N00174.AR.001964
NSWC INDIAN HEAD
5090.3a

VALIDATED DATA PACKAGE, 76424, NSWC INDIAN HEAD MD
6/29/2015
APPL LABS

908 North Temperance Ave. ∇ Clovis, CA 93611 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

Certification Number: CA1312
NELAP Certification number: CA00046
DoD-ELAP Certificate number: 74807

Summary Report

June 19, 2015

Tetra Tech
5700 Lake Wright Drive, Suite 309
Norfolk, Virginia 23502

Attn: Ed Corack

Title: Report of Data: Case 76424

Project: CTO JU11 112G02622 NSF Indian Head, MD

Contract #: Prime contract # for DoD: Navy CLEAN. N62470-08-D-1001
Subcontract: MSA # 1045497, Work Release # 08-JU11

Dear Mr. Corack:

Ten water samples were received May 14, 2015, in good condition. Written results for the requested analyses are provided on this June 19, 2015.

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

If you have any questions or require further information, please contact your APPL Project Manager, Cynthia Clark, cclark@applinc.com, at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.

Sharon Dehmlow, Laboratory Director
APPL, Inc.

SD/ab
Enclosure
cc: File

Number of pages in this report: 110

Sample receipt information

ARF: 76424

Project: CTO JU11 112G02622 NSF Indian Head, MD

Sample Receipt Information:

The water samples were received on May 14, 2015, at 3.0°C, 3.0°C, and 3.0°C. The samples were assigned Analytical Request Form (ARF) number 76424. The sample numbers and requested analyses were compared to the chain of custody and email communication. A sample ID was revised as requested. No other exception was encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
S67-MW008-051315	AZ16334	WATER	05/13/15	05/14/15
S67-MW001-051315	AZ16335	WATER	05/13/15	05/14/15
S67-MW001P-051315	AZ16336	WATER	05/13/15	05/14/15
S67-MW10-051315	AZ16337	WATER	05/13/15	05/14/15
S67-MW013-051315	AZ16338	WATER	05/13/15	05/14/15
S67-MW004-051315	AZ16339	WATER	05/13/15	05/14/15
S67-MW005-051315	AZ16340	WATER	05/13/15	05/14/15
S67-MW014-051315	AZ16341	WATER	05/13/15	05/14/15
S67-MW004P-051315	AZ16342	WATER	05/13/15	05/14/15
S67-RB02-051315	AZ16343	WATER	05/13/15	05/14/15

The samples and blanks were screened for J-value responses between the detection limit (DL) and limit of quantitation (LOQ).

Laboratory control limits generated in house do not meet the control limits listed in DoD QSM 4.2 for all analytes. Laboratory control limits generated for this project meet all control limits listed in the DoD QSM 4.2 except where noted. A copy of our in house generated control limits is available upon request. In addition, a copy of our LOQ control limits, established using 7 data points, are also available upon request.

Only the portion of the injection log relative to these samples is included. A full sequence log is available upon request.

Measurement uncertainty can be reported upon request.

EPA Method 8270D
Semi-Volatile Organic Compounds

Sample Preparation and Analysis Information:

The water samples were extracted according to EPA method 3510C. The samples were analyzed according to EPA Method 8270D using an Agilent GC/MS. All holding times were met.

Quality Control/Assurance

Spike Recovery

A Laboratory Control Spike (LCS) was used for quality assurance. All LCS acceptance criteria were met.

No sample was designated by the client for MS/MSD analysis.

Method blanks

No target metal was detected above one-half the limit of quantitation (LOQ) in the method blank.

Surrogates

Surrogate recoveries are summarized on Form 2 & 8. All surrogate recoveries were within control limits.

Calibration

The initial and continuing calibrations were performed according to the method. All method acceptance criteria were met.

Tuning:

The instrument was tuned using DFTPP. All method criteria were met.

Internal Standards

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8260. All method criteria were met.

Summary:

No problem was encountered. All data generated are acceptable.

EPA Method 8270D-SIM
Polynuclear Aromatic Hydrocarbons

Sample Preparation and Analysis Information:

The water samples were extracted according to EPA method 3510C. The samples were analyzed according to EPA Method 8270D using an Agilent GC/MS with selective ion monitoring. All holding times were met.

Manual integrations were performed in accordance to APPL's SOP. Naphthalene was manually integrated in the CCV (data file 0515L195). Chromatograms of before and after manual integration are enclosed.

Quality Control/Assurance

Spike Recovery

A Laboratory Control Spike (LCS) was used for quality assurance. All LCS acceptance criteria were met.

No sample was designated by the client for MS/MSD analysis.

Method blanks

No target analyte was detected above one-half the limit of quantitation (LOQ) in the method blank.

Surrogates

Surrogate recoveries are summarized on Form 2 & 8. The surrogate 2-Fluorobiphenyl recovered slightly below the 50% lower control limit in the method blank. All other surrogate recoveries were within the control limits.

Calibration

The initial and continuing calibrations were performed according to the method. All method acceptance criteria were met.

Tuning:

The instrument was tuned using DFTPP. All method criteria were met.

Internal Standards

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8260. All method criteria were met.

Summary:

No other analytical problem was encountered. The data generated are acceptable.

Dissolved Gasses
RSK-175

Sample Preparation and Analysis

The water samples were analyzed with guidance from RSK-175. The samples were allowed to equilibrate for 10 minutes at 40°C and a portion of the headspace was analyzed using a Hewlett Packard Gas Chromatograph with a flame ionization detector.

Manual integrations were performed in accordance with APPL's SOP. Methane was manually integrated in the calibration standards. Chromatograms of before and after manual integration are enclosed.

Quality Control/Assurance

Spike Recovery

A Laboratory Control Spike (LCS) was used for quality assurance. All acceptance criteria were met.

No sample was designated by the client for MS/MSD analysis.

Method blanks

No target compound was detected at or above one-half the PQL in the method blank.

Calibration

The initial and continuing calibrations were performed with guidance from RSK-175. All acceptance criteria were met.

Summary:

No other analytical exception is noted. All data generated are acceptable.

EPA Method 6850

Perchlorate by LC-Mass Spec

Sample Preparation and Analysis Information:

The water samples were prepared according to the method. The samples were analyzed according to EPA Method 6850 using an Agilent 6460 Triple Quad LC/MS. The samples were prepared and analyzed within acceptable hold time.

Manual integrations were performed in accordance to APPL's SOP. Perchlorate was manually integrated in the calibration curve, the ICS, the LCS and sample S67-RB02-051315. Chromatograms of before and after manual integration are enclosed.

Quality Control/Assurance

Calibrations:

Calibrations were performed according to the method. All calibration acceptance criteria were met. The second source met acceptance criteria.

Blanks:

Perchlorate was not detected at or above one-half the limit of quantitation (LOQ) in the method blank.

Spikes:

Laboratory Control Spike (LCS) and Interference Check Sample (I.C.S.) were used for quality assurance. All LCS acceptance criteria were met..

The Interference Check Sample (I.C.S.) was prepared using a mixed anions solution. The ICS recovery met acceptance criteria.

No sample was selected by the laboratory for MS/MSD analysis.

Internal Standards:

The area counts of the sample Internal Standards were compared to the average IS area counts of the initial calibration. All internal standards were within the 50%D acceptance criteria.

Summary:

All data were acceptable. No other analytical exception is noted.

EPA Method 8330B
Energetics

Sample Preparation:

The water samples were extracted according to EPA method 3535. All holding times were met.

Analysis:

The samples were analyzed according to EPA Method 8330B using an Agilent 1290 HPLC with DA detector.

Manual integrations were performed in accordance with APPL's SOP. The following analytes were manually integrated in the calibration standards: HMX, Nitroglycerin, PETN, 1,2-Dinitrobenzene, 1,3- Dinitrobenzene, Nitrobenzene, 2,4,6-Trinitrotoluene, Tetryl, 2,6-Dinitrotoluene, 2,4-Dinitrotoluene, 2-Nitrotoluene, 4-Nitrotoluene, 3-Nitrotoluene, 4-Amino-2,6-Dinitrotoluene, 2-Amino-4,6-Dinitrotoluene and 3,5-Dinitroaniline. HMX, RDX and 1,2-Dinitrobenzene were manually integrated in the samples. Chromatograms of before and after manual integration are enclosed.

Quality Control/Assurance:

Spike Recovery:

A Laboratory Control Spike (LCS) was used for quality assurance. All spike acceptance criteria was met.

No sample was designated by the client for MS/MSD analysis.

Method blanks:

No target analyte was detected at or above one-half the limit of quantitation (LOQ) in the method blank.

Surrogates:

Surrogate recoveries are summarized on the Form 2 & 8. All surrogates had acceptable recoveries.

Calibration:

The initial and continuing calibrations and second source were analyzed according to the method. All calibration criteria were met.

Summary:

No analytical problem was encountered. The data generated are acceptable.

EPA Method 6010C
Total and Dissolved Metals

Digestion and Analysis Information:

The water samples were digested according to EPA method 3010A. The samples were analyzed for total and dissolved metals according to EPA method 6010C using a Perkin Elmer Optima 5300DV. All holding times were met.

Quality Control/Assurance:

Calibrations:

Calibrations were performed according to the methods for the initial calibration and the initial calibration verification. The initial calibration verification is prepared from a second source standard.

Blanks:

No target metal was detected above one half the LOQ in the method blanks.

Spikes:

Laboratory Control Spikes (LCS) were used for quality assurance. All LCS acceptance criteria were met.

No sample was designated by the client for MS/MSD analysis.

Summary:

No analytical problem was encountered. The data generated are acceptable.

Inorganic Analyses

EPA Method 300.0 and SW846 9060

Sample Preparation and Analysis

The samples were prepared and analyzed according to the methods. All holding times were met. The samples were analyzed for Anions according to EPA method 300.0 using a Dionex DX500. The samples were analyzed for TOC according to EPA method 9060 using a Tekmar Apollo 9000.

Quality Control/Assurance

Spike Recovery

A Laboratory Control Spike (LCS/) was used for quality assurance. All LCS acceptance criteria were met.

No sample was designated by the client for MS/MSD analysis.

Method blanks

No target analyte was detected one-half the limit of quantitation (LOQ) in the method blank.

Calibration

Calibrations were performed according to the method for the initial calibration and the continuing calibration verification. The initial calibration verification is prepared from a second source standard. All calibration criteria were met.

Summary:

No analytical exception was noted.

APPL - Receiving

From: Cynthia Clark [cclark@applinc.com]
Sent: Thursday, May 14, 2015 10:44 AM
To: 'Receiving'; 'Renée Patterson'; 'Chue Moua'
Subject: FW: change sample ID S67-MW09-051315 to S67-MW10-051315 | RE: Indian Head Site 67 samples arriving Thurs May 14 -- FW: COCs from Wed May 13

per the email below, for the samples received today from TTEC-JU11, please change the ID on sample S67-MW**09**-051315 to "S67-MW**10**-051315". Please save a copy of this email with the COC and ARF.
Thank you!

Sincerely,

Cynthia Clark

From: Corack, Ed [mailto:Ed.Corack@tetratech.com]
Sent: Thursday, May 14, 2015 10:29 AM
To: Cynthia Clark (cclark@applinc.com)
Cc: Thomson, Amy; Birkett, Jacob; Wu, Ernie
Subject: change sample ID S67-MW09-051315 to S67-MW10-051315 | RE: Indian Head Site 67 samples arriving Thurs May 14 -- FW: COCs from Wed May 13

Summary: change mislabeled sample ID.

Cynthia, per our phone conversation:

1. Well S67-MW09 was sampled on May 12th with sample ID S67-MW09-051215. You received this sample yesterday. No issues / no changes.

2. Issue / change required: Today you are receiving a bottle set with sample ID "S67-MW09-051315" and indicated as being collected from well MW09 on May 13th on the CoC. This is an error by the field sampler. The sample is actually from well S67-MW10 sampled on May 13th. Please change the sample ID on the bottles to read "S67-MW**10**-051315". I will mark up and initial your 'log-in-CoC' with the change and email it back to you (or otherwise and initial the change if you make it).

V/R,
-Ed

Ed Corack
Tetra Tech

From: Corack, Ed
Sent: Thursday, May 14, 2015 10:31 AM
To: Cynthia Clark (cclark@applinc.com)
Cc: Thomson, Amy; Birkett, Jacob
Subject: Indian Head Site 67 samples arriving Thurs May 14 -- FW: COCs from Wed May 13

Cynthia, see pic of CoC for yesterday's collected samples attached. These will arrive at APPL today. These Site 67 monitoring well samples "S67-MW#" are all normal TAT.

Today: We're doing test trenches today, probably will collect two soil samples, one of which will be colored purple (for unknown reasons). The metals analysis for these test trench soil samples "S67-TP#" should be the full TAL Metals list, rather than limited to our

APPL, Inc
908 N Temperance Ave
Clovis, CA 93611

Phone: (559) 275-2175
Fax: (559) 275-4422

CHAIN OF CUSTODY RECORD

C.O.C. 48710

Report to: PLEASE PRINT
Company Name: Tetra Tech
Address: 5700 Lake Wright Drive
Twin Oaks I, Suite 309
Attn: Ed Corack
Phone: 757 461-4086
Fax:

Invoice to: PLEASE PRINT
Company Name: Tetra Tech
Address: See contract
Attn:
Phone:
Fax:

Project Name/Number: Site 67 NSF IH 112G02622
Sampler (Print): Jacob Birkett / Ernie Wu
Purchase Order Number:
Sampler (Signature):

Date Shipped: 5/13/15
Carrier: FedEx
Waybill No.:
Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq.	Matrix: Sed.	Matrix: Soil	Analysis Requested/Method Number: PAH/pesticides	Total metals	Dissolved metals	Energetics	Perchlorate	TOC	Nitrate/Nitrite	Chloride/Sulfate	Methane
S67-MW008-051315	S67-MW08	5/13/15	0940	ET	12	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
S67-MW001-051315	S67-MW01	5/13/15	1120	ET	12	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
S67-MW001P-051315	S67-MW01	5/13/15	1130	ET	12	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
S67-~~MW09~~ MW10-051315 EDC	S67 ~~MW09~~ MW10 EDC	5/13/15	1400	ET	12	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
S67-MW013-051315	S67-MW013	5/13/15	1520	ET	12	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
S67-MW004-051315	S67-MW04	5/13/15	1133	ET	12	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
S67-MW005-051315	S67-MW05	5/13/15	0945	ET	12	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
S67-MW014-051315	S67-MW014	5/13/15	1450	ET	12	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
S67-MW004P-051315	S67-MW004	5/13/15	1133	ET	12	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
S67-RB02-051315	Site 67	5/13/15	1550	ET	5	✓				✓	✓	✓	✓				

Shuttle Temperature:

Turnaround Requested: Check one
☒ Standard 2-3 wk ☐ One week ☐ 24/48 Hrs. ☐ Other

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler:	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
	5/13/15	1800					

Relinquished by:	Date	Time	Received by:	Relinquished by:	Date	Time	Received at lab by:

White: Return to client with report Yellow: Laboratory Copy Pink: Sampler

See reverse side for Container Preservative and Sampling Information

MW09 corrected to MW10 by Ed Corack/Tetra Tech on 5/15/2015.

3.0 x 4

CHAIN OF CUSTODY RECORD

76424

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611

Phone: (559) 275-2175
Fax: (559) 275-4422

C.O.C. 48710

Report to: PLEASE PRINT

Company Name: Tetra Tech
Phone: (757) 461-4086
Address: 5700 Lake Wright Drive
Twin Oaks I, Suite 309
Fax:
Attn: Ed Corack

Invoice to: PLEASE PRINT

Company Name: Tetra Tech
Phone:
Address: See contract
Fax:
Attn:

Project Name/Number: Site 67 NSF IH 112G02622
Sampler (Print): Jacob Birkett / Ernie Wu
Purchase Order Number
Sampler (Signature)

Date Shipped: 5/13/15
Carrier: FedEx
Waybill No.:
Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil	PAH/phthalates	Total Metals	dissolved metals	Energetics	Perchlorate	TOC	Nitrate/Nitrite	Chloride/Sulfate	Methane
S67-MW008-051315	S67-MW08	5/13/15	0940	ET	12	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
S67-MW001-051315	S67-MW01	5/13/15	1130	ET	12	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
S67-MW001P-051315	S67-MW01	5/13/15	1130	ET	12	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
S67-MW09-051315	S67-MW09	5/13/15	1400	ET	12	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
S67-MW013-051315	S67-MW013	5/13/15	1520	ET	12	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
S67-MW004-051315	S67-MW04	5/13/15	1133	ET	12	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
S67-MW005-051315	S67-MW05	5/13/15	0945	ET	12	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
S67-MW014-051315	S67-MW014	5/13/15	1450	ET	12	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
S67-MW004P-051315	S67-MW004	5/13/15	1133	ET	12	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
S67-RB02-051315	Site 67	5/13/15	1550	ET	5	✓				✓	✓	✓	✓				

Shuttle Temperature:

Turnaround Requested: Check one
☒ Standard 2-3 wk ☐ One week ☐ 24/48 Hrs. ☐ Other

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler:	Date: 5/13/15	Time: 1800	Received by:	Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date: 5-14-15	Time: 10:00	Received at lab by: Brian Brown

White: Return to client with report Yellow: Laboratory Copy Pink: Sampler

See reverse side for Container Preservative and Sampling Information

EPA 8270D WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-MW008-051315

APPL ID: AZ16334

Sample Collection Date: 5/13/2015

QCG: #87DJU-150518A-197636

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	80.8	40-125			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	59.3	50-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	46.5	20-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	64.0	40-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	31.8	10-115			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	85.7	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y120
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 10:21:05 AM
APPL-F1-SC-NoMC-REG MDLs

EPA 8270D WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16335
QCG: #87DJU-150518A-197636

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	82.4	40-125			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	58.6	50-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	41.4	20-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	60.4	40-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	28.9	10-115			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	83.1	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y121
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 10:21:05 AM
APPL-F1-SC-NoMC-REG MDLs

EPA 8270D WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001P-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16336
QCG: #87DJU-150518A-197636

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	84.0	40-125			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	58.9	50-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	43.3	20-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	63.0	40-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	29.3	10-115			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	85.0	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y122
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

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APPL-F1-SC-NoMC-REG MDLs

EPA 8270D WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW10-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16337
QCG: #87DJU-150518A-197636

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	84.3	40-125			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	60.7	50-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	47.6	20-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	64.2	40-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	32.7	10-115			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	83.5	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y123
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

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EPA 8270D WATER

Tetra Tech
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Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-MW013-051315

APPL ID: AZ16338

Sample Collection Date: 5/13/2015

QCG: #87DJU-150518A-197636

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	84.3	40-125			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	57.4	50-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	50.4	20-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	62.2	40-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	34.9	10-115			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	86.2	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y124
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

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APPL-F1-SC-NoMC-REG MDLs

EPA 8270D WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16339
QCG: #87DJU-150518A-197636

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	88.3	40-125			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	61.5	50-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	43.4	20-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	63.0	40-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	29.3	10-115			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	85.6	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y125
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

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EPA 8270D WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW005-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16340
QCG: #87DJU-150518A-197636

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/20/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/20/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/20/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/20/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/20/2015
EPA 8270D	DIMETHYL PHTHALATE	14	10.0	5.00	2.90	ug/L	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	94.1	40-125			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	62.2	50-110			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	34.4	20-110			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	53.9	40-110			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: PHENOL (S)	23.9	10-115			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	79.7	50-135			%	5/18/2015	5/20/2015

Quant Method: Y0511TT.M
Run #: 0511Y128
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

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EPA 8270D WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW014-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16341
QCG: #87DJU-150518A-197636

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/20/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/20/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/20/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/20/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/20/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	88.9	40-125			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	55.2	50-110			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	55.2	20-110			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	67.8	40-110			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: PHENOL (S)	34.4	10-115			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	89.0	50-135			%	5/18/2015	5/20/2015

Quant Method: Y0511TT.M
Run #: 0511Y129
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

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APPL-F1-SC-NoMC-REG MDLs

EPA 8270D WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004P-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16342
QCG: #87DJU-150518A-197636

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/20/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/20/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/20/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/20/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/20/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	80.7	40-125			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	59.5	50-110			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	41.3	20-110			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	60.6	40-110			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: PHENOL (S)	27.5	10-115			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	83.5	50-135			%	5/18/2015	5/20/2015

Quant Method: Y0511TT.M
Run #: 0511Y130
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

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APPL-F1-SC-NoMC-REG MDLs

Method Blank
EPA 8270D WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150518W-16287 - 197636**
Batch ID: #87DJU-150518A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BIS (2-ETHYLHEXYL) PHTHALAT	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
BLANK	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/19/2015
BLANK	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/19/2015
BLANK	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/19/2015
BLANK	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/19/2015
BLANK	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
BLANK	SURROGATE: 2,4,6-TRIBROMOP	120	40-125			%	5/18/2015	5/19/2015
BLANK	SURROGATE: 2-FLUORBIPHENY	79.6	50-110			%	5/18/2015	5/19/2015
BLANK	SURROGATE: 2-FLUOROPHENO	47.5	20-110			%	5/18/2015	5/19/2015
BLANK	SURROGATE: NITROBENZENE-	81.1	40-110			%	5/18/2015	5/19/2015
BLANK	SURROGATE: PHENOL (S)	34.0	10-115			%	5/18/2015	5/19/2015
BLANK	SURROGATE: TERPHENYL-D14 (	119	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y108
Instrument: Yoda
Sequence: Y150511
Initials: DA

GC SC-Blank-REG MDLs
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Laboratory Control Spike Recovery
EPA 8270D WATER

APPL ID: **150518W-16287 LCS - 197636**
Batch ID: #87DJU-150518A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
BIS (2-ETHYLHEXYL) PHTHALATE	50.0	45.0	90.0	40-125
BUTYL BENZYL PHTHALATE	50.0	42.2	84.4	45-115
DI-N-BUTYL PHTHALATE	50.0	45.3	90.6	55-115
DI-N-OCTYL PHTHALATE	50.0	50.1	100	35-135
DIETHYL PHTHALATE	50.0	43.9	87.8	40-120
DIMETHYL PHTHALATE	50.0	44.1	88.2	25-125
SURROGATE: 2,4,6-TRIBROMOPHENOL	200	193	96.5	40-125
SURROGATE: 2-FLUORBIPHENYL (S)	100	75.9	75.9	50-110
SURROGATE: 2-FLUOROPHENOL (S)	200	118	59.0	20-110
SURROGATE: NITROBENZENE-D5 (S)	100	78.9	78.9	40-110
SURROGATE: PHENOL (S)	200	84.1	42.0	10-115
SURROGATE: TERPHENYL-D14 (S)	100	95.4	95.4	50-135

Comments: _____

Primary	SPK
Quant Method :	Y0511TT.M
Extraction Date :	05/18/15
Analysis Date :	05/19/15
Instrument :	Yoda
Run :	0511Y109
Initials :	DA

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APPL Standard LCS

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER

SDG No: 76424
Date Analyzed: 5/19/2015
Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150518A-BLK	Blank	40-125	120		50-110	79.6	
150518A-LCS	Lab Control Spike	40-125	96.5		50-110	75.9	
AZ16334	S67-MW008-051315	40-125	80.8		50-110	59.3	
AZ16335	S67-MW001-051315	40-125	82.4		50-110	58.6	
AZ16336	S67-MW001P-051315	40-125	84.0		50-110	58.9	
AZ16337	S67-MW10-051315	40-125	84.3		50-110	60.7	
AZ16338	S67-MW013-051315	40-125	84.3		50-110	57.4	
AZ16339	S67-MW004-051315	40-125	88.3		50-110	61.5	
AZ16340	S67-MW005-051315	40-125	94.1		50-110	62.2	
AZ16341	S67-MW014-051315	40-125	88.9		50-110	55.2	
AZ16342	S67-MW004P-051315	40-125	80.7		50-110	59.5	

Comments: Batch: #87DJU-150518A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER

SDG No: 76424
Date Analyzed: 5/19/2015
Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150518A-BLK	Blank	20-110	47.5		40-110	81.1	
150518A-LCS	Lab Control Spike	20-110	59.0		40-110	78.9	
AZ16334	S67-MW008-051315	20-110	46.5		40-110	64.0	
AZ16335	S67-MW001-051315	20-110	41.4		40-110	60.4	
AZ16336	S67-MW001P-051315	20-110	43.3		40-110	63.0	
AZ16337	S67-MW10-051315	20-110	47.6		40-110	64.2	
AZ16338	S67-MW013-051315	20-110	50.4		40-110	62.2	
AZ16339	S67-MW004-051315	20-110	43.4		40-110	63.0	
AZ16340	S67-MW005-051315	20-110	34.4		40-110	53.9	
AZ16341	S67-MW014-051315	20-110	55.2		40-110	67.8	
AZ16342	S67-MW004P-051315	20-110	41.3		40-110	60.6	

Comments: Batch: #87DJU-150518A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER

SDG No: 76424
Date Analyzed: 5/19/2015
Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150518A-BLK	Blank	10-115	34.0		50-135	119	
150518A-LCS	Lab Control Spike	10-115	42.0		50-135	95.4	
AZ16334	S67-MW008-051315	10-115	31.8		50-135	85.7	
AZ16335	S67-MW001-051315	10-115	28.9		50-135	83.1	
AZ16336	S67-MW001P-051315	10-115	29.3		50-135	85.0	
AZ16337	S67-MW10-051315	10-115	32.7		50-135	83.5	
AZ16338	S67-MW013-051315	10-115	34.9		50-135	86.2	
AZ16339	S67-MW004-051315	10-115	29.3		50-135	85.6	
AZ16340	S67-MW005-051315	10-115	23.9		50-135	79.7	
AZ16341	S67-MW014-051315	10-115	34.4		50-135	89.0	
AZ16342	S67-MW004P-051315	10-115	27.5		50-135	83.5	

Comments: Batch: #87DJU-150518A

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER
Blank ID: 150518A-BLK

SDG No: 76424
Date Analyzed: 5/19/2015
Instrument: Yoda
Time Analyzed: 1521

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150518A-BLK	Blank	0511Y108	5/19/2015 1521
150518A-LCS	Lab Control Spike	0511Y109	5/19/2015 1551
AZ16334	S67-MW008-051315	0511Y120	5/19/2015 2117
AZ16335	S67-MW001-051315	0511Y121	5/19/2015 2146
AZ16336	S67-MW001P-051315	0511Y122	5/19/2015 2216
AZ16337	S67-MW10-051315	0511Y123	5/19/2015 2245
AZ16338	S67-MW013-051315	0511Y124	5/19/2015 2315
AZ16339	S67-MW004-051315	0511Y125	5/19/2015 2344
AZ16340	S67-MW005-051315	0511Y128	5/20/2015 0058
AZ16341	S67-MW014-051315	0511Y129	5/20/2015 0127
AZ16342	S67-MW004P-051315	0511Y130	5/20/2015 0156

Comments: Batch: #87DJU-150518A

EPA 8270D LL WATER DODv3

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Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-MW008-051315

APPL ID: AZ16334

Sample Collection Date: 5/13/2015

QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	61.5	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	67.7	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	90.7	50-135			%	5/18/2015	5/27/2015

Quant Method: P0518-42.M
Run #: 0515L206
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

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APPL-F1-SC-NoMC-REG MDLs

EPA 8270D LL WATER DODv3

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Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-MW001-051315

APPL ID: AZ16335

Sample Collection Date: 5/13/2015

QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	56.0	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	56.3	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	85.4	50-135			%	5/18/2015	5/27/2015

Quant Method: P0518-42.M
Run #: 0515L207
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

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Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001P-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16336
QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	55.5	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	55.9	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	81.5	50-135			%	5/18/2015	5/27/2015

Quant Method: P0518-42.M
Run #: 0515L208
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

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Sample ID: S67-MW10-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16337
QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	57.0	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	58.6	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	85.3	50-135			%	5/18/2015	5/27/2015

Quant Method: P0518-42.M
Run #: 0515L209
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

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EPA 8270D LL WATER DODv3

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Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW013-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16338
QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	54.0	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	58.3	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	82.5	50-135			%	5/18/2015	5/27/2015

Quant Method: P0518-42.M
Run #: 0515L210
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

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EPA 8270D LL WATER DODv3

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Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16339
QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	57.0	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	63.8	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	85.0	50-135			%	5/18/2015	5/27/2015

Quant Method: P0518-42.M
Run #: 0515L211
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

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APPL-F1-SC-NoMC-REG MDLs

EPA 8270D LL WATER DODv3

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APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW005-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16340
QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	52.3	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	52.2	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	80.6	50-135			%	5/18/2015	5/27/2015

Quant Method: P0518-42.M
Run #: 0515L212
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

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APPL-F1-SC-NoMC-REG MDLs

EPA 8270D LL WATER DODv3

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW014-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16341
QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.059 J	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	62.0	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	67.0	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	91.9	50-135			%	5/18/2015	5/27/2015

J = Estimated value.

Quant Method: P0518-42.M
Run #: 0515L213
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

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APPL-F1-SC-NoMC-REG MDLs

EPA 8270D LL WATER DODv3

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004P-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16342
QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	58.2	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	56.5	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	85.5	50-135			%	5/18/2015	5/27/2015

Quant Method: P0518-42.M
Run #: 0515L214
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 12:54:29 PM
APPL-F1-SC-NoMC-REG MDLs

Method Blank

EPA 8270D LL WATER DODv3

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150518W-16287 - 197649**
Batch ID: #SIMDD-150518A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
BLANK	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
BLANK	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
BLANK	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
BLANK	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
BLANK	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
BLANK	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
BLANK	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
BLANK	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
BLANK	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
BLANK	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
BLANK	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
BLANK	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
BLANK	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
BLANK	SURROGATE: 2-FLUORBIPHENY	47.8 #	50-110			%	5/18/2015	5/27/2015
BLANK	SURROGATE: NITROBENZENE-	62.2	40-110			%	5/18/2015	5/27/2015
BLANK	SURROGATE: TERPHENYL-D14 (	85.4	50-135			%	5/18/2015	5/27/2015

= Recovery (or RPD) is outside QC limits.

Quant Method: P0518-42.M
Run #: 0515L196
Instrument: Linus
Sequence: L150515
Initials: DA

GC SC-Blank-REG MDLs
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Laboratory Control Spike Recovery

EPA 8270D LL WATER DODv3

APPL ID: **150518W-16287 LCS - 197649**
Batch ID: #SIMDD-150518A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2-METHYLNAPHTHALENE	5.00	3.17	63.4	45-105
ACENAPHTHENE	5.00	4.06	81.2	45-110
ACENAPHTHYLENE	5.00	3.64	72.8	50-105
ANTHRACENE	5.00	3.57	71.4	55-110
BENZ (A) ANTHRACENE	5.00	4.01	80.2	55-110
BENZO (A) PYRENE	5.00	4.09	81.8	55-110
BENZO (B) FLUORANTHENE	5.00	3.88	77.6	45-120
BENZO (G,H,I) PERYLENE	5.00	3.96	79.2	40-125
BENZO (K) FLUORANTHENE	5.00	4.36	87.2	45-125
CHRYSENE	5.00	4.46	89.2	55-110
DIBENZ (A,H) ANTHRACENE	5.00	4.05	81.0	40-125
FLUORANTHENE	5.00	3.75	75.0	55-115
FLUORENE	5.00	3.71	74.2	50-110
INDENO (1,2,3-CD) PYRENE	5.00	4.24	84.8	45-125
NAPHTHALENE	5.00	3.90	78.0	40-100
PHENANTHRENE	5.00	3.64	72.8	50-115
PYRENE	5.00	4.34	86.8	50-130
SURROGATE: 2-FLUORBIPHENYL (S)	2.55	1.44	56.4	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.55	1.72	67.4	40-110
SURROGATE: TERPHENYL-D14 (S)	2.55	2.15	84.3	50-135

Comments: _____

Primary	SPK
Quant Method :	P0518-42.M
Extraction Date :	5/18/2015
Analysis Date :	5/27/2015
Instrument :	Linus
Run :	0515L197
Initials :	DA

Printed: 6/3/2015 12:54:39 PM
APPL Standard LCS

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76424

Case No: 76424 Date Analyzed: 05/27/15

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150518A-BLK	Blank	50-110	47.8	#	40-110	62.2	
150518A-LCS	Lab Control Spike	50-110	56.4		40-110	67.4	
AZ16334	S67-MW008-051315	50-110	61.5		40-110	67.7	
AZ16335	S67-MW001-051315	50-110	56.0		40-110	56.3	
AZ16336	S67-MW001P-051315	50-110	55.5		40-110	55.9	
AZ16337	S67-MW10-051315	50-110	57.0		40-110	58.6	
AZ16338	S67-MW013-051315	50-110	54.0		40-110	58.3	
AZ16339	S67-MW004-051315	50-110	57.0		40-110	63.8	
AZ16340	S67-MW005-051315	50-110	52.3		40-110	52.2	
AZ16341	S67-MW014-051315	50-110	62.0		40-110	67.0	
AZ16342	S67-MW004P-051315	50-110	58.2		40-110	56.5	

Comments: Batch: #SIMDD-150518A

= Recovery outside of Control Limits on Sample.

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER

SDG No: 76424
Date Analyzed: 05/27/15
Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150518A-BLK	Blank	50-135	85.4				
150518A-LCS	Lab Control Spike	50-135	84.3				
AZ16334	S67-MW008-051315	50-135	90.7				
AZ16335	S67-MW001-051315	50-135	85.4				
AZ16336	S67-MW001P-051315	50-135	81.5				
AZ16337	S67-MW10-051315	50-135	85.3				
AZ16338	S67-MW013-051315	50-135	82.5				
AZ16339	S67-MW004-051315	50-135	85.0				
AZ16340	S67-MW005-051315	50-135	80.6				
AZ16341	S67-MW014-051315	50-135	91.9				
AZ16342	S67-MW004P-051315	50-135	85.5				

Comments: Batch: #SIMDD-150518A

8270D-LL

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER
Blank ID: 150518A-BLK

SDG No: 76424
Date Analyzed: 5/27/2015
Instrument: Linus
Time Analyzed: 0219

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150518A-BLK	Blank	0515L196	5/27/2015 0219
150518A-LCS	Lab Control Spike	0515L197	5/27/2015 0245
AZ16334	S67-MW008-051315	0515L206	5/27/2015 0636
AZ16335	S67-MW001-051315	0515L207	5/27/2015 0701
AZ16336	S67-MW001P-051315	0515L208	5/27/2015 0727
AZ16337	S67-MW10-051315	0515L209	5/27/2015 0753
AZ16338	S67-MW013-051315	0515L210	5/27/2015 0818
AZ16339	S67-MW004-051315	0515L211	5/27/2015 0843
AZ16340	S67-MW005-051315	0515L212	5/27/2015 0909
AZ16341	S67-MW014-051315	0515L213	5/27/2015 0934
AZ16342	S67-MW004P-051315	0515L214	5/27/2015 1000

Comments: Batch: #SIMDD-150518A

Printed: 6/3/2015 12:54:34 PM
Form 4, Blank Summary

RSK 175

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW008-051315
Sample Collection Date: 05/13/15

Loc ID: S67-MW08
ARF: 76424
APPL ID: AZ16334
QCG: #RSK-150526A-197498

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
RSK 175	METHANE	28	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F005
Instrument: Frodo
Sequence: 150526
Dilution Factor: 1
Initials: RSA

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APPL-F1-SC-NoMC-REG MDLs

RSK 175

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001-051315
Sample Collection Date: 05/13/15

Loc ID: S67-MW01
ARF: 76424
APPL ID: AZ16335
QCG: #RSK-150526A-197498

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
RSK 175	METHANE	9.9	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F006
Instrument: Frodo
Sequence: 150526
Dilution Factor: 1
Initials: RSA

Printed: 06/03/15 12:15:44 PM
APPL-F1-SC-NoMC-REG MDLs

RSK 175

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001P-051315
Sample Collection Date: 05/13/15

Loc ID: S67-MW01
ARF: 76424
APPL ID: AZ16336
QCG: #RSK-150526A-197498

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
RSK 175	METHANE	5.9	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F007
Instrument: Frodo
Sequence: 150526
Dilution Factor: 1
Initials: RSA

Printed: 06/03/15 12:15:45 PM
APPL-F1-SC-NoMC-REG MDLs

RSK 175

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW10-051315
Sample Collection Date: 05/13/15

Loc ID: S67-MW09
ARF: 76424
APPL ID: AZ16337
QCG: #RSK-150526A-197498

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
RSK 175	METHANE	18	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F008
Instrument: Frodo
Sequence: 150526
Dilution Factor: 1
Initials: RSA

Printed: 06/03/15 12:15:45 PM
APPL-F1-SC-NoMC-REG MDLs

RSK 175

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW013-051315
Sample Collection Date: 05/13/15

Loc ID: S67-MW013
ARF: 76424
APPL ID: AZ16338
QCG: #RSK-150526A-197498

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
RSK 175	METHANE	19	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F009
Instrument: Frodo
Sequence: 150526
Dilution Factor: 1
Initials: RSA

Printed: 06/03/15 12:15:45 PM
APPL-F1-SC-NoMC-REG MDLs

RSK 175

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5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004-051315
Sample Collection Date: 05/13/15

Loc ID: S67-MW04
ARF: 76424
APPL ID: AZ16339
QCG: #RSK-150526A-197498

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
RSK 175	METHANE	13	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F010
Instrument: Frodo
Sequence: 150526
Dilution Factor: 1
Initials: RSA

Printed: 06/03/15 12:15:45 PM
APPL-F1-SC-NoMC-REG MDLs

RSK 175

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Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW005-051315
Sample Collection Date: 05/13/15

Loc ID: S67-MW05
ARF: 76424
APPL ID: AZ16340
QCG: #RSK-150526A-197498

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
RSK 175	METHANE	0.45 U	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F011
Instrument: Frodo
Sequence: 150526
Dilution Factor: 1
Initials: RSA

Printed: 06/03/15 12:15:45 PM
APPL-F1-SC-NoMC-REG MDLs

RSK 175

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Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW014-051315
Sample Collection Date: 05/13/15

Loc ID: S67-MW014
ARF: 76424
APPL ID: AZ16341
QCG: #RSK-150526A-197498

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
RSK 175	METHANE	0.45 U	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F012
Instrument: Frodo
Sequence: 150526
Dilution Factor: 1
Initials: RSA

Printed: 06/03/15 12:15:45 PM
APPL-F1-SC-NoMC-REG MDLs

RSK 175

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Norfolk, VA 23502

APPL Inc.
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Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004P-051315
Sample Collection Date: 05/13/15

Loc ID: S67-MW004
ARF: 76424
APPL ID: AZ16342
QCG: #RSK-150526A-197498

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
RSK 175	METHANE	6.8	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F013
Instrument: Frodo
Sequence: 150526
Dilution Factor: 1
Initials: RSA

Printed: 06/03/15 12:15:45 PM
APPL-F1-SC-NoMC-REG MDLs

Method Blank
RSK 175

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150526W-16334 - 197498**
Batch ID: #RSK-150526A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
BLANK	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
BLANK	METHANE	0.45 U	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F014
Instrument: Frodo
Sequence: 150526
Initials: RSA

GC SC-Blank-REG MDLs
Printed: 06/03/15 12:15:35 PM

Laboratory Control Spike Recovery
RSK 175

APPL ID: **150526W-16334 LCS - 197498**
Batch ID: #RSK-150526A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
ETHANE	25.0	23.5	94.0	70-130
ETHENE	23.3	21.5	92.3	70-130
METHANE	13.3	13.3	100	70-130

Comments:

Primary	SPK
Quant Method :	402RSK.M
Extraction Date :	05/26/15
Analysis Date :	05/26/15
Instrument :	Frodo
Run :	0526F002
Initials :	RSA

Printed: 06/03/15 12:15:40 PM
APPL Standard LCS

RSK 175

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76424

Case No: 76424 Date Analyzed: 05/26/15

Matrix: WATER Instrument: Frodo

Blank ID: 150526A-BLK Time Analyzed: 1323

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150526A-LCS	Lab Control Spike	0526F002	05/26/15 1047
AZ16334	S67-MW008-051315	0526F005	05/26/15 1122
AZ16335	S67-MW001-051315	0526F006	05/26/15 1126
AZ16336	S67-MW001P-051315	0526F007	05/26/15 1130
AZ16337	S67-MW10-051315	0526F008	05/26/15 1136
AZ16338	S67-MW013-051315	0526F009	05/26/15 1140
AZ16339	S67-MW004-051315	0526F010	05/26/15 1144
AZ16340	S67-MW005-051315	0526F011	05/26/15 1149
AZ16341	S67-MW014-051315	0526F012	05/26/15 1156
AZ16342	S67-MW004P-051315	0526F013	05/26/15 1200
150526A-BLK	Blank	0526F014	05/26/15 1323

Comments: Batch: #RSK-150526A

Perchlorate

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW008-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16334
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	1300	60	40.0	20.0	ug/L	05/18/15	05/24/15

Quant Method: QTLMFL2
Run #: T524_011.d
Instrument: AGIL_6460
Sequence: TQ052415
Dilution Factor: 100
Initials: RP

Printed: 06/19/15 2:10:07 PM
APPL-F1-SC-NoMC-REG MDLs

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Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16335
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	860	60	40.0	20.0	ug/L	05/18/15	05/24/15

Quant Method: QTLMFL2
Run #: T524_007.d
Instrument: AGIL_6460
Sequence: TQ052415
Dilution Factor: 100
Initials: RP

Printed: 06/19/15 2:10:07 PM
APPL-F1-SC-NoMC-REG MDLs

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Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001P-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16336
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	640	0.60	0.400	0.200	ug/L	05/18/15	05/24/15

Quant Method: QTLMFL2
Run #: T524_022.d
Instrument: AGIL_6460
Sequence: TQ052415
Dilution Factor: 1
Initials: RP

Printed: 06/19/15 2:10:07 PM
APPL-F1-SC-NoMC-REG MDLs

Perchlorate

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Norfolk, VA 23502

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908 North Temperance Avenue
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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW10-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16337
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	90	60	40.0	20.0	ug/L	05/18/15	05/24/15

Quant Method: QTLMFL2
Run #: T524_033.d
Instrument: AGIL_6460
Sequence: TQ052415
Dilution Factor: 100
Initials: RP

Printed: 06/19/15 2:10:07 PM
APPL-F1-SC-NoMC-REG MDLs

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Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW013-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16338
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	1100	600	400.0	200.0	ug/L	05/18/15	05/24/15

Quant Method: QTLMFL2
Run #: T524_024.d
Instrument: AGIL_6460
Sequence: TQ052415
Dilution Factor: 1000
Initials: RP

Printed: 06/19/15 2:10:07 PM
APPL-F1-SC-NoMC-REG MDLs

Perchlorate

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Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16339
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	130	60	40.0	20.0	ug/L	05/18/15	05/25/15

Quant Method: QTLMFL2
Run #: T524_035.d
Instrument: AGIL_6460
Sequence: TQ052415
Dilution Factor: 100
Initials: RP

Printed: 06/19/15 2:10:07 PM
APPL-F1-SC-NoMC-REG MDLs

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908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW005-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16340
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	0.58 J	0.60	0.400	0.200	ug/L	05/18/15	05/24/15

J = Estimated value.

Quant Method:	QTLMFL2
Run #:	T523_038.d
Instrument:	AGIL_6460
Sequence:	TQ052315
Dilution Factor:	1
Initials:	RP

Printed: 06/19/15 2:10:07 PM
APPL-F1-SC-NoMC-REG MDLs

Perchlorate

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Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW014-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16341
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	410	60	40.0	20.0	ug/L	05/18/15	05/24/15

Quant Method: QTLMFL2
Run #: T524_028.d
Instrument: AGIL_6460
Sequence: TQ052415
Dilution Factor: 100
Initials: RP

Printed: 06/19/15 2:10:07 PM
APPL-F1-SC-NoMC-REG MDLs

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Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004P-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16342
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	110	60	40.0	20.0	ug/L	05/18/15	05/25/15

Quant Method: QTLMFL2
Run #: T524_037.d
Instrument: AGIL_6460
Sequence: TQ052415
Dilution Factor: 100
Initials: RP

Printed: 06/19/15 2:10:07 PM
APPL-F1-SC-NoMC-REG MDLs

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APPL Inc.
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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-RB02-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16343
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	05/18/15	05/24/15

Quant Method: QTLMFL2
Run #: T523_041.d
Instrument: AGIL_6460
Sequence: TQ052315
Dilution Factor: 1
Initials: RP

Printed: 06/19/15 2:10:07 PM
APPL-F1-SC-NoMC-REG MDLs

Method Blank
Perchlorate

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150518W-16287 - 198054**
Batch ID: #6850-150518A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	05/18/15	05/23/15

Quant Method: QTLMFL2
Run #: T523_021.d
Instrument: AGIL_6460
Sequence: TQ052315
Initials: RP

GC SC-Blank-REG MDLs
Printed: 06/19/15 2:10:10 PM

Laboratory Control Spike Recovery
Perchlorate

APPL ID: **150518W-16287 LCS - 198054**
Batch ID: #6850-150518A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
PERCHLORATE	0.600	0.567	94.5	80-120

Comments: _____

Primary	SPK
Quant Method :	QTLMFL2
Extraction Date :	05/18/15
Analysis Date :	05/23/15
Instrument :	AGIL_6460
Run :	T523_019.d
Initials :	RP

Printed: 06/19/15 2:10:13 PM
APPL Standard LCS

EPA 6850

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER
Blank ID: 150518A-BLK

SDG No: 76424
Date Analyzed: 05/23/15
Instrument: AGIL_6460
Time Analyzed: 2146

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150518A-LCS	Lab Control Spike	T523_019.d	05/23/15 2109
150518A-BLK	Blank	T523_021.d	05/23/15 2146
AZ16340	S67-MW005-051315	T523_038.d	05/24/15 0303
AZ16343	S67-RB02-051315	T523_041.d	05/24/15 0359
AZ16335	S67-MW001-051315	T524_007.d	05/24/15 1554
AZ16334	S67-MW008-051315	T524_011.d	05/24/15 1708
AZ16336	S67-MW001P-051315	T524_022.d	05/24/15 2034
AZ16338	S67-MW013-051315	T524_024.d	05/24/15 2111
AZ16341	S67-MW014-051315	T524_028.d	05/24/15 2225
AZ16337	S67-MW10-051315	T524_033.d	05/24/15 2358
AZ16339	S67-MW004-051315	T524_035.d	05/25/15 0036
AZ16342	S67-MW004P-051315	T524_037.d	05/25/15 0113

Comments: Batch: #6850-150518A

EPA 8330B WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW008-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16334
QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	0.56	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.13 J	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	87.6	70-130			%	05/19/15	05/23/15

J = Estimated value.

Quant Method: W150522.M
Run #: 0522_000036
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

Printed: 06/19/15 2:15:44 PM
APPL-F1-SC-NoMC-REG MDLs

EPA 8330B WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-MW001-051315

APPL ID: AZ16335

Sample Collection Date: 05/13/15

QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	0.68	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.3	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000037
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

Printed: 06/19/15 2:15:44 PM
APPL-F1-SC-NoMC-REG MDLs

EPA 8330B WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-MW001P-051315

APPL ID: AZ16336

Sample Collection Date: 05/13/15

QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	0.72	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	89.6	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000038
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

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APPL-F1-SC-NoMC-REG MDLs

EPA 8330B WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW10-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16337
QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	89.5	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000039
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

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APPL-F1-SC-NoMC-REG MDLs

EPA 8330B WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW013-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16338
QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	1.7	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	84.5	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000040
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

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EPA 8330B WATER

Tetra Tech
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Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16339
QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.7	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000041
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

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EPA 8330B WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW005-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16340
QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	87.0	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000042
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

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Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW014-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16341
QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	84.2	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000043
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

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EPA 8330B WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004P-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16342
QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	89.1	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000045
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

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EPA 8330B WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-RB02-051315

APPL ID: AZ16343

Sample Collection Date: 05/13/15

QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	85.9	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000046
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

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APPL-F1-SC-NoMC-REG MDLs

Method Blank

EPA 8330B WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150519W-16334 - 197306**
Batch ID: #83BJU-150519A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
BLANK	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
BLANK	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
BLANK	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
BLANK	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
BLANK	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
BLANK	SURROGATE: 1,2-DINITROBENZ	89.5	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000035
Instrument: Waldorf
Sequence: 150522
Initials: MP

GC SC-Blank-REG MDLs
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Laboratory Control Spike Recovery

EPA 8330B WATER

APPL ID: **150519W-16334 LCS - 197306**
Batch ID: #83BJU-150519A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2,4-DINITROTOLUENE	8.00	6.72	84.0	60-135
2,6-DINITROTOLUENE	8.00	6.73	84.1	60-135
HMX	8.00	6.98	87.3	80-115
NITROGLYCERIN	8.00	6.96	87.0	70-130
RDX	8.00	6.66	83.3	50-160
TETRYL	8.00	6.67	83.4	20-175
SURROGATE: 1,2-DINITROBENZENE (S	8.00	6.73	84.1	70-130

Comments:

Primary	SPK
Quant Method :	W150522.M
Extraction Date :	05/19/15
Analysis Date :	05/23/15
Instrument :	Waldorf
Run :	0522_000034
Initials :	MP

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APPL Standard LCS

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76424

Case No: 76424 Date Analyzed: 05/23/15

Matrix: WATER Instrument: Waldorf

APPL ID.	Client Sample No.	SURROGATE: 1,2-DINITROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150519A-LCS	Lab Control Spike	70-130	84.1				
150519A-BLK	Blank	70-130	89.5				
AZ16334	S67-MW008-051315	70-130	87.6				
AZ16335	S67-MW001-051315	70-130	88.3				
AZ16336	S67-MW001P-051315	70-130	89.6				
AZ16337	S67-MW10-051315	70-130	89.5				
AZ16338	S67-MW013-051315	70-130	84.5				
AZ16339	S67-MW004-051315	70-130	88.7				
AZ16340	S67-MW005-051315	70-130	87.0				
AZ16341	S67-MW014-051315	70-130	84.2				
AZ16342	S67-MW004P-051315	70-130	89.1				
AZ16343	S67-RB02-051315	70-130	85.9				

Comments: Batch: #83BJU-150519A

EPA 8330B

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER
Blank ID: 150519A-BLK

SDG No: 76424
Date Analyzed: 05/23/15
Instrument: Waldorf
Time Analyzed: 0235

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150519A-LCS	Lab Control Spike	0522_000034	05/23/15 0158
150519A-BLK	Blank	0522_000035	05/23/15 0235
AZ16334	S67-MW008-051315	0522_000036	05/23/15 0313
AZ16335	S67-MW001-051315	0522_000037	05/23/15 0350
AZ16336	S67-MW001P-051315	0522_000038	05/23/15 0428
AZ16337	S67-MW10-051315	0522_000039	05/23/15 0505
AZ16338	S67-MW013-051315	0522_000040	05/23/15 0543
AZ16339	S67-MW004-051315	0522_000041	05/23/15 0620
AZ16340	S67-MW005-051315	0522_000042	05/23/15 0658
AZ16341	S67-MW014-051315	0522_000043	05/23/15 0735
AZ16342	S67-MW004P-051315	0522_000045	05/23/15 0840
AZ16343	S67-RB02-051315	0522_000046	05/23/15 0918

Comments: Batch: #83BJU-150519A

Metals Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW008-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16334

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	514	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	86.6	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	3.7	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	274	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	470	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	92.1	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	3.7	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	280	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15

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Metals Analysis

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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16335

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	141J	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	70.6	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	7.7	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	2790J	3000.0	400.00	274.00	ug/L	20	05/26/15	06/12/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	103J	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	74.0	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	7.9	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	2860J	3000.0	400.00	274.00	ug/L	20	05/26/15	06/12/15

J = Estimated value.

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Metals Analysis

Tetra Tech
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Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001P-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16336

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	149J	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	70.3	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	7.5	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	2760J	3000.0	400.00	274.00	ug/L	20	05/26/15	06/12/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	107J	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	72.5	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	7.8	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	2810J	3000.0	400.00	274.00	ug/L	20	05/26/15	06/12/15

J = Estimated value.

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Metals Analysis

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APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW10-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16337

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	4360	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	55.1	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	14.3	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	6840	3000.0	400.00	274.00	ug/L	20	05/26/15	06/12/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	3860	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	56.3	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	12.4	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	5840	3000.0	400.00	274.00	ug/L	20	05/26/15	06/12/15

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APPL-F1-SC-NoMC-REG MDLs

Metals Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW013-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16338

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	3120	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	117	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	10.1	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	2460J	3000.0	400.00	274.00	ug/L	20	05/26/15	06/12/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	3540	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	121	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	10.6	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	2740J	3000.0	400.00	274.00	ug/L	20	05/26/15	06/12/15

J = Estimated value.

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APPL-F1-SC-NoMC-REG MDLs

Metals Analysis

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Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-MW004-051315

APPL ID: AZ16339

Sample Collection Date: 05/13/15

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	77.7J	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	48.6J	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	1.9	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	439	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	69.9J	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	52.7	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	2.1	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	497	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15

J = Estimated value.

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APPL-F1-SC-NoMC-REG MDLs

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Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-MW005-051315

APPL ID: AZ16340

Sample Collection Date: 05/13/15

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	1040	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	38.4J	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	1.4	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	14.9J	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	33.0J	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	38.4J	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	0.67J	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	20.00U	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15

J = Estimated value.

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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW014-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16341

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	21000	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	38.8J	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	83.8	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	514	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	20500	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	43.6J	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	79.5	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	514	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15

J = Estimated value.

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Metals Analysis

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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004P-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16342

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	141J	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	49.1J	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	2.0	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	448	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	70.6J	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	52.1	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	1.9	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	480	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15

J = Estimated value.

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Metals Analysis

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Norfolk, VA 23502

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908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-RB02-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16343

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	80.00U	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	40.00U	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	0.80U	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	20.00U	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	80.00U	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	40.00U	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	0.80U	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	20.00U	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15

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908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6010C	ALUMINUM (AL)	80.00 U	300.0	80.00	27.40	ug/L	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
6010C	BORON (B)	40.00 U	50.0	40.00	29.40	ug/L	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
6010C	LITHIUM (LI)	0.80 U	1.0	0.80	0.40	ug/L	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
6010C	ZINC (ZN)	20.00 U	150.0	20.00	13.70	ug/L	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
6010C	ALUMINUM (AL) (DI	80.00 U	300.0	80.00	27.40	ug/L	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
6010C	BORON (B) (DISSOL	40.00 U	50.0	40.00	29.40	ug/L	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
6010C	LITHIUM (LI) (DISSO	0.80 U	1.0	0.80	0.40	ug/L	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
6010C	ZINC (ZN) (DISSOLV	20.00 U	150.0	20.00	13.70	ug/L	05/26/15	06/04/15	#61CJU-150526A3-AZ16287

Metals SC-Blank-REG MDLs
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Laboratory Control Spike Recovery

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 6010C	ALUMINUM (AL) (DISSOLVED)	2000	1840	92.0	80-120	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
EPA 6010C	BORON (B) (DISSOLVED)	250	239	95.6	80-120	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
EPA 6010C	LITHIUM (LI) (DISSOLVED)	100.0	92.7	92.7	80-120	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
EPA 6010C	ZINC (ZN) (DISSOLVED)	500	468	93.6	80-120	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
EPA 6010C	ALUMINUM (AL)	2000	2020	101	80-120	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
EPA 6010C	BORON (B)	250	246	98.4	80-120	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
EPA 6010C	LITHIUM (LI)	100.0	94.5	94.5	80-120	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
EPA 6010C	ZINC (ZN)	500	480	96.0	80-120	05/26/15	06/04/15	#61CJU-150526A2-AZ16287

Comments: _____

6010C/3010A^

Form 4

Blank Summary

Lab Name: APPL, Inc.
SDG No: 76424
Case No: 76424
Date Analyzed: 06/04/15
Matrix: WATER
Instrument: Jules
Blank ID: 150526A2-BLK
Time Analyzed: 1700

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ16341	S67-MW014-051315	150611A	06/11/15 1800
AZ16334	S67-MW008-051315	150611A	06/11/15 1712
150526A2-BLK	Blank	150611A	06/04/15 1700
AZ16342	S67-MW004P-051315	150611A	06/11/15 1807
150526A2-LCS	Lab Control Spike	150611A	06/04/15 1707
AZ16340	S67-MW005-051315	150611A	06/11/15 1754
AZ16339	S67-MW004-051315	150611A	06/11/15 1747
AZ16338	S67-MW013-051315	150611A	06/11/15 1740
AZ16337	S67-MW10-051315	150611A	06/11/15 1733
AZ16336	S67-MW001P-051315	150611A	06/11/15 1726
AZ16335	S67-MW001-051315	150611A	06/11/15 1719
AZ16343	S67-RB02-051315	150611A	06/11/15 1812
AZ16338	S67-MW013-051315	150612A	06/12/15 1535
AZ16335	S67-MW001-051315	150612A	06/12/15 1517
AZ16336	S67-MW001P-051315	150612A	06/12/15 1523
AZ16337	S67-MW10-051315	150612A	06/12/15 1529

Comments: Batch: #61CJU-150526A2

6010C/3010A^

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76424

Case No: 76424 Date Analyzed: 06/04/15

Matrix: WATER Instrument: Jules

Blank ID: 150526A3-BLK Time Analyzed: 1712

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ16341	S67-MW014-051315	150611A	06/11/15 1923
150526A3-BLK	Blank	150611A	06/04/15 1712
AZ16334	S67-MW008-051315	150611A	06/11/15 1835
AZ16342	S67-MW004P-051315	150611A	06/11/15 1930
150526A3-LCS	Lab Control Spike	150611A	06/04/15 1719
AZ16340	S67-MW005-051315	150611A	06/11/15 1916
AZ16339	S67-MW004-051315	150611A	06/11/15 1910
AZ16338	S67-MW013-051315	150611A	06/11/15 1903
AZ16337	S67-MW10-051315	150611A	06/11/15 1856
AZ16336	S67-MW001P-051315	150611A	06/11/15 1849
AZ16335	S67-MW001-051315	150611A	06/11/15 1842
AZ16343	S67-RB02-051315	150611A	06/11/15 1936
AZ16335	S67-MW001-051315	150612A	06/12/15 1542
AZ16336	S67-MW001P-051315	150612A	06/12/15 1601
AZ16337	S67-MW10-051315	150612A	06/12/15 1616
AZ16338	S67-MW013-051315	150612A	06/12/15 1622

Comments: Batch: #61CJU-150526A3

Wet Lab Analysis

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Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW008-051315

Sample Collection Date: 05/13/15

APPL ID: AZ16334

ARF: 76424

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	NITRATE	4.3	0.5	0.18	0.04	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	05/14/15	05/14/15
EPA 300.0	SULFATE	41.8	1.0	0.20	0.09	mg/L	1	05/14/15	05/14/15
EPA 300.0	CHLORIDE	113	5.0	1.00	0.40	mg/L	5	05/14/15	05/14/15
SW846 9060	TOTAL ORGANIC CARBON	1.4	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

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Wet Lab Analysis

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Norfolk, VA 23502

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Clovis, CA 93611

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Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW001-051315

Sample Collection Date: 05/13/15

APPL ID: AZ16335

ARF: 76424

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	28.9	1.0	0.20	0.08	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRATE	9.4	0.5	0.18	0.04	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	05/14/15	05/14/15
EPA 300.0	SULFATE	38.6	1.0	0.20	0.09	mg/L	1	05/14/15	05/14/15
SW846 9060	TOTAL ORGANIC CARBON	1.4	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

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Wet Lab Analysis

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Norfolk, VA 23502

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Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW001P-051315

Sample Collection Date: 05/13/15

APPL ID: AZ16336

ARF: 76424

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	29.3	1.0	0.20	0.08	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRATE	9.9	0.5	0.18	0.04	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	05/14/15	05/14/15
EPA 300.0	SULFATE	38.9	1.0	0.20	0.09	mg/L	1	05/14/15	05/14/15
SW846 9060	TOTAL ORGANIC CARBON	1.3	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

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Wet Lab Analysis

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Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW10-051315

Sample Collection Date: 05/13/15

APPL ID: AZ16337

ARF: 76424

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	NITRATE	0.97	0.5	0.18	0.04	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	05/14/15	05/14/15
EPA 300.0	CHLORIDE	92.4	2.0	0.40	0.16	mg/L	2	05/14/15	05/14/15
EPA 300.0	SULFATE	274	10.0	2.00	0.90	mg/L	10	05/14/15	05/14/15
SW846 9060	TOTAL ORGANIC CARBON	0.80	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

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Wet Lab Analysis

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Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW013-051315

Sample Collection Date: 05/13/15

APPL ID: AZ16338

ARF: 76424

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	25.3	1.0	0.20	0.08	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRATE	0.78	0.5	0.18	0.04	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	05/14/15	05/14/15
EPA 300.0	SULFATE	235	10.0	2.00	0.90	mg/L	10	05/14/15	05/14/15
SW846 9060	TOTAL ORGANIC CARBON	2.6	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

Printed: 06/10/15 2:24:42 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW004-051315

Sample Collection Date: 05/13/15

APPL ID: AZ16339

ARF: 76424

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	4.0	1.0	0.20	0.08	mg/L	1	05/26/15	05/26/15
EPA 300.0	NITRATE	1.2	0.5	0.18	0.04	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	05/14/15	05/14/15
EPA 300.0	SULFATE	42.9	1.0	0.20	0.09	mg/L	1	05/14/15	05/14/15
SW846 9060	TOTAL ORGANIC CARBON	4.3	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW005-051315

APPL ID: AZ16340

Sample Collection Date: 05/13/15

ARF: 76424

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	1.4	1.0	0.20	0.08	mg/L	1	05/26/15	05/26/15
EPA 300.0	NITRATE	1.8	0.5	0.18	0.04	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRITE	0.21 J	0.3	0.13	0.03	mg/L	1	05/14/15	05/14/15
EPA 300.0	SULFATE	6.5	1.0	0.20	0.09	mg/L	1	05/14/15	05/14/15
SW846 9060	TOTAL ORGANIC CARBON	10.9	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

J = Estimated value.

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW014-051315

Sample Collection Date: 05/13/15

APPL ID: AZ16341

ARF: 76424

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	26.9	1.0	0.20	0.08	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRATE	1.5	0.5	0.18	0.04	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	05/14/15	05/14/15
EPA 300.0	SULFATE	336	10.0	2.00	0.90	mg/L	10	05/14/15	05/14/15
SW846 9060	TOTAL ORGANIC CARBON	3.7	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW004P-051315

Sample Collection Date: 05/13/15

APPL ID: AZ16342

ARF: 76424

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	4.0	1.0	0.20	0.08	mg/L	1	05/26/15	05/26/15
EPA 300.0	NITRATE	1.1	0.5	0.18	0.04	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	05/14/15	05/14/15
EPA 300.0	SULFATE	43.2	1.0	0.20	0.09	mg/L	1	05/14/15	05/14/15
SW846 9060	TOTAL ORGANIC CARBON	4.3	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

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APPL-F1-SC-NoMC-REG MDLs

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SW846 90	TOTAL ORGANIC C	0.35 U	0.5	0.35	0.13	mg/L	05/19/15	05/19/15	#906-150519A-AZ16287
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	05/26/15	05/26/15	#300WD-150526A-AZ16339

Wetlab SC-Blank-REG MDLs
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Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	20.0	19.2	96.0	90-110	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	NITRATE	22.1	22.5	102	90-110	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	NITRITE	9.98	9.76	97.8	90-110	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	SULFATE	20.0	20.4	102	90-110	05/14/15	05/14/15	#300W-150514A1-AZ16335

Comments: _____

Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	20.0	18.7	93.5	90-110	05/26/15	05/26/15	#300WD-150526A-AZ16339

Comments: _____

Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
SW846 906	TOTAL ORGANIC CARBON	10.00	10.8	108	90-110	05/19/15	05/19/15	#906-150519A-AZ16287

Comments: _____

EPA 300.0

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER
Blank ID: 150514A1-BLK

SDG No: 76424
Date Analyzed: 05/14/15
Instrument: Dionex
Time Analyzed: 0931

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ16336	S67-MW001P-051315	10	05/14/15 1127
AZ16339	S67-MW004-051315	11	05/14/15 1138
AZ16342	S67-MW004P-051315	12	05/14/15 1149
AZ16334	S67-MW008-051315	13	05/14/15 1159
AZ16340	S67-MW005-051315	14	05/14/15 1210
AZ16337	S67-MW10-051315	15	05/14/15 1221
AZ16341	S67-MW014-051315	16	05/14/15 1231
AZ16338	S67-MW013-051315	19	05/14/15 1303
AZ16334	S67-MW008-051315	27	05/14/15 1615
AZ16341	S67-MW014-051315	28	05/14/15 1625
AZ16337	S67-MW10-051315	31	05/14/15 1657
AZ16337	S67-MW10-051315	32	05/14/15 1707
AZ16338	S67-MW013-051315	33	05/14/15 1718
150514A1-BLK	Blank	5	05/14/15 0931
150514A1-LCS	Lab Control Spike	8	05/14/15 1106
AZ16335	S67-MW001-051315	9	05/14/15 1117

Comments: Batch: #300W-150514A1

EPA 300.0

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER
Blank ID: 150526A-BLK

SDG No: 76424
Date Analyzed: 05/26/15
Instrument: Dionex
Time Analyzed: 1002

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150526A-BLK	Blank	43	05/26/15 1002
150526A-LCS	Lab Control Spike	44	05/26/15 1012
AZ16339	S67-MW004-051315	46	05/26/15 1424
AZ16340	S67-MW005-051315	47	05/26/15 1434
AZ16342	S67-MW004P-051315	48	05/26/15 1445

Comments: Batch: #300WD-150526A

SW846 9060

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER
Blank ID: 150519A-BLK

SDG No: 76424
Date Analyzed: 05/19/15
Instrument: Tekmar
Time Analyzed: 1212

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ16334	S67-MW008-051315	15	05/19/15 1838
AZ16335	S67-MW001-051315	16	05/19/15 1907
AZ16336	S67-MW001P-051315	17	05/19/15 1935
150519A-BLK	Blank	2	05/19/15 1212
AZ16337	S67-MW10-051315	20	05/19/15 2100
AZ16338	S67-MW013-051315	21	05/19/15 2129
AZ16339	S67-MW004-051315	22	05/19/15 2158
AZ16340	S67-MW005-051315	23	05/19/15 2228
AZ16341	S67-MW014-051315	24	05/19/15 2258
AZ16342	S67-MW004P-051315	25	05/19/15 2327
150519A-LCS	Lab Control Spike	3	05/19/15 1244

Comments: Batch: #906-150519A

908 North Temperance Ave. ∇ Clovis, CA 93611 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

Certification Number: CA1312
NELAP Certification number: CA00046
DoD-ELAP Certificate number: 74807

Data Validatable Report

June 19, 2015

Tetra Tech
5700 Lake Wright Drive, Suite 309
Norfolk, Virginia 23502

Attn: Ed Corack

Title: Report of Data: Case 76424

Project: CTO JU11 112G02622 NSF Indian Head, MD

Contract #: Prime contract # for DoD: Navy CLEAN. N62470-08-D-1001
Subcontract: MSA # 1045497, Work Release # 08-JU11

Dear Mr. Corack:

Ten water samples were received May 14, 2015, in good condition. Written results for the requested analyses are provided on this June 19, 2015.

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

If you have any questions or require further information, please contact your APPL Project Manager, Cynthia Clark, cclark@applinc.com, at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.

Sharon Dehmlow, Laboratory Director
APPL, Inc.

SD/ab
Enclosure
cc: File

Number of pages in this report: 106

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Data Validation Package

for

CTO JU11 112G02622 NSF Indian Head

ARF 76424

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SAMPLE RECEIPT INFORMATION

Sample receipt information

ARF: 76424

Project: CTO JU11 112G02622 NSF Indian Head, MD

Sample Receipt Information:

The water samples were received on May 14, 2015, at 3.0°C, 3.0°C, and 3.0°C. The samples were assigned Analytical Request Form (ARF) number 76424. The sample numbers and requested analyses were compared to the chain of custody and email communication. A sample ID was revised as requested. No other exception was encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
S67-MW008-051315	AZ16334	WATER	05/13/15	05/14/15
S67-MW001-051315	AZ16335	WATER	05/13/15	05/14/15
S67-MW001P-051315	AZ16336	WATER	05/13/15	05/14/15
S67-MW10-051315	AZ16337	WATER	05/13/15	05/14/15
S67-MW013-051315	AZ16338	WATER	05/13/15	05/14/15
S67-MW004-051315	AZ16339	WATER	05/13/15	05/14/15
S67-MW005-051315	AZ16340	WATER	05/13/15	05/14/15
S67-MW014-051315	AZ16341	WATER	05/13/15	05/14/15
S67-MW004P-051315	AZ16342	WATER	05/13/15	05/14/15
S67-RB02-051315	AZ16343	WATER	05/13/15	05/14/15

The samples and blanks were screened for J-value responses between the detection limit (DL) and limit of quantitation (LOQ).

Laboratory control limits generated in house do not meet the control limits listed in DoD QSM 4.2 for all analytes. Laboratory control limits generated for this project meet all control limits listed in the DoD QSM 4.2 except where noted. A copy of our in house generated control limits is available upon request. In addition, a copy of our LOQ control limits, established using 7 data points, are also available upon request.

Only the portion of the injection log relative to these samples is included. A full sequence log is available upon request.

Measurement uncertainty can be reported upon request.

CASE NARRATIVE

EPA Method 8270D
Semi-Volatile Organic Compounds

Sample Preparation and Analysis Information:

The water samples were extracted according to EPA method 3510C. The samples were analyzed according to EPA Method 8270D using an Agilent GC/MS. All holding times were met.

Quality Control/Assurance

Spike Recovery

A Laboratory Control Spike (LCS) was used for quality assurance. All LCS acceptance criteria were met.

No sample was designated by the client for MS/MSD analysis.

Method blanks

No target metal was detected above one-half the limit of quantitation (LOQ) in the method blank.

Surrogates

Surrogate recoveries are summarized on Form 2 & 8. All surrogate recoveries were within control limits.

Calibration

The initial and continuing calibrations were performed according to the method. All method acceptance criteria were met.

Tuning:

The instrument was tuned using DFTPP. All method criteria were met.

Internal Standards

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8260. All method criteria were met.

Summary:

No problem was encountered. All data generated are acceptable.

EPA Method 8270D-SIM
Polynuclear Aromatic Hydrocarbons

Sample Preparation and Analysis Information:

The water samples were extracted according to EPA method 3510C. The samples were analyzed according to EPA Method 8270D using an Agilent GC/MS with selective ion monitoring. All holding times were met.

Manual integrations were performed in accordance to APPL's SOP. Naphthalene was manually integrated in the CCV (data file 0515L195). Chromatograms of before and after manual integration are enclosed.

Quality Control/Assurance

Spike Recovery

A Laboratory Control Spike (LCS) was used for quality assurance. All LCS acceptance criteria were met.

No sample was designated by the client for MS/MSD analysis.

Method blanks

No target analyte was detected above one-half the limit of quantitation (LOQ) in the method blank.

Surrogates

Surrogate recoveries are summarized on Form 2 & 8. The surrogate 2-Fluorobiphenyl recovered slightly below the 50% lower control limit in the method blank. All other surrogate recoveries were within the control limits.

Calibration

The initial and continuing calibrations were performed according to the method. All method acceptance criteria were met.

Tuning:

The instrument was tuned using DFTPP. All method criteria were met.

Internal Standards

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8260. All method criteria were met.

Summary:

No other analytical problem was encountered. The data generated are acceptable.

Dissolved Gasses
RSK-175

Sample Preparation and Analysis

The water samples were analyzed with guidance from RSK-175. The samples were allowed to equilibrate for 10 minutes at 40°C and a portion of the headspace was analyzed using a Hewlett Packard Gas Chromatograph with a flame ionization detector.

Manual integrations were performed in accordance with APPL's SOP. Methane was manually integrated in the calibration standards. Chromatograms of before and after manual integration are enclosed.

Quality Control/Assurance

Spike Recovery

A Laboratory Control Spike (LCS) was used for quality assurance. All acceptance criteria were met.

No sample was designated by the client for MS/MSD analysis.

Method blanks

No target compound was detected at or above one-half the PQL in the method blank.

Calibration

The initial and continuing calibrations were performed with guidance from RSK-175. All acceptance criteria were met.

Summary:

No other analytical exception is noted. All data generated are acceptable.

EPA Method 6850

Perchlorate by LC-Mass Spec

Sample Preparation and Analysis Information:

The water samples were prepared according to the method. The samples were analyzed according to EPA Method 6850 using an Agilent 6460 Triple Quad LC/MS. The samples were prepared and analyzed within acceptable hold time.

Manual integrations were performed in accordance to APPL's SOP. Perchlorate was manually integrated in the calibration curve, the ICS, the LCS and sample S67-RB02-051315. Chromatograms of before and after manual integration are enclosed.

Quality Control/Assurance

Calibrations:

Calibrations were performed according to the method. All calibration acceptance criteria were met. The second source met acceptance criteria.

Blanks:

Perchlorate was not detected at or above one-half the limit of quantitation (LOQ) in the method blank.

Spikes:

Laboratory Control Spike (LCS) and Interference Check Sample (I.C.S.) were used for quality assurance. All LCS acceptance criteria were met..

The Interference Check Sample (I.C.S.) was prepared using a mixed anions solution. The ICS recovery met acceptance criteria.

No sample was selected by the laboratory for MS/MSD analysis.

Internal Standards:

The area counts of the sample Internal Standards were compared to the average IS area counts of the initial calibration. All internal standards were within the 50%D acceptance criteria.

Summary:

All data were acceptable. No other analytical exception is noted.

EPA Method 8330B
Energetics

Sample Preparation:

The water samples were extracted according to EPA method 3535. All holding times were met.

Analysis:

The samples were analyzed according to EPA Method 8330B using an Agilent 1290 HPLC with DA detector.

Manual integrations were performed in accordance with APPL's SOP. The following analytes were manually integrated in the calibration standards: HMX, Nitroglycerin, PETN, 1,2-Dinitrobenzene, 1,3- Dinitrobenzene, Nitrobenzene, 2,4,6-Trinitrotoluene, Tetryl, 2,6-Dinitrotoluene, 2,4-Dinitrotoluene, 2-Nitrotoluene, 4-Nitrotoluene, 3-Nitrotoluene, 4-Amino-2,6-Dinitrotoluene, 2-Amino-4,6-Dinitrotoluene and 3,5-Dinitroaniline. HMX, RDX and 1,2-Dinitrobenzene were manually integrated in the samples. Chromatograms of before and after manual integration are enclosed.

Quality Control/Assurance:

Spike Recovery:

A Laboratory Control Spike (LCS) was used for quality assurance. All spike acceptance criteria was met.

No sample was designated by the client for MS/MSD analysis.

Method blanks:

No target analyte was detected at or above one-half the limit of quantitation (LOQ) in the method blank.

Surrogates:

Surrogate recoveries are summarized on the Form 2 & 8. All surrogates had acceptable recoveries.

Calibration:

The initial and continuing calibrations and second source were analyzed according to the method. All calibration criteria were met.

Summary:

No analytical problem was encountered. The data generated are acceptable.

EPA Method 6010C
Total and Dissolved Metals

Digestion and Analysis Information:

The water samples were digested according to EPA method 3010A. The samples were analyzed for total and dissolved metals according to EPA method 6010C using a Perkin Elmer Optima 5300DV. All holding times were met.

Quality Control/Assurance:

Calibrations:

Calibrations were performed according to the methods for the initial calibration and the initial calibration verification. The initial calibration verification is prepared from a second source standard.

Blanks:

No target metal was detected above one half the LOQ in the method blanks.

Spikes:

Laboratory Control Spikes (LCS) were used for quality assurance. All LCS acceptance criteria were met.

No sample was designated by the client for MS/MSD analysis.

Summary:

No analytical problem was encountered. The data generated are acceptable.

Inorganic Analyses

EPA Method 300.0 and SW846 9060

Sample Preparation and Analysis

The samples were prepared and analyzed according to the methods. All holding times were met. The samples were analyzed for Anions according to EPA method 300.0 using a Dionex DX500. The samples were analyzed for TOC according to EPA method 9060 using a Tekmar Apollo 9000.

Quality Control/Assurance

Spike Recovery

A Laboratory Control Spike (LCS/) was used for quality assurance. All LCS acceptance criteria were met.

No sample was designated by the client for MS/MSD analysis.

Method blanks

No target analyte was detected one-half the limit of quantitation (LOQ) in the method blank.

Calibration

Calibrations were performed according to the method for the initial calibration and the continuing calibration verification. The initial calibration verification is prepared from a second source standard. All calibration criteria were met.

Summary:

No analytical exception was noted.

APPL Inc.
Abbreviations and Flags

FLAG	DESCRIPTION
#	Recovery or RPD outside control limits
*	Recovery or RPD outside control limits
B	Analyte detected in associated method blank
C1	Reason for correction: wrote incorrect response
C2	Reason for correction: calculated incorrectly
C3	Reason for correction: needs to be rechecked
C4	Reason for correction: data not usable
DO	Diluted out
E	Exceeds linear range
F	Estimated value
G1	Includes a wide range of hydrocarbons which does not match our gasoline standard
G10	Includes a match to hydrocarbon profiles within the range of mineral spirits
G11	Includes a match to hydrocarbon profiles within the range of JP-4
G12	Pattern does not match the gasoline standard; the carbon range for this sample is consistent with JP8
G13	Closely resembles the hydrocarbon profile of aviation gasoline
G14	Analyte concentration may be biased due to carry over
G2	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G3	Includes higher boiling hydrocarbons
G4	Includes dominant peak(s) not indicative of petroleum hydrocarbons
G5	Is mainly dominant peak(s) not indicative of petroleum hydrocarbons
G6	Contains recognizable contaminant peak(s) which has been removed from quantitation
G7	Is mainly a match to hydrocarbons within the range of gasoline
G8	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G9	Includes hydrocarbons within the range of kerosene
J	Estimated value
M	Matrix effect
MI1	Manual integration: integration does not follow baseline
MI2	Manual integration: non-target peak interference
MI3	Manual integration: to split a peak that was integrated as one peak by the computer.
MI4	Manual integration: to integrate a split peak
MI5	Manual integration: the whole peak or part of the peak was not integrated
MI6	Manual integration: computer integrated wrong peak
MI7	Manual integration: other – (See case narrative)
MDL	Method detection limit
ND	Not detected
NT	Non-target
Q	Acceptance criteria not met
T1 I	Includes wide range of hydrocarbons not indicative of diesel
T1 M	Is mainly wide range of hydrocarbons not necessarily indicative of diesel
T2 I	Includes lower boiling hydrocarbons, i.e. mineral spirits, kerosene, stoddard solvent, white gas
T2 M	Is mainly lower boiling hydrocarbons, i.e. mineral spirits, kerosene, stoddard solvent, white gas
T3 I	Includes higher boiling hydrocarbons, i.e. asphaltene, waster oil, motor oil, or weathered diesel fuel
T3 M	Is mainly higher boiling hydrocarbons, i.e. asphaltene, waster oil, motor oil, or weathered diesel fuel
T4 I	Includes dominant peak(s) not indicative of hydrocarbons
T4 M	Is mainly dominant peak(s) not indicative of hydrocarbons
T5	Contains recognizable contaminant peak(s) which has been removed from quantitation
T6	Is mainly a match to hydrocarbons within range of diesel fuel
T7	Closely resembles the boiling point hydrocarbon profile consistent with diesel fuel
T8	Includes a match to hydrocarbon profiles within range of diesel and kerosene fuel
T9 I	Includes non-diesel hydrocarbons within boiling point range of diesel fuel
T9 M	Is mainly non-diesel hydrocarbons within boiling point range of diesel fuel
U	Not detected
Y	Percent difference between primary and confirmation column > 40%

CHAIN OF CUSTODY,
ARF, CRF, AND
CLIENT COMMUNICATION

APPL - Analysis Request Form

76424

Client: Tetra Tech
Address: 5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502
Attn: Ed Corack
Phone: 757-466-4908 Fax: 757-461-4148
Job: CTO JU11 112G02622 NSF Indian Head
PO #: MSA #1045497 Release #08-CTO JU11
Chain of Custody (Y/N): Y # 48710
RAD Screen (Y/N): Y pH (Y/N): Y
Turn Around Type: STD

Received by: YL
Date Received: 05/14/15 Time: 10:00
Delivered by: FED EX
Shuttle Custody Seals (Y/N): Y Time Zone: -4
Chest Temp(s): 4X3.0°C
Color: VOA,I-PrplRed,P-OrGn
Samples Chilled until Placed in Refrig/Freezer: Y
Project Manager: Cynthia Clark
QC Report Type: DVP4/LEDD/MD
Due Date: 06/04/15

Comments:
login to ed.corack@ & tobrena.sedlmyer@tetratech.com.
21 calendar day TAT for final report
1HC DVP4 and summary report & 2 BOOKMARKED CDs of DVP4 and
Summary report (sample & QC results w/surrogate & blank summaries) to Amy Thomson (Pittsburgh)
Include original COC with report. NOTHING to Ed in VA office
EDD: TTEC LEDD to http://isg.applications.tetratech.com/LEDDChecker2010/
Guidance: DOD QSM v4.2: DOD Forms, LOD Database
RSK: report Methane only
Sample ID revised per email.

Sample Distribution:
GC: 9-$87DJU11W, 9-$SIMDDODW
Extractions: 10-_HPL6850, 10-_MWE3535, 9-_SEP004, 9-_SEP004S
VOA: 9-$RSK
LCMS: 10-$6850, 10-$83BJU11W
Metals: 10-$61CJU11W2(Al,B,Li,Zn), 10-$61CJU11WD2(Al,B,Li,Zn)
Wetlab: 9-$300W(NO2,NO3,CL,SO4), 9-$906
Other: 10-_M3010, 10-_M3010F

Charges:

Invoice To:
ACCOUNTS PAYABLE
661 Andersen Dr, Foster Plaza 7
Pittsburgh, PA 15220-2745
invoice in triplicate per SOW

	Client ID	APPL ID	Sampled	Analyses Requested
1.	S67-MW008-051315	AZ16334W	05/13/15 09:40	$300W(NO2,NO3,CL,SO4), $61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, $83BJU11W, $87DJU11W, $906, $RSK, $SIMDDODW
2.	S67-MW001-051315	AZ16335W	05/13/15 11:30	$300W(NO2,NO3,CL,SO4), $61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, $83BJU11W, $87DJU11W, $906, $RSK, $SIMDDODW

Note: All times, excluding sample collection times, are Pacific Time Zone unless noted otherwise. Collection times are in: -4 UTC

3.	S67-MW001P-051315	AZ16336W	05/13/15 11:30	$300W(NO2,NO3,CL,SO4), $61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, $83BJU11W, $87DJU11W, $906, $RSK, $SIMDDODW
4.	S67-MW10-051315	AZ16337W	05/13/15 14:00	$300W(NO2,NO3,CL,SO4), $61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, $83BJU11W, $87DJU11W, $906, $RSK, $SIMDDODW
5.	S67-MW013-051315	AZ16338W	05/13/15 15:20	$300W(NO2,NO3,CL,SO4), $61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, $83BJU11W, $87DJU11W, $906, $RSK, $SIMDDODW
6.	S67-MW004-051315	AZ16339W	05/13/15 11:33	$300W(NO2,NO3,CL,SO4), $61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, $83BJU11W, $87DJU11W, $906, $RSK, $SIMDDODW
7.	S67-MW005-051315	AZ16340W	05/13/15 09:45	$300W(NO2,NO3,CL,SO4), $61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, $83BJU11W, $87DJU11W, $906, $RSK, $SIMDDODW
8.	S67-MW014-051315	AZ16341W	05/13/15 14:50	$300W(NO2,NO3,CL,SO4), $61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, $83BJU11W, $87DJU11W, $906, $RSK, $SIMDDODW
9.	S67-MW004P-051315	AZ16342W	05/13/15 11:33	$300W(NO2,NO3,CL,SO4), $61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, $83BJU11W, $87DJU11W, $906, $RSK, $SIMDDODW
10.	S67-RB02-051315	AZ16343W	05/13/15 15:50	$61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, $83BJU11W

Note: All times, excluding sample collection times, are Pacific Time Zone unless noted otherwise. Collection times are in: -4 UTC

APPL Sample Receipt Form

ARF# **76424**

Sample	Container Type	Count	pH
AZ16334	3 PL 250mL	1	na
	4 PL 125mL	1	na
	6 PL 500mL - HNO3	2	1.7
	13 VOAs - HCL	3	na
	17 Amber Liter	2	na
	30 Amber 250mL - H2SO4	1	1.7
	40 500mL Amber, unprsrvd	2	na
AZ16335	3 PL 250mL	1	na
	4 PL 125mL	1	na
	6 PL 500mL - HNO3	2	1.7
	13 VOAs - HCL	3	na
	17 Amber Liter	2	na
	30 Amber 250mL - H2SO4	1	1.7
	40 500mL Amber, unprsrvd	2	na
AZ16336	3 PL 250mL	1	na
	4 PL 125mL	1	na
	6 PL 500mL - HNO3	2	1.7
	13 VOAs - HCL	3	na
	17 Amber Liter	2	na
	30 Amber 250mL - H2SO4	1	1.7
	40 500mL Amber, unprsrvd	2	na
AZ16337	3 PL 250mL	1	na
	4 PL 125mL	1	na
	6 PL 500mL - HNO3	2	1.7
	13 VOAs - HCL	3	na
	17 Amber Liter	2	na
	30 Amber 250mL - H2SO4	1	1.7
	40 500mL Amber, unprsrvd	2	na
AZ16338	3 PL 250mL	1	na
	4 PL 125mL	1	na
	6 PL 500mL - HNO3	2	1.7
	13 VOAs - HCL	3	na
	17 Amber Liter	2	na
	30 Amber 250mL - H2SO4	1	1.7
	40 500mL Amber, unprsrvd	2	na
AZ16339	3 PL 250mL	1	na
	4 PL 125mL	1	na
	6 PL 500mL - HNO3	2	1.7
	13 VOAs - HCL	3	na
	17 Amber Liter	2	na
	30 Amber 250mL - H2SO4	1	1.7
	40 500mL Amber, unprsrvd	2	na
AZ16340	3 PL 250mL	1	na
	4 PL 125mL	1	na
	6 PL 500mL - HNO3	2	1.7
	13 VOAs - HCL	3	na
	17 Amber Liter	2	na
	30 Amber 250mL - H2SO4	1	1.7
	40 500mL Amber, unprsrvd	2	na

Sample	Container Type	Count	pH
AZ16341	3 PL 250mL	1	na
	4 PL 125mL	1	na
	6 PL 500mL - HNO3	2	1.7
	13 VOAs - HCL	3	na
	17 Amber Liter	2	na
	30 Amber 250mL - H2SO4	1	1.7
	40 500mL Amber, unprsrvd	2	na
AZ16342	3 PL 250mL	1	na
	4 PL 125mL	1	na
	6 PL 500mL - HNO3	2	1.7
	13 VOAs - HCL	3	na
	17 Amber Liter	2	na
	30 Amber 250mL - H2SO4	1	1.7
	40 500mL Amber, unprsrvd	2	na
AZ16343	4 PL 125mL	1	na
	6 PL 500mL - HNO3	2	1.7
	17 Amber Liter	2	na

APPL - Receiving

From: Cynthia Clark [cclark@applinc.com]
Sent: Thursday, May 14, 2015 10:44 AM
To: 'Receiving'; 'Renée Patterson'; 'Chue Moua'
Subject: FW: change sample ID S67-MW09-051315 to S67-MW10-051315 | RE: Indian Head Site 67 samples arriving Thurs May 14 -- FW: COCs from Wed May 13

per the email below, for the samples received today from TTEC-JU11, please change the ID on sample S67-MW**09**-051315 to "S67-MW**10**-051315". Please save a copy of this email with the COC and ARF.
Thank you!

Sincerely,

Cynthia Clark

From: Corack, Ed [mailto:Ed.Corack@tetratech.com]
Sent: Thursday, May 14, 2015 10:29 AM
To: Cynthia Clark (cclark@applinc.com)
Cc: Thomson, Amy; Birkett, Jacob; Wu, Ernie
Subject: change sample ID S67-MW09-051315 to S67-MW10-051315 | RE: Indian Head Site 67 samples arriving Thurs May 14 -- FW: COCs from Wed May 13

Summary: change mislabeled sample ID.

Cynthia, per our phone conversation:

1. Well S67-MW09 was sampled on May 12th with sample ID S67-MW09-051215. You received this sample yesterday. No issues / no changes.

2. Issue / change required: Today you are receiving a bottle set with sample ID "S67-MW09-051315" and indicated as being collected from well MW09 on May 13th on the CoC. This is an error by the field sampler. The sample is actually from well S67-MW10 sampled on May 13th. Please change the sample ID on the bottles to read "S67-MW**10**-051315". I will mark up and initial your 'log-in-CoC' with the change and email it back to you (or otherwise and initial the change if you make it).

V/R,
-Ed

Ed Corack
Tetra Tech

From: Corack, Ed
Sent: Thursday, May 14, 2015 10:31 AM
To: Cynthia Clark (cclark@applinc.com)
Cc: Thomson, Amy; Birkett, Jacob
Subject: Indian Head Site 67 samples arriving Thurs May 14 -- FW: COCs from Wed May 13

Cynthia, see pic of CoC for yesterday's collected samples attached. These will arrive at APPL today. These Site 67 monitoring well samples "S67-MW#" are all normal TAT.

Today: We're doing test trenches today, probably will collect two soil samples, one of which will be colored purple (for unknown reasons). The metals analysis for these test trench soil samples "S67-TP#" should be the full TAL Metals list, rather than limited to our

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611

Phone: (559) 275-2175
Fax: (559) 275-4422

CHAIN OF CUSTODY RECORD

C.O.C. 48710

Report to: PLEASE PRINT
Company Name: Tetra Tech
Address: 5700 Lake Wright Drive
Twin Oaks I, Suite 309
Attn: Ed Corack
Phone: (757) 461-4086
Fax:

Invoice to: PLEASE PRINT
Company Name: Tetra Tech
Address: See contract
Attn:
Phone:
Fax:

Project Name/Number: Site 67 NST IH 112G02622
Sampler (Print): Jacob Birkett / Ernie Wu
Purchase Order Number:
Sampler (Signature):

Date Shipped: 5/13/15
Carrier: FedEx
Waybill No.:
Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq.	Sed.	Soil		PAH/pesticides	Total metals	Dissolved metals	Energetics	perchlorate	TOC	Nitrate/Nitrite	Chloride/sulfate	Methane			
S67-MW008-051315	S67 MW08	5/13/15	0940	ET	12	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			
S67-MW001-051315	S67-MW01	5/13/15	1130	ET	12	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			
S67-MW01P-051315	S67-MW01	5/13/15	1130	ET	12	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			
S67-~~MW07~~ MW10-051315 EK	S67 ~~MW09~~ MW10 EK	5/13/15	1400	ET	12	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			
S67-MW013-051315	S67-MW013	5/13/15	1520	ET	12	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			
S67-MW004-051315	S67-MW04	5/13/15	1133	ET	12	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			
S67-MW005-051315	S67-MW05	5/13/15	0945	ET	12	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			
S67-MW014-051315	S67-MW014	5/13/15	1450	ET	12	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			
S67-MW004P-051315	S67-MW004	5/13/15	1133	ET	12	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			
S67-RB02-051315	Site 67	5/13/15	1550	ET	5	✓					✓	✓	✓	✓							

Shuttle Temperature:

Turnaround Requested: Check one
☒ Standard 2-3 wk ☐ One week ☐ 24/48 Hrs. ☐ Other

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler:	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
	5/13/15	1800					
Relinquished by:	**Date**	**Time**	**Received by:**	**Relinquished by:**	**Date**	**Time**	**Received at lab by:**

White: Return to client with report Yellow: Laboratory Copy Pink: Sampler

See reverse side for Container Preservative and Sampling Information

MW09 corrected to MW10 by Ed Corack/Tetra Tech on 5/15/2015.

3.0 x 4

CHAIN OF CUSTODY RECORD

76424

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611

Phone: (559) 275-2175
Fax: (559) 275-4422

C.O.C. 48710

Report to: PLEASE PRINT

Company Name: Tetra Tech
Phone: (757) 461-4086
Address: 5700 Lake Wright Drive
Twin Oaks I, Suite 309
Fax:
Attn: Ed Corack

Invoice to: PLEASE PRINT

Company Name: Tetra Tech
Phone:
Address: See contract
Fax:
Attn:

Project Name/Number: Site 67 NSF IH 112G02622
Sampler (Print): Jacob Birkett / Ernie Wu
Purchase Order Number:
Sampler (Signature):

Date Shipped: 5/13/15
Carrier: FedEx
Waybill No.:
Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil		PAH/phthalates	Total Metals	dissolved metals	Energetics	Perchlorate	TOC	Nitrate/Nitrite	Chloride/Sulfate	Methane			
S67-MW008-051315	S67-MW08	5/13/15	0940	ET	12	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			
S67-MW001-051315	S67-MW01	5/13/15	1130	ET	12	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			
S67-MW001P-051315	S67-MW01	5/13/15	1130	ET	12	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			
S67-MW09-051315	S67-MW09	5/13/15	1400	ET	12	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			
S67-MW013-051315	S67-MW013	5/13/15	1520	ET	12	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			
S67-MW004-051315	S67-MW04	5/13/15	1133	ET	12	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			
S67-MW005-051315	S67-MW05	5/13/15	0945	ET	12	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			
S67-MW014-051315	S67-MW014	5/13/15	1450	ET	12	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			
S67-MW004P-051315	S67-MW004	5/13/15	1133	ET	12	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			
S67-RB02-051315	Site 67	5/13/15	1550	ET	5	✓					✓	✓	✓	✓							

Analysis Requested/Method Number

Shuttle Temperature:

Turnaround Requested: Check one
☒ Standard 2-3 wk ☐ One week ☐ 24/48 Hrs. ☐ Other

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler:	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
	5/13/15	1800					
Relinquished by:	**Date**	**Time**	**Received by:**	**Relinquished by:**	**Date**	**Time**	**Received at lab by:**
					5-14-15	10:00	Brian Bocum

White: Return to client with report Yellow: Laboratory Copy Pink: Sampler

See reverse side for Container Preservative and Sampling Information

COOLER RECEIPT FORM

ARF: 76424

1) Project: CTO JU11 112G02622 NSF Indian Head Date Received: 05/14/15

2) Coolers: Number of Coolers: 4

3) YES Were custody seals present and intact?
How many? 8 Name/Date on seal? SEE BELOW

4) YES Was there a shipping slip? Carrier name: FED EX

5) Type of packing in cooler: X bubble wrap ___ popcorn ___ foam X plastic bags
X wet ice ___ dry ice ___ no ice ___ other

6) YES Were cooler temperatures acceptable?

7) Serial number of certified NIST thermometer use J5297

8) Cooler temp(s): In °C

1: 3.0	2: 3.0	3: 3.0	4: 3.0	5:	6:
7:	8:	9:	10:	11:	12:

Chain of custody:

9) YES Was a chain of custody received?

10) YES Were the custody papers complete/signed in the appropriate places?

Sample Labels:

11) YES Were all sample labels complete (sample ID, date/time of sampling, etc.)?

12) YES Did all container labels agree with custody papers?

Sample Containers:

13) YES Were all containers sealed in separate bags?

14) YES Did all containers arrive in good condition:(unbroken, no leakage, no cracked/broken lids)?

15) YES Were correct containers and preservatives used for the tests indicated?

16) YES Was a sufficient amount of sample sent for tests indicated?

17) No Were bubbles present in volatile samples?
If yes, the following were received with air bubbles:
Larger than a pea:
Smaller than a pea:

Preservation Hold time:

18) Yes Was a sufficient amount of holding time remaining to analyze the samples?

19) Yes Was the pH taken of all non-VOA preserved samples and written on the sample container?

20) Yes Was the pH of acid preserved non-VOA samples < 2?

21) NA Was the pH of sodium hydroxide preserved samples for Cyanide > 12 and Sulfide >9?

22) NO Were unpreserved VOA Vials received?

23) NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?
pH strip lot number: 90B2031
Lab notified if pH was not adequate:

Notes/Deficiencies:

CUSTODY SEAL
QEC
Quality Environmental Containers
800-255-3856 • 304-255-3900
DATE 5-13-15
SIGNATURE

Personnel receiving samples: BB Second reviewer: YL
Personnel labeling samples:
Project manager notified: Date/Time of notification
Name of client notified: Date/Time of notification

EPA METHOD 8270D
Semivolatile Organic Compounds

APPL, INC.

EPA METHOD 8270D
Semivolatile Organic Compounds
QC Summary

APPL, INC.

Method Blank
EPA 8270D WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150518W-16287 - 197636**
Batch ID: #87DJU-150518A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BIS (2-ETHYLHEXYL) PHTHALAT	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
BLANK	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/19/2015
BLANK	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/19/2015
BLANK	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/19/2015
BLANK	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/19/2015
BLANK	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
BLANK	SURROGATE: 2,4,6-TRIBROMOP	120	40-125			%	5/18/2015	5/19/2015
BLANK	SURROGATE: 2-FLUORBIPHENY	79.6	50-110			%	5/18/2015	5/19/2015
BLANK	SURROGATE: 2-FLUOROPHENO	47.5	20-110			%	5/18/2015	5/19/2015
BLANK	SURROGATE: NITROBENZENE-	81.1	40-110			%	5/18/2015	5/19/2015
BLANK	SURROGATE: PHENOL (S)	34.0	10-115			%	5/18/2015	5/19/2015
BLANK	SURROGATE: TERPHENYL-D14 (	119	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y108
Instrument: Yoda
Sequence: Y150511
Initials: DA

GC SC-Blank-REG MDLs
Printed: 6/3/2015 10:21:25 AM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER

SDG No: 76424
Date Analyzed: 5/19/2015
Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150518A-BLK	Blank	40-125	120		50-110	79.6	
150518A-LCS	Lab Control Spike	40-125	96.5		50-110	75.9	
AZ16334	S67-MW008-051315	40-125	80.8		50-110	59.3	
AZ16335	S67-MW001-051315	40-125	82.4		50-110	58.6	
AZ16336	S67-MW001P-051315	40-125	84.0		50-110	58.9	
AZ16337	S67-MW10-051315	40-125	84.3		50-110	60.7	
AZ16338	S67-MW013-051315	40-125	84.3		50-110	57.4	
AZ16339	S67-MW004-051315	40-125	88.3		50-110	61.5	
AZ16340	S67-MW005-051315	40-125	94.1		50-110	62.2	
AZ16341	S67-MW014-051315	40-125	88.9		50-110	55.2	
AZ16342	S67-MW004P-051315	40-125	80.7		50-110	59.5	

Comments: Batch: #87DJU-150518A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER

SDG No: 76424
Date Analyzed: 5/19/2015
Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150518A-BLK	Blank	20-110	47.5		40-110	81.1	
150518A-LCS	Lab Control Spike	20-110	59.0		40-110	78.9	
AZ16334	S67-MW008-051315	20-110	46.5		40-110	64.0	
AZ16335	S67-MW001-051315	20-110	41.4		40-110	60.4	
AZ16336	S67-MW001P-051315	20-110	43.3		40-110	63.0	
AZ16337	S67-MW10-051315	20-110	47.6		40-110	64.2	
AZ16338	S67-MW013-051315	20-110	50.4		40-110	62.2	
AZ16339	S67-MW004-051315	20-110	43.4		40-110	63.0	
AZ16340	S67-MW005-051315	20-110	34.4		40-110	53.9	
AZ16341	S67-MW014-051315	20-110	55.2		40-110	67.8	
AZ16342	S67-MW004P-051315	20-110	41.3		40-110	60.6	

Comments: Batch: #87DJU-150518A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER

SDG No: 76424
Date Analyzed: 5/19/2015
Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150518A-BLK	Blank	10-115	34.0		50-135	119	
150518A-LCS	Lab Control Spike	10-115	42.0		50-135	95.4	
AZ16334	S67-MW008-051315	10-115	31.8		50-135	85.7	
AZ16335	S67-MW001-051315	10-115	28.9		50-135	83.1	
AZ16336	S67-MW001P-051315	10-115	29.3		50-135	85.0	
AZ16337	S67-MW10-051315	10-115	32.7		50-135	83.5	
AZ16338	S67-MW013-051315	10-115	34.9		50-135	86.2	
AZ16339	S67-MW004-051315	10-115	29.3		50-135	85.6	
AZ16340	S67-MW005-051315	10-115	23.9		50-135	79.7	
AZ16341	S67-MW014-051315	10-115	34.4		50-135	89.0	
AZ16342	S67-MW004P-051315	10-115	27.5		50-135	83.5	

Comments: Batch: #87DJU-150518A

Laboratory Control Spike Recovery
EPA 8270D WATER

APPL ID: **150518W-16287 LCS - 197636**
Batch ID: #87DJU-150518A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
BIS (2-ETHYLHEXYL) PHTHALATE	50.0	45.0	90.0	40-125
BUTYL BENZYL PHTHALATE	50.0	42.2	84.4	45-115
DI-N-BUTYL PHTHALATE	50.0	45.3	90.6	55-115
DI-N-OCTYL PHTHALATE	50.0	50.1	100	35-135
DIETHYL PHTHALATE	50.0	43.9	87.8	40-120
DIMETHYL PHTHALATE	50.0	44.1	88.2	25-125
SURROGATE: 2,4,6-TRIBROMOPHENOL	200	193	96.5	40-125
SURROGATE: 2-FLUORBIPHENYL (S)	100	75.9	75.9	50-110
SURROGATE: 2-FLUOROPHENOL (S)	200	118	59.0	20-110
SURROGATE: NITROBENZENE-D5 (S)	100	78.9	78.9	40-110
SURROGATE: PHENOL (S)	200	84.1	42.0	10-115
SURROGATE: TERPHENYL-D14 (S)	100	95.4	95.4	50-135

Comments: _____

Primary	SPK
Quant Method :	Y0511TT.M
Extraction Date :	5/18/2015
Analysis Date :	5/19/2015
Instrument :	Yoda
Run :	0511Y109
Initials :	DA

Printed: 6/3/2015 10:21:16 AM
APPL Standard LCS

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER
Blank ID: 150518A-BLK

SDG No: 76424
Date Analyzed: 5/19/2015
Instrument: Yoda
Time Analyzed: 1521

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150518A-BLK	Blank	0511Y108	5/19/2015 1521
150518A-LCS	Lab Control Spike	0511Y109	5/19/2015 1551
AZ16334	S67-MW008-051315	0511Y120	5/19/2015 2117
AZ16335	S67-MW001-051315	0511Y121	5/19/2015 2146
AZ16336	S67-MW001P-051315	0511Y122	5/19/2015 2216
AZ16337	S67-MW10-051315	0511Y123	5/19/2015 2245
AZ16338	S67-MW013-051315	0511Y124	5/19/2015 2315
AZ16339	S67-MW004-051315	0511Y125	5/19/2015 2344
AZ16340	S67-MW005-051315	0511Y128	5/20/2015 0058
AZ16341	S67-MW014-051315	0511Y129	5/20/2015 0127
AZ16342	S67-MW004P-051315	0511Y130	5/20/2015 0156

Comments: Batch: #87DJU-150518A

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: ~~0511Y001.D~~ 76424
Matrix: Water 76-19-15
ID: SV Tune 03/12/15

SDG No: ~~Yoda~~ 76424 76-19-15
Date Analyzed: 5/11/2015
Instrument: Yoda
Time Analyzed: 14:44

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5ug/ml SVOC 05/11/15	0511Y002.D	5/11/2015 15:02
2		10ug/ml SVOC	0511Y003.D	5/11/2015 15:31
3		20ug/ml SVOC	0511Y004.D	5/11/2015 16:01
4		40ug/ml SVOC	0511Y005.D	5/11/2015 16:31
5		50ug/ml SVOC	0511Y006.D	5/11/2015 17:00
6		60ug/ml SVOC	0511Y007.D	5/11/2015 17:31
7		80ug/ml SVOC	0511Y008.D	5/11/2015 18:00
8		100ug/ml SVOC	0511Y009.D	5/11/2015 18:30
9		50ug/ml SVOC SS 05/1	0511Y010.D	5/11/2015 19:00
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60.04% of mass 198	32.3
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.1
127	40 - 60% of mass 198	50.9
197	0 - 1.4% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	28.2
365	1 - 100% of mass 198	3.4
441	0.01 - 100% of mass 443	76.3
442	40 - 150% of mass 198	111.4
443	17 - 23% of mass 442	18.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 76424
Matrix: Water
ID: SV TUNE 5/14/15

SDG No: 76424
Date Analyzed: 5/19/2015
Instrument: Yoda
Time Analyzed: 13:02

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50ug/ml SVOC 05/19/1	0511Y107.D	5/19/2015 13:20
2	Blank	150518A BLK 1/1000	0511Y108.D	5/19/2015 15:21
3	S67-MW008-051315	AZ16334W10 1/930	0511Y120.D	5/19/2015 21:17
4	S67-MW001-051315	AZ16335W09 1/950	0511Y121.D	5/19/2015 21:46
5	S67-MW001P-051315	AZ16336W10 1/1050	0511Y122.D	5/19/2015 22:16
6	S67-MW10-051315	AZ16337W10 1/950	0511Y123.D	5/19/2015 22:45
7	S67-MW013-051315	AZ16338W10 1/900	0511Y124.D	5/19/2015 23:15
8	S67-MW004-051315	AZ16339W09 1/1030	0511Y125.D	5/19/2015 23:44
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60.04% of mass 198	30.0
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.5
127	40 - 60% of mass 198	51.5
197	0 - 1.4% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	27.2
365	1 - 100% of mass 198	3.2
441	0.01 - 100% of mass 443	76.6
442	40 - 150% of mass 198	97.9
443	17 - 23% of mass 442	19.4

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 76424
Matrix: Water
ID: SV TUNE 5/14/15

SDG No: 76424
Date Analyzed: 5/20/2015
Instrument: Yoda
Time Analyzed: 0:10

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50ug/ml SVOC 05/19/1	0511Y127.D	5/20/2015 0:28
2	S67-MW005-051315	AZ16340W10 1/980	0511Y128.D	5/20/2015 0:58
3	S67-MW014-051315	AZ16341W10 1/900	0511Y129.D	5/20/2015 1:27
4	S67-MW004P-051315	AZ16342W10 1/950	0511Y130.D	5/20/2015 1:56
5		SV TUNE 5/14/15	0511Y131.D	5/20/2015 10:44
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60.04% of mass 198	30.4
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.5
127	40 - 60% of mass 198	50.6
197	0 - 1.4% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	27.1
365	1 - 100% of mass 198	3.2
441	0.01 - 100% of mass 443	75.7
442	40 - 150% of mass 198	104.4
443	17 - 23% of mass 442	19.6

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 76424

Lab File ID (Standard): 0511Y007.D Date Analyzed: 05/11/15

Instrument ID: Yoda Time Analyzed: 17:31

GC Column: ID: Heated Purge: (Y/N)

	1,4-dichlorobenzene-D4(IS)			Napthalene-D8(IS)		Acenaphthene-D10(IS)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12 HOUR STD	1006010	5.19	4566840	6.64	2449390	8.63	
UPPER LIMIT	2012020	5.69	9133680	7.14	4898780	9.13	
LOWER LIMIT	503005	4.69	2283420	6.14	1224695	8.13	
SAMPLE NO.							
01 50ug/ml SVOC 05/19/15	923455	5.17	4127210	6.62	2370250	8.61	
02 150518A BLK 1/1000	764910	5.17	2850830	6.63	1560640	8.62	
03 150518A LCS-1 1/1000	737045	5.17	3351210	6.63	1937340	8.61	
04 AZ16334W10 1/930	768500	5.17	3601600	6.63	2030170	8.61	
05 AZ16335W09 1/950	905335	5.17	4243680	6.62	2403180	8.62	
06 AZ16336W10 1/1050	847676	5.17	4040370	6.62	2401420	8.62	
07 AZ16337W10 1/950	850180	5.17	3974100	6.62	2232100	8.61	
08 AZ16338W10 1/900	802115	5.17	3795790	6.63	2252900	8.61	
09 AZ16339W09 1/1030	892550	5.17	4061600	6.62	2326870	8.61	
10 50ug/ml SVOC 05/19/15	888365	5.17	4172540	6.62	2420290	8.61	
11 AZ16340W10 1/980	886034	5.17	3929360	6.62	1799240	8.61	
12 AZ16341W10 1/900	875517	5.17	3962450	6.63	2273400	8.61	
13 AZ16342W10 1/950	863316	5.17	4014710	6.62	2285680	8.61	
14							
15							
16							
17							
18							
19							
20							
21							
22							

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

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

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc.
Contract: Review
Lab Code:
SDG No.: 76424
Lab File ID (Standard): 0511Y007.D
Date Analyzed: 05/11/15
Instrument ID: Yoda
Time Analyzed: 17:31
GC Column:
ID:
Heated Purge: (Y/N)

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	3972630	10.37	3769900	13.44	2455420	15.19
	UPPER LIMIT	7945260	10.87	7539800	13.94	4910840	15.69
	LOWER LIMIT	1986315	9.87	1884950	12.94	1227710	14.69
	SAMPLE NO.						
01	50ug/ml SVOC 05/19/15	3836650	10.35	2886160	13.42	2303260	15.17
02	150518A BLK 1/1000	2942400	10.35	2528080	13.43	1695160	15.18
03	150518A LCS-1 1/1000	3272170	10.35	3061970	13.42	1959930	15.17
04	AZ16334W10 1/930	3650100	10.35	3222530	13.42	2018970	15.17
05	AZ16335W09 1/950	4300900	10.35	3752850	13.42	2478230	15.17
06	AZ16336W10 1/1050	4231670	10.35	3742830	13.42	2453570	15.17
07	AZ16337W10 1/950	4003140	10.35	3464980	13.42	2244390	15.17
08	AZ16338W10 1/900	4041390	10.35	3525790	13.42	2342650	15.17
09	AZ16339W09 1/1030	4152020	10.35	3649980	13.42	2384210	15.17
10	50ug/ml SVOC 05/19/15	4110230	10.35	3802730	13.42	2455500	15.17
11	AZ16340W10 1/980	3976860	10.35	3479850	13.42	2306600	15.17
12	AZ16341W10 1/900	4061840	10.35	3499410	13.42	2301960	15.17
13	AZ16342W10 1/950	4109790	10.35	3570180	13.42	2328540	15.17
14							
15							
16							
17							
18							
19							
20							
21							
22							

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

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

EPA METHOD 8270D
Semivolatile Organic Compounds
Sample Data

APPL, INC.

EPA 8270D WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-MW008-051315

APPL ID: AZ16334

Sample Collection Date: 5/13/2015

QCG: #87DJU-150518A-197636

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	80.8	40-125			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	59.3	50-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	46.5	20-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	64.0	40-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	31.8	10-115			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	85.7	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y120
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 10:21:06 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y120.D
Acq On : 19 May 15 21:17
Sample : AZ16334W10 1/930
Misc : water

Vial: 20
Operator: csc
Inst : Yoda
Multiplr: 1.08

Quant Time: Jun 3 9:03 2015

Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.17	152	768500	40.00 ppb	-0.02
7) Napthalene-D8(IS)	6.63	136	3601595	40.00 ppb	0.00
13) Acenaphthene-D10(IS)	8.61	164	2030165	40.00 ppb	-0.02
23) Phenanthrene-D10(IS)	10.35	188	3650098	40.00 ppb	-0.02
27) Chrysene-D12(IS)	13.42	240	3222531	40.00 ppb	-0.02
32) Perylene-D12(IS)	15.17	264	2018970	40.00 ppb	-0.02
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.42	112	2479535	99.95 ppb	0.00
Spiked Amount 215.054			Recovery =	46.477%	
3) Phenol-D6 (S)	5.55	99	2205036	68.39 ppb	-0.09
Spiked Amount 215.054			Recovery =	31.799%	
8) Nitrobenzene-D5(S)	5.89	82	2188999	68.86 ppb	-0.02
Spiked Amount 107.527			Recovery =	64.041%	
16) 2-Fluorobiphenyl(S)	7.84	172	4233783	63.79 ppb	0.00
Spiked Amount 107.527			Recovery =	59.327%	
22) 2,4,6-Tribromophenol(S)	9.63	330	786031	173.73 ppb	-0.04
Spiked Amount 215.054			Recovery =	80.786%	
28) Terphenyl-D14(S)	12.14	244	6103765	92.19 ppb	-0.02
Spiked Amount 107.527			Recovery =	85.733%	
Target Compounds					Qvalue
17) Dimethyl phthalate	8.36	163	55248	0.86 ppb	92
21) Diethyl phthalate	9.10	149	1088673	-0.78 ppb	99

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

Quantitation Report

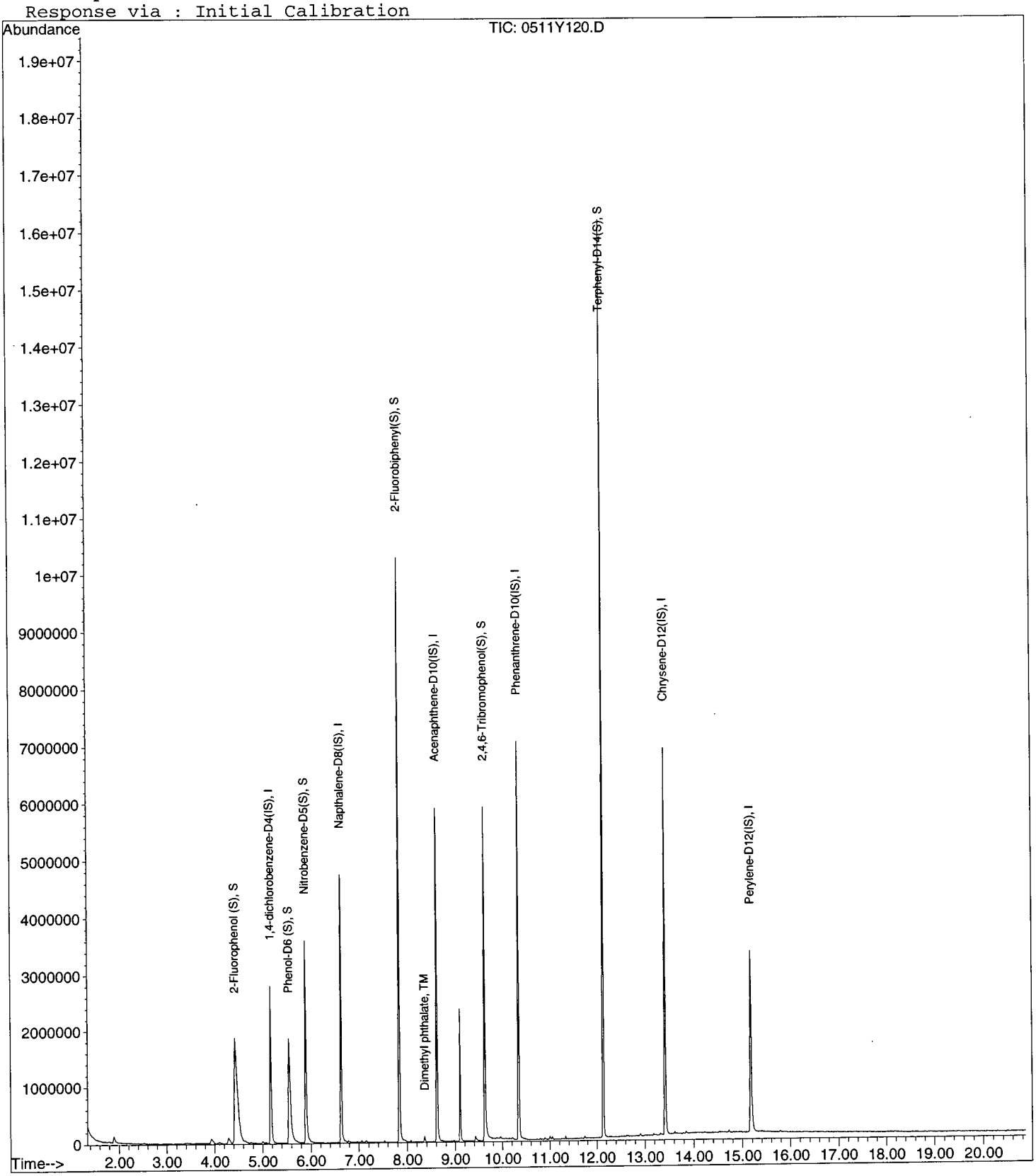
Data File : M:\YODA\DATA\Y150511\0511Y120.D
Acq On : 19 May 15 21:17
Sample : AZ16334W10 1/930
Misc : water

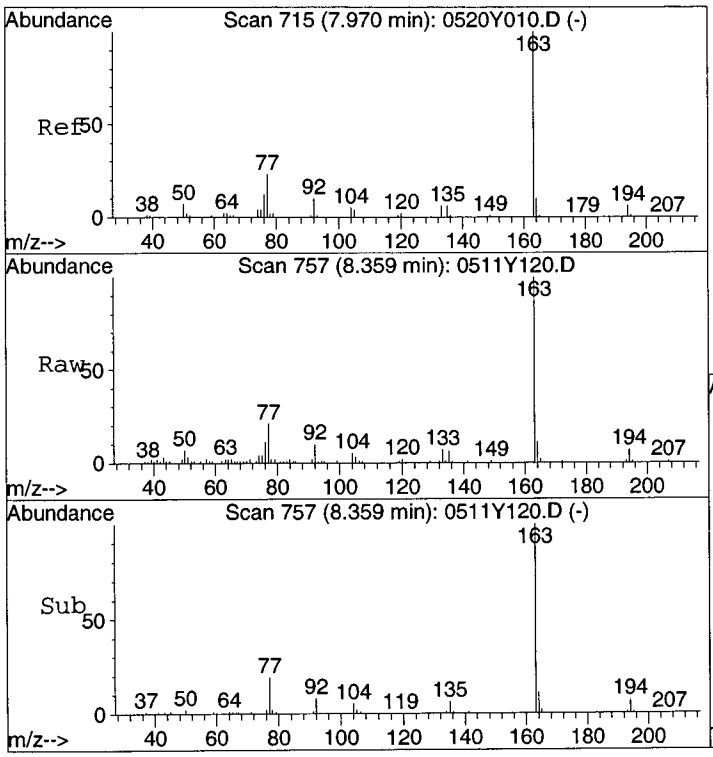
Vial: 20
Operator: csc
Inst : Yoda
Multiplr: 1.08

Quant Time: Jun 3 9:03 2015

Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration

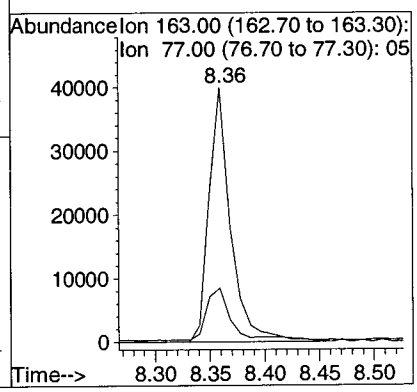




#17
Dimethyl phthalate
Concen: 0.86 ppb
RT: 8.36 min Scan# 757
Delta R.T. -0.01 min
Lab File: 0511Y120.D
Acq: 19 May 15 21:17

Tgt Ion:163 Resp: 55248

Ion	Ratio	Lower	Upper
163	100		
77	20.6	17.3	32.1



EPA 8270D WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-MW001-051315

APPL ID: AZ16335

Sample Collection Date: 5/13/2015

QCG: #87DJU-150518A-197636

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	82.4	40-125			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	58.6	50-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	41.4	20-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	60.4	40-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	28.9	10-115			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	83.1	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y121
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 10:21:06 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y121.D
Acq On : 19 May 15 21:46
Sample : AZ16335W09 1/950
Misc : water

Vial: 21
Operator: csc
Inst : Yoda
Multiplr: 1.05

Quant Time: Jun 3 9:04 2015
Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.17	152	905335	40.00 ppb	-0.02
7) Napthalene-D8(IS)	6.62	136	4243676	40.00 ppb	-0.02
13) Acenaphthene-D10(IS)	8.62	164	2403178	40.00 ppb	0.00
23) Phenanthrene-D10(IS)	10.35	188	4300897	40.00 ppb	-0.02
27) Chrysene-D12(IS)	13.42	240	3752848	40.00 ppb	-0.02
32) Perylene-D12(IS)	15.17	264	2478231	40.00 ppb	-0.02
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.43	112	2606123	87.15 ppb	0.00
Spiked Amount 210.526			Recovery	= 41.396%	
3) Phenol-D6 (S)	5.55	99	2368127	60.83 ppb	-0.09
Spiked Amount 210.526			Recovery	= 28.896%	
8) Nitrobenzene-D5(S)	5.89	82	2433547	63.60 ppb	-0.02
Spiked Amount 105.263			Recovery	= 60.423%	
16) 2-Fluorobiphenyl(S)	7.84	172	4946900	61.64 ppb	0.00
Spiked Amount 105.263			Recovery	= 58.561%	
22) 2,4,6-Tribromophenol(S)	9.62	330	948601	173.39 ppb	-0.05
Spiked Amount 210.526			Recovery	= 82.359%	
28) Terphenyl-D14(S)	12.14	244	6892900	87.51 ppb	-0.02
Spiked Amount 105.263			Recovery	= 83.135%	
Target Compounds					Qvalue
17) Dimethyl phthalate	8.36	163	15630	0.20 ppb	89
21) Diethyl phthalate	9.10	149	1310551	-0.47 ppb	99

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

Quantitation Report

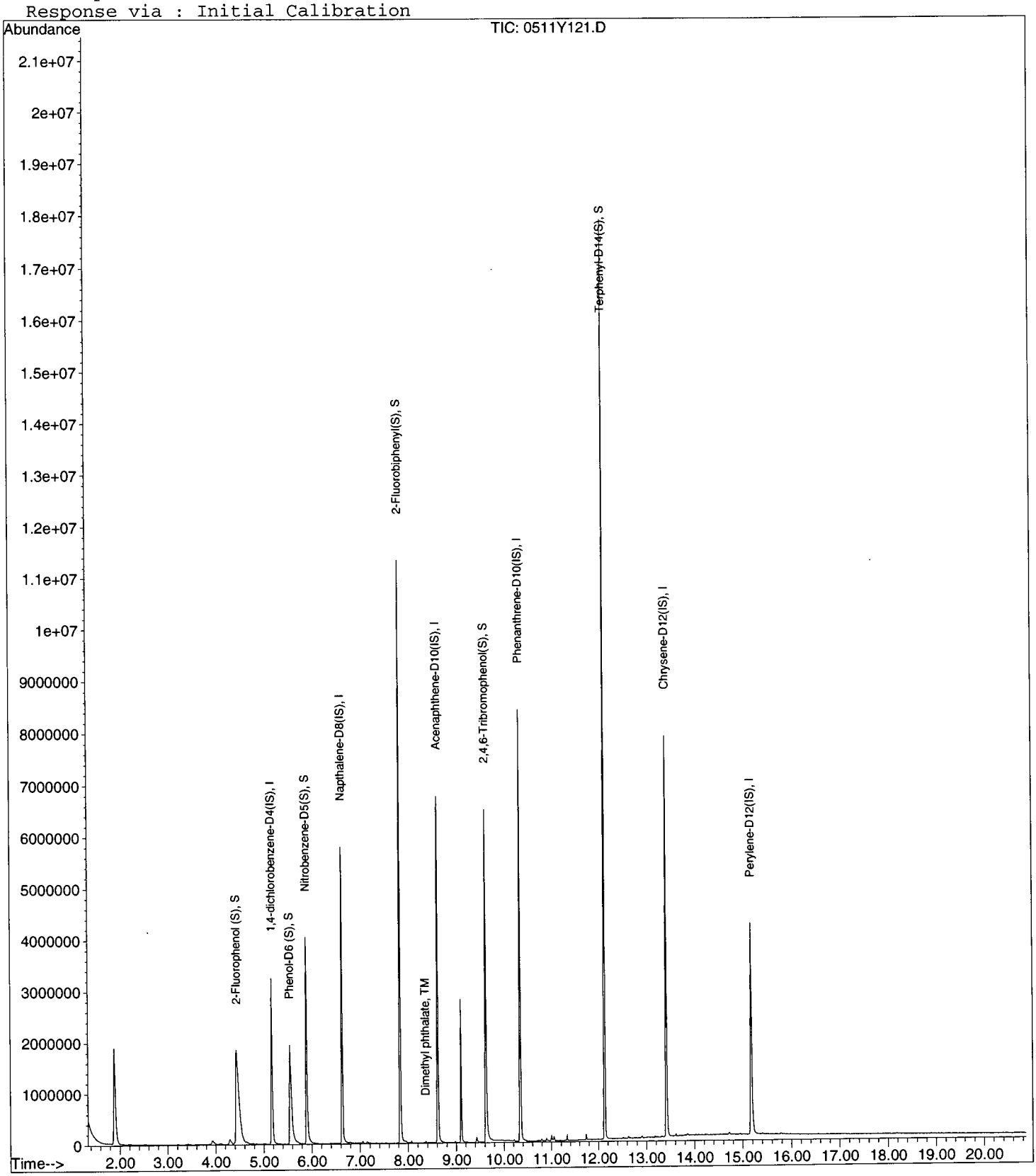
Data File : M:\YODA\DATA\Y150511\0511Y121.D
Acq On : 19 May 15 21:46
Sample : AZ16335W09 1/950
Misc : water

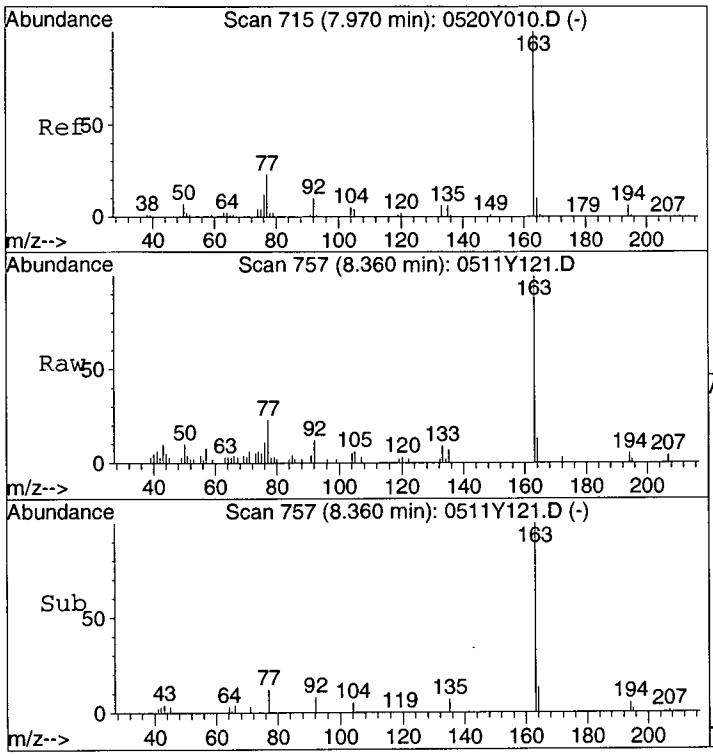
Vial: 21
Operator: csc
Inst : Yoda
Multiplr: 1.05

Quant Time: Jun 3 9:04 2015

Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration

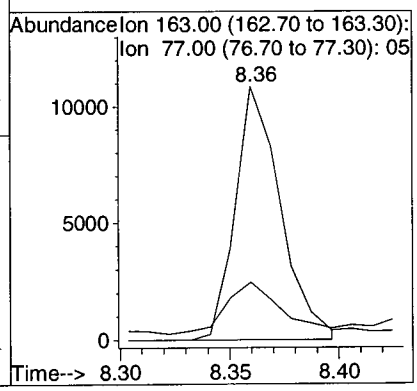




#17
Dimethyl phthalate
Concen: 0.20 ppb
RT: 8.36 min Scan# 757
Delta R.T. -0.01 min
Lab File: 0511Y121.D
Acq: 19 May 15 21:46

Tgt Ion:163 Resp: 15630

Ion	Ratio	Lower	Upper
163	100		
77	19.2	17.3	32.1



EPA 8270D WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001P-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16336
QCG: #87DJU-150518A-197636

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	84.0	40-125			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	58.9	50-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	43.3	20-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	63.0	40-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	29.3	10-115			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	85.0	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y122
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 10:21:06 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y122.D
Acq On : 19 May 15 22:16
Sample : AZ16336W10 1/1050
Misc : water

Vial: 22
Operator: csc
Inst : Yoda
Multiplr: 0.95

Quant Time: Jun 3 9:04 2015

Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.17	152	847676	40.00 ppb	-0.02
7) Napthalene-D8(IS)	6.62	136	4040372	40.00 ppb	-0.02
13) Acenaphthene-D10(IS)	8.62	164	2401422	40.00 ppb	0.00
23) Phenanthrene-D10(IS)	10.35	188	4231668	40.00 ppb	-0.02
27) Chrysene-D12(IS)	13.42	240	3742825	40.00 ppb	-0.02
32) Perylene-D12(IS)	15.17	264	2453570	40.00 ppb	-0.02
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.42	112	2553139	82.56 ppb	0.00
Spiked Amount 190.476			Recovery =	43.343%	
3) Phenol-D6 (S)	5.55	99	2249795	55.88 ppb	-0.09
Spiked Amount 190.476			Recovery =	29.335%	
8) Nitrobenzene-D5(S)	5.89	82	2416050	60.01 ppb	-0.02
Spiked Amount 95.238			Recovery =	63.007%	
16) 2-Fluorobiphenyl(S)	7.84	172	4968734	56.06 ppb	0.00
Spiked Amount 95.238			Recovery =	58.862%	
22) 2,4,6-Tribromophenol(S)	9.62	330	966442	159.94 ppb	-0.05
Spiked Amount 190.476			Recovery =	83.966%	
28) Terphenyl-D14(S)	12.14	244	7025614	80.92 ppb	-0.02
Spiked Amount 95.238			Recovery =	84.964%	
Target Compounds					Qvalue
17) Dimethyl phthalate	8.36	163	16046	0.19 ppb	96
21) Diethyl phthalate	9.10	149	1293370	-0.62 ppb	98
30) Bis (2-ethylhexyl) phthala	13.19	149	8893	0.10 ppb	97

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

Quantitation Report

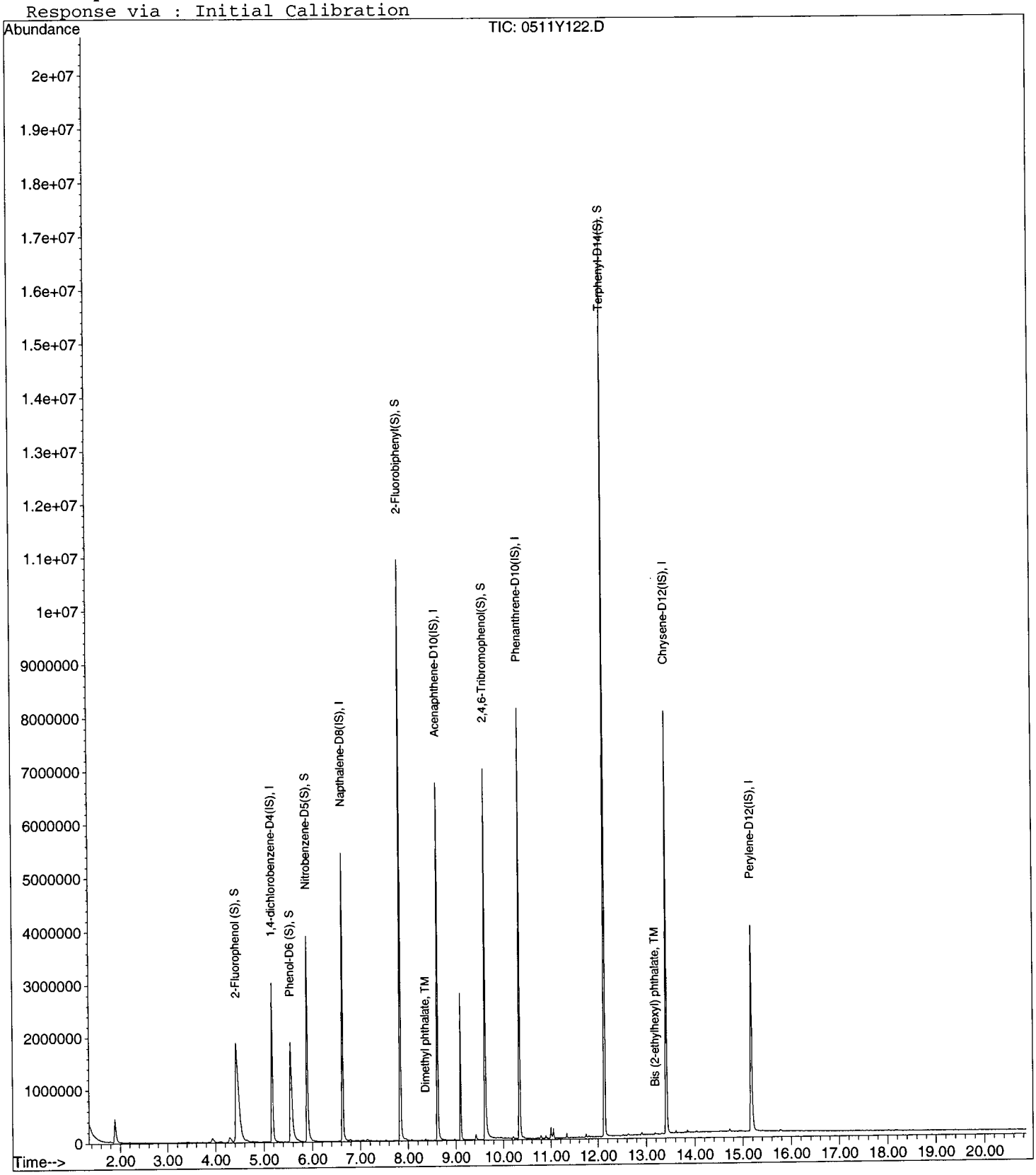
Data File : M:\YODA\DATA\Y150511\0511Y122.D
Acq On : 19 May 15 22:16
Sample : AZ16336W10 1/1050
Misc : water

Vial: 22
Operator: csc
Inst : Yoda
Multiplr: 0.95

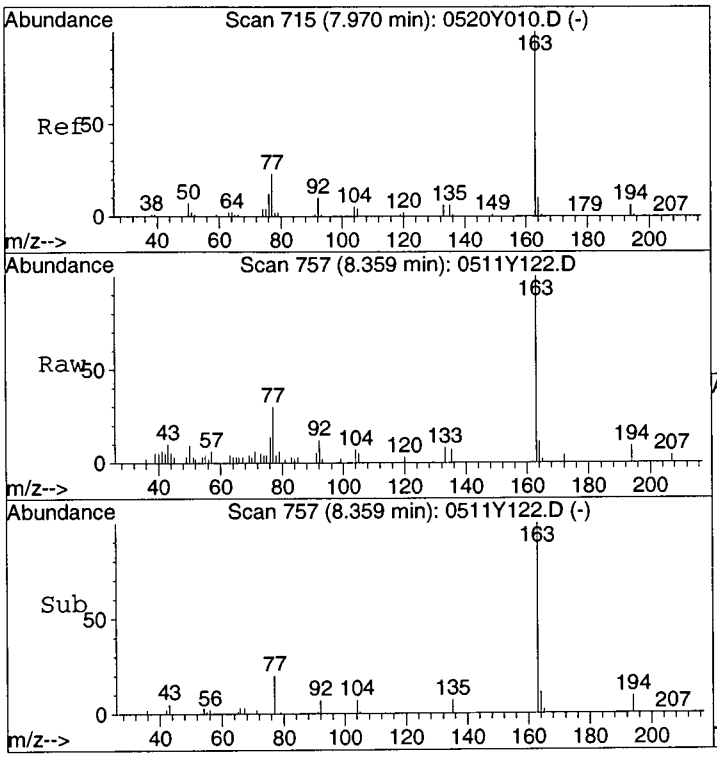
Quant Time: Jun 3 9:04 2015

Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration



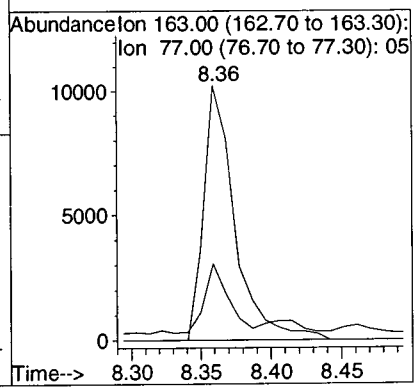
0511Y122.D Y0511TT.M Wed Jun 03 09:30:00 2015

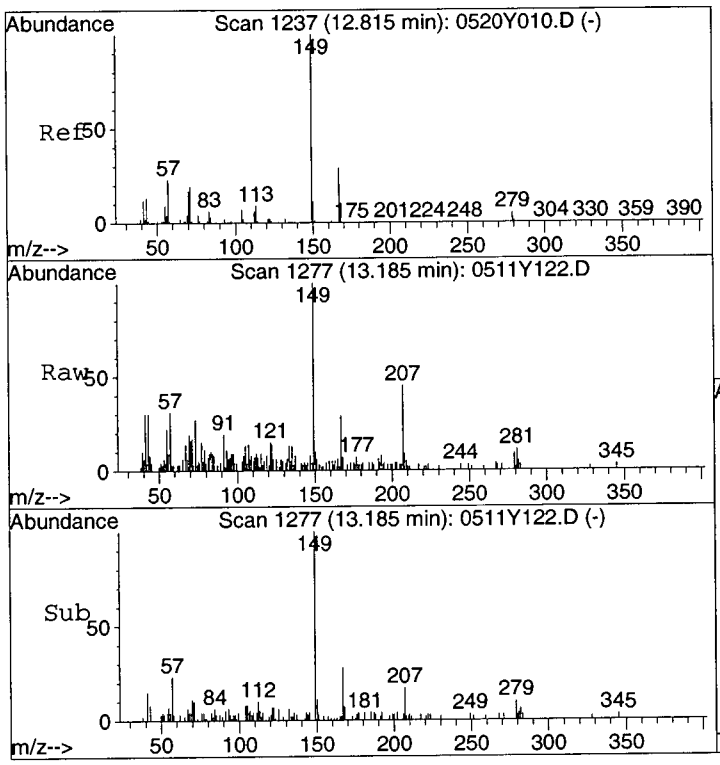


#17
Dimethyl phthalate
Concen: 0.19 ppb
RT: 8.36 min Scan# 757
Delta R.T. -0.01 min
Lab File: 0511Y122.D
Acq: 19 May 15 22:16

Tgt Ion:163 Resp: 16046

Ion	Ratio	Lower	Upper
163	100		
77	26.7	17.3	32.1

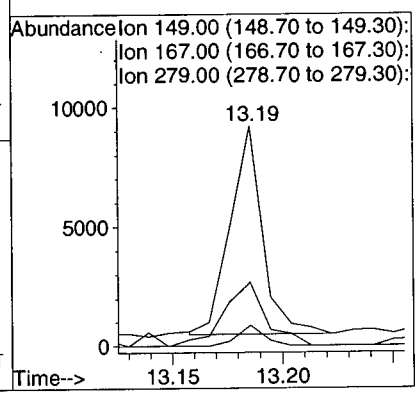




#30
Bis (2-ethylhexyl) phthalate
Concen: 0.10 ppb
RT: 13.19 min Scan# 1277
Delta R.T. -0.02 min
Lab File: 0511Y122.D
Acq: 19 May 15 22:16

Tgt Ion:149 Resp: 8893

Ion	Ratio	Lower	Upper
149	100		
167	30.8	23.1	42.9
279	9.9	7.1	13.3



EPA 8270D WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW10-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16337
QCG: #87DJU-150518A-197636

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	84.3	40-125			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	60.7	50-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	47.6	20-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	64.2	40-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	32.7	10-115			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	83.5	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y123
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 10:21:06 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y123.D
Acq On : 19 May 15 22:45
Sample : AZ16337W10 1/950
Misc : water

Vial: 23
Operator: csc
Inst : Yoda
Multiplr: 1.05

Quant Time: Jun 3 9:05 2015

Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.17	152	850180	40.00 ppb	-0.02
7) Napthalene-D8(IS)	6.62	136	3974097	40.00 ppb	-0.02
13) Acenaphthene-D10(IS)	8.61	164	2232103	40.00 ppb	-0.02
23) Phenanthrene-D10(IS)	10.35	188	4003138	40.00 ppb	-0.02
27) Chrysene-D12(IS)	13.42	240	3464984	40.00 ppb	-0.02
32) Perylene-D12(IS)	15.17	264	2244390	40.00 ppb	-0.02
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.42	112	2807260	100.17 ppb	0.00
Spiked Amount 210.526			Recovery	= 47.580%	
3) Phenol-D6 (S)	5.55	99	2503319	68.76 ppb	-0.09
Spiked Amount 210.526			Recovery	= 32.661%	
8) Nitrobenzene-D5(S)	5.89	82	2421035	67.57 ppb	-0.02
Spiked Amount 105.263			Recovery	= 64.191%	
16) 2-Fluorobiphenyl(S)	7.84	172	4763905	63.91 ppb	0.00
Spiked Amount 105.263			Recovery	= 60.716%	
22) 2,4,6-Tribromophenol(S)	9.62	330	901515	177.40 ppb	-0.05
Spiked Amount 210.526			Recovery	= 84.266%	
28) Terphenyl-D14(S)	12.14	244	6389175	87.86 ppb	-0.02
Spiked Amount 105.263			Recovery	= 83.462%	
Target Compounds					Qvalue
17) Dimethyl phthalate	8.36	163	81652	1.13 ppb	86
21) Diethyl phthalate	9.10	149	1245483	-0.08 ppb	99
30) Bis (2-ethylhexyl) phthala	13.19	149	10577	0.15 ppb	93

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

Quantitation Report

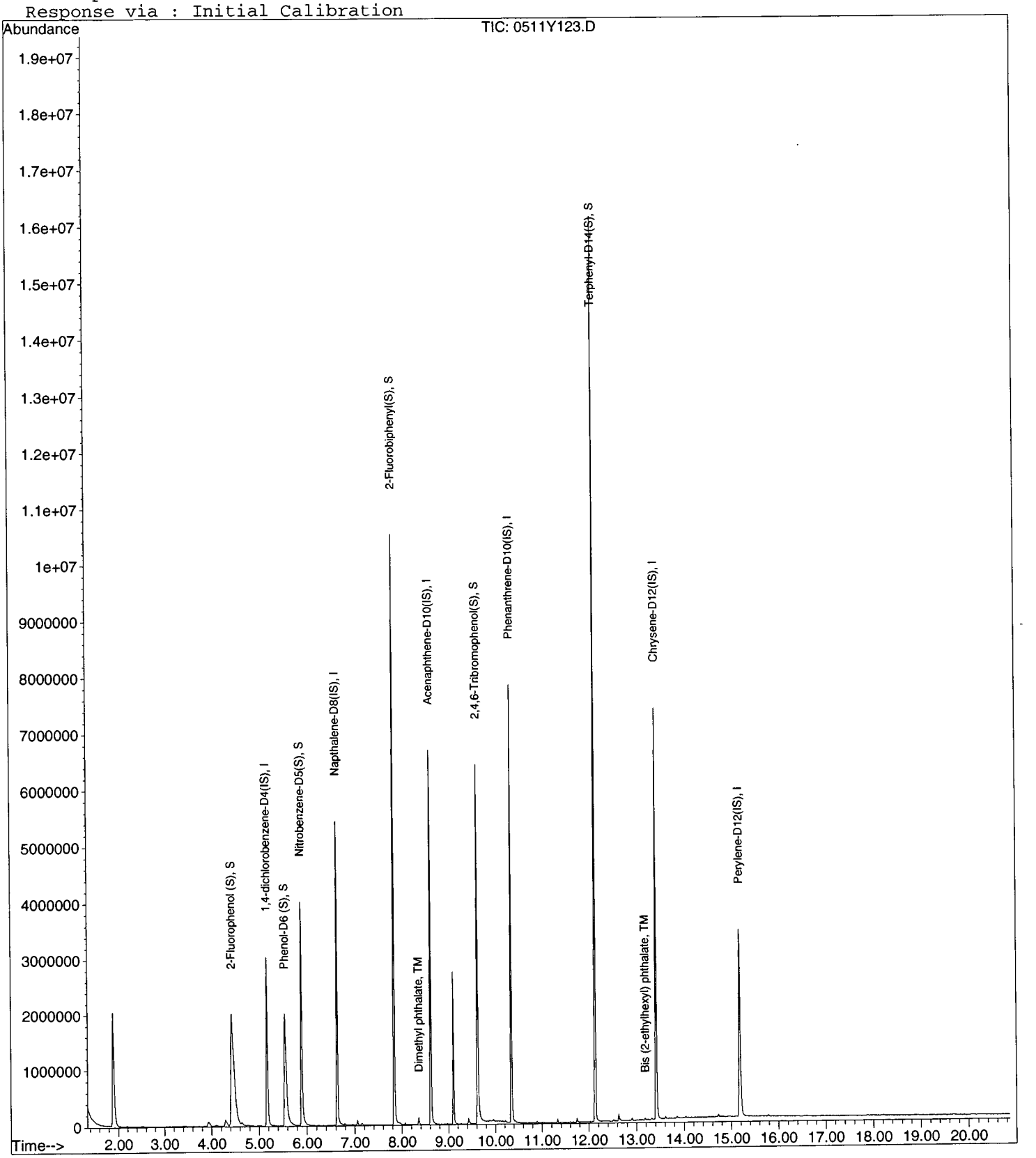
Data File : M:\YODA\DATA\Y150511\0511Y123.D
Acq On : 19 May 15 22:45
Sample : AZ16337W10 1/950
Misc : water

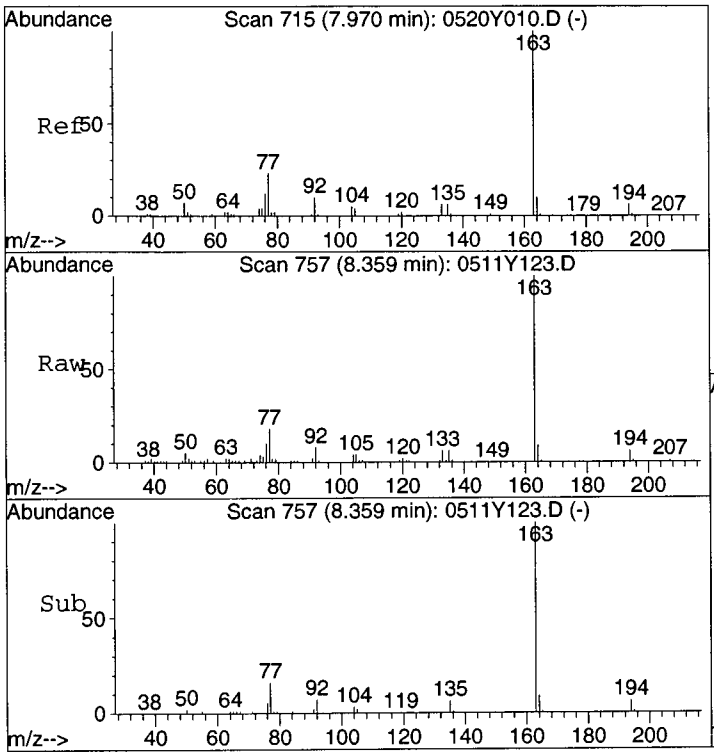
Vial: 23
Operator: csc
Inst : Yoda
Multiplr: 1.05

Quant Time: Jun 3 9:05 2015

Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration

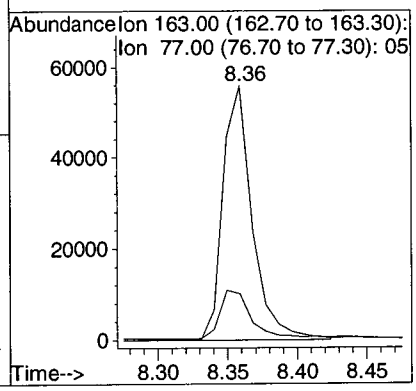


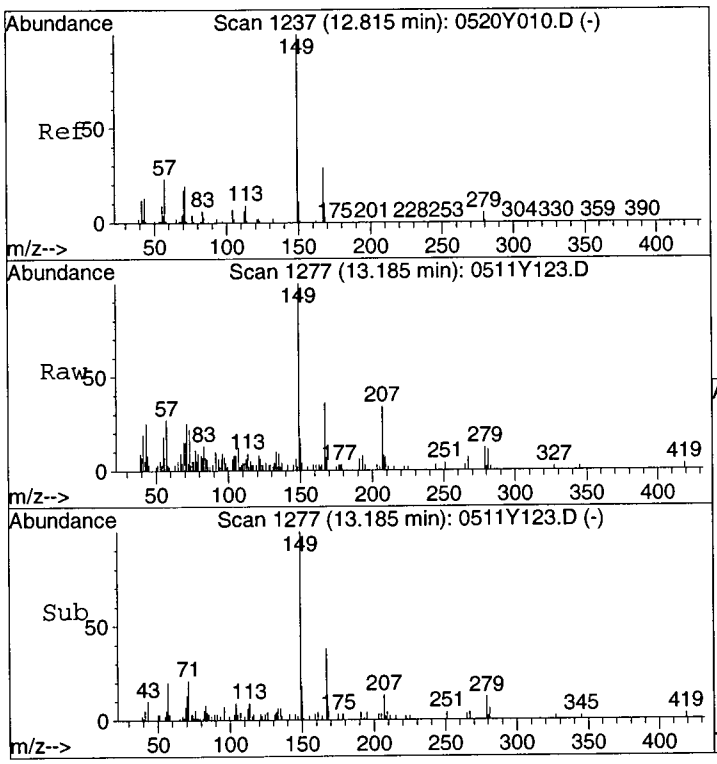


#17
Dimethyl phthalate
Concen: 1.13 ppb
RT: 8.36 min Scan# 757
Delta R.T. -0.01 min
Lab File: 0511Y123.D
Acq: 19 May 15 22:45

Tgt Ion:163 Resp: 81652

Ion	Ratio	Lower	Upper
163	100		
77	17.7	17.3	32.1

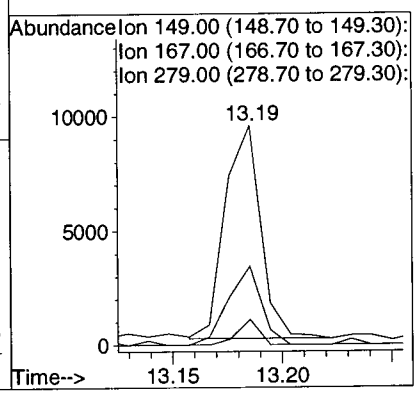




#30
Bis (2-ethylhexyl) phthalate
Concen: 0.15 ppb
RT: 13.19 min Scan# 1277
Delta R.T. -0.02 min
Lab File: 0511Y123.D
Acq: 19 May 15 22:45

Tgt Ion:149 Resp: 10577

Ion	Ratio	Lower	Upper
149	100		
167	37.1	23.1	42.9
279	12.1	7.1	13.3



EPA 8270D WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW013-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16338
QCG: #87DJU-150518A-197636

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	84.3	40-125			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	57.4	50-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	50.4	20-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	62.2	40-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	34.9	10-115			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	86.2	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y124
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 10:21:06 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y124.D
Acq On : 19 May 15 23:15
Sample : AZ16338W10 1/900
Misc : water

Vial: 24
Operator: csc
Inst : Yoda
Multiplr: 1.11

Quant Time: Jun 3 9:06 2015
Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.17	152	802115	40.00 ppb	-0.02
7) Napthalene-D8(IS)	6.63	136	3795789	40.00 ppb	-0.02
13) Acenaphthene-D10(IS)	8.61	164	2252896	40.00 ppb	-0.02
23) Phenanthrene-D10(IS)	10.35	188	4041385	40.00 ppb	-0.02
27) Chrysene-D12(IS)	13.42	240	3525791	40.00 ppb	-0.02
32) Perylene-D12(IS)	15.17	264	2342652	40.00 ppb	-0.02
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.43	112	2800949	111.90 ppb	0.00
Spiked Amount 222.222			Recovery	= 50.355%	
3) Phenol-D6 (S)	5.55	99	2518661	77.56 ppb	-0.09
Spiked Amount 222.222			Recovery	= 34.901%	
8) Nitrobenzene-D5(S)	5.89	82	2240488	69.10 ppb	-0.02
Spiked Amount 111.111			Recovery	= 62.194%	
16) 2-Fluorobiphenyl(S)	7.83	172	4548580	63.82 ppb	0.00
Spiked Amount 111.111			Recovery	= 57.437%	
22) 2,4,6-Tribromophenol(S)	9.62	330	910568	187.39 ppb	-0.04
Spiked Amount 222.222			Recovery	= 84.326%	
28) Terphenyl-D14(S)	12.14	244	6715619	95.79 ppb	-0.02
Spiked Amount 111.111			Recovery	= 86.214%	

Target Compounds					Qvalue
17) Dimethyl phthalate	8.36	163	27254	0.39 ppb	94
21) Diethyl phthalate	9.10	149	1214697	-0.70 ppb	98
30) Bis (2-ethylhexyl) phthala	13.18	149	11515	0.16 ppb #	89

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

Quantitation Report

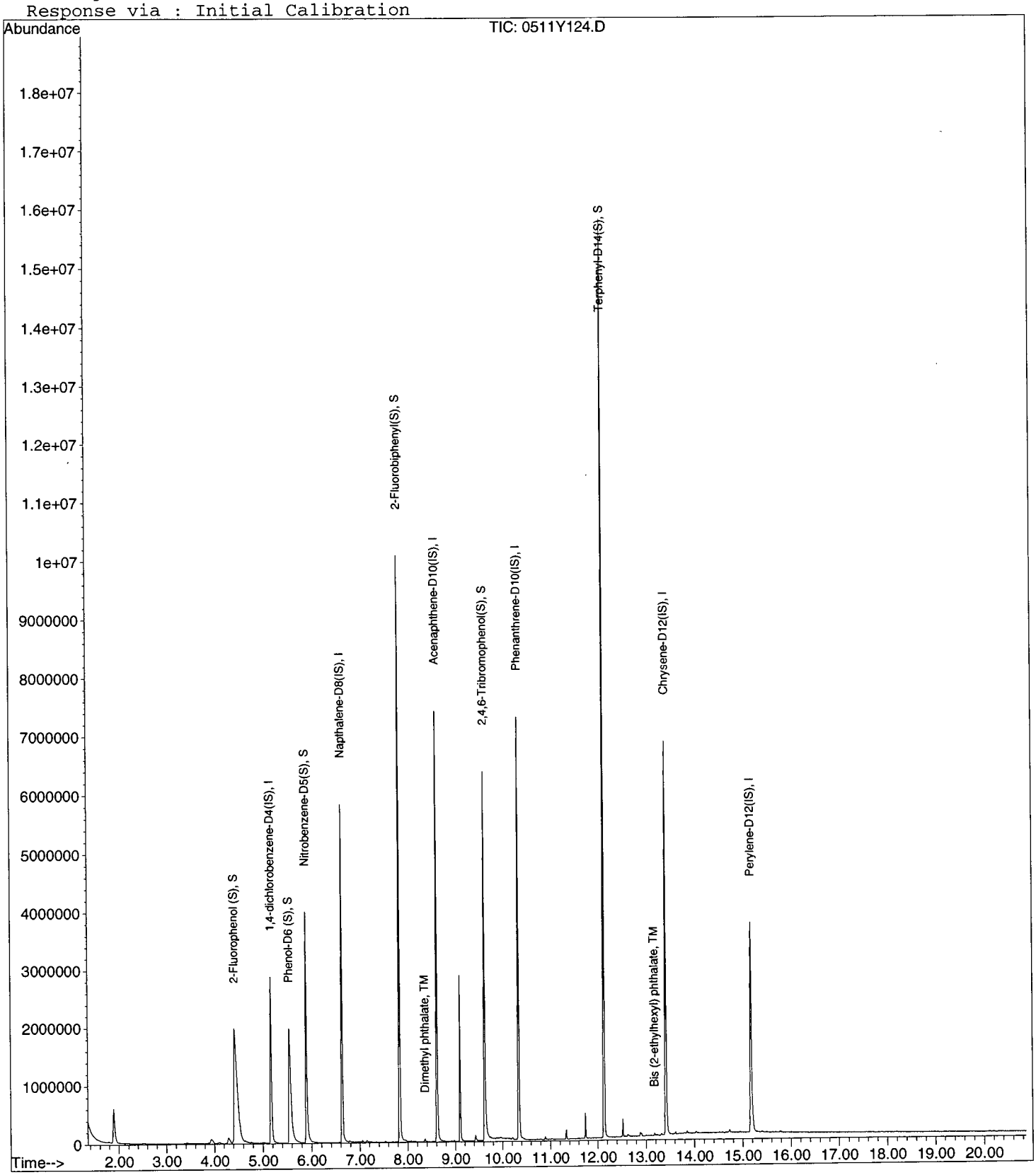
Data File : M:\YODA\DATA\Y150511\0511Y124.D
Acq On : 19 May 15 23:15
Sample : AZ16338W10 1/900
Misc : water

Vial: 24
Operator: csc
Inst : Yoda
Multiplr: 1.11

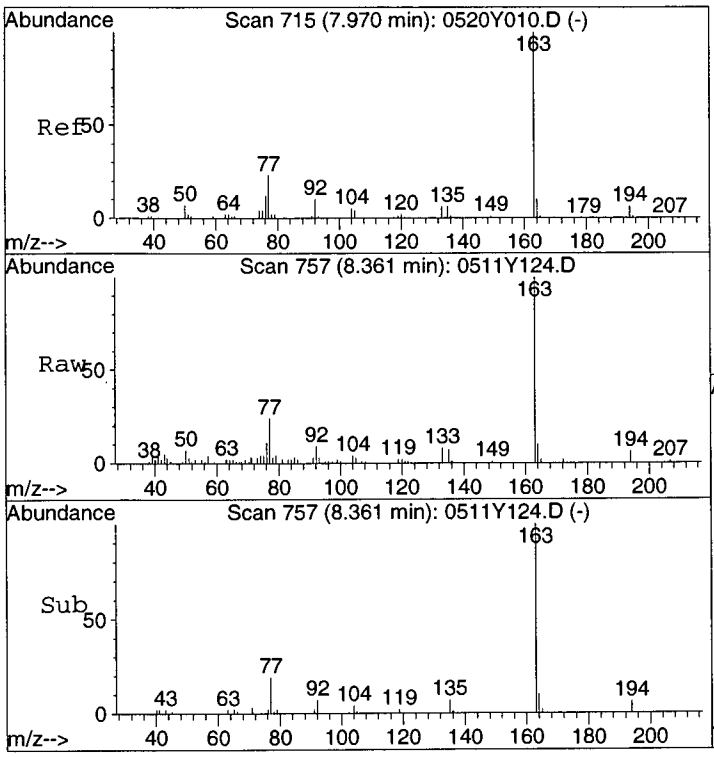
Quant Time: Jun 3 9:06 2015

Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration



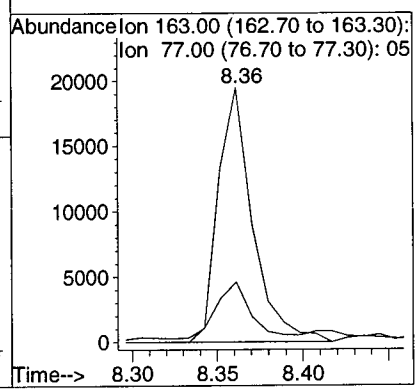
0511Y124.D Y0511TT.M Wed Jun 03 09:30:02 2015 Page 2

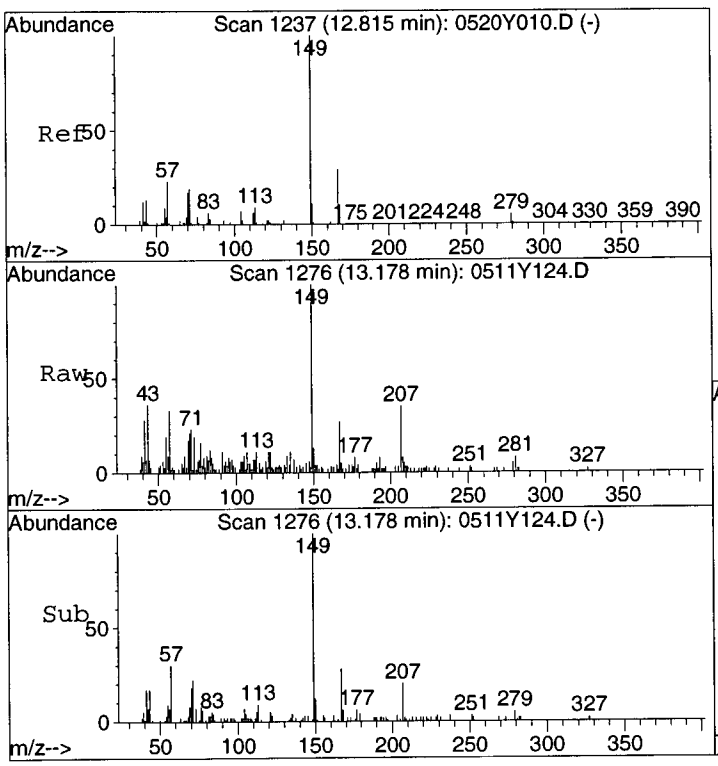


#17
Dimethyl phthalate
Concen: 0.39 ppb
RT: 8.36 min Scan# 757
Delta R.T. -0.01 min
Lab File: 0511Y124.D
Acq: 19 May 15 23:15

Tgt Ion:163 Resp: 27254

Ion	Ratio	Lower	Upper
163	100		
77	21.9	17.3	32.1

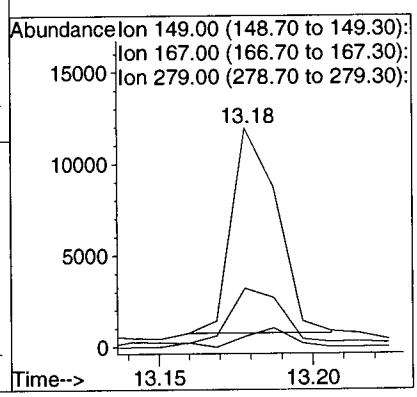




#30
Bis (2-ethylhexyl) phthalate
Concen: 0.16 ppb
RT: 13.18 min Scan# 1276
Delta R.T. -0.03 min
Lab File: 0511Y124.D
Acq: 19 May 15 23:15

Tgt Ion:149 Resp: 11515

Ion	Ratio	Lower	Upper
149	100		
167	26.9	23.1	42.9
279	5.2	7.1	13.3#



EPA 8270D WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16339
QCG: #87DJU-150518A-197636

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/19/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/19/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	88.3	40-125			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	61.5	50-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	43.4	20-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	63.0	40-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	29.3	10-115			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	85.6	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y125
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 10:21:06 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y125.D
Acq On : 19 May 15 23:44
Sample : AZ16339W09 1/1030
Misc : water

Vial: 25
Operator: csc
Inst : Yoda
Multiplr: 0.97

Quant Time: Jun 3 9:07 2015

Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.17	152	892550	40.00 ppb	-0.02
7) Napthalene-D8(IS)	6.62	136	4061600	40.00 ppb	-0.02
13) Acenaphthene-D10(IS)	8.61	164	2326872	40.00 ppb	-0.02
23) Phenanthrene-D10(IS)	10.35	188	4152015	40.00 ppb	-0.02
27) Chrysene-D12(IS)	13.42	240	3649981	40.00 ppb	-0.02
32) Perylene-D12(IS)	15.17	264	2384211	40.00 ppb	-0.02
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.42	112	2694588	84.36 ppb	0.00
Spiked Amount 194.175			Recovery	= 43.446%	
3) Phenol-D6 (S)	5.55	99	2367024	56.91 ppb	-0.09
Spiked Amount 194.175			Recovery	= 29.311%	
8) Nitrobenzene-D5(S)	5.89	82	2428909	61.18 ppb	-0.02
Spiked Amount 97.087			Recovery	= 63.011%	
16) 2-Fluorobiphenyl(S)	7.84	172	5034168	59.76 ppb	0.00
Spiked Amount 97.087			Recovery	= 61.548%	
22) 2,4,6-Tribromophenol(S)	9.62	330	984515	171.39 ppb	-0.05
Spiked Amount 194.175			Recovery	= 88.268%	
28) Terphenyl-D14(S)	12.14	244	6905555	83.14 ppb	-0.02
Spiked Amount 97.087			Recovery	= 85.635%	
Target Compounds					Qvalue
17) Dimethyl phthalate	8.36	163	78785	0.97 ppb	87
21) Diethyl phthalate	9.10	149	1274858	-0.36 ppb	99
30) Bis (2-ethylhexyl) phthala	13.19	149	14622	0.18 ppb	100

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

Quantitation Report

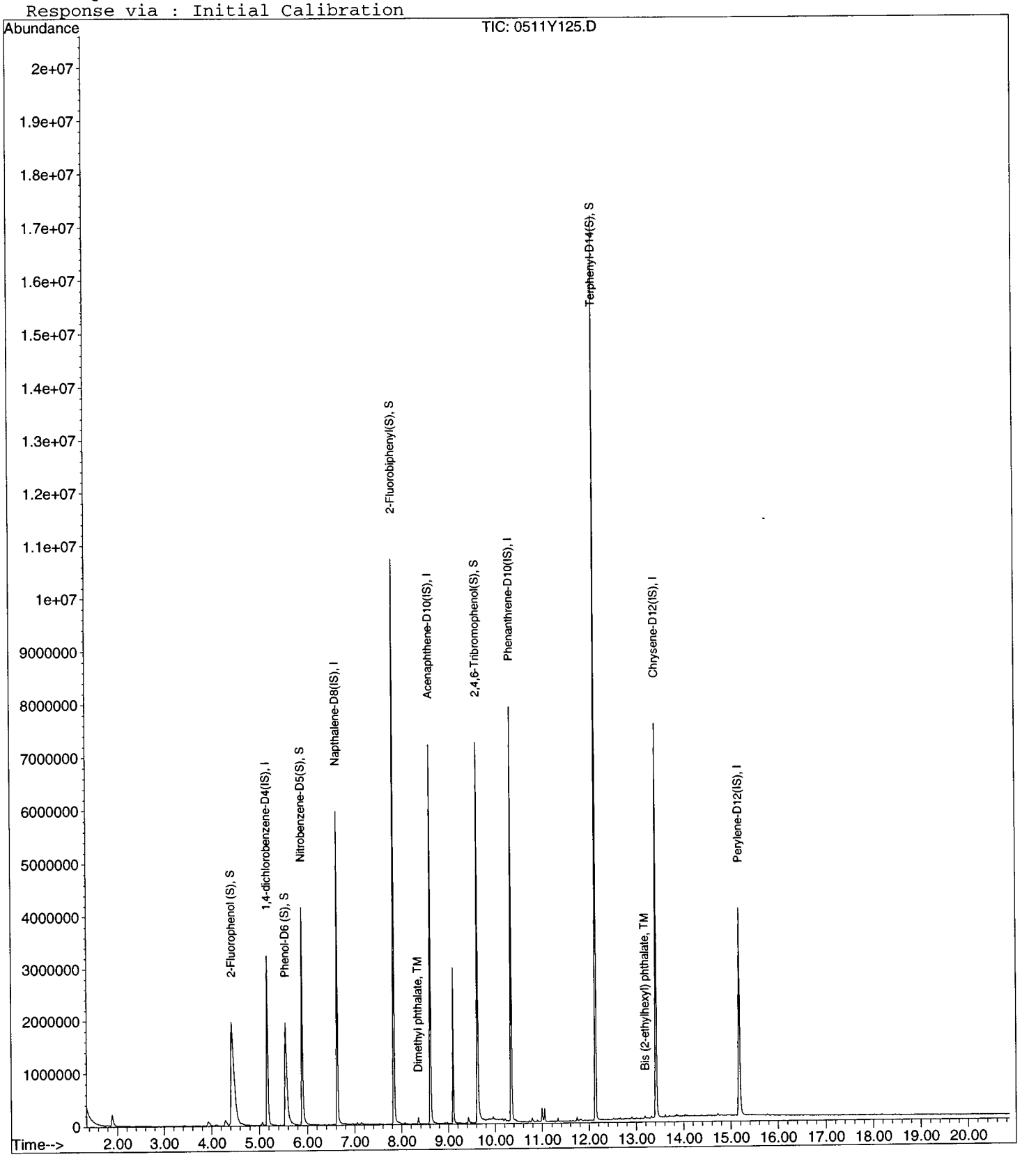
Data File : M:\YODA\DATA\Y150511\0511Y125.D
Acq On : 19 May 15 23:44
Sample : AZ16339W09 1/1030
Misc : water

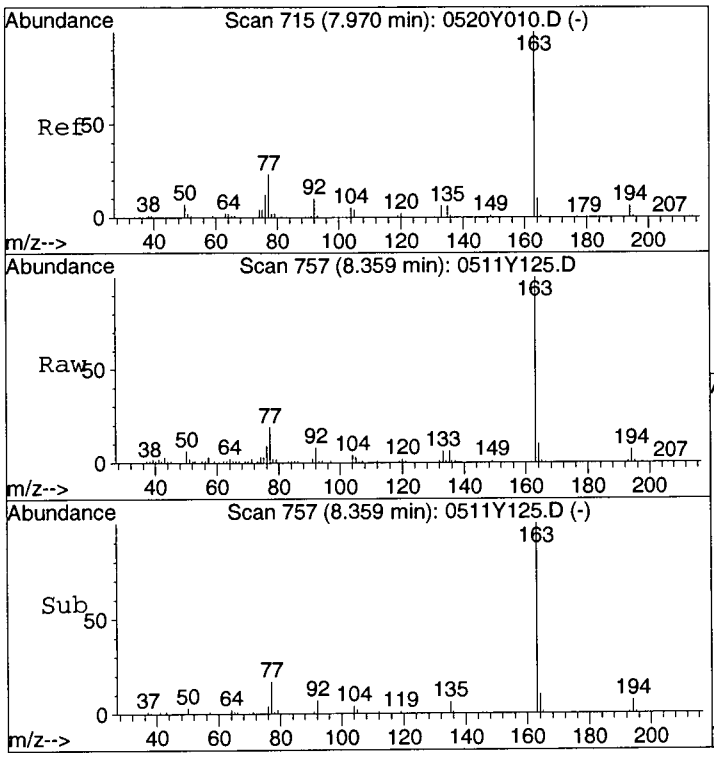
Vial: 25
Operator: csc
Inst : Yoda
Multiplr: 0.97

Quant Time: Jun 3 9:07 2015

Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration

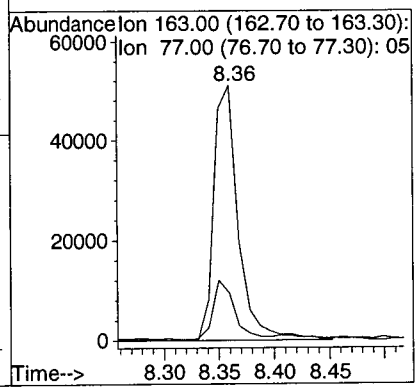


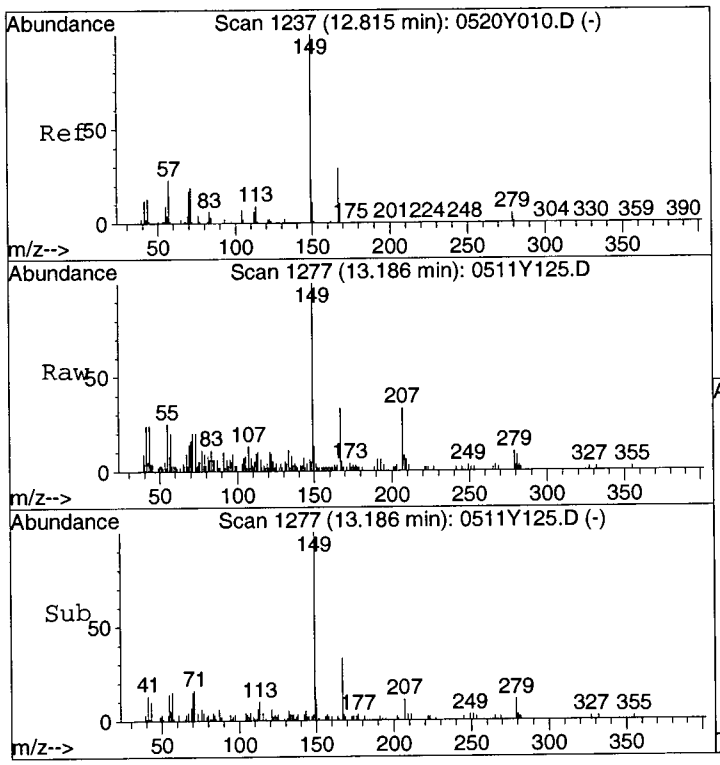


#17
Dimethyl phthalate
Concen: 0.97 ppb
RT: 8.36 min Scan# 757
Delta R.T. -0.01 min
Lab File: 0511Y125.D
Acq: 19 May 15 23:44

Tgt Ion:163 Resp: 78785

Ion	Ratio	Lower	Upper
163	100		
77	18.1	17.3	32.1

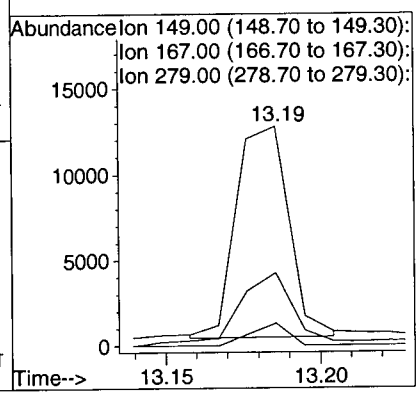




#30
Bis (2-ethylhexyl) phthalate
Concen: 0.18 ppb
RT: 13.19 min Scan# 1277
Delta R.T. -0.02 min
Lab File: 0511Y125.D
Acq: 19 May 15 23:44

Tgt Ion:149 Resp: 14622

Ion	Ratio	Lower	Upper
149	100		
167	33.1	23.1	42.9
279	10.9	7.1	13.3



EPA 8270D WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW005-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16340
QCG: #87DJU-150518A-197636

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/20/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/20/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/20/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/20/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/20/2015
EPA 8270D	DIMETHYL PHTHALATE	14	10.0	5.00	2.90	ug/L	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	94.1	40-125			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	62.2	50-110			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	34.4	20-110			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	53.9	40-110			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: PHENOL (S)	23.9	10-115			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	79.7	50-135			%	5/18/2015	5/20/2015

Quant Method: Y0511TT.M
Run #: 0511Y128
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 10:21:06 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y128.D
Acq On : 20 May 15 00:58
Sample : AZ16340W10 1/980
Misc : water

Vial: 28
Operator: csc
Inst : Yoda
Multiplr: 10.20

Quant Time: Jun 3 9:58 2015
Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 09:56:52 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.17	152	886034	40.00 ppb	0.00
7) Napthalene-D8(IS)	6.62	136	3929356	40.00 ppb	-0.02
13) Acenaphthene-D10(IS)	8.61	164	1799238	40.00 ppb	-0.02
23) Phenanthrene-D10(IS)	10.35	188	3976855	40.00 ppb	-0.02
27) Chrysene-D12(IS)	13.42	240	3479848	40.00 ppb	-0.02
32) Perylene-D12(IS)	15.17	264	2306603	40.00 ppb	-0.02
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.43	112	2128356	702.76 ppb	0.00
Spiked Amount 2040.816			Recovery =	34.435%	
3) Phenol-D6 (S)	5.55	99	1929405	487.30 ppb	-0.09
Spiked Amount 2040.816			Recovery =	23.878%	
8) Nitrobenzene-D5(S)	5.89	82	2009538	549.87 ppb	-0.02
Spiked Amount 1020.408			Recovery =	53.887%	
16) 2-Fluorobiphenyl(S)	7.84	172	3934770	634.84 ppb	0.00
Spiked Amount 1020.408			Recovery =	62.214%	
22) 2,4,6-Tribromophenol(S)	9.62	330	811476	1919.98 ppb	-0.05
Spiked Amount 2040.816			Recovery =	94.079%	
28) Terphenyl-D14(S)	12.14	244	6129097	813.50 ppb	-0.02
Spiked Amount 1020.408			Recovery =	79.723%	
Target Compounds					Qvalue
17) Dimethyl phthalate	8.35	163	84574	14.08 ppb	100
21) Diethyl phthalate	9.10	149	988524	-3.35 ppb	98
26) Di-n-butylphthalate	10.91	149	5670	0.48 ppb	97
30) Bis (2-ethylhexyl) phthala	13.19	149	12209	1.62 ppb	96

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

Quantitation Report

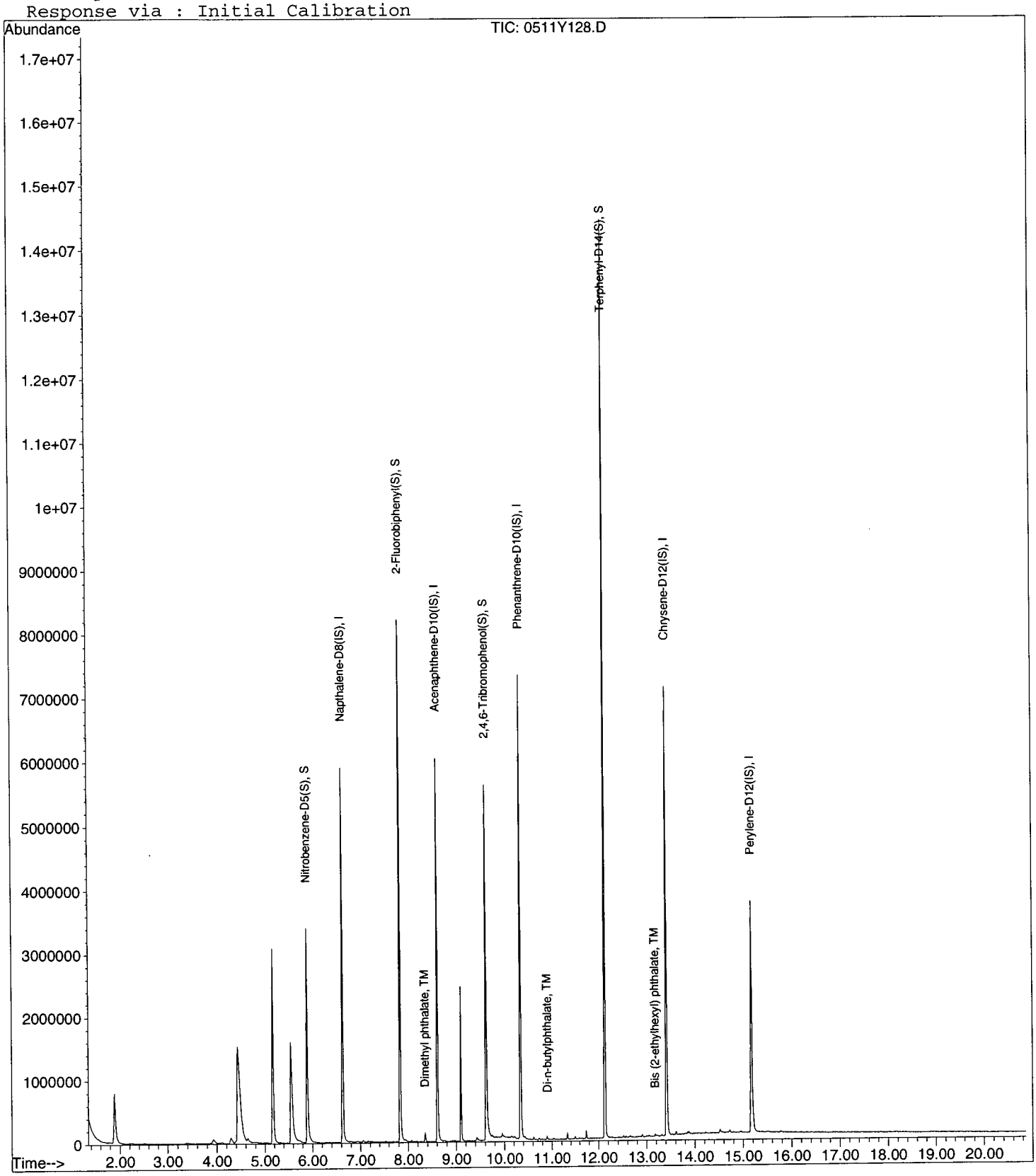
Data File : M:\YODA\DATA\Y150511\0511Y128.D
Acq On : 20 May 15 00:58
Sample : AZ16340W10 1/980
Misc : water

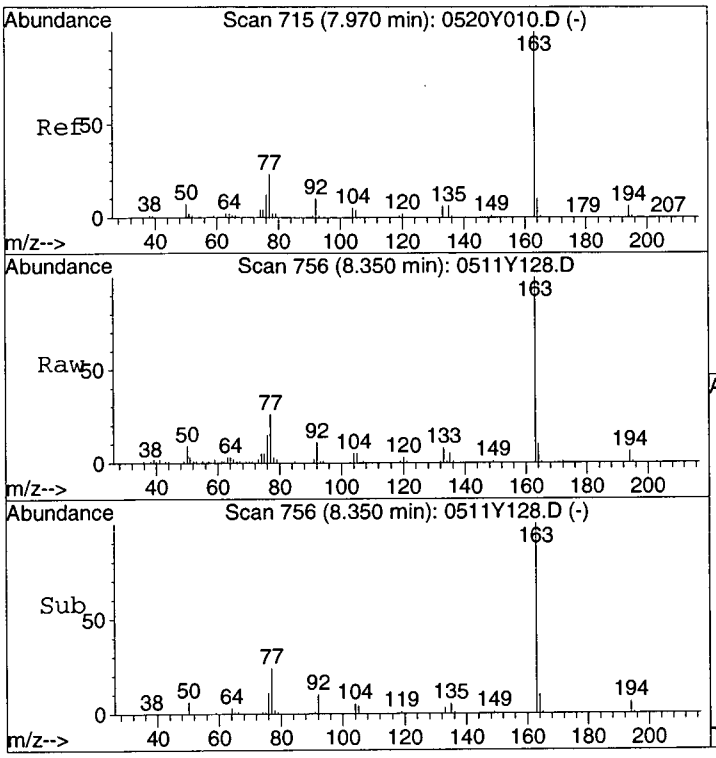
Vial: 28
Operator: csc
Inst : Yoda
Multiplr: 10.20

Quant Time: Jun 3 9:08 2015

Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration

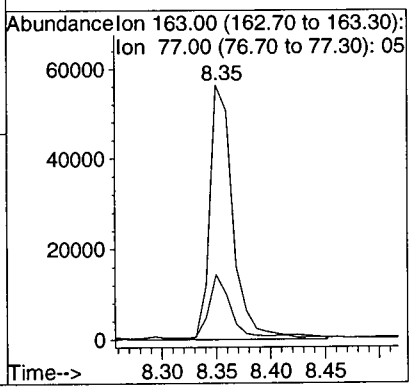


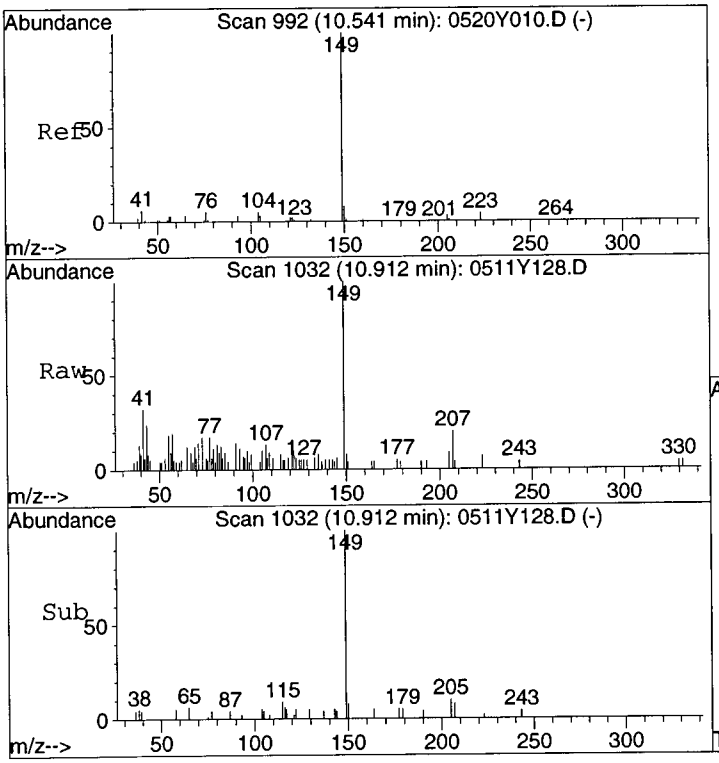


#17
Dimethyl phthalate
Concen: 14.08 ppb
RT: 8.35 min Scan# 756
Delta R.T. -0.02 min
Lab File: 0511Y128.D
Acq: 20 May 15 00:58

Tgt Ion:163 Resp: 84574

Ion	Ratio	Lower	Upper
163	100		
77	24.8	17.3	32.1

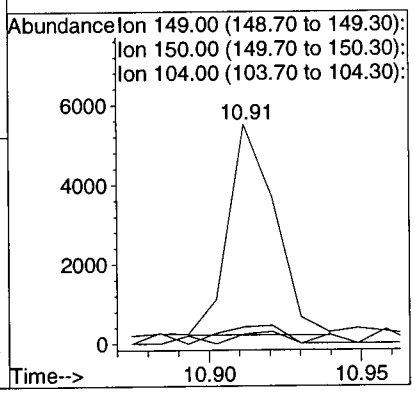


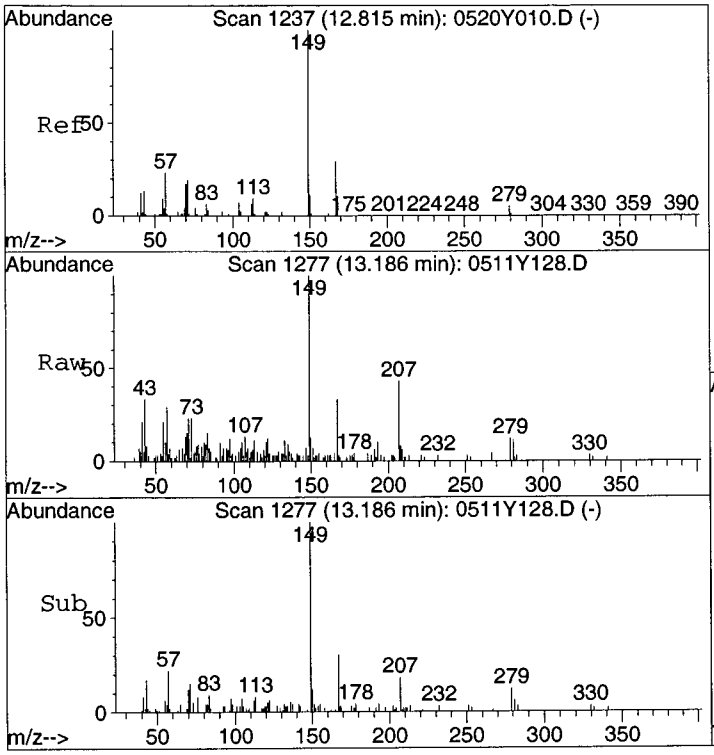


#26
Di-n-butylphthalate
Concen: 0.48 ppb
RT: 10.91 min Scan# 1032
Delta R.T. -0.02 min
Lab File: 0511Y128.D
Acq: 20 May 15 00:58

Tgt Ion:149 Resp: 5670

Ion	Ratio	Lower	Upper
149	100		
150	8.0	6.4	11.8
104	4.7	4.3	7.9

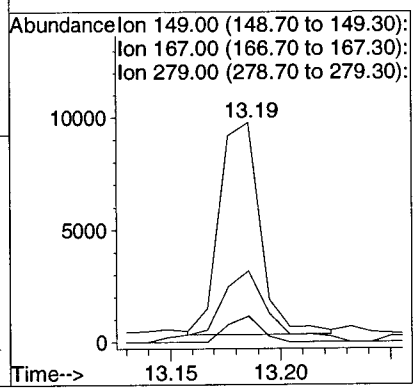




#30
Bis (2-ethylhexyl) phthalate
Concen: 1.62 ppb
RT: 13.19 min Scan# 1277
Delta R.T. -0.02 min
Lab File: 0511Y128.D
Acq: 20 May 15 00:58

Tgt Ion:149 Resp: 12209

Ion	Ratio	Lower	Upper
149	100		
167	31.4	23.1	42.9
279	12.6	7.1	13.3



EPA 8270D WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW014-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16341
QCG: #87DJU-150518A-197636

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/20/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/20/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/20/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/20/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/20/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	88.9	40-125			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	55.2	50-110			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	55.2	20-110			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	67.8	40-110			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: PHENOL (S)	34.4	10-115			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	89.0	50-135			%	5/18/2015	5/20/2015

Quant Method: Y0511TT.M
Run #: 0511Y129
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 10:21:06 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y129.D Vial: 29
Acq On : 20 May 15 1:27 Operator: csc
Sample : AZ16341W10 1/900 Inst : Yoda
Misc : water Multiplr: 1.11

Quant Time: Jun 3 9:59 2015 Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 09:56:52 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.17	152	875517	40.00 ppb	0.00
7) Napthalene-D8(IS)	6.63	136	3962454	40.00 ppb	-0.02
13) Acenaphthene-D10(IS)	8.61	164	2273400	40.00 ppb	-0.02
23) Phenanthrene-D10(IS)	10.35	188	4061842	40.00 ppb	-0.02
27) Chrysene-D12(IS)	13.42	240	3499405	40.00 ppb	-0.02
32) Perylene-D12(IS)	15.17	264	2301959	40.00 ppb	-0.02
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.42	112	3012271	110.23 ppb	-0.02
Spiked Amount 222.222			Recovery	= 49.605%	
3) Phenol-D6 (S)	5.54	99	2707291	76.34 ppb	-0.10
Spiked Amount 222.222			Recovery	= 34.353%	
8) Nitrobenzene-D5(S)	5.89	82	2551008	75.37 ppb	-0.02
Spiked Amount 111.111			Recovery	= 67.835%	
16) 2-Fluorobiphenyl(S)	7.83	172	4411450	61.34 ppb	0.00
Spiked Amount 111.111			Recovery	= 55.203%	
22) 2,4,6-Tribromophenol(S)	9.62	330	968472	197.49 ppb	-0.05
Spiked Amount 222.222			Recovery	= 88.871%	
28) Terphenyl-D14(S)	12.14	244	6880839	98.89 ppb	-0.02
Spiked Amount 111.111			Recovery	= 89.001%	

Target Compounds						Qvalue
17) Dimethyl phthalate	8.36	163	44638	0.64 ppb		89
26) Di-n-butylphthalate	10.91	149	10260	0.09 ppb		97
30) Bis (2-ethylhexyl) phthala	13.18	149	71430	1.02 ppb	#	92

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

Quantitation Report

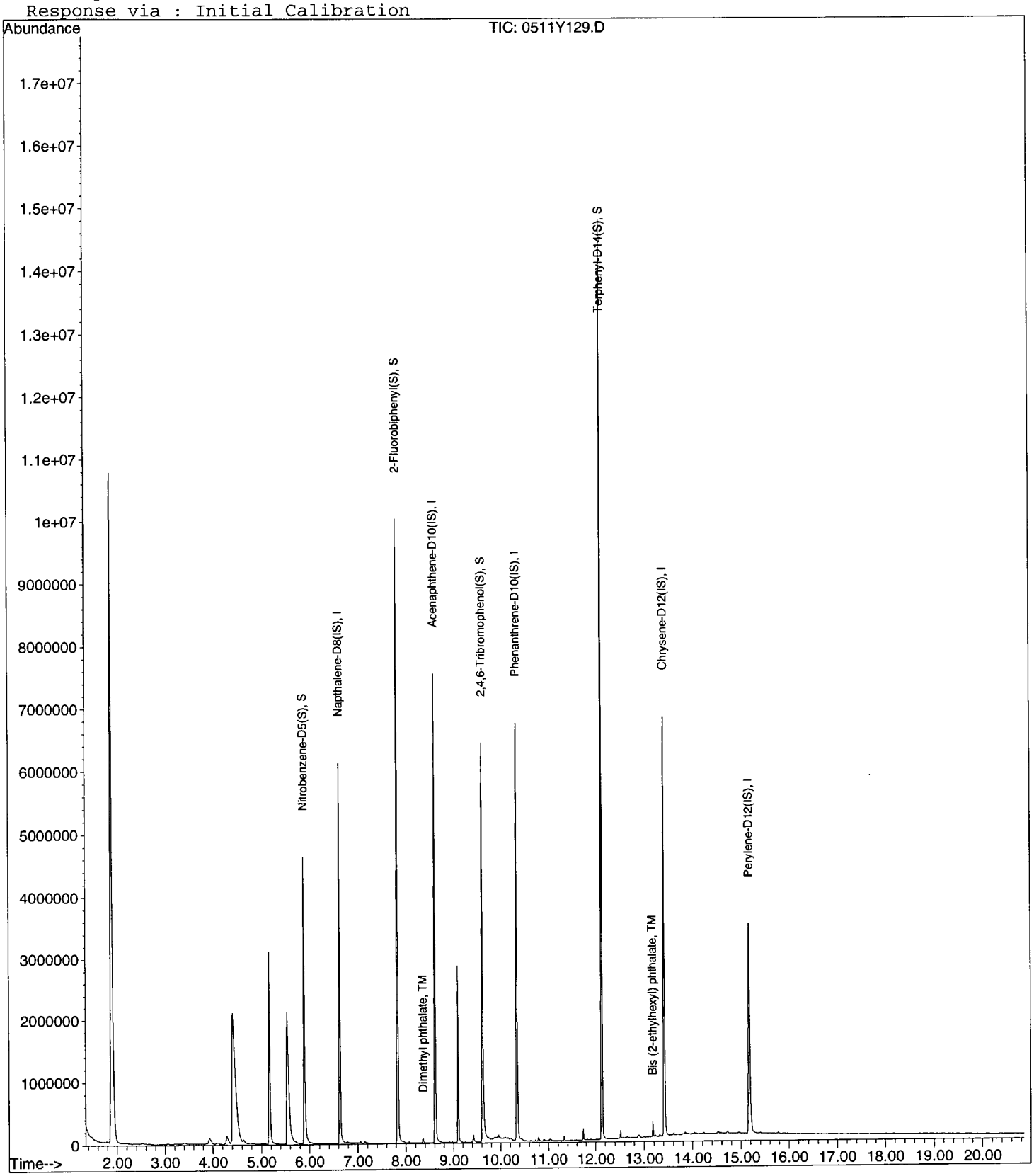
Data File : M:\YODA\DATA\Y150511\0511Y129.D
Acq On : 20 May 15 1:27
Sample : AZ16341W10 1/900
Misc : water

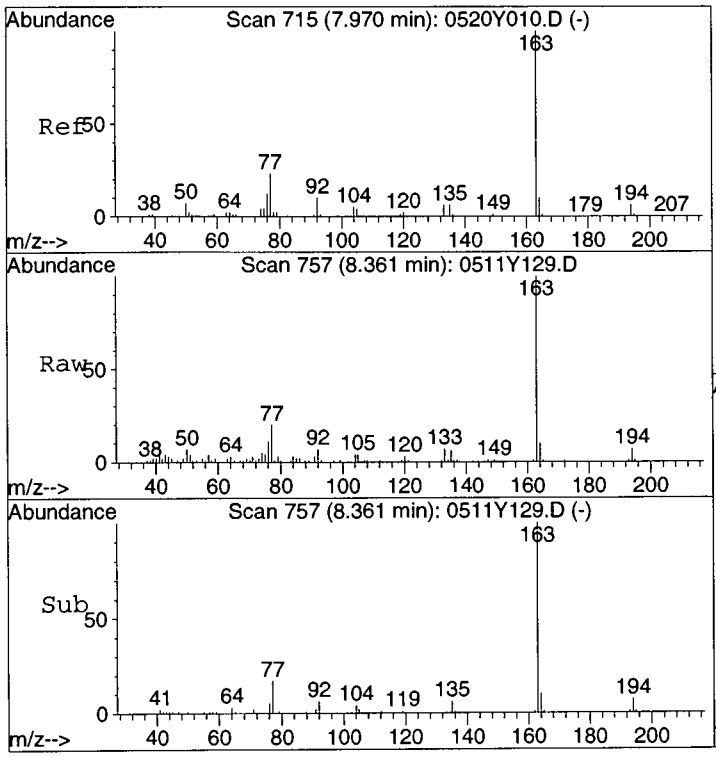
Vial: 29
Operator: csc
Inst : Yoda
Multiplr: 1.11

Quant Time: Jun 3 9:09 2015

Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration

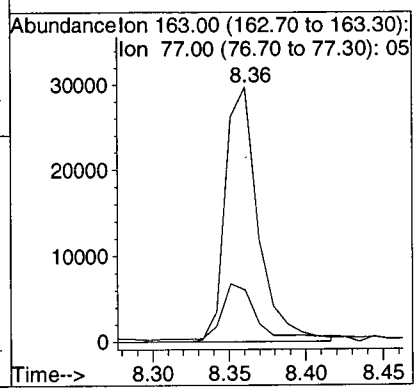


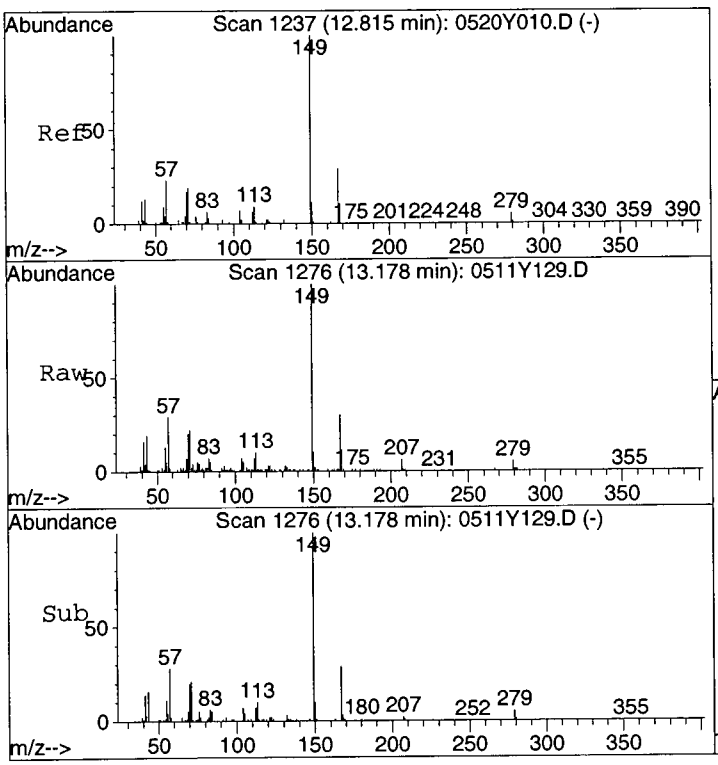


#17
Dimethyl phthalate
Concen: 0.64 ppb
RT: 8.36 min Scan# 757
Delta R.T. -0.01 min
Lab File: 0511Y129.D
Acq: 20 May 15 1:27

Tgt Ion:163 Resp: 44638

Ion	Ratio	Lower	Upper
163	100		
77	19.2	17.3	32.1

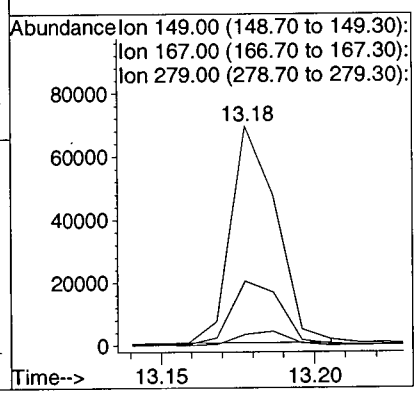




#30
Bis (2-ethylhexyl) phthalate
Concen: 1.02 ppb
RT: 13.18 min Scan# 1276
Delta R.T. -0.03 min
Lab File: 0511Y129.D
Acq: 20 May 15 1:27

Tgt Ion:149 Resp: 71430

Ion	Ratio	Lower	Upper
149	100		
167	29.4	23.1	42.9
279	5.3	7.1	13.3#



EPA 8270D WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004P-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16342
QCG: #87DJU-150518A-197636

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/20/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/20/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/20/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/20/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/20/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	80.7	40-125			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	59.5	50-110			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	41.3	20-110			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	60.6	40-110			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: PHENOL (S)	27.5	10-115			%	5/18/2015	5/20/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	83.5	50-135			%	5/18/2015	5/20/2015

Quant Method: Y0511TT.M
Run #: 0511Y130
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 10:21:06 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y130.D Vial: 30
Acq On : 20 May 15 1:56 Operator: csc
Sample : AZ16342W10 1/950 Inst : Yoda
Misc : water Multiplr: 1.05

Quant Time: Jun 3 9:09 2015 Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.17	152	863316	40.00 ppb	-0.02
7) Napthalene-D8(IS)	6.62	136	4014709	40.00 ppb	-0.02
13) Acenaphthene-D10(IS)	8.61	164	2285681	40.00 ppb	-0.02
23) Phenanthrene-D10(IS)	10.35	188	4109789	40.00 ppb	-0.02
27) Chrysene-D12(IS)	13.42	240	3570183	40.00 ppb	-0.02
32) Perylene-D12(IS)	15.17	264	2328543	40.00 ppb	-0.02
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.43	112	2477362	86.87 ppb	0.00
Spiked Amount 210.526			Recovery	= 41.264%	
3) Phenol-D6 (S)	5.55	99	2156678	58.00 ppb	-0.09
Spiked Amount 210.526			Recovery	= 27.549%	
8) Nitrobenzene-D5(S)	5.89	82	2310245	63.82 ppb	-0.02
Spiked Amount 105.263			Recovery	= 60.634%	
16) 2-Fluorobiphenyl(S)	7.83	172	4782740	62.66 ppb	0.00
Spiked Amount 105.263			Recovery	= 59.528%	
22) 2,4,6-Tribromophenol(S)	9.62	330	883707	169.84 ppb	-0.05
Spiked Amount 210.526			Recovery	= 80.672%	
28) Terphenyl-D14(S)	12.14	244	6588101	87.92 ppb	-0.02
Spiked Amount 105.263			Recovery	= 83.525%	
Target Compounds					Qvalue
17) Dimethyl phthalate	8.36	163	30088	0.41 ppb	88
21) Diethyl phthalate	9.10	149	1226575	-0.75 ppb	97
30) Bis (2-ethylhexyl) phthala	13.18	149	16344	0.22 ppb #	96

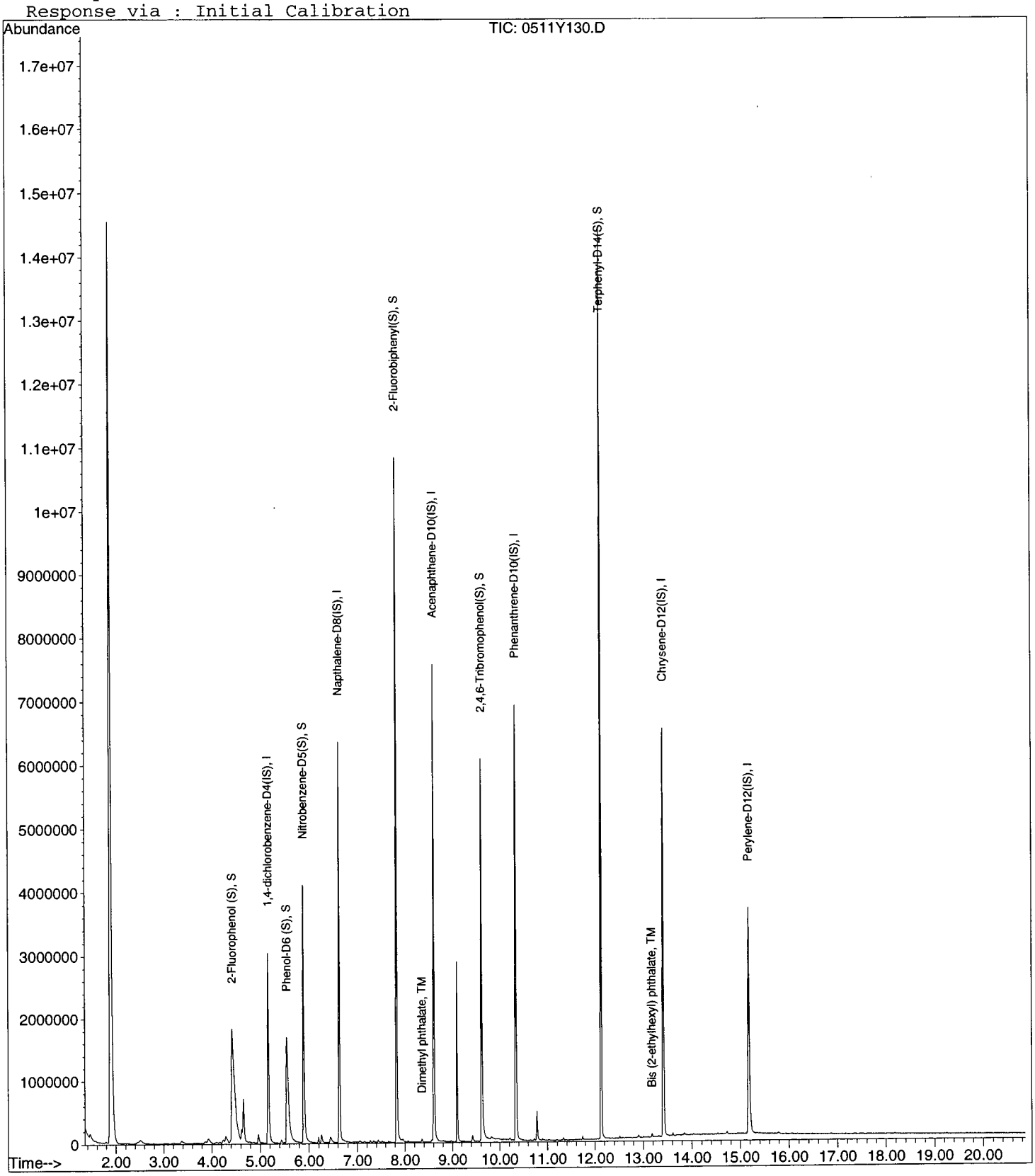
(#) = qualifier out of range (m) = manual integration

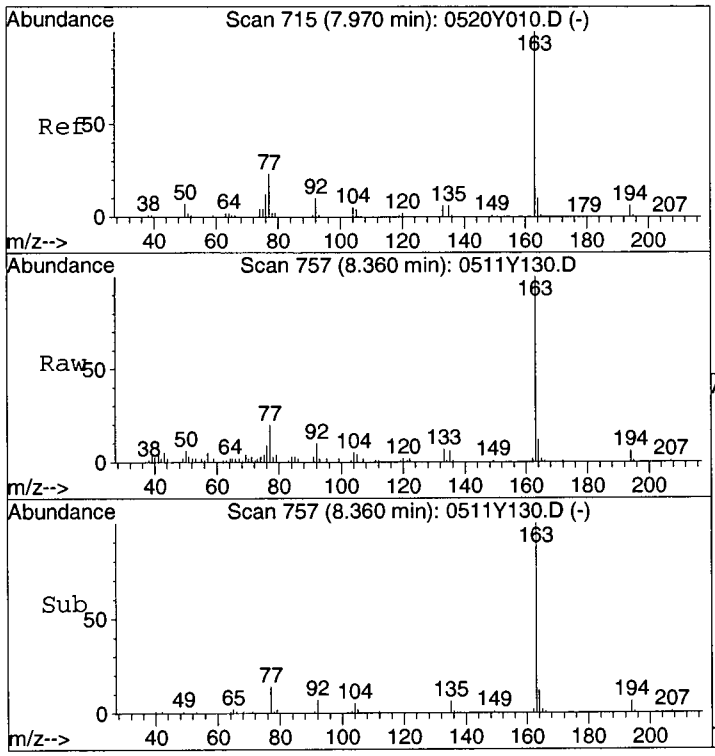
Quantitation Report

Data File : M:\YODA\DATA\Y150511\0511Y130.D Vial: 30
Acq On : 20 May 15 1:56 Operator: csc
Sample : AZ16342W10 1/950 Inst : Yoda
Misc : water Multiplr: 1.05

Quant Time: Jun 3 9:09 2015 Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration

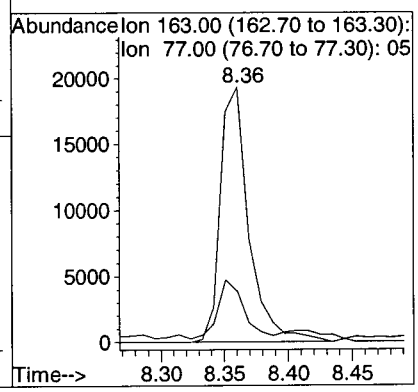


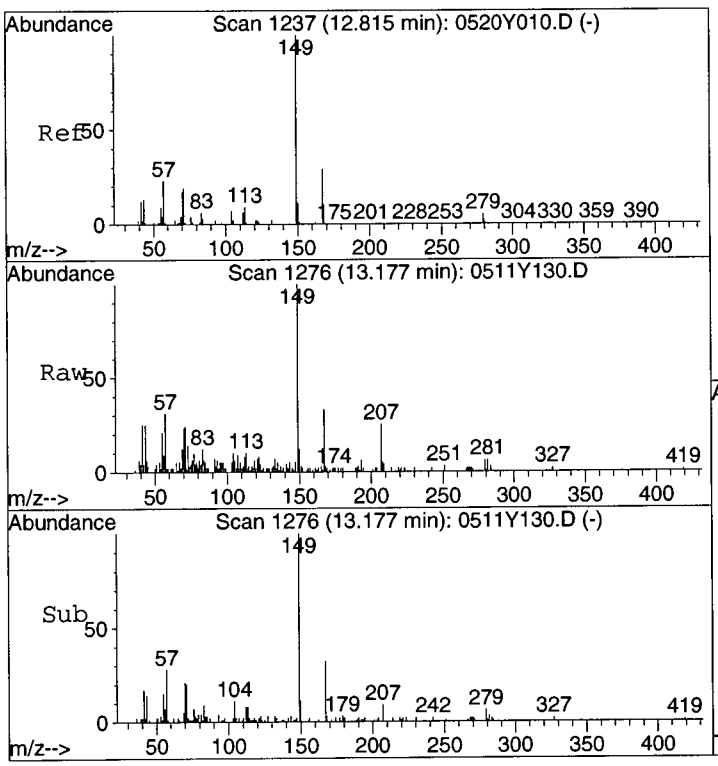


#17
Dimethyl phthalate
Concen: 0.41 ppb
RT: 8.36 min Scan# 757
Delta R.T. -0.01 min
Lab File: 0511Y130.D
Acq: 20 May 15 1:56

Tgt Ion:163 Resp: 30088

Ion	Ratio	Lower	Upper
163	100		
77	18.6	17.3	32.1

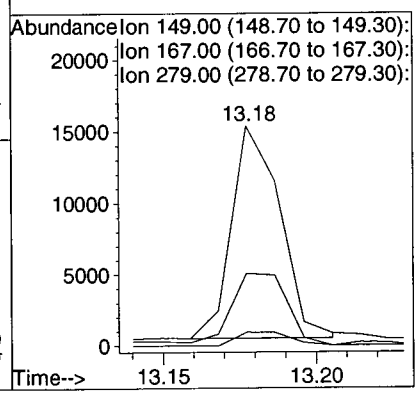




#30
Bis (2-ethylhexyl) phthalate
Concen: 0.22 ppb
RT: 13.18 min Scan# 1276
Delta R.T. -0.03 min
Lab File: 0511Y130.D
Acq: 20 May 15 1:56

Tgt Ion:149 Resp: 16344

Ion	Ratio	Lower	Upper
149	100		
167	34.2	23.1	42.9
279	6.5	7.1	13.3#



EPA METHOD 8270D
Semivolatile Organic Compounds
Calibration Data

APPL, INC.

Form 6
Initial Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Initial Cal. Date: 5/11/2015
Instrument: Yoda

Initials:

		Compound	5	10	20	40	50	60	80	100			Avg	%RSD		
			0511Y002.D	0511Y003.D	0511Y004.D	0511Y005.D	0511Y006.D	0511Y007.D	0511Y008.D	0511Y009.D						
1	I	1,4-dichlorobenzene-D4(IS)														
2	SL	2-Fluorophenol (S)	1.373	1.358	1.352	1.416	1.497	1.389	1.334				1.4	4.0	SL	0.994
3	SL	Phenol-D6 (S)	3.483	1.736	1.721	1.781	1.900	1.760	1.706	1.790			2.0	31	SL	0.997
4	*TM	Phenol							1.907	2.026			2.0	4.3	*TM	
5	*TM	1,4-DCB	1.860	1.772	1.788	1.896	2.006	1.849	1.810	1.904			1.9	4.1	*TM	
6	**TM	n-Nitrosodi-n-propylamine	0.8465	0.8515	1.001	1.134	1.098	0.9101	1.115	1.142			1.0	13	**TM	
7	I	Napthalene-D8(IS)														
8	S	Nitrobenzene-D5(S)	0.3510	0.3735	0.3567	0.4048	0.4039	0.3834	0.3761	0.3877			0.38	5.2	S	
9	*TM	2-Nitrophenol	0.1729	0.1743	0.1730	0.2130	0.2134	0.2022	0.1984	0.2049			0.19	9.2	*TM	
10	*TM	2,4-Dichlorophenol	0.2566	0.2452	0.2461	0.2769	0.2791	0.2797	0.2897	0.2821			0.27	6.5	*TM	
11	*TM	Hexachlorobutadiene	0.1596	0.1504	0.1474	0.1695	0.1656	0.1570	0.1534	0.1596			0.16	4.7	*TM	
12	*TM	4-Chloro-3-methylphenol	0.0244	0.0219	0.0220	0.0238	0.0238	0.0221	0.0218	0.0223			0.02	4.6	*TM	
13	I	Acenaphthene-D10(IS)														
14	**TMQ	Hexachlorocyclopentadiene	0.0036	0.0155	0.0490	0.1088	0.1442	0.1504	0.1819	0.2019			0.11	71	**TMQ	0.998
15	*TM	2,4,6-Trichlorophenol	0.2879	0.2873	0.2958	0.3307	0.3389	0.3271	0.3276	0.3327			0.32	6.9	*TM	
16	S	2-Fluorobiphenyl(S)	1.377	1.415	1.346	1.446	1.447	1.382	1.411	1.426			1.4	2.5	S	
17	TM	Dimethyl phthalate	1.345	1.265	1.281	1.417	1.439	1.397	1.365	1.389			1.4	4.6	TM	
18	*TM	Acenaphthene	1.168	1.121	1.119	1.224	1.257	1.218	1.211	1.229			1.2	4.3	*TM	
19	**TMQ	2,4-Dinitrophenol				0.0932	0.1118	0.1079	0.1232	0.1326			0.11	13	**TMQ	0.997
20	**TM	4-Nitrophenol	0.3069	0.3054	0.3154	0.3505	0.3579	0.3661	0.3376	0.3373			0.33	7.0	**TM	
21	TML	Diethyl phthalate	5.762	3.407	2.384	1.966	1.856	1.730	1.588	1.557			2.5	57	TML	0.998
22	SL	2,4,6-Tribromophenol(S)	0.1652	0.0865	0.0856	0.0937	0.0975	0.0990	0.0938	0.0963			0.10	25	SL	0.998
23	I	Phenanthrene-D10(IS)														
24	*TM	n-Nitrosodiphenylamine	1.030	1.004	0.9537	1.162	1.214	1.171	1.138	1.080			1.1	8.4	*TM	
25	*TM	Pentachlorophenol				0.0284	0.0359	0.0340	0.0456	0.0446			0.04	19	*TM	
26	TM	Di-n-butylphthalate	1.164	1.150	1.121	1.359	1.387	1.355	1.186	1.028			1.2	11	TM	
27	I	Chrysene-D12(IS)														
28	S	Terphenyl-D14(S)	0.9047	0.8763	0.8336	0.8991	0.8949	0.8869	0.8794	0.8949			0.88	2.5	S	
29	TM	Butyl benzylphthalate	0.6353	0.5914	0.6032	0.6781	0.6853	0.6909	0.6773	0.6905			0.66	6.2	TM	
30	TM	Bis (2-ethylhexyl) phthalate	0.8594	0.8129	0.8142	0.9603	0.9746	0.9418	0.9057	0.8196			0.89	7.7	TM	
31	*TM	Di-n-octylphthalate	1.512	1.410	1.476	1.756	1.546	1.469	1.232	1.164			1.4	13	*TM	
32	I	Perylene-D12(IS)														
33																
34																
35																

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y002.D
Acq On : 11 May 15 15:02
Sample : 5ug/ml SVOC 05/11/15
Misc :

Vial: 2
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 8:09 2015 Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:09:49 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.18	152	1138706	40.00 ppb	0.00
7) Napthalene-D8(IS)	6.65	136	5373454	40.00 ppb	0.00
13) Acenaphthene-D10(IS)	8.63	164	3000493	40.00 ppb	0.00
23) Phenanthrene-D10(IS)	10.37	188	5249885	40.00 ppb	0.00
27) Chrysene-D12(IS)	13.43	240	4302960	40.00 ppb	0.00
32) Perylene-D12(IS)	15.19	264	2997621	40.00 ppb	0.00
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.68	112	390731	8.35 ppb	0.00
Spiked Amount 200.000			Recovery	= 4.177%	
3) Phenol-D6 (S)	5.71	99	495793	5.56 ppb	0.07
Spiked Amount 200.000			Recovery	= 2.780%	
8) Nitrobenzene-D5(S)	5.92	82	235741	4.62 ppb	0.01
Spiked Amount 100.000			Recovery	= 4.623%	
16) 2-Fluorobiphenyl(S)	7.85	172	516567	85308.30 ppb	0.00
Spiked Amount 100.000			Recovery	= 85308.305%	
22) 2,4,6-Tribromophenol(S)	9.68	330	61976	8.93 ppb	0.01
Spiked Amount 200.000			Recovery	= 4.464%	
28) Terphenyl-D14(S)	12.15	244	486594	5.12 ppb	0.00
Spiked Amount 100.000			Recovery	= 5.119%	

Target Compounds						Qvalue
5) 1,4-DCB	5.21	146	264725	5.00 ppb		97
6) n-Nitrosodi-n-propylamine	5.68	43	120493	4.18 ppb		96
9) 2-Nitrophenol	6.29	139	116111	4.42 ppb	#	91
10) 2,4-Dichlorophenol	6.96	162	172376	4.76 ppb		98
11) Hexachlorobutadiene	6.75	225	107207	5.06 ppb		99
12) 4-Chloro-3-methylphenol	7.61	107	16367	5.70 ppb	#	15
14) Hexachlorocyclopentadiene	7.57	237	1362	8.61 ppb	#	77
15) 2,4,6-Trichlorophenol	8.04	196	107979	4.56 ppb		99
17) Dimethyl phthalate	8.36	163	504309	4.93 ppb		98
18) Acenaphthene	8.67	154	438052	4.89 ppb		98
19) 2,4-Dinitrophenol	9.05	184	1269	8.90 ppb		100
20) 4-Nitrophenol	9.63	65	115107	4.58 ppb		99
21) Diethyl phthalate	9.12	149	2161055	4.77 ppb		98
24) n-Nitrosodiphenylamine	10.80	167	675664	4.71 ppb		100
25) Pentachlorophenol	10.44	266	10337	2.09 ppb		91
26) Di-n-butylphthalate	10.93	149	764059	4.78 ppb		98
29) Butyl benzylphthalate	12.67	149	341723	4.84 ppb		97
30) Bis (2-ethylhexyl) phthala	13.20	149	462244	4.85 ppb	#	95
31) Di-n-octylphthalate	13.89	149	813257	5.23 ppb		97

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

Quantitation Report

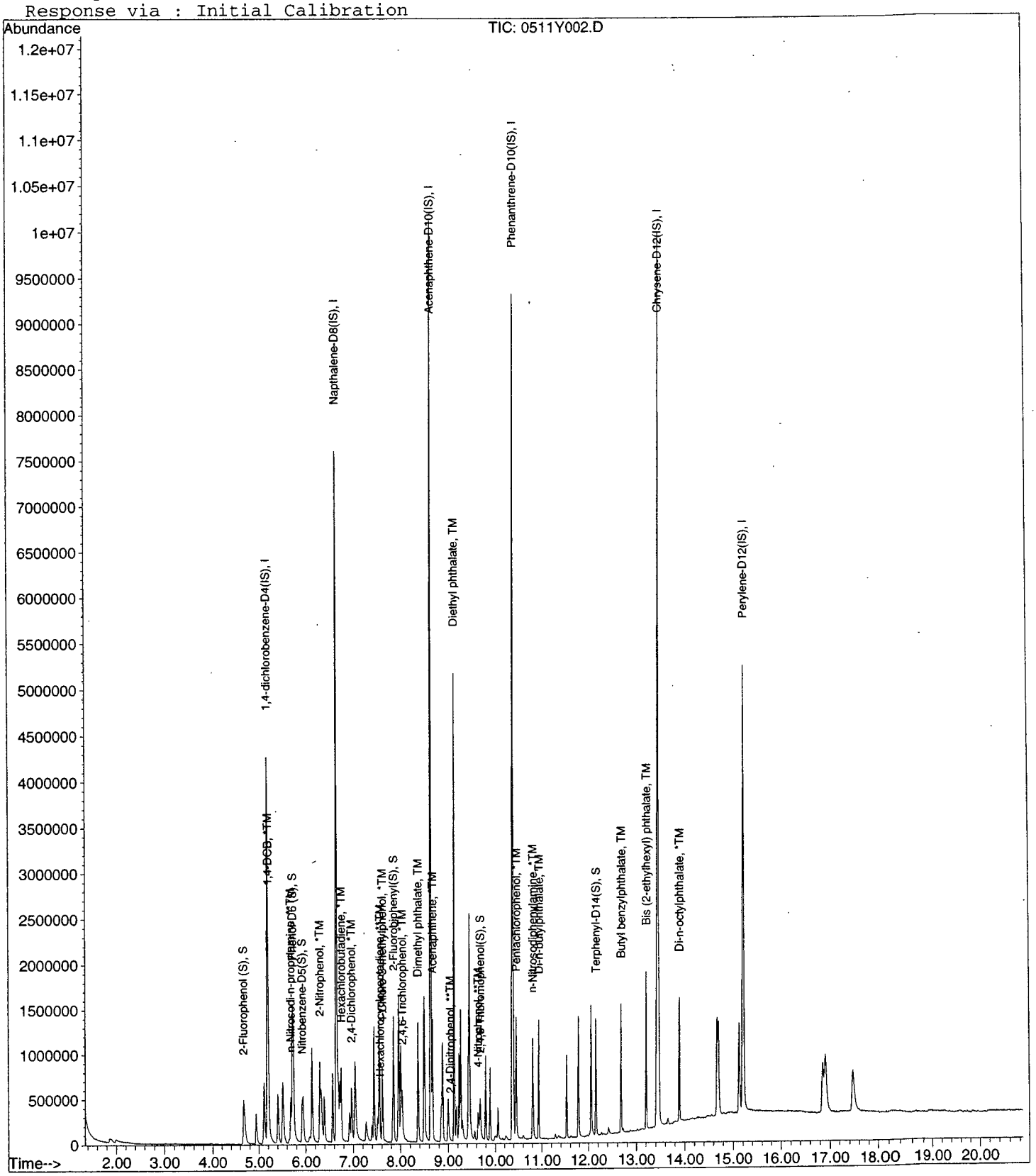
Data File : M:\YODA\DATA\Y150511\0511Y002.D
Acq On : 11 May 15 15:02
Sample : 5ug/ml SVOC 05/11/15
Misc :

Vial: 2
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 8:09 2015

Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y003.D
Acq On : 11 May 15 15:31
Sample : 10ug/ml SVOC
Misc :

Vial: 3
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 8:10 2015

Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:09:49 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.19	152	1178502	40.00 ppb	0.00
7) Napthalene-D8(IS)	6.64	136	5210699	40.00 ppb	0.00
13) Acenaphthene-D10(IS)	8.63	164	2755221	40.00 ppb	0.00
23) Phenanthrene-D10(IS)	10.37	188	4621109	40.00 ppb	0.00
27) Chrysene-D12(IS)	13.43	240	4092258	40.00 ppb	0.00
32) Perylene-D12(IS)	15.19	264	2713698	40.00 ppb	0.00
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.66	112	800082	18.16 ppb	-0.02
Spiked Amount 200.000			Recovery	= 9.082%	
3) Phenol-D6 (S)	5.70	99	1023183	15.62 ppb	0.06
Spiked Amount 200.000			Recovery	= 7.811%	
8) Nitrobenzene-D5(S)	5.92	82	486515	9.84 ppb	0.01
Spiked Amount 100.000			Recovery	= 9.838%	
16) 2-Fluorobiphenyl(S)	7.85	172	974495	175259.05 ppb	0.00
Spiked Amount 100.000			Recovery	= 175259.047%	
22) 2,4,6-Tribromophenol(S)	9.68	330	119229	18.35 ppb	0.01
Spiked Amount 200.000			Recovery	= 9.174%	
28) Terphenyl-D14(S)	12.15	244	896504	9.92 ppb	0.00
Spiked Amount 100.000			Recovery	= 9.916%	

Target Compounds						Qvalue
5) 1,4-DCB	5.21	146	522173	9.53 ppb		99
6) n-Nitrosodi-n-propylamine	5.68	43	250875	8.41 ppb		92
9) 2-Nitrophenol	6.29	139	227009	8.91 ppb	#	91
10) 2,4-Dichlorophenol	6.96	162	319475	9.10 ppb		98
11) Hexachlorobutadiene	6.75	225	195982	9.53 ppb		99
12) 4-Chloro-3-methylphenol	7.61	107	28525	10.24 ppb	#	17
14) Hexachlorocyclopentadiene	7.57	237	10680	9.80 ppb		92
15) 2,4,6-Trichlorophenol	8.04	196	197909	9.09 ppb		96
17) Dimethyl phthalate	8.36	163	871619	9.29 ppb		98
18) Acenaphthene	8.67	154	772479	9.40 ppb		98
19) 2,4-Dinitrophenol	9.08	184	826	8.85 ppb		100
20) 4-Nitrophenol	9.63	65	210394	9.12 ppb		98
21) Diethyl phthalate	9.12	149	2346472	8.69 ppb		98
24) n-Nitrosodiphenylamine	10.80	167	1160295	9.18 ppb		100
25) Pentachlorophenol	10.44	266	6435	1.48 ppb		88
26) Di-n-butylphthalate	10.93	149	1329024	9.44 ppb		98
29) Butyl benzylphthalate	12.67	149	605002	9.01 ppb		92
30) Bis (2-ethylhexyl) phthala	13.20	149	831683	9.17 ppb	#	93
31) Di-n-octylphthalate	13.88	149	1442686	9.76 ppb		100

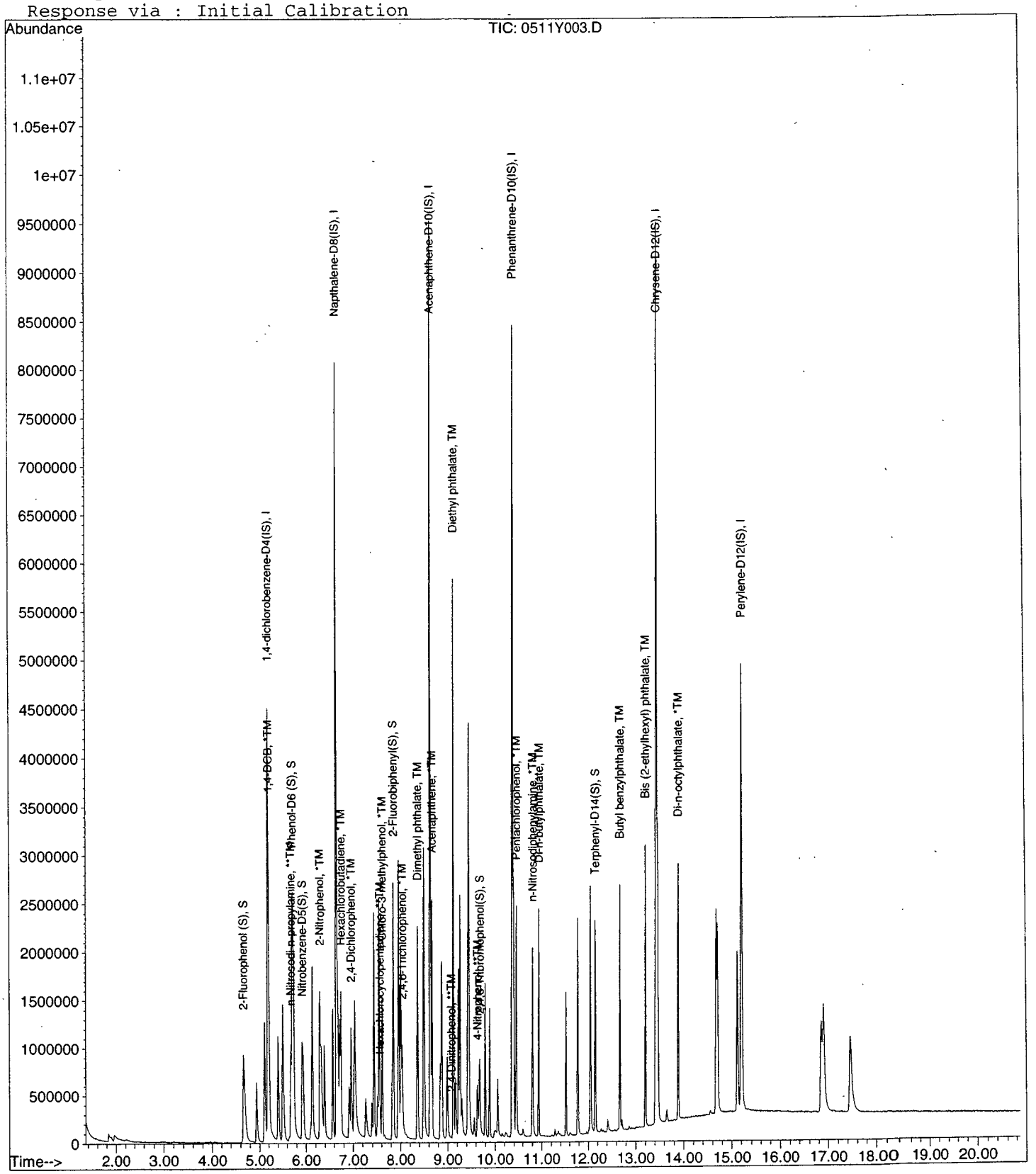
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150511\0511Y003.D Vial: 3
Acq On : 11 May 15 15:31 Operator: csc
Sample : 10ug/ml SVOC Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 3 8:10 2015 Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y004.D Vial: 4
Acq On : 11 May 15 16:01 Operator: csc
Sample : 20ug/ml SVOC Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 3 8:10 2015 Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:09:49 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.19	152	1020025	40.00 ppb	0.00
7) Napthalene-D8(IS)	6.64	136	4933793	40.00 ppb	0.00
13) Acenaphthene-D10(IS)	8.63	164	2659042	40.00 ppb	0.00
23) Phenanthrene-D10(IS)	10.36	188	4601746	40.00 ppb	0.00
27) Chrysene-D12(IS)	13.44	240	3940933	40.00 ppb	0.00
32) Perylene-D12(IS)	15.19	264	2533558	40.00 ppb	0.00
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.65	112	1378810	37.82 ppb	-0.03
Spiked Amount 200.000			Recovery	= 18.911%	
3) Phenol-D6 (S)	5.69	99	1755591	35.45 ppb	0.05
Spiked Amount 200.000			Recovery	= 17.727%	
8) Nitrobenzene-D5(S)	5.92	82	880019	18.79 ppb	0.00
Spiked Amount 100.000			Recovery	= 18.794%	
16) 2-Fluorobiphenyl(S)	7.85	172	1788984	333379.22 ppb	0.00
Spiked Amount 100.000			Recovery	= 333379.224%	
22) 2,4,6-Tribromophenol(S)	9.68	330	227716	35.99 ppb	0.00
Spiked Amount 200.000			Recovery	= 17.996%	
28) Terphenyl-D14(S)	12.15	244	1642527	18.87 ppb	0.00
Spiked Amount 100.000			Recovery	= 18.865%	

Target Compounds						Qvalue
5) 1,4-DCB	5.20	146	912065	19.22 ppb		98
6) n-Nitrosodi-n-propylamine	5.68	43	510344	19.77 ppb		88
9) 2-Nitrophenol	6.28	139	426892	17.70 ppb	#	92
10) 2,4-Dichlorophenol	6.96	162	606995	18.27 ppb		99
11) Hexachlorobutadiene	6.74	225	363580	18.68 ppb		99
12) 4-Chloro-3-methylphenol	7.61	107	54228	20.56 ppb	#	15
14) Hexachlorocyclopentadiene	7.57	237	65085	16.43 ppb		96
15) 2,4,6-Trichlorophenol	8.03	196	393270	18.72 ppb		99
17) Dimethyl phthalate	8.36	163	1702989	18.80 ppb		98
18) Acenaphthene	8.67	154	1487740	18.75 ppb		97
19) 2,4-Dinitrophenol	9.07	184	2872	9.16 ppb		100
20) 4-Nitrophenol	9.62	65	419319	18.84 ppb		98
21) Diethyl phthalate	9.12	149	3169371	18.85 ppb		100
24) n-Nitrosodiphenylamine	10.80	167	2194315	17.43 ppb		98
25) Pentachlorophenol	10.43	266	17617	4.06 ppb		94
26) Di-n-butylphthalate	10.93	149	2578197	18.39 ppb		98
29) Butyl benzylphthalate	12.67	149	1188545	18.38 ppb		89
30) Bis (2-ethylhexyl) phthala	13.20	149	1604266	18.38 ppb		99
31) Di-n-octylphthalate	13.88	149	2907969	20.42 ppb		100

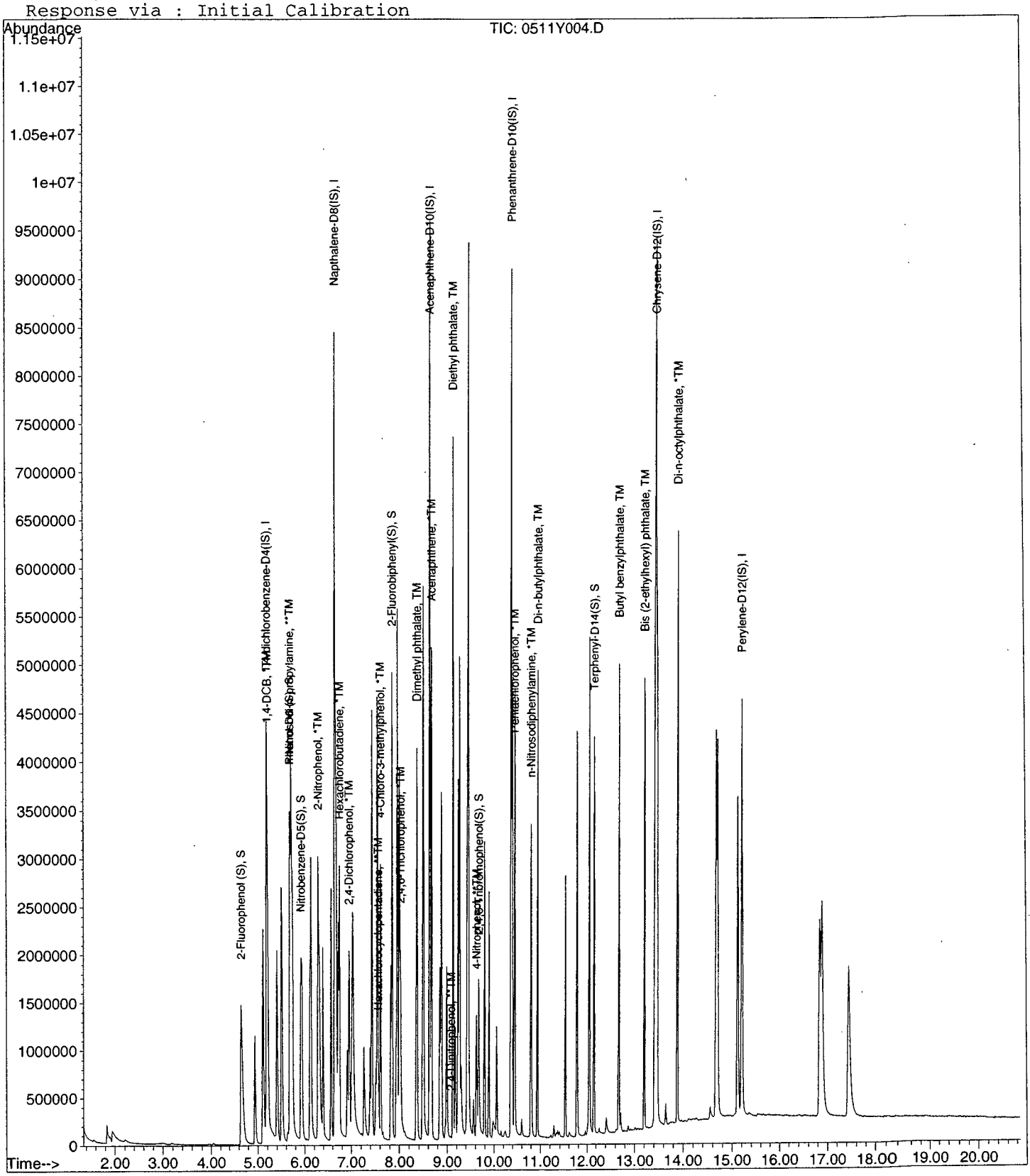
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150511\0511Y004.D Vial: 4
Acq On : 11 May 15 16:01 Operator: csc
Sample : 20ug/ml SVOC Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 3 8:10 2015 Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y005.D Vial: 5
Acq On : 11 May 15 16:31 Operator: csc
Sample : 40ug/ml SVOC Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 3 8:10 2015 Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:09:49 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.19	152	1013635	40.00 ppb	0.00
7) Napthalene-D8(IS)	6.64	136	4423901	40.00 ppb	0.00
13) Acenaphthene-D10(IS)	8.63	164	2574343	40.00 ppb	0.00
23) Phenanthrene-D10(IS)	10.36	188	4201904	40.00 ppb	0.00
27) Chrysene-D12(IS)	13.44	240	3846909	40.00 ppb	0.00
32) Perylene-D12(IS)	15.19	264	2512246	40.00 ppb	0.00
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.62	112	2871462	81.10 ppb	-0.06
Spiked Amount 200.000			Recovery	= 40.548%	
3) Phenol-D6 (S)	5.65	99	3610936	78.26 ppb	0.00
Spiked Amount 200.000			Recovery	= 39.131%	
8) Nitrobenzene-D5(S)	5.91	82	1790926	42.66 ppb	0.00
Spiked Amount 100.000			Recovery	= 42.656%	
16) 2-Fluorobiphenyl(S)	7.85	172	3722478	716511.23 ppb	0.00
Spiked Amount 100.000			Recovery	= 716511.228%	
22) 2,4,6-Tribromophenol(S)	9.67	330	482209	78.34 ppb	0.00
Spiked Amount 200.000			Recovery	= 39.168%	
28) Terphenyl-D14(S)	12.15	244	3458764	40.70 ppb	0.00
Spiked Amount 100.000			Recovery	= 40.697%	

Target Compounds						Qvalue
5) 1,4-DCB	5.20	146	1922032	40.76 ppb		99
6) n-Nitrosodi-n-propylamine	5.68	43	1149274	44.81 ppb		91
9) 2-Nitrophenol	6.28	139	942187	43.57 ppb		95
10) 2,4-Dichlorophenol	6.95	162	1224996	41.11 ppb		99
11) Hexachlorobutadiene	6.75	225	749835	42.96 ppb		100
12) 4-Chloro-3-methylphenol	7.61	107	105205	44.48 ppb	#	16
14) Hexachlorocyclopentadiene	7.57	237	280080	37.79 ppb		99
15) 2,4,6-Trichlorophenol	8.03	196	851342	41.87 ppb		95
17) Dimethyl phthalate	8.37	163	3648924	41.62 ppb	#	84
18) Acenaphthene	8.67	154	3150125	41.02 ppb		97
19) 2,4-Dinitrophenol	8.94	184	240044	40.61 ppb	#	100
20) 4-Nitrophenol	9.61	65	902268	41.88 ppb		97
21) Diethyl phthalate	9.13	149	5060608	41.95 ppb		98
24) n-Nitrosodiphenylamine	10.79	167	4881037	42.47 ppb		98
25) Pentachlorophenol	10.42	266	119279	30.12 ppb		93
26) Di-n-butylphthalate	10.93	149	5711781	44.61 ppb		97
29) Butyl benzylphthalate	12.67	149	2608403	41.31 ppb		87
30) Bis (2-ethylhexyl) phthala	13.21	149	3694082	43.35 ppb		97
31) Di-n-octylphthalate	13.88	149	6753599	48.58 ppb		100

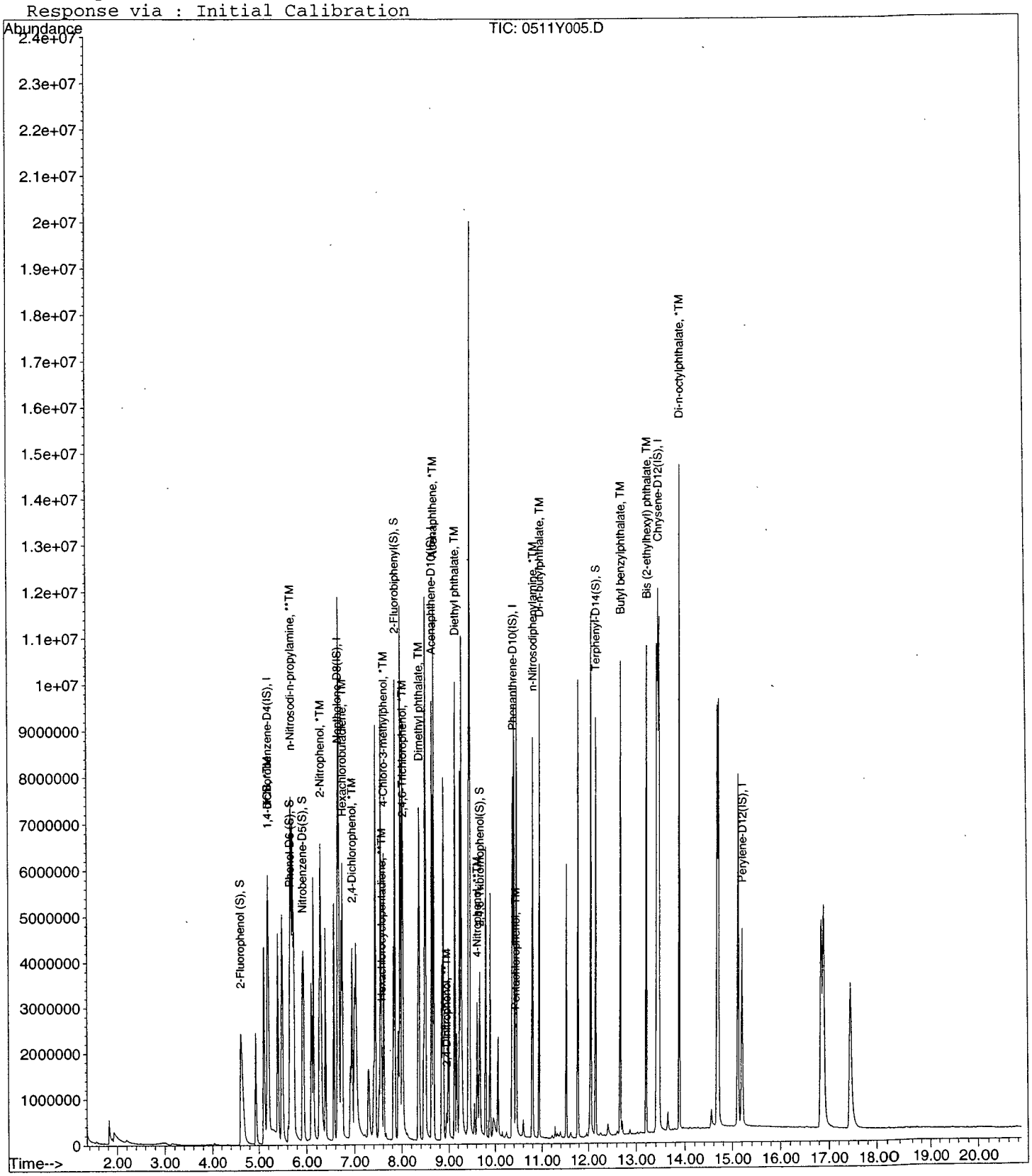
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150511\0511Y005.D Vial: 5
Acq On : 11 May 15 16:31 Operator: csc
Sample : 40ug/ml SVOC Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 3 8:10 2015 Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y006.D
Acq On : 11 May 15 17:00
Sample : 50ug/ml SVOC
Misc :

Vial: 6
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 8:10 2015

Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:09:49 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.19	152	1047137	40.00 ppb	0.00
7) Napthalene-D8(IS)	6.64	136	4821015	40.00 ppb	0.00
13) Acenaphthene-D10(IS)	8.63	164	2679462	40.00 ppb	0.00
23) Phenanthrene-D10(IS)	10.36	188	4287254	40.00 ppb	0.00
27) Chrysene-D12(IS)	13.44	240	4052606	40.00 ppb	0.00
32) Perylene-D12(IS)	15.19	264	2666723	40.00 ppb	0.00
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.60	112	3919715	107.70 ppb	-0.08
Spiked Amount 200.000			Recovery	= 53.849%	
3) Phenol-D6 (S)	5.64	99	4973035	105.86 ppb	0.00
Spiked Amount 200.000			Recovery	= 52.928%	
8) Nitrobenzene-D5(S)	5.91	82	2433777	53.19 ppb	0.00
Spiked Amount 100.000			Recovery	= 53.192%	
16) 2-Fluorobiphenyl(S)	7.85	172	4845940	896164.43 ppb	0.00
Spiked Amount 100.000			Recovery	= 896164.430%	
22) 2,4,6-Tribromophenol(S)	9.67	330	653172	101.85 ppb	0.00
Spiked Amount 200.000			Recovery	= 50.925%	
28) Terphenyl-D14(S)	12.16	244	4533282	50.63 ppb	0.00
Spiked Amount 100.000			Recovery	= 50.632%	

Target Compounds						Qvalue
5) 1,4-DCB	5.20	146	2625217	53.90 ppb		98
6) n-Nitrosodi-n-propylamine	5.68	43	1437152	54.24 ppb		97
9) 2-Nitrophenol	6.28	139	1286210	54.58 ppb		96
10) 2,4-Dichlorophenol	6.95	162	1682029	51.80 ppb		99
11) Hexachlorobutadiene	6.74	225	997720	52.46 ppb		99
12) 4-Chloro-3-methylphenol	7.61	107	143252	55.57 ppb	#	14
14) Hexachlorocyclopentadiene	7.57	237	483055	52.04 ppb		99
15) 2,4,6-Trichlorophenol	8.02	196	1134976	53.63 ppb		99
17) Dimethyl phthalate	8.37	163	4818491	52.80 ppb		88
18) Acenaphthene	8.67	154	4211055	52.68 ppb		96
19) 2,4-Dinitrophenol	8.94	184	374484	53.59 ppb	#	100
20) 4-Nitrophenol	9.61	65	1198596	53.45 ppb		97
21) Diethyl phthalate	9.13	149	6214695	52.50 ppb		99
24) n-Nitrosodiphenylamine	10.79	167	6507355	55.50 ppb		98
25) Pentachlorophenol	10.42	266	192231	47.58 ppb		99
26) Di-n-butylphthalate	10.93	149	7431108	56.88 ppb		98
29) Butyl benzylphthalate	12.68	149	3471406	52.19 ppb		91
30) Bis (2-ethylhexyl) phthala	13.20	149	4937048	55.00 ppb		96
31) Di-n-octylphthalate	13.88	149	7830724	53.47 ppb		95

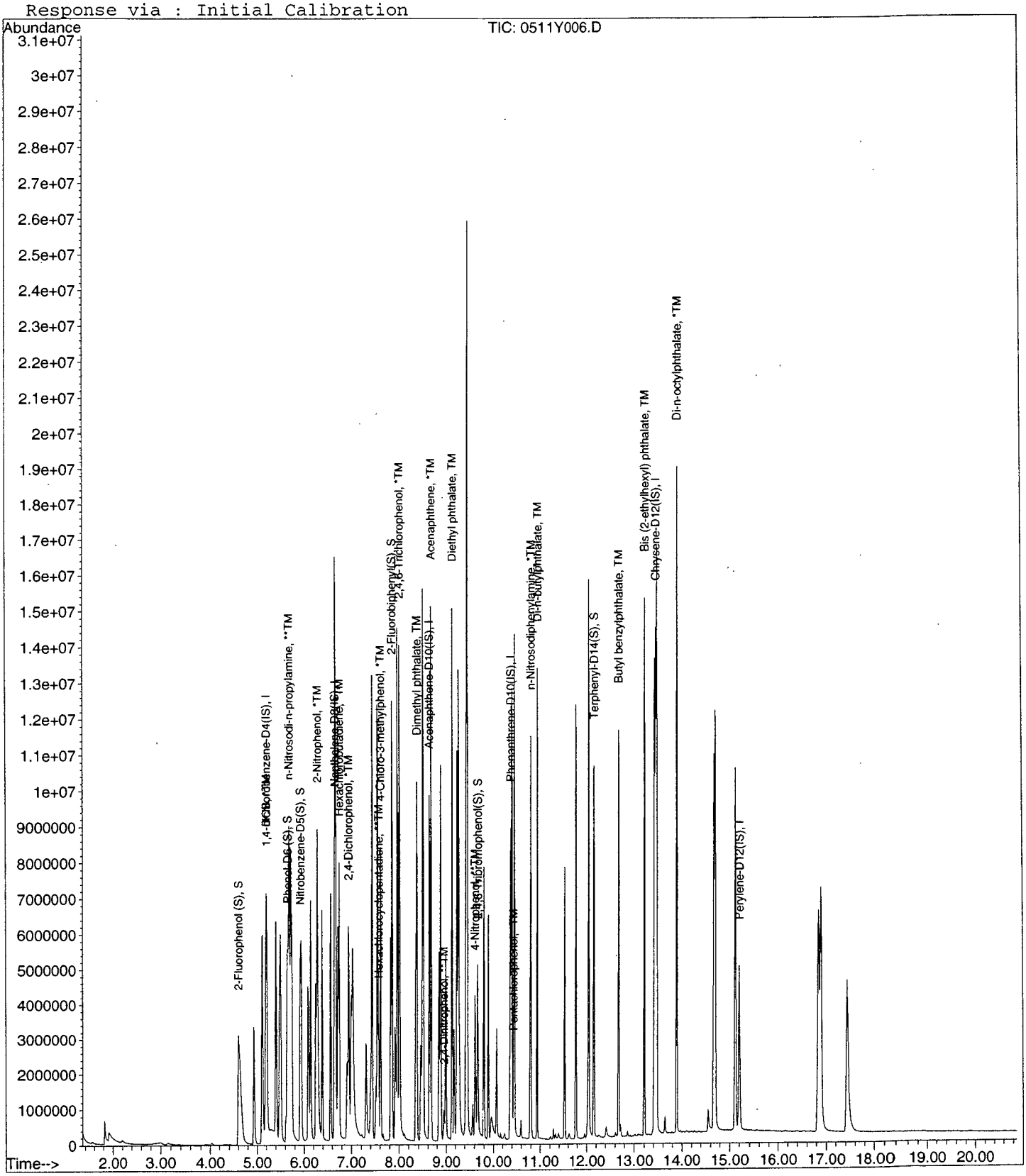
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150511\0511Y006.D Vial: 6
Acq On : 11 May 15 17:00 Operator: csc
Sample : 50ug/ml SVOC Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 3 8:10 2015 Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y007.D
Acq On : 11 May 15 17:31
Sample : 60ug/ml SVOC
Misc :

Vial: 7
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 8:10 2015

Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:09:49 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.19	152	1006009	40.00 ppb	0.00
7) Napthalene-D8(IS)	6.64	136	4566836	40.00 ppb	0.00
13) Acenaphthene-D10(IS)	8.63	164	2449387	40.00 ppb	0.00
23) Phenanthrene-D10(IS)	10.37	188	3972629	40.00 ppb	0.00
27) Chrysene-D12(IS)	13.44	240	3769898	40.00 ppb	0.00
32) Perylene-D12(IS)	15.19	264	2455423	40.00 ppb	0.00
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.59	112	4192295	120.09 ppb	-0.09
Spiked Amount 200.000			Recovery	= 60.043%	
3) Phenol-D6 (S)	5.63	99	5313218	118.23 ppb	0.00
Spiked Amount 200.000			Recovery	= 59.116%	
8) Nitrobenzene-D5(S)	5.91	82	2626334	60.60 ppb	0.00
Spiked Amount 100.000			Recovery	= 60.596%	
16) 2-Fluorobiphenyl(S)	7.85	172	5076766	1027039.18 ppb	0.00
Spiked Amount 100.000			Recovery	= 1027039.175%	
22) 2,4,6-Tribromophenol(S)	9.67	330	727637	124.05 ppb	0.00
Spiked Amount 200.000			Recovery	= 62.023%	
28) Terphenyl-D14(S)	12.16	244	5015140	60.21 ppb	0.00
Spiked Amount 100.000			Recovery	= 60.215%	

Target Compounds						Qvalue
5) 1,4-DCB	5.20	146	2790147	59.62 ppb		99
6) n-Nitrosodi-n-propylamine	5.68	43	1373409	53.95 ppb		90
9) 2-Nitrophenol	6.28	139	1385334	62.06 ppb		95
10) 2,4-Dichlorophenol	6.94	162	1916108	62.29 ppb		98
11) Hexachlorobutadiene	6.75	225	1075620	59.70 ppb		99
12) 4-Chloro-3-methylphenol	7.61	107	151687	62.12 ppb	#	14
14) Hexachlorocyclopentadiene	7.57	237	552625	60.01 ppb		98
15) 2,4,6-Trichlorophenol	8.02	196	1201659	62.11 ppb		99
17) Dimethyl phthalate	8.37	163	5133318	61.53 ppb		88
18) Acenaphthene	8.67	154	4473980	61.23 ppb		97
19) 2,4-Dinitrophenol	8.94	184	396460	59.31 ppb	#	100
20) 4-Nitrophenol	9.61	65	1345173	65.62 ppb		98
21) Diethyl phthalate	9.13	149	6355625	60.72 ppb		99
24) n-Nitrosodiphenylamine	10.79	167	6978672	64.23 ppb		98
25) Pentachlorophenol	10.41	266	202664	54.13 ppb		97
26) Di-n-butylphthalate	10.93	149	8073558	66.70 ppb		97
29) Butyl benzylphthalate	12.67	149	3906726	63.14 ppb		85
30) Bis (2-ethylhexyl) phthala	13.21	149	5325476	63.77 ppb		96
31) Di-n-octylphthalate	13.88	149	8304646	60.96 ppb	#	92

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

0511Y007.D Y0511TT.M Wed Jun 03 09:12:55 2015

Quantitation Report

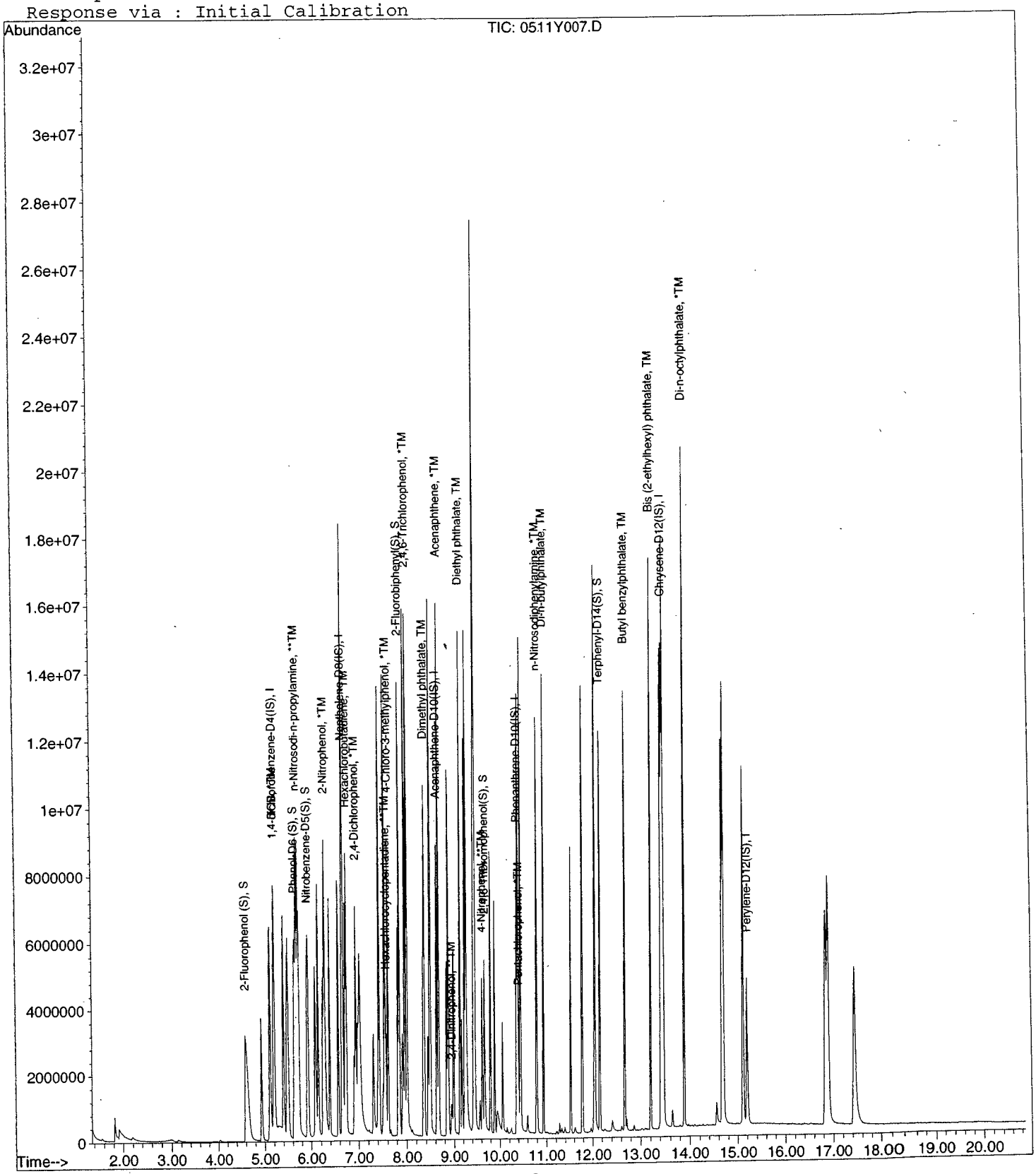
Data File : M:\YODA\DATA\Y150511\0511Y007.D
Acq On : 11 May 15 17:31
Sample : 60ug/ml SVOC
Misc :

Vial: 7
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 8:10 2015

Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration



0511Y007.D Y0511TT.M Wed Jun 03 09:12:56 2015

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y008.D
Acq On : 11 May 15 18:00
Sample : 80ug/ml SVOC
Misc :

Vial: 8
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 8:10 2015

Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:09:49 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.19	152	1159400	40.00 ppb	0.00
7) Napthalene-D8(IS)	6.64	136	5180087	40.00 ppb	0.00
13) Acenaphthene-D10(IS)	8.63	164	2776886	40.00 ppb	0.00
23) Phenanthrene-D10(IS)	10.36	188	4498323	40.00 ppb	0.00
27) Chrysene-D12(IS)	13.44	240	4195318	40.00 ppb	0.00
32) Perylene-D12(IS)	15.19	264	2752772	40.00 ppb	0.00
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.56	112	6188226	154.28 ppb	-0.11
Spiked Amount 200.000			Recovery	= 77.138%	
3) Phenol-D6 (S)	5.61	99	7912340	154.11 ppb	-0.03
Spiked Amount 200.000			Recovery	= 77.054%	
8) Nitrobenzene-D5(S)	5.92	82	3896108	79.25 ppb	0.00
Spiked Amount 100.000			Recovery	= 79.250%	
16) 2-Fluorobiphenyl(S)	7.85	172	7833673	1397863.16 ppb	0.00
Spiked Amount 100.000			Recovery	= 1397863.161%	
22) 2,4,6-Tribromophenol(S)	9.67	330	1041925	156.59 ppb	0.00
Spiked Amount 200.000			Recovery	= 78.296%	
28) Terphenyl-D14(S)	12.16	244	7378981	79.61 ppb	0.00
Spiked Amount 100.000			Recovery	= 79.612%	

Target Compounds						Qvalue
4) Phenol	5.63	94	4422424	77.58 ppb		96
5) 1,4-DCB	5.20	146	4196621	77.81 ppb		99
6) n-Nitrosodi-n-propylamine	5.69	43	2584370	88.09 ppb		95
9) 2-Nitrophenol	6.28	139	2055111	81.16 ppb		96
10) 2,4-Dichlorophenol	6.94	162	3000879	86.01 ppb		99
11) Hexachlorobutadiene	6.74	225	1588965	77.75 ppb		100
12) 4-Chloro-3-methylphenol	7.61	107	225976	81.59 ppb	#	14
14) Hexachlorocyclopentadiene	7.57	237	1010074	81.09 ppb		98
15) 2,4,6-Trichlorophenol	8.02	196	1819654	82.96 ppb		97
17) Dimethyl phthalate	8.37	163	7583527	80.18 ppb		94
18) Acenaphthene	8.67	154	6723570	81.16 ppb		97
19) 2,4-Dinitrophenol	8.94	184	684392	79.27 ppb	#	100
20) 4-Nitrophenol	9.62	65	1874814	80.67 ppb		98
21) Diethyl phthalate	9.13	149	8817254	78.05 ppb		99
24) n-Nitrosodiphenylamine	10.79	167	10234447	83.19 ppb		98
25) Pentachlorophenol	10.41	266	410077	96.73 ppb		96
26) Di-n-butylphthalate	10.93	149	10672577	77.86 ppb		98
29) Butyl benzylphthalate	12.68	149	5683167	82.54 ppb		95
30) Bis (2-ethylhexyl) phthala	13.20	149	7599344	81.77 ppb	#	98
31) Di-n-octylphthalate	13.88	149	10338190	68.19 ppb	#	79

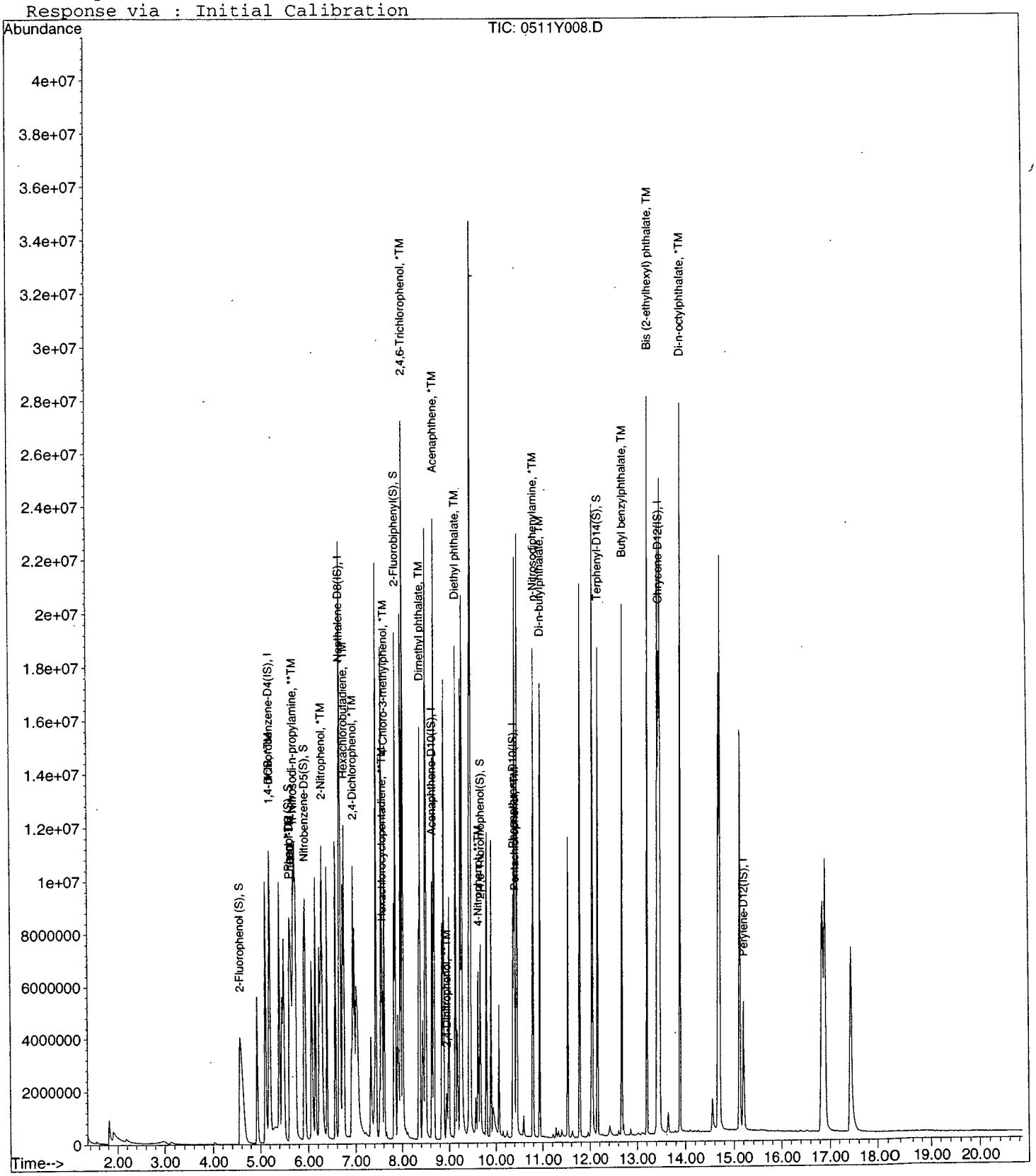
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150511\0511Y008.D Vial: 8
Acq On : 11 May 15 18:00 Operator: csc
Sample : 80ug/ml SVOC Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 3 8:10 2015 Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration



0511Y008.D Y0511TT.M Wed Jun 03 09:12:58 2015 Page 2

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y009.D
Acq On : 11 May 15 18:30
Sample : 100ug/ml SVOC
Misc :

Vial: 9
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 8:10 2015

Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:09:49 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.19	152	1055273	40.00 ppb	0.00
7) Napthalene-D8(IS)	6.64	136	4775142	40.00 ppb	0.00
13) Acenaphthene-D10(IS)	8.63	164	2629736	40.00 ppb	0.00
23) Phenanthrene-D10(IS)	10.36	188	4228462	40.00 ppb	0.00
27) Chrysene-D12(IS)	13.44	240	3946101	40.00 ppb	0.00
32) Perylene-D12(IS)	15.19	264	2566399	40.00 ppb	0.00
System Monitoring Compounds					
2) 2-Fluorophenol (S)	0.00	112	0	0.00 ppb	
Spiked Amount 200.000			Recovery	= 0.000%	
3) Phenol-D6 (S)	5.59	99	9445339	203.54 ppb	-0.05
Spiked Amount 200.000			Recovery	= 101.771%	
8) Nitrobenzene-D5(S)	5.92	82	4627792	102.12 ppb	0.00
Spiked Amount 100.000			Recovery	= 102.116%	
16) 2-Fluorobiphenyl(S)	7.85	172	9372802	1766097.04 ppb	0.00
Spiked Amount 100.000			Recovery	= 1766097.040%	
22) 2,4,6-Tribromophenol(S)	9.67	330	1266557	200.91 ppb	0.00
Spiked Amount 200.000			Recovery	= 100.455%	
28) Terphenyl-D14(S)	12.16	244	8828282	101.26 ppb	0.00
Spiked Amount 100.000			Recovery	= 101.264%	

Target Compounds						Qvalue
4) Phenol	5.62	94	5345783	103.03 ppb		97
5) 1,4-DCB	5.20	146	5023333	102.33 ppb		98
6) n-Nitrosodi-n-propylamine	5.70	43	3013081	112.84 ppb		95
9) 2-Nitrophenol	6.28	139	2445521	104.77 ppb		97
10) 2,4-Dichlorophenol	6.94	162	3367079	104.69 ppb		99
11) Hexachlorobutadiene	6.74	225	1905248	101.13 ppb		100
12) 4-Chloro-3-methylphenol	7.61	107	265907	104.14 ppb	#	13
14) Hexachlorocyclopentadiene	7.57	237	1327306	99.32 ppb		99
15) 2,4,6-Trichlorophenol	8.01	196	2187578	105.32 ppb		100
17) Dimethyl phthalate	8.38	163	9134695	101.99 ppb	#	82
18) Acenaphthene	8.67	154	8078541	102.97 ppb		97
19) 2,4-Dinitrophenol	8.94	184	872028	97.02 ppb	#	100
20) 4-Nitrophenol	9.62	65	2217701	100.76 ppb		99
21) Diethyl phthalate	9.14	149	10238040	99.47 ppb		98
24) n-Nitrosodiphenylamine	10.79	167	11413910	98.70 ppb		97
25) Pentachlorophenol	10.40	266	471830	118.40 ppb		98
26) Di-n-butylphthalate	10.93	149	10868870	84.36 ppb		95
29) Butyl benzylphthalate	12.68	149	6811732	105.18 ppb		96
30) Bis (2-ethylhexyl) phthala	13.20	149	8085581	92.50 ppb		91
31) Di-n-octylphthalate	13.88	149	11484643	80.53 ppb	#	70

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

Quantitation Report

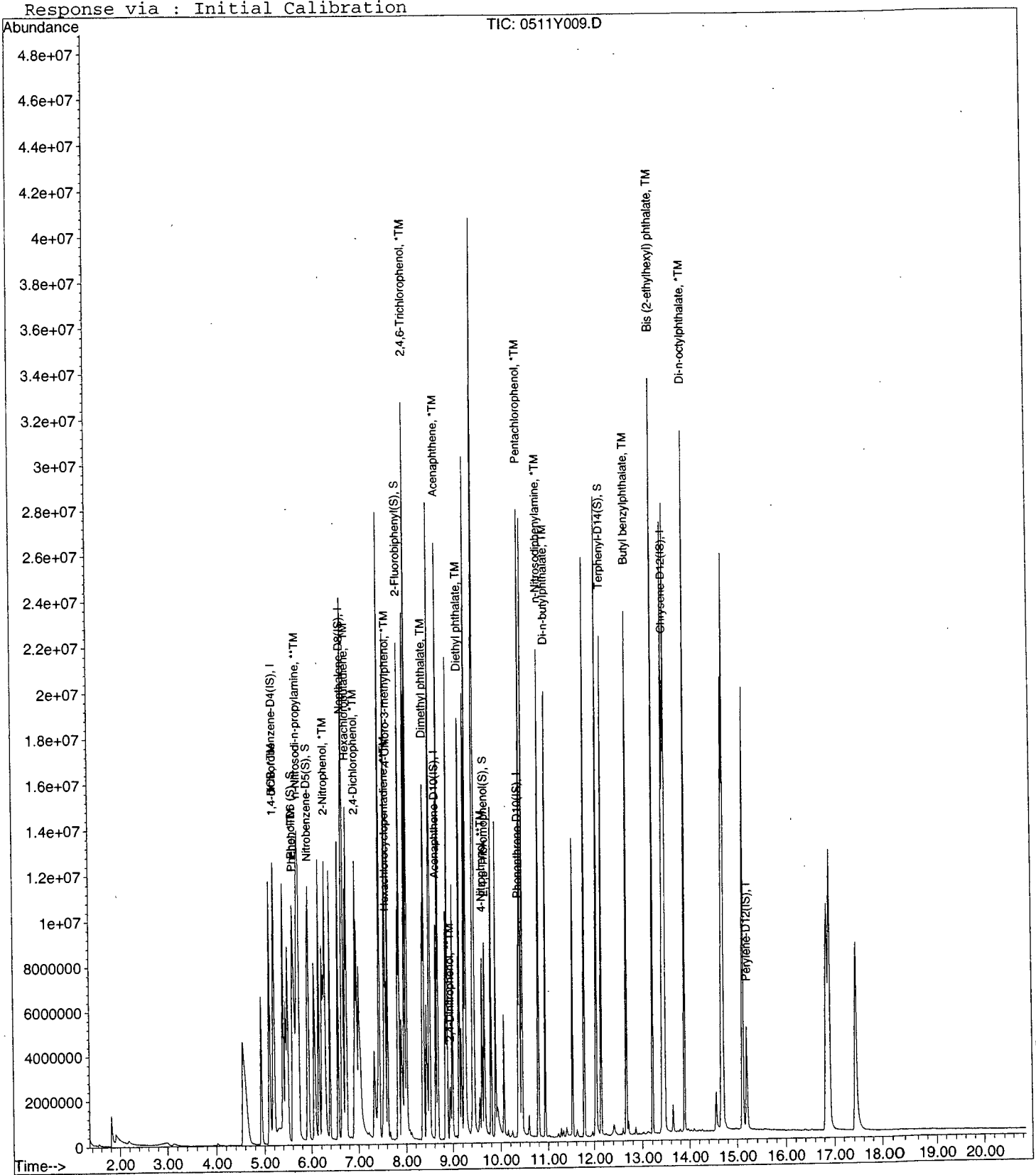
Data File : M:\YODA\DATA\Y150511\0511Y009.D
Acq On : 11 May 15 18:30
Sample : 100ug/ml SVOC
Misc :

Vial: 9
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 8:10 2015

Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration



0511Y009.D Y0511TT.M Wed Jun 03 09:13:00 2015

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 5/11/2015
Instrument: Yoda
Initial Cal. Date: 5/11/2015
Data File: 0511Y010.D

		Compound	MEAN	CCRF	%D		%Drift
1	*TM	1,4-DCB	1.861	1.746	6.2	*TM	
2	**TM	n-Nitrosodi-n-propylamine	1.012	0.8599	15	**TM	
3	*TM	2-Nitrophenol	0.1940	0.1856	4.3	*TM	
4	*TM	2,4-Dichlorophenol	0.2694	0.2480	8.0	*TM	
5	*TM	Hexachlorobutadiene	0.1578	0.1471	6.8	*TM	
6	*TM	4-Chloro-3-methylphenol	0.0228	0.0218	4.4	*TM	
7	**TMQ	Hexachlorocyclopentadiene	0.1069	0.1317	23	**TMQ	1.8
8	*TM	2,4,6-Trichlorophenol	0.3160	0.2999	5.1	*TM	
9	TM	Dimethyl phthalate	1.362	1.294	5.0	TM	
10	*TM	Acenaphthene	1.193	1.117	6.4	*TM	
11	**TMQ	2,4-Dinitrophenol	0.1138	0.0981	14	**TMQ	2.1
12	**TM	4-Nitrophenol	0.3346	0.3189	4.7	**TM	
13	TML	Diethyl phthalate	2.531	1.742	31	TML	3.5
14	*TM	n-Nitrosodiphenylamine	1.094	1.072	2.0	*TM	
15	*TM	Pentachlorophenol	0.0377	0.0339	10.0	*TM	
16	TM	Di-n-butylphthalate	1.219	1.227	0.66	TM	
17	TM	Butyl benzylphthalate	0.6565	0.6219	5.3	TM	
18	TM	Bis (2-ethylhexyl) phthalate	0.8861	0.8597	3.0	TM	
19	*TM	Di-n-octylphthalate	1.446	1.467	1.5	*TM	
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			8.2		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y010.D
Acq On : 11 May 15 19:00
Sample : 50ug/ml SVOC SS 05/11/15
Misc :

Vial: 10
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 8:10 2015

Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:09:49 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.19	152	1141630	40.00 ppb	0.00
7) Napthalene-D8(IS)	6.64	136	5124811	40.00 ppb	0.00
13) Acenaphthene-D10(IS)	8.63	164	2810687	40.00 ppb	0.00
23) Phenanthrene-D10(IS)	10.37	188	4555451	40.00 ppb	0.00
27) Chrysene-D12(IS)	13.44	240	4241350	40.00 ppb	0.00
32) Perylene-D12(IS)	15.19	264	2775925	40.00 ppb	0.00
System Monitoring Compounds					
2) 2-Fluorophenol (S)	0.00	112	0	0.00 ppb	
Spiked Amount 200.000			Recovery	= 0.000%	
3) Phenol-D6 (S)	5.68	99	5853	-4.44 ppb	0.04
Spiked Amount 200.000			Recovery	= -2.223%	
8) Nitrobenzene-D5(S)	0.00	82	0	0.00 ppb	
Spiked Amount 100.000			Recovery	= 0.000%	
16) 2-Fluorobiphenyl(S)	7.85	172	467	82.33 ppb	0.00
Spiked Amount 100.000			Recovery	= 82.331%	
22) 2,4,6-Tribromophenol(S)	9.66	330	1366	0.53 ppb	0.00
Spiked Amount 200.000			Recovery	= 0.265%	
28) Terphenyl-D14(S)	12.16	244	920	0.01 ppb	0.00
Spiked Amount 100.000			Recovery	= 0.010%	

Target Compounds						Qvalue
5) 1,4-DCB	5.20	146	2491413	46.92 ppb		99
6) n-Nitrosodi-n-propylamine	5.68	43	1227053	42.48 ppb		92
9) 2-Nitrophenol	6.28	139	1188775	47.46 ppb		95
10) 2,4-Dichlorophenol	6.94	162	1588511	46.02 ppb		98
11) Hexachlorobutadiene	6.75	225	942035	46.59 ppb		99
12) 4-Chloro-3-methylphenol	7.61	107	139369	50.86 ppb	#	14
14) Hexachlorocyclopentadiene	7.57	237	462859	49.12 ppb		99
15) 2,4,6-Trichlorophenol	8.02	196	1053518	47.45 ppb		98
17) Dimethyl phthalate	8.37	163	4547253	47.50 ppb	#	85
18) Acenaphthene	8.67	154	3922978	46.79 ppb		96
19) 2,4-Dinitrophenol	8.95	184	344578	48.96 ppb	#	100
20) 4-Nitrophenol	9.61	65	1120252	47.62 ppb		98
21) Diethyl phthalate	9.13	149	6119632	48.26 ppb		99
24) n-Nitrosodiphenylamine	10.79	167	6104772	49.00 ppb		98
25) Pentachlorophenol	10.42	266	193294	45.02 ppb		97
26) Di-n-butylphthalate	10.93	149	6986118	50.33 ppb		97
29) Butyl benzylphthalate	12.67	149	3297081	47.37 ppb		91
30) Bis (2-ethylhexyl) phthala	13.21	149	4557897	48.51 ppb		98
31) Di-n-octylphthalate	13.88	149	7776867	50.74 ppb		97

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

Quantitation Report

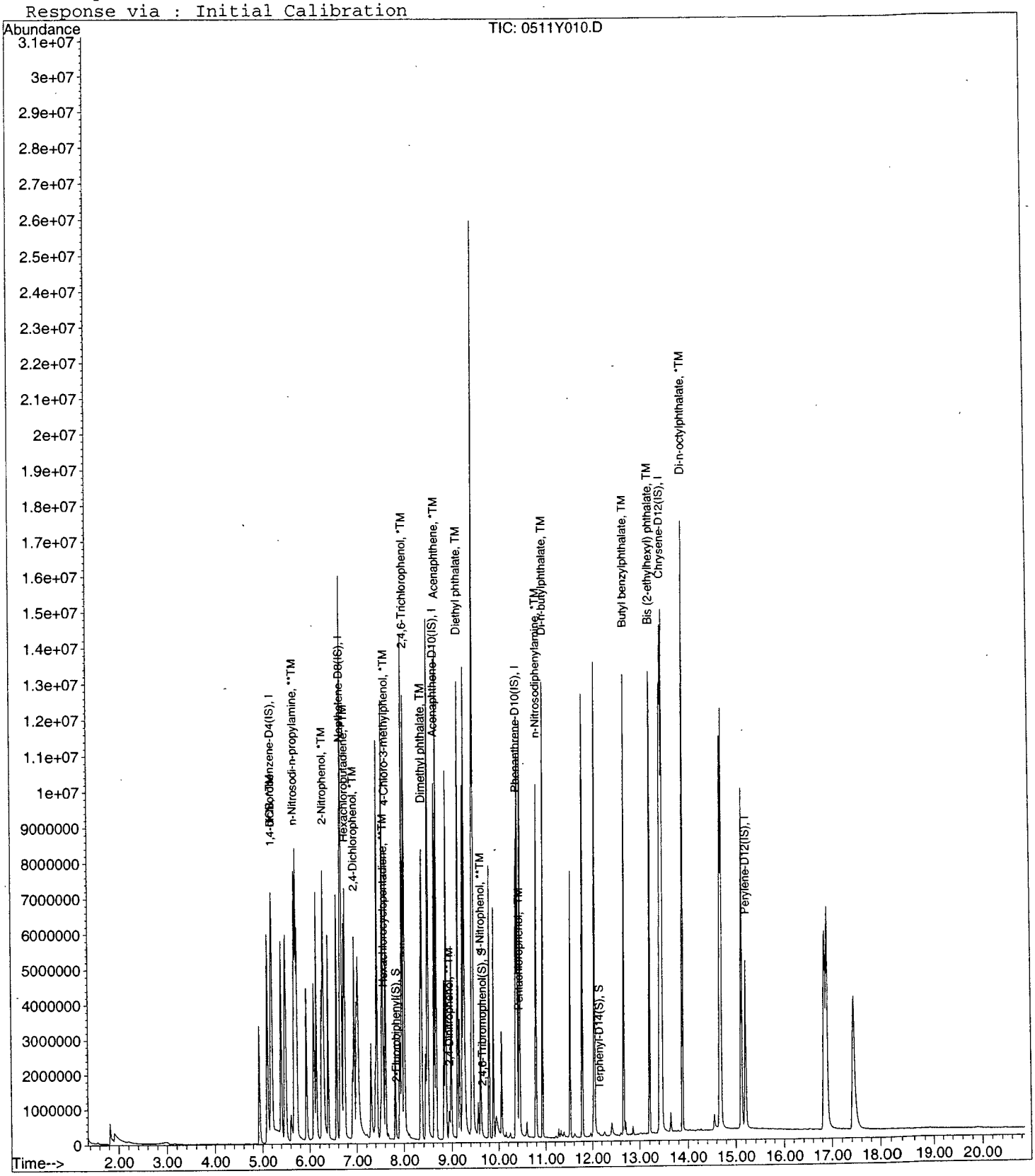
Data File : M:\YODA\DATA\Y150511\0511Y010.D
Acq On : 11 May 15 19:00
Sample : 50ug/ml SVOC SS 05/11/15
Misc :

Vial: 10
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 8:10 2015

Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration



0511Y010.D Y0511TT.M Wed Jun 03 09:13:02 2015

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 5/19/2015
Instrument: Yoda
Initial Cal. Date: 5/11/2015
Data File: 0511Y107.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I		
2	SL	2-Fluorophenol (S)	1.388	1.298	6.5	SL	6.5	
3	SL	Phenol-D6 (S)	1.985	1.682	15	SL	5.8	
4	*TM	Phenol	1.967	1.912	2.8	*TM		
5	*TM	1,4-DCB	1.861	1.731	6.9	*TM		
6	**TM	n-Nitrosodi-n-propylamine	1.012	0.9978	1.4	**TM		
7	I	Napthalene-D8(IS)	ISTD			I		
8	S	Nitrobenzene-D5(S)	0.3796	0.3575	5.8	S		
9	*TM	2-Nitrophenol	0.1940	0.1922	0.95	*TM		
10	*TM	2,4-Dichlorophenol	0.2694	0.5421	101	*TM		* NT
11	*TM	Hexachlorobutadiene	0.1578	0.1494	5.3	*TM		
12	*TM	4-Chloro-3-methylphenol	0.0228	0.0209	8.0	*TM		
13	I	Acenaphthene-D10(IS)	ISTD			I		
14	**TMQ	Hexachlorocyclopentadiene	0.1069	0.1075	0.51	**TMQ	14	
15	*TM	2,4,6-Trichlorophenol	0.3160	0.3079	2.6	*TM		
16	S	2-Fluorobiphenyl(S)	1.406	1.269	9.8	S		
17	TM	Dimethyl phthalate	1.362	1.278	6.2	TM		
18	*TM	Acenaphthene	1.193	1.118	6.3	*TM		
19	**TMQ	2,4-Dinitrophenol	0.1138	0.1098	3.5	**TMQ	3.3	
20	**TM	4-Nitrophenol	0.3346	0.3196	4.5	**TM		
21	TML	Diethyl phthalate	2.531	1.734	31	TML	4.1	
22	SL	2,4,6-Tribromophenol(S)	0.1022	0.0969	5.2	SL	1.2	
23	I	Phenanthrene-D10(IS)	ISTD			I		
24	*TM	n-Nitrosodiphenylamine	1.094	1.108	1.3	*TM		
25	*TM	Pentachlorophenol	0.0377	0.0472	25	*TM		* NT
26	TM	Di-n-butylphthalate	1.219	1.280	5.0	TM		
27	I	Chrysene-D12(IS)	ISTD			I		
28	S	Terphenyl-D14(S)	0.8837	0.8251	6.6	S		
29	TM	Butyl benzylphthalate	0.6565	0.6827	4.0	TM		
30	TM	Bis (2-ethylhexyl) phthalate	0.8861	0.9312	5.1	TM		
31	*TM	Di-n-octylphthalate	1.446	1.730	20	*TM		
32	I	Perylene-D12(IS)	ISTD			I		
33								
34								
35								
36								
37								
38								
39								
40								
		Average			11.2			

2a 6-3-15

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y107.D
Acq On : 19 May 15 13:20
Sample : 50ug/ml SVOC 05/19/15
Misc :

Vial: 7
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 9:19 2015

Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.17	152	923455	40.00 ppb	-0.02
7) Napthalene-D8(IS)	6.62	136	4127214	40.00 ppb	-0.02
13) Acenaphthene-D10(IS)	8.61	164	2370251	40.00 ppb	-0.02
23) Phenanthrene-D10(IS)	10.35	188	3836649	40.00 ppb	-0.02
27) Chrysene-D12(IS)	13.42	240	2886163	40.00 ppb	-0.02
32) Perylene-D12(IS)	15.17	264	2303262	40.00 ppb	-0.02
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.44	112	2996806	93.50 ppb	0.01
Spiked Amount 200.000			Recovery	= 46.751%	
3) Phenol-D6 (S)	5.52	99	3884074	94.22 ppb	-0.12
Spiked Amount 200.000			Recovery	= 47.110%	
8) Nitrobenzene-D5(S)	5.89	82	1844232	47.08 ppb	-0.02
Spiked Amount 100.000			Recovery	= 47.083%	
16) 2-Fluorobiphenyl(S)	7.84	172	3759427	45.12 ppb	0.00
Spiked Amount 100.000			Recovery	= 45.122%	
22) 2,4,6-Tribromophenol(S)	9.63	330	574210	101.22 ppb	-0.04
Spiked Amount 200.000			Recovery	= 50.610%	
28) Terphenyl-D14(S)	12.14	244	2976850	46.69 ppb	-0.02
Spiked Amount 100.000			Recovery	= 46.686%	

Target Compounds						Qvalue
4) Phenol	5.54	94	2206655	48.60 ppb		97
5) 1,4-DCB	5.19	146	1998537	46.53 ppb		99
6) n-Nitrosodi-n-propylamine	5.67	43	1151805	49.29 ppb	#	87
9) 2-Nitrophenol	6.26	139	991344	49.52 ppb		91
10) 2,4-Dichlorophenol	6.89	162	2796883	100.61 ppb		97
11) Hexachlorobutadiene	6.74	225	770832	47.34 ppb		99
12) 4-Chloro-3-methylphenol	7.59	107	107964	45.99 ppb	#	14
14) Hexachlorocyclopentadiene	7.56	237	318367	43.16 ppb		99
15) 2,4,6-Trichlorophenol	7.96	196	912157	48.71 ppb		95
17) Dimethyl phthalate	8.35	163	3787099	46.91 ppb		94
18) Acenaphthene	8.65	154	3312733	46.85 ppb		97
19) 2,4-Dinitrophenol	8.91	184	325176	51.66 ppb	#	100
20) 4-Nitrophenol	9.57	65	946902	47.75 ppb		97
21) Diethyl phthalate	9.11	149	5137761	47.97 ppb		100
24) n-Nitrosodiphenylamine	10.75	167	5315233	50.65 ppb		99
25) Pentachlorophenol	10.35	266	226436	62.63 ppb		97
26) Di-n-butylphthalate	10.91	149	6139464	52.52 ppb		98
29) Butyl benzylphthalate	12.66	149	2462855	51.99 ppb		93
30) Bis (2-ethylhexyl) phthala	13.19	149	3359435	52.55 ppb	#	94
31) Di-n-octylphthalate	13.86	149	6243136	59.86 ppb		100

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

Quantitation Report

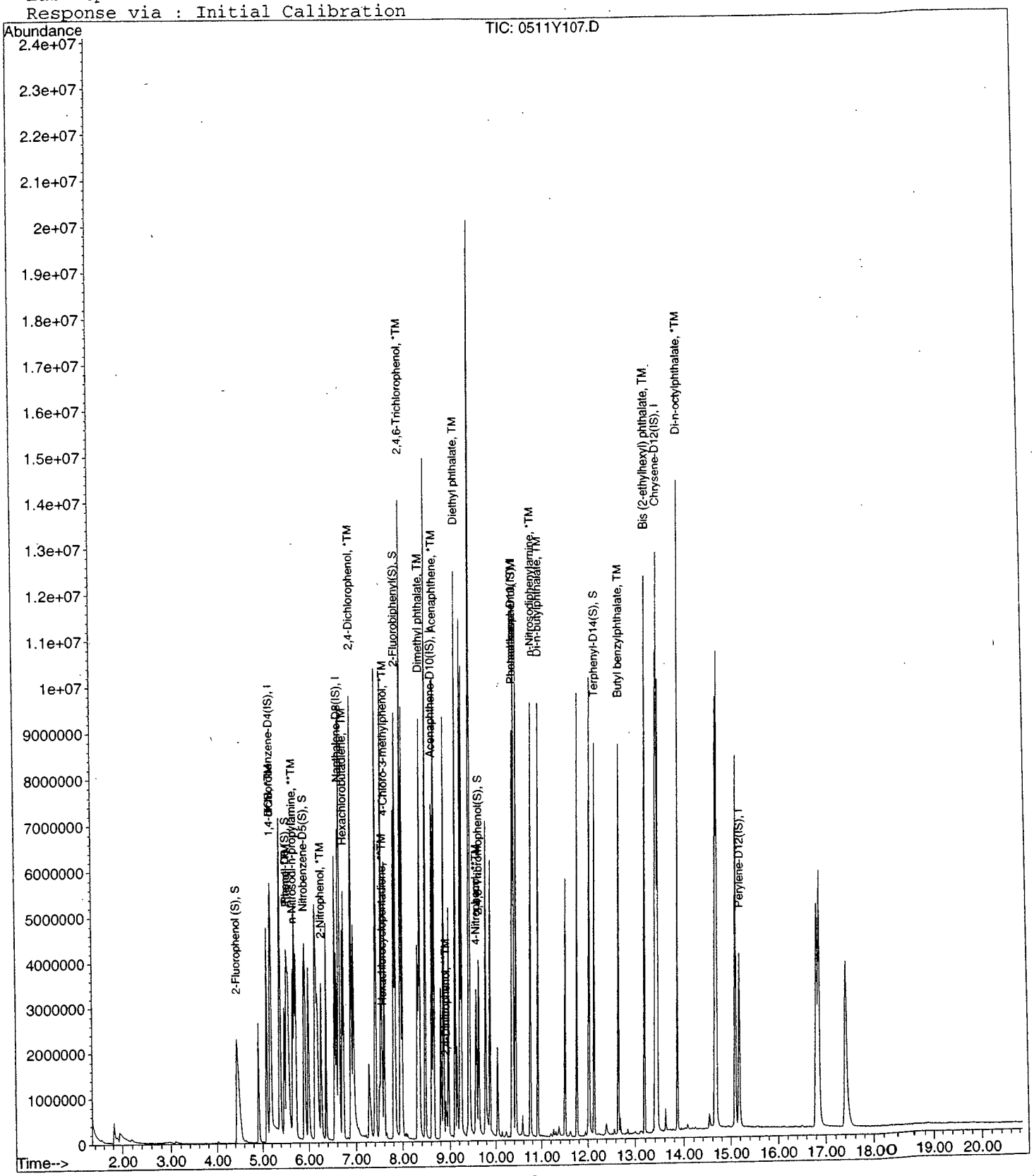
Data File : M:\YODA\DATA\Y150511\0511Y107.D
Acq On : 19 May 15 13:20
Sample : 50ug/ml SVOC 05/19/15
Misc :

Vial: 7
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 9:19 2015

Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration



0511Y107.D Y0511TT.M Wed Jun 03 09:20:32 2015

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 5/20/2015
Instrument: Yoda
Initial Cal. Date: 5/11/2015
Data File: 0511Y127.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I		
2	SL	2-Fluorophenol (S)	1.388	1.382	0.48	SL	0.39	
3	SL	Phenol-D6 (S)	1.985	1.820	8.3	SL	2.1	
4	*TM	Phenol	1.967	2.104	7.0	*TM		
5	*TM	1,4-DCB	1.861	1.888	1.5	*TM		
6	**TM	n-Nitrosodi-n-propylamine	1.012	1.078	6.5	**TM		
7	I	Napthalene-D8(IS)	ISTD			I		
8	S	Nitrobenzene-D5(S)	0.3796	0.3618	4.7	S		
9	*TM	2-Nitrophenol	0.1940	0.2015	3.9	*TM		
10	*TM	2,4-Dichlorophenol	0.2694	0.5821	116	*TM		* N.T.
11	*TM	Hexachlorobutadiene	0.1578	0.1575	0.18	*TM		
12	*TM	4-Chloro-3-methylphenol	0.0228	0.0216	4.9	*TM		
13	I	Acenaphthene-D10(IS)	ISTD			I		
14	**TMQ	Hexachlorocyclopentadiene	0.1069	0.0918	14	**TMQ	22	* N.T.
15	*TM	2,4,6-Trichlorophenol	0.3160	0.3235	2.4	*TM		
16	S	2-Fluorobiphenyl(S)	1.406	1.308	7.0	S		
17	TM	Dimethyl phthalate	1.362	1.349	0.96	TM		
18	*TM	Acenaphthene	1.193	1.179	1.2	*TM		
19	**TMQ	2,4-Dinitrophenol	0.1138	0.0945	17	**TMQ	7.4	2026-3-15
20	**TM	4-Nitrophenol	0.3346	0.3429	2.5	**TM		
21	TML	Diethyl phthalate	2.531	1.810	28	TML	1.6	
22	SL	2,4,6-Tribromophenol(S)	0.1022	0.0985	3.7	SL	2.8	
23	I	Phenanthrene-D10(IS)	ISTD			I		
24	*TM	n-Nitrosodiphenylamine	1.094	1.131	3.4	*TM		
25	*TM	Pentachlorophenol	0.0377	0.0418	11	*TM		
26	TM	Di-n-butylphthalate	1.219	1.309	7.4	TM		
27	I	Chrysene-D12(IS)	ISTD			I		
28	S	Terphenyl-D14(S)	0.8837	0.8508	3.7	S		
29	TM	Butyl benzylphthalate	0.6565	0.6549	0.24	TM		
30	TM	Bis (2-ethylhexyl) phthalate	0.8861	0.9415	6.3	TM		
31	*TM	Di-n-octylphthalate	1.446	1.601	11	*TM		
32	I	Perylene-D12(IS)	ISTD			I		
33								
34								
35								
36								
37								
38								
39								
40								
		Average			10.5			

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y127.D
Acq On : 20 May 15 00:28
Sample : 50ug/ml SVOC 05/19/15
Misc :

Vial: 27
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 8:55 2015

Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.17	152	888365	40.00 ppb	-0.02
7) Napthalene-D8(IS)	6.62	136	4172538	40.00 ppb	-0.02
13) Acenaphthene-D10(IS)	8.61	164	2420288	40.00 ppb	-0.02
23) Phenanthrene-D10(IS)	10.35	188	4110231	40.00 ppb	-0.02
27) Chrysene-D12(IS)	13.42	240	3802725	40.00 ppb	-0.02
32) Perylene-D12(IS)	15.17	264	2455502	40.00 ppb	-0.02
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.42	112	3068761	99.61 ppb	-0.02
Spiked Amount 200.000			Recovery =	49.807%	
3) Phenol-D6 (S)	5.50	99	4042959	102.12 ppb	-0.14
Spiked Amount 200.000			Recovery =	51.061%	
8) Nitrobenzene-D5(S)	5.89	82	1886978	47.65 ppb	-0.02
Spiked Amount 100.000			Recovery =	47.651%	
16) 2-Fluorobiphenyl(S)	7.83	172	3955658	46.50 ppb	0.00
Spiked Amount 100.000			Recovery =	46.495%	
22) 2,4,6-Tribromophenol(S)	9.62	330	595796	102.85 ppb	-0.05
Spiked Amount 200.000			Recovery =	51.424%	
28) Terphenyl-D14(S)	12.14	244	4044006	48.14 ppb	-0.02
Spiked Amount 100.000			Recovery =	48.135%	

Target Compounds						Qvalue
4) Phenol	5.52	94	2336502	53.49 ppb		97
5) 1,4-DCB	5.19	146	2096784	50.74 ppb		99
6) n-Nitrosodi-n-propylamine	5.66	43	1196635	53.23 ppb		95
9) 2-Nitrophenol	6.25	139	1050975	51.93 ppb		99
10) 2,4-Dichlorophenol	6.88	162	3035949	108.02 ppb		98
11) Hexachlorobutadiene	6.74	225	821610	49.91 ppb		99
12) 4-Chloro-3-methylphenol	7.59	107	112885	47.56 ppb	#	14
14) Hexachlorocyclopentadiene	7.56	237	277759	39.08 ppb		99
15) 2,4,6-Trichlorophenol	7.95	196	978656	51.18 ppb		97
17) Dimethyl phthalate	8.35	163	4082279	49.52 ppb		89
18) Acenaphthene	8.65	154	3566991	49.40 ppb		97
19) 2,4-Dinitrophenol	8.91	184	286021	46.28 ppb	#	100
20) 4-Nitrophenol	9.57	65	1037304	51.23 ppb		99
21) Diethyl phthalate	9.11	149	5477002	50.82 ppb		99
24) n-Nitrosodiphenylamine	10.75	167	5812302	51.70 ppb		98
25) Pentachlorophenol	10.34	266	214964	55.50 ppb		97
26) Di-n-butylphthalate	10.91	149	6724293	53.69 ppb		98
29) Butyl benzylphthalate	12.65	149	3112992	49.88 ppb		90
30) Bis (2-ethylhexyl) phthala	13.19	149	4475419	53.13 ppb		96
31) Di-n-octylphthalate	13.86	149	7611106	55.38 ppb		98

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

Quantitation Report

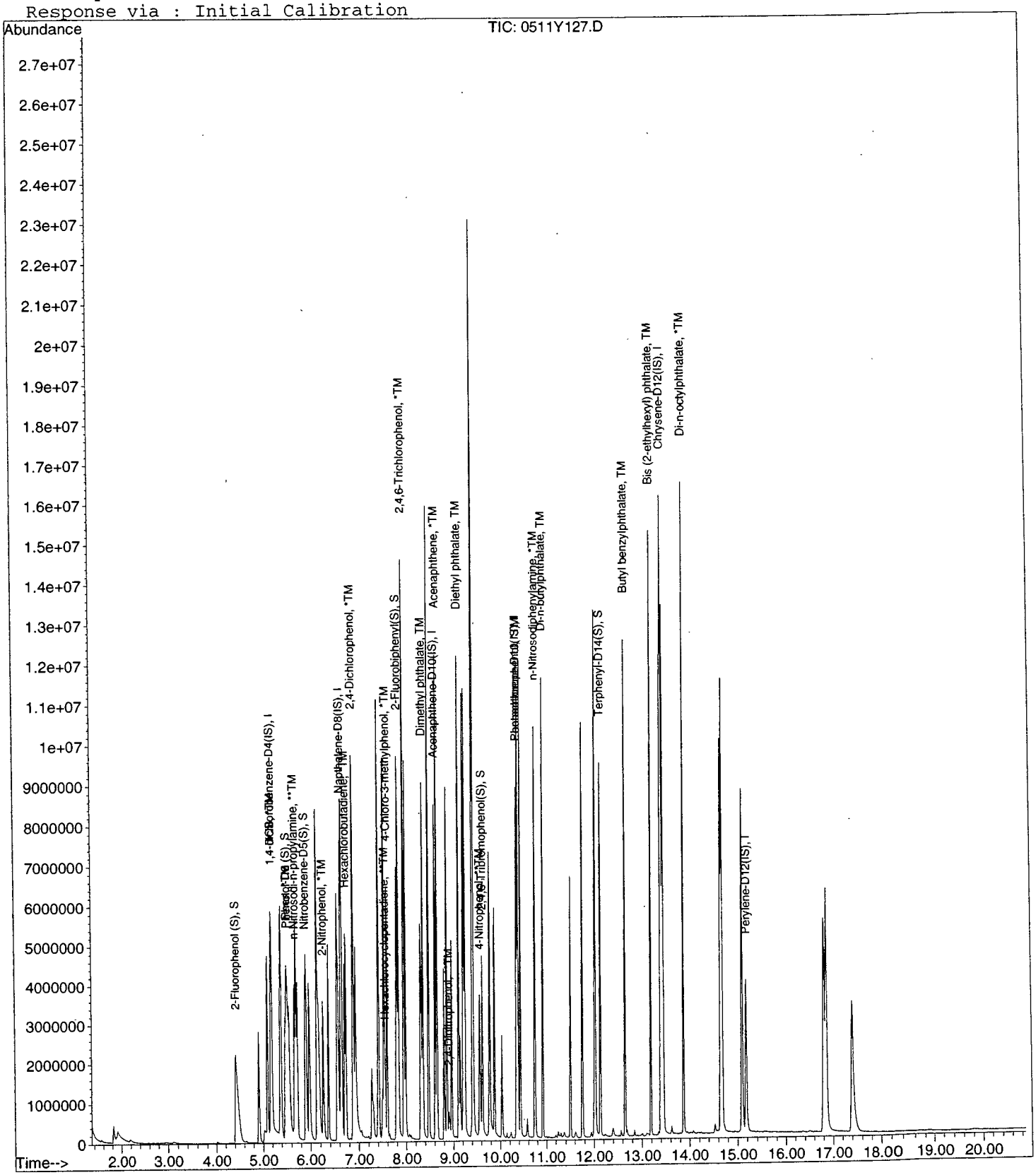
Data File : M:\YODA\DATA\Y150511\0511Y127.D
Acq On : 20 May 15 00:28
Sample : 50ug/ml SVOC 05/19/15
Misc :

Vial: 27
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 8:55 2015

Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration



EPA METHOD 8270D
Semivolatile Organic Compounds
Raw Data

APPL, INC.

