: Daily Performance Check

Sample Date/Time: Thursday, May 03, 2012 09:57:37
 Sample Description:
 Method File: C:\NexIONData\Method\Daily Performance.mth
 Dataset File: C:\NexIONData\DataSet\050212\Daily Performance Check.103
 MassCal File: C:\NexIONData\MassCal\Default.tun
 Conditions File: C:\NexIONData\Conditions\Default.dac
 Dual Detector Mode: Pulse
 Acq. Dead Time (ns): 33
 Current Dead Time (ns): 33
 Torch Z position (mm): 0.00

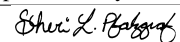
Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode	
Be	9.0		6460.6		6460.644		114.322		1.8	Standard	
Mg	24.0		254316.5		254316.502		2231.149		0.9	Standard	
In	114.9		106963.8		106963.787		884.575		0.8	Standard	
U	238.1		76492.7		76492.677		591.515		0.8	Standard	
[CeO	155.9		2222.8		0.019		0.000		2.5	Standard
>	Ce	139.9		119078.5		119078.514		787.894		0.7	Standard
]	Ce++	70.0		1952.9		0.016		0.000		1.3	Standard
	Bkgd	220.0		0.1		0.067		0.091		136.9	Standard

Current Conditions File Data

Current Value	Description
0.99	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-8.75	Deflector Voltage
1600.00	ICP RF Power
-1881.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
12.00	Discriminator Threshold
-2.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
1.00	DRC Mode NEB
-7.00	DRC Mode QRO
-1.50	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.70	Cell Gas A
200.00	Axial Field Voltage
-17.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-23.00	KED Mode Cell Exit Voltage
4.40	KED Cell Gas A
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

Sample ID: Daily Performance Check
 Report Date/Time: Thursday, May 03, 2012 09:59:55
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SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ESI SmartTune Fullmicrobac.swz

Start Time: 5/3/2012 9:57:36 AM

End Time: 5/3/2012 9:59:55 AM

Daily Performance Check - [Passed] Optimum value(s): N/A

Obtained Intensity (Be 9.0122): 6460.64

Obtained Intensity (Mg 23.985): 254316.50

Obtained Intensity (In 114.904): 106963.79

Obtained Intensity (U 238.05): 76492.68

Obtained Intensity (Bkgd 220): 0.07

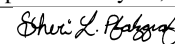
Obtained Formula (CeO 155.9 / Ce 139.905): 0.019 (=2222.76 / 119078.51)

Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.016 (=1952.93 / 119078.51)

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Approved: May 04, 2012



SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\NexIONData\Wizard\SmartTune\ESI SmartTune Fullmicrobac.swz

Optimization Status

Start Time: 5/3/2012 9:57:36 AM

Daily Performance Check

Optimization Settings:

Method: Daily Performance.mth.
Intensity Criterion: Be 9.0122 > 2000
Intensity Criterion: Mg 23.985 > 15000
Intensity Criterion: In 114.904 > 40000
Intensity Criterion: U 238.05 > 30000
Intensity Criterion: Bkgd 220 <= 1
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

Optimization Results:

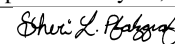
Initial Try

Obtained Intensity (Be 9.0122): 6460.64
Obtained Intensity (Mg 23.985): 254316.50
Obtained Intensity (In 114.904): 106963.79
Obtained Intensity (U 238.05): 76492.68
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (CeO 155.9 / Ce 139.905): 0.019 (=2222.76 / 119078.51)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.016 (=1952.93 / 119078.51)

[Passed] Optimum value(s): N/A

End Time: 5/3/2012 9:59:55 AM

Approved: May 04, 2012



Method 6020 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, May 03, 2012 10:38:28

Number of Replicates: 3

Autosampler Position: 1

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	20538.2	0.8				ug/L		Standard
|	Be	9	13.3	37.0				ug/L		Standard
|	Al	27	25812.7	3.5				ug/L		Standard
>	Sc	45	367704.2	0.8				ug/L		Standard
|	Ti	47	127.3	22.5				ug/L		Standard
|	V	51	6636.2	2.8				ug/L		Standard
|	Cr	52	21243.5	0.7				ug/L		Standard
|	Cr	53	467.3	0.5				ug/L		Standard
|	Mn	55	8327.3	5.3				ug/L		Standard
|	Co	59	122.7	7.4				ug/L		Standard
|	Ni	60	271.7	5.7				ug/L		Standard
|	Cu	65	1001.7	7.8				ug/L		Standard
|	Zn	66	3532.1	4.9				ug/L		Standard
>	Ge	72	254938.7	1.0				ug/L		Standard
|	As	75	-223.9	7.6				ug/L		Standard
|	Se	82	24.1	19.0				ug/L		Standard
|	Se-1	77	93.0	5.4				ug/L		Standard
|	Ga	71	233175.4	1.4				mg/L		Standard
|	Rb	85	20.0	36.1				ug/L		Standard
>	Y	89	235100.2	1.6				ug/L		Standard
|	Rh	103	6.0	33.3				ug/L		Standard
|	Mo	98	13.9	6.0				ug/L		Standard
|	Ag	107	38.0	25.9				ug/L		Standard
|	Cd	111	438.7	7.8				mg/L		Standard
|	Cd	114	1326.4	2.7				ug/L		Standard
>	In	115	804157.5	0.3				ug/L		Standard
|	Sn	118	4860.1	8.8				ug/L		Standard
|	Sb	123	28.2	23.2				ug/L		Standard
|	Ba	135	54.0	3.2				ug/L		Standard
|	Ce	140	60.7	22.4				ug/L		Standard
>	Tb	159	844238.9	1.0				ug/L		Standard
|	Ho	165	6.0	88.2				ug/L		Standard
|	Tl	203	9.7	23.9				ug/L		Standard
|	Tl	205	16.0	12.5				ug/L		Standard
|	Pb	206	420.7	3.8				ug/L		Standard
|	Pb	207	340.7	2.0				ug/L		Standard
|	Pb	208	1571.0	1.4				ug/L		Standard
|	U	238	4.3	48.0				ug/L		Standard
>	Bi	209	457202.0	0.4				ug/L		Standard
|	Na	23	138.0	12.6				mg/L		Standard
	Mg	24	134.0	12.2				mg/L		Standard

Sample ID: Blank

Report Date/Time: Thursday, May 03, 2012 10:40:55

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<i>Shui L. Babcock</i>

K	39	562.7	6.8	mg/L	Standard
Ca	43	127.3	9.6	mg/L	Standard
Fe	54	815.3	9.9	mg/L	Standard
Fe	57	4749.4	1.8	mg/L	Standard
Sc-1	45	367704.2	0.8	mg/L	Standard
Cl	35	59900.5	0.3	ug/L	Standard
Kr	83	49.8	7.4	ug/L	Standard
Br	81	13965.1	0.8	ug/L	Standard
P	31	71951.8	0.9	ug/L	Standard
S	34	878801.5	2.0	ug/L	Standard
Sr	88	321.3	5.2	ug/L	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72			
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89			
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115			
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159			
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: Blank

Report Date/Time: Thursday, May 03, 2012 10:40:55

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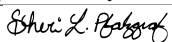
Shui L. Babcock

	Pb	207
	Pb	208
	U	238
>	Bi	209
	Na	23
	Mg	24
	K	39
	Ca	43
	Fe	54
	Fe	57
>	Sc-1	45
	Cl	35
|	Kr	83
|	Br	81
|	P	31
|	S	34
	Sr	88

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: Blank
 Report Date/Time: Thursday, May 03, 2012 10:40:55
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Thursday, May 03, 2012 10:41:15

Number of Replicates: 3

Autosampler Position: 1

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	20432.4	2.5				ug/L	20538	Standard
|	Be	9	11.0	9.1				ug/L	13	Standard
|	Al	27	26188.6	4.9				ug/L	25813	Standard
>	Sc	45	362324.3	1.5				ug/L	367704	Standard
|	Ti	47	124.0	14.0				ug/L	127	Standard
|	V	51	6500.9	2.9				ug/L	6636	Standard
|	Cr	52	20844.3	1.4				ug/L	21244	Standard
|	Cr	53	447.3	8.1				ug/L	467	Standard
|	Mn	55	8722.2	5.8				ug/L	8327	Standard
|	Co	59	109.3	9.3				ug/L	123	Standard
|	Ni	60	283.3	9.4				ug/L	272	Standard
|	Cu	65	1024.0	1.5				ug/L	1002	Standard
|	Zn	66	3619.4	4.8				ug/L	3532	Standard
>	Ge	72	255147.0	0.4				ug/L	254939	Standard
|	As	75	-252.3	9.6				ug/L	-224	Standard
|	Se	82	19.6	57.4				ug/L	24	Standard
|	Se-1	77	91.7	1.7				ug/L	93	Standard
|	Ga	71	238765.3	0.1				mg/L	233175	Standard
|	Rb	85	24.7	24.8				ug/L	20	Standard
>	Y	89	233544.8	0.2				ug/L	235100	Standard
|	Rh	103	3.3	91.7				ug/L	6	Standard
|	Mo	98	14.1	23.6				ug/L	14	Standard
|	Ag	107	39.3	20.4				ug/L	38	Standard
|	Cd	111	445.0	3.2				mg/L	439	Standard
|	Cd	114	1233.4	2.5				ug/L	1326	Standard
>	In	115	803315.5	0.7				ug/L	804157	Standard
|	Sn	118	4797.4	5.5				ug/L	4860	Standard
|	Sb	123	32.9	28.3				ug/L	28	Standard
|	Ba	135	49.7	12.9				ug/L	54	Standard
|	Ce	140	69.3	18.8				ug/L	61	Standard
>	Tb	159	824379.0	1.7				ug/L	844239	Standard
|	Ho	165	8.0	25.0				ug/L	6	Standard
|	Tl	203	5.7	20.4				ug/L	10	Standard
|	Tl	205	15.3	7.5				ug/L	16	Standard
|	Pb	206	414.3	2.6				ug/L	421	Standard
|	Pb	207	344.7	2.9				ug/L	341	Standard
|	Pb	208	1573.0	2.4				ug/L	1571	Standard
|	U	238	4.3	48.0				ug/L	4	Standard
>	Bi	209	453271.8	1.3				ug/L	457202	Standard
|	Na	23	156.0	15.6				mg/L	138	Standard
	Mg	24	128.7	13.6				mg/L	134	Standard

Sample ID: Standard 1

Report Date/Time: Thursday, May 03, 2012 10:43:43

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Shui L. Bahgat

K	39	632.0	1.6	mg/L	563	Standard
Ca	43	136.7	23.3	mg/L	127	Standard
Fe	54	818.3	6.1	mg/L	815	Standard
Fe	57	4672.7	7.2	mg/L	4749	Standard
Sc-1	45	362324.3	1.5	mg/L	367704	Standard
Cl	35	59311.2	0.8	ug/L	59901	Standard
Kr	83	61.1	9.1	ug/L	50	Standard
Br	81	13656.8	0.4	ug/L	13965	Standard
P	31	70539.2	1.1	ug/L	71952	Standard
S	34	867027.4	0.6	ug/L	878802	Standard
Sr	88	312.7	4.3	ug/L	321	Standard

QC Calculated Values

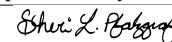
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72			
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89			
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115			
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159			
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: Standard 1

Report Date/Time: Thursday, May 03, 2012 10:43:43

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	Pb	207
	Pb	208
	U	238
>	Bi	209
	Na	23
	Mg	24
	K	39
	Ca	43
	Fe	54
	Fe	57
>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
|	S	34
	Sr	88

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: Standard 1

Report Date/Time: Thursday, May 03, 2012 10:43:43

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Approved: May 04, 2012

<i>Shui L. Bahgat</i>

Method 6020 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Thursday, May 03, 2012 10:44:02

Number of Replicates: 3

Autosampler Position: 2

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	20545.3	1.7				ug/L	20538	Standard
|	Be	9	240.0	2.5				ug/L	13	Standard
|	Al	27	22932.0	5.6				ug/L	25813	Standard
>	Sc	45	358362.0	2.4				ug/L	367704	Standard
|	Ti	47	317.3	6.9				ug/L	127	Standard
|	V	51	7821.1	1.5				ug/L	6636	Standard
|	Cr	52	22061.7	0.4				ug/L	21244	Standard
|	Cr	53	586.0	1.8				ug/L	467	Standard
|	Mn	55	6843.5	1.7				ug/L	8327	Standard
|	Co	59	984.7	6.1				ug/L	123	Standard
|	Ni	60	393.0	2.1				ug/L	272	Standard
|	Cu	65	1160.4	3.8				ug/L	1002	Standard
|	Zn	66	2743.6	5.1				ug/L	3532	Standard
>	Ge	72	255132.9	1.8				ug/L	254939	Standard
|	As	75	-140.2	15.2				ug/L	-224	Standard
|	Se	82	37.1	14.4				ug/L	24	Standard
|	Se-1	77	102.0	7.1				ug/L	93	Standard
|	Ga	71	237566.8	2.6				mg/L	233175	Standard
|	Rb	85	27.3	15.2				ug/L	20	Standard
>	Y	89	233177.2	2.4				ug/L	235100	Standard
|	Rh	103	5.3	21.7				ug/L	6	Standard
|	Mo	98	456.5	7.2				ug/L	14	Standard
|	Ag	107	443.7	9.4				ug/L	38	Standard
|	Cd	111	699.7	7.1				mg/L	439	Standard
|	Cd	114	1992.4	3.9				ug/L	1326	Standard
>	In	115	798504.9	0.8				ug/L	804157	Standard
|	Sn	118	4388.0	7.2				ug/L	4860	Standard
|	Sb	123	675.1	4.2				ug/L	28	Standard
|	Ba	135	334.7	2.6				ug/L	54	Standard
|	Ce	140	63.3	11.1				ug/L	61	Standard
>	Tb	159	839523.5	1.0				ug/L	844239	Standard
|	Ho	165	14.7	15.7				ug/L	6	Standard
|	Tl	203	892.0	4.3				ug/L	10	Standard
|	Tl	205	2186.8	3.8				ug/L	16	Standard
|	Pb	206	1142.0	1.8				ug/L	421	Standard
|	Pb	207	978.4	8.0				ug/L	341	Standard
|	Pb	208	4449.9	3.6				ug/L	1571	Standard
|	U	238	2548.5	5.1				ug/L	4	Standard
>	Bi	209	456868.7	2.4				ug/L	457202	Standard
|	Na	23	142.0	14.8				mg/L	138	Standard
	Mg	24	1605.8	4.0				mg/L	134	Standard

Sample ID: Standard 2

Report Date/Time: Thursday, May 03, 2012 10:46:30

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K	39	668.7	4.3	mg/L	563	Standard
Ca	43	120.7	9.7	mg/L	127	Standard
Fe	54	810.5	13.0	mg/L	815	Standard
Fe	57	5606.4	1.1	mg/L	4749	Standard
Sc-1	45	358362.0	2.4	mg/L	367704	Standard
Cl	35	60249.2	1.3	ug/L	59901	Standard
Kr	83	49.3	8.2	ug/L	50	Standard
Br	81	13517.0	2.5	ug/L	13965	Standard
P	31	71055.9	0.8	ug/L	71952	Standard
S	34	870648.8	2.0	ug/L	878802	Standard
Sr	88	300.0	9.2	ug/L	321	Standard

QC Calculated Values

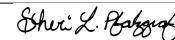
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72			
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89			
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115			
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159			
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: Standard 2

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	Pb	207
	Pb	208
	U	238
>	Bi	209
	Na	23
	Mg	24
	K	39
	Ca	43
	Fe	54
	Fe	57
>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
|	S	34
	Sr	88

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: Standard 2

Report Date/Time: Thursday, May 03, 2012 10:46:30

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Shui L. Bahgat

Method 6020 - Summary Report

Sample ID: Standard 3

Sample Date/Time: Thursday, May 03, 2012 10:46:50

Number of Replicates: 3

Autosampler Position: 3

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	21674.8	1.4	50.0000	16.636	33.3	ug/L	20538	Standard
|	Be	9	222267.1	4.7	50.0000	1.970	3.9	ug/L	13	Standard
|	Al	27	1232449.8	6.2	50.0000	2.825	5.7	ug/L	25813	Standard
>	Sc	45	367337.2	1.0				ug/L	367704	Standard
|	Ti	47	208382.9	5.0	100.0000	4.156	4.2	ug/L	127	Standard
|	V	51	1227428.1	4.6	50.0000	1.904	3.8	ug/L	6636	Standard
|	Cr	52	996886.7	5.7	50.0000	2.473	4.9	ug/L	21244	Standard
|	Cr	53	111879.8	5.8	50.0000	2.521	5.0	ug/L	467	Standard
|	Mn	55	1271026.6	5.5	50.0000	2.411	4.8	ug/L	8327	Standard
|	Co	59	863994.3	6.8	50.0000	3.089	6.2	ug/L	123	Standard
|	Ni	60	179523.6	5.3	50.0000	2.386	4.8	ug/L	272	Standard
|	Cu	65	154509.4	6.1	50.0000	2.753	5.5	ug/L	1002	Standard
|	Zn	66	71994.9	4.4	50.0000	1.900	3.8	ug/L	3532	Standard
>	Ge	72	257652.0	0.9				ug/L	254939	Standard
|	As	75	63165.8	4.2	50.0000	1.718	3.4	ug/L	-224	Standard
|	Se	82	6336.6	3.1	50.0000	1.201	2.4	ug/L	24	Standard
|	Se-1	77	4526.3	4.9	50.0000	2.283	4.6	ug/L	93	Standard
|	Ga	71	240537.6	2.2				mg/L	233175	Standard
|	Rb	85	3606.4	2.2				ug/L	20	Standard
>	Y	89	235391.0	2.3				ug/L	235100	Standard
|	Rh	103	37.3	26.4				ug/L	6	Standard
|	Mo	98	417560.9	5.4	100.0000	4.686	4.7	ug/L	14	Standard
|	Ag	107	408724.9	3.8	50.0000	1.516	3.0	ug/L	38	Standard
|	Cd	111	247554.6	5.8	50.0000	2.518	5.0	mg/L	439	Standard
|	Cd	114	686649.9	5.1	50.0000	2.166	4.3	ug/L	1326	Standard
>	In	115	807107.7	0.8				ug/L	804157	Standard
|	Sn	118	917739.3	6.3	50.0000	2.792	5.6	ug/L	4860	Standard
|	Sb	123	607843.9	5.2	50.0000	2.186	4.4	ug/L	28	Standard
|	Ba	135	276451.1	4.8	50.0000	2.009	4.0	ug/L	54	Standard
|	Ce	140	233.3	8.9				ug/L	61	Standard
>	Tb	159	868362.8	1.8				ug/L	844239	Standard
|	Ho	165	17.3	6.7				ug/L	6	Standard
|	Tl	203	887632.0	3.4	50.0000	1.576	3.2	ug/L	10	Standard
|	Tl	205	2166493.3	3.4	50.0000	1.529	3.1	ug/L	16	Standard
|	Pb	206	714548.5	4.4	50.0000	2.029	4.1	ug/L	421	Standard
|	Pb	207	594174.8	4.7	50.0000	2.180	4.4	ug/L	341	Standard
|	Pb	208	2741679.1	4.3	50.0000	2.015	4.0	ug/L	1571	Standard
|	U	238	2565199.9	5.4	50.0000	2.579	5.2	ug/L	4	Standard
>	Bi	209	452913.2	0.7				ug/L	457202	Standard
	Na	23	16662.5	4.2	5.0000	0.183	3.7	mg/L	138	Standard
	Mg	24	1304070.9	5.5	5.0000	0.240	4.8	mg/L	134	Standard

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Shui L. Bahgat

K	39	55547.1	3.8	5.0000	0.167	3.3	mg/L	563	Standard
Ca	43	3580.4	4.5	5.0000	0.184	3.7	mg/L	127	Standard
Fe	54	29854.3	5.9	5.0000	0.275	5.5	mg/L	815	Standard
Fe	57	802186.3	6.9	5.0000	0.306	6.1	mg/L	4749	Standard
Sc-1	45	367337.2	1.0				mg/L	367704	Standard
Cl	35	69528.8	1.0				ug/L	59901	Standard
Kr	83	53.1	3.2				ug/L	50	Standard
Br	81	13482.0	2.9				ug/L	13965	Standard
P	31	86411.1	1.5				ug/L	71952	Standard
S	34	947239.1	1.8				ug/L	878802	Standard
Sr	88	8192.9	8.4				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72			
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89			
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115			
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159			
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: Standard 3

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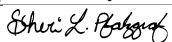
Shui L. Babcock

	Pb	207
	Pb	208
	U	238
>	Bi	209
	Na	23
	Mg	24
	K	39
	Ca	43
	Fe	54
	Fe	57
>	Sc-1	45
	Cl	35
|	Kr	83
|	Br	81
|	P	31
|	S	34
	Sr	88

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Method 6020 - Summary Report

Sample ID: Standard 4

Sample Date/Time: Thursday, May 03, 2012 10:49:37

Number of Replicates: 3

Autosampler Position: 4

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

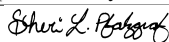
Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	22144.8	1.6	102.7576	44.650	43.5	ug/L	20538	Standard
|	Be	9	430075.7	4.8	98.8452	5.570	5.6	ug/L	13	Standard
|	Al	27	2182363.1	5.3	94.8232	5.855	6.2	ug/L	25813	Standard
>	Sc	45	363902.8	1.0				ug/L	367704	Standard
|	Ti	47	412642.4	4.4	200.8616	10.064	5.0	ug/L	127	Standard
|	V	51	2192519.3	3.9	95.3906	4.457	4.7	ug/L	6636	Standard
|	Cr	52	1886767.7	5.0	98.6879	5.869	5.9	ug/L	21244	Standard
|	Cr	53	221883.2	4.7	100.5961	4.997	5.0	ug/L	467	Standard
|	Mn	55	2320650.5	3.5	96.4633	4.131	4.3	ug/L	8327	Standard
|	Co	59	1697553.2	4.9	100.0347	5.644	5.6	ug/L	123	Standard
|	Ni	60	348110.5	5.2	99.3979	5.888	5.9	ug/L	272	Standard
|	Cu	65	297088.2	4.1	99.1087	4.849	4.9	ug/L	1002	Standard
|	Zn	66	136333.7	4.3	99.1101	5.036	5.1	ug/L	3532	Standard
>	Ge	72	253098.9	0.9				ug/L	254939	Standard
|	As	75	124215.8	3.4	99.9832	4.022	4.0	ug/L	-224	Standard
|	Se	82	12395.2	3.1	99.9187	3.665	3.7	ug/L	24	Standard
|	Se-1	77	8605.8	3.0	98.9101	3.672	3.7	ug/L	93	Standard
|	Ga	71	233278.7	2.2				mg/L	233175	Standard
|	Rb	85	7231.7	4.1				ug/L	20	Standard
>	Y	89	234371.5	0.9				ug/L	235100	Standard
|	Rh	103	64.7	8.9				ug/L	6	Standard
|	Mo	98	837813.9	4.1	201.3114	8.066	4.0	ug/L	14	Standard
|	Ag	107	800001.1	2.3	99.4131	2.179	2.2	ug/L	38	Standard
|	Cd	111	484917.8	4.0	99.5006	3.959	4.0	mg/L	439	Standard
|	Cd	114	1351213.3	4.8	99.7289	4.707	4.7	ug/L	1326	Standard
>	In	115	799371.4	0.4				ug/L	804157	Standard
|	Sn	118	1811758.2	6.0	99.9404	5.973	6.0	ug/L	4860	Standard
|	Sb	123	1204291.9	4.6	100.0247	4.469	4.5	ug/L	28	Standard
|	Ba	135	552803.4	4.5	100.4894	4.513	4.5	ug/L	54	Standard
|	Ce	140	418.0	1.7				ug/L	61	Standard
>	Tb	159	863753.1	0.5				ug/L	844239	Standard
|	Ho	165	32.7	25.5				ug/L	6	Standard
|	Tl	203	1743352.8	3.0	100.5997	1.966	2.0	ug/L	10	Standard
|	Tl	205	4163477.1	2.4	99.5156	1.276	1.3	ug/L	16	Standard
|	Pb	206	1400919.7	4.2	100.5233	3.163	3.1	ug/L	421	Standard
|	Pb	207	1157532.7	4.9	100.2053	3.812	3.8	ug/L	341	Standard
|	Pb	208	5336871.3	4.7	100.1637	3.604	3.6	ug/L	1571	Standard
|	U	238	5049088.3	5.2	100.7018	4.176	4.1	ug/L	4	Standard
>	Bi	209	439420.8	1.1				ug/L	457202	Standard
	Na	23	32076.6	4.4	9.8773	0.528	5.3	mg/L	138	Standard
	Mg	24	2510495.7	5.0	9.8596	0.566	5.7	mg/L	134	Standard

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K	39	106643.6	3.3	9.8720	0.408	4.1	mg/L	563	Standard
Ca	43	6801.5	5.3	9.8746	0.603	6.1	mg/L	127	Standard
Fe	54	58072.5	6.5	9.9786	0.742	7.4	mg/L	815	Standard
Fe	57	1622629.1	7.0	10.1235	0.807	8.0	mg/L	4749	Standard
Sc-1	45	363902.8	1.0				mg/L	367704	Standard
Cl	35	69300.5	1.9				ug/L	59901	Standard
Kr	83	61.3	15.2				ug/L	50	Standard
Br	81	13176.7	2.4				ug/L	13965	Standard
P	31	90622.2	1.6				ug/L	71952	Standard
S	34	875314.8	2.8				ug/L	878802	Standard
Sr	88	16103.9	5.5				ug/L	321	Standard

QC Calculated Values

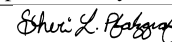
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72			
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89			
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115			
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159			
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: Standard 4

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	Pb	207
	Pb	208
	U	238
>	Bi	209
	Na	23
	Mg	24
	K	39
	Ca	43
	Fe	54
	Fe	57
>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
|	S	34
	Sr	88

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: Standard 4

Report Date/Time: Thursday, May 03, 2012 10:52:04

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<i>Shui L. Bahgat</i>

Method 6020 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Thursday, May 03, 2012 10:52:26

Number of Replicates: 3

Autosampler Position: 201

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	20015.5	0.4	-41.8822	26.045	62.2	ug/L	20538	Standard
|	Be	9	215786.7	2.5	50.3987	2.142	4.2	ug/L	13	Standard
|	Al	27	1191044.6	5.5	52.1765	3.831	7.3	ug/L	25813	Standard
>	Sc	45	358149.3	2.0				ug/L	367704	Standard
|	Ti	47	205167.4	4.3	99.8346	5.345	5.4	ug/L	127	Standard
|	V	51	1186848.6	2.4	51.4922	1.744	3.4	ug/L	6636	Standard
|	Cr	52	979526.2	2.6	50.6825	1.746	3.4	ug/L	21244	Standard
|	Cr	53	109774.0	4.2	49.6547	2.387	4.8	ug/L	467	Standard
|	Mn	55	1267043.7	3.0	52.5528	2.119	4.0	ug/L	8327	Standard
|	Co	59	853425.5	3.1	50.2764	2.091	4.2	ug/L	123	Standard
|	Ni	60	177401.1	2.9	50.6121	2.006	4.0	ug/L	272	Standard
|	Cu	65	151038.7	3.4	50.2133	2.259	4.5	ug/L	1002	Standard
|	Zn	66	71979.1	4.0	51.3892	2.624	5.1	ug/L	3532	Standard
>	Ge	72	253156.6	1.1				ug/L	254939	Standard
|	As	75	62115.8	3.2	50.0698	1.999	4.0	ug/L	-224	Standard
|	Se	82	6309.6	2.4	50.7340	1.736	3.4	ug/L	24	Standard
|	Se-1	77	4233.6	2.7	48.0780	1.756	3.7	ug/L	93	Standard
|	Ga	71	233213.9	0.9				mg/L	233175	Standard
|	Rb	85	1045.4	1.5				ug/L	20	Standard
>	Y	89	233375.0	0.7				ug/L	235100	Standard
|	Rh	103	38.7	41.8				ug/L	6	Standard
|	Mo	98	417912.1	3.0	100.5365	2.814	2.8	ug/L	14	Standard
|	Ag	107	405827.6	2.5	50.4905	1.140	2.3	ug/L	38	Standard
|	Cd	111	244196.5	4.1	50.1208	1.916	3.8	mg/L	439	Standard
|	Cd	114	683159.3	4.5	50.4362	2.193	4.3	ug/L	1326	Standard
>	In	115	798371.2	0.7				ug/L	804157	Standard
|	Sn	118	942251.3	4.5	51.9471	2.192	4.2	ug/L	4860	Standard
|	Sb	123	609460.3	3.9	50.6802	1.923	3.8	ug/L	28	Standard
|	Ba	135	274247.0	4.0	49.9075	1.882	3.8	ug/L	54	Standard
|	Ce	140	973.4	4.7				ug/L	61	Standard
>	Tb	159	855988.2	0.3				ug/L	844239	Standard
|	Ho	165	18.0	29.4				ug/L	6	Standard
|	Tl	203	877253.2	1.3	50.1058	0.885	1.8	ug/L	10	Standard
|	Tl	205	2122029.4	3.4	50.2029	1.853	3.7	ug/L	16	Standard
|	Pb	206	701633.3	3.5	49.8243	1.906	3.8	ug/L	421	Standard
|	Pb	207	589871.5	3.2	50.5362	1.789	3.5	ug/L	341	Standard
|	Pb	208	2720968.7	3.2	50.5401	1.789	3.5	ug/L	1571	Standard
|	U	238	2433649.3	4.6	48.0545	2.385	5.0	ug/L	4	Standard
>	Bi	209	444034.7	0.6				ug/L	457202	Standard
|	Na	23	16230.7	3.1	5.0603	0.242	4.8	mg/L	138	Standard
	Mg	24	1271729.7	4.2	5.0764	0.308	6.1	mg/L	134	Standard

Sample ID: QC Std 1

Report Date/Time: Thursday, May 03, 2012 10:54:54

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K	39	54077.7	3.2	5.0602	0.257	5.1	mg/L	563	Standard
Ca	43	3537.7	5.1	5.1388	0.367	7.1	mg/L	127	Standard
Fe	54	28986.5	6.0	4.9950	0.392	7.8	mg/L	815	Standard
Fe	57	813993.9	5.0	5.1471	0.356	6.9	mg/L	4749	Standard
Sc-1	45	358149.3	2.0				mg/L	367704	Standard
Cl	35	70042.5	1.0				ug/L	59901	Standard
Kr	83	44.7	20.5				ug/L	50	Standard
Br	81	13082.0	0.7				ug/L	13965	Standard
P	31	88451.1	0.2				ug/L	71952	Standard
S	34	858732.1	1.6				ug/L	878802	Standard
Sr	88	654.7	1.7				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9	100.797		
Al	27	104.353		
Sc	45			
Ti	47	99.835		
V	51	102.984		
Cr	52	101.365		
Cr	53	99.309		
Mn	55	105.106		
Co	59	100.553		
Ni	60	101.224		
Cu	65	100.427		
Zn	66	102.778		
Ge	72		99.301	
As	75	100.140		
Se	82	101.468		
Se-1	77	96.156		
Ga	71			
Rb	85			
Y	89		99.266	
Rh	103			
Mo	98	100.537		
Ag	107	100.981		
Cd	111	100.242		
Cd	114			
In	115		99.280	
Sn	118	103.894		
Sb	123	101.360		
Ba	135	99.815		
Ce	140			
Tb	159		101.392	
Ho	165			
Tl	203	100.212		
Tl	205			
Pb	206	99.649		

Sample ID: QC Std 1

Report Date/Time: Thursday, May 03, 2012 10:54:54

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Shui L. Babcock

Pb	207	101.072	
Pb	208	101.080	
U	238	96.109	
> Bi	209		97.120
Na	23	101.205	
Mg	24	101.528	
K	39	101.204	
Ca	43	102.777	
Fe	54	99.901	
Fe	57	102.943	
> Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: QC Std 1

Report Date/Time: Thursday, May 03, 2012 10:54:54

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<i>Shui L. Bahgat</i>

Method 6020 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Thursday, May 03, 2012 10:55:16

Number of Replicates: 3

Autosampler Position: 102

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	19219.9	1.0	-72.1978	18.996	26.3	ug/L	20538	Standard
|	Be	9	39.7	29.9	0.0034	0.003	82.4	ug/L	13	Standard
|	Al	27	12265.0	0.6	-0.4129	0.003	0.7	ug/L	25813	Standard
>	Sc	45	350369.5	0.6				ug/L	367704	Standard
|	Ti	47	129.3	31.9	0.0100	0.020	198.0	ug/L	127	Standard
|	V	51	6129.1	2.1	-0.0190	0.008	40.6	ug/L	6636	Standard
|	Cr	52	19362.4	1.0	-0.0751	0.015	20.4	ug/L	21244	Standard
|	Cr	53	461.3	3.5	-0.0028	0.005	193.3	ug/L	467	Standard
|	Mn	55	1451.4	5.4	-0.1719	0.003	1.7	ug/L	8327	Standard
|	Co	59	173.7	17.9	0.0028	0.002	65.0	ug/L	123	Standard
|	Ni	60	131.3	14.9	-0.0235	0.006	25.6	ug/L	272	Standard
|	Cu	65	922.7	2.6	-0.0238	0.005	23.0	ug/L	1002	Standard
|	Zn	66	1096.4	2.9	-1.1478	0.019	1.7	ug/L	3532	Standard
>	Ge	72	251013.0	1.0				ug/L	254939	Standard
|	As	75	-180.0	35.0	0.0159	0.051	317.7	ug/L	-224	Standard
|	Se	82	30.2	33.1	-0.0004	0.084	23004.2	ug/L	24	Standard
|	Se-1	77	87.3	2.6	-0.1021	0.023	22.6	ug/L	93	Standard
|	Ga	71	231938.0	1.5				mg/L	233175	Standard
|	Rb	85	15.3	7.5				ug/L	20	Standard
>	Y	89	227181.9	0.3				ug/L	235100	Standard
|	Rh	103	2.0	100.0				ug/L	6	Standard
|	Mo	98	167.6	29.2	0.0311	0.012	37.7	ug/L	14	Standard
|	Ag	107	87.7	45.6	0.0059	0.005	85.2	ug/L	38	Standard
|	Cd	111	470.1	5.5	0.0043	0.005	111.9	mg/L	439	Standard
|	Cd	114	1302.9	3.4	0.0005	0.003	571.8	ug/L	1326	Standard
>	In	115	785753.5	0.6				ug/L	804157	Standard
|	Sn	118	1933.5	6.1	-0.0841	0.006	7.5	ug/L	4860	Standard
|	Sb	123	618.4	44.6	0.0460	0.023	50.0	ug/L	28	Standard
|	Ba	135	72.3	12.8	0.0025	0.002	67.1	ug/L	54	Standard
|	Ce	140	81.3	7.5				ug/L	61	Standard
>	Tb	159	835073.3	1.4				ug/L	844239	Standard
|	Ho	165	6.7	45.8				ug/L	6	Standard
|	Tl	203	116.0	26.9	0.0070	0.002	24.1	ug/L	10	Standard
|	Tl	205	278.7	34.8	0.0062	0.002	35.3	ug/L	16	Standard
|	Pb	206	427.0	8.7	0.0010	0.002	221.5	ug/L	421	Standard
|	Pb	207	379.7	3.1	0.0005	0.001	121.6	ug/L	341	Standard
|	Pb	208	1678.4	6.4	0.0003	0.002	470.0	ug/L	1571	Standard
|	U	238	554.0	8.6	0.0119	0.001	7.8	ug/L	4	Standard
>	Bi	209	450273.2	1.1				ug/L	457202	Standard
	Na	23	168.0	1.2	0.0144	0.001	4.0	mg/L	138	Standard
	Mg	24	217.3	13.7	-0.0005	0.000	23.4	mg/L	134	Standard

Sample ID: QC Std 2

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Shui L. Bahgat

K	39	611.3	3.1	0.0009	0.002	227.2	mg/L	563	Standard
Ca	43	121.3	12.5	0.0103	0.024	232.0	mg/L	127	Standard
Fe	54	784.4	4.9	0.0032	0.006	200.3	mg/L	815	Standard
Fe	57	4410.6	1.5	-0.0020	0.000	13.6	mg/L	4749	Standard
Sc-1	45	350369.5	0.6				mg/L	367704	Standard
Cl	35	62985.7	1.1				ug/L	59901	Standard
Kr	83	47.1	16.9				ug/L	50	Standard
Br	81	12679.6	1.6				ug/L	13965	Standard
P	31	76723.2	3.5				ug/L	71952	Standard
S	34	869665.3	1.6				ug/L	878802	Standard
Sr	88	234.0	12.6				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		98.460	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		96.632	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		97.711	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		98.914	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: QC Std 2

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Shui L. Babcock

Pb	207	
Pb	208	
U	238	
> Bi	209	98.485
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: QC Std 2

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Shui L. Bahgat

Method 6020 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Thursday, May 03, 2012 10:58:05

Number of Replicates: 3

Autosampler Position: 202

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	20065.3	1.8	-52.6463	42.470	80.7	ug/L	20538	Standard
|	Be	9	17.3	6.7	-0.0020	0.000	14.7	ug/L	13	Standard
|	Al	27	11585.8	4.4	-0.4598	0.026	5.6	ug/L	25813	Standard
>	Sc	45	361420.4	1.5				ug/L	367704	Standard
|	Ti	47	133.3	5.7	0.0110	0.004	34.9	ug/L	127	Standard
|	V	51	15511.8	2.5	0.3829	0.015	3.8	ug/L	6636	Standard
|	Cr	52	35408.0	1.8	0.7504	0.027	3.5	ug/L	21244	Standard
|	Cr	53	2184.8	6.0	0.7706	0.051	6.6	ug/L	467	Standard
|	Mn	55	13926.7	3.3	0.3429	0.016	4.7	ug/L	8327	Standard
|	Co	59	6738.2	6.1	0.3863	0.022	5.6	ug/L	123	Standard
|	Ni	60	5681.4	2.2	1.5489	0.028	1.8	ug/L	272	Standard
|	Cu	65	2556.9	4.7	0.5139	0.036	7.0	ug/L	1002	Standard
|	Zn	66	10641.4	4.9	5.8594	0.355	6.1	ug/L	3532	Standard
>	Ge	72	255050.9	0.8				ug/L	254939	Standard
|	As	75	276.6	19.6	0.3820	0.041	10.8	ug/L	-224	Standard
|	Se	82	72.7	10.8	0.3356	0.060	17.8	ug/L	24	Standard
|	Se-1	77	128.0	2.8	0.3506	0.031	8.9	ug/L	93	Standard
|	Ga	71	236925.7	1.6				mg/L	233175	Standard
|	Rb	85	14.7	78.7				ug/L	20	Standard
>	Y	89	230255.9	1.3				ug/L	235100	Standard
|	Rh	103	1.3	86.6				ug/L	6	Standard
|	Mo	98	42.4	30.1	0.0003	0.003	930.2	ug/L	14	Standard
|	Ag	107	3393.0	1.2	0.4140	0.009	2.3	ug/L	38	Standard
|	Cd	111	1665.0	6.2	0.2463	0.025	10.3	mg/L	439	Standard
|	Cd	114	4575.6	2.2	0.2387	0.010	4.3	ug/L	1326	Standard
>	In	115	804118.2	1.3				ug/L	804157	Standard
|	Sn	118	986.0	4.8	-0.1386	0.003	1.9	ug/L	4860	Standard
|	Sb	123	5047.7	2.9	0.4107	0.016	3.8	ug/L	28	Standard
|	Ba	135	4113.9	2.2	0.7327	0.020	2.7	ug/L	54	Standard
|	Ce	140	46.7	22.0				ug/L	61	Standard
>	Tb	159	842129.1	0.4				ug/L	844239	Standard
|	Ho	165	10.0	20.0				ug/L	6	Standard
|	Tl	203	1425.1	0.9	0.0796	0.001	0.7	ug/L	10	Standard
|	Tl	205	3271.7	4.2	0.0749	0.003	3.8	ug/L	16	Standard
|	Pb	206	3158.0	2.2	0.1892	0.005	2.8	ug/L	421	Standard
|	Pb	207	2633.9	2.6	0.1879	0.007	3.7	ug/L	341	Standard
|	Pb	208	12046.5	3.5	0.1872	0.008	4.2	ug/L	1571	Standard
|	U	238	18943.9	6.0	0.3646	0.022	6.1	ug/L	4	Standard
>	Bi	209	456893.1	0.8				ug/L	457202	Standard
	Na	23	156.0	10.0	0.0090	0.004	49.2	mg/L	138	Standard
	Mg	24	82.3	17.8	-0.0011	0.000	5.8	mg/L	134	Standard

Sample ID: QC Std 3

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K	39	600.0	6.1	-0.0020	0.004	201.0	mg/L	563	Standard
Ca	43	116.0	9.1	-0.0032	0.018	576.9	mg/L	127	Standard
Fe	54	849.2	0.8	0.0102	0.002	19.4	mg/L	815	Standard
Fe	57	4826.1	3.4	-0.0002	0.001	557.1	mg/L	4749	Standard
Sc-1	45	361420.4	1.5				mg/L	367704	Standard
Cl	35	66559.9	0.5				ug/L	59901	Standard
Kr	83	46.7	7.6				ug/L	50	Standard
Br	81	13204.8	2.6				ug/L	13965	Standard
P	31	89382.4	3.2				ug/L	71952	Standard
S	34	904932.6	0.8				ug/L	878802	Standard
Sr	88	244.0	5.7				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51	95.732		
Cr	52	93.799		
Cr	53			
Mn	55	68.572		
Co	59	96.581		
Ni	60	96.806		
Cu	65	64.233		
Zn	66	93.750		
Ge	72		100.044	
As	75	95.507		
Se	82	83.902		
Se-1	77	87.655		
Ga	71			
Rb	85			
Y	89		97.939	
Rh	103			
Mo	98			
Ag	107	103.512		
Cd	111	102.627		
Cd	114			
In	115		99.995	
Sn	118			
Sb	123	102.687		
Ba	135	97.690		
Ce	140			
Tb	159		99.750	
Ho	165			
Tl	203	99.460		
Tl	205			
Pb	206			

Sample ID: QC Std 3

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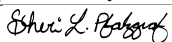
Shui L. Babcock

	Pb	207		
	Pb	208	93.588	
	U	238	91.146	
>	Bi	209		99.932
	Na	23		
	Mg	24		
	K	39		
	Ca	43		
|	Fe	54		
|	Fe	57		
|>	Sc-1	45		
|	Cl	35		
|	Kr	83		
|	Br	81		
|	P	31		
|	S	34		
|	Sr	88		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Mn	55	
QC Std 3	Cu	65	

Sample ID: QC Std 3
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Method 6020 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Thursday, May 03, 2012 11:00:52

Number of Replicates: 3

Autosampler Position: 203

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	20679.1	0.9	38.2941	30.286	79.1	ug/L	20538	Standard
|	Be	9	18.3	8.3	-0.0017	0.000	19.9	ug/L	13	Standard
|	Al	27	102671613.5	4.6	4648.5043	212.166	4.6	ug/L	25813	Standard
>	Sc	45	352622.1	1.1				ug/L	367704	Standard
|	Ti	47	220795.5	3.2	108.1229	2.981	2.8	ug/L	127	Standard
|	V	51	6726.5	3.4	0.0068	0.010	149.5	ug/L	6636	Standard
|	Cr	52	22352.8	0.9	0.0822	0.004	4.5	ug/L	21244	Standard
|	Cr	53	2636.2	4.9	0.9915	0.063	6.4	ug/L	467	Standard
|	Mn	55	7174.4	3.7	0.0680	0.010	14.7	ug/L	8327	Standard
|	Co	59	2495.9	7.9	0.1404	0.011	7.6	ug/L	123	Standard
|	Ni	60	1601.1	5.8	0.3989	0.027	6.7	ug/L	272	Standard
|	Cu	65	1487.7	1.1	0.1660	0.003	1.7	ug/L	1002	Standard
|	Zn	66	6377.7	4.3	2.7908	0.192	6.9	ug/L	3532	Standard
>	Ge	72	251453.8	0.8				ug/L	254939	Standard
|	As	75	-197.0	9.1	0.0024	0.013	540.5	ug/L	-224	Standard
|	Se	82	24.2	41.9	-0.0502	0.081	161.0	ug/L	24	Standard
|	Se-1	77	219.0	6.4	1.4373	0.181	12.6	ug/L	93	Standard
|	Ga	71	224656.8	1.3				mg/L	233175	Standard
|	Rb	85	3491.1	1.8				ug/L	20	Standard
>	Y	89	227840.6	1.7				ug/L	235100	Standard
|	Rh	103	10.0	72.1				ug/L	6	Standard
|	Mo	98	400522.3	3.2	98.0024	3.487	3.6	ug/L	14	Standard
|	Ag	107	106.7	9.5	0.0083	0.001	14.7	ug/L	38	Standard
|	Cd	111	1045.4	4.5	0.1248	0.010	8.1	mg/L	439	Standard
|	Cd	114	3713.4	4.4	0.1820	0.013	7.1	ug/L	1326	Standard
>	In	115	785015.0	0.5				ug/L	804157	Standard
|	Sn	118	2626.2	2.8	-0.0450	0.005	10.8	ug/L	4860	Standard
|	Sb	123	683.1	3.4	0.0516	0.002	4.4	ug/L	28	Standard
|	Ba	135	155.7	5.5	0.0179	0.002	9.5	ug/L	54	Standard
|	Ce	140	2089.5	7.0				ug/L	61	Standard
>	Tb	159	841118.7	1.1				ug/L	844239	Standard
|	Ho	165	22.0	18.2				ug/L	6	Standard
|	Tl	203	326.3	3.4	0.0196	0.001	3.9	ug/L	10	Standard
|	Tl	205	794.0	6.9	0.0189	0.001	6.8	ug/L	16	Standard
|	Pb	206	814.4	2.7	0.0304	0.002	6.6	ug/L	421	Standard
|	Pb	207	682.7	4.7	0.0283	0.003	9.0	ug/L	341	Standard
|	Pb	208	3130.5	2.6	0.0292	0.002	6.6	ug/L	1571	Standard
|	U	238	69.0	14.3	0.0025	0.000	7.6	ug/L	4	Standard
>	Bi	209	433682.0	0.8				ug/L	457202	Standard
	Na	23	37839.9	3.6	12.0301	0.449	3.7	mg/L	138	Standard
	Mg	24	1248173.5	4.6	5.0568	0.234	4.6	mg/L	134	Standard

Sample ID: QC Std 4

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K	39	52686.8	2.5	5.0039	0.137	2.7	mg/L	563	Standard
Ca	43	9821.2	4.3	14.7988	0.696	4.7	mg/L	127	Standard
Fe	54	68931.6	6.2	12.2512	0.805	6.6	mg/L	815	Standard
Fe	57	1853424.7	3.5	11.9355	0.502	4.2	mg/L	4749	Standard
Sc-1	45	352622.1	1.1				mg/L	367704	Standard
Cl	35	9029227.9	1.2				ug/L	59901	Standard
Kr	83	62.2	13.3				ug/L	50	Standard
Br	81	12823.1	1.1				ug/L	13965	Standard
P	31	7649820.3	2.7				ug/L	71952	Standard
S	34	1666687.7	1.4				ug/L	878802	Standard
Sr	88	1399.4	3.7				ug/L	321	Standard

QC Calculated Values

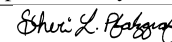
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27	92.970		
Sc	45			
Ti	47	108.123		
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		98.633	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		96.912	
Rh	103			
Mo	98	98.002		
Ag	107			
Cd	111			
Cd	114			
In	115		97.620	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		99.630	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: QC Std 4

Report Date/Time: Thursday, May 03, 2012 11:03:19

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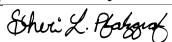


Pb	207		
Pb	208		
U	238		
> Bi	209		94.856
Na	23	96.241	
Mg	24	101.135	
K	39	100.077	
Ca	43	98.659	
Fe	54	98.010	
Fe	57	95.484	
> Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Se-1	77	
QC Std 4	Cd	111	

Sample ID: QC Std 4
 Report Date/Time: Thursday, May 03, 2012 11:03:19
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Method 6020 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Thursday, May 03, 2012 11:03:39

Number of Replicates: 3

Autosampler Position: 204

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	20932.1	1.7	42.1642	7.971	18.9	ug/L	20538	Standard
|	Be	9	448124.1	3.3	105.2352	3.817	3.6	ug/L	13	Standard
|	Al	27	106206411.1	5.5	4762.7732	283.092	5.9	ug/L	25813	Standard
>	Sc	45	356086.4	1.6				ug/L	367704	Standard
|	Ti	47	230641.4	4.7	113.5015	6.732	5.9	ug/L	127	Standard
|	V	51	2214770.1	2.9	97.4185	3.746	3.8	ug/L	6636	Standard
|	Cr	52	1895868.2	0.3	100.2405	1.507	1.5	ug/L	21244	Standard
|	Cr	53	226480.4	3.8	103.8363	5.139	4.9	ug/L	467	Standard
|	Mn	55	2407805.6	4.0	101.2152	5.449	5.4	ug/L	8327	Standard
|	Co	59	1722959.9	3.6	102.6614	5.300	5.2	ug/L	123	Standard
|	Ni	60	356186.0	4.6	102.8497	6.358	6.2	ug/L	272	Standard
|	Cu	65	302127.2	3.2	101.9213	4.909	4.8	ug/L	1002	Standard
|	Zn	66	147501.9	3.1	108.5956	4.742	4.4	ug/L	3532	Standard
>	Ge	72	250379.9	1.7				ug/L	254939	Standard
|	As	75	130302.8	3.3	106.0474	5.153	4.9	ug/L	-224	Standard
|	Se	82	13106.0	3.6	106.8600	5.641	5.3	ug/L	24	Standard
|	Se-1	77	9181.4	3.2	106.7827	4.615	4.3	ug/L	93	Standard
|	Ga	71	228609.8	2.5				mg/L	233175	Standard
|	Rb	85	3717.8	2.5				ug/L	20	Standard
>	Y	89	230992.2	0.5				ug/L	235100	Standard
|	Rh	103	68.7	14.4				ug/L	6	Standard
|	Mo	98	419299.7	5.1	101.2601	4.936	4.9	ug/L	14	Standard
|	Ag	107	677852.2	8.9	84.6479	7.181	8.5	ug/L	38	Standard
|	Cd	111	508255.9	4.0	104.8250	3.773	3.6	mg/L	439	Standard
|	Cd	114	1408801.9	4.3	104.5128	4.067	3.9	ug/L	1326	Standard
>	In	115	795274.2	0.9				ug/L	804157	Standard
|	Sn	118	3063.6	4.9	-0.0226	0.007	32.0	ug/L	4860	Standard
|	Sb	123	1262354.3	4.0	105.3891	4.117	3.9	ug/L	28	Standard
|	Ba	135	550157.4	4.2	100.5250	4.181	4.2	ug/L	54	Standard
|	Ce	140	2188.8	3.9				ug/L	61	Standard
>	Tb	159	871075.6	2.0				ug/L	844239	Standard
|	Ho	165	26.0	40.7				ug/L	6	Standard
|	Tl	203	1742822.3	3.3	101.3316	4.269	4.2	ug/L	10	Standard
|	Tl	205	4204918.3	3.4	101.2629	4.349	4.3	ug/L	16	Standard
|	Pb	206	1396122.1	4.5	100.9556	5.471	5.4	ug/L	421	Standard
|	Pb	207	1194525.7	3.6	104.2097	4.776	4.6	ug/L	341	Standard
|	Pb	208	5466783.5	3.8	103.3972	4.937	4.8	ug/L	1571	Standard
|	U	238	4983327.0	5.0	100.1701	5.888	5.9	ug/L	4	Standard
>	Bi	209	436296.3	1.0				ug/L	457202	Standard
|	Na	23	38600.5	4.4	12.1556	0.616	5.1	mg/L	138	Standard
	Mg	24	1273270.1	4.9	5.1093	0.274	5.4	mg/L	134	Standard

Sample ID: QC Std 5

Report Date/Time: Thursday, May 03, 2012 11:06:06

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Shui L. Bahgat

K	39	53666.9	2.9	5.0482	0.163	3.2	mg/L	563	Standard
Ca	43	9998.0	4.2	14.9220	0.735	4.9	mg/L	127	Standard
Fe	54	70580.9	5.9	12.4254	0.786	6.3	mg/L	815	Standard
Fe	57	1940814.3	0.0	12.3772	0.198	1.6	mg/L	4749	Standard
Sc-1	45	356086.4	1.6				mg/L	367704	Standard
Cl	35	9388849.1	1.0				ug/L	59901	Standard
Kr	83	59.1	1.7				ug/L	50	Standard
Br	81	13061.0	1.9				ug/L	13965	Standard
P	31	7847453.5	3.8				ug/L	71952	Standard
S	34	1680540.0	1.6				ug/L	878802	Standard
Sr	88	1362.1	2.0				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27	95.255		
Sc	45			
Ti	47	113.502		
V	51	97.418		
Cr	52	100.241		
Cr	53			
Mn	55	101.215		
Co	59	102.661		
Ni	60	102.850		
Cu	65	101.921		
Zn	66	108.596		
Ge	72		98.212	
As	75	106.047		
Se	82	106.860		
Se-1	77	106.783		
Ga	71			
Rb	85			
Y	89		98.253	
Rh	103			
Mo	98	101.260		
Ag	107	84.648		
Cd	111	104.825		
Cd	114			
In	115		98.895	
Sn	118			
Sb	123	105.389		
Ba	135	100.525		
Ce	140			
Tb	159		103.179	
Ho	165			
Tl	203	101.332		
Tl	205			
Pb	206	100.956		

Sample ID: QC Std 5

Report Date/Time: Thursday, May 03, 2012 11:06:06

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Shui L. Babcock

Pb	207	104.210	
Pb	208	103.397	
U	238	100.170	
> Bi	209		95.427
Na	23	97.245	
Mg	24	102.186	
K	39	100.964	
Ca	43	99.480	
Fe	54	99.403	
Fe	57	99.017	
> Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: QC Std 5

Report Date/Time: Thursday, May 03, 2012 11:06:06

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Approved: May 04, 2012

Shui L. Bahgat

Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, May 03, 2012 11:06:29

Number of Replicates: 3

Autosampler Position: 101

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	20372.0	1.3	-90.4667	4.910	5.4	ug/L	20538	Standard
|	Be	9	223718.7	3.3	49.7955	1.802	3.6	ug/L	13	Standard
|	Al	27	1208011.7	5.6	50.3789	2.879	5.7	ug/L	25813	Standard
>	Sc	45	375655.9	1.2				ug/L	367704	Standard
|	Ti	47	211959.7	4.7	97.7914	4.244	4.3	ug/L	127	Standard
|	V	51	1240714.1	3.8	51.0438	1.763	3.5	ug/L	6636	Standard
|	Cr	52	1017514.7	4.2	49.9135	2.029	4.1	ug/L	21244	Standard
|	Cr	53	115085.8	3.8	49.3715	1.939	3.9	ug/L	467	Standard
|	Mn	55	1324767.5	3.5	52.1052	1.781	3.4	ug/L	8327	Standard
|	Co	59	894079.8	3.8	49.9489	1.869	3.7	ug/L	123	Standard
|	Ni	60	180543.5	4.2	48.8456	2.050	4.2	ug/L	272	Standard
|	Cu	65	156059.6	5.1	49.1875	2.346	4.8	ug/L	1002	Standard
|	Zn	66	70648.3	5.1	47.6868	2.257	4.7	ug/L	3532	Standard
>	Ge	72	266884.2	1.3				ug/L	254939	Standard
|	As	75	64104.6	2.5	49.0079	1.112	2.3	ug/L	-224	Standard
|	Se	82	6444.1	1.1	49.1357	0.855	1.7	ug/L	24	Standard
|	Se-1	77	4499.7	1.9	48.4677	0.513	1.1	ug/L	93	Standard
|	Ga	71	244709.0	0.3				mg/L	233175	Standard
|	Rb	85	1016.7	3.4				ug/L	20	Standard
>	Y	89	240849.9	0.3				ug/L	235100	Standard
|	Rh	103	41.3	14.8				ug/L	6	Standard
|	Mo	98	422518.6	4.7	97.4888	4.914	5.0	ug/L	14	Standard
|	Ag	107	448943.3	4.8	53.5729	2.797	5.2	ug/L	38	Standard
|	Cd	111	256070.6	4.5	50.4094	2.350	4.7	mg/L	439	Standard
|	Cd	114	702418.4	4.4	49.7351	2.261	4.5	ug/L	1326	Standard
>	In	115	832511.9	0.6				ug/L	804157	Standard
|	Sn	118	919548.9	4.3	48.6108	2.205	4.5	ug/L	4860	Standard
|	Sb	123	628530.2	3.8	50.1270	1.997	4.0	ug/L	28	Standard
|	Ba	135	278154.1	3.3	48.5470	1.683	3.5	ug/L	54	Standard
|	Ce	140	1008.7	6.1				ug/L	61	Standard
>	Tb	159	879538.0	0.8				ug/L	844239	Standard
|	Ho	165	17.3	46.6				ug/L	6	Standard
|	Tl	203	890520.9	2.2	49.8703	1.493	3.0	ug/L	10	Standard
|	Tl	205	2178699.4	2.1	50.5349	1.453	2.9	ug/L	16	Standard
|	Pb	206	717921.8	3.7	49.9875	2.241	4.5	ug/L	421	Standard
|	Pb	207	593396.2	3.4	49.8465	2.087	4.2	ug/L	341	Standard
|	Pb	208	2746704.2	3.3	50.0225	2.059	4.1	ug/L	1571	Standard
|	U	238	2484636.0	3.9	48.1049	2.268	4.7	ug/L	4	Standard
>	Bi	209	452928.0	0.8				ug/L	457202	Standard
	Na	23	15969.1	3.2	4.7421	0.170	3.6	mg/L	138	Standard
	Mg	24	1295503.5	3.7	4.9273	0.208	4.2	mg/L	134	Standard

Sample ID: QC Std 6

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Shui L. Bahgat

K	39	54093.8	3.5	4.8206	0.186	3.9	mg/L	563	Standard
Ca	43	3516.4	3.1	4.8576	0.205	4.2	mg/L	127	Standard
Fe	54	29378.2	5.9	4.8174	0.286	5.9	mg/L	815	Standard
Fe	57	856369.4	4.3	5.1591	0.247	4.8	mg/L	4749	Standard
Sc-1	45	375655.9	1.2				mg/L	367704	Standard
Cl	35	155251.7	36.9				ug/L	59901	Standard
Kr	83	58.9	8.6				ug/L	50	Standard
Br	81	13578.4	0.2				ug/L	13965	Standard
P	31	85631.7	1.4				ug/L	71952	Standard
S	34	864821.4	0.8				ug/L	878802	Standard
Sr	88	626.0	7.3				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27	100.758		
Sc	45			
Ti	47	97.791		
V	51	102.088		
Cr	52	99.827		
Cr	53			
Mn	55	104.210		
Co	59	99.898		
Ni	60	97.691		
Cu	65	98.375		
Zn	66	95.374		
Ge	72		104.686	
As	75	98.016		
Se	82	98.271		
Se-1	77	96.935		
Ga	71			
Rb	85			
Y	89		102.446	
Rh	103			
Mo	98	97.489		
Ag	107	107.146		
Cd	111	100.819		
Cd	114			
In	115		103.526	
Sn	118	97.222		
Sb	123	100.254		
Ba	135	97.094		
Ce	140			
Tb	159		104.181	
Ho	165			
Tl	203	99.741		
Tl	205			
Pb	206	99.975		

Sample ID: QC Std 6

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Shui L. Babcock

Pb	207	99.693	
Pb	208	100.045	
U	238	96.210	
> Bi	209		99.065
Na	23	94.841	
Mg	24	98.546	
K	39	96.412	
Ca	43	97.152	
Fe	54	96.348	
Fe	57	103.182	
> Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		

QC Out of Limits

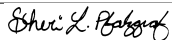
Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: QC Std 6

Report Date/Time: Thursday, May 03, 2012 11:08:56

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Approved: May 04, 2012



Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, May 03, 2012 11:09:16

Number of Replicates: 3

Autosampler Position: 102

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	19641.7	1.1	-61.8974	26.438	42.7	ug/L	20538	Standard
|	Be	9	49.7	61.6	0.0056	0.007	126.4	ug/L	13	Standard
|	Al	27	17091.7	11.0	-0.2049	0.083	40.3	ug/L	25813	Standard
>	Sc	45	355802.1	1.4				ug/L	367704	Standard
|	Ti	47	144.0	35.4	0.0168	0.025	147.2	ug/L	127	Standard
|	V	51	6521.9	1.8	-0.0037	0.004	118.1	ug/L	6636	Standard
|	Cr	52	20119.3	0.7	-0.0419	0.008	19.4	ug/L	21244	Standard
|	Cr	53	498.0	4.6	0.0125	0.010	81.5	ug/L	467	Standard
|	Mn	55	1516.4	7.5	-0.1696	0.005	2.7	ug/L	8327	Standard
|	Co	59	224.3	32.0	0.0057	0.004	73.8	ug/L	123	Standard
|	Ni	60	113.7	21.5	-0.0289	0.007	23.8	ug/L	272	Standard
|	Cu	65	937.7	2.3	-0.0208	0.008	36.2	ug/L	1002	Standard
|	Zn	66	1061.0	3.3	-1.1794	0.029	2.4	ug/L	3532	Standard
>	Ge	72	252704.6	0.4				ug/L	254939	Standard
|	As	75	-229.4	15.5	-0.0229	0.028	123.8	ug/L	-224	Standard
|	Se	82	26.7	21.1	-0.0305	0.046	151.7	ug/L	24	Standard
|	Se-1	77	91.0	4.0	-0.0662	0.043	65.1	ug/L	93	Standard
|	Ga	71	232937.7	0.8				mg/L	233175	Standard
|	Rb	85	13.3	52.7				ug/L	20	Standard
>	Y	89	227431.0	1.1				ug/L	235100	Standard
|	Rh	103	1.3	173.2				ug/L	6	Standard
|	Mo	98	145.7	22.1	0.0256	0.008	31.8	ug/L	14	Standard
|	Ag	107	195.3	32.8	0.0193	0.008	42.7	ug/L	38	Standard
|	Cd	111	471.8	9.0	0.0039	0.009	239.1	mg/L	439	Standard
|	Cd	114	1353.0	5.8	0.0034	0.006	172.4	ug/L	1326	Standard
>	In	115	792599.9	1.7				ug/L	804157	Standard
|	Sn	118	1804.1	1.8	-0.0922	0.002	2.5	ug/L	4860	Standard
|	Sb	123	635.9	24.5	0.0472	0.013	28.6	ug/L	28	Standard
|	Ba	135	74.7	41.8	0.0028	0.006	208.6	ug/L	54	Standard
|	Ce	140	72.0	12.7				ug/L	61	Standard
>	Tb	159	831229.8	0.8				ug/L	844239	Standard
|	Ho	165	8.0	25.0				ug/L	6	Standard
|	Tl	203	127.3	59.5	0.0076	0.004	56.1	ug/L	10	Standard
|	Tl	205	326.0	69.3	0.0073	0.005	72.4	ug/L	16	Standard
|	Pb	206	453.3	15.6	0.0029	0.005	174.6	ug/L	421	Standard
|	Pb	207	376.3	10.4	0.0002	0.003	1438.6	ug/L	341	Standard
|	Pb	208	1740.7	13.1	0.0015	0.004	280.5	ug/L	1571	Standard
|	U	238	609.0	20.3	0.0129	0.002	19.0	ug/L	4	Standard
>	Bi	209	450268.4	1.4				ug/L	457202	Standard
	Na	23	171.3	9.8	0.0147	0.006	38.7	mg/L	138	Standard
	Mg	24	223.7	44.2	-0.0005	0.000	75.9	mg/L	134	Standard

Sample ID: QC Std 7

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Shui L. Bahgat

K	39	582.0	3.6	-0.0028	0.001	50.0	mg/L	563	Standard
Ca	43	104.0	1.9	-0.0187	0.005	27.5	mg/L	127	Standard
Fe	54	790.4	7.2	0.0020	0.009	438.8	mg/L	815	Standard
Fe	57	4440.7	3.3	-0.0022	0.001	50.6	mg/L	4749	Standard
Sc-1	45	355802.1	1.4				mg/L	367704	Standard
Cl	35	87703.2	5.1				ug/L	59901	Standard
Kr	83	47.3	4.2				ug/L	50	Standard
Br	81	13121.7	1.1				ug/L	13965	Standard
P	31	71497.7	3.3				ug/L	71952	Standard
S	34	829936.2	1.6				ug/L	878802	Standard
Sr	88	212.7	4.2				ug/L	321	Standard

QC Calculated Values

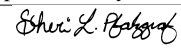
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		99.124	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		96.738	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		98.563	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		98.459	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: QC Std 7

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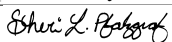


Pb	207	
Pb	208	
U	238	
> Bi	209	98.483
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: QC Std 7
 Report Date/Time: Thursday, May 03, 2012 11:11:43
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Method 6020 - Summary Report

Sample ID: PBW 40 WG396746-02

Sample Date/Time: Thursday, May 03, 2012 11:12:05

Number of Replicates: 3

Autosampler Position: 205

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	20837.7	0.8	-51.6745	19.175	37.1	ug/L	20538	Standard
|	Be	9	25.3	13.9	-0.0004	0.001	198.4	ug/L	13	Standard
|	Al	27	123270.2	6.6	4.2769	0.358	8.4	ug/L	25813	Standard
>	Sc	45	375046.7	0.4				ug/L	367704	Standard
|	Ti	47	360.0	62.2	0.1137	0.102	89.6	ug/L	127	Standard
|	V	51	7787.7	20.5	0.0364	0.063	172.2	ug/L	6636	Standard
|	Cr	52	22491.7	6.1	0.0314	0.056	178.3	ug/L	21244	Standard
|	Cr	53	601.3	9.9	0.0474	0.023	48.0	ug/L	467	Standard
|	Mn	55	3816.2	31.4	-0.0809	0.046	56.7	ug/L	8327	Standard
|	Co	59	539.4	111.0	0.0227	0.033	146.7	ug/L	123	Standard
|	Ni	60	173.0	65.6	-0.0143	0.030	212.5	ug/L	272	Standard
|	Cu	65	322.7	15.2	-0.2318	0.014	6.2	ug/L	1002	Standard
|	Zn	66	5336.6	1.4	1.8228	0.095	5.2	ug/L	3532	Standard
>	Ge	72	264204.5	1.1				ug/L	254939	Standard
|	As	75	-206.1	22.3	0.0027	0.037	1352.9	ug/L	-224	Standard
|	Se	82	23.5	27.8	-0.0655	0.048	73.4	ug/L	24	Standard
|	Se-1	77	100.0	14.7	-0.0129	0.155	1200.0	ug/L	93	Standard
|	Ga	71	243491.3	1.7				mg/L	233175	Standard
|	Rb	85	49.3	26.4				ug/L	20	Standard
>	Y	89	240539.7	0.4				ug/L	235100	Standard
|	Rh	103	0.7	173.2				ug/L	6	Standard
|	Mo	98	73.2	25.3	0.0071	0.004	59.3	ug/L	14	Standard
|	Ag	107	117.0	16.5	0.0088	0.002	25.7	ug/L	38	Standard
|	Cd	111	579.2	5.3	0.0206	0.005	26.4	mg/L	439	Standard
|	Cd	114	1563.0	2.0	0.0137	0.002	16.5	ug/L	1326	Standard
>	In	115	830836.5	0.8				ug/L	804157	Standard
|	Sn	118	1134.0	5.3	-0.1325	0.004	2.7	ug/L	4860	Standard
|	Sb	123	464.5	1.1	0.0310	0.000	0.5	ug/L	28	Standard
|	Ba	135	228.3	2.0	0.0290	0.001	2.2	ug/L	54	Standard
|	Ce	140	210.0	11.9				ug/L	61	Standard
>	Tb	159	852406.7	0.5				ug/L	844239	Standard
|	Ho	165	18.0	50.9				ug/L	6	Standard
|	Tl	203	75.7	2.8	0.0047	0.000	2.1	ug/L	10	Standard
|	Tl	205	208.0	13.4	0.0045	0.001	13.8	ug/L	16	Standard
|	Pb	206	394.7	8.2	-0.0016	0.002	134.0	ug/L	421	Standard
|	Pb	207	339.7	4.4	-0.0033	0.001	33.7	ug/L	341	Standard
|	Pb	208	1580.0	2.7	-0.0018	0.001	34.3	ug/L	1571	Standard
|	U	238	204.3	11.3	0.0050	0.000	9.3	ug/L	4	Standard
>	Bi	209	456561.5	0.6				ug/L	457202	Standard
|	Na	23	166.0	3.2	0.0103	0.002	17.2	mg/L	138	Standard
|	Mg	24	1493.4	5.8	0.0043	0.000	8.0	mg/L	134	Standard

Sample ID: PBW 40 WG396746-02

Report Date/Time: Thursday, May 03, 2012 11:14:33

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Shui L. Bahgat

K	39	636.0	2.5	-0.0008	0.002	205.4	mg/L	563	Standard
Ca	43	132.0	9.2	0.0133	0.017	129.6	mg/L	127	Standard
Fe	54	988.5	2.6	0.0283	0.005	17.5	mg/L	815	Standard
Fe	57	5526.3	3.6	0.0029	0.001	42.0	mg/L	4749	Standard
Sc-1	45	375046.7	0.4				mg/L	367704	Standard
Cl	35	100542.6	2.1				ug/L	59901	Standard
Kr	83	54.2	19.1				ug/L	50	Standard
Br	81	14228.7	2.3				ug/L	13965	Standard
P	31	86371.9	1.6				ug/L	71952	Standard
S	34	850534.4	1.2				ug/L	878802	Standard
Sr	88	2246.2	3.1				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		103.635	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		102.314	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		103.318	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		100.967	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: PBW 40 WG396746-02
 Report Date/Time: Thursday, May 03, 2012 11:14:33
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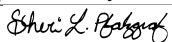
Approved: May 04, 2012
<i>Shui L. Babcock</i>

Pb	207	
Pb	208	
U	238	
> Bi	209	99.860
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: PBW 40 WG396746-02
 Report Date/Time: Thursday, May 03, 2012 11:14:33
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: LCSW 40 WG396746-03

Sample Date/Time: Thursday, May 03, 2012 11:14:52

Number of Replicates: 3

Autosampler Position: 206

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	21274.3	1.0	-55.0320	17.388	31.6	ug/L	20538	Standard
|	Be	9	117613.0	2.8	25.6284	0.928	3.6	ug/L	13	Standard
|	Al	27	687381.4	4.8	27.6451	1.681	6.1	ug/L	25813	Standard
>	Sc	45	383743.7	2.0				ug/L	367704	Standard
|	Ti	47	224.0	13.3	0.0479	0.015	30.8	ug/L	127	Standard
|	V	51	653726.4	3.3	26.1779	1.117	4.3	ug/L	6636	Standard
|	Cr	52	554710.2	3.4	26.1130	1.300	5.0	ug/L	21244	Standard
|	Cr	53	62049.5	3.2	25.9461	1.178	4.5	ug/L	467	Standard
|	Mn	55	712157.7	3.7	27.3009	1.375	5.0	ug/L	8327	Standard
|	Co	59	476547.1	3.8	26.0522	1.403	5.4	ug/L	123	Standard
|	Ni	60	98518.9	3.9	26.0557	1.376	5.3	ug/L	272	Standard
|	Cu	65	85489.9	2.4	26.2128	0.958	3.7	ug/L	1002	Standard
|	Zn	66	41365.4	2.8	26.4820	0.997	3.8	ug/L	3532	Standard
>	Ge	72	272840.4	1.6				ug/L	254939	Standard
|	As	75	33491.5	1.9	25.1303	0.736	2.9	ug/L	-224	Standard
|	Se	82	3298.1	2.8	24.4787	0.858	3.5	ug/L	24	Standard
|	Se-1	77	2409.2	1.4	24.8573	0.791	3.2	ug/L	93	Standard
|	Ga	71	254374.8	3.7				mg/L	233175	Standard
|	Rb	85	64.0	10.8				ug/L	20	Standard
>	Y	89	248148.8	2.1				ug/L	235100	Standard
|	Rh	103	27.3	21.1				ug/L	6	Standard
|	Mo	98	60.5	15.8	0.0038	0.002	60.2	ug/L	14	Standard
|	Ag	107	231955.5	3.1	26.9270	1.114	4.1	ug/L	38	Standard
|	Cd	111	135192.3	3.8	25.8489	1.217	4.7	mg/L	439	Standard
|	Cd	114	368653.3	3.5	25.3516	1.188	4.7	ug/L	1326	Standard
>	In	115	855836.5	1.2				ug/L	804157	Standard
|	Sn	118	1494.7	1.8	-0.1156	0.001	1.1	ug/L	4860	Standard
|	Sb	123	328944.7	2.6	25.5214	0.937	3.7	ug/L	28	Standard
|	Ba	135	146249.7	3.5	24.8308	1.097	4.4	ug/L	54	Standard
|	Ce	140	122.0	18.3				ug/L	61	Standard
>	Tb	159	872673.8	1.3				ug/L	844239	Standard
|	Ho	165	14.0	24.7				ug/L	6	Standard
|	Tl	203	465949.7	2.7	25.2324	0.704	2.8	ug/L	10	Standard
|	Tl	205	1123385.3	3.1	25.1988	0.906	3.6	ug/L	16	Standard
|	Pb	206	374312.9	3.4	25.1852	0.840	3.3	ug/L	421	Standard
|	Pb	207	321726.8	3.6	26.1142	0.860	3.3	ug/L	341	Standard
|	Pb	208	1466130.8	3.7	25.8013	0.894	3.5	ug/L	1571	Standard
|	U	238	1272691.1	4.8	23.8222	1.075	4.5	ug/L	4	Standard
>	Bi	209	468342.4	1.1				ug/L	457202	Standard
|	Na	23	240.7	7.9	0.0310	0.004	13.6	mg/L	138	Standard
|	Mg	24	993.7	4.9	0.0023	0.000	8.4	mg/L	134	Standard

Sample ID: LCSW 40 WG396746-03

Report Date/Time: Thursday, May 03, 2012 11:17:20

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Shui L. Bahgat

K	39	633.3	3.5	-0.0023	0.001	36.7	mg/L	563	Standard
Ca	43	131.3	5.3	0.0082	0.012	152.2	mg/L	127	Standard
Fe	54	966.2	7.2	0.0209	0.011	53.9	mg/L	815	Standard
Fe	57	5189.6	4.2	0.0002	0.001	841.9	mg/L	4749	Standard
Sc-1	45	383743.7	2.0				mg/L	367704	Standard
Cl	35	97839.9	1.1				ug/L	59901	Standard
Kr	83	54.9	8.5				ug/L	50	Standard
Br	81	14765.5	2.5				ug/L	13965	Standard
P	31	89902.9	0.6				ug/L	71952	Standard
S	34	846317.8	1.1				ug/L	878802	Standard
Sr	88	1234.1	7.0				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		107.022	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		105.550	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		106.426	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		103.368	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: LCSW 40 WG396746-03
 Report Date/Time: Thursday, May 03, 2012 11:17:20
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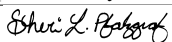
Approved: May 04, 2012
<i>Shui L. Babcock</i>

Pb	207	
Pb	208	
U	238	
> Bi	209	102.437
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: LCSW 40 WG396746-03
 Report Date/Time: Thursday, May 03, 2012 11:17:20
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1204089801

Sample Date/Time: Thursday, May 03, 2012 11:17:40

Number of Replicates: 3

Autosampler Position: 207

Sample Description: 5

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	17269.5	1.7	61.9887	8.047	13.0	ug/L	20538	Standard
|	Be	9	360.0	6.1	0.0976	0.006	5.7	ug/L	13	Standard
|	Al	27	1599796.5	3.7	86.9736	2.232	2.6	ug/L	25813	Standard
>	Sc	45	290409.7	1.3				ug/L	367704	Standard
|	Ti	47	161657.9	3.7	105.3898	4.225	4.0	ug/L	127	Standard
|	V	51	744591.1	3.8	43.2401	1.810	4.2	ug/L	6636	Standard
|	Cr	52	219022.0	4.0	14.4093	0.647	4.5	ug/L	21244	Standard
|	Cr	53	22970.8	5.0	13.7685	0.722	5.2	ug/L	467	Standard
|	Mn	55	17499.8	3.3	0.7440	0.035	4.8	ug/L	8327	Standard
|	Co	59	17823.5	4.1	1.3994	0.059	4.2	ug/L	123	Standard
|	Ni	60	56446.4	4.0	21.5420	0.932	4.3	ug/L	272	Standard
|	Cu	65	2042.8	12.1	0.5804	0.106	18.2	ug/L	1002	Standard
|	Zn	66	7414.1	3.8	5.3967	0.314	5.8	ug/L	3532	Standard
>	Ge	72	188908.7	0.7				ug/L	254939	Standard
|	As	75	454786.6	3.3	489.7825	18.154	3.7	ug/L	-224	Standard
|	Se	82	87.3	4.6	0.6982	0.044	6.4	ug/L	24	Standard
|	Se-1	77	128.7	2.2	0.8780	0.041	4.7	ug/L	93	Standard
|	Ga	71	171136.4	0.7				mg/L	233175	Standard
|	Rb	85	1160.0	6.5				ug/L	20	Standard
>	Y	89	195759.2	0.1				ug/L	235100	Standard
|	Rh	103	79.3	14.6				ug/L	6	Standard
|	Mo	98	17147.3	3.3	5.4590	0.139	2.5	ug/L	14	Standard
|	Ag	107	611.3	6.1	0.0956	0.005	5.7	ug/L	38	Standard
|	Cd	111	272.3	9.7	-0.0197	0.007	33.2	mg/L	439	Standard
|	Cd	114	638.0	11.2	-0.0349	0.007	19.1	ug/L	1326	Standard
>	In	115	602211.5	0.9				ug/L	804157	Standard
|	Sn	118	23884.8	5.0	1.5591	0.073	4.7	ug/L	4860	Standard
|	Sb	123	96460.6	4.8	10.6271	0.426	4.0	ug/L	28	Standard
|	Ba	135	73827.5	3.0	17.8030	0.375	2.1	ug/L	54	Standard
|	Ce	140	28100.1	3.4				ug/L	61	Standard
>	Tb	159	672341.5	1.1				ug/L	844239	Standard
|	Ho	165	2685.6	4.4				ug/L	6	Standard
|	Tl	203	315.0	8.2	0.0266	0.002	8.1	ug/L	10	Standard
|	Tl	205	724.0	7.7	0.0246	0.002	7.5	ug/L	16	Standard
|	Pb	206	2019.8	3.0	0.1793	0.007	3.7	ug/L	421	Standard
|	Pb	207	1641.4	2.3	0.1726	0.005	2.9	ug/L	341	Standard
|	Pb	208	7747.8	1.8	0.1785	0.004	2.4	ug/L	1571	Standard
|	U	238	431234.2	4.2	12.3552	0.543	4.4	ug/L	4	Standard
>	Bi	209	306029.0	0.3				ug/L	457202	Standard
	Na	23	1553653.5	3.0	601.5612	11.125	1.8	mg/L	138	Standard
	Mg	24	51821.9	3.4	0.2535	0.005	2.1	mg/L	134	Standard

Sample ID: L1204089801

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Shui L. Bahgat

K	39	3338.4	4.1	0.3312	0.013	4.0	mg/L	563	Standard
Ca	43	178.0	12.7	0.1534	0.039	25.2	mg/L	127	Standard
Fe	54	437.9	8.4	-0.0432	0.007	15.8	mg/L	815	Standard
Fe	57	7663.9	4.5	0.0295	0.003	10.4	mg/L	4749	Standard
Sc-1	45	290409.7	1.3				mg/L	367704	Standard
Cl	35	2363869.4	1.6				ug/L	59901	Standard
Kr	83	70.4	9.5				ug/L	50	Standard
Br	81	31087.9	1.6				ug/L	13965	Standard
P	31	1864400.1	3.9				ug/L	71952	Standard
S	34	5480256.1	3.5				ug/L	878802	Standard
Sr	88	942042.5	2.3				ug/L	321	Standard

QC Calculated Values

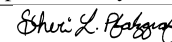
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		74.100	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		83.266	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		74.887	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		79.639	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1204089801

Report Date/Time: Thursday, May 03, 2012 11:20:07

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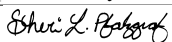


Pb	207	
Pb	208	
U	238	
> Bi	209	66.935
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
As 75 Upper, S, EEE	As	75	
Na 23 Upper, S, EEE	Na	23	

Sample ID: L1204089801
 Report Date/Time: Thursday, May 03, 2012 11:20:07
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1204089801

Sample Date/Time: Thursday, May 03, 2012 11:20:27

Number of Replicates: 3

Autosampler Position: 208

Sample Description: 1000

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	17704.3	2.3	-34.4493	46.777	135.8	ug/L	20538	Standard
|	Be	9	24.7	20.8	0.0005	0.001	262.4	ug/L	13	Standard
|	Al	27	39644.6	7.0	1.0368	0.162	15.6	ug/L	25813	Standard
>	Sc	45	315328.1	1.1				ug/L	367704	Standard
|	Ti	47	3444.4	3.0	1.7981	0.040	2.2	ug/L	127	Standard
|	V	51	20891.6	3.3	0.7178	0.023	3.2	ug/L	6636	Standard
|	Cr	52	19970.5	5.0	0.0584	0.047	80.7	ug/L	21244	Standard
|	Cr	53	826.0	6.2	0.2002	0.022	10.8	ug/L	467	Standard
|	Mn	55	1186.4	6.3	-0.1783	0.003	1.7	ug/L	8327	Standard
|	Co	59	523.3	4.2	0.0265	0.001	4.1	ug/L	123	Standard
|	Ni	60	1511.4	6.1	0.4152	0.025	6.0	ug/L	272	Standard
|	Cu	65	499.3	36.8	-0.1502	0.069	46.2	ug/L	1002	Standard
|	Zn	66	4670.4	3.1	1.8556	0.090	4.9	ug/L	3532	Standard
>	Ge	72	229176.0	1.0				ug/L	254939	Standard
|	As	75	10626.6	3.9	9.5940	0.458	4.8	ug/L	-224	Standard
|	Se	82	36.5	37.9	0.0795	0.125	157.4	ug/L	24	Standard
|	Se-1	77	70.0	10.0	-0.2269	0.091	40.2	ug/L	93	Standard
|	Ga	71	205446.3	1.2				mg/L	233175	Standard
|	Rb	85	31.3	13.3				ug/L	20	Standard
>	Y	89	204915.7	0.6				ug/L	235100	Standard
|	Rh	103	2.7	43.3				ug/L	6	Standard
|	Mo	98	385.5	3.0	0.0919	0.004	4.7	ug/L	14	Standard
|	Ag	107	61.3	8.4	0.0032	0.001	26.4	ug/L	38	Standard
|	Cd	111	122.5	11.8	-0.0662	0.004	5.4	mg/L	439	Standard
|	Cd	114	330.8	4.3	-0.0706	0.002	2.2	ug/L	1326	Standard
>	In	115	728272.6	1.7				ug/L	804157	Standard
|	Sn	118	988.7	3.6	-0.1328	0.003	2.4	ug/L	4860	Standard
|	Sb	123	2543.3	2.6	0.2258	0.009	3.9	ug/L	28	Standard
|	Ba	135	1736.4	7.6	0.3355	0.023	6.8	ug/L	54	Standard
|	Ce	140	491.3	44.9				ug/L	61	Standard
>	Tb	159	768998.8	1.7				ug/L	844239	Standard
|	Ho	165	66.7	25.2				ug/L	6	Standard
|	Tl	203	101.0	42.5	0.0065	0.003	39.2	ug/L	10	Standard
|	Tl	205	250.7	18.6	0.0059	0.001	19.3	ug/L	16	Standard
|	Pb	206	349.3	5.7	-0.0031	0.001	45.0	ug/L	421	Standard
|	Pb	207	289.3	3.3	-0.0059	0.001	13.8	ug/L	341	Standard
|	Pb	208	1341.7	2.7	-0.0045	0.001	14.0	ug/L	1571	Standard
|	U	238	7477.2	14.6	0.1542	0.022	14.4	ug/L	4	Standard
>	Bi	209	428055.8	0.2				ug/L	457202	Standard
|	Na	23	38609.8	2.6	13.7347	0.500	3.6	mg/L	138	Standard
	Mg	24	1366.4	3.2	0.0048	0.000	4.9	mg/L	134	Standard

Sample ID: L1204089801

Report Date/Time: Thursday, May 03, 2012 11:22:54

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Shui L. Bahgat

K	39	686.7	4.6	0.0155	0.003	17.5	mg/L	563	Standard
Ca	43	128.0	2.7	0.0423	0.004	10.2	mg/L	127	Standard
Fe	54	309.1	1.7	-0.0766	0.001	0.8	mg/L	815	Standard
Fe	57	3325.0	1.8	-0.0066	0.000	2.9	mg/L	4749	Standard
Sc-1	45	315328.1	1.1				mg/L	367704	Standard
Cl	35	135340.4	15.6				ug/L	59901	Standard
Kr	83	42.4	16.1				ug/L	50	Standard
Br	81	11107.4	1.1				ug/L	13965	Standard
P	31	78596.8	3.0				ug/L	71952	Standard
S	34	744443.5	4.2				ug/L	878802	Standard
Sr	88	21572.7	3.1				ug/L	321	Standard

QC Calculated Values

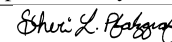
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		89.895	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		87.161	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		90.563	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		91.088	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1204089801

Report Date/Time: Thursday, May 03, 2012 11:22:54

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	Pb	207	
	Pb	208	
	U	238	
	> Bi	209	93.625
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
	> Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
|	P	31	
|	S	34	
	Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1204089801

Report Date/Time: Thursday, May 03, 2012 11:22:54

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Approved: May 04, 2012

Shui L. Bahgat

Method 6020 - Summary Report

Sample ID: L1204089802

Sample Date/Time: Thursday, May 03, 2012 11:23:14

Number of Replicates: 3

Autosampler Position: 209

Sample Description: 5

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	16968.5	3.2	28.2621	36.764	130.1	ug/L	20538	Standard
|	Be	9	307.7	2.8	0.0824	0.001	1.7	ug/L	13	Standard
|	Al	27	1445132.5	5.1	78.3099	3.240	4.1	ug/L	25813	Standard
>	Sc	45	290985.6	1.2				ug/L	367704	Standard
|	Ti	47	142432.2	3.4	92.0622	3.419	3.7	ug/L	127	Standard
|	V	51	729641.2	3.5	42.0046	1.588	3.8	ug/L	6636	Standard
|	Cr	52	204999.3	4.5	13.2921	0.640	4.8	ug/L	21244	Standard
|	Cr	53	21781.7	4.4	12.9324	0.610	4.7	ug/L	467	Standard
|	Mn	55	12597.2	2.6	0.4643	0.017	3.6	ug/L	8327	Standard
|	Co	59	17284.5	3.5	1.3454	0.052	3.8	ug/L	123	Standard
|	Ni	60	57071.0	3.4	21.5965	0.815	3.8	ug/L	272	Standard
|	Cu	65	1966.1	12.0	0.5386	0.100	18.6	ug/L	1002	Standard
|	Zn	66	6418.0	1.3	4.3527	0.089	2.0	ug/L	3532	Standard
>	Ge	72	190522.8	1.0				ug/L	254939	Standard
|	As	75	443197.4	2.7	473.2192	12.178	2.6	ug/L	-224	Standard
|	Se	82	88.8	16.5	0.7055	0.154	21.8	ug/L	24	Standard
|	Se-1	77	126.7	5.1	0.8308	0.115	13.8	ug/L	93	Standard
|	Ga	71	173738.7	1.9				mg/L	233175	Standard
|	Rb	85	1088.7	4.2				ug/L	20	Standard
>	Y	89	197140.3	1.1				ug/L	235100	Standard
|	Rh	103	140.7	16.5				ug/L	6	Standard
|	Mo	98	16614.6	4.8	5.2888	0.285	5.4	ug/L	14	Standard
|	Ag	107	631.3	11.7	0.0990	0.013	13.0	ug/L	38	Standard
|	Cd	111	213.7	9.9	-0.0357	0.005	14.7	mg/L	439	Standard
|	Cd	114	526.8	4.7	-0.0458	0.002	4.9	ug/L	1326	Standard
>	In	115	602466.3	1.1				ug/L	804157	Standard
|	Sn	118	22861.3	4.9	1.4842	0.094	6.4	ug/L	4860	Standard
|	Sb	123	93542.8	5.1	10.3068	0.610	5.9	ug/L	28	Standard
|	Ba	135	70194.1	4.2	16.9262	0.855	5.0	ug/L	54	Standard
|	Ce	140	24455.1	3.5				ug/L	61	Standard
>	Tb	159	669581.0	1.4				ug/L	844239	Standard
|	Ho	165	2660.2	2.0				ug/L	6	Standard
|	Tl	203	247.3	8.3	0.0210	0.002	7.8	ug/L	10	Standard
|	Tl	205	666.0	11.2	0.0226	0.002	10.8	ug/L	16	Standard
|	Pb	206	619.7	2.9	0.0353	0.002	6.0	ug/L	421	Standard
|	Pb	207	529.7	5.2	0.0346	0.004	10.7	ug/L	341	Standard
|	Pb	208	2389.1	1.1	0.0343	0.001	2.9	ug/L	1571	Standard
|	U	238	420045.7	5.0	12.0813	0.653	5.4	ug/L	4	Standard
>	Bi	209	304878.9	0.5				ug/L	457202	Standard
	Na	23	1598831.7	2.8	617.8511	10.775	1.7	mg/L	138	Standard
	Mg	24	48299.9	3.1	0.2358	0.005	2.3	mg/L	134	Standard

Sample ID: L1204089802

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Shui L. Bahgat

K	39	3003.6	1.1	0.2915	0.006	2.2	mg/L	563	Standard
Ca	43	152.0	6.0	0.1050	0.020	18.6	mg/L	127	Standard
Fe	54	358.4	2.5	-0.0606	0.002	2.5	mg/L	815	Standard
Fe	57	5612.4	4.9	0.0133	0.002	12.9	mg/L	4749	Standard
Sc-1	45	290985.6	1.2				mg/L	367704	Standard
Cl	35	2151840.1	1.4				ug/L	59901	Standard
Kr	83	60.2	3.4				ug/L	50	Standard
Br	81	31124.3	2.0				ug/L	13965	Standard
P	31	1899468.5	2.9				ug/L	71952	Standard
S	34	5729975.9	3.2				ug/L	878802	Standard
Sr	88	953032.9	3.1				ug/L	321	Standard

QC Calculated Values

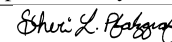
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		74.733	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		83.854	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		74.919	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		79.312	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1204089802

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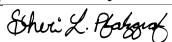


Pb	207	
Pb	208	
U	238	
> Bi	209	66.684
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
As 75 Upper, S, EEE	As	75	
Na 23 Upper, S, EEE	Na	23	

Sample ID: L1204089802
 Report Date/Time: Thursday, May 03, 2012 11:25:41
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1204089802

Sample Date/Time: Thursday, May 03, 2012 11:26:01

Number of Replicates: 3

Autosampler Position: 210

Sample Description: 1000

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	17702.7	1.2	-21.0777	8.625	40.9	ug/L	20538	Standard
|	Be	9	16.7	21.1	-0.0016	0.001	57.4	ug/L	13	Standard
|	Al	27	53303.2	7.0	1.7494	0.171	9.8	ug/L	25813	Standard
>	Sc	45	312692.8	0.7				ug/L	367704	Standard
|	Ti	47	2884.9	5.1	1.5140	0.090	5.9	ug/L	127	Standard
|	V	51	19622.3	2.5	0.6666	0.025	3.8	ug/L	6636	Standard
|	Cr	52	19566.6	4.3	0.0470	0.050	107.0	ug/L	21244	Standard
|	Cr	53	812.0	8.1	0.1976	0.035	17.7	ug/L	467	Standard
|	Mn	55	1727.1	5.3	-0.1525	0.005	3.0	ug/L	8327	Standard
|	Co	59	471.3	3.4	0.0234	0.001	3.2	ug/L	123	Standard
|	Ni	60	1317.7	4.6	0.3587	0.022	6.2	ug/L	272	Standard
|	Cu	65	633.0	34.2	-0.0984	0.083	84.3	ug/L	1002	Standard
|	Zn	66	1993.1	7.2	-0.3179	0.135	42.5	ug/L	3532	Standard
>	Ge	72	226842.6	1.1				ug/L	254939	Standard
|	As	75	9555.5	3.7	8.7285	0.330	3.8	ug/L	-224	Standard
|	Se	82	45.4	33.7	0.1633	0.142	86.9	ug/L	24	Standard
|	Se-1	77	81.3	10.2	-0.0712	0.102	142.7	ug/L	93	Standard
|	Ga	71	200511.5	1.1				mg/L	233175	Standard
|	Rb	85	56.7	10.2				ug/L	20	Standard
>	Y	89	203359.0	0.3				ug/L	235100	Standard
|	Rh	103	6.7	75.5				ug/L	6	Standard
|	Mo	98	338.9	3.1	0.0805	0.003	3.5	ug/L	14	Standard
|	Ag	107	51.3	8.8	0.0019	0.001	35.3	ug/L	38	Standard
|	Cd	111	109.9	11.3	-0.0688	0.003	4.3	mg/L	439	Standard
|	Cd	114	285.0	0.4	-0.0740	0.000	0.2	ug/L	1326	Standard
>	In	115	720791.2	0.7				ug/L	804157	Standard
|	Sn	118	981.4	1.7	-0.1327	0.001	0.5	ug/L	4860	Standard
|	Sb	123	2145.0	4.9	0.1914	0.009	4.6	ug/L	28	Standard
|	Ba	135	1544.7	10.7	0.3006	0.034	11.4	ug/L	54	Standard
|	Ce	140	519.3	61.2				ug/L	61	Standard
>	Tb	159	765369.4	0.7				ug/L	844239	Standard
|	Ho	165	56.0	37.3				ug/L	6	Standard
|	Tl	203	81.3	29.7	0.0053	0.001	26.9	ug/L	10	Standard
|	Tl	205	196.0	33.6	0.0045	0.002	35.5	ug/L	16	Standard
|	Pb	206	413.0	4.8	0.0015	0.001	96.9	ug/L	421	Standard
|	Pb	207	320.7	3.9	-0.0031	0.001	38.3	ug/L	341	Standard
|	Pb	208	1529.4	7.0	-0.0010	0.002	224.9	ug/L	1571	Standard
|	U	238	6878.3	16.9	0.1418	0.024	17.0	ug/L	4	Standard
>	Bi	209	428673.6	0.3				ug/L	457202	Standard
	Na	23	36554.7	2.4	13.1074	0.230	1.8	mg/L	138	Standard
	Mg	24	1193.0	5.8	0.0040	0.000	6.8	mg/L	134	Standard

Sample ID: L1204089802

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Shui L. Bahgat

K	39	665.3	6.5	0.0139	0.005	33.6	mg/L	563	Standard
Ca	43	123.3	0.9	0.0361	0.003	9.4	mg/L	127	Standard
Fe	54	332.9	8.8	-0.0712	0.006	9.0	mg/L	815	Standard
Fe	57	3515.1	3.2	-0.0050	0.001	13.9	mg/L	4749	Standard
Sc-1	45	312692.8	0.7				mg/L	367704	Standard
Cl	35	121999.8	14.3				ug/L	59901	Standard
Kr	83	47.3	11.5				ug/L	50	Standard
Br	81	11332.6	0.7				ug/L	13965	Standard
P	31	74512.9	2.6				ug/L	71952	Standard
S	34	731513.4	4.8				ug/L	878802	Standard
Sr	88	20234.2	5.0				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		88.979	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		86.499	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		89.633	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		90.658	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1204089802

Report Date/Time: Thursday, May 03, 2012 11:28:29

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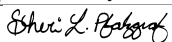
Shui L. Babcock

	Pb	207	
	Pb	208	
	U	238	
	> Bi	209	93.760
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
	> Sc-1	45	
|	Cl	35	
|	Kr	83	
|	Br	81	
|	P	31	
|	S	34	
	Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1204089802
 Report Date/Time: Thursday, May 03, 2012 11:28:29
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205001101

Sample Date/Time: Thursday, May 03, 2012 11:28:48

Number of Replicates: 3

Autosampler Position: 211

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Li	7	377880.3	1.2	30189.4731	280.467	0.9	ug/L	20538	Standard
|	Be	9	31.3	4.9	0.0015	0.000	17.0	ug/L	13	Standard
|	Al	27	2355932.4	5.3	107.9027	5.298	4.9	ug/L	25813	Standard
>	Sc	45	345503.0	1.4				ug/L	367704	Standard
[	Ti	47	7209.1	13.2	4.1725	0.598	14.3	ug/L	127	Standard
|	V	51	14893.7	3.4	0.4931	0.022	4.5	ug/L	6636	Standard
|	Cr	52	27177.0	1.3	0.6215	0.014	2.3	ug/L	21244	Standard
|	Cr	53	13727.6	2.8	7.2902	0.241	3.3	ug/L	467	Standard
|	Mn	55	2774368.1	2.7	138.8430	4.439	3.2	ug/L	8327	Standard
|	Co	59	4369.0	3.0	0.3021	0.007	2.2	ug/L	123	Standard
|	Ni	60	10580.7	1.9	3.5745	0.024	0.7	ug/L	272	Standard
|	Cu	65	3209.3	6.4	0.9582	0.106	11.0	ug/L	1002	Standard
|	Zn	66	17759.4	2.1	13.8749	0.526	3.8	ug/L	3532	Standard
>	Ge	72	210381.2	2.0				ug/L	254939	Standard
|	As	75	93.4	159.7	0.2508	0.144	57.5	ug/L	-224	Standard
|	Se	82	101.6	48.8	0.7429	0.483	65.0	ug/L	24	Standard
[	Se-1	77	1095.0	0.6	14.1897	0.329	2.3	ug/L	93	Standard
|	Ga	71	195355.4	0.5				mg/L	233175	Standard
[	Rb	85	27677.9	2.2				ug/L	20	Standard
>	Y	89	209710.2	1.6				ug/L	235100	Standard
[	Rh	103	308.0	3.4				ug/L	6	Standard
[	Mo	98	3053.6	4.1	0.8730	0.047	5.4	ug/L	14	Standard
|	Ag	107	53.7	17.6	0.0028	0.002	53.2	ug/L	38	Standard
|	Cd	111	519.1	5.4	0.0343	0.006	18.4	mg/L	439	Standard
|	Cd	114	1384.2	2.3	0.0256	0.004	17.3	ug/L	1326	Standard
>	In	115	664774.5	1.4				ug/L	804157	Standard
|	Sn	118	2106.1	2.4	-0.0528	0.005	9.7	ug/L	4860	Standard
|	Sb	123	742.8	6.0	0.0681	0.005	7.1	ug/L	28	Standard
[	Ba	135	211873.4	3.1	46.3252	2.064	4.5	ug/L	54	Standard
[	Ce	140	27950.4	3.7				ug/L	61	Standard
>	Tb	159	749394.0	1.5				ug/L	844239	Standard
[	Ho	165	384.7	4.7				ug/L	6	Standard
|	Tl	203	129.7	4.6	0.0107	0.000	3.7	ug/L	10	Standard
|	Tl	205	346.0	5.7	0.0110	0.001	5.6	ug/L	16	Standard
|	Pb	206	4226.9	3.4	0.3869	0.017	4.4	ug/L	421	Standard
|	Pb	207	3285.0	1.5	0.3582	0.006	1.6	ug/L	341	Standard
|	Pb	208	15733.2	1.7	0.3744	0.010	2.7	ug/L	1571	Standard
|	U	238	24054.4	3.9	0.6587	0.030	4.5	ug/L	4	Standard
>	Bi	209	320751.7	0.8				ug/L	457202	Standard
[	Na	23	1157089.8	1.9	376.6345	6.815	1.8	mg/L	138	Standard
	Mg	24	4293858.6	3.8	17.7578	0.669	3.8	mg/L	134	Standard

Sample ID: L1205001101

Report Date/Time: Thursday, May 03, 2012 11:31:16

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Shui L. Bahgat

K	39	50279.3	0.7	4.8726	0.095	1.9	mg/L	563	Standard
Ca	43	46398.3	2.5	72.0248	2.045	2.8	mg/L	127	Standard
Fe	54	3444.8	3.0	0.4932	0.017	3.5	mg/L	815	Standard
Fe	57	143789.5	6.3	0.9166	0.056	6.1	mg/L	4749	Standard
Sc-1	45	345503.0	1.4				mg/L	367704	Standard
Cl	35	58400120.7	0.5				ug/L	59901	Standard
Kr	83	315.1	9.2				ug/L	50	Standard
Br	81	105213.9	3.1				ug/L	13965	Standard
P	31	169529.2	2.5				ug/L	71952	Standard
S	34	9850706.3	2.1				ug/L	878802	Standard
Sr	88	9363222.1	2.9				ug/L	321	Standard

QC Calculated Values

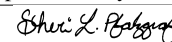
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		82.522	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		89.200	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		82.667	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		88.766	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001101

Report Date/Time: Thursday, May 03, 2012 11:31:16

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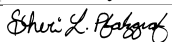


Pb	207	
Pb	208	
U	238	
> Bi	209	70.155
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	
Na 23 Upper, S, EEE	Na	23	

Sample ID: L1205001101
 Report Date/Time: Thursday, May 03, 2012 11:31:16
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205001101DL WG396772-02

Sample Date/Time: Thursday, May 03, 2012 11:31:36

Number of Replicates: 3

Autosampler Position: 212

Sample Description: 5

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	88699.9	1.8	5995.2194	24.374	0.4	ug/L	20538	Standard
|	Be	9	19.3	16.6	-0.0012	0.001	70.9	ug/L	13	Standard
|	Al	27	473661.5	6.7	21.4740	1.589	7.4	ug/L	25813	Standard
>	Sc	45	337053.6	1.5				ug/L	367704	Standard
|	Ti	47	1266.1	6.9	0.6323	0.056	8.9	ug/L	127	Standard
|	V	51	8170.9	2.3	0.1077	0.006	5.3	ug/L	6636	Standard
|	Cr	52	20391.7	3.6	0.0911	0.031	34.3	ug/L	21244	Standard
|	Cr	53	4596.7	7.4	2.1067	0.152	7.2	ug/L	467	Standard
|	Mn	55	558896.0	1.7	25.6588	0.806	3.1	ug/L	8327	Standard
|	Co	59	909.7	5.0	0.0521	0.003	6.1	ug/L	123	Standard
|	Ni	60	2210.5	0.9	0.6406	0.005	0.8	ug/L	272	Standard
|	Cu	65	1043.7	15.6	0.0537	0.066	122.1	ug/L	1002	Standard
|	Zn	66	8571.8	3.8	5.0996	0.363	7.1	ug/L	3532	Standard
>	Ge	72	227663.9	1.4				ug/L	254939	Standard
|	As	75	122.1	83.9	0.2715	0.093	34.2	ug/L	-224	Standard
|	Se	82	90.0	35.4	0.5644	0.296	52.5	ug/L	24	Standard
|	Se-1	77	306.3	5.5	2.8327	0.216	7.6	ug/L	93	Standard
|	Ga	71	201004.0	1.6				mg/L	233175	Standard
|	Rb	85	5069.5	3.8				ug/L	20	Standard
>	Y	89	202488.3	1.6				ug/L	235100	Standard
|	Rh	103	45.3	6.7				ug/L	6	Standard
|	Mo	98	582.9	7.3	0.1452	0.012	8.5	ug/L	14	Standard
|	Ag	107	30.0	8.8	-0.0011	0.000	34.3	ug/L	38	Standard
|	Cd	111	204.5	7.6	-0.0474	0.003	6.9	mg/L	439	Standard
|	Cd	114	575.2	6.2	-0.0504	0.003	5.2	ug/L	1326	Standard
>	In	115	722728.2	0.8				ug/L	804157	Standard
|	Sn	118	850.0	2.4	-0.1408	0.002	1.1	ug/L	4860	Standard
|	Sb	123	284.8	0.7	0.0200	0.000	1.9	ug/L	28	Standard
|	Ba	135	43351.0	2.5	8.7066	0.237	2.7	ug/L	54	Standard
|	Ce	140	5864.5	5.6				ug/L	61	Standard
>	Tb	159	794769.6	1.7				ug/L	844239	Standard
|	Ho	165	92.0	9.5				ug/L	6	Standard
|	Tl	203	156.0	10.6	0.0104	0.001	9.3	ug/L	10	Standard
|	Tl	205	399.3	3.8	0.0103	0.000	4.6	ug/L	16	Standard
|	Pb	206	1288.1	2.9	0.0734	0.003	4.6	ug/L	421	Standard
|	Pb	207	984.0	1.7	0.0627	0.002	3.2	ug/L	341	Standard
|	Pb	208	4712.6	2.1	0.0675	0.003	4.4	ug/L	1571	Standard
|	U	238	4613.0	4.2	0.1029	0.006	5.5	ug/L	4	Standard
>	Bi	209	397497.0	1.5				ug/L	457202	Standard
|	Na	23	238648.3	1.2	79.6096	1.939	2.4	mg/L	138	Standard
	Mg	24	854030.8	1.9	3.6201	0.104	2.9	mg/L	134	Standard