Method Blank
EPA 8270D WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150518W-16287 - 197636**
Batch ID: #87DJU-150518A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BIS (2-ETHYLHEXYL) PHTHALAT	5.00 U	20.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
BLANK	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	5/18/2015	5/19/2015
BLANK	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	5/18/2015	5/19/2015
BLANK	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	5/18/2015	5/19/2015
BLANK	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	5/18/2015	5/19/2015
BLANK	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	5/18/2015	5/19/2015
BLANK	SURROGATE: 2,4,6-TRIBROMOP	120	40-125			%	5/18/2015	5/19/2015
BLANK	SURROGATE: 2-FLUORBIPHENY	79.6	50-110			%	5/18/2015	5/19/2015
BLANK	SURROGATE: 2-FLUOROPHENO	47.5	20-110			%	5/18/2015	5/19/2015
BLANK	SURROGATE: NITROBENZENE-	81.1	40-110			%	5/18/2015	5/19/2015
BLANK	SURROGATE: PHENOL (S)	34.0	10-115			%	5/18/2015	5/19/2015
BLANK	SURROGATE: TERPHENYL-D14 (	119	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y108
Instrument: Yoda
Sequence: Y150511
Initials: DA

GC SC-Blank-REG MDLs
Printed: 6/3/2015 10:21:26 AM

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y108.D Vial: 8
Acq On : 19 May 15 15:21 Operator: csc
Sample : 150518A BLK 1/1000 Inst : Yoda
Misc : water Multiplr: 1.00000
MS Integration Params: rteint.p
Quant Time: Jun 3 10:12 2015 Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 09:56:52 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.17	152	764910	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.63	136	2850826	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.62	164	1560639	40.00	ppb	0.00
23) Phenanthrene-D10(IS)	10.35	188	2942395	40.00	ppb	-0.02
27) Chrysene-D12(IS)	13.43	240	2528080	40.00	ppb	0.00
32) Perylene-D12(IS)	15.18	264	1695164	40.00	ppb	0.00
System Monitoring Compounds						
2) 2-Fluorophenol (S)	4.44	112	2519873	94.94	ppb	0.00
Spiked Amount 200.000			Recovery = 47.469%			
3) Phenol-D6 (S)	5.56	99	2338782	67.91	ppb	-0.08
Spiked Amount 200.000			Recovery = 33.957%			
8) Nitrobenzene-D5(S)	5.89	82	2194869	81.12	ppb	-0.02
Spiked Amount 100.000			Recovery = 81.123%			
16) 2-Fluorobiphenyl(S)	7.84	172	4368434	79.63	ppb	0.00
Spiked Amount 100.000			Recovery = 79.631%			
22) 2,4,6-Tribromophenol(S)	9.63	330	897224	239.76	ppb	-0.04
Spiked Amount 200.000			Recovery = 119.879%			
28) Terphenyl-D14(S)	12.15	244	6646198	119.00	ppb	0.00
Spiked Amount 100.000			Recovery = 118.996%			
Target Compounds						Qvalue
17) Dimethyl phthalate	8.36	163	74803	1.41	ppb	94
21) Diethyl phthalate	9.11	149	876240	0.03	ppb	95
26) Di-n-butylphthalate	10.92	149	20744	0.23	ppb	98
30) Bis (2-ethylhexyl) phthala	13.19	149	22270	0.40	ppb #	97

(#) = qualifier out of range (m) = manual integration
0511Y108.D Y0511TT.M Wed Jun 03 10:12:30 2015

Quantitation Report

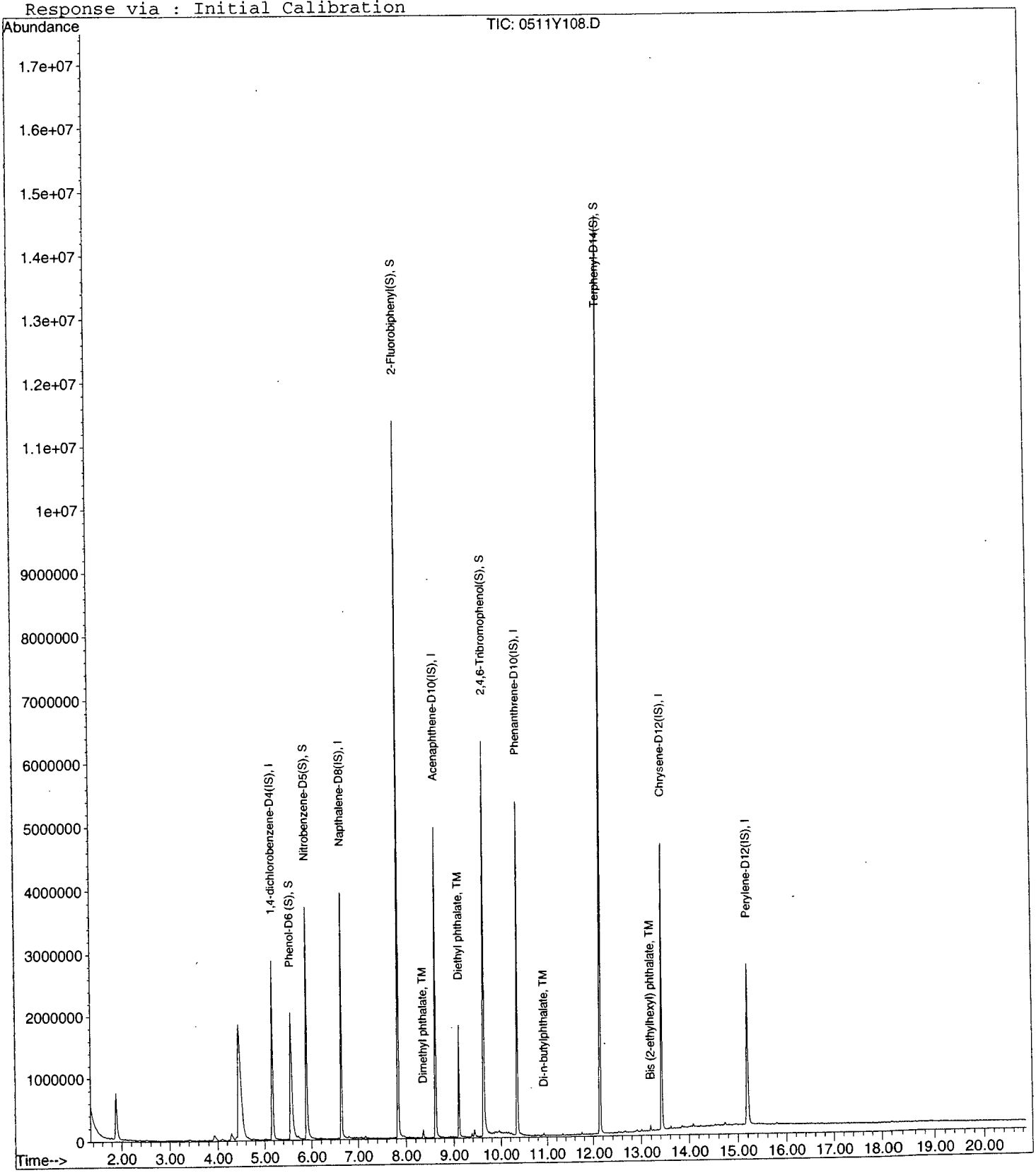
Data File : M:\YODA\DATA\Y150511\0511Y108.D
Acq On : 19 May 15 15:21
Sample : 150518A BLK 1/1000
Misc : water

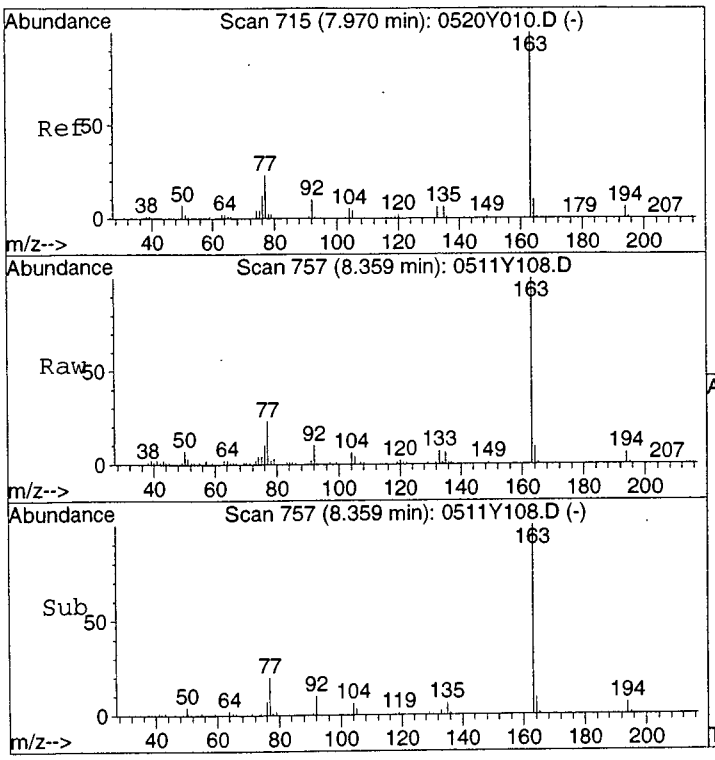
Vial: 8
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 8:40 2015

Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration

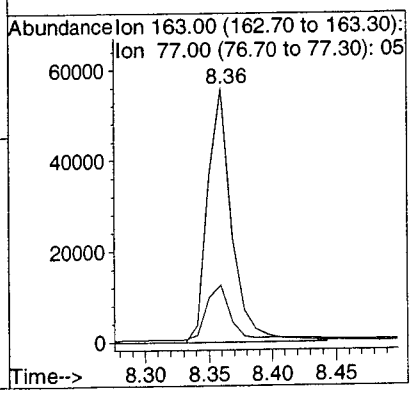


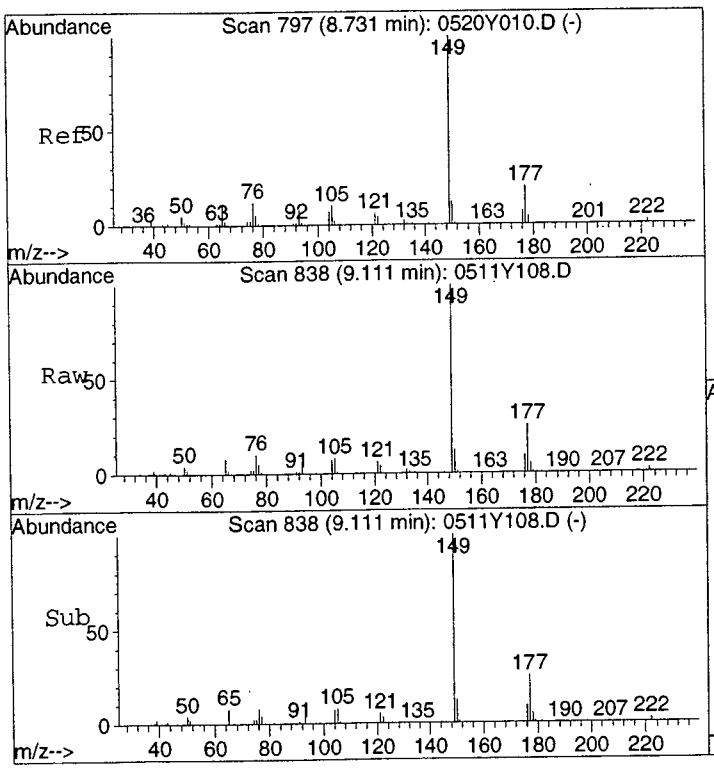


#17
Dimethyl phthalate
Concen: 1.41 ppb
RT: 8.36 min Scan# 757
Delta R.T. -0.01 min
Lab File: 0511Y108.D
Acq: 19 May 15 15:21

Tgt Ion:163 Resp: 74803

Ion	Ratio	Lower	Upper
163	100		
77	21.6	17.3	32.1

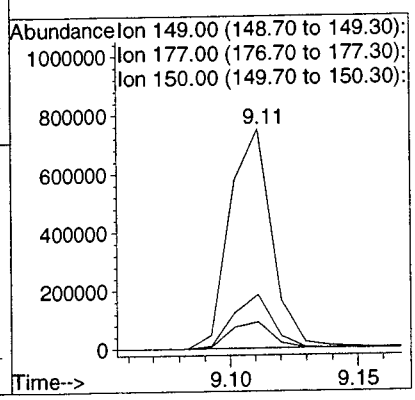


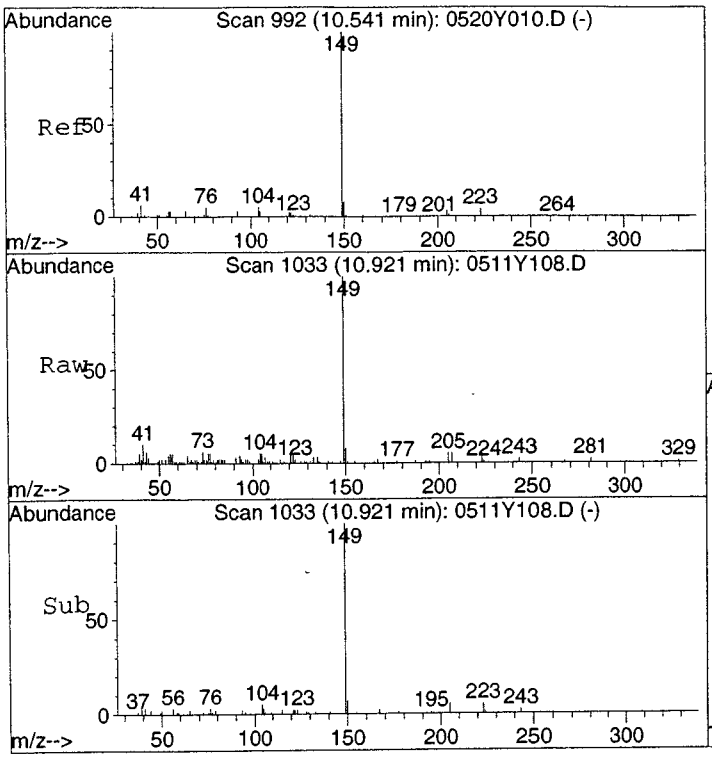


#21
Diethyl phthalate
Concen: 0.03 ppb
RT: 9.11 min Scan# 838
Delta R.T. -0.02 min
Lab File: 0511Y108.D
Acq: 19 May 15 15:21

Tgt Ion:149 Resp: 876240

Ion	Ratio	Lower	Upper
149	100		
177	24.8	15.1	28.0
150	12.2	8.3	15.5

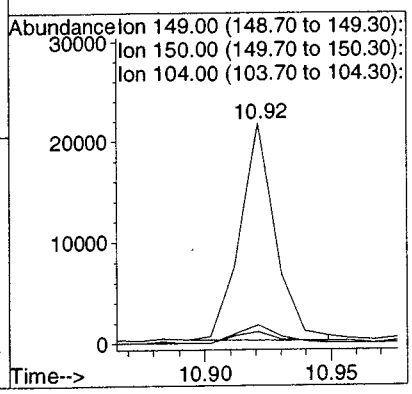


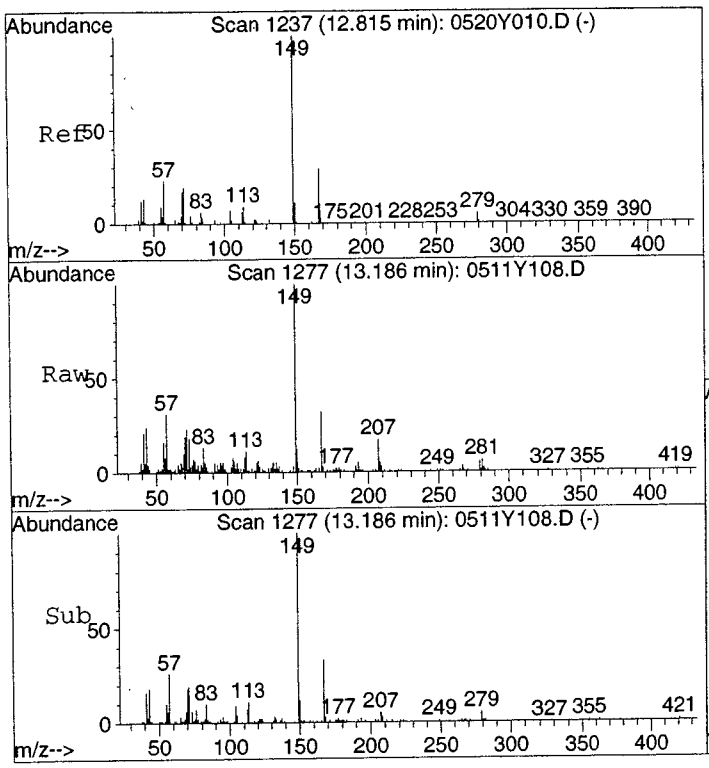


#26
Di-n-butylphthalate
Concen: 0.23 ppb
RT: 10.92 min Scan# 1033
Delta R.T. -0.01 min
Lab File: 0511Y108.D
Acq: 19 May 15 15:21

Tgt Ion:149 Resp: 20744

Ion	Ratio	Lower	Upper
149	100		
150	8.3	6.4	11.8
104	5.3	4.3	7.9

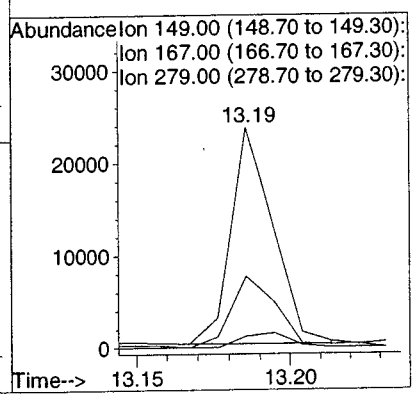




#30
Bis (2-ethylhexyl) phthalate
Concen: 0.40 ppb
RT: 13.19 min Scan# 1277
Delta R.T. -0.02 min
Lab File: 0511Y108.D
Acq: 19 May 15 15:21

Tgt Ion:149 Resp: 22270

Ion	Ratio	Lower	Upper
149	100		
167	33.1	23.1	42.9
279	5.3	7.1	13.3#



Laboratory Control Spike Recovery
EPA 8270D WATER

APPL ID: **150518W-16287 LCS - 197636**
Batch ID: #87DJU-150518A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
BIS (2-ETHYLHEXYL) PHTHALATE	50.0	45.0	90.0	40-125
BUTYL BENZYL PHTHALATE	50.0	42.2	84.4	45-115
DI-N-BUTYL PHTHALATE	50.0	45.3	90.6	55-115
DI-N-OCTYL PHTHALATE	50.0	50.1	100	35-135
DIETHYL PHTHALATE	50.0	43.9	87.8	40-120
DIMETHYL PHTHALATE	50.0	44.1	88.2	25-125
SURROGATE: 2,4,6-TRIBROMOPHENOL	200	193	96.5	40-125
SURROGATE: 2-FLUORBIPHENYL (S)	100	75.9	75.9	50-110
SURROGATE: 2-FLUOROPHENOL (S)	200	118	59.0	20-110
SURROGATE: NITROBENZENE-D5 (S)	100	78.9	78.9	40-110
SURROGATE: PHENOL (S)	200	84.1	42.0	10-115
SURROGATE: TERPHENYL-D14 (S)	100	95.4	95.4	50-135

Comments: _____

Primary	SPK
Quant Method :	Y0511TT.M
Extraction Date :	5/18/2015
Analysis Date :	5/19/2015
Instrument :	Yoda
Run :	0511Y109
Initials :	DA

Printed: 6/3/2015 10:21:17 AM
APPL Standard LCS

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y109.D
Acq On : 19 May 15 15:51
Sample : 150518A LCS-1 1/1000
Misc : water

Vial: 9
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 8:45 2015 Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:45:07 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.17	152	737045	40.00 ppb	-0.02
7) Napthalene-D8(IS)	6.63	136	3351211	40.00 ppb	-0.02
13) Acenaphthene-D10(IS)	8.61	164	1937344	40.00 ppb	-0.02
23) Phenanthrene-D10(IS)	10.35	188	3272171	40.00 ppb	-0.02
27) Chrysene-D12(IS)	13.42	240	3061969	40.00 ppb	-0.02
32) Perylene-D12(IS)	15.17	264	1959930	40.00 ppb	-0.02
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.43	112	2999227	117.58 ppb	0.00
Spiked Amount 200.000			Recovery = 58.789%		
3) Phenol-D6 (S)	5.53	99	2774803	84.11 ppb	-0.11
Spiked Amount 200.000			Recovery = 42.056%		
8) Nitrobenzene-D5(S)	5.89	82	2510067	78.92 ppb	-0.02
Spiked Amount 100.000			Recovery = 78.921%		
16) 2-Fluorobiphenyl(S)	7.83	172	5171812	75.94 ppb	0.00
Spiked Amount 100.000			Recovery = 75.944%		
22) 2,4,6-Tribromophenol(S)	9.62	330	897609	193.28 ppb	-0.04
Spiked Amount 200.000			Recovery = 96.642%		
28) Terphenyl-D14(S)	12.14	244	6456964	95.45 ppb	-0.02
Spiked Amount 100.000			Recovery = 95.450%		

Target Compounds						Qvalue
4) Phenol	5.55	94	812069	22.41 ppb		90
5) 1,4-DCB	5.19	146	1072002	31.27 ppb		98
6) n-Nitrosodi-n-propylamine	5.66	43	696632	37.35 ppb	#	89
9) 2-Nitrophenol	6.26	139	703216	43.26 ppb		99
10) 2,4-Dichlorophenol	6.90	162	2024510	89.69 ppb		98
11) Hexachlorobutadiene	6.74	225	394466	29.84 ppb		98
12) 4-Chloro-3-methylphenol	7.59	107	68936	36.16 ppb	#	14
14) Hexachlorocyclopentadiene	7.56	237	71363	20.05 ppb		96
15) 2,4,6-Trichlorophenol	7.95	196	675344	44.12 ppb		97
17) Dimethyl phthalate	8.35	163	2910869	44.11 ppb	#	85
18) Acenaphthene	8.65	154	2316574	40.08 ppb		97
19) 2,4-Dinitrophenol	8.91	184	190034	40.44 ppb	#	100
20) 4-Nitrophenol	9.57	65	743750	45.89 ppb		99
21) Diethyl phthalate	9.10	149	3935044	43.90 ppb		100
24) n-Nitrosodiphenylamine	10.76	167	3989905	44.58 ppb		99
25) Pentachlorophenol	10.36	266	122097	39.59 ppb		96
26) Di-n-butylphthalate	10.91	149	4518197	45.32 ppb		98
29) Butyl benzylphthalate	12.65	149	2123107	42.25 ppb		93
30) Bis (2-ethylhexyl) phthala	13.19	149	3053762	45.02 ppb		99
31) Di-n-octylphthalate	13.87	149	5539617	50.06 ppb		100

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

Quantitation Report

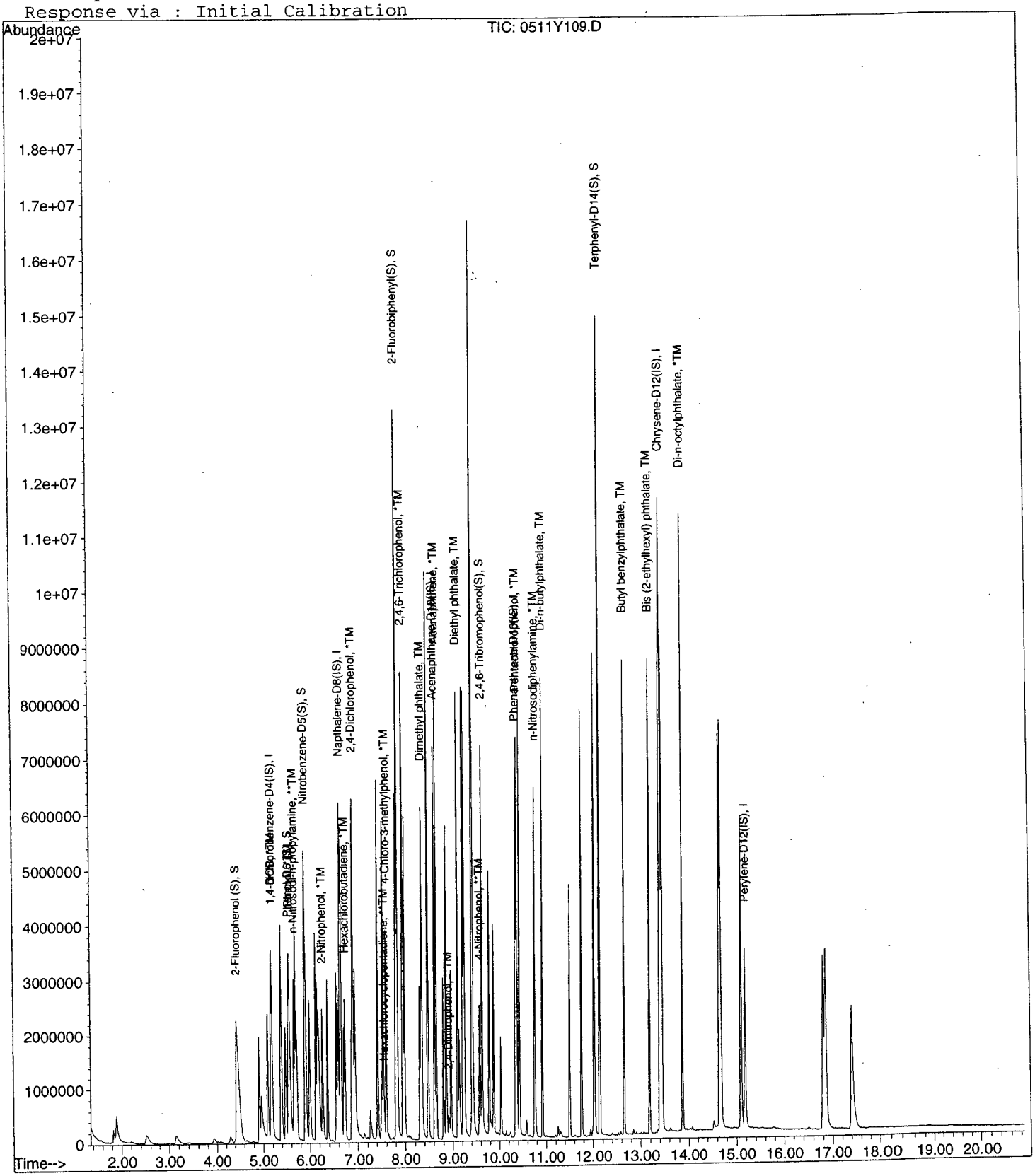
Data File : M:\YODA\DATA\Y150511\0511Y109.D
Acq On : 19 May 15 15:51
Sample : 150518A LCS-1 1/1000
Misc : water

Vial: 9
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 8:45 2015

Quant Results File: Y0511TT.RES

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:54:38 2015
Response via : Initial Calibration

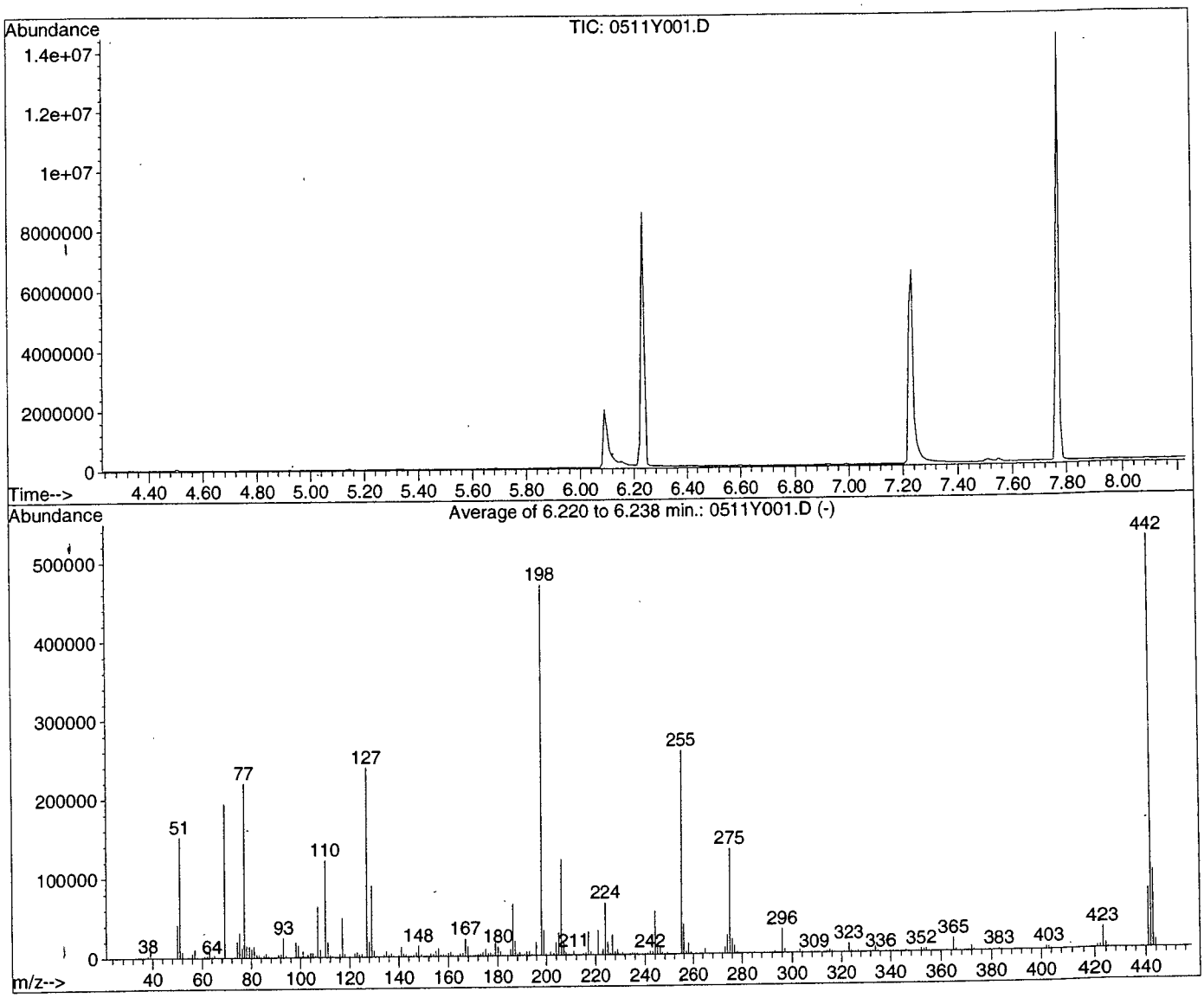


DFTPP

Data File : M:\YODA\DATA\Y150511\0511Y001.D
Acq On : 11 May 15 14:44
Sample : SV Tune 03/12/15
Misc :

Vial: 1
Operator: csc
Inst : Yoda
Multiplr: 1.00

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 284, 285, 286; Background Corrected with Scan 282

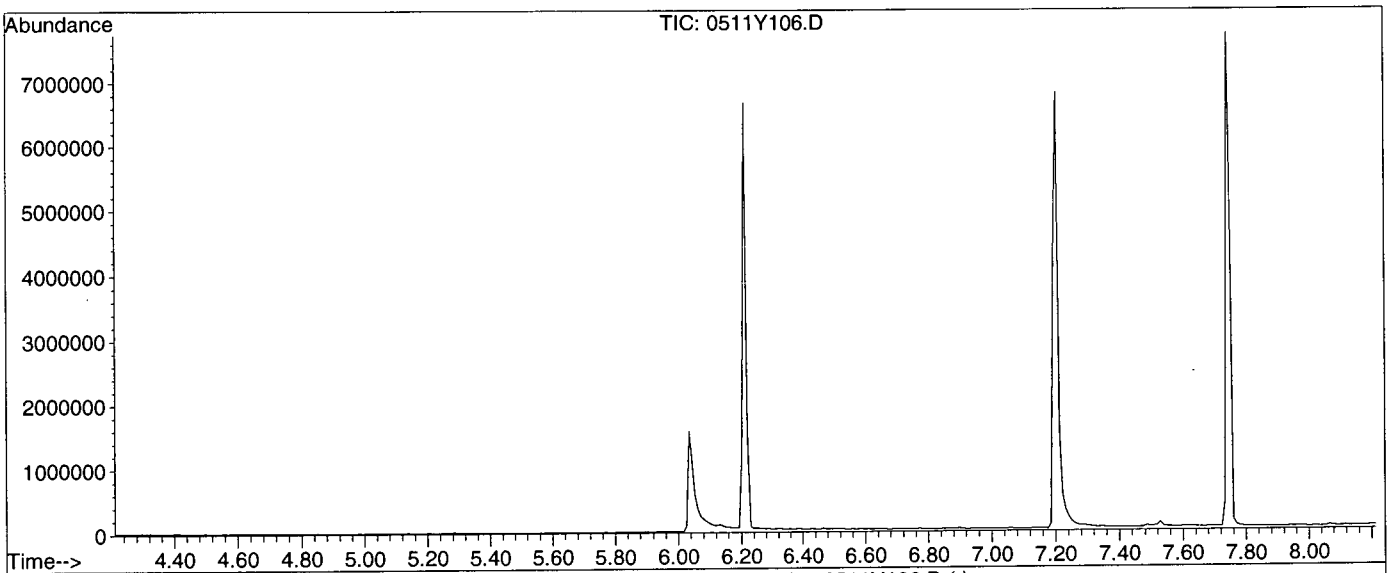
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.3	151779	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.1	195	PASS
127	198	40	60	50.9	239324	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	470045	PASS
199	198	5	9	6.7	31497	PASS
275	198	10	30	28.2	132412	PASS
365	198	1	100	3.4	16188	PASS
441	443	0.01	100	76.3	74568	PASS
442	198	40	150	111.4	523796	PASS
443	442	17	23	18.7	97779	PASS

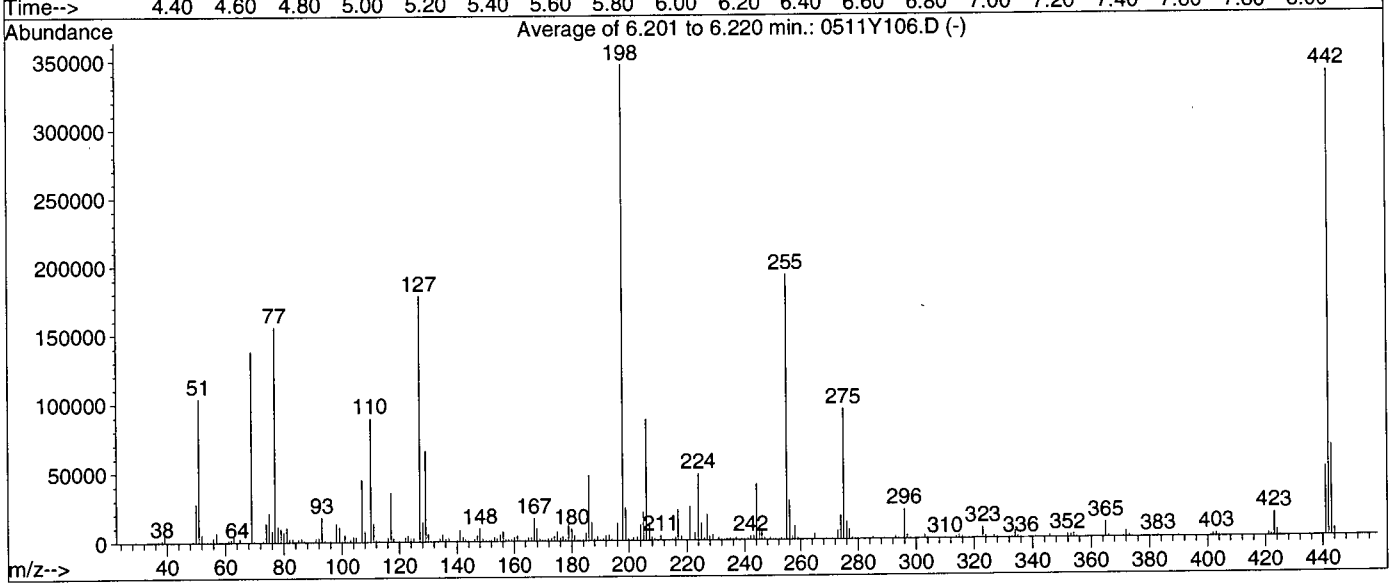
0511Y001.D Y0511TT.M Wed Jun 03 09:42:30 2015

DFTPP

Data File : M:\YODA\DATA\Y150511\0511Y106.D Vial: 6
Acq On : 19 May 15 13:02 Operator: csc
Sample : SV TUNE 5/14/15 Inst : Yoda
Misc : Multiplr: 1.00

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C





AutoFind: Scans 282, 283, 284; Background Corrected with Scan 280

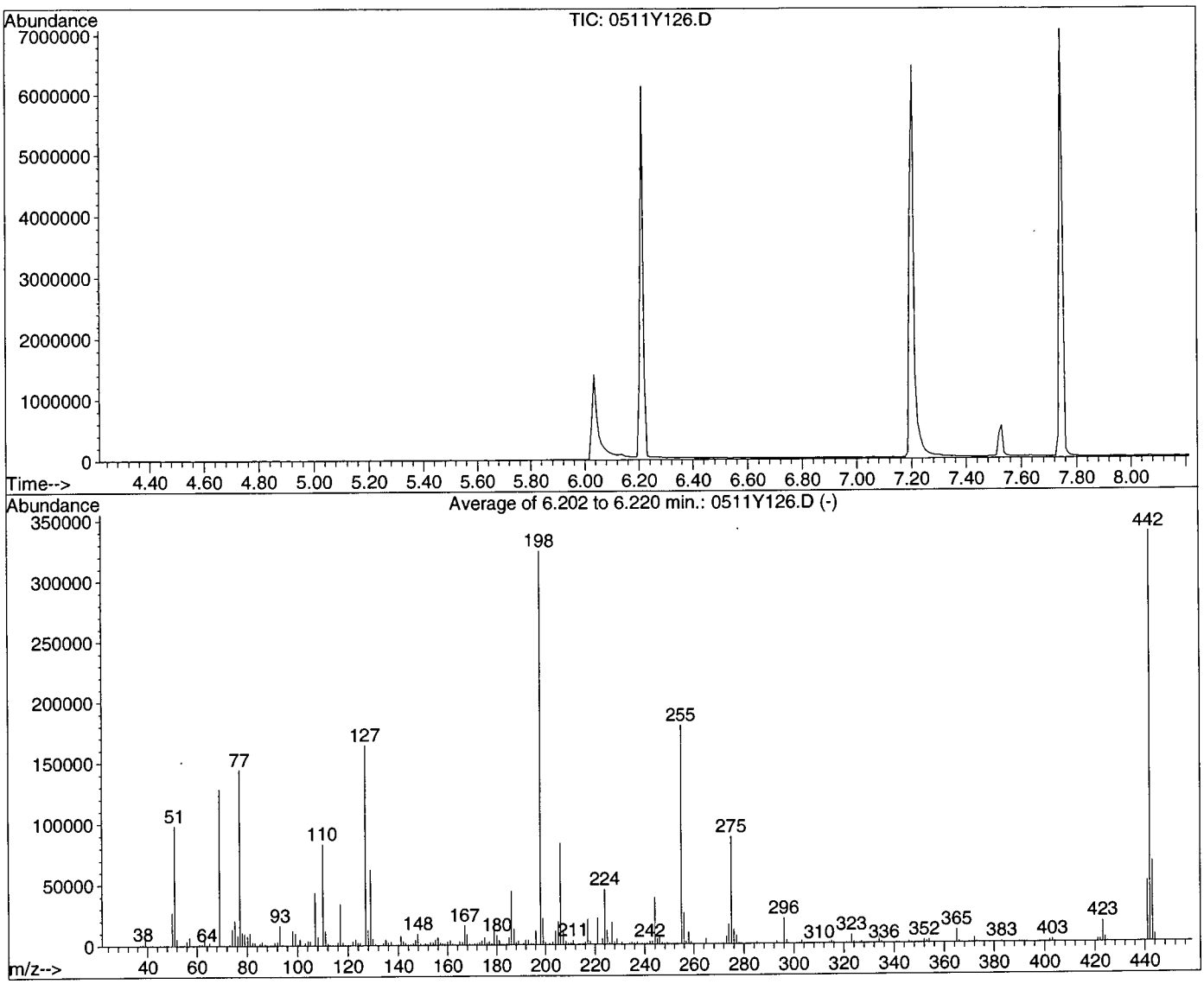
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	30.0	104130	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	728	PASS
127	198	40	60	51.5	178403	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	346589	PASS
199	198	5	9	6.8	23604	PASS
275	198	10	30	27.2	94220	PASS
365	198	1	100	3.2	11011	PASS
441	443	0.01	100	76.6	50279	PASS
442	198	40	150	97.9	339233	PASS
443	442	17	23	19.4	65680	PASS

0511Y106.D Y0511TT.M Wed Jun 03 09:49:57 2015

DFTPP

Data File : M:\YODA\DATA\Y150511\0511Y126.D Vial: 26
Acq On : 20 May 15 00:10 Operator: csc
Sample : SV TUNE 5/14/15 Inst : Yoda
Misc : Multiplr: 1.00

Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 282, 283, 284; 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	30.4	98515	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	648	PASS
127	198	40	60	50.6	164115	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	324259	PASS
199	198	5	9	6.7	21705	PASS
275	198	10	30	27.1	87755	PASS
365	198	1	100	3.2	10538	PASS
441	443	0.01	100	75.7	50187	PASS
442	198	40	150	104.4	338406	PASS
443	442	17	23	19.6	66299	PASS

0511Y126.D Y0511TT.M Wed Jun 03 09:51:18 2015

LH 5/7/15

PREP DATE:	05/07/15					
8270 Second Source (SS) 50ug/mL						
Exp:	**05/14/15**					
		Conc.		Date		**50**
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
o2si	8270 Stock SS	200	VAR	03/23/15	09/23/15	25
EM Science	Methylene Chloride		54200	11/06/14		75
Supelco	SV Internal Standard	2000	XA10079V-34496	02/27/15	09/30/17	2
				Final Vol.		102

LH 5/7/15

PREP DATE:	05/07/15					
8270 Continuing Calibration Verification 50ug/ml						
Exp:	**05/14/15**					
		Conc.		Date		**50**
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Absolute	8270 Stock	200	VAR	11/18/14	05/21/15	25
o2si	8270 BN:A (200:400) Surroga	VAR	242352-34963	05/04/15	01/01/17	25
EM Science	Methylene Chloride		54200	11/06/14		50
Supelco	SV Internal Standard	2000	XA10079V-34496	02/27/15	09/30/17	2
				Final Vol.		102

LH 5/12/15

PREP DATE:	05/12/15														
Sulfolane Standard Curve-L.H.															
EXP.DATE	05/19/15														
							1	**5**	**10**	**20**	**40**	**50**	**60**	**80**	**100**
Supplier	ID #	Conc. µg/mL	Lot#	Date Code	Exp. Date		µL	µL	µL	µL	µL	µL	µL	µL	µL
o2si	Sulfolane Calibration Standard	200	VAR	03/11/15	09/11/15		5	5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		54200	11/06/14			995	195	95	90	80	75	70	60	50
				Final Vol.			1000	200	100	100	100	100	100	100	100

LH 5/11/15

8270 SS						
PREP DATE:	05/11/15					
		Conc.		Date		
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
o2si	8270 Stock S	200	VAR	03/23/15	9/23/15	25
EM Science	Methylene Chloride		54200	11/06/14		75
Supelco	SV Internal	2000	A10079V-3449	02/27/15	09/30/17	2
				Final Vol.		102

PREP DATE:	5/11/15-L.H.													
8270 Standard Curve														
Exp:	05/18/15													
		Conc.		Date			**5**	**10**	**20**	**40**	**50**	**60**	**80**	**100**
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date		µL	µL	µL	µL	µL	µL	µL	µL
Absolute	8270 Stock	200	VAR	11/18/14	05/21/15		5	5	10	20	25	30	40	50
o2si	8270 BN:A (2	VAR	242352-34963	02/27/15	10/8/16		5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		54200	11/06/14			190	90	80	60	50	40	20	0
Supelco	SV Internal	2000	A10079V-3449	02/27/15	09/30/17		4	2	2	2	2	2	2	2
				Final Vol.			204	102	102	102	102	102	##	102

086

GC/MS STANDARD PREPARATION BOOK # L PAGE

03/23/15 CSC

Part #: 82705 Laboratory Use Only - See MSDS CSC
Lot #: 121713 Exp: 121716 Storage 4 °C
EPA Method 8270A - Mix #11
4 components
2000 ug/mL in ac
ABSOLUTE STANDA
EPA Method 8270A-Mix#11
Lot #: 121713 - 34241
Rec: 11/10/14 MFR exp. 12/17/16

03/23/15 CSC

Part #: 82705 Laboratory Use Only - See MSDS CSC
Lot #: 121713 Exp: 121716 Storage 4 °C
EPA Method 8270A - Mix #11
4 components
2000 ug/mL in a
ABSOLUTE STANDA
EPA Method 8270A-Mix#11
Lot #: 121713 - 34242
Rec: 11/10/14 MFR exp. 12/17/16

03/23/15 CSC

Part #: 94552 Laboratory Use Only - See MSDS CSC
Lot #: 082914 Exp: 082919 Storage 4 °C
Semi-Volatile Standard
11 components
Varied µg/mL in meth
ABSOLUTE STANDARD
Semi-Volatile Standard
Lot #: 082914 - 34597
Rec: 1/22/15 MFR exp. 8/29/19

03/23/15 CSC

Part #: 94552 Laboratory Use Only - See MSDS CSC
Lot #: 082914 Exp: 082919 Storage 4 °C
Semi-Volatile Standard
11 components
Varied µg/mL in m
ABSOLUTE STANDAI
Semi-Volatile Standard
Lot #: 082914 - 34247
Rec: 11/10/14 MFR exp. 8/29/19

03/23/15 CSC

PREP DATE:	03/23/15					CSC
8270 Stock/Spike Standard 2000ug/mL				(Atrazine 1000ug/ml)		
Exp:	09/23/15					
		Conc.		Date		
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Absolute	10001	2000	053014-34201	11/10/14	05/30/17	1000
Absolute	10001	2000	053014-34202	11/10/14	05/30/17	1000
Absolute	10002	2000	032814-34206	11/10/14	03/28/17	1000
Absolute	10002	2000	032814-34207	11/10/14	03/28/17	1000
Absolute	10004	2000	091911-34208	11/10/14	09/19/16	1000
Absolute	10004	2000	091911-34212	11/10/14	09/19/16	1000
Absolute	10005	2000	110314-34216	11/10/14	11/03/19	1000
Absolute	10005	2000	110314-34217	11/10/14	11/03/19	1000
Absolute	10006	2000	090414-34221	11/10/14	09/04/17	1000
Absolute	10006	2000	090414-34222	11/10/14	09/04/17	1000
Absolute	10007	2000	071013-34226	11/10/14	07/10/18	1000
Absolute	10007	2000	071013-34227	11/10/14	07/10/18	1000
Absolute	10018	2000	050213-34231	11/10/14	05/02/18	1000
Absolute	10018	2000	050213-34232	11/10/14	05/02/18	1000
Absolute	70023	1000	032014-34236	11/10/14	03/20/19	1000
Absolute	70023	1000	032014-34236	11/10/14	03/20/19	1000
Absolute	82705	2000	121713-34242	11/10/14	12/17/16	1000
Absolute	82705	2000	121713-34242	11/10/14	12/17/16	1000
Absolute	94552	2000	082914-34597	01/22/15	08/29/19	1000
Absolute	94552	2000	082914-34247	11/10/14	08/29/19	1000
				Final Vol.		20000

GC/MS STANDARD PREPARATION BOOK # L PAGE #

11/18/14
CSC

PREP DATE:	11/18/14					
8270 Stock/Spike Standard						CSC
Exp:	05-21-15					
		Conc.				
Supplier	ID #	µg/mL	Lot #	Open Date	Exp.Date	µL
Absolute	10001	2000	053014-34198	11/18/14	05/03/17	1000
Absolute	10001	2000	053014-34199	11/18/14	05/03/17	1000
Absolute	10001	2000	053014-34200	11/18/14	05/03/17	1000
Absolute	10002	2000	032814-34203	11/18/14	03/28/17	1000
Absolute	10002	2000	032814-34205	11/18/14	03/28/17	1000
Absolute	10002	2000	032814-34204	11/18/14	03/28/17	1000
Absolute	10004	2000	091911-34209	11/18/14	09/19/16	1000
Absolute	10004	2000	091911-34211	11/18/14	09/19/16	1000
Absolute	10004	2000	091911-34210	11/18/14	09/19/16	1000
Absolute	10005	2000	110314-34215	11/18/14	11/03/19	1000
Absolute	10005	2000	110314-34213	11/18/14	11/03/19	1000
Absolute	10005	2000	110314-34214	11/18/14	11/03/19	1000
Absolute	10006	2000	090414-34220	11/18/14	09/04/17	1000
Absolute	10006	2000	090414-34218	11/18/14	09/04/17	1000
Absolute	10006	2000	090414-34219	11/18/14	09/04/17	1000
Absolute	10007	2000	071014-34224	11/18/14	07/10/18	1000
Absolute	10007	2000	071014-34223	11/18/14	07/10/18	1000
Absolute	10007	2000	071014-34225	11/18/14	07/10/18	1000
Absolute	10018	2000	050213-34230	11/18/14	05/02/18	1000
Absolute	10018	2000	050213-34229	11/18/14	05/02/18	1000
Absolute	10018	2000	050213-34228	11/18/14	05/02/18	1000
Absolute	70023	1000	032014-34235	11/18/14	03/20/19	1000
Absolute	70023	1000	032014-34233	11/18/14	03/20/19	1000
Absolute	70023	1000	032014-34234	11/18/14	03/20/19	1000
Absolute	82705	2000	121713-34240	11/18/14	12/17/16	1000
Absolute	82705	2000	121713-34239	11/18/14	12/17/16	1000
Absolute	82705	2000	121713-34238	11/18/14	12/17/16	1000
Absolute	94552	2000	082914-34244	11/18/14	08/29/19	1000
Absolute	94552	2000	082914-34245	11/18/14	08/29/19	1000
Absolute	94552	2000	082914-34246	11/18/14	08/29/19	1000
				Final Vol.		30000

CSC
end of page

GC/MS STANDARD PREPARATION BOOK # L PAGE # 073

02/27/15 CSC

8270D PAH SIM Solution, Second Source, 200 mg/L, 1 mL

110780-01-SS

Lot #	Storage	Expiry
243252	≤-10 °C	15/Jan/2017

Solv: Methylene Chloride

8270D PAH SIM (SS)
Lot #: 243252 - 34609
Rec: 1/23/15 MFR exp. 1/15/17

Received: 01/23/15
Opened: 02/27/15
Expired: 01/15/17

02/27/15 CSC

Part #: 30031 Laboratory Use Only - See MSDS
Lot #: 060111 Exp: 060116 Storage 20 °C
EPA Method 525 - Internal Standard
4 components CAUTION: Sonicate Before Use
500 ug/mL in acetc
ABSOLUTE STANDA

EPA Method 525 Internal Std
Lot #: 060111 - 32256
Rec: 4/16/13 MFR exp. 6/1/16

Received: 04/16/13
opened: 02/27/15
Expired: 06/01/16

02/27/15 CSC

PREP DATE:	02/27/15					
8270 SIM PAH Internal Standard Mix 125ug/ml						
Exp.DATE:	08/27/15					
		Conc.		Date	Exp.	125
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
Supelco	Internal Standard	2000	XA10079V-34496	12/11/14	09/30/17	50
EM Science	Methylene Chloride		54200	11/06/14		750
				Final Vol.		800

/27/15 CSC

PREP DATE:	02/27/15					
525 Working Standard 20ug/mL (PCP @ 80ug/ml)						
Exp. DATE:	03/04/15					20
		Conc.		Date	Exp.	
Supplier	ID #	ug/ml	Lot #	Code	Date	ul
Ultra-Scientific	Extractables Mixture (PSM-525A)	500	CK-2769-34658	02/17/15	09/30/16	24
Ultra-Scientific	PAH Mixture (PM-525B)	500	CK-2706-34660	02/17/15	09/30/16	24
EM Science	Methylene Chloride		54200	11/06/14		552
				Final Vol.		600

/27/15 CSC

PREP DATE:	02/27/15					
525 Continuing Calibration Verification 5ug/ml (20ppb PC						
Exp.DATE:	03/04/15					5
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
Ultra Scienti	525 Working Std (PSM-525A) & (PM-525B)	20	VAR	02/17/15	09/30/16	50
Absolute	525 Internal Std (30031)	500	060111-32256	04/16/13	06/01/16	2
EM Science	Methylene Chloride		54200	11/06/14		148
				Final Vol.		200

PREP DATE:	02/26/15		EXP:	03/03/15										
Sulfolane Standard Curve														
						1	5	10	20	40	50	60	80	100
		Conc.		Date	Exp.									
Supplier	ID #	µg/mL	Lot#	Code	Date	µL	µL	µL	µL	µL	µL	µL	µL	µL
o2si	Sulfolane Calibration Standard	200	VAR	10/22/14	03/11/15	5	5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		54200	11/06/14		995	195	95	90	80	75	70	60	50
				Final Vol.		1000	200	100	100	100	100	100	100	100

_SEP004

Organic Extraction Worksheet

Method	625/8270 Separatory Funnel Extra 3510C	Extraction Set	150518A	Extraction Method	SEP004	Units	mL

Spiked ID 1	8270T Spike 4-27-15 EXP 10-27-15		Surrogate ID 1	8270 Surrogate 248398-35028
Spiked ID 2			Surrogate ID 2	
Spiked ID 3			Surrogate ID 3	
Spiked ID 4			Surrogate ID 4	
Spiked ID 5			Surrogate ID 5	
Spiked ID 6			Sufficient Vol for Matrix QC:	YES
Spiked ID 7			Ext. Start Time:	05/18/15 15:00
Spiked ID 8			Ext. End Time:	05/19/15 12:00
			GC Requires Extract By:	**06/02/15 0:00**

pH1	2	05/18/15 3:15:00 PM	Water Bath Temp Criteria	79,80,75 °
pH2	14	05/18/15 4:45:00 PM		
pH3				

Spiked By: KY **Date** 05/18/15 **Witnessed By:** CFM **Date** 05/18/15

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150518A Blk				1	1 equip	1000 E-WB7	1	2/1	05/18/15 15:00	
2	150518A LCS-1		0.250	1	1	1 equip	1000 E-WB7	1	2/1	05/18/15 15:00	
3	150518A LCSD-1		0.250	1	1	1 equip	1000 E-WB5	1	2/1	05/18/15 15:00	
4	AZ16235	AZ16235W09			1	1 equip	1000 E-WB7	1	2/1	05/18/15 15:00	76401
5	AZ16236	AZ16236W10			1	1 equip	1050 E-WB7	1	2/1	05/18/15 15:00	76401
6	AZ16287 MS-1	AZ16287W21	0.250	1	1	1 equip	980 E-WB7	1	2/1	05/18/15 15:00	76413
7	AZ16287 MSD-1	AZ16287W23	0.250	1	1	1 equip	980 E-WB7	1	2/1	05/18/15 15:00	76413
8	AZ16287	AZ16287W24			1	1 equip	1040 E-WB7	1	2/1	05/18/15 15:00	76413
9	AZ16288	AZ16288W07			1	1 equip	1040 E-WB7	1	2/1	05/18/15 15:00	76413
10	AZ16289	AZ16289W07			1	1 equip	1000 E-WB7	1	2/1	05/18/15 15:00	76413
11	AZ16290	AZ16290W08			1	1 equip	900 E-WB7	1	2/1	05/18/15 15:00	76413
12	AZ16334	AZ16334W10			1	1 equip	930 E-WB6	1	2/1	05/18/15 15:00	76424
13	AZ16335	AZ16335W09			1	1 equip	950 E-WB6	1	2/1	05/18/15 15:00	76424
14	AZ16336	AZ16336W10			1	1 equip	1050 E-WB6	1	2/1	05/18/15 15:00	76424
15	AZ16337	AZ16337W10			1	1 equip	950 E-WB6	1	2/1	05/18/15 15:00	76424
16	AZ16338	AZ16338W10			1	1 equip	900 E-WB6	1	2/1	05/18/15 15:00	76424

Solvent and Lot#	
MC	55006
1+1 Sulfuric Acid	3-6-15
Acidified Na2SO4	4-13-15
Na2SO4	XE21E
10N NaOH	3-6-15
ph strips	HC421273
Filter Paper	400091

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	LK
Date	5/19/15
Time	12:20
Refrigerator	GC-C

	Technician's Initials
Scanned By	DC
Sample Preparation	DC,KY
Extraction	DC,KY,CFM,DL
Concentration	IC

Modified	05/19/15 12:18:52 PM

Reviewed By: Ky **Date** 5/19/15

_SEP004

Organic Extraction Worksheet

Method	625/8270 Separatory Funnel Extra 3510C	Extraction Set	150518A	Extraction Method	SEP004	Units	mL

Spiked ID 1	8270T Spike 4-27-15 EXP 10-27-15		Surrogate ID 1	8270 Surrogate 248398-35028	
Spiked ID 2			Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	05/18/15 15:00	
Spiked ID 8			Ext. End Time:	05/19/15 12:00	
			GC Requires Extract By:	**06/02/15 0:00**	

pH1	2	05/18/15 3:15:00 PM	Water Bath Temp Criteria	79,80,75 °
pH2	14	05/18/15 4:45:00 PM		
pH3				

Spiked By: KY **Date** 05/18/15 **Witnessed By:** CFM **Date** 05/18/15

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ16339	AZ16339W09			1	1	1030	1	2/1	05/18/15 15:00	76424
						equip	E-WB6				
18	AZ16340	AZ16340W10			1	1	980	1	2/1	05/18/15 15:00	76424
						equip	E-WB6				
19	AZ16341	AZ16341W10			1	1	900	1	2/1	05/18/15 15:00	76424
						equip	E-WB6				
20	AZ16342	AZ16342W10			1	1	950	1	2/1	05/18/15 15:00	76424
						equip	E-WB6				
21	AZ16457	AZ16457W07			1	1	150	1	2/1	05/18/15 15:00	76463 RUSH 48HRS
						equip	E-WB6				

KY 5/19/15

olvent and Lot#	
4C	55006
+1 Sulfuric Acid	3-6-15
cidified Na2SO4	4-13-15
Na2SO4	XE21E
0N NaOH	3-6-15
h-strips	HC421273
ilter Paper	400091

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	LH
Date	5/19/15
Time	12:20
Refrigerator	RC-C

	Technician's Initials
Scanned By	DC
Sample Preparation	DC,KY
Extraction	DC,KY,CFM,DL
Concentration	IC

Modified	05/19/15 12:18:52 PM

Reviewed By: Ky **Date** 5/19/15

Injection Log

Directory: M:\YODA\DATA\Y150511

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0511Y001.D	1	SV Tune 03/12/15		05/11/2015 14:44
2	2	0511Y002.D	1	5ug/ml SVOC 05/11/15		05/11/2015 15:02
3	3	0511Y003.D	1	10ug/ml SVOC		05/11/2015 15:31
4	4	0511Y004.D	1	20ug/ml SVOC		05/11/2015 16:01
5	5	0511Y005.D	1	40ug/ml SVOC		05/11/2015 16:31
6	6	0511Y006.D	1	50ug/ml SVOC		05/11/2015 17:00
7	7	0511Y007.D	1	60ug/ml SVOC		05/11/2015 17:31
8	8	0511Y008.D	1	80ug/ml SVOC		05/11/2015 18:00
9	9	0511Y009.D	1	100ug/ml SVOC		05/11/2015 18:30
10	10	0511Y010.D	1	50ug/ml SVOC SS 05/11/15		05/11/2015 19:00
11	6	0511Y106.D	1	SV TUNE 5/14/15		05/19/2015 13:02
12	7	0511Y107.D	1	50ug/ml SVOC 05/19/15		05/19/2015 13:20
13	8	0511Y108.D	1	150518A BLK 1/1000	water	05/19/2015 15:21
14	20	0511Y120.D	1.07527	AZ16334W10 1/930	water	05/19/2015 21:17
15	21	0511Y121.D	1.05263	AZ16335W09 1/950	water	05/19/2015 21:46
16	22	0511Y122.D	0.95238	AZ16336W10 1/1050	water	05/19/2015 22:16
17	23	0511Y123.D	1.05263	AZ16337W10 1/950	water	05/19/2015 22:45
18	24	0511Y124.D	1.11111	AZ16338W10 1/900	water	05/19/2015 23:15
19	25	0511Y125.D	0.97087	AZ16339W09 1/1030	water	05/19/2015 23:44
20	26	0511Y126.D	1	SV TUNE 5/14/15		05/20/2015 00:10
21	27	0511Y127.D	1	50ug/ml SVOC 05/19/15		05/20/2015 00:28
22	28	0511Y128.D	10.20408	AZ16340W10 1/980	water	05/20/2015 00:58
23	29	0511Y129.D	1.11111	AZ16341W10 1/900	water	05/20/2015 01:27
24	30	0511Y130.D	1.05263	AZ16342W10 1/950	water	05/20/2015 01:56

EPA METHOD 8270D
Polynuclear Aromatic Hydrocarbons

APPL, INC.

EPA METHOD 8270D
Polynuclear Aromatic Hydrocarbons
QC Summary

APPL, INC.

Method Blank

EPA 8270D LL WATER DODv3

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150518W-16287 - 197649**
Batch ID: #SIMDD-150518A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
BLANK	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
BLANK	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
BLANK	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
BLANK	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
BLANK	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
BLANK	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
BLANK	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
BLANK	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
BLANK	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
BLANK	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
BLANK	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
BLANK	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
BLANK	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
BLANK	SURROGATE: 2-FLUORBIPHENY	47.8 #	50-110			%	5/18/2015	5/27/2015
BLANK	SURROGATE: NITROBENZENE-	62.2	40-110			%	5/18/2015	5/27/2015
BLANK	SURROGATE: TERPHENYL-D14 (	85.4	50-135			%	5/18/2015	5/27/2015

= Recovery (or RPD) is outside QC limits.

Quant Method: P0518-42.M
Run #: 0515L196
Instrument: Linus
Sequence: L150515
Initials: DA

GC SC-Blank-REG MDLs
Printed: 6/3/2015 12:54:52 PM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76424

Case No: 76424 Date Analyzed: 5/27/2015

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150518A-BLK	Blank	50-110	47.8	#	40-110	62.2	
150518A-LCS	Lab Control Spike	50-110	56.4		40-110	67.4	
AZ16334	S67-MW008-051315	50-110	61.5		40-110	67.7	
AZ16335	S67-MW001-051315	50-110	56.0		40-110	56.3	
AZ16336	S67-MW001P-051315	50-110	55.5		40-110	55.9	
AZ16337	S67-MW10-051315	50-110	57.0		40-110	58.6	
AZ16338	S67-MW013-051315	50-110	54.0		40-110	58.3	
AZ16339	S67-MW004-051315	50-110	57.0		40-110	63.8	
AZ16340	S67-MW005-051315	50-110	52.3		40-110	52.2	
AZ16341	S67-MW014-051315	50-110	62.0		40-110	67.0	
AZ16342	S67-MW004P-051315	50-110	58.2		40-110	56.5	

Comments: Batch: #SIMDD-150518A

= Recovery outside of Control Limits on Sample.

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76424

Case No: 76424 Date Analyzed: 5/27/2015

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150518A-BLK	Blank	50-135	85.4				
150518A-LCS	Lab Control Spike	50-135	84.3				
AZ16334	S67-MW008-051315	50-135	90.7				
AZ16335	S67-MW001-051315	50-135	85.4				
AZ16336	S67-MW001P-051315	50-135	81.5				
AZ16337	S67-MW10-051315	50-135	85.3				
AZ16338	S67-MW013-051315	50-135	82.5				
AZ16339	S67-MW004-051315	50-135	85.0				
AZ16340	S67-MW005-051315	50-135	80.6				
AZ16341	S67-MW014-051315	50-135	91.9				
AZ16342	S67-MW004P-051315	50-135	85.5				

Comments: Batch: #SIMDD-150518A

Laboratory Control Spike Recovery
EPA 8270D LL WATER DODv3

APPL ID: **150518W-16287 LCS - 197649**
Batch ID: #SIMDD-150518A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2-METHYLNAPHTHALENE	5.00	3.17	63.4	45-105
ACENAPHTHENE	5.00	4.06	81.2	45-110
ACENAPHTHYLENE	5.00	3.64	72.8	50-105
ANTHRACENE	5.00	3.57	71.4	55-110
BENZ (A) ANTHRACENE	5.00	4.01	80.2	55-110
BENZO (A) PYRENE	5.00	4.09	81.8	55-110
BENZO (B) FLUORANTHENE	5.00	3.88	77.6	45-120
BENZO (G,H,I) PERYLENE	5.00	3.96	79.2	40-125
BENZO (K) FLUORANTHENE	5.00	4.36	87.2	45-125
CHRYSENE	5.00	4.46	89.2	55-110
DIBENZ (A,H) ANTHRACENE	5.00	4.05	81.0	40-125
FLUORANTHENE	5.00	3.75	75.0	55-115
FLUORENE	5.00	3.71	74.2	50-110
INDENO (1,2,3-CD) PYRENE	5.00	4.24	84.8	45-125
NAPHTHALENE	5.00	3.90	78.0	40-100
PHENANTHRENE	5.00	3.64	72.8	50-115
PYRENE	5.00	4.34	86.8	50-130
SURROGATE: 2-FLUORBIPHENYL (S)	2.55	1.44	56.4	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.55	1.72	67.4	40-110
SURROGATE: TERPHENYL-D14 (S)	2.55	2.15	84.3	50-135

Comments: _____

Primary	SPK
Quant Method :	P0518-42.M
Extraction Date :	5/18/2015
Analysis Date :	5/27/2015
Instrument :	Linus
Run :	0515L197
Initials :	DA

Printed: 6/3/2015 12:54:41 PM
APPL Standard LCS

8270D-LL

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER
Blank ID: 150518A-BLK

SDG No: 76424
Date Analyzed: 5/27/2015
Instrument: Linus
Time Analyzed: 0219

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150518A-BLK	Blank	0515L196	5/27/2015 0219
150518A-LCS	Lab Control Spike	0515L197	5/27/2015 0245
AZ16334	S67-MW008-051315	0515L206	5/27/2015 0636
AZ16335	S67-MW001-051315	0515L207	5/27/2015 0701
AZ16336	S67-MW001P-051315	0515L208	5/27/2015 0727
AZ16337	S67-MW10-051315	0515L209	5/27/2015 0753
AZ16338	S67-MW013-051315	0515L210	5/27/2015 0818
AZ16339	S67-MW004-051315	0515L211	5/27/2015 0843
AZ16340	S67-MW005-051315	0515L212	5/27/2015 0909
AZ16341	S67-MW014-051315	0515L213	5/27/2015 0934
AZ16342	S67-MW004P-051315	0515L214	5/27/2015 1000

Comments: Batch: #SIMDD-150518A

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: ~~0515L002.D~~ 76424
Matrix: Water np 6-19-15
ID: SV Tune 05/14/15

SDG No: ~~Linus~~ np 6-19-15 76424
Date Analyzed: 5/15/2015
Instrument: Linus
Time Analyzed: 16:56

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		0.1ug/ml PAH 05/15/1	0515L003.D	5/15/2015 17:15
2		0.2ug/ml PAH	0515L004.D	5/15/2015 17:41
3		0.5ug/ml PAH	0515L005.D	5/15/2015 18:06
4		1.0ug/ml PAH	0515L006.D	5/15/2015 18:32
5		5.0ug/ml PAH	0515L007.D	5/15/2015 18:58
6		10ug/ml PAH	0515L008.D	5/15/2015 19:23
7		50ug/ml PAH	0515L009.D	5/15/2015 19:49
8		100ug/ml PAH	0515L010.D	5/15/2015 20:14
9		5.0ug/ml PAH SS 05/1	0515L011.D	5/15/2015 20:40
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60% of mass 198	36.1
68	0 - 2.05% of mass 69	1.4
70	0 - 2% of mass 69	0.5
127	39.5 - 60% of mass 198	46.9
197	0 - 1% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	20.7
365	1 - 100% of mass 198	2.0
441	0.01 - 100% of mass 443	76.6
442	40 - 150% of mass 198	69.5
443	17 - 23% of mass 442	19.2

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 76424
Matrix: Water
ID: SV TUNE 5/14/15

SDG No: 76424
Date Analyzed: 5/27/2015
Instrument: Linus
Time Analyzed: 1:35

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5.0ug/ml PAH 5/26/15	0515L195.D	5/27/2015 1:54
2	Blank	150518A BLK 1/1000	0515L196.D	5/27/2015 2:19
3	Lab Control Spike	150518A LCS-1 1/1000	0515L197.D	5/27/2015 2:45
4	S67-MW008-051315	AZ16334W09 1/940	0515L206.D	5/27/2015 6:36
5	S67-MW001-051315	AZ16335W10 1/980	0515L207.D	5/27/2015 7:01
6	S67-MW001P-051315	AZ16336W09 1/980	0515L208.D	5/27/2015 7:27
7	S67-MW10-051315	AZ16337W09 1/1070	0515L209.D	5/27/2015 7:53
8	S67-MW013-051315	AZ16338W09 1/1050	0515L210.D	5/27/2015 8:18
9	S67-MW004-051315	AZ16339W10 1/1050	0515L211.D	5/27/2015 8:43
10	S67-MW005-051315	AZ16340W09 1/1070	0515L212.D	5/27/2015 9:09
11	S67-MW014-051315	AZ16341W09 1/1040	0515L213.D	5/27/2015 9:34
12	S67-MW004P-051315	AZ16342W09 1/1020	0515L214.D	5/27/2015 10:00
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60% of mass 198	31.3
68	0 - 2.05% of mass 69	1.6
70	0 - 2% of mass 69	0.5
127	39.5 - 60% of mass 198	45.3
197	0 - 1% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	20.5
365	1 - 100% of mass 198	1.9
441	0.01 - 100% of mass 443	75.8
442	40 - 150% of mass 198	81.5
443	17 - 23% of mass 442	19.4

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc.
Contract: Review
Lab Code:
SDG No.: 76424
Lab File ID (Standard): 0515L009.D
Date Analyzed: 05/15/15
Instrument ID: Linus
Time Analyzed: 19:49
GC Column: ID:
Heated Purge: (Y/N)

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	9907	6.16	4610	8.16	7949	9.88
	UPPER LIMIT	19814	6.66	9220	8.66	15898	10.38
	LOWER LIMIT	4954	5.66	2305	7.66	3975	9.38
	SAMPLE NO.						
01	5.0ug/ml PAH SS 05/15	9571	6.16	4405	8.16	7622	9.90
02	150518A BLK 1/1000	8846	6.16	4669	8.17	8053	9.91
03	150518A LCS-1 1/1000	9630	6.16	4920	8.17	8948	9.90
04	AZ16334W09 1/940	9952	6.16	5250	8.17	9294	9.90
05	AZ16335W10 1/980	10034	6.16	4881	8.17	8501	9.90
06	AZ16336W09 1/980	9837	6.16	4816	8.17	8817	9.90
07	AZ16337W09 1/1070	9898	6.16	4885	8.17	8408	9.90
08	AZ16338W09 1/1050	9280	6.16	4821	8.17	8361	9.90
09	AZ16339W10 1/1050	10092	6.16	5300	8.17	9086	9.90
10	AZ16340W09 1/1070	10827	6.16	5098	8.17	8795	9.90
11	AZ16341W09 1/1040	8204	6.16	4320	8.17	7363	9.90
12	AZ16342W09 1/1020	10632	6.16	5063	8.17	8572	9.90
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

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

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

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 76424

Lab File ID (Standard): 0515L009.D Date Analyzed: 05/15/15

Instrument ID: Linus Time Analyzed: 19:49

GC Column: ID: Heated Purge: (Y/N)

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	8664	12.96	5437	14.57		
	UPPER LIMIT	17328	13.46	10874	15.07		
	LOWER LIMIT	4332	12.46	2719	14.07		
	SAMPLE NO.						
01	5.0ug/ml PAH SS 05/15	7750	12.96	4908	14.57		
02	150518A BLK 1/1000	8343	12.98	5471	14.59		
03	150518A LCS-1 1/1000	9112	12.97	5936	14.59		
04	AZ16334W09 1/940	9527	12.97	6311	14.59		
05	AZ16335W10 1/980	8769	12.97	5759	14.59		
06	AZ16336W09 1/980	9033	12.97	5949	14.59		
07	AZ16337W09 1/1070	8691	12.97	5784	14.59		
08	AZ16338W09 1/1050	8648	12.97	5681	14.59		
09	AZ16339W10 1/1050	9520	12.97	6230	14.59		
10	AZ16340W09 1/1070	8914	12.97	5824	14.59		
11	AZ16341W09 1/1040	7727	12.97	5136	14.59		
12	AZ16342W09 1/1020	8911	12.97	5906	14.59		
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

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

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

EPA METHOD 8270D
Polynuclear Aromatic Hydrocarbons
Sample Data

APPL, INC.

EPA 8270D LL WATER DODv3

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW008-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16334
QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	61.5	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	67.7	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	90.7	50-135			%	5/18/2015	5/27/2015

Quant Method: P0518-42.M
Run #: 0515L206
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 12:54:30 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L206.D Vial: 6
Acq On : 27 May 15 6:36 Operator: MA
Sample : AZ16334W09 1/940 Inst : Linus
Misc : water Multiplr: 1.06

Quant Time: Jun 3 10:31 2015 Quant Results File: P0518-42.RES

Quant Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	9952	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.17	164	5250	2.50 ppb	0.01
11) Phenanthrene-D10(IS)	9.90	188	9294	2.50 ppb	0.00
15) Chrysene-D12(IS)	12.97	240	9527	2.50 ppb	0.01
21) Perylene-D12(IS)	14.59	264	6311	2.50 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.36	82	1961	1.80 ppb	0.00
Spiked Amount 2.660			Recovery	= 67.718%	
7) Surrogate Recovery (FBP)	7.41	172	5102	1.64 ppb	0.01
Spiked Amount 2.660			Recovery	= 61.514%	
17) Surrogate Recovery (TPH)	11.77	244	6935	2.41 ppb	0.00
Spiked Amount 2.660			Recovery	= 90.654%	
Target Compounds					Qvalue
14) Fluoranthene	11.30	202	20	-0.12 ppb #	57
22) Benzo (b) fluoranthene	14.15	252	32	-0.18 ppb #	39

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

Quantitation Report

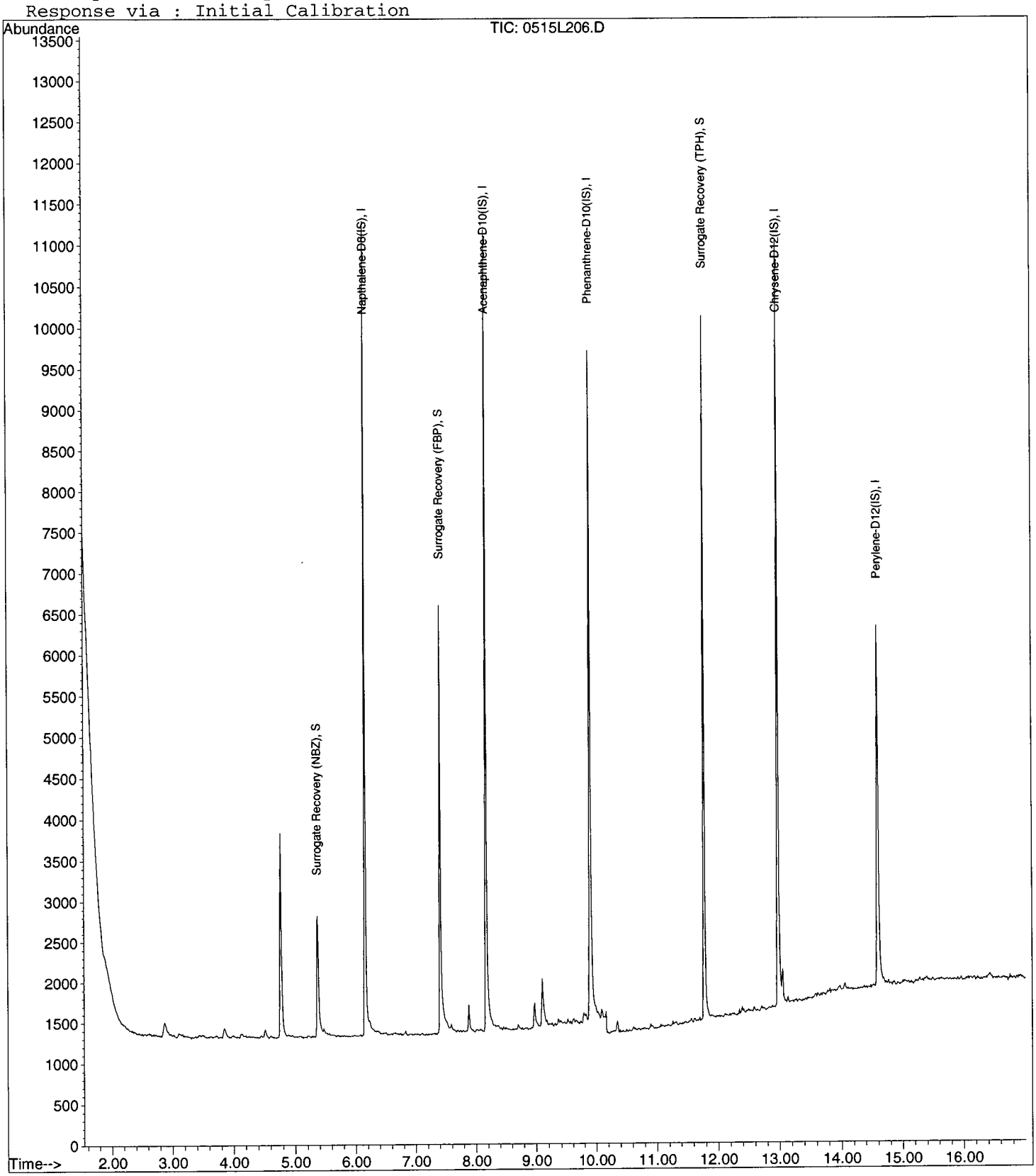
Data File : M:\LINUS\DATA\L150515\0515L206.D
Acq On : 27 May 15 6:36
Sample : AZ16334W09 1/940
Misc : water

Vial: 6
Operator: MA
Inst : Linus
Multiplr: 1.06

Quant Time: Jun 3 10:31 2015

Quant Results File: P0518-42.RES

Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration



EPA 8270D LL WATER DODv3

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16335
QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	56.0	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	56.3	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	85.4	50-135			%	5/18/2015	5/27/2015

Quant Method: P0518-42.M
Run #: 0515L207
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 12:54:30 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L207.D Vial: 7
Acq On : 27 May 15 7:01 Operator: MA
Sample : AZ16335W10 1/980 Inst : Linus
Misc : water Multiplr: 1.02

Quant Time: Jun 3 10:32 2015 Quant Results File: P0518-42.RES

Quant Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	10034	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.17	164	4881	2.50 ppb	0.01
11) Phenanthrene-D10(IS)	9.90	188	8501	2.50 ppb	0.00
15) Chrysene-D12(IS)	12.97	240	8769	2.50 ppb	0.01
21) Perylene-D12(IS)	14.59	264	5759	2.50 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.36	82	1605	1.44 ppb	0.00
Spiked Amount 2.551			Recovery	= 56.252%	
7) Surrogate Recovery (FBP)	7.41	172	4315	1.43 ppb	0.01
Spiked Amount 2.551			Recovery	= 55.978%	
17) Surrogate Recovery (TPH)	11.77	244	6013	2.18 ppb	0.00
Spiked Amount 2.551			Recovery	= 85.417%	
Target Compounds					Qvalue
14) Fluoranthene	11.30	202	39	-0.11 ppb #	71

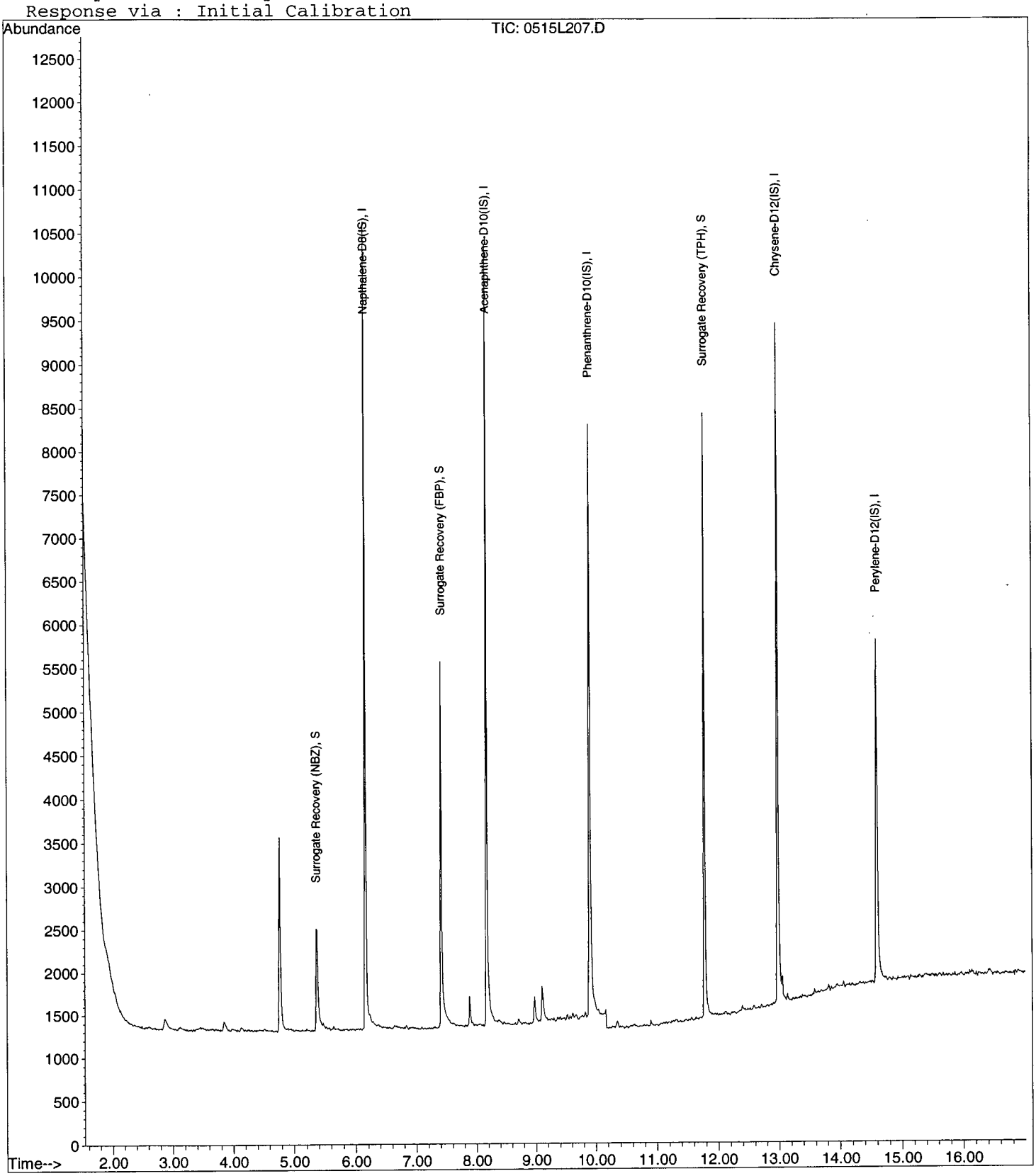
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150515\0515L207.D Vial: 7
Acq On : 27 May 15 7:01 Operator: MA
Sample : AZ16335W10 1/980 Inst : Linus
Misc : water Multiplr: 1.02

Quant Time: Jun 3 10:32 2015 Quant Results File: P0518-42.RES

Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration



EPA 8270D LL WATER DODv3

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001P-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16336
QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	55.5	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	55.9	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	81.5	50-135			%	5/18/2015	5/27/2015

Quant Method: P0518-42.M
Run #: 0515L208
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 12:54:30 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L208.D
Acq On : 27 May 15 7:27
Sample : AZ16336W09 1/980
Misc : water

Vial: 8
Operator: MA
Inst : Linus
Multiplr: 1.02

Quant Time: Jun 3 10:33 2015

Quant Results File: P0518-42.RES

Quant Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	9837	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.17	164	4816	2.50 ppb	0.01
11) Phenanthrene-D10(IS)	9.90	188	8817	2.50 ppb	0.00
15) Chrysene-D12(IS)	12.97	240	9033	2.50 ppb	0.01
21) Perylene-D12(IS)	14.59	264	5949	2.50 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.36	82	1564	1.43 ppb	0.00
Spiked Amount 2.551			Recovery	= 55.938%	
7) Surrogate Recovery (FBP)	7.41	172	4224	1.42 ppb	0.01
Spiked Amount 2.551			Recovery	= 55.546%	
17) Surrogate Recovery (TPH)	11.77	244	5910	2.08 ppb	0.00
Spiked Amount 2.551			Recovery	= 81.497%	
Target Compounds					Qvalue
14) Fluoranthene	11.30	202	29	-0.11 ppb #	82
22) Benzo (b) fluoranthene	14.16	252	57	-0.16 ppb #	58

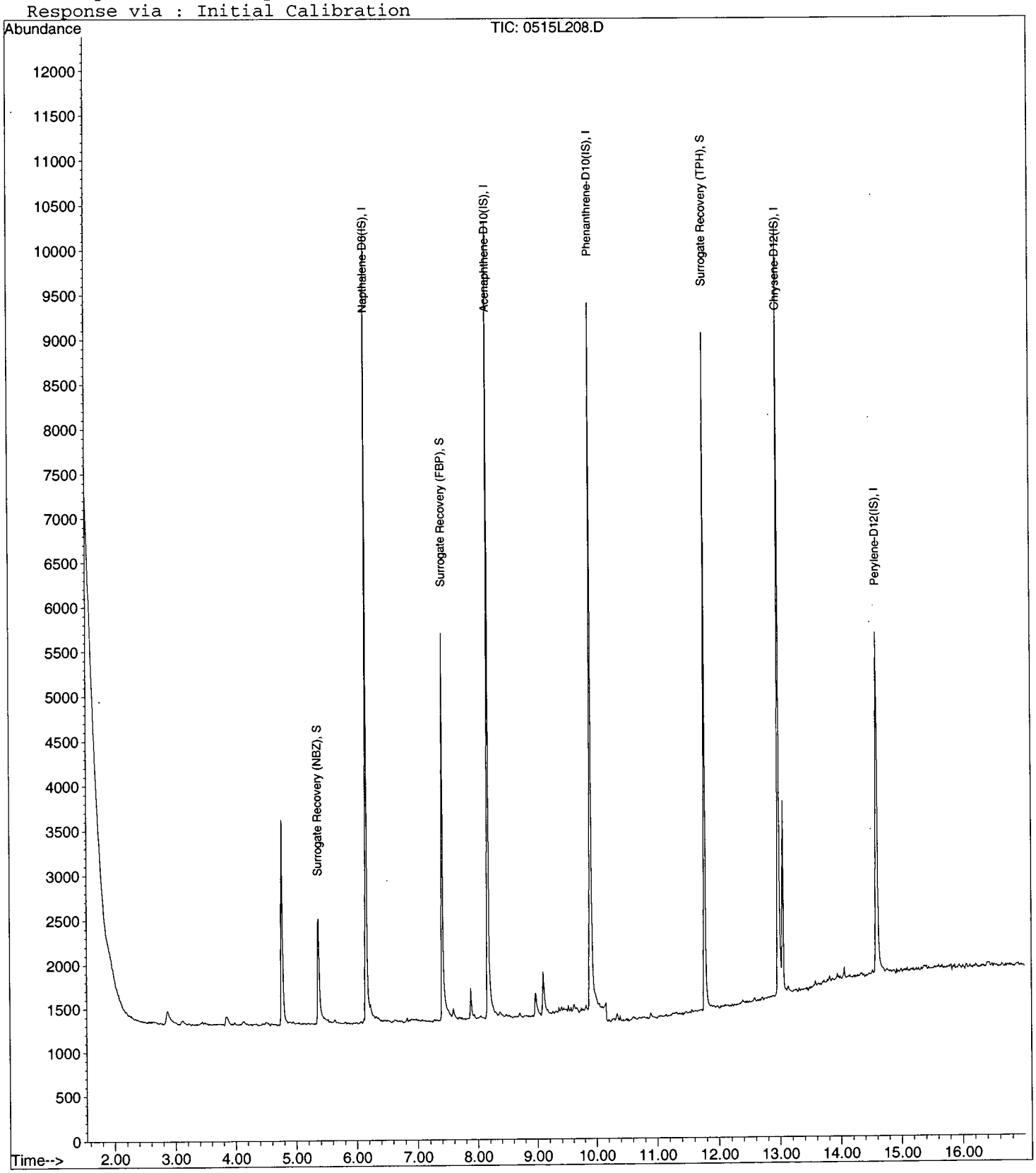
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150515\0515L208.D Vial: 8
Acq On : 27 May 15 7:27 Operator: MA
Sample : AZ16336W09 1/980 Inst : Linus
Misc : water Multiplr: 1.02

Quant Time: Jun 3 10:33 2015 Quant Results File: P0518-42.RES

Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration



EPA 8270D LL WATER DODv3

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW10-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16337
QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	57.0	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	58.6	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	85.3	50-135			%	5/18/2015	5/27/2015

Quant Method: P0518-42.M
Run #: 0515L209
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 12:54:30 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L209.D Vial: 9
Acq On : 27 May 15 7:53 Operator: MA
Sample : AZ16337W09 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Jun 3 10:33 2015 Quant Results File: P0518-42.RES

Quant Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	9898	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.17	164	4885	2.50 ppb	0.01
11) Phenanthrene-D10(IS)	9.90	188	8408	2.50 ppb	0.00
15) Chrysene-D12(IS)	12.97	240	8691	2.50 ppb	0.01
21) Perylene-D12(IS)	14.59	264	5784	2.50 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.36	82	1659	1.37 ppb	0.00
Spiked Amount 2.336			Recovery	= 58.636%	
7) Surrogate Recovery (FBP)	7.41	172	4400	1.33 ppb	0.01
Spiked Amount 2.336			Recovery	= 57.010%	
17) Surrogate Recovery (TPH)	11.77	244	5955	1.99 ppb	0.00
Spiked Amount 2.336			Recovery	= 85.343%	
Target Compounds					Qvalue
14) Fluoranthene	11.30	202	24	-0.10 ppb #	88
22) Benzo (b) fluoranthene	14.15	252	29	-0.15 ppb #	42

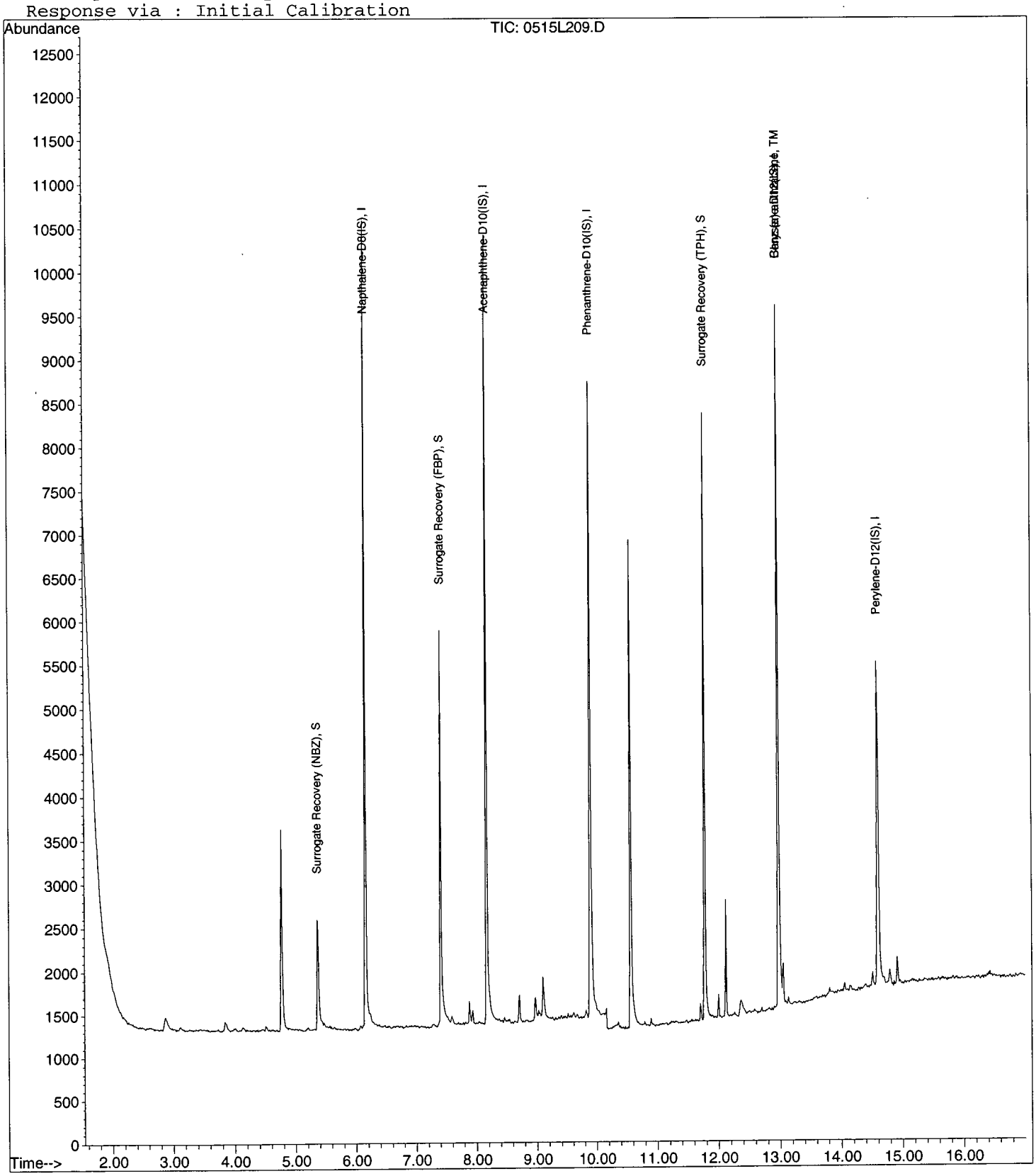
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150515\0515L209.D Vial: 9
Acq On : 27 May 15 7:53 Operator: MA
Sample : AZ16337W09 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Jun 3 10:33 2015 Quant Results File: P0518-42.RES

Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration



EPA 8270D LL WATER DODv3

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW013-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16338
QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	54.0	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	58.3	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	82.5	50-135			%	5/18/2015	5/27/2015

Quant Method: P0518-42.M
Run #: 0515L210
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 12:54:30 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L210.D Vial: 10
Acq On : 27 May 15 8:18 Operator: MA
Sample : AZ16338W09 1/1050 Inst : Linus
Misc : water Multiplr: 0.95

Quant Time: Jun 3 10:34 2015 Quant Results File: P0518-42.RES

Quant Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	9280	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.17	164	4821	2.50 ppb	0.01
11) Phenanthrene-D10(IS)	9.90	188	8361	2.50 ppb	0.00
15) Chrysene-D12(IS)	12.97	240	8648	2.50 ppb	0.01
21) Perylene-D12(IS)	14.59	264	5681	2.50 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.36	82	1547	1.39 ppb	0.00
Spiked Amount 2.381			Recovery	= 58.338%	
7) Surrogate Recovery (FBP)	7.41	172	4109	1.28 ppb	0.01
Spiked Amount 2.381			Recovery	= 53.970%	
17) Surrogate Recovery (TPH)	11.77	244	5726	1.96 ppb	0.00
Spiked Amount 2.381			Recovery	= 82.488%	
Target Compounds					Qvalue
14) Fluoranthene	11.30	202	28	-0.11 ppb #	87
22) Benzo (b) fluoranthene	14.15	252	41	-0.16 ppb #	41

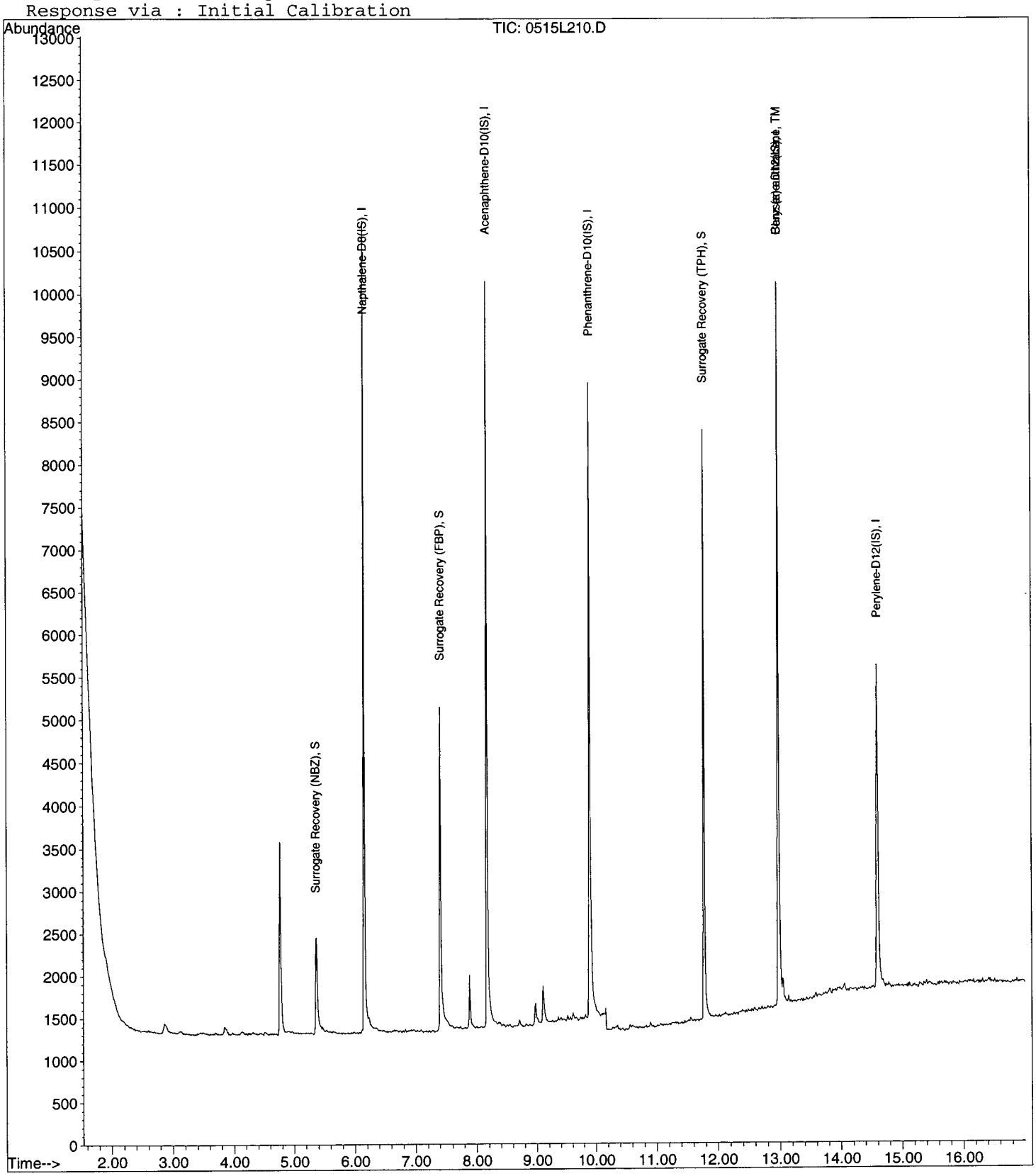
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150515\0515L210.D Vial: 10
Acq On : 27 May 15 8:18 Operator: MA
Sample : AZ16338W09 1/1050 Inst : Linus
Misc : water Multiplr: 0.95

Quant Time: Jun 3 10:34 2015 Quant Results File: P0518-42.RES

Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration



EPA 8270D LL WATER DODv3

Tetra Tech
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APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16339
QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	57.0	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	63.8	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	85.0	50-135			%	5/18/2015	5/27/2015

Quant Method: P0518-42.M
Run #: 0515L211
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 12:54:30 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L211.D
Acq On : 27 May 15 8:43
Sample : AZ16339W10 1/1050
Misc : water

Vial: 11
Operator: MA
Inst : Linus
Multiplr: 0.95

Quant Time: Jun 3 10:35 2015

Quant Results File: P0518-42.RES

Quant Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	10092	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.17	164	5300	2.50 ppb	0.01
11) Phenanthrene-D10(IS)	9.90	188	9086	2.50 ppb	0.00
15) Chrysene-D12(IS)	12.97	240	9520	2.50 ppb	0.01
21) Perylene-D12(IS)	14.59	264	6230	2.50 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.36	82	1860	1.52 ppb	0.00
Spiked Amount 2.381			Recovery	= 63.756%	
7) Surrogate Recovery (FBP)	7.41	172	4776	1.36 ppb	0.01
Spiked Amount 2.381			Recovery	= 57.036%	
17) Surrogate Recovery (TPH)	11.77	244	6494	2.02 ppb	0.00
Spiked Amount 2.381			Recovery	= 84.966%	
Target Compounds					Qvalue
14) Fluoranthene	11.30	202	20	-0.11 ppb #	35
22) Benzo (b) fluoranthene	14.17	252	39	-0.16 ppb #	10

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

Quantitation Report

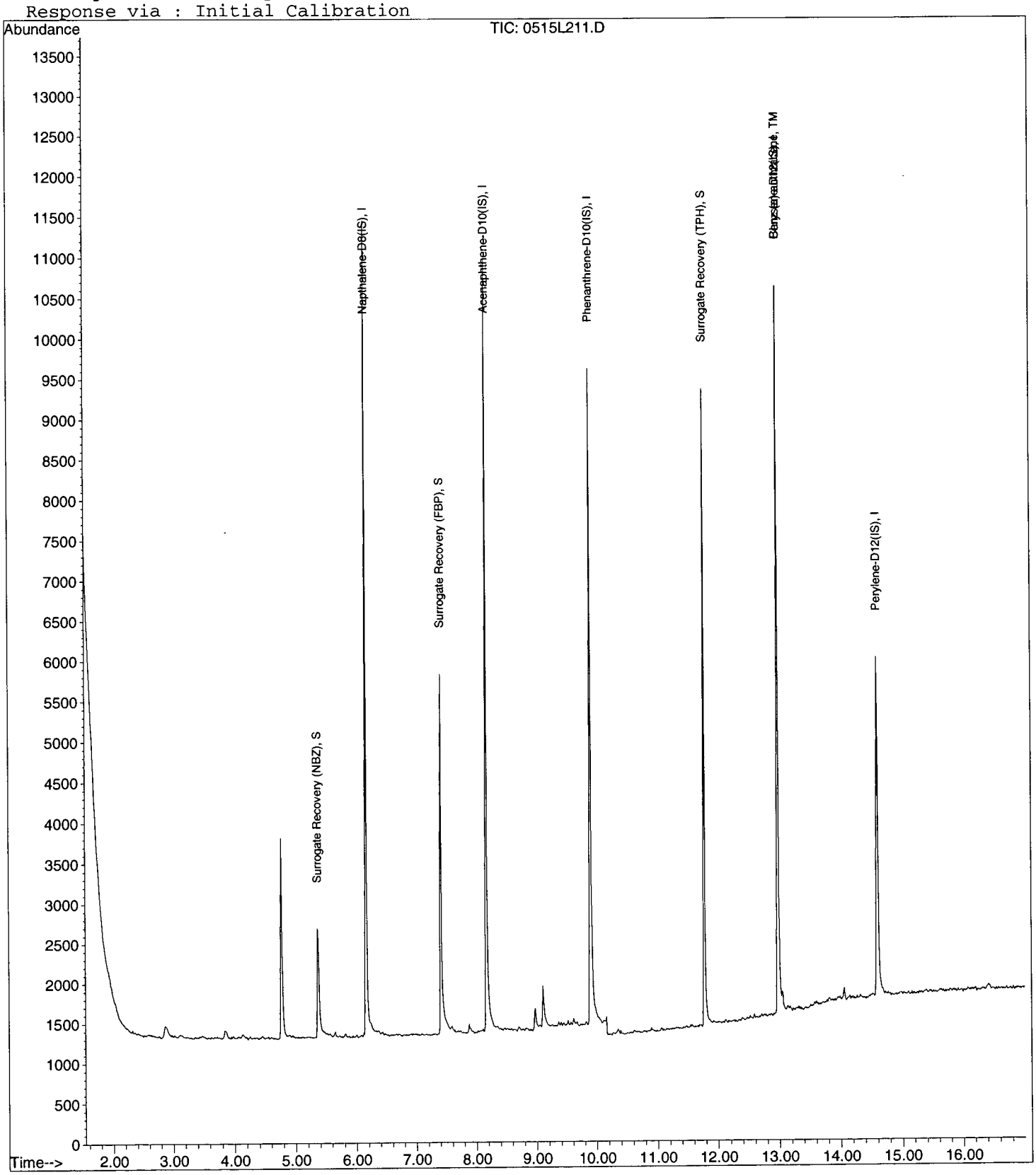
Data File : M:\LINUS\DATA\L150515\0515L211.D
Acq On : 27 May 15 8:43
Sample : AZ16339W10 1/1050
Misc : water

Vial: 11
Operator: MA
Inst : Linus
Multiplr: 0.95

Quant Time: Jun 3 10:35 2015

Quant Results File: P0518-42.RES

Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration



EPA 8270D LL WATER DODv3

Tetra Tech
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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW005-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16340
QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	52.3	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	52.2	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	80.6	50-135			%	5/18/2015	5/27/2015

Quant Method: P0518-42.M
Run #: 0515L212
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 12:54:30 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L212.D
Acq On : 27 May 15 9:09
Sample : AZ16340W09 1/1070
Misc : water

Vial: 12
Operator: MA
Inst : Linus
Multiplr: 0.93

Quant Time: Jun 3 10:36 2015
Quant Results File: P0518-42.RES

Quant Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	10827	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.17	164	5098	2.50 ppb	0.01
11) Phenanthrene-D10(IS)	9.90	188	8795	2.50 ppb	0.00
15) Chrysene-D12(IS)	12.97	240	8914	2.50 ppb	0.01
21) Perylene-D12(IS)	14.59	264	5824	2.50 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.36	82	1589	1.22 ppb	0.00
Spiked Amount 2.336			Recovery	= 52.173%	
7) Surrogate Recovery (FBP)	7.41	172	4211	1.22 ppb	0.01
Spiked Amount 2.336			Recovery	= 52.302%	
17) Surrogate Recovery (TPH)	11.77	244	5764	1.88 ppb	0.00
Spiked Amount 2.336			Recovery	= 80.550%	
Target Compounds					Qvalue
14) Fluoranthene	11.30	202	21	-0.10 ppb #	37
22) Benzo (b) fluoranthene	14.15	252	18	-0.16 ppb #	30

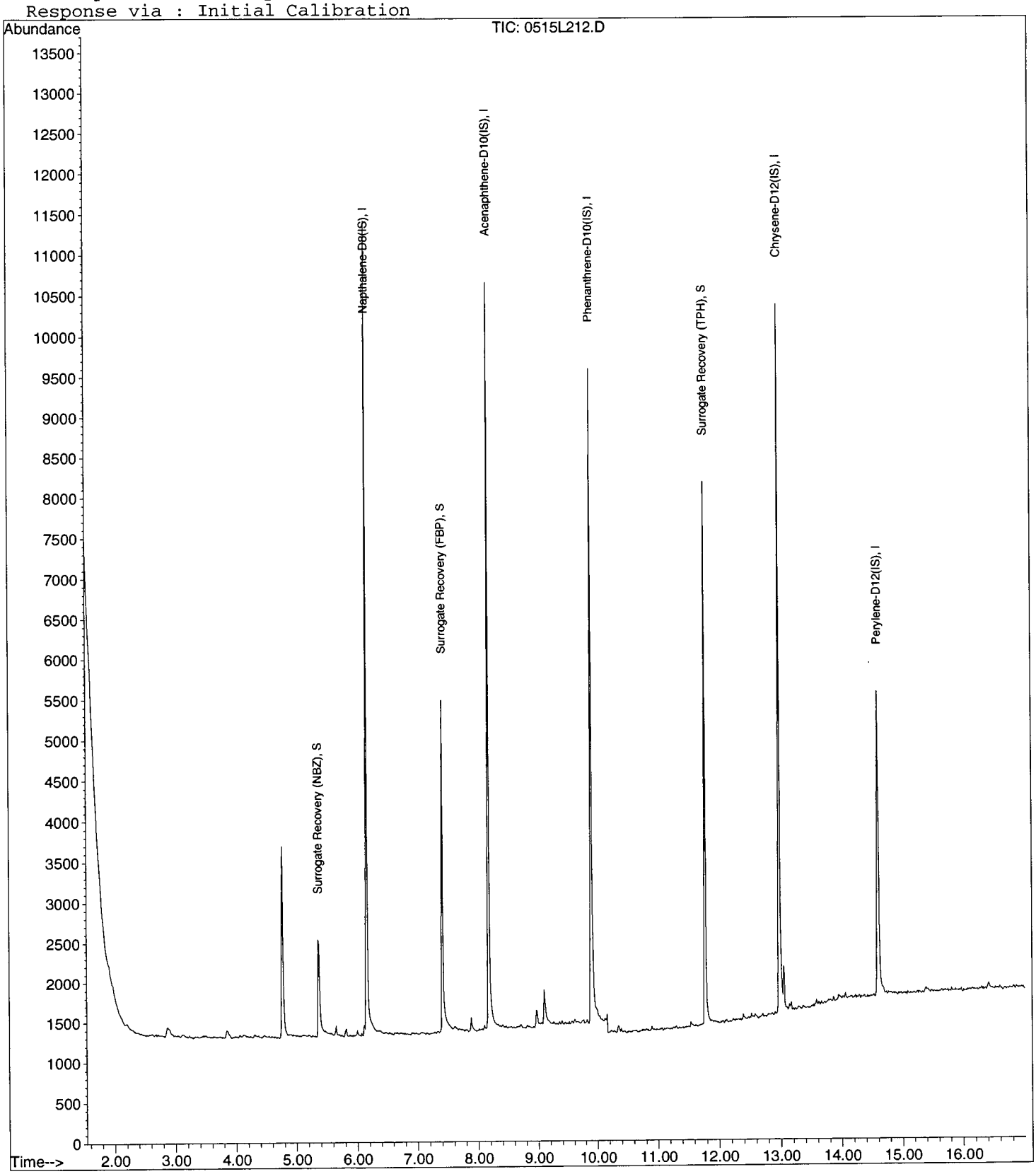
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150515\0515L212.D Vial: 12
Acq On : 27 May 15 9:09 Operator: MA
Sample : AZ16340W09 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Jun 3 10:36 2015 Quant Results File: P0518-42.RES

Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration



EPA 8270D LL WATER DODv3

Tetra Tech
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Norfolk, VA 23502

APPL Inc.
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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW014-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16341
QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.059 J	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	62.0	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	67.0	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	91.9	50-135			%	5/18/2015	5/27/2015

J = Estimated value.

Quant Method: P0518-42.M
Run #: 0515L213
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 12:54:30 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L213.D Vial: 13
Acq On : 27 May 15 9:34 Operator: MA
Sample : AZ16341W09 1/1040 Inst : Linus
Misc : water Multiplr: 0.96

Quant Time: Jun 3 10:37 2015 Quant Results File: P0518-42.RES

Quant Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	8204	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.17	164	4320	2.50 ppb	0.01
11) Phenanthrene-D10(IS)	9.90	188	7363	2.50 ppb	0.00
15) Chrysene-D12(IS)	12.97	240	7727	2.50 ppb	0.01
21) Perylene-D12(IS)	14.59	264	5136	2.50 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.36	82	1598	1.61 ppb	0.00
Spiked Amount 2.404			Recovery	= 67.018%	
7) Surrogate Recovery (FBP)	7.41	172	4229	1.49 ppb	0.01
Spiked Amount 2.404			Recovery	= 61.984%	
17) Surrogate Recovery (TPH)	11.77	244	5698	2.21 ppb	0.00
Spiked Amount 2.404			Recovery	= 91.853%	
Target Compounds					Qvalue
13) Anthracene	9.99	178	143	0.06 ppb	94
14) Fluoranthene	11.30	202	34	-0.10 ppb #	63

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

Quantitation Report

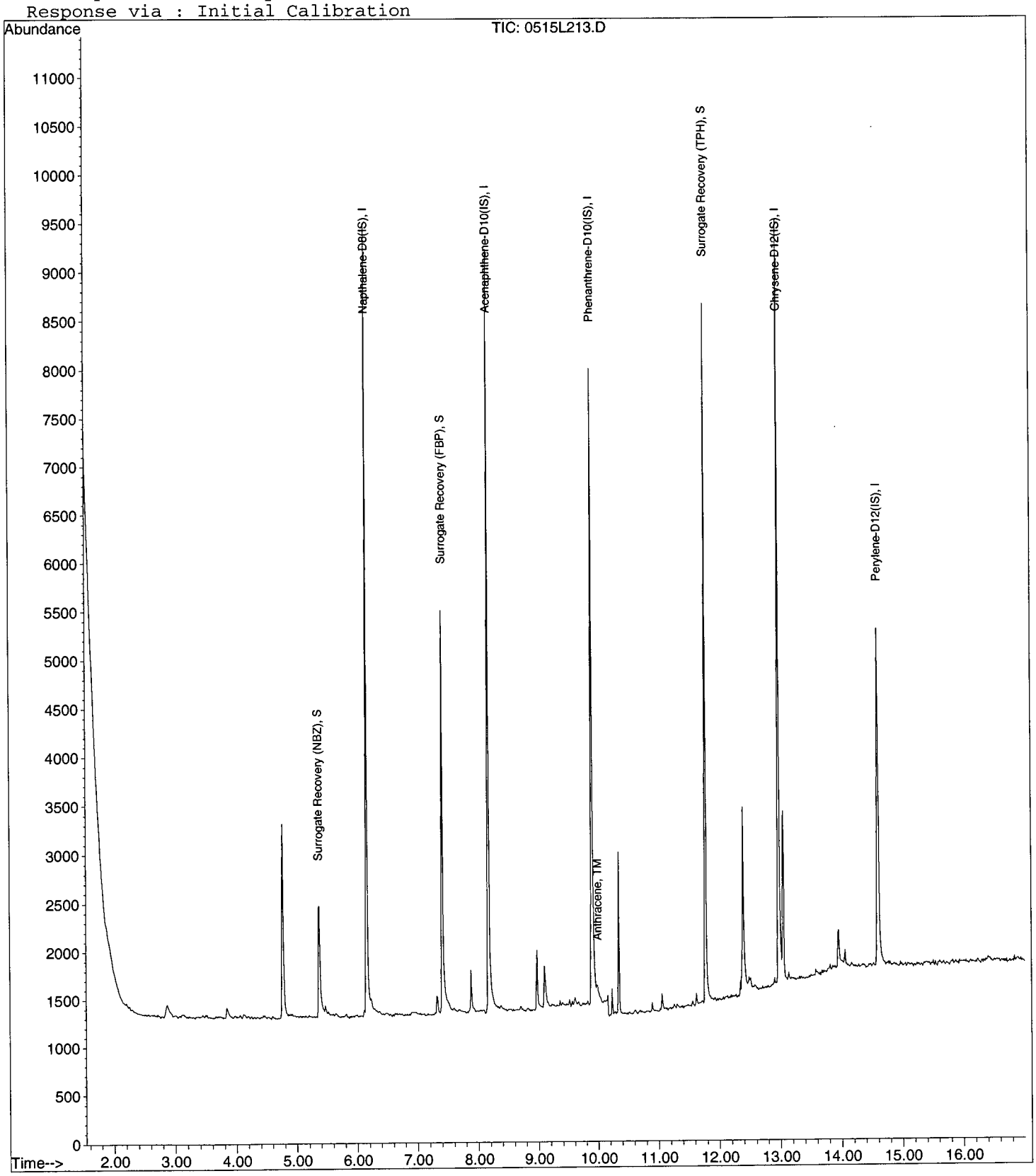
Data File : M:\LINUS\DATA\L150515\0515L213.D
Acq On : 27 May 15 9:34
Sample : AZ16341W09 1/1040
Misc : water

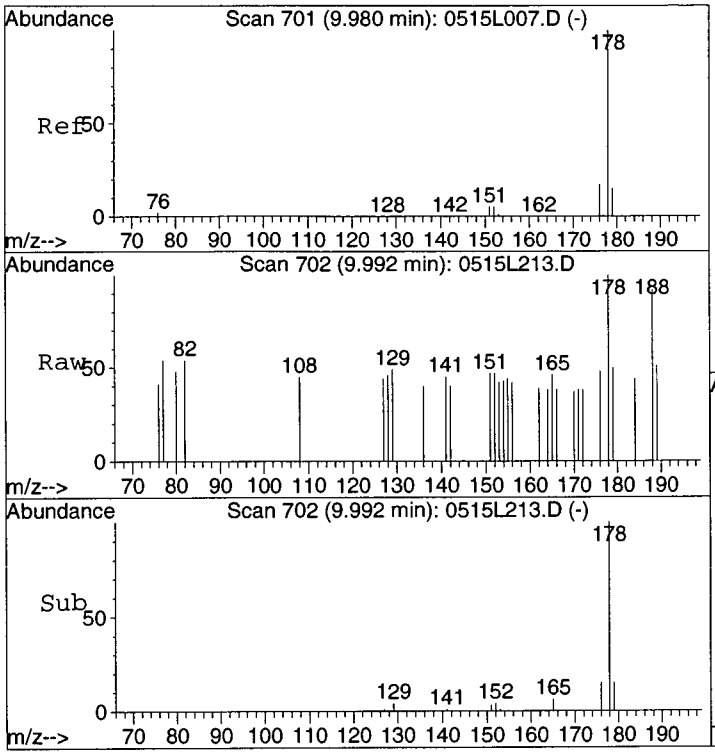
Vial: 13
Operator: MA
Inst : Linus
Multiplr: 0.96

Quant Time: Jun 3 10:37 2015

Quant Results File: P0518-42.RES

Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration

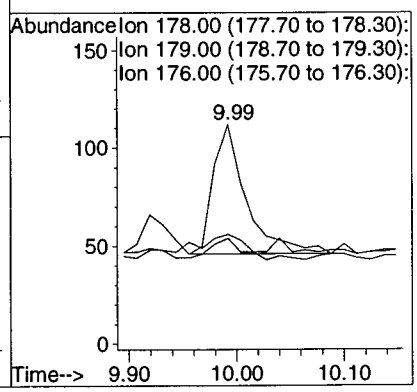




#13
Anthracene
Concen: 0.06 ppb
RT: 9.99 min Scan# 702
Delta R.T. 0.01 min
Lab File: 0515L213.D
Acq: 27 May 15 9:34

Tgt Ion:178 Resp: 143

Ion	Ratio	Lower	Upper
178	100		
179	12.1	10.5	19.5
176	15.2	12.0	22.4



EPA 8270D LL WATER DODv3

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004P-051315
Sample Collection Date: 5/13/2015

ARF: 76424
APPL ID: AZ16342
QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	58.2	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	56.5	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	85.5	50-135			%	5/18/2015	5/27/2015

Quant Method: P0518-42.M
Run #: 0515L214
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 12:54:30 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L214.D Vial: 14
Acq On : 27 May 15 10:00 Operator: MA
Sample : AZ16342W09 1/1020 Inst : Linus
Misc : water Multiplr: 0.98

Quant Time: Jun 3 10:38 2015 Quant Results File: P0518-42.RES

Quant Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	10632	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.17	164	5063	2.50 ppb	0.01
11) Phenanthrene-D10(IS)	9.90	188	8572	2.50 ppb	0.00
15) Chrysene-D12(IS)	12.97	240	8911	2.50 ppb	0.01
21) Perylene-D12(IS)	14.59	264	5906	2.50 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.37	82	1711	1.39 ppb	0.01
Spiked Amount 2.451			Recovery	= 56.549%	
7) Surrogate Recovery (FBP)	7.41	172	4655	1.43 ppb	0.01
Spiked Amount 2.451			Recovery	= 58.222%	
17) Surrogate Recovery (TPH)	11.77	244	6114	2.09 ppb	0.00
Spiked Amount 2.451			Recovery	= 85.476%	
Target Compounds					Qvalue
14) Fluoranthene	11.30	202	15	-0.11 ppb #	73
22) Benzo (b) fluoranthene	14.15	252	32	-0.16 ppb #	1

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

Quantitation Report

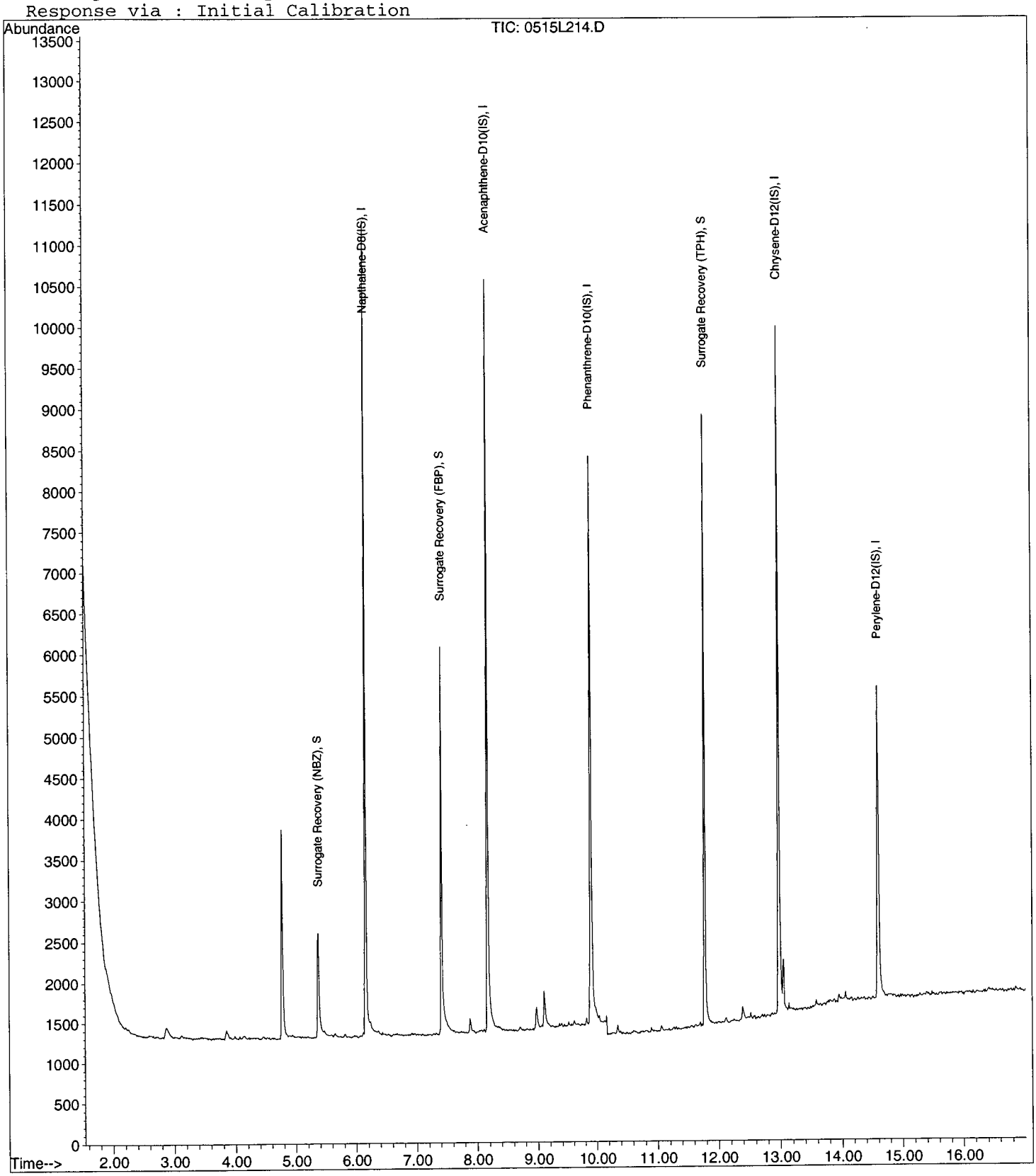
Data File : M:\LINUS\DATA\L150515\0515L214.D
Acq On : 27 May 15 10:00
Sample : AZ16342W09 1/1020
Misc : water

Vial: 14
Operator: MA
Inst : Linus
Multiplr: 0.98

Quant Time: Jun 3 10:38 2015

Quant Results File: P0518-42.RES

Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration



EPA METHOD 8270D
Polynuclear Aromatic Hydrocarbons
Calibration Data

APPL, INC.

EPA 8270C SIM
P0518-42

Form 6
Initial Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 76424
Initial Cal. Date: 5/15/2015
Instrument: Linus

Initials:

		Compound	0.1	0.2	0.5	1	5	10	50	100			Avg	%RSD		
			0515L003.D	0515L004.D	0515L005.D	0515L006.D	0515L007.D	0515L008.D	0515L009.D	0515L010.D						
1	I	Napthalene-D8(IS)														
2	SL	Surrogate Recovery (NBZ)	0.2254	0.3678	0.1834	0.1860	0.2776	0.2909	0.3391	0.3198			0.27	25	SL	0.999
3	TM	Naphthalene	0.8554	0.8475	0.7845	0.9100	1.049	1.089	1.174	1.113			0.98	15	TM	
4	TML	2-Methylnaphthalene	0.4994	0.5010	0.4785	0.5210	0.6104	0.6851	0.7669	0.7167			0.60	19	TML	0.999
5	TM	1-Methylnaphthalene	0.5762	0.5810	0.4580	0.5662	0.6341	0.6730	0.7484	0.6954			0.62	15	TM	
6	I	Acenaphthene-D10(IS)														
7	S	Surrogate Recovery (FBP)				1.217	1.812	1.617	1.675	1.577			1.6	14	S	
8	TML	Acenaphthylene	1.795	1.721	1.606	1.730	2.314	2.330	2.600	2.556			2.1	20	TML	1.000
9	*TM	Acenaphthene	1.152	1.120	1.004	1.083	1.397	1.402	1.500	1.468			1.3	15	*TM	
10	TML	Fluorene	1.331	1.190	1.050	1.116	1.471	1.579	1.671	1.606			1.4	17	TML	1.000
11	I	Phenanthrene-D10(IS)														
12	TML	Phenanthrene	1.072	1.012	0.9085	0.9592	1.237	1.307	1.401	1.315			1.2	16	TML	0.999
13	TML	Anthracene	0.9138	0.9496	0.8756	0.9497	1.174	1.229	1.322	1.259			1.1	17	TML	0.999
14	*TML	Fluoranthene	1.292	1.160	1.048	1.124	1.461	1.555	1.707	1.564			1.4	18	*TML	0.998
15	I	Chrysene-D12(IS)														
16	TM	Pyrene	1.385	1.349	1.165	1.236	1.554	1.564	1.593	1.529			1.4	11	TM	
17	S	Surrogate Recovery (TPH)	0.7828	0.7480	0.6866	0.6959	0.9635	0.8453	0.8659	0.8351			0.80	12	S	
18	TML	Benz (a) anthracene	1.074	0.9169	0.8316	0.8680	1.146	1.248	1.372	1.288			1.1	19	TML	0.999
19	TM	Chrysene	1.181	1.069	1.140	1.165	1.314	1.284	1.211	1.171			1.2	6.6	TM	
20	TML	Indeno (1,2,3-cd) pyrene	1.032	0.8816	0.8741	0.9520	1.205	1.296	1.416	1.386			1.1	20	TML	1.000
21	I	Perylene-D12(IS)														
22	TML	Benzo (b) fluoranthene	1.181	1.366	0.9970	1.080	1.710	1.633	2.174	1.841			1.5	27	TML	0.993
23	TML	Benzo (k) fluoranthene	1.572	0.9926	1.318	1.357	1.658	1.985	1.740	1.877			1.6	21	TML	0.999
24	*TML	Benzo (a) pyrene	1.523	1.336	1.301	1.388	1.764	1.857	1.940	1.838			1.6	16	*TML	0.999
25	TML	Dibenz (a,h) anthracene	1.133	1.051	1.104	1.146	1.622	1.761	1.922	1.826			1.4	26	TML	0.999
26	TML	Benzo (g,h,i) perylene	1.398	1.182	1.173	1.261	1.698	1.811	1.927	1.828			1.5	20	TML	0.999
27																
28																
29																
30																
31																
32																
33																
34																
35																

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L003.D Vial: 3
Acq On : 15 May 15 17:15 Operator: csc
Sample : 0.1ug/ml PAH 05/15/15 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 18 10:26 2015 Quant Results File: P0518.RES

Quant Method : M:\LINUS\DATA\L150515\P0518.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon May 18 09:20:47 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

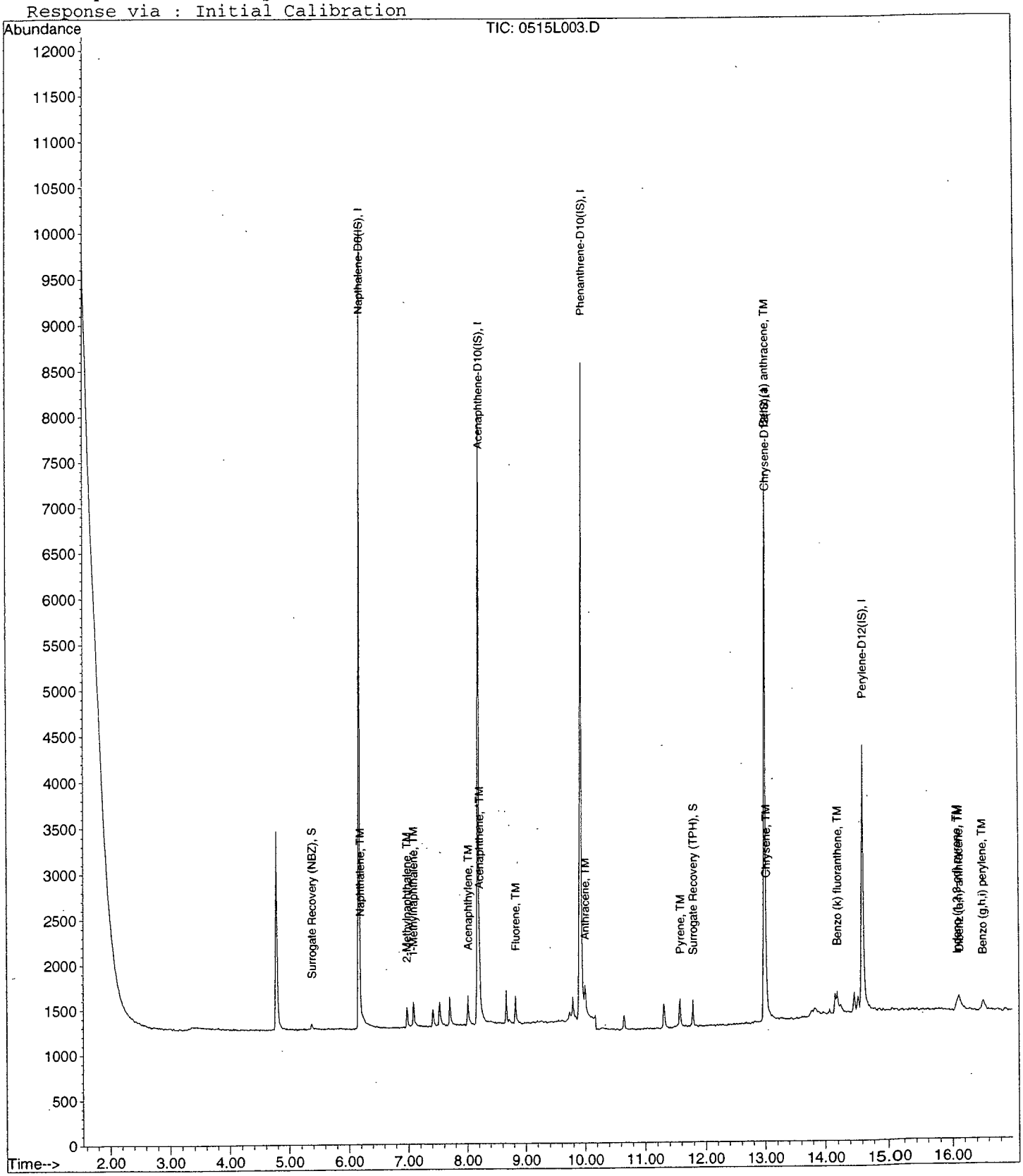
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	9762	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.17	164	4471	2.50 ppb	0.01
11) Phenanthrene-D10(IS)	9.90	188	7606	2.50 ppb	0.00
15) Chrysene-D12(IS)	12.97	240	7218	2.50 ppb	0.01
21) Perylene-D12(IS)	14.58	264	4613	2.50 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.37	82	88	0.24 ppb	0.01
Spiked Amount 2.500			Recovery	= 9.680%	
7) Surrogate Recovery (FBP)	7.41	172	230	-0.18 ppb	0.01
Spiked Amount 2.500			Recovery	= -7.400%	
17) Surrogate Recovery (TPH)	11.77	244	226	0.10 ppb	0.00
Spiked Amount 2.500			Recovery	= 3.880%	
Target Compounds					Qvalue
3) Naphthalene	6.18	128	334	0.09 ppb	96
4) 2-Methylnaphthalene	6.96	142	195	0.14 ppb	95
5) 1-Methylnaphthalene	7.07	142	225	0.09 ppb	100
8) Acenaphthylene	8.00	152	321	0.33 ppb	96
9) Acenaphthene	8.19	154	208	0.09 ppb	98
10) Fluorene	8.81	166	238	0.15 ppb	99
13) Anthracene	9.98	178	278	0.09 ppb	94
16) Pyrene	11.56	202	400	0.10 ppb	92
18) Benz (a) anthracene	12.96	228	310	0.12 ppb	97
19) Chrysene	13.00	228	341	0.10 ppb	94
20) Indeno (1,2,3-cd) pyrene	16.09	276	298	0.31 ppb #	97
22) Benzo (b) fluoranthene	14.14	252	218	-0.11 ppb	96
23) Benzo (k) fluoranthene	14.17	252	290	0.40 ppb #	94
25) Dibenz (a,h) anthracene	16.12	278	209	0.17 ppb	90
26) Benzo (g,h,i) perylene	16.51	276	258	0.09 ppb	88

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

Data File : M:\LINUS\DATA\L150515\0515L003.D Vial: 3
Acq On : 15 May 15 17:15 Operator: csc
Sample : 0.1ug/ml PAH 05/15/15 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 18 10:26 2015 Quant Results File: P0518.RES

Method : M:\LINUS\DATA\L150515\P0518.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon May 18 09:20:47 2015
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L150515\0515L004.D Vial: 4
Acq On : 15 May 15 17:41 Operator: csc
Sample : 0.2ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 18 9:13 2015 Quant Results File: P0518.RES

Quant Method : M:\LINUS\DATA\L150515\P0518.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon May 18 09:13:03 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	9381	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.17	164	4264	2.50 ppb	0.01
11) Phenanthrene-D10(IS)	9.90	188	7253	2.50 ppb	0.00
15) Chrysene-D12(IS)	12.97	240	6735	2.50 ppb	0.01
21) Perylene-D12(IS)	14.58	264	4483	2.50 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.37	82	138	0.81 ppb	0.01
Spiked Amount 2.500			Recovery	= 32.400%	
7) Surrogate Recovery (FBP)	7.41	172	438	0.18 ppb	0.01
Spiked Amount 2.500			Recovery	= 7.280%	
17) Surrogate Recovery (TPH)	11.77	244	403	0.20 ppb	0.00
Spiked Amount 2.500			Recovery	= 8.000%	
Target Compounds					Qvalue
3) Naphthalene	6.18	128	636	0.50 ppb	99
4) 2-Methylnaphthalene	6.96	142	376	0.79 ppb	100
5) 1-Methylnaphthalene	7.07	142	436	0.52 ppb	99
8) Acenaphthylene	8.00	152	587	0.32 ppb	99
9) Acenaphthene	8.21	154	382	0.40 ppb	91
10) Fluorene	8.81	166	406	0.46 ppb	91
12) Phenanthrene	9.92	178	587	0.19 ppb	99
13) Anthracene	9.98	178	551	0.55 ppb	99
14) Fluoranthene	11.30	202	673	0.78 ppb	92
16) Pyrene	11.56	202	727	0.21 ppb	91
18) Benz (a) anthracene	12.96	228	494	0.17 ppb	93
19) Chrysene	13.00	228	576	0.20 ppb	97
20) Indeno (1,2,3-cd) pyrene	16.09	276	475	0.63 ppb #	92
22) Benzo (b) fluoranthene	14.14	252	490	0.41 ppb #	89
23) Benzo (k) fluoranthene	14.17	252	356	0.38 ppb	97
24) Benzo (a) pyrene	14.45	252	479	0.38 ppb	97
25) Dibenz (a,h) anthracene	16.12	278	377	0.57 ppb	95
26) Benzo (g,h,i) perylene	16.51	276	424	0.55 ppb	98

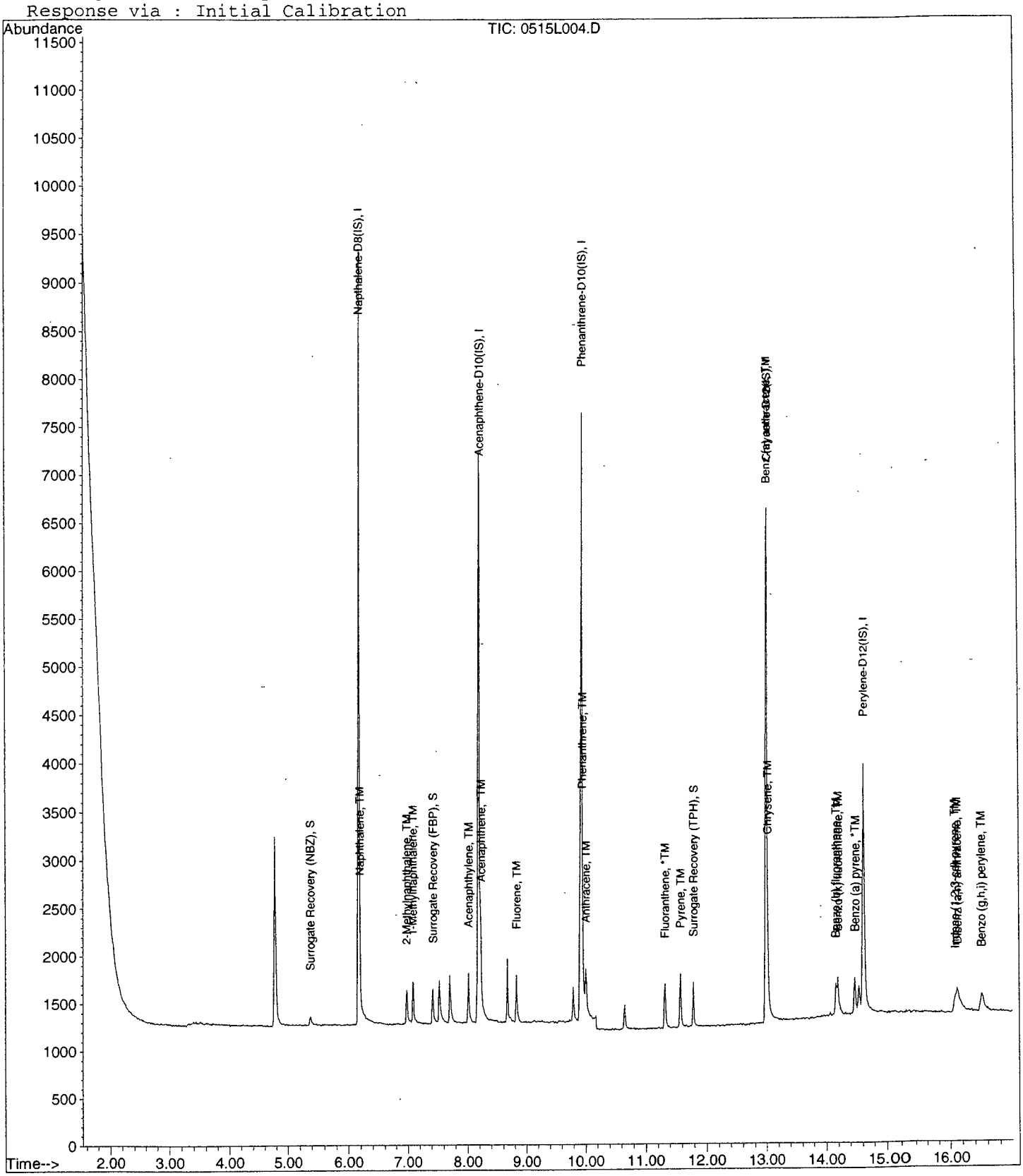
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150515\0515L004.D Vial: 4
Acq On : 15 May 15 17:41 Operator: csc
Sample : 0.2ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 18 9:13 2015 Quant Results File: P0518.RES

Method : M:\LINUS\DATA\L150515\P0518.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon May 18 09:20:47 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L005.D
Acq On : 15 May 15 18:06
Sample : 0.5ug/ml PAH
Misc :

Vial: 5
Operator: csc
Inst : Linus
Multiplr: 1.00

Quant Time: May 18 9:13 2015 Quant Results File: P0518.RES

Quant Method : M:\LINUS\DATA\L150515\P0518.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon May 18 09:13:03 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

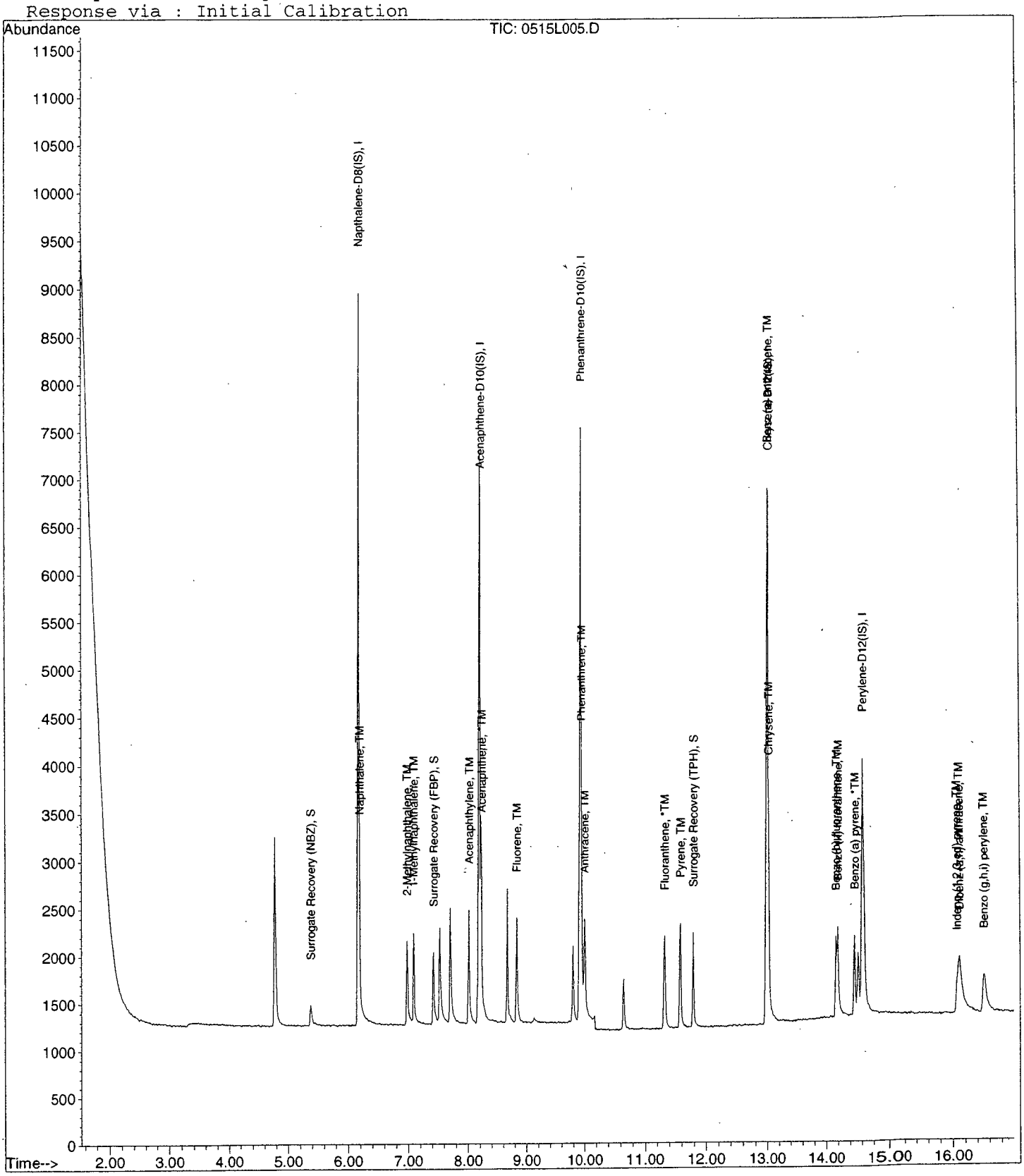
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.16	136	9050	2.50 ppb		0.00
6) Acenaphthene-D10(IS)	8.17	164	4233	2.50 ppb		0.01
11) Phenanthrene-D10(IS)	9.90	188	7149	2.50 ppb		0.00
15) Chrysene-D12(IS)	12.97	240	6590	2.50 ppb		0.01
21) Perylene-D12(IS)	14.58	264	4308	2.50 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.37	82	332	0.98 ppb		0.01
Spiked Amount 2.500			Recovery	= 39.000%		
7) Surrogate Recovery (FBP)	7.41	172	955	0.40 ppb		0.01
Spiked Amount 2.500			Recovery	= 15.960%		
17) Surrogate Recovery (TPH)	11.77	244	905	0.46 ppb		0.00
Spiked Amount 2.500			Recovery	= 18.400%		
Target Compounds						Qvalue
3) Naphthalene	6.18	128	1420	0.70 ppb		100
4) 2-Methylnaphthalene	6.96	142	866	0.97 ppb		99
5) 1-Methylnaphthalene	7.07	142	829	0.67 ppb		94
8) Acenaphthylene	8.00	152	1360	0.51 ppb		97
9) Acenaphthene	8.21	154	850	0.60 ppb		96
10) Fluorene	8.81	166	889	0.64 ppb		94
12) Phenanthrene	9.92	178	1299	0.42 ppb		98
13) Anthracene	9.98	178	1252	0.76 ppb		98
14) Fluoranthene	11.30	202	1498	0.96 ppb		93
16) Pyrene	11.56	202	1536	0.46 ppb		91
18) Benz (a) anthracene	12.96	228	1096	0.39 ppb		96
19) Chrysene	13.00	228	1502	0.53 ppb		97
20) Indeno (1,2,3-cd) pyrene	16.08	276	1152	0.83 ppb	#	90
22) Benzo (b) fluoranthene	14.14	252	859	0.55 ppb	#	96
23) Benzo (k) fluoranthene	14.17	252	1136	0.72 ppb		97
24) Benzo (a) pyrene	14.45	252	1121	0.64 ppb		94
25) Dibenz (a,h) anthracene	16.11	278	951	0.80 ppb		94
26) Benzo (g,h,i) perylene	16.51	276	1011	0.80 ppb		97

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

Data File : M:\LINUS\DATA\L150515\0515L005.D Vial: 5
Acq On : 15 May 15 18:06 Operator: csc
Sample : 0.5ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 18 9:13 2015 Quant Results File: P0518.RES

Method : M:\LINUS\DATA\L150515\P0518.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon May 18 09:20:47 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L006.D Vial: 6
Acq On : 15 May 15 18:32 Operator: csc
Sample : 1.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 18 9:13 2015 Quant Results File: P0518.RES

Quant Method : M:\LINUS\DATA\L150515\P0518.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon May 18 09:13:03 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	8964	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.16	164	4488	2.50 ppb	0.00
11) Phenanthrene-D10(IS)	9.90	188	7363	2.50 ppb	0.00
15) Chrysene-D12(IS)	12.97	240	6941	2.50 ppb	0.01
21) Perylene-D12(IS)	14.58	264	4617	2.50 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.37	82	667	1.26 ppb	0.01
Spiked Amount 2.500			Recovery	= 50.400%	
7) Surrogate Recovery (FBP)	7.41	172	2185	0.86 ppb	0.01
Spiked Amount 2.500			Recovery	= 34.440%	
17) Surrogate Recovery (TPH)	11.77	244	1932	0.93 ppb	0.00
Spiked Amount 2.500			Recovery	= 37.280%	

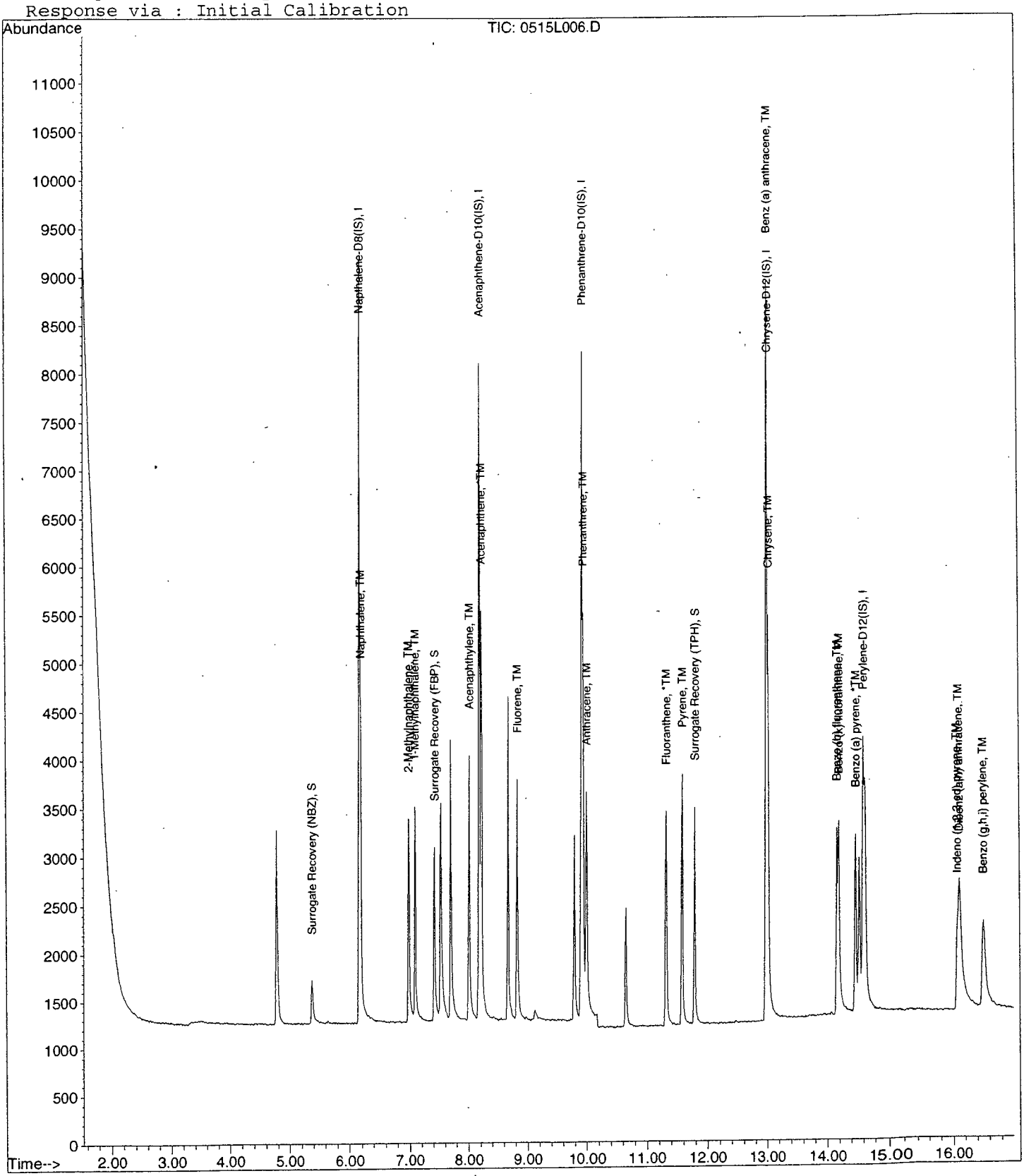
Target Compounds						Qvalue
3) Naphthalene	6.18	128	3263	1.16 ppb		99
4) 2-Methylnaphthalene	6.96	142	1868	1.34 ppb		98
5) 1-Methylnaphthalene	7.07	142	2030	1.14 ppb		96
8) Acenaphthylene	8.00	152	3106	0.91 ppb		99
9) Acenaphthene	8.19	154	1945	1.01 ppb		97
10) Fluorene	8.81	166	2003	1.02 ppb		94
12) Phenanthrene	9.92	178	2825	0.89 ppb		99
13) Anthracene	9.98	178	2797	1.18 ppb		98
14) Fluoranthene	11.30	202	3311	1.32 ppb		92
16) Pyrene	11.56	202	3431	0.97 ppb	#	87
18) Benz (a) anthracene	12.96	228	2410	0.81 ppb		97
19) Chrysene	13.00	228	3235	1.09 ppb		98
20) Indeno (1,2,3-cd) pyrene	16.08	276	2643	1.22 ppb	#	97
22) Benzo (b) fluoranthene	14.14	252	1994	0.91 ppb		96
23) Benzo (k) fluoranthene	14.17	252	2506	1.22 ppb		96
24) Benzo (a) pyrene	14.45	252	2564	1.14 ppb		96
25) Dibenz (a,h) anthracene	16.11	278	2117	1.20 ppb		98
26) Benzo (g,h,i) perylene	16.51	276	2328	1.27 ppb		98

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

Data File : M:\LINUS\DATA\L150515\0515L006.D Vial: 6
Acq On : 15 May 15 18:32 Operator: csc
Sample : 1.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 18 9:13 2015 Quant Results File: P0518.RES

Method : M:\LINUS\DATA\L150515\P0518.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon May 18 09:20:47 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L007.D Vial: 7
Acq On : 15 May 15 18:58 Operator: csc
Sample : 5.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 18 9:13 2015 Quant Results File: P0518.RES

Quant Method : M:\LINUS\DATA\L150515\P0518.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon May 18 09:13:03 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	7444	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.16	164	3374	2.50 ppb	0.00
11) Phenanthrene-D10(IS)	9.90	188	5789	2.50 ppb	0.00
15) Chrysene-D12(IS)	12.96	240	5736	2.50 ppb	0.00
21) Perylene-D12(IS)	14.58	264	3671	2.50 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.36	82	4133	4.89 ppb	0.00
Spiked Amount 2.500			Recovery	= 195.520%	
7) Surrogate Recovery (FBP)	7.40	172	12230	6.41 ppb	0.00
Spiked Amount 2.500			Recovery	= 256.280%	
17) Surrogate Recovery (TPH)	11.77	244	11053	6.45 ppb	0.00
Spiked Amount 2.500			Recovery	= 258.000%	

Target Compounds						Qvalue
3) Naphthalene	6.18	128	15624	5.05 ppb		100
4) 2-Methylnaphthalene	6.96	142	9087	4.65 ppb		100
5) 1-Methylnaphthalene	7.07	142	9441	4.77 ppb		100
8) Acenaphthylene	8.00	152	15612	5.09 ppb		100
9) Acenaphthene	8.19	154	9425	5.21 ppb		100
10) Fluorene	8.81	166	9927	5.02 ppb		100
12) Phenanthrene	9.92	178	14320	5.74 ppb		100
13) Anthracene	9.98	178	13594	5.20 ppb		100
14) Fluoranthene	11.29	202	16914	5.05 ppb		100
16) Pyrene	11.55	202	17823	6.08 ppb		100
18) Benz (a) anthracene	12.95	228	13150	5.34 ppb		100
19) Chrysene	13.00	228	15075	6.16 ppb		100
20) Indeno (1,2,3-cd) pyrene	16.06	276	13822	5.05 ppb	#	100
22) Benzo (b) fluoranthene	14.14	252	12555	5.60 ppb		100
23) Benzo (k) fluoranthene	14.16	252	12170	6.25 ppb		100
24) Benzo (a) pyrene	14.44	252	12949	6.16 ppb		100
25) Dibenz (a,h) anthracene	16.10	278	11907	5.92 ppb		100
26) Benzo (g,h,i) perylene	16.50	276	12470	6.31 ppb		100

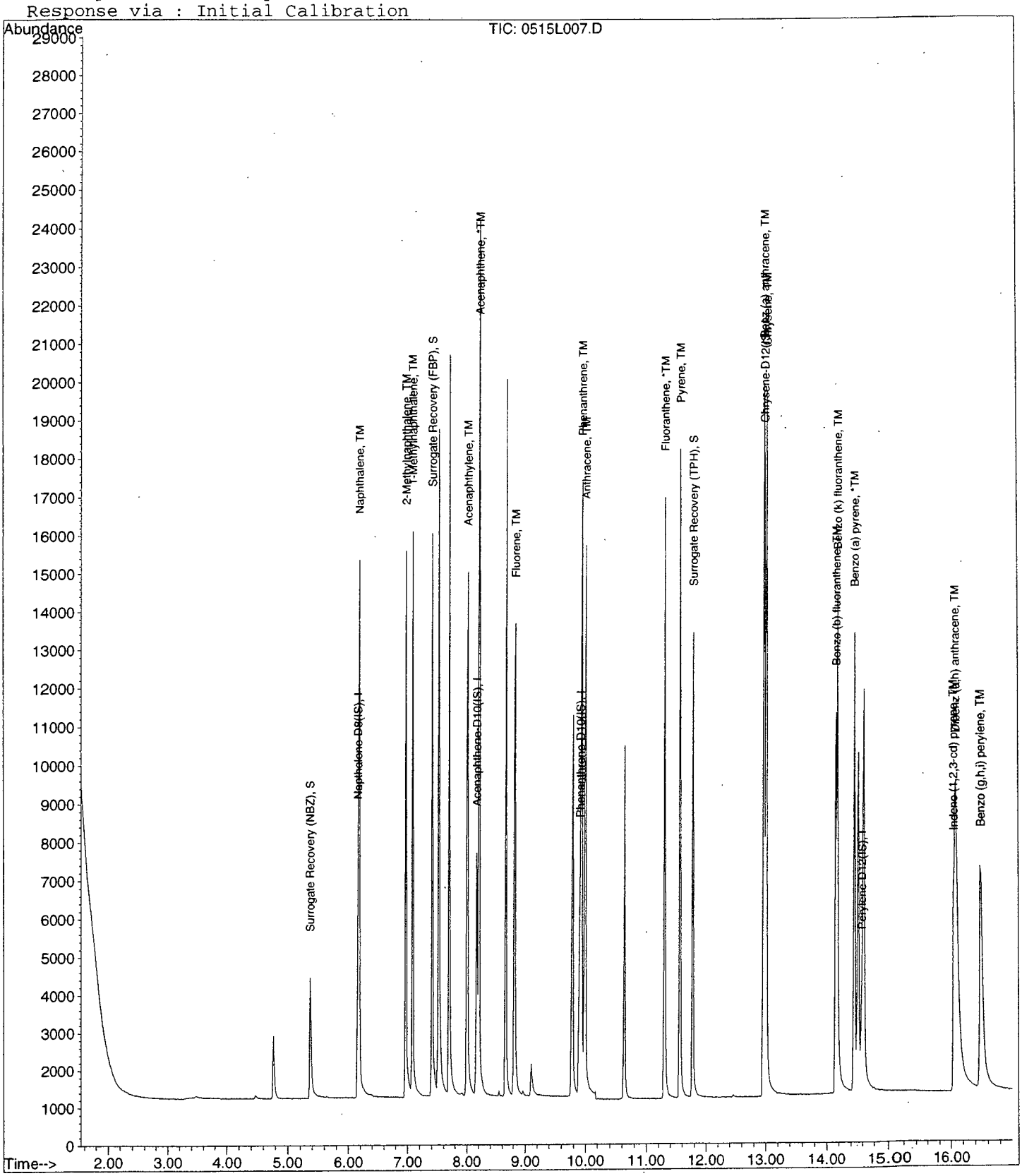
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150515\0515L007.D Vial: 7
Acq On : 15 May 15 18:58 Operator: csc
Sample : 5.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 18 9:13 2015 Quant Results File: P0518.RES

Method : M:\LINUS\DATA\L150515\P0518.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon May 18 09:20:47 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L008.D Vial: 8
Acq On : 15 May 15 19:23 Operator: csc
Sample : 10ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 18 9:13 2015 Quant Results File: P0518.RES

Quant Method : M:\LINUS\DATA\L150515\P0518.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon May 18 09:13:03 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	10891	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.16	164	5030	2.50 ppb	0.00
11) Phenanthrene-D10(IS)	9.88	188	8662	2.50 ppb	-0.01
15) Chrysene-D12(IS)	12.96	240	8905	2.50 ppb	0.00
21) Perylene-D12(IS)	14.57	264	5552	2.50 ppb	-0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.36	82	12674	9.48 ppb	0.00
Spiked Amount 2.500			Recovery	= 379.120%	
7) Surrogate Recovery (FBP)	7.40	172	32526	11.43 ppb	0.00
Spiked Amount 2.500			Recovery	= 457.200%	
17) Surrogate Recovery (TPH)	11.77	244	30110	11.32 ppb	0.00
Spiked Amount 2.500			Recovery	= 452.680%	

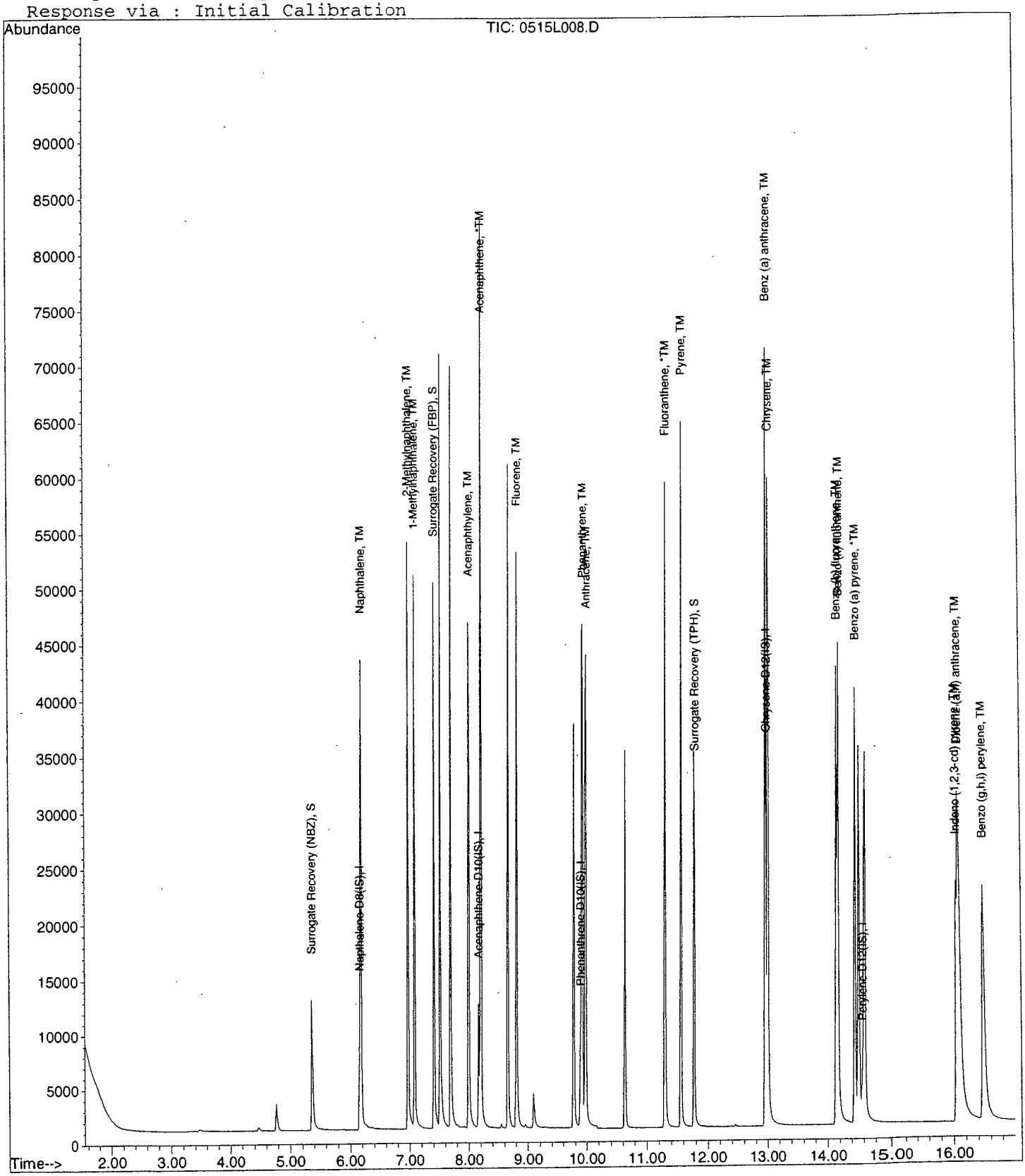
Target Compounds						Qvalue
3) Naphthalene	6.18	128	47430	10.10 ppb		100
4) 2-Methylnaphthalene	6.96	142	29844	9.62 ppb		99
5) 1-Methylnaphthalene	7.07	142	29320	9.71 ppb		98
8) Acenaphthylene	7.99	152	46873	10.07 ppb		97
9) Acenaphthene	8.19	154	28199	10.20 ppb		99
10) Fluorene	8.80	166	31766	10.43 ppb		92
12) Phenanthrene	9.92	178	45279	12.14 ppb		100
13) Anthracene	9.98	178	42591	10.46 ppb		99
14) Fluoranthene	11.29	202	53862	10.02 ppb		94
16) Pyrene	11.55	202	55714	12.24 ppb		95
18) Benz (a) anthracene	12.95	228	44470	11.64 ppb		98
19) Chrysene	12.98	228	45739	12.03 ppb	#	93
20) Indeno (1,2,3-cd) pyrene	16.05	276	46158	10.29 ppb	#	96
22) Benzo (b) fluoranthene	14.13	252	36269	10.48 ppb		96
23) Benzo (k) fluoranthene	14.16	252	44089	14.63 ppb		95
24) Benzo (a) pyrene	14.44	252	41250	12.77 ppb		95
25) Dibenz (a,h) anthracene	16.09	278	39115	12.37 ppb		98
26) Benzo (g,h,i) perylene	16.48	276	40228	13.02 ppb		98

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

Data File : M:\LINUS\DATA\L150515\0515L008.D Vial: 8
Acq On : 15 May 15 19:23 Operator: csc
Sample : 10ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 18 9:13 2015 Quant Results File: P0518.RES

Method : M:\LINUS\DATA\L150515\P0518.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon May 18 09:20:47 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L009.D Vial: 9
Acq On : 15 May 15 19:49 Operator: csc
Sample : 50ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 18 9:13 2015 Quant Results File: P0518.RES

Quant Method : M:\LINUS\DATA\L150515\P0518.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon May 18 09:13:03 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	9907	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.16	164	4610	2.50 ppb	0.00
11) Phenanthrene-D10(IS)	9.88	188	7949	2.50 ppb	-0.01
15) Chrysene-D12(IS)	12.96	240	8664	2.50 ppb	0.00
21) Perylene-D12(IS)	14.57	264	5437	2.50 ppb	-0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.36	82	67181	51.86 ppb	0.00
Spiked Amount 2.500			Recovery	= 2074.400%	
7) Surrogate Recovery (FBP)	7.40	172	154415	59.21 ppb	0.00
Spiked Amount 2.500			Recovery	= 2368.360%	
17) Surrogate Recovery (TPH)	11.76	244	150044	57.96 ppb	-0.01
Spiked Amount 2.500			Recovery	= 2318.600%	

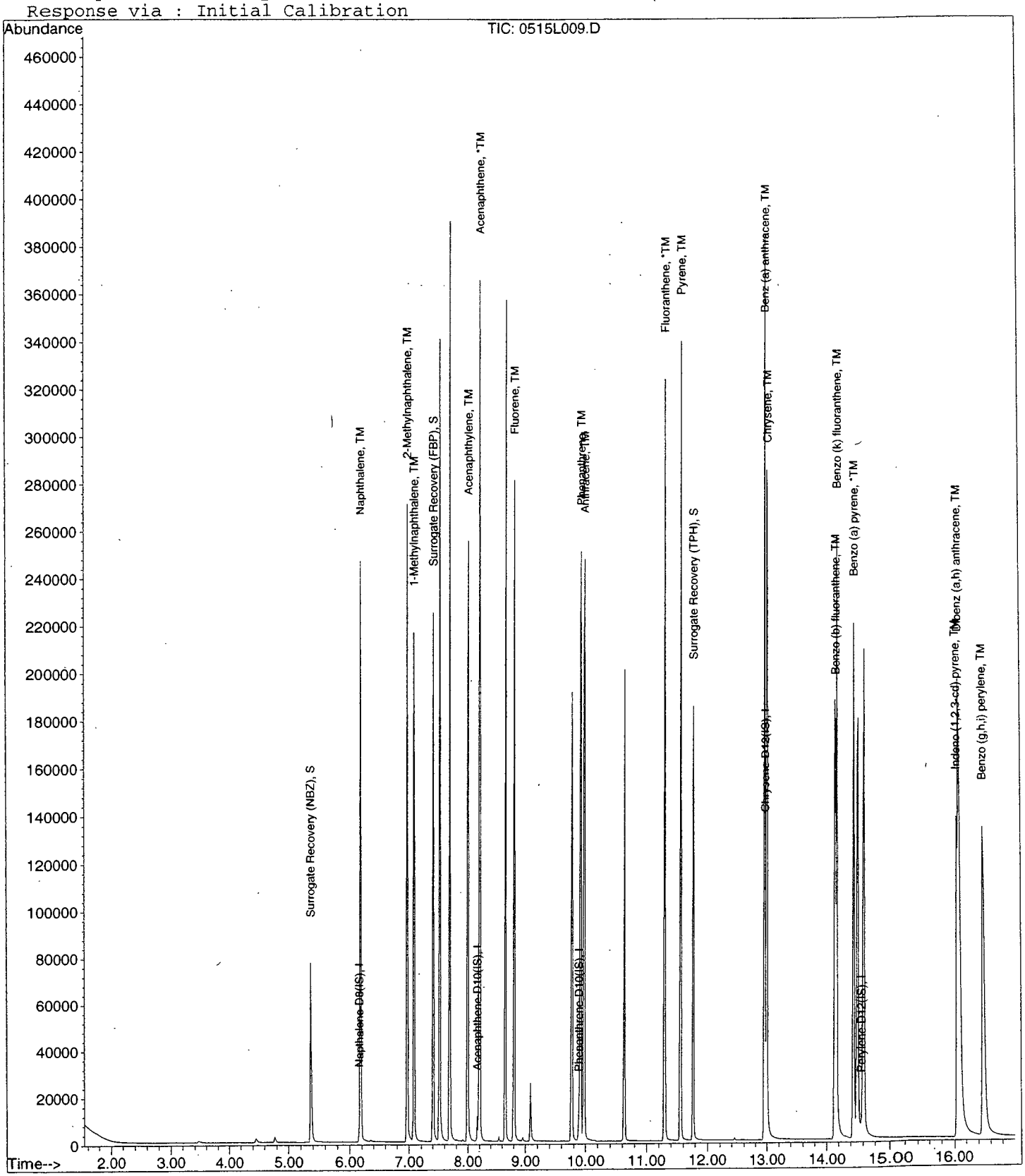
Target Compounds						Qvalue
3) Naphthalene	6.18	128	232647	52.94 ppb		100
4) 2-Methylnaphthalene	6.96	142	151960	50.80 ppb		99
5) 1-Methylnaphthalene	7.07	142	148295	52.39 ppb		99
8) Acenaphthylene	8.00	152	239701	55.40 ppb		99
9) Acenaphthene	8.19	154	138275	53.52 ppb		98
10) Fluorene	8.80	166	154069	53.88 ppb		93
12) Phenanthrene	9.92	178	222761	65.08 ppb		99
13) Anthracene	9.98	178	210206	54.53 ppb		99
14) Fluoranthene	11.29	202	271453	52.11 ppb		95
16) Pyrene	11.55	202	276045	62.33 ppb		99
18) Benz (a) anthracene	12.95	228	237738	63.94 ppb		99
19) Chrysene	13.00	228	209845	56.74 ppb	#	96
20) Indeno (1,2,3-cd) pyrene	16.05	276	245430	54.01 ppb	#	98
22) Benzo (b) fluoranthene	14.14	252	236425	68.41 ppb		97
23) Benzo (k) fluoranthene	14.16	252	189251	63.32 ppb		100
24) Benzo (a) pyrene	14.44	252	210997	65.87 ppb		98
25) Dibenz (a,h) anthracene	16.09	278	208974	65.60 ppb		94
26) Benzo (g,h,i) perylene	16.48	276	209511	67.57 ppb		92

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

Data File : M:\LINUS\DATA\L150515\0515L009.D Vial: 9
Acq On : 15 May 15 19:49 Operator: csc
Sample : 50ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 18 9:13 2015 Quant Results File: P0518.RES

Method : M:\LINUS\DATA\L150515\P0518.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon May 18 09:20:47 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L010.D
Acq On : 15 May 15 20:14
Sample : 100ug/ml PAH
Misc :

Vial: 10
Operator: csc
Inst : Linus
Multiplr: 1.00

Quant Time: May 18 9:16 2015

Quant Results File: P0518.RES

Quant Method : M:\LINUS\DATA\L150515\P0518.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon May 18 09:16:04 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	10112	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.16	164	4552	2.50 ppb	0.00
11) Phenanthrene-D10(IS)	9.90	188	7824	2.50 ppb	0.00
15) Chrysene-D12(IS)	12.96	240	8642	2.50 ppb	0.00
21) Perylene-D12(IS)	14.57	264	5573	2.50 ppb	-0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.36	82	129333	98.87 ppb	0.00
Spiked Amount 2.500			Recovery	= 3954.600%	
7) Surrogate Recovery (FBP)	7.40	172	287071	108.77 ppb	0.00
Spiked Amount 2.500			Recovery	= 4350.920%	
17) Surrogate Recovery (TPH)	11.77	244	288680	104.01 ppb	0.00
Spiked Amount 2.500			Recovery	= 4160.560%	

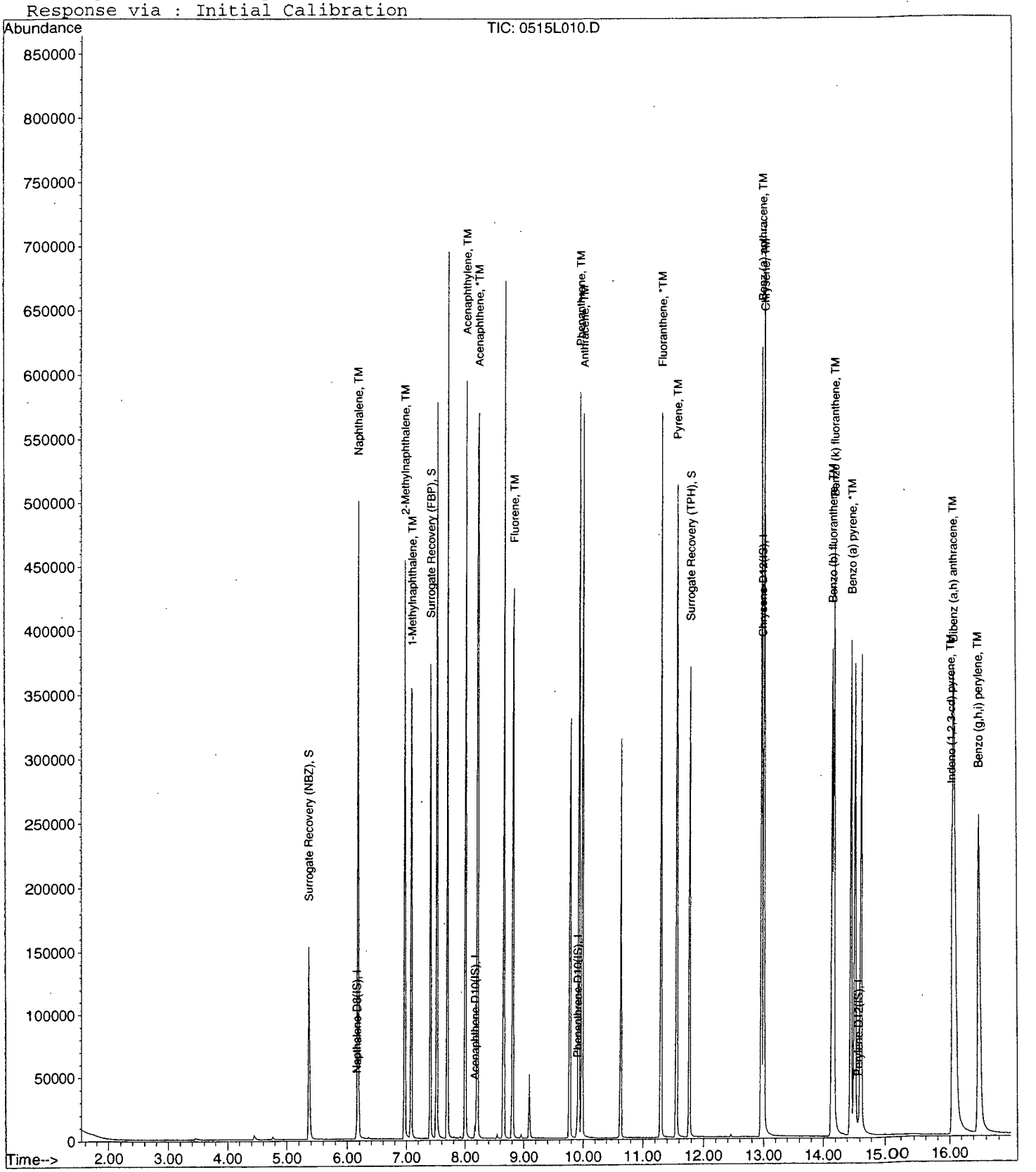
Target Compounds					Qvalue
3) Naphthalene	6.18	128	450212	98.96 ppb	99
4) 2-Methylnaphthalene	6.96	142	289899	98.68 ppb	99
5) 1-Methylnaphthalene	7.08	142	281266	98.57 ppb	89
8) Acenaphthylene	8.00	152	465419	99.67 ppb	99
9) Acenaphthene	8.21	154	267375	99.59 ppb	90
10) Fluorene	8.81	166	292349	99.21 ppb	98
12) Phenanthrene	9.92	178	411564	114.22 ppb	98
13) Anthracene	9.98	178	393985	99.04 ppb	98
14) Fluoranthene	11.29	202	489534	98.27 ppb	96
16) Pyrene	11.55	202	528567	107.53 ppb	91
18) Benz (a) anthracene	12.95	228	445303	117.84 ppb	99
19) Chrysene	13.00	228	404821	98.25 ppb	98
20) Indeno (1,2,3-cd) pyrene	16.06	276	479086	99.57 ppb	94
22) Benzo (b) fluoranthene	14.14	252	410473	96.69 ppb	100
23) Benzo (k) fluoranthene	14.17	252	418502	102.96 ppb	100
24) Benzo (a) pyrene	14.45	252	409725	98.93 ppb	94
25) Dibenz (a,h) anthracene	16.11	278	407020	98.99 ppb #	91
26) Benzo (g,h,i) perylene	16.51	276	407552	98.96 ppb	98

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

Data File : M:\LINUS\DATA\L150515\0515L010.D Vial: 10
Acq On : 15 May 15 20:14 Operator: csc
Sample : 100ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 18 9:16 2015 Quant Results File: P0518.RES

Method : M:\LINUS\DATA\L150515\P0518.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon May 18 09:20:47 2015
Response via : Initial Calibration



Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 76424
Date Analyzed: 5/15/2015
Instrument: Linus
Initial Cal. Date: 5/15/2015
Data File: 0515L011.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	Naphthalene	0.9778	1.160	19	TM	
2	TML	2-Methylnaphthalene	0.5974	0.6612	11	TML	7.6
3	TM	1-Methylnaphthalene	0.6165	0.6742	9.3	TM	
4	TML	Acenaphthylene	2.081	2.416	16	TML	0.82
5	*TM	Acenaphthene	1.266	1.506	19	*TM	
6	TML	Fluorene	1.377	1.617	17	TML	1.2
7	TML	Phenanthrene	1.151	1.293	12	TML	3.9
8	TML	Anthracene	1.084	1.193	10	TML	5.7
9	*TML	Fluoranthene	1.364	1.541	13	*TML	5.4
10	TM	Pyrene	1.422	1.591	12	TM	
11	TML	Benz (a) anthracene	1.093	1.209	11	TML	6.5
12	TM	Chrysene	1.192	1.400	17	TM	
13	TML	Indeno (1,2,3-cd) pyrene	1.130	1.364	21	TML	2.6
14	TML	Benzo (b) fluoranthene	1.498	1.918	28	TML	2.6
15	TML	Benzo (k) fluoranthene	1.563	1.660	6.2	TML	4.3
16	*TML	Benzo (a) pyrene	1.618	1.795	11	*TML	4.7
17	TML	Dibenz (a,h) anthracene	1.446	1.775	23	TML	1.7
18	TML	Benzo (g,h,i) perylene	1.535	1.762	15	TML	4.4
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
		Average			15.0		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L011.D Vial: 11
Acq On : 15 May 15 20:40 Operator: csc
Sample : 5.0ug/ml PAH SS 05/15/15 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 2 13:17 2015 Quant Results File: P0518-42.RES

Quant Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	9571	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.16	164	4405	2.50 ppb	0.00
11) Phenanthrene-D10(IS)	9.90	188	7622	2.50 ppb	0.00
15) Chrysene-D12(IS)	12.96	240	7750	2.50 ppb	0.00
21) Perylene-D12(IS)	14.57	264	4908	2.50 ppb	-0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.36	82	6	0.18 ppb	0.00
Spiked Amount 2.500			Recovery	= 7.080%	
7) Surrogate Recovery (FBP)	7.40	172	46	0.02 ppb	0.00
Spiked Amount 2.500			Recovery	= 0.680%	
17) Surrogate Recovery (TPH)	11.77	244	66	0.03 ppb	0.00
Spiked Amount 2.500			Recovery	= 1.080%	

Target Compounds						Qvalue
3) Naphthalene	6.18	128	22202	5.93 ppb		99
4) 2-Methylnaphthalene	6.96	142	12656	4.62 ppb		100
5) 1-Methylnaphthalene	7.07	142	12905	5.47 ppb		100
8) Acenaphthylene	8.00	152	21286	4.96 ppb		99
9) Acenaphthene	8.19	154	13269	5.95 ppb		99
10) Fluorene	8.81	166	14244	5.06 ppb		100
12) Phenanthrene	9.92	178	19706	4.81 ppb		99
13) Anthracene	9.98	178	18184	4.71 ppb		99
14) Fluoranthene	11.29	202	23497	4.73 ppb		99
16) Pyrene	11.55	202	24659	5.59 ppb		98
18) Benz (a) anthracene	12.95	228	18746	4.68 ppb		99
19) Chrysene	13.00	228	21695	5.87 ppb		98
20) Indeno (1,2,3-cd) pyrene	16.05	276	21147	5.13 ppb		93
22) Benzo (b) fluoranthene	14.13	252	18824	4.87 ppb	#	93
23) Benzo (k) fluoranthene	14.16	252	16293	4.78 ppb	#	95
24) Benzo (a) pyrene	14.44	252	17615	4.77 ppb		100
25) Dibenz (a,h) anthracene	16.10	278	17424	4.91 ppb		99
26) Benzo (g,h,i) perylene	16.50	276	17299	4.78 ppb		99

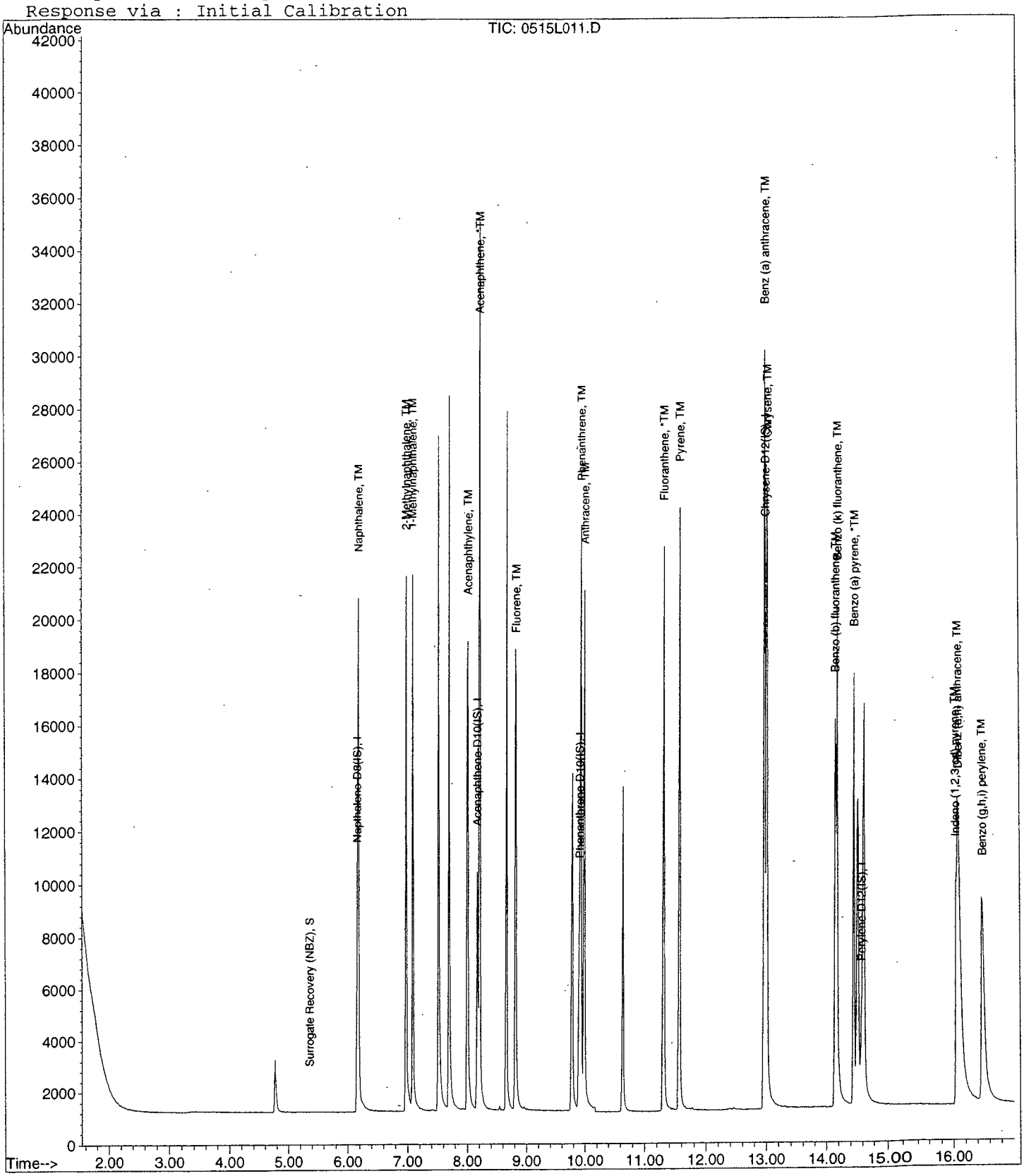
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150515\0515L011.D Vial: 11
Acq On : 15 May 15 20:40 Operator: csc
Sample : 5.0ug/ml PAH SS 05/15/15 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 2 13:17 2015 Quant Results File: P0518-42.RES

Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration



EPA 8270C SIM
P0518-42

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 76424
Date Analyzed: 5/27/2015
Instrument: Linus
Initial Cal. Date: 5/15/2015
Data File: 0515L195.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	SL	Surrogate Recovery (NBZ)	0.2737	0.2814	2.8	SL	9.7
3	TM	Naphthalene	0.9778	1.166	19	TM	
4	TML	2-Methylnaphthalene	0.5974	0.7906	32	TML	10
5	TM	1-Methylnaphthalene	0.6165	0.8252	34	TM	*NT HA 6/8/15
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	1.580	1.569	0.66	S	
8	TML	Acenaphthylene	2.081	2.631	26	TML	7.5
9	*TM	Acenaphthene	1.266	1.509	19	*TM	
10	TML	Fluorene	1.377	1.712	24	TML	7.1
11	I	Phenanthrene-D10(IS)	ISTD			I	
12	TML	Phenanthrene	1.151	1.372	19	TML	2.1
13	TML	Anthracene	1.084	1.349	24	TML	6.6
14	*TML	Fluoranthene	1.364	1.682	23	*TML	3.5
15	I	Chrysene-D12(IS)	ISTD			I	
16	TM	Pyrene	1.422	1.669	17	TM	
17	S	Surrogate Recovery (TPH)	0.8029	0.8763	9.1	S	
18	TML	Benz (a) anthracene	1.093	1.399	28	TML	8.1
19	TM	Chrysene	1.192	1.391	17	TM	
20	TML	Indeno (1,2,3-cd) pyrene	1.130	1.488	32	TML	11
21	I	Perylene-D12(IS)	ISTD			I	
22	TML	Benzo (b) fluoranthene	1.498	2.001	34	TML	1.8
23	TML	Benzo (k) fluoranthene	1.563	2.053	31	TML	17
24	*TML	Benzo (a) pyrene	1.618	1.993	23	*TML	6.0
25	TML	Dibenz (a,h) anthracene	1.446	1.930	34	TML	6.7
26	TML	Benzo (g,h,i) perylene	1.535	1.942	27	TML	5.4
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			22.6		

FORM75

APPL 6/3/2015 1:27 PM

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L195.D
Acq On : 27 May 15 1:54
Sample : 5.0ug/ml PAH 5/26/15
Misc :

Vial: 95
Operator: MA
Inst : Linus
Multiplr: 1.00

Quant Time: Jun 3 13:27 2015 Quant Results File: P0518-42.RES

Quant Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	7742	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.17	164	3768	2.50 ppb	0.01
11) Phenanthrene-D10(IS)	9.91	188	6621	2.50 ppb	0.01
15) Chrysene-D12(IS)	12.97	240	6986	2.50 ppb	0.01
21) Perylene-D12(IS)	14.59	264	4581	2.50 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.37	82	4357	4.51 ppb	0.01
Spiked Amount 2.500			Recovery	= 180.600%	
7) Surrogate Recovery (FBP)	7.41	172	11824	4.97 ppb	0.01
Spiked Amount 2.500			Recovery	= 198.680%	
17) Surrogate Recovery (TPH)	11.77	244	12243	5.46 ppb	0.00
Spiked Amount 2.500			Recovery	= 218.280%	
Target Compounds					Qvalue
3) Naphthalene	6.18	128	18047m	5.96 ppb	99
4) 2-Methylnaphthalene	6.98	142	12242	5.51 ppb	94
5) 1-Methylnaphthalene	7.08	142	12777	6.69 ppb	94
8) Acenaphthylene	8.00	152	19829	5.38 ppb	97
9) Acenaphthene	8.21	154	11374	5.96 ppb	95
10) Fluorene	8.81	166	12905	5.35 ppb	95
12) Phenanthrene	9.93	178	18167	5.10 ppb	99
13) Anthracene	9.99	178	17868	5.33 ppb	100
14) Fluoranthene	11.30	202	22273	5.17 ppb	99
16) Pyrene	11.56	202	23316	5.87 ppb	96
18) Benz (a) anthracene	12.96	228	19552	5.40 ppb	99
19) Chrysene	13.01	228	19434	5.83 ppb	98
20) Indeno (1,2,3-cd) pyrene	16.09	276	20793	5.57 ppb	99
22) Benzo (b) fluoranthene	14.15	252	18337	5.09 ppb	96
23) Benzo (k) fluoranthene	14.17	252	18813	5.84 ppb #	92
24) Benzo (a) pyrene	14.47	252	18256	5.30 ppb	93
25) Dibenz (a,h) anthracene	16.12	278	17686	5.33 ppb	98
26) Benzo (g,h,i) perylene	16.53	276	17795	5.27 ppb	99

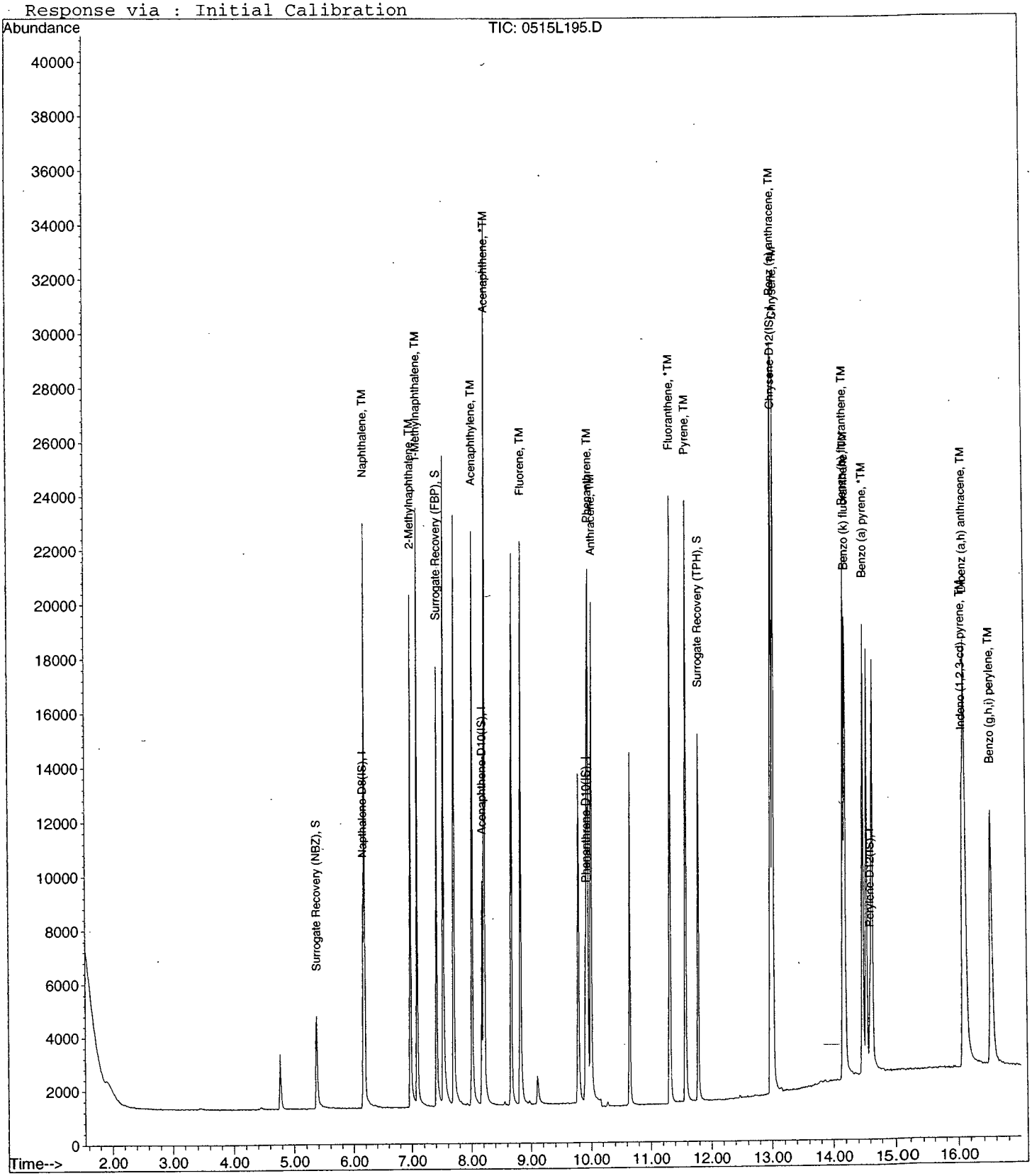
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150515\0515L195.D Vial: 95
Acq On : 27 May 15 1:54 Operator: MA
Sample : 5.0ug/ml PAH 5/26/15 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 3 13:27 2015 Quant Results File: P0518-42.RES

Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration

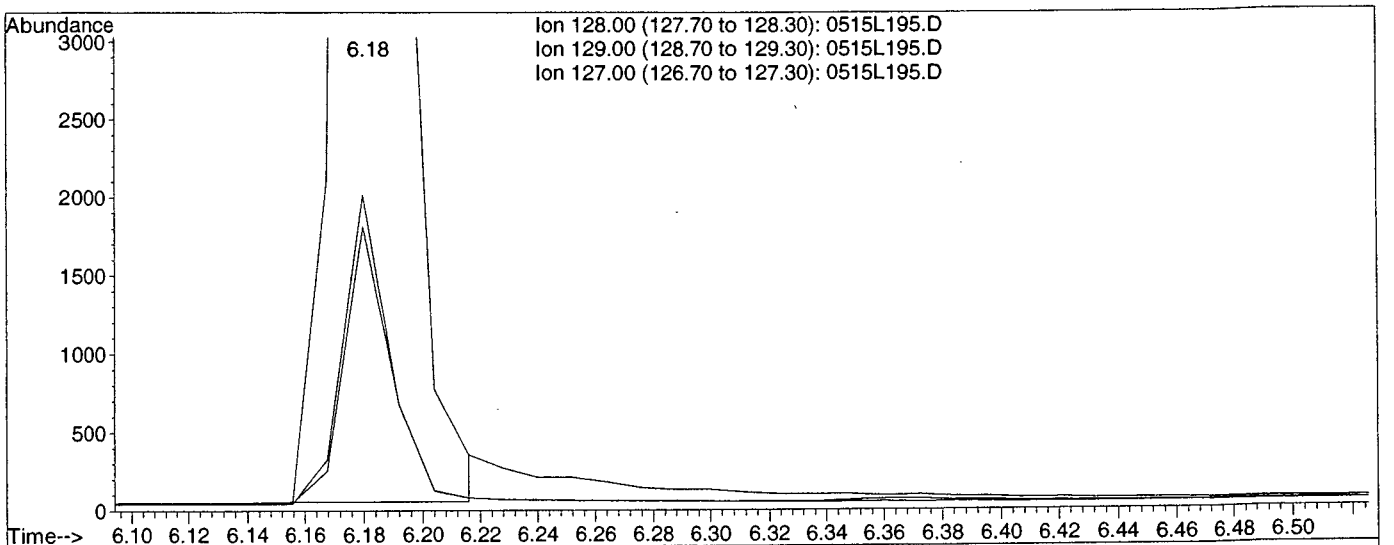


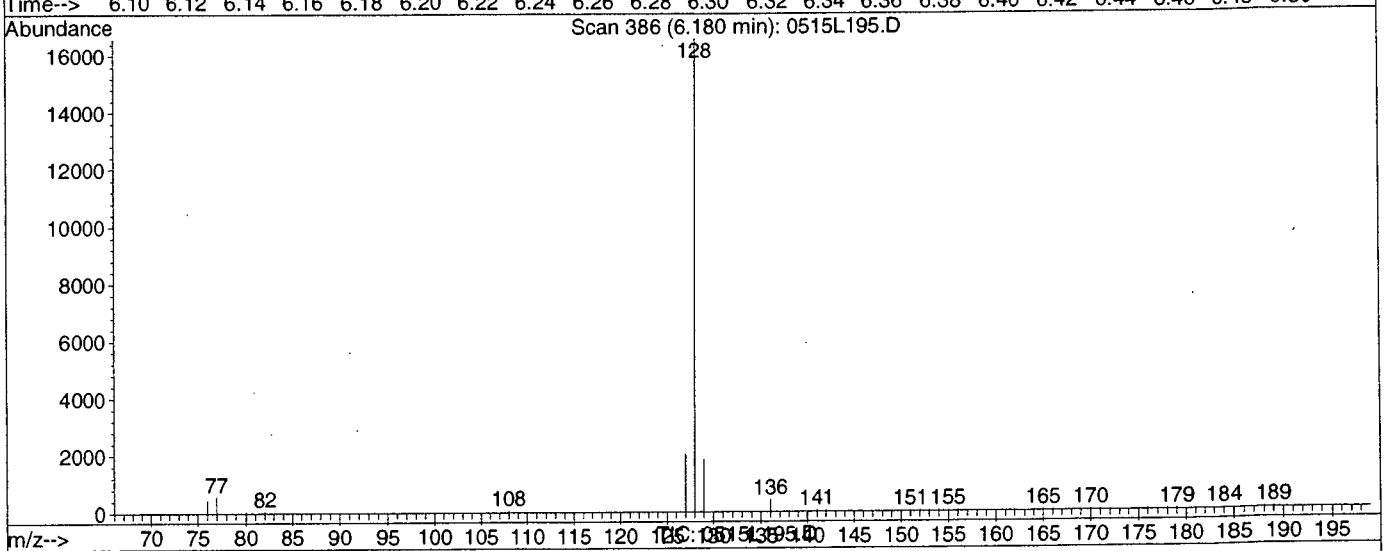
0515L195.D P0518-42.M Wed Jun 03 13:27:42 2015 Page 2

Quantitation Report

Data File : M:\LINUS\DATA\L150515\0515L195.D Vial: 95
Acq On : 27 May 15 1:54 Operator: MA
Sample : 5.0ug/ml PAH 5/26/15 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Jun 3 13:23 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Multiple Level Calibration





(3) Naphthalene (TM)

6.18min 6.0274ppb

response 18252

Ion	Exp%	Act%
128.00	100	100
129.00	11.20	10.67
127.00	11.40	11.94
0.00	0.00	0.00

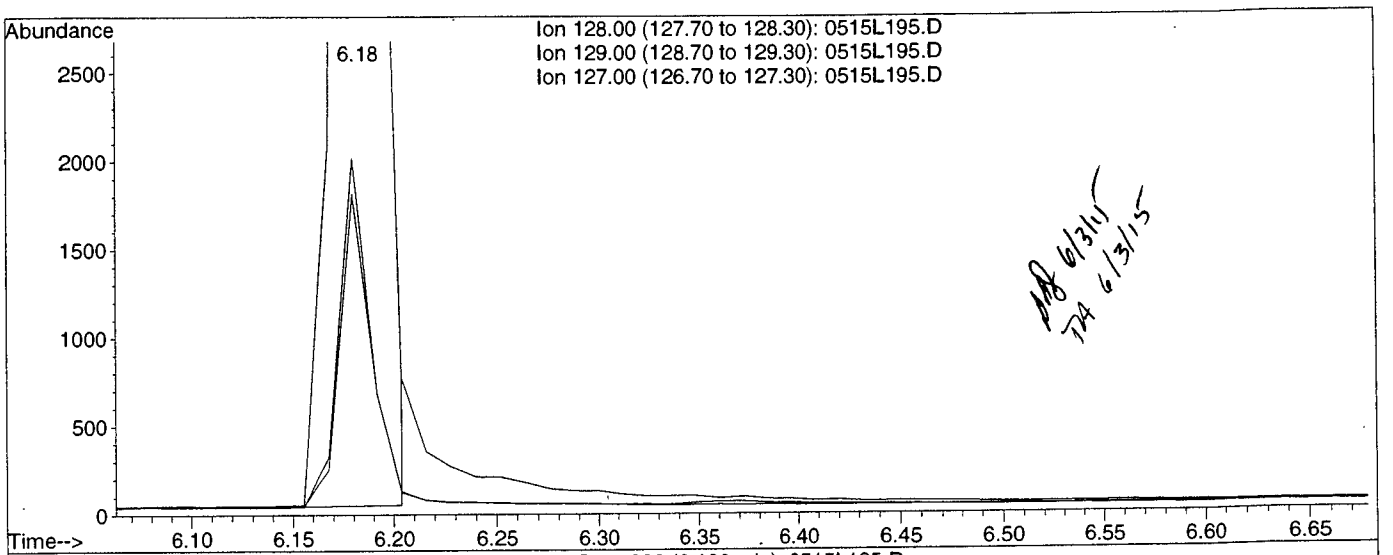
0515L195.D P0518-42.M Wed Jun 03 13:24:41 2015

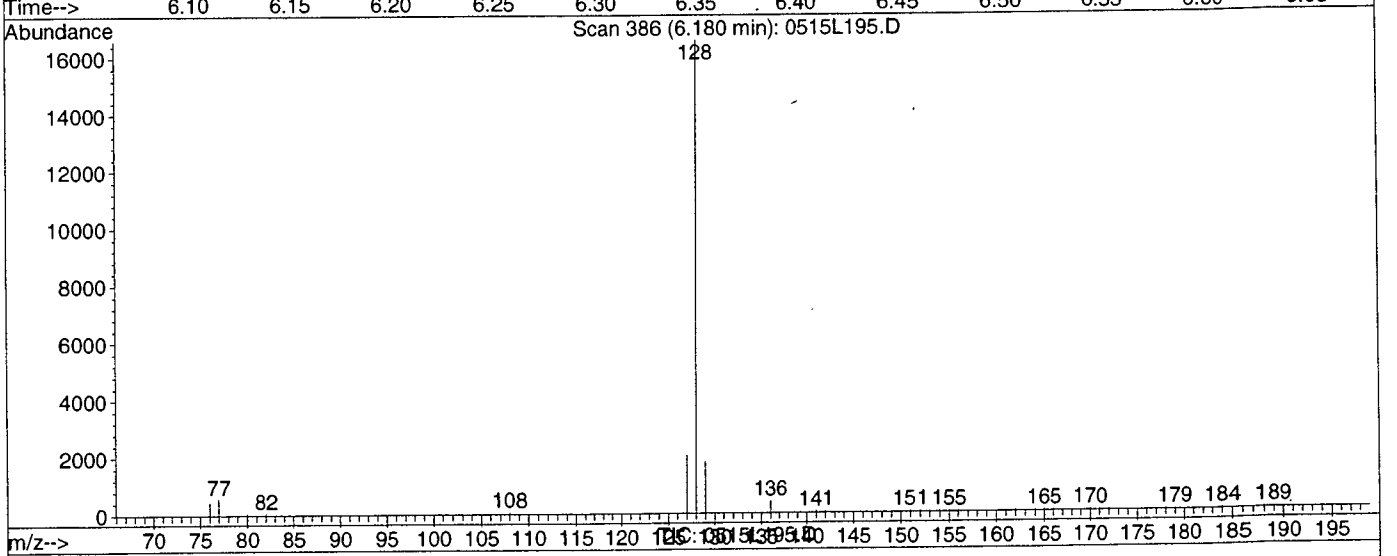
Quantitation Report

Data File : M:\LINUS\DATA\L150515\0515L195.D
Acq On : 27 May 15 1:54
Sample : 5.0ug/ml PAH 5/26/15
Misc :
Quant Time: Jun 3 13:27 2015

Vial: 95
Operator: MA
Inst : Linus
Multiplr: 1.00
Quant Results File: temp.res

Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Multiple Level Calibration





(3) Naphthalene (TM)

6.18min 5.9597ppb m

response 18047

Ion	Exp%	Act%
128.00	100	100
129.00	11.20	10.95
127.00	11.40	12.17
0.00	0.00	0.00

0515L195.D P0518-42.M Wed Jun 03 13:27:26 2015

EPA METHOD 8270D
Polynuclear Aromatic Hydrocarbons
Raw Data

APPL, INC.

Method Blank

EPA 8270D LL WATER DODv3

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150518W-16287 - 197649**
Batch ID: #SIMDD-150518A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
BLANK	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
BLANK	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
BLANK	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
BLANK	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
BLANK	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
BLANK	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
BLANK	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
BLANK	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
BLANK	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
BLANK	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
BLANK	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
BLANK	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	5/18/2015	5/27/2015
BLANK	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	5/18/2015	5/27/2015
BLANK	SURROGATE: 2-FLUORBIPHENY	47.8 #	50-110			%	5/18/2015	5/27/2015
BLANK	SURROGATE: NITROBENZENE-	62.2	40-110			%	5/18/2015	5/27/2015
BLANK	SURROGATE: TERPHENYL-D14 (	85.4	50-135			%	5/18/2015	5/27/2015

= Recovery (or RPD) is outside QC limits.

Quant Method: P0518-42.M
Run #: 0515L196
Instrument: Linus
Sequence: L150515
Initials: DA

GC SC-Blank-REG MDLs
Printed: 6/3/2015 12:54:50 PM

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L196.D Vial: 96
Acq On : 27 May 15 2:19 Operator: MA
Sample : 150518A BLK 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Jun 3 10:23 2015 Quant Results File: P0518-42.RES

Quant Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	8846	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.17	164	4669	2.50 ppb	0.01
11) Phenanthrene-D10(IS)	9.91	188	8053	2.50 ppb	0.01
15) Chrysene-D12(IS)	12.98	240	8343	2.50 ppb	0.02
21) Perylene-D12(IS)	14.59	264	5471	2.50 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.37	82	1587	1.56 ppb	0.01
Spiked Amount 2.500			Recovery	= 62.240%	
7) Surrogate Recovery (FBP)	7.41	172	3527	1.20 ppb	0.01
Spiked Amount 2.500			Recovery	= 47.840%	
17) Surrogate Recovery (TPH)	11.78	244	5724	2.14 ppb	0.01
Spiked Amount 2.500			Recovery	= 85.440%	

Target Compounds Qvalue

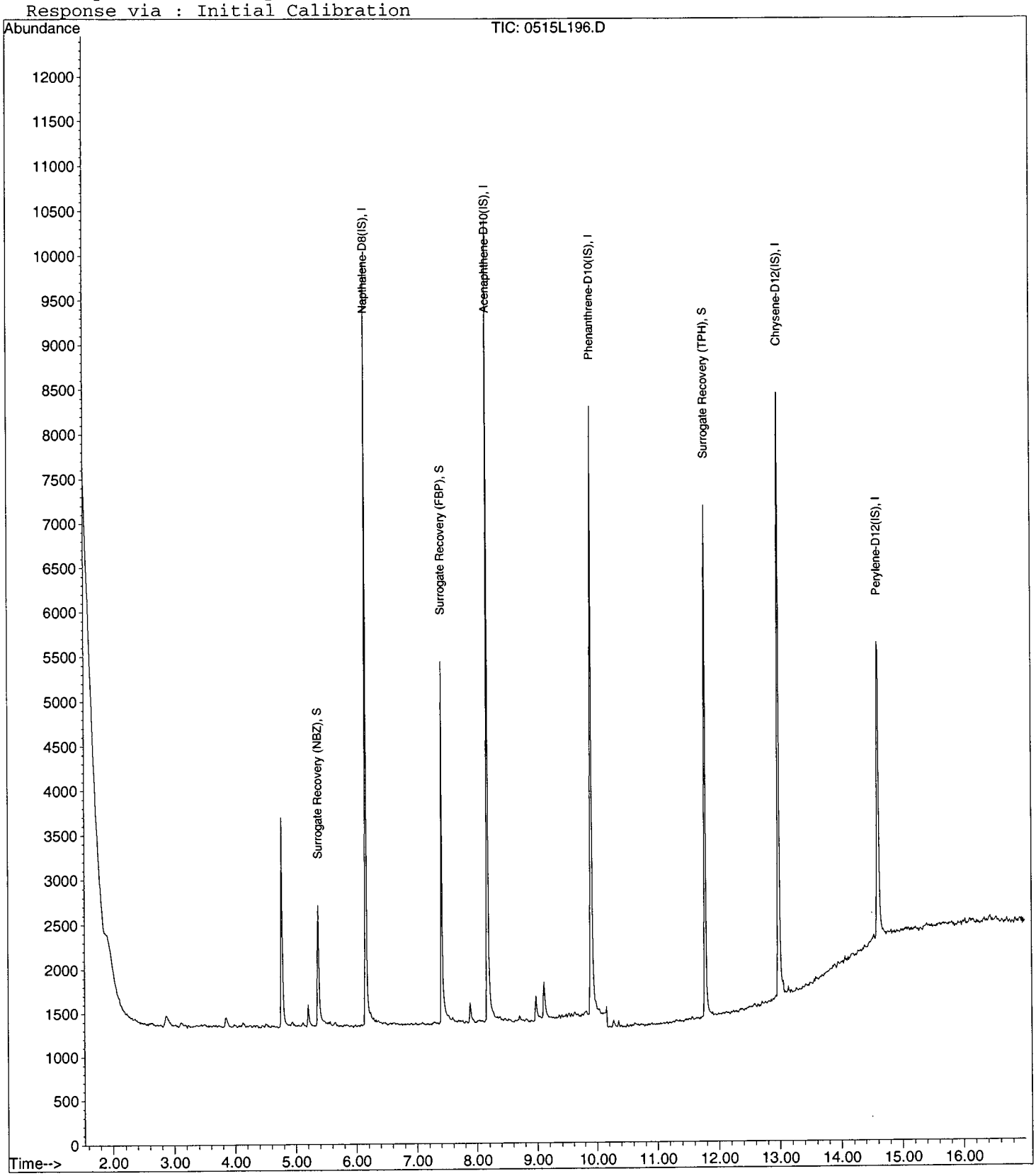
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150515\0515L196.D Vial: 96
Acq On : 27 May 15 2:19 Operator: MA
Sample : 150518A BLK 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Jun 3 10:23 2015 Quant Results File: P0518-42.RES

Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration



Laboratory Control Spike Recovery
EPA 8270D LL WATER DODv3

APPL ID: **150518W-16287 LCS - 197649**
Batch ID: #SIMDD-150518A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2-METHYLNAPHTHALENE	5.00	3.17	63.4	45-105
ACENAPHTHENE	5.00	4.06	81.2	45-110
ACENAPHTHYLENE	5.00	3.64	72.8	50-105
ANTHRACENE	5.00	3.57	71.4	55-110
BENZ (A) ANTHRACENE	5.00	4.01	80.2	55-110
BENZO (A) PYRENE	5.00	4.09	81.8	55-110
BENZO (B) FLUORANTHENE	5.00	3.88	77.6	45-120
BENZO (G,H,I) PERYLENE	5.00	3.96	79.2	40-125
BENZO (K) FLUORANTHENE	5.00	4.36	87.2	45-125
CHRYSENE	5.00	4.46	89.2	55-110
DIBENZ (A,H) ANTHRACENE	5.00	4.05	81.0	40-125
FLUORANTHENE	5.00	3.75	75.0	55-115
FLUORENE	5.00	3.71	74.2	50-110
INDENO (1,2,3-CD) PYRENE	5.00	4.24	84.8	45-125
NAPHTHALENE	5.00	3.90	78.0	40-100
PHENANTHRENE	5.00	3.64	72.8	50-115
PYRENE	5.00	4.34	86.8	50-130
SURROGATE: 2-FLUORBIPHENYL (S)	2.55	1.44	56.4	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.55	1.72	67.4	40-110
SURROGATE: TERPHENYL-D14 (S)	2.55	2.15	84.3	50-135

Comments:

Primary	SPK
Quant Method :	P0518-42.M
Extraction Date :	5/18/2015
Analysis Date :	5/27/2015
Instrument :	Linus
Run :	0515L197
Initials :	DA

Printed: 6/3/2015 12:54:38 PM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L197.D Vial: 97
Acq On : 27 May 15 2:45 Operator: MA
Sample : 150518A LCS-1 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: May 27 13:26 2015 Quant Results File: P0518-42.RES

Quant Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.16	136	9630	2.50 ppb	0.00
6) Acenaphthene-D10(IS)	8.17	164	4920	2.50 ppb	0.01
11) Phenanthrene-D10(IS)	9.90	188	8948	2.50 ppb	0.00
15) Chrysene-D12(IS)	12.97	240	9112	2.50 ppb	0.01
21) Perylene-D12(IS)	14.59	264	5936	2.50 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.37	82	1936	1.72 ppb	0.01
Spiked Amount 2.500			Recovery	= 68.920%	
7) Surrogate Recovery (FBP)	7.41	172	4482	1.44 ppb	0.01
Spiked Amount 2.500			Recovery	= 57.680%	
17) Surrogate Recovery (TPH)	11.77	244	6285	2.15 ppb	0.00
Spiked Amount 2.500			Recovery	= 85.920%	

Target Compounds						Qvalue
3) Naphthalene	6.18	128	14688	3.90 ppb		99
4) 2-Methylnaphthalene	6.98	142	8678	3.17 ppb		95
5) 1-Methylnaphthalene	7.08	142	10045	4.23 ppb		94
8) Acenaphthylene	8.00	152	17110	3.64 ppb		97
9) Acenaphthene	8.21	154	10125	4.06 ppb		96
10) Fluorene	8.81	166	11622	3.71 ppb		95
12) Phenanthrene	9.93	178	17573	3.64 ppb		100
13) Anthracene	9.99	178	16137	3.57 ppb		99
14) Fluoranthene	11.30	202	22022	3.75 ppb		95
16) Pyrene	11.56	202	22487	4.34 ppb		99
18) Benz (a) anthracene	12.96	228	18854	4.01 ppb		99
19) Chrysene	13.01	228	19385	4.46 ppb		97
20) Indeno (1,2,3-cd) pyrene	16.09	276	20326	4.24 ppb		99
22) Benzo (b) fluoranthene	14.15	252	18274	3.88 ppb		96
23) Benzo (k) fluoranthene	14.17	252	17828	4.36 ppb	#	91
24) Benzo (a) pyrene	14.47	252	18326	4.09 ppb		94
25) Dibenz (a,h) anthracene	16.12	278	17277	4.05 ppb		99
26) Benzo (g,h,i) perylene	16.53	276	17321	3.96 ppb		99

Algorithm $= \frac{14688 \times 2.5}{0.9778 \times 9630} = 3.90$ MA 6/8/15

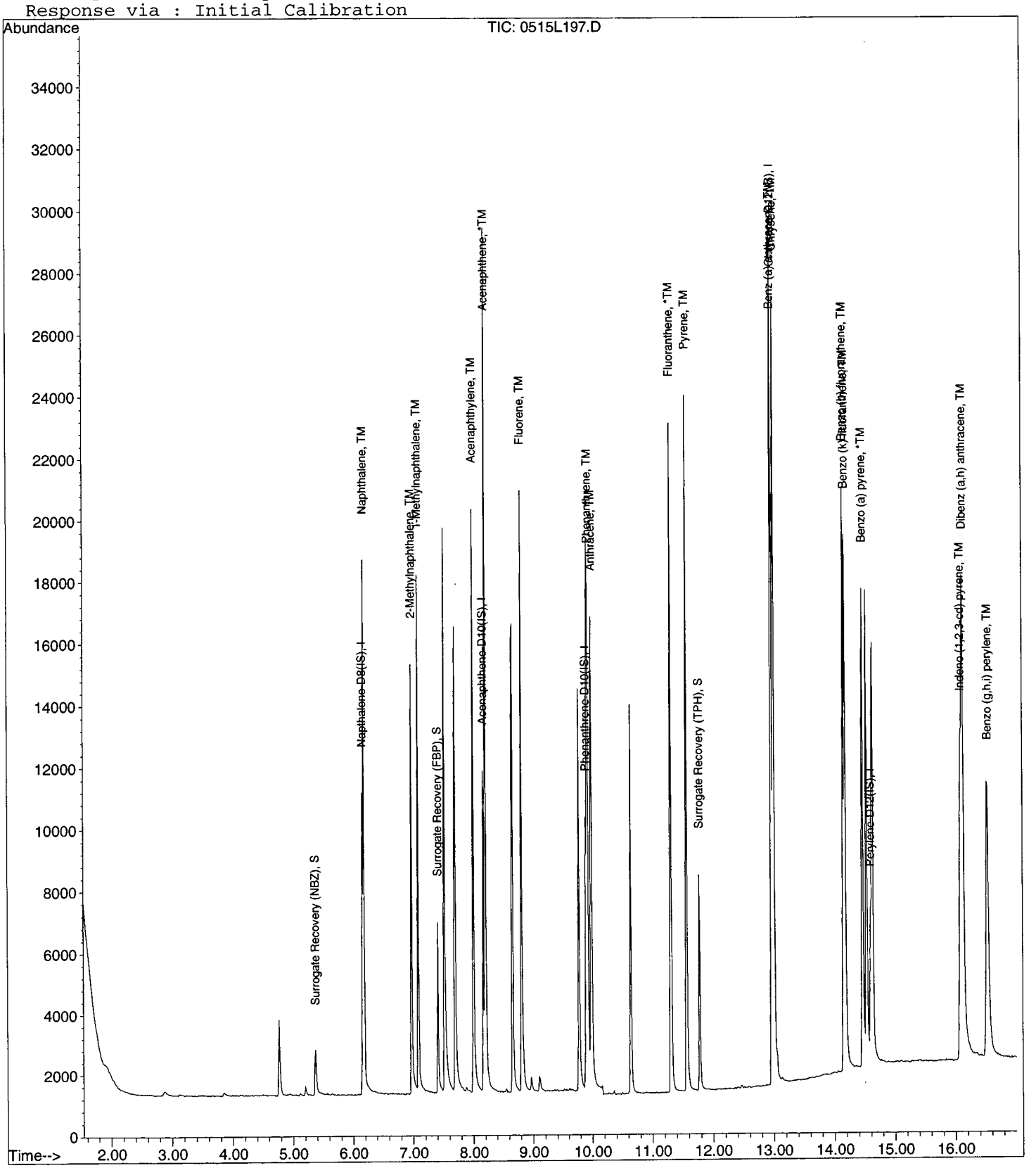
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150515\0515L197.D Vial: 97
Acq On : 27 May 15 2:45 Operator: MA
Sample : 150518A LCS-1 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: May 27 13:26 2015 Quant Results File: P0518-42.RES

Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration

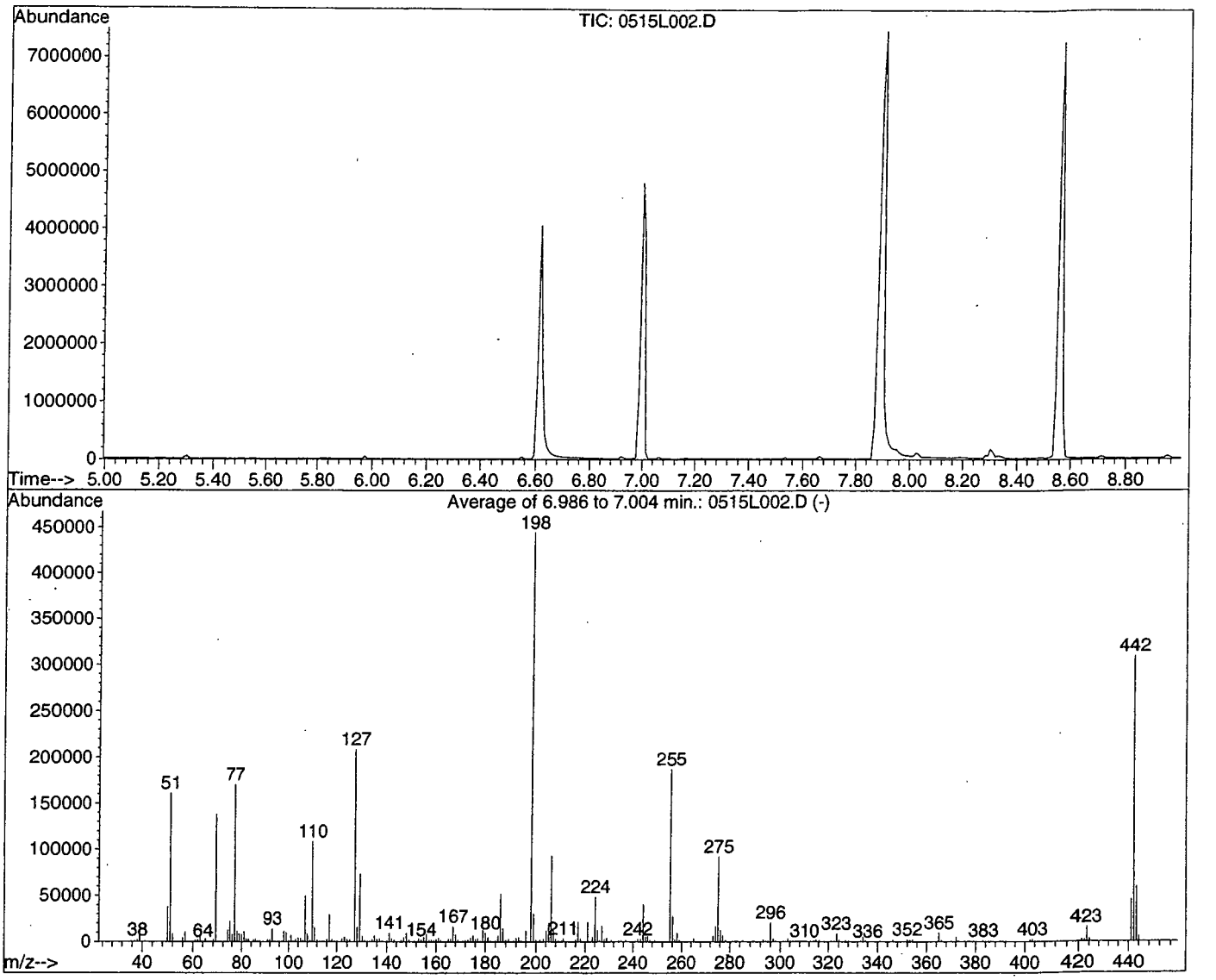


DFTPP

Data File : M:\LINUS\DATA\L150515\0515L002.D
Acq On : 15 May 15 16:56
Sample : SV Tune 05/14/15
Misc :

Vial: 2
Operator: csc
Inst : Linus
Multiplr: 1.00

Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270



AutoFind: Scans 475, 476, 477; Background Corrected with Scan 472

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	36.1	160774	PASS
68	69	0.00	2	1.4	1998	PASS
70	69	0.00	2	0.5	725	PASS
127	198	40	60	46.9	208571	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	444800	PASS
199	198	5	9	6.8	30375	PASS
275	198	10	30	20.7	91932	PASS
365	198	1	100	2.0	9111	PASS
441	443	0.01	100	76.6	45477	PASS
442	198	40	150	69.5	309146	PASS
443	442	17	23	19.2	59336	PASS

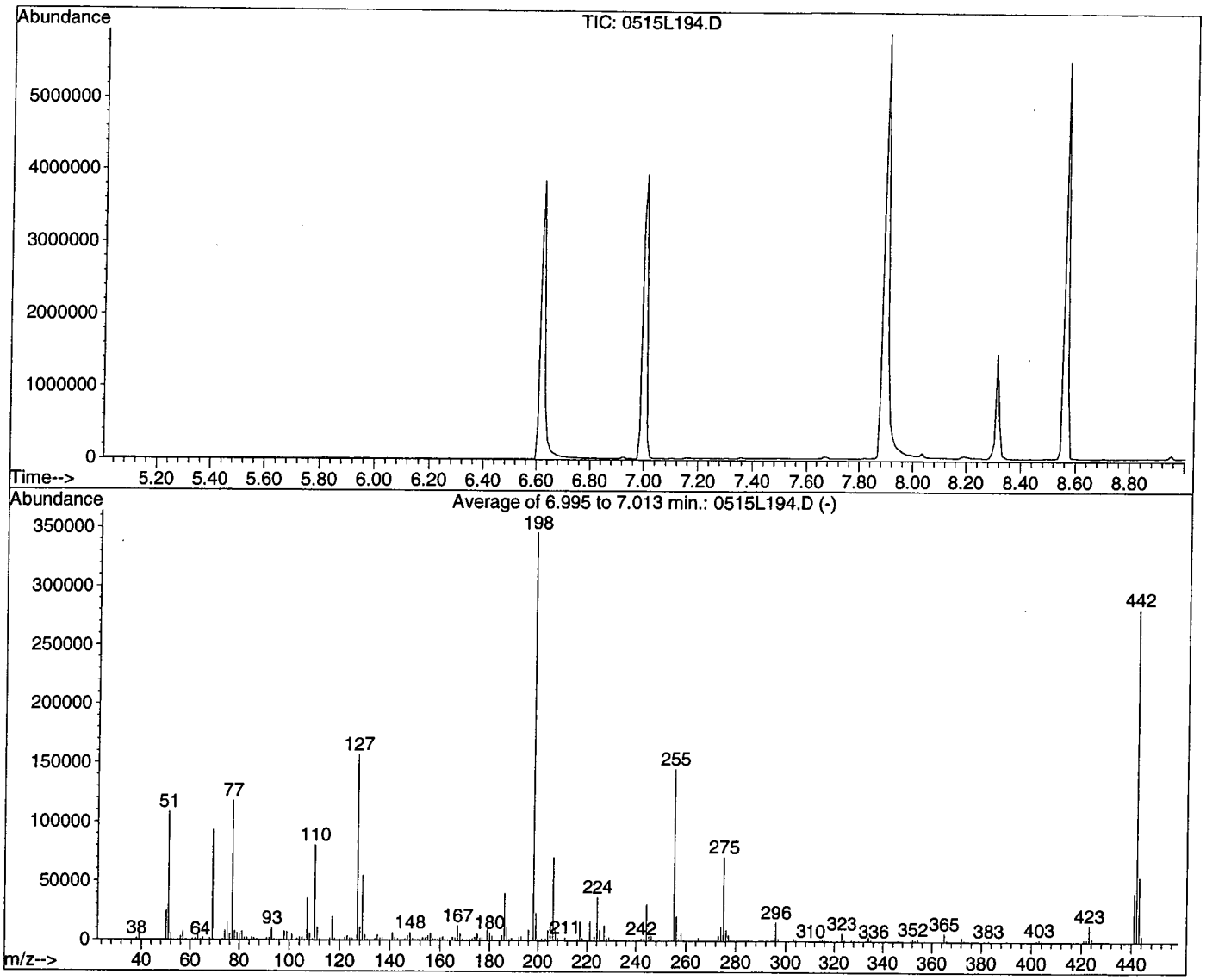
0515L002.D P0518-42.M Wed Jun 03 13:16:17 2015

DFTPP

Data File : M:\LINUS\DATA\L150515\0515L194.D
Acq On : 27 May 15 1:35
Sample : SV TUNE 5/14/15
Misc :

Vial: 94
Operator: MA
Inst : Linus
Multiplr: 1.00

Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270



AutoFind: Scans 476, 477, 478; Background Corrected with Scan 473

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	31.3	108560	PASS
68	69	0.00	2	1.6	1447	PASS
70	69	0.00	2	0.5	428	PASS
127	198	40	60	45.3	157151	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	346531	PASS
199	198	5	9	6.7	23257	PASS
275	198	10	30	20.5	71206	PASS
365	198	1	100	1.9	6584	PASS
441	443	0.01	100	75.8	41651	PASS
442	198	40	150	81.5	282581	PASS
443	442	17	23	19.4	54955	PASS

INDOXACARB CURVE											
Prep: 5/14/15 Ex: 7/31/15-L.H.											
Supplier	ID#	ug/mL	LOT#	DATE	EXP.DATE	µL	µL	µL	µL	µL	µL
INDOXACARB STD.		1		07/31/14	07/31/15	5	50	100	150	200	250
						995	950	900	850	800	750
	Hexane		051914A		FINAL VOL	1000	1000	1000	1000	1000	1000

8270 Full Scan Second Source Stock						
	5/14/15-L.H.					
8270 Second Source Stock						
Exp:	7/21/15					
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
o2si	116070-02	2000	34696-3398	5/14/15	5/14/16	1000
o2si	110391-01	2000	34693-3401	5/14/15	5/14/16	1000
o2si	010337-01	1000	17950-3514	5/14/15	11/14/15	1000
o2si	110396-01	2000	34698-3515	5/14/15	5/14/16	1000
o2si	110397-01	2000	50011-3505	5/14/15	7/21/15	1000
o2si	110393-01	2000	34694-3515	5/14/15	5/14/16	1000
o2si	110394-01	2000	35110-3515	5/14/15	5/14/16	1000
o2si	110395-01	2000	34697-3402	5/14/15	5/14/16	1000
o2si	110392-01	2000	18075-3397	5/14/15	5/14/16	1000
EM Science	Methylene Chloride		55006	11/06/14		1000
				Final Vol.		10000

Semivolatile (SV) Tuning Solution -L.H.						
PREP DATE:	5/14/15					
Semivolatile (SV) Tune Solution 50ug/ml						
Exp:	5/14/16					
		Conc.		Date		
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Ultra Scient	Semivolatile	1000	CL-5063-3518	05/14/15	5/14/16	1000
EM Science	Methylene Chloride		47186	11/06/14		19000
				Final Vol.		20000

8270 PAH SIM Standard Curve

PREP DATE:	05/15/15-L.H.												
8270 PAH SIM STANDARD CURVE													
Exp.DATE:	05/22/15					0.1	0.2	0.5	1	5	10	50	100
		Conc.		Date									
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL	µL	µL	µL	µL	µL	µL	µL
o2si	8270 PAH SIM Stock	200	230271-34569	02/27/15	06/08/16	0	0	0	0	5	5	25	50
	5.0ug/mL	5		05/15/15	**05/22/15**	0	0	10	20	0	0	0	0
	1.0ug/mL	1		05/15/15	**05/22/15**	10	20	0	0	0	0	0	0
o2si	8270 BN:A (200:400	VAR	242352-34963	05/04/15	01/01/17	0	0	0	0	5	5	25	50
EM Science	Methylene Chloride		54200	11/06/14		90	80	90	80	190	90	50	0
Supelco	SIM SV Internal St	125	A10079V-3449	05/15/15	5/15/16	2	2	2	2	4	2	2	2
				Final Vol.		102	102	102	102	204	102	102	102

8270 PAH SIM SS

PREP DATE:	05/15/15-L.H.					
8270 PAH SIM Second Source 5µg/mL						
Exp.DATE:	05/15/15					5
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
o2si	8270 PAH SIM Stock	200	243252-34609	02/27/15	01/15/17	5
EM Science	Methylene Chloride		54200	11/06/14		195
Supelco	SIM SV Internal St	125	A10079V-3449	05/15/15	5/15/16	4
				Final Vol.		204

8270 PAH SIM CCV

PREP DATE:	05/15/15					
8270 PAH SIM Continuing Calibration Verification 5ug/ml						
Exp.DATE:	05/22/15					5
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
o2si	8270 PAH SIM Stock	200	230271-34569	02/27/15	06/08/16	5
o2si	8270 BN:A (200:400	VAR	242352-34963	05/04/15	01/01/17	5
EM Science	Methylene Chloride		54200	11/06/14		190
Supelco	SIM SV Internal St	125	A10079V-3449	05/15/15	5/15/16	4
				Final Vol.		204

072

02/24/15
CSC

GC/MS STANDARD PREPARATION BOOK # 1 PAGE

PREP DATE:	02/24/15					
8270 PAH SIM Continuing Calibration Verification 5ug/ml						
Exp.DATE:	02/31/15					5
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
o2si	8270 PAH SIM Stock	10	213931-33759	12/23/14	08/26/15	5
o2si	8270 BN:A Surrogate	VAR	226244-34103	12/23/14	04/10/16	5
EM Science	Methylene Chloride		54200	11/06/14		190
Supelco	SIM Internal Standard	125	XA10079V-34507	12/23/14	09/30/17	4
				Final Vol.		204

02/27/15
CSC

8270D PAH SIM Solution, 200 mg/L, 1 ml
110780-01
Lot # Storage Expiry
230271 ≤-10 °C 8/Jun/2016
Solv: Methylene Chloride

8270D PAH SIM
Lot #: 230271 - 34569
Rec: 1/13/15 MFR exp. 6/8/16

Recieved: 01/31/15
Opened: 02/27/15
Expired: 06/8/16

02/27/15
CSC

8270 BN:A (200:400) Surrogate Solution, 1 mL
110004-17
Lot # Storage Expiry
237956 ≤-10 °C 8/Oct/2016
Solv: Methylene Chloride

8270 BN:A (200:400) Surrogate Solution
Lot #: 237956 - 34559
Rec: 1/13/15 MFR exp. 10/8/16

Recieved: 01/13/15
Opened: 02/27/15
Expired: 10/8/16

NOTEBOOK INSERT LABEL

Semivolatile Internal Std Mix
Lot: XA10079V EXP: SEP/2017
CRM48902
STORAGE: REFRIGERATE 2 x 1ml

DATE RECEIVED:

SUPELCO
Solutions within.
595 North Harrison Road • Bellefonte, PA
16823-0048 USA • Phone 814-359-3441

STANDARD TRANSFER LABEL

Date of Preparation:
Exp. Date:
Reference Number:
Storage: EXP: SEP/2017
Description:
REFRIGERATE
CHEMST

02/27/15
CSC

Semivolatile Internal Standard Mix
Lot #: XA10079V - 34496
Rec: 12/11/14 MFR exp. 9/30/17

CRM48902 XA10079V
Semivolatile Internal Std Mix
2000ug/ml in dichloromethane

Received: 12/11/14
Opened: 02/27/15
Expired: 09/30/17

8270 SIM PAH Internal Standard						
PREP DATE:	5/15/15-L.H.					
8270 SIM PAH Internal Standard Mix 125ug/ml						
Exp.DATE:	11/15/15					
		Conc.		Date	Exp.	**125**
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
Supelco	SV Internal Standa	2000	A10079V-3449	05/15/15	5/15/16	50
EM Science	Methylene Chloride		47186	11/06/14		750
				Final Vol.		800

8270 Full Scan CCV						
PREP DATE:	05/15/15-L.H.					
8270 Continuing Calibration Verification 50ug/ml						
Exp:	05/22/15					**50**
		Conc.		Date		
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Absolute	8270 Stock	200	VAR	11/18/14	05/21/15	25
o2si	8270 BN:A (200:400	VAR	242352-34963	02/27/15	10/8/16	25
EM Science	Methylene Chloride		47186	11/06/14		50
Supelco	SV Internal Standa	2000	A10079V-3449	02/27/15	09/30/17	2

1ug/ml 1,2,3-TCP						
PREP DATE:	05/15/15-LH					
1,2,3-TCP 1ug/ml						
Exp. Date:	11/04/15					
		Conc.		Date	Exp.	
Supplier	ID#	µg/mL	Lot #	Code	Date	µL
O2si	1,2,3-TCP	1000	02872-3201	05/15/15-LH	01/23/16	5
J.T.Baker	Purge & Trap MeoH		0000062345	10/10/13		4995

1,2,3-TCP CCV						
PREP DATE:	5/15/15-L.H.					
1,2,3-TCP Continuing Calibration Verification 0.05ug/mL						
Exp. Date:	11/4/15					
		Conc.		Date	Exp.	
Supplier	ID#	µg/mL	Lot #	Code	Date	µL
O2si	1,2,3-TCP	1.0	02641-3200	5/4/15	01/23/16	50
O2si	1,2,3-TCP-d5	2.0	02640-3200	5/4/15	01/27/16	25
J.T.Baker	Purge & Trap MeoH		0000062345	10/10/13		925
				Final Vol.		1000

GC/MS STANDARD PREPARATION BOOK # L PAGE # 073

02/27/15 CSC

8270D PAH SIM Solution, CK
Second Source, 200 mg/L, 1 mL
110780-01-SS

Lot #	Storage	Expiry
243252	≤ -10 °C	15/Jan/2017

Solv: Methylene Chloride

8270D PAH SIM (SS)
Lot #: 243252 - 34609
Rec: 1/23/15 MFR exp. 1/15/17

Received : 01/23/15
Opened : 02/27/15
Expired: 01/15/17

02/27/15 CSC

Part #: 30031 Laboratory Use Only - See MSDS CSC
Lot #: 060111 Exp:060116 Storage 20 °C
EPA Method 525 - Internal Standard
4 components CAUTION: Sonicate Before Use
500 ug/mL in acetc
ABSOLUTE STANDA

EPA Method 525 Internal Std
Lot #: 060111 - 32256
Rec: 4/16/13 MFR exp. 6/1/16

Received : 04/16/13
opened : 02/27/15
Expired : 06/01/16

02/27/15 CSC

PREP DATE:	02/27/15					
8270 SIM PAH Internal Standard Mix 125ug/ml						CSC
Exp.DATE:	08/27/15					
		Conc.		Date	Exp.	125
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
Supelco	Internal Standard	2000	XA10079V-34496	12/11/14	09/30/17	50
EM Science	Methylene Chloride		54200	11/06/14		750
				Final Vol.		800

02/27/15 CSC

PREP DATE:	02/27/15					
525 Working Standard 20ug/mL (PCP @ 80ug/ml)						CSC
Exp. DATE:	03/04/15					20
		Conc.		Date	Exp.	
Supplier	ID #	ug/ml	Lot #	Code	Date	ul
Ultra-Scientific	Extractables Mixture (PSM-525A)	500	CK-2769-34658	02/17/15	09/30/16	24
Ultra-Scientific	PAH Mixture (PM-525B)	500	CK-2706-34660	02/17/15	09/30/16	24
EM Science	Methylene Chloride		54200	11/06/14		552
				Final Vol.		600

02/27/15 CSC

PREP DATE:	02/27/15					
525 Continuing Calibration Verification 5ug/ml (20ppb PC						CSC
Exp.DATE:	03/04/15					5
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
Ultra Scienti	525 Working Std (PSM-525A) & (PM-525B)	20	VAR	02/17/15	09/30/16	50
Absolute	525 Internal Std (30031)	500	060111-32256	04/16/13	06/01/16	2
EM Science	Methylene Chloride		54200	11/06/14		148
				Final Vol.		200

02/26/15 CSC

PREP DATE:	02/26/15		EXP:	03/03/15											
Sulfolane Standard Curve															CSC
						1	5	10	20	40	50	60	80	100	
		Conc.		Date	Exp.										
Supplier	ID #	µg/mL	Lot#	Code	Date	µL	µL	µL	µL	µL	µL	µL	µL	µL	
o2si	Sulfolane Calibration Standard	200	VAR	10/22/14	03/11/15	5	5	5	10	20	25	30	40	50	
EM Science	Methylene Chloride		54200	11/06/14		995	195	95	90	80	75	70	60	50	
				Final Vol.		1000	200	100	100	100	100	100	100	100	

8270 PAH SIM CCV

PREP DATE:	05/26/15-LH					
8270 PAH SIM Continuing Calibration Verification 5ug/ml						
Exp.DATE:	06/02/15					5
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
o2si	8270 PAH SIM Stock	200	230271-34569	02/27/15	06/08/16	5
o2si	8270 BN:A (200:400)S	VAR	242352-34963	02/27/15	10/08/16	5
EM Science	Methylene Chloride		54200	11/06/14		190
Supelco	SIM SV Internal Star	125	A10079V-3449	05/15/15	5/15/16	4
				Final Vol.		204

8270 Full Scan CCV

PREP DATE:	06/02/15-L.H.					
8270 Continuing Calibration Verification 50ug/ml						
Exp:	05/22/15					50
		Conc.		Date		
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Absolute	8270 Stock	200	VAR	04/27/15	10/27/15	25
o2si	8270 BN:A (200:400)	VAR	242352-34963	05/21/15	5/21/16	25
EM Science	Methylene Chloride		47186	11/06/14		50
Supelco	SV Internal Standard	2000	A10079V-3449	05/21/15	5/21/16	2

Prep: 05/26/15 Exp: 04/27/15 GA **HERB SECOND SOURCE**

Analytes:	Conc. in mix (ug/ml)	Conc. In Stock (ug/ml)	Aliqout (uL)	STOCK SOURCE O2SI	Final Vol. Solvent (ml)
Dalapon	12.8	64	1000	CAT: 132070-0	5
3,5 Dichlorobenzoic Acid	1.28	6.4		Lot: 207738	MTBE
4-Nitrophenol	3.2	16		OP: 5/26/15	Lot #
2,4-DCAA (S)	6.4	32		Exp: 4/27/16	50223
Dicamba	1.28	6.4			
MCPP	1280	6400			
MCPA	1280	6400			
2,4-DP	6.4	32			
2,4-D	6.4	32			
DNOC	2.56	12.8			
PCP	1.28	6.4			
2,4,5-TP	1.28	6.4			
Chloramben	6.4	32			
2,4,5-T	1.28	6.4			
Dinoseb	3.2	16			
2,4-DB	12.8	64			
Bentazon	6.4	32			
Picloram	1.28	6.4			
Dacthal	1.28	6.4			
Acifluorfen	3.2	16			

***1 ml ampule is derivitized by extraction and brought up to 5ml in MTBE*

_SEP004S

Organic Extraction Worksheet

Method	SIM Separatory Funnel Extra 3510C	Extraction Set	150518A	Extraction Method	SEP004S	Units	mL

Spiked ID 1	SIM Spike 230271-33745		Surrogate ID 1	SIM Surrogate 248398-35028	
Spiked ID 2			Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	05/18/15 10:25	
Spiked ID 8			Ext. End Time:	05/18/15 16:00	
			GC Requires Extract By:	06/02/15 0:00	

pH1	2	5/18/15 10:35:00 AM	Water Bath Temp Criteria	79,79 °C
pH2	14	5/18/15 11:55:00 AM		
pH3				

Spiked By: DL **Date** 05/18/15 **Witnessed By:** DC **Date** 05/18/15

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ16340	AZ16340W09			0.0250	1	1070	1	2/1	05/18/15 10:25	76424
						equip	E-WB7				
18	AZ16341	AZ16341W09			0.0250	1	1040	1	2/1	05/18/15 10:25	76424
						equip	E-WB7				
19	AZ16342	AZ16342W09			0.0250	1	1020	1	2/1	05/18/15 10:25	76424
						equip	E-WB7				

Ky 5/19/15

lvent and Lot#	
C	55006
2SO4	XE21E
N NaOH	3-6-15
1 Acid	3-6-15
Na2SO4	4-13-15
strips	HC421273
er Paper	400091

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	LH
Date	5/19/15
Time	12:15
Refrigerator	GC-C

	Technician's Initials
Scanned By	DC
Sample Preparation	DC,KY
Extraction	DC,KY,DL
Concentration	DL

Modified	05/19/15 9:08:10 AM

Reviewed By: Ky **Date** 5/19/15

19/15 9:08:26 AM Ext_ID 107795 201

_SEP004S

Organic Extraction Worksheet

Method	SIM Separatory Funnel Extra 3510C	Extraction Set	150518A	Extraction Method	SEP004S	Units	mL

Spiked ID 1	SIM Spike 230271-33745	Surrogate ID 1	SIM Surrogate 248398-35028	
Spiked ID 2		Surrogate ID 2		
Spiked ID 3		Surrogate ID 3		
Spiked ID 4		Surrogate ID 4		
Spiked ID 5		Surrogate ID 5		
Spiked ID 6		Sufficient Vol for Matrix QC:	YES	
Spiked ID 7		Ext. Start Time:	05/18/15 10:25	
Spiked ID 8		Ext. End Time:	05/18/15 16:00	
		GC Requires Extract By:	06/02/15 0:00	

pH1	2	5/18/15 10:35:00 AM	Water Bath Temp Criteria	79,79 °C
pH2	14	5/18/15 11:55:00 AM		
pH3				

Spiked By: DL **Date** 05/18/15 **Witnessed By:** DC **Date** 05/18/15

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150518A Blk				0.0250	1	1000	1	2/1	05/18/15 10:25	
						equip	E-WB6				
2	150518A LCS-1		0.0250	1	0.0250	1	1000	1	2/1	05/18/15 10:25	
						equip	E-WB6				
3	AZ16235	AZ16235W10			0.0250	1	850	1	2/1	05/18/15 10:25	76401
						equip	E-WB6				
4	AZ16236	AZ16236W09			0.0250	1	980	1	2/1	05/18/15 10:25	76401
						equip	E-WB6				
5	AZ16287 MS-1	AZ16287W22	0.0250	1	0.0250	1	980	1	2/1	05/18/15 10:25	76413
						equip	E-WB6				
6	AZ16287 MSD-1	AZ16287W20	0.0250	1	0.0250	1	980	1	2/1	05/18/15 10:25	76413
						equip	E-WB6				
7	AZ16287	AZ16287W19			0.0250	1	900	1	2/1	05/18/15 10:25	76413
						equip	E-WB6				
8	AZ16288	AZ16288W08			0.0250	1	950	1	2/1	05/18/15 10:25	76413
						equip	E-WB6				
9	AZ16289	AZ16289W08			0.0250	1	900	1	2/1	05/18/15 10:25	76413
						equip	E-WB6				
10	AZ16290	AZ16290W07			0.0250	1	940	1	2/1	05/18/15 10:25	76413
						equip	E-WB6				
11	AZ16334	AZ16334W09			0.0250	1	940	1	2/1	05/18/15 10:25	76424
						equip	E-WB7				
12	AZ16335	AZ16335W10			0.0250	1	980	1	2/1	05/18/15 10:25	76424
						equip	E-WB7				
13	AZ16336	AZ16336W09			0.0250	1	980	1	2/1	05/18/15 10:25	76424
						equip	E-WB7				
14	AZ16337	AZ16337W09			0.0250	1	1070	1	2/1	05/18/15 10:25	76424
						equip	E-WB7				
15	AZ16338	AZ16338W09			0.0250	1	1050	1	2/1	05/18/15 10:25	76424
						equip	E-WB7				
16	AZ16339	AZ16339W10			0.0250	1	1050	1	2/1	05/18/15 10:25	76424
						equip	E-WB7				

lvent and Lot#	
C	55006
2SO4	XE21E
N NaOH	3-6-15
1 Acid	3-6-15
Na2SO4	4-13-15
strips	HC421273
ter Paper	400091

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	LH
Date	5/19/15
Time	12:15
Refrigerator	GC-C

	Technician's Initials
Scanned By	DC
Sample Preparation	DC,KY
Extraction	DC,KY,DL
Concentration	DL

Modified	05/19/15 9:08:10 AM

Reviewed By: Ky **Date** 5/19/15

19/15 9:08:26 AM Ext_ID 2025

Injection Log

Directory: M:\LINUS\DATA\L150515

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	0515L002.D	1	SV Tune 05/14/15		05/15/2015 16:56
2	3	0515L003.D	1	0.1ug/ml PAH 05/15/15		05/15/2015 17:15
3	4	0515L004.D	1	0.2ug/ml PAH		05/15/2015 17:41
4	5	0515L005.D	1	0.5ug/ml PAH		05/15/2015 18:06
5	6	0515L006.D	1	1.0ug/ml PAH		05/15/2015 18:32
6	7	0515L007.D	1	5.0ug/ml PAH		05/15/2015 18:58
7	8	0515L008.D	1	10ug/ml PAH		05/15/2015 19:23
8	9	0515L009.D	1	50ug/ml PAH		05/15/2015 19:49
9	10	0515L010.D	1	100ug/ml PAH		05/15/2015 20:14
10	11	0515L011.D	1	5.0ug/ml PAH SS 05/15/15		05/15/2015 20:40
11	94	0515L194.D	1	SV TUNE 5/14/15		05/27/2015 01:35
12	95	0515L195.D	1	5.0ug/ml PAH 5/26/15		05/27/2015 01:54
13	96	0515L196.D	1	150518A BLK 1/1000	water	05/27/2015 02:19
14	97	0515L197.D	1	150518A LCS-1 1/1000	water	05/27/2015 02:45
15	6	0515L206.D	1.06383	AZ16334W09 1/940	water	05/27/2015 06:36
16	7	0515L207.D	1.02041	AZ16335W10 1/980	water	05/27/2015 07:01
17	8	0515L208.D	1.02041	AZ16336W09 1/980	water	05/27/2015 07:27
18	9	0515L209.D	0.93458	AZ16337W09 1/1070	water	05/27/2015 07:53
19	10	0515L210.D	0.95238	AZ16338W09 1/1050	water	05/27/2015 08:18
20	11	0515L211.D	0.95238	AZ16339W10 1/1050	water	05/27/2015 08:43
21	12	0515L212.D	0.93458	AZ16340W09 1/1070	water	05/27/2015 09:09
22	13	0515L213.D	0.96154	AZ16341W09 1/1040	water	05/27/2015 09:34
23	14	0515L214.D	0.98039	AZ16342W09 1/1020	water	05/27/2015 10:00

RSK-175

APPL, INC.

RSK-175
QC Summary

APPL, INC.

Method Blank
RSK 175

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150526W-16334 - 197498**
Batch ID: #RSK-150526A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
BLANK	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
BLANK	METHANE	0.45 U	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F014
Instrument: Frodo
Sequence: 150526
Initials: RSA

GC SC-Blank-REG MDLs
Printed: 05/29/15 12:21:18 PM

Laboratory Control Spike Recovery
RSK 175

APPL ID: **150526W-16334 LCS - 197498**
Batch ID: #RSK-150526A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
ETHANE	25.0	23.5	94.0	70-130
ETHENE	23.3	21.5	92.3	70-130
METHANE	13.3	13.3	100	70-130

Comments: _____

Primary	SPK
Quant Method :	402RSK.M
Extraction Date :	05/26/15
Analysis Date :	05/26/15
Instrument :	Frodo
Run :	0526F002
Initials :	RSA

Printed: 05/29/15 12:20:49 PM
APPL Standard LCS

RSK 175

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76424

Case No: 76424 Date Analyzed: 05/26/15

Matrix: WATER Instrument: Frodo

Blank ID: 150526A-BLK Time Analyzed: 1323

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150526A-LCS	Lab Control Spike	0526F002	05/26/15 1047
AZ16334	S67-MW008-051315	0526F005	05/26/15 1122
AZ16335	S67-MW001-051315	0526F006	05/26/15 1126
AZ16336	S67-MW001P-051315	0526F007	05/26/15 1130
AZ16337	S67-MW10-051315	0526F008	05/26/15 1136
AZ16338	S67-MW013-051315	0526F009	05/26/15 1140
AZ16339	S67-MW004-051315	0526F010	05/26/15 1144
AZ16340	S67-MW005-051315	0526F011	05/26/15 1149
AZ16341	S67-MW014-051315	0526F012	05/26/15 1156
AZ16342	S67-MW004P-051315	0526F013	05/26/15 1200
150526A-BLK	Blank	0526F014	05/26/15 1323

Comments: Batch: #RSK-150526A

Printed: 05/29/15 12:20:41 PM
Form 4, Blank Summary

RSK-175
Sample Data

APPL, INC.

RSK 175

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW008-051315
Sample Collection Date: 05/13/15

Loc ID: S67-MW08
ARF: 76424
APPL ID: AZ16334
QCG: #RSK-150526A-197498

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
RSK 175	METHANE	28	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F005
Instrument: Frodo
Sequence: 150526
Dilution Factor: 1
Initials: RSA

Printed: 05/29/15 12:20:55 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150526\0526F005.D Vial: 5
Acq On : 26 May 2015 11:22 Operator: SD
Sample : AZ16334W01 Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 26 11:26 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150526\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue May 26 11:01:24 2015
Response via : Multiple Level Calibration

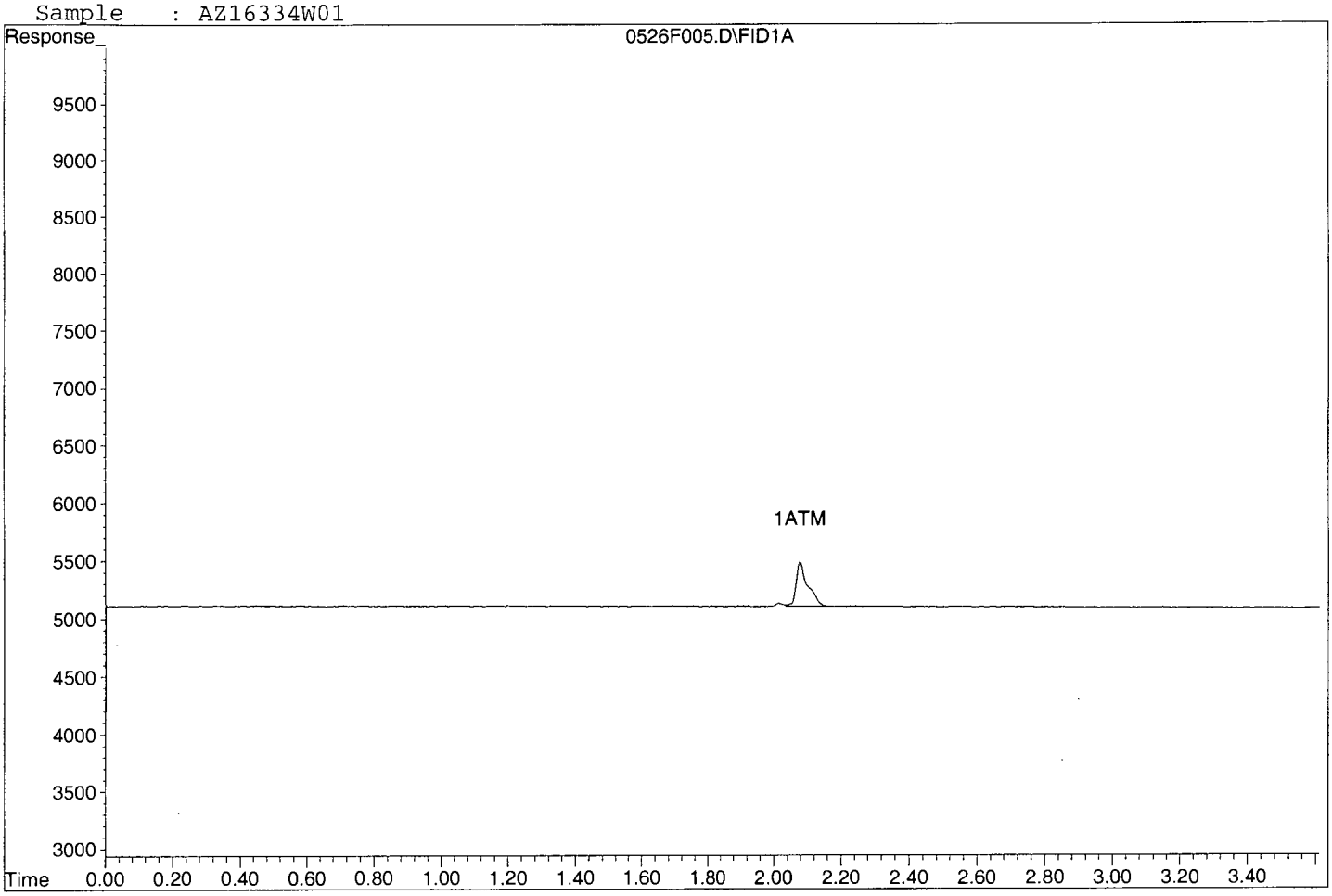
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.08	9159	27.671 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: V:\FRODO\DATA\150526\0526F005.D
Sample : AZ16334W01



RSK 175

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001-051315
Sample Collection Date: 05/13/15

Loc ID: S67-MW01
ARF: 76424
APPL ID: AZ16335
QCG: #RSK-150526A-197498

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
RSK 175	METHANE	9.9	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F006
Instrument: Frodo
Sequence: 150526
Dilution Factor: 1
Initials: RSA

Printed: 08/29/15 12:20:55 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150526\0526F006.D Vial: 6
Acq On : 26 May 2015 11:26 Operator: SD
Sample : AZ16335W01 Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 26 11:30 2015 Quant Results File: 402RSK.RES

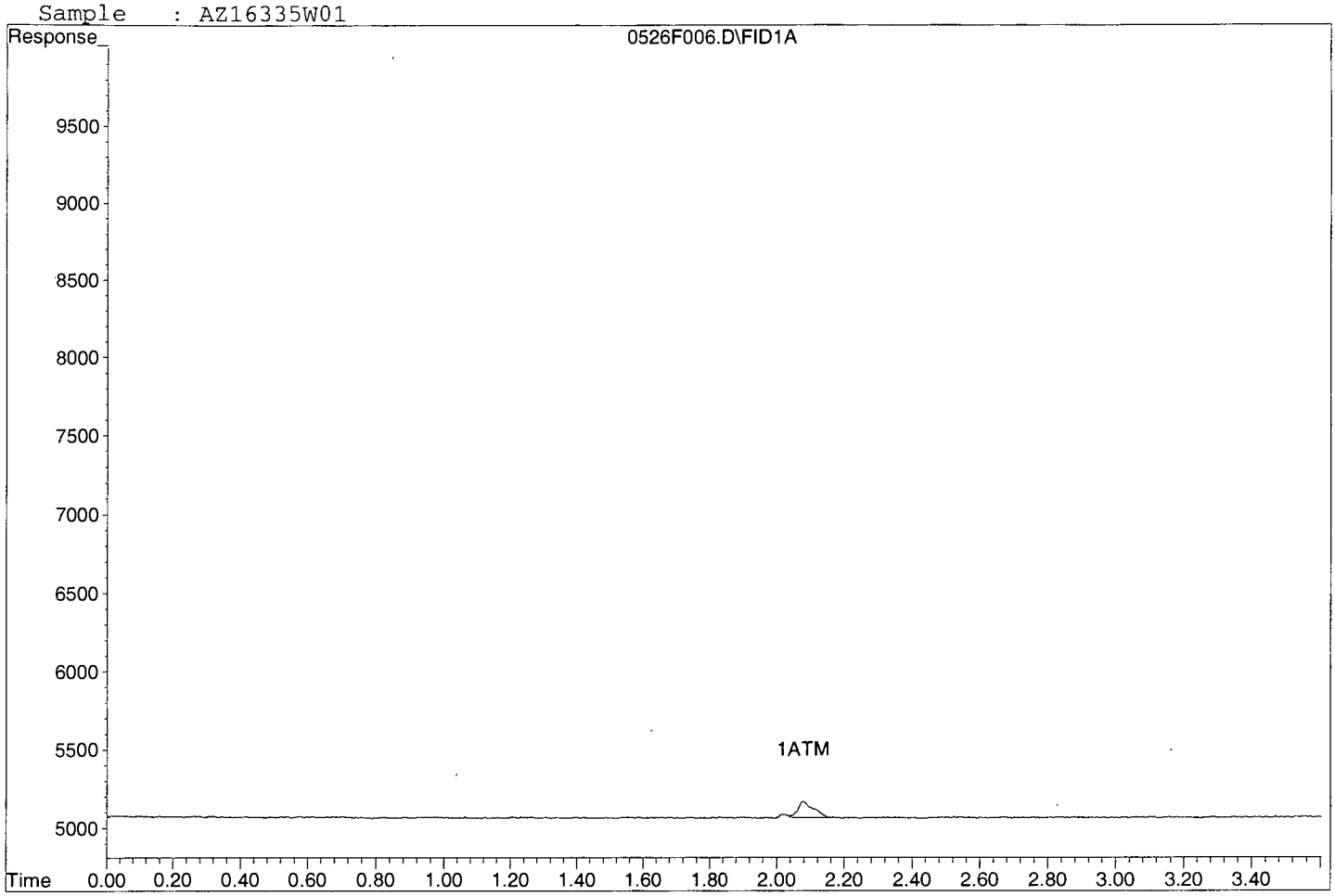
Method : V:\FRODO\DATA\150526\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue May 26 11:01:24 2015
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.08	3262	9.857 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: V:\FRODO\DATA\150526\0526F006.D
Sample : AZ16335W01



RSK 175

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001P-051315
Sample Collection Date: 05/13/15

Loc ID: S67-MW01
ARF: 76424
APPL ID: AZ16336
QCG: #RSK-150526A-197498

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
RSK 175	METHANE	5.9	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F007
Instrument: Frodo
Sequence: 150526
Dilution Factor: 1
Initials: RSA

Printed: 05/29/15 12:20:55 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150526\0526F007.D Vial: 7
Acq On : 26 May 2015 11:30 Operator: SD
Sample : AZ16336W01 Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 26 11:35 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150526\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue May 26 11:01:24 2015
Response via : Multiple Level Calibration

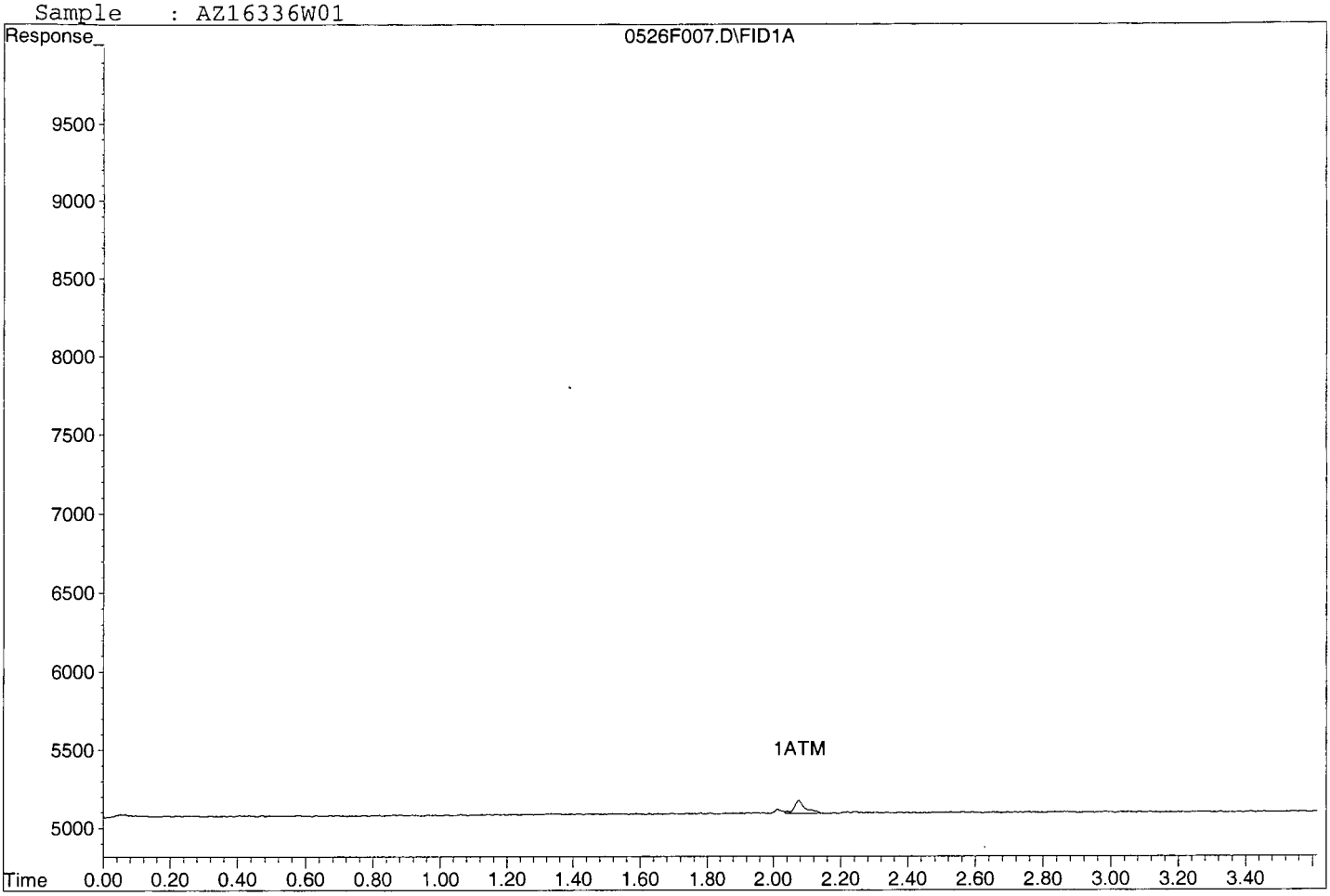
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.08	1962	5.926 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
0526F007.D 402RSK.M Tue May 26 13:30:02 2015 Page 1

Quantitation Report

Data File: V:\FRODO\DATA\150526\0526F007.D
Sample : AZ16336W01



RSK 175

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW10-051315
Sample Collection Date: 05/13/15

Loc ID: S67-MW09
ARF: 76424
APPL ID: AZ16337
QCG: #RSK-150526A-197498

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
RSK 175	METHANE	18	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F008
Instrument: Frodo
Sequence: 150526
Dilution Factor: 1
Initials: RSA

Printed: 05/29/15 12:20:55 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150526\0526F008.D Vial: 8
Acq On : 26 May 2015 11:36 Operator: SD
Sample : AZ16337W01 Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 26 13:30 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150526\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue May 26 11:01:24 2015
Response via : Multiple Level Calibration

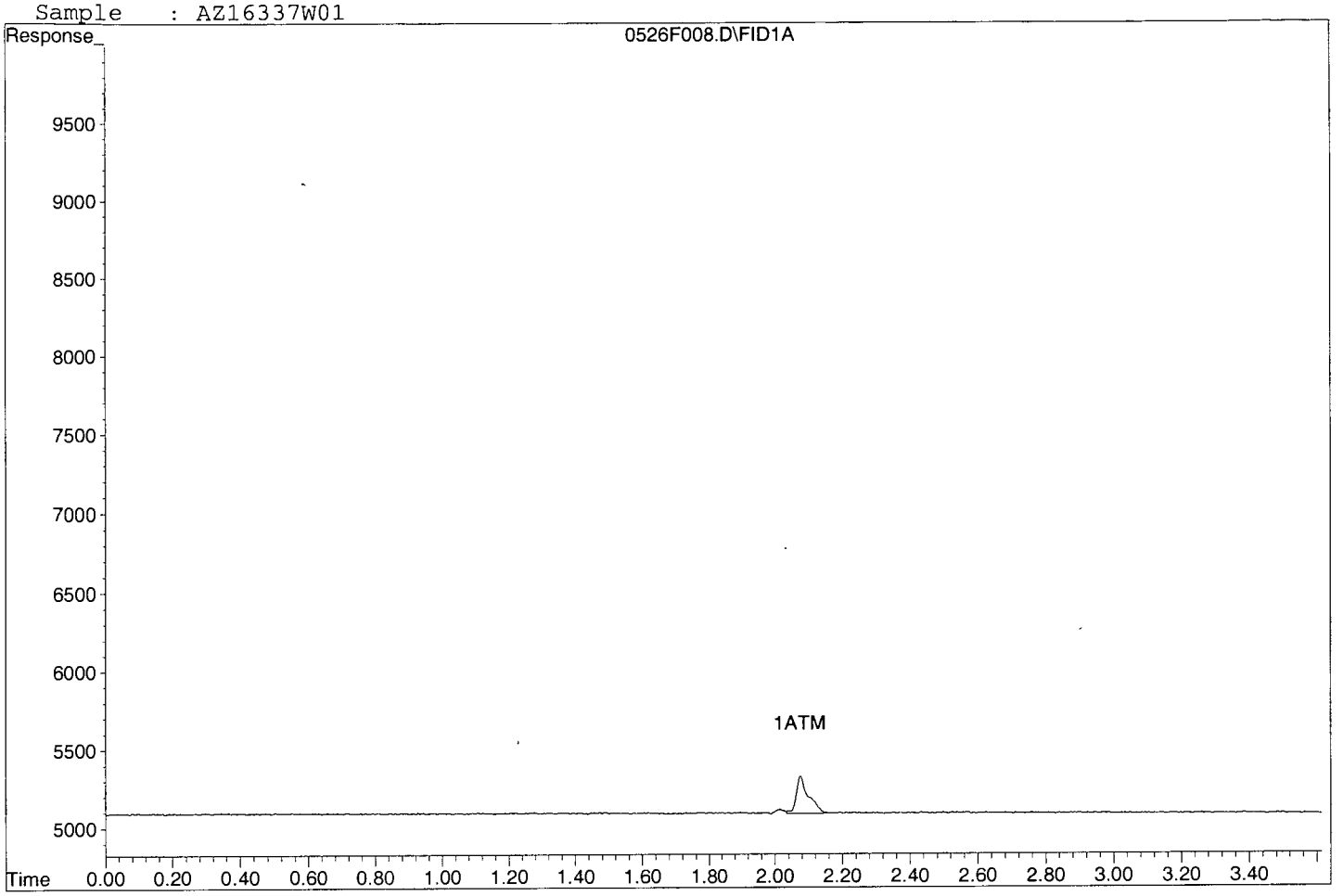
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.08	6070	18.338 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
0526F008.D 402RSK.M Tue May 26 13:30:27 2015 Page 1

Quantitation Report

Data File: V:\FRODO\DATA\150526\0526F008.D
Sample : AZ16337W01



RSK 175

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW013-051315
Sample Collection Date: 05/13/15

Loc ID: S67-MW013
ARF: 76424
APPL ID: AZ16338
QCG: #RSK-150526A-197498

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
RSK 175	METHANE	19	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F009
Instrument: Frodo
Sequence: 150526
Dilution Factor: 1
Initials: RSA

Printed: 05/29/15 12:20:55 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150526\0526F009.D Vial: 9
Acq On : 26 May 2015 11:40 Operator: SD
Sample : AZ16338W01 Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 26 13:30 2015 Quant Results File: 402RSK.RES

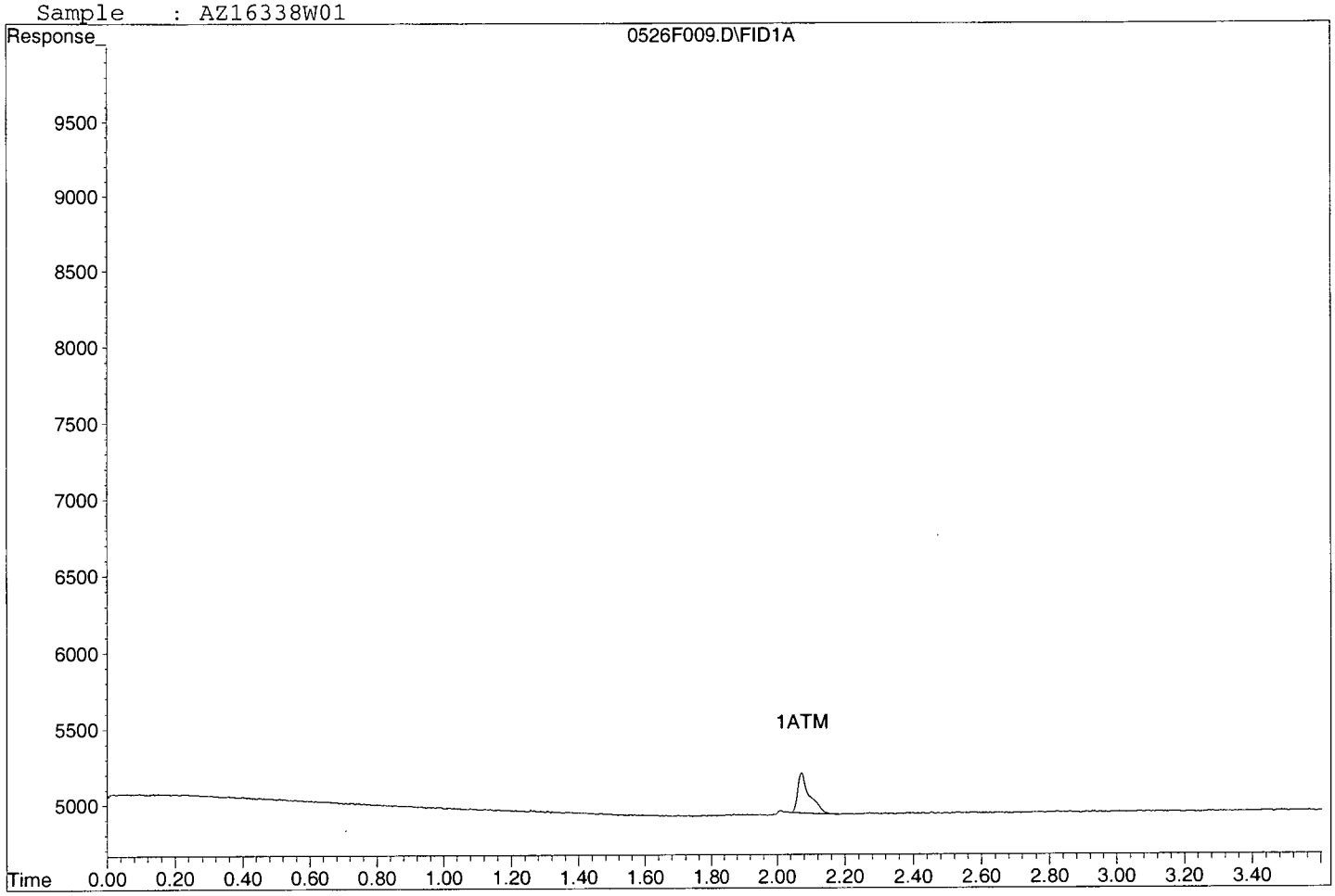
Method : V:\FRODO\DATA\150526\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue May 26 11:01:24 2015
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.07	6340	19.155 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
0526F009.D 402RSK.M Tue May 26 13:30:44 2015 Page 1

Data File: V:\FRODO\DATA\150526\0526F009.D
Sample : AZ16338W01



RSK 175

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004-051315
Sample Collection Date: 05/13/15

Loc ID: S67-MW04
ARF: 76424
APPL ID: AZ16339
QCG: #RSK-150526A-197498

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
RSK 175	METHANE	13	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F010
Instrument: Frodo
Sequence: 150526
Dilution Factor: 1
Initials: RSA

Printed: 05/29/15 12:20:55 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150526\0526F010.D Vial: 10
Acq On : 26 May 2015 11:44 Operator: SD
Sample : AZ16339W01 Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 26 11:48 2015 Quant Results File: 402RSK.RES

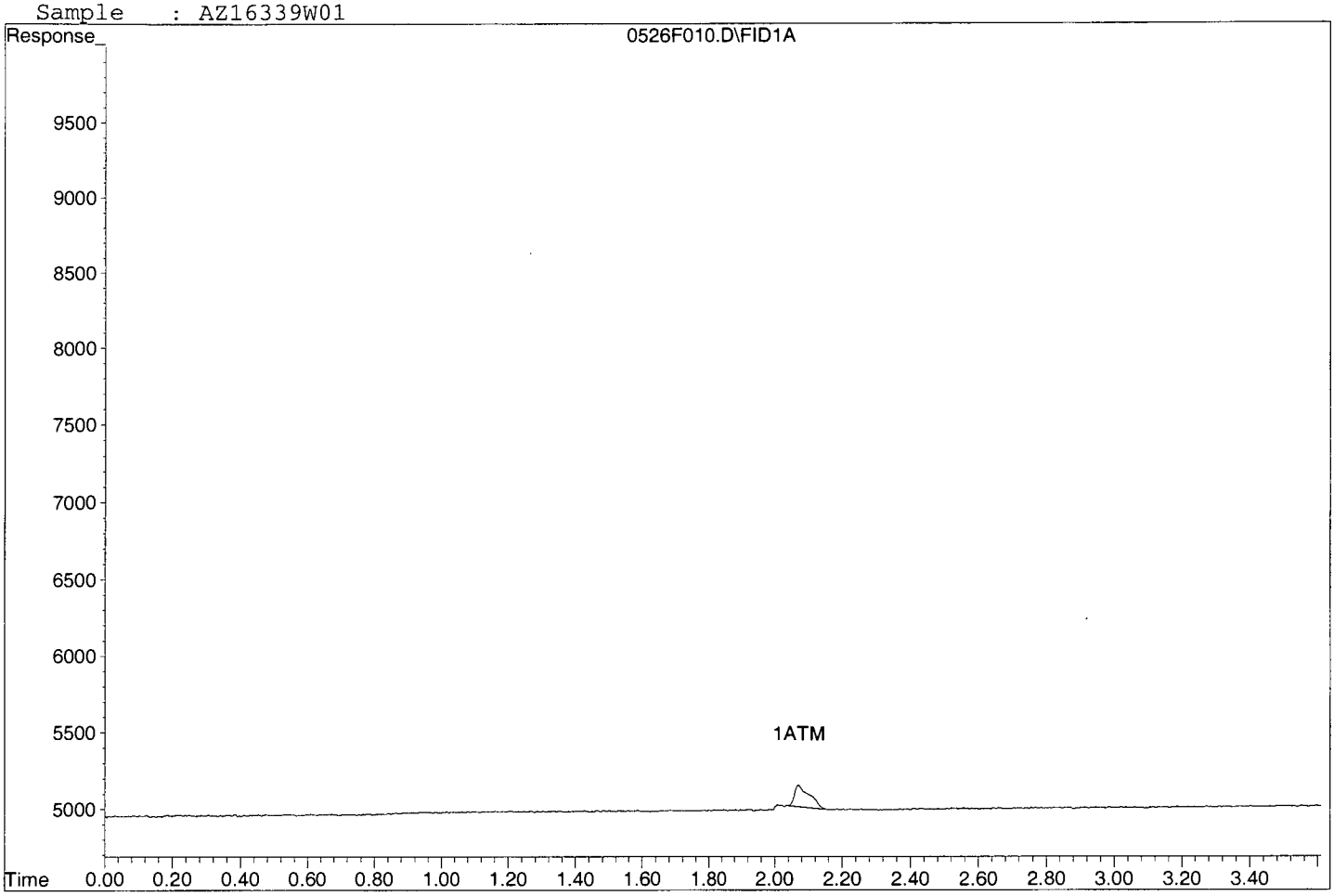
Method : V:\FRODO\DATA\150526\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue May 26 11:01:24 2015
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.07	4402	13.300 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: V:\FRODO\DATA\150526\0526F010.D
Sample : AZ16339W01



RSK 175

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW005-051315
Sample Collection Date: 05/13/15

Loc ID: S67-MW05
ARF: 76424
APPL ID: AZ16340
QCG: #RSK-150526A-197498

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
RSK 175	METHANE	0.45 U	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F011
Instrument: Frodo
Sequence: 150526
Dilution Factor: 1
Initials: RSA

Printed: 05/29/15 12:20:55 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : V:\FRODO\DATA\150526\0526F011.D Vial: 11
Acq On : 26 May 2015 11:49 Operator: SD
Sample : AZ16340W01 Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 26 13:31 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150526\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue May 26 11:01:24 2015
Response via : Multiple Level Calibration

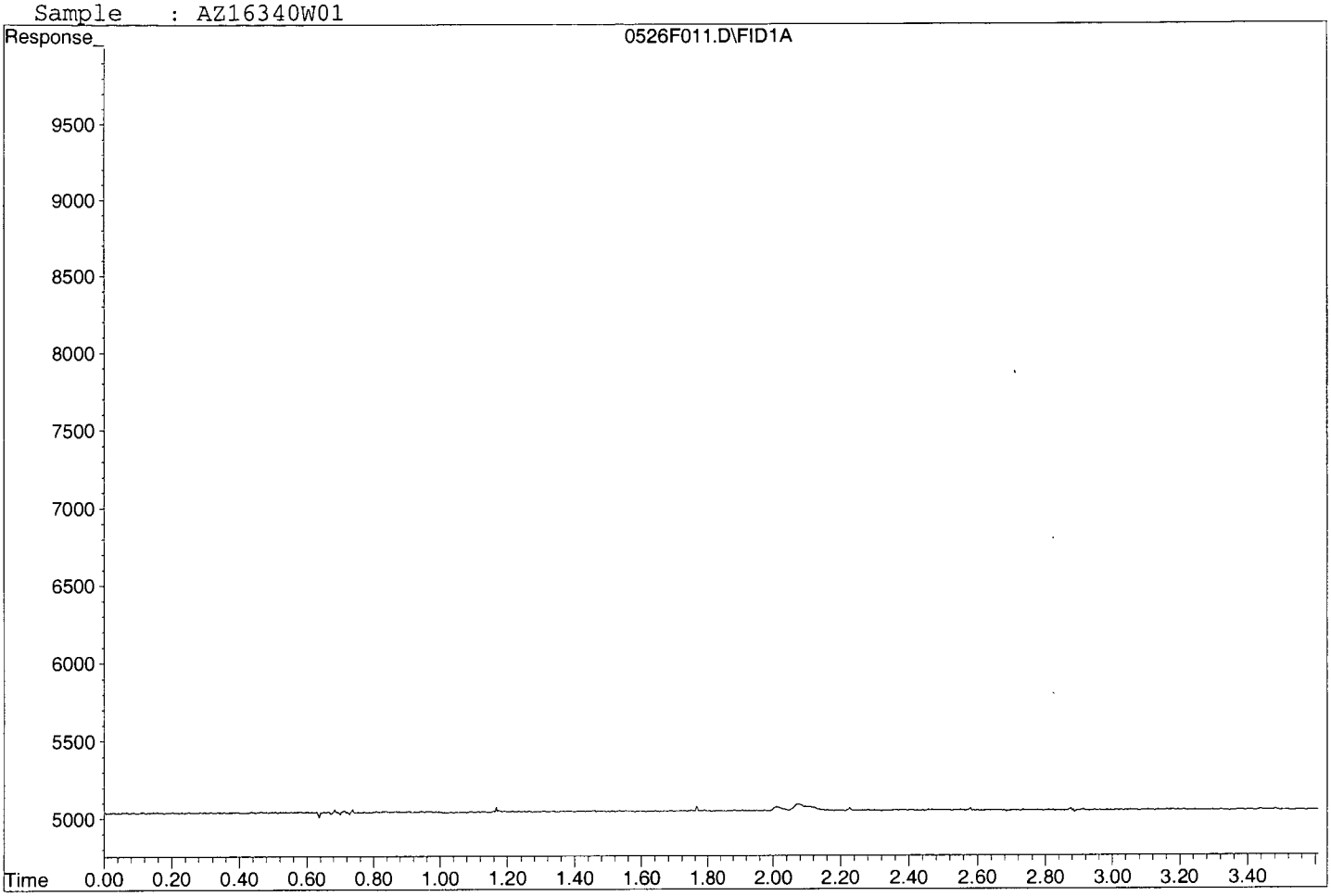
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: V:\FRODO\DATA\150526\0526F011.D
Sample : AZ16340W01



RSK 175

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW014-051315
Sample Collection Date: 05/13/15

Loc ID: S67-MW014
ARF: 76424
APPL ID: AZ16341
QCG: #RSK-150526A-197498

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
RSK 175	METHANE	0.45 U	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F012
Instrument: Frodo
Sequence: 150526
Dilution Factor: 1
Initials: RSA

Printed: 05/29/15 12:20:55 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : V:\FRODO\DATA\150526\0526F012.D Vial: 12
Acq On : 26 May 2015 11:56 Operator: SD
Sample : AZ16341W01 Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 26 13:31 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150526\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue May 26 11:01:24 2015
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

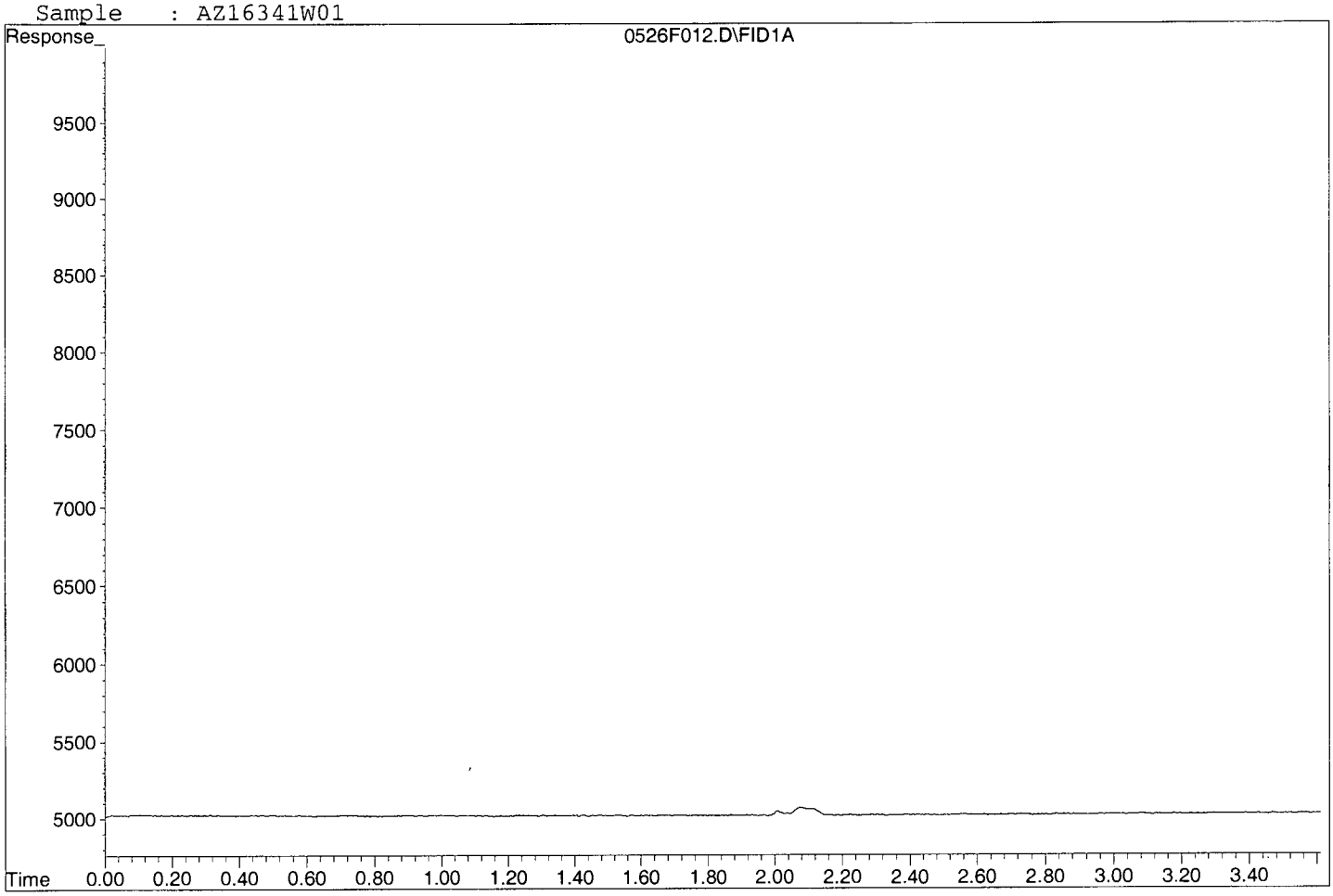
Compound	R.T.	Response	Conc Units

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.
0526F012.D 402RSK.M Tue May 26 13:31:44 2015 Page 1

Quantitation Report

Data File: V:\FRODO\DATA\150526\0526F012.D
Sample : AZ16341W01



RSK 175

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004P-051315
Sample Collection Date: 05/13/15

Loc ID: S67-MW004
ARF: 76424
APPL ID: AZ16342
QCG: #RSK-150526A-197498

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
RSK 175	METHANE	6.8	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F013
Instrument: Frodo
Sequence: 150526
Dilution Factor: 1
Initials: RSA

Printed: 05/29/15 12:20:55 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150526\0526F013.D Vial: 13
Acq On : 26 May 2015 12:00 Operator: SD
Sample : AZ16342W01 Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 26 12:04 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150526\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue May 26 11:01:24 2015
Response via : Multiple Level Calibration

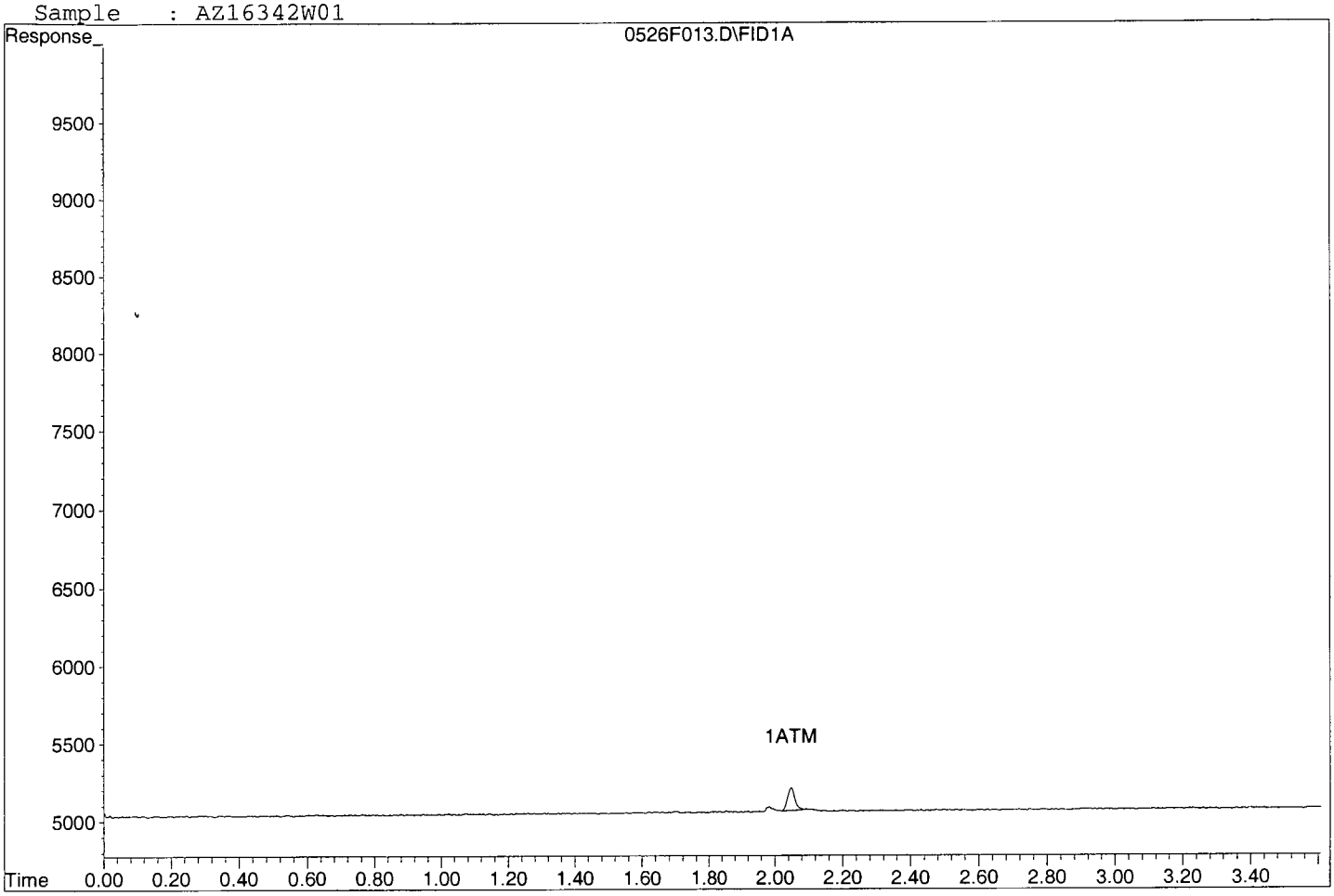
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.05f	2256	6.815 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: V:\FRODO\DATA\150526\0526F013.D
Sample : AZ16342W01



RSK-175
Calibration Data

APPL, INC.

Form 6
Initial Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Initial Cal. Date: 3/29/15 and 4/2/15
Instrument: Frodo

Initials: sd

		Compound	1	2	3	4	5	6	7	8	1A		Avg	%RSD		
			0329F010.D	0329F001.D	0329F005.D	0329F012.D	0329F013.D	0329F015.D	0329F016.D	0402F001:D	0329F009.D					
1	ATM	Methane	364	332	325	371	276	318	258	300	433		331	16	ATM	
2	ATM	Ethane	285	219	313	327	277	316	267	321	232		284	14	ATM	
3	ATM	Ethene	352	253	348	326	293	340	281	333	205		303	16	ATM	
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1.3236504

AIR LIQUIDE Air Liquide America Specialty Gases LLC Scott™

Gas Mix 1%
Lot #: 164PLU4SPC05L - 34437
Rec: 12/1/14 MFR exp. 7/8/17

Shipped From:
6141 EASTON ROAD, BLDG 1 PO BOX 310
PLUMSTEADVILLE PA 18949-0310
Phone: 800-331-4953 Fax: 215-766-7226

CERTIFICATE OF ANALYSIS

SIGMA-ALDRICH
PO#P442671
595 NORTH HARRISON ROAD
BELLEFONTE PA 16823
US

DOCUMENT#:56058812 -005
PO#: P442671
ITEM #: T216-48
CUST ITEM #: 23462
DATE: 08Jul2014

ANALYTICAL ACCURACY: +/-02%
PRODUCT EXPIRATION: 08Jul2017

LOT # : 164PLU4SPC05L

COMPONENT	REQUESTED GAS CONC MOLES		ANALYSIS (MOLES)	
ACETYLENE	1.	%	1.0	%
CARBON DIOXIDE	1.	%	1.0	%
CARBON MONOXIDE	1.	%	1.01	%
ETHANE	1.	%	1.01	%
ETHYLENE	1.	%	1.01	%
METHANE	1.	%	1.01	%
NITROGEN		BALANCE		BALANCE

MANUFACTURED DATE: 08Jul2014 SCOTTY SIZE: 48

APPROVED BY: DAN TRAVISANO

Quantitation Report (QT Reviewed)

Data File : V:\FRODO\DATA\150329\0329F009.D
Acq On : 29 Mar 2015 09:45
Sample : RSK Std - 1A 3/29/15 RS
Misc : Water
IntFile : autoint1.e
Quant Time: Mar 29 11:37 2015 Quant Results File: RSK175Q.RES

Vial: 9
Operator: SD
Inst : Frodo
Multiplr: 1.00

Method : V:\FRODO\DATA\150329\RSK175Q.M (Chemstation Integrator)
Title : RSK 175
Last Update : Sun Mar 29 11:20:33 2015
Response via : Multiple Level Calibration

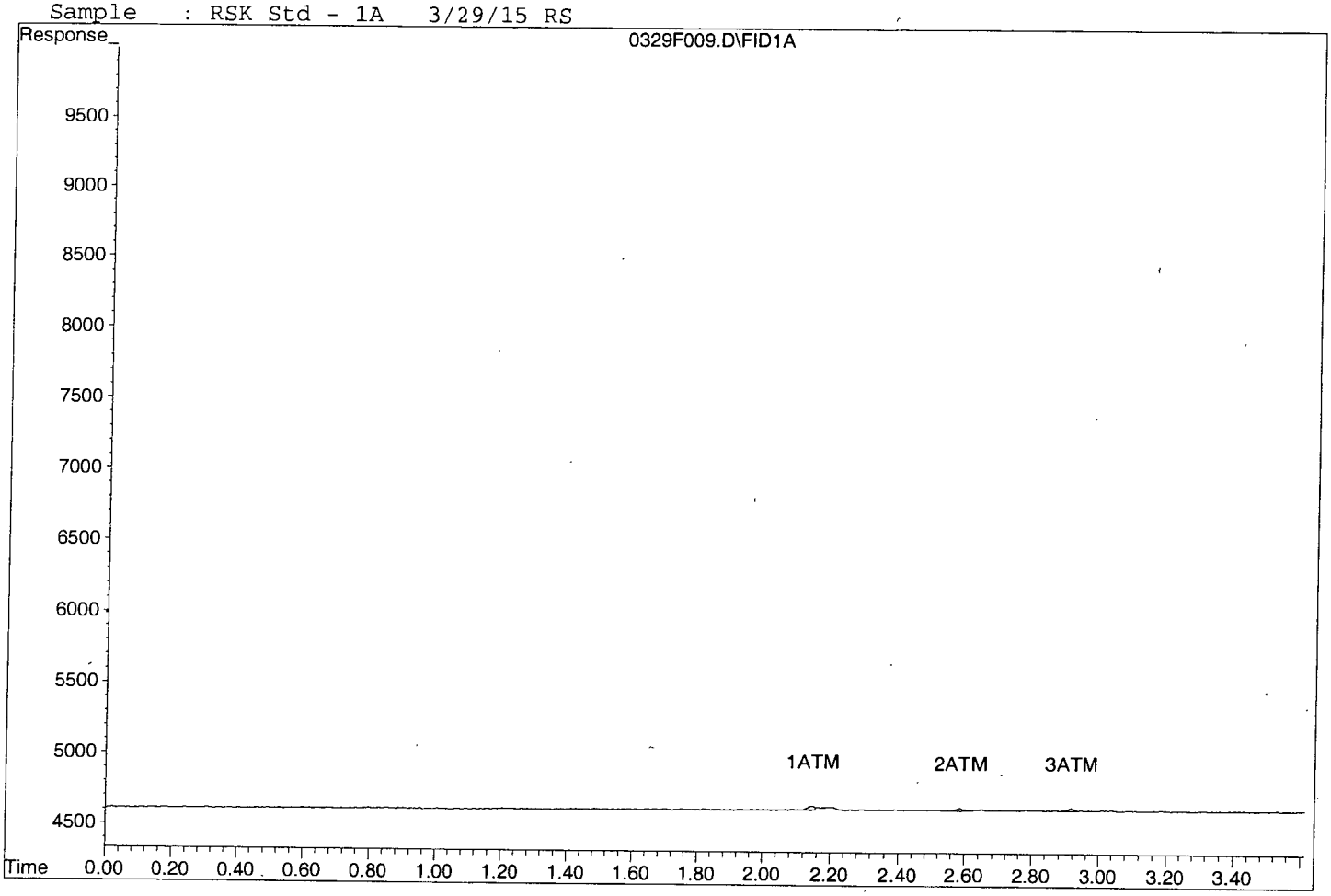
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.15	390	1.029 ppb m
2) ATM Ethane	2.59	395	1.285 ppb
3) ATM Ethene	2.92	328	0.962 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
0329F009.D RSK175Q.M Sun Mar 29 11:42:29 2015

Quantitation Report

Data File: V:\FRODO\DATA\150329\0329F009.D
Sample : RSK Std - 1A 3/29/15 RS

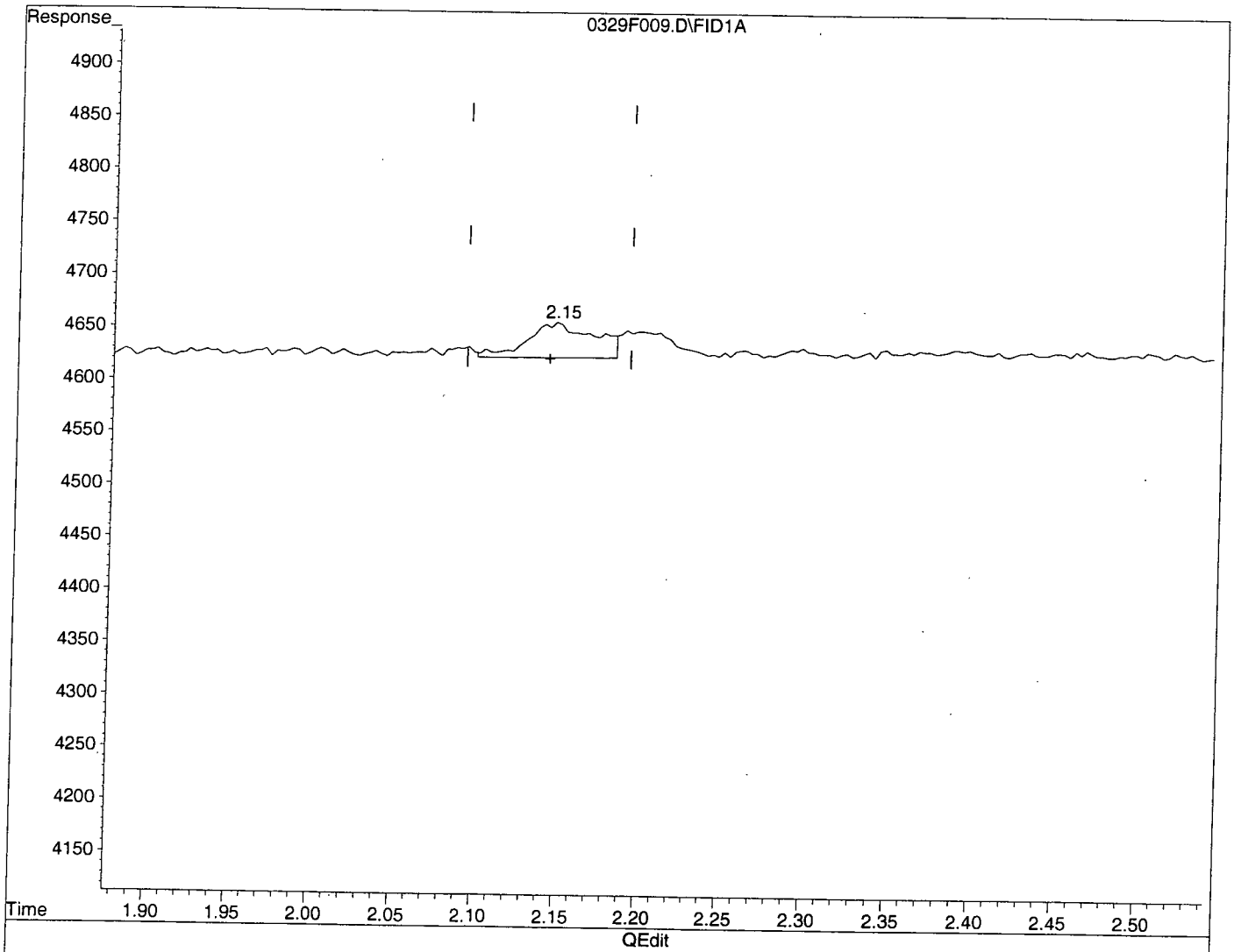


Quantitation Report

Data File : V:\FRODO\DATA\150329\0329F009.D
Acq On : 29 Mar 2015 09:45
Sample : RSK Std - 1A 3/29/15 RS
Misc : Water
IntFile : autoint1.e
Quant Time: Mar 29 10:54 2015 Quant Results File: RSK175Q.RES

Vial: 9
Operator: SD
Inst : Frodo
Multiplr: 1.00

Method : V:\FRODO\DATA\150329\RSK175Q.M (Chemstation Integrator)
Title : RSK 175
Last Update : Sun Mar 29 10:50:10 2015
Response via : Multiple Level Calibration



(1) Methane (ATM)

2.15min 2.405ppb

response 911

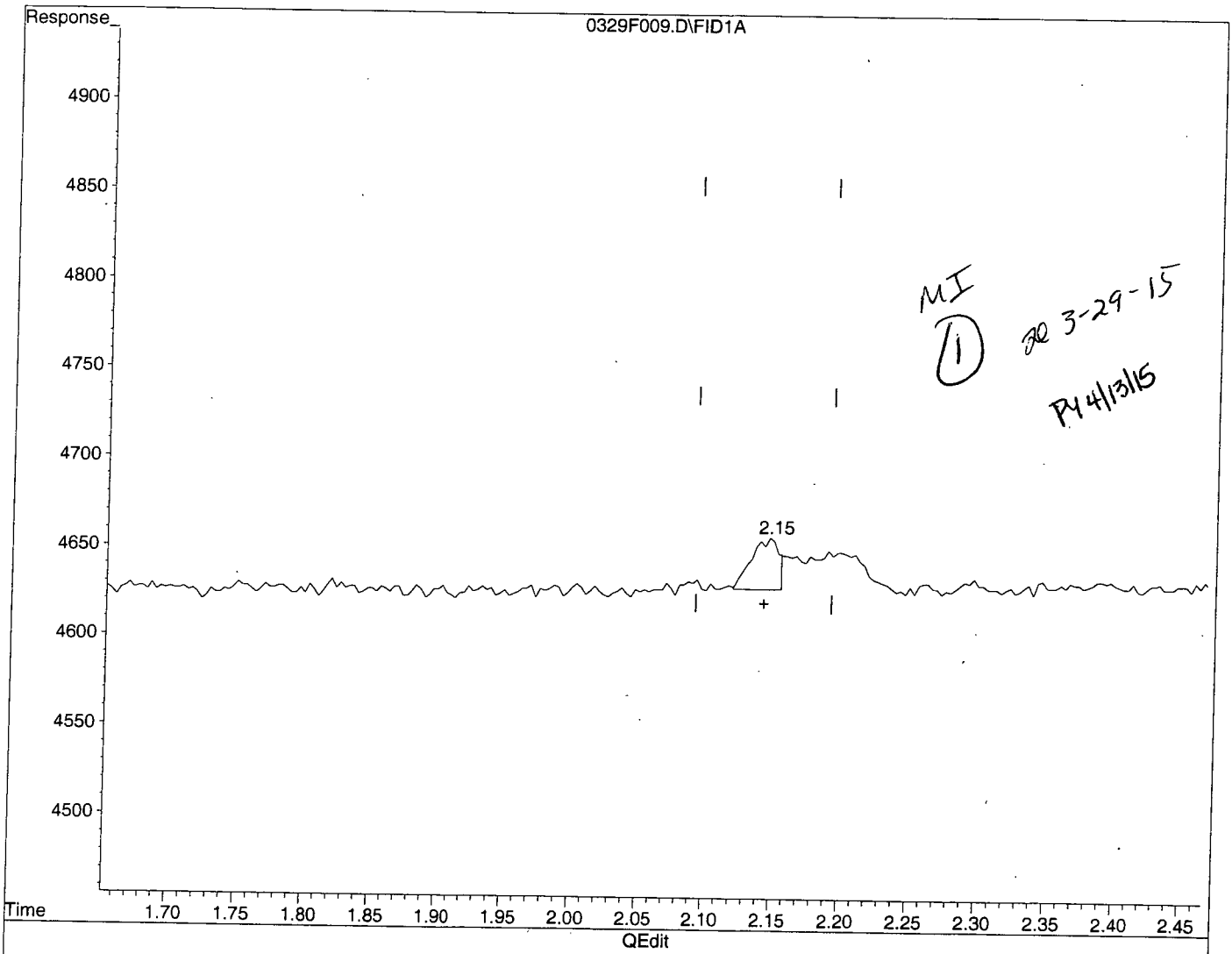
(+) = Expected Retention Time

Quantitation Report

Data File : V:\FRODO\DATA\150329\0329F009.D
Acq On : 29 Mar 2015 09:45
Sample : RSK Std - 1A 3/29/15 RS
Misc : Water
IntFile : autoint1.e
Quant Time: Mar 29 10:55 2015 Quant Results File: RSK175Q.RES

Vial: 9
Operator: SD
Inst : Frodo
Multiplr: 1.00

Method : V:\FRODO\DATA\150329\RSK175Q.M (Chemstation Integrator)
Title : RSK 175
Last Update : Sun Mar 29 11:20:33 2015
Response via : Multiple Level Calibration



MI
(1) 3-29-15
PY 4/13/15

(1) Methane (ATM)

2.15min 1.029ppb m

response 390

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data File : V:\FRODO\DATA\150329\0329F010.D
Acq On : 29 Mar 2015 10:04
Sample : RSK Std 1 3/29/15 RS
Misc : Water
IntFile : autoint1.e
Quant Time: Mar 29 11:43 2015 Quant Results File: RSK175Q.RES

Vial: 10
Operator: SD
Inst : Frodo
Multiplr: 1.00

Method : V:\FRODO\DATA\150329\RSK175Q.M (Chemstation Integrator)
Title : RSK 175
Last Update : Sun Mar 29 11:20:33 2015
Response via : Multiple Level Calibration

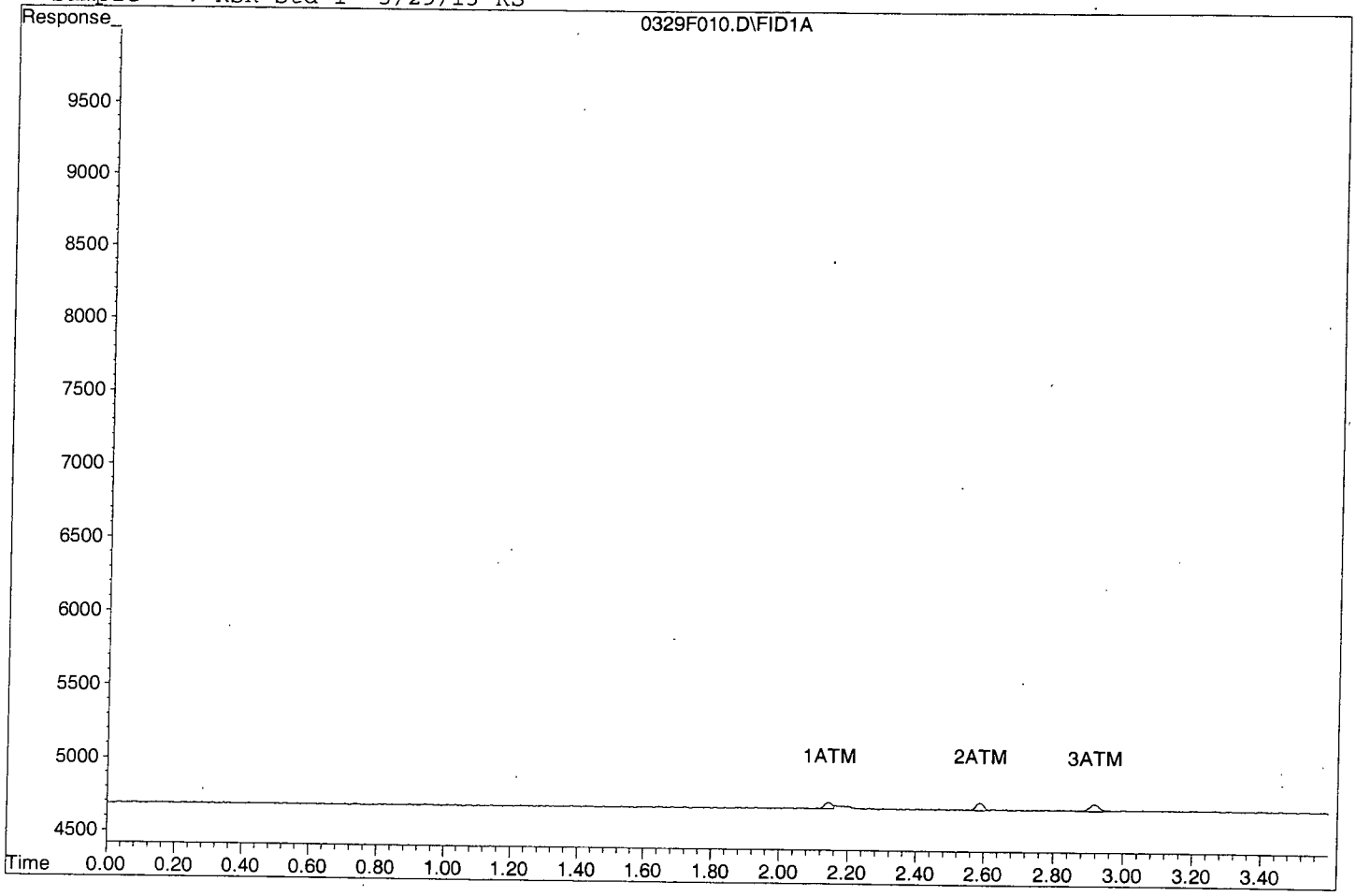
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.14	656	1.735 ppb m
2) ATM Ethane	2.59	968	3.187 ppb
3) ATM Ethene	2.92	1125	3.540 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: V:\FRODO\DATA\150329\0329F010.D
Sample : RSK Std 1 3/29/15 RS

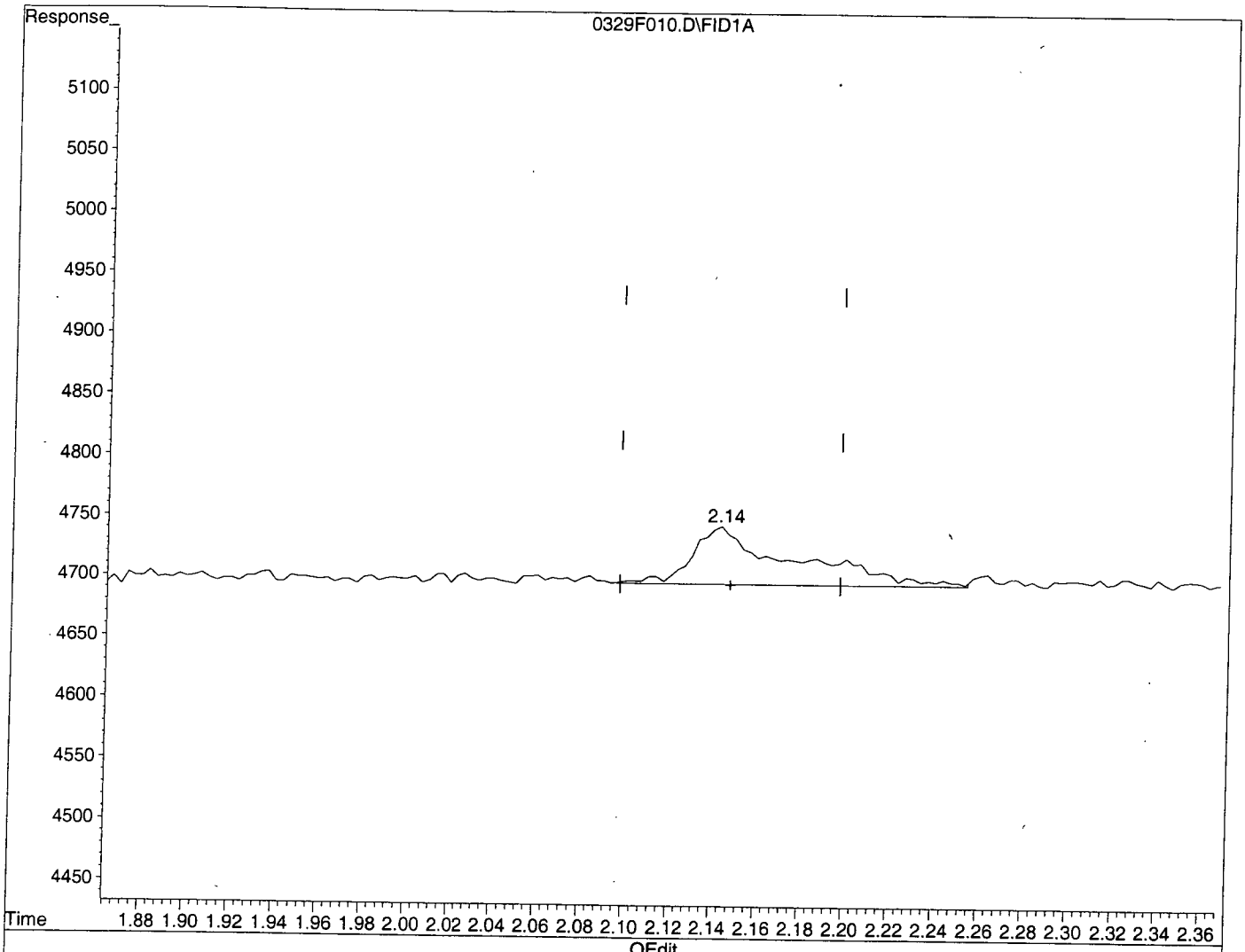


Quantitation Report

Data File : V:\FRODO\DATA\150329\0329F010.D
Acq On : 29 Mar 2015 10:04
Sample : RSK Std 1 3/29/15 RS
Misc : Water
IntFile : autoint1.e
Quant Time: Mar 29 10:08 2015 Quant Results File: RSK175Q.RES

Vial: 10
Operator: SD
Inst : Frodo
Multiplr: 1.00

Method : V:\FRODO\DATA\150329\RSK175Q.M (Chemstation Integrator)
Title : RSK 175
Last Update : Sun Mar 29 10:50:10 2015
Response via : Multiple Level Calibration



(1) Methane (ATM)

2.14min 1.589ppb

response 1509

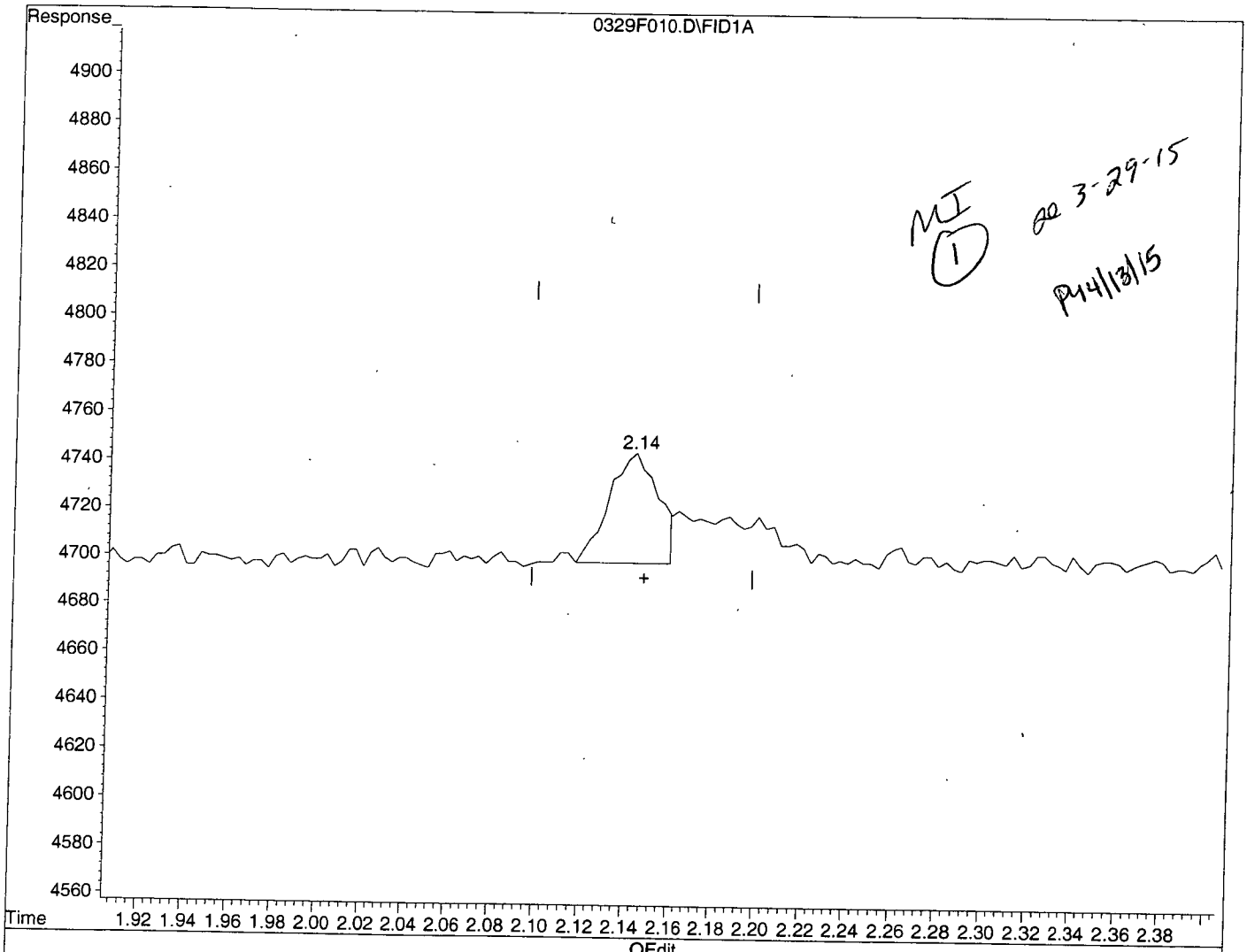
(+) = Expected Retention Time

Quantitation Report

Data File : V:\FRODO\DATA\150329\0329F010.D
Acq On : 29 Mar 2015 10:04
Sample : RSK Std 1 3/29/15 RS
Misc : Water
IntFile : autoint1.e
Quant Time: Mar 29 10:57 2015 Quant Results File: RSK175Q.RES

Vial: 10
Operator: SD
Inst : Frodo
Multiplr: 1.00

Method : V:\FRODO\DATA\150329\RSK175Q.M (Chemstation Integrator)
Title : RSK 175
Last Update : Sun Mar 29 11:20:33 2015
Response via : Multiple Level Calibration



MI (1) 3-29-15
PM 4/13/15

(1) Methane (ATM)

2.14min 1.735ppb m

response 656

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150329\0329F001.D
Acq On : 29 Mar 2015 08:09
Sample : RSK Std -2 3/29/15 RS
Misc : Water
IntFile : autoint1.e
Quant Time: Mar 29 11:36 2015 Quant Results File: RSK175Q.RES

Vial: 1
Operator: SD
Inst : Frodo
Multiplr: 1.00

Method : V:\FRODO\DATA\150329\RSK175Q.M (Chemstation Integrator)
Title : RSK 175
Last Update : Sun Mar 29 11:20:33 2015
Response via : Multiple Level Calibration

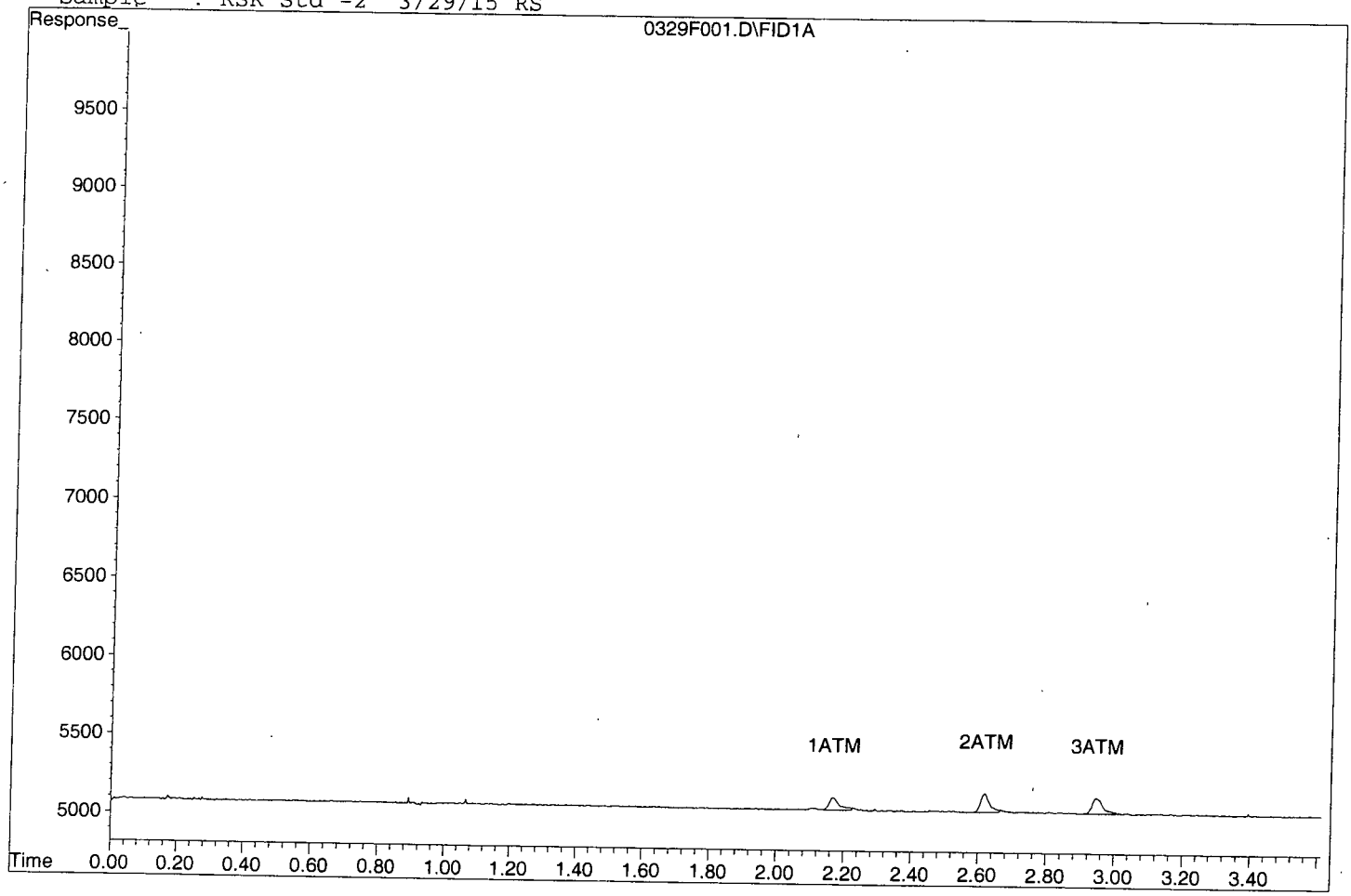
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.17	1692	4.997 ppb
2) ATM Ethane	2.62	2079	7.159 ppb
3) ATM Ethene	2.95	2255	7.357 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
0329F001.D RSK175O.M Sun Mar 29 11:36:56 2015 Page 1

Quantitation Report

Data File: V:\FRODO\DATA\150329\0329F001.D
Sample : RSK Std -2 3/29/15 RS



Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150329\0329F005.D
Acq On : 29 Mar 2015 09:04
Sample : RSK Std -3 3/29/15 RS
Misc : Water
IntFile : autoint1.e
Quant Time: Mar 29 11:31 2015 Quant Results File: RSK175Q.RES

Vial: 5
Operator: SD
Inst : Frodo
Multiplr: 1.00

Method : V:\FRODO\DATA\150329\RSK175Q.M (Chemstation Integrator)
Title : RSK 175
Last Update : Sun Mar 29 11:20:33 2015
Response via : Multiple Level Calibration

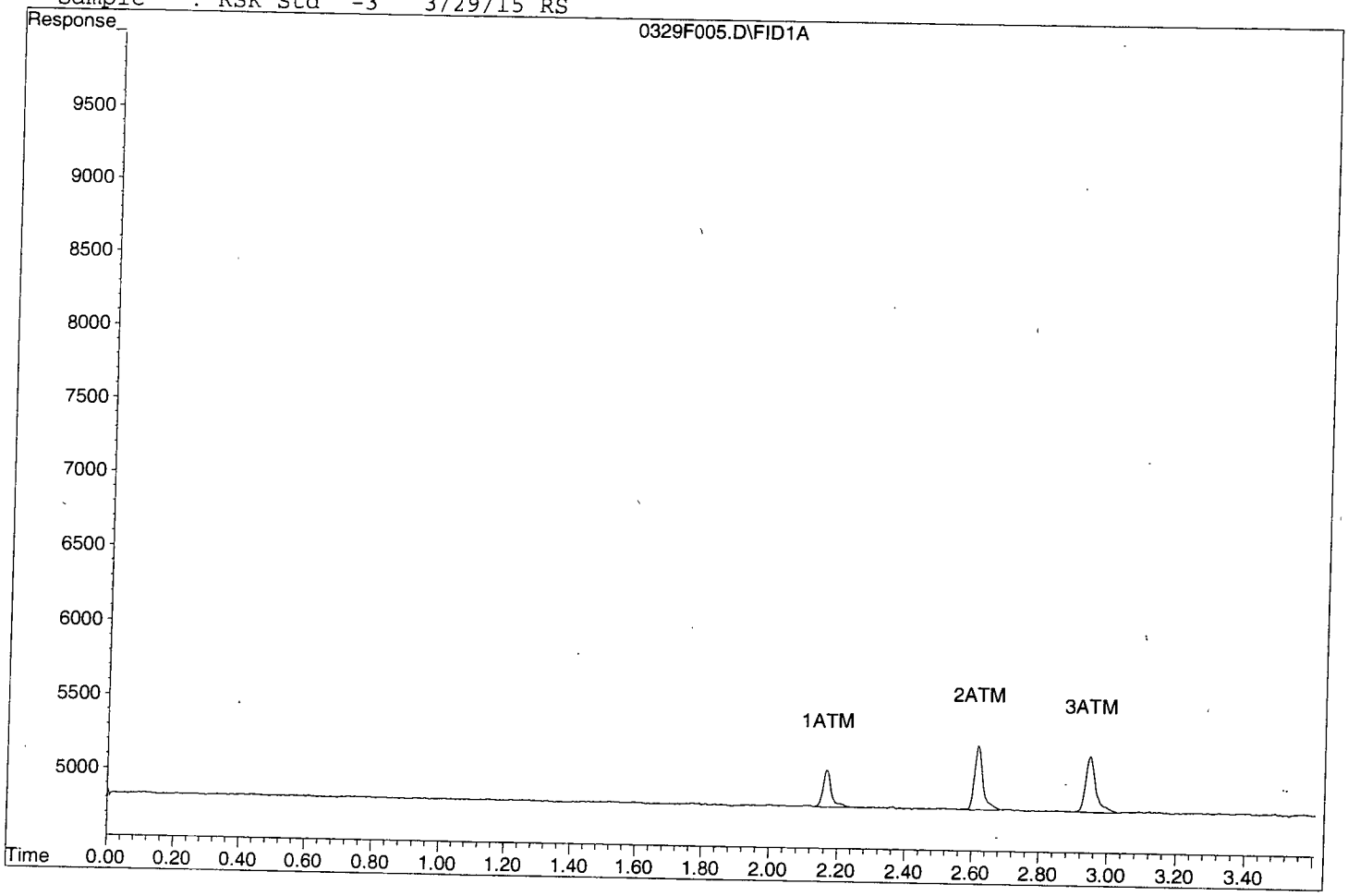
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.17	4339	12.304 ppb
2) ATM Ethane	2.62	7833	26.979 ppb
3) ATM Ethene	2.95	8101	26.692 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: V:\FRODO\DATA\150329\0329F005.D
Sample : RSK Std -3 3/29/15 RS



Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150329\0329F012.D
Acq On : 29 Mar 2015 10:16
Sample : RSK Std - 4 3/29/15 RS
Misc : Water
IntFile : autoint1.e
Quant Time: Mar 29 11:31 2015 Quant Results File: RSK175Q.RES

Vial: 12
Operator: SD
Inst : Frodo
Multiplr: 1.00

Method : V:\FRODO\DATA\150329\RSK175Q.M (Chemstation Integrator)
Title : RSK 175
Last Update : Sun Mar 29 11:20:33 2015
Response via : Multiple Level Calibration

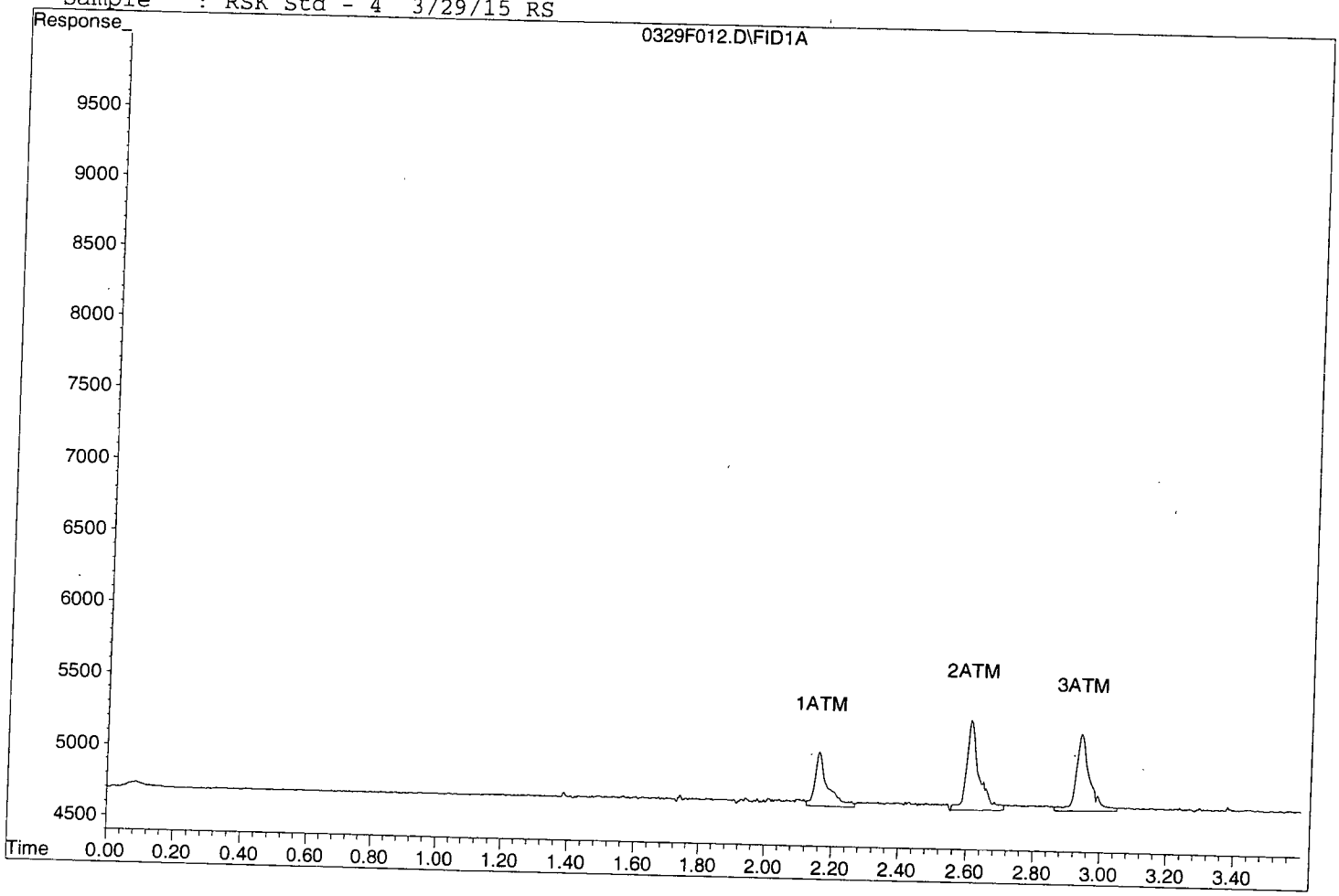
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.16	9905	28.474 ppb
2) ATM Ethane	2.61	16348	56.938 ppb
3) ATM Ethene	2.94	15197	50.416 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
0329F012.D RSK175Q.M Sun Mar 29 11:47:40 2015

Quantitation Report

Data File: V:\FRODO\DATA\150329\0329F012.D
Sample : RSK Std - 4 3/29/15 RS



Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150329\0329F013.D
Acq On : 29 Mar 2015 10:20
Sample : RSK Std - 5 3/29/15 RS
Misc : Water
IntFile : autoint1.e
Quant Time: Mar 29 11:33 2015 Quant Results File: RSK175Q.RES

Vial: 13
Operator: SD
Inst : Frodo
Multiplr: 1.00

Method : V:\FRODO\DATA\150329\RSK175Q.M (Chemstation Integrator)
Title : RSK 175
Last Update : Sun Mar 29 11:20:33 2015
Response via : Multiple Level Calibration

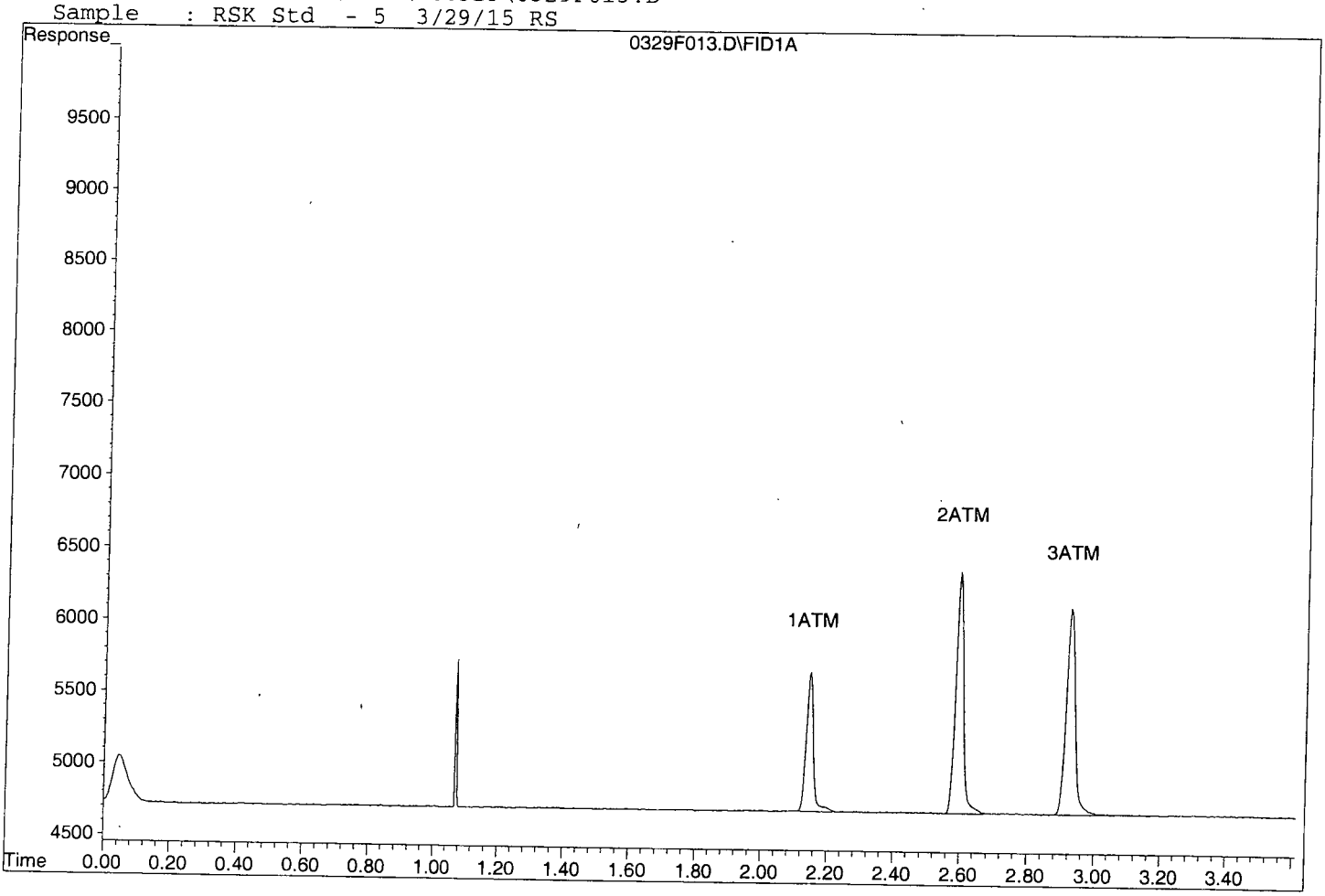
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.15	14757	37.309 ppb
2) ATM Ethane	2.60	27687	82.950 ppb
3) ATM Ethene	2.93	27304	77.476 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: V:\FRODO\DATA\150329\0329F013.D
Sample : RSK Std - 5 3/29/15 RS



Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150329\0329F015.D
Acq On : 29 Mar 2015 10:34
Sample : RSK Std 6 3/29/15 RS
Misc : Water
IntFile : autoint1.e
Quant Time: Mar 29 11:32 2015 Quant Results File: RSK175Q.RES

Vial: 15
Operator: SD
Inst : Frodo
Multiplr: 1.00

Method : V:\FRODO\DATA\150329\RSK175Q.M (Chemstation Integrator)
Title : RSK 175
Last Update : Sun Mar 29 11:20:33 2015
Response via : Multiple Level Calibration

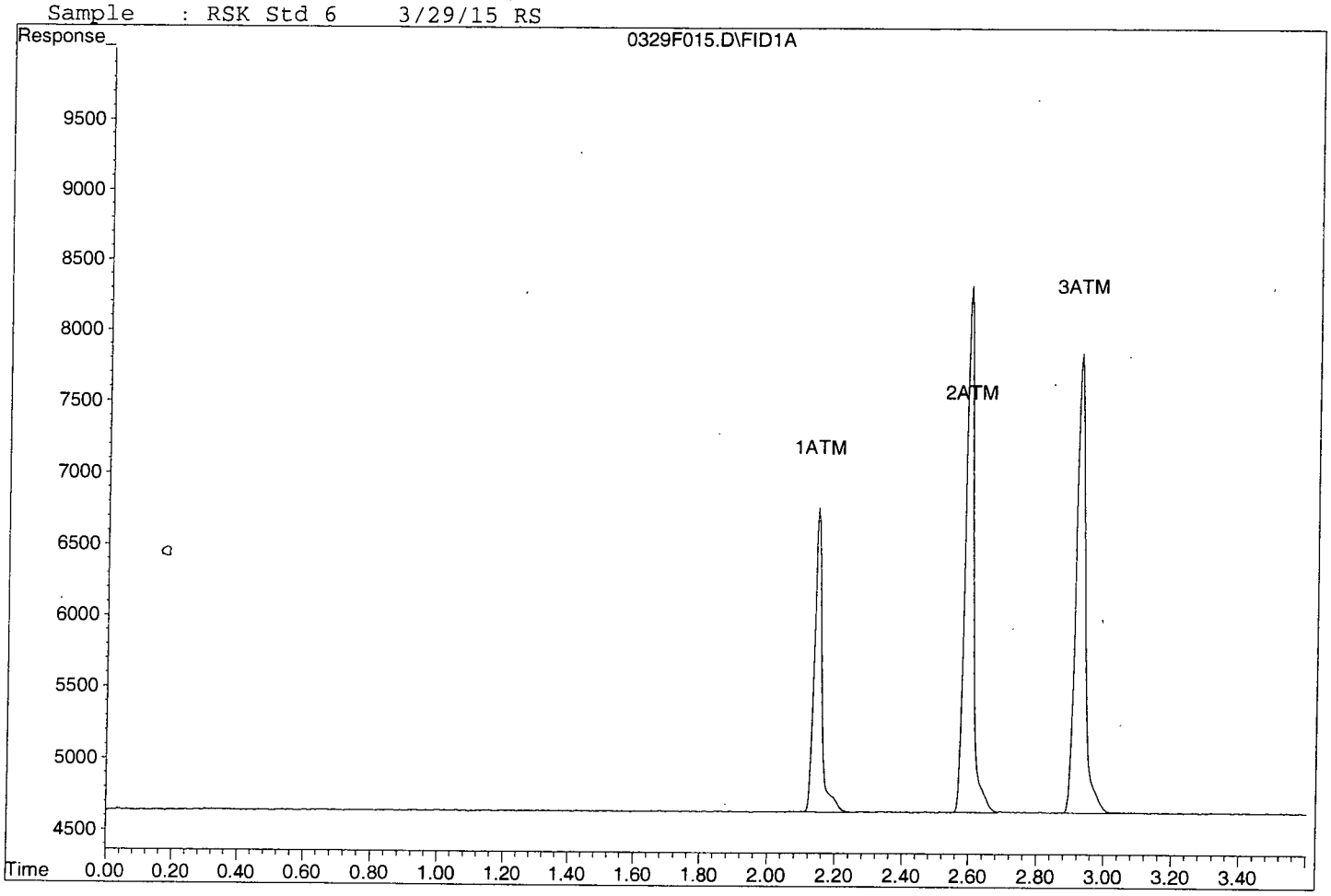
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.15	33981	96.772 ppb
2) ATM Ethane	2.59	63177	217.921 ppb
3) ATM Ethene	2.92	63376	208.092 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: V:\FRODO\DATA\150329\0329F015.D
Sample : RSK Std 6 3/29/15 RS



0329F015.D RSK175Q.M Sun Mar 29 11:48:07 2015

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150329\0329F016.D
Acq On : 29 Mar 2015 11:11
Sample : RSK Std - 7 3/29/15 RS
Misc : Water
IntFile : autoint1.e
Quant Time: Mar 29 11:33 2015 Quant Results File: RSK175Q.RES

Vial: 16
Operator: SD
Inst : Frodo
Multiplr: 1.00

Method : V:\FRODO\DATA\150329\RSK175Q.M (Chemstation Integrator)
Title : RSK 175
Last Update : Sun Mar 29 11:20:33 2015
Response via : Multiple Level Calibration

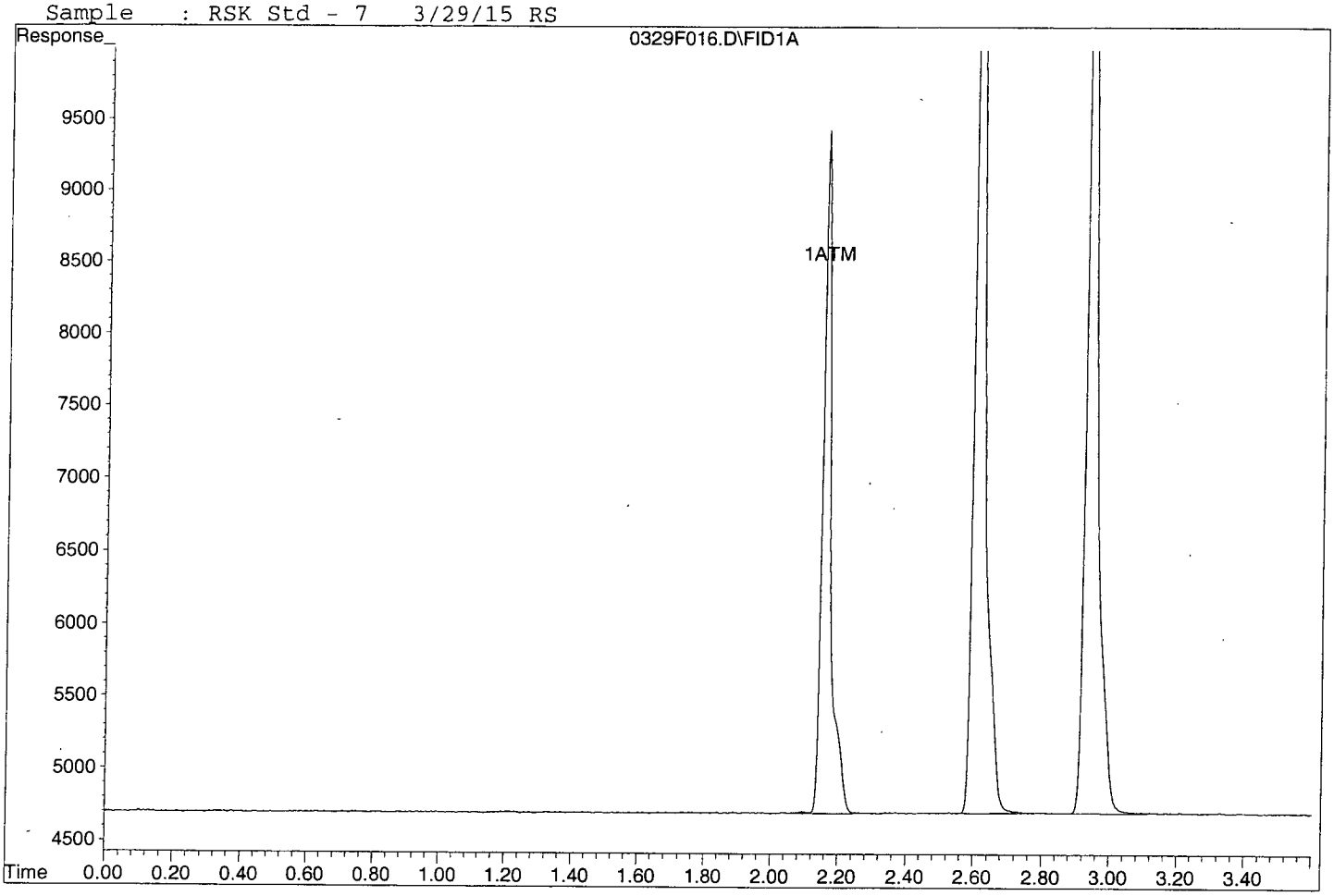
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.16	82685	235.885 ppb
2) ATM Ethane	2.61	160017	552.898 ppb
3) ATM Ethene	2.94	156995	516.370 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: V:\FRODO\DATA\150329\0329F016.D
Sample : RSK Std - 7 3/29/15 RS



Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150402\0402F001.D Vial: 1
Acq On : 2 Apr 2015 07:55 Operator: SD
Sample : RSK STD - 8 04-02-15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 2 10:14 2015 Quant Results File: RSK175Q.RES

Method : V:\FRODO\DATA\150402\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Apr 02 11:00:03 2015
Response via : Multiple Level Calibration

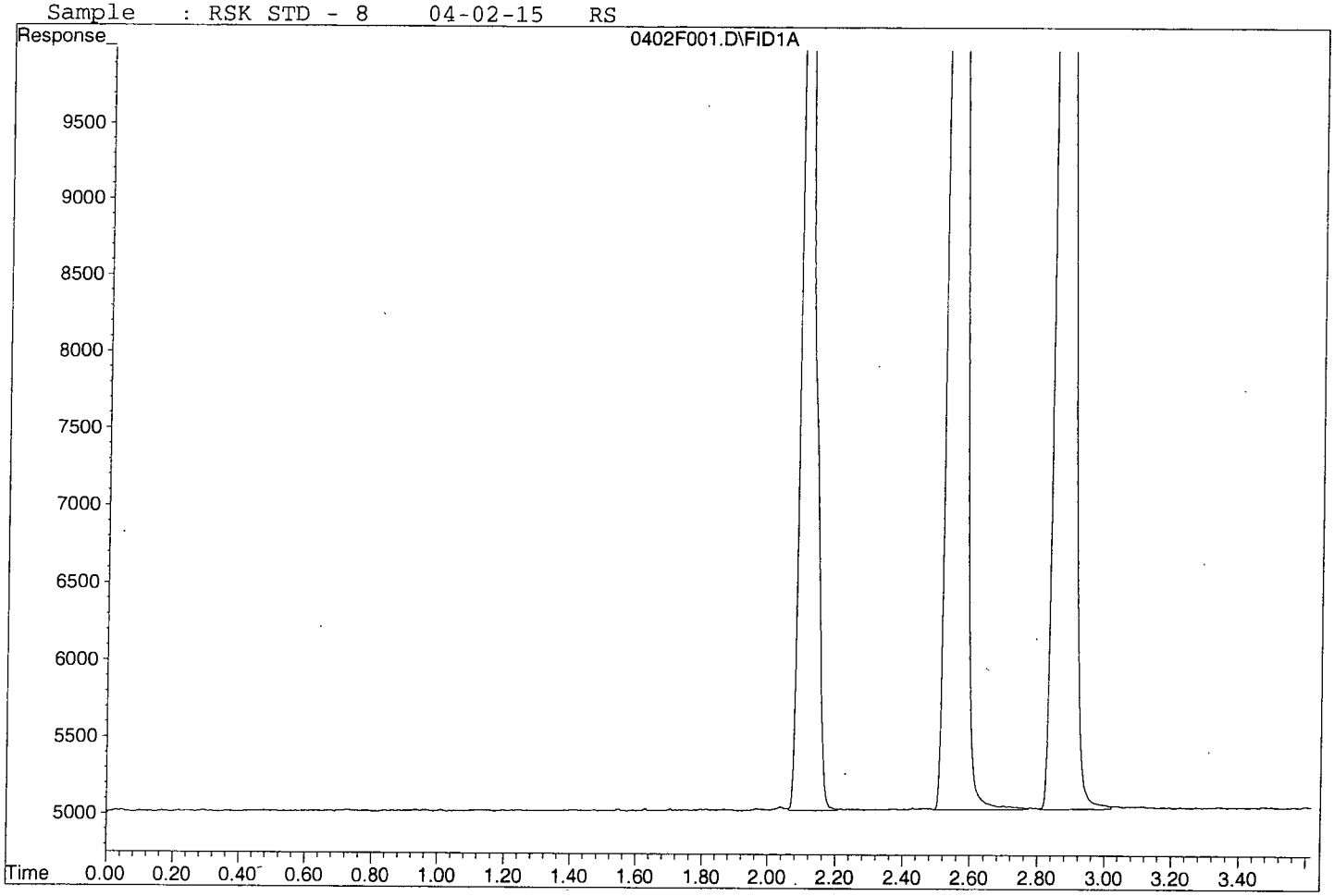
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	2.10	240698	719.028	ppb
2) ATM Ethane	2.54	482100	1724.981	ppb
3) ATM Ethene	2.86	466060	1555.247	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: V:\FRODO\DATA\150402\0402F001.D
Sample : RSK STD - 8 04-02-15 RS



Form 7

Second Source

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 2 Apr 2015 08:15
Instrument: Frodo
Initial Cal. Date: 04/02/15
Data File: 0402F002.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	331	331	0.04	ATM	
2	ATM	Ethane	284	303	6.5	ATM	
3	ATM	Ethene	303	312	2.8	ATM	
4							
5							
6							
7							
8							
9							
10							
11							
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32							
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34							
35							
36							
37							
38							
39							
40							
		Average			3.1		

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150402\0402F002.D
Acq On : 2 Apr 2015 08:15
Sample : RSK SS - 4 04-02-15 RS
Misc : Water
IntFile : autoint1.e
Quant Time: Apr 10 17:44 2015 Quant Results File: 402RSK.RES

Vial: 2
Operator: SD
Inst : Frodo
Multiplr: 1.00

Method : V:\FRODO\DATA\150402\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 03 10:14:53 2015
Response via : Multiple Level Calibration

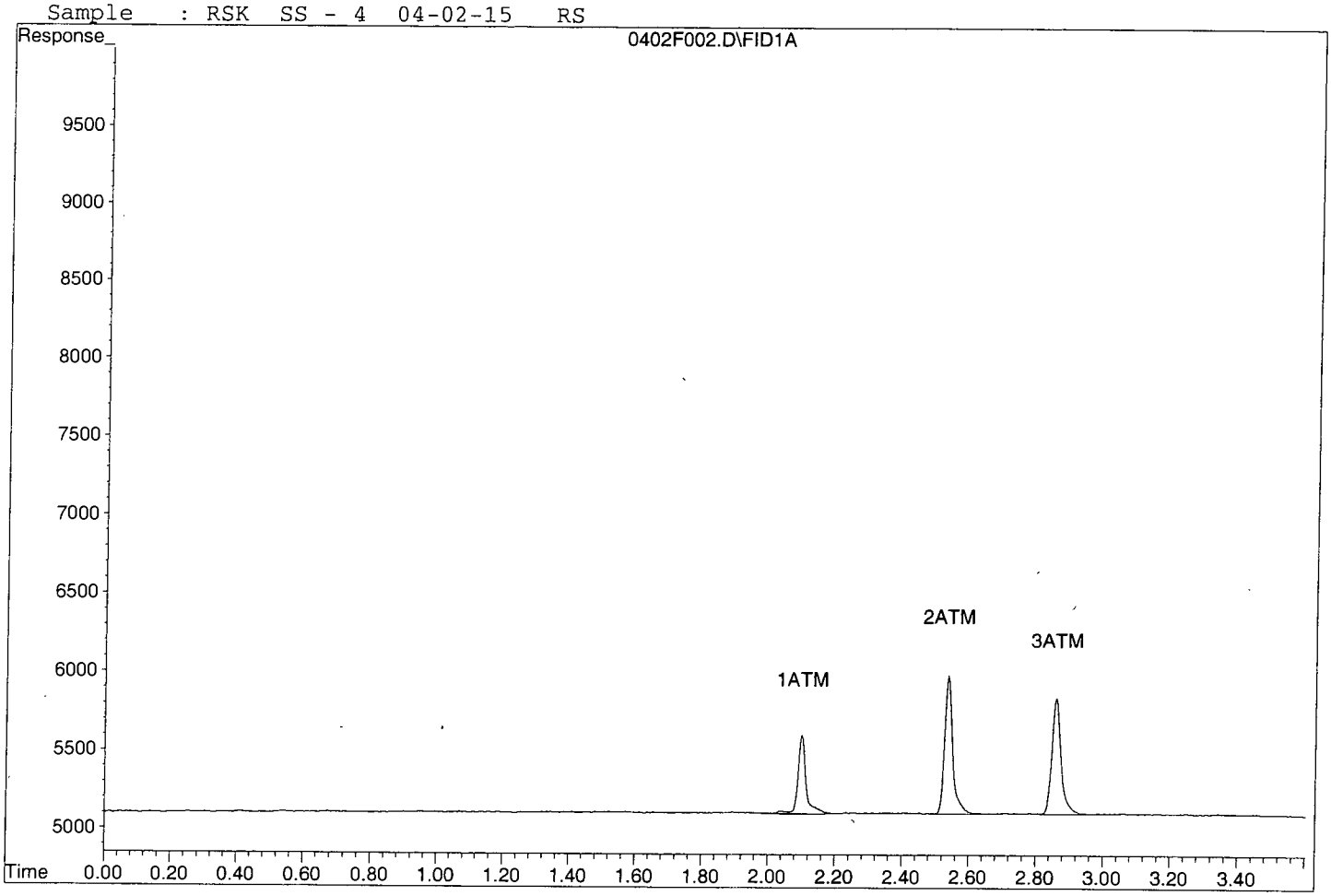
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.10	8834	26.690 ppb
2) ATM Ethane	2.54	15133	53.264 ppb
3) ATM Ethene	2.86	14529	47.882 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
0402F002.D 402RSK.M Fri Apr 10 17:45:11 2015

Quantitation Report

Data File: V:\FRODO\DATA\150402\0402F002.D
Sample : RSK SS - 4 04-02-15 RS



Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 05/26/15
Instrument: Frodo
Initial Cal. Date: 05/26/15
Data File: 0526F001.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	331	249	25	ATM	
2	ATM	Ethane	284	220	23	ATM	
3	ATM	Ethene	303	234	23	ATM	
4							
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38							
39							
40							
		Average			23.7		

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150526\0526F001.D Vial: 1
Acq On : 26 May 2015 10:41 Operator: SD
Sample : RSK CCV4 05-26-15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 26 10:46 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150526\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue May 26 11:01:24 2015
Response via : Multiple Level Calibration

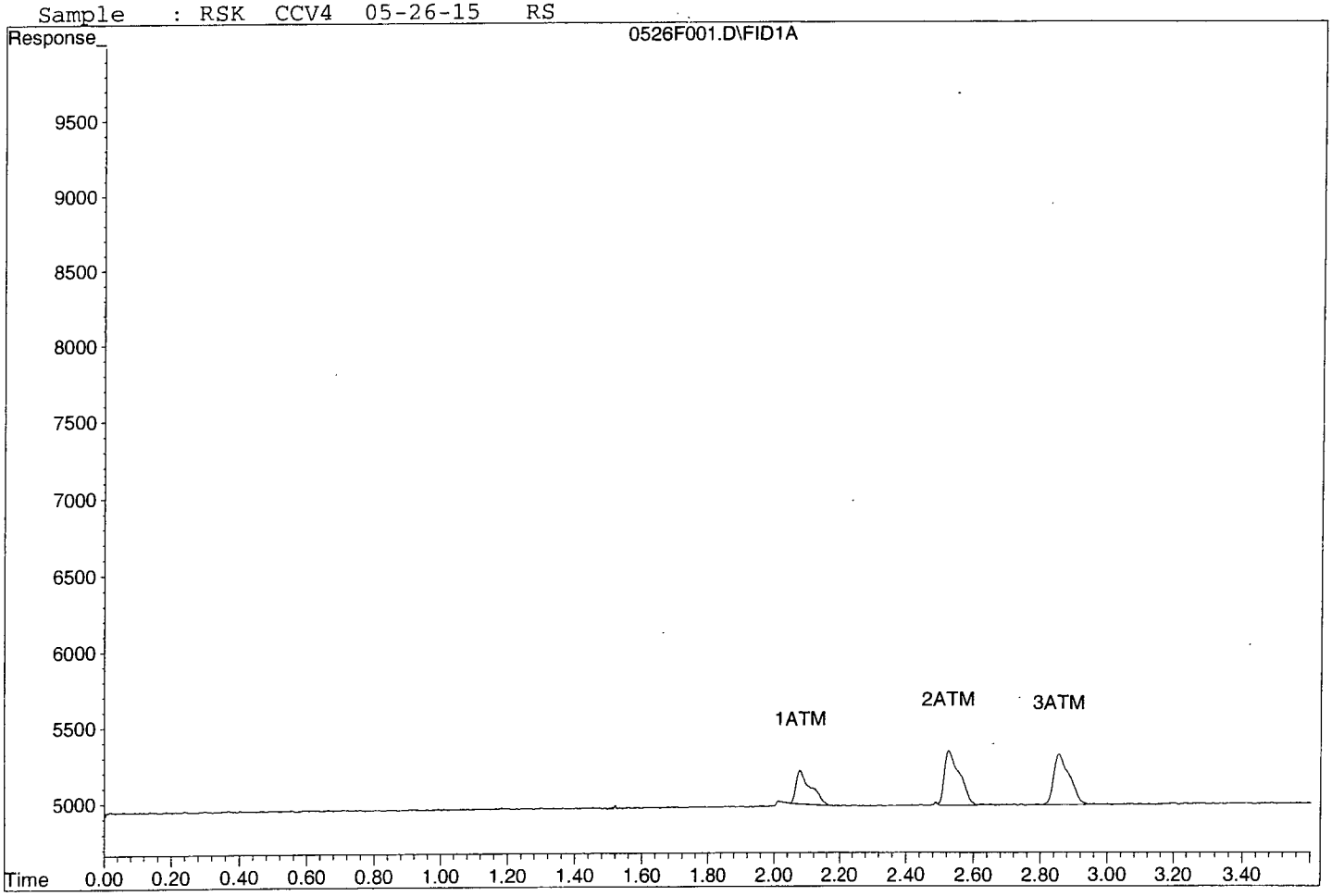
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.08	6638	20.054 ppb
2) ATM Ethane	2.53	11002	38.724 ppb
3) ATM Ethene	2.86	10925	36.005 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: V:\FRODO\DATA\150526\0526F001.D
Sample : RSK CCV4 05-26-15 RS



Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 05/26/15
Instrument: Frodo
Initial Cal. Date: 05/26/15
Data File: 0526F016.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	331	353	6.6	ATM	
2	ATM	Ethane	284	233	18	ATM	
3	ATM	Ethene	303	243	20	ATM	
4							
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39							
40							
		Average			14.9		

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150526\0526F016.D
Acq On : 26 May 2015 15:20
Sample : RSK CCV3 05-26-15 RS
Misc : Water
IntFile : autoint1.e
Quant Time: May 26 16:04 2015 Quant Results File: 402RSK.RES

Vial: 16
Operator: SD
Inst : Frodo
Multiplr: 1.00

Method : V:\FRODO\DATA\150526\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue May 26 11:01:24 2015
Response via : Multiple Level Calibration

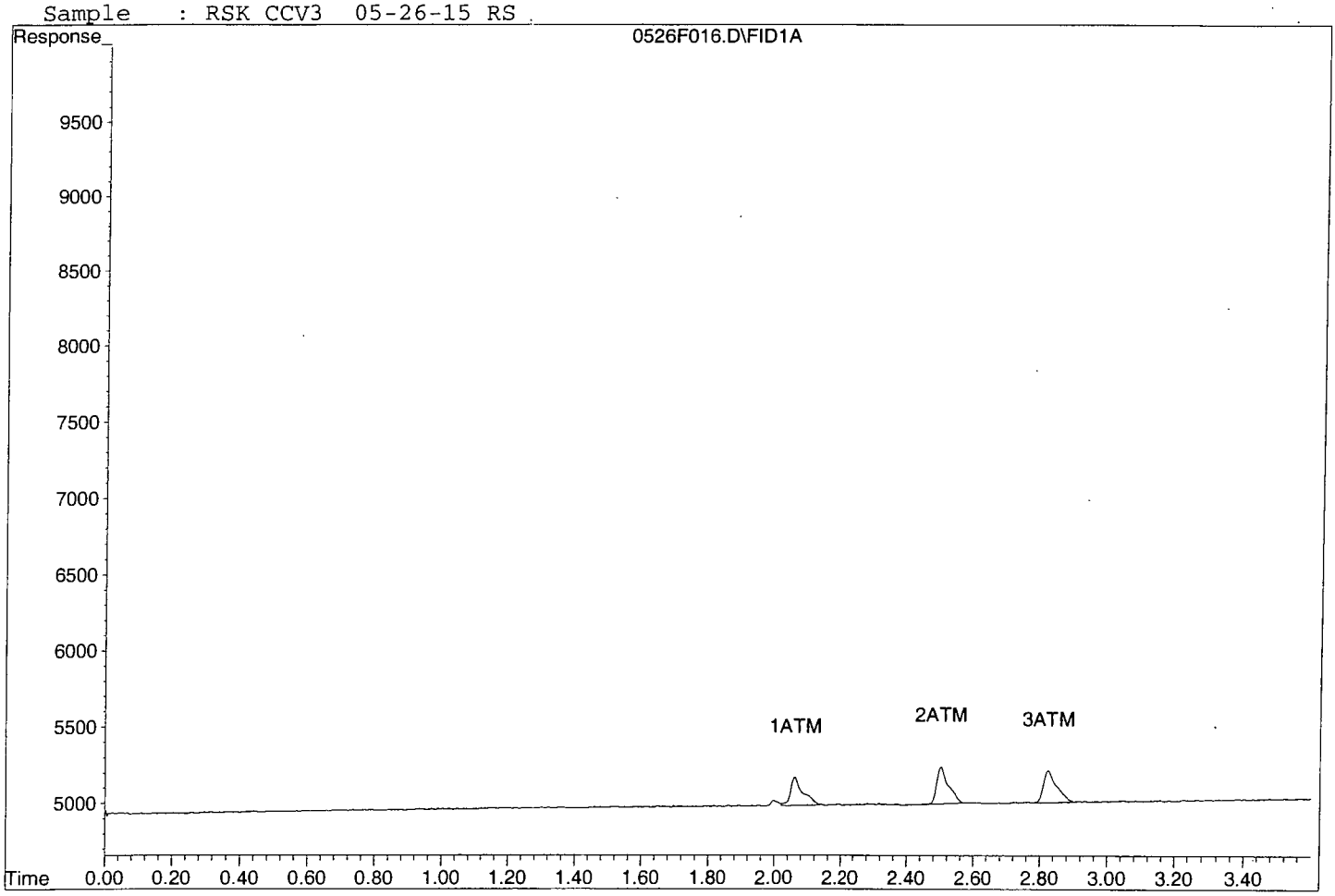
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.06	4706	14.217 ppb
2) ATM Ethane	2.50f	5824	20.500 ppb
3) ATM Ethene	2.83f	5670	18.688 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: V:\FRODO\DATA\150526\0526F016.D
Sample : RSK CCV3 05-26-15 RS



RSK-175
Raw Data

APPL, INC.

Method Blank
RSK 175

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150526W-16334 - 197498**
Batch ID: #RSK-150526A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	05/26/15	05/26/15
BLANK	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/26/15	05/26/15
BLANK	METHANE	0.45 U	1.0	0.45	0.25	ug/L	05/26/15	05/26/15

Quant Method: 402RSK.M
Run #: 0526F014
Instrument: Frodo
Sequence: 150526
Initials: RSA

QC SC-Blank-REG MDLs
Printed: 05/29/15 12:26:15 PM

Quantitation Report (QT Reviewed)

Data File : V:\FRODO\DATA\150526\0526F014.D Vial: 14
Acq On : 26 May 2015 13:23 Operator: SD
Sample : 150526A BLK-1 Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 26 13:33 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150526\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue May 26 11:01:24 2015
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

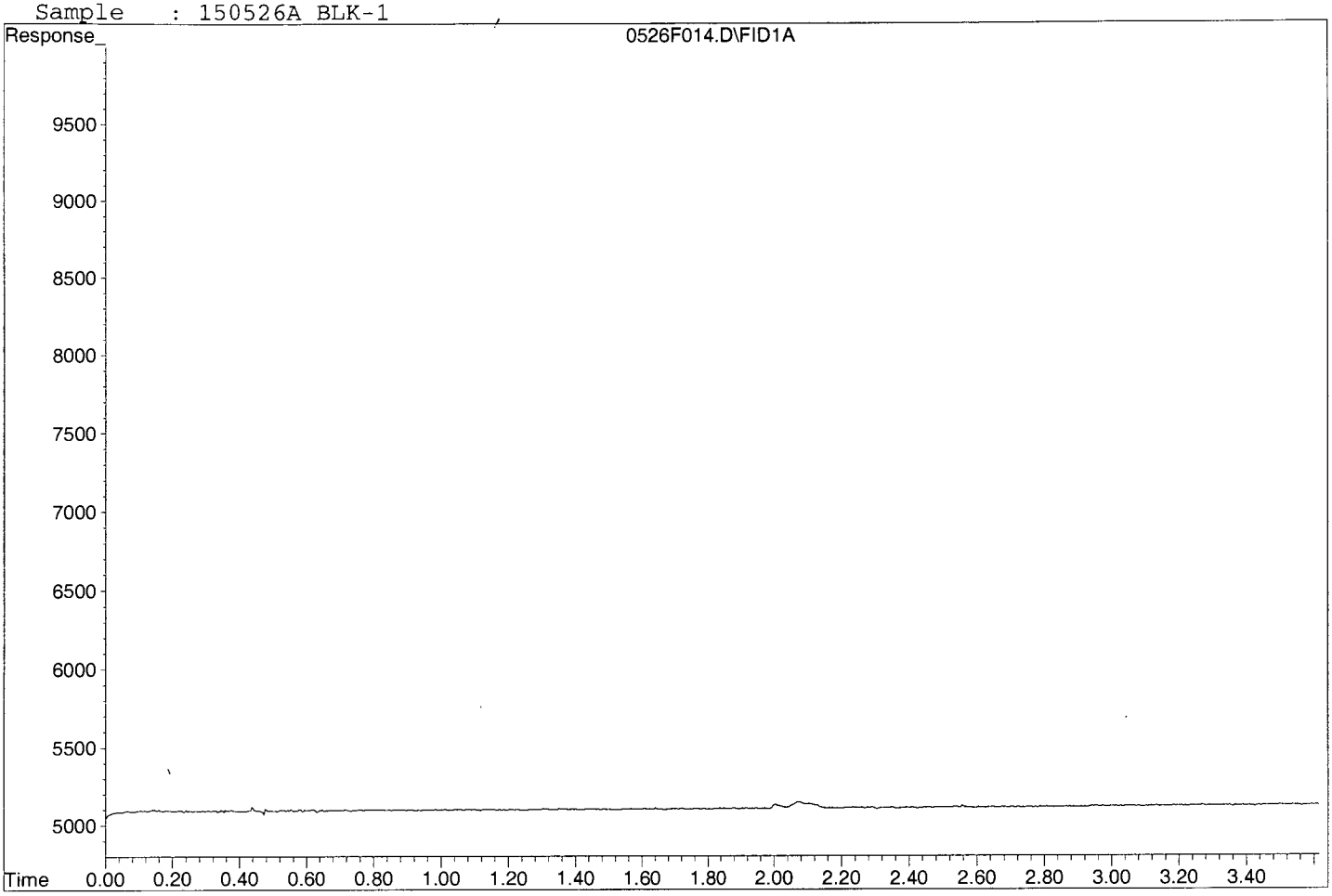
Compound	R.T.	Response	Conc	Units

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: V:\FRODO\DATA\150526\0526F014.D
Sample : 150526A BLK-1



Laboratory Control Spike Recovery

RSK 175

APPL ID: **150526W-16334 LCS - 197498**
Batch ID: #RSK-150526A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
ETHANE	25.0	23.5	94.0	70-130
ETHENE	23.3	21.5	92.3	70-130
METHANE	13.3	13.3	100	70-130

Comments:

Primary	SPK
Quant Method :	402RSK.M
Extraction Date :	05/26/15
Analysis Date :	05/26/15
Instrument :	Frodo
Run :	0526F002
Initials :	RSA

Printed: 05/29/15 12:26:21 PM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150526\0526F002.D Vial: 2
Acq On : 26 May 2015 10:47 Operator: SD
Sample : 150526A LCS-3 Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 26 10:52 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150526\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue May 26 11:01:24 2015
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.09	4409	13.320 ppb ✓
2) ATM Ethane	2.53	6670	23.475 ppb
3) ATM Ethene	2.86	6536	21.541 ppb

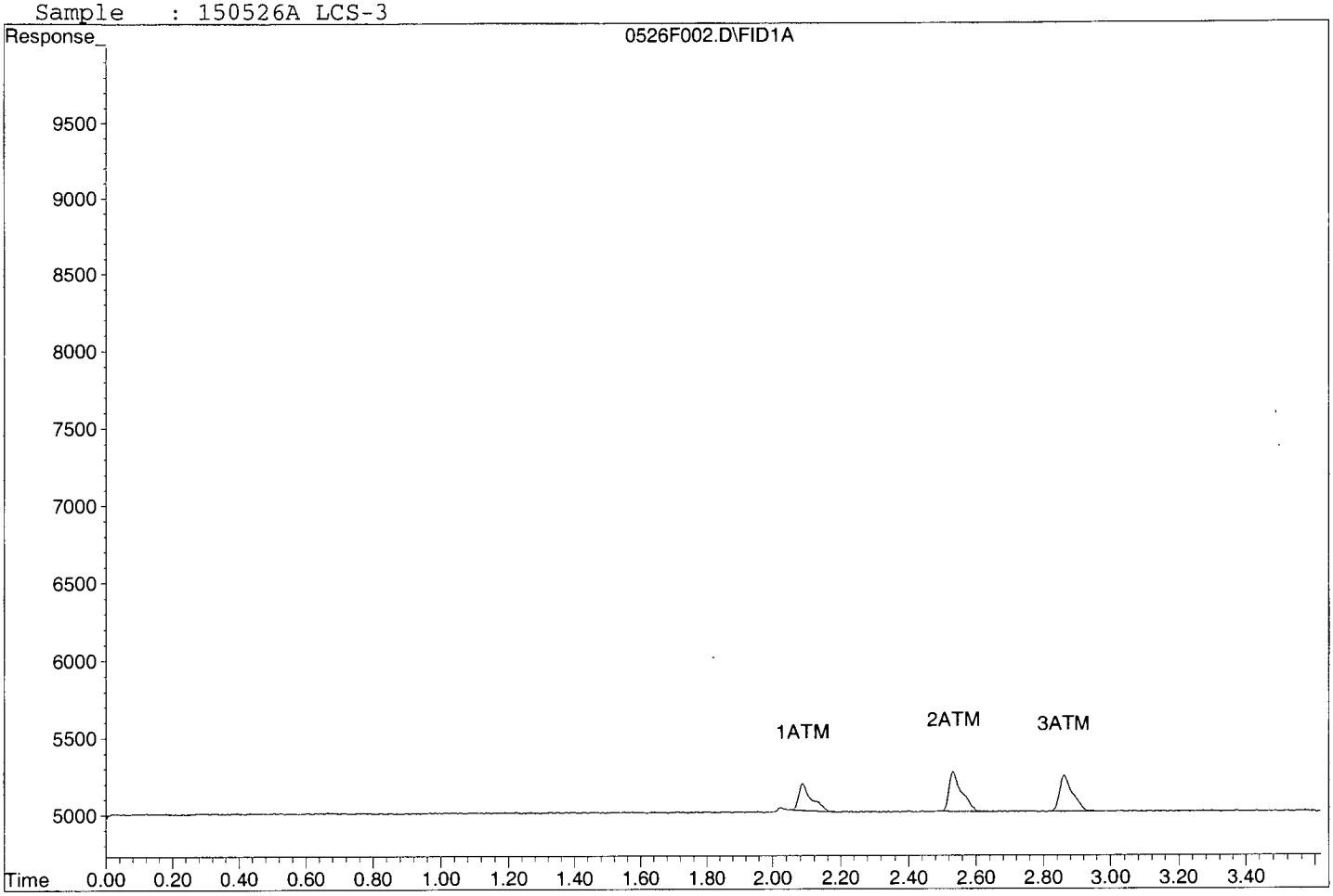
Algorithm chk 05-26-15

$\frac{4409}{331}(1.0) = 13.3$ ✓

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: V:\FRODO\DATA\150526\0526F002.D
Sample : 150526A LCS-3



Primary Source Stock Standard 10,000ppmV **Expires 7-8-2017**

RSK Gas Mix (Scott Specialty Gas) Cat.# T216-48, Lot # 164PLU4SPC95L-34437, Manufacturer Exp Date 7-8-2017 RS 3/29/15

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

Intermediate Calibration Stock Standard 100ppmV 3/29/15 **Expires 4/29/15** RS 3/29/15

Prepared in a 1 L Tedlar bag. Add 990mL Helium and 10mL of 164PLU4SPC05L-34437 standard.

RSK Calibration Curve **Vial expiration date 4/29/14** RS 3/29/15

Analye	Conc Std 1A (ug/L)	Conc Std 1 (ug/L)	Conc Std 2 (ug/L)	Conc Std 3 (ug/L)	Conc Std 4 (ug/L)	Conc Std 5 (ug/L)	Conc Std 6 (ug/L)	Conc Std 7 (ug/L)
Methane (MW 16.04)	0.90	1.80	5.10	13.33	26.70	53.40	106.80	320.40
Ethane (MW 30.07)	1.70	3.40	9.50	25.00	50.00	100.00	200.00	600.00
Ethene (MW 28.05)	1.60	3.20	8.90	23.30	46.60	93.20	186.40	559.20
Stock Source	Intermediate Calib Std 3/29/15	Intermediate Calib Std 3/29/16	Intermediate Calib Std 3/29/17	Intermediate Calib Std 3/29/18	Intermediate Calib Std 3/29/19	Intermediate Calib Std 3/29/20	Primary Source Std #164PLU4SPC05L-34439	Primary Source Std #164PLU4SPC05L-34440
Stock Conc (ppmv)	100 ppmV	100 ppmV	100 ppmV	100 ppmV	100 ppmV	0 100 ppmV	10,000 ppmV	10,000 ppmV
Stock Aliquot (mL)	0.135 mL	0.270 mL	0.760 mL	2.0 mL	4.0 mL	8.0 mL	0.160 mL	0.480 mL
Final Volume P&T Water	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL

Second Source Stock Standard 10,000ppmV APPL extended Exp Date: 9/29/15 (comparrison to primary source on 3/29/15)

RSK Gas Mix (Scott Specialty Gas) Cat.# 0104E40028`4, Lot # 248PLU2SPC03L-31312, Manufacturer Exp Date 9-6-12 RS 3/29/15

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

Intermediate Second Source Standard 100ppmV 3/29/15 **Expires 7/29/15** RS 3/29/15

Prepared in a 1 L Tedlar bag. Add 990mL Helium and 10mL of 248PLU2SPC03L-31312 standard.

Second Source - Level 3, 3/29/15 **Expires 04/29/15** RS 3/29/15

2mL of Intermediate cal stock 3/29/15 into 10mL P&T water

final conc:13.3ppb Methane, 25.0ppb Ethane, and 23.3ppb Ethene

Analye	Conc Std 8 (ug/L)
Methane (MW 16.04)	801.00
Ethane (MW 30.07)	1500.00
Ethene (MW 28.05)	1398.00
Stock Source	Primary Source Std #164PLU4SPC05L-34440
Stock Conc (ppmv)	10,000 ppmV
Stock Aliquot (mL)	1.20 mL
Final Volume P&T Water	10 mL

Added higher ICAL point to curve. RS 04/02/15

Second Source - Level 4 3/29/15 **Expires 05/02/15** RS 04/02/15

4mL of Intermediate cal stock 1/26/15A into 10mL P&T water

final conc:26.7ppb Methane, 50.0ppb Ethane, and 46.6ppb Ethene

CCV4 5/26/15 Expires 06/12/15 **RS 05/26/15**
4mL of Intermediate cal stock 3/29/15A into 10mL P&T water
final conc:26.7ppb Methane, 50.0ppb Ethane, and 46.6ppb Ethene

LCS-3 150526A **RS 05/26/15**
2mL of Intermediate cal stock 3/29/15A into 10mL P&T water
final conc:13.3ppb Methane, 25.0ppb Ethane, and 23.3ppb Ethene

Intermediate Calibration Stock Standard 100ppmV 05/12/15 **Expires 6/12/15** **RS 05/12/15**
Prepared in a 1 L Tedlar bag. Add 990mL Helium and 10mL of 164PLU4SPC05L-34437 standard.

CCV3 5/12/15 Expires 06/12/15 **RS 05/12/15**
2mL of Intermediate cal stock 5/12/15 into 10mL P&T water
final conc:13.3ppb Methane, 25.0ppb Ethane, and 23.3ppb Ethene

CCV4 5/12/15 Expires 06/12/15 **RS 05/12/15**
4mL of Intermediate cal stock 5/12/15 into 10mL P&T water
final conc:26.7ppb Methane, 50.0ppb Ethane, and 46.6ppb Ethene

LCS-3 150512A **RS 05/12/15**
2mL of Intermediate cal stock 5/12/15 into 10mL P&T water
final conc:13.3ppb Methane, 25.0ppb Ethane, and 23.3ppb Ethene

AZ15731W05 MS/MSD **RS 05/12/15**
1mL of Intermediate cal stock 5/12/15 into 10mL Sample AZ15731W05
final conc:6.65ppb Methane, 12.5ppb Ethane, and 11.7ppb Ethene

CCV3 5/20/15 Expires 06/20/15 **RS 05/20/15**
2mL of Intermediate cal stock 5/12/15 into 10mL P&T water
final conc:13.3ppb Methane, 25.0ppb Ethane, and 23.3ppb Ethene

LCS-3 150520A **RS 05/20/15**
2mL of Intermediate cal stock 5/12/15 into 10mL P&T water
final conc:13.3ppb Methane, 25.0ppb Ethane, and 23.3ppb Ethene

AZ16287W03 MS/MSD (level2) **RS 05/20/15**
1mL of Intermediate cal stock 5/12/15 into 10mL Sample AZ15731W05
final conc:6.65ppb Methane, 12.5ppb Ethane, and 11.7ppb Ethene

CCV4 5/26/15 Expires 06/12/15 **RS 05/26/15**
4mL of Intermediate cal stock 5/12/15 into 10mL P&T water
final conc:26.7ppb Methane, 50.0ppb Ethane, and 46.6ppb Ethene

LCS-3 150526A **RS 05/26/15**
2mL of Intermediate cal stock 5/12/15 into 10mL P&T water
final conc:13.3ppb Methane, 25.0ppb Ethane, and 23.3ppb Ethene

CCV4 06/04/15 Expires 06/12/15 **RS 06/04/15**
4mL of Intermediate cal stock 5/12/15 into 10mL P&T water
final conc:26.7ppb Methane, 50.0ppb Ethane, and 46.6ppb Ethene

CCV3 06/04/15
2mL of Intermediate cal stock 5/12/15 into 10mL P&T water **RS 06/04/15**
final conc:13.3ppb Methane, 25.0ppb Ethane, and 23.3ppb Ethene

LCS-4 150604A
4mL of Intermediate cal stock 5/12/15 into 10mL P&T water **RS 06/04/15**
final conc:26.7ppb Methane, 50.0ppb Ethane, and 46.6ppb Ethene

Injection Log

Directory: V:\FRODO\DATA\150329\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0329F001.D	1	RSK Std -2 3/29/15 RS	Water	29 Mar 2015 08:09
2	5	0329F005.D	1	RSK Std -3 3/29/15 RS	Water	29 Mar 2015 09:04
3	9	0329F009.D	1	RSK Std - 1A 3/29/15 RS	Water	29 Mar 2015 09:45
4	10	0329F010.D	1	RSK Std 1 3/29/15 RS	Water	29 Mar 2015 10:04
5	12	0329F012.D	1	RSK Std - 4 3/29/15 RS	Water	29 Mar 2015 10:16
6	13	0329F013.D	1	RSK Std - 5 3/29/15 RS	Water	29 Mar 2015 10:20
7	15	0329F015.D	1	RSK Std 6 3/29/15 RS	Water	29 Mar 2015 10:34
8	16	0329F016.D	1	RSK Std - 7 3/29/15 RS	Water	29 Mar 2015 11:11
9	1	0402F001.D	1	RSK STD - 8 04-02-15 RS	Water	2 Apr 2015 07:55
10	2	0402F002.D	1	RSK SS - 4 04-02-15 RS	Water	2 Apr 2015 08:15
11	1	0526F001.D	1	RSK CCV4 05-26-15 RS	Water	26 May 2015 10:41
12	2	0526F002.D	1	150526A LCS-3	Water	26 May 2015 10:47
13	5	0526F005.D	1	AZ16334W01	Water	26 May 2015 11:22
14	6	0526F006.D	1	AZ16335W01	Water	26 May 2015 11:26
15	7	0526F007.D	1	AZ16336W01	Water	26 May 2015 11:30
16	8	0526F008.D	1	AZ16337W01	Water	26 May 2015 11:36
17	9	0526F009.D	1	AZ16338W01	Water	26 May 2015 11:40
18	10	0526F010.D	1	AZ16339W01	Water	26 May 2015 11:44
19	11	0526F011.D	1	AZ16340W01	Water	26 May 2015 11:49
20	12	0526F012.D	1	AZ16341W01	Water	26 May 2015 11:56
21	13	0526F013.D	1	AZ16342W01	Water	26 May 2015 12:00
22	14	0526F014.D	1	150526A BLK-1	Water	26 May 2015 13:23
23	16	0526F016.D	1	RSK CCV3 05-26-15 RS	Water	26 May 2015 15:20

EPA METHOD 6850
Perchlorate
LC/MS

APPL, INC.

EPA METHOD 6850
Perchlorate
LC/MS

QC Summary

APPL, INC.

Method Blank
Perchlorate

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150518W-16287 - 198054**
Batch ID: #6850-150518A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	05/18/15	05/23/15

Quant Method: QTLMFL2
Run #: T523_021.d
Instrument: AGIL_6460
Sequence: TQ052315
Initials: RP

GC SC-Blank-REG MDLs
Printed: 06/18/15 12:26:23 PM

Laboratory Control Spike Recovery
Perchlorate

APPL ID: **150518W-16287 LCS - 198054**
Batch ID: #6850-150518A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
PERCHLORATE	0.600	0.567	94.5	80-120

Comments: _____

Primary	SPK
Quant Method :	QTLMFL2
Extraction Date :	05/18/15
Analysis Date :	05/23/15
Instrument :	AGIL_6460
Run :	T523_019.d
Initials :	RP

Printed: 06/18/15 12:26:14 PM
APPL Standard LCS

EPA 6850

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER
Blank ID: 150518A-BLK

SDG No: 76424
Date Analyzed: 05/23/15
Instrument: AGIL_6460
Time Analyzed: 2146

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150518A-LCS	Lab Control Spike	T523_019.d	05/23/15 2109
150518A-BLK	Blank	T523_021.d	05/23/15 2146
AZ16340	S67-MW005-051315	T523_038.d	05/24/15 0303
AZ16343	S67-RB02-051315	T523_041.d	05/24/15 0359
AZ16335	S67-MW001-051315	T524_007.d	05/24/15 1554
AZ16334	S67-MW008-051315	T524_011.d	05/24/15 1708
AZ16336	S67-MW001P-051315	T524_022.d	05/24/15 2034
AZ16338	S67-MW013-051315	T524_024.d	05/24/15 2111
AZ16341	S67-MW014-051315	T524_028.d	05/24/15 2225
AZ16337	S67-MW10-051315	T524_033.d	05/24/15 2358
AZ16339	S67-MW004-051315	T524_035.d	05/25/15 0036
AZ16342	S67-MW004P-051315	T524_037.d	05/25/15 0113

Comments: Batch: #6850-150518A

Interferrence Check Sample

Perchlorate EPA 6850 Water

APPL ID: 150518W-16287 ICS-198054
Batch ID: #6850-150518A

APPL Inc.
908 N. Temperance Ave.
Clovis, CA 93711

Compound Name	Spike Level ug/L	Spk Result ug/L	SPK% Recovery	Recovery Limits
Perchlorate	0.600	0.585	97.5%	70-130

Comments:

Quant Method:	QTLMFL2
Extraction Date:	05/18/15
Analysis Date:	05/23/15
Instrument:	AGIL_6560
Run:	T523_020.D
Initials:	RP

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. **SDG No.**

Lab File ID (Standard): T312_003-_008.d

Instrument ID: Agilent 6460 Triple Quad LC/MS

	PER_IS			
	12_HOUR_STD AVERAGE	11032021		
	UPPER LIMIT RESPONSE	16548032		
	LOWER LIMIT RESPONSE	5516011		
Data File ID:	Sample ID:	Analysis Date and Time	IS AREA COUNT #	IS R.T. #
T312_003.d	PERCHLORATE 0.0002 ug/ml 11/11/14	3/12/15 17:52	8337058	13.732
T312_004.d	PERCHLORATE 0.0004 ug/ml 11/11/14	3/12/15 18:11	10671196	13.783
T312_005.d	PERCHLORATE 0.001 ug/ml 11/11/14	3/12/15 18:29	10651968	13.803
T312_006.d	PERCHLORATE 0.002 ug/ml 11/11/14	3/12/15 18:48	13529952	13.803
T312_007.d	PERCHLORATE 0.005 ug/ml 11/11/14	3/12/15 19:07	11028880	13.874
T312_008.d	PERCHLORATE 0.010 ug/ml 08/27/14	3/12/15 19:25	11973072	13.874
T312_010.d	PER_SS 0.0004 ug/ml 11/11/14	3/12/15 20:02	12977621	13.946
T312_011.d	PER_SS 0.002 ug/ml 11/11/14	3/12/15 20:21	13747369	13.976
T312_013.d	PER_CCV_1 0.0004 ug/ml 11/11/14	3/12/15 20:58	12323795	14.109
T312_014.d	PER_CCV_1 0.002 ug/ml 11/11/14	3/12/15 21:17	13576634	14.139

AREA UPPER LIMIT = +50% of internal standard average
AREA LOWER LIMIT = -50% of internal standard average
Column used to flag values outside QC limits
* Values outside of QC limits

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. **SDG No.** **76424**

Lab File ID (Standard): T523_003.d

Instrument ID: Agilent 6460 Triple Quad LC/MS

	PER_IS			
	12_HOUR_STD AVERAGE	8764619		
	UPPER LIMIT RESPONSE	13146929		
	LOWER LIMIT RESPONSE	4382310		
Data File ID:	Sample ID:	Analysis Date and Time	IS AREA COUNT #	IS R.T. #
T523_002.d	PER_CCV 0.0004 ug/ml 05/07/15	5/23/15 15:38	7841423	12.957
T523_003.d	PER_CCV 0.002 ug/ml 05/07/15	5/23/15 15:57	8764619	13.13
T523_016.d	PER_CCV 0.0004 ug/ml 05/07/15	5/23/15 20:13	5972858	13.294
T523_017.d	PER_CCV 0.002 ug/ml 05/07/15	5/23/15 20:32	6513163	13.416
T523_019.d	150518WA_LCS-1 1052.6 DF 05/18/15	5/23/15 21:09	4862068	13.528
T523_020.d	150518W_ICSA 1052.6 DF 05/18/15	5/23/15 21:28	4707314	12.489
T523_021.d	150518WBLKA 1052.6 DF 05/18/15	5/23/15 21:46	5254586	13.609
T523_030.d	PER_CCV 0.0004 ug/ml 05/07/15	5/24/15 0:34	5763820	13.783
T523_031.d	PER_CCV 0.002 ug/ml 05/07/15	5/24/15 0:53	6154538	13.864
T523_038.d	AZ16340_W04 1052.6 DF 05/18/15	5/24/15 3:03	5312270	13.64
T523_041.d	AZ16343_W01 1052.6 DF 05/18/15	5/24/15 3:59	4899032	14.098
T523_044.d	PER_CCV 0.0004 ug/ml 05/07/15	5/24/15 4:55	6579582	14.037
T523_045.d	PER_CCV 0.002 ug/ml 05/07/15	5/24/15 5:13	6755219	14.2

AREA UPPER LIMIT = +50% of internal standard average
AREA LOWER LIMIT = -50% of internal standard average
Column used to flag values outside QC limits
* Values outside of QC limits

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. **SDG No.** **76424**

Lab File ID (Standard): T524_003.d

Instrument ID: Agilent 6460 Triple Quad LC/MS

	PER_IS			
	12_HOUR_STD AVERAGE	7069813		
	UPPER LIMIT RESPONSE	10604720		
	LOWER LIMIT RESPONSE	3534907		
Data File ID:	Sample ID:	Analysis Date and Time	IS AREA COUNT #	IS R.T. #
T524_002.d	PER_CCV 0.0004 ug/ml 05/07/15	5/24/15 14:14	6449100	13.039
T524_003.d	PER_CCV 0.002 ug/ml 05/07/15	5/24/15 14:33	7069813	13.09
T524_007.d	AZ16335_W04 105263.2 DF 05/07/15_5/24	5/24/15 15:54	4309267	13.09
T524_011.d	AZ16334_W04 105263.2 DF 05/07/15_5/24	5/24/15 17:08	4153691	13.09
T524_016.d	PER_CCV 0.0004 ug/ml 05/07/15	5/24/15 18:42	6085038	12.967
T524_017.d	PER_CCV 0.002 ug/ml 05/07/15	5/24/15 19:01	6666617	13.069
T524_022.d	AZ16336_W04 105263.2 DF 05/07/15_5/24	5/24/15 20:34	5447256	13.192
T524_024.d	AZ16338_W04 1052631.6 DF 05/07/15_5/24	5/24/15 21:11	5914593	13.263
T524_028.d	AZ16341_W04 105263.2 DF 05/07/15_5/24	5/24/15 22:25	5695200	13.334
T524_030.d	PER_CCV 0.0004 ug/ml 05/07/15	5/24/15 23:03	5852670	13.324
T524_031.d	PER_CCV 0.002 ug/ml 05/07/15	5/24/15 23:21	6323824	13.477
T524_033.d	AZ16337_W04 105263.2 DF 05/07/15_5/24	5/24/15 23:58	5524417	13.477
T524_035.d	AZ16339_W04 105263.2 DF 05/07/15_5/24	5/25/15 0:36	5387623	13.558
T524_037.d	AZ16342_W04 105263.2 DF 05/07/15_5/24	5/25/15 1:13	5186692	13.65
T524_039.d	PER_CCV 0.0004 ug/ml 05/07/15	5/25/15 1:50	5630186	13.579
T524_040.d	PER_CCV 0.002 ug/ml 05/07/15	5/25/15 2:09	4883385	13.742

AREA UPPER LIMIT = +50% of internal standard average
AREA LOWER LIMIT = -50% of internal standard average
Column used to flag values outside QC limits
* Values outside of QC limits

Perchlorate LC/MS Ion Ratio Report

acceptable ratio is between 2.3 and 3.8 (DoD Perchlorate Handbook, 2006)

Data File Path : D:\masshunter\data\150312
Instrument Name : TQ (Agilent 6460 Triple Quad LC/MS)
Method File : 6460_ESI_PER_N_NEWER_K'_COLUMN.m
Operator : BA

Date Aquired: 03/12/15 17:15 Vial Number: NA
Sample Name: PER_IS_50:50 0.005 ug/ml 11/11/14 Data File ID: T312_001.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.014	113760	3.1
2)	Perchlorate_85	14.071	36914	

Date Aquired: 03/12/15 17:33 Vial Number: NA
Sample Name: PERCHLORATE 0.0001 ug/ml 11/11/14 Data File ID: T312_002.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.504	237168	3.1
2)	Perchlorate_85	13.541	77486	

Date Aquired: 03/12/15 17:52 Vial Number: NA
Sample Name: PERCHLORATE 0.0002 ug/ml 11/11/14 Data File ID: T312_003.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.789	446712	3.1
2)	Perchlorate_85	13.704	144754	

Date Aquired: 03/12/15 18:11 Vial Number: NA
Sample Name: PERCHLORATE 0.0004 ug/ml 11/11/14 Data File ID: T312_004.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.8	1023403	3.0
2)	Perchlorate_85	13.827	337305	

Date Aquired: 03/12/15 18:29 Vial Number: NA
Sample Name: PERCHLORATE 0.001 ug/ml 11/11/14 Data File ID: T312_005.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.82	2483393	3.2
2)	Perchlorate_85	13.827	781617	

Date Aquired: 03/12/15 18:48 Vial Number: NA
Sample Name: PERCHLORATE 0.002 ug/ml 11/11/14 Data File ID: T312_006.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.83	6351752	3.3
2)	Perchlorate_85	13.817	1920912	

Date Aquired: 03/12/15 19:07 Vial Number: NA
Sample Name: PERCHLORATE 0.005 ug/ml 11/11/14 Data File ID: T312_007.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.861	14499255	3.4
2)	Perchlorate_85	13.878	4209044	

Date Aquired: 03/12/15 19:25 Vial Number: NA
Sample Name: PERCHLORATE 0.010 ug/ml 08/27/14 Data File ID: T312_008.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.881	34223790	3.4
2)	Perchlorate_85	13.878	9985270	

Date Aquired: 03/12/15 19:44 Vial Number: NA
Sample Name: PER_IS_50:50 0.005 ug/ml 11/11/14 Data File ID: T312_009.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.912	249406	2.9
2)	Perchlorate_85	13.949	85978	

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Date Aquired: 03/12/15 20:02 Vial Number: NA
Sample Name: PER_SS 0.0004 ug/ml 11/11/14 Data File ID: T312_010.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.942	1472839	3.3
2)	Perchlorate_85	13.959	440675	

Date Aquired: 03/12/15 20:21 Vial Number: NA
Sample Name: PER_SS 0.002 ug/ml 11/11/14 Data File ID: T312_011.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.014	7468678	3.4
2)	Perchlorate_85	14	2222387	

Date Aquired: 03/12/15 20:40 Vial Number: NA
Sample Name: PER_IS_50:50 0.005 ug/ml 11/11/14 Data File ID: T312_012.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.657	10916	2.0
2)	Perchlorate_85	13.776	5521	

Date Aquired: 03/12/15 20:58 Vial Number: NA
Sample Name: PER_CCV_1 0.0004 ug/ml 11/11/14 Data File ID: T312_013.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.105	1267031	3.1
2)	Perchlorate_85	14.143	410558	

Date Aquired: 03/12/15 21:17 Vial Number: NA
Sample Name: PER_CCV_1 0.002 ug/ml 11/11/14 Data File ID: T312_014.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.146	6907110	3.3
2)	Perchlorate_85	14.122	2093567	

Date Aquired: 03/12/15 21:36 Vial Number: NA
Sample Name: PER_IS_50:50 0.005 ug/ml 11/11/14 Data File ID: T312_015.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.36	64783	9.6
2)	Perchlorate_85	13.715	6730	

Perchlorate LC/MS Ion Ratio Report

acceptable ratio is between 2.3 and 3.8 (DoD Perchlorate Handbook, 2006)

Data File Path : D:\masshunter\data\150523
Instrument Name : TQ (Agilent 6460 Triple Quad LC/MS)
Method File : 6460_ESI_PER_N_NEWER_K'_COLUMN.m
Operator : BA

Date Aquired: 05/23/15 15:20 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T523_001.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.117	71005	1.9
2)	Perchlorate_85	13.134	37385	

Date Aquired: 05/23/15 15:38 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 05/07/15 Data File ID: T523_002.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.974	857023	2.7
2)	Perchlorate_85	12.981	313246	

Date Aquired: 05/23/15 15:57 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 05/07/15 Data File ID: T523_003.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.127	4097326	3.3
2)	Perchlorate_85	13.134	1252418	

Date Aquired: 05/23/15 16:15 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T523_004.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.147	50856	2.5
2)	Perchlorate_85	12.981	20452	

Date Aquired: 05/23/15 16:37 Vial Number: NA
Sample Name: 150521SA_LCS-1 10422.1 DF 05/21/15 Data File ID: T523_005.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.147	595644	2.8
2)	Perchlorate_85	13.175	215686	

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Date Aquired: 05/23/15 17:05 Vial Number: NA
Sample Name: 150521S_ICSA 10526.3 DF 05/21/15 Data File ID: T523_006.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	11.986	838693	2.4
2)	Perchlorate_85	12.013	355640	

Date Aquired: 05/23/15 17:24 Vial Number: NA
Sample Name: 150521SBLKA 10121.5 DF 05/21/15 Data File ID: T523_007.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.097	1068	0.5
2)	Perchlorate_85	12.92	2287	

Date Aquired: 05/23/15 17:43 Vial Number: NA
Sample Name: AZ16473_S04 8558.0 DF 05/21/15 Data File ID: T523_008.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.025	1130631	3.1
2)	Perchlorate_85	13.001	367229	

Date Aquired: 05/23/15 18:03 Vial Number: NA
Sample Name: AZ16474_S04 7683.4 DF 05/21/15 Data File ID: T523_009.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.985	1586560	3.0
2)	Perchlorate_85	13.012	530666	

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Date Aquired: 05/23/15 18:21 Vial Number: NA
Sample Name: 150521SA_LCS-1 10422.1 DF 05/21/15 Data File ID: T523_010.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.148	862434	2.9
2)	Perchlorate_85	13.144	299560	

Date Aquired: 05/23/15 18:40 Vial Number: NA
Sample Name: 150521S_ICSA 10526.3 DF 05/21/15 Data File ID: T523_011.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.108	808424	2.4
2)	Perchlorate_85	12.105	331775	

Date Aquired: 05/23/15 18:59 Vial Number: NA
Sample Name: 150521SBLKA 10121.5 DF 05/21/15 Data File ID: T523_012.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.832	2790	3.5
2)	Perchlorate_85	12.889	806	

Date Aquired: 05/23/15 19:17 Vial Number: NA
Sample Name: AZ16473_S04 8558.0 DF 05/21/15 Data File ID: T523_013.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.158	1100562	2.8
2)	Perchlorate_85	13.165	389757	

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Date Aquired: 05/23/15 19:36 Vial Number: NA
Sample Name: AZ16474_S04 7683.4 DF 05/21/15 Data File ID: T523_014.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.168	1578905	3.0
2)	Perchlorate_85	13.165	518303	

Date Aquired: 05/23/15 19:55 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T523_015.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.311	61433	14.6
2)	Perchlorate_85	12.961	4219	

Date Aquired: 05/23/15 20:13 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 05/07/15 Data File ID: T523_016.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.3	652656	3.0
2)	Perchlorate_85	13.256	216334	

Date Aquired: 05/23/15 20:32 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 05/07/15 Data File ID: T523_017.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.423	3082637	3.2
2)	Perchlorate_85	13.399	975975	

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Date Aquired: 05/23/15 20:50 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T523_018.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.412	64516	11.2
2)	Perchlorate_85	12.889	5773	

Date Aquired: 05/23/15 21:09 Vial Number: NA
Sample Name: 150518WA_LCS-1 1052.6 DF 05/18/15 Data File ID: T523_019.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.555	665139	3.3
2)	Perchlorate_85	13.541	200728	

Date Aquired: 05/23/15 21:28 Vial Number: NA
Sample Name: 150518W_ICSA 1052.6 DF 05/18/15 Data File ID: T523_020.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.516	664547	2.2
2)	Perchlorate_85	12.502	307706	

Date Aquired: 05/23/15 21:46 Vial Number: NA
Sample Name: 150518WBLKA 1052.6 DF 05/18/15 Data File ID: T523_021.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.015	2031	0.2
2)	Perchlorate_85	12.849	8841	

Date Aquired: 05/23/15 22:05 Vial Number: NA
Sample Name: AZ16287_W10 1052.6 DF 05/18/15 Data File ID: T523_022.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.249	67686	24.4
2)	Perchlorate_85	12.686	2778	

Date Aquired: 05/23/15 22:24 Vial Number: NA
Sample Name: AZ16287_W10_MS-1 1052.6 DF 05/18/15 Data File ID: T523_023.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.311	790539	3.0
2)	Perchlorate_85	13.317	260884	

Date Aquired: 05/23/15 22:42 Vial Number: NA
Sample Name: AZ16287_W10_MSD-1 1052.6 DF 05/18/15 Data File ID: T523_024.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.311	944951	3.0
2)	Perchlorate_85	13.317	310703	

Date Aquired: 05/23/15 23:01 Vial Number: NA
Sample Name: AZ16288_W04 1052.6 DF 05/18/15 Data File ID: T523_025.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.689	205032312	3.0
2)	Perchlorate_85	12.686	67665361	

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Date Aquired: 05/23/15 23:20 Vial Number: NA
Sample Name: AZ16289_W04 1052.6 DF 05/18/15 Data File ID: T523_026.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.832	838542	2.9
2)	Perchlorate_85	12.788	286601	

Date Aquired: 05/23/15 23:38 Vial Number: NA
Sample Name: AZ16290_W04 1052.6 DF 05/18/15 Data File ID: T523_027.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.251	212854131	3.1
2)	Perchlorate_85	12.258	69367602	

Date Aquired: 05/23/15 23:57 Vial Number: NA
Sample Name: AZ16334_W04 1052.6 DF 05/18/15 Data File ID: T523_028.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.821	906074091	2.5
2)	Perchlorate_85	12.808	368463307	

Date Aquired: 05/24/15 0:15 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T523_029.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.718	72196	13.9
2)	Perchlorate_85	12.951	5194	

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Date Aquired: 05/24/15 0:34 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 05/07/15 Data File ID: T523_030.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.8	666150	3.1
2)	Perchlorate_85	13.817	216626	

Date Aquired: 05/24/15 0:53 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 05/07/15 Data File ID: T523_031.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.902	2871773	3.3
2)	Perchlorate_85	13.898	880296	

Date Aquired: 05/24/15 1:11 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T523_032.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.932	65339	59.8
2)	Perchlorate_85	12.91	1092	

Date Aquired: 05/24/15 1:30 Vial Number: NA
Sample Name: AZ16335_W04 1052.6 DF 05/18/15 Data File ID: T523_033.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.229	532183921	2.7
2)	Perchlorate_85	13.215	200150581	

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Date Aquired: 05/24/15 1:48 Vial Number: NA
Sample Name: AZ16336_W04 1052.6 DF 05/18/15 Data File ID: T523_034.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.219	502148432	2.7
2)	Perchlorate_85	13.236	186208076	

Date Aquired: 05/24/15 2:07 Vial Number: NA
Sample Name: AZ16337_W04 1052.6 DF 05/18/15 Data File ID: T523_035.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.903	88240244	3.2
2)	Perchlorate_85	12.9	27251061	

Date Aquired: 05/24/15 2:26 Vial Number: NA
Sample Name: AZ16338_W04 1052.6 DF 05/18/15 Data File ID: T523_036.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.832	725861229	2.5
2)	Perchlorate_85	12.828	285902242	

Date Aquired: 05/24/15 2:44 Vial Number: NA
Sample Name: AZ16339_W04 1052.6 DF 05/18/15 Data File ID: T523_037.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.351	133242727	3.1
2)	Perchlorate_85	13.348	42847535	

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Date Aquired: 05/24/15 3:03 Vial Number: NA
Sample Name: AZ16340_W04 1052.6 DF 05/18/15 Data File ID: T523_038.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.606	749200	2.9
2)	Perchlorate_85	13.623	258064	

Date Aquired: 05/24/15 3:22 Vial Number: NA
Sample Name: AZ16341_W04 1052.6 DF 05/18/15 Data File ID: T523_039.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.893	436781196	2.8
2)	Perchlorate_85	12.9	158150361	

Date Aquired: 05/24/15 3:40 Vial Number: NA
Sample Name: AZ16342_W04 1052.6 DF 05/18/15 Data File ID: T523_040.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.382	137592520	3.1
2)	Perchlorate_85	13.389	44336749	

Date Aquired: 05/24/15 3:59 Vial Number: NA
Sample Name: AZ16343_W01 1052.6 DF 05/18/15 Data File ID: T523_041.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.126	79506	35.6
2)	Perchlorate_85	12.961	2233	

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Date Aquired: 05/24/15 4:17 Vial Number: NA
Sample Name: AZ16403_W04 1052.6 DF 05/18/15 Data File ID: T523_042.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.626	6933729	3.3
2)	Perchlorate_85	13.613	2075967	

Date Aquired: 05/24/15 4:36 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T523_043.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.126	79123	26.2
2)	Perchlorate_85	12.94	3023	

Date Aquired: 05/24/15 4:55 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 05/07/15 Data File ID: T523_044.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.024	691196	2.8
2)	Perchlorate_85	14.031	247754	

Date Aquired: 05/24/15 5:13 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 05/07/15 Data File ID: T523_045.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.217	3171297	3.3
2)	Perchlorate_85	14.194	970030	

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Perchlorate LC/MS Ion Ratio Report

acceptable ratio is between 2.3 and 3.8 (DoD Perchlorate Handbook, 2006)

Data File Path : D:\masshunter\data\150524
Instrument Name : TQ (Agilent 6460 Triple Quad LC/MS)
Method File : 6460_ESI_PER_N_NEWER_K'_COLUMN.m
Operator : BA

Date Aquired: 05/24/15 13:56 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T524_001.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.158	57055	3.7
2)	Perchlorate_85	13.154	15456	

Date Aquired: 05/24/15 14:14 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 05/07/15 Data File ID: T524_002.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.035	704937	3.6
2)	Perchlorate_85	13.073	197517	

Date Aquired: 05/24/15 14:33 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 05/07/15 Data File ID: T524_003.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.107	3283186	3.2
2)	Perchlorate_85	13.083	1021413	

Date Aquired: 05/24/15 14:51 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T524_004.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.127	66611	2.5
2)	Perchlorate_85	13.114	27066	

Date Aquired: 05/24/15 15:13 Vial Number: NA
Sample Name: AZ16335_W04 10526315.8 DF 05/18/15_5/24 Data File ID: T524_005.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.097	166961	2.9
2)	Perchlorate_85	13.124	57679	

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Date Aquired: 05/24/15 15:35 Vial Number: NA
Sample Name: AZ16335_W04 1052631.6 DF 05/18/15_5/24 Data File ID: T524_006.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.137	971405	3.1
2)	Perchlorate_85	13.124	316991	

Date Aquired: 05/24/15 15:54 Vial Number: NA
Sample Name: AZ16335_W04 105263.2 DF 05/18/15_5/24 Data File ID: T524_007.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.107	8958922	3.4
2)	Perchlorate_85	13.083	2630377	

Date Aquired: 05/24/15 16:12 Vial Number: NA
Sample Name: PER_IS_50:50 0.005 ug/ml 05/14/15 Data File ID: T524_008.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.117	59155	3.6
2)	Perchlorate_85	13.185	16586	

Date Aquired: 05/24/15 16:31 Vial Number: NA
Sample Name: AZ16334_W04 10526315.8 DF 05/18/15_5/24 Data File ID: T524_009.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.097	144973	2.9
2)	Perchlorate_85	13.083	49882	

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Date Aquired: 05/24/15 16:50 Vial Number: NA
Sample Name: AZ16334_W04 1052631.6 DF 05/18/15_5/24 Data File ID: T524_010.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.117	1318222	3.4
2)	Perchlorate_85	13.083	391225	

Date Aquired: 05/24/15 17:08 Vial Number: NA
Sample Name: AZ16334_W04 105263.2 DF 05/18/15_5/24 Data File ID: T524_011.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.097	12831006	3.5
2)	Perchlorate_85	13.114	3695569	

Date Aquired: 05/24/15 17:27 Vial Number: NA
Sample Name: PER_IS_50:50 0.005 ug/ml 05/14/15 Data File ID: T524_012.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.025	37467	2.1
2)	Perchlorate_85	12.991	18125	

Date Aquired: 05/24/15 17:46 Vial Number: NA
Sample Name: AZ16289_W04 1052.6 DF 05/18/15 Data File ID: T524_013.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.18	651648	2.9
2)	Perchlorate_85	12.115	225883	

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Date Aquired: 05/24/15 18:05 Vial Number: NA
Sample Name: AZ16288_W04 105263.2 DF 05/18/15_5/24 Data File ID: T524_014.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.035	1845071	3.3
2)	Perchlorate_85	13.022	556319	

Date Aquired: 05/24/15 18:23 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T524_015.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.035	50759	2.0
2)	Perchlorate_85	13.093	24912	

Date Aquired: 05/24/15 18:42 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 05/07/15 Data File ID: T524_016.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.005	679067	3.1
2)	Perchlorate_85	12.991	216301	

Date Aquired: 05/24/15 19:01 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 05/07/15 Data File ID: T524_017.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.066	3131136	3.3
2)	Perchlorate_85	13.073	937320	

Date Aquired: 05/24/15 19:19 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T524_018.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.097	52714	1.9
2)	Perchlorate_85	13.083	27232	

Date Aquired: 05/24/15 19:38 Vial Number: NA
Sample Name: AZ16290_W04 105263.2 DF 05/18/15_5/24 Data File ID: T524_019.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.964	3946219	3.4
2)	Perchlorate_85	12.961	1173842	

Date Aquired: 05/24/15 19:57 Vial Number: NA
Sample Name: PER_IS_50:50 0.005 ug/ml 05/14/15 Data File ID: T524_020.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.229	31662	7.5
2)	Perchlorate_85	13.154	4224	

Date Aquired: 05/24/15 20:15 Vial Number: NA
Sample Name: AZ16336_W04 1052631.6 DF 05/18/15_5/24 Data File ID: T524_021.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.229	636978	3.2
2)	Perchlorate_85	13.246	200672	

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Date Aquired: 05/24/15 20:34 Vial Number: NA
Sample Name: AZ16336_W04 105263.2 DF 05/18/15_5/24 Data File ID: T524_022.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.198	8382177	3.4
2)	Perchlorate_85	13.185	2476282	

Date Aquired: 05/24/15 20:52 Vial Number: NA
Sample Name: PER_IS_50:50 0.005 ug/ml 05/14/15 Data File ID: T524_023.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.219	51225	3.9
2)	Perchlorate_85	13.205	12971	

Date Aquired: 05/24/15 21:11 Vial Number: NA
Sample Name: AZ16338_W04 1052631.6 DF 05/18/15_5/24 Data File ID: T524_024.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.27	1613892	3.2
2)	Perchlorate_85	13.266	507127	

Date Aquired: 05/24/15 21:30 Vial Number: NA
Sample Name: AZ16338_W04 105263.2 DF 05/18/15_5/24 Data File ID: T524_025.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.229	20449254	3.4
2)	Perchlorate_85	13.236	5991004	

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Date Aquired: 05/24/15 21:48 Vial Number: NA
Sample Name: PER_IS_50:50 0.005 ug/ml 05/14/15 Data File ID: T524_026.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.331	52468	6.1
2)	Perchlorate_85	13.195	8564	

Date Aquired: 05/24/15 22:07 Vial Number: NA
Sample Name: AZ16341_W04 1052631.6 DF 05/18/15_5/24 Data File ID: T524_027.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.321	751851	3.1
2)	Perchlorate_85	13.327	245934	

Date Aquired: 05/24/15 22:25 Vial Number: NA
Sample Name: AZ16341_W04 105263.2 DF 05/18/15_5/24 Data File ID: T524_028.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.351	5610654	3.4
2)	Perchlorate_85	13.358	1650413	

Date Aquired: 05/24/15 22:44 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T524_029.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.412	69437	16.5
2)	Perchlorate_85	12.9	4217	

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Date Aquired: 05/24/15 23:03 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 05/07/15 Data File ID: T524_030.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.341	663221	3.2
2)	Perchlorate_85	13.348	204756	

Date Aquired: 05/24/15 23:21 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 05/07/15 Data File ID: T524_031.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.484	3004259	3.4
2)	Perchlorate_85	13.48	881774	

Date Aquired: 05/24/15 23:40 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T524_032.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.484	58582	9.0
2)	Perchlorate_85	12.9	6534	

Date Aquired: 05/24/15 23:58 Vial Number: NA
Sample Name: AZ16337_W04 105263.2 DF 05/18/15_5/24 Data File ID: T524_033.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.453	1184794	3.3
2)	Perchlorate_85	13.491	355894	

Date Aquired: 05/25/15 0:17 Vial Number: NA
Sample Name: PER_IS_50:50 0.005 ug/ml 05/14/15 Data File ID: T524_034.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.535	46744	7.9
2)	Perchlorate_85	12.614	5894	

Date Aquired: 05/25/15 0:36 Vial Number: NA
Sample Name: AZ16339_W04 105263.2 DF 05/18/15_5/24 Data File ID: T524_035.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.535	1754283	3.2
2)	Perchlorate_85	13.562	547952	

Date Aquired: 05/25/15 0:54 Vial Number: NA
Sample Name: PER_IS_50:50 0.005 ug/ml 05/14/15 Data File ID: T524_036.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.626	35843	14.9
2)	Perchlorate_85	13.083	2409	

Date Aquired: 05/25/15 1:13 Vial Number: NA
Sample Name: AZ16342_W04 105263.2 DF 05/18/15_5/24 Data File ID: T524_037.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.667	1395075	3.3
2)	Perchlorate_85	13.654	421995	

Date Aquired: 05/25/15 1:32 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T524_038.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.688	76138	11.0
2)	Perchlorate_85	13.103	6916	

Date Aquired: 05/25/15 1:50 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 05/07/15 Data File ID: T524_039.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.555	657749	3.5
2)	Perchlorate_85	13.541	185928	

Date Aquired: 05/25/15 2:09 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 05/07/15 Data File ID: T524_040.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.759	2309592	3.2
2)	Perchlorate_85	13.735	713034	

Date Aquired: 05/25/15 2:27 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T524_041.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.851	46110	10.7
2)	Perchlorate_85	13.052	4292	

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EPA METHOD 6850
Perchlorate
LC/MS

Sample Data

APPL, INC.

Perchlorate

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW008-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16334
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	1300	60	40.0	20.0	ug/L	05/18/15	05/24/15

Quant Method: QTLMFL2
Run #: T524_011.d
Instrument: AGIL_6460
Sequence: TQ052415
Dilution Factor: 100
Initials: RP

Printed: 06/19/15 9:28:07 AM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T524_011.d

Date Injected : 05/24/15

Time Injected : 17:08

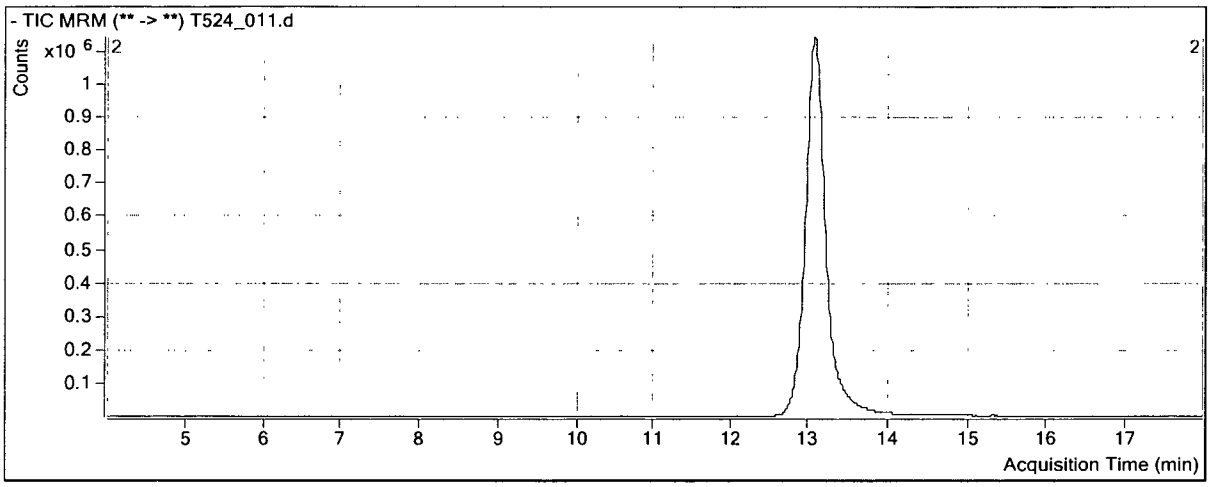
Sample ID : AZ16334_W04 105263.2 DF 05/18/15_5/24

Client ID : S67-MW008-051315

Retention Time	Area Count Response	Compound_ID Product Ion	
13.09	4153691	PER_IS_89	
13.097	12831006	Perchlorate_83	(12831006 * 0.0050) / (1.27 * 4153691.00) * 105263.20 = 1279.917823 ppb
13.114	3695569	Perchlorate_85	(3695569 * 0.0050) / (0.39 * 4153691.00) * 105263.20 = 1195.764000 ppb

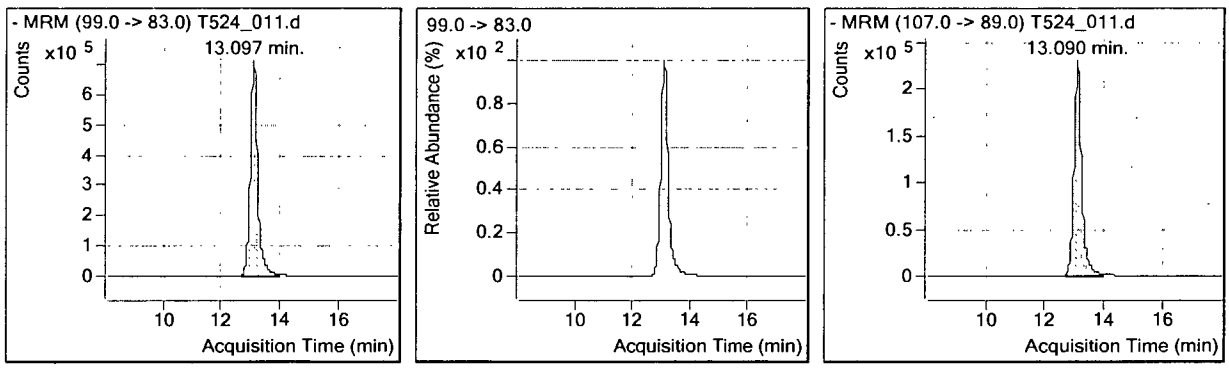
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150524\QuantResults\150524_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T524_011.d	**Sample Name**	AZ16334_W04 105263.2 DF 05/18/15_5/24
Sample Type	Sample	**Acq_Date**	05/24/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	17:08
ClientID	S67-MW008-051315	**Inj Vol**	20

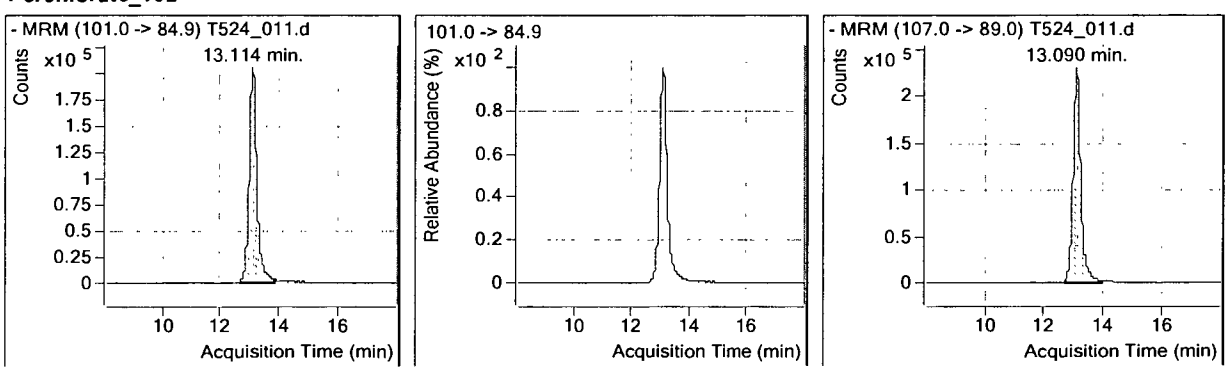


Compound	ISTD	RT	Resp	ISTD RESP
Perchlorate_100	PER_IS_108	13.097	12831006	4153691
Perchlorate_102	PER_IS_108	13.114	3695569	4153691

Perchlorate_100



Perchlorate_102



Perchlorate

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16335
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	860	60	40.0	20.0	ug/L	05/18/15	05/24/15

Quant Method: QTLMFL2
Run #: T524_007.d
Instrument: AGIL_6460
Sequence: TQ052415
Dilution Factor: 100
Initials: RP

Printed: 06/19/15 9:28:07 AM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T524_007.d

Date Injected : 05/24/15

Time Injected : 15:54

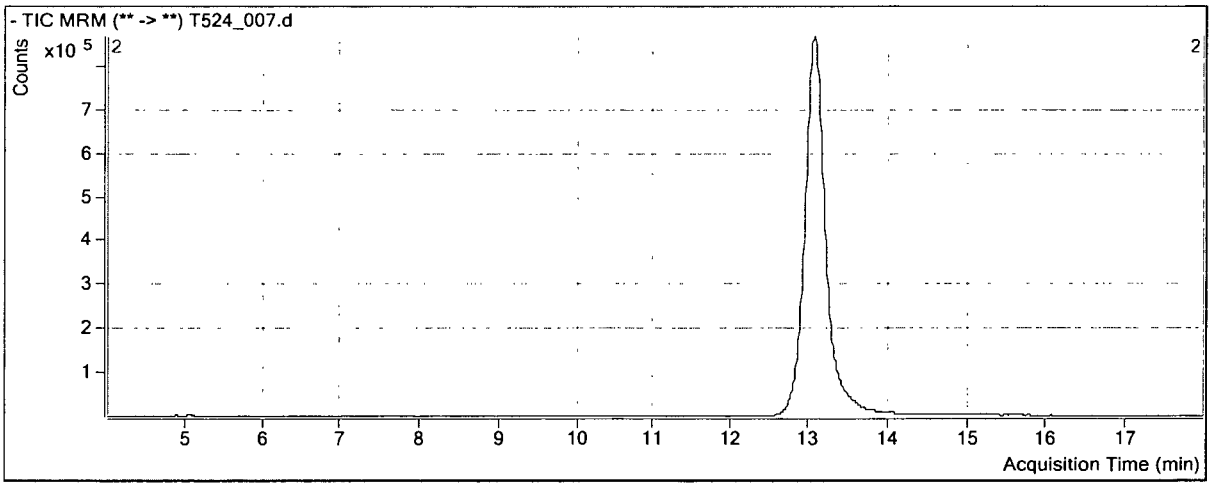
Sample ID : AZ16335_W04 105263.2 DF 05/18/15_5/24

Client ID : S67-MW001-051315

Retention Time	Area Count Response	Compound_ID Product Ion				
13.09	4309267	PER_IS_89				
13.107	8958922	Perchlorate_83	(8958922 * 0.0050) / (1.27 * 4309267.00) *	105263.20 =	861.406047	ppb
13.083	2630377	Perchlorate_85	(2630377 * 0.0050) / (0.39 * 4309267.00) *	105263.20 =	820.375986	ppb

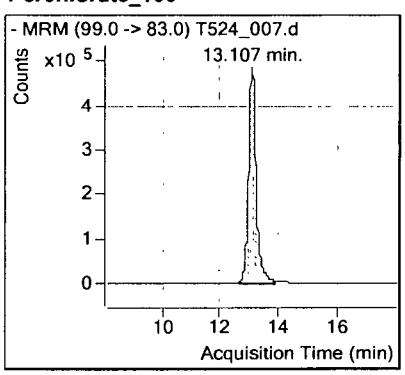
Quantitative Analysis Sample Report

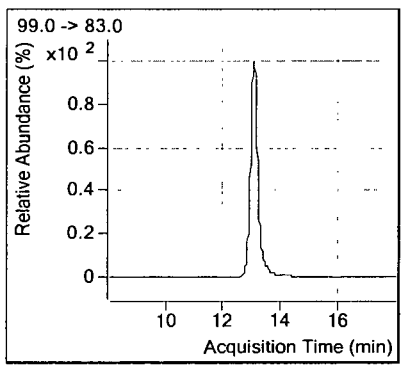
Batch Data Path	D:\MassHunter\Data\150524\QuantResults\150524_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T524_007.d	**Sample Name**	AZ16335_W04 105263.2 DF 05/18/15_5/24
Sample Type	Sample	**Acq_Date**	05/24/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	15:54
ClientID	S67-MW001-051315	**Inj Vol**	20

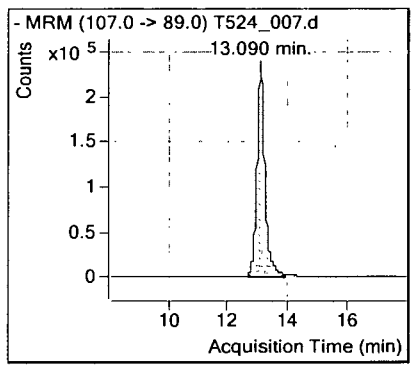


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.107	8958922	4309267
Perchlorate_102	PER_IS_108	13.083	2630377	4309267

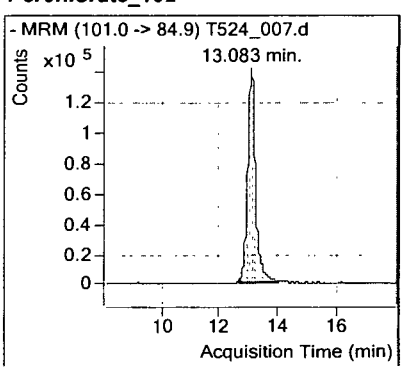
Perchlorate_100

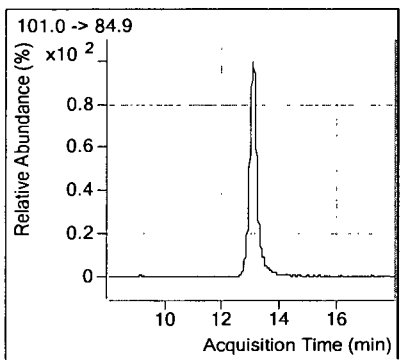


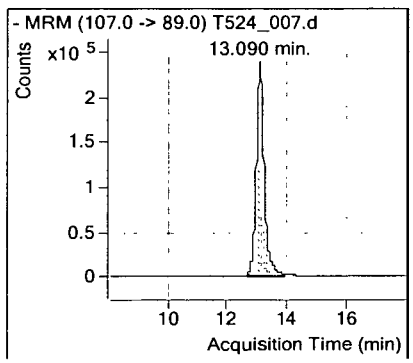




Perchlorate_102







Perchlorate

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001P-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16336
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	640	0.60	0.400	0.200	ug/L	05/18/15	05/24/15

Quant Method: QTLMFL2
Run #: T524_022.d
Instrument: AGIL_6460
Sequence: TQ052415
Dilution Factor: 1
Initials: RP

Printed: 06/19/15 9:28:07 AM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T524_022.d

Date Injected : 05/24/15

Time Injected : 20:34

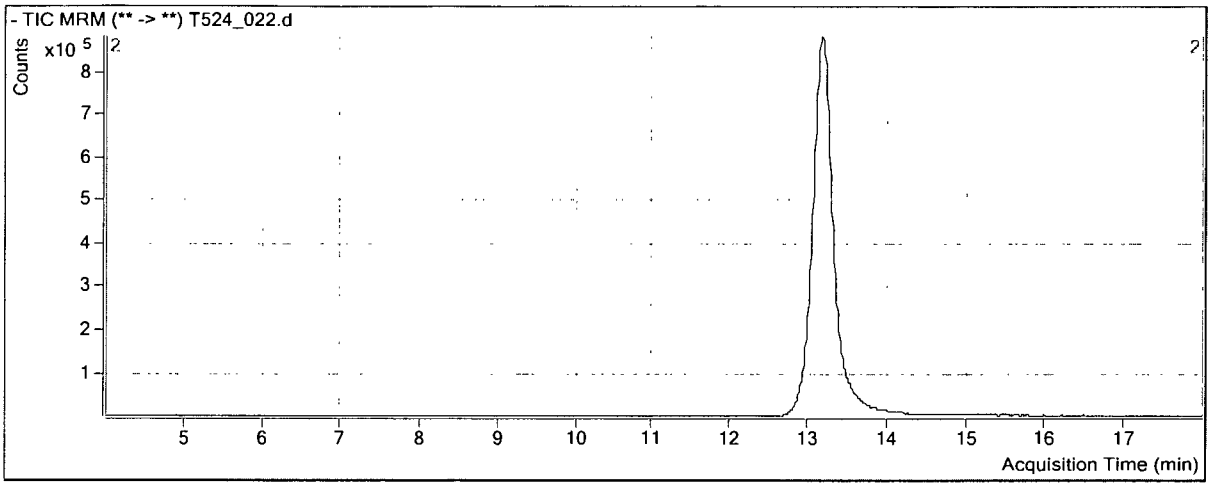
Sample ID : AZ16336_W04 105263.2 DF 05/18/15_5/24

Client ID : S67-MW001P-051315

Retention Time	Area Count Response	Compound_ID Product Ion				
13.192	5447256	PER_IS_89				
13.198	8382177	Perchlorate_83	(8382177 * 0.0050) / (1.27 * 5447256.00) *	105263.20 =	637.579883	ppb
13.185	2476282	Perchlorate_85	(2476282 * 0.0050) / (0.39 * 5447256.00) *	105263.20 =	610.971088	ppb

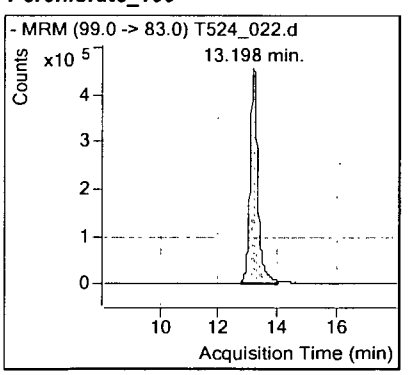
Quantitative Analysis Sample Report

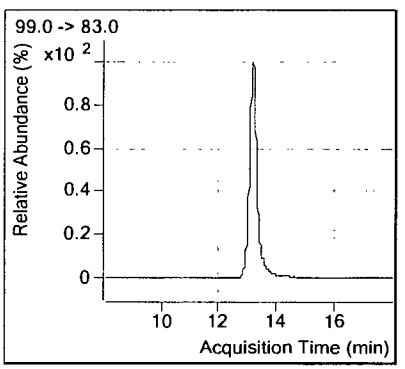
Batch Data Path	D:\MassHunter\Data\150524\QuantResults\150524_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T524_022.d	**Sample Name**	AZ16336_W04 105263.2 DF 05/18/15_5/24
Sample Type	Sample	**Acq_Date**	05/24/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	20:34
ClientID	S67-MW001P-051315	**Inj Vol**	20

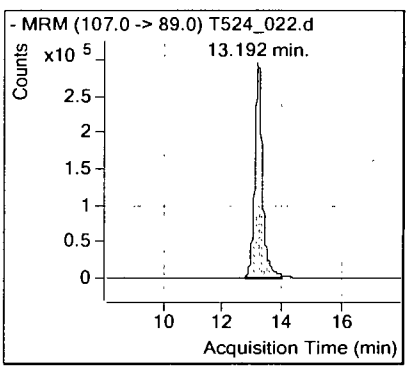


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.198	8382177	5447256
Perchlorate_102	PER_IS_108	13.185	2476282	5447256

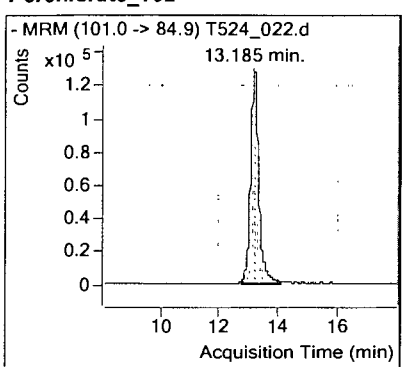
Perchlorate_100

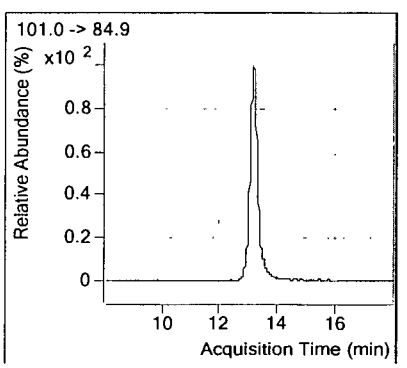


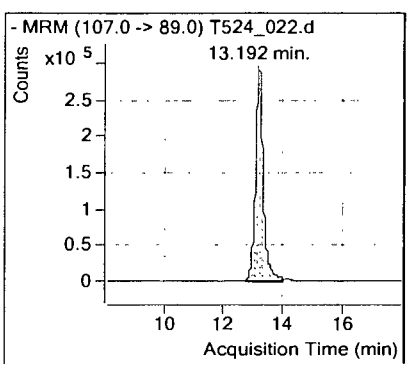




Perchlorate_102







Perchlorate

Tetra Tech
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Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW10-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16337
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	90	60	40.0	20.0	ug/L	05/18/15	05/24/15

Quant Method: QTLMFL2
Run #: T524_033.d
Instrument: AGIL_6460
Sequence: TQ052415
Dilution Factor: 100
Initials: RP

Printed: 06/19/15 9:28:08 AM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T524_033.d

Date Injected : 05/24/15

Time Injected : 23:58

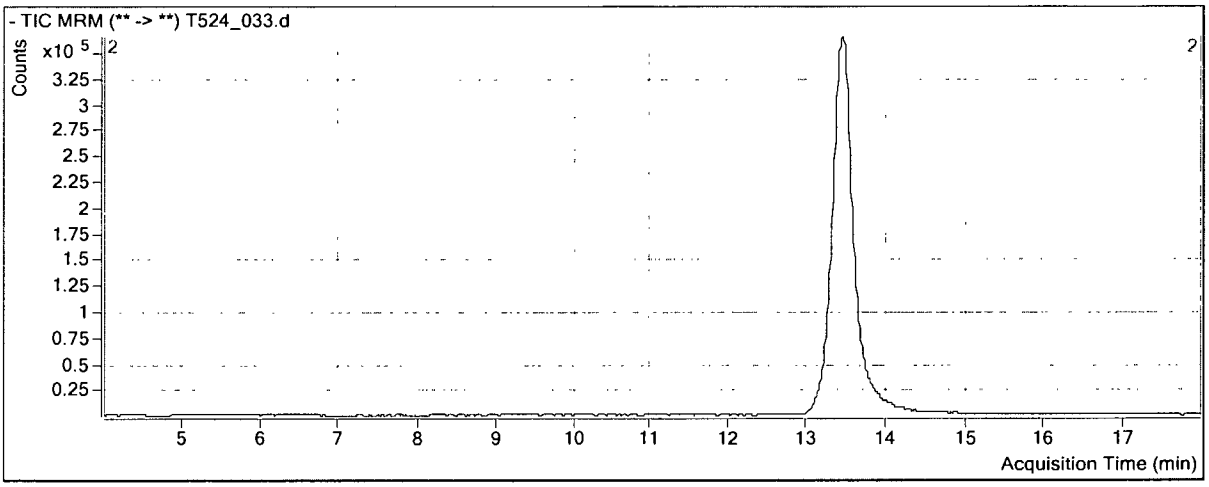
Sample ID : AZ16337_W04 105263.2 DF 05/18/15_5/24

Client ID : S67-MW10-051315

Retention Time	Area Count Response	Compound_ID Product Ion			
13.477	5524417	PER_IS_89			
13.453	1184794	Perchlorate_83	(1184794 * 0.0050) / (1.27 * 5524417.00) *	105263.20 =	88.861156 ppb
13.491	355894	Perchlorate_85	(355894 * 0.0050) / (0.39 * 5524417.00) *	105263.20 =	86.582986 ppb

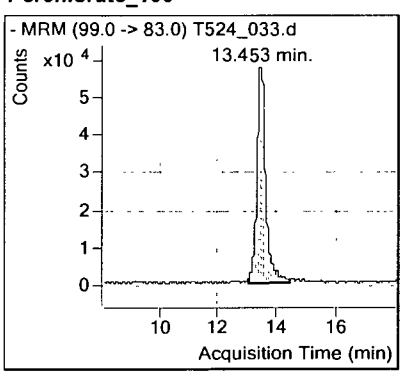
Quantitative Analysis Sample Report

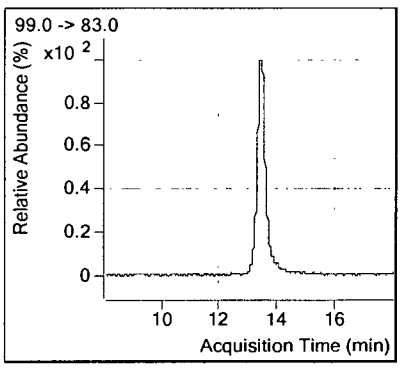
Batch Data Path	D:\MassHunter\Data\150524\QuantResults\150524_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T524_033.d	**Sample Name**	AZ16337_W04 105263.2 DF 05/18/15_5/24
Sample Type	Sample	**Acq_Date**	05/24/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	23:58
ClientID	S67-MW10-051315	**Inj Vol**	20

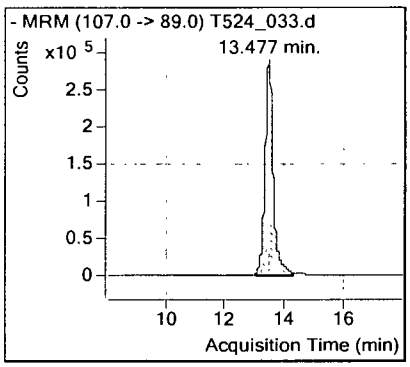


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.453	1184794	5524417
Perchlorate_102	PER_IS_108	13.491	355894	5524417

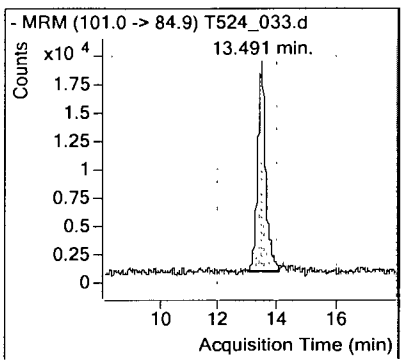
Perchlorate_100

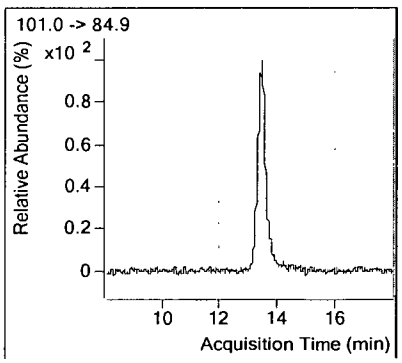


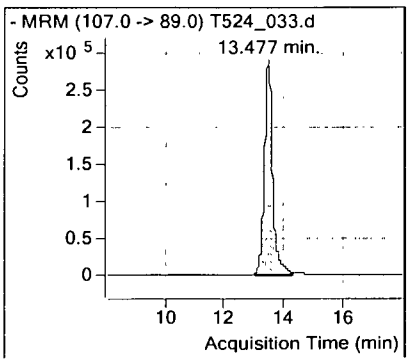




Perchlorate_102







Perchlorate

Tetra Tech
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Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW013-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16338
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	1100	600	400.0	200.0	ug/L	05/18/15	05/24/15

Quant Method: QTLMFL2
Run #: T524_024.d
Instrument: AGIL_6460
Sequence: TQ052415
Dilution Factor: 1000
Initials: RP

Printed: 06/19/15 9:28:08 AM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T524_024.d

Date Injected : 05/24/15

Time Injected : 21:11

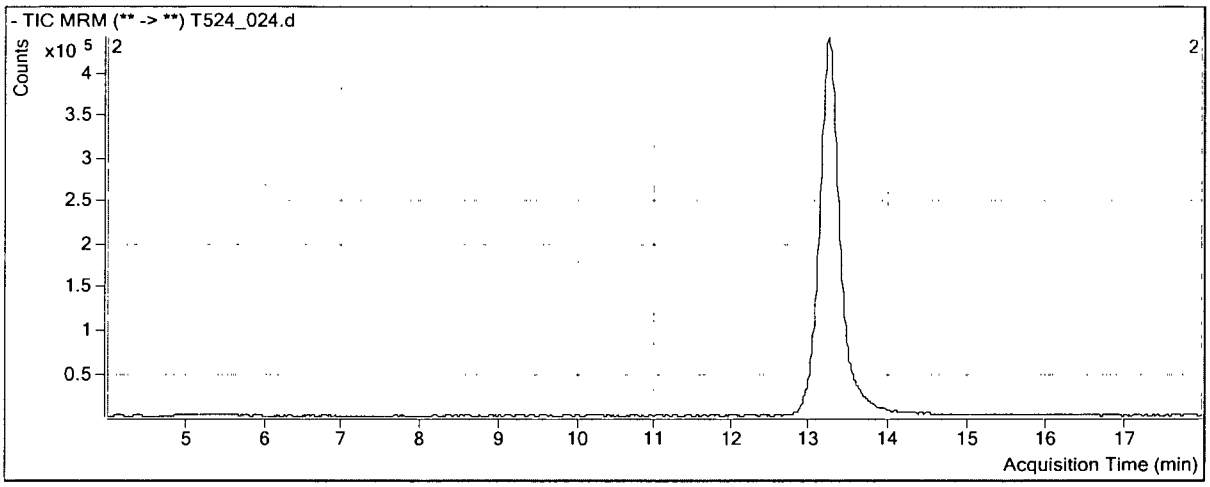
Sample ID : AZ16338_W04 1052631.6 DF 05/18/15_5/24

Client ID : S67-MW013-051315

Retention Time	Area Count Response	Compound_ID Product Ion	
13.263	5914593	PER_IS_89	
13.27	1613892	Perchlorate_83	(1613892 * 0.0050) / (1.27 * 5914593.00) * 1052631.60 = 1130.589644 ppb
13.266	507127	Perchlorate_85	(507127 * 0.0050) / (0.39 * 5914593.00) * 1052631.60 = 1152.364970 ppb

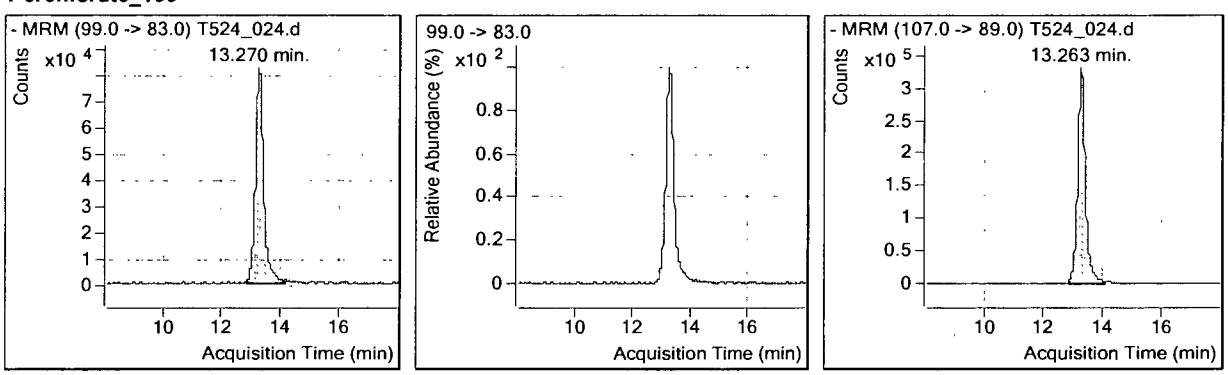
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150524\QuantResults\150524_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T524_024.d	**Sample Name**	AZ16338_W04 1052631.6 DF 05/18/15_5/24
Sample Type	Sample	**Acq_Date**	05/24/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	21:11
ClientID	S67-MW013-051315	**Inj Vol**	20

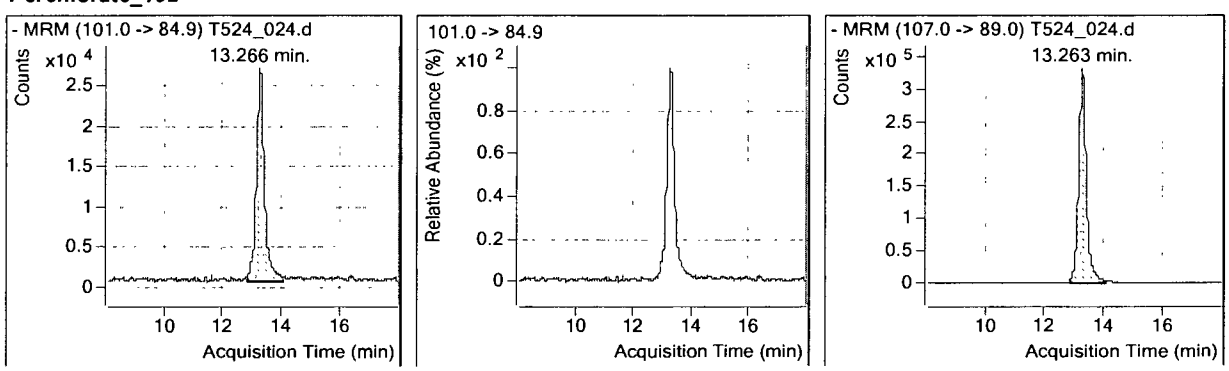


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.270	1613892	5914593
Perchlorate_102	PER_IS_108	13.266	507127	5914593

Perchlorate_100



Perchlorate_102



Perchlorate

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16339
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	130	60	40.0	20.0	ug/L	05/18/15	05/25/15

Quant Method: QTLMFL2
Run #: T524_035.d
Instrument: AGIL_6460
Sequence: TQ052415
Dilution Factor: 100
Initials: RP

Printed: 06/19/15 9:28:08 AM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T524_035.d

Date Injected : 05/25/15

Time Injected : 0:36

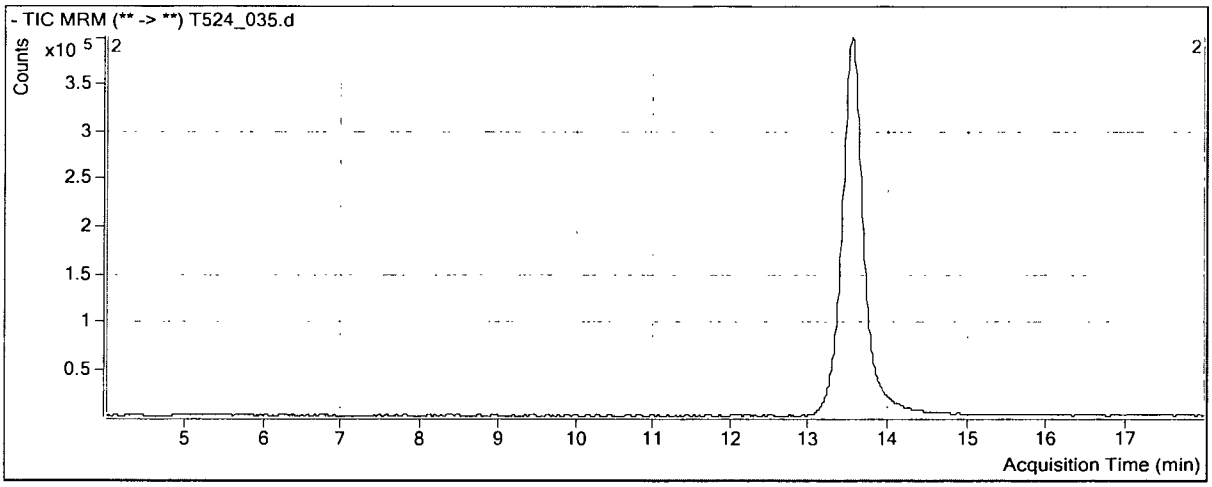
Sample ID : AZ16339_W04 105263.2 DF 05/18/15_5/24

Client ID : S67-MW004-051315

Retention Time	Area Count Response	Compound_ID Product Ion		
13.558	5387623	PER_IS_89		
13.535	1754283	Perchlorate_83	(1754283 * 0.0050) / (1.27 * 5387623.00) * 105263.20 =	134.914311 ppb
13.562	547952	Perchlorate_85	(547952 * 0.0050) / (0.39 * 5387623.00) * 105263.20 =	136.692178 ppb

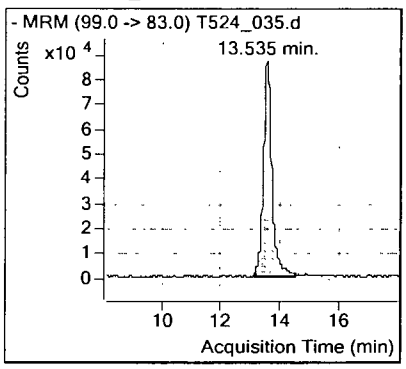
Quantitative Analysis Sample Report

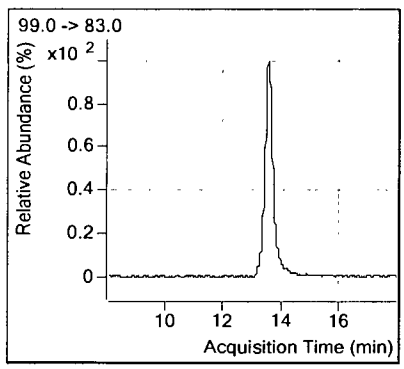
Batch Data Path	D:\MassHunter\Data\150524\QuantResults\150524_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T524_035.d	**Sample Name**	AZ16339_W04 105263.2 DF 05/18/15_5/24
Sample Type	Sample	**Acq_Date**	05/25/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	0:36
ClientID	S67-MW004-051315	**Inj Vol**	20

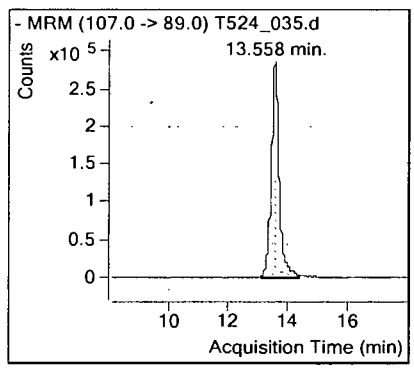


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.535	1754283	5387623
Perchlorate_102	PER_IS_108	13.562	547952	5387623

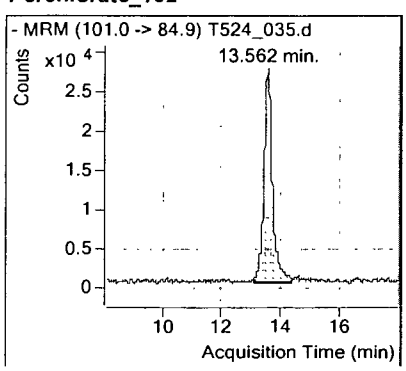
Perchlorate_100

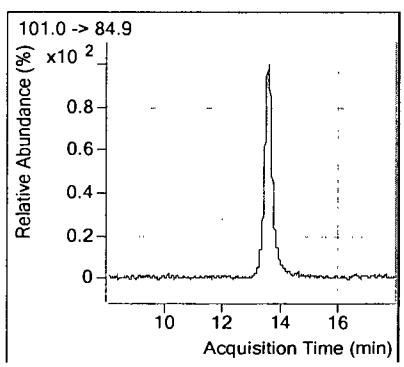


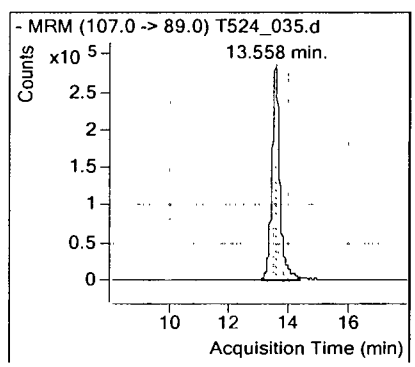




Perchlorate_102







Perchlorate

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APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW005-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16340
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	0.58 J	0.60	0.400	0.200	ug/L	05/18/15	05/24/15

J = Estimated value.

Quant Method: QTLMFL2
Run #: T523_038.d
Instrument: AGIL_6460
Sequence: TQ052315
Dilution Factor: 1
Initials: RP

Printed: 06/18/15 12:50:26 PM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T523_038.d

Date Injected : 05/24/15

Time Injected : 3:03

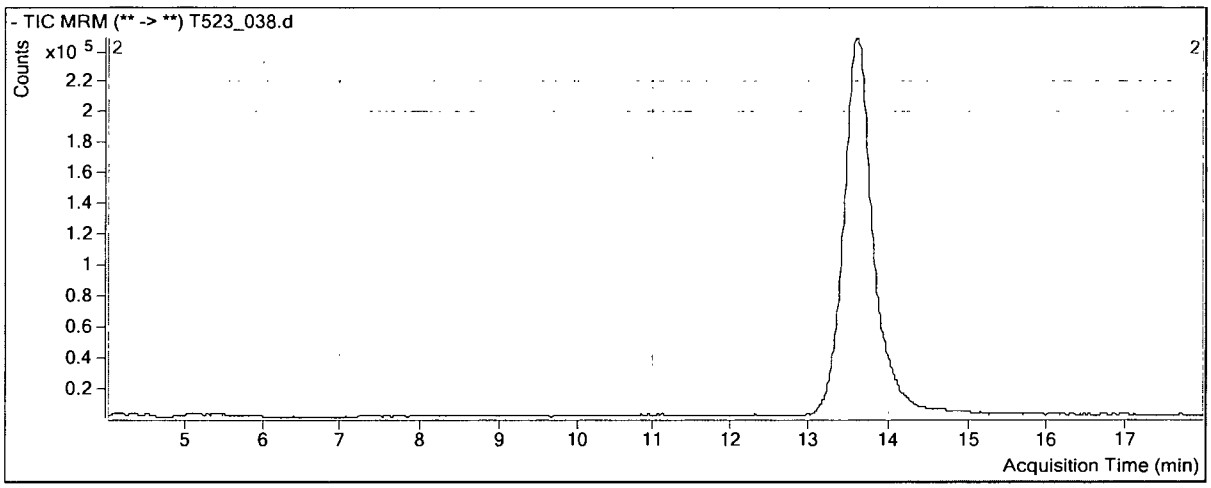
Sample ID : AZ16340_W04 1052.6 DF 05/18/15

Client ID : S67-MW005-051315

Retention Time	Area Count Response	Compound_ID Product Ion		
13.64	5312270	PER_IS_89		
13.606	749200	Perchlorate_83	(749200 * 0.0050) / (1.27 * 5312270.00) * 1052.60 =	0.584332 ppb
13.623	258064	Perchlorate_85	(258064 * 0.0050) / (0.39 * 5312270.00) * 1052.60 =	0.652879 ppb

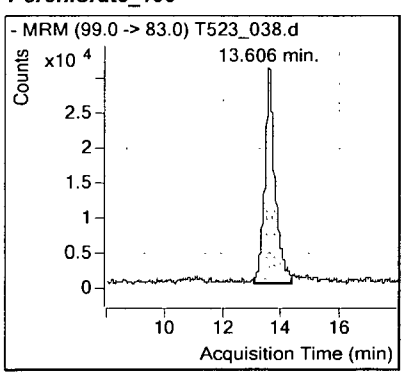
Quantitative Analysis Sample Report

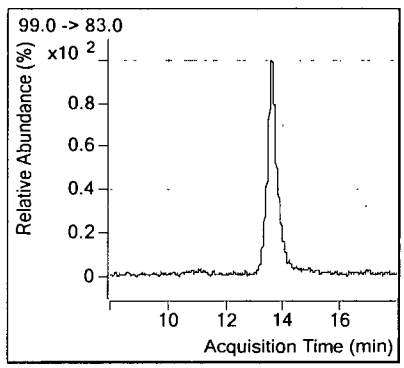
Batch Data Path	D:\MassHunter\Data\150523\QuantResults\150523_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T523_038.d	**Sample Name**	AZ16340_W04 1052.6 DF 05/18/15
Sample Type	Sample	**Acq_Date**	05/24/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	3:03
ClientID	S67-MW005-051315	**Inj Vol**	20

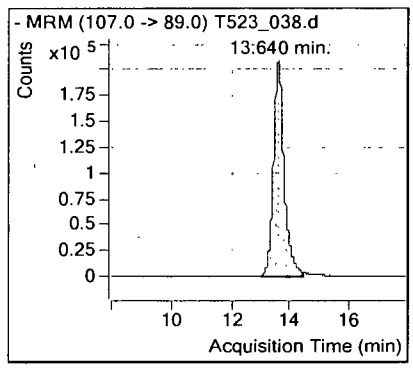


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.606	749200	5312270
Perchlorate_102	PER_IS_108	13.623	258064	5312270

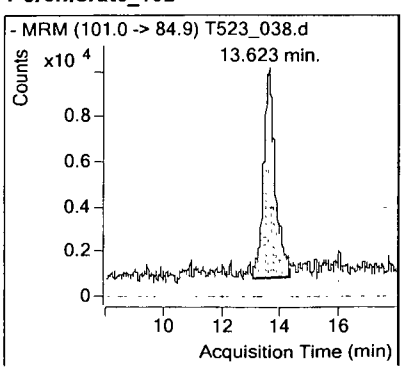
Perchlorate_100

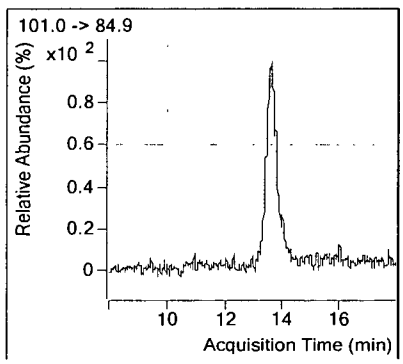


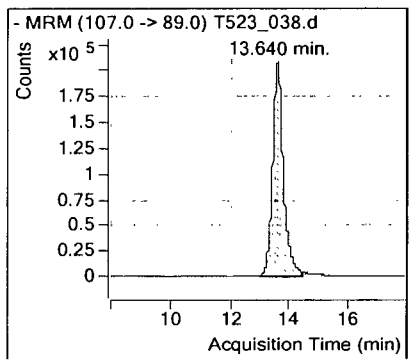




Perchlorate_102







Perchlorate

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW014-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16341
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	410	60	40.0	20.0	ug/L	05/18/15	05/24/15

Quant Method: QTLMFL2
Run #: T524_028.d
Instrument: AGIL_6460
Sequence: TQ052415
Dilution Factor: 100
Initials: RP

Printed: 06/19/15 9:28:08 AM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T524_028.d

Date Injected : 05/24/15

Time Injected : 22:25

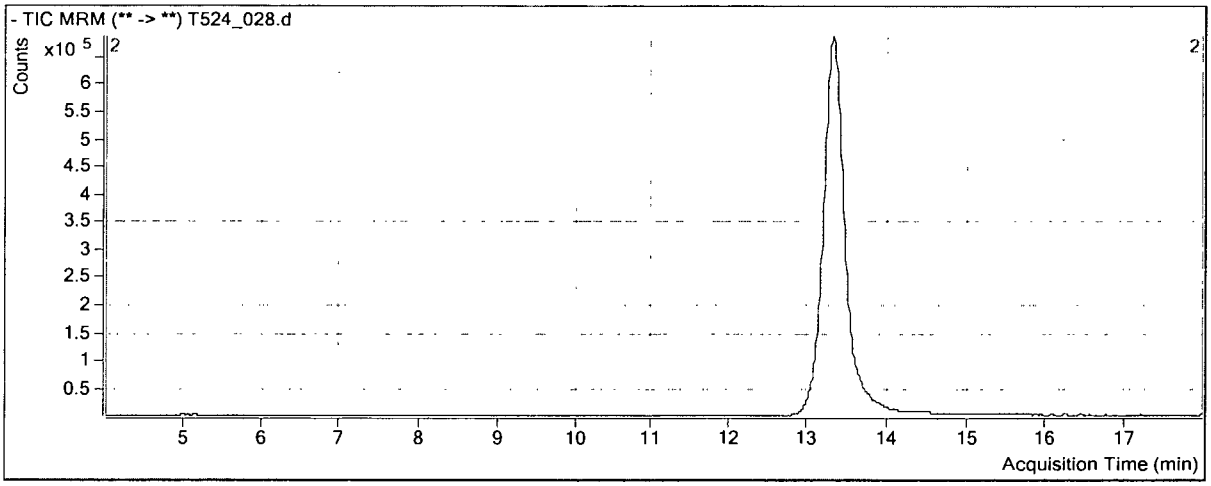
Sample ID : AZ16341_W04 105263.2 DF 05/18/15_5/24

Client ID : S67-MW014-051315

Retention Time	Area Count Response	Compound_ID Product Ion			
13.334	5695200	PER_IS_89			
13.351	5610654	Perchlorate_83	(5610654 * 0.0050) / (1.27 * 5695200.00) *	105263.20 =	408.187848 ppb
13.358	1650413	Perchlorate_85	(1650413 * 0.0050) / (0.39 * 5695200.00) *	105263.20 =	389.477165 ppb

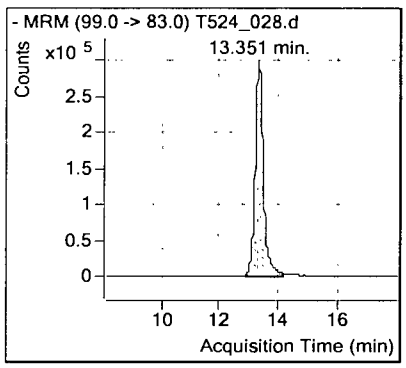
Quantitative Analysis Sample Report

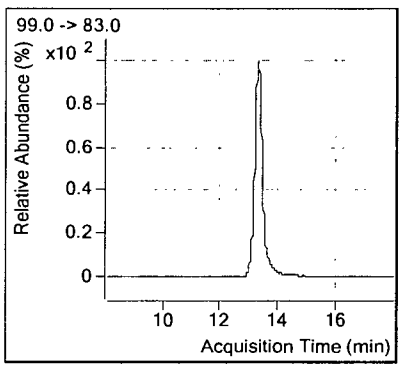
Batch Data Path	D:\MassHunter\Data\150524\QuantResults\150524_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T524_028.d	**Sample Name**	AZ16441_W04 105263.2 DF 05/18/15_5/24
Sample Type	Sample	**Acq_Date**	05/24/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	22:25
ClientID	S67-MW014-051315	**Inj Vol**	20

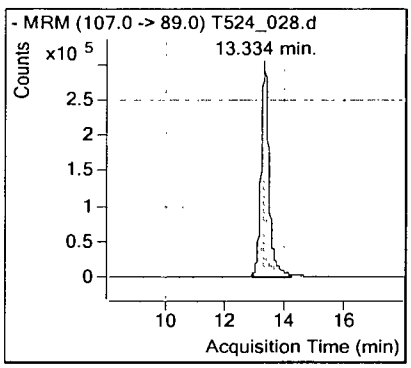


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.351	5610654	5695200
Perchlorate_102	PER_IS_108	13.358	1650413	5695200

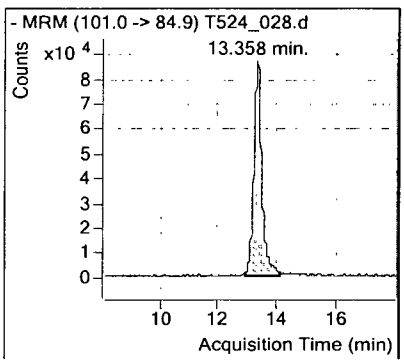
Perchlorate_100

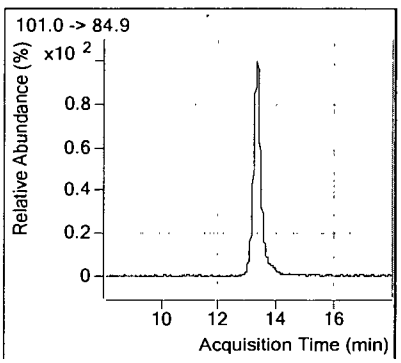


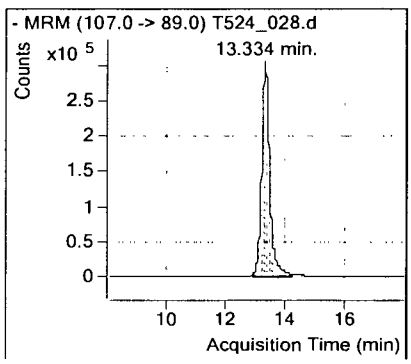




Perchlorate_102







Perchlorate

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004P-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16342
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	110	60	40.0	20.0	ug/L	05/18/15	05/25/15

Quant Method: QTLMFL2
Run #: T524_037.d
Instrument: AGIL_6460
Sequence: TQ052415
Dilution Factor: 100
Initials: RP

Printed: 06/19/15 9:28:08 AM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T524_037.d

Date Injected : 05/25/15

Time Injected : 1:13

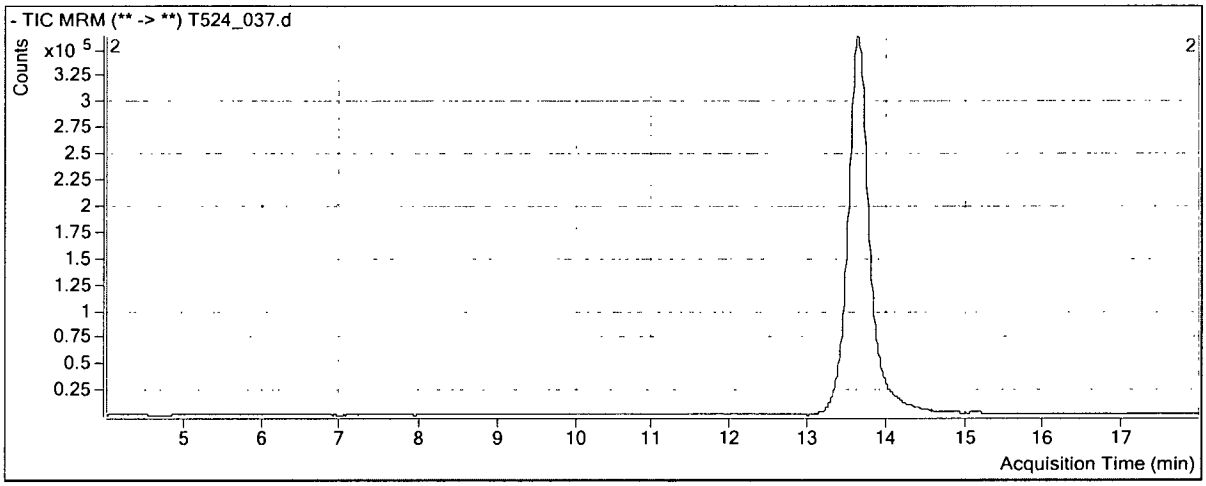
Sample ID : AZ16342_W04 105263.2 DF 05/18/15_5/24

Client ID : S67-MW004P-051315

Retention Time	Area Count Response	Compound_ID Product Ion				
13.65	5186692	PER_IS_89				
13.667	1395075	Perchlorate_83	(1395075 * 0.0050) / (1.27 * 5186692.00) *	105263.20 =	111.445532	ppb
13.654	421995	Perchlorate_85	(421995 * 0.0050) / (0.39 * 5186692.00) *	105263.20 =	109.349094	ppb

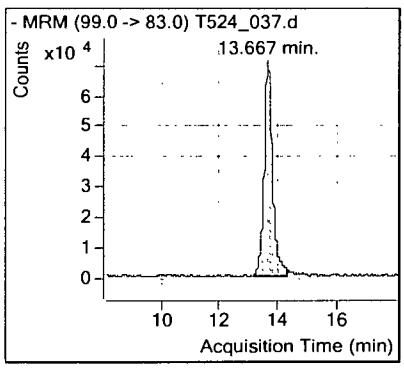
Quantitative Analysis Sample Report

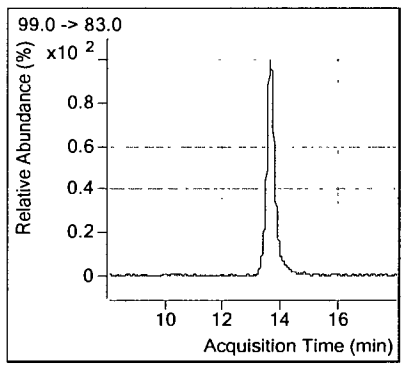
Batch Data Path	D:\MassHunter\Data\150524\QuantResults\150524_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T524_037.d	**Sample Name**	AZ16342_W04 105263.2 DF 05/18/15_5/24
Sample Type	Sample	**Acq_Date**	05/25/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	1:13
ClientID	S67-MW004P-051315	**Inj Vol**	20

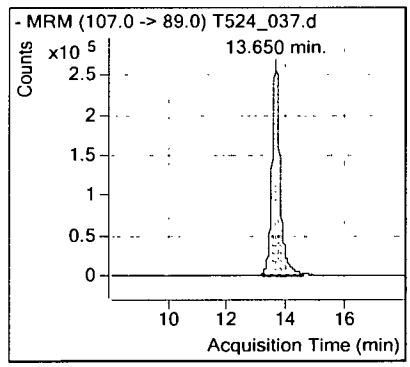


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.667	1395075	5186692
Perchlorate_102	PER_IS_108	13.654	421995	5186692

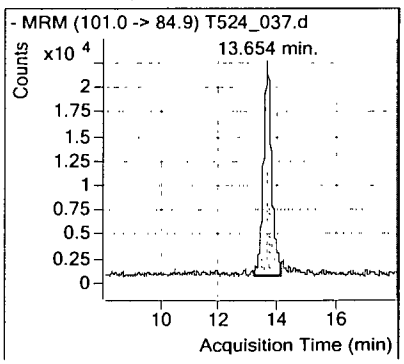
Perchlorate_100

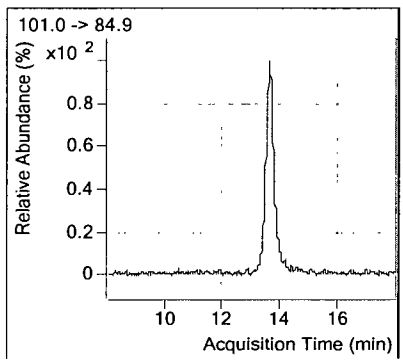


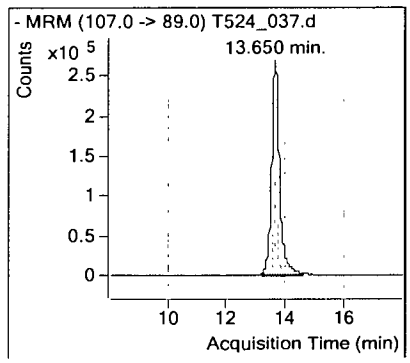




Perchlorate_102







Perchlorate

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-RB02-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16343
QCG: #6850-150518A-198054

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	05/18/15	05/24/15

Quant Method: QTLMFL2
Run #: T523_041.d
Instrument: AGIL_6460
Sequence: TQ052315
Dilution Factor: 1
Initials: RP

Printed: 06/18/15 12:50:26 PM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T523_041.d

Date Injected : 05/24/15

Time Injected : 3:59

Sample ID : AZ16343_W01 1052.6 DF 05/18/15

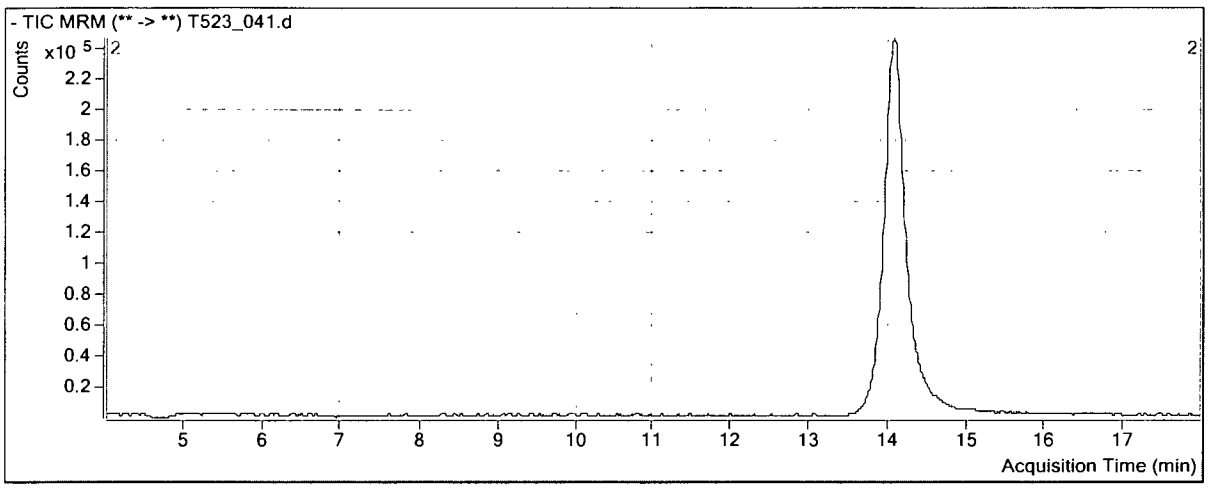
Client ID : S67-RB02-051315

Retention Time		Area Count Response	Compound_ID Product Ion			
14.098		4899032	PER_IS_89			
14.126	*	79506	Perchlorate_83	(79506 * 0.0050) / (1.27 * 4899032.00) *	1052.60 =	0.067241 ppb
12.961		2233	Perchlorate_85	(2233 * 0.0050) / (0.39 * 4899032.00) *	1052.60 =	0.006126 ppb

* MANUAL INTEGRAION

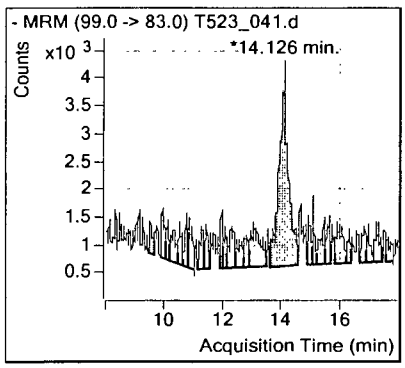
Quantitative Analysis Sample Report

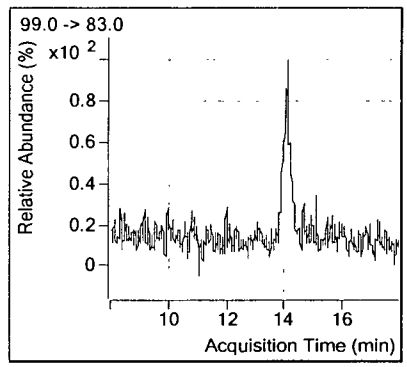
Batch Data Path	D:\MassHunter\Data\150523\QuantResults\150523_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T523_041.d	**Sample Name**	AZ16343_W01 1052.6 DF 05/18/15
Sample Type	Sample	**Acq_Date**	05/24/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	3:59
ClientID	S67-RB02-051315	**Inj Vol**	20

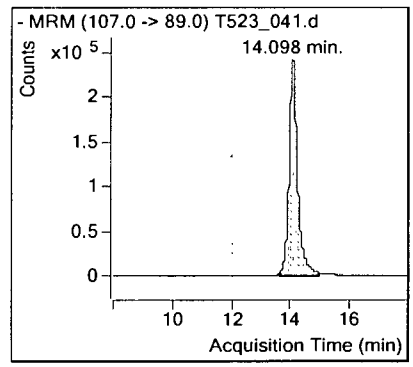


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	14.126	79506	4899032	* MANUAL INT
Perchlorate_102	PER_IS_108		12.961	2233	4899032	

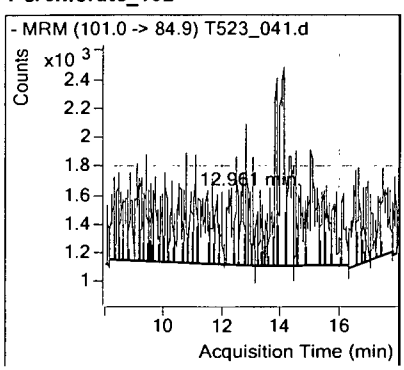
Perchlorate_100

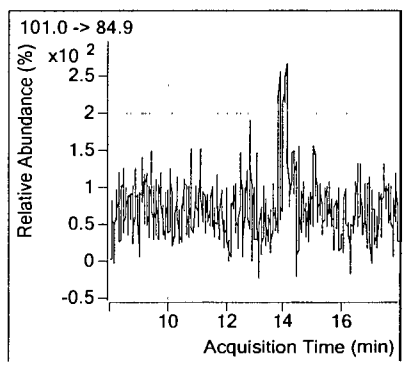


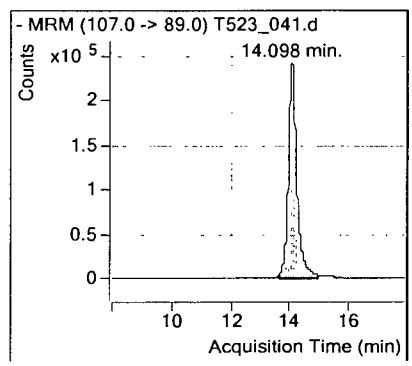


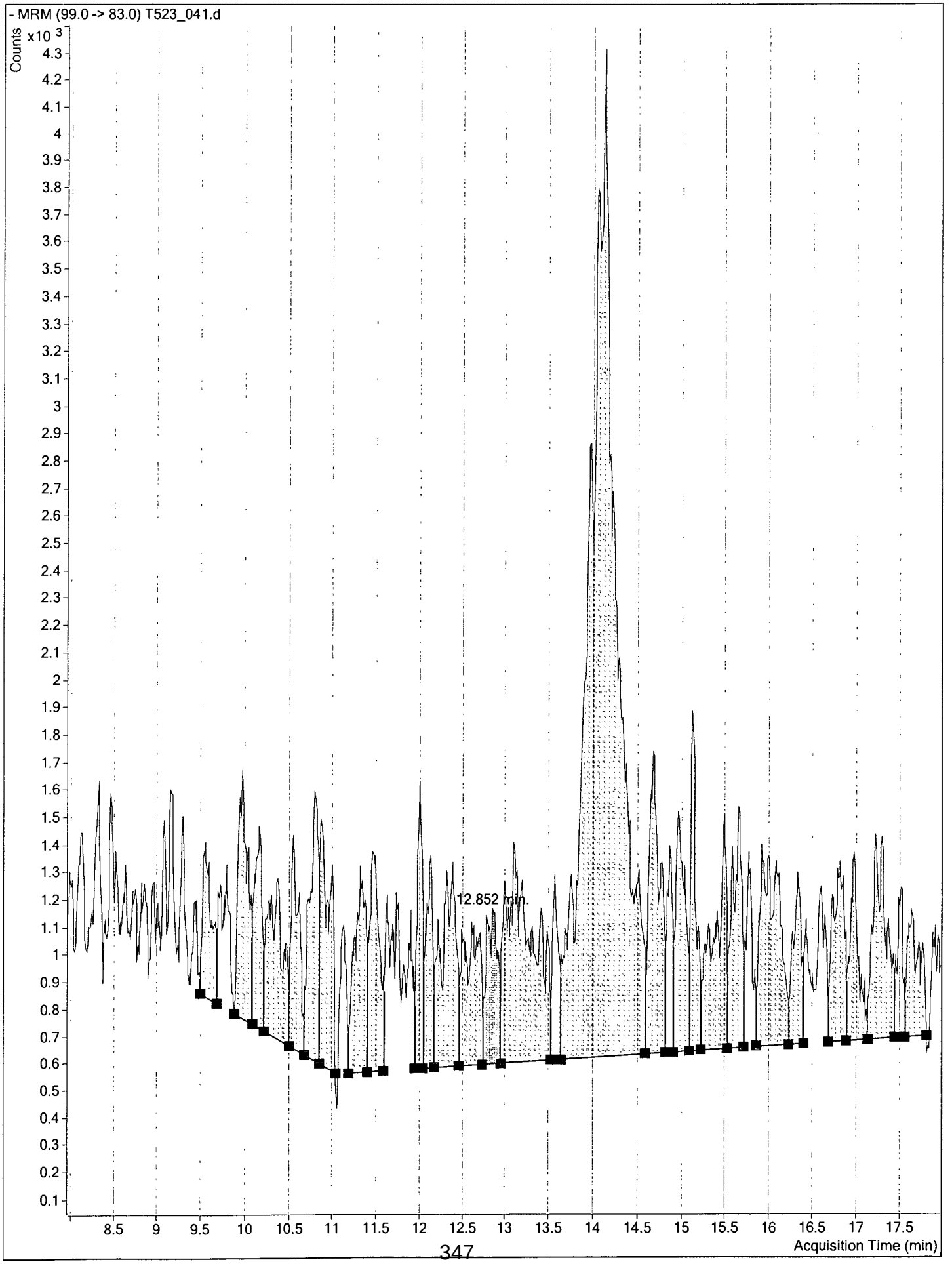


Perchlorate_102





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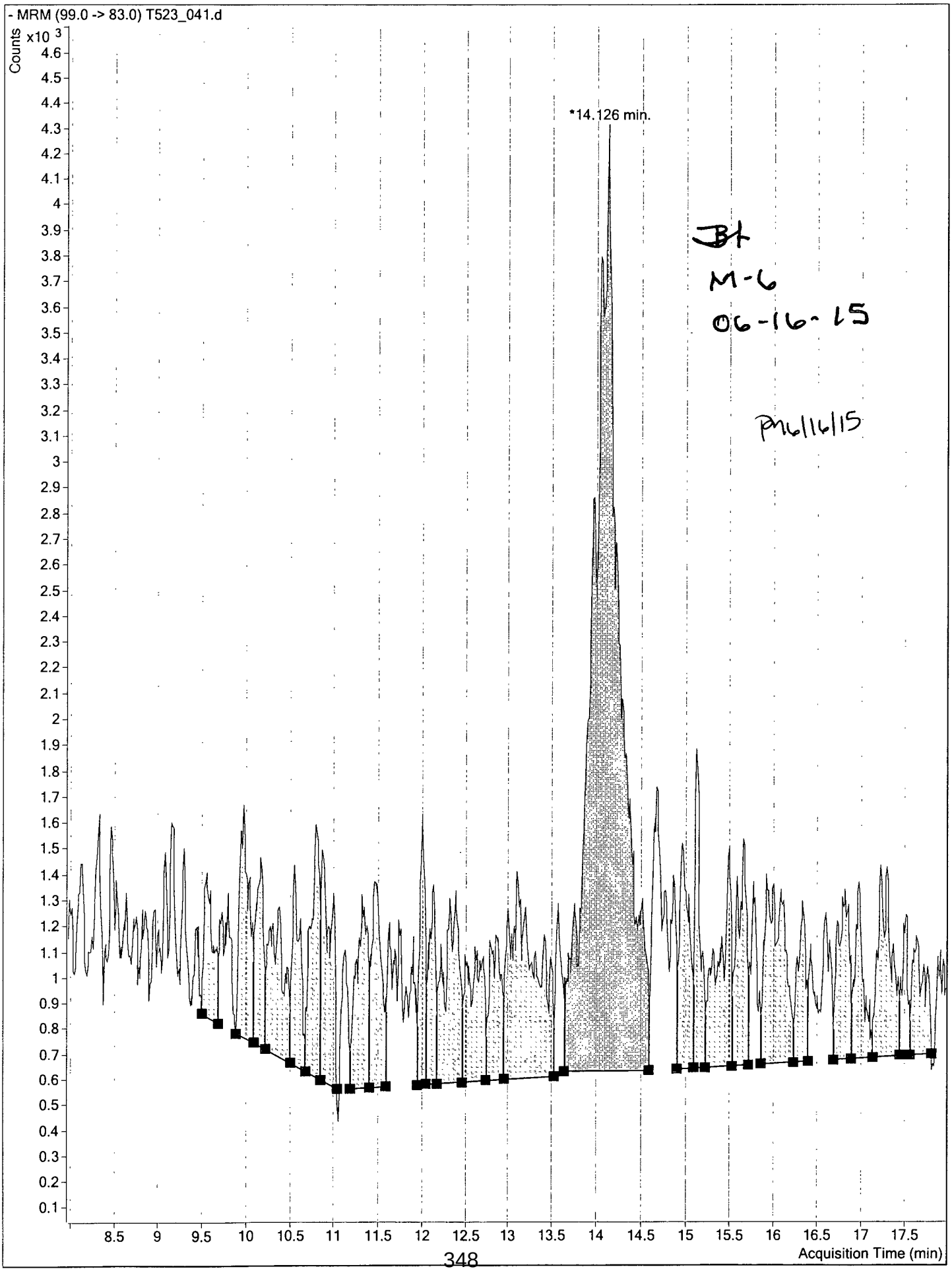
Counts
x10 3
12.852 min.
Acquisition Time (min)


- MRM (99.0 -> 83.0) T523_041.d
Counts
x10 3
*14.126 min.
Acquisition Time (min)
JH
M-6
06-16-15
PM 6/16/15

EPA METHOD 6850
Perchlorate
LC/MS

Calibration Data

APPL, INC.