Sample ID: L1205001101DL WG396772-02

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Shui L. Bahgat

K	39	12229.6	1.2	1.1712	0.027	2.3	mg/L	563	Standard
Ca	43	12463.1	2.9	19.7098	0.849	4.3	mg/L	127	Standard
Fe	54	1017.2	5.1	0.0526	0.009	17.3	mg/L	815	Standard
Fe	57	27173.7	4.1	0.1528	0.005	3.4	mg/L	4749	Standard
Sc-1	45	337053.6	1.5				mg/L	367704	Standard
Cl	35	11162484.0	2.0				ug/L	59901	Standard
Kr	83	55.6	16.0				ug/L	50	Standard
Br	81	28894.9	2.7				ug/L	13965	Standard
P	31	51589.4	2.1				ug/L	71952	Standard
S	34	2635240.7	1.6				ug/L	878802	Standard
Sr	88	1825724.6	3.2				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		89.301	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		86.128	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		89.874	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		94.140	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001101DL WG396772-02
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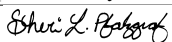
Approved: May 04, 2012
<i>Shui L. Babcock</i>

Pb	207	
Pb	208	
U	238	
> Bi	209	86.941
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205001101DL WG396772-02
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205001101PS WG396772-01

Sample Date/Time: Thursday, May 03, 2012 11:34:23

Number of Replicates: 3

Autosampler Position: 213

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	384902.5	3.2	30217.8063	1211.657	4.0	ug/L	20538	Standard
|	Be	9	193410.9	3.5	45.9912	1.923	4.2	ug/L	13	Standard
|	Al	27	3404129.4	7.6	153.6581	12.706	8.3	ug/L	25813	Standard
>	Sc	45	351656.5	0.8				ug/L	367704	Standard
|	Ti	47	6335.3	11.8	3.6265	0.466	12.9	ug/L	127	Standard
|	V	51	1115046.5	4.0	57.7343	2.895	5.0	ug/L	6636	Standard
|	Cr	52	883594.3	4.6	54.6183	3.146	5.8	ug/L	21244	Standard
|	Cr	53	116037.0	3.5	62.6571	2.826	4.5	ug/L	467	Standard
|	Mn	55	3781308.0	3.3	187.6421	8.186	4.4	ug/L	8327	Standard
|	Co	59	748670.9	2.6	52.5974	1.939	3.7	ug/L	123	Standard
|	Ni	60	157303.5	1.9	53.5208	1.567	2.9	ug/L	272	Standard
|	Cu	65	122097.3	3.0	48.3955	1.949	4.0	ug/L	1002	Standard
|	Zn	66	73889.2	3.0	63.3504	2.583	4.1	ug/L	3532	Standard
>	Ge	72	212277.1	1.1				ug/L	254939	Standard
|	As	75	56971.4	2.9	54.7546	2.156	3.9	ug/L	-224	Standard
|	Se	82	5763.6	2.3	55.2906	1.905	3.4	ug/L	24	Standard
|	Se-1	77	5067.5	3.3	69.1184	3.047	4.4	ug/L	93	Standard
|	Ga	71	196535.5	2.0				mg/L	233175	Standard
|	Rb	85	26857.1	1.2				ug/L	20	Standard
>	Y	89	207790.5	0.4				ug/L	235100	Standard
|	Rh	103	264.0	3.3				ug/L	6	Standard
|	Mo	98	3191.9	4.9	0.8875	0.039	4.4	ug/L	14	Standard
|	Ag	107	326812.8	3.5	47.5099	1.400	2.9	ug/L	38	Standard
|	Cd	111	212335.8	3.2	50.9277	1.369	2.7	mg/L	439	Standard
|	Cd	114	573342.4	3.4	49.4592	1.425	2.9	ug/L	1326	Standard
>	In	115	683198.7	0.6				ug/L	804157	Standard
|	Sn	118	2243.5	4.6	-0.0477	0.007	14.6	ug/L	4860	Standard
|	Sb	123	536965.7	3.1	52.1756	1.329	2.5	ug/L	28	Standard
|	Ba	135	446000.2	3.7	94.8494	3.046	3.2	ug/L	54	Standard
|	Ce	140	27559.7	2.7				ug/L	61	Standard
>	Tb	159	772931.6	0.5				ug/L	844239	Standard
|	Ho	165	383.3	4.0				ug/L	6	Standard
|	Tl	203	705069.5	1.7	55.6474	1.106	2.0	ug/L	10	Standard
|	Tl	205	1681434.3	1.7	54.9662	1.162	2.1	ug/L	16	Standard
|	Pb	206	556109.3	3.0	54.5714	1.831	3.4	ug/L	421	Standard
|	Pb	207	472698.7	2.9	55.9640	1.835	3.3	ug/L	341	Standard
|	Pb	208	2158263.5	3.1	55.3978	1.914	3.5	ug/L	1571	Standard
|	U	238	2352803.2	4.2	64.1969	2.925	4.6	ug/L	4	Standard
>	Bi	209	321338.1	0.4				ug/L	457202	Standard
|	Na	23	1134130.5	2.9	362.7327	12.644	3.5	mg/L	138	Standard
	Mg	24	4273651.3	4.5	17.3687	0.910	5.2	mg/L	134	Standard

Sample ID: L1205001101PS WG396772-01

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Shui L. Bahgat

K	39	49886.7	1.3	4.7482	0.098	2.1	mg/L	563	Standard
Ca	43	46294.0	2.3	70.6045	2.129	3.0	mg/L	127	Standard
Fe	54	3317.5	8.6	0.4594	0.056	12.2	mg/L	815	Standard
Fe	57	140261.8	9.1	0.8776	0.088	10.1	mg/L	4749	Standard
Sc-1	45	351656.5	0.8				mg/L	367704	Standard
Cl	35	58441960.9	2.1				ug/L	59901	Standard
Kr	83	186.7	10.8				ug/L	50	Standard
Br	81	102179.8	1.7				ug/L	13965	Standard
P	31	167865.2	2.7				ug/L	71952	Standard
S	34	9852613.7	3.1				ug/L	878802	Standard
Sr	88	9118396.2	3.6				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		83.266	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		88.384	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		84.958	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		91.554	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001101PS WG396772-01
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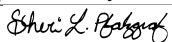
Approved: May 04, 2012
<i>Shui L. Babcock</i>

Pb	207	
Pb	208	
U	238	
> Bi	209	70.284
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	
Na 23 Upper, S, EEE	Na	23	

Sample ID: L1205001101PS WG396772-01
 Report Date/Time: Thursday, May 03, 2012 11:36:50
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205001102

Sample Date/Time: Thursday, May 03, 2012 11:37:10

Number of Replicates: 3

Autosampler Position: 214

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	390800.2	1.6	30392.3113	779.509	2.6	ug/L	20538	Standard
|	Be	9	45.0	70.2	0.0046	0.008	164.4	ug/L	13	Standard
|	Al	27	395978.8	5.3	16.8409	1.084	6.4	ug/L	25813	Standard
>	Sc	45	355095.5	1.1				ug/L	367704	Standard
|	Ti	47	1308.1	5.2	0.7007	0.042	5.9	ug/L	127	Standard
|	V	51	11020.2	7.2	0.2805	0.038	13.5	ug/L	6636	Standard
|	Cr	52	26753.3	0.6	0.5675	0.006	1.0	ug/L	21244	Standard
|	Cr	53	22575.5	6.2	11.9322	0.812	6.8	ug/L	467	Standard
|	Mn	55	2628294.5	3.0	129.3990	3.241	2.5	ug/L	8327	Standard
|	Co	59	3268.0	5.9	0.2204	0.013	5.9	ug/L	123	Standard
|	Ni	60	10492.0	0.4	3.4871	0.017	0.5	ug/L	272	Standard
|	Cu	65	1826.8	4.0	0.3887	0.026	6.7	ug/L	1002	Standard
|	Zn	66	5451.0	3.4	2.8165	0.145	5.1	ug/L	3532	Standard
>	Ge	72	213755.3	0.6				ug/L	254939	Standard
|	As	75	532.4	12.2	0.6683	0.064	9.6	ug/L	-224	Standard
|	Se	82	236.8	0.7	2.0183	0.025	1.3	ug/L	24	Standard
|	Se-1	77	1387.4	1.8	17.9662	0.230	1.3	ug/L	93	Standard
|	Ga	71	200132.5	1.1				mg/L	233175	Standard
|	Rb	85	25176.9	1.8				ug/L	20	Standard
>	Y	89	206864.7	1.1				ug/L	235100	Standard
|	Rh	103	235.3	4.7				ug/L	6	Standard
|	Mo	98	3320.1	5.1	0.9054	0.045	4.9	ug/L	14	Standard
|	Ag	107	112.0	41.8	0.0108	0.007	61.9	ug/L	38	Standard
|	Cd	111	483.7	4.4	0.0201	0.005	26.3	mg/L	439	Standard
|	Cd	114	1381.0	7.1	0.0196	0.008	41.8	ug/L	1326	Standard
>	In	115	696783.9	0.4				ug/L	804157	Standard
|	Sn	118	1830.1	3.9	-0.0768	0.004	5.3	ug/L	4860	Standard
|	Sb	123	1680.5	25.4	0.1539	0.040	26.3	ug/L	28	Standard
|	Ba	135	204562.8	2.9	42.6512	1.067	2.5	ug/L	54	Standard
|	Ce	140	8762.5	5.8				ug/L	61	Standard
>	Tb	159	772318.1	0.5				ug/L	844239	Standard
|	Ho	165	141.3	4.3				ug/L	6	Standard
|	Tl	203	207.3	51.7	0.0166	0.008	50.0	ug/L	10	Standard
|	Tl	205	448.0	39.4	0.0142	0.006	39.9	ug/L	16	Standard
|	Pb	206	697.3	8.9	0.0388	0.006	14.7	ug/L	421	Standard
|	Pb	207	527.0	14.8	0.0301	0.009	30.3	ug/L	341	Standard
|	Pb	208	2540.8	12.3	0.0341	0.008	23.2	ug/L	1571	Standard
|	U	238	24360.6	5.5	0.6582	0.040	6.0	ug/L	4	Standard
>	Bi	209	325071.6	0.8				ug/L	457202	Standard
|	Na	23	1138120.4	2.4	360.5094	12.107	3.4	mg/L	138	Standard
	Mg	24	4227351.0	4.4	17.0150	0.893	5.2	mg/L	134	Standard

Sample ID: L1205001102

Report Date/Time: Thursday, May 03, 2012 11:39:38

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Shui L. Bahgat

K	39	50195.7	2.7	4.7308	0.131	2.8	mg/L	563	Standard
Ca	43	45805.2	3.0	69.1824	2.597	3.8	mg/L	127	Standard
Fe	54	2912.0	7.2	0.3813	0.042	11.0	mg/L	815	Standard
Fe	57	116388.4	6.0	0.7158	0.052	7.3	mg/L	4749	Standard
Sc-1	45	355095.5	1.1				mg/L	367704	Standard
Cl	35	58303041.4	0.7				ug/L	59901	Standard
Kr	83	138.0	13.9				ug/L	50	Standard
Br	81	114259.5	3.2				ug/L	13965	Standard
P	31	149683.0	2.2				ug/L	71952	Standard
S	34	9829550.2	1.9				ug/L	878802	Standard
Sr	88	8917637.1	2.0				ug/L	321	Standard

QC Calculated Values

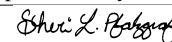
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		83.846	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		87.990	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		86.648	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		91.481	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001102

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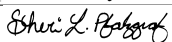


Pb	207	
Pb	208	
U	238	
> Bi	209	71.100
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	
Na 23 Upper, S, EEE	Na	23	

Sample ID: L1205001102
 Report Date/Time: Thursday, May 03, 2012 11:39:38
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, May 03, 2012 11:40:00

Number of Replicates: 3

Autosampler Position: 101

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

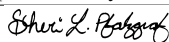
Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	21338.4	1.5	-34.1451	18.780	55.0	ug/L	20538	Standard
|	Be	9	229914.2	3.7	50.5984	2.042	4.0	ug/L	13	Standard
|	Al	27	1244821.4	5.7	51.3560	3.171	6.2	ug/L	25813	Standard
>	Sc	45	379923.8	0.6				ug/L	367704	Standard
|	Ti	47	215088.9	4.1	99.9925	4.890	4.9	ug/L	127	Standard
|	V	51	1266985.5	3.3	52.5199	1.848	3.5	ug/L	6636	Standard
|	Cr	52	1035899.2	4.7	51.2191	2.552	5.0	ug/L	21244	Standard
|	Cr	53	116152.2	4.9	50.1959	2.514	5.0	ug/L	467	Standard
|	Mn	55	1337396.2	3.3	52.9974	2.035	3.8	ug/L	8327	Standard
|	Co	59	908182.3	2.7	51.1155	1.797	3.5	ug/L	123	Standard
|	Ni	60	187903.0	3.1	51.2172	1.910	3.7	ug/L	272	Standard
|	Cu	65	157864.9	5.1	50.1360	2.696	5.4	ug/L	1002	Standard
|	Zn	66	72046.1	4.0	49.0498	2.091	4.3	ug/L	3532	Standard
>	Ge	72	264954.1	1.2				ug/L	254939	Standard
|	As	75	64447.0	2.8	49.6327	1.599	3.2	ug/L	-224	Standard
|	Se	82	6495.4	3.4	49.8965	2.028	4.1	ug/L	24	Standard
|	Se-1	77	4536.0	4.4	49.2468	2.549	5.2	ug/L	93	Standard
|	Ga	71	245173.2	1.0				mg/L	233175	Standard
|	Rb	85	1051.4	8.9				ug/L	20	Standard
>	Y	89	239484.5	0.3				ug/L	235100	Standard
|	Rh	103	45.3	22.2				ug/L	6	Standard
|	Mo	98	423738.4	4.3	96.9899	4.666	4.8	ug/L	14	Standard
|	Ag	107	435230.1	3.2	51.5153	1.825	3.5	ug/L	38	Standard
|	Cd	111	264550.7	4.0	51.6672	2.363	4.6	mg/L	439	Standard
|	Cd	114	723421.8	4.1	50.8165	2.327	4.6	ug/L	1326	Standard
>	In	115	839284.3	1.0				ug/L	804157	Standard
|	Sn	118	940352.2	6.0	49.3194	3.200	6.5	ug/L	4860	Standard
|	Sb	123	632916.4	2.6	50.0712	1.504	3.0	ug/L	28	Standard
|	Ba	135	281197.4	4.6	48.6914	2.558	5.3	ug/L	54	Standard
|	Ce	140	1040.7	4.8				ug/L	61	Standard
>	Tb	159	890460.1	0.7				ug/L	844239	Standard
|	Ho	165	31.3	35.2				ug/L	6	Standard
|	Tl	203	891574.9	2.6	50.8116	1.637	3.2	ug/L	10	Standard
|	Tl	205	2187391.9	3.2	51.6356	2.006	3.9	ug/L	16	Standard
|	Pb	206	713467.5	3.9	50.5553	2.329	4.6	ug/L	421	Standard
|	Pb	207	593279.7	4.3	50.7194	2.548	5.0	ug/L	341	Standard
|	Pb	208	2729223.4	3.9	50.5833	2.304	4.6	ug/L	1571	Standard
|	U	238	2574957.1	4.6	50.7347	2.661	5.2	ug/L	4	Standard
>	Bi	209	445055.4	0.8				ug/L	457202	Standard
	Na	23	17191.1	3.3	5.0501	0.190	3.8	mg/L	138	Standard
	Mg	24	1353463.3	4.8	5.0900	0.268	5.3	mg/L	134	Standard

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K	39	56691.9	2.0	4.9973	0.124	2.5	mg/L	563	Standard
Ca	43	3670.4	4.7	5.0183	0.261	5.2	mg/L	127	Standard
Fe	54	30701.6	3.9	4.9829	0.217	4.4	mg/L	815	Standard
Fe	57	861610.1	5.5	5.1321	0.304	5.9	mg/L	4749	Standard
Sc-1	45	379923.8	0.6				mg/L	367704	Standard
Cl	35	625123.4	43.4				ug/L	59901	Standard
Kr	83	53.3	8.8				ug/L	50	Standard
Br	81	15523.3	5.9				ug/L	13965	Standard
P	31	84285.2	1.7				ug/L	71952	Standard
S	34	931526.1	0.0				ug/L	878802	Standard
Sr	88	2077.5	40.3				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27	102.712		
Sc	45			
Ti	47	99.992		
V	51	105.040		
Cr	52	102.438		
Cr	53			
Mn	55	105.995		
Co	59	102.231		
Ni	60	102.434		
Cu	65	100.272		
Zn	66	98.100		
Ge	72		103.929	
As	75	99.265		
Se	82	99.793		
Se-1	77	98.494		
Ga	71			
Rb	85			
Y	89		101.865	
Rh	103			
Mo	98	96.990		
Ag	107	103.031		
Cd	111	103.334		
Cd	114			
In	115		104.368	
Sn	118	98.639		
Sb	123	100.142		
Ba	135	97.383		
Ce	140			
Tb	159		105.475	
Ho	165			
Tl	203	101.623		
Tl	205			
Pb	206	101.111		

Sample ID: QC Std 6

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Shui L. Babcock

Pb	207	101.439	
Pb	208	101.167	
U	238	101.469	
> Bi	209		97.343
Na	23	101.002	
Mg	24	101.799	
K	39	99.945	
Ca	43	100.367	
Fe	54	99.659	
Fe	57	102.643	
> Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: QC Std 6

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Shui L. Bahgat

Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, May 03, 2012 11:42:47

Number of Replicates: 3

Autosampler Position: 102

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	20779.9	0.4	-17.2171	25.631	148.9	ug/L	20538	Standard
|	Be	9	36.0	25.5	0.0022	0.002	90.7	ug/L	13	Standard
|	Al	27	13406.6	1.1	-0.3873	0.006	1.4	ug/L	25813	Standard
>	Sc	45	366269.2	1.8				ug/L	367704	Standard
|	Ti	47	133.3	8.3	0.0118	0.005	44.4	ug/L	127	Standard
|	V	51	6432.6	4.8	-0.0070	0.009	123.5	ug/L	6636	Standard
|	Cr	52	19879.4	1.8	-0.0520	0.031	59.4	ug/L	21244	Standard
|	Cr	53	880.0	8.0	0.1868	0.022	11.6	ug/L	467	Standard
|	Mn	55	1605.8	11.2	-0.1658	0.006	3.6	ug/L	8327	Standard
|	Co	59	165.7	19.4	0.0022	0.002	77.5	ug/L	123	Standard
|	Ni	60	118.7	9.5	-0.0274	0.003	10.5	ug/L	272	Standard
|	Cu	65	1054.0	3.0	0.0190	0.010	54.2	ug/L	1002	Standard
|	Zn	66	1137.7	4.9	-1.1211	0.020	1.8	ug/L	3532	Standard
>	Ge	72	252176.5	2.7				ug/L	254939	Standard
|	As	75	-212.9	23.4	-0.0107	0.045	418.1	ug/L	-224	Standard
|	Se	82	25.7	55.2	-0.0401	0.112	279.6	ug/L	24	Standard
|	Se-1	77	89.3	2.6	-0.0833	0.020	24.4	ug/L	93	Standard
|	Ga	71	233319.0	1.6				mg/L	233175	Standard
|	Rb	85	14.0	24.7				ug/L	20	Standard
>	Y	89	228315.9	2.1				ug/L	235100	Standard
|	Rh	103	0.7	173.2				ug/L	6	Standard
|	Mo	98	138.5	28.7	0.0225	0.009	39.8	ug/L	14	Standard
|	Ag	107	80.3	27.4	0.0045	0.003	58.2	ug/L	38	Standard
|	Cd	111	518.1	7.2	0.0095	0.007	68.7	mg/L	439	Standard
|	Cd	114	1386.7	5.7	0.0022	0.006	264.8	ug/L	1326	Standard
>	In	115	822451.9	1.3				ug/L	804157	Standard
|	Sn	118	1964.8	1.9	-0.0873	0.002	2.9	ug/L	4860	Standard
|	Sb	123	397.1	25.0	0.0259	0.008	30.4	ug/L	28	Standard
|	Ba	135	91.7	44.8	0.0053	0.007	138.3	ug/L	54	Standard
|	Ce	140	86.0	8.4				ug/L	61	Standard
>	Tb	159	853123.6	1.8				ug/L	844239	Standard
|	Ho	165	8.7	48.0				ug/L	6	Standard
|	Tl	203	216.7	37.6	0.0126	0.005	35.9	ug/L	10	Standard
|	Tl	205	472.0	30.6	0.0107	0.003	31.1	ug/L	16	Standard
|	Pb	206	442.3	13.2	0.0020	0.004	183.4	ug/L	421	Standard
|	Pb	207	368.0	4.3	-0.0005	0.001	173.2	ug/L	341	Standard
|	Pb	208	1694.0	10.1	0.0006	0.003	473.7	ug/L	1571	Standard
|	U	238	516.3	16.9	0.0111	0.002	14.6	ug/L	4	Standard
>	Bi	209	451087.3	1.9				ug/L	457202	Standard
	Na	23	236.0	3.7	0.0330	0.001	4.1	mg/L	138	Standard
	Mg	24	285.3	32.4	-0.0003	0.000	115.0	mg/L	134	Standard

Sample ID: QC Std 7

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Shui L. Bahgat

K	39	634.7	7.8	0.0005	0.004	894.7	mg/L	563	Standard
Ca	43	107.3	15.1	-0.0186	0.021	115.5	mg/L	127	Standard
Fe	54	819.9	4.7	0.0033	0.009	285.2	mg/L	815	Standard
Fe	57	4922.1	3.0	-0.0000	0.001	10648.9	mg/L	4749	Standard
Sc-1	45	366269.2	1.8				mg/L	367704	Standard
Cl	35	284191.3	10.5				ug/L	59901	Standard
Kr	83	53.1	14.0				ug/L	50	Standard
Br	81	13507.4	0.5				ug/L	13965	Standard
P	31	76148.3	2.7				ug/L	71952	Standard
S	34	927913.6	0.8				ug/L	878802	Standard
Sr	88	317.3	26.0				ug/L	321	Standard

QC Calculated Values

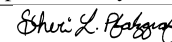
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		98.917	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		97.114	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		102.275	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		101.052	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: QC Std 7

Report Date/Time: Thursday, May 03, 2012 11:45:14

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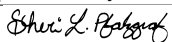


Pb	207	
Pb	208	
U	238	
> Bi	209	98.663
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: L1205001103

Sample Date/Time: Thursday, May 03, 2012 11:45:36

Number of Replicates: 3

Autosampler Position: 215

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Li	7	379870.4	0.6	29747.1536	353.880	1.2	ug/L	20538	Standard
|	Be	9	38.3	10.9	0.0031	0.001	28.0	ug/L	13	Standard
|	Al	27	1988499.5	4.3	89.1709	3.540	4.0	ug/L	25813	Standard
>	Sc	45	352241.1	1.7				ug/L	367704	Standard
[	Ti	47	5855.8	12.1	3.3956	0.388	11.4	ug/L	127	Standard
|	V	51	15812.6	2.1	0.5466	0.009	1.7	ug/L	6636	Standard
|	Cr	52	31439.3	2.5	0.9052	0.045	4.9	ug/L	21244	Standard
|	Cr	53	19038.9	18.1	10.2682	1.972	19.2	ug/L	467	Standard
|	Mn	55	2682113.6	3.7	135.0226	3.585	2.7	ug/L	8327	Standard
|	Co	59	4085.2	5.6	0.2838	0.013	4.7	ug/L	123	Standard
|	Ni	60	10814.5	4.3	3.6778	0.127	3.5	ug/L	272	Standard
|	Cu	65	2476.2	3.7	0.6680	0.027	4.1	ug/L	1002	Standard
|	Zn	66	6705.2	3.4	4.0492	0.144	3.6	ug/L	3532	Standard
>	Ge	72	209044.0	1.0				ug/L	254939	Standard
|	As	75	354.1	35.3	0.5063	0.122	24.0	ug/L	-224	Standard
|	Se	82	193.0	25.5	1.6432	0.490	29.8	ug/L	24	Standard
[	Se-1	77	1215.7	8.7	15.9907	1.629	10.2	ug/L	93	Standard
|	Ga	71	195107.0	1.2				mg/L	233175	Standard
[	Rb	85	27194.4	1.6				ug/L	20	Standard
>	Y	89	205718.1	1.8				ug/L	235100	Standard
[	Rh	103	260.7	8.9				ug/L	6	Standard
[	Mo	98	3013.8	3.8	0.8329	0.035	4.2	ug/L	14	Standard
|	Ag	107	48.0	17.1	0.0017	0.001	66.9	ug/L	38	Standard
|	Cd	111	547.5	2.3	0.0370	0.003	8.7	mg/L	439	Standard
|	Cd	114	1495.4	2.1	0.0312	0.003	9.3	ug/L	1326	Standard
>	In	115	687001.9	0.3				ug/L	804157	Standard
|	Sn	118	1515.4	1.1	-0.0954	0.001	1.2	ug/L	4860	Standard
|	Sb	123	722.8	1.7	0.0637	0.001	2.2	ug/L	28	Standard
[	Ba	135	205300.3	3.5	43.4208	1.639	3.8	ug/L	54	Standard
[	Ce	140	24326.3	8.2				ug/L	61	Standard
>	Tb	159	761872.5	0.8				ug/L	844239	Standard
[	Ho	165	398.0	15.9				ug/L	6	Standard
|	Tl	203	142.0	5.5	0.0118	0.001	6.0	ug/L	10	Standard
|	Tl	205	352.0	1.1	0.0114	0.000	2.9	ug/L	16	Standard
|	Pb	206	3782.1	3.8	0.3475	0.020	5.7	ug/L	421	Standard
|	Pb	207	2865.9	3.8	0.3125	0.018	5.8	ug/L	341	Standard
|	Pb	208	13819.1	3.7	0.3293	0.019	5.7	ug/L	1571	Standard
|	U	238	23188.8	4.3	0.6424	0.038	6.0	ug/L	4	Standard
>	Bi	209	317196.5	1.7				ug/L	457202	Standard
[Na	23	1099893.1	2.5	351.1972	9.797	2.8	mg/L	138	Standard
	Mg	24	4150755.0	4.8	16.8382	0.815	4.8	mg/L	134	Standard

Sample ID: L1205001103

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Shui L. Bahgat

K	39	49431.9	1.6	4.6960	0.007	0.2	mg/L	563	Standard
Ca	43	46100.1	3.1	70.1817	1.915	2.7	mg/L	127	Standard
Fe	54	3283.0	2.6	0.4521	0.021	4.7	mg/L	815	Standard
Fe	57	134860.0	7.9	0.8408	0.068	8.1	mg/L	4749	Standard
Sc-1	45	352241.1	1.7				mg/L	367704	Standard
Cl	35	56546460.9	0.8				ug/L	59901	Standard
Kr	83	186.4	24.1				ug/L	50	Standard
Br	81	95407.2	2.4				ug/L	13965	Standard
P	31	164578.7	1.0				ug/L	71952	Standard
S	34	9551882.1	0.6				ug/L	878802	Standard
Sr	88	8927856.3	4.8				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		81.998	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		87.502	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		85.431	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		90.244	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001103

Report Date/Time: Thursday, May 03, 2012 11:48:03

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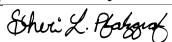
Shui L. Babcock

	Pb	207	
	Pb	208	
	U	238	
	> Bi	209	69.378
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
	> Sc-1	45	
|	Cl	35	
|	Kr	83	
|	Br	81	
|	P	31	
|	S	34	
|	Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	
Na 23 Upper, S, EEE	Na	23	

Sample ID: L1205001103
 Report Date/Time: Thursday, May 03, 2012 11:48:03
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205001104

Sample Date/Time: Thursday, May 03, 2012 11:48:23

Number of Replicates: 3

Autosampler Position: 216

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	383807.8	1.5	30229.6722	323.371	1.1	ug/L	20538	Standard
|	Be	9	23.7	6.5	-0.0004	0.000	88.8	ug/L	13	Standard
|	Al	27	53537.9	4.1	1.4671	0.081	5.5	ug/L	25813	Standard
>	Sc	45	350459.0	0.8				ug/L	367704	Standard
|	Ti	47	1422.7	2.2	0.7810	0.023	3.0	ug/L	127	Standard
|	V	51	12944.3	10.2	0.3915	0.066	16.9	ug/L	6636	Standard
|	Cr	52	31395.8	2.4	0.8926	0.056	6.3	ug/L	21244	Standard
|	Cr	53	24056.4	2.9	12.9508	0.312	2.4	ug/L	467	Standard
|	Mn	55	2542886.0	4.5	127.3968	6.028	4.7	ug/L	8327	Standard
|	Co	59	2876.6	4.4	0.1967	0.010	5.0	ug/L	123	Standard
|	Ni	60	10410.9	5.4	3.5214	0.201	5.7	ug/L	272	Standard
|	Cu	65	1668.8	6.2	0.3377	0.044	13.0	ug/L	1002	Standard
|	Zn	66	4575.0	3.2	2.1184	0.141	6.7	ug/L	3532	Standard
>	Ge	72	210090.2	0.7				ug/L	254939	Standard
|	As	75	439.0	45.2	0.5858	0.190	32.4	ug/L	-224	Standard
|	Se	82	214.7	6.0	1.8431	0.122	6.6	ug/L	24	Standard
|	Se-1	77	1446.7	2.8	19.1318	0.597	3.1	ug/L	93	Standard
|	Ga	71	193482.9	0.8				mg/L	233175	Standard
|	Rb	85	25529.5	3.0				ug/L	20	Standard
>	Y	89	204580.0	1.2				ug/L	235100	Standard
|	Rh	103	250.7	10.4				ug/L	6	Standard
|	Mo	98	3199.9	2.7	0.8835	0.024	2.7	ug/L	14	Standard
|	Ag	107	38.3	6.6	0.0003	0.000	121.6	ug/L	38	Standard
|	Cd	111	522.5	2.8	0.0308	0.003	9.3	mg/L	439	Standard
|	Cd	114	1333.8	9.8	0.0170	0.011	62.3	ug/L	1326	Standard
>	In	115	688117.5	0.8				ug/L	804157	Standard
|	Sn	118	1102.7	4.7	-0.1220	0.004	2.9	ug/L	4860	Standard
|	Sb	123	682.5	2.4	0.0597	0.001	1.8	ug/L	28	Standard
|	Ba	135	200590.0	3.8	42.3473	1.381	3.3	ug/L	54	Standard
|	Ce	140	5019.5	3.8				ug/L	61	Standard
>	Tb	159	772048.3	0.6				ug/L	844239	Standard
|	Ho	165	114.0	7.6				ug/L	6	Standard
|	Tl	203	137.0	12.7	0.0114	0.001	12.5	ug/L	10	Standard
|	Tl	205	332.7	7.0	0.0107	0.001	7.8	ug/L	16	Standard
|	Pb	206	479.0	2.2	0.0185	0.002	8.5	ug/L	421	Standard
|	Pb	207	411.3	9.3	0.0175	0.005	27.2	ug/L	341	Standard
|	Pb	208	1883.7	3.7	0.0183	0.002	11.6	ug/L	1571	Standard
|	U	238	23605.7	5.1	0.6498	0.039	5.9	ug/L	4	Standard
>	Bi	209	319136.9	1.1				ug/L	457202	Standard
	Na	23	1093597.5	2.3	350.8942	6.474	1.8	mg/L	138	Standard
	Mg	24	4162715.9	3.4	16.9692	0.457	2.7	mg/L	134	Standard

Sample ID: L1205001104

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Shui L. Bahgat

K	39	49638.5	1.3	4.7400	0.028	0.6	mg/L	563	Standard
Ca	43	45400.6	3.8	69.4562	2.154	3.1	mg/L	127	Standard
Fe	54	2716.5	2.7	0.3525	0.010	2.7	mg/L	815	Standard
Fe	57	109501.1	5.8	0.6804	0.035	5.2	mg/L	4749	Standard
Sc-1	45	350459.0	0.8				mg/L	367704	Standard
Cl	35	56501597.0	1.2				ug/L	59901	Standard
Kr	83	149.6	3.2				ug/L	50	Standard
Br	81	98699.2	2.6				ug/L	13965	Standard
P	31	145379.7	2.2				ug/L	71952	Standard
S	34	9472974.9	2.8				ug/L	878802	Standard
Sr	88	8822511.1	4.2				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		82.408	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		87.018	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		85.570	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		91.449	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001104

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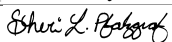
Shui L. Babcock

Pb	207	
Pb	208	
U	238	
> Bi	209	69.802
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	
Na 23 Upper, S, EEE	Na	23	

Sample ID: L1205001104
 Report Date/Time: Thursday, May 03, 2012 11:50:51
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205001105

Sample Date/Time: Thursday, May 03, 2012 11:51:10

Number of Replicates: 3

Autosampler Position: 217

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	22806.8	1.0	48.5653	20.905	43.0	ug/L	20538	Standard
|	Be	9	51.7	13.6	0.0051	0.002	29.4	ug/L	13	Standard
|	Al	27	329261.8	4.8	12.6290	0.624	4.9	ug/L	25813	Standard
>	Sc	45	386545.1	0.5				ug/L	367704	Standard
|	Ti	47	268.7	11.3	0.0721	0.014	19.2	ug/L	127	Standard
|	V	51	9313.7	1.2	0.1013	0.001	0.7	ug/L	6636	Standard
|	Cr	52	29207.1	1.0	0.3747	0.007	1.8	ug/L	21244	Standard
|	Cr	53	2004.8	14.9	0.6591	0.120	18.2	ug/L	467	Standard
|	Mn	55	10687.4	4.9	0.1945	0.023	11.9	ug/L	8327	Standard
|	Co	59	469.7	41.6	0.0191	0.011	58.7	ug/L	123	Standard
|	Ni	60	455.3	15.6	0.0635	0.020	31.7	ug/L	272	Standard
|	Cu	65	544.3	11.9	-0.1604	0.020	12.4	ug/L	1002	Standard
|	Zn	66	6902.6	2.2	2.9430	0.098	3.3	ug/L	3532	Standard
>	Ge	72	263729.3	1.1				ug/L	254939	Standard
|	As	75	-113.5	65.7	0.0737	0.058	78.9	ug/L	-224	Standard
|	Se	82	42.5	44.9	0.0820	0.144	175.4	ug/L	24	Standard
|	Se-1	77	114.0	7.9	0.1454	0.087	60.0	ug/L	93	Standard
|	Ga	71	246405.5	0.4				mg/L	233175	Standard
|	Rb	85	276.0	8.2				ug/L	20	Standard
>	Y	89	235746.3	2.0				ug/L	235100	Standard
|	Rh	103	5.3	43.3				ug/L	6	Standard
|	Mo	98	65.9	16.0	0.0051	0.002	41.7	ug/L	14	Standard
|	Ag	107	76.3	13.1	0.0037	0.001	27.2	ug/L	38	Standard
|	Cd	111	636.9	5.1	0.0291	0.007	24.1	mg/L	439	Standard
|	Cd	114	1841.3	7.3	0.0304	0.008	27.5	ug/L	1326	Standard
>	In	115	850483.6	2.1				ug/L	804157	Standard
|	Sn	118	16857.4	6.4	0.6839	0.074	10.9	ug/L	4860	Standard
|	Sb	123	293.4	7.0	0.0167	0.001	6.9	ug/L	28	Standard
|	Ba	135	1389.4	5.2	0.2265	0.010	4.6	ug/L	54	Standard
|	Ce	140	1697.4	4.6				ug/L	61	Standard
>	Tb	159	874105.3	1.2				ug/L	844239	Standard
|	Ho	165	24.7	30.7				ug/L	6	Standard
|	Tl	203	408.3	21.3	0.0235	0.005	22.1	ug/L	10	Standard
|	Tl	205	950.7	21.5	0.0220	0.005	23.0	ug/L	16	Standard
|	Pb	206	897.0	2.5	0.0340	0.001	3.5	ug/L	421	Standard
|	Pb	207	738.7	4.5	0.0309	0.002	7.0	ug/L	341	Standard
|	Pb	208	3379.5	3.2	0.0316	0.001	4.2	ug/L	1571	Standard
|	U	238	411.3	14.7	0.0091	0.001	12.0	ug/L	4	Standard
>	Bi	209	449774.2	1.3				ug/L	457202	Standard
	Na	23	1261.4	3.9	0.3275	0.013	3.9	mg/L	138	Standard
	Mg	24	4551.0	5.8	0.0154	0.001	5.9	mg/L	134	Standard

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Shui L. Bahgat

K	39	700.7	6.0	0.0032	0.004	125.3	mg/L	563	Standard
Ca	43	159.3	6.4	0.0457	0.015	33.8	mg/L	127	Standard
Fe	54	1118.7	4.7	0.0447	0.009	21.1	mg/L	815	Standard
Fe	57	7914.1	3.1	0.0160	0.001	7.4	mg/L	4749	Standard
Sc-1	45	386545.1	0.5				mg/L	367704	Standard
Cl	35	779551.6	35.8				ug/L	59901	Standard
Kr	83	58.0	18.5				ug/L	50	Standard
Br	81	18156.9	3.9				ug/L	13965	Standard
P	31	92385.5	1.6				ug/L	71952	Standard
S	34	992211.8	1.9				ug/L	878802	Standard
Sr	88	5218.3	18.5				ug/L	321	Standard

QC Calculated Values

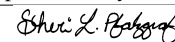
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		103.448	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		100.275	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		105.761	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		103.538	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001105

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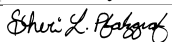


	Pb	207	
	Pb	208	
	U	238	
	> Bi	209	98.375
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
	> Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
|	P	31	
|	S	34	
	Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205001105
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Method 6020 - Summary Report

Sample ID: L1205001301

Sample Date/Time: Thursday, May 03, 2012 11:53:58

Number of Replicates: 3

Autosampler Position: 218

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	1870479.3	3.0	160785.9790	1861.522	1.2	ug/L	20538	Standard
|	Be	9	22.7	21.8	-0.0004	0.001	313.2	ug/L	13	Standard
|	Al	27	243558.3	4.9	10.6220	0.379	3.6	ug/L	25813	Standard
>	Sc	45	335340.3	2.0				ug/L	367704	Standard
|	Ti	47	1465.4	3.5	0.8098	0.018	2.3	ug/L	127	Standard
|	V	51	11105.2	4.0	0.2977	0.021	7.0	ug/L	6636	Standard
|	Cr	52	34357.6	3.1	1.0912	0.059	5.4	ug/L	21244	Standard
|	Cr	53	3892.5	1.4	1.9266	0.059	3.0	ug/L	467	Standard
|	Mn	55	48436.0	3.2	2.2095	0.083	3.8	ug/L	8327	Standard
|	Co	59	3146.7	5.8	0.2168	0.012	5.6	ug/L	123	Standard
|	Ni	60	17431.4	5.8	5.9652	0.358	6.0	ug/L	272	Standard
|	Cu	65	5568.4	0.7	1.9203	0.018	0.9	ug/L	1002	Standard
|	Zn	66	8481.4	3.0	5.6402	0.123	2.2	ug/L	3532	Standard
>	Ge	72	209123.8	1.4				ug/L	254939	Standard
|	As	75	2213.6	8.5	2.3129	0.155	6.7	ug/L	-224	Standard
|	Se	82	1462.3	4.6	14.0485	0.461	3.3	ug/L	24	Standard
|	Se-1	77	727.4	1.3	9.1065	0.169	1.9	ug/L	93	Standard
|	Ga	71	195683.3	2.3				mg/L	233175	Standard
|	Rb	85	27076.9	3.4				ug/L	20	Standard
>	Y	89	218971.8	1.2				ug/L	235100	Standard
|	Rh	103	1148.7	6.8				ug/L	6	Standard
|	Mo	98	2801.1	2.6	0.7565	0.029	3.8	ug/L	14	Standard
|	Ag	107	60.0	6.0	0.0033	0.001	18.7	ug/L	38	Standard
|	Cd	111	2043.2	4.1	0.3839	0.024	6.2	mg/L	439	Standard
|	Cd	114	5165.1	1.8	0.3370	0.013	3.8	ug/L	1326	Standard
>	In	115	702351.9	1.3				ug/L	804157	Standard
|	Sn	118	1208.7	20.5	-0.1169	0.015	12.4	ug/L	4860	Standard
|	Sb	123	719.2	26.5	0.0617	0.017	27.7	ug/L	28	Standard
|	Ba	135	26865.1	2.0	5.5493	0.178	3.2	ug/L	54	Standard
|	Ce	140	6516.7	6.0				ug/L	61	Standard
>	Tb	159	807695.1	3.0				ug/L	844239	Standard
|	Ho	165	474.7	5.9				ug/L	6	Standard
|	Tl	203	565.7	25.8	0.0501	0.011	22.5	ug/L	10	Standard
|	Tl	205	1322.7	23.0	0.0478	0.010	20.1	ug/L	16	Standard
|	Pb	206	474.7	18.5	0.0230	0.008	35.1	ug/L	421	Standard
|	Pb	207	389.3	11.3	0.0198	0.004	22.0	ug/L	341	Standard
|	Pb	208	1758.0	13.3	0.0199	0.005	26.7	ug/L	1571	Standard
|	U	238	759705.3	3.4	23.1637	1.406	6.1	ug/L	4	Standard
>	Bi	209	287858.8	2.8				ug/L	457202	Standard
|	Na	23	1085367.9	5.1	363.8426	12.463	3.4	mg/L	138	Standard
	Mg	24	18080339.6	4.5	77.0212	2.258	2.9	mg/L	134	Standard

Sample ID: L1205001301

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Shui L. Bahgat

K	39	23298.6	1.8	2.2957	0.034	1.5	mg/L	563	Standard
Ca	43	52108.1	2.2	83.3579	0.880	1.1	mg/L	127	Standard
Fe	54	659.4	4.9	-0.0141	0.005	36.8	mg/L	815	Standard
Fe	57	62680.3	5.7	0.3946	0.016	4.1	mg/L	4749	Standard
Sc-1	45	335340.3	2.0				mg/L	367704	Standard
Cl	35	6344854.8	2.5				ug/L	59901	Standard
Kr	83	121.1	9.1				ug/L	50	Standard
Br	81	148778.7	3.1				ug/L	13965	Standard
P	31	86638.1	2.1				ug/L	71952	Standard
S	34	65931151.0	2.7				ug/L	878802	Standard
Sr	88	31842656.4	2.2				ug/L	321	Standard

QC Calculated Values

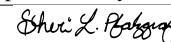
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		82.029	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		93.140	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		87.340	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		95.671	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001301

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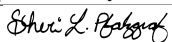


Pb	207	
Pb	208	
U	238	
> Bi	209	62.961
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Na 23 Upper, S, EEE	Na	23	

Sample ID: L1205001301
 Report Date/Time: Thursday, May 03, 2012 11:56:25
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205001302 WG396746-01

Sample Date/Time: Thursday, May 03, 2012 11:56:45

Number of Replicates: 3

Autosampler Position: 219

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	979681.6	1.4	73232.9352	832.653	1.1	ug/L	20538	Standard
|	Be	9	23.0	23.0	-0.0010	0.001	114.1	ug/L	13	Standard
|	Al	27	45301.0	3.0	0.9269	0.059	6.4	ug/L	25813	Standard
>	Sc	45	381019.0	1.9				ug/L	367704	Standard
|	Ti	47	1102.7	9.8	0.5239	0.042	8.0	ug/L	127	Standard
|	V	51	25906.8	1.4	0.9287	0.022	2.4	ug/L	6636	Standard
|	Cr	52	41596.7	2.2	1.2611	0.040	3.2	ug/L	21244	Standard
|	Cr	53	3412.4	4.0	1.4562	0.093	6.4	ug/L	467	Standard
|	Mn	55	23060.9	3.9	0.8017	0.038	4.8	ug/L	8327	Standard
|	Co	59	2157.2	5.0	0.1293	0.007	5.5	ug/L	123	Standard
|	Ni	60	11729.9	4.7	3.5454	0.114	3.2	ug/L	272	Standard
|	Cu	65	3250.3	0.5	0.8364	0.024	2.9	ug/L	1002	Standard
|	Zn	66	6118.2	4.7	2.9157	0.195	6.7	ug/L	3532	Standard
>	Ge	72	235067.2	2.6				ug/L	254939	Standard
|	As	75	1640.6	4.5	1.5826	0.098	6.2	ug/L	-224	Standard
|	Se	82	1465.1	1.4	12.5033	0.334	2.7	ug/L	24	Standard
|	Se-1	77	851.7	3.6	9.5344	0.379	4.0	ug/L	93	Standard
|	Ga	71	216983.6	1.6				mg/L	233175	Standard
|	Rb	85	7071.7	3.6				ug/L	20	Standard
>	Y	89	237913.5	1.1				ug/L	235100	Standard
|	Rh	103	672.7	6.1				ug/L	6	Standard
|	Mo	98	3068.1	4.1	0.7307	0.019	2.6	ug/L	14	Standard
|	Ag	107	54.3	18.9	0.0016	0.001	84.5	ug/L	38	Standard
|	Cd	111	3975.6	4.7	0.7262	0.027	3.7	mg/L	439	Standard
|	Cd	114	10171.2	4.6	0.6574	0.027	4.1	ug/L	1326	Standard
>	In	115	795684.1	1.6				ug/L	804157	Standard
|	Sn	118	1127.4	2.3	-0.1302	0.002	1.7	ug/L	4860	Standard
|	Sb	123	785.3	2.0	0.0594	0.001	1.7	ug/L	28	Standard
|	Ba	135	52358.0	2.4	9.5515	0.141	1.5	ug/L	54	Standard
|	Ce	140	1409.4	11.4				ug/L	61	Standard
>	Tb	159	879466.7	2.5				ug/L	844239	Standard
|	Ho	165	86.7	14.1				ug/L	6	Standard
|	Tl	203	537.0	3.4	0.0379	0.001	3.9	ug/L	10	Standard
|	Tl	205	1264.1	2.3	0.0362	0.001	1.9	ug/L	16	Standard
|	Pb	206	356.7	8.7	0.0021	0.003	124.6	ug/L	421	Standard
|	Pb	207	308.0	12.4	0.0006	0.004	598.6	ug/L	341	Standard
|	Pb	208	1363.7	2.6	0.0005	0.001	120.1	ug/L	1571	Standard
|	U	238	403039.2	4.7	9.7148	0.420	4.3	ug/L	4	Standard
>	Bi	209	363702.5	0.5				ug/L	457202	Standard
|	Na	23	239142.6	2.6	70.5609	2.031	2.9	mg/L	138	Standard
|	Mg	24	11213362.3	3.3	42.0572	1.428	3.4	mg/L	134	Standard

Sample ID: L1205001302 WG396746-01

Report Date/Time: Thursday, May 03, 2012 11:59:12

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Shui L. Bahgat

K	39	5569.7	2.5	0.4370	0.008	1.9	mg/L	563	Standard
Ca	43	51104.1	3.4	71.9286	2.135	3.0	mg/L	127	Standard
Fe	54	815.8	7.3	-0.0030	0.010	339.7	mg/L	815	Standard
Fe	57	49415.2	2.6	0.2646	0.004	1.4	mg/L	4749	Standard
Sc-1	45	381019.0	1.9				mg/L	367704	Standard
Cl	35	2670526.7	2.0				ug/L	59901	Standard
Kr	83	78.0	14.8				ug/L	50	Standard
Br	81	112129.9	2.7				ug/L	13965	Standard
P	31	124566.2	2.6				ug/L	71952	Standard
S	34	22425945.7	2.7				ug/L	878802	Standard
Sr	88	18107257.7	3.2				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		92.205	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		101.197	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		98.946	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		104.173	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001302 WG396746-01
 Report Date/Time: Thursday, May 03, 2012 11:59:12
 Page 2

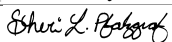
Approved: May 04, 2012
<i>Shui L. Babcock</i>

|	Pb	207	
|	Pb	208	
|	U	238	
|	> Bi	209	79.550
|	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
|	> Sc-1	45	
|	Cl	35	
|	Kr	83	
|	Br	81	
|	P	31	
|	S	34	
	Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205001302 WG396746-01
 Report Date/Time: Thursday, May 03, 2012 11:59:12
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205001302S WG396746-04

Sample Date/Time: Thursday, May 03, 2012 11:59:32

Number of Replicates: 3

Autosampler Position: 220

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	968667.4	1.7	71825.5364	1340.015	1.9	ug/L	20538	Standard
|	Be	9	116339.0	3.4	25.3317	0.878	3.5	ug/L	13	Standard
|	Al	27	590771.7	4.8	23.6004	1.206	5.1	ug/L	25813	Standard
>	Sc	45	383924.1	0.6				ug/L	367704	Standard
|	Ti	47	1008.7	3.7	0.4734	0.021	4.4	ug/L	127	Standard
|	V	51	624281.1	2.7	28.9268	0.740	2.6	ug/L	6636	Standard
|	Cr	52	510256.6	2.4	27.8319	0.662	2.4	ug/L	21244	Standard
|	Cr	53	56384.8	2.2	27.2622	0.584	2.1	ug/L	467	Standard
|	Mn	55	640551.3	1.8	28.3907	0.512	1.8	ug/L	8327	Standard
|	Co	59	406407.8	3.7	25.6764	0.947	3.7	ug/L	123	Standard
|	Ni	60	91712.8	2.2	28.0389	0.661	2.4	ug/L	272	Standard
|	Cu	65	69145.5	3.0	24.4859	0.767	3.1	ug/L	1002	Standard
|	Zn	66	37881.0	1.4	28.1517	0.461	1.6	ug/L	3532	Standard
>	Ge	72	235953.4	0.5				ug/L	254939	Standard
|	As	75	33357.9	2.4	28.9121	0.738	2.6	ug/L	-224	Standard
|	Se	82	4977.2	4.0	42.8928	1.842	4.3	ug/L	24	Standard
|	Se-1	77	3015.3	4.9	36.4608	1.672	4.6	ug/L	93	Standard
|	Ga	71	221091.8	1.9				mg/L	233175	Standard
|	Rb	85	6893.6	1.6				ug/L	20	Standard
>	Y	89	238079.7	1.9				ug/L	235100	Standard
|	Rh	103	668.7	4.5				ug/L	6	Standard
|	Mo	98	2943.3	3.0	0.6949	0.022	3.2	ug/L	14	Standard
|	Ag	107	234233.4	2.5	29.0012	0.989	3.4	ug/L	38	Standard
|	Cd	111	134151.6	4.3	27.3657	1.448	5.3	mg/L	439	Standard
|	Cd	114	349984.3	3.4	25.6707	1.131	4.4	ug/L	1326	Standard
>	In	115	802394.0	1.4				ug/L	804157	Standard
|	Sn	118	1499.4	6.1	-0.1102	0.006	5.6	ug/L	4860	Standard
|	Sb	123	324630.0	3.2	26.8647	1.098	4.1	ug/L	28	Standard
|	Ba	135	181123.4	3.7	32.8054	1.557	4.7	ug/L	54	Standard
|	Ce	140	1344.1	2.2				ug/L	61	Standard
>	Tb	159	887334.7	2.1				ug/L	844239	Standard
|	Ho	165	87.3	34.8				ug/L	6	Standard
|	Tl	203	391879.5	2.5	26.9115	1.126	4.2	ug/L	10	Standard
|	Tl	205	942175.3	3.1	26.7985	1.223	4.6	ug/L	16	Standard
|	Pb	206	306982.9	3.1	26.1993	1.327	5.1	ug/L	421	Standard
|	Pb	207	261815.2	2.8	26.9562	1.292	4.8	ug/L	341	Standard
|	Pb	208	1190510.8	3.2	26.5730	1.279	4.8	ug/L	1571	Standard
|	U	238	1724070.0	4.0	40.9286	2.127	5.2	ug/L	4	Standard
>	Bi	209	369522.9	2.7				ug/L	457202	Standard
|	Na	23	233407.0	2.8	68.3378	2.032	3.0	mg/L	138	Standard
	Mg	24	10945277.8	4.0	40.7369	1.652	4.1	mg/L	134	Standard

Sample ID: L1205001302S WG396746-04

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Shui L. Bahgat

K	39	5433.6	2.8	0.4212	0.013	3.1	mg/L	563	Standard
Ca	43	50745.0	4.7	70.8806	3.410	4.8	mg/L	127	Standard
Fe	54	778.1	4.6	-0.0103	0.005	52.5	mg/L	815	Standard
Fe	57	49414.6	5.4	0.2623	0.015	5.9	mg/L	4749	Standard
Sc-1	45	383924.1	0.6				mg/L	367704	Standard
Cl	35	2570250.2	1.6				ug/L	59901	Standard
Kr	83	84.2	2.3				ug/L	50	Standard
Br	81	113473.4	2.1				ug/L	13965	Standard
P	31	127622.7	1.9				ug/L	71952	Standard
S	34	22042032.3	0.3				ug/L	878802	Standard
Sr	88	17941210.0	3.1				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		92.553	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		101.267	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		99.781	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		105.105	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001302S WG396746-04
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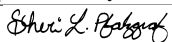
Approved: May 04, 2012
<i>Shui L. Babcock</i>

Pb	207	
Pb	208	
U	238	
> Bi	209	80.823
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205001302S WG396746-04
 Report Date/Time: Thursday, May 03, 2012 12:01:59
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205001302SD WG396746-05

Sample Date/Time: Thursday, May 03, 2012 12:02:19

Number of Replicates: 3

Autosampler Position: 221

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	952989.0	1.9	71791.9566	1999.996	2.8	ug/L	20538	Standard
|	Be	9	113063.9	2.9	25.0124	0.891	3.6	ug/L	13	Standard
|	Al	27	665299.5	5.4	27.1507	1.847	6.8	ug/L	25813	Standard
>	Sc	45	377990.5	2.3				ug/L	367704	Standard
|	Ti	47	1249.4	3.7	0.6001	0.016	2.6	ug/L	127	Standard
|	V	51	604921.3	4.6	28.0727	1.106	3.9	ug/L	6636	Standard
|	Cr	52	499388.2	4.9	27.2677	1.217	4.5	ug/L	21244	Standard
|	Cr	53	55551.2	5.8	26.9040	1.371	5.1	ug/L	467	Standard
|	Mn	55	626257.3	4.6	27.8013	0.999	3.6	ug/L	8327	Standard
|	Co	59	391753.5	3.8	24.7950	0.685	2.8	ug/L	123	Standard
|	Ni	60	89716.2	4.7	27.4779	1.146	4.2	ug/L	272	Standard
|	Cu	65	67162.0	4.3	23.8177	0.850	3.6	ug/L	1002	Standard
|	Zn	66	39294.3	3.9	29.3310	0.887	3.0	ug/L	3532	Standard
>	Ge	72	235486.8	1.3				ug/L	254939	Standard
|	As	75	33100.9	3.6	28.7451	0.903	3.1	ug/L	-224	Standard
|	Se	82	4962.7	3.4	42.8542	1.546	3.6	ug/L	24	Standard
|	Se-1	77	2943.6	3.6	35.6435	1.172	3.3	ug/L	93	Standard
|	Ga	71	218092.8	2.0				mg/L	233175	Standard
|	Rb	85	7050.3	1.6				ug/L	20	Standard
>	Y	89	243724.0	0.7				ug/L	235100	Standard
|	Rh	103	672.7	9.5				ug/L	6	Standard
|	Mo	98	2961.6	3.5	0.6956	0.032	4.6	ug/L	14	Standard
|	Ag	107	225786.2	3.8	27.8065	1.355	4.9	ug/L	38	Standard
|	Cd	111	130760.0	4.1	26.5263	1.368	5.2	mg/L	439	Standard
|	Cd	114	339747.1	4.4	24.7833	1.363	5.5	ug/L	1326	Standard
>	In	115	806762.9	1.1				ug/L	804157	Standard
|	Sn	118	1522.7	4.0	-0.1094	0.004	3.7	ug/L	4860	Standard
|	Sb	123	318918.7	4.0	26.2514	1.338	5.1	ug/L	28	Standard
|	Ba	135	177968.1	3.8	32.0586	1.548	4.8	ug/L	54	Standard
|	Ce	140	2630.2	5.8				ug/L	61	Standard
>	Tb	159	878458.8	2.4				ug/L	844239	Standard
|	Ho	165	96.7	8.6				ug/L	6	Standard
|	Tl	203	380630.1	2.6	26.7493	1.207	4.5	ug/L	10	Standard
|	Tl	205	915253.1	3.4	26.6473	1.534	5.8	ug/L	16	Standard
|	Pb	206	300306.2	3.9	26.2311	1.608	6.1	ug/L	421	Standard
|	Pb	207	253640.3	3.7	26.7306	1.664	6.2	ug/L	341	Standard
|	Pb	208	1163051.3	3.4	26.5725	1.559	5.9	ug/L	1571	Standard
|	U	238	1675873.0	5.3	40.7349	3.084	7.6	ug/L	4	Standard
>	Bi	209	361130.1	2.8				ug/L	457202	Standard
|	Na	23	229488.5	2.9	68.2628	2.385	3.5	mg/L	138	Standard
	Mg	24	10903325.4	4.6	41.2304	2.108	5.1	mg/L	134	Standard

Sample ID: L1205001302SD WG396746-05

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K	39	5388.3	2.0	0.4249	0.017	3.9	mg/L	563	Standard
Ca	43	50259.3	3.4	71.3294	2.986	4.2	mg/L	127	Standard
Fe	54	839.0	3.8	0.0020	0.006	298.3	mg/L	815	Standard
Fe	57	50450.6	4.3	0.2733	0.014	5.3	mg/L	4749	Standard
Sc-1	45	377990.5	2.3				mg/L	367704	Standard
Cl	35	2517017.7	0.4				ug/L	59901	Standard
Kr	83	84.2	8.2				ug/L	50	Standard
Br	81	106648.7	3.4				ug/L	13965	Standard
P	31	126048.3	2.0				ug/L	71952	Standard
S	34	21973660.8	1.7				ug/L	878802	Standard
Sr	88	17877162.6	4.1				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		92.370	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		103.668	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		100.324	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		104.053	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001302SD WG396746-05
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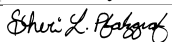
Approved: May 04, 2012
<i>Shui L. Babcock</i>

Pb	207	
Pb	208	
U	238	
> Bi	209	78.987
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205001302SD WG396746-05
 Report Date/Time: Thursday, May 03, 2012 12:04:46
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205001701

Sample Date/Time: Thursday, May 03, 2012 12:05:06

Number of Replicates: 3

Autosampler Position: 222

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	73050.8	3.3	3222.9727	42.450	1.3	ug/L	20538	Standard
|	Be	9	705.0	8.5	0.1294	0.009	6.6	ug/L	13	Standard
|	Al	27	19559376.8	7.5	716.4828	28.793	4.0	ug/L	25813	Standard
>	Sc	45	434908.5	3.5				ug/L	367704	Standard
|	Ti	47	20249.6	5.6	9.5668	0.397	4.2	ug/L	127	Standard
|	V	51	40677.0	5.5	1.4434	0.070	4.8	ug/L	6636	Standard
|	Cr	52	57533.2	5.3	1.8615	0.108	5.8	ug/L	21244	Standard
|	Cr	53	5238.9	2.4	2.1095	0.032	1.5	ug/L	467	Standard
|	Mn	55	240721.9	6.8	9.5541	0.546	5.7	ug/L	8327	Standard
|	Co	59	12615.3	4.9	0.7180	0.031	4.2	ug/L	123	Standard
|	Ni	60	14852.6	4.8	4.0822	0.236	5.8	ug/L	272	Standard
|	Cu	65	2089.5	8.5	0.3470	0.044	12.6	ug/L	1002	Standard
|	Zn	66	33679.8	4.4	22.4001	0.744	3.3	ug/L	3532	Standard
>	Ge	72	259254.3	2.3				ug/L	254939	Standard
|	As	75	187.3	5.1	0.3085	0.005	1.8	ug/L	-224	Standard
|	Se	82	93.2	2.8	0.4886	0.027	5.5	ug/L	24	Standard
|	Se-1	77	121.3	6.3	0.2506	0.065	26.0	ug/L	93	Standard
|	Ga	71	246302.0	2.6				mg/L	233175	Standard
|	Rb	85	45359.2	4.7				ug/L	20	Standard
>	Y	89	280148.8	1.9				ug/L	235100	Standard
|	Rh	103	9.3	24.7				ug/L	6	Standard
|	Mo	98	167.8	2.6	0.0262	0.002	6.5	ug/L	14	Standard
|	Ag	107	133.3	6.8	0.0096	0.001	13.6	ug/L	38	Standard
|	Cd	111	689.1	4.4	0.0323	0.003	8.2	mg/L	439	Standard
|	Cd	114	1784.3	6.2	0.0201	0.005	24.5	ug/L	1326	Standard
>	In	115	896247.2	2.3				ug/L	804157	Standard
|	Sn	118	8569.1	4.3	0.2295	0.012	5.3	ug/L	4860	Standard
|	Sb	123	451.5	3.7	0.0273	0.000	1.8	ug/L	28	Standard
|	Ba	135	62371.6	4.5	10.1025	0.392	3.9	ug/L	54	Standard
|	Ce	140	250113.8	6.1				ug/L	61	Standard
>	Tb	159	918876.8	1.9				ug/L	844239	Standard
|	Ho	165	4466.0	8.7				ug/L	6	Standard
|	Tl	203	542.0	13.8	0.0305	0.003	11.4	ug/L	10	Standard
|	Tl	205	1316.7	10.1	0.0299	0.002	7.9	ug/L	16	Standard
|	Pb	206	7231.1	4.0	0.4703	0.008	1.8	ug/L	421	Standard
|	Pb	207	5997.2	4.6	0.4679	0.012	2.5	ug/L	341	Standard
|	Pb	208	27852.3	5.0	0.4725	0.014	2.9	ug/L	1571	Standard
|	U	238	5635.0	3.0	0.1092	0.001	0.6	ug/L	4	Standard
>	Bi	209	456830.1	2.4				ug/L	457202	Standard
|	Na	23	9012.0	6.3	2.2896	0.067	2.9	mg/L	138	Standard
	Mg	24	96326.0	4.5	0.3150	0.004	1.1	mg/L	134	Standard

Sample ID: L1205001701

Report Date/Time: Thursday, May 03, 2012 12:07:34

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Shui L. Bahgat

K	39	5495.7	2.6	0.3700	0.010	2.8	mg/L	563	Standard
Ca	43	897.4	5.1	0.9329	0.018	1.9	mg/L	127	Standard
Fe	54	5582.6	4.5	0.6746	0.013	1.9	mg/L	815	Standard
Fe	57	167406.6	7.6	0.8447	0.037	4.4	mg/L	4749	Standard
Sc-1	45	434908.5	3.5				mg/L	367704	Standard
Cl	35	858480.1	3.6				ug/L	59901	Standard
Kr	83	65.8	4.2				ug/L	50	Standard
Br	81	33494.4	4.2				ug/L	13965	Standard
P	31	112008.3	4.1				ug/L	71952	Standard
S	34	922609.8	5.3				ug/L	878802	Standard
Sr	88	208179.2	4.8				ug/L	321	Standard

QC Calculated Values

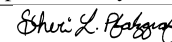
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		101.693	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		119.161	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		111.452	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		108.841	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001701

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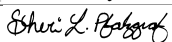


Pb	207	
Pb	208	
U	238	
> Bi	209	99.919
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205001701
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Method 6020 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Thursday, May 03, 2012 12:07:55

Number of Replicates: 3

Autosampler Position: 203

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	21507.6	1.7	67.3329	12.511	18.6	ug/L	20538	Standard
|	Be	9	16.7	28.4	-0.0022	0.001	52.1	ug/L	13	Standard
|	Al	27	98613339.6	6.5	4364.9286	250.251	5.7	ug/L	25813	Standard
>	Sc	45	360562.6	0.9				ug/L	367704	Standard
|	Ti	47	231831.0	4.4	114.9741	4.179	3.6	ug/L	127	Standard
|	V	51	7370.1	4.3	0.0391	0.011	29.4	ug/L	6636	Standard
|	Cr	52	22544.1	1.9	0.1077	0.014	12.6	ug/L	21244	Standard
|	Cr	53	4187.2	10.7	1.7240	0.188	10.9	ug/L	467	Standard
|	Mn	55	7088.0	2.0	0.0682	0.004	5.8	ug/L	8327	Standard
|	Co	59	2493.9	6.6	0.1423	0.010	6.9	ug/L	123	Standard
|	Ni	60	1499.7	4.4	0.3753	0.016	4.4	ug/L	272	Standard
|	Cu	65	1830.4	7.3	0.2892	0.041	14.3	ug/L	1002	Standard
|	Zn	66	7007.6	2.8	3.3276	0.114	3.4	ug/L	3532	Standard
>	Ge	72	248269.0	1.0				ug/L	254939	Standard
|	As	75	-106.7	51.3	0.0742	0.045	60.8	ug/L	-224	Standard
|	Se	82	47.4	17.7	0.1436	0.066	46.3	ug/L	24	Standard
|	Se-1	77	262.7	4.8	1.9869	0.155	7.8	ug/L	93	Standard
|	Ga	71	227501.5	2.8				mg/L	233175	Standard
|	Rb	85	3950.5	4.0				ug/L	20	Standard
>	Y	89	232799.1	1.5				ug/L	235100	Standard
|	Rh	103	6.7	45.8				ug/L	6	Standard
|	Mo	98	425342.7	3.6	97.1514	3.855	4.0	ug/L	14	Standard
|	Ag	107	126.0	14.3	0.0097	0.002	20.5	ug/L	38	Standard
|	Cd	111	1146.6	2.0	0.1300	0.008	6.1	mg/L	439	Standard
|	Cd	114	3826.0	3.5	0.1713	0.011	6.5	ug/L	1326	Standard
>	In	115	841049.2	1.5				ug/L	804157	Standard
|	Sn	118	2876.3	5.4	-0.0417	0.009	22.0	ug/L	4860	Standard
|	Sb	123	694.9	6.2	0.0487	0.004	8.4	ug/L	28	Standard
|	Ba	135	173.7	6.3	0.0191	0.002	11.1	ug/L	54	Standard
|	Ce	140	2161.5	5.6				ug/L	61	Standard
>	Tb	159	892174.4	1.1				ug/L	844239	Standard
|	Ho	165	26.7	22.9				ug/L	6	Standard
|	Tl	203	381.7	5.8	0.0231	0.001	5.3	ug/L	10	Standard
|	Tl	205	943.4	6.0	0.0229	0.001	5.5	ug/L	16	Standard
|	Pb	206	814.4	4.7	0.0313	0.003	9.6	ug/L	421	Standard
|	Pb	207	668.3	6.3	0.0280	0.003	12.5	ug/L	341	Standard
|	Pb	208	3092.8	3.7	0.0294	0.002	7.8	ug/L	1571	Standard
|	U	238	183.3	44.1	0.0048	0.002	34.0	ug/L	4	Standard
>	Bi	209	426816.3	0.6				ug/L	457202	Standard
	Na	23	36080.3	4.1	11.2135	0.399	3.6	mg/L	138	Standard
	Mg	24	1258119.5	4.4	4.9837	0.184	3.7	mg/L	134	Standard

Sample ID: QC Std 4

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Shui L. Bahgat

K	39	50831.2	3.2	4.7172	0.121	2.6	mg/L	563	Standard
Ca	43	9845.9	5.5	14.5022	0.754	5.2	mg/L	127	Standard
Fe	54	67007.3	6.4	11.6362	0.699	6.0	mg/L	815	Standard
Fe	57	1993870.4	5.3	12.5532	0.563	4.5	mg/L	4749	Standard
Sc-1	45	360562.6	0.9				mg/L	367704	Standard
Cl	35	9276437.3	0.4				ug/L	59901	Standard
Kr	83	58.0	4.1				ug/L	50	Standard
Br	81	13729.9	2.5				ug/L	13965	Standard
P	31	7782533.6	2.5				ug/L	71952	Standard
S	34	1806532.1	0.9				ug/L	878802	Standard
Sr	88	2384.9	32.5				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27	87.299		
Sc	45			
Ti	47	114.974		
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		97.384	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		99.021	
Rh	103			
Mo	98	97.151		
Ag	107			
Cd	111			
Cd	114			
In	115		104.588	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		105.678	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: QC Std 4

Report Date/Time: Thursday, May 03, 2012 12:10:23

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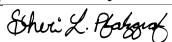
Shui L. Babcock

Pb	207		
Pb	208		
U	238		
> Bi	209		93.354
Na	23	89.708	
Mg	24	99.674	
K	39	94.345	
Ca	43	96.682	
Fe	54	93.089	
Fe	57	100.425	
> Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Se-1	77	
QC Std 4	Cd	111	

Sample ID: QC Std 4
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Method 6020 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Thursday, May 03, 2012 12:10:43

Number of Replicates: 3

Autosampler Position: 204

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	21563.7	1.4	56.8118	15.249	26.8	ug/L	20538	Standard
|	Be	9	485570.1	4.0	111.6082	3.912	3.5	ug/L	13	Standard
|	Al	27	100924757.4	6.3	4428.9448	252.613	5.7	ug/L	25813	Standard
>	Sc	45	363709.7	0.6				ug/L	367704	Standard
|	Ti	47	229148.9	3.9	114.7517	3.934	3.4	ug/L	127	Standard
|	V	51	2184078.4	3.9	97.7816	3.191	3.3	ug/L	6636	Standard
|	Cr	52	1866198.0	1.3	100.4657	1.761	1.8	ug/L	21244	Standard
|	Cr	53	221245.1	5.2	103.2408	5.261	5.1	ug/L	467	Standard
|	Mn	55	2380466.2	3.6	101.8400	3.590	3.5	ug/L	8327	Standard
|	Co	59	1671181.7	4.5	101.3292	4.204	4.1	ug/L	123	Standard
|	Ni	60	343015.2	4.9	100.7637	4.052	4.0	ug/L	272	Standard
|	Cu	65	286715.9	4.7	98.4025	3.704	3.8	ug/L	1002	Standard
|	Zn	66	140289.2	4.1	105.0524	3.777	3.6	ug/L	3532	Standard
>	Ge	72	245902.7	1.5				ug/L	254939	Standard
|	As	75	126961.0	3.4	105.1439	2.521	2.4	ug/L	-224	Standard
|	Se	82	13307.9	2.1	110.4256	1.728	1.6	ug/L	24	Standard
|	Se-1	77	8819.9	3.0	104.3969	3.590	3.4	ug/L	93	Standard
|	Ga	71	227289.3	2.2				mg/L	233175	Standard
|	Rb	85	3996.5	3.2				ug/L	20	Standard
>	Y	89	228611.8	0.7				ug/L	235100	Standard
|	Rh	103	86.0	8.1				ug/L	6	Standard
|	Mo	98	427586.9	4.0	98.3124	4.224	4.3	ug/L	14	Standard
|	Ag	107	903928.4	6.1	107.4980	6.925	6.4	ug/L	38	Standard
|	Cd	111	553107.1	3.9	108.6171	4.704	4.3	mg/L	439	Standard
|	Cd	114	1462067.9	4.6	103.2761	5.279	5.1	ug/L	1326	Standard
>	In	115	835442.6	0.8				ug/L	804157	Standard
|	Sn	118	3597.1	1.6	-0.0026	0.004	171.4	ug/L	4860	Standard
|	Sb	123	1347549.2	3.8	107.1119	4.687	4.4	ug/L	28	Standard
|	Ba	135	538537.0	4.7	93.6838	4.801	5.1	ug/L	54	Standard
|	Ce	140	2256.8	7.5				ug/L	61	Standard
>	Tb	159	880144.4	1.0				ug/L	844239	Standard
|	Ho	165	41.3	26.6				ug/L	6	Standard
|	Tl	203	1709264.4	2.4	100.8040	2.283	2.3	ug/L	10	Standard
|	Tl	205	4164045.1	3.2	101.7143	3.075	3.0	ug/L	16	Standard
|	Pb	206	1363186.0	4.7	99.9759	4.612	4.6	ug/L	421	Standard
|	Pb	207	1165620.6	4.7	103.1392	4.677	4.5	ug/L	341	Standard
|	Pb	208	5374591.6	4.4	103.1036	4.387	4.3	ug/L	1571	Standard
|	U	238	5302883.8	6.5	108.1045	6.808	6.3	ug/L	4	Standard
>	Bi	209	430007.5	0.2				ug/L	457202	Standard
	Na	23	36059.6	3.9	11.1095	0.368	3.3	mg/L	138	Standard
	Mg	24	1247489.8	5.0	4.8988	0.215	4.4	mg/L	134	Standard

Sample ID: QC Std 5

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K	39	51387.7	2.0	4.7280	0.079	1.7	mg/L	563	Standard
Ca	43	9920.6	5.8	14.4842	0.772	5.3	mg/L	127	Standard
Fe	54	67002.6	4.8	11.5338	0.491	4.3	mg/L	815	Standard
Fe	57	2001984.7	6.6	12.4955	0.765	6.1	mg/L	4749	Standard
Sc-1	45	363709.7	0.6				mg/L	367704	Standard
Cl	35	9383981.4	1.7				ug/L	59901	Standard
Kr	83	64.4	9.9				ug/L	50	Standard
Br	81	13397.9	1.5				ug/L	13965	Standard
P	31	7801438.3	2.6				ug/L	71952	Standard
S	34	1804513.5	2.5				ug/L	878802	Standard
Sr	88	1630.8	4.4				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27	88.579		
Sc	45			
Ti	47	114.752		
V	51	97.782		
Cr	52	100.466		
Cr	53			
Mn	55	101.840		
Co	59	101.329		
Ni	60	100.764		
Cu	65	98.402		
Zn	66	105.052		
Ge	72		96.456	
As	75	105.144		
Se	82	110.426		
Se-1	77	104.397		
Ga	71			
Rb	85			
Y	89		97.240	
Rh	103			
Mo	98	98.312		
Ag	107	107.498		
Cd	111	108.617		
Cd	114			
In	115		103.890	
Sn	118			
Sb	123	107.112		
Ba	135	93.684		
Ce	140			
Tb	159		104.253	
Ho	165			
Tl	203	100.804		
Tl	205			
Pb	206	99.976		

Sample ID: QC Std 5

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Pb	207	103.139	
Pb	208	103.104	
U	238	108.105	
> Bi	209		94.052
Na	23	88.876	
Mg	24	97.977	
K	39	94.560	
Ca	43	96.562	
Fe	54	92.271	
Fe	57	99.964	
> Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: QC Std 5

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Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, May 03, 2012 12:13:33

Number of Replicates: 3

Autosampler Position: 101

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	20950.8	0.3	-16.8655	12.723	75.4	ug/L	20538	Standard
|	Be	9	241181.3	3.9	54.6314	2.395	4.4	ug/L	13	Standard
|	Al	27	1137256.1	5.5	48.2316	2.931	6.1	ug/L	25813	Standard
>	Sc	45	369142.1	0.5				ug/L	367704	Standard
|	Ti	47	208017.1	4.1	101.4652	3.845	3.8	ug/L	127	Standard
|	V	51	1237956.5	3.6	53.8609	1.813	3.4	ug/L	6636	Standard
|	Cr	52	1008242.0	5.6	52.3392	2.893	5.5	ug/L	21244	Standard
|	Cr	53	113991.5	5.8	51.7018	2.866	5.5	ug/L	467	Standard
|	Mn	55	1321090.6	5.8	54.9382	2.966	5.4	ug/L	8327	Standard
|	Co	59	864234.9	5.4	51.0364	2.585	5.1	ug/L	123	Standard
|	Ni	60	178572.1	4.9	51.0717	2.277	4.5	ug/L	272	Standard
|	Cu	65	147979.2	3.9	49.3128	1.850	3.8	ug/L	1002	Standard
|	Zn	66	68396.2	4.6	48.8608	2.265	4.6	ug/L	3532	Standard
>	Ge	72	252440.3	0.8				ug/L	254939	Standard
|	As	75	62590.7	3.5	50.5828	1.777	3.5	ug/L	-224	Standard
|	Se	82	6729.3	4.1	54.2668	2.206	4.1	ug/L	24	Standard
|	Se-1	77	4283.6	4.2	48.7842	1.830	3.8	ug/L	93	Standard
|	Ga	71	237308.7	0.7				mg/L	233175	Standard
|	Rb	85	1192.7	5.6				ug/L	20	Standard
>	Y	89	240751.2	2.7				ug/L	235100	Standard
|	Rh	103	34.7	18.5				ug/L	6	Standard
|	Mo	98	443869.2	4.0	99.9325	4.009	4.0	ug/L	14	Standard
|	Ag	107	510660.3	4.8	59.4596	2.853	4.8	ug/L	38	Standard
|	Cd	111	276675.0	3.4	53.1525	1.837	3.5	mg/L	439	Standard
|	Cd	114	728200.4	3.5	50.3146	1.808	3.6	ug/L	1326	Standard
>	In	115	853105.0	0.1				ug/L	804157	Standard
|	Sn	118	969168.0	4.6	49.9993	2.312	4.6	ug/L	4860	Standard
|	Sb	123	679856.9	4.1	52.9087	2.159	4.1	ug/L	28	Standard
|	Ba	135	276464.8	3.8	47.0851	1.802	3.8	ug/L	54	Standard
|	Ce	140	1030.0	5.0				ug/L	61	Standard
>	Tb	159	893787.4	1.0				ug/L	844239	Standard
|	Ho	165	28.7	17.6				ug/L	6	Standard
|	Tl	203	876100.8	2.2	50.6863	1.147	2.3	ug/L	10	Standard
|	Tl	205	2174338.7	1.7	52.1029	0.956	1.8	ug/L	16	Standard
|	Pb	206	701546.8	2.9	50.4604	1.509	3.0	ug/L	421	Standard
|	Pb	207	581666.0	3.8	50.4758	1.972	3.9	ug/L	341	Standard
|	Pb	208	2691016.0	3.5	50.6280	1.815	3.6	ug/L	1571	Standard
|	U	238	2654599.5	5.0	53.0921	2.704	5.1	ug/L	4	Standard
>	Bi	209	438355.4	0.1				ug/L	457202	Standard
	Na	23	15489.9	2.9	4.6804	0.160	3.4	mg/L	138	Standard
	Mg	24	1264591.1	5.1	4.8946	0.271	5.5	mg/L	134	Standard

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K	39	52312.9	3.6	4.7433	0.197	4.2	mg/L	563	Standard
Ca	43	3407.1	6.7	4.7869	0.357	7.5	mg/L	127	Standard
Fe	54	28436.8	5.2	4.7441	0.279	5.9	mg/L	815	Standard
Fe	57	919611.9	6.4	5.6409	0.386	6.8	mg/L	4749	Standard
Sc-1	45	369142.1	0.5				mg/L	367704	Standard
Cl	35	236382.4	23.3				ug/L	59901	Standard
Kr	83	58.4	16.1				ug/L	50	Standard
Br	81	13952.1	1.5				ug/L	13965	Standard
P	31	87635.1	2.1				ug/L	71952	Standard
S	34	940752.4	1.3				ug/L	878802	Standard
Sr	88	1112.7	49.7				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27	96.463		
Sc	45			
Ti	47	101.465		
V	51	107.722		
Cr	52	104.678		
Cr	53			
Mn	55	109.876		
Co	59	102.073		
Ni	60	102.143		
Cu	65	98.626		
Zn	66	97.722		
Ge	72		99.020	
As	75	101.166		
Se	82	108.534		
Se-1	77	97.568		
Ga	71			
Rb	85			
Y	89		102.404	
Rh	103			
Mo	98	99.933		
Ag	107	118.919		
Cd	111	106.305		
Cd	114			
In	115		106.087	
Sn	118	99.999		
Sb	123	105.817		
Ba	135	94.170		
Ce	140			
Tb	159		105.869	
Ho	165			
Tl	203	101.373		
Tl	205			
Pb	206	100.921		

Sample ID: QC Std 6

Report Date/Time: Thursday, May 03, 2012 12:16:00

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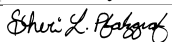
Shui L. Babcock

Pb	207	100.952	
Pb	208	101.256	
U	238	106.184	
> Bi	209		95.878
Na	23	93.607	
Mg	24	97.892	
K	39	94.866	
Ca	43	95.738	
Fe	54	94.882	
Fe	57	112.817	
> Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Ag	107	
QC Std 6	Fe	57	

Sample ID: QC Std 6
 Report Date/Time: Thursday, May 03, 2012 12:16:00
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Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, May 03, 2012 12:16:20

Number of Replicates: 3

Autosampler Position: 102

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	20242.2	3.0	-15.6697	54.476	347.7	ug/L	20538	Standard
|	Be	9	46.7	4.5	0.0049	0.000	4.1	ug/L	13	Standard
|	Al	27	15959.1	1.8	-0.2565	0.030	11.7	ug/L	25813	Standard
>	Sc	45	356509.7	2.9				ug/L	367704	Standard
|	Ti	47	126.0	15.1	0.0110	0.010	87.6	ug/L	127	Standard
|	V	51	6247.1	1.0	-0.0024	0.004	180.7	ug/L	6636	Standard
|	Cr	52	19638.7	0.4	-0.0168	0.009	54.1	ug/L	21244	Standard
|	Cr	53	634.0	2.5	0.0884	0.005	5.8	ug/L	467	Standard
|	Mn	55	1546.7	1.8	-0.1652	0.001	0.4	ug/L	8327	Standard
|	Co	59	177.3	9.6	0.0034	0.001	28.3	ug/L	123	Standard
|	Ni	60	122.0	18.3	-0.0248	0.006	26.0	ug/L	272	Standard
|	Cu	65	1053.7	5.6	0.0352	0.020	56.7	ug/L	1002	Standard
|	Zn	66	1176.7	2.9	-1.0512	0.021	2.0	ug/L	3532	Standard
>	Ge	72	240984.4	0.8				ug/L	254939	Standard
|	As	75	-187.8	14.6	0.0032	0.023	702.8	ug/L	-224	Standard
|	Se	82	35.1	20.2	0.0510	0.059	116.0	ug/L	24	Standard
|	Se-1	77	90.0	8.4	-0.0267	0.095	356.7	ug/L	93	Standard
|	Ga	71	226337.7	1.7				mg/L	233175	Standard
|	Rb	85	18.7	6.2				ug/L	20	Standard
>	Y	89	222201.1	1.7				ug/L	235100	Standard
|	Rh	103	3.3	34.6				ug/L	6	Standard
|	Mo	98	151.8	27.5	0.0255	0.010	39.9	ug/L	14	Standard
|	Ag	107	121.3	35.3	0.0094	0.005	54.9	ug/L	38	Standard
|	Cd	111	527.8	7.1	0.0110	0.009	83.0	mg/L	439	Standard
|	Cd	114	1344.4	1.3	-0.0014	0.001	38.7	ug/L	1326	Standard
>	In	115	827141.5	1.8				ug/L	804157	Standard
|	Sn	118	1899.5	10.6	-0.0913	0.011	11.9	ug/L	4860	Standard
|	Sb	123	703.2	14.2	0.0503	0.009	16.9	ug/L	28	Standard
|	Ba	135	74.7	26.5	0.0022	0.003	150.2	ug/L	54	Standard
|	Ce	140	59.3	8.5				ug/L	61	Standard
>	Tb	159	840897.1	1.5				ug/L	844239	Standard
|	Ho	165	10.0	20.0				ug/L	6	Standard
|	Tl	203	197.7	14.9	0.0119	0.002	14.3	ug/L	10	Standard
|	Tl	205	464.0	2.3	0.0109	0.000	3.0	ug/L	16	Standard
|	Pb	206	492.3	5.7	0.0066	0.002	34.0	ug/L	421	Standard
|	Pb	207	372.0	1.2	0.0008	0.001	84.2	ug/L	341	Standard
|	Pb	208	1830.4	4.3	0.0041	0.002	45.6	ug/L	1571	Standard
|	U	238	735.0	10.8	0.0158	0.002	11.1	ug/L	4	Standard
>	Bi	209	437409.1	1.1				ug/L	457202	Standard
	Na	23	159.3	12.4	0.0108	0.006	59.8	mg/L	138	Standard
	Mg	24	350.3	15.6	0.0000	0.000	87751.0	mg/L	134	Standard

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Shui L. Bahgat

K	39	580.7	6.4	-0.0030	0.004	122.0	mg/L	563	Standard
Ca	43	86.7	5.3	-0.0451	0.008	17.3	mg/L	127	Standard
Fe	54	739.2	5.7	-0.0072	0.008	115.1	mg/L	815	Standard
Fe	57	5461.7	3.0	0.0043	0.002	43.8	mg/L	4749	Standard
Sc-1	45	356509.7	2.9				mg/L	367704	Standard
Cl	35	162142.8	5.2				ug/L	59901	Standard
Kr	83	52.2	1.5				ug/L	50	Standard
Br	81	13331.9	1.1				ug/L	13965	Standard
P	31	75624.4	3.0				ug/L	71952	Standard
S	34	947889.2	1.4				ug/L	878802	Standard
Sr	88	370.0	4.3				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		94.526	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		94.513	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		102.858	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		99.604	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

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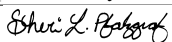
Shui L. Babcock

	Pb	207	
	Pb	208	
	U	238	
	> Bi	209	95.671
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
	> Sc-1	45	
|	Cl	35	
|	Kr	83	
|	Br	81	
|	P	31	
|	S	34	
	Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Method 6020 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Thursday, May 03, 2012 12:19:38

Number of Replicates: 3

Autosampler Position: 202

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	20868.7	2.5	-11.8608	40.761	343.7	ug/L	20538	Standard
|	Be	9	37.0	35.4	0.0024	0.003	119.7	ug/L	13	Standard
|	Al	27	52509.9	7.7	1.3164	0.196	14.9	ug/L	25813	Standard
>	Sc	45	366605.6	1.7				ug/L	367704	Standard
|	Ti	47	112.7	10.7	0.0027	0.005	201.7	ug/L	127	Standard
|	V	51	16513.2	5.1	0.4482	0.029	6.5	ug/L	6636	Standard
|	Cr	52	37490.4	3.8	0.9200	0.051	5.6	ug/L	21244	Standard
|	Cr	53	2346.2	4.9	0.8759	0.039	4.5	ug/L	467	Standard
|	Mn	55	14502.9	2.7	0.3852	0.008	2.1	ug/L	8327	Standard
|	Co	59	6961.3	5.0	0.4119	0.015	3.8	ug/L	123	Standard
|	Ni	60	5752.8	3.0	1.6193	0.029	1.8	ug/L	272	Standard
|	Cu	65	2624.6	4.1	0.5631	0.025	4.4	ug/L	1002	Standard
|	Zn	66	11071.4	4.5	6.4255	0.268	4.2	ug/L	3532	Standard
>	Ge	72	247408.9	1.4				ug/L	254939	Standard
|	As	75	253.3	30.2	0.3694	0.061	16.4	ug/L	-224	Standard
|	Se	82	78.2	14.1	0.3992	0.085	21.2	ug/L	24	Standard
|	Se-1	77	126.7	1.8	0.3808	0.040	10.6	ug/L	93	Standard
|	Ga	71	232549.8	1.0				mg/L	233175	Standard
|	Rb	85	20.0	17.3				ug/L	20	Standard
>	Y	89	233460.3	1.1				ug/L	235100	Standard
|	Rh	103	8.0	25.0				ug/L	6	Standard
|	Mo	98	61.6	34.5	0.0041	0.005	112.9	ug/L	14	Standard
|	Ag	107	3865.5	5.5	0.4461	0.017	3.8	ug/L	38	Standard
|	Cd	111	1868.0	6.8	0.2665	0.018	6.9	mg/L	439	Standard
|	Cd	114	4945.6	6.9	0.2458	0.018	7.3	ug/L	1326	Standard
>	In	115	850478.6	1.7				ug/L	804157	Standard
|	Sn	118	990.7	3.0	-0.1413	0.002	1.6	ug/L	4860	Standard
|	Sb	123	5563.5	6.3	0.4280	0.020	4.7	ug/L	28	Standard
|	Ba	135	4221.6	6.9	0.7100	0.038	5.3	ug/L	54	Standard
|	Ce	140	52.7	8.8				ug/L	61	Standard
>	Tb	159	860174.0	1.1				ug/L	844239	Standard
|	Ho	165	11.3	36.7				ug/L	6	Standard
|	Tl	203	1456.7	8.8	0.0833	0.006	7.8	ug/L	10	Standard
|	Tl	205	3536.4	6.9	0.0830	0.005	6.0	ug/L	16	Standard
|	Pb	206	3119.3	4.5	0.1918	0.008	4.1	ug/L	421	Standard
|	Pb	207	2579.6	7.5	0.1886	0.015	7.8	ug/L	341	Standard
|	Pb	208	11976.2	6.4	0.1912	0.012	6.3	ug/L	1571	Standard
|	U	238	20554.0	5.8	0.4052	0.021	5.1	ug/L	4	Standard
>	Bi	209	445749.4	1.2				ug/L	457202	Standard
	Na	23	181.3	20.4	0.0160	0.010	64.7	mg/L	138	Standard
	Mg	24	611.3	63.5	0.0010	0.001	152.5	mg/L	134	Standard

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Shui L. Bahgat

K	39	588.7	2.9	-0.0038	0.001	30.7	mg/L	563	Standard
Ca	43	106.7	8.7	-0.0196	0.012	60.3	mg/L	127	Standard
Fe	54	864.6	3.7	0.0107	0.003	31.8	mg/L	815	Standard
Fe	57	5721.1	5.8	0.0049	0.002	31.4	mg/L	4749	Standard
Sc-1	45	366605.6	1.7				mg/L	367704	Standard
Cl	35	148933.5	3.0				ug/L	59901	Standard
Kr	83	55.6	1.8				ug/L	50	Standard
Br	81	13518.7	1.3				ug/L	13965	Standard
P	31	89423.2	2.4				ug/L	71952	Standard
S	34	1004025.5	2.1				ug/L	878802	Standard
Sr	88	1024.0	55.3				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51	112.041		
Cr	52	115.004		
Cr	53			
Mn	55	77.034		
Co	59	102.972		
Ni	60	101.209		
Cu	65	70.393		
Zn	66	102.807		
Ge	72		97.046	
As	75	92.353		
Se	82	99.806		
Se-1	77	95.199		
Ga	71			
Rb	85			
Y	89		99.302	
Rh	103			
Mo	98			
Ag	107	111.529		
Cd	111	111.055		
Cd	114			
In	115		105.760	
Sn	118			
Sb	123	106.993		
Ba	135	94.669		
Ce	140			
Tb	159		101.888	
Ho	165			
Tl	203	104.132		
Tl	205			
Pb	206			

Sample ID: QC Std 8

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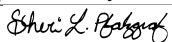
Shui L. Babcock

Pb	207		
Pb	208	95.618	
U	238	101.308	
> Bi	209		97.495
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
> Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: QC Std 8
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Method 6020 - Summary Report

Sample ID: L1205001702

Sample Date/Time: Thursday, May 03, 2012 12:27:28

Number of Replicates: 3

Autosampler Position: 223

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	28880.8	1.9	387.6688	39.758	10.3	ug/L	20538	Standard
|	Be	9	627.7	5.9	0.1222	0.003	2.7	ug/L	13	Standard
|	Al	27	3282332.0	6.4	127.0899	3.876	3.0	ug/L	25813	Standard
>	Sc	45	409017.7	3.8				ug/L	367704	Standard
|	Ti	47	2526.2	4.2	1.1804	0.062	5.2	ug/L	127	Standard
|	V	51	22676.8	4.4	0.7040	0.052	7.3	ug/L	6636	Standard
|	Cr	52	37887.0	3.9	0.9026	0.100	11.1	ug/L	21244	Standard
|	Cr	53	1880.8	2.1	0.6431	0.027	4.2	ug/L	467	Standard
|	Mn	55	102730.3	3.0	4.0605	0.156	3.8	ug/L	8327	Standard
|	Co	59	11485.4	2.7	0.6713	0.023	3.4	ug/L	123	Standard
|	Ni	60	4933.5	3.4	1.3519	0.035	2.6	ug/L	272	Standard
|	Cu	65	2524.5	1.8	0.5122	0.003	0.6	ug/L	1002	Standard
|	Zn	66	18944.2	3.2	12.1177	0.441	3.6	ug/L	3532	Standard
>	Ge	72	252339.5	1.4				ug/L	254939	Standard
|	As	75	302.8	13.9	0.4059	0.036	8.8	ug/L	-224	Standard
|	Se	82	64.9	7.6	0.2795	0.047	17.0	ug/L	24	Standard
|	Se-1	77	112.3	7.5	0.1851	0.117	63.0	ug/L	93	Standard
|	Ga	71	237205.1	2.4				mg/L	233175	Standard
|	Rb	85	117123.7	1.8				ug/L	20	Standard
>	Y	89	270046.9	2.4				ug/L	235100	Standard
|	Rh	103	3.3	34.6				ug/L	6	Standard
|	Mo	98	532.5	4.5	0.1096	0.003	2.7	ug/L	14	Standard
|	Ag	107	105.3	15.2	0.0070	0.002	23.3	ug/L	38	Standard
|	Cd	111	6295.2	3.3	1.1137	0.052	4.7	mg/L	439	Standard
|	Cd	114	16496.7	6.4	1.0409	0.077	7.4	ug/L	1326	Standard
>	In	115	856234.1	2.2				ug/L	804157	Standard
|	Sn	118	5187.6	3.7	0.0749	0.010	13.7	ug/L	4860	Standard
|	Sb	123	556.9	2.4	0.0370	0.001	2.0	ug/L	28	Standard
|	Ba	135	95002.2	4.1	16.1183	0.722	4.5	ug/L	54	Standard
|	Ce	140	190387.1	4.7				ug/L	61	Standard
>	Tb	159	899053.0	1.4				ug/L	844239	Standard
|	Ho	165	7939.4	5.4				ug/L	6	Standard
|	Tl	203	875.0	2.4	0.0497	0.002	3.5	ug/L	10	Standard
|	Tl	205	2049.5	2.0	0.0475	0.000	0.1	ug/L	16	Standard
|	Pb	206	3326.4	7.1	0.2039	0.013	6.6	ug/L	421	Standard
|	Pb	207	2691.6	3.9	0.1957	0.005	2.7	ug/L	341	Standard
|	Pb	208	12642.7	4.3	0.2011	0.008	3.9	ug/L	1571	Standard
|	U	238	5528.7	2.3	0.1087	0.002	2.1	ug/L	4	Standard
>	Bi	209	450566.3	1.8				ug/L	457202	Standard
	Na	23	17287.2	4.5	4.7137	0.086	1.8	mg/L	138	Standard
	Mg	24	176080.6	4.5	0.6136	0.004	0.7	mg/L	134	Standard

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Shui L. Bahgat

K	39	10549.7	2.5	0.8161	0.028	3.4	mg/L	563	Standard
Ca	43	749.4	3.3	0.8108	0.071	8.8	mg/L	127	Standard
Fe	54	5663.1	1.0	0.7394	0.025	3.4	mg/L	815	Standard
Fe	57	166337.5	5.9	0.8946	0.022	2.4	mg/L	4749	Standard
Sc-1	45	409017.7	3.8				mg/L	367704	Standard
Cl	35	358319.4	1.5				ug/L	59901	Standard
Kr	83	64.4	12.3				ug/L	50	Standard
Br	81	28416.0	3.5				ug/L	13965	Standard
P	31	135884.7	3.3				ug/L	71952	Standard
S	34	1465596.7	2.2				ug/L	878802	Standard
Sr	88	243488.5	2.7				ug/L	321	Standard

QC Calculated Values

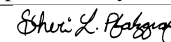
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		98.980	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		114.865	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		106.476	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		106.493	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001702

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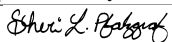


	Pb	207	
	Pb	208	
	U	238	
	> Bi	209	98.549
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
	> Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
|	P	31	
|	S	34	
	Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205001702
 Report Date/Time: Thursday, May 03, 2012 12:29:55
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205001703

Sample Date/Time: Thursday, May 03, 2012 12:30:15

Number of Replicates: 3

Autosampler Position: 224

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	26740.2	1.2	271.8562	19.423	7.1	ug/L	20538	Standard
|	Be	9	36.3	5.7	0.0015	0.000	28.5	ug/L	13	Standard
|	Al	27	126172.1	2.8	4.0519	0.173	4.3	ug/L	25813	Standard
>	Sc	45	401096.9	0.9				ug/L	367704	Standard
|	Ti	47	1524.7	21.2	0.6977	0.159	22.8	ug/L	127	Standard
|	V	51	28691.8	1.5	0.9782	0.029	3.0	ug/L	6636	Standard
|	Cr	52	34393.3	2.8	0.7329	0.059	8.0	ug/L	21244	Standard
|	Cr	53	1260.7	2.9	0.3656	0.023	6.2	ug/L	467	Standard
|	Mn	55	790458.7	2.4	33.0966	1.164	3.5	ug/L	8327	Standard
|	Co	59	120184.4	2.8	7.1590	0.260	3.6	ug/L	123	Standard
|	Ni	60	47677.3	3.7	13.7231	0.652	4.7	ug/L	272	Standard
|	Cu	65	858.4	4.3	-0.0443	0.016	36.3	ug/L	1002	Standard
|	Zn	66	6790.2	2.3	3.1266	0.157	5.0	ug/L	3532	Standard
>	Ge	72	250127.6	1.2				ug/L	254939	Standard
|	As	75	32338.4	1.6	26.4587	0.722	2.7	ug/L	-224	Standard
|	Se	82	115.4	4.1	0.6967	0.045	6.4	ug/L	24	Standard
|	Se-1	77	138.3	8.4	0.5005	0.120	24.0	ug/L	93	Standard
|	Ga	71	232198.7	1.8				mg/L	233175	Standard
|	Rb	85	32944.4	0.9				ug/L	20	Standard
>	Y	89	242546.6	2.4				ug/L	235100	Standard
|	Rh	103	70.7	11.4				ug/L	6	Standard
|	Mo	98	14135.9	4.0	3.1645	0.155	4.9	ug/L	14	Standard
|	Ag	107	65.3	13.7	0.0024	0.001	47.4	ug/L	38	Standard
|	Cd	111	887.6	5.6	0.0766	0.013	16.7	mg/L	439	Standard
|	Cd	114	2334.6	3.1	0.0638	0.007	11.6	ug/L	1326	Standard
>	In	115	855746.9	2.0				ug/L	804157	Standard
|	Sn	118	1601.4	1.2	-0.1101	0.003	2.5	ug/L	4860	Standard
|	Sb	123	14718.3	3.0	1.1364	0.048	4.3	ug/L	28	Standard
|	Ba	135	170582.5	3.8	28.9762	1.567	5.4	ug/L	54	Standard
|	Ce	140	9148.8	6.1				ug/L	61	Standard
>	Tb	159	888158.0	0.1				ug/L	844239	Standard
|	Ho	165	156.7	13.3				ug/L	6	Standard
|	Tl	203	422.7	5.0	0.0254	0.001	3.5	ug/L	10	Standard
|	Tl	205	1004.7	4.2	0.0243	0.001	2.8	ug/L	16	Standard
|	Pb	206	1472.4	2.6	0.0792	0.004	5.5	ug/L	421	Standard
|	Pb	207	1220.4	10.5	0.0766	0.012	15.8	ug/L	341	Standard
|	Pb	208	5564.4	4.8	0.0765	0.006	8.0	ug/L	1571	Standard
|	U	238	339421.2	4.1	6.9278	0.372	5.4	ug/L	4	Standard
>	Bi	209	429792.6	1.6				ug/L	457202	Standard
	Na	23	15424.5	1.1	4.2860	0.083	1.9	mg/L	138	Standard
	Mg	24	770329.6	3.0	2.7435	0.106	3.8	mg/L	134	Standard

Sample ID: L1205001703

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Shui L. Bahgat

K	39	6458.7	2.3	0.4874	0.015	3.2	mg/L	563	Standard
Ca	43	29653.0	3.0	39.5742	1.462	3.7	mg/L	127	Standard
Fe	54	3274.0	1.4	0.3787	0.012	3.2	mg/L	815	Standard
Fe	57	105108.7	5.3	0.5661	0.037	6.5	mg/L	4749	Standard
Sc-1	45	401096.9	0.9				mg/L	367704	Standard
Cl	35	781361.2	0.5				ug/L	59901	Standard
Kr	83	62.9	6.2				ug/L	50	Standard
Br	81	38920.9	1.1				ug/L	13965	Standard
P	31	124294.6	2.3				ug/L	71952	Standard
S	34	1202148.1	1.4				ug/L	878802	Standard
Sr	88	2103596.1	2.8				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		98.113	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		103.167	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		106.415	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		105.202	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001703

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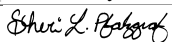
Shui L. Babcock

Pb	207	
Pb	208	
U	238	
> Bi	209	94.005
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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 Report Date/Time: Thursday, May 03, 2012 12:32:42
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205001704

Sample Date/Time: Thursday, May 03, 2012 12:33:02

Number of Replicates: 3

Autosampler Position: 225

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	174357.9	4.0	9478.2630	386.817	4.1	ug/L	20538	Standard
|	Be	9	99.0	5.2	0.0121	0.001	8.7	ug/L	13	Standard
|	Al	27	6253520.5	7.7	218.1879	15.753	7.2	ug/L	25813	Standard
>	Sc	45	455509.9	0.6				ug/L	367704	Standard
|	Ti	47	7762.0	6.1	3.6524	0.188	5.2	ug/L	127	Standard
|	V	51	32032.8	3.5	1.0823	0.028	2.6	ug/L	6636	Standard
|	Cr	52	34165.2	3.7	0.6649	0.056	8.4	ug/L	21244	Standard
|	Cr	53	2536.9	6.0	0.9165	0.063	6.8	ug/L	467	Standard
|	Mn	55	1566853.1	4.5	63.7874	1.874	2.9	ug/L	8327	Standard
|	Co	59	3275.7	4.2	0.1818	0.005	2.6	ug/L	123	Standard
|	Ni	60	3797.8	4.1	1.0026	0.025	2.5	ug/L	272	Standard
|	Cu	65	1241.1	5.9	0.0722	0.020	27.6	ug/L	1002	Standard
|	Zn	66	15503.9	5.2	9.3039	0.440	4.7	ug/L	3532	Standard
>	Ge	72	257976.4	1.8				ug/L	254939	Standard
|	As	75	1286.7	5.0	1.1756	0.034	2.9	ug/L	-224	Standard
|	Se	82	228.0	1.6	1.5613	0.061	3.9	ug/L	24	Standard
|	Se-1	77	140.7	10.2	0.4796	0.178	37.2	ug/L	93	Standard
|	Ga	71	241603.0	2.2				mg/L	233175	Standard
|	Rb	85	35734.1	0.9				ug/L	20	Standard
>	Y	89	254997.9	0.3				ug/L	235100	Standard
|	Rh	103	65.3	1.8				ug/L	6	Standard
|	Mo	98	1899.1	5.9	0.4051	0.026	6.3	ug/L	14	Standard
|	Ag	107	70.0	6.2	0.0027	0.001	21.8	ug/L	38	Standard
|	Cd	111	763.7	1.4	0.0487	0.003	5.4	mg/L	439	Standard
|	Cd	114	2115.0	4.0	0.0447	0.007	16.6	ug/L	1326	Standard
>	In	115	879378.2	1.4				ug/L	804157	Standard
|	Sn	118	5385.6	3.6	0.0778	0.009	11.5	ug/L	4860	Standard
|	Sb	123	1089.8	4.9	0.0761	0.003	4.1	ug/L	28	Standard
|	Ba	135	409883.7	4.2	67.7267	2.668	3.9	ug/L	54	Standard
|	Ce	140	92984.9	5.0				ug/L	61	Standard
>	Tb	159	909725.6	1.7				ug/L	844239	Standard
|	Ho	165	1760.1	5.0				ug/L	6	Standard
|	Tl	203	369.7	5.3	0.0213	0.001	7.0	ug/L	10	Standard
|	Tl	205	941.4	2.1	0.0216	0.001	3.5	ug/L	16	Standard
|	Pb	206	7113.0	3.2	0.4689	0.027	5.8	ug/L	421	Standard
|	Pb	207	5881.5	4.6	0.4651	0.034	7.3	ug/L	341	Standard
|	Pb	208	27237.5	4.3	0.4682	0.032	6.8	ug/L	1571	Standard
|	U	238	5890.8	5.6	0.1157	0.009	7.7	ug/L	4	Standard
>	Bi	209	451187.3	2.3				ug/L	457202	Standard
	Na	23	24835.7	4.9	6.0916	0.266	4.4	mg/L	138	Standard
	Mg	24	601170.0	5.0	1.8841	0.084	4.4	mg/L	134	Standard

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Shui L. Bahgat

K	39	16529.0	4.1	1.1709	0.044	3.8	mg/L	563	Standard
Ca	43	12988.2	6.5	15.1491	0.909	6.0	mg/L	127	Standard
Fe	54	3741.3	4.9	0.3817	0.023	5.9	mg/L	815	Standard
Fe	57	109416.6	6.0	0.5160	0.030	5.8	mg/L	4749	Standard
Sc-1	45	455509.9	0.6				mg/L	367704	Standard
Cl	35	1077318.4	1.3				ug/L	59901	Standard
Kr	83	60.0	6.2				ug/L	50	Standard
Br	81	130619.9	2.9				ug/L	13965	Standard
P	31	153029.2	3.5				ug/L	71952	Standard
S	34	1412406.4	1.2				ug/L	878802	Standard
Sr	88	2588005.3	5.3				ug/L	321	Standard

QC Calculated Values

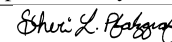
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		101.192	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		108.463	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		109.354	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		107.757	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001704

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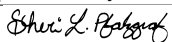


Pb	207	
Pb	208	
U	238	
> Bi	209	98.684
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205001704
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Method 6020 - Summary Report