METHOD 6850 CALIBRATION SUMMARY

Lab Name: APPL Inc. **DETECTOR ID : Agilent 6460 Triple Quad LC/MS**

Average Relative Response Factor Summary

Analyte Id:	R.R.F.#1 PERCHLORATE 0.0002 PPM	R.R.F.#2 PERCHLORATE 0.0004 PPM	R.R.F.#3 PERCHLORATE 0.001 PPM	R.R.F.#4 PERCHLORATE 0.002 PPM	R.R.F.#5 PERCHLORATE 0.005 PPM	R.R.F.#6 PERCHLORATE 0.010 PPM	AVERAGE REL.RESP. FACTOR	%RSD RRF
Perchlorate_83	1.339537	1.198791	1.165697	1.173646	1.314663	1.429198	1.270255	8.44
Perchlorate_85	0.434068	0.395112	0.366889	0.354937	0.381638	0.416989	0.391605	7.67

FILE ID : TQ0312A.FRB

Perchlorate_83

RESPONSE FACTOR CALCULATIONS - AREA COUNTS

DATA FILES : T312_003.d - T312_008.d

The Data points that were Read Were

Standard Response	Standard Concentration µg/ml	Internal Standard Response	Internal Standard Concentration µg/ml	Response Factor	RPD	%RSD
446712.00	0.0002	8337058.00	0.0050	1.339537	5.45	8.44
1023403.00	0.0004	10671196.00	0.0050	1.198791	5.63	
2483393.00	0.0010	10651968.00	0.0050	1.165697	8.23	
6351752.00	0.0020	13529952.00	0.0050	1.173646	7.61	
14499255.00	0.0050	11028880.00	0.0050	1.314663	3.50	
34223790.00	0.0100	11973072.00	0.0050	1.429198	12.51	

The Average Response Factor = 1.270255

Perchlorate_85

RESPONSE FACTOR CALCULATIONS - AREA COUNTS

DATA FILES : T312_003.d - T312_008.d

The Data points that were Read Were

Standard Response	Standard Concentration µg/ml	Internal Standard Response	Internal Standard Concentration µg/ml	Response Factor	RPD	%RSD
144754.00	0.0002	8337058.00	0.0050	0.434068	10.84	7.67
337305.00	0.0004	10671196.00	0.0050	0.395112	0.90	
781617.00	0.0010	10651968.00	0.0050	0.366889	6.31	
1920912.00	0.0020	13529952.00	0.0050	0.354937	9.36	
4209044.00	0.0050	11028880.00	0.0050	0.381638	2.55	
9985270.00	0.0100	11973072.00	0.0050	0.416989	6.48	

The Average Response Factor = 0.391605

Data File ID: T312_002.d

Date Injected : 03/12/15

Time Injected : 17:33

Sample ID : PERCHLORATE 0.0001 ug/ml 11/11/14

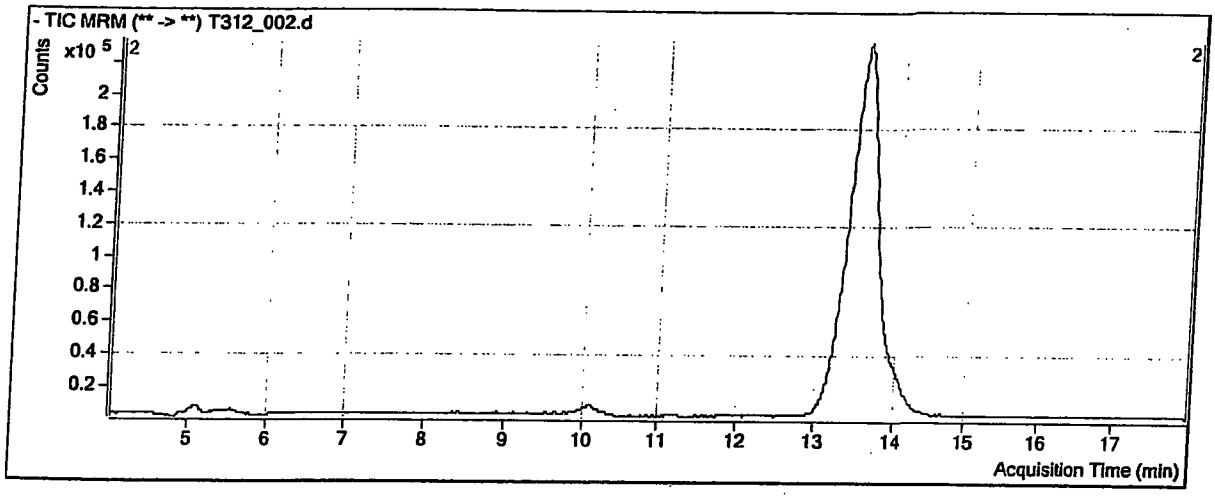
Client ID : NA

Retention Time		Area Count Response	Compound_ID Product Ion
13.548		5980396	PER_IS_89
13.504	*	237168	Perchlorate_83
13.541	*	77486	Perchlorate_85

* MANUAL INTEGRAION

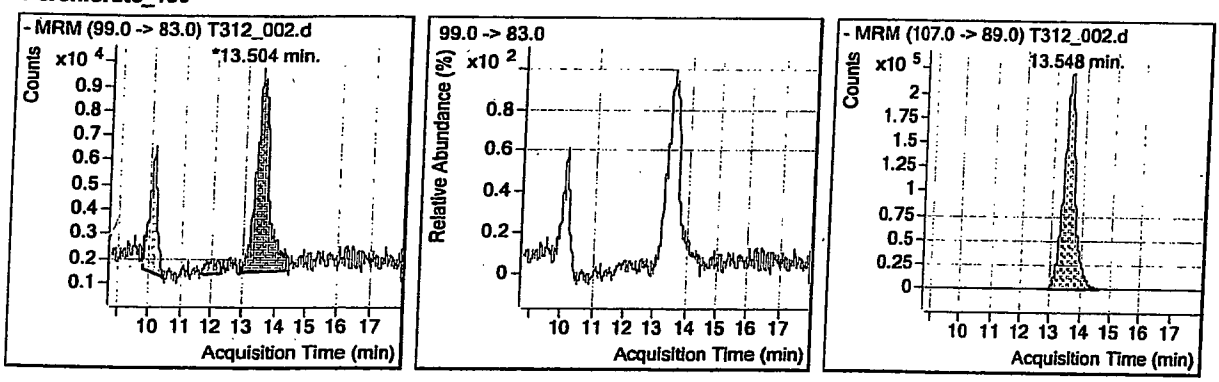
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_002.d	**Sample Name**	PERCHLORATE 0.0001 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	17:33
ClientID	NA	**Inj Vol**	20

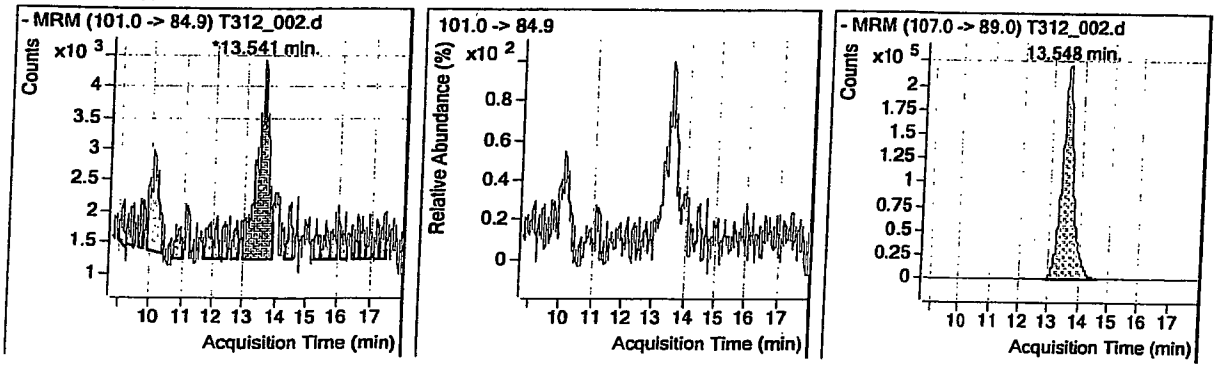


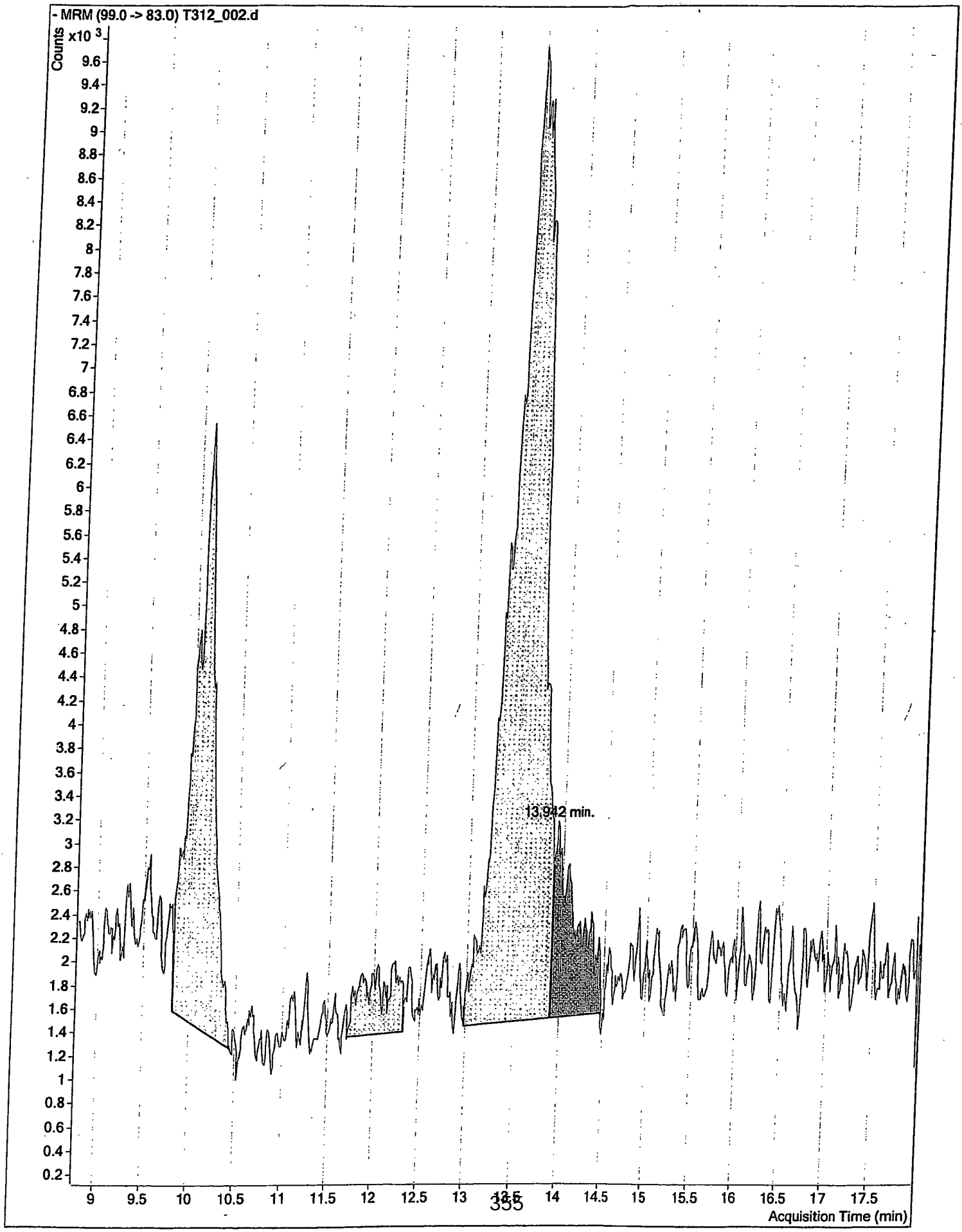
Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	13.504	237168	5980396	* MANUAL INT
Perchlorate_102	PER_IS_108	*	13.541	77486	5980396	* MANUAL INT

Perchlorate_100



Perchlorate_102

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Counts
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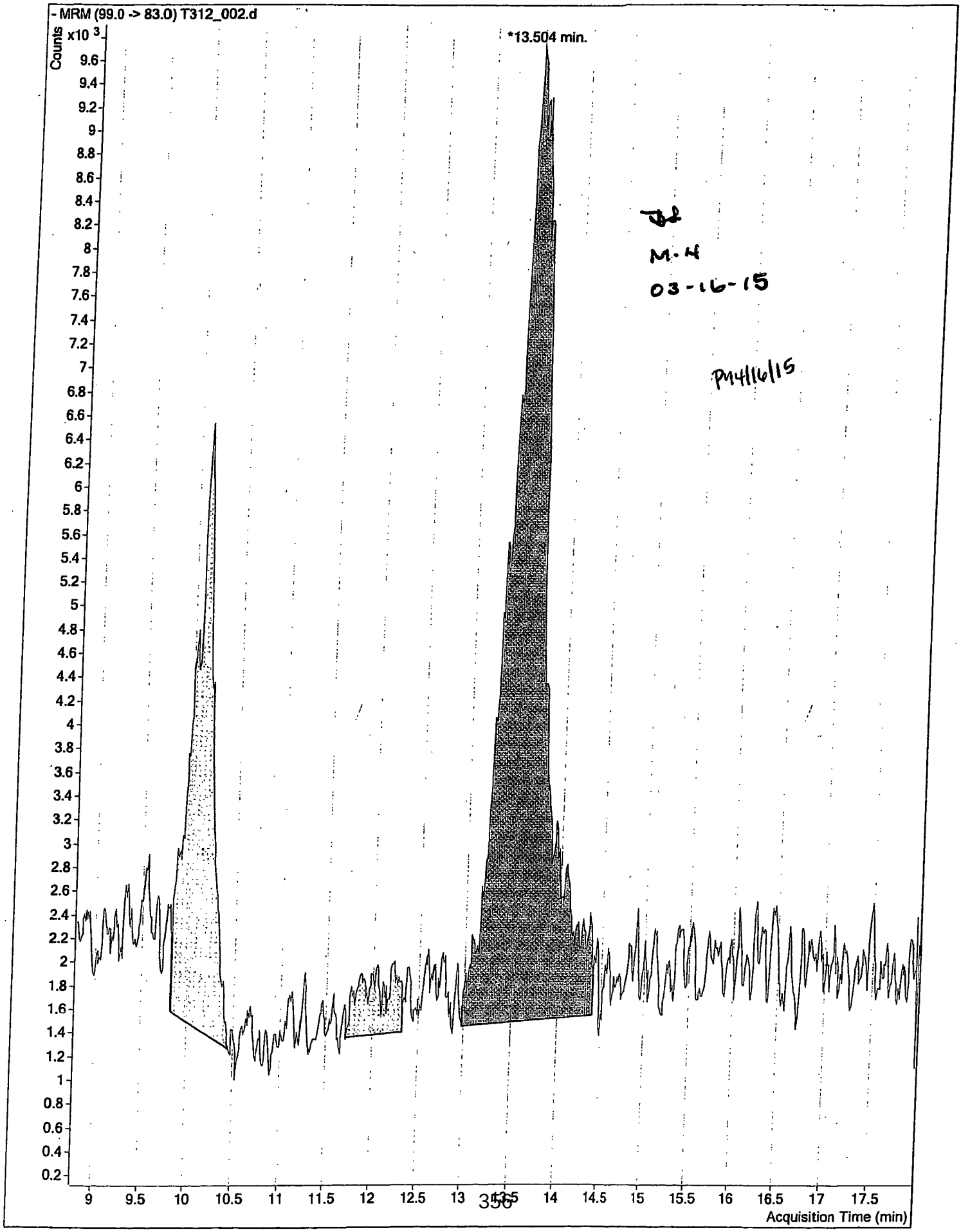
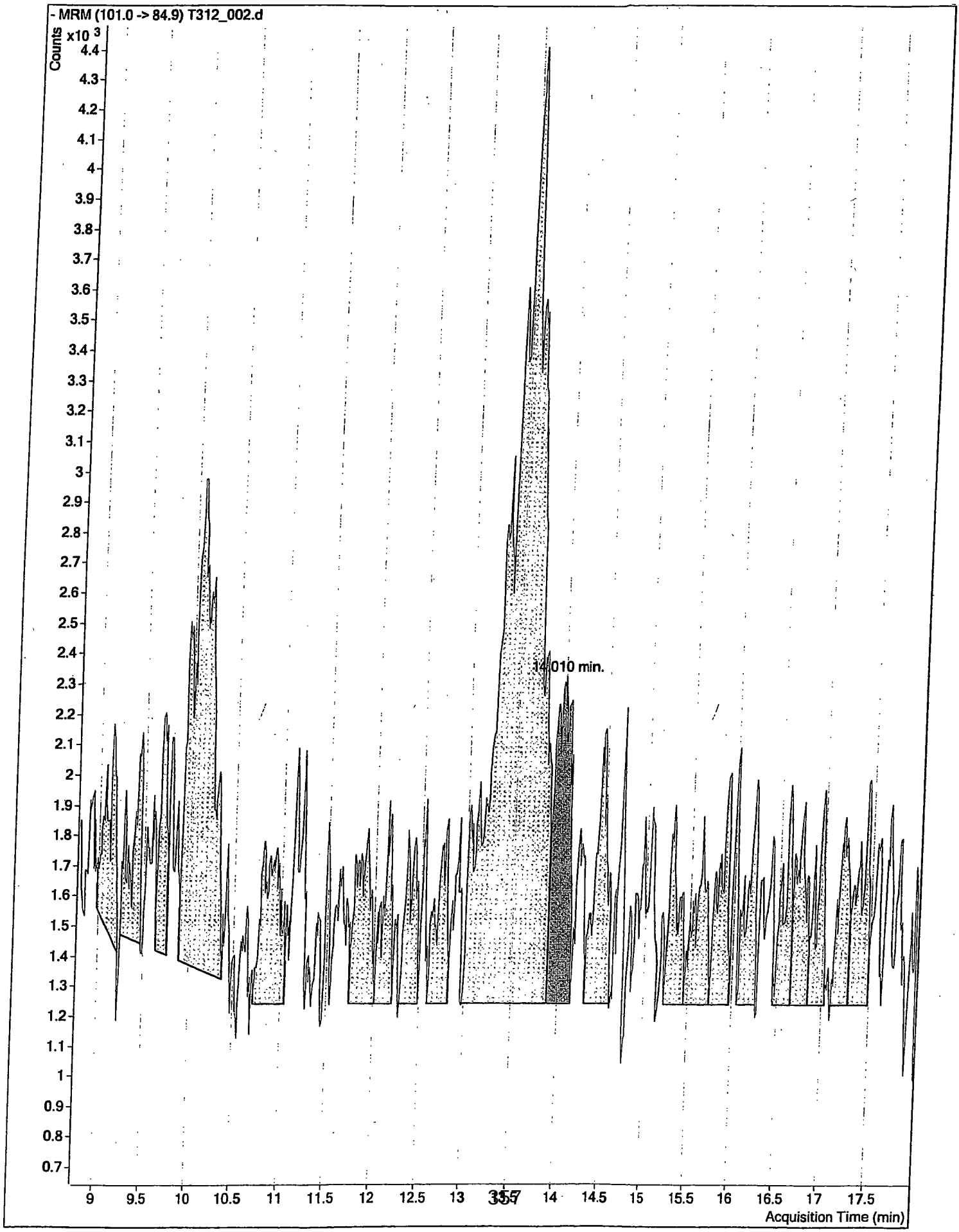
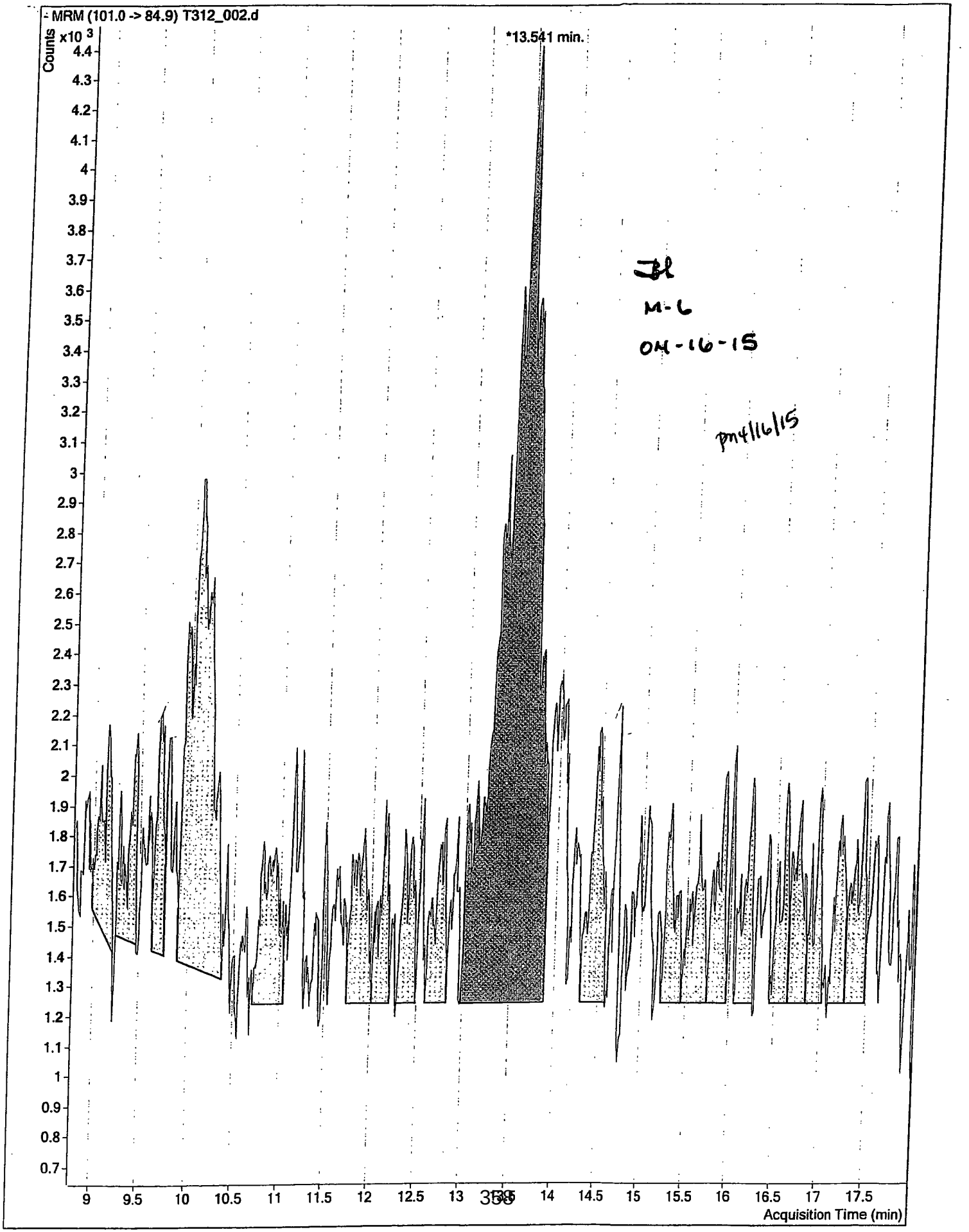
Acquisition Time (min)


- MRM (99.0 -> 83.0) T312_002.d
Counts
x10 3
*13.504 min.
M.H
03-16-15
PM 4/16/15
Acquisition Time (min)


- MRM (101.0 -> 84.9) T312_002.d
Counts
x10 3
4.4
4.3
4.2
4.1
4
3.9
3.8
3.7
3.6
3.5
3.4
3.3
3.2
3.1
3
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
14.010 min.
9
9.5
10
10.5
11
11.5
12
12.5
13
13.5
14
14.5
15
15.5
16
16.5
17
17.5
Acquisition Time (min)


MRM (101.0 -> 84.9) T312_002.d
Counts
x10 3
*13.541 min.
Acquisition Time (min)
JL
M-6
OM-16-15
pm 4/16/15

Data File ID: T312_004.d

Date Injected : 03/12/15

Time Injected : 18:11

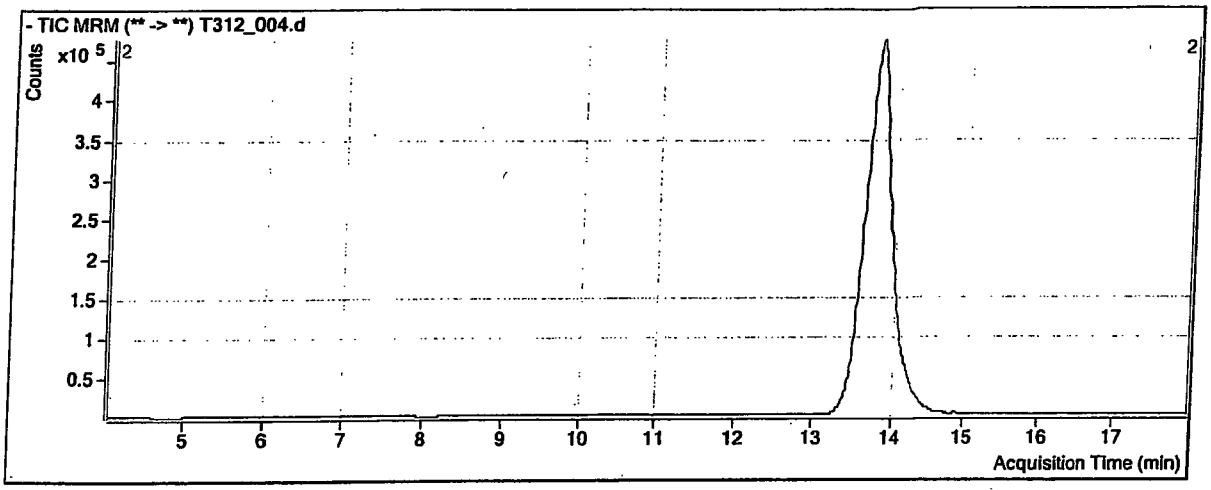
Sample ID : PERCHLORATE 0.0004 ug/ml 11/11/14

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.783	10671196	PER_IS_89
13.8	1023403	Perchlorate_83
13.827	337305	Perchlorate_85

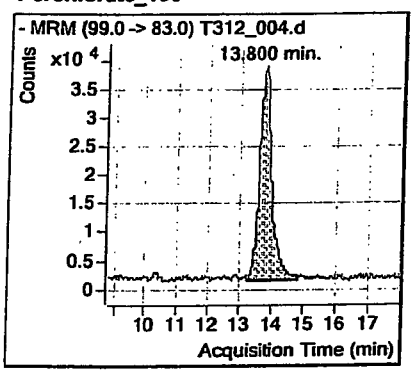
Quantitative Analysis Sample Report

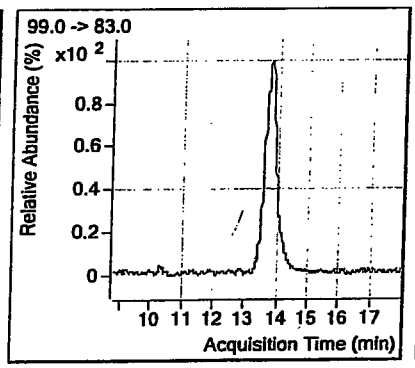
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_004.d	**Sample Name**	PERCHLORATE 0.0004 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	18:11
ClientID	NA	**Inj Vol**	20

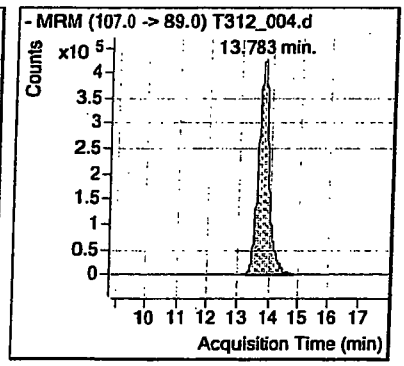


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.800	1023403	10671196
Perchlorate_102	PER_IS_108	13.827	337305	10671196

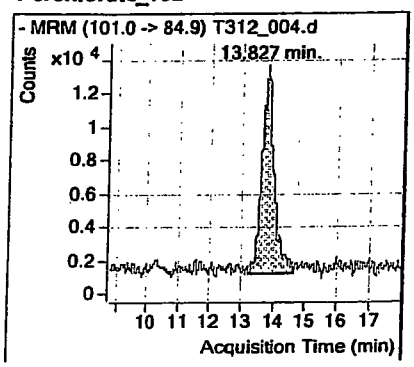
Perchlorate_100

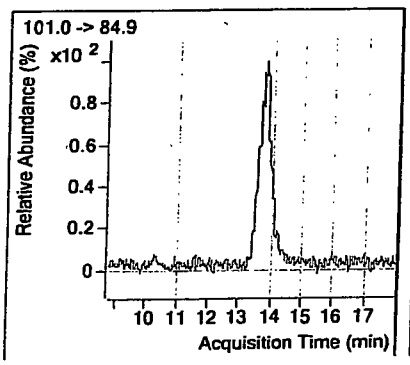


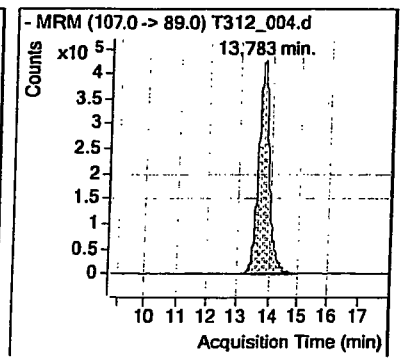




Perchlorate_102







Data File ID: T312_005.d

Date Injected : 03/12/15

Time Injected : 18:29

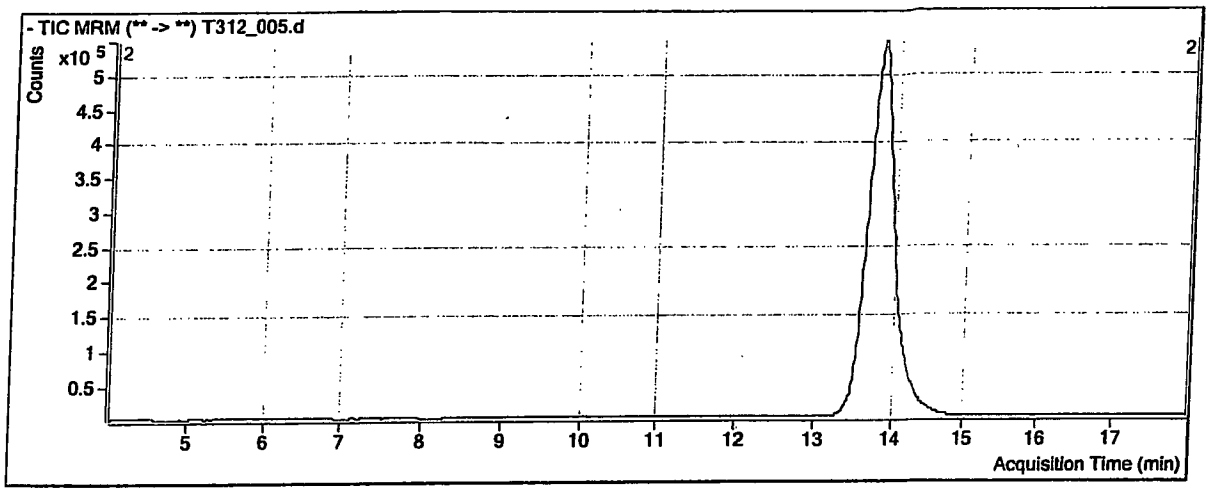
Sample ID : PERCHLORATE 0.001 ug/ml 11/11/14

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.803	10651968	PER_IS_89
13.82	2483393	Perchlorate_83
13.827	781617	Perchlorate_85

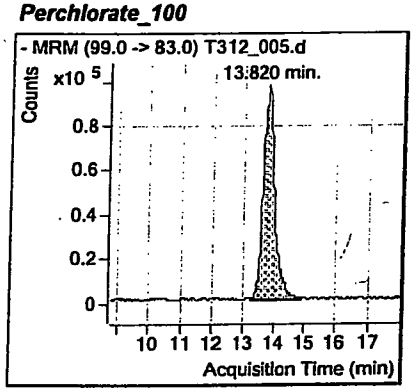
Quantitative Analysis Sample Report

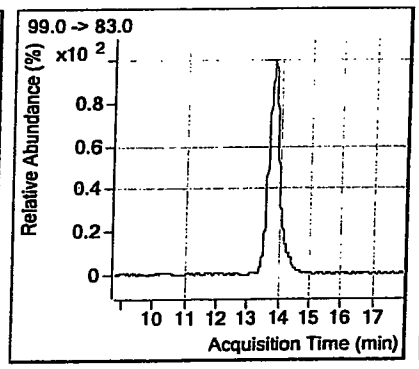
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_005.d	**Sample Name**	PERCHLORATE 0.001 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	18:29
ClientID	NA	**Inj Vol**	20

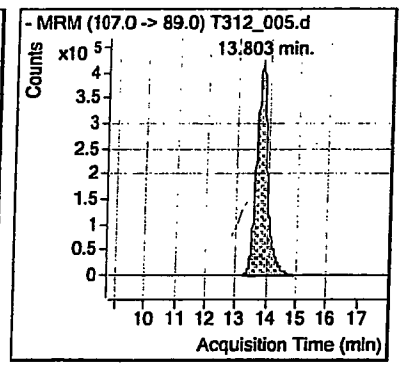


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.820	2483393	10651968
Perchlorate_102	PER_IS_108	13.827	781617	10651968

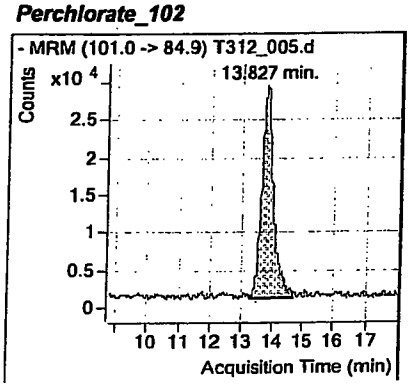
Perchlorate_100

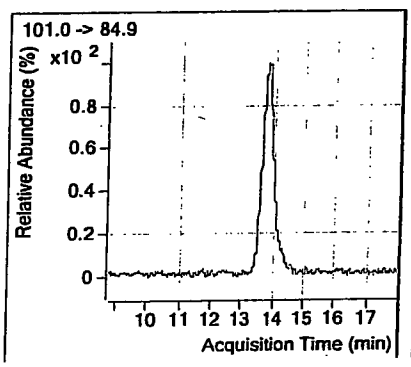


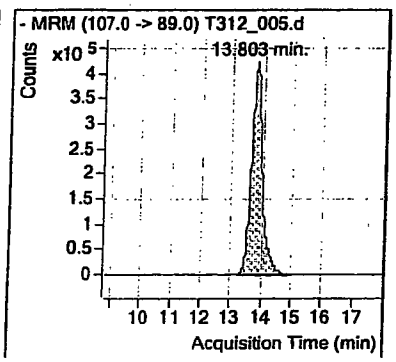




Perchlorate_102







Data File ID: T312_006.d

Date Injected : 03/12/15

Time Injected : 18:48

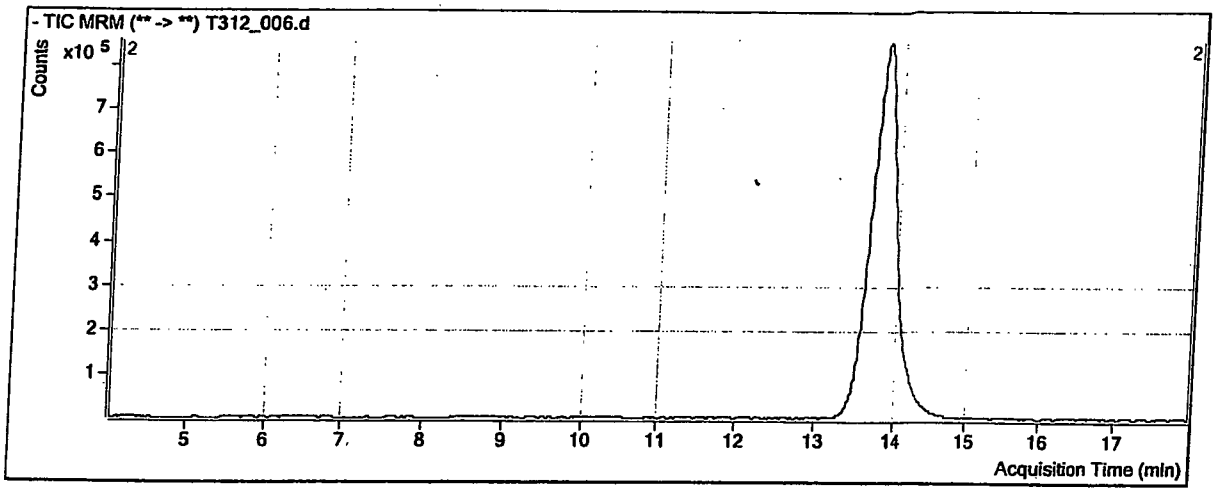
Sample ID : PERCHLORATE 0.002 ug/ml 11/11/14

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.803	13529952	PER_IS_89
13.83	6351752	Perchlorate_83
13.817	1920912	Perchlorate_85

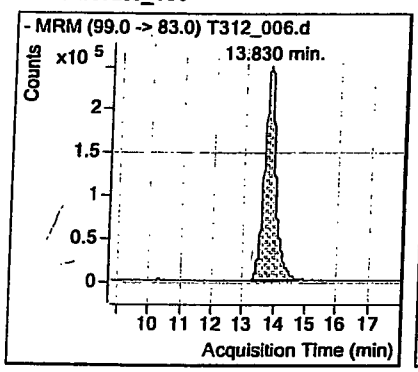
Quantitative Analysis Sample Report

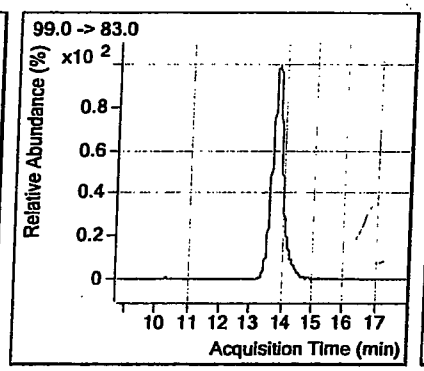
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_006.d	**Sample Name**	PERCHLORATE 0.002 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	18:48
ClientID	NA	**Inj Vol**	20

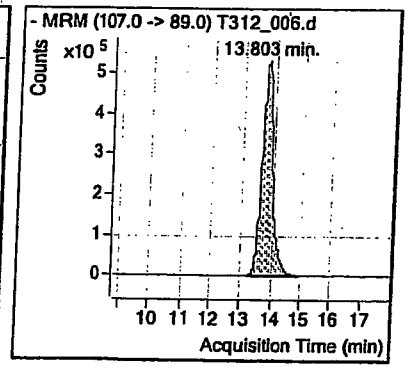


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.830	6351752	13529952
Perchlorate_102	PER_IS_108	13.817	1920912	13529952

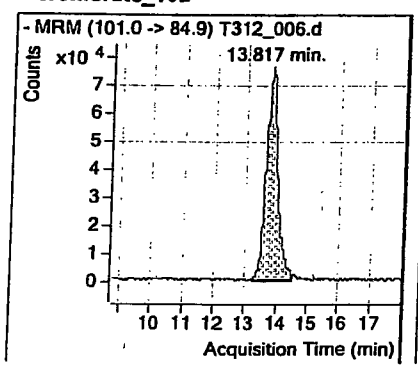
Perchlorate_100

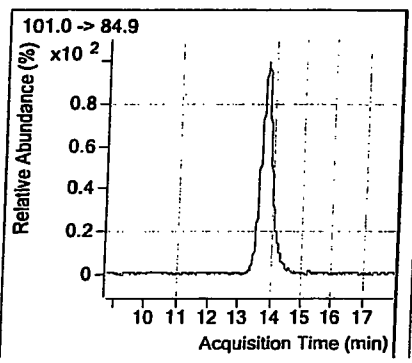


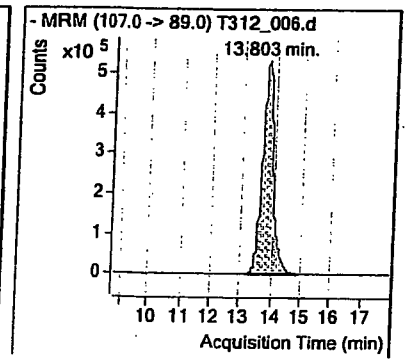




Perchlorate_102







Data File ID: T312_007.d

Date Injected : 03/12/15

Time Injected : 19:07

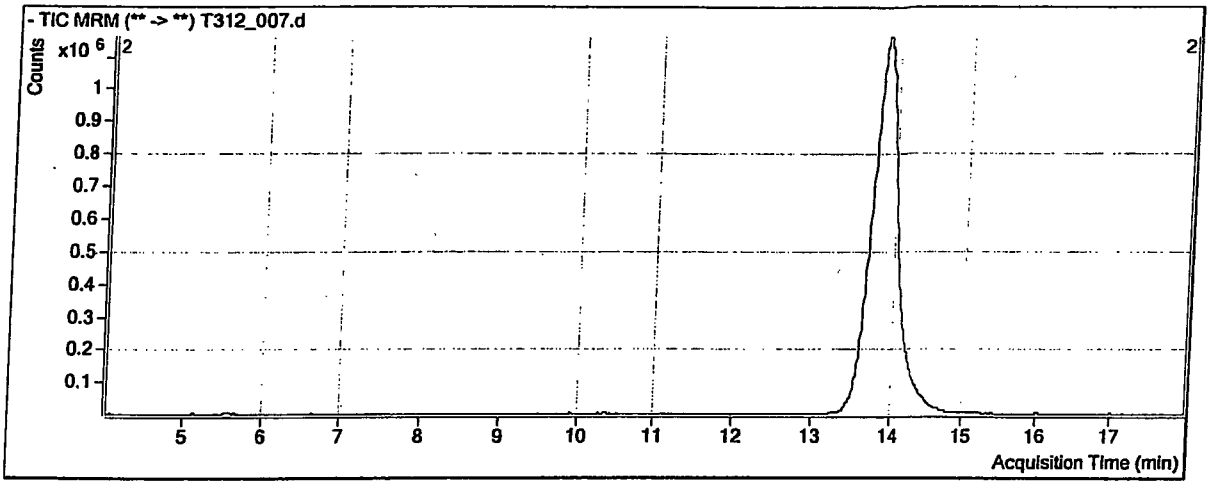
Sample ID : PERCHLORATE 0.005 ug/ml 11/11/14

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.874	11028880	PER_IS_89
13.861	14499255	Perchlorate_83
13.878	4209044	Perchlorate_85

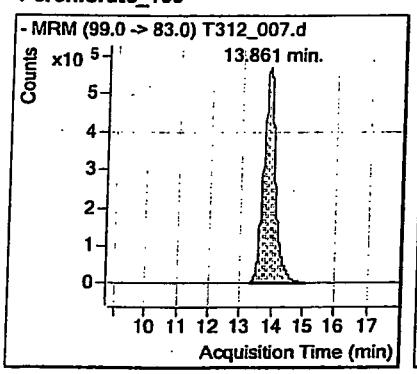
Quantitative Analysis Sample Report

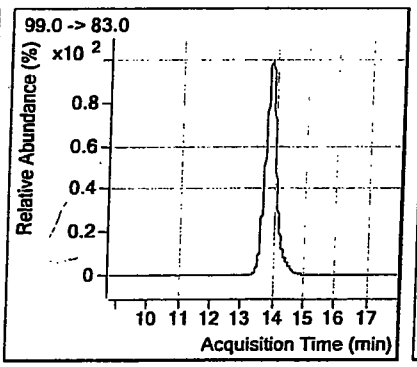
Batch-Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_007.d	**Sample Name**	PERCHLORATE 0.005 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	19:07
ClientID	NA	**Inj Vol**	20

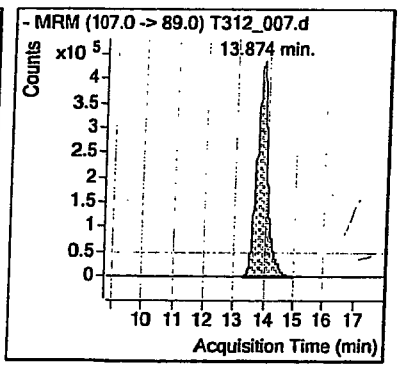


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.861	14499255	11028880
Perchlorate_102	PER_IS_108	13.878	4209044	11028880

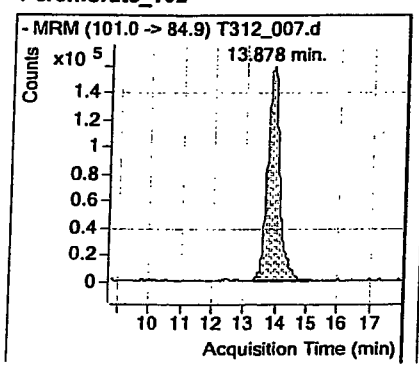
Perchlorate_100

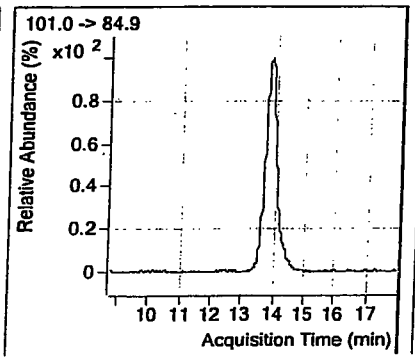


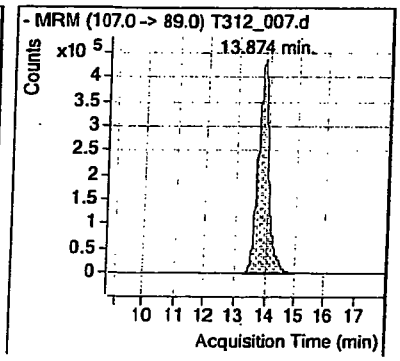




Perchlorate_102







Data File ID: T312_008.d

Date Injected : 03/12/15

Time Injected : 19:25

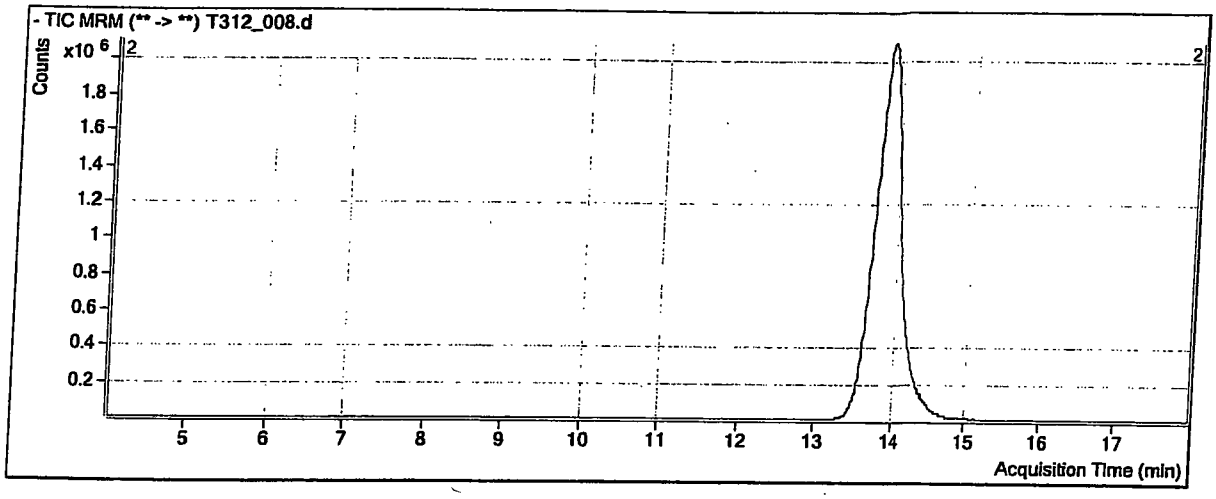
Sample ID : PERCHLORATE 0.010 ug/ml 08/27/14

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.874	11973072	PER_IS_89
13.881	34223790	Perchlorate_83
13.878	9985270	Perchlorate_85

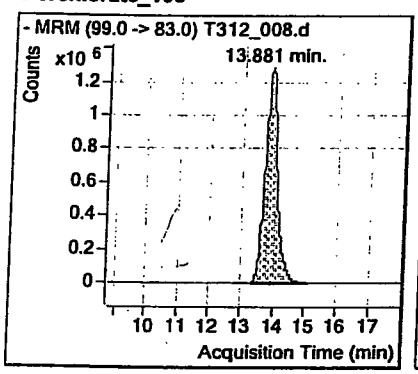
Quantitative Analysis Sample Report

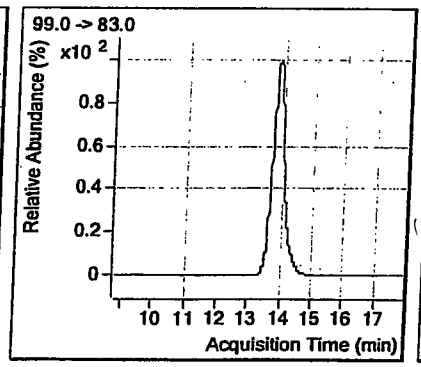
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_008.d	**Sample Name**	PERCHLORATE 0.010 ug/ml 08/27/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	19:25
ClientID	NA	**Inj Vol**	20

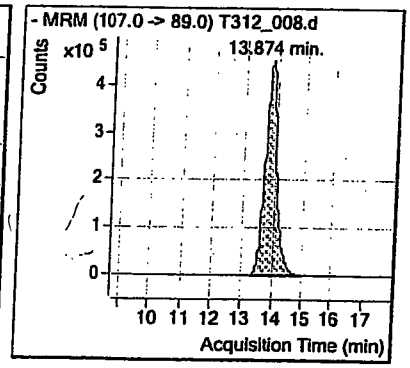


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.881	34223790	11973072
Perchlorate_102	PER_IS_108	13.878	9985270	11973072

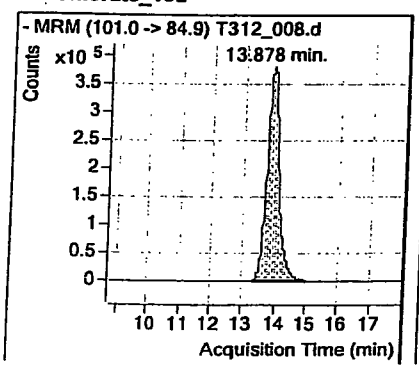
Perchlorate_100

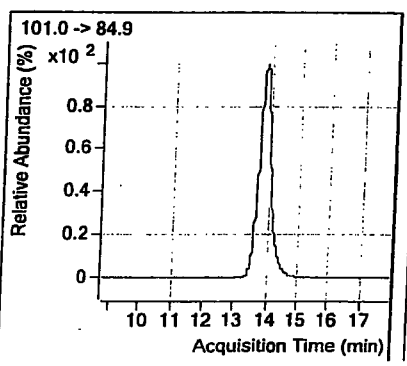


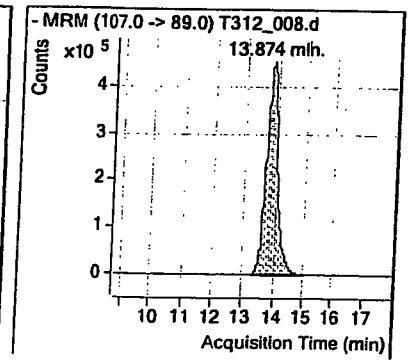




Perchlorate_102







SECOND SOURCE CALIBRATION VERIFICATION SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T312_010.d

	Date (s) of Analysis From:03/12/15 To:03/12/15 Time (s) of Analysis From:17:33 To:19:44				Date of Analysis: 03/12/15 Time of Analysis: 20:02 Standard Id: PER_SS (Standard) 0.0004ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.50	13.40	13.60	1.270255	13.94	1.418633	N	11.7
Perchlorate_85	13.54	13.44	13.64	0.391605	13.96	0.424457	N	8.4

ILE ID : TQCK1210.RFB

Data File ID: T312_010.d

Date Injected : 03/12/15

Time Injected : 20:02

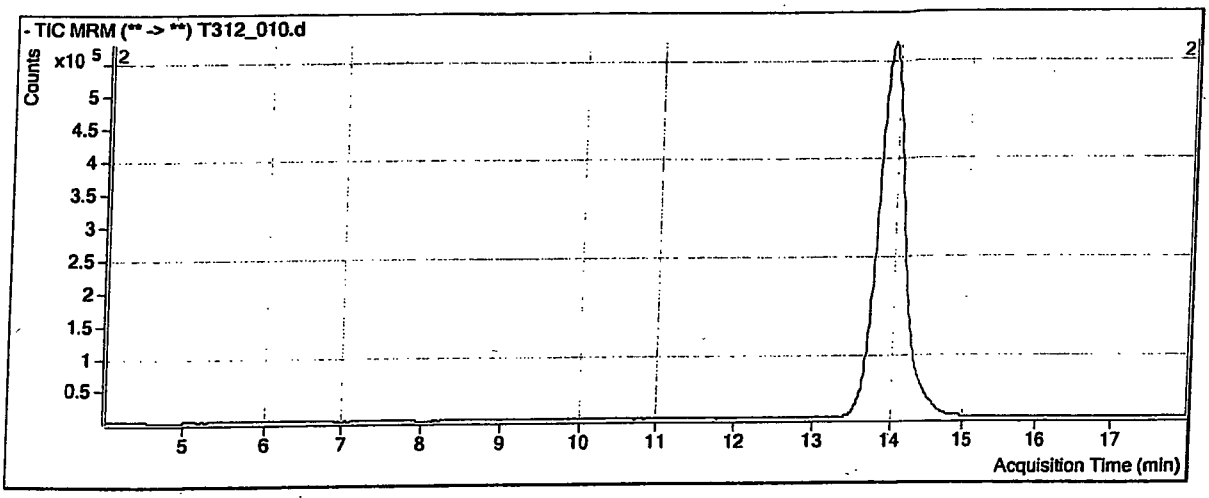
Sample ID : PER_SS 0.0004 ug/ml 11/11/14

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.946	12977621	PER_IS_89
13.942	1472839	Perchlorate_83
13.959	440675	Perchlorate_85

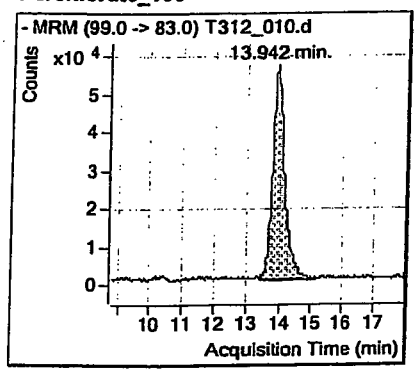
Quantitative Analysis Sample Report

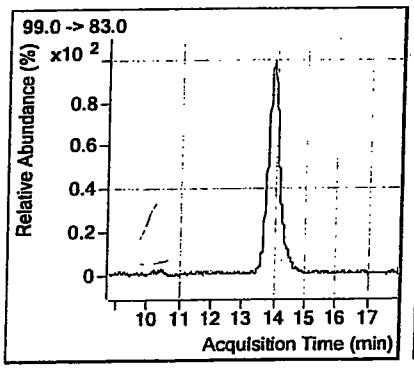
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_010.d	**Sample Name**	PER_SS 0.0004 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	20:02
ClientID	NA	**Inj Vol**	20

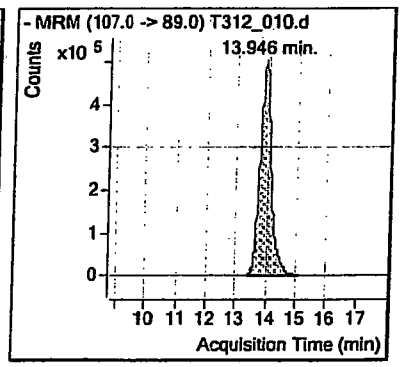


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.942	1472839	12977621
Perchlorate_102	PER_IS_108	13.959	440675	12977621

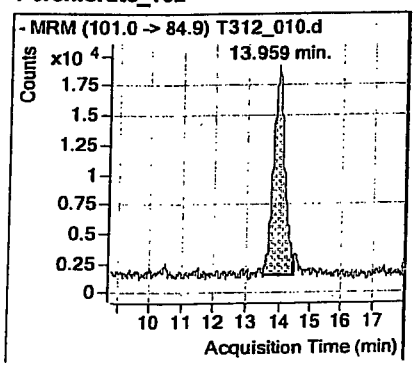
Perchlorate_100

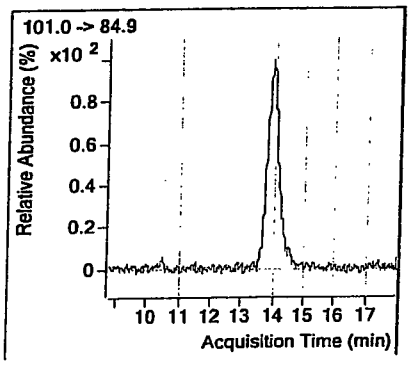


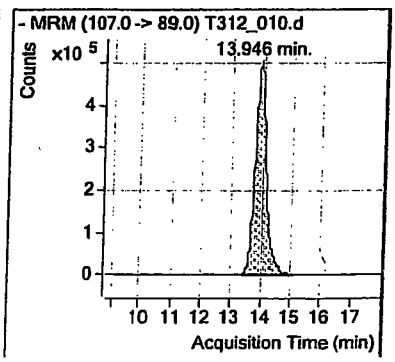




Perchlorate_102







SECOND SOURCE CALIBRATION VERIFICATION SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T312_011.d

	Date (s) of Analysis From:03/12/15 To:03/12/15 Time (s) of Analysis From:17:33 To:19:44				Date of Analysis: 03/12/15 Time of Analysis: 20:21 Standard Id: PER_SS (Standard) 0.002 ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.50	13.40	13.60	1.270255	14.01	1.358201	N	6.9
Perchlorate_85	13.54	13.44	13.64	0.391605	14.00	0.404148	N	3.2

FILE ID : TQCK1211.RFB

Data File ID: T312_011.d

Date Injected : 03/12/15

Time Injected : 20:21

Sample ID : PER_SS 0.002 ug/ml 11/11/14

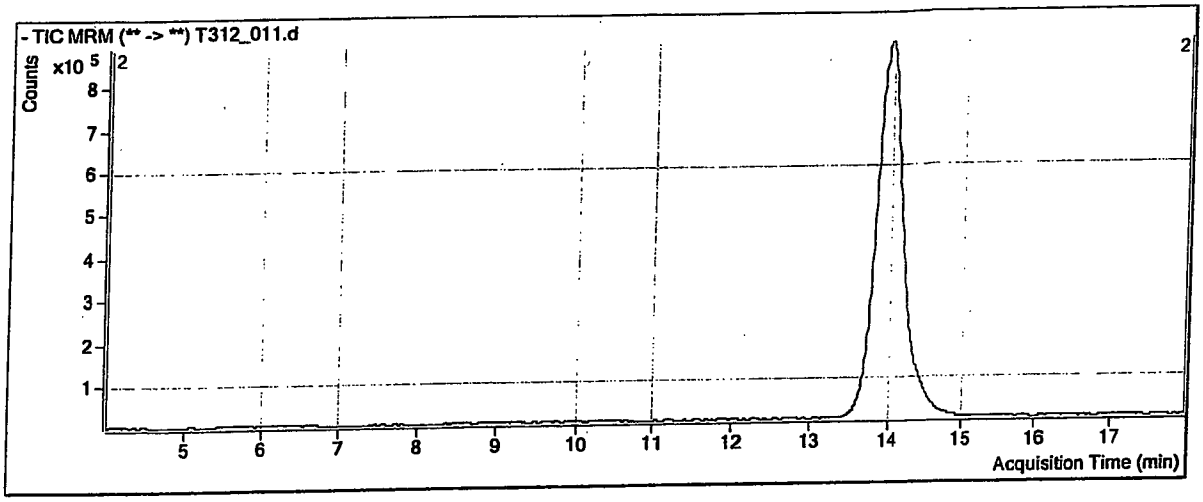
Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.976	13747369	PER_IS_89
14.014	7468678	Perchlorate_83
14.000	2222387	Perchlorate_85

Quantitative Analysis Sample Report

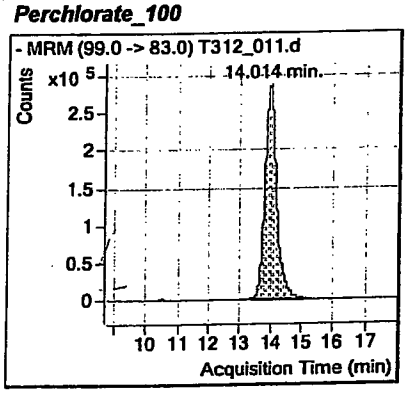
Batch Data Path D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin

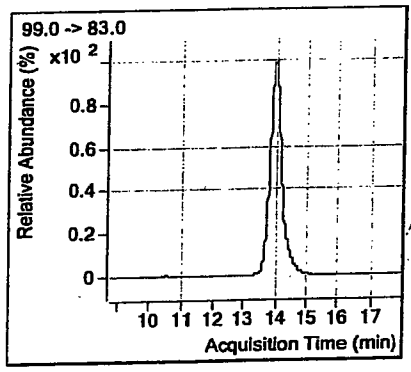
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_011.d	**Sample Name**	PER_SS 0.002 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	20:21
ClientID	NA	**Inj Vol**	20

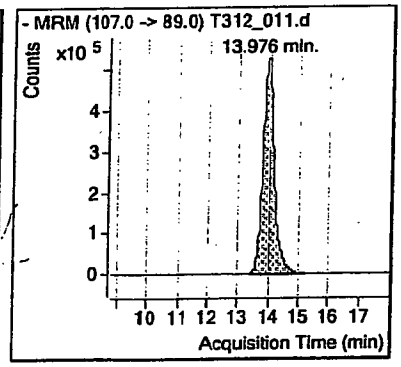


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.014	7468678	13747369
Perchlorate_102	PER_IS_108	14.000	2222387	13747369

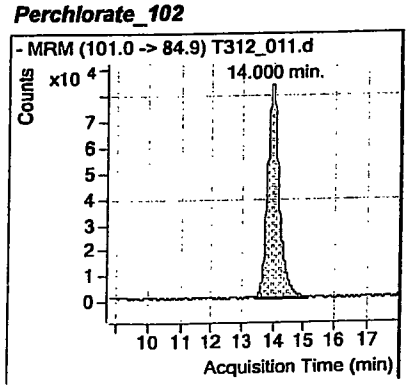
Perchlorate_100

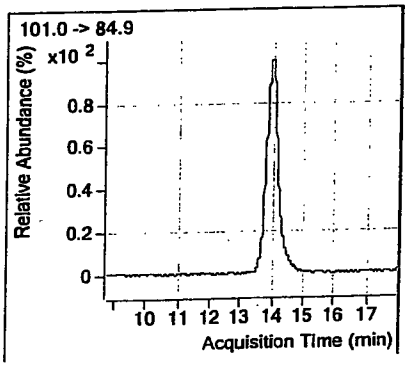


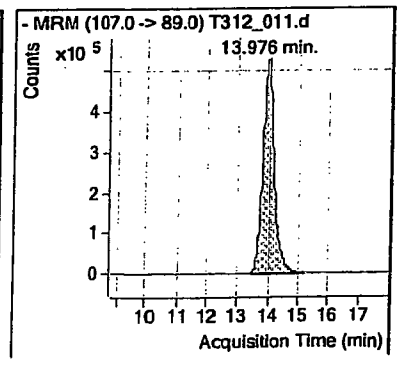




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T312_013.d

	Date (s) of Analysis From:03/12/15 To:03/12/15 Time (s) of Analysis From:17:33 To:20:40				Date of Analysis: 03/12/15 Time of Analysis: 20:58 Standard Id: PER CCV_1 (Standard) 0.0004ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.50	13.40	13.60	1.270255	14.10	1.285147	N	1.2
Perchlorate_85	13.54	13.44	13.64	0.391605	14.14	0.416428	N	6.3

ILE ID : TQCK1213.RFB

Data File ID: T312_013.d

Date Injected : 03/12/15

Time Injected : 20:58

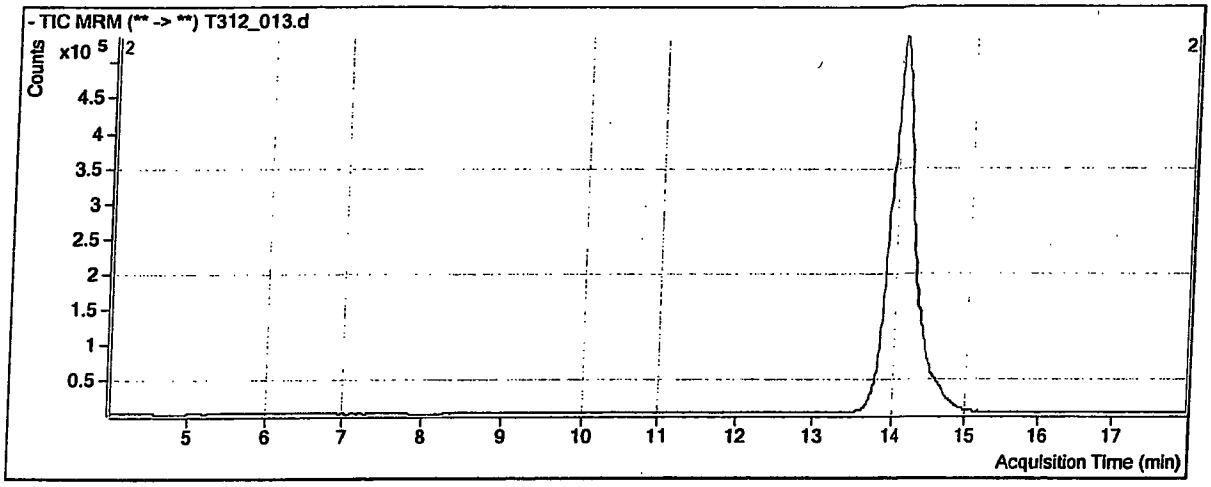
Sample ID : PER_CCV_1 0.0004 ug/ml 11/11/14

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
14.109	12323795	PER_IS_89
14.105	1267031	Perchlorate_83
14.143	410558	Perchlorate_85

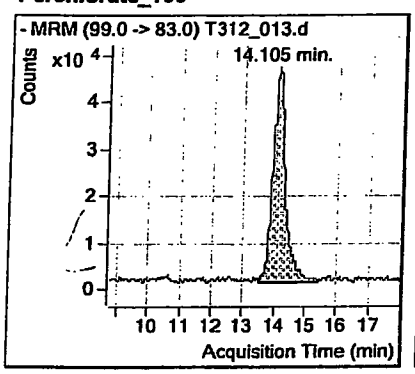
Quantitative Analysis Sample Report

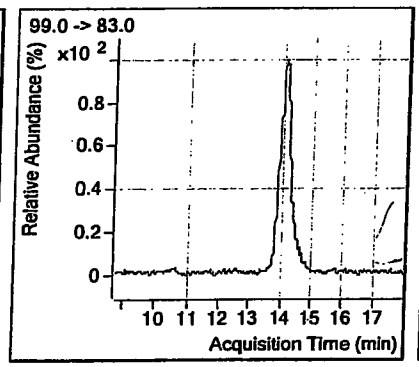
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_013.d	**Sample Name**	PER_CCV_1 0.0004 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	20:58
ClientID	NA	**Inj Vol**	20

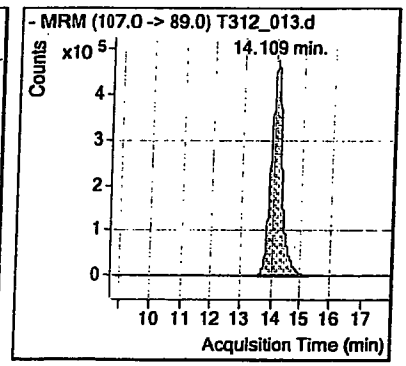


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.105	1267031	12323795
Perchlorate_102	PER_IS_108	14.143	410558	12323795

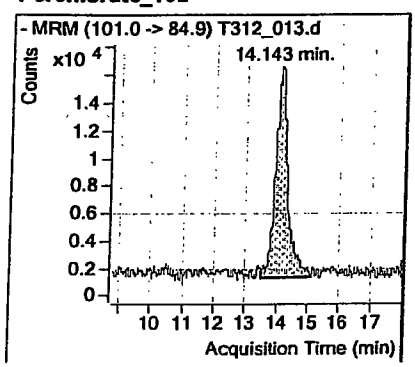
Perchlorate_100

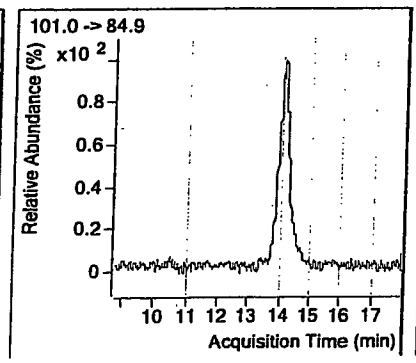


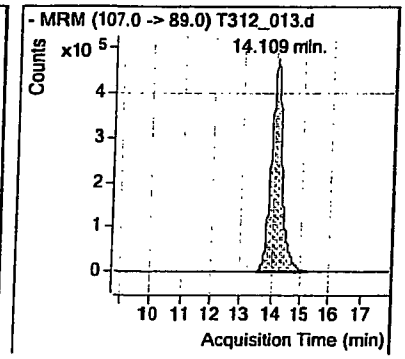




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T312_014.d

	Date (s) of Analysis From:03/12/15 To:03/12/15 Time (s) of Analysis From:17:33 To:20:40				Date of Analysis: 03/12/15 Time of Analysis: 21:17 Standard Id: PER CCV 1 (Standard) 0.002 ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.50	13.40	13.60	1.270255	14.15	1.271875	N	0.1
Perchlorate_85	13.54	13.44	13.64	0.391605	14.12	0.385509	N	1.6

ILE ID : TQCK1214.RFB

Data File ID: T312_014.d

Date Injected : 03/12/15

Time Injected : 21:17

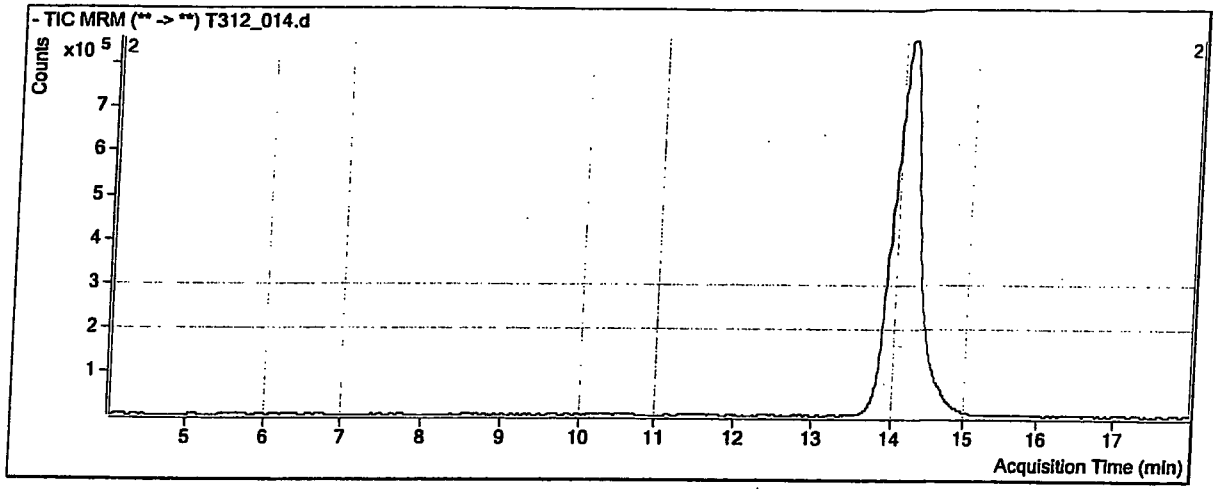
Sample ID : PER_CCV_1 0.002 ug/ml 11/11/14

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
14.139	13576634	PER_IS_89
14.146	6907110	Perchlorate_83
14.122	2093567	Perchlorate_85

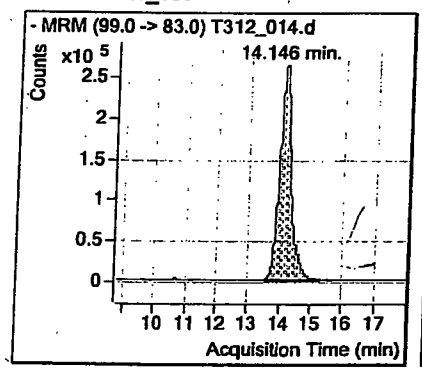
Quantitative Analysis Sample Report

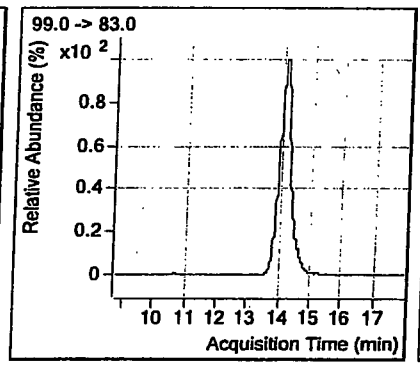
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_014.d	**Sample Name**	PER_CCV_1 0.002 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	21:17
ClientID	NA	**Inj Vol**	20

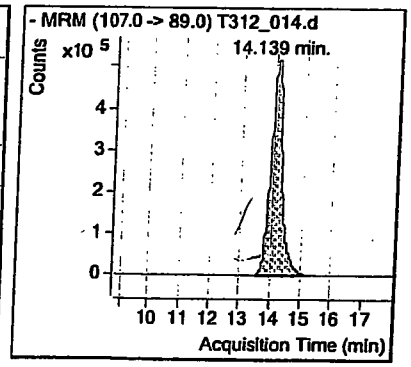


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.146	6907110	13576634
Perchlorate_102	PER_IS_108	14.122	2093567	13576634

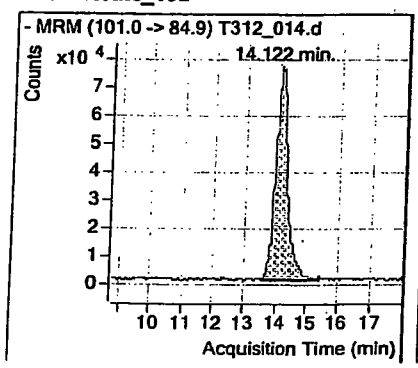
Perchlorate_100

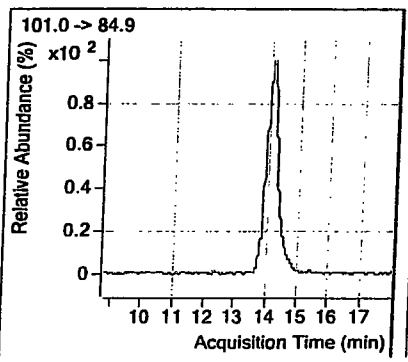


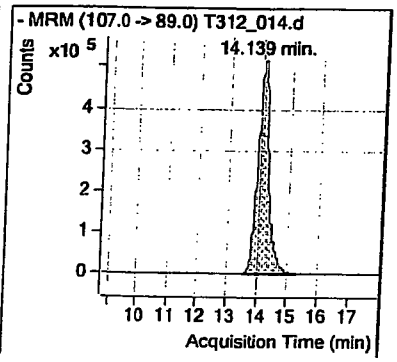




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T523_002.d

	Date (s) of Analysis From:03/12/15 To:05/23/15 Time (s) of Analysis From:17:52 To:15:20				Date of Analysis: 05/23/15 Time of Analysis: 15:38 Standard Id: PER_CCV (Standard) 0.0004ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	12.97	1.366179	N	7.6
Perchlorate_85	13.70	13.60	13.80	0.391605	12.98	0.499345	N	27.5

FILE ID : TQCK2302.RFB

Data File ID: T523_002.d

Date Injected : 05/23/15

Time Injected : 15:38

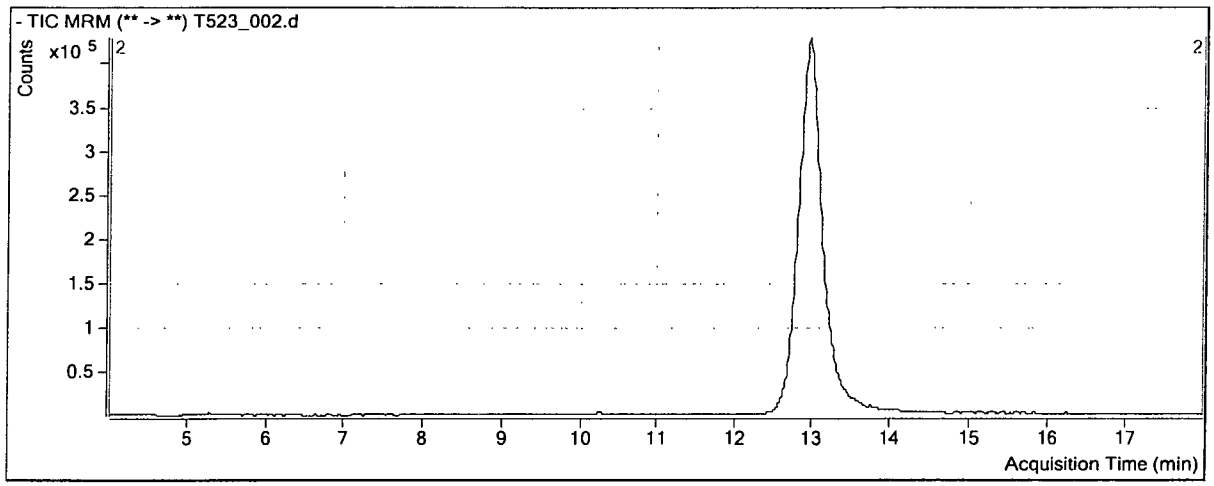
Sample ID : PER_CCV 0.0004 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
12.957	7841423	PER_IS_89
12.974	857023	Perchlorate_83
12.981	313246	Perchlorate_85

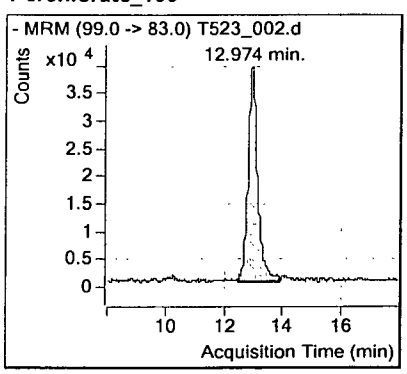
Quantitative Analysis Sample Report

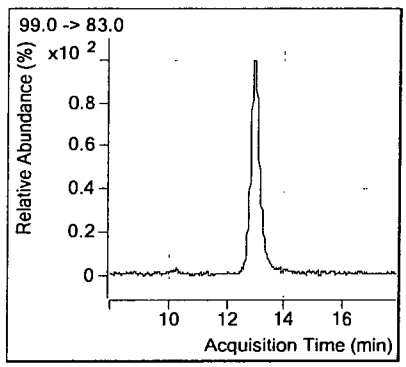
Batch Data Path	D:\MassHunter\Data\150523\QuantResults\150523_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T523_002.d	**Sample Name**	PER_CCV 0.0004 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/23/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	15:38
ClientID	NA	**Inj Vol**	20

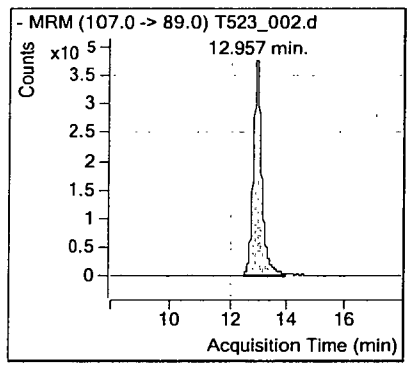


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	12.974	857023	7841423
Perchlorate_102	PER_IS_108	12.981	313246	7841423

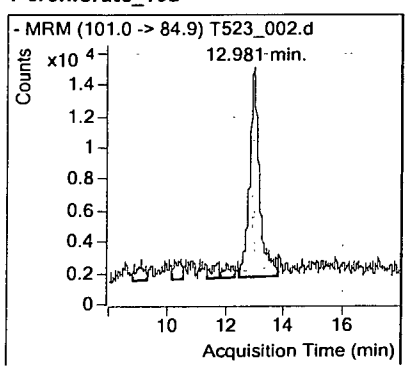
Perchlorate_100

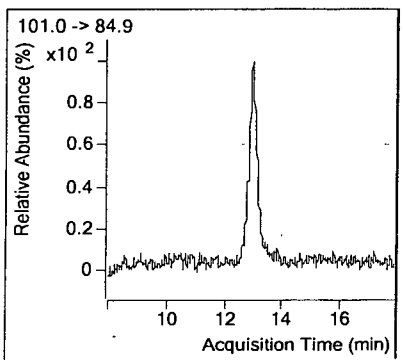


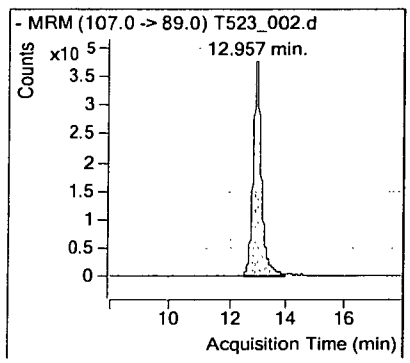




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T523_003.d

	Date (s) of Analysis From:03/12/15 To:05/23/15 Time (s) of Analysis From:17:52 To:15:20				Date of Analysis: 05/23/15 Time of Analysis: 15:57 Standard Id: PER_CCV (Standard) 0.002 ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	13.13	1.168712	N	8.0
Perchlorate_85	13.70	13.60	13.80	0.391605	13.13	0.357237	N	8.8

FILE ID : TQCK2303.RFB

Data File ID: T523_003.d

Date Injected : 05/23/15

Time Injected : 15:57

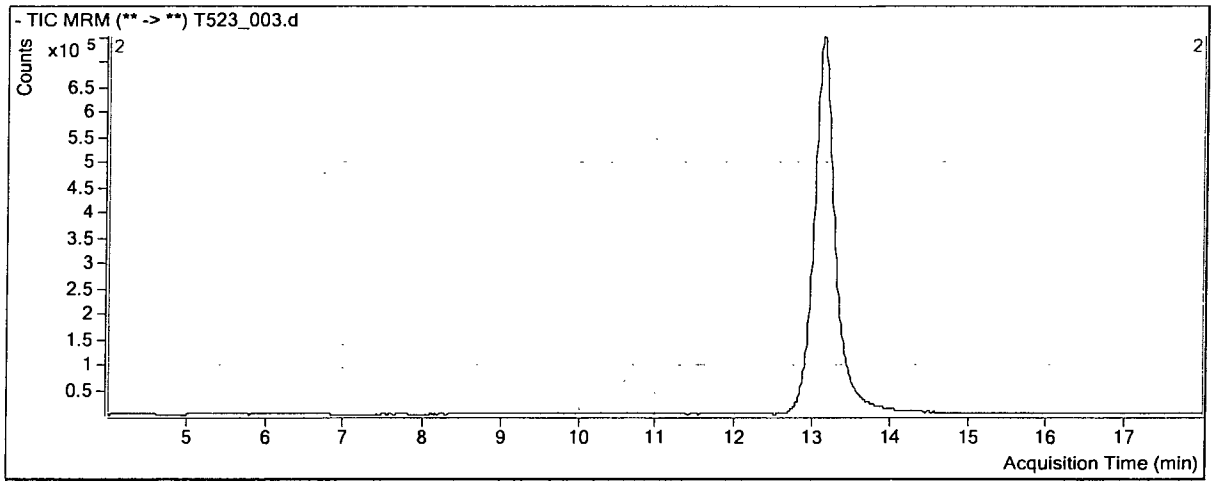
Sample ID : PER_CCV 0.002 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.13	8764619	PER_IS_89
13.127	4097326	Perchlorate_83
13.134	1252418	Perchlorate_85

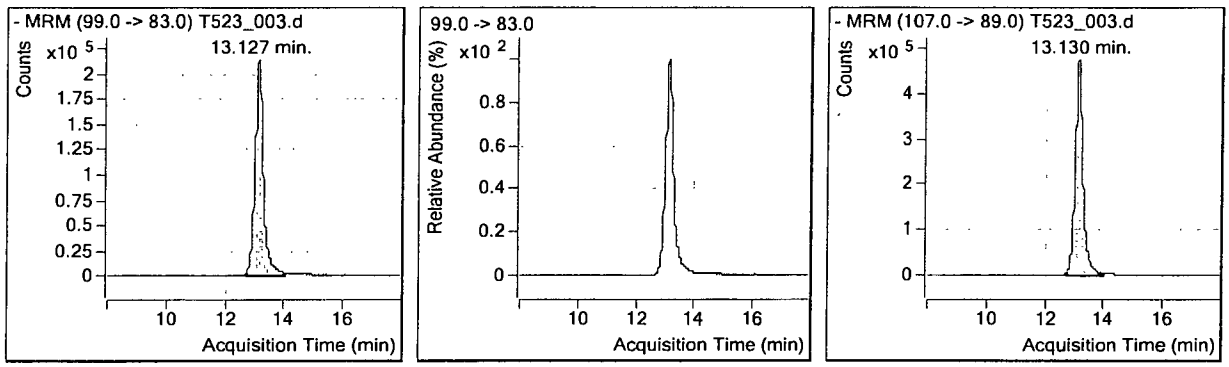
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150523\QuantResults\150523_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T523_003.d	**Sample Name**	PER_CCV 0.002 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/23/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	15:57
ClientID	NA	**Inj Vol**	20

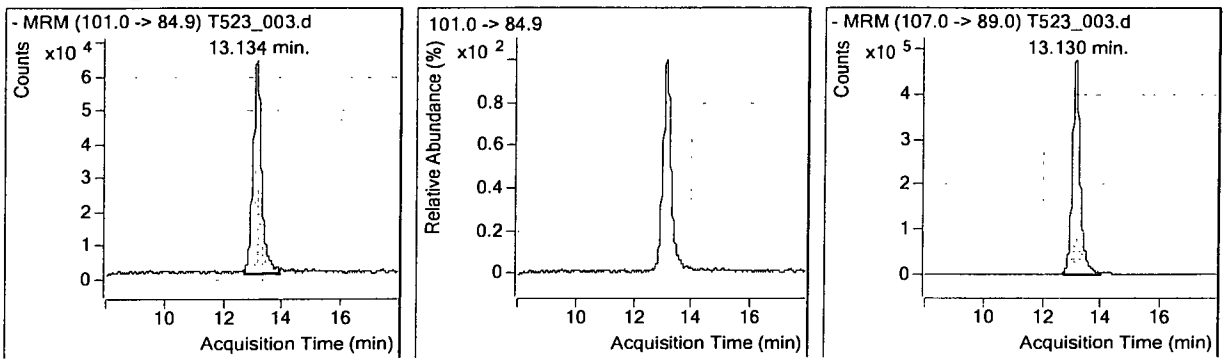


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.127	4097326	8764619
Perchlorate_102	PER_IS_108	13.134	1252418	8764619

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T523_016.d

	Date (s) of Analysis From:03/12/15 To:05/23/15 Time (s) of Analysis From:17:52 To:19:36				Date of Analysis: 05/23/15 Time of Analysis: 20:13 Standard Id: PER_CCV (Standard) 0.0004ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	13.30	1.365879	N	7.5
Perchlorate_85	13.70	13.60	13.80	0.391605	13.26	0.452744	N	15.6

FILE ID : TQCK2316.RFB

Data File ID: T523_016.d

Date Injected : 05/23/15

Time Injected : 20:13

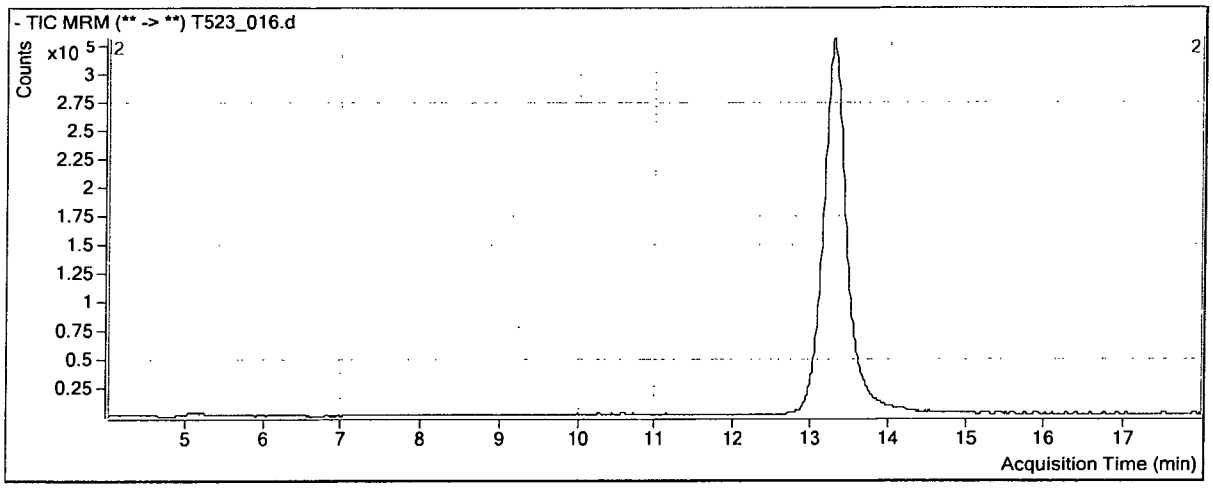
Sample ID : PER_CCV 0.0004 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.294	5972858	PER_IS_89
13.3	652656	Perchlorate_83
13.256	216334	Perchlorate_85

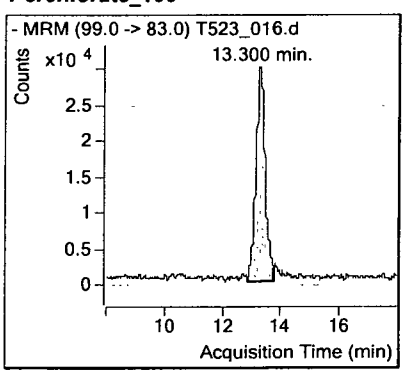
Quantitative Analysis Sample Report

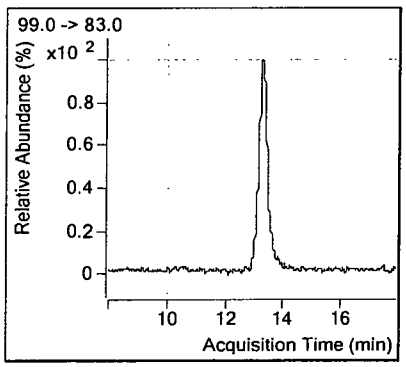
Batch Data Path	D:\MassHunter\Data\150523\QuantResults\150523_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T523_016.d	**Sample Name**	PER_CCV 0.0004 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/23/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	20:13
ClientID	NA	**Inj Vol**	20

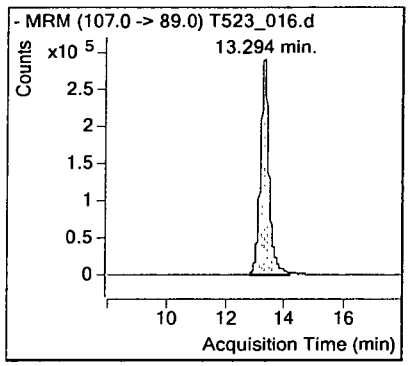


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.300	652656	5972858
Perchlorate_102	PER_IS_108	13.256	216334	5972858

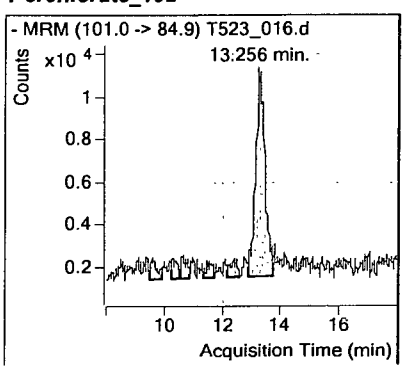
Perchlorate_100

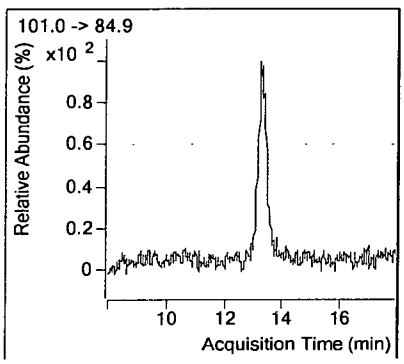


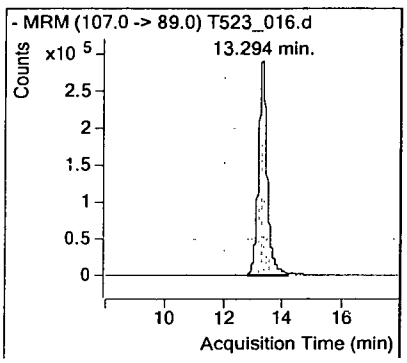




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T523_017.d

	Date (s) of Analysis From:03/12/15 To:05/23/15 Time (s) of Analysis From:17:52 To:19:36				Date of Analysis: 05/23/15 Time of Analysis: 20:32 Standard Id: PER_CCV (Standard) 0.002 ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	13.42	1.183233	N	6.9
Perchlorate_85	13.70	13.60	13.80	0.391605	13.40	0.374616	N	4.3

FILE ID : TQCK2317.RFB

Data File ID: T523_017.d

Date Injected : 05/23/15

Time Injected : 20:32

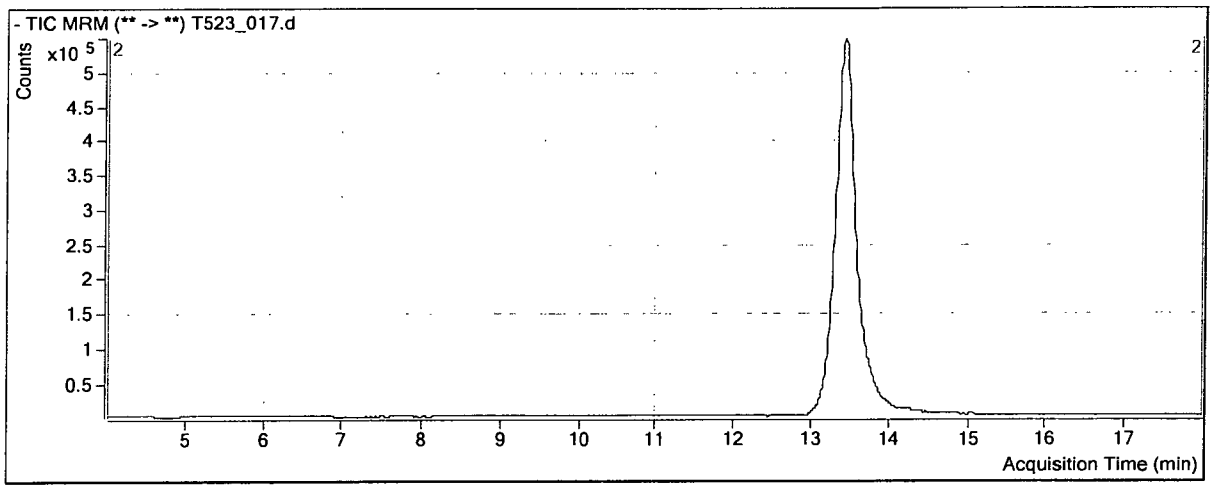
Sample ID : PER_CCV 0.002 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.416	6513163	PER_IS_89
13.423	3082637	Perchlorate_83
13.399	975975	Perchlorate_85

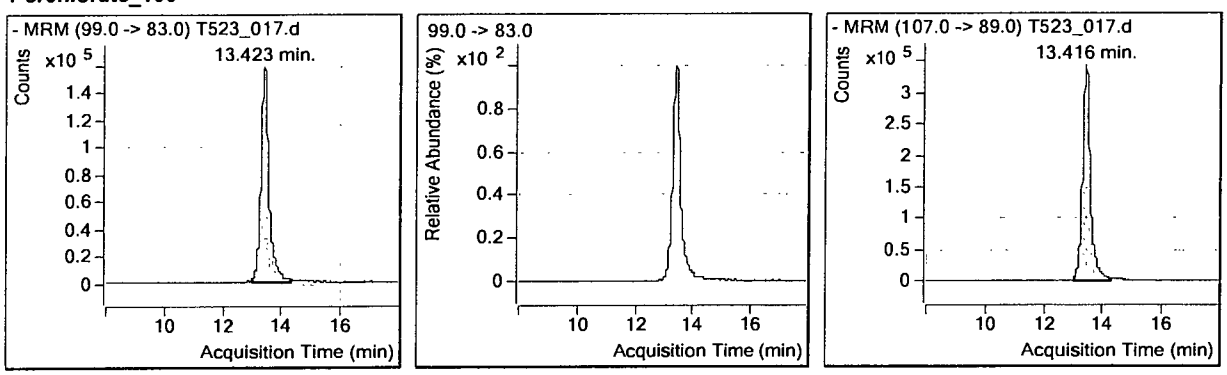
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150523\QuantResults\150523_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T523_017.d	**Sample Name**	PER_CCV 0.002 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/23/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	20:32
ClientID	NA	**Inj Vol**	20

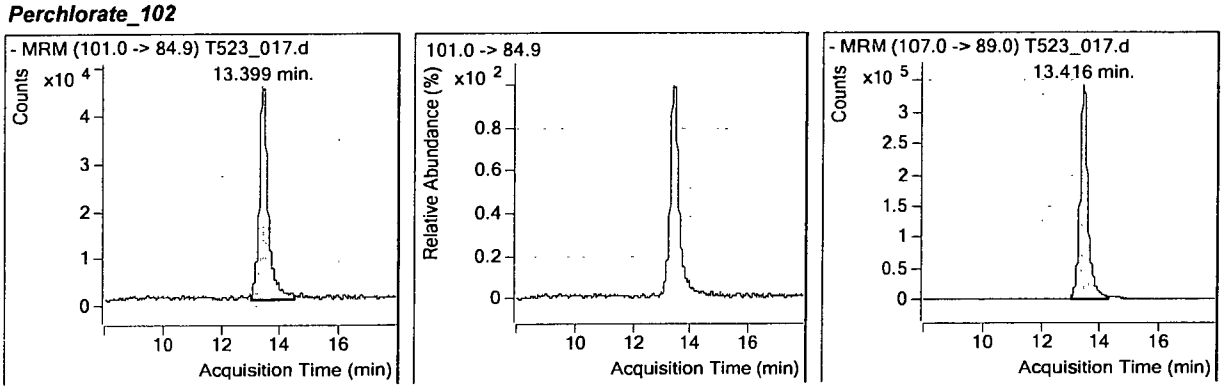


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.423	3082637	6513163
Perchlorate_102	PER_IS_108	13.399	975975	6513163

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T523_030.d

	Date (s) of Analysis From:03/12/15 To:05/23/15 Time (s) of Analysis From:17:52 To:23:57				Date of Analysis: 05/24/15 Time of Analysis: 0:34 Standard Id: PER_CCV (Standard) 0.0004ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	13.80	1.444680	N	13.7
Perchlorate_85	13.70	13.60	13.80	0.391605	13.82	0.469797	N	20.0

FILE ID : TQCK2330.RFB

Data File ID: T523_030.d

Date Injected : 05/24/15

Time Injected : 0:34

Sample ID : PER_CCV 0.0004 ug/ml 05/07/15

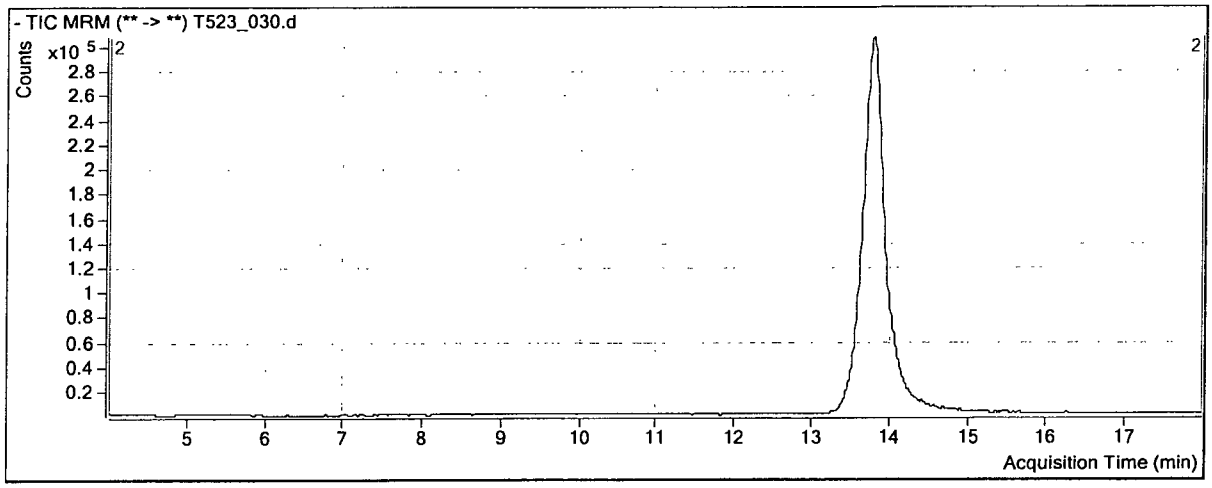
Client ID : NA

Retention Time		Area Count Response	Compound_ID Product Ion
13.783		5763820	PER_IS_89
13.8		666150	Perchlorate_83
13.817	*	216626	Perchlorate_85

* MANUAL INTEGRAION

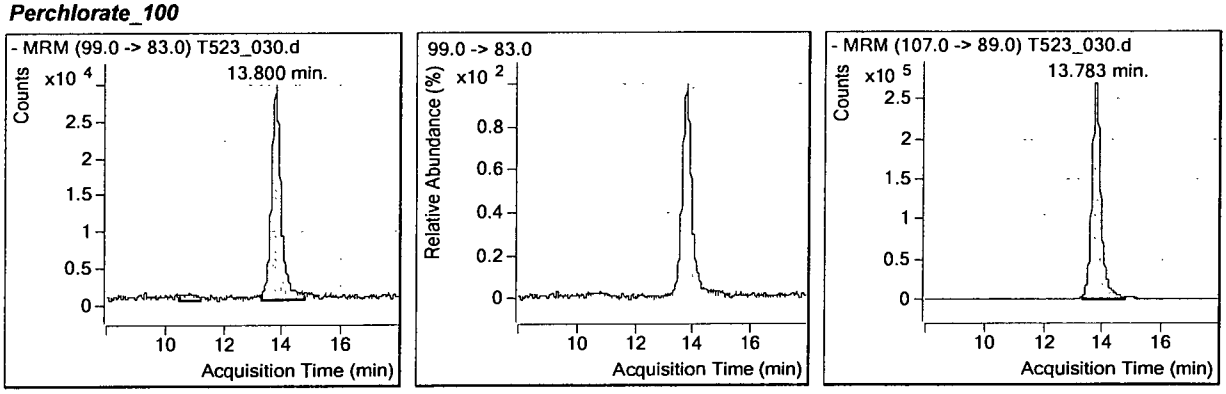
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150523\QuantResults\150523_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T523_030.d	**Sample Name**	PER_CCV 0.0004 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/24/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	0:34
ClientID	NA	**Inj Vol**	20

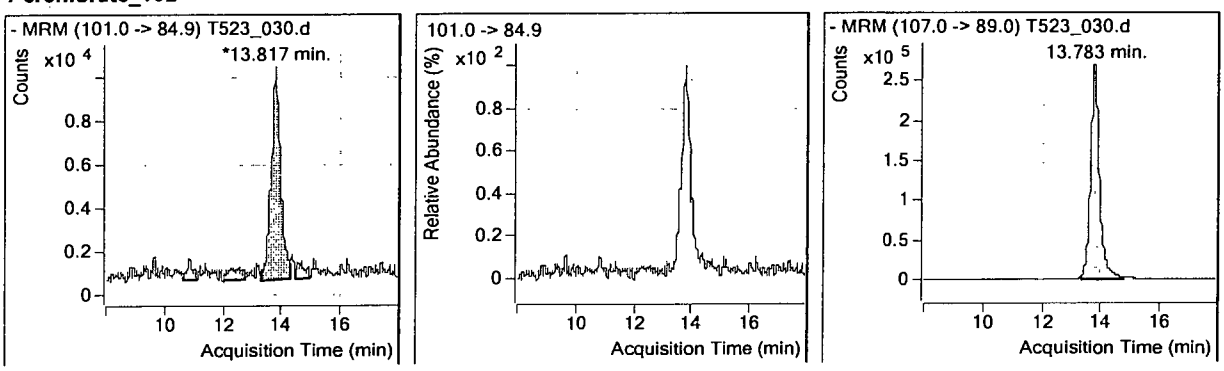


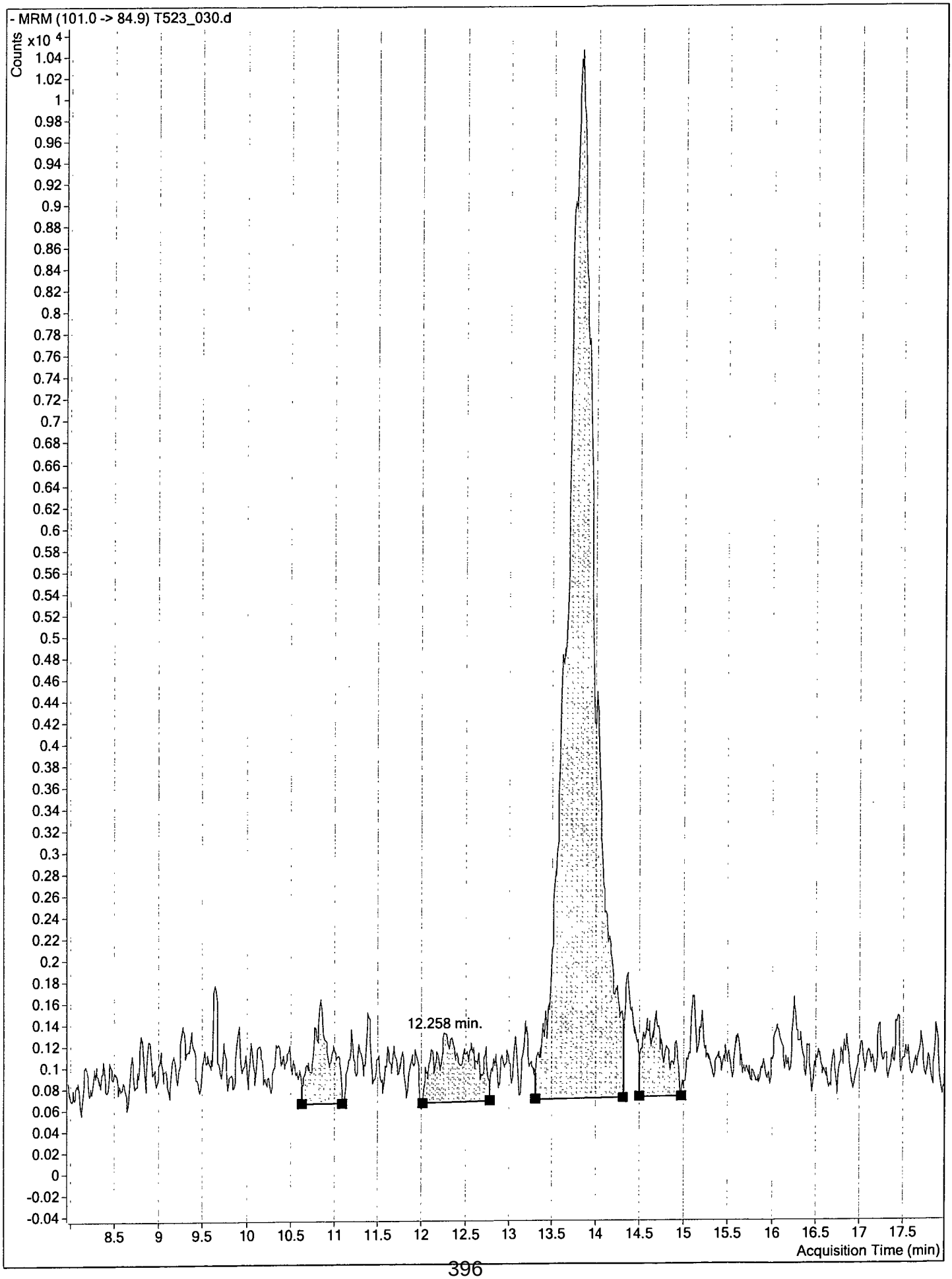
Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108		13.800	666150	5763820	
Perchlorate_102	PER_IS_108	*	13.817	216626	5763820	* MANUAL INT

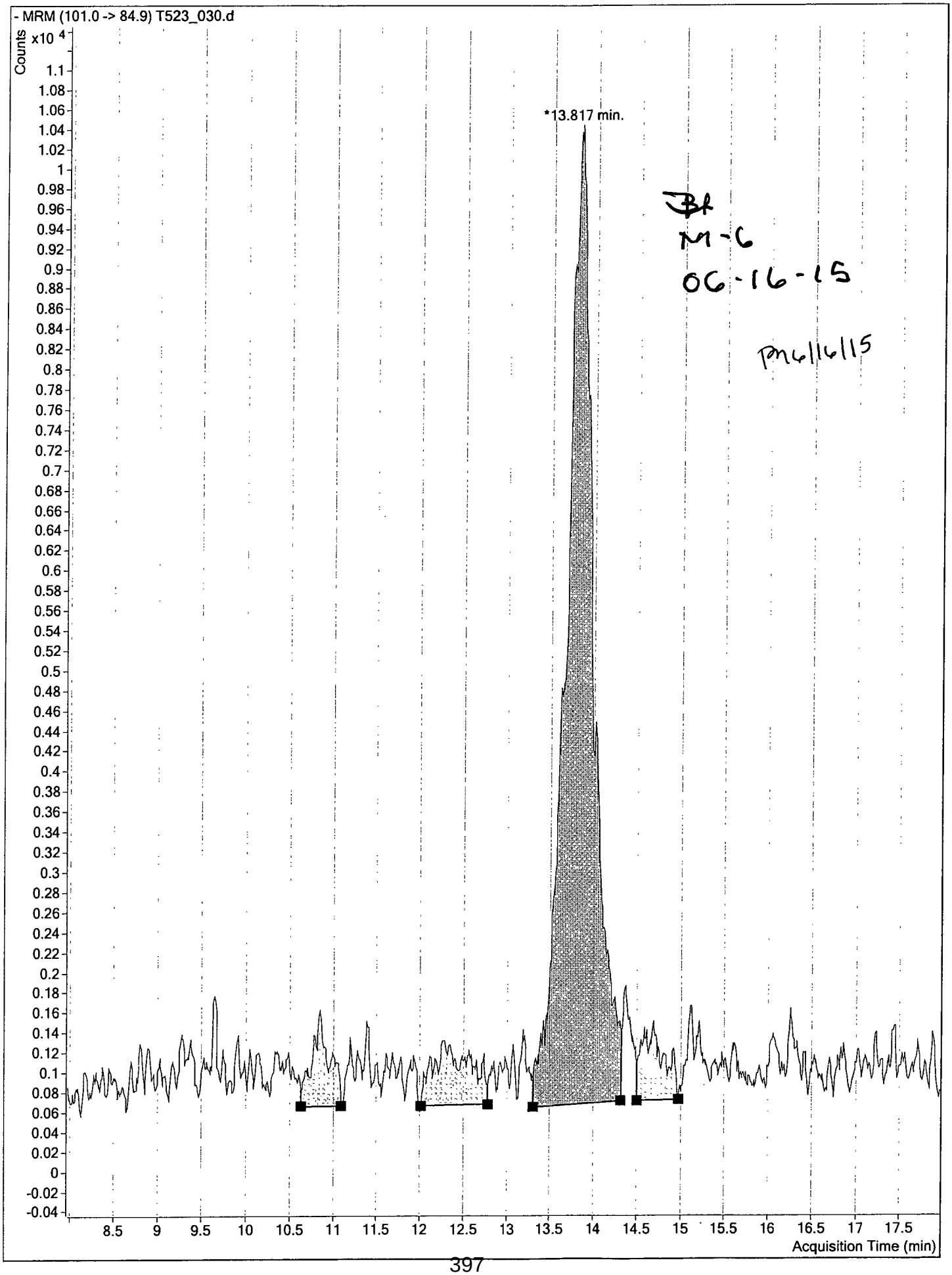
Perchlorate_100



Perchlorate_102




- MRM (101.0 -> 84.9) T523_030.d
Counts
x10 4
12.258 min.
Acquisition Time (min)


- MRM (101.0 -> 84.9) T523_030.d
Counts
x10 4
*13.817 min.
Acquisition Time (min)
M-6
06-16-15
PM6/16/15

CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T523_031.d

	Date (s) of Analysis From:03/12/15 To:05/23/15 Time (s) of Analysis From:17:52 To:23:57				Date of Analysis: 05/24/15 Time of Analysis: 0:53 Standard Id: PER_CCV (Standard) 0.002 ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	13.90	1.166527	N	8.2
Perchlorate_85	13.70	13.60	13.80	0.391605	13.90	0.357580	N	8.7

FILE ID : TQCK2331.RFB

Data File ID: T523_031.d

Date Injected : 05/24/15

Time Injected : 0:53

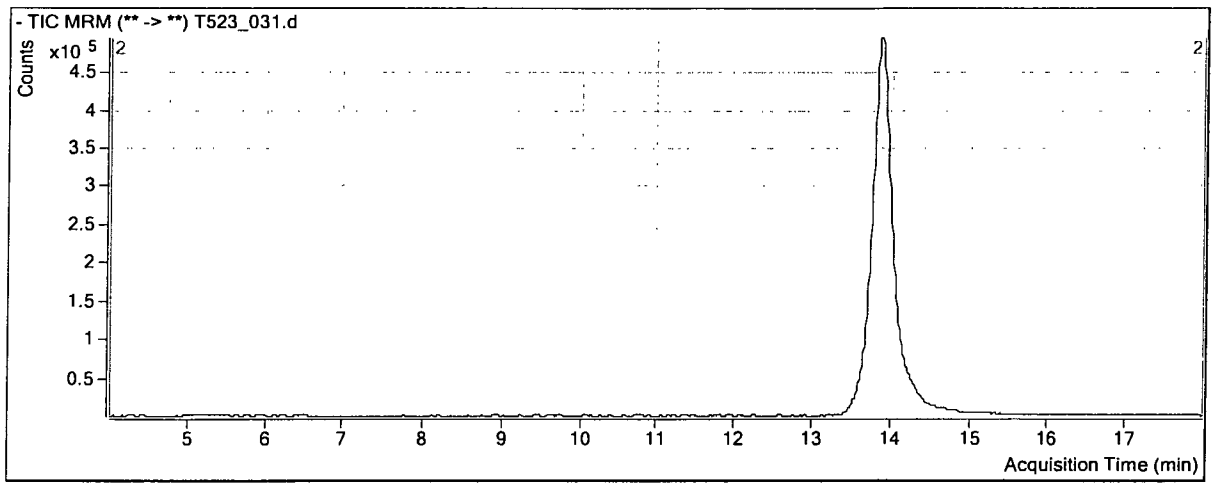
Sample ID : PER_CCV 0.002 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.864	6154538	PER_IS_89
13.902	2871773	Perchlorate_83
13.898	880296	Perchlorate_85

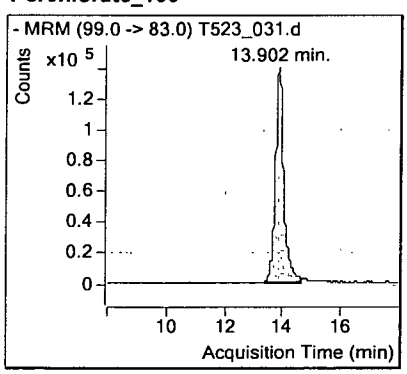
Quantitative Analysis Sample Report

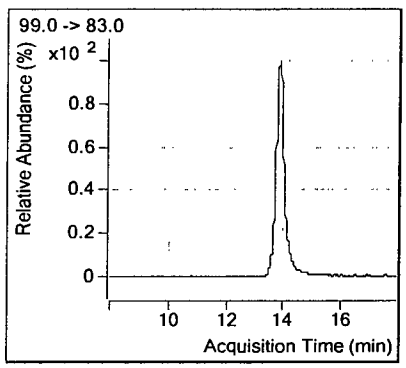
Batch Data Path	D:\MassHunter\Data\150523\QuantResults\150523_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T523_031.d	**Sample Name**	PER_CCV 0.002 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/24/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	0:53
ClientID	NA	**Inj Vol**	20

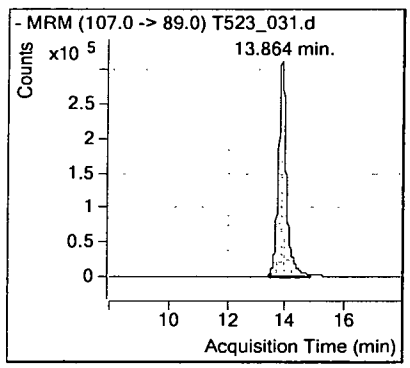


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.902	2871773	6154538
Perchlorate_102	PER_IS_108	13.898	880296	6154538

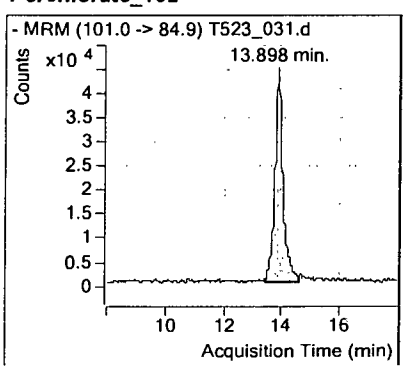
Perchlorate_100

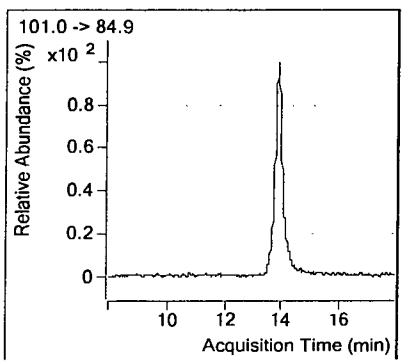


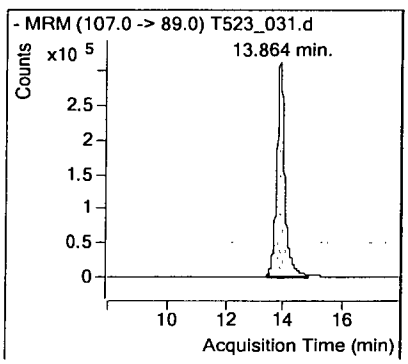




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T523_044.d

	Date (s) of Analysis From:03/12/15 To:05/24/15 Time (s) of Analysis From:17:52 To:4:17				Date of Analysis: 05/24/15 Time of Analysis: 4:55 Standard Id: PER_CCV (Standard) 0.0004ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	14.02	1.313146	N	3.4
Perchlorate_85	13.70	13.60	13.80	0.391605	14.03	0.470687	N	20.2

FILE ID : TQCK2344.RFB

Data File ID: T523_044.d

Date Injected : 05/24/15

Time Injected : 4:55

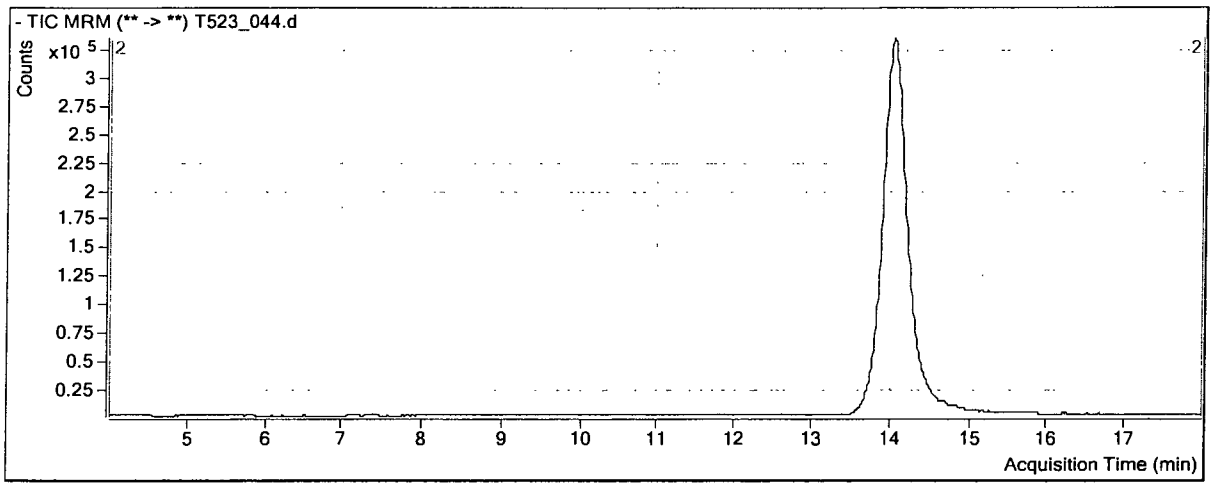
Sample ID : PER_CCV 0.0004 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
14.037	6579582	PER_IS_89
14.024	691196	Perchlorate_83
14.031	247754	Perchlorate_85

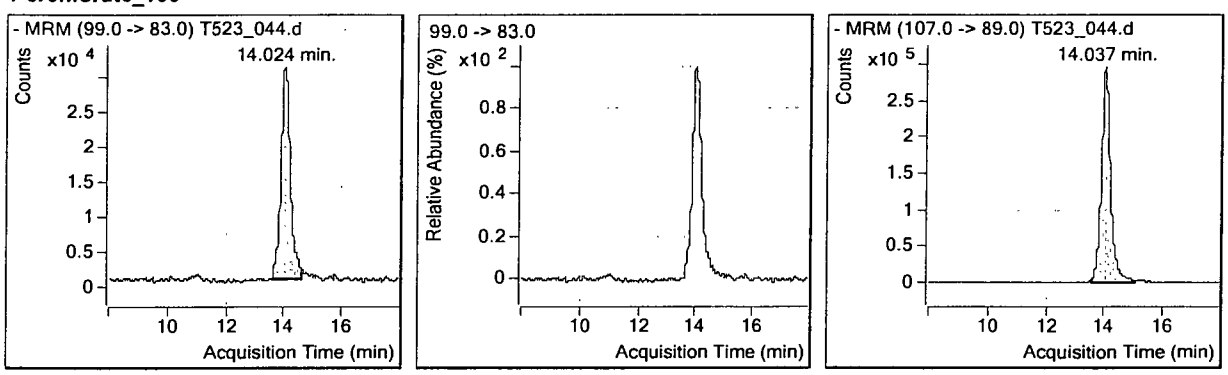
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150523\QuantResults\150523_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T523_044.d	**Sample Name**	PER_CCV 0.0004 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/24/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	4:55
ClientID	NA	**Inj Vol**	20

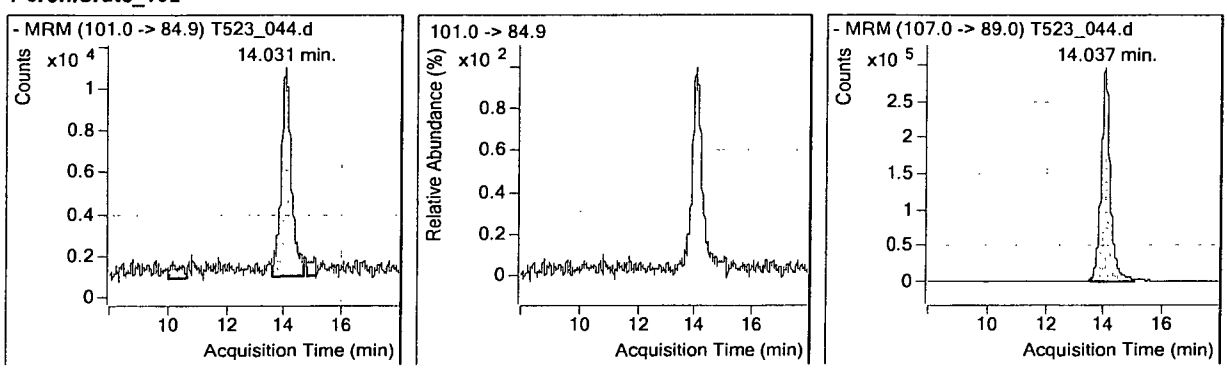


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.024	691196	6579582
Perchlorate_102	PER_IS_108	14.031	247754	6579582

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T523_045.d

Date (s) of Analysis From:03/12/15 To:05/24/15 Time (s) of Analysis From:17:52 To:4:17	Date of Analysis: 05/24/15 Time of Analysis: 5:13 Standard Id: PER_CCV (Standard) 0.002 ug/ml

COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	14.22	1.173647	N	7.6
Perchlorate_85	13.70	13.60	13.80	0.391605	14.19	0.358993	N	8.3

FILE ID : TQCK2345.RFB

Data File ID: T523_045.d

Date Injected : 05/24/15

Time Injected : 5:13

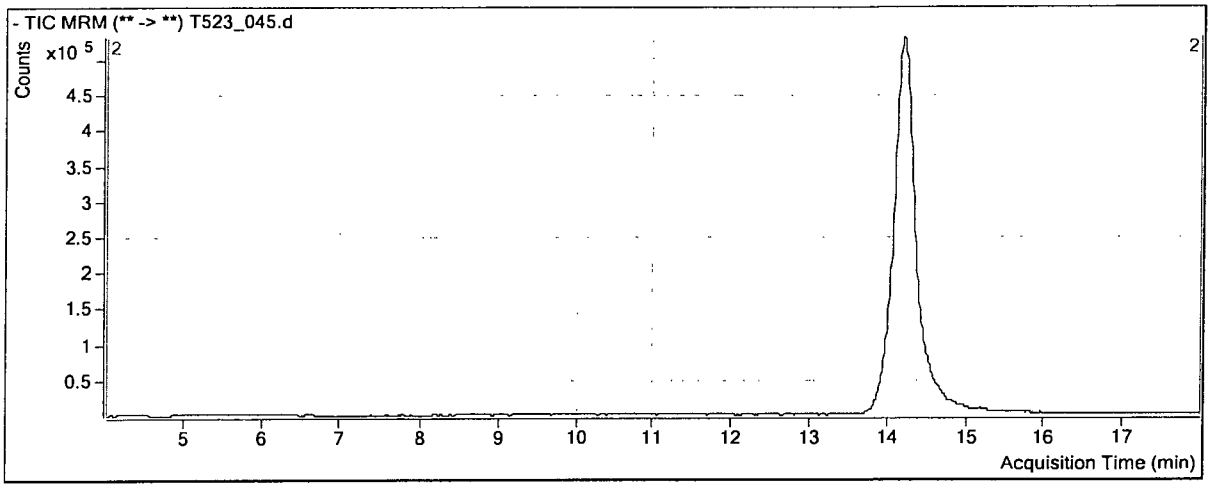
Sample ID : PER_CCV 0.002 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
14.2	6755219	PER_IS_89
14.217	3171297	Perchlorate_83
14.194	970030	Perchlorate_85

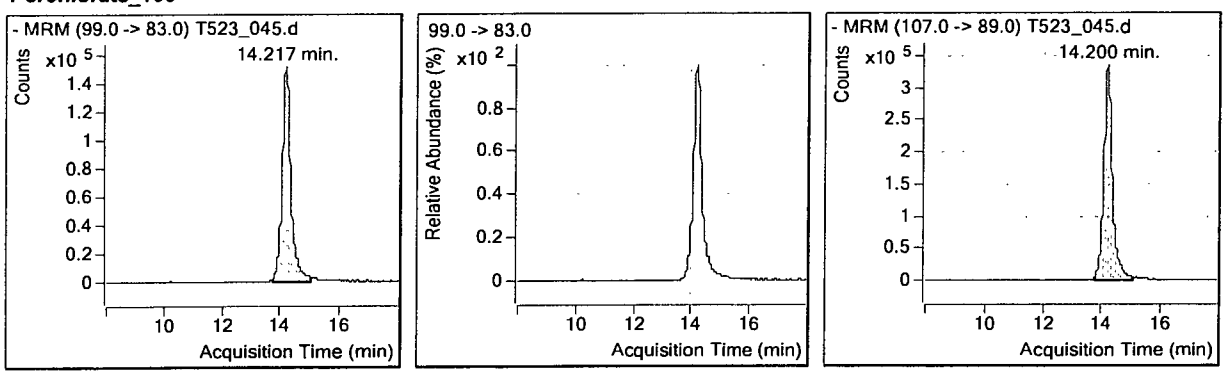
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150523\QuantResults\150523_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T523_045.d	**Sample Name**	PER_CCV 0.002 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/24/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	5:13
ClientID	NA	**Inj Vol**	20

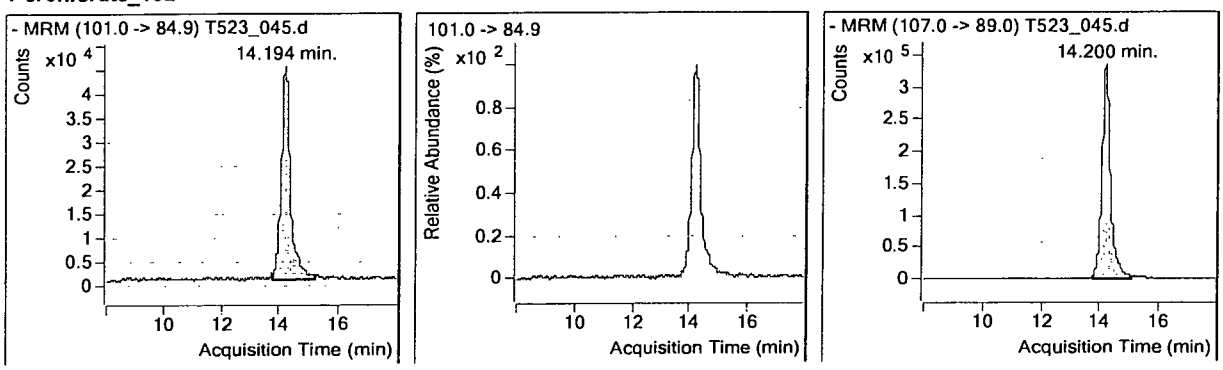


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.217	3171297	6755219
Perchlorate_102	PER_IS_108	14.194	970030	6755219

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T524_002.d

	Date (s) of Analysis From:03/12/15 To:05/24/15 Time (s) of Analysis From:17:52 To:13:56				Date of Analysis: 05/24/15 Time of Analysis: 14:14 Standard Id: PER CCV (Standard) 0.0004ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	13.03	1.366348	N	7.6
Perchlorate_85	13.70	13.60	13.80	0.391605	13.07	0.382838	N	2.2

FILE ID : TQCK2402.RFB

Data File ID: T524_002.d

Date Injected : 05/24/15

Time Injected : 14:14

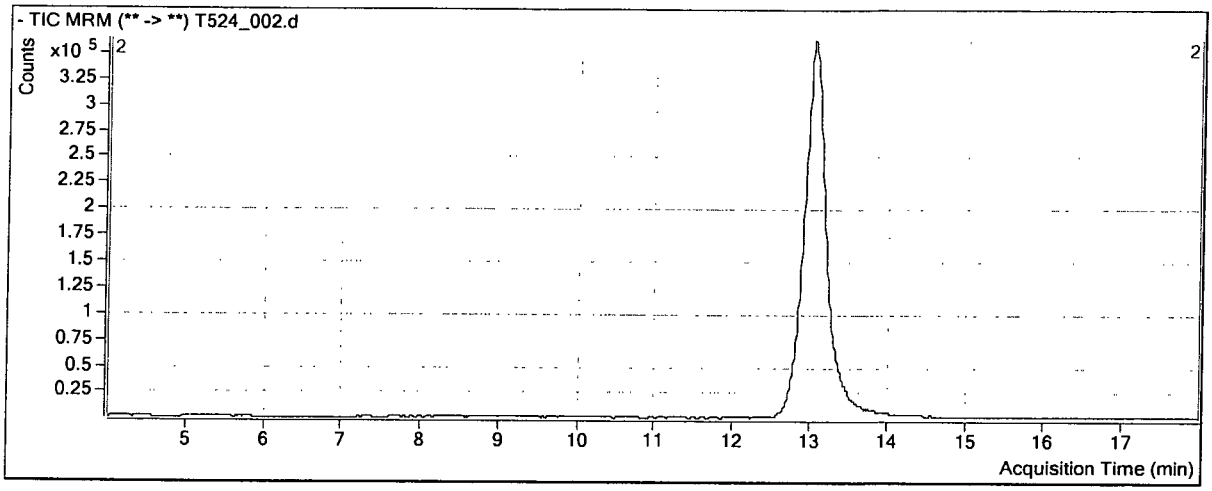
Sample ID : PER_CCV 0.0004 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.039	6449100	PER_IS_89
13.035	704937	Perchlorate_83
13.073	197517	Perchlorate_85

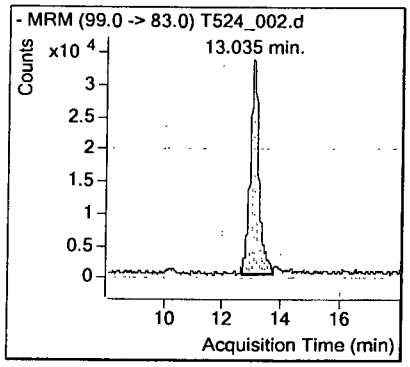
Quantitative Analysis Sample Report

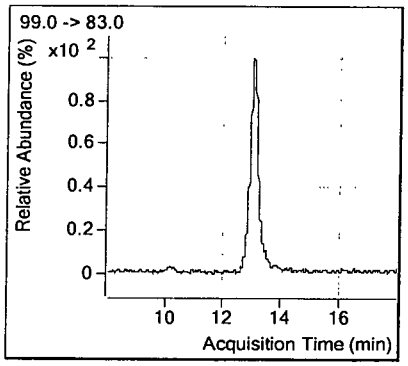
Batch Data Path	D:\MassHunter\Data\150524\QuantResults\150524_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T524_002.d	**Sample Name**	PER_CCV 0.0004 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/24/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	14:14
ClientID	NA	**Inj Vol**	20

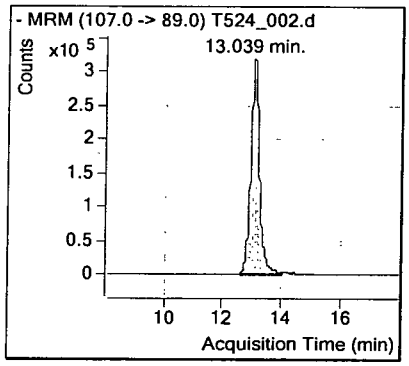


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.035	704937	6449100
Perchlorate_102	PER_IS_108	13.073	197517	6449100

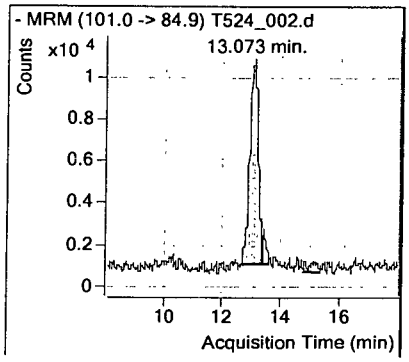
Perchlorate_100

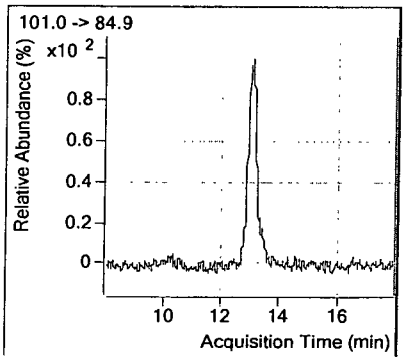


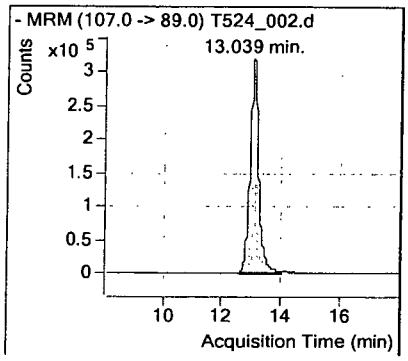




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T524_003.d

	Date (s) of Analysis From:03/12/15 To:05/24/15 Time (s) of Analysis From:17:52 To:13:56				Date of Analysis: 05/24/15 Time of Analysis: 14:33 Standard Id: PER CCV (Standard) 0.002 ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	13.11	1.160988	N	8.6
Perchlorate_85	13.70	13.60	13.80	0.391605	13.08	0.361188	N	7.8

FILE ID : TQCK2403.RFB

Data File ID: T524_003.d

Date Injected : 05/24/15

Time Injected : 14:33

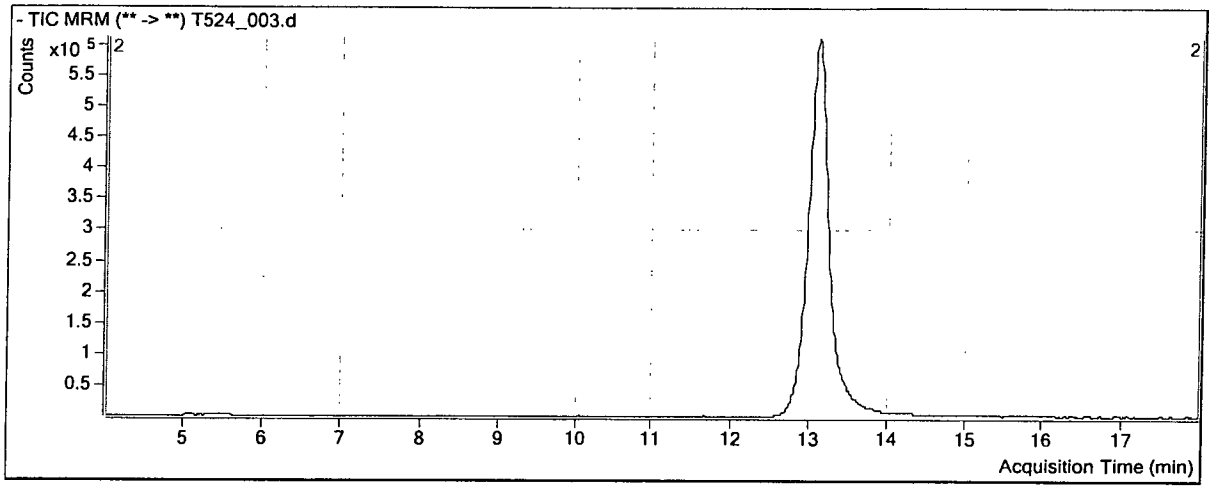
Sample ID : PER_CCV 0.002 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.09	7069813	PER_IS_89
13.107	3283186	Perchlorate_83
13.083	1021413	Perchlorate_85

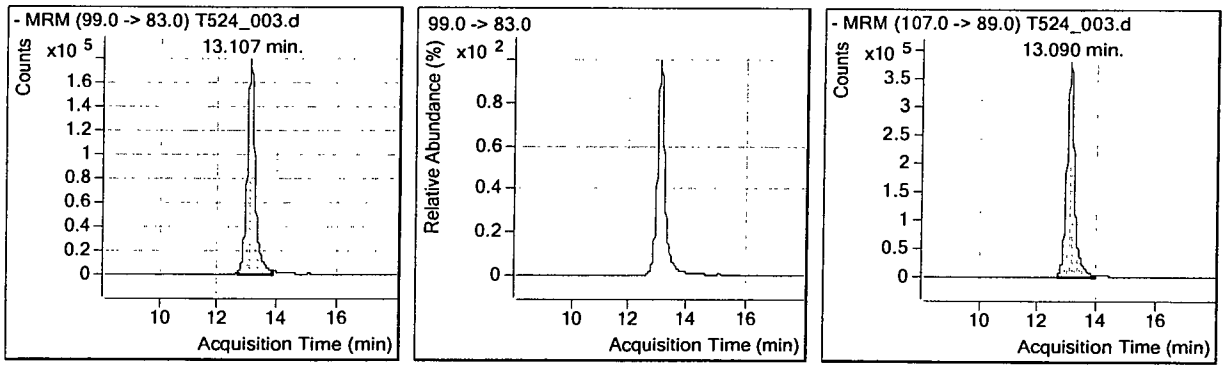
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150524\QuantResults\150524_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T524_003.d	**Sample Name**	PER_CCV 0.002 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/24/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	14:33
ClientID	NA	**Inj Vol**	20

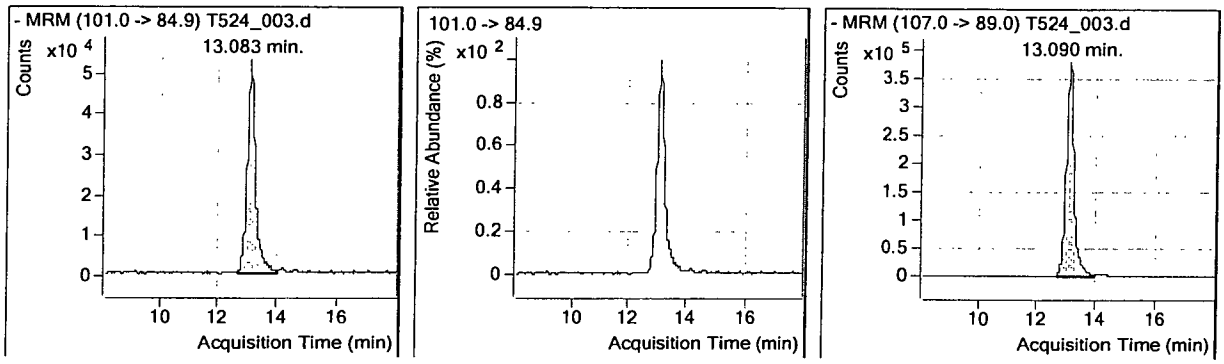


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.107	3283186	7069813
Perchlorate_102	PER_IS_108	13.083	1021413	7069813

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T524_016.d

	Date (s) of Analysis From:03/12/15 To:05/24/15 Time (s) of Analysis From:17:52 To:18:05				Date of Analysis: 05/24/15 Time of Analysis: 18:42 Standard Id: PER_CCV (Standard) 0.0004ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	13.01	1.394952	N	9.8
Perchlorate_85	13.70	13.60	13.80	0.391605	12.99	0.444330	N	13.5

FILE ID : TQCK2416.RFB

Data File ID: T524_016.d

Date Injected : 05/24/15

Time Injected : 18:42

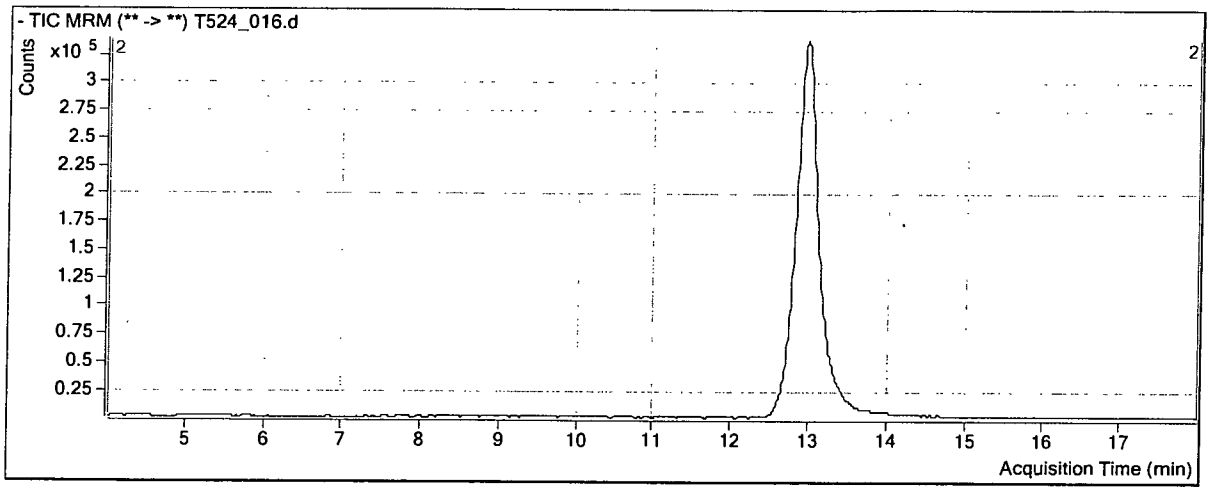
Sample ID : PER_CCV 0.0004 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
12.967	6085038	PER_IS_89
13.005	679067	Perchlorate_83
12.991	216301	Perchlorate_85

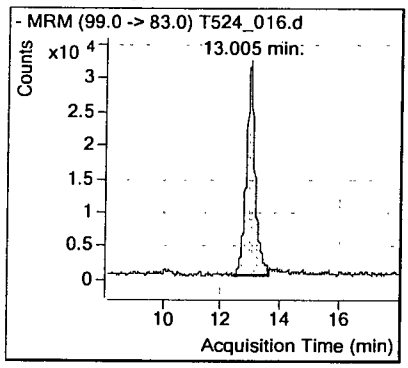
Quantitative Analysis Sample Report

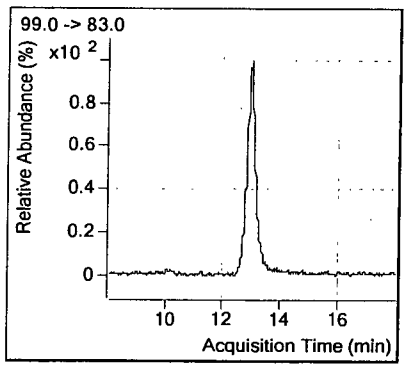
Batch Data Path	D:\MassHunter\Data\150524\QuantResults\150524_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T524_016.d	**Sample Name**	PER_CCV 0.0004 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/24/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	18:42
ClientID	NA	**Inj Vol**	20

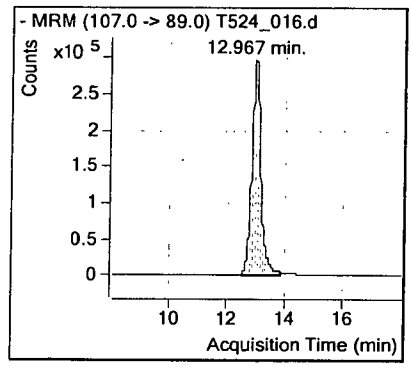


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.005	679067	6085038
Perchlorate_102	PER_IS_108	12.991	216301	6085038

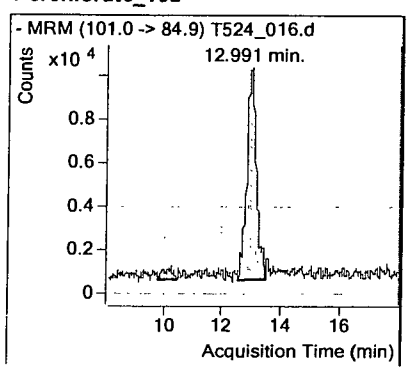
Perchlorate_100

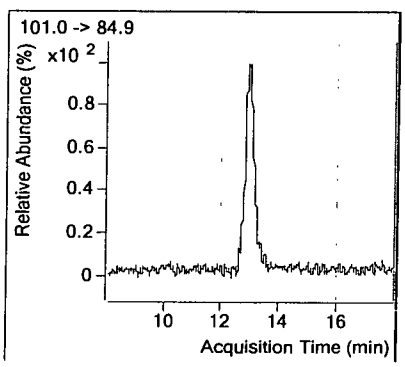


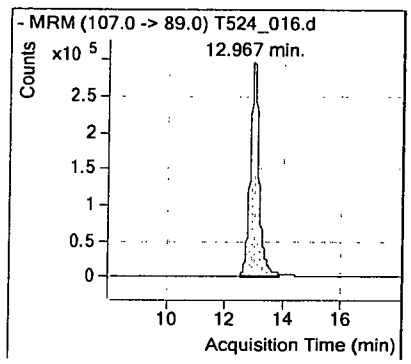




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T524_017.d

	Date (s) of Analysis From:03/12/15 To:05/24/15 Time (s) of Analysis From:17:52 To:18:05				Date of Analysis: 05/24/15 Time of Analysis: 19:01 Standard Id: PER_CCV (Standard) 0.002 ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	13.07	1.174185	N	7.6
Perchlorate_85	13.70	13.60	13.80	0.391605	13.07	0.351498	N	10.2

FILE ID : TQCK2417.RFB

Data File ID: T524_017.d

Date Injected : 05/24/15

Time Injected : 19:01

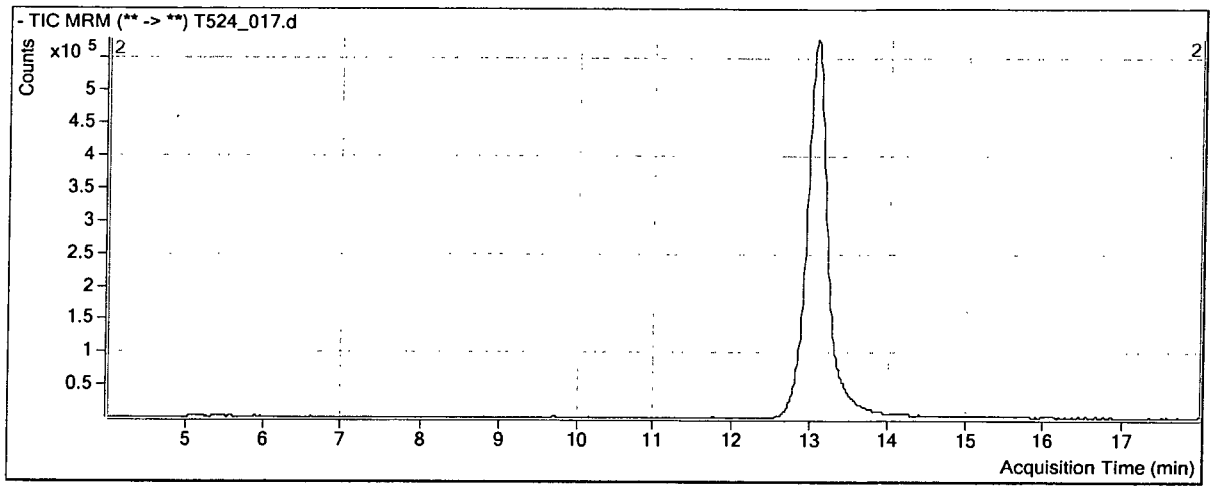
Sample ID : PER_CCV 0.002 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.069	6666617	PER_IS_89
13.066	3131136	Perchlorate_83
13.073	937320	Perchlorate_85

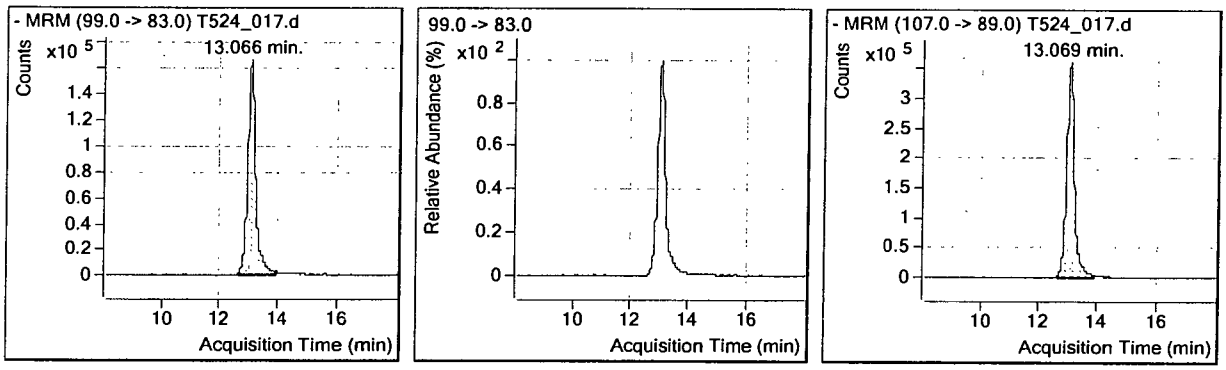
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150524\QuantResults\150524_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T524_017.d	**Sample Name**	PER_CCV 0.002 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/24/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	19:01
ClientID	NA	**Inj Vol**	20

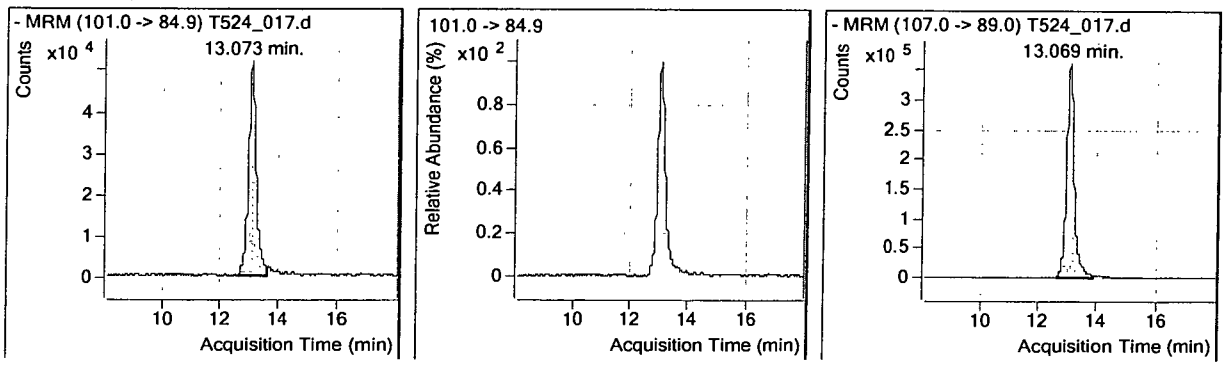


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.066	3131136	6666617
Perchlorate_102	PER_IS_108	13.073	937320	6666617

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T524_030.d

	Date (s) of Analysis From:03/12/15 To:05/24/15 Time (s) of Analysis From:17:52 To:22:44				Date of Analysis: 05/24/15 Time of Analysis: 23:03 Standard Id: PER_CCV (Standard) 0.0004ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	13.34	1.416492	N	11.5
Perchlorate_85	13.70	13.60	13.80	0.391605	13.35	0.437313	N	11.7

FILE ID : TQCK2430.RFB

Data File ID: T524_030.d

Date Injected : 05/24/15

Time Injected : 23:03

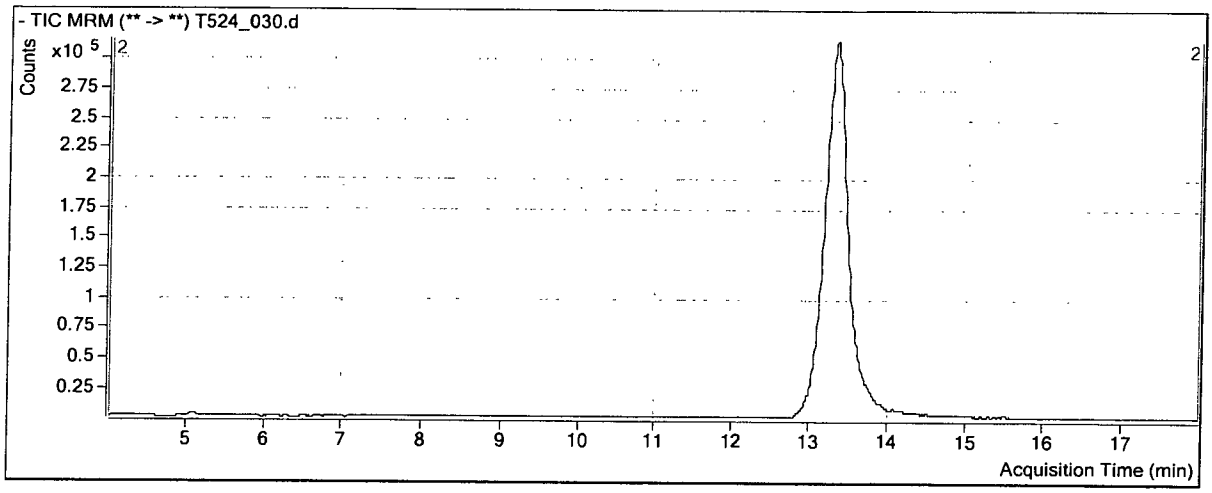
Sample ID : PER_CCV 0.0004 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.324	5852670	PER_IS_89
13.341	663221	Perchlorate_83
13.348	204756	Perchlorate_85

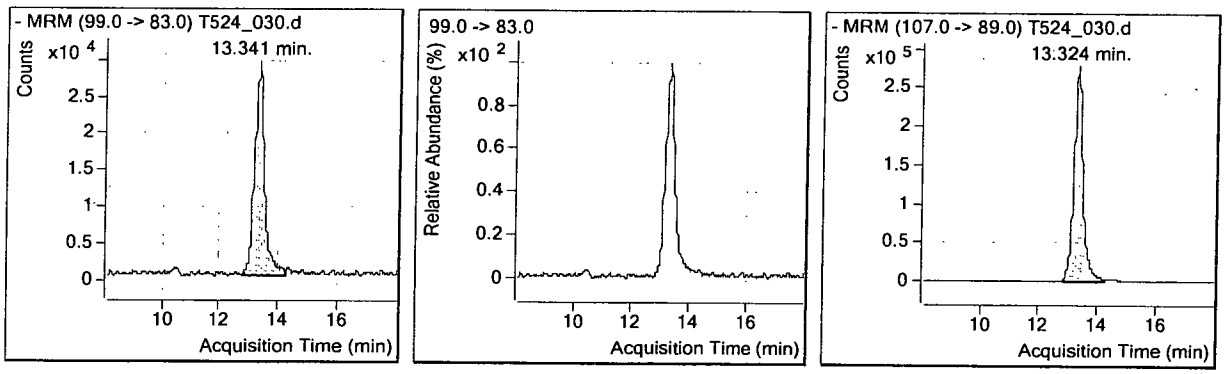
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150524\QuantResults\150524_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	.T524_030.d	**Sample Name**	PER_CCV 0.0004 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/24/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	23:03
ClientID	NA	**Inj Vol**	20

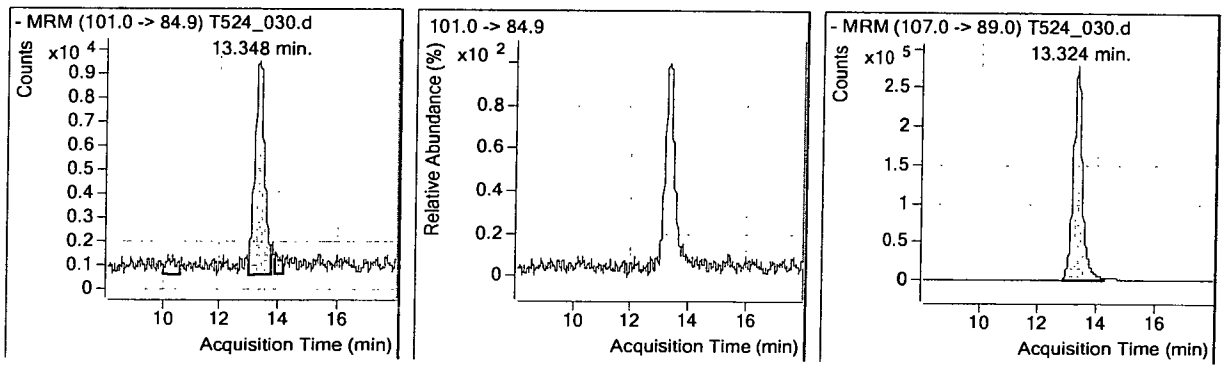


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.341	663221	5852670
Perchlorate_102	PER_IS_108	13.348	204756	5852670

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T524_031.d

	Date (s) of Analysis From:03/12/15 To:05/24/15 Time (s) of Analysis From:17:52 To:22:44				Date of Analysis: 05/24/15 Time of Analysis: 23:21 Standard Id: PER CCV (Standard) 0.002 ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	13.48	1.187675	N	6.5
Perchlorate_85	13.70	13.60	13.80	0.391605	13.48	0.348592	N	11.0

FILE ID : TQCK2431.RFB

Data File ID: T524_031.d

Date Injected : 05/24/15

Time Injected : 23:21

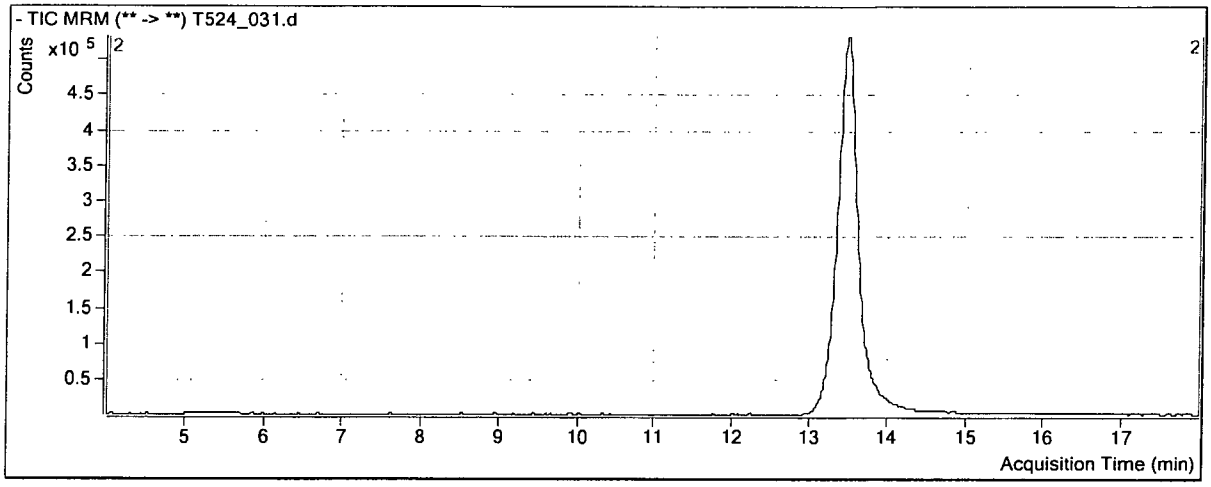
Sample ID : PER_CCV 0.002 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.477	6323824	PER_IS_89
13.484	3004259	Perchlorate_83
13.48	881774	Perchlorate_85

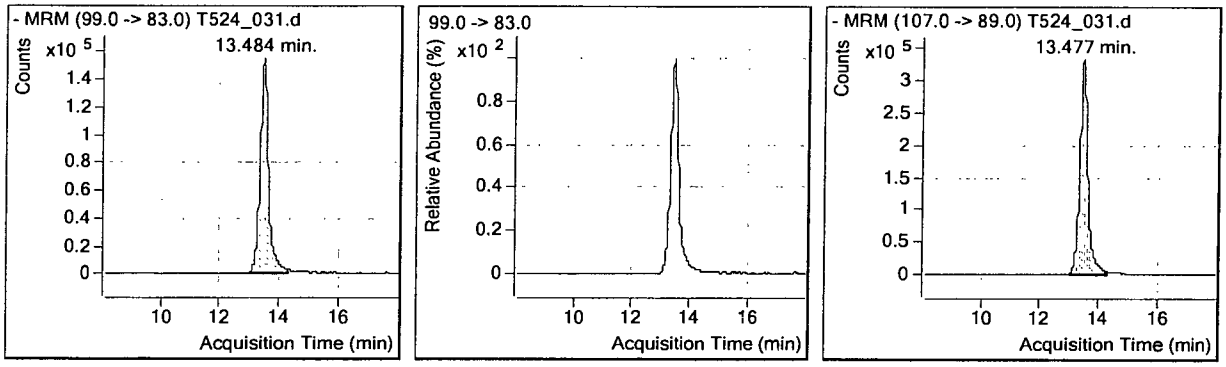
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150524\QuantResults\150524_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T524_031.d	**Sample Name**	PER_CCV 0.002 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/24/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	23:21
ClientID	NA	**Inj Vol**	20

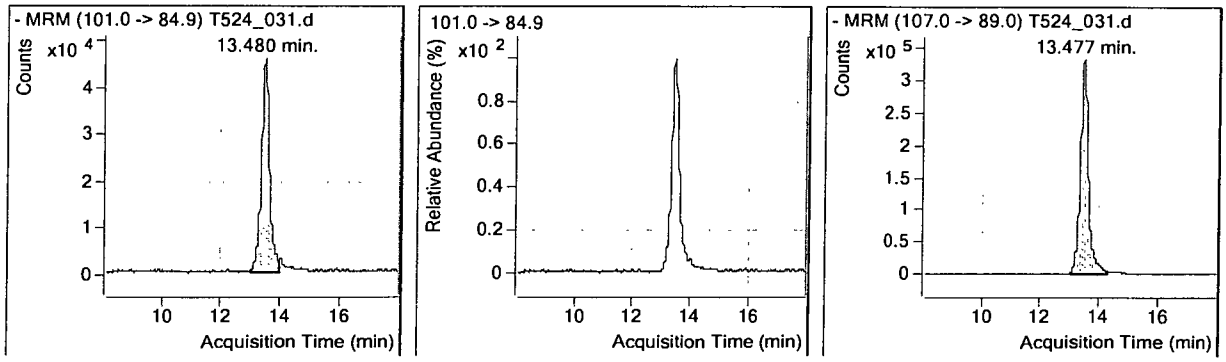


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.484	3004259	6323824
Perchlorate_102	PER_IS_108	13.480	881774	6323824

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T524_039.d

	Date (s) of Analysis From:03/12/15 To:05/25/15 Time (s) of Analysis From:17:52 To:1:13				Date of Analysis: 05/25/15 Time of Analysis: 1:50 Standard Id: PER CCV (Standard) 0.0004ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	13.56	1.460318	N	15.0
Perchlorate_85	13.70	13.60	13.80	0.391605	13.54	0.412793	N	5.4

FILE ID : TQCK2439.RFB

Data File ID: T524_039.d

Date Injected : 05/25/15

Time Injected : 1:50

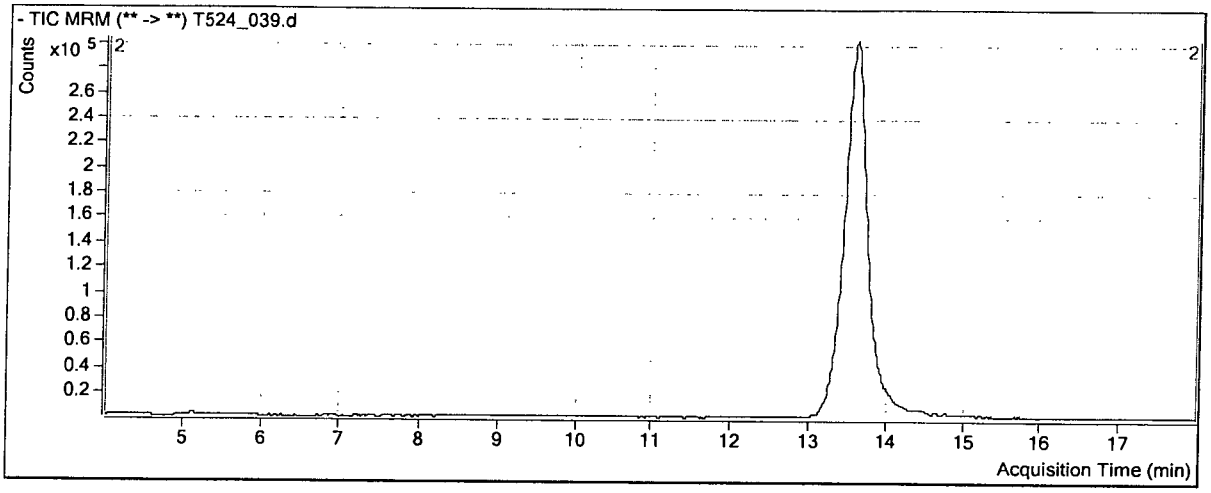
Sample ID : PER_CCV 0.0004 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.579	5630186	PER_IS_89
13.555	657749	Perchlorate_83
13.541	185928	Perchlorate_85

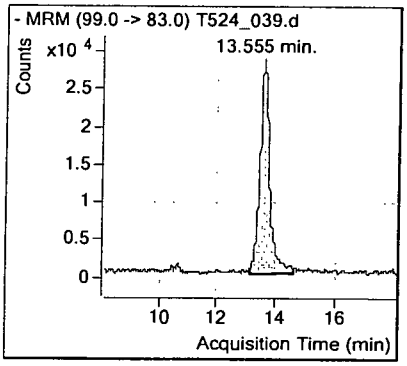
Quantitative Analysis Sample Report

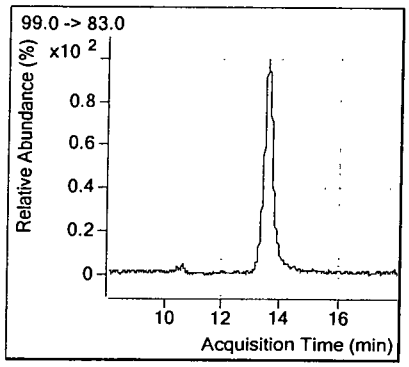
Batch Data Path	D:\MassHunter\Data\150524\QuantResults\150524_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T524_039.d	**Sample Name**	PER_CCV 0.0004 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/25/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	1:50
ClientID	NA	**Inj Vol**	20

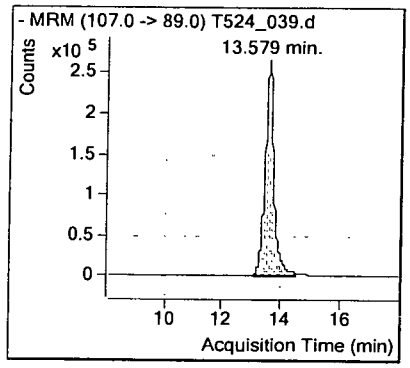


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.555	657749	5630186
Perchlorate_102	PER_IS_108	13.541	185928	5630186

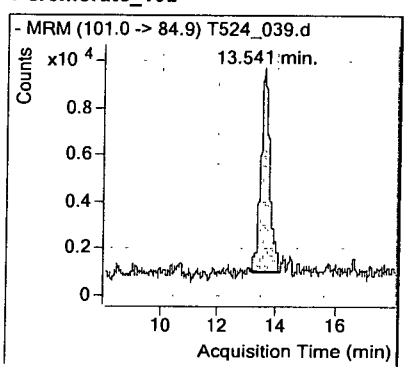
Perchlorate_100

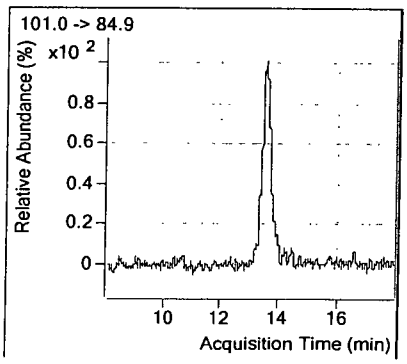


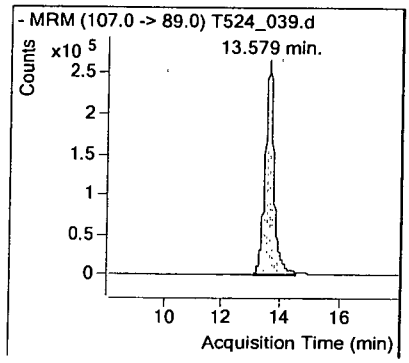




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T524_040.d

	Date (s) of Analysis From:03/12/15 To:05/25/15 Time (s) of Analysis From:17:52 To:1:13				Date of Analysis: 05/25/15 Time of Analysis: 2:09 Standard Id: PER CCV (Standard) 0.002 ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	13.76	1.182372	N	6.9
Perchlorate_85	13.70	13.60	13.80	0.391605	13.73	0.365031	N	6.8

FILE ID : TQCK2440.RFB

Data File ID: T524_040.d

Date Injected : 05/25/15

Time Injected : 2:09

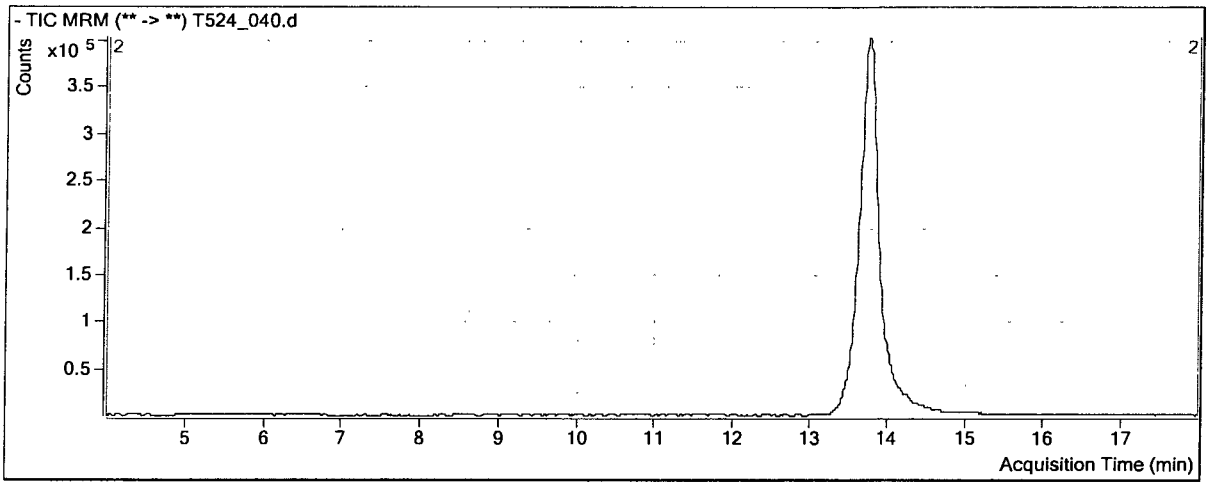
Sample ID : PER_CCV 0.002 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.742	4883385	PER_IS_89
13.759	2309592	Perchlorate_83
13.735	713034	Perchlorate_85

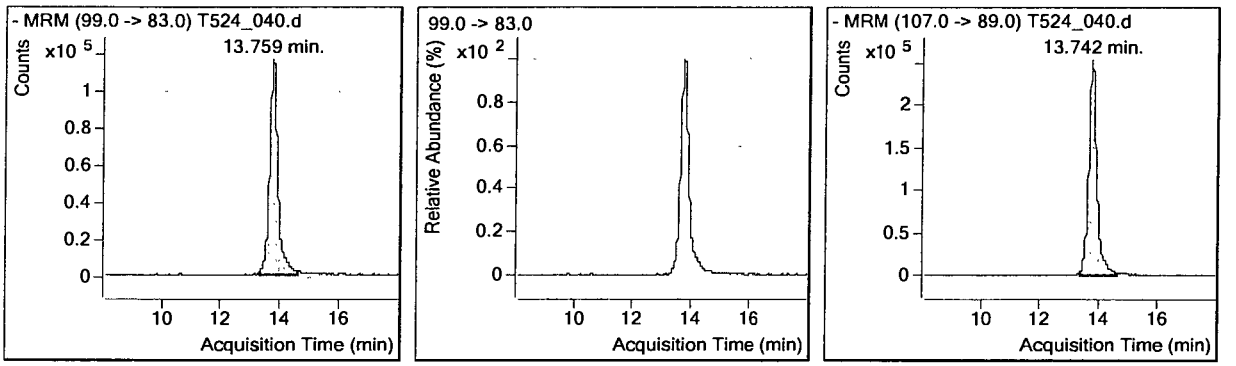
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150524\QuantResults\150524_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T524_040.d	**Sample Name**	PER_CCV 0.002 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/25/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	2:09
ClientID	NA	**Inj Vol**	20

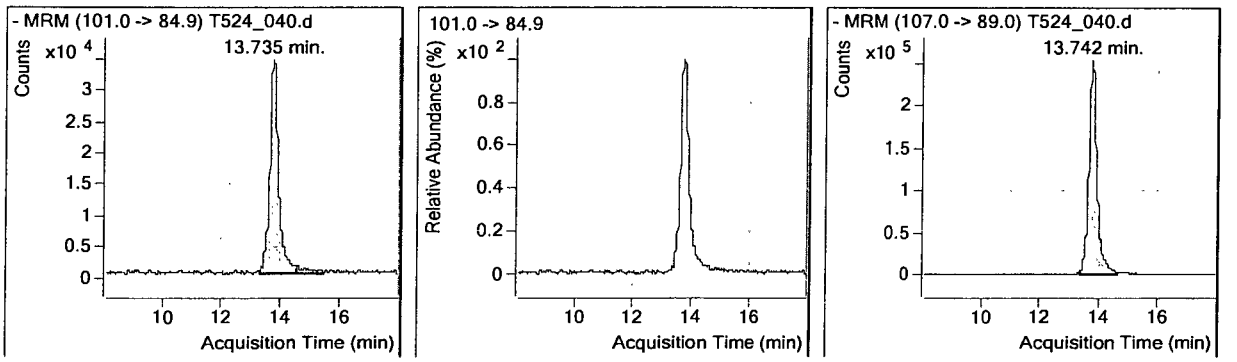


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.759	2309592	4883385
Perchlorate_102	PER_IS_108	13.735	713034	4883385

Perchlorate_100



Perchlorate_102



EPA METHOD 6850
Perchlorate
LC/MS

Raw Data

APPL, INC.

Method Blank
Perchlorate

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150518W-16287 - 198054**
Batch ID: #6850-150518A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	05/18/15	05/23/15

Quant Method: QTLMFL2
Run #: T523_021.d
Instrument: AGIL_6460
Sequence: TQ052315
Initials: RP

GC SC-Blank-REG MDLs
Printed: 06/18/15 12:26:24 PM

Data File ID: T523_021.d

Date Injected : 05/23/15

Time Injected : 21:46

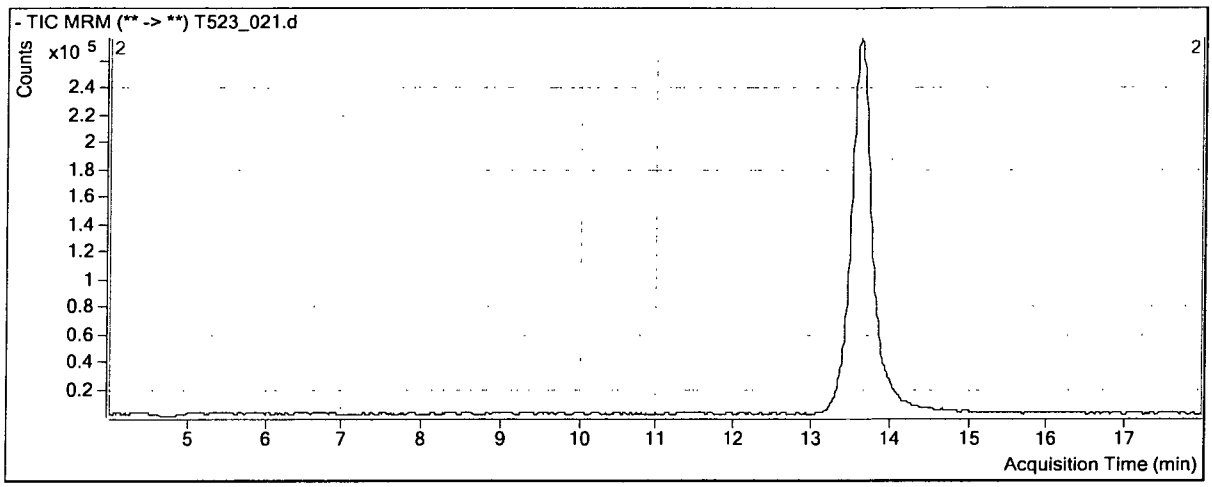
Sample ID : 150518WBLKA 1052.6 DF 05/18/15

Client ID : LAB_CNTL_W_BLKA

Retention Time	Area Count Response	Compound_ID Product Ion		
13.609	5254586	PER_IS_89		
13.015	2031	Perchlorate_83	(2031 * 0.0050) / (1.27 * 5254586.00) * 1052.60 =	0.001601 ppb
12.849	8841	Perchlorate_85	(8841 * 0.0050) / (0.39 * 5254586.00) * 1052.60 =	0.022612 ppb

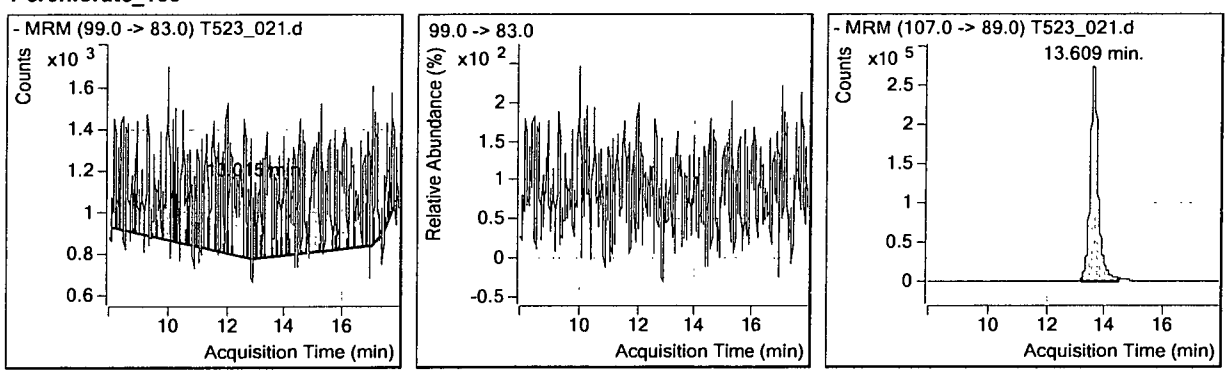
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150523\QuantResults\150523_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T523_021.d	**Sample Name**	150518WBLKA 1052.6 DF 05/18/15
Sample Type	Sample	**Acq_Date**	05/23/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	21:46
ClientID	LAB_CNTL_W_BLKA	**Inj Vol**	20

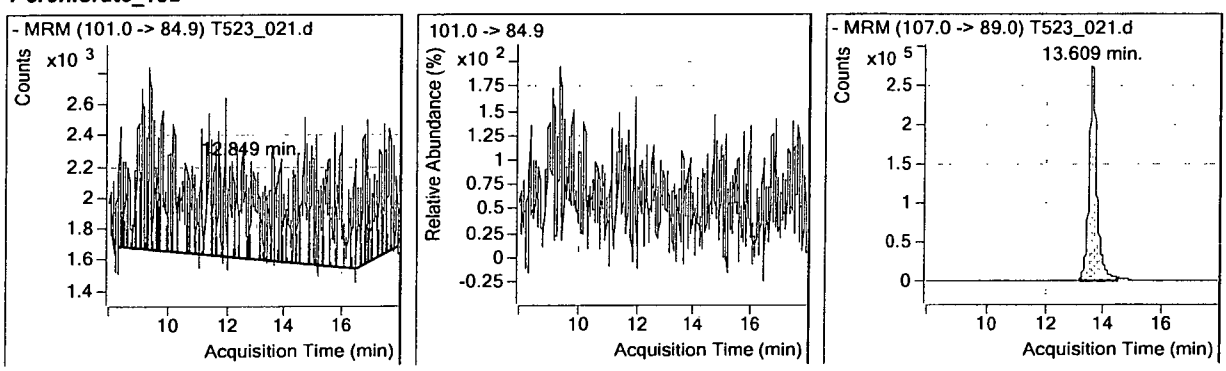


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.015	2031	5254586
Perchlorate_102	PER_IS_108	12.849	8841	5254586

Perchlorate_100



Perchlorate_102



Laboratory Control Spike Recovery
Perchlorate

APPL ID: **150518W-16287 LCS - 198054**
Batch ID: #6850-150518A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
PERCHLORATE	0.600	0.567	94.5	80-120

Comments: _____

Primary	SPK
Quant Method :	QTLMFL2
Extraction Date :	05/18/15
Analysis Date :	05/23/15
Instrument :	AGIL_6460
Run :	T523_019.d
Initials :	RP

Printed: 06/18/15 12:26:15 PM
APPL Standard LCS

Data File ID: T523_019.d

Date Injected : 05/23/15

Time Injected : 21:09

Sample ID : 150518WA_LCS-1 1052.6 DF 05/18/15

Client ID : LAB_CNTL_W_SPKA

Retention Time		Area Count Response	Compound_ID Product Ion			
13.528		4862068	PER_IS_89			
13.555		665139	Perchlorate_83	(665139 * 0.0050) / (1.27 * 4862068.00) *	1052.60 =	0.566805 ppb
13.541	*	200728	Perchlorate_85	(200728 * 0.0050) / (0.39 * 4862068.00) *	1052.60 =	0.554846 ppb

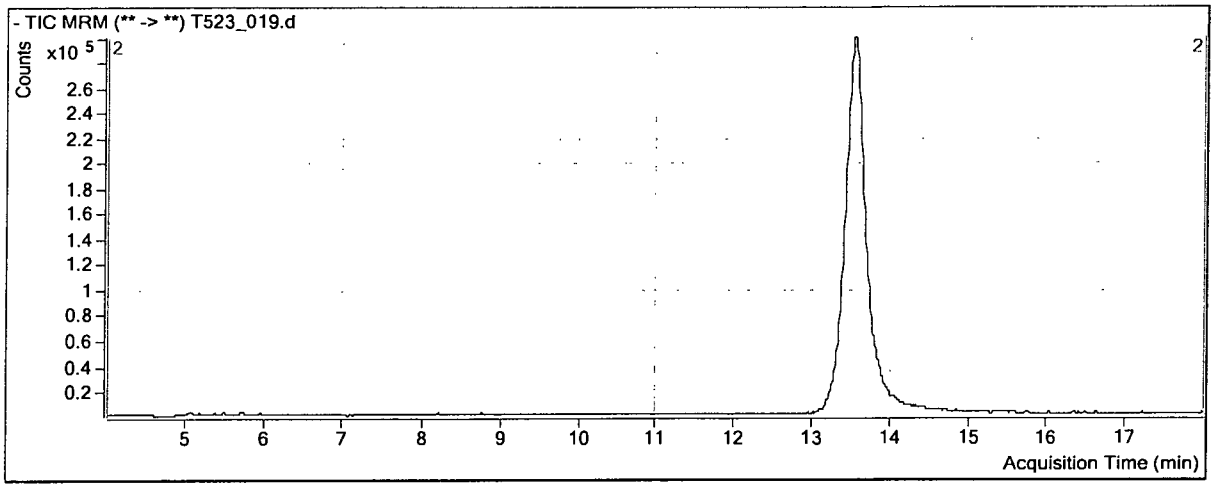
* MANUAL INTEGRAION

$$\frac{(1052.6)(665139)(0.0005)}{(1.270255)(4862068)} = 0.566805$$

6/18/15
PM

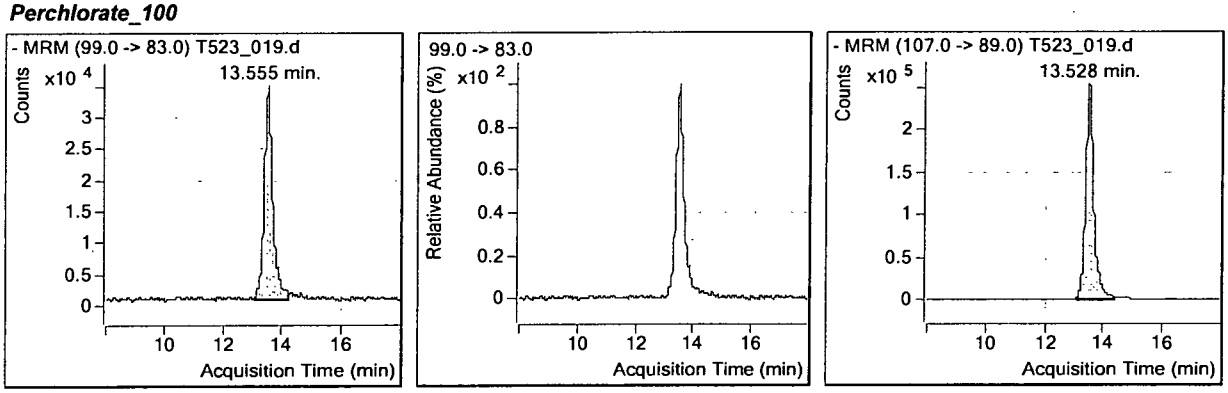
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150523\QuantResults\150523_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T523_019.d	**Sample Name**	150518WA_LCS-1 1052.6 DF 05/18/15
Sample Type	Sample	**Acq_Date**	05/23/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	21:09
ClientID	LAB_CNTL_W_SPKA	**Inj Vol**	20

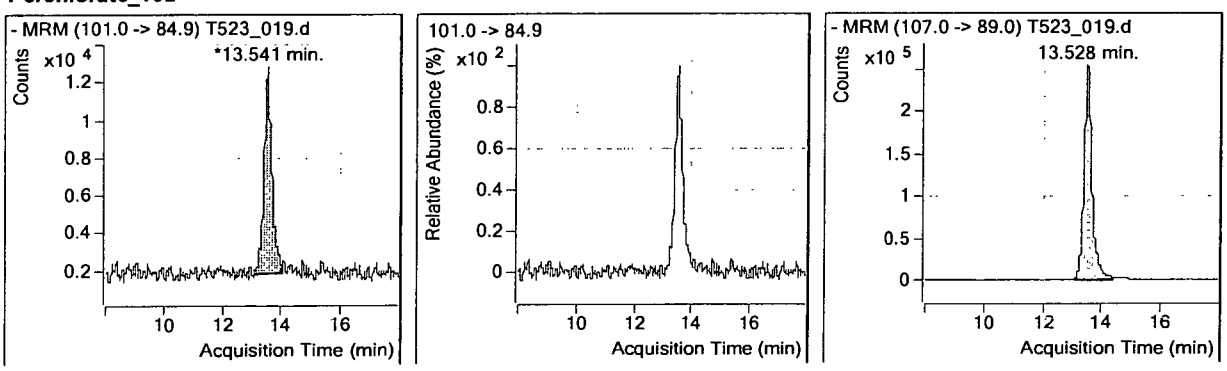


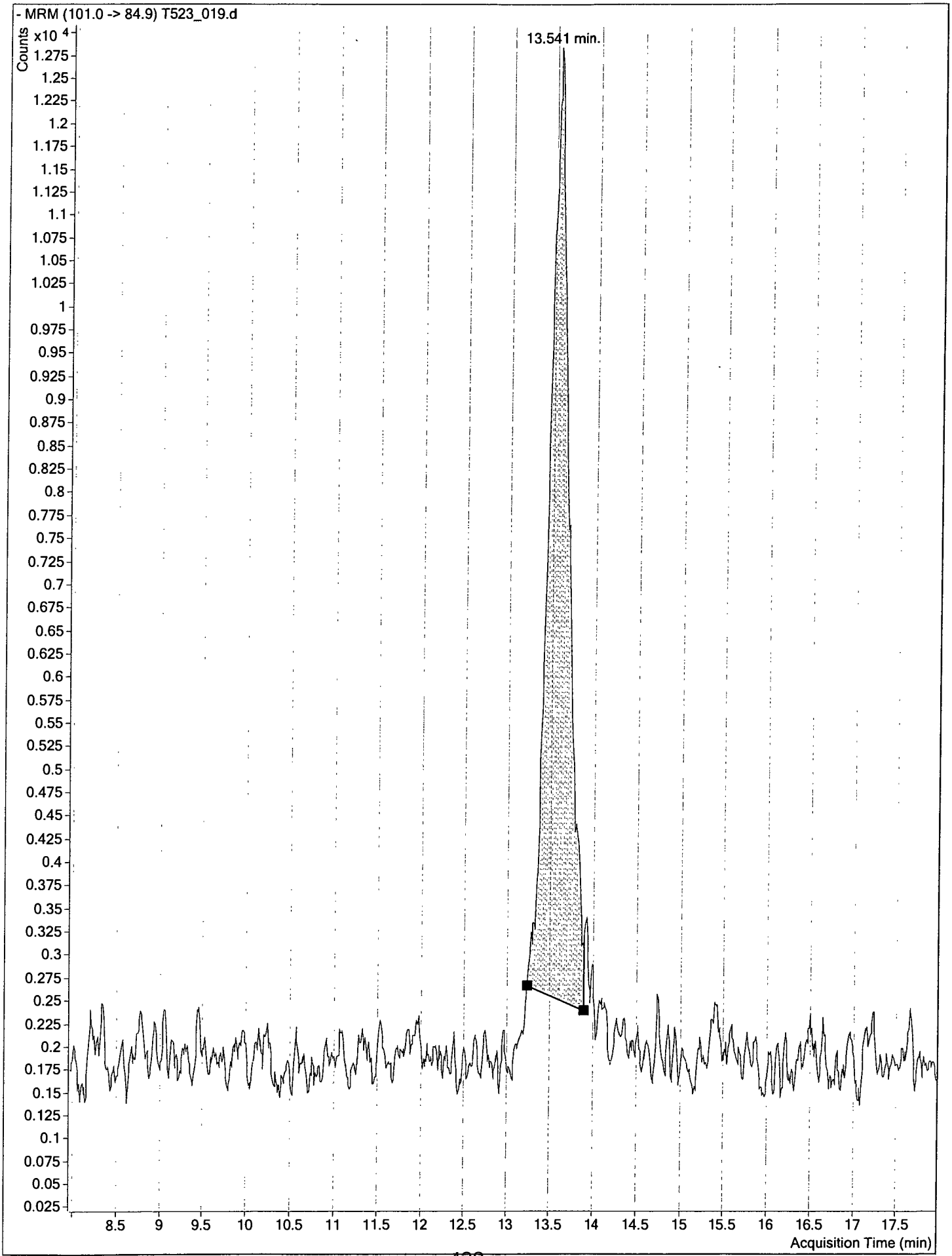
Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108		13.555	665139	4862068	
Perchlorate_102	PER_IS_108	*	13.541	200728	4862068	* MANUAL INT

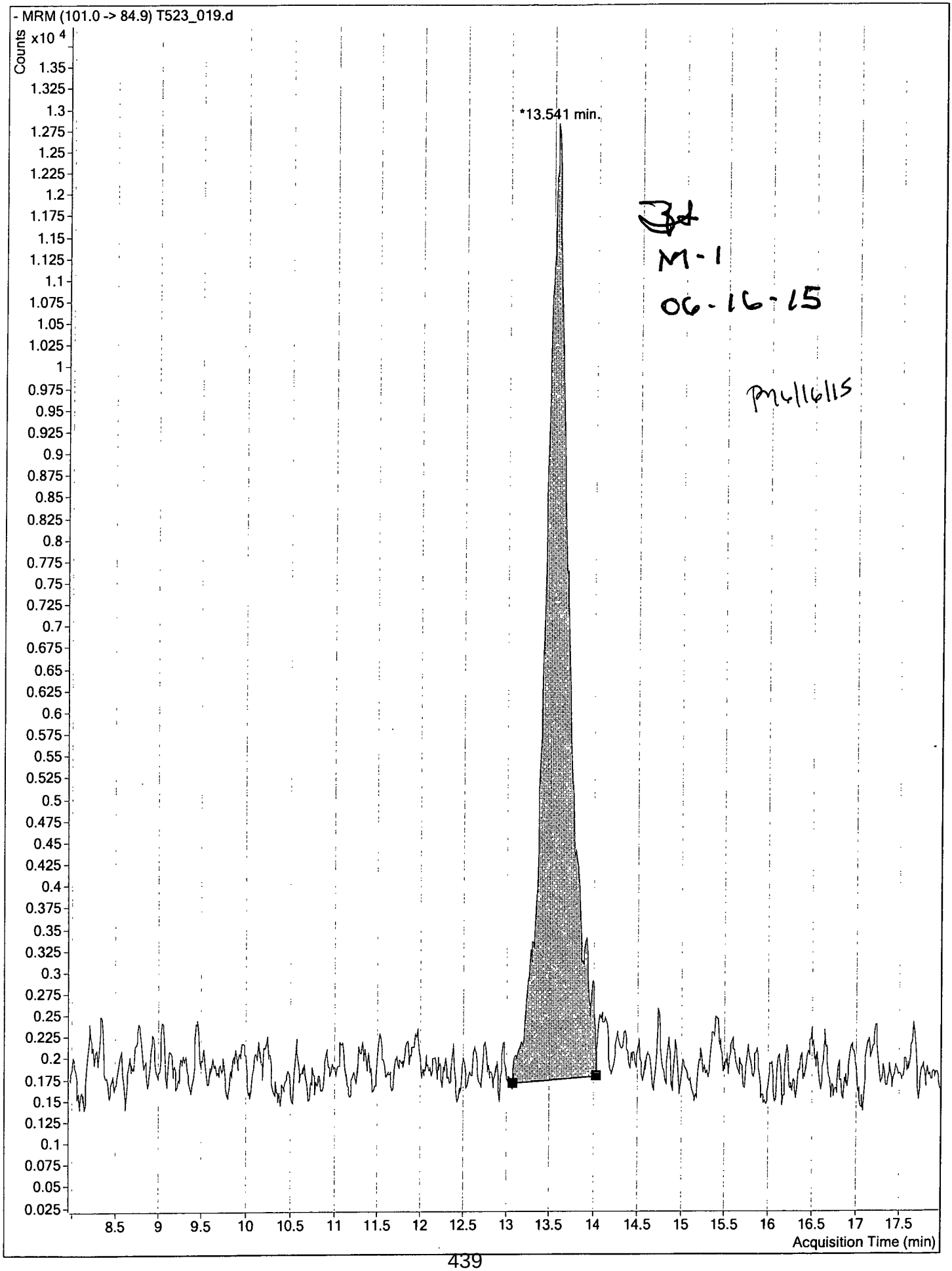
Perchlorate_100



Perchlorate_102




- MRM (101.0 -> 84.9) T523_019.d
Counts
x10 4
13.541 min.
Acquisition Time (min)


- MRM (101.0 -> 84.9) T523_019.d
Counts
x10 4
*13.541 min.
Acquisition Time (min)
M-1
06-16-15
PM 6/16/15

Interferrence Check Sample

Perchlorate EPA 6850 Water

APPL ID: 150518W-16287 ICS-198054
Batch ID: #6850-150518A

APPL Inc.
908 N. Temperance Ave.
Clovis, CA 93711

Compound Name	Spike Level ug/L	Spk Result ug/L	SPK% Recovery	Recovery Limits
Perchlorate	0.600	0.585	97.5%	70-130

Comments:

Quant Method:	QTLMFL2
Extraction Date:	05/18/15
Analysis Date:	05/23/15
Instrument:	AGIL_6560
Run:	T523_020.D
Initials:	RP

Data File ID: T523_020.d

Date Injected : 05/23/15

Time Injected : 21:28

Sample ID : 150518W_ICSA 1052.6 DF 05/18/15

Client ID : LAB_CNTL_W_ICSA

Retention Time		Area Count Response	Compound_ID Product Ion		
12.489		4707314	PER_IS_89		
12.516	*	664547	Perchlorate_83	(664547 * 0.0050) / (1.27 * 4707314.00) * 1052.60 =	0.584918 ppb
12.502		307706	Perchlorate_85	(307706 * 0.0050) / (0.39 * 4707314.00) * 1052.60 =	0.878512 ppb

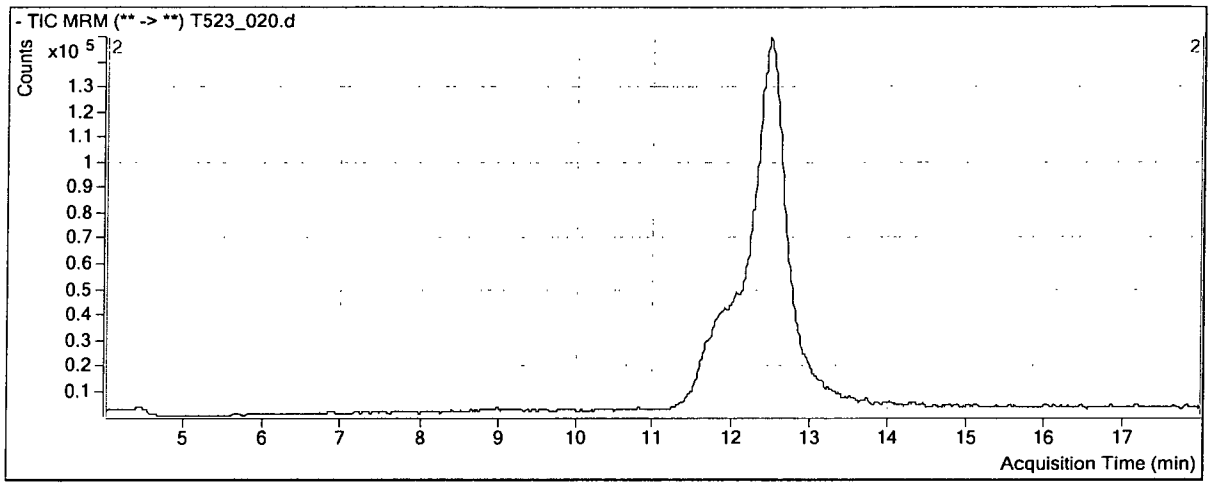
* MANUAL INTEGRAION

$$\frac{(1052.6)(664547)(0.005)}{(1.27)(4707314)} = 0.584918$$

6/16/15
PP

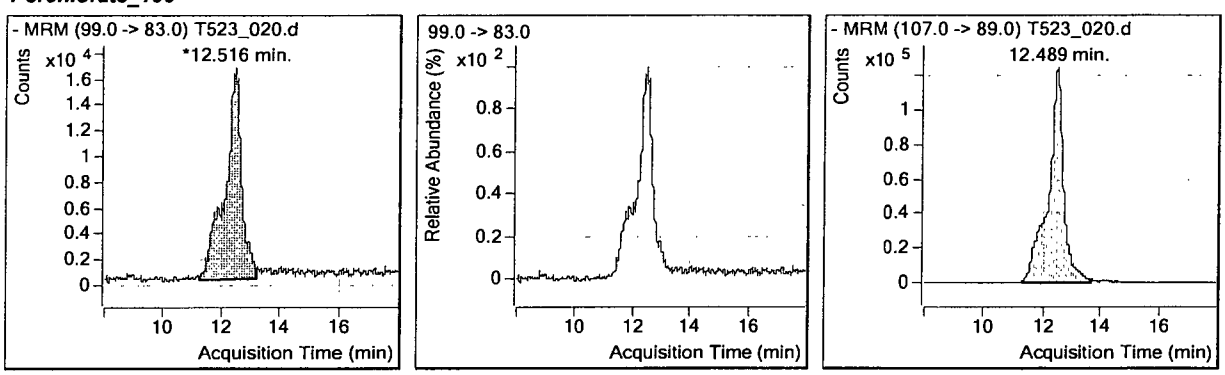
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150523\QuantResults\150523_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T523_020.d	**Sample Name**	150518W_ICSA 1052.6 DF 05/18/15
Sample Type	Sample	**Acq_Date**	05/23/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	21:28
ClientID	LAB_CNTL_W_ICSA	**Inj Vol**	20

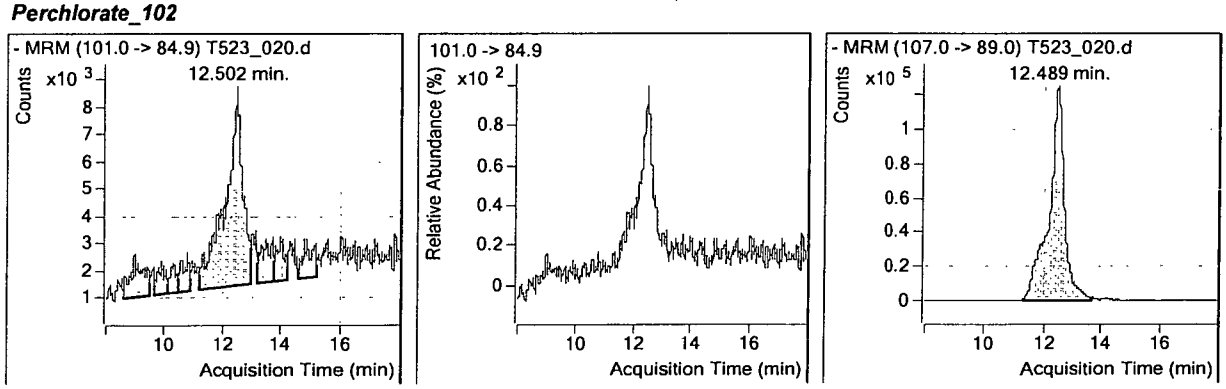


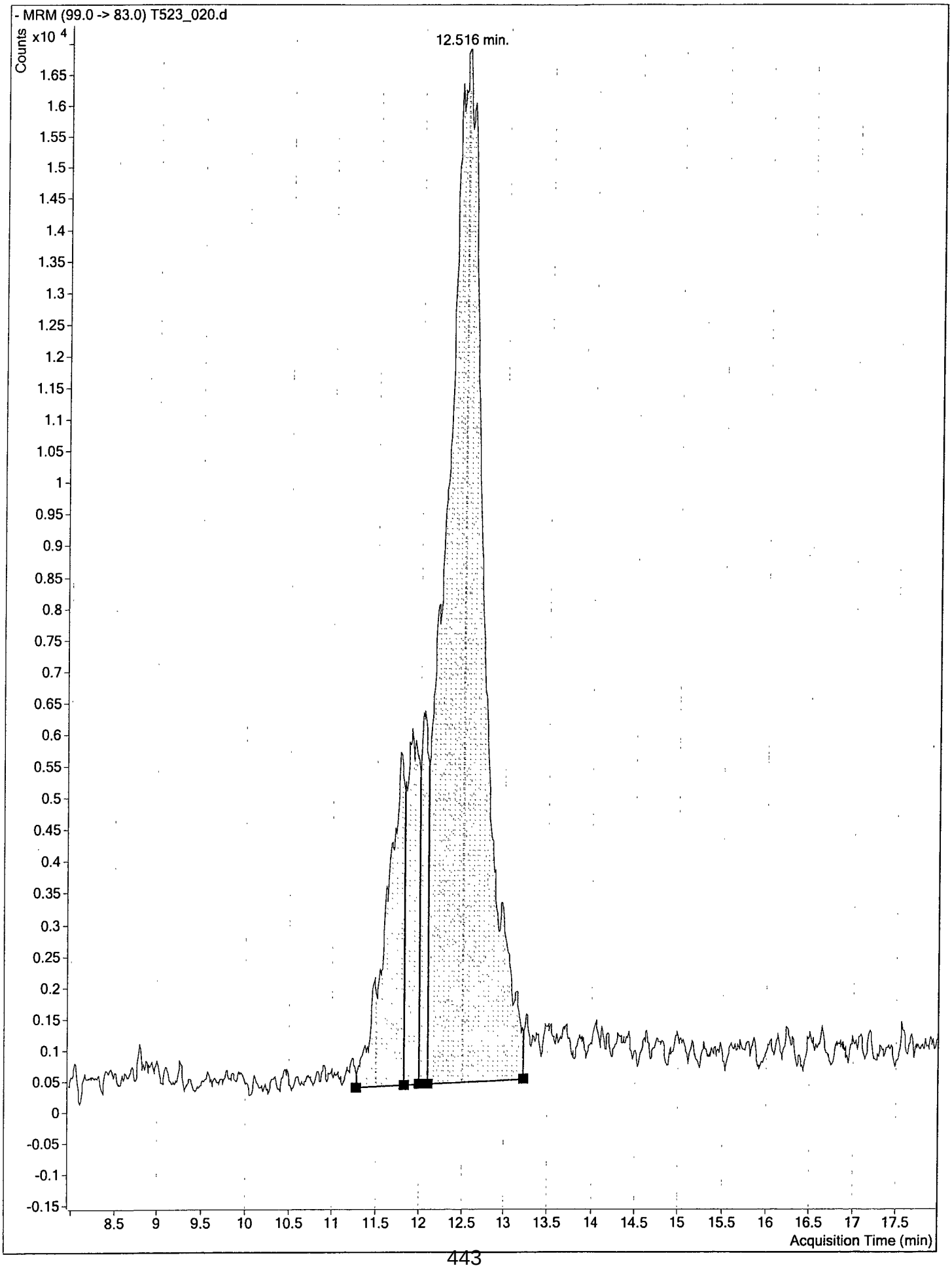
Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	12.516	664547	4707314	* MANUAL INT
Perchlorate_102	PER_IS_108		12.502	307706	4707314	

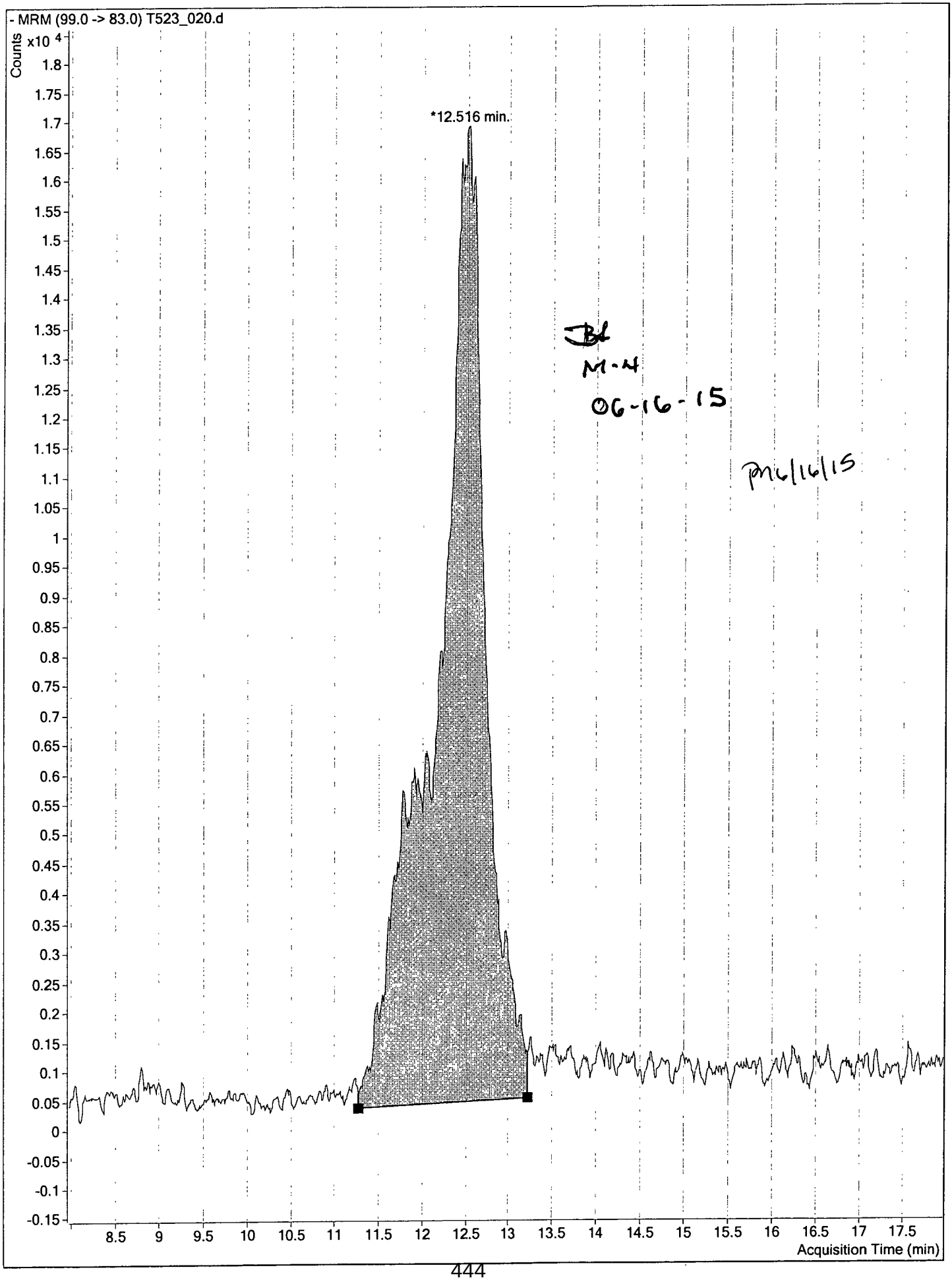
Perchlorate_100



Perchlorate_102




- MRM (99.0 -> 83.0) T523_020.d
Counts
x10 4
12.516 min.
1.65
1.6
1.55
1.5
1.45
1.4
1.35
1.3
1.25
1.2
1.15
1.1
1.05
1
0.95
0.9
0.85
0.8
0.75
0.7
0.65
0.6
0.55
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
8.5
9
9.5
10
10.5
11
11.5
12
12.5
13
13.5
14
14.5
15
15.5
16
16.5
17
17.5
Acquisition Time (min)


- MRM (99.0 -> 83.0) T523_020.d
Counts
x10 4
*12.516 min.
Acquisition Time (min)
M-4
06-16-15
PM 6/16/15

ACN_H20_50:50 1 DF 08/27/14:

Burdick & Jackson Acetonitrile Lot DL308 took 10.000 ml and added to 10.000 ml Laboratory Source DI_H20

Note : Above solution was prepared as needed.

PER_IS_50:50 0.005 ug/ml 11/11/14:

Took 19.000 ml ACN_H20_50:50 11/11/14 and added 1.000 ml O2SI 18_O_4 Perchlorate 100 ug/L lot 1059192-33479

Note: Solution prepared as needed.

PERCHLORATE 0.005 ug/ml 11/11/14:

PERCHLORATE 0.010 ug/ml 08/28/14 took 0.500 ml and added to 0.500 ml PER_IS_50:50 0.005 ug/ml 11/11/14.

PERCHLORATE 0.002 ug/ml 11/11/14:

PERCHLORATE 0.010 ug/ml 08/27/14 took 0.200 ml and added to 0.800 ml PER_IS_50:50 0.005 ug/ml 11/11/14.

PERCHLORATE 0.001 ug/ml 11/11/14:

PERCHLORATE 0.010 ug/ml 08/27/14 took 0.100 ml and added to 0.900 ml PER_IS_50:50 0.005 ug/ml 11/11/14.

PERCHLORATE 0.0004 ug/ml 11/11/14: PERCHLORATE 0.010 ug/ml 08/27/14 took 0.040 ml and added to 0.960 ml PER_IS_50:50 0.005 ug/ml 11/11/14.
PERCHLORATE 0.0002 ug/ml 11/11/14: PERCHLORATE 0.010 ug/ml 08/27/14 took 0.020 ml and added to 0.980 ml PER_IS_50:50 0.005 ug/ml 11/11/14.
PERCHLORATE 0.0001 ug/ml 11/11/14: PERCHLORATE 0.010 ug/ml 08/27/14 took 0.010 ml and added to 0.990 ml PER_IS_50:50 0.005 ug/ml 11/11/14.
PER_CCV_1 0.0004 ug/ml 11/11/14: PERCHLORATE 0.010 ug/ml 08/27/14 took 0.040 ml and added to 0.960 ml PER_IS_50:50 0.005 ug/ml 11/11/14.
PER_CCV_1 0.002 ug/ml 11/11/14: PERCHLORATE 0.010 ug/ml 08/27/14 took 0.200 ml and added to 0.800 ml PER_IS_50:50 0.005 ug/ml 11/11/14.
PER_CCV_2 0.0004 ug/ml 11/11/14: PERCHLORATE 0.010 ug/ml 08/27/14 took 0.040 ml and added to 0.960 ml PER_IS_50:50 0.005 ug/ml 11/11/14.

PER_CCV_2 0.002 ug/ml 08/27/14: PERCHLORATE 0.010 ug/ml 08/27/14 took 0.200 ml and added to 0.800 ml PER_IS_50:50 0.005 ug/ml 11/11/14.
PER_CCV_3 0.0004 ug/ml 11/11/14: PERCHLORATE 0.010 ug/ml 08/27/14 took 0.040 ml and added to 0.960 ml PER_IS_50:50 0.005 ug/ml 11/11/14.
PER_CCV_3 0.002 ug/ml 11/11/14: PERCHLORATE 0.010 ug/ml 08/28/14 took 0.200 ml and added to 0.800 ml PER_IS_50:50 0.005 ug/ml 11/11/14.
PER_CCV_4 0.0004 ug/ml 11/11/14: PERCHLORATE 0.010 ug/ml 08/27/14 took 0.040 ml and added to 0.960 ml PER_IS_50:50 0.005 ug/ml 11/11/14.
PER_CCV_4 0.002 ug/ml 11/11/14: PERCHLORATE 0.010 ug/ml 08/27/14 took 0.200 ml and added to 0.800 ml PER_IS_50:50 0.005 ug/ml 11/11/14.
PER_SS 0.0004 ug/ml 11/11/14: PER_SS 0.010 ug/ml 08/28/14 took 0.040 ml and added to 0.960 ml PER_IS_50:50 0.005 ug/ml 11/11/14.
PER_SS 0.002 ug/ml 11/11/14: PER_SS 0.010 ug/ml 08/28/14 took 0.200 ml and added to 0.800 ml PER_IS_50:50 0.005 ug/ml 11/11/14.

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE INITIALS
Seav_spk 250 mg/ml							
Hexahydro-1,3,5-tris-hydroxyethyltriazine							
	1010	04-10-15	1.24	5.0	250	ACN/DM394	04-17-15
2,2'-thiodiethanol							
	1090	04-10-15	1.15				
2-(1,3,5-Dithiazinan-5-yl)ethanol							
	1020	04-10-15	1.23				

PER_CCV 0.0004 µg/ml 04-20-15:
PER_SS 0.010 µg/ml 08-28-14
took 0.040 ml and added to
0.910 ml Laboratory Source DI-H2O
that had previously received
0.050 ml 025I $^{18}O_4$ Perchlorate
100 µg/L lot 1059192-33479

PER_CCV 0.002 µg/ml 04-20-15:
PER_SS 0.010 µg/ml 08-28-14
took 0.200 ml and added to
0.750 ml Laboratory Source DI-H2O
that had previously received
0.050 ml 025I $^{18}O_4$ Perchlorate
100 µg/L lot 1059192-33479

040 LC/MS STANDARD PREP LOG# 105 PAGE 40

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE INITIALS
PER IS 0.005µg/ml 04-20-15:							JBl
02SI $^{18}O_4$ Perchlorate					100µg/L		04-21-15
Lot 1059192-33479 took 0.050ml and added to 0.950 ml Laboratory Source DI H2O.							
NOTE: Repeated the above process four times in order to prepare 2-2ml vials that were full. The above was performed as dated. JBl							

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL. EXP. DATE LOT #	INITIALS

NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: 05-19-15 JH

PER. CCV 0.0004 µg/ml 05:07-15: JH
PER. SS 0.010 µg/ml 08-28-14 took 05-07-15
0.040 ml and added to 0.910 ml
Laboratory Source DI-H2O that
had previously received 0.050 ml
02SI $^{18}O_4$ Perchlorate 100 µg/L
lot 1074176-35163

PER. CCV 0.002 µg/ml 05-07-15:
PER. SS 0.010 µg/ml 08-28-14
took 0.200 ml and added to
0.750 ML Laboratory Source
DI-H2O that had previously
received 0.050 ml 02SI $^{18}O_4$
Perchlorate 100 µg/L lot
1074176-35163

PER. IS 0.005 µg/ml 05-07-15:
02SI $^{18}O_4$ Perchlorate 100 µg/L
Lot 1074176-35163 took 0.050
ml and added to 0.950 ml
Laboratory Source DI-H2O
NOTE: Repeated the above
process four times in order
to prepare 2-2ml vials
that were full.

076

LC/MS STANDARD PREP LOG# 105 PAGE# 76

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT#	DATE & INITIALS
NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: 06-02-15							JA 06-02-15
PER_IS_50:50 0.005µg/ml 05-10-15: COMBINED 10.000 ml Laboratory Source DI_H2O with 10.000 ml Burdick + Jackson Acetonitrile lot DL308 Withdrew 1.000ml and then delivered 1.000 ml 025I $^{18}O_4$ Perchlorate 100µg/L lot 1074176-35163							JL 05-10-15
AZ16057_W01 10526.3 DF 05-07-15_5/10: AZ16057_W01 1052.6 DF 05-07-15 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005µg/ml 05-10-15							
AZ16057_W01 105263.2 DF 05-07-15_5/10: AZ16057_W01 10526.3 DF 05-07-15_5/10 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005µg/ml 05-10-15							
AZ16057_W01 1052631.6 DF 05-07-15_5/10: AZ16057_W01 105263.2 DF 05-07-15_5/10 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005µg/ml 05-10-15							

ICPMS STANDARD PREP LOG# 105 PAGE 77

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL. EXP. DATE LOT #	DATE INITIALS

NOTE: THE FOLLOWING DOCUMENTATION 3/6
WAS PERFORMED AS DATED: 06-02-15 06-02-15

AZ16057_W01 10526315.8 DF 05-07-15_5/10: 3/6
AZ16057_W01 1052631.6 DF 05-07-15_5/10 05-10-15
TOOK 0.050 ml AND ADDED TO
0.450 ml PER_IS_50:50 0.005 µg/ml
05-10-15

AZ16059_W01 10526.3 DF 05-07-15_5/10:
AZ16059_W01 1052.6 DF 05-07-15_5/10
TOOK 0.050 ml AND ADDED TO
0.450 ml PER_IS_50:50 0.005 µg/ml
05-10-15

AZ16059_W01 105263.2 DF 05-07-15_5/10:
AZ16059_W01 10526.3 DF 05-07-15_5/10
TOOK 0.050 ml AND ADDED TO
0.450 ml PER_IS_50:50 0.005 µg/ml
05-10-15

AZ16059_W01 1052631.6 DF 05-07-15_5/10:
AZ16059_W01 105263.2 DF 05-07-15_5/10
TOOK 0.050 ml AND ADDED TO
0.450 ml PER_IS_50:50 0.005 µg/ml
05-10-15

AZ16059_W01 10526315.8 DF 05-07-15_5/10:
AZ16059_W01 1052631.6 DF 05-07-15_5/10
TOOK 0.050 ml AND ADDED TO
0.450 ml PER_IS_50:50 0.005 µg/ml
05-10-15

LC/MS STANDARD PREP LOG# 105 PAGE# 78

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE & INITIALS
NOTE: THE FOLLOWING DOCUMENTATION							JR
WAS PERFORMED AS DATED: JR 06-02-15							06-02-15
AZ16061-W01 10526.3 DF 05-07-15_5/10:							JR
AZ16061-W01 10526 DF 05-07-15							05-10-15
TOOK 0.050 ml AND ADDED TO							
0.450 ml PER_IS_50:50 0.005 µg/ml							
05-10-15							
AZ16061-W01 105263.2 DF 05-07-15_5/10:							
AZ16061-W01 10526.3 DF 05-07-15_5/10							
TOOK 0.050 ml AND ADDED TO							
0.450 ml PER_IS_50:50 0.005 µg/ml							
05-10-15							
AZ16061-W01 10526316 DF 05-07-15_5/10:							
AZ16061-W01 105263.2 DF 05-07-15_5/10							
TOOK 0.050 ml AND ADDED TO							
0.450 ml PER_IS_50:50 0.005 µg/ml							
05-10-15							
AZ16061-W01 105263158 DF 05-07-15_5/10							
AZ16061-W01 10526316 DF 05-07-15_5/10							
TOOK 0.050 ml AND ADDED TO							
0.450 ml PER_IS_50:50 0.005 µg/ml							
05-10-15							

VOMS STANDARD PREP LOG# 105 PAGE 79

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL. EN LOT # 079	DATE INITIALS

NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: JH 06-02-15 — JH 06-02-15

AZ16062-W01 10526.3 DF 05-07-15_5/10: — JH
AZ16062-W01 1052.6 DF 05-07-15_5/10 — 05-10-15
TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005µg/ml 05-10-15

AZ16062-W01 105263.2 DF 05-07-15_5/10:
AZ16062-W01 10526.3 DF 05-07-15_5/10
TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005µg/ml 05-10-15

AZ16062-W01 1052631.6 DF 05-07-15_5/10:
AZ16062-W01 105263.2 DF 05-07-15_5/10
~~TOOK 0.450 ml~~ JH 06-02-15 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-10-15

AZ16062-W01 10526315.8 DF 05-07-15_5/10:
AZ16062-W01 1052631.6 DF 05-07-15_5/10
TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005µg/ml 05-10-15

AZ16062-W01-MS-1 10526.3 DF 05-07-15_5/10
AZ16062-W01-MS-1 1052.6 DF 05-07-15
TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005µg/ml 05-10-15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT / LOT#	DATE / INITIALS
NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: JBl 06-02-15							JBl 06-02-15
AZ16062-W01-MS-1	105263.2	DF 05-07-15		5/10			JBl
AZ16062-W01-MS-1	10526.3	DF 05-07-15		5/10			05-10
TOOK 0.050 ml AND ADDED TO 0.450 ml PER IS 50:50 0.005 µg/ml 05-10-15							
AZ16062-W01-MS-1	1052631.6	DF 05-07-15		5/10			
AZ16062-W01-MS-1	105263.2	DF 05-07-15		5/10			
TOOK 0.050 ml AND ADDED TO 0.450 ml PER IS 50:50 0.005 µg/ml 05-10-15							
AZ16062-W01-MS-1	10526315.8	DF 05-07-15		5/10			
AZ16062-W01-MS-1	1052631.6	DF 05-07-15		5/10			
TOOK 0.050 ml AND ADDED TO 0.450 ml PER IS 50:50 0.005 µg/ml 05-10-15							
AZ16062-W01-MSD-1	10526.3	DF 05-07-15		5/10			
AZ16062-W01-MSD-1	1052.6	DF 05-07-15					
TOOK 0.050 ml AND ADDED TO 0.450 ml PER IS 50:50 0.005 µg/ml 05-10-15							
AZ16062-W01-MSD-1	105263.2	DF 05-07-15		5/10			
AZ16062-W01-MSD-1	10526.3	DF 05-07-15		5/10			
TOOK 0.050 ml AND ADDED TO 0.450 ml PER IS 50:50 0.005 µg/ml 05-10-15							

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL. CN. 081 LOT#	DATE INITIALS

NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED. JL 06-02-15 — JL 06-02-15

AZ16062-W01-MSD-1 1052631.6 DF 05-07-15-5/10 — JL
AZ16062-W01-MSD-1 105263.2 DF 05-07-15-5/10 — 05-10-15
TOOK 0.050 ml AND ADDED TO 0.450 ml PER-IS-50:50 0.005 µg/ml 05-10-15

AZ16062-W01-MSD-1 10526315.8 DF 05-07-15-5/10
AZ16062-W01-MSD-1 1052631.6 DF 05-07-15-5/10 TOOK 0.050 ml AND ADDED TO 0.450 ml PER-IS-50:50 0.005 µg/ml 05-10-15

AZ16058-W01 10526.3 DF 05-07-15-5/10:
AZ16058-W01 1052.6 DF 05-07-15-5/10
TOOK 0.050 ml AND ADDED TO 0.450 ml PER-IS-50:50 0.005 µg/ml 05-10-15

AZ16058-W01 105263.2 DF 05-07-15-5/10:
AZ16058-W01 10526.3 DF 05-07-15-5/10
TOOK 0.050 ml AND ADDED TO 0.450 ml PER-IS-50:50 0.005 µg/ml 05-10-15

AZ16058-W01 1052631.6 DF 05-07-15-5/10:
AZ16058-W01 105263.2 DF 05-07-15-5/10
TOOK 0.050 ml AND ADDED TO 0.450 ml PER-IS-50:50 0.005 µg/ml 05-10-15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N. LOT #	DATE/INITIAL
NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED JL 06-02-15							JL
							06-02-15
AZ16060_W01 10526.3 DF 05-07-15_5/10:							JL
AZ16060_W01 1052.6 DF 05-07-15 TOOK 0.050 ml AND ADDED TO 0.450 ml PER IS_50:50 0.005 µg/ml 05-10-15							05-10-15
							5/11 JL
AZ16055_W01 10526.3 DF 05-07-15_~~5/10~~:							JL
AZ16055_W01 1052.6 DF 05-07-15 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-10-15							05-10-15
							5/11 JL
AZ16055_W01 105263.2 DF 05-07-15_~~5/10~~:							
AZ16055_W01 10526.3 DF 05-07-15_5/10 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-10-15							
							5/11 JL
AZ16055_W01 1052631.6 DF 05-07-15_~~5/10~~							
AZ16055_W01 105263.2 DF 05-07-15_5/10 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-10-15							
							JL 5/11
AZ16056_W01 10526.3 DF 05-07-15_~~5/10~~:							
AZ16056_W01 1052.6 DF 05-07-15 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-10-15							

GCMS STANDARD PREP LOG# 105 PAGE 83

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL. CONT. LOT #	DATE INITIALS
NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED ~~JB~~ 06-02-15							JB 06-02-15
AZ16056-W01 105263.2 DF 05-07-15 ~~5/10~~ 5/11: AZ16056-W01 10526.3 DF 05-07-15 5/~~10~~ 11 TOOK 0.050 ml AND ADDED TO 0.450 ml PER IS 50:50 0.005 µg/ml 05-10-15							JB 05-11-15
AZ16056-W01 1052631.6 DF 05-07-15 ~~5/10~~ 5/11: AZ16056-W01 105263.2 DF 05-07-15 5/~~10~~ TOOK 0.050 ml AND ADDED TO 0.450 ml PER IS 50:50 0.005 µg/ml 05-10-15							
AZ16136-W01 4210.4 DF 05-08-15 5/11: AZ16136-W01 1052.6 DF 05-08-15 TOOK 0.050 ml AND ADDED TO 0.150 ml PER IS 50150 0.005 µg/ml 05-10-15							
AZ16237-W01 ~~1052.6~~ 10526.3 DF 05-12-15 5/13: AZ16237-W01 1052.6 DF 05-12-15 TOOK 0.050 ml AND ADDED TO 0.450 ml PER IS 50:50 0.005 µg/ml 05-10-15							JB 05-13-15
AZ16237-W01 105263.2 DF 05-12-15 5/13 AZ16237-W01 10526.3 DF 05-12-15 5/13 TOOK 0.050 ml AND ADDED TO 0.450 ml PER IS 50:50 0.005 µg/ml 05-10-15							

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STANDARD	INITIAL CONC	SOURCE DATE	AMOUNT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE & INITIALS

NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: JL 06-02-15 JL 06-02-15

AZ16237_W01 1052631.6 DF 05-12-15_5-13 JL
AZ16237_W01 105263.2 DF 05-12-15_5/13 05-13-15
TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-10-15

AZ16237_W01 10526315.8 DF 05-12-15_5/13
AZ16237_W01 1052631.6 DF 05-12-15_5/13
TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-10-15

AZ16229_W01 10526.3 DF 05-12-15_5/13:
AZ16229_W01 1052.6 DF 05-12-15
TOOK 0.050 ml AND ADDED TO JL ~~0.05~~ 0.450 ml PER_IS_50:50 0.005 µg/ml 05-10-15

AZ16229_W01 105263.2 DF 05-12-15_5/13
AZ16229_W01 10526.3 DF 05-12-15_5/13
TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-10-15

VOMS STANDARD PREP LOG# 105 PAGE 85

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE INITIALS
NOTE: THE FOLLOWING DOCUMENTATION							JL
WAS PERFORMED AS DATED JL 06-02-15							06-02-15
AZ16229-W01 1052631.6 DF 05-12-15 5/13; JL							
AZ16229-W01 105263.2 DF 05-12-15 5/13							05-13-15
TOOK 0.050 ml AND ADDED TO 0.450							
ml PER IS 50:50 0.005 µg/ml 05-10-15							

VOMS STANDARD PREP LOG# 105 PAGE 96

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N. LOT#	DATE/ INITIALS
NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: JH 06-18-15							JH 06-18-15
AZ16233_W01 105263.2 DF 05-12-15_5/14: AZ16233_W01 10526.3 DF 05-12-15_5/14 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							JH 05-14-15
AZ16231_W01 10526.3 DF 05-12-15_5/15: AZ16231_W01 1052.6 DF 05-12-15 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							
AZ16231_W01 105263.2 DF 05-12-15_5/15: AZ16231_W01 10526.3 DF 05-12-15_5/15 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							
AZ16231_W01 1052631.6 DF 05-12-15_5/15: AZ16231_W01 105263.2 DF 05-12-15_5/15 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							
AZ16335_W0N 10526.3 DF 05-18-15_5/24: AZ16335_W0N 1052.6 DF 05-18-15 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							JH 05-24-15

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	NOL. TEMP. LOT#	DATE INITIALS
NOTE: THE FOLLOWING DOCUMENTATION							JL
WAS PERFORMED AS DATED: JL 06-18-15							06-18-15
AZ16335_WOH 105263.2 DF 05-18-15_5/24:							JL
AZ16335_WOH 10526.3 DF 05-18-15_5/24:							05-24-15
TOOK 0.050 ml AND ADDED TO 0.450 ml							
PER_IS_50:50 0.005 µg/ml 05-14-15							
AZ16335_WOH 1052631.6 DF 05-18-15_5/24:							
AZ16335_WOH 105263.2 DF 05-18-15_5/24							
TOOK 0.050ml AND ADDED TO 0.450ml							
PER_IS_50:50 0.005µg/ml 05-14-15							
AZ16335_WOH 10526315.8 DF 05-18-15_5/24:							
AZ16335_WOH 1052631.6 DF 05-18-15_5/24							
TOOK 0.050ml AND ADDED TO 0.450ml							
PER_IS_50:50 0.005µg/ml 05-14-15							
AZ16334_WOH 10526.3 DF 05-18-15_5/24:							
AZ16334_WOH 1052.6 DF 05-18-15 TOOK							
0.050ml AND ADDED TO 0.450ml							
PER_IS_50:50 0.005µg/ml 05-14-15.							
AZ16334_WOH 105263.2 DF 05-18-15_5/24:							
AZ16334_WOH 10526.3 DF 05-18-15 TOOK							
0.050ml AND ADDED TO 0.450ml							
PER_IS_50:50 0.005µg/ml 05-14-15							

I GMS STANDARD PREP LOG# 105 PAGE 98

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT #	DATE/ INITIALS
NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: JR 06-18-15							JR 06-18-15
AZ16334_W04 105263.2 DF 05-18-15_5/24							JR 05-24-15
AZ16334_W04 105263.3 DF 05-18-15_5/24 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							
AZ16334_W04 1052631.6 DF 05-18-15_5/24: AZ16334_W04 105263.2 DF 05-18-15_5/24 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							
AZ16334_W04 10526315.8 DF 05-18-15_5/24: AZ16334_W04 1052631.6 DF 05-18-15_5/24 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							
AZ16288_W04 10526.3 DF 05-18-15_5/24: AZ16288_W04 1052.6 DF 05-18-15. TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							
AZ16290_W04 10526.3 DF 06-18-15_5/24: AZ16290_W04 1052.6 DF 05-18-15_~~5/24~~ TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							JR

VOMS STANDARD PREP LOG# 105 PAGE# 99

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT#	DATE INITIALS
NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: BR 06-18-15							BR 06-18-15
AZ16336_WOH 105263.DF 05-18-15_5/24: AZ16336_WOH 1052.6 DF 05-18-15 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							BR 05-24-15
AZ16336_WOH 105263.2 DF 05-18-15_5/24: AZ16336_WOH 10526.3 DF 05-18-15_5/24 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							
AZ16336_WOH 105263.6 DF 05-18-15_5/24: AZ16336_WOH 105263.2 DF 05-18-15_5/24 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							
AZ16338_WOH 10526.3 DF 05-18-15_5/24: AZ16338_WOH 1052.6 DF 05-18-15 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							
AZ16338_WOH 105263.2 DF 05-18-15_5/24: AZ16338_WOH 10526.3 DF 05-18-15_5/24 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT#	DATE/INITIALS
NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: JK 06-18-15							JK 06-18-15
AZ16338_WO4 1052631.6 DF 05-18-15_5/24							JK
AZ16338_WO4 105263.2 DF 05-18-15_5/24 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							05-24-15
AZ16341_WO4 10526.3 DF 05-18-15_5/24: AZ16341_WO4 1052.6 DF 05-18-15 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							
AZ16341_WO4 105263.2 DF 05-18-15_5/24: AZ16341_WO4 10526.3 DF 05-18-15_5/24 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							
AZ16341_WO4 1052631.6 DF 05-18-15_5/24: AZ16341_WO4 105263.2 DF 05-18-15_5/24 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							
AZ16337_WO4 10526.3 DF 05-18-15_5/24: AZ16337_WO4 1052.6 DF 05-18-15 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 05-14-15							

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DATE INITIALS	STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE INITIALS
Bl 06-18-15	NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: 06-19-15							Bl 06-19-15
Jl 05-24-15	AZ16337_WO4 105263.2 DF 05-18-15_5/24: AZ16337_WO4 10526.3 DF 05-18-15_5/24 TOOK 0.050ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005µg/ml 05-14-15							Jl 05-24-15
	AZ16339_WO4 10526.3 DF 05-18-15_5/24: AZ16339_WO4 1052.6 DF 05-18-15 TOOK 0.050ml AND ADDED TO 0.450ml PER_IS_50:50 0.005µg/ml 05-14-15							
	AZ16339_WO4 105263.2 DF 05-18-15_5/24: AZ16339_WO4 10526.3 DF 05-18-15_5/24 TOOK 0.050ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005µg/ml 05-14-15							
	AZ16342_WO4 10526.3 DF 05-18-15_5/24: AZ16342_WO4 1052.6 DF 05-18-15 TOOK 0.050ml AND ADDED TO 0.450ml PER_IS_50:50 0.005µg/ml 05-14-15							
	AZ16342_WO4 105263.2 DF 05-18-15_5/24: AZ16342_WO4 10526.3 DF 05-18-15_5/24 TOOK 0.050ml AND ADDED TO 0.450ml PER_IS_50:50 0.005µg/ml 05-14-15							

Organic Extraction Worksheet

Method	EPA 6850 HPLC Perchlorate Extraction	Extraction Set	150518A	Extraction Method	HPL6850	Units	mL

Spiked ID 1	Perchlorate Spike Mix 0.1ppm 8-28-14 EXP 7-31-15		Surrogate ID 1		
Spiked ID 2	Mix Anions 25,000ppm 2-10-15 EXP 2-10-16		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	05/18/15 10:05	
Spiked ID 8			Ext. End Time:	05/18/15 10:23	
			GC Requires Extract By:		
			pH1		Water Bath Temp Criteria
			pH2		
			pH3		

Spiked By: CFM **Date** 05/18/15 10:03:00 AM **Witnessed By:** DL **Date** 05/18/15 10:03:00 AM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150518A Blk				NA	NA equip	5ML	5ML	NA	05/18/15 10:05	
2	150518A LCS-1		0.030	1	NA	NA equip	5ML	5ML	NA	05/18/15 10:05	
3	150518A ICS		0.030/0.060	1/2	NA	NA equip	5ML	5ML	NA	05/18/15 10:05	
4	AZ16287 MS-1	AZ16287W10	0.030	1	NA	NA equip	5ML	5ML	NA	05/18/15 10:05	76413
5	AZ16287 MSD-1	AZ16287W10	0.030	1	NA	NA equip	5ML	5ML	NA	05/18/15 10:05	76413
6	AZ16287	AZ16287W10			NA	NA equip	5ML	5ML	NA	05/18/15 10:05	76413
7	AZ16288	AZ16288W04			NA	NA equip	5ML	5ML	NA	05/18/15 10:05	76413
8	AZ16289	AZ16289W04			NA	NA equip	5ML	5ML	NA	05/18/15 10:05	76413
9	AZ16290	AZ16290W04			NA	NA equip	5ML	5ML	NA	05/18/15 10:05	76413
10	AZ16334	AZ16334W04			NA	NA equip	5ML	5ML	NA	05/18/15 10:05	76424
11	AZ16335	AZ16335W04			NA	NA equip	5ML	5ML	NA	05/18/15 10:05	76424
12	AZ16336	AZ16336W04			NA	NA equip	5ML	5ML	NA	05/18/15 10:05	76424
13	AZ16337	AZ16337W04			NA	NA equip	5ML	5ML	NA	05/18/15 10:05	76424
14	AZ16338	AZ16338W04			NA	NA equip	5ML	5ML	NA	05/18/15 10:05	76424
15	AZ16339	AZ16339W04			NA	NA equip	5ML	5ML	NA	05/18/15 10:05	76424
16	AZ16340	AZ16340W04			NA	NA equip	5ML	5ML	NA	05/18/15 10:05	76424

Solvent and Lot#	
DI WATER	5-18-15

Extraction COC Transfer	
Extraction lab employee Initials	CFM
GC analyst's initials	PY
Date	5/18/15
Time	11:00
Refrigerator	NA

	Technician's Initials
Scanned By	CFM
Sample Preparation	CFM
Extraction	CFM
Concentration	----------

Modified	05/18/15 10:25:11 AM

Reviewed By: PY **Date** 5/18/15

Organic Extraction Worksheet

Method	EPA 6850 HPLC Perchlorate Extraction	Extraction Set	150518A	Extraction Method	HPL6850	Units	mL

Spiked ID 1	Perchlorate Spike Mix 0.1ppm 8-28-14 EXP 7-31-15		Surrogate ID 1	
Spiked ID 2	Mix Anions 25,000ppm 2-10-15 EXP 2-10-16		Surrogate ID 2	
Spiked ID 3			Surrogate ID 3	
Spiked ID 4			Surrogate ID 4	
Spiked ID 5			Surrogate ID 5	
Spiked ID 6			Sufficient Vol for Matrix QC:	YES
Spiked ID 7			Ext. Start Time:	05/18/15 10:05
Spiked ID 8			Ext. End Time:	05/18/15 10:23
			GC Requires Extract By:	

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: CFM **Date** 05/18/15 10:03:00 AM **Witnessed By:** DL **Date** 05/18/15 10:03:00 AM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ16341	AZ16341W04			NA	NA equip	5ML	5ML	NA	05/18/15 10:05	76424
18	AZ16342	AZ16342W04			NA	NA equip	5ML	5ML	NA	05/18/15 10:05	76424
19	AZ16343	AZ16343W01			NA	NA equip	5ML	5ML	NA	05/18/15 10:05	76424
20	AZ16403	AZ16403W04			NA	NA equip	5ML	5ML	NA	05/18/15 10:05	76447

PY 5/18/15

Solvent and Lot#	
DI WATER	5-18-15

Extraction COC Transfer	
Extraction lab employee Initials	CFM
GC analyst's initials	PY
Date	5/18/15
Time	11:00
Refrigerator	NA

	Technician's Initials
Scanned By	CFM
Sample Preparation	CFM
Extraction	CFM
Concentration	----------

Modified	05/18/15 10:25:11 AM

Reviewed By: PY **Date** 5/18/15

METHOD 6850 INJECTION LOG: 03/12/15, 05/23/15, 05/24/15

DETECTOR ID: Agilent 6460 Triple Quad LC/MS

SAMPLE INJECTION ID:	DATA FILE ID:	INJECTION DATE/TIME
PERCHLORATE 0.0002 ug/ml 11/11/14	T312_003.d	03/12/15 17:52
PERCHLORATE 0.0004 ug/ml 11/11/14	T312_004.d	03/12/15 18:11
PERCHLORATE 0.001 ug/ml 11/11/14	T312_005.d	03/12/15 18:29
PERCHLORATE 0.002 ug/ml 11/11/14	T312_006.d	03/12/15 18:48
PERCHLORATE 0.005 ug/ml 11/11/14	T312_007.d	03/12/15 19:07
PERCHLORATE 0.010 ug/ml 08/27/14	T312_008.d	03/12/15 19:25
PER_SS 0.0004 ug/ml 11/11/14	T312_010.d	03/12/15 20:02
PER_SS 0.002 ug/ml 11/11/14	T312_011.d	03/12/15 20:21
PER_CCV_1 0.0004 ug/ml 11/11/14	T312_013.d	03/12/15 20:58
PER_CCV_1 0.002 ug/ml 11/11/14	T312_014.d	03/12/15 21:17
PER_CCV 0.0004 ug/ml 05/07/15	T523_002.d	05/23/15 15:38
PER_CCV 0.002 ug/ml 05/07/15	T523_003.d	05/23/15 15:57
PER_CCV 0.0004 ug/ml 05/07/15	T523_016.d	05/23/15 20:13
PER_CCV 0.002 ug/ml 05/07/15	T523_017.d	05/23/15 20:32
150518WA_LCS-1 1052.6 DF 05/18/15	T523_019.d	05/23/15 21:09
150518W_ICSA 1052.6 DF 05/18/15	T523_020.d	05/23/15 21:28
150518WBLKA 1052.6 DF 05/18/15	T523_021.d	05/23/15 21:46
PER_CCV 0.0004 ug/ml 05/07/15	T523_030.d	05/24/15 0:34
PER_CCV 0.002 ug/ml 05/07/15	T523_031.d	05/24/15 0:53
AZ16340_W04 1052.6 DF 05/18/15	T523_038.d	05/24/15 3:03
AZ16343_W01 1052.6 DF 05/18/15	T523_041.d	05/24/15 3:59
PER_CCV 0.0004 ug/ml 05/07/15	T523_044.d	05/24/15 4:55
PER_CCV 0.002 ug/ml 05/07/15	T523_045.d	05/24/15 5:13
PER_CCV 0.0004 ug/ml 05/07/15	T524_002.d	05/24/15 14:14
PER_CCV 0.002 ug/ml 05/07/15	T524_003.d	05/24/15 14:33
AZ16335_W04 105263.2 DF 05/07/15_5/24	T524_007.d	05/24/15 15:54
AZ16334_W04 105263.2 DF 05/07/15_5/24	T524_011.d	05/24/15 17:08
PER_CCV 0.0004 ug/ml 05/07/15	T524_016.d	05/24/15 18:42
PER_CCV 0.002 ug/ml 05/07/15	T524_017.d	05/24/15 19:01
AZ16336_W04 105263.2 DF 05/07/15_5/24	T524_022.d	05/24/15 20:34
AZ16338_W04 1052631.6 DF 05/07/15_5/24	T524_024.d	05/24/15 21:11
AZ16341_W04 105263.2 DF 05/07/15_5/24	T524_028.d	05/24/15 22:25
PER_CCV 0.0004 ug/ml 05/07/15	T524_030.d	05/24/15 23:03
PER_CCV 0.002 ug/ml 05/07/15	T524_031.d	05/24/15 23:21
AZ16337_W04 105263.2 DF 05/07/15_5/24	T524_033.d	05/24/15 23:58
AZ16339_W04 105263.2 DF 05/07/15_5/24	T524_035.d	05/25/15 0:36
AZ16342_W04 105263.2 DF 05/07/15_5/24	T524_037.d	05/25/15 1:13
PER_CCV 0.0004 ug/ml 05/07/15	T524_039.d	05/25/15 1:50
PER_CCV 0.002 ug/ml 05/07/15	T524_040.d	05/25/15 2:09

EXPLOSIVES
EPA METHOD 8330

APPL, INC.

EPA 8330
EXPLOSIVES

QC Summary

APPL, INC.

Method Blank
EPA 8330B WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150519W-16334 - 197306**
Batch ID: #83BJU-150519A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
BLANK	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
BLANK	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
BLANK	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
BLANK	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
BLANK	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
BLANK	SURROGATE: 1,2-DINITROBENZ	89.5	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000035
Instrument: Waldorf
Sequence: 150522
Initials: MP

GC SC-Blank-REG MDLs
Printed: 05/26/15 9:19:51 AM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76424

Case No: 76424 Date Analyzed: 05/23/15

Matrix: WATER Instrument: Waldorf

APPL ID.	Client Sample No.	SURROGATE: 1,2-DINITROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150519A-LCS	Lab Control Spike	70-130	84.1				
150519A-BLK	Blank	70-130	89.5				
AZ16334	S67-MW008-051315	70-130	87.6				
AZ16335	S67-MW001-051315	70-130	88.3				
AZ16336	S67-MW001P-051315	70-130	89.6				
AZ16337	S67-MW10-051315	70-130	89.5				
AZ16338	S67-MW013-051315	70-130	84.5				
AZ16339	S67-MW004-051315	70-130	88.7				
AZ16340	S67-MW005-051315	70-130	87.0				
AZ16341	S67-MW014-051315	70-130	84.2				
AZ16342	S67-MW004P-051315	70-130	89.1				
AZ16343	S67-RB02-051315	70-130	85.9				

Comments: Batch: #83BJU-150519A

Laboratory Control Spike Recovery
EPA 8330B WATER

APPL ID: **150519W-16334 LCS - 197306**
Batch ID: #83BJU-150519A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2,4-DINITROTOLUENE	8.00	6.72	84.0	60-135
2,6-DINITROTOLUENE	8.00	6.73	84.1	60-135
HMX	8.00	6.98	87.3	80-115
NITROGLYCERIN	8.00	6.96	87.0	70-130
RDX	8.00	6.66	83.3	50-160
TETRYL	8.00	6.67	83.4	20-175
SURROGATE: 1,2-DINITROBENZENE (S	8.00	6.73	84.1	70-130

Comments: _____

Primary	SPK
Quant Method :	W150522.M
Extraction Date :	05/19/15
Analysis Date :	05/23/15
Instrument :	Waldorf
Run :	0522_000034
Initials :	MP

Printed: 05/26/15 9:19:54 AM
APPL Standard LCS

EPA 8330B

Form 4

Blank Summary

Lab Name: APPL, Inc.
SDG No: 76424
Case No: 76424
Date Analyzed: 05/23/15
Matrix: WATER
Instrument: Waldorf
Blank ID: 150519A-BLK
Time Analyzed: 0235

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150519A-LCS	Lab Control Spike	0522_000034	05/23/15 0158
150519A-BLK	Blank	0522_000035	05/23/15 0235
AZ16334	S67-MW008-051315	0522_000036	05/23/15 0313
AZ16335	S67-MW001-051315	0522_000037	05/23/15 0350
AZ16336	S67-MW001P-051315	0522_000038	05/23/15 0428
AZ16337	S67-MW10-051315	0522_000039	05/23/15 0505
AZ16338	S67-MW013-051315	0522_000040	05/23/15 0543
AZ16339	S67-MW004-051315	0522_000041	05/23/15 0620
AZ16340	S67-MW005-051315	0522_000042	05/23/15 0658
AZ16341	S67-MW014-051315	0522_000043	05/23/15 0735
AZ16342	S67-MW004P-051315	0522_000045	05/23/15 0840
AZ16343	S67-RB02-051315	0522_000046	05/23/15 0918

Comments: Batch: #83BJU-150519A

EPA 8330
EXPLOSIVES

Sample Data

APPL, INC.

EPA 8330B WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-MW008-051315

APPL ID: AZ16334

Sample Collection Date: 05/13/15

QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	0.56	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.13 J	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	87.6	70-130			%	05/19/15	05/23/15

J = Estimated value.

Quant Method: W150522.M
Run #: 0522_000036
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

Printed: 05/26/15 9:19:51 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000036.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 03:13:11
Operator : MP
Sample : AZ16334W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4098 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:56:59 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	3.548	0	708104	N.D.	0.876 #
Spiked Amount 1.000			Recovery	=	0.00%	87.60%
Target Compounds						
1) TM HMX	0.000	0.912	0	915589	N.D.	0.564m#
2) TM RDX	0.000	1.730	0	133683	N.D.	0.126m#
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
7) TM NITROBENZENE	0.000	0.000	0	0	N.D.	N.D.
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d ΔRT	N.D.
9) TM TETRYL	6.368	0.000	6122	0	NoCal	N.D.
10) TM 2,4,6-TRI...	6.917	0.000	6357	0	NoCal	N.D.
11) TM 2-AMINO-4...	7.118	0.000	2551	0	NoCal	N.D.
12) TM 4-AMINO-2...	7.501	0.000	10750	0	NoCal	N.D.
13) TM 2,4-DINIT...	8.599	0.000	11555	0	NoCal	N.D.
14) TM 2,6-DINIT...	8.911	0.000	31210	0	NoCal <DL	N.D. d
15) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
17) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

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

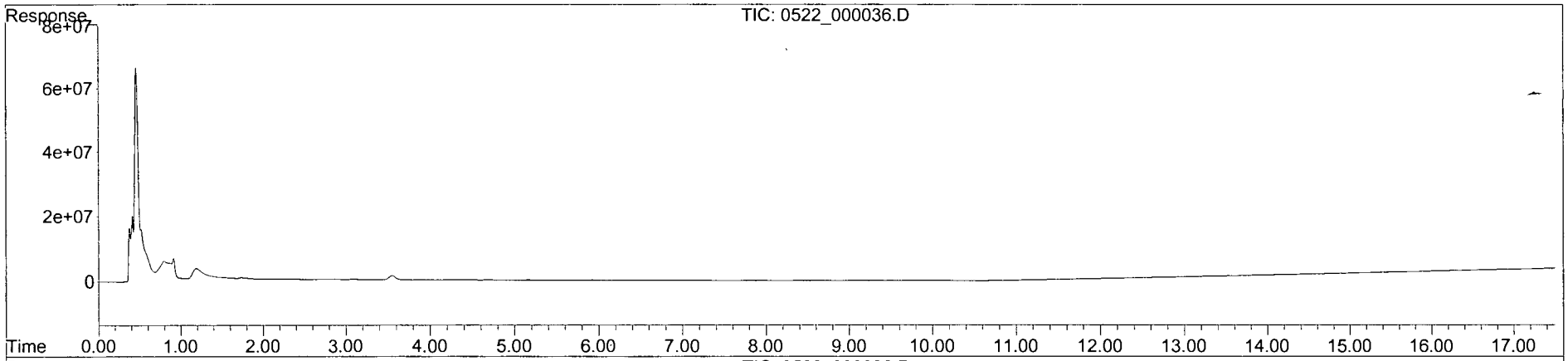
MP
05-26-15

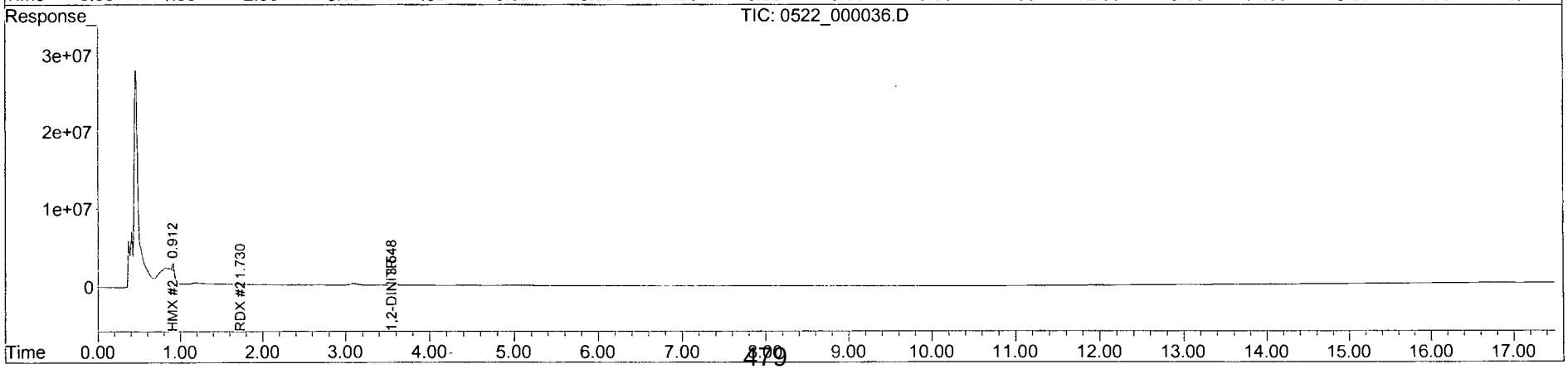
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000036.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 03:13:11
Operator : MP
Sample : AZ16334W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4098 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:56:59 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



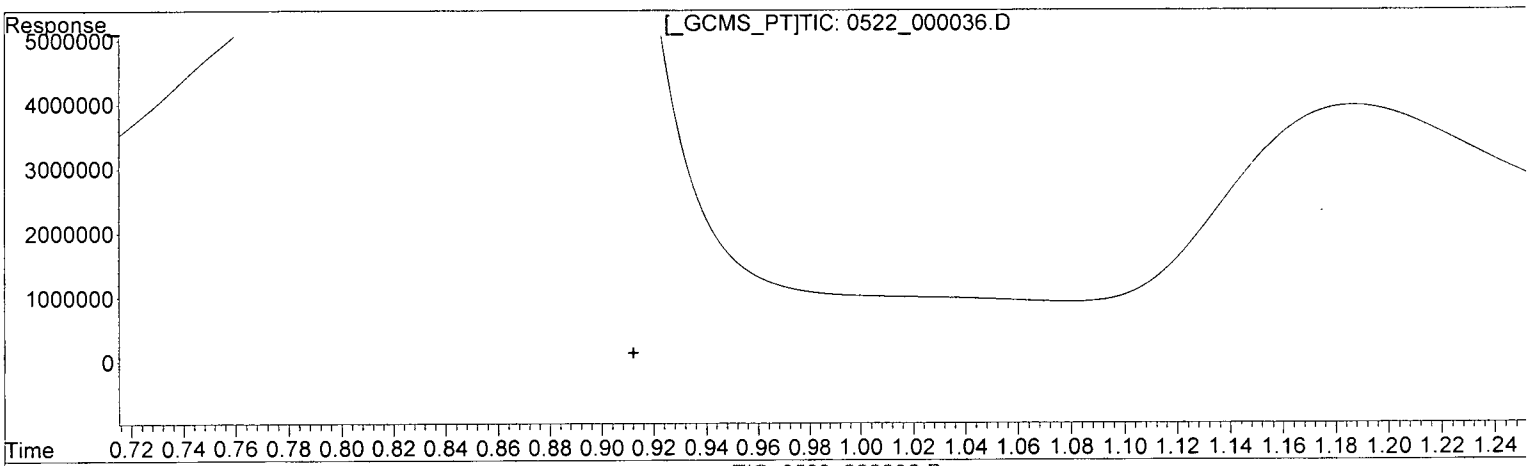


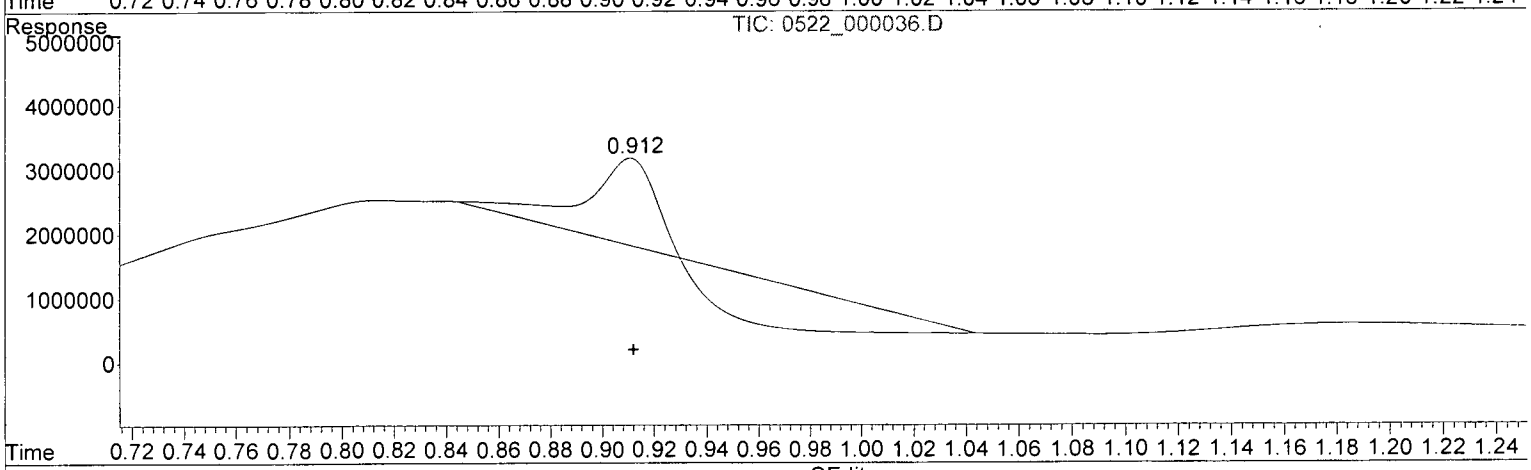
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000036.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 03:13:11
Operator : MP
Sample : AZ16334W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4098 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:06 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.910min 0.837 ppb

response 1359045

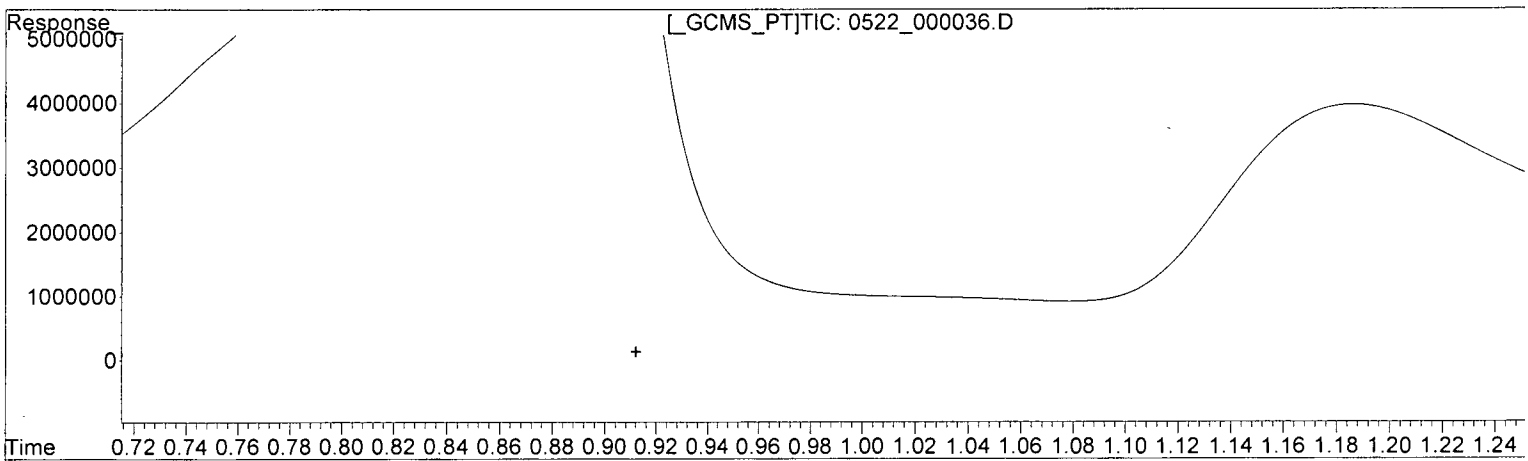
(+) = Expected Retention Time

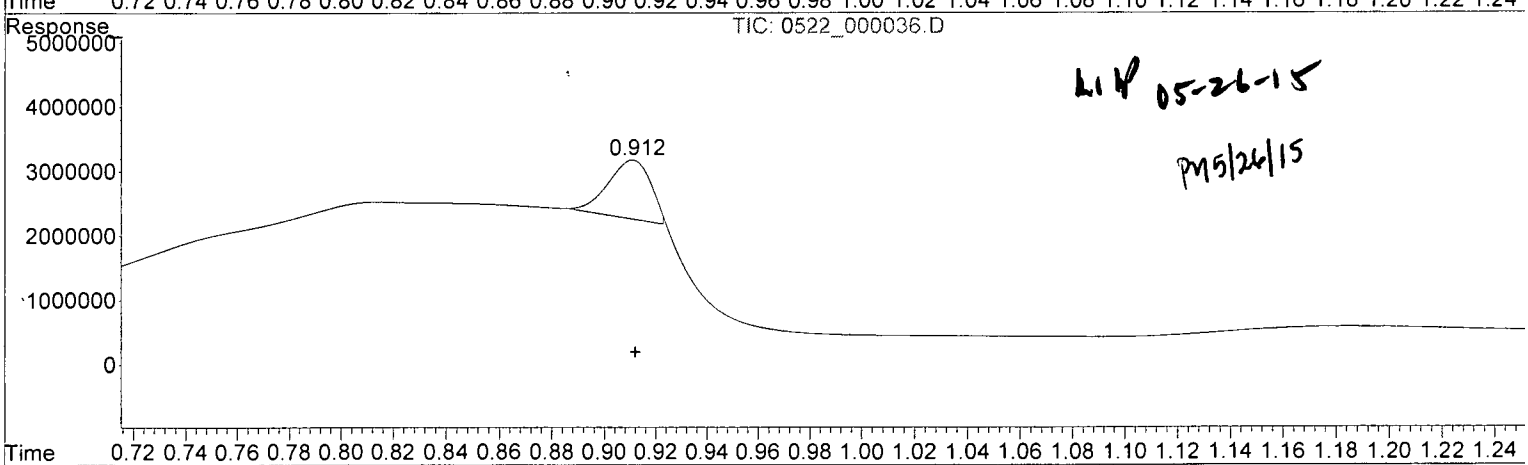
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000036.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 03:13:11
Operator : MP
Sample : AZ16334W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4098 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:06 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





LIP 05-26-15

PM 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.912min 0.564 ppb m

response 915589

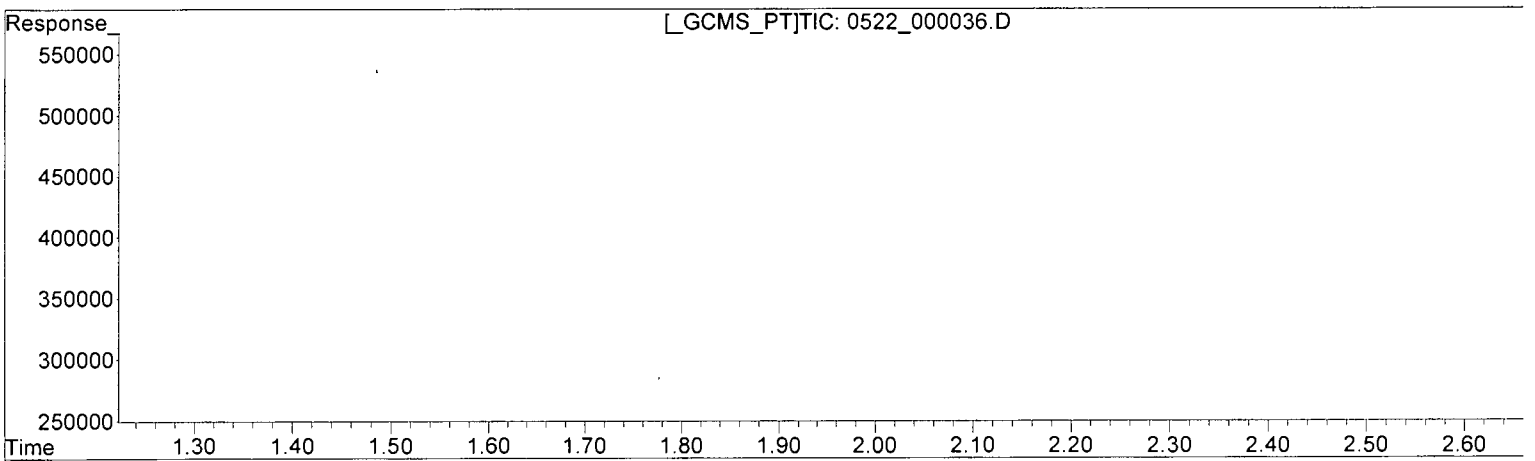
(+) = Expected Retention Time

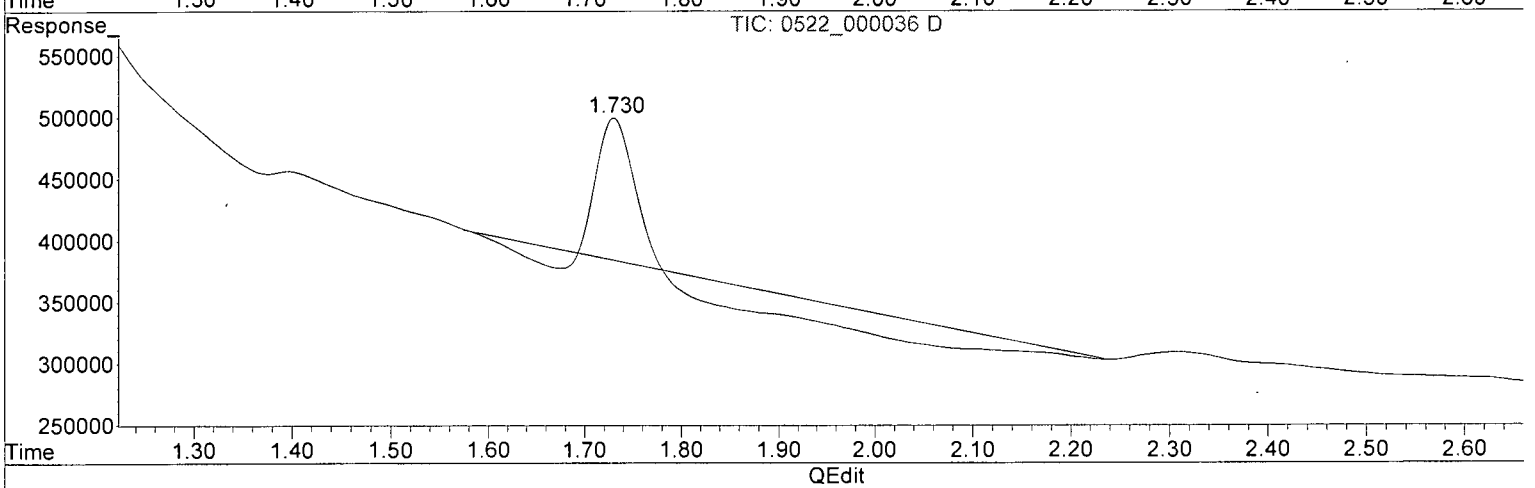
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000036.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 03:13:11
Operator : MP
Sample : AZ16334W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4098 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:06 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

1.730min 0.108 ppb

response 115440

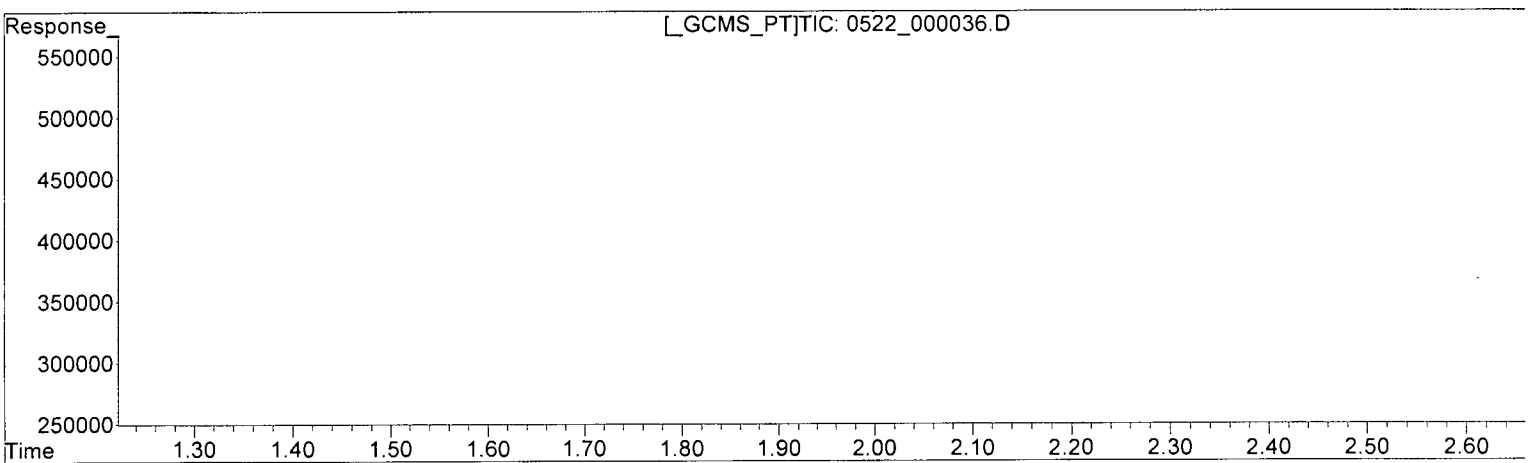
(+) = Expected Retention Time

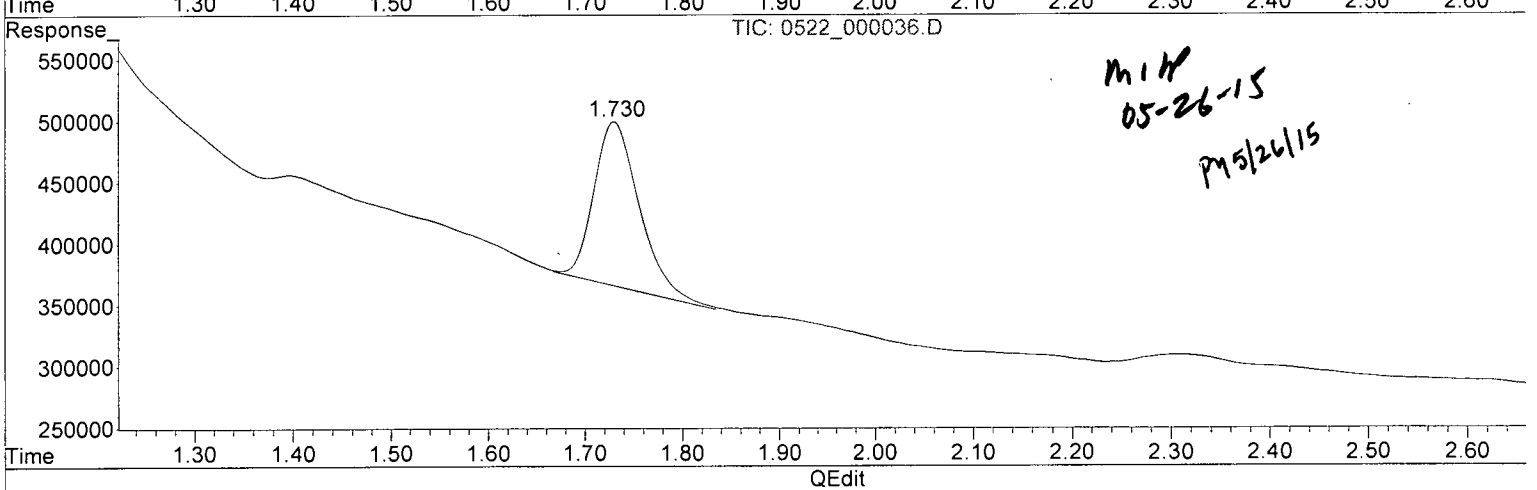
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000036.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 03:13:11
Operator : MP
Sample : AZ16334W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4098 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:06 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MH
05-26-15
PM 5/26/15

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

1.730min 0.126 ppb m

response 133683

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000048.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 14:36:34
Operator : MP
Sample : AZ16334W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4097 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 26 08:35:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.074	0	93693	N.D.	0.846 #
Spiked Amount 1.000			Recovery	=	0.00%	84.60%
Target Compounds						
1) TM HMX	0.000	4.062	0	86469	N.D.	0.747 #
2) TM RDX	0.000	6.382	0	12359	N.D.	0.124 #
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	NT N.D. d
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM NITROBENZENE	0.000	0.000	0	0	N.D.	NT N.D. d
7) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D.	NT N.D. d
8) TM NITROGLYC...	0.000	11.910	0	472	N.D. d	<DL NoCal
9) TM TETRYL	11.820	0.000	1328	0	NoCal	<DL N.D. d
10) TM 2,6-DINIT...	13.142f	0.000	824	0	NoCal	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	22.957	0	10114	N.D. d	NT NoCal

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

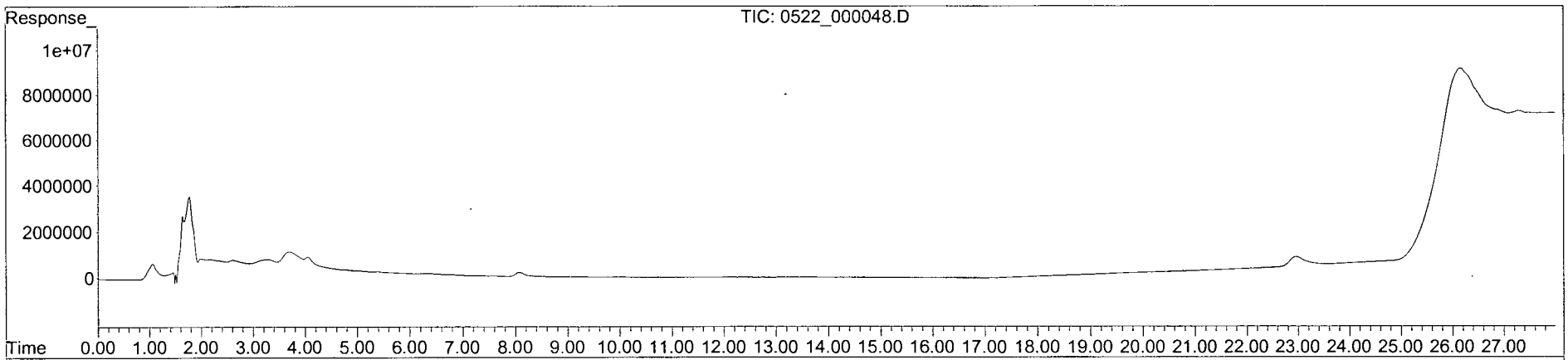
MP
05-26-15

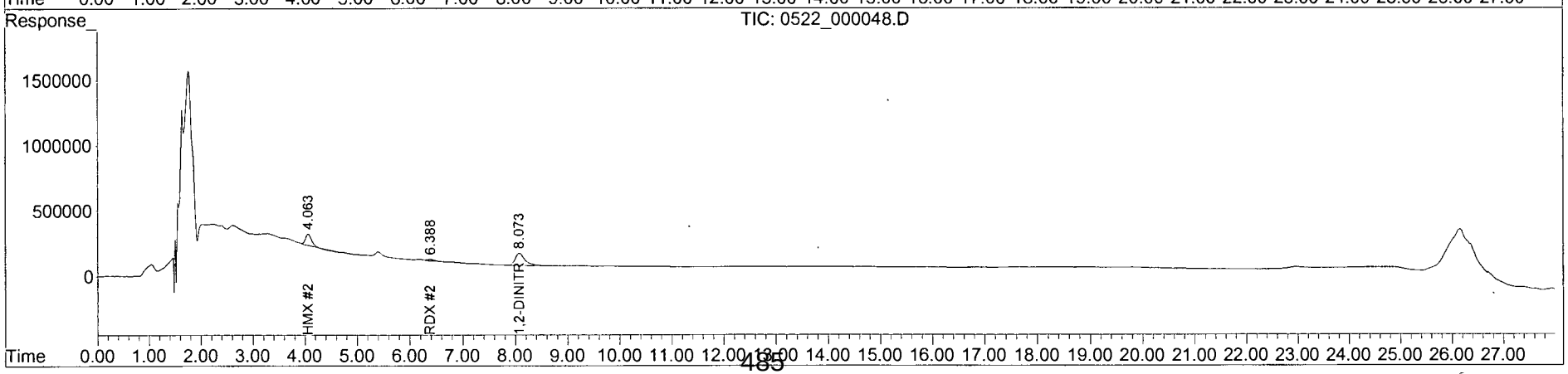
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000048.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 14:36:34
Operator : MP
Sample : AZ16334W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4097 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 26 08:35:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron





EPA 8330B WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16335
QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	0.68	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.3	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000037
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

Printed: 05/26/15 9:19:51 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000037.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 03:50:40
Operator : MP
Sample : AZ16335W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4099 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:59:14 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	3.549	0	714348	N.D.	0.883 #
Spiked Amount 1.000			Recovery	=	0.00%	88.30%
Target Compounds						
1) TM HMX	0.000	0.915	0	1106362	N.D.	0.681m#
2) TM RDX	0.000	1.730	0	139978	N.D.	0.131m#
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
7) TM NITROBENZENE	0.000	0.000	0	0	N.D.	N.D.
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d ΔRT	N.D.
9) TM TETRYL	6.430	0.000	6122	0	NoCal	N.D.
10) TM 2,4,6-TRI...	6.870	0.000	10398	0	NoCal	N.D.
11) TM 2-AMINO-4...	7.114	0.000	6111	0	NoCal	N.D.
12) TM 4-AMINO-2...	7.474	0.000	1538	0	NoCal	N.D.
13) TM 2,4-DINIT...	8.602	0.000	5850	0	NoCal	N.D.
14) TM 2,6-DINIT...	8.985	0.000	18224	0	NoCal	N.D.
15) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
17) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

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

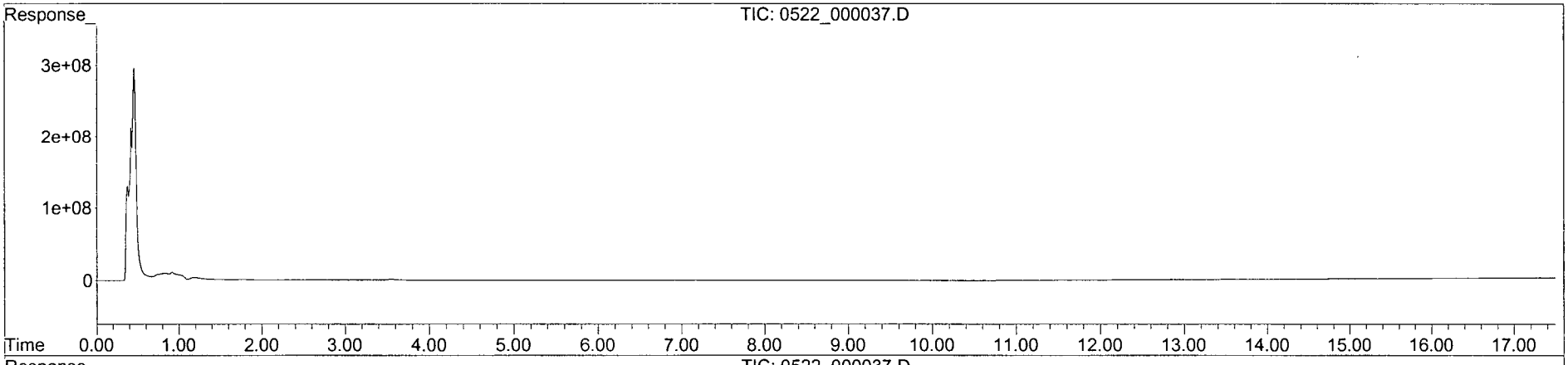
MP
05-26-15

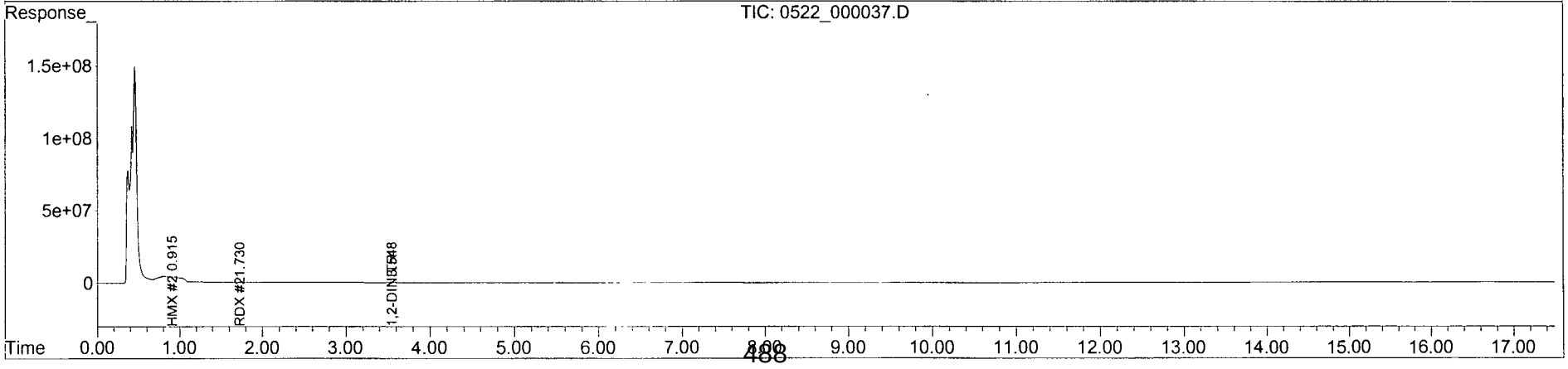
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000037.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 03:50:40
Operator : MP
Sample : AZ16335W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4099 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:59:14 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



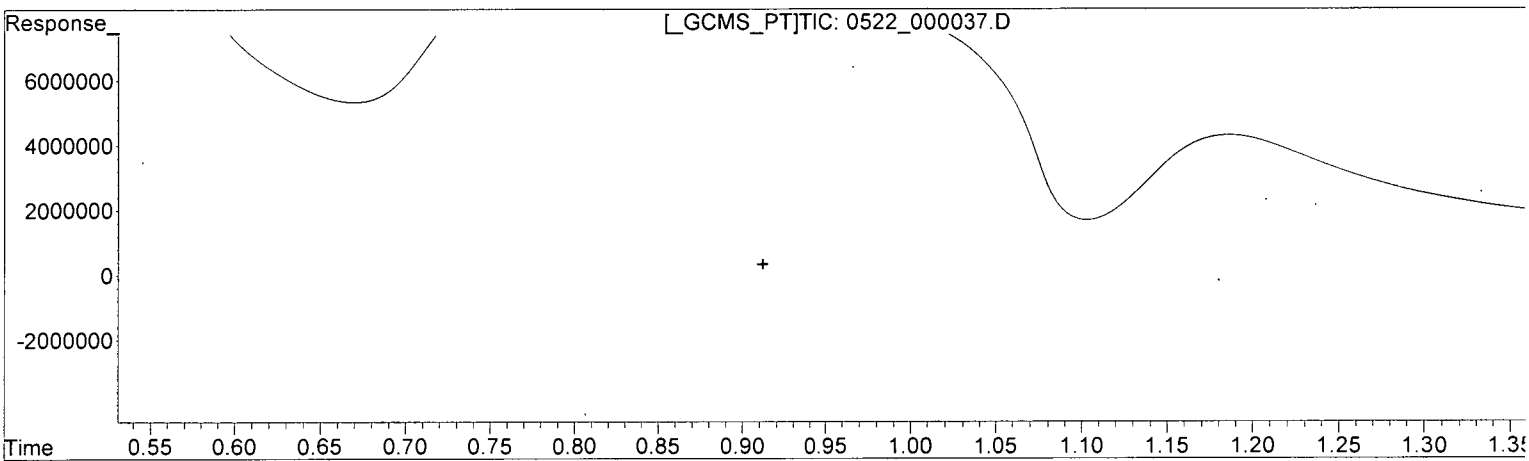


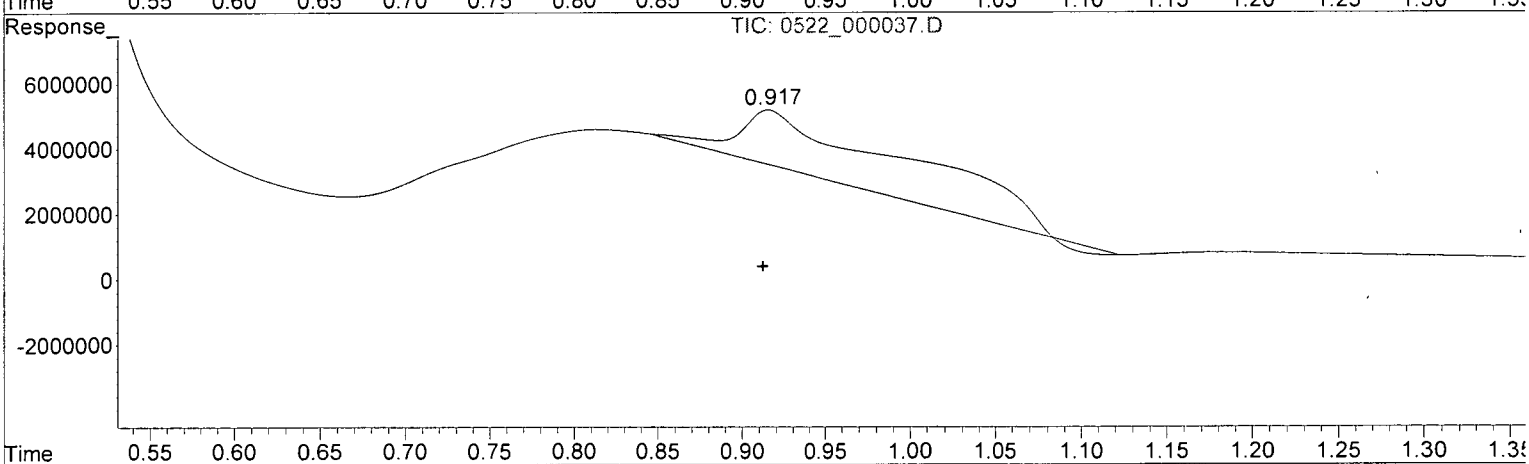
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000037.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 03:50:40
Operator : MP
Sample : AZ16335W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4099 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:08 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.916min 1.037 ppb

response 1683671

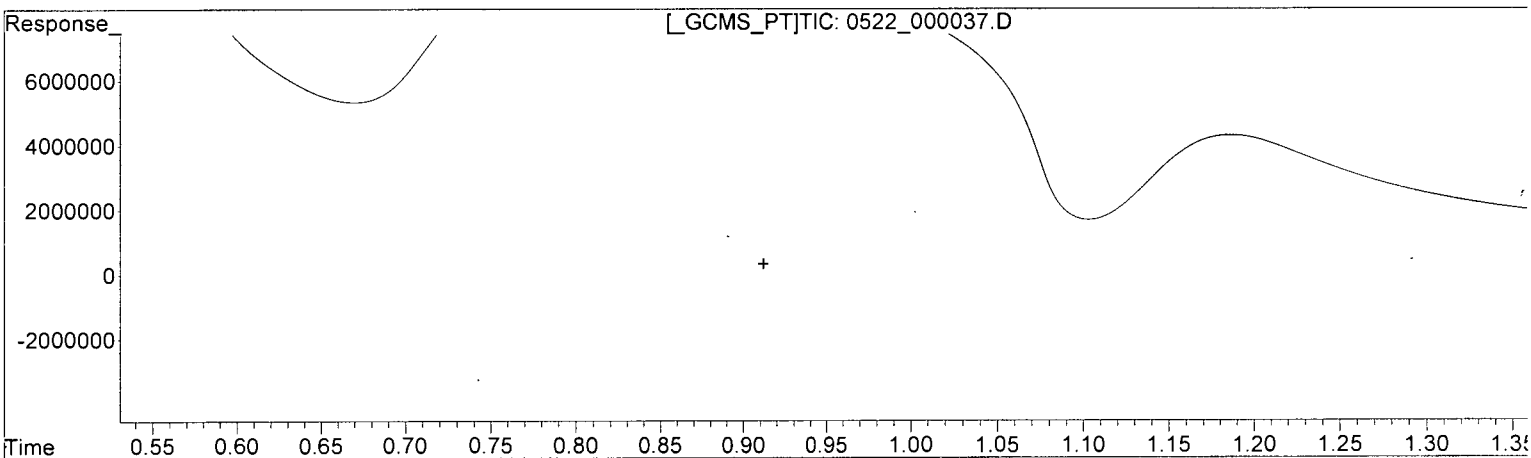
(+) = Expected Retention Time

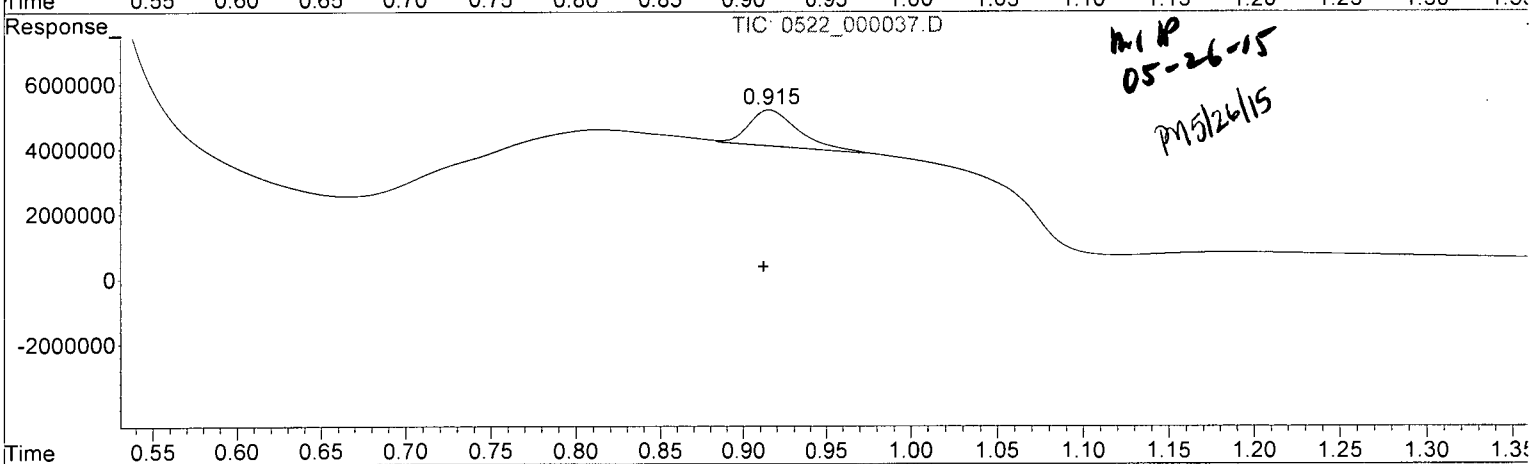
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000037.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 03:50:40
Operator : MP
Sample : AZ16335W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4099 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:08 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MI MP
05-26-15
PM 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.915min 0.681 ppb m

response 1106362

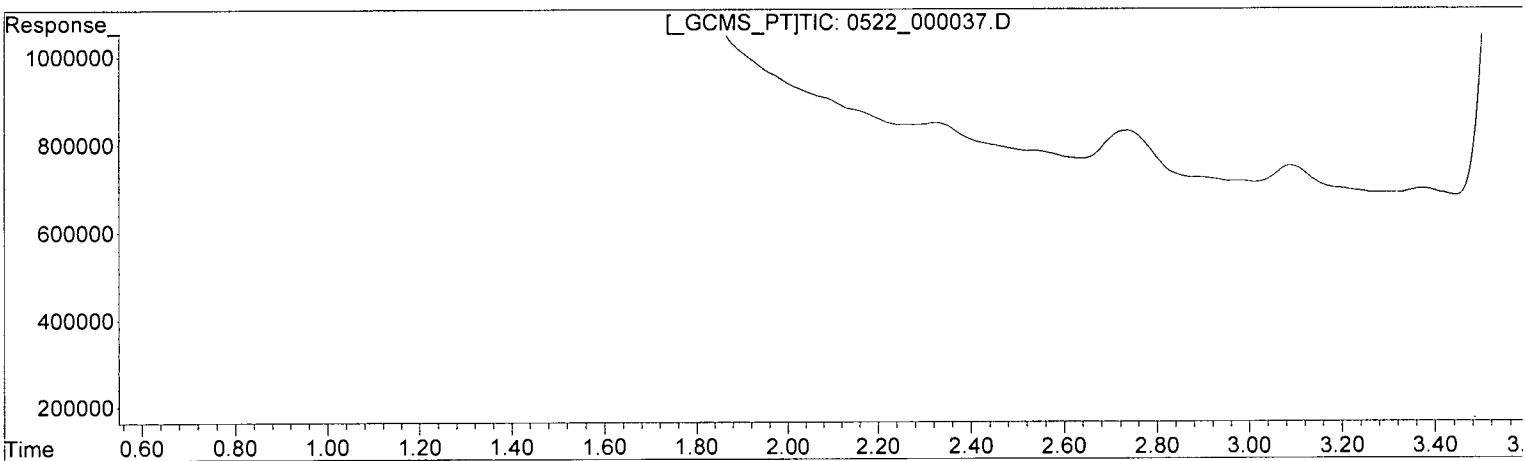
(+) = Expected Retention Time

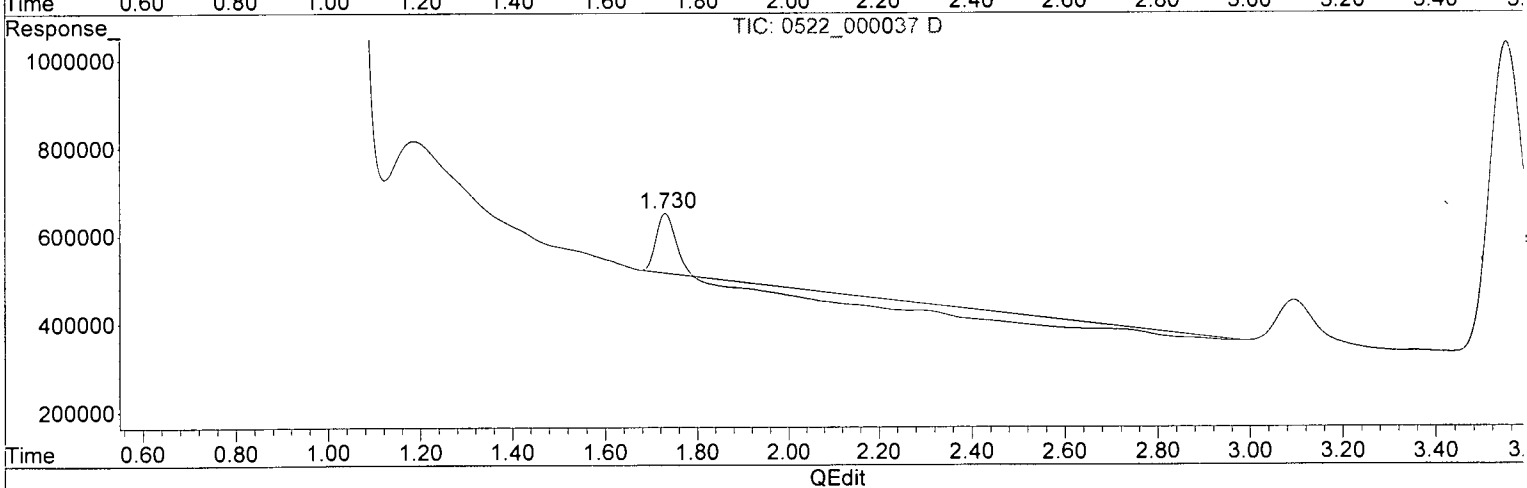
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000037.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 03:50:40
Operator : MP
Sample : AZ16335W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4099 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:08 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

1.730min 0.127 ppb

response 135614

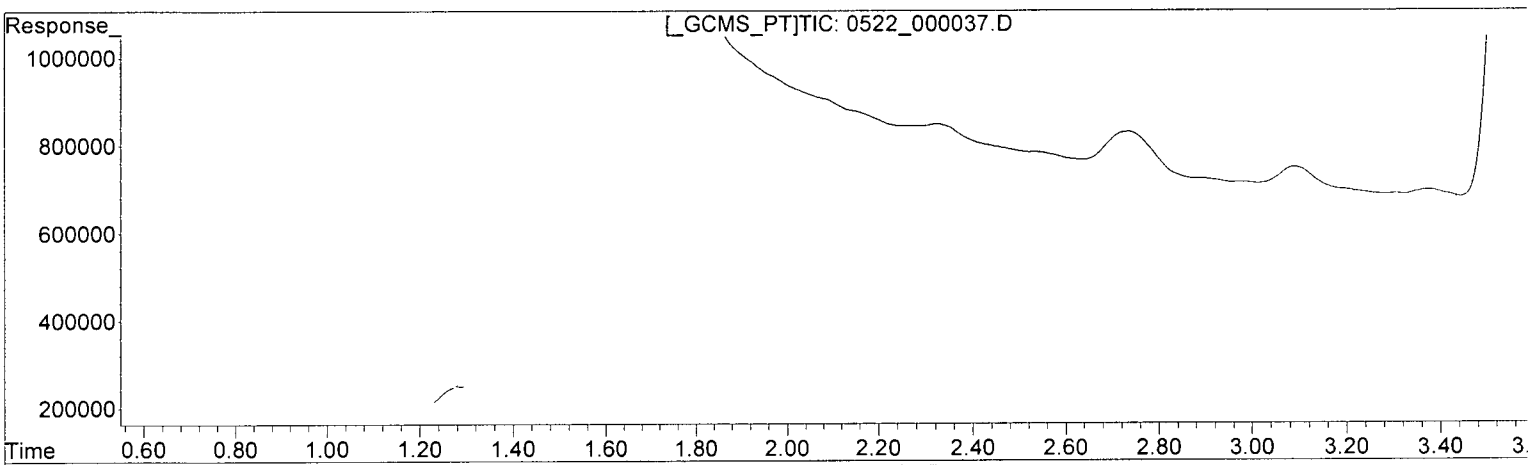
(+) = Expected Retention Time

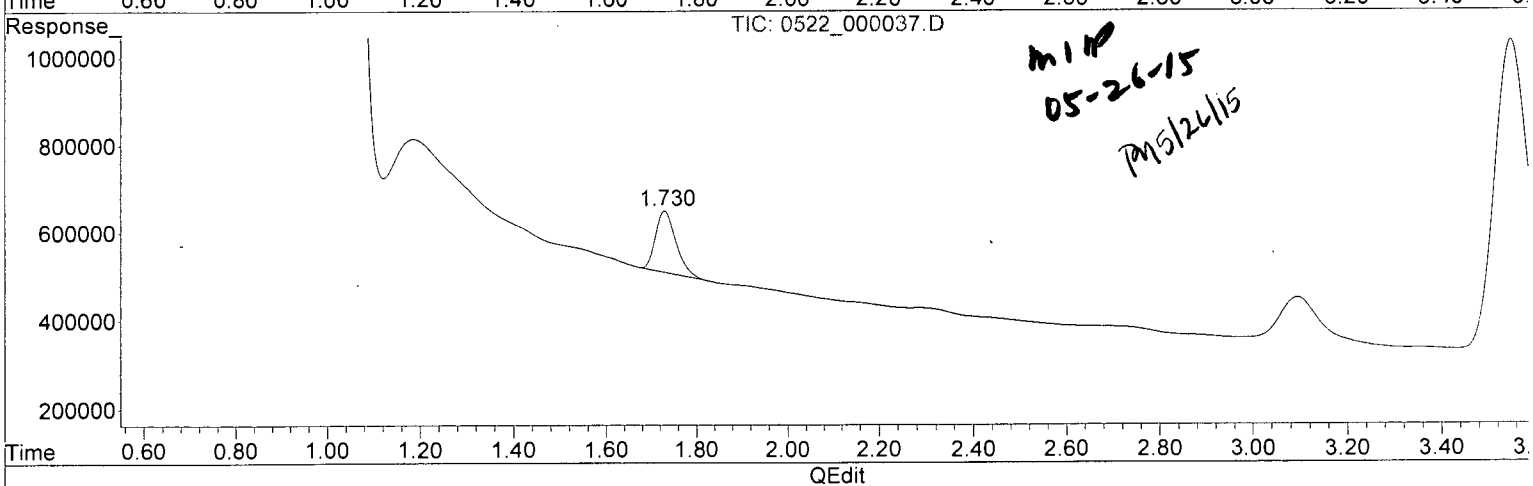
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000037.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 03:50:40
Operator : MP
Sample : AZ16335W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4099 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:08 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MIP
05-26-15
PM 5/26/15

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

1.730min 0.131 ppb m

response 139978

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000049.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 15:16:05
Operator : MP
Sample : AZ16335W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4098 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 26 08:37:56 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.083	0	94749	N.D.	0.856 #
Spiked Amount 1.000			Recovery	=	0.00%	85.60%
Target Compounds						
1) TM HMX	0.000	4.070	0	72485	N.D.	0.627m#
2) TM RDX	0.000	0.000	0	0	N.D.	<DL N.D. d
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM NITROBENZENE	0.000	0.000	0	0	N.D.	NT N.D. d
7) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D.	NT N.D. d
8) TM NITROGLYC...	0.000	11.954	0	1430	N.D.	NoCal
9) TM TETRYL	0.000	0.000	0	0	N.D.	<DL N.D. d
10) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D. d	NT N.D.