Sample ID: L1205001705

Sample Date/Time: Thursday, May 03, 2012 12:35:49

Number of Replicates: 3

Autosampler Position: 226

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	29370.4	1.4	410.7158	32.983	8.0	ug/L	20538	Standard
|	Be	9	75.0	10.7	0.0092	0.002	16.4	ug/L	13	Standard
|	Al	27	1520552.3	8.1	58.0982	5.058	8.7	ug/L	25813	Standard
>	Sc	45	411165.2	0.9				ug/L	367704	Standard
|	Ti	47	4966.9	31.7	2.4087	0.806	33.5	ug/L	127	Standard
|	V	51	56429.1	4.2	2.2141	0.100	4.5	ug/L	6636	Standard
|	Cr	52	49692.8	3.6	1.5636	0.090	5.8	ug/L	21244	Standard
|	Cr	53	2374.2	1.5	0.8825	0.020	2.2	ug/L	467	Standard
|	Mn	55	3615915.6	3.8	152.9110	6.014	3.9	ug/L	8327	Standard
|	Co	59	11595.4	4.4	0.6870	0.030	4.4	ug/L	123	Standard
|	Ni	60	12701.3	6.0	3.6268	0.221	6.1	ug/L	272	Standard
|	Cu	65	6011.5	4.8	1.7100	0.095	5.6	ug/L	1002	Standard
|	Zn	66	16950.5	2.8	10.8050	0.306	2.8	ug/L	3532	Standard
>	Ge	72	248974.9	1.5				ug/L	254939	Standard
|	As	75	2961.9	4.1	2.5810	0.098	3.8	ug/L	-224	Standard
|	Se	82	96.8	26.9	0.5482	0.214	39.0	ug/L	24	Standard
|	Se-1	77	118.7	12.0	0.2768	0.171	61.9	ug/L	93	Standard
|	Ga	71	234020.8	0.8				mg/L	233175	Standard
|	Rb	85	62802.0	3.4				ug/L	20	Standard
>	Y	89	246129.3	1.3				ug/L	235100	Standard
|	Rh	103	114.0	19.0				ug/L	6	Standard
|	Mo	98	5713.3	1.0	1.2975	0.022	1.7	ug/L	14	Standard
|	Ag	107	144.0	3.0	0.0118	0.001	4.8	ug/L	38	Standard
|	Cd	111	813.4	8.3	0.0652	0.013	19.9	mg/L	439	Standard
|	Cd	114	2145.3	2.4	0.0535	0.004	7.8	ug/L	1326	Standard
>	In	115	839560.2	0.8				ug/L	804157	Standard
|	Sn	118	1969.5	4.0	-0.0891	0.005	5.2	ug/L	4860	Standard
|	Sb	123	52576.5	3.7	4.1523	0.162	3.9	ug/L	28	Standard
|	Ba	135	301397.5	3.4	52.1650	1.936	3.7	ug/L	54	Standard
|	Ce	140	64628.5	5.5				ug/L	61	Standard
>	Tb	159	885739.7	0.6				ug/L	844239	Standard
|	Ho	165	1152.7	4.6				ug/L	6	Standard
|	Tl	203	449.7	5.8	0.0273	0.002	6.2	ug/L	10	Standard
|	Tl	205	1016.0	7.1	0.0249	0.002	7.8	ug/L	16	Standard
|	Pb	206	81819.6	4.0	6.0515	0.283	4.7	ug/L	421	Standard
|	Pb	207	67155.3	4.0	5.9896	0.276	4.6	ug/L	341	Standard
|	Pb	208	308857.0	3.8	5.9732	0.261	4.4	ug/L	1571	Standard
|	U	238	51553.7	5.5	1.0658	0.064	6.0	ug/L	4	Standard
>	Bi	209	424595.3	0.7				ug/L	457202	Standard
	Na	23	16592.4	4.3	4.4998	0.214	4.8	mg/L	138	Standard
	Mg	24	1336004.7	5.0	4.6428	0.261	5.6	mg/L	134	Standard

Sample ID: L1205001705

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Shui L. Bahgat

K	39	13829.0	4.3	1.0814	0.054	5.0	mg/L	563	Standard
Ca	43	35394.7	4.9	46.1117	2.542	5.5	mg/L	127	Standard
Fe	54	14392.2	7.0	2.0802	0.167	8.0	mg/L	815	Standard
Fe	57	477747.9	5.7	2.6148	0.167	6.4	mg/L	4749	Standard
Sc-1	45	411165.2	0.9				mg/L	367704	Standard
Cl	35	810318.4	1.0				ug/L	59901	Standard
Kr	83	60.9	14.6				ug/L	50	Standard
Br	81	37451.7	6.4				ug/L	13965	Standard
P	31	172998.6	3.7				ug/L	71952	Standard
S	34	1974250.1	0.4				ug/L	878802	Standard
Sr	88	3531445.5	4.1				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		97.661	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		104.691	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		104.402	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		104.916	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001705

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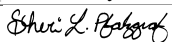
Shui L. Babcock

Pb	207	
Pb	208	
U	238	
> Bi	209	92.868
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

Sample ID: L1205001705
 Report Date/Time: Thursday, May 03, 2012 12:38:17
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205001706

Sample Date/Time: Thursday, May 03, 2012 12:38:36

Number of Replicates: 3

Autosampler Position: 227

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Li	7	34978.7	1.0	916.7944	24.598	2.7	ug/L	20538	Standard
|	Be	9	311.0	7.4	0.0599	0.004	6.5	ug/L	13	Standard
|	Al	27	2731195.5	5.5	109.7565	6.160	5.6	ug/L	25813	Standard
>	Sc	45	393889.3	1.5				ug/L	367704	Standard
[	Ti	47	4651.4	3.6	2.2774	0.066	2.9	ug/L	127	Standard
|	V	51	26264.1	2.2	0.8910	0.018	2.0	ug/L	6636	Standard
|	Cr	52	41905.6	3.1	1.1732	0.028	2.4	ug/L	21244	Standard
|	Cr	53	3431.1	6.0	1.3895	0.057	4.1	ug/L	467	Standard
|	Mn	55	1282772.6	5.0	54.7843	2.755	5.0	ug/L	8327	Standard
|	Co	59	81094.8	5.1	4.9110	0.237	4.8	ug/L	123	Standard
|	Ni	60	25124.2	6.5	7.3243	0.413	5.6	ug/L	272	Standard
|	Cu	65	1234.7	7.4	0.0902	0.031	34.1	ug/L	1002	Standard
|	Zn	66	24103.9	5.6	16.4255	0.988	6.0	ug/L	3532	Standard
>	Ge	72	245877.1	2.4				ug/L	254939	Standard
|	As	75	5769.5	4.7	4.9345	0.230	4.7	ug/L	-224	Standard
|	Se	82	424.6	4.4	3.2876	0.214	6.5	ug/L	24	Standard
[	Se-1	77	236.7	4.7	1.7052	0.082	4.8	ug/L	93	Standard
|	Ga	71	226113.4	3.5				mg/L	233175	Standard
[	Rb	85	63983.5	2.7				ug/L	20	Standard
>	Y	89	380870.3	2.6				ug/L	235100	Standard
[	Rh	103	108.7	16.5				ug/L	6	Standard
[	Mo	98	584.5	5.0	0.1248	0.006	5.2	ug/L	14	Standard
|	Ag	107	73.7	10.5	0.0036	0.001	24.9	ug/L	38	Standard
|	Cd	111	690.9	4.0	0.0421	0.006	14.2	mg/L	439	Standard
|	Cd	114	1940.5	6.5	0.0400	0.009	23.5	ug/L	1326	Standard
>	In	115	834115.7	0.4				ug/L	804157	Standard
|	Sn	118	7415.8	3.3	0.2000	0.013	6.6	ug/L	4860	Standard
|	Sb	123	552.6	4.6	0.0378	0.002	5.5	ug/L	28	Standard
[	Ba	135	375032.7	2.6	65.3319	1.776	2.7	ug/L	54	Standard
[	Ce	140	744960.2	3.8				ug/L	61	Standard
>	Tb	159	917873.0	0.3				ug/L	844239	Standard
[	Ho	165	31613.7	5.6				ug/L	6	Standard
|	Tl	203	869.7	0.9	0.0544	0.001	1.8	ug/L	10	Standard
|	Tl	205	2098.8	2.9	0.0536	0.002	3.6	ug/L	16	Standard
|	Pb	206	3601.8	4.7	0.2490	0.013	5.1	ug/L	421	Standard
|	Pb	207	2946.3	4.0	0.2426	0.009	3.8	ug/L	341	Standard
|	Pb	208	13621.0	3.6	0.2444	0.009	3.5	ug/L	1571	Standard
|	U	238	3997.2	5.4	0.0868	0.004	5.1	ug/L	4	Standard
>	Bi	209	408923.0	0.9				ug/L	457202	Standard
[Na	23	96228.7	2.2	27.4400	0.690	2.5	mg/L	138	Standard
	Mg	24	1241489.8	4.3	4.5025	0.187	4.2	mg/L	134	Standard

Sample ID: L1205001706

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Shui L. Bahgat

K	39	16505.0	2.7	1.3613	0.033	2.5	mg/L	563	Standard
Ca	43	23098.9	4.2	31.3485	1.184	3.8	mg/L	127	Standard
Fe	54	107351.9	7.2	17.1323	1.209	7.1	mg/L	815	Standard
Fe	57	3217675.8	5.9	18.5603	0.984	5.3	mg/L	4749	Standard
Sc-1	45	393889.3	1.5				mg/L	367704	Standard
Cl	35	7076243.3	1.0				ug/L	59901	Standard
Kr	83	79.3	10.9				ug/L	50	Standard
Br	81	236517.7	2.2				ug/L	13965	Standard
P	31	149360.6	3.7				ug/L	71952	Standard
S	34	1975833.4	1.4				ug/L	878802	Standard
Sr	88	4430095.4	5.4				ug/L	321	Standard

QC Calculated Values

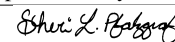
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		96.446	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		162.003	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		103.725	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		108.722	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001706

Report Date/Time: Thursday, May 03, 2012 12:41:04

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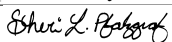


Pb	207	
Pb	208	
U	238	
> Bi	209	89.440
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Y 89 Int Std for sample	Y	89	Rerun sample

Sample ID: L1205001706
 Report Date/Time: Thursday, May 03, 2012 12:41:04
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205001707

Sample Date/Time: Thursday, May 03, 2012 12:41:24

Number of Replicates: 3

Autosampler Position: 228

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	58942.8	2.3	1991.8351	24.913	1.3	ug/L	20538	Standard
|	Be	9	1441.4	3.5	0.2510	0.005	2.0	ug/L	13	Standard
|	Al	27	40515982.4	6.3	1378.2927	64.804	4.7	ug/L	25813	Standard
>	Sc	45	468824.8	1.7				ug/L	367704	Standard
|	Ti	47	29723.8	5.0	13.9313	0.658	4.7	ug/L	127	Standard
|	V	51	90926.9	5.5	3.5459	0.210	5.9	ug/L	6636	Standard
|	Cr	52	78515.9	4.8	2.9049	0.174	6.0	ug/L	21244	Standard
|	Cr	53	10428.3	1.2	4.3656	0.093	2.1	ug/L	467	Standard
|	Mn	55	524356.3	3.9	20.8782	0.688	3.3	ug/L	8327	Standard
|	Co	59	28667.8	5.1	1.6248	0.076	4.7	ug/L	123	Standard
|	Ni	60	13424.6	4.0	3.6444	0.123	3.4	ug/L	272	Standard
|	Cu	65	4073.2	3.9	0.9823	0.046	4.7	ug/L	1002	Standard
|	Zn	66	94105.4	4.7	65.4493	2.941	4.5	ug/L	3532	Standard
>	Ge	72	261850.1	1.0				ug/L	254939	Standard
|	As	75	1856.6	3.1	1.6038	0.052	3.2	ug/L	-224	Standard
|	Se	82	655.6	2.6	4.8737	0.142	2.9	ug/L	24	Standard
|	Se-1	77	268.0	5.5	1.8857	0.178	9.4	ug/L	93	Standard
|	Ga	71	246109.2	2.1				mg/L	233175	Standard
|	Rb	85	194423.0	3.3				ug/L	20	Standard
>	Y	89	318809.8	1.7				ug/L	235100	Standard
|	Rh	103	23.3	42.3				ug/L	6	Standard
|	Mo	98	504.1	7.0	0.1012	0.007	7.2	ug/L	14	Standard
|	Ag	107	151.3	7.4	0.0120	0.001	9.9	ug/L	38	Standard
|	Cd	111	988.0	3.6	0.0921	0.006	6.2	mg/L	439	Standard
|	Cd	114	2592.9	3.1	0.0781	0.004	5.7	ug/L	1326	Standard
>	In	115	872363.3	0.6				ug/L	804157	Standard
|	Sn	118	17947.3	3.2	0.7160	0.024	3.4	ug/L	4860	Standard
|	Sb	123	1400.2	1.8	0.1004	0.002	1.9	ug/L	28	Standard
|	Ba	135	315877.2	4.1	52.6050	1.894	3.6	ug/L	54	Standard
|	Ce	140	633134.1	6.1				ug/L	61	Standard
>	Tb	159	921030.1	0.9				ug/L	844239	Standard
|	Ho	165	11499.7	5.6				ug/L	6	Standard
|	Tl	203	1830.1	0.3	0.1076	0.001	0.9	ug/L	10	Standard
|	Tl	205	4530.0	5.0	0.1096	0.006	5.1	ug/L	16	Standard
|	Pb	206	27201.8	4.5	1.9519	0.072	3.7	ug/L	421	Standard
|	Pb	207	22326.5	4.5	1.9299	0.072	3.7	ug/L	341	Standard
|	Pb	208	103841.2	4.5	1.9475	0.073	3.7	ug/L	1571	Standard
|	U	238	15376.8	5.8	0.3122	0.015	4.9	ug/L	4	Standard
>	Bi	209	433140.6	0.9				ug/L	457202	Standard
	Na	23	112542.1	3.4	26.9533	0.460	1.7	mg/L	138	Standard
	Mg	24	586718.8	4.2	1.7864	0.047	2.6	mg/L	134	Standard

Sample ID: L1205001707

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Shui L. Bahgat

K	39	47969.8	2.2	3.4079	0.019	0.6	mg/L	563	Standard
Ca	43	2259.5	6.1	2.4137	0.113	4.7	mg/L	127	Standard
Fe	54	10501.4	5.6	1.2803	0.061	4.7	mg/L	815	Standard
Fe	57	335119.3	5.2	1.5957	0.057	3.6	mg/L	4749	Standard
Sc-1	45	468824.8	1.7				mg/L	367704	Standard
Cl	35	5106087.7	2.2				ug/L	59901	Standard
Kr	83	66.2	13.7				ug/L	50	Standard
Br	81	369692.5	2.6				ug/L	13965	Standard
P	31	174510.8	3.7				ug/L	71952	Standard
S	34	1920598.3	1.2				ug/L	878802	Standard
Sr	88	726268.3	4.2				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		102.711	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		135.606	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		108.482	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		109.096	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001707

Report Date/Time: Thursday, May 03, 2012 12:43:51

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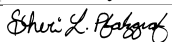
Shui L. Bahgat

Pb	207	
Pb	208	
U	238	
> Bi	209	94.737
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Y 89 Int Std for sample	Y	89	Rerun sample

Sample ID: L1205001707
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205001708

Sample Date/Time: Thursday, May 03, 2012 12:44:11

Number of Replicates: 3

Autosampler Position: 229

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	104199.6	2.5	5170.1516	115.241	2.2	ug/L	20538	Standard
|	Be	9	452.7	3.8	0.0793	0.002	3.1	ug/L	13	Standard
|	Al	27	5467880.2	5.8	195.7530	9.588	4.9	ug/L	25813	Standard
>	Sc	45	443684.9	0.9				ug/L	367704	Standard
|	Ti	47	9542.3	2.7	4.4501	0.052	1.2	ug/L	127	Standard
|	V	51	20252.8	2.9	0.5681	0.020	3.5	ug/L	6636	Standard
|	Cr	52	34940.9	1.8	0.6840	0.021	3.0	ug/L	21244	Standard
|	Cr	53	2081.5	3.9	0.7025	0.019	2.7	ug/L	467	Standard
|	Mn	55	4827166.1	5.4	194.6494	6.568	3.4	ug/L	8327	Standard
|	Co	59	78677.6	4.2	4.4855	0.097	2.2	ug/L	123	Standard
|	Ni	60	9340.5	3.8	2.5247	0.043	1.7	ug/L	272	Standard
|	Cu	65	1321.4	6.6	0.0934	0.022	23.3	ug/L	1002	Standard
|	Zn	66	24287.1	2.7	15.4855	0.086	0.6	ug/L	3532	Standard
>	Ge	72	261052.2	2.4				ug/L	254939	Standard
|	As	75	658.5	3.8	0.6748	0.024	3.6	ug/L	-224	Standard
|	Se	82	76.0	8.5	0.3487	0.045	12.9	ug/L	24	Standard
|	Se-1	77	110.0	9.8	0.1130	0.102	90.7	ug/L	93	Standard
|	Ga	71	244670.6	2.6				mg/L	233175	Standard
|	Rb	85	27557.0	1.8				ug/L	20	Standard
>	Y	89	282934.2	1.2				ug/L	235100	Standard
|	Rh	103	72.7	12.7				ug/L	6	Standard
|	Mo	98	597.5	2.6	0.1223	0.002	1.5	ug/L	14	Standard
|	Ag	107	72.0	9.7	0.0030	0.001	24.2	ug/L	38	Standard
|	Cd	111	912.9	4.6	0.0786	0.006	8.1	mg/L	439	Standard
|	Cd	114	2434.0	6.1	0.0680	0.009	13.9	ug/L	1326	Standard
>	In	115	868926.7	1.2				ug/L	804157	Standard
|	Sn	118	9328.9	3.7	0.2814	0.012	4.3	ug/L	4860	Standard
|	Sb	123	457.0	9.0	0.0288	0.003	10.9	ug/L	28	Standard
|	Ba	135	328824.4	5.0	54.9716	2.282	4.2	ug/L	54	Standard
|	Ce	140	232186.9	5.4				ug/L	61	Standard
>	Tb	159	899860.8	2.1				ug/L	844239	Standard
|	Ho	165	4718.1	5.4				ug/L	6	Standard
|	Tl	203	379.0	7.9	0.0222	0.002	8.6	ug/L	10	Standard
|	Tl	205	899.4	3.5	0.0211	0.001	5.1	ug/L	16	Standard
|	Pb	206	4538.0	4.4	0.2948	0.014	4.8	ug/L	421	Standard
|	Pb	207	3664.4	4.9	0.2838	0.017	5.9	ug/L	341	Standard
|	Pb	208	17250.5	4.3	0.2915	0.015	5.2	ug/L	1571	Standard
|	U	238	4021.2	4.1	0.0808	0.003	3.9	ug/L	4	Standard
>	Bi	209	442324.7	1.6				ug/L	457202	Standard
|	Na	23	14478.2	2.3	3.6303	0.062	1.7	mg/L	138	Standard
	Mg	24	413966.3	4.6	1.3315	0.049	3.7	mg/L	134	Standard

Sample ID: L1205001708

Report Date/Time: Thursday, May 03, 2012 12:46:38

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Shui L. Bahgat

K	39	7256.4	3.3	0.4958	0.013	2.7	mg/L	563	Standard
Ca	43	13516.7	4.9	16.1971	0.650	4.0	mg/L	127	Standard
Fe	54	4515.9	7.3	0.5061	0.041	8.2	mg/L	815	Standard
Fe	57	136131.2	5.1	0.6676	0.030	4.4	mg/L	4749	Standard
Sc-1	45	443684.9	0.9				mg/L	367704	Standard
Cl	35	799501.0	3.9				ug/L	59901	Standard
Kr	83	57.3	4.2				ug/L	50	Standard
Br	81	32196.0	9.3				ug/L	13965	Standard
P	31	168899.1	2.1				ug/L	71952	Standard
S	34	1776458.9	2.1				ug/L	878802	Standard
Sr	88	2714771.0	4.9				ug/L	321	Standard

QC Calculated Values

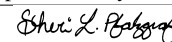
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		102.398	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		120.346	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		108.054	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		106.588	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001708

Report Date/Time: Thursday, May 03, 2012 12:46:38

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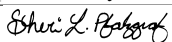


Pb	207	
Pb	208	
U	238	
> Bi	209	96.746
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	
Y 89 Int Std for sample	Y	89	Rerun sample

Sample ID: L1205001708
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205001709

Sample Date/Time: Thursday, May 03, 2012 12:46:58

Number of Replicates: 3

Autosampler Position: 230

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Li	7	186839.6	3.7	10802.3223	423.207	3.9	ug/L	20538	Standard
|	Be	9	84.3	11.9	0.0101	0.002	17.7	ug/L	13	Standard
|	Al	27	3234805.0	7.3	117.4395	9.294	7.9	ug/L	25813	Standard
>	Sc	45	436401.2	2.2				ug/L	367704	Standard
[	Ti	47	9395.6	6.0	4.5141	0.317	7.0	ug/L	127	Standard
|	V	51	21462.0	3.2	0.6463	0.038	5.8	ug/L	6636	Standard
|	Cr	52	32721.7	3.8	0.6201	0.081	13.0	ug/L	21244	Standard
|	Cr	53	1997.5	3.8	0.6917	0.035	5.0	ug/L	467	Standard
|	Mn	55	382519.9	3.8	15.6786	0.743	4.7	ug/L	8327	Standard
|	Co	59	1863.1	4.1	0.1021	0.006	5.4	ug/L	123	Standard
|	Ni	60	3117.3	4.7	0.8277	0.050	6.0	ug/L	272	Standard
|	Cu	65	1308.1	4.0	0.1020	0.021	21.0	ug/L	1002	Standard
|	Zn	66	18694.5	3.8	11.8690	0.649	5.5	ug/L	3532	Standard
>	Ge	72	253547.6	0.9				ug/L	254939	Standard
|	As	75	470.5	0.6	0.5391	0.006	1.1	ug/L	-224	Standard
|	Se	82	54.2	14.9	0.1907	0.067	35.0	ug/L	24	Standard
[	Se-1	77	106.7	14.2	0.1127	0.183	162.2	ug/L	93	Standard
|	Ga	71	234641.7	1.0				mg/L	233175	Standard
[	Rb	85	15940.4	5.6				ug/L	20	Standard
>	Y	89	242360.1	1.8				ug/L	235100	Standard
[	Rh	103	84.0	7.1				ug/L	6	Standard
[	Mo	98	3103.9	6.2	0.6888	0.039	5.7	ug/L	14	Standard
|	Ag	107	75.3	7.5	0.0036	0.001	16.5	ug/L	38	Standard
|	Cd	111	731.0	0.7	0.0468	0.000	0.7	mg/L	439	Standard
|	Cd	114	1937.8	3.8	0.0367	0.004	11.2	ug/L	1326	Standard
>	In	115	853230.4	0.9				ug/L	804157	Standard
|	Sn	118	7143.7	3.7	0.1770	0.011	6.3	ug/L	4860	Standard
|	Sb	123	892.6	6.4	0.0633	0.004	6.2	ug/L	28	Standard
[	Ba	135	333812.6	4.6	56.8339	2.189	3.9	ug/L	54	Standard
[	Ce	140	54771.0	5.9				ug/L	61	Standard
>	Tb	159	884588.6	0.9				ug/L	844239	Standard
[	Ho	165	644.7	6.5				ug/L	6	Standard
|	Tl	203	145.3	0.4	0.0089	0.000	2.3	ug/L	10	Standard
|	Tl	205	354.0	6.9	0.0082	0.000	5.8	ug/L	16	Standard
|	Pb	206	3364.4	2.4	0.2149	0.002	1.0	ug/L	421	Standard
|	Pb	207	2754.3	4.9	0.2091	0.009	4.2	ug/L	341	Standard
|	Pb	208	12688.4	4.7	0.2100	0.008	4.0	ug/L	1571	Standard
|	U	238	7953.4	6.0	0.1612	0.007	4.6	ug/L	4	Standard
>	Bi	209	435398.2	2.2				ug/L	457202	Standard
[Na	23	10508.3	4.8	2.6686	0.110	4.1	mg/L	138	Standard
	Mg	24	521357.7	5.3	1.7063	0.099	5.8	mg/L	134	Standard

Sample ID: L1205001709

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Shui L. Bahgat

K	39	11425.6	5.2	0.8289	0.045	5.5	mg/L	563	Standard
Ca	43	12375.7	4.7	15.0750	0.825	5.5	mg/L	127	Standard
Fe	54	2290.2	6.6	0.1941	0.026	13.3	mg/L	815	Standard
Fe	57	57287.9	8.2	0.2682	0.025	9.3	mg/L	4749	Standard
Sc-1	45	436401.2	2.2				mg/L	367704	Standard
Cl	35	365241.8	2.7				ug/L	59901	Standard
Kr	83	52.2	7.3				ug/L	50	Standard
Br	81	20103.0	1.9				ug/L	13965	Standard
P	31	126898.0	3.6				ug/L	71952	Standard
S	34	1226362.4	1.3				ug/L	878802	Standard
Sr	88	2903206.5	5.4				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		99.454	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		103.088	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		106.102	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		104.779	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001709

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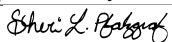
Shui L. Babcock

	Pb	207	
	Pb	208	
	U	238	
	> Bi	209	95.231
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
	> Sc-1	45	
|	Cl	35	
|	Kr	83	
|	Br	81	
|	P	31	
|	S	34	
	Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205001709
 Report Date/Time: Thursday, May 03, 2012 12:49:25
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205001710

Sample Date/Time: Thursday, May 03, 2012 12:49:45

Number of Replicates: 3

Autosampler Position: 231

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	32416.7	2.2	661.9319	17.382	2.6	ug/L	20538	Standard
|	Be	9	149.7	12.4	0.0248	0.003	13.9	ug/L	13	Standard
|	Al	27	5243122.4	5.0	205.7042	5.859	2.8	ug/L	25813	Standard
>	Sc	45	404919.2	2.3				ug/L	367704	Standard
|	Ti	47	3611.1	7.3	1.6841	0.103	6.1	ug/L	127	Standard
|	V	51	20883.0	2.9	0.6123	0.018	2.9	ug/L	6636	Standard
|	Cr	52	30885.5	2.3	0.5076	0.032	6.3	ug/L	21244	Standard
|	Cr	53	2168.2	3.0	0.7602	0.035	4.5	ug/L	467	Standard
|	Mn	55	81416.7	4.0	3.1211	0.113	3.6	ug/L	8327	Standard
|	Co	59	2074.1	1.9	0.1133	0.002	2.1	ug/L	123	Standard
|	Ni	60	1859.8	4.9	0.4640	0.026	5.7	ug/L	272	Standard
|	Cu	65	1288.1	6.3	0.0913	0.029	32.2	ug/L	1002	Standard
|	Zn	66	14191.7	5.2	8.4359	0.526	6.2	ug/L	3532	Standard
>	Ge	72	255928.0	1.4				ug/L	254939	Standard
|	As	75	224.9	15.3	0.3402	0.026	7.5	ug/L	-224	Standard
|	Se	82	85.6	12.9	0.4368	0.084	19.1	ug/L	24	Standard
|	Se-1	77	108.0	5.2	0.1156	0.055	47.9	ug/L	93	Standard
|	Ga	71	240993.6	1.0				mg/L	233175	Standard
|	Rb	85	38958.0	2.8				ug/L	20	Standard
>	Y	89	246552.1	1.5				ug/L	235100	Standard
|	Rh	103	16.0	43.3				ug/L	6	Standard
|	Mo	98	434.6	8.8	0.0863	0.008	8.9	ug/L	14	Standard
|	Ag	107	53.3	23.7	0.0009	0.001	160.6	ug/L	38	Standard
|	Cd	111	649.7	3.7	0.0290	0.005	15.8	mg/L	439	Standard
|	Cd	114	1683.1	6.4	0.0171	0.007	39.2	ug/L	1326	Standard
>	In	115	868038.6	0.8				ug/L	804157	Standard
|	Sn	118	4362.0	3.7	0.0292	0.006	21.8	ug/L	4860	Standard
|	Sb	123	416.1	6.7	0.0257	0.002	7.6	ug/L	28	Standard
|	Ba	135	76810.1	3.8	12.8464	0.383	3.0	ug/L	54	Standard
|	Ce	140	39236.1	3.8				ug/L	61	Standard
>	Tb	159	891062.8	2.0				ug/L	844239	Standard
|	Ho	165	547.3	7.8				ug/L	6	Standard
|	Tl	203	436.3	2.4	0.0253	0.000	1.8	ug/L	10	Standard
|	Tl	205	1000.0	4.2	0.0233	0.001	4.5	ug/L	16	Standard
|	Pb	206	4341.6	4.4	0.2782	0.013	4.8	ug/L	421	Standard
|	Pb	207	3574.4	4.2	0.2734	0.011	4.1	ug/L	341	Standard
|	Pb	208	16637.6	4.4	0.2774	0.013	4.7	ug/L	1571	Standard
|	U	238	1434.4	1.9	0.0293	0.001	1.9	ug/L	4	Standard
>	Bi	209	446002.3	0.7				ug/L	457202	Standard
	Na	23	11735.9	4.7	3.2190	0.078	2.4	mg/L	138	Standard
	Mg	24	248547.4	4.3	0.8755	0.020	2.3	mg/L	134	Standard

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Shui L. Bahgat

K	39	14175.3	3.5	1.1275	0.016	1.5	mg/L	563	Standard
Ca	43	2625.6	4.2	3.3097	0.116	3.5	mg/L	127	Standard
Fe	54	4054.6	3.0	0.4960	0.021	4.2	mg/L	815	Standard
Fe	57	108964.5	5.3	0.5816	0.019	3.3	mg/L	4749	Standard
Sc-1	45	404919.2	2.3				mg/L	367704	Standard
Cl	35	941157.8	2.3				ug/L	59901	Standard
Kr	83	58.4	13.0				ug/L	50	Standard
Br	81	45204.3	1.4				ug/L	13965	Standard
P	31	137734.0	1.8				ug/L	71952	Standard
S	34	1208333.7	1.8				ug/L	878802	Standard
Sr	88	374784.1	4.3				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		100.388	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		104.871	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		107.944	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		105.546	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001710

Report Date/Time: Thursday, May 03, 2012 12:52:12

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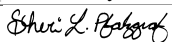
Shui L. Babcock

Pb	207	
Pb	208	
U	238	
> Bi	209	97.550
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205001710
 Report Date/Time: Thursday, May 03, 2012 12:52:12
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205001711

Sample Date/Time: Thursday, May 03, 2012 12:52:32

Number of Replicates: 3

Autosampler Position: 232

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	30667.4	2.6	564.4643	28.320	5.0	ug/L	20538	Standard
|	Be	9	108.7	17.9	0.0166	0.003	20.8	ug/L	13	Standard
|	Al	27	2857946.3	6.6	113.0912	4.379	3.9	ug/L	25813	Standard
>	Sc	45	399800.7	2.8				ug/L	367704	Standard
|	Ti	47	4309.3	6.6	2.0590	0.085	4.1	ug/L	127	Standard
|	V	51	21984.3	5.4	0.6776	0.036	5.3	ug/L	6636	Standard
|	Cr	52	34872.8	3.9	0.7504	0.032	4.3	ug/L	21244	Standard
|	Cr	53	2038.1	4.5	0.7188	0.024	3.4	ug/L	467	Standard
|	Mn	55	5090912.4	6.3	213.3603	8.368	3.9	ug/L	8327	Standard
|	Co	59	9293.9	4.4	0.5441	0.014	2.6	ug/L	123	Standard
|	Ni	60	5070.5	6.2	1.3972	0.055	3.9	ug/L	272	Standard
|	Cu	65	1780.1	7.3	0.2647	0.029	11.0	ug/L	1002	Standard
|	Zn	66	18820.4	3.8	12.0879	0.218	1.8	ug/L	3532	Standard
>	Ge	72	251160.2	2.7				ug/L	254939	Standard
|	As	75	4522.4	7.0	3.8210	0.176	4.6	ug/L	-224	Standard
|	Se	82	89.4	3.8	0.4817	0.045	9.4	ug/L	24	Standard
|	Se-1	77	115.0	4.3	0.2221	0.071	32.2	ug/L	93	Standard
|	Ga	71	232651.1	2.1				mg/L	233175	Standard
|	Rb	85	233099.0	4.5				ug/L	20	Standard
>	Y	89	243387.5	1.4				ug/L	235100	Standard
|	Rh	103	34.7	12.0				ug/L	6	Standard
|	Mo	98	610.7	6.0	0.1299	0.008	6.1	ug/L	14	Standard
|	Ag	107	94.7	20.8	0.0060	0.002	38.2	ug/L	38	Standard
|	Cd	111	631.2	9.8	0.0295	0.012	39.3	mg/L	439	Standard
|	Cd	114	1620.7	2.9	0.0166	0.003	18.2	ug/L	1326	Standard
>	In	115	839707.4	0.4				ug/L	804157	Standard
|	Sn	118	5369.0	4.1	0.0897	0.010	11.6	ug/L	4860	Standard
|	Sb	123	719.4	6.1	0.0507	0.003	6.5	ug/L	28	Standard
|	Ba	135	151597.1	3.9	26.2232	0.931	3.5	ug/L	54	Standard
|	Ce	140	47035.6	2.9				ug/L	61	Standard
>	Tb	159	877409.0	0.5				ug/L	844239	Standard
|	Ho	165	850.0	13.3				ug/L	6	Standard
|	Tl	203	297.0	6.3	0.0181	0.001	6.5	ug/L	10	Standard
|	Tl	205	732.7	4.4	0.0177	0.001	3.6	ug/L	16	Standard
|	Pb	206	5453.3	4.3	0.3737	0.015	3.9	ug/L	421	Standard
|	Pb	207	4640.0	3.0	0.3818	0.014	3.7	ug/L	341	Standard
|	Pb	208	21240.8	4.0	0.3797	0.015	3.8	ug/L	1571	Standard
|	U	238	5407.6	5.1	0.1120	0.005	4.4	ug/L	4	Standard
>	Bi	209	427310.5	0.9				ug/L	457202	Standard
	Na	23	23003.5	4.7	6.4297	0.149	2.3	mg/L	138	Standard
	Mg	24	1042832.0	3.7	3.7252	0.046	1.2	mg/L	134	Standard

Sample ID: L1205001711

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Shui L. Bahgat

K	39	93497.7	2.3	7.8661	0.157	2.0	mg/L	563	Standard
Ca	43	12276.3	4.8	16.3249	0.326	2.0	mg/L	127	Standard
Fe	54	9680.3	4.4	1.3955	0.040	2.9	mg/L	815	Standard
Fe	57	303225.4	5.8	1.6947	0.053	3.1	mg/L	4749	Standard
Sc-1	45	399800.7	2.8				mg/L	367704	Standard
Cl	35	882881.7	2.1				ug/L	59901	Standard
Kr	83	56.2	10.6				ug/L	50	Standard
Br	81	37980.6	3.4				ug/L	13965	Standard
P	31	674634.0	3.4				ug/L	71952	Standard
S	34	1205541.5	3.6				ug/L	878802	Standard
Sr	88	1553845.4	5.5				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		98.518	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		103.525	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		104.421	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		103.929	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205001711

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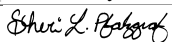
Shui L. Bahgat

Pb	207	
Pb	208	
U	238	
> Bi	209	93.462
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

Sample ID: L1205001711
 Report Date/Time: Thursday, May 03, 2012 12:55:00
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, May 03, 2012 12:55:22

Number of Replicates: 3

Autosampler Position: 101

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	21129.7	2.1	-7.6631	16.998	221.8	ug/L	20538	Standard
|	Be	9	237198.3	2.3	53.5739	1.487	2.8	ug/L	13	Standard
|	Al	27	1152333.2	5.3	48.7342	2.652	5.4	ug/L	25813	Standard
>	Sc	45	370198.7	1.1				ug/L	367704	Standard
|	Ti	47	203237.9	2.4	99.1607	2.805	2.8	ug/L	127	Standard
|	V	51	1219096.9	2.3	53.0511	1.502	2.8	ug/L	6636	Standard
|	Cr	52	994212.0	2.1	51.6109	1.411	2.7	ug/L	21244	Standard
|	Cr	53	112350.4	1.9	50.9678	1.036	2.0	ug/L	467	Standard
|	Mn	55	1288427.6	2.8	53.5871	1.347	2.5	ug/L	8327	Standard
|	Co	59	852235.6	2.5	50.3454	1.479	2.9	ug/L	123	Standard
|	Ni	60	173960.3	3.3	49.7689	1.837	3.7	ug/L	272	Standard
|	Cu	65	147966.7	2.8	49.3196	1.489	3.0	ug/L	1002	Standard
|	Zn	66	67879.1	3.2	48.4804	1.331	2.7	ug/L	3532	Standard
>	Ge	72	252436.1	2.1				ug/L	254939	Standard
|	As	75	61518.0	2.8	49.7234	1.257	2.5	ug/L	-224	Standard
|	Se	82	6396.3	3.5	51.5752	1.732	3.4	ug/L	24	Standard
|	Se-1	77	4221.9	3.9	48.0633	1.170	2.4	ug/L	93	Standard
|	Ga	71	233383.8	2.5				mg/L	233175	Standard
|	Rb	85	1050.0	5.5				ug/L	20	Standard
>	Y	89	232192.4	0.9				ug/L	235100	Standard
|	Rh	103	31.3	18.4				ug/L	6	Standard
|	Mo	98	423129.4	4.6	96.7060	4.647	4.8	ug/L	14	Standard
|	Ag	107	470403.3	2.6	55.6016	1.611	2.9	ug/L	38	Standard
|	Cd	111	272141.5	3.9	53.0673	1.969	3.7	mg/L	439	Standard
|	Cd	114	718944.6	4.4	50.4221	2.112	4.2	ug/L	1326	Standard
>	In	115	840476.9	1.5				ug/L	804157	Standard
|	Sn	118	940550.2	5.3	49.2440	2.379	4.8	ug/L	4860	Standard
|	Sb	123	656210.0	4.1	51.8362	2.018	3.9	ug/L	28	Standard
|	Ba	135	271990.2	4.3	47.0177	1.874	4.0	ug/L	54	Standard
|	Ce	140	1103.4	18.4				ug/L	61	Standard
>	Tb	159	882306.3	1.7				ug/L	844239	Standard
|	Ho	165	33.3	42.1				ug/L	6	Standard
|	Tl	203	866238.3	2.2	50.2598	1.056	2.1	ug/L	10	Standard
|	Tl	205	2158522.7	1.9	51.8749	1.096	2.1	ug/L	16	Standard
|	Pb	206	696869.4	3.7	50.2668	1.791	3.6	ug/L	421	Standard
|	Pb	207	577398.8	3.5	50.2474	1.690	3.4	ug/L	341	Standard
|	Pb	208	2670756.5	3.4	50.3896	1.626	3.2	ug/L	1571	Standard
|	U	238	2608418.5	5.1	52.3164	2.614	5.0	ug/L	4	Standard
>	Bi	209	437089.3	0.5				ug/L	457202	Standard
|	Na	23	15609.4	3.4	4.7028	0.161	3.4	mg/L	138	Standard
	Mg	24	1290393.8	2.6	4.9796	0.128	2.6	mg/L	134	Standard

Sample ID: QC Std 6

Report Date/Time: Thursday, May 03, 2012 12:57:50

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Shui L. Bahgat

K	39	53276.2	2.3	4.8179	0.149	3.1	mg/L	563	Standard
Ca	43	3438.4	1.7	4.8178	0.123	2.6	mg/L	127	Standard
Fe	54	28766.7	5.1	4.7865	0.268	5.6	mg/L	815	Standard
Fe	57	900243.5	2.5	5.5046	0.140	2.6	mg/L	4749	Standard
Sc-1	45	370198.7	1.1				mg/L	367704	Standard
Cl	35	118676.7	5.9				ug/L	59901	Standard
Kr	83	55.8	4.8				ug/L	50	Standard
Br	81	13621.1	4.5				ug/L	13965	Standard
P	31	94909.4	1.5				ug/L	71952	Standard
S	34	997675.0	0.8				ug/L	878802	Standard
Sr	88	1994.2	100.9				ug/L	321	Standard

QC Calculated Values

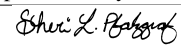
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27	97.468		
Sc	45			
Ti	47	99.161		
V	51	106.102		
Cr	52	103.222		
Cr	53			
Mn	55	107.174		
Co	59	100.691		
Ni	60	99.538		
Cu	65	98.639		
Zn	66	96.961		
Ge	72		99.018	
As	75	99.447		
Se	82	103.150		
Se-1	77	96.127		
Ga	71			
Rb	85			
Y	89		98.763	
Rh	103			
Mo	98	96.706		
Ag	107	111.203		
Cd	111	106.135		
Cd	114			
In	115		104.516	
Sn	118	98.488		
Sb	123	103.672		
Ba	135	94.035		
Ce	140			
Tb	159		104.509	
Ho	165			
Tl	203	100.520		
Tl	205			
Pb	206	100.534		

Sample ID: QC Std 6

Report Date/Time: Thursday, May 03, 2012 12:57:50

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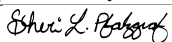


Pb	207	100.495	
Pb	208	100.779	
U	238	104.633	
> Bi	209		95.601
Na	23	94.057	
Mg	24	99.591	
K	39	96.359	
Ca	43	96.356	
Fe	54	95.730	
Fe	57	110.092	
> Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Ag	107	
QC Std 6	Fe	57	

Sample ID: QC Std 6
 Report Date/Time: Thursday, May 03, 2012 12:57:50
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Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, May 03, 2012 12:58:10

Number of Replicates: 3

Autosampler Position: 102

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	19897.7	2.2	-27.9006	46.232	165.7	ug/L	20538	Standard
|	Be	9	39.7	36.6	0.0034	0.004	105.1	ug/L	13	Standard
|	Al	27	13240.5	5.2	-0.3730	0.027	7.3	ug/L	25813	Standard
>	Sc	45	352999.6	1.5				ug/L	367704	Standard
|	Ti	47	108.7	14.9	0.0026	0.009	329.8	ug/L	127	Standard
|	V	51	6160.9	1.4	-0.0041	0.005	115.6	ug/L	6636	Standard
|	Cr	52	19354.0	1.1	-0.0243	0.005	21.4	ug/L	21244	Standard
|	Cr	53	513.3	5.7	0.0327	0.014	41.8	ug/L	467	Standard
|	Mn	55	1622.1	16.8	-0.1613	0.012	7.7	ug/L	8327	Standard
|	Co	59	199.0	31.5	0.0049	0.004	81.3	ug/L	123	Standard
|	Ni	60	126.3	15.1	-0.0232	0.006	25.8	ug/L	272	Standard
|	Cu	65	912.7	5.2	-0.0119	0.016	134.6	ug/L	1002	Standard
|	Zn	66	1077.4	4.5	-1.1220	0.037	3.3	ug/L	3532	Standard
>	Ge	72	239135.1	0.7				ug/L	254939	Standard
|	As	75	-174.4	17.7	0.0134	0.026	193.7	ug/L	-224	Standard
|	Se	82	31.4	15.5	0.0220	0.042	192.0	ug/L	24	Standard
|	Se-1	77	82.3	9.3	-0.1123	0.100	89.2	ug/L	93	Standard
|	Ga	71	223336.9	1.4				mg/L	233175	Standard
|	Rb	85	28.7	53.3				ug/L	20	Standard
>	Y	89	223467.9	0.1				ug/L	235100	Standard
|	Rh	103	2.7	114.6				ug/L	6	Standard
|	Mo	98	129.2	35.1	0.0207	0.011	52.4	ug/L	14	Standard
|	Ag	107	90.7	40.2	0.0059	0.005	76.9	ug/L	38	Standard
|	Cd	111	510.5	2.4	0.0090	0.003	33.7	mg/L	439	Standard
|	Cd	114	1333.6	6.8	-0.0007	0.007	984.3	ug/L	1326	Standard
>	In	115	814802.2	0.6				ug/L	804157	Standard
|	Sn	118	1956.8	5.9	-0.0867	0.007	7.7	ug/L	4860	Standard
|	Sb	123	276.9	33.4	0.0164	0.008	46.7	ug/L	28	Standard
|	Ba	135	72.7	11.9	0.0020	0.002	78.7	ug/L	54	Standard
|	Ce	140	73.3	27.6				ug/L	61	Standard
>	Tb	159	820034.6	2.5				ug/L	844239	Standard
|	Ho	165	8.7	58.1				ug/L	6	Standard
|	Tl	203	109.0	25.7	0.0069	0.002	25.3	ug/L	10	Standard
|	Tl	205	272.0	32.3	0.0064	0.002	34.9	ug/L	16	Standard
|	Pb	206	428.3	2.0	0.0025	0.001	44.0	ug/L	421	Standard
|	Pb	207	361.7	6.2	0.0004	0.002	527.5	ug/L	341	Standard
|	Pb	208	1661.4	3.8	0.0015	0.002	114.8	ug/L	1571	Standard
|	U	238	628.0	5.5	0.0139	0.001	4.3	ug/L	4	Standard
>	Bi	209	430507.7	1.5				ug/L	457202	Standard
	Na	23	142.7	16.4	0.0059	0.007	116.7	mg/L	138	Standard
	Mg	24	265.0	6.7	-0.0003	0.000	23.8	mg/L	134	Standard

Sample ID: QC Std 7

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Shui L. Bahgat

K	39	612.0	4.5	0.0005	0.002	429.6	mg/L	563	Standard
Ca	43	90.0	9.7	-0.0387	0.015	39.7	mg/L	127	Standard
Fe	54	770.3	5.1	-0.0004	0.008	2105.6	mg/L	815	Standard
Fe	57	4764.7	3.1	0.0001	0.001	1096.8	mg/L	4749	Standard
Sc-1	45	352999.6	1.5				mg/L	367704	Standard
Cl	35	103865.8	1.6				ug/L	59901	Standard
Kr	83	49.1	18.8				ug/L	50	Standard
Br	81	12927.5	1.2				ug/L	13965	Standard
P	31	81450.1	3.1				ug/L	71952	Standard
S	34	984501.8	2.1				ug/L	878802	Standard
Sr	88	368.0	16.5				ug/L	321	Standard

QC Calculated Values

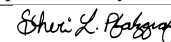
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		93.801	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		95.052	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		101.324	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		97.133	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: QC Std 7

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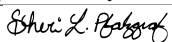


	Pb	207	
	Pb	208	
	U	238	
	> Bi	209	94.161
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
	> Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
|	P	31	
|	S	34	
	Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: L1204094404 WG396479-01

Sample Date/Time: Thursday, May 03, 2012 13:01:00

Number of Replicates: 3

Autosampler Position: 233

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	132806.0	2.2	7506.0157	115.454	1.5	ug/L	20538	Standard
|	Be	9	1412.7	7.6	0.2741	0.019	7.0	ug/L	13	Standard
|	Al	27	84551509.5	6.7	3200.6660	187.010	5.8	ug/L	25813	Standard
>	Sc	45	421546.3	0.9				ug/L	367704	Standard
|	Ti	47	9111.4	4.0	4.2732	0.144	3.4	ug/L	127	Standard
|	V	51	246469.4	4.2	10.2008	0.363	3.6	ug/L	6636	Standard
|	Cr	52	144028.6	3.6	6.3212	0.209	3.3	ug/L	21244	Standard
|	Cr	53	14745.8	4.0	6.3205	0.210	3.3	ug/L	467	Standard
|	Mn	55	3208458.8	2.3	130.1591	1.939	1.5	ug/L	8327	Standard
|	Co	59	51915.6	4.3	2.9760	0.101	3.4	ug/L	123	Standard
|	Ni	60	15457.2	4.8	4.2451	0.171	4.0	ug/L	272	Standard
|	Cu	65	11606.1	4.7	3.4533	0.143	4.1	ug/L	1002	Standard
|	Zn	66	38613.2	3.9	25.9511	0.842	3.2	ug/L	3532	Standard
>	Ge	72	259420.5	0.9				ug/L	254939	Standard
|	As	75	2111.9	6.8	1.8166	0.099	5.5	ug/L	-224	Standard
|	Se	82	68.5	15.1	0.2936	0.082	28.0	ug/L	24	Standard
|	Se-1	77	121.7	2.5	0.2541	0.035	13.6	ug/L	93	Standard
|	Ga	71	247506.5	2.1				mg/L	233175	Standard
|	Rb	85	88030.4	1.4				ug/L	20	Standard
>	Y	89	302787.5	1.8				ug/L	235100	Standard
|	Rh	103	9.3	24.7				ug/L	6	Standard
|	Mo	98	591.5	11.4	0.1232	0.016	13.1	ug/L	14	Standard
|	Ag	107	329.3	12.5	0.0331	0.005	14.6	ug/L	38	Standard
|	Cd	111	1188.2	4.5	0.1345	0.015	10.9	mg/L	439	Standard
|	Cd	114	3169.3	6.3	0.1216	0.015	12.7	ug/L	1326	Standard
>	In	115	855002.6	2.3				ug/L	804157	Standard
|	Sn	118	2972.3	3.2	-0.0392	0.006	15.5	ug/L	4860	Standard
|	Sb	123	331.9	12.2	0.0197	0.004	18.9	ug/L	28	Standard
|	Ba	135	262269.7	4.5	44.5912	2.479	5.6	ug/L	54	Standard
|	Ce	140	918971.3	5.0				ug/L	61	Standard
>	Tb	159	899664.4	1.2				ug/L	844239	Standard
|	Ho	165	10549.7	3.5				ug/L	6	Standard
|	Tl	203	1012.7	2.9	0.0570	0.001	1.9	ug/L	10	Standard
|	Tl	205	2494.2	4.3	0.0574	0.002	4.3	ug/L	16	Standard
|	Pb	206	262529.8	3.9	18.1977	0.525	2.9	ug/L	421	Standard
|	Pb	207	203735.3	3.9	17.0344	0.498	2.9	ug/L	341	Standard
|	Pb	208	968794.4	4.3	17.5625	0.576	3.3	ug/L	1571	Standard
|	U	238	19417.8	4.8	0.3757	0.014	3.8	ug/L	4	Standard
>	Bi	209	454308.3	1.0				ug/L	457202	Standard
|	Na	23	307.3	20.0	0.0426	0.017	40.3	mg/L	138	Standard
	Mg	24	364814.2	4.4	1.2349	0.044	3.5	mg/L	134	Standard

Sample ID: L1204094404 WG396479-01

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Shui L. Bahgat

K	39	5336.3	3.9	0.3706	0.014	3.9	mg/L	563	Standard
Ca	43	1638.1	4.2	1.9127	0.071	3.7	mg/L	127	Standard
Fe	54	47215.0	5.1	6.9575	0.301	4.3	mg/L	815	Standard
Fe	57	1469892.9	8.1	7.9025	0.571	7.2	mg/L	4749	Standard
Sc-1	45	421546.3	0.9				mg/L	367704	Standard
Cl	35	134670.7	2.1				ug/L	59901	Standard
Kr	83	59.1	16.4				ug/L	50	Standard
Br	81	18189.9	1.1				ug/L	13965	Standard
P	31	374417.7	2.8				ug/L	71952	Standard
S	34	965284.0	3.6				ug/L	878802	Standard
Sr	88	129330.8	5.6				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		101.758	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		128.791	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		106.323	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		106.565	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1204094404 WG396479-01
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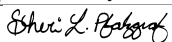
Approved: May 04, 2012
<i>Shui L. Babcock</i>

Pb	207	
Pb	208	
U	238	
> Bi	209	99.367
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	
Y 89 Int Std for sample	Y	89	Rerun sample

Sample ID: L1204094404 WG396479-01
 Report Date/Time: Thursday, May 03, 2012 13:03:27
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1204094404S WG396479-04

Sample Date/Time: Thursday, May 03, 2012 13:03:47

Number of Replicates: 3

Autosampler Position: 234

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	127957.2	2.0	7154.8196	150.925	2.1	ug/L	20538	Standard
|	Be	9	26059.7	3.1	5.1531	0.155	3.0	ug/L	13	Standard
|	Al	27	84562374.7	4.8	3195.9988	146.037	4.6	ug/L	25813	Standard
>	Sc	45	422342.3	0.8				ug/L	367704	Standard
|	Ti	47	9088.7	4.3	4.2729	0.192	4.5	ug/L	127	Standard
|	V	51	407542.6	3.2	17.0982	0.610	3.6	ug/L	6636	Standard
|	Cr	52	257805.7	2.9	12.2217	0.417	3.4	ug/L	21244	Standard
|	Cr	53	27557.7	4.2	12.0280	0.537	4.5	ug/L	467	Standard
|	Mn	55	4205292.4	2.4	171.0694	4.478	2.6	ug/L	8327	Standard
|	Co	59	163441.8	3.4	9.4088	0.357	3.8	ug/L	123	Standard
|	Ni	60	34438.1	3.1	9.5575	0.328	3.4	ug/L	272	Standard
|	Cu	65	27385.1	3.5	8.6261	0.329	3.8	ug/L	1002	Standard
|	Zn	66	43701.3	4.2	29.7078	1.387	4.7	ug/L	3532	Standard
>	Ge	72	258847.4	0.4				ug/L	254939	Standard
|	As	75	7668.1	5.7	6.1867	0.366	5.9	ug/L	-224	Standard
|	Se	82	620.9	7.9	4.6599	0.405	8.7	ug/L	24	Standard
|	Se-1	77	511.7	6.5	4.6903	0.402	8.6	ug/L	93	Standard
|	Ga	71	251851.6	1.6				mg/L	233175	Standard
|	Rb	85	80722.5	1.3				ug/L	20	Standard
>	Y	89	314981.6	1.6				ug/L	235100	Standard
|	Rh	103	11.3	40.8				ug/L	6	Standard
|	Mo	98	678.1	2.2	0.1386	0.005	3.6	ug/L	14	Standard
|	Ag	107	46161.9	2.9	5.2173	0.118	2.3	ug/L	38	Standard
|	Cd	111	28506.9	3.2	5.2359	0.117	2.2	mg/L	439	Standard
|	Cd	114	76994.8	3.3	5.0809	0.124	2.4	ug/L	1326	Standard
>	In	115	878015.0	1.2				ug/L	804157	Standard
|	Sn	118	3063.6	1.3	-0.0386	0.003	7.1	ug/L	4860	Standard
|	Sb	123	3842.2	4.3	0.2843	0.010	3.4	ug/L	28	Standard
|	Ba	135	302401.3	4.2	50.0331	1.660	3.3	ug/L	54	Standard
|	Ce	140	945189.3	4.9				ug/L	61	Standard
>	Tb	159	914195.8	0.8				ug/L	844239	Standard
|	Ho	165	10990.0	4.9				ug/L	6	Standard
|	Tl	203	89338.4	2.5	4.9632	0.099	2.0	ug/L	10	Standard
|	Tl	205	215551.2	2.8	4.9591	0.113	2.3	ug/L	16	Standard
|	Pb	206	332958.1	4.0	22.9777	0.799	3.5	ug/L	421	Standard
|	Pb	207	264269.6	4.8	21.9994	0.944	4.3	ug/L	341	Standard
|	Pb	208	1237001.5	4.7	22.3267	0.922	4.1	ug/L	1571	Standard
|	U	238	275671.4	5.5	5.2942	0.263	5.0	ug/L	4	Standard
>	Bi	209	456500.4	0.6				ug/L	457202	Standard
|	Na	23	304.0	9.3	0.0415	0.008	19.5	mg/L	138	Standard
	Mg	24	165803.2	4.0	0.5596	0.022	4.0	mg/L	134	Standard

Sample ID: L1204094404S WG396479-04

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Shui L. Bahgat

K	39	4731.4	5.2	0.3213	0.020	6.2	mg/L	563	Standard
Ca	43	766.7	7.6	0.7999	0.072	9.0	mg/L	127	Standard
Fe	54	55593.2	6.2	8.2032	0.523	6.4	mg/L	815	Standard
Fe	57	1717638.2	2.8	9.2263	0.257	2.8	mg/L	4749	Standard
Sc-1	45	422342.3	0.8				mg/L	367704	Standard
Cl	35	115383.8	1.6				ug/L	59901	Standard
Kr	83	67.3	7.5				ug/L	50	Standard
Br	81	17225.8	0.8				ug/L	13965	Standard
P	31	344512.4	3.3				ug/L	71952	Standard
S	34	912484.1	1.5				ug/L	878802	Standard
Sr	88	121960.7	3.9				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		101.533	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		133.978	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		109.184	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		108.286	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1204094404S WG396479-04
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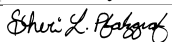
Approved: May 04, 2012
<i>Shui L. Bahgat</i>

Pb	207	
Pb	208	
U	238	
> Bi	209	99.847
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	
Y 89 Int Std for sample	Y	89	Rerun sample

Sample ID: L1204094404S WG396479-04
 Report Date/Time: Thursday, May 03, 2012 13:06:14
 Page 3

Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1204094404SD WG396479-05

Sample Date/Time: Thursday, May 03, 2012 13:06:34

Number of Replicates: 3

Autosampler Position: 235

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	133709.8	0.9	7438.5792	5.738	0.1	ug/L	20538	Standard
|	Be	9	26443.1	2.3	5.1645	0.079	1.5	ug/L	13	Standard
|	Al	27	88939948.6	6.8	3319.4230	200.340	6.0	ug/L	25813	Standard
>	Sc	45	427589.5	0.9				ug/L	367704	Standard
|	Ti	47	9037.4	6.4	4.2631	0.200	4.7	ug/L	127	Standard
|	V	51	402539.6	6.1	16.9437	0.743	4.4	ug/L	6636	Standard
|	Cr	52	258281.4	5.4	12.2941	0.516	4.2	ug/L	21244	Standard
|	Cr	53	27623.2	7.0	12.0978	0.643	5.3	ug/L	467	Standard
|	Mn	55	3721821.0	4.2	151.9355	3.831	2.5	ug/L	8327	Standard
|	Co	59	154961.7	4.4	8.9526	0.237	2.6	ug/L	123	Standard
|	Ni	60	34181.5	3.2	9.5219	0.136	1.4	ug/L	272	Standard
|	Cu	65	26748.3	3.7	8.4505	0.166	2.0	ug/L	1002	Standard
|	Zn	66	53829.6	4.4	37.1923	1.116	3.0	ug/L	3532	Standard
>	Ge	72	257810.4	1.8				ug/L	254939	Standard
|	As	75	7674.5	0.6	6.2160	0.075	1.2	ug/L	-224	Standard
|	Se	82	634.1	2.1	4.7857	0.197	4.1	ug/L	24	Standard
|	Se-1	77	486.7	3.9	4.4279	0.212	4.8	ug/L	93	Standard
|	Ga	71	251759.0	2.0				mg/L	233175	Standard
|	Rb	85	86136.3	3.5				ug/L	20	Standard
>	Y	89	313082.5	4.1				ug/L	235100	Standard
|	Rh	103	18.0	22.2				ug/L	6	Standard
|	Mo	98	660.6	6.9	0.1368	0.008	5.8	ug/L	14	Standard
|	Ag	107	46653.4	3.8	5.3502	0.123	2.3	ug/L	38	Standard
|	Cd	111	29356.2	5.3	5.4745	0.212	3.9	mg/L	439	Standard
|	Cd	114	79020.4	5.4	5.2943	0.207	3.9	ug/L	1326	Standard
>	In	115	865231.3	1.9				ug/L	804157	Standard
|	Sn	118	3681.1	3.0	-0.0048	0.004	87.7	ug/L	4860	Standard
|	Sb	123	3224.1	5.4	0.2412	0.010	3.9	ug/L	28	Standard
|	Ba	135	304780.9	5.2	51.1640	1.928	3.8	ug/L	54	Standard
|	Ce	140	969818.2	6.2				ug/L	61	Standard
>	Tb	159	906188.9	1.8				ug/L	844239	Standard
|	Ho	165	11406.3	7.2				ug/L	6	Standard
|	Tl	203	90000.4	3.6	4.9975	0.159	3.2	ug/L	10	Standard
|	Tl	205	215139.1	3.4	4.9473	0.145	2.9	ug/L	16	Standard
|	Pb	206	338461.1	5.3	23.3435	1.034	4.4	ug/L	421	Standard
|	Pb	207	271221.5	4.5	22.5702	0.954	4.2	ug/L	341	Standard
|	Pb	208	1267971.7	4.9	22.8743	0.961	4.2	ug/L	1571	Standard
|	U	238	281249.9	5.4	5.3989	0.269	5.0	ug/L	4	Standard
>	Bi	209	456773.0	2.0				ug/L	457202	Standard
|	Na	23	322.7	12.5	0.0453	0.010	22.1	mg/L	138	Standard
|	Mg	24	170107.2	5.1	0.5669	0.024	4.2	mg/L	134	Standard

Sample ID: L1204094404SD WG396479-05

Report Date/Time: Thursday, May 03, 2012 13:09:02

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Approved: May 04, 2012

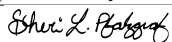
Shui L. Bahgat

K	39	5100.2	2.7	0.3458	0.008	2.2	mg/L	563	Standard
Ca	43	790.0	2.2	0.8175	0.031	3.8	mg/L	127	Standard
Fe	54	53778.6	6.3	7.8293	0.439	5.6	mg/L	815	Standard
Fe	57	1626324.0	5.3	8.6243	0.384	4.5	mg/L	4749	Standard
Sc-1	45	427589.5	0.9				mg/L	367704	Standard
Cl	35	98523.0	2.1				ug/L	59901	Standard
Kr	83	56.4	5.6				ug/L	50	Standard
Br	81	17845.5	2.4				ug/L	13965	Standard
P	31	357382.9	3.0				ug/L	71952	Standard
S	34	870128.6	2.6				ug/L	878802	Standard
Sr	88	127341.2	5.4				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		101.126	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		133.170	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		107.595	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		107.338	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1204094404SD WG396479-05
 Report Date/Time: Thursday, May 03, 2012 13:09:02
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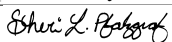
Approved: May 04, 2012 

Pb	207	
Pb	208	
U	238	
> Bi	209	99.906
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	
Y 89 Int Std for sample	Y	89	Rerun sample

Sample ID: L1204094404SD WG396479-05
 Report Date/Time: Thursday, May 03, 2012 13:09:02
 Page 3

Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, May 03, 2012 13:09:25

Number of Replicates: 3

Autosampler Position: 101

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	21078.3	1.6	-32.8175	14.673	44.7	ug/L	20538	Standard
|	Be	9	238437.4	4.6	53.1396	1.601	3.0	ug/L	13	Standard
|	Al	27	1208665.2	6.1	50.4747	2.536	5.0	ug/L	25813	Standard
>	Sc	45	375013.1	1.7				ug/L	367704	Standard
|	Ti	47	210794.7	4.4	103.5703	3.036	2.9	ug/L	127	Standard
|	V	51	1264021.3	4.3	55.4048	1.671	3.0	ug/L	6636	Standard
|	Cr	52	1020786.6	5.6	53.3938	2.373	4.4	ug/L	21244	Standard
|	Cr	53	115628.0	6.2	52.8316	2.768	5.2	ug/L	467	Standard
|	Mn	55	1312936.8	4.1	55.0080	1.734	3.2	ug/L	8327	Standard
|	Co	59	863739.1	4.5	51.3840	1.684	3.3	ug/L	123	Standard
|	Ni	60	180266.7	4.9	51.9356	1.937	3.7	ug/L	272	Standard
|	Cu	65	148969.1	4.6	50.0082	1.632	3.3	ug/L	1002	Standard
|	Zn	66	68671.5	4.3	49.4376	1.624	3.3	ug/L	3532	Standard
>	Ge	72	250557.3	1.4				ug/L	254939	Standard
|	As	75	61996.4	3.8	50.4679	1.257	2.5	ug/L	-224	Standard
|	Se	82	6318.5	4.2	51.3095	1.440	2.8	ug/L	24	Standard
|	Se-1	77	4319.3	3.4	49.5742	1.025	2.1	ug/L	93	Standard
|	Ga	71	232757.6	0.6				mg/L	233175	Standard
|	Rb	85	1031.4	4.7				ug/L	20	Standard
>	Y	89	230181.6	1.7				ug/L	235100	Standard
|	Rh	103	48.0	18.2				ug/L	6	Standard
|	Mo	98	419977.3	3.9	95.3785	3.812	4.0	ug/L	14	Standard
|	Ag	107	457866.4	4.4	53.7745	2.332	4.3	ug/L	38	Standard
|	Cd	111	266700.9	5.6	51.6775	2.848	5.5	mg/L	439	Standard
|	Cd	114	718445.8	4.2	50.0717	2.086	4.2	ug/L	1326	Standard
>	In	115	845794.7	1.3				ug/L	804157	Standard
|	Sn	118	946342.3	5.7	49.2442	2.825	5.7	ug/L	4860	Standard
|	Sb	123	655931.1	5.0	51.4901	2.574	5.0	ug/L	28	Standard
|	Ba	135	273572.5	4.2	46.9986	1.990	4.2	ug/L	54	Standard
|	Ce	140	1136.7	6.8				ug/L	61	Standard
>	Tb	159	873879.7	0.8				ug/L	844239	Standard
|	Ho	165	31.3	9.8				ug/L	6	Standard
|	Tl	203	868735.6	3.3	50.5222	1.906	3.8	ug/L	10	Standard
|	Tl	205	2143741.4	6.8	51.6360	3.630	7.0	ug/L	16	Standard
|	Pb	206	699398.4	5.1	50.5646	2.683	5.3	ug/L	421	Standard
|	Pb	207	581595.9	4.4	50.7262	2.203	4.3	ug/L	341	Standard
|	Pb	208	2688736.3	4.3	50.8430	2.180	4.3	ug/L	1571	Standard
|	U	238	2626752.6	5.9	52.7915	2.840	5.4	ug/L	4	Standard
>	Bi	209	436165.8	1.8				ug/L	457202	Standard
|	Na	23	16178.7	5.6	4.8121	0.248	5.1	mg/L	138	Standard
	Mg	24	1317354.6	5.6	5.0165	0.220	4.4	mg/L	134	Standard

Sample ID: QC Std 6

Report Date/Time: Thursday, May 03, 2012 13:11:52

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K	39	55160.9	2.7	4.9244	0.067	1.4	mg/L	563	Standard
Ca	43	3441.7	5.2	4.7558	0.174	3.7	mg/L	127	Standard
Fe	54	29862.7	6.3	4.9056	0.256	5.2	mg/L	815	Standard
Fe	57	896713.1	4.8	5.4106	0.195	3.6	mg/L	4749	Standard
Sc-1	45	375013.1	1.7				mg/L	367704	Standard
Cl	35	99402.7	1.8				ug/L	59901	Standard
Kr	83	62.4	5.0				ug/L	50	Standard
Br	81	13452.0	2.2				ug/L	13965	Standard
P	31	96013.0	1.9				ug/L	71952	Standard
S	34	978575.7	2.1				ug/L	878802	Standard
Sr	88	732.7	8.4				ug/L	321	Standard

QC Calculated Values

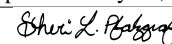
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27	100.949		
Sc	45			
Ti	47	103.570		
V	51	110.810		
Cr	52	106.788		
Cr	53			
Mn	55	110.016		
Co	59	102.768		
Ni	60	103.871		
Cu	65	100.016		
Zn	66	98.875		
Ge	72		98.281	
As	75	100.936		
Se	82	102.619		
Se-1	77	99.148		
Ga	71			
Rb	85			
Y	89		97.908	
Rh	103			
Mo	98	95.378		
Ag	107	107.549		
Cd	111	103.355		
Cd	114			
In	115		105.178	
Sn	118	98.488		
Sb	123	102.980		
Ba	135	93.997		
Ce	140			
Tb	159		103.511	
Ho	165			
Tl	203	101.044		
Tl	205			
Pb	206	101.129		

Sample ID: QC Std 6

Report Date/Time: Thursday, May 03, 2012 13:11:52

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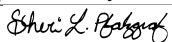


Pb	207	101.452	
Pb	208	101.686	
U	238	105.583	
> Bi	209		95.399
Na	23	96.242	
Mg	24	100.331	
K	39	98.488	
Ca	43	95.117	
Fe	54	98.113	
Fe	57	108.213	
> Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	V	51	
QC Std 6	Mn	55	

Sample ID: QC Std 6
 Report Date/Time: Thursday, May 03, 2012 13:11:52
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, May 03, 2012 13:12:12

Number of Replicates: 3

Autosampler Position: 102

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	20360.7	1.1	7.0688	42.324	598.7	ug/L	20538	Standard
|	Be	9	33.3	12.1	0.0018	0.001	44.1	ug/L	13	Standard
|	Al	27	15361.8	0.8	-0.2782	0.013	4.8	ug/L	25813	Standard
>	Sc	45	353749.5	2.5				ug/L	367704	Standard
|	Ti	47	115.3	22.3	0.0063	0.013	213.1	ug/L	127	Standard
|	V	51	5855.4	3.2	-0.0172	0.009	51.4	ug/L	6636	Standard
|	Cr	52	18427.5	2.5	-0.0720	0.026	36.5	ug/L	21244	Standard
|	Cr	53	501.3	5.6	0.0279	0.014	49.2	ug/L	467	Standard
|	Mn	55	1590.4	2.8	-0.1624	0.002	1.2	ug/L	8327	Standard
|	Co	59	151.3	16.2	0.0019	0.002	79.2	ug/L	123	Standard
|	Ni	60	114.0	10.7	-0.0268	0.004	13.7	ug/L	272	Standard
|	Cu	65	909.7	1.2	-0.0116	0.004	36.8	ug/L	1002	Standard
|	Zn	66	1059.0	1.2	-1.1330	0.011	1.0	ug/L	3532	Standard
>	Ge	72	238175.4	0.1				ug/L	254939	Standard
|	As	75	-219.0	13.2	-0.0253	0.025	97.4	ug/L	-224	Standard
|	Se	82	19.9	31.2	-0.0762	0.053	70.1	ug/L	24	Standard
|	Se-1	77	80.3	4.0	-0.1334	0.038	28.8	ug/L	93	Standard
|	Ga	71	221491.3	1.2				mg/L	233175	Standard
|	Rb	85	30.0	13.3				ug/L	20	Standard
>	Y	89	218679.6	1.3				ug/L	235100	Standard
|	Rh	103	1.3	86.6				ug/L	6	Standard
|	Mo	98	146.6	38.0	0.0248	0.013	51.6	ug/L	14	Standard
|	Ag	107	87.3	34.7	0.0055	0.004	65.6	ug/L	38	Standard
|	Cd	111	496.5	4.6	0.0065	0.003	45.9	mg/L	439	Standard
|	Cd	114	1331.9	1.3	-0.0005	0.003	564.4	ug/L	1326	Standard
>	In	115	812082.0	2.1				ug/L	804157	Standard
|	Sn	118	1919.5	7.4	-0.0884	0.006	7.3	ug/L	4860	Standard
|	Sb	123	280.2	24.6	0.0167	0.005	32.1	ug/L	28	Standard
|	Ba	135	78.3	9.6	0.0031	0.001	35.7	ug/L	54	Standard
|	Ce	140	106.7	18.8				ug/L	61	Standard
>	Tb	159	842237.7	1.5				ug/L	844239	Standard
|	Ho	165	10.7	21.7				ug/L	6	Standard
|	Tl	203	88.7	23.8	0.0056	0.001	20.3	ug/L	10	Standard
|	Tl	205	226.0	23.8	0.0052	0.001	23.4	ug/L	16	Standard
|	Pb	206	440.7	6.6	0.0032	0.002	52.1	ug/L	421	Standard
|	Pb	207	357.7	6.2	-0.0001	0.002	1403.1	ug/L	341	Standard
|	Pb	208	1655.4	5.9	0.0011	0.002	133.5	ug/L	1571	Standard
|	U	238	553.7	12.9	0.0123	0.002	13.3	ug/L	4	Standard
>	Bi	209	433100.7	1.8				ug/L	457202	Standard
|	Na	23	116.7	12.9	-0.0024	0.005	213.8	mg/L	138	Standard
	Mg	24	228.7	10.5	-0.0005	0.000	21.8	mg/L	134	Standard

Sample ID: QC Std 7

Report Date/Time: Thursday, May 03, 2012 13:14:39

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Shui L. Bahgat

K	39	605.3	7.3	-0.0002	0.005	2346.8	mg/L	563	Standard
Ca	43	97.3	24.5	-0.0274	0.040	145.5	mg/L	127	Standard
Fe	54	818.6	6.1	0.0079	0.008	103.5	mg/L	815	Standard
Fe	57	4659.4	3.4	-0.0006	0.001	179.9	mg/L	4749	Standard
Sc-1	45	353749.5	2.5				mg/L	367704	Standard
Cl	35	92881.2	1.5				ug/L	59901	Standard
Kr	83	52.4	7.0				ug/L	50	Standard
Br	81	12674.6	1.6				ug/L	13965	Standard
P	31	81047.7	3.9				ug/L	71952	Standard
S	34	950471.8	1.9				ug/L	878802	Standard
Sr	88	263.3	8.4				ug/L	321	Standard

QC Calculated Values

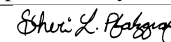
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		93.425	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		93.015	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		100.985	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		99.763	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: QC Std 7

Report Date/Time: Thursday, May 03, 2012 13:14:39

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Approved: May 04, 2012

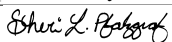


	Pb	207	
	Pb	208	
	U	238	
	> Bi	209	94.729
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
|	> Sc-1	45	
|	Cl	35	
|	Kr	83	
|	Br	81	
|	P	31	
|	S	34	
	Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: QC Std 7
 Report Date/Time: Thursday, May 03, 2012 13:14:39
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Method 6020 - Summary Report

Sample ID: PBW 32 WG396868-02

Sample Date/Time: Thursday, May 03, 2012 13:28:07

Number of Replicates: 3

Autosampler Position: 236

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	21827.0	1.2	35.5160	28.864	81.3	ug/L	20538	Standard
|	Be	9	41.7	9.1	0.0033	0.001	27.1	ug/L	13	Standard
|	Al	27	125134.5	6.0	4.3880	0.317	7.2	ug/L	25813	Standard
>	Sc	45	372786.1	0.8				ug/L	367704	Standard
|	Ti	47	157.3	3.2	0.0235	0.004	18.1	ug/L	127	Standard
|	V	51	6550.3	1.2	-0.0019	0.011	551.8	ug/L	6636	Standard
|	Cr	52	20746.5	0.2	-0.0072	0.031	426.8	ug/L	21244	Standard
|	Cr	53	528.7	4.8	0.0267	0.012	43.8	ug/L	467	Standard
|	Mn	55	4988.5	4.8	-0.0244	0.011	45.5	ug/L	8327	Standard
|	Co	59	216.7	0.5	0.0053	0.000	5.0	ug/L	123	Standard
|	Ni	60	136.7	5.9	-0.0222	0.003	12.3	ug/L	272	Standard
|	Cu	65	339.0	1.6	-0.2213	0.004	1.9	ug/L	1002	Standard
|	Zn	66	4394.3	4.9	1.2980	0.130	10.0	ug/L	3532	Standard
>	Ge	72	252460.2	2.6				ug/L	254939	Standard
|	As	75	-243.2	3.8	-0.0342	0.005	14.9	ug/L	-224	Standard
|	Se	82	22.1	28.8	-0.0679	0.049	72.6	ug/L	24	Standard
|	Se-1	77	96.7	11.4	-0.0002	0.112	56590.9	ug/L	93	Standard
|	Ga	71	235338.9	2.2				mg/L	233175	Standard
|	Rb	85	50.7	34.5				ug/L	20	Standard
>	Y	89	230455.5	0.9				ug/L	235100	Standard
|	Rh	103	6.0					ug/L	6	Standard
|	Mo	98	21.9	12.0	-0.0048	0.001	11.6	ug/L	14	Standard
|	Ag	107	45.7	10.1	0.0002	0.001	334.8	ug/L	38	Standard
|	Cd	111	572.0	8.0	0.0171	0.008	47.2	mg/L	439	Standard
|	Cd	114	1539.8	1.7	0.0101	0.003	25.8	ug/L	1326	Standard
>	In	115	845726.2	0.8				ug/L	804157	Standard
|	Sn	118	1478.1	0.4	-0.1156	0.000	0.3	ug/L	4860	Standard
|	Sb	123	253.6	2.2	0.0138	0.000	3.4	ug/L	28	Standard
|	Ba	135	174.3	10.3	0.0190	0.003	16.2	ug/L	54	Standard
|	Ce	140	166.7	9.0				ug/L	61	Standard
>	Tb	159	845133.5	1.2				ug/L	844239	Standard
|	Ho	165	11.3	40.8				ug/L	6	Standard
|	Tl	203	103.3	3.0	0.0064	0.000	2.7	ug/L	10	Standard
|	Tl	205	243.3	6.6	0.0055	0.000	6.5	ug/L	16	Standard
|	Pb	206	424.7	6.7	0.0013	0.002	132.0	ug/L	421	Standard
|	Pb	207	360.0	3.3	-0.0007	0.001	207.5	ug/L	341	Standard
|	Pb	208	1607.7	1.1	-0.0005	0.000	42.2	ug/L	1571	Standard
|	U	238	166.3	8.2	0.0044	0.000	6.9	ug/L	4	Standard
>	Bi	209	443211.1	1.1				ug/L	457202	Standard
	Na	23	140.0	8.6	0.0028	0.004	139.1	mg/L	138	Standard
	Mg	24	492.3	9.5	0.0005	0.000	36.3	mg/L	134	Standard

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K	39	613.3	2.4	-0.0025	0.001	35.8	mg/L	563	Standard
Ca	43	125.3	3.3	0.0048	0.006	128.4	mg/L	127	Standard
Fe	54	867.1	9.8	0.0088	0.015	176.4	mg/L	815	Standard
Fe	57	5301.6	4.0	0.0018	0.001	75.1	mg/L	4749	Standard
Sc-1	45	372786.1	0.8				mg/L	367704	Standard
Cl	35	146995.6	0.4				ug/L	59901	Standard
Kr	83	48.7	9.0				ug/L	50	Standard
Br	81	14704.8	1.0				ug/L	13965	Standard
P	31	93364.5	0.8				ug/L	71952	Standard
S	34	971375.3	2.1				ug/L	878802	Standard
Sr	88	1335.4	5.5				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		99.028	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		98.024	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		105.169	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		100.106	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: PBW 32 WG396868-02
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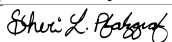
Approved: May 04, 2012
<i>Shui L. Babcock</i>

	Pb	207	
	Pb	208	
	U	238	
	> Bi	209	96.940
	Na	23	
	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
|	> Sc-1	45	
|	Cl	35	
|	Kr	83	
|	Br	81	
|	P	31	
|	S	34	
	Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: PBW 32 WG396868-02
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Method 6020 - Summary Report

Sample ID: LCSW 32 WG396868-03

Sample Date/Time: Thursday, May 03, 2012 13:30:54

Number of Replicates: 3

Autosampler Position: 237

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	21958.9	0.6	7.4837	18.534	247.7	ug/L	20538	Standard
|	Be	9	124020.4	2.8	27.1850	0.374	1.4	ug/L	13	Standard
|	Al	27	687723.6	7.8	27.8082	1.810	6.5	ug/L	25813	Standard
>	Sc	45	381321.2	1.6				ug/L	367704	Standard
|	Ti	47	152.7	7.9	0.0189	0.006	32.8	ug/L	127	Standard
|	V	51	653314.7	3.9	27.4272	0.312	1.1	ug/L	6636	Standard
|	Cr	52	551568.3	5.4	27.2396	0.536	2.0	ug/L	21244	Standard
|	Cr	53	61250.7	7.7	26.8212	1.267	4.7	ug/L	467	Standard
|	Mn	55	704964.5	6.6	28.3052	0.932	3.3	ug/L	8327	Standard
|	Co	59	470556.5	5.7	26.9372	0.573	2.1	ug/L	123	Standard
|	Ni	60	96511.7	7.0	26.7217	0.923	3.5	ug/L	272	Standard
|	Cu	65	82971.9	6.9	26.6425	0.893	3.4	ug/L	1002	Standard
|	Zn	66	39797.8	8.0	26.6867	1.278	4.8	ug/L	3532	Standard
>	Ge	72	260286.3	3.7				ug/L	254939	Standard
|	As	75	32495.7	5.4	25.5387	0.458	1.8	ug/L	-224	Standard
|	Se	82	3320.9	6.8	25.8272	0.976	3.8	ug/L	24	Standard
|	Se-1	77	2302.2	5.0	24.8833	0.356	1.4	ug/L	93	Standard
|	Ga	71	244693.3	4.5				mg/L	233175	Standard
|	Rb	85	48.7	10.3				ug/L	20	Standard
>	Y	89	241334.4	3.5				ug/L	235100	Standard
|	Rh	103	22.7	13.5				ug/L	6	Standard
|	Mo	98	52.3	9.7	0.0017	0.001	52.0	ug/L	14	Standard
|	Ag	107	242705.4	3.1	27.6396	0.483	1.7	ug/L	38	Standard
|	Cd	111	140445.2	4.8	26.3350	0.640	2.4	mg/L	439	Standard
|	Cd	114	376939.4	5.3	25.4161	0.733	2.9	ug/L	1326	Standard
>	In	115	872127.9	2.4				ug/L	804157	Standard
|	Sn	118	2193.5	7.7	-0.0818	0.006	7.4	ug/L	4860	Standard
|	Sb	123	341526.1	4.5	25.9870	0.535	2.1	ug/L	28	Standard
|	Ba	135	145168.5	5.5	24.1670	0.749	3.1	ug/L	54	Standard
|	Ce	140	284.7	11.8				ug/L	61	Standard
>	Tb	159	882111.1	2.0				ug/L	844239	Standard
|	Ho	165	7.3	68.6				ug/L	6	Standard
|	Tl	203	461229.1	3.3	25.7711	0.361	1.4	ug/L	10	Standard
|	Tl	205	1106158.3	4.0	25.5968	0.550	2.1	ug/L	16	Standard
|	Pb	206	369315.7	4.0	25.6380	0.530	2.1	ug/L	421	Standard
|	Pb	207	316610.0	5.0	26.5133	0.810	3.1	ug/L	341	Standard
|	Pb	208	1442793.4	4.8	26.1953	0.747	2.9	ug/L	1571	Standard
|	U	238	1293161.0	6.4	24.9680	1.121	4.5	ug/L	4	Standard
>	Bi	209	453804.3	1.9				ug/L	457202	Standard
|	Na	23	126.0	24.4	-0.0022	0.010	429.7	mg/L	138	Standard
	Mg	24	280.0	8.0	-0.0004	0.000	24.0	mg/L	134	Standard

Sample ID: LCSW 32 WG396868-03

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K	39	622.0	1.7	-0.0030	0.000	6.0	mg/L	563	Standard
Ca	43	104.7	16.7	-0.0286	0.022	78.6	mg/L	127	Standard
Fe	54	985.7	2.4	0.0252	0.007	25.9	mg/L	815	Standard
Fe	57	6020.5	4.0	0.0053	0.001	16.4	mg/L	4749	Standard
Sc-1	45	381321.2	1.6				mg/L	367704	Standard
Cl	35	116096.5	1.8				ug/L	59901	Standard
Kr	83	47.3	13.9				ug/L	50	Standard
Br	81	15103.2	3.3				ug/L	13965	Standard
P	31	100477.1	1.8				ug/L	71952	Standard
S	34	969560.8	3.2				ug/L	878802	Standard
Sr	88	614.7	10.2				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		102.098	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		102.652	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		108.452	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		104.486	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: LCSW 32 WG396868-03
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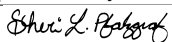
Approved: May 04, 2012
<i>Shui L. Babcock</i>

Pb	207	
Pb	208	
U	238	
> Bi	209	99.257
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: LCSW 32 WG396868-03
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: FBLK WG396840-01

Sample Date/Time: Thursday, May 03, 2012 13:33:41

Number of Replicates: 3

Autosampler Position: 238

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	22178.9	2.1	57.8180	3.517	6.1	ug/L	20538	Standard
|	Be	9	28.0	35.7	0.0002	0.002	1060.2	ug/L	13	Standard
|	Al	27	111929.4	7.3	3.8050	0.252	6.6	ug/L	25813	Standard
>	Sc	45	373880.4	2.1				ug/L	367704	Standard
|	Ti	47	194.0	8.1	0.0397	0.009	22.5	ug/L	127	Standard
|	V	51	6652.2	1.8	-0.0027	0.012	442.5	ug/L	6636	Standard
|	Cr	52	21467.2	1.8	0.0106	0.046	428.8	ug/L	21244	Standard
|	Cr	53	618.7	3.1	0.0629	0.018	28.8	ug/L	467	Standard
|	Mn	55	5830.1	5.8	0.0064	0.016	243.6	ug/L	8327	Standard
|	Co	59	246.7	11.1	0.0067	0.001	18.5	ug/L	123	Standard
|	Ni	60	379.7	8.3	0.0454	0.009	19.1	ug/L	272	Standard
|	Cu	65	2508.5	5.2	0.4918	0.054	11.0	ug/L	1002	Standard
|	Zn	66	7576.2	6.6	3.5626	0.388	10.9	ug/L	3532	Standard
>	Ge	72	257211.2	4.1				ug/L	254939	Standard
|	As	75	-205.6	6.5	-0.0008	0.005	596.3	ug/L	-224	Standard
|	Se	82	36.9	27.5	0.0456	0.073	160.7	ug/L	24	Standard
|	Se-1	77	98.7	11.1	0.0014	0.096	6704.9	ug/L	93	Standard
|	Ga	71	242095.9	4.4				mg/L	233175	Standard
|	Rb	85	164.0	11.6				ug/L	20	Standard
>	Y	89	234205.4	3.1				ug/L	235100	Standard
|	Rh	103	2.0	100.0				ug/L	6	Standard
|	Mo	98	28.7	19.7	-0.0032	0.001	39.0	ug/L	14	Standard
|	Ag	107	64.7	19.6	0.0024	0.001	60.3	ug/L	38	Standard
|	Cd	111	641.0	2.8	0.0310	0.003	9.0	mg/L	439	Standard
|	Cd	114	1785.2	5.6	0.0277	0.007	24.6	ug/L	1326	Standard
>	In	115	842457.3	0.6				ug/L	804157	Standard
|	Sn	118	26477.8	6.4	1.1955	0.082	6.8	ug/L	4860	Standard
|	Sb	123	198.3	6.4	0.0095	0.001	9.7	ug/L	28	Standard
|	Ba	135	345.7	9.2	0.0487	0.005	10.9	ug/L	54	Standard
|	Ce	140	615.3	7.8				ug/L	61	Standard
>	Tb	159	864192.2	0.4				ug/L	844239	Standard
|	Ho	165	22.0	48.1				ug/L	6	Standard
|	Tl	203	121.7	34.0	0.0073	0.002	29.2	ug/L	10	Standard
|	Tl	205	272.0	24.1	0.0061	0.001	22.2	ug/L	16	Standard
|	Pb	206	1644.8	7.5	0.0871	0.005	6.0	ug/L	421	Standard
|	Pb	207	1340.1	6.7	0.0824	0.004	5.4	ug/L	341	Standard
|	Pb	208	6235.8	7.0	0.0846	0.005	5.5	ug/L	1571	Standard
|	U	238	415.3	15.8	0.0092	0.001	11.6	ug/L	4	Standard
>	Bi	209	447046.7	3.0				ug/L	457202	Standard
	Na	23	346.7	7.5	0.0647	0.006	9.3	mg/L	138	Standard
	Mg	24	4178.9	8.5	0.0145	0.001	7.2	mg/L	134	Standard

Sample ID: FBLK WG396840-01

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Shui L. Bahgat

K	39	612.0	1.2	-0.0028	0.001	36.8	mg/L	563	Standard
Ca	43	109.3	23.9	-0.0188	0.037	195.4	mg/L	127	Standard
Fe	54	1005.7	5.3	0.0319	0.011	33.2	mg/L	815	Standard
Fe	57	6294.6	5.9	0.0077	0.001	19.2	mg/L	4749	Standard
Sc-1	45	373880.4	2.1				mg/L	367704	Standard
Cl	35	112155.0	1.7				ug/L	59901	Standard
Kr	83	50.0	4.0				ug/L	50	Standard
Br	81	15805.9	0.8				ug/L	13965	Standard
P	31	101762.3	2.0				ug/L	71952	Standard
S	34	950736.2	0.8				ug/L	878802	Standard
Sr	88	5944.5	7.0				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		100.891	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		99.619	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		104.763	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		102.363	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: FBLK WG396840-01

Report Date/Time: Thursday, May 03, 2012 13:36:08

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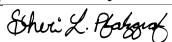
Shui L. Bahgat

Pb	207	
Pb	208	
U	238	
> Bi	209	97.779
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: FBLK WG396840-01
 Report Date/Time: Thursday, May 03, 2012 13:36:08
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205003502

Sample Date/Time: Thursday, May 03, 2012 13:36:28

Number of Replicates: 3

Autosampler Position: 239

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	1010670.6	4.4	72553.6710	2069.272	2.9	ug/L	20538	Standard
|	Be	9	127.0	11.1	0.0207	0.003	13.8	ug/L	13	Standard
|	Al	27	1815955.3	8.7	72.1159	5.529	7.7	ug/L	25813	Standard
>	Sc	45	396517.1	1.7				ug/L	367704	Standard
|	Ti	47	7228.4	76.0	3.2621	2.529	77.5	ug/L	127	Standard
|	V	51	93149.5	5.0	3.5354	0.184	5.2	ug/L	6636	Standard
|	Cr	52	54131.9	3.4	1.5858	0.085	5.4	ug/L	21244	Standard
|	Cr	53	4152.6	3.1	1.5610	0.050	3.2	ug/L	467	Standard
|	Mn	55	259182.3	3.7	9.9272	0.360	3.6	ug/L	8327	Standard
|	Co	59	5916.5	4.8	0.3205	0.015	4.8	ug/L	123	Standard
|	Ni	60	9279.8	5.2	2.4327	0.125	5.1	ug/L	272	Standard
|	Cu	65	6270.3	5.3	1.6393	0.100	6.1	ug/L	1002	Standard
|	Zn	66	4451.0	3.6	1.1372	0.102	9.0	ug/L	3532	Standard
>	Ge	72	268959.5	0.3				ug/L	254939	Standard
|	As	75	9763.1	3.9	7.5429	0.268	3.6	ug/L	-224	Standard
|	Se	82	138.7	4.7	0.8079	0.050	6.2	ug/L	24	Standard
|	Se-1	77	156.3	8.3	0.5842	0.140	24.0	ug/L	93	Standard
|	Ga	71	251176.3	0.8				mg/L	233175	Standard
|	Rb	85	28862.1	2.1				ug/L	20	Standard
>	Y	89	248135.1	2.9				ug/L	235100	Standard
|	Rh	103	176.0	9.3				ug/L	6	Standard
|	Mo	98	32185.0	4.7	7.1560	0.248	3.5	ug/L	14	Standard
|	Ag	107	95.3	3.2	0.0058	0.000	5.6	ug/L	38	Standard
|	Cd	111	890.0	7.0	0.0755	0.012	15.3	mg/L	439	Standard
|	Cd	114	2406.2	0.6	0.0674	0.002	2.7	ug/L	1326	Standard
>	In	115	862523.6	1.7				ug/L	804157	Standard
|	Sn	118	1315.4	3.2	-0.1254	0.003	2.0	ug/L	4860	Standard
|	Sb	123	5861.8	3.8	0.4450	0.011	2.4	ug/L	28	Standard
|	Ba	135	238108.9	4.2	40.0985	1.124	2.8	ug/L	54	Standard
|	Ce	140	8023.5	15.4				ug/L	61	Standard
>	Tb	159	890293.1	1.7				ug/L	844239	Standard
|	Ho	165	216.7	6.7				ug/L	6	Standard
|	Tl	203	9663.4	2.8	0.5654	0.012	2.0	ug/L	10	Standard
|	Tl	205	23141.0	3.7	0.5600	0.017	3.0	ug/L	16	Standard
|	Pb	206	1808.8	7.0	0.1026	0.008	8.0	ug/L	421	Standard
|	Pb	207	1490.1	3.5	0.0991	0.003	3.5	ug/L	341	Standard
|	Pb	208	6777.2	4.3	0.0985	0.005	4.6	ug/L	1571	Standard
|	U	238	23879.5	5.5	0.4836	0.023	4.8	ug/L	4	Standard
>	Bi	209	433768.8	0.8				ug/L	457202	Standard
|	Na	23	41061.6	2.7	11.6063	0.172	1.5	mg/L	138	Standard
	Mg	24	1544792.7	5.1	5.5646	0.240	4.3	mg/L	134	Standard

Sample ID: L1205003502

Report Date/Time: Thursday, May 03, 2012 13:38:55

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Shui L. Bahgat

K	39	16113.2	3.5	1.3185	0.047	3.6	mg/L	563	Standard
Ca	43	16111.9	5.4	21.6623	0.958	4.4	mg/L	127	Standard
Fe	54	1386.7	5.7	0.0829	0.010	12.1	mg/L	815	Standard
Fe	57	31939.2	9.8	0.1527	0.017	11.1	mg/L	4749	Standard
Sc-1	45	396517.1	1.7				mg/L	367704	Standard
Cl	35	1758284.1	2.1				ug/L	59901	Standard
Kr	83	54.0	13.9				ug/L	50	Standard
Br	81	41580.0	2.4				ug/L	13965	Standard
P	31	122418.8	4.1				ug/L	71952	Standard
S	34	4103006.2	3.1				ug/L	878802	Standard
Sr	88	4484691.5	5.0				ug/L	321	Standard

QC Calculated Values

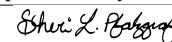
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		105.500	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		105.544	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		107.258	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		105.455	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205003502

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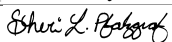


Pb	207	
Pb	208	
U	238	
> Bi	209	94.875
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205003502
 Report Date/Time: Thursday, May 03, 2012 13:38:55
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205003502DL WG396925-02

Sample Date/Time: Thursday, May 03, 2012 13:39:15

Number of Replicates: 3

Autosampler Position: 240

Sample Description: 5

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Li	7	967588.9	3.2	68825.7554	2955.516	4.3	ug/L	20538	Standard
|	Be	9	136.0	10.2	0.0224	0.002	10.9	ug/L	13	Standard
|	Al	27	1680515.0	6.2	66.1518	4.676	7.1	ug/L	25813	Standard
>	Sc	45	399995.3	2.8				ug/L	367704	Standard
[	Ti	47	4194.6	27.3	1.8858	0.512	27.1	ug/L	127	Standard
|	V	51	88582.4	4.9	3.3857	0.135	4.0	ug/L	6636	Standard
|	Cr	52	52449.4	4.0	1.5294	0.073	4.8	ug/L	21244	Standard
|	Cr	53	4447.3	3.4	1.7070	0.044	2.6	ug/L	467	Standard
|	Mn	55	241015.8	4.0	9.3135	0.263	2.8	ug/L	8327	Standard
|	Co	59	5600.7	3.8	0.3062	0.009	2.8	ug/L	123	Standard
|	Ni	60	8639.5	4.6	2.2848	0.078	3.4	ug/L	272	Standard
|	Cu	65	5840.1	5.1	1.5229	0.071	4.7	ug/L	1002	Standard
|	Zn	66	3959.2	4.8	0.8231	0.108	13.1	ug/L	3532	Standard
>	Ge	72	266134.5	1.3				ug/L	254939	Standard
|	As	75	9241.6	3.1	7.2222	0.136	1.9	ug/L	-224	Standard
|	Se	82	131.6	7.2	0.7651	0.086	11.2	ug/L	24	Standard
[	Se-1	77	160.7	5.1	0.6501	0.078	12.1	ug/L	93	Standard
|	Ga	71	249824.4	1.6				mg/L	233175	Standard
[	Rb	85	27527.7	3.7				ug/L	20	Standard
>	Y	89	241338.4	2.6				ug/L	235100	Standard
[	Rh	103	170.7	17.6				ug/L	6	Standard
[	Mo	98	30288.3	6.2	6.7677	0.332	4.9	ug/L	14	Standard
|	Ag	107	48.3	4.3	0.0004	0.000	41.8	ug/L	38	Standard
|	Cd	111	854.0	6.5	0.0694	0.008	11.8	mg/L	439	Standard
|	Cd	114	2393.6	2.5	0.0673	0.002	3.7	ug/L	1326	Standard
>	In	115	858088.0	1.5				ug/L	804157	Standard
|	Sn	118	1514.7	6.3	-0.1148	0.005	4.7	ug/L	4860	Standard
|	Sb	123	5671.8	5.1	0.4326	0.016	3.7	ug/L	28	Standard
[	Ba	135	227678.2	4.9	38.5355	1.318	3.4	ug/L	54	Standard
[	Ce	140	7501.9	9.9				ug/L	61	Standard
>	Tb	159	892664.6	1.5				ug/L	844239	Standard
[	Ho	165	213.3	8.2				ug/L	6	Standard
|	Tl	203	9204.5	2.9	0.5337	0.007	1.4	ug/L	10	Standard
|	Tl	205	22221.6	4.1	0.5328	0.011	2.1	ug/L	16	Standard
|	Pb	206	1556.7	4.3	0.0833	0.003	3.4	ug/L	421	Standard
|	Pb	207	1211.4	2.5	0.0737	0.001	1.0	ug/L	341	Standard
|	Pb	208	5760.1	3.5	0.0782	0.002	2.0	ug/L	1571	Standard
|	U	238	22639.6	4.9	0.4543	0.013	2.9	ug/L	4	Standard
>	Bi	209	437758.3	2.1				ug/L	457202	Standard
[	Na	23	39686.6	4.2	11.1218	0.460	4.1	mg/L	138	Standard
|	Mg	24	1475823.7	4.3	5.2723	0.235	4.5	mg/L	134	Standard

Sample ID: L1205003502DL WG396925-02

Report Date/Time: Thursday, May 03, 2012 13:41:43

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Shui L. Bahgat

K	39	15681.4	2.5	1.2706	0.052	4.1	mg/L	563	Standard
Ca	43	15461.9	3.0	20.6100	0.660	3.2	mg/L	127	Standard
Fe	54	1324.7	4.8	0.0714	0.015	21.0	mg/L	815	Standard
Fe	57	30257.6	8.1	0.1417	0.015	10.6	mg/L	4749	Standard
Sc-1	45	399995.3	2.8				mg/L	367704	Standard
Cl	35	1681578.6	1.9				ug/L	59901	Standard
Kr	83	54.0	11.9				ug/L	50	Standard
Br	81	38783.6	2.2				ug/L	13965	Standard
P	31	120341.7	4.7				ug/L	71952	Standard
S	34	4019636.8	4.2				ug/L	878802	Standard
Sr	88	4196145.9	4.3				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		104.392	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		102.653	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		106.706	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		105.736	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205003502DL WG396925-02
 Report Date/Time: Thursday, May 03, 2012 13:41:43
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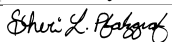
Approved: May 04, 2012
<i>Shui L. Babcock</i>

Pb	207	
Pb	208	
U	238	
> Bi	209	95.747
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205003502DL WG396925-02
 Report Date/Time: Thursday, May 03, 2012 13:41:43
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205003502PS WG396925-01

Sample Date/Time: Thursday, May 03, 2012 13:42:03

Number of Replicates: 3

Autosampler Position: 241

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	961311.6	4.2	68882.9792	1694.600	2.5	ug/L	20538	Standard
|	Be	9	124873.5	4.6	26.3004	0.787	3.0	ug/L	13	Standard
|	Al	27	2187715.3	7.1	86.9888	3.907	4.5	ug/L	25813	Standard
>	Sc	45	396845.4	2.9				ug/L	367704	Standard
|	Ti	47	4025.2	8.3	1.8271	0.162	8.8	ug/L	127	Standard
|	V	51	727868.5	4.0	30.1734	0.805	2.7	ug/L	6636	Standard
|	Cr	52	575133.9	4.6	28.0613	0.959	3.4	ug/L	21244	Standard
|	Cr	53	63248.6	5.1	27.3459	1.058	3.9	ug/L	467	Standard
|	Mn	55	913155.7	4.7	36.2553	1.224	3.4	ug/L	8327	Standard
|	Co	59	451202.7	5.2	25.4894	0.991	3.9	ug/L	123	Standard
|	Ni	60	98875.7	4.4	27.0286	0.839	3.1	ug/L	272	Standard
|	Cu	65	81853.9	5.3	25.9378	1.041	4.0	ug/L	1002	Standard
|	Zn	66	39437.6	3.4	26.0750	0.582	2.2	ug/L	3532	Standard
>	Ge	72	263786.7	1.4				ug/L	254939	Standard
|	As	75	41469.3	4.4	32.1221	0.965	3.0	ug/L	-224	Standard
|	Se	82	3343.0	4.8	25.6616	0.912	3.6	ug/L	24	Standard
|	Se-1	77	2379.9	5.1	25.4057	1.048	4.1	ug/L	93	Standard
|	Ga	71	246207.8	1.3				mg/L	233175	Standard
|	Rb	85	27696.0	2.8				ug/L	20	Standard
>	Y	89	242211.7	1.7				ug/L	235100	Standard
|	Rh	103	155.3	4.5				ug/L	6	Standard
|	Mo	98	30513.4	6.0	6.8368	0.354	5.2	ug/L	14	Standard
|	Ag	107	229202.7	2.6	26.5955	0.339	1.3	ug/L	38	Standard
|	Cd	111	136668.9	3.9	26.1182	0.725	2.8	mg/L	439	Standard
|	Cd	114	361850.0	4.8	24.8655	0.912	3.7	ug/L	1326	Standard
>	In	115	855881.8	1.5				ug/L	804157	Standard
|	Sn	118	3137.0	2.1	-0.0309	0.003	9.1	ug/L	4860	Standard
|	Sb	123	336066.2	4.9	26.0614	1.082	4.2	ug/L	28	Standard
|	Ba	135	362741.6	4.9	61.5754	2.692	4.4	ug/L	54	Standard
|	Ce	140	6740.8	6.5				ug/L	61	Standard
>	Tb	159	882992.1	0.9				ug/L	844239	Standard
|	Ho	165	200.0	9.8				ug/L	6	Standard
|	Tl	203	447139.1	4.0	26.1668	0.887	3.4	ug/L	10	Standard
|	Tl	205	1061084.2	4.1	25.7181	0.902	3.5	ug/L	16	Standard
|	Pb	206	347509.9	4.5	25.2695	1.055	4.2	ug/L	421	Standard
|	Pb	207	295997.9	4.8	25.9673	1.174	4.5	ug/L	341	Standard
|	Pb	208	1355125.1	4.6	25.7733	1.059	4.1	ug/L	1571	Standard
|	U	238	1296320.9	5.3	26.2250	1.301	5.0	ug/L	4	Standard
>	Bi	209	433340.2	1.6				ug/L	457202	Standard
|	Na	23	39322.4	4.6	11.1046	0.402	3.6	mg/L	138	Standard
|	Mg	24	1478848.8	6.0	5.3212	0.203	3.8	mg/L	134	Standard

Sample ID: L1205003502PS WG396925-01

Report Date/Time: Thursday, May 03, 2012 13:44:30

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Approved: May 04, 2012

Shui L. Bahgat

K	39	15537.3	4.0	1.2679	0.018	1.4	mg/L	563	Standard
Ca	43	15304.4	4.4	20.5534	0.563	2.7	mg/L	127	Standard
Fe	54	1254.2	3.4	0.0617	0.008	13.6	mg/L	815	Standard
Fe	57	30373.9	7.6	0.1435	0.009	6.2	mg/L	4749	Standard
Sc-1	45	396845.4	2.9				mg/L	367704	Standard
Cl	35	1686428.0	2.1				ug/L	59901	Standard
Kr	83	56.7	11.6				ug/L	50	Standard
Br	81	38054.1	2.6				ug/L	13965	Standard
P	31	119164.6	4.2				ug/L	71952	Standard
S	34	3950517.6	2.8				ug/L	878802	Standard
Sr	88	4179332.9	4.5				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		103.471	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		103.025	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		106.432	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		104.590	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205003502PS WG396925-01
 Report Date/Time: Thursday, May 03, 2012 13:44:30
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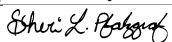
Approved: May 04, 2012
<i>Shui L. Bahgat</i>

	Pb	207	
	Pb	208	
	U	238	
	> Bi	209	94.781
	Na	23	
	Mg	24	
	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
|	> Sc-1	45	
|	Cl	35	
|	Kr	83	
|	Br	81	
|	P	31	
|	S	34	
	Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205003502PS WG396925-01
 Report Date/Time: Thursday, May 03, 2012 13:44:30
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205007301 WG396868-01

Sample Date/Time: Thursday, May 03, 2012 13:44:50

Number of Replicates: 3

Autosampler Position: 242

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	979384.9	4.4	69503.4641	2393.468	3.4	ug/L	20538	Standard
|	Be	9	126617.3	4.6	26.4064	0.950	3.6	ug/L	13	Standard
|	Al	27	2341536.8	7.7	92.2920	6.329	6.9	ug/L	25813	Standard
>	Sc	45	400730.9	1.1				ug/L	367704	Standard
|	Ti	47	5058.9	25.7	2.3278	0.619	26.6	ug/L	127	Standard
|	V	51	729826.8	5.3	30.4778	1.163	3.8	ug/L	6636	Standard
|	Cr	52	566458.1	5.5	27.8347	1.271	4.6	ug/L	21244	Standard
|	Cr	53	63497.6	4.4	27.6593	0.707	2.6	ug/L	467	Standard
|	Mn	55	917529.9	3.7	36.7076	0.958	2.6	ug/L	8327	Standard
|	Co	59	450216.7	3.1	25.6302	0.594	2.3	ug/L	123	Standard
|	Ni	60	98909.1	4.0	27.2387	0.617	2.3	ug/L	272	Standard
|	Cu	65	81199.3	4.6	25.9213	0.764	2.9	ug/L	1002	Standard
|	Zn	66	38087.5	3.5	25.3154	0.508	2.0	ug/L	3532	Standard
>	Ge	72	261866.0	2.3				ug/L	254939	Standard
|	As	75	41903.7	4.7	32.6918	0.844	2.6	ug/L	-224	Standard
|	Se	82	3467.0	6.0	26.8158	1.154	4.3	ug/L	24	Standard
|	Se-1	77	2330.5	3.5	25.0493	0.393	1.6	ug/L	93	Standard
|	Ga	71	242279.5	1.9				mg/L	233175	Standard
|	Rb	85	27655.2	3.7				ug/L	20	Standard
>	Y	89	237987.4	3.7				ug/L	235100	Standard
|	Rh	103	154.0	16.0				ug/L	6	Standard
|	Mo	98	30110.2	6.5	6.7846	0.323	4.8	ug/L	14	Standard
|	Ag	107	227507.9	4.5	26.5509	0.706	2.7	ug/L	38	Standard
|	Cd	111	135045.1	5.2	25.9560	0.884	3.4	mg/L	439	Standard
|	Cd	114	362847.4	5.3	25.0794	0.890	3.5	ug/L	1326	Standard
>	In	115	850778.9	1.8				ug/L	804157	Standard
|	Sn	118	2131.5	4.4	-0.0822	0.003	3.4	ug/L	4860	Standard
|	Sb	123	337379.3	4.8	26.3147	0.801	3.0	ug/L	28	Standard
|	Ba	135	366599.8	5.0	62.5886	2.134	3.4	ug/L	54	Standard
|	Ce	140	10513.2	29.8				ug/L	61	Standard
>	Tb	159	897728.6	2.5				ug/L	844239	Standard
|	Ho	165	208.0	20.2				ug/L	6	Standard
|	Tl	203	443877.1	3.6	25.9800	0.574	2.2	ug/L	10	Standard
|	Tl	205	1067158.4	3.6	25.8701	0.556	2.1	ug/L	16	Standard
|	Pb	206	348290.4	4.6	25.3271	0.827	3.3	ug/L	421	Standard
|	Pb	207	298214.0	4.7	26.1620	0.858	3.3	ug/L	341	Standard
|	Pb	208	1362134.7	4.8	25.9080	0.882	3.4	ug/L	1571	Standard
|	U	238	1318571.2	6.2	26.6727	1.305	4.9	ug/L	4	Standard
>	Bi	209	433205.9	1.4				ug/L	457202	Standard
|	Na	23	39942.0	4.2	11.1681	0.360	3.2	mg/L	138	Standard
	Mg	24	1500797.6	5.3	5.3485	0.227	4.2	mg/L	134	Standard