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

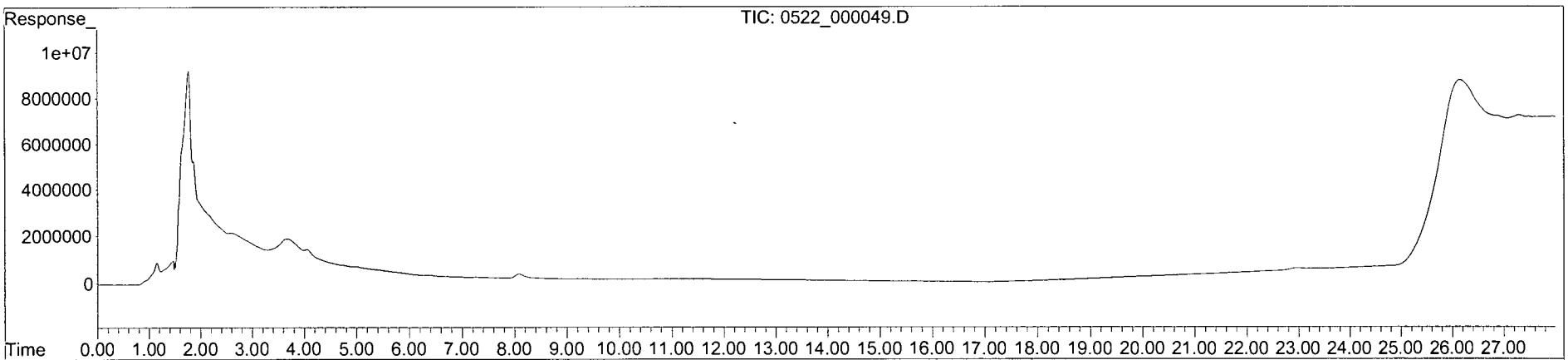
MP
05-26-15

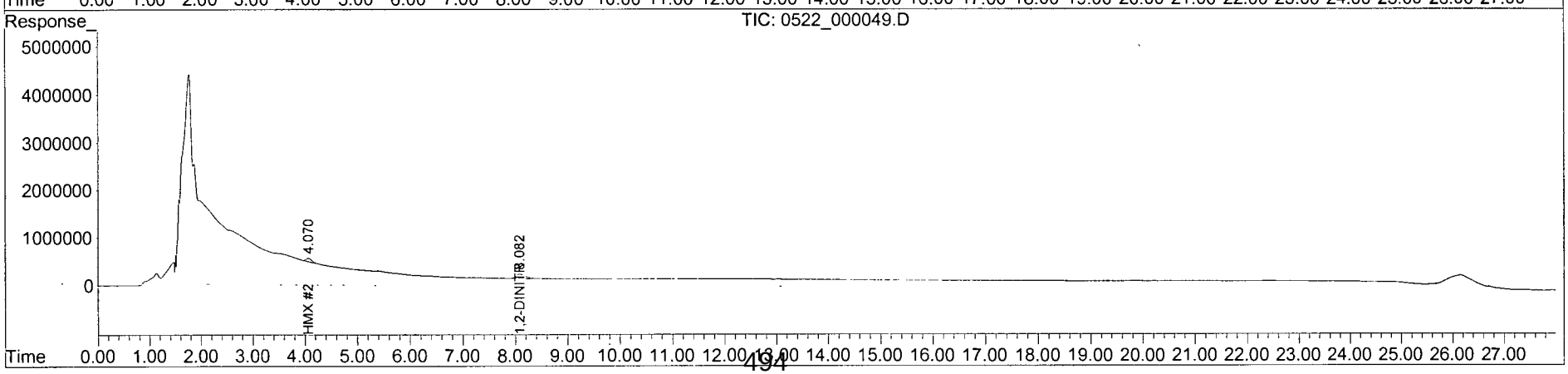
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000049.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 15:16:05
Operator : MP
Sample : AZ16335W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4098 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 26 08:37:56 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



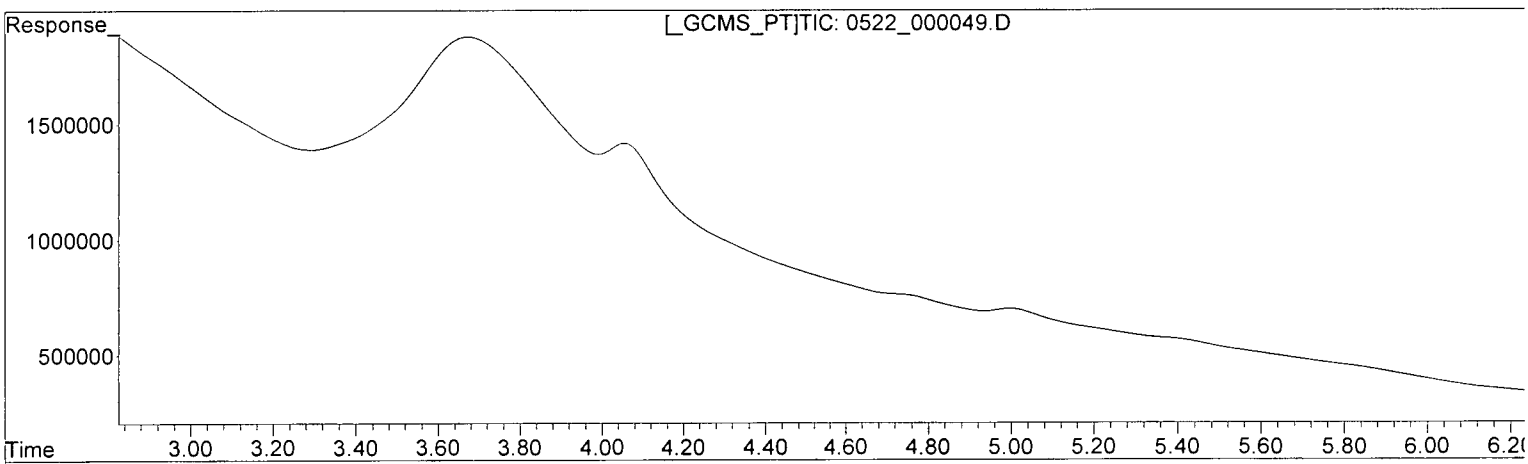


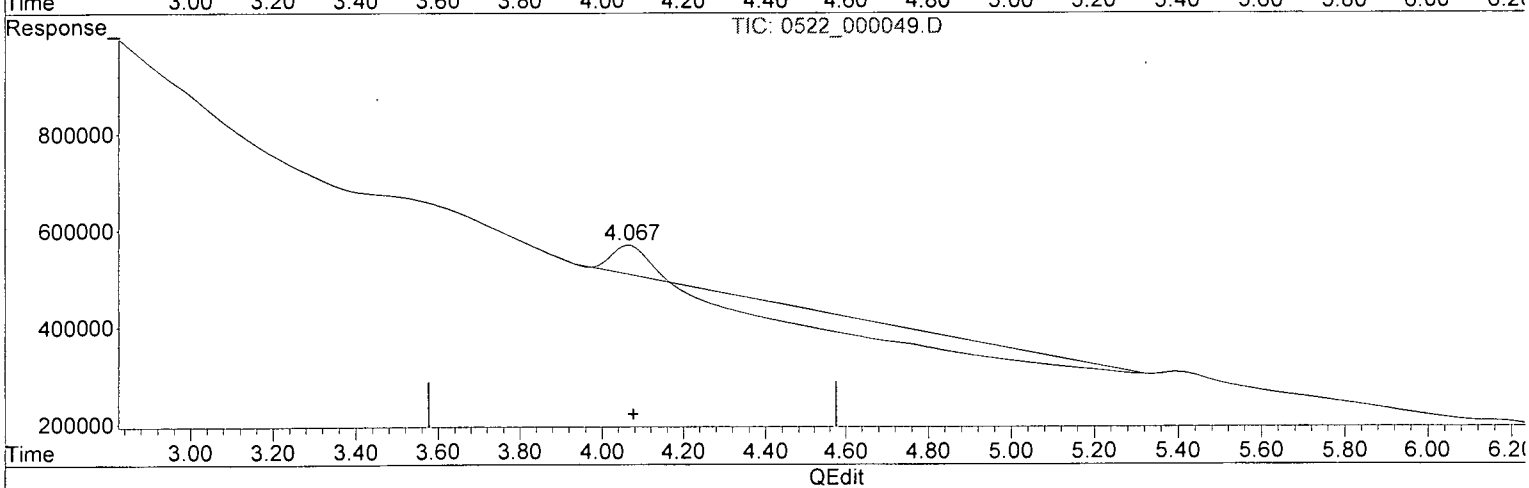
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000049.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 15:16:05
Operator : MP
Sample : AZ16335W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4098 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 24 12:40:57 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.064min 0.518 ppb

response 59921

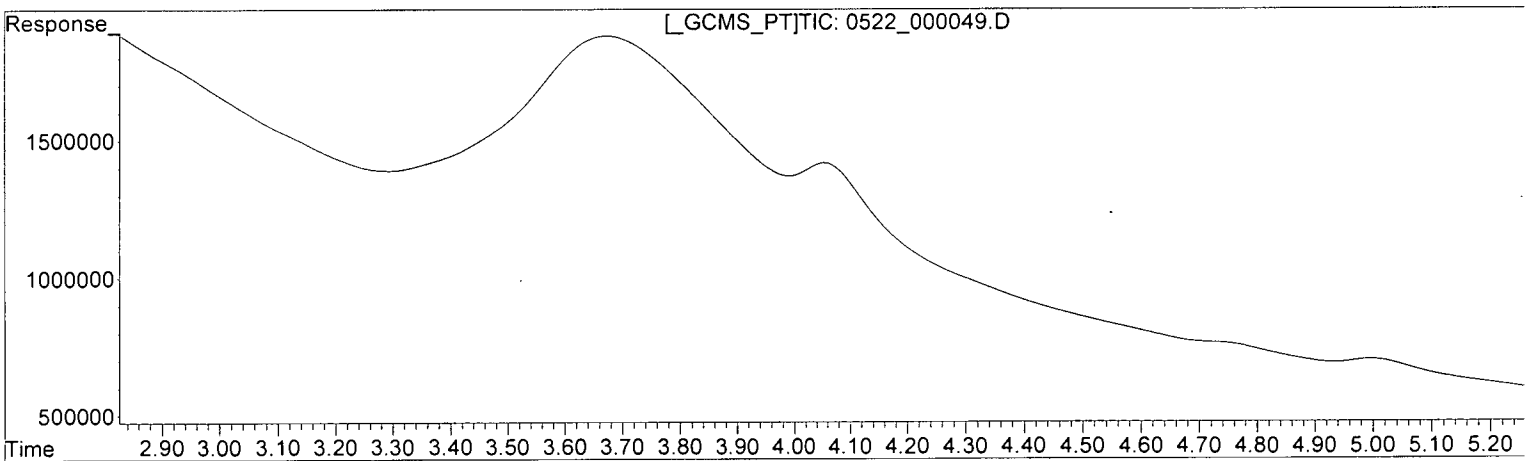
(+) = Expected Retention Time

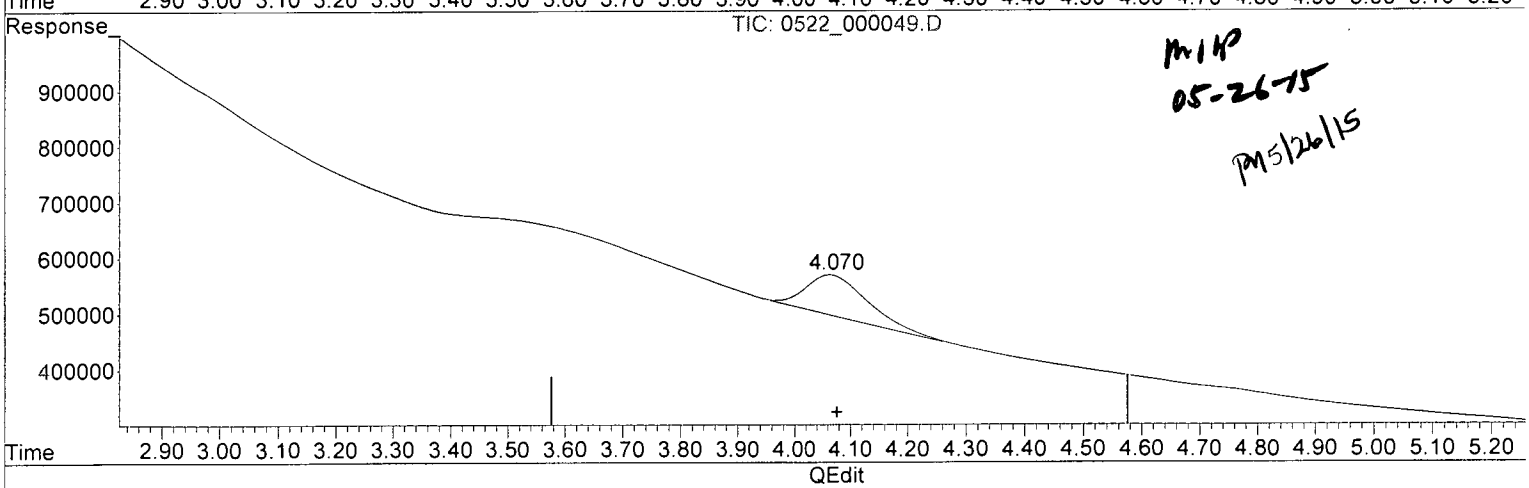
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000049.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 15:16:05
Operator : MP
Sample : AZ16335W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4098 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 24 12:40:57 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MIP
05-26-15
PM 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.070min 0.627 ppb m

response 72485

(+) = Expected Retention Time

EPA 8330B WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001P-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16336
QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	0.72	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	89.6	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000038
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

Printed: 05/26/15 9:19:51 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000038.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 04:28:10
Operator : MP
Sample : AZ16336W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4100 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:01:24 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	3.543	0	724742	N.D.	0.896 #
Spiked Amount 1.000			Recovery	=	0.00%	89.60%
Target Compounds						
1) TM HMX	0.000	0.913	0	1164472	N.D.	0.717m#
2) TM RDX	0.000	1.727	0	150038	N.D.	0.141m#
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
7) TM NITROBENZENE	0.000	0.000	0	0	N.D.	N.D.
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. dΔRT	N.D.
9) TM TETRYL	6.446	0.000	3098	0	NoCal	N.D.
10) TM 2,4,6-TRI...	6.884	0.000	5787	0	NoCal	N.D.
11) TM 2-AMINO-4...	7.139	0.000	6305	0	NoCal	N.D.
12) TM 4-AMINO-2...	7.458	0.000	1975	0	NoCal	N.D.
13) TM 2,4-DINIT...	8.604	0.000	3664	0	NoCal	N.D.
14) TM 2,6-DINIT...	8.850	0.000	16235	0	NoCal	N.D.
15) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
17) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

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

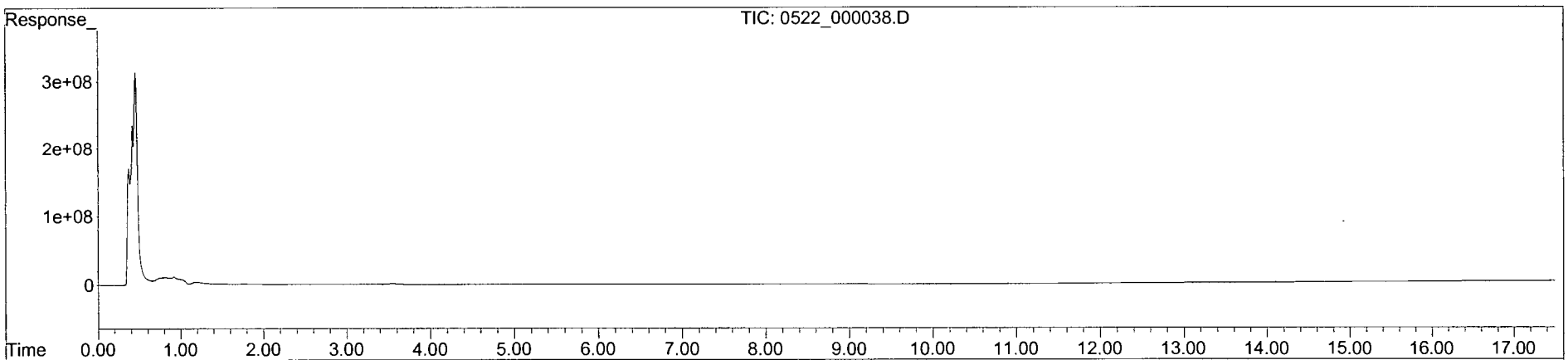
MP
05-26-15

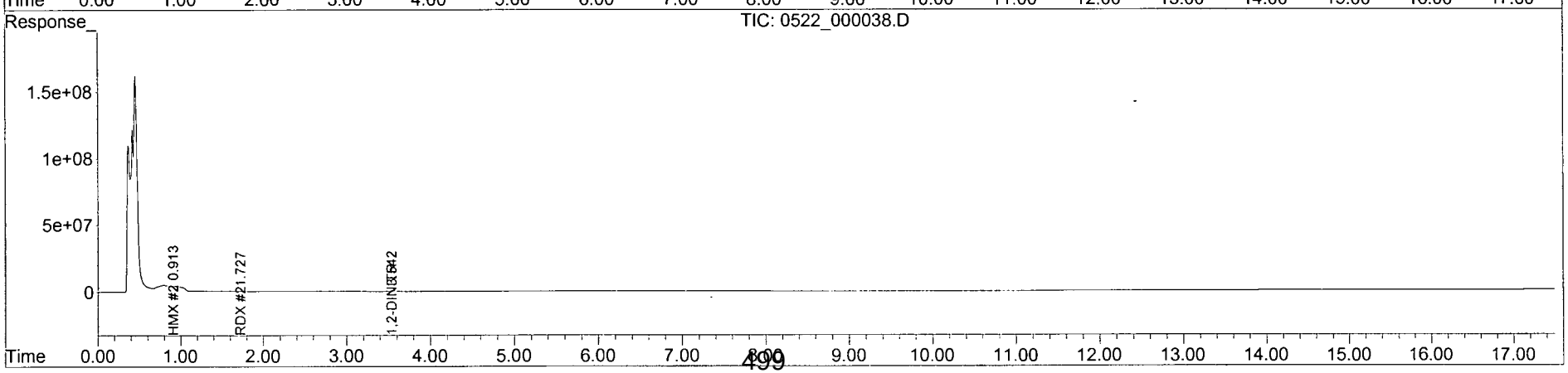
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000038.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 04:28:10
Operator : MP
Sample : AZ16336W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4100 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:01:24 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



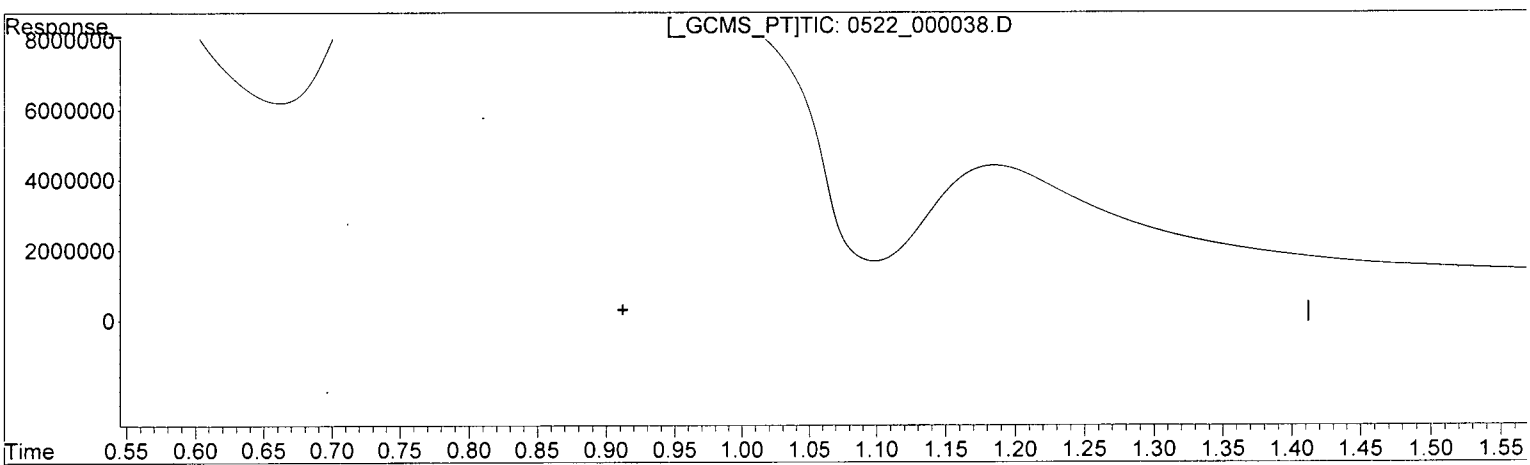


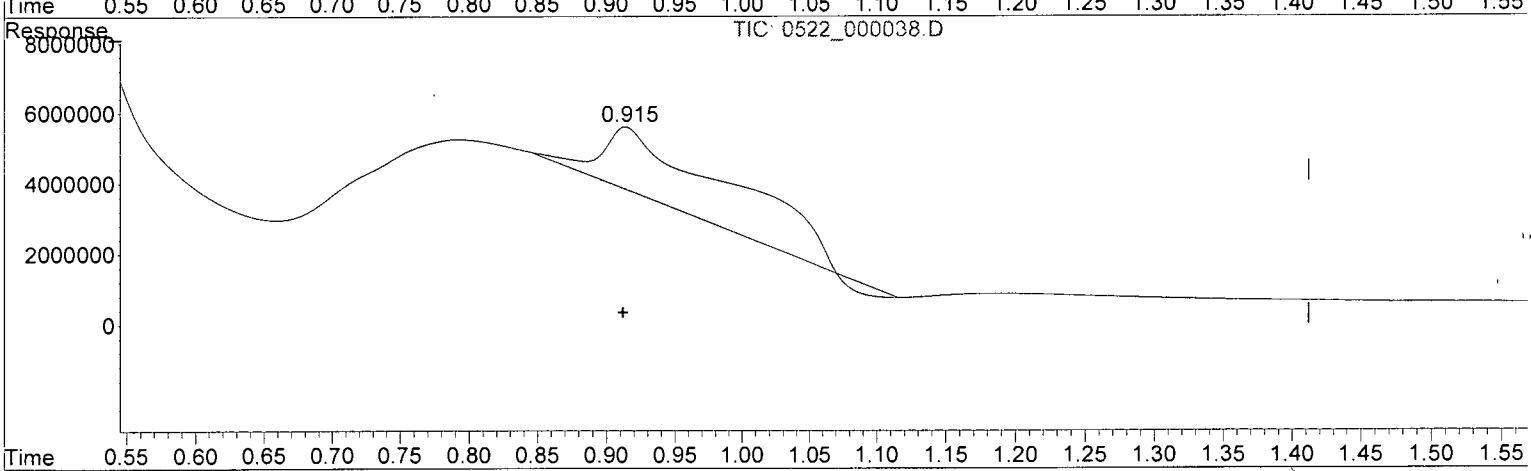
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000038.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 04:28:10
Operator : MP
Sample : AZ16336W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4100 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:10 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.914min 1.096 ppb

response 1780258

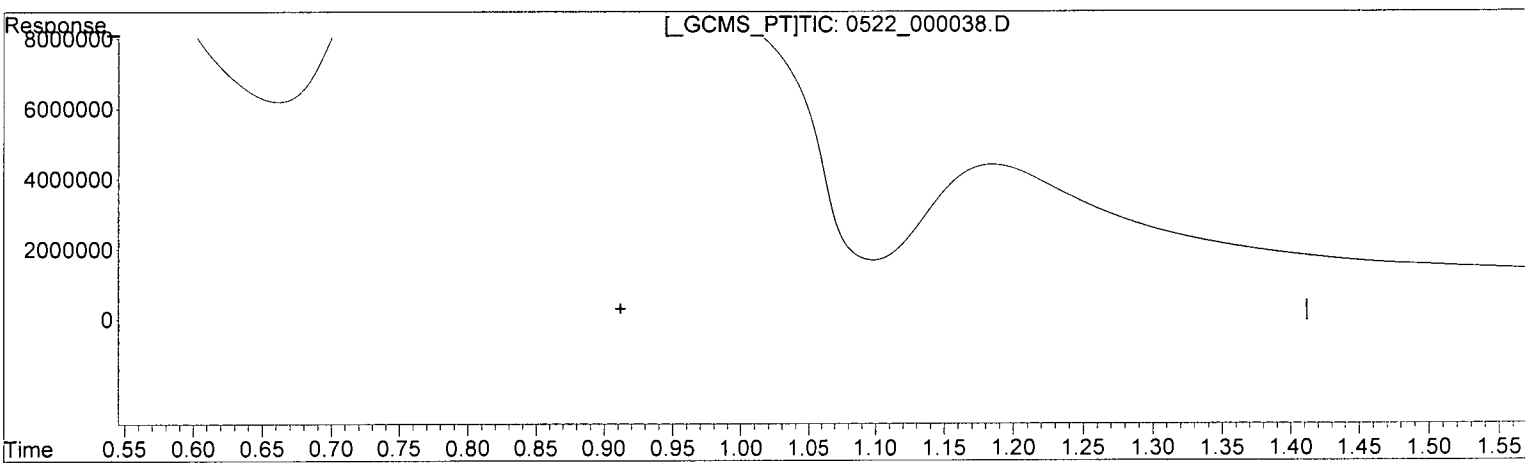
(+) = Expected Retention Time

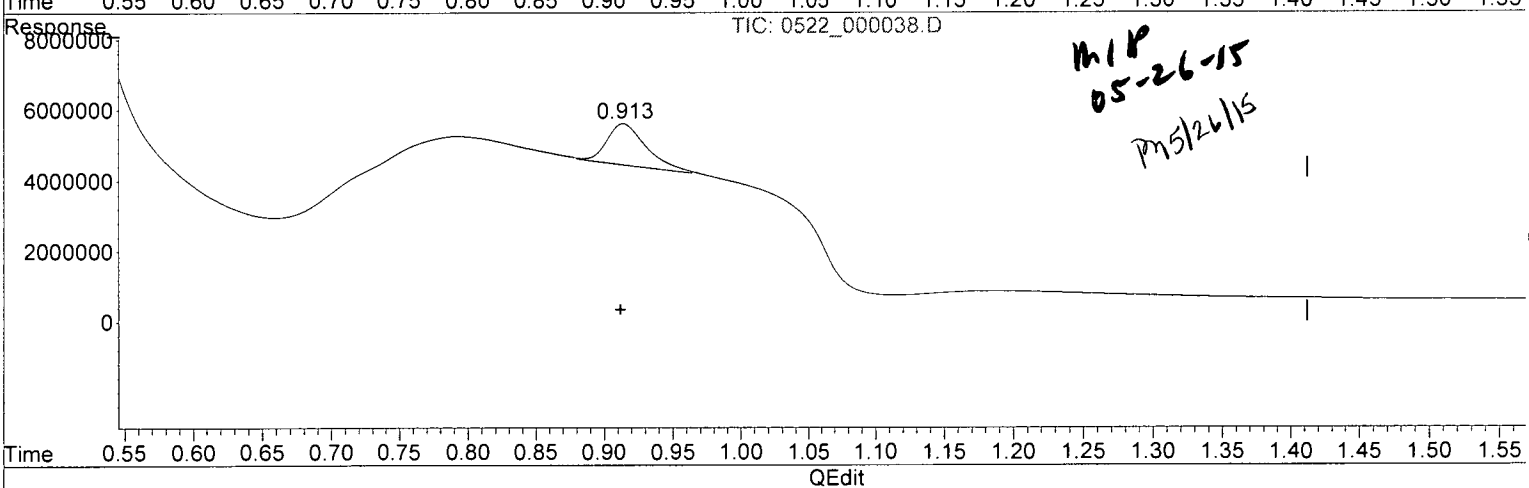
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000038.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 04:28:10
Operator : MP
Sample : AZ16336W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4100 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:10 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MLP
05-26-15
PM 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.913min 0.717 ppb m

response 1164472

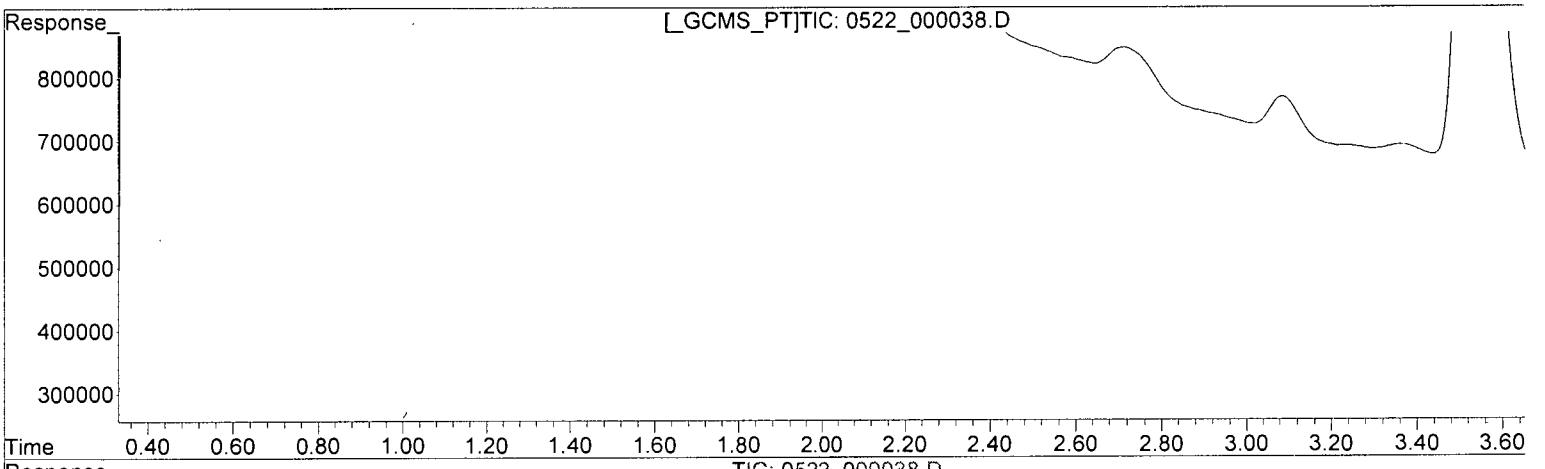
(+) = Expected Retention Time

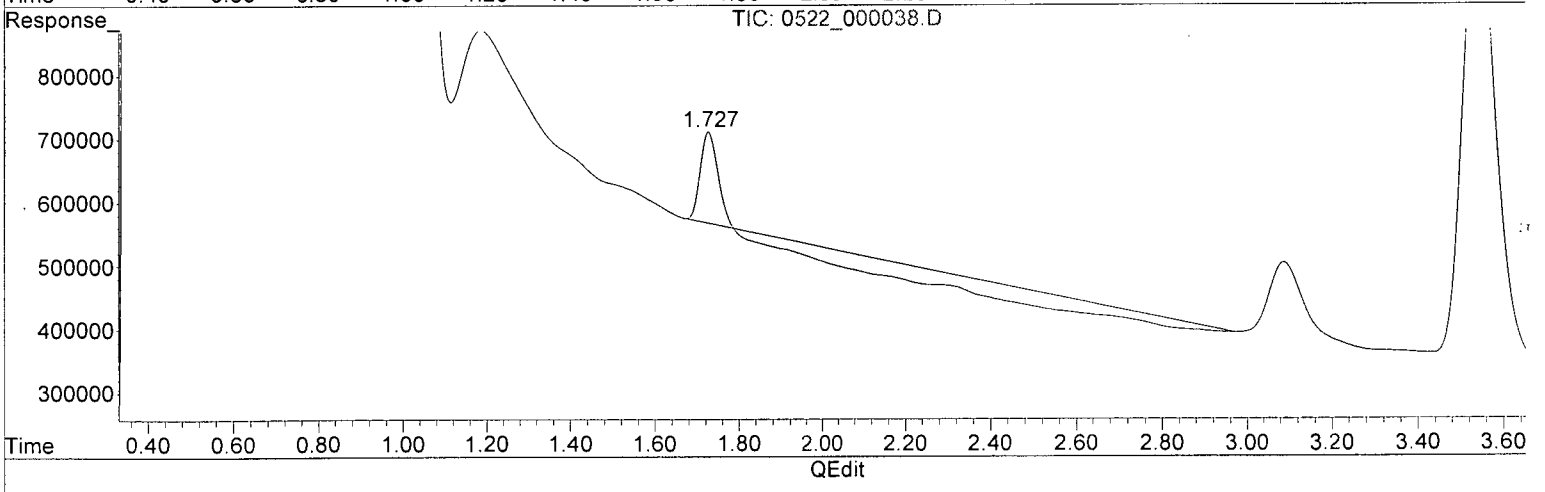
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000038.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 04:28:10
Operator : MP
Sample : AZ16336W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4100 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:10 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

1.727min 0.135 ppb

response 143855

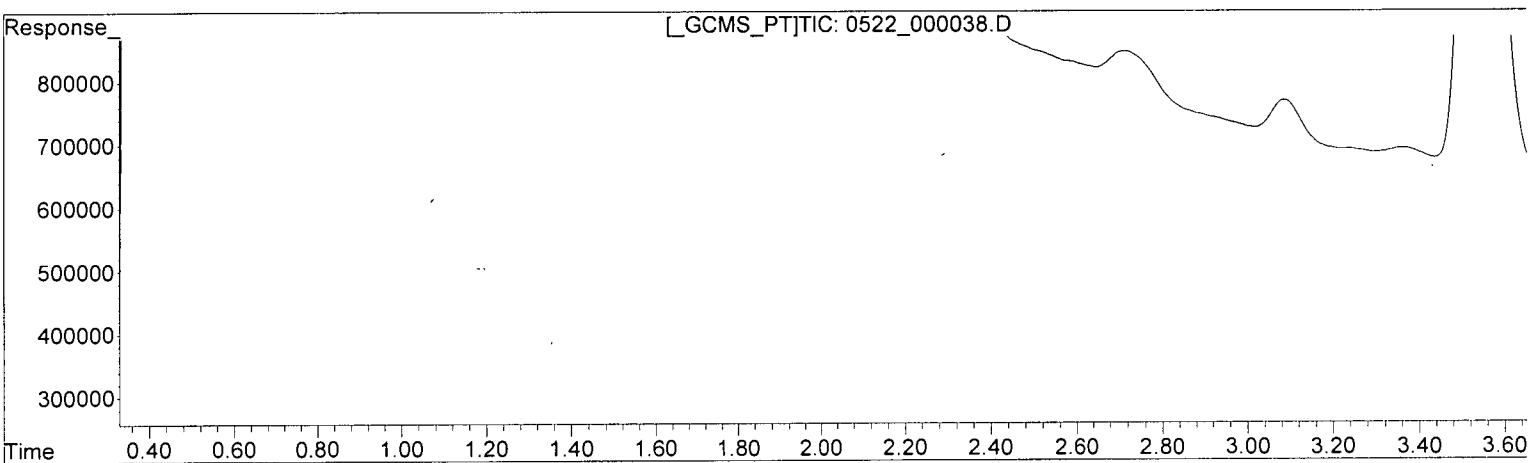
(+) = Expected Retention Time

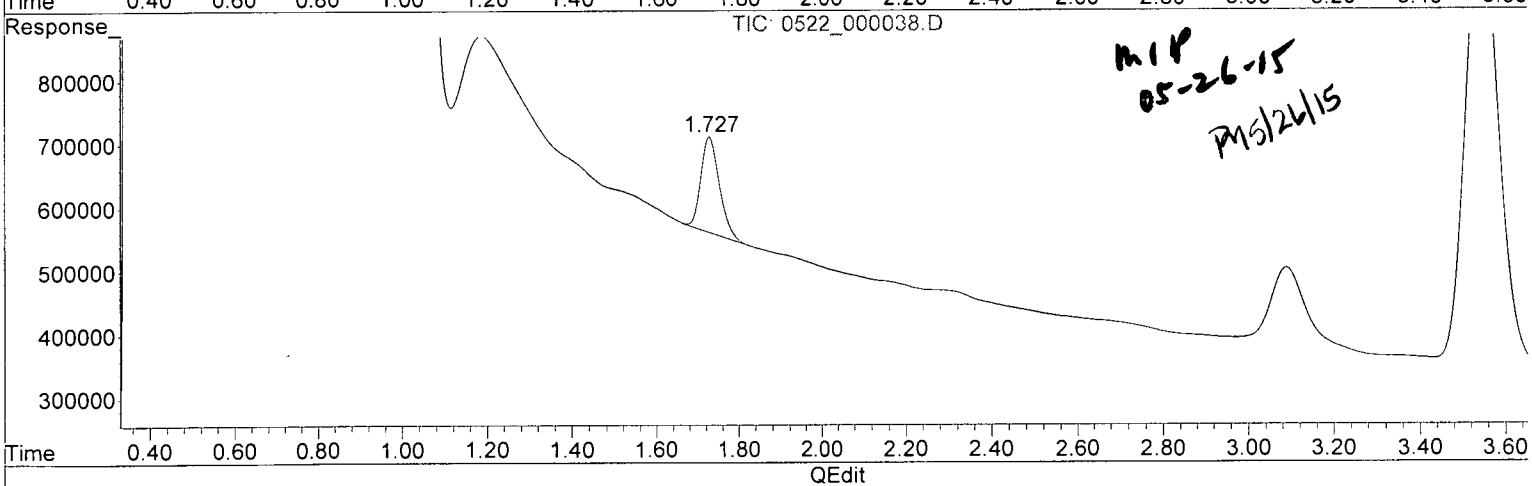
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000038.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 04:28:10
Operator : MP
Sample : AZ16336W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4100 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:10 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

1.727min 0.141 ppb m

response 150038

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000050.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 15:55:36
Operator : MP
Sample : AZ16336W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4099 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 26 08:40:14 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.091	0	96632	N.D.	0.873 #
Spiked Amount 1.000			Recovery	=	0.00%	87.30%
Target Compounds						
1) TM HMX	0.000	4.073	0	76821	N.D.	0.664m#
2) TM RDX	0.000	0.000	0	0	N.D.	<DL N.D. d
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM NITROBENZENE	0.000	0.000	0	0	N.D.	NJ N.D. d
7) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D.	NJ N.D. d
8) TM NITROGLYC...	0.000	11.965	0	1015	N.D.	NoCal
9) TM TETRYL	0.000	0.000	0	0	N.D.	<DL N.D. d
10) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D. d	NJ N.D.

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

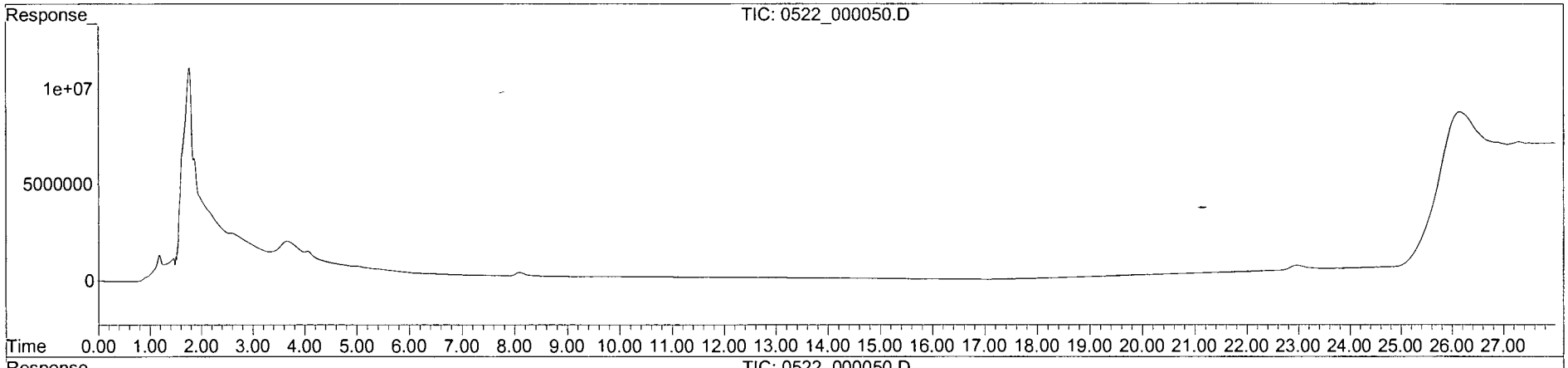
NP
05-26-15

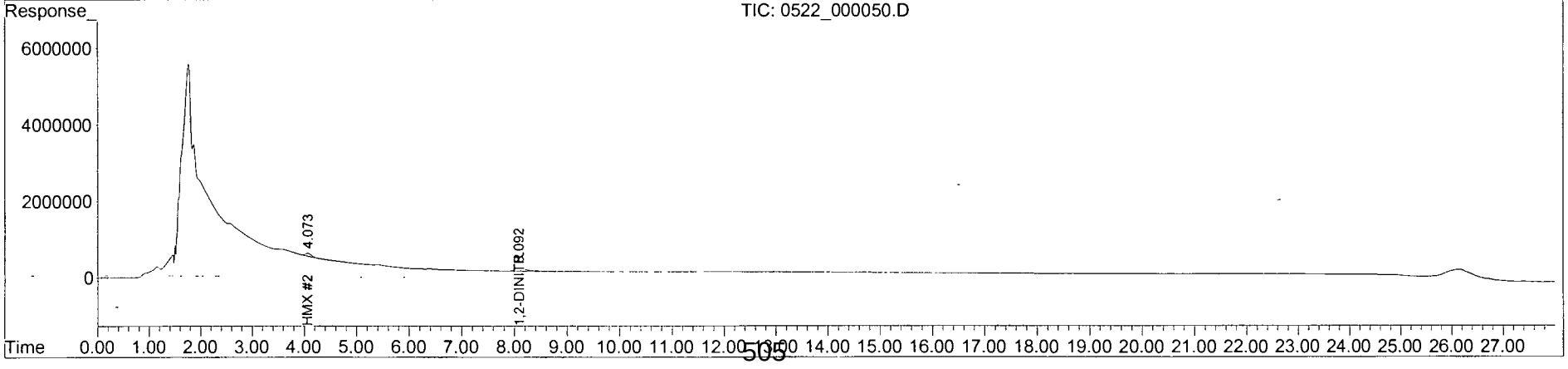
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000050.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 15:55:36
Operator : MP
Sample : AZ16336W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4099 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 26 08:40:14 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron





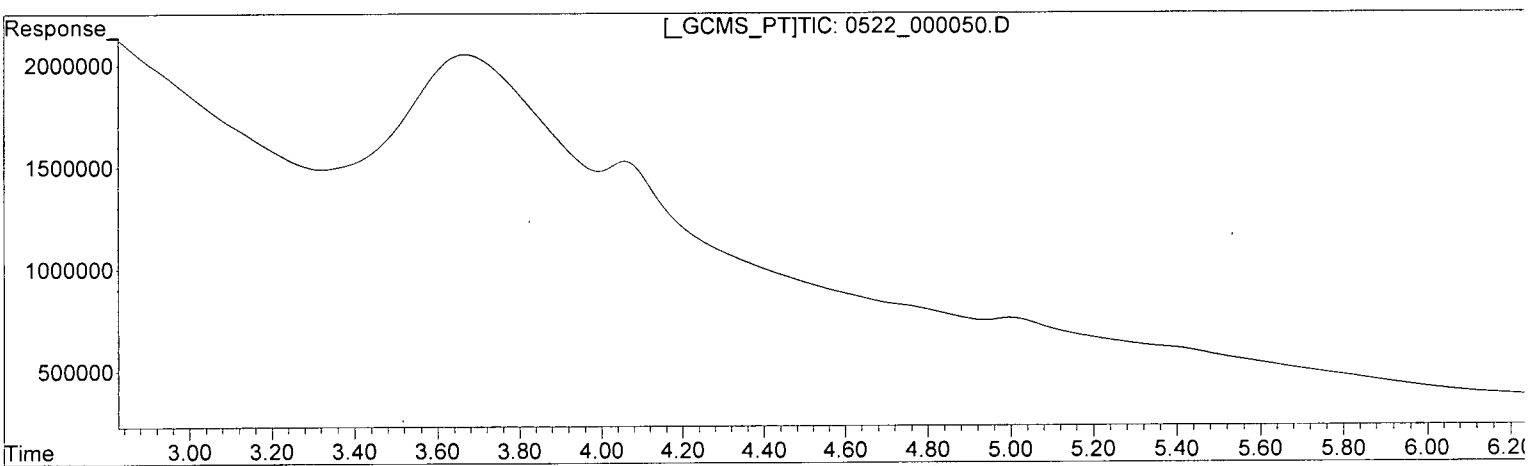
STE2_150522.M Tue May 26 08:40:28 2015 WALDORF Page: 2

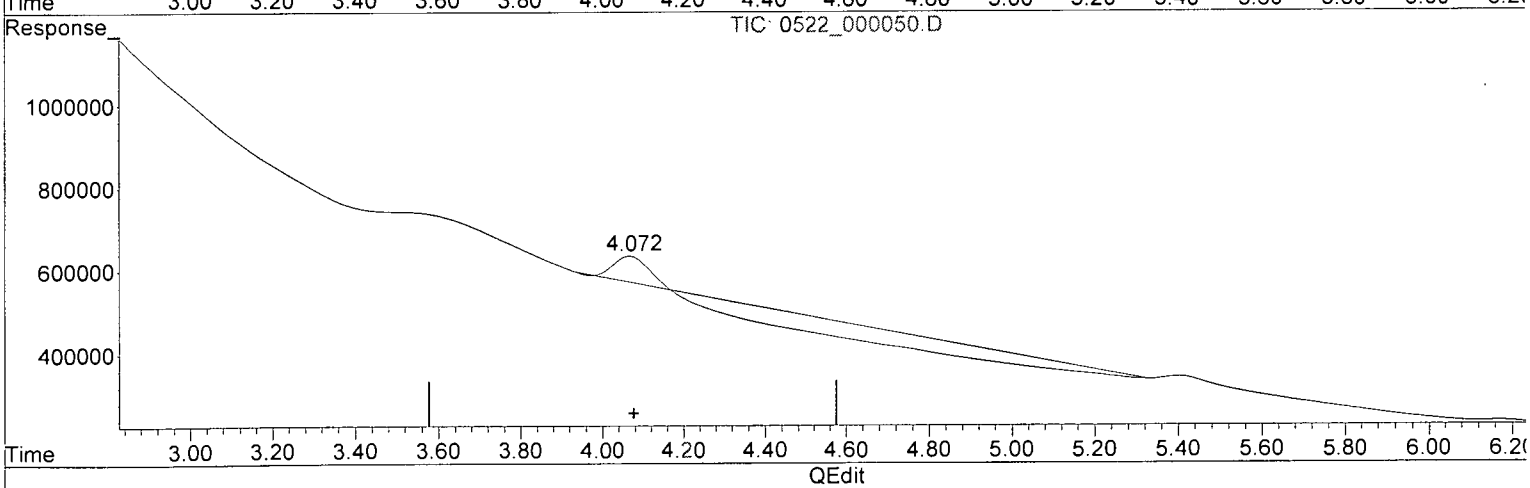
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000050.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 15:55:36
Operator : MP
Sample : AZ16336W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4099 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 24 12:41:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.066min 0.536 ppb

response 62051

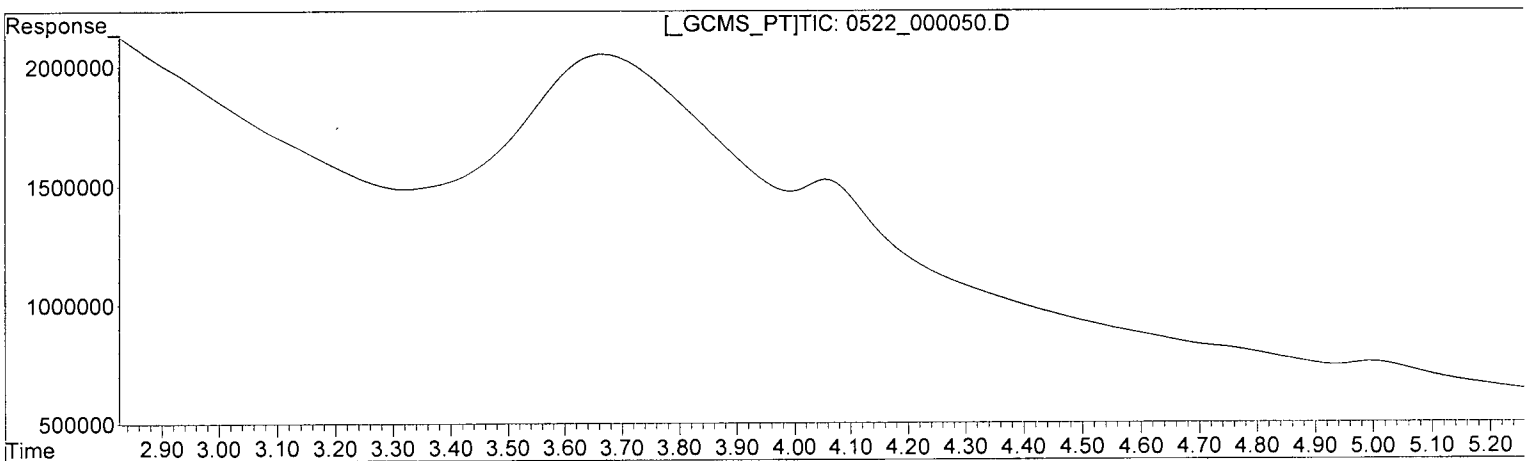
(+) = Expected Retention Time

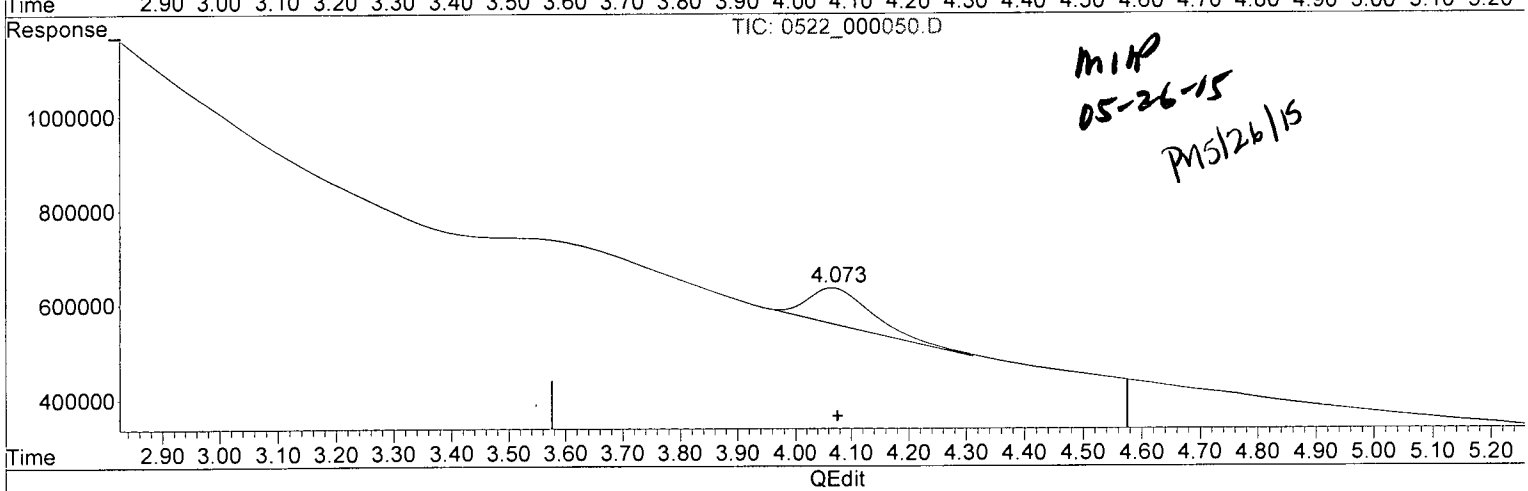
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000050.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 15:55:36
Operator : MP
Sample : AZ16336W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4099 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 24 12:41:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MHP
05-26-15
PM 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.073min 0.664 ppb m

response 76821

(+) = Expected Retention Time

EPA 8330B WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW10-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16337
QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	89.5	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000039
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

Printed: 05/26/15 9:19:51 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000039.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 05:05:41
Operator : MP
Sample : AZ16337W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4101 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:03:52 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb		ppb
System Monitoring Compounds							
4) S 1,2-DINIT...	0.000	3.552	0	724153	N.D.		0.895 #
Spiked Amount 1.000			Recovery	=	0.00%		89.50%
Target Compounds							
1) TM HMX	0.000	0.000	0	0	N.D.	CDL	N.D. d
2) TM RDX	0.000	0.000	0	0	N.D.		N.D.
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.		N.D.
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.		N.D.
6) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.		N.D.
7) TM NITROBENZENE	0.000	0.000	0	0	N.D.		N.D.
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	ART	N.D.
9) TM TETRYL	6.415	0.000	67407	0	NoCal		N.D.
10) TM 2,4,6-TRI...	6.900	0.000	57485	0	NoCal		N.D.
11) TM 2-AMINO-4...	7.143	0.000	49001	0	NoCal		N.D.
12) TM 4-AMINO-2...	7.474	0.000	58847	0	NoCal		N.D.
13) TM 2,4-DINIT...	8.584	0.000	18596	0	NoCal		N.D.
14) TM 2,6-DINIT...	8.950	0.000	31225	0	NoCal	CDL	N.D. d
15) TM 2-NITROTO...	0.000	0.000	0	0	N.D.		N.D.
16) TM 4-NITROTO...	0.000	0.000	0	0	N.D.	NT	N.D. d
17) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	NT	N.D. d
18) TM PETN	0.000	0.000	0	0	N.D. d	NT	N.D.

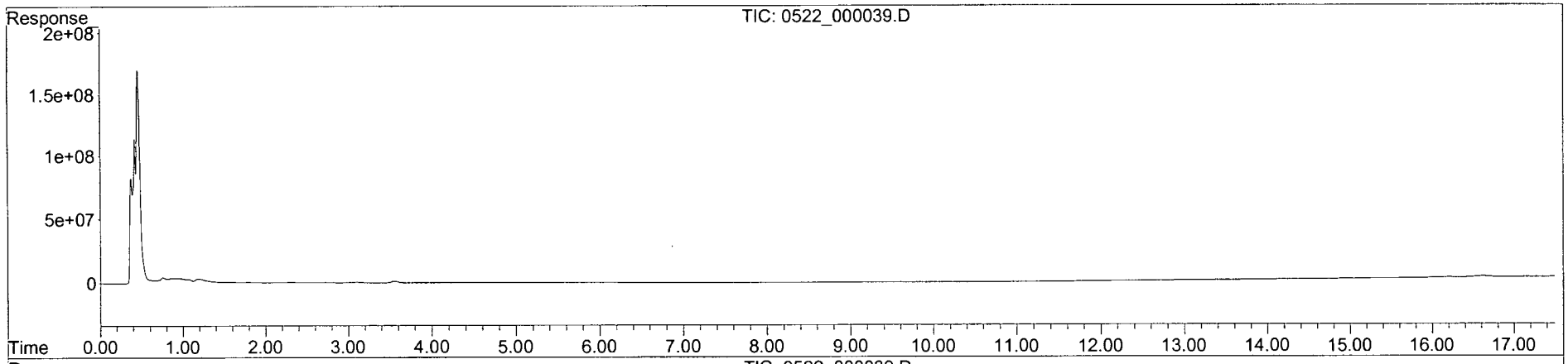
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int. MP
05-26-15

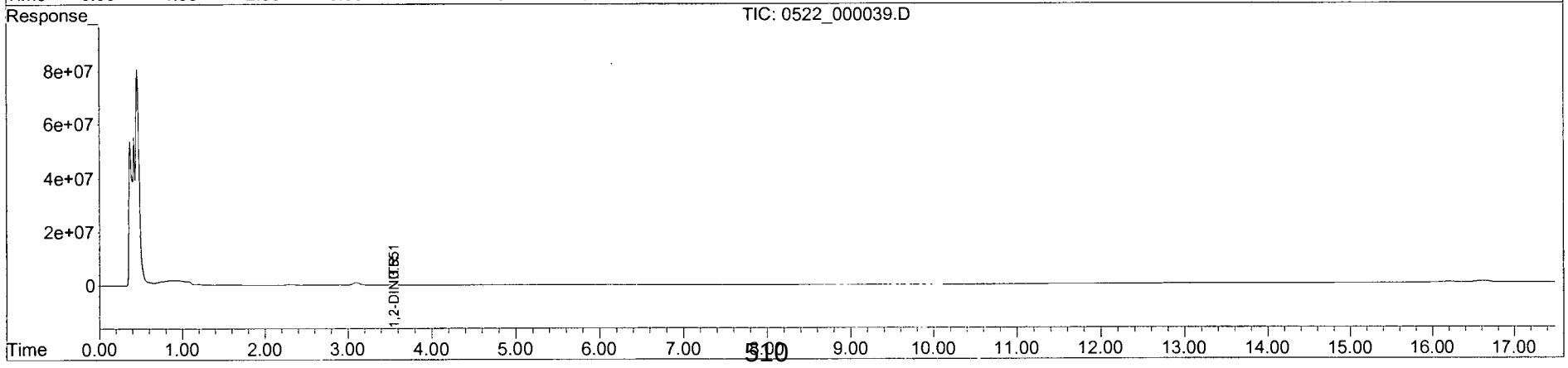
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000039.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 05:05:41
Operator : MP
Sample : AZ16337W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4101 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:03:52 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron





EPA 8330B WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-MW013-051315

APPL ID: AZ16338

Sample Collection Date: 05/13/15

QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	1.7	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	84.5	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000040
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

Printed: 05/26/15 9:19:52 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000040.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 05:43:11
Operator : MP
Sample : AZ16338W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4102 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:05:41 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	3.552	0	683193	N.D.	0.845 #
Spiked Amount 1.000			Recovery	=	0.00%	84.50%
Target Compounds						
1) TM HMX	0.000	0.917	0	2727503	N.D.	1.680m#
2) TM RDX	0.000	1.735	0	139962	N.D.	0.131 #
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
7) TM NITROBENZENE	0.000	0.000	0	0	N.D.	N.D.
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d<DL	N.D.
9) TM TETRYL	0.000	0.000	0	0	N.D.	N.D.
10) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2-AMINO-4...	7.087	0.000	3119	0	NoCal	N.D.
12) TM 4-AMINO-2...	7.483	0.000	14462	0	NoCal	N.D.
13) TM 2,4-DINIT...	8.664	0.000	1679	0	NoCal	N.D.
14) TM 2,6-DINIT...	8.885	0.000	19472	0	NoCal	N.D.
15) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-NITROTO...	0.000	0.000	0	0	N.D. NT	N.D. d
17) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D. d NT	N.D.

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

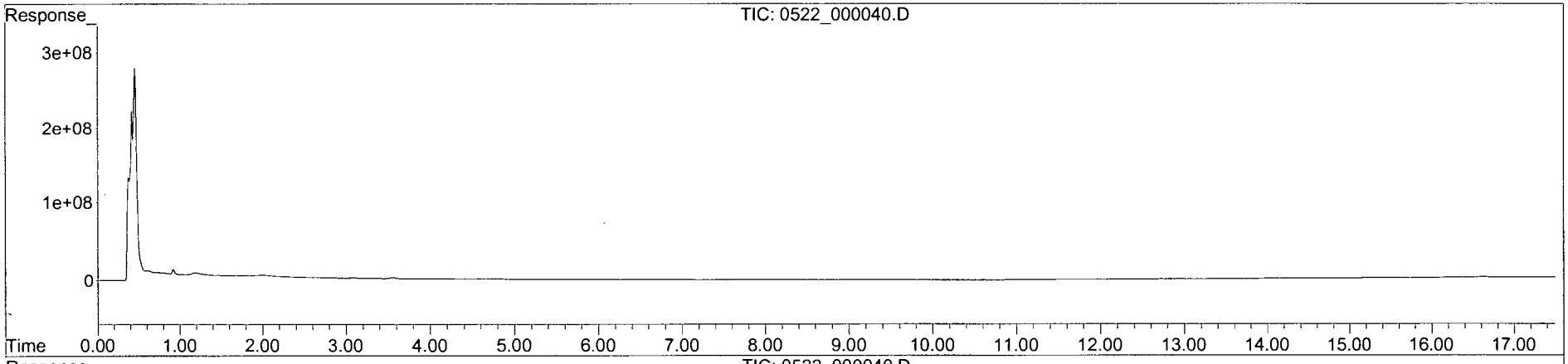
MP
05-26-15

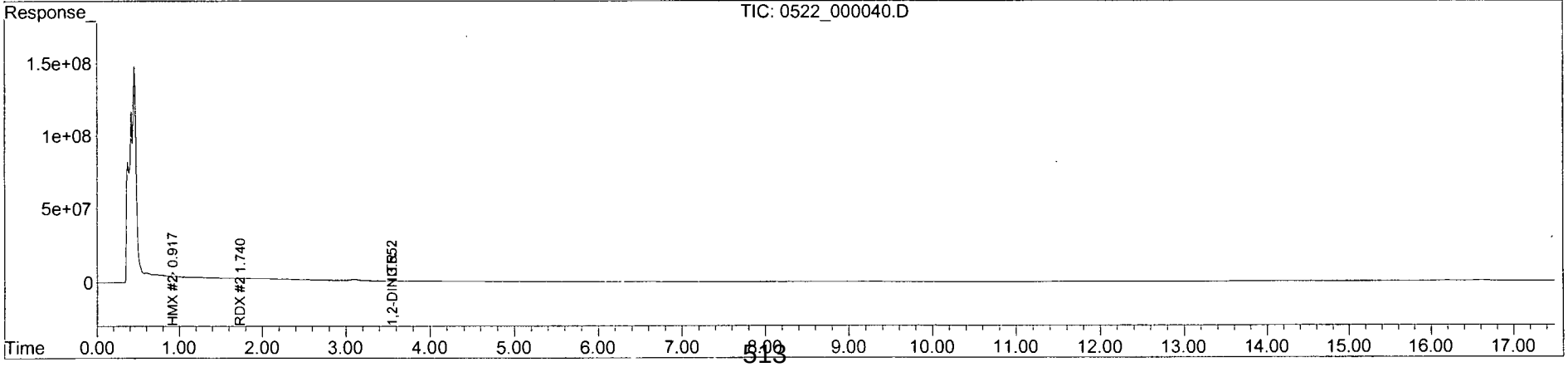
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000040.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 05:43:11
Operator : MP
Sample : AZ16338W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4102 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:05:41 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



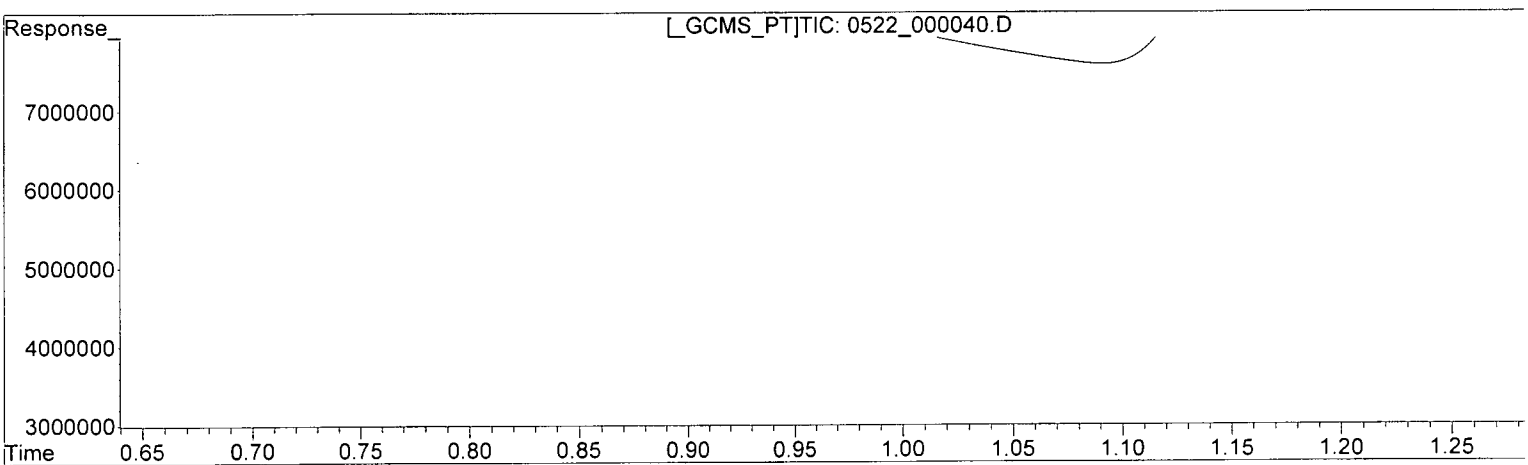


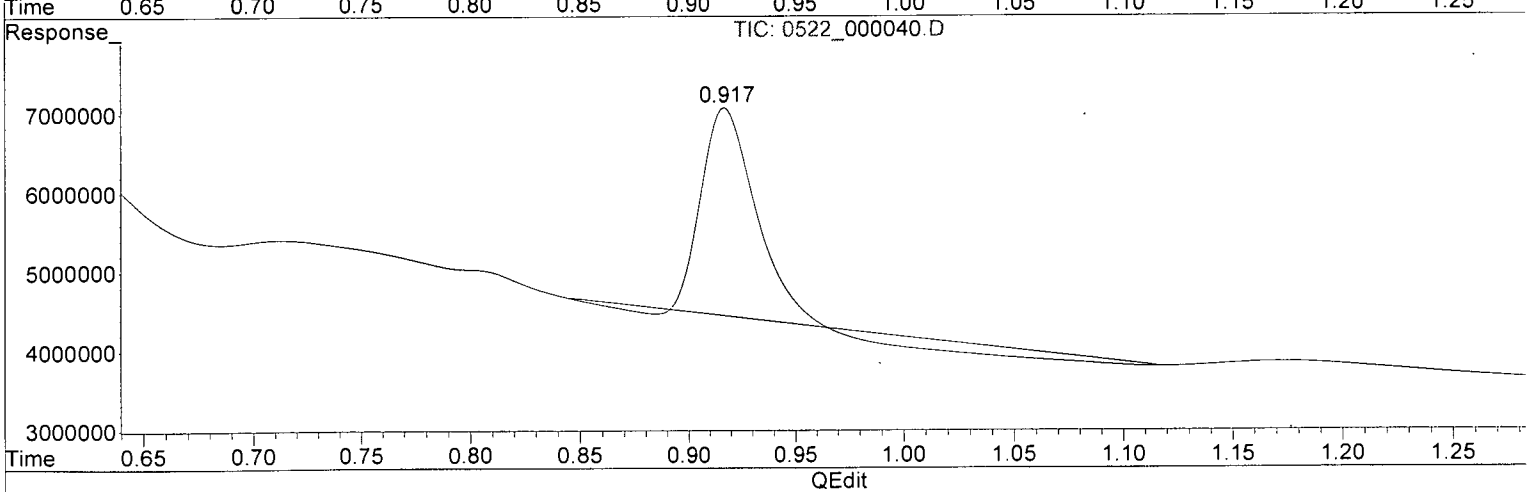
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000040.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 05:43:11
Operator : MP
Sample : AZ16338W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4102 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:14 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.918min 1.621 ppb

response 2631511

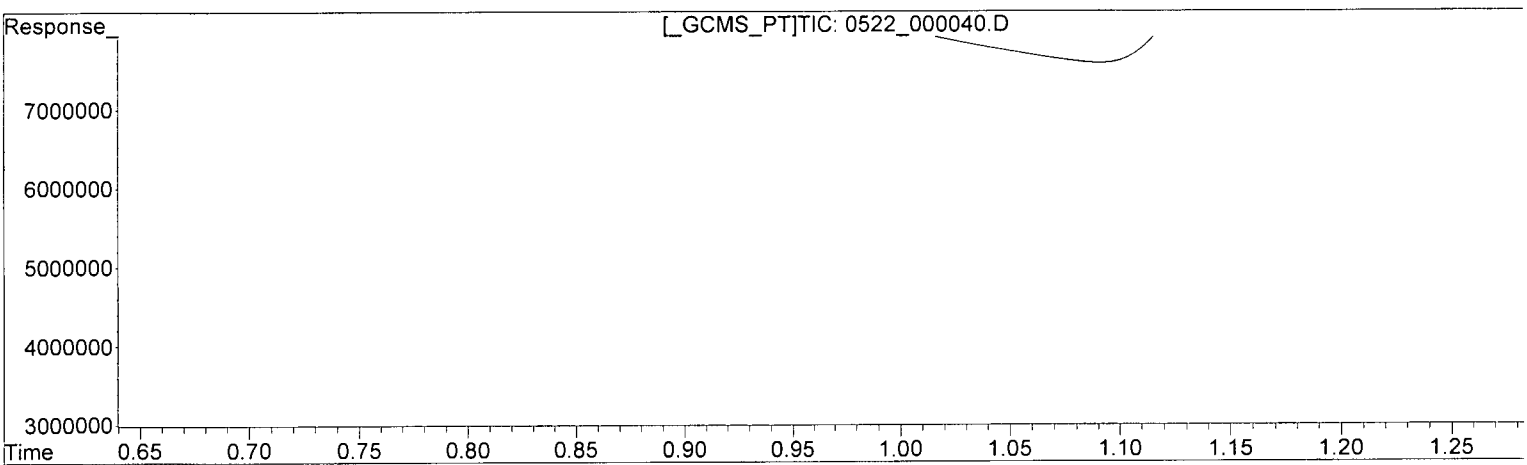
(+) = Expected Retention Time

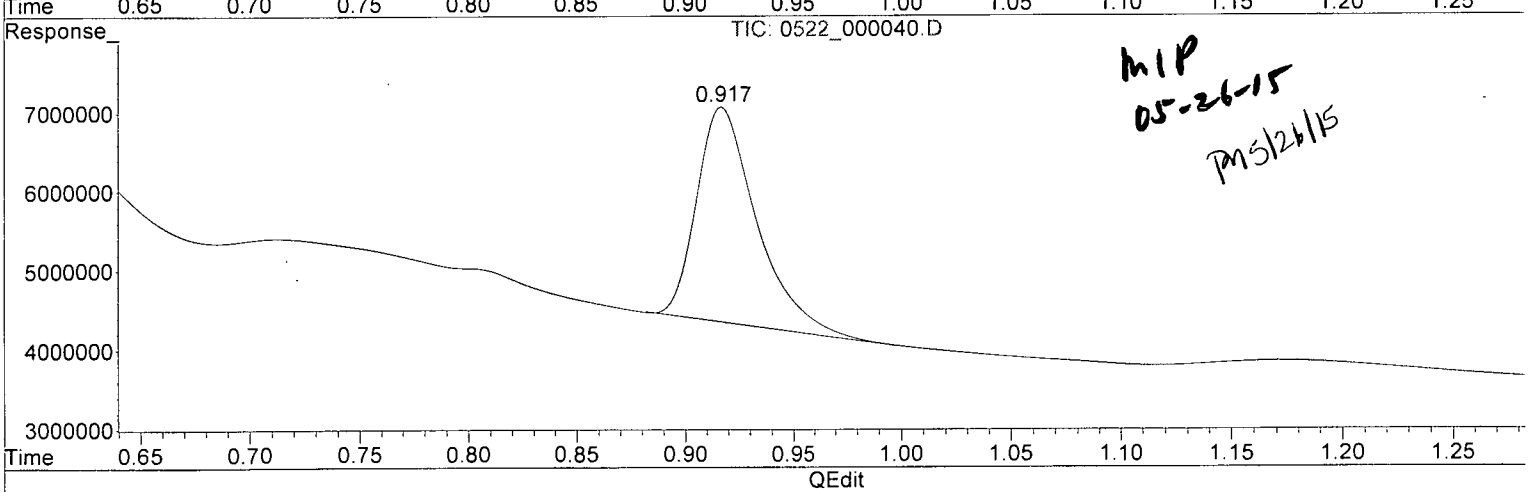
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000040.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 05:43:11
Operator : MP
Sample : AZ16338W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4102 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:14 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MIP
05-26-15
PM 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.917min 1.680 ppb m

response 2727503

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000051.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 16:35:08
Operator : MP
Sample : AZ16338W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4100 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 26 08:42:50 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb		ppb
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	8.084	0	91897	N.D.		0.830 #
	Spiked Amount 1.000			Recovery	=	0.00%		83.00%
	Target Compounds							
1)	TM HMX	0.000	4.075	0	197964	N.D.		1.711m#
2)	TM RDX	0.000	0.000	0	0	N.D.	<DL	N.D. d
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.		N.D.
5)	TM 1,3-DINIT...	0.000	0.000	0	0	N.D.		N.D.
6)	TM NITROBENZENE	0.000	0.000	0	0	N.D.	NJ	N.D. d
7)	TM 2,4,6-TRI...	0.000	0.000	0	0	N.D.	NJ	N.D. d
8)	TM NITROGLYC...	0.000	0.000	0	0	N.D.		N.D.
9)	TM TETRYL	0.000	0.000	0	0	N.D.		N.D.
10)	TM 2,6-DINIT...	0.000	0.000	0	0	N.D.		N.D.
11)	TM 2,4-DINIT...	0.000	0.000	0	0	N.D.		N.D.
12)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.		N.D.
13)	TM 4-NITROTO...	0.000	0.000	0	0	N.D.	NJ	N.D. d
14)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	NJ	N.D. d
15)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.		N.D.
16)	TM 4-AMINO-2...	0.000	0.000	0	0	N.D.		N.D.
17)	TM 2-AMINO-4...	0.000	0.000	0	0	N.D.		N.D.
18)	TM PETN	0.000	0.000	0	0	N.D. d	NJ	N.D.

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

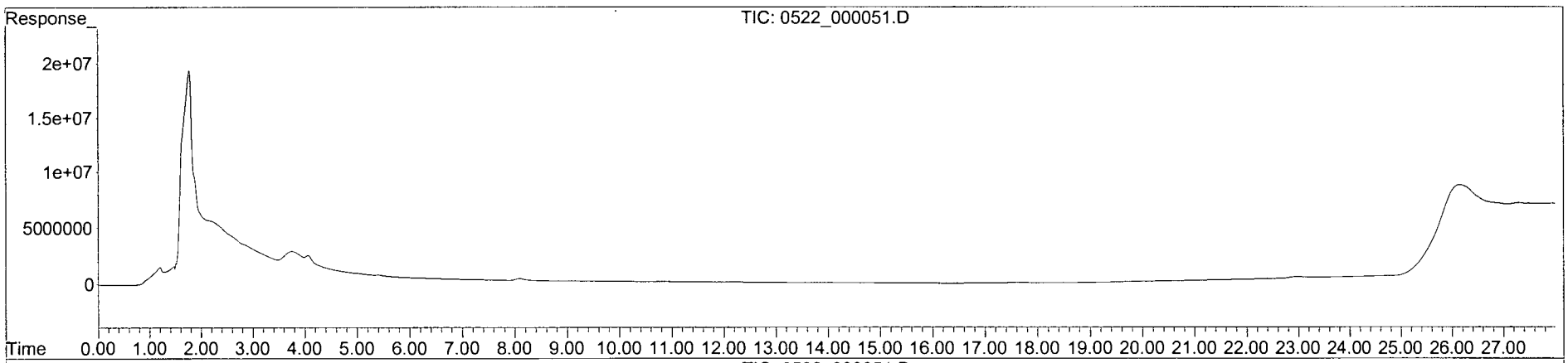
MP 05-26-15

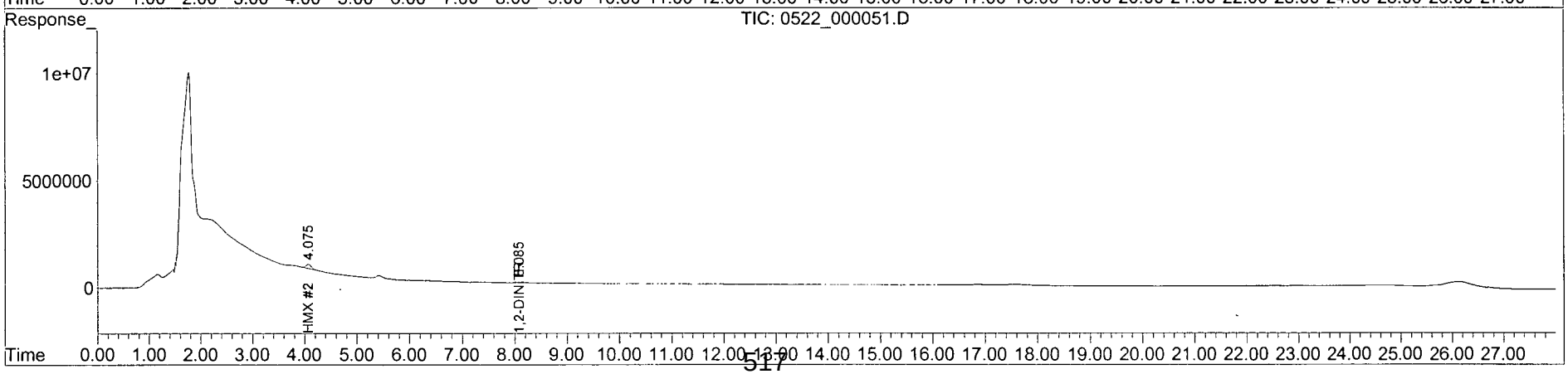
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000051.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 16:35:08
Operator : MP
Sample : AZ16338W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4100 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 26 08:42:50 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



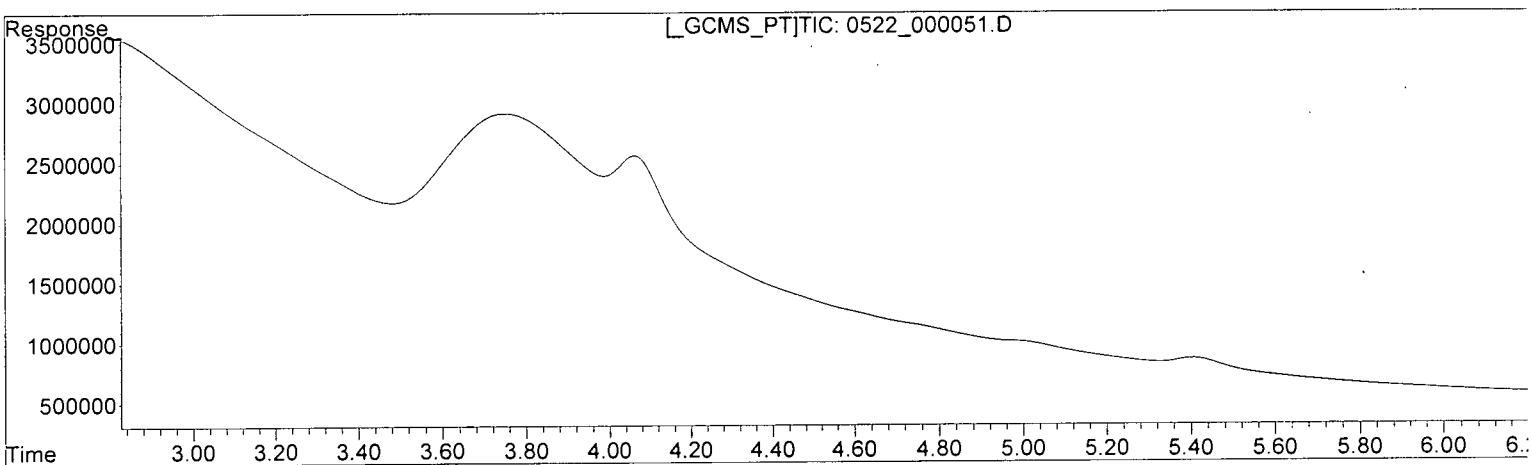


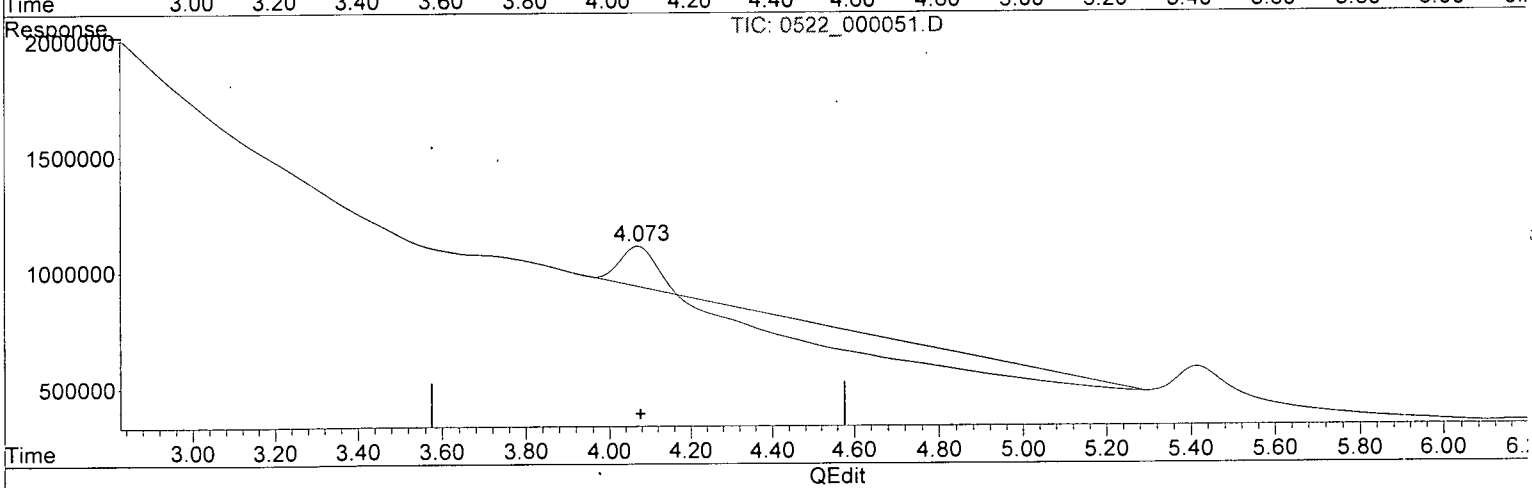
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000051.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 16:35:08
Operator : MP
Sample : AZ16338W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4100 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 24 12:41:03 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.069min 1.495 ppb

response 172997

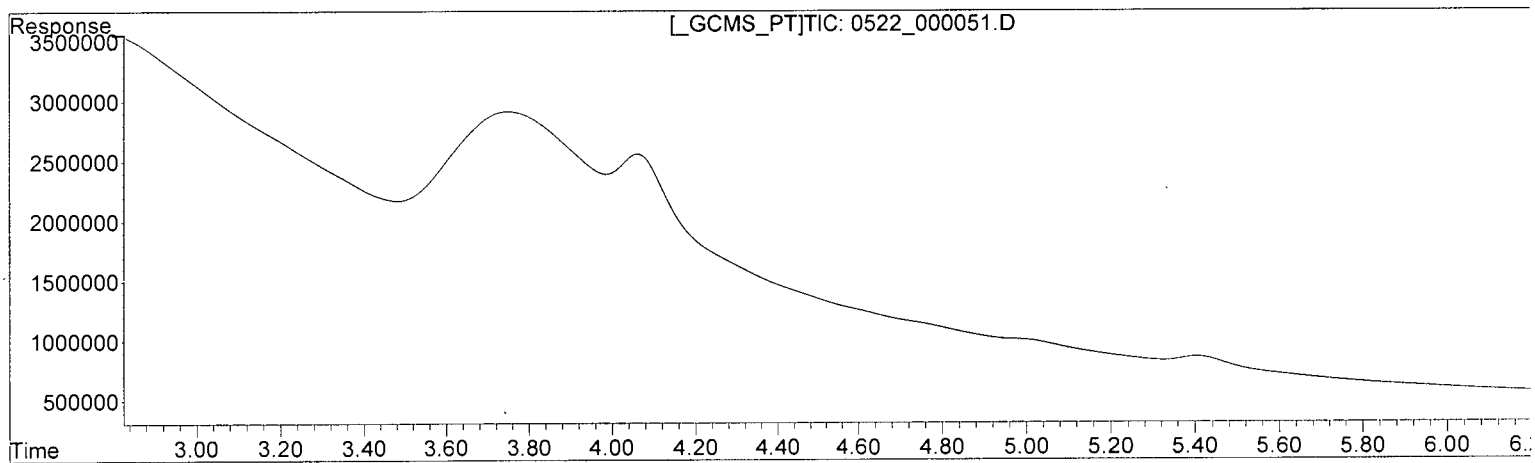
(+) = Expected Retention Time

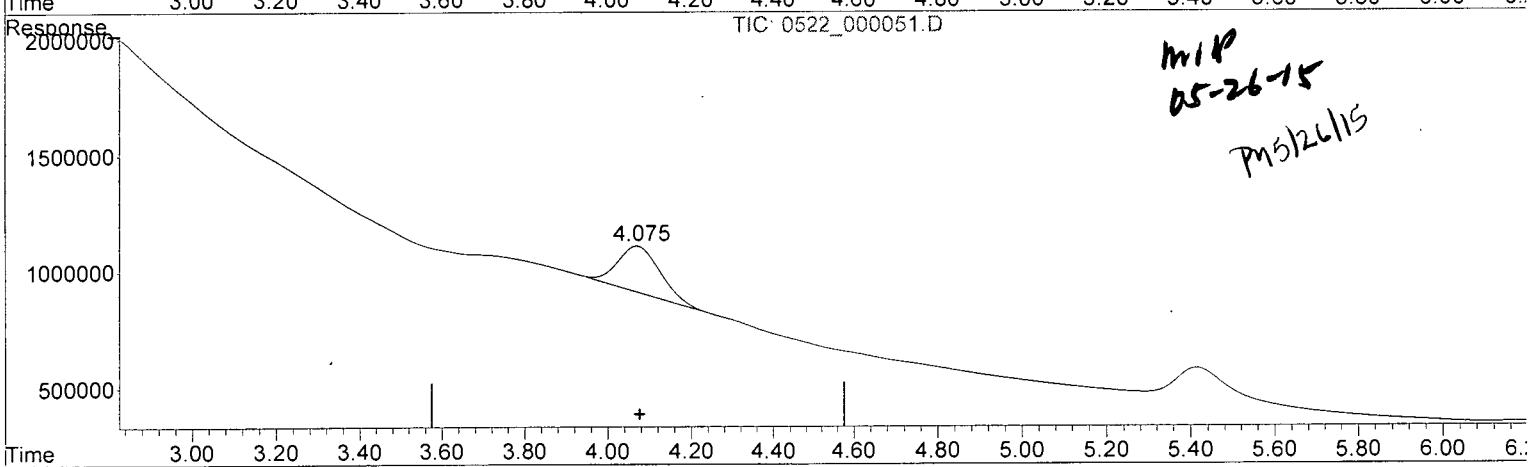
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000051.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 16:35:08
Operator : MP
Sample : AZ16338W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4100 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 24 12:41:03 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MIP
05-26-15
PM 5/26/15

QEdit

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.075min 1.711 ppb m

response 197964

(+) = Expected Retention Time

EPA 8330B WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-MW004-051315

APPL ID: AZ16339

Sample Collection Date: 05/13/15

QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.7	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000041
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

Printed: 05/26/15 9:19:52 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000041.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:20:41
Operator : MP
Sample : AZ16339W07 0.0163 DF 05/19/15
Misc : Water
ALS Vial : 4103 Sample Multiplier: 0.0163265

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:23:20 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	3.555	0	717035	N.D.	0.905m#
Spiked Amount 1.020			Recovery	=	0.00%	88.69%
Target Compounds						
1) TM HMX	0.000	0.917	0	193473	N.D.	0.122m#
2) TM RDX	0.000	0.000	0	0	N.D.	N.D.
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
7) TM NITROBENZENE	0.000	0.000	0	0	N.D.	N.D.
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d ΔRT	N.D.
9) TM TETRYL	6.347	0.000	22615	0	NoCal	N.D.
10) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
12) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
13) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
14) TM 2,6-DINIT...	8.900	0.000	13914	0	NoCal <DL	N.D. d
15) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
17) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

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

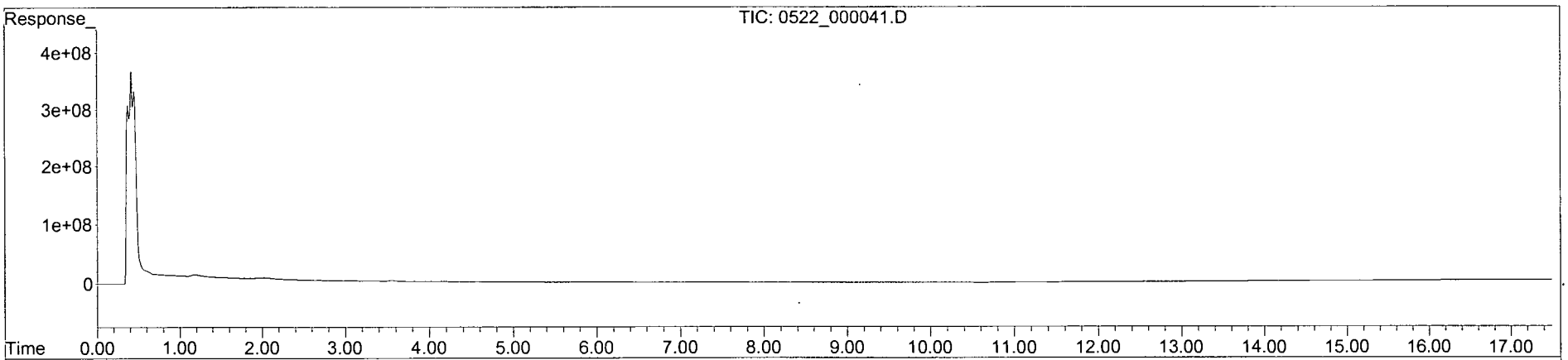
MP
05-26-15

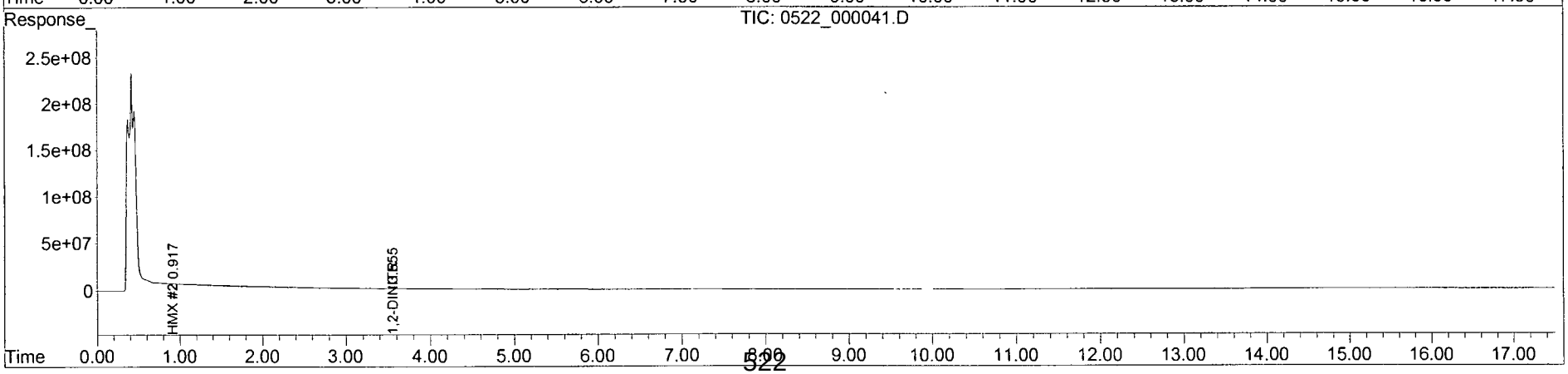
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000041.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:20:41
Operator : MP
Sample : AZ16339W07 0.0163 DF 05/19/15
Misc : Water
ALS Vial : 4103 Sample Multiplier: 0.0163265

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:23:20 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



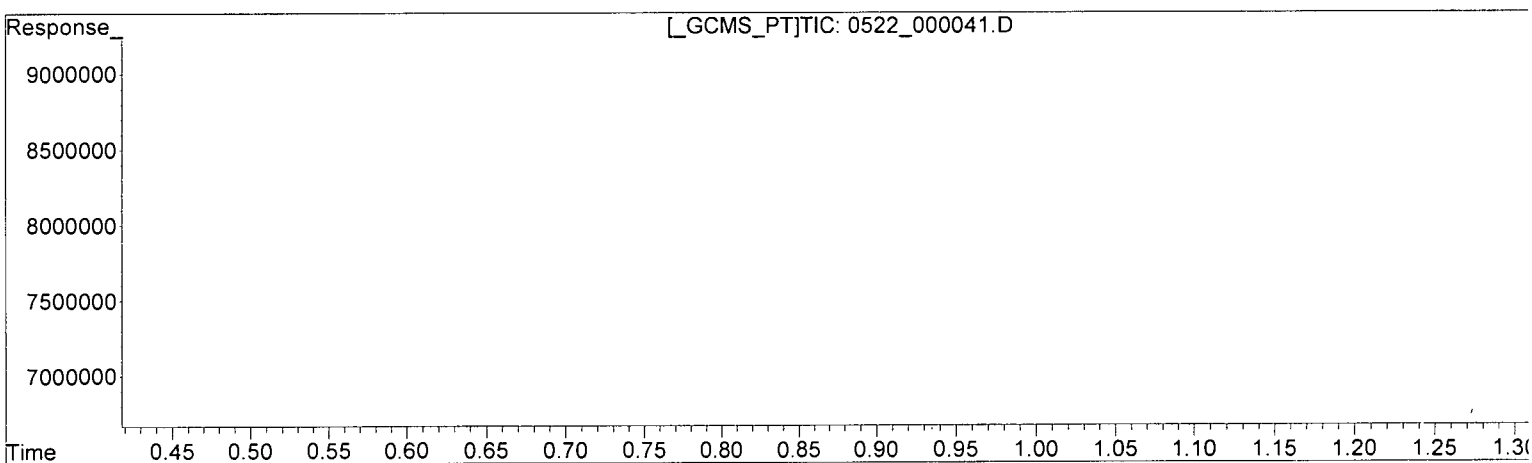


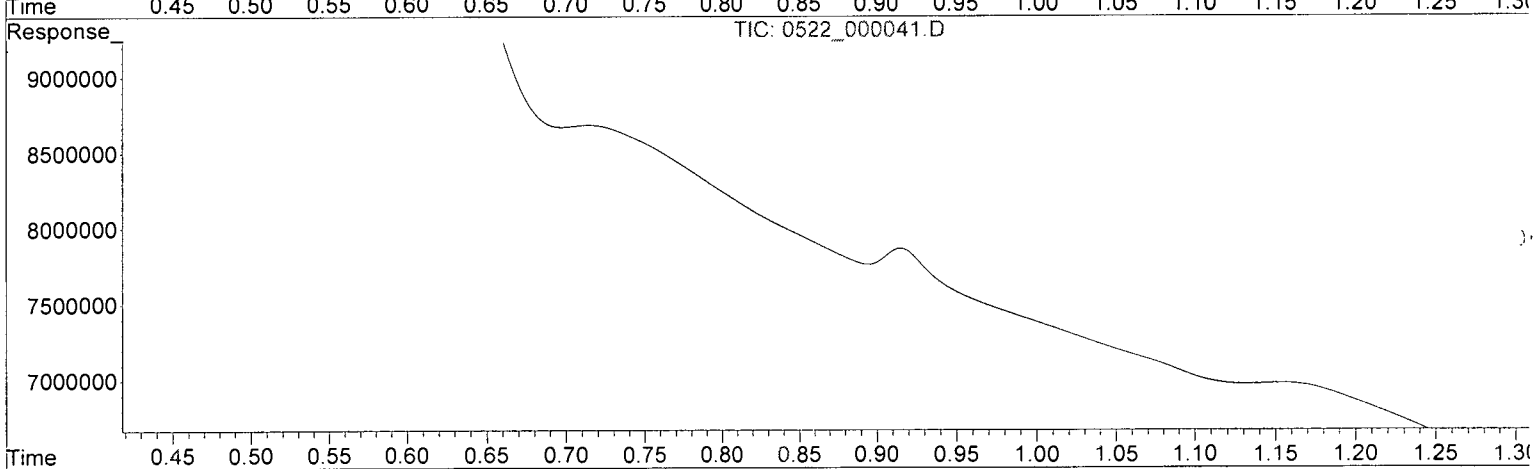
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000041.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:20:41
Operator : MP
Sample : AZ16339W07 0.0163 DF 05/19/15
Misc : Water
ALS Vial : 4103 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:16 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





QEdit

(1) HMX (TM)
0.000min 0.000 ppb
response 0

(1) HMX #2 (TM)
0.000min 0.000 ppb
response 0

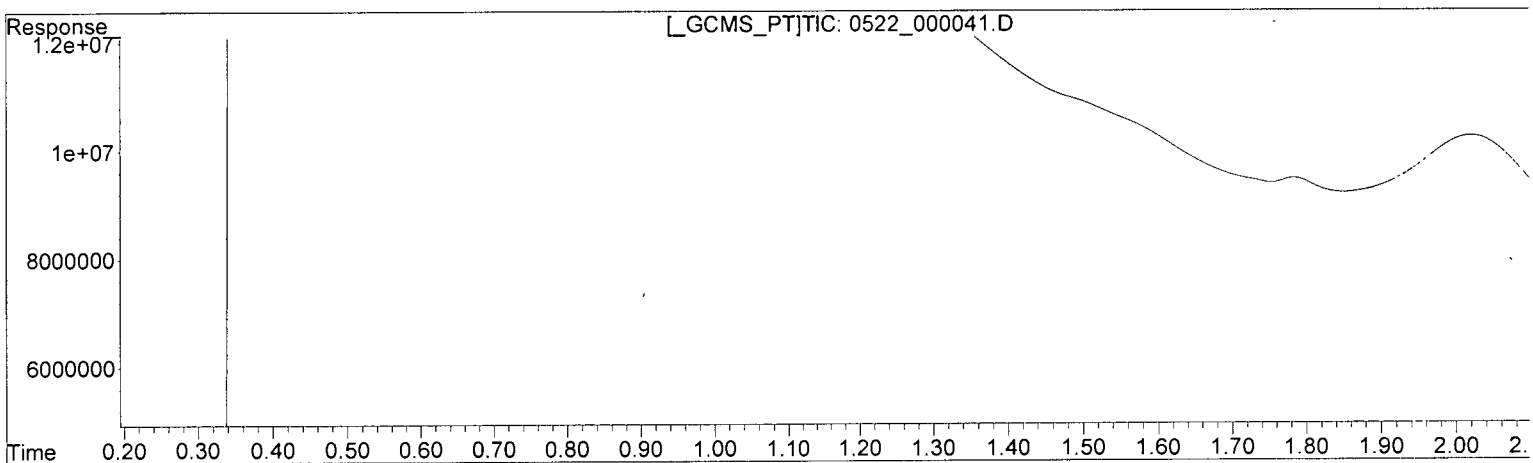
(+) = Expected Retention Time

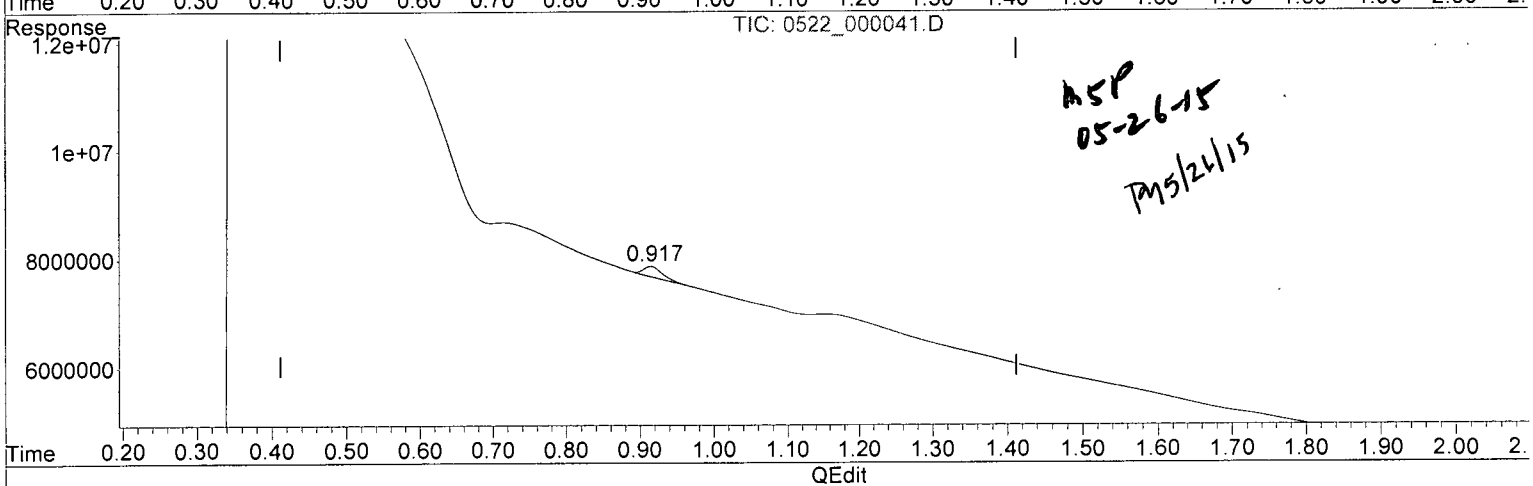
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000041.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:20:41
Operator : MP
Sample : AZ16339W07 0.0163 DF 05/19/15
Misc : Water
ALS Vial : 4103 Sample Multiplier: 0.0163265

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:08:02 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





ASP
05-26-15
TM 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.917min 0.122 ppb m

response 193473

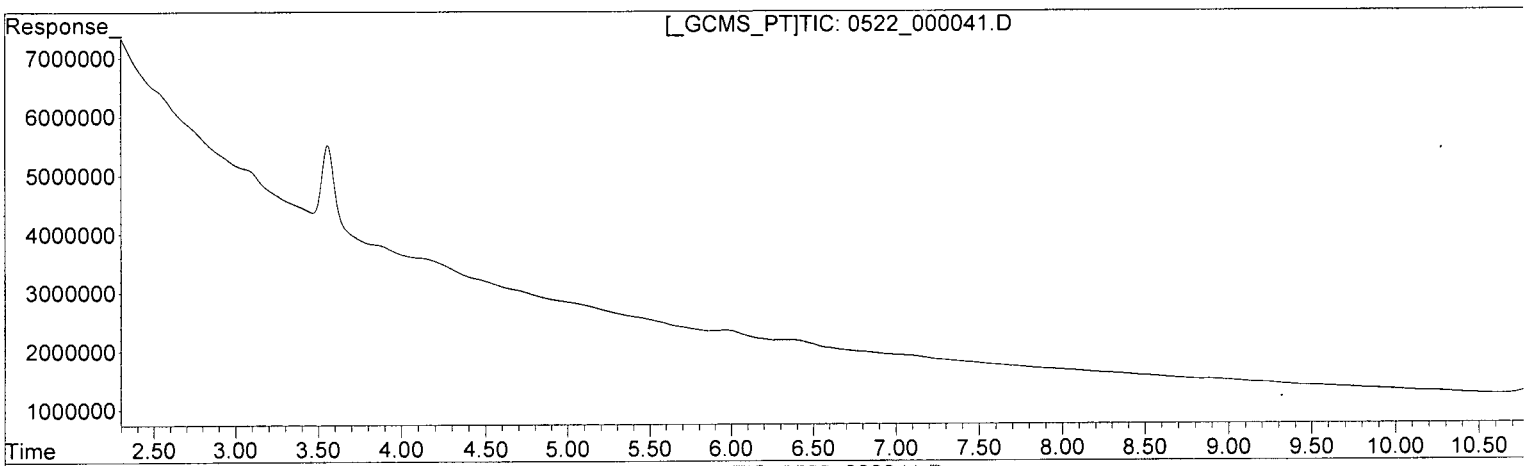
(+) = Expected Retention Time

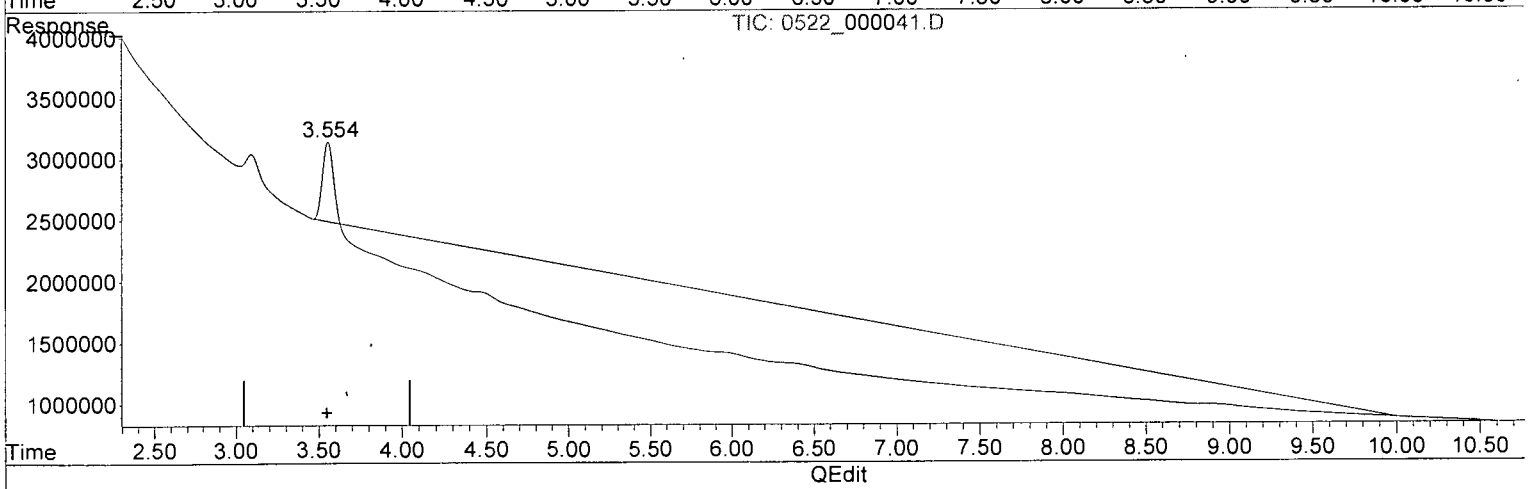
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000041.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:20:41
Operator : MP
Sample : AZ16339W07 0.0163 DF 05/19/15
Misc : Water
ALS Vial : 4103 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:16 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

3.555min 0.805 ppb

response 651252

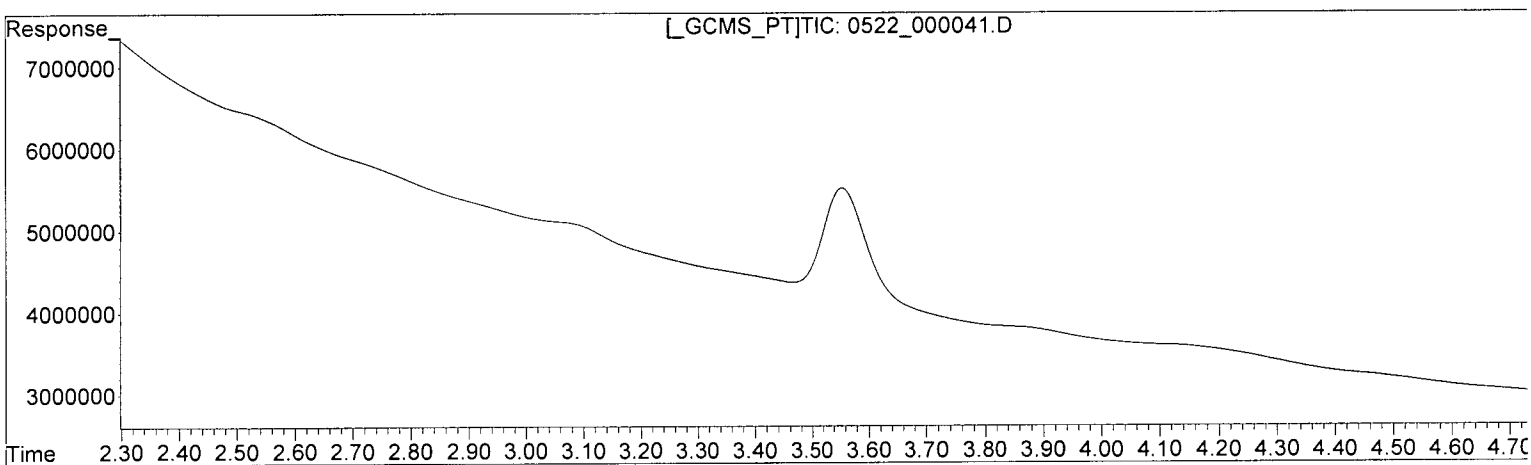
(+) = Expected Retention Time

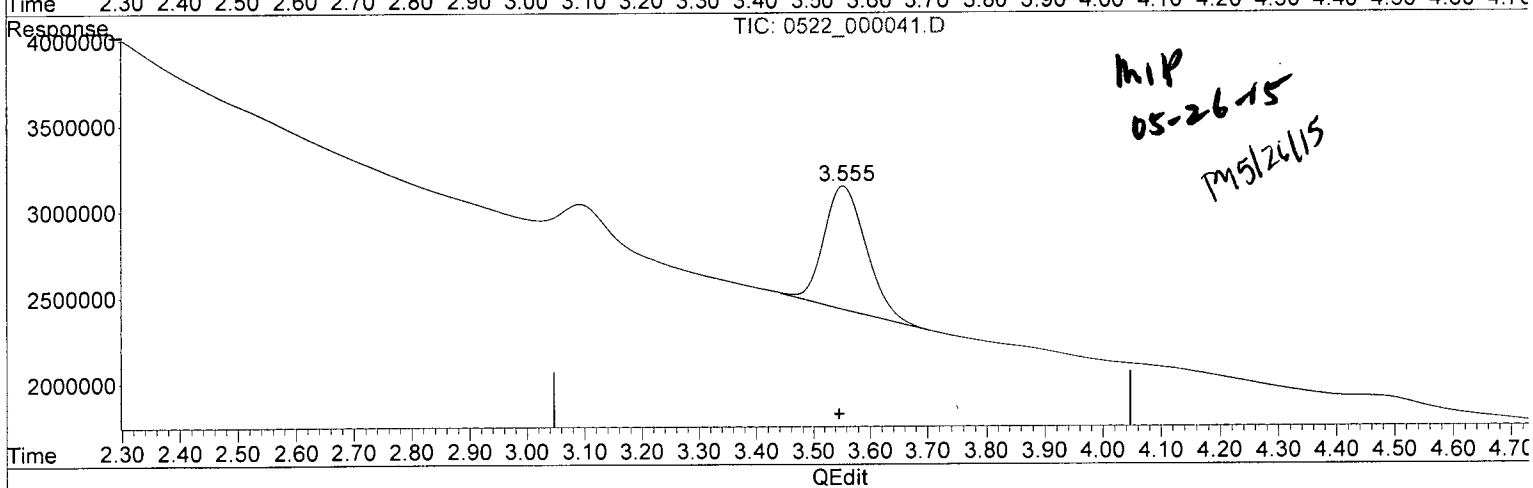
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000041.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:20:41
Operator : MP
Sample : AZ16339W07 0.0163 DF 05/19/15
Misc : Water
ALS Vial : 4103 Sample Multiplier: 0.0163265

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:08:02 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MIP
05-26-15
PM 5/26/15

(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

3.555min 0.905 ppb m

response 717035

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000052.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 17:14:39
Operator : MP
Sample : AZ16339W07 0.0163 DF 05/19/15
Misc : Water
ALS Vial : 4101 Sample Multiplier: 0.0163265

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 26 08:44:36 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.082	0	92307	N.D.	0.851 #
Spiked Amount 1.020			Recovery	=	0.00%	83.40%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D.	N.D.
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM NITROBENZENE	0.000	0.000	0	0	N.D. NT	N.D. d
7) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D.	N.D.
8) TM NITROGLYC...	0.000	0.000	0	0	N.D.	N.D.
9) TM TETRYL	0.000	0.000	0	0	N.D.	N.D.
10) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D. d NT	N.D.

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

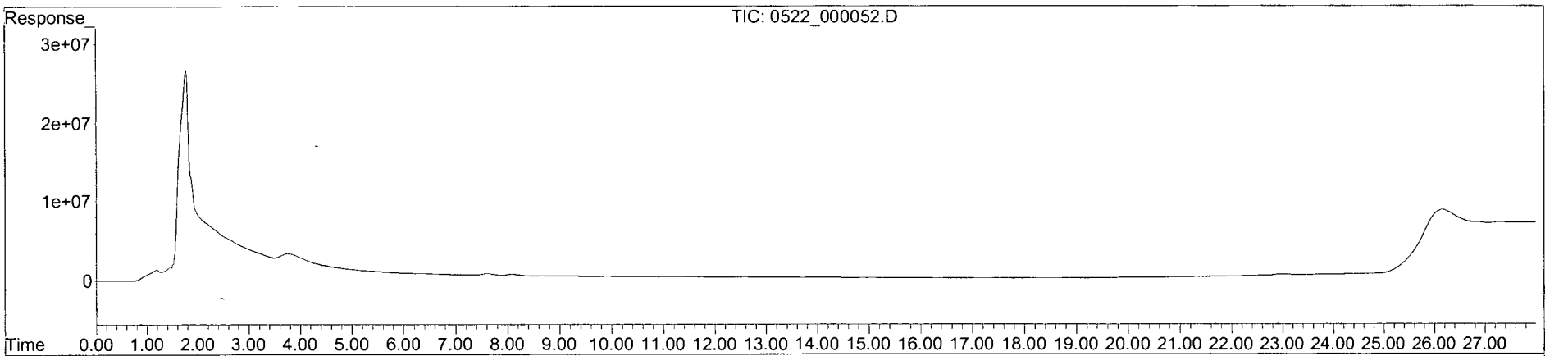
MP
05-26-15

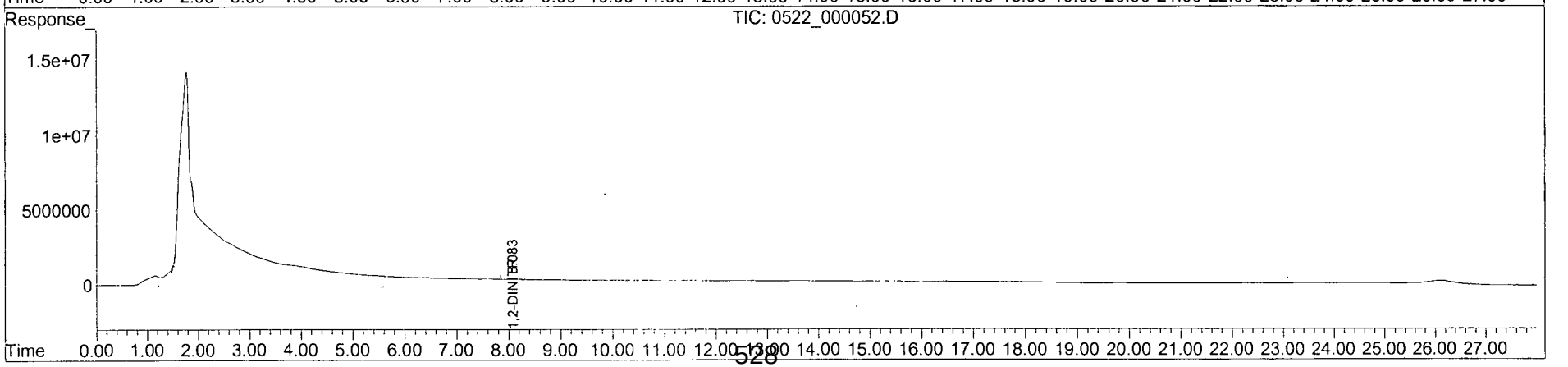
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000052.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 17:14:39
Operator : MP
Sample : AZ16339W07 0.0163 DF 05/19/15
Misc : Water
ALS Vial : 4101 Sample Multiplier: 0.0163265

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 26 08:44:36 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron





STE2_150522.M Tue May 26 08:44:50 2015 WALDORF Page: 2

EPA 8330B WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-MW005-051315

APPL ID: AZ16340

Sample Collection Date: 05/13/15

QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	87.0	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000042
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

Printed: 05/26/15 9:19:52 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000042.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:58:10
Operator : MP
Sample : AZ16340W07 0.0.0168 DF 05/19/15
Misc : Water
ALS Vial : 4104 Sample Multiplier: 0.01684

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:09:38 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	3.553	0	703843	N.D.	0.916m#
Spiked Amount 1.053			Recovery	=	0.00%	87.02%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D.	N.D.
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
7) TM NITROBENZENE	0.000	0.000	0	0	N.D.	N.D.
8) TM NITROGLYC...	0.000	0.000	0	0	N.D.	N.D.
9) TM TETRYL	6.354	0.000	301357	0	NoCal <DL	N.D. d
10) TM 2,4,6-TRI...	7.057	0.000	43343	0	NoCal	N.D.
11) TM 2-AMINO-4...	7.057	0.000	43343	0	NoCal	N.D.
12) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
13) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
14) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
17) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

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

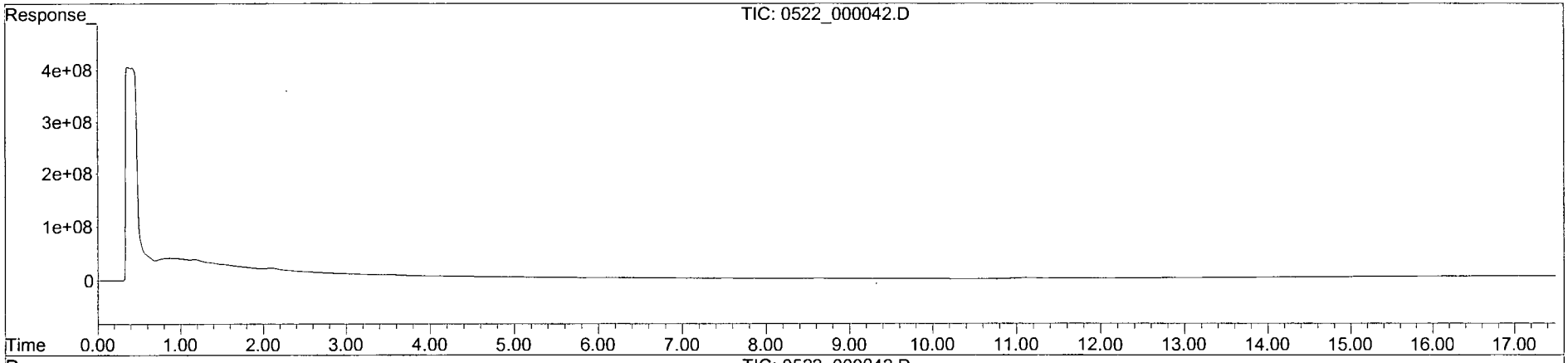
MP
05-26-15

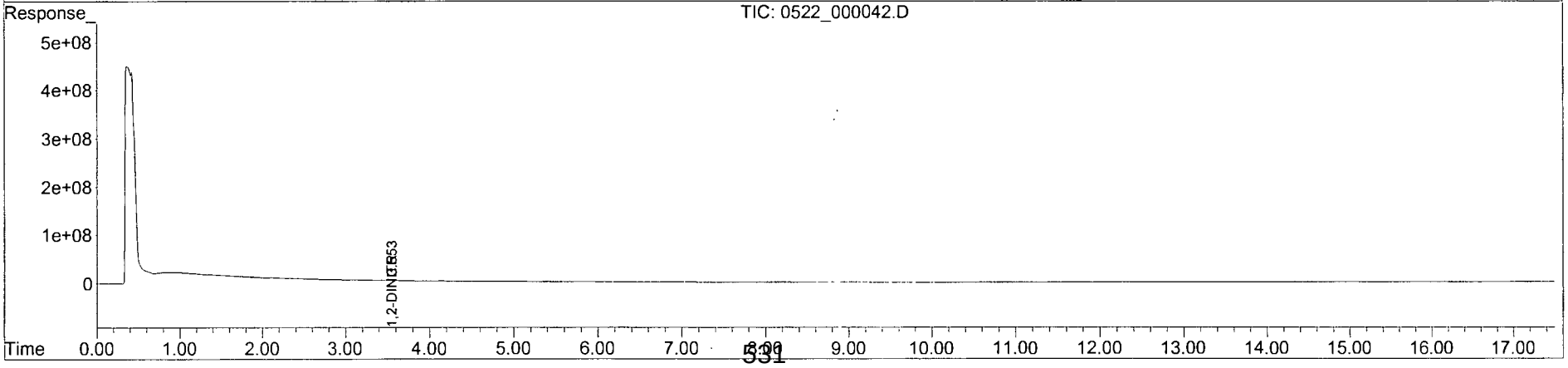
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000042.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:58:10
Operator : MP
Sample : AZ16340W07 0.0.0168 DF 05/19/15
Misc : Water
ALS Vial : 4104 Sample Multiplier: 0.01684

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:09:38 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



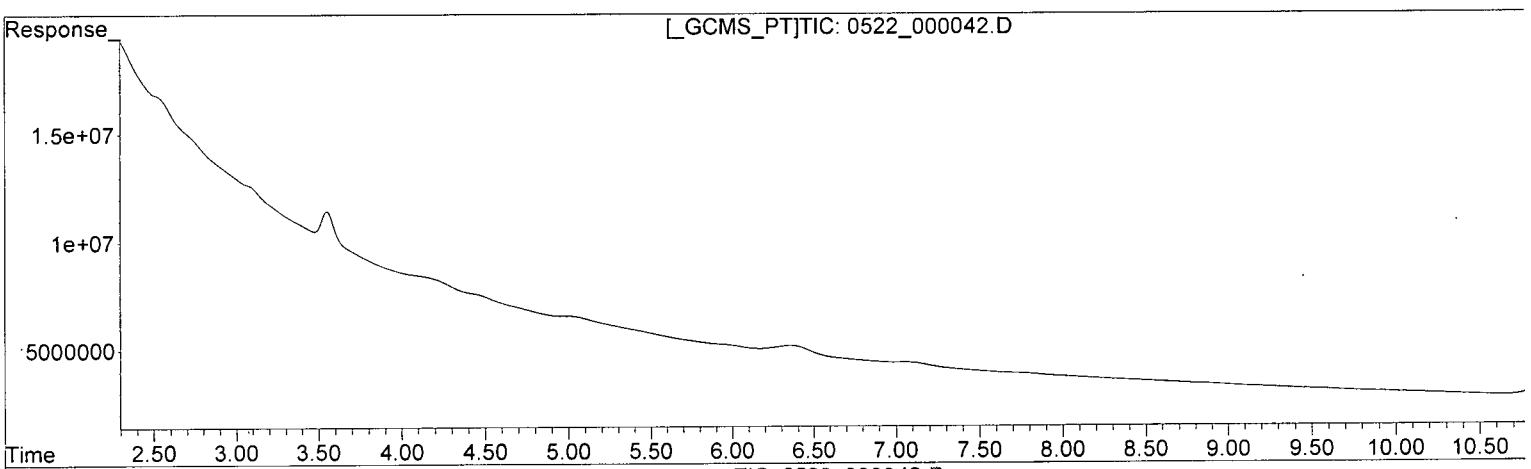


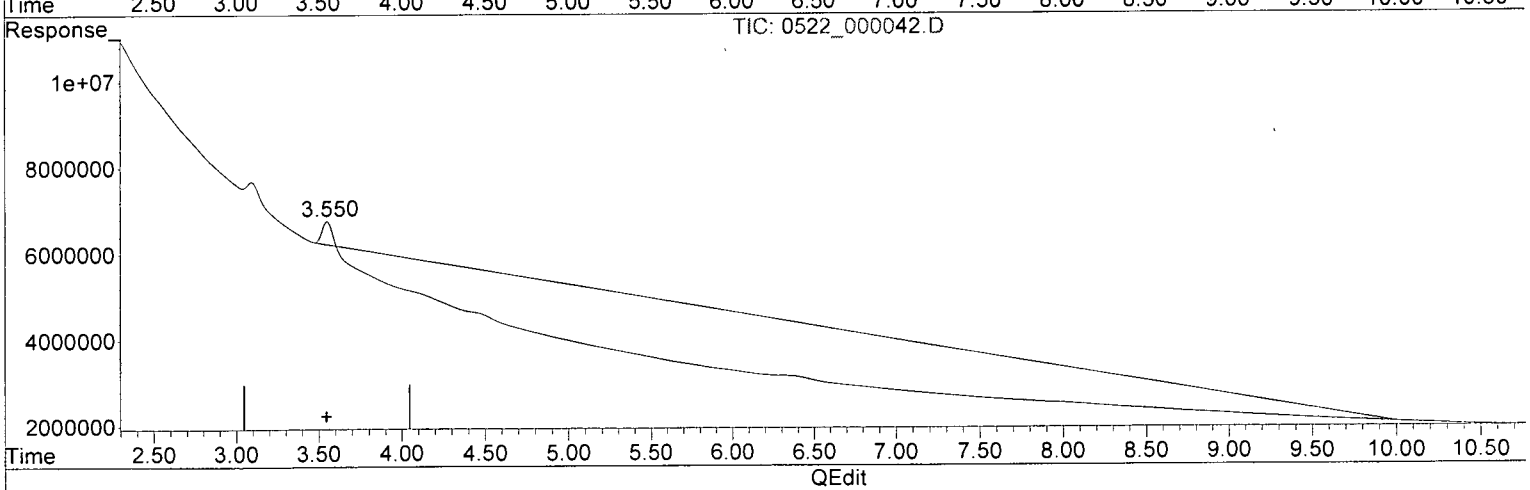
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000042.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:58:10
Operator : MP
Sample : AZ16340W07 0.0.0168 DF 05/19/15
Misc : Water
ALS Vial : 4104 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:18 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

3.550min 0.670 ppb

response 541965

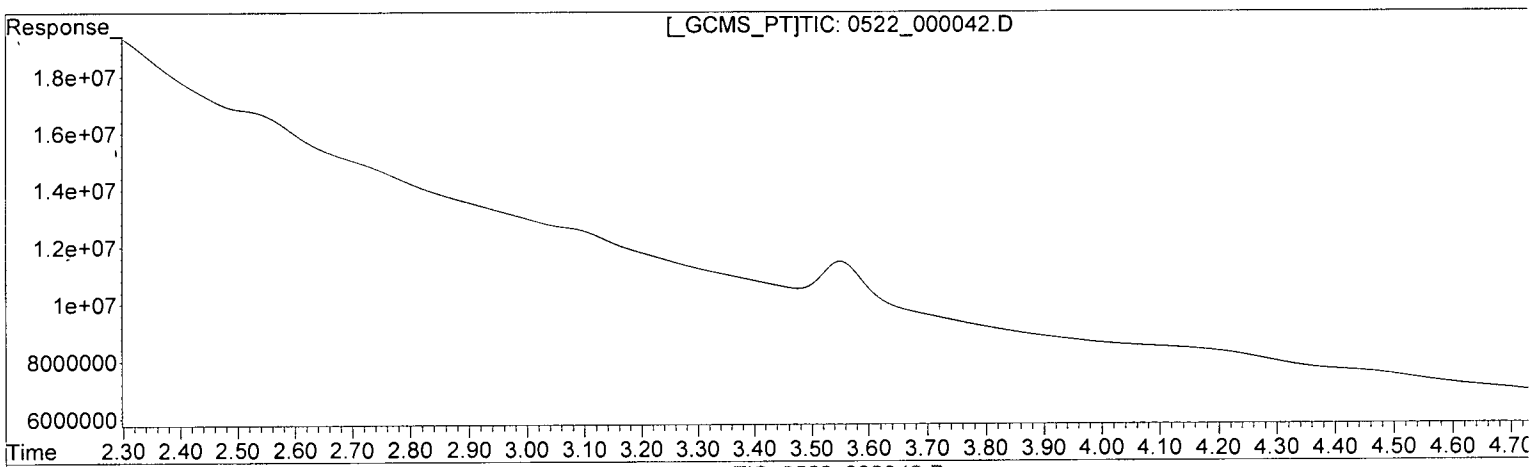
(+) = Expected Retention Time

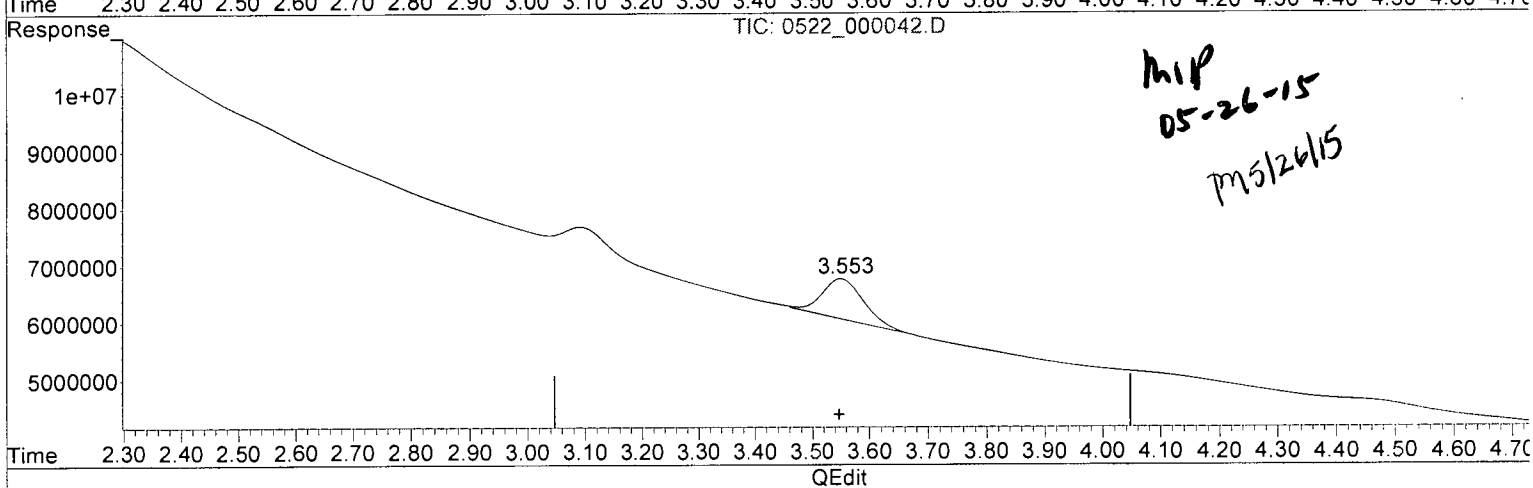
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000042.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:58:10
Operator : MP
Sample : AZ16340W07 0.0.0168 DF 05/19/15
Misc : Water
ALS Vial : 4104 Sample Multiplier: 0.01684

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:09:38 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MIP
05-26-15
pm5/26/15

(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

3.553min 0.916 ppb m

response 703843

(+) = Expected Retention Time

EPA 8330B WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW014-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16341
QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	84.2	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000043
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

Printed: 05/26/15 9:19:52 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000043.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 07:35:40
Operator : MP
Sample : AZ16341W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4160 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:11:28 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb		ppb	
	System Monitoring Compounds								
4)	S 1,2-DINIT...	0.000	3.555	0	680814	N.D.		0.842	#
	Spiked Amount 1.000			Recovery	=	0.00%		84.20%	
	Target Compounds								
1)	TM HMX	0.000	0.000	0	0	N.D.	<DL	N.D.	d
2)	TM RDX	0.000	0.000	0	0	N.D.	<DL	N.D.	d
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.		N.D.	
5)	TM 1,3-DINIT...	0.000	0.000	0	0	N.D.		N.D.	
6)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.		N.D.	
7)	TM NITROBENZENE	0.000	0.000	0	0	N.D.		N.D.	
8)	TM NITROGLYC...	0.000	0.000	0	0	N.D.	d <DL	N.D.	
9)	TM TETRYL	0.000	0.000	0	0	N.D.		N.D.	
10)	TM 2,4,6-TRI...	6.821	0.000	7913	0	NoCal		N.D.	
11)	TM 2-AMINO-4...	7.081	0.000	1381	0	NoCal		N.D.	
12)	TM 4-AMINO-2...	7.485	0.000	8268	0	NoCal		N.D.	
13)	TM 2,4-DINIT...	8.653	0.000	2829	0	NoCal		N.D.	
14)	TM 2,6-DINIT...	8.856	0.000	6218	0	NoCal		N.D.	
15)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.		N.D.	
16)	TM 4-NITROTO...	0.000	0.000	0	0	N.D.		N.D.	
17)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.		N.D.	
18)	TM PETN	0.000	0.000	0	0	N.D.		N.D.	

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

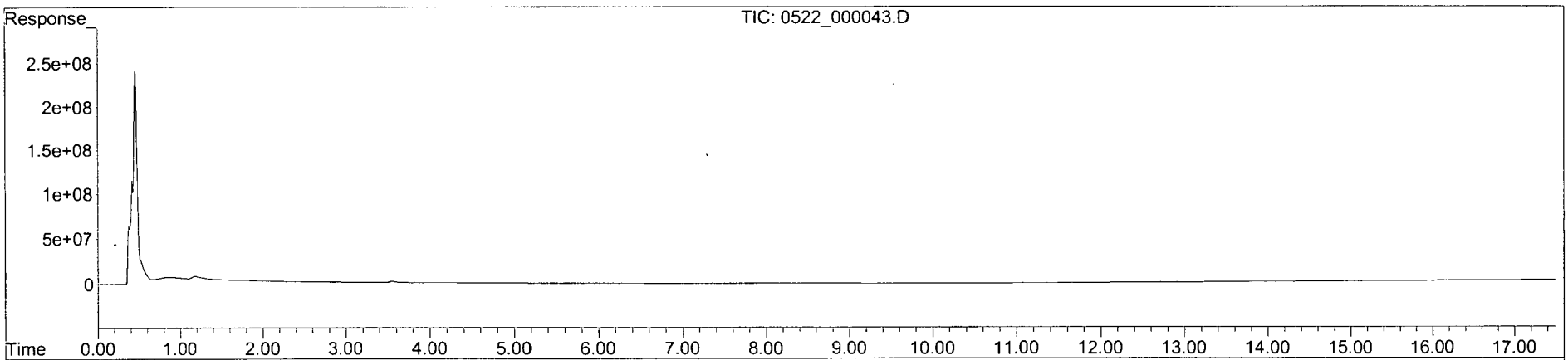
MP
05-26-15

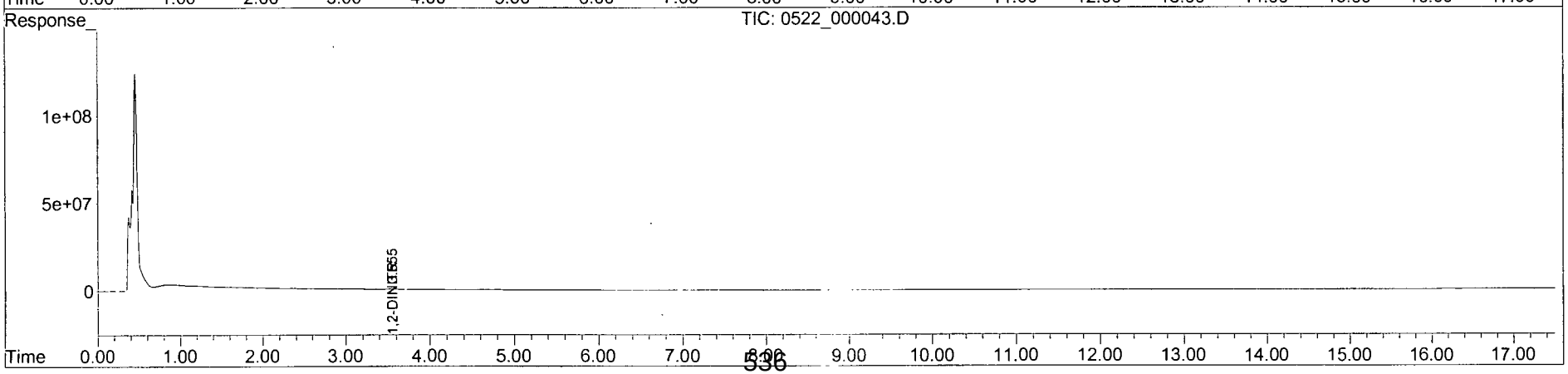
Quantitation Report- (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000043.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 07:35:40
Operator : MP
Sample : AZ16341W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4160 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:11:28 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron





EPA 8330B WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-MW004P-051315

APPL ID: AZ16342

Sample Collection Date: 05/13/15

QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	89.1	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000045
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

Printed: 05/26/15 9:19:52 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000045.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 08:40:49
Operator : MP
Sample : AZ16342W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4161 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:14:18 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	3.547	0	720544	N.D.	0.891m#
Spiked Amount 1.000			Recovery	=	0.00%	89.10%
Target Compounds						
1) TM HMX	0.000	0.915	0	254574	N.D.	0.157m#
2) TM RDX	0.000	0.000	0	0	N.D.	N.D.
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
7) TM NITROBENZENE	0.000	0.000	0	0	N.D.	N.D.
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d ARL	N.D.
9) TM TETRYL	6.375	0.000	54029	0	NoCal <DL	N.D. d
10) TM 2,4,6-TRI...	6.973	0.000	3484	0	NoCal	N.D.
11) TM 2-AMINO-4...	7.073	0.000	19288	0	NoCal	N.D.
12) TM 4-AMINO-2...	7.411	0.000	1545	0	NoCal	N.D.
13) TM 2,4-DINIT...	8.700	0.000	7874	0	NoCal	N.D.
14) TM 2,6-DINIT...	8.871	0.000	26877	0	NoCal <DL	N.D. d
15) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
17) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

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

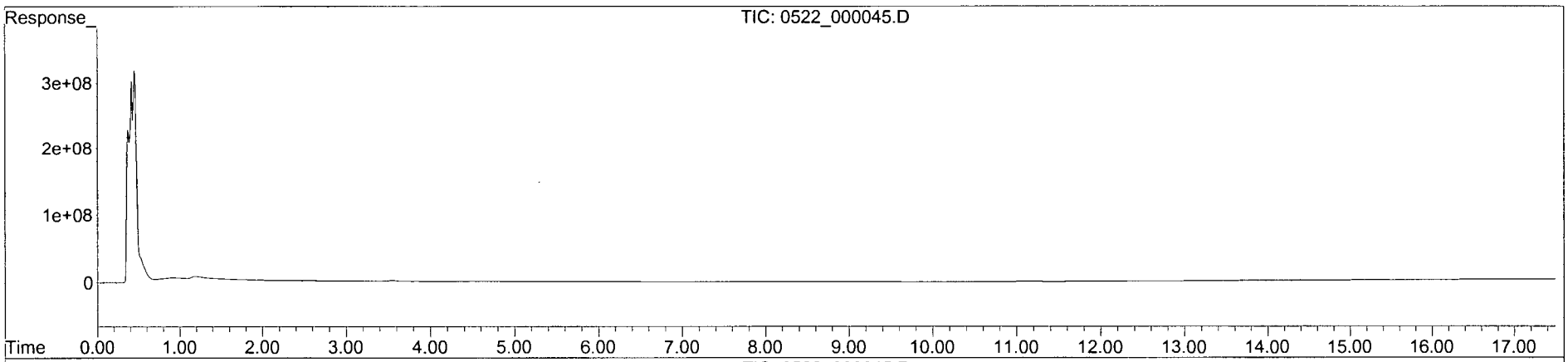
MP
05-26-15

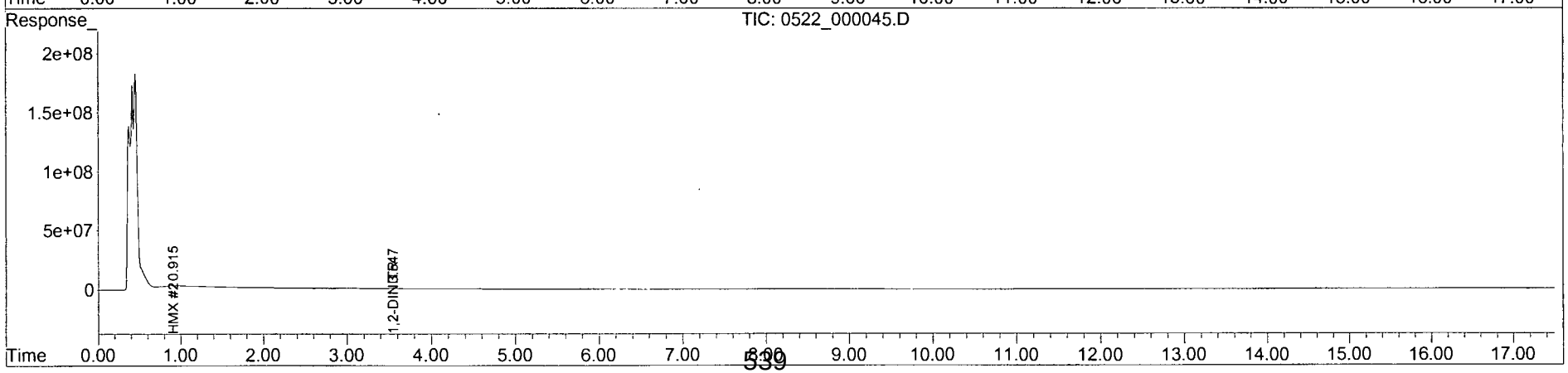
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000045.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 08:40:49
Operator : MP
Sample : AZ16342W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4161 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:14:18 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



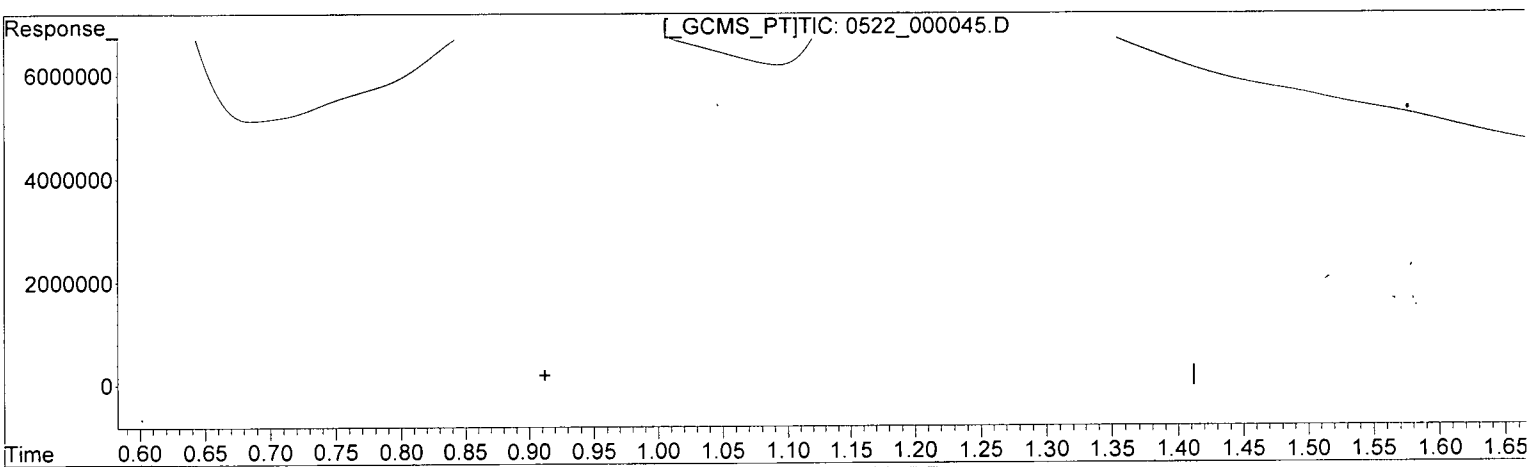


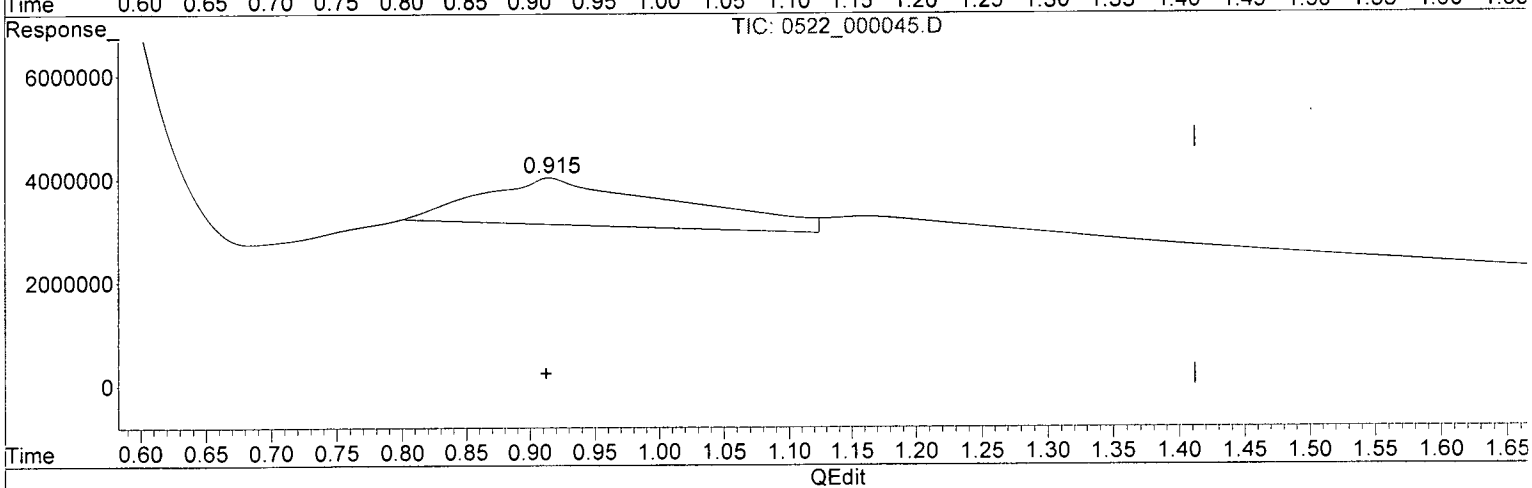
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000045.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 08:40:49
Operator : MP
Sample : AZ16342W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4161 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:35:12 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.915min 0.555 ppb

response 900744

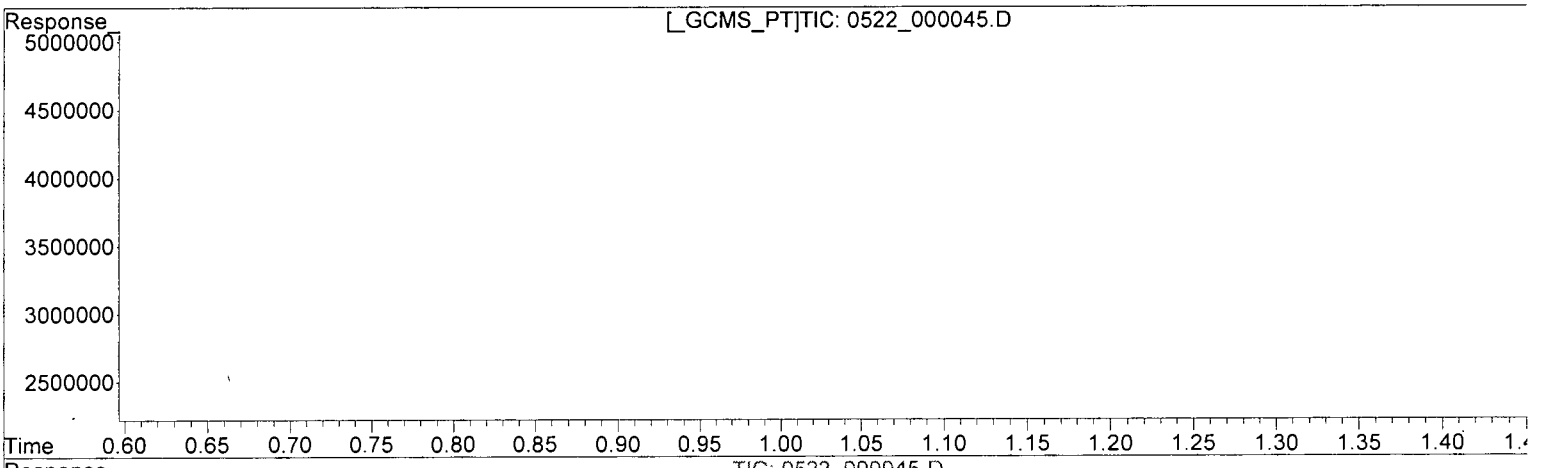
(+) = Expected Retention Time

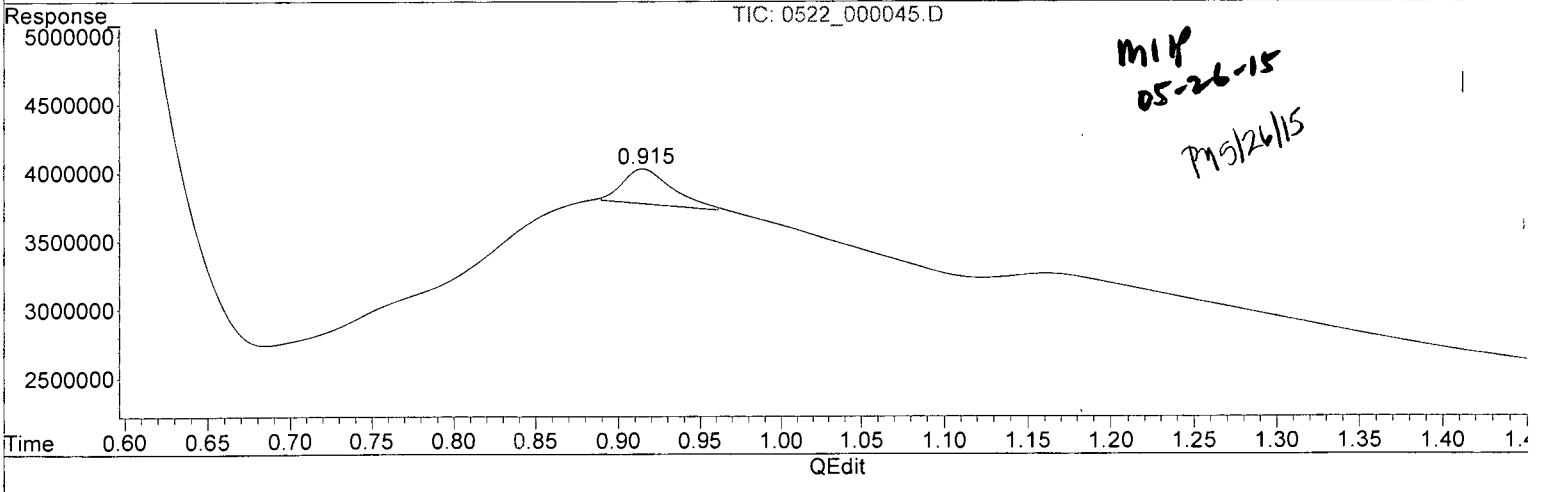
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000045.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 08:40:49
Operator : MP
Sample : AZ16342W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4161 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:35:12 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MLP
05-26-15
PM 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.915min 0.157 ppb m

response 254574

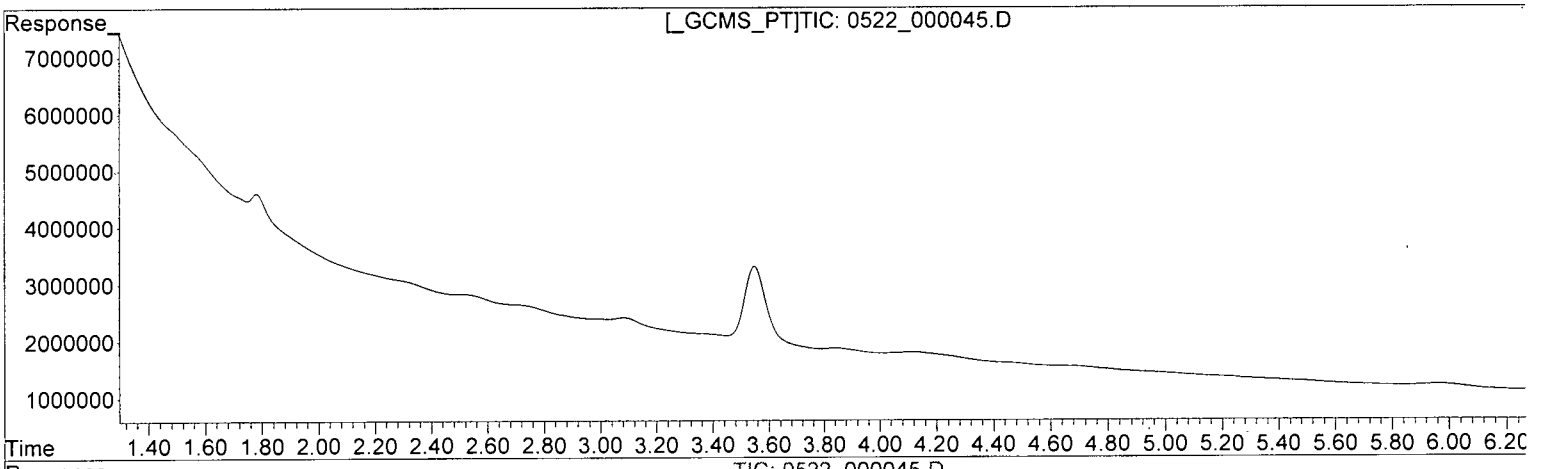
(+) = Expected Retention Time

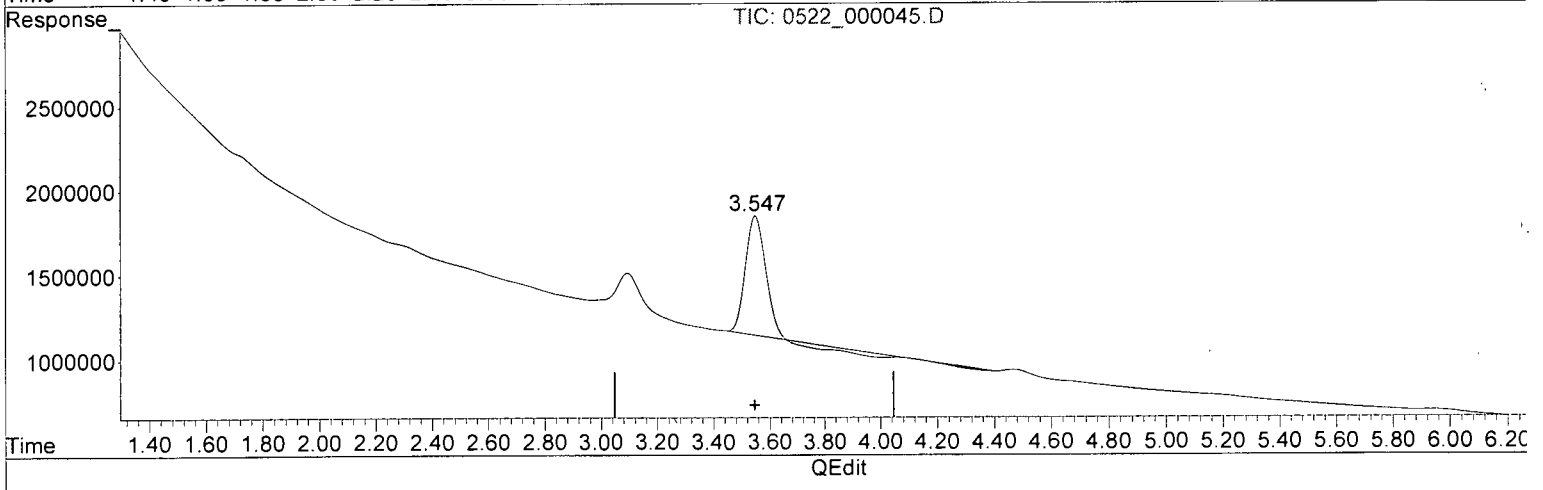
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000045.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 08:40:49
Operator : MP
Sample : AZ16342W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4161 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:35:12 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

3.548min 0.869 ppb

response 702557

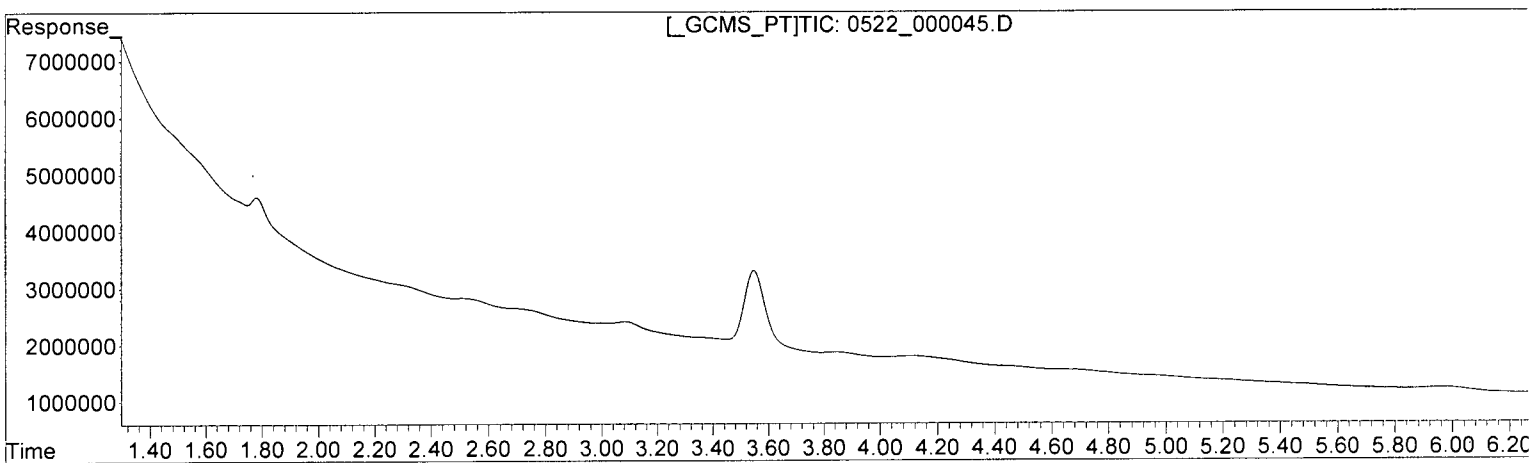
(+) = Expected Retention Time

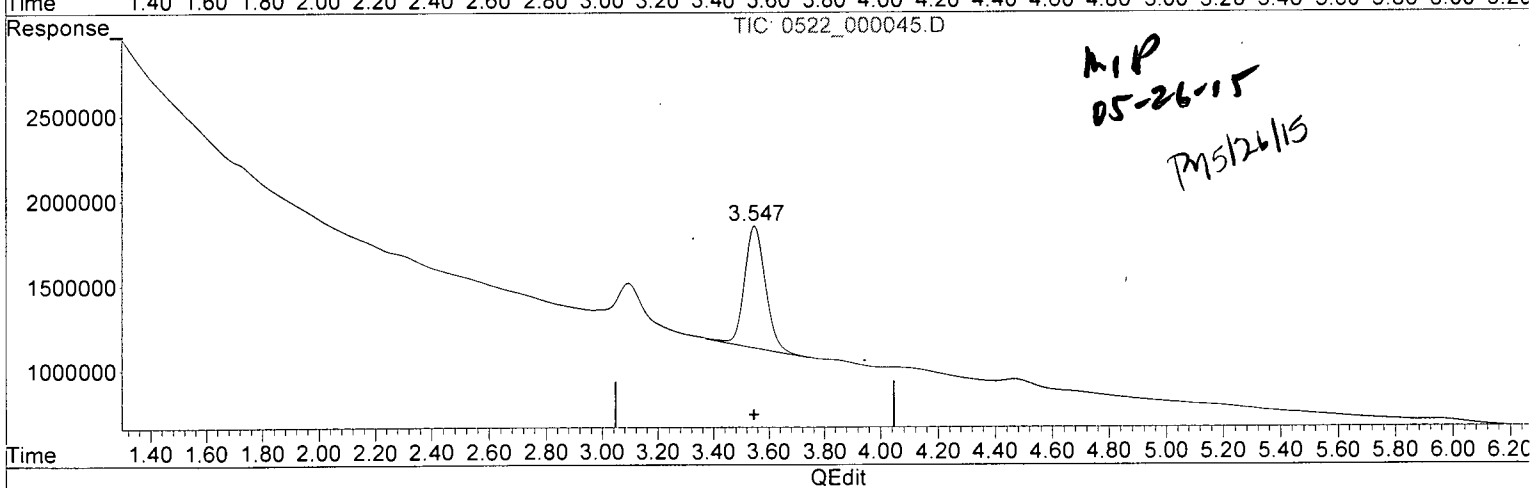
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000045.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 08:40:49
Operator : MP
Sample : AZ16342W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4161 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:35:12 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MP
05-26-15
PM 5/26/15

(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

3.547min 0.891 ppb m

response 720544

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000053.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 17:54:10
Operator : MP
Sample : AZ16342W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4102 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 26 08:46:40 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb		ppb	
System Monitoring Compounds								
4) S 1,2-DINIT...	0.000	8.076	0	92309	N.D.		0.834	#
Spiked Amount 1.000			Recovery	=	0.00%		83.40%	
Target Compounds								
1) TM HMX	0.000	0.000	0	0	N.D.	LDL	N.D.	d
2) TM RDX	0.000	0.000	0	0	N.D.	LDL	N.D.	d
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.		N.D.	
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.		N.D.	
6) TM NITROBENZENE	0.000	0.000	0	0	N.D.	NJ	N.D.	d
7) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D.	NJ	N.D.	d
8) TM NITROGLYC...	0.000	0.000	0	0	N.D.		N.D.	
9) TM TETRYL	0.000	0.000	0	0	N.D.		N.D.	
10) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.		N.D.	
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.		N.D.	
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.		N.D.	
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D.		N.D.	
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.		N.D.	
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.		N.D.	
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.		N.D.	
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.		N.D.	
18) TM PETN	0.000	0.000	0	0	N.D.	d NJ	N.D.	

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

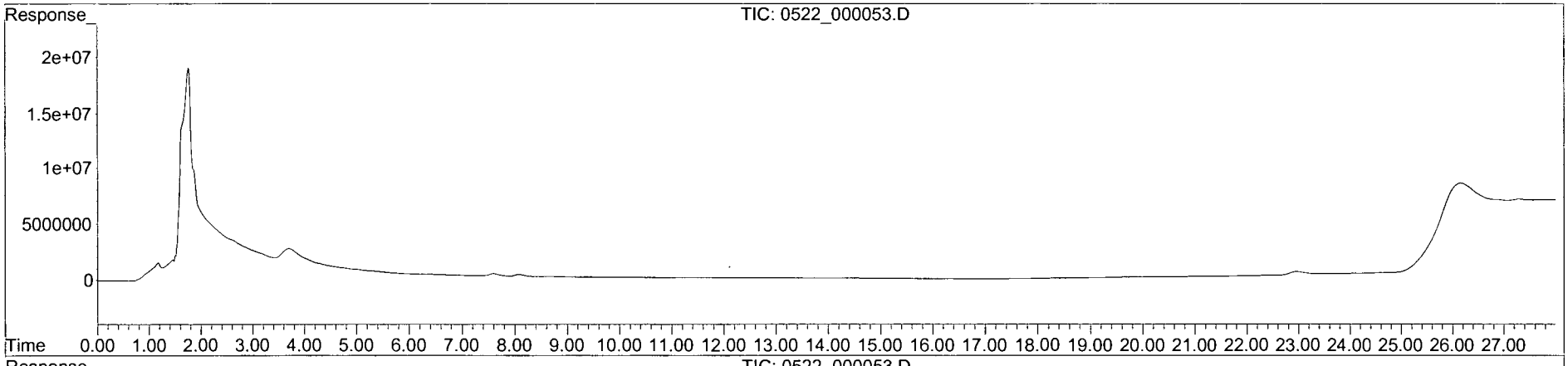
MP
05-26-15

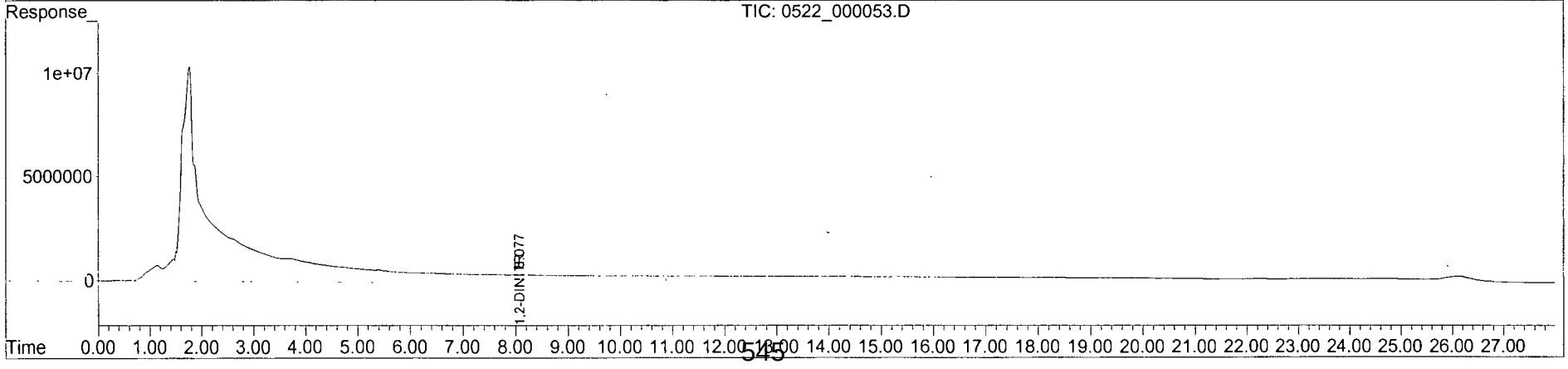
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000053.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 17:54:10
Operator : MP
Sample : AZ16342W07 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4102 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 26 08:46:40 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron





EPA 8330B WATER

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-RB02-051315

APPL ID: AZ16343

Sample Collection Date: 05/13/15

QCG: #83BJU-150519A-197306

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	85.9	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000046
Instrument: Waldorf
Sequence: 150522
Dilution Factor: 1
Initials: MP

Printed: 05/26/15 9:19:52 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000046.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 09:18:19
Operator : MP
Sample : AZ16343W07 0.0168 DF 05/19/15
Misc : Water
ALS Vial : 4162 Sample Multiplier: 0.0168421

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:28:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	3.547	0	694509	N.D.	0.904 #
Spiked Amount 1.053			Recovery	=	0.00%	85.88%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D.	N.D.
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	NT N.D. d
7) TM NITROBENZENE	0.000	0.000	0	0	N.D.	N.D.
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	DNT N.D. d
9) TM TETRYL	6.429	0.000	15131	0	NoCal	N.D.
10) TM 2,4,6-TRI...	6.845	0.000	37191	0	NoCal	N.D.
11) TM 2-AMINO-4...	7.102	0.000	7378	0	NoCal	N.D.
12) TM 4-AMINO-2...	7.483	0.000	4786	0	NoCal	N.D.
13) TM 2,4-DINIT...	8.571	0.000	30980	0	NoCal	N.D.
14) TM 2,6-DINIT...	8.923	8.925	398488	258196	NoCal	0.669 #
15) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
17) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

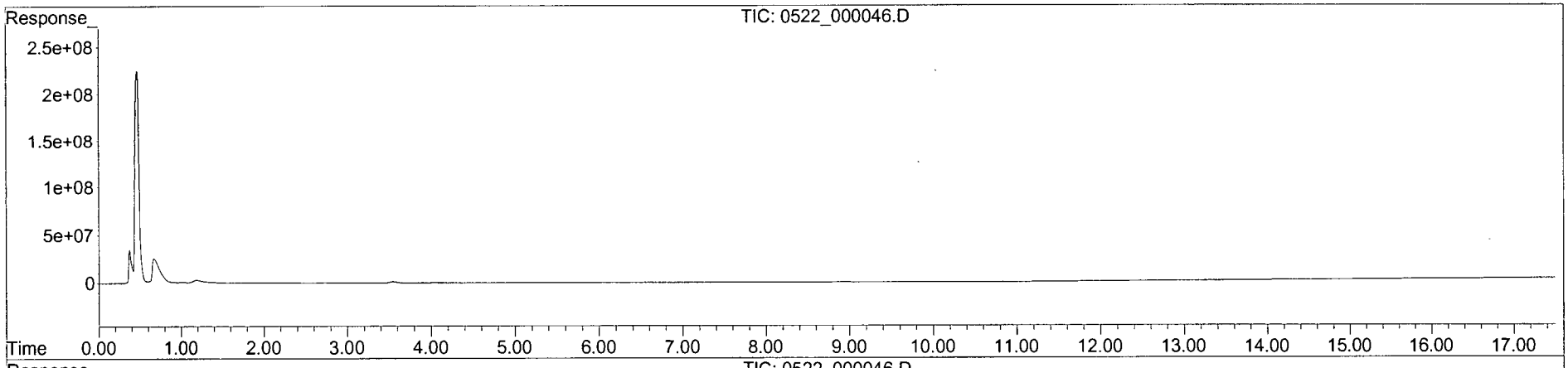
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

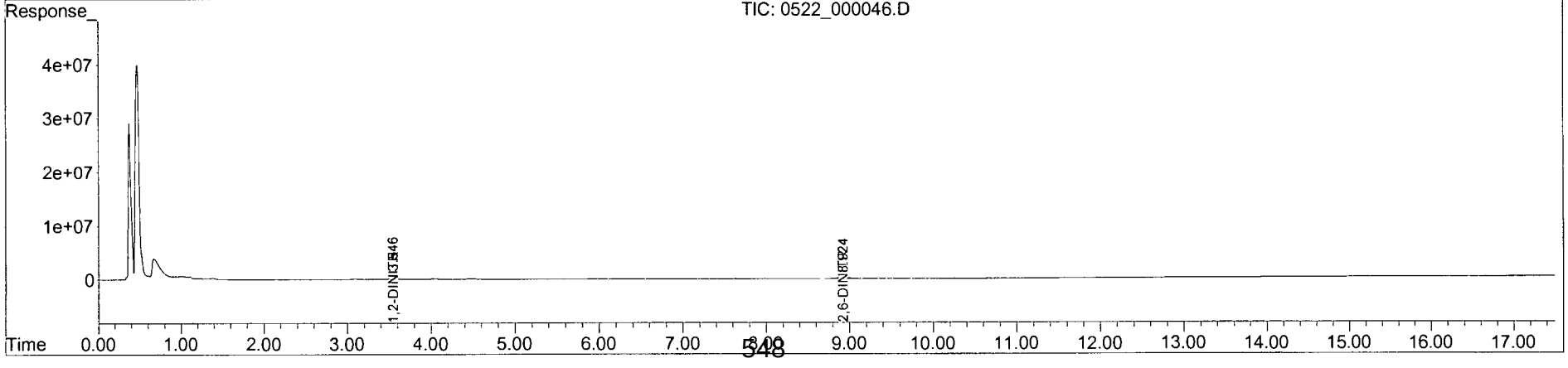
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000046.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 09:18:19
Operator : MP
Sample : AZ16343W07 0.0168 DF 05/19/15
Misc : Water
ALS Vial : 4162 Sample Multiplier: 0.0168421

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 11:28:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron





Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000054.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 18:33:46
Operator : MP
Sample : AZ16343W07 0.0168 DF 05/19/15
Misc : Water
ALS Vial : 4103 Sample Multiplier: 0.0168421

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 26 08:49:47 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.075	0	89400	N.D.	0.850 #
Spiked Amount 1.053			Recovery	=	0.00%	80.75%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D.	N.D.
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM NITROBENZENE	0.000	0.000	0	0	N.D.	NT N.D. d
7) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D.	NT N.D. d
8) TM NITROGLYC...	0.000	12.057	0	17537	N.D. d	<DL NoCal
9) TM TETRYL	12.002	0.000	10475	0	NoCal	<DL N.D. d
10) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D. d	NT N.D.

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

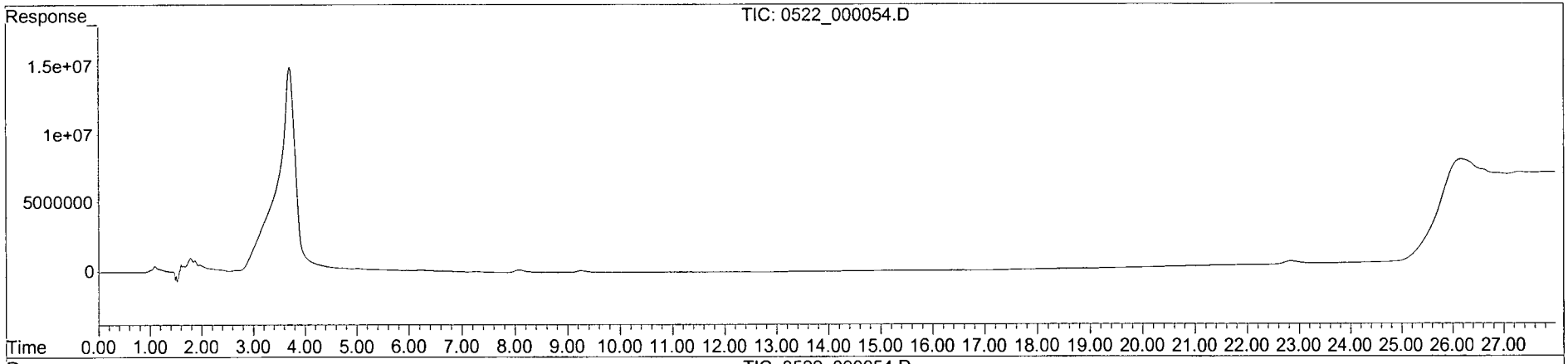
MP
05-26-15

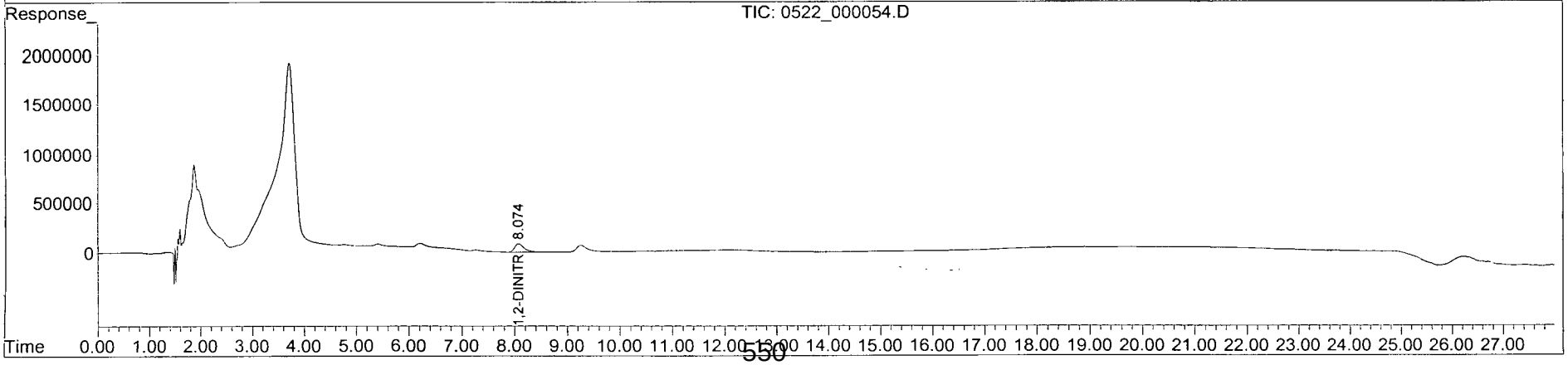
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000054.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 18:33:46
Operator : MP
Sample : AZ16343W07 0.0168 DF 05/19/15
Misc : Water
ALS Vial : 4103 Sample Multiplier: 0.0168421

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 26 08:49:47 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron





STE2_150522.M Tue May 26 08:50:00 2015 WALDORF Page: 2

EPA 8330
EXPLOSIVES

Calibration Data

APPL, INC.

Initial Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 76424
Initial Cal. Date: 05/22/15
Instrument: Waldorf

Initials: MP

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	
			0522_000014.D	0522_000015.D	0522_000016.D	0522_000017.D	0522_000018.D	0522_000019.D	0522_000020.D	0522_000021.D	0522_000023.D				
####	TM	NITROGLYCERIN	137	120	138	132	133	133	130	129	131		131.4	3.9	TM
####	TM	PETN			81.5	95.0	103	108	107	107	109		101.4	10	TM
####		Signal #2													
####	TM	HMX #2	584	694	666	640	652	676	655	639	639		649.5	4.7	TM
####	TM	RDX #2	425	422	426	427	424	428	428	424	429		425.8	0.52	TM
####	TM	1,3,5-TRINITROBENZENE #2	773	767	777	772	769	778	777	772	780		773.7	0.58	TM
####	S	1,2-DINITROBENZENE #2	303	319	328	325	323	326	327	327	334		323.5	2.6	S
####	TM	1,3-DINITROBENZENE #2	716	721	729	728	723	731	733	732	746		728.7	1.2	TM
####	TM	3,5-DINITROANILINE #2	548	552	557	555	552	558	559	559	562		555.8	0.77	TM
####	TM	NITROBENZENE #2	334	333	331	333	330	334	334	334	340		333.8	0.84	TM
####	TM	TETRYL #2	230	229	224	228	226	228	230	228	237		228.9	1.6	TM
####	TM	2,4,6-TRINITROTOLUENE #2	316	312	312	311	309	313	313	312	318		312.8	0.88	TM
####	TM	2-AMINO-4,6-DINITROTOLUENE	287	278	279	280	277	281	281	280	286		281.1	1.2	TM
####	TM	4-AMINO-2,6-DINITROTOLUENE	208	199	202	202	200	202	202	201	205		202.4	1.3	TM
####	TM	2,4-DINITROTOLUENE #2	285	291	296	295	293	297	297	298	304		295.2	1.7	TM
####	TM	2,6-DINITROTOLUENE #2	161	158	164	164	161	163	163	163	166		162.6	1.4	TM
####	TM	2-NITROTOLUENE #2	119	114	110	110	110	111	111	110	113		112.1	2.6	TM
####	TM	4-NITROTOLUENE #2	113	110	110	110	109	111	111	111	113		110.9	1.1	TM
####	TM	3-NITROTOLUENE #2	125	135	132	132	131	133	134	134	136		132.4	2.5	TM
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Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:07:53
Operator : MP
Sample : 8330CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 8384 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:56:46 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	3.531	0	60695	N.D.	4.454 #
Spiked Amount 62.500			Recovery	=	0.00%	7.13%
Target Compounds						
1) TM HMX	0.000	0.908	0	116863	N.D.	4.440m#
2) TM RDX	0.000	1.722	0	84918	N.D.	4.849 #
3) TM 1,3,5-TRI...	0.000	2.812	0	154593	N.D.	4.887 #
5) TM 1,3-DINIT...	0.000	3.704	0	143190	N.D.	4.738 #
6) TM 3,5-DINIT...	0.000	3.912	0	109681	N.D.	4.555 #
7) TM NITROBENZENE	0.000	5.027	0	66852	N.D.	4.834 #
8) TM NITROGLYC...	6.023	0.000	27427	0	4.921	N.D. #
9) TM TETRYL	6.381	6.373	88335	45934	NoCal	4.382 #
10) TM 2,4,6-TRI...	6.857	6.877	74624	63205	NoCal	4.842 #
11) TM 2-AMINO-4...	7.080	7.070	88869	57386	NoCal	4.625 #
12) TM 4-AMINO-2...	7.420	7.415	81261	41596	NoCal	4.574 #
13) TM 2,4-DINIT...	8.527	8.554	58052	57084	NoCal	4.506 #
14) TM 2,6-DINIT...	8.925	8.908	51464	32183	NoCal	4.563 #
15) TM 2-NITROTO...	0.000	12.272	0	23750	N.D.	4.800 #
16) TM 4-NITROTO...	0.000	12.869	0	22503	N.D.	4.548 #
17) TM 3-NITROTO...	0.000	13.759	0	24956	N.D.	4.244 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

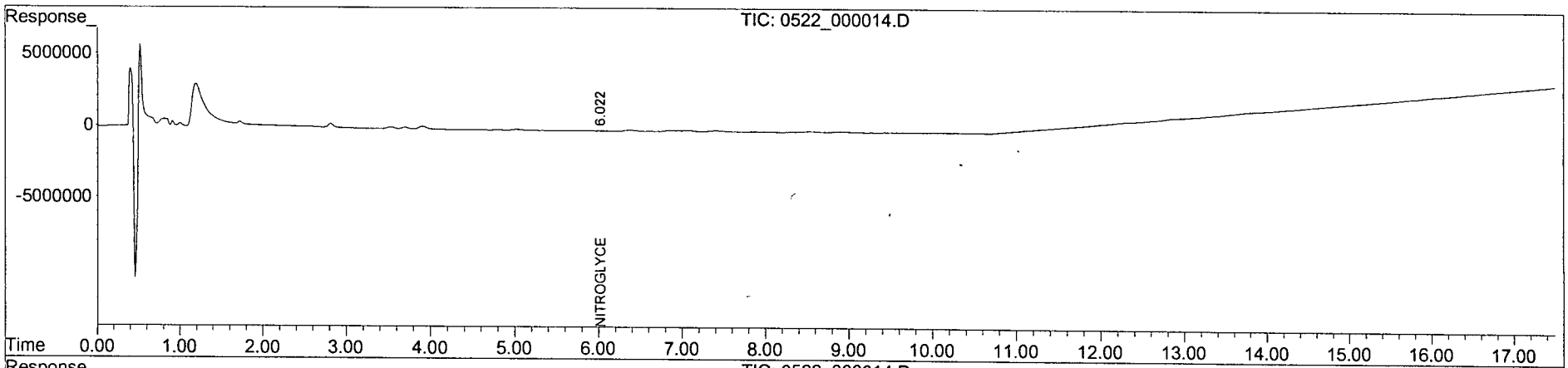
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

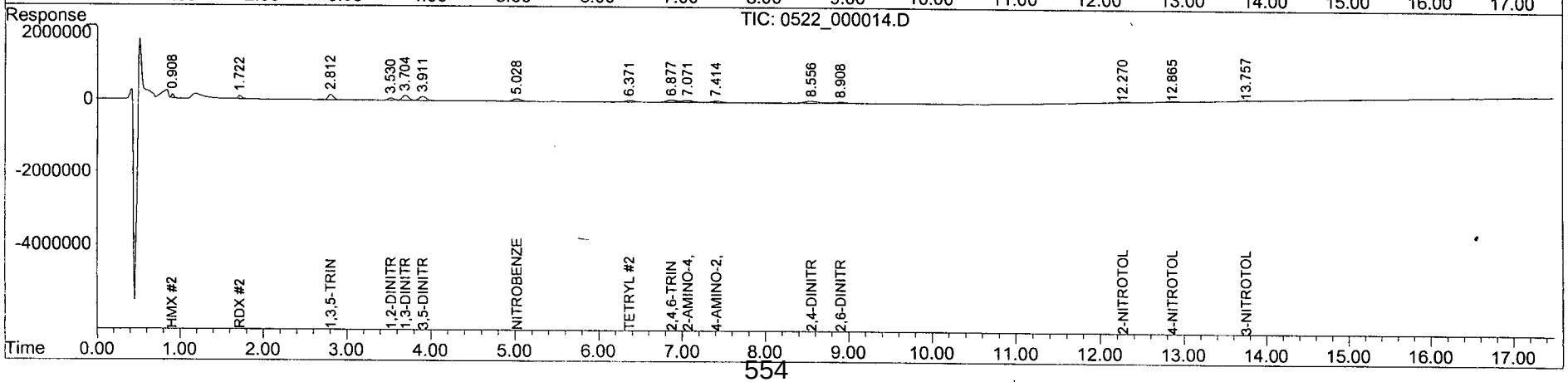
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:07:53
Operator : MP
Sample : 8330CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 8384 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:56:46 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



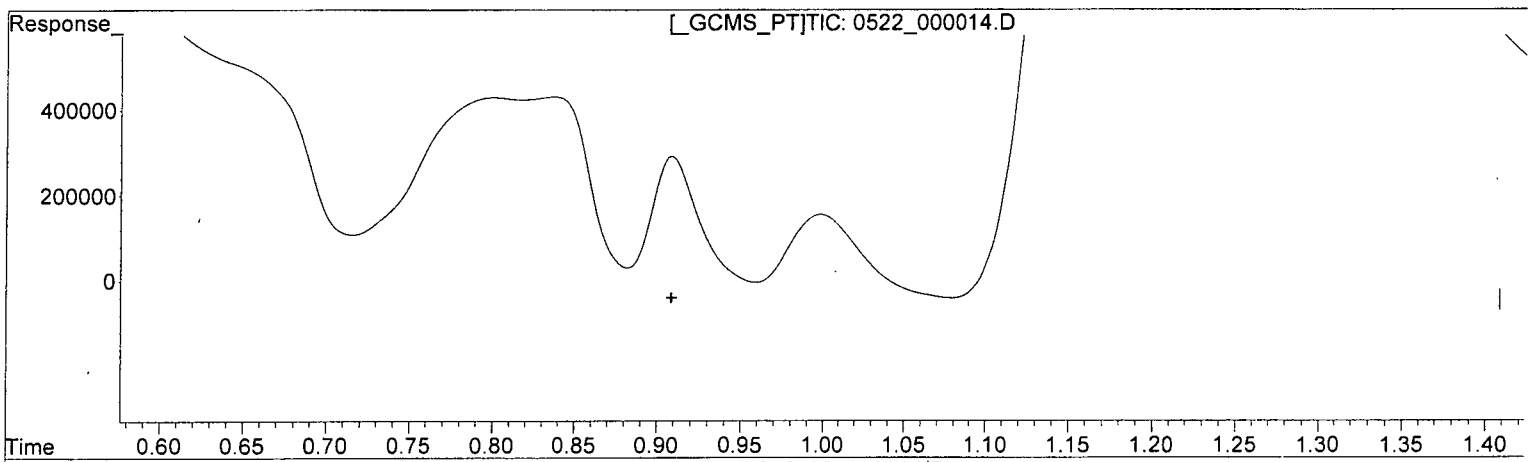


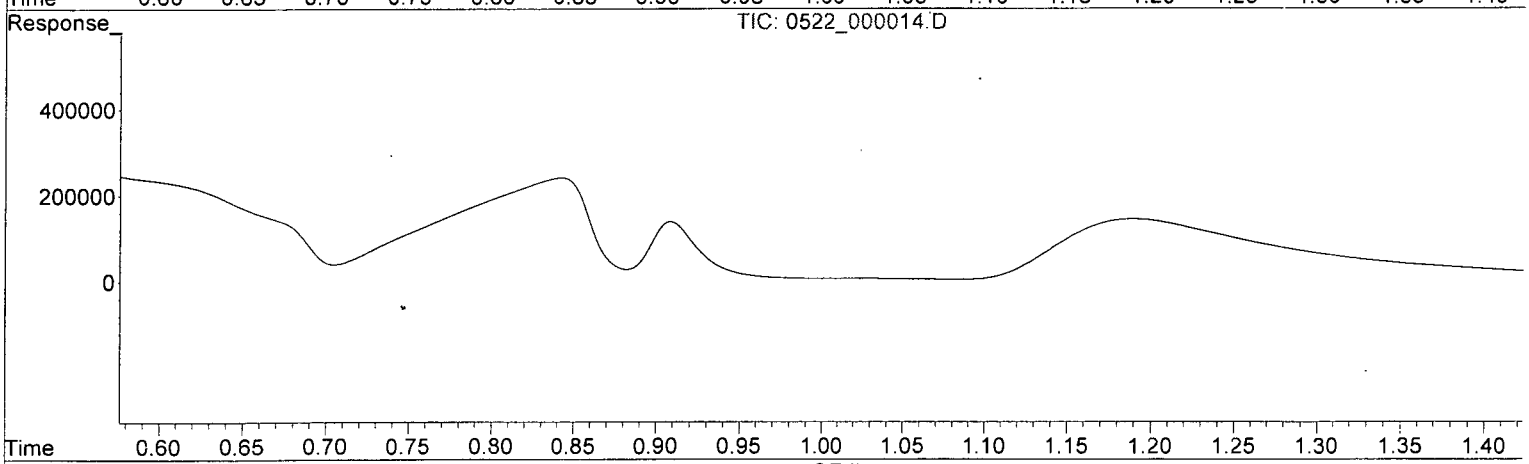
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:07:53
Operator : MP
Sample : 8330CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 8384 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:16 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





QEdit

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.000min 0.000 ppb

response 0

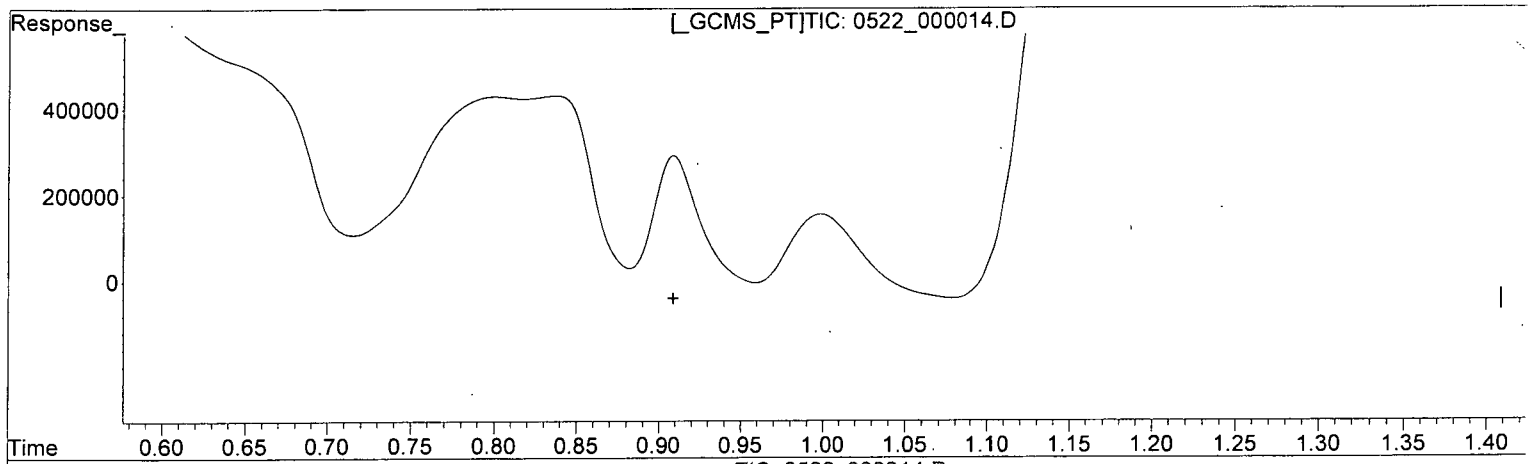
(+) = Expected Retention Time

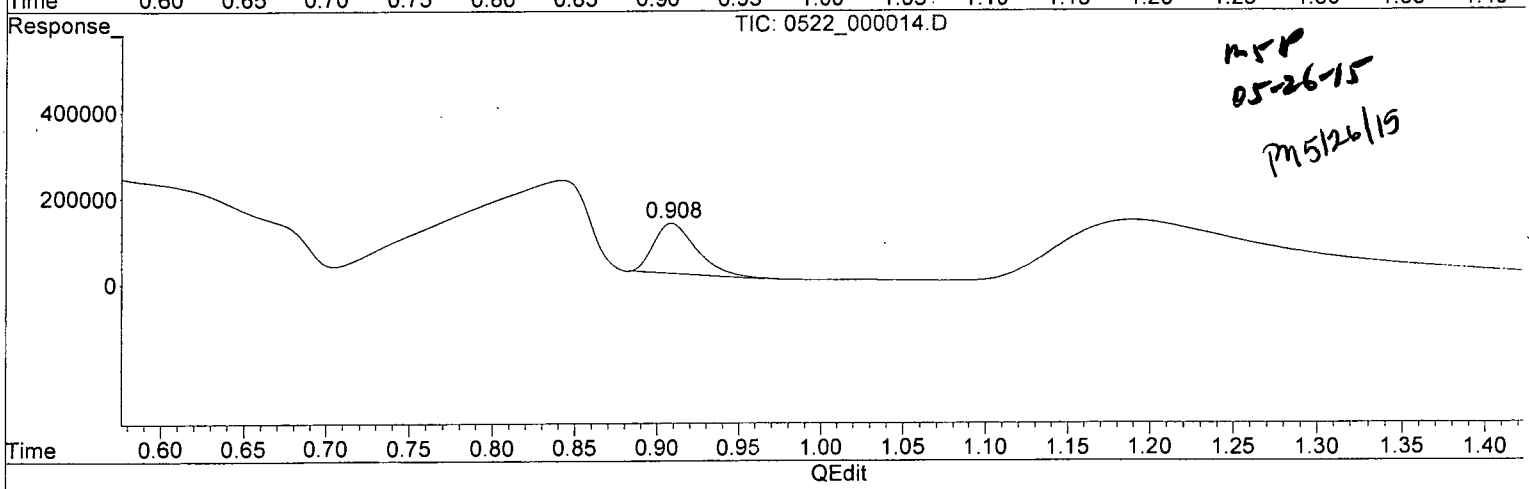
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:07:53
Operator : MP
Sample : 8330CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 8384 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:16 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MRP
05-26-15
PM 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.908min 4.440 ppb m

response 116863

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:35:23
Operator : MP
Sample : 8330CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 8385 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:55:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	3.535	0	127701	N.D.	9.372 #
Spiked Amount 62.500			Recovery	=	0.00%	15.00%
Target Compounds						
1) TM HMX	0.000	0.910	0	277521	N.D.	10.544m#
2) TM RDX	0.000	1.724	0	168970	N.D.	9.648 #
3) TM 1,3,5-TRI...	0.000	2.815	0	306613	N.D.	9.693 #
5) TM 1,3-DINIT...	0.000	3.708	0	288212	N.D.	9.537 #
6) TM 3,5-DINIT...	0.000	3.916	0	220804	N.D.	9.170 #
7) TM NITROBENZENE	0.000	5.032	0	133342	N.D.	9.642 #
8) TM NITROGLYC...	6.053	0.000	48081	0	8.627m	N.D. #
9) TM TETRYL	6.386	6.386	168423	91646	NoCal	8.744 #
10) TM 2,4,6-TRI...	6.883	6.880	174881	124840	NoCal	9.563 #
11) TM 2-AMINO-4...	7.081	7.079	184134	111282	NoCal	8.969 #
12) TM 4-AMINO-2...	7.429	7.425	168272	79765	NoCal	8.771 #
13) TM 2,4-DINIT...	8.557	8.561	96512	116390	NoCal	9.188 #
14) TM 2,6-DINIT...	8.910	8.918	102587	63336	NoCal	8.980 #
15) TM 2-NITROTO...	0.000	12.277	0	45530	N.D.	9.202 #
16) TM 4-NITROTO...	0.000	12.877	0	43915	N.D.	8.875 #
17) TM 3-NITROTO...	0.000	13.766	0	53902	N.D.	9.167 #
18) TM PETN	16.091	0.000	33221	0	7.221	N.D. #

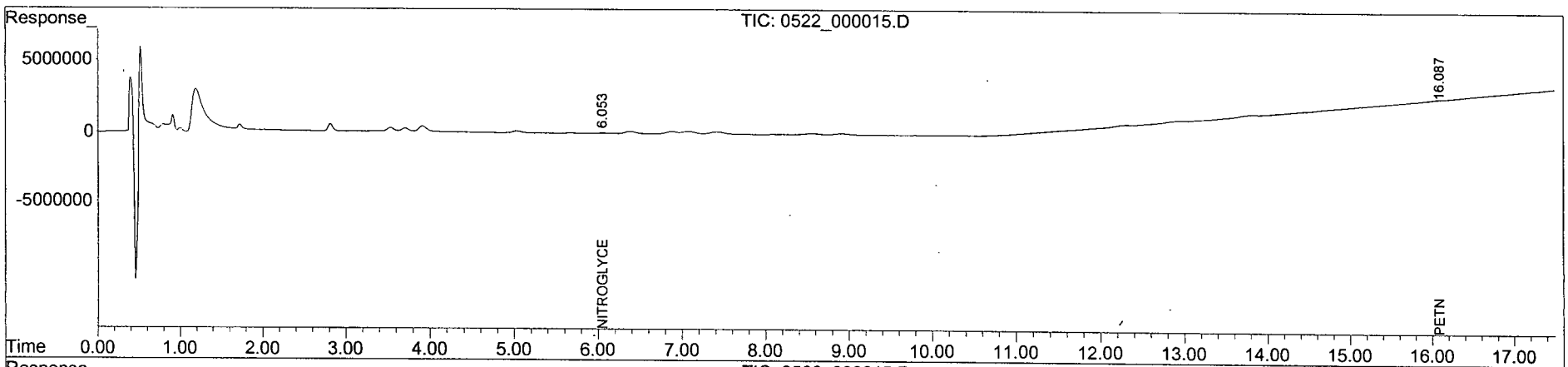
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

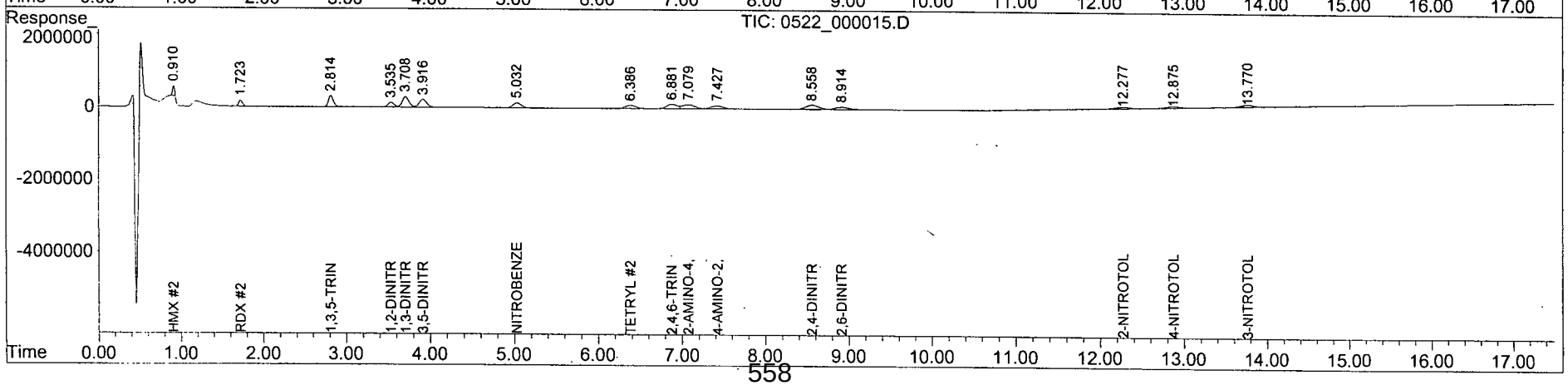
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:35:23
Operator : MP
Sample : 8330CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 8385 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:55:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



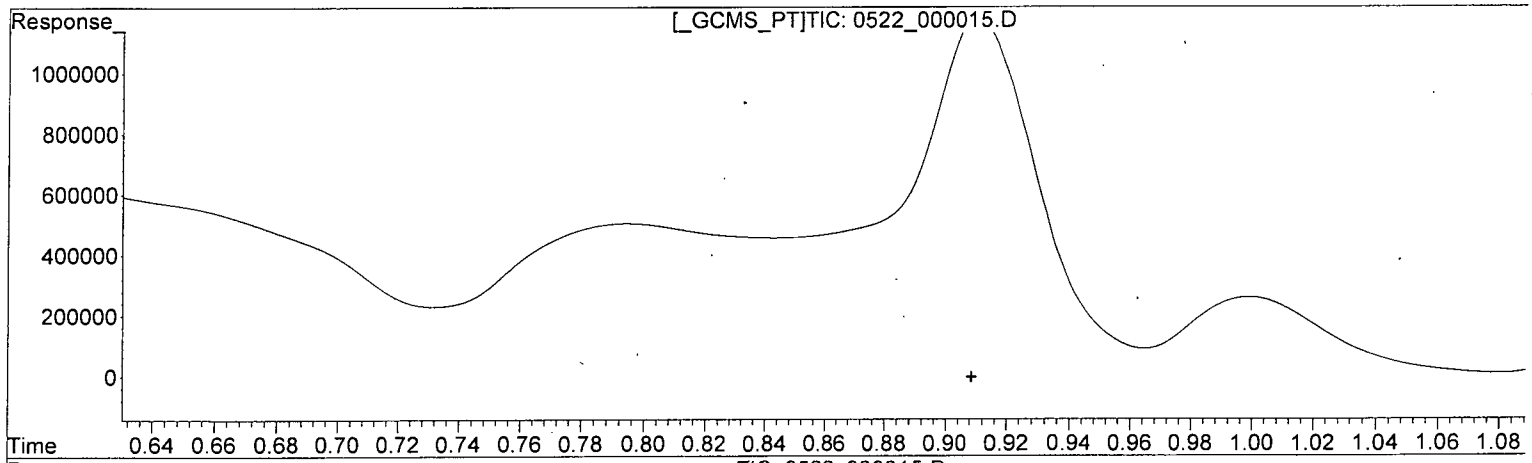


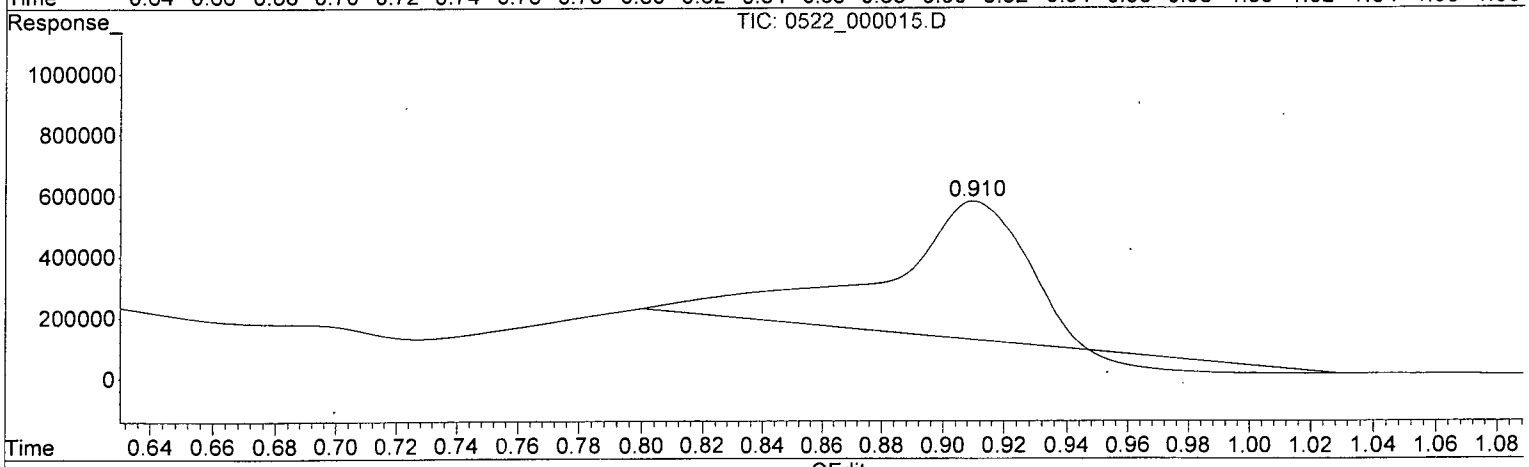
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:35:23
Operator : MP
Sample : 8330CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 8385 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:19 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.911min 17.212 ppb

response 452998

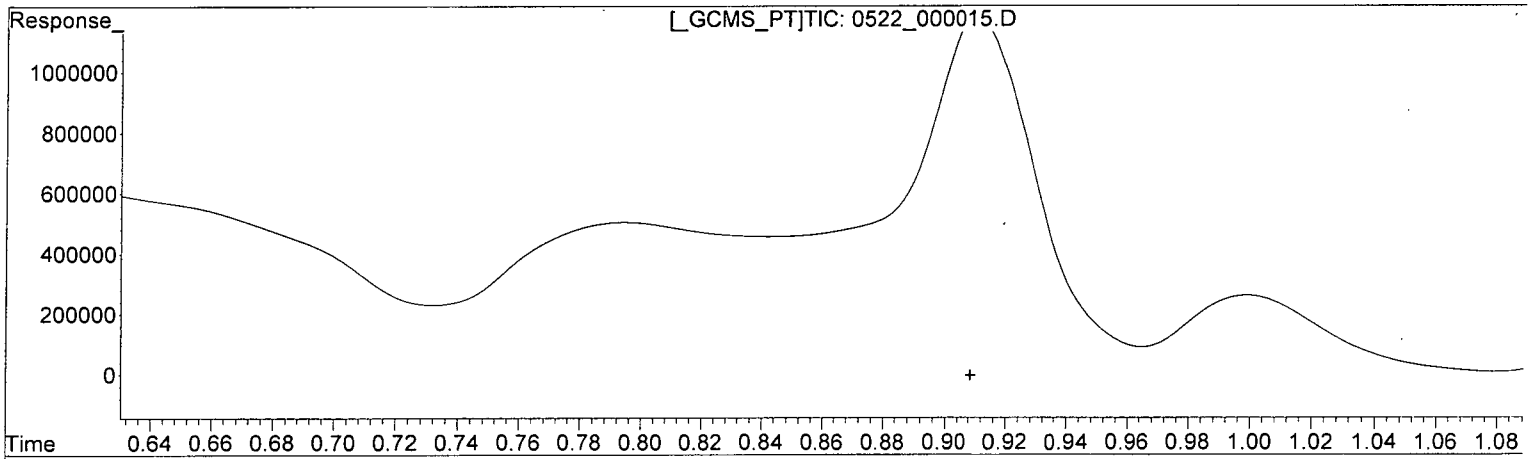
(+) = Expected Retention Time

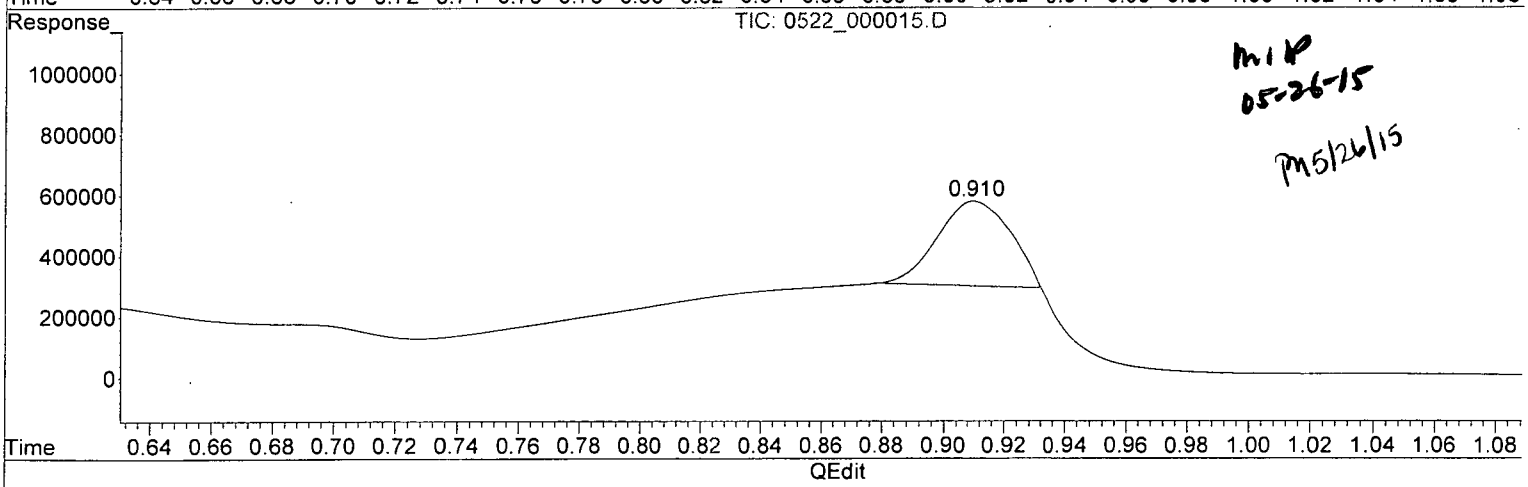
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:35:23
Operator : MP
Sample : 8330CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 8385 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:19 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MIP
05-26-15

PM 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.910min 10.544 ppb m

response 277521

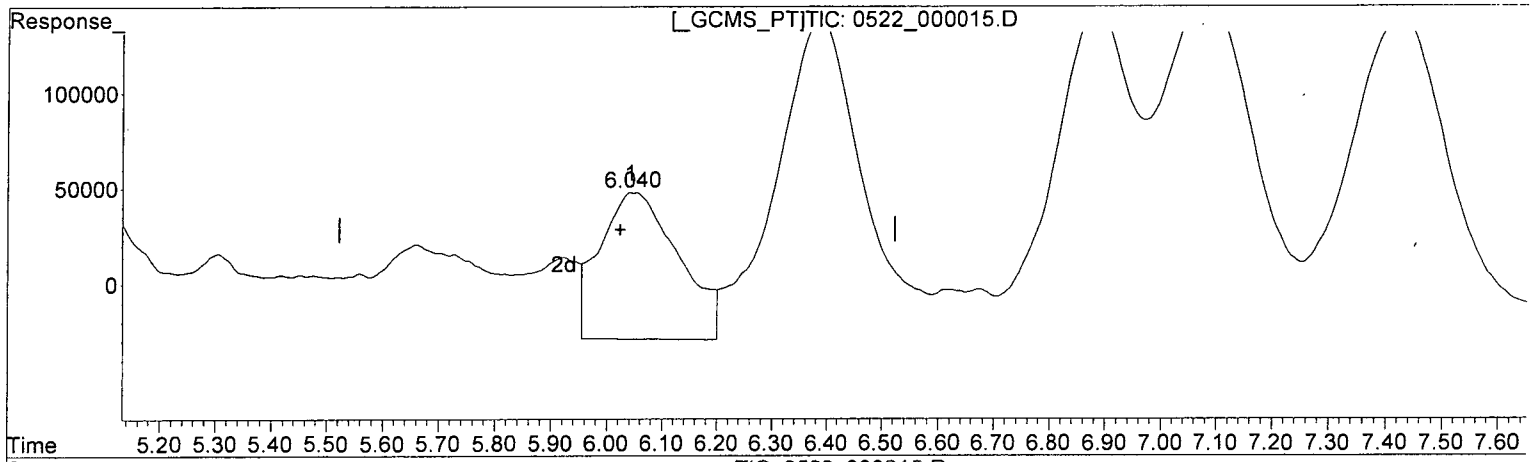
(+) = Expected Retention Time

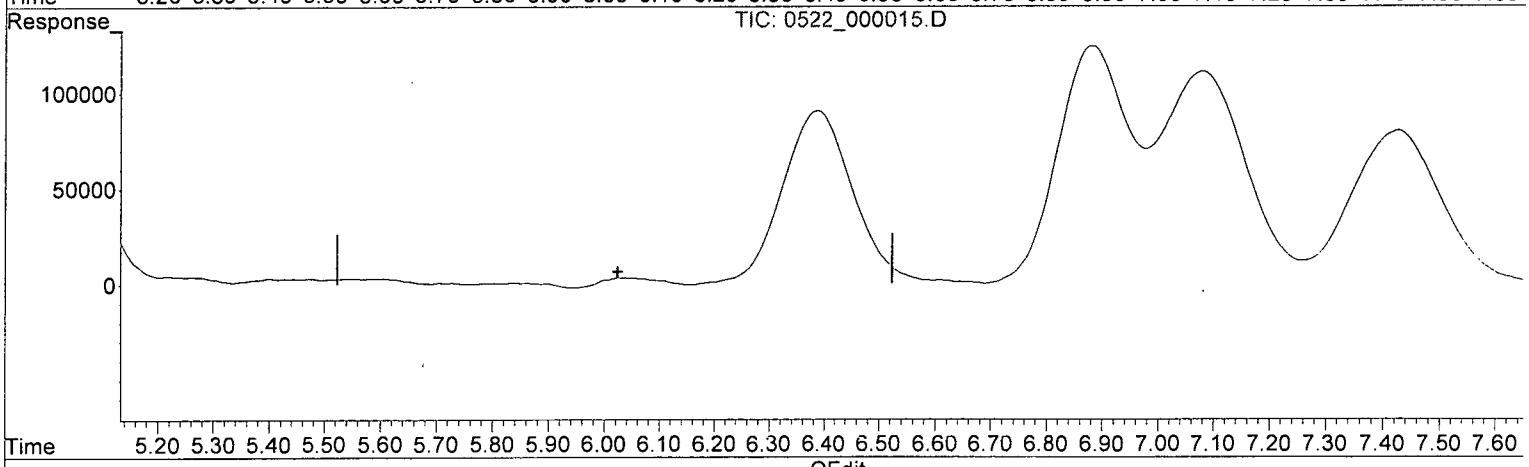
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:35:23
Operator : MP
Sample : 8330CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 8385 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:19 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(8) NITROGLYCERIN (TM)

6.042min 13.749 ppb

response 76625

(8) NITROGLYCERIN #2 (TM)

0.000min 0.000 ppb

response 0

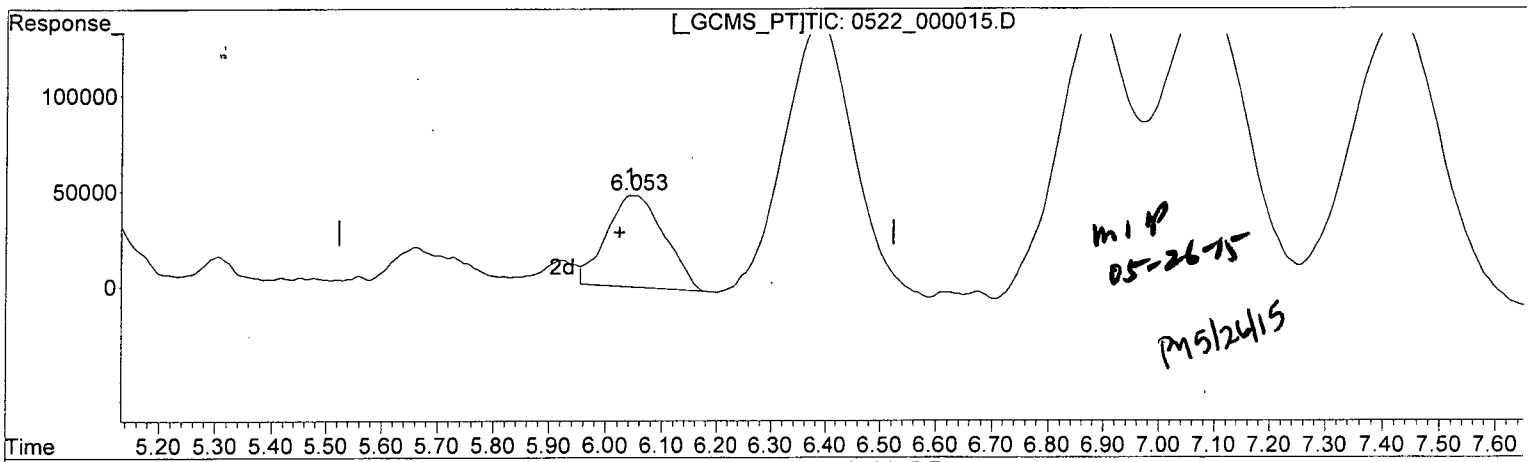
(+) = Expected Retention Time

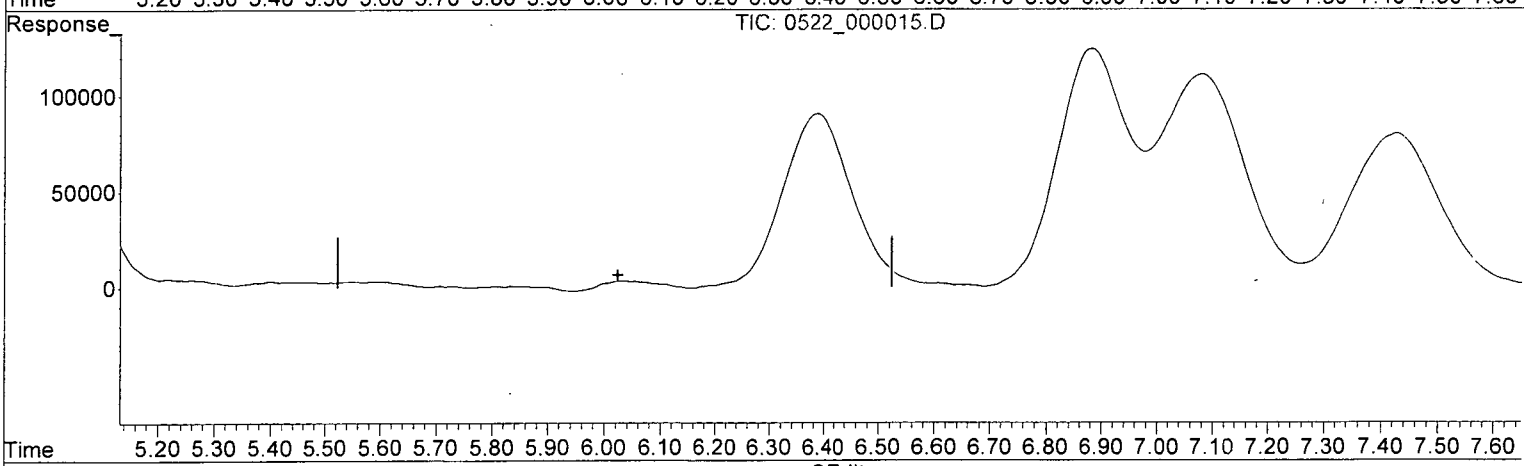
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:35:23
Operator : MP
Sample : 8330CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 8385 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:19 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(8) NITROGLYCERIN (TM)

6.053min 8.627 ppb m

response 48081

(8) NITROGLYCERIN #2 (TM)

0.000min 0.000 ppb

response 0

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:02:53
Operator : MP
Sample : 8330CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 8386 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:54:25 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.537	0	262646	N.D.	19.275	#
	Spiked Amount 62.500			Recovery	=	0.00%	30.84%	
	Target Compounds							
1)	TM HMX	0.000	0.910	0	533059	N.D.	20.254m	#
2)	TM RDX	0.000	1.724	0	341011	N.D.	19.471	#
3)	TM 1,3,5-TRI...	0.000	2.816	0	621520	N.D.	19.648	#
5)	TM 1,3-DINIT...	0.000	3.709	0	583563	N.D.	19.310	#
6)	TM 3,5-DINIT...	0.000	3.916	0	445840	N.D.	18.515	#
7)	TM NITROBENZENE	0.000	5.033	0	264975	N.D.	19.161	#
8)	TM NITROGLYC...	6.040	0.000	110320	0	19.796	N.D.	#
9)	TM TETRYL	6.383	6.385	295550	179101	NoCal	17.088	#
10)	TM 2,4,6-TRI...	6.880	6.880	322710	249913	NoCal	19.144	#
11)	TM 2-AMINO-4...	7.079	7.078	332535	223533	NoCal	18.016	#
12)	TM 4-AMINO-2...	7.421	7.422	308181	161739	NoCal	17.785	#
13)	TM 2,4-DINIT...	8.559	8.558	184676	237033	NoCal	18.712	#
14)	TM 2,6-DINIT...	8.921	8.916	196417	131074	NoCal	18.585	#
15)	TM 2-NITROTO...	0.000	12.267	0	87831	N.D.	17.751	#
16)	TM 4-NITROTO...	0.000	12.868	0	88090	N.D.	17.803	#
17)	TM 3-NITROTO...	0.000	13.759	0	105360	N.D.	17.918	#
18)	TM PETN	16.096	0.000	65233	0	14.180m	N.D.	#

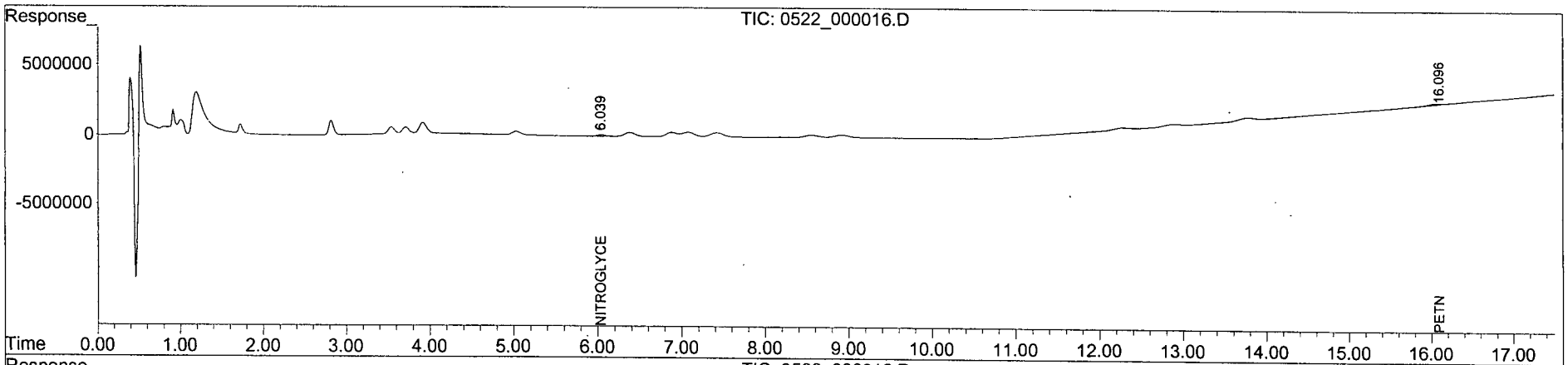
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

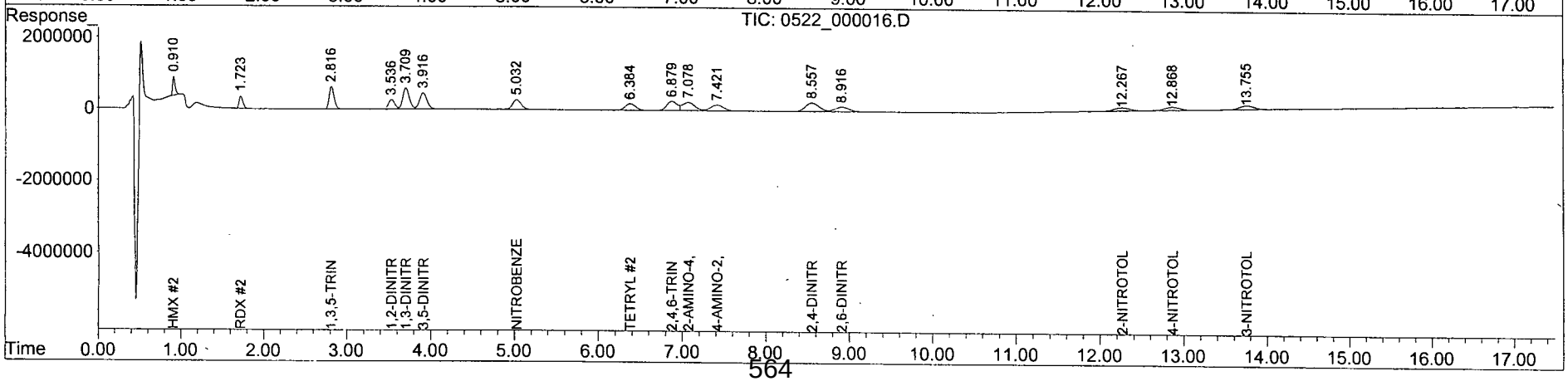
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:02:53
Operator : MP
Sample : 8330CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 8386 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:54:25 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



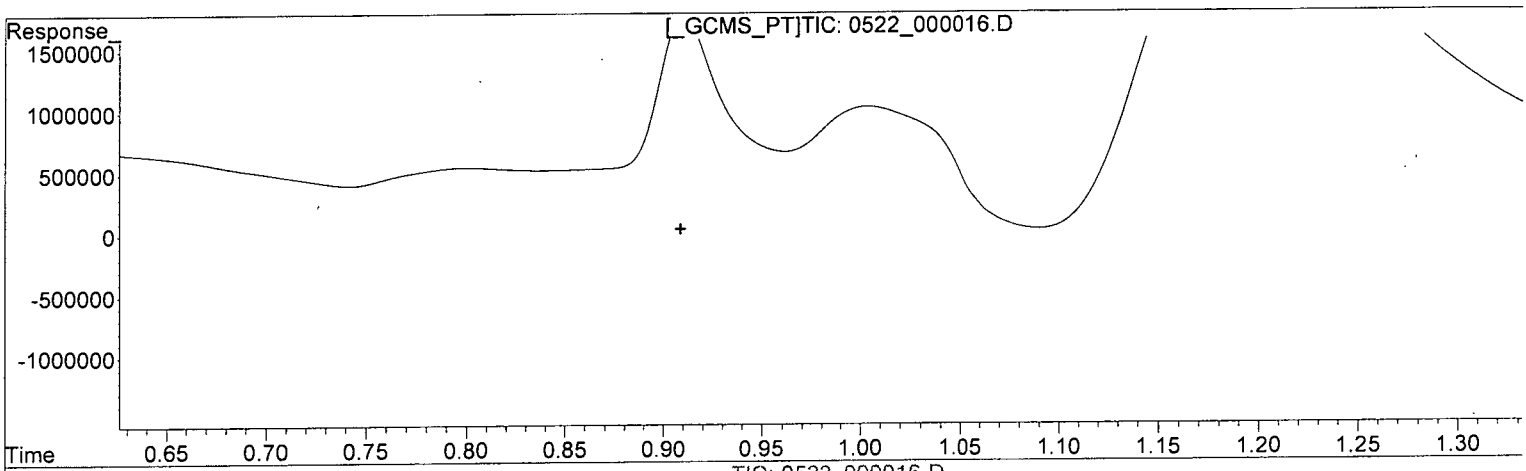


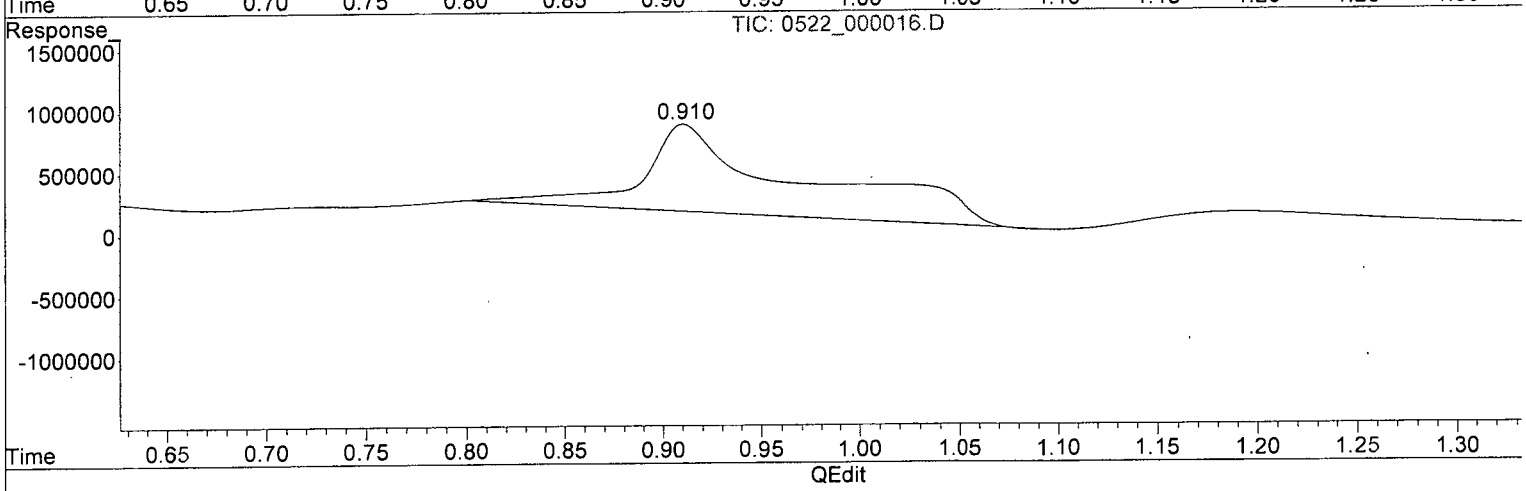
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:02:53
Operator : MP
Sample : 8330CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 8386 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:22 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.911min 26.788 ppb

response 705027

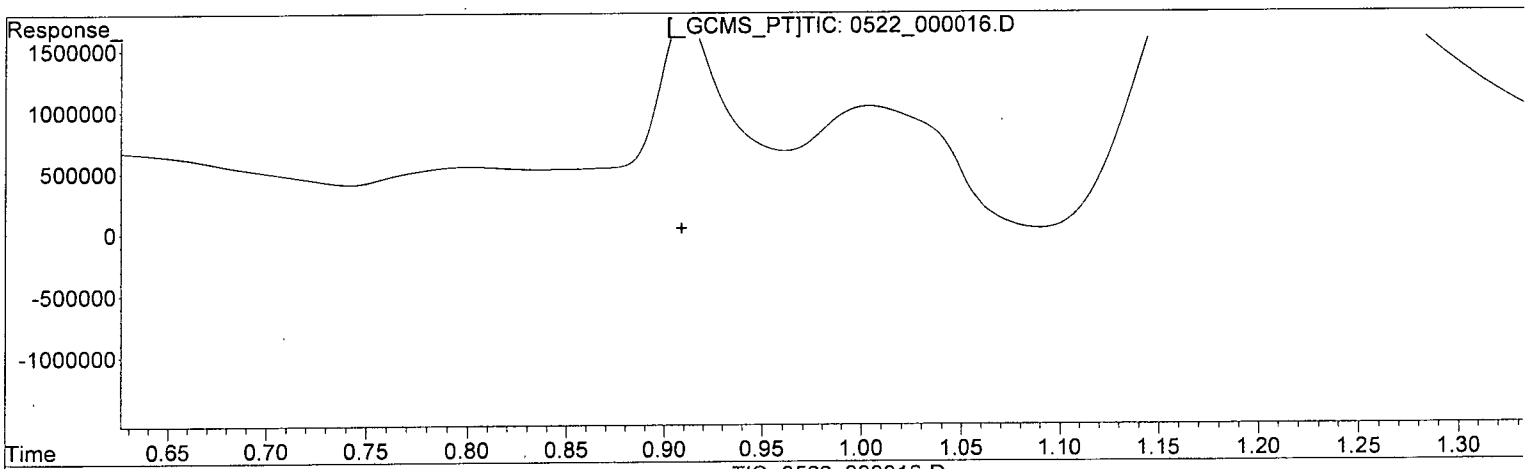
(+) = Expected Retention Time

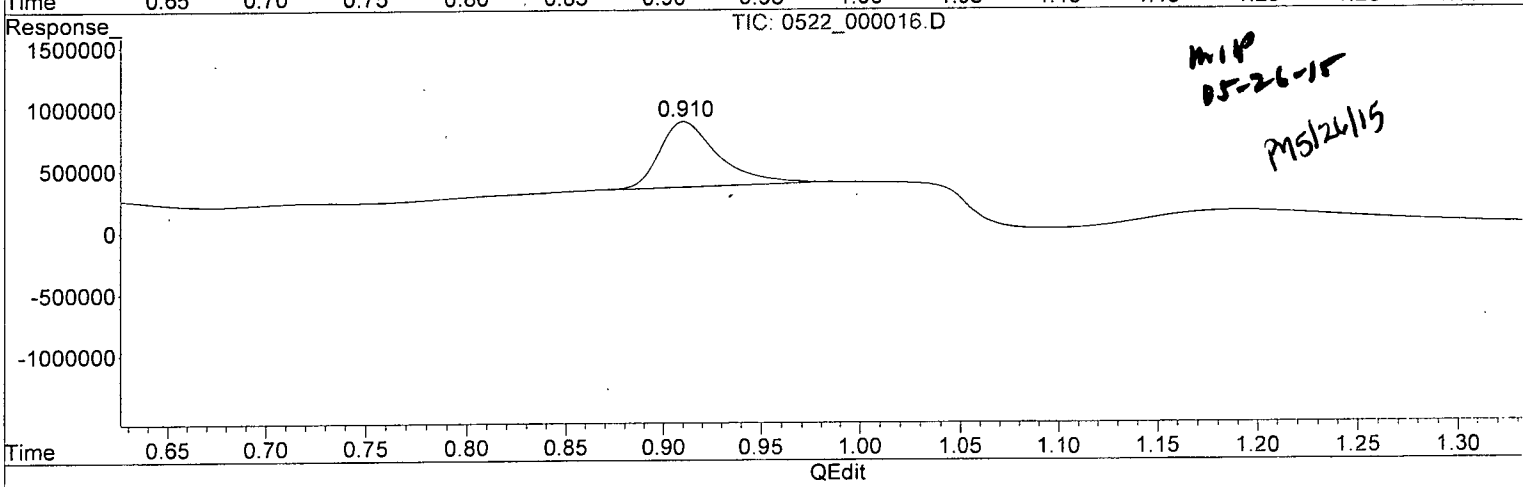
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:02:53
Operator : MP
Sample : 8330CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 8386 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:22 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MIP
05-26-15
PMS/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.910min 20.254 ppb m

response 533059

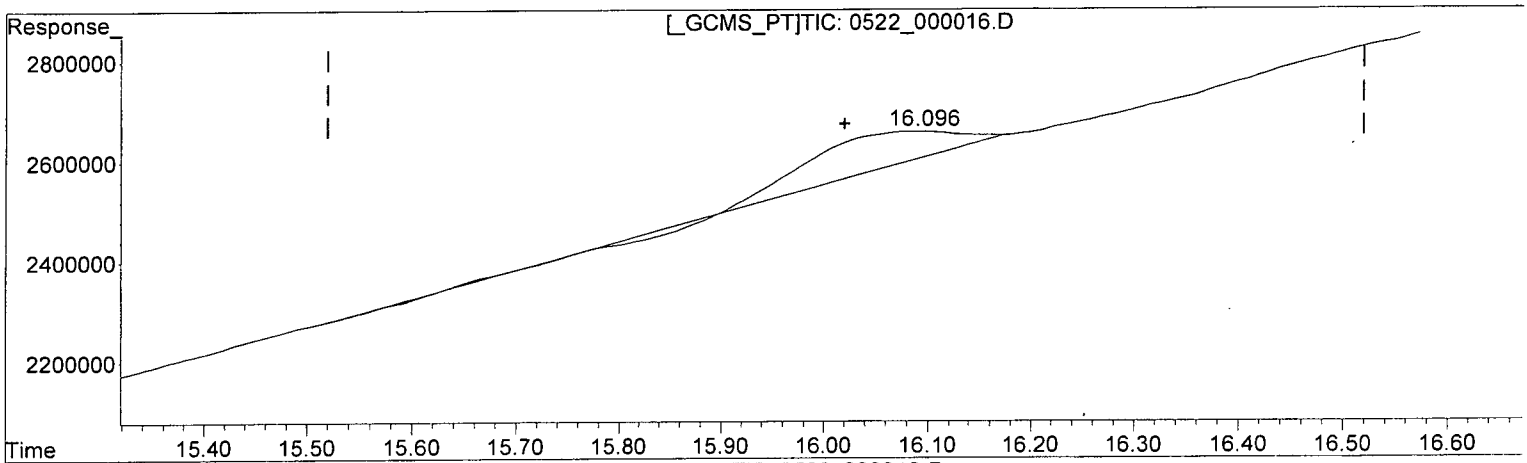
(+) = Expected Retention Time

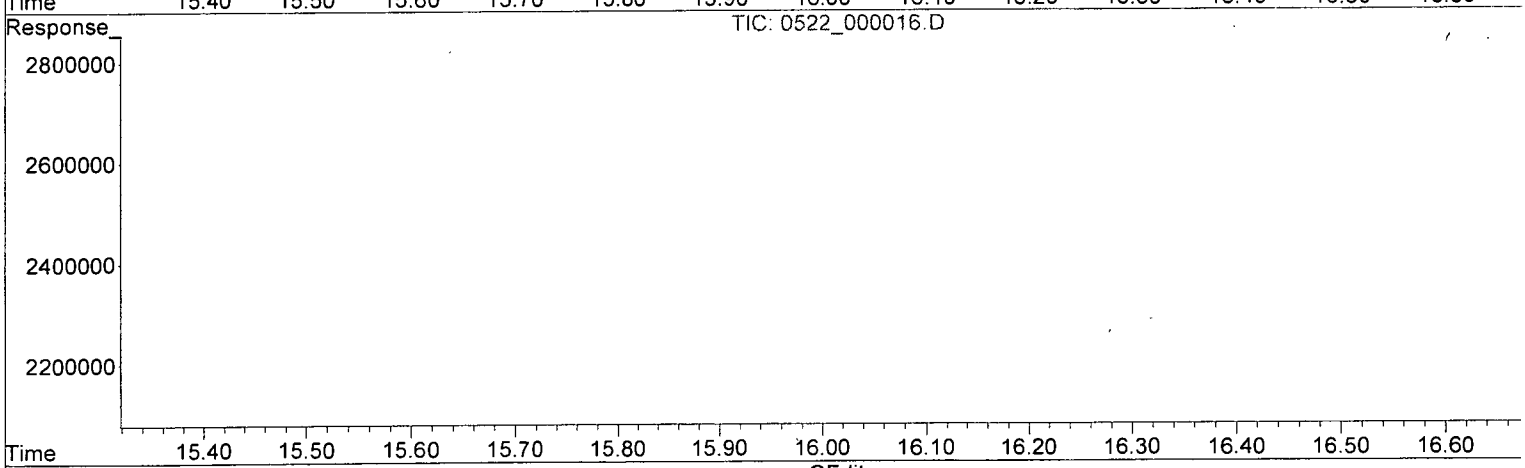
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:02:53
Operator : MP
Sample : 8330CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 8386 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:22 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(18) PETN (TM)

16.090min 11.845 ppb

response 54492

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

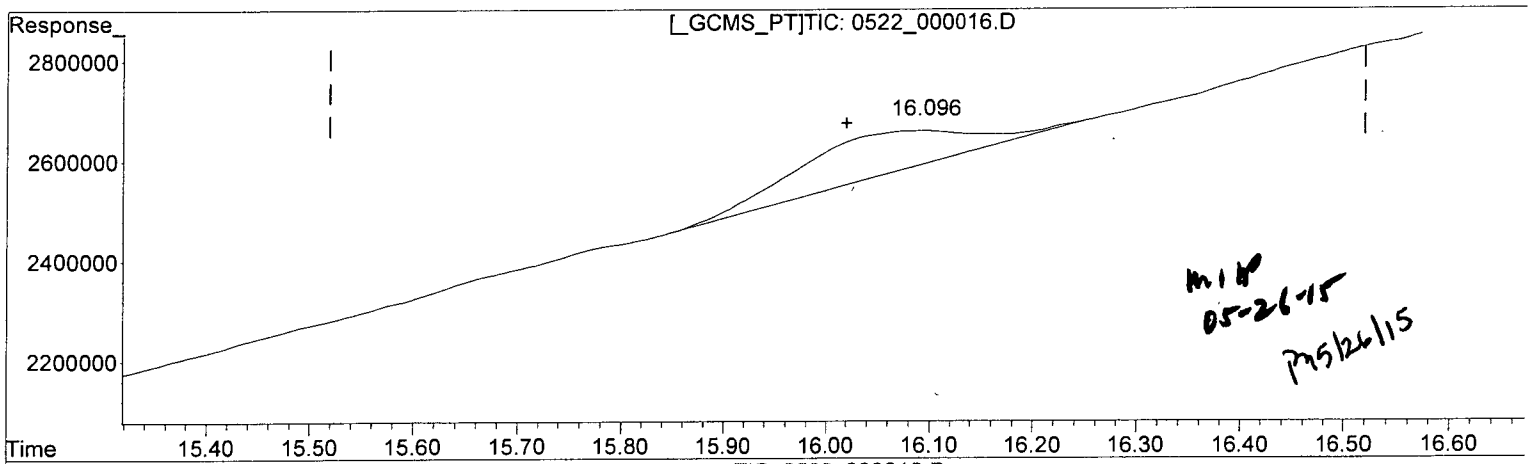
(+) = Expected Retention Time

Quantitation Report (Qedit)

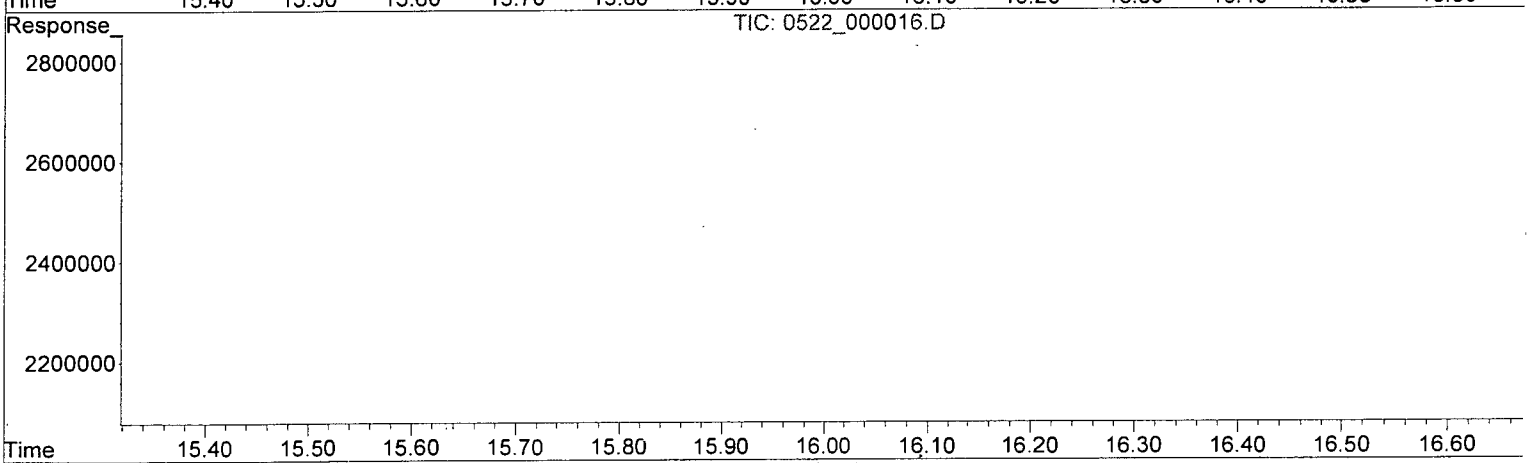
Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:02:53
Operator : MP
Sample : 8330CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 8386 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:22 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0



MLP
05-26-15
PM 5/26/15



(18) PETN (TM)

16.096min 14.180 ppb m

response 65233

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:30:23
Operator : MP
Sample : 8330CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 8387 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:52:06 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.531	0	649173	N.D.	47.641	#
	Spiked Amount 62.500			Recovery	=	0.00%	76.23%	
	Target Compounds							
1)	TM HMX	0.000	0.908	0	1280731	N.D.	48.662	m#
2)	TM RDX	0.000	1.722	0	853611	N.D.	48.739	#
3)	TM 1,3,5-TRI...	0.000	2.812	0	1543113	N.D.	48.782	#
5)	TM 1,3-DINIT...	0.000	3.705	0	1455101	N.D.	48.148	#
6)	TM 3,5-DINIT...	0.000	3.912	0	1110694	N.D.	46.126	#
7)	TM NITROBENZENE	0.000	5.029	0	665871	N.D.	48.151	#
8)	TM NITROGLYC...	6.037	0.000	263621	0	47.304	N.D.	#
9)	TM TETRYL	6.378	6.376	744181	455426	NoCal	43.451	#
10)	TM 2,4,6-TRI...	6.872	6.872	806095	621067	NoCal	47.575	#
11)	TM 2-AMINO-4...	7.070	7.070	843942	559774	NoCal	45.115	#
12)	TM 4-AMINO-2...	7.413	7.414	750390	404091	NoCal	44.434	#
13)	TM 2,4-DINIT...	8.551	8.551	439128	590887	NoCal	46.645	#
14)	TM 2,6-DINIT...	8.911	8.909	453309	328053	NoCal	46.514	#
15)	TM 2-NITROTO...	0.000	12.256	0	220810	N.D.	44.628	#
16)	TM 4-NITROTO...	0.000	12.859	0	220626	N.D.	44.589	#
17)	TM 3-NITROTO...	0.000	13.751	0	264010	N.D.	44.899	#
18)	TM PETN	16.045	0.000	189934	0	41.287	N.D.	#

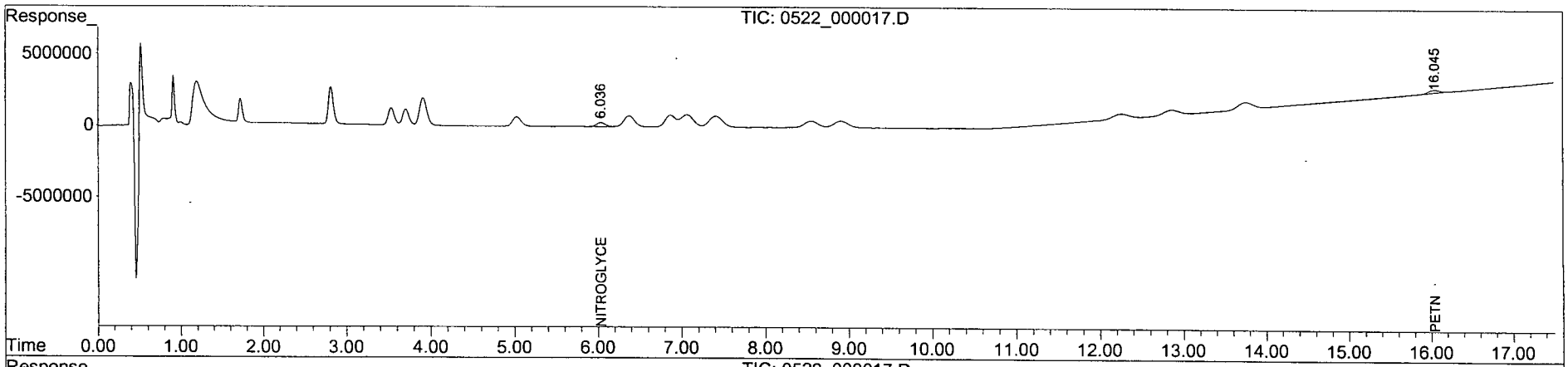
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

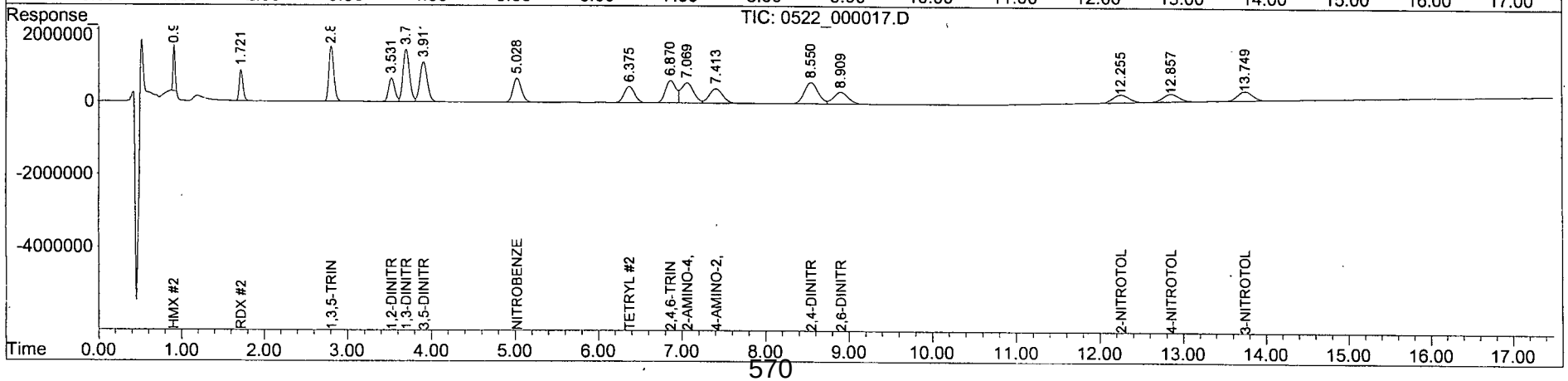
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:30:23
Operator : MP
Sample : 8330CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 8387 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:52:06 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



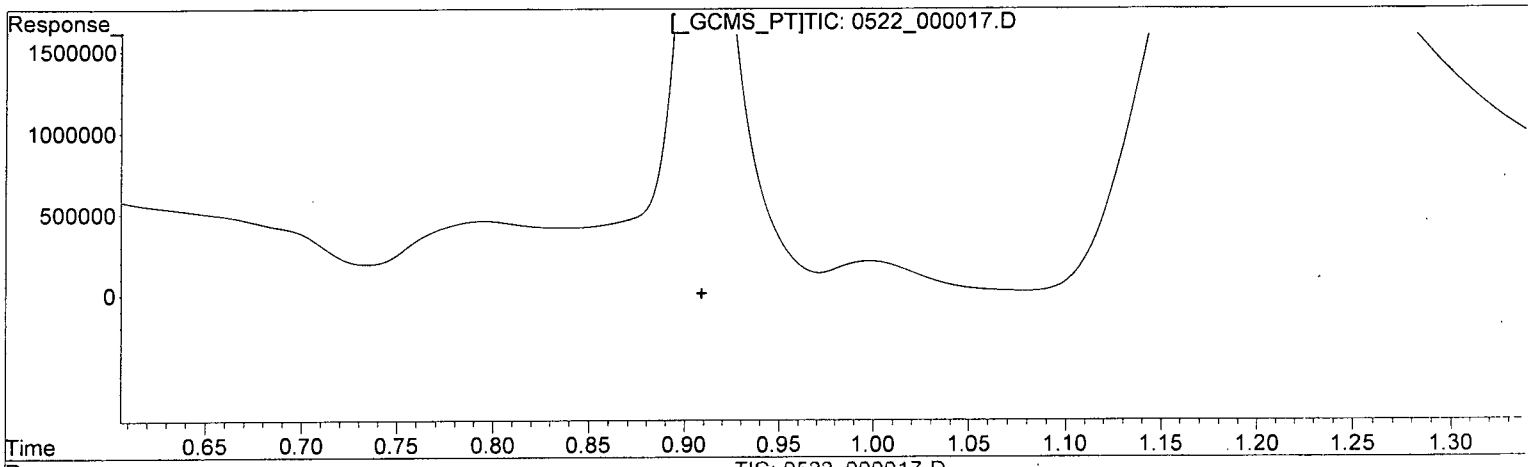


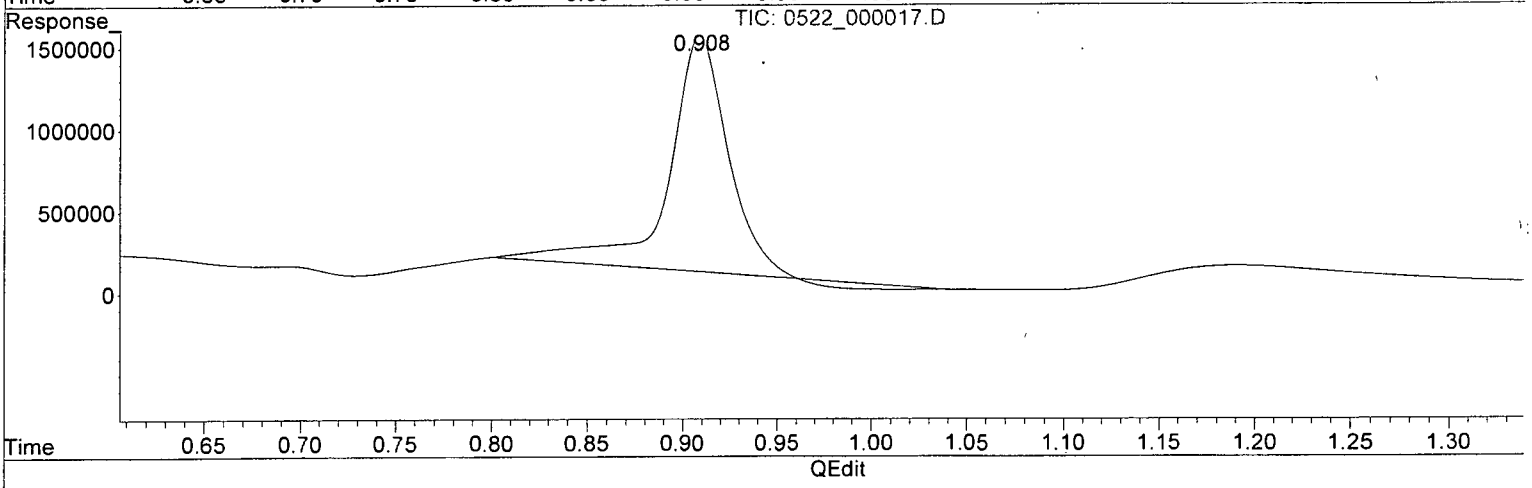
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:30:23
Operator : MP
Sample : 8330CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 8387 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:25 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.909min 54.634 ppb

response 1437929

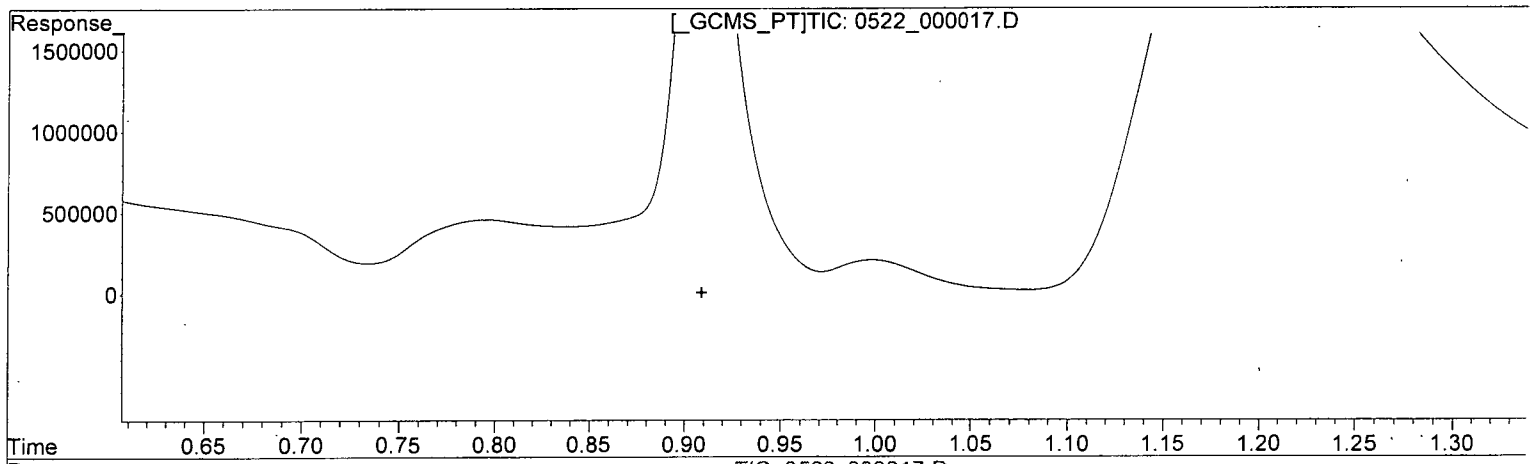
(+) = Expected Retention Time

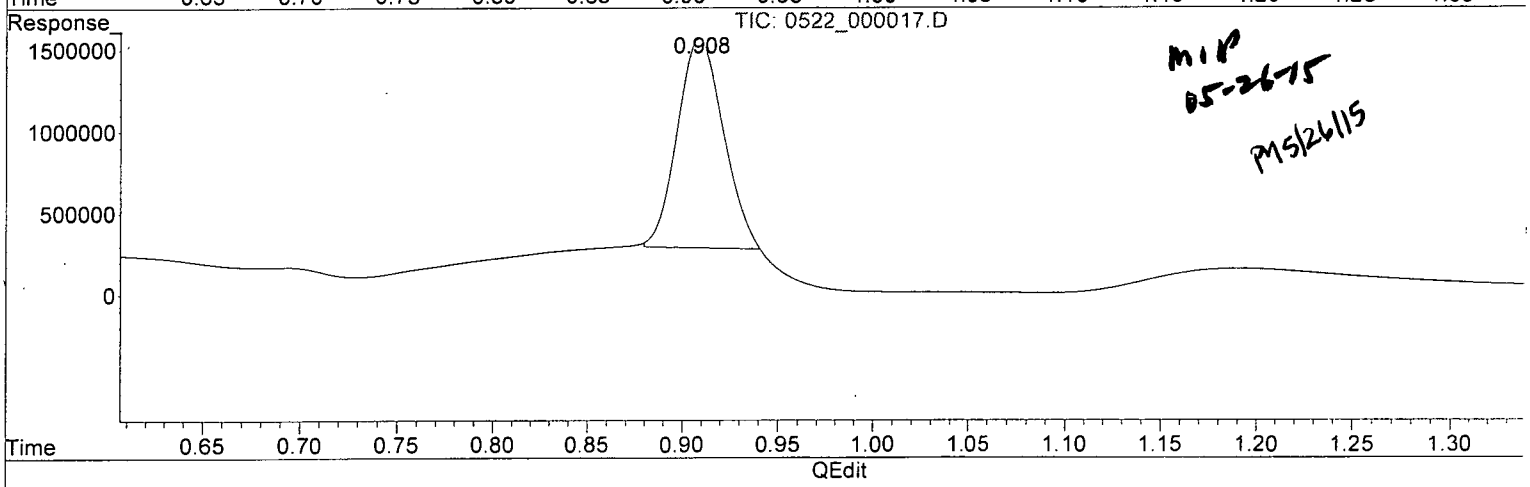
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:30:23
Operator : MP
Sample : 8330CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 8387 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:25 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MIP
05-26-15
PM 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.908min 48.662 ppb m

response 1280731

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:57:54
Operator : MP
Sample : 8330CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 8388 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:50:59 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.535	0	1290640	N.D.	94.716	#
	Spiked Amount 62.500			Recovery	=	0.00%	151.55%	
	Target Compounds							
1)	TM HMX	0.000	0.910	0	2606306	N.D.	99.027	m#
2)	TM RDX	0.000	1.724	0	1695994	N.D.	96.838	#
3)	TM 1,3,5-TRI...	0.000	2.814	0	3075082	N.D.	97.212	#
5)	TM 1,3-DINIT...	0.000	3.707	0	2892550	N.D.	95.712	#
6)	TM 3,5-DINIT...	0.000	3.915	0	2207280	N.D.	91.666	#
7)	TM NITROBENZENE	0.000	5.032	0	1320781	N.D.	95.510	#
8)	TM NITROGLYC...	6.041	0.000	530814	0	95.248	N.D.	#
9)	TM TETRYL	6.383	6.383	1485615	902928	NoCal	86.147	#
10)	TM 2,4,6-TRI...	6.877	6.876	1600218	1235293	NoCal	94.627	#
11)	TM 2-AMINO-4...	7.078	7.077	1672837	1109691	NoCal	89.435	#
12)	TM 4-AMINO-2...	7.422	7.421	1488563	801060	NoCal	88.085	#
13)	TM 2,4-DINIT...	8.557	8.557	870898	1172656	NoCal	92.571	#
14)	TM 2,6-DINIT...	8.915	8.916	898126	644179	NoCal	91.337	#
15)	TM 2-NITROTO...	0.000	12.257	0	439307	N.D.	88.788	#
16)	TM 4-NITROTO...	0.000	12.858	0	437816	N.D.	88.484	#
17)	TM 3-NITROTO...	0.000	13.750	0	524084	N.D.	89.129	#
18)	TM PETN	16.035	0.000	411789	0	89.514	N.D.	#

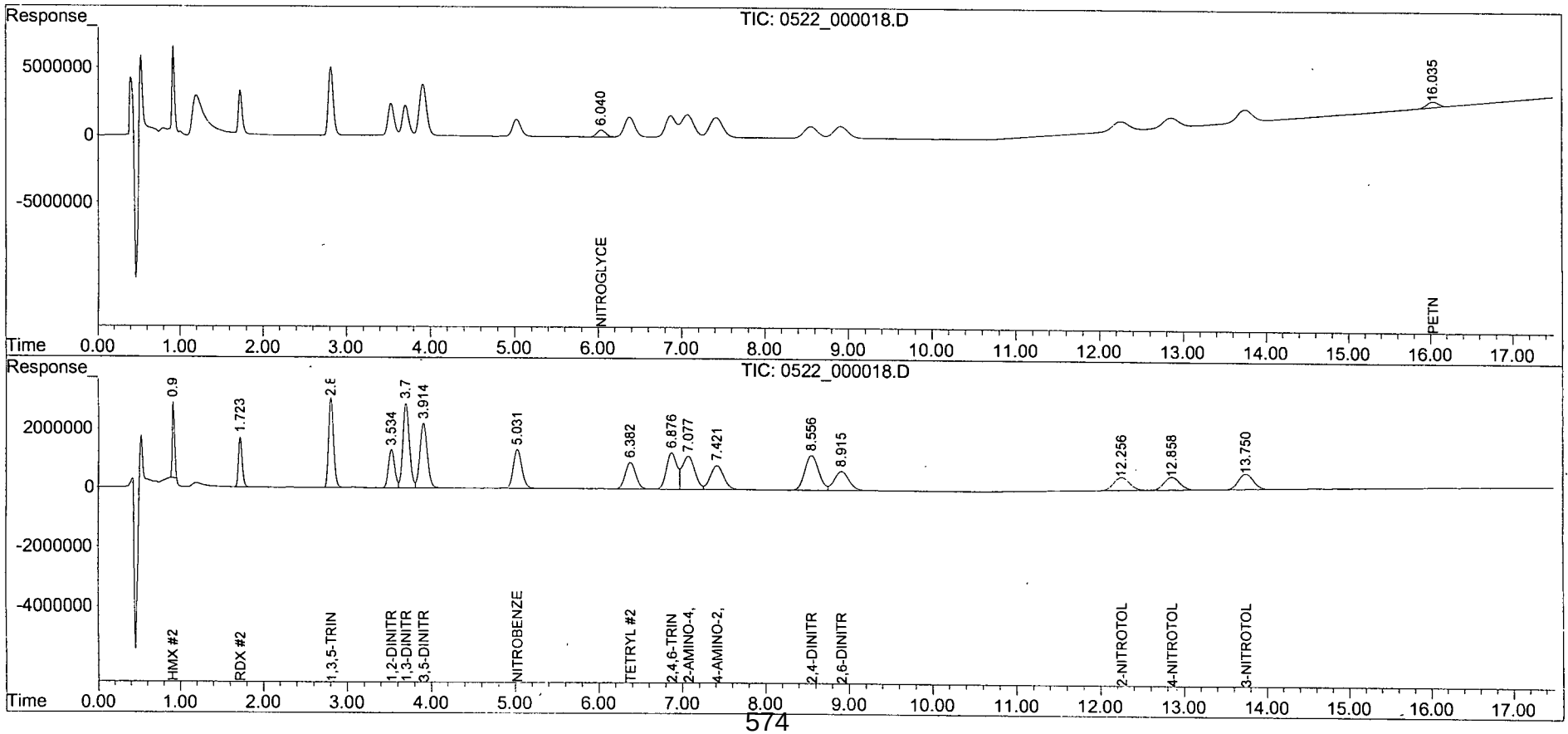
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:57:54
Operator : MP
Sample : 8330CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 8388 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:50:59 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

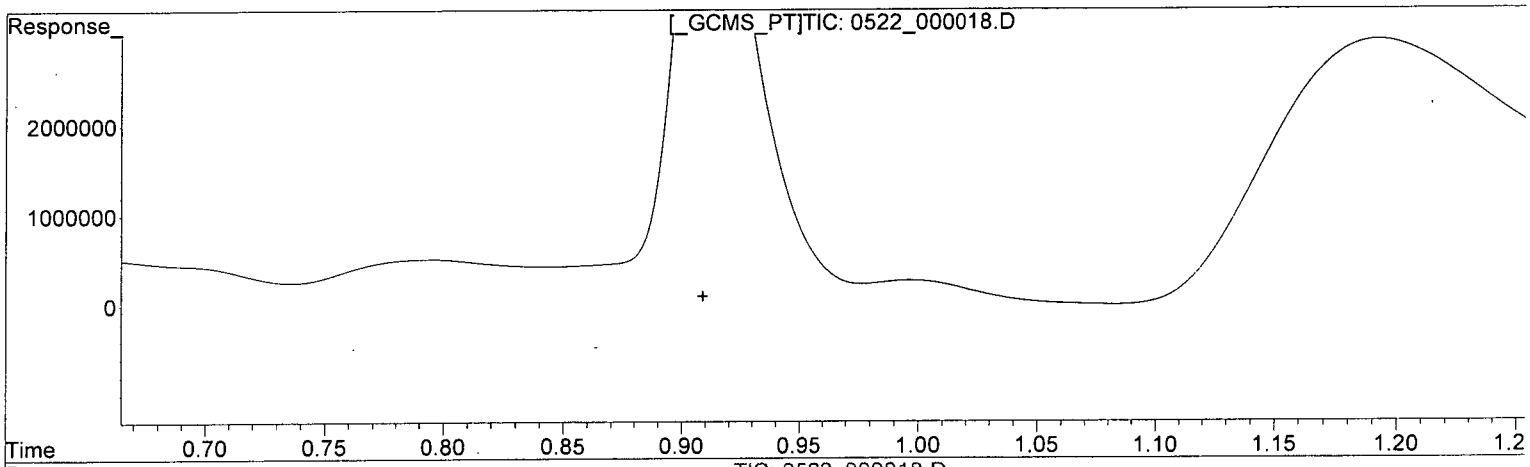


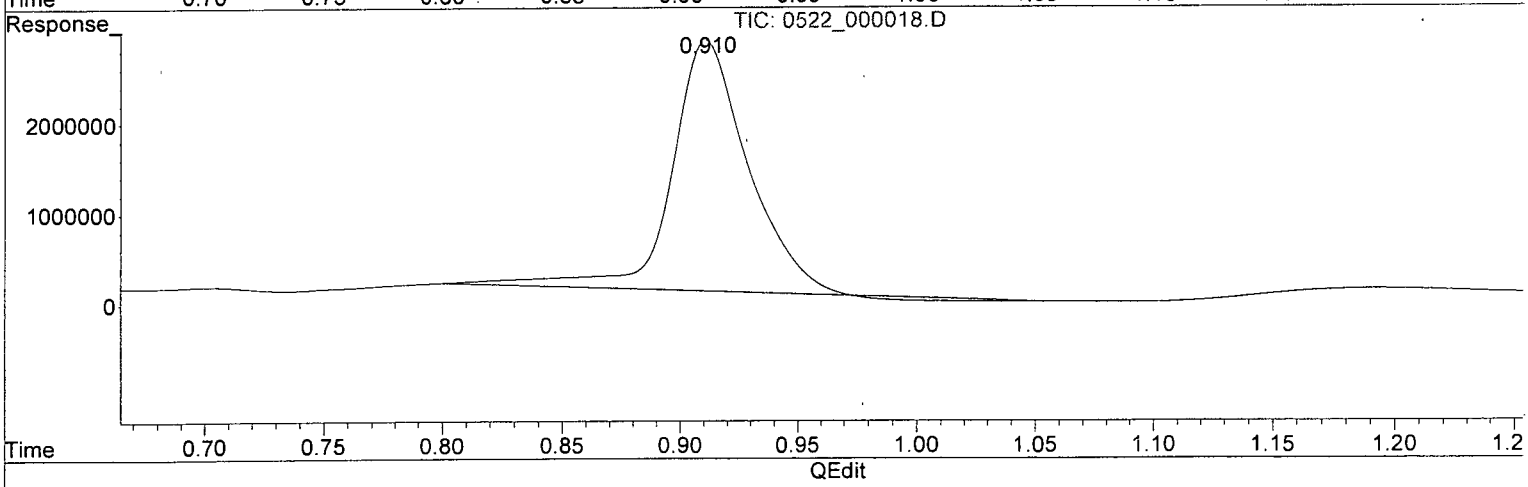
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:57:54
Operator : MP
Sample : 8330CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 8388 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:28 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.912min 105.179 ppb

response 2768218

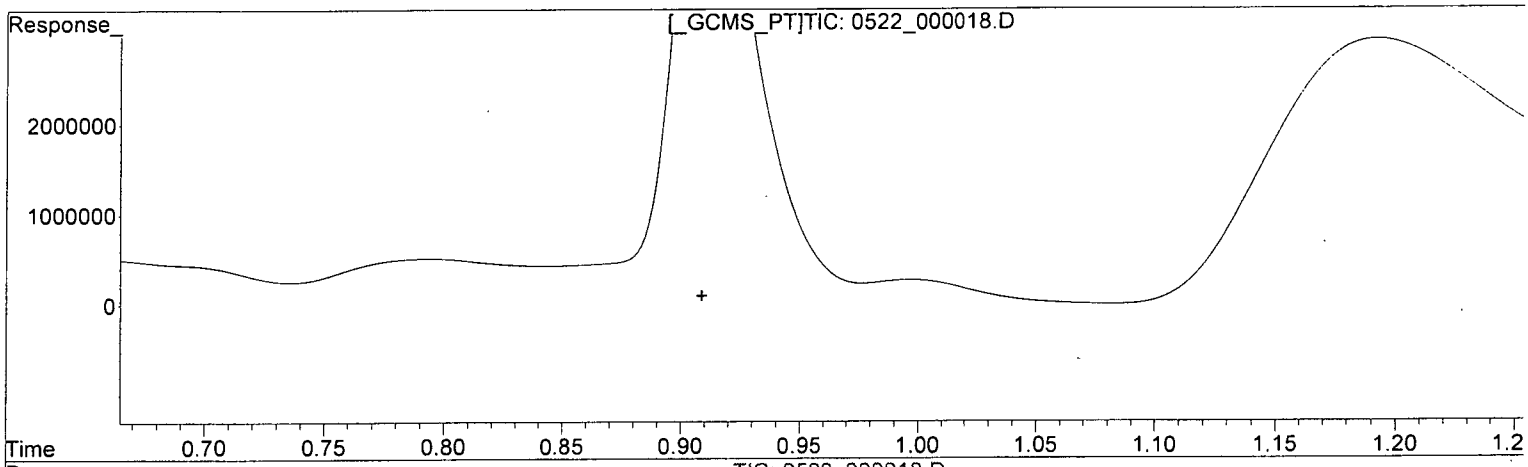
(+) = Expected Retention Time

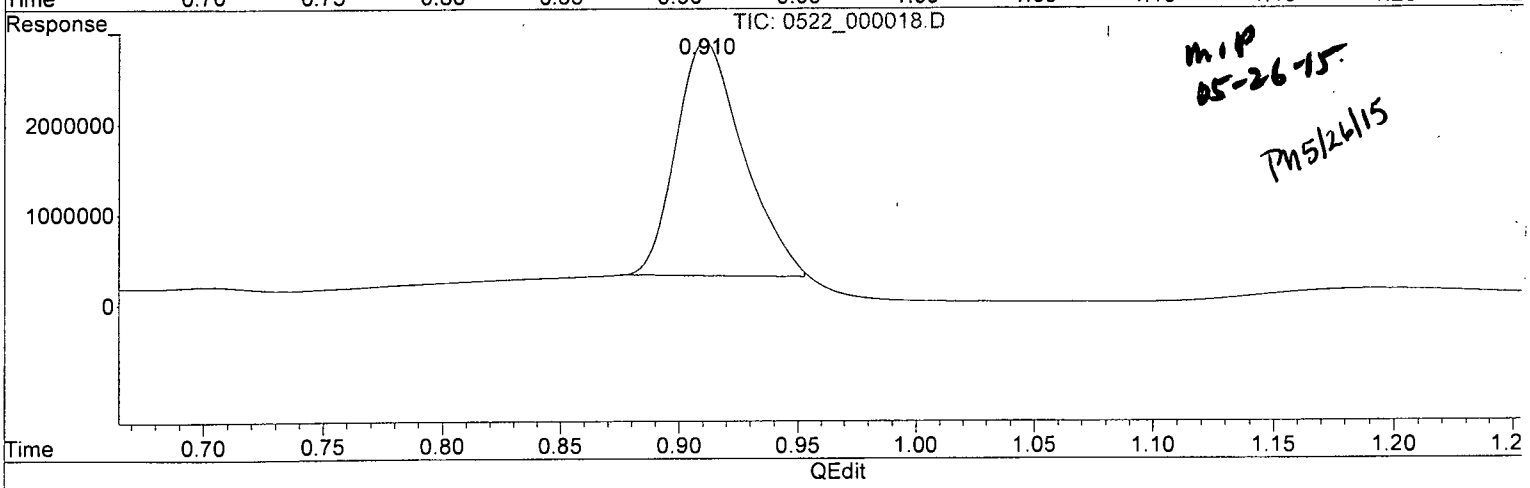
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:57:54
Operator : MP
Sample : 8330CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 8388 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:28 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MIP 05-26-15
PM 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.910min 99.027 ppb m

response 2606306

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:25:25
Operator : MP
Sample : 8330CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 8389 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:31 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.529	0	2607917	N.D.	191.386	#
	Spiked Amount 62.500			Recovery	=	0.00%	306.22%	
	Target Compounds							
1)	TM HMX	0.000	0.909	0	5406170	N.D.	205.408	#
2)	TM RDX	0.000	1.721	0	3423178	N.D.	195.456	#
3)	TM 1,3,5-TRI...	0.000	2.809	0	6223860	N.D.	196.754	#
5)	TM 1,3-DINIT...	0.000	3.702	0	5850290	N.D.	193.581	#
6)	TM 3,5-DINIT...	0.000	3.910	0	4462918	N.D.	185.340	#
7)	TM NITROBENZENE	0.000	5.028	0	2671122	N.D.	193.157	#
8)	TM NITROGLYC...	6.037	6.033	1064367	21764	190.988	NoCal	#
9)	TM TETRYL	6.378	6.378	3008528	1827851	NoCal	174.392	#
10)	TM 2,4,6-TRI...	6.872	6.872	3234786	2503048	NoCal	191.740	#
11)	TM 2-AMINO-4...	7.073	7.073	3375410	2244726	NoCal	180.913	#
12)	TM 4-AMINO-2...	7.417	7.418	2998380	1617102	NoCal	177.818	#
13)	TM 2,4-DINIT...	8.555	8.555	1746281	2373610	NoCal	187.375	#
14)	TM 2,6-DINIT...	8.916	8.915	1810737	1305146	NoCal	185.055	#
15)	TM 2-NITROTO...	0.000	12.265	0	891016	N.D.	180.082	#
16)	TM 4-NITROTO...	0.000	12.863	0	887417	N.D.	179.350	#
17)	TM 3-NITROTO...	0.000	13.754	0	1067793	N.D.	181.596	#
18)	TM PETN	16.029	0.000	862296	0	187.444	N.D.	#

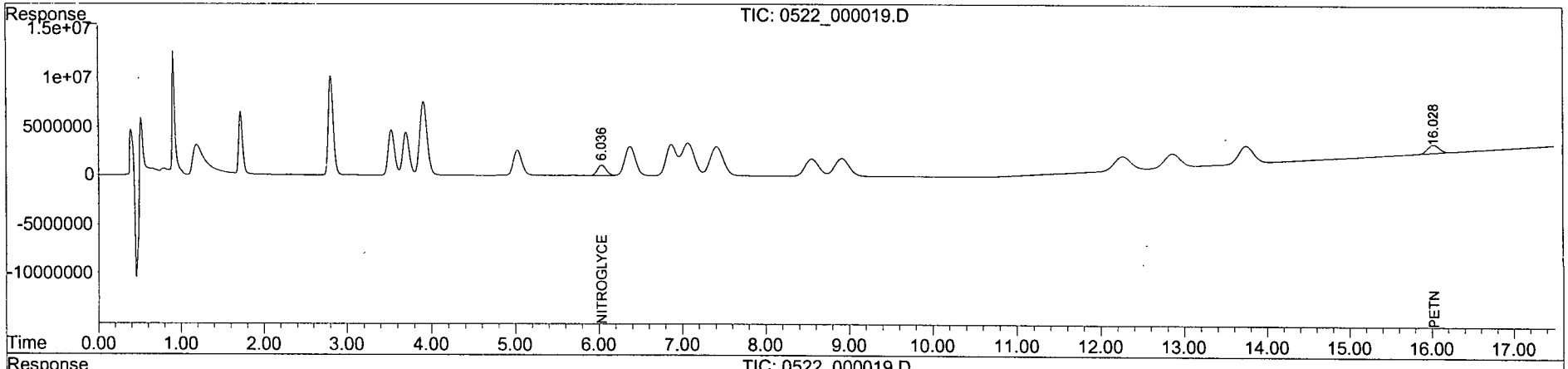
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

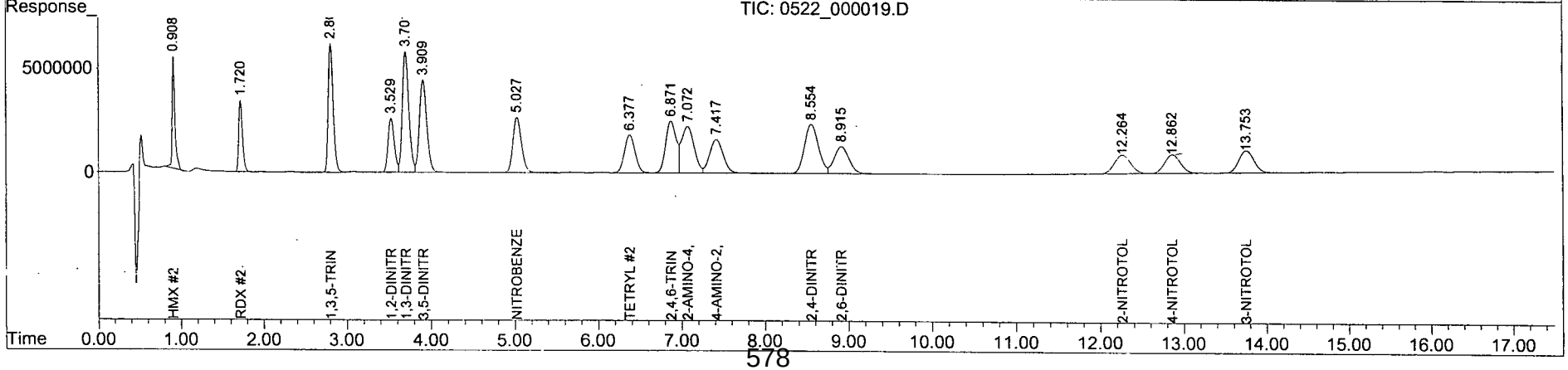
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:25:25
Operator : MP
Sample : 8330CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 8389 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:31 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron





Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:52:55
Operator : MP
Sample : 8330CB 0.50 PPM 05/22/15
Misc :
ALS Vial : 8390 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:49:26 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.532	0	6536750	N.D.	479.710	#
	Spiked Amount 62.500			Recovery	=	0.00%	767.54%	
	Target Compounds							
1)	TM HMX	0.000	0.912	0	13093933	N.D.	497.507	#
2)	TM RDX	0.000	1.725	0	8556770	N.D.	488.573	#
3)	TM 1,3,5-TRI...	0.000	2.813	0	15539688	N.D.	491.253	#
5)	TM 1,3-DINIT...	0.000	3.704	0	14653448	N.D.	484.870	#
6)	TM 3,5-DINIT...	0.000	3.912	0	11178554	N.D.	464.233	#
7)	TM NITROBENZENE	0.000	5.028	0	6683911	N.D.	483.335	#
8)	TM NITROGLYC...	6.034	6.029	2604059	52764	467.267m	NoCal	#
9)	TM TETRYL	6.376	6.376	7486113	4607535	NoCal	439.597	#
10)	TM 2,4,6-TRI...	6.870	6.870	8029656	6252449	NoCal	478.954	#
11)	TM 2-AMINO-4...	7.070	7.069	8405544	5619907	NoCal	452.935	#
12)	TM 4-AMINO-2...	7.414	7.414	7453750	4039281	NoCal	444.164	#
13)	TM 2,4-DINIT...	8.549	8.549	4361031	5949145	NoCal	469.632	#
14)	TM 2,6-DINIT...	8.910	8.909	4509069	3261676	NoCal	462.468	#
15)	TM 2-NITROTO...	0.000	12.261	0	2225219	N.D.	449.736	#
16)	TM 4-NITROTO...	0.000	12.859	0	2224626	N.D.	449.605	#
17)	TM 3-NITROTO...	0.000	13.751	0	2675829	N.D.	455.070	#
18)	TM PETN	16.025	0.000	2135884	0	464.294	N.D.	#

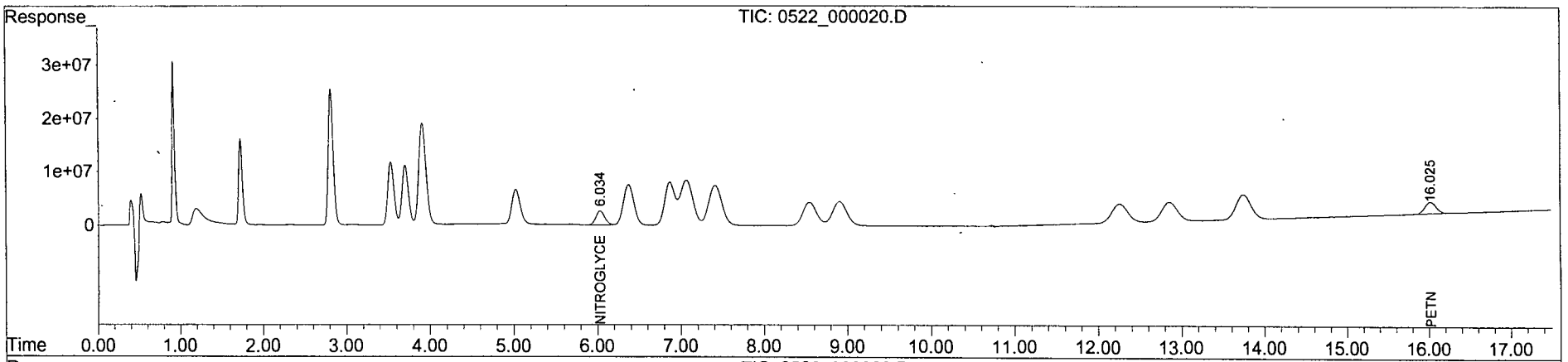
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

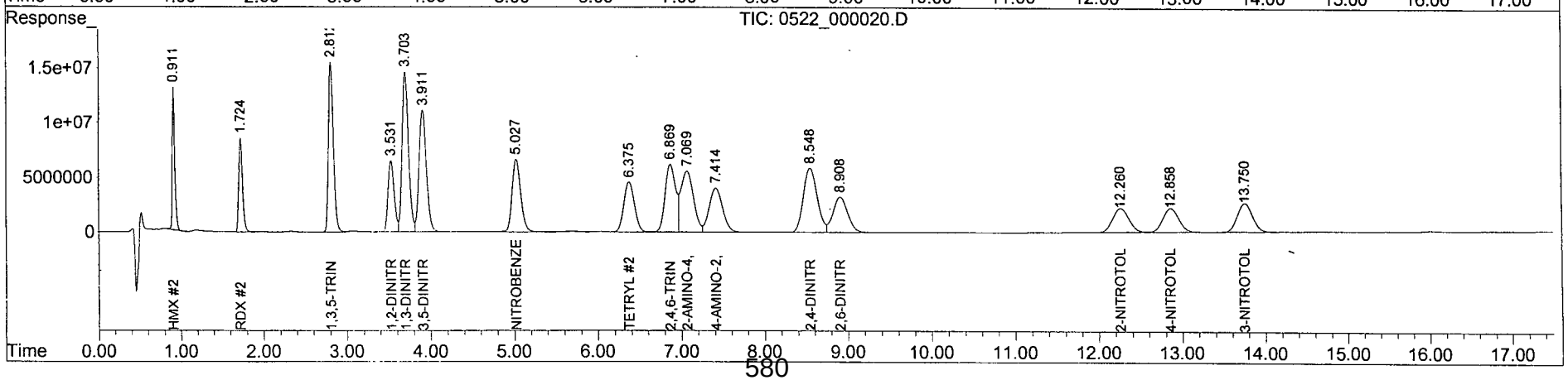
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:52:55
Operator : MP
Sample : 8330CB 0.50 PPM 05/22/15
Misc :
ALS Vial : 8390 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:49:26 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



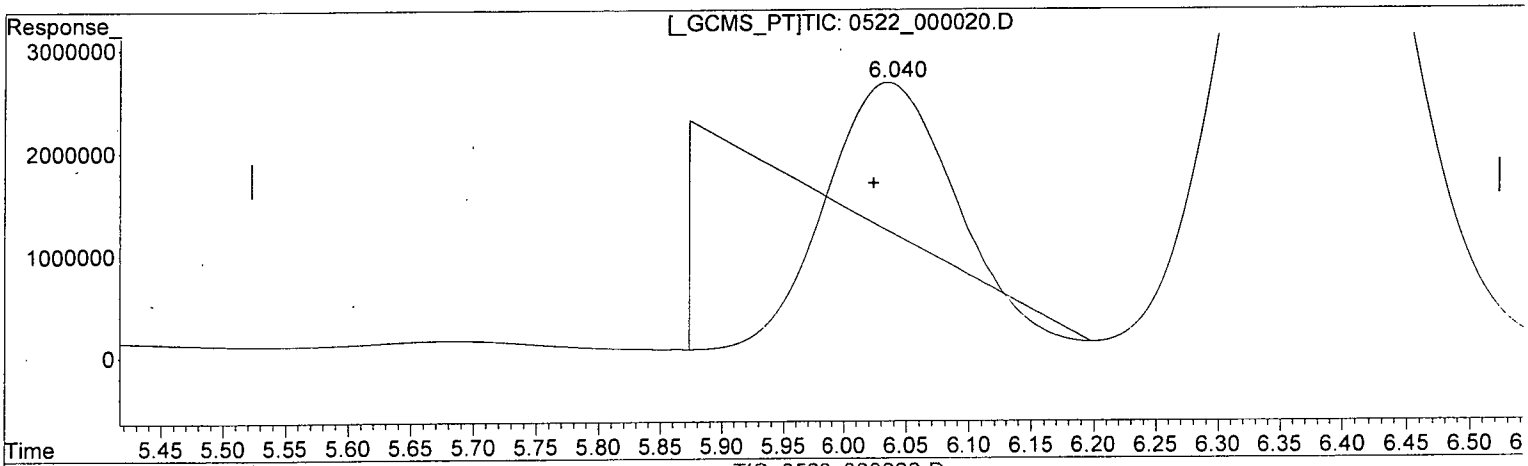


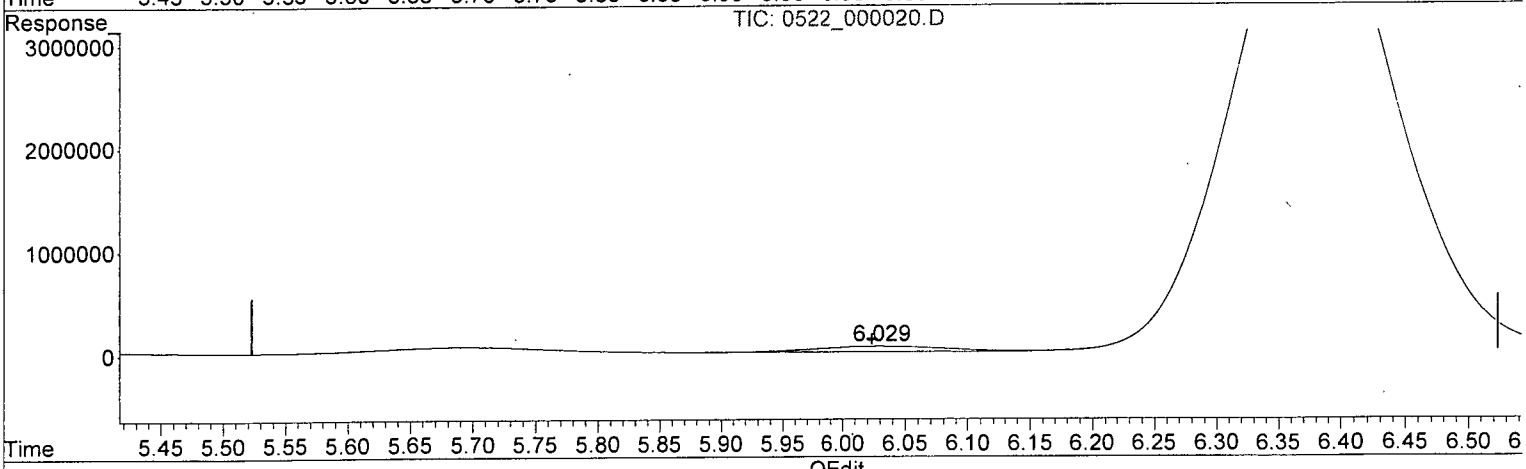
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:52:55
Operator : MP
Sample : 8330CB 0.50 PPM 05/22/15
Misc :
ALS Vial : 8390 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:34 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(8) NITROGLYCERIN (TM)

6.035min 258.894 ppb

response 1442806

(8) NITROGLYCERIN #2 (TM)

6.029min 0.000 ppb

response 52764

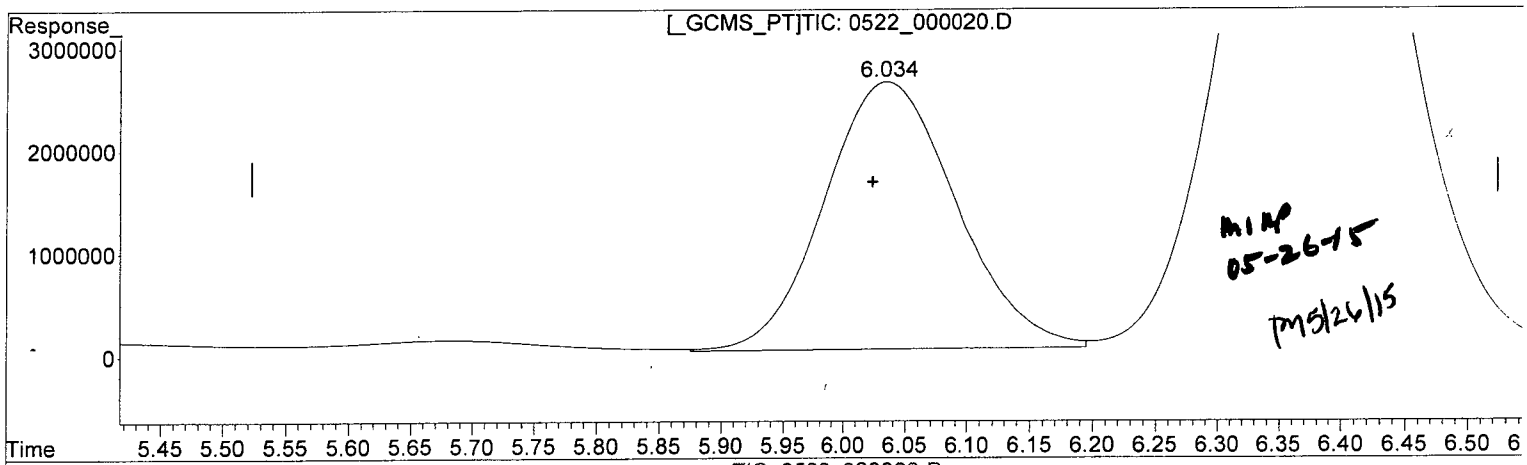
(+) = Expected Retention Time

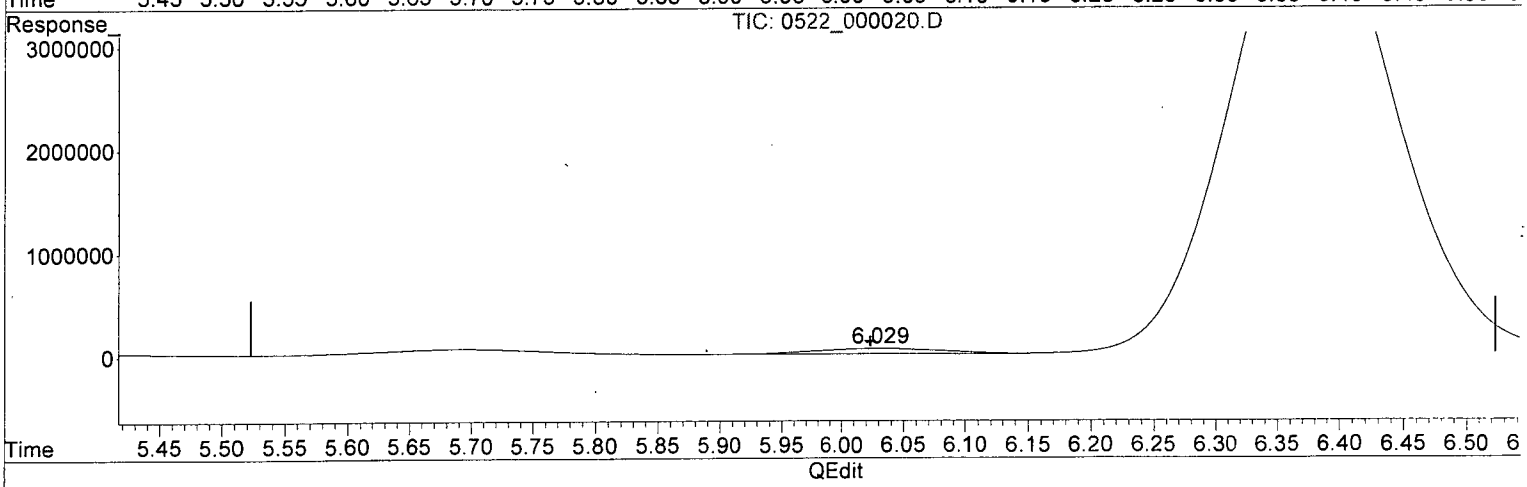
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:52:55
Operator : MP
Sample : 8330CB 0.50 PPM 05/22/15
Misc :
ALS Vial : 8390 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:34 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(8) NITROGLYCERIN (TM)

6.034min 467.267 ppb m

response 2604059

(8) NITROGLYCERIN #2 (TM)

6.029min 0.000 ppb

response 52764

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000021.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:20:26
Operator : MP
Sample : 8330CB 1.0 PPM 05/22/15
Misc :
ALS Vial : 8391 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:48:19 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
System Monitoring Compounds							
4) S 1,2-DINIT...	0.000	3.526	0	13063722	N.D.	958.702	#
Spiked Amount 62.500			Recovery	=	0.00%	1533.92%	
Target Compounds							
1) TM HMX	0.000	0.910	0	25565755	N.D.	971.376	#
2) TM RDX	0.000	1.721	0	16944805	N.D.	967.511	#
3) TM 1,3,5-TRI...	0.000	2.808	0	30884999	N.D.	976.362	#
5) TM 1,3-DINIT...	0.000	3.698	0	29294479	N.D.	969.330	#
6) TM 3,5-DINIT...	0.000	3.906	0	22350043	N.D.	928.174	#
7) TM NITROBENZENE	0.000	5.019	0	13349299	N.D.	965.330	#
8) TM NITROGLYC...	6.023	6.020	5146871	112765	923.543m	NoCal	#
9) TM TETRYL	6.365	6.365	14825795	9135558	NoCal	871.607	#
10) TM 2,4,6-TRI...	6.859	6.859	16022681	12472012	NoCal	955.390	#
11) TM 2-AMINO-4...	7.059	7.059	16751362	11202296	NoCal	902.846	#
12) TM 4-AMINO-2...	7.403	7.403	14857900	8042665	NoCal	884.380	#
13) TM 2,4-DINIT...	8.536	8.536	8720715	11903150	NoCal	939.648	#
14) TM 2,6-DINIT...	8.897	8.897	8992506	6508725	NoCal	922.862	#
15) TM 2-NITROTO...	0.000	12.251	0	4418487	N.D.	893.014	#
16) TM 4-NITROTO...	0.000	12.850	0	4422161	N.D.	893.736	#
17) TM 3-NITROTO...	0.000	13.745	0	5340802	N.D.	908.293	#
18) TM PETN	16.021	0.000	4272602	0	928.769	N.D.	#

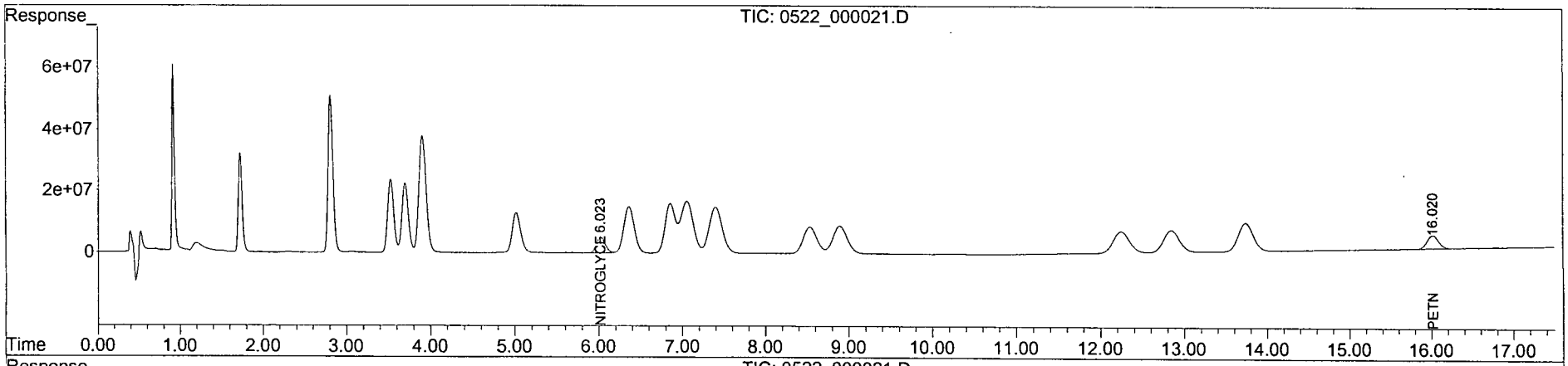
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

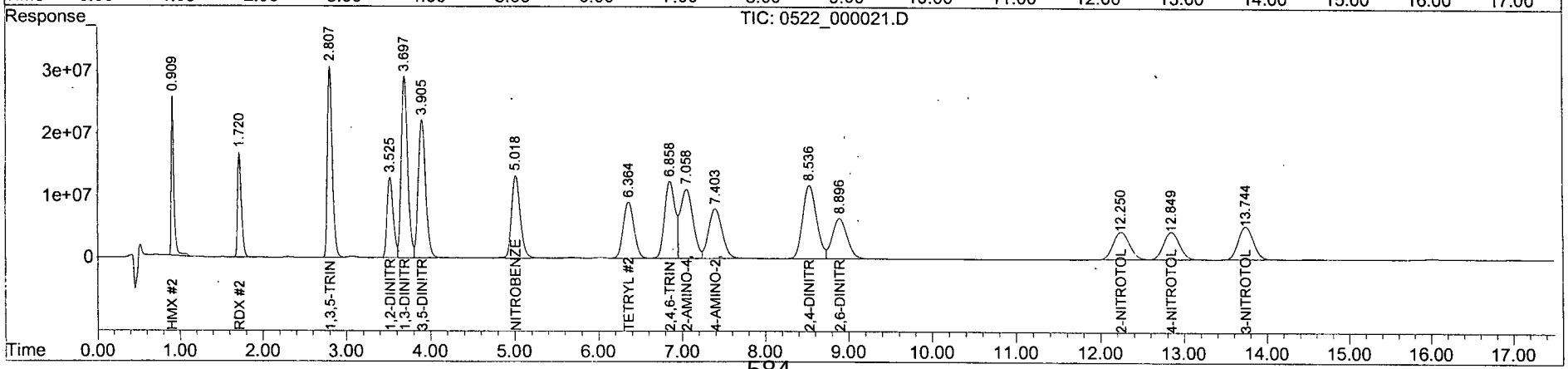
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000021.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:20:26
Operator : MP
Sample : 8330CB 1.0 PPM 05/22/15
Misc :
ALS Vial : 8391 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:48:19 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



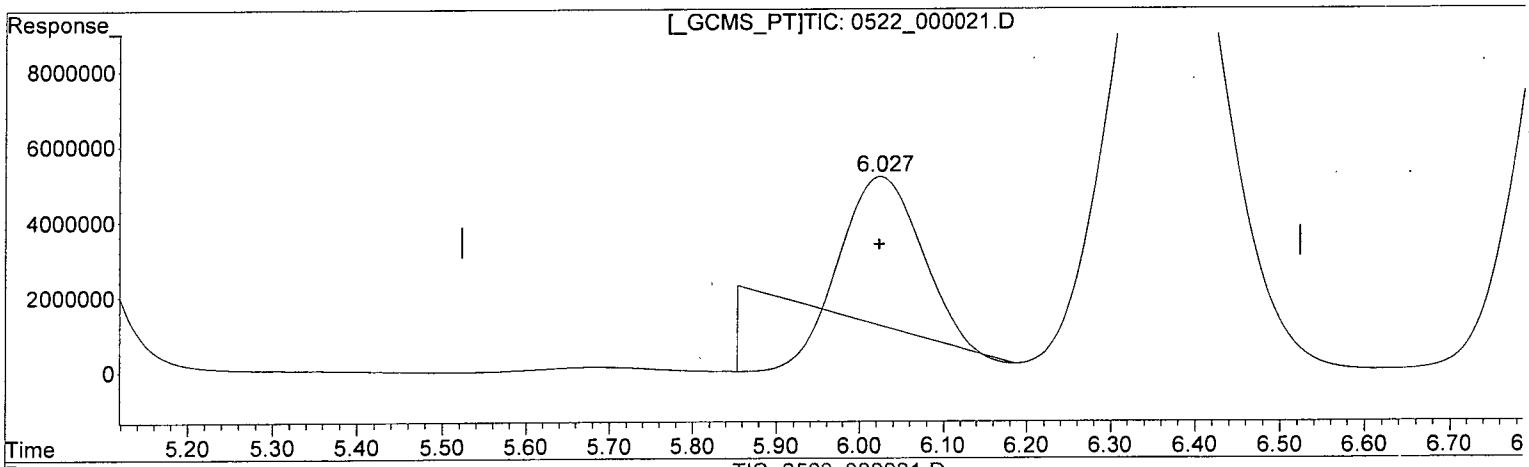


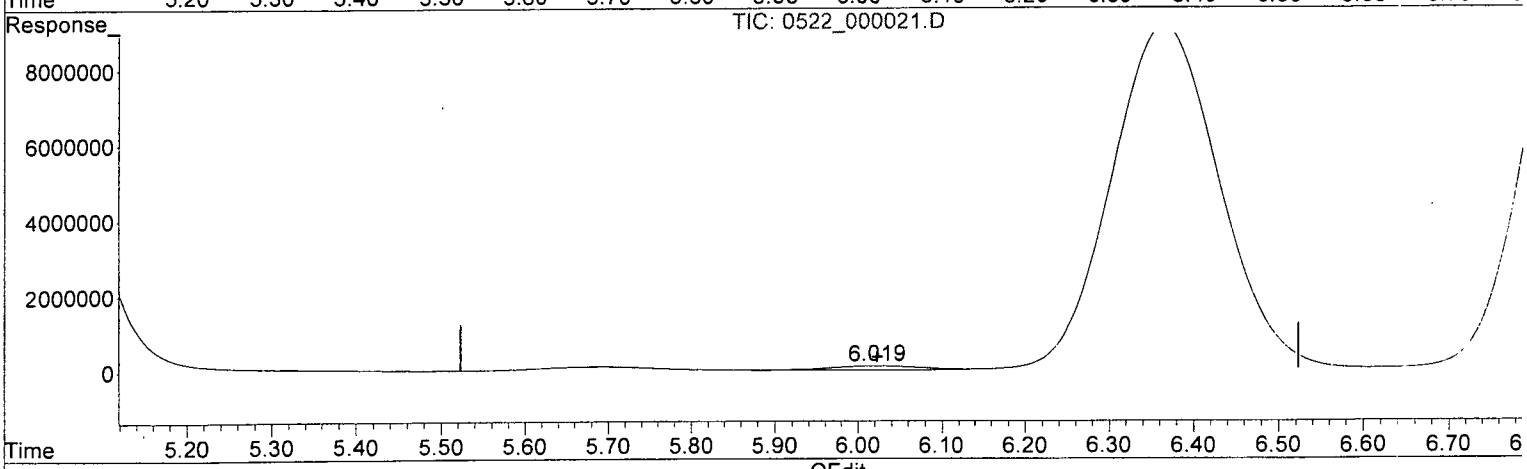
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000021.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:20:26
Operator : MP
Sample : 8330CB 1.0 PPM 05/22/15
Misc :
ALS Vial : 8391 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:37 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(8) NITROGLYCERIN (TM)

6.024min 711.081 ppb

response 3962825

(8) NITROGLYCERIN #2 (TM)

6.020min 0.000 ppb

response 112765

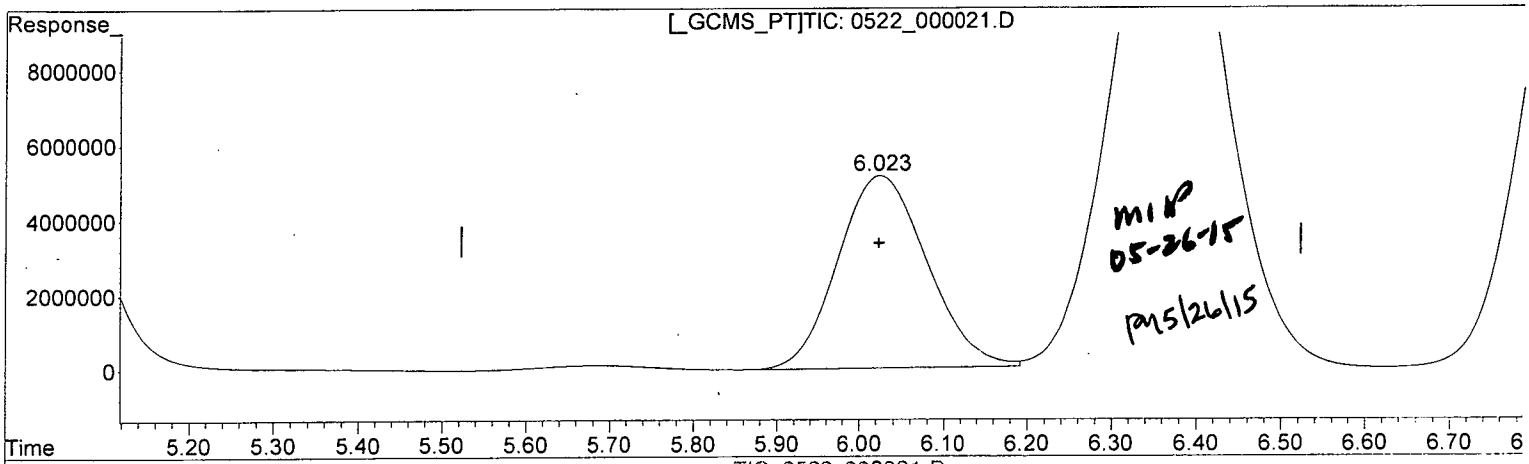
(+) = Expected Retention Time

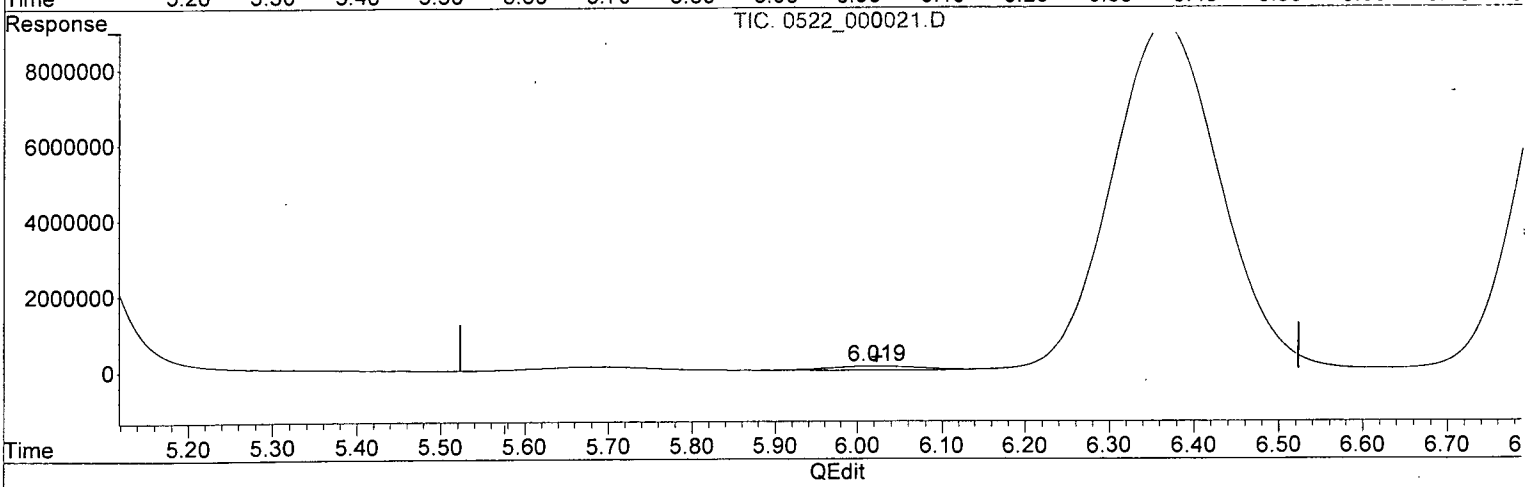
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000021.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:20:26
Operator : MP
Sample : 8330CB 1.0 PPM 05/22/15
Misc :
ALS Vial : 8391 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:37 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(8) NITROGLYCERIN (TM)

6.023min 923.543 ppb m

response 5146871

(8) NITROGLYCERIN #2 (TM)

6.020min 0.000 ppb

response 112765

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000022.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:47:57
Operator : MP
Sample : 8330MXA 2.0 PPM 05/22/15
Misc :
ALS Vial : 8392 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.528	0	26699791	N.D.	1959.407	#
	Spiked Amount 62.500			Recovery	=	0.00%	3135.05%	
	Target Compounds							
1)	TM HMX	0.000	0.909	0	51125746	N.D.	1942.533	#
2)	TM RDX	0.000	1.720	0	34296475	N.D.	1958.254	#
3)	TM 1,3,5-TRI...	0.000	2.808	0	62386918	N.D.	1972.226	#
5)	TM 1,3-DINIT...	0.000	3.700	0	59642142	N.D.	1973.509	#
6)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.	
7)	TM NITROBENZENE	0.000	5.022	0	27219378	N.D.	1968.320	#
8)	TM NITROGLYC...	5.993	5.988	-1131123	58860	N.D.	NoCal	
9)	TM TETRYL	6.370	6.370	31034512	18949650	NoCal	1807.952	#
10)	TM 2,4,6-TRI...	6.862	6.863	32706593	25443124	NoCal	1949.012	#
11)	TM 2-AMINO-4...	7.061	7.061	34245322	22905847	NoCal	1846.090	#
12)	TM 4-AMINO-2...	7.407	7.407	30318468	16364377	NoCal	1799.445	#
13)	TM 2,4-DINIT...	8.539	8.539	17785609	24299263	NoCal	1918.211	#
14)	TM 2,6-DINIT...	8.901	8.901	18336089	13284430	NoCal	1883.578	#
15)	TM 2-NITROTO...	0.000	12.247	0	9046766	N.D.	1828.429	#
16)	TM 4-NITROTO...	0.000	12.843	0	9037848	N.D.	1826.583	#
17)	TM 3-NITROTO...	0.000	13.739	0	10916758	N.D.	1856.579	#
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.	