Sample ID: L1205007301 WG396868-01

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Shui L. Bahgat

K	39	15710.8	4.3	1.2697	0.043	3.4	mg/L	563	Standard
Ca	43	15282.4	4.3	20.3206	0.679	3.3	mg/L	127	Standard
Fe	54	1302.3	10.2	0.0671	0.019	28.2	mg/L	815	Standard
Fe	57	30273.6	5.4	0.1413	0.007	5.3	mg/L	4749	Standard
Sc-1	45	400730.9	1.1				mg/L	367704	Standard
Cl	35	1780238.3	2.1				ug/L	59901	Standard
Kr	83	53.8	9.6				ug/L	50	Standard
Br	81	42786.4	2.8				ug/L	13965	Standard
P	31	119833.3	3.1				ug/L	71952	Standard
S	34	3988520.9	3.6				ug/L	878802	Standard
Sr	88	4208484.3	6.2				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		102.717	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		101.228	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		105.798	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		106.336	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205007301 WG396868-01
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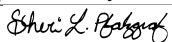
Approved: May 04, 2012
<i>Shui L. Babcock</i>

Pb	207	
Pb	208	
U	238	
> Bi	209	94.752
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205007301 WG396868-01
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205007301DP WG396868-06

Sample Date/Time: Thursday, May 03, 2012 13:47:37

Number of Replicates: 3

Autosampler Position: 243

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	91609.0	3.4	5376.5421	158.738	3.0	ug/L	20538	Standard
|	Be	9	33.7	27.0	0.0014	0.002	147.4	ug/L	13	Standard
|	Al	27	165510.6	6.9	6.0052	0.399	6.6	ug/L	25813	Standard
>	Sc	45	378624.2	1.3				ug/L	367704	Standard
|	Ti	47	566.7	5.4	0.2362	0.012	5.3	ug/L	127	Standard
|	V	51	25825.8	4.2	0.8942	0.025	2.8	ug/L	6636	Standard
|	Cr	52	29746.9	4.6	0.5436	0.041	7.6	ug/L	21244	Standard
|	Cr	53	1875.4	6.4	0.6804	0.048	7.1	ug/L	467	Standard
|	Mn	55	29116.7	5.1	1.0403	0.039	3.7	ug/L	8327	Standard
|	Co	59	2802.9	5.1	0.1658	0.005	3.1	ug/L	123	Standard
|	Ni	60	14045.9	7.4	4.1483	0.223	5.4	ug/L	272	Standard
|	Cu	65	19333.3	4.6	6.4563	0.169	2.6	ug/L	1002	Standard
|	Zn	66	6833.5	7.5	3.3475	0.285	8.5	ug/L	3532	Standard
>	Ge	72	241028.6	2.2				ug/L	254939	Standard
|	As	75	3060.6	1.8	2.7441	0.030	1.1	ug/L	-224	Standard
|	Se	82	1504.5	4.2	12.5168	0.419	3.3	ug/L	24	Standard
|	Se-1	77	1027.0	7.5	11.4014	0.741	6.5	ug/L	93	Standard
|	Ga	71	224914.9	3.3				mg/L	233175	Standard
|	Rb	85	5393.6	4.1				ug/L	20	Standard
>	Y	89	234986.4	1.2				ug/L	235100	Standard
|	Rh	103	246.0	2.8				ug/L	6	Standard
|	Mo	98	40486.5	3.7	9.6743	0.360	3.7	ug/L	14	Standard
|	Ag	107	98.0	17.0	0.0069	0.002	29.8	ug/L	38	Standard
|	Cd	111	678.3	3.7	0.0448	0.005	11.7	mg/L	439	Standard
|	Cd	114	1864.4	6.7	0.0397	0.009	23.1	ug/L	1326	Standard
>	In	115	803062.5	0.0				ug/L	804157	Standard
|	Sn	118	1628.8	10.4	-0.1032	0.009	9.1	ug/L	4860	Standard
|	Sb	123	3130.1	2.8	0.2526	0.007	2.9	ug/L	28	Standard
|	Ba	135	78901.8	3.6	14.2676	0.520	3.6	ug/L	54	Standard
|	Ce	140	908.0	4.5				ug/L	61	Standard
>	Tb	159	859489.2	1.3				ug/L	844239	Standard
|	Ho	165	21.3	54.1				ug/L	6	Standard
|	Tl	203	677.0	3.6	0.0445	0.001	2.9	ug/L	10	Standard
|	Tl	205	1390.7	3.4	0.0372	0.001	2.7	ug/L	16	Standard
|	Pb	206	809.4	3.3	0.0366	0.002	4.5	ug/L	421	Standard
|	Pb	207	667.7	1.4	0.0336	0.001	3.0	ug/L	341	Standard
|	Pb	208	3090.1	3.5	0.0350	0.002	5.1	ug/L	1571	Standard
|	U	238	3056.0	2.9	0.0698	0.002	2.3	ug/L	4	Standard
>	Bi	209	389940.6	0.8				ug/L	457202	Standard
|	Na	23	66961.2	4.6	19.8460	0.704	3.5	mg/L	138	Standard
	Mg	24	760629.5	5.1	2.8684	0.119	4.1	mg/L	134	Standard

Sample ID: L1205007301DP WG396868-06

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Shui L. Bahgat

K	39	12341.0	3.7	1.0458	0.031	2.9	mg/L	563	Standard
Ca	43	70920.5	4.6	100.5009	3.900	3.9	mg/L	127	Standard
Fe	54	1399.9	7.6	0.0956	0.016	17.0	mg/L	815	Standard
Fe	57	80557.7	7.3	0.4534	0.030	6.5	mg/L	4749	Standard
Sc-1	45	378624.2	1.3				mg/L	367704	Standard
Cl	35	1766426.9	1.5				ug/L	59901	Standard
Kr	83	57.1	4.1				ug/L	50	Standard
Br	81	45738.6	2.9				ug/L	13965	Standard
P	31	100813.9	3.9				ug/L	71952	Standard
S	34	16254009.4	3.6				ug/L	878802	Standard
Sr	88	7236654.9	3.5				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		94.544	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		99.952	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		99.864	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		101.806	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205007301DP WG396868-06
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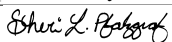
Approved: May 04, 2012
<i>Shui L. Babington</i>

Pb	207	
Pb	208	
U	238	
> Bi	209	85.288
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ca 43 Upper, S, EEE	Ca	43	

Sample ID: L1205007301DP WG396868-06
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205007301S WG396868-04

Sample Date/Time: Thursday, May 03, 2012 13:50:24

Number of Replicates: 3

Autosampler Position: 244

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	33299.9	1.5	1113.5456	44.014	4.0	ug/L	20538	Standard
|	Be	9	18.3	16.7	-0.0016	0.001	44.9	ug/L	13	Standard
|	Al	27	70797.8	3.0	2.2731	0.126	5.5	ug/L	25813	Standard
>	Sc	45	348510.4	2.1				ug/L	367704	Standard
|	Ti	47	190.0	10.0	0.0471	0.009	19.6	ug/L	127	Standard
|	V	51	10295.2	0.8	0.1998	0.011	5.5	ug/L	6636	Standard
|	Cr	52	22286.0	1.2	0.1739	0.036	20.5	ug/L	21244	Standard
|	Cr	53	696.0	8.9	0.1297	0.030	23.4	ug/L	467	Standard
|	Mn	55	6181.9	1.5	0.0472	0.004	8.1	ug/L	8327	Standard
|	Co	59	598.0	5.5	0.0308	0.002	5.8	ug/L	123	Standard
|	Ni	60	2570.9	3.8	0.7369	0.027	3.6	ug/L	272	Standard
|	Cu	65	4060.9	2.1	1.1421	0.017	1.5	ug/L	1002	Standard
|	Zn	66	9793.5	3.1	5.9228	0.115	1.9	ug/L	3532	Standard
>	Ge	72	232825.9	1.7				ug/L	254939	Standard
|	As	75	478.9	23.0	0.5804	0.098	16.9	ug/L	-224	Standard
|	Se	82	347.5	5.6	2.8063	0.183	6.5	ug/L	24	Standard
|	Se-1	77	284.7	9.3	2.4755	0.397	16.0	ug/L	93	Standard
|	Ga	71	209076.1	1.1				mg/L	233175	Standard
|	Rb	85	950.0	1.8				ug/L	20	Standard
>	Y	89	214572.1	0.9				ug/L	235100	Standard
|	Rh	103	41.3	18.3				ug/L	6	Standard
|	Mo	98	7033.4	1.7	1.6765	0.043	2.5	ug/L	14	Standard
|	Ag	107	51.0	12.2	0.0011	0.001	65.7	ug/L	38	Standard
|	Cd	111	227.2	5.0	-0.0473	0.002	4.1	mg/L	439	Standard
|	Cd	114	641.2	4.5	-0.0501	0.002	4.9	ug/L	1326	Standard
>	In	115	801286.3	0.8				ug/L	804157	Standard
|	Sn	118	1100.0	7.1	-0.1321	0.005	3.5	ug/L	4860	Standard
|	Sb	123	788.9	1.9	0.0592	0.001	1.6	ug/L	28	Standard
|	Ba	135	15449.2	3.0	2.7916	0.106	3.8	ug/L	54	Standard
|	Ce	140	256.7	9.0				ug/L	61	Standard
>	Tb	159	832175.9	0.8				ug/L	844239	Standard
|	Ho	165	13.3	22.9				ug/L	6	Standard
|	Tl	203	283.3	8.7	0.0172	0.001	8.4	ug/L	10	Standard
|	Tl	205	668.7	6.3	0.0161	0.001	6.5	ug/L	16	Standard
|	Pb	206	421.0	2.6	0.0021	0.001	49.3	ug/L	421	Standard
|	Pb	207	352.0	8.2	-0.0003	0.003	770.8	ug/L	341	Standard
|	Pb	208	1630.7	3.1	0.0010	0.001	94.9	ug/L	1571	Standard
|	U	238	554.3	3.2	0.0124	0.000	3.7	ug/L	4	Standard
>	Bi	209	428696.1	0.8				ug/L	457202	Standard
|	Na	23	13945.1	2.0	4.4632	0.183	4.1	mg/L	138	Standard
	Mg	24	162815.6	3.0	0.6663	0.023	3.5	mg/L	134	Standard

Sample ID: L1205007301S WG396868-04

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Shui L. Bahgat

K	39	2909.6	6.0	0.2248	0.019	8.6	mg/L	563	Standard
Ca	43	14265.4	3.1	21.8379	0.940	4.3	mg/L	127	Standard
Fe	54	532.6	0.2	-0.0418	0.002	4.4	mg/L	815	Standard
Fe	57	19379.1	1.8	0.0960	0.000	0.5	mg/L	4749	Standard
Sc-1	45	348510.4	2.1				mg/L	367704	Standard
Cl	35	403549.3	1.2				ug/L	59901	Standard
Kr	83	43.8	5.3				ug/L	50	Standard
Br	81	17916.3	2.3				ug/L	13965	Standard
P	31	38374.3	4.6				ug/L	71952	Standard
S	34	4137271.2	2.0				ug/L	878802	Standard
Sr	88	1343031.5	3.6				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		91.326	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		91.268	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		99.643	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		98.571	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205007301S WG396868-04
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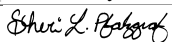
Approved: May 04, 2012
<i>Shui L. Babcock</i>

Pb	207	
Pb	208	
U	238	
> Bi	209	93.765
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205007301S WG396868-04
 Report Date/Time: Thursday, May 03, 2012 13:52:52
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205007301SD WG396868-05

Sample Date/Time: Thursday, May 03, 2012 13:53:11

Number of Replicates: 3

Autosampler Position: 245

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	94044.0	1.5	5282.8956	93.163	1.8	ug/L	20538	Standard
|	Be	9	247107.6	3.4	52.4242	1.107	2.1	ug/L	13	Standard
|	Al	27	1331002.7	4.8	52.9464	1.586	3.0	ug/L	25813	Standard
>	Sc	45	394063.8	2.5				ug/L	367704	Standard
|	Ti	47	694.0	13.3	0.2987	0.042	14.1	ug/L	127	Standard
|	V	51	1313824.0	3.6	59.4967	1.610	2.7	ug/L	6636	Standard
|	Cr	52	1056663.8	4.3	57.1615	1.888	3.3	ug/L	21244	Standard
|	Cr	53	118531.7	4.0	55.9468	1.670	3.0	ug/L	467	Standard
|	Mn	55	1373431.8	3.5	59.4439	1.622	2.7	ug/L	8327	Standard
|	Co	59	888787.2	3.1	54.6107	1.282	2.3	ug/L	123	Standard
|	Ni	60	192746.0	3.1	57.3632	1.366	2.4	ug/L	272	Standard
|	Cu	65	164819.1	3.0	57.1969	1.327	2.3	ug/L	1002	Standard
|	Zn	66	72127.8	4.2	53.7913	1.770	3.3	ug/L	3532	Standard
>	Ge	72	242629.5	1.3				ug/L	254939	Standard
|	As	75	70341.2	2.2	59.1144	0.822	1.4	ug/L	-224	Standard
|	Se	82	8779.9	1.2	73.7538	0.193	0.3	ug/L	24	Standard
|	Se-1	77	5454.6	1.3	65.0098	0.968	1.5	ug/L	93	Standard
|	Ga	71	226333.4	1.0				mg/L	233175	Standard
|	Rb	85	5585.0	3.2				ug/L	20	Standard
>	Y	89	243506.8	1.5				ug/L	235100	Standard
|	Rh	103	336.0	7.4				ug/L	6	Standard
|	Mo	98	43287.9	4.3	10.1086	0.416	4.1	ug/L	14	Standard
|	Ag	107	491143.3	2.9	59.3628	1.326	2.2	ug/L	38	Standard
|	Cd	111	274490.8	4.0	54.7480	2.172	4.0	mg/L	439	Standard
|	Cd	114	716375.5	4.0	51.3873	2.002	3.9	ug/L	1326	Standard
>	In	115	821754.7	0.8				ug/L	804157	Standard
|	Sn	118	2172.2	4.5	-0.0760	0.006	7.8	ug/L	4860	Standard
|	Sb	123	680175.9	2.7	54.9539	1.484	2.7	ug/L	28	Standard
|	Ba	135	359935.8	2.7	63.6468	1.841	2.9	ug/L	54	Standard
|	Ce	140	1100.7	3.9				ug/L	61	Standard
>	Tb	159	875417.8	0.3				ug/L	844239	Standard
|	Ho	165	22.0	41.7				ug/L	6	Standard
|	Tl	203	858404.9	2.4	55.1467	1.255	2.3	ug/L	10	Standard
|	Tl	205	2169718.1	1.7	57.7357	1.047	1.8	ug/L	16	Standard
|	Pb	206	678147.3	3.2	54.1657	1.696	3.1	ug/L	421	Standard
|	Pb	207	579013.3	3.5	55.7958	1.879	3.4	ug/L	341	Standard
|	Pb	208	2633525.1	3.3	55.0185	1.696	3.1	ug/L	1571	Standard
|	U	238	2754898.8	3.6	61.1803	2.104	3.4	ug/L	4	Standard
>	Bi	209	394755.5	0.6				ug/L	457202	Standard
|	Na	23	69085.8	1.6	19.6811	0.205	1.0	mg/L	138	Standard
	Mg	24	779866.8	3.3	2.8263	0.047	1.7	mg/L	134	Standard

Sample ID: L1205007301SD WG396868-05

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Shui L. Bahgat

K	39	12709.3	1.9	1.0346	0.015	1.4	mg/L	563	Standard
Ca	43	72668.7	3.8	98.9524	2.578	2.6	mg/L	127	Standard
Fe	54	1398.8	3.4	0.0863	0.007	8.4	mg/L	815	Standard
Fe	57	85307.1	4.2	0.4621	0.014	3.0	mg/L	4749	Standard
Sc-1	45	394063.8	2.5				mg/L	367704	Standard
Cl	35	1832537.9	1.5				ug/L	59901	Standard
Kr	83	64.9	12.8				ug/L	50	Standard
Br	81	47295.7	1.3				ug/L	13965	Standard
P	31	110486.3	3.1				ug/L	71952	Standard
S	34	17082612.3	2.3				ug/L	878802	Standard
Sr	88	7604731.8	2.9				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		95.172	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		103.576	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		102.188	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		103.693	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205007301SD WG396868-05
 Report Date/Time: Thursday, May 03, 2012 13:55:39
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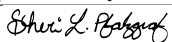
Approved: May 04, 2012
<i>Shui L. Babcock</i>

Pb	207	
Pb	208	
U	238	
> Bi	209	86.342
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205007301SD WG396868-05
 Report Date/Time: Thursday, May 03, 2012 13:55:39
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, May 03, 2012 13:56:01

Number of Replicates: 3

Autosampler Position: 101

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	22150.5	0.8	8.8570	17.822	201.2	ug/L	20538	Standard
|	Be	9	248724.7	3.3	54.1071	1.656	3.1	ug/L	13	Standard
|	Al	27	1188715.7	4.6	48.4116	1.964	4.1	ug/L	25813	Standard
>	Sc	45	384312.6	1.1				ug/L	367704	Standard
|	Ti	47	214449.5	3.5	102.8207	2.096	2.0	ug/L	127	Standard
|	V	51	1265023.3	4.0	54.0981	1.402	2.6	ug/L	6636	Standard
|	Cr	52	1043070.2	4.8	53.2344	1.756	3.3	ug/L	21244	Standard
|	Cr	53	116525.2	5.4	51.9420	2.032	3.9	ug/L	467	Standard
|	Mn	55	1353463.9	3.8	55.3289	1.222	2.2	ug/L	8327	Standard
|	Co	59	894550.1	4.5	51.9244	1.546	3.0	ug/L	123	Standard
|	Ni	60	183701.8	4.6	51.6400	1.606	3.1	ug/L	272	Standard
|	Cu	65	153080.9	4.0	50.1451	1.215	2.4	ug/L	1002	Standard
|	Zn	66	70306.3	4.1	49.3838	1.326	2.7	ug/L	3532	Standard
>	Ge	72	256781.3	1.6				ug/L	254939	Standard
|	As	75	63492.5	3.4	50.4345	0.904	1.8	ug/L	-224	Standard
|	Se	82	6767.9	2.7	53.6455	0.581	1.1	ug/L	24	Standard
|	Se-1	77	4364.6	3.2	48.8652	0.818	1.7	ug/L	93	Standard
|	Ga	71	245761.1	2.2				mg/L	233175	Standard
|	Rb	85	1151.4	4.8				ug/L	20	Standard
>	Y	89	245236.6	3.0				ug/L	235100	Standard
|	Rh	103	32.0	10.8				ug/L	6	Standard
|	Mo	98	439046.2	5.0	96.8820	4.548	4.7	ug/L	14	Standard
|	Ag	107	495482.4	4.6	56.5446	2.386	4.2	ug/L	38	Standard
|	Cd	111	278094.9	3.9	52.3639	1.915	3.7	mg/L	439	Standard
|	Cd	114	732188.0	3.6	49.5847	1.655	3.3	ug/L	1326	Standard
>	In	115	870320.4	0.4				ug/L	804157	Standard
|	Sn	118	981972.7	5.1	49.6519	2.405	4.8	ug/L	4860	Standard
|	Sb	123	678316.6	3.3	51.7418	1.568	3.0	ug/L	28	Standard
|	Ba	135	278960.5	3.6	46.5678	1.598	3.4	ug/L	54	Standard
|	Ce	140	1028.0	4.9				ug/L	61	Standard
>	Tb	159	898197.9	0.6				ug/L	844239	Standard
|	Ho	165	31.3	9.8				ug/L	6	Standard
|	Tl	203	887102.5	3.0	50.3096	1.264	2.5	ug/L	10	Standard
|	Tl	205	2240654.2	1.9	52.6344	0.728	1.4	ug/L	16	Standard
|	Pb	206	714225.8	3.8	50.3563	1.631	3.2	ug/L	421	Standard
|	Pb	207	593230.7	4.0	50.4603	1.772	3.5	ug/L	341	Standard
|	Pb	208	2747421.8	3.9	50.6666	1.690	3.3	ug/L	1571	Standard
|	U	238	2685107.8	4.6	52.6376	2.155	4.1	ug/L	4	Standard
>	Bi	209	447140.7	0.6				ug/L	457202	Standard
	Na	23	16067.9	2.3	4.6623	0.069	1.5	mg/L	138	Standard
	Mg	24	1313132.3	3.9	4.8808	0.176	3.6	mg/L	134	Standard

Sample ID: QC Std 6

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Shui L. Bahgat

K	39	53117.6	1.4	4.6241	0.046	1.0	mg/L	563	Standard
Ca	43	3567.8	4.6	4.8143	0.208	4.3	mg/L	127	Standard
Fe	54	29669.8	6.4	4.7530	0.291	6.1	mg/L	815	Standard
Fe	57	969899.3	3.2	5.7134	0.163	2.8	mg/L	4749	Standard
Sc-1	45	384312.6	1.1				mg/L	367704	Standard
Cl	35	104936.3	10.3				ug/L	59901	Standard
Kr	83	46.4	7.4				ug/L	50	Standard
Br	81	14863.6	3.7				ug/L	13965	Standard
P	31	97841.9	0.8				ug/L	71952	Standard
S	34	1056844.0	1.2				ug/L	878802	Standard
Sr	88	2363.5	13.4				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27	96.823		
Sc	45			
Ti	47	102.821		
V	51	108.196		
Cr	52	106.469		
Cr	53			
Mn	55	110.658		
Co	59	103.849		
Ni	60	103.280		
Cu	65	100.290		
Zn	66	98.768		
Ge	72		100.723	
As	75	100.869		
Se	82	107.291		
Se-1	77	97.730		
Ga	71			
Rb	85			
Y	89		104.311	
Rh	103			
Mo	98	96.882		
Ag	107	113.089		
Cd	111	104.728		
Cd	114			
In	115		108.228	
Sn	118	99.304		
Sb	123	103.484		
Ba	135	93.136		
Ce	140			
Tb	159		106.391	
Ho	165			
Tl	203	100.619		
Tl	205			
Pb	206	100.713		

Sample ID: QC Std 6

Report Date/Time: Thursday, May 03, 2012 13:58:29

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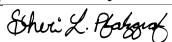
Shui L. Babcock

Pb	207	100.921	
Pb	208	101.333	
U	238	105.275	
> Bi	209		97.799
Na	23	93.247	
Mg	24	97.616	
K	39	92.482	
Ca	43	96.286	
Fe	54	95.059	
Fe	57	114.268	
> Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Mn	55	
QC Std 6	Ag	107	
QC Std 6	Fe	57	

Sample ID: QC Std 6
 Report Date/Time: Thursday, May 03, 2012 13:58:29
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Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, May 03, 2012 13:58:48

Number of Replicates: 3

Autosampler Position: 102

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Li	7	20863.7	1.1	-0.6538	25.848	3953.7	ug/L	20538	Standard
|	Be	9	60.7	39.6	0.0080	0.006	73.9	ug/L	13	Standard
|	Al	27	14530.3	7.2	-0.3351	0.031	9.3	ug/L	25813	Standard
>	Sc	45	364127.8	2.7				ug/L	367704	Standard
[	Ti	47	155.3	18.8	0.0239	0.015	63.4	ug/L	127	Standard
|	V	51	6378.0	3.4	-0.0044	0.014	320.0	ug/L	6636	Standard
|	Cr	52	19767.9	0.6	-0.0399	0.024	59.0	ug/L	21244	Standard
|	Cr	53	455.3	2.9	-0.0028	0.009	336.3	ug/L	467	Standard
|	Mn	55	1580.7	3.9	-0.1655	0.004	2.2	ug/L	8327	Standard
|	Co	59	257.0	15.7	0.0080	0.003	33.9	ug/L	123	Standard
|	Ni	60	137.3	22.2	-0.0212	0.009	44.0	ug/L	272	Standard
|	Cu	65	1013.7	2.2	0.0113	0.010	91.6	ug/L	1002	Standard
|	Zn	66	1146.0	3.4	-1.1000	0.016	1.5	ug/L	3532	Standard
>	Ge	72	247879.5	1.6				ug/L	254939	Standard
|	As	75	-195.0	33.8	0.0012	0.057	4804.7	ug/L	-224	Standard
|	Se	82	30.4	34.6	0.0038	0.084	2199.4	ug/L	24	Standard
[	Se-1	77	89.7	17.3	-0.0599	0.196	327.6	ug/L	93	Standard
|	Ga	71	234226.2	1.7				mg/L	233175	Standard
[	Rb	85	17.3	17.6				ug/L	20	Standard
>	Y	89	229820.7	1.1				ug/L	235100	Standard
[	Rh	103	2.0	100.0				ug/L	6	Standard
[	Mo	98	160.9	15.3	0.0274	0.006	21.4	ug/L	14	Standard
|	Ag	107	106.7	10.3	0.0076	0.001	18.9	ug/L	38	Standard
|	Cd	111	511.8	3.1	0.0072	0.003	37.6	mg/L	439	Standard
|	Cd	114	1387.9	2.9	0.0012	0.004	316.2	ug/L	1326	Standard
>	In	115	831576.2	1.4				ug/L	804157	Standard
|	Sn	118	2094.1	2.6	-0.0815	0.004	5.5	ug/L	4860	Standard
|	Sb	123	542.6	13.2	0.0372	0.006	15.9	ug/L	28	Standard
[	Ba	135	83.0	7.5	0.0036	0.001	35.9	ug/L	54	Standard
[	Ce	140	75.3	14.6				ug/L	61	Standard
>	Tb	159	845999.5	2.3				ug/L	844239	Standard
[	Ho	165	6.7	105.4				ug/L	6	Standard
|	Tl	203	126.7	13.0	0.0078	0.001	12.0	ug/L	10	Standard
|	Tl	205	308.7	25.0	0.0071	0.002	26.1	ug/L	16	Standard
|	Pb	206	467.7	9.7	0.0047	0.004	77.0	ug/L	421	Standard
|	Pb	207	390.0	7.4	0.0022	0.003	119.2	ug/L	341	Standard
|	Pb	208	1814.7	11.1	0.0036	0.004	110.1	ug/L	1571	Standard
|	U	238	1058.7	23.8	0.0222	0.005	23.5	ug/L	4	Standard
>	Bi	209	440073.3	1.1				ug/L	457202	Standard
[Na	23	146.7	6.7	0.0058	0.002	39.9	mg/L	138	Standard
	Mg	24	377.3	31.1	0.0001	0.000	615.1	mg/L	134	Standard

Sample ID: QC Std 7

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Shui L. Bahgat

K	39	592.0	2.1	-0.0031	0.002	56.4	mg/L	563	Standard
Ca	43	84.0	4.1	-0.0519	0.002	3.8	mg/L	127	Standard
Fe	54	833.7	6.5	0.0064	0.008	118.3	mg/L	815	Standard
Fe	57	5427.0	1.4	0.0033	0.001	26.2	mg/L	4749	Standard
Sc-1	45	364127.8	2.7				mg/L	367704	Standard
Cl	35	90166.9	2.5				ug/L	59901	Standard
Kr	83	52.2	7.0				ug/L	50	Standard
Br	81	13819.0	1.0				ug/L	13965	Standard
P	31	87716.4	3.7				ug/L	71952	Standard
S	34	1022283.7	1.8				ug/L	878802	Standard
Sr	88	515.3	9.7				ug/L	321	Standard

QC Calculated Values

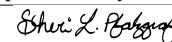
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		97.231	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		97.754	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		103.410	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		100.209	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: QC Std 7

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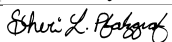


	Pb	207	
	Pb	208	
	U	238	
	> Bi	209	96.254
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
	> Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
|	P	31	
|	S	34	
	Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: QC Std 7
 Report Date/Time: Thursday, May 03, 2012 14:01:16
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205004601

Sample Date/Time: Thursday, May 03, 2012 14:01:38

Number of Replicates: 3

Autosampler Position: 246

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	423592.0	1.0	28142.1438	97.798	0.3	ug/L	20538	Standard
|	Be	9	43.0	20.1	0.0026	0.002	63.5	ug/L	13	Standard
|	Al	27	143331.6	4.3	4.5577	0.220	4.8	ug/L	25813	Standard
>	Sc	45	413873.0	0.7				ug/L	367704	Standard
|	Ti	47	4171.9	3.4	2.1585	0.077	3.5	ug/L	127	Standard
|	V	51	9050.6	11.1	0.1413	0.045	32.2	ug/L	6636	Standard
|	Cr	52	35263.0	1.7	0.9233	0.032	3.4	ug/L	21244	Standard
|	Cr	53	19552.7	9.0	9.4562	0.799	8.5	ug/L	467	Standard
|	Mn	55	395613.5	3.0	17.7192	0.633	3.6	ug/L	8327	Standard
|	Co	59	3386.0	5.3	0.2098	0.013	6.3	ug/L	123	Standard
|	Ni	60	2447.5	2.8	0.7001	0.026	3.7	ug/L	272	Standard
|	Cu	65	1397.1	7.4	0.1739	0.034	19.8	ug/L	1002	Standard
|	Zn	66	6053.9	5.4	2.9212	0.291	10.0	ug/L	3532	Standard
>	Ge	72	232388.0	0.7				ug/L	254939	Standard
|	As	75	1247.0	13.9	1.2537	0.160	12.8	ug/L	-224	Standard
|	Se	82	590.3	1.6	4.9480	0.078	1.6	ug/L	24	Standard
|	Se-1	77	842.0	11.1	9.5274	1.105	11.6	ug/L	93	Standard
|	Ga	71	215540.4	0.9				mg/L	233175	Standard
|	Rb	85	15656.8	3.7				ug/L	20	Standard
>	Y	89	229361.3	1.7				ug/L	235100	Standard
|	Rh	103	68.0	24.1				ug/L	6	Standard
|	Mo	98	2102.7	3.6	0.5027	0.020	4.1	ug/L	14	Standard
|	Ag	107	55.7	20.2	0.0018	0.001	76.5	ug/L	38	Standard
|	Cd	111	597.7	2.3	0.0307	0.003	11.3	mg/L	439	Standard
|	Cd	114	1588.2	2.0	0.0216	0.002	8.8	ug/L	1326	Standard
>	In	115	788165.6	0.5				ug/L	804157	Standard
|	Sn	118	1065.4	4.2	-0.1331	0.002	1.8	ug/L	4860	Standard
|	Sb	123	760.2	1.9	0.0579	0.002	2.6	ug/L	28	Standard
|	Ba	135	216261.8	2.6	39.8672	1.160	2.9	ug/L	54	Standard
|	Ce	140	621.3	5.6				ug/L	61	Standard
>	Tb	159	831987.6	0.7				ug/L	844239	Standard
|	Ho	165	25.3	45.6				ug/L	6	Standard
|	Tl	203	343.0	4.0	0.0241	0.001	3.8	ug/L	10	Standard
|	Tl	205	794.0	7.2	0.0224	0.002	7.1	ug/L	16	Standard
|	Pb	206	518.3	7.5	0.0155	0.003	21.1	ug/L	421	Standard
|	Pb	207	443.0	15.1	0.0142	0.007	49.0	ug/L	341	Standard
|	Pb	208	2029.7	3.4	0.0151	0.002	10.6	ug/L	1571	Standard
|	U	238	692.3	3.8	0.0176	0.001	3.4	ug/L	4	Standard
>	Bi	209	368097.7	0.2				ug/L	457202	Standard
|	Na	23	528682.5	1.3	143.6239	1.104	0.8	mg/L	138	Standard
	Mg	24	1668155.0	4.3	5.7574	0.221	3.8	mg/L	134	Standard

Sample ID: L1205004601

Report Date/Time: Thursday, May 03, 2012 14:04:05

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Shui L. Bahgat

K	39	9036.7	0.4	0.6815	0.004	0.6	mg/L	563	Standard
Ca	43	2474.9	3.1	3.0385	0.086	2.8	mg/L	127	Standard
Fe	54	1279.8	5.3	0.0573	0.010	17.5	mg/L	815	Standard
Fe	57	23845.5	8.8	0.1005	0.011	11.4	mg/L	4749	Standard
Sc-1	45	413873.0	0.7				mg/L	367704	Standard
Cl	35	27674322.3	1.8				ug/L	59901	Standard
Kr	83	85.8	2.4				ug/L	50	Standard
Br	81	331530.4	1.6				ug/L	13965	Standard
P	31	1018458.2	2.4				ug/L	71952	Standard
S	34	1290933.8	0.5				ug/L	878802	Standard
Sr	88	1752379.3	2.8				ug/L	321	Standard

QC Calculated Values

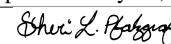
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		91.154	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		97.559	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		98.011	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		98.549	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205004601

Report Date/Time: Thursday, May 03, 2012 14:04:05

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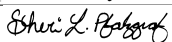


Pb	207	
Pb	208	
U	238	
> Bi	209	80.511
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Na 23 Upper, S, EEE	Na	23	

Sample ID: L1205004601
 Report Date/Time: Thursday, May 03, 2012 14:04:05
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205004602

Sample Date/Time: Thursday, May 03, 2012 14:04:25

Number of Replicates: 3

Autosampler Position: 247

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	421424.3	2.3	27917.6914	396.527	1.4	ug/L	20538	Standard
|	Be	9	24.3	22.6	-0.0011	0.001	93.2	ug/L	13	Standard
|	Al	27	81106.9	5.4	2.1494	0.147	6.9	ug/L	25813	Standard
>	Sc	45	414850.7	1.0				ug/L	367704	Standard
|	Ti	47	4024.5	5.2	2.0248	0.106	5.2	ug/L	127	Standard
|	V	51	10307.3	9.7	0.1884	0.046	24.5	ug/L	6636	Standard
|	Cr	52	39692.9	1.3	1.1190	0.026	2.3	ug/L	21244	Standard
|	Cr	53	22672.3	4.5	10.7122	0.475	4.4	ug/L	467	Standard
|	Mn	55	398379.1	3.2	17.3717	0.490	2.8	ug/L	8327	Standard
|	Co	59	3156.3	2.2	0.1897	0.003	1.8	ug/L	123	Standard
|	Ni	60	2692.6	2.6	0.7545	0.017	2.3	ug/L	272	Standard
|	Cu	65	1405.4	1.4	0.1638	0.008	4.7	ug/L	1002	Standard
|	Zn	66	9132.8	4.6	5.2134	0.304	5.8	ug/L	3532	Standard
>	Ge	72	238580.1	0.5				ug/L	254939	Standard
|	As	75	1503.4	10.0	1.4431	0.129	8.9	ug/L	-224	Standard
|	Se	82	644.9	6.0	5.2802	0.319	6.0	ug/L	24	Standard
|	Se-1	77	1041.7	5.2	11.7176	0.644	5.5	ug/L	93	Standard
|	Ga	71	216871.1	0.5				mg/L	233175	Standard
|	Rb	85	15181.6	3.3				ug/L	20	Standard
>	Y	89	226479.6	1.2				ug/L	235100	Standard
|	Rh	103	73.3	16.4				ug/L	6	Standard
|	Mo	98	2010.4	5.1	0.4813	0.025	5.1	ug/L	14	Standard
|	Ag	107	71.0	23.5	0.0038	0.002	57.9	ug/L	38	Standard
|	Cd	111	571.9	2.3	0.0255	0.002	6.5	mg/L	439	Standard
|	Cd	114	1578.3	5.2	0.0212	0.007	34.3	ug/L	1326	Standard
>	In	115	786359.4	0.9				ug/L	804157	Standard
|	Sn	118	1134.7	2.9	-0.1291	0.001	1.0	ug/L	4860	Standard
|	Sb	123	752.1	3.7	0.0574	0.003	4.6	ug/L	28	Standard
|	Ba	135	219421.1	3.2	40.5427	1.357	3.3	ug/L	54	Standard
|	Ce	140	651.3	11.9				ug/L	61	Standard
>	Tb	159	834895.5	0.4				ug/L	844239	Standard
|	Ho	165	27.3	42.9				ug/L	6	Standard
|	Tl	203	299.7	8.0	0.0208	0.002	7.9	ug/L	10	Standard
|	Tl	205	675.3	6.5	0.0187	0.001	6.7	ug/L	16	Standard
|	Pb	206	499.7	5.0	0.0133	0.002	16.2	ug/L	421	Standard
|	Pb	207	405.3	10.6	0.0097	0.004	45.8	ug/L	341	Standard
|	Pb	208	1895.7	4.1	0.0114	0.002	15.3	ug/L	1571	Standard
|	U	238	559.7	7.0	0.0142	0.001	6.6	ug/L	4	Standard
>	Bi	209	373820.6	0.1				ug/L	457202	Standard
	Na	23	526378.8	1.6	142.6588	1.025	0.7	mg/L	138	Standard
	Mg	24	1656464.8	3.5	5.7033	0.150	2.6	mg/L	134	Standard

Sample ID: L1205004602

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Shui L. Bahgat

K	39	9135.4	2.0	0.6878	0.009	1.3	mg/L	563	Standard
Ca	43	2494.9	2.9	3.0579	0.126	4.1	mg/L	127	Standard
Fe	54	1254.6	0.7	0.0530	0.003	4.7	mg/L	815	Standard
Fe	57	21212.8	2.9	0.0858	0.002	2.5	mg/L	4749	Standard
Sc-1	45	414850.7	1.0				mg/L	367704	Standard
Cl	35	27320181.6	1.8				ug/L	59901	Standard
Kr	83	83.8	4.8				ug/L	50	Standard
Br	81	395149.6	5.4				ug/L	13965	Standard
P	31	1043667.0	2.3				ug/L	71952	Standard
S	34	1316928.2	1.6				ug/L	878802	Standard
Sr	88	1686652.0	4.6				ug/L	321	Standard

QC Calculated Values

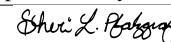
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		93.583	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		96.333	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		97.787	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		98.893	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205004602

Report Date/Time: Thursday, May 03, 2012 14:06:53

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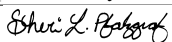


Pb	207	
Pb	208	
U	238	
> Bi	209	81.763
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Na 23 Upper, S, EEE	Na	23	

Sample ID: L1205004602
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Method 6020 - Summary Report

Sample ID: L1205004603

Sample Date/Time: Thursday, May 03, 2012 14:07:13

Number of Replicates: 3

Autosampler Position: 248

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	435145.9	2.9	28830.8458	655.338	2.3	ug/L	20538	Standard
|	Be	9	22.0	38.8	-0.0016	0.002	103.9	ug/L	13	Standard
|	Al	27	83322.0	3.4	2.2296	0.082	3.7	ug/L	25813	Standard
>	Sc	45	415526.5	1.0				ug/L	367704	Standard
|	Ti	47	4133.9	6.1	2.0668	0.104	5.1	ug/L	127	Standard
|	V	51	10194.7	12.4	0.1795	0.050	27.8	ug/L	6636	Standard
|	Cr	52	41304.9	3.0	1.1940	0.037	3.1	ug/L	21244	Standard
|	Cr	53	25998.3	3.3	12.2411	0.646	5.3	ug/L	467	Standard
|	Mn	55	408401.1	3.2	17.6947	0.258	1.5	ug/L	8327	Standard
|	Co	59	3202.3	5.8	0.1912	0.008	4.2	ug/L	123	Standard
|	Ni	60	2771.9	3.3	0.7730	0.020	2.6	ug/L	272	Standard
|	Cu	65	1215.7	4.9	0.0935	0.013	14.4	ug/L	1002	Standard
|	Zn	66	11444.3	3.8	6.9707	0.183	2.6	ug/L	3532	Standard
>	Ge	72	240155.4	1.8				ug/L	254939	Standard
|	As	75	1121.7	6.6	1.1112	0.054	4.8	ug/L	-224	Standard
|	Se	82	486.5	1.1	3.8966	0.078	2.0	ug/L	24	Standard
|	Se-1	77	1126.7	3.5	12.6806	0.632	5.0	ug/L	93	Standard
|	Ga	71	221461.5	0.9				mg/L	233175	Standard
|	Rb	85	15778.9	3.1				ug/L	20	Standard
>	Y	89	227215.0	0.2				ug/L	235100	Standard
|	Rh	103	60.7	20.1				ug/L	6	Standard
|	Mo	98	2007.5	2.9	0.4834	0.013	2.6	ug/L	14	Standard
|	Ag	107	40.7	16.4	-0.0000	0.001	2896.6	ug/L	38	Standard
|	Cd	111	586.9	1.1	0.0294	0.001	3.6	mg/L	439	Standard
|	Cd	114	1490.1	2.8	0.0152	0.004	29.6	ug/L	1326	Standard
>	In	115	781786.2	1.3				ug/L	804157	Standard
|	Sn	118	1514.1	5.8	-0.1072	0.006	5.2	ug/L	4860	Standard
|	Sb	123	709.5	1.0	0.0541	0.001	1.9	ug/L	28	Standard
|	Ba	135	225520.1	3.7	41.9043	1.120	2.7	ug/L	54	Standard
|	Ce	140	628.0	3.1				ug/L	61	Standard
>	Tb	159	835390.8	1.7				ug/L	844239	Standard
|	Ho	165	20.7	22.3				ug/L	6	Standard
|	Tl	203	283.3	6.3	0.0199	0.001	7.0	ug/L	10	Standard
|	Tl	205	650.7	5.5	0.0182	0.001	5.6	ug/L	16	Standard
|	Pb	206	496.7	2.5	0.0134	0.001	10.3	ug/L	421	Standard
|	Pb	207	421.3	5.6	0.0117	0.003	22.5	ug/L	341	Standard
|	Pb	208	1910.7	1.3	0.0122	0.000	1.1	ug/L	1571	Standard
|	U	238	493.0	2.4	0.0127	0.000	2.2	ug/L	4	Standard
>	Bi	209	370473.6	1.1				ug/L	457202	Standard
|	Na	23	549090.0	2.2	148.5670	1.849	1.2	mg/L	138	Standard
	Mg	24	1738698.0	3.9	5.9767	0.184	3.1	mg/L	134	Standard

Sample ID: L1205004603

Report Date/Time: Thursday, May 03, 2012 14:09:40

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Shui L. Bahgat

K	39	9114.7	1.7	0.6849	0.008	1.1	mg/L	563	Standard
Ca	43	2581.6	4.6	3.1633	0.129	4.1	mg/L	127	Standard
Fe	54	1270.5	3.8	0.0550	0.006	10.2	mg/L	815	Standard
Fe	57	22631.6	3.0	0.0933	0.003	2.8	mg/L	4749	Standard
Sc-1	45	415526.5	1.0				mg/L	367704	Standard
Cl	35	28361210.4	0.8				ug/L	59901	Standard
Kr	83	70.7	8.2				ug/L	50	Standard
Br	81	286384.0	5.1				ug/L	13965	Standard
P	31	1076303.8	3.1				ug/L	71952	Standard
S	34	1317277.5	1.9				ug/L	878802	Standard
Sr	88	1748116.5	2.7				ug/L	321	Standard

QC Calculated Values

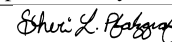
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		94.201	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		96.646	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		97.218	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		98.952	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205004603

Report Date/Time: Thursday, May 03, 2012 14:09:40

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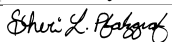


Pb	207	
Pb	208	
U	238	
> Bi	209	81.031
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Na 23 Upper, S, EEE	Na	23	

Sample ID: L1205004603
 Report Date/Time: Thursday, May 03, 2012 14:09:40
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205005001

Sample Date/Time: Thursday, May 03, 2012 14:10:00

Number of Replicates: 3

Autosampler Position: 249

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	429579.7	3.8	29206.7310	622.913	2.1	ug/L	20538	Standard
|	Be	9	44.3	24.7	0.0031	0.002	74.4	ug/L	13	Standard
|	Al	27	438038.4	7.7	16.2784	0.989	6.1	ug/L	25813	Standard
>	Sc	45	405166.9	2.0				ug/L	367704	Standard
|	Ti	47	2294.2	11.4	1.0859	0.133	12.2	ug/L	127	Standard
|	V	51	12358.1	3.5	0.2612	0.008	3.2	ug/L	6636	Standard
|	Cr	52	34104.0	3.9	0.7313	0.045	6.1	ug/L	21244	Standard
|	Cr	53	3671.8	10.8	1.4852	0.149	10.0	ug/L	467	Standard
|	Mn	55	431227.7	4.4	18.0843	0.527	2.9	ug/L	8327	Standard
|	Co	59	11837.0	5.3	0.7035	0.027	3.8	ug/L	123	Standard
|	Ni	60	9182.1	3.0	2.6133	0.049	1.9	ug/L	272	Standard
|	Cu	65	1907.8	3.5	0.3159	0.011	3.5	ug/L	1002	Standard
|	Zn	66	7860.4	3.3	3.9741	0.105	2.6	ug/L	3532	Standard
>	Ge	72	248163.3	2.0				ug/L	254939	Standard
|	As	75	845.1	1.4	0.8542	0.009	1.0	ug/L	-224	Standard
|	Se	82	132.5	2.9	0.8460	0.050	5.9	ug/L	24	Standard
|	Se-1	77	224.7	2.2	1.5377	0.040	2.6	ug/L	93	Standard
|	Ga	71	230818.3	1.0				mg/L	233175	Standard
|	Rb	85	29179.4	2.5				ug/L	20	Standard
>	Y	89	233783.4	2.8				ug/L	235100	Standard
|	Rh	103	932.0	3.3				ug/L	6	Standard
|	Mo	98	4556.7	2.3	1.0908	0.028	2.5	ug/L	14	Standard
|	Ag	107	58.0	12.1	0.0020	0.001	36.6	ug/L	38	Standard
|	Cd	111	1165.7	5.3	0.1465	0.002	1.7	mg/L	439	Standard
|	Cd	114	3148.7	3.9	0.1363	0.005	3.6	ug/L	1326	Standard
>	In	115	795848.8	4.6				ug/L	804157	Standard
|	Sn	118	1852.1	6.8	-0.0900	0.003	3.7	ug/L	4860	Standard
|	Sb	123	497.3	5.8	0.0353	0.002	4.6	ug/L	28	Standard
|	Ba	135	377828.5	4.9	68.9767	0.555	0.8	ug/L	54	Standard
|	Ce	140	2962.3	4.3				ug/L	61	Standard
>	Tb	159	877655.4	3.7				ug/L	844239	Standard
|	Ho	165	56.0	31.1				ug/L	6	Standard
|	Tl	203	974.0	4.4	0.0669	0.004	5.7	ug/L	10	Standard
|	Tl	205	2399.5	4.2	0.0675	0.002	3.0	ug/L	16	Standard
|	Pb	206	1788.8	7.2	0.1228	0.010	8.1	ug/L	421	Standard
|	Pb	207	1474.7	1.8	0.1193	0.003	2.2	ug/L	341	Standard
|	Pb	208	6795.6	3.5	0.1203	0.004	3.3	ug/L	1571	Standard
|	U	238	16288.8	4.3	0.3849	0.012	3.2	ug/L	4	Standard
>	Bi	209	371937.0	1.4				ug/L	457202	Standard
	Na	23	74550.4	3.4	20.6507	0.321	1.6	mg/L	138	Standard
	Mg	24	4599606.2	4.3	16.2153	0.383	2.4	mg/L	134	Standard

Sample ID: L1205005001

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Shui L. Bahgat

K	39	16948.8	2.4	1.3589	0.012	0.8	mg/L	563	Standard
Ca	43	28178.9	4.2	37.2014	0.834	2.2	mg/L	127	Standard
Fe	54	1495.2	6.7	0.0950	0.011	11.9	mg/L	815	Standard
Fe	57	45070.5	7.1	0.2224	0.014	6.1	mg/L	4749	Standard
Sc-1	45	405166.9	2.0				mg/L	367704	Standard
Cl	35	4319056.0	4.3				ug/L	59901	Standard
Kr	83	54.7	12.7				ug/L	50	Standard
Br	81	70530.4	5.5				ug/L	13965	Standard
P	31	97699.5	3.2				ug/L	71952	Standard
S	34	3338394.5	1.7				ug/L	878802	Standard
Sr	88	29307711.3	4.2				ug/L	321	Standard

QC Calculated Values

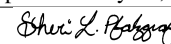
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		97.342	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		99.440	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		98.967	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		103.958	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205005001

Report Date/Time: Thursday, May 03, 2012 14:12:27

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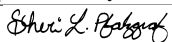


Pb	207	
Pb	208	
U	238	
> Bi	209	81.351
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205005001
 Report Date/Time: Thursday, May 03, 2012 14:12:27
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205005002

Sample Date/Time: Thursday, May 03, 2012 14:12:47

Number of Replicates: 3

Autosampler Position: 250

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	427572.2	2.1	28635.8331	541.222	1.9	ug/L	20538	Standard
|	Be	9	21.3	2.7	-0.0017	0.000	4.7	ug/L	13	Standard
|	Al	27	75758.3	2.4	1.9716	0.049	2.5	ug/L	25813	Standard
>	Sc	45	410953.5	0.9				ug/L	367704	Standard
|	Ti	47	1227.4	6.3	0.5458	0.040	7.3	ug/L	127	Standard
|	V	51	10660.5	2.4	0.1777	0.010	5.8	ug/L	6636	Standard
|	Cr	52	31739.6	1.9	0.5751	0.020	3.5	ug/L	21244	Standard
|	Cr	53	3274.4	3.6	1.2772	0.044	3.5	ug/L	467	Standard
|	Mn	55	474330.7	3.4	19.5776	0.576	2.9	ug/L	8327	Standard
|	Co	59	11937.7	4.5	0.6975	0.027	3.8	ug/L	123	Standard
|	Ni	60	9001.7	2.7	2.5164	0.059	2.3	ug/L	272	Standard
|	Cu	65	1220.4	2.8	0.0743	0.009	11.8	ug/L	1002	Standard
|	Zn	66	5227.2	3.5	1.9171	0.112	5.8	ug/L	3532	Standard
>	Ge	72	252432.2	0.7				ug/L	254939	Standard
|	As	75	755.3	9.2	0.7700	0.053	6.9	ug/L	-224	Standard
|	Se	82	110.3	7.4	0.6466	0.061	9.4	ug/L	24	Standard
|	Se-1	77	209.7	7.2	1.3172	0.162	12.3	ug/L	93	Standard
|	Ga	71	236129.5	2.0				mg/L	233175	Standard
|	Rb	85	26922.6	1.4				ug/L	20	Standard
>	Y	89	236539.2	2.0				ug/L	235100	Standard
|	Rh	103	946.0	3.7				ug/L	6	Standard
|	Mo	98	5119.3	6.3	1.1951	0.072	6.0	ug/L	14	Standard
|	Ag	107	54.3	14.3	0.0014	0.001	68.6	ug/L	38	Standard
|	Cd	111	671.2	5.3	0.0412	0.007	16.3	mg/L	439	Standard
|	Cd	114	1798.4	1.7	0.0328	0.003	8.2	ug/L	1326	Standard
>	In	115	816021.7	0.4				ug/L	804157	Standard
|	Sn	118	1131.4	1.4	-0.1316	0.001	0.8	ug/L	4860	Standard
|	Sb	123	475.0	3.0	0.0325	0.001	3.9	ug/L	28	Standard
|	Ba	135	350311.8	3.2	62.3726	1.797	2.9	ug/L	54	Standard
|	Ce	140	554.0	3.4				ug/L	61	Standard
>	Tb	159	884157.8	2.9				ug/L	844239	Standard
|	Ho	165	26.7	11.5				ug/L	6	Standard
|	Tl	203	1009.0	3.0	0.0688	0.003	4.2	ug/L	10	Standard
|	Tl	205	2334.8	2.8	0.0652	0.002	2.8	ug/L	16	Standard
|	Pb	206	548.0	4.7	0.0173	0.002	11.7	ug/L	421	Standard
|	Pb	207	433.3	3.2	0.0125	0.002	15.3	ug/L	341	Standard
|	Pb	208	2077.7	0.9	0.0154	0.001	6.1	ug/L	1571	Standard
|	U	238	13658.5	2.8	0.3206	0.006	1.7	ug/L	4	Standard
>	Bi	209	374668.6	1.1				ug/L	457202	Standard
	Na	23	75093.7	2.2	20.5114	0.405	2.0	mg/L	138	Standard
	Mg	24	4563567.3	4.2	15.8642	0.563	3.6	mg/L	134	Standard

Sample ID: L1205005002

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Shui L. Bahgat

K	39	16298.8	2.0	1.2855	0.030	2.3	mg/L	563	Standard
Ca	43	27330.0	3.0	35.5717	0.846	2.4	mg/L	127	Standard
Fe	54	1357.7	1.4	0.0707	0.001	1.7	mg/L	815	Standard
Fe	57	41841.1	3.1	0.2011	0.005	2.6	mg/L	4749	Standard
Sc-1	45	410953.5	0.9				mg/L	367704	Standard
Cl	35	4119300.1	1.3				ug/L	59901	Standard
Kr	83	50.2	7.3				ug/L	50	Standard
Br	81	58908.0	2.9				ug/L	13965	Standard
P	31	101269.7	1.3				ug/L	71952	Standard
S	34	3359471.4	1.5				ug/L	878802	Standard
Sr	88	29193025.6	4.2				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		99.017	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		100.612	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		101.475	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		104.728	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205005002

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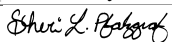
Shui L. Bahgat

Pb	207	
Pb	208	
U	238	
> Bi	209	81.948
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205005002
 Report Date/Time: Thursday, May 03, 2012 14:15:14
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205005003

Sample Date/Time: Thursday, May 03, 2012 14:15:34

Number of Replicates: 3

Autosampler Position: 251

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	528370.3	2.3	35720.0849	866.748	2.4	ug/L	20538	Standard
|	Be	9	43.7	6.6	0.0028	0.001	21.9	ug/L	13	Standard
|	Al	27	264488.7	6.4	9.2863	0.612	6.6	ug/L	25813	Standard
>	Sc	45	411627.9	0.5				ug/L	367704	Standard
|	Ti	47	1648.8	19.8	0.7690	0.148	19.3	ug/L	127	Standard
|	V	51	18131.2	4.0	0.5233	0.018	3.4	ug/L	6636	Standard
|	Cr	52	28583.6	2.3	0.4442	0.012	2.7	ug/L	21244	Standard
|	Cr	53	2366.9	3.7	0.8905	0.057	6.4	ug/L	467	Standard
|	Mn	55	535354.1	2.1	22.6655	0.372	1.6	ug/L	8327	Standard
|	Co	59	2553.5	0.7	0.1470	0.003	2.2	ug/L	123	Standard
|	Ni	60	8197.6	2.9	2.3428	0.068	2.9	ug/L	272	Standard
|	Cu	65	1404.4	2.7	0.1474	0.007	4.8	ug/L	1002	Standard
|	Zn	66	5962.8	5.2	2.5689	0.161	6.3	ug/L	3532	Standard
>	Ge	72	246517.3	1.8				ug/L	254939	Standard
|	As	75	808.4	15.8	0.8276	0.095	11.5	ug/L	-224	Standard
|	Se	82	159.0	9.8	1.0718	0.118	11.0	ug/L	24	Standard
|	Se-1	77	229.0	6.0	1.6079	0.179	11.1	ug/L	93	Standard
|	Ga	71	230621.5	1.4				mg/L	233175	Standard
|	Rb	85	11382.9	1.8				ug/L	20	Standard
>	Y	89	234874.0	1.1				ug/L	235100	Standard
|	Rh	103	300.7	1.7				ug/L	6	Standard
|	Mo	98	1799.2	1.6	0.4133	0.005	1.2	ug/L	14	Standard
|	Ag	107	94.7	16.7	0.0063	0.002	29.9	ug/L	38	Standard
|	Cd	111	876.8	2.4	0.0824	0.005	6.1	mg/L	439	Standard
|	Cd	114	2390.6	1.8	0.0754	0.003	4.5	ug/L	1326	Standard
>	In	115	816840.2	0.5				ug/L	804157	Standard
|	Sn	118	1302.7	1.2	-0.1223	0.001	0.6	ug/L	4860	Standard
|	Sb	123	1134.9	4.9	0.0861	0.005	5.6	ug/L	28	Standard
|	Ba	135	125502.9	2.7	22.3188	0.661	3.0	ug/L	54	Standard
|	Ce	140	23846.8	5.2				ug/L	61	Standard
>	Tb	159	856096.2	0.8				ug/L	844239	Standard
|	Ho	165	183.3	7.7				ug/L	6	Standard
|	Tl	203	769.7	3.8	0.0496	0.002	4.2	ug/L	10	Standard
|	Tl	205	1872.8	6.2	0.0493	0.003	6.8	ug/L	16	Standard
|	Pb	206	829.0	3.6	0.0370	0.003	7.6	ug/L	421	Standard
|	Pb	207	693.3	3.6	0.0349	0.003	7.6	ug/L	341	Standard
|	Pb	208	3167.8	2.1	0.0355	0.002	4.9	ug/L	1571	Standard
|	U	238	35327.5	3.6	0.7814	0.033	4.2	ug/L	4	Standard
>	Bi	209	396971.6	0.7				ug/L	457202	Standard
	Na	23	51257.3	3.4	13.9644	0.434	3.1	mg/L	138	Standard
	Mg	24	3597722.0	3.1	12.4870	0.342	2.7	mg/L	134	Standard

Sample ID: L1205005003

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Shui L. Bahgat

K	39	13281.8	3.1	1.0349	0.033	3.1	mg/L	563	Standard
Ca	43	35386.0	4.0	46.0333	1.683	3.7	mg/L	127	Standard
Fe	54	1308.4	8.1	0.0628	0.017	27.2	mg/L	815	Standard
Fe	57	47936.4	2.0	0.2344	0.005	2.0	mg/L	4749	Standard
Sc-1	45	411627.9	0.5				mg/L	367704	Standard
Cl	35	2230820.9	1.7				ug/L	59901	Standard
Kr	83	56.4	6.1				ug/L	50	Standard
Br	81	29557.8	3.6				ug/L	13965	Standard
P	31	100069.9	3.3				ug/L	71952	Standard
S	34	4286903.9	4.1				ug/L	878802	Standard
Sr	88	9847838.1	3.2				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		96.697	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		99.904	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		101.577	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		101.404	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205005003

Report Date/Time: Thursday, May 03, 2012 14:18:02

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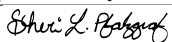
Shui L. Bahgat

Pb	207	
Pb	208	
U	238	
> Bi	209	86.826
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205005003
 Report Date/Time: Thursday, May 03, 2012 14:18:02
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205005004

Sample Date/Time: Thursday, May 03, 2012 14:18:21

Number of Replicates: 3

Autosampler Position: 252

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	497754.3	2.8	33856.5824	757.602	2.2	ug/L	20538	Standard
|	Be	9	42.0	9.5	0.0026	0.001	34.2	ug/L	13	Standard
|	Al	27	84681.9	11.0	2.3392	0.329	14.1	ug/L	25813	Standard
>	Sc	45	408102.3	1.6				ug/L	367704	Standard
|	Ti	47	1417.4	5.3	0.6509	0.036	5.5	ug/L	127	Standard
|	V	51	27930.3	3.0	0.9557	0.050	5.2	ug/L	6636	Standard
|	Cr	52	28621.7	2.1	0.4377	0.044	10.1	ug/L	21244	Standard
|	Cr	53	2320.2	2.1	0.8626	0.049	5.7	ug/L	467	Standard
|	Mn	55	533907.3	5.0	22.4668	0.891	4.0	ug/L	8327	Standard
|	Co	59	2377.5	5.9	0.1354	0.006	4.3	ug/L	123	Standard
|	Ni	60	12505.5	5.6	3.5834	0.145	4.0	ug/L	272	Standard
|	Cu	65	1495.7	8.7	0.1759	0.046	25.9	ug/L	1002	Standard
|	Zn	66	4753.4	3.3	1.6294	0.098	6.0	ug/L	3532	Standard
>	Ge	72	247977.1	2.7				ug/L	254939	Standard
|	As	75	644.3	16.0	0.6910	0.093	13.5	ug/L	-224	Standard
|	Se	82	167.8	10.3	1.1392	0.171	15.0	ug/L	24	Standard
|	Se-1	77	252.3	10.0	1.8662	0.263	14.1	ug/L	93	Standard
|	Ga	71	229182.9	3.3				mg/L	233175	Standard
|	Rb	85	10571.0	2.5				ug/L	20	Standard
>	Y	89	236274.9	1.5				ug/L	235100	Standard
|	Rh	103	324.0	9.9				ug/L	6	Standard
|	Mo	98	1963.5	6.3	0.4518	0.028	6.2	ug/L	14	Standard
|	Ag	107	55.3	2.1	0.0015	0.000	10.2	ug/L	38	Standard
|	Cd	111	720.3	7.1	0.0509	0.010	20.2	mg/L	439	Standard
|	Cd	114	1946.9	2.4	0.0433	0.003	7.6	ug/L	1326	Standard
>	In	115	817013.9	0.3				ug/L	804157	Standard
|	Sn	118	1538.1	4.9	-0.1096	0.004	3.5	ug/L	4860	Standard
|	Sb	123	2318.8	4.0	0.1823	0.007	3.9	ug/L	28	Standard
|	Ba	135	118498.9	4.7	21.0660	0.963	4.6	ug/L	54	Standard
|	Ce	140	21400.5	4.2				ug/L	61	Standard
>	Tb	159	857115.1	1.2				ug/L	844239	Standard
|	Ho	165	163.3	17.8				ug/L	6	Standard
|	Tl	203	763.7	0.2	0.0498	0.001	1.7	ug/L	10	Standard
|	Tl	205	1870.8	3.4	0.0497	0.002	3.0	ug/L	16	Standard
|	Pb	206	568.3	0.6	0.0168	0.001	3.6	ug/L	421	Standard
|	Pb	207	495.0	7.1	0.0164	0.003	17.1	ug/L	341	Standard
|	Pb	208	2223.7	3.1	0.0163	0.001	3.7	ug/L	1571	Standard
|	U	238	42542.4	4.3	0.9503	0.024	2.5	ug/L	4	Standard
>	Bi	209	392804.7	1.8				ug/L	457202	Standard
|	Na	23	49511.5	2.8	13.6041	0.231	1.7	mg/L	138	Standard
	Mg	24	3510959.5	4.3	12.2894	0.399	3.2	mg/L	134	Standard

Sample ID: L1205005004

Report Date/Time: Thursday, May 03, 2012 14:20:49

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Shui L. Bahgat

K	39	12788.1	3.4	1.0033	0.027	2.7	mg/L	563	Standard
Ca	43	34863.4	3.8	45.7468	1.531	3.3	mg/L	127	Standard
Fe	54	1172.2	4.4	0.0433	0.006	13.2	mg/L	815	Standard
Fe	57	40845.1	4.4	0.1971	0.007	3.6	mg/L	4749	Standard
Sc-1	45	408102.3	1.6				mg/L	367704	Standard
Cl	35	2182849.4	1.8				ug/L	59901	Standard
Kr	83	55.6	9.7				ug/L	50	Standard
Br	81	31164.7	2.6				ug/L	13965	Standard
P	31	95416.5	1.4				ug/L	71952	Standard
S	34	4307045.4	1.5				ug/L	878802	Standard
Sr	88	9835492.3	3.9				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		97.269	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		100.500	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		101.599	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		101.525	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205005004

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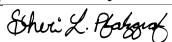
Shui L. Babcock

Pb	207	
Pb	208	
U	238	
> Bi	209	85.915
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205005004
 Report Date/Time: Thursday, May 03, 2012 14:20:49
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205005005

Sample Date/Time: Thursday, May 03, 2012 14:21:09

Number of Replicates: 3

Autosampler Position: 253

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	352249.6	2.7	23462.7867	516.284	2.2	ug/L	20538	Standard
|	Be	9	293.0	7.3	0.0540	0.004	7.0	ug/L	13	Standard
|	Al	27	20377803.1	5.8	795.9456	40.697	5.1	ug/L	25813	Standard
>	Sc	45	408219.1	1.0				ug/L	367704	Standard
|	Ti	47	36818.1	4.2	20.3720	0.820	4.0	ug/L	127	Standard
|	V	51	68442.6	2.4	3.1155	0.126	4.0	ug/L	6636	Standard
|	Cr	52	79072.3	3.2	3.6570	0.117	3.2	ug/L	21244	Standard
|	Cr	53	19463.2	9.7	9.8541	0.819	8.3	ug/L	467	Standard
|	Mn	55	5692940.0	3.7	269.9920	6.569	2.4	ug/L	8327	Standard
|	Co	59	22242.7	4.5	1.4856	0.053	3.6	ug/L	123	Standard
|	Ni	60	14912.3	3.9	4.7925	0.161	3.4	ug/L	272	Standard
|	Cu	65	14332.8	2.4	5.1323	0.177	3.5	ug/L	1002	Standard
|	Zn	66	64380.5	2.5	52.4224	1.505	2.9	ug/L	3532	Standard
>	Ge	72	222102.1	2.1				ug/L	254939	Standard
|	As	75	3871.7	9.7	3.7041	0.293	7.9	ug/L	-224	Standard
|	Se	82	368.9	14.4	3.1458	0.438	13.9	ug/L	24	Standard
|	Se-1	77	900.0	6.4	10.7886	0.548	5.1	ug/L	93	Standard
|	Ga	71	206898.1	1.9				mg/L	233175	Standard
|	Rb	85	72806.0	3.7				ug/L	20	Standard
>	Y	89	235117.3	1.8				ug/L	235100	Standard
|	Rh	103	990.0	5.8				ug/L	6	Standard
|	Mo	98	9385.8	4.1	2.4757	0.077	3.1	ug/L	14	Standard
|	Ag	107	147.7	13.3	0.0150	0.003	18.8	ug/L	38	Standard
|	Cd	111	2570.4	0.4	0.4881	0.007	1.4	mg/L	439	Standard
|	Cd	114	6816.8	4.8	0.4576	0.020	4.3	ug/L	1326	Standard
>	In	115	725233.1	1.4				ug/L	804157	Standard
|	Sn	118	7065.0	3.4	0.2376	0.011	4.8	ug/L	4860	Standard
|	Sb	123	3290.6	5.1	0.2950	0.011	3.8	ug/L	28	Standard
|	Ba	135	261156.2	3.1	52.3149	1.068	2.0	ug/L	54	Standard
|	Ce	140	136312.3	3.6				ug/L	61	Standard
>	Tb	159	835842.7	2.9				ug/L	844239	Standard
|	Ho	165	2620.2	4.8				ug/L	6	Standard
|	Tl	203	513.3	5.0	0.0430	0.001	2.2	ug/L	10	Standard
|	Tl	205	1184.7	4.4	0.0403	0.002	4.2	ug/L	16	Standard
|	Pb	206	26292.8	2.7	2.6808	0.117	4.4	ug/L	421	Standard
|	Pb	207	21363.7	2.4	2.6256	0.134	5.1	ug/L	341	Standard
|	Pb	208	99141.6	2.8	2.6428	0.136	5.2	ug/L	1571	Standard
|	U	238	65531.9	4.0	1.8786	0.119	6.3	ug/L	4	Standard
>	Bi	209	306307.9	2.9				ug/L	457202	Standard
	Na	23	736085.4	2.4	202.7411	3.329	1.6	mg/L	138	Standard
	Mg	24	5596221.6	4.3	19.5848	0.725	3.7	mg/L	134	Standard

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Shui L. Bahgat

K	39	34343.6	1.8	2.7920	0.054	1.9	mg/L	563	Standard
Ca	43	36502.6	2.6	47.8913	0.973	2.0	mg/L	127	Standard
Fe	54	22676.5	3.3	3.3812	0.088	2.6	mg/L	815	Standard
Fe	57	867460.3	5.7	4.8053	0.254	5.3	mg/L	4749	Standard
Sc-1	45	408219.1	1.0				mg/L	367704	Standard
Cl	35	27900857.0	1.2				ug/L	59901	Standard
Kr	83	123.3	11.3				ug/L	50	Standard
Br	81	98106.7	2.2				ug/L	13965	Standard
P	31	482731.4	3.7				ug/L	71952	Standard
S	34	7392639.8	2.9				ug/L	878802	Standard
Sr	88	33963619.2	5.2				ug/L	321	Standard

QC Calculated Values

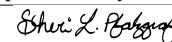
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		87.120	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		100.007	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		90.185	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		99.005	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205005005

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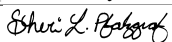


Pb	207	
Pb	208	
U	238	
> Bi	209	66.996
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	
Na 23 Upper, S, EEE	Na	23	

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Method 6020 - Summary Report

Sample ID: L1205005006

Sample Date/Time: Thursday, May 03, 2012 14:23:56

Number of Replicates: 3

Autosampler Position: 254

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	268528.4	2.6	18884.9751	599.739	3.2	ug/L	20538	Standard
|	Be	9	26.0	30.5	-0.0003	0.002	598.5	ug/L	13	Standard
|	Al	27	223608.1	8.7	8.4079	0.763	9.1	ug/L	25813	Standard
>	Sc	45	380576.3	1.4				ug/L	367704	Standard
|	Ti	47	3002.3	2.9	1.6070	0.047	2.9	ug/L	127	Standard
|	V	51	27646.2	2.7	1.0816	0.029	2.7	ug/L	6636	Standard
|	Cr	52	46895.2	3.1	1.7094	0.069	4.0	ug/L	21244	Standard
|	Cr	53	15418.5	2.5	7.7433	0.151	2.0	ug/L	467	Standard
|	Mn	55	5327969.9	4.1	251.9160	9.500	3.8	ug/L	8327	Standard
|	Co	59	11743.6	4.0	0.7785	0.029	3.7	ug/L	123	Standard
|	Ni	60	9248.2	2.2	2.9401	0.083	2.8	ug/L	272	Standard
|	Cu	65	2023.1	4.5	0.4340	0.033	7.5	ug/L	1002	Standard
|	Zn	66	8371.0	2.1	5.0817	0.099	2.0	ug/L	3532	Standard
>	Ge	72	222774.2	0.8				ug/L	254939	Standard
|	As	75	2432.2	7.4	2.3812	0.151	6.3	ug/L	-224	Standard
|	Se	82	261.7	11.8	2.1556	0.287	13.3	ug/L	24	Standard
|	Se-1	77	846.0	7.6	10.0493	0.912	9.1	ug/L	93	Standard
|	Ga	71	205430.9	1.9				mg/L	233175	Standard
|	Rb	85	42314.4	2.1				ug/L	20	Standard
>	Y	89	219456.8	1.7				ug/L	235100	Standard
|	Rh	103	850.7	4.9				ug/L	6	Standard
|	Mo	98	9715.2	2.8	2.5709	0.072	2.8	ug/L	14	Standard
|	Ag	107	53.3	12.5	0.0021	0.001	42.8	ug/L	38	Standard
|	Cd	111	583.4	3.4	0.0386	0.004	11.1	mg/L	439	Standard
|	Cd	114	1517.7	4.3	0.0266	0.005	20.6	ug/L	1326	Standard
>	In	115	723125.4	0.2				ug/L	804157	Standard
|	Sn	118	1207.4	4.9	-0.1190	0.004	3.0	ug/L	4860	Standard
|	Sb	123	2145.4	2.9	0.1908	0.005	2.8	ug/L	28	Standard
|	Ba	135	194465.2	3.8	39.0703	1.458	3.7	ug/L	54	Standard
|	Ce	140	2489.6	31.5				ug/L	61	Standard
>	Tb	159	814314.2	1.8				ug/L	844239	Standard
|	Ho	165	148.7	7.4				ug/L	6	Standard
|	Tl	203	246.3	8.1	0.0204	0.001	7.2	ug/L	10	Standard
|	Tl	205	585.3	8.6	0.0194	0.002	9.7	ug/L	16	Standard
|	Pb	206	688.7	3.4	0.0406	0.003	6.8	ug/L	421	Standard
|	Pb	207	571.0	6.3	0.0379	0.004	11.4	ug/L	341	Standard
|	Pb	208	2622.1	2.2	0.0387	0.002	4.1	ug/L	1571	Standard
|	U	238	75295.8	4.1	2.1108	0.108	5.1	ug/L	4	Standard
>	Bi	209	312998.6	1.2				ug/L	457202	Standard
	Na	23	718659.5	2.1	212.3664	5.541	2.6	mg/L	138	Standard
	Mg	24	4818530.0	3.9	18.0927	0.758	4.2	mg/L	134	Standard

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Shui L. Bahgat

K	39	32229.6	2.0	2.8108	0.056	2.0	mg/L	563	Standard
Ca	43	34054.2	1.5	47.9324	0.950	2.0	mg/L	127	Standard
Fe	54	13026.8	5.3	2.0310	0.125	6.2	mg/L	815	Standard
Fe	57	486330.5	6.2	2.8786	0.193	6.7	mg/L	4749	Standard
Sc-1	45	380576.3	1.4				mg/L	367704	Standard
Cl	35	27698487.0	1.1				ug/L	59901	Standard
Kr	83	122.0	5.7				ug/L	50	Standard
Br	81	106250.6	1.6				ug/L	13965	Standard
P	31	297595.4	2.9				ug/L	71952	Standard
S	34	6432611.9	1.9				ug/L	878802	Standard
Sr	88	27699792.3	2.9				ug/L	321	Standard

QC Calculated Values

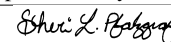
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		87.383	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		93.346	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		89.923	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		96.455	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205005006

Report Date/Time: Thursday, May 03, 2012 14:26:23

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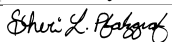


Pb	207	
Pb	208	
U	238	
> Bi	209	68.460
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	
Na 23 Upper, S, EEE	Na	23	

Sample ID: L1205005006
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Method 6020 - Summary Report

Sample ID: L1205005007

Sample Date/Time: Thursday, May 03, 2012 14:26:43

Number of Replicates: 3

Autosampler Position: 255

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Li	7	170084.7	2.5	10619.6086	196.530	1.9	ug/L	20538	Standard
|	Be	9	35.7	27.7	0.0014	0.002	154.4	ug/L	13	Standard
|	Al	27	577217.5	4.7	21.8885	0.863	3.9	ug/L	25813	Standard
>	Sc	45	403087.4	1.0				ug/L	367704	Standard
[	Ti	47	1591.4	35.1	0.7021	0.267	38.1	ug/L	127	Standard
|	V	51	34196.2	4.3	1.1651	0.081	6.9	ug/L	6636	Standard
|	Cr	52	36203.9	2.9	0.7576	0.075	9.9	ug/L	21244	Standard
|	Cr	53	2807.6	1.8	1.0285	0.037	3.6	ug/L	467	Standard
|	Mn	55	766889.7	3.3	30.8936	1.382	4.5	ug/L	8327	Standard
|	Co	59	3494.7	3.4	0.1930	0.008	4.2	ug/L	123	Standard
|	Ni	60	5972.5	2.7	1.6003	0.050	3.1	ug/L	272	Standard
|	Cu	65	5547.7	3.1	1.4736	0.075	5.1	ug/L	1002	Standard
|	Zn	66	14425.9	3.2	8.4505	0.444	5.3	ug/L	3532	Standard
>	Ge	72	259865.1	1.3				ug/L	254939	Standard
|	As	75	1023.7	8.6	0.9628	0.070	7.3	ug/L	-224	Standard
|	Se	82	120.5	9.0	0.7011	0.081	11.5	ug/L	24	Standard
[	Se-1	77	175.7	6.1	0.8634	0.129	14.9	ug/L	93	Standard
|	Ga	71	241860.6	1.0				mg/L	233175	Standard
[	Rb	85	17039.6	3.3				ug/L	20	Standard
>	Y	89	243734.3	2.6				ug/L	235100	Standard
[	Rh	103	82.0	24.0				ug/L	6	Standard
[	Mo	98	2752.4	2.7	0.6146	0.014	2.3	ug/L	14	Standard
|	Ag	107	53.7	12.7	0.0011	0.001	71.7	ug/L	38	Standard
|	Cd	111	954.5	5.4	0.0912	0.009	10.2	mg/L	439	Standard
|	Cd	114	2518.4	3.5	0.0783	0.006	7.2	ug/L	1326	Standard
>	In	115	846673.6	0.5				ug/L	804157	Standard
|	Sn	118	1756.1	5.0	-0.1012	0.004	4.1	ug/L	4860	Standard
|	Sb	123	5066.8	3.1	0.3912	0.011	2.8	ug/L	28	Standard
[	Ba	135	145768.3	3.2	25.0082	0.749	3.0	ug/L	54	Standard
[	Ce	140	5790.4	3.5				ug/L	61	Standard
>	Tb	159	884639.9	1.0				ug/L	844239	Standard
[	Ho	165	198.7	17.2				ug/L	6	Standard
|	Tl	203	690.7	2.9	0.0420	0.001	2.0	ug/L	10	Standard
|	Tl	205	1677.4	8.9	0.0415	0.003	8.3	ug/L	16	Standard
|	Pb	206	74157.5	3.3	5.5214	0.197	3.6	ug/L	421	Standard
|	Pb	207	57038.3	3.6	5.1191	0.200	3.9	ug/L	341	Standard
|	Pb	208	270481.8	3.3	5.2647	0.185	3.5	ug/L	1571	Standard
|	U	238	5516.0	3.3	0.1158	0.004	3.3	ug/L	4	Standard
>	Bi	209	421540.5	0.9				ug/L	457202	Standard
[	Na	23	58009.6	2.9	16.1442	0.322	2.0	mg/L	138	Standard
	Mg	24	777263.5	3.2	2.7536	0.062	2.2	mg/L	134	Standard

Sample ID: L1205005007

Report Date/Time: Thursday, May 03, 2012 14:29:10

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Shui L. Bahgat

K	39	14736.5	1.9	1.1802	0.012	1.0	mg/L	563	Standard
Ca	43	18907.1	3.3	25.0360	0.614	2.5	mg/L	127	Standard
Fe	54	1378.7	2.4	0.0780	0.003	4.0	mg/L	815	Standard
Fe	57	34259.4	5.5	0.1628	0.009	5.6	mg/L	4749	Standard
Sc-1	45	403087.4	1.0				mg/L	367704	Standard
Cl	35	2014683.2	6.3				ug/L	59901	Standard
Kr	83	52.9	8.9				ug/L	50	Standard
Br	81	30979.0	5.0				ug/L	13965	Standard
P	31	116839.3	2.8				ug/L	71952	Standard
S	34	2591171.7	2.9				ug/L	878802	Standard
Sr	88	2648117.1	4.4				ug/L	321	Standard

QC Calculated Values

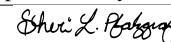
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		101.932	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		103.672	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		105.287	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		104.785	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205005007

Report Date/Time: Thursday, May 03, 2012 14:29:10

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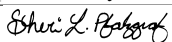


Pb	207	
Pb	208	
U	238	
> Bi	209	92.200
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205005007
 Report Date/Time: Thursday, May 03, 2012 14:29:10
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Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, May 03, 2012 14:29:33

Number of Replicates: 3

Autosampler Position: 101

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	21621.1	1.4	-4.8869	33.651	688.6	ug/L	20538	Standard
|	Be	9	239624.4	4.4	52.9402	1.154	2.2	ug/L	13	Standard
|	Al	27	1199616.6	5.2	49.6424	1.567	3.2	ug/L	25813	Standard
>	Sc	45	378317.6	2.6				ug/L	367704	Standard
|	Ti	47	215977.8	5.2	104.4282	4.988	4.8	ug/L	127	Standard
|	V	51	1256535.7	2.7	54.1961	1.320	2.4	ug/L	6636	Standard
|	Cr	52	1021957.2	2.7	52.5976	1.384	2.6	ug/L	21244	Standard
|	Cr	53	114863.8	5.1	51.6396	2.313	4.5	ug/L	467	Standard
|	Mn	55	1345016.7	3.2	55.4553	1.672	3.0	ug/L	8327	Standard
|	Co	59	882770.9	3.4	51.6817	1.584	3.1	ug/L	123	Standard
|	Ni	60	180128.2	4.0	51.0666	1.654	3.2	ug/L	272	Standard
|	Cu	65	152645.8	2.9	50.4305	1.141	2.3	ug/L	1002	Standard
|	Zn	66	69036.7	3.3	48.8882	1.454	3.0	ug/L	3532	Standard
>	Ge	72	254678.4	1.9				ug/L	254939	Standard
|	As	75	62788.2	3.4	50.2951	1.307	2.6	ug/L	-224	Standard
|	Se	82	6488.6	2.0	51.8581	0.811	1.6	ug/L	24	Standard
|	Se-1	77	4375.6	2.2	49.4120	0.137	0.3	ug/L	93	Standard
|	Ga	71	239141.9	1.1				mg/L	233175	Standard
|	Rb	85	1152.0	5.1				ug/L	20	Standard
>	Y	89	237168.0	1.2				ug/L	235100	Standard
|	Rh	103	42.7	23.6				ug/L	6	Standard
|	Mo	98	420110.9	2.9	96.0918	2.074	2.2	ug/L	14	Standard
|	Ag	107	458636.0	2.6	54.2545	1.113	2.1	ug/L	38	Standard
|	Cd	111	269094.7	3.8	52.5207	1.812	3.5	mg/L	439	Standard
|	Cd	114	722522.0	4.0	50.7170	1.730	3.4	ug/L	1326	Standard
>	In	115	839626.0	0.8				ug/L	804157	Standard
|	Sn	118	954015.9	4.8	50.0026	2.223	4.4	ug/L	4860	Standard
|	Sb	123	652412.0	3.4	51.5831	1.481	2.9	ug/L	28	Standard
|	Ba	135	273079.5	4.1	47.2479	1.587	3.4	ug/L	54	Standard
|	Ce	140	987.4	12.9				ug/L	61	Standard
>	Tb	159	881995.6	1.4				ug/L	844239	Standard
|	Ho	165	23.3	27.6				ug/L	6	Standard
|	Tl	203	865553.1	2.3	50.8191	1.109	2.2	ug/L	10	Standard
|	Tl	205	2184841.0	2.1	53.1292	0.853	1.6	ug/L	16	Standard
|	Pb	206	699443.1	3.5	51.0516	1.541	3.0	ug/L	421	Standard
|	Pb	207	577930.1	4.4	50.8897	1.967	3.9	ug/L	341	Standard
|	Pb	208	2669238.5	3.9	50.9593	1.799	3.5	ug/L	1571	Standard
|	U	238	2669336.4	3.9	54.1747	1.915	3.5	ug/L	4	Standard
>	Bi	209	431947.0	1.1				ug/L	457202	Standard
	Na	23	16621.1	2.9	4.9022	0.102	2.1	mg/L	138	Standard
	Mg	24	1326664.3	4.0	5.0086	0.103	2.1	mg/L	134	Standard

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Shui L. Bahgat

K	39	54447.0	2.3	4.8178	0.050	1.0	mg/L	563	Standard
Ca	43	3529.7	4.6	4.8383	0.123	2.5	mg/L	127	Standard
Fe	54	30159.3	6.6	4.9099	0.198	4.0	mg/L	815	Standard
Fe	57	946230.5	5.7	5.6595	0.186	3.3	mg/L	4749	Standard
Sc-1	45	378317.6	2.6				mg/L	367704	Standard
Cl	35	221112.6	12.8				ug/L	59901	Standard
Kr	83	53.1	11.6				ug/L	50	Standard
Br	81	14676.1	3.0				ug/L	13965	Standard
P	31	97263.2	1.8				ug/L	71952	Standard
S	34	1023975.4	2.8				ug/L	878802	Standard
Sr	88	1528.7	22.1				ug/L	321	Standard

QC Calculated Values

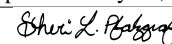
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27	99.285		
Sc	45			
Ti	47	104.428		
V	51	108.392		
Cr	52	105.195		
Cr	53			
Mn	55	110.911		
Co	59	103.363		
Ni	60	102.133		
Cu	65	100.861		
Zn	66	97.776		
Ge	72		99.898	
As	75	100.590		
Se	82	103.716		
Se-1	77	98.824		
Ga	71			
Rb	85			
Y	89		100.880	
Rh	103			
Mo	98	96.092		
Ag	107	108.509		
Cd	111	105.041		
Cd	114			
In	115		104.411	
Sn	118	100.005		
Sb	123	103.166		
Ba	135	94.496		
Ce	140			
Tb	159		104.472	
Ho	165			
Tl	203	101.638		
Tl	205			
Pb	206	102.103		

Sample ID: QC Std 6

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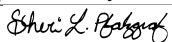


Pb	207	101.779	
Pb	208	101.919	
U	238	108.349	
> Bi	209		94.476
Na	23	98.043	
Mg	24	100.173	
K	39	96.356	
Ca	43	96.767	
Fe	54	98.197	
Fe	57	113.189	
> Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Mn	55	
QC Std 6	Fe	57	

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Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, May 03, 2012 14:32:20

Number of Replicates: 3

Autosampler Position: 102

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	20644.1	2.7	-29.3513	61.157	208.4	ug/L	20538	Standard
|	Be	9	42.0	40.6	0.0036	0.004	109.9	ug/L	13	Standard
|	Al	27	14456.3	9.8	-0.3422	0.061	17.9	ug/L	25813	Standard
>	Sc	45	366695.1	3.1				ug/L	367704	Standard
|	Ti	47	164.7	8.5	0.0276	0.005	19.5	ug/L	127	Standard
|	V	51	6436.3	2.9	-0.0044	0.009	202.3	ug/L	6636	Standard
|	Cr	52	20055.3	2.1	-0.0342	0.030	88.8	ug/L	21244	Standard
|	Cr	53	578.7	5.5	0.0518	0.008	16.3	ug/L	467	Standard
|	Mn	55	1679.8	3.7	-0.1620	0.003	1.9	ug/L	8327	Standard
|	Co	59	178.3	25.9	0.0031	0.003	93.9	ug/L	123	Standard
|	Ni	60	111.0	18.0	-0.0293	0.006	18.9	ug/L	272	Standard
|	Cu	65	1025.0	2.5	0.0119	0.002	17.0	ug/L	1002	Standard
|	Zn	66	1118.0	7.9	-1.1295	0.044	3.9	ug/L	3532	Standard
>	Ge	72	250157.4	2.5				ug/L	254939	Standard
|	As	75	-225.6	21.0	-0.0217	0.038	176.2	ug/L	-224	Standard
|	Se	82	17.8	43.6	-0.1004	0.066	65.7	ug/L	24	Standard
|	Se-1	77	83.3	8.2	-0.1465	0.055	37.7	ug/L	93	Standard
|	Ga	71	231565.9	3.1				mg/L	233175	Standard
|	Rb	85	21.3	19.5				ug/L	20	Standard
>	Y	89	223998.5	1.2				ug/L	235100	Standard
|	Rh	103	4.7	24.7				ug/L	6	Standard
|	Mo	98	162.2	7.7	0.0285	0.003	10.8	ug/L	14	Standard
|	Ag	107	113.3	17.8	0.0086	0.002	28.6	ug/L	38	Standard
|	Cd	111	526.4	5.7	0.0124	0.006	50.3	mg/L	439	Standard
|	Cd	114	1459.7	1.6	0.0086	0.002	22.1	ug/L	1326	Standard
>	In	115	813184.1	0.4				ug/L	804157	Standard
|	Sn	118	2003.5	0.9	-0.0840	0.001	1.2	ug/L	4860	Standard
|	Sb	123	295.6	8.6	0.0180	0.002	11.6	ug/L	28	Standard
|	Ba	135	77.3	9.9	0.0029	0.001	48.7	ug/L	54	Standard
|	Ce	140	73.3	12.3				ug/L	61	Standard
>	Tb	159	841371.5	2.8				ug/L	844239	Standard
|	Ho	165	10.0	40.0				ug/L	6	Standard
|	Tl	203	141.7	15.0	0.0088	0.001	16.0	ug/L	10	Standard
|	Tl	205	334.7	6.0	0.0078	0.001	6.4	ug/L	16	Standard
|	Pb	206	432.3	6.8	0.0026	0.002	72.2	ug/L	421	Standard
|	Pb	207	366.3	6.8	0.0007	0.003	381.2	ug/L	341	Standard
|	Pb	208	1674.7	4.6	0.0015	0.002	110.5	ug/L	1571	Standard
|	U	238	719.4	29.9	0.0157	0.005	28.9	ug/L	4	Standard
>	Bi	209	432759.3	2.6				ug/L	457202	Standard
	Na	23	194.7	14.5	0.0203	0.009	44.3	mg/L	138	Standard
	Mg	24	433.7	35.0	0.0003	0.001	212.5	mg/L	134	Standard

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K	39	601.3	5.3	-0.0027	0.002	75.6	mg/L	563	Standard
Ca	43	100.0	12.2	-0.0296	0.014	47.1	mg/L	127	Standard
Fe	54	815.5	8.3	0.0026	0.016	619.0	mg/L	815	Standard
Fe	57	5292.3	4.0	0.0023	0.002	69.6	mg/L	4749	Standard
Sc-1	45	366695.1	3.1				mg/L	367704	Standard
Cl	35	167408.8	5.4				ug/L	59901	Standard
Kr	83	49.6	12.1				ug/L	50	Standard
Br	81	13708.2	1.1				ug/L	13965	Standard
P	31	84166.6	2.7				ug/L	71952	Standard
S	34	1003054.7	3.3				ug/L	878802	Standard
Sr	88	1091.4	32.5				ug/L	321	Standard

QC Calculated Values

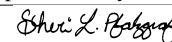
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		98.125	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		95.278	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		101.122	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		99.660	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: QC Std 7

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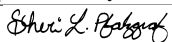


Pb	207	
Pb	208	
U	238	
> Bi	209	94.654
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: L1205005008

Sample Date/Time: Thursday, May 03, 2012 14:35:09

Number of Replicates: 3

Autosampler Position: 256

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Li	7	170359.3	2.0	10617.7257	75.424	0.7	ug/L	20538	Standard
|	Be	9	34.3	8.9	0.0011	0.001	68.5	ug/L	13	Standard
|	Al	27	137721.7	5.5	4.4712	0.203	4.5	ug/L	25813	Standard
>	Sc	45	403837.9	1.9				ug/L	367704	Standard
[	Ti	47	808.0	7.3	0.3327	0.024	7.3	ug/L	127	Standard
|	V	51	31730.7	4.7	1.0704	0.053	4.9	ug/L	6636	Standard
|	Cr	52	31429.6	2.7	0.5241	0.024	4.6	ug/L	21244	Standard
|	Cr	53	2064.1	11.1	0.7076	0.113	16.0	ug/L	467	Standard
|	Mn	55	740032.5	3.8	30.0337	0.917	3.1	ug/L	8327	Standard
|	Co	59	3273.4	5.3	0.1818	0.008	4.4	ug/L	123	Standard
|	Ni	60	6010.9	3.2	1.6243	0.044	2.7	ug/L	272	Standard
|	Cu	65	4320.9	3.3	1.0844	0.030	2.7	ug/L	1002	Standard
|	Zn	66	15837.3	4.0	9.5569	0.348	3.6	ug/L	3532	Standard
>	Ge	72	257765.3	1.2				ug/L	254939	Standard
|	As	75	882.2	3.6	0.8576	0.023	2.7	ug/L	-224	Standard
|	Se	82	102.1	7.8	0.5640	0.071	12.7	ug/L	24	Standard
[	Se-1	77	168.3	3.0	0.7954	0.048	6.1	ug/L	93	Standard
|	Ga	71	239208.9	0.4				mg/L	233175	Standard
[	Rb	85	16843.4	0.9				ug/L	20	Standard
>	Y	89	242301.9	1.9				ug/L	235100	Standard
[	Rh	103	92.7	23.1				ug/L	6	Standard
[	Mo	98	2855.0	3.0	0.6280	0.020	3.2	ug/L	14	Standard
|	Ag	107	61.3	12.3	0.0019	0.001	46.0	ug/L	38	Standard
|	Cd	111	860.7	3.8	0.0705	0.006	9.1	mg/L	439	Standard
|	Cd	114	2387.0	2.1	0.0666	0.004	5.3	ug/L	1326	Standard
>	In	115	859826.8	0.4				ug/L	804157	Standard
|	Sn	118	1984.8	1.8	-0.0908	0.002	2.5	ug/L	4860	Standard
|	Sb	123	5117.9	3.3	0.3890	0.012	3.1	ug/L	28	Standard
[	Ba	135	147697.8	4.0	24.9531	0.996	4.0	ug/L	54	Standard
[	Ce	140	1851.4	2.9				ug/L	61	Standard
>	Tb	159	885441.6	1.9				ug/L	844239	Standard
[	Ho	165	122.0	8.7				ug/L	6	Standard
|	Tl	203	649.7	6.9	0.0393	0.002	6.1	ug/L	10	Standard
|	Tl	205	1699.4	1.6	0.0418	0.000	1.1	ug/L	16	Standard
|	Pb	206	53592.0	2.8	3.9557	0.135	3.4	ug/L	421	Standard
|	Pb	207	40836.3	2.7	3.6317	0.126	3.5	ug/L	341	Standard
|	Pb	208	194826.8	3.1	3.7586	0.138	3.7	ug/L	1571	Standard
|	U	238	5633.4	5.4	0.1175	0.007	5.8	ug/L	4	Standard
>	Bi	209	424372.6	0.9				ug/L	457202	Standard
[	Na	23	59514.8	3.9	16.5309	0.344	2.1	mg/L	138	Standard
	Mg	24	778007.1	3.7	2.7508	0.052	1.9	mg/L	134	Standard

Sample ID: L1205005008

Report Date/Time: Thursday, May 03, 2012 14:37:37

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K	39	14728.5	1.7	1.1775	0.022	1.8	mg/L	563	Standard
Ca	43	18953.9	4.8	25.0459	0.770	3.1	mg/L	127	Standard
Fe	54	1131.0	5.0	0.0388	0.009	22.3	mg/L	815	Standard
Fe	57	24353.6	3.7	0.1066	0.003	2.8	mg/L	4749	Standard
Sc-1	45	403837.9	1.9				mg/L	367704	Standard
Cl	35	1867622.8	1.5				ug/L	59901	Standard
Kr	83	59.8	10.3				ug/L	50	Standard
Br	81	30483.0	1.0				ug/L	13965	Standard
P	31	119072.0	3.3				ug/L	71952	Standard
S	34	2663429.4	2.0				ug/L	878802	Standard
Sr	88	2634087.8	1.9				ug/L	321	Standard

QC Calculated Values

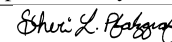
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		101.109	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		103.063	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		106.923	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		104.880	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205005008

Report Date/Time: Thursday, May 03, 2012 14:37:37

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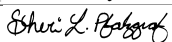


Pb	207	
Pb	208	
U	238	
> Bi	209	92.820
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205005008
 Report Date/Time: Thursday, May 03, 2012 14:37:37
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Thursday, May 03, 2012 14:37:58

Number of Replicates: 3

Autosampler Position: 203

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	22430.3	0.3	75.4000	39.717	52.7	ug/L	20538	Standard
|	Be	9	24.3	23.4	-0.0006	0.001	200.1	ug/L	13	Standard
|	Al	27	105965906.2	6.3	4515.7908	207.861	4.6	ug/L	25813	Standard
>	Sc	45	374457.4	2.6				ug/L	367704	Standard
|	Ti	47	244589.6	4.4	119.4821	0.973	0.8	ug/L	127	Standard
|	V	51	7154.7	4.3	0.0254	0.024	96.1	ug/L	6636	Standard
|	Cr	52	23675.2	1.4	0.1504	0.034	22.5	ug/L	21244	Standard
|	Cr	53	3758.5	2.7	1.5011	0.040	2.7	ug/L	467	Standard
|	Mn	55	19444.2	4.9	0.5806	0.029	5.0	ug/L	8327	Standard
|	Co	59	976.4	6.7	0.0502	0.002	4.2	ug/L	123	Standard
|	Ni	60	2061.8	6.2	0.5296	0.016	3.0	ug/L	272	Standard
|	Cu	65	1665.8	5.4	0.2246	0.021	9.3	ug/L	1002	Standard
|	Zn	66	8164.2	5.2	4.1069	0.077	1.9	ug/L	3532	Standard
>	Ge	72	252071.0	4.0				ug/L	254939	Standard
|	As	75	-202.9	19.3	-0.0014	0.026	1838.7	ug/L	-224	Standard
|	Se	82	30.0	22.2	-0.0040	0.051	1284.1	ug/L	24	Standard
|	Se-1	77	248.3	6.0	1.7710	0.073	4.1	ug/L	93	Standard
|	Ga	71	230312.5	4.1				mg/L	233175	Standard
|	Rb	85	4005.2	3.1				ug/L	20	Standard
>	Y	89	232614.1	1.0				ug/L	235100	Standard
|	Rh	103	9.3	12.4				ug/L	6	Standard
|	Mo	98	424423.4	3.4	97.3865	2.469	2.5	ug/L	14	Standard
|	Ag	107	117.3	15.3	0.0087	0.002	24.5	ug/L	38	Standard
|	Cd	111	1272.6	4.3	0.1557	0.007	4.5	mg/L	439	Standard
|	Cd	114	3992.0	5.2	0.1842	0.010	5.3	ug/L	1326	Standard
>	In	115	837008.4	1.9				ug/L	804157	Standard
|	Sn	118	4892.1	7.2	0.0653	0.015	22.5	ug/L	4860	Standard
|	Sb	123	608.4	4.8	0.0421	0.002	3.8	ug/L	28	Standard
|	Ba	135	184.7	9.3	0.0211	0.003	12.0	ug/L	54	Standard
|	Ce	140	2280.8	7.2				ug/L	61	Standard
>	Tb	159	889665.3	0.6				ug/L	844239	Standard
|	Ho	165	33.3	3.5				ug/L	6	Standard
|	Tl	203	422.7	3.3	0.0257	0.001	4.0	ug/L	10	Standard
|	Tl	205	1040.7	7.9	0.0255	0.002	9.3	ug/L	16	Standard
|	Pb	206	778.4	1.7	0.0290	0.001	2.4	ug/L	421	Standard
|	Pb	207	660.0	3.7	0.0276	0.002	5.6	ug/L	341	Standard
|	Pb	208	3002.1	3.5	0.0280	0.001	4.9	ug/L	1571	Standard
|	U	238	97.7	8.3	0.0031	0.000	6.2	ug/L	4	Standard
>	Bi	209	424140.9	1.3				ug/L	457202	Standard
	Na	23	38853.8	2.9	11.6334	0.369	3.2	mg/L	138	Standard
	Mg	24	1326572.2	5.1	5.0596	0.181	3.6	mg/L	134	Standard

Sample ID: QC Std 4

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Shui L. Bahgat

K	39	54654.4	2.0	4.8871	0.068	1.4	mg/L	563	Standard
Ca	43	10290.8	6.9	14.5940	0.872	6.0	mg/L	127	Standard
Fe	54	72873.8	6.1	12.1917	0.612	5.0	mg/L	815	Standard
Fe	57	2155389.1	5.8	13.0647	0.481	3.7	mg/L	4749	Standard
Sc-1	45	374457.4	2.6				mg/L	367704	Standard
Cl	35	9785743.9	1.6				ug/L	59901	Standard
Kr	83	47.1	6.4				ug/L	50	Standard
Br	81	14135.3	1.2				ug/L	13965	Standard
P	31	8292538.5	3.6				ug/L	71952	Standard
S	34	1939656.2	2.2				ug/L	878802	Standard
Sr	88	2084.1	10.1				ug/L	321	Standard

QC Calculated Values

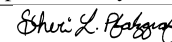
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27	90.316		
Sc	45			
Ti	47	119.482		
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		98.875	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		98.943	
Rh	103			
Mo	98	97.386		
Ag	107			
Cd	111			
Cd	114			
In	115		104.085	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		105.381	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: QC Std 4

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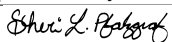


Pb	207		
Pb	208		
U	238		
> Bi	209		92.769
Na	23	93.067	
Mg	24	101.192	
K	39	97.742	
Ca	43	97.293	
Fe	54	97.533	
Fe	57	104.518	
> Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Mn	55	
QC Std 4	Se-1	77	
QC Std 4	Cd	111	

Sample ID: QC Std 4
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Method 6020 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Thursday, May 03, 2012 14:40:45

Number of Replicates: 3

Autosampler Position: 204

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	21968.6	1.2	62.7004	22.353	35.7	ug/L	20538	Standard
|	Be	9	488416.0	3.8	110.5791	4.189	3.8	ug/L	13	Standard
|	Al	27	105971627.6	5.7	4581.1848	265.262	5.8	ug/L	25813	Standard
>	Sc	45	369296.0	0.1				ug/L	367704	Standard
|	Ti	47	241751.8	3.7	118.5763	5.048	4.3	ug/L	127	Standard
|	V	51	2289332.0	2.7	100.3955	3.369	3.4	ug/L	6636	Standard
|	Cr	52	1935746.9	0.8	102.0548	1.082	1.1	ug/L	21244	Standard
|	Cr	53	228928.1	3.7	104.6273	4.568	4.4	ug/L	467	Standard
|	Mn	55	2488659.3	3.0	104.2705	3.601	3.5	ug/L	8327	Standard
|	Co	59	1721888.3	3.3	102.2594	4.125	4.0	ug/L	123	Standard
|	Ni	60	357667.7	3.7	102.9279	4.587	4.5	ug/L	272	Standard
|	Cu	65	294700.6	4.4	99.0858	5.008	5.1	ug/L	1002	Standard
|	Zn	66	150517.0	3.8	110.5006	5.007	4.5	ug/L	3532	Standard
>	Ge	72	251117.6	0.8				ug/L	254939	Standard
|	As	75	129194.1	3.7	104.8012	4.470	4.3	ug/L	-224	Standard
|	Se	82	13349.1	2.0	108.4744	2.895	2.7	ug/L	24	Standard
|	Se-1	77	9122.7	2.7	105.7433	3.017	2.9	ug/L	93	Standard
|	Ga	71	229457.9	1.2				mg/L	233175	Standard
|	Rb	85	4047.9	0.1				ug/L	20	Standard
>	Y	89	231119.9	2.0				ug/L	235100	Standard
|	Rh	103	78.0	9.2				ug/L	6	Standard
|	Mo	98	423848.4	3.4	98.4950	2.435	2.5	ug/L	14	Standard
|	Ag	107	727809.8	7.7	87.4495	5.969	6.8	ug/L	38	Standard
|	Cd	111	541662.6	3.7	107.5010	3.064	2.9	mg/L	439	Standard
|	Cd	114	1442818.1	4.9	102.9892	4.130	4.0	ug/L	1326	Standard
>	In	115	826390.6	0.9				ug/L	804157	Standard
|	Sn	118	3810.5	3.3	0.0109	0.006	52.2	ug/L	4860	Standard
|	Sb	123	1326038.4	3.4	106.5219	2.724	2.6	ug/L	28	Standard
|	Ba	135	551146.7	4.8	96.8892	3.793	3.9	ug/L	54	Standard
|	Ce	140	2270.2	7.6				ug/L	61	Standard
>	Tb	159	876283.8	1.6				ug/L	844239	Standard
|	Ho	165	40.0	25.0				ug/L	6	Standard
|	Tl	203	1709856.8	2.8	101.8499	1.933	1.9	ug/L	10	Standard
|	Tl	205	4292180.7	3.0	105.8967	2.334	2.2	ug/L	16	Standard
|	Pb	206	1361916.0	3.6	100.8735	2.157	2.1	ug/L	421	Standard
|	Pb	207	1171403.4	4.1	104.6694	2.575	2.5	ug/L	341	Standard
|	Pb	208	5449889.2	3.9	105.5798	2.519	2.4	ug/L	1571	Standard
|	U	238	5325835.5	4.7	109.6349	3.307	3.0	ug/L	4	Standard
>	Bi	209	425738.6	2.0				ug/L	457202	Standard
	Na	23	38690.7	4.4	11.7438	0.526	4.5	mg/L	138	Standard
	Mg	24	1305497.0	5.0	5.0501	0.253	5.0	mg/L	134	Standard

Sample ID: QC Std 5

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Shui L. Bahgat

K	39	53338.4	3.1	4.8348	0.154	3.2	mg/L	563	Standard
Ca	43	10087.4	5.5	14.5082	0.813	5.6	mg/L	127	Standard
Fe	54	72170.0	4.5	12.2461	0.562	4.6	mg/L	815	Standard
Fe	57	2096373.5	6.3	12.8904	0.818	6.3	mg/L	4749	Standard
Sc-1	45	369296.0	0.1				mg/L	367704	Standard
Cl	35	9735215.1	1.4				ug/L	59901	Standard
Kr	83	65.1	7.2				ug/L	50	Standard
Br	81	13580.1	2.5				ug/L	13965	Standard
P	31	8099798.4	3.3				ug/L	71952	Standard
S	34	1882638.9	2.7				ug/L	878802	Standard
Sr	88	1855.4	1.9				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27	91.624		
Sc	45			
Ti	47	118.576		
V	51	100.395		
Cr	52	102.055		
Cr	53			
Mn	55	104.271		
Co	59	102.259		
Ni	60	102.928		
Cu	65	99.086		
Zn	66	110.501		
Ge	72		98.501	
As	75	104.801		
Se	82	108.474		
Se-1	77	105.743		
Ga	71			
Rb	85			
Y	89		98.307	
Rh	103			
Mo	98	98.495		
Ag	107	87.449		
Cd	111	107.501		
Cd	114			
In	115		102.765	
Sn	118			
Sb	123	106.522		
Ba	135	96.889		
Ce	140			
Tb	159		103.796	
Ho	165			
Tl	203	101.850		
Tl	205			
Pb	206	100.873		

Sample ID: QC Std 5

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Shui L. Babcock

Pb	207	104.669	
Pb	208	105.580	
U	238	109.635	
> Bi	209		93.118
Na	23	93.950	
Mg	24	101.001	
K	39	96.696	
Ca	43	96.722	
Fe	54	97.969	
Fe	57	103.123	
> Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: QC Std 5

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Shui L. Bahgat

Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, May 03, 2012 14:43:35

Number of Replicates: 3

Autosampler Position: 101

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	21343.0	0.4	-19.0130	17.080	89.8	ug/L	20538	Standard
|	Be	9	237304.8	3.1	52.6874	1.602	3.0	ug/L	13	Standard
|	Al	27	1207219.1	3.5	50.2190	1.672	3.3	ug/L	25813	Standard
>	Sc	45	376568.7	1.4				ug/L	367704	Standard
|	Ti	47	215253.2	3.1	103.1239	1.565	1.5	ug/L	127	Standard
|	V	51	1271192.7	3.2	54.3196	0.580	1.1	ug/L	6636	Standard
|	Cr	52	1034738.4	4.1	52.7592	1.312	2.5	ug/L	21244	Standard
|	Cr	53	117270.7	4.6	52.2370	1.596	3.1	ug/L	467	Standard
|	Mn	55	1348791.9	4.2	55.0889	1.466	2.7	ug/L	8327	Standard
|	Co	59	892935.0	4.0	51.7928	1.392	2.7	ug/L	123	Standard
|	Ni	60	184159.6	5.0	51.7318	2.074	4.0	ug/L	272	Standard
|	Cu	65	153017.3	4.9	50.0738	1.463	2.9	ug/L	1002	Standard
|	Zn	66	68968.7	3.3	48.3712	0.940	1.9	ug/L	3532	Standard
>	Ge	72	257018.4	2.4				ug/L	254939	Standard
|	As	75	62705.8	3.7	49.7691	1.089	2.2	ug/L	-224	Standard
|	Se	82	6521.5	2.3	51.6471	0.918	1.8	ug/L	24	Standard
|	Se-1	77	4380.0	3.8	48.9998	1.370	2.8	ug/L	93	Standard
|	Ga	71	239777.8	3.4				mg/L	233175	Standard
|	Rb	85	1119.4	6.5				ug/L	20	Standard
>	Y	89	238293.7	1.8				ug/L	235100	Standard
|	Rh	103	41.3	15.6				ug/L	6	Standard
|	Mo	98	426215.9	4.1	96.0880	2.544	2.6	ug/L	14	Standard
|	Ag	107	492345.8	5.0	57.4034	2.159	3.8	ug/L	38	Standard
|	Cd	111	272452.9	3.1	52.4166	0.858	1.6	mg/L	439	Standard
|	Cd	114	720603.1	3.9	49.8576	1.200	2.4	ug/L	1326	Standard
>	In	115	851718.7	1.5				ug/L	804157	Standard
|	Sn	118	959042.1	3.6	49.5448	1.044	2.1	ug/L	4860	Standard
|	Sb	123	656556.2	3.3	51.1686	0.933	1.8	ug/L	28	Standard
|	Ba	135	275284.7	3.9	46.9490	1.139	2.4	ug/L	54	Standard
|	Ce	140	1004.7	4.3				ug/L	61	Standard
>	Tb	159	878620.6	0.6				ug/L	844239	Standard
|	Ho	165	20.7	24.4				ug/L	6	Standard
|	Tl	203	861252.2	2.1	50.7398	0.862	1.7	ug/L	10	Standard
|	Tl	205	2162787.1	6.8	52.7717	3.426	6.5	ug/L	16	Standard
|	Pb	206	700621.3	4.1	51.3143	1.898	3.7	ug/L	421	Standard
|	Pb	207	578127.0	3.4	51.0869	1.579	3.1	ug/L	341	Standard
|	Pb	208	2673914.6	3.4	51.2259	1.554	3.0	ug/L	1571	Standard
|	U	238	2640516.2	4.3	53.7757	2.176	4.0	ug/L	4	Standard
>	Bi	209	430455.7	1.0				ug/L	457202	Standard
	Na	23	15823.6	4.4	4.6855	0.157	3.4	mg/L	138	Standard
	Mg	24	1313051.3	5.1	4.9801	0.216	4.3	mg/L	134	Standard

Sample ID: QC Std 6

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K	39	53612.0	1.8	4.7650	0.069	1.5	mg/L	563	Standard
Ca	43	3457.7	5.6	4.7584	0.211	4.4	mg/L	127	Standard
Fe	54	29757.4	7.0	4.8689	0.338	6.9	mg/L	815	Standard
Fe	57	918873.1	6.4	5.5220	0.316	5.7	mg/L	4749	Standard
Sc-1	45	376568.7	1.4				mg/L	367704	Standard
Cl	35	220296.0	28.5				ug/L	59901	Standard
Kr	83	51.3	9.8				ug/L	50	Standard
Br	81	14054.5	0.9				ug/L	13965	Standard
P	31	98065.8	2.6				ug/L	71952	Standard
S	34	990159.2	1.2				ug/L	878802	Standard
Sr	88	849.4	6.1				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27	100.438		
Sc	45			
Ti	47	103.124		
V	51	108.639		
Cr	52	105.518		
Cr	53			
Mn	55	110.178		
Co	59	103.586		
Ni	60	103.464		
Cu	65	100.148		
Zn	66	96.742		
Ge	72		100.816	
As	75	99.538		
Se	82	103.294		
Se-1	77	98.000		
Ga	71			
Rb	85			
Y	89		101.358	
Rh	103			
Mo	98	96.088		
Ag	107	114.807		
Cd	111	104.833		
Cd	114			
In	115		105.914	
Sn	118	99.090		
Sb	123	102.337		
Ba	135	93.898		
Ce	140			
Tb	159		104.073	
Ho	165			
Tl	203	101.480		
Tl	205			
Pb	206	102.629		

Sample ID: QC Std 6

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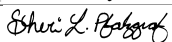
Shui L. Babcock

Pb	207	102.174	
Pb	208	102.452	
U	238	107.551	
> Bi	209		94.150
Na	23	93.709	
Mg	24	99.603	
K	39	95.299	
Ca	43	95.168	
Fe	54	97.378	
Fe	57	110.441	
> Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Mn	55	
QC Std 6	Ag	107	
QC Std 6	Fe	57	

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, May 03, 2012 14:46:22

Number of Replicates: 3

Autosampler Position: 102

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	20475.8	2.3	-2.2879	54.609	2386.9	ug/L	20538	Standard
|	Be	9	63.3	30.9	0.0089	0.005	59.6	ug/L	13	Standard
|	Al	27	15782.9	9.0	-0.2676	0.057	21.3	ug/L	25813	Standard
>	Sc	45	357942.8	4.7				ug/L	367704	Standard
|	Ti	47	138.0	37.3	0.0180	0.029	160.2	ug/L	127	Standard
|	V	51	6664.1	2.1	0.0178	0.005	29.6	ug/L	6636	Standard
|	Cr	52	20503.9	2.1	0.0352	0.012	35.4	ug/L	21244	Standard
|	Cr	53	568.7	9.3	0.0583	0.027	45.6	ug/L	467	Standard
|	Mn	55	1680.1	5.5	-0.1589	0.006	4.0	ug/L	8327	Standard
|	Co	59	230.3	32.2	0.0069	0.005	74.1	ug/L	123	Standard
|	Ni	60	128.3	9.3	-0.0227	0.005	21.0	ug/L	272	Standard
|	Cu	65	927.4	4.1	-0.0081	0.011	134.5	ug/L	1002	Standard
|	Zn	66	1089.0	5.4	-1.1170	0.020	1.8	ug/L	3532	Standard
>	Ge	72	240187.0	3.1				ug/L	254939	Standard
|	As	75	-212.2	1.8	-0.0182	0.009	47.5	ug/L	-224	Standard
|	Se	82	23.9	16.5	-0.0428	0.040	93.4	ug/L	24	Standard
|	Se-1	77	89.3	11.0	-0.0330	0.092	279.7	ug/L	93	Standard
|	Ga	71	223011.1	2.3				mg/L	233175	Standard
|	Rb	85	20.0	45.8				ug/L	20	Standard
>	Y	89	213387.6	4.7				ug/L	235100	Standard
|	Rh	103	1.3	86.6				ug/L	6	Standard
|	Mo	98	217.2	29.9	0.0429	0.016	38.4	ug/L	14	Standard
|	Ag	107	135.3	28.7	0.0118	0.005	43.3	ug/L	38	Standard
|	Cd	111	507.4	6.7	0.0111	0.009	77.8	mg/L	439	Standard
|	Cd	114	1417.3	4.3	0.0080	0.005	68.3	ug/L	1326	Standard
>	In	115	794227.3	1.8				ug/L	804157	Standard
|	Sn	118	1968.1	2.7	-0.0833	0.005	5.8	ug/L	4860	Standard
|	Sb	123	751.9	12.5	0.0568	0.009	15.2	ug/L	28	Standard
|	Ba	135	103.0	25.2	0.0080	0.005	63.1	ug/L	54	Standard
|	Ce	140	62.0	11.6				ug/L	61	Standard
>	Tb	159	810489.1	1.5				ug/L	844239	Standard
|	Ho	165	6.7	45.8				ug/L	6	Standard
|	Tl	203	169.3	26.0	0.0107	0.003	24.6	ug/L	10	Standard
|	Tl	205	472.0	16.8	0.0115	0.002	17.0	ug/L	16	Standard
|	Pb	206	484.3	5.7	0.0074	0.002	33.5	ug/L	421	Standard
|	Pb	207	396.3	6.6	0.0043	0.003	62.4	ug/L	341	Standard
|	Pb	208	1860.0	7.3	0.0061	0.003	51.1	ug/L	1571	Standard
|	U	238	938.7	28.5	0.0207	0.006	28.4	ug/L	4	Standard
>	Bi	209	420940.9	1.4				ug/L	457202	Standard
|	Na	23	154.7	9.1	0.0093	0.006	63.6	mg/L	138	Standard
	Mg	24	346.7	40.0	-0.0000	0.001	8133.5	mg/L	134	Standard

Sample ID: QC Std 7

Report Date/Time: Thursday, May 03, 2012 14:48:49

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Shui L. Bahgat

K	39	569.3	1.5	-0.0043	0.002	41.9	mg/L	563	Standard
Ca	43	105.3	10.5	-0.0177	0.015	83.0	mg/L	127	Standard
Fe	54	834.2	3.4	0.0092	0.009	98.6	mg/L	815	Standard
Fe	57	5272.9	3.2	0.0030	0.002	73.6	mg/L	4749	Standard
Sc-1	45	357942.8	4.7				mg/L	367704	Standard
Cl	35	144207.2	5.2				ug/L	59901	Standard
Kr	83	48.0	10.0				ug/L	50	Standard
Br	81	13123.7	1.0				ug/L	13965	Standard
P	31	82276.4	4.5				ug/L	71952	Standard
S	34	977329.4	1.5				ug/L	878802	Standard
Sr	88	346.7	14.2				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		94.214	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		90.765	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		98.765	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		96.002	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: QC Std 7

Report Date/Time: Thursday, May 03, 2012 14:48:49

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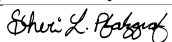
Shui L. Bahgat

	Pb	207	
	Pb	208	
	U	238	
	> Bi	209	92.069
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
	> Sc-1	45	
|	Cl	35	
|	Kr	83	
|	Br	81	
|	P	31	
|	S	34	
	Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: QC Std 7
 Report Date/Time: Thursday, May 03, 2012 14:48:49
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: PBW 58 WG396883-02

Sample Date/Time: Thursday, May 03, 2012 14:58:17

Number of Replicates: 3

Autosampler Position: 249

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	18633.1	2.9	11.7177	31.874	272.0	ug/L	20538	Standard
|	Be	9	13.7	40.3	-0.0025	0.001	56.8	ug/L	13	Standard
|	Al	27	17413.3	3.5	-0.1102	0.028	25.2	ug/L	25813	Standard
>	Sc	45	322678.7	1.0				ug/L	367704	Standard
|	Ti	47	81.3	10.2	-0.0095	0.005	47.9	ug/L	127	Standard
|	V	51	5898.7	1.3	-0.0030	0.006	193.4	ug/L	6636	Standard
|	Cr	52	17965.3	1.9	-0.0532	0.029	54.6	ug/L	21244	Standard
|	Cr	53	417.3	8.4	-0.0038	0.016	417.4	ug/L	467	Standard
|	Mn	55	3680.1	2.8	-0.0627	0.006	9.8	ug/L	8327	Standard
|	Co	59	114.0	7.6	-0.0001	0.001	772.1	ug/L	123	Standard
|	Ni	60	129.0	10.7	-0.0205	0.004	19.6	ug/L	272	Standard
|	Cu	65	251.0	9.2	-0.2420	0.008	3.2	ug/L	1002	Standard
|	Zn	66	2777.6	4.1	0.3178	0.106	33.3	ug/L	3532	Standard
>	Ge	72	228081.6	0.8				ug/L	254939	Standard
|	As	75	-194.3	5.2	-0.0116	0.010	87.8	ug/L	-224	Standard
|	Se	82	17.5	13.5	-0.0897	0.022	25.0	ug/L	24	Standard
|	Se-1	77	67.7	10.5	-0.2530	0.088	34.6	ug/L	93	Standard
|	Ga	71	206114.8	1.8				mg/L	233175	Standard
|	Rb	85	18.0	0.0				ug/L	20	Standard
>	Y	89	201227.4	2.6				ug/L	235100	Standard
|	Rh	103	3.3	91.7				ug/L	6	Standard
|	Mo	98	20.7	24.9	-0.0045	0.001	27.0	ug/L	14	Standard
|	Ag	107	54.7	30.7	0.0020	0.002	108.6	ug/L	38	Standard
|	Cd	111	151.3	4.5	-0.0609	0.001	2.2	mg/L	439	Standard
|	Cd	114	424.2	1.9	-0.0641	0.001	1.2	ug/L	1326	Standard
>	In	115	753433.0	2.5				ug/L	804157	Standard
|	Sn	118	938.7	46.6	-0.1379	0.025	18.3	ug/L	4860	Standard
|	Sb	123	141.5	12.5	0.0063	0.001	23.5	ug/L	28	Standard
|	Ba	135	61.0	24.6	0.0008	0.003	325.2	ug/L	54	Standard
|	Ce	140	74.7	10.8				ug/L	61	Standard
>	Tb	159	775820.9	1.1				ug/L	844239	Standard
|	Ho	165	8.0	50.0				ug/L	6	Standard
|	Tl	203	118.7	15.7	0.0076	0.001	13.8	ug/L	10	Standard
|	Tl	205	288.7	12.5	0.0069	0.001	12.8	ug/L	16	Standard
|	Pb	206	320.0	6.5	-0.0049	0.002	37.0	ug/L	421	Standard
|	Pb	207	273.0	3.0	-0.0069	0.001	7.4	ug/L	341	Standard
|	Pb	208	1256.7	1.9	-0.0057	0.001	10.5	ug/L	1571	Standard
|	U	238	43.3	8.7	0.0020	0.000	3.5	ug/L	4	Standard
>	Bi	209	420668.5	1.0				ug/L	457202	Standard
|	Na	23	171.3	17.0	0.0202	0.010	50.6	mg/L	138	Standard
	Mg	24	503.3	10.1	0.0008	0.000	26.7	mg/L	134	Standard

Sample ID: PBW 58 WG396883-02

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Shui L. Bahgat

K	39	608.7	1.6	0.0057	0.001	21.1	mg/L	563	Standard
Ca	43	96.0	13.0	-0.0161	0.019	118.8	mg/L	127	Standard
Fe	54	345.7	2.0	-0.0708	0.002	2.8	mg/L	815	Standard
Fe	57	4538.7	2.3	0.0014	0.000	34.4	mg/L	4749	Standard
Sc-1	45	322678.7	1.0				mg/L	367704	Standard
Cl	35	209136.9	2.2				ug/L	59901	Standard
Kr	83	42.7	9.5				ug/L	50	Standard
Br	81	11738.9	0.7				ug/L	13965	Standard
P	31	33587.2	2.8				ug/L	71952	Standard
S	34	891778.9	1.9				ug/L	878802	Standard
Sr	88	798.7	15.2				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		89.465	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		85.592	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		93.692	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		91.896	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: PBW 58 WG396883-02
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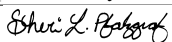
Approved: May 04, 2012
<i>Shui L. Babcock</i>

	Pb	207	
	Pb	208	
	U	238	
	> Bi	209	92.009
	Na	23	
	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
|	> Sc-1	45	
|	Cl	35	
|	Kr	83	
|	Br	81	
|	P	31	
|	S	34	
	Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: PBW 58 WG396883-02
 Report Date/Time: Thursday, May 03, 2012 15:00:44
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: LCSW 58 WG396883-03

Sample Date/Time: Thursday, May 03, 2012 15:01:04

Number of Replicates: 3

Autosampler Position: 250

Sample Description: 20

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	915343.3	1.6	73938.3790	840.605	1.1	ug/L	20538	Standard
|	Be	9	7045.3	1.9	1.6644	0.022	1.3	ug/L	13	Standard
|	Al	27	5846882.2	3.3	263.7622	7.263	2.8	ug/L	25813	Standard
>	Sc	45	352628.0	0.6				ug/L	367704	Standard
|	Ti	47	51845.3	3.4	26.7317	0.927	3.5	ug/L	127	Standard
|	V	51	602846.1	2.9	27.6242	0.751	2.7	ug/L	6636	Standard
|	Cr	52	262908.5	1.7	13.6457	0.247	1.8	ug/L	21244	Standard
|	Cr	53	53437.4	1.7	25.5492	0.339	1.3	ug/L	467	Standard
|	Mn	55	309964.4	2.1	13.4712	0.274	2.0	ug/L	8327	Standard
|	Co	59	83267.2	2.0	5.1988	0.094	1.8	ug/L	123	Standard
|	Ni	60	43418.1	2.5	13.0996	0.284	2.2	ug/L	272	Standard
|	Cu	65	37447.9	2.7	12.9642	0.314	2.4	ug/L	1002	Standard
|	Zn	66	43556.2	2.0	32.2952	0.566	1.8	ug/L	3532	Standard
>	Ge	72	238481.5	0.4				ug/L	254939	Standard
|	As	75	13389.5	3.6	11.5783	0.373	3.2	ug/L	-224	Standard
|	Se	82	1588.9	2.6	13.3774	0.289	2.2	ug/L	24	Standard
|	Se-1	77	2253.2	3.4	26.6640	0.835	3.1	ug/L	93	Standard
|	Ga	71	216196.2	0.7				mg/L	233175	Standard
|	Rb	85	890.7	7.1				ug/L	20	Standard
>	Y	89	210650.1	2.3				ug/L	235100	Standard
|	Rh	103	20.0	17.3				ug/L	6	Standard
|	Mo	98	97174.6	2.9	23.7802	0.664	2.8	ug/L	14	Standard
|	Ag	107	83935.3	2.8	10.6215	0.268	2.5	ug/L	38	Standard
|	Cd	111	7420.5	3.4	1.4587	0.045	3.1	mg/L	439	Standard
|	Cd	114	20806.1	2.4	1.4687	0.034	2.3	ug/L	1326	Standard
>	In	115	784612.5	0.7				ug/L	804157	Standard
|	Sn	118	1201.4	0.9	-0.1252	0.000	0.2	ug/L	4860	Standard
|	Sb	123	398703.5	2.7	33.7354	0.914	2.7	ug/L	28	Standard
|	Ba	135	140769.4	2.1	26.0638	0.617	2.4	ug/L	54	Standard
|	Ce	140	84.0	21.8				ug/L	61	Standard
>	Tb	159	822802.1	0.8				ug/L	844239	Standard
|	Ho	165	17.3	29.0				ug/L	6	Standard
|	Tl	203	215929.4	5.1	12.3984	0.747	6.0	ug/L	10	Standard
|	Tl	205	522975.0	4.8	12.4364	0.701	5.6	ug/L	16	Standard
|	Pb	206	173635.6	2.2	12.3711	0.410	3.3	ug/L	421	Standard
|	Pb	207	159070.7	2.5	13.6742	0.475	3.5	ug/L	341	Standard
|	Pb	208	697295.8	2.3	12.9949	0.437	3.4	ug/L	1571	Standard
|	U	238	129.0	38.7	0.0036	0.001	27.5	ug/L	4	Standard
>	Bi	209	441860.2	1.1				ug/L	457202	Standard
|	Na	23	4773.4	2.9	1.4830	0.046	3.1	mg/L	138	Standard
|	Mg	24	77781.5	2.1	0.3138	0.005	1.5	mg/L	134	Standard

Sample ID: LCSW 58 WG396883-03

Report Date/Time: Thursday, May 03, 2012 15:03:32

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Approved: May 04, 2012

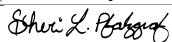
Shui L. Bahgat

K	39	15635.4	0.9	1.4439	0.006	0.4	mg/L	563	Standard
Ca	43	329.3	8.7	0.3263	0.047	14.3	mg/L	127	Standard
Fe	54	950.1	1.6	0.0321	0.002	5.7	mg/L	815	Standard
Fe	57	18875.1	4.2	0.0912	0.005	5.1	mg/L	4749	Standard
Sc-1	45	352628.0	0.6				mg/L	367704	Standard
Cl	35	45147972.5	1.7				ug/L	59901	Standard
Kr	83	41.6	12.3				ug/L	50	Standard
Br	81	12071.8	0.3				ug/L	13965	Standard
P	31	35618.5	4.1				ug/L	71952	Standard
S	34	921236.3	1.3				ug/L	878802	Standard
Sr	88	461832.2	1.7				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		93.545	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		89.600	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		97.570	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		97.461	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: LCSW 58 WG396883-03
 Report Date/Time: Thursday, May 03, 2012 15:03:32
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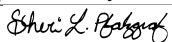
Approved: May 04, 2012 

Pb	207	
Pb	208	
U	238	
> Bi	209	96.644
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: LCSW 58 WG396883-03
 Report Date/Time: Thursday, May 03, 2012 15:03:32
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: FBLK1 WG396841-01

Sample Date/Time: Thursday, May 03, 2012 15:03:52

Number of Replicates: 3

Autosampler Position: 251

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	20784.9	2.8	83.7645	38.530	46.0	ug/L	20538	Standard
|	Be	9	15.3	21.0	-0.0023	0.001	32.1	ug/L	13	Standard
|	Al	27	206852.0	1.5	8.5968	0.048	0.6	ug/L	25813	Standard
>	Sc	45	345186.2	1.3				ug/L	367704	Standard
|	Ti	47	580.7	4.1	0.2500	0.013	5.3	ug/L	127	Standard
|	V	51	7153.6	4.7	0.0463	0.015	32.0	ug/L	6636	Standard
|	Cr	52	20607.3	1.7	0.0621	0.019	30.5	ug/L	21244	Standard
|	Cr	53	2080.8	12.1	0.8006	0.124	15.5	ug/L	467	Standard
|	Mn	55	21553.7	2.7	0.7310	0.030	4.1	ug/L	8327	Standard
|	Co	59	235.7	5.6	0.0074	0.001	11.3	ug/L	123	Standard
|	Ni	60	218.0	5.6	0.0055	0.004	68.2	ug/L	272	Standard
|	Cu	65	367.0	1.7	-0.2033	0.002	1.2	ug/L	1002	Standard
|	Zn	66	3547.4	1.2	0.8552	0.041	4.8	ug/L	3532	Standard
>	Ge	72	235799.7	0.4				ug/L	254939	Standard
|	As	75	-231.5	26.5	-0.0380	0.053	138.6	ug/L	-224	Standard
|	Se	82	18.7	22.8	-0.0849	0.037	43.3	ug/L	24	Standard
|	Se-1	77	139.3	6.9	0.6128	0.123	20.1	ug/L	93	Standard
|	Ga	71	213836.0	1.8				mg/L	233175	Standard
|	Rb	85	212.0	6.8				ug/L	20	Standard
>	Y	89	208763.3	1.7				ug/L	235100	Standard
|	Rh	103	2.7	43.3				ug/L	6	Standard
|	Mo	98	162.4	23.9	0.0303	0.010	31.6	ug/L	14	Standard
|	Ag	107	44.3	27.2	0.0005	0.002	338.5	ug/L	38	Standard
|	Cd	111	166.1	4.0	-0.0589	0.001	2.1	mg/L	439	Standard
|	Cd	114	438.4	7.3	-0.0641	0.003	4.1	ug/L	1326	Standard
>	In	115	778713.3	0.7				ug/L	804157	Standard
|	Sn	118	1500.7	2.6	-0.1076	0.003	2.6	ug/L	4860	Standard
|	Sb	123	160.5	11.6	0.0075	0.002	20.7	ug/L	28	Standard
|	Ba	135	516.0	5.2	0.0854	0.006	6.6	ug/L	54	Standard
|	Ce	140	1450.1	5.5				ug/L	61	Standard
>	Tb	159	806557.6	1.0				ug/L	844239	Standard
|	Ho	165	18.7	6.2				ug/L	6	Standard
|	Tl	203	705.7	6.7	0.0411	0.003	7.8	ug/L	10	Standard
|	Tl	205	1672.1	7.2	0.0396	0.003	8.8	ug/L	16	Standard
|	Pb	206	1482.7	4.8	0.0771	0.003	4.4	ug/L	421	Standard
|	Pb	207	1172.0	7.4	0.0695	0.006	8.5	ug/L	341	Standard
|	Pb	208	5511.7	5.7	0.0727	0.004	5.8	ug/L	1571	Standard
|	U	238	87.0	9.8	0.0028	0.000	5.5	ug/L	4	Standard
>	Bi	209	441059.3	1.7				ug/L	457202	Standard
	Na	23	24288.1	0.8	7.8753	0.152	1.9	mg/L	138	Standard
	Mg	24	1950.5	5.3	0.0067	0.000	5.0	mg/L	134	Standard

Sample ID: FBLK1 WG396841-01

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Shui L. Bahgat

K	39	699.3	2.5	0.0104	0.002	17.0	mg/L	563	Standard
Ca	43	116.0	9.6	0.0046	0.015	328.1	mg/L	127	Standard
Fe	54	473.8	4.2	-0.0517	0.004	7.1	mg/L	815	Standard
Fe	57	7575.9	1.9	0.0193	0.000	2.3	mg/L	4749	Standard
Sc-1	45	345186.2	1.3				mg/L	367704	Standard
Cl	35	2520998.6	9.4				ug/L	59901	Standard
Kr	83	45.6	6.9				ug/L	50	Standard
Br	81	12470.8	2.6				ug/L	13965	Standard
P	31	35269.7	4.3				ug/L	71952	Standard
S	34	891735.7	0.3				ug/L	878802	Standard
Sr	88	1154.7	4.1				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		92.493	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		88.798	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		96.836	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		95.537	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: FBLK1 WG396841-01
 Report Date/Time: Thursday, May 03, 2012 15:06:19
 Page 2

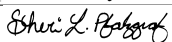
Approved: May 04, 2012
<i>Shui L. Bahgat</i>

Pb	207	
Pb	208	
U	238	
> Bi	209	96.469
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: FBLK1 WG396841-01
 Report Date/Time: Thursday, May 03, 2012 15:06:19
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: FBLK2 WG396841-02

Sample Date/Time: Thursday, May 03, 2012 15:06:39

Number of Replicates: 3

Autosampler Position: 252

Sample Description: 1

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	19161.1	0.7	20.8292	10.690	51.3	ug/L	20538	Standard
|	Be	9	14.3	26.4	-0.0024	0.001	38.3	ug/L	13	Standard
|	Al	27	74013.8	3.7	2.6078	0.091	3.5	ug/L	25813	Standard
>	Sc	45	330090.6	1.3				ug/L	367704	Standard
|	Ti	47	345.3	13.7	0.1325	0.024	18.1	ug/L	127	Standard
|	V	51	6948.2	5.0	0.0467	0.015	32.1	ug/L	6636	Standard
|	Cr	52	20859.7	1.3	0.1131	0.029	25.9	ug/L	21244	Standard
|	Cr	53	1933.5	4.3	0.7575	0.033	4.3	ug/L	467	Standard
|	Mn	55	3060.6	4.9	-0.0918	0.006	6.0	ug/L	8327	Standard
|	Co	59	111.3	8.2	-0.0003	0.001	188.1	ug/L	123	Standard
|	Ni	60	94.7	4.3	-0.0314	0.002	5.1	ug/L	272	Standard
|	Cu	65	261.7	9.8	-0.2382	0.011	4.5	ug/L	1002	Standard
|	Zn	66	2512.5	3.3	0.0932	0.056	59.7	ug/L	3532	Standard
>	Ge	72	228762.5	1.1				ug/L	254939	Standard
|	As	75	-172.0	21.4	0.0085	0.034	404.0	ug/L	-224	Standard
|	Se	82	26.5	13.5	-0.0094	0.035	370.8	ug/L	24	Standard
|	Se-1	77	133.0	7.3	0.5850	0.130	22.1	ug/L	93	Standard
|	Ga	71	209025.4	1.0				mg/L	233175	Standard
|	Rb	85	62.7	12.1				ug/L	20	Standard
>	Y	89	204422.7	1.8				ug/L	235100	Standard
|	Rh	103	2.7	173.2				ug/L	6	Standard
|	Mo	98	31.0	12.9	-0.0019	0.001	56.6	ug/L	14	Standard
|	Ag	107	39.7	15.2	-0.0000	0.001	8864.4	ug/L	38	Standard
|	Cd	111	162.6	6.3	-0.0587	0.002	3.2	mg/L	439	Standard
|	Cd	114	453.2	8.5	-0.0621	0.003	4.9	ug/L	1326	Standard
>	In	115	757914.1	1.1				ug/L	804157	Standard
|	Sn	118	702.0	7.0	-0.1519	0.003	2.0	ug/L	4860	Standard
|	Sb	123	114.0	2.3	0.0038	0.000	3.5	ug/L	28	Standard
|	Ba	135	776.0	5.5	0.1379	0.008	6.1	ug/L	54	Standard
|	Ce	140	365.3	5.0				ug/L	61	Standard
>	Tb	159	789650.8	1.1				ug/L	844239	Standard
|	Ho	165	12.0	72.6				ug/L	6	Standard
|	Tl	203	405.7	5.7	0.0242	0.001	2.9	ug/L	10	Standard
|	Tl	205	1047.4	4.4	0.0251	0.000	1.5	ug/L	16	Standard
|	Pb	206	495.7	5.0	0.0072	0.002	28.7	ug/L	421	Standard
|	Pb	207	413.7	5.8	0.0047	0.002	39.7	ug/L	341	Standard
|	Pb	208	1864.0	5.1	0.0051	0.001	24.1	ug/L	1571	Standard
|	U	238	31.3	4.9	0.0017	0.000	1.9	ug/L	4	Standard
>	Bi	209	433763.8	2.9				ug/L	457202	Standard
	Na	23	130.0	4.1	0.0048	0.002	41.7	mg/L	138	Standard
	Mg	24	1098.0	5.1	0.0033	0.000	5.5	mg/L	134	Standard

Sample ID: FBLK2 WG396841-02

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Shui L. Bahgat

K	39	627.3	8.8	0.0062	0.006	101.8	mg/L	563	Standard
Ca	43	106.7	2.2	-0.0022	0.004	195.8	mg/L	127	Standard
Fe	54	369.8	3.7	-0.0677	0.002	2.8	mg/L	815	Standard
Fe	57	5034.8	1.8	0.0041	0.000	10.6	mg/L	4749	Standard
Sc-1	45	330090.6	1.3				mg/L	367704	Standard
Cl	35	2302962.7	1.9				ug/L	59901	Standard
Kr	83	42.4	12.2				ug/L	50	Standard
Br	81	12440.4	1.3				ug/L	13965	Standard
P	31	34290.8	0.6				ug/L	71952	Standard
S	34	895090.0	0.9				ug/L	878802	Standard
Sr	88	882.7	5.2				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		89.732	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		86.951	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		94.249	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		93.534	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: FBLK2 WG396841-02
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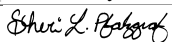
Approved: May 04, 2012
<i>Shui L. Bahgat</i>

Pb	207	
Pb	208	
U	238	
> Bi	209	94.874
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: FBLK2 WG396841-02
 Report Date/Time: Thursday, May 03, 2012 15:09:06
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205003501 WG396883-01

Sample Date/Time: Thursday, May 03, 2012 15:09:26

Number of Replicates: 3

Autosampler Position: 253

Sample Description: 20

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	22670.6	0.2	248.2951	35.300	14.2	ug/L	20538	Standard
|	Be	9	18.7	27.5	-0.0015	0.001	89.6	ug/L	13	Standard
|	Al	27	98931.3	1.2	3.6170	0.078	2.2	ug/L	25813	Standard
>	Sc	45	344309.5	2.0				ug/L	367704	Standard
|	Ti	47	556.7	6.2	0.2401	0.016	6.8	ug/L	127	Standard
|	V	51	8135.9	4.8	0.0958	0.016	16.3	ug/L	6636	Standard
|	Cr	52	22914.0	5.1	0.2045	0.047	23.0	ug/L	21244	Standard
|	Cr	53	1599.4	1.2	0.5733	0.027	4.7	ug/L	467	Standard
|	Mn	55	67817.8	2.0	2.8278	0.064	2.3	ug/L	8327	Standard
|	Co	59	540.0	3.6	0.0269	0.001	2.6	ug/L	123	Standard
|	Ni	60	834.7	5.6	0.1968	0.010	5.0	ug/L	272	Standard
|	Cu	65	58420.1	1.7	20.8478	0.604	2.9	ug/L	1002	Standard
|	Zn	66	4717.1	0.8	1.8213	0.097	5.3	ug/L	3532	Standard
>	Ge	72	233682.7	2.6				ug/L	254939	Standard
|	As	75	-24.1	207.7	0.1411	0.043	30.3	ug/L	-224	Standard
|	Se	82	62.3	17.0	0.3004	0.108	36.1	ug/L	24	Standard
|	Se-1	77	153.3	9.8	0.8065	0.209	25.9	ug/L	93	Standard
|	Ga	71	212846.3	3.3				mg/L	233175	Standard
|	Rb	85	356.0	5.4				ug/L	20	Standard
>	Y	89	210543.6	1.5				ug/L	235100	Standard
|	Rh	103	6.7	45.8				ug/L	6	Standard
|	Mo	98	368.9	4.2	0.0807	0.004	5.3	ug/L	14	Standard
|	Ag	107	34.7	17.4	-0.0008	0.001	100.5	ug/L	38	Standard
|	Cd	111	667.8	0.8	0.0461	0.002	4.6	mg/L	439	Standard
|	Cd	114	1846.7	1.6	0.0418	0.004	8.4	ug/L	1326	Standard
>	In	115	783343.9	0.9				ug/L	804157	Standard
|	Sn	118	1420.1	6.6	-0.1127	0.006	5.1	ug/L	4860	Standard
|	Sb	123	232.1	5.9	0.0135	0.001	8.3	ug/L	28	Standard
|	Ba	135	7469.5	1.2	1.3750	0.029	2.1	ug/L	54	Standard
|	Ce	140	1759.4	4.7				ug/L	61	Standard
>	Tb	159	814308.3	2.2				ug/L	844239	Standard
|	Ho	165	41.3	39.1				ug/L	6	Standard
|	Tl	203	485.0	31.3	0.0285	0.009	31.3	ug/L	10	Standard
|	Tl	205	1111.4	26.4	0.0264	0.007	27.3	ug/L	16	Standard
|	Pb	206	2529.9	2.8	0.1532	0.008	5.2	ug/L	421	Standard
|	Pb	207	2157.2	2.5	0.1558	0.007	4.7	ug/L	341	Standard
|	Pb	208	9828.6	2.3	0.1547	0.007	4.5	ug/L	1571	Standard
|	U	238	1205.0	4.9	0.0252	0.001	5.2	ug/L	4	Standard
>	Bi	209	438432.2	1.6				ug/L	457202	Standard
|	Na	23	27058.8	1.5	8.8002	0.111	1.3	mg/L	138	Standard
|	Mg	24	33558.1	2.7	0.1379	0.001	1.0	mg/L	134	Standard

Sample ID: L1205003501 WG396883-01

Report Date/Time: Thursday, May 03, 2012 15:11:53

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Shui L. Bahgat

K	39	1040.0	2.3	0.0442	0.004	9.7	mg/L	563	Standard
Ca	43	3767.1	3.5	5.7051	0.125	2.2	mg/L	127	Standard
Fe	54	420.0	2.8	-0.0613	0.004	6.0	mg/L	815	Standard
Fe	57	8180.2	1.3	0.0235	0.001	2.7	mg/L	4749	Standard
Sc-1	45	344309.5	2.0				mg/L	367704	Standard
Cl	35	2471212.9	2.0				ug/L	59901	Standard
Kr	83	42.4	18.7				ug/L	50	Standard
Br	81	13091.3	1.9				ug/L	13965	Standard
P	31	38631.9	1.3				ug/L	71952	Standard
S	34	1211291.0	1.6				ug/L	878802	Standard
Sr	88	252672.0	2.1				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		91.662	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		89.555	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		97.412	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		96.455	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205003501 WG396883-01
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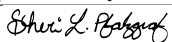
Approved: May 04, 2012
<i>Shui L. Bahgat</i>

Pb	207	
Pb	208	
U	238	
> Bi	209	95.895
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205003501 WG396883-01
 Report Date/Time: Thursday, May 03, 2012 15:11:53
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205003501S WG396883-04

Sample Date/Time: Thursday, May 03, 2012 15:12:13

Number of Replicates: 3

Autosampler Position: 254

Sample Description: 20

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	903458.2	3.2	73485.4449	1257.102	1.7	ug/L	20538	Standard
|	Be	9	7064.3	4.1	1.6807	0.044	2.6	ug/L	13	Standard
|	Al	27	5857562.8	4.4	266.0855	6.185	2.3	ug/L	25813	Standard
>	Sc	45	350122.7	2.1				ug/L	367704	Standard
|	Ti	47	52954.5	3.7	28.5168	0.227	0.8	ug/L	127	Standard
|	V	51	611640.1	3.8	29.2870	0.226	0.8	ug/L	6636	Standard
|	Cr	52	264803.7	3.7	14.4115	0.211	1.5	ug/L	21244	Standard
|	Cr	53	49565.0	2.7	24.7477	0.122	0.5	ug/L	467	Standard
|	Mn	55	365131.9	3.4	16.6279	0.247	1.5	ug/L	8327	Standard
|	Co	59	83063.1	4.9	5.4150	0.101	1.9	ug/L	123	Standard
|	Ni	60	43495.4	4.6	13.7063	0.261	1.9	ug/L	272	Standard
|	Cu	65	93994.3	4.1	34.5249	0.380	1.1	ug/L	1002	Standard
|	Zn	66	44675.5	4.5	34.7291	0.523	1.5	ug/L	3532	Standard
>	Ge	72	228327.6	3.1				ug/L	254939	Standard
|	As	75	13954.0	4.3	12.5865	0.152	1.2	ug/L	-224	Standard
|	Se	82	1669.1	3.2	14.7020	0.042	0.3	ug/L	24	Standard
|	Se-1	77	2192.5	0.7	27.1396	0.944	3.5	ug/L	93	Standard
|	Ga	71	203754.0	3.6				mg/L	233175	Standard
|	Rb	85	1217.4	5.9				ug/L	20	Standard
>	Y	89	205822.6	0.8				ug/L	235100	Standard
|	Rh	103	34.7	13.3				ug/L	6	Standard
|	Mo	98	98483.0	3.8	24.5824	0.721	2.9	ug/L	14	Standard
|	Ag	107	82375.2	3.5	10.6335	0.298	2.8	ug/L	38	Standard
|	Cd	111	7768.9	4.7	1.5640	0.055	3.5	mg/L	439	Standard
|	Cd	114	21827.3	3.3	1.5785	0.043	2.7	ug/L	1326	Standard
>	In	115	769140.2	1.5				ug/L	804157	Standard
|	Sn	118	1384.1	3.9	-0.1133	0.004	3.6	ug/L	4860	Standard
|	Sb	123	401917.2	4.5	34.6836	1.179	3.4	ug/L	28	Standard
|	Ba	135	147235.6	3.7	27.8053	0.776	2.8	ug/L	54	Standard
|	Ce	140	1502.1	1.4				ug/L	61	Standard
>	Tb	159	809389.5	2.0				ug/L	844239	Standard
|	Ho	165	44.0	18.2				ug/L	6	Standard
|	Tl	203	214067.3	5.3	12.6402	0.506	4.0	ug/L	10	Standard
|	Tl	205	517408.3	4.5	12.6545	0.414	3.3	ug/L	16	Standard
|	Pb	206	172590.2	4.2	12.6493	0.371	2.9	ug/L	421	Standard
|	Pb	207	155460.9	3.9	13.7471	0.368	2.7	ug/L	341	Standard
|	Pb	208	689438.3	4.2	13.2169	0.390	3.0	ug/L	1571	Standard
|	U	238	1125.0	0.8	0.0241	0.000	0.6	ug/L	4	Standard
>	Bi	209	429353.7	1.3				ug/L	457202	Standard
|	Na	23	33612.6	3.6	10.7553	0.164	1.5	mg/L	138	Standard
|	Mg	24	109776.0	3.8	0.4465	0.008	1.8	mg/L	134	Standard

Sample ID: L1205003501S WG396883-04

Report Date/Time: Thursday, May 03, 2012 15:14:40

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Approved: May 04, 2012

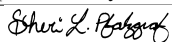
Shui L. Bahgat

K	39	16032.5	2.2	1.4932	0.030	2.0	mg/L	563	Standard
Ca	43	4125.9	2.8	6.1584	0.042	0.7	mg/L	127	Standard
Fe	54	942.1	1.3	0.0319	0.004	13.4	mg/L	815	Standard
Fe	57	21783.7	3.9	0.1110	0.003	2.4	mg/L	4749	Standard
Sc-1	45	350122.7	2.1				mg/L	367704	Standard
Cl	35	46786066.8	2.6				ug/L	59901	Standard
Kr	83	48.7	6.3				ug/L	50	Standard
Br	81	12612.6	2.5				ug/L	13965	Standard
P	31	38663.6	2.9				ug/L	71952	Standard
S	34	1224807.1	3.2				ug/L	878802	Standard
Sr	88	718235.8	2.7				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		89.562	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		87.547	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		95.645	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		95.872	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205003501S WG396883-04
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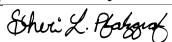
Approved: May 04, 2012 

Pb	207	
Pb	208	
U	238	
> Bi	209	93.909
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205003501S WG396883-04
 Report Date/Time: Thursday, May 03, 2012 15:14:40
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205003501SD WG396883-05

Sample Date/Time: Thursday, May 03, 2012 15:15:00

Number of Replicates: 3

Autosampler Position: 255

Sample Description: 20

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	931004.4	2.5	74109.3422	907.052	1.2	ug/L	20538	Standard
|	Be	9	7202.4	3.3	1.6767	0.034	2.0	ug/L	13	Standard
|	Al	27	5992672.3	3.7	266.3882	5.967	2.2	ug/L	25813	Standard
>	Sc	45	357830.3	1.4				ug/L	367704	Standard
|	Ti	47	54465.1	2.8	28.6084	1.017	3.6	ug/L	127	Standard
|	V	51	623633.8	2.8	29.1251	1.033	3.5	ug/L	6636	Standard
|	Cr	52	270720.4	3.5	14.3676	0.661	4.6	ug/L	21244	Standard
|	Cr	53	52522.3	3.3	25.5809	1.027	4.0	ug/L	467	Standard
|	Mn	55	379168.9	3.2	16.8436	0.682	4.0	ug/L	8327	Standard
|	Co	59	84836.8	4.0	5.3962	0.259	4.8	ug/L	123	Standard
|	Ni	60	45148.2	3.5	13.8801	0.587	4.2	ug/L	272	Standard
|	Cu	65	97072.0	4.0	34.7843	1.639	4.7	ug/L	1002	Standard
|	Zn	66	46284.0	3.2	35.1208	1.465	4.2	ug/L	3532	Standard
>	Ge	72	234164.0	0.8				ug/L	254939	Standard
|	As	75	14159.3	1.4	12.4594	0.269	2.2	ug/L	-224	Standard
|	Se	82	1734.3	0.2	14.8993	0.111	0.7	ug/L	24	Standard
|	Se-1	77	2276.2	1.6	27.4713	0.682	2.5	ug/L	93	Standard
|	Ga	71	208731.4	1.2				mg/L	233175	Standard
|	Rb	85	1267.4	1.4				ug/L	20	Standard
>	Y	89	209120.1	1.3				ug/L	235100	Standard
|	Rh	103	39.3	5.9				ug/L	6	Standard
|	Mo	98	101587.4	3.3	24.7553	0.740	3.0	ug/L	14	Standard
|	Ag	107	84310.5	4.1	10.6250	0.441	4.2	ug/L	38	Standard
|	Cd	111	8094.0	2.0	1.5926	0.025	1.6	mg/L	439	Standard
|	Cd	114	22452.5	2.9	1.5855	0.044	2.8	ug/L	1326	Standard
>	In	115	787913.9	0.8				ug/L	804157	Standard
|	Sn	118	1173.4	4.7	-0.1270	0.003	2.5	ug/L	4860	Standard
|	Sb	123	410123.6	3.9	34.5571	1.395	4.0	ug/L	28	Standard
|	Ba	135	152110.4	3.6	28.0464	1.044	3.7	ug/L	54	Standard
|	Ce	140	1442.7	4.6				ug/L	61	Standard
>	Tb	159	831956.9	1.0				ug/L	844239	Standard
|	Ho	165	44.7	2.6				ug/L	6	Standard
|	Tl	203	221305.6	3.2	12.8628	0.391	3.0	ug/L	10	Standard
|	Tl	205	535205.9	3.1	12.8837	0.381	3.0	ug/L	16	Standard
|	Pb	206	177095.5	2.8	12.7757	0.374	2.9	ug/L	421	Standard
|	Pb	207	161313.4	3.0	14.0406	0.440	3.1	ug/L	341	Standard
|	Pb	208	710421.0	2.7	13.4055	0.384	2.9	ug/L	1571	Standard
|	U	238	1098.7	2.0	0.0232	0.000	1.6	ug/L	4	Standard
>	Bi	209	436335.6	0.8				ug/L	457202	Standard
|	Na	23	33944.7	2.1	10.6287	0.083	0.8	mg/L	138	Standard
	Mg	24	112082.5	2.4	0.4461	0.005	1.0	mg/L	134	Standard

Sample ID: L1205003501SD WG396883-05

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Shui L. Bahgat

K	39	16186.6	1.4	1.4744	0.026	1.8	mg/L	563	Standard
Ca	43	4179.2	2.9	6.1024	0.137	2.2	mg/L	127	Standard
Fe	54	915.4	4.5	0.0234	0.006	27.3	mg/L	815	Standard
Fe	57	21475.2	1.5	0.1060	0.003	3.2	mg/L	4749	Standard
Sc-1	45	357830.3	1.4				mg/L	367704	Standard
Cl	35	48743249.2	2.2				ug/L	59901	Standard
Kr	83	53.8	1.9				ug/L	50	Standard
Br	81	12964.5	0.4				ug/L	13965	Standard
P	31	38450.1	0.9				ug/L	71952	Standard
S	34	1243948.7	0.8				ug/L	878802	Standard
Sr	88	729356.8	1.7				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		91.851	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		88.949	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		97.980	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		98.545	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205003501SD WG396883-05
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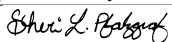
Approved: May 04, 2012
<i>Shui L. Babcock</i>

	Pb	207	
	Pb	208	
	U	238	
	> Bi	209	95.436
	Na	23	
	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
|	> Sc-1	45	
|	Cl	35	
|	Kr	83	
|	Br	81	
|	P	31	
|	S	34	
	Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205003501SD WG396883-05
 Report Date/Time: Thursday, May 03, 2012 15:17:28
 Page 3

Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205002501

Sample Date/Time: Thursday, May 03, 2012 15:17:48

Number of Replicates: 3

Autosampler Position: 256

Sample Description: 20

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Li	7	88164.8	0.5	5846.5759	47.103	0.8	ug/L	20538	Standard
|	Be	9	14.0	32.7	-0.0026	0.001	44.4	ug/L	13	Standard
|	Al	27	120201.8	2.4	4.6455	0.106	2.3	ug/L	25813	Standard
>	Sc	45	341666.9	0.9				ug/L	367704	Standard
[	Ti	47	614.7	5.7	0.2720	0.018	6.8	ug/L	127	Standard
|	V	51	7982.1	4.3	0.0900	0.014	15.5	ug/L	6636	Standard
|	Cr	52	23965.3	2.4	0.2704	0.029	10.6	ug/L	21244	Standard
|	Cr	53	3108.3	12.9	1.3221	0.207	15.6	ug/L	467	Standard
|	Mn	55	4269.3	2.5	-0.0394	0.004	10.8	ug/L	8327	Standard
|	Co	59	397.0	5.2	0.0179	0.001	6.8	ug/L	123	Standard
|	Ni	60	1560.4	4.1	0.4232	0.018	4.2	ug/L	272	Standard
|	Cu	65	680.7	5.8	-0.0874	0.015	16.9	ug/L	1002	Standard
|	Zn	66	22317.8	1.8	16.0210	0.309	1.9	ug/L	3532	Standard
>	Ge	72	232755.2	0.6				ug/L	254939	Standard
|	As	75	-48.8	93.7	0.1190	0.040	33.5	ug/L	-224	Standard
|	Se	82	177.7	9.2	1.3149	0.152	11.6	ug/L	24	Standard
[	Se-1	77	292.7	15.3	2.5751	0.585	22.7	ug/L	93	Standard
|	Ga	71	209246.5	1.4				mg/L	233175	Standard
[	Rb	85	59613.1	2.1				ug/L	20	Standard
>	Y	89	209051.1	1.1				ug/L	235100	Standard
[	Rh	103	12.0	33.3				ug/L	6	Standard
[	Mo	98	1092.0	7.8	0.2674	0.020	7.6	ug/L	14	Standard
|	Ag	107	51.3	25.9	0.0015	0.002	112.0	ug/L	38	Standard
|	Cd	111	162.1	5.3	-0.0587	0.002	3.4	mg/L	439	Standard
|	Cd	114	453.3	13.3	-0.0620	0.005	7.7	ug/L	1326	Standard
>	In	115	756508.4	0.5				ug/L	804157	Standard
|	Sn	118	746.7	9.1	-0.1492	0.004	2.7	ug/L	4860	Standard
|	Sb	123	212.6	5.8	0.0125	0.001	7.8	ug/L	28	Standard
[	Ba	135	105531.7	2.0	20.2627	0.447	2.2	ug/L	54	Standard
[	Ce	140	531.3	3.1				ug/L	61	Standard
>	Tb	159	794250.8	0.9				ug/L	844239	Standard
[	Ho	165	12.0	28.9				ug/L	6	Standard
|	Tl	203	691.0	6.9	0.0411	0.003	6.3	ug/L	10	Standard
|	Tl	205	1693.4	4.5	0.0410	0.002	4.6	ug/L	16	Standard
|	Pb	206	18388.2	2.9	1.3169	0.038	2.9	ug/L	421	Standard
|	Pb	207	14681.1	1.7	1.2648	0.019	1.5	ug/L	341	Standard
|	Pb	208	68817.1	1.8	1.2870	0.025	1.9	ug/L	1571	Standard
|	U	238	19.0	45.9	0.0015	0.000	12.0	ug/L	4	Standard
>	Bi	209	431053.2	0.8				ug/L	457202	Standard
[Na	23	55255.3	1.7	18.1511	0.428	2.4	mg/L	138	Standard
	Mg	24	1176.0	3.8	0.0035	0.000	4.0	mg/L	134	Standard

Sample ID: L1205002501

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Shui L. Bahgat

K	39	123909.3	0.9	12.2290	0.216	1.8	mg/L	563	Standard
Ca	43	9000.7	0.9	13.9859	0.086	0.6	mg/L	127	Standard
Fe	54	445.3	2.3	-0.0561	0.002	3.2	mg/L	815	Standard
Fe	57	12335.7	2.1	0.0516	0.002	3.7	mg/L	4749	Standard
Sc-1	45	341666.9	0.9				mg/L	367704	Standard
Cl	35	5647179.2	3.8				ug/L	59901	Standard
Kr	83	44.2	7.4				ug/L	50	Standard
Br	81	21433.1	0.9				ug/L	13965	Standard
P	31	44938.2	1.0				ug/L	71952	Standard
S	34	1049624.6	3.9				ug/L	878802	Standard
Sr	88	434160.6	1.9				ug/L	321	Standard

QC Calculated Values

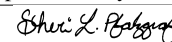
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		91.298	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		88.920	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		94.075	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		94.079	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205002501

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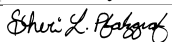


Pb	207	
Pb	208	
U	238	
> Bi	209	94.281
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205002501
 Report Date/Time: Thursday, May 03, 2012 15:20:15
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205002501DL WG396927-02

Sample Date/Time: Thursday, May 03, 2012 15:20:35

Number of Replicates: 3

Autosampler Position: 257

Sample Description: 100

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	32638.8	1.8	1150.8747	16.600	1.4	ug/L	20538	Standard
|	Be	9	12.0	52.0	-0.0030	0.002	51.8	ug/L	13	Standard
|	Al	27	43063.8	1.5	1.0686	0.009	0.8	ug/L	25813	Standard
>	Sc	45	337001.9	1.2				ug/L	367704	Standard
|	Ti	47	156.0	10.3	0.0297	0.008	26.3	ug/L	127	Standard
|	V	51	7443.5	1.9	0.0667	0.008	12.5	ug/L	6636	Standard
|	Cr	52	21821.7	2.5	0.1551	0.033	21.0	ug/L	21244	Standard
|	Cr	53	1176.7	0.9	0.3708	0.007	1.9	ug/L	467	Standard
|	Mn	55	2061.5	1.8	-0.1389	0.001	0.6	ug/L	8327	Standard
|	Co	59	159.3	12.0	0.0027	0.001	48.4	ug/L	123	Standard
|	Ni	60	422.0	4.4	0.0705	0.006	8.2	ug/L	272	Standard
|	Cu	65	313.7	4.0	-0.2203	0.003	1.5	ug/L	1002	Standard
|	Zn	66	15008.1	2.2	10.2031	0.136	1.3	ug/L	3532	Standard
>	Ge	72	231328.7	1.2				ug/L	254939	Standard
|	As	75	-156.3	9.5	0.0243	0.012	47.7	ug/L	-224	Standard
|	Se	82	48.8	13.8	0.1855	0.064	34.7	ug/L	24	Standard
|	Se-1	77	125.0	4.8	0.4637	0.064	13.7	ug/L	93	Standard
|	Ga	71	209592.8	2.0				mg/L	233175	Standard
|	Rb	85	11186.8	1.1				ug/L	20	Standard
>	Y	89	209139.6	1.0				ug/L	235100	Standard
|	Rh	103	4.7	65.5				ug/L	6	Standard
|	Mo	98	194.2	11.4	0.0392	0.006	14.3	ug/L	14	Standard
|	Ag	107	35.7	11.3	-0.0005	0.001	95.8	ug/L	38	Standard
|	Cd	111	123.4	16.7	-0.0672	0.005	6.8	mg/L	439	Standard
|	Cd	114	304.7	3.9	-0.0737	0.001	1.3	ug/L	1326	Standard
>	In	115	760845.3	1.4				ug/L	804157	Standard
|	Sn	118	570.0	6.8	-0.1597	0.003	1.6	ug/L	4860	Standard
|	Sb	123	137.3	3.7	0.0058	0.001	9.5	ug/L	28	Standard
|	Ba	135	19854.7	1.6	3.7818	0.073	1.9	ug/L	54	Standard
|	Ce	140	173.3	9.8				ug/L	61	Standard
>	Tb	159	783218.8	0.8				ug/L	844239	Standard
|	Ho	165	6.7	105.4				ug/L	6	Standard
|	Tl	203	449.0	7.5	0.0267	0.002	6.2	ug/L	10	Standard
|	Tl	205	1127.4	4.4	0.0270	0.001	3.6	ug/L	16	Standard
|	Pb	206	3801.1	2.3	0.2475	0.005	2.0	ug/L	421	Standard
|	Pb	207	3021.6	4.0	0.2336	0.014	5.9	ug/L	341	Standard
|	Pb	208	14168.9	1.8	0.2391	0.007	2.8	ug/L	1571	Standard
|	U	238	12.3	37.4	0.0013	0.000	7.2	ug/L	4	Standard
>	Bi	209	433952.2	1.2				ug/L	457202	Standard
|	Na	23	11026.7	2.0	3.6413	0.112	3.1	mg/L	138	Standard
	Mg	24	402.0	6.9	0.0003	0.000	42.5	mg/L	134	Standard

Sample ID: L1205002501DL WG396927-02

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Shui L. Bahgat

K	39	25222.3	1.5	2.4776	0.056	2.3	mg/L	563	Standard
Ca	43	1794.1	4.4	2.6855	0.100	3.7	mg/L	127	Standard
Fe	54	335.8	14.6	-0.0756	0.009	11.3	mg/L	815	Standard
Fe	57	6440.7	2.8	0.0129	0.001	9.4	mg/L	4749	Standard
Sc-1	45	337001.9	1.2				mg/L	367704	Standard
Cl	35	1326180.2	5.0				ug/L	59901	Standard
Kr	83	46.0	17.8				ug/L	50	Standard
Br	81	13334.2	1.1				ug/L	13965	Standard
P	31	30979.0	1.0				ug/L	71952	Standard
S	34	1052554.2	0.1				ug/L	878802	Standard
Sr	88	81394.1	1.7				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		90.739	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		88.958	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		94.614	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		92.772	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205002501DL WG396927-02
 Report Date/Time: Thursday, May 03, 2012 15:23:02
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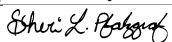
Approved: May 04, 2012
<i>Shui L. Babcock</i>

Pb	207	
Pb	208	
U	238	
> Bi	209	94.915
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205002501DL WG396927-02
 Report Date/Time: Thursday, May 03, 2012 15:23:02
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: L1205002501PS WG396927-01

Sample Date/Time: Thursday, May 03, 2012 15:23:22

Number of Replicates: 3

Autosampler Position: 258

Sample Description: 20

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	87175.8	2.3	5782.8808	80.478	1.4	ug/L	20538	Standard
|	Be	9	261222.2	2.1	64.1013	0.540	0.8	ug/L	13	Standard
|	Al	27	1348827.9	3.8	62.2402	1.953	3.1	ug/L	25813	Standard
>	Sc	45	340716.8	2.1				ug/L	367704	Standard
|	Ti	47	610.7	4.6	0.2786	0.011	3.8	ug/L	127	Standard
|	V	51	1193961.9	2.9	57.9031	0.864	1.5	ug/L	6636	Standard
|	Cr	52	981529.8	3.3	56.8663	1.166	2.1	ug/L	21244	Standard
|	Cr	53	109545.5	3.2	55.3777	0.987	1.8	ug/L	467	Standard
|	Mn	55	1237063.6	2.3	57.3459	1.146	2.0	ug/L	8327	Standard
|	Co	59	823388.6	3.6	54.1847	1.399	2.6	ug/L	123	Standard
|	Ni	60	171638.5	2.6	54.7100	0.972	1.8	ug/L	272	Standard
|	Cu	65	145561.9	2.9	54.0827	0.962	1.8	ug/L	1002	Standard
|	Zn	66	102656.7	1.7	83.0448	0.426	0.5	ug/L	3532	Standard
>	Ge	72	226534.8	1.5				ug/L	254939	Standard
|	As	75	70859.8	2.9	63.7625	0.919	1.4	ug/L	-224	Standard
|	Se	82	8182.1	1.8	73.6129	0.529	0.7	ug/L	24	Standard
|	Se-1	77	5722.7	1.6	73.1841	0.149	0.2	ug/L	93	Standard
|	Ga	71	205010.3	0.4				mg/L	233175	Standard
|	Rb	85	57505.6	2.2				ug/L	20	Standard
>	Y	89	202703.2	1.8				ug/L	235100	Standard
|	Rh	103	46.0	8.7				ug/L	6	Standard
|	Mo	98	1057.6	3.7	0.2582	0.013	5.0	ug/L	14	Standard
|	Ag	107	397206.7	4.1	52.0332	1.754	3.4	ug/L	38	Standard
|	Cd	111	283709.4	2.7	61.3367	0.997	1.6	mg/L	439	Standard
|	Cd	114	785320.5	3.0	61.0646	0.792	1.3	ug/L	1326	Standard
>	In	115	758220.9	2.0				ug/L	804157	Standard
|	Sn	118	1103.4	0.5	-0.1285	0.001	1.1	ug/L	4860	Standard
|	Sb	123	679331.3	3.5	59.4764	1.312	2.2	ug/L	28	Standard
|	Ba	135	380662.0	3.0	72.9548	1.986	2.7	ug/L	54	Standard
|	Ce	140	548.7	5.5				ug/L	61	Standard
>	Tb	159	808589.2	1.0				ug/L	844239	Standard
|	Ho	165	16.7	25.0				ug/L	6	Standard
|	Tl	203	876075.8	1.6	50.7265	1.614	3.2	ug/L	10	Standard
|	Tl	205	2219813.3	1.0	53.2334	1.388	2.6	ug/L	16	Standard
|	Pb	206	719856.4	2.4	51.8225	1.975	3.8	ug/L	421	Standard
|	Pb	207	617718.3	2.6	53.6503	2.032	3.8	ug/L	341	Standard
|	Pb	208	2820518.1	2.8	53.1127	2.203	4.1	ug/L	1571	Standard
|	U	238	2593150.2	4.1	51.9133	2.797	5.4	ug/L	4	Standard
>	Bi	209	438139.0	1.7				ug/L	457202	Standard
|	Na	23	53733.8	2.4	17.6984	0.311	1.8	mg/L	138	Standard
|	Mg	24	1237.1	2.9	0.0038	0.000	2.8	mg/L	134	Standard

Sample ID: L1205002501PS WG396927-01

Report Date/Time: Thursday, May 03, 2012 15:25:49

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Shui L. Bahgat

K	39	123065.9	1.7	12.1803	0.235	1.9	mg/L	563	Standard
Ca	43	8972.0	1.9	13.9811	0.169	1.2	mg/L	127	Standard
Fe	54	383.3	2.5	-0.0674	0.003	4.9	mg/L	815	Standard
Fe	57	12525.8	3.2	0.0530	0.001	2.2	mg/L	4749	Standard
Sc-1	45	340716.8	2.1				mg/L	367704	Standard
Cl	35	5219250.7	1.2				ug/L	59901	Standard
Kr	83	48.7	3.6				ug/L	50	Standard
Br	81	21210.5	1.1				ug/L	13965	Standard
P	31	45398.3	1.2				ug/L	71952	Standard
S	34	1047975.1	0.5				ug/L	878802	Standard
Sr	88	425589.1	2.7				ug/L	321	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		88.859	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		86.220	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		94.288	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		95.777	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: L1205002501PS WG396927-01
 Report Date/Time: Thursday, May 03, 2012 15:25:49
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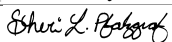
Approved: May 04, 2012
<i>Shui L. Bahgat</i>

	Pb	207	
	Pb	208	
	U	238	
	> Bi	209	95.831
	Na	23	
	Mg	24	
	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
|	> Sc-1	45	
|	Cl	35	
|	Kr	83	
|	Br	81	
|	P	31	
|	S	34	
	Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: L1205002501PS WG396927-01
 Report Date/Time: Thursday, May 03, 2012 15:25:49
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Approved: May 04, 2012 

Method 6020 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, May 03, 2012 15:26:12

Number of Replicates: 3

Autosampler Position: 101

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	22114.8	4.2	36.1037	17.969	49.8	ug/L	20538	Standard
|	Be	9	238376.6	4.1	52.8057	1.792	3.4	ug/L	13	Standard
|	Al	27	1221621.3	6.1	50.6837	2.011	4.0	ug/L	25813	Standard
>	Sc	45	377467.6	3.2				ug/L	367704	Standard
|	Ti	47	209164.2	4.2	100.9281	1.165	1.2	ug/L	127	Standard
|	V	51	1243238.6	4.1	53.5102	0.822	1.5	ug/L	6636	Standard
|	Cr	52	1015406.3	4.7	52.1327	0.669	1.3	ug/L	21244	Standard
|	Cr	53	114196.4	5.8	51.2172	1.271	2.5	ug/L	467	Standard
|	Mn	55	1324521.2	4.4	54.4911	0.955	1.8	ug/L	8327	Standard
|	Co	59	880611.7	4.4	51.4512	1.226	2.4	ug/L	123	Standard
|	Ni	60	181878.8	5.3	51.4487	1.134	2.2	ug/L	272	Standard
|	Cu	65	152576.5	3.9	50.3122	1.013	2.0	ug/L	1002	Standard
|	Zn	66	69611.7	3.7	49.2103	0.306	0.6	ug/L	3532	Standard
>	Ge	72	255159.2	3.4				ug/L	254939	Standard
|	As	75	62422.9	5.0	49.8969	1.095	2.2	ug/L	-224	Standard
|	Se	82	6461.9	4.2	51.5429	1.308	2.5	ug/L	24	Standard
|	Se-1	77	4445.0	5.0	50.1108	1.559	3.1	ug/L	93	Standard
|	Ga	71	238876.0	2.9				mg/L	233175	Standard
|	Rb	85	1058.7	1.8				ug/L	20	Standard
>	Y	89	237070.4	2.6				ug/L	235100	Standard
|	Rh	103	34.0	21.2				ug/L	6	Standard
|	Mo	98	413306.1	4.1	95.0732	2.163	2.3	ug/L	14	Standard
|	Ag	107	438025.2	2.7	52.1213	0.720	1.4	ug/L	38	Standard
|	Cd	111	259132.9	5.2	50.8537	1.737	3.4	mg/L	439	Standard
|	Cd	114	706992.0	4.1	49.9101	1.151	2.3	ug/L	1326	Standard
>	In	115	834723.6	1.9				ug/L	804157	Standard
|	Sn	118	935337.3	4.0	49.3009	1.067	2.2	ug/L	4860	Standard
|	Sb	123	631754.4	3.7	50.2368	0.974	1.9	ug/L	28	Standard
|	Ba	135	277838.4	4.6	48.3445	1.327	2.7	ug/L	54	Standard
|	Ce	140	1014.7	4.6				ug/L	61	Standard
>	Tb	159	869816.8	1.9				ug/L	844239	Standard
|	Ho	165	24.0	8.3				ug/L	6	Standard
|	Tl	203	870337.1	3.1	49.8782	1.310	2.6	ug/L	10	Standard
|	Tl	205	2176565.2	7.1	51.6491	3.231	6.3	ug/L	16	Standard
|	Pb	206	702982.1	4.3	50.0895	2.096	4.2	ug/L	421	Standard
|	Pb	207	584305.9	3.3	50.2329	1.762	3.5	ug/L	341	Standard
|	Pb	208	2699113.3	3.9	50.3042	1.927	3.8	ug/L	1571	Standard
|	U	238	2528113.2	4.6	50.0901	2.348	4.7	ug/L	4	Standard
>	Bi	209	442671.4	3.7				ug/L	457202	Standard
	Na	23	16840.7	4.8	4.9773	0.143	2.9	mg/L	138	Standard
	Mg	24	1331302.4	5.1	5.0367	0.129	2.6	mg/L	134	Standard

Sample ID: QC Std 6

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K	39	54569.5	3.9	4.8393	0.102	2.1	mg/L	563	Standard
Ca	43	3527.1	6.4	4.8442	0.187	3.9	mg/L	127	Standard
Fe	54	30500.8	5.4	4.9806	0.170	3.4	mg/L	815	Standard
Fe	57	956751.2	6.0	5.7359	0.202	3.5	mg/L	4749	Standard
Sc-1	45	377467.6	3.2				mg/L	367704	Standard
Cl	35	260566.1	19.7				ug/L	59901	Standard
Kr	83	45.8	19.8				ug/L	50	Standard
Br	81	14650.4	4.5				ug/L	13965	Standard
P	31	109336.1	3.8				ug/L	71952	Standard
S	34	1107494.5	3.6				ug/L	878802	Standard
Sr	88	682.7	6.3				ug/L	321	Standard

QC Calculated Values

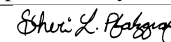
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27	101.367		
Sc	45			
Ti	47	100.928		
V	51	107.020		
Cr	52	104.265		
Cr	53			
Mn	55	108.982		
Co	59	102.902		
Ni	60	102.897		
Cu	65	100.624		
Zn	66	98.421		
Ge	72		100.086	
As	75	99.794		
Se	82	103.086		
Se-1	77	100.222		
Ga	71			
Rb	85			
Y	89		100.838	
Rh	103			
Mo	98	95.073		
Ag	107	104.243		
Cd	111	101.707		
Cd	114			
In	115		103.801	
Sn	118	98.602		
Sb	123	100.474		
Ba	135	96.689		
Ce	140			
Tb	159		103.030	
Ho	165			
Tl	203	99.756		
Tl	205			
Pb	206	100.179		

Sample ID: QC Std 6

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Pb	207	100.466	
Pb	208	100.608	
U	238	100.180	
> Bi	209		96.822
Na	23	99.547	
Mg	24	100.733	
K	39	96.785	
Ca	43	96.885	
Fe	54	99.612	
Fe	57	114.719	
> Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Fe	57	

Sample ID: QC Std 6
 Report Date/Time: Thursday, May 03, 2012 15:28:40
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Approved: May 04, 2012
<i>Shui L. Bahgat</i>

Method 6020 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, May 03, 2012 15:28:59

Number of Replicates: 3

Autosampler Position: 102

Sample Description:

Method File: C:\NexIONData\Method\6020a.mth

Aliquot Volume (mL):

Diluted to Volume (mL):

User Name: SLP user

Cumulative Autodilution Factor: 1

Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
|	Li	7	20647.1	2.7	30.2961	14.506	47.9	ug/L	20538	Standard
|	Be	9	38.0	17.3	0.0030	0.002	58.4	ug/L	13	Standard
|	Al	27	12161.6	3.7	-0.4229	0.010	2.3	ug/L	25813	Standard
>	Sc	45	353663.4	2.0				ug/L	367704	Standard
|	Ti	47	126.0	4.2	0.0107	0.000	3.7	ug/L	127	Standard
|	V	51	6517.6	1.4	0.0088	0.011	129.3	ug/L	6636	Standard
|	Cr	52	20274.2	1.4	0.0137	0.026	190.3	ug/L	21244	Standard
|	Cr	53	598.7	3.6	0.0702	0.004	5.8	ug/L	467	Standard
|	Mn	55	1447.4	4.6	-0.1698	0.001	0.9	ug/L	8327	Standard
|	Co	59	165.3	26.7	0.0027	0.003	109.7	ug/L	123	Standard
|	Ni	60	108.3	19.4	-0.0289	0.008	26.0	ug/L	272	Standard
|	Cu	65	894.7	5.2	-0.0221	0.014	65.2	ug/L	1002	Standard
|	Zn	66	1044.7	7.8	-1.1586	0.037	3.2	ug/L	3532	Standard
>	Ge	72	242152.7	3.7				ug/L	254939	Standard
|	As	75	-202.9	13.4	-0.0084	0.018	215.5	ug/L	-224	Standard
|	Se	82	24.8	2.5	-0.0371	0.013	33.9	ug/L	24	Standard
|	Se-1	77	95.0	3.8	0.0285	0.002	6.0	ug/L	93	Standard
|	Ga	71	223928.7	2.7				mg/L	233175	Standard
|	Rb	85	20.0	17.3				ug/L	20	Standard
>	Y	89	220977.6	4.2				ug/L	235100	Standard
|	Rh	103	1.3	86.6				ug/L	6	Standard
|	Mo	98	133.9	37.8	0.0226	0.012	52.2	ug/L	14	Standard
|	Ag	107	103.3	31.2	0.0077	0.004	51.6	ug/L	38	Standard
|	Cd	111	520.5	4.0	0.0140	0.007	47.2	mg/L	439	Standard
|	Cd	114	1323.9	6.0	0.0012	0.005	419.7	ug/L	1326	Standard
>	In	115	792790.3	2.3				ug/L	804157	Standard
|	Sn	118	1868.1	4.8	-0.0887	0.003	2.9	ug/L	4860	Standard
|	Sb	123	308.1	33.9	0.0196	0.008	42.5	ug/L	28	Standard
|	Ba	135	83.0	35.9	0.0043	0.005	123.5	ug/L	54	Standard
|	Ce	140	40.0	8.7				ug/L	61	Standard
>	Tb	159	809210.0	2.0				ug/L	844239	Standard
|	Ho	165	10.7	28.6				ug/L	6	Standard
|	Tl	203	169.0	20.4	0.0105	0.002	19.7	ug/L	10	Standard
|	Tl	205	406.7	27.1	0.0097	0.003	28.3	ug/L	16	Standard
|	Pb	206	432.0	7.9	0.0029	0.002	85.6	ug/L	421	Standard
|	Pb	207	361.3	4.9	0.0005	0.002	421.8	ug/L	341	Standard
|	Pb	208	1691.4	6.9	0.0021	0.002	106.8	ug/L	1571	Standard
|	U	238	726.4	15.0	0.0159	0.003	16.2	ug/L	4	Standard
>	Bi	209	429452.0	2.2				ug/L	457202	Standard
	Na	23	120.7	11.8	-0.0011	0.004	393.8	mg/L	138	Standard
	Mg	24	220.0	40.8	-0.0005	0.000	73.8	mg/L	134	Standard

Sample ID: QC Std 7

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K	39	662.7	5.3	0.0053	0.004	70.1	mg/L	563	Standard
Ca	43	104.7	5.8	-0.0169	0.006	37.5	mg/L	127	Standard
Fe	54	783.7	5.8	0.0018	0.009	511.7	mg/L	815	Standard
Fe	57	5409.6	3.0	0.0042	0.001	20.6	mg/L	4749	Standard
Sc-1	45	353663.4	2.0				mg/L	367704	Standard
Cl	35	177713.5	4.5				ug/L	59901	Standard
Kr	83	44.2	11.4				ug/L	50	Standard
Br	81	13876.7	2.4				ug/L	13965	Standard
P	31	89869.0	3.8				ug/L	71952	Standard
S	34	1039864.3	1.7				ug/L	878802	Standard
Sr	88	258.0	9.7				ug/L	321	Standard

QC Calculated Values

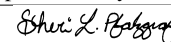
Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	7			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72		94.985	
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			
Y	89		93.993	
Rh	103			
Mo	98			
Ag	107			
Cd	111			
Cd	114			
In	115		98.586	
Sn	118			
Sb	123			
Ba	135			
Ce	140			
Tb	159		95.851	
Ho	165			
Tl	203			
Tl	205			
Pb	206			

Sample ID: QC Std 7

Report Date/Time: Thursday, May 03, 2012 15:31:27

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Approved: May 04, 2012

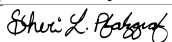


	Pb	207	
	Pb	208	
	U	238	
	> Bi	209	93.930
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
|	> Sc-1	45	
|	Cl	35	
|	Kr	83	
|	Br	81	
|	P	31	
|	S	34	
	Sr	88	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: QC Std 7
 Report Date/Time: Thursday, May 03, 2012 15:31:27
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Approved: May 04, 2012 

2.3.3 Metals CVAA Data (Mercury)

2.3.3.1 Summary Data



Login Number: L12050050
Department: Metals - AA
Analyst: Pierce Morris

METHOD

Preparation: SW-846 7470

Analysis: SW-846 7470

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG397350 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 46053

Approved By: Sheri Pfalzgraf

A handwritten signature in black ink that reads "Sheri L. Pfalzgraf".

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: HYDRA
Client ID: MW-05I-050112	Prep Method: 7470A	Prep Date: 05/07/2012 11:16
Matrix: Water	Analytical Method: 7470A	Cal Date: 05/09/2012 09:01
Workgroup #: WG397350	Analyst: PDM	Run Date: 05/09/2012 09:43
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: HY.050912.094346
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Mercury	7439-97-6		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-02	PrePrep Method: N/A	Instrument: HYDRA
Client ID: MW-05I-050112	Prep Method: 7470A	Prep Date: 05/07/2012 11:16
Matrix: Water	Analytical Method: 7470A	Cal Date: 05/09/2012 09:01
Workgroup #: WG397350	Analyst: PDM	Run Date: 05/09/2012 09:50
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: HY.050912.095048
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Mercury, Dissolved	7439-97-6		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: HYDRA
Client ID: MW-05S-050112	Prep Method: 7470A	Prep Date: 05/07/2012 11:16
Matrix: Water	Analytical Method: 7470A	Cal Date: 05/09/2012 09:01
Workgroup #: WG397350	Analyst: PDM	Run Date: 05/09/2012 09:52
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: HY.050912.095231
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Mercury	7439-97-6		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Certificate of Analysis

Sample #: L12050050-04	PrePrep Method: N/A	Instrument: HYDRA
Client ID: MW-05S-050112	Prep Method: 7470A	Prep Date: 05/07/2012 11:16
Matrix: Water	Analytical Method: 7470A	Cal Date: 05/09/2012 09:01
Workgroup #: WG397350	Analyst: PDM	Run Date: 05/09/2012 09:54
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: HY.050912.095413
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Mercury, Dissolved	7439-97-6		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: HYDRA
Client ID: MW-24-050112	Prep Method: 7470A	Prep Date: 05/07/2012 11:16
Matrix: Water	Analytical Method: 7470A	Cal Date: 05/09/2012 09:01
Workgroup #: WG397350	Analyst: PDM	Run Date: 05/09/2012 09:56
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: HY.050912.095606
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Mercury	7439-97-6		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-06	PrePrep Method: N/A	Instrument: HYDRA
Client ID: MW-24-050112	Prep Method: 7470A	Prep Date: 05/07/2012 11:16
Matrix: Water	Analytical Method: 7470A	Cal Date: 05/09/2012 09:01
Workgroup #: WG397350	Analyst: PDM	Run Date: 05/09/2012 09:58
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: HY.050912.095801
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Mercury, Dissolved	7439-97-6		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Certificate of Analysis

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: HYDRA
Client ID: MW-01-050112	Prep Method: 7470A	Prep Date: 05/07/2012 11:16
Matrix: Water	Analytical Method: 7470A	Cal Date: 05/09/2012 09:01
Workgroup #: WG397350	Analyst: PDM	Run Date: 05/09/2012 09:59
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: HY.050912.095943
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Mercury	7439-97-6		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-08	PrePrep Method: N/A	Instrument: HYDRA
Client ID: MW-01-050112	Prep Method: 7470A	Prep Date: 05/07/2012 11:16
Matrix: Water	Analytical Method: 7470A	Cal Date: 05/09/2012 09:01
Workgroup #: WG397350	Analyst: PDM	Run Date: 05/09/2012 10:01
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: HY.050912.100125
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Mercury, Dissolved	7439-97-6		U	0.000200	0.000100
U	Not detected at or above adjusted sample detection limit.				

2.3.3.2 QC Summary

Example Cold Vapor Mercury Calculations
Hydra AA Mercury Analyzer

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and five standards.

2.0 Calculating the concentration (C) of an element in water using data from run log and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (ug/L)

Vf = Diluted to Volume (mL)

Vi = Aliquot Volume (mL)

D = Manual dilution factor, if required (10X = 10)

Cx = Concentration of element in ppb (ug/L)

Example:

0.1

40

40

1

0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Ws} \times D$$

Where:

Cs = Concentration computed by the data system (ug/L)

Vf = Diluted to volume (mL)

Ws = Aliquot weight (g)

D = Manual dilution factor

Cx = Concentration of element in ug/kg

Example:

0.1

40

0.6

1

6.67

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

$Cdry$ = Concentration calculated as dry weight (ug/kg)

6.67

80

8.33

8.33 ug/kg = 0.00833 mg/kg

Microbac Laboratories Inc.
Metals Digest Log

Workgroup: WG397209

Analyst: BRG

Spike Analyst: BRG

Method: 7470A

Run Date: 05/07/2012 11:16

Hotblock Start Temp: 95 @ 10:15

Hotblock End Temp: 96 @ 12:15

SOP: ME404 Revision 13

Spike Solution: STD51524

Spike Witness: VC

HNO3 Lot #: COA16033

KMnO4 1:1 Lot #: RGT17201

H2SO4 Lot #: COA16022

K2S2O8 1:1 Lot #: RGT16987

Digestion Tubes Lot #: COA16074

Mercury Water ICV Lot #: STD51526

HG H2O STDS 10PPM Lot #: STD51532

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Spike Amount	Due Date
1	WG397209-03	BLANK	1	40 mL	40 mL		
2	WG396992-01	FBLK	17	4 mL	40 mL		
3	WG397209-04	LCS	1	40 mL	40 mL	4 mL	
4	L12050029-01	SAMP	17	4 mL	40 mL		05/09/12
5	WG397209-01	REF	17	4 mL	40 mL		
6	L12050032-01	SAMP	17	4 mL	40 mL		05/09/12
7	L12050050-01	SAMP	1	40 mL	40 mL		05/16/12
8	L12050050-02	SAMP	1	40 mL	40 mL		05/16/12
9	L12050050-03	SAMP	1	40 mL	40 mL		05/16/12
10	L12050050-04	SAMP	1	40 mL	40 mL		05/16/12
11	L12050050-05	SAMP	1	40 mL	40 mL		05/16/12
12	L12050050-06	SAMP	1	40 mL	40 mL		05/16/12
13	L12050050-07	SAMP	1	40 mL	40 mL		05/16/12
14	L12050050-08	SAMP	1	40 mL	40 mL		05/16/12
15	L12050165-01	SAMP	2	40 mL	40 mL		05/11/12
16	L12050165-02	SAMP	2	40 mL	40 mL		05/11/12
17	WG397209-02	REF	2	40 mL	40 mL		
18	L12050165-03	SAMP	2	40 mL	40 mL		05/11/12
19	WG397209-05	MS	1	4 mL	40 mL	4 mL	
20	WG397209-06	MSD	1	4 mL	40 mL	4 mL	
21	WG397209-08	DUP	1	40 mL	40 mL		
22	WG397209-07	MS	1	40 mL	40 mL	4 mL	

Analyst: Brenda Gregory

Reviewer: Vicki Collier



Microbac Laboratories Inc.
Instrument Run Log

Instrument: HYDRA Dataset: 050912A.PRN
 Analyst1: PDM Analyst2: N/A
 Method: 7470 SOP: ME404 Rev: 13
 Maintenance Log ID: 41647

Calibration Std: STD51532 ICV Std: STD51526 Post Spike: STD51532
 ICSA: N/A ICSAB: N/A Int. Std: _____
 CCV: _____ LLCCV: _____

397350,397349

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	HY.050912.085242	WG397509-01	Calibration Point		1		05/09/12 08:52
2	HY.050912.085423	WG397509-02	Calibration Point		1		05/09/12 08:54
3	HY.050912.085617	WG397509-03	Calibration Point		1		05/09/12 08:56
4	HY.050912.085800	WG397509-04	Calibration Point		1		05/09/12 08:58
5	HY.050912.085956	WG397509-05	Calibration Point		1		05/09/12 08:59
6	HY.050912.090149	WG397509-06	Calibration Point		1		05/09/12 09:01
7	HY.050912.091312	WG397509-07	Initial Calibration Verification		1		05/09/12 09:13
8	HY.050912.091514	WG397509-08	Initial Calib Blank		1		05/09/12 09:15
9	HY.050912.091658	WG397509-09	CCV		1		05/09/12 09:16
10	HY.050912.091841	WG397509-10	CCB		1		05/09/12 09:18
11	HY.050912.092955	WG397209-03	Method/Prep Blank	40/40	1		05/09/12 09:29
12	HY.050912.093137	WG397209-04	Laboratory Control S	40/40	1		05/09/12 09:31
13	HY.050912.093320	WG396992-01	Fluid Blank		1		05/09/12 09:33
14	HY.050912.093501	L12050029-01	2041752-01	4/40	1		05/09/12 09:35
15	HY.050912.093642	WG397350-01	Post Digestion Spike		1	L12050029-01	05/09/12 09:36
16	HY.050912.093824	WG397209-01	Reference Sample	4/40	1	L12050032-01	05/09/12 09:38
17	HY.050912.094018	WG397209-05	Matrix Spike	4/40	1	L12050032-01	05/09/12 09:40
18	HY.050912.094204	WG397209-06	Matrix Spike Duplica	4/40	1	L12050032-01	05/09/12 09:42
19	HY.050912.094346	L12050050-01	MW-05I-050112	40/40	1		05/09/12 09:43
20	HY.050912.094528	WG397350-02	Post Digestion Spike		1	L12050050-01	05/09/12 09:45
21	HY.050912.094714	WG397509-11	CCV		1		05/09/12 09:47
22	HY.050912.094902	WG397509-12	CCB		1		05/09/12 09:49
23	HY.050912.095048	L12050050-02	MW-05I-050112	40/40	1		05/09/12 09:50
24	HY.050912.095231	L12050050-03	MW-05S-050112	40/40	1		05/09/12 09:52
25	HY.050912.095413	L12050050-04	MW-05S-050112	40/40	1		05/09/12 09:54
26	HY.050912.095606	L12050050-05	MW-24-050112	40/40	1		05/09/12 09:56
27	HY.050912.095801	L12050050-06	MW-24-050112	40/40	1		05/09/12 09:58
28	HY.050912.095943	L12050050-07	MW-01-050112	40/40	1		05/09/12 09:59
29	HY.050912.100125	L12050050-08	MW-01-050112	40/40	1		05/09/12 10:01
30	HY.050912.100320	L12050165-01	1204-348-1	40/40	1		05/09/12 10:03
31	HY.050912.100502	L12050165-02	1204-348-2	40/40	1		05/09/12 10:05
32	HY.050912.100645	WG397209-02	Reference Sample	40/40	1	L12050165-03	05/09/12 10:06
33	HY.050912.100827	WG397509-13	CCV		1		05/09/12 10:08
34	HY.050912.101014	WG397509-14	CCB		1		05/09/12 10:10

Page: 1 Approved: May 09, 2012

Shari L. Bahgat



Microbac Laboratories Inc.

Instrument Run Log

Instrument: HYDRA _____ Dataset: 050912A.PRN _____
 Analyst1: PDM _____ Analyst2: N/A _____
 Method: 7470 _____ SOP: ME404 _____ Rev: 13 _____
 Maintenance Log ID: 41647 _____

Calibration Std: STD51532 _____ ICV Std: STD51526 _____ Post Spike: STD51532 _____
 ICSA: N/A _____ ICSAB: N/A _____ Int. Std: _____
 CCV: _____ LLCCV: _____

397350,397349 _____

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	HY.050912.101219	WG397209-07	Matrix Spike	40/40	1	L12050165-03	05/09/12 10:12
36	HY.050912.101402	WG397209-08	Duplicate	40/40	1	L12050165-03	05/09/12 10:14
37	HY.050912.101614	WG397509-15	CCV		1		05/09/12 10:16
38	HY.050912.101757	WG397509-16	CCB		1		05/09/12 10:17
39	HY.050912.104416	WG397155-02	Method/Prep Blank	40/40	1		05/09/12 10:44
40	HY.050912.105652	WG397155-03	Laboratory Control S	40/40	1		05/09/12 10:56
41	HY.050912.105846	L12050016-16	2041746-16		1	WG397155-01	05/09/12 10:58
42	HY.050912.110032	WG397155-04	Matrix Spike	4/40	1	L12050016-16	05/09/12 11:00
43	HY.050912.110214	WG397155-05	Matrix Spike Duplica	4/40	1	L12050016-16	05/09/12 11:02
44	HY.050912.110357	L12050134-08	RW-1	40/40	1		05/09/12 11:03
45	HY.050912.110551	WG397349-02	Post Digestion Spike		1	L12050134-08	05/09/12 11:05
46	HY.050912.110734	WG397509-17	CCV		1		05/09/12 11:07
47	HY.050912.110916	WG397509-18	CCB		1		05/09/12 11:09

Page: 2 Approved: May 09, 2012

Shari L. Bahgat



Microbac Laboratories Inc.

Data Checklist

Date: 09-MAY-2012
 Analyst: PDM
 Analyst: NA
 Method: 7470
 Instrument: HYDRA
 Curve Workgroup: 397509
 Runlog ID: 46638
 Analytical Workgroups: 397350,397349

Calibration/Linearity	X
ICV/CCV	X
ICV RSD <= 3% (EPA 200.7 only)	
ICB/CCB	X
ICSA/ICSAB	
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	0029,0050,0165,0134
Client Forms	X
Level X	
Level 3	
Level 4	0050,0134
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	PDM
Secondary Reviewer	SLP
Comments	

Primary Reviewer:
09-MAY-2012

Secondary Reviewer:
09-MAY-2012

Pierce Morris

Shari L. Bahgat



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method: 7470A
 Login Number: L12050050

AAB#: WG397350

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MW-05I-050112	01	05/01/12					05/07/12	6	28		05/09/12	7.9	28	
MW-05S-050112	03	05/01/12					05/07/12	5.9	28		05/09/12	7.8	28	
MW-24-050112	05	05/01/12					05/07/12	6.1	28		05/09/12	8	28	
MW-01-050112	07	05/01/12					05/07/12	6	28		05/09/12	7.9	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2407326
 Report generated 05/09/2012 12:16



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method: 7470A
 Login Number: L12050050

AAB#: WG397350

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MW-05I-050112	02	05/01/12					05/07/12	6	28		05/09/12	7.9	28	
MW-05S-050112	04	05/01/12					05/07/12	5.9	28		05/09/12	7.8	28	
MW-24-050112	06	05/01/12					05/07/12	6.1	28		05/09/12	8	28	
MW-01-050112	08	05/01/12					05/07/12	6	28		05/09/12	7.9	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2407895
 Report generated 05/09/2012 13:41



METHOD BLANK SUMMARY

Login Number: L12050050 Work Group: WG397350
 Blank File ID: HY.050912.092955 Blank Sample ID: WG397209-03
 Prep Date: 05/07/12 11:16 Instrument ID: HYDRA
 Analyzed Date: 05/09/12 09:29 Method: 7470A
 Analyst: PDM

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG397209-04	HY.050912.093137	05/09/12 09:31	01
MW-05I-050112	L12050050-01	HY.050912.094346	05/09/12 09:43	01
MW-05I-050112	L12050050-02	HY.050912.095048	05/09/12 09:50	01
MW-05S-050112	L12050050-03	HY.050912.095231	05/09/12 09:52	01
MW-05S-050112	L12050050-04	HY.050912.095413	05/09/12 09:54	01
MW-24-050112	L12050050-05	HY.050912.095606	05/09/12 09:56	01
MW-24-050112	L12050050-06	HY.050912.095801	05/09/12 09:58	01
MW-01-050112	L12050050-07	HY.050912.095943	05/09/12 09:59	01
MW-01-050112	L12050050-08	HY.050912.100125	05/09/12 10:01	01
DUP	WG397209-08	HY.050912.101402	05/09/12 10:14	01

Report Name: BLANK_SUMMARY
 PDF File ID: 2407327
 Report generated 05/09/2012 12:16



METHOD BLANK SUMMARY

Login Number: L12050050 Work Group: WG397350
 Blank File ID: HY.050912.092955 Blank Sample ID: WG397209-03
 Prep Date: 05/07/12 11:16 Instrument ID: HYDRA
 Analyzed Date: 05/09/12 09:29 Method: 7470A
 Analyst: PDM

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG397209-04	HY.050912.093137	05/09/12 09:31	01
MW-05I-050112	L12050050-01	HY.050912.094346	05/09/12 09:43	01
MW-05I-050112	L12050050-02	HY.050912.095048	05/09/12 09:50	01
MW-05S-050112	L12050050-03	HY.050912.095231	05/09/12 09:52	01
MW-05S-050112	L12050050-04	HY.050912.095413	05/09/12 09:54	01
MW-24-050112	L12050050-05	HY.050912.095606	05/09/12 09:56	01
MW-24-050112	L12050050-06	HY.050912.095801	05/09/12 09:58	01
MW-01-050112	L12050050-07	HY.050912.095943	05/09/12 09:59	01
MW-01-050112	L12050050-08	HY.050912.100125	05/09/12 10:01	01
DUP	WG397209-08	HY.050912.101402	05/09/12 10:14	01

Report Name: BLANK_SUMMARY
 PDF File ID: 2407896
 Report generated 05/09/2012 13:41



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L12050050 Prep Date: 05/07/12 11:16 Sample ID: WG397209-03
Instrument ID: HYDRA Run Date: 05/09/12 09:29 Prep Method: 7470A
File ID: HY.050912.092955 Analyst: PDM Method: 7470A
Workgroup (AAB#): WG397350 Matrix: Water Units: mg/L
Contract #: Cal ID: HYDRA-09-MAY-12

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Mercury	0.000100	0.000200	0.000100	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2407328
09-MAY-2012 12:16



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L12050050 Prep Date: 05/07/12 11:16 Sample ID: WG397209-03
Instrument ID: HYDRA Run Date: 05/09/12 09:29 Prep Method: 7470A
File ID: HY.050912.092955 Analyst: PDM Method: 7470A
Workgroup (AAB#): WG397350 Matrix: Water Units: mg/L
Contract #: Cal ID: HYDRA-09-MAY-12

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Mercury, Dissolved	0.000100	0.000200	0.000100	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2407897
09-MAY-2012 13:41



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397209-04
Instrument ID: HYDRA Run Time: 09:31 Prep Method: 7470A
File ID: HY.050912.093137 Analyst: PDM Method: 7470A
Workgroup (AAB#): WG397350 Matrix: Water Units: mg/L
QC Key: WATERLOO Lot#: STD51524 Cal ID: HYDRA-09-MAY-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Mercury	0.00400	0.00434	109	85 - 115	

LCS - Modified 03/06/2008
PDF File ID: 2407329
Report generated: 05/09/2012 12:16



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397209-04
Instrument ID: HYDRA Run Time: 09:31 Prep Method: 7470A
File ID: HY.050912.093137 Analyst: PDM Method: 7470A
Workgroup (AAB#): WG397350 Matrix: Water Units: mg/L
QC Key: WATERLOO Lot#: STD51524 Cal ID: HYDRA-09-MAY-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Mercury, Dissolved	0.00400	0.00434	109	85 - 115	

LCS - Modified 03/06/2008
PDF File ID: 2407898
Report generated: 05/09/2012 13:41



MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginum: L12050050 Cal ID: HYDRA- Worknum: WG397350
 Instrument ID: HYDRA Contract #: _____ Method: 7470A
 Parent ID: WG397209-01 File ID: HY.050912.093824 Dil: 1 Matrix: WATER
 Sample ID: WG397209-05 MS File ID: HY.050912.094018 Dil: 1 Units: mg/L
 Sample ID: WG397209-06 MSD File ID: HY.050912.094204 Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Mercury	ND	0.0400	0.0417	104	0.0400	0.0338	84.5	20.9	85 - 115	20	*#

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L12050050 Cal ID: HYDRA- Worknum: WG397350
 Instrument ID: HYDRA Contract #: _____ Method: 7470A
 Parent ID: WG397209-01 File ID: HY.050912.093824 Dil: 1 Matrix: WATER
 Sample ID: WG397209-05 MS File ID: HY.050912.094018 Dil: 1 Units: mg/L
 Sample ID: WG397209-06 MSD File ID: HY.050912.094204 Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Mercury, Dissolved	ND	0.0400	0.0417	104	0.0400	0.0338	84.5	20.9	85 - 115	20	*#

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L12050050

Worknum: WG397350

Instrument ID: HYDRA

Method: 7470A

Post Spike ID: WG397350-02

File ID: HY.050912.094528

Dil: 1

Units: ug/L

Sample ID: L12050050-01

File ID: HY.050912.094346

Dil: 1

Matrix: Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
MERCURY	1.00		0	U	1	100.0	85 - 115	

N = % Recovery exceeds control limits

F = Result is between MDL and RL

U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 2407325
Report generated: 05/09/2012 12:16



Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L12050050 Worknum: WG397350
 Instrument ID: HYDRA Method: 7470A
 Post Spike ID: WG397350-02 File ID: HY.050912.094528 Dil: 1 Units: ug/L
 Sample ID: L12050050-01 File ID: HY.050912.094346 Dil: 1 Matrix: Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
MERCURY	1.00		0	U	1	100.0	85 - 115	

N = % Recovery exceeds control limits

F = Result is between MDL and RL

U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
 PDF File ID: 2407907
 Report generated: 05/09/2012 13:41



Microbac Laboratories Inc.
 INITIAL CALIBRATION SUMMARY

Login Number: L12050050
 Analytical Method: 7470A
 ICAL Worknum: WG397509

Workgroup (AAB#): WG397350
 Instrument ID: HYDRA
 Initial Calibration Date: 05/09/2012 09:01

Analyte	WG397509-01		WG397509-02		WG397509-03		WG397509-04		WG397509-05		WG397509-06	
	STD	INT	STD	INT	STD	INT	STD	INT	STD	INT	STD	INT
Mercury	0	164	0.200	845	1.00	3611	2.00	6838	5.00	18530	10.0	35238

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995

INT_CAL_HG_FU - Modified 03/06/2008
 PDF File ID: 2407330
 Report generated 05/09/2012 12:16



Login Number: L12050050
Analytical Method: 7470A
ICAL Worknum: WG397509

Workgroup (AAB#): WG397350
Instrument ID: HYDRA
Initial Calibration Date: 05/09/2012 09:01

Analyte	R	Q
Mercury	0.9995	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
* = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
 INITIAL CALIBRATION SUMMARY

Login Number: L12050050
 Analytical Method: 7470A
 ICAL Worknum: WG397509

Workgroup (AAB#): WG397350
 Instrument ID: HYDRA
 Initial Calibration Date: 05/09/2012 09:01

Analyte	WG397509-01		WG397509-02		WG397509-03		WG397509-04		WG397509-05		WG397509-06	
	STD	INT	STD	INT	STD	INT	STD	INT	STD	INT	STD	INT
Mercury	0	164	0.200	845	1.00	3611	2.00	6838	5.00	18530	10.0	35238

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995

INT_CAL_HG_FU - Modified 03/06/2008
 PDF File ID: 2407901
 Report generated 05/09/2012 13:41



Login Number:L12050050
Analytical Method:7470A
ICAL Worknum:WG397509

Workgroup (AAB#):WG397350
Instrument ID:HYDRA
Initial Calibration Date:05/09/2012 09:01

Analyte	R	Q
Mercury	0.9995	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
* = Out of Compliance; R < 0.995

INT_CAL_HG_FU - Modified 03/06/2008
PDF File ID: 2407901
Report generated 05/09/2012 13:41



Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397509-08
Instrument ID: HYDRA Run Time: 09:15 Method: 7470A
File ID: HY.050912.091514 Analyst: PDM Units: ug/L
Workgroup (AAB#): WG397350 Cal ID: HYDRA - 09-MAY-12
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
MERCURY	.1	.2	.1	U

ICB - Modified 07/14/2009
PDF File ID: 2407332
Report generated 05/09/2012 12:16



Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397509-08
Instrument ID: HYDRA Run Time: 09:15 Method: 7470A
File ID: HY.050912.091514 Analyst: PDM Units: ug/L
Workgroup (AAB#): WG397350 Cal ID: HYDRA - 09-MAY-12
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
MERCURY	.1	.2	.1	U

ICB - Modified 07/14/2009
PDF File ID: 2407903
Report generated 05/09/2012 13:41



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397509-10
Instrument ID: HYDRA Run Time: 09:18 Method: 7470A
File ID: HY.050912.091841 Analyst: PDM Units: ug/L
Workgroup (AAB#): WG397350 Cal ID: HYDRA - 09-MAY-12
Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Mercury	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2407334
Report generated 05/09/2012 12:16



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397509-12
Instrument ID: HYDRA Run Time: 09:49 Method: 7470A
File ID: HY.050912.094902 Analyst: PDM Units: ug/L
Workgroup (AAB#): WG397350 Cal ID: HYDRA - 09-MAY-12
Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Mercury	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2407334
Report generated 05/09/2012 12:16



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397509-14
Instrument ID: HYDRA Run Time: 10:10 Method: 7470A
File ID: HY.050912.101014 Analyst: PDM Units: ug/L
Workgroup (AAB#): WG397350 Cal ID: HYDRA - 09-MAY-12
Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Mercury	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2407334
Report generated 05/09/2012 12:16



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397509-10
Instrument ID: HYDRA Run Time: 09:18 Method: 7470A
File ID: HY.050912.091841 Analyst: PDM Units: ug/L
Workgroup (AAB#): WG397350 Cal ID: HYDRA - 09-MAY-12
Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Mercury	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2407905
Report generated 05/09/2012 13:41



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397509-12
Instrument ID: HYDRA Run Time: 09:49 Method: 7470A
File ID: HY.050912.094902 Analyst: PDM Units: ug/L
Workgroup (AAB#): WG397350 Cal ID: HYDRA - 09-MAY-12
Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Mercury	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2407905
Report generated 05/09/2012 13:41



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397509-14
Instrument ID: HYDRA Run Time: 10:10 Method: 7470A
File ID: HY.050912.101014 Analyst: PDM Units: ug/L
Workgroup (AAB#): WG397350 Cal ID: HYDRA - 09-MAY-12
Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Mercury	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2407905
Report generated 05/09/2012 13:41



Microbac Laboratories Inc.
INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397509-07
Instrument ID: HYDRA Run Time: 09:13 Method: 7470A
File ID: HY.050912.091312 Analyst: PDM Units: ug/L
Workgroup (AAB#): WG397350 Cal ID: HYDRA - 09-MAY-12
QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Mercury	2	2.08	104	90 - 110	

* Exceeds LIMITS Limit



Microbac Laboratories Inc.
INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397509-07
Instrument ID: HYDRA Run Time: 09:13 Method: 7470A
File ID: HY.050912.091312 Analyst: PDM Units: ug/L
Workgroup (AAB#): WG397350 Cal ID: HYDRA - 09-MAY-12
QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Mercury	2	2.08	104	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 2407902
Report generated 05/09/2012 13:41



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397509-09
 Instrument ID: HYDRA Run Time: 09:16 Method: 7470A
 File ID: HY.050912.091658 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG397350 Cal ID: HYDRA - 09-MAY-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Mercury, Total	0.00200	0.00204	mg/L	102	80 - 120	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2407333
 Report generated 05/09/2012 12:16



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397509-11
 Instrument ID: HYDRA Run Time: 09:47 Method: 7470A
 File ID: HY.050912.094714 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG397350 Cal ID: HYDRA - 09-MAY-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Mercury, Total	0.00200	0.00209	mg/L	105	80 - 120	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2407333
 Report generated 05/09/2012 12:16



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397509-13
 Instrument ID: HYDRA Run Time: 10:08 Method: 7470A
 File ID: HY.050912.100827 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG397350 Cal ID: HYDRA - 09-MAY-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Mercury, Total	0.00200	0.00197	mg/L	98.5	80 - 120	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2407333
 Report generated 05/09/2012 12:16



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397509-09
 Instrument ID: HYDRA Run Time: 09:16 Method: 7470A
 File ID: HY.050912.091658 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG397350 Cal ID: HYDRA - 09-MAY-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Mercury, Total	0.00200	0.00204	mg/L	102	80 - 120	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2407904
 Report generated 05/09/2012 13:41



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397509-11
 Instrument ID: HYDRA Run Time: 09:47 Method: 7470A
 File ID: HY.050912.094714 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG397350 Cal ID: HYDRA - 09-MAY-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Mercury, Total	0.00200	0.00209	mg/L	105	80 - 120	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2407904
 Report generated 05/09/2012 13:41



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L12050050 Run Date: 05/09/2012 Sample ID: WG397509-13
 Instrument ID: HYDRA Run Time: 10:08 Method: 7470A
 File ID: HY.050912.100827 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG397350 Cal ID: HYDRA - 09-MAY-12
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Mercury, Total	0.00200	0.00197	mg/L	98.5	80 - 120	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2407904
 Report generated 05/09/2012 13:41



2.3.3.3 Raw Data

Line	Conc.	Units	SD/RSD	1	2	3	4	5

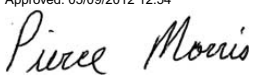
*** Standard: 1 Rep: 1				Seq: 1		08:52:42	09 May 12	HG
Hg	.000	ppb	164					=
*** Standard: 2 Rep: 1				Seq: 2		08:54:23	09 May 12	HG
Hg	.200	ppb	845					=
*** Standard: 3 Rep: 1				Seq: 3		08:56:17	09 May 12	HG
Hg	1.00	ppb	3611					=
*** Standard: 4 Rep: 1				Seq: 4		08:58:00	09 May 12	HG
Hg	2.00	ppb	6838					=
*** Standard: 5 Rep: 1				Seq: 5		08:59:56	09 May 12	HG
Hg	5.00	ppb	18530					=
*** Standard: 6 Rep: 1				Seq: 6		09:01:49	09 May 12	HG
Hg	10.0	ppb	35238					=
*** Check Standard: 2 Ck2ICV				Seq: 7		09:13:12	09 May 12	HG
Line Flag %Rcv. Found True Units SD/RSD								=
Hg 104. 2.08 2.00 ppb .000								=
*** Check Standard: 3 Ck3ICB				Seq: 8		09:15:14	09 May 12	HG
Line Flag %Rcv. Found True Units SD/RSD								=
Hg -30.2 -.060 .200 ppb .000								=
*** Check Standard: 4 Ck4CCV				Seq: 9		09:16:58	09 May 12	HG
Line Flag %Rcv. Found True Units SD/RSD								=
Hg 102. 2.04 2.00 ppb .000								=
*** Check Standard: 5 Ck5CCB				Seq: 10		09:18:41	09 May 12	HG
Line Flag %Rcv. Found True Units SD/RSD								=
Hg 8.48 .017 .200 ppb .000								=
*** Sample ID: WG39720903				Seq: 11		09:29:55	09 May 12	HG
Hg -.038 ppb .000 - .038								=
=====								
*** Sample ID: WG39720904				Seq: 12		09:31:37	09 May 12	HG
Hg 4.34 ppb .000 4.34								=
=====								

Approved: 05/09/2012 12:54
Pierce Morris

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: WG39699201								
				Seq:	13	09:33:20	09 May 12	HG
TCLP BLANK								
Hg	- .055	ppb	.000		- .055			
=====								
*** Sample ID: 1205002901								
				Seq:	14	09:35:01	09 May 12	HG
Hg	.020	ppb	.000		.020			
=====								
*** Sample ID: WG39735001								
				Seq:	15	09:36:42	09 May 12	HG
1205002901PS.9								
Hg	.912	ppb	.000		.912			
=====								
*** Sample ID: 1205003201								
				Seq:	16	09:38:24	09 May 12	HG
WG39720901								
Hg	- .075	ppb	.000		- .075			
=====								
*** Sample ID: WG39720905								
				Seq:	17	09:40:18	09 May 12	HG
1205003201S								
Hg	4.17	ppb	.000		4.17			
=====								
*** Sample ID: WG39720906								
				Seq:	18	09:42:04	09 May 12	HG
1205003201SD								
Hg	3.38	ppb	.000		3.38			
=====								
*** Sample ID: 1205005001								
				Seq:	19	09:43:46	09 May 12	HG
Hg	- .083	ppb	.000		- .083			
=====								
*** Sample ID: WG39735002								
				Seq:	20	09:45:28	09 May 12	HG
1205005001PS.9								
Hg	1.00	ppb	.000		1.00			
=====								
*** Check Standard: 4 Ck4CCV								
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		105.	2.09	2.00	ppb	.000		
=====								
*** Check Standard: 5 Ck5CCB								
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		9.75	.020	.200	ppb	.000		

Approved: 05/09/2012 12:54
Pierce Morris

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 1205005002								
				Seq: 23	09:50:48	09 May 12	HG	
Hg	-.100	ppb	.000	-.100				=
=====								
*** Sample ID: 1205005003								
				Seq: 24	09:52:31	09 May 12	HG	
Hg	-.073	ppb	.000	-.073				=
=====								
*** Sample ID: 1205005004								
				Seq: 25	09:54:13	09 May 12	HG	
Hg	-.077	ppb	.000	-.077				=
=====								
*** Sample ID: 1205005005								
				Seq: 26	09:56:06	09 May 12	HG	
Hg	-.012	ppb	.000	-.012				=
=====								
*** Sample ID: 1205005006								
				Seq: 27	09:58:01	09 May 12	HG	
Hg	-.008	ppb	.000	-.008				=
=====								
*** Sample ID: 1205005007								
				Seq: 28	09:59:43	09 May 12	HG	
Hg	-.020	ppb	.000	-.020				=
=====								
*** Sample ID: 1205005008								
				Seq: 29	10:01:25	09 May 12	HG	
Hg	-.028	ppb	.000	-.028				=
=====								
*** Sample ID: 1205016501								
				Seq: 30	10:03:20	09 May 12	HG	
Hg	.026	ppb	.000	.026				=
=====								
*** Sample ID: 1205016502								
				Seq: 31	10:05:02	09 May 12	HG	
Hg	-.006	ppb	.000	-.006				=
=====								
*** Sample ID: 1205016503								
				Seq: 32	10:06:45	09 May 12	HG	
				WG39720902				
Hg	-.058	ppb	.000	-.058				=

Approved: 05/09/2012 12:54


Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Check Standard: 4 Ck4CCV Seq: 33 10:08:27 09 May 12 HG								
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		98.5	1.97	2.00	ppb	.000		=
*** Check Standard: 5 Ck5CCB Seq: 34 10:10:14 09 May 12 HG								
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		-27.3	-.055	.200	ppb	.000		=
*** Sample ID: WG39720907 Seq: 35 10:12:19 09 May 12 HG								
Hg	4.27	ppb	.000	4.27				=
=====								
*** Sample ID: WG39720908 Seq: 36 10:14:02 09 May 12 HG								
Hg	-.103	ppb	.000	-.103				=
*** Check Standard: 4 Ck4CCV Seq: 37 10:16:14 09 May 12 HG								
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		99.0	1.98	2.00	ppb	.000		=
*** Check Standard: 5 Ck5CCB Seq: 38 10:17:57 09 May 12 HG								
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		-15.7	-.031	.200	ppb	.000		=
*** Sample ID: WG39715502 Seq: 39 10:44:16 09 May 12 HG								
Hg	-.018	ppb	.000	-.018				=
=====								
*** Sample ID: WG39715503 050912A Seq: 40 10:56:52 09 May 12 HG								
Hg	4.27	ppb	.000	4.27				=
=====								
*** Sample ID: WG39715501 050912A Seq: 41 10:58:46 09 May 12 HG								
Hg	-.057	ppb	.000	-.057				=
=====								
*** Sample ID: WG39715504 050912A Seq: 42 11:00:32 09 May 12 HG								
Hg	4.30	ppb	.000	4.30				=
=====								
*** Sample ID: WG39715505 050912A Seq: 43 11:02:14 09 May 12 HG								
Hg	4.19	ppb	.000	4.19				=
=====								

Approved: 05/09/2012 12:54
Pierce Morris

Line	Conc.	Units	SD/RSD	1	2	3	4	5
------	-------	-------	--------	---	---	---	---	---

*** Sample ID: 1205013408 050912A Seq: 44 11:03:57 09 May 12 HG

Hg	-.088	ppb	.000	-.088				
----	-------	-----	------	-------	--	--	--	--

*** Sample ID: WG39734902 050912A Seq: 45 11:05:51 09 May 12 HG

1205013408PS.9

Hg	.856	ppb	.000	.856				
----	------	-----	------	------	--	--	--	--

*** Check Standard: 4 Ck4CCV Seq: 46 11:07:34 09 May 12 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		96.3	1.93	2.00	ppb	.000

*** Check Standard: 5 Ck5CCB Seq: 47 11:09:16 09 May 12 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-22.2	-.044	.200	ppb	.000

Approved: 05/09/2012 12:54
Pierce Morris

2.4 General Chemistry Data

2.4.1 Alkalinity Data

2.4.1.1 Summary Data



Login Number: L12050050
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis EPA 310.2 (Alkalinity)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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

Narrative ID: 46529

Approved By: Deanna Hesson

A handwritten signature in cursive script that reads "Deanna Hesson".