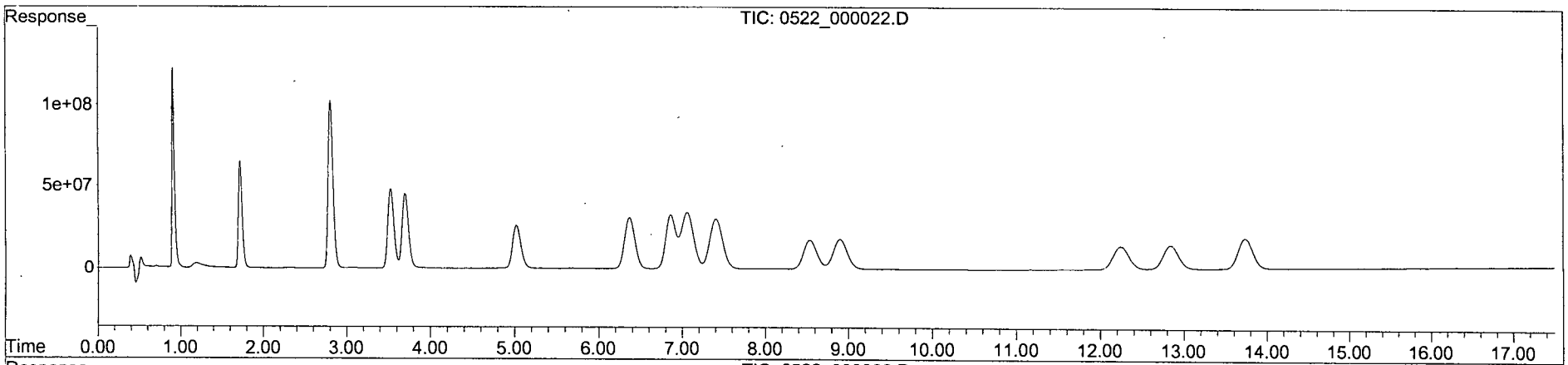
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

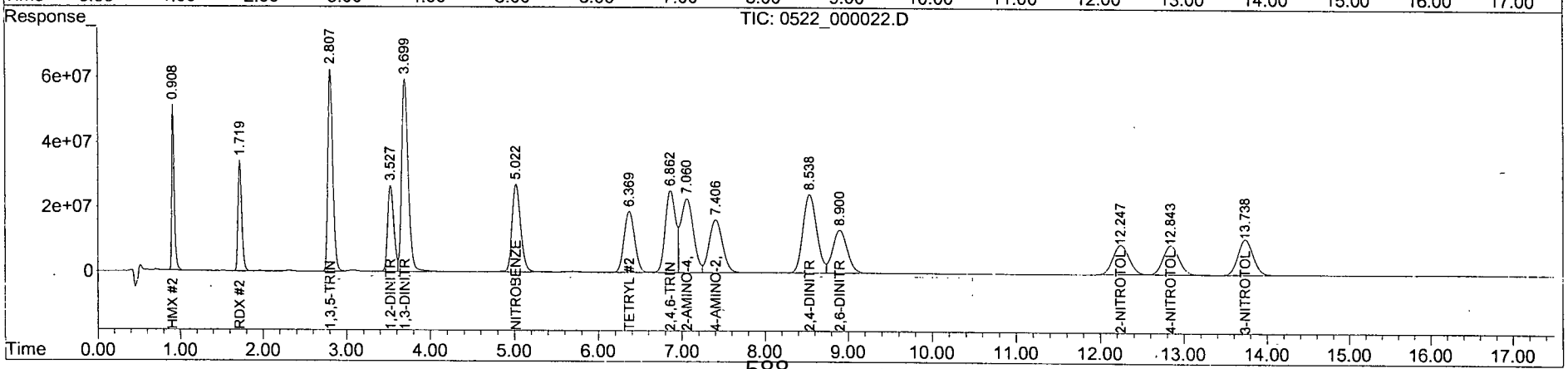
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000022.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:47:57
Operator : MP
Sample : 8330MXA 2.0 PPM 05/22/15
Misc :
ALS Vial : 8392 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:46:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron





Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000023.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:15:27
Operator : MP
Sample : 8330MXB 2.0 PPM 05/22/15
Misc :
ALS Vial : 8448 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:47:01 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	0.000	0	0	N.D.	N.D.
	Spiked Amount 62.500			Recovery	=	0.00%	0.00%
	Target Compounds						
1)	TM HMX	0.000	0.000	0	0	N.D.	N.D.
2)	TM RDX	0.000	0.000	0	0	N.D.	N.D.
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5)	TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6)	TM 3,5-DINIT...	0.000	3.909	0	44937660	N.D.	1866.213 #
7)	TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
8)	TM NITROGLYC...	6.030	6.030	10501636	195853	1884.391	NoCal #
9)	TM TETRYL	0.000	0.000	0	0	N.D.	N.D.
10)	TM 2,4,6-TRI...	6.930	0.000	43283	0	NoCal	N.D.
11)	TM 2-AMINO-4...	7.080	0.000	15932	0	NoCal	N.D.
12)	TM 4-AMINO-2...	7.392	0.000	17692	0	NoCal	N.D.
13)	TM 2,4-DINIT...	8.533	0.000	10405	0	NoCal	N.D.
14)	TM 2,6-DINIT...	8.895	0.000	14327	0	NoCal	N.D.
15)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16)	TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
17)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
18)	TM PETN	16.008	0.000	8729316	0	1897.559	N.D. #

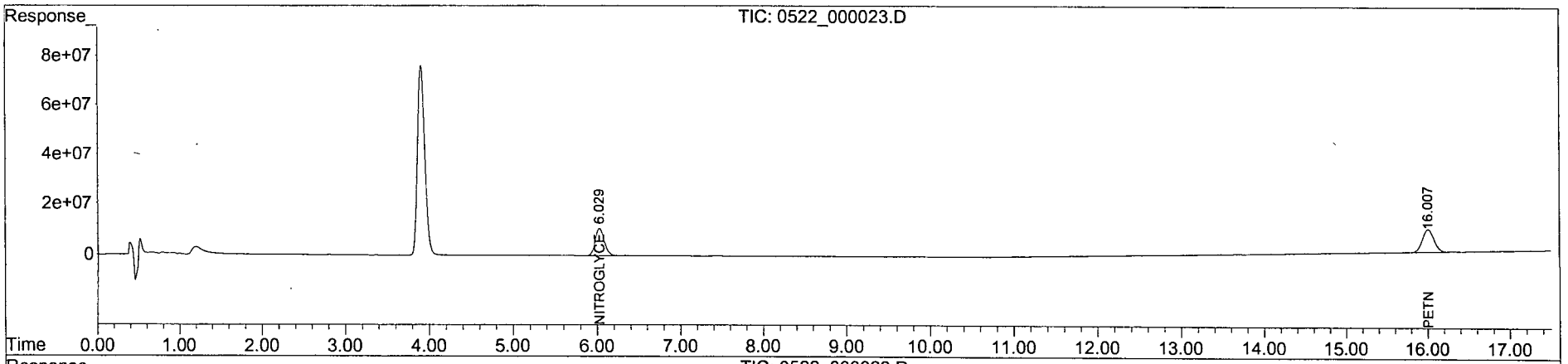
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

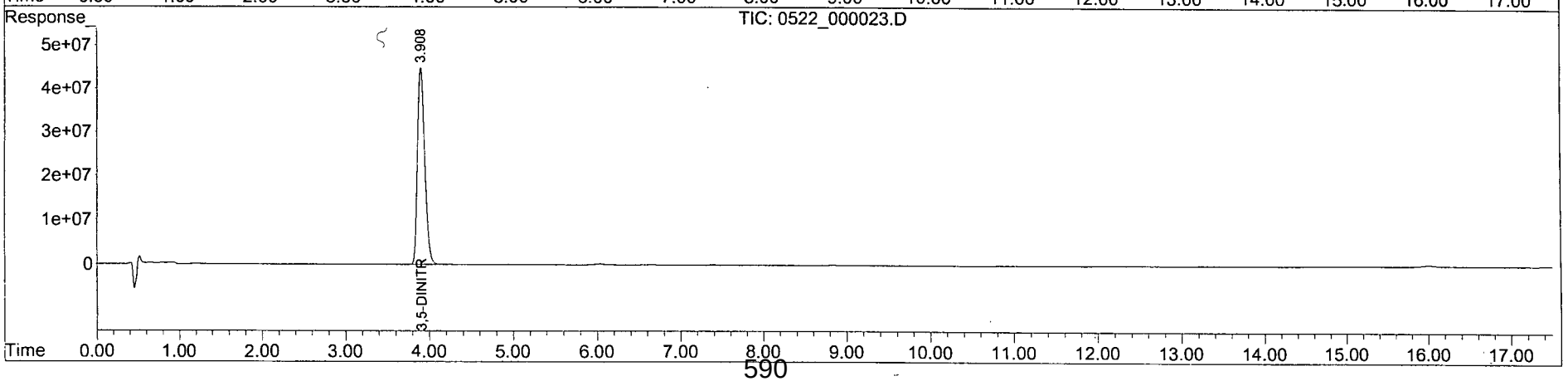
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000023.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:15:27
Operator : MP
Sample : 8330MXB 2.0 PPM 05/22/15
Misc :
ALS Vial : 8448 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 08:47:01 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 09:47:14 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron





Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 76424
Date Analyzed: 22-May-2015, 21:37:58
Instrument: Waldorf
Initial Cal. Date: 05/22/15
Data File: 0522_000026-27.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	NITROGLYCERIN	131	133	1.4	TM	
2	TM	PETN	101	106	4.5	TM	
3		Signal #2					
4	TM	HMX	649	626	3.6	TM	
5	TM	RDX	426	425	0.10	TM	
6	TM	1,3,5-TRINITROBENZENE	774	720	6.9	TM	
7	S	1,2-DINITROBENZENE	323	342	5.8	S	
8	TM	1,3-DINITROBENZENE	729	738	1.3	TM	
9	TM	3,5-DINITROANILINE	556	588	5.8	TM	
10	TM	NITROBENZENE	334	336	0.73	TM	
11	TM	2,4,6-TRINITROTOLUENE	313	318	1.6	TM	
12	TM	2-AMINO-4,6-DINITROTOLUEN	281	262	6.7	TM	
13	TM	4-AMINO-2,6-DINITROTOLUEN	202	218	7.9	TM	
14	TM	2,4-DINITROTOLUENE	295	312	5.7	TM	
15	TM	2,6-DINITROTOLUENE	163	169	3.9	TM	
16	TM	2-NITROTOLUENE	112	114	1.8	TM	
17	TM	4-NITROTOLUENE	111	113	2.0	TM	
18	TM	3-NITROTOLUENE	132	140	5.6	TM	
19	TM	TETRYL	229	245	7.1	TM	
20							
21							
22							
23							
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37							
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39							

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 21:37:58
Operator : MP
Sample : 8330_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 8449 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:09:58 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:07:30 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.523	0	13686166	N.D.	1057.681	#
	Spiked Amount 62.500			Recovery	=	0.00%	1692.29%	
	Target Compounds							
1)	TM HMX	0.000	0.909	0	25046700	N.D.	964.148	#
2)	TM RDX	0.000	1.718	0	17015404	N.D.	999.040	#
3)	TM 1,3,5-TRI...	0.000	2.804	0	28816272	N.D.	931.072	#
5)	TM 1,3-DINIT...	0.000	3.694	0	29521663	N.D.	1012.793	#
6)	TM 3,5-DINIT...	0.000	3.902	0	23531862	N.D.	1058.480	#
7)	TM NITROBENZENE	0.000	5.017	0	13449297	N.D.	1007.346	#
8)	TM NITROGLYC...	6.017	6.014	5329290	133108	1013.653m	1252.663	
9)	TM TETRYL	6.357	6.357	13306833	8224915	859.217	898.255	
10)	TM 2,4,6-TRI...	6.848	6.848	16398781	12711220	1144.544	1015.917	
11)	TM 2-AMINO-4...	7.051	7.051	15700744	10493610	1032.426	933.290	
12)	TM 4-AMINO-2...	7.394	7.394	16165189	8739257	1181.397	1079.454	
13)	TM 2,4-DINIT...	8.524	8.524	9095826	12483512	1103.768	1057.219	
14)	TM 2,6-DINIT...	8.885	8.885	9342247	6759755	1113.774	1039.487	
15)	TM 2-NITROTO...	0.000	12.234	0	4563295	N.D.	1017.803	#
16)	TM 4-NITROTO...	0.000	12.831	0	4522887	N.D.	1019.826	#
17)	TM 3-NITROTO...	0.000	13.728	0	5592648	N.D.	1056.099	#
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.	

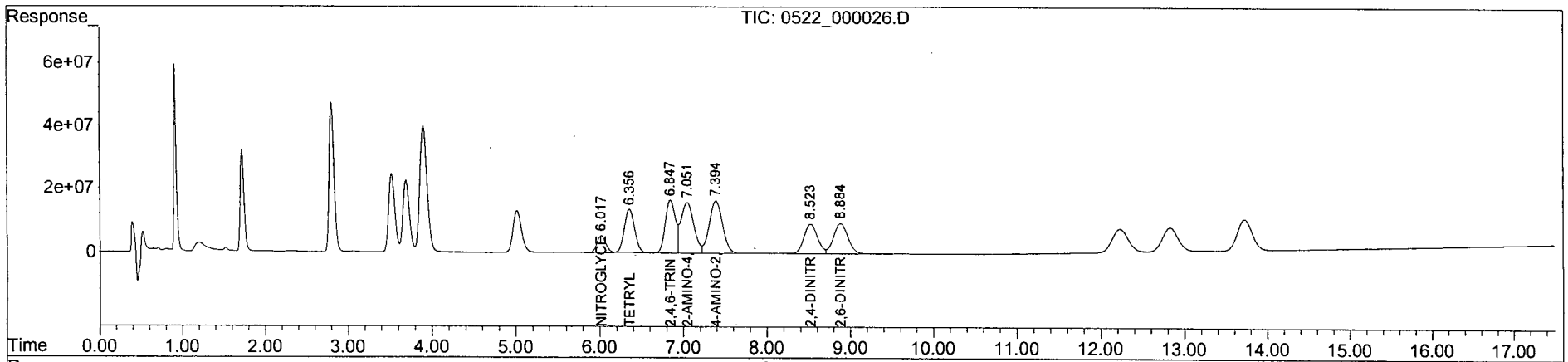
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

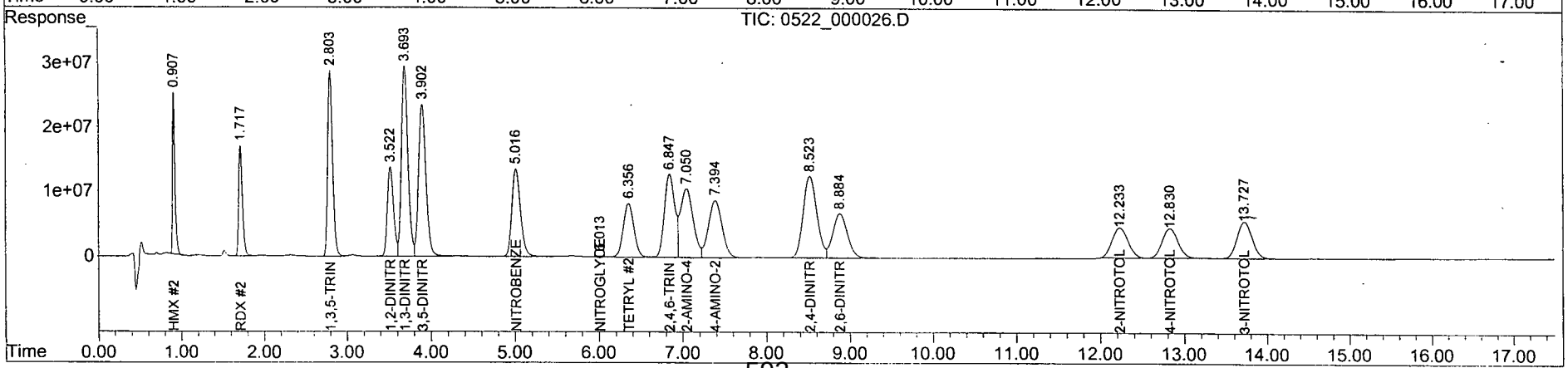
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 21:37:58
Operator : MP
Sample : 8330_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 8449 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:09:58 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:07:30 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



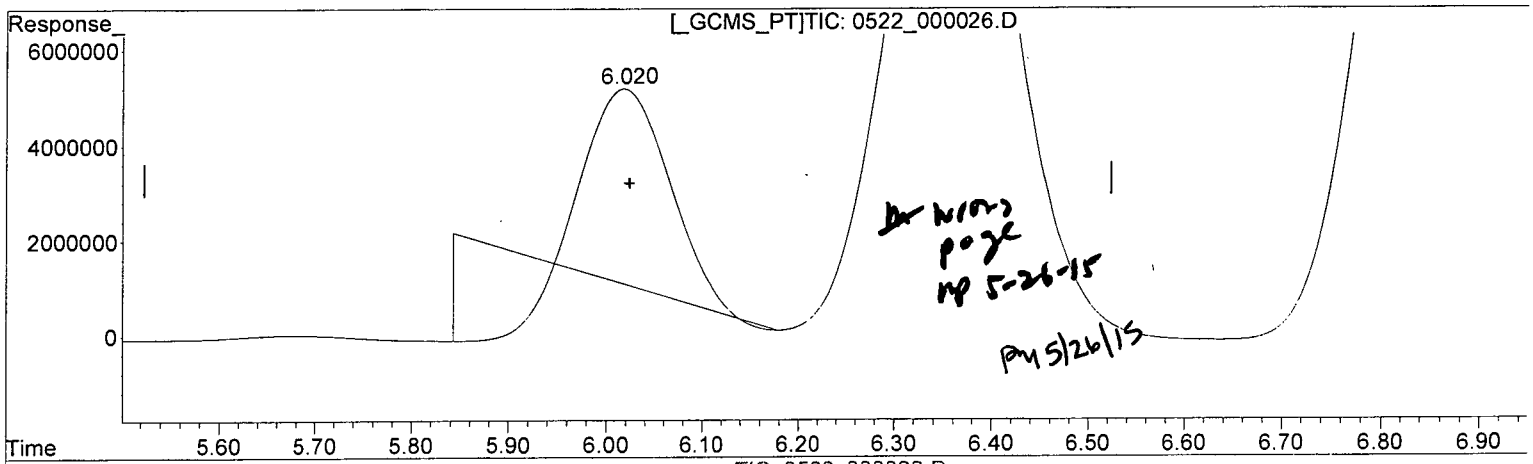


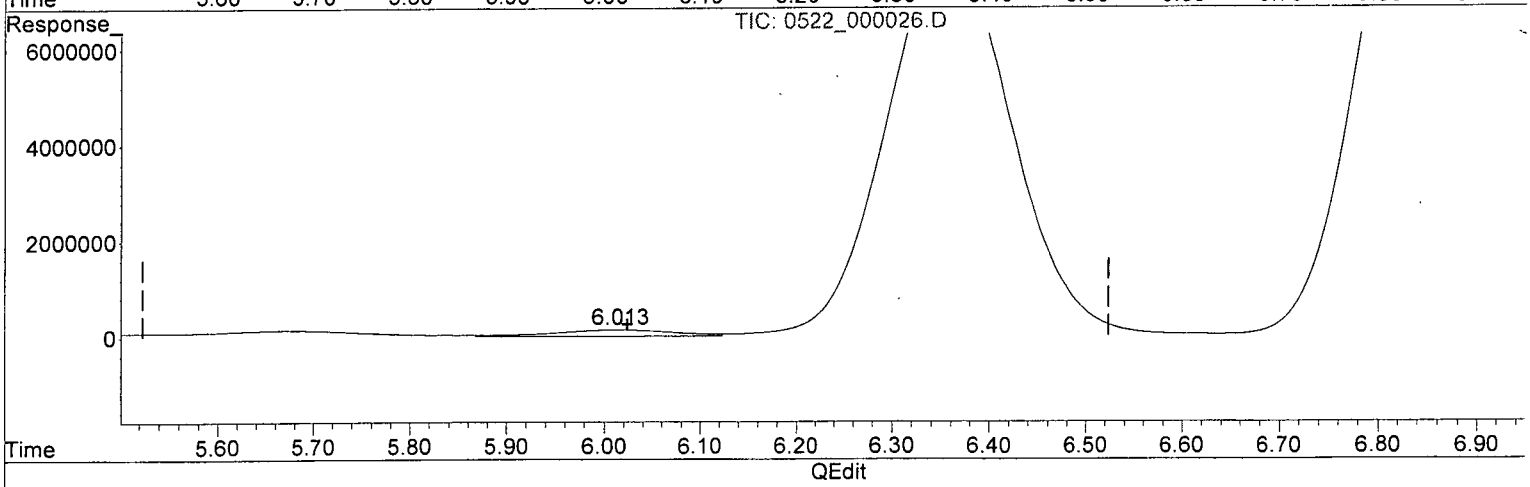
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 21:37:58
Operator : MP
Sample : 8330_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 8449 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:08:46 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:07:30 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(8) NITROGLYCERIN (TM)

6.018min 780.047 ppb

response 4101103

(8) NITROGLYCERIN #2 (TM)

6.014min 1252.663 ppb

response 133108

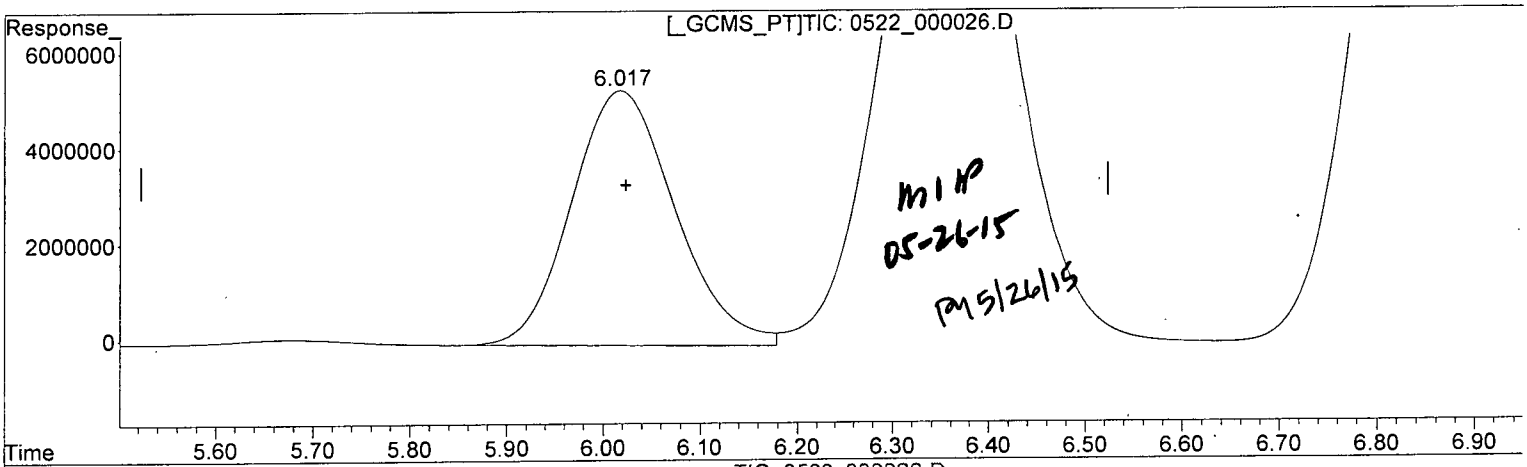
(+) = Expected Retention Time

Quantitation Report (Qedit)

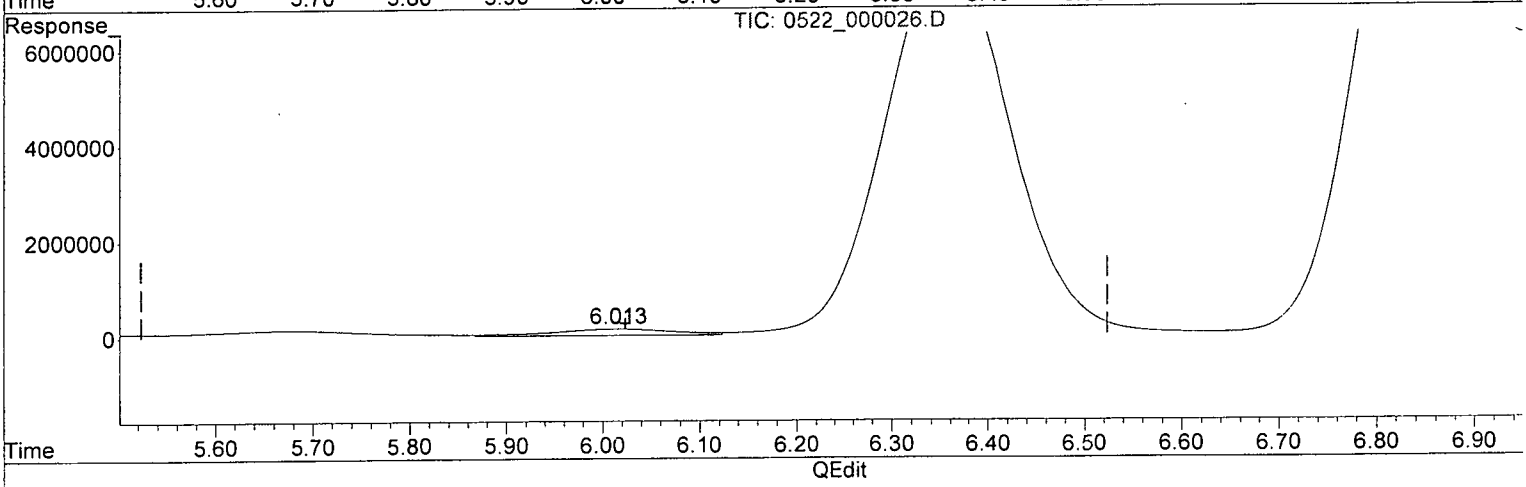
Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 21:37:58
Operator : MP
Sample : 8330_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 8449 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:08:46 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:07:30 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0



MIHP
05-26-15
PM 5/26/15



(8) NITROGLYCERIN (TM)

6.017min 1013.653 ppb m

response 5329290

(8) NITROGLYCERIN #2 (TM)

6.014min 1252.663 ppb

response 133108

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000027.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 22:05:29
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 05/22/51
Misc :
ALS Vial : 8450 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:09:04 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:07:30 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	0.000	0	0	N.D.	N.D.
	Spiked Amount 62.500			Recovery	=	0.00%	0.00%
	Target Compounds						
1)	TM HMX	0.000	0.000	0	0	N.D.	N.D.
2)	TM RDX	0.000	0.000	0	0	N.D.	N.D.
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5)	TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
7)	TM NITROBENZENE	0.000	0.000	0	0	N.D.	N.D.
8)	TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9)	TM TETRYL	6.363	6.363	16063827	9806270	1037.235	1070.957
10)	TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
11)	TM 2-AMINO-4...	0.000	0.000	0	0	N.D. d	N.D. d
12)	TM 4-AMINO-2...	0.000	0.000	0	0	N.D. d	N.D. d
13)	TM 2,4-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
14)	TM 2,6-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15)	TM 2-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
16)	TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
17)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
18)	TM PETN	15.990	0.000	4238463	0	1044.738	N.D. #

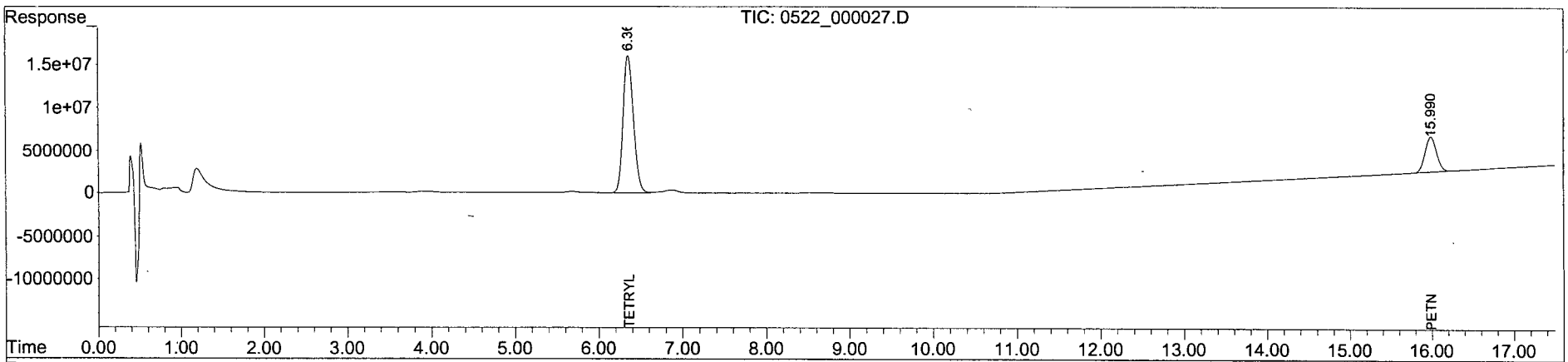
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

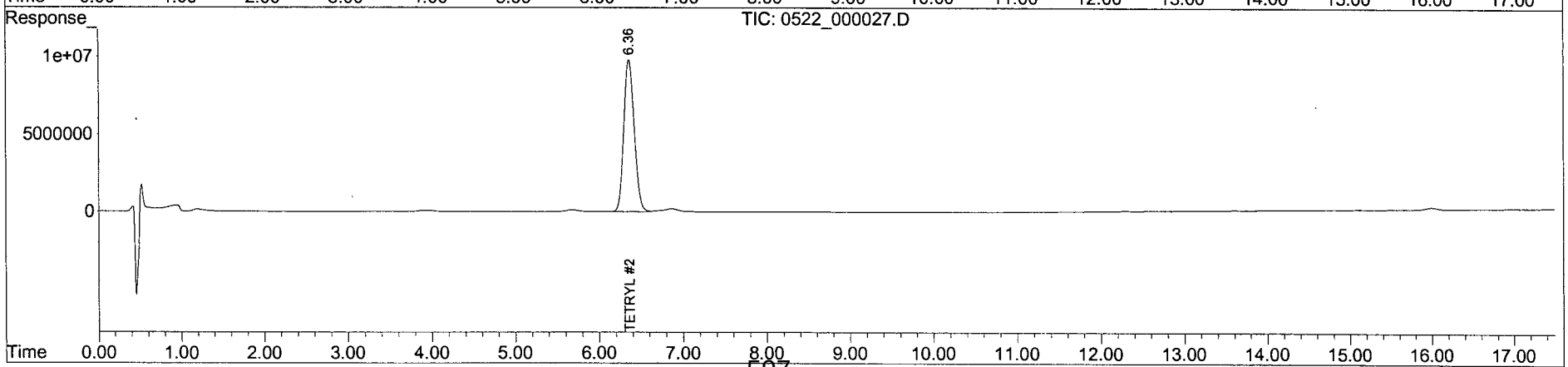
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000027.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 22:05:29
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 05/22/51
Misc :
ALS Vial : 8450 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:09:04 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:07:30 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron





Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 76424
Date Analyzed: 23-May-2015, 01:30:34
Instrument: Waldorf
Initial Cal. Date: 05/22/15
Data File: 0522_000033.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	NITROGLYCERIN	131	130	0.92	TM	
2	TM	PETN	101	106	4.6	TM	
3		Signal #2					
4	TM	HMX	649	644	0.84	TM	
5	TM	RDX	426	425	0.18	TM	
6	TM	1,3,5-TRINITROBENZENE	774	766	1.0	TM	
7	S	1,2-DINITROBENZENE	323	325	0.47	S	
8	TM	1,3-DINITROBENZENE	729	730	0.12	TM	
9	TM	3,5-DINITROANILINE	556	555	0.15	TM	
10	TM	NITROBENZENE	334	332	0.56	TM	
11	TM	TETRYL	229	228	0.20	TM	
12	TM	2,4,6-TRINITROTOLUENE	313	307	1.7	TM	
13	TM	2-AMINO-4,6-DINITROTOLUEN	281	277	1.4	TM	
14	TM	4-AMINO-2,6-DINITROTOLUEN	202	200	1.1	TM	
15	TM	2,4-DINITROTOLUENE	295	296	0.30	TM	
16	TM	2,6-DINITROTOLUENE	163	163	0.01	TM	
17	TM	2-NITROTOLUENE	112	112	0.38	TM	
18	TM	4-NITROTOLUENE	111	111	0.50	TM	
19	TM	3-NITROTOLUENE	132	134	0.85	TM	
20							
21							
22							
23							
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39							
40							

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000033.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 01:30:34
Operator : MP
Sample : 8330_CCV 1.0 PPM 05/22/15
Misc :
ALS Vial : 4423 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:16:57 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.548	0	13000155	N.D.	1004.666	#
	Spiked Amount 62.500			Recovery	=	0.00%	1607.47%	
	Target Compounds							
1)	TM HMX	0.000	0.913	0	25759206	N.D.	991.575	#
2)	TM RDX	0.000	1.729	0	17000506	N.D.	998.165	#
3)	TM 1,3,5-TRI...	0.000	2.822	0	30627796	N.D.	989.604	#
5)	TM 1,3-DINIT...	0.000	3.719	0	29184124	N.D.	1001.213	#
6)	TM 3,5-DINIT...	0.000	3.937	0	22199354	N.D.	998.542	#
7)	TM NITROBENZENE	0.000	5.045	0	13276068	N.D.	994.371	#
8)	TM NITROGLYC...	6.053	6.050	5208959	127634	990.765	NoCal	#
9)	TM TETRYL	6.415	6.415	14986876	9137953	NoCal	997.969	#
10)	TM 2,4,6-TRI...	6.902	6.902	15808899	12299342	NoCal	982.998	#
11)	TM 2-AMINO-4...	7.122	7.121	16632435	11084506	NoCal	985.844	#
12)	TM 4-AMINO-2...	7.466	7.466	14842242	8006806	NoCal	988.983	#
13)	TM 2,4-DINIT...	8.594	8.593	8667615	11843183	NoCal	1002.990	#
14)	TM 2,6-DINIT...	8.955	8.955	8970845	6503631	NoCal	1000.101	#
15)	TM 2-NITROTO...	0.000	12.297	0	4466561	N.D.	996.227	#
16)	TM 4-NITROTO...	0.000	12.893	0	4457032	N.D.	1004.977	#
17)	TM 3-NITROTO...	0.000	13.783	0	5340662	N.D.	1008.514	#
18)	TM PETN	16.038	0.000	4243715	0	1046.033	N.D.	#

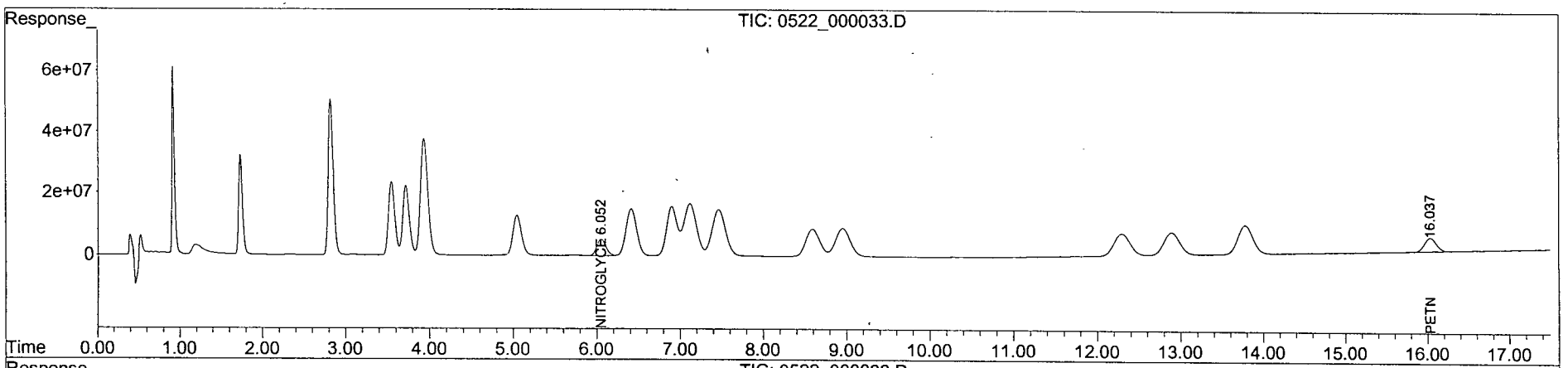
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

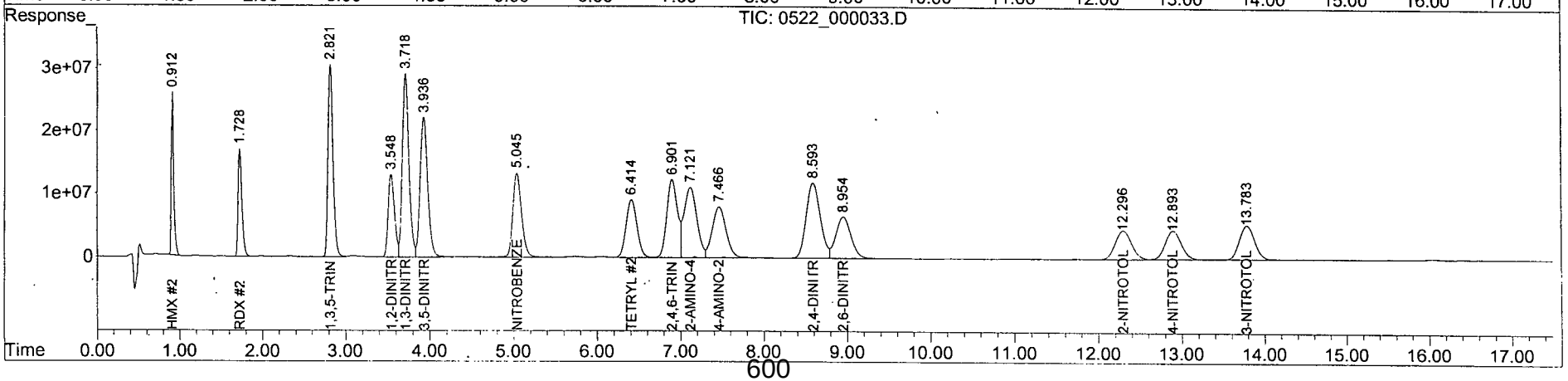
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000033.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 01:30:34
Operator : MP
Sample : 8330_CCV 1.0 PPM 05/22/15
Misc :
ALS Vial : 4423 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:16:57 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron





Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 76424
Date Analyzed: 23-May-2015, 08:13:14
Instrument: Waldorf
Initial Cal. Date: 05/22/15
Data File: 0522_000044.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	NITROGLYCERIN	131	131	0.25	TM	
2	TM	PETN	101	107	5.1	TM	
3		Signal #2					
4	TM	HMX	649	644	0.81	TM	
5	TM	RDX	426	425	0.26	TM	
6	TM	1,3,5-TRINITROBENZENE	774	768	0.78	TM	
7	S	1,2-DINITROBENZENE	323	326	0.72	S	
8	TM	1,3-DINITROBENZENE	729	730	0.19	TM	
9	TM	3,5-DINITROANILINE	556	555	0.22	TM	
10	TM	NITROBENZENE	334	327	2.0	TM	
11	TM	TETRYL	229	230	0.49	TM	
12	TM	2,4,6-TRINITROTOLUENE	313	309	1.1	TM	
13	TM	2-AMINO-4,6-DINITROTOLUEN	281	278	1.0	TM	
14	TM	4-AMINO-2,6-DINITROTOLUEN	202	201	0.66	TM	
15	TM	2,4-DINITROTOLUENE	295	297	0.60	TM	
16	TM	2,6-DINITROTOLUENE	163	163	0.32	TM	
17	TM	2-NITROTOLUENE	112	110	2.2	TM	
18	TM	4-NITROTOLUENE	111	110	0.46	TM	
19	TM	3-NITROTOLUENE	132	132	0.46	TM	
20							
21							
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Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000044.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 08:13:14
Operator : MP
Sample : 8330_CCV 1.0 PPM 05/22/15
Misc :
ALS Vial : 4423 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:22 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.551	0	13033262	N.D.	1007.224	#
	Spiked Amount 62.500			Recovery	=	0.00%	1611.56%	
	Target Compounds							
1)	TM HMX	0.000	0.913	0	25766714	N.D.	991.864	#
2)	TM RDX	0.000	1.731	0	16987352	N.D.	997.393	#
3)	TM 1,3,5-TRI...	0.000	2.824	0	30707028	N.D.	992.164	#
5)	TM 1,3-DINIT...	0.000	3.721	0	29203547	N.D.	1001.879	#
6)	TM 3,5-DINIT...	0.000	3.940	0	22182417	N.D.	997.781	#
7)	TM NITROBENZENE	0.000	5.048	0	13078148	N.D.	979.547	#
8)	TM NITROGLYC...	6.054	6.051	5244498	110802	997.525	NoCal	#
9)	TM TETRYL	6.418	6.418	15123905	9201676	NoCal	1004.929	#
10)	TM 2,4,6-TRI...	6.901	6.901	15976632	12376178	NoCal	989.139	#
11)	TM 2-AMINO-4...	7.121	7.121	16781376	11131401	NoCal	990.015	#
12)	TM 4-AMINO-2...	7.465	7.465	14971759	8042355	NoCal	993.374	#
13)	TM 2,4-DINIT...	8.589	8.589	8718482	11878656	NoCal	1005.994	#
14)	TM 2,6-DINIT...	8.950	8.950	8997170	6524085	NoCal	1003.246	#
15)	TM 2-NITROTO...	0.000	12.291	0	4383143	N.D.	977.622	#
16)	TM 4-NITROTO...	0.000	12.888	0	4414548	N.D.	995.397	#
17)	TM 3-NITROTO...	0.000	13.778	0	5271169	N.D.	995.392	#
18)	TM PETN	16.034	0.000	4263867	0	1051.000	N.D.	#

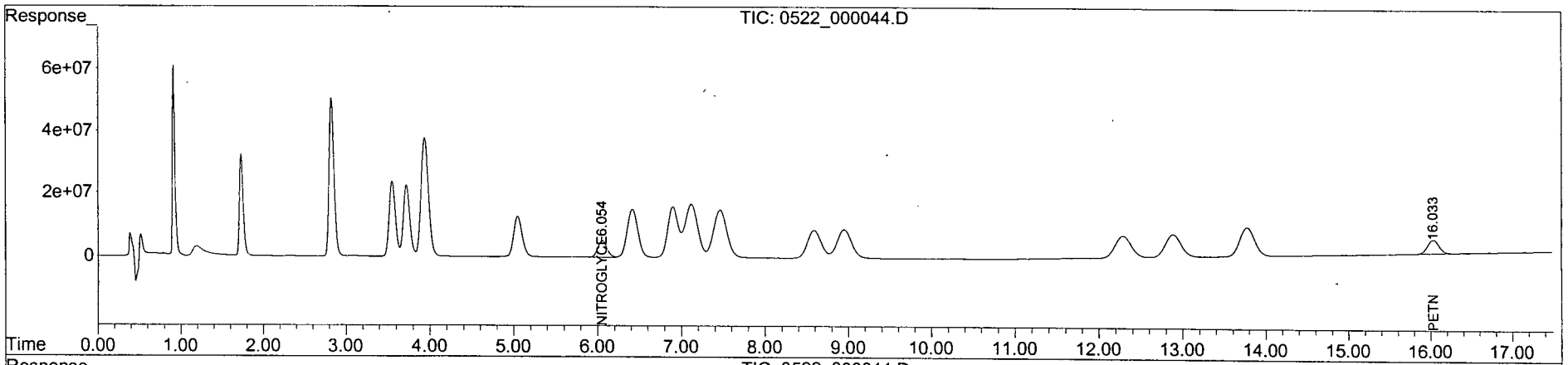
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

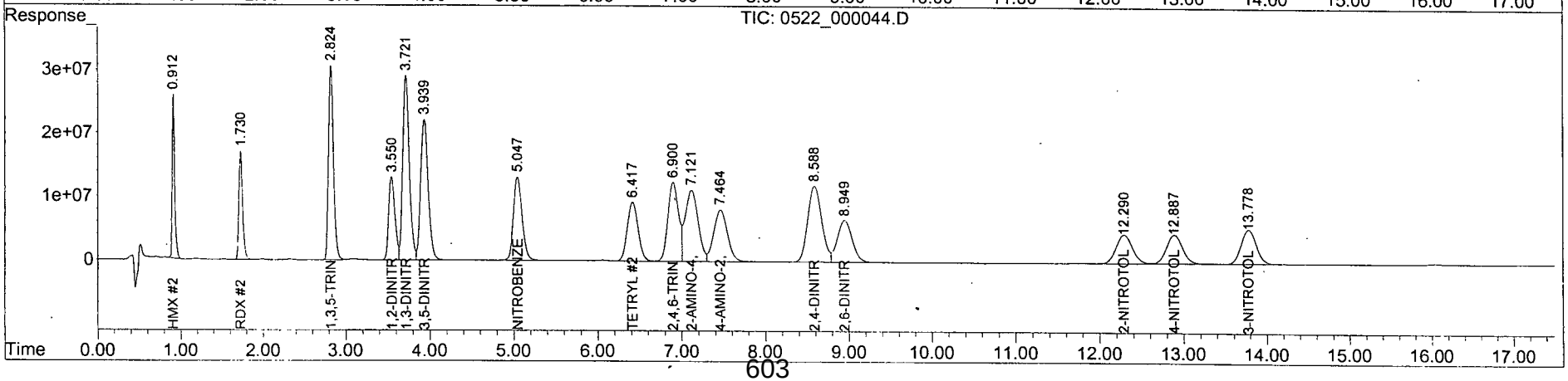
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000044.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 08:13:14
Operator : MP
Sample : 8330_CCV 1.0 PPM 05/22/15
Misc :
ALS Vial : 4423 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:22 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron





Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 76424
Date Analyzed: 23-May-2015, 17:25:54
Instrument: Waldorf
Initial Cal. Date: 05/22/15
Data File: 0522_000059.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	NITROGLYCERIN	131	129	2.0	TM	
2	TM	PETN	101	105	3.6	TM	
3		Signal #2					
4	TM	HMX	649	648	0.20	TM	
5	TM	RDX	426	424	0.51	TM	
6	TM	1,3,5-TRINITROBENZENE	774	762	1.5	TM	
7	S	1,2-DINITROBENZENE	323	324	0.04	S	
8	TM	1,3-DINITROBENZENE	729	723	0.72	TM	
9	TM	3,5-DINITROANILINE	556	550	0.97	TM	
10	TM	NITROBENZENE	334	315	5.5	TM	
11	TM	TETRYL	229	224	2.1	TM	
12	TM	2,4,6-TRINITROTOLUENE	313	305	2.4	TM	
13	TM	2-AMINO-4,6-DINITROTOLUEN	281	277	1.4	TM	
14	TM	4-AMINO-2,6-DINITROTOLUEN	202	199	1.8	TM	
15	TM	2,4-DINITROTOLUENE	295	292	1.0	TM	
16	TM	2,6-DINITROTOLUENE	163	160	1.3	TM	
17	TM	2-NITROTOLUENE	112	104	7.4	TM	
18	TM	4-NITROTOLUENE	111	106	4.2	TM	
19	TM	3-NITROTOLUENE	132	126	4.6	TM	
20							
21							
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40							

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000059.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 17:25:54
Operator : MP
Sample : 8330_CCV 1.0 PPM 05/22/15
Misc :
ALS Vial : 4423 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 24 12:50:44 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.533	0	12945069	N.D.	1000.409	#
	Spiked Amount 62.500			Recovery	=	0.00%	1600.65%	
	Target Compounds							
1)	TM HMX	0.000	0.907	0	25927371	N.D.	998.049	#
2)	TM RDX	0.000	1.721	0	16944784	N.D.	994.893	#
3)	TM 1,3,5-TRI...	0.000	2.814	0	30478139	N.D.	984.768	#
5)	TM 1,3-DINIT...	0.000	3.706	0	28937562	N.D.	992.754	#
6)	TM 3,5-DINIT...	0.000	3.915	0	22016827	N.D.	990.332	#
7)	TM NITROBENZENE	0.000	5.029	0	12613342	N.D.	944.733	#
8)	TM NITROGLYC...	6.040	0.000	5153242	0	980.168	N.D.	d#
9)	TM TETRYL	6.386	6.385	14745789	8968494	NoCal	979.462	#
10)	TM 2,4,6-TRI...	6.880	6.880	15758872	12212506	NoCal	976.058	#
11)	TM 2-AMINO-4...	7.078	7.078	16626480	11087756	NoCal	986.133	#
12)	TM 4-AMINO-2...	7.423	7.423	14701202	7947388	NoCal	981.644	#
13)	TM 2,4-DINIT...	8.560	8.560	8601896	11688477	NoCal	989.888	#
14)	TM 2,6-DINIT...	8.919	8.919	8886920	6418681	NoCal	987.038	#
15)	TM 2-NITROTO...	0.000	12.260	0	4151380	N.D.	925.929	#
16)	TM 4-NITROTO...	0.000	12.857	0	4249833	N.D.	958.257	#
17)	TM 3-NITROTO...	0.000	13.748	0	5051798	N.D.	953.966	#
18)	TM PETN	16.028	0.000	4204550	0	1036.379	N.D.	#

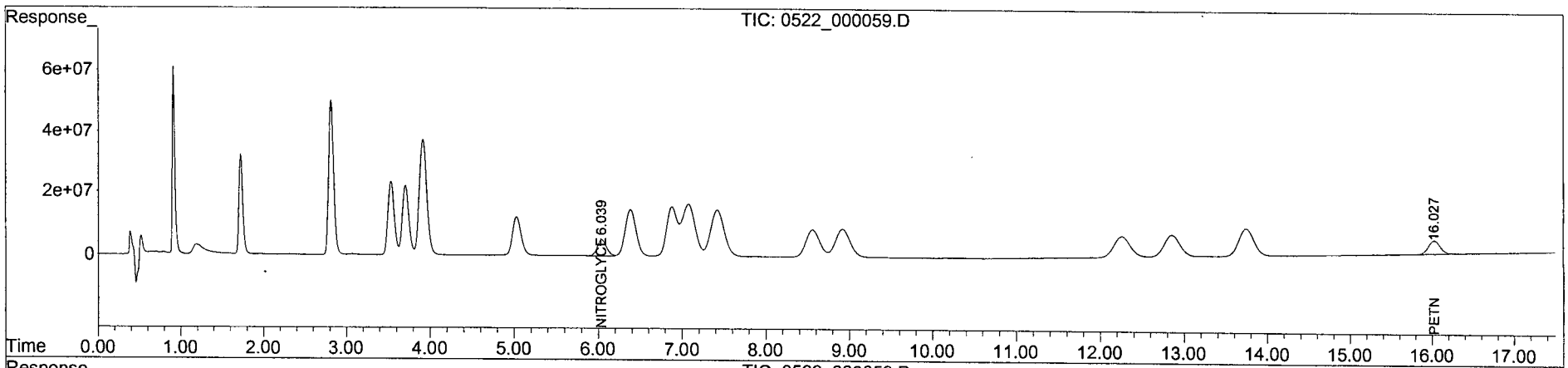
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

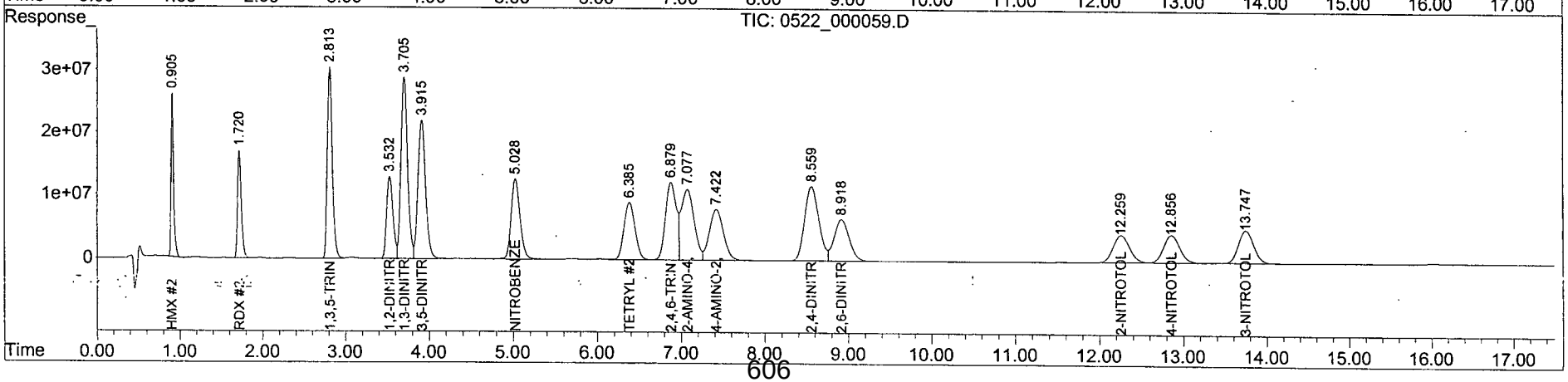
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000059.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 17:25:54
Operator : MP
Sample : 8330_CCV 1.0 PPM 05/22/15
Misc :
ALS Vial : 4423 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 24 12:50:44 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron





Initial Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 76424
Initial Cal. Date: 05/22/15
Instrument: Statler

Initials: MP

0522_000010.D 0522_000012.D 0522_000014.D 0522_000016.D 0522_000018.D 0522_000020.D 0522_000022.D 0522_000024.D 0522_000026.D

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	
####	TM	NITROGLYCERIN		20.8	18.0	18.1	17.8	18.4	18.4	18.3	18.5		18.55	5.0	TM
####	TM	PETN			17.5	15.7	17.4	18.9	19.1	19.0	19.3		18.15	7.2	TM
####		Signal #2													
####	TM	HMX #2	40.3	42.0	46.4	46.8	46.8	48.8	48.8	47.9	48.6		46.27	6.7	TM
####	TM	RDX #2	38.4	40.4	38.6	40.0	39.6	40.9	40.3	39.6	40.1		39.77	2.1	TM
####	TM	1,3,5-TRINITROBENZENE #2	98.9	96.4	98.4	97.8	95.8	98.9	98.3	97.4	99.2		97.91	1.2	TM
####	S	1,2-DINITROBENZENE #2	46.4	43.2	44.9	43.7	42.6	46.2	44.0	43.3	44.3		44.29	2.9	S
####	TM	1,3-DINITROBENZENE #2	86.5	96.4	98.9	96.6	95.6	101	97.8	97.0	99.5		96.56	4.3	TM
####	TM	NITROBENZENE #2	57.2	50.2	53.4	53.1	55.0	56.0	54.7	53.7	54.7		54.22	3.7	TM
####	TM	2,4,6-TRINITROTOLUENE #2		48.9	50.9	49.7	49.6	51.4	50.2	49.8	51.2		50.21	1.8	TM
####	TM	TETRYL #2		35.9	39.1	36.0	36.2	36.4	36.1	36.4	36.3		36.56	2.8	TM
####	TM	2,6-DINITROTOLUENE #2	31.2	26.8	30.6	29.7	29.7	30.8	29.9	30.3	31.0		30.00	4.4	TM
####	TM	2,4-DINITROTOLUENE #2	47.8	51.9	51.1	51.9	51.6	53.3	52.0	52.3	53.5		51.72	3.2	TM
####	TM	2-NITROTOLUENE #2		21.5	21.4	20.6	21.0	21.5	20.8	21.0	21.4		21.16	1.5	TM
####	TM	4-NITROTOLUENE #2			16.3	18.1	18.6	18.9	18.4	18.5	18.9		18.26	4.9	TM
####	TM	3,5-DINITROANILINE #2	37.6	43.2	41.6	41.2	41.3	42.3	42.1	41.3	41.4		41.34	3.7	TM
####	TM	3-NITROTOLUENE #2		22.8	23.9	24.0	23.1	22.9	22.2	22.0	22.4		22.92	3.3	TM
####	TM	4-AMINO-2,6-DINITROTOLUENE #2		33.3	38.0	35.5	34.3	34.1	32.9	32.4	32.8		34.16	5.4	TM
####	TM	2-AMINO-4,6-DINITROTOLUENE #2		38.8	45.9	44.8	43.1	44.3	42.6	42.0	42.4		42.99	5.0	TM
####															
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Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:11:18 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	8.113	0	9274	N.D.	4.396m#
	Spiked Amount 62.500			Recovery	=	0.00%	7.03%
	Target Compounds						
1)	TM HMX	0.000	4.080	0	8051	N.D.	3.829m#
2)	TM RDX	0.000	6.415	0	7675	N.D.	4.144m#
3)	TM 1,3,5-TRI...	0.000	6.754	0	19781	N.D.	4.426m#
5)	TM 1,3-DINIT...	0.000	8.432	0	17298	N.D.	3.846m#
6)	TM NITROBENZENE	0.000	9.166	0	11437	N.D.	4.465m#
7)	TM 2,4,6-TRI...	0.000	11.443	0	7160	N.D.	2.820 #
8)	TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9)	TM TETRYL	11.981	12.005	7668	6007	NoCal	3.647 #
10)	TM 2,6-DINIT...	0.000	13.440	0	6231	N.D.	4.218m#
11)	TM 2,4-DINIT...	0.000	14.078	0	9567	N.D.	3.797m#
12)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13)	TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
14)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16)	TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17)	TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.

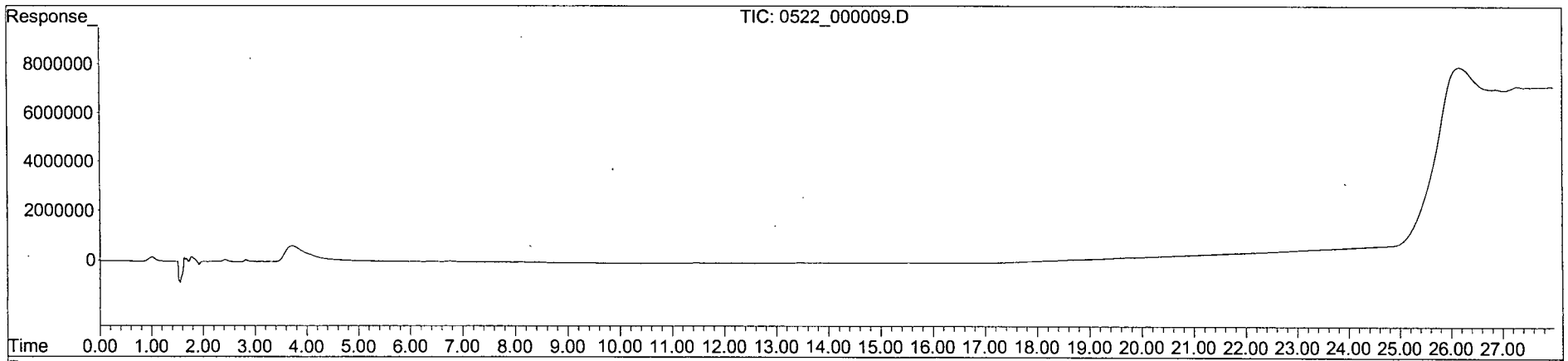
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

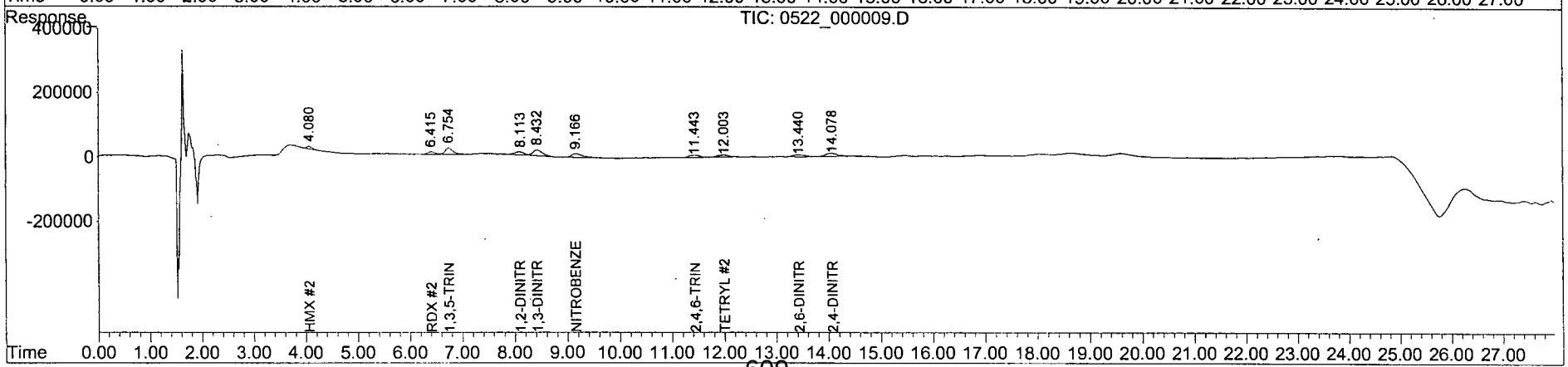
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:11:18 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



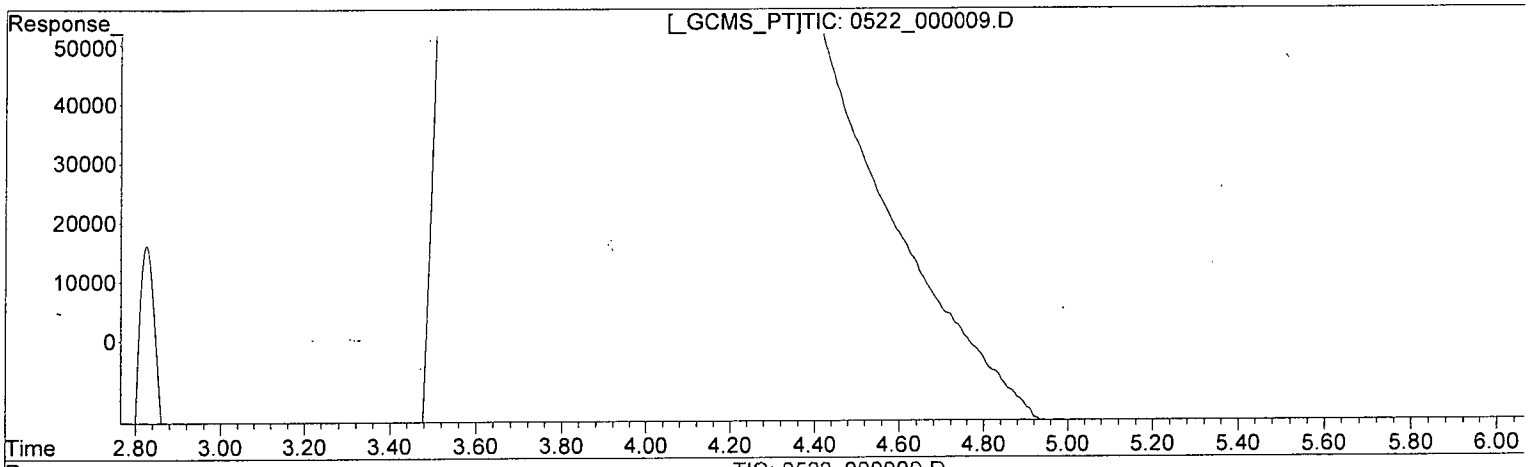


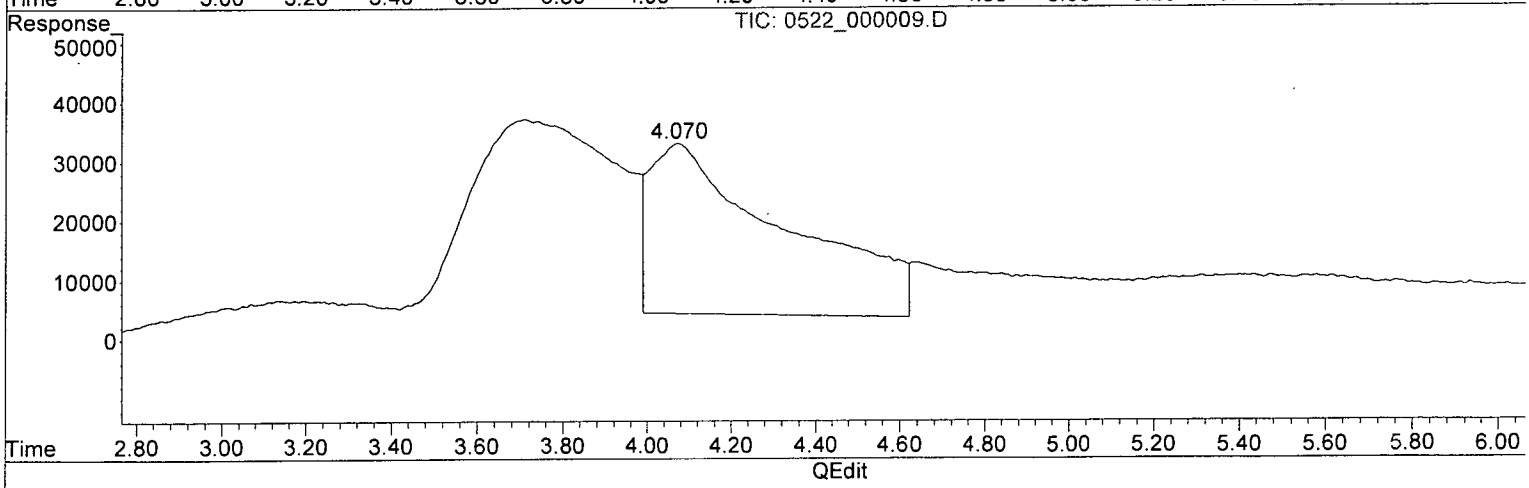
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.074min 13.606 ppb

response 28611

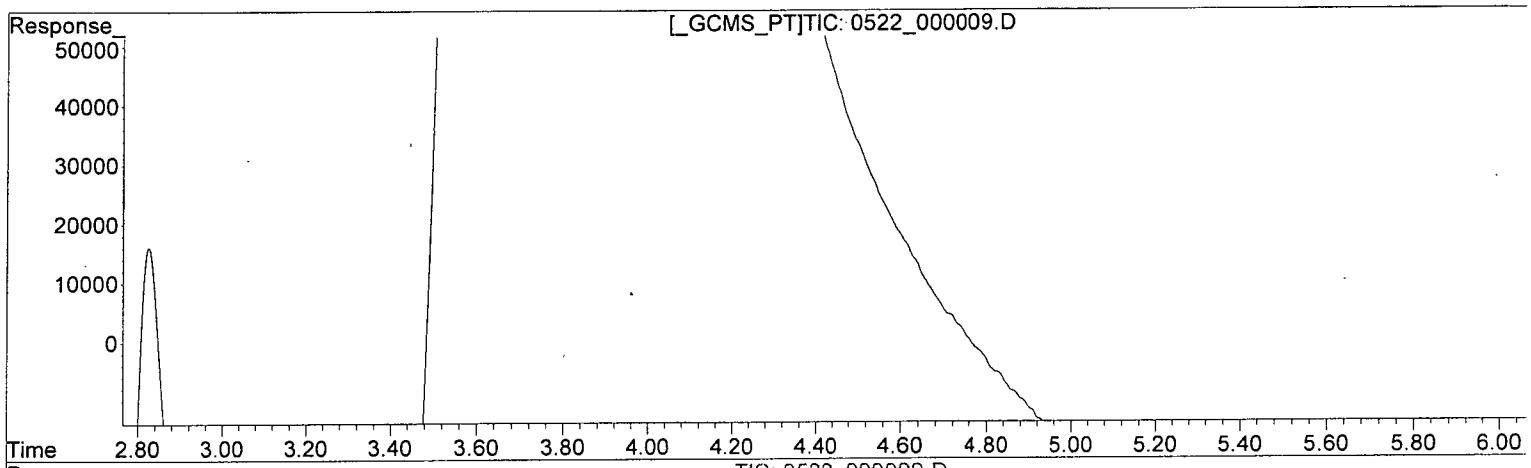
(+) = Expected Retention Time

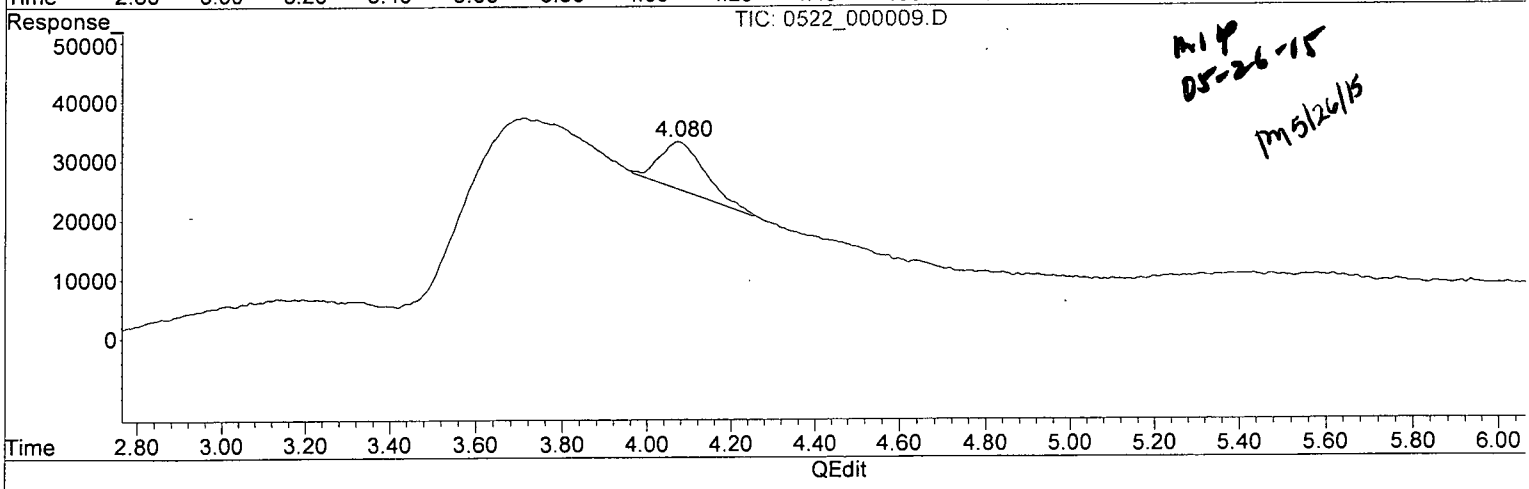
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MLP
05-26-15
pm 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.080min 3.829 ppb m

response 8051

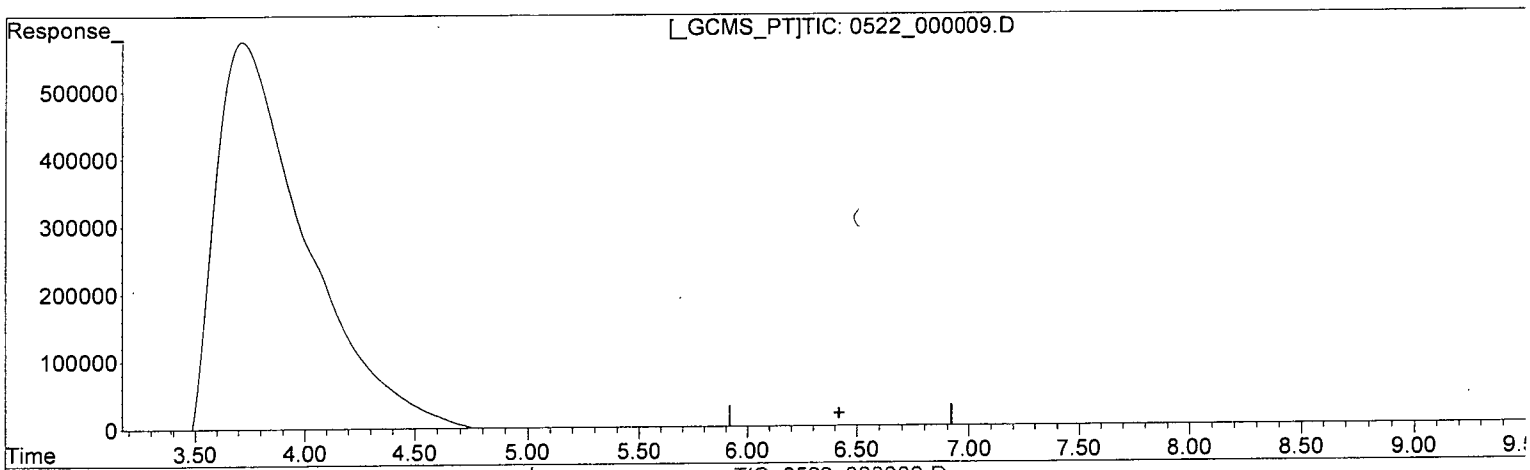
(+) = Expected Retention Time

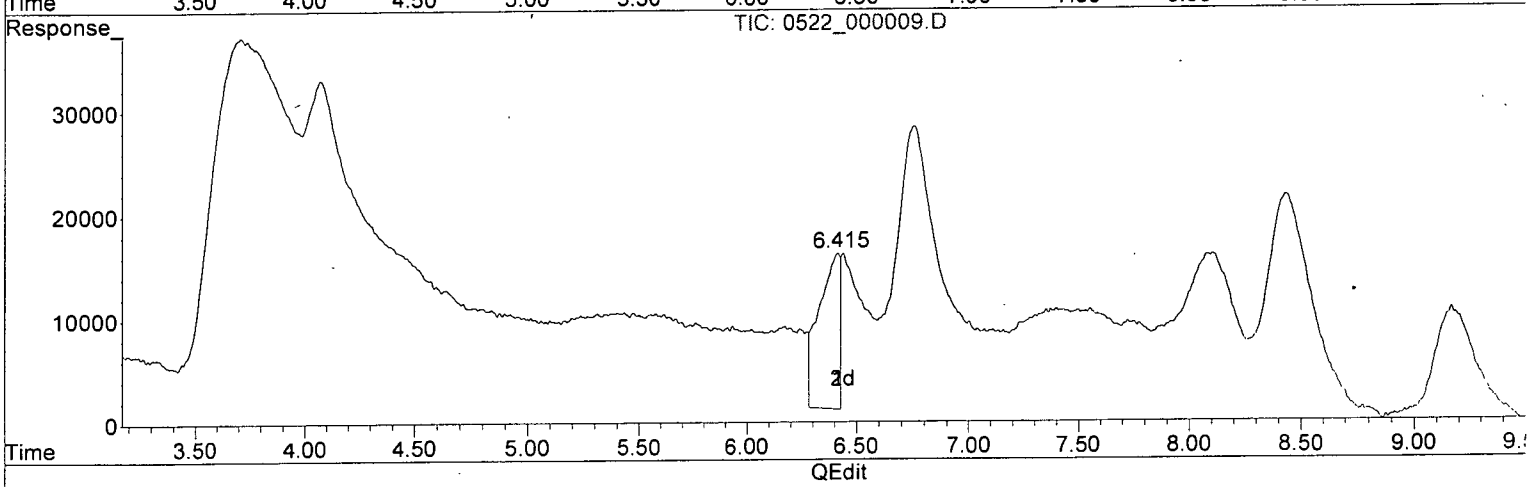
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.415min 8.101 ppb

response 15004

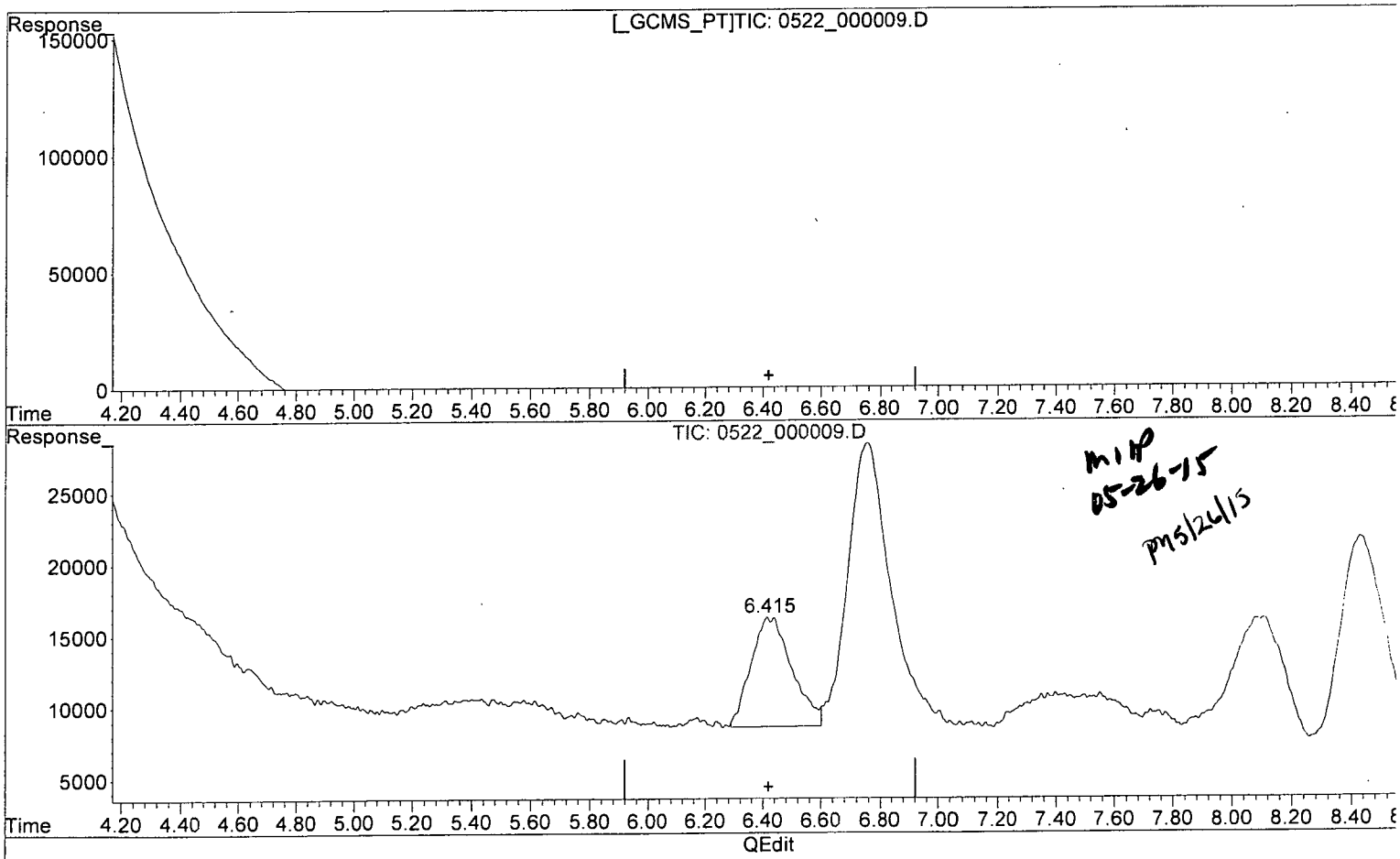
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



MIP 05-26-15
PMS/26/15

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.415min 4.144 ppb m

response 7675

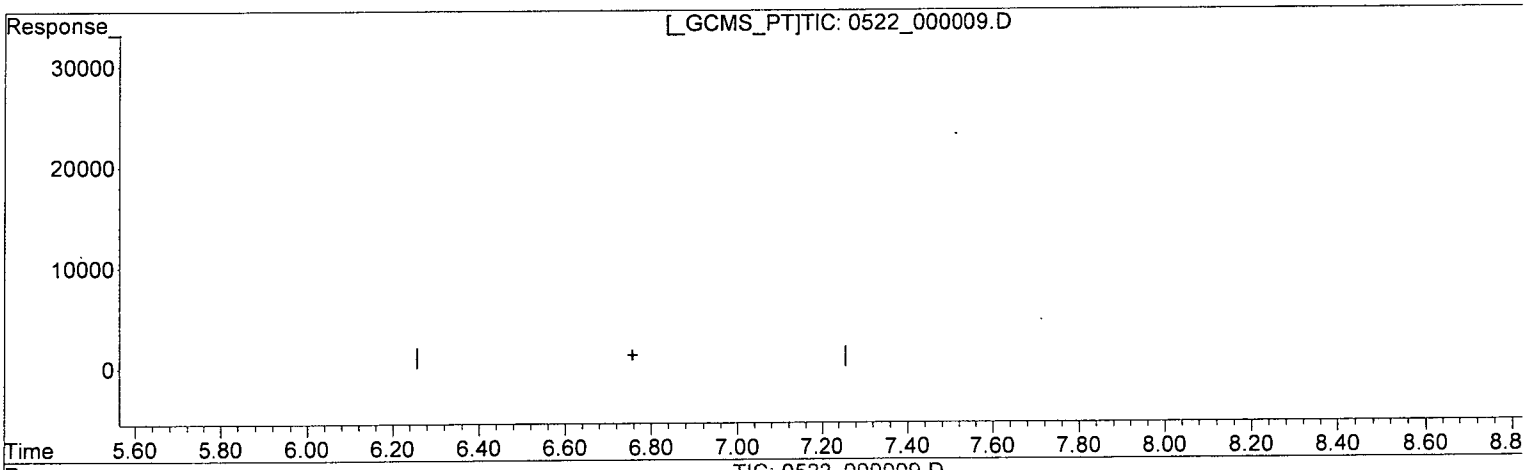
(+) = Expected Retention Time

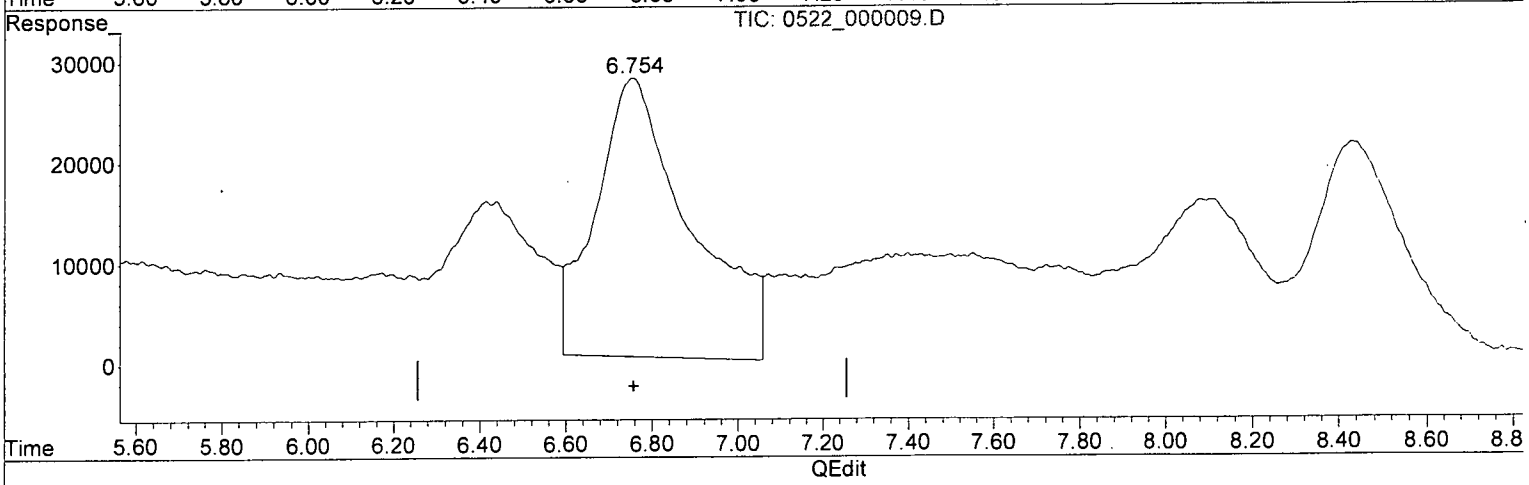
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.756min 6.174 ppb

response 27597

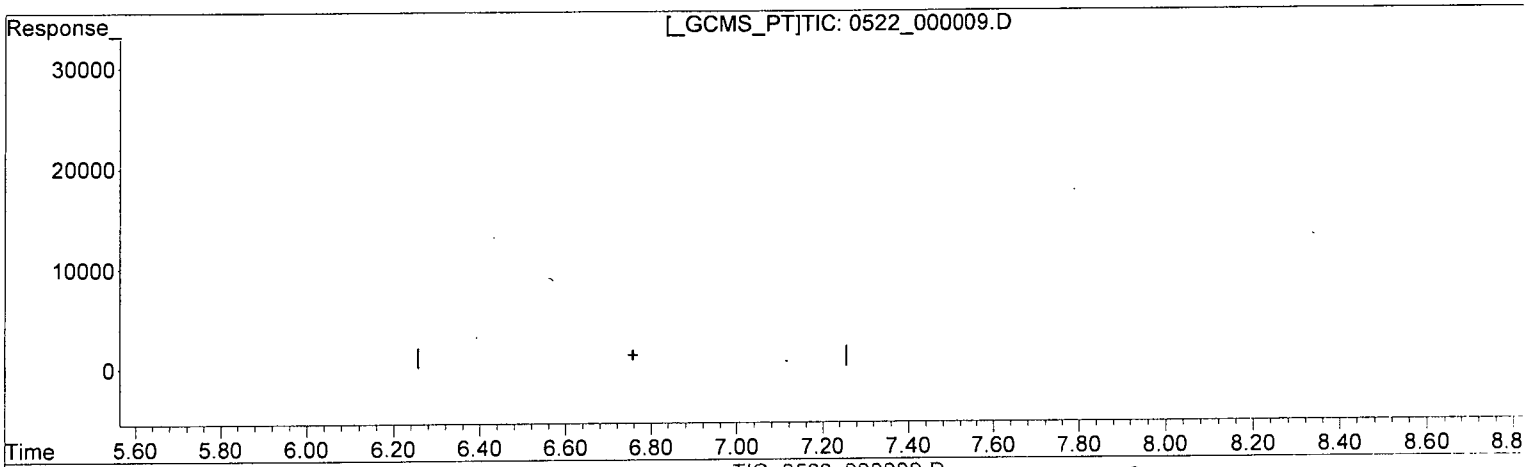
(+) = Expected Retention Time

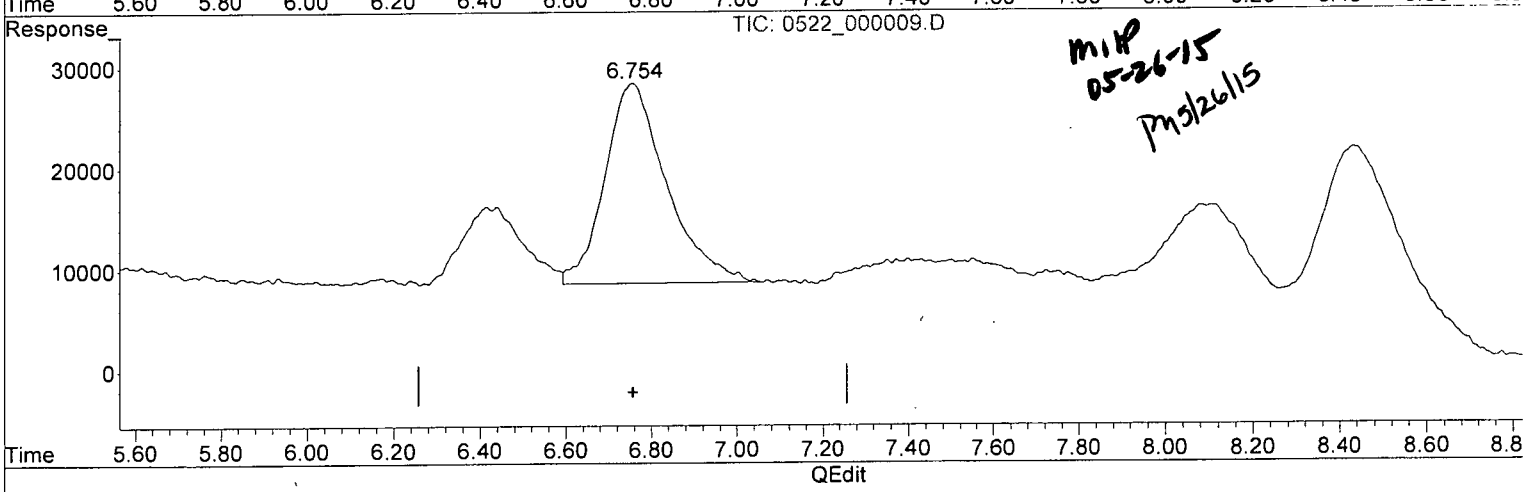
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





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(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.754min 4.426 ppb m

response 19781

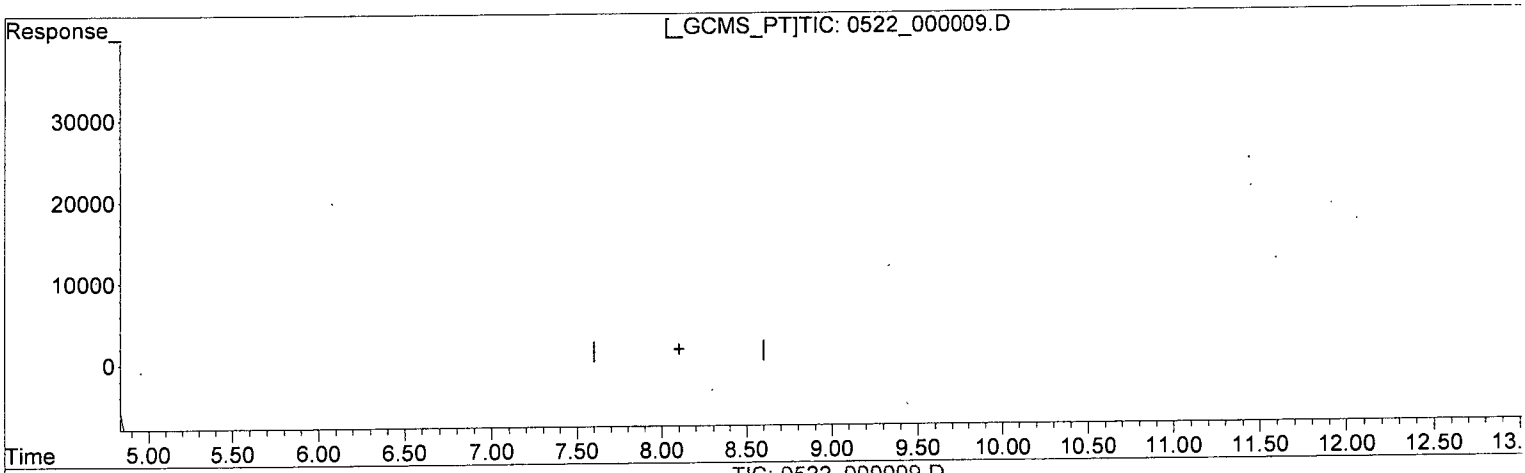
(+) = Expected Retention Time

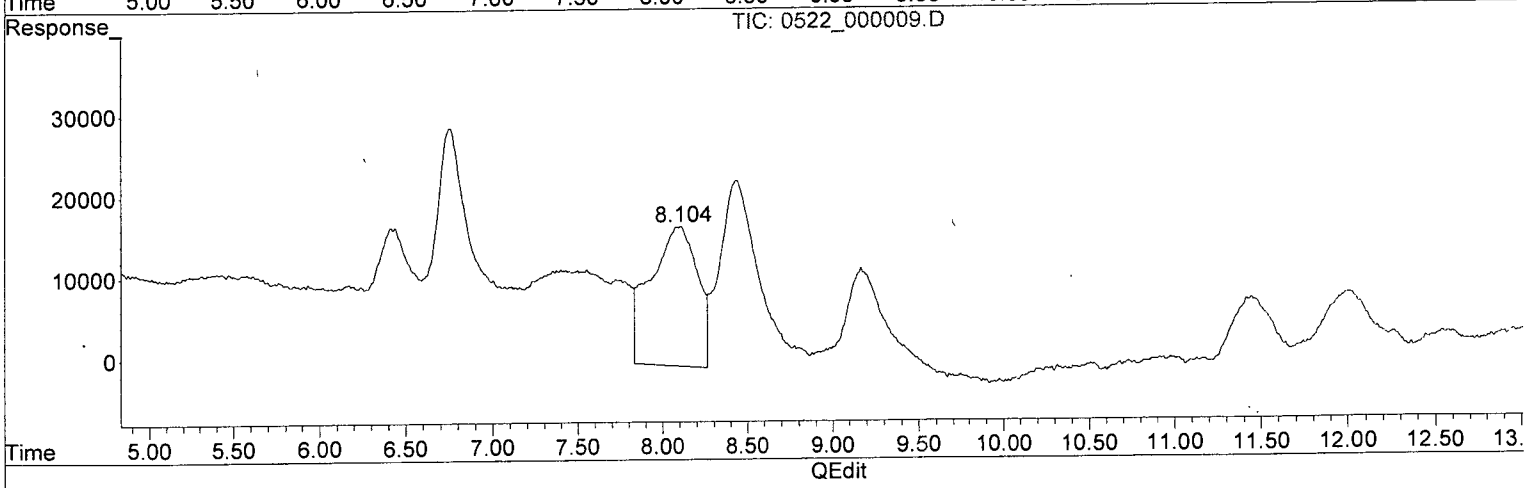
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.106min 8.094 ppb

response 17077

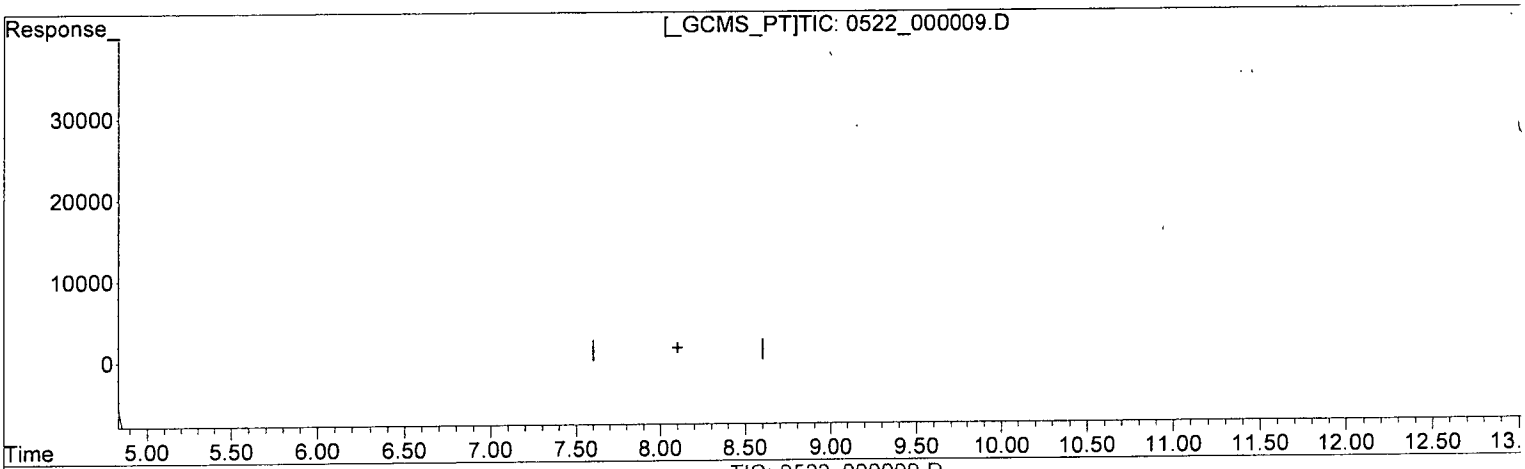
(+) = Expected Retention Time

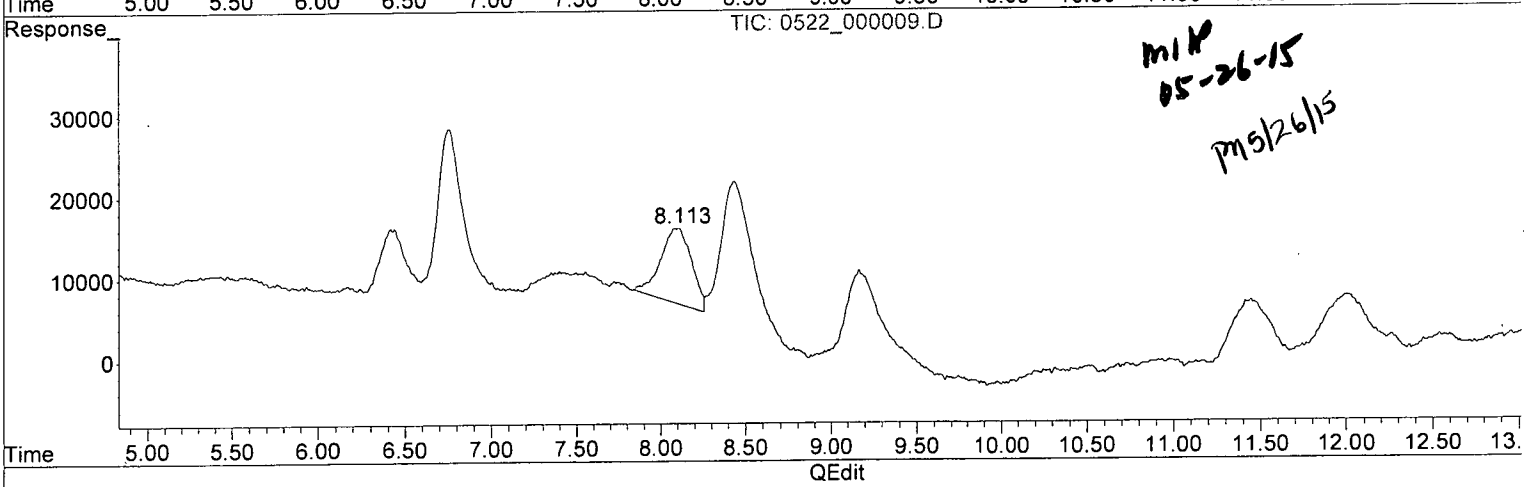
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





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(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.113min 4.396 ppb m

response 9274

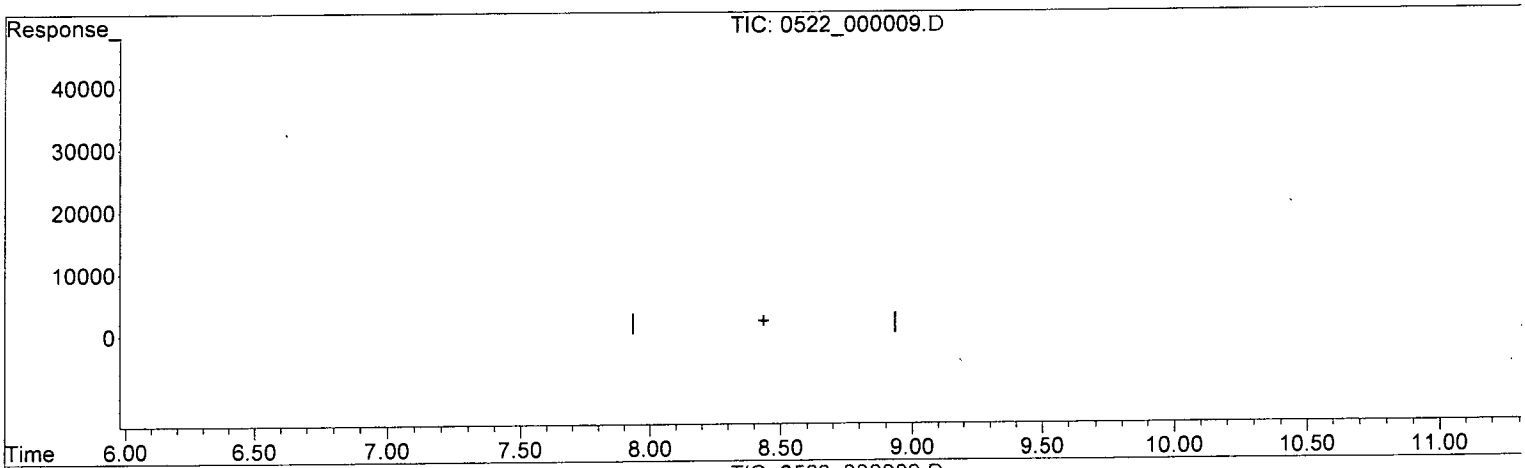
(+) = Expected Retention Time

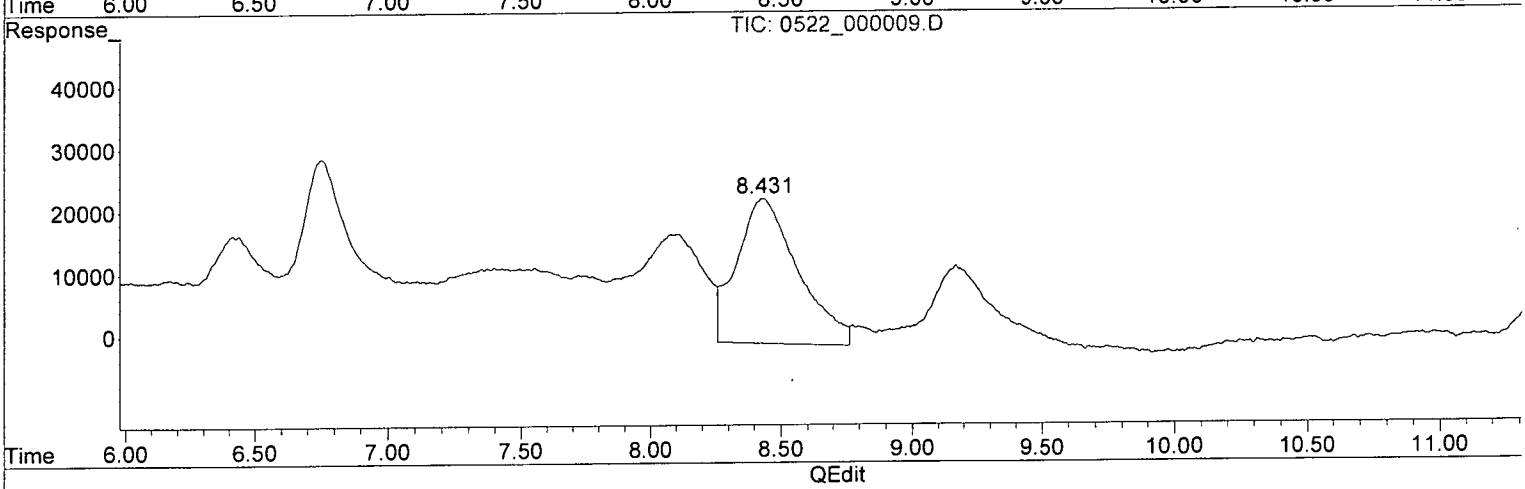
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.434min 5.153 ppb

response 23173

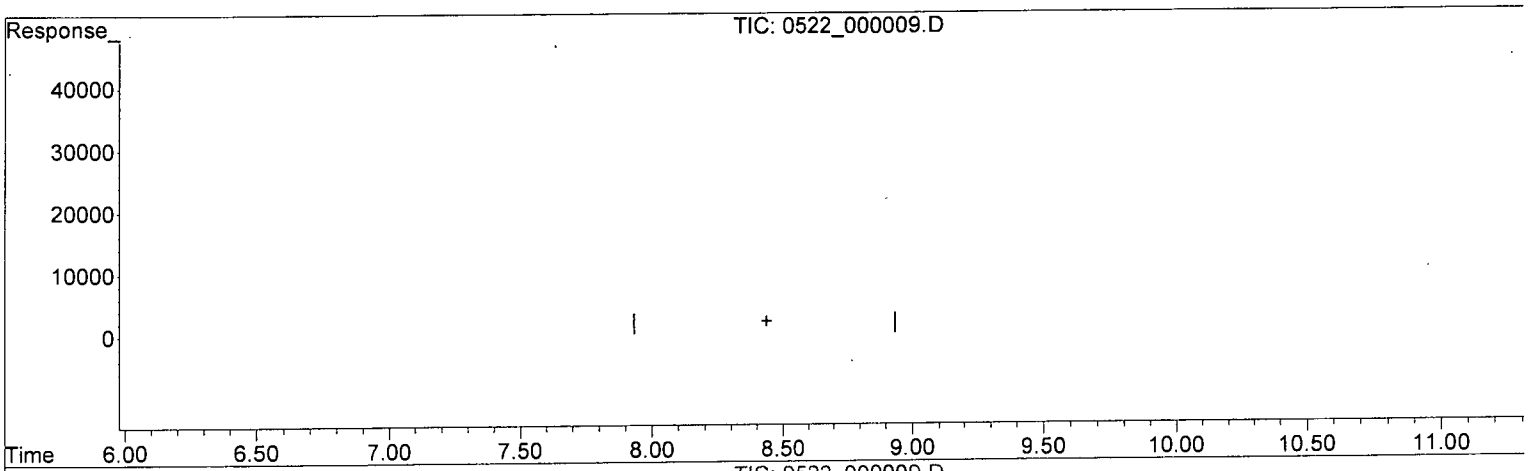
(+) = Expected Retention Time

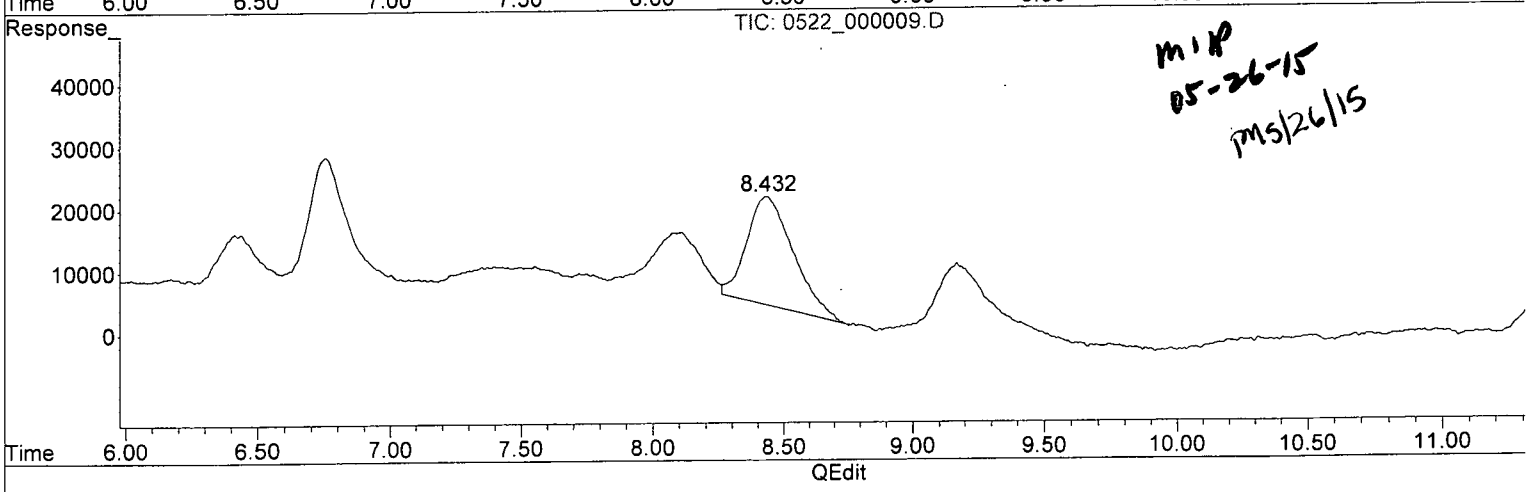
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





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(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.432min 3.846 ppb m

response 17298

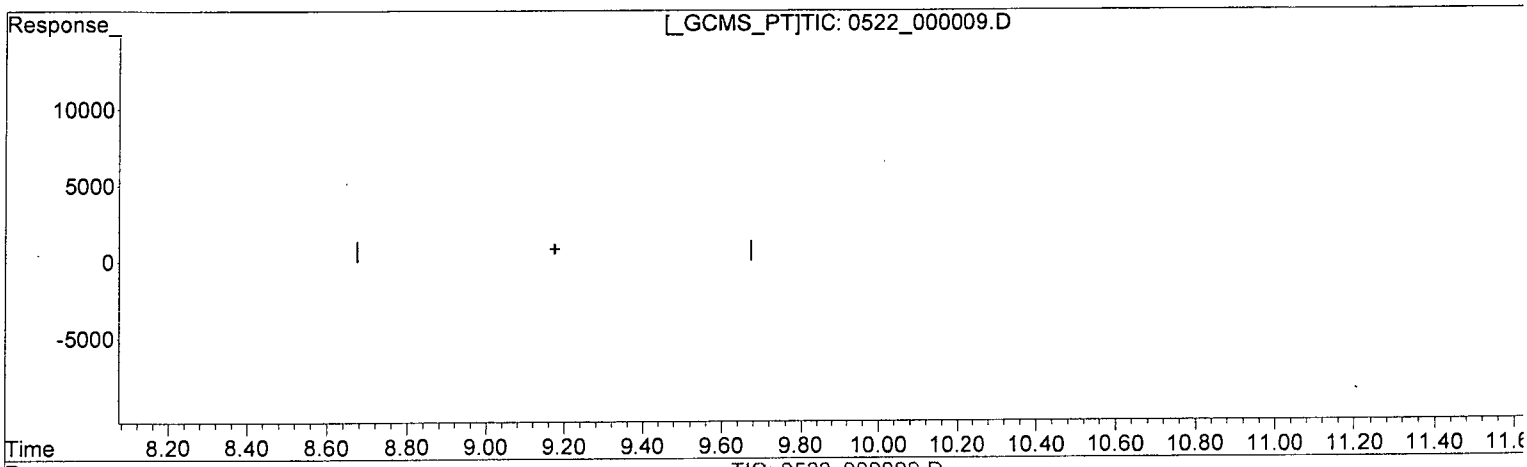
(+) = Expected Retention Time

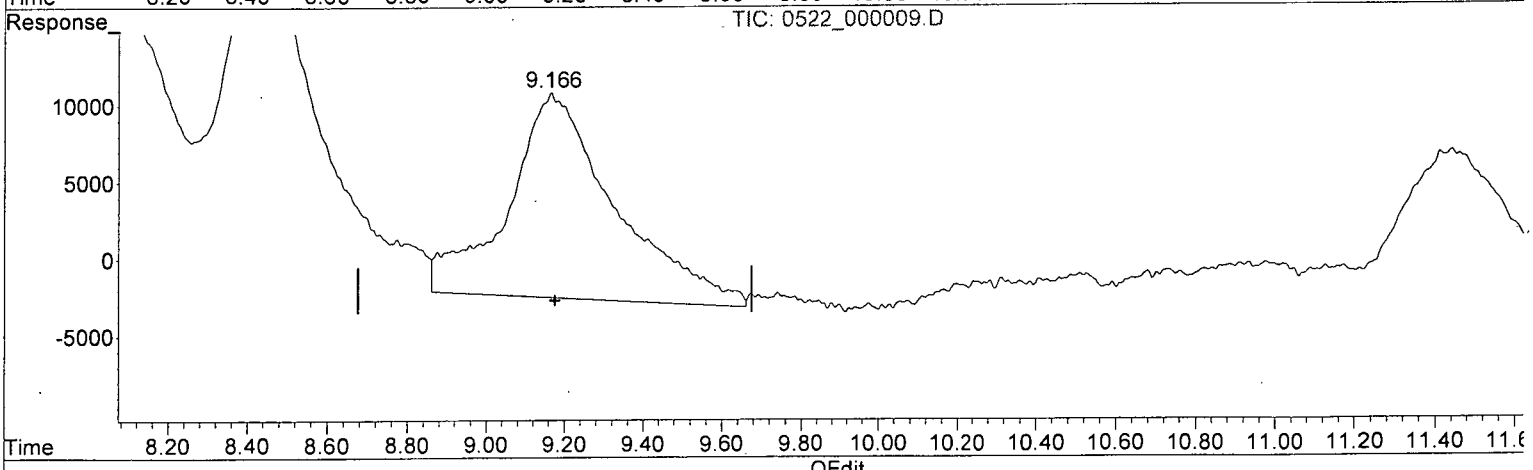
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.167min 5.196 ppb

response 13311

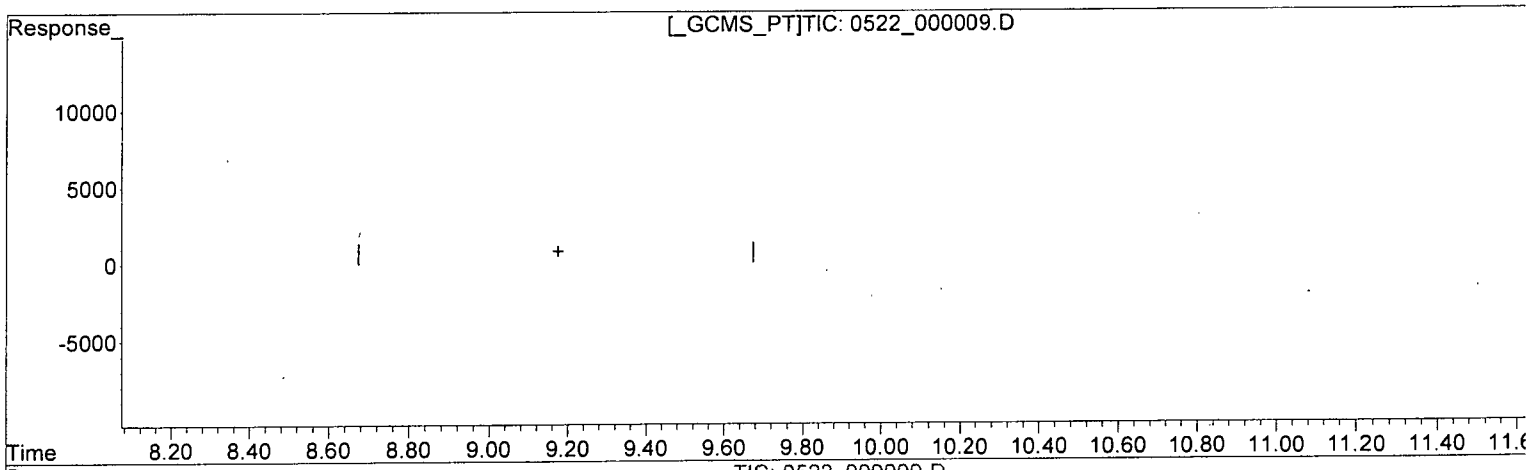
(+) = Expected Retention Time

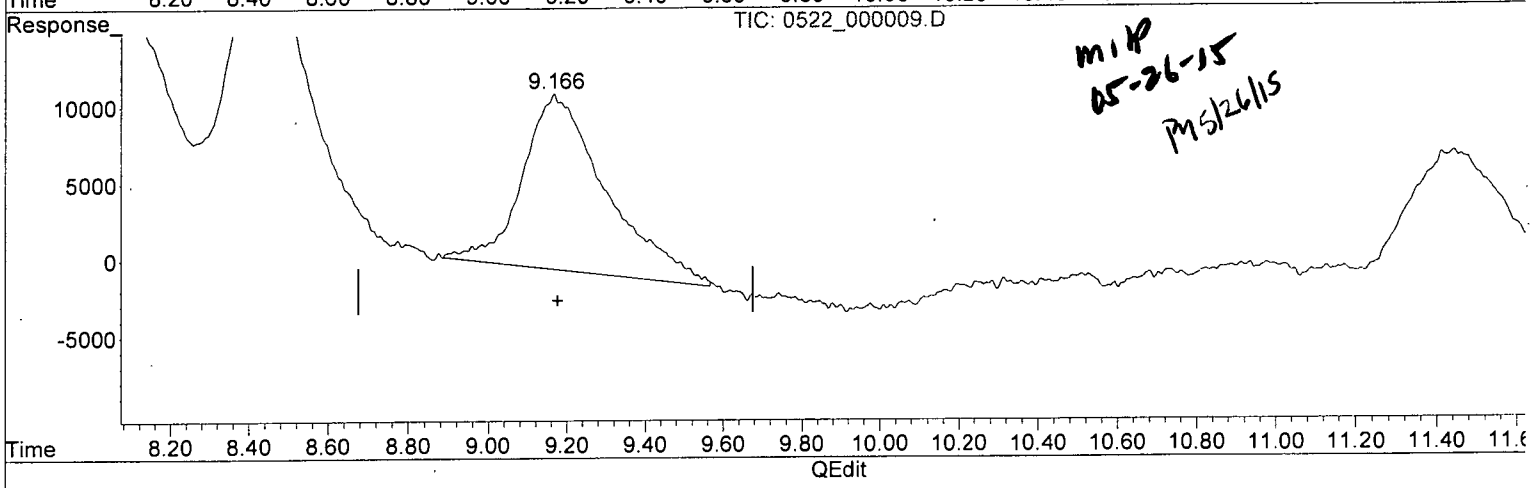
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





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(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.166min 4.465 ppb m

response 11437

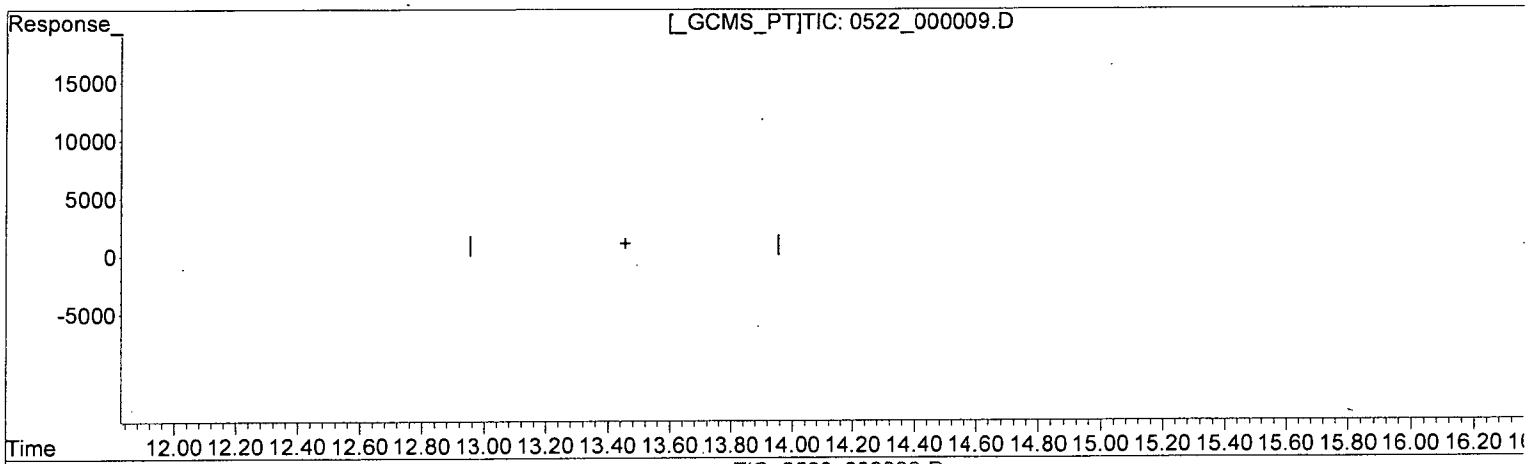
(+) = Expected Retention Time

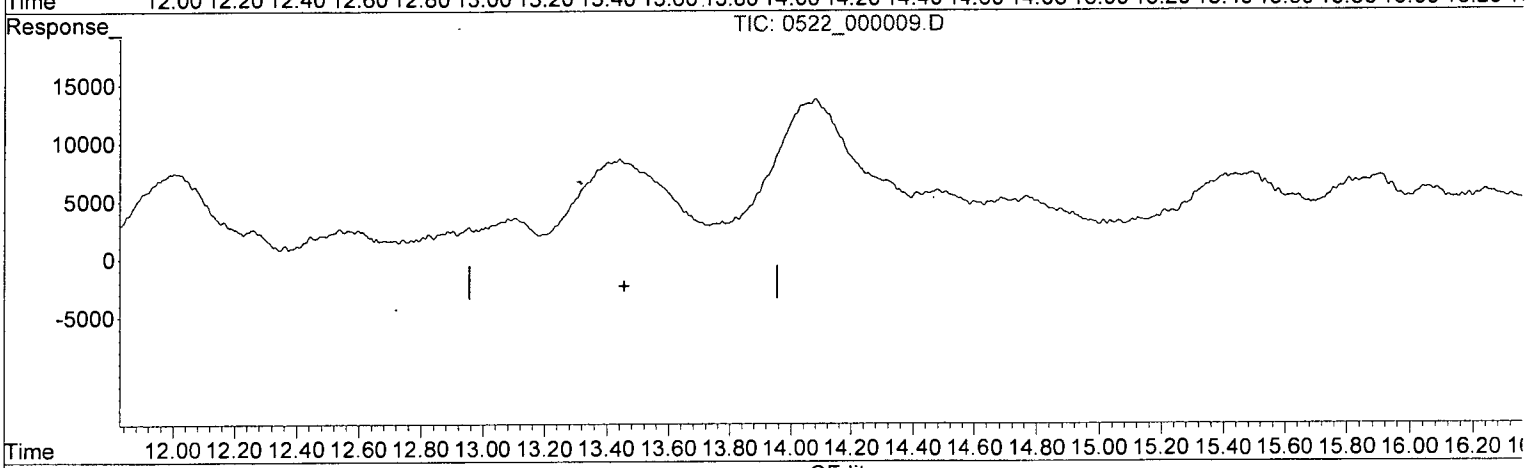
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(10) 2,6-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(10) 2,6-DINITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

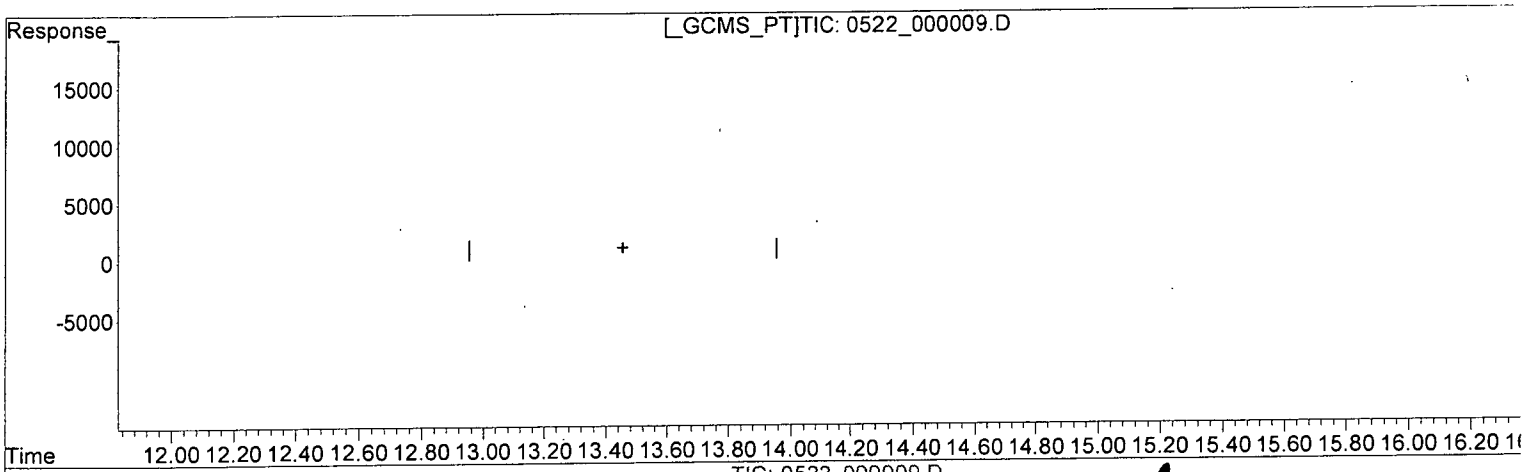
(+) = Expected Retention Time

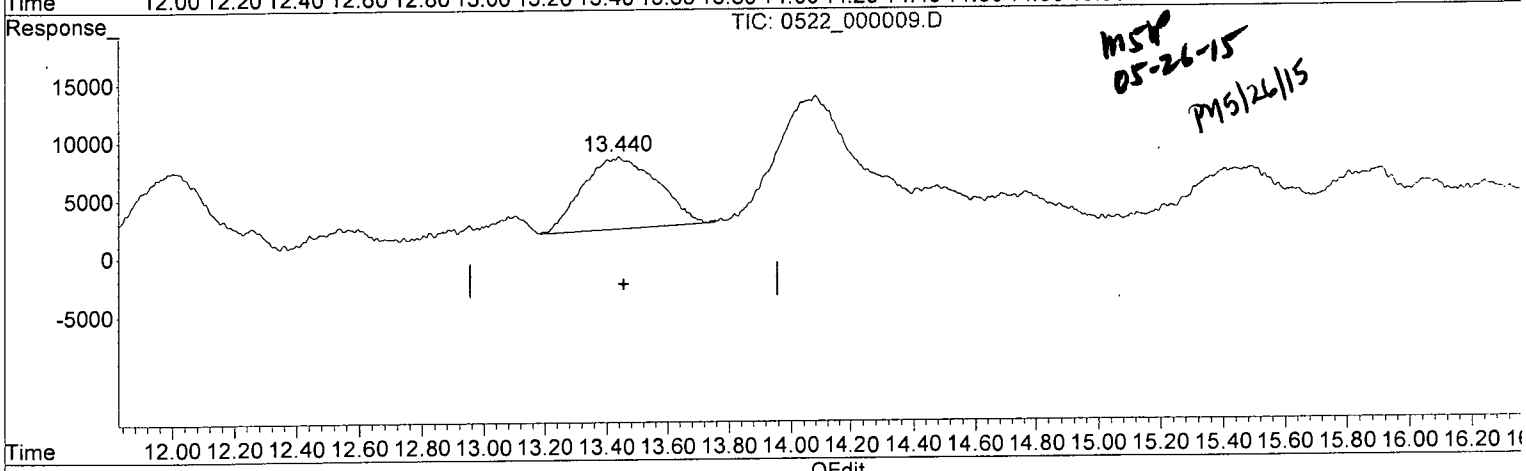
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(10) 2,6-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(10) 2,6-DINITROTOLUENE #2 (TM)

13.440min 4.218 ppb m

response 6231

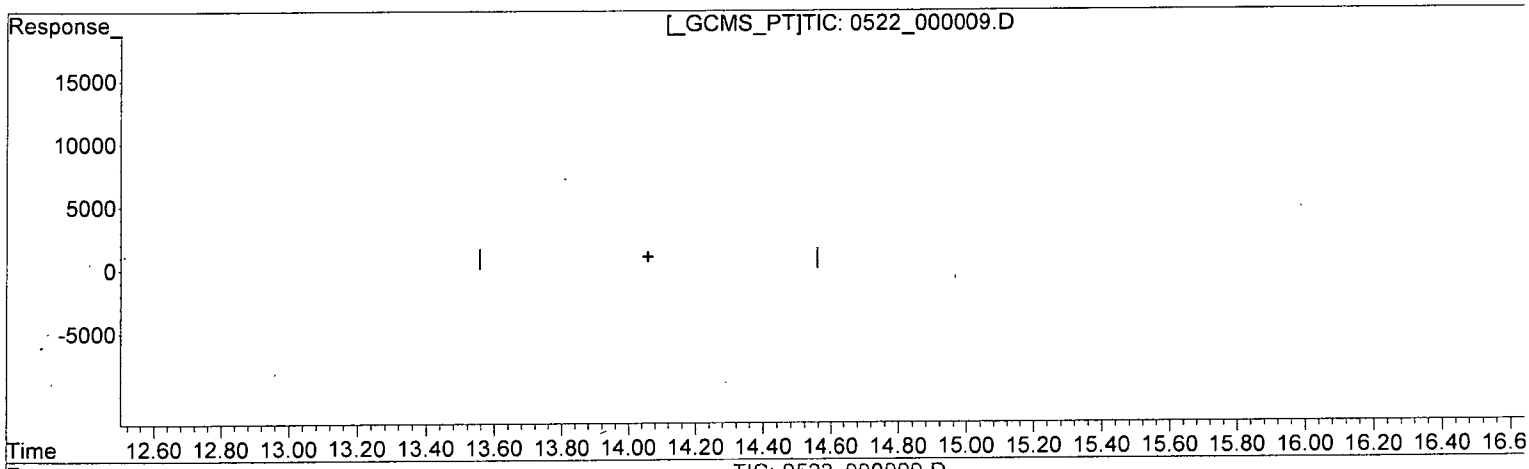
(+) = Expected Retention Time

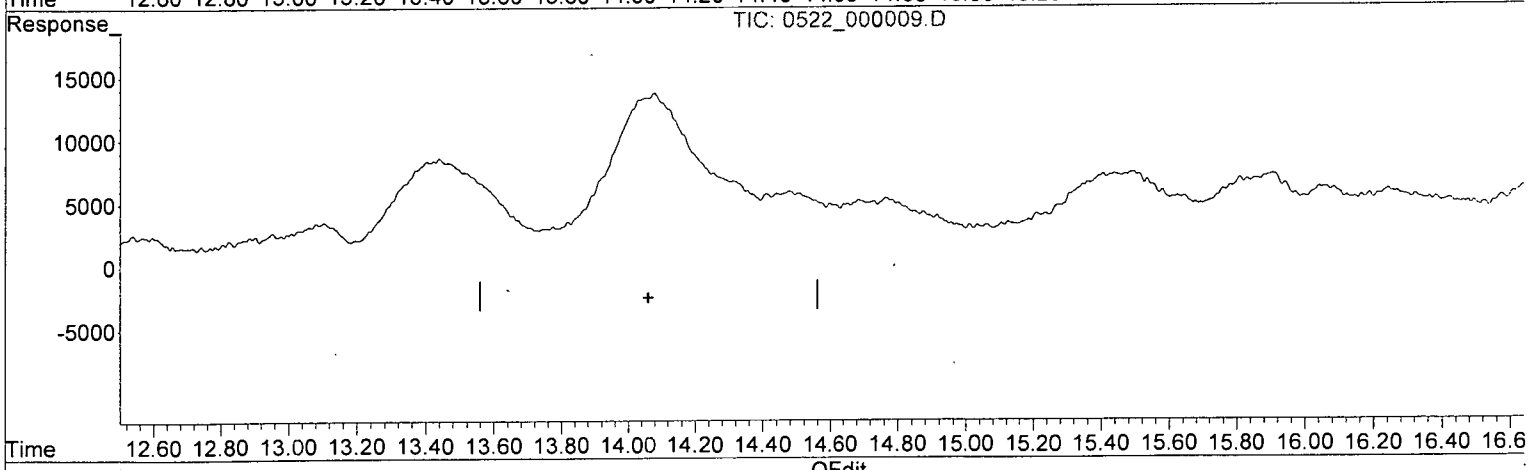
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(11) 2,4-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(11) 2,4-DINITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

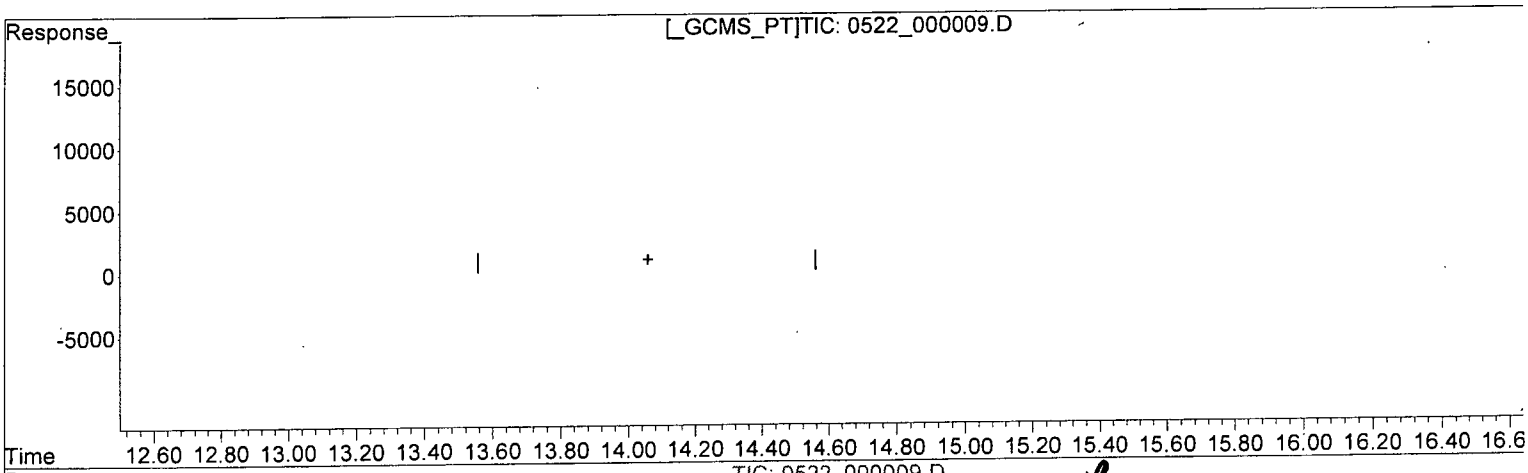
(+) = Expected Retention Time

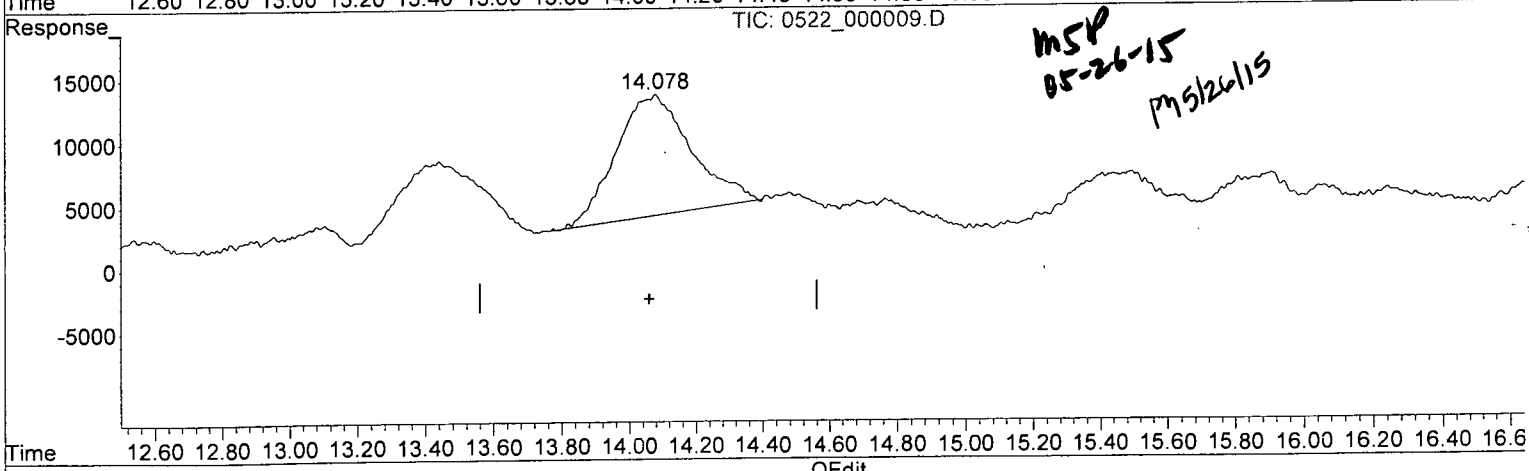
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MSP
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PM 5/26/15

(11) 2,4-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(11) 2,4-DINITROTOLUENE #2 (TM)

14.078min 3.797 ppb m

response 9567

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:52:39
Operator : MP
Sample : 8330MXB_CV 0.005 PPM 05/22/15
Misc :
ALS Vial : 4225 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:07:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
Spiked Amount 62.500			Recovery	=	0.00%	0.00%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
6) TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
7) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
8) TM NITROGLYC...	0.000	12.058	0	885	N.D. d	NoCal
9) TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM 2,6-DINIT...	13.254	0.000	538	0	NoCal	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
14) TM 3,5-DINIT...	0.000	16.553	0	7523	N.D.	3.769m#
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

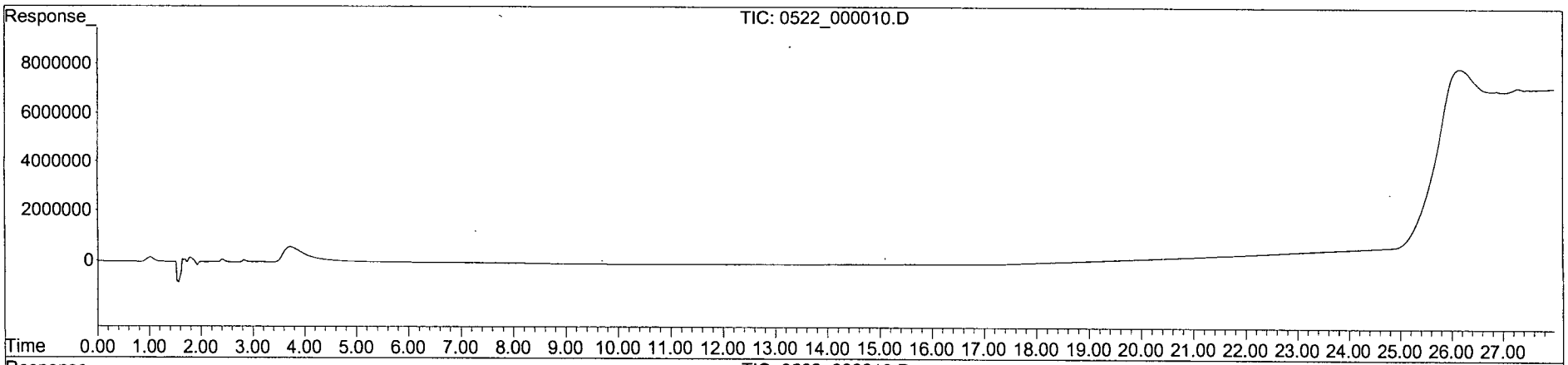
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

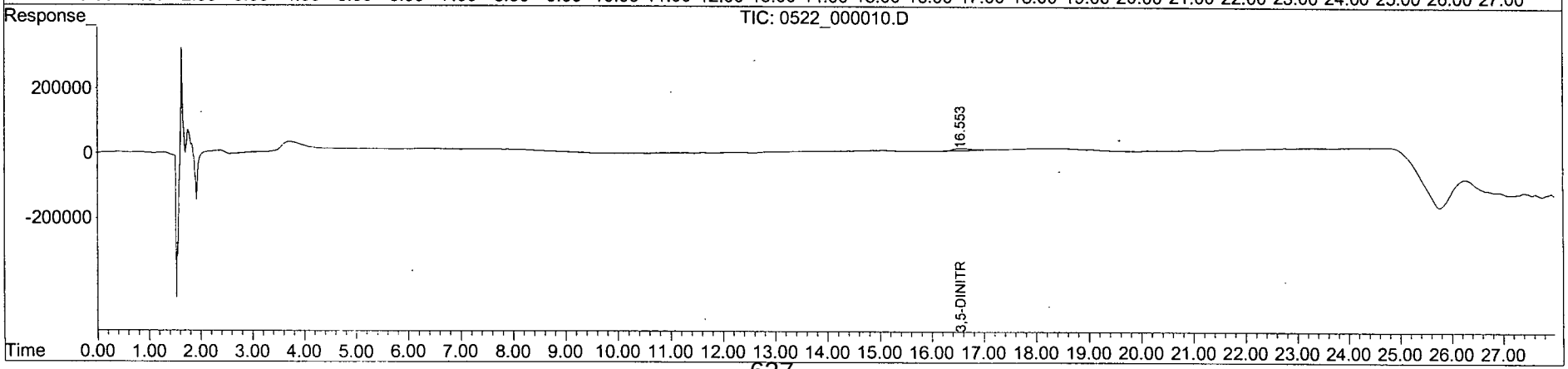
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:52:39
Operator : MP
Sample : 8330MXB_CV 0.005 PPM 05/22/15
Misc :
ALS Vial : 4225 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:07:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



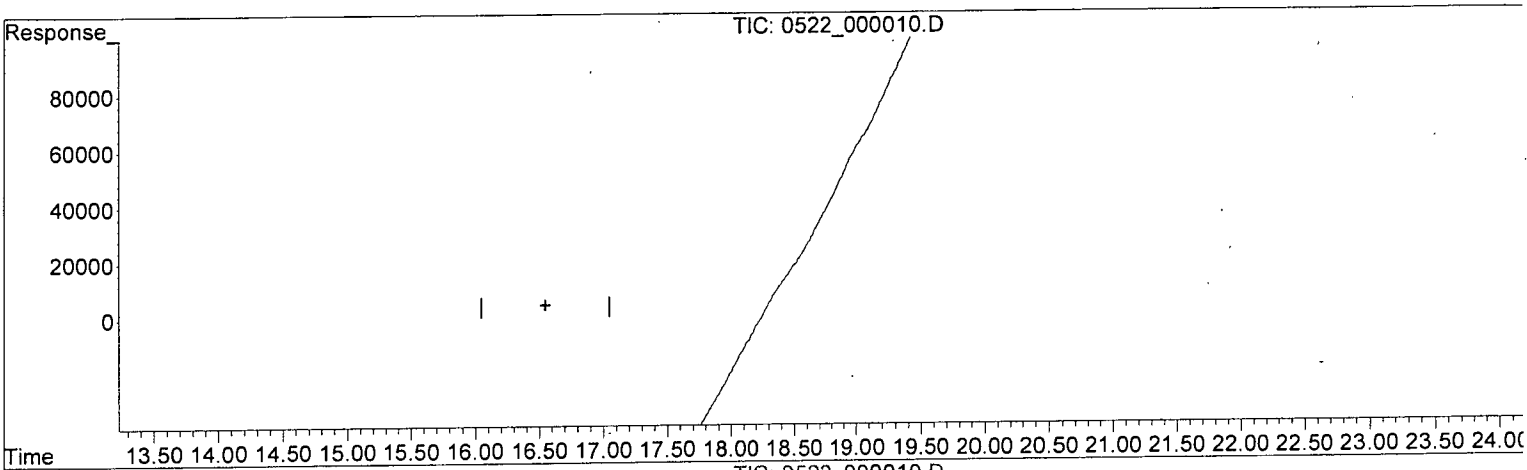


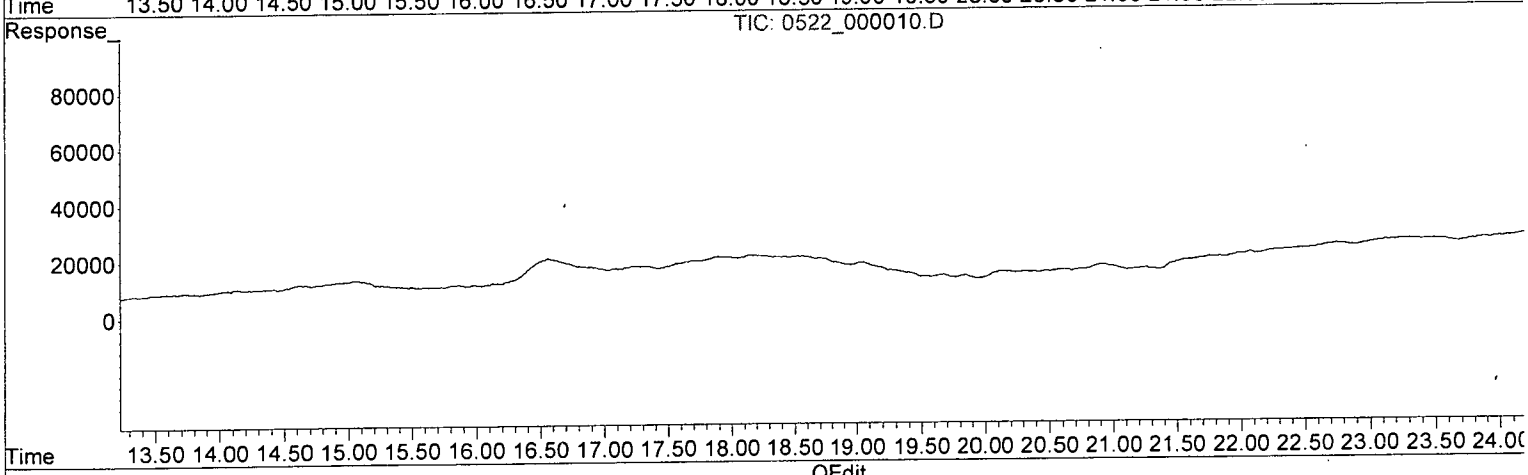
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:52:39
Operator : MP
Sample : 8330MXB_CV 0.005 PPM 05/22/15
Misc :
ALS Vial : 4225 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:02 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(14) 3,5-DINITROANILINE (TM)

0.000min 0.000 ppb

response 0

(14) 3,5-DINITROANILINE #2 (TM)

0.000min 0.000 ppb

response 0

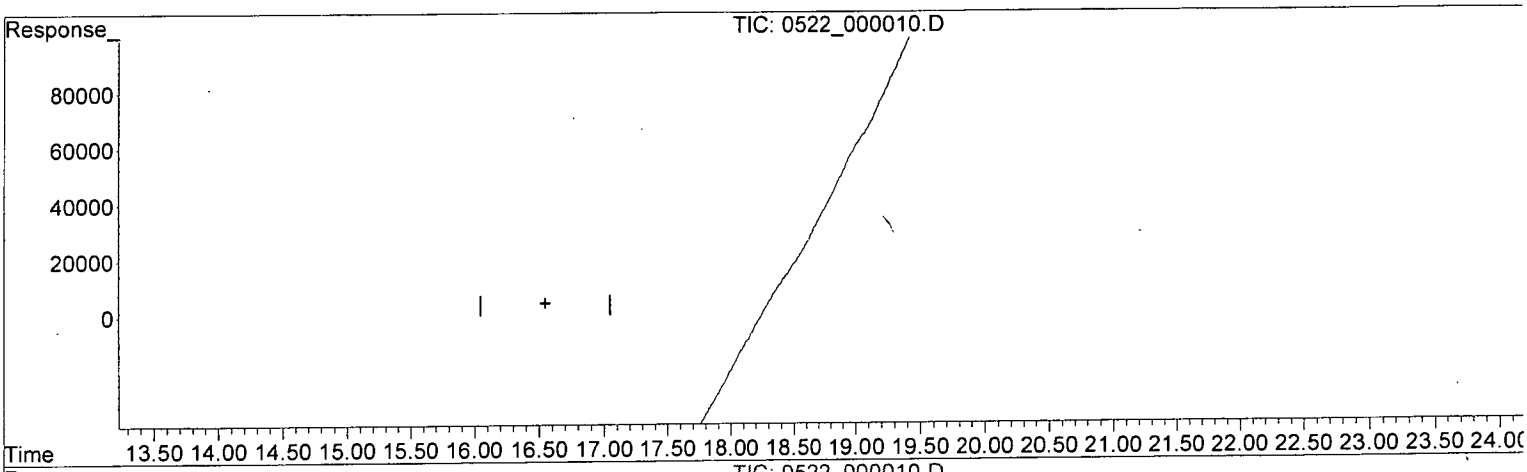
(+) = Expected Retention Time

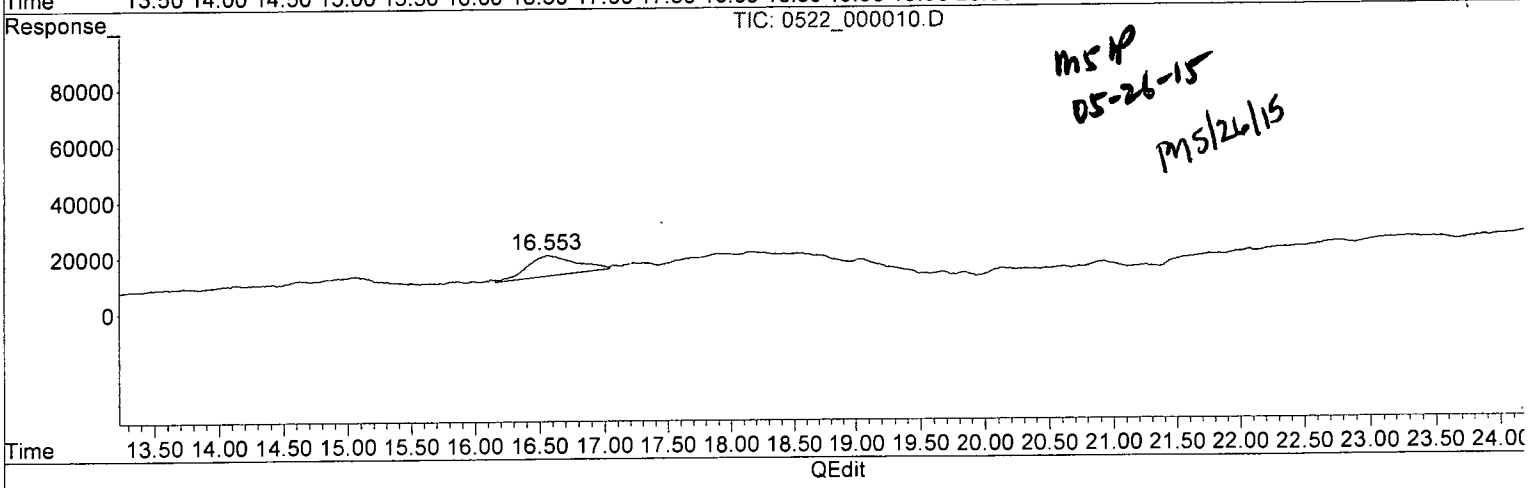
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:52:39
Operator : MP
Sample : 8330MXB_CV 0.005 PPM 05/22/15
Misc :
ALS Vial : 4225 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:02 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MSP
05-26-15
PM 5/26/15

(14) 3,5-DINITROANILINE (TM)

0.000min 0.000 ppb

response 0

(14) 3,5-DINITROANILINE #2 (TM)

16.553min 3.769 ppb m

response 7523

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:06:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.102	0	17296	N.D.	8.198m#
Spiked Amount 62.500			Recovery	=	0.00%	13.12%
Target Compounds						
1) TM HMX	0.000	4.082	0	16807	N.D.	7.993m#
2) TM RDX	0.000	6.417	0	16148	N.D.	8.719m#
3) TM 1,3,5-TRI...	0.000	6.753	0	38559	N.D.	8.627m#
5) TM 1,3-DINIT...	0.000	8.433	0	38569	N.D.	8.576m#
6) TM NITROBENZENE	0.000	9.177	0	20086	N.D.	7.841m#
7) TM 2,4,6-TRI...	0.000	11.450	0	19541	N.D.	7.697 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.986	11.978	13853	14357	NoCal	8.715 #
10) TM 2,6-DINIT...	13.457	13.467	21588	10727	NoCal	7.263m#
11) TM 2,4-DINIT...	0.000	14.062	0	20758	N.D.	8.239m#
12) TM 2-NITROTO...	0.000	15.468	0	8585	N.D.	8.142m#
13) TM 4-NITROTO...	0.000	16.858	0	4467	N.D.	5.100m#
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15) TM 3-NITROTO...	0.000	18.086	0	9136	N.D.	8.544m#
16) TM 4-AMINO-2...	0.000	18.658	0	13310	N.D.	9.500m#
17) TM 2-AMINO-4...	0.000	19.621	0	15539	N.D.	7.623 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

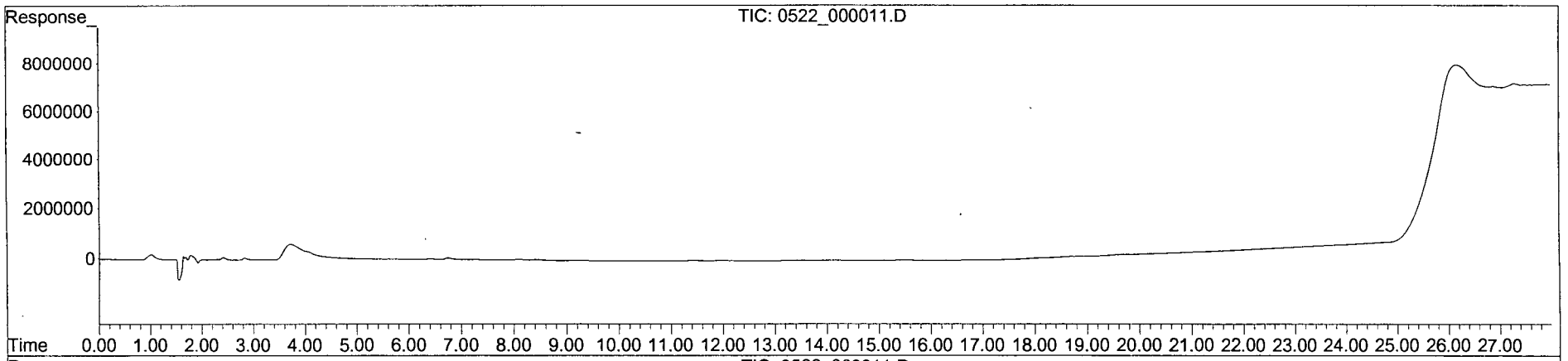
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

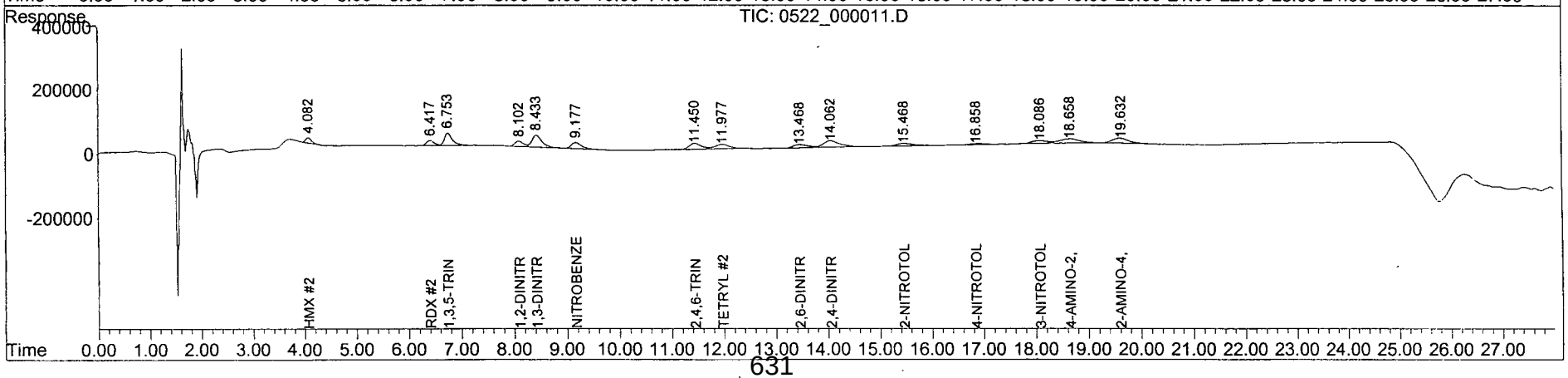
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:06:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



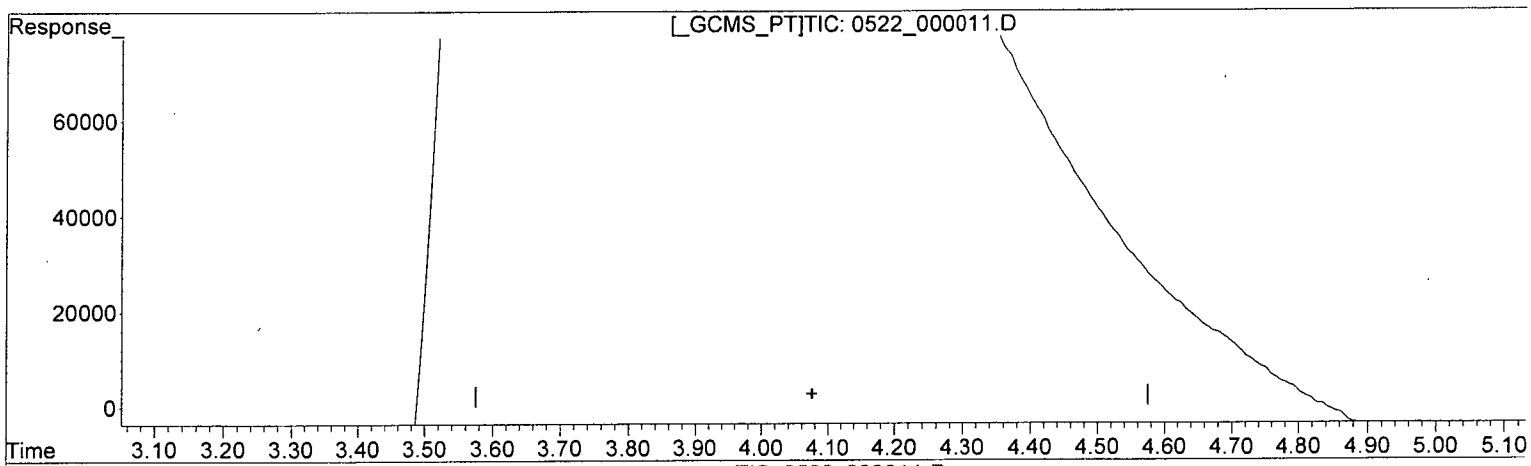


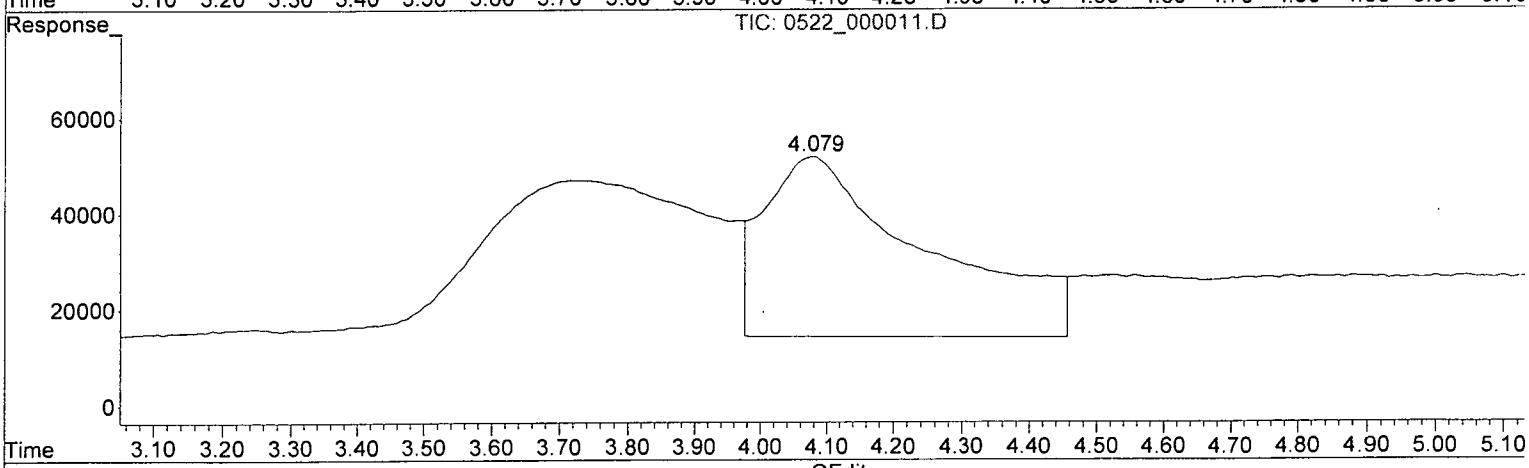
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.078min 17.847 ppb

response 37530

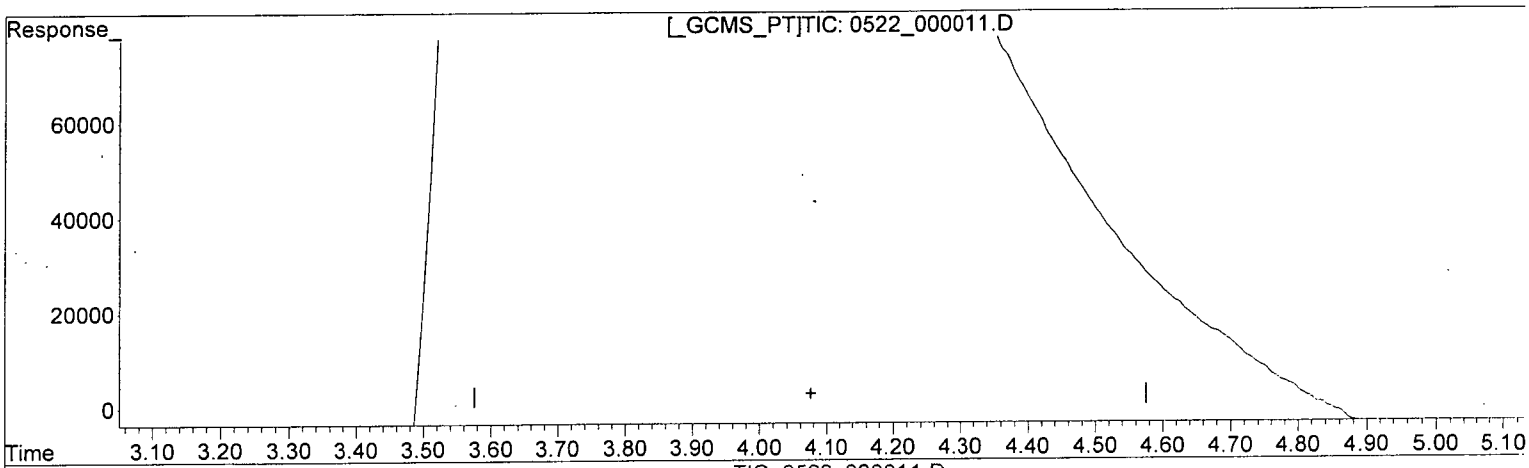
(+) = Expected Retention Time

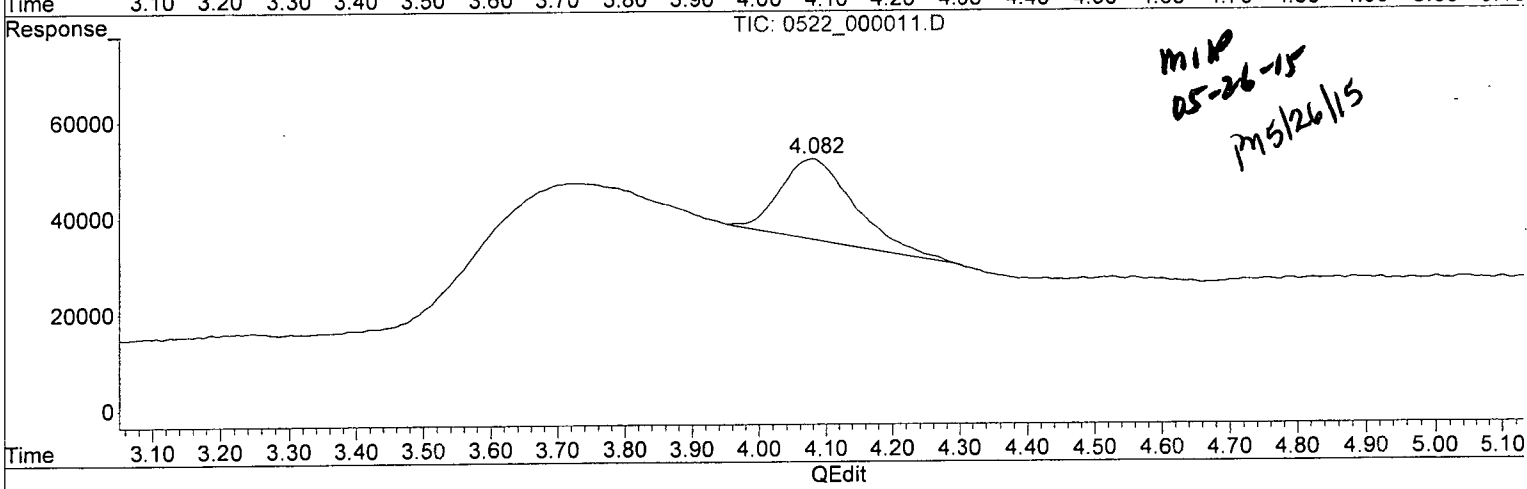
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MIP
05-26-15
MP 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.082min 7.993 ppb m

response 16807

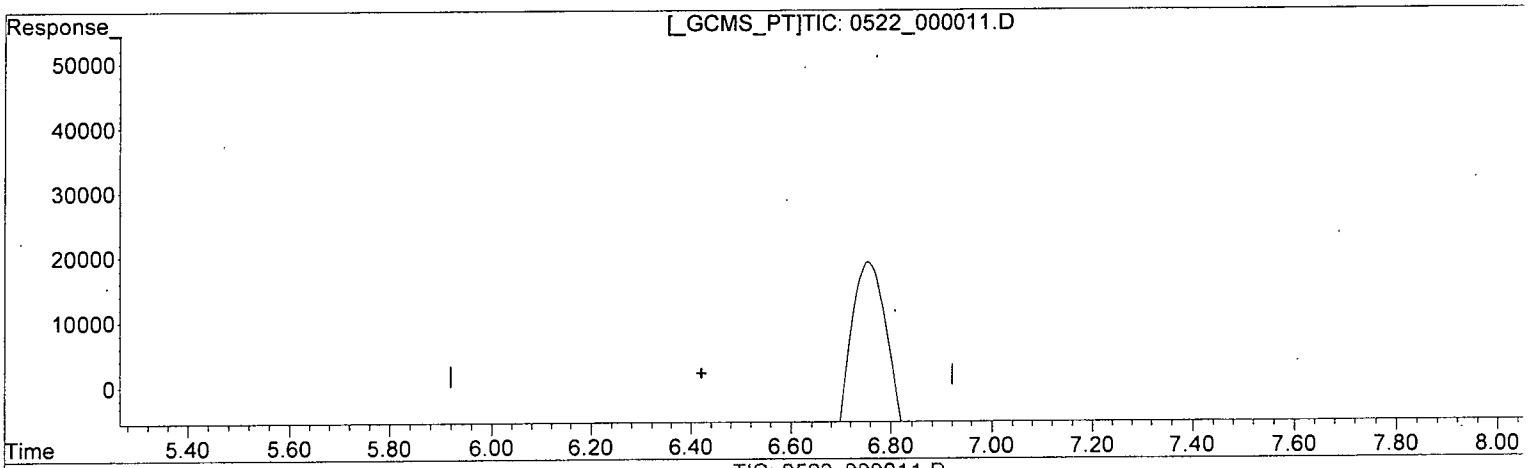
(+) = Expected Retention Time

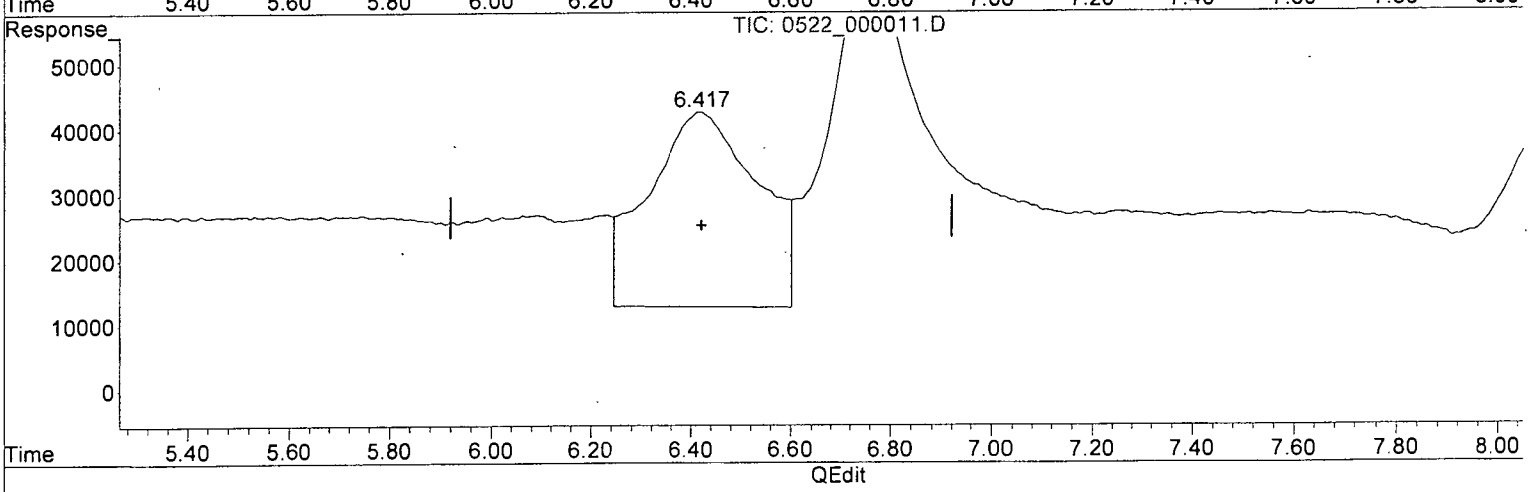
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.418min 16.136 ppb

response 29887

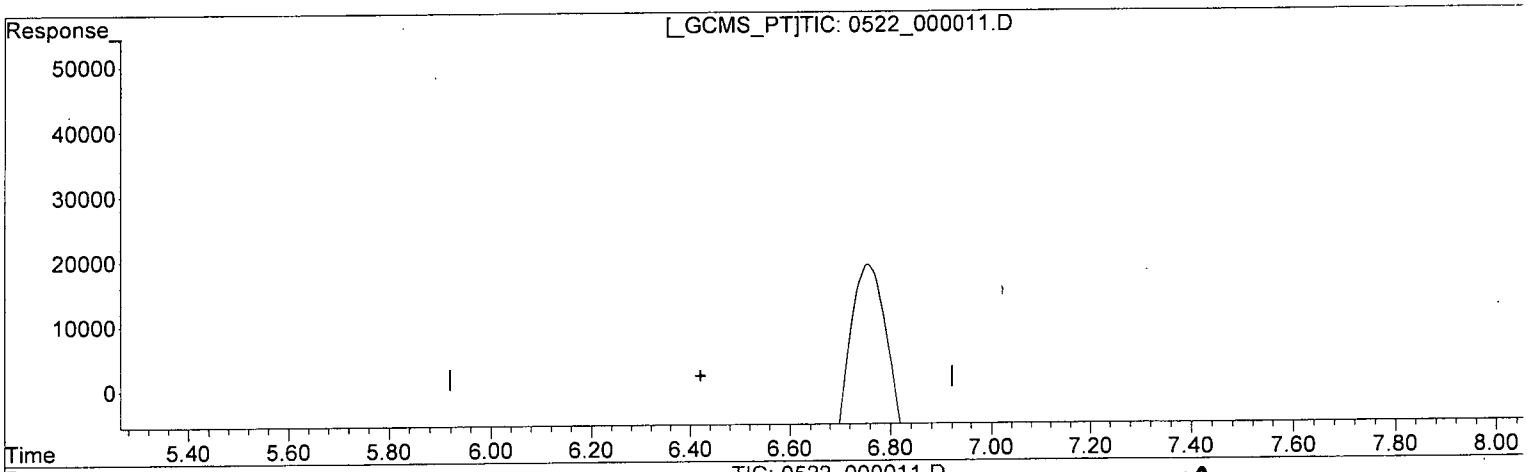
(+) = Expected Retention Time

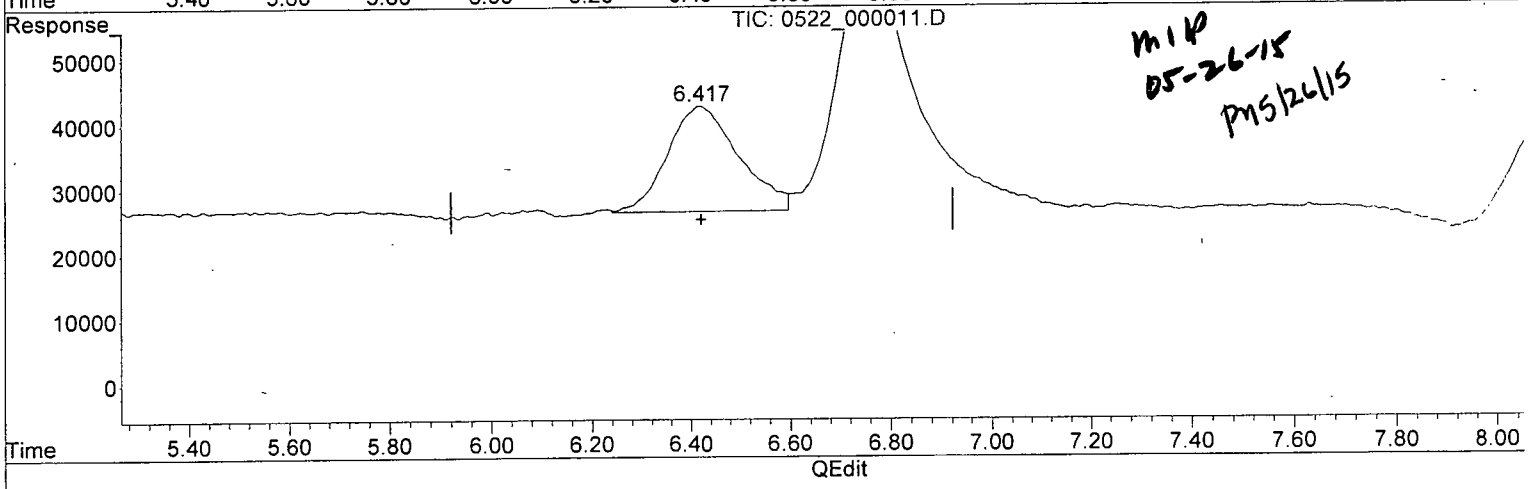
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MIP
05-26-15
PM5/26/15

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.417min 8.719 ppb m

response 16148

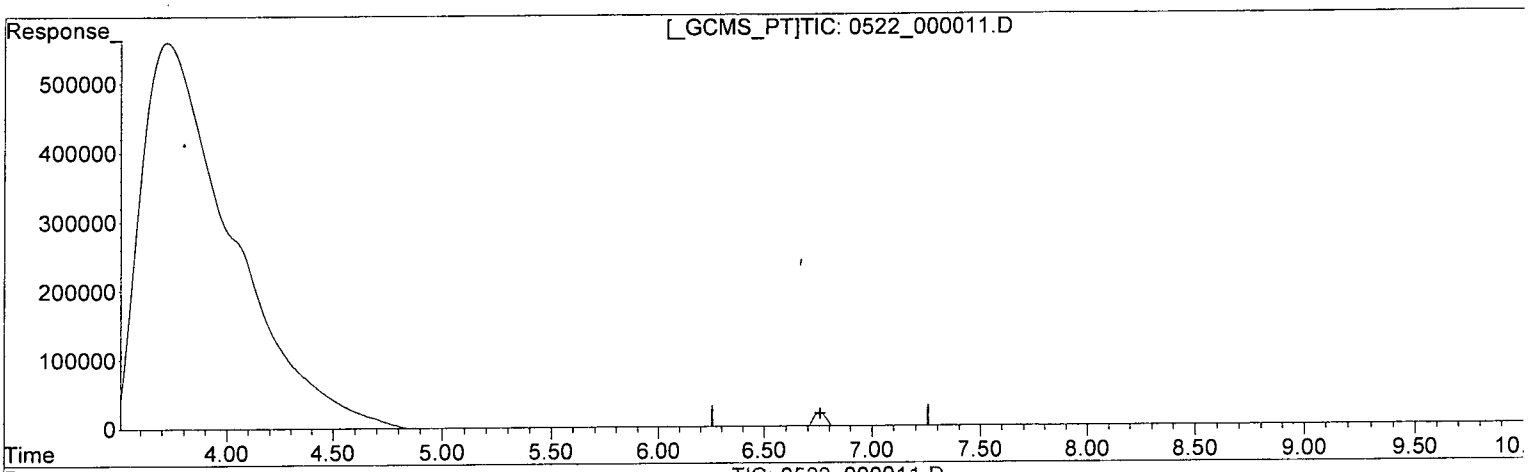
(+) = Expected Retention Time

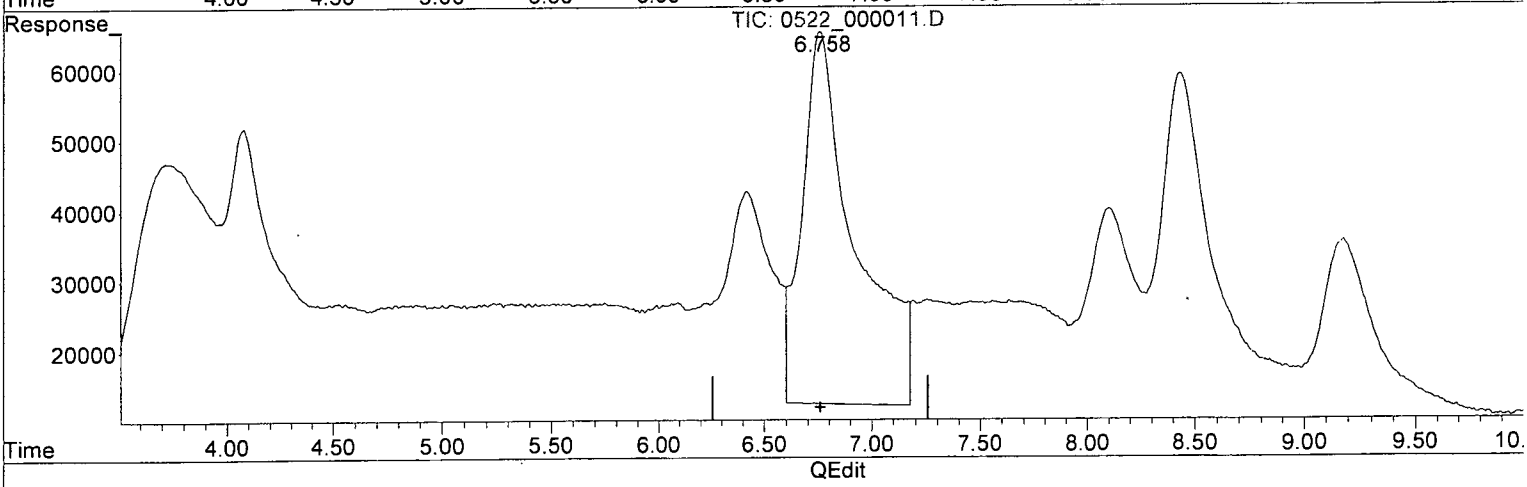
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.757min 11.817 ppb

response 52819

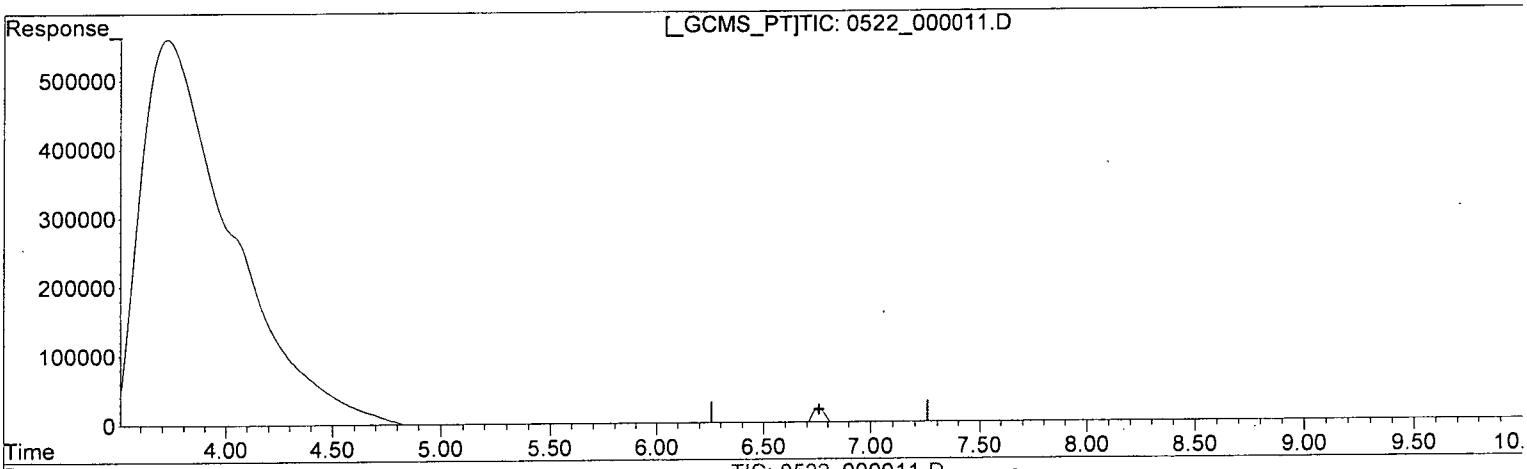
(+) = Expected Retention Time

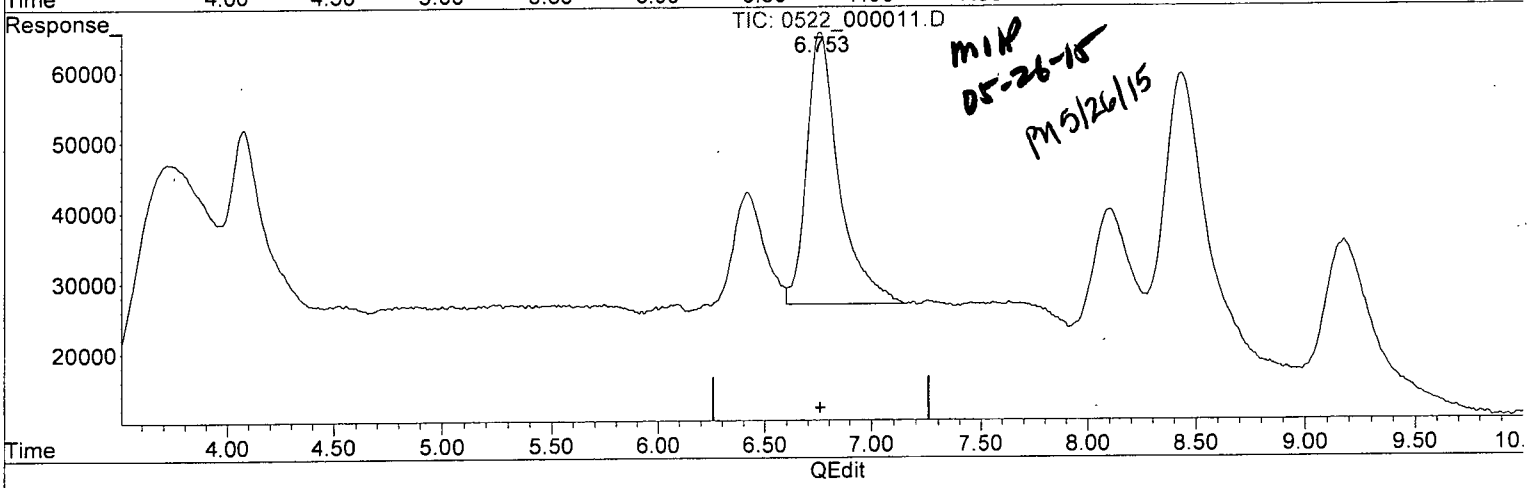
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.753min 8.627 ppb m

response 38559

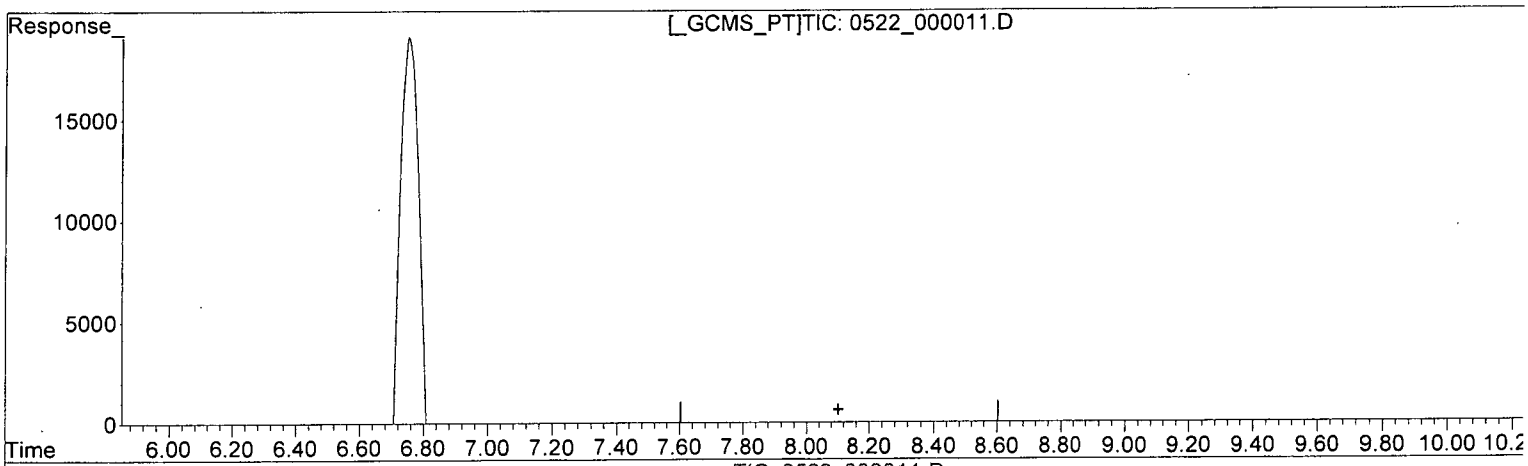
(+) = Expected Retention Time

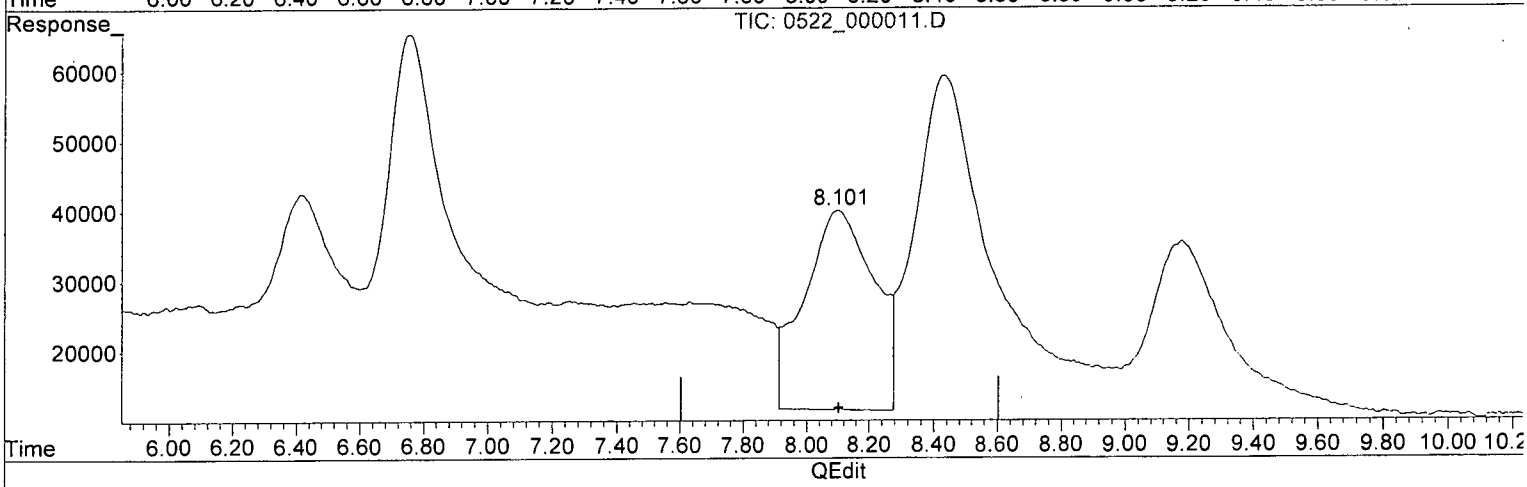
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.101min 13.504 ppb

response 28490

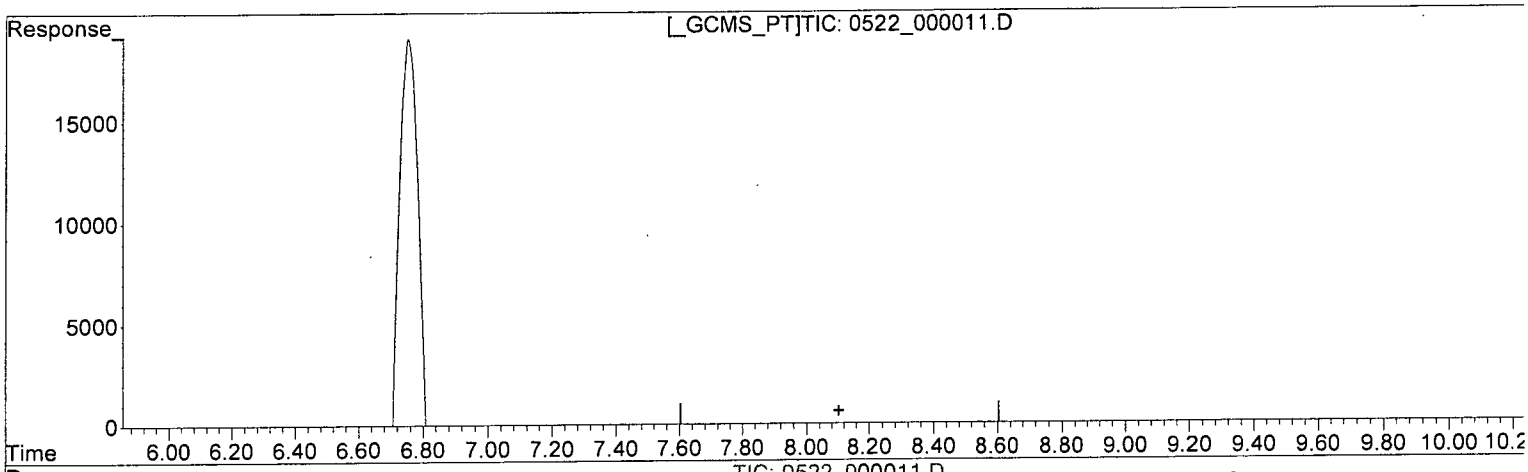
(+) = Expected Retention Time

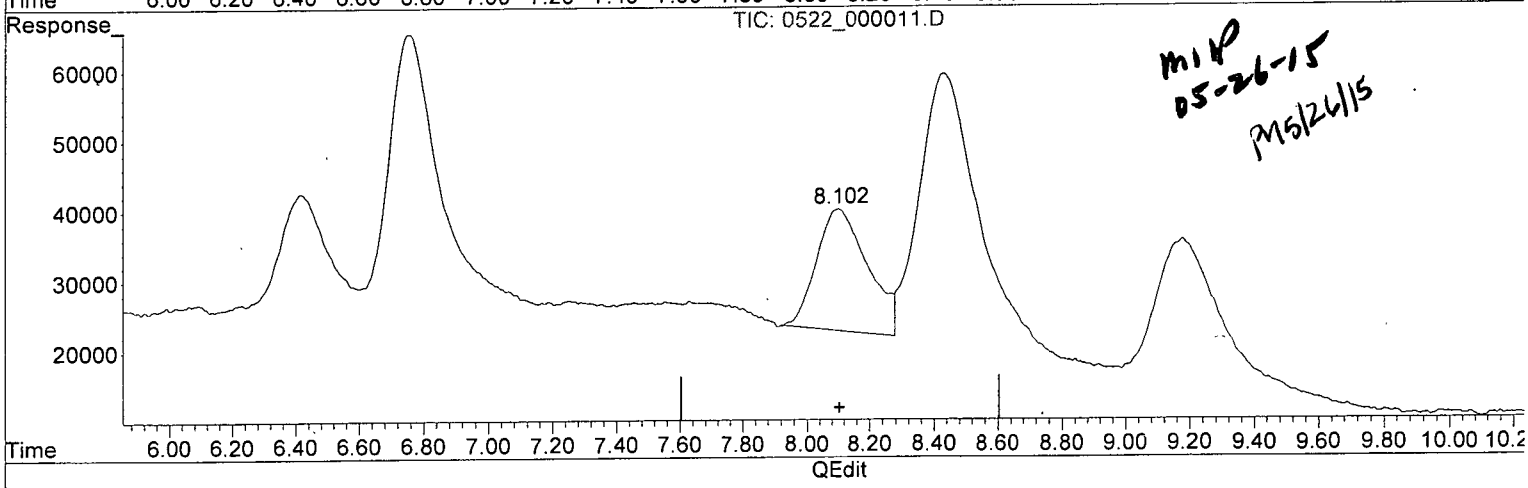
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MLP
05-26-15
M5/26/15

(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.102min 8.198 ppb m

response 17296

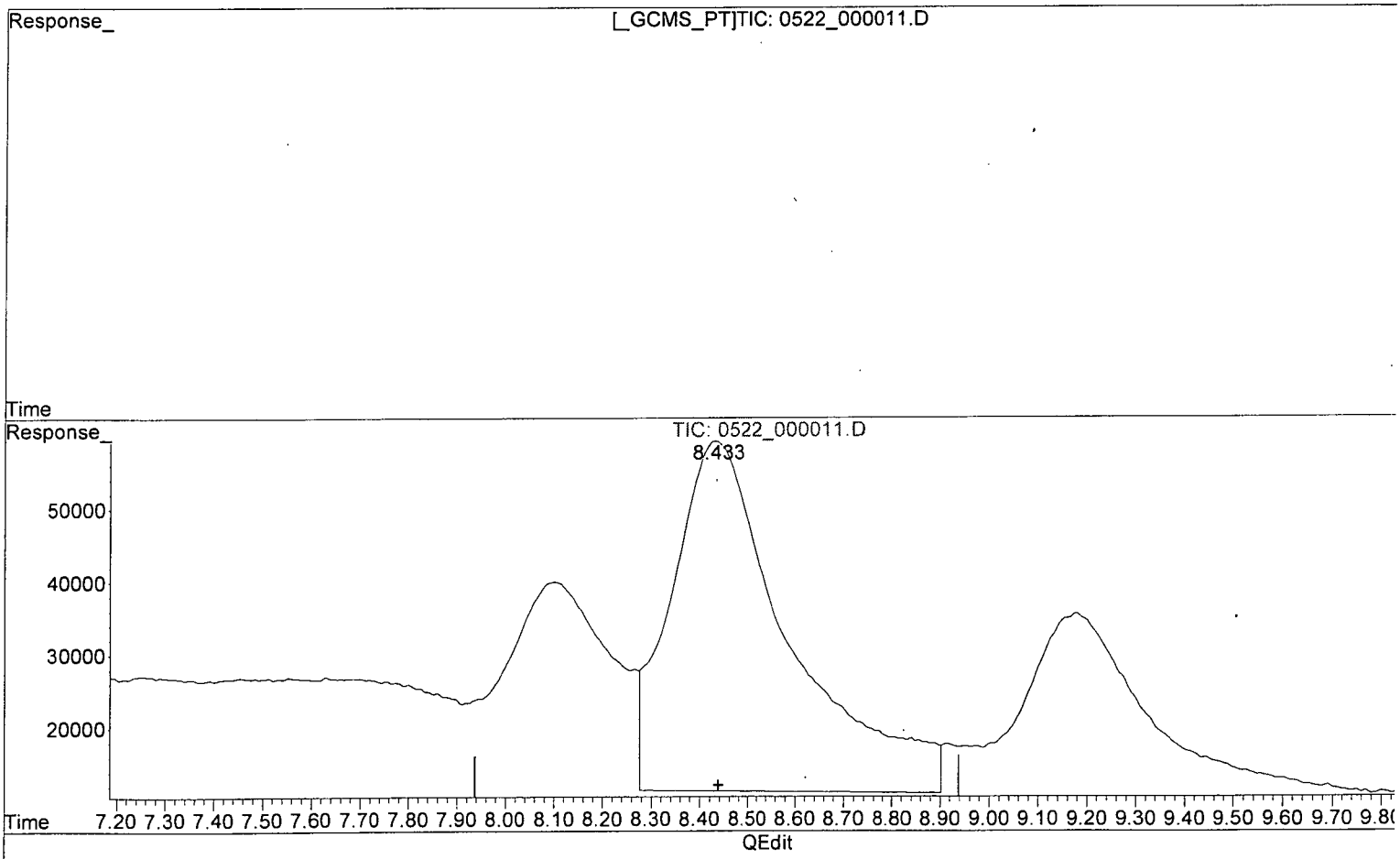
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.431min 10.647 ppb

response 47884

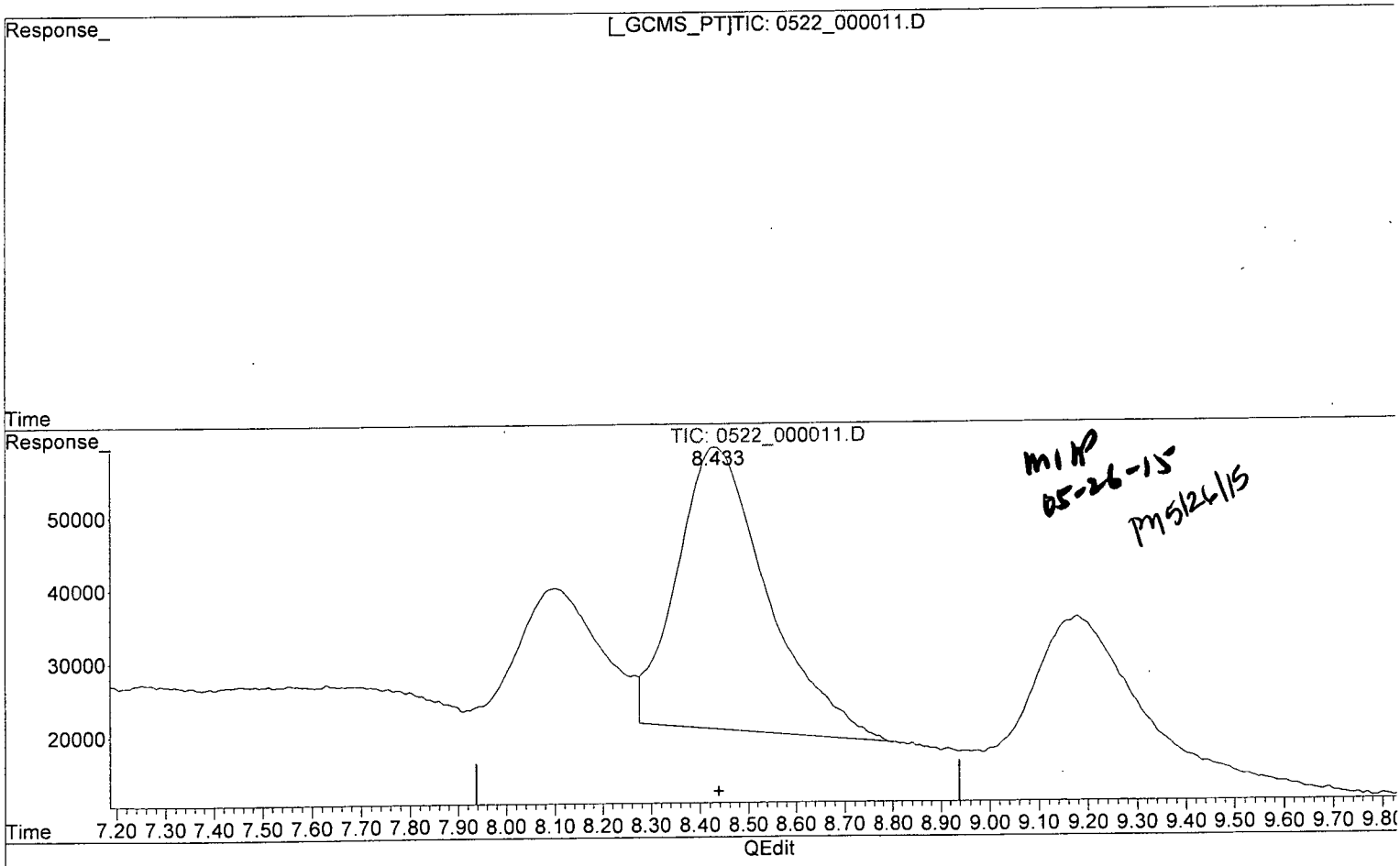
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.433min 8.576 ppb m

response 38569

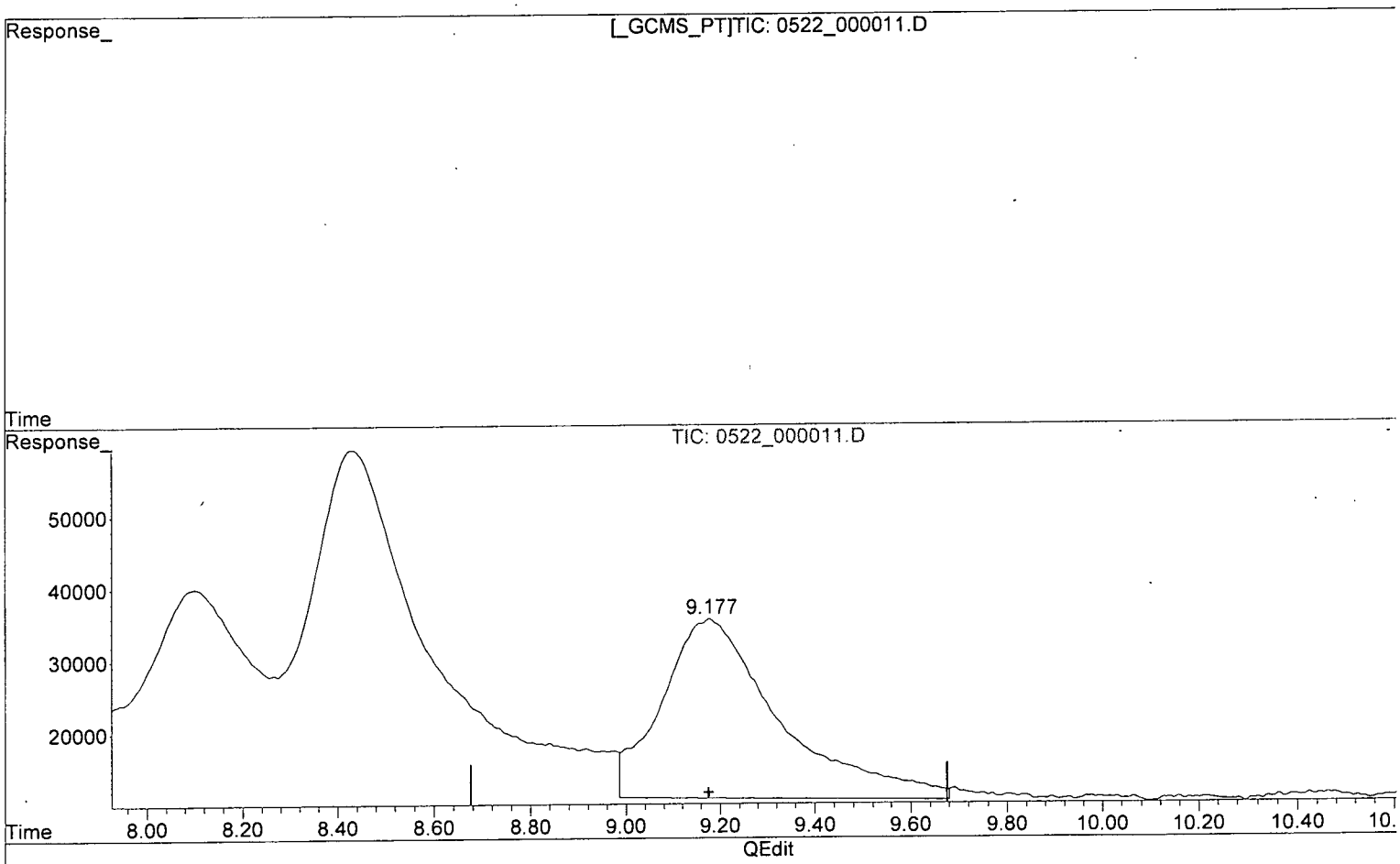
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.178min 9.671 ppb

response 24773

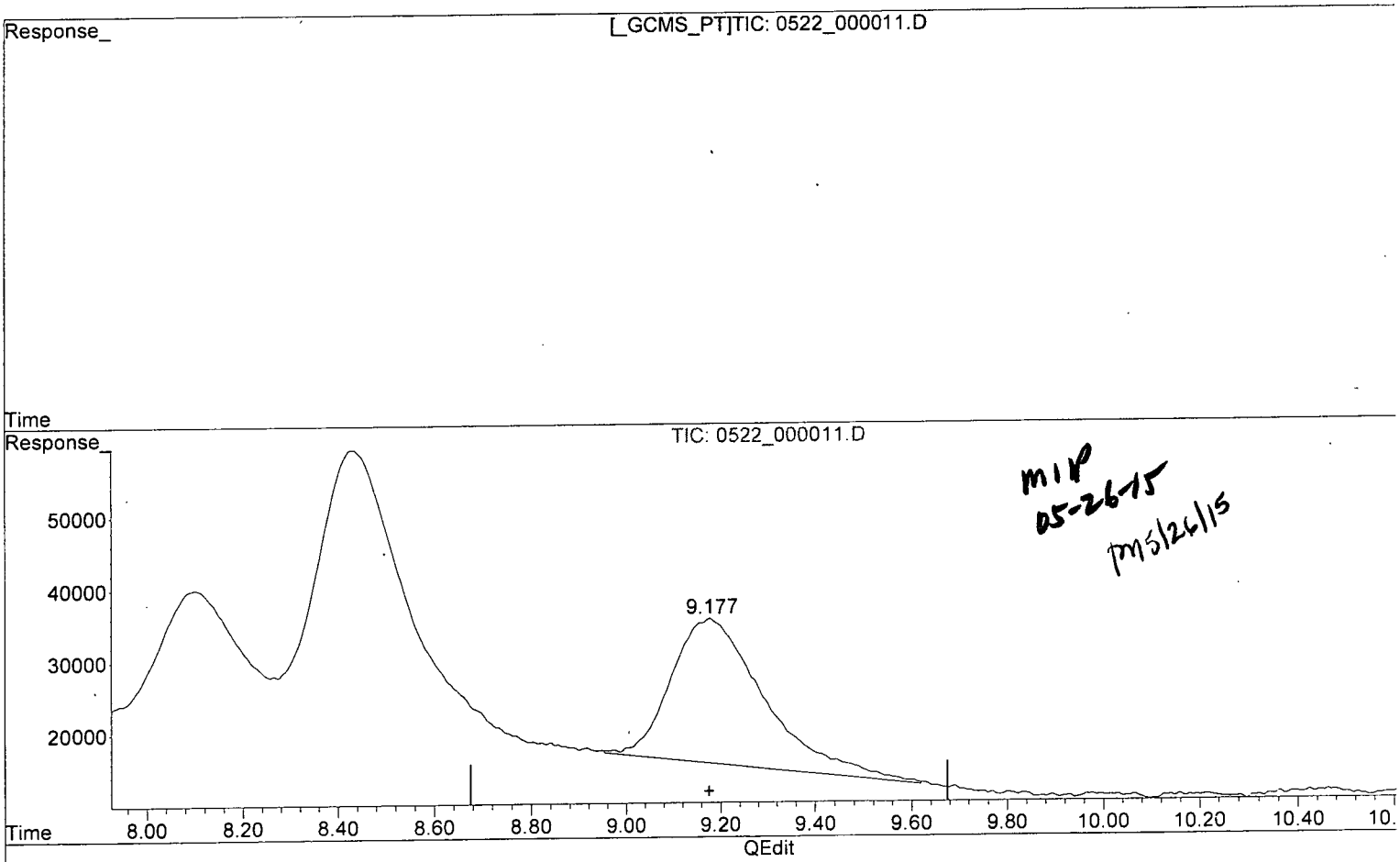
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.177min 7.841 ppb m

response 20086

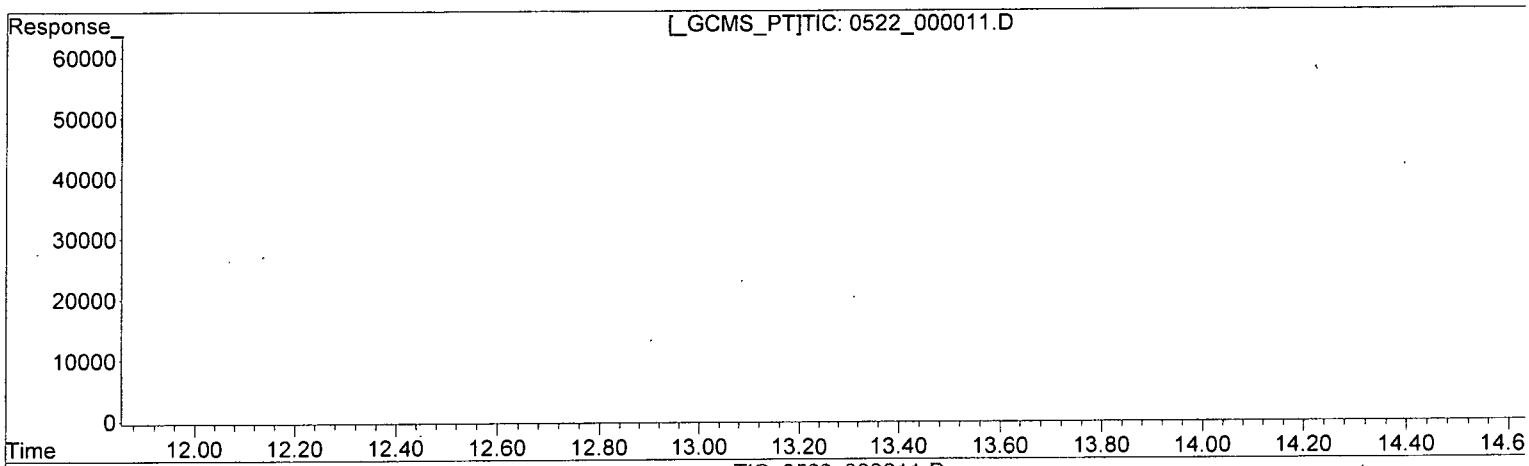
(+) = Expected Retention Time

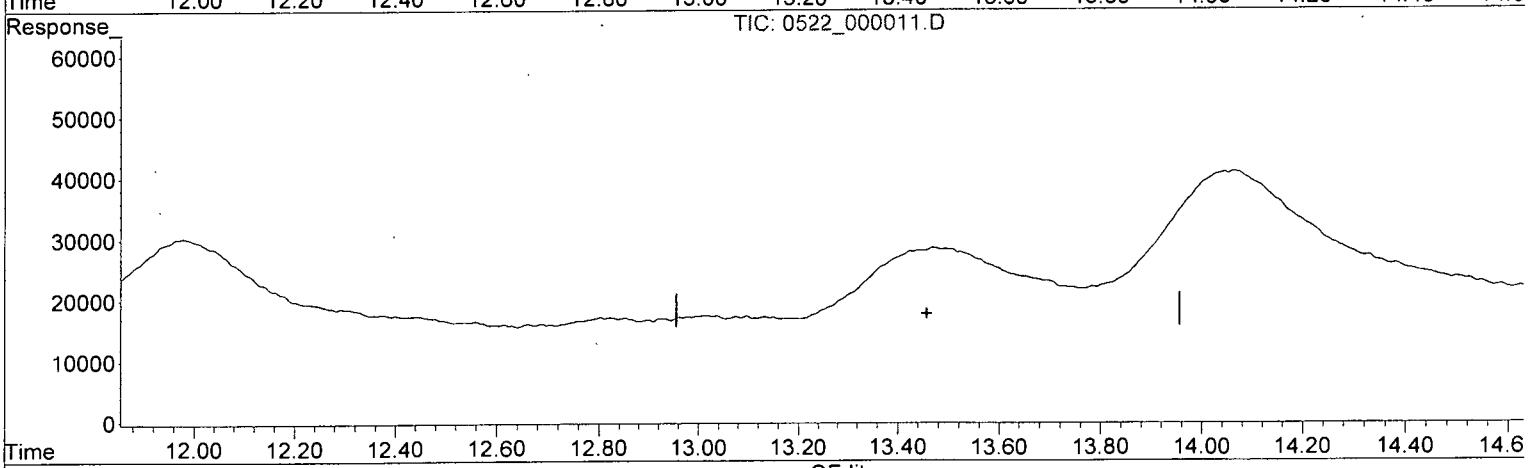
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(10) 2,6-DINITROTOLUENE (TM)

13.457min 0.000 ppb

response 21588

(10) 2,6-DINITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

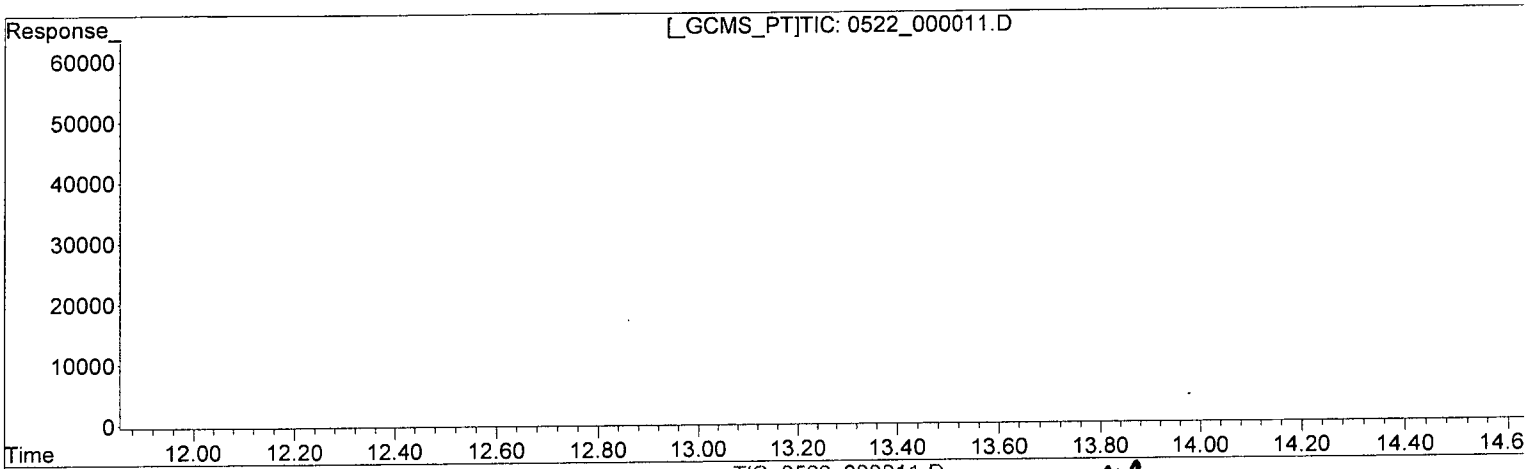
(+) = Expected Retention Time

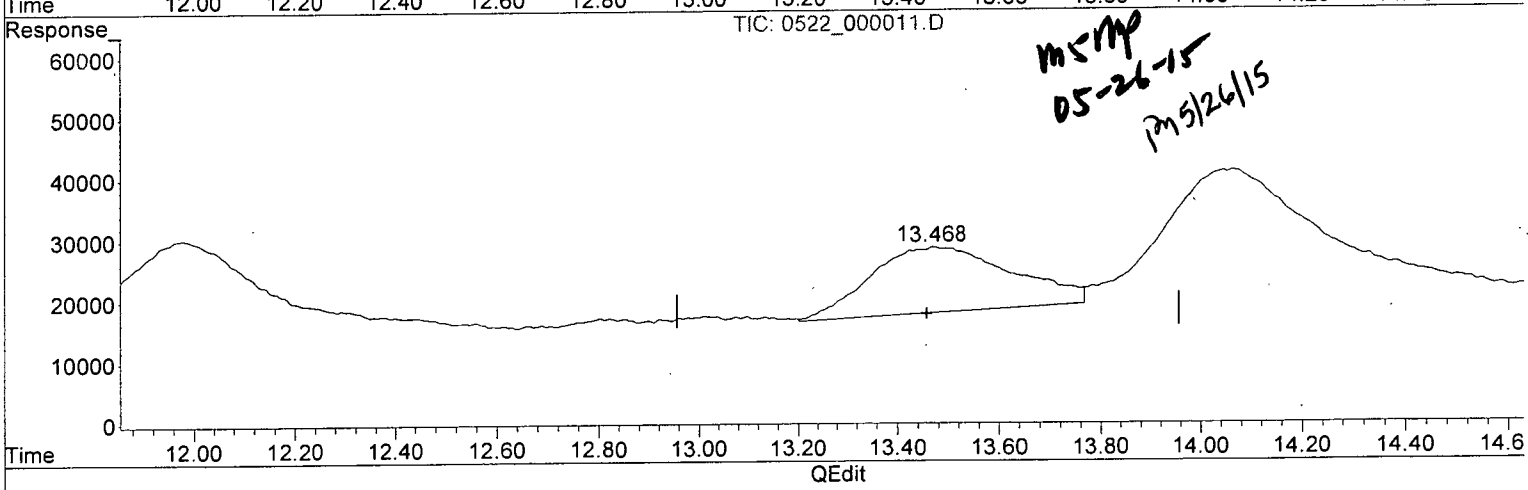
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(10) 2,6-DINITROTOLUENE (TM)

13.457min 0.000 ppb

response 21588

(10) 2,6-DINITROTOLUENE #2 (TM)

13.467min 7.263 ppb m

response 10727

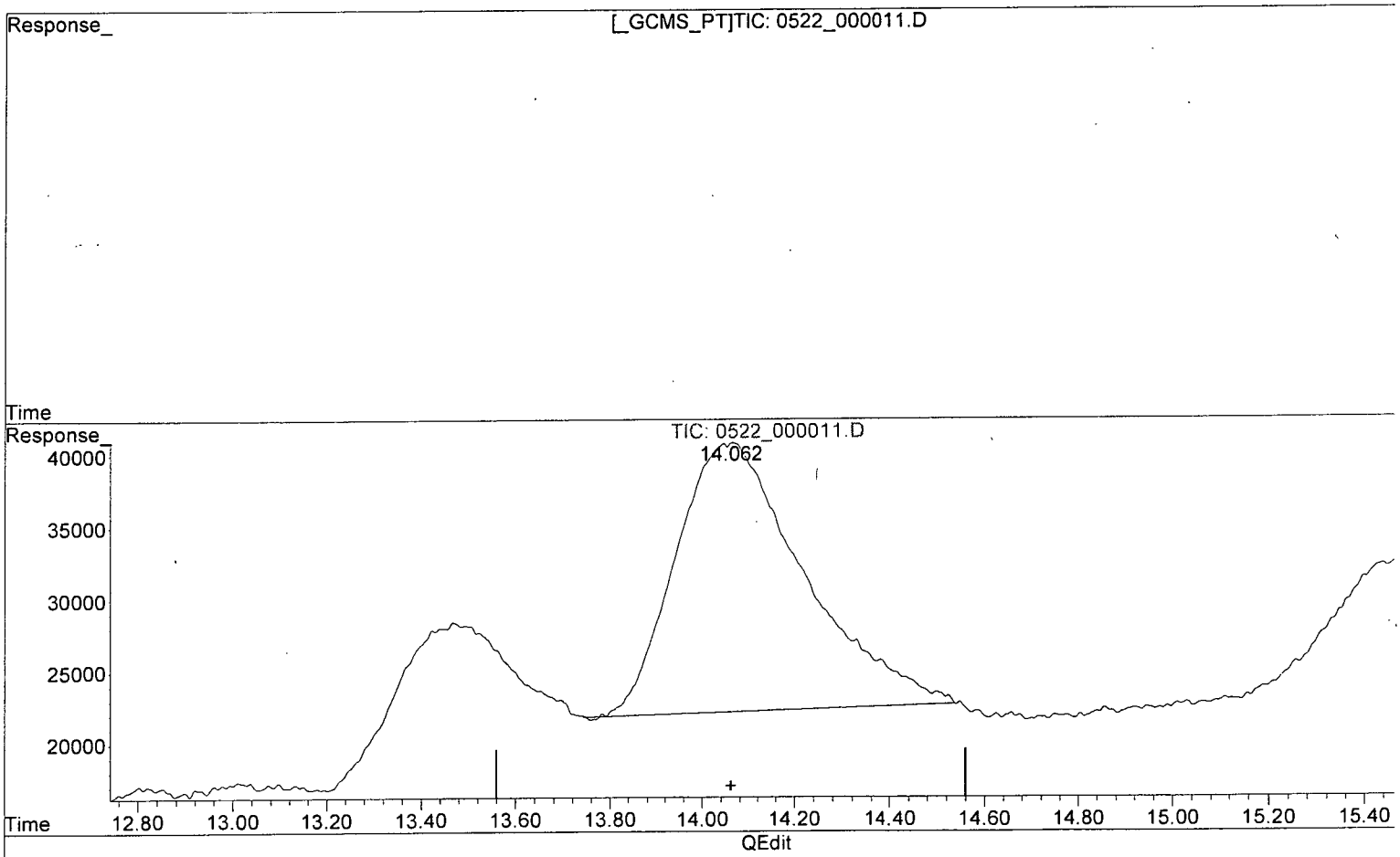
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(11) 2,4-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(11) 2,4-DINITROTOLUENE #2 (TM)

14.065min 7.394 ppb

response 18629

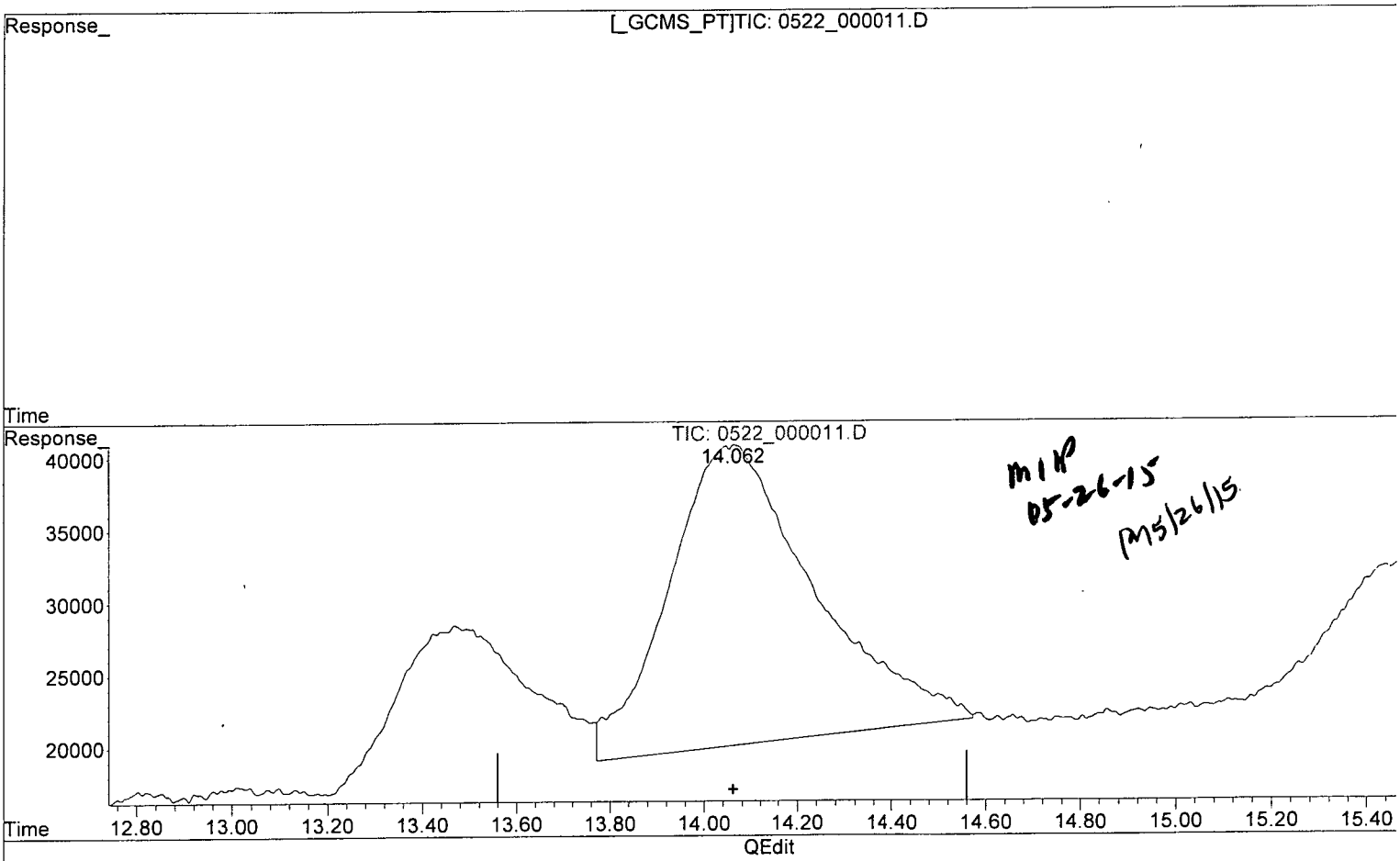
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(11) 2,4-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(11) 2,4-DINITROTOLUENE #2 (TM)

14.062min 8.239 ppb m

response 20758

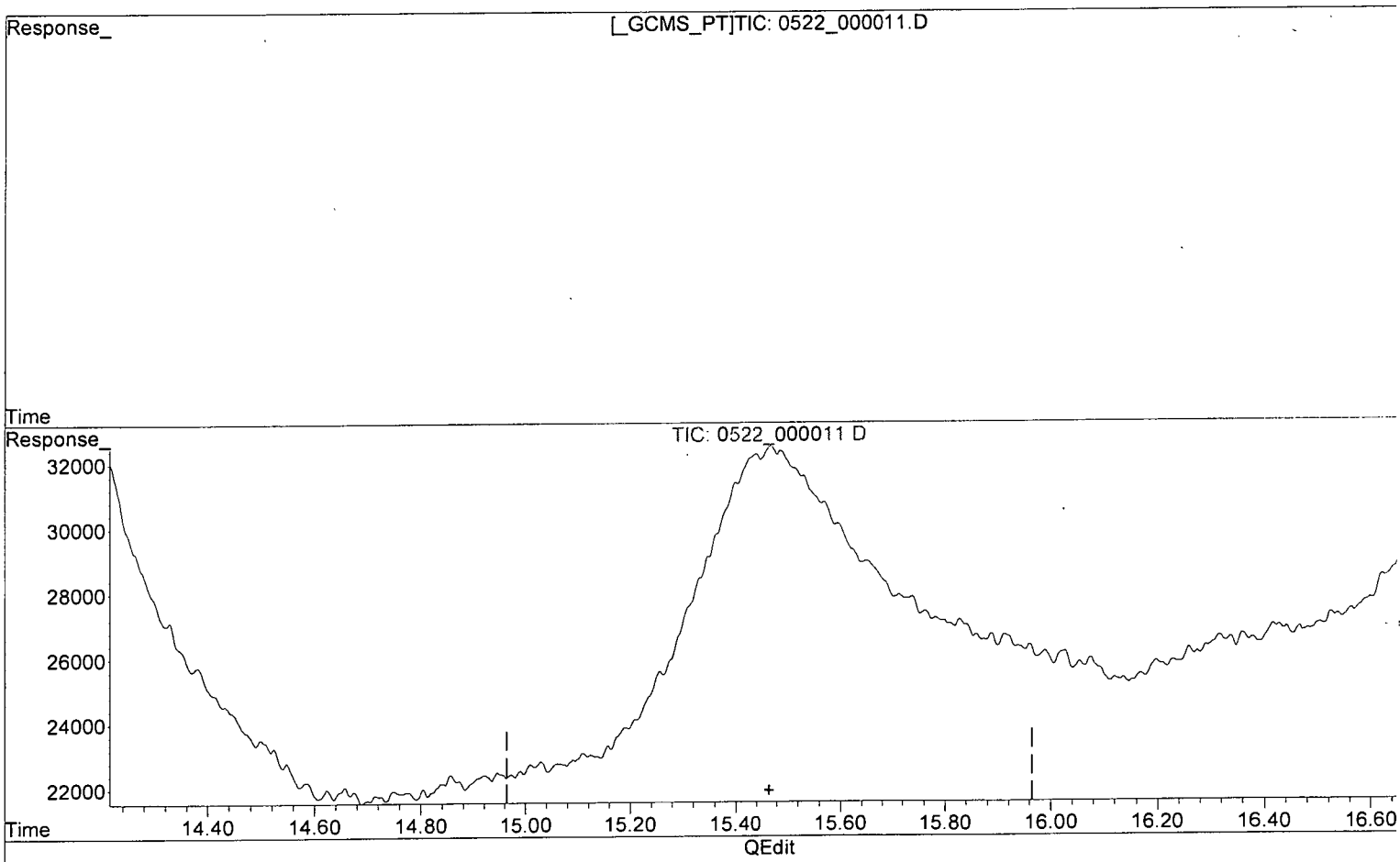
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(12) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(12) 2-NITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

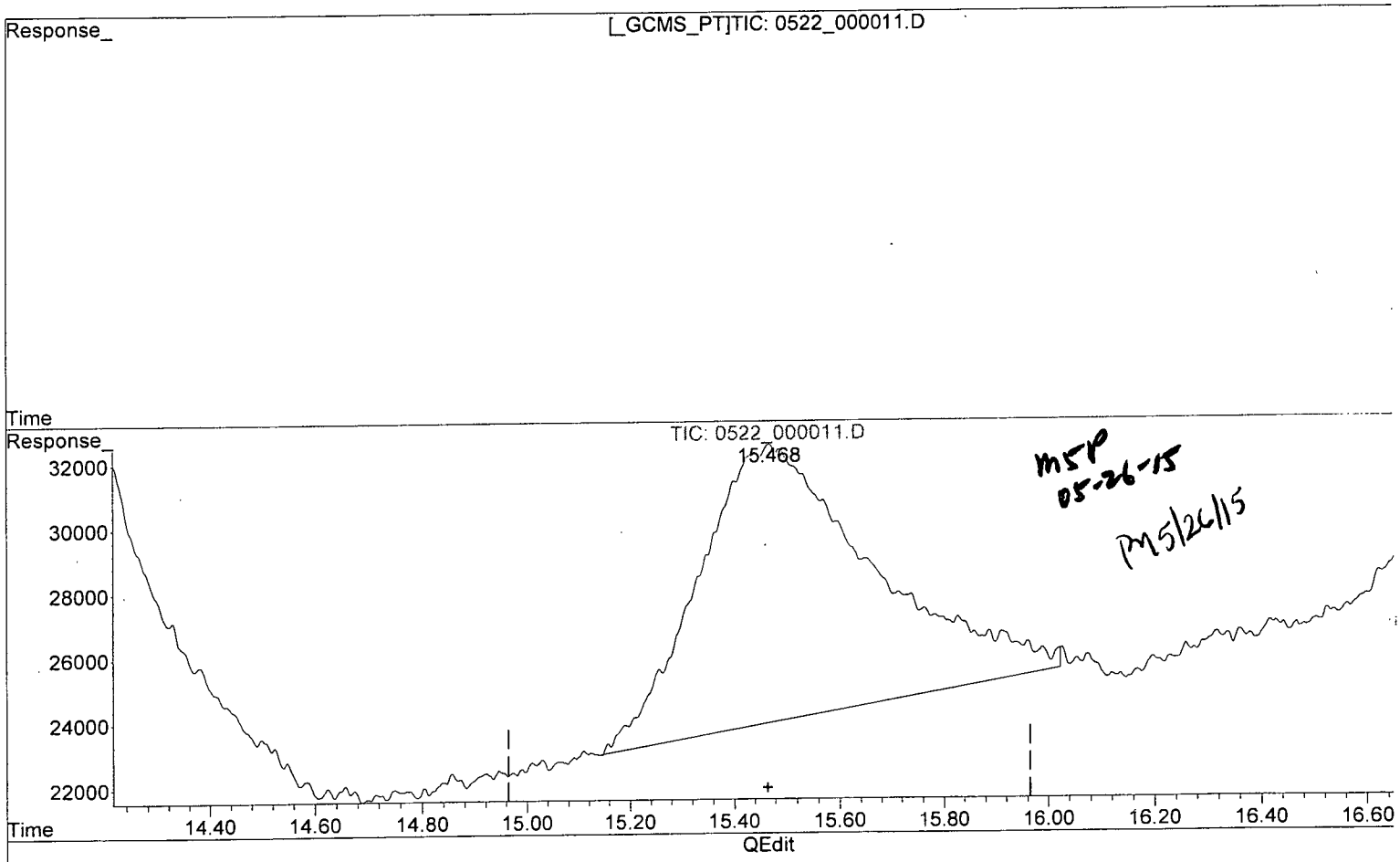
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(12) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(12) 2-NITROTOLUENE #2 (TM)

15.468min 8.142 ppb m

response 8585

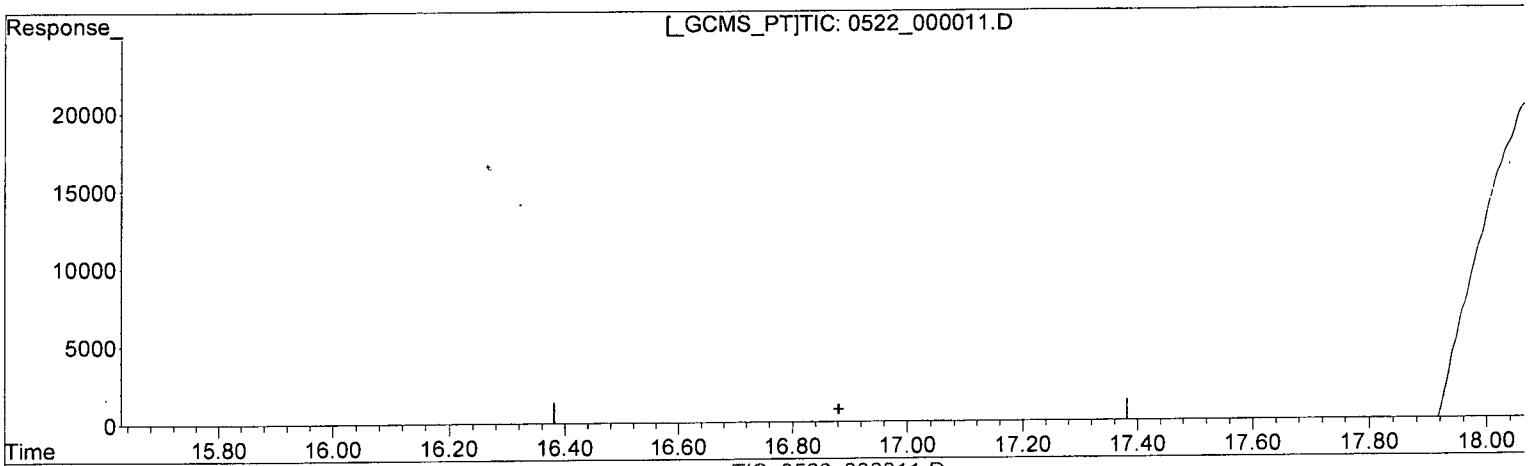
(+) = Expected Retention Time

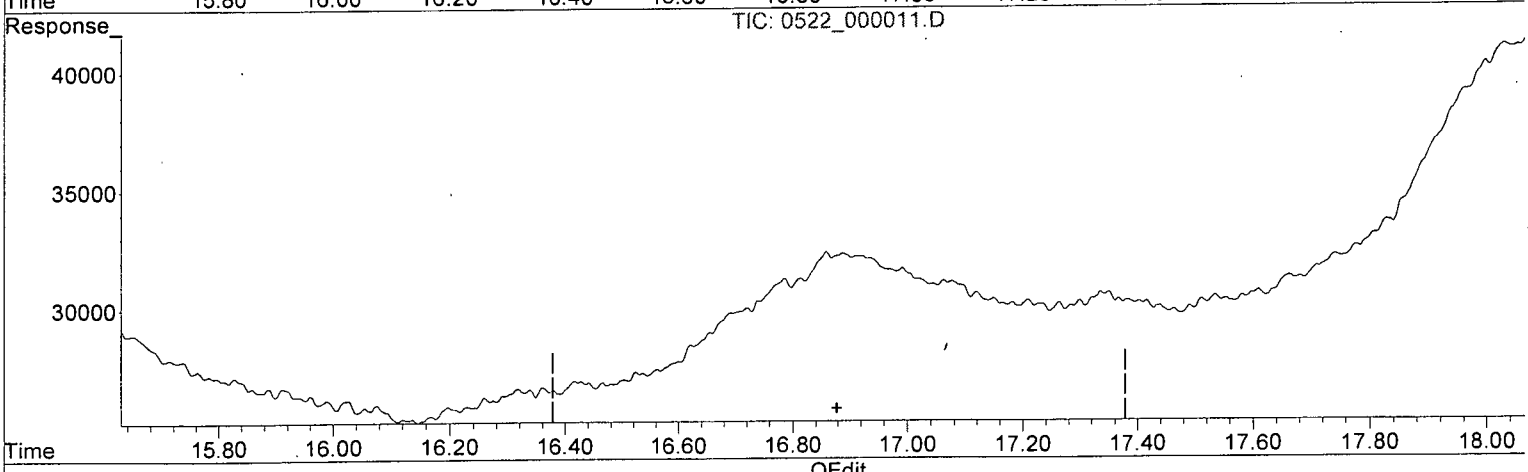
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