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-05I-050112	Prep Method: 310.2	Prep Date: N/A
Matrix: Water	Analytical Method: 310.2	Cal Date: 05/04/2012 16:48
Workgroup #: WG397079	Analyst: DIH	Run Date: 05/04/2012 17:14
Collect Date: 05/01/2012 11:37	Dilution: 2	File ID: SC120504007.040
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Alkalinity, Total (as CaCO3)		344		40.0	20.0

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-05S-050112	Prep Method: 310.2	Prep Date: N/A
Matrix: Water	Analytical Method: 310.2	Cal Date: 05/04/2012 16:48
Workgroup #: WG397079	Analyst: DIH	Run Date: 05/04/2012 17:15
Collect Date: 05/01/2012 13:33	Dilution: 2	File ID: SC120504007.041
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Alkalinity, Total (as CaCO3)		358		40.0	20.0

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-24-050112	Prep Method: 310.2	Prep Date: N/A
Matrix: Water	Analytical Method: 310.2	Cal Date: 05/04/2012 16:48
Workgroup #: WG397079	Analyst: DIH	Run Date: 05/04/2012 17:25
Collect Date: 05/01/2012 09:30	Dilution: 20	File ID: SC120504007.045
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Alkalinity, Total (as CaCO3)		4370		400	200

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-01-050112	Prep Method: 310.2	Prep Date: N/A
Matrix: Water	Analytical Method: 310.2	Cal Date: 05/04/2012 16:48
Workgroup #: WG397079	Analyst: DIH	Run Date: 05/04/2012 16:55
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: SC120504007.021
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Alkalinity, Total (as CaCO3)		166		20.0	10.0

2.4.1.2 QC Summary Data

Example Calculations for Visible Spectrophotometric Methods

Linear Calibration Model

Step 1 - Retrieve Curve Data from ICAL

m = slope of the linear equation
b = intercept from the linear equation
y = instrument response as absorbance or OD
x = concentration of analyte (mg/L)
 $y = mx + b$

Step 2: Calculate the instrument concentration, x

Where:

$$x = (y - b)/m$$

Step 3: Solve for analyte concentration in sample, Cx

$$C_x = (x) (D)$$

Example Calculation (LCS):

Value of m from plot:	7.809
Value of b from plot:	0.0004135
Absorbance of unknown from quantitation report (y):	0.31
Calculated concentration (x):	0.03964483
Dilution factor (D):	1.00
Concentration of analyte in sample, C _y :	0.0396 mg/L

SmartChem Autoanalyzer - Quadratic Calibration for Chloride and Sulfate

Step 1 - Retrieve Curve Data from Smartchem ICAL

A, B, C = constants from the ICAL quadratic regression

x = instrument response as absorbance or OD

y = concentration of analyte (mg/L)

Step 2: Calculate the instrument concentration, y

Where:

$$y = Ax^2 + Bx + C$$

Step 3: Solve for analyte concentration in sample, C_y

$$C_y = (y) (D)$$

Example Calculation (LCS):

Value of A from plot:	101.2796
Value of B from plot:	318.9056
Value of C from plot:	-2.2712
Absorbance of unknown from quantitation report (x):	0.1583
Calculated concentration (y):	50.7495108
Dilution factor (D):	1.00
Concentration of analyte in sample, C _y :	50.75 mg/L

Microbac Laboratories Inc.

Data Checklist

Date: 04-MAY-2012
 Analyst: DIH
 Analyst: NA
 Method: ALK
 Instrument: SC
 Curve Workgroup: NA
 Runlog ID: _____
 Analytical Workgroups: WG397057 WG397067 WG397079 WG397052

Calibration/Linearity	5/4/2012
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DIH
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
05-MAY-2012

Secondary Reviewer:
05-MAY-2012





Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method: 310.2
 Login Number: L12050050

AAB#: WG397079

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MW-05I-050112	01	05/01/12							14		05/04/12	3.2	14	
MW-05S-050112	03	05/01/12							14		05/04/12	3.2	14	
MW-24-050112	05	05/01/12							14		05/04/12	3.3	14	
MW-01-050112	07	05/01/12							14		05/04/12	3.2	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2403310
 Report generated 05/05/2012 10:12



METHOD BLANK SUMMARY

Login Number: L12050050 Work Group: WG397079
 Blank File ID: SC120504007.036 Blank Sample ID: WG397079-01
 Prep Date: 05/04/12 17:05 Instrument ID: SMARTCHEM
 Analyzed Date: 05/04/12 17:05 Method: 310.2
 Analyst: DIH

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG397079-02	SC120504007.011	05/04/12 16:49	01
LCS2	WG397079-03	SC120504007.012	05/04/12 16:50	01
MW-01-050112	L12050050-07	SC120504007.021	05/04/12 16:55	01
DUP	WG397079-05	SC120504007.027	05/04/12 16:59	01
MW-05I-050112	L12050050-01	SC120504007.040	05/04/12 17:14	DL01
MW-05S-050112	L12050050-03	SC120504007.041	05/04/12 17:15	DL01
MW-24-050112	L12050050-05	SC120504007.045	05/04/12 17:25	DL01

Report Name: BLANK_SUMMARY
 PDF File ID: 2403311
 Report generated 05/05/2012 10:12



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L12050050 Prep Date: 05/04/12 17:05 Sample ID: WG397079-01
Instrument ID: SMARTCHEM Run Date: 05/04/12 17:05 Prep Method: 310.2
File ID: SC120504007.036 Analyst: DIH Method: 310.2
Workgroup (AAB#): WG397079 Matrix: Water Units: mg/L
Contract #: _____ Cal ID: SMARTC-04-MAY-12

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Alkalinity, Total (as CaCO3)	10.0	20.0	10.0	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2403312
05-MAY-2012 10:12



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12050050 Analyst: DIH Prep Method: 310.2
 Instrument ID: SMARTCHEM Matrix: Water Method: 310.2
 Workgroup (AAB#): WG397079 Units: mg/L
 QC Key: WATERLOO Lot #: STD51238
 Sample ID: WG397079-02 LCS File ID: SC120504007.011 Run Date: 05/04/2012 16:49
 Sample ID: WG397079-03 LCS2 File ID: SC120504007.012 Run Date: 05/04/2012 16:50

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Alkalinity, Total (as CaCO3)	200	201	100	200	200	100	0.478	85 - 115	25	

LCS_LCS2 - Modified 03/06/2008
 PDF File ID: 2403313
 Report generated: 05/05/2012 10:12



2.4.1.3 Raw Data

SMARTCHEM RUN LOG

A
 397057
 397067
 397079

Daily Check

- Lamp On
- Probe Rinse Full
- DI Water > 1/2 Full
- Wash Solution > 1/2 Full
- NO3 Reagent bottle connected / purged
- NO3 pH adj to pH 5-9
- Syringe filter lot # _____
- WBL Run
- Reagents Full
- Dilution H₂O Full
- Waste Container Check

- 1) Workgroup A
Plan # 20120504003
- 2) Workgroup B
Plan # 20120504004
- 3) Workgroup C
Plan # 20120504006
- D 20120504007

Analyte	1	2	3	
Run 1	ALK			
	Dilution			
SC Prepared Curve				
Position				
1-1	ICV 250			
1-2	BIK			
1-3	LCS 200			
1-4	LSDUP			
1-5	04-932-02	1/5	color	
1-6	03	1/5	↓	
1-7	05	1/5		
1-8	06	1/5		
1-9	08	1/5		
1-10	09	1/5		
1-11	04-913-01			
1-12	04-018-02	1/5		color
1-13	03	1/5		
1-14	05	1/5		
1-15	06	1/5		
1-16	07	1/100	↓	
1-17	04-898-01	1/100	color	
1-18	03	1/4		
1-19	05	1/5		
1-20	08	1/4		
1-21	10	1/4	1/50 color	
1-22	12	1/4		
2-1	04-928-01	1/5		
2-2	MS 08	1/5		
2-3	MSD 10	1/5		

Position	Analyte	1	2	3
2-4	ICV			
2-5	BIK			
2-6	LCS 200			
2-7	LCS DUP			
2-8	04-963-01	1/2		
2-9	03			
2-10	05	1/100		color
2-11	07	1/2		
2-12	05-010-01			
2-13	DUP 01			
2-14	MS 02			
2-15	MSD 03			
2-16	04			
2-17	MS 05			
2-18	MSD 06			
2-19	07			
2-20	MS 08			
2-21	MSD 09			
2-22	10			
2-23	11			
2-24	12			
2-25	13			
2-26	14			
3-1	15			
3-2	04-052-01	1/2	1/5	
4	02			
5	03			
6	04			
7	05			
8	06	1/3		
9	07			
10				
11				

NOTES:
 * Run NO2 std on NO3 runs
 * LCS/LCS Dup all parameters
 * MS(10% sample): NO3, TKN, NH3

2-4 04-928-01 1/2
 2-5 DUP 928-01 1/5

DCN#90758

Pg 1



SMARTCHEM RUN LOG

Analyte		1	2	3
Position	Run 3			
3-3	1 ICV250			
3-4	2 BIK			
3-5	3 LCS200			
3-6	4 LCSDUP			
3-7	5 05-052-08			
3-8	6 09 unit 2 -			
3-9	7 10			
3-10	8 11			
3-11	9 14 1/3			
3-12	10 15			
3-13	11 16			
3-14	12 17 1/3			
3-15	13 05-011-01 unit 4 1/2			

Analyte		1	2	3
Position				
3-16	14 05-011-03 unit 4 1/2			
3-17	15 05-089-01 1/4			
3-18	16 02			
3-19	17 03 1/50			color
3-20	18 04 unit 4 -			
3-21	19 06 1/3			color
3-22	20 07 1/3			
3-23	21 08			
3-24	22 11			
3-25	1 12 1/5 1/10			color
3-26	2 13			
3-27	3 DUP 13			
3-28	4			

- Chloride EPA 325.2/SM 4500-Cl-E
- Sulfate EPA 375.4/SM 426C(15th)
- Alkalinity EPA 310.2
- Nitrate-Nitrite EPA 353.2/SM 4500-NO3 F

- Ammonia EPA 350.1/SM 4500-NH3 B
- TKN EPA 351.2
- Phos EPA 365.4

Analyte	ALK	Reagents
SOP & Revision	143102 R14	R6+17318
Curve Stock (SC made)	std 50178	
Curve ID (user made)	std 50179 dup 5/4/12	
ICV	std 51237	
CCV	std 51236	
LCS	std 51238	
MS	std 50179 Dilution 0.25/(2500)=100	

Comments: _____

Analyst: Deanne Lesson

Date: 5/4/12

DCN#90758

pg 2



SMARTCHEM RUN LOG

Daily Check

- Lamp On
- Probe Rinse Full
- DI Water > 1/2 Full
- Wash Solution > 1/2 Full
- NO3 Reagent bottle connected / purged
- NO3 pH adj to pH 5-9
- Syringe filter lot # _____
- WBL Run
- Reagents Full
- Dilution H₂O Full
- Waste Container Check

- 1) Workgroup _____
Plan # _____
- 2) Workgroup _____
Plan # _____
- 3) Workgroup _____
Plan # _____

Analyte		1	2	3
Run 4				
SC Prepared Curve				
Position				
1-1	ICV 250			
1-2	BIK			
1-3	LCS 200			
1-4	LCS DUP			
1-5	04-963-03	1/2		
1-6	05-052-03	1/2		
1-7	05-089-14	1/50	color	
1-8	05-050-01			
1-9	03			
1-10	05	1/5		
1-11	07			
1-12	05-099-01	1/2		
1-13	03	1/2		
1-14	05			
1-15	07	1/2		
1-16	09			
1-17	DUP 0905			
1-18	05-152-02	1/5	color	
1-19	03	1/5		
1-20	05	1/5		
1-21	06	1/5		
1-22	08	1/95	Fluoridation	
2-1	09	1/5	↓	
2-2	R BIK			
2-3				

Analyte		1	2	3
Position				
2-4				
2-5				
2-6				
2-7				
2-8				
2-9				
2-10				
2-11				
2-12				
2-13				
2-14				
2-15				
2-16				
2-17				
2-18				
2-19				
2-20				
2-21				
2-22				
2-23				
2-24				
2-25				
2-26				
3-1				
3-2				

NOTES:
 * Run NO2 std on NO3 runs
 * LCS/LCS Dup all parameters
 *MS(10% sample): NO3, TKN, NH3

DCN#90758

pg 3



MICROBAC (OVD)
SMARTCHEM REPORT (VER3.0.53)
NH3, TKN, NO3NO2 (MG/L N)
ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WALK - ALKALINITY EPA 310.2

Smp#[/Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	RBL	0.0	0.7342	0.00		1:04:21 PM
DIL-1	RBL	0.0	0.7426	0.00		1:04:39 PM
DIL-1	RBL	0.0	0.7382	0.00		1:05:33 PM
DIL-1	Std-1	0.0	-0.0016	0.00		1:05:52 PM
SR5-1	Std-2	10.0	-0.0118	0.00		1:06:46 PM
SR5-2	Std-3	20.0	-0.0229	0.00		1:07:04 PM
SR5-3	Std-4	50.0	-0.0666	0.00		1:07:58 PM
SR5-4	Std-5	100.0	-0.1386	0.00		1:08:16 PM
SR5-5	Std-6	200.0	-0.3196	0.00		1:09:10 PM
SR5-6	Std-7	250.0	-0.3898	0.00		1:09:28 PM
SR5-7	Std-8	300.0	-0.4684	0.00		1:10:22 PM
1	ICV 250	250.0	-0.3898	0.00		1:10:40 PM
2	WG397052-01 BLK	-8.8	0.0183	0.00	INV,>,LL	1:11:34 PM
3	WG397052-02 LCS	200.1	-0.3077	0.00		1:11:52 PM
4	WG397052-03 LCSDUP	203.9	-0.3138	0.00		1:12:46 PM
5	L12040932-02 (5)	249.2	-0.3886	0.00		1:13:04 PM
6	L12040932-03 (5)	157.5	-0.2388	0.00		1:13:58 PM
7	L12040932-05 (5)	199.3	-0.3063	0.00		1:14:16 PM
8	L12040932-06 (5)	175.2	-0.2673	0.00		1:15:10 PM
9	L12040932-08 (5)	206.1	-0.3175	0.00		1:15:28 PM
10	L12040932-09 (5)	151.0	-0.2285	0.00		1:16:22 PM
ST-2	CCV (150 mg/L)	154.5	-0.2341	103.01		1:16:40 PM
ST-3	CCB (0 mg/L)	4.4	-0.0015	0.00		1:17:34 PM
11	L12040913-01	356.6X	-0.5722	0.00	>,LH	1:17:52 PM
12	L12050018-02 (5)	255.8	-0.3995	0.00		1:18:46 PM
13	L12050018-03 (5)	172.7	-0.2632	0.00		1:19:04 PM
14	L12050018-05 (5)	183.6	-0.2808	0.00		1:19:58 PM
15	L12050018-06 (5)	148.7	-0.2248	0.00		1:20:16 PM
16	L12050018-07 (100)	111.6	-0.1661	0.00		1:21:10 PM
17	L12040898-01 (100)	161.0	-0.2444	0.00		1:21:28 PM
18	L12040898-03 (4)	89.2	-0.1312	0.00		1:22:22 PM
19	L12040898-05 (5)	196.0	-0.3010	0.00		1:22:40 PM

Report Date :05/04/2012 Run Date :5/4/2012 Operator : WESTCO Plan # :20120504003
Plan Description : ALK-A-DIH/5/4/2012

MICROBAC (OVD)
SMARTCHEM REPORT (VER3.0.53)
NH3, TKN, NO3NO2 (MG/L N)
ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WALK - ALKALINITY EPA 310.2

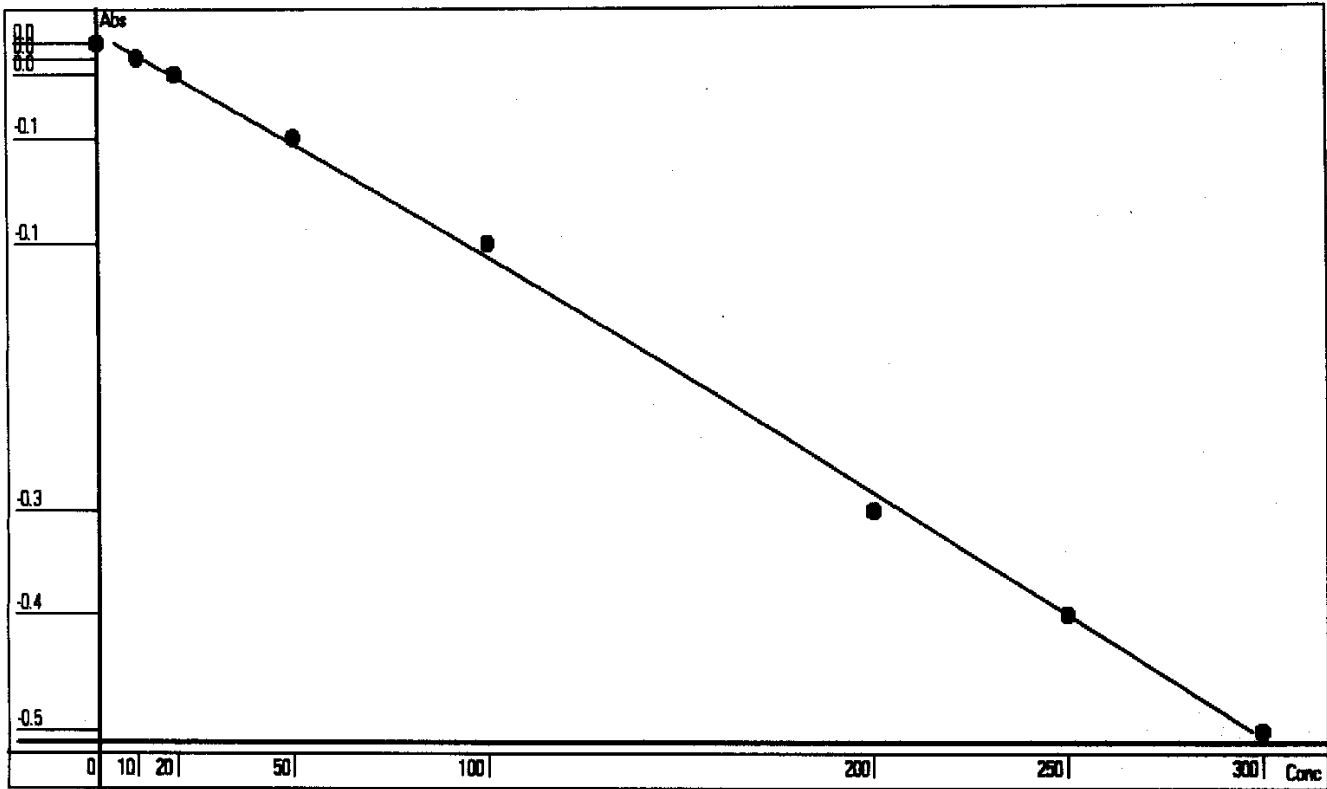
Smp#[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
20	L12040898-08 (4)	170.1	-0.2591	0.00		1:23:34 PM
ST-2	CCV (150 mg/L)	162.5	-0.2468	108.30		1:23:52 PM
ST-3	CCB (0 mg/L)	6.6	-0.0048	0.00		1:24:46 PM
21	L12040898-10 (4) (50)	76.4	-0.1113	0.00		1:25:04 PM
22	L12040898-12 (4)	176.1	-0.2688	0.00		1:25:58 PM
23	L12040928-01 (5)	145.3	-0.2194	0.00		1:26:16 PM
24	L12040928-08 (5) MS	158.7	-0.2408	0.00		1:27:10 PM
25	L12040928-10 (5)	154.9	-0.2347	0.00		1:27:28 PM
26	L12040928-03 (2)	202.3	-0.3113	0.00		1:28:22 PM
27	WG397052-05 (5) DUP	139.3	-0.2099	0.00		1:28:40 PM
28	ID 28	11.9	-0.0128	0.00		1:29:34 PM
29	ID 29	6.5	-0.0047	0.00		1:29:52 PM
ST-2	CCV (150 mg/L)	163.7	-0.2488	109.13		1:30:46 PM
ST-3	CCB (0 mg/L)	13.1	-0.0146	0.00		1:31:05 PM
11-[1/2]	L12040913-01	481.6	-0.3746	0.00	LH	1:38:45 PM
ST-2	CCV (150 mg/L)	165.8	-0.2521	110.50		1:38:45 PM
ST-3	CCB (0 mg/L)	16.9	-0.0204	0.00		1:39:39 PM

Report Date : 05/04/2012 Run Date : 5/4/2012 Operator : WESTCO Plan # : 20120504003
Plan Description : ALK-A-DIH/5/4/2012

Calibrant Report - WALK -

Calib Lot #:010104 Exp Date:6/21/2020 User:MICROBAC

Plan #: 20120504003 Description: [ALK-A-DIH/5/4/2012]



Point	OD	Conc	Recalc Conc	% Error
1	-0.0016	0	4.4266	442.66
2	-0.0118	10	11.2015	12.02
3	-0.0229	20	18.5543	-7.23
4	-0.0666	50	47.3008	-5.40
5	-0.1386	100	93.9642	-6.04
6	-0.3196	200	207.4272	3.71
7	-0.3898	250	249.9531	-0.02
8	-0.4694	300	297.1725	-0.94

Conc = -83.9371*Abso^2 -665.3272*Abso +3.3623 R²=0.9987

RBL
0.7362
0

Report Date 5/4/2012 Run Date 5/4/2012

MICROBAC (OVD)
SMARTCHEM REPORT (VER3.0.53)
NH3, TKN, NO3NO2 (MG/L N)
ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WALK - ALKALINITY EPA 310.2

Smp#[/Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	RBL	0.0	0.6646	0.00		1:55:47 PM
DIL-1	RBL	0.0	0.6664	0.00		1:56:05 PM
DIL-1	RBL	0.0	0.6628	0.00		1:56:59 PM
DIL-1	Std-1	0.0	-0.0021	0.00		1:57:17 PM
SR5-1	Std-2	10.0	-0.0123	0.00		1:58:11 PM
SR5-2	Std-3	20.0	-0.0187	0.00		1:58:29 PM
SR5-3	Std-4	50.0	-0.0638	0.00		1:59:23 PM
SR5-4	Std-5	100.0	-0.1313	0.00		1:59:41 PM
SR5-5	Std-6	200.0	-0.2859	0.00		2:00:36 PM
SR5-6	Std-7	250.0	-0.3598	0.00		2:00:53 PM
SR5-7	Std-8	300.0	-0.4329	0.00		2:01:48 PM
1	ICV 750 ^{ams/siz} 250	257.3	-0.3689	0.00		2:02:05 PM
2	WG397057-01 BLK	-11.8	0.0193	0.00	INV,>,LL	2:03:00 PM
3	WG397057-02 LCS	200.1	-0.2816	0.00		2:03:18 PM
4	WG397057-03 LCSDUP	203.5	-0.2868	0.00		2:04:12 PM
5	L12040963-01 (2)	197.8	-0.2782	0.00		2:04:30 PM
6	L12040963-03	323.3 ^X	-0.4734	0.00	>,<,LH	2:05:24 PM
7	L12040963-05 (100)	28.7	-0.0359	0.00		2:05:42 PM
8	L12040963-07 (2)	197.7	-0.2780	0.00		2:06:36 PM
9	L12050010-01	17.7	-0.0208	0.00		2:06:54 PM
10	WG397057-05 DUP	16.2	-0.0187	0.00		2:07:48 PM
ST-2	CCV (150 mg/L)	151.1	-0.2091	100.72		2:08:06 PM
ST-3	CCB (0 mg/L)	-2.2	0.0063	0.00	INV,>,LL	2:09:00 PM
11	L12050010-02 MS	102.5	-0.1390	0.00		2:09:18 PM
12	L12050010-03 MSD	104.4	-0.1418	0.00		2:10:12 PM
13	L12050010-04	79.4	-0.1063	0.00		2:10:30 PM
14	L12050010-05 MS	160.7	-0.2232	0.00		2:11:24 PM
15	L12050010-06 MSD	160.8	-0.2233	0.00		2:11:42 PM
16	L12050010-07	176.2	-0.2461	0.00		2:12:36 PM
17	L12050010-08 MS	251.4	-0.3597	0.00		2:12:54 PM
18	L12050010-09 MSD	249.0	-0.3560	0.00		2:13:48 PM
19	L12050010-10	187.8	-0.2633	0.00		2:14:06 PM

Report Date : 05/04/2012 Run Date : 5/4/2012 Operator : WESTCO Plan # : 20120504004
Plan Description : ALK-B-DIH/5/4/2012

MICROBAC (OVD)
SMARTCHEM REPORT (VER3.0.53)
NH3, TKN, NO3NO2 (MG/L N)
ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WALK - ALKALINITY EPA 310.2

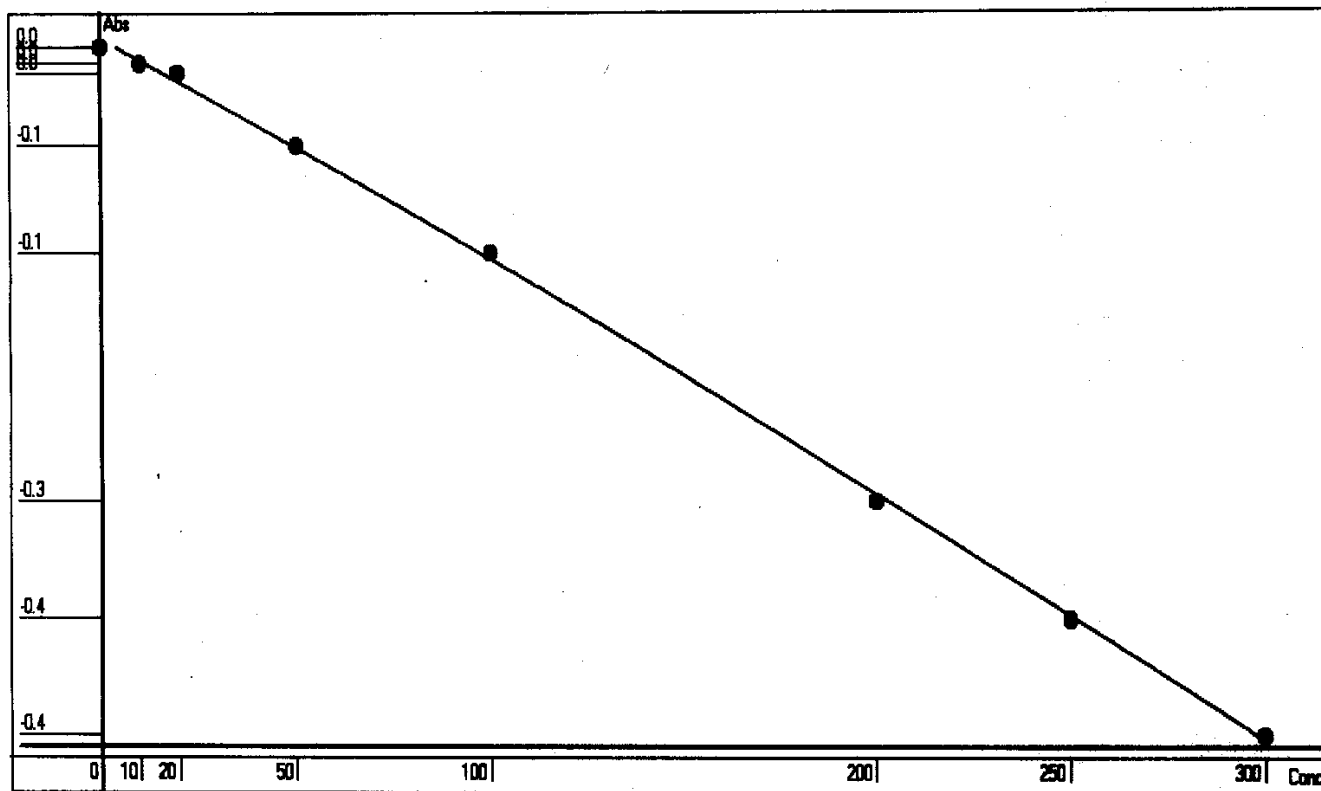
Smp#[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
20	L12050010-11	136.1	-0.1873	0.00		2:15:00 PM
ST-2	CCV (150 mg/L)	156.5	-0.2171	104.36		2:15:18 PM
ST-3	CCB (0 mg/L)	12.9	-0.0142	0.00		2:16:12 PM
21	L12050010-12	64.5	-0.0855	0.00		2:16:30 PM
22	L12050010-13	114.9	-0.1567	0.00		2:17:24 PM
23	L12050010-14	117.9	-0.1611	0.00		2:17:42 PM
24	L12050010-15	157.6	-0.2186	0.00		2:18:36 PM
25	L12050052-01 (5)	101.6	-0.1378	0.00		2:18:54 PM
26	L12050052-02	64.5	-0.0854	0.00		2:19:48 PM
27	L12050052-03	352.6 X	-0.5213	0.00	X,LH	2:20:06 PM
28	L12050052-04	140.6	-0.1938	0.00		2:21:00 PM
29	L12050052-05	131.6	-0.1808	0.00		2:21:18 PM
30	L12050052-06 (3)	148.9	-0.2059	0.00		2:22:12 PM
ST-2	CCV (150 mg/L)	163.0	-0.2265	108.63		2:22:30 PM
ST-3	CCB (0 mg/L)	10.3	-0.0107	0.00		2:23:24 PM
31	L12050052-07	36.6	-0.0467	0.00		2:23:42 PM
32	ID 32	21.1 X	-0.0254	0.00		2:24:37 PM
33	ID 33	24.2 X	-0.0297	0.00		2:24:54 PM
ST-2	CCV (150 mg/L)	164.2	-0.2283	109.45		2:25:48 PM
ST-3	CCB (0 mg/L)	16.2	-0.0188	0.00		2:26:07 PM
6-[1/2]	L12040963-03	395.6 X	-0.2782	0.00	LH	2:33:47 PM
27-[1/2]	L12050052-03	495.5 X	-0.3541	0.00	LH	2:34:59 PM
ST-2	CCV (150 mg/L)	176.3 X	-0.2462	117.54		2:34:59 PM
ST-3	CCB (0 mg/L)	30.4 X	-0.0382	0.00		2:35:53 PM

Report Date :05/04/2012 Run Date :5/4/2012 Operator : WESTCO Plan # :20120504004
Plan Description : ALK-B-DIH/5/4/2012

Calibrant Report - WALK -

Calib Lot #:010104 Exp Date:6/21/2020 User:MICROBAC

Plan #: 20120504004 Description: [ALK-B-DIH/5/4/2012]



Point	OD	Conc	Recalc Conc	% Error
1	-0.0021	0	3.9760	397.60
2	-0.0123	10	11.4757	14.76
3	-0.0187	20	16.1681	-19.16
4	-0.0638	50	48.9442	-2.11
5	-0.1313	100	97.0478	-2.95
6	-0.2859	200	202.9238	1.46
7	-0.3598	250	251.4193	0.57
8	-0.4329	300	298.0445	-0.65
Conc = -125.197*Abso^2 - 737.071*Abso + 2.4287 R²=0.9994				RBL 0.0655 0

Report Date 5/4/2012 Run Date 5/4/2012

MICROBAC (OVD)
 SMARTCHEM REPORT (VER3.0.53)
 NH3, TKN, NO3NO2 (MG/L N)
 ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WALK - ALKALINITY EPA 310.2

Smp#[/Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	RBL	0.0	0.5302	0.00		3:52:36 PM
DIL-1	RBL	0.0	0.5257	0.00		3:52:54 PM
DIL-1	RBL	0.0	0.5339	0.00		3:53:48 PM
DIL-1	Std-1	0.0	-0.0027	0.00		3:54:06 PM
SR5-1	Std-2	10.0	-0.0114	0.00		3:55:00 PM
SR5-2	Std-3	20.0	-0.0186	0.00		3:55:18 PM
SR5-3	Std-4	50.0	-0.0464	0.00		3:56:12 PM
SR5-4	Std-5	100.0	-0.1007	0.00		3:56:30 PM
SR5-5	Std-6	200.0	-0.2282	0.00		3:57:24 PM
SR5-6	Std-7	250.0	-0.2930	0.00		3:57:42 PM
SR5-7	Std-8	300.0	-0.3445	0.00		3:58:36 PM
1	ICV 25	248.8	-0.2843	0.00		3:58:54 PM
2	WG397067-01 BLK	-9.4	0.0114	0.00	INV,><,LL	3:59:48 PM
3	WG397067-02 LCS	208.9	-0.2344	0.00		4:00:06 PM
4	WG397067-03 LCSDUP	216.3	-0.2435	0.00		4:01:00 PM
5	L12050052-08	118.3	-0.1273	0.00		4:01:19 PM
6	L12050052-09	64.6	-0.0674	0.00		4:02:13 PM
7	L12050052-10	133.7	-0.1449	0.00		4:02:31 PM
8	L12050052-11	46.0	-0.0472	0.00		4:03:25 PM
9	L12050052-14 (3)	261.1	-0.3001	0.00		4:03:43 PM
10	L12050052-15	84.0	-0.0888	0.00		4:04:37 PM
ST-2	CCV (150 mg/L)	163.7	-0.1799	109.13		4:04:55 PM
ST-3	CCB (0 mg/L)	10.0	-0.0089	0.00		4:05:49 PM
11	L12050052-16	88.4	-0.0937	0.00		4:06:07 PM
12	L12050052-17 (3)	163.8	-0.1800	0.00		4:07:01 PM
13	L12050011-01 (2)	179.5	-0.1987	0.00		4:07:19 PM
14	L12050011-03 (2)	180.6	-0.2000	0.00		4:08:13 PM
15	L12050089-01 (4)	189.3	-0.2105	0.00		4:08:31 PM
16	L12050089-02	237.8	-0.2704	0.00		4:09:25 PM
17	L12050089-03 (50)	30.4	-0.0304	0.00		4:09:43 PM
18	L12050089-04	67.0	-0.0700	0.00		4:10:37 PM
19	L12050089-06 (3)	167.1	-0.1839	0.00		4:10:55 PM

Handwritten: ST5/12

Report Date : 05/04/2012 Run Date : 5/4/2012 Operator : WESTCO Plan # : 20120504006
 Plan Description : ALK-D-DIH/5/4/2012

MICROBAC (OVD)
SMARTCHEM REPORT (VER3.0.53)
NH3, TKN, NO3NO2 (MG/L N)
ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WALK - ALKALINITY EPA 310.2

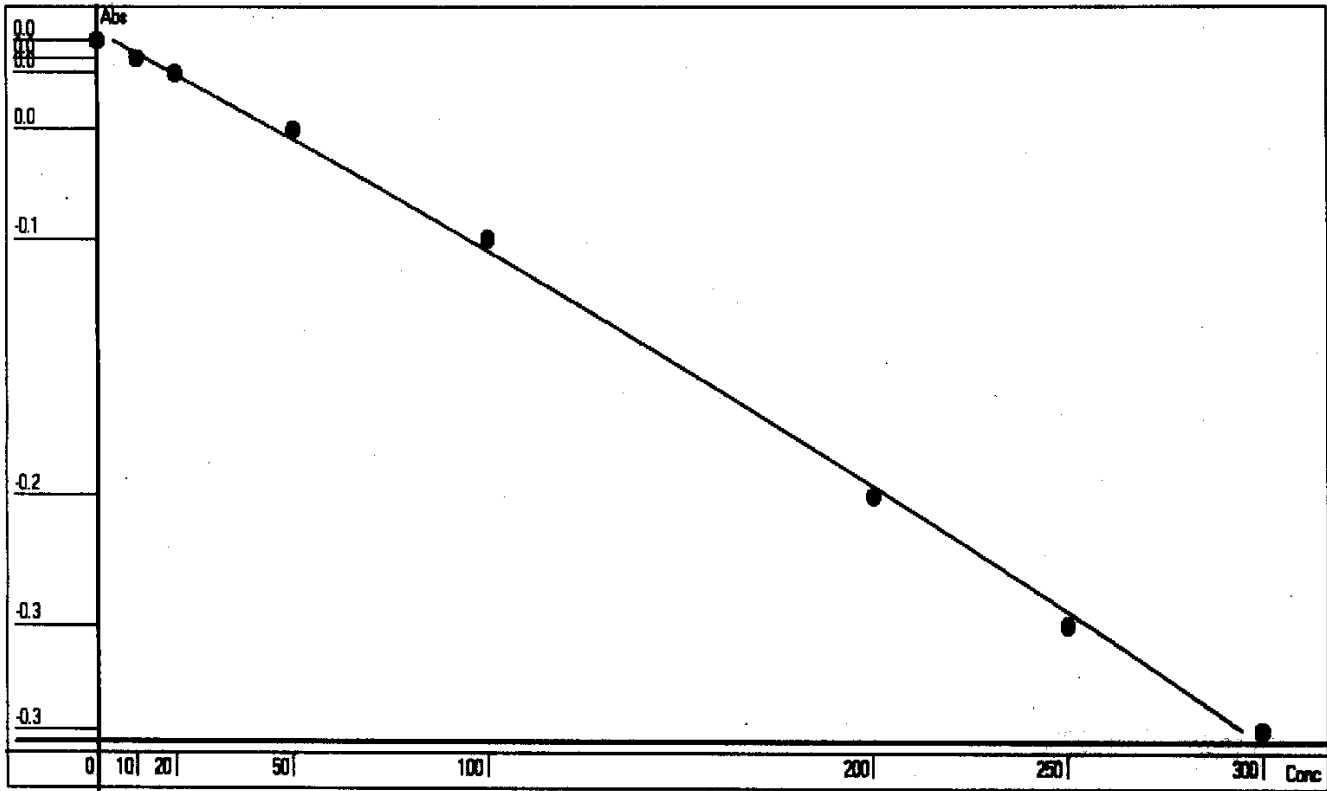
Smp#[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
20	L12050089-07 (3)	110.4	-0.1183	0.00		4:11:49 PM
ST-2	CCV (150 mg/L)	169.2	-0.1864	112.79		4:12:07 PM
ST-3	CCB (0 mg/L)	14.9	-0.0139	0.00		4:13:01 PM
21	L12050089-08	285.4	-0.3319	0.00		4:13:19 PM
22	L12050089-11	263.2	-0.3029	0.00		4:14:13 PM
23	L12050089-12 (10)	57.1	-0.0592	0.00		4:14:31 PM
24	L12050089-13	57.9	-0.0601	0.00		4:15:25 PM
25	WG397067-05 DUP	52.1	-0.0538	0.00		4:15:43 PM
26	ID 26	13.0X	-0.0120	0.00		4:16:37 PM
27	ID 27	10.9X	-0.0098	0.00		4:16:55 PM
ST-2	CCV (150 mg/L)	173.7	-0.1918	115.82		4:17:49 PM
ST-3	CCB (0 mg/L)	7.2	-0.0060	0.00		4:18:07 PM

Report Date : 05/04/2012 Run Date : 5/4/2012 Operator : WESTCO Plan # : 20120504006
Plan Description : ALK-D-DIH/5/4/2012

Calibrant Report - WALK -

Calib Lot #:010104 Exp Date:6/21/2020 User:MICROBAC

Plan #: 20120504006 Description: [ALK-D-DIH/5/4/2012]



Point	OD	Conc	Recalc Conc	% Error
1	-0.0027	0	4.1498	414.98
2	-0.0114	10	12.4314	24.31
3	-0.0186	20	19.2503	-3.75
4	-0.0464	50	45.2826	-9.43
5	-0.1007	100	94.7724	-5.23
6	-0.2282	200	203.9207	1.96
7	-0.2930	250	255.5999	2.24
8	-0.3445	300	294.8485	-1.72

Conc= -304.4592*Abso^2 -956.2017*Abso +1.5703 R²=0.9985

RBL
0.5321
0

Report Date 5/4/2012 Run Date 5/4/2012

MICROBAC (OVD)
 SMARTCHEM REPORT (VER3.0.53)
 NH3, TKN, NO3NO2 (MG/L N)
 ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WALK - ALKALINITY EPA 310.2

Smp#[/Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	RBL	0.0	0.4640	0.00		4:42:25 PM
DIL-1	RBL	0.0	0.4621	0.00		4:42:43 PM
DIL-1	RBL	0.0	0.4624	0.00		4:43:37 PM
DIL-1	Std-1	0.0	-0.0010	0.00		4:43:55 PM
SR5-1	Std-2	10.0	-0.0115	0.00		4:44:40 PM
SR5-2	Std-3	20.0	-0.0254	0.00		4:45:07 PM
SR5-3	Std-4	50.0	-0.0507	0.00		4:46:01 PM
SR5-4	Std-5	100.0	-0.0988	0.00		4:46:19 PM
SR5-5	Std-6	200.0	-0.2095	0.00		4:47:13 PM
SR5-6	Std-7	250.0	-0.2637	0.00		4:47:31 PM
SR5-7	Std-8	300.0	-0.3091	0.00		4:48:25 PM
1	ICV 250	254.7	-0.2647	0.00		4:48:43 PM
2	WG397079-01 BLK	-18.1X	0.0171	0.00	INV,>,LL	4:49:38 PM
3	WG397079-02 LCS	200.9	-0.2083	0.00		4:49:56 PM
4	WG397079-03 LCSDUP	200.0	-0.2073	0.00		4:50:50 PM
5	L12040963-03 (2)	170.8	-0.1769	0.00		4:51:08 PM
6	L12050052-03 (2)	211.6	-0.2194	0.00		4:52:02 PM
7	L12050089-14 (50)	3.8	-0.0051	0.00		4:52:20 PM
8	L12050050-01	304.3X	-0.3171	0.00	>,LH	4:53:14 PM
9	L12050050-03	313.6X	-0.3269	0.00	>,LH	4:53:32 PM
10	L12050050-05 (5)	382.3X	-0.4003	0.00	>,LH	4:54:26 PM
ST-2	CCV (150 mg/L)	154.3	-0.1597	102.85		4:54:44 PM
ST-3	CCB (0 mg/L)	-14.5	0.0135	0.00	INV,>,LL	4:55:38 PM
11	L12050050-07	165.8	-0.1715	0.00		4:55:56 PM
12	L12050099-01 (2)	152.8	-0.1582	0.00		4:56:50 PM
13	L12050099-03	263.4	-0.2738	0.00		4:57:08 PM
14	L12050099-05	182.2	-0.1887	0.00		4:58:02 PM
15	L12050099-07 (2)	195.0	-0.2021	0.00		4:58:20 PM
16	L12050099-09	263.0	-0.2734	0.00		4:59:14 PM
17	WG397079-05 DUP	180.0	-0.1865	0.00		4:59:32 PM
18	05-152-02 (5)	92.9	-0.0963	0.00		5:00:26 PM
19	152-03 (5)	60.6	-0.0631	0.00		5:00:44 PM

Report Date :05/04/2012 Run Date :5/4/2012 Operator : WESTCO Plan # :20120504007
 Plan Description : ALK-E-DIH/5/4/2012

MICROBAC (OVD)
 SMARTCHEM REPORT (VER3.0.53)
 NH3, TKN, NO3NO2 (MG/L N)
 ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WALK - ALKALINITY EPA 310.2

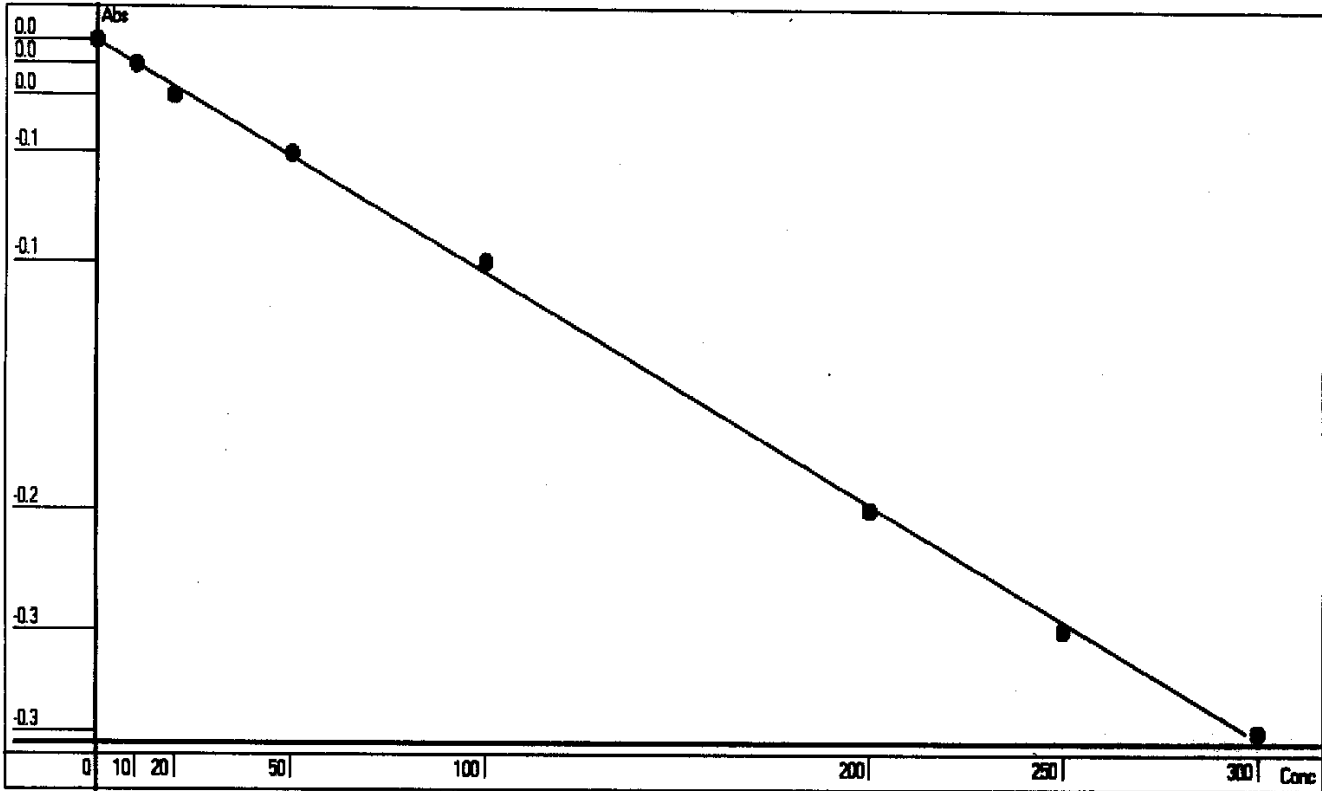
Smp#[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
20 05-152	-05 (5)	184.8	-0.2019	0.00		5:01:38 PM
ST-2	CCV (150 mg/L)	157.2	-0.1627	104.77		5:01:56 PM
ST-3	CCB (0 mg/L)	-7.2	0.0061	0.00	INV,><,LL	5:02:50 PM
21 05-152	-06 (5)	84.3	-0.0875	0.00		5:03:08 PM
22 152	-08 (5) (25)	39.6	-0.0417	0.00		5:04:02 PM
23 152	-09 (5)	121.4	-0.1257	0.00		5:04:20 PM
24	ID 24 Blank	-6.5	0.0053	0.00	INV,><,LL	5:05:14 PM
25	ID 25	-9.2	0.0080	0.00	INV,><,LL	5:05:32 PM
ST-2	CCV (150 mg/L)	157.5	-0.1631	105.03		5:06:26 PM
ST-3	CCB (0 mg/L)	-4.5	0.0033	0.00	INV,><,LL	5:06:44 PM
8-[1/2]	L12050050-01	344.2	-0.1782	0.00	LH	5:14:24 PM
9-[1/2]	L12050050-03	358.4	-0.1856	0.00	LH	5:15:36 PM
10-[1/2]	L12050050-05 (5)	689.1	-0.3599	0.00	><,LH	5:16:48 PM
ST-2	CCV (150 mg/L)	155.9	-0.1614	103.94		5:16:48 PM
ST-3	CCB (0 mg/L)	-6.6	0.0053	0.00	INV,><,LL	5:17:42 PM
10-[1/4]	L12050050-05 (5)	874.9	-0.2269	0.00	LH	5:25:23 PM
ST-2	CCV (150 mg/L)	160.0	-0.1657	106.70		5:25:23 PM
ST-3	CCB (0 mg/L)	-1.6	0.0003	0.00	INV,><,LL	5:26:17 PM

Report Date :05/04/2012 Run Date :5/4/2012 Operator : WESTCO Plan # :20120504007
 Plan Description : ALK-E-DIH/5/4/2012

Calibrant Report - WALK -

Calib Lot #:010104 Exp Date:6/21/2020 User:MICROBAC

Plan #: 20120504007 Description: [ALK-E-DIH/5/4/2012]



Point	OD	Conc	Recalc Conc	% Error
1	-0.0010	0	-0.2946	-29.46
2	-0.0115	10	10.0381	0.38
3	-0.0254	20	23.6941	18.47
4	-0.0507	50	48.4842	-3.03
5	-0.0988	100	95.3808	-4.62
6	-0.2095	200	202.1461	1.07
7	-0.2637	250	253.8272	1.53
8	-0.3091	300	296.8176	-1.06

Conc = -66.2797*Abso^2 - 984.8902*Abso - 1.2794 R²=0.9993

RBL
0.4623
0

Report Date 5/4/2012 Run Date 5/4/2012

2.4.2 Nitrate Data

2.4.2.1 Summary Data



Login Number: L12050050
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis EPA 353.2/SM4500-NO3 F (Nitrate)

HOLDING TIMES

Sample Analysis: Nitrate is reported as the difference of nitrate-nitrite (28 day hold) and nitrite (48 hour hold). Both analysis were analyzed within the appropriate hold time. The nitrate hold time is within compliance.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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

Narrative ID: 46532

Approved By: Deanna Hesson

A handwritten signature in cursive script that reads "Deanna Hesson".

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-05I-050112	Prep Method: 353.2	Prep Date: N/A
Matrix: Water	Analytical Method: 353.2	Cal Date: 05/01/2012 15:43
Workgroup #: WG396816	Analyst: DIH	Run Date: 05/02/2012 14:04
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: SC12050708534901
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Nitrate (as N)	14797-55-8	0.0830		0.0500	0.0250

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-05S-050112	Prep Method: 353.2	Prep Date: N/A
Matrix: Water	Analytical Method: 353.2	Cal Date: 05/01/2012 15:43
Workgroup #: WG396816	Analyst: DIH	Run Date: 05/02/2012 14:04
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: SC12050708535301
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Nitrate (as N)	14797-55-8	0.115		0.0500	0.0250

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-24-050112	Prep Method: 353.2	Prep Date: N/A
Matrix: Water	Analytical Method: 353.2	Cal Date: 05/01/2012 15:43
Workgroup #: WG396816	Analyst: DIH	Run Date: 05/02/2012 14:04
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: SC12050708535501
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Nitrate (as N)	14797-55-8		U	0.0500	0.0250

U	Not detected at or above adjusted sample detection limit.				
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Sample #: L12050050-07	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-01-050112	Prep Method: 353.2	Prep Date: N/A
Matrix: Water	Analytical Method: 353.2	Cal Date: 05/01/2012 15:43
Workgroup #: WG396816	Analyst: DIH	Run Date: 05/02/2012 14:04
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: SC12050708540101
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Nitrate (as N)	14797-55-8	0.107		0.0500	0.0250

2.4.2.2 QC Summary Data

Example Calculations for Visible Spectrophotometric Methods

Linear Calibration Model

Step 1 - Retrieve Curve Data from ICAL

m = slope of the linear equation
b = intercept from the linear equation
y = instrument response as absorbance or OD
x = concentration of analyte (mg/L)
 $y = mx + b$

Step 2: Calculate the instrument concentration, x

Where:

$$x = (y - b)/m$$

Step 3: Solve for analyte concentration in sample, Cx

$$Cx = (x) (D)$$

Example Calculation (LCS):

Value of m from plot:	7.809
Value of b from plot:	0.0004135
Absorbance of unknown from quantitation report (y):	0.31
Calculated concentration (x):	0.03964483
Dilution factor (D):	1.00
Concentration of analyte in sample, Cy:	0.0396 mg/L

SmartChem Autoanalyzer - Quadratic Calibration for Chloride and Sulfate

Step 1 - Retrieve Curve Data from Smartchem ICAL

A, B, C = constants from the ICAL quadratic regression

x = instrument response as absorbance or OD

y = concentration of analyte (mg/L)

Step 2: Calculate the instrument concentration, y

Where:

$$y = Ax^2 + Bx + C$$

Step 3: Solve for analyte concentration in sample, Cy

$$Cy = (y) (D)$$

Example Calculation (LCS):

Value of A from plot:	101.2796
Value of B from plot:	318.9056
Value of C from plot:	-2.2712
Absorbance of unknown from quantitation report (x):	0.1583
Calculated concentration (y):	50.7495108
Dilution factor (D):	1.00
Concentration of analyte in sample, Cy:	50.75 mg/L

Microbac Laboratories Inc.

Data Checklist

Date: 02-MAY-2012
 Analyst: DIH
 Analyst: NA
 Method: NO3
 Instrument: SC
 Curve Workgroup: NA
 Runlog ID: _____
 Analytical Workgroups: WG396739 WG396816 WG396738

Calibration/Linearity	5/2/2012
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DIH
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
05-MAY-2012

Secondary Reviewer:
05-MAY-2012





Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method: 353.2
 Login Number: L12050050

AAB#: WG396816

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q	
MW-05I-050112	01	05/01/12								2		05/02/12	1.1	2	
MW-05S-050112	03	05/01/12								2		05/02/12	1	2	
MW-24-050112	05	05/01/12								2		05/02/12	1.2	2	
MW-01-050112	07	05/01/12								2		05/02/12	1.1	2	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2404938
 Report generated 05/08/2012 08:20



METHOD BLANK SUMMARY

Login Number: L12050050 Work Group: WG396816
 Blank File ID: SC12050708525901 Blank Sample ID: WG396816-01
 Prep Date: 05/02/12 14:04 Instrument ID: SMARTCHEM
 Analyzed Date: 05/02/12 14:04 Method: 353.2
 Analyst: DIH

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
MW-01-050112	L12050050-07	SC12050708540101	05/02/12 14:04	
MW-24-050112	L12050050-05	SC12050708535501	05/02/12 14:04	
MW-05I-050112	L12050050-01	SC12050708534901	05/02/12 14:04	
LCS2	WG396816-03	SC12050708531001	05/02/12 14:04	
LCS	WG396816-02	SC12050708530501	05/02/12 14:04	
DUP	WG396816-05	SC12050708531901	05/02/12 14:04	
MW-05S-050112	L12050050-03	SC12050708535301	05/02/12 14:04	

Report Name: BLANK_SUMMARY
 PDF File ID: 2404939
 Report generated 05/08/2012 08:20



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L12050050 Prep Date: 05/02/12 14:04 Sample ID: WG396816-01
Instrument ID: SMARTCHEM Run Date: 05/02/12 14:04 Prep Method: 353.2
File ID: SC12050708525901 Analyst: DIH Method: 353.2
Workgroup (AAB#): WG396816 Matrix: Water Units: mg/L
Contract #: _____ Cal ID: SMARTC-01-MAY-12

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Nitrate (as N)	0.0250	0.0500	0.0250	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2404940
08-MAY-2012 08:20



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12050050 Analyst: DIH Prep Method: 353.2
 Instrument ID: SMARTCHEM Matrix: Water Method: 353.2
 Workgroup (AAB#): WG396816 Units: mg/L
 QC Key: WATERLOO Lot #: STD51196
 Sample ID: WG396816-02 LCS File ID: SC12050708530501 Run Date: 05/02/2012 14:04
 Sample ID: WG396816-03 LCS2 File ID: SC12050708531001 Run Date: 05/02/2012 14:04

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Nitrate (as N)	1.00	0.977	97.7	1.00	0.972	97.2	0.513	90 - 110	15	

LCS_LCS2 - Modified 03/06/2008
 PDF File ID: 2404941
 Report generated: 05/08/2012 08:20



2.4.2.3 Raw Data

SMARTCHEM RUN LOG

396739

396816

Daily Check

- Lamp On
- Probe Rinse Full
- DI Water > 1/2 Full
- Wash Solution > 1/2 Full
- NO3 Reagent bottle connected / purged
- NO3 pH adj to pH 5-9
- Syringe filter lot # 141872
- WBL Run
- Reagents Full
- Dilution H2O Full
- Waste Container Check

- 1) Workgroup A
Plan # 20120502001
- 2) Workgroup _____
Plan # _____
- 3) Workgroup B
Plan # 20120502002

Analyte	1	2	3
N03			
Dilution			
SC Prepared Curve			
Position			
1-1	ICV 1.5		
1-2	BIK		
1-3	LCS 1		
1-4	LCS DUP		
1-5	NO2 1		
1-6	05-009-01	1/4	
1-7	02		
1-8	03	1/10	
1-9	04	1/4	
1-10	05		
1-11	04-898-01	1/100	* color
1-12	03	1/25	1/5
1-13	* 05	1/25	
1-14	* 08	1/25	color
1-15	10	1/50	color
1-16	12	1/5	color
1-17	04-928-01	1/20	*
1-18	ms 08	1/20	*
1-19	ms 10	1/20	*
1-20	03	1/4	
1-21	04-963-01		
1-22	03		
2-1	07		
2-2	05-011-01		
2-3	03		

Position	Analyte	1	2	3
2-4	05-018-08	1/5		color
2-5	09	1/50		↓
2-6	DUP 009-01		1/4	
2-7	MS ↓		1/4	
2-8	BIK			
2-9	LCS			
2-10	LCS DUP			
2-11	04-897-01	1/5		color
2-12	02	1/5		↓
2-13	03	1/5		↓
2-14	04-963-05	1/25		* ↓
2-15	DUP 897-01	1/5		↓
2-16	ms ↓	1/5		↓
2-17	05-028-01			
2-18				
2-19	RUN 2			
2-20				
2-21	1	ICV 1.5		
2-22	2	BIK		
2-23	3	LCS 1		
2-24	4	LCS 1		
2-25	5	NO2 1		
2-26	6	05-05-A	05-051-01	
3-1	7	B		02
3-2	8	C		03
	9	D		04
	10	E		05

NOTES:
 * Run NO2 std on NO3 runs
 * LCS/LCS Dup all parameters
 *MS(10% sample): NO3, TKN, NH3

** matrix interference*

DCN#90724



SMARTCHEM RUN LOG

Analyte		1	2	3
Position				
3-3	11 F 05-051-06			
3-4	12 G		07	
3-5	13 H		08	
3-6	14 I		11	
3-7	15 J		12	
3-8	16 K		13	
3-9	17 05-050-01		12	
3-10	18 03		11	
3-11	19 05		15	
3-12	20 07		15	
3-13	21 DUP ↓		15	
3-14	22 MS ↓		16	
3-15	23 MS R 051-13			

Analyte		1	2	3
Position				
3-16	?			
3-17	?			
3-18	?			
3-19				
3-20				
3-21				
3-22				
3-23				
3-24				
3-25				
3-26				
3-27				
3-28				

- Chloride EPA 325.2/SM 4500-Cl E
- Sulfate EPA 375.4/SM 426C(15th)
- Alkalinity EPA 310.2
- Nitrate-Nitrite EPA 353.2/SM 4500-NO3 F

- Ammonia EPA 350.1/SM 4500-NH3 B
- TKN EPA 351.2
- Phos EPA 365.4

Analyte	NO3	Reagents
SOP & Revision	K 3532 R	R0+17254
Curve Stock (SC made)	std 50996	R0+17239
Curve ID (user made)	NO2 std 51363	
ICV	std 50998	
CCV	std 50997	
LCS	std 51196	
MS	std 48249	
	Dilution 0.15(25) = 0.5	

Comments:

Analyst:

Diana Larson

Date:

5/2/12

DCN#90724



MICROBAC (OVD)
 SMARTCHEM REPORT (VER3.0.53)
 NH3, TKN, NO3NO2 (MG/L N)
 ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WNO3 - EPA 353.2 Nitrate-Nitrite

Smp#[/Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	RBL	0.000	0.0239	0.00		11:23:10 AM
DIL-1	RBL	0.000	0.0173	0.00		11:24:22 AM
DIL-1	RBL	0.000	0.0190	0.00		11:25:34 AM
DIL-1	RBL	0.000	0.0209	0.00		11:26:46 AM
DIL-1	Std-1	0.000	0.0007	0.00		11:27:58 AM
SR5-1	Std-2	0.040	0.0081	0.00		11:29:10 AM
SR5-2	Std-3	0.100	0.0296	0.00		11:30:22 AM
SR5-3	Std-4	0.500	0.1532	0.00		11:31:34 AM
SR5-4	Std-5	1.000	0.3265	0.00		11:32:46 AM
ST-1	Std-6	2.000	0.6357	0.00		11:33:58 AM
1	ICV 1.5	1.596	0.5093	0.00		11:35:10 AM
2	WG396738-01 BLK	0.007	0.0001	0.00	X	11:36:22 AM
3	WG396738-02 LCS	1.067	0.3397	0.00		11:37:34 AM
4	WG396738-03 LCSDUP	1.049	0.3340	0.00		11:38:46 AM
5	NO2 1	1.020	0.3246	0.00		11:39:58 AM
6	L12050009-01 (4)	2.026X	0.6471	0.00	X, LH	11:41:10 AM
7	L12050009-02	1.227	0.3910	0.00	0	11:42:22 AM
8	L12050009-03 (10)	1.303	0.4154	0.00	0	11:43:34 AM
9	L12050009-04 (4)	1.037	0.3302	0.00		11:44:46 AM
10	L12050009-05	1.485	0.4738	0.00		11:45:58 AM
ST-2	CCV (1 mg/L)	0.995	0.3167	99.49		11:47:10 AM
ST-3	CCB (0 mg/L)	-0.002	-0.0026	0.00	INV, X, LL	11:48:22 AM
11	L12040898-01 (100)	0.008	0.0004	0.00	X L2	11:49:35 AM
12	L12040898-03 (2) (5)	1.811	0.5780	0.00	0	11:50:46 AM
13	L12040898-05 (25)	0.013	0.0020	0.00	0	11:51:59 AM
14	L12040898-08 (25) (200)	0.004	-0.0009	0.00	INV, X 0	11:53:11 AM
15	L12040898-10 (50)	0.012	0.0018	0.00	0	11:54:23 AM
16	L12040898-12 (5) (5) (5)	0.002	-0.0014	0.00	INV, X 0	11:55:35 AM
17	L12040928-01 (20)	0.016	0.0031	0.00	0.007	11:56:47 AM
18	L12040928-08 (20) MS	0.044	0.0121	0.00		11:57:59 AM
19	L12040928-10 (20) MS	0.036	0.0094	0.00		11:59:11 AM
20	L12040928-03 (4)	0.748	0.2377	0.00	0.009	12:00:23 PM

Report Date : 05/02/2012 Run Date : 5/2/2012 Operator : WESTCO Plan # : 20120502001
 Plan Description : NO3-A-DIH/5/2/2012

MICROBAC (OVD)
 SMARTCHEM REPORT (VER3.0.53)
 NH3, TKN, NO3NO2 (MG/L N)
 ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WNO3 - EPA 353.2 Nitrate-Nitrite

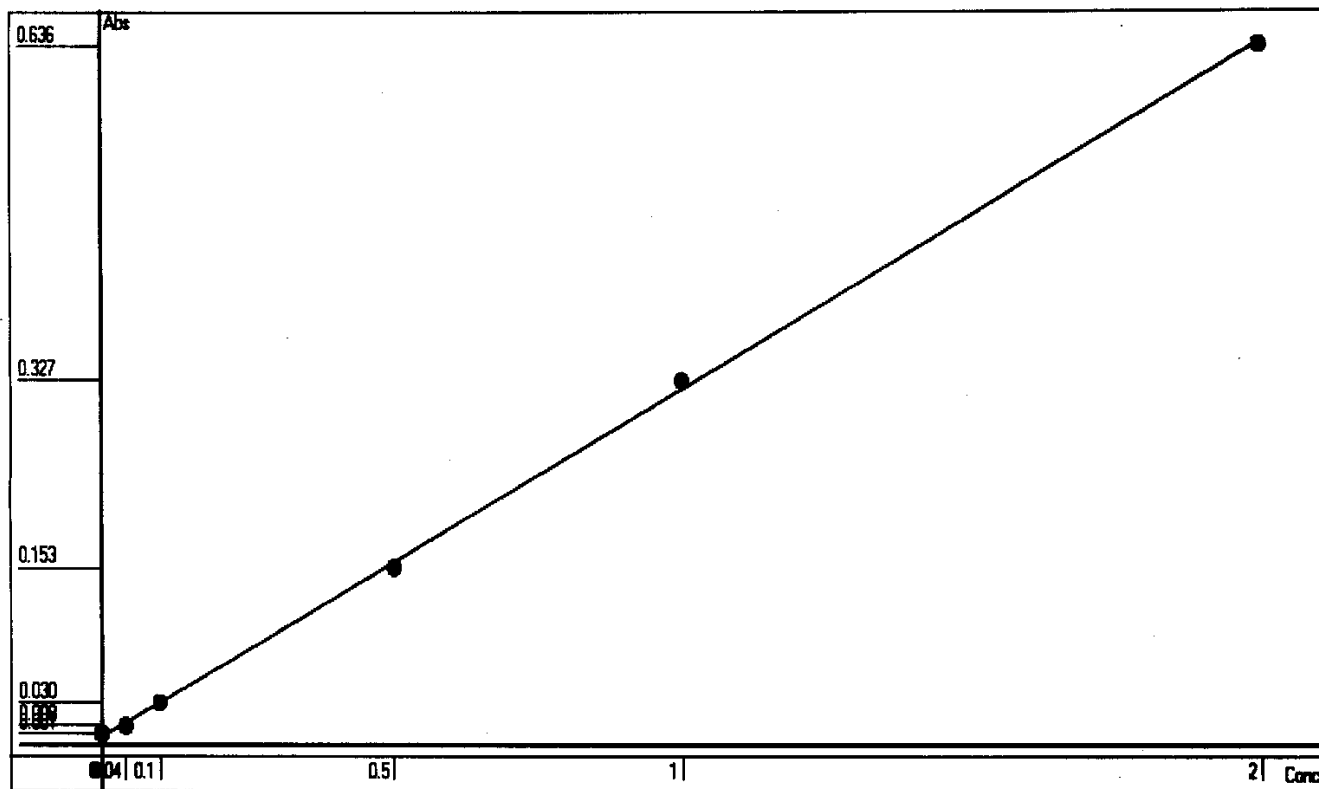
Smp#[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
ST-2	CCV (1 mg/L)	0.989	0.3149	98.93		12:01:35 PM
ST-3	CCB (0 mg/L)	0.013	0.0021	0.00		12:02:47 PM
21	L12040963-01	0.834	0.2650	0.00	0	12:03:59 PM
22	L12040963-03	0.070	0.0203	0.00	0	12:05:11 PM
23	L12040963-07	0.015	0.0028	0.00	0	12:06:23 PM
24	L1205001-01	0.027	0.0065	0.00	0	12:07:35 PM
25	L1205001-03	0.037	0.0096	0.00		12:08:47 PM
26	L12050018-08 (5)	0.310	0.0973	0.00	0.189	12:09:59 PM
27	L12050018-09 (50)	1.956	0.6245	0.00	0.061	12:11:11 PM
28	DUP 009-01 (4)	1.931	0.6165	0.00		12:12:23 PM
29	MS 009-01 (4)	2.006 X	0.6407	0.00	>,LH	12:13:35 PM
30	WG396739-01 BLK	0.010	0.0010	0.00		12:14:47 PM
ST-2	CCV (1 mg/L)	0.985	0.3134	98.46		12:15:59 PM
ST-3	CCB (0 mg/L)	0.012	0.0017	0.00		12:17:11 PM
31	WG396739-02 LCS	1.021	0.3250	0.00		12:18:23 PM
32	WG396739-03 LCSDUP	1.052	0.3348	0.00		12:19:35 PM
33	L12040897-01 (5)	0.009	0.0008	0.00		12:20:47 PM
34	L12040897-02 (5)	0.019	0.0039	0.00		12:21:59 PM
35	L12040897-03 (5)	0.005	-0.0004	0.00	INV,>	12:23:11 PM
36	L12040963-05 (25)	0.004	-0.0006	0.00	INV,>	12:24:23 PM
37	DUP 897-01 (5)	0.081	0.0238	0.00		12:25:36 PM
38	MS 897-01 (5)	0.103	0.0308	0.00		12:26:48 PM
39	DP004 05-028-01	0.291	0.0912	0.00		12:28:00 PM
40	ID 40	0.003 X	-0.0013	0.00	INV,>	12:29:12 PM
ST-2	CCV (1 mg/L)	0.971	0.3090	97.09		12:30:24 PM
ST-3	CCB (0 mg/L)	0.004	-0.0007	0.00	INV,>	12:31:36 PM
6-[1/4]	L12050009-01 (4)	2.154	0.1705	0.00	LH	12:40:46 PM
29-[1/4]	MS 009-01 (4)	2.172	0.1719	0.00	LH	12:42:52 PM
ST-2	CCV (1 mg/L)	0.944	0.3003	94.38		12:43:46 PM
ST-3	CCB (0 mg/L)	0.015	0.0029	0.00		12:44:58 PM

Report Date :05/02/2012 Run Date :5/2/2012 Operator : WESTCO Plan # :20120502001
 Plan Description : NO3-A-DIH/5/2/2012

Calibrant Report - WNO3 -

Calib Lot #:010104 Exp Date:6/17/2020 User:MICROBAC

Plan #: 20120502001 Description: [NO3-A-DIH/5/2/2012]



Point	OD	Conc	Recalc Conc	% Error
1	0.0007	0	0.0087	0.87
2	0.0081	0.04	0.0318	-20.50
3	0.0296	0.1	0.0989	-1.10
4	0.1532	0.5	0.4847	-3.06
5	0.3265	1	1.0257	2.57
6	0.6357	2	1.9910	-0.45
				RBL 0.02 0

Conc= +3.1217*Abso +0.0065 R²=0.9996

Report Date 5/2/2012 Run Date 5/2/2012

MICROBAC (OVD)
 SMARTCHEM REPORT (VER3.0.53)
 NH3, TKN, NO3NO2 (MG/L N)
 ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WNO3 - EPA 353.2 Nitrate-NitrItc

Smp#[/Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	RBL	0.000	0.0293	0.00		1:51:43 PM
DIL-1	RBL	0.000	0.0143	0.00		1:52:55 PM
DIL-1	RBL	0.000	0.0175	0.00		1:54:07 PM
DIL-1	RBL	0.000	0.0171	0.00		1:55:19 PM
DIL-1	Std-1	0.000	0.0010	0.00		1:56:31 PM
SR5-1	Std-2	0.040	0.0108	0.00		1:57:43 PM
SR5-2	Std-3	0.100	0.0303	0.00		1:58:55 PM
SR5-3	Std-4	0.500	0.1530	0.00		2:00:07 PM
SR5-4	Std-5	1.000	0.3204	0.00		2:01:19 PM
ST-1	Std-6	2.000	0.6772	0.00		2:02:31 PM
1	ICV 1.5	1.487	0.4965	0.00		2:03:43 PM
2	WG396816-01 BLK	0.022	0.0011	0.00		2:04:55 PM
3	WG396816-02 LCS	0.977	0.3239	0.00		2:06:07 PM
4	WG396816-03 LCSDUP	0.972	0.3222	0.00		2:07:19 PM
5	NO2 1	1.001	0.3321	0.00		2:08:31 PM
6	A05-051-01	0.101	0.0277	0.00		2:09:43 PM
7	B 02	0.149	0.0441	0.00		2:10:55 PM
8	C 03	0.225	0.0697	0.00		2:12:07 PM
9	D 04	0.090	0.0241	0.00		2:13:19 PM
10	E 05	0.241	0.0751	0.00		2:14:31 PM
ST-2	CCV (1 mg/L)	0.945	0.3132	94.51		2:15:43 PM
ST-3	CCB (0 mg/L)	0.019	0.0002	0.00	X	2:16:55 PM
11	F 05-051-06	0.052	0.0111	0.00		2:18:07 PM
12	G 07	0.154	0.0459	0.00		2:19:20 PM
13	H 08	2.726 X	0.9153	0.00	X,LH	2:20:32 PM
14	I 11	2.090 X	0.7004	0.00	X,LH	2:21:44 PM
15	J 12	4.011 X	1.3495	0.00	X,LH	2:22:56 PM
16	K 13	4.032 X	1.3566	0.00	X,LH	2:24:08 PM
17	L12050050-01	0.083	0.0216	0.00		2:25:20 PM
18	L12050050-03	0.115	0.0324	0.00		2:26:32 PM
19	L12050050-05	0.027	0.0028	0.00		2:27:44 PM
20	L12050050-07	0.107	0.0298	0.00		2:28:56 PM

Report Date :05/02/2012 Run Date :5/2/2012 Operator : WESTCO Plan # :20120502002
 Plan Description : NO3-B-DIH/5/2/2012

MICROBAC (OVD)
 SMARTCHEM REPORT (VER3.0.53)
 NH3, TKN, NO3NO2 (MG/L N)
 ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WNO3 - EPA 353.2 Nitrate-Nitrite

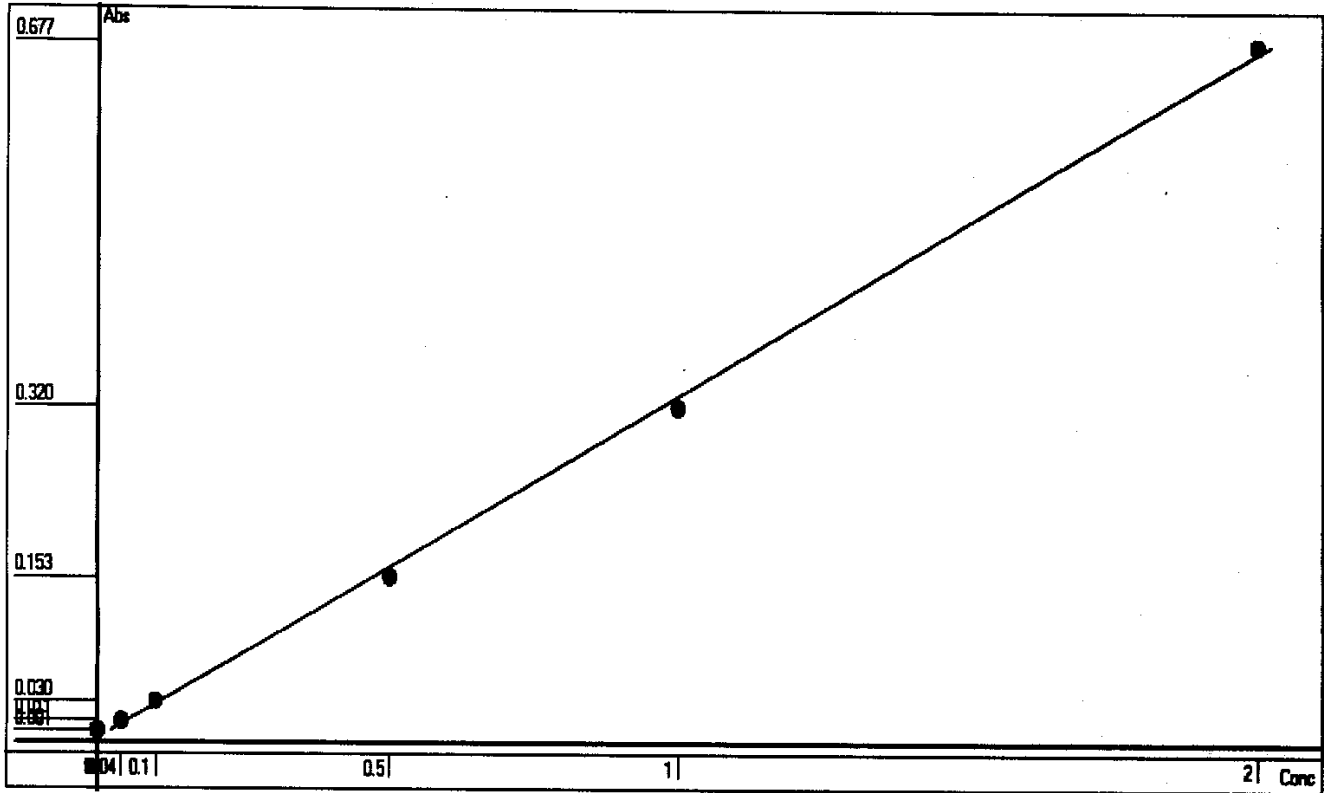
Smp#[/Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
ST-2	CCV (1 mg/L)	0.926	0.3067	92.59		2:30:08 PM
ST-3	CCB (0 mg/L)	0.025	0.0021	0.00		2:31:20 PM
21	DUP 050-07	0.122	0.0350	0.00		2:32:32 PM
22	MS 050-07	0.107	0.0300	0.00		2:33:44 PM
23	ID 23 MS 051-13	4.516 X	1.5203	0.00	>,LH	2:34:56 PM
24	ID 24	0.016 Y	-0.0010	0.00	INV,>	2:36:08 PM
25	ID 25	0.955 X	0.3164	0.00		2:37:20 PM
ST-2	CCV (1 mg/L)	0.930	0.3080	92.97		2:38:32 PM
ST-3	CCB (0 mg/L)	0.029	0.0036	0.00		2:39:44 PM
13-[1/4]	H 05-051-08	2.978	0.2454	0.00	LH 0.048	2:48:55 PM
14-[1/4]	I 11	2.337	0.1912	0.00	LH 0	2:51:00 PM
15-[1/4]	J 12	4.280	0.3554	0.00	LH 0	2:53:06 PM
16-[1/4]	K 13	4.498	0.3738	0.00	LH	2:55:12 PM
23-[1/4]	ID 23 MS 13	4.890	0.4070	0.00	LH	2:57:18 PM
ST-2	CCV (1 mg/L)	0.942	0.3121	94.19		2:58:12 PM
ST-3	CCB (0 mg/L)	0.029	0.0036	0.00		2:59:24 PM

Report Date :05/02/2012 Run Date :5/2/2012 Operator : WESTCO Plan # :20120502002
 Plan Description : NO3-B-DIH/5/2/2012

Calibrant Report - WNO3 -

Calib Lot #:010104 Exp Date:6/17/2020 User:MICROBAC

Plan #: 20120502002 Description: [NO3-B-DIH/5/2/2012]



Point	OD	Conc	Recalc Conc	% Error
1	0.0010	0	0.0217	2.17
2	0.0108	0.04	0.0506	26.50
3	0.0303	0.1	0.1083	8.30
4	0.1530	0.5	0.4713	-5.74
5	0.3204	1	0.9664	-3.36
6	0.6772	2	2.0219	1.10

Conc= +2.958*Abso +0.0187 R²=0.9990

RBL
0.0173
0

Report Date 5/2/2012 Run Date 5/2/2012

2.4.3 Phosphorus Data

2.4.3.1 Summary Data



Login Number: L12050050
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis EPA 365.4 (Phosphorus)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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

Narrative ID: 46530

Approved By: Deanna Hesson

A handwritten signature in cursive script that reads "Deanna Hesson".

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-05I-050112	Prep Method: 365.4	Prep Date: N/A
Matrix: Water	Analytical Method: 365.4	Cal Date: 05/08/2012 12:37
Workgroup #: WG397261	Analyst: DIH	Run Date: 05/08/2012 12:45
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: SC120508004.020
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Phosphorus, Total	7723-14-0		U	0.200	0.100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-05S-050112	Prep Method: 365.4	Prep Date: N/A
Matrix: Water	Analytical Method: 365.4	Cal Date: 05/08/2012 12:37
Workgroup #: WG397261	Analyst: DIH	Run Date: 05/08/2012 12:45
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: SC120508004.021
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Phosphorus, Total	7723-14-0		U	0.200	0.100
U	Not detected at or above adjusted sample detection limit.				

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-24-050112	Prep Method: 365.4	Prep Date: N/A
Matrix: Water	Analytical Method: 365.4	Cal Date: 05/08/2012 12:37
Workgroup #: WG397261	Analyst: DIH	Run Date: 05/08/2012 12:46
Collect Date: 05/01/2012 09:30	Dilution: 1	File ID: SC120508004.022
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Phosphorus, Total	7723-14-0	0.302		0.200	0.100

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-01-050112	Prep Method: 365.4	Prep Date: N/A
Matrix: Water	Analytical Method: 365.4	Cal Date: 05/08/2012 12:37
Workgroup #: WG397261	Analyst: DIH	Run Date: 05/08/2012 12:47
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: SC120508004.023
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Phosphorus, Total	7723-14-0		U	0.200	0.100

Certificate of Analysis

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-01-050112	Prep Method: 365.4	Prep Date: N/A
Matrix: Water	Analytical Method: 365.4	Cal Date: 05/08/2012 12:37
Workgroup #: WG397261	Analyst: DIH	Run Date: 05/08/2012 12:47
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: SC120508004.023
Sample Tag: 01	Units: mg/L	

U	Not detected at or above adjusted sample detection limit.
---	---

2.4.3.2 QC Summary Data

Example Calculations for Visible Spectrophotometric Methods

Linear Calibration Model

Step 1 - Retrieve Curve Data from ICAL

m = slope of the linear equation
b = intercept from the linear equation
y = instrument response as absorbance or OD
x = concentration of analyte (mg/L)
 $y = mx + b$

Step 2: Calculate the instrument concentration, x

Where:

$$x = (y - b)/m$$

Step 3: Solve for analyte concentration in sample, Cx

$$Cx = (x) (D)$$

Example Calculation (LCS):

Value of m from plot:	7.809
Value of b from plot:	0.0004135
Absorbance of unknown from quantitation report (y):	0.31
Calculated concentration (x):	0.03964483
Dilution factor (D):	1.00
Concentration of analyte in sample, Cy:	0.0396 mg/L

SmartChem Autoanalyzer - Quadratic Calibration for Chloride and Sulfate

Step 1 - Retrieve Curve Data from Smartchem ICAL

A, B, C = constants from the ICAL quadratic regression

x = instrument response as absorbance or OD

y = concentration of analyte (mg/L)

Step 2: Calculate the instrument concentration, y

Where:

$$y = Ax^2 + Bx + C$$

Step 3: Solve for analyte concentration in sample, Cy

$$Cy = (y) (D)$$

Example Calculation (LCS):

Value of A from plot:	101.2796
Value of B from plot:	318.9056
Value of C from plot:	-2.2712
Absorbance of unknown from quantitation report (x):	0.1583
Calculated concentration (y):	50.7495108
Dilution factor (D):	1.00
Concentration of analyte in sample, Cy:	50.75 mg/L

Microbac Laboratories Inc.

Data Checklist

Date: 08-MAY-2012
 Analyst: DIH
 Analyst: NA
 Method: PHOS
 Instrument: SC
 Curve Workgroup: NA
 Runlog ID: _____
 Analytical Workgroups: WG397261

Calibration/Linearity	5/8/2012
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DIH
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
09-MAY-2012

Secondary Reviewer:
09-MAY-2012





Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method: 365.4
 Login Number: L12050050

AAB#: WG397261

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MW-05I-050112	01	05/01/12							28		05/08/12	7	28	
MW-05S-050112	03	05/01/12							28		05/08/12	7	28	
MW-24-050112	05	05/01/12							28		05/08/12	7.1	28	
MW-01-050112	07	05/01/12							28		05/08/12	7	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2407568
 Report generated 05/09/2012 12:31



METHOD BLANK SUMMARY

Login Number: L12050050 Work Group: WG397261
 Blank File ID: SC120508004.008 Blank Sample ID: WG397261-01
 Prep Date: 05/08/12 12:38 Instrument ID: SMARTCHEM
 Analyzed Date: 05/08/12 12:38 Method: 365.4
 Analyst: DIH

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG397261-02	SC120508004.009	05/08/12 12:38	01
MW-05I-050112	L12050050-01	SC120508004.020	05/08/12 12:45	01
MW-05S-050112	L12050050-03	SC120508004.021	05/08/12 12:45	01
MW-24-050112	L12050050-05	SC120508004.022	05/08/12 12:46	01
MW-01-050112	L12050050-07	SC120508004.023	05/08/12 12:47	01
DUP	WG397261-04	SC120508004.025	05/08/12 12:48	01

Report Name: BLANK_SUMMARY
 PDF File ID: 2407569
 Report generated 05/09/2012 12:31



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L12050050 Prep Date: 05/08/12 12:38 Sample ID: WG397261-01
Instrument ID: SMARTCHEM Run Date: 05/08/12 12:38 Prep Method: 365.4
File ID: SC120508004.008 Analyst: DIH Method: 365.4
Workgroup (AAB#): WG397261 Matrix: Water Units: mg/L
Contract #: _____ Cal ID: SMARTC-08-MAY-12

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Phosphorus, Total	0.100	0.200	0.100	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2407570
09-MAY-2012 12:31



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12050050 Run Date: 05/08/2012 Sample ID: WG397261-02
Instrument ID: SMARTCHEM Run Time: 12:38 Prep Method: 365.4
File ID: SC120508004.009 Analyst: DIH Method: 365.4
Workgroup (AAB#): WG397261 Matrix: Water Units: mg/L
QC Key: WATERLOO Lot#: STD51133 Cal ID: SMARTC-08-MAY-12

Analytes	Expected	Found	% Rec	LCS Limits	Q
Phosphorus, Total	1.00	0.870	87.0	70 - 130	

LCS - Modified 03/06/2008
PDF File ID: 2407571
Report generated: 05/09/2012 12:31



2.4.3.3 Raw Data

SMARTCHEM RUN LOG

Daily Check

<input checked="" type="checkbox"/> Lamp On	<input checked="" type="checkbox"/> WBL Run
<input checked="" type="checkbox"/> Probe Rinse Full	<input checked="" type="checkbox"/> Reagents Full
<input checked="" type="checkbox"/> DI Water > 1/2 Full	<input checked="" type="checkbox"/> Dilution H ₂ O Full
<input checked="" type="checkbox"/> Wash Solution > 1/2 Full	<input checked="" type="checkbox"/> Waste Container Check
<input type="checkbox"/> NO3 Reagent bottle connected / purged	
<input type="checkbox"/> NO3 pH adj to pH 5-9	
Syringe filter lot # _____	

1) Workgroup _____
 Plan # 20120508004

2) Workgroup _____
 Plan # _____

3) Workgroup _____
 Plan # _____

Analyte	1	2	3
	ph03		
	Dilution		
SC Prepared Curve			
Position			
1-1	ICV 1.5		
1-2	BIK		
1-3	LCS 1		
1-4	05-150-30		
1-5	05-164-04		
1-6	05-103-01		
1-7	02		
1-8	03		
1-9	05-011-01		
1-10	03		
1-11	05-140-02		
1-12	05-050-01		
1-13	03		
1-14	05		
1-15	07		
1-16	05-096-02	1/2	
1-17	DUP 103-01		
1-18	MS 103-01		
1-19	MS 010-07		
1-20	MS ↓		
1-21			
1-22			
2-1			
2-2			
2-3			

Position	1	2	3
2-4			
2-5			
2-6			
2-7			
2-8			
2-9			
2-10			
2-11			
2-12			
2-13			
2-14			
2-15			
2-16			
2-17			
2-18			
2-19			
2-20			
2-21			
2-22			
2-23			
2-24			
2-25			
2-26			
3-1			
3-2			

NOTES:

- Run NO2 std on NO3 runs
- LCS/LCS Dup all parameters
- MS(10% sample): NO3, TKN, NH3

DCN#90790



SMARTCHEM RUN LOG

Analyte	1	2	3
Position			
3-3			
3-4			
3-5			
3-6			
3-7			
3-8			
3-9			
3-10			
3-11			
3-12			
3-13			
3-14			
3-15			

Analyte	1	2	3
Position			
3-16			
3-17			
3-18			
3-19			
3-20			
3-21			
3-22			
3-23			
3-24			
3-25			
3-26			
3-27			
3-28			

- Chloride EPA 325.2/SM 4500-Cl⁻E
- Sulfate EPA 375.4/SM 426C(15th)
- Alkalinity EPA 310.2
- Nitrate-Nitrite EPA 353.2/SM 4500-NO₃ F

- Ammonia EPA 350.1/SM 4500-NH₃ B
- TKN EPA 351.2
- Phos EPA 365.4

Analyte	PHOS	Reagents
SOP & Revision	R 3654 R 16	ROT 16897
Curve Stock (SC made)		ROT 17276
Curve ID (user made)		ROT 17300 26
ICV		2/19
CCV	<i>see report</i>	
LCS		
MS	<i>log</i>	
	Dilution	

Comments: _____

Analyst: *Deanna Brown*

Date: *5/8/12*

DCN#90790



TKN/Phosphorus Digestion Log

TKN WG: <u>397257</u>	Phos WG: <u>397261</u>
TKN Std: <u>std 51519</u>	Phos Std: <u>std 51519</u>
TKN CCV: <u>↓ 1/2(5)=2.5</u>	Phos CCV: <u>↓ 1/2(2)=1</u>
TKN ICV: <u>std 51194</u>	Phos ICV: <u>std 51132</u>
TKN LCS: <u>std 51195</u>	Phos LCS: <u>std 51133</u>

MS/MSD: std 51384

Daily Dilution: 1/25(25)=1

Block Digester Temperature: 380 °C

Digest Reagent: R6+17224

	Sample	Volume	TKN Dilution	Phos Dilution		Sample	Volume	TKN Dilution	Phos Dilution
1	std		5	2	26	DUP 4404 ¹⁰³⁻⁰¹		+	✓
2	CCV		2.5	1	27	ms ¹⁰³⁻⁰¹		+	✓
3	BIK		✓	✓	28	05-052-01		+	
4	ICV T		✓2		29	02		+	
5	ICV P			1.5	30	03		+	
6	LCS T		1		31	05-011-01			+
7	LCS P			1	32	03			+
8	05-010-07		+	calc	33	04-140-02			+
9	ms 08		+	calc	34	04-050-01			+
10	msd 09		+		35	03			+
11	12		+		36	05			+
12	13		+		37	07			+
13	14		+		38	04-096-02			+
14	15		+		39				
15	05-046-01		+		40				
16	05-152-02		1/50x		41				
17	05		1/50x		42				
18	08		1/50x		43				
19	05-163-01		1/10x cloudy		44				
20	05-164-03		1/5x		45				
21	04		+	+	46				
22	05-150-30			+	47				
23	05-103-01		+	+	48				
24	02		+	+	49				
25	03		+	+	50				

Analyst: Deanna Johnson Date: 5/17/12/1315

MICROBAC (OVD)
 SMARTCHEM REPORT (VER3.0.53)
 NH3, TKN, NO3NO2 (MG/L N)
 ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WTPH - EPA 365.4 TOTAL PHOSPHORUS

Smp#[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	RBL	0.000	0.0156	0.00		12:32:17 PM
DIL-1	RBL	0.000	0.0188	0.00		12:32:35 PM
DIL-1	RBL	0.000	0.0196	0.00		12:33:30 PM
SR5-1	Std-1	0.010	0.0007	0.00		12:33:47 PM
SR5-2	Std-2	0.200	0.0335	0.00		12:34:42 PM
SR5-3	Std-3	0.500	0.0810	0.00		12:34:59 PM
SR5-4	Std-4	1.000	0.1528	0.00		12:35:54 PM
SR5-5	Std-5	1.500	0.2181	0.00		12:36:11 PM
ST-1	Std-6	2.000	0.2948	0.00		12:37:06 PM
1	ICV 1.5	1.358	0.2014	0.00		12:37:23 PM
2	WG397261-01 BLK	-0.009	0.0024	0.00	LL	12:38:18 PM
3	WG397261-02 LCS	0.870	0.1304	0.00		12:38:35 PM
4	L12050150-30	1.029	0.1535	0.00		12:39:30 PM
5	L12050164-04	0.870	0.1304	0.00		12:39:47 PM
6	L12050103-01	0.097	0.0179	0.00		12:40:42 PM
7	L12050103-02	0.141	0.0243	0.00		12:40:59 PM
8	L12050103-03	0.080	0.0154	0.00		12:41:54 PM
9	L12050011-01	0.021	0.0068	0.00		12:42:12 PM
10	L12050011-03	0.056	0.0118	0.00		12:43:06 PM
ST-2	CCV (1 mg/L)	0.992	0.1482	99.23		12:43:24 PM
ST-3	CCB (0 mg/L)	0.013	0.0056	0.00		12:44:18 PM
11	L12050140-02	1.001	0.1494	0.00		12:44:36 PM
12	L12050050-01	-0.050	-0.0035	0.00	INV,>,LL	12:45:30 PM
13	L12050050-03	-0.076	-0.0073	0.00	INV,>,LL	12:45:48 PM
14	L12050050-05	0.302	0.0477	0.00		12:46:42 PM
15	L12050050-07	-0.034	-0.0012	0.00	INV,>,LL	12:47:00 PM
16	L12050096-02 (2)	1.557	0.2304	0.00		12:47:54 PM
17	WG397261-04 DUP	0.098	0.0180	0.00		12:48:12 PM
18	WG397261-05 MS	0.953	0.1424	0.00		12:49:06 PM
19	WG397261-06	0.132	0.0229	0.00		12:49:24 PM
20	WG397261-07 MS	1.116	0.1662	0.00		12:50:18 PM
ST-2	CCV (1 mg/L)	0.995	0.1486	99.50		12:50:36 PM

Report Date :05/08/2012 Run Date :5/8/2012 Operator : WESTCO Plan # :20120508004
 Plan Description : PHOS-A-DIH/5/8/2012

MICROBAC (OVD)
SMARTCHEM REPORT (VER3.0.53)
NH3, TKN, NO3NO2 (MG/L N)
ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WTPH - EPA 365.4 TOTAL PHOSPHORUS

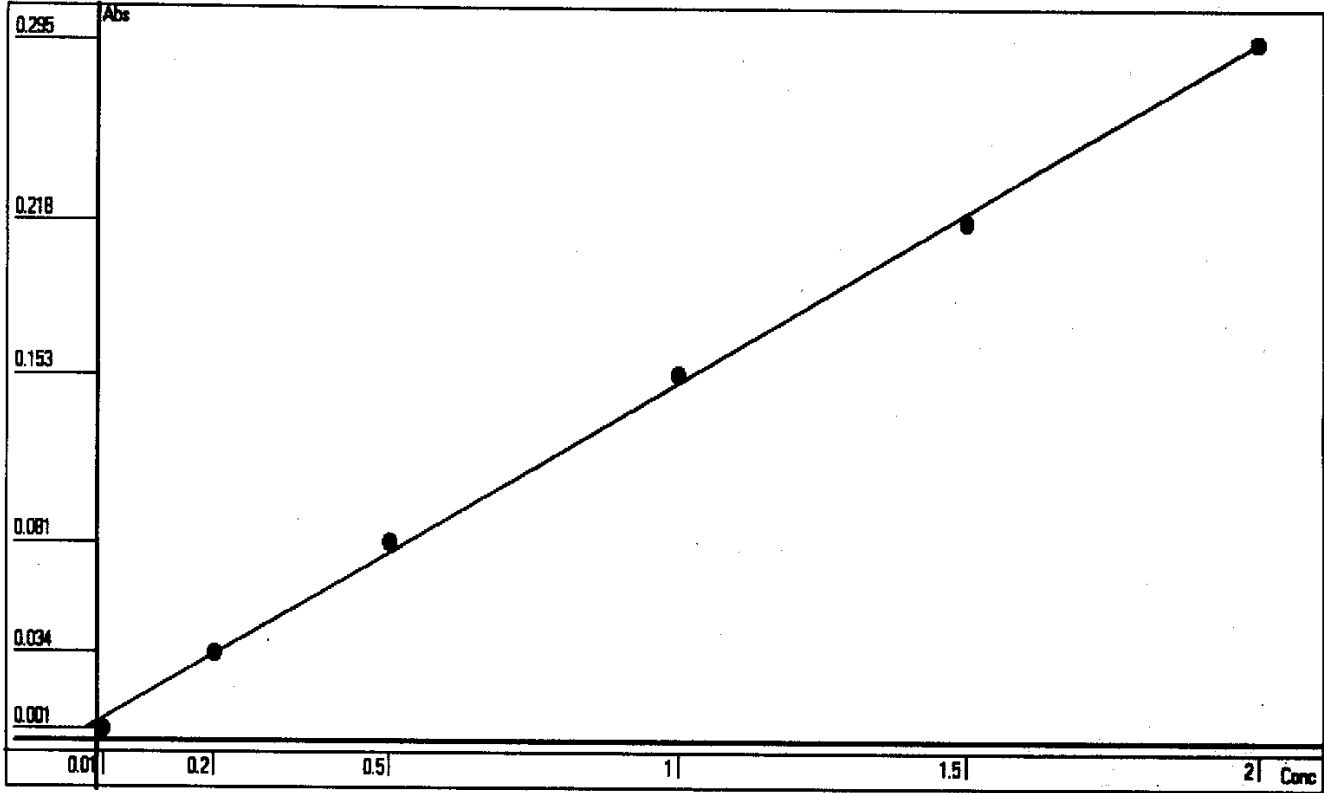
Smp#[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
ST-3	CCB (0 mg/L)	0.023	0.0071	0.00		12:51:30 PM

Report Date :05/08/2012 Run Date :5/8/2012 Operator : WESTCO Plan # :20120506004
Plan Description : PHOS-A-DIH/5/8/2012

Calibrant Report - WTPH -

Calib Lot #:010104 Exp Date:6/18/2020 User:MICROBAC

Plan #: 20120508004 Description: [PHOS-A-DIH/5/8/2012]



Point	OD	Conc	Recalc Conc	% Error
1	0.0007	0.01	-0.0207	-307.00
2	0.0335	0.2	0.2046	2.30
3	0.0810	0.5	0.5308	6.16
4	0.1528	1	1.0239	2.39
5	0.2181	1.5	1.4724	-1.84
6	0.2948	2	1.9982	-0.04

Conc= +6.868*Abso -0.0255 R²=0.9989

RBL
0.0182
0

Report Date 5/8/2012 Run Date 5/8/2012

2.4.4 Sulfate Data

2.4.4.1 Summary Data



Login Number: L12050050
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis EPA 375.4/SM426C(15th ed) (Sulfate)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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

Narrative ID: 46531

Approved By: Deanna Hesson

A handwritten signature in cursive script that reads "Deanna Hesson".

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-05I-050112	Prep Method: 375.4	Prep Date: N/A
Matrix: Water	Analytical Method: 375.4	Cal Date: 05/03/2012 07:30
Workgroup #: WG396835	Analyst: DIH	Run Date: 05/03/2012 07:52
Collect Date: 05/01/2012 11:37	Dilution: 4	File ID: SC120503001.046
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Sulfate	14808-79-8	83.5		20.0	10.0

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-05S-050112	Prep Method: 375.4	Prep Date: N/A
Matrix: Water	Analytical Method: 375.4	Cal Date: 05/03/2012 07:30
Workgroup #: WG396835	Analyst: DIH	Run Date: 05/03/2012 07:53
Collect Date: 05/01/2012 13:33	Dilution: 5	File ID: SC120503001.047
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Sulfate	14808-79-8	149		25.0	12.5

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-24-050112	Prep Method: 375.4	Prep Date: N/A
Matrix: Water	Analytical Method: 375.4	Cal Date: 05/03/2012 07:30
Workgroup #: WG396835	Analyst: DIH	Run Date: 05/03/2012 07:54
Collect Date: 05/01/2012 09:30	Dilution: 10	File ID: SC120503001.049
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Sulfate	14808-79-8	265		50.0	25.0

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MW-01-050112	Prep Method: 375.4	Prep Date: N/A
Matrix: Water	Analytical Method: 375.4	Cal Date: 05/03/2012 07:30
Workgroup #: WG396835	Analyst: DIH	Run Date: 05/03/2012 07:55
Collect Date: 05/01/2012 12:15	Dilution: 4	File ID: SC120503001.050
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Sulfate	14808-79-8	72.6		20.0	10.0

2.4.4.2 QC Summary Data

Example Calculations for Visible Spectrophotometric Methods

Linear Calibration Model

Step 1 - Retrieve Curve Data from ICAL

m = slope of the linear equation
b = intercept from the linear equation
y = instrument response as absorbance or OD
x = concentration of analyte (mg/L)
 $y = mx + b$

Step 2: Calculate the instrument concentration, x

Where:

$$x = (y - b)/m$$

Step 3: Solve for analyte concentration in sample, Cx

$$C_x = (x) (D)$$

Example Calculation (LCS):

Value of m from plot:	7.809
Value of b from plot:	0.0004135
Absorbance of unknown from quantitation report (y):	0.31
Calculated concentration (x):	0.03964483
Dilution factor (D):	1.00
Concentration of analyte in sample, C _y :	0.0396 mg/L

SmartChem Autoanalyzer - Quadratic Calibration for Chloride and Sulfate

Step 1 - Retrieve Curve Data from Smartchem ICAL

A, B, C = constants from the ICAL quadratic regression

x = instrument response as absorbance or OD

y = concentration of analyte (mg/L)

Step 2: Calculate the instrument concentration, y

Where:

$$y = Ax^2 + Bx + C$$

Step 3: Solve for analyte concentration in sample, C_y

$$C_y = (y) (D)$$

Example Calculation (LCS):

Value of A from plot:	101.2796
Value of B from plot:	318.9056
Value of C from plot:	-2.2712
Absorbance of unknown from quantitation report (x):	0.1583
Calculated concentration (y):	50.7495108
Dilution factor (D):	1.00
Concentration of analyte in sample, C _y :	50.75 mg/L

Microbac Laboratories Inc.

Data Checklist

Date: 03-MAY-2012
 Analyst: DIH
 Analyst: NA
 Method: SO4
 Instrument: SC
 Curve Workgroup: NA
 Runlog ID: _____
 Analytical Workgroups: WG396835 WG396805

Calibration/Linearity	5/3/2012
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DIH
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
03-MAY-2012

Secondary Reviewer:
05-MAY-2012

DIH

DIH



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method: 375.4
 Login Number: L12050050

AAB#: WG396835

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MW-05I-050112	01	05/01/12							28		05/03/12	1.8	28	
MW-05S-050112	03	05/01/12							28		05/03/12	1.8	28	
MW-24-050112	05	05/01/12							28		05/03/12	1.9	28	
MW-01-050112	07	05/01/12							28		05/03/12	1.8	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2401486
 Report generated 05/03/2012 15:23



METHOD BLANK SUMMARY

Login Number: L12050050 Work Group: WG396835
 Blank File ID: SC120503001.042 Blank Sample ID: WG396835-01
 Prep Date: 05/03/12 07:50 Instrument ID: SMARTCHEM
 Analyzed Date: 05/03/12 07:50 Method: 375.4
 Analyst: DIH

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG396835-02	SC120503001.044	05/03/12 07:51	01
LCS2	WG396835-03	SC120503001.045	05/03/12 07:52	01
MW-05I-050112	L12050050-01	SC120503001.046	05/03/12 07:52	DL01
MW-05S-050112	L12050050-03	SC120503001.047	05/03/12 07:53	DL01
MW-24-050112	L12050050-05	SC120503001.049	05/03/12 07:54	DL01
MW-01-050112	L12050050-07	SC120503001.050	05/03/12 07:55	DL01
DUP	WG396835-05	SC120503001.051	05/03/12 07:55	DL01

Report Name: BLANK_SUMMARY
 PDF File ID: 2401487
 Report generated 05/03/2012 15:23



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L12050050 Prep Date: 05/03/12 07:50 Sample ID: WG396835-01
Instrument ID: SMARTCHEM Run Date: 05/03/12 07:50 Prep Method: 375.4
File ID: SC120503001.042 Analyst: DIH Method: 375.4
Workgroup (AAB#): WG396835 Matrix: Water Units: mg/L
Contract #: _____ Cal ID: SMARTC-03-MAY-12

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Sulfate	2.50	5.00	2.50	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2401488
03-MAY-2012 15:23



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12050050 Analyst: DIH Prep Method: 375.4
 Instrument ID: SMARTCHEM Matrix: Water Method: 375.4
 Workgroup (AAB#): WG396835 Units: mg/L
 QC Key: WATERLOO Lot #: STD51193
 Sample ID: WG396835-02 LCS File ID: SC120503001.044 Run Date: 05/03/2012 07:51
 Sample ID: WG396835-03 LCS2 File ID: SC120503001.045 Run Date: 05/03/2012 07:52

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Sulfate	20.0	19.8	98.8	20.0	19.2	96.0	2.94	85 - 115	10	

LCS_LCS2 - Modified 03/06/2008
 PDF File ID: 2401489
 Report generated: 05/03/2012 15:23



2.4.4.3 Raw Data

396835

SMARTCHEM RUN LOG

Daily Check

- Lamp On
- Probe Rinse Full
- DI Water > 1/2 Full
- Wash Solution > 1/2 Full
- NO3 Reagent bottle connected / purged
- NO3 pH adj to pH 5-9
- Syringe filter lot # _____
- WBL Run
- Reagents Full
- Dilution H₂O Full
- Waste Container Check

- 1) Workgroup _____
Plan # 2012050301
- 2) Workgroup _____
Plan # _____
- 3) Workgroup _____
Plan # _____

Analyte	1	2	3
	504		
Dilution			
SC Prepared Curve			
Position			
1-1	ICV 30		
1-2	BIK		
1-3	LCS 20		
1-4	LCS DUP		
1-5	04-835-02	1/500	color
1-6	06	1/100	↓
1-7	04-844-01	1/4	
1-8	03	1/2	
1-9	05	1/2	
1-10	05-044-02	1/500	color
1-11	06	1/100	↓
1-12	04-898-01	1/100	color
1-13	03	1/20	
1-14	05	1/100	
1-15	08	1/10	
1-16	10	1/50	color
1-17	12	1/10	
1-18	04-928-01	-	
1-19	DUP 01	-	
1-20	MS 08	-	
1-21	MSD 10	-	
1-22	03	1/3	
2-1	04-963-01	1/2	
2-2	03	1/2	
2-3	07	1/3	

NOTES:
 * Run NO2 std on NO3 runs
 * LCS/LCS Dup all parameters
 *MS(10% sample): NO3, TKN, NH3

Position	Analyte	1	2	3
2-4	05-011-01	1/20	1/2	
2-5	03	1/10	1/5	
2-6	BIK			
2-7	LCS			?
2-8	LCS DUP			?
2-9	05-050-01	1/2	1/4	
2-10	03	1/5		
2-11	05	1/10		
2-12	07	1/4	1/4	
2-13	DUP	1/4	1/4	
2-14	MS ↓	1/4	1/4	
2-15	RR LCS			
2-16	RR BIK			
2-17	RR LCS			
2-18	RR LCS			
2-19				
2-20				
2-21				
2-22				
2-23				
2-24				
2-25				
2-26				
3-1				
3-2				

* passed out NO3 LCS for 2nd wg + rerun
 ddy 5/31/12

DCN#90728



SMARTCHEM RUN LOG

Analyte	1	2	3
Position			
3-3			
3-4			
3-5			
3-6			
3-7			
3-8			
3-9			
3-10			
3-11			
3-12			
3-13			
3-14			
3-15			

Analyte	1	2	3
Position			
3-16			
3-17			
3-18			
3-19			
3-20			
3-21			
3-22			
3-23			
3-24			
3-25			
3-26			
3-27			
3-28			

- Chloride EPA 325.2/SM 4500-Cl⁻E
- Sulfate EPA 375.4/SM 426C(15th)
- Alkalinity EPA 310.2
- Nitrate-Nitrite EPA 353.2/SM 4500-NO₃ F

- Ammonia EPA 350.1/SM 4500-NH₃ B
- TKN EPA 351.2
- Phos EPA 365.4

Analyte	304	Reagents
SOP & Revision	R 3754 16	R6+17164
Curve Stock (SC made)	std 50590	R6+16922
Curve ID (user made)		
ICV	std 51192	
CCV	std 51191	
LCS	std 51193	
MS	std 49132	
	Dilution 0.1/10 (1000) = 10	

Comments: _____

Analyst: Deanne Hesson

Date: 5/3/12

DCN#90728



MICROBAC (OVD)
SMARTCHEM REPORT (VER3.0.53)
NH3, TKN, NO3NO2 (MG/L N)
ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WSO4 - EPA 375.4/SM 426 C (15TH)

Smp#[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	RBL	0.00	0.0032	0.00		7:24:04 AM
DIL-1	RBL	0.00	0.0017	0.00		7:24:22 AM
DIL-1	RBL	0.00	0.0016	0.00		7:25:16 AM
DIL-1	Std-1	0.00	0.0003	0.00		7:25:34 AM
SR5-1	Std-2	5.00	0.0224	0.00		7:26:28 AM
SR5-2	Std-3	10.00	0.0542	0.00		7:26:47 AM
SR5-3	Std-4	15.00	0.0853	0.00		7:27:40 AM
SR5-4	Std-5	20.00	0.1068	0.00		7:27:58 AM
SR5-5	Std-6	25.00	0.1292	0.00		7:28:52 AM
SR5-6	Std-7	30.00	0.1508	0.00		7:29:10 AM
SR5-7	Std-8	35.00	0.1649	0.00		7:30:04 AM
1	ICV 30	29.90	0.1481	0.00		7:30:22 AM
2	WG396805-01 BLK	0.59	-0.0013	0.00	INV,>	7:31:16 AM
3	WG396805-02 LCS	19.61	0.1047	0.00		7:31:34 AM
4	WG396805-03 LCSDUP	19.74	0.1053	0.00		7:32:28 AM
R-3	CCV (30 mg/L)	30.33	0.1498	101.11		7:32:46 AM
5	L12040835-02 (500)	23.42	0.1215	0.00		7:33:40 AM
6	L12040835-06 (100)	4.30	0.0238	0.00		7:33:58 AM
7	L12040844-01 (4)	19.63	0.1048	0.00		7:34:52 AM
8	L12040844-03 (2)	28.24	0.1415	0.00		7:35:10 AM
R-3	CCV (30 mg/L)	30.16	0.1491	100.52		7:36:04 AM
9	L12040844-05 (2)	26.96	0.1363	0.00		7:36:22 AM
10	L12050044-02 (500)	22.98	0.1196	0.00		7:37:16 AM
11	L12050044-06 (100)	3.52	0.0188	0.00		7:37:34 AM
12	L12040898-01 (100)	7.36	0.0423	0.00		7:38:28 AM
R-3	CCV (30 mg/L)	29.04	0.1447	96.81		7:38:46 AM
13	L12040898-03 (20)	12.97	0.0728	0.00		7:39:40 AM
14	L12040898-05 (100)	14.38	0.0799	0.00		7:39:58 AM
15	L12040898-08 (10)	25.84	0.1317	0.00		7:40:53 AM
16	L12040898-10 (50)	10.14	0.0579	0.00		7:41:11 AM
R-3	CCV (30 mg/L)	29.40	0.1461	97.98		7:42:05 AM
17	L12040898-12 (10)	28.19	0.1413	0.00		7:42:23 AM

Report Date :05/03/2012 Run Date :5/3/2012 Operator : WESTCO Plan # :20120503001
Plan Description : SO4-A-DIH/5/3/2012

MICROBAC (OVD)
 SMARTCHEM REPORT (VER3.0.53)
 NH3, TKN, NO3NO2 (MG/L N)
 ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WSO4 - EPA 375.4/SM 426 C (15TH)

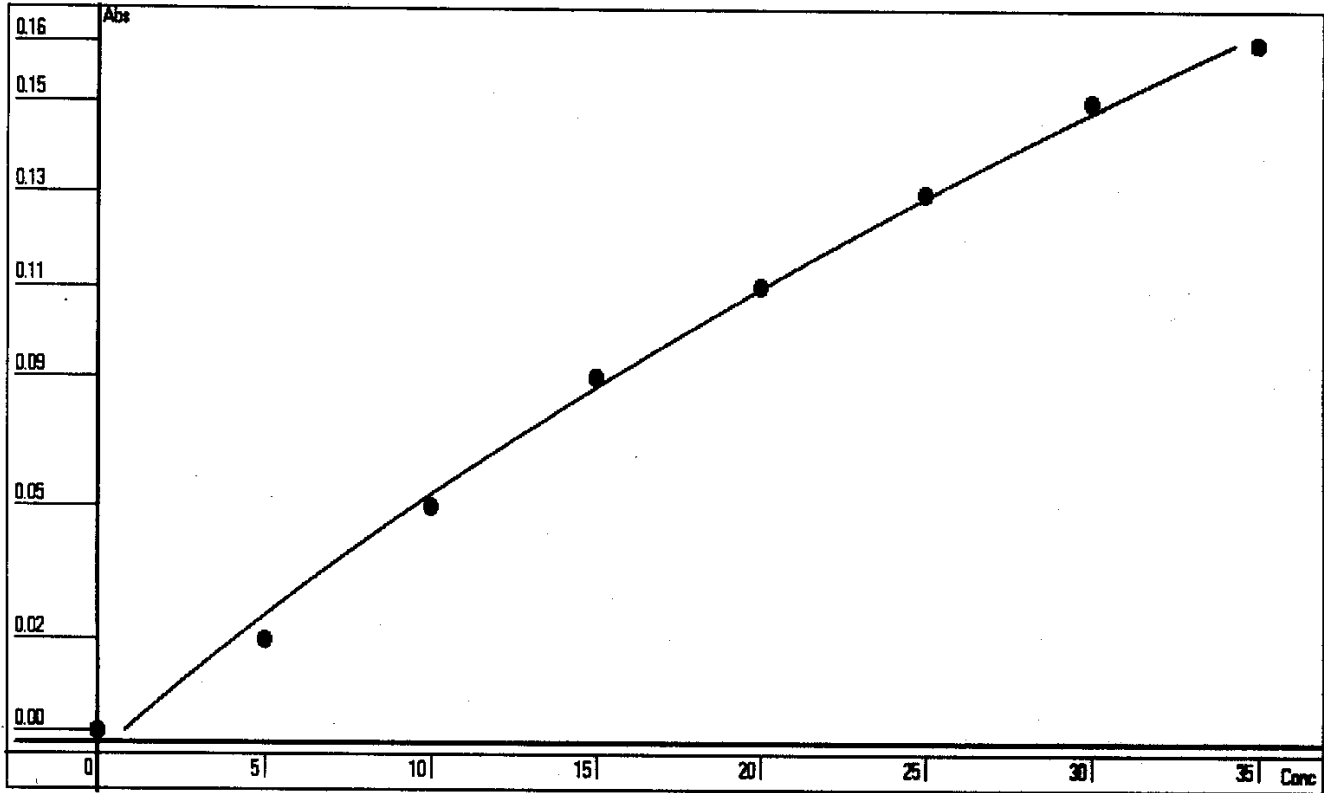
Smp#[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
18	L12040928-01	9.45	0.0541	0.00		7:43:17 AM
19	WG396805-05 DUP	8.96	0.0514	0.00		7:43:35 AM
20	L12040928-08 MS	22.06	0.1156	0.00		7:44:29 AM
R-3	CCV (30 mg/L)	29.40	0.1461	97.98		7:44:47 AM
21	L12040928-10 MSD	21.70	0.1140	0.00		7:45:41 AM
22	L12040928-03 (3)	33.26	0.1611	0.00		7:45:59 AM
23	L12040963-01 (2)	23.31	0.1210	0.00		7:46:53 AM
24	L12040963-03 (2)	34.94	0.1674	0.00	X	7:47:11 AM
R-3	CCV (30 mg/L)	28.94	0.1443	96.47		7:48:10 AM
25	L12040963-07 (3)	21.54	0.1133	0.00		7:48:26 AM
26	L12050011-01 (20)	22.96	0.1195	0.00		7:49:20 AM
27	L12050011-03 (10)	45.76 X	0.2056	0.00	X,LH	7:49:38 AM
28	WG396835-01 BLK	0.53	-0.0017	0.00	INV,X	7:50:32 AM
R-3	CCV (30 mg/L)	31.02	0.1525	103.42		7:50:50 AM
29	WG396835-02 LCS	19.77	0.1054	0.00		7:51:44 AM
30	WG396835-03 LCSDUP	19.20	0.1028	0.00		7:52:02 AM
31	L12050050-01 (4)	20.88	0.1104	0.00		7:52:56 AM
32	L12050050-03 (5)	29.75	0.1475	0.00		7:53:14 AM
R-3	CCV (30 mg/L)	29.62	0.1470	98.74		7:54:08 AM
33	L12050050-05 (10)	26.47	0.1343	0.00		7:54:26 AM
34	L12050050-07 (4)	18.15	0.0980	0.00		7:55:20 AM
35	WG396835-05 (4) DUP	18.20	0.0982	0.00		7:55:38 AM
36	WG396835-06 (4) MS	14.69	0.0814	0.00		7:56:32 AM
R-3	CCV (30 mg/L)	28.69	0.1433	95.64		7:56:50 AM
37	ID 37	0.43 X	-0.0024	0.00	INV,X	7:57:44 AM
38	ID 38	0.57 X	-0.0014	0.00	INV,X	7:58:02 AM
39	ID 39	0.59 X	-0.0013	0.00	INV,X	7:58:56 AM
40	ID 40	0.54 X	-0.0016	0.00	INV,X	7:59:14 AM
R-3	CCV (30 mg/L)	29.80	0.1477	99.33		8:00:08 AM
27-[1/2]	L12050011-03 (10)	42.80	0.1127	0.00	LH	8:08:06 AM
R-3	CCV (30 mg/L)	30.00	0.1485	100.01		8:08:06 AM

Report Date :05/03/2012 Run Date :5/3/2012 Operator : WESTCO Plan # :20120503001
 Plan Description : SO4-A-DIH/5/3/2012

Calibrant Report - WSO4 -

Calib Lot #:010104 Exp Date:6/17/2020 User:MICROBAC

Plan #: 20120503001 Description: [SO4-A-DIH/5/3/2012]



Point	OD	Conc	Recalc Conc	% Error
1	0.0003	0	0.8019	80.19
2	0.0224	5	4.0869	-18.26
3	0.0542	10	9.4728	-5.27
4	0.0853	15	15.4920	3.28
5	0.1068	20	20.0880	0.44
6	0.1292	25	25.2544	1.02
7	0.1508	30	30.6017	2.01
8	0.1649	35	34.2858	-2.04

Conc= +384.4338*Abso^2 +139.9174*Abso +0.7599 R²=0.9972

RBL
0.0017
0

Report Date 5/3/2012 Run Date 5/3/2012

2.4.5 Total Organic Carbon Data

2.4.5.1 Summary Data



Login Number: L12050050
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis Water: EPA 415.1/SM5310C/SW846 9060 (Total Organic Carbon)
Soil: Lloyd-Khan Methodology

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QAI/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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

Narrative ID: 46533

Approved By: Deanna Hesson

A handwritten signature in cursive script that reads "Deanna Hesson".

Certificate of Analysis

Sample #: L12050050-01	PrePrep Method: N/A	Instrument: TOC-VWP
Client ID: MW-05I-050112	Prep Method: 415.1	Prep Date: N/A
Matrix: Water	Analytical Method: 415.1	Cal Date: 12/06/2011 09:40
Workgroup #: WG396994	Analyst: DIH	Run Date: 05/04/2012 20:23
Collect Date: 05/01/2012 11:37	Dilution: 1	File ID: TC05042012.046
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Total Organic Carbon		3.83		1.00	0.500

Sample #: L12050050-03	PrePrep Method: N/A	Instrument: TOC-VWP
Client ID: MW-05S-050112	Prep Method: 415.1	Prep Date: N/A
Matrix: Water	Analytical Method: 415.1	Cal Date: 12/06/2011 09:40
Workgroup #: WG396994	Analyst: DIH	Run Date: 05/04/2012 20:47
Collect Date: 05/01/2012 13:33	Dilution: 1	File ID: TC05042012.047
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Total Organic Carbon		3.14		1.00	0.500

Sample #: L12050050-05	PrePrep Method: N/A	Instrument: TOC-VWP
Client ID: MW-24-050112	Prep Method: 415.1	Prep Date: N/A
Matrix: Water	Analytical Method: 415.1	Cal Date: 12/06/2011 09:40
Workgroup #: WG396994	Analyst: DIH	Run Date: 05/05/2012 09:12
Collect Date: 05/01/2012 09:30	Dilution: 5	File ID: TC05042012.084
Sample Tag: DL01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Total Organic Carbon		44.2		5.00	2.50

Sample #: L12050050-07	PrePrep Method: N/A	Instrument: TOC-VWP
Client ID: MW-01-050112	Prep Method: 415.1	Prep Date: N/A
Matrix: Water	Analytical Method: 415.1	Cal Date: 12/06/2011 09:40
Workgroup #: WG396994	Analyst: DIH	Run Date: 05/04/2012 21:42
Collect Date: 05/01/2012 12:15	Dilution: 1	File ID: TC05042012.049
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	RL	MDL
Total Organic Carbon		7.71		1.00	0.500

2.4.5.2 QC Summary Data

**Total Organic Carbon Example Calculations
(Direct Readout Parameter)**

$$(\text{Readout})/(\text{dilution}) = \text{mg/L}$$

where:

Readout = direct readout from the instrument

dilution = dilution in decimal form (ex. 1/5 dilution = 0.2)

Microbac Laboratories Inc.

Data Checklist

Date: 04-MAY-2012
 Analyst: DIH
 Analyst: NA
 Method: TOC
 Instrument: TOC
 Curve Workgroup: NA
 Runlog ID: _____
 Analytical Workgroups: WG396994 WG396996 WG396993

Calibration/Linearity	12/6/2011
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DIH
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
05-MAY-2012

Secondary Reviewer:
05-MAY-2012





Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method: 415.1
 Login Number: L12050050

AAB#: WG396994

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MW-05I-050112	01	05/01/12							28		05/04/12	3.4	28	
MW-05S-050112	03	05/01/12							28		05/04/12	3.3	28	
MW-24-050112	05	05/01/12							28		05/05/12	4	28	
MW-01-050112	07	05/01/12							28		05/04/12	3.4	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2403362
 Report generated 05/05/2012 11:24



METHOD BLANK SUMMARY

Login Number: L12050050 Work Group: WG396994
 Blank File ID: TC05042012.039 Blank Sample ID: WG396994-01
 Prep Date: 05/04/12 17:51 Instrument ID: TOC-VWP
 Analyzed Date: 05/04/12 17:51 Method: 415.1
 Analyst: DIH

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG396994-02	TC05042012.040	05/04/12 18:11	01
LCS2	WG396994-03	TC05042012.041	05/04/12 18:32	01
DUP	WG396994-05	TC05042012.044	05/04/12 19:40	01
MW-05I-050112	L12050050-01	TC05042012.046	05/04/12 20:23	01
MW-05S-050112	L12050050-03	TC05042012.047	05/04/12 20:47	01
MW-01-050112	L12050050-07	TC05042012.049	05/04/12 21:42	01
MW-24-050112	L12050050-05	TC05042012.084	05/05/12 09:12	DL01

Report Name: BLANK_SUMMARY
 PDF File ID: 2403363
 Report generated 05/05/2012 11:24



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L12050050 Prep Date: 05/04/12 17:51 Sample ID: WG396994-01
Instrument ID: TOC-VWP Run Date: 05/04/12 17:51 Prep Method: 415.1
File ID: TC05042012.039 Analyst: DIH Method: 415.1
Workgroup (AAB#): WG396994 Matrix: Water Units: mg/L
Contract #: Cal ID: TOC-VW-06-DEC-11

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Total Organic Carbon	0.500	1.00	0.500	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2403364
05-MAY-2012 11:24



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L12050050 Analyst: DIH Prep Method: 415.1
 Instrument ID: TOC-VWP Matrix: Water Method: 415.1
 Workgroup (AAB#): WG396994 Units: mg/L
 QC Key: WATERLOO Lot #: STD50986
 Sample ID: WG396994-02 LCS File ID: TC05042012.040 Run Date: 05/04/2012 18:11
 Sample ID: WG396994-03 LCS2 File ID: TC05042012.041 Run Date: 05/04/2012 18:32

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Total Organic Carbon	25.0	25.2	101	25.0	23.8	95.3	5.71	85 - 115	15	

LCS_LCS2 - Modified 03/06/2008
 PDF File ID: 2403365
 Report generated: 05/05/2012 11:24



2.4.5.3 Raw Data

WG384145

TC/TIC CURVES

Total Organic Carbon

MAKE DAILY

CCV (TOC): $(5/200)(1000) = 25\text{mg/L}$ LCS (TOC): $(5/200)(1000) = 25\text{mg/L}$

CCV (TIC): $(5/200)(1000) = 25\text{mg/L}$ MS (TOC): _____
See Below

Calibration Curve Date: _____ Reagent: RGT 16590
RGT 16642

SM5310-C: Matrix 2 WG _____ SOP: K 4151 Rev. 13
 EPA 415.1/9060A(mod): Matrix 1 WG _____ Instrument: Shimadzu TOC-VWP/ASI

drain reservoir filled
 ASI water bottle full
 dilution water bottle full

DAILY CHECK
 3rd bottle full
 sufficient gas
 sufficient persulfate

sufficient acid
 waste container

Position	Sample ID	Dilution	Position	Sample ID	Dilution	Position	Sample ID	Dilution
1	TC Curve		26	TC Curve		51		
2	TIC Curve		27	STD 47722		52		
3	TC ICV		28			53		
4	TIC ICV		29	TIC Curve		54		
5			30	STD 47189		55		
6			31			56		
7			32			57		
8			33			58		
9			34			59		
10			35			60		
11			36			61		
12			37	TC ICV		62		
13			38	STD 47544		63		
14			39			64		
15			40	TIC ICV		65		
16			41	STD 47190		66		
17			42			67		
18			43			68		
19	All points analyzed in duplicate		44			69		
20			45			70		
21			46			71		
22			47			72		
23			48			73		
24			49			74		
25			50			75		

See SOP for
curve points

$5/200(1000)$
 $= 25\text{mg/L}$

Analyst: [Signature] Date/Time: 12/06/2011

DCN#89227



	Analys	Sample Name	Result	Status	Date / Time	Vial
1	TC	TC CURVE		Comple	12/06/2011 09:48:27 AM	0, 1, 2, 3, 4, 5
2	IC	TIC CURVE		Comple	12/06/2011 05:00:56 PM	0, 6, 7, 8, 9, 10
3	TC	TC ICV	✓ 93.08% TC:23.27mg/L	Comple	12/06/2011 05:13:38 PM	11
4	IC	TIC ICV	✓ 104.24% IC:26.21mg/L	Comple	12/06/2011 05:25:50 PM	12

12/07/2011 08:14:31 AM



1/1

Instr. Information

System: TOCVW ASI
 Detector: Wet Chemical

Cal. Curve

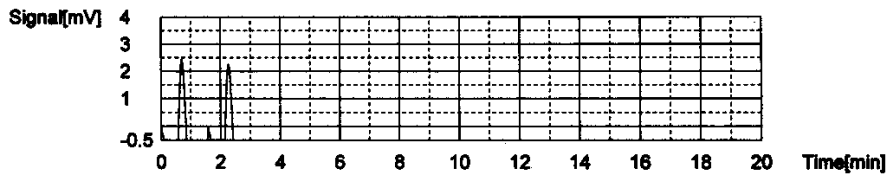
Sample Name: TC CURVE
 Sample ID: Untitled
 Cal. Curve: TCCURVE-12-06-2011.2011_12_06_08_40_57.cal
 Status: Completed

Type	Anal.
Standard	TC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	6.123	500uL	1	*****		12/06/2011 08:44:40 AM
2	5.308	500uL	1	*****		12/06/2011 08:48:33 AM

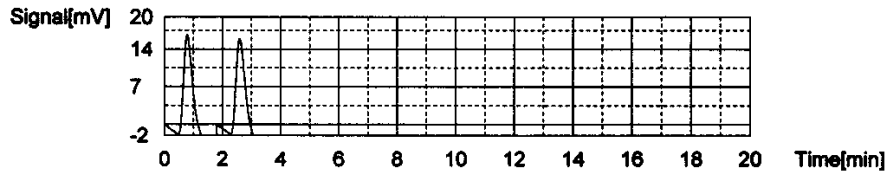
Acid Add. 0.000%
 Mean Area 5.716



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	39.77	500uL	1	*****		12/06/2011 08:54:04 AM
2	39.18	500uL	1	*****		12/06/2011 08:58:10 AM

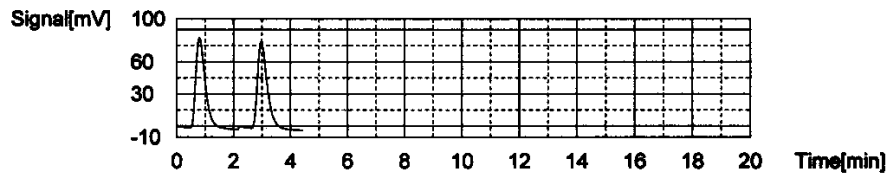
Acid Add. 0.000%
 Mean Area 39.48



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	191.7	500uL	1	*****		12/06/2011 09:04:17 AM
2	189.4	500uL	1	*****		12/06/2011 09:08:49 AM

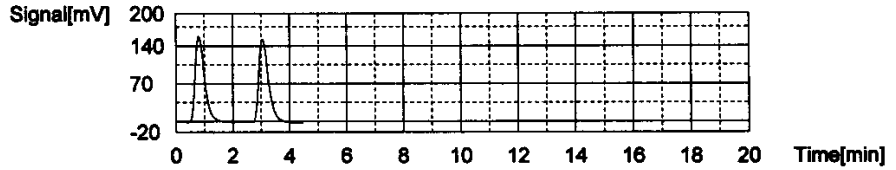
Acid Add. 0.000%
 Mean Area 190.6



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	387.0	500uL	1	*****		12/06/2011 09:15:00 AM
2	387.7	500uL	1	*****		12/06/2011 09:20:28 AM

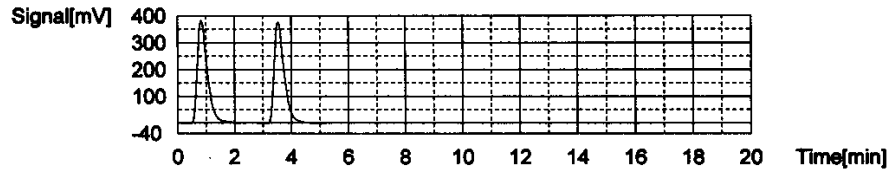
Acid Add. 0.000%
Mean Area 367.4



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	938.7	500uL	1	*****		12/06/2011 09:27:05 AM
2	928.1	500uL	1	*****		12/06/2011 09:31:51 AM

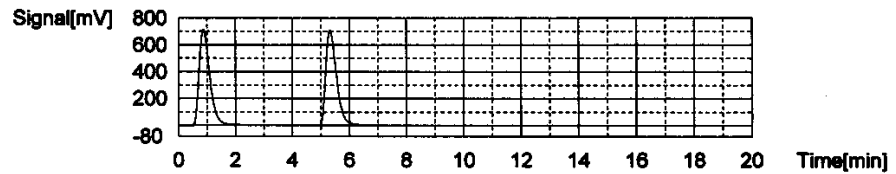
Acid Add. 0.000%
Mean Area 933.4



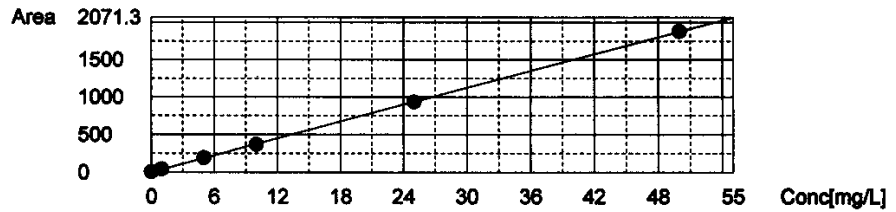
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1902	500uL	1	*****		12/06/2011 09:40:15 AM
2	1864	500uL	1	*****		12/06/2011 09:46:27 AM

Acid Add. 0.000%
Mean Area 1883



Slope: 37.57
Intercept: 0.09333
r^2: 0.999936 ✓
Zero Shift: No



Cal. Curve

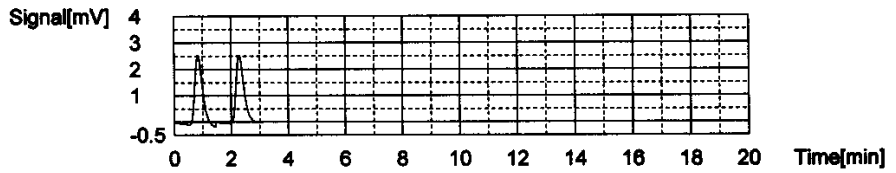
Sample Name: TIC CURVE
Sample ID: Untitled
Cal. Curve: TICCURVE-12-06-2011B.2011_12_06_15_47_44.cal
Status: Completed

Type	Anal.
Standard	IC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	5.003	500uL	1	*****		12/06/2011 03:51:39 PM
2	4.762	500uL	1	*****		12/06/2011 03:55:32 PM

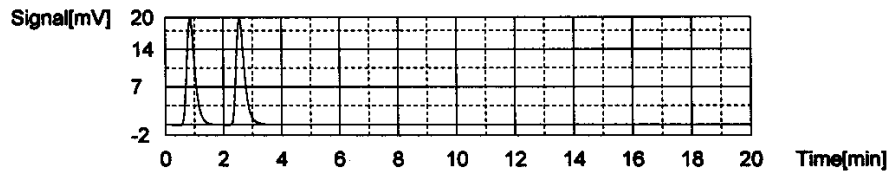
Acid Add. 10.00%
Mean Area 4.883



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	38.88	500uL	1	*****		12/06/2011 04:02:55 PM
2	38.91	500uL	1	*****		12/06/2011 04:07:20 PM

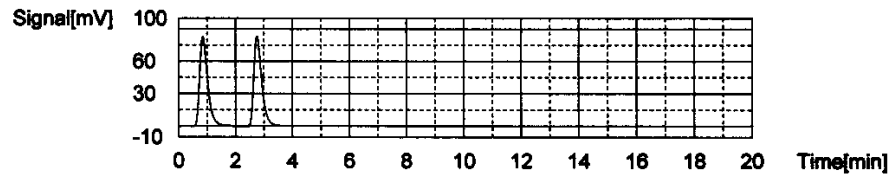
Acid Add. 10.00%
Mean Area 38.90



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	160.3	500uL	1	*****		12/06/2011 04:15:09 PM
2	162.3	500uL	1	*****		12/06/2011 04:19:53 PM

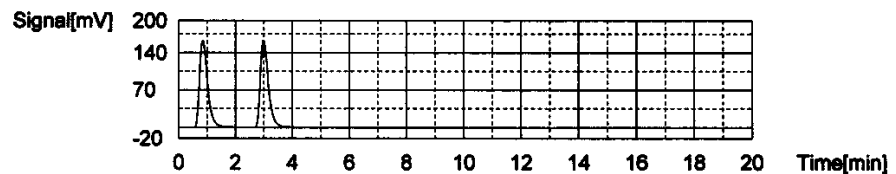
Acid Add. 10.00%
Mean Area 161.3



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	317.9	500uL	1	*****		12/06/2011 04:28:01 PM
2	319.9	500uL	1	*****		12/06/2011 04:33:00 PM

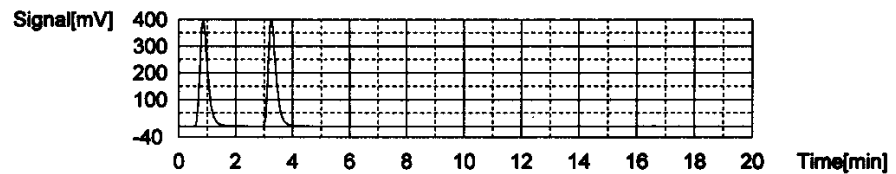
Acid Add. 10.00%
Mean Area 318.9



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	785.1	500uL	1	*****		12/06/2011 04:41:31 PM
2	785.8	500uL	1	*****		12/06/2011 04:46:44 PM

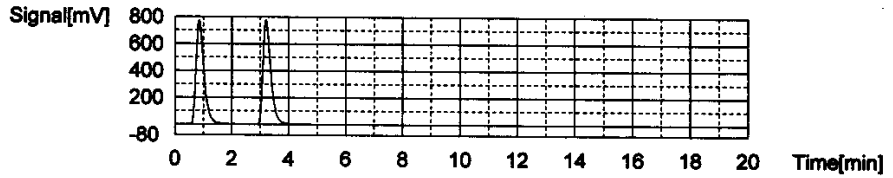
Acid Add. 10.00%
Mean Area 785.5



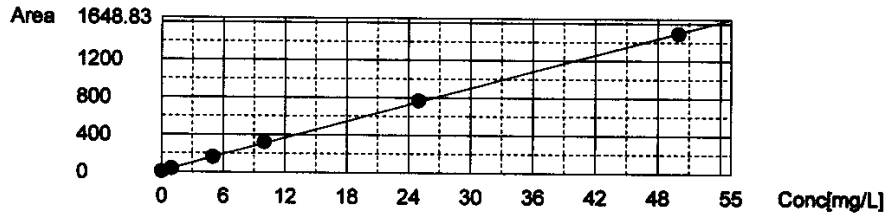
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1490	500uL	1	*****		12/06/2011 04:55:30 PM
2	1495	500uL	1	*****		12/06/2011 05:00:56 PM

Acid Add. 10.00%
Mean Area 1493



Slope: 29.72
Intercept: 12.89
r²: 0.999826 ✓
Zero Shift: No



Sample

Sample Name: TC ICV
Sample ID: Untitled
Origin: TCCURVE-12-06-2011.cal
Status: Completed
Chk. Result: Completed

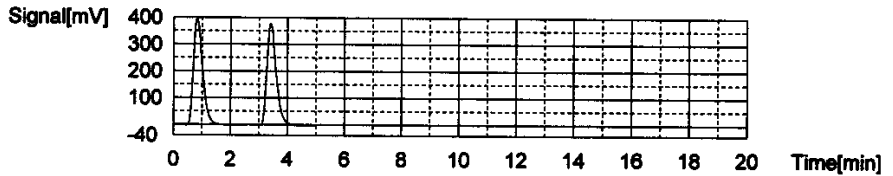
Type	Anal.	Dil.	Result
Unknown	TC	1.000	TC:23.27mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	889.3	23.67mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_51	12/06/2011 05:08:57 PM
2	859.5	22.87mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_51	12/06/2011 05:13:38 PM

Mean Area 874.4
Mean Conc. 23.27mg/L



Sample

Sample Name: TIC ICV
Sample ID: Untitled
Origin: TICCURVE-12-06-2011B.cal
Status: Completed
Chk. Result: Completed

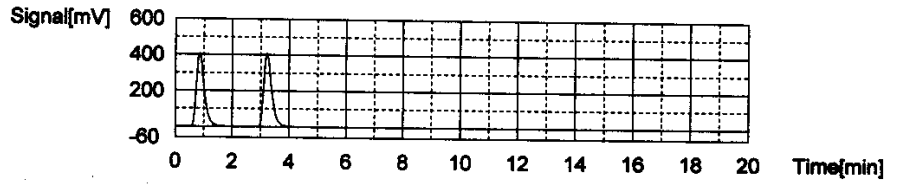
Type	Anal.	Dil.	Result
Unknown	IC	1.000	IC:26.21mg/L

1. Det

Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	788.9	26.11mg/L	500uL		1	TICCURVE-12-06-2011B.2011_12_06_15_47	12/06/2011 05:20:43 PM
2	794.9	26.31mg/L	500uL		1	TICCURVE-12-06-2011B.2011_12_06_15_47	12/06/2011 05:25:50 PM

Mean Area 791.9
Mean Conc. 26.21mg/L



Total Organic Carbon

396994
396996

MAKE DAILY

CCV (TOC): std 48750
(5/200)(1000) = 25mg/L

LCS (TOC): std 50986
(5/200)(1000) = 25mg/L

CCV (TIC): std 50244
(5/200)(1000) = 25mg/L

MS (TOC): 0.4/40(1000)
= 10

Calibration Curve Date: 12/6/11

Reagent: R6+17216
R6+17280

SM5310-C: Matrix 2 WG 396994

EPA 415.1/9060A(mod): Matrix 1 WG 396993 SOP: K 4151 Rev. 14

WG 396996 Instrument: Shimadzu TOC-VWP/ASI

- drain reservoir filled
- ASI water bottle full
- dilution water bottle full
- DAILY CHECK
- 3rd bottle full
- sufficient gas
- sufficient persulfate
- sufficient acid
- waste container

Position	Sample ID	Dilution
1	TIC 25	
2	CCV 25	
20	BIK	
4	LCS 25	
5	LCS DUP	
6	04-928-01	1/5
7	ms 08	1/5
8	msd 10	1/5
9	DUP 01	1/5
10	04-963-05	1/5
11	05-009-01	miss
12	02	
13	03	
14	CCV	
18	CCB	
16	05-009-04	miss
17	05	
18	05-010-01	
19	ms 02	
20	msd 03	
21	04	
22	ms 05	
23	msd 06	
24	07	
25	ms 08	

Position	Sample ID	Dilution
26	CCV	
27	CCB	
28	msd 09	
29	10	
30	11	
31	12	1/3
32	13	
33	14	1/3
34	15	1/2
35	05-051-01	miss
36	02	
37	03	
38	CCV	
39	CCB/BIK	
40	LCS 25	
41	LCS DUP	
42	05-092-08	
43	05-107-05	
44	DUP 092-08	
45	ms	
46	05-102-01	
47	03	
48	05	
49	07	
50	CCV	

Position	Sample ID	Dilution
50	CCB/BIK	
52	LCS	
53	LCS DUP	
54	05-051-04	miss
55	05	
56	06	
57	07	1/2
58	08	
59	11	
60	12	
61	13	
62	CCV	
63	CCB	
64	05-052-01	miss
65	02	
66	03	
67	04	
68	05	
69	06	1/5
70	07	
71	08	
72	09	1/3
73	10	
74	CCV	
75	CCB	

Analyst: Deanna Johnson Date/Time: 5/4/12

TOC-D 05-009, 05-051
Received unpreserved
filtered in lab

DCN#90751

pg 1



Total Organic Carbon

MAKE DAILY

CCV (TOC): $\frac{5}{200}(1000) = 25\text{mg/L}$ LCS (TOC): $\frac{5}{200}(1000) = 25\text{mg/L}$

CCV (TIC): $\frac{5}{200}(1000) = 25\text{mg/L}$ MS (TOC): _____

Calibration Curve Date: _____ Reagent: _____

SM5310-C: Matrix 2 WG _____
 EPA 415.1/9060A(mod): Matrix 1 WG _____ SOP: K _____ Rev. _____
Instrument: Shimadza TOC-VWP/ASI

- drain reservoir filled DAILY CHECK sufficient acid waste container
 ASI water bottle full 3rd bottle full
 dilution water bottle full sufficient gas
 sufficient persulfate

Position	Sample ID	Dilution	Position	Sample ID	Dilution	Position	Sample ID	Dilution
10 4 5 3 2 0	263 05-052-11		26			51		
	262 12		27			52		
	250 DUP 052-04		28			53		
	252 MS ↓		29			54		
	63 21 801 DISS BIK		30			55		
	28 CCB CCV		31			56		
	20 CCB		32			57		
	8 R 04-963-05 1/10		33			58		
	(9) R 05-050-05 1/5		34			59		
	10 R LCS DUP		35			60		
	11 05-052-06 1/3		36			61		
	12 CCV		37			62		
	13 CCB		38			63		
	14		39			64		
	15		40			65		
	16		41			66		
	17		42			67		
	18		43			68		
	19		44			69		
	20		45			70		
	21		46			71		
	22		47			72		
	23		48			73		
	24		49			74		
	25		50			75		

Analyst: Deann C. Johnson Date/Time: 5/4/12

DCN#90751

Pg 2



	Analys	Sample Name	Result	Status	Date / Time	Via
1	TOC	TIC 25	TOC:1.184mg/L TC:25.03mg/L IC:23.85mg/L	Complete	05/04/2012 10:05:25 AM	1
2	TOC	CCV 25	!!Error!! TOC:23.63mg/L TC:23.44mg/L IC:-0.1862mg/L	Complete	05/04/2012 10:17:34 AM	2
3	TOC	WG396993-01 BLK	!!Error!! TOC:0.3849mg/L TC:0.2049mg/L IC:-0.1800mg/L	Complete	05/04/2012 10:26:37 AM	0
4	TOC	WG396993-02 LCS	!!Error!! TOC:23.81mg/L TC:23.60mg/L IC:-0.2080mg/L	Complete	05/04/2012 10:38:59 AM	4
5	TOC	WG396993-03 LCSDUP	!!Error!! TOC:23.52mg/L TC:23.31mg/L IC:-0.2039mg/L	Complete	05/04/2012 10:51:19 AM	5
6	TOC	L12040928-01 (5)	TOC:5.331mg/L TC:33.03mg/L IC:27.70mg/L	Complete	05/04/2012 11:04:22 AM	6
7	TOC	L12040928-08 (5) MS	TOC:6.359mg/L TC:32.20mg/L IC:25.84mg/L	Complete	05/04/2012 11:18:18 AM	7
8	TOC	L12040928-10 (5)	TOC:8.275mg/L TC:41.01mg/L IC:32.74mg/L	Complete	05/04/2012 11:31:44 AM	8
9	TOC	WG396993-05 (5) DUP	TOC:5.799mg/L TC:37.69mg/L IC:31.89mg/L	Complete	05/04/2012 11:45:30 AM	9
10	TOC		TOC:19.10mg/L TC:52.51mg/L IC:33.41mg/L	Complete	05/04/2012 11:59:10 AM	10
11	TOC	L12050009-01	TOC:2.103mg/L TC:10.37mg/L IC:8.267mg/L	Complete	05/04/2012 12:11:40 PM	11
12	TOC	L12050009-02	TOC:2.221mg/L TC:12.61mg/L IC:10.39mg/L	Complete	05/04/2012 12:24:30 PM	12
13	TOC	L12050009-03	TOC:1.199mg/L TC:10.31mg/L IC:9.115mg/L	Complete	05/04/2012 12:37:21 PM	13
14	TOC	CCV	!!Error!! TOC:23.20mg/L TC:23.03mg/L IC:-0.1722mg/L	Complete	05/04/2012 12:49:28 PM	14
15	TOC	CCB	!!Error!! TOC:0.3715mg/L TC:0.1892mg/L IC:-0.1833mg/L	Complete	05/04/2012 12:58:23 PM	0
16	TOC	L12050009-04	TOC:0.3613mg/L TC:9.396mg/L IC:9.034mg/L	Complete	05/04/2012 01:10:52 PM	16
17	TOC	L12050009-05	TOC:0.8123mg/L TC:3.128mg/L IC:2.315mg/L	Complete	05/04/2012 01:22:48 PM	17
18	TOC	L12050010-01	TOC:3.263mg/L TC:21.24mg/L IC:17.97mg/L	Complete	05/04/2012 01:35:52 PM	18
19	TOC	L12050010-02 MS	TOC:11.56mg/L TC:23.97mg/L IC:12.41mg/L	Complete	05/04/2012 01:49:00 PM	19
20	TOC	L12050010-03 MSD	TOC:11.15mg/L TC:22.54mg/L IC:11.39mg/L	Complete	05/04/2012 02:01:44 PM	20
21	TOC	L12050010-04	TOC:0.8853mg/L TC:12.21mg/L IC:11.33mg/L	Complete	05/04/2012 02:14:31 PM	21
22	TOC	L12050010-05 MS	TOC:9.598mg/L TC:17.81mg/L IC:8.214mg/L	Complete	05/04/2012 02:27:17 PM	22
23	TOC	L12050010-06 MSD	TOC:9.888mg/L TC:15.53mg/L IC:5.640mg/L	Complete	05/04/2012 02:40:07 PM	23
24	TOC	L12050010-07	TOC:2.761mg/L TC:23.74mg/L IC:20.98mg/L	Complete	05/04/2012 02:53:16 PM	24
25	TOC	L12050010-08 MS	TOC:10.92mg/L TC:24.09mg/L IC:13.17mg/L	Complete	05/04/2012 03:06:24 PM	25
26	TOC	CCV	!!Error!! TOC:23.80mg/L TC:23.64mg/L IC:-0.1575mg/L	Complete	05/04/2012 03:18:45 PM	26
27	TOC	CCB	!!Error!! TOC:0.3727mg/L TC:0.1880mg/L IC:-0.1846mg/L	Complete	05/04/2012 03:27:42 PM	0
28	TOC	L12050010-09 MSD	TOC:10.69mg/L TC:20.11mg/L IC:9.411mg/L	Complete	05/04/2012 03:40:43 PM	28
29	TOC	L12050010-10	TOC:1.831mg/L TC:11.70mg/L IC:9.872mg/L	Complete	05/04/2012 03:53:19 PM	29
30	TOC	L12050010-11	TOC:2.636mg/L TC:8.938mg/L IC:6.302mg/L	Complete	05/04/2012 04:06:18 PM	30
31	TOC	L12050010-12 (3)	TOC:5.279mg/L TC:22.46mg/L IC:17.18mg/L	Complete	05/04/2012 04:19:22 PM	31
32	TOC	L12050010-13	TOC:3.604mg/L TC:14.38mg/L IC:10.78mg/L	Complete	05/04/2012 04:32:23 PM	32
33	TOC	L12050010-14 (3)	TOC:6.637mg/L TC:28.80mg/L IC:22.16mg/L	Complete	05/04/2012 04:45:48 PM	33
34	TOC	L12050010-15 (2)	TOC:8.662mg/L TC:13.57mg/L IC:8.905mg/L	Complete	05/04/2012 04:58:34 PM	34
35	TOC	L12050051-01	TOC:4.799mg/L TC:5.667mg/L IC:0.8679mg/L	Complete	05/04/2012 05:10:23 PM	35
36	TOC	L12050051-02	TOC:8.973mg/L TC:9.398mg/L IC:0.4251mg/L	Complete	05/04/2012 05:22:38 PM	36
37	TOC	L12050051-03	TOC:8.250mg/L TC:8.656mg/L IC:0.4059mg/L	Complete	05/04/2012 05:34:29 PM	37
38	TOC	CCV	!!Error!! TOC:23.83mg/L TC:23.63mg/L IC:-0.2047mg/L	Complete	05/04/2012 05:46:48 PM	38
39	TOC	WG396994-01 BLK	!!Error!! TOC:0.3804mg/L TC:0.1817mg/L IC:-0.1987mg/L	Complete	05/04/2012 06:03:17 PM	0
40	TOC	WG396994-02 LCS	!!Error!! TOC:25.23mg/L TC:25.02mg/L IC:-0.2085mg/L	Complete	05/04/2012 06:24:59 PM	40
41	TOC	WG396994-03 LCSDUP	!!Error!! TOC:23.83mg/L TC:23.62mg/L IC:-0.2095mg/L	Complete	05/04/2012 06:47:14 PM	41
42	TOC	L12050092-08	TOC:4.180mg/L TC:7.064mg/L IC:2.904mg/L	Complete	05/04/2012 07:09:02 PM	42
43	TOC	L12050107-05	TOC:13.36mg/L TC:28.70mg/L IC:15.34mg/L	Complete	05/04/2012 07:33:12 PM	43
44	TOC	WG396994-05 DUP	TOC:4.449mg/L TC:7.040mg/L IC:2.591mg/L	Complete	05/04/2012 07:54:34 PM	44
45	TOC	WG396994-06 MS	TOC:14.46mg/L TC:17.70mg/L IC:3.237mg/L	Complete	05/04/2012 08:15:50 PM	45
46	TOC	L12050050-01	TOC:3.831mg/L TC:29.49mg/L IC:25.66mg/L	Complete	05/04/2012 08:39:55 PM	46
47	TOC	L12050050-03	TOC:3.141mg/L TC:26.84mg/L IC:23.70mg/L	Complete	05/04/2012 09:03:49 PM	47
48	TOC	<Untitled>	TOC:3.107mg/L TC:91.08mg/L IC:87.97mg/L	Complete	05/04/2012 09:34:23 PM	48
49	TOC	L12050050-07	TOC:7.709mg/L TC:17.20mg/L IC:9.490mg/L	Complete	05/04/2012 09:57:45 PM	49
50	TOC	CCV	!!Error!! TOC:23.15mg/L TC:23.00mg/L IC:-0.1453mg/L	Complete	05/04/2012 10:10:17 PM	26
51	TOC	WG396996-01 BLK	!!Error!! TOC:0.3717mg/L TC:0.1985mg/L IC:-0.1732mg/L	Complete	05/04/2012 10:19:25 PM	0
52	TOC	WG396996-02 LCS	!!Error!! TOC:23.78mg/L TC:23.58mg/L IC:-0.1974mg/L	Complete	05/04/2012 10:31:35 PM	4
53	TOC		!!Error!! TOC:0.5722mg/L TC:0.3885mg/L IC:-0.1837mg/L	Complete	05/04/2012 10:42:55 PM	53
54	TOC	L12050051-04	TOC:2.743mg/L TC:4.307mg/L IC:1.563mg/L	Complete	05/04/2012 10:54:54 PM	54
55	TOC	L12050051-05	TOC:8.749mg/L TC:13.88mg/L IC:5.132mg/L	Complete	05/04/2012 11:07:21 PM	55
56	TOC	L12050051-06	TOC:3.876mg/L TC:13.01mg/L IC:9.129mg/L	Complete	05/04/2012 11:20:04 PM	56
57	TOC	L12050051-07	TOC:5.014mg/L TC:7.455mg/L IC:2.442mg/L	Complete	05/04/2012 11:32:20 PM	57
58	TOC	L12050051-08	TOC:9.850mg/L TC:11.54mg/L IC:1.692mg/L	Complete	05/04/2012 11:45:08 PM	58
59	TOC	L12050051-11	TOC:0.8914mg/L TC:2.080mg/L IC:1.168mg/L	Complete	05/04/2012 11:56:57 PM	59
60	TOC	L12050051-12	TOC:1.507mg/L TC:2.670mg/L IC:1.163mg/L	Complete	05/05/2012 12:08:56 AM	60
61	TOC	L12050051-13	TOC:1.372mg/L TC:2.415mg/L IC:1.043mg/L	Complete	05/05/2012 12:20:51 AM	61
62	TOC	CCV	!!Error!! TOC:25.93mg/L TC:25.72mg/L IC:-0.2084mg/L	Complete	05/05/2012 12:33:30 AM	14
63	TOC	CCB	!!Error!! TOC:0.3622mg/L TC:0.1692mg/L IC:-0.1931mg/L	Complete	05/05/2012 12:42:27 AM	0
64	TOC	L12050052-01	TOC:2.728mg/L TC:7.940mg/L IC:5.212mg/L	Complete	05/05/2012 12:55:12 AM	64
65	TOC	L12050052-02	TOC:1.850mg/L TC:4.504mg/L IC:2.654mg/L	Complete	05/05/2012 01:07:25 AM	65
66	TOC	L12050052-03	TOC:5.311mg/L TC:23.05mg/L IC:17.74mg/L	Complete	05/05/2012 01:20:22 AM	66
67	TOC	L12050052-04	TOC:1.901mg/L TC:4.980mg/L IC:3.079mg/L	Complete	05/05/2012 01:32:42 AM	67

05/05/2012 11:09:58 AM

1/2

	Analys	Sample Name	Result	Status	Date / Time	Via
68	TOC	L12050052-05	TOC:1.384mg/L TC:3.820mg/L IC:2.435mg/L	Comple	05/05/2012 01:44:48 AM	68
69	TOC	L12050052-06 (15)	TOC:3.503mg/L TC:4.080mg/L IC:0.5775mg/L	Comple	05/05/2012 01:57:00 AM	3
70	TOC	L12050052-07	TOC:2.089mg/L TC:6.931mg/L IC:4.842mg/L	Comple	05/05/2012 02:09:27 AM	15
71	TOC	L12050052-08	TOC:1.965mg/L TC:5.960mg/L IC:3.994mg/L	Comple	05/05/2012 02:21:49 AM	27
72	TOC	L12050052-09 (3)	TOC:8.127mg/L TC:24.54mg/L IC:16.41mg/L	Comple	05/05/2012 02:35:33 AM	39
73	TOC	L12050052-10	TOC:2.283mg/L TC:8.017mg/L IC:5.734mg/L	Comple	05/05/2012 02:48:13 AM	51
74	TOC	CCV	!!Error!! TOC:26.34mg/L TC:26.15mg/L IC:-0.1933mg	Comple	05/05/2012 03:01:04 AM	2
75	TOC	CCB	!!Error!! TOC:0.3477mg/L TC:0.1656mg/L IC:-0.1821n	Comple	05/05/2012 03:10:04 AM	0
76	TOC	L12050052-11	TOC:5.859mg/L TC:8.701mg/L IC:2.842mg/L	Comple	05/05/2012 03:22:23 AM	63
77	TOC	L12050052-12	TOC:10.51mg/L TC:11.56mg/L IC:1.046mg/L	Comple	05/05/2012 03:34:51 AM	62
78	TOC	WG396996-05 DUP	TOC:1.754mg/L TC:4.722mg/L IC:2.968mg/L	Comple	05/05/2012 03:47:01 AM	50
79	TOC	WG396996-06 MS	TOC:11.90mg/L TC:19.59mg/L IC:7.692mg/L	Comple	05/05/2012 04:00:00 AM	52
80	TOC	DISS BLK	!!Error!! TOC:0.6021mg/L TC:0.4343mg/L IC:-0.1678n	Comple	05/05/2012 04:11:24 AM	53
81	TOC	CCV	!!Error!! TOC:25.96mg/L TC:25.74mg/L IC:-0.2119mg	Comple	05/05/2012 04:24:11 AM	38
82	TOC	CCB	!!Error!! TOC:0.3815mg/L TC:0.1895mg/L IC:-0.1920n	Comple	05/05/2012 04:33:08 AM	0
83	TOC	L12040963-05 (10)	TOC:12.70mg/L TC:27.89mg/L IC:15.20mg/L	Comple	05/05/2012 09:03:35 AM	10
84	TOC	L12050050-05 (5)	TOC:8.848mg/L TC:36.62mg/L IC:27.77mg/L	Comple	05/05/2012 09:28:49 AM	48
85	TOC	WG396996-03 LCS DUP	!!Error!! TOC:26.06mg/L TC:25.98mg/L IC:-0.08195mg	Comple	05/05/2012 09:41:10 AM	5
86	TOC	L12050052-06 (3) X	TOC:23.72mg/L TC:56.21mg/L IC:32.50mg/L	Comple	05/05/2012 09:57:05 AM	3
87	TOC	CCV	!!Error!! TOC:26.70mg/L TC:26.61mg/L IC:-0.09037mg	Comple	05/05/2012 10:09:53 AM	2
88	TOC	CCB	!!Error!! TOC:0.4022mg/L TC:0.2312mg/L IC:-0.1710n	Comple	05/05/2012 10:18:59 AM	0

Instr. Information

System TOCVW ASI
 Detector Wet Chemical

Sample

Sample Name: TIC 25
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status Completed
 Chk. Result

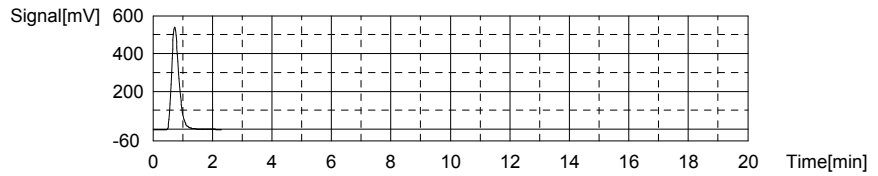
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.184mg/L TC:25.03mg/L IC:23.85mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	940.6	25.03mg/L	500uL	1		TCCURVE-12-06-2011.2011 12 06 08 40 5	05/04/2012 09:59:51 AM

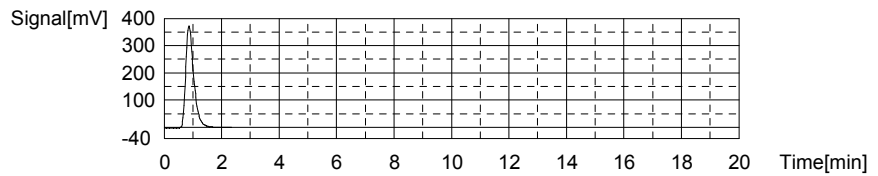
Mean Area 940.6
 Mean Conc. 25.03mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	721.7	23.85mg/L	500uL	1		TICURVE-12-06-2011B.2011 12 06 15 47	05/04/2012 10:05:25 AM

Mean Area 721.7
 Mean Conc. 23.85mg/L



Sample

Sample Name: CCV 25
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status Completed
 Chk. Result

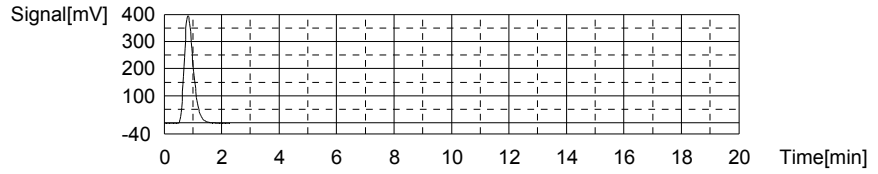
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:23.63mg/L TC:23.44mg/L IC:-0.1862mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	880.8	23.44mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 10:13:09 AM

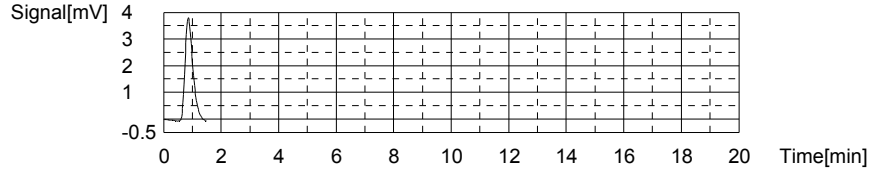
Mean Area 880.8
Mean Conc. 23.44mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.351	-0.1862mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 10:17:34 AM

Mean Area 7.351
Mean Conc. -0.1862mg/L



Sample

Sample Name: WG396993-01 BLK
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

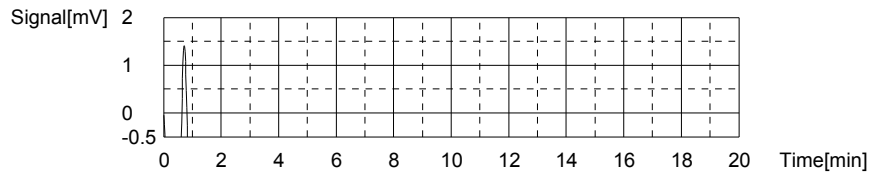
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.3849mg/L TC:0.2049mg/L IC:-0.1800mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.790	0.2049mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 10:22:38 AM

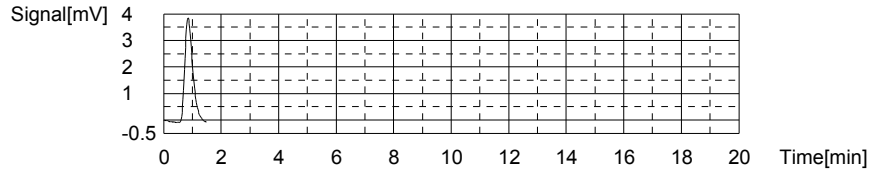
Mean Area 7.790
Mean Conc. 0.2049mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.536	-0.1800mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 10:26:37 AM

Mean Area 7.536
Mean Conc. -0.1800mg/L



Sample

Sample Name: WG396993-02 LCS
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

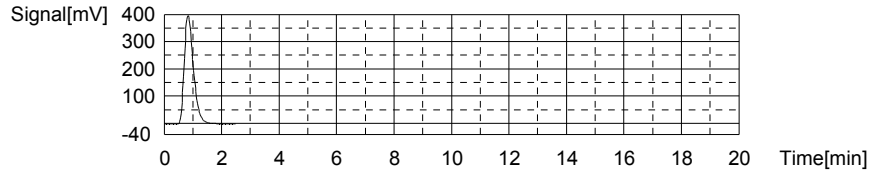
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:23.81mg/L TC:23.60mg/L IC:-0.2080mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	886.8	23.60mg/L	500uL	1		TCCURVE-12-06-2011.2011 12 06 08 40	5/05/2012 10:34:32 AM

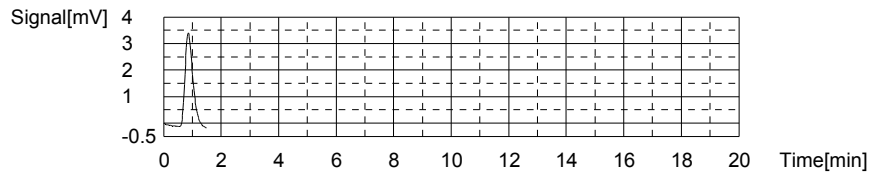
Mean Area 886.8
Mean Conc. 23.60mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.705	-0.2080mg/L	500uL	1		TICURVE-12-06-2011B.2011 12 06 15 47	05/04/2012 10:38:59 AM

Mean Area 6.705
Mean Conc. -0.2080mg/L



Sample

Sample Name: WG396993-03 LCS DUP
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

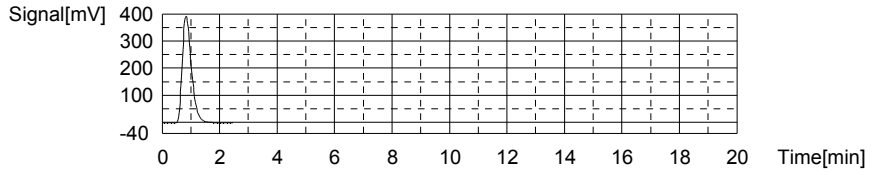
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:23.52mg/L TC:23.31mg/L IC:-0.2039mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	876.0	23.31mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 10:46:52 AM

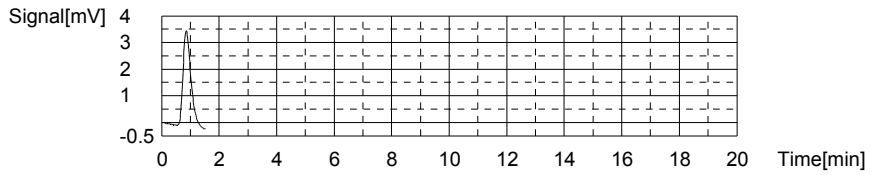
Mean Area 876.0
Mean Conc. 23.31mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.826	-0.2039mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 10:51:19 AM

Mean Area 6.826
Mean Conc. -0.2039mg/L



Sample

Sample Name: L12040928-01 (5)
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

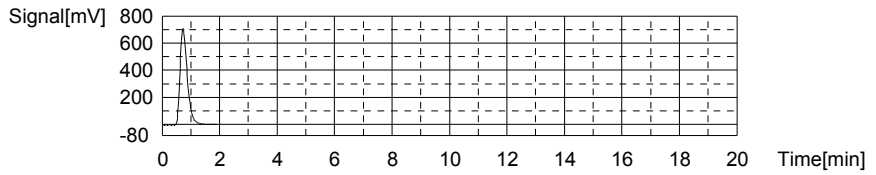
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:5.331mg/L TC:33.03mg/L IC:27.70mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1241	33.03mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 10:58:39 AM

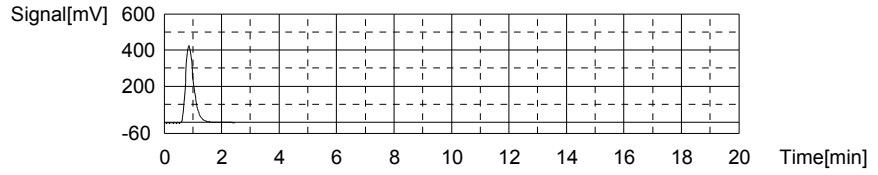
Mean Area 1241
Mean Conc. 33.03mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	836.1	27.70mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 11:04:22 AM

Mean Area 836.1
 Mean Conc. 27.70mg/L



Sample

Sample Name: L12040928-08 (5) MS
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

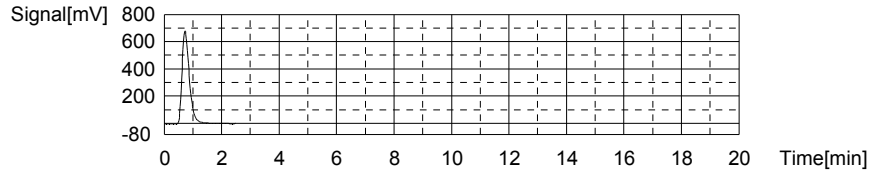
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:6.359mg/L TC:32.20mg/L IC:25.84mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1210	32.20mg/L	500uL	1		TCCURVE-12-06-2011.2011 12 06 08 40	5/05/04/2012 11:12:16 AM

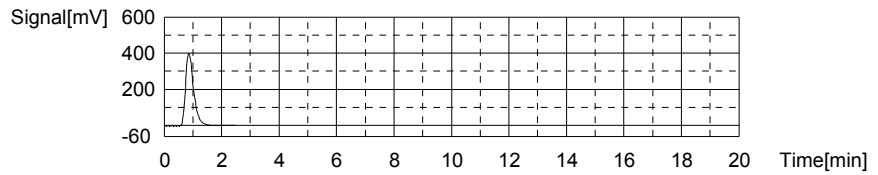
Mean Area 1210
 Mean Conc. 32.20mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	781.0	25.84mg/L	500uL	1		TICURVE-12-06-2011B.2011 12 06 15 47	05/04/2012 11:18:18 AM

Mean Area 781.0
 Mean Conc. 25.84mg/L



Sample

Sample Name: L12040928-10 (5)
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

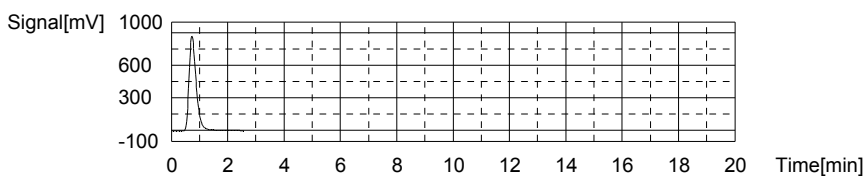
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:8.275mg/L TC:41.01mg/L IC:32.74mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1541	41.01mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 11:26:18 AM

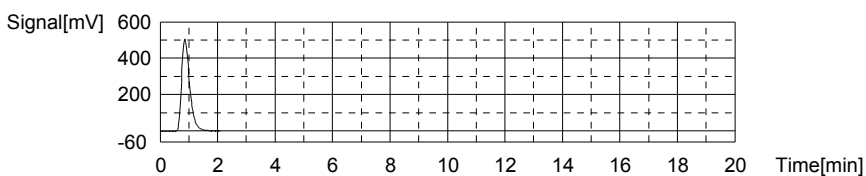
Mean Area 1541
Mean Conc. 41.01mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	985.9	32.74mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 11:31:44 AM

Mean Area 985.9
Mean Conc. 32.74mg/L



Sample

Sample Name: WG396993-05 (5) DUP
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

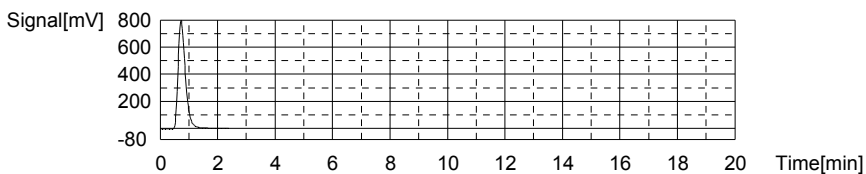
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:5.799mg/L TC:37.69mg/L IC:31.89mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1416	37.69mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 11:39:34 AM

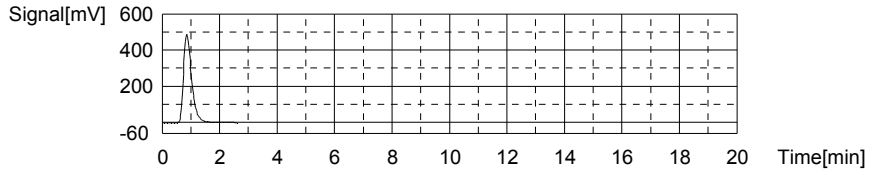
Mean Area 1416
Mean Conc. 37.69mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	960.6	31.89mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 11:45:30 AM

Mean Area 960.6
 Mean Conc. 31.89mg/L



Sample

Sample Name:
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

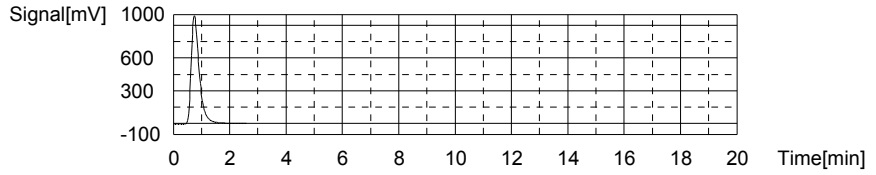
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:19.10mg/L TC:52.51mg/L IC:33.41mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1973	52.51mg/L	500uL	1		TCCURVE-12-06-2011.2011 12 06 08 40 5	05/04/2012 11:53:31 AM

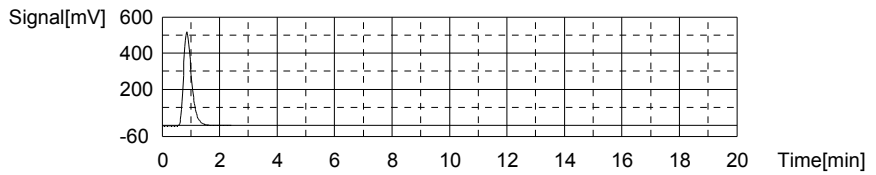
Mean Area 1973
 Mean Conc. 52.51mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1006	33.41mg/L	500uL	1		TICURVE-12-06-2011B.2011 12 06 15 47	05/04/2012 11:59:10 AM

Mean Area 1006
 Mean Conc. 33.41mg/L



Sample

Sample Name: L12050009-01
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

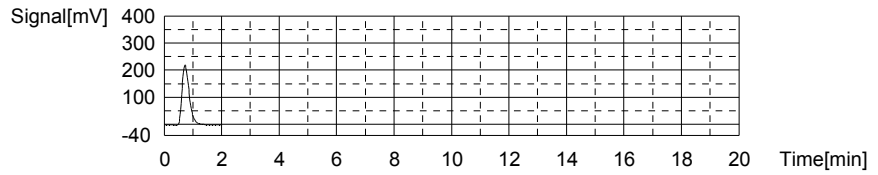
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.103mg/L TC:10.37mg/L IC:8.267mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	389.7	10.37mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 12:06:37 PM

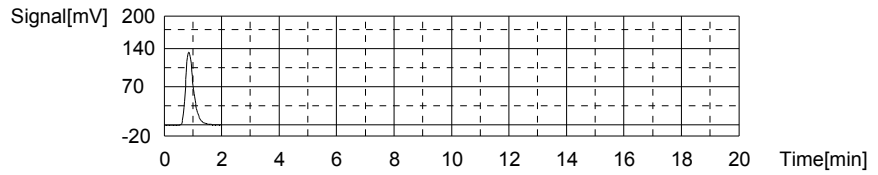
Mean Area 389.7
Mean Conc. 10.37mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	258.6	8.267mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 12:11:40 PM

Mean Area 258.6
Mean Conc. 8.267mg/L



Sample

Sample Name: L12050009-02
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

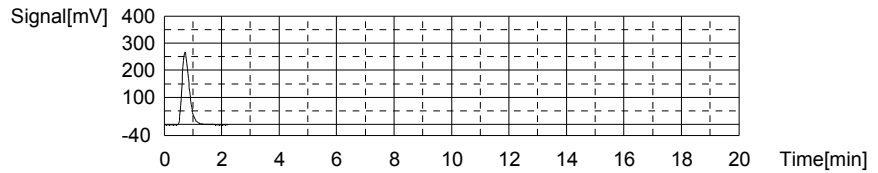
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.221mg/L TC:12.61mg/L IC:10.39mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	473.9	12.61mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 12:19:18 PM

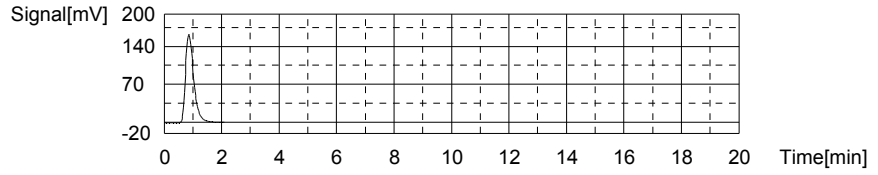
Mean Area 473.9
Mean Conc. 12.61mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	321.7	10.39mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 12:24:30 PM

Mean Area 321.7
 Mean Conc. 10.39mg/L



Sample

Sample Name: L12050009-03
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

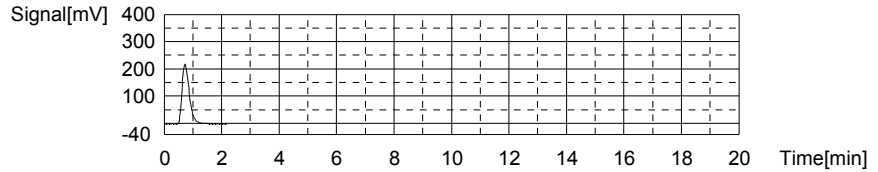
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.199mg/L TC:10.31mg/L IC:9.115mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	387.6	10.31mg/L	500uL	1		TCCURVE-12-06-2011.2011 12 06 08 40	5/05/04/2012 12:32:07 PM

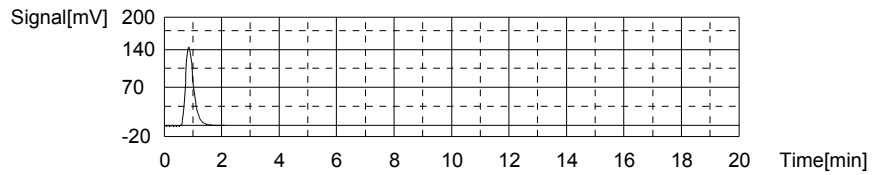
Mean Area 387.6
 Mean Conc. 10.31mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	283.8	9.115mg/L	500uL	1		TICURVE-12-06-2011B.2011 12 06 15 47	05/04/2012 12:37:21 PM

Mean Area 283.8
 Mean Conc. 9.115mg/L



Sample

Sample Name: CCV
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

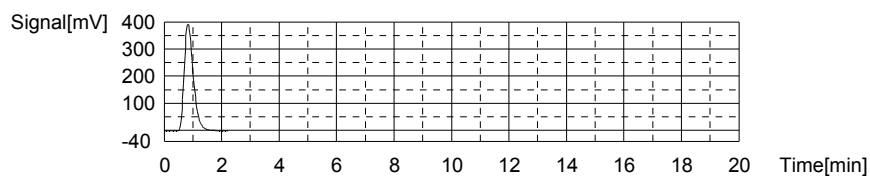
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:23.20mg/L TC:23.03mg/L IC:-0.1722mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	865.3	23.03mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 12:45:01 PM

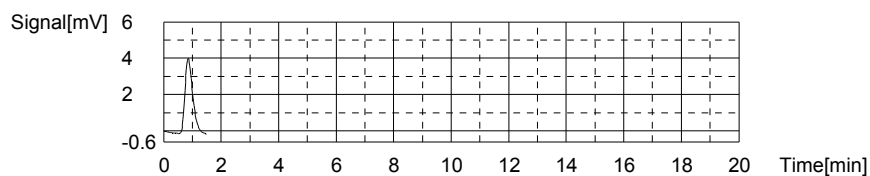
Mean Area 865.3
Mean Conc. 23.03mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.768	-0.1722mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 12:49:26 PM

Mean Area 7.768
Mean Conc. -0.1722mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

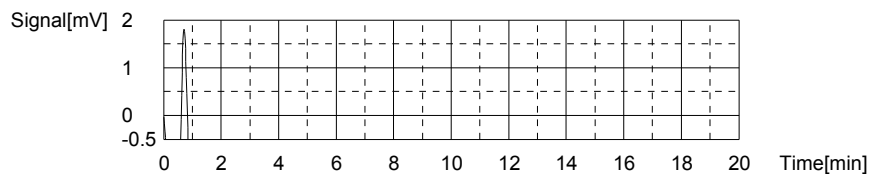
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.3715mg/L TC:0.1882mg/L IC:-0.1833mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.163	0.1882mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 12:54:27 PM

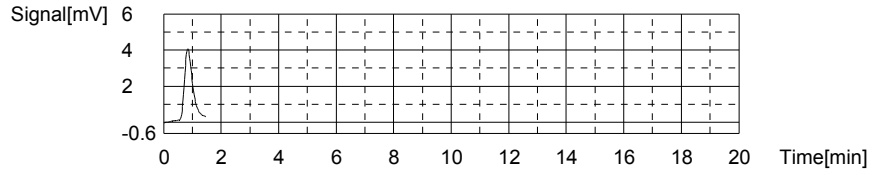
Mean Area 7.163
Mean Conc. 0.1882mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.437	-0.1833mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 12:58:23 PM

Mean Area 7.437
Mean Conc. -0.1833mg/L



Sample

Sample Name: L12050009-04
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

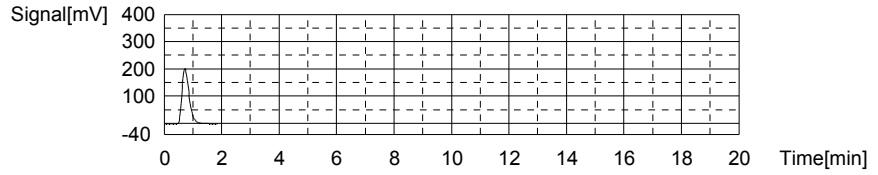
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:0.3613mg/L TC:9.396mg/L IC:9.034mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	353.1	9.396mg/L	500uL	1		TCCURVE-12-06-2011.2011 12 06 08 40	5/05/2012 01:05:40 PM

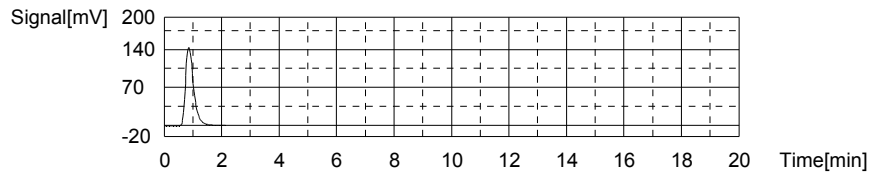
Mean Area 353.1
Mean Conc. 9.396mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	281.4	9.034mg/L	500uL	1		TICURVE-12-06-2011B.2011 12 06 15 47	05/04/2012 01:10:52 PM

Mean Area 281.4
Mean Conc. 9.034mg/L



Sample

Sample Name: L12050009-05
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

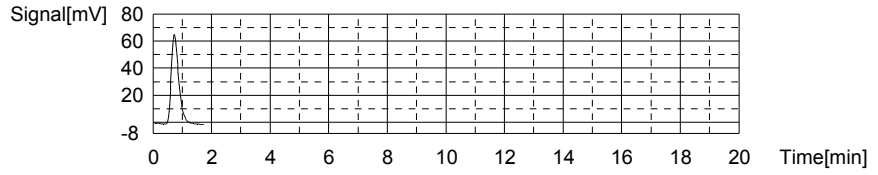
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:0.8123mg/L TC:3.128mg/L IC:2.315mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	117.6	3.128mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 01:18:03 PM

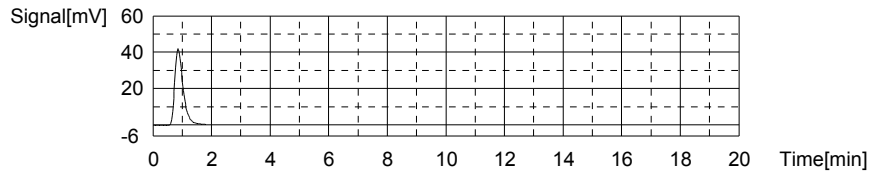
Mean Area 117.6
Mean Conc. 3.128mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.70	2.315mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 01:22:48 PM

Mean Area 81.70
Mean Conc. 2.315mg/L



Sample

Sample Name: L12050010-01
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

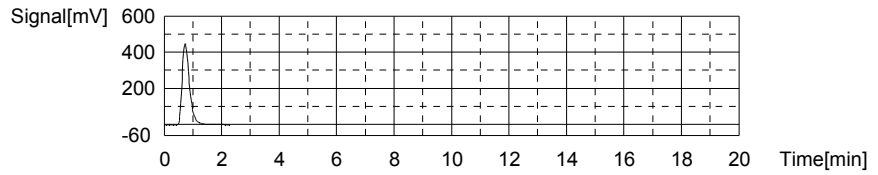
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.263mg/L TC:21.24mg/L IC:17.97mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	798.0	21.24mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 01:30:31 PM

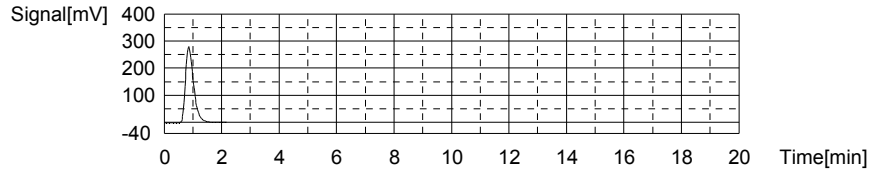
Mean Area 798.0
Mean Conc. 21.24mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	547.1	17.97mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 01:35:52 PM

Mean Area 547.1
 Mean Conc. 17.97mg/L



Sample

Sample Name: L12050010-02 MS
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

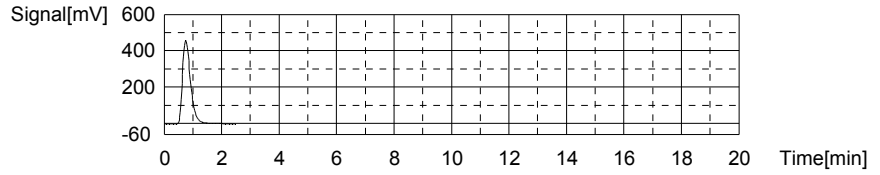
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:11.56mg/L TC:23.97mg/L IC:12.41mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	900.7	23.97mg/L	500uL	1		TCCURVE-12-06-2011.2011 12 06 08 40	5/05/2012 01:43:48 PM

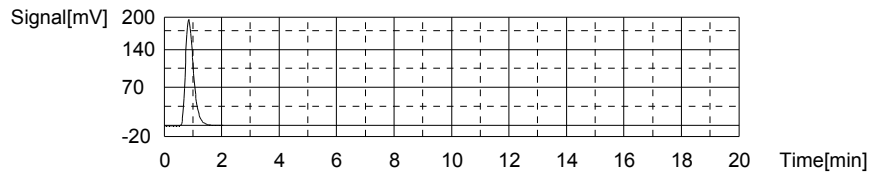
Mean Area 900.7
 Mean Conc. 23.97mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	381.7	12.41mg/L	500uL	1		TICURVE-12-06-2011B.2011 12 06 15 47	05/04/2012 01:49:00 PM

Mean Area 381.7
 Mean Conc. 12.41mg/L



Sample

Sample Name: L12050010-03 MSD
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

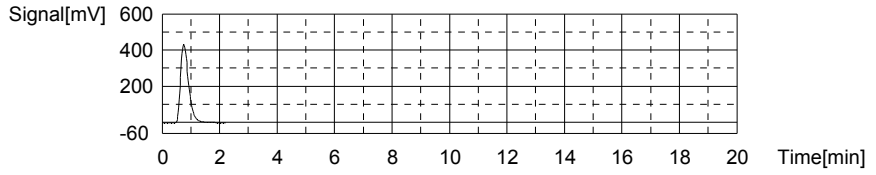
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:11.15mg/L TC:22.54mg/L IC:11.39mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	846.8	22.54mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 01:56:39 PM

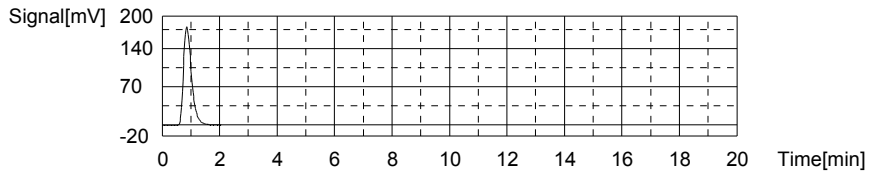
Mean Area 846.8
Mean Conc. 22.54mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	351.4	11.39mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 02:01:44 PM

Mean Area 351.4
Mean Conc. 11.39mg/L



Sample

Sample Name: L12050010-04
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

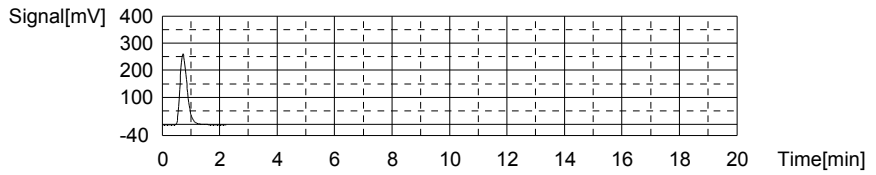
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:0.8853mg/L TC:12.21mg/L IC:11.33mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	459.0	12.21mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 02:09:23 PM

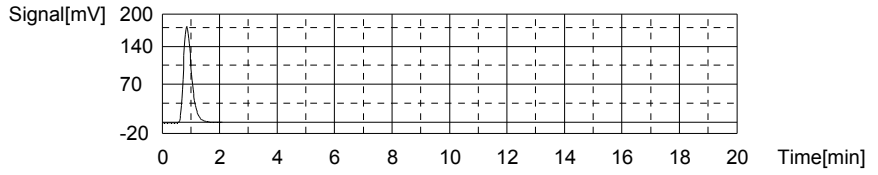
Mean Area 459.0
Mean Conc. 12.21mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	349.6	11.33mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 02:14:31 PM

Mean Area 349.6
Mean Conc. 11.33mg/L



Sample

Sample Name: L12050010-05 MS
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

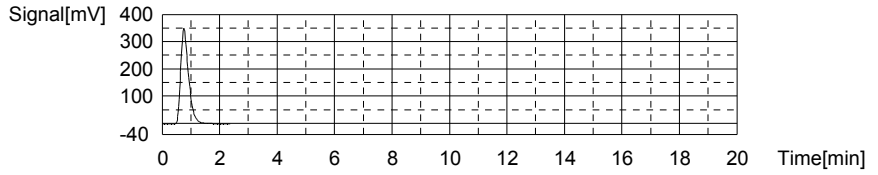
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:9.598mg/L TC:17.81mg/L IC:8.214mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	669.3	17.81mg/L	500uL	1		TCCURVE-12-06-2011.2011 12 06 08 40 5	05/04/2012 02:22:19 PM

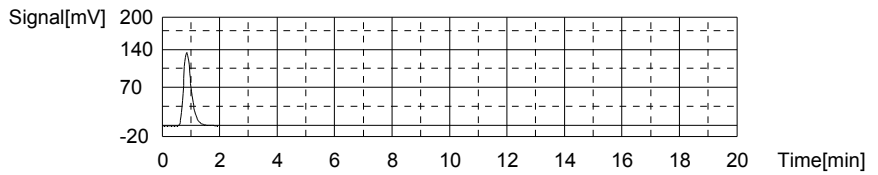
Mean Area 669.3
Mean Conc. 17.81mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	257.0	8.214mg/L	500uL	1		TICURVE-12-06-2011B.2011 12 06 15 47	05/04/2012 02:27:17 PM

Mean Area 257.0
Mean Conc. 8.214mg/L



Sample

Sample Name: L12050010-06 MSD
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

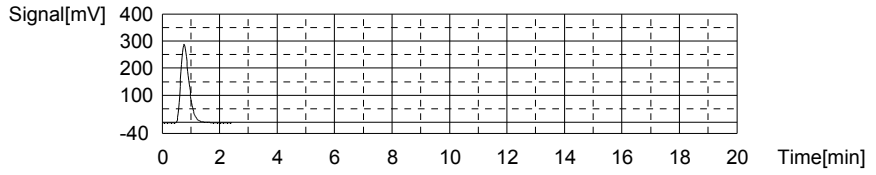
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:9.886mg/L TC:15.53mg/L IC:5.640mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	583.4	15.53mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 02:35:08 PM

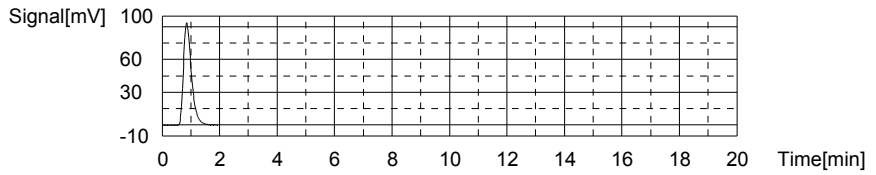
Mean Area 583.4
Mean Conc. 15.53mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	180.5	5.640mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 02:40:07 PM

Mean Area 180.5
Mean Conc. 5.640mg/L



Sample

Sample Name: L12050010-07
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

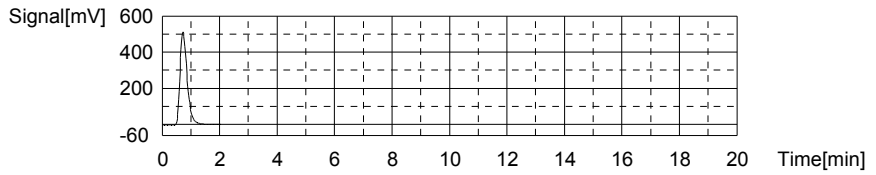
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.761mg/L TC:23.74mg/L IC:20.98mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	892.0	23.74mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 02:47:36 PM

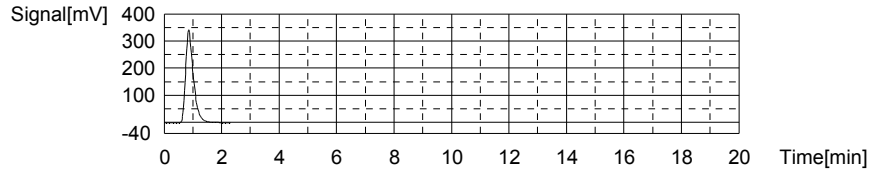
Mean Area 892.0
Mean Conc. 23.74mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	636.4	20.98mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 02:53:16 PM

Mean Area 636.4
 Mean Conc. 20.98mg/L



Sample

Sample Name: L12050010-08 MS
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

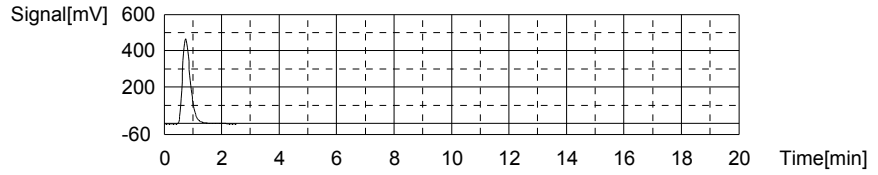
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:10.92mg/L TC:24.09mg/L IC:13.17mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	905.3	24.09mg/L	500uL	1		TCCURVE-12-06-2011.2011 12 06 08 40 5	05/04/2012 03:01:14 PM

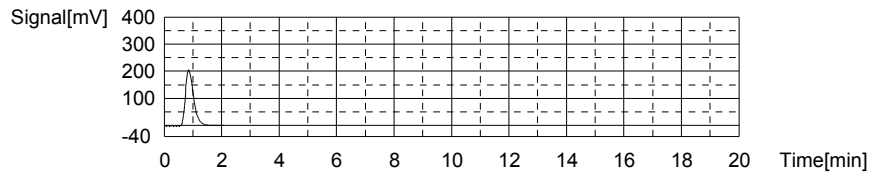
Mean Area 905.3
 Mean Conc. 24.09mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	404.3	13.17mg/L	500uL	1		TICURVE-12-06-2011B.2011 12 06 15 47	05/04/2012 03:06:24 PM

Mean Area 404.3
 Mean Conc. 13.17mg/L



Sample

Sample Name: CCV
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

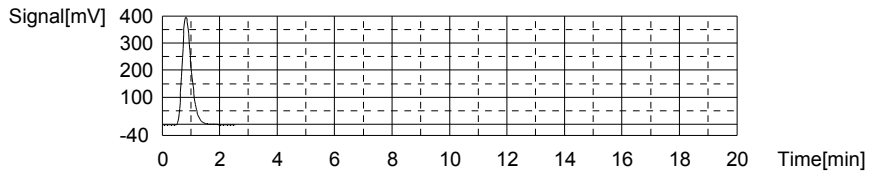
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:23.80mg/L TC:23.64mg/L IC:-0.1575mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	888.3	23.64mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 03:14:22 PM

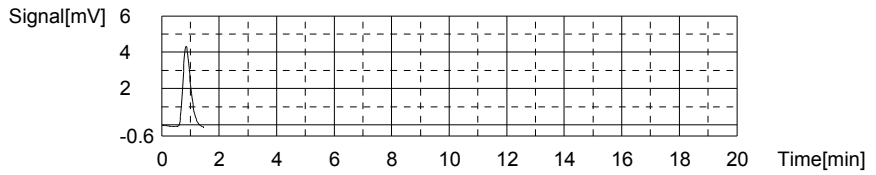
Mean Area 888.3
Mean Conc. 23.64mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.205	-0.1575mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 03:18:45 PM

Mean Area 8.205
Mean Conc. -0.1575mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

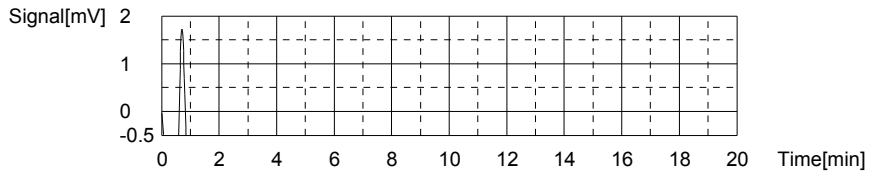
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.3727mg/L TC:0.1880mg/L IC:-0.1846mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.158	0.1880mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 03:23:47 PM

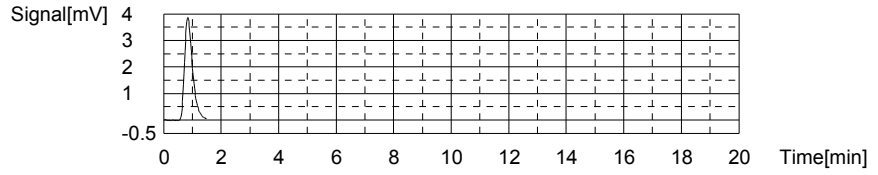
Mean Area 7.158
Mean Conc. 0.1880mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.398	-0.1846mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 03:27:42 PM

Mean Area 7.398
 Mean Conc. -0.1846mg/L



Sample

Sample Name: L12050010-09 MSD
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

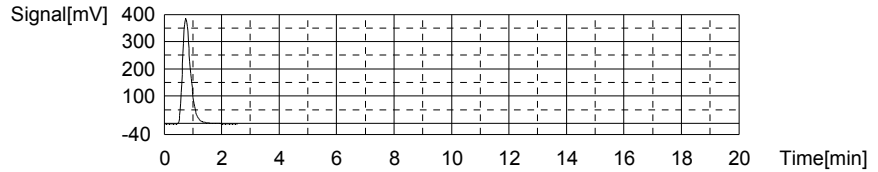
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:10.69mg/L TC:20.11mg/L IC:9.411mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	755.5	20.11mg/L	500uL	1		TCCURVE-12-06-2011.2011 12 06 08 40	5/05/2012 03:35:42 PM

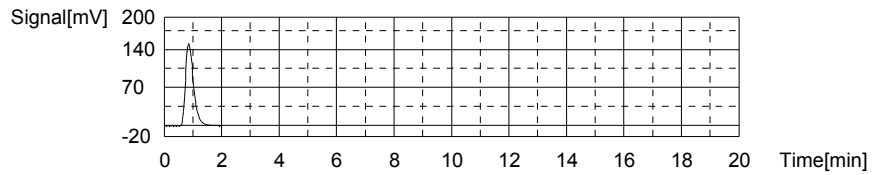
Mean Area 755.5
 Mean Conc. 20.11mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	292.6	9.411mg/L	500uL	1		TICURVE-12-06-2011B.2011 12 06 15 47	05/04/2012 03:40:43 PM

Mean Area 292.6
 Mean Conc. 9.411mg/L



Sample

Sample Name: L12050010-10
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

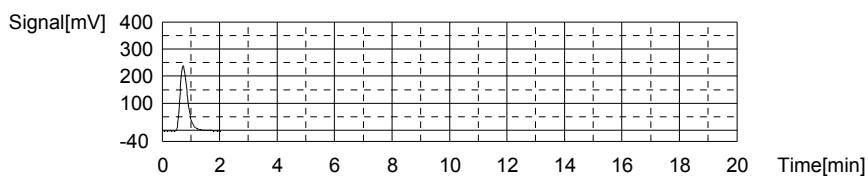
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.831mg/L TC:11.70mg/L IC:9.872mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	439.8	11.70mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 03:48:11 PM

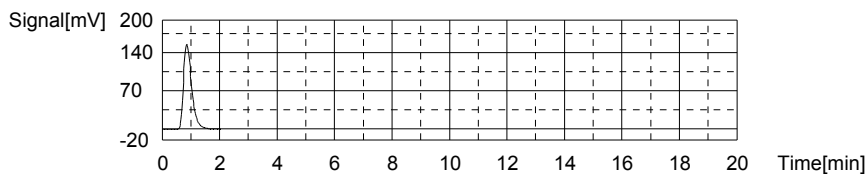
Mean Area 439.8
Mean Conc. 11.70mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	306.3	9.872mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 03:53:19 PM

Mean Area 306.3
Mean Conc. 9.872mg/L



Sample

Sample Name: L12050010-11
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

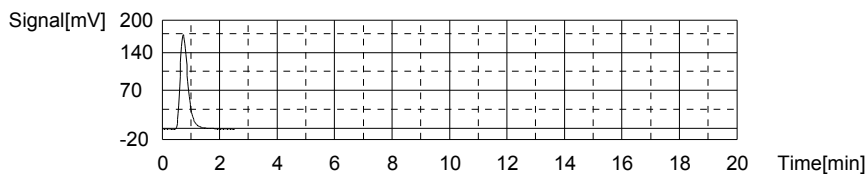
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.636mg/L TC:8.938mg/L IC:6.302mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	335.9	8.938mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 04:01:18 PM

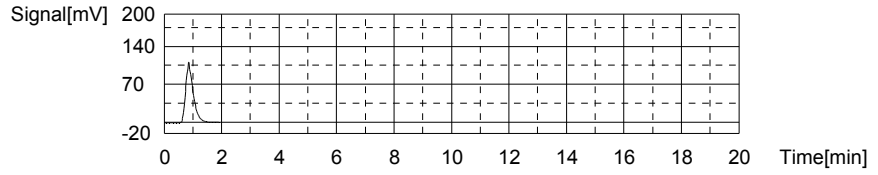
Mean Area 335.9
Mean Conc. 8.938mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	200.2	6.302mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 04:06:18 PM

Mean Area 200.2
 Mean Conc. 6.302mg/L



Sample

Sample Name: L12050010-12 (3)
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

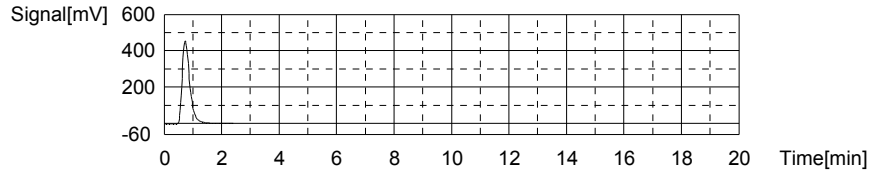
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:5.279mg/L TC:22.46mg/L IC:17.18mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	843.9	22.46mg/L	500uL	1		TCCURVE-12-06-2011.2011 12 06 08 40 5	05/04/2012 04:14:09 PM