QEdit

(13) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(13) 4-NITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

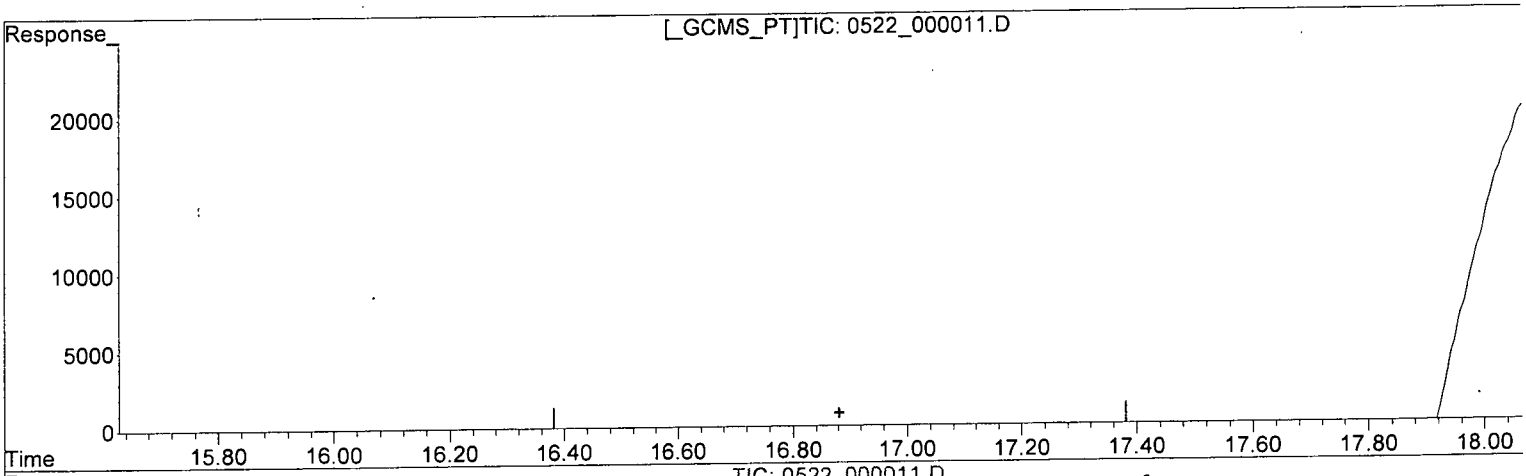
(+) = Expected Retention Time

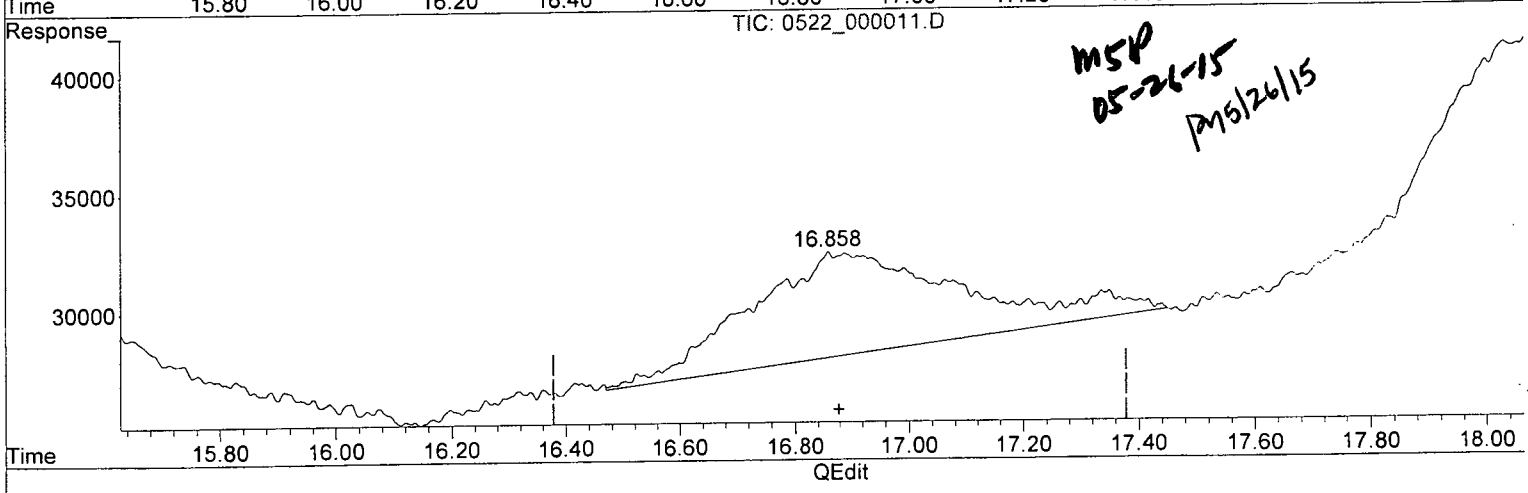
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MSP
05-26-15
PM 5/26/15

(13) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(13) 4-NITROTOLUENE #2 (TM)

16.858min 5.100 ppb m

response 4467

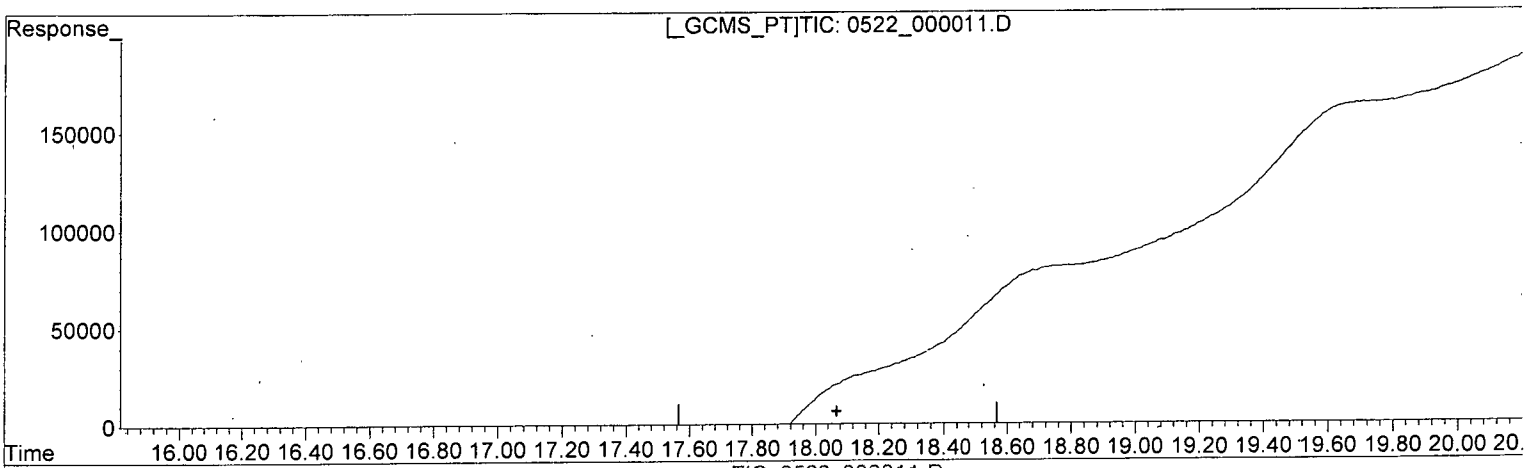
(+) = Expected Retention Time

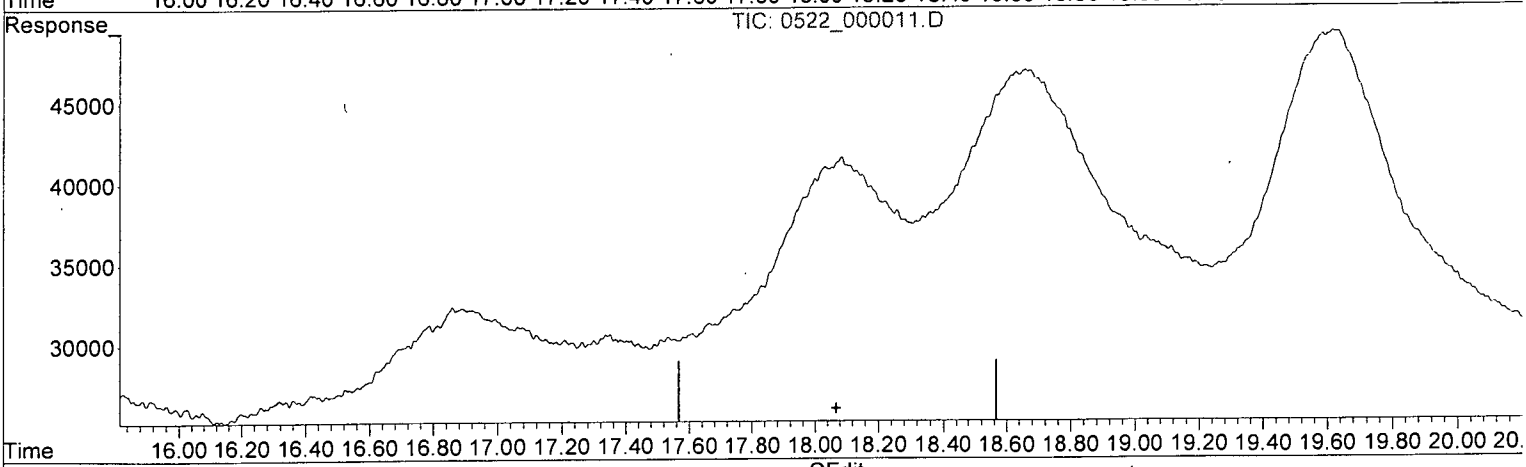
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





QEdit

(15) 3-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 3-NITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

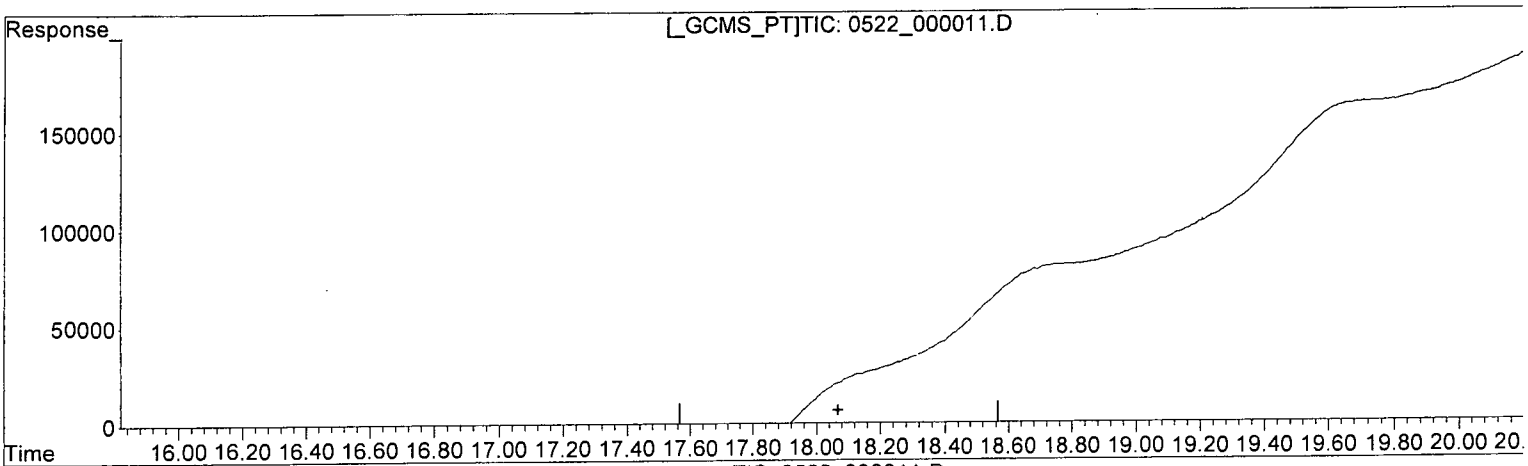
(+) = Expected Retention Time

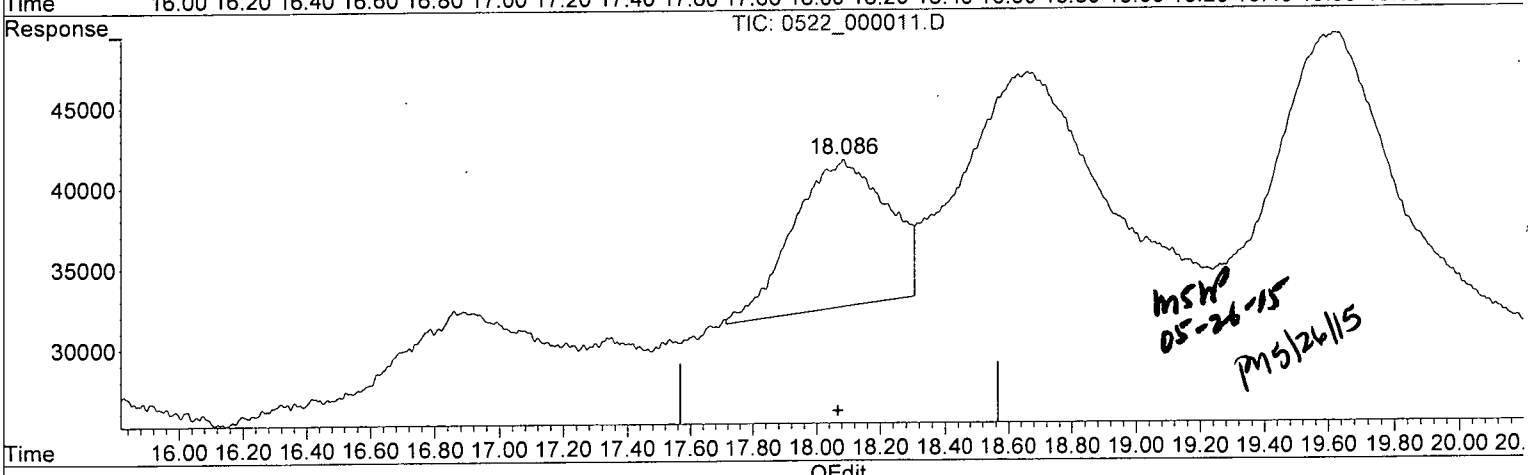
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MSW 05-26-15
PM 5/26/15

(15) 3-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 3-NITROTOLUENE #2 (TM)

18.086min 8.544 ppb m

response 9136

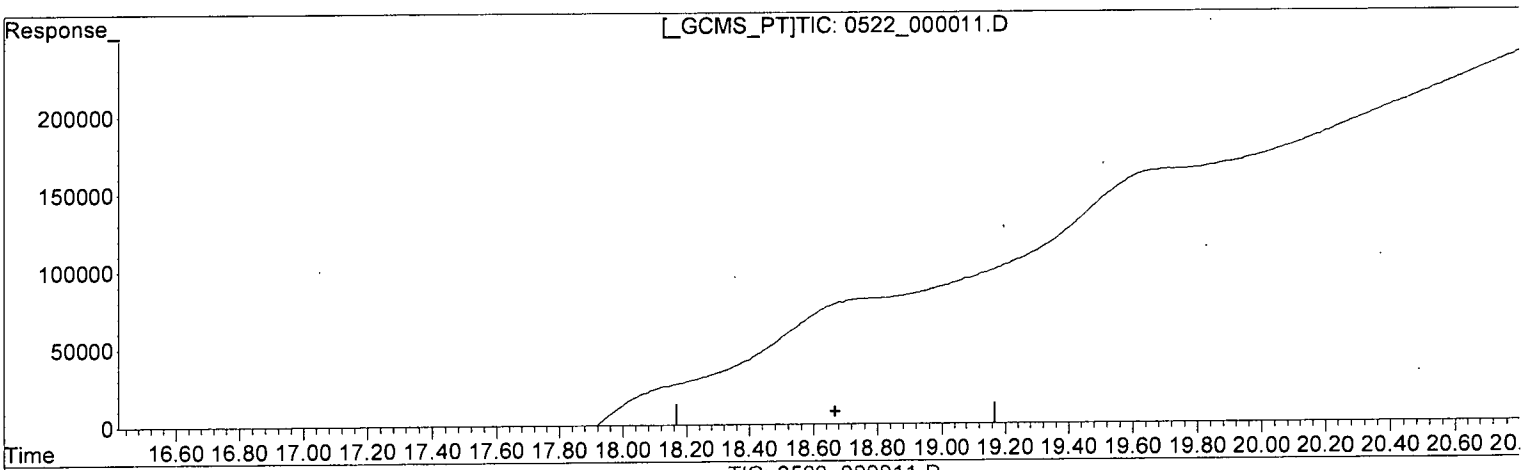
(+) = Expected Retention Time

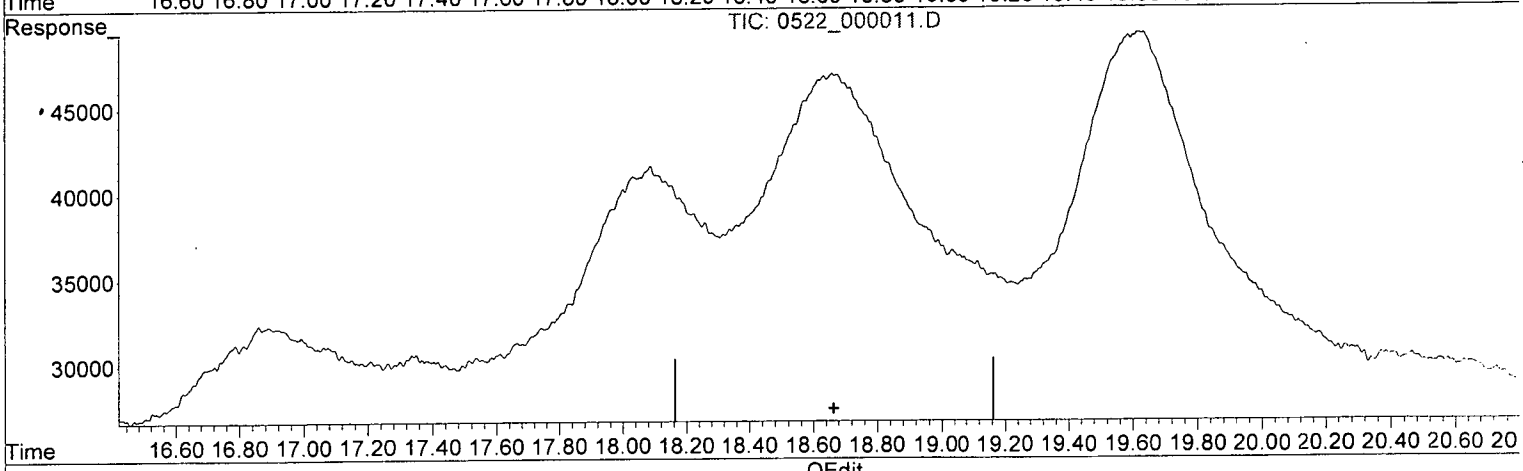
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(16) 4-AMINO-2,6-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-AMINO-2,6-DINITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

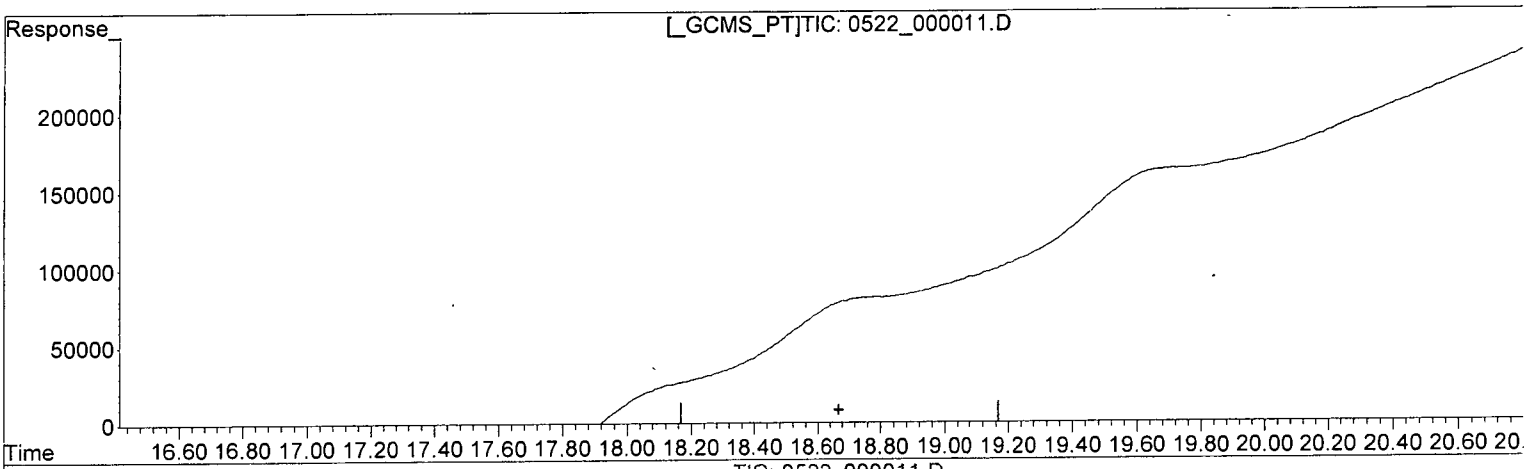
(+) = Expected Retention Time

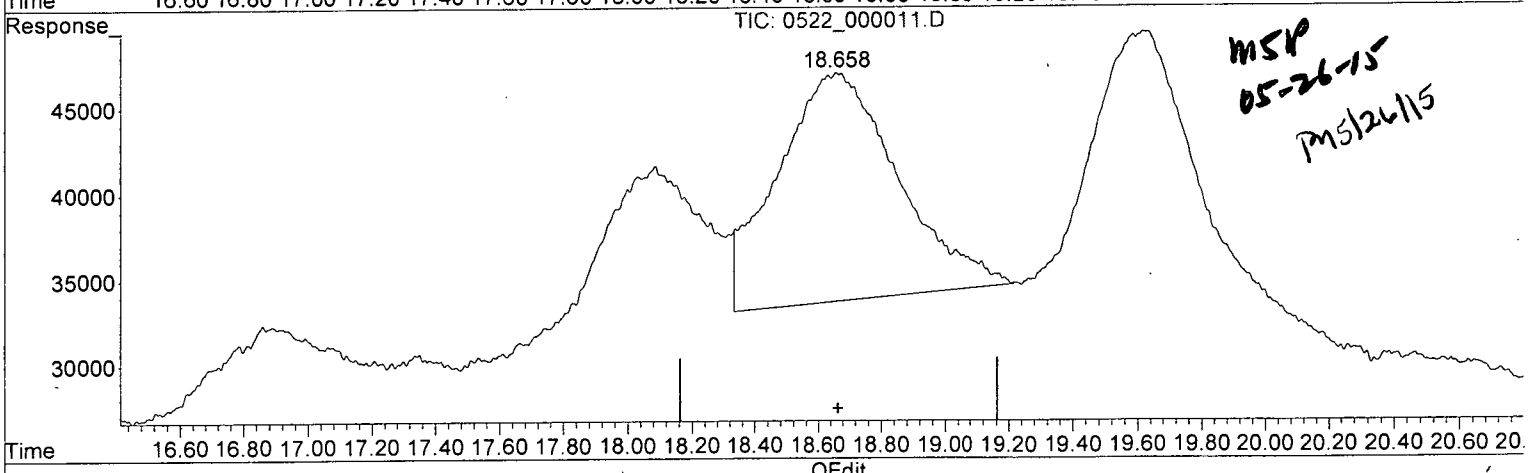
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MSP
05-26-15
PM5/26/15

(16) 4-AMINO-2,6-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-AMINO-2,6-DINITROTOLUENE #2 (TM)

18.658min 9.500 ppb m

response 13310

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:11:42
Operator : MP
Sample : 8330MXB_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4227 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:03:03 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
Spiked Amount 62.500			Recovery	=	0.00%	0.00%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
6) TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
7) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
8) TM NITROGLYC...	12.069	12.012	8300	427	9.114	NoCal #
9) TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM 2,6-DINIT...	^ 0.000	0.000	0	0	N.D.	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14) TM 3,5-DINIT...	0.000	16.538	0	17290	N.D.	8.662m#
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

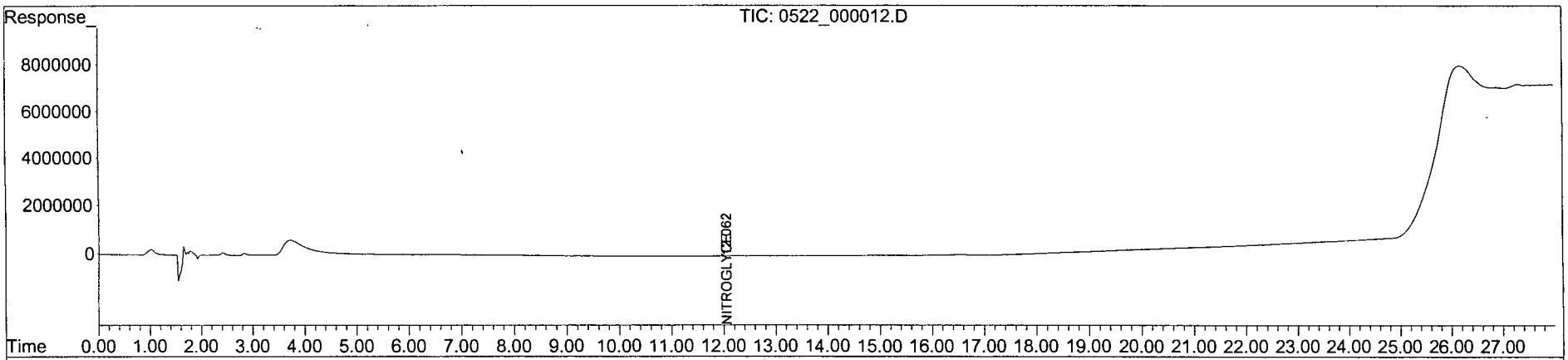
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

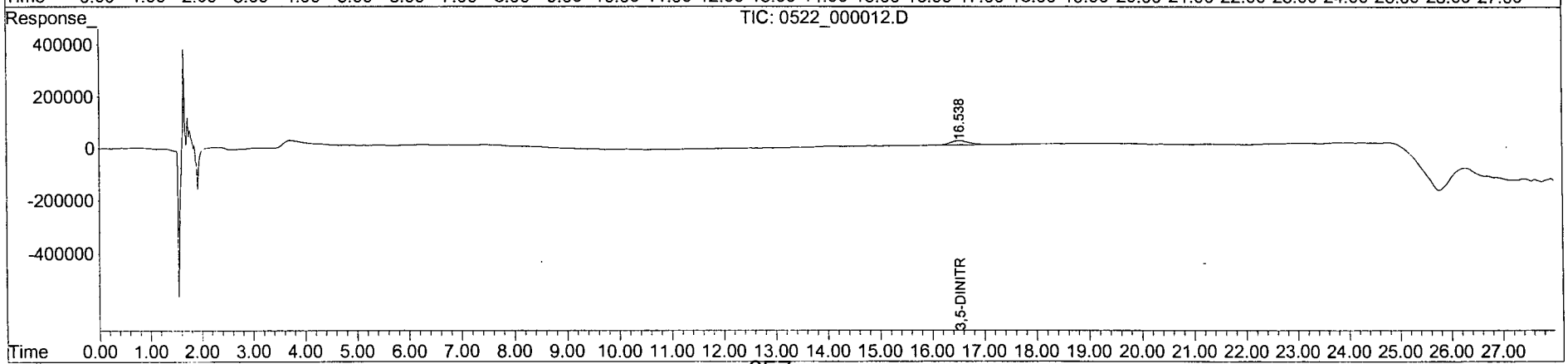
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:11:42
Operator : MP
Sample : 8330MXB_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4227 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:03:03 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



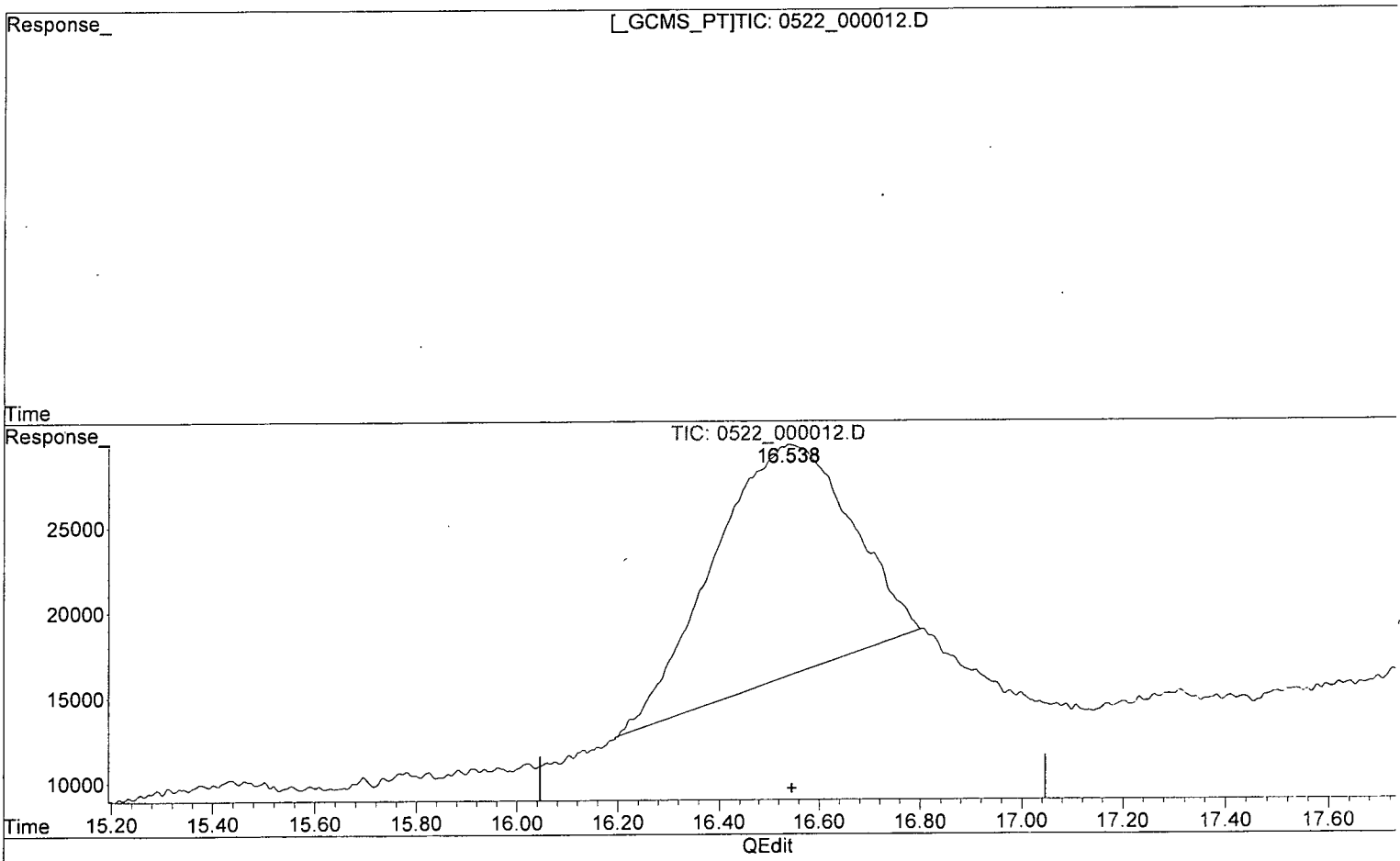


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:11:42
Operator : MP
Sample : 8330MXB_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4227 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:08 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(14) 3,5-DINITROANILINE (TM)

0.000min 0.000 ppb

response 0

(14) 3,5-DINITROANILINE #2 (TM)

16.542min 6.767 ppb

response 13506

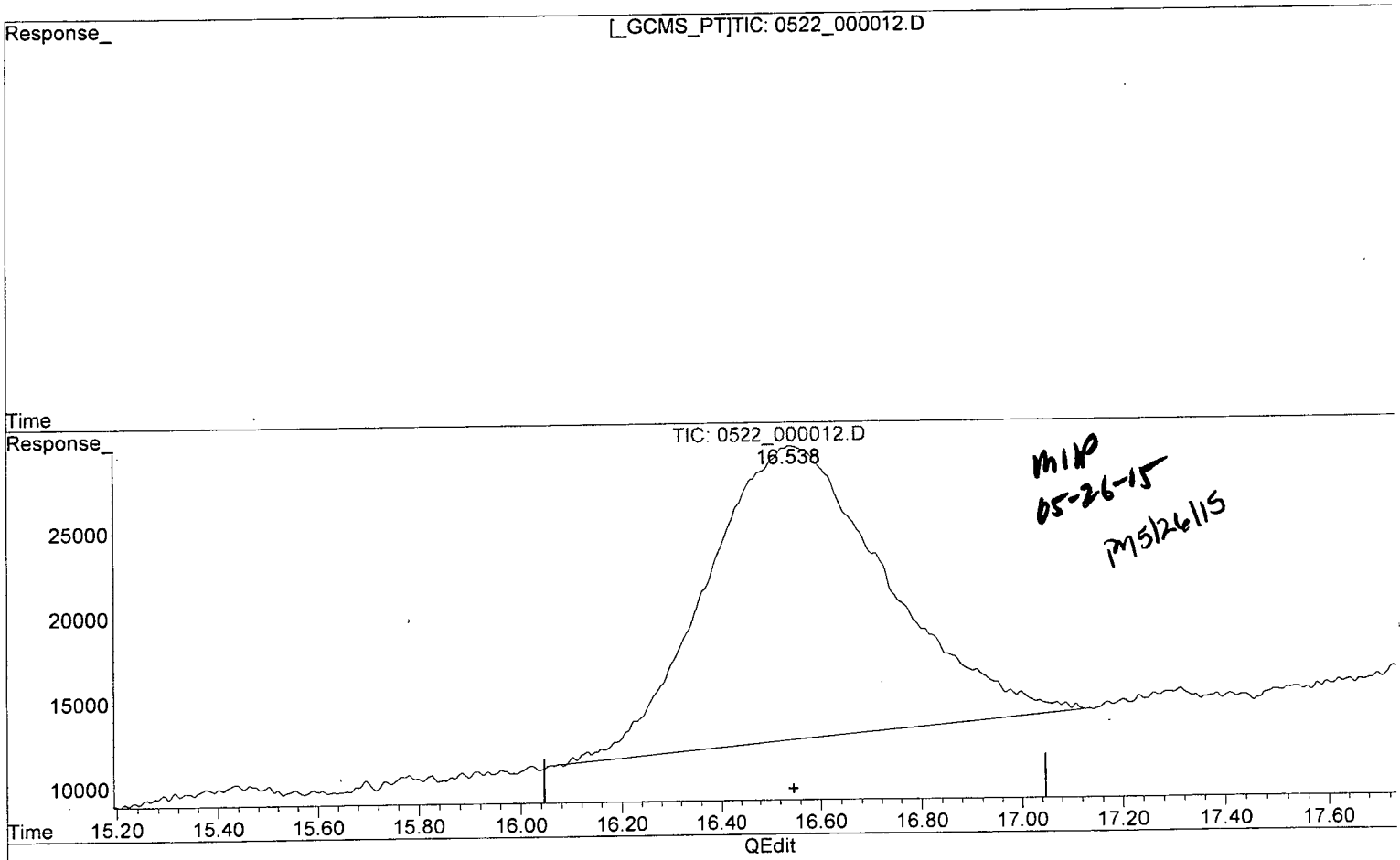
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:11:42
Operator : MP
Sample : 8330MXB_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4227 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:08 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



MIP
05-26-15
PM5/26/15

(14) 3,5-DINITROANILINE (TM)

0.000min 0.000 ppb

response 0

(14) 3,5-DINITROANILINE #2 (TM)

16.538min 8.662 ppb m

response 17290

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:50:55 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.097	0	35930	N.D.	17.030m#
Spiked Amount 62.500			Recovery	=	0.00%	27.25%
Target Compounds						
1) TM HMX	0.000	4.078	0	37138	N.D.	17.661m#
2) TM RDX	0.000	6.420	0	30890	N.D.	16.678m#
3) TM 1,3,5-TRI...	0.000	6.758	0	78697	N.D.	17.607m#
5) TM 1,3-DINIT...	0.000	8.432	0	79097	N.D.	17.588m#
6) TM NITROBENZENE	0.000	9.169	0	42712	N.D.	16.674m#
7) TM 2,4,6-TRI...	0.000	11.447	0	40720	N.D.	16.040 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.979	11.969	25584	31272	NoCal	18.984 #
10) TM 2,6-DINIT...	13.451	13.456	39681	24473	NoCal	16.568 #
11) TM 2,4-DINIT...	0.000	14.055	0	40841	N.D.	16.210 #
12) TM 2-NITROTO...	0.000	15.476	0	17127	N.D.	16.245m#
13) TM 4-NITROTO...	0.000	16.897	0	13066	N.D.	14.919 #
14) TM 3,5-DINIT...	0.000	16.897f	0	13066	N.D.	6.546 #
15) TM 3-NITROTO...	0.000	18.069	0	19154	N.D.	17.914 #
16) TM 4-AMINO-2...	0.000	18.648	0	30398	N.D.	21.698 #
17) TM 2-AMINO-4...	0.000	19.600	0	36708	N.D.	18.007 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

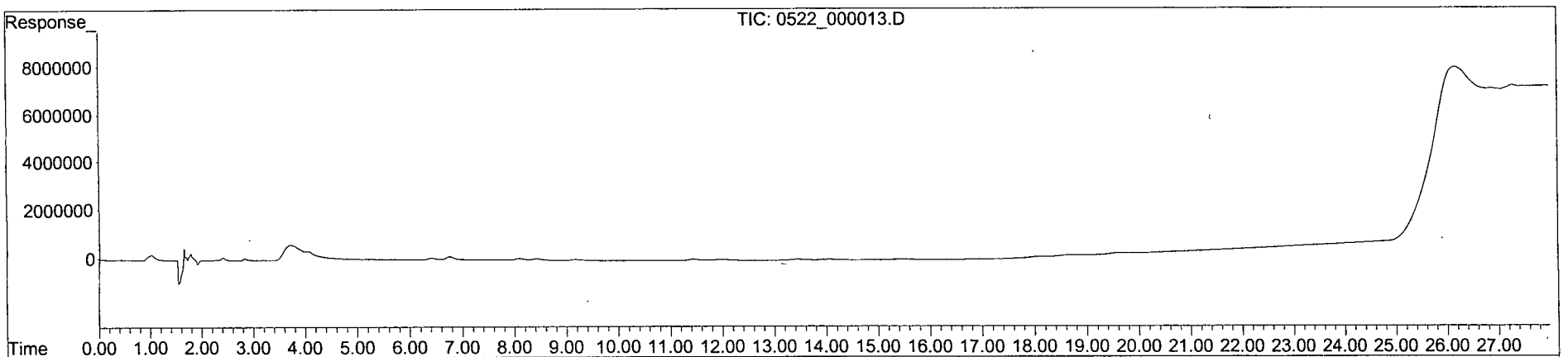
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

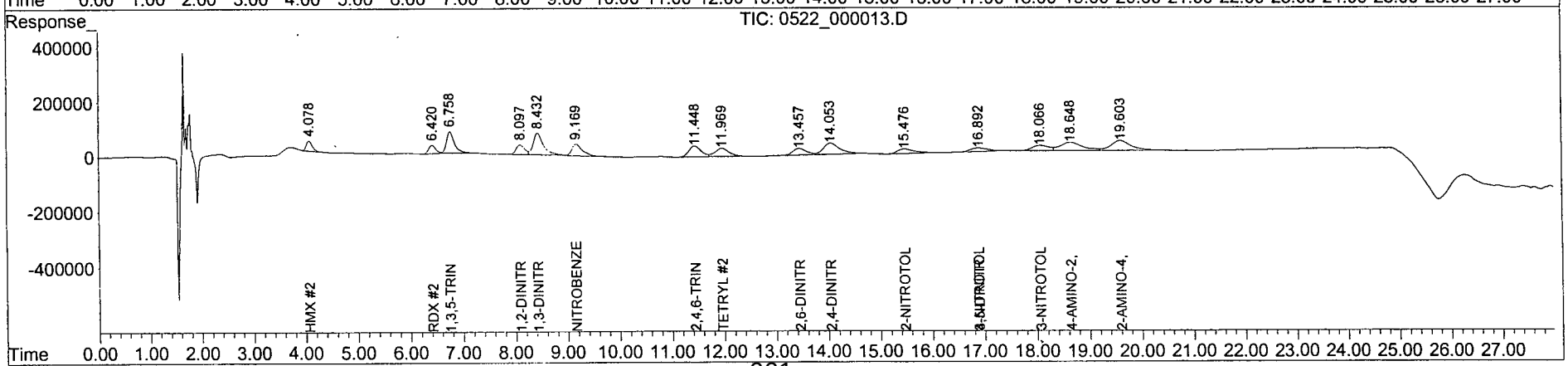
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:50:55 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



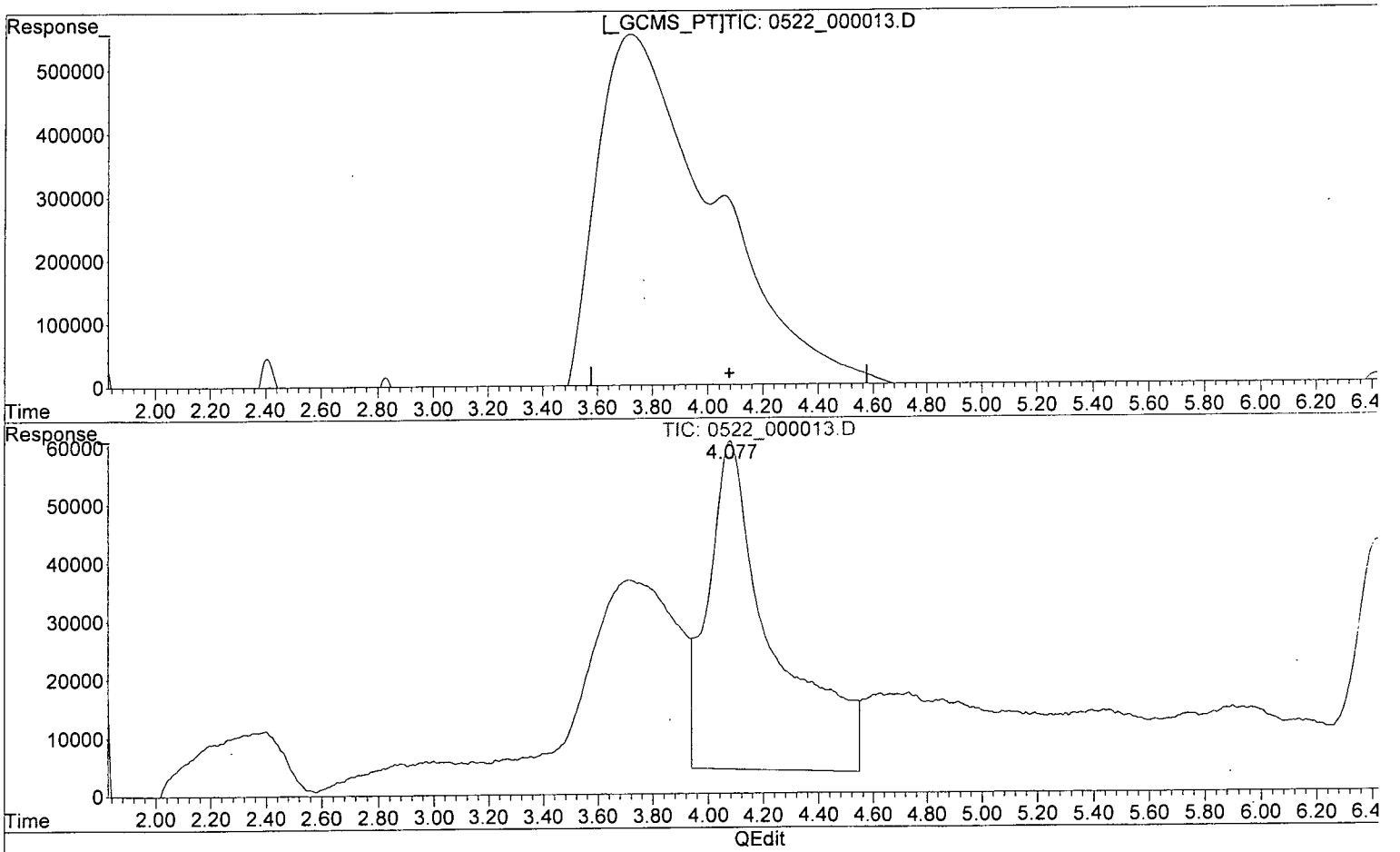


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.077min 26.787 ppb

response 56329

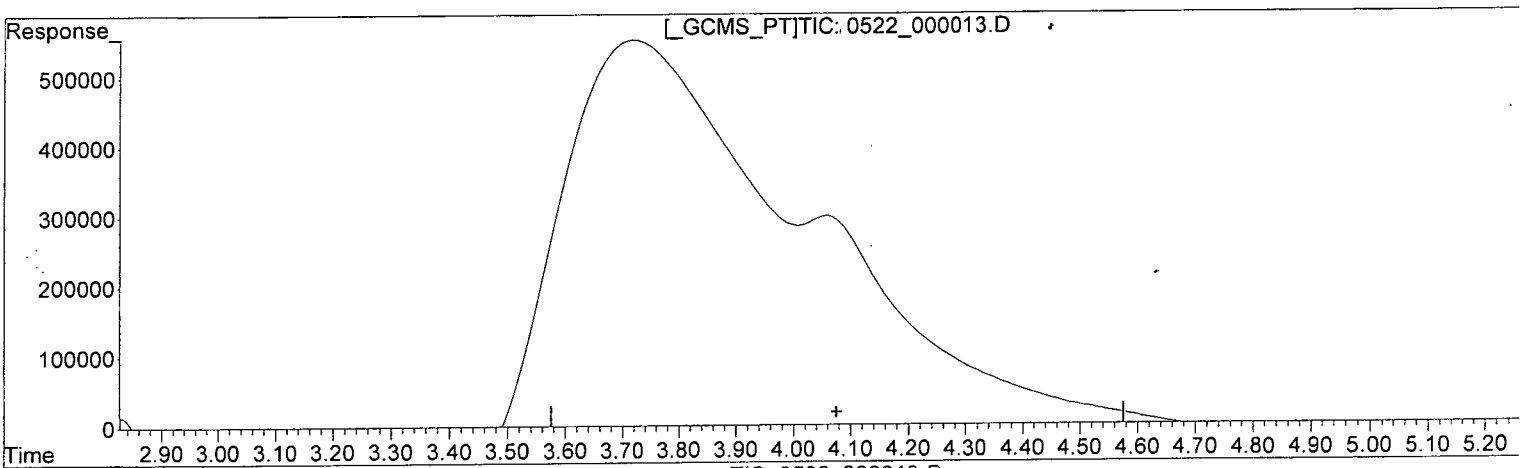
(+) = Expected Retention Time

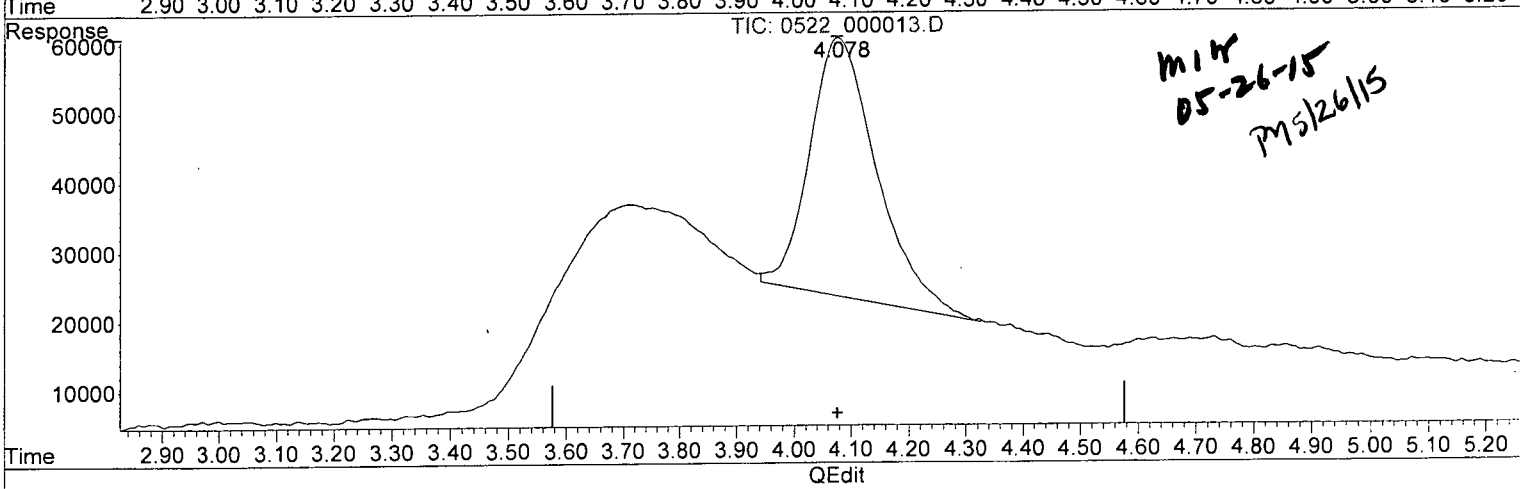
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MIK
05-26-15
PM 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.078min 17.661 ppb m

response 37138

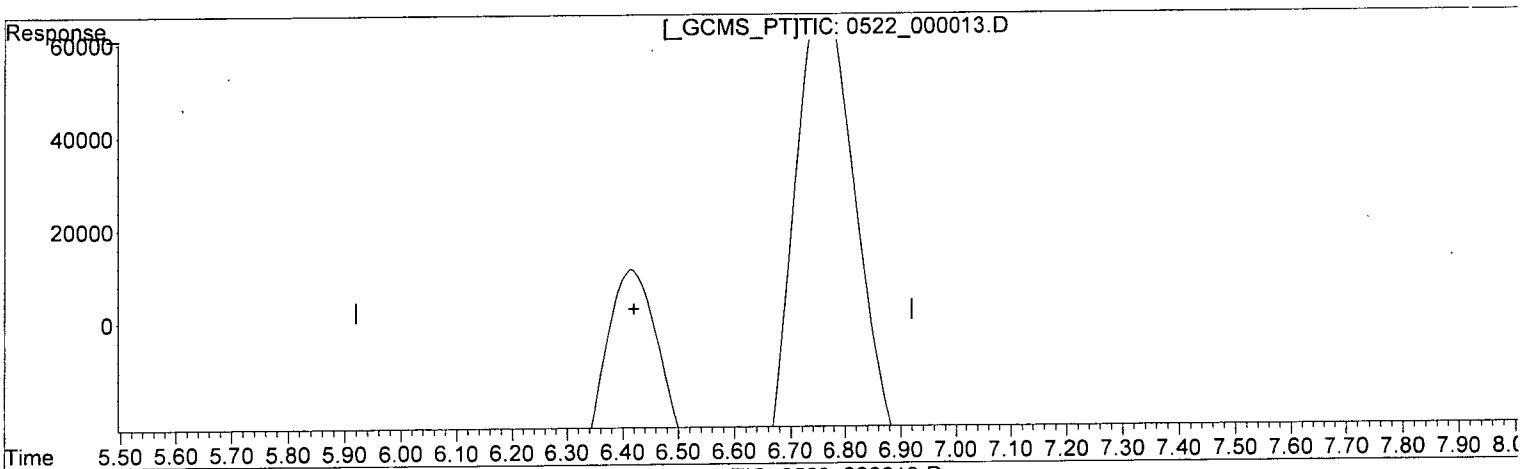
(+) = Expected Retention Time

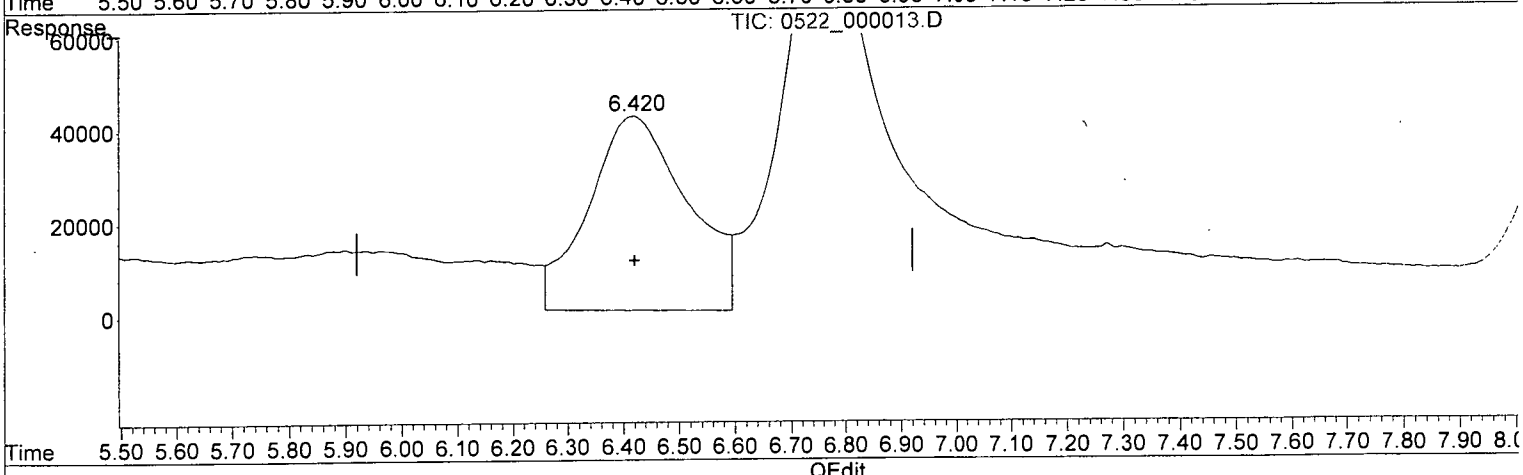
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.418min 22.479 ppb

response 41634

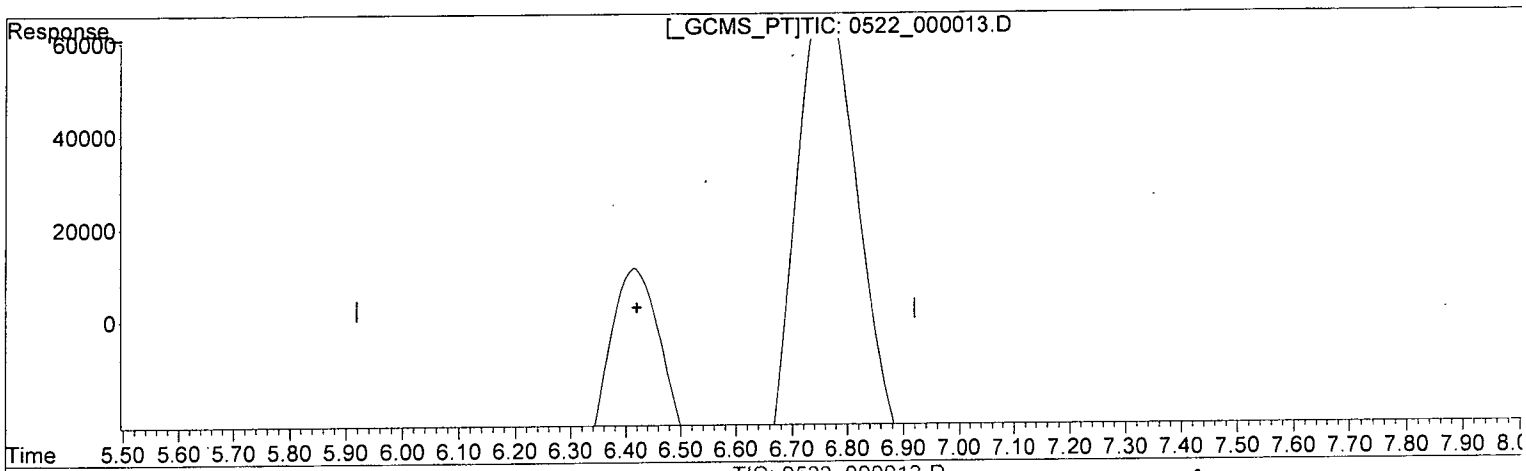
(+) = Expected Retention Time

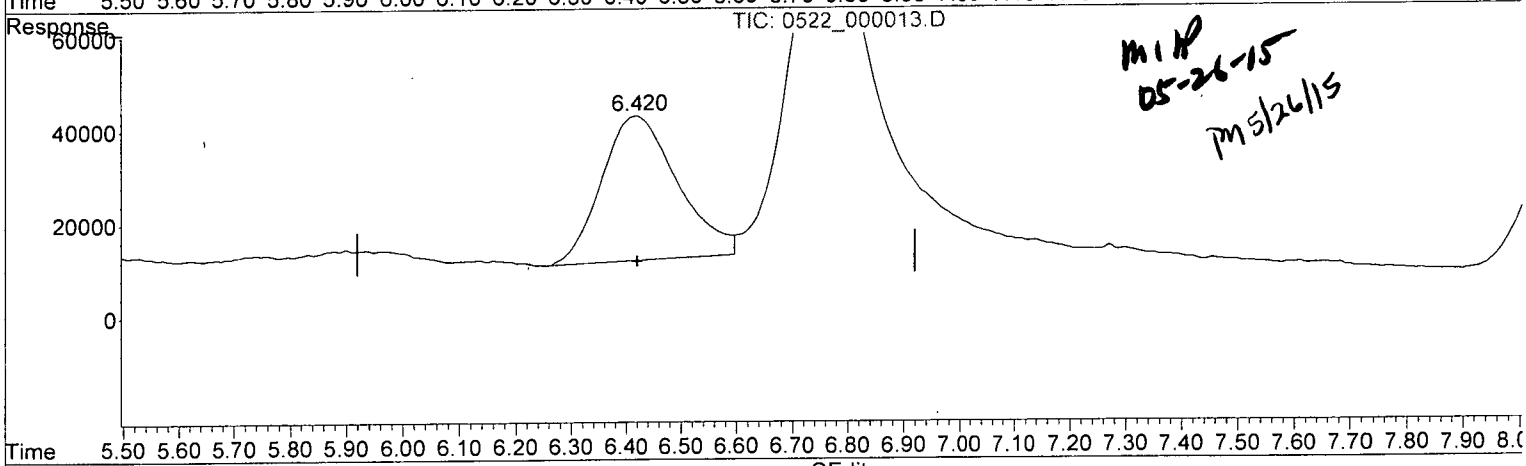
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MIP
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PM 5/26/15

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.420min 16.678 ppb m

response 30890

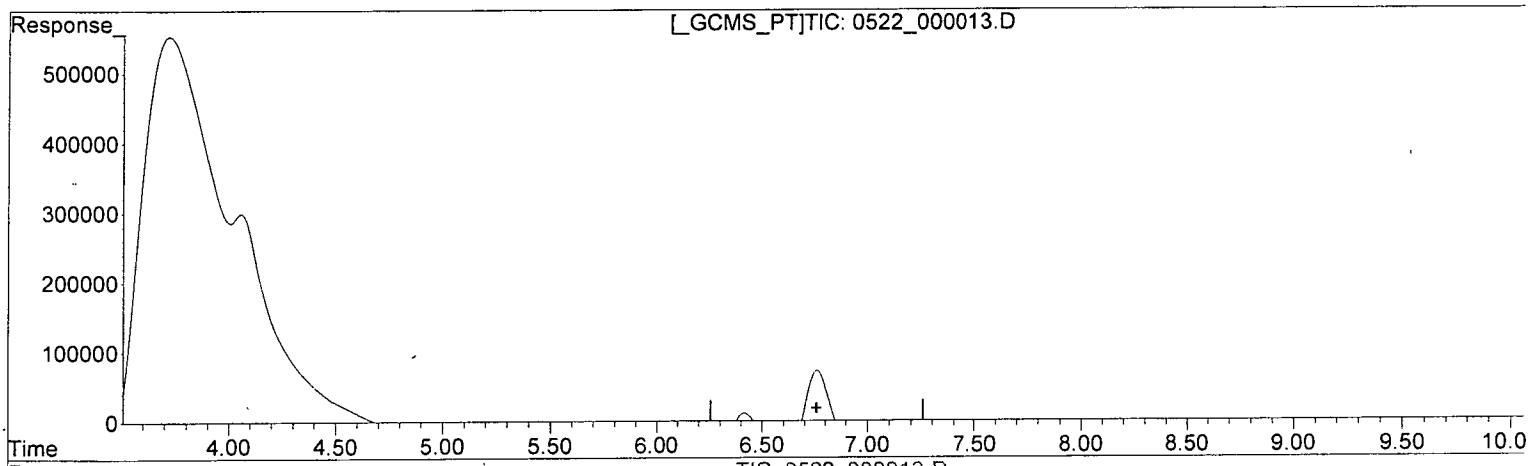
(+) = Expected Retention Time

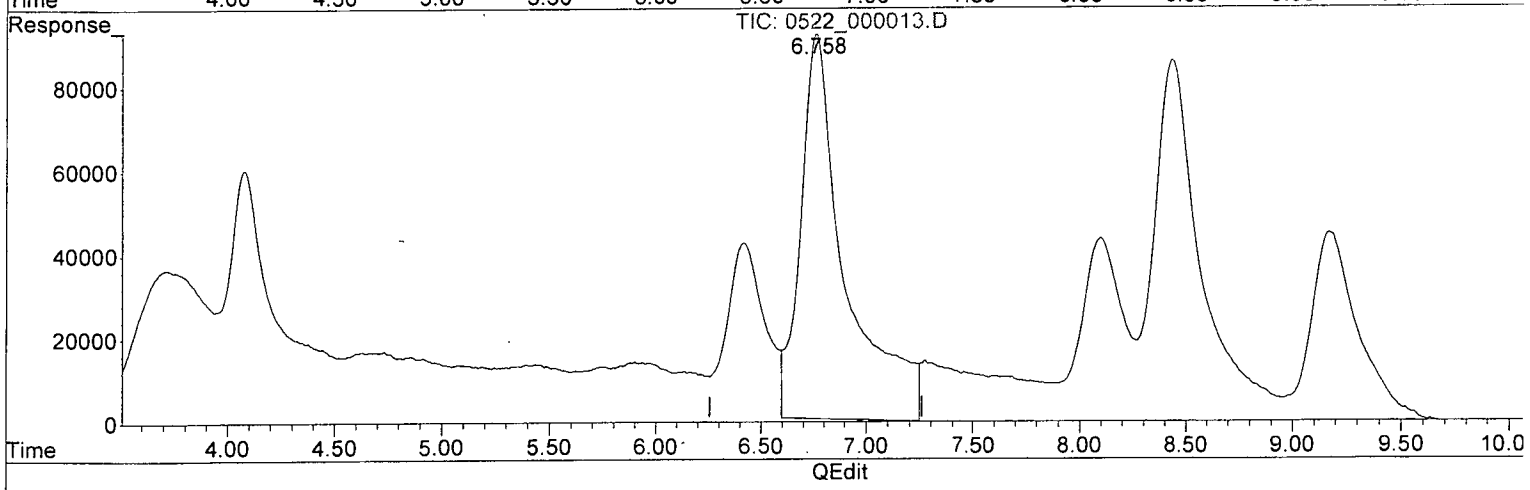
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.759min 20.535 ppb

response 91787

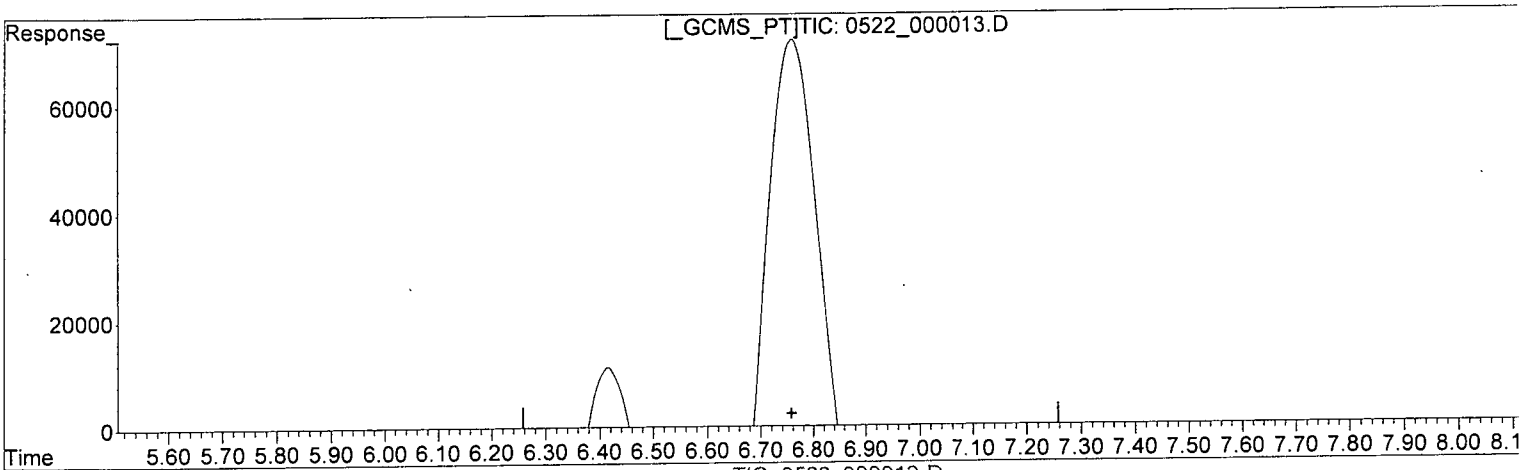
(+) = Expected Retention Time

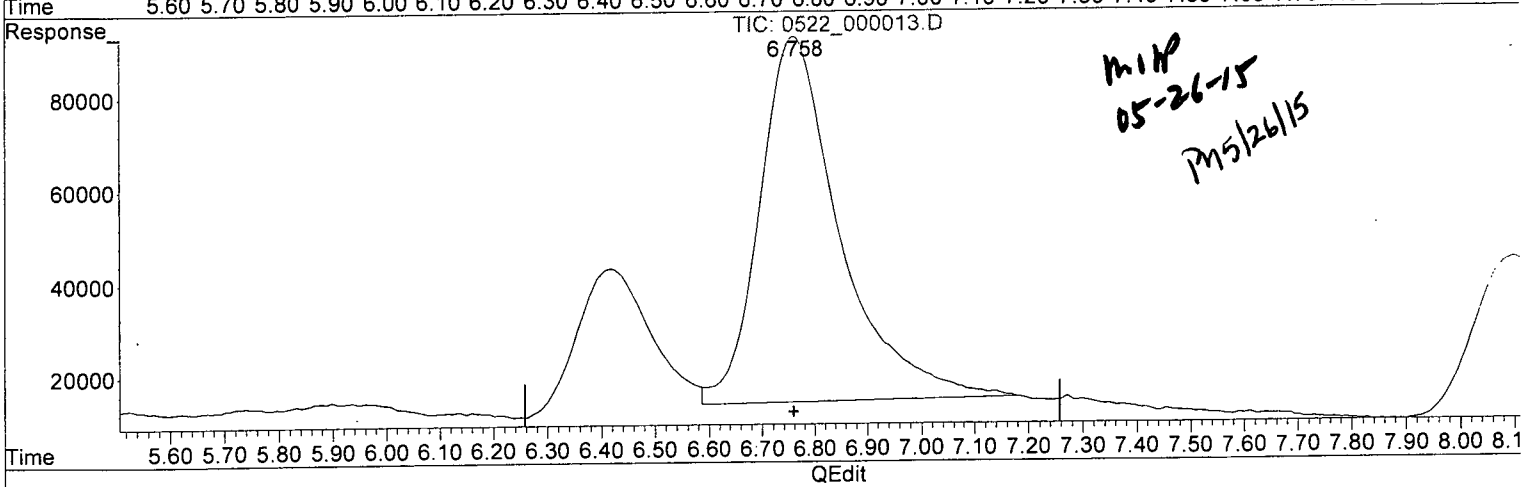
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MMP
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PM 5/26/15

(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.758min 17.607 ppb m

response 78697

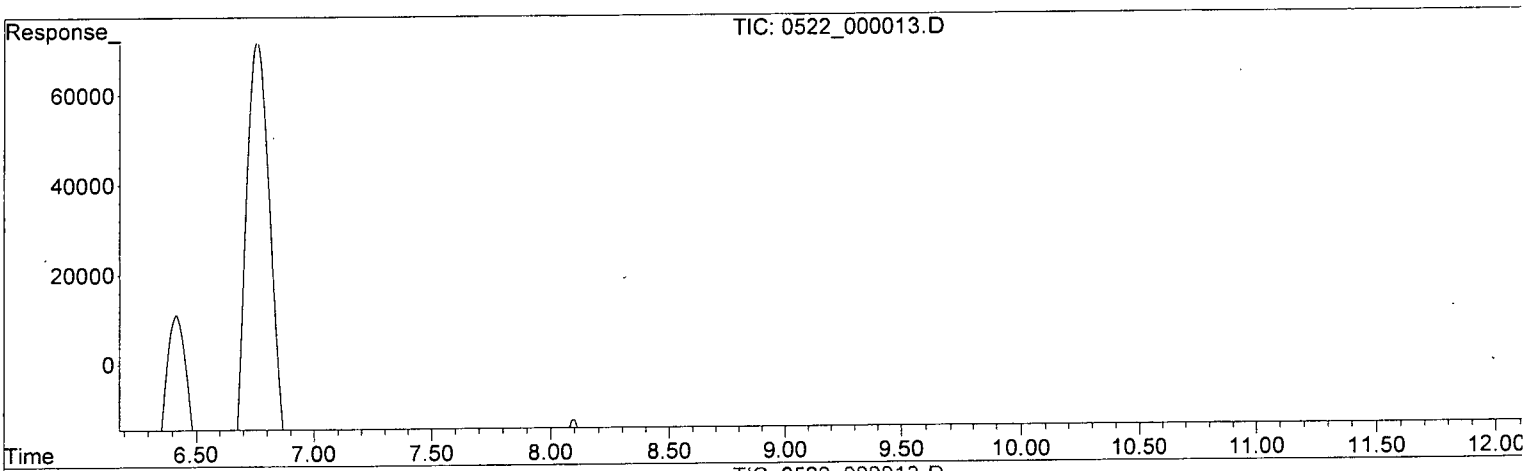
(+) = Expected Retention Time

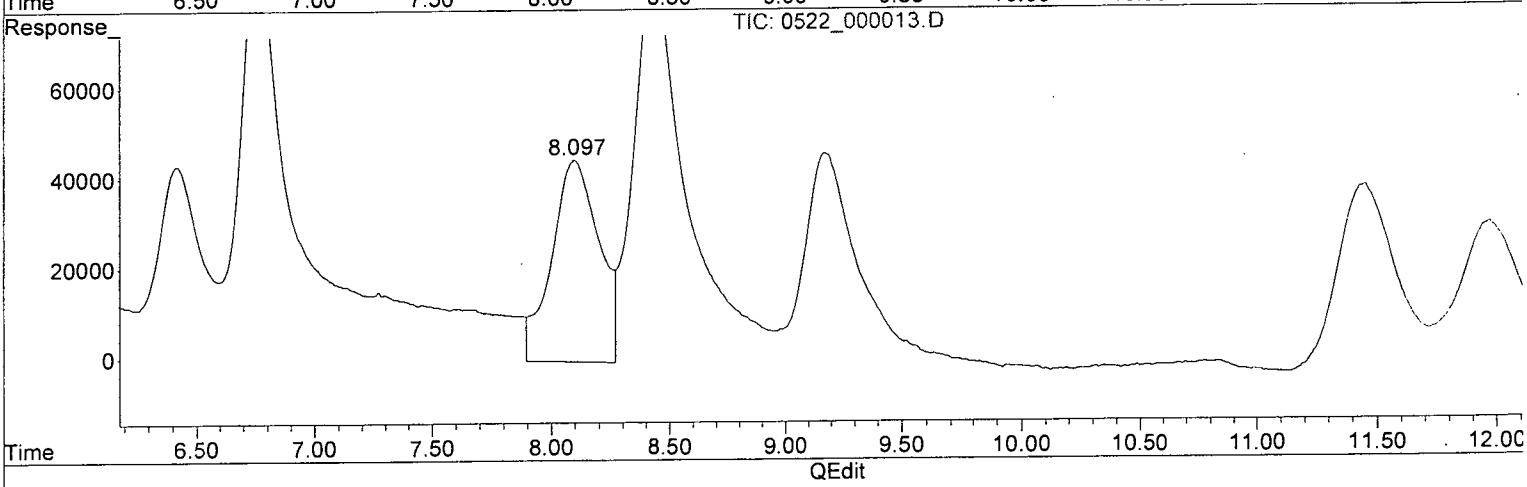
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.098min 21.218 ppb

response 44767

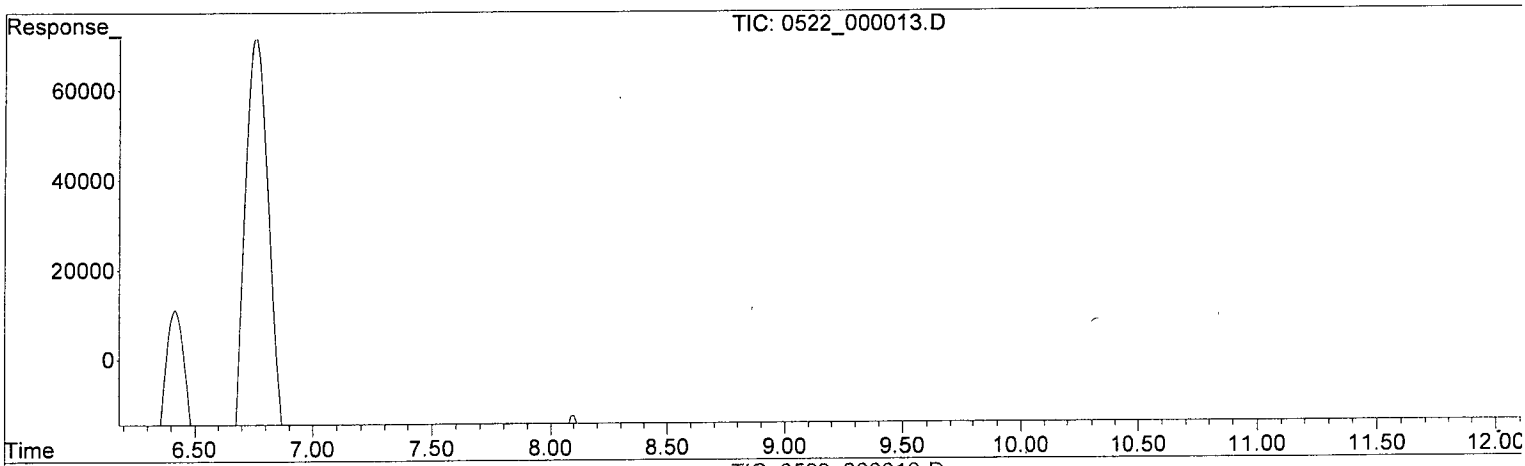
(+) = Expected Retention Time

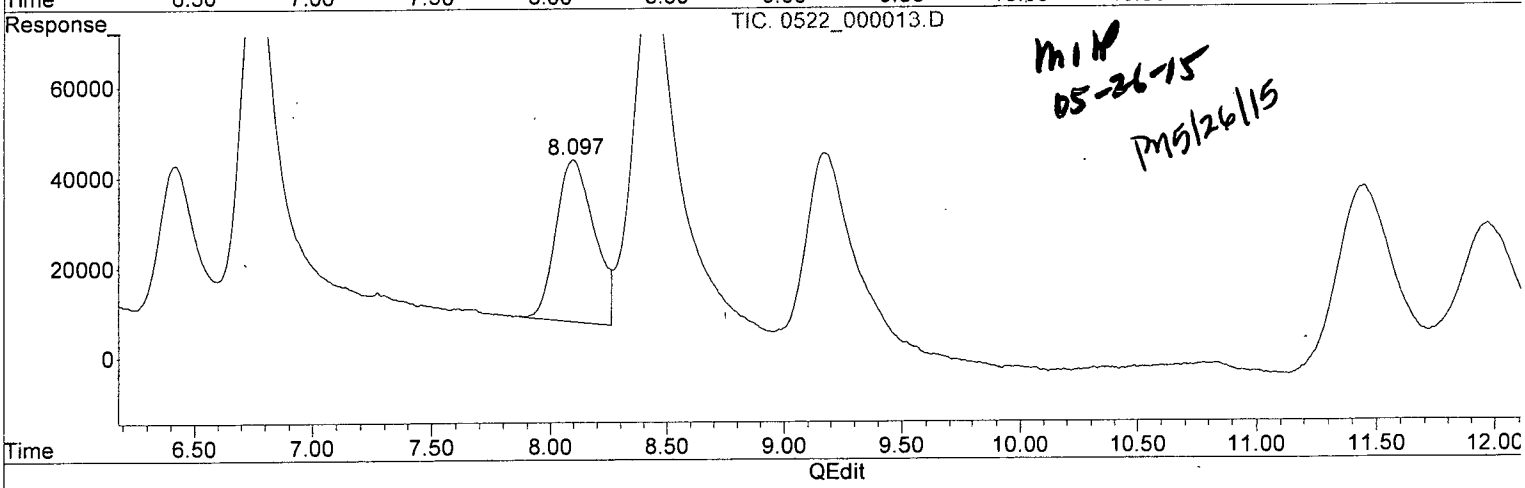
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MIP
05-26-15
PM5/26/15

(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.097min 17.030 ppb m

response 35930

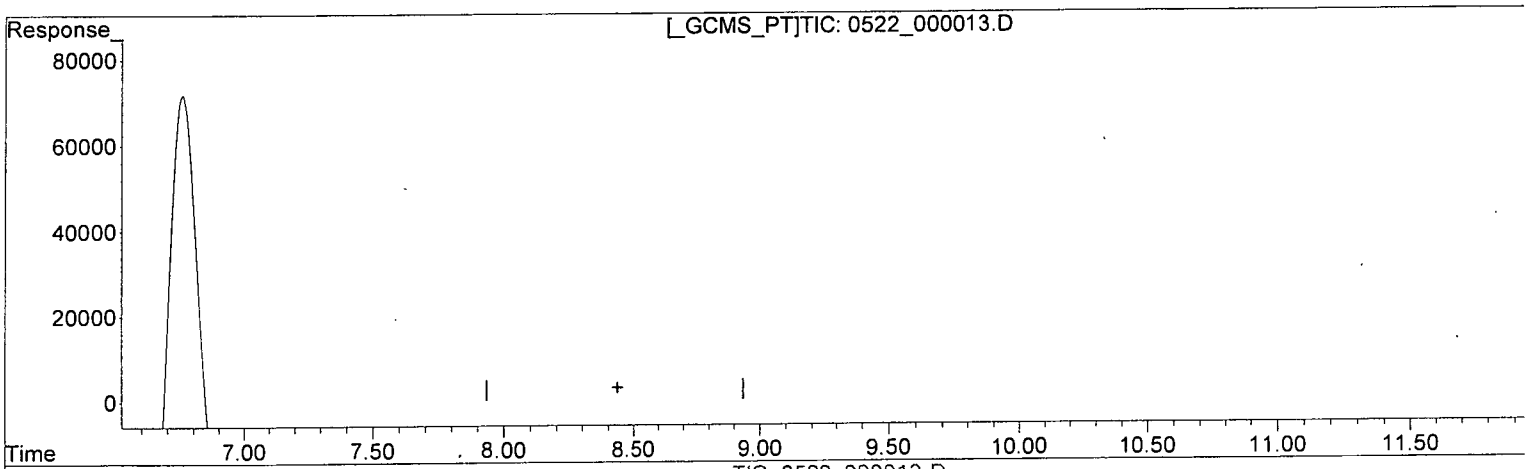
(+) = Expected Retention Time

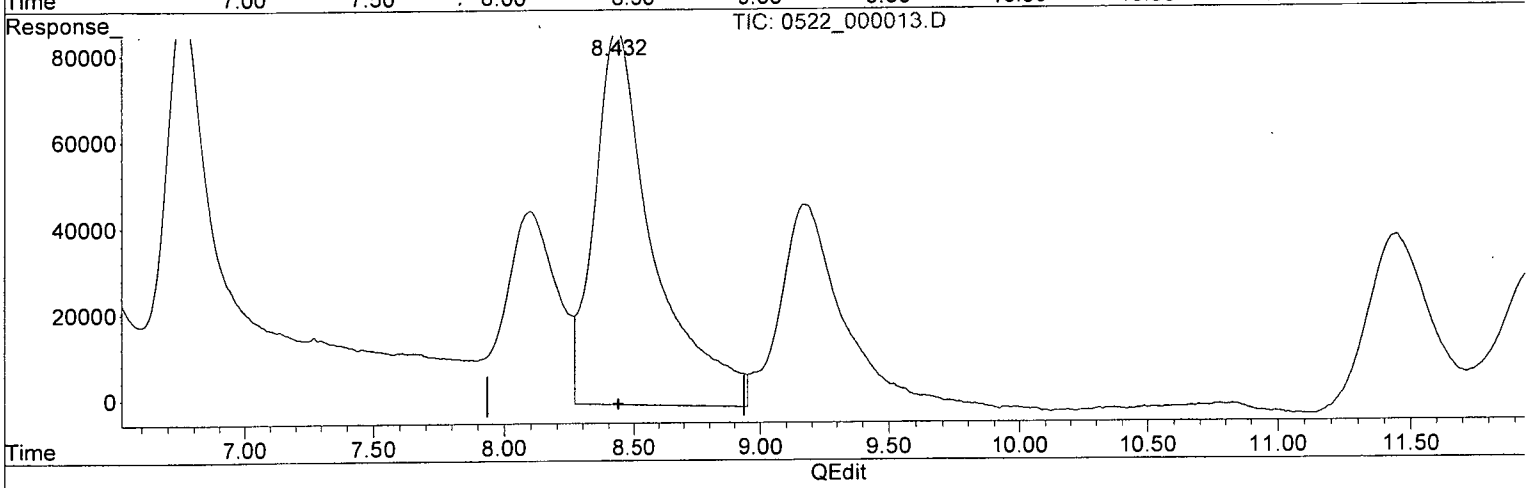
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.433min 19.439 ppb

response 87423

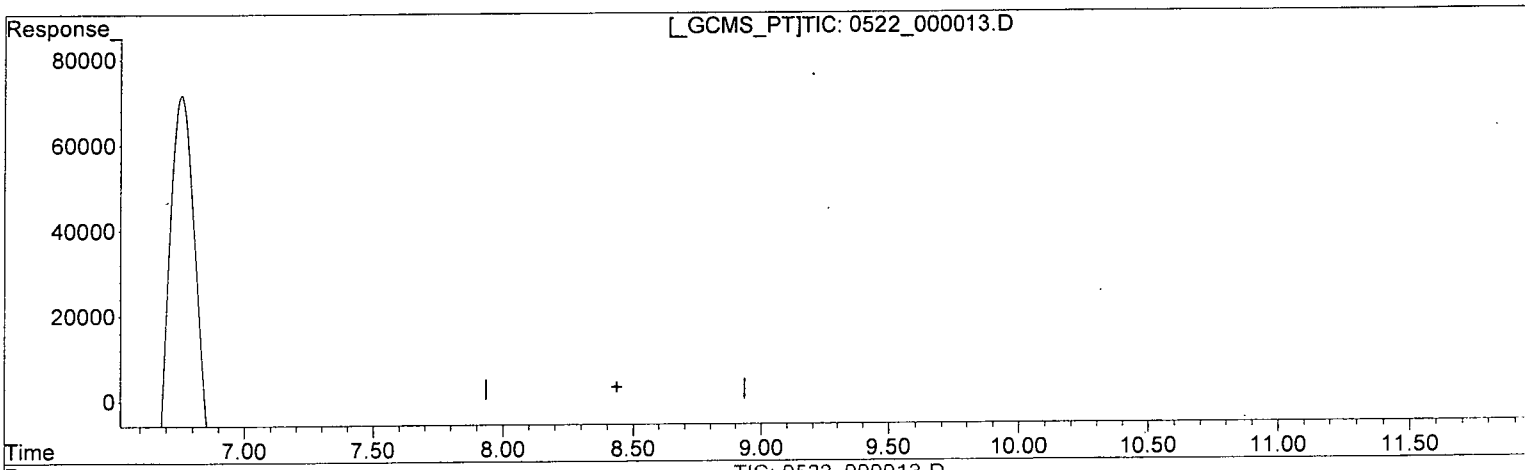
(+) = Expected Retention Time

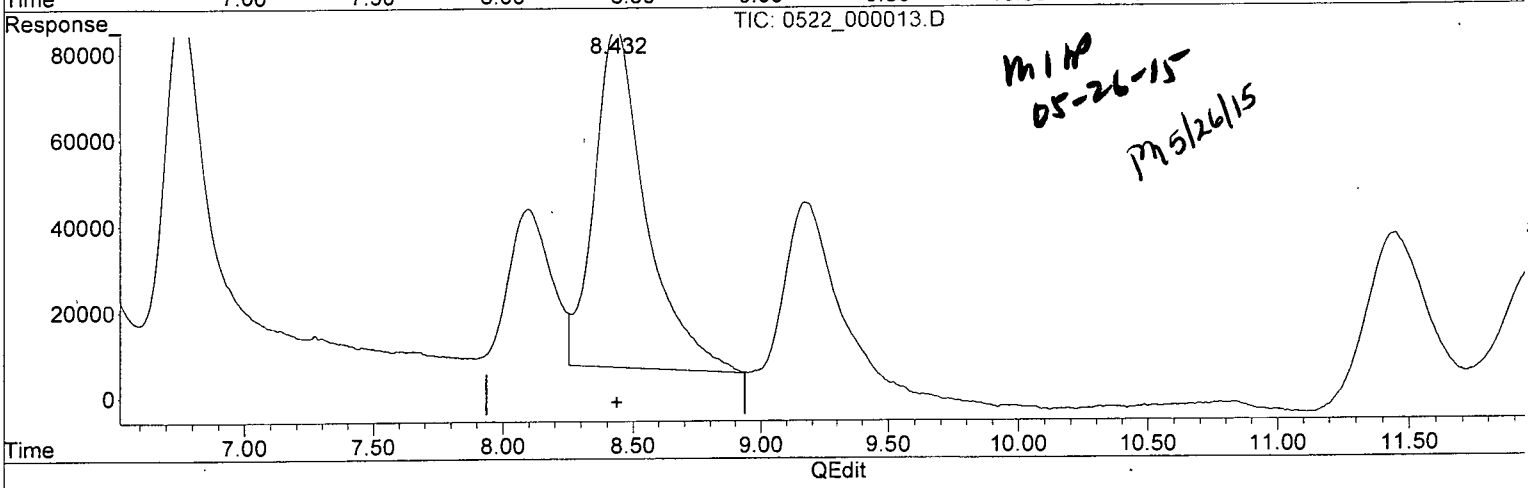
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r





MLP
05-26-15
MP 5/26/15

(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.432min 17.588 ppb m

response 79097

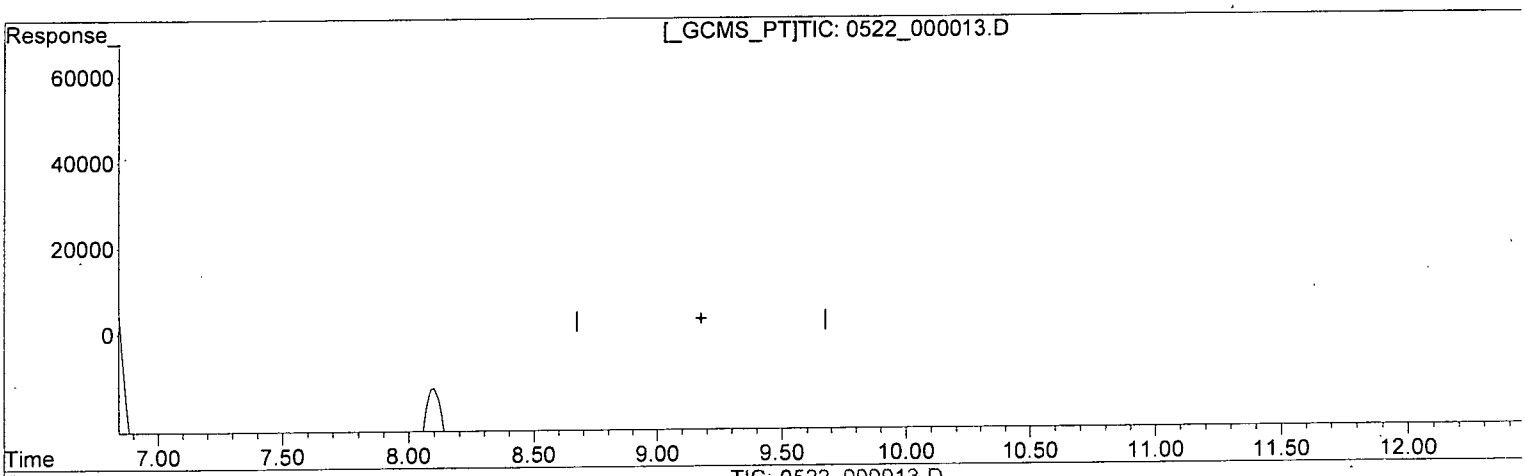
(+) = Expected Retention Time

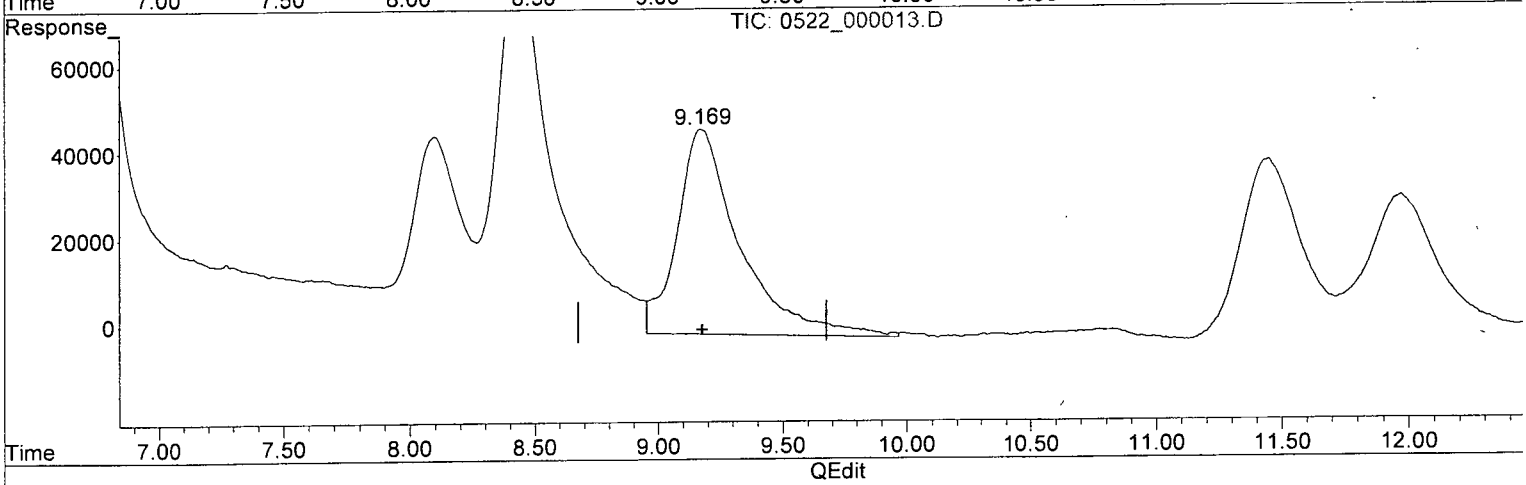
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.171min 18.468 ppb

response 47307

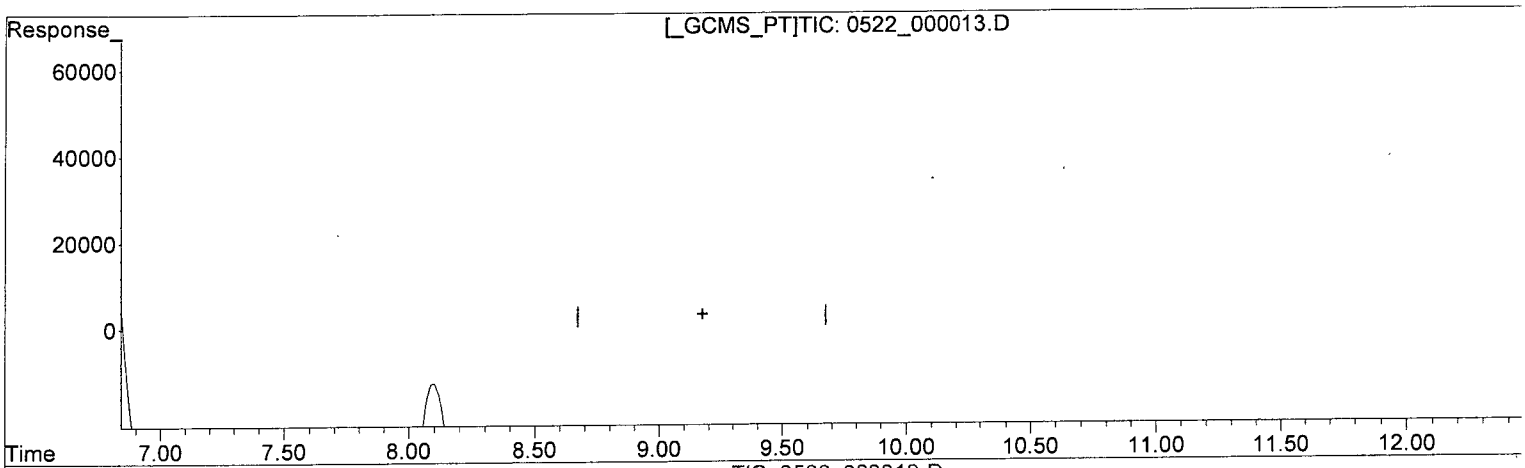
(+) = Expected Retention Time

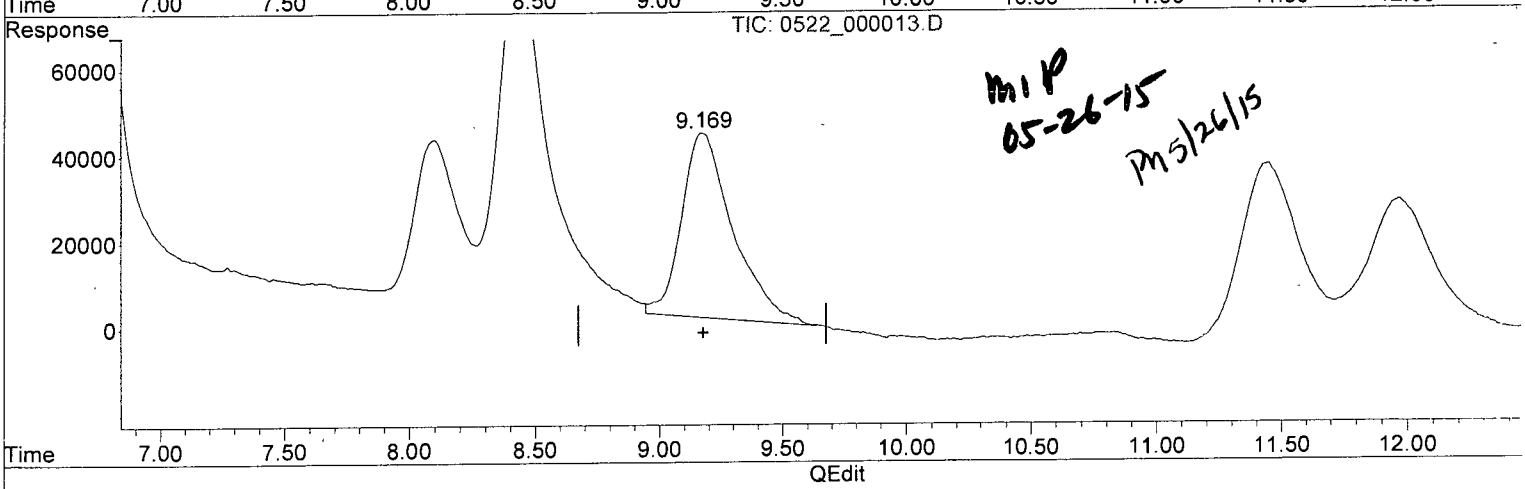
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r





MIP
05-26-15
PM 5/26/15

(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.169min 16.674 ppb m

response 42712

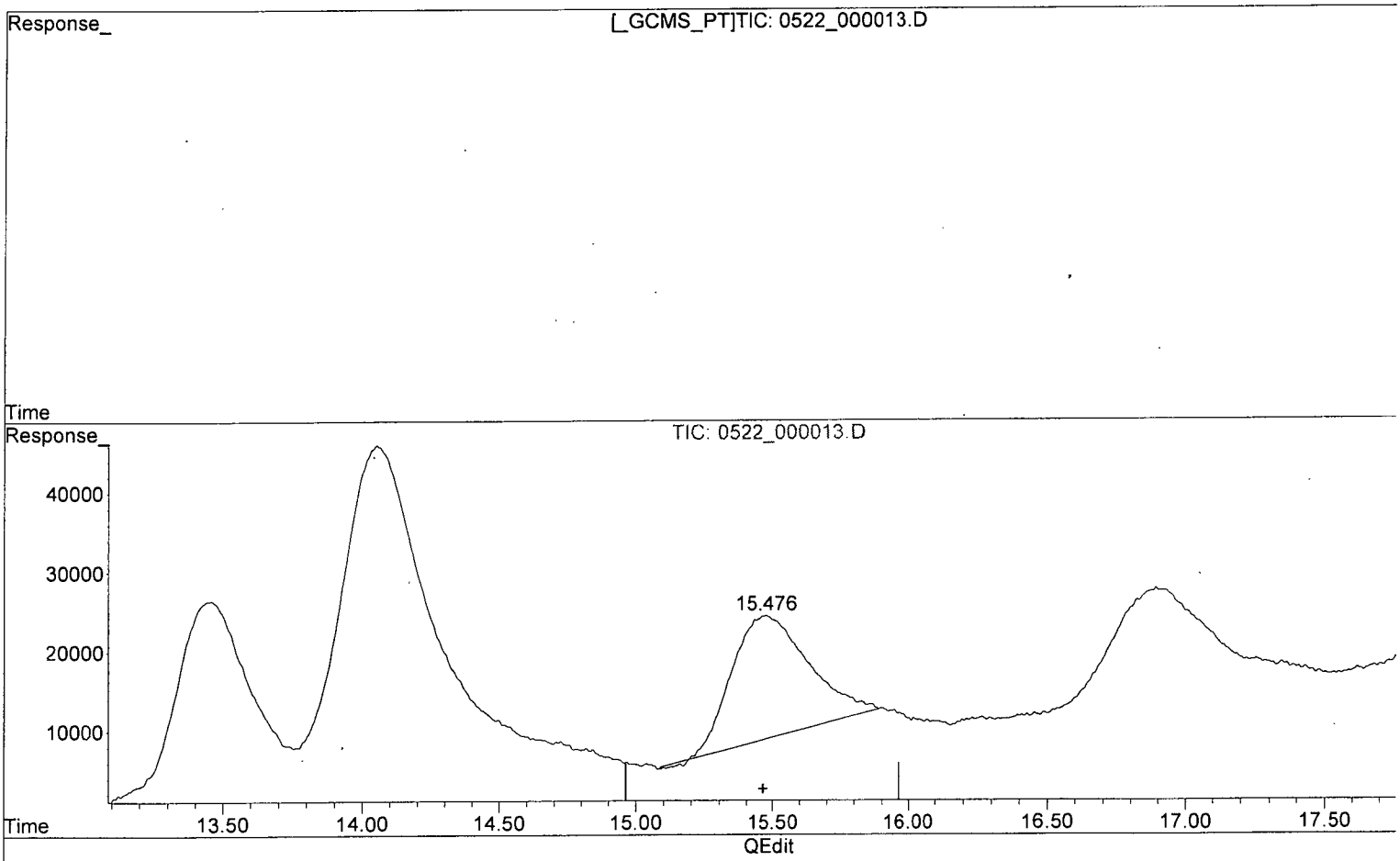
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(12) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(12) 2-NITROTOLUENE #2 (TM)

15.474min 14.676 ppb

response 15473

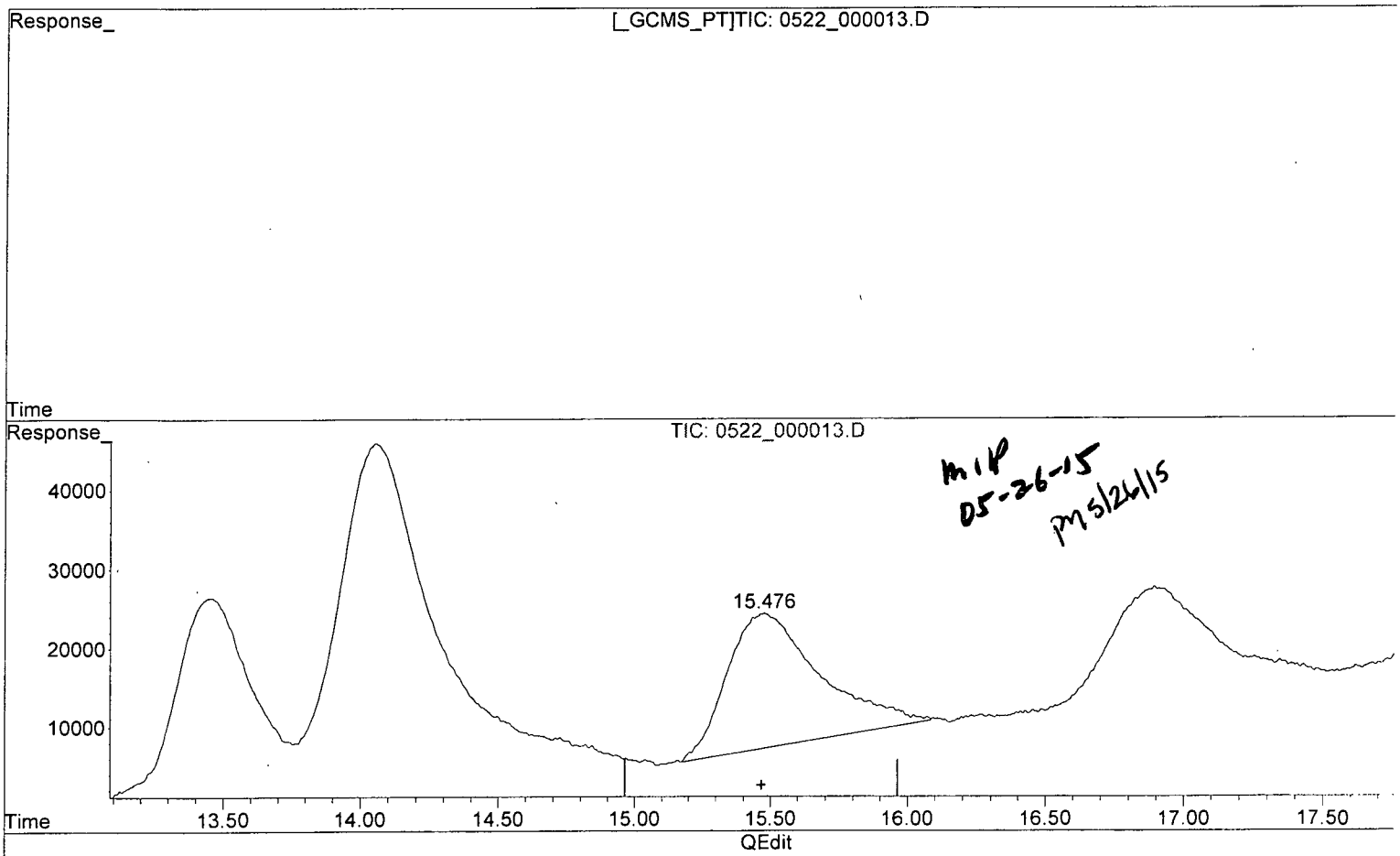
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(12) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(12) 2-NITROTOLUENE #2 (TM)

15.476min 16.245 ppb m

response 17127

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:30:43
Operator : MP
Sample : 8330MXB_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4229 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:47:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 62.500			Recovery	=	0.00%	0.00%
	Target Compounds						
1)	TM HMX	0.000	0.000	0	0	N.D.	N.D.
2)	TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5)	TM 1,3-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
6)	TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
7)	TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
8)	TM NITROGLYC...	12.062	0.000	14397	0	15.809	N.D. d#
9)	TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10)	TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11)	TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13)	TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14)	TM 3,5-DINIT...	0.000	16.542	0	33313	N.D.	16.689m#
15)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16)	TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17)	TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18)	TM PETN	22.763	0.000	14034	0	15.381m	N.D. #

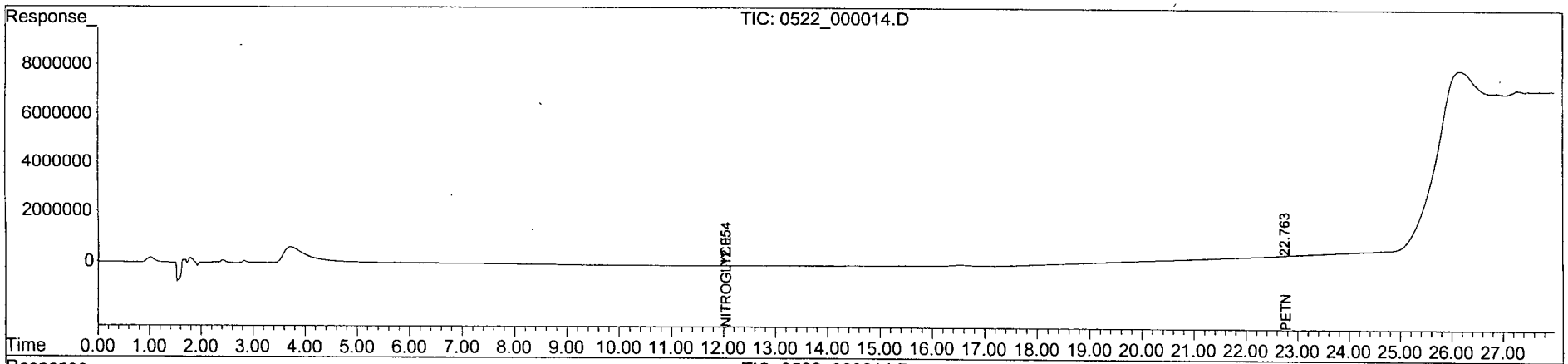
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

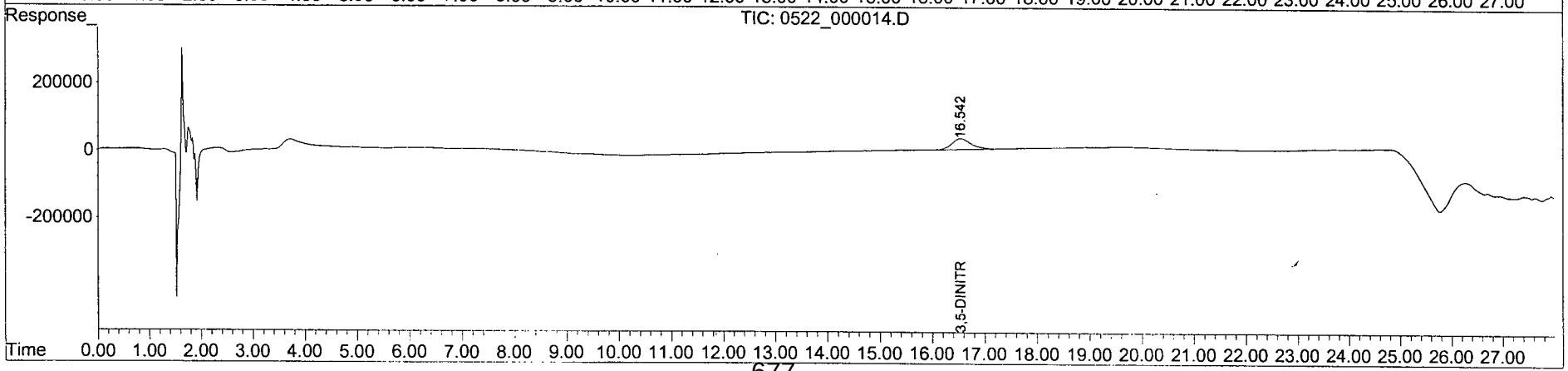
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:30:43
Operator : MP
Sample : 8330MXB_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4229 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:47:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



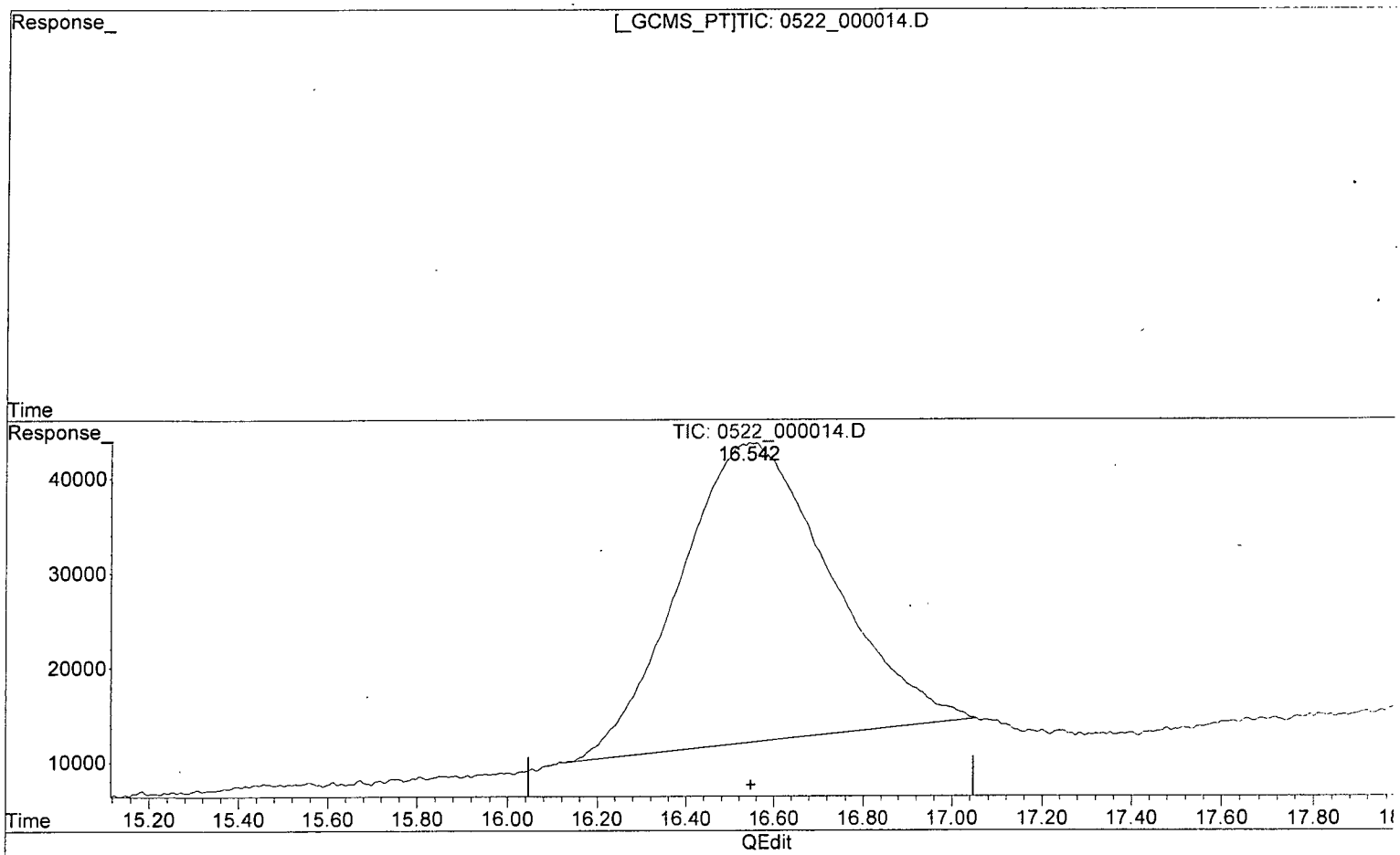


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:30:43
Operator : MP
Sample : 8330MXB_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4229 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:14 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(14) 3,5-DINITROANILINE (TM)

0.000min 0.000 ppb

response 0

(14) 3,5-DINITROANILINE #2 (TM)

16.546min 15.824 ppb

response 31586

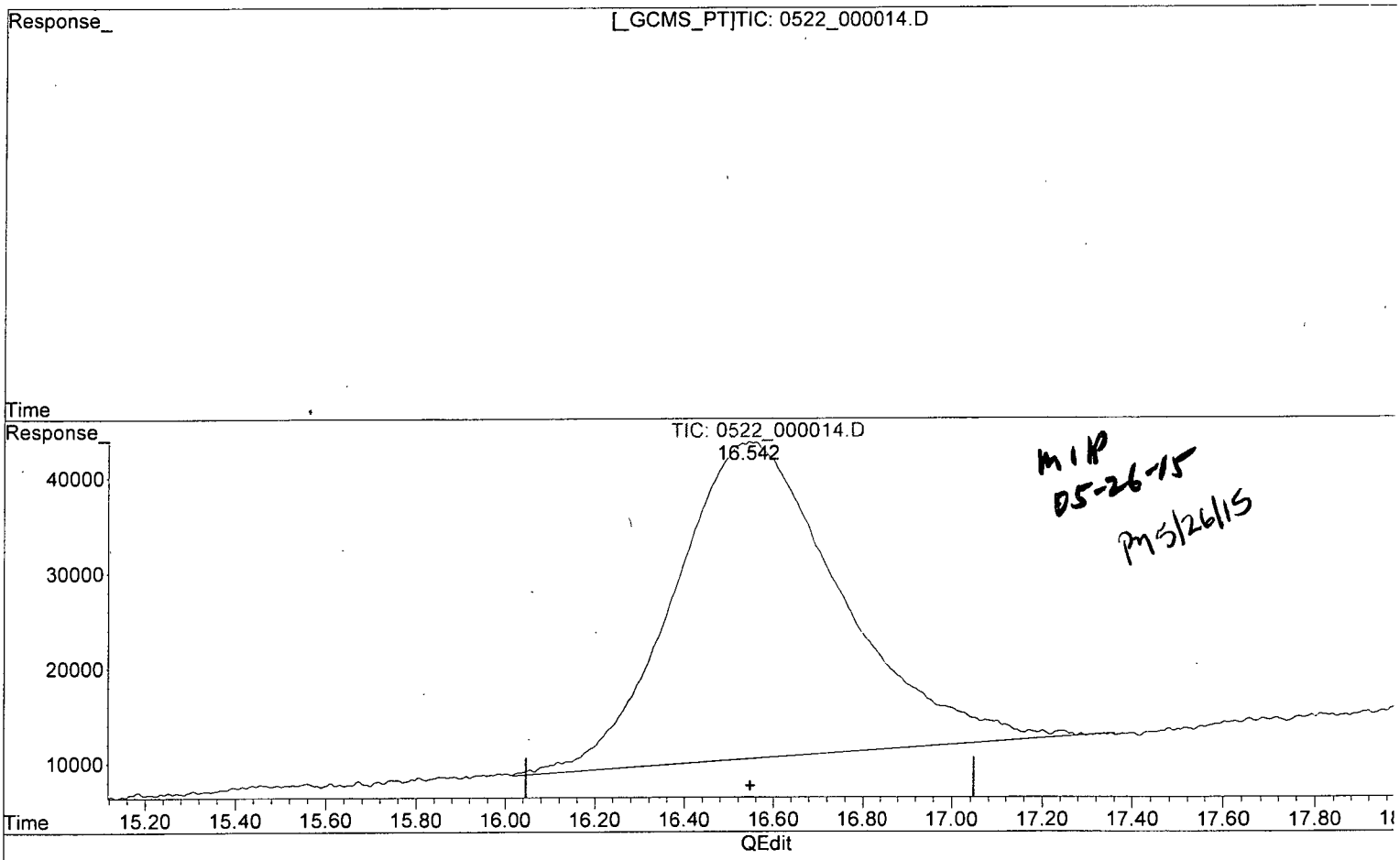
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:30:43
Operator : MP
Sample : 8330MXB_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4229 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:14 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



MIP
05-26-15
PM 5/26/15

(14) 3,5-DINITROANILINE (TM)

0.000min 0.000 ppb

response 0

(14) 3,5-DINITROANILINE #2 (TM)

16.542min 16.689 ppb m

response 33313

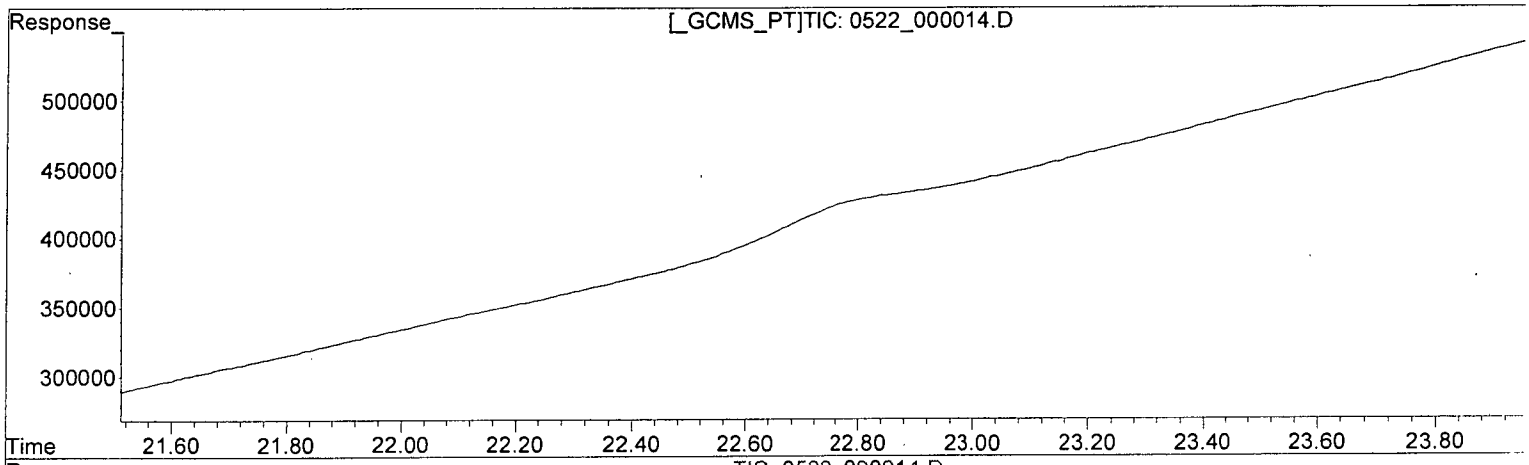
(+) = Expected Retention Time

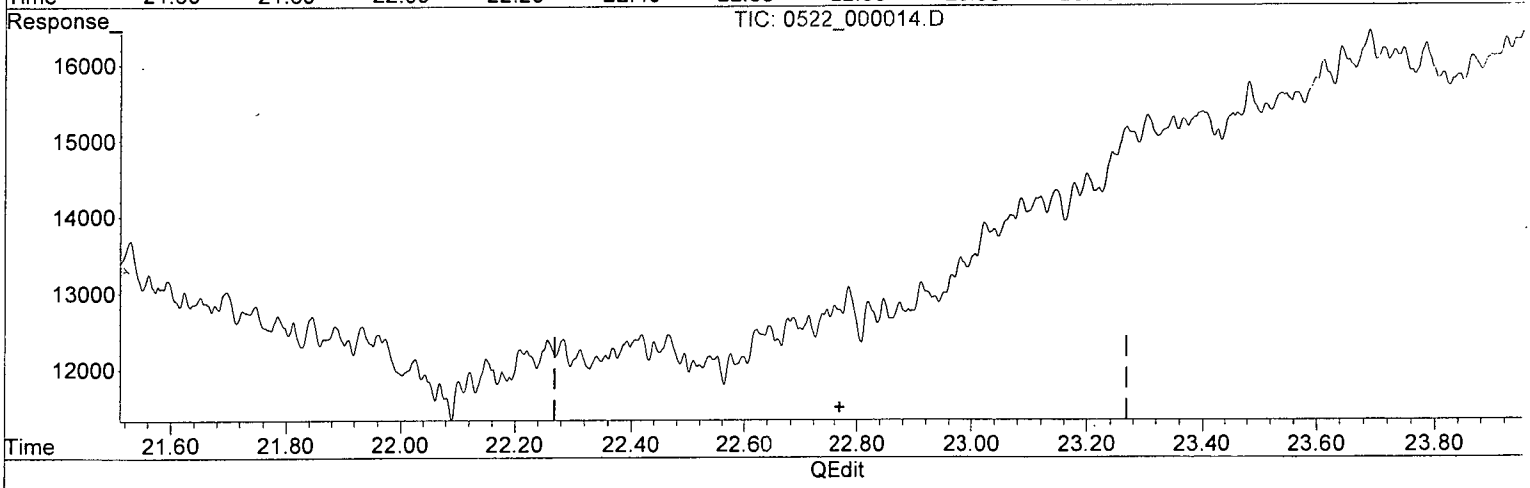
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:30:43
Operator : MP
Sample : 8330MXB_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4229 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:14 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r





(18) PETN (TM)

0.000min 0.000 ppb

response 0

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

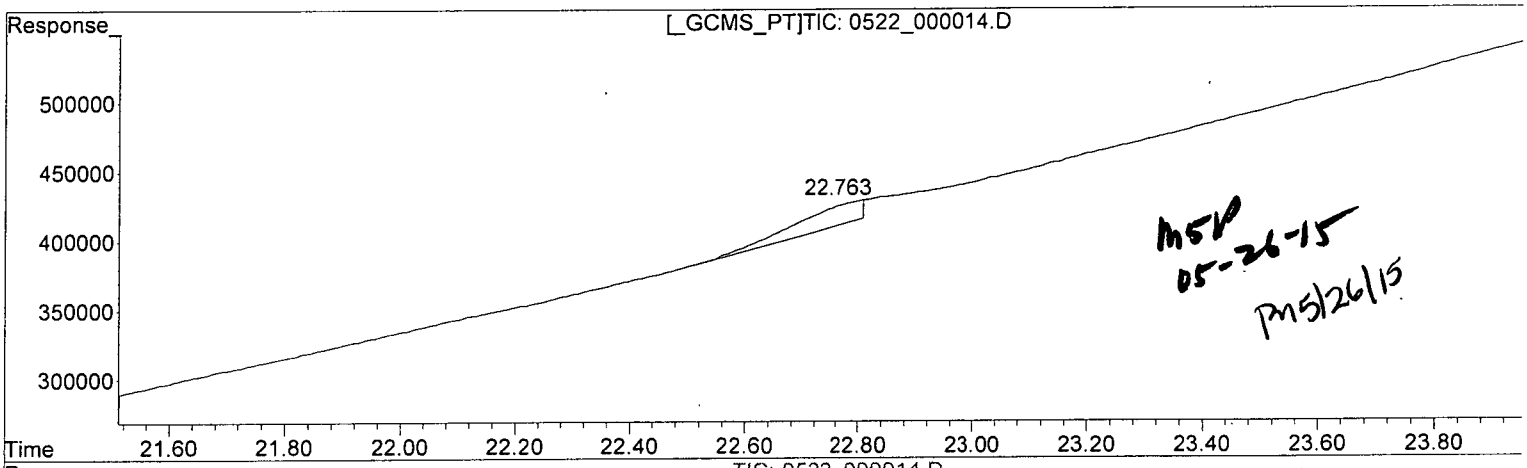
(+) = Expected Retention Time

Quantitation Report (Qedit)

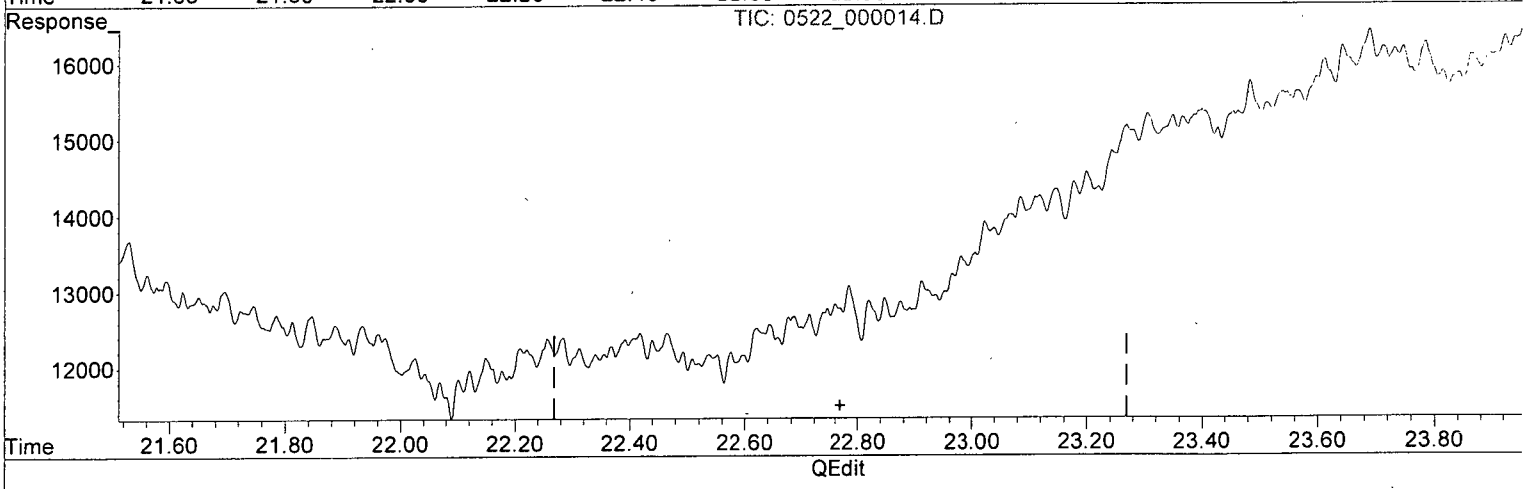
Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:30:43
Operator : MP
Sample : 8330MXB_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4229 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:14 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



MSP 05-26-15
PM 5/26/15



(18) PETN (TM)

22.763min 15.381 ppb m

response 14034

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:46:09 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4) S	1,2-DINIT...	0.000	8.092	0	87334	N.D.	41.395m#
	Spiked Amount 62.500			Recovery	=	0.00%	66.23%
	Target Compounds						
1) TM	HMX	0.000	4.077	0	93606	N.D.	44.514m#
2) TM	RDX	0.000	6.412	0	80036	N.D.	43.213m#
3) TM	1,3,5-TRI...	0.000	6.752	0	195589	N.D.	43.759m#
5) TM	1,3-DINIT...	0.000	8.429	0	193271	N.D.	42.975m#
6) TM	NITROBENZENE	0.000	9.168	0	106151	N.D.	41.438m#
7) TM	2,4,6-TRI...	0.000	11.440	0	99469	N.D.	39.181 #
8) TM	NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM	TETRYL	11.972	11.971	64180	71983	NoCal	43.697 #
10) TM	2,6-DINIT...	13.446	13.444	94573	59327	NoCal	40.165 #
11) TM	2,4-DINIT...	0.000	14.052	0	103731	N.D.	41.171 #
12) TM	2-NITROTO...	0.000	15.459	0	41226	N.D.	39.102 #
13) TM	4-NITROTO...	0.000	16.870	0	36293	N.D.	41.440 #
14) TM	3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM	3-NITROTO...	0.000	18.065	0	48059	N.D.	44.948 #
16) TM	4-AMINO-2...	0.000	18.644	0	71020	N.D.	50.694 #
17) TM	2-AMINO-4...	0.000	19.600	0	89551	N.D.	43.931 #
18) TM	PETN	0.000	0.000	0	0	N.D.	N.D.

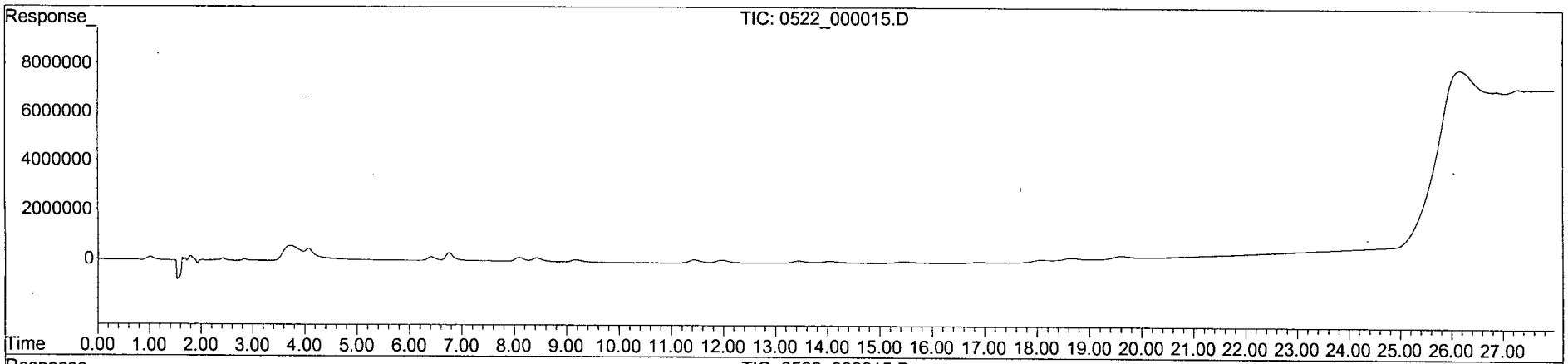
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

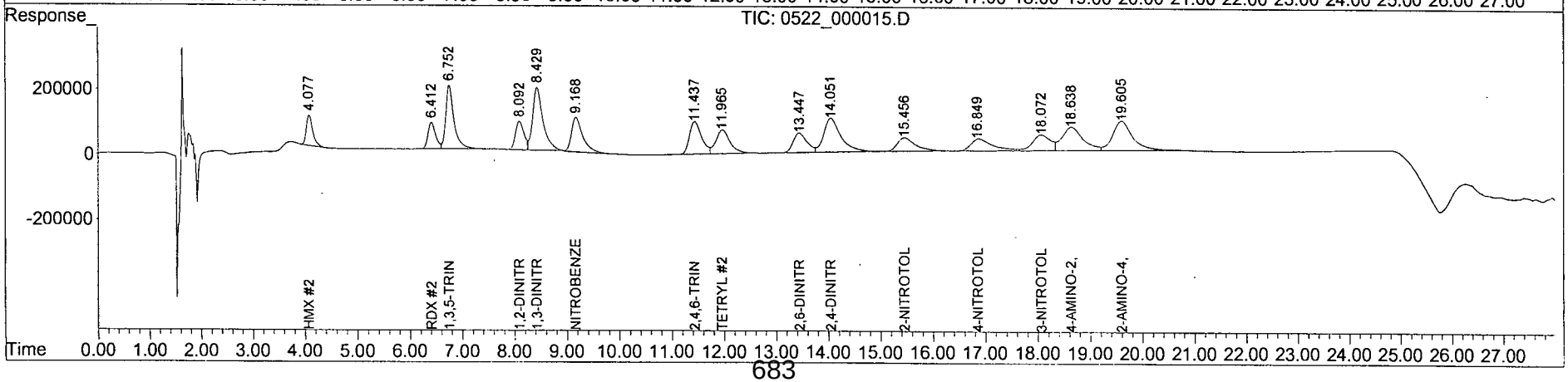
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:46:09 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



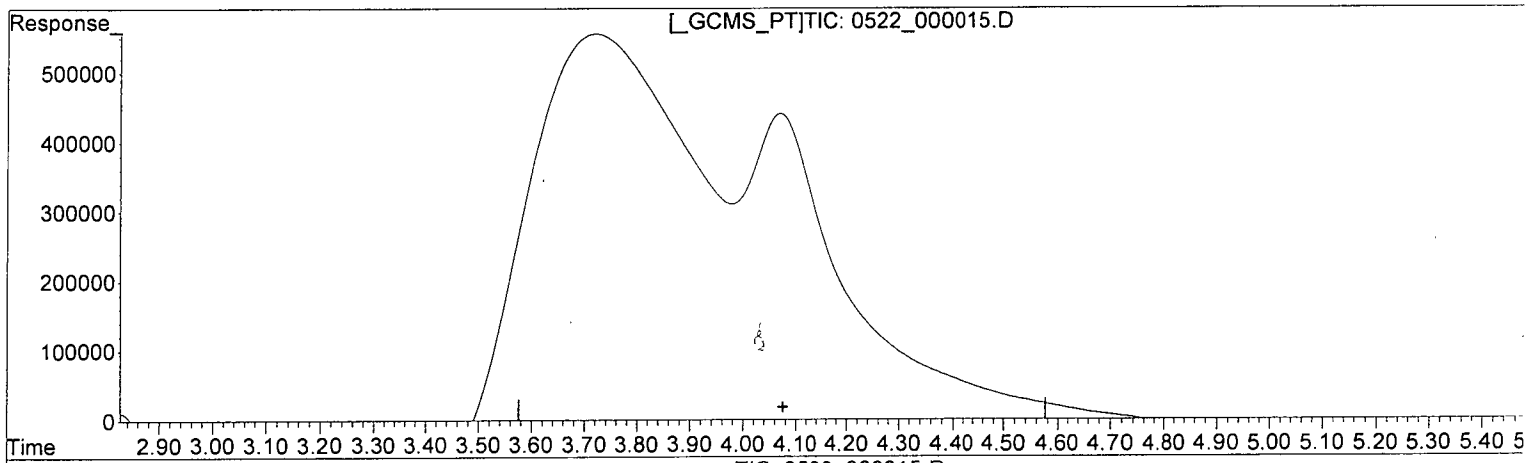


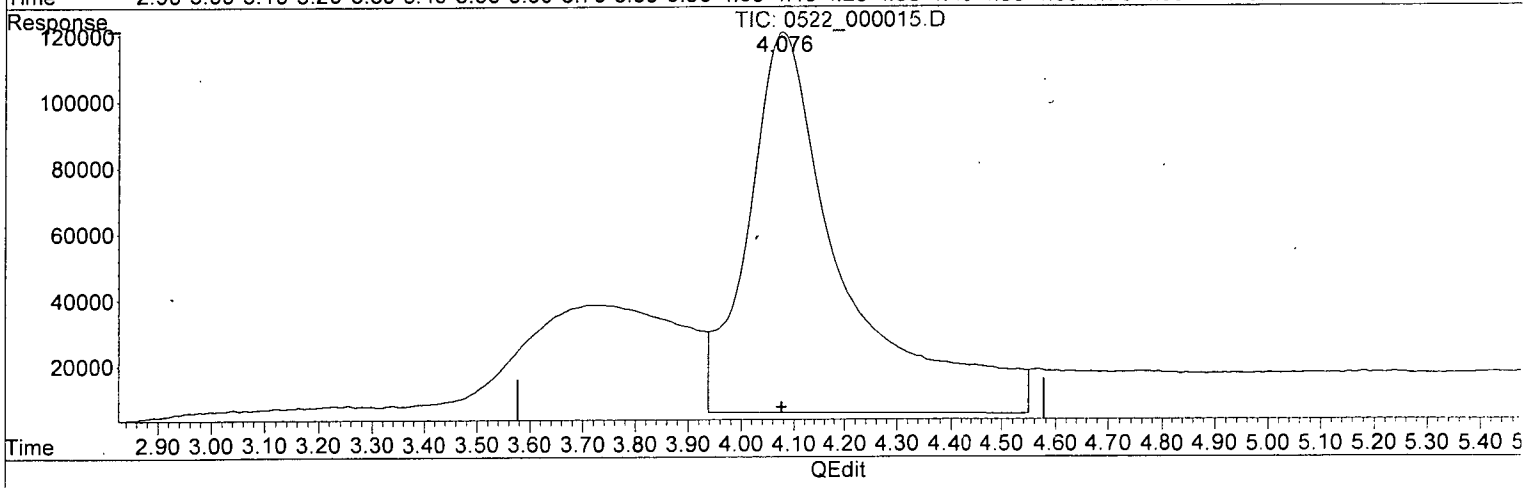
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.077min 54.675 ppb

response 114973

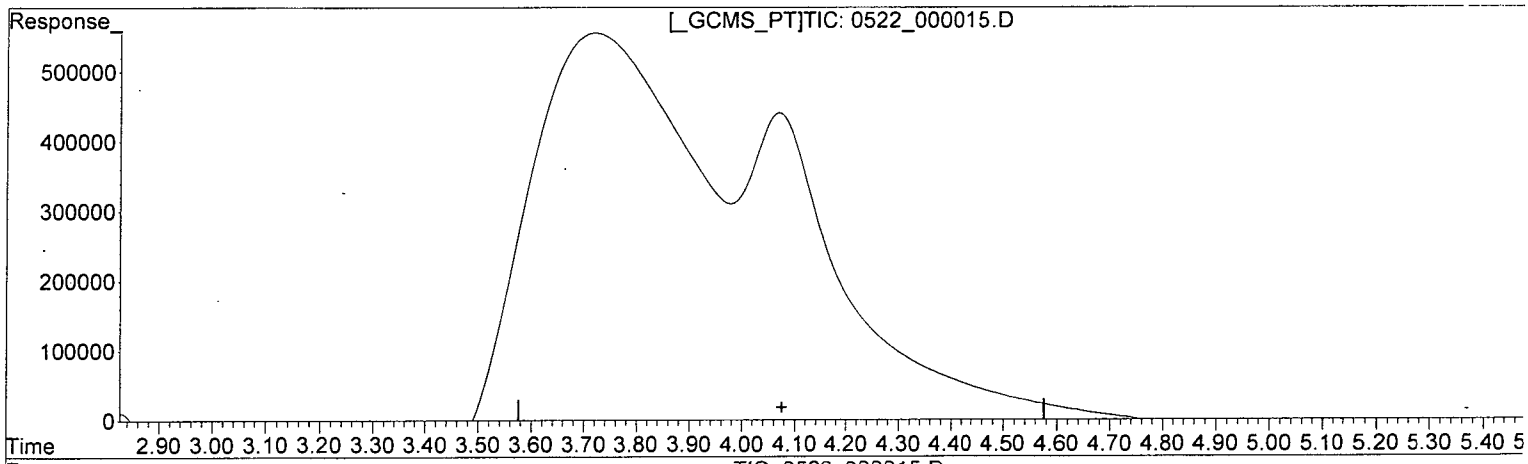
(+) = Expected Retention Time

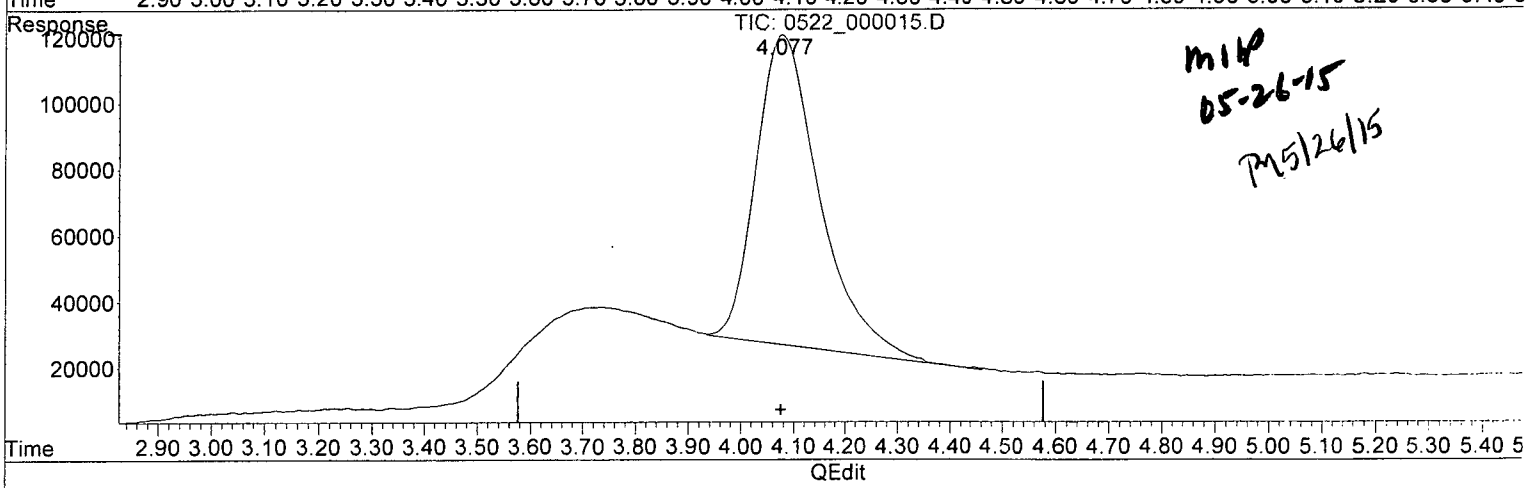
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r





MLP
05-26-15
PM 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.077min 44.514 ppb m

response 93606

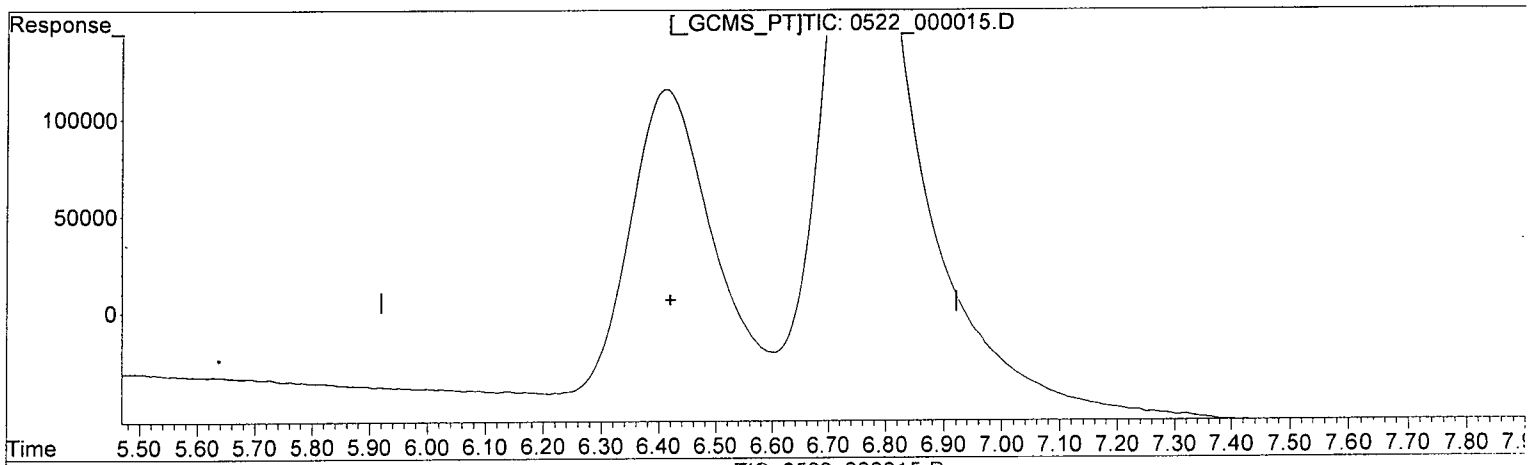
(+) = Expected Retention Time

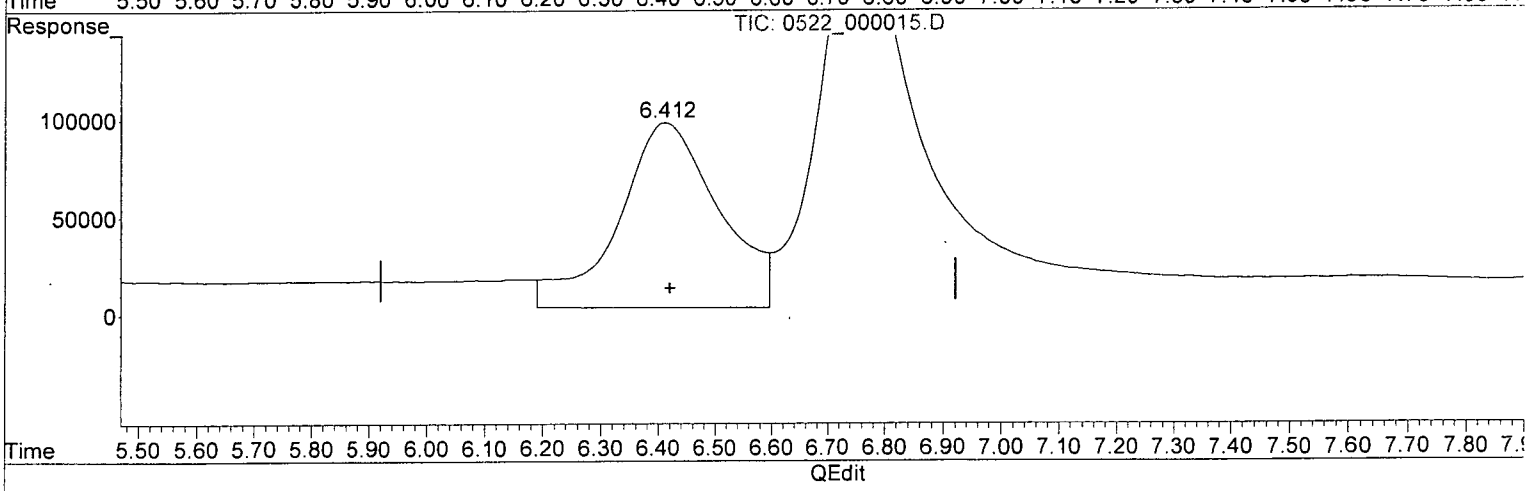
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.412min 51.095 ppb

response 94635

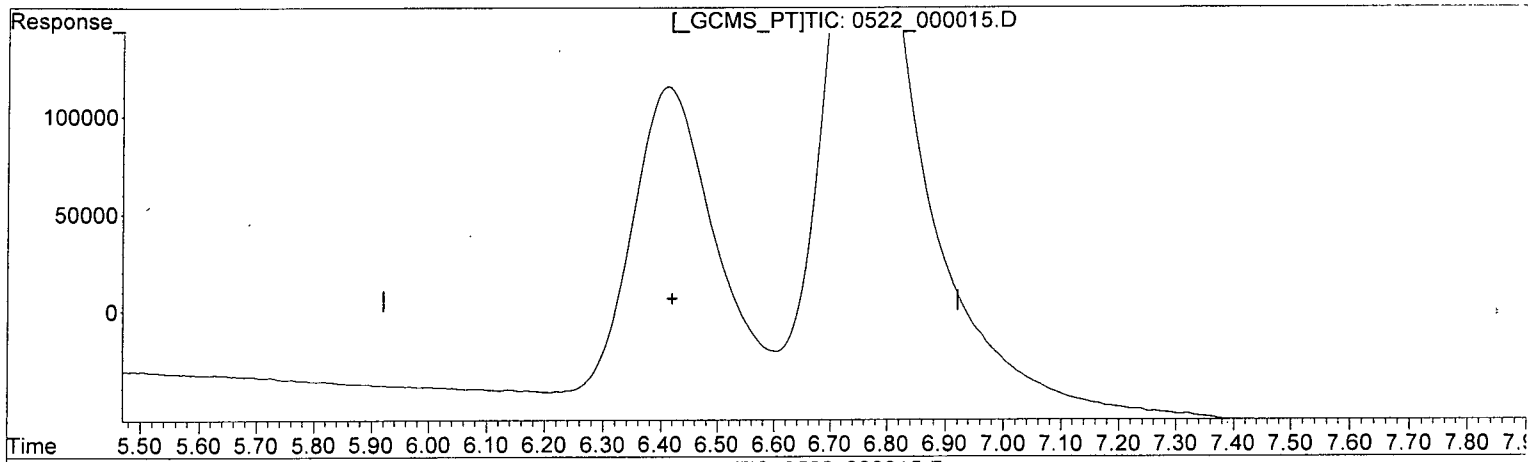
(+) = Expected Retention Time

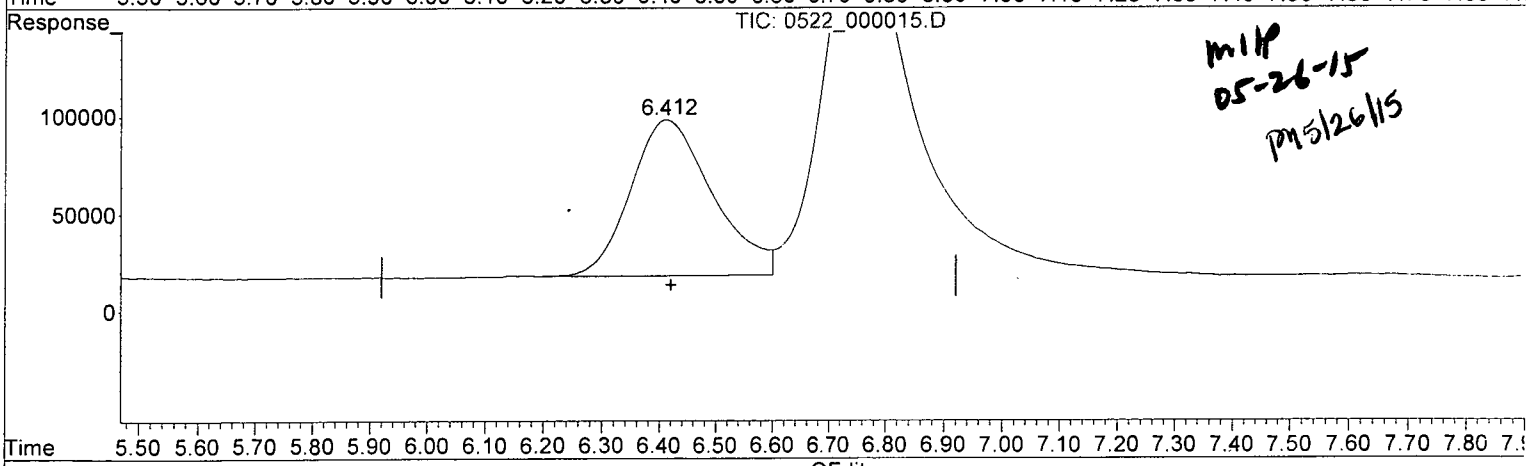
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MHP
05-26-15
PM 5/26/15

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.412min 43.213 ppb m

response 80036

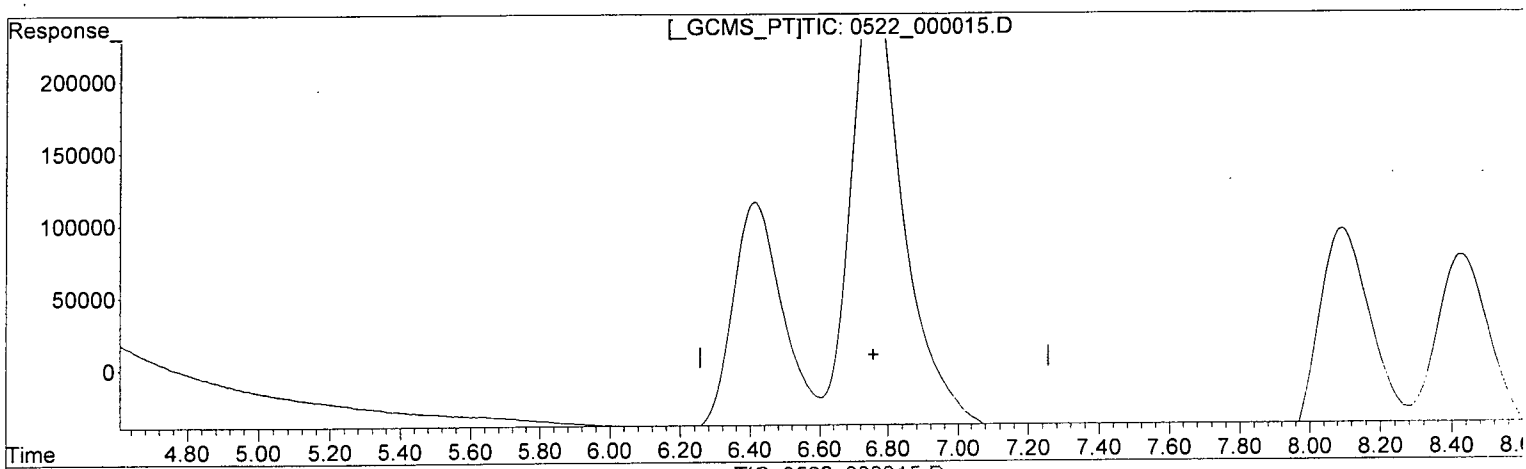
(+) = Expected Retention Time

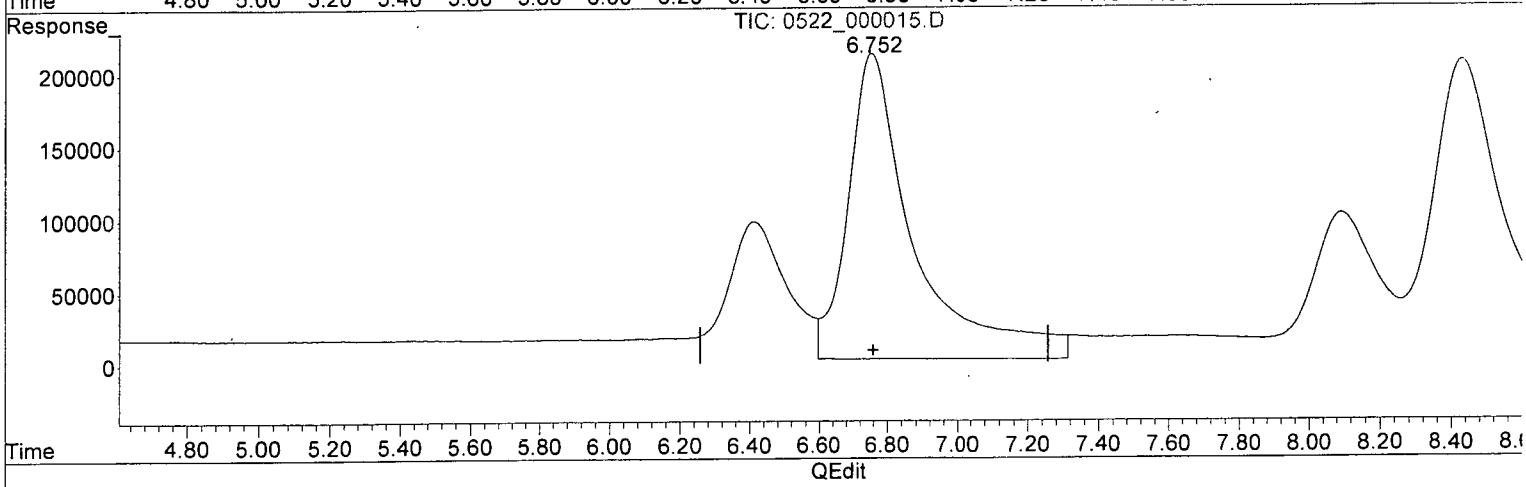
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.753min 47.022 ppb

response 210176

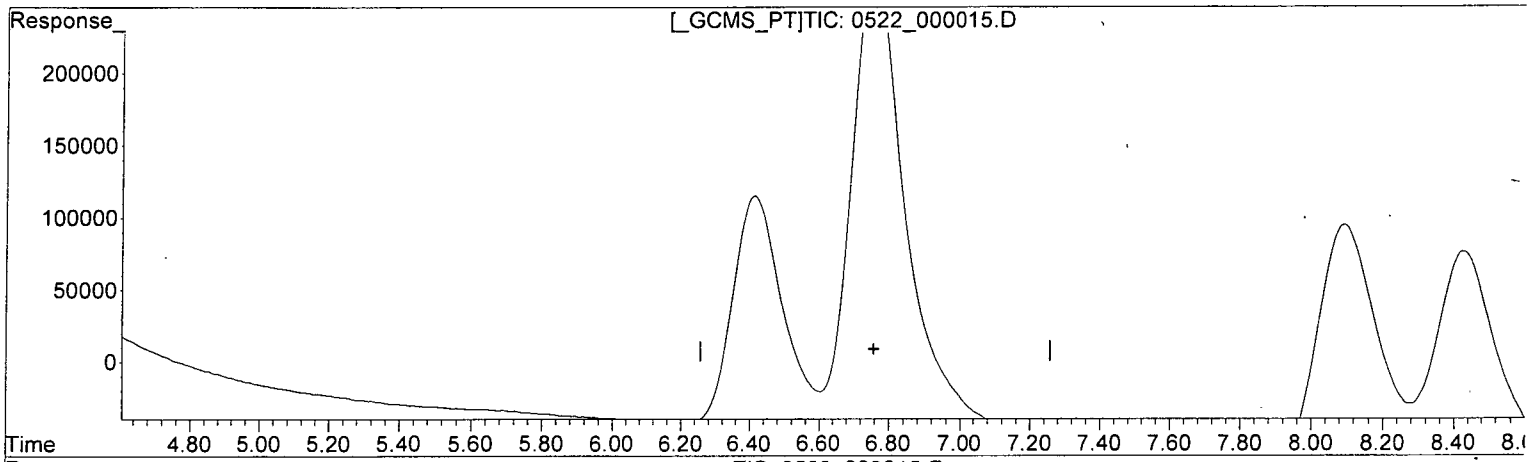
(+) = Expected Retention Time

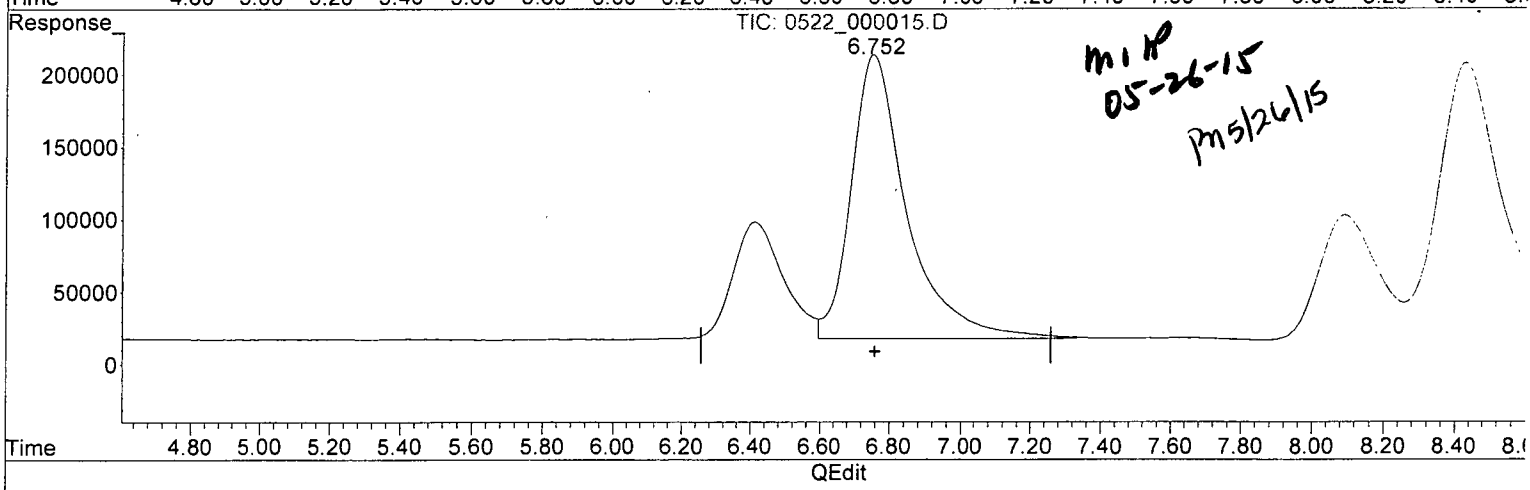
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MIP
05-26-15
pm5/26/15

(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.752min 43.759 ppb m

response 195589

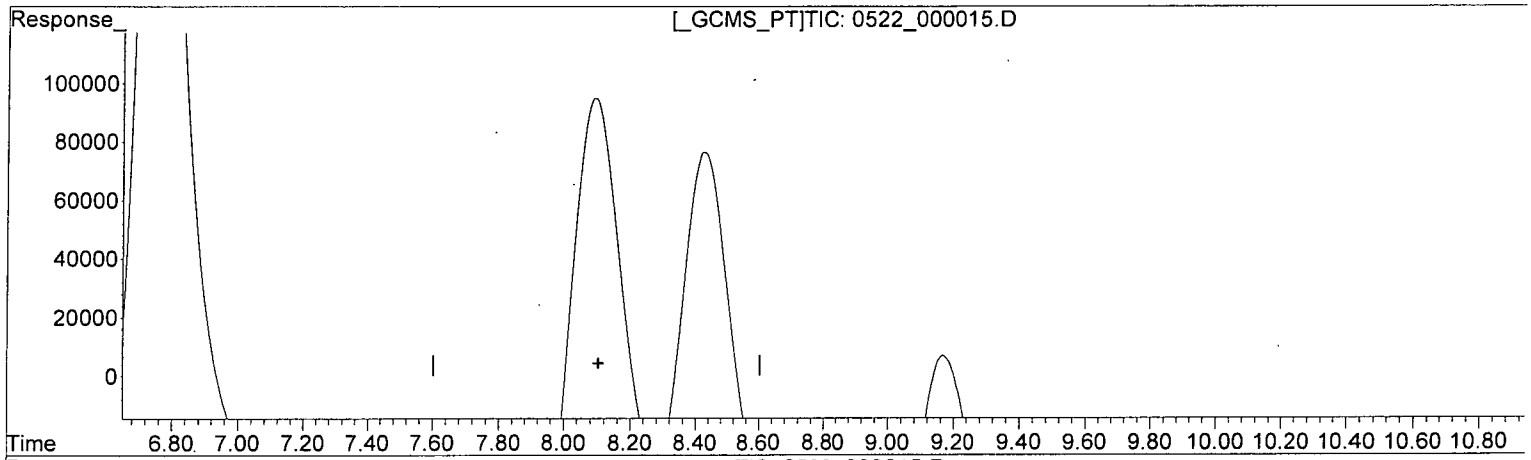
(+) = Expected Retention Time

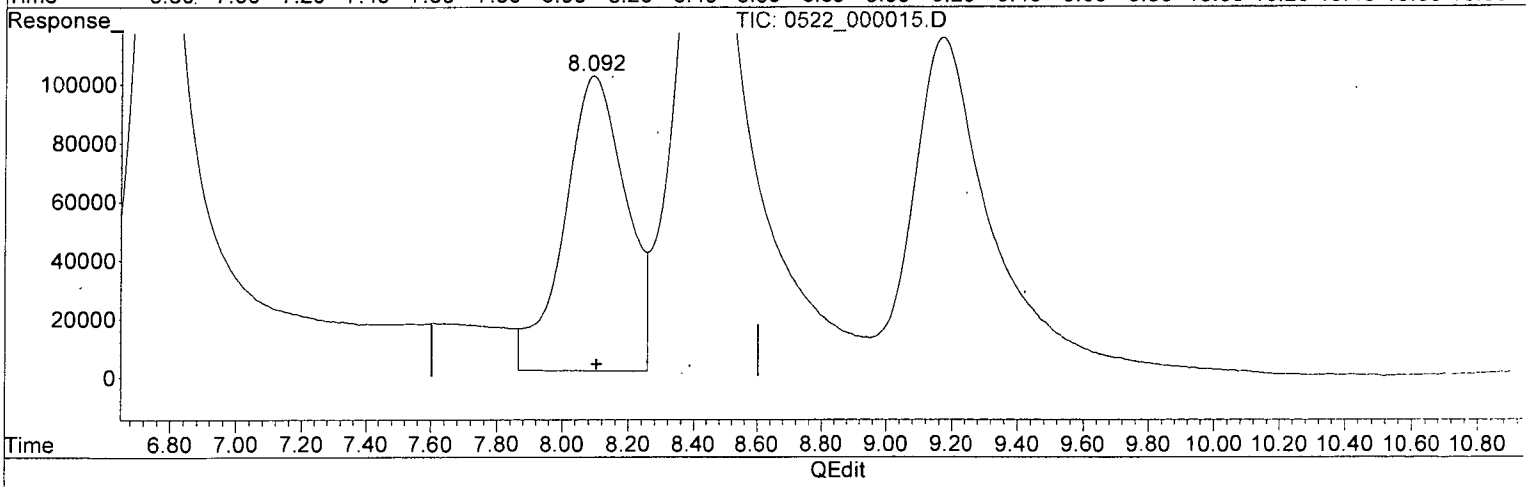
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.093min 47.687 ppb

response 100611

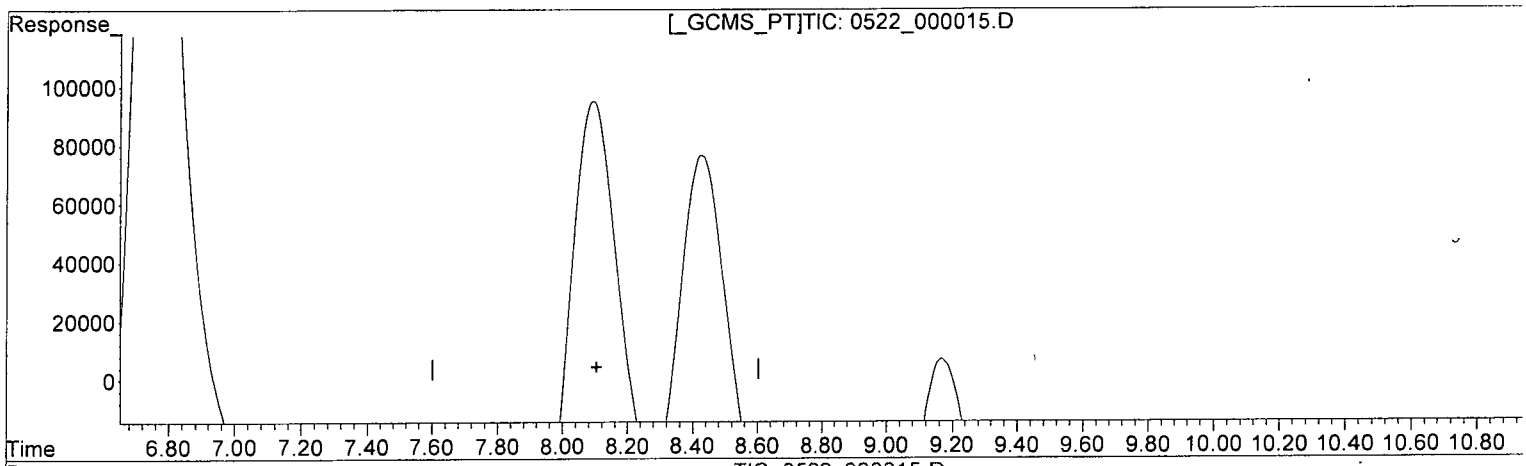
(+) = Expected Retention Time

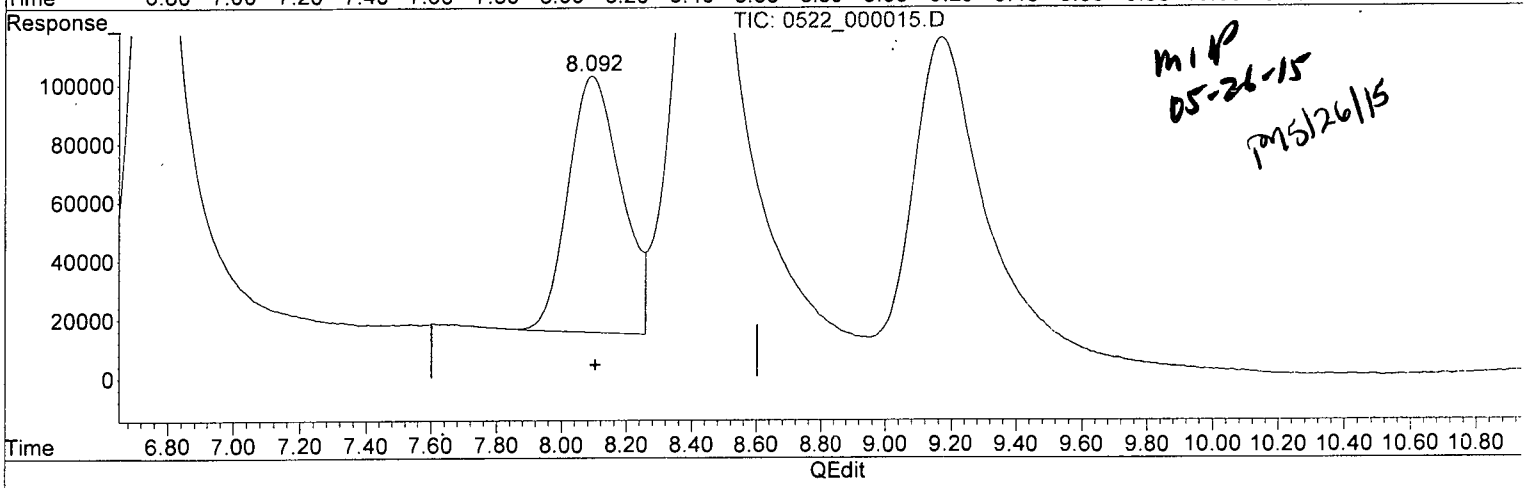
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MIP
05-26-15
PM 5/26/15

(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.092min 41.395 ppb m

response 87334

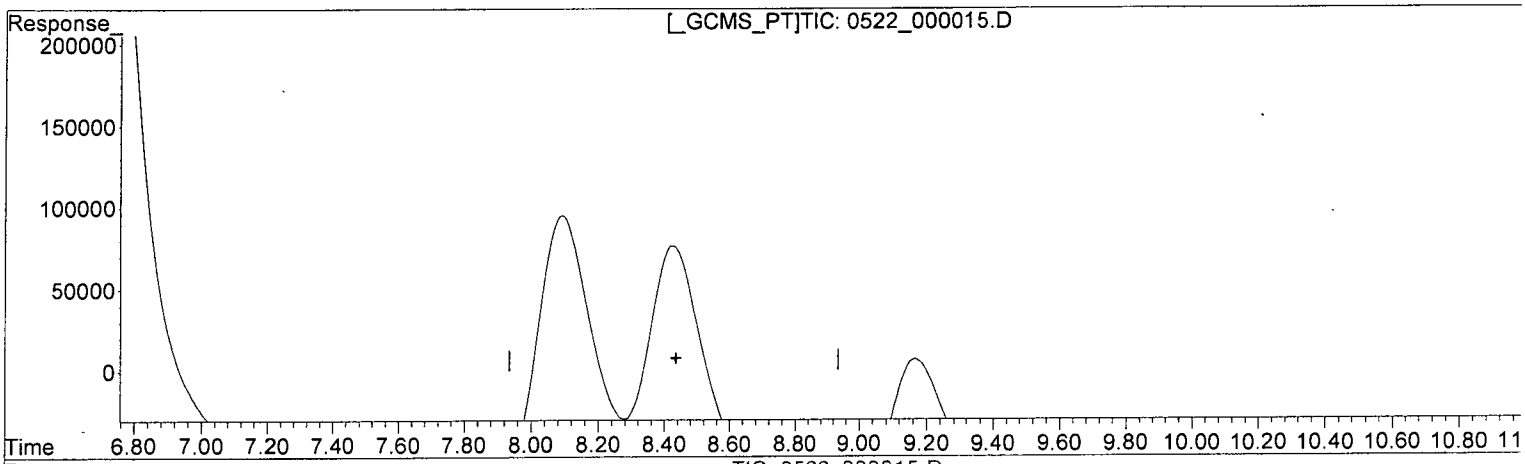
(+) = Expected Retention Time

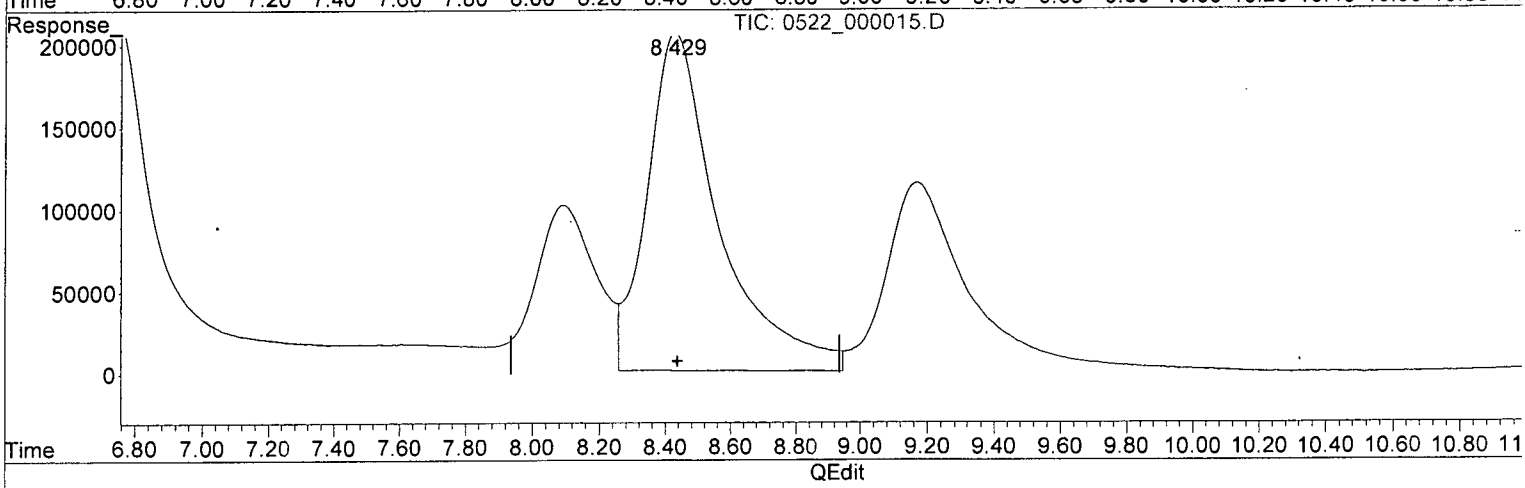
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.429min 45.755 ppb

response 205777

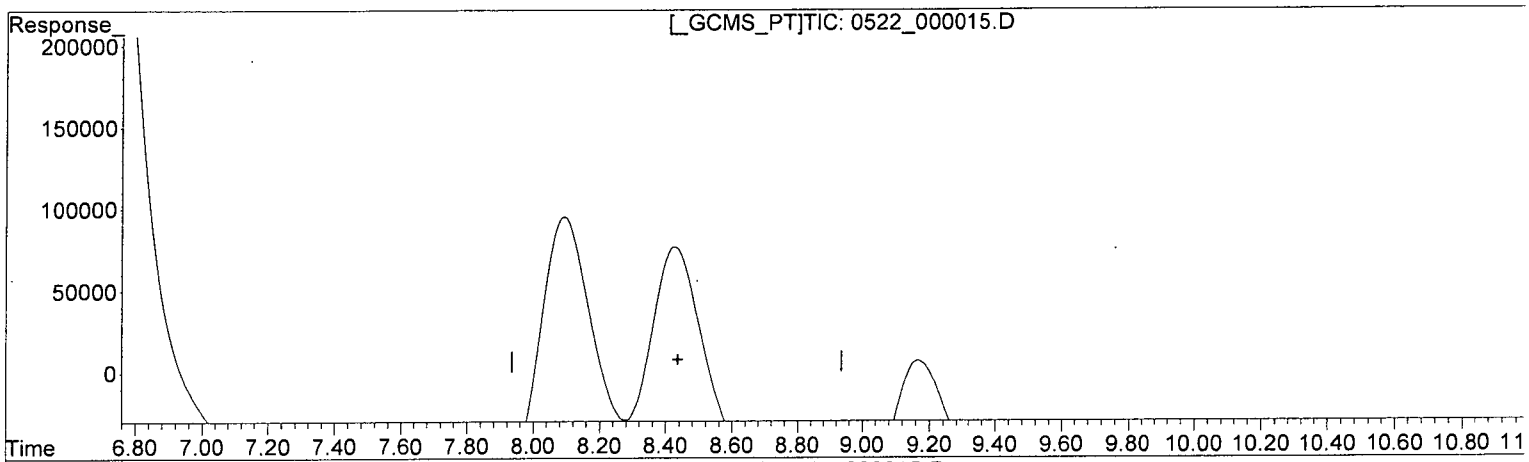
(+) = Expected Retention Time

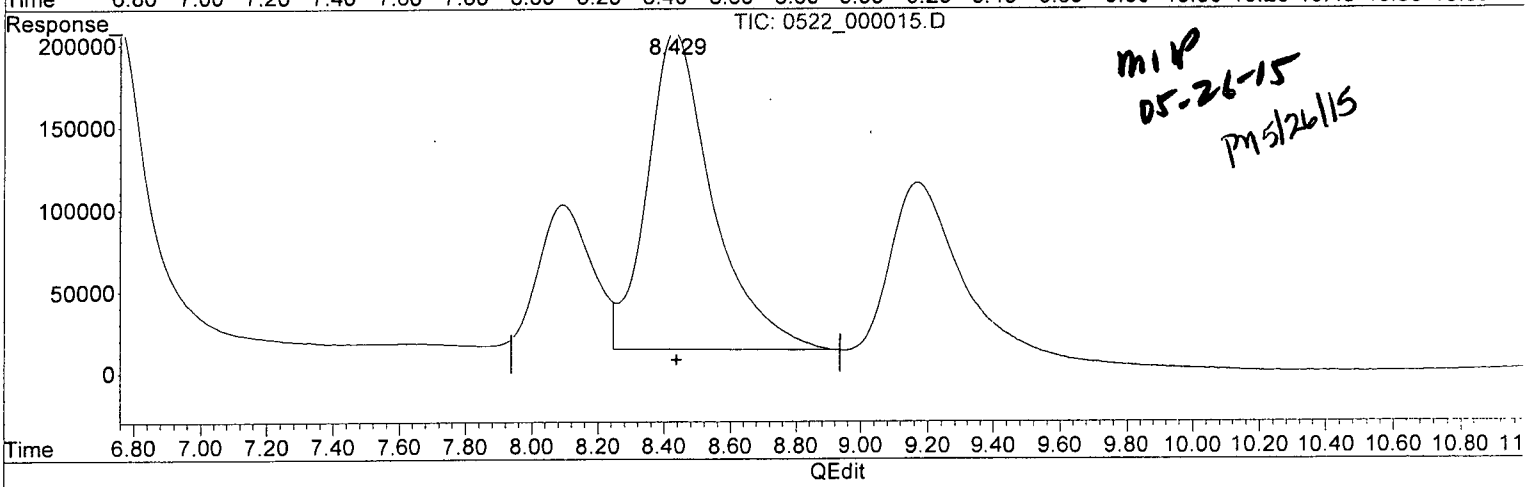
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MIP
05-26-15
PM 5/26/15

(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.429min 42.975 ppb m

response 193271

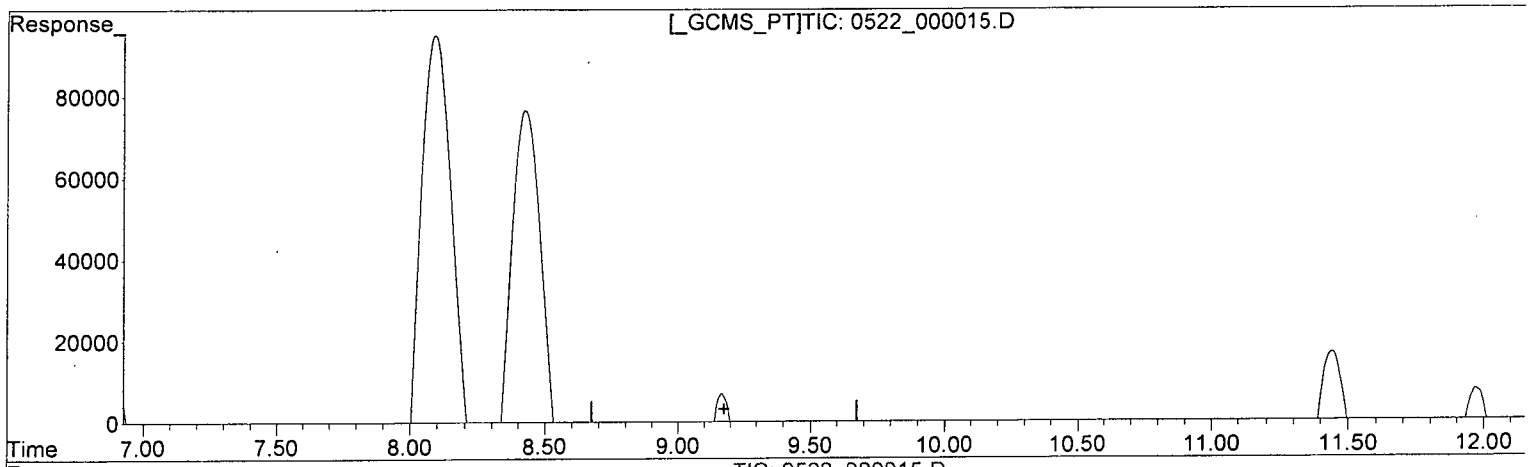
(+) = Expected Retention Time

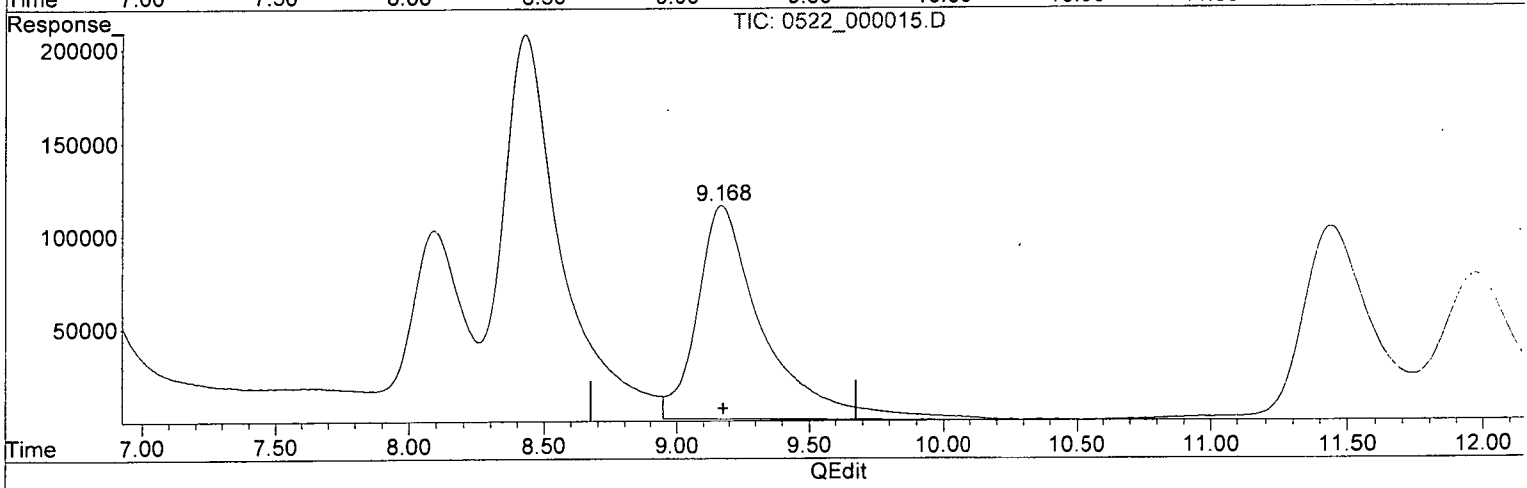
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.169min 44.660 ppb

response 114402

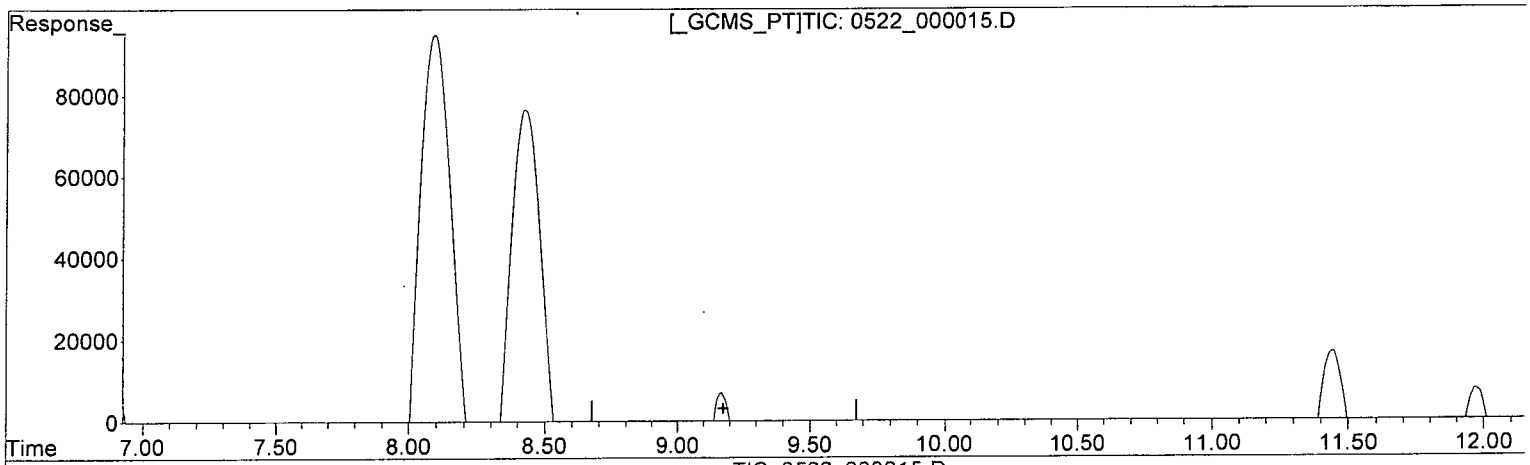
(+) = Expected Retention Time

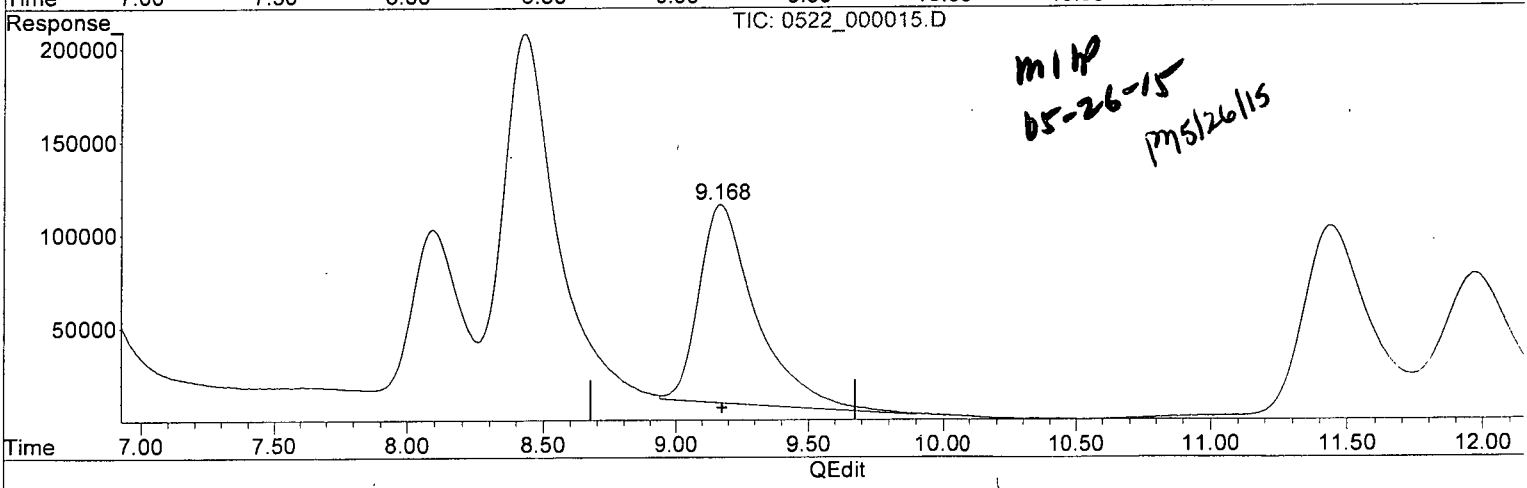
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MHP
05-26-15
pm5/26/15

(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.168min 41.438 ppb m

response 106151

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:49:46
Operator : MP
Sample : 8330MXB_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4231 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:43:41 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 62.500			Recovery	=	0.00%	0.00%
	Target Compounds						
1)	TM HMX	0.000	0.000	0	0	N.D.	N.D.
2)	TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5)	TM 1,3-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
6)	TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
7)	TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
8)	TM NITROGLYC...	12.066	0.000	36214	0	39.765	N.D. d#
9)	TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10)	TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11)	TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13)	TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14)	TM 3,5-DINIT...	0.000	16.543	0	82461	N.D.	41.312 #
15)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16)	TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17)	TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18)	TM PETN	22.806	0.000	31484	0	34.504m	N.D. #

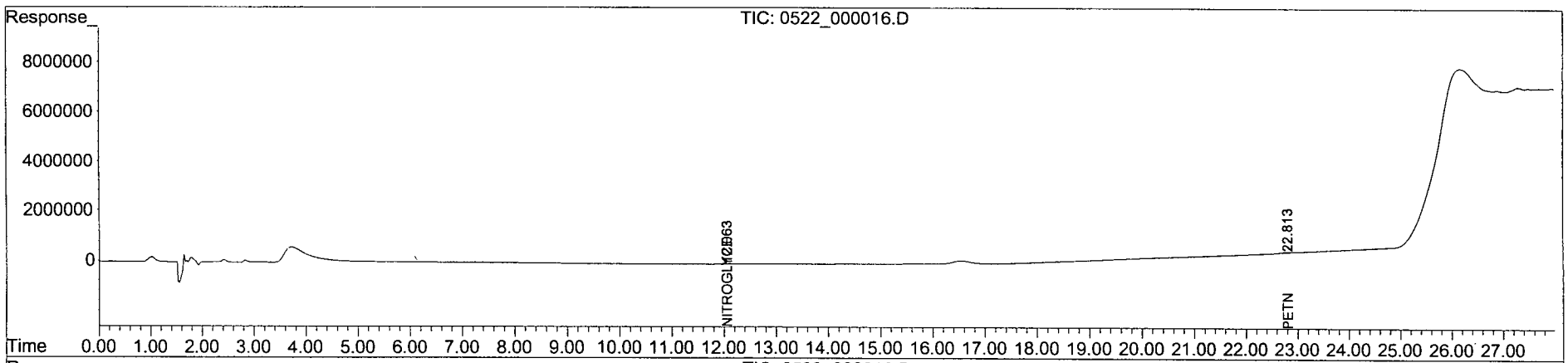
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

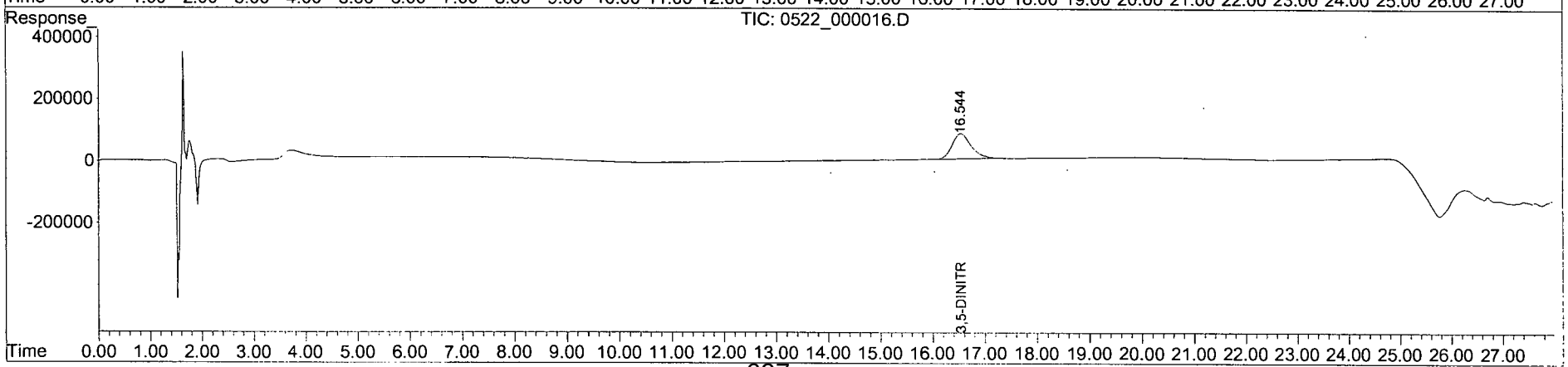
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:49:46
Operator : MP
Sample : 8330MXB_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4231 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:43:41 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



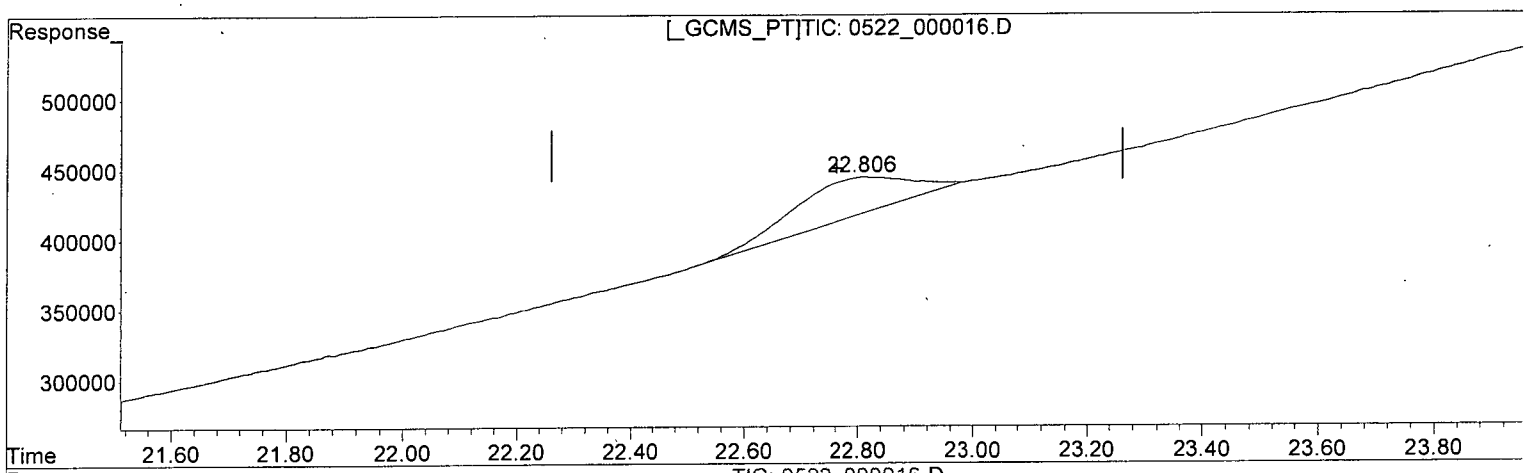


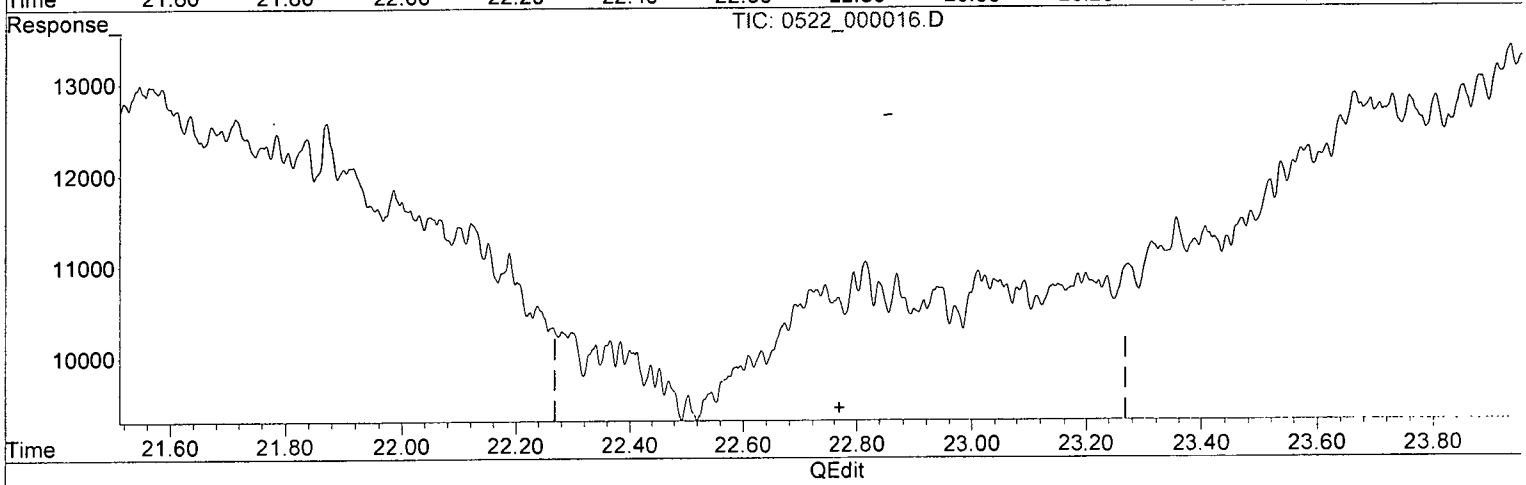
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:49:46
Operator : MP
Sample : 8330MXB_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4231 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:20 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(18) PETN (TM)

22.821min 26.079 ppb

response 23796

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

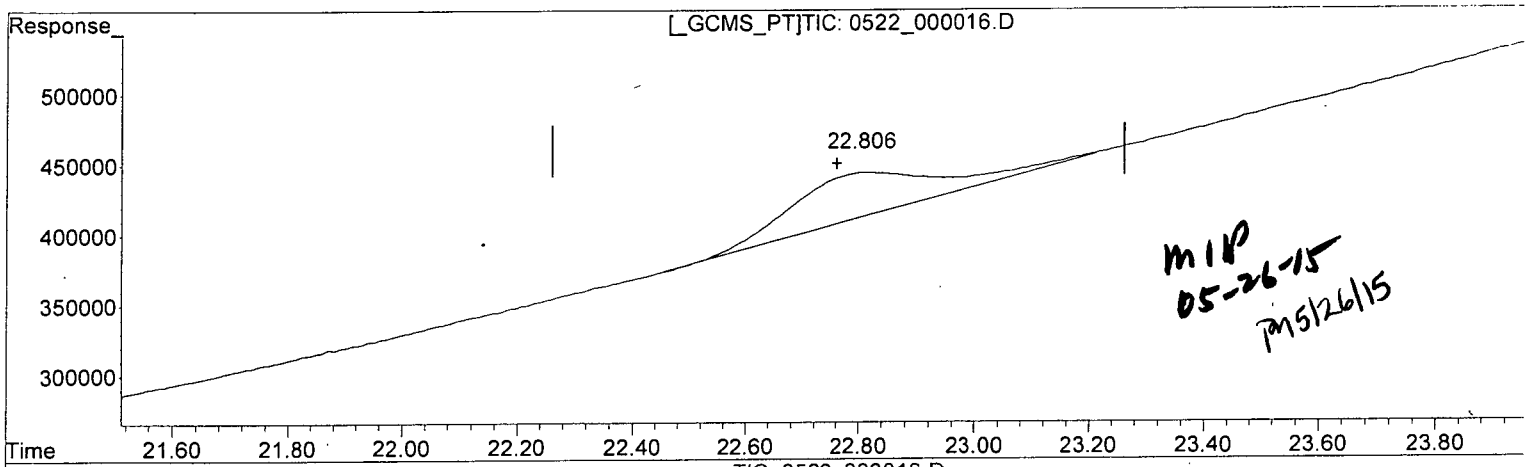
(+) = Expected Retention Time

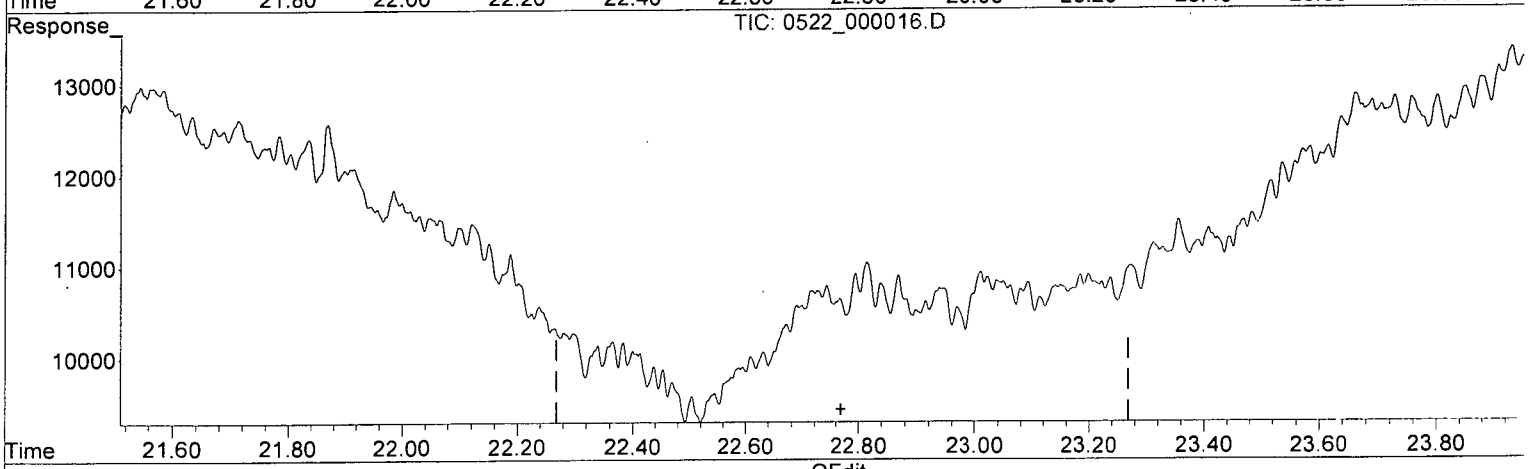
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:49:46
Operator : MP
Sample : 8330MXB_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4231 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:20 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(18) PETN (TM)

22.806min 34.504 ppb m

response 31484

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:42:38 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.096	0	170391	N.D.	80.762m#
Spiked Amount 62.500			Recovery	=	0.00%	129.22%
Target Compounds						
1) TM HMX	0.000	4.078	0	187333	N.D.	89.085m#
2) TM RDX	0.000	6.416	0	158283	N.D.	85.460m#
3) TM 1,3,5-TRI...	0.000	6.754	0	383111	N.D.	85.713m#
5) TM 1,3-DINIT...	0.000	8.432	0	382410	N.D.	85.031m#
6) TM NITROBENZENE	0.000	9.173	0	220159	N.D.	85.944 #
7) TM 2,4,6-TRI...	0.000	11.447	0	198494	N.D.	78.187 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.982	11.980	121440	144767	NoCal	87.881 #
10) TM 2,6-DINIT...	13.453	13.452	184036	118801	NoCal	80.430 #
11) TM 2,4-DINIT...	0.000	14.059	0	206563	N.D.	81.985 #
12) TM 2-NITROTO...	0.000	15.467	0	84122	N.D.	79.789 #
13) TM 4-NITROTO...	0.000	16.888	0	74548	N.D.	85.119 #
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM 3-NITROTO...	0.000	18.071	0	92548	N.D.	86.556 #
16) TM 4-AMINO-2...	0.000	18.658	0	137010	N.D.	97.797 #
17) TM 2-AMINO-4...	0.000	19.613	0	172579	N.D.	84.662 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

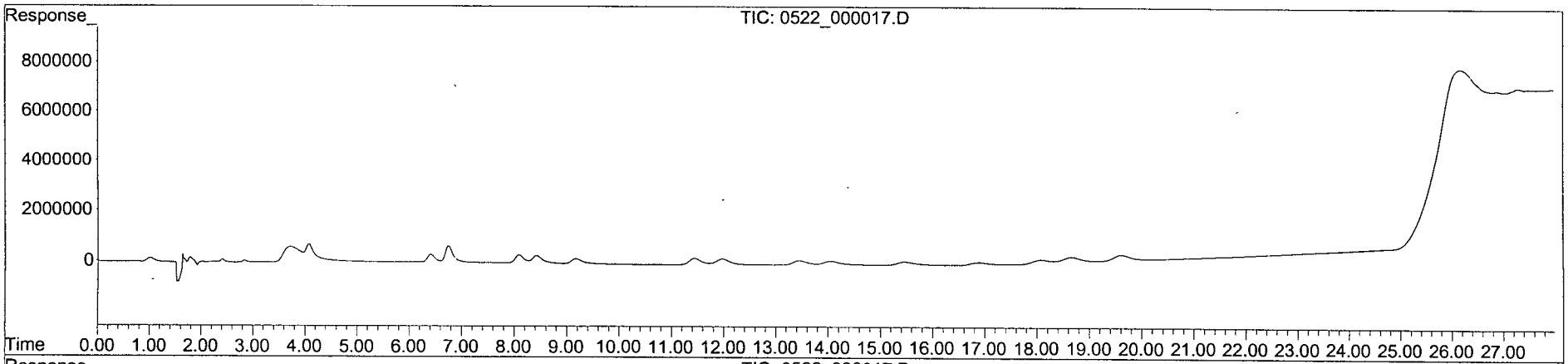
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

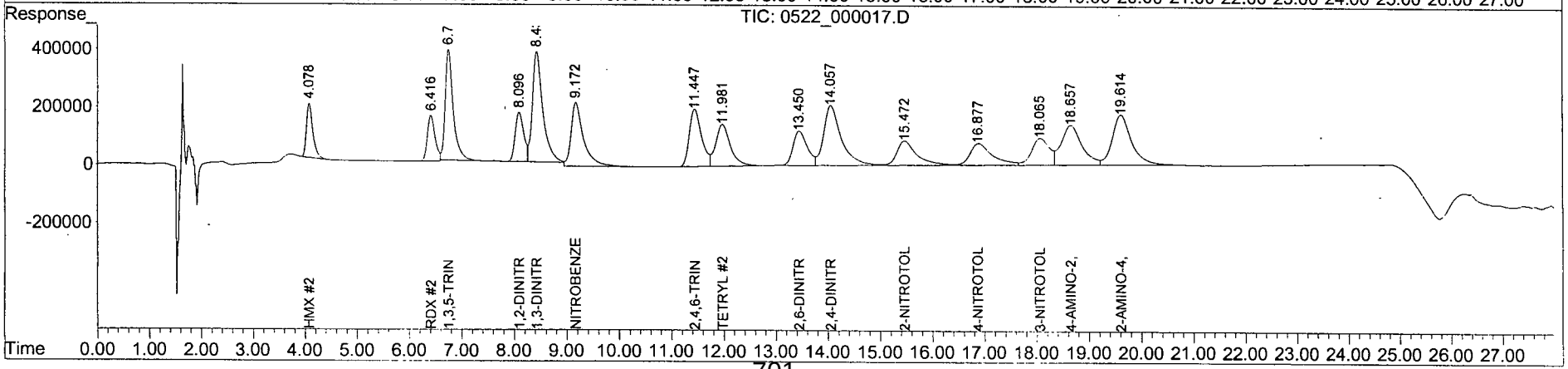
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:42:38 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



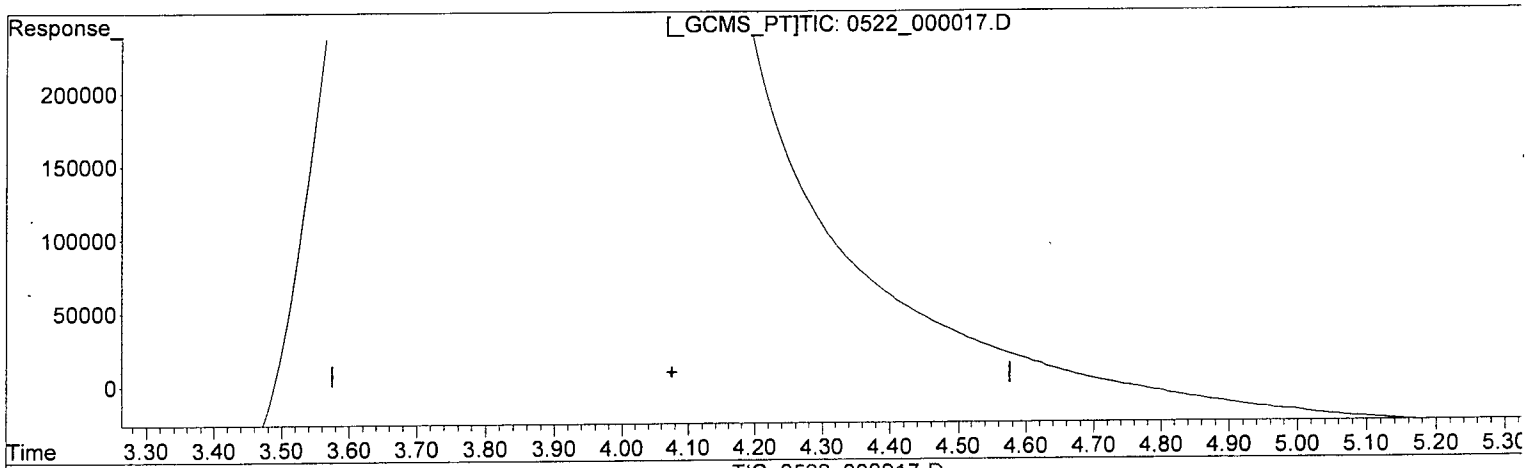


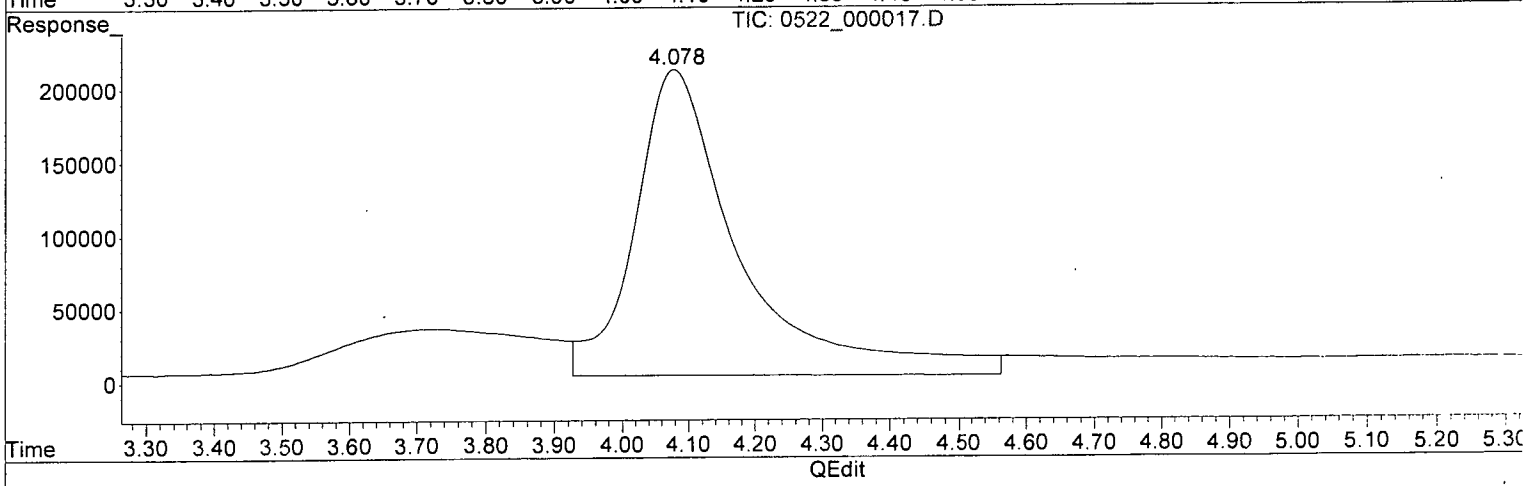
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.079min 98.980 ppb

response 208141

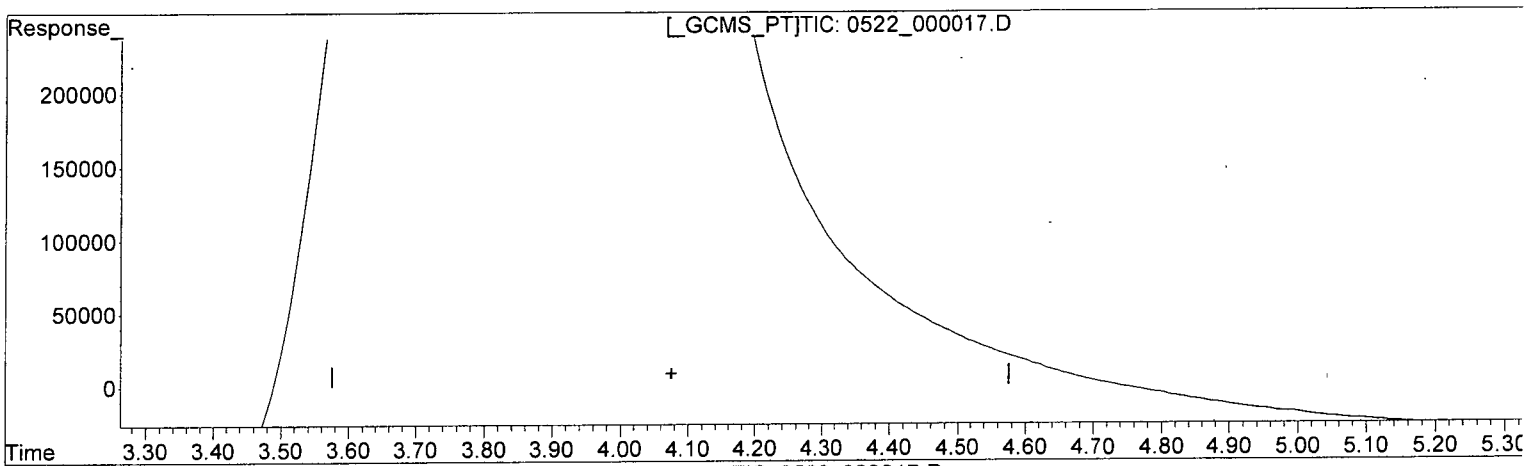
(+) = Expected Retention Time

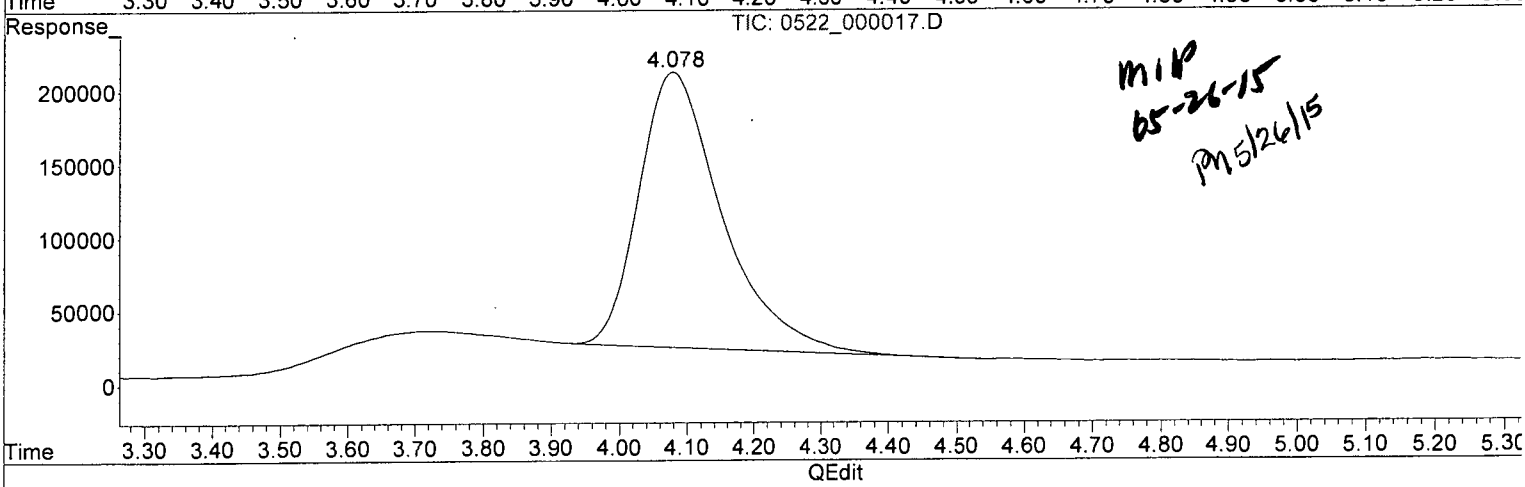
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





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(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.078min 89.085 ppb m

response 187333

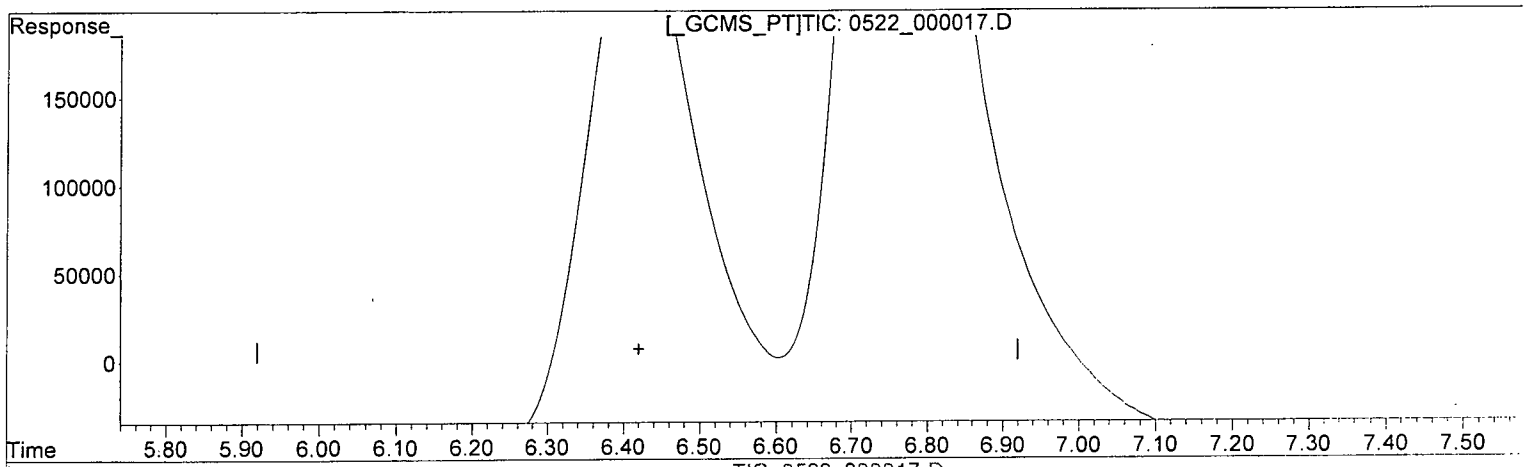
(+) = Expected Retention Time

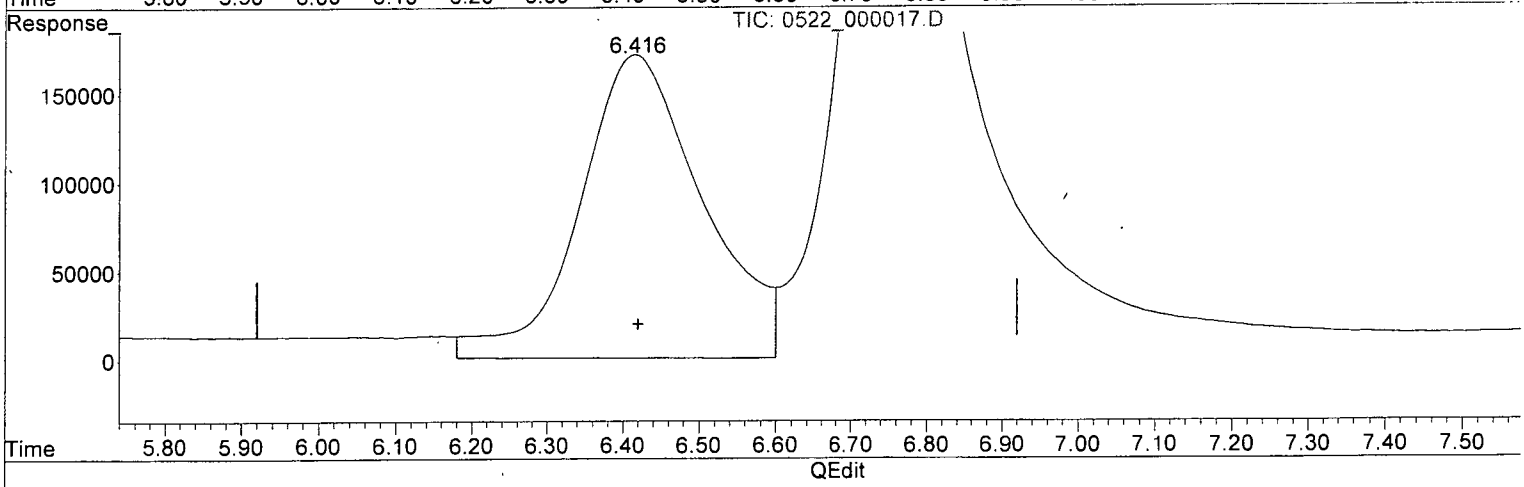
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.417min 92.221 ppb

response 170806

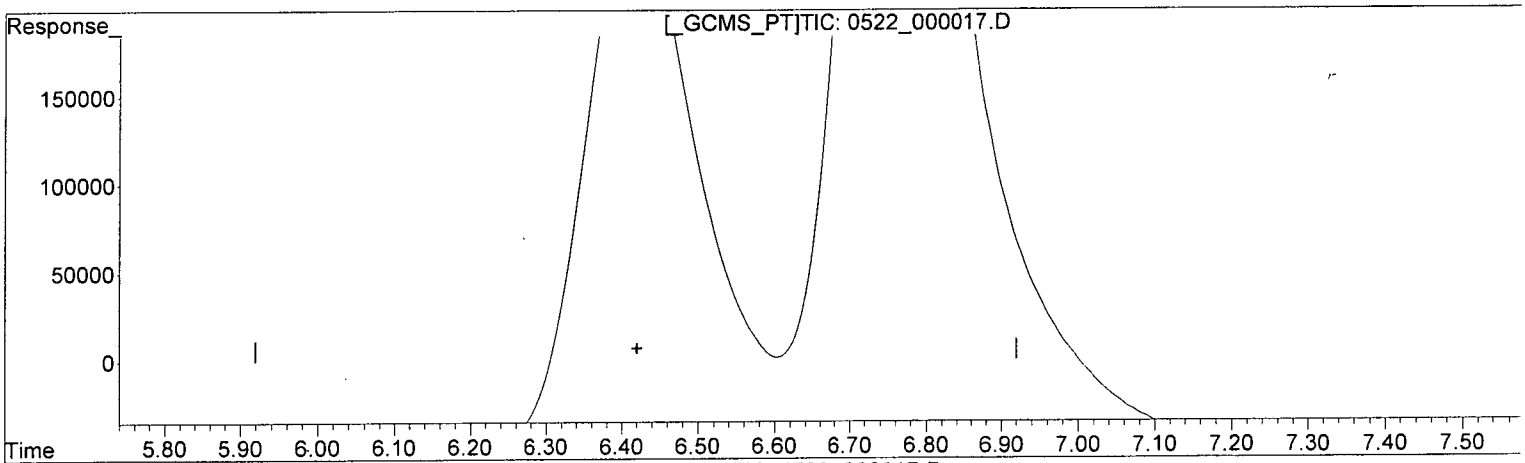
(+) = Expected Retention Time

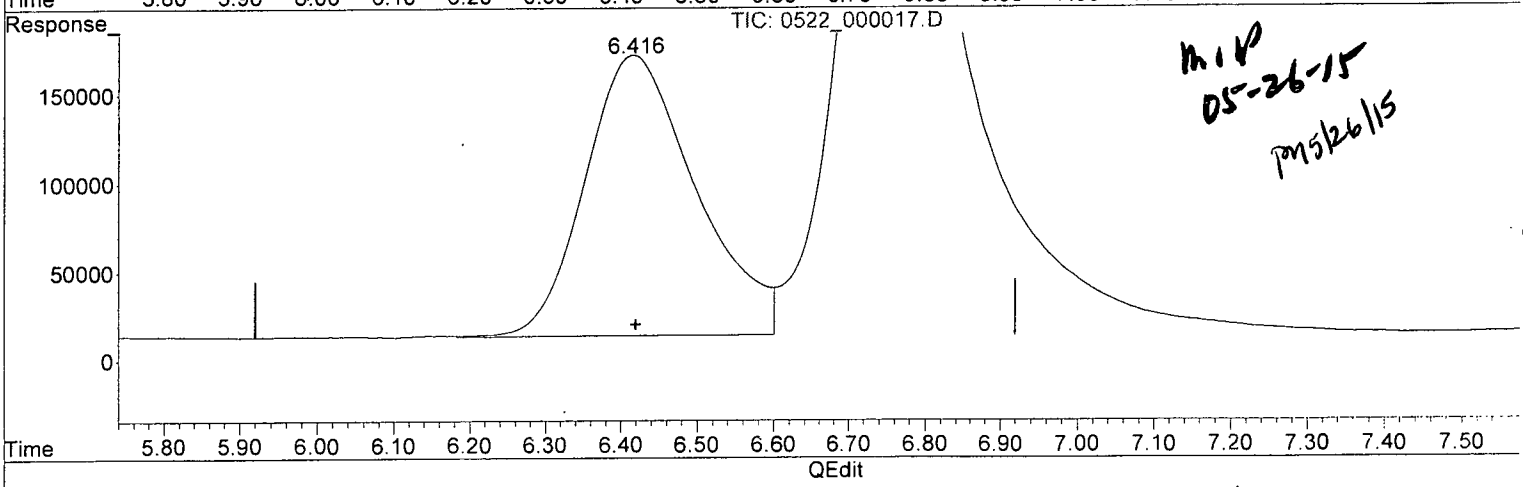
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MIP
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(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.416min 85.460 ppb m

response 158283

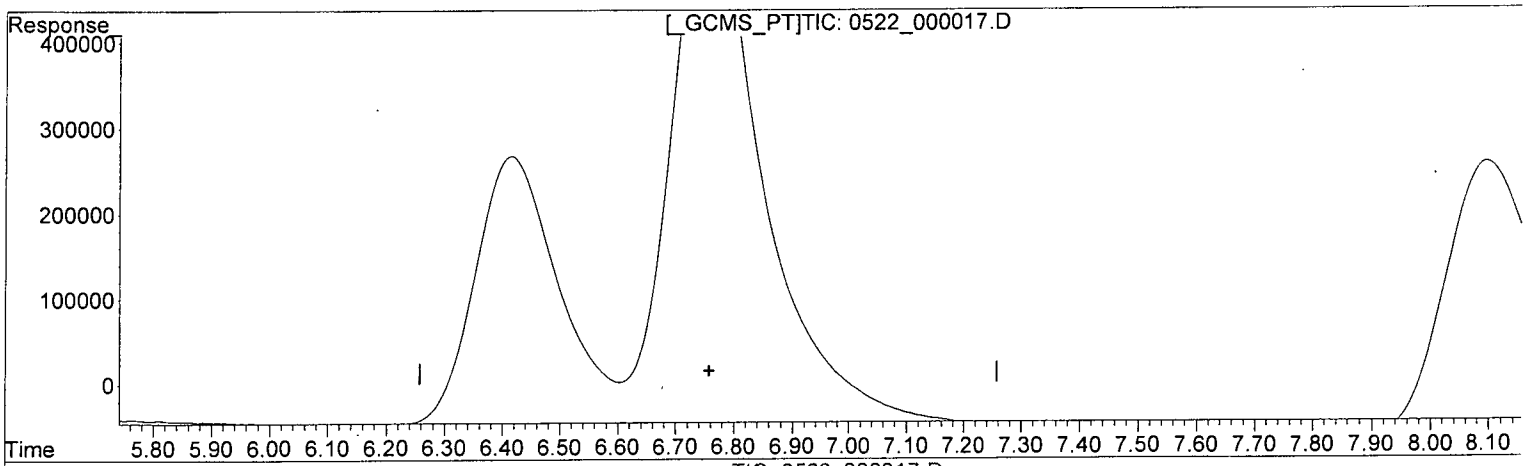
(+) = Expected Retention Time

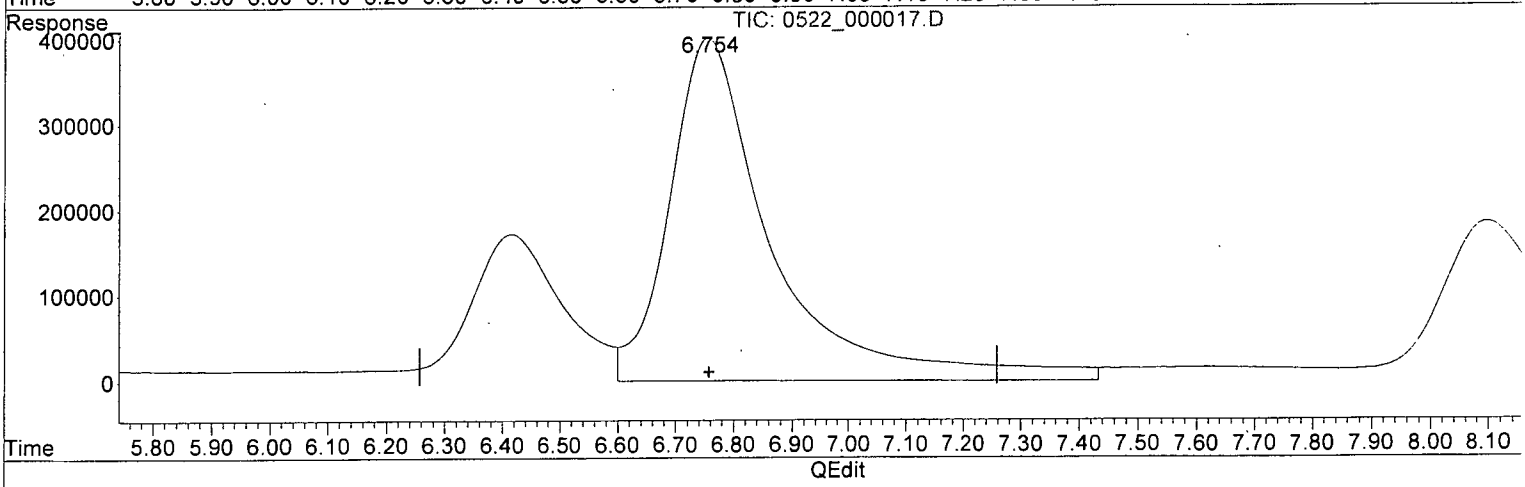
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.755min 89.469 ppb

response 399898

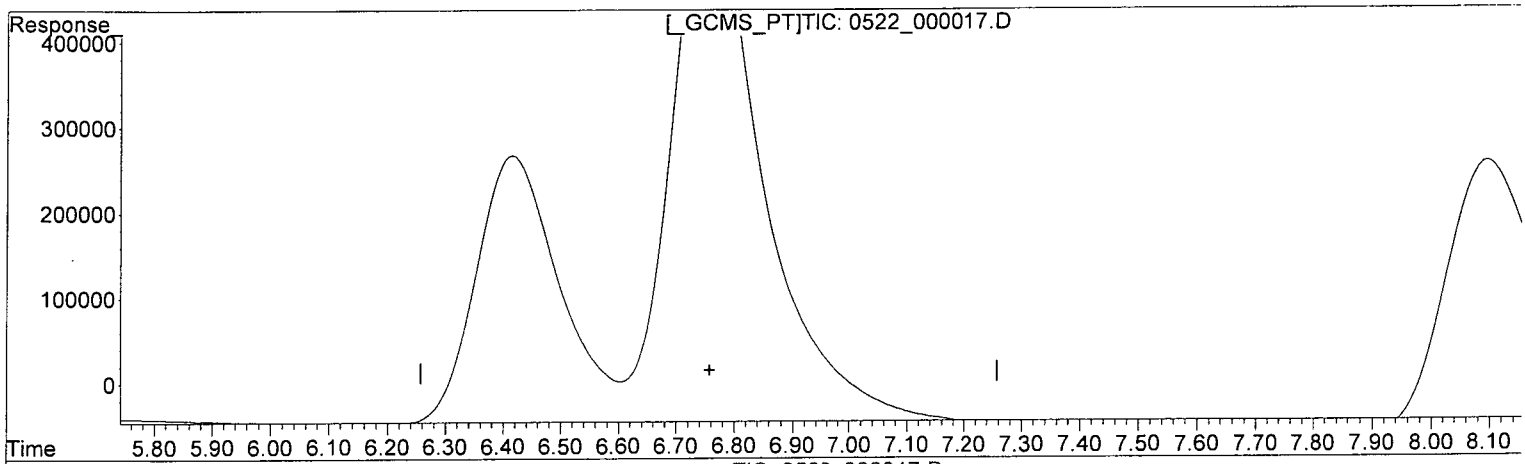
(+) = Expected Retention Time

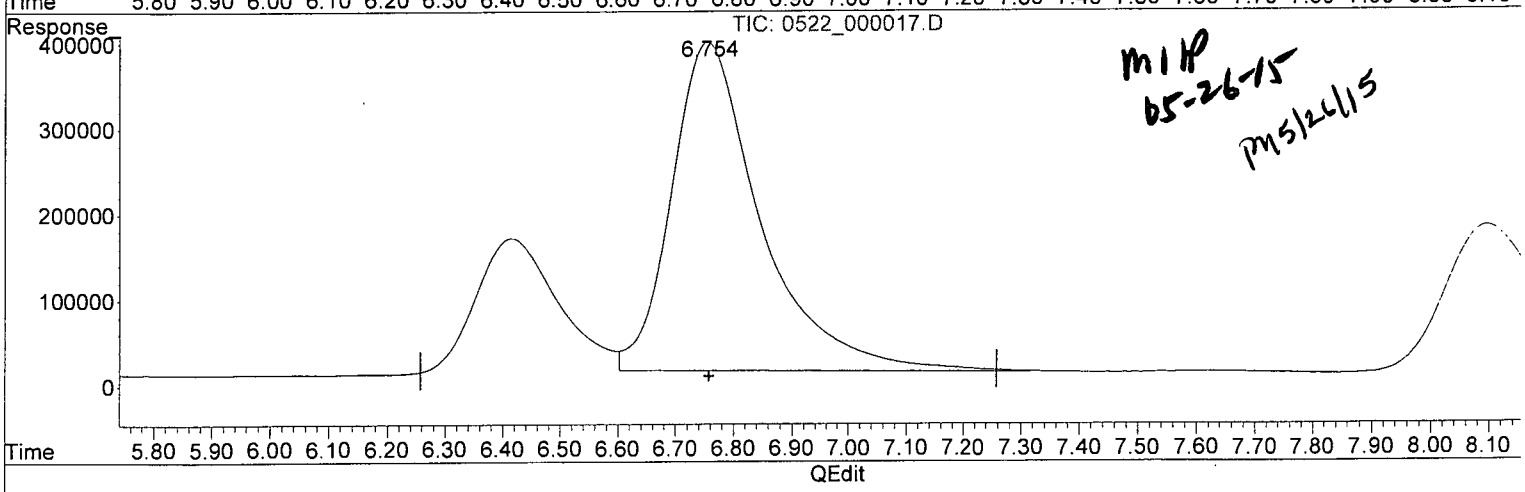
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MIP
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(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.754min 85.713 ppb m

response 383111

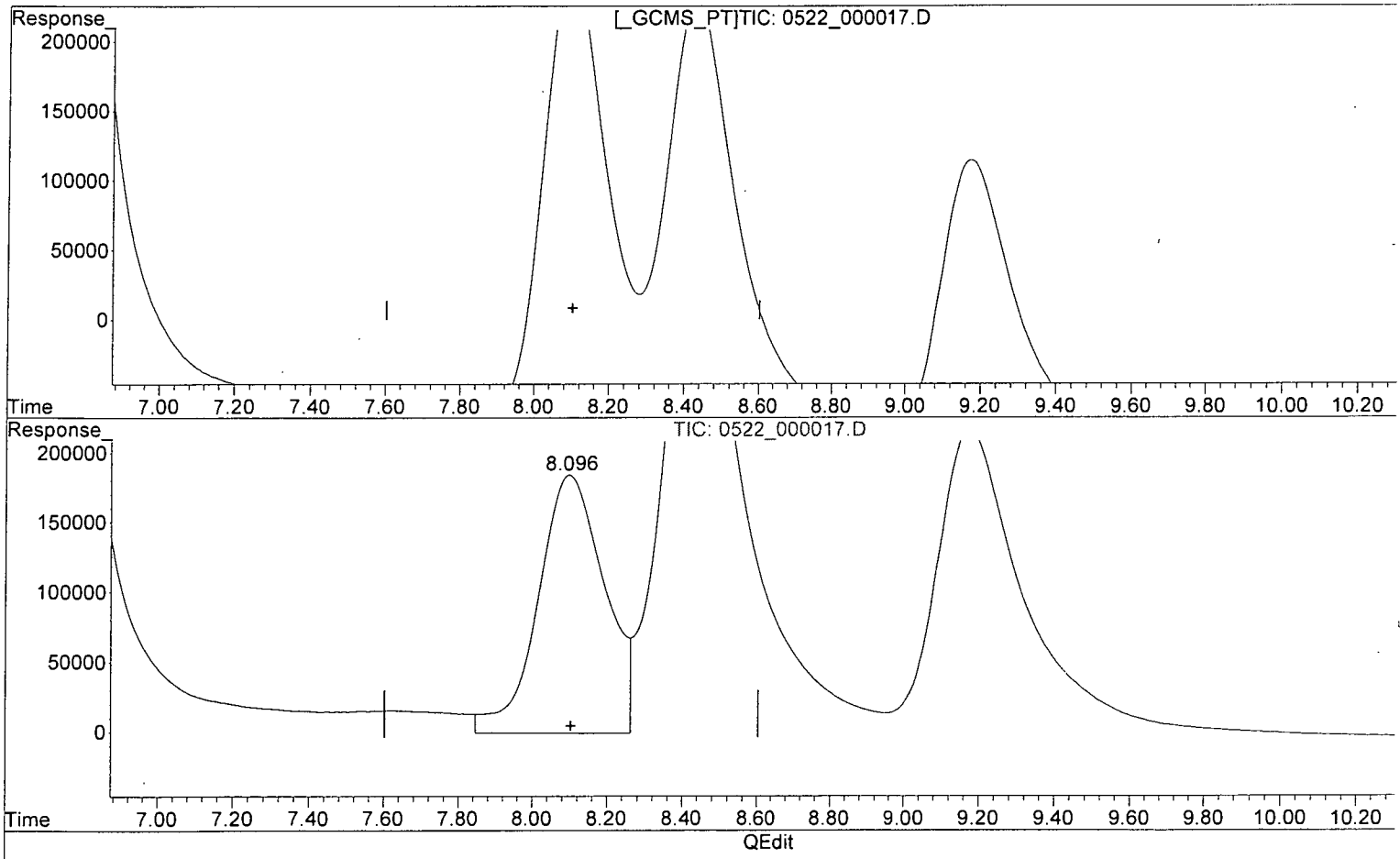
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.097min 87.674 ppb

response 184974

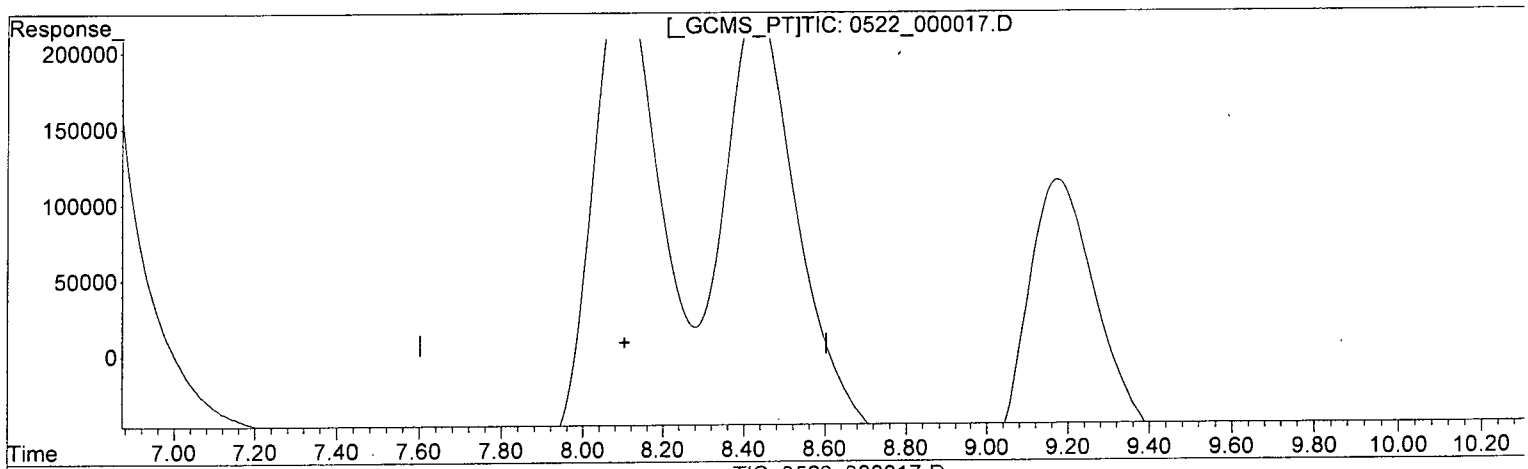
(+) = Expected Retention Time

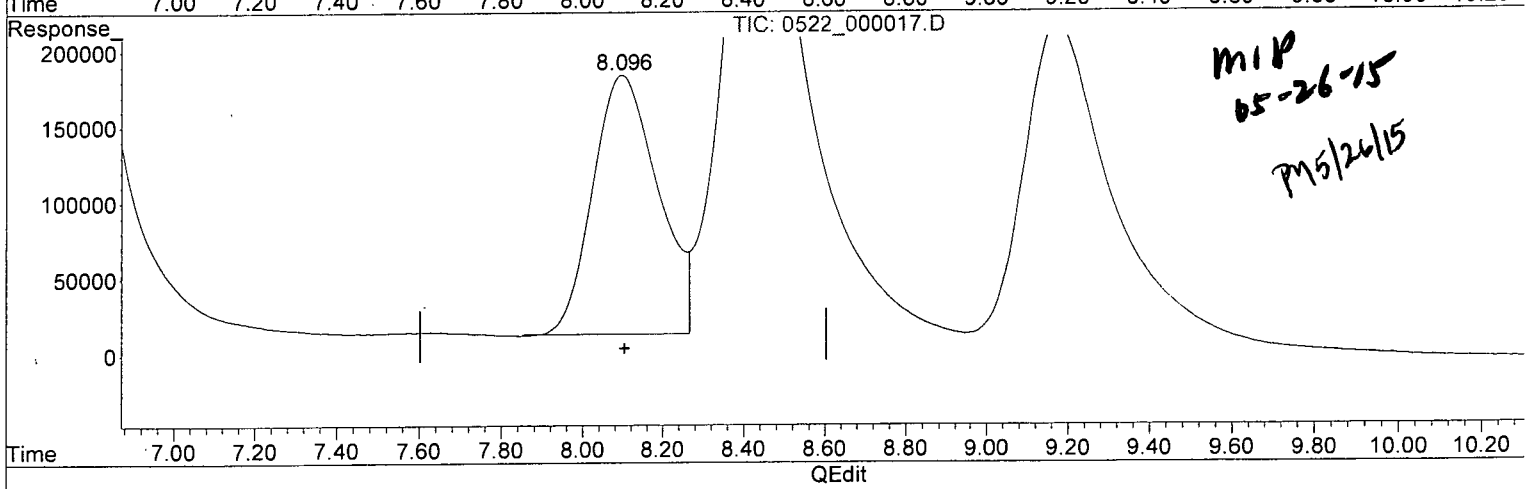
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MIP
05-26-15
PM 5/26/15

(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.096min 80.762 ppb m

response 170391

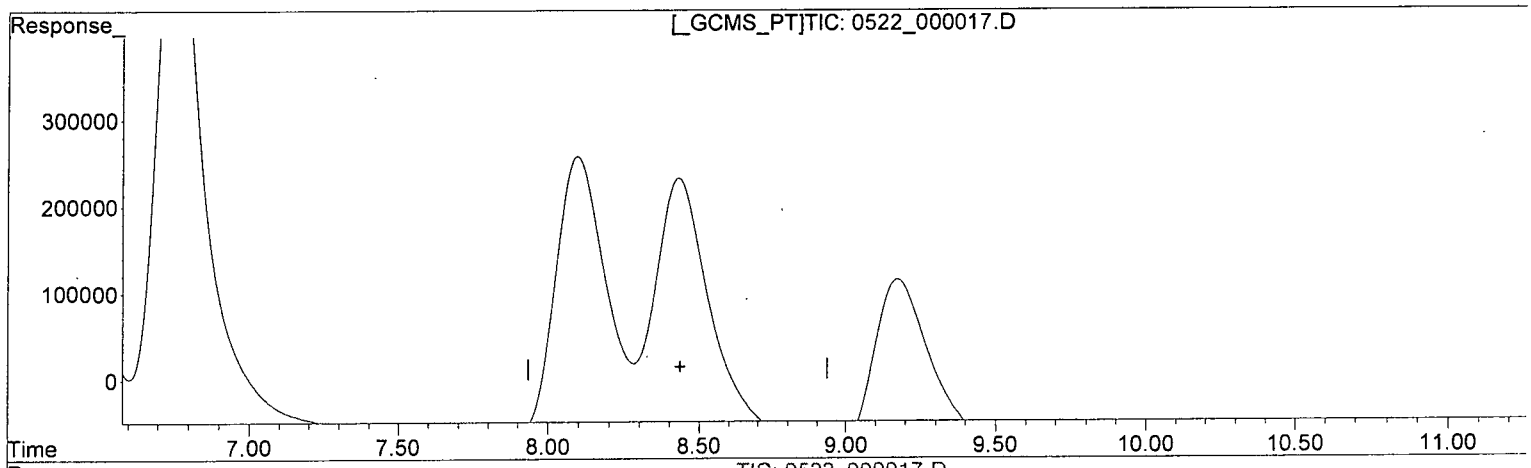
(+) = Expected Retention Time

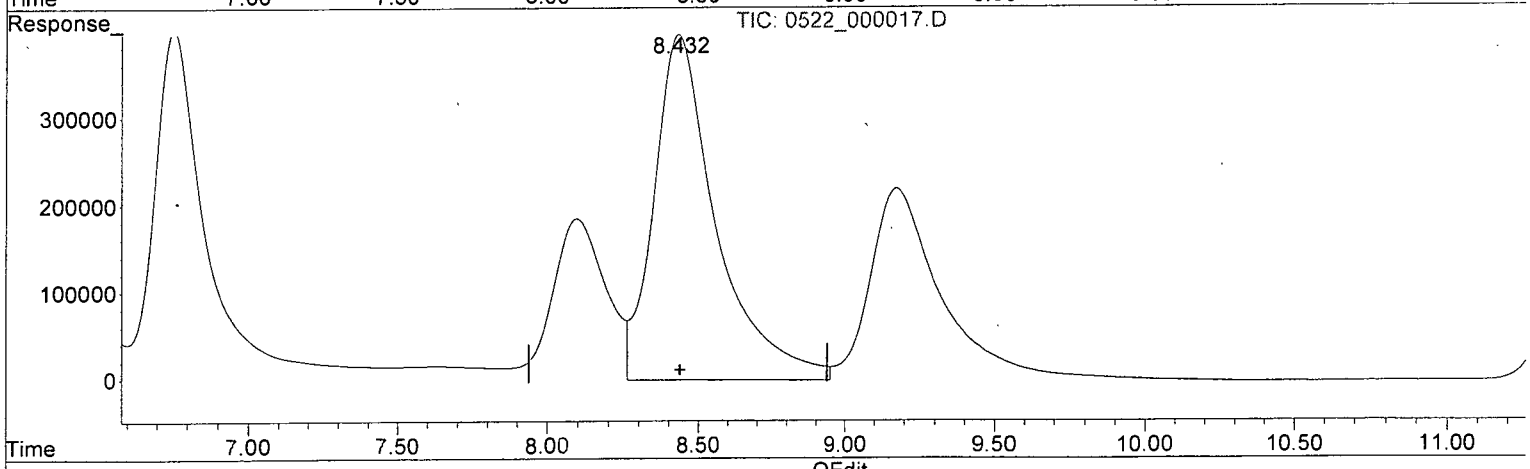
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.433min 88.015 ppb

response 395834

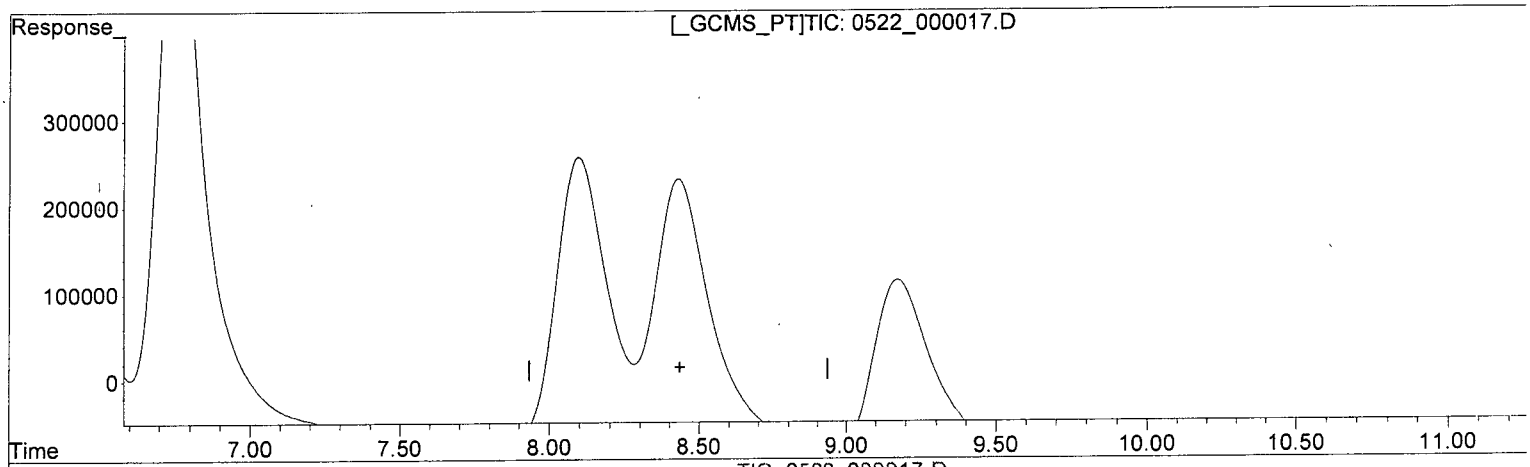
(+) = Expected Retention Time

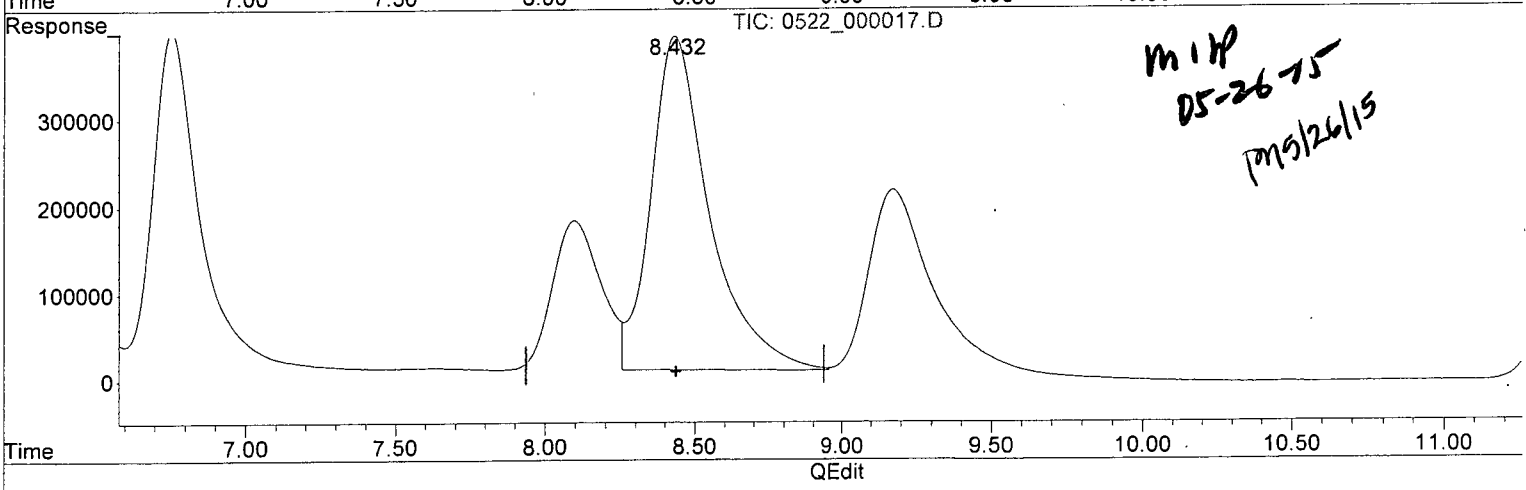
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MHP
05-26-15
PM 5/26/15

(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.432min 85.031 ppb m

response 382410

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:08:48
Operator : MP
Sample : 8330MXB_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4288 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:40:38 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
Spiked Amount 62.500			Recovery	=	0.00%	0.00%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
6) TM NITROBENZENE	0.000	0.000	0	0	N.D.	N.D.
7) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
8) TM NITROGLYC...	12.070	0.000	71317	0	78.310	N.D. d#
9) TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14) TM 3,5-DINIT...	0.000	16.571	0	165081	N.D.	82.703 #
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	22.803	0.000	69644	0	76.325m	N.D. #

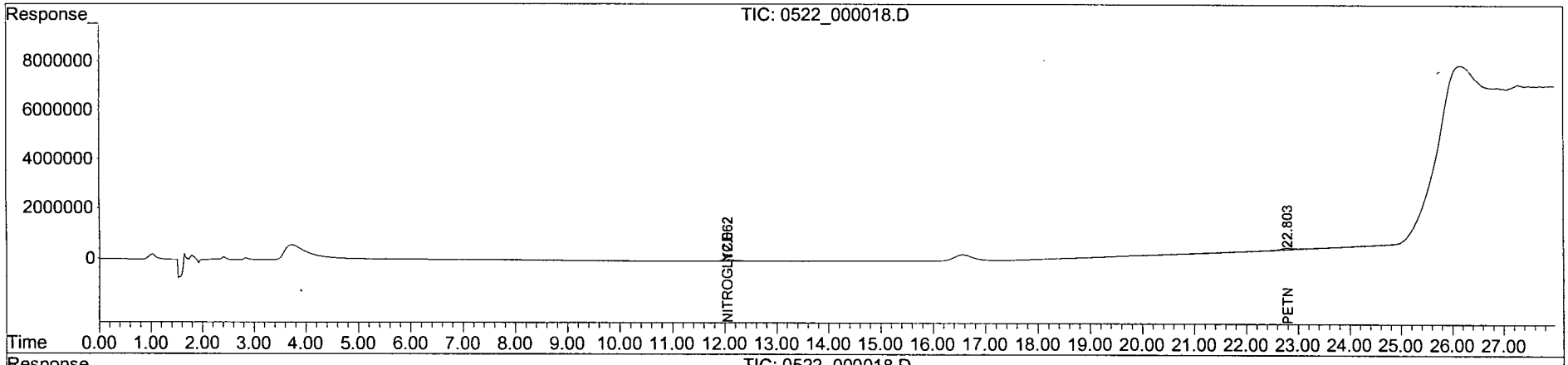
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

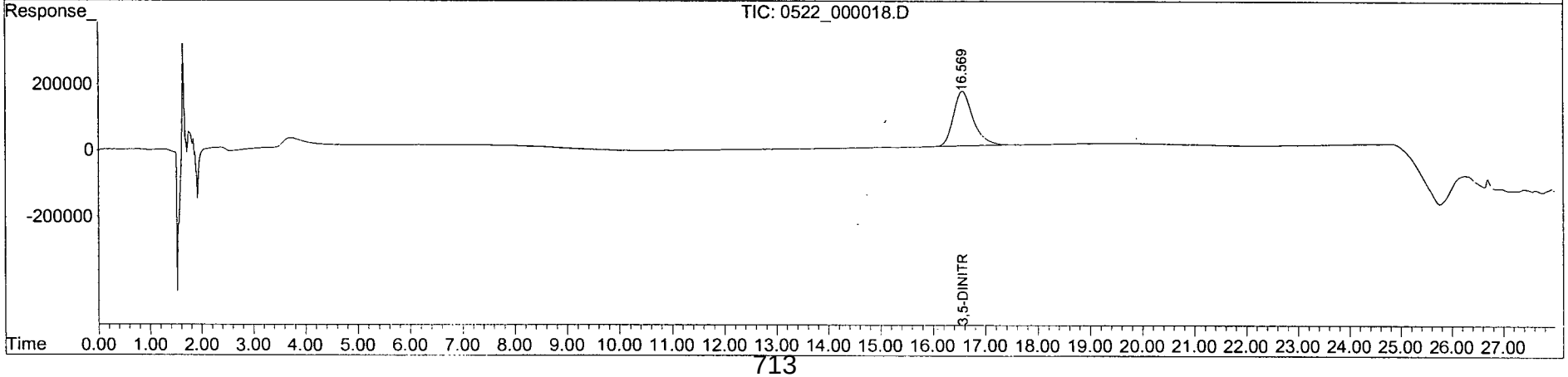
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:08:48
Operator : MP
Sample : 8330MXB_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4288 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:40:38 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



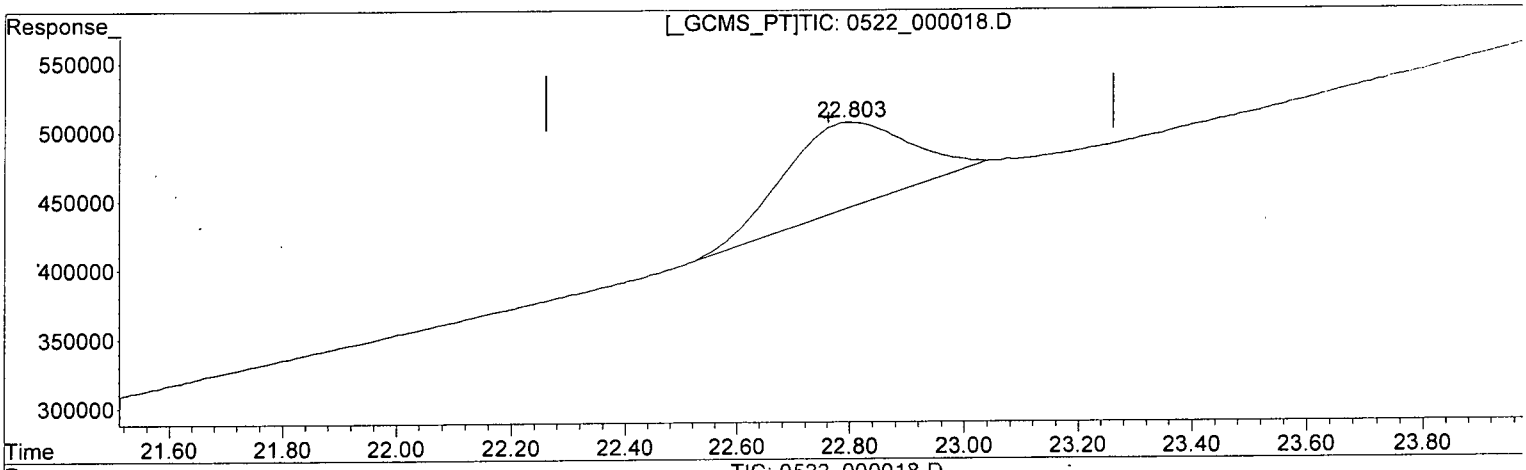


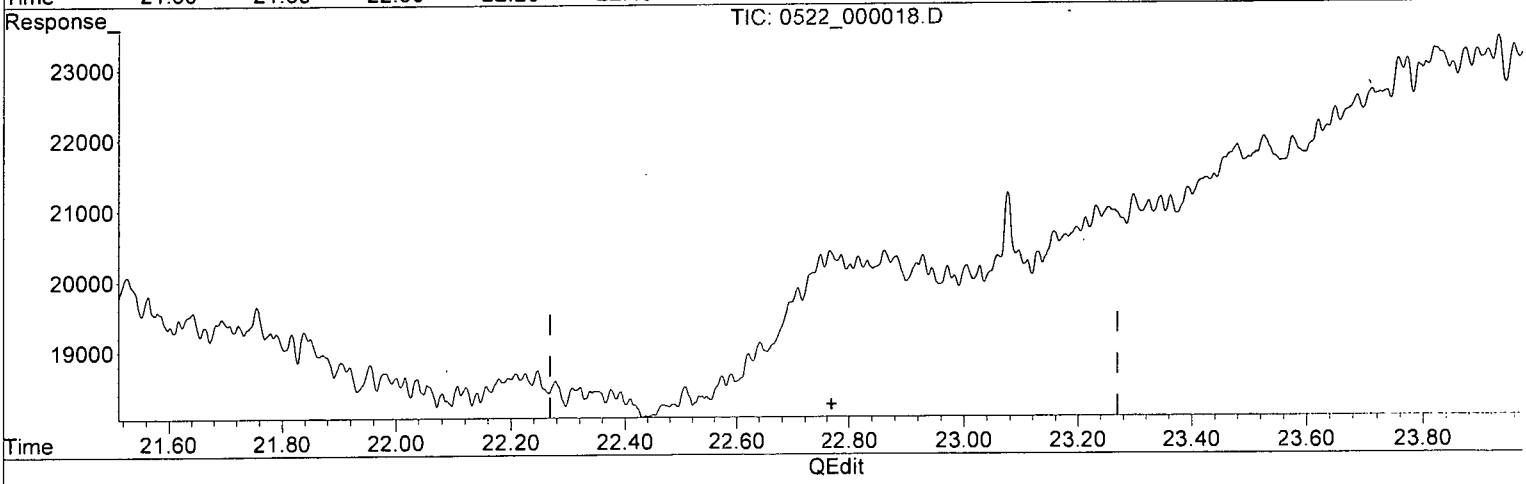
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:08:48
Operator : MP
Sample : 8330MXB_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4288 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:26 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(18) PETN (TM)

22.803min 67.152 ppb

response 61273

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

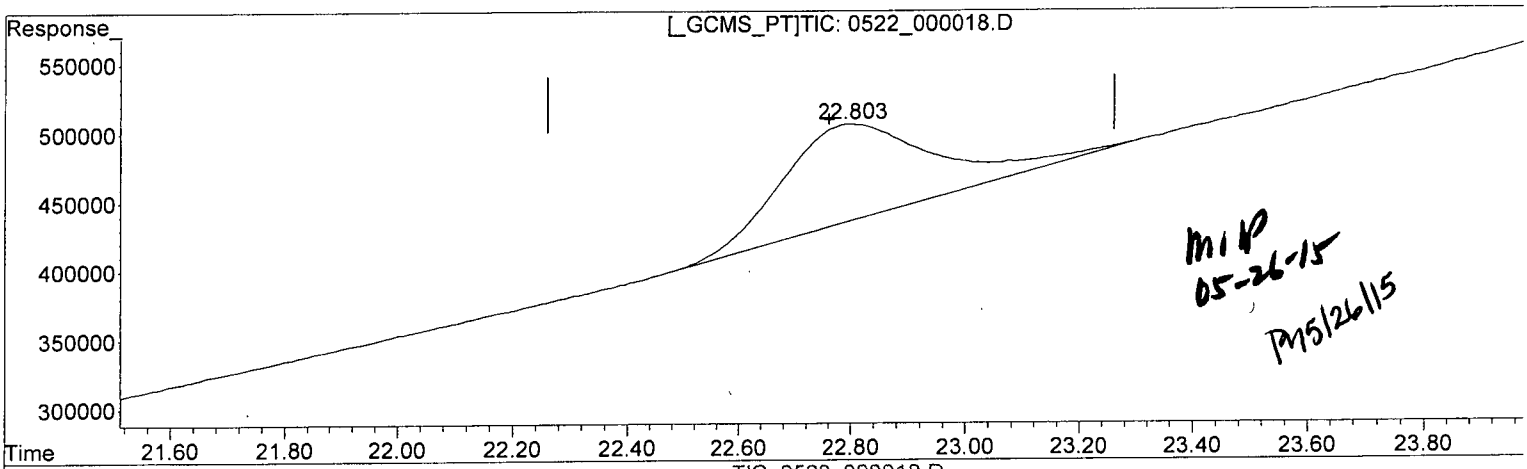
(+) = Expected Retention Time

Quantitation Report (Qedit)

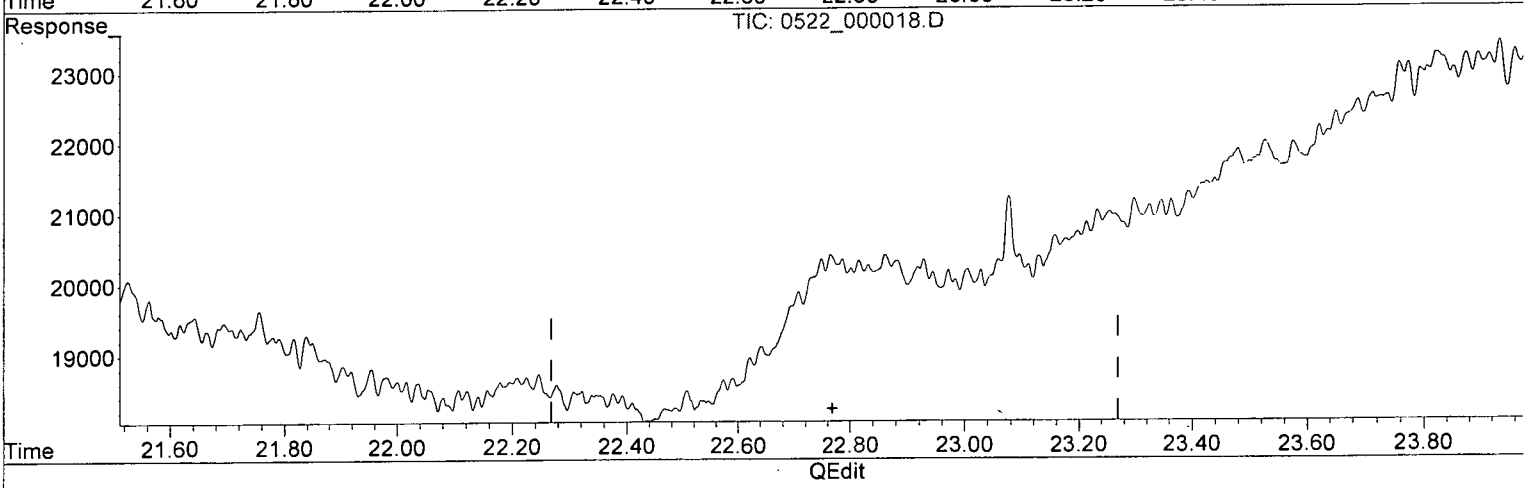
Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:08:48
Operator : MP
Sample : 8330MXB_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4288 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:26 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



MMP
05-26-15
PM 5/26/15



(18) PETN (TM)

22.803min 76.325 ppb m

response 69644

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:39:49 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4) S	1,2-DINIT...	0.000	8.109	0	369362	N.D.	175.070 #
Spiked Amount	62.500			Recovery	=	0.00%	280.11%
	Target Compounds						
1) TM	HMX	0.000	4.082	0	390500	N.D.	185.700m#
2) TM	RDX	0.000	6.425	0	327561	N.D.	176.857m#
3) TM	1,3,5-TRI...	0.000	6.764	0	791378	N.D.	177.055m#
5) TM	1,3-DINIT...	0.000	8.444	0	805920	N.D.	179.200 #
6) TM	NITROBENZENE	0.000	9.184	0	448189	N.D.	174.961 #
7) TM	2,4,6-TRI...	0.000	11.459	0	411367	N.D.	162.038 #
8) TM	NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM	TETRYL	11.994	11.993	302328	291196	NoCal	176.771 #
10) TM	2,6-DINIT...	0.000	13.467	0	246741	N.D.	167.047 #
11) TM	2,4-DINIT...	0.000	14.072	0	426389	N.D.	169.233 #
12) TM	2-NITROTO...	0.000	15.478	0	171906	N.D.	163.051 #
13) TM	4-NITROTO...	0.000	16.897	0	151010	N.D.	172.424 #
14) TM	3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM	3-NITROTO...	0.000	18.081	0	182896	N.D.	171.055 #
16) TM	4-AMINO-2...	0.000	18.671	0	272848	N.D.	194.758 #
17) TM	2-AMINO-4...	0.000	19.625	0	354480	N.D.	173.896 #
18) TM	PETN	0.000	0.000	0	0	N.D.	N.D.

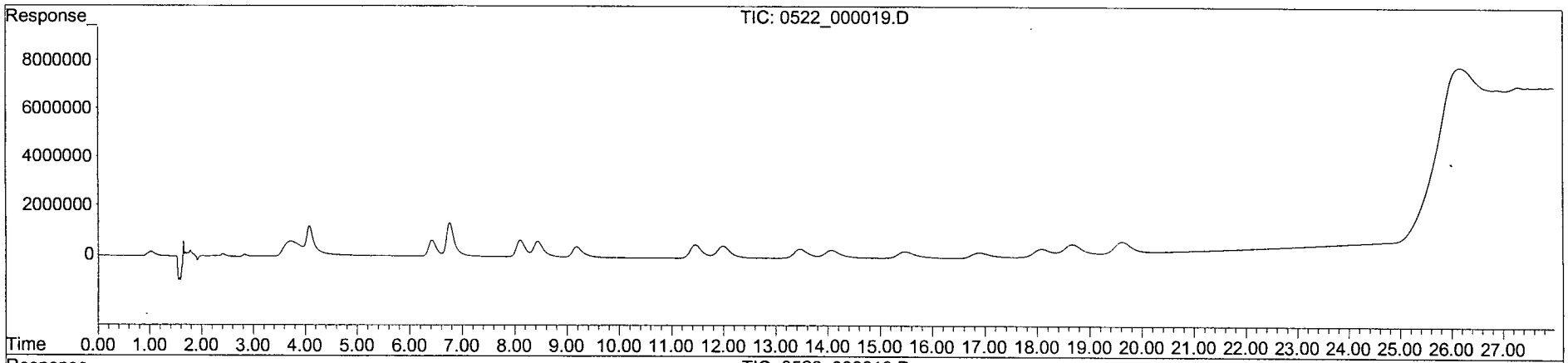
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

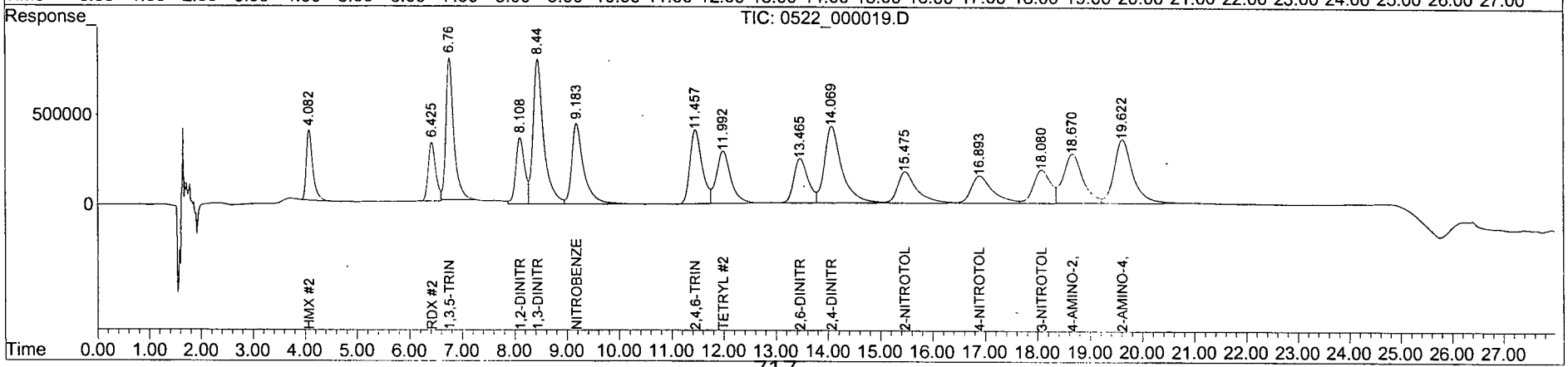
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:39:49 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



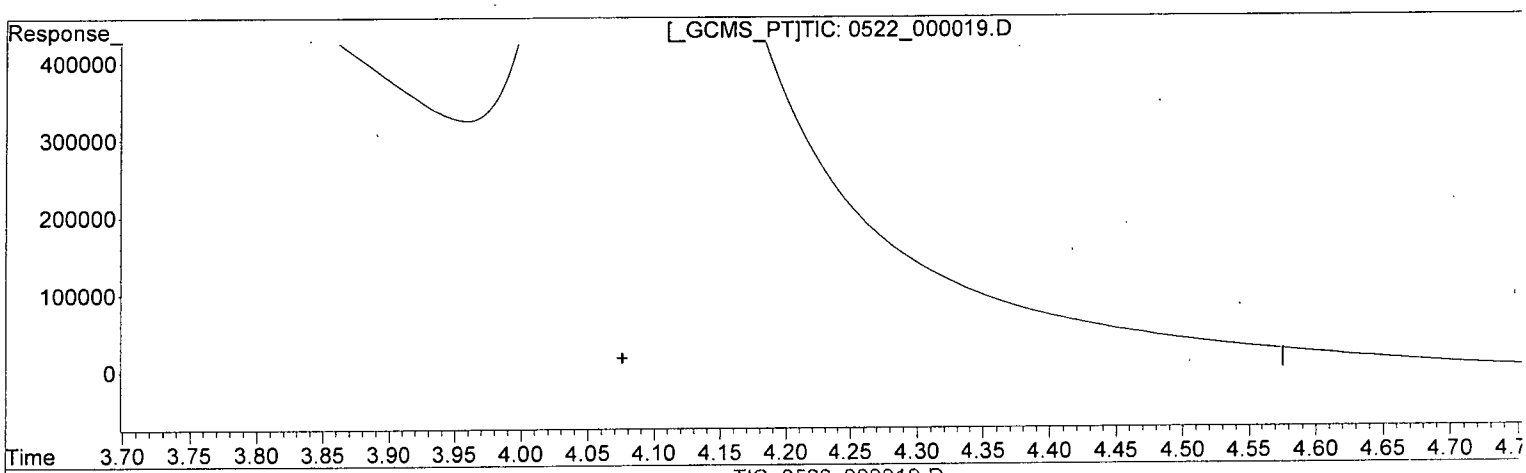


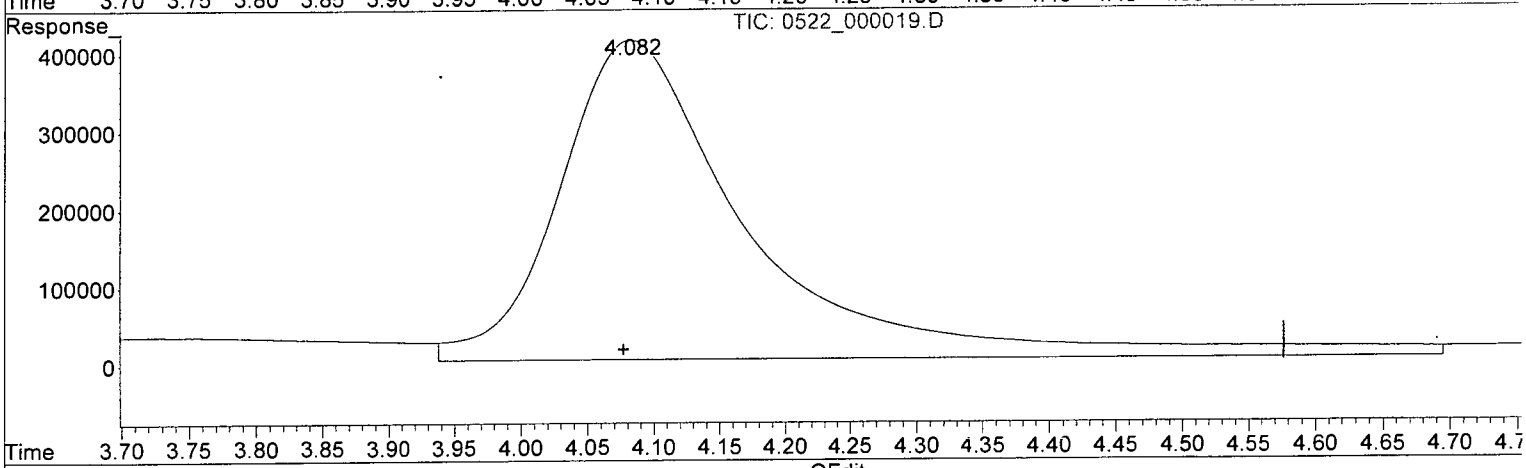
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.083min 195.469 ppb

response 411042

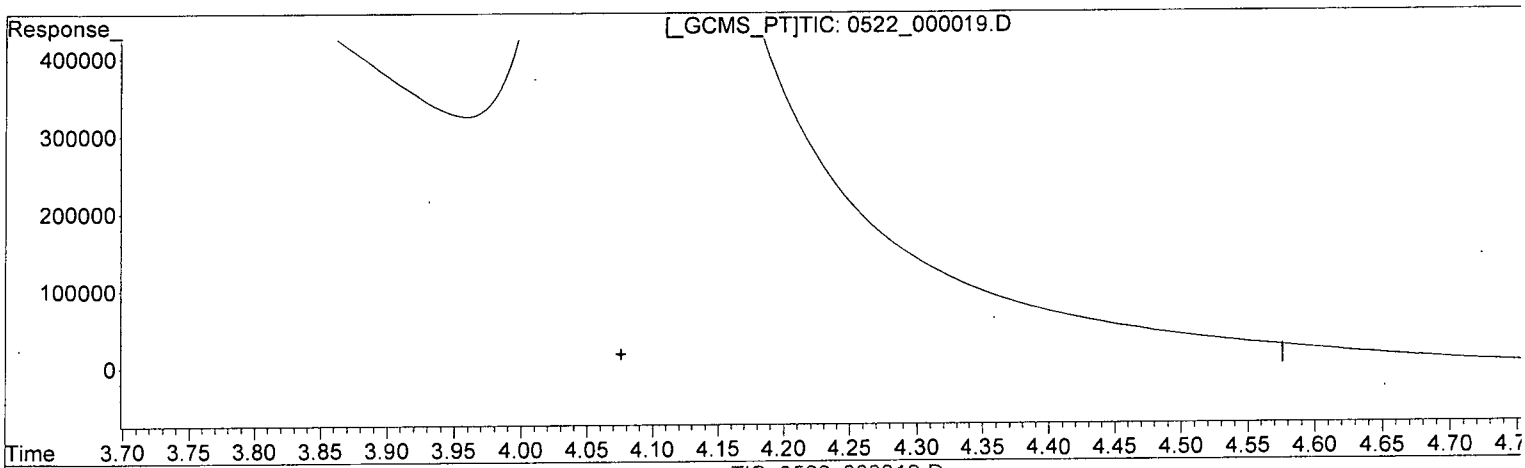
(+) = Expected Retention Time

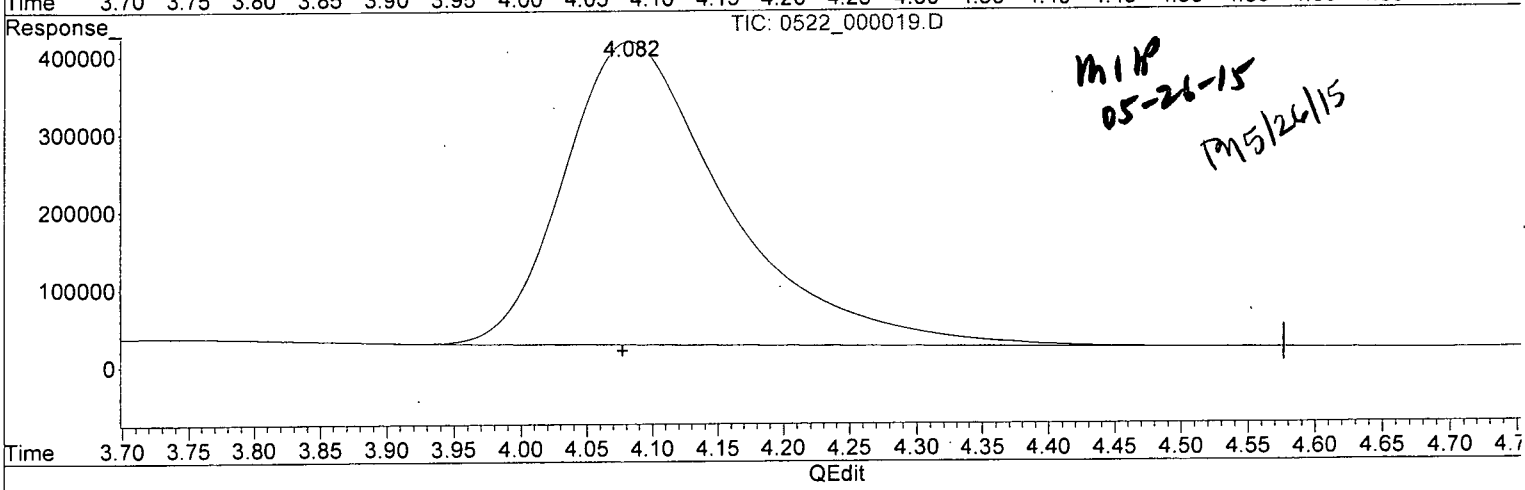
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MIP
05-26-15
PM 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.082min 185.700 ppb m

response 390500

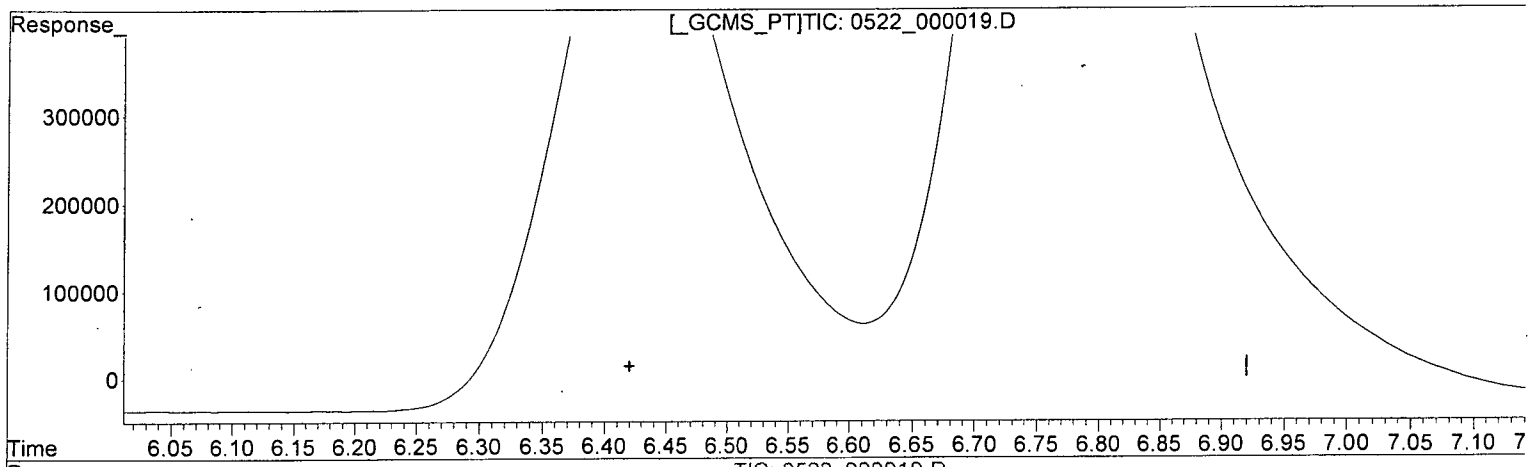
(+) = Expected Retention Time

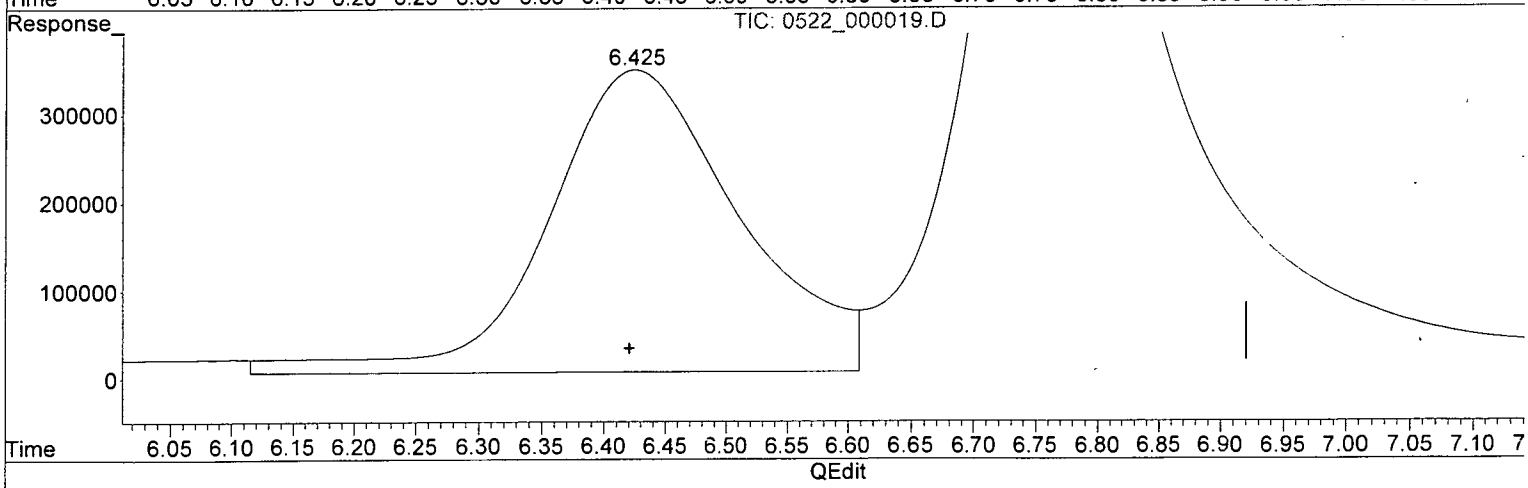
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0=





(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.426min 185.202 ppb

response 343017

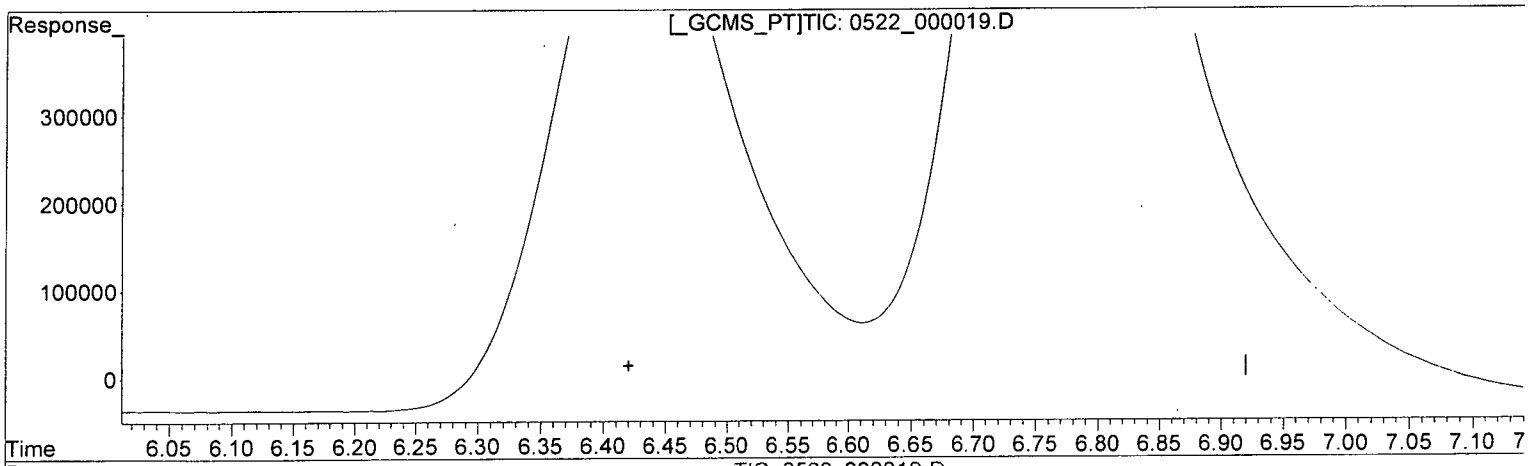
(+) = Expected Retention Time

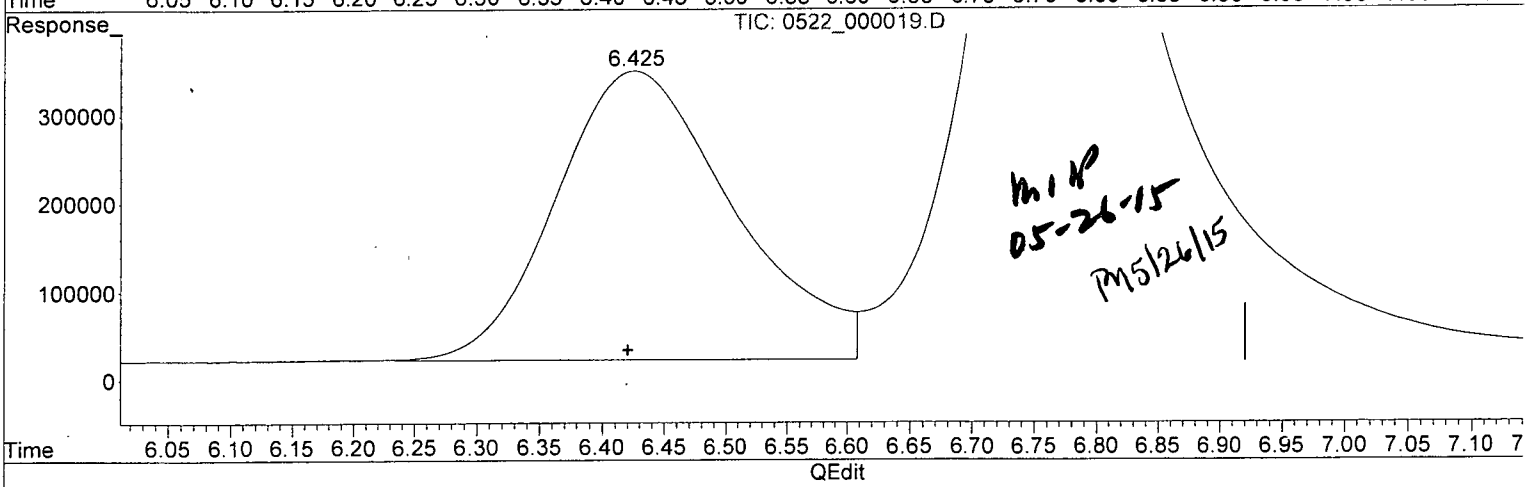
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MIP
05-26-15
PM 5/26/15

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.425min 176.857 ppb m

response 327561

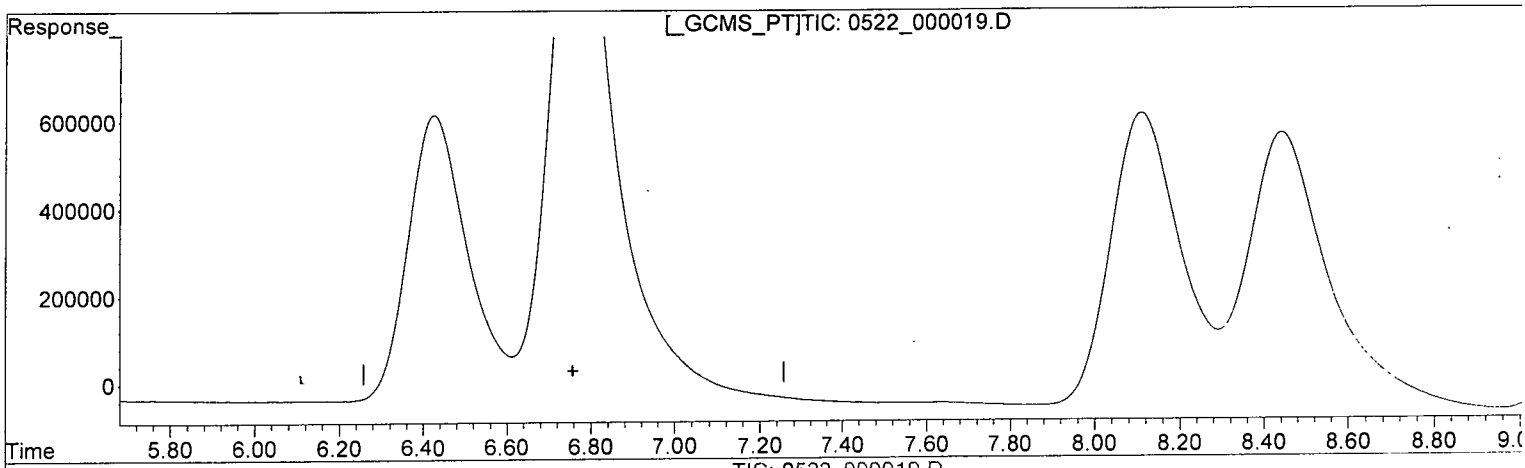
(+) = Expected Retention Time

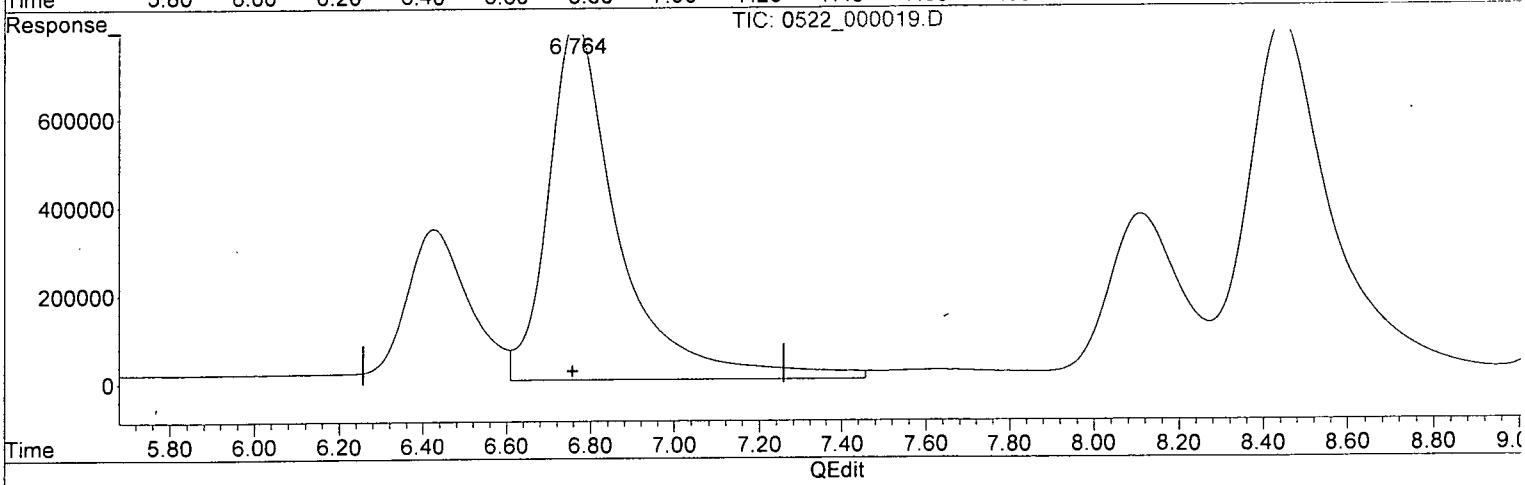
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.765min 182.230 ppb

response 814511

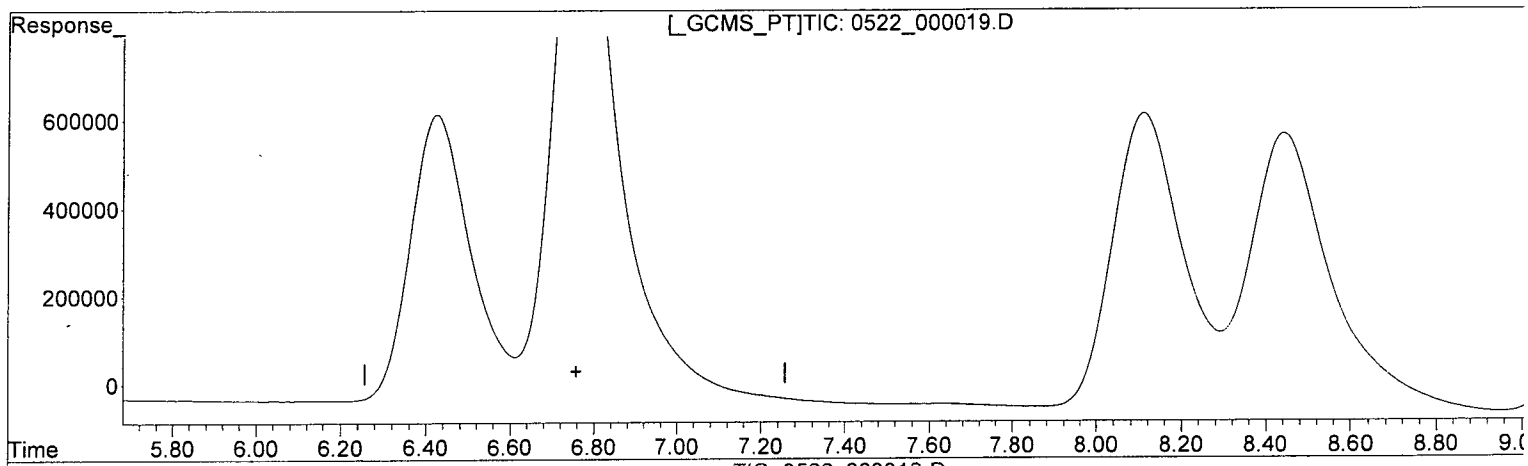
(+) = Expected Retention Time

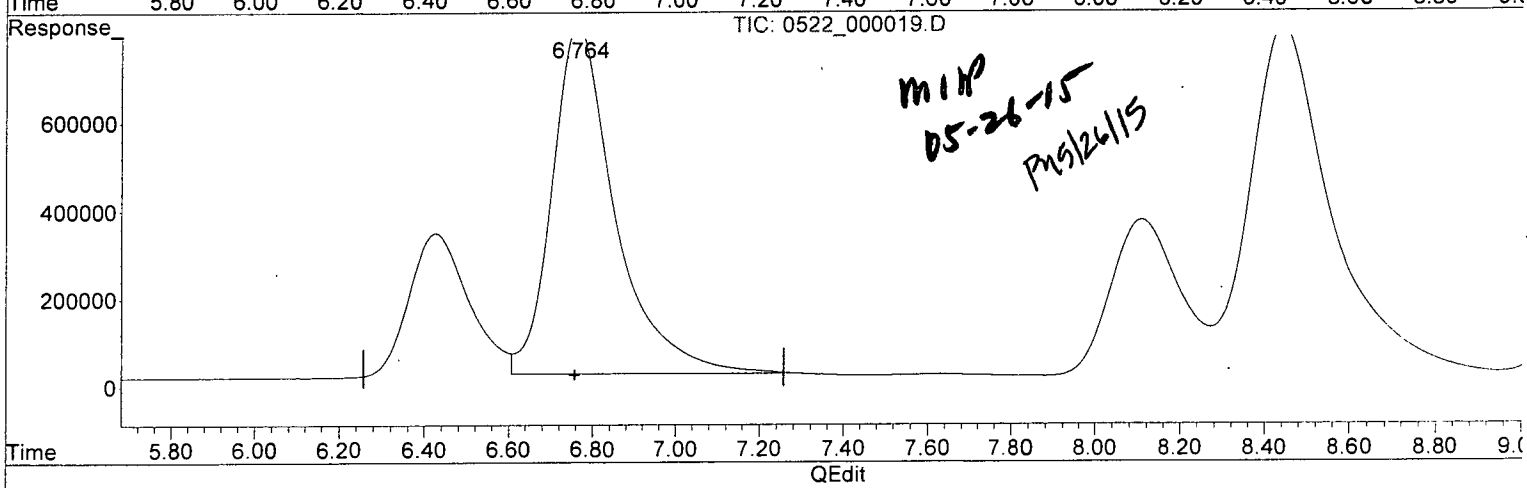
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MIP
05-26-15
PMS/26/15

(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.764min 177.055 ppb m

response 791378

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 21:27:50
Operator : MP
Sample : 8330MXB_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4290 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:37:53 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
Spiked Amount 62.500			Recovery	=	0.00%	0.00%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
6) TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
7) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
8) TM NITROGLYC...	12.049	0.000	147567	0	162.036	N.D. d#
9) TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14) TM 3,5-DINIT...	0.000	16.545	0	338483	N.D.	169.574 #
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	22.768	0.000	151578	0	166.120m	N.D. #

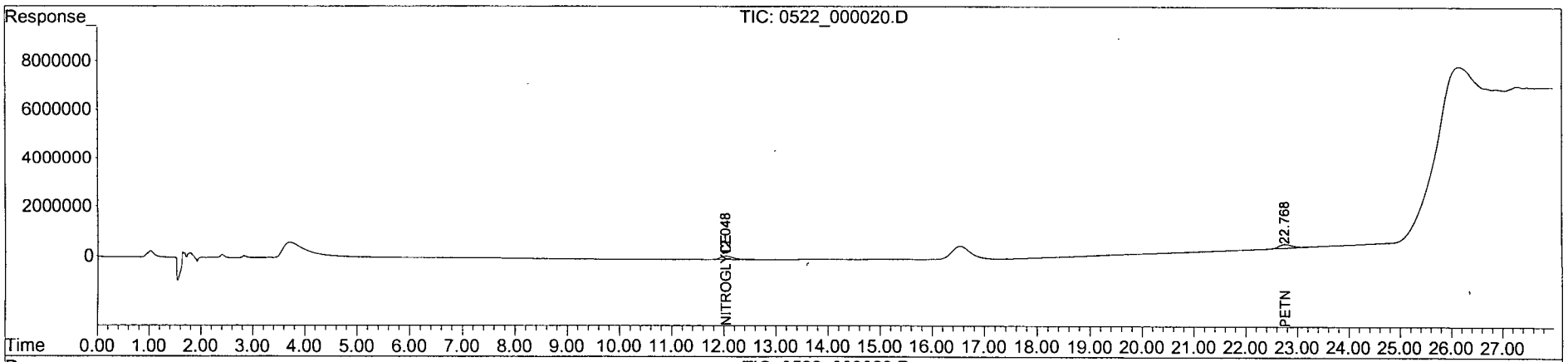
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

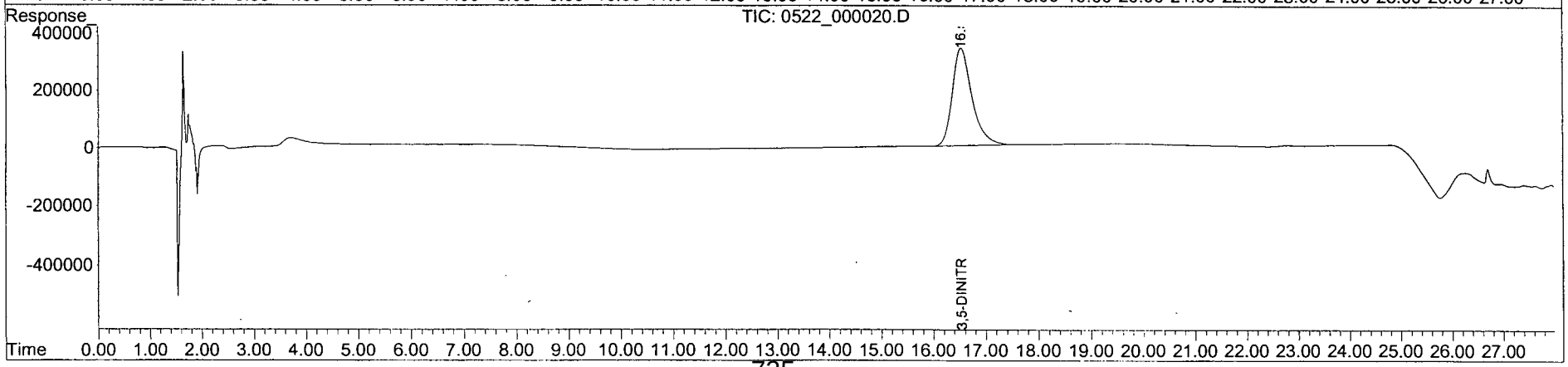
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 21:27:50
Operator : MP
Sample : 8330MXB_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4290 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:37:53 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



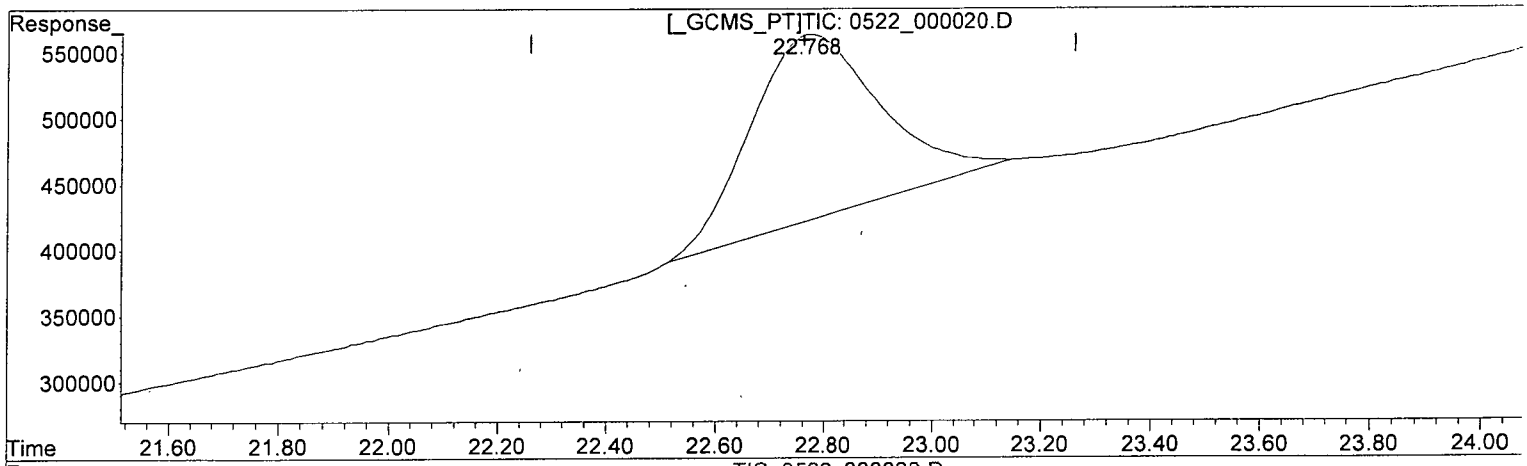


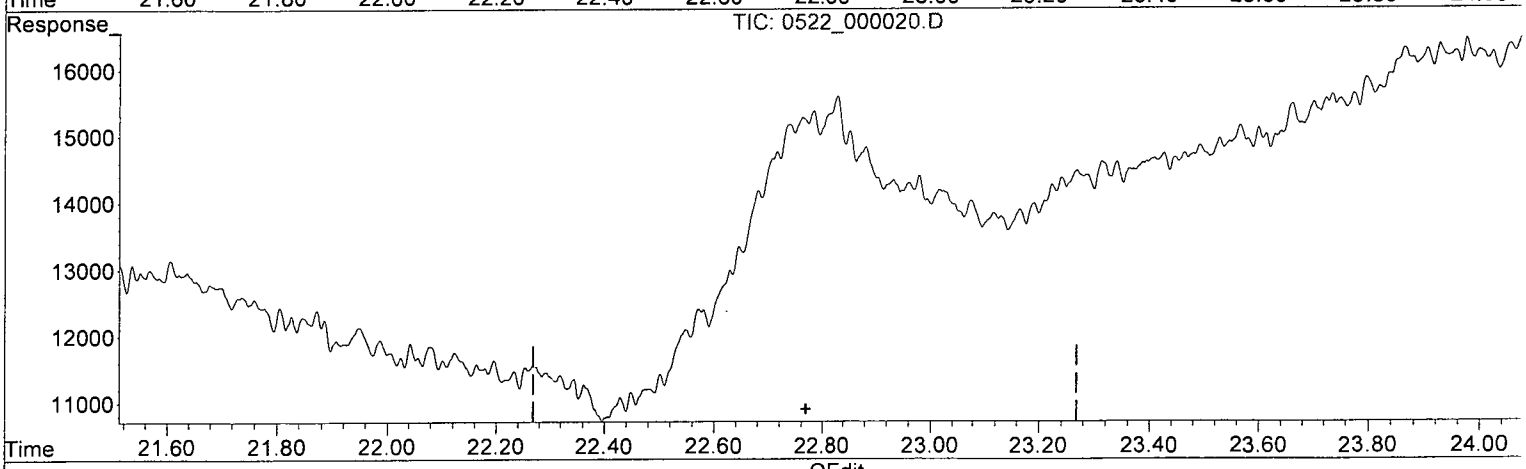
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 21:27:50
Operator : MP
Sample : 8330MXB_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4290 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:32 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(18) PETN (TM)

22.776min 154.013 ppb

response 140531

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

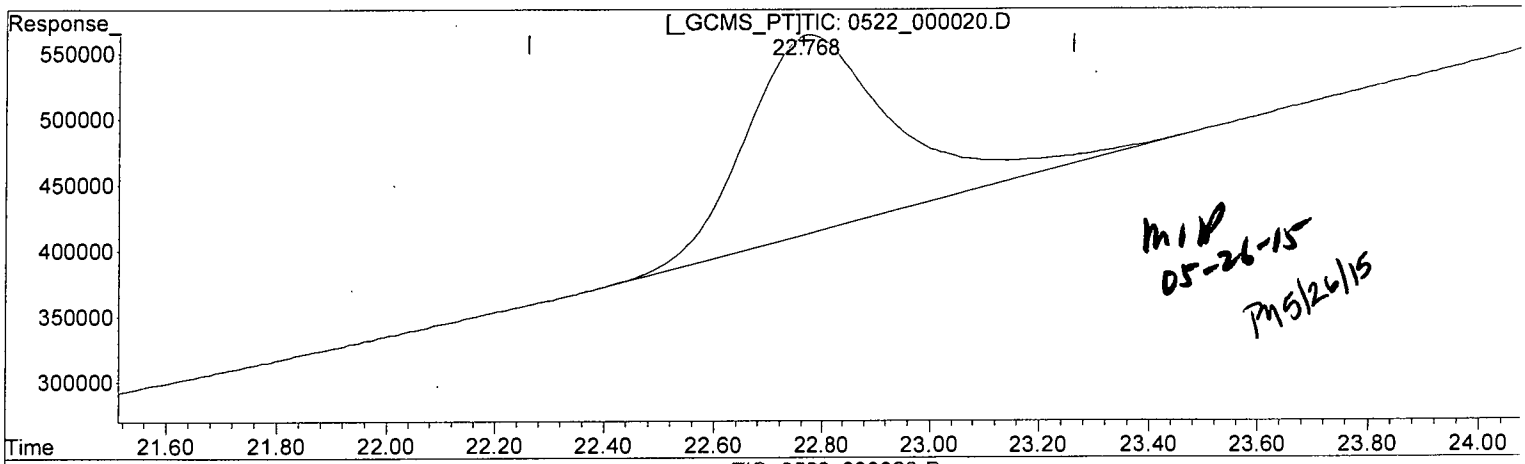
(+) = Expected Retention Time

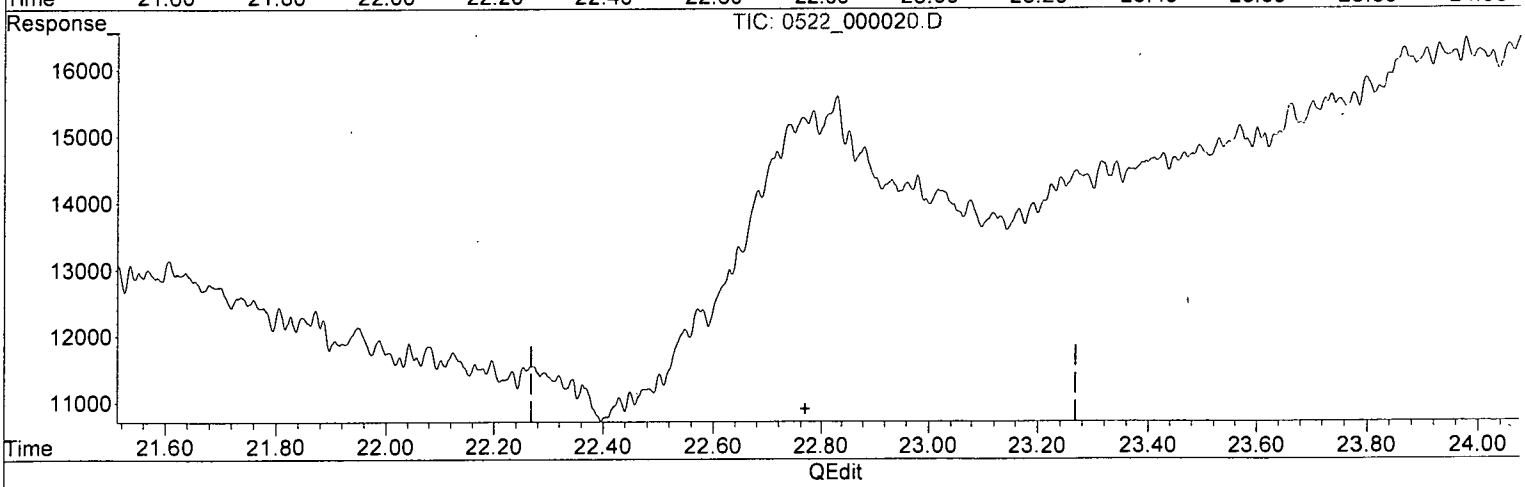
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 21:27:50
Operator : MP
Sample : 8330MXB_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4290 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:32 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(18) PETN (TM)

22.768min 166.120 ppb m

response 151578

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000021.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 22:07:21
Operator : MP
Sample : 8330MXA_CB 0.50 PPM 05/22/15
Misc :
ALS Vial : 4291 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:36:44 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.105	0	879728	N.D.	416.972 #
Spiked Amount 62.500			Recovery	=	0.00%	667.16%
Target Compounds						
1) TM HMX	0.000	4.078	0	976770	N.D.	464.498 #
2) TM RDX	0.000	6.421	0	806821	N.D.	435.619 #
3) TM 1,3,5-TRI...	0.000	6.759	0	1966354	N.D.	439.931 #
5) TM 1,3-DINIT...	0.000	8.439	0	1956143	N.D.	434.957 #
6) TM NITROBENZENE	0.000	9.178	0	1093580	N.D.	426.904 #
7) TM 2,4,6-TRI...	0.000	11.450	0	1003936	N.D.	395.451 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.986	11.985	592326	722593	NoCal	438.651 #
10) TM 2,6-DINIT...	13.458	13.457	927172	598770	NoCal	405.376 #
11) TM 2,4-DINIT...	0.000	14.061	0	1040938	N.D.	413.147 #
12) TM 2-NITROTO...	0.000	15.466	0	416863	N.D.	395.391 #
13) TM 4-NITROTO...	0.000	16.881	0	367088	N.D.	419.141 #
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM 3-NITROTO...	0.000	18.068	0	443247	N.D.	414.550 #
16) TM 4-AMINO-2...	0.000	18.667	0	657332	N.D.	469.201 #
17) TM 2-AMINO-4...	0.000	19.622	0	851433	N.D.	417.685 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

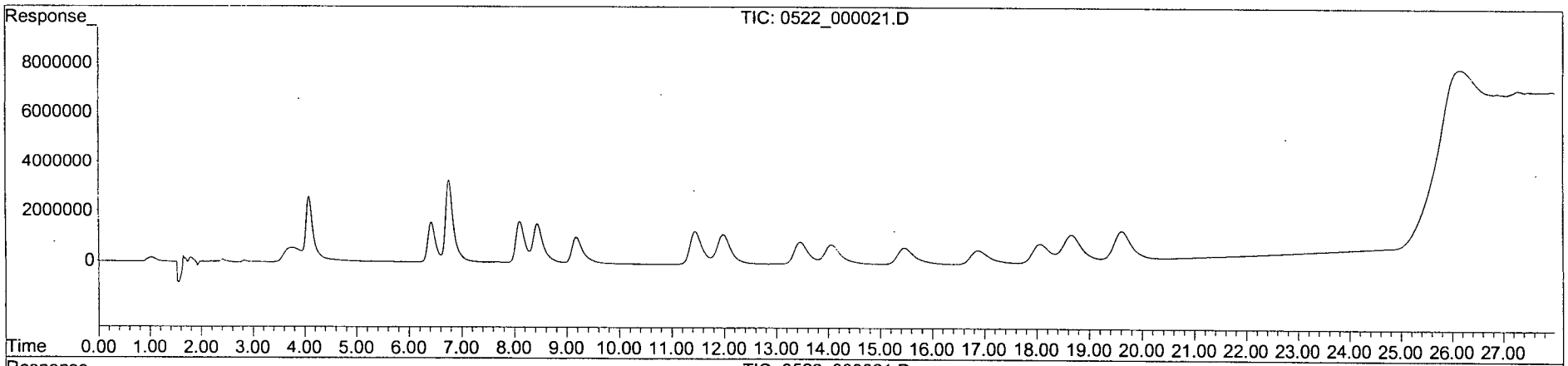
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

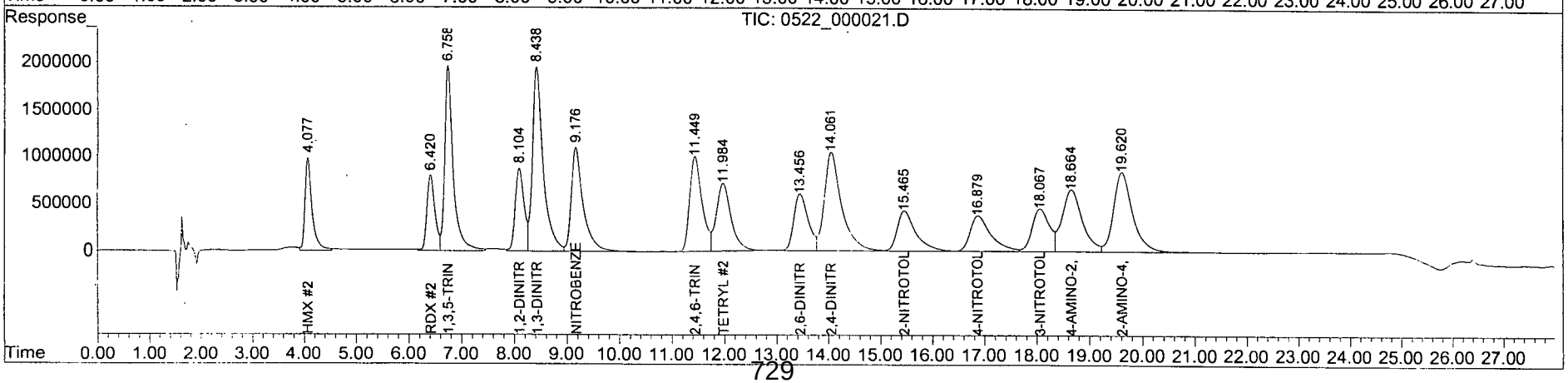
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000021.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 22:07:21
Operator : MP
Sample : 8330MXA_CB 0.50 PPM 05/22/15
Misc :
ALS Vial : 4291 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:36:44 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron





Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000022.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 22:46:51
Operator : MP
Sample : 8330MXB_CB 0.50 PPM 05/22/15
Misc :
ALS Vial : 4292 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:35:42 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 62.500			Recovery	=	0.00%	0.00%
	Target Compounds						
1)	TM HMX	0.000	0.000	0	0	N.D.	N.D.
2)	TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5)	TM 1,3-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
6)	TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
7)	TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
8)	TM NITROGLYC...	12.050	0.000	368668	0	404.817	N.D. d#
9)	TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10)	TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11)	TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13)	TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14)	TM 3,5-DINIT...	0.000	16.548	0	841116	N.D.	421.385 #
15)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16)	TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17)	TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18)	TM PETN	22.762	0.000	382271	0	418.944m	N.D. #

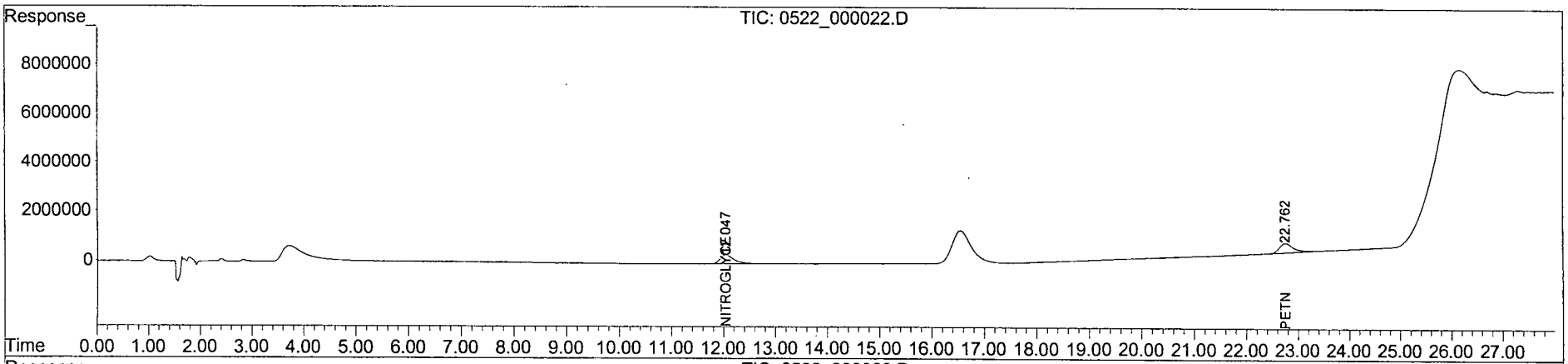
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

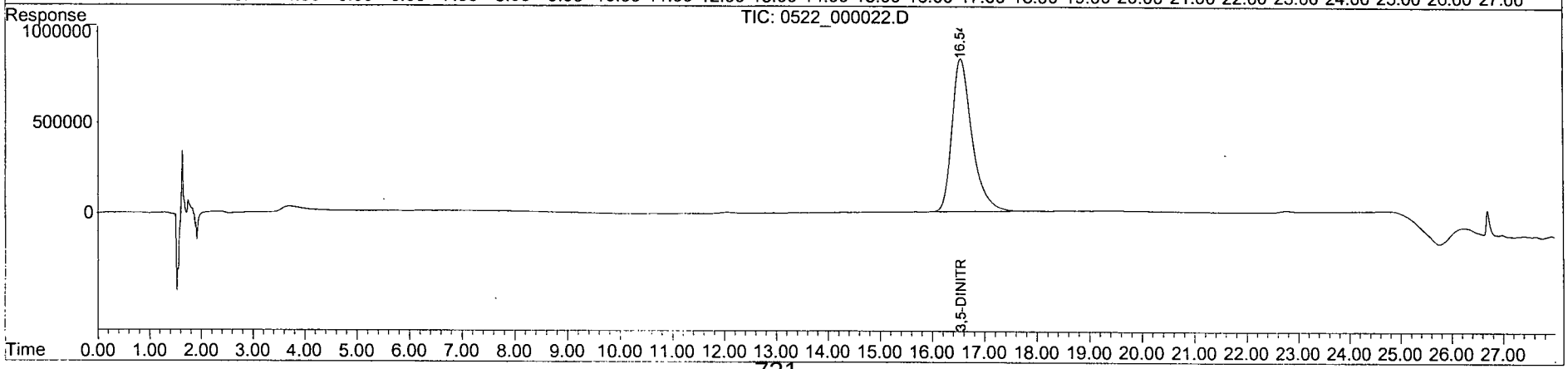
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000022.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 22:46:51
Operator : MP
Sample : 8330MXB_CB 0.50 PPM 05/22/15
Misc :
ALS Vial : 4292 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:35:42 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



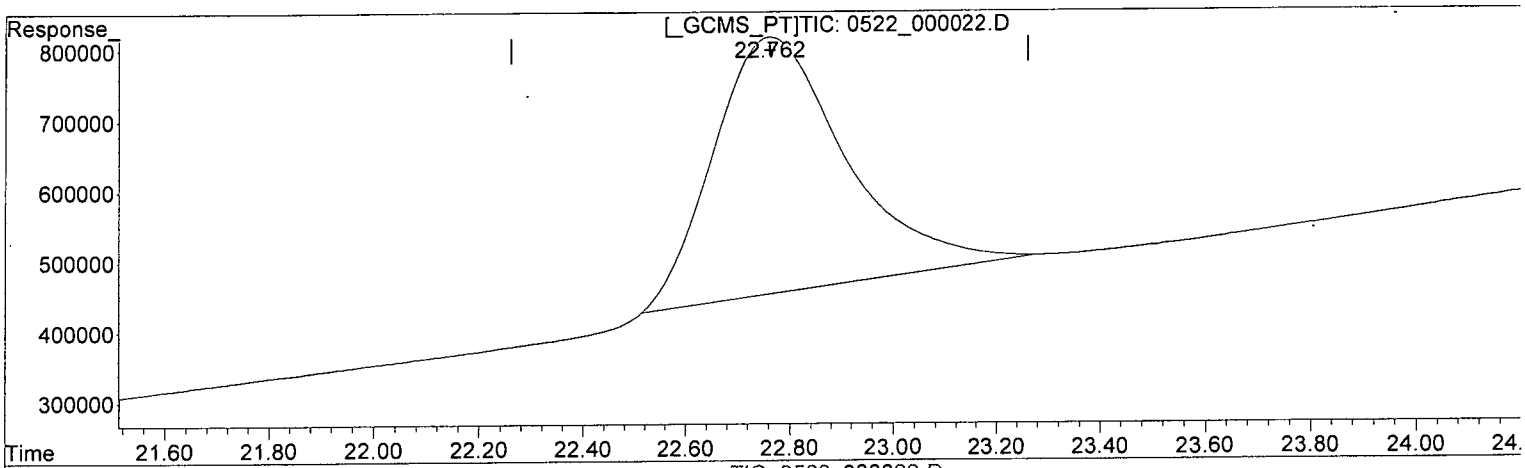


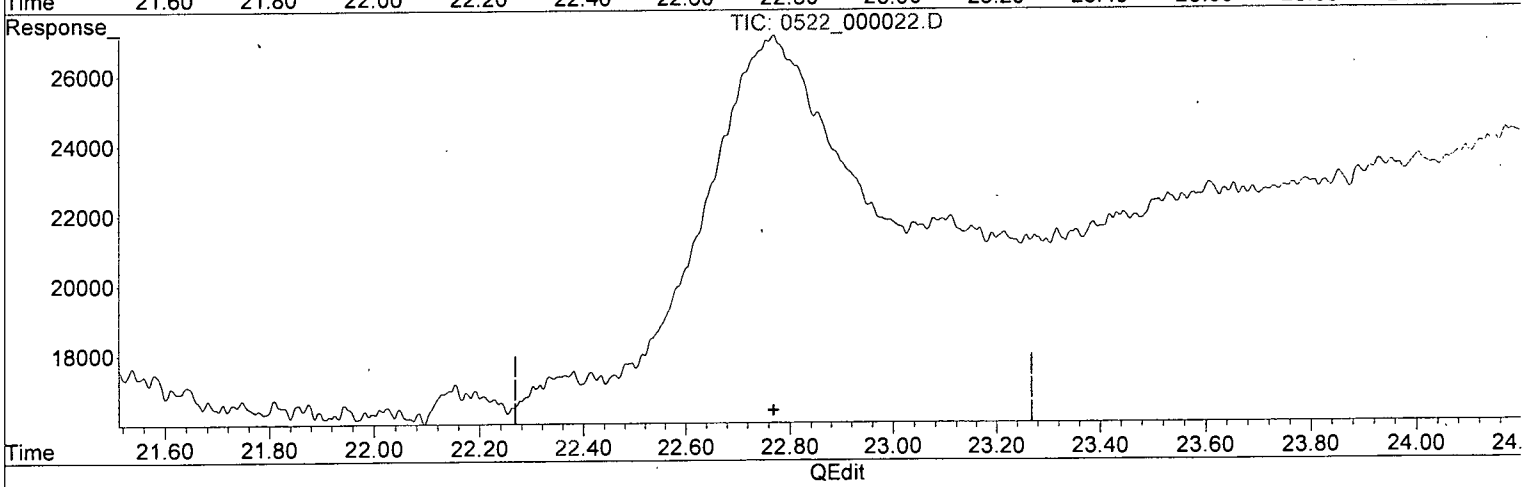
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000022.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 22:46:51
Operator : MP
Sample : 8330MXB_CB 0.50 PPM 05/22/15
Misc :
ALS Vial : 4292 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:38 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r





(18) PETN (TM)

22.763min 398.817 ppb

response 363907

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

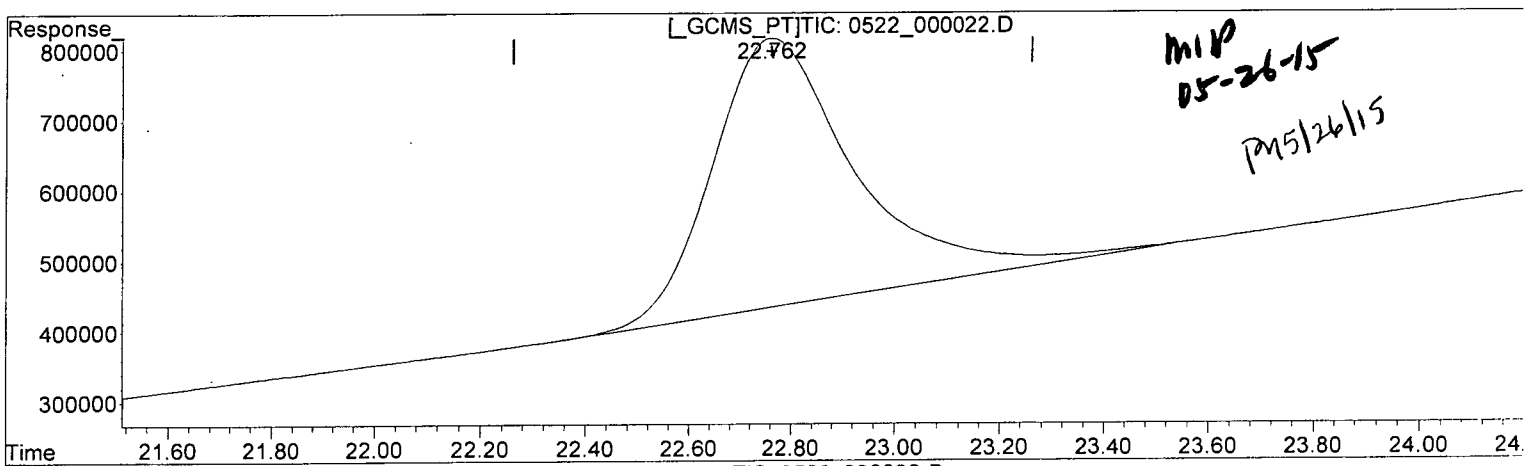
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000022.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 22:46:51
Operator : MP
Sample : 8330MXB_CB 0.50 PPM 05/22/15
Misc :
ALS Vial : 4292 Sample Multiplier: 1

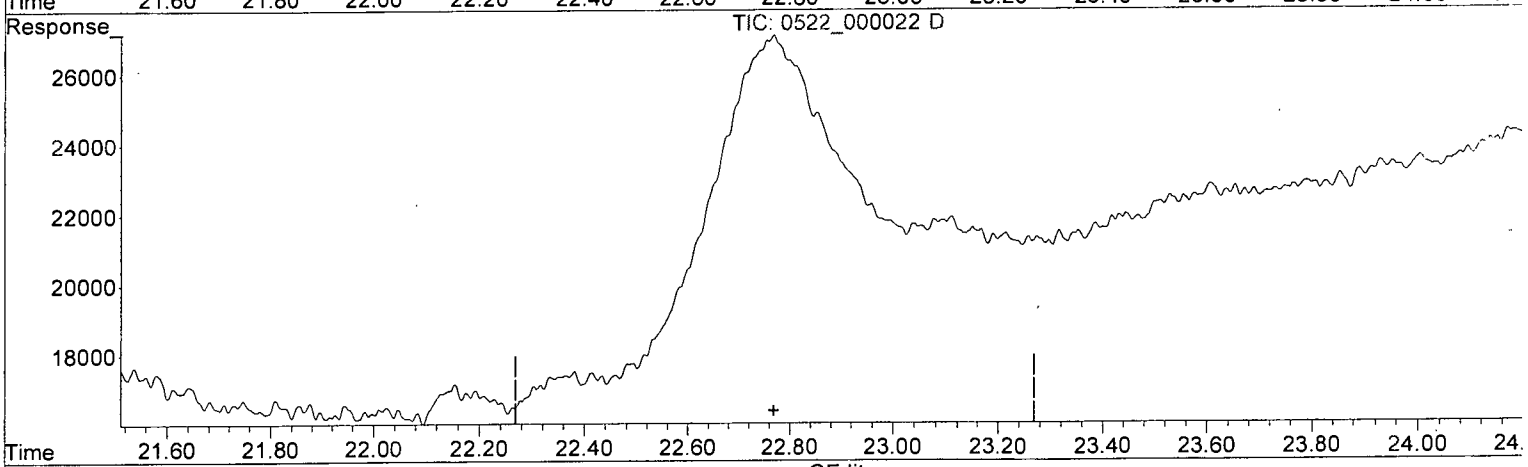
Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:38 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



MLP 05-26-15

PM 5/26/15



(18) PETN (TM)

22.762min 418.944 ppb m

response 382271

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000023.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 23:26:22
Operator : MP
Sample : 8330MXA_CB 1.0 PPM 05/22/15
Misc :
ALS Vial : 4293 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:34:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.103	0	1733160	N.D.	821.480 #
Spiked Amount 62.500			Recovery	=	0.00%	1314.37%
Target Compounds						
1) TM HMX	0.000	4.076	0	1915374	N.D.	910.846 #
2) TM RDX	0.000	6.419	0	1584395	N.D.	855.448 #
3) TM 1,3,5-TRI...	0.000	6.755	0	3897389	N.D.	871.960 #
5) TM 1,3-DINIT...	0.000	8.437	0	3879893	N.D.	862.711 #
6) TM NITROBENZENE	0.000	9.177	0	2146298	N.D.	837.857 #
7) TM 2,4,6-TRI...	0.000	11.454	0	1991874	N.D.	784.599 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.994	11.993	1524497	1456381	NoCal	884.099 #
10) TM 2,6-DINIT...	13.465	13.464	1616524	1211988	NoCal	820.534 #
11) TM 2,4-DINIT...	0.000	14.067	0	2092031	N.D.	830.325 #
12) TM 2-NITROTO...	0.000	15.472	0	841920	N.D.	798.554 #
13) TM 4-NITROTO...	0.000	16.885	0	741632	N.D.	846.795 #
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM 3-NITROTO...	0.000	18.073	0	881637	N.D.	824.558 #
16) TM 4-AMINO-2...	0.000	18.677	0	1297906	N.D.	926.440 #
17) TM 2-AMINO-4...	0.000	19.631	0	1678327	N.D.	823.332 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

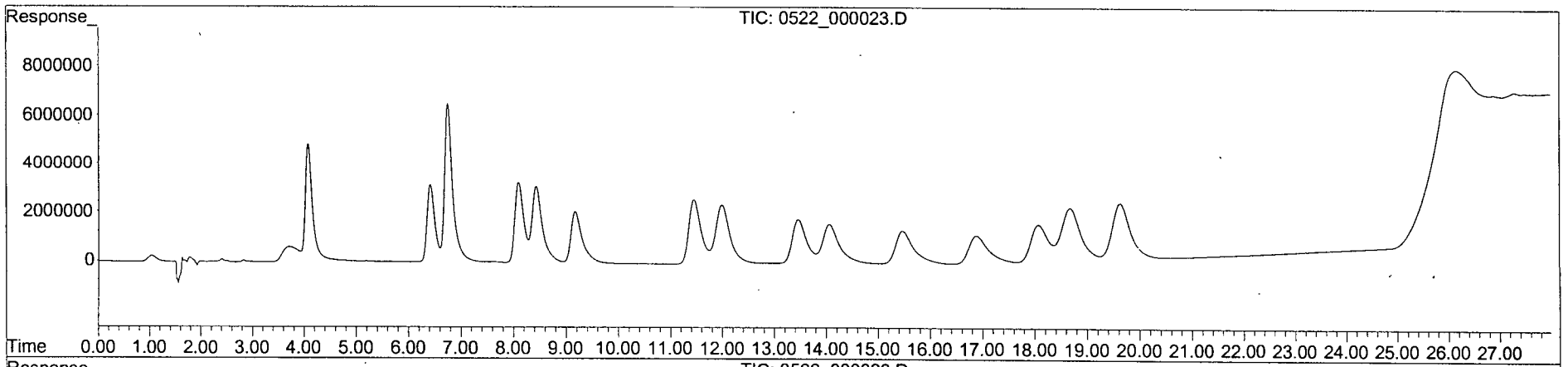
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

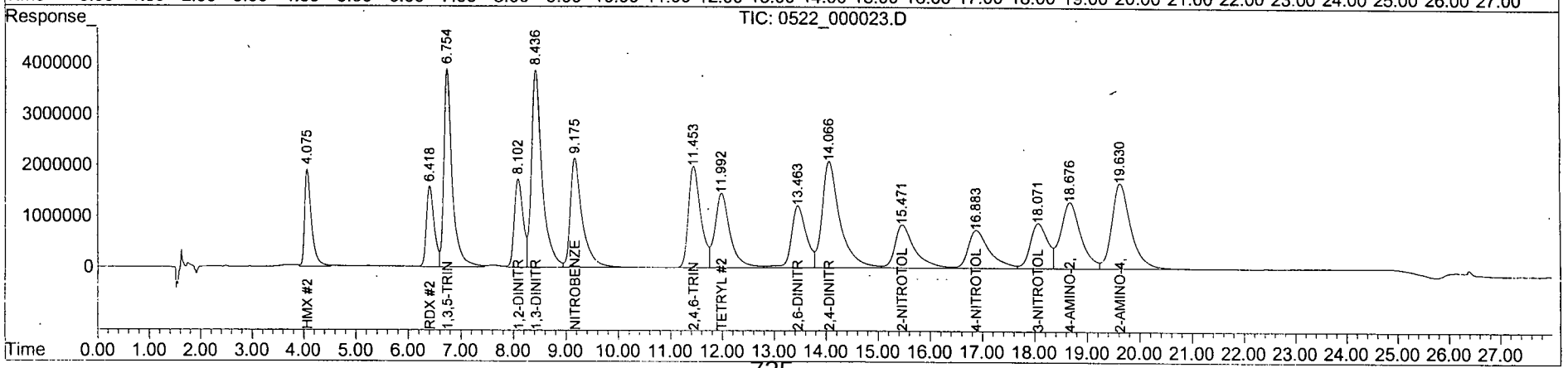
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000023.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 23:26:22
Operator : MP
Sample : 8330MXA_CB 1.0 PPM 05/22/15
Misc :
ALS Vial : 4293 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:34:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron





Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000024.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 00:05:53
Operator : MP
Sample : 8330MXB_CB 1.0 PPM 05/22/15
Misc :
ALS Vial : 4294 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:33:30 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 62.500			Recovery	=	0.00%	0.00%
	Target Compounds						
1)	TM HMX	0.000	0.000	0	0	N.D.	N.D.
2)	TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5)	TM 1,3-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
6)	TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
7)	TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
8)	TM NITROGLYC...	12.057	12.058	732317	11067	804.122	NoCal #
9)	TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10)	TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11)	TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13)	TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14)	TM 3,5-DINIT...	0.000	16.552	0	1652281	N.D.	827.765 #
15)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16)	TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17)	TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18)	TM PETN	22.770	22.770	761676	14524	834.745m	NoCal #

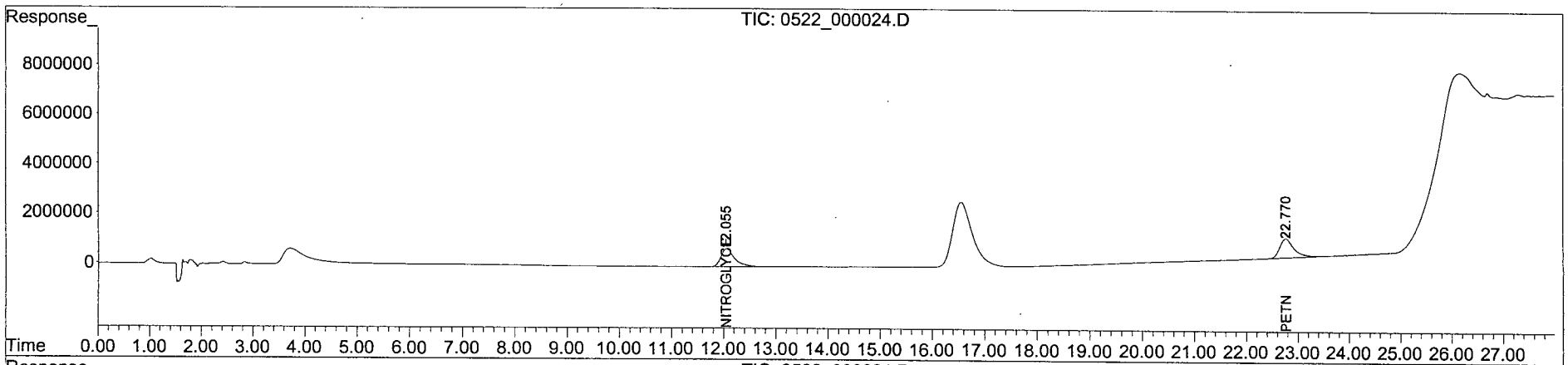
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

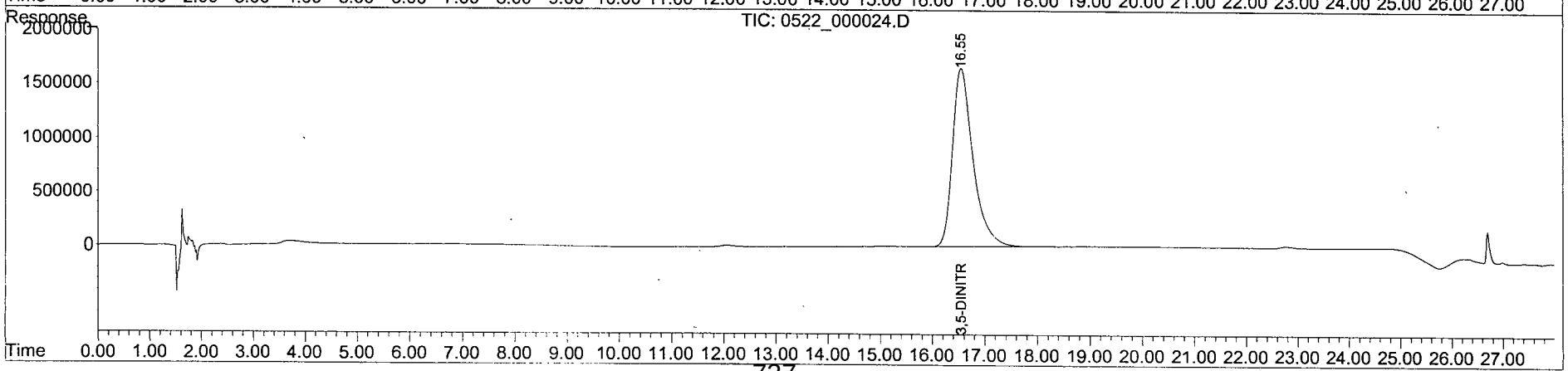
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000024.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 00:05:53
Operator : MP
Sample : 8330MXB_CB 1.0 PPM 05/22/15
Misc :
ALS Vial : 4294 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:33:30 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



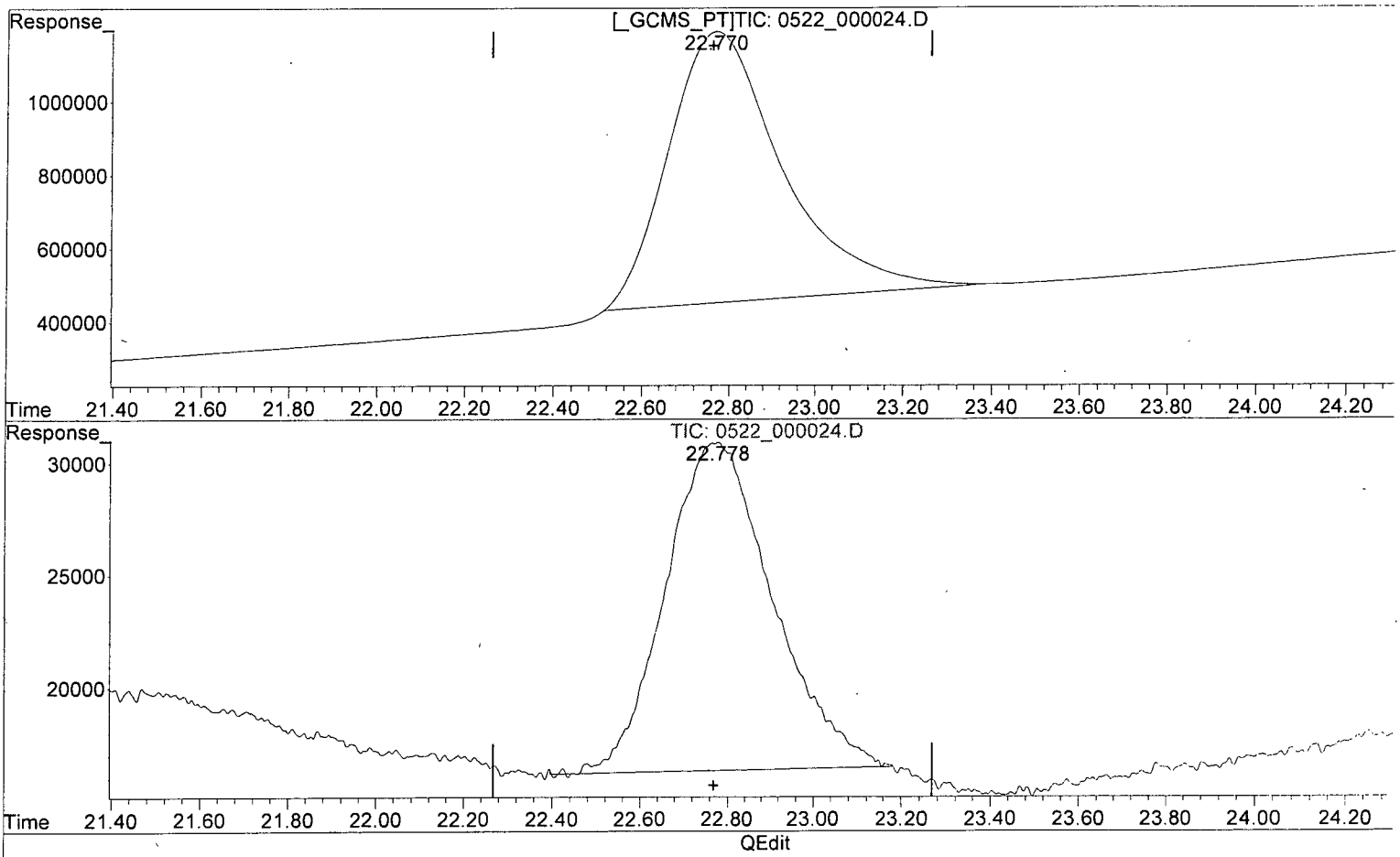


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000024.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 00:05:53
Operator : MP
Sample : 8330MXB_CB 1.0 PPM 05/22/15
Misc :
ALS Vial : 4294 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:44 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(18) PETN (TM)

22.770min 806.856 ppb

response 736228

(18) PETN #2 (TM)

22.770min 0.000 ppb

response 14524

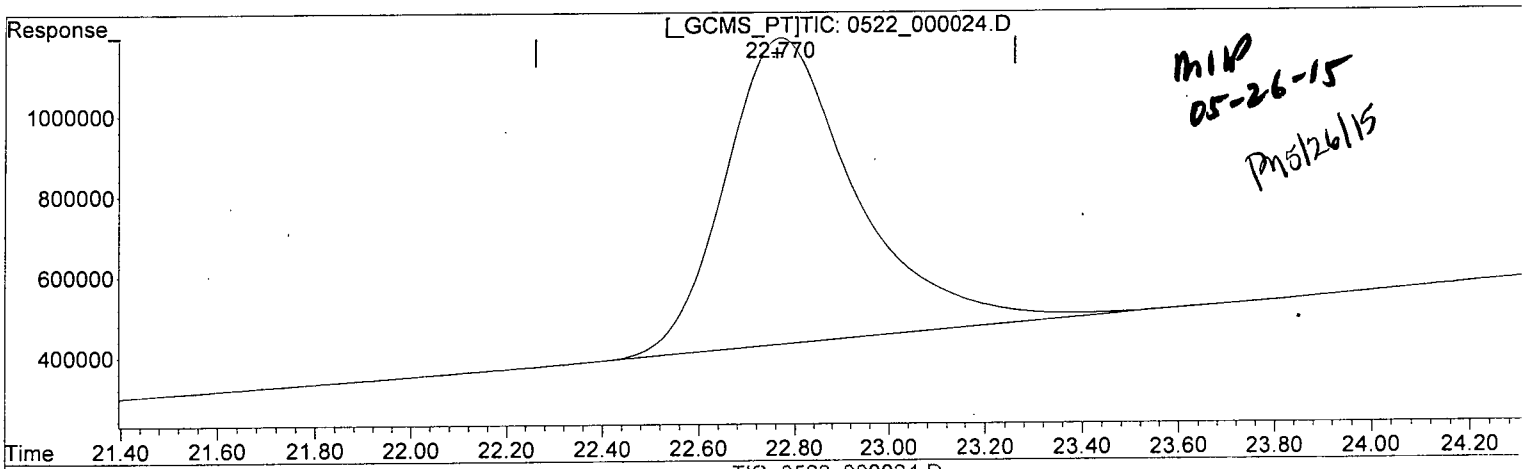
(+) = Expected Retention Time

Quantitation Report (Qedit)

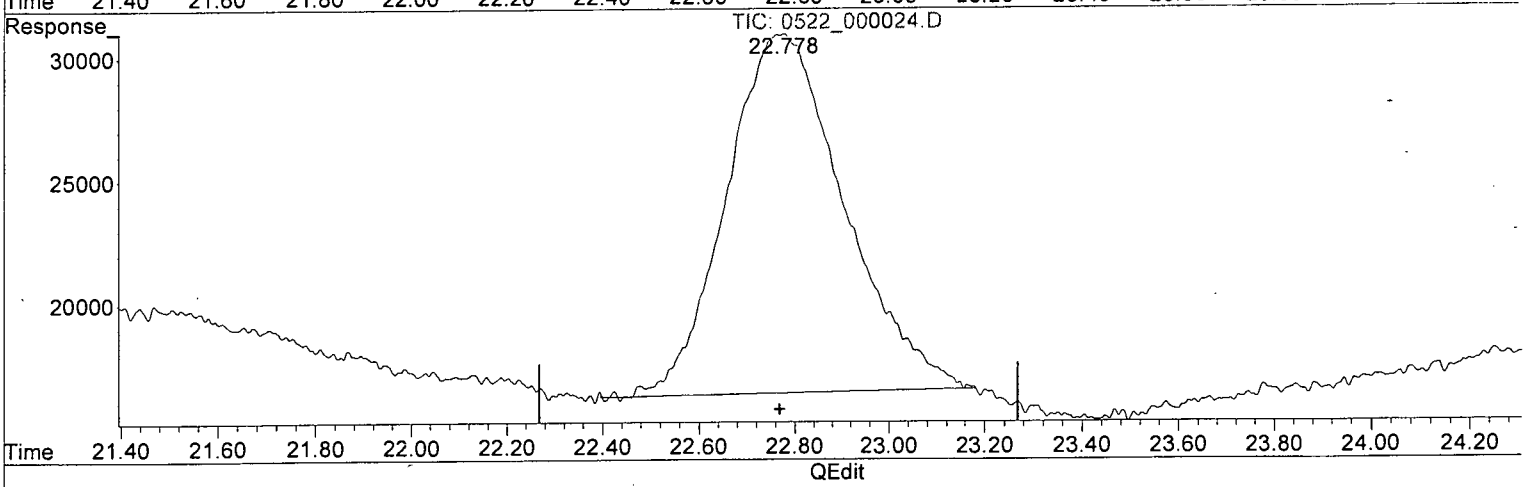
Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000024.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 00:05:53
Operator : MP
Sample : 8330MXB_CB 1.0 PPM 05/22/15
Misc :
ALS Vial : 4294 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:44 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



MIP
05-26-15
PM 5/26/15



(18) PETN (TM)

22.770min 834.745 ppb m

response 761676

(18) PETN #2 (TM)

22.770min 0.000 ppb

response 14524

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000025.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 00:45:24
Operator : MP
Sample : 8330MXA_CB 2.0 PPM 05/22/15
Misc :
ALS Vial : 4295 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:32:47 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.102	0	3543855	N.D.	1679.710 #
Spiked Amount 62.500			Recovery	=	0.00%	2687.54%
Target Compounds						
1) TM HMX	0.000	4.070	0	3887061	N.D.	1848.472 #
2) TM RDX	0.000	6.417	0	3207829	N.D.	1731.975 #
3) TM 1,3,5-TRI...	0.000	6.755	0	7939225	N.D.	1776.238 #
5) TM 1,3-DINIT...	0.000	8.437	0	7959675	N.D.	1769.868 #
6) TM NITROBENZENE	0.000	9.174	0	4377753	N.D.	1708.958 #
7) TM 2,4,6-TRI...	0.000	11.451	0	4093556	N.D.	1612.453 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.989	11.988	3002965	2907952	NoCal	1765.277 #
10) TM 2,6-DINIT...	13.461	13.460	3322547	2479312	NoCal	1678.531 #
11) TM 2,4-DINIT...	0.000	14.063	0	4282975	N.D.	1699.909 #
12) TM 2-NITROTO...	0.000	15.467	0	1710462	N.D.	1622.358 #
13) TM 4-NITROTO...	0.000	16.876	0	1514123	N.D.	1728.826 #
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM 3-NITROTO...	0.000	18.066	0	1790750	N.D.	1674.813 #
16) TM 4-AMINO-2...	0.000	18.668	0	2625200	N.D.	1873.858 #
17) TM 2-AMINO-4...	0.000	19.623	0	3392979	N.D.	1664.484 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

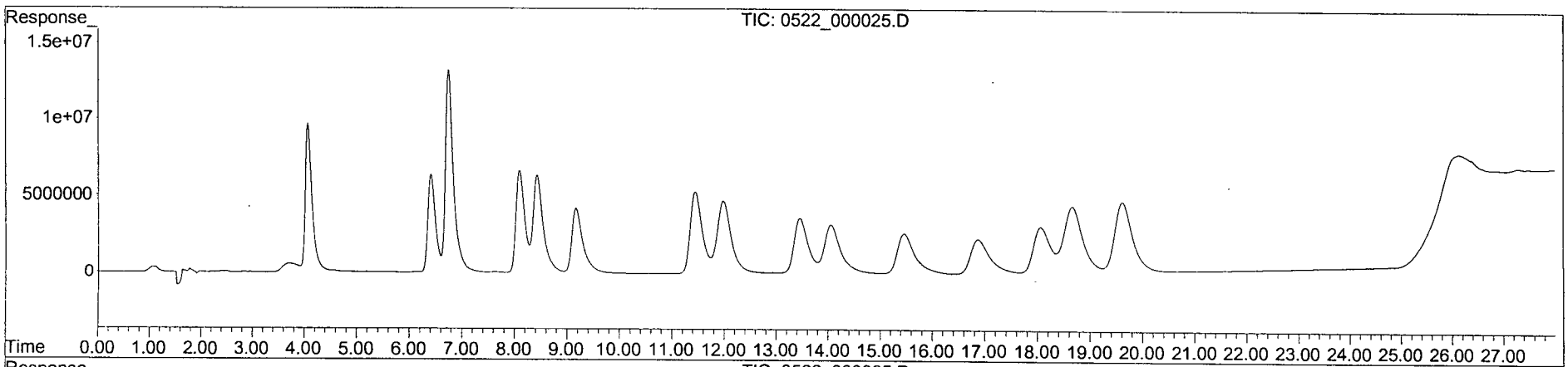
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

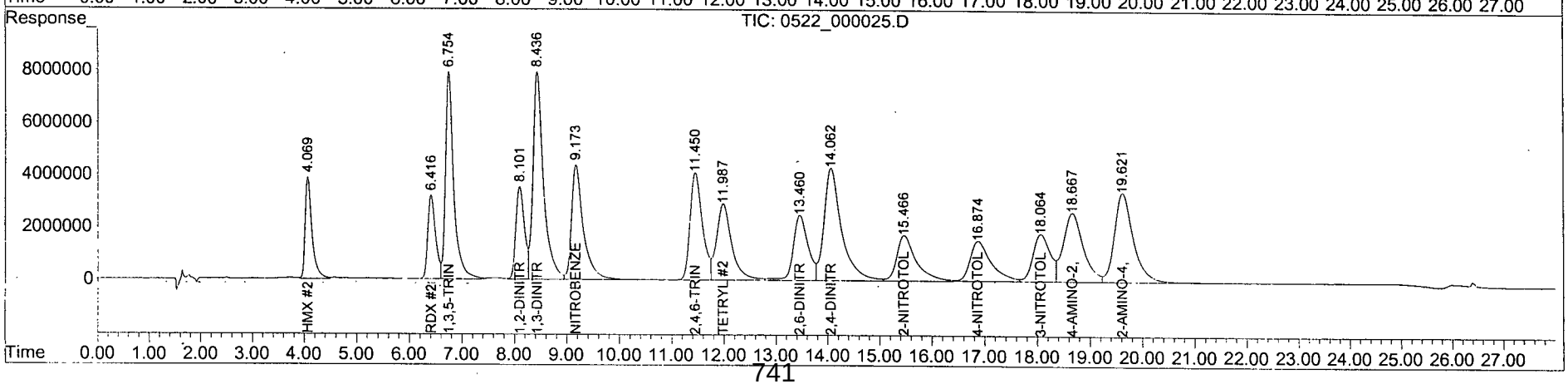
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000025.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 00:45:24
Operator : MP
Sample : 8330MXA_CB 2.0 PPM 05/22/15
Misc :
ALS Vial : 4295 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:32:47 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron





Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 01:24:56
Operator : MP
Sample : 8330MXB_CB 2.0 PPM 05/22/15
Misc :
ALS Vial : 4296 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:31:36 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
Spiked Amount 62.500			Recovery	=	0.00%	0.00%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
6) TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
7) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
8) TM NITROGLYC...	12.061	0.000	1482681	0	1628.060	N.D. d#
9) TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14) TM 3,5-DINIT...	0.000	16.541	0	3311418	N.D.	1658.965 #
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	22.767	22.769	1542843	30238	1690.853m	NoCal #

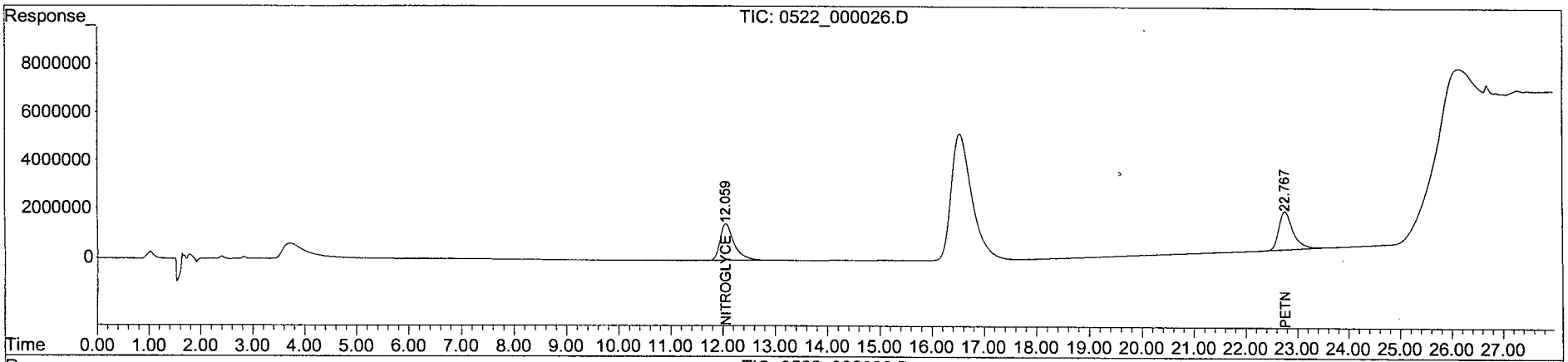
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

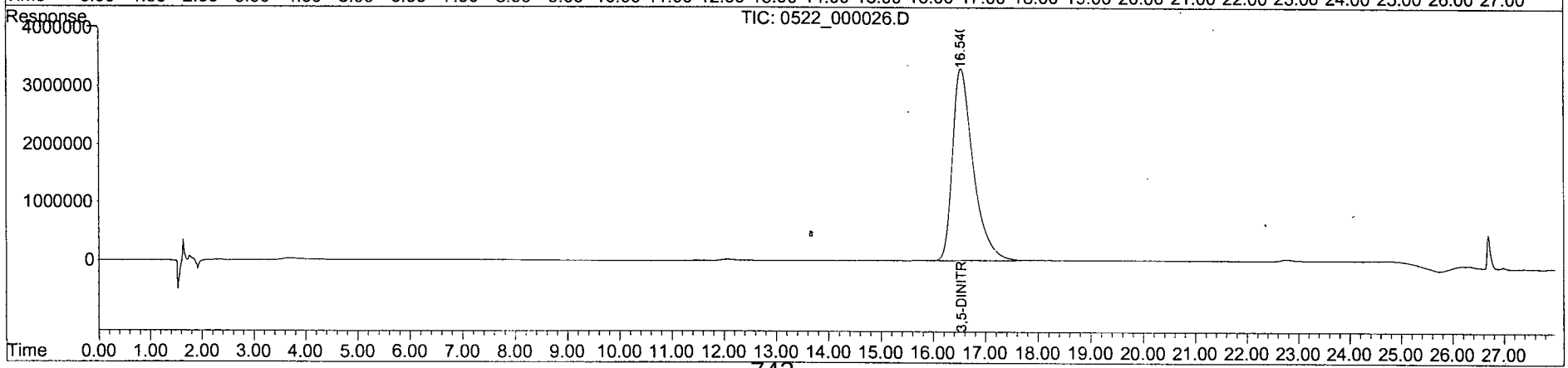
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 01:24:56
Operator : MP
Sample : 8330MXB_CB 2.0 PPM 05/22/15
Misc :
ALS Vial : 4296 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:31:36 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



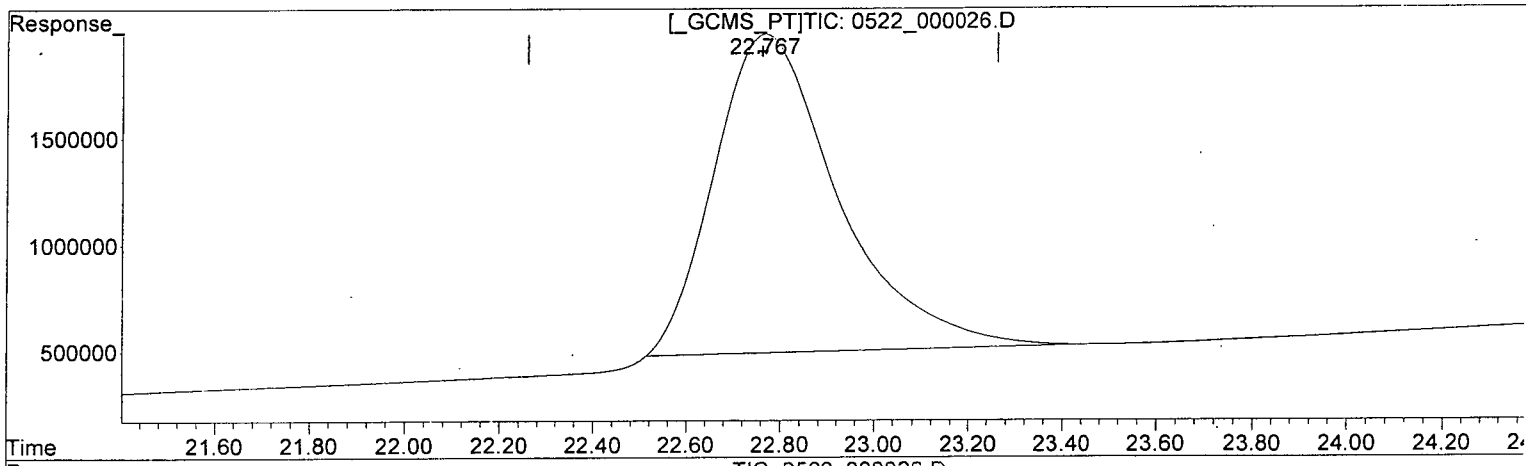


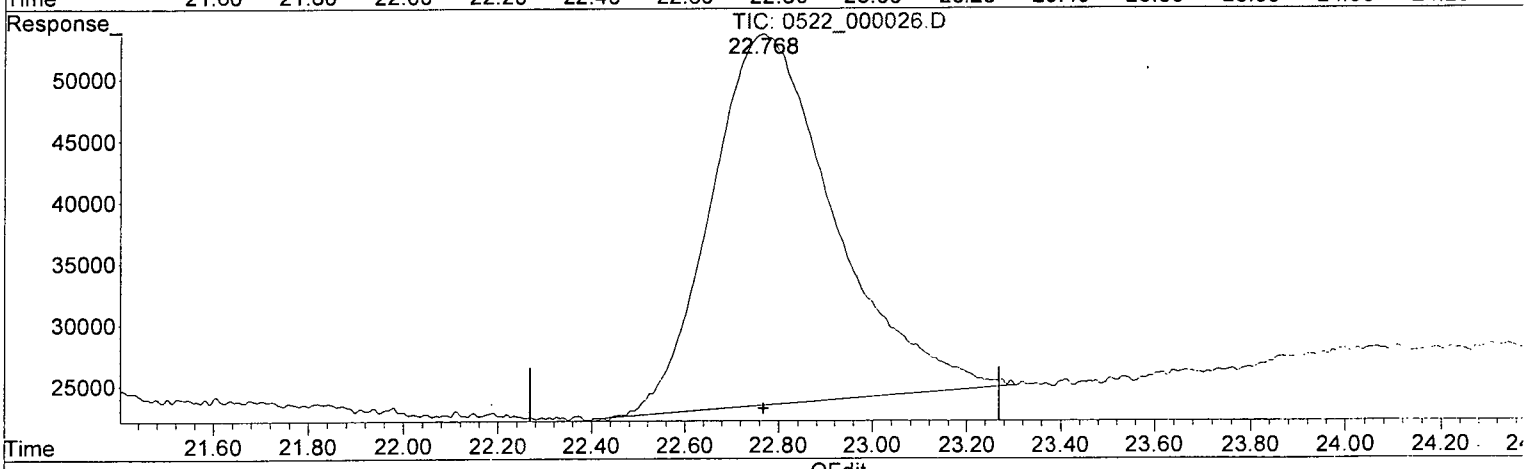
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 01:24:56
Operator : MP
Sample : 8330MXB_CB 2.0 PPM 05/22/15
Misc :
ALS Vial : 4296 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:50 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(18) PETN (TM)

22.769min 1638.003 ppb

response 1494619

(18) PETN #2 (TM)

22.769min 0.000 ppb

response 30238

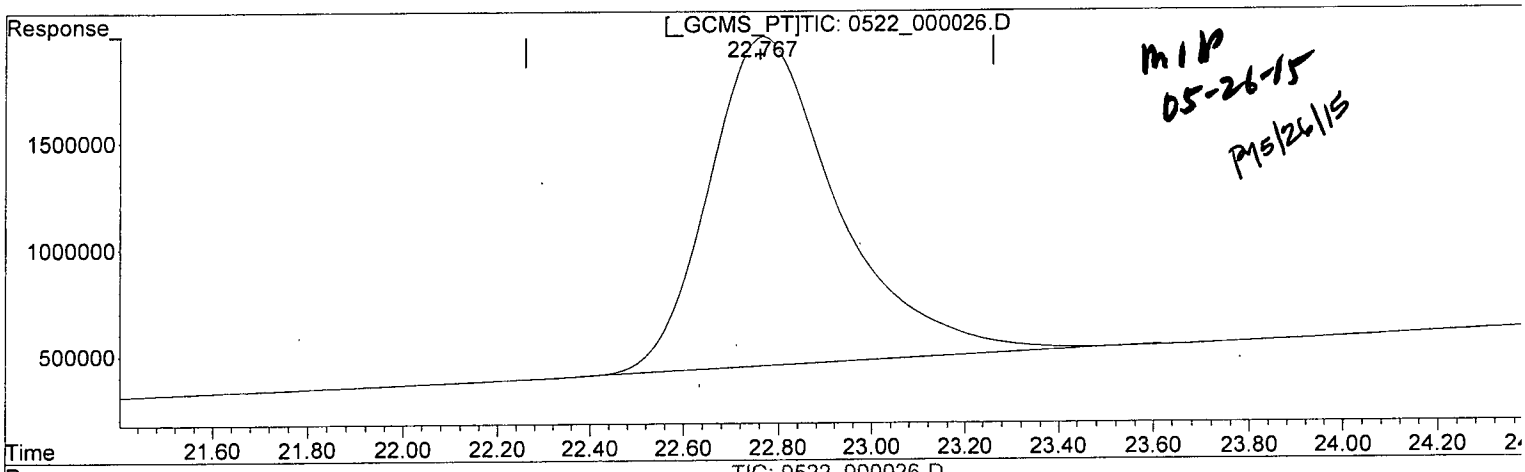
(+) = Expected Retention Time

Quantitation Report (Qedit)

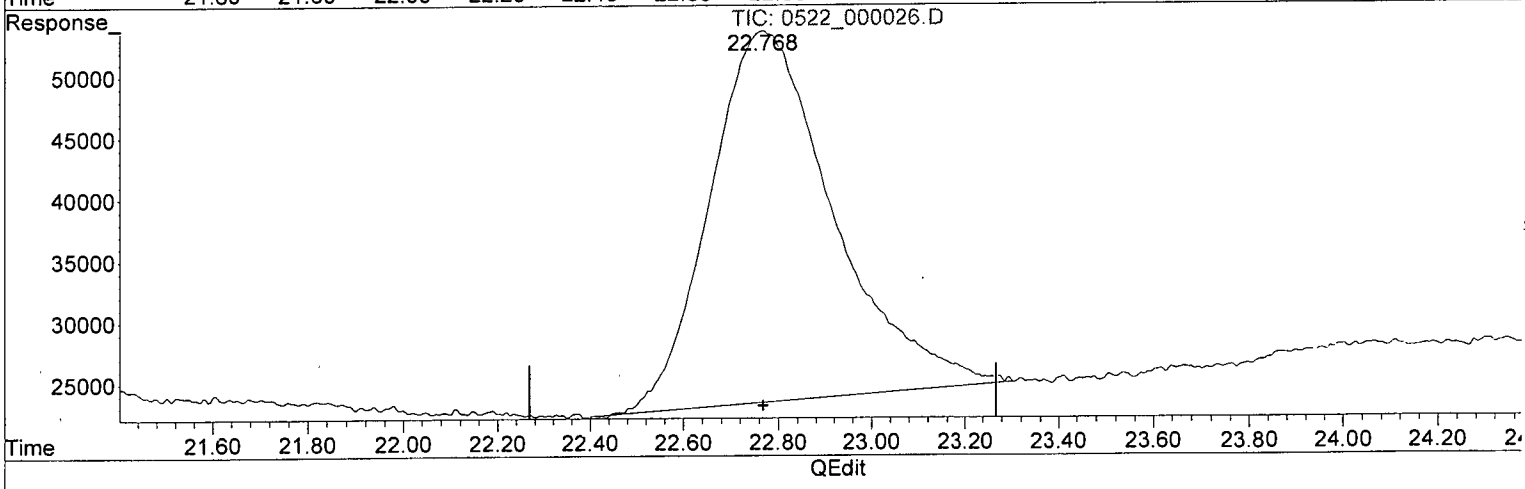
Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 01:24:56
Operator : MP
Sample : 8330MXB_CB 2.0 PPM 05/22/15
Misc :
ALS Vial : 4296 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:50 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



MLP
05-26-15
PM5/26/15



(18) PETN (TM)

22.767min 1690.853 ppb m

response 1542843

(18) PETN #2 (TM)

22.769min 0.000 ppb

response 30238

(+) = Expected Retention Time

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 76424
Date Analyzed: 23-May-2015, 04:42:30
Instrument: Statler
Initial Cal. Date: 05/22/15
Data File: 0522_000031-33.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	NITROGLYCERIN	18.6	18.4	0.69	TM	
2	TM	PETN	18.2	18.5	1.9	TM	
3		Signal #2					
4	TM	HMX	46.3	47.1	1.8	TM	
5	TM	RDX	39.8	39.8	0.03	TM	
6	TM	1,3-DINITROBENZENE	96.6	94.7	1.9	TM	
7	TM	NITROBENZENE	54.2	53.8	0.71	TM	
8	TM	2,4-DINITROTOLUENE	51.7	53.0	2.4	TM	
9	TM	3,5-DINITROANILINE	41.3	42.8	3.6	TM	
10	TM	3-NITROTOLUENE	22.9	22.8	0.74	TM	
11	TM	4-AMINO-2,6-DINITROTOLUEN	34.2	34.3	0.55	TM	
12	TM	1,3,5-TRINITROBENZENE	97.9	89.7	8.4	TM	
13	S	1,2-DINITROBENZENE	44.3	44.5	0.48	S	
14	TM	2,4,6-TRINITROTOLUENE	50.2	49.8	0.83	TM	
15	TM	2,6-DINITROTOLUENE	30.0	31.8	6.1	TM	
16	TM	2-NITROTOLUENE	21.2	21.7	2.8	TM	
17	TM	4-NITROTOLUENE	18.3	18.5	1.6	TM	
18	TM	2-AMINO-4,6-DINITROTOLUEN	43.0	38.7	10	TM	
19	TM	TETRYL	36.6	32.0	12	TM	
20							
21							
22							
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36							
37							
38							
39							
40							

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000031.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 04:42:30
Operator : MP
Sample : 8330MXA_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 4352 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:23:15 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:19:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	0.000	0	0	N.D.	N.D. d
Spiked Amount 62.500			Recovery	=	0.00%	0.00%
Target Compounds						
1) TM HMX	0.000	4.073	0	1883754	N.D.	1017.745 #
2) TM RDX	0.000	6.415	0	1590397	N.D.	999.716 #
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5) TM 1,3-DINIT...	0.000	8.427	0	3787591	N.D.	980.606 #
6) TM NITROBENZENE	0.000	9.161	0	2153367	N.D.	992.865 #
7) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D.	N.D. d
8) TM NITROGLYC...	12.040	0.000	736934	0	993.140	N.D. d#
9) TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2,4-DINIT...	0.000	14.047	0	2118885	N.D.	1024.231 #
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14) TM 3,5-DINIT...	0.000	16.551	0	1712548	N.D.	1035.686 #
15) TM 3-NITROTO...	0.000	18.047	0	910222	N.D.	992.617 #
16) TM 4-AMINO-2...	0.000	18.671	0	1373815	N.D.	1005.467 #
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

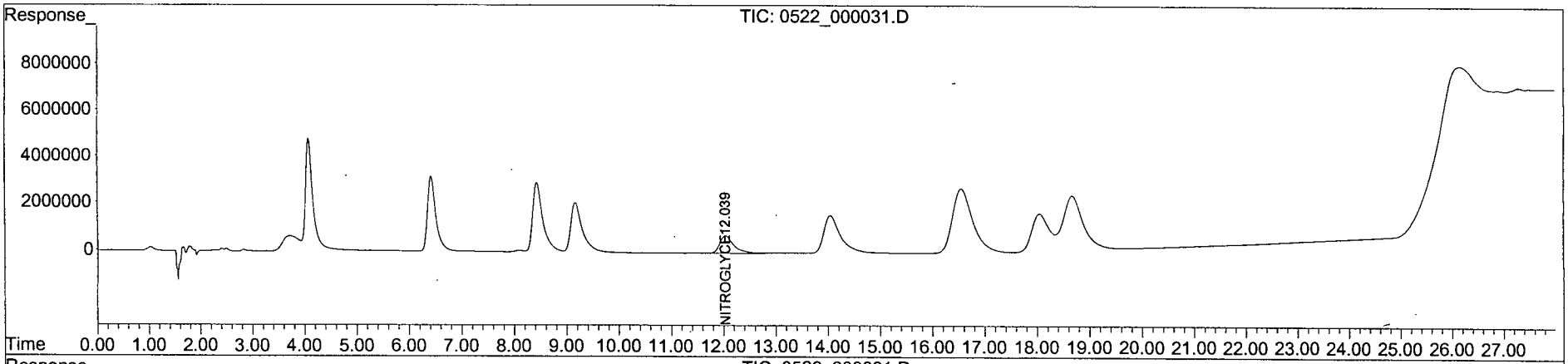
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

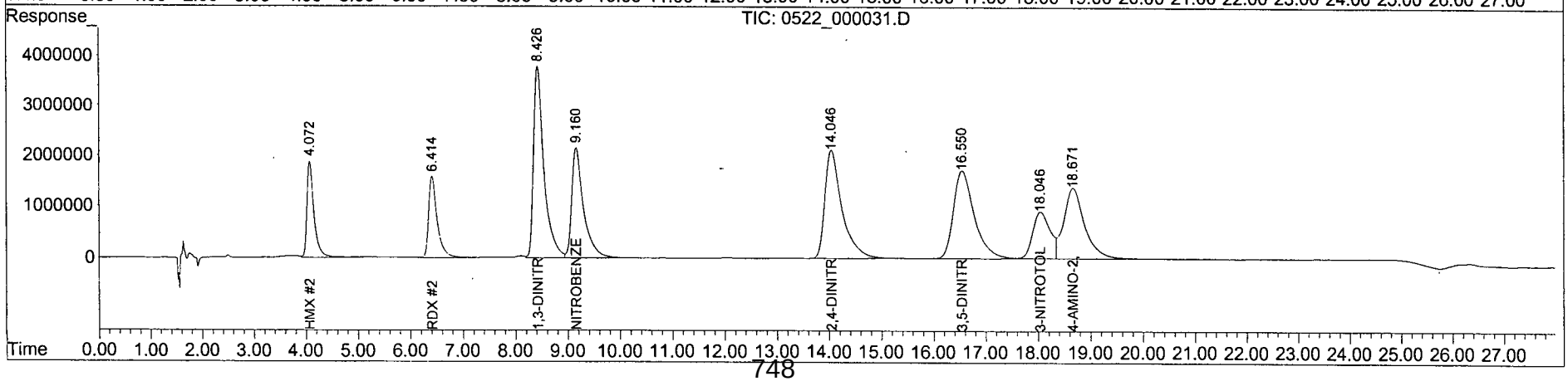
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000031.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 04:42:30
Operator : MP
Sample : 8330MXA_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 4352 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:23:15 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:19:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron





Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000032.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 05:22:00
Operator : MP
Sample : 8330MXB_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 4353 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:24:52 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:19:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.108	0	1779983	N.D.	1004.829 #
Spiked Amount 62.500			Recovery	=	0.00%	1607.73%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D.	N.D. d
3) TM 1,3,5-TRI...	0.000	6.758	0	3587912	N.D.	916.157 #
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM NITROBENZENE	0.000	0.000	0	0	N.D.	N.D. d
7) TM 2,4,6-TRI...	0.000	11.451	0	1991880	N.D.	991.740 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM 2,6-DINIT...	0.000	13.467	0	1273233	N.D.	1061.031 #
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	15.471	0	869951	N.D.	1027.863 #
13) TM 4-NITROTO...	0.000	16.886	0	741713	N.D.	1015.531 #
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	19.659	0	1547413	N.D.	899.911 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

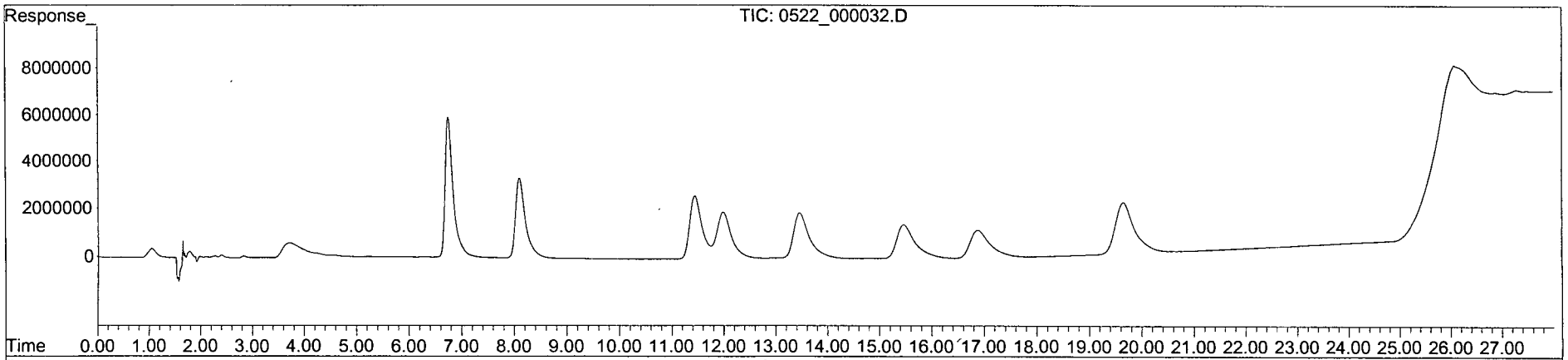
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

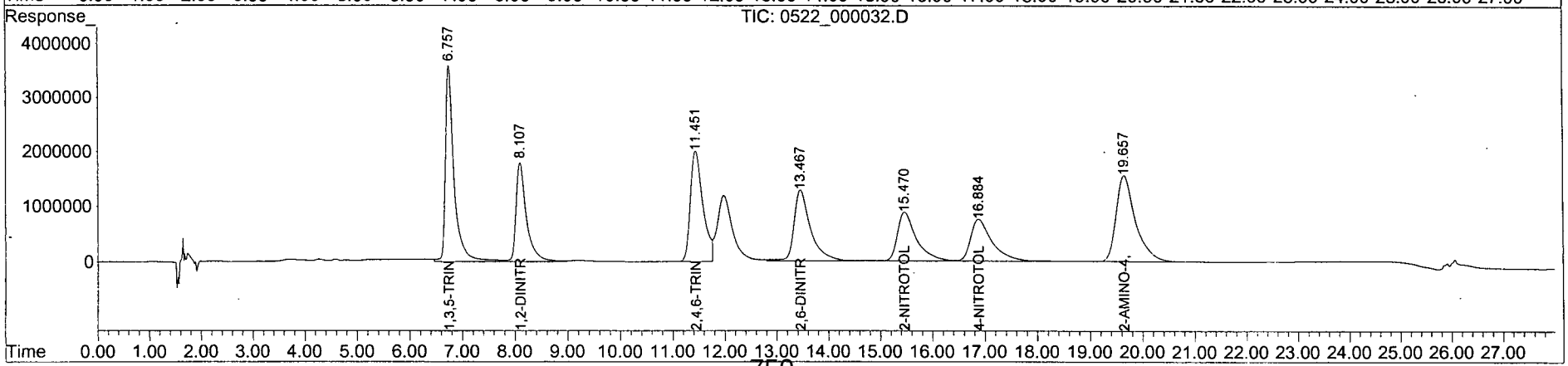
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000032.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 05:22:00
Operator : MP
Sample : 8330MXB_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 4353 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:24:52 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:19:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron





Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000033.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:01:31
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 4354 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:26:04 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:19:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 62.500			Recovery	=	0.00%	0.00%
	Target Compounds						
1)	TM HMX	0.000	0.000	0	0	N.D.	N.D.
2)	TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5)	TM 1,3-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
6)	TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
7)	TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
8)	TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9)	TM TETRYL	0.000	12.005	0	1280291	N.D. d	875.551
10)	TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11)	TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12)	TM 2-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
13)	TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
14)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16)	TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17)	TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18)	TM PETN	22.767	0.000	739734	0	1018.644m	N.D. #

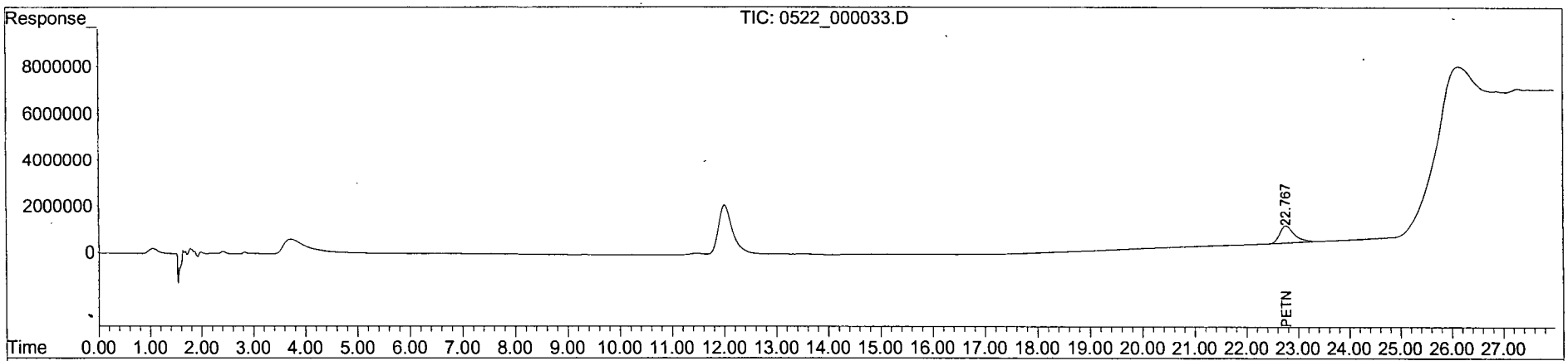
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

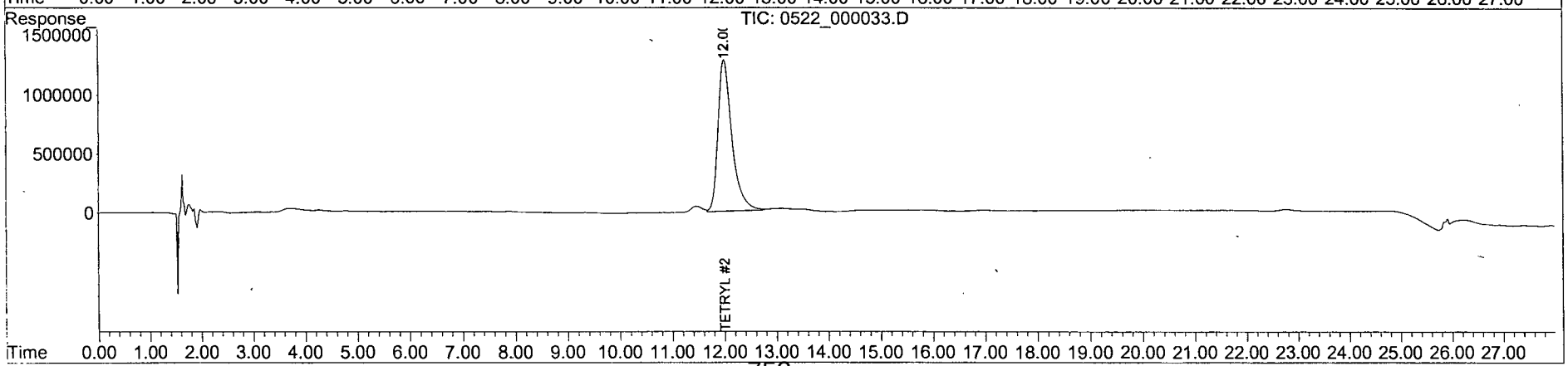
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000033.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:01:31
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 4354 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:26:04 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:19:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



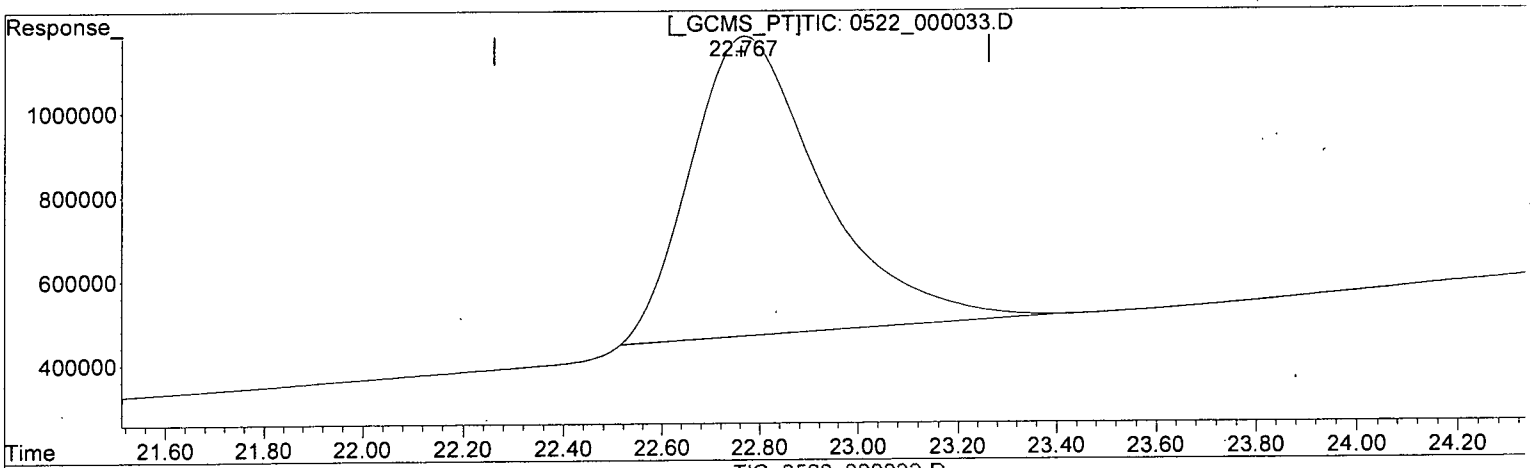


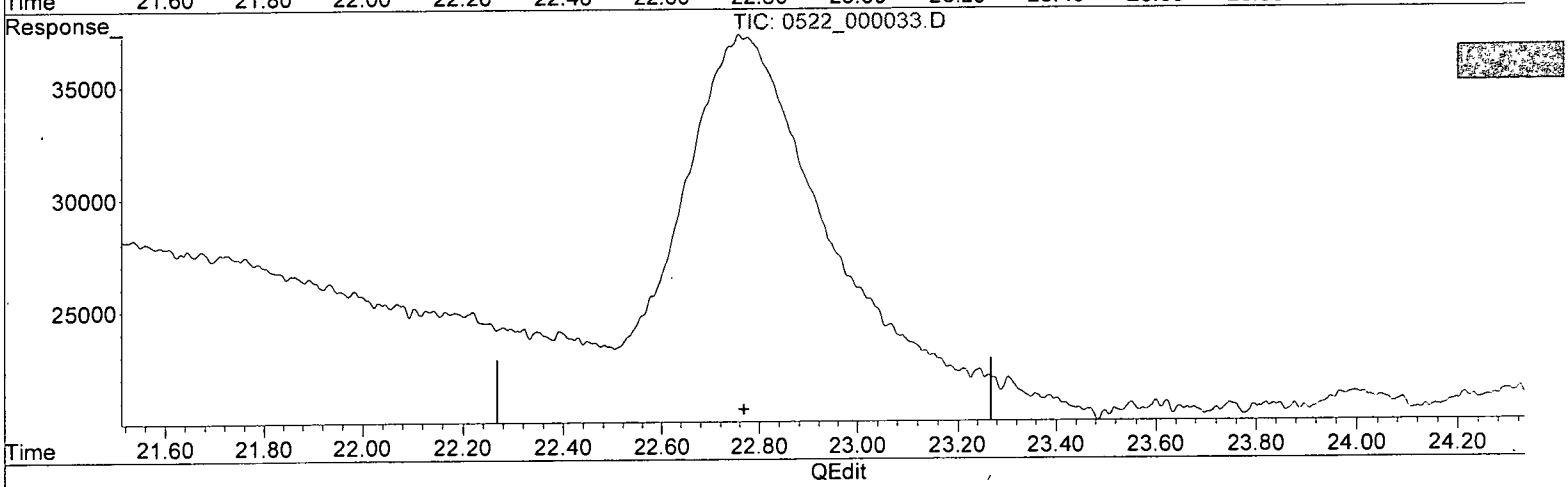
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000033.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:01:31
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 4354 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:22:41 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:19:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(18) PETN (TM)

22.769min 982.640 ppb

response 713587

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

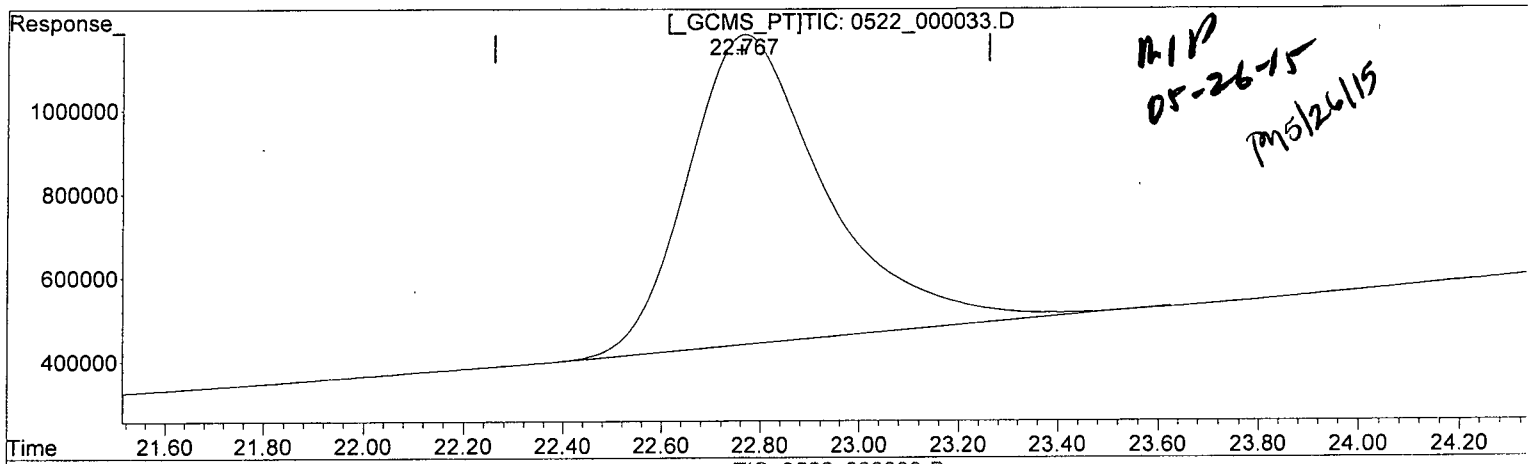
(+) = Expected Retention Time

Quantitation Report (Qedit)

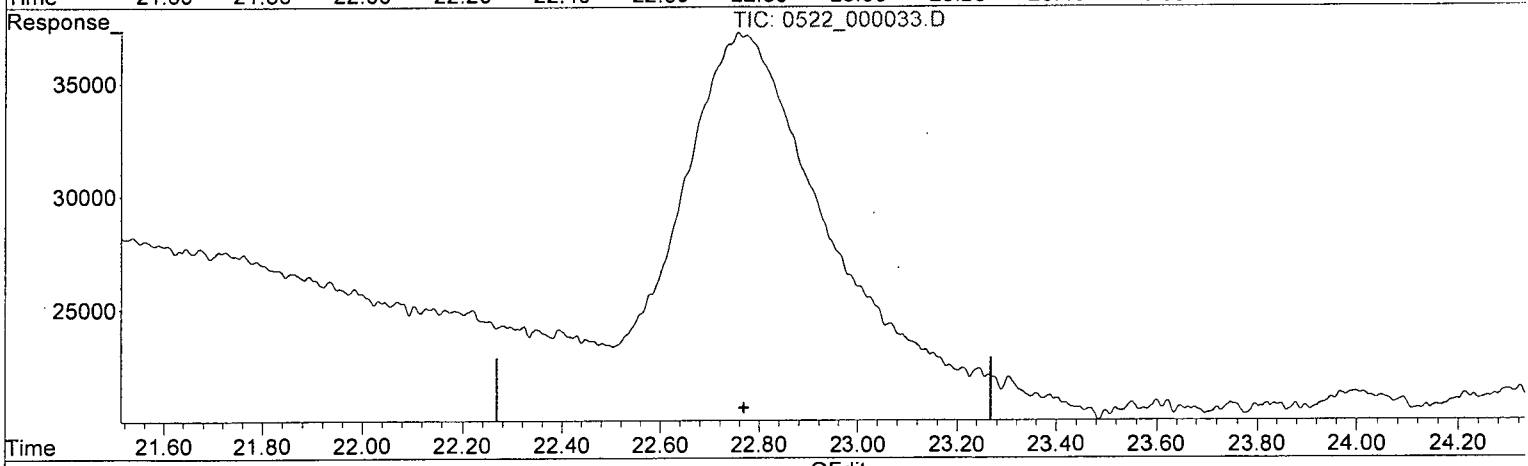
Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000033.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:01:31
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 4354 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:22:41 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:19:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



RIP
05-26-15
PM 5/26/15



QEdit

(18) PETN (TM)

22.767min 1018.644 ppb m

response 739734

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

(+) = Expected Retention Time

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 76424
Date Analyzed: 23-May-2015, 13:17:33
Instrument: Statler
Initial Cal. Date: 05/22/15
Data File: 0522_000045-46.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	NITROGLYCERIN	18.6	18.2	2.0	TM	
2	TM	PETN	18.2	18.9	4.0	TM	
3		Signal #2					
4	TM	3,5-DINITROANILINE	41.3	41.5	0.34	TM	
5	TM	3,5-DINITROANILINE	41.3385	41.4789	4.6	TM	
6	TM	PETN	0	0	0.12	TM	
7	TM	1,3,5-TRINITROBENZENE	97.9	97.3	0.57	TM	
8	S	1,2-DINITROBENZENE	44.3	43.1	2.7	S	
9	TM	1,3-DINITROBENZENE	96.6	96.8	0.27	TM	
10	TM	NITROBENZENE	54.2	53.4	1.5	TM	
11	TM	2,4,6-TRINITROTOLUENE	50.2	50.1	0.22	TM	
12	TM	TETRYL	36.6	36.4	0.36	TM	
13	TM	2,6-DINITROTOLUENE	30.0	30.3	1.2	TM	
14	TM	2,4-DINITROTOLUENE	51.7	52.6	1.7	TM	
15	TM	2-NITROTOLUENE	21.2	21.1	0.50	TM	
16	TM	4-NITROTOLUENE	18.3	18.5	1.3	TM	
17	TM	3-NITROTOLUENE	22.9	21.8	5.1	TM	
18	TM	4-AMINO-2,6-DINITROTOLUEN	34.2	32.7	4.2	TM	
19	TM	2-AMINO-4,6-DINITROTOLUEN	43.0	41.6	3.2	TM	
20							
21							
22							
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Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000045.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 12:38:04
Operator : MP
Sample : 8330MXA_CCV 1.0 PPM 05/23/15
Misc :
ALS Vial : 8519 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 13:36:34 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	8.087	0	1724096	N.D.	973.280 #
	Spiked Amount 62.500			Recovery	=	0.00%	1557.25%
	Target Compounds						
1)	TM HMX	0.000	4.067	0	1936972	N.D.	1046.498 #
2)	TM RDX	0.000	6.405	0	1588929	N.D.	998.793 #
3)	TM 1,3,5-TRI...	0.000	6.750	0	3893917	N.D.	994.294 #
5)	TM 1,3-DINIT...	0.000	8.424	0	3873015	N.D.	1002.722 #
6)	TM NITROBENZENE	0.000	9.164	0	2136822	N.D.	985.237 #
7)	TM 2,4,6-TRI...	0.000	11.436	0	2004065	N.D.	997.806 #
8)	TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9)	TM TETRYL	11.960	11.958	1232217	1456979	NoCal	996.382 #
10)	TM 2,6-DINIT...	13.441	13.440	1813176	1213830	NoCal	1011.528 #
11)	TM 2,4-DINIT...	0.000	14.041	0	2103448	N.D.	1016.769 #
12)	TM 2-NITROTO...	0.000	15.451	0	842106	N.D.	994.964 #
13)	TM 4-NITROTO...	0.000	16.861	0	739531	N.D.	1012.544 #
14)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15)	TM 3-NITROTO...	0.000	18.051	0	870504	N.D.	949.304 #
16)	TM 4-AMINO-2...	0.000	18.616	0	1308595	N.D.	957.734 #
17)	TM 2-AMINO-4...	0.000	19.576	0	1664693	N.D.	968.116 #
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.

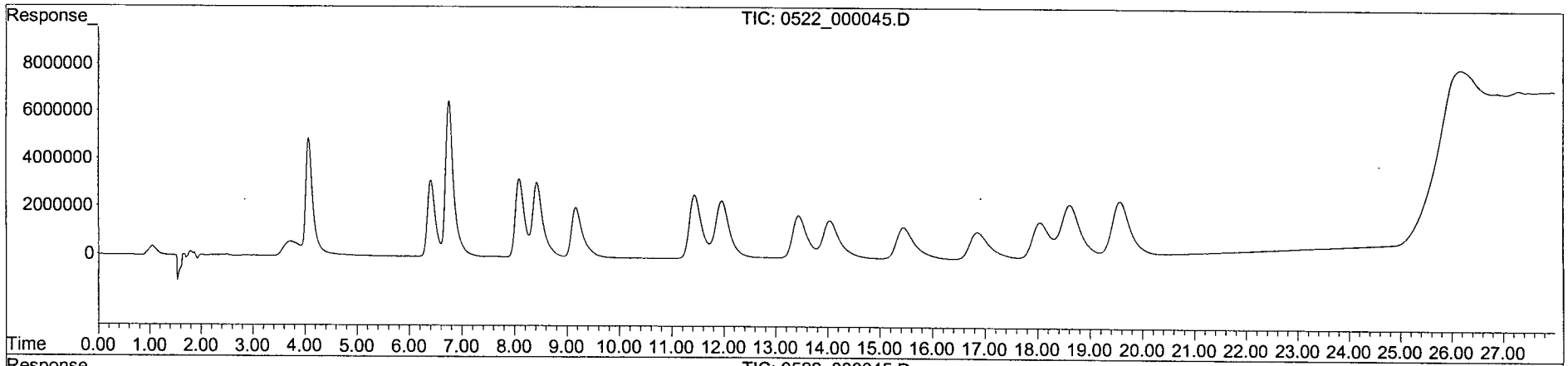
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

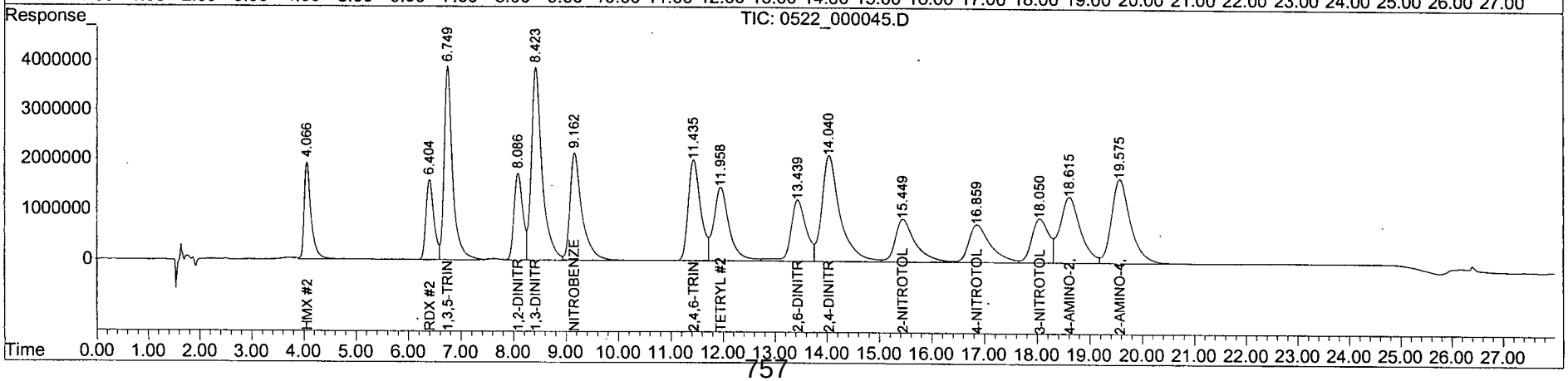
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000045.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 12:38:04
Operator : MP
Sample : 8330MXA_CCV 1.0 PPM 05/23/15
Misc :
ALS Vial : 8519 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 13:36:34 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron





Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000046.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 13:17:33
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 05/23/15
Misc :
ALS Vial : 8520 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 13:56:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
Spiked Amount 62.500			Recovery	=	0.00%	0.00%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
7) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
8) TM NITROGLYC...	12.045	0.000	727189	0	980.007	N.D. d#
9) TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14) TM 3,5-DINIT...	0.000	16.467	0	1659154	N.D.	1003.395 #
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	22.750	22.752	754897	15215	1039.526m	NoCal #

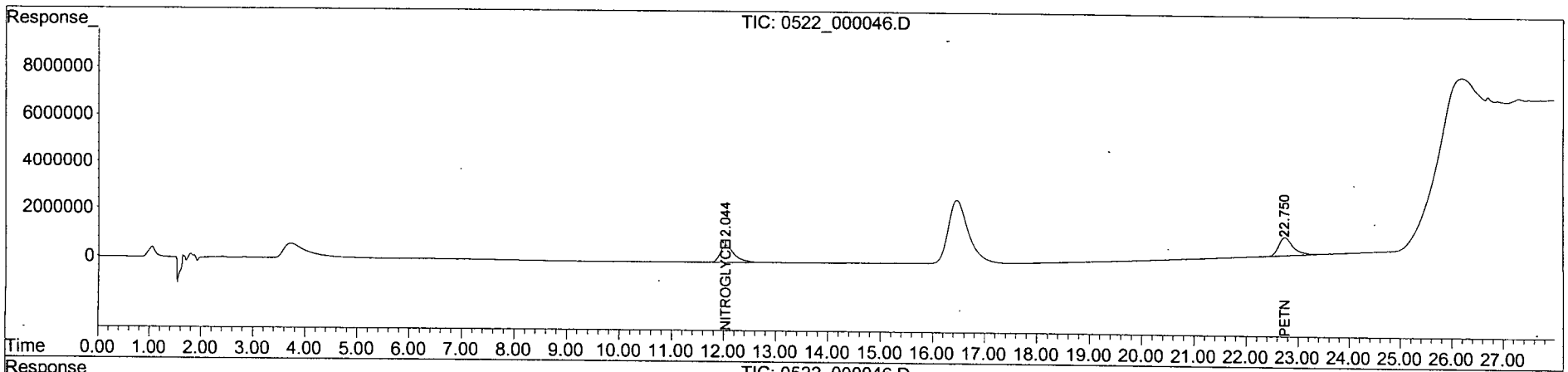
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

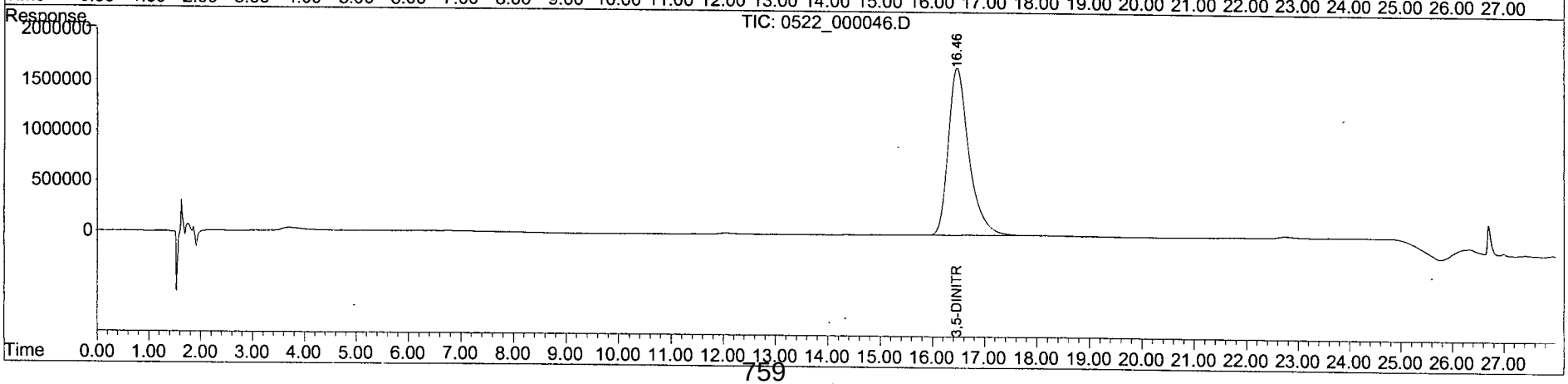
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000046.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 13:17:33
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 05/23/15
Misc :
ALS Vial : 8520 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 13:56:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



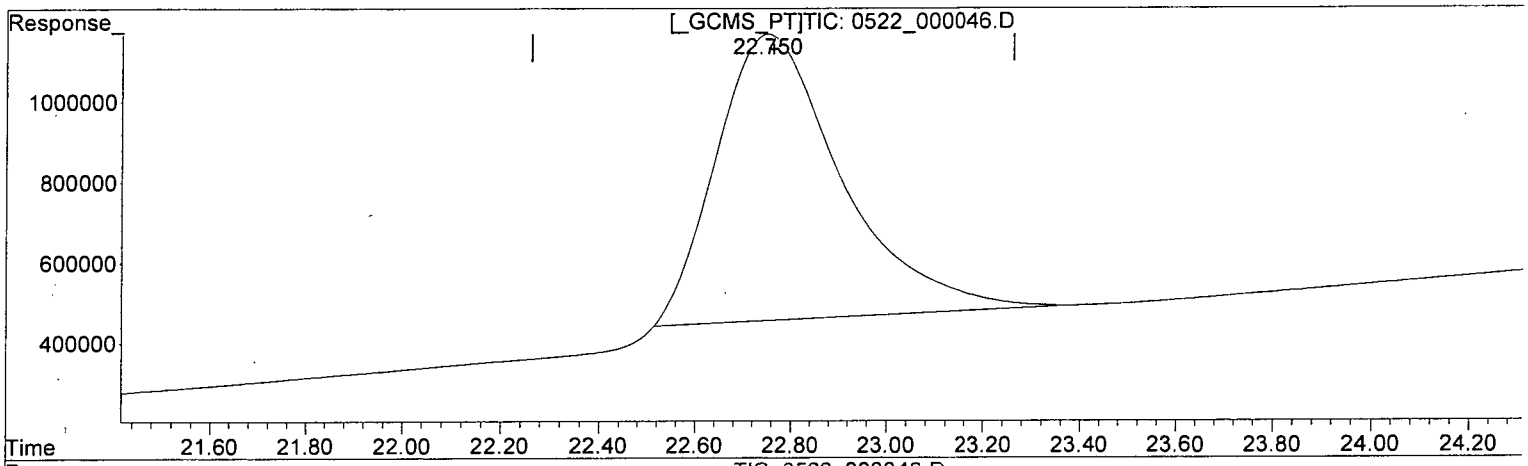


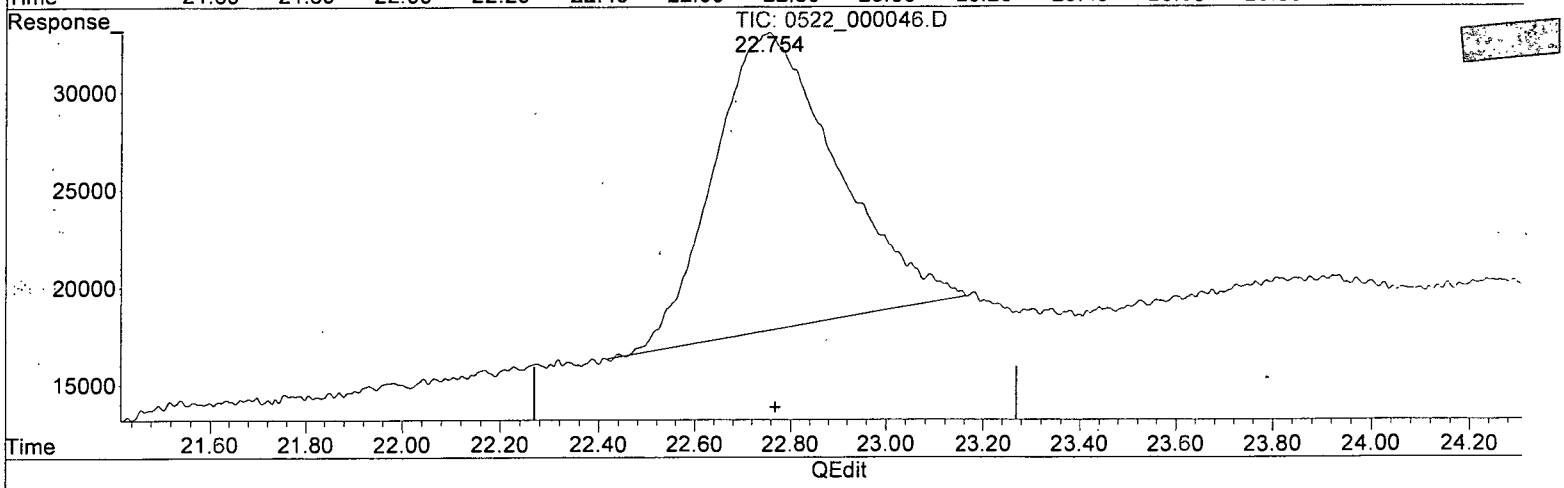
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000046.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 13:17:33
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 05/23/15
Misc :
ALS Vial : 8520 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 13:56:32 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(18) PETN (TM)

22.751min 980.901 ppb

response 712325

(18) PETN #2 (TM)

22.752min 0.000 ppb

response 15215

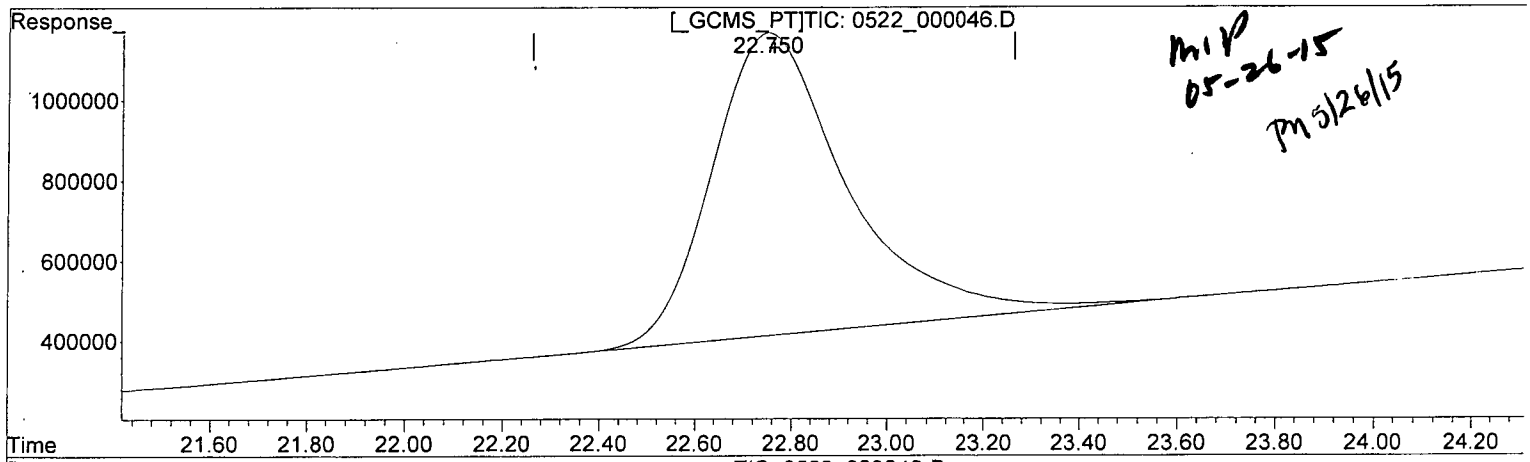
(+) = Expected Retention Time

Quantitation Report (Qedit)

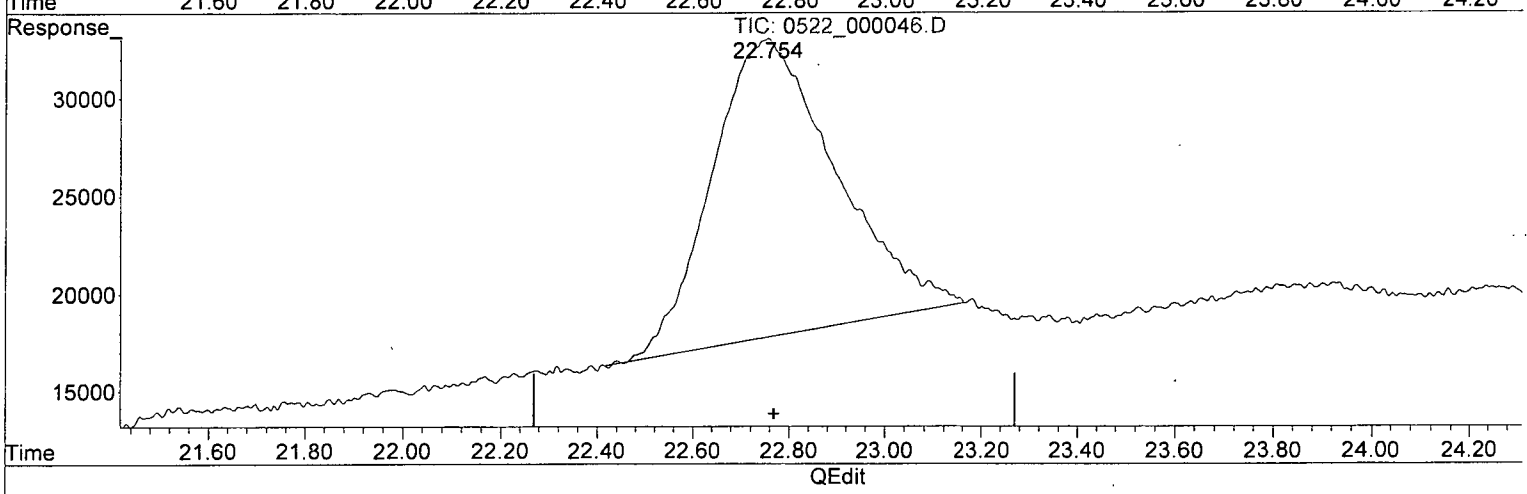
Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000046.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 13:17:33
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 05/23/15
Misc :
ALS Vial : 8520 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 13:56:32 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



MIP 05-26-15
PM 5/26/15



(18) PETN (TM)

22.750min 1039.526 ppb m

response 754897

(18) PETN #2 (TM)

22.752min 0.000 ppb

response 15215

(+) = Expected Retention Time

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 76424
Date Analyzed: 23-May-2015, 21:51:19
Instrument: Statler
Initial Cal. Date: 05/22/15
Data File: 0522_000058-59.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TM	NITROGLYCERIN	18.6	18.0	2.8	TM	
2	TM	PETN	18.2	18.8	3.4	TM	
3		Signal #2					
4	TM	3,5-DINITROANILINE	41.3	41.1	0.51	TM	
5	TM	HMX	46.3	48.3	4.3	TM	
6	TM	RDX	39.8	39.6	0.49	TM	
7	TM	1,3,5-TRINITROBENZENE	97.9	97.1	0.82	TM	
8	S	1,2-DINITROBENZENE	44.3	42.9	3.1	S	
9	TM	1,3-DINITROBENZENE	96.6	96.4	0.13	TM	
10	TM	NITROBENZENE	54.2	52.5	3.3	TM	
11	TM	2,4,6-TRINITROTOLUENE	50.2	50.1	0.30	TM	
12	TM	TETRYL	36.6	36.6	0.14	TM	
13	TM	2,6-DINITROTOLUENE	30.0	30.4	1.3	TM	
14	TM	2,4-DINITROTOLUENE	51.7	52.6	1.8	TM	
15	TM	2-NITROTOLUENE	21.2	20.8	1.9	TM	
16	TM	4-NITROTOLUENE	18.3	18.6	1.7	TM	
17	TM	3-NITROTOLUENE	22.9	21.8	4.9	TM	
18	TM	4-AMINO-2,6-DINITROTOLUEN	34.2	33.0	3.5	TM	
19	TM	2-AMINO-4,6-DINITROTOLUEN	43.0	41.8	2.8	TM	
20							
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Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000058.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 21:11:50
Operator : MP
Sample : 8330MXA_CCV 1.0 PPM 05/23/15
Misc :
ALS Vial : 8519 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 24 12:42:46 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	8.086	0	1715928	N.D.	968.669	#
	Spiked Amount 62.500			Recovery	=	0.00%	1549.87%	
	Target Compounds							
1)	TM HMX	0.000	4.065	0	1930177	N.D.	1042.827	#
2)	TM RDX	0.000	6.403	0	1583001	N.D.	995.067	#
3)	TM 1,3,5-TRI...	0.000	6.749	0	3884253	N.D.	991.826	#
5)	TM 1,3-DINIT...	0.000	8.424	0	3857480	N.D.	998.700	#
6)	TM NITROBENZENE	0.000	9.163	0	2098329	N.D.	967.488	#
7)	TM 2,4,6-TRI...	0.000	11.433	0	2002440	N.D.	996.997	#
8)	TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d	
9)	TM TETRYL	11.954	11.953	1251814	1464384	NoCal	1001.446	#
10)	TM 2,6-DINIT...	13.437	13.436	1805332	1215356	NoCal	1012.800	#
11)	TM 2,4-DINIT...	0.000	14.037	0	2105648	N.D.	1017.832	#
12)	TM 2-NITROTO...	0.000	15.446	0	830345	N.D.	981.068	#
13)	TM 4-NITROTO...	0.000	16.856	0	743016	N.D.	1017.315	#
14)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d	
15)	TM 3-NITROTO...	0.000	18.047	0	872020	N.D.	950.957	#
16)	TM 4-AMINO-2...	0.000	18.613	0	1318850	N.D.	965.239	#
17)	TM 2-AMINO-4...	0.000	19.573	0	1671131	N.D.	971.861	#
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.	

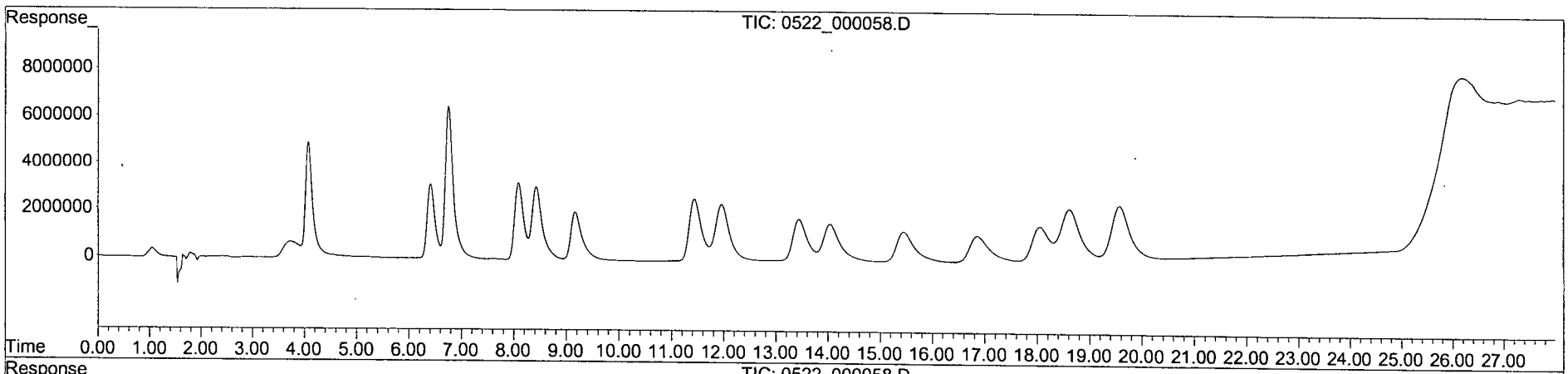
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

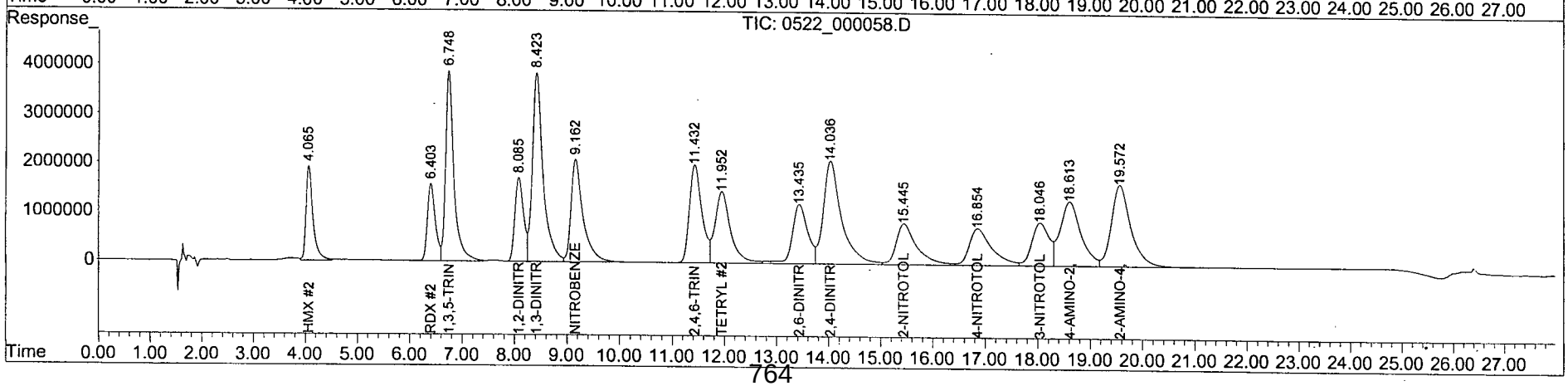
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000058.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 21:11:50
Operator : MP
Sample : 8330MXA_CCV 1.0 PPM 05/23/15
Misc :
ALS Vial : 8519 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 24 12:42:46 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron





Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000059.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 21:51:19
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 05/23/15
Misc :
ALS Vial : 8520 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 24 12:41:50 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4) S	1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
Spiked Amount	62.500			Recovery	=	0.00%	0.00%
	Target Compounds						
1) TM	HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM	RDX	0.000	0.000	0	0	N.D. d	N.D. d
3) TM	1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5) TM	1,3-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
6) TM	NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
7) TM	2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
8) TM	NITROGLYC...	12.049	12.057	721486	11670	972.321	NoCal #
9) TM	TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM	2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM	2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM	2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM	4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14) TM	3,5-DINIT...	0.000	16.497	0	1645103	N.D.	994.898 #
15) TM	3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM	4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM	2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM	PETN	22.753	22.751	750797	15401	1033.879m	NoCal #

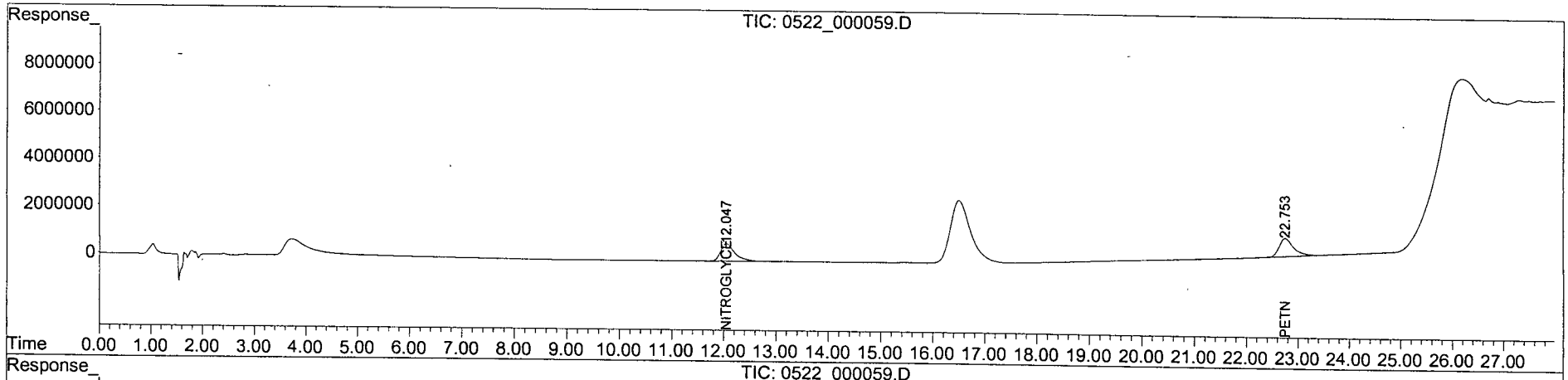
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

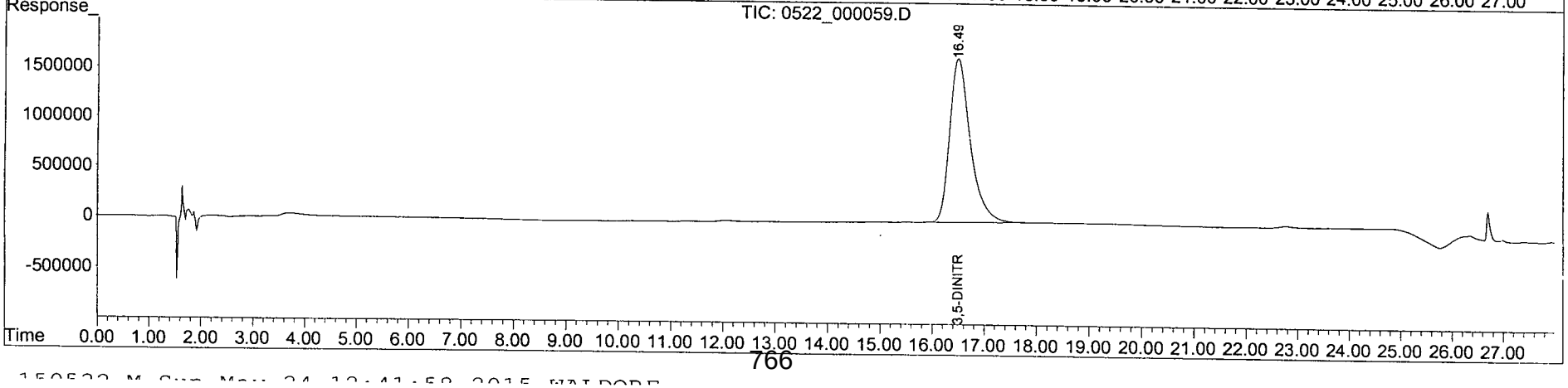
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000059.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 21:51:19
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 05/23/15
Misc :
ALS Vial : 8520 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 24 12:41:50 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



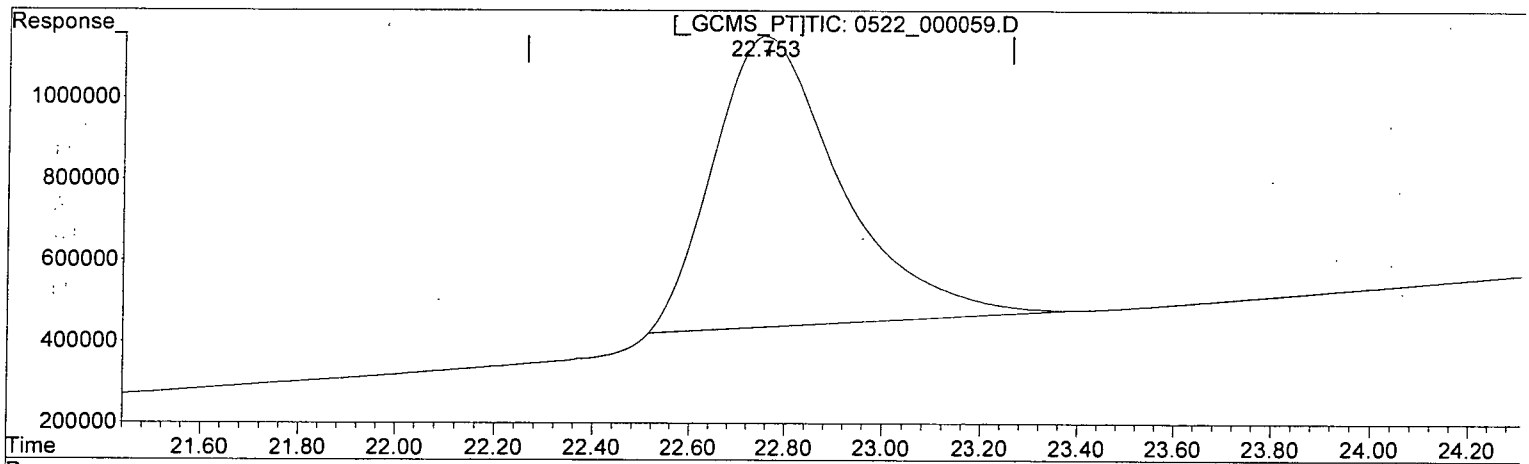


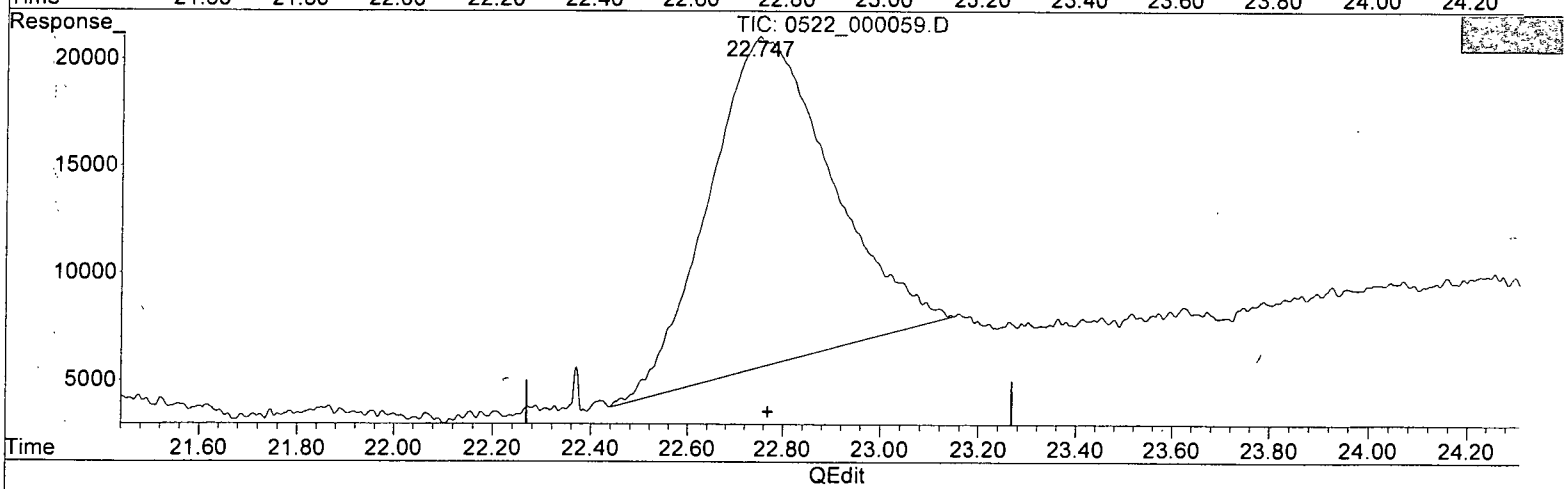
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000059.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 21:51:19
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 05/23/15
Misc :
ALS Vial : 8520 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 24 12:41:27 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(18) PETN (TM)

22.756min 982.680 ppb

response 713616

(18) PETN #2 (TM)

22.751min 0.000 ppb

response 15401

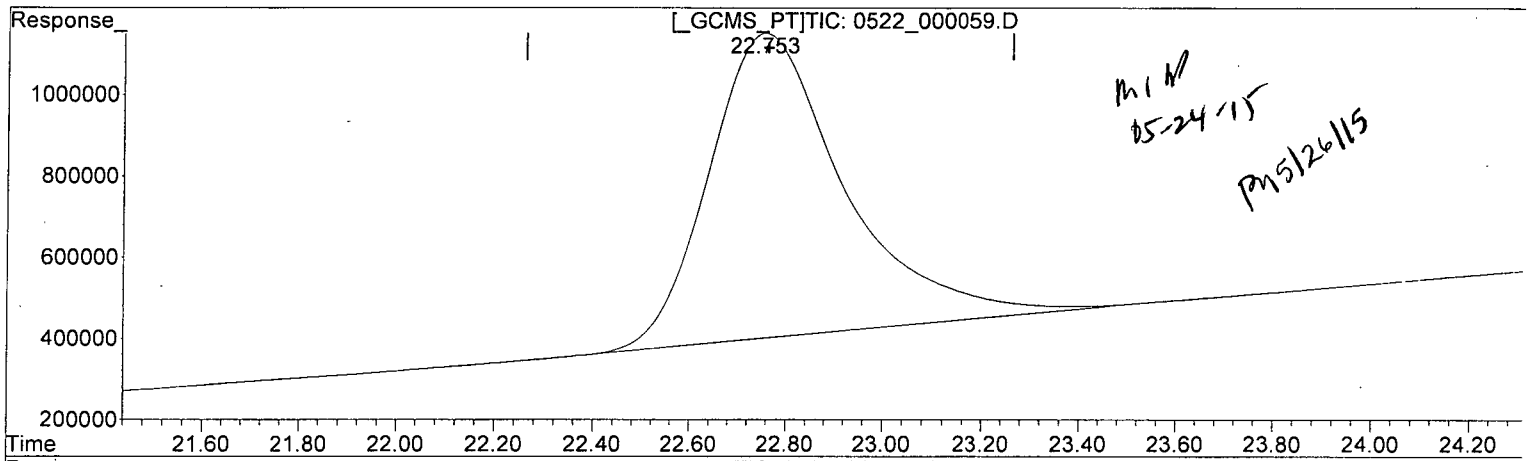
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000059.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 21:51:19
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 05/23/15
Misc :
ALS Vial : 8520 Sample Multiplier: 1

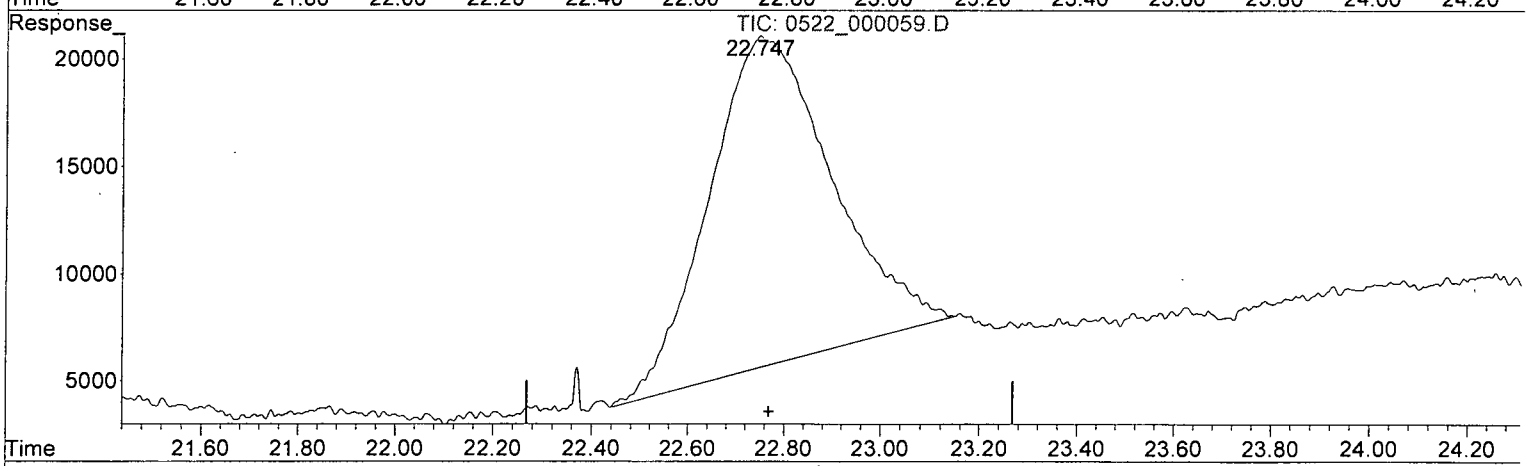
Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 24 12:41:27 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



MLM 05-24-15

PM 5/26/15



(18) PETN (TM)

22.753min 1033.879 ppb m

response 750797

(18) PETN #2 (TM)

22.751min 0.000 ppb

response 15401

(+) = Expected Retention Time

EPA 8330
EXPLOSIVES

Raw Data

APPL, INC.

Method Blank
EPA 8330B WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150519W-16334 - 197306**
Batch ID: #83BJU-150519A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
BLANK	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/19/15	05/23/15
BLANK	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/19/15	05/23/15
BLANK	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/19/15	05/23/15
BLANK	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/19/15	05/23/15
BLANK	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/19/15	05/23/15
BLANK	SURROGATE: 1,2-DINITROBENZ	89.5	70-130			%	05/19/15	05/23/15

Quant Method: W150522.M
Run #: 0522_000035
Instrument: Waldorf
Sequence: 150522
Initials: MP

GC SC-Blank-REG MDLs
Printed: 05/26/15 9:19:51 AM

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000035.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 02:35:40
Operator : MP
Sample : 150519ABLKW 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4097 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:04 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	3.551	0	723610	N.D.	0.895 #
Spiked Amount 1.000			Recovery	=	0.00%	89.50%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D.	N.D.
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
7) TM NITROBENZENE	0.000	0.000	0	0	N.D.	N.D.
8) TM NITROGLYC...	5.971	5.959	59220	23754	0.180	NoCal #
9) TM TETRYL	6.430	0.000	9218	0	NoCal	N.D.
10) TM 2,4,6-TRI...	6.882	0.000	8924	0	NoCal	N.D.
11) TM 2-AMINO-4...	7.143	0.000	15207	0	NoCal	N.D.
12) TM 4-AMINO-2...	7.519	0.000	9774	0	NoCal	N.D.
13) TM 2,4-DINIT...	8.602	0.000	15781	0	NoCal	N.D.
14) TM 2,6-DINIT...	8.971	0.000	7993	0	NoCal	N.D.
15) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
17) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

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

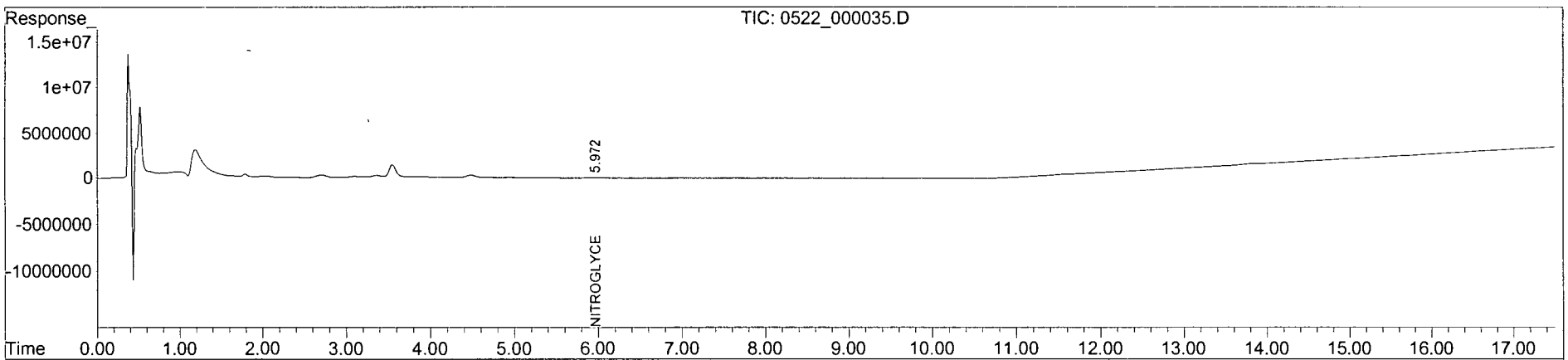
MP
05-26-15

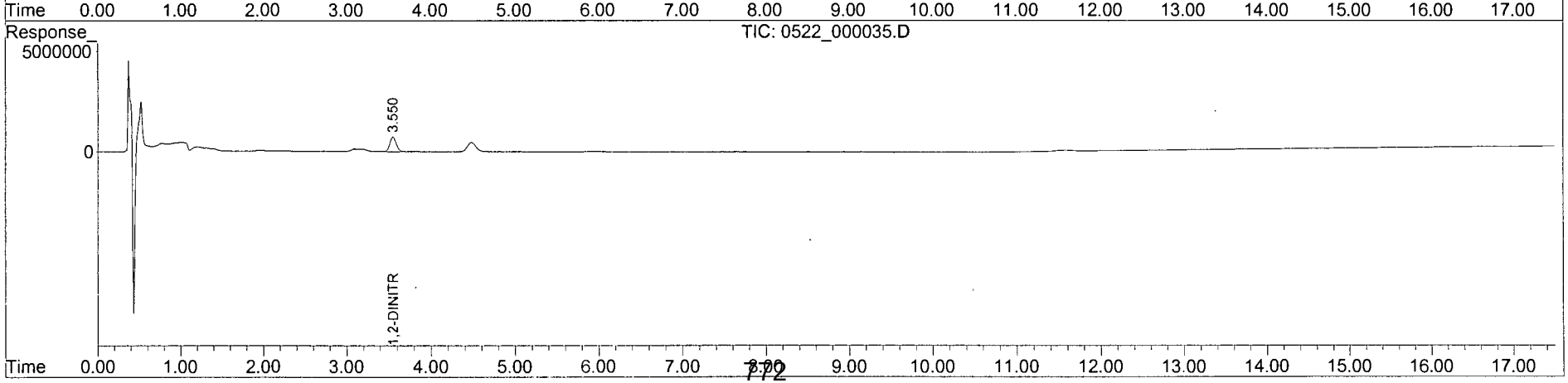
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000035.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 02:35:40
Operator : MP
Sample : 150519ABLKW 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4097 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:04 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron





Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000047.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 13:57:04
Operator : MP
Sample : 150519ABLKW 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4096 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 26 08:32:55 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.089	0	95973	N.D.	0.867 #
Spiked Amount 1.000			Recovery	=	0.00%	86.70%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D.	N.D.
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	NT N.D. d
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM NITROBENZENE	0.000	0.000	0	0	N.D.	NT N.D. d
7) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D.	NT N.D. d
8) TM NITROGLYC...	0.000	12.045	0	464	N.D.	NoCal
9) TM TETRYL	0.000	0.000	0	0	N.D.	<DL N.D. d
10) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D. d	NT N.D.

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

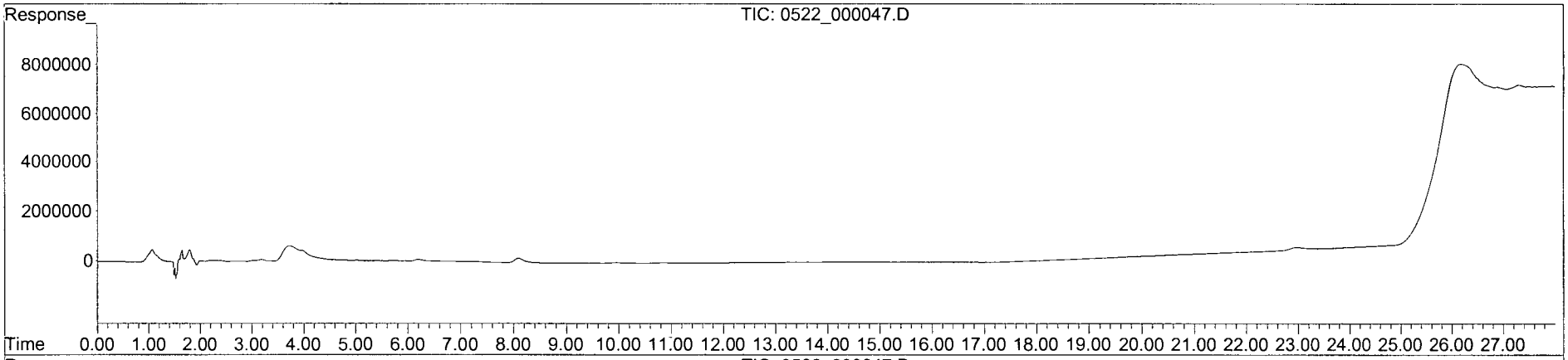
MP
05-26-15

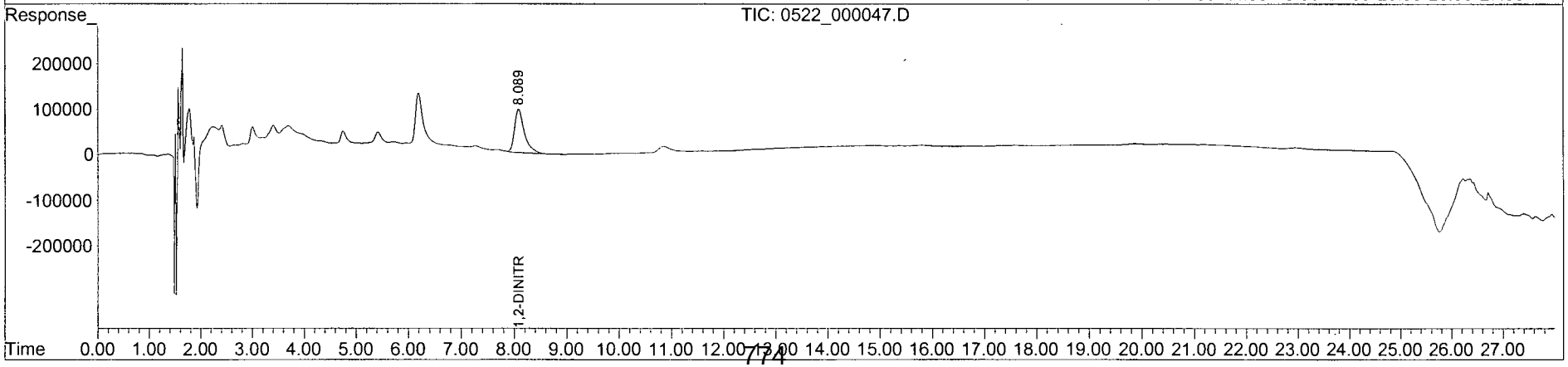
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000047.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 13:57:04
Operator : MP
Sample : 150519ABLKW 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4096 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 26 08:32:55 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron





Laboratory Control Spike Recovery
EPA 8330B WATER

APPL ID: **150519W-16334 LCS - 197306**
Batch ID: #83BJU-150519A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2,4-DINITROTOLUENE	8.00	6.72	84.0	60-135
2,6-DINITROTOLUENE	8.00	6.73	84.1	60-135
HMX	8.00	6.98	87.3	80-115
NITROGLYCERIN	8.00	6.96	87.0	70-130
RDX	8.00	6.66	83.3	50-160
TETRYL	8.00	6.67	83.4	20-175
SURROGATE: 1,2-DINITROBENZENE (S	8.00	6.73	84.1	70-130

Comments:

Primary	SPK
Quant Method :	W150522.M
Extraction Date :	05/19/15
Analysis Date :	05/23/15
Instrument :	Waldorf
Run :	0522_000034
Initials :	MP

Printed: 05/26/15 9:19:54 AM
APPL Standard LCS

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000034.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 01:58:09
Operator : MP
Sample : 150519ALCS-1 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4096 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:01 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:19:45 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	3.547	0	5443459	N.D.	6.731 #
Spiked Amount 1.000			Recovery	=	0.00%	673.10%
Target Compounds						
1) TM HMX	0.000	0.918	0	11327366	N.D.	6.977 #
2) TM RDX	0.000	1.731	0	7086978	N.D.	6.658 #
3) TM 1,3,5-TRI...	0.000	2.823	0	12693964	N.D.	6.562 #
5) TM 1,3-DINIT...	0.000	3.717	0	11903059	N.D.	6.534 #
6) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
7) TM NITROBENZENE	0.000	5.042	0	5270455	N.D.	6.316 #
8) TM NITROGLYC...	6.054	6.046	2288327	59739	6.964	NoCal #
9) TM TETRYL	6.414	6.414	6258632	3816676	NoCal	6.669 #
10) TM 2,4,6-TRI...	6.899	6.899	6946111	5345157	NoCal	6.835 #
11) TM 2-AMINO-4...	7.115	7.115	6863236	4562867	NoCal	6.493 #
12) TM 4-AMINO-2...	7.460	7.460	5709571	3078908	NoCal	6.085 #
13) TM 2,4-DINIT...	8.590	8.590	3623245	4959890	NoCal	6.721 #
14) TM 2,6-DINIT...	8.951	8.951	3779583	2733524	NoCal	6.726 #
15) TM 2-NITROTO...	0.000	12.297	0	1760034	N.D.	6.281 #
16) TM 4-NITROTO...	0.000	12.895	0	1796717	N.D.	6.482 #
17) TM 3-NITROTO...	0.000	13.783	0	2143651	N.D.	6.477 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

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

Algorithm check

HMX

$\frac{11327366}{649.5\ (40)} \times 0.016\ DF = 6.976$

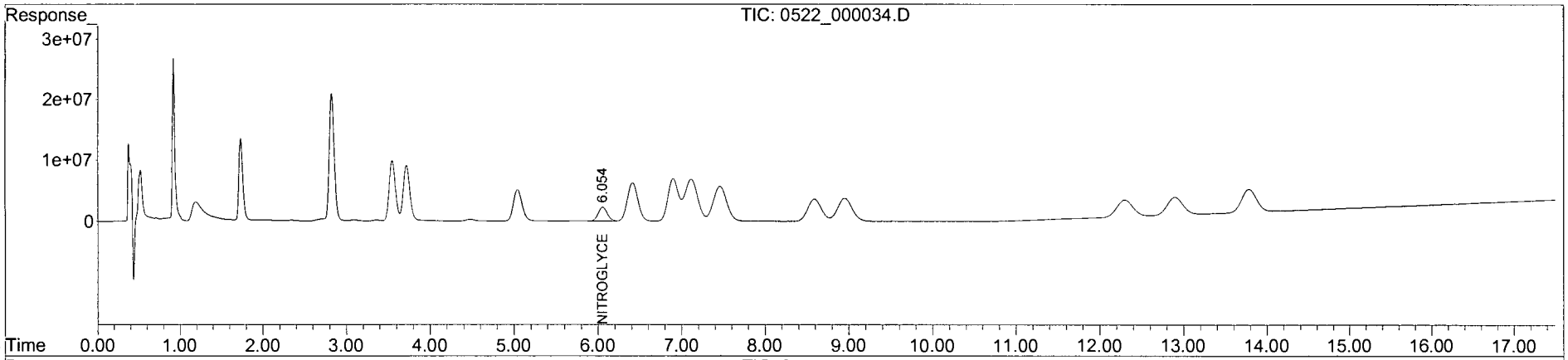
✓ HP 05-26-15

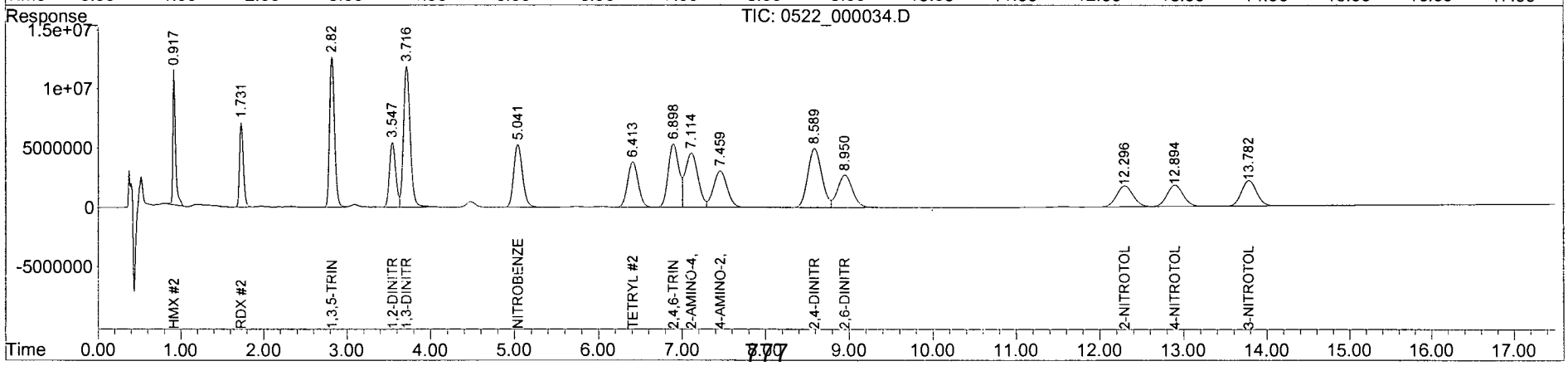
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150522\150522\
Data File : 0522_000034.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 01:58:09
Operator : MP
Sample : 150519ALCS-1 0.016 DF 05/19/15
Misc : Water
ALS Vial : 4096 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:20:01 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150522\150522\W150522.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:19:45 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron





_MWE3535

Organic Extraction Worksheet

Method	EPA Method 3535A	Extraction Set	150519A	Extraction Method	MWE3535	Units	mL

Spiked ID 1	8330 100ppm STK 5-5-15 exp 11-5-15		Surrogate ID 1	1,2 DNB SURROGATE 5PPM 4-2-15 exp 8-2-15
Spiked ID 2	Nitroglyerin 100ppm 3-31-15 exp 9-30-15		Surrogate ID 2	
Spiked ID 3			Surrogate ID 3	
Spiked ID 4			Surrogate ID 4	
Spiked ID 5			Surrogate ID 5	
Spiked ID 6			Sufficient Vol for Matrix QC:	NA
Spiked ID 7			Ext. Start Time:	05/19/15 10:30
Spiked ID 8			Ext. End Time:	05/19/15 13:52
			GC Requires Extract By:	

pH1	2	05/19/15 9:50:00 AM	Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: CFM **Date** 05/19/15 10:15:00 AM **Witnessed By:** DL **Date** 05/19/15 10:15:00 AM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150519A Blk				0.100	1 equip	500	2ML	2	05/19/15 10:30	
2	150519A LCS-1		0.040	1/2	NA	NA equip	500	2ML	2	05/19/15 10:30	
3	AZ16334	AZ16334W07			0.100	1 equip	500	2ML	2	05/19/15 10:30	76424
4	AZ16335	AZ16335W07			0.100	1 equip	500	2ML	2	05/19/15 10:30	76424
5	AZ16336	AZ16336W07			0.100	1 equip	500	2ML	2	05/19/15 10:30	76424
6	AZ16337	AZ16337W07			0.100	1 equip	500	2ML	2	05/19/15 10:30	76424
7	AZ16338	AZ16338W07			0.100	1 equip	500	2ML	2	05/19/15 10:30	76424
8	AZ16339	AZ16339W07			0.100	1 equip	490	2ML	2	05/19/15 10:30	76424
9	AZ16340	AZ16340W07			0.100	1 equip	475	2ML	2	05/19/15 10:30	76424
10	AZ16341	AZ16341W07			0.100	1 equip	500	2ML	2	05/19/15 10:30	76424
11	AZ16342	AZ16342W07			0.100	1 equip	500	2ML	2	05/19/15 10:30	76424
12	AZ16343	AZ16343W02			0.100	1 equip	475	2ML	2	05/19/15 10:30	76424
13	AZ16403	AZ16403W07			0.100	1 equip	500	2ML	2	05/19/15 10:30	76447

MP 05-19-15

olvent and Lot#	
cetonitrile	DM 394
artridge Sorbent Lot	S311-032
erial No	512616
odium Bisulfate	234615
H Strip	HC 431579

Extraction COC Transfer	
Extraction lab employee Initials	CFM
GC analyst's initials	MP
Date	05-19-15
Time	1530
Refrigerator	Brown

	Technician's Initials
Scanned By	CFM
Sample Preparation	CFM
Extraction	CFM
Concentration	----------

Modified	05/19/15 1:51:12 PM

Reviewed By: MP **Date** 05-19-15

/19/15 3:28:35 PM

Ext_ID 47818

LCMS Standard Prep Log #103 Page 13

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT#	DATE	INITIALS
Tetryl-SS 1000 ug/ml							8-29-13	MP
Tetryl 1000 ug/ml Absolute Lot # 112310-32716								
I broke open the vial and transferred to								
an amber 1.8 ml Injection vial →								
Tetryl-SS 1000 ug/ml 08-29-13								
Tetryl-SS 10 ug/ml								
Tetryl-SS 1000 08-29-13	0.10	10.0	10.0	1:1 ACN/MeOH DG445/52292			08-29-13	MP
WALDORF 08/31/13								
8330_CB 1:1 1.0 PPM								
8330_MX-A	10.0 ppm	07/01/13	0.10 ml	1.0 mL	1.0 ppm	1:1ACN_DG445/MEOH_52292	08/31/13	MP
8330_MX-B	10.0 ppm	07/01/13						MP
8330_CB 1:1 0.1 PPM								
8330_G8 1:1 1.0 PPM	1.0 ppm	08/31/13	0.10 ml	1.0 mL	0.10 ppm	1:1ACN_DG445/MEOH_52292	08/31/13	MP
8330CB 0.005 PPM								
8330_CB 1:1	0.1 PPM	08/31/13	0.05 ML	1.0 mL	0.005 PPM	1 : 1 : 6 ACN : MeOH : MILLIPORE DG445/52292	08/31/13	MP
8330CB 0.010 PPM								
8330_CB 1:1	0.1 PPM	08/31/13	0.10 ML	1.0 mL	0.010 PPM	1 : 1 : 6 ACN : MeOH : MILLIPORE DG445/52292	08/31/13	MP
8330CB 0.020 PPM								
8330_CB 1:1	0.1 PPM	08/31/13	0.20 ML	1.0 mL	0.020 PPM	1 : 1 : 6 ACN : MeOH : MILLIPORE DG445/52292	08/31/13	MP
8330CB 0.05 PPM								
8330_CB 1:1	1.0 PPM	08/31/13	0.05 ML	1.0 mL	0.05 PPM	1 : 1 : 6 ACN : MeOH : MILLIPORE DG445/52292	08/31/13	MP
8330CB 0.10 PPM								
8330_CB 1:1	1.0 PPM	08/31/13	0.10 ML	1.0 mL	0.10 PPM	1 : 1 : 6 ACN : MeOH : MILLIPORE DG445/52292	08/31/13	MP
8330CB 0.20 PPM								
8330_CB 1:1	1.0 PPM	08/31/13	0.20 ML	1.0 mL	0.20 PPM	1 : 1 : 6 ACN : MeOH : MILLIPORE DG445/52292	08/31/13	MP
8330CB 0.50 PPM								
8330MXA	10.0 PPM	07/01/13	0.05 ML	1.0 mL	0.50 PPM	1 : 1 : 6 ACN : MeOH : MILLIPORE DG445/52292	08/31/13	MP
8330MXB	10.0 PPM	07/01/13						

MP 8-31-13

LC/MS STANDARD PREP LOG# 103 PAGE# 65

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'EN LOT#	DATE INITIALS
NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: JH 12-19-13							
1668_SS_GC 500 ng/ml 10/30/13: PCB_CONG_2ND_SOURCE_STOCK 10 ug/ml 05/30/13 took 0.005 ml and added to ~~0.950~~ 0.095 JH ml 1668_ICL 100 ng/ml 10/27/13:							
1668_SS_GC 50 ng/ml 10/30/13: 1668_SS_GC 500 ng/ml 10/30/13 took 0.010 ml and added to 0.090 ml 1668_ICL 100 ng/ml 10/27/13							
	1,2-DNB Surr 5.0 ug/ml				09-03-13		N
1,2-DNB	1000	10-30-13	0.10	20.0	5.0	1:1 ACN/MeOH	12-23-13
	PA_Intstd 0.10 ug/ml						
4-Nitrophenol	10.0	8-15-13	0.20	20	0.10	ACN/ DI509	12-26-13 N
	Asl Std 20 ug/ml						
8321MX29-8	400	11-20-13	0.250	5.0	20	Methanol/	12-26-13 N
8321MX 10-4	1000	8-29-13	0.100				
8321MX 6-7	1000	9-27-13	0.100				
Isoxaben	1058	10-8-13	0.0945				
8141 Surr.	1000	9-5-13	0.100				
	8330MXA-SS 100 ug/ml						12-27-13 N
8330MX-A 100 ug/ml Absolute Part# 95093 Lot# 121311-30132 I broke open the vial and transferred to an amber 1.8 ml injection vial → 8330MXA_SS 100 ug/ml 12-27-13							

LC/MS STANDARD PREP LOG# 103 PAGE 66

066

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL. IN. LOT #	DATE/ INITIALS
8330MX-B-SS 100 ug/ml						4.N 12-27-13	12-27-13 HP
8330MX-B 100 ug/ml Absolute Part #9509B, Lot #~~121341~~ 051412-30759, I broke open the vial and HP 12-27-13 transferred to an amber 1.8ml injection vial → 8330MXB-SS 100ug/ml 12-27-13							
Ash std 0.40DF							
Ash std	20	12-26-13	0.80	2.0	0.40DF	Methanol	53206	12-30-13 HP
HPLCMS	100	7-12-13	0.020	1	1.0	1	1
Ash std 0.20DF							
Ash std	20	12-26-13	0.40	2.0	0.20DF	Methanol	53206	12-30-13 HP
HPLCMS	100	7-12-13	0.020	1	1.0	1	1
Ash std 0.10DF							
Ash std	20	12-26-13	0.20	2.0	0.10	Methanol	53206	12-30-13 HP
HPLCMS	100	7-12-13	0.020	1	1.0	1	1
Ash std 0.08DF							
Ash std	20	12-26-13	0.160	2.0	0.08	Methanol	53206	12-30-13 HP
HPLCMS	100	7-12-13	0.020	1	1.0	1	1
(Prepared 2 portions)							
Ash std 0.06DF							
Ash std	20	12-26-13	0.120	2.0	0.06	Methanol	53206	12-30-13 HP
HPLCMS	100	7-12-13	0.020	1	1.0	1	1
Ash std 0.04DF							
Ash std	20	12-26-13	0.080	2.0	0.04	Methanol	53206	12-30-13 HP
HPLCMS	100	7-12-13	0.020	1	1.0	1	1

LCMS STANDARD PREP LOG# 104 PAGE 8

008 STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE / INITIALS
1,2-DNB	1000 µg/mL						04-23-14

1,2-Dinitrobenzene
Solution, 1,000 mg/L, 1 mL
010086-01
Lot # 216681 Storage <10 Degrees C Expiry 10/25/16
Solv: Acetonitrile

1,2-Dinitrobenzene
Lot #: 216681 - 33241
Rec: 1/8/14 MFR exp. 10/25/16

I broke open the vial labeled to the left and transferred to an amber 1.8 mL injection vial → 1,2-DNB 1000 µg/mL 04-23-14

1,2-DNB	100 µg/mL						
1,2-DNB	1000	04-23-14	1.0	10.0	100	1:1 ACN/MeOH 02-19-14	04-23-14

MX-8330R	1000 µg/mL						04-23-14

AccuStandard
M-8330-R
Method 8330 - Explosives by HPLC
1000 µg/mL in MeOH:AcCN (1:1)
Lot: 211111132-01
Exp: Jun 6,2015
14 comps.
HIGHLY FLAMMABLE

Method 8330 - Explosives
Lot #: 211111132-01 - 33138
Rec: 11/18/13 MFR exp. 6/6/15

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

I broke open the vial labeled above and transferred to an amber 1.8 mL injection vial → MX-8330R 1000 µg/mL 04-23-14

MX-8330	100 µg/mL						
MX-8330R	1000	04-23-14	1.0	10.0	100	1:1 ACN/MeOH 02-19-14	04-23-14

1,2-DNB	5.0 µg/mL						
1,2-DNB	100	04-23-14	0.50	10.0	5.0	1:1 ACN/MeOH 02-19-14	04-23-14

LC/MS STANDARD PREP LOG# 104 PAGE# 23

023

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N. LOT#	DATE INITIALS
	8321 TS 0.005 DF						
8321 TS	0.10DF	06-12-14	0.10	20	0.005	MeOH/53235	06-12-14 P
HPLCFS	100	03-17-14	0.020	1	1.0	1	1
	8321 TS 0.0025 DF						
8321 TS	0.10DF	06-12-14	0.050	2.0	0.0025	MeOH/53235	06-12-14 P
HPLCFS	100	03-17-14	0.020	1	1.0	1	1
	1,2-DNB 100 ug/ml						06-12-14 P

1,2-Dinitrobenzene
Solution, 1,000 mg/L, 1 mL
R&D only, not to be used in commerce. Made in the USA
010066-01
Lot # 216681 | Storage <10 Degrees C | Expiry 10/25/16
Solv: Acetonitrile

1,2-Dinitrobenzene
Lot #: 216681 - 33233
Rec: 1/8/14 MFR exp. 10/25/16

1,2-Dinitrobenzene
Solution, 1,000 mg/L, 1 mL
R&D only, not to be used in commerce. Made in the USA
010066-01
Lot # 216681 | Storage <10 Degrees C | Expiry 10/25/16
Solv: Acetonitrile

1,2-Dinitrobenzene
Lot #: 216681 - 33234
Rec: 1/8/14 MFR exp. 10/25/16

I broke open the 2 vials labeled above. I took 1.00ml from each vial and diluted to 20.0ml 1:1 ACN MeOH 02-18-14. I labeled this solution 1,2-DNB 100 ug/ml 06-12-14

I combined the remaining balance of HP 06-12-14 the 2 vials above and transferred to an amber 1.8ml injection vial. I labeled this solution 1,2-DNB 1000ug/ml 06-12-14

GMS STANDARD PREP LOG# 104 PAGE# 25

025

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE INITIALS
PETN	1000 ug/ml						06-12-14

S-12837A4-5ML Exp 2/28/2015
CHEM SERVICE
PO BOX 599, WEST CHESTER, PA 19381 800-452-9994
Pentaerythritol tetranitrate Solution
Lot: 2416400
Pentaerythritol tetranitrate
Lot #: 2416400 - 33320
Rec: 2/20/14 MFR exp. 2/28/15
1000ug/ml In Acetonitrile
FLAMMABLE-POISON-LACHRYMATOR

I broke open the vial labeled to the left and transferred to an 8ml Amber vial

→ PETN 1000ug/ml 06-12-14

PETN 100 ug/ml
PETN 1000 06-12-14 1.0 10.0 100 1:1 ACN/MeOH 06-12-14

8321MX6-7 500 ug/ml 06-12-14

o2si smart solutions
Custom Pesticide Solution, 6-7, 500 mg/L, 5 x 2 ml
130287-01-05
Storage: <= -10 Degrees C
Made in USA
Lot No: 160093
Exp: 6/1/2013
Custom Pesticide Solution 6-7
Lot #: 160093 - 26674
Rec: 6/7/10 MFR exp. 06/01/13
Date Opened

I broke open the vial labeled above and transferred to an amber 1.8ml injection vial → 8321MX6-7 500 ug/ml (to be QC'd)

8321MX6-7 20 ug/ml 06-12-14
8321MX6-7 50.0 06-12-14 0.080 2.0 20 Methanol/53235

8321MX6-7 0.02 DF (OLD)
8321MX6-7 20 06-12-14 0.040 2.0 0.02 MeOH/53235 06-12-14
HPLCFS 100 03-17-14 0.020 1.0

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037

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N. LOT#	INITIAL
	Spinosad 100 ng/ml						
Spinosad	1000	04-14-14	0.075	1.0	100	Methanol/53235	kp 07-14-14
	Spinosad 50 ng/ml						
Spinosad	500	07-14-14	0.10	1.0	50	Methanol/53235	kp 07-14-14
	Spinosad 20 ng/ml						kp
Spinosad	200	07-14-14	0.10	1.0	20	Methanol/53235	07-14-14
	Spinosad 10 ng/ml						
Spinosad	100	07-14-14	0.10	1.0	10	Methanol/53235	07-14-14 kp
	Picric Acid spk 2.0 ng/ml						
Picric Acid	100	04-16-14	0.160	8.0	2.0	ACN/DI509	07-15-14 kp
	Picric Acid spk 0.2 ng/ml						
Picric Acid spk	2.0	07-15-14	0.80	8.0	0.2	ACN/DI509	07-15-14 kp
	HPLC IS 1.0 ng/ml						
HPLC IS	1000	04-22-14	0.20	200	1.0	MeOH/53235	07-15-14 kp
	HPLC IS 1000 ng/ml						07-15-14 kp

Custom 8321 Internal Standard Pesticide Mix, 4-8, 1,000 mg/L, 5 x 1 ml
130285-01-05
Lot# 209160 Storage ≤ -10 Degrees C Expiry 5/20/15
Solv: M-t-BE
R&D only, not human consumption
Made in the USA

Custom 8321 Internal Std Mix 4-8
Lot #: 209160 - 32460
Rec: 5/29/13 MFR exp. 5/20/15

I broke open the vial labelled to the left and transferred to an amber 1.8 ml injection vial → HPLC IS 100 ng/ml 07-15-14

	HPLC IS 100 ng/ml						
HPLC IS	1000	07-15-14	1.0	10.0	100	MeOH/53235	07-15-14 kp
	Tetryl SS 100 ng/ml						kp
tetryl SS	1000	08-22-13	0.10	1.0	100	1:1 ACN/MeOH	07-01-14
							02-13-14

LC/MS STANDARD PREP LOG# 104 PAGE 45

045

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE INITIALS
8321V 0.2ug/ml							
8321V	2.0	08-05-14	0.20	2.0	0.2	MeOH/53235	8-05-14
8321VIS	100	7-31-14	0.020	1	1.0	1	1
8321V 0.1ug/ml							
8321V	2.0	8-5-14	0.10	2.0	0.10	MeOH/53235	8-05-14
8321VIS	100	7-31-14	0.020	1	1.0	1	1
Mx-8330R 1000 ug/ml							08-06-14

AccuStandard®
M-8330-R
Method 8330 - Explosives by HPLC
1000 µg/mL in MeOH:AcCN (1:1)
Lot: 211111132-01 14 comps.
Exp: Jun 6,2015 HIGHLY FLAMMABLE

Method 8330 - Explosives
Lot #: 211111132-01 - 33139
Rec: 11/18/13 MFR exp. 6/6/15

ABORATORY USE ONLY
IG: This product contains
is known to the State of Califon
cancer and birth defects or ot
ctive harm.

STORAGE Freeze (<-10° C)
2 Danger

I broke open the vial labeled above and transferred to an amber 1.8ml injection vial → Mx-8330R 1000 ug/ml - 08-06-14

1,2-DNB 1000 ug/ml 08-06-14

1,2-Dinitrobenzene
Solution, 1,000 mg/L, 1 mL
010086-01
Lot # 216681 Storage <10 Degrees C Expiry 10/25/16
Solv: Acetonitrile
Made in the USA
LC/MS only, not human consumption.

1,2-Dinitrobenzene
Lot #: 216681 - 33235
Rec: 1/8/14 MFR exp. 10/25/16

I broke open the vial labeled to the left and transferred to an amber 1.8ml injection vial → 1,2-DNB 1000ug/ml 08-06-14

3,5-DNA 1000ug/ml 08-06-14

3,5-Dinitroaniline (3,5-DNA) Solution, 1000 mg/L, 1 ml
010612-04
Lot# 199709 Storage ≤ -10 Degrees C Expiry 11/21/15
Solv: Acetonitrile
Made in the USA
LC/MS only, not human consumption.

3,5-Dinitroaniline
Lot #: 199709 - 33122
Rec: 11/15/13 MFR exp. 11/21/15

I broke open the vial labeled to the left and transferred to an amber 1.8ml injection vial → 3,5-DNA 1000ug/ml 08-06-14

LC/MS STANDARD PREP LOG# 104 PAGE# 46

046

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE INITIALS
Nitroglycerin 1000 ug/ml							08-06-14

AccuStan
M-8330-ADD-1-10X
Nitroglycerin
1000 µg/mL in EtOH:MeOH (97:3)
Lot: 213031341
Exp. May 9, 2015
Nitroglycerin
Lot #: 213031341 - 33129
Rec: 11/18/13 MFR exp. 5/9/15
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Refrig (0-5° C)
2 Danger

I broke open the vial labeled above and transferred to an amber 1.8ml injection vial → Nitroglycerin 1000 ug/ml 08-06-14

PETN 1000 ug/ml 08-06-14

AccuStandard® 125 Market St. · New Haven, CT 06513 · USA
M-8330-ADD-2-10X
PETN
1000 µg/mL in Methanol
Lot: 213081209
Exp. Aug 14, 2015
PETN
Lot #: 213081209 - 33135
Rec: 11/18/13 MFR exp. 8/14/15
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Refrig (0-5° C)
2 Danger

I broke open the vial labeled above and transferred to an amber 1.8ml injection vial → PETN 1000 ug/ml 08-06-14

8330MXA 10 ug/ml

MX-833R	1000	08-06-14	0.20	20	10.0	1:1 ACN/MeOH	08-06-14
1,2-DNB	1000	08-06-14	0.20	⊥	⊥	07-02-14	⊥

8330MX-B 10 ug/ml

Nitroglycerin	1000	8-6-14	0.20	20	10.0	1:1 ACN/MeOH	08-06-14
3,5-DNA	1000	08-06-14	⊥	⊥	⊥	07-02-14	⊥
PETN	1000	08-06-14	⊥	⊥	⊥		⊥

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047

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'VENT LOT#	DATE INITIALS
PETN SS 100 ng/ml							
PETN	1000	06-12-14	0.10	1.0	100	1:1 ACN/MeOH 07-02-14	08-06-14
8321 surr 20 ng/ml							
Isoxaben	1024	03-10-14	0.195	10.0	20	MeOH/53235	08-07-14
8141 surr	1000	07-31-14	0.20	⊥	⊥	⊥	⊥
8321 TS_spk 1 DF							
8321MX6-7	1000	06-12-14	0.10	5.0	20	MeOH/53235	08-07-14

08-06-14

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN.
8330MXA_CB(1:1) 1.0 PPM 8330MXA	10.0	08/06/14	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	08/06/14
8330MXA_CB(1:1) 0.10 PPM 8330MXA_CB(1:1)	1.0	08/06/14	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	08/06/14
8330MXB_CB(1:1) 1.0 PPM 8330MXB	10.0	08/06/14	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	08/06/14
8330MXB_CB(1:1) 0.10 PPM 8330MXB_CB(1:1)	1.0	08/06/14	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	08/06/14
8330MXA_CB 0.005 PPM 8330MXA_CB(1:1)	0.1	08/06/14	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXA_CB 0.010 PPM 8330MXA_CB(1:1)	0.1	08/06/14	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXA_CB 0.020 PPM 8330MXA_CB(1:1)	0.1	08/06/14	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXA_CB 0.050 PPM 8330MXA_CB(1:1)	1.0	08/06/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXA_CB 0.10 PPM 8330MXA_CB(1:1)	1.0	08/06/14	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXA_CB 0.20 PPM 8330MXA_CB(1:1)	1.0	08/06/14	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	08/06/14

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048 STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE INITIALS
							080614 MP
8330MXA_CB 0.50 PPM 8330MXA	10.0	08/06/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXA_CB 1.0 PPM 8330MXA	10.0	08/06/14	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXA_CB 2.0 PPM 8330MXA_CB 2.0 PPM	10.0	08/06/14	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXB_CB 0.005 PPM 8330MXB_CB(1:1)	0.1	08/06/14	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXB_CB 0.010 PPM 8330MXB_CB(1:1)	0.1	08/06/14	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXB_CB 0.020 PPM 8330MXB_CB(1:1)	0.1	08/06/14	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXB_CB 0.050 PPM 8330MXB_CB(1:1)	1.0	08/06/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXB_CB 0.10 PPM 8330MXB_CB(1:1)	1.0	08/06/14	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXB_CB 0.20 PPM 8330MXB_CB(1:1)	1.0	08/06/14	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXB_CB 0.50 PPM 8330MXB_CB	10.0	08/06/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXB_CB 1.0 PPM 8330MXB_CB	10.0	08/06/14	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXB_CB 2.0 PPM 8330MXB_CB	10.0	08/06/14	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXA_SS 1.0 PPM 8330MXA_SS	100	12/27/13	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXB_SS 1.0 PPM 8330MXB_SS	100	12/27/13	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	08/06/14
PETN_TET_SS 1.0 PPM PETN_SS TETRYL_SS	100 100	08/06/14 07/01/14	0.01 0.01	1.00	1.0	1:1:6_ACN MEOH: MILLIPORE	08/06/14

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049

DATE / INITIALS	STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'EN. LOT#	DATE / INITIALS
6-14								
	STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN.
	8330_CB(1:1) 1.0 PPM							
	8330MXA	10.0	08/06/14	0.100	1.0	1.0	1:1 ACN/MEOH 02/19/14	08/06/14
	8330MXB	10.0	08/06/14					
	8330_CB(1:1) 0.1 PPM							
	8330_CB(1:1)	1.0	08/06/14	0.100	1	0.1	1:1 ACN/MEOH 02/19/14	08/06/14
	8330_CB 0.005 PPM							
	8330_CB(1:1)	0.1	08/06/14	0.050	1	0.005	1:1:6_ACN MEOH: MILLIPORE	08/06/14
	8330_CB 0.010 PPM							
	8330_CB(1:1)	0.1	08/06/14	0.100	1.00	0.010	1:1:6_ACN MEOH: MILLIPORE	08/06/14
	8330_CB 0.020 PPM							
	8330_CB(1:1)	0.1	08/06/14	0.200	1.00	0.020	1:1:6_ACN MEOH: MILLIPORE	08/06/14
	8330_CB 0.050 PPM							
	8330_CB(1:1)	1.0	08/06/14	0.050	1.00	0.050	1:1:6_ACN MEOH: MILLIPORE	08/06/14
	8330_CB 0.10 PPM							
	8330_CB(1:1)	1.0	08/06/14	0.100	1.00	0.10	1:1:6_ACN MEOH: MILLIPORE	08/06/14
	8330_CB 0.20 PPM							
	8330_CB(1:1)	1.0	08/06/14	0.20	1.00	0.20	1:1:6_ACN MEOH: MILLIPORE	08/06/14
	8330_CB 0.50 PPM							
	8330MXA	10.0	08/06/14	0.050	1.00	0.050	1:1:6_ACN MEOH: MILLIPORE	08/06/14
	8330MXB	10.0	08/06/14	0.050				
	8330_CB 1.0 PPM							
	8330MXA	10.0	08/06/14	0.100	1.00	1.000	1:1:6_ACN MEOH: MILLIPORE	08/06/14
	8330MXB	10.0	08/06/14	0.100				
	8330MXA_CB 2.0 PPM							
	8330MXA_CB	10.0	08/06/14	0.200	1.00	2.000	1:1:6_ACN MEOH: MILLIPORE	08/06/14
	8330MXB_CB 2.0 PPM							
	8330MXB_CB	10.0	08/06/14	0.200	1.00	2.000	1:1:6_ACN MEOH: MILLIPORE	08/06/14
	8330_SS 1.0 PPM							
	8330MXA_SS	100	12/27/13	0.010	1.00	1.0	1:1:6_ACN MEOH: MILLIPORE	08/06/14
	8330MXB_SS	100	12/27/13	0.010				
	PETN_TET_SS 1.0 PPM							
	PETN_SS	100	08/06/14	0.01	1.00	1.0	1:1:6_ACN MEOH: MILLIPORE	08/06/14
	TETRYL_SS	100	07/01/14	0.01				

INITIALS: MB 08-06-14

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'EN. LOT #	DATE INITIALS
STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN.
8330MXA_CB(1:1) 1.0 PPM 8330MXA	10.0	08/06/14	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	09/05/14
8330MXA_CB(1:1) 0.10 PPM 8330MXA_CB(1:1)	1.0	08/06/14	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	09/05/14
8330MXB_CB(1:1) 1.0 PPM 8330MXB	10.0	08/06/14	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	09/05/14
8330MXB_CB(1:1) 0.10 PPM 8330MXB_CB(1:1)	1.0	08/06/14	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	09/05/14
8330MXA_CB 0.005 PPM 8330MXA_CB(1:1)	0.1	08/06/14	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXA_CB 0.010 PPM 8330MXA_CB(1:1)	0.1	08/06/14	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXA_CB 0.020 PPM 8330MXA_CB(1:1)	0.1	08/06/14	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXA_CB 0.050 PPM 8330MXA_CB(1:1)	1.0	08/06/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXA_CB 0.10 PPM 8330MXA_CB(1:1)	1.0	08/06/14	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXA_CB 0.20 PPM 8330MXA_CB(1:1)	1.0	08/06/14	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXA_CB 0.50 PPM 8330MXA	10.0	08/06/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXA_CB 1.0 PPM 8330MXA	10.0	08/06/14	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXA_CB 2.0 PPM 8330MXA_CB 2.0 PPM	10.0	08/06/14	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXB_CB 0.005 PPM 8330MXB_CB(1:1)	0.1	08/06/14	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXB_CB 0.010 PPM 8330MXB_CB(1:1)	0.1	08/06/14	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXB_CB 0.020 PPM 8330MXB_CB(1:1)	0.1	08/06/14	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	09/05/14

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SOL EN. 059

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL LOT #	DATE INITIALS
8330MXB_CB 0.050 PPM 8330MXB_CB(1:1)	1.0	08/06/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXB_CB 0.10 PPM 8330MXB_CB(1:1)	1.0	08/06/14	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXB_CB 0.20 PPM 8330MXB_CB(1:1)	1.0	08/06/14	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXB_CB 0.50 PPM 8330MXB_CB	10.0	08/06/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXB_CB 1.0 PPM 8330MXB_CB	10.0	08/06/14	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXB_CB 2.0 PPM 8330MXB_CB	10.0	08/06/14	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXA_SS 1.0 PPM 8330MXA_SS	100	12/27/13	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXB_SS 1.0 PPM 8330MXB_SS	100	12/27/13	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	09/05/14
PETN_TET_SS 1.0 PPM PETN_SS TETRYL_SS	100 100	08/06/14 07/01/14	0.01 0.01	1.00	1.0	1:1:6_ACN MEOH: MILLIPORE	09/05/14

09/05/14

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE INITIALS
CC_Carb sph 2.0 ug/ml							
8321_SS	100	11-03-14	0.200	10.0	2.0	MeOH/54115	12-12-14 HP
HPLC IS 1.0 ug/ml							
HPLCIS	100	10-02-14	2.0	200	1.0	MeOH/54115	12-15-14 HP
HPLCISAQ 1.0 ug/ml					12-16-14		
HPLCIS	100	10-02-14	1.0	100	1.0	Millipore water	12-16-14 HP
Carb sph 10 ug/ml							
8321 Mix 29-8	400	09-22-14	0.050	2.0	10	MeOH/54115	12-17-14 HP
8321 Surr 10 ug/ml							
Isoxaben	1024	03-10-14	0.029	3.0	10.0	MeOH/54115	12-17-14 HP
8141 Surr	1000	10-30-14	0.030	⊥	⊥	⊥	⊥
8321_Surr 20 ug/ml							
Isoxaben	1024	03-10-14	0.195	10.0	20	MeOH/54115	12-17-14 HP
8141 Surr	1000	~~10-30-14~~ 12-03-14	0.200	⊥	⊥	⊥	⊥
			HP 12-17-14				
PETN 100 ug/ml					07-02-14		
PETN	1000	08-06-14	0.50	5.0	100	1:1 ACN/MeOH	12-19-14 HP
Nitroglycerin 100 ug/ml							
Nitroglycerin	1000	02-25-14	0.50	5.0	100	1:1 ACN/MeOH	12-19-14 HP
8321TS_Stock							
8321 Mix 6-7	1000	09-25-14	0.050	10.0	5.0	MeOH/54115	12-22-14 HP
Isoxaben	1024	03-10-14	0.098	⊥	10	⊥	⊥
8141 Surr	1000	12-03-14	0.100	⊥	⊥	⊥	⊥

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N. LOT#	DATE INITIALS
83TS/sph/sur 100 DF					MRCFS 1 ug/l		
8324TS sph	20	09-25-14	0.10	1.0	10 DF	~~[illegible]~~ MR 12-22-14	12-22-14 M
8321 Surr	20	12-18-14	0.10	1	1		
83TS sph/sur 100DF		12-22-14	0.10	1.0	100DF	MRCFS 1 ug/l	12-22-14 M

Tetryl SS 1000 ug/ml 12-23-14
Tetryl 1000 ug/ml Absolute Lot 112310-33875, I broke open the vial and transferred to an amber 1.8 ml injection vial → Tetryl SS 1000 ug/l 12-23-14

1:1 ACN/MeOH 12-23-14 M
I took 0.250 ml Methanol Lot 54115 and added 0.250 ml Acetonitrile Lot DK902. M

1,2-DNB 1000 ug/ml 12-23-14
I broke open the vial labeled to the left and transferred to an amber 1.8 ml injection vial → 1,2, DNB 1000 ug/l 12-23-14

1,2-Dinitrobenzene Solution, 1,000 mg/L, 1 mL
010086-01
Lot # 227342 Storage <10 Degrees C Expiry 3/May/2017
Solv: Acetonitrile
R&D only, not human consump. Made in the USA
1,2-Dinitrobenzene
Lot #: 227342 - 34120
Rec: 10/6/14 MFR exp. 5/3/17

3,5-DNA 1000 ug/ml 12-23-14
I broke open the vial labeled to the left and transferred to an amber 1.8 ml injection vial → 3,5-DNA 1000 ug/l 12-23-14

3,5-Dinitroaniline (3,5-DNA) Solution, 1000 mg/L, 1 ml
010612-04
Lot # 199709 Storage ≤ -10 Degrees C Expiry 11/21/15
Solv: Acetonitrile
R&D only, not human consump. Made in the USA
3,5-Dinitroaniline
Lot #: 199709 - 33124
Rec: 11/15/13 MFR exp. 11/21/15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE/INITIAL
	8370 MX-A	10.0 ug/ml					N
MX-8330A	1000	08-06-14	0.10	10.0	10.0	1:1 ACN/MeOH	12-23-14
1,2-DNB	1000	12-23-14				12-23-14	
	8330 MX-B	10.0 ug/ml					N
Nitroglycerin	1000	08-06-14	0.10	10.0	10.0	1:1 ACN/MeOH	12-23-14
3,5-DNA	1000	12-23-14				12-23-14	
PETN	1000	06-12-14					
	tetryl-SS	100 ug/ml					N
Tetryl-SS	1000	12-23-14	0.10	1.0	100	1:1 ACN/MeOH	12-23-14
						12-23-14	

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN.
8330MXA_CB(1:1) 1.0 PPM 8330MXA	10.0	12/23/14	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	12/23/14
8330MXA_CB(1:1) 0.10 PPM 8330MXA_CB(1:1)	1.0	12/23/14	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	12/23/14
8330MXB_CB(1:1) 1.0 PPM 8330MXB	10.0	12/23/14	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	12/23/14
8330MXB_CB(1:1) 0.10 PPM 8330MXB_CB(1:1)	1.0	12/23/14	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	12/23/14
8330MXA_CB 0.005 PPM 8330MXA_CB(1:1)	0.1	12/23/14	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	12/23/14
8330MXA_CB 0.010 PPM 8330MXA_CB(1:1)	0.1	12/23/14	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	12/23/14
8330MXA_CB 0.020 PPM 8330MXA_CB(1:1)	0.1	12/23/14	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	12/23/14
8330MXA_CB 0.050 PPM 8330MXA_CB(1:1)	1.0	12/23/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	12/23/14
8330MXA_CB 0.10 PPM 8330MXA_CB(1:1)	1.0	12/23/14	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	12/23/14
8330MXA_CB 0.20 PPM 8330MXA_CB(1:1)	1.0	12/23/14	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	12/23/14
8330MXA_CB 0.50 PPM 8330MXA	10.0	12/23/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	12/23/14

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT#	DATE INITIAL
PETN	1000 ug/ml						NP 12-29-14

S-12837A4-5ML Exp 4/30/2015

CHEMSERVICE
PO BOX 599
Pentaerythritol tetranitrate
Lot #: 2377700 - 34516
Pentaeryth Rec: 12/16/14 MFR exp. 4/30/15

Lot: 2677700

1000ug/ml In Acetonitrile
FLAMMABLE-POISON-LACHRYMATOR

I broke open the vial labeled to the left and transferred to a amber 8ml vial → PETN 1000 ug/ml 12-29-14

	PETN 100 ug/ml							NP
PETN	1000	12-29-14	0.5	5.0	100	1:1 ACN/MeOH 07-2-14		12-29-14
	PGDN spike 10 ug/ml							NP
PGDNA	100	10-27-14	0.10	1.0	10.0	1:1 ACN/MeOH 7-2-14		01-06-15
	PGDN spike 1.0 ug/ml							NP
PGDN spk	10	01-06-15	0.10	1.0	1.0	1:1 ACN/MeOH 7-2-14		01-06-15
	Nitroglycerin 100 ug/ml							NP
Nitroglycerin	1000	08-06-14	0.50	5.0	100	1:1 ACN/MeOH 12-23-14		01-06-15
	8330 MXA spk 10 ug/ml							NP
MX-8330 spk	100	09-17-14	0.150	1.5	10.0	1:1 ACN/MeOH 12-23-14		01-06-15
	8330 MXA spk 1.0 ug/ml							NP
8330 MXA spk	10.0	01-06-15	0.150	1.5	1.0	1:1 ACN/MeOH 12-23-14		01-06-15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT/LOT	DATE/INITIALS
8321PA_SS 0.10 DF							
Picric Acid SS	1.0	11-17-14	0.20	2.0	0.10	ACN/DK902	01-13-15
4-Nitrophenol	10	01-13-15	0.020	1	0.10	1	1
MX8330 Sph 100ug/ml							
MX-8330R	1000	08-06-14	0.80	8.0	10.0	1:1 ACN/MeOH	01-15-15
1,2-DNB	1000	12-23-14	0.80	1	1	12-23-14	
Tetryl SS 100ug/ml							
Tetryl SS	1000	12-23-14	0.10	1.0	100	1:1 ACN/MeOH 12-23-14	01-15-15

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN.
8330MXA_CB(1:1) 1.0 PPM 8330MXA	10.0	12/23/14	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	01/15/15
8330MXA_CB(1:1) 0.10 PPM 8330MXA_CB(1:1)	1.0	01/15/15	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	01/15/15
8330MXB_CB(1:1) 1.0 PPM 8330MXB	10.0	12/23/14	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	01/15/15
8330MXB_CB(1:1) 0.10 PPM 8330MXB_CB(1:1)	1.0	01/15/15	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	01/15/15
8330MXA_CB 0.005 PPM 8330MXA_CB(1:1)	0.1	01/15/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXA_CB 0.010 PPM 8330MXA_CB(1:1)	0.1	01/15/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXA_CB 0.020 PPM 8330MXA_CB(1:1)	0.1	01/15/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXA_CB 0.050 PPM 8330MXA_CB(1:1)	1 0	01/15/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXA_CB 0.10 PPM 8330MXA_CB(1:1)	1.0	01/15/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXA_CB 0.20 PPM 8330MXA_CB(1:1)	1.0	01/15/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXA_CB 0.50 PPM 8330MXA	10.0	12/23/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	01/15/15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE INITIALS
8330MXA_CB 1.0 PPM 8330MXA	10.0	12/23/14	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXA_CB 2.0 PPM 8330MXA_CB 2.0 PPM	10.0	12/23/14	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.005 PPM 8330MXB_CB(1:1)	0.1	01/15/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.010 PPM 8330MXB_CB(1:1)	0.1	01/15/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.020 PPM 8330MXB_CB(1:1)	0.1	01/15/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.050 PPM 8330MXB_CB(1:1)	1.0	01/15/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.10 PPM 8330MXB_CB(1:1)	1.0	01/15/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.20 PPM 8330MXB_CB(1:1)	1.0	01/15/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.50 PPM 8330MXB_CB	10.0	12/23/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 1.0 PPM 8330MXB_CB	10.0	12/23/14	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 2.0 PPM 8330MXB_CB	10.0	12/23/14	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXA_SS 1.0 PPM 8330MXA_SS	100	10/01/14	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_SS 1.0 PPM 8330MXB_SS	100	10/01/14	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	01/15/15
PETN_TET_SS 1.0 PPM PETN_SS TETRYL_SS	100 100	08/06/14 01/15/15	0.01 0.01	1.00	1.0	1:1:6_ACN MEOH: MILLIPORE	01/15/15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL. ENT. LOT#	DATE INITIALS
						01	

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN
8330MXA_CB(1:1) 1.0 PPM 8330MXA	10.0	03/05/15	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	03/12/15
8330MXA_CB(1:1) 0.10 PPM 8330MXA_CB(1:1)	1.0	03/12/15	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	03/12/15
8330MXB_CB(1:1) 1.0 PPM 8330MXB	10.0	03/05/15	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	03/12/15
8330MXB_CB(1:1) 0.10 PPM 8330MXB_CB(1:1)	1.0	03/12/15	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	03/12/15
8330MXA_CB 0.005 PPM 8330MXA_CB(1:1)	0.1	03/12/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	03/12/15
8330MXA_CB 0.010 PPM 8330MXA_CB(1:1)	0.1	03/12/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	03/12/15
8330MXA_CB 0.020 PPM 8330MXA_CB(1:1)	0.1	03/12/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	03/12/15
8330MXA_CB 0.050 PPM 8330MXA_CB(1:1)	1.0	03/12/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	03/12/15
8330MXA_CB 0.10 PPM 8330MXA_CB(1:1)	1.0	03/12/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	03/12/15
8330MXA_CB 0.20 PPM 8330MXA_CB(1:1)	1.0	03/12/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	03/12/15
8330MXA_CB 0.50 PPM 8330MXA	10.0	03/05/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	03/12/15
8330MXA_CB 1.0 PPM 8330MXA	10.0	03/05/15	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	03/12/15
8330MXA_CB 2.0 PPM 8330MXA_CB 2.0 PPM	10.0	03/05/15	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	03/12/15
8330MXB_CB 0.005 PPM 8330MXB_CB(1:1)	0.1	03/12/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	03/12/15
8330MXB_CB 0.010 PPM 8330MXB_CB(1:1)	0.1	03/12/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	03/12/15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE / INITIALS
8330MXB_CB 0.020 PPM							
8330MXB_CB(1:1)	0.1	03/12/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	03/12/15
8330MXB_CB 0.050 PPM							
8330MXB_CB(1:1)	1.0	03/12/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	03/12/15
8330MXB_CB 0.10 PPM							
8330MXB_CB(1:1)	1.0	03/12/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	03/12/15
8330MXB_CB 0.20 PPM							
8330MXB_CB(1:1)	1.0	03/12/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	03/12/15
8330MXB_CB 0.50 PPM							
8330MXB_CB	10.0	03/05/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	03/12/15
8330MXB_CB 1.0 PPM							
8330MXB_CB	10.0	03/05/15	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	03/12/15
8330MXB_CB 2.0 PPM							
8330MXB_CB	10.0	03/05/15	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	03/12/15 03/12/15
8330MXA_SS 1.0 PPM							
8330MXA_SS	100	10/01/14	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	03/12/15
8330MXB_SS 1.0 PPM							
8330MXB_SS	100	10/01/14	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	03/12/15
PETN_TET_SS 1.0 PPM							
PETN_SS	100	08/06/14	0.01	1.00	1.0	1:1:6_ACN	03/12/15
TETRYL_SS	100	01/15/15	0.01			MEOH: MILLIPORE	

HP HP

PETN_SS 100 08-06-14 the Solution was QC'd on 03-13-15 on Statler, Data File 0312_000047.D HP 03-16-15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL. INL. LOT #	DATE INITIALS
Scav_spk 30 ug/ml (5ml)							
Hexahydro-1,3,5-tris(hydroxyethyl) triazine							
1180	03-18-15	0.127	5.0	30	MeOH	54115	03-19-15
2,2'-thiodiethanol							
1030	03-19-15	0.146					
2-(1,3,5-Dithiazinan-5-yl) ethanol							
525	03-11-15	0.286					
Scav spk 3.0 ug/ml 5ml							
Scav spk 30	03-19-15	0.50	5.0	3.0	MeOH	54115	03-19-15

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN.
8330MXA_CB(1:1) 1.0 PPM 8330MXA	10.0	03/05/15	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	03/17/15
8330MXA_CB(1:1) 0.10 PPM 8330MXA_CB(1:1)	1.0	03/17/15	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	03/17/15
8330MXB_CB(1:1) 1.0 PPM 8330MXB	10.0	03/05/15	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	03/17/15
8330MXB_CB(1:1) 0.10 PPM 8330MXB_CB(1:1)	1.0	03/17/15	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	03/17/15
8330MXA_CB 0.005 PPM 8330MXA_CB(1:1)	0.1	03/17/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 0.010 PPM 8330MXA_CB(1:1)	0.1	03/17/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 0.020 PPM 8330MXA_CB(1:1)	0.1	03/17/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 0.050 PPM 8330MXA_CB(1:1)	1.0	03/17/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 0.10 PPM 8330MXA_CB(1:1)	1.0	03/17/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 0.20 PPM 8330MXA_CB(1:1)	1.0	03/17/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 0.50 PPM 8330MXA	10.0	03/05/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	03/17/15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT #	DATE / INITIALS
8330MXA_CB 1.0 PPM 8330MXA	10.0	03/05/15	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 2.0 PPM 8330MXA_CB 2.0 PPM	10.0	03/05/15	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_CB 0.005 PPM 8330MXB_CB(1:1)	0.1	03/17/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_CB 0.010 PPM 8330MXB_CB(1:1)	0.1	03/17/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_CB 0.020 PPM 8330MXB_CB(1:1)	0.1	03/17/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_CB 0.050 PPM 8330MXB_CB(1:1)	1.0	03/17/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_CB 0.10 PPM 8330MXB_CB(1:1)	1.0	03/17/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_CB 0.20 PPM 8330MXB_CB(1:1)	1.0	03/17/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_CB 0.50 PPM 8330MXB_CB	10.0	03/05/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_CB 1.0 PPM 8330MXB_CB	10.0	03/05/15	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_CB 2.0 PPM 8330MXB_CB	10.0	03/05/15	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_SS 1.0 PPM 8330MXA_SS	100	10/01/14	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_SS 1.0 PPM 8330MXB_SS	100	10/01/14	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	03/17/15
PETN_TET_SS 1.0 PPM PETN_SS TETRYL_SS	100 100	08/06/14 01/15/15	0.01 0.01	1.00	1.0	1:1:6_ACN MEOH: MILLIPORE	03/17/15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	TESTER INITIALS
PER IS	0.005 µg/ml	04-20-15:					JBl 04-21-
02SI $^{18}O_4$ Perchlorate					100 µg/L		
Lot 1059192-33479 took 0.050 ml and added to 0.950 ml Laboratory Source DI. H2O.							
NOTE: Repeated the above process four times in order to prepare 2 - 2ml vials that were full. The above was performed as dated. JBl							
8330 MX-A SS 100 ug/ml							04-21-15 P
8330 Mix A, 100 ug/ml, Absolute Lot #103014-34464, I broke the vial open and transferred to an amber 1.8ml injection vial → 8330 MX-A SS 100 ug/ml 04-21-15							
8330 MXB SS 100 ug/ml							04-21-15 P
8330 Mix B, 100 ug/ml, Absolute Lot #103014-34467, I broke the vial open and transferred to an amber 1.8ml injection vial → 8330 MX-B SS 100 ug/ml 04-21-15							
Tetryl SS 100 ug/ml					03-05-15		P
Tetryl (SS)	1000	12-22-14	0.10	1.0	100	1:1 ACN/MeOH	04-22-15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE INITIALS
1,2-DNB 1000 ug/ml							04-22-15 MP

I broke open the vial labeled to the left and transferred to an amber 1.8ml injection vial → 1,2-DNB 1000 ug/ml 04-22-15

1,2-Dinitrobenzene Solution, 1,000 mg/L, 1 mL
010086-01
Lot # 227342 Storage <10 Degrees C Expiry 3/May/2017
Solv: Acetonitrile
1,2-Dinitrobenzene
Lot #: 227342 - 34115
Rec: 10/6/14 MFR exp. 5/3/17

1,2-DNB 100 ug/ml 03-05-15

1,2-DNB 1000 04-22-15 1.0 10 100 1:1 ACN/MeOH 04-22-15 MP

Standard prep performed as dated, documented here 04-22-15 MP

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN.
8330MXA_CB(1:1) 1.0 PPM 8330MXA	10.0	03/05/15	0.100	1.0	1.0	1:1 ACN/MEOH 03/05/15	04/21/15
8330MXA_CB(1:1) 0.10 PPM 8330MXA_CB(1:1)	1.0	04/21/15	0.100	1.0	0.1	1:1 ACN/MEOH 03/05/15	04/21/15
8330MXB_CB(1:1) 1.0 PPM 8330MXB	10.0	03/05/15	0.100	1.0	1.0	1:1 ACN/MEOH 03/05/15	04/21/15
8330MXB_CB(1:1) 0.10 PPM 8330MXB_CB(1:1)	1.0	03/17/15	0.100	1.0	0.1	1:1 ACN/MEOH 03/05/15	04/21/15
8330MXA_CB 0.005 PPM 8330MXA_CB(1:1)	0.1	04/21/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXA_CB 0.010 PPM 8330MXA_CB(1:1)	0.1	04/21/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXA_CB 0.020 PPM 8330MXA_CB(1:1)	0.1	04/21/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXA_CB 0.050 PPM 8330MXA_CB(1:1)	1.0	04/21/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXA_CB 0.10 PPM 8330MXA_CB(1:1)	1.0	04/21/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	04/21/15

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VOMS STANDARD PREP LOG 105 42

Standard prep performed as dated, Documented here 04-22-15 MP

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE INITIALS
8330MXA_CB 0.20 PPM 8330MXA_CB(1:1)	1.0	04/21/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	04/21/15 MP
8330MXA_CB 0.50 PPM 8330MXA	10.0	03/05/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXA_CB 1.0 PPM 8330MXA	10.0	03/05/15	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXA_CB 2.0 PPM 8330MXA_CB 2.0 PPM	10.0	03/05/15	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXB_CB 0.005 PPM 8330MXB_CB(1:1)	0.1	04/21/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXB_CB 0.010 PPM 8330MXB_CB(1:1)	0.1	04/21/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXB_CB 0.020 PPM 8330MXB_CB(1:1)	0.1	04/21/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXB_CB 0.050 PPM 8330MXB_CB(1:1)	1.0	04/21/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXB_CB 0.10 PPM 8330MXB_CB(1:1)	1.0	04/21/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	04/21/15 MP
8330MXB_CB 0.20 PPM 8330MXB_CB(1:1)	1.0	04/21/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXB_CB 0.50 PPM 8330MXB_CB	10.0	03/05/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXB_CB 1.0 PPM 8330MXB_CB	10.0	03/05/15	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXB_CB 2.0 PPM 8330MXB_CB	10.0	03/05/15	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXA_SS 1.0 PPM 8330MXA_SS	100	10/01/14	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXB_SS 1.0 PPM 8330MXB_SS	100	10/01/14	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	04/21/15
PETN_TET_SS 1.0 PPM PETN_SS TETRYL_SS	100 100	08/06/14 04/22/15	0.01 0.01	1.00	1.0	1:1:6_ACN MEOH: MILLIPORE	04/22/15

LC/MS STANDARD PREP LOG 105 PAGE 43

043

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE/ INITIALS
Scav spk 30 ng/ml							
Hexahydro-1,3,5-tris hydroxyethyltriazine							VP
1010	04-10-15	0.594	20	30	ACN/DM394		04-23-15
2,2'-thiodiethanol							
1090	04-10-15	0.550	20				
2-(1,3,5-Dithiazinan-5-yl) ethanol							
1020	04-10-15	0.588					
Scav Surr 30 ng/ml							
1,3,5-Trimethylhexahydro-1,3,5-triazine							VP
1077	04-17-15	0.557	20	30	ACN/DM394		04-23-15
PETN SS 100 ng/ml						3-5-15	
PETN 1000	06-09-14	0.10	1.0	100	1:1 ACN/MeOH		04-28-15 VP
Tetryl SS 100 ng/ml						3-5-15	
Tetryl SS 1000	12-22-14	0.10	1.0	100	1:1 ACN/MeOH		04-28-15 VP
8330MXA-SS 100 ng/ml							04-28-15 VP
8330MX-A 100 ng/ml Absolute lot 103014-34465, I broke open the vial and transferred to an amber 1.8ml injection vial → 8330MX-A SS 100 ng/ml 04-28-15							
8330MXB-SS 100 ng/ml							04-28-15 VP
8330 MIX B 100 ng/ml Absolute lot 103014-34468, I broke open the vial and transferred to an amber 1.8ml injection vial → 8330MXB-SS 100 ng/ml 04-28-15							

LC/MS STANDARD PREP LOG# 105 PAGE 44

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE INITIALS
PETN_SS	1000 ug/mL						

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA

M-8330-ADD-2-10X
PETN
1000 µg/mL in Methanol
Lot: 214091329
Exp: Sep 18, 2016

PETN
Lot #: 214091329 - 34515
Rec: 12/16/14 MFR exp. 9/18/16

1 comp(s)
HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
H225 H320 H315 H311
H332 H301 P338 P360
P331 P404 P262 P202
P264 P284 P280

Storage: Refrig (0-5° C)
2 Danger

04-28-15 HP

I broke open the vial labeled above and transferred to an amber 1.8 mL injection vial → PETN_SS 1000 ug/mL 4-28-15

PETN_SS 100 ug/mL 3-5-15 HP

PETN_SS	1000	04-28-15	0.10	1.0	100	1:1 ACN/MeOH	4-28-15

Soldess Weight Comparison 04-28-15 HP
Balance ID: Mettler AT-200 #5-28448

Time-Weight	Balance reading
20 g	20.0000
1 g	1.0002
100 mg	0.1000
20 mg	~~0.0020~~ 0.0020 HP 4-28-15

GMS STANDARD PREP LOG# 105 PAGE 48

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE INITIALS
Standard Prep performed as Dated, documented here 05-01-15							MP

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN.
8330MXB_CB(1:1) 1.0 PPM 8330MXB	10.0	03/05/15	0.100	1.0	1.0	1:1 ACN/MEOH 03/05/15	04/27/15 MP
8330MXB_CB(1:1) 0.10 PPM 8330MXB_CB(1:1)	1.0	04/27/15	0.100	1.0	0.1	1:1 ACN/MEOH 03/05/15	04/27/15
8330MXB_CB 0.005 PPM 8330MXB_CB(1:1)	0.1	04/27/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	04/27/15
8330MXB_CB 0.010 PPM 8330MXB_CB(1:1)	0.1	04/27/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	04/27/15
8330MXB_CB 0.020 PPM 8330MXB_CB(1:1)	0.1	04/27/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	04/27/15
8330MXB_CB 0.050 PPM 8330MXB_CB(1:1)	1.0	04/27/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	04/27/15
8330MXB_CB 0.10 PPM 8330MXB_CB(1:1)	1.0	04/27/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	04/27/15
8330MXB_CB 0.20 PPM 8330MXB_CB(1:1)	1.0	04/27/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	04/27/15
8330MXB_CB 0.50 PPM 8330MXB_CB	10.0	03/05/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	04/27/15
8330MXB_CB 1.0 PPM 8330MXB_CB	10.0	03/05/15	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	04/27/15
8330MXB_CB 2.0 PPM 8330MXB_CB	10.0	03/05/15	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	04/27/15

LC/MS STANDARD PREP LOG 105 PAGE 49

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE/ INITIALS

Standard Prep performed as Dated, documented here 05-01-15 MP

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN.
8330MXA_SS 1.0 PPM							
8330MXA_SS	100	04/28/15	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	04/27/15
8330MXB_SS 1.0 PPM							
8330MXB_SS	100	04/28/15	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	04/27/15
PETN_TET_SS 1.0 PPM							
PETN_SS	100	04/28/15	0.01	1.00	1.0	1:1:6_ACN MEOH: MILLIPORE	04/29/15
TETRYL_SS	100	04/28/15	0.01				
8330MXA_CB(1:1) 1.0 PPM							
8330MXA	10.0	03/05/15	0.100	1.0	1.0	1:1 ACN/MEOH 03/05/15	04/28/15
8330MXA_CB(1:1) 0.10 PPM							
8330MXA_CB(1:1)	1.0	04/28/15	0.100	1.0	0.1	1:1 ACN/MEOH 03/05/15	04/28/15
8330MXA_CB 0.005 PPM							
8330MXA_CB(1:1)	0.1	04/28/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	04/28/15
8330MXA_CB 0.010 PPM							
8330MXA_CB(1:1)	0.1	04/28/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	04/28/15
8330MXA_CB 0.020 PPM							
8330MXA_CB(1:1)	0.1	04/28/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	04/28/15
8330MXA_CB 0.050 PPM							
8330MXA_CB(1:1)	1.0	04/28/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	04/28/15
8330MXA_CB 0.10 PPM							
8330MXA_CB(1:1)	1.0	04/28/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	04/28/15
8330MXA_CB 0.20 PPM							
8330MXA_CB(1:1)	1.0	04/28/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	04/28/15
8330MXA_CB 0.50 PPM							
8330MXA	10.0	03/05/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	04/28/15
8330MXA_CB 1.0 PPM							
8330MXA	10.0	03/05/15	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	04/28/15
8330MXA_CB 2.0 PPM							
8330MXA_CB 2.0 PPM	10.0	03/05/15	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	04/28/15

MP

Injection Log

Directory: Z:\WALDORF\CHEM32\2\DATA\150522\150522

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	0	0522_000014.D		8330CB 0.005 PPM 05/22/15		5/22/15 16:07
2	0	0522_000015.D		8330CB 0.010 PPM 05/22/15		5/22/15 16:35
3	0	0522_000016.D		8330CB 0.020 PPM 05/22/15		5/22/15 17:02
4	0	0522_000017.D		8330CB 0.050 PPM 05/22/15		5/22/15 17:30
5	0	0522_000018.D		8330CB 0.10 PPM 05/22/15		5/22/15 17:57
6	0	0522_000019.D		8330CB 0.20 PPM 05/22/15		5/22/15 18:25
7	0	0522_000020.D		8330CB 0.50 PPM 05/22/15		5/22/15 18:52
8	0	0522_000021.D		8330CB 1.0 PPM 05/22/15		5/22/15 19:20
9	0	0522_000022.D		8330MXA 2.0 PPM 05/22/15		5/22/15 19:47
10	0	0522_000023.D		8330MXB 2.0 PPM 05/22/15		5/22/15 20:15
11	0	0522_000024.D		8330CB 0.005 PPM 05/22/15		5/22/15 20:42
12	0	0522_000025.D		8330CB 0.010 PPM 05/22/15		5/22/15 21:10
13	0	0522_000026.D		8330_SS 1.0 PPM 05/22/15		5/22/15 21:37
14	0	0522_000027.D		PETN_TETRYL_SS 1.0 PPM 05/22/51		5/22/15 22:05
15	0	0522_000033.D		8330_CCV 1.0 PPM 05/22/15		5/23/15 1:30
16	0	0522_000034.D	0.016	150519ALCS-1 0.016 DF 05/19/15	Water	5/23/15 1:58
17	0	0522_000035.D	0.016	150519ABLKW 0.016 DF 05/19/15	Water	5/23/15 2:35
18	0	0522_000036.D	0.016	AZ16334W07 0.016 DF 05/19/15	Water	5/23/15 3:13
19	0	0522_000037.D	0.016	AZ16335W07 0.016 DF 05/19/15	Water	5/23/15 3:50
20	0	0522_000038.D	0.016	AZ16336W07 0.016 DF 05/19/15	Water	5/23/15 4:28
21	0	0522_000039.D	0.016	AZ16337W07 0.016 DF 05/19/15	Water	5/23/15 5:05
22	0	0522_000040.D	0.016	AZ16338W07 0.016 DF 05/19/15	Water	5/23/15 5:43
23	0	0522_000041.D	0.0163265	AZ16339W07 0.0163 DF 05/19/15	Water	5/23/15 6:20
24	0	0522_000042.D	0.01684	AZ16340W07 0.0.0168 DF 05/19/15	Water	5/23/15 6:58
25	0	0522_000043.D	0.016	AZ16341W07 0.016 DF 05/19/15	Water	5/23/15 7:35
26	0	0522_000044.D		8330_CCV 1.0 PPM 05/22/15		5/23/15 8:13
27	0	0522_000045.D	0.016	AZ16342W07 0.016 DF 05/19/15	Water	5/23/15 8:40
28	0	0522_000046.D	0.0168421	AZ16343W07 0.0168 DF 05/19/15	Water	5/23/15 9:18
29	0	0522_000059.D		8330_CCV 1.0 PPM 05/22/15		5/23/15 17:25

Injection Log

Directory: Z:\STATLER\CHEM32\1\DATA\150522\150522

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	0	0522_000009.D		8330MXA_CB 0.005 PPM 05/22/15		5/22/15 14:13
2	0	0522_000010.D		8330MXB_CV 0.005 PPM 05/22/15		5/22/15 14:52
3	0	0522_000011.D		8330MXA_CB 0.010 PPM 05/22/15		5/22/15 15:32
4	0	0522_000012.D		8330MXB_CB 0.010 PPM 05/22/15		5/22/15 16:11
5	0	0522_000013.D		8330MXA_CB 0.020 PPM 05/22/15		5/22/15 16:51
6	0	0522_000014.D		8330MXB_CB 0.020 PPM 05/22/15		5/22/15 17:30
7	0	0522_000015.D		8330MXA_CB 0.050 PPM 05/22/15		5/22/15 18:10
8	0	0522_000016.D		8330MXB_CB 0.050 PPM 05/22/15		5/22/15 18:49
9	0	0522_000017.D		8330MXA_CB 0.10 PPM 05/22/15		5/22/15 19:29
10	0	0522_000018.D		8330MXB_CB 0.10 PPM 05/22/15		5/22/15 20:08
11	0	0522_000019.D		8330MXA_CB 0.20 PPM 05/22/15		5/22/15 20:48
12	0	0522_000020.D		8330MXB_CB 0.20 PPM 05/22/15		5/22/15 21:27
13	0	0522_000021.D		8330MXA_CB 0.50 PPM 05/22/15		5/22/15 22:07
14	0	0522_000022.D		8330MXB_CB 0.50 PPM 05/22/15		5/22/15 22:46
15	0	0522_000023.D		8330MXA_CB 1.0 PPM 05/22/15		5/22/15 23:26
16	0	0522_000024.D		8330MXB_CB 1.0 PPM 05/22/15		5/23/15 0:05
17	0	0522_000025.D		8330MXA_CB 2.0 PPM 05/22/15		5/23/15 0:45
18	0	0522_000026.D		8330MXB_CB 2.0 PPM 05/22/15		5/23/15 1:24
19	0	0522_000031.D		8330MXA_SS 1.0 PPM 05/22/15		5/23/15 4:42
20	0	0522_000032.D		8330MXB_SS 1.0 PPM 05/22/15		5/23/15 5:22
21	0	0522_000033.D		PETN_TETRYL_SS 1.0 PPM 05/22/15		5/23/15 6:01
22	0	0522_000045.D		8330MXA_CCV 1.0 PPM 05/23/15		5/23/15 12:38
23	0	0522_000046.D		8330MXB_CCV 1.0 PPM 05/23/15		5/23/15 13:17
24	0	0522_000047.D	0.016	150519ABLKW 0.016 DF 05/19/15	Water	5/23/15 13:57
25	0	0522_000048.D	0.016	AZ16334W07 0.016 DF 05/19/15	Water	5/23/15 14:36
26	0	0522_000049.D	0.016	AZ16335W07 0.016 DF 05/19/15	Water	5/23/15 15:16
27	0	0522_000050.D	0.016	AZ16336W07 0.016 DF 05/19/15	Water	5/23/15 15:55
28	0	0522_000051.D	0.016	AZ16338W07 0.016 DF 05/19/15	Water	5/23/15 16:35
29	0	0522_000052.D	0.0163265	AZ16339W07 0.0163 DF 05/19/15	Water	5/23/15 17:14
30	0	0522_000053.D	0.016	AZ16342W07 0.016 DF 05/19/15	Water	5/23/15 17:54
31	0	0522_000054.D	0.0168421	AZ16343W07 0.0168 DF 05/19/15	Water	5/23/15 18:33
32	0	0522_000058.D		8330MXA_CCV 1.0 PPM 05/23/15		5/23/15 21:11
33	0	0522_000059.D		8330MXB_CCV 1.0 PPM 05/23/15		5/23/15 21:51

METALS

APPL, INC.

METALS

QC Summary

APPL, INC.

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6010C	ALUMINUM (AL)	80.00 U	300.0	80.00	27.40	ug/L	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
6010C	BORON (B)	40.00 U	50.0	40.00	29.40	ug/L	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
6010C	LITHIUM (LI)	0.80 U	1.0	0.80	0.40	ug/L	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
6010C	ZINC (ZN)	20.00 U	150.0	20.00	13.70	ug/L	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
6010C	ALUMINUM (AL) (DI	80.00 U	300.0	80.00	27.40	ug/L	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
6010C	BORON (B) (DISSO	40.00 U	50.0	40.00	29.40	ug/L	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
6010C	LITHIUM (LI) (DISSO	0.80 U	1.0	0.80	0.40	ug/L	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
6010C	ZINC (ZN) (DISSOL	20.00 U	150.0	20.00	13.70	ug/L	05/26/15	06/04/15	#61CJU-150526A3-AZ16287

Metals SC-Blank-REG MDLs
Printed: 06/18/15 11:23:03 AM

Laboratory Control Spike Recovery

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 6010C	ALUMINUM (AL) (DISSOLVED)	2000	1840	92.0	80-120	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
EPA 6010C	BORON (B) (DISSOLVED)	250	239	95.6	80-120	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
EPA 6010C	LITHIUM (LI) (DISSOLVED)	100.0	92.7	92.7	80-120	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
EPA 6010C	ZINC (ZN) (DISSOLVED)	500	468	93.6	80-120	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
EPA 6010C	ALUMINUM (AL)	2000	2020	101	80-120	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
EPA 6010C	BORON (B)	250	246	98.4	80-120	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
EPA 6010C	LITHIUM (LI)	100.0	94.5	94.5	80-120	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
EPA 6010C	ZINC (ZN)	500	480	96.0	80-120	05/26/15	06/04/15	#61CJU-150526A2-AZ16287

Comments: _____

6010C/3010A^

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER
Blank ID: 150526A2-BLK

SDG No: 76424
Date Analyzed: 06/04/15
Instrument: Jules
Time Analyzed: 1700

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ16341	S67-MW014-051315	150611A	06/11/15 1800
AZ16334	S67-MW008-051315	150611A	06/11/15 1712
150526A2-BLK	Blank	150611A	06/04/15 1700
AZ16342	S67-MW004P-051315	150611A	06/11/15 1807
150526A2-LCS	Lab Control Spike	150611A	06/04/15 1707
AZ16340	S67-MW005-051315	150611A	06/11/15 1754
AZ16339	S67-MW004-051315	150611A	06/11/15 1747
AZ16338	S67-MW013-051315	150611A	06/11/15 1740
AZ16337	S67-MW10-051315	150611A	06/11/15 1733
AZ16336	S67-MW001P-051315	150611A	06/11/15 1726
AZ16335	S67-MW001-051315	150611A	06/11/15 1719
AZ16343	S67-RB02-051315	150611A	06/11/15 1812
AZ16338	S67-MW013-051315	150612A	06/12/15 1535
AZ16335	S67-MW001-051315	150612A	06/12/15 1517
AZ16336	S67-MW001P-051315	150612A	06/12/15 1523
AZ16337	S67-MW10-051315	150612A	06/12/15 1529

Comments: Batch: #61CJU-150526A2

6010C/3010A^

Form 4

Blank Summary

Lab Name: APPL, Inc.
SDG No: 76424
Case No: 76424
Date Analyzed: 06/04/15
Matrix: WATER
Instrument: Jules
Blank ID: 150526A3-BLK
Time Analyzed: 1712

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ16341	S67-MW014-051315	150611A	06/11/15 1923
150526A3-BLK	Blank	150611A	06/04/15 1712
AZ16334	S67-MW008-051315	150611A	06/11/15 1835
AZ16342	S67-MW004P-051315	150611A	06/11/15 1930
150526A3-LCS	Lab Control Spike	150611A	06/04/15 1719
AZ16340	S67-MW005-051315	150611A	06/11/15 1916
AZ16339	S67-MW004-051315	150611A	06/11/15 1910
AZ16338	S67-MW013-051315	150611A	06/11/15 1903
AZ16337	S67-MW10-051315	150611A	06/11/15 1856
AZ16336	S67-MW001P-051315	150611A	06/11/15 1849
AZ16335	S67-MW001-051315	150611A	06/11/15 1842
AZ16343	S67-RB02-051315	150611A	06/11/15 1936
AZ16335	S67-MW001-051315	150612A	06/12/15 1542
AZ16336	S67-MW001P-051315	150612A	06/12/15 1601
AZ16337	S67-MW10-051315	150612A	06/12/15 1616
AZ16338	S67-MW013-051315	150612A	06/12/15 1622

Comments: Batch: #61CJU-150526A3

Printed: 06/19/15 10:24:22 AM
Form 4, Blank Summary

METALS

Sample Data

APPL, INC.

Metals Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW008-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16334

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	514	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	86.6	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	3.7	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	274	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	470	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	92.1	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	3.7	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	280	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15

Printed: 06/18/15 11:23:06 AM
APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 31
Sample ID: AZ16334W11
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 59
Date Collected: 06/11/15 5:12:34 PM
Data Type: Reprocessed on 06/12/15 9:41:29 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16334W11

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	220679.7	101.9	%	0.65				0.64%
Y Radial	14149.6	101.2	%	0.75				0.74%
Ag 338.289†	81.9	0.462	ug/L	0.1881	0.462	ug/L	0.1881	40.71%
Al 308.215†	659.5	513.6	ug/L	12.81	513.6	ug/L	12.81	2.49%
As 188.979†	38.7	5.254	ug/L	0.3439	5.254	ug/L	0.3439	6.55%
B 249.677†	2805.8	86.64	ug/L	0.962	86.64	ug/L	0.962	1.11%
Ba 233.527†	31282.7	74.35	ug/L	0.489	74.35	ug/L	0.489	0.66%
Be 313.107†	1269.4	0.363	ug/L	0.0074	0.363	ug/L	0.0074	2.04%
Ca 315.887†	387971.4	24890	ug/L	397.04	24890	ug/L	397.04	1.59%
Cd 214.440†	950.6	3.420	ug/L	0.0163	3.420	ug/L	0.0163	0.48%
Co 228.616†	369.1	3.633	ug/L	0.0536	3.633	ug/L	0.0536	1.48%
Cr 267.716†	55.6	0.798	ug/L	0.0315	0.798	ug/L	0.0315	3.95%
Cu 327.393†	2359.0	12.43	ug/L	0.112	12.43	ug/L	0.112	0.90%
Fe 273.955†	74509.0	975.3	ug/L	2.41	975.3	ug/L	2.41	0.25%
K 766.490†	35055.3	5252	ug/L	84.35	5252	ug/L	84.35	1.61%
Mg 285.213†	57784.5	3576	ug/L	29.55	3576	ug/L	29.55	0.83%
Mn 257.610†	20883.5	253.7	ug/L	2.18	253.7	ug/L	2.18	0.86%
Mo 202.031†	11.1	0.383	ug/L	0.2290	0.383	ug/L	0.2290	59.75%
Na 589.592†	319010.0	44320	ug/L	675.25	44320	ug/L	675.25	1.52%
Ni 231.604†	229.3	4.841	ug/L	0.0492	4.841	ug/L	0.0492	1.02%
P 213.617†	22.0	6.661	ug/L	1.6756	6.661	ug/L	1.6756	25.15%
Pb 220.353†	-8.3	-0.517	ug/L	0.6979	-0.517	ug/L	0.6979	134.98%
Sb 206.836†	3.0	0.414	ug/L	1.1010	0.414	ug/L	1.1010	265.80%
Se 196.026†	-2.5	-1.082	ug/L	0.9157	-1.082	ug/L	0.9157	84.63%
Sn 189.927†	1.4	0.249	ug/L	1.0473	0.249	ug/L	1.0473	421.27%
Sr 421.552†	57064.3	131.5	ug/L	1.96	131.5	ug/L	1.96	1.49%
Ti 337.279†	77.3	2.088	ug/L	1.2116	2.088	ug/L	1.2116	58.04%
Tl 190.801†	4.7	0.983	ug/L	0.8178	0.983	ug/L	0.8178	83.18%
V 292.402†	96.9	0.983	ug/L	0.0158	0.983	ug/L	0.0158	1.61%
Zn 206.200†	26571.7	274.1	ug/L	1.91	274.1	ug/L	1.91	0.70%
Li 670.784	64227.4	3.719	ug/L	0.0071	3.719	ug/L	0.0071	0.19%

Sequence No.: 43
Sample ID: AZ16334W12 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 69
Date Collected: 06/11/15 6:35:26 PM
Data Type: Reprocessed on 06/12/15 9:41:43 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16334W12 F

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	225468.4	104.1	%	0.64				0.61%
Y Radial	14677.3	105.0	%	0.12				0.11%
Ag 338.289†	18.4	0.104	ug/L	0.3482	0.104	ug/L	0.3482	335.66%
Al 308.215†	603.4	469.5	ug/L	13.03	469.5	ug/L	13.03	2.78%
As 188.979†	35.8	4.450	ug/L	1.3425	4.450	ug/L	1.3425	30.17%
B 249.677†	3046.9	92.12	ug/L	0.164	92.12	ug/L	0.164	0.18%
Ba 233.527†	30763.4	73.15	ug/L	0.521	73.15	ug/L	0.521	0.71%
Be 313.107†	1165.9	0.333	ug/L	0.0166	0.333	ug/L	0.0166	4.99%
Ca 315.887†	408414.1	26210	ug/L	125.80	26210	ug/L	125.80	0.48%
Cd 214.440†	1028.2	3.740	ug/L	0.0362	3.740	ug/L	0.0362	0.97%
Co 228.616†	377.9	3.738	ug/L	0.1102	3.738	ug/L	0.1102	2.95%
Cr 267.716†	29.6	0.498	ug/L	0.0684	0.498	ug/L	0.0684	13.73%
Cu 327.393†	2204.4	11.64	ug/L	0.489	11.64	ug/L	0.489	4.20%
Fe 273.955†	19649.8	256.5	ug/L	1.29	256.5	ug/L	1.29	0.50%
K 766.490†	36215.0	5426	ug/L	32.55	5426	ug/L	32.55	0.60%
Mg 285.213†	58397.7	3613	ug/L	45.36	3613	ug/L	45.36	1.26%
Mn 257.610†	21727.2	264.0	ug/L	3.21	264.0	ug/L	3.21	1.22%
Mo 202.031†	18.3	0.578	ug/L	0.1175	0.578	ug/L	0.1175	20.32%
Na 589.592†	329612.8	45800	ug/L	304.60	45800	ug/L	304.60	0.67%
Ni 231.604†	243.7	5.132	ug/L	0.1131	5.132	ug/L	0.1131	2.20%
P 213.617†	33.5	10.14	ug/L	1.303	10.14	ug/L	1.303	12.85%
Pb 220.353†	-8.2	-0.325	ug/L	0.3804	-0.325	ug/L	0.3804	117.11%
Sb 206.836†	4.1	0.557	ug/L	1.0962	0.557	ug/L	1.0962	196.95%
Se 196.026†	-0.7	-0.834	ug/L	1.8957	-0.834	ug/L	1.8957	227.29%
Sn 189.927†	4.2	0.737	ug/L	0.4467	0.737	ug/L	0.4467	60.64%
Sr 421.552†	59244.6	136.5	ug/L	0.93	136.5	ug/L	0.93	0.68%
Ti 337.279†	46.7	1.223	ug/L	0.7877	1.223	ug/L	0.7877	64.43%
Tl 190.801†	-2.0	-0.420	ug/L	1.5280	-0.420	ug/L	1.5280	364.08%
V 292.402†	58.8	0.596	ug/L	0.0265	0.596	ug/L	0.0265	4.44%
Zn 206.200†	27141.6	280.0	ug/L	1.50	280.0	ug/L	1.50	0.54%
Li 670.784	64431.8	3.731	ug/L	0.0393	3.731	ug/L	0.0393	1.05%

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908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW001-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16335

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	141 J	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	70.6	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	7.7	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	2790 J	3000.0	400.00	274.00	ug/L	20	05/26/15	06/12/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	103 J	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	74.0	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	7.9	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	2860 J	3000.0	400.00	274.00	ug/L	20	05/26/15	06/12/15

J = Estimated value.

Printed: 06/18/15 11:23:06 AM

APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 32
Sample ID: AZ16335W12
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 60
Date Collected: 06/11/15 5:19:38 PM
Data Type: Reprocessed on 06/12/15 9:41:30 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16335W12

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	222113.9	102.6	%	0.67				0.66%
Y Radial	14455.2	103.4	%	1.01				0.98%
Ag 338.289†	38.3	0.216	ug/L	0.3044	0.216	ug/L	0.3044	141.07%
Al 308.215†	181.8	140.6	ug/L	11.13	140.6	ug/L	11.13	7.91%
As 188.979†	42.2	6.802	ug/L	1.3000	6.802	ug/L	1.3000	19.11%
B 249.677†	2341.8	70.56	ug/L	0.496	70.56	ug/L	0.496	0.70%
Ba 233.527†	27972.0	66.52	ug/L	0.028	66.52	ug/L	0.028	0.04%
Be 313.107†	1061.9	0.304	ug/L	0.0022	0.304	ug/L	0.0022	0.72%
Ca 315.887†	226934.3	14560	ug/L	131.01	14560	ug/L	131.01	0.90%
Cd 214.440†	3020.4	10.46	ug/L	0.050	10.46	ug/L	0.050	0.48%
Co 228.616†	424.1	4.262	ug/L	0.0652	4.262	ug/L	0.0652	1.53%
Cr 267.716†	47.3	0.646	ug/L	0.0473	0.646	ug/L	0.0473	7.32%
Cu 327.393†	74516.8	398.3	ug/L	1.00	398.3	ug/L	1.00	0.25%
Fe 273.955†	6126.8	79.73	ug/L	0.587	79.73	ug/L	0.587	0.74%
K 766.490†	17295.4	2596	ug/L	24.82	2596	ug/L	24.82	0.96%
Mg 285.213†	31719.0	1963	ug/L	6.69	1963	ug/L	6.69	0.34%
Mn 257.610†	11995.8	145.7	ug/L	0.34	145.7	ug/L	0.34	0.23%
Mo 202.031†	1.4	0.331	ug/L	0.1572	0.331	ug/L	0.1572	47.47%
Na 589.592†	117968.1	16390	ug/L	166.17	16390	ug/L	166.17	1.01%
Ni 231.604†	300.3	6.098	ug/L	0.0679	6.098	ug/L	0.0679	1.11%
P 213.617†	-91.9	-27.85	ug/L	0.879	-27.85	ug/L	0.879	3.16%
Pb 220.353†	20.4	3.782	ug/L	0.8406	3.782	ug/L	0.8406	22.23%
Sb 206.836†	62.3	8.525	ug/L	1.0583	8.525	ug/L	1.0583	12.41%
Se 196.026†	23.2	7.114	ug/L	2.4258	7.114	ug/L	2.4258	34.10%
Sn 189.927†	-2.8	-0.484	ug/L	1.2550	-0.484	ug/L	1.2550	259.26%
Sr 421.552†	33165.3	76.41	ug/L	0.936	76.41	ug/L	0.936	1.22%
Ti 337.279†	36.8	0.979	ug/L	0.6740	0.979	ug/L	0.6740	68.85%
Tl 190.801†	-0.9	-0.194	ug/L	0.2125	-0.194	ug/L	0.2125	109.57%
V 292.402†	64.7	0.657	ug/L	0.0562	0.657	ug/L	0.0562	8.56%
Zn 206.200†	245527.4	2520	ug/L	3.50	2520	ug/L	3.50	0.14%
Li 670.784	133097.9	7.708	ug/L	0.0493	7.708	ug/L	0.0493	0.64%

Sequence No.: 44
Sample ID: AZ16335W11 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 70
Date Collected: 06/11/15 6:42:27 PM
Data Type: Reprocessed on 06/12/15 9:41:44 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16335W11 F

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	225001.6	103.9	%	0.21				0.20%
Y Radial	14565.9	104.2	%	0.89				0.85%
Ag 338.289†	74.5	0.420	ug/L	0.5977	0.420	ug/L	0.5977	142.20%
Al 308.215†	134.4	103.3	ug/L	1.22	103.3	ug/L	1.22	1.18%
As 188.979†	25.4	3.553	ug/L	0.1132	3.553	ug/L	0.1132	3.19%
B 249.677†	2460.3	73.97	ug/L	0.500	73.97	ug/L	0.500	0.68%
Ba 233.527†	28303.9	67.31	ug/L	0.101	67.31	ug/L	0.101	0.15%
Be 313.107†	1181.6	0.338	ug/L	0.0013	0.338	ug/L	0.0013	0.38%
Ca 315.887†	221708.7	14230	ug/L	126.17	14230	ug/L	126.17	0.89%
Cd 214.440†	3170.8	10.98	ug/L	0.014	10.98	ug/L	0.014	0.13%
Co 228.616†	455.7	4.588	ug/L	0.0899	4.588	ug/L	0.0899	1.96%
Cr 267.716†	8.0	0.161	ug/L	0.0899	0.161	ug/L	0.0899	55.87%
Cu 327.393†	80961.8	432.7	ug/L	1.63	432.7	ug/L	1.63	0.38%
Fe 273.955†	970.0	12.18	ug/L	0.176	12.18	ug/L	0.176	1.44%
K 766.490†	17842.9	2678	ug/L	29.87	2678	ug/L	29.87	1.12%
Mg 285.213†	32427.1	2006	ug/L	5.50	2006	ug/L	5.50	0.27%
Mn 257.610†	12801.7	155.5	ug/L	0.37	155.5	ug/L	0.37	0.24%
Mo 202.031†	4.9	0.451	ug/L	0.3724	0.451	ug/L	0.3724	82.64%
Na 589.592†	123471.4	17150	ug/L	187.39	17150	ug/L	187.39	1.09%
Ni 231.604†	317.2	6.425	ug/L	0.0592	6.425	ug/L	0.0592	0.92%
P 213.617†	-153.3	-46.45	ug/L	1.048	-46.45	ug/L	1.048	2.26%
Pb 220.353†	11.6	2.270	ug/L	0.5688	2.270	ug/L	0.5688	25.06%
Sb 206.836†	-1.1	-0.151	ug/L	1.3246	-0.151	ug/L	1.3246	874.53%
Se 196.026†	17.7	5.342	ug/L	1.5294	5.342	ug/L	1.5294	28.63%
Sn 189.927†	-5.7	-1.001	ug/L	0.5750	-1.001	ug/L	0.5750	57.42%
Sr 421.552†	32233.1	74.26	ug/L	0.902	74.26	ug/L	0.902	1.21%
Ti 337.279†	21.6	0.547	ug/L	0.4102	0.547	ug/L	0.4102	74.96%
Tl 190.801†	0.3	0.054	ug/L	1.9242	0.054	ug/L	1.9242	>999.9%
V 292.402†	40.2	0.408	ug/L	0.0547	0.408	ug/L	0.0547	13.40%
Zn 206.200†	260568.8	2674	ug/L	9.50	2674	ug/L	9.50	0.36%
Li 670.784	135863.4	7.868	ug/L	0.0286	7.868	ug/L	0.0286	0.36%

Sequence No.: 18
Sample ID: AZ16335W12-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 20X
Wash Time:

Autosampler Location: 38
Date Collected: 06/12/15 3:17:01 PM
Data Type: Reprocessed on 06/15/15 10:36:01 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16335W12-1/20

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	206785.0	101.8	%	0.79				0.78%
Y Radial	13642.9	104.0	%	0.72				0.70%
Ag 338.289†	68.7	0.423	ug/L	0.4001	8.462	ug/L	8.0019	94.56%
Al 308.215†	-2.6	-2.441	ug/L	5.5490	-48.83	ug/L	110.980	227.28%
As 188.979†	1.2	0.186	ug/L	1.3830	3.710	ug/L	27.6608	745.48%
B 249.677†	155.3	5.075	ug/L	0.1031	101.5	ug/L	2.06	2.03%
Ba 233.527†	1347.6	3.617	ug/L	0.0606	72.33	ug/L	1.213	1.68%
Be 313.107†	22.6	0.007	ug/L	0.0086	0.140	ug/L	0.1716	122.78%
Ca 315.887†	10013.9	776.1	ug/L	7.10	15520	ug/L	141.98	0.91%
Cd 214.440†	113.0	0.468	ug/L	0.0667	9.361	ug/L	1.3334	14.24%
Co 228.616†	47.5	0.545	ug/L	0.2071	10.90	ug/L	4.142	37.99%
Cr 267.716†	-4.7	-0.057	ug/L	0.1088	-1.134	ug/L	2.1756	191.84%
Cu 327.393†	6290.1	35.46	ug/L	1.312	709.2	ug/L	26.24	3.70%
Fe 273.955†	764.5	11.28	ug/L	0.150	225.6	ug/L	2.99	1.33%
K 766.490†	858.6	148.5	ug/L	1.27	2969	ug/L	25.39	0.86%
Mg 285.213†	1451.0	102.2	ug/L	1.52	2045	ug/L	30.47	1.49%
Mn 257.610†	580.9	8.255	ug/L	0.1569	165.1	ug/L	3.14	1.90%
Mo 202.031†	16.5	0.553	ug/L	0.0846	11.07	ug/L	1.692	15.29%
Na 589.592†	5575.9	968.6	ug/L	17.62	19370	ug/L	352.38	1.82%
Ni 231.604†	23.5	0.545	ug/L	0.0758	10.91	ug/L	1.515	13.89%
P 213.617†	11.2	3.898	ug/L	0.3627	77.96	ug/L	7.255	9.31%
Pb 220.353†	8.0	1.469	ug/L	0.5213	29.37	ug/L	10.426	35.49%
Sb 206.836†	7.4	1.161	ug/L	0.4339	23.22	ug/L	8.677	37.37%
Se 196.026†	-2.6	-0.960	ug/L	0.7750	-19.20	ug/L	15.499	80.74%
Sn 189.927†	1.4	0.289	ug/L	0.4660	5.777	ug/L	9.3207	161.35%
Sr 421.552†	1680.7	5.030	ug/L	0.0819	100.6	ug/L	1.64	1.63%
Ti 337.279†	6.4	0.198	ug/L	0.4427	3.951	ug/L	8.8549	224.12%
Tl 190.801†	-0.4	-0.075	ug/L	1.2617	-1.501	ug/L	25.2337	>999.9%
V 292.402†	14.5	0.155	ug/L	0.0589	3.103	ug/L	1.1771	37.93%
Zn 206.200†	11164.1	139.3	ug/L	1.35	2786	ug/L	26.92	0.97%
Li 670.784	9385.8	0.608	ug/L	0.0033	12.15	ug/L	0.067	0.55%

Sequence No.: 22
Sample ID: AZ16335W11-1/20 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 20X
Wash Time:

Autosampler Location: 42
Date Collected: 06/12/15 3:42:01 PM
Data Type: Reprocessed on 06/15/15 10:36:05 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16335W11-1/20 F

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	203737.9	100.3	%	0.60				0.60%
Y Radial	13601.1	103.7	%	0.60				0.58%
Ag 338.289†	13.1	0.080	ug/L	0.4167	1.607	ug/L	8.3345	518.53%
Al 308.215†	-11.8	-10.52	ug/L	2.248	-210.3	ug/L	44.97	21.38%
As 188.979†	4.2	0.852	ug/L	1.1029	17.05	ug/L	22.058	129.39%
B 249.677†	137.7	4.483	ug/L	0.0729	89.65	ug/L	1.459	1.63%
Ba 233.527†	1353.3	3.632	ug/L	0.0635	72.64	ug/L	1.270	1.75%
Be 313.107†	-12.7	-0.004	ug/L	0.0105	-0.079	ug/L	0.2093	266.40%
Ca 315.887†	9738.6	754.8	ug/L	1.69	15100	ug/L	33.81	0.22%
Cd 214.440†	122.0	0.505	ug/L	0.0349	10.10	ug/L	0.699	6.92%
Co 228.616†	50.4	0.580	ug/L	0.1054	11.59	ug/L	2.109	18.19%
Cr 267.716†	-11.8	-0.148	ug/L	0.1276	-2.966	ug/L	2.5521	86.03%
Cu 327.393†	4390.8	24.74	ug/L	0.212	494.9	ug/L	4.24	0.86%
Fe 273.955†	253.1	3.713	ug/L	0.2615	74.25	ug/L	5.229	7.04%
K 766.490†	875.2	151.4	ug/L	9.36	3027	ug/L	187.25	6.19%
Mg 285.213†	1450.3	102.2	ug/L	0.91	2044	ug/L	18.20	0.89%
Mn 257.610†	579.3	8.233	ug/L	0.1080	164.7	ug/L	2.16	1.31%
Mo 202.031†	22.8	0.757	ug/L	0.1371	15.15	ug/L	2.742	18.10%
Na 589.592†	5737.4	996.6	ug/L	18.22	19930	ug/L	364.49	1.83%
Ni 231.604†	19.0	0.440	ug/L	0.1543	8.803	ug/L	3.0851	35.04%
P 213.617†	7.1	2.465	ug/L	1.5154	49.29	ug/L	30.307	61.48%
Pb 220.353†	-3.3	-0.593	ug/L	1.0437	-11.85	ug/L	20.875	176.12%
Sb 206.836†	-8.5	-1.337	ug/L	0.7532	-26.73	ug/L	15.064	56.35%
Se 196.026†	-1.3	-0.509	ug/L	1.8412	-10.18	ug/L	36.825	361.89%
Sn 189.927†	0.2	0.031	ug/L	0.2923	0.622	ug/L	5.8463	939.60%
Sr 421.552†	1640.6	4.910	ug/L	0.0535	98.21	ug/L	1.070	1.09%
Ti 337.279†	2.4	0.073	ug/L	0.2120	1.455	ug/L	4.2410	291.54%
Tl 190.801†	0.6	0.112	ug/L	1.3311	2.240	ug/L	26.6214	>999.9%
V 292.402†	10.4	0.111	ug/L	0.0380	2.214	ug/L	0.7596	34.31%
Zn 206.200†	11476.7	143.2	ug/L	1.27	2864	ug/L	25.33	0.88%
Li 670.784	5926.4	0.384	ug/L	0.0034	7.673	ug/L	0.0672	0.88%

Metals Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-MW001P-051315

APPL ID: AZ16336

Sample Collection Date: 05/13/15

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	149 J	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	70.3	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	7.5	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	2760 J	3000.0	400.00	274.00	ug/L	20	05/26/15	06/12/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	107 J	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	72.5	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	7.8	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	2810 J	3000.0	400.00	274.00	ug/L	20	05/26/15	06/12/15

J = Estimated value.

Printed: 06/18/15 11:23:06 AM

APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 33
Sample ID: AZ16336W12
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 61
Date Collected: 06/11/15 5:26:40 PM
Data Type: Reprocessed on 06/12/15 9:41:31 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16336W12

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	222022.8	102.5	%	1.37				1.34%
Y Radial	13922.5	99.60	%	0.838				0.84%
Ag