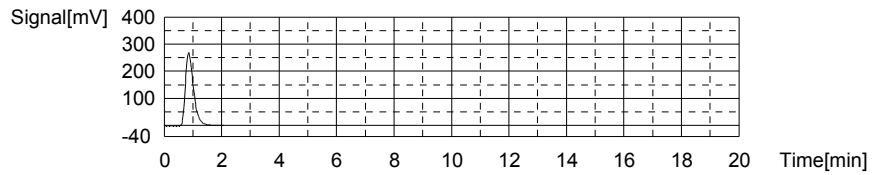
Mean Area 843.9
 Mean Conc. 22.46mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	523.5	17.18mg/L	500uL	1		TICURVE-12-06-2011B.2011 12 06 15 47	05/04/2012 04:19:22 PM

Mean Area 523.5
 Mean Conc. 17.18mg/L



Sample

Sample Name: L12050010-13
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

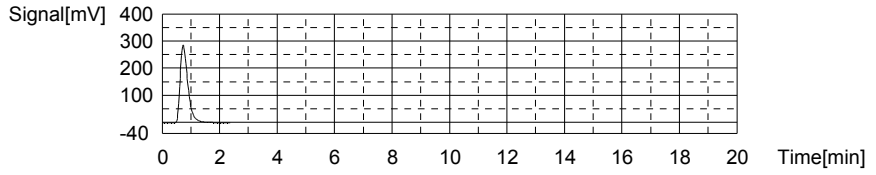
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.604mg/L TC:14.38mg/L IC:10.78mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	540.4	14.38mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 04:27:11 PM

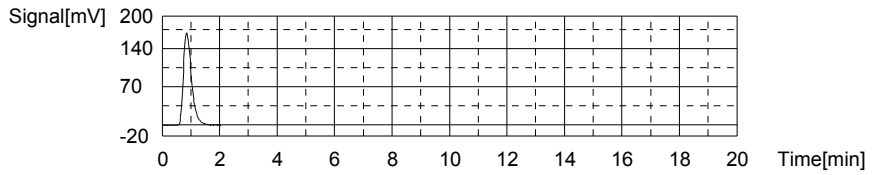
Mean Area 540.4
Mean Conc. 14.38mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	333.2	10.78mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 04:32:23 PM

Mean Area 333.2
Mean Conc. 10.78mg/L



Sample

Sample Name: L12050010-14 (3)
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

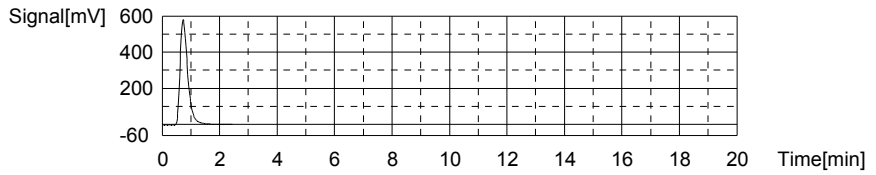
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:6.637mg/L TC:28.80mg/L IC:22.16mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1082	28.80mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 04:40:17 PM

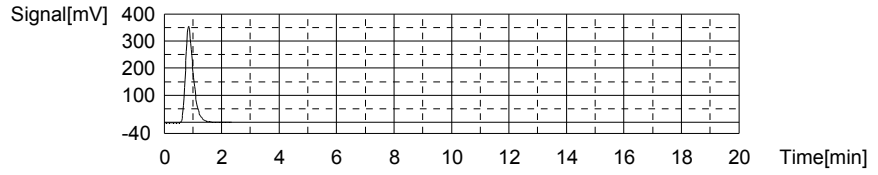
Mean Area 1082
Mean Conc. 28.80mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	671.5	22.16mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 04:45:48 PM

Mean Area 671.5
 Mean Conc. 22.16mg/L



Sample

Sample Name: L12050010-15 (2)
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

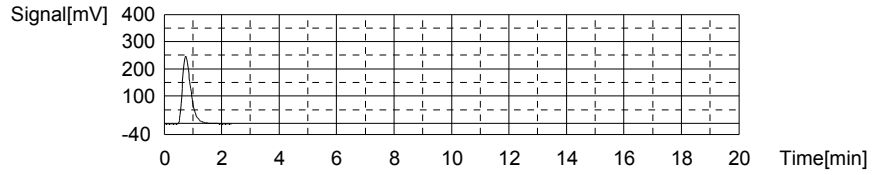
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:6.662mg/L TC:13.57mg/L IC:6.905mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	509.8	13.57mg/L	500uL	1		TCCURVE-12-06-2011.2011 12 06 08 40	5/05/2012 04:53:35 PM

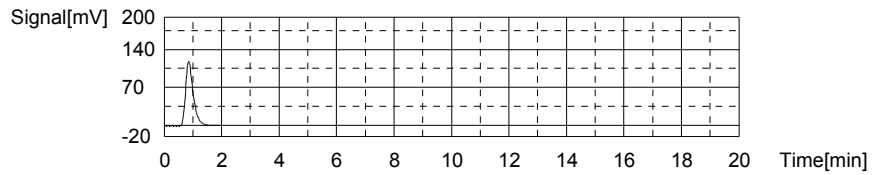
Mean Area 509.8
 Mean Conc. 13.57mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	218.1	6.905mg/L	500uL	1		TICURVE-12-06-2011B.2011 12 06 15 47	05/04/2012 04:58:34 PM

Mean Area 218.1
 Mean Conc. 6.905mg/L



Sample

Sample Name: L12050051-01
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

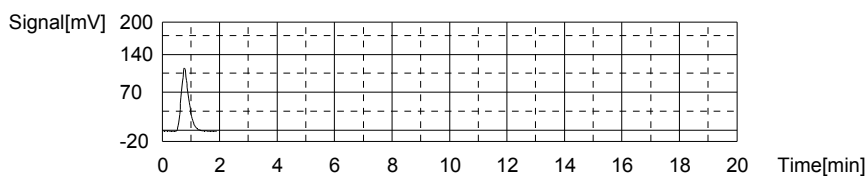
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:4.799mg/L TC:5.667mg/L IC:0.8679mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	213.0	5.667mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 05:05:55 PM

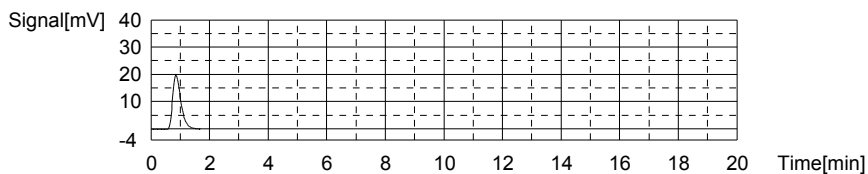
Mean Area 213.0
Mean Conc. 5.667mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	38.68	0.8679mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 05:10:33 PM

Mean Area 38.68
Mean Conc. 0.8679mg/L



Sample

Sample Name: L12050051-02
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

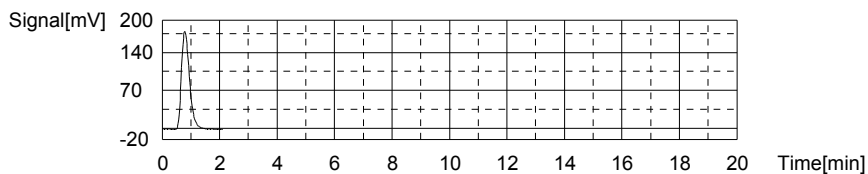
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:8.973mg/L TC:9.398mg/L IC:0.4251mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	353.2	9.398mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 05:18:06 PM

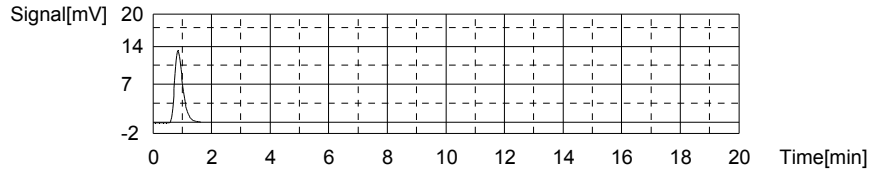
Mean Area 353.2
Mean Conc. 9.398mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.52	0.4251mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 05:22:38 PM

Mean Area 25.52
 Mean Conc. 0.4251mg/L



Sample

Sample Name: L12050051-03
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

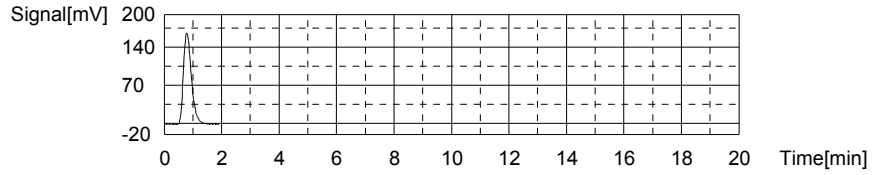
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:8.250mg/L TC:8.656mg/L IC:0.4059mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	325.3	8.656mg/L	500uL	1		TCCURVE-12-06-2011.2011 12 06 08 40	5/05/2012 05:29:59 PM

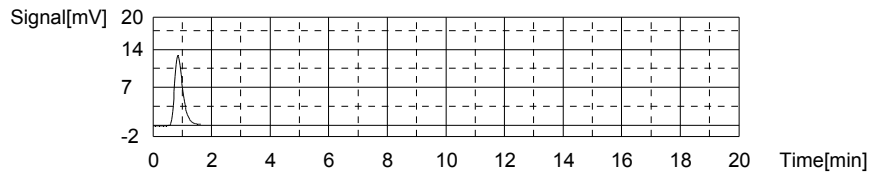
Mean Area 325.3
 Mean Conc. 8.656mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	24.95	0.4059mg/L	500uL	1		TICURVE-12-06-2011B.2011 12 06 15 47	05/04/2012 05:34:29 PM

Mean Area 24.95
 Mean Conc. 0.4059mg/L



Sample

Sample Name: CCV
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

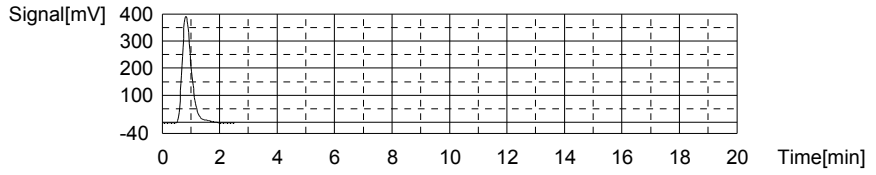
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:23.83mg/L TC:23.63mg/L IC:-0.2047mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	887.8	23.63mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 05:42:28 PM

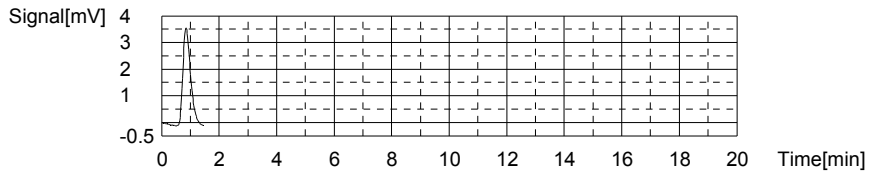
Mean Area 887.8
Mean Conc. 23.63mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.801	-0.2047mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 05:46:48 PM

Mean Area 6.801
Mean Conc. -0.2047mg/L



Sample

Sample Name: WG396994-01 BLK
Sample ID: <Untitled>
Origin: TOC-12-06-2011A.met
Status: Completed
Chk. Result

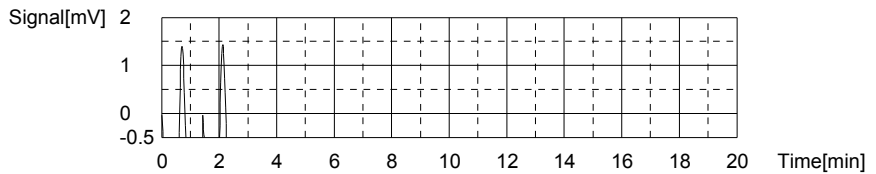
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.3804mg/L TC:0.1817mg/L IC:-0.1987mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.140	0.1876mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 05:51:51 PM
2	6.703	0.1759mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 05:55:25 PM

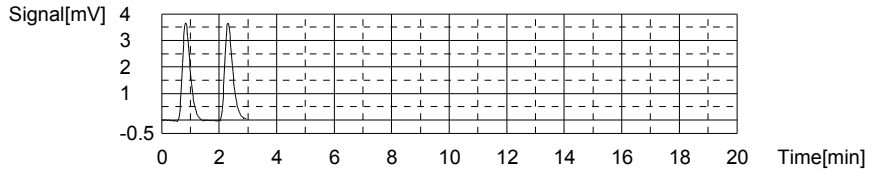
Mean Area 6.922
Mean Conc. 0.1817mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.005	-0.1979mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 05:59:22 PM
2	6.958	-0.1994mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 06:03:17 PM

Mean Area 6.982
Mean Conc. -0.1987mg/L



Sample

Sample Name: WG396994-02 LCS
Sample ID: <Untitled>
Origin: TOC-12-06-2011A.met
Status: Completed
Chk. Result

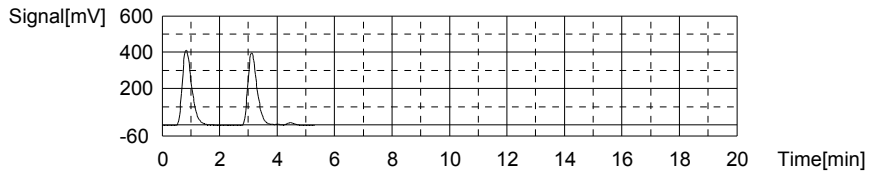
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:25.23mg/L TC:25.02mg/L IC:-0.2085mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	945.9	25.17mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40	05/04/2012 06:11:02 PM
2	934.4	24.87mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40	05/04/2012 06:16:27 PM

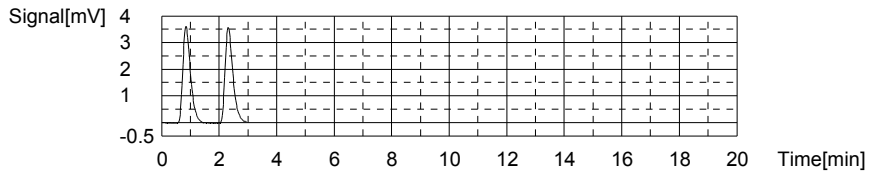
Mean Area 940.2
Mean Conc. 25.02mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.731	-0.2071mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 06:20:50 PM
2	6.645	-0.2100mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 06:24:59 PM

Mean Area 6.688
Mean Conc. -0.2085mg/L



Sample

Sample Name: WG396994-03 LCSDUP
Sample ID: <Untitled>
Origin: TOC-12-06-2011A.met
Status: Completed
Chk. Result

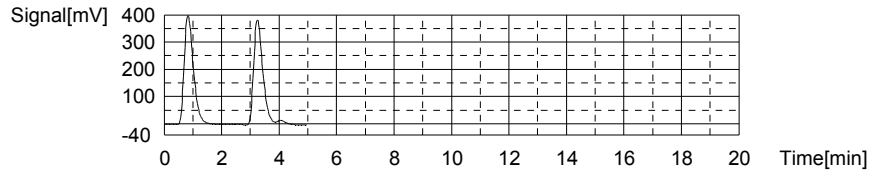
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:23.83mg/L TC:23.62mg/L IC:-0.2095mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	892.9	23.76mg/L	500uL	1		TCCURVE-12-06-2011.2011 12 06 08 40 5	05/04/2012 06:32:51 PM
2	882.2	23.48mg/L	500uL	1		TCCURVE-12-06-2011.2011 12 06 08 40 5	05/04/2012 06:38:49 PM

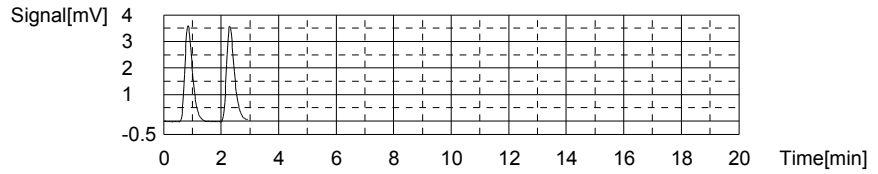
Mean Area 887.6
Mean Conc. 23.62mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.666	-0.2093mg/L	500uL	1		TICURVE-12-06-2011B.2011 12 06 15 47	05/04/2012 06:43:06 PM
2	6.652	-0.2097mg/L	500uL	1		TICURVE-12-06-2011B.2011 12 06 15 47	05/04/2012 06:47:14 PM

Mean Area 6.659
Mean Conc. -0.2095mg/L



Sample

Sample Name: L12050092-08
Sample ID: <Untitled>
Origin: TOC-12-06-2011A.met
Status: Completed
Chk. Result

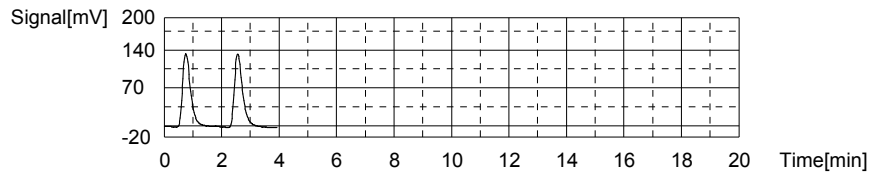
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:4.160mg/L TC:7.064mg/L IC:2.904mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	257.6	6.854mg/L	500uL	1		TCCURVE-12-06-2011.2011 12 06 08 40 5	05/04/2012 06:54:29 PM
2	273.4	7.274mg/L	500uL	1		TCCURVE-12-06-2011.2011 12 06 08 40 5	05/04/2012 06:59:45 PM

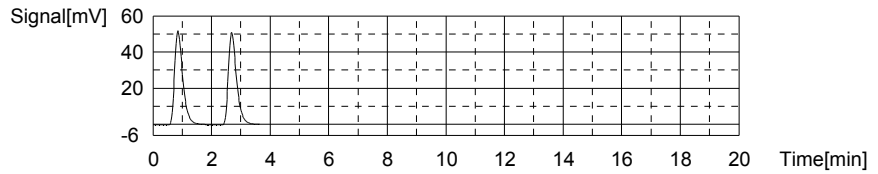
Mean Area 265.5
Mean Conc. 7.064mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	99.96	2.930mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 07:04:32 PM
2	98.43	2.878mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 07:09:02 PM

Mean Area 99.20
Mean Conc. 2.904mg/L



Sample

Sample Name: L12050107-05
Sample ID: <Untitled>
Origin: TOC-12-06-2011A.met
Status: Completed
Chk. Result

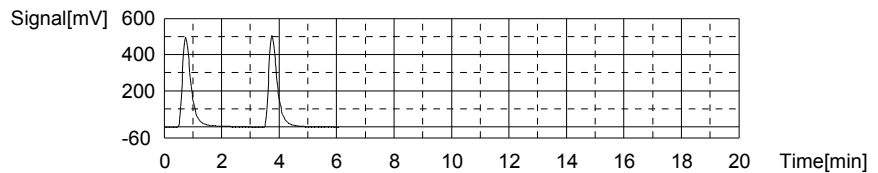
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:13.36mg/L TC:28.70mg/L IC:15.34mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1067	28.40mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 07:17:30 PM
2	1090	29.01mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 07:22:54 PM

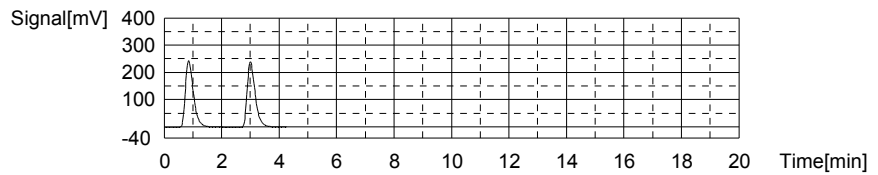
Mean Area 1079
Mean Conc. 28.70mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	473.3	15.49mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 07:28:13 PM
2	464.3	15.19mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 07:33:12 PM

Mean Area 468.8
Mean Conc. 15.34mg/L



Sample

Sample Name: WG396994-05 DUP
 Sample ID: <Untitled>
 Origin: TOC-12-06-2011A.met
 Status: Completed
 Chk. Result

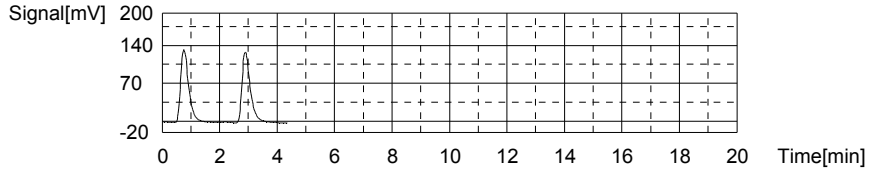
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:4.449mg/L TC:7.040mg/L IC:2.591mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	263.4	7.008mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_50	05/04/2012 07:40:48 PM
2	265.8	7.072mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_50	05/04/2012 07:45:18 PM

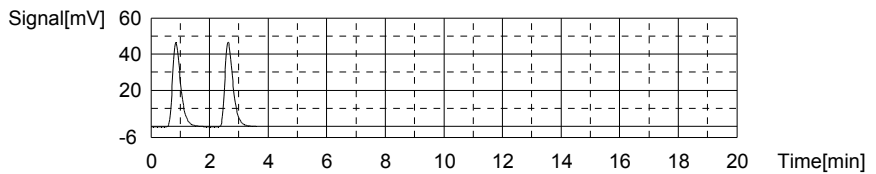
Mean Area 264.6
 Mean Conc. 7.040mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	89.78	2.587mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 07:50:03 PM
2	90.01	2.595mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 07:54:34 PM

Mean Area 89.90
 Mean Conc. 2.591mg/L



Sample

Sample Name: WG396994-06 MS
 Sample ID: <Untitled>
 Origin: TOC-12-06-2011A.met
 Status: Completed
 Chk. Result

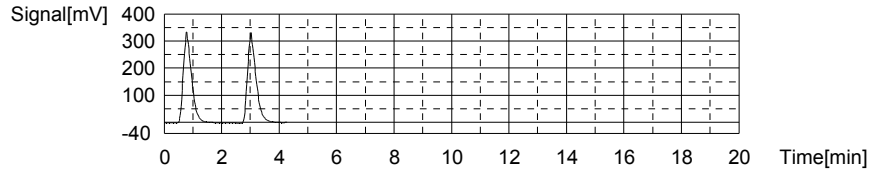
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:14.46mg/L TC:17.70mg/L IC:3.237mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	659.8	17.56mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_50	05/04/2012 08:02:15 PM
2	670.2	17.84mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_50	05/04/2012 08:06:36 PM

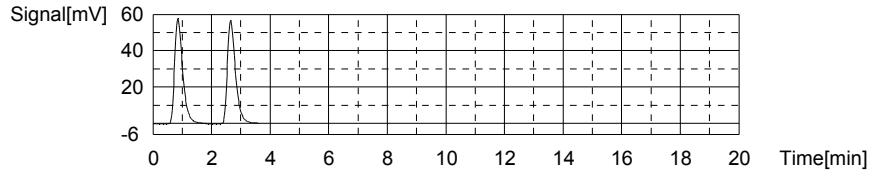
Mean Area 665.0
 Mean Conc. 17.70mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	109.9	3.264mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 08:11:19 PM
2	108.3	3.210mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 08:15:50 PM

Mean Area 109.1
 Mean Conc. 3.237mg/L



Sample

Sample Name: L12050050-01
 Sample ID: <Untitled>
 Origin: TOC-12-06-2011A.met
 Status: Completed
 Chk. Result

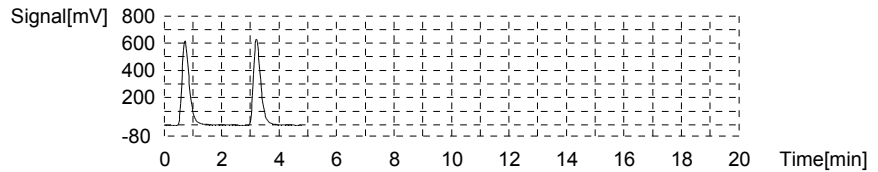
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.831mg/L TC:29.49mg/L IC:25.66mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1097	29.20mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 08:23:47 PM
2	1119	29.78mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 08:29:16 PM

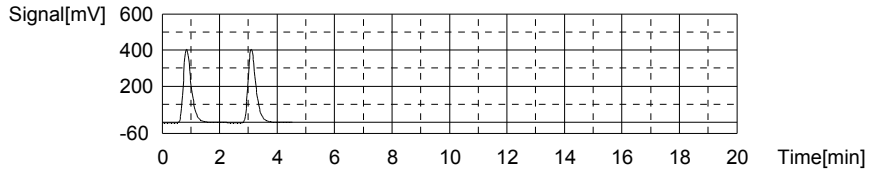
Mean Area 1108
 Mean Conc. 29.49mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	776.3	25.69mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 08:34:43 PM
2	774.6	25.63mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 08:39:55 PM

Mean Area 775.5
 Mean Conc. 25.66mg/L



Sample

Sample Name: L12050050-03
 Sample ID: <Untitled>
 Origin: TOC-12-06-2011A.met
 Status: Completed
 Chk. Result

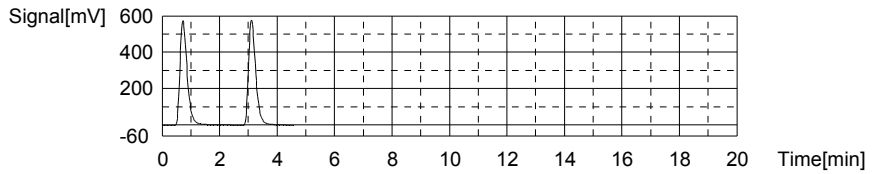
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.141mg/L TC:26.84mg/L IC:23.70mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1005	26.75mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40	05/04/2012 08:47:46 PM
2	1012	26.93mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40	05/04/2012 08:53:06 PM

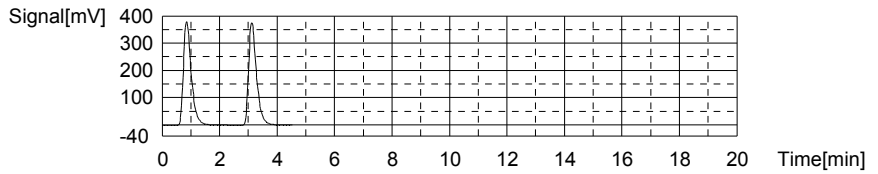
Mean Area 1009
 Mean Conc. 26.84mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	719.4	23.77mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 08:58:35 PM
2	715.1	23.63mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 09:03:49 PM

Mean Area 717.3
 Mean Conc. 23.70mg/L



Sample

Sample Name: <Untitled>
 Sample ID: <Untitled>
 Origin: TOC-12-06-2011A.met
 Status: Completed
 Chk. Result

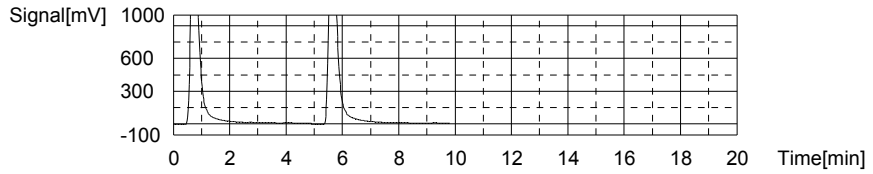
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.107mg/L TC:91.08mg/L IC:87.97mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3365	89.56mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 09:14:11 PM
2	3479	92.60mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 09:21:22 PM

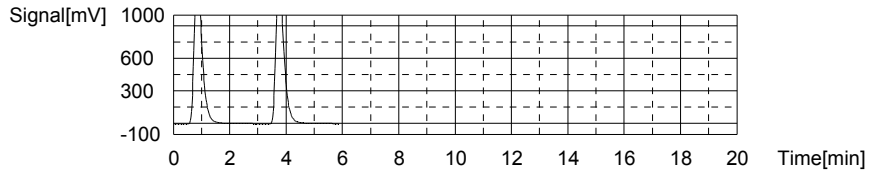
Mean Area 3422
Mean Conc. 91.08mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2632	88.12mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 09:28:02 PM
2	2623	87.82mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 09:34:23 PM

Mean Area 2628
Mean Conc. 87.97mg/L



Sample

Sample Name: L12050050-07
Sample ID: <Untitled>
Origin: TOC-12-06-2011A.met
Status: Completed
Chk. Result

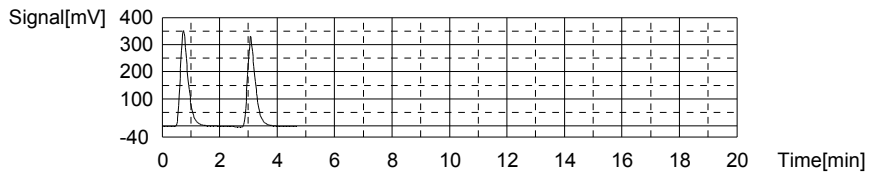
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:7.709mg/L TC:17.20mg/L IC:9.490mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	663.5	17.66mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 09:42:11 PM
2	629.1	16.74mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 09:47:47 PM

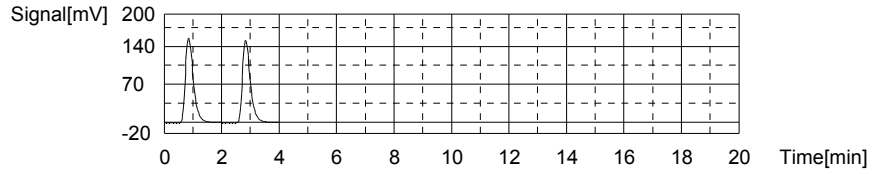
Mean Area 646.3
Mean Conc. 17.20mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	299.6	9.647mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 09:52:55 PM
2	290.3	9.334mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 09:57:45 PM

Mean Area 295.0
 Mean Conc. 9.490mg/L



Sample

Sample Name: CCV
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

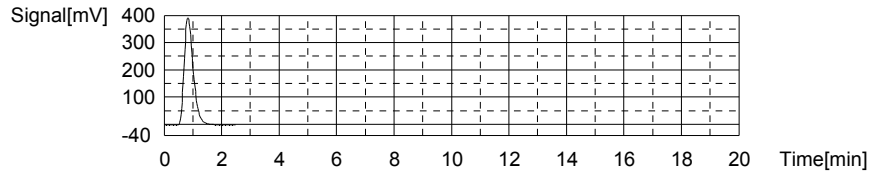
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:23.15mg/L TC:23.00mg/L IC:-0.1453mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	864.4	23.00mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 10:05:54 PM

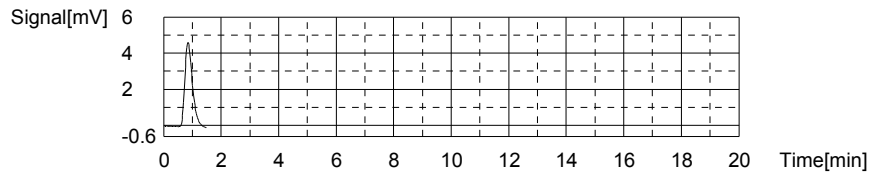
Mean Area 864.4
 Mean Conc. 23.00mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.567	-0.1453mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 10:10:17 PM

Mean Area 8.567
 Mean Conc. -0.1453mg/L



Sample

Sample Name: WG396996-01 BLK
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.3717mg/L TC:0.1985mg/L IC:-0.1732mg/L

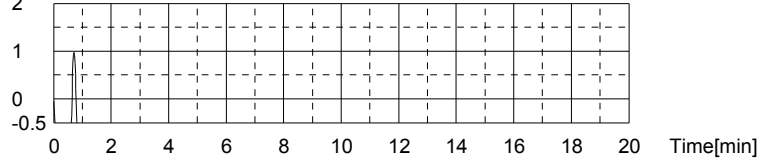
1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.550	0.1985mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 10:15:29 PM

Mean Area 7.550
Mean Conc. 0.1985mg/L

Signal[mV] 2

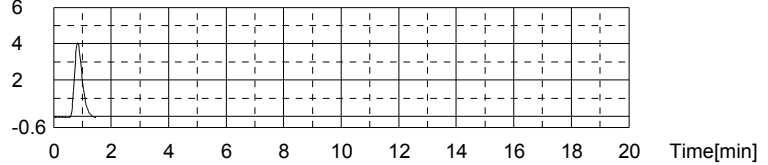


Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.738	-0.1732mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 10:19:25 PM

Mean Area 7.738
Mean Conc. -0.1732mg/L

Signal[mV] 6



Sample

Sample Name: WG396996-02 LCS
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:23.78mg/L TC:23.58mg/L IC:-0.1974mg/L

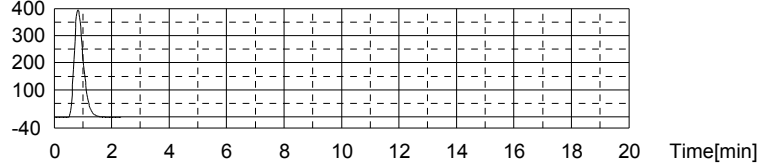
1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	886.1	23.58mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 10:27:12 PM

Mean Area 886.1
Mean Conc. 23.58mg/L

Signal[mV] 400

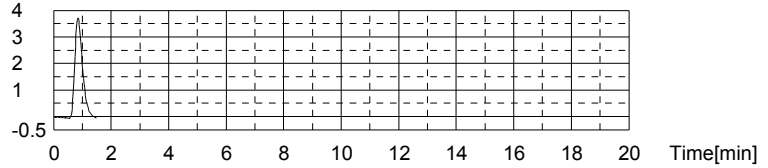


Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.020	-0.1974mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 10:31:35 PM

Mean Area 7.020
Mean Conc. -0.1974mg/L

Signal[mV]



Sample

Sample Name:
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.5722mg/L TC:0.3885mg/L IC:-0.1837mg/L

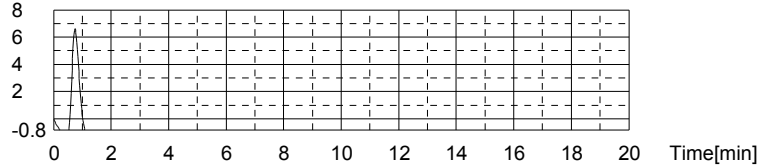
1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.69	0.3885mg/L	500uL	1		TICCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 10:38:34 PM

Mean Area 14.69
Mean Conc. 0.3885mg/L

Signal[mV]

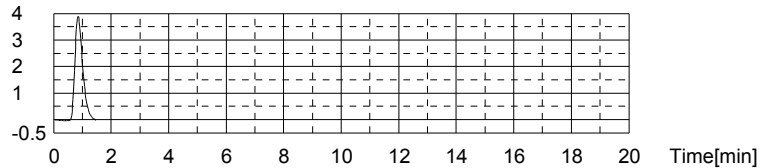


Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.426	-0.1837mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 10:42:55 PM

Mean Area 7.426
Mean Conc. -0.1837mg/L

Signal[mV]



Sample

Sample Name: L12050051-04
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

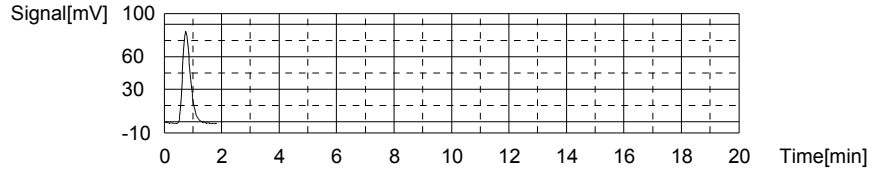
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.743mg/L TC:4.307mg/L IC:1.563mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	161.9	4.307mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 10:50:13 PM

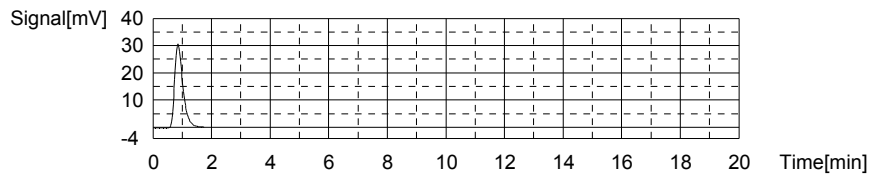
Mean Area 161.9
Mean Conc. 4.307mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	59.35	1.563mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 10:54:54 PM

Mean Area 59.35
Mean Conc. 1.563mg/L



Sample

Sample Name: L12050051-05
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

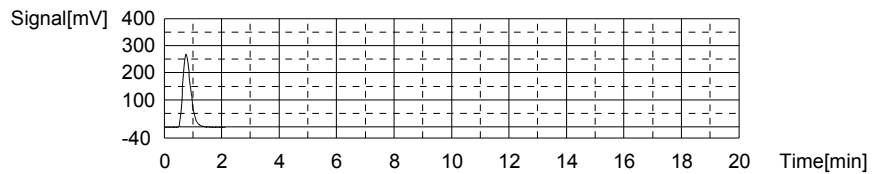
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:8.749mg/L TC:13.88mg/L IC:5.132mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	521.6	13.88mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 11:02:30 PM

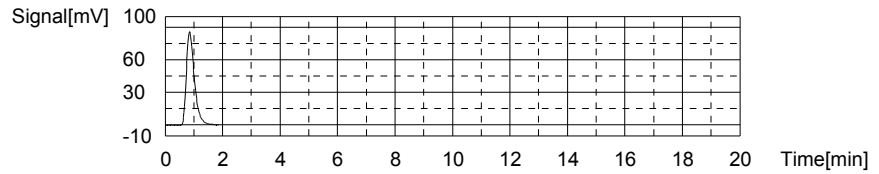
Mean Area 521.6
Mean Conc. 13.88mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	165.4	5.132mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 11:07:21 PM

Mean Area 165.4
Mean Conc. 5.132mg/L



Sample

Sample Name: L12050051-06
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

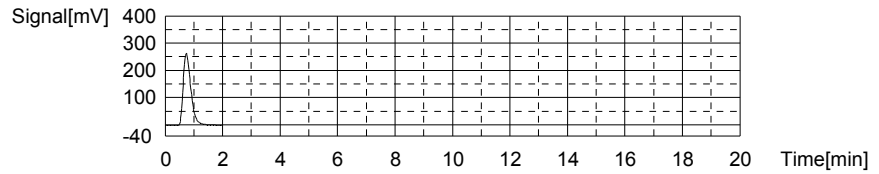
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.876mg/L TC:13.01mg/L IC:9.129mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	488.7	13.01mg/L	500uL	1		TICCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 11:14:48 PM

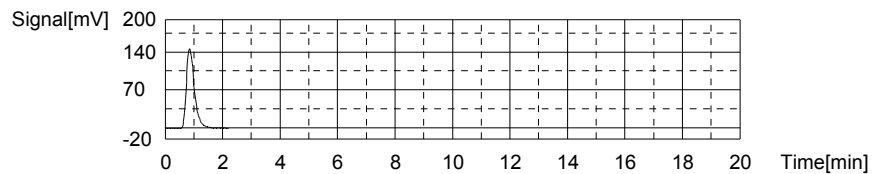
Mean Area 488.7
Mean Conc. 13.01mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	284.2	9.129mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 11:20:04 PM

Mean Area 284.2
Mean Conc. 9.129mg/L



Sample

Sample Name: L12050051-07
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

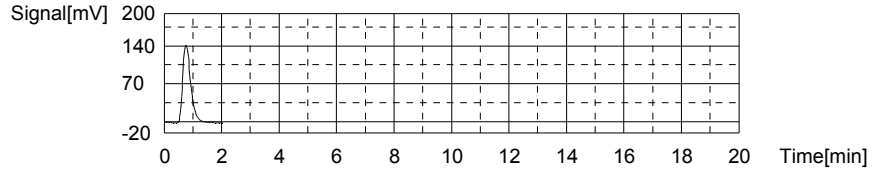
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:5.014mg/L TC:7.455mg/L IC:2.442mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	280.2	7.455mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 11:27:34 PM

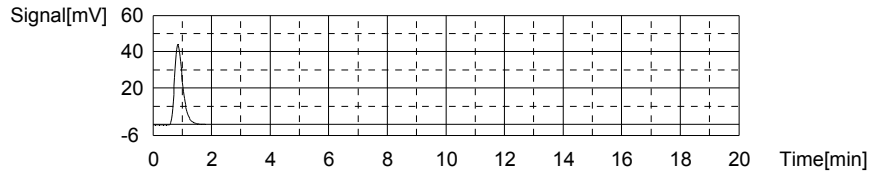
Mean Area 280.2
Mean Conc. 7.455mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	85.45	2.442mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 11:32:20 PM

Mean Area 85.45
Mean Conc. 2.442mg/L



Sample

Sample Name: L12050051-08
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

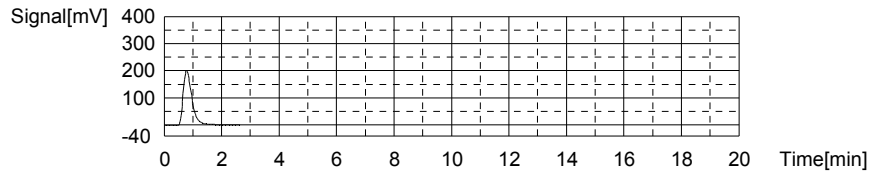
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:9.850mg/L TC:11.54mg/L IC:1.692mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	433.7	11.54mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/04/2012 11:40:27 PM

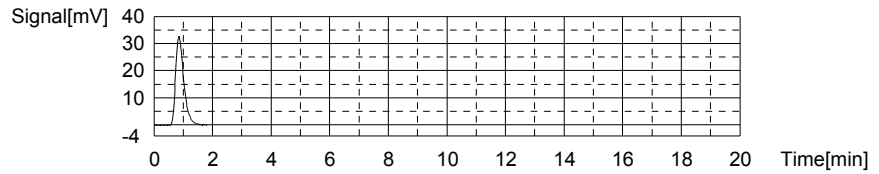
Mean Area 433.7
Mean Conc. 11.54mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	63.16	1.692mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 11:45:08 PM

Mean Area 63.16
Mean Conc. 1.692mg/L



Sample

Sample Name: L12050051-11
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

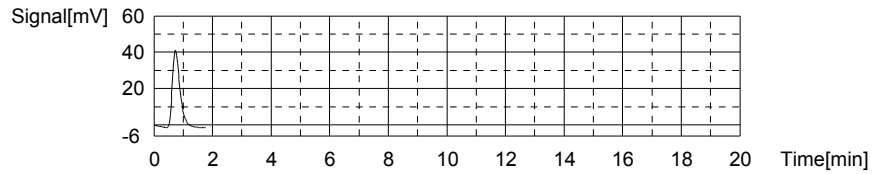
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:0.8914mg/L TC:2.060mg/L IC:1.168mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.48	2.060mg/L	500uL	1		TICCURVE-12-06-2011.2011_12_06_08_40_50	05/04/2012 11:52:21 PM

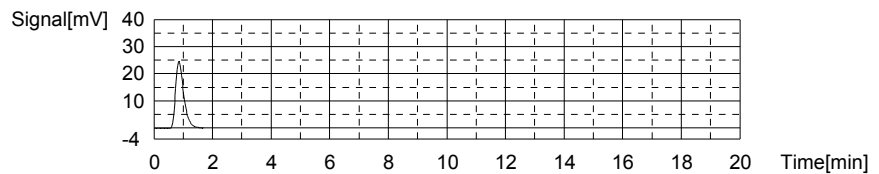
Mean Area 77.48
Mean Conc. 2.060mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	47.61	1.168mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/04/2012 11:56:57 PM

Mean Area 47.61
Mean Conc. 1.168mg/L



Sample

Sample Name: L12050051-12
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

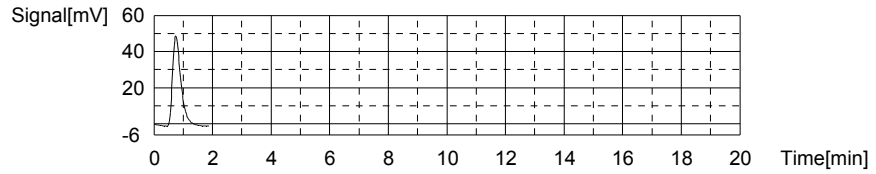
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.507mg/L TC:2.670mg/L IC:1.163mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	100.4	2.670mg/L	500uL	1		TC	05/05/2012 12:04:18 AM

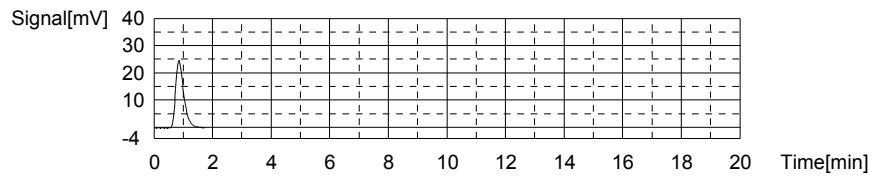
Mean Area 100.4
Mean Conc. 2.670mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	47.44	1.163mg/L	500uL	1		TC	05/05/2012 12:08:56 AM

Mean Area 47.44
Mean Conc. 1.163mg/L



Sample

Sample Name: L12050051-13
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

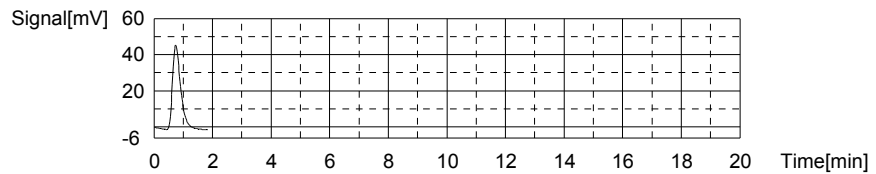
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.372mg/L TC:2.415mg/L IC:1.043mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	90.82	2.415mg/L	500uL	1		TC	05/05/2012 12:16:15 AM

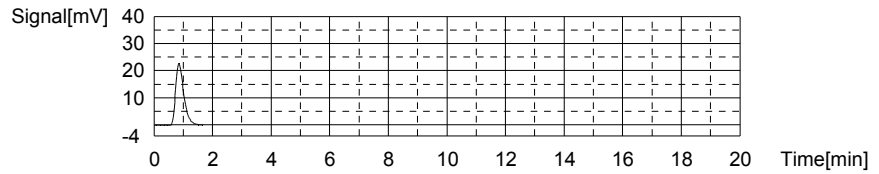
Mean Area 90.82
Mean Conc. 2.415mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	43.87	1.043mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 12:20:51 AM

Mean Area 43.87
Mean Conc. 1.043mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

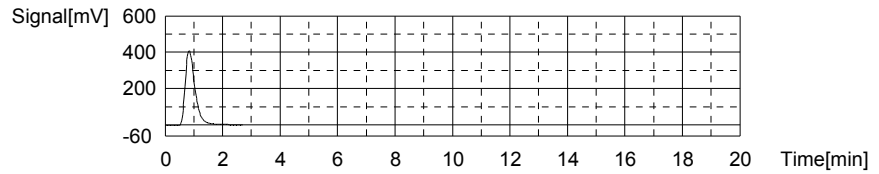
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:25.93mg/L TC:25.72mg/L IC:-0.2084mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	966.3	25.72mg/L	500uL	1		TICCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 12:29:07 AM

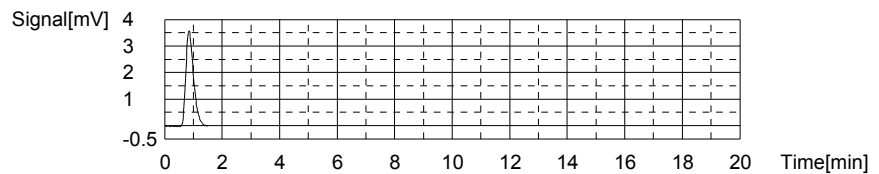
Mean Area 966.3
Mean Conc. 25.72mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.691	-0.2084mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 12:33:30 AM

Mean Area 6.691
Mean Conc. -0.2084mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.3622mg/L TC:0.1692mg/L IC:-0.1931mg/L

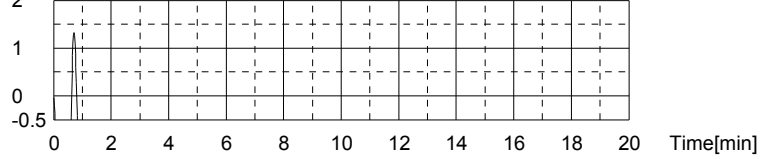
1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.449	0.1692mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 12:38:33 AM

Mean Area 6.449
Mean Conc. 0.1692mg/L

Signal[mV] 2

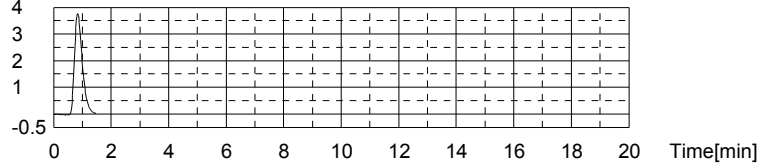


Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.148	-0.1931mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 12:42:27 AM

Mean Area 7.148
Mean Conc. -0.1931mg/L

Signal[mV] 4



Sample

Sample Name: L12050052-01
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.728mg/L TC:7.940mg/L IC:5.212mg/L

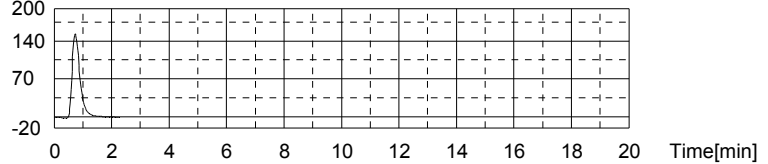
1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	298.4	7.940mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 12:50:23 AM

Mean Area 298.4
Mean Conc. 7.940mg/L

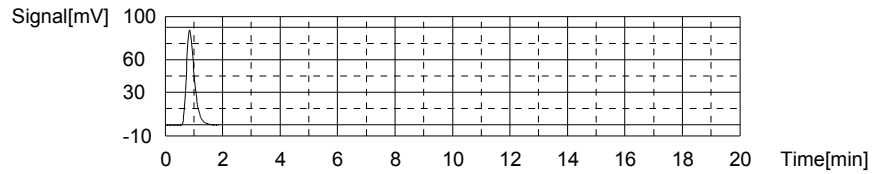
Signal[mV] 200



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	167.8	5.212mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 12:55:12 AM

Mean Area 167.8
Mean Conc. 5.212mg/L



Sample

Sample Name: L12050052-02
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

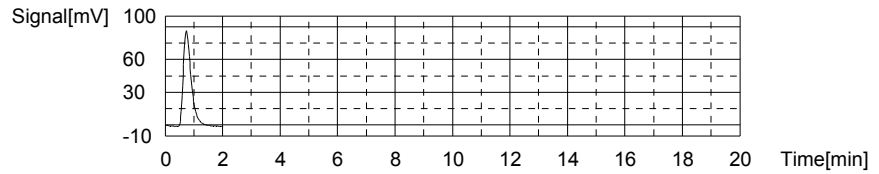
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.850mg/L TC:4.504mg/L IC:2.654mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	169.3	4.504mg/L	500uL	1		TICCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 01:02:41 AM

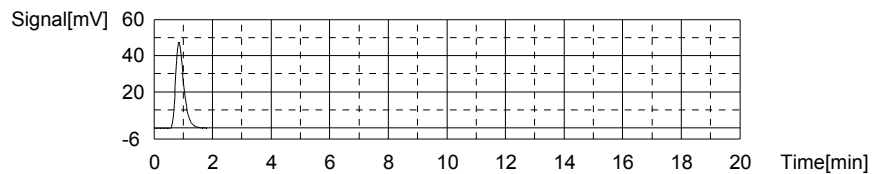
Mean Area 169.3
Mean Conc. 4.504mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	91.77	2.654mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 01:07:25 AM

Mean Area 91.77
Mean Conc. 2.654mg/L



Sample

Sample Name: L12050052-03
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

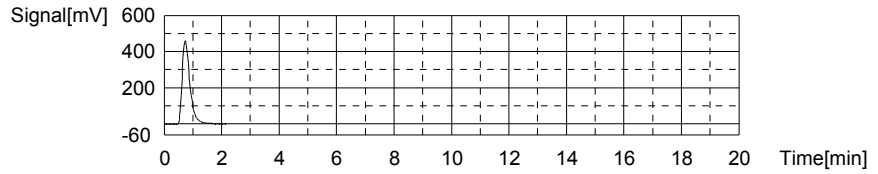
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:5.311mg/L TC:23.05mg/L IC:17.74mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	866.2	23.05mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 01:15:04 AM

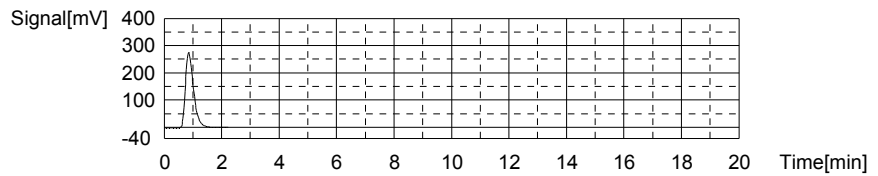
Mean Area 866.2
Mean Conc. 23.05mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	540.2	17.74mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 01:20:22 AM

Mean Area 540.2
Mean Conc. 17.74mg/L



Sample

Sample Name: L12050052-04
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

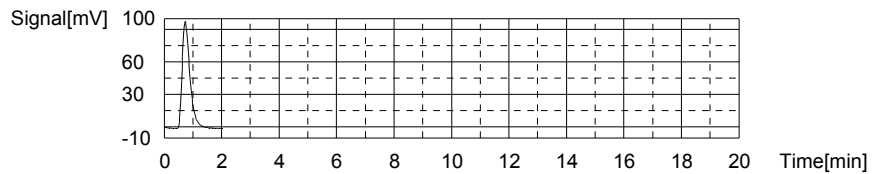
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.901mg/L TC:4.980mg/L IC:3.079mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	187.2	4.980mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 01:27:53 AM

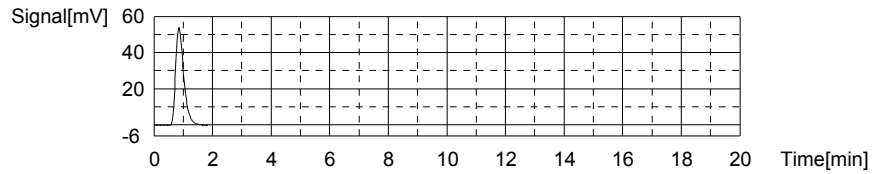
Mean Area 187.2
Mean Conc. 4.980mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	104.4	3.079mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 01:32:42 AM

Mean Area 104.4
Mean Conc. 3.079mg/L



Sample

Sample Name: L12050052-05
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

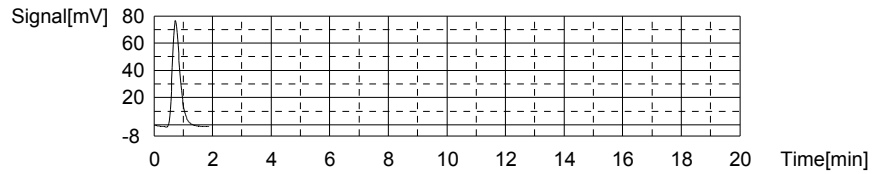
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.384mg/L TC:3.820mg/L IC:2.435mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	143.6	3.820mg/L	500uL	1		TICCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 01:40:03 AM

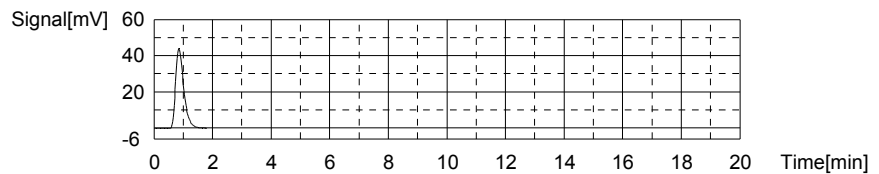
Mean Area 143.6
Mean Conc. 3.820mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	85.27	2.435mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 01:44:48 AM

Mean Area 85.27
Mean Conc. 2.435mg/L



Sample

Sample Name: L12050052-06 (15)
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

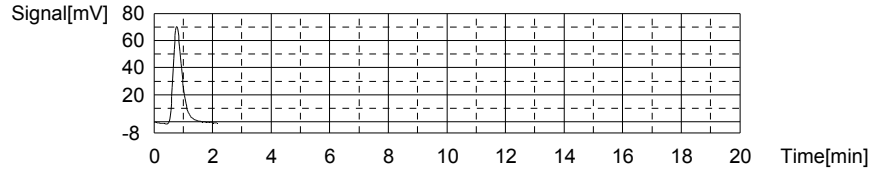
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.503mg/L TC:4.080mg/L IC:0.5775mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	153.4	4.080mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 01:52:27 AM

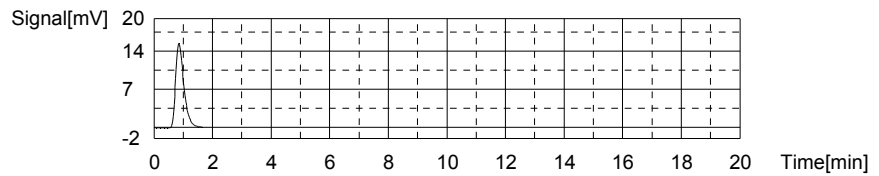
Mean Area 153.4
Mean Conc. 4.080mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	30.05	0.5775mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 01:57:00 AM

Mean Area 30.05
Mean Conc. 0.5775mg/L



Sample

Sample Name: L12050052-07
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

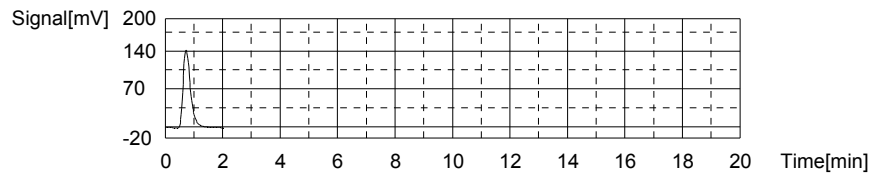
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.089mg/L TC:6.931mg/L IC:4.842mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	260.5	6.931mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 02:04:35 AM

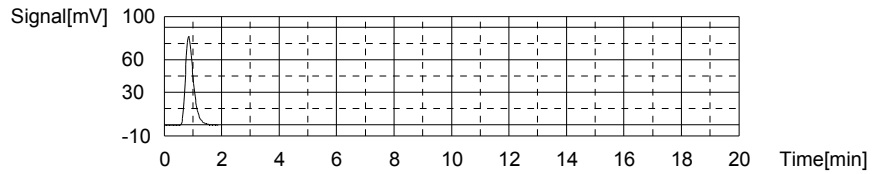
Mean Area 260.5
Mean Conc. 6.931mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	156.8	4.842mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 02:09:27 AM

Mean Area 156.8
Mean Conc. 4.842mg/L



Sample

Sample Name: L12050052-08
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

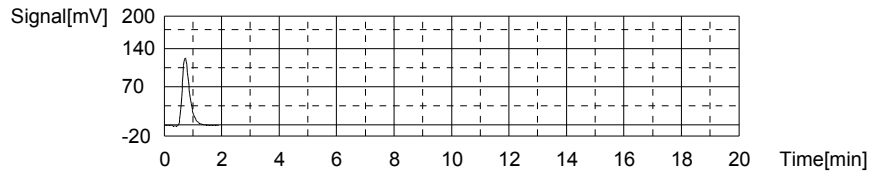
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.965mg/L TC:5.960mg/L IC:3.994mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	224.0	5.960mg/L	500uL	1		TICCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 02:16:53 AM

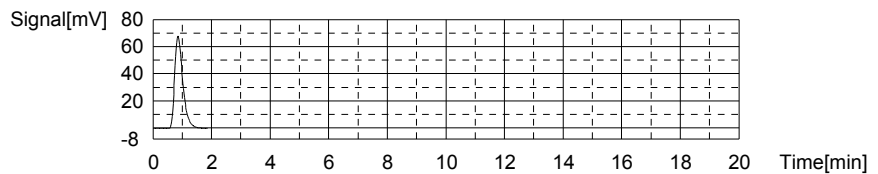
Mean Area 224.0
Mean Conc. 5.960mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	131.6	3.994mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 02:21:49 AM

Mean Area 131.6
Mean Conc. 3.994mg/L



Sample

Sample Name: L12050052-09 (3)
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

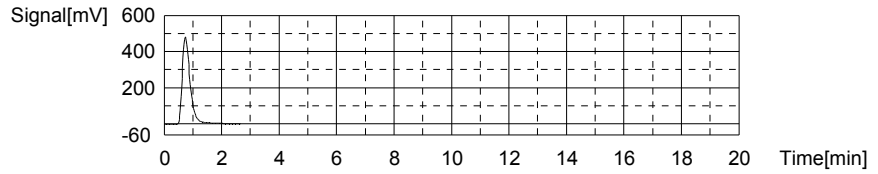
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:8.127mg/L TC:24.54mg/L IC:16.41mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	922.1	24.54mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 02:30:05 AM

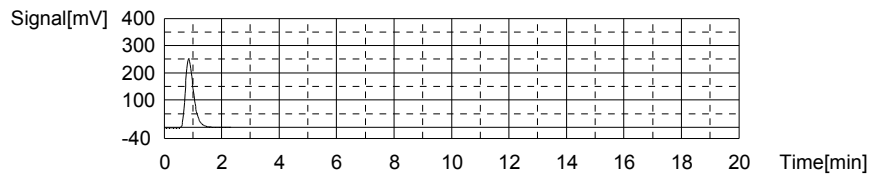
Mean Area 922.1
Mean Conc. 24.54mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	500.7	16.41mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 02:35:33 AM

Mean Area 500.7
Mean Conc. 16.41mg/L



Sample

Sample Name: L12050052-10
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

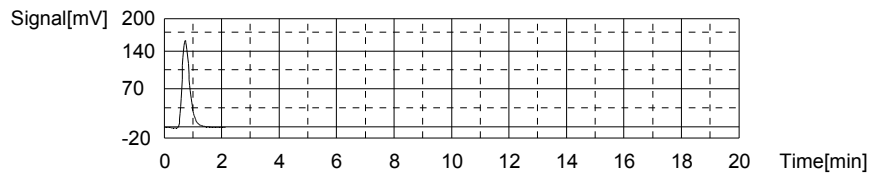
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.283mg/L TC:8.017mg/L IC:5.734mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	301.3	8.017mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 02:43:18 AM

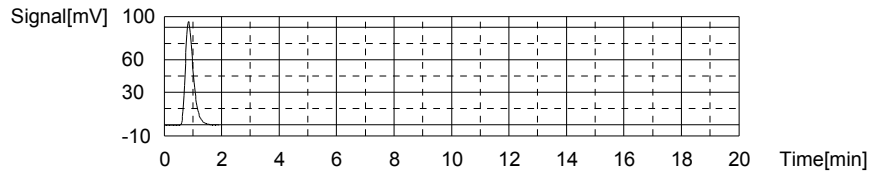
Mean Area 301.3
Mean Conc. 8.017mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	183.3	5.734mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 02:48:13 AM

Mean Area 183.3
Mean Conc. 5.734mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

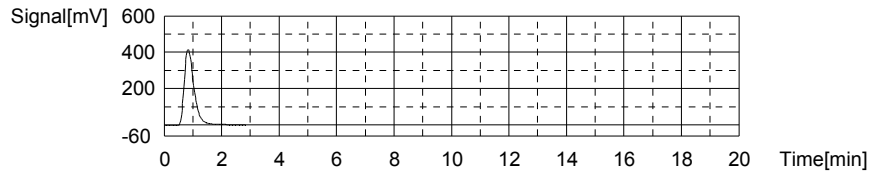
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:26.34mg/L TC:26.15mg/L IC:-0.1933mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	982.4	26.15mg/L	500uL	1		TICCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 02:56:43 AM

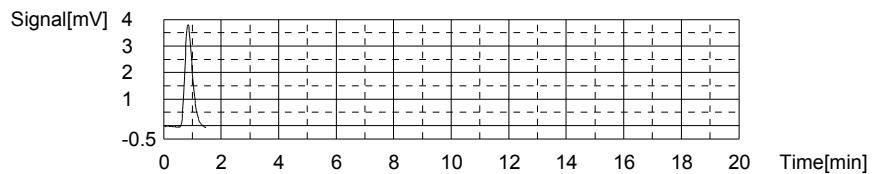
Mean Area 982.4
Mean Conc. 26.15mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.140	-0.1933mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 03:01:04 AM

Mean Area 7.140
Mean Conc. -0.1933mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.3477mg/L TC:0.1656mg/L IC:-0.1821mg/L

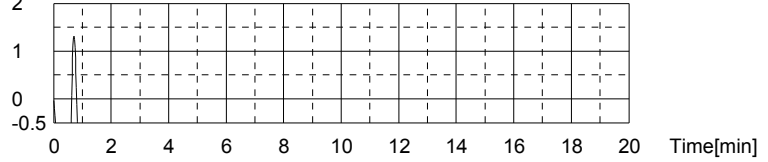
1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.315	0.1656mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 03:06:09 AM

Mean Area 6.315
Mean Conc. 0.1656mg/L

Signal[mV] 2

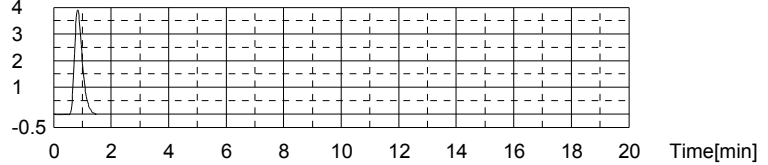


Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.475	-0.1821mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 03:10:04 AM

Mean Area 7.475
Mean Conc. -0.1821mg/L

Signal[mV] 4



Sample

Sample Name: L12050052-11
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:5.859mg/L TC:8.701mg/L IC:2.842mg/L

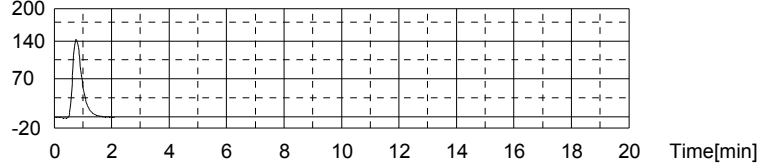
1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	327.0	8.701mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 03:17:40 AM

Mean Area 327.0
Mean Conc. 8.701mg/L

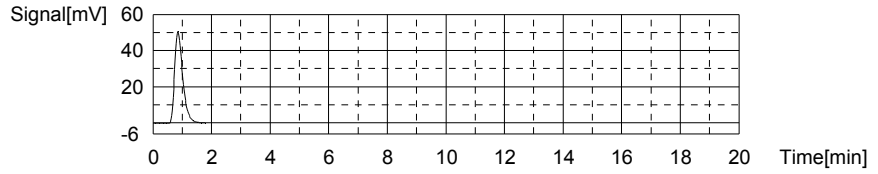
Signal[mV] 200



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	97.36	2.842mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 03:22:23 AM

Mean Area 97.36
 Mean Conc. 2.842mg/L



Sample

Sample Name: L12050052-12
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

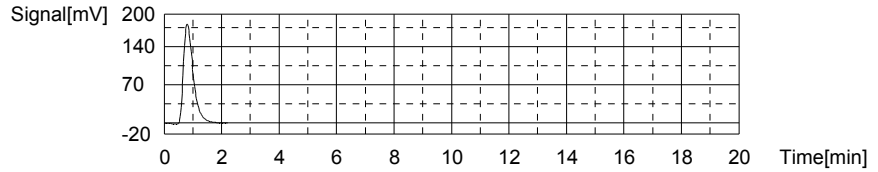
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:10.51mg/L TC:11.56mg/L IC:1.046mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	434.4	11.56mg/L	500uL	1		TICCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 03:30:17 AM

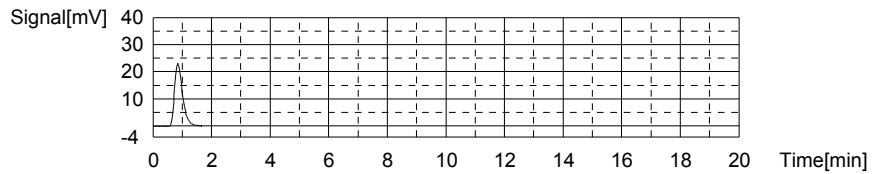
Mean Area 434.4
 Mean Conc. 11.56mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	43.98	1.046mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 03:34:51 AM

Mean Area 43.98
 Mean Conc. 1.046mg/L



Sample

Sample Name: WG396996-05 DUP
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

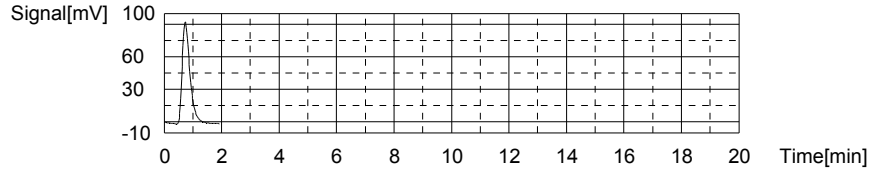
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.754mg/L TC:4.722mg/L IC:2.968mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	177.5	4.722mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 03:42:14 AM

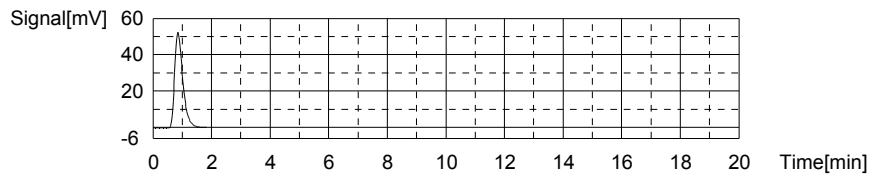
Mean Area 177.5
Mean Conc. 4.722mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	101.1	2.968mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 03:47:01 AM

Mean Area 101.1
Mean Conc. 2.968mg/L



Sample

Sample Name: WG396996-06 MS
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

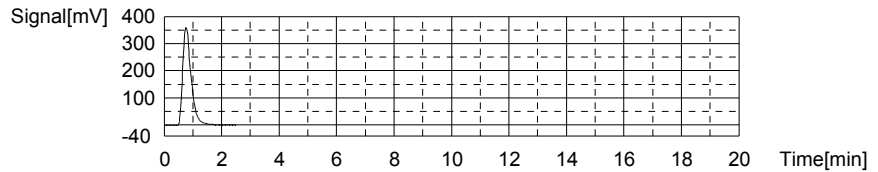
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:11.90mg/L TC:19.59mg/L IC:7.692mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	736.1	19.59mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 03:54:59 AM

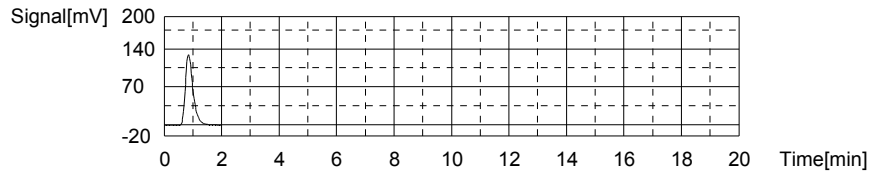
Mean Area 736.1
Mean Conc. 19.59mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	241.5	7.692mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 04:00:00 AM

Mean Area 241.5
Mean Conc. 7.692mg/L



Sample

Sample Name: DISS BLK
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

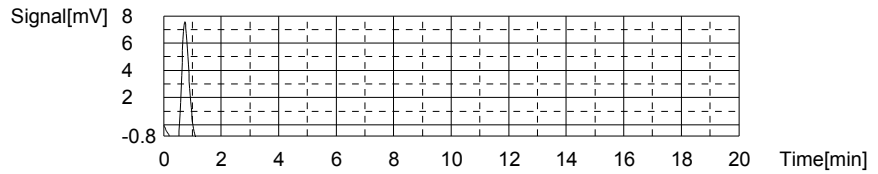
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.6021mg/L TC:0.4343mg/L IC:-0.1678mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.41	0.4343mg/L	500uL	1		TICCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 04:06:59 AM

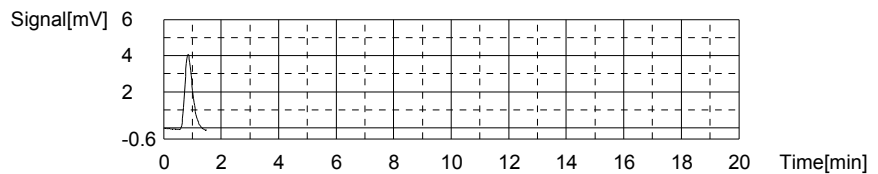
Mean Area 16.41
Mean Conc. 0.4343mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.898	-0.1678mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 04:11:24 AM

Mean Area 7.898
Mean Conc. -0.1678mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

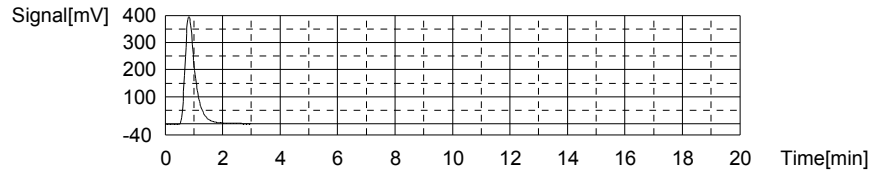
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:25.96mg/L TC:25.74mg/L IC:-0.2119mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	967.3	25.74mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 04:19:51 AM

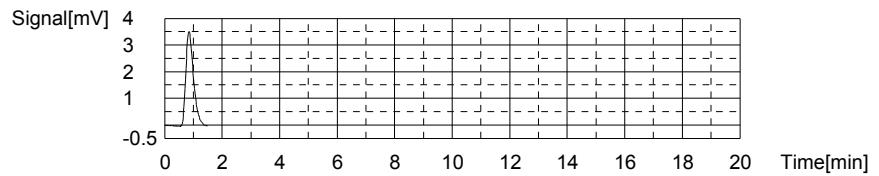
Mean Area 967.3
Mean Conc. 25.74mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.588	-0.2119mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 04:24:11 AM

Mean Area 6.588
Mean Conc. -0.2119mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

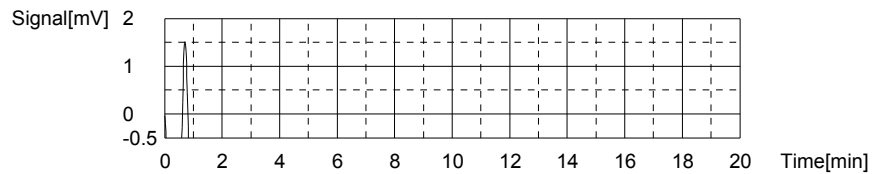
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.3815mg/L TC:0.1895mg/L IC:-0.1920mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.212	0.1895mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 04:29:14 AM

Mean Area 7.212
Mean Conc. 0.1895mg/L

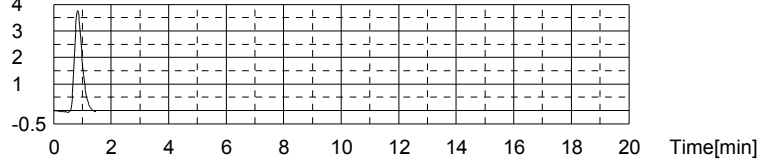


Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.178	-0.1920mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 04:33:08 AM

Mean Area 7.178
Mean Conc. -0.1920mg/L

Signal[mV] 4



Sample

Sample Name: L12040963-05 (10)
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:12.70mg/L TC:27.89mg/L IC:15.20mg/L

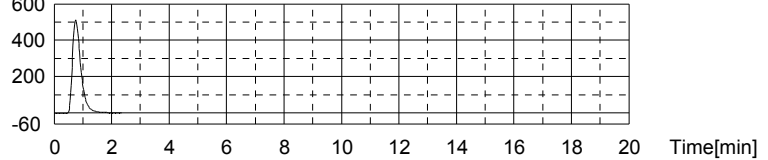
1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1048	27.89mg/L	500uL	1		TICCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 08:58:15 AM

Mean Area 1048
Mean Conc. 27.89mg/L

Signal[mV] 600

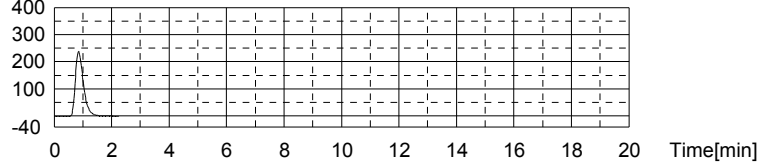


Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	464.5	15.20mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 09:03:35 AM

Mean Area 464.5
Mean Conc. 15.20mg/L

Signal[mV] 400



Sample

Sample Name: L12050050-05 (5)
Sample ID: <Untitled>
Origin: TOC-12-06-2011A.met
Status: Completed
Chk. Result

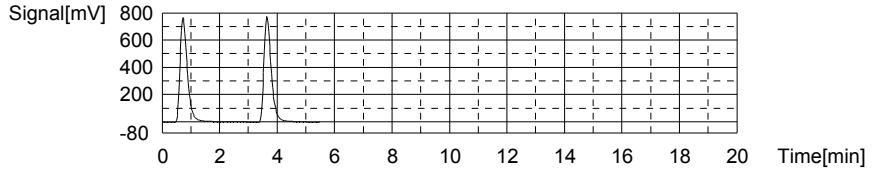
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:8.848mg/L TC:36.62mg/L IC:27.77mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1370	36.46mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 09:12:08 AM
2	1382	36.78mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 09:17:50 AM

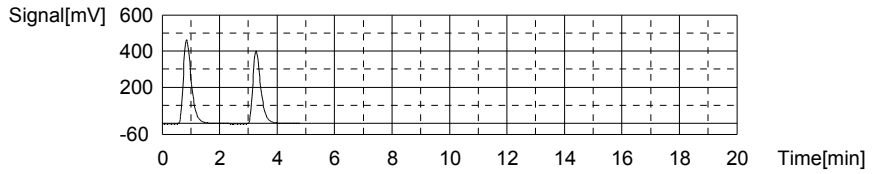
Mean Area 1376
Mean Conc. 36.62mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	902.1	29.92mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 09:23:31 AM
2	774.6	25.63mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 09:28:49 AM

Mean Area 838.4
Mean Conc. 27.77mg/L



Sample

Sample Name: WG396996-03 LCSDUP
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

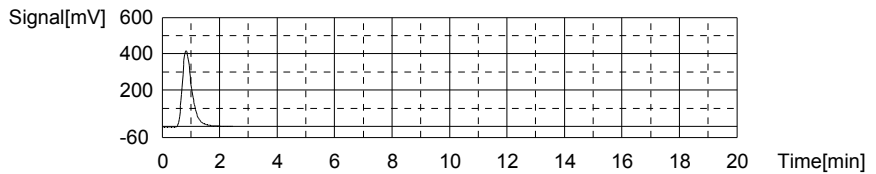
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:26.06mg/L TC:25.98mg/L IC:-0.08195mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	976.0	25.98mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 09:36:44 AM

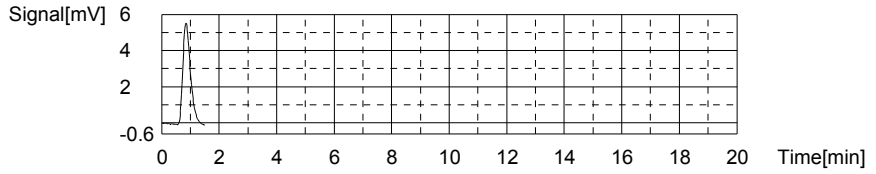
Mean Area 976.0
Mean Conc. 25.98mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.45	-0.08195mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 09:41:10 AM

Mean Area 10.45
 Mean Conc. -0.08195mg/L



Sample

Sample Name: L12050052-06 (3)
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

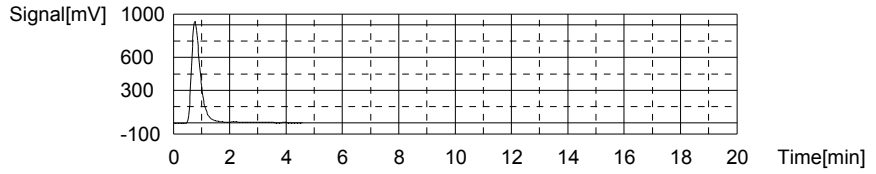
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:23.72mg/L TC:56.21mg/L IC:32.50mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2112	56.21mg/L	500uL	1		TICCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 09:51:26 AM

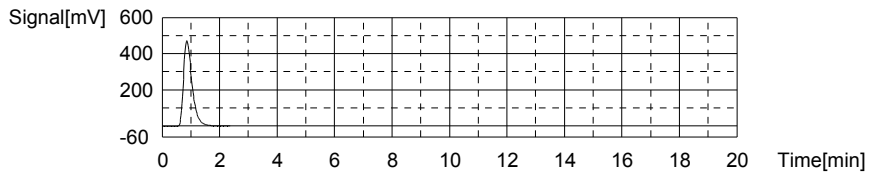
Mean Area 2112
 Mean Conc. 56.21mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	978.7	32.50mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 09:57:05 AM

Mean Area 978.7
 Mean Conc. 32.50mg/L



Sample

Sample Name: CCV
 Sample ID:
 Origin: TOC-12-06-2011.met
 Status: Completed
 Chk. Result

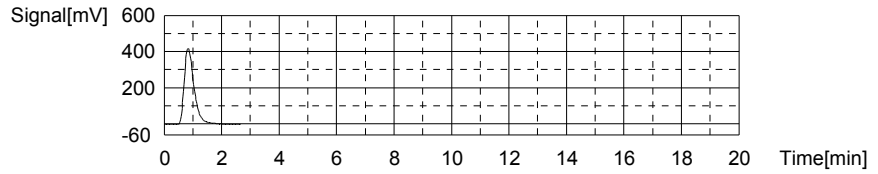
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:26.70mg/L TC:26.61mg/L IC:-0.09037mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	999.8	26.61mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 10:05:27 AM

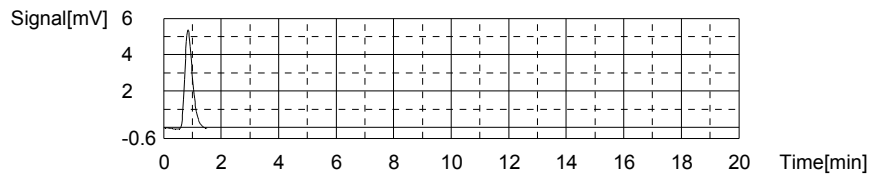
Mean Area 999.8
Mean Conc. 26.61mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.20	-0.09037mg/L	500uL	1		TICURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 10:09:53 AM

Mean Area 10.20
Mean Conc. -0.09037mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-12-06-2011.met
Status: Completed
Chk. Result

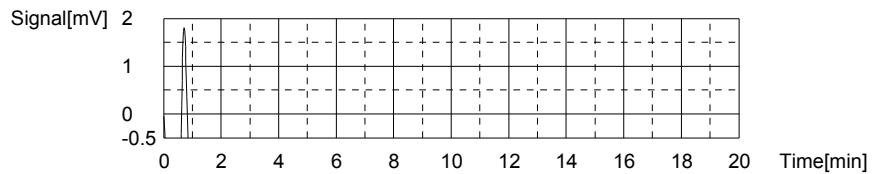
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.4022mg/L TC:0.2312mg/L IC:-0.1710mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.779	0.2312mg/L	500uL	1		TCCURVE-12-06-2011.2011_12_06_08_40_5	05/05/2012 10:15:02 AM

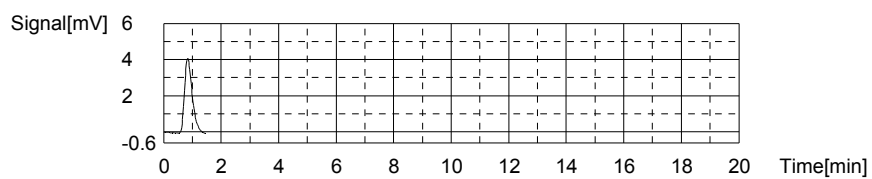
Mean Area 8.779
Mean Conc. 0.2312mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.803	-0.1710mg/L	500uL	1		TICCURVE-12-06-2011B.2011_12_06_15_47	05/05/2012 10:18:59 AM

Mean Area 7.803
Mean Conc. -0.1710mg/L



3.0 Attachments

Microbac Laboratories Inc.
Ohio Valley Division Analyst List
May 17, 2012

ADC - ANTHONY D. CANTER	AJF - AMANDA J. FICKIESEN	ALB - ANNIE L. BROWN
ALV - AMY L. VALENTINE	AML - TONY M. LONG	AZH - AFTER HOURS
BLG - BRENDA L. GREENWALT	BRG - BRENDA R. GREGORY	CAA - CASSIE A. AUGENSTEIN
CAF - CHERYL A. FLOWERS	CEB - CHAD E. BARNES	CLC - CHRYS L. CRAWFORD
CLS - CARA L. STRICKLER	CLW - CHARISSA L. WINTERS	CPD - CHAD P. DAVIS
CS - CODY M. STRAHLER	CSH - CHRIS S. HILL	DDE - DEBRA D. ELLIOTT
DEV - DAVID E. VANDENBERG	DGB - DOUGLAS G. BUTCHER	DIH - DEANNA I. HESSON
DLB - DAVID L. BUMGARNER	DLP - DOROTHY L. PAYNE	DLR - DIANNA L. RAUCH
DSM - DAVID S. MOSSOR	ECL - ERIC C. LAWSON	EDL - ERIN D. LONG
ERP - ERIN R. PORTER	FJB - FRANCES J. BOLDEN	HAV - HEMA VILASAGAR
HJR - HOLLY J. REED	JAL - JOHN A. LENT	JBK - JEREMY B. KINNEY
JDH - JUSTIN D. HESSON	JKS - JANE K. SCHAAD	JLL - JOHN L. LENT
JWR - JOHN W. RICHARDS	JWS - JACK W. SHEAVES	JYH - JI Y. HU
KEB - KATIE E. BARNES	KHR - KIM H. RHODES	KRA - KATHY R. ALBERTSON
LKN - LINDA K. NEDEFF	LSB - LESLIE S. BUCINA	MDA - MIKE D. ALBERTSON
MDC - MIKE D. COCHRAN	MES - MARY E. SCHILLING	MMB - MAREN M. BEERY
MRT - MICHELLE R. TAYLOR	MSW - MATT S. WILSON	PDM - PIERCE D. MORRIS
PWD - PAUL W. DENT	QX - QIN XU	RAH - ROY A. HALSTEAD
REK - BOB E. KYER	RLB - BOB BUCHANAN	RLK - ROBIN L. KLINGER
RS - ROSEMARY SCOTT	RWC - RODNEY W. CAMPBELL	SJP - SUZANNE J. PAUGH
SLM - STEPHANIE L. MOSSBURG	SLP - SHERI L. PFALZGRAF	TIP - TAE I. PARRISH
TMB - TIFFANY M. BAILEY	TMM - TAMMY M. MORRIS	VC - VICKI COLLIER
WJB - WILL J. BEASLEY	WTD - WADE T. DELONG	XXX - UNAVAILABLE OR SUBCONTRACT

May 17, 2012

Qualkey: WATERLOO

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Result is greater than the associated numerical value.
A	See the report narrative
B	Analyte present in method blank
B1	Target analyte detected in method blank at or above the method reporting limit
B3	Target analyte detected in calibration blank at or above the method reporting limit
B4	The BOD unseeded dilution water blank exceeded 0.2 mg/L
C	Confirmed by GC/MS
CG	Confluent growth
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to interference.
E	Semiquantitative result (out of calibration range)
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
FL	Free Liquid
H1	Sample analysis performed past holding time.
I	Semiquantitative result (out of instrument calibration range)
J	Estimated concentration.
J	The analyte was positively identified, but the quantitation was below the RL.
J,B	Analyte detected in both the method blank and sample above the MDL.
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
N	Tentatively identified compound(TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL).
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria failed. See narrative.
QNS	Quantity of sample not sufficient to perform analysis
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
U	Not detected at or above adjusted sample detection limit.
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
UJ	Undetected; the analyte was analyzed for, but not detected.
UQ	Undetected; the analyte was analyzed for, but not detected.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L12050050
Account: 2736
Project: 2736.061
Samples: 9
Due Date: 16-MAY-2012

Samplenum Container ID Products
L12050050-01 966271

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		<2
2	ANALYZ	V1	ORG4	03-MAY-2012 08:30	MRT	JKT	

Comments:Products cancelled.

3	STORE	ORG4	A2	17-MAY-2012 09:10	JKT	MRT	
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Comments:Products cancelled.

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		<2
2	ANALYZ	V1	ORG4	03-MAY-2012 08:30	MRT	JKT	

Comments:Products cancelled.

3	STORE	ORG4	A2	17-MAY-2012 09:10	JKT	MRT	
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Comments:Products cancelled.

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		<2
2	ANALYZ	V1	ORG4	03-MAY-2012 08:30	MRT	JKT	

Comments:Products cancelled.

3	STORE	ORG4	A2	17-MAY-2012 09:10	JKT	MRT	
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Comments:Products cancelled.

Samplenum Container ID Products
L12050050-01 966272 826-SPE 827-PAHL 827-SPE-DIOX RSK175EXT

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		
2	ANALYZ	V1	ORG4	03-MAY-2012 08:29	MRT	JKT	

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		
2	ANALYZ	V1	ORG4	03-MAY-2012 08:29	MRT	JKT	

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		
2	ANALYZ	V1	ORG4	03-MAY-2012 08:29	MRT	JKT	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L12050050

Account: 2736

Project: 2736.061

Samples: 9

Due Date: 16-MAY-2012

Samplenum Container ID Products

L12050050-01 966273

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	PREP	W1	EXT	07-MAY-2012 13:31	CSH	CLS	

Comments:Products cancelled.

3	DISP	EXT	DISP	08-MAY-2012 08:42	RLB	RLB	
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Comments:Products cancelled.

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	STORE	W1	A1	08-MAY-2012 08:10	BLG	BLG	

Comments:Products cancelled.

Samplenum Container ID Products

L12050050-01 966274

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	PREP	W1	EXT	03-MAY-2012 06:46	CEB	AZH	

Comments:Products cancelled.

3	DISP	EXT	DISP	03-MAY-2012 16:45	RLB	RLB	
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Comments:Products cancelled.

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	STORE	W1	A1	08-MAY-2012 08:09	BLG	BLG	

Comments:Products cancelled.

Samplenum Container ID Products

L12050050-01 966275 ALK

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	ANALYZ	W1	WET	04-MAY-2012 07:55	DIH	RLK	
3	STORE	WET	A2	07-MAY-2012 08:23	RLK	DIH	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L12050050

Account: 2736

Project: 2736.061

Samples: 9

Due Date: 16-MAY-2012

Samplenum **Container ID** **Products**
L12050050-01 966276 NO3 SO4

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	ANALYZ	W1	WET	02-MAY-2012 13:30	DIH	JKS	
3	STORE	WET	A2	04-MAY-2012 07:43	RLK	DIH	

Samplenum **Container ID** **Products**
L12050050-01 966277 PHOS TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		<2
2	ANALYZ	W1	WET	04-MAY-2012 07:54	DIH	RLK	
3	STORE	WET	A2	14-MAY-2012 08:05	RLK	JDH	

Samplenum **Container ID** **Products**
L12050050-01 966278 AG AL AS-MS BA BE-AX CA CD-AX CO CR-AX CU FE F

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	PREP	W1	DIG	03-MAY-2012 05:02	REK	AZH	
3	ANALYZ*	DIG	METALS	03-MAY-2012 11:52	SLP	REK	
4	STORE	DIG	A2	07-MAY-2012 14:55	RLK	BRG	

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L12050050-02 966279 AG-D AL-D AS-MSD BA-D BE-AXD CA-D CD-AXD CO-D

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	PREP	W1	DIG	03-MAY-2012 05:02	REK	AZH	
3	ANALYZ*	DIG	METALS	03-MAY-2012 11:52	SLP	REK	
4	STORE	DIG	A2	07-MAY-2012 14:55	RLK	BRG	

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L12050050

Account: 2736

Project: 2736.061

Samples: 9

Due Date: 16-MAY-2012

Samplenum **Container ID** **Products**
L12050050-03 966280

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		<2
2	ANALYZ	V1	ORG4	03-MAY-2012 08:30	MRT	JKT	

Comments:Products cancelled.

3	STORE	ORG4	A2	17-MAY-2012 09:10	JKT	MRT	
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Comments:Products cancelled.

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		<2
2	ANALYZ	V1	ORG4	03-MAY-2012 08:30	MRT	JKT	

Comments:Products cancelled.

3	STORE	ORG4	A2	17-MAY-2012 09:10	JKT	MRT	
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Comments:Products cancelled.

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		<2
2	ANALYZ	V1	ORG4	03-MAY-2012 08:30	MRT	JKT	

Comments:Products cancelled.

3	STORE	ORG4	A2	17-MAY-2012 09:10	JKT	MRT	
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Comments:Products cancelled.

Samplenum **Container ID** **Products**
L12050050-03 966281 826-SPE 827-PAHL 827-SPE-DIOX RSK175EXT

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		
2	ANALYZ	V1	ORG4	03-MAY-2012 08:29	MRT	JKT	

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		
2	ANALYZ	V1	ORG4	03-MAY-2012 08:29	MRT	JKT	

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		
2	ANALYZ	V1	ORG4	03-MAY-2012 08:29	MRT	JKT	

- A1 - Sample Archive (COLD)
- A2 - Sample Archive (AMBIENT)
- F1 - Volatiles Freezer in Login
- V1 - Volatiles Refrigerator in Login
- W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L12050050
Account: 2736
Project: 2736.061
Samples: 9
Due Date: 16-MAY-2012

Samplenum **Container ID** **Products**
L12050050-03 966282

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	PREP	W1	EXT	07-MAY-2012 13:31	CSH	CLS	

Comments:Products cancelled.

3	DISP	EXT	DISP	08-MAY-2012 08:41	RLB	RLB	
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Comments:Products cancelled.

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	STORE	W1	A1	08-MAY-2012 08:10	BLG	BLG	

Comments:Products cancelled.

Samplenum **Container ID** **Products**
L12050050-03 966283

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	PREP	W1	EXT	03-MAY-2012 06:46	CEB	AZH	

Comments:Products cancelled.

3	DISP	EXT	DISP	03-MAY-2012 16:45	RLB	RLB	
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Comments:Products cancelled.

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	STORE	W1	A1	08-MAY-2012 08:10	BLG	BLG	

Comments:Products cancelled.

Samplenum **Container ID** **Products**
L12050050-03 966284 ALK

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	ANALYZ	W1	WET	04-MAY-2012 07:55	DIH	RLK	
3	STORE	WET	A2	07-MAY-2012 08:23	RLK	DIH	

- A1 - Sample Archive (COLD)
- A2 - Sample Archive (AMBIENT)
- F1 - Volatiles Freezer in Login
- V1 - Volatiles Refrigerator in Login
- W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L12050050
Account: 2736
Project: 2736.061
Samples: 9
Due Date: 16-MAY-2012

Samplenum **Container ID** **Products**
L12050050-03 966285 NO3 SO4

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	ANALYZ	W1	WET	02-MAY-2012 13:30	DIH	JKS	
3	STORE	WET	A2	04-MAY-2012 07:43	RLK	DIH	

Samplenum **Container ID** **Products**
L12050050-03 966286 PHOS TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		<2
2	ANALYZ	W1	WET	04-MAY-2012 07:54	DIH	RLK	
3	STORE	WET	A2	14-MAY-2012 08:05	RLK	JDH	

Samplenum **Container ID** **Products**
L12050050-03 966287 AG AL AS-MS BA BE-AX CA CD-AX CO CR-AX CU FE F

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	PREP	W1	DIG	03-MAY-2012 05:02	REK	AZH	
3	ANALYZ*	DIG	METALS	03-MAY-2012 11:52	SLP	REK	
4	STORE	DIG	A2	07-MAY-2012 14:55	RLK	BRG	

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L12050050-04 966288 AG-D AL-D AS-MSD BA-D BE-AXD CA-D CD-AXD CO-D

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	PREP	W1	DIG	03-MAY-2012 05:02	REK	AZH	
3	ANALYZ*	DIG	METALS	03-MAY-2012 11:52	SLP	REK	
4	STORE	DIG	A2	07-MAY-2012 14:55	RLK	BRG	

**Sample extract/digestate/leachate*

- A1 - Sample Archive (COLD)
- A2 - Sample Archive (AMBIENT)
- F1 - Volatiles Freezer in Login
- V1 - Volatiles Refrigerator in Login
- W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L12050050

Account: 2736

Project: 2736.061

Samples: 9

Due Date: 16-MAY-2012

Samplenum Container ID Products

L12050050-05 966289

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		<2
2	ANALYZ	V1	ORG4	03-MAY-2012 08:30	MRT	JKT	

Comments:Products cancelled.

3	STORE	ORG4	A2	17-MAY-2012 09:10	JKT	MRT	
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Comments:Products cancelled.

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		<2
2	ANALYZ	V1	ORG4	03-MAY-2012 08:30	MRT	JKT	

Comments:Products cancelled.

3	STORE	ORG4	A2	17-MAY-2012 09:10	JKT	MRT	
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Comments:Products cancelled.

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		<2
2	ANALYZ	V1	ORG4	03-MAY-2012 08:30	MRT	JKT	

Comments:Products cancelled.

3	STORE	ORG4	A2	17-MAY-2012 09:10	JKT	MRT	
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Comments:Products cancelled.

Samplenum Container ID Products

L12050050-05 966290 826-SPE 827-PAHL 827-SPE-DIOX RSK175EXT

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		
2	ANALYZ	V1	ORG4	03-MAY-2012 08:29	MRT	JKT	

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		
2	ANALYZ	V1	ORG4	03-MAY-2012 08:29	MRT	JKT	

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		
2	ANALYZ	V1	ORG4	03-MAY-2012 08:29	MRT	JKT	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L12050050

Account: 2736

Project: 2736.061

Samples: 9

Due Date: 16-MAY-2012

Samplenum **Container ID** **Products**
L12050050-05 966291

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	PREP	W1	EXT	07-MAY-2012 13:31	CSH	CLS	

Comments:Products cancelled.

3	DISP	EXT	DISP	08-MAY-2012 08:42	RLB	RLB	
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Comments:Products cancelled.

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	STORE	W1	A1	08-MAY-2012 08:10	BLG	BLG	

Comments:Products cancelled.

Samplenum **Container ID** **Products**
L12050050-05 966292

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	PREP	W1	EXT	03-MAY-2012 06:46	CEB	AZH	

Comments:Products cancelled.

3	DISP	EXT	DISP	03-MAY-2012 16:45	RLB	RLB	
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Comments:Products cancelled.

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	STORE	W1	A1	08-MAY-2012 08:09	BLG	BLG	

Comments:Products cancelled.

Samplenum **Container ID** **Products**
L12050050-05 966293 ALK

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	ANALYZ	W1	WET	04-MAY-2012 07:55	DIH	RLK	
3	STORE	WET	A2	07-MAY-2012 08:23	RLK	DIH	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L12050050

Account: 2736

Project: 2736.061

Samples: 9

Due Date: 16-MAY-2012

Samplenum Container ID Products
L12050050-05 966294 NO3 SO4

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	ANALYZ	W1	WET	02-MAY-2012 13:30	DIH	JKS	
3	STORE	WET	A2	04-MAY-2012 07:43	RLK	DIH	

Samplenum Container ID Products
L12050050-05 966295 PHOS TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		<2
2	ANALYZ	W1	WET	04-MAY-2012 07:54	DIH	RLK	
3	STORE	WET	A2	14-MAY-2012 08:05	RLK	JDH	

Samplenum Container ID Products
L12050050-05 966296 AG AL AS-MS BA BE-AX CA CD-AX CO CR-AX CU FE F

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	PREP	W1	DIG	03-MAY-2012 05:02	REK	AZH	
3	ANALYZ*	DIG	METALS	03-MAY-2012 11:52	SLP	REK	
4	STORE	DIG	A2	07-MAY-2012 14:55	RLK	BRG	

**Sample extract/digestate/leachate*

Samplenum Container ID Products
L12050050-06 966297 AG-D AL-D AS-MSD BA-D BE-AXD CA-D CD-AXD CO-D

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	PREP	W1	DIG	03-MAY-2012 05:02	REK	AZH	
3	ANALYZ*	DIG	METALS	03-MAY-2012 11:52	SLP	REK	
4	STORE	DIG	A2	07-MAY-2012 14:55	RLK	BRG	

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L12050050

Account: 2736

Project: 2736.061

Samples: 9

Due Date: 16-MAY-2012

Samplenum Container ID Products

L12050050-07 966298

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		<2
2	ANALYZ	V1	ORG4	03-MAY-2012 08:30	MRT	JKT	

Comments:Products cancelled.

3	STORE	ORG4	A2	17-MAY-2012 09:10	JKT	MRT	
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Comments:Products cancelled.

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		<2
2	ANALYZ	V1	ORG4	03-MAY-2012 08:30	MRT	JKT	

Comments:Products cancelled.

3	STORE	ORG4	A2	17-MAY-2012 09:10	JKT	MRT	
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Comments:Products cancelled.

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		<2
2	ANALYZ	V1	ORG4	03-MAY-2012 08:30	MRT	JKT	

Comments:Products cancelled.

3	STORE	ORG4	A2	17-MAY-2012 09:10	JKT	MRT	
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Comments:Products cancelled.

Samplenum Container ID Products

L12050050-07 966299 826-SPE 827-PAHL 827-SPE-DIOX RSK175EXT

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		
2	ANALYZ	V1	ORG4	03-MAY-2012 08:29	MRT	JKT	

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER		02-MAY-2012 13:14	RLK		

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		
2	ANALYZ	V1	ORG4	03-MAY-2012 08:29	MRT	JKT	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L12050050

Account: 2736

Project: 2736.061

Samples: 9

Due Date: 16-MAY-2012

Samplenum **Container ID** **Products**
L12050050-07 966300

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	PREP	W1	EXT	07-MAY-2012 13:31	CSH	CLS	

Comments:Products cancelled.

3	DISP	EXT	DISP	08-MAY-2012 08:42	RLB	RLB	
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Comments:Products cancelled.

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	STORE	W1	A1	08-MAY-2012 08:09	BLG	BLG	

Comments:Products cancelled.

Samplenum **Container ID** **Products**
L12050050-07 966301

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	PREP	W1	EXT	03-MAY-2012 06:46	CEB	AZH	

Comments:Products cancelled.

3	DISP	EXT	DISP	03-MAY-2012 16:45	RLB	RLB	
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Comments:Products cancelled.

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	STORE	W1	A1	08-MAY-2012 08:09	BLG	BLG	

Comments:Products cancelled.

Samplenum **Container ID** **Products**
L12050050-07 966302 ALK

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	ANALYZ	W1	WET	04-MAY-2012 07:55	DIH	RLK	
3	STORE	WET	A2	07-MAY-2012 08:23	RLK	DIH	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L12050050

Account: 2736

Project: 2736.061

Samples: 9

Due Date: 16-MAY-2012

Samplenum **Container ID** **Products**
L12050050-07 966303 NO3 SO4

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	ANALYZ	W1	WET	02-MAY-2012 13:40	ERP	JKS	
3	STORE	WET	A2	04-MAY-2012 07:43	RLK	DIH	

Samplenum **Container ID** **Products**
L12050050-07 966304 PHOS TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		<2
2	ANALYZ	W1	WET	04-MAY-2012 07:54	DIH	RLK	
3	STORE	WET	W1	14-MAY-2012 08:05	RLK	JDH	

Samplenum **Container ID** **Products**
L12050050-07 966305 AG AL AS-MS BA BE-AX CA CD-AX CO CR-AX CU FE F

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	PREP	W1	DIG	03-MAY-2012 05:02	REK	AZH	
3	ANALYZ*	DIG	METALS	03-MAY-2012 11:52	SLP	REK	
4	STORE	DIG	A2	07-MAY-2012 14:55	RLK	BRG	

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L12050050-08 966306 AG-D AL-D AS-MSD BA-D BE-AXD CA-D CD-AXD CO-D

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	02-MAY-2012 13:14	RLK		
2	PREP	W1	DIG	03-MAY-2012 05:02	REK	AZH	
3	ANALYZ*	DIG	METALS	03-MAY-2012 11:52	SLP	REK	
4	STORE	DIG	A2	07-MAY-2012 14:55	RLK	BRG	

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L12050050
Account: 2736
Project: 2736.061
Samples: 9
Due Date: 16-MAY-2012

Samplenum **Container ID** **Products**
L12050050-09 966307 826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	ORG4	02-MAY-2012 13:14	RLK		<2
2	STORE	ORG4	A2	17-MAY-2012 09:10	JKT	MRT	

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	02-MAY-2012 13:14	RLK		<2
2	ANALYZ	V1	ORG4	03-MAY-2012 08:30	MRT	JKT	
3	STORE	ORG4	A2	17-MAY-2012 09:11	JKT	MRT	

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER		02-MAY-2012 13:14	RLK		<2

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



NELAP Addendum - March 4, 2011

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO₄) - 9038
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO₃)
Thiodiglycol (TDG-LCMS)

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
1,4-Dioxane
Atrazine
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene
Pentachloroethane

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL MSV01/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSK01/GC-FID

Isobutane
n-Butane
Propane
Propylene
Propyne

OVL HPLC07/HPLC-MS-MS

Hexamethylphosphoramide (XMPA-LCMS)

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV

Nitroguanidine

OVL KNITRO-C-S/UV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1-Methylnaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

NELAP Accreditation by Laboratory SOP

SOLID AND HAZARDOUS CHEMICALS

OVL MSV01/GC-MS

1.3-Butadiene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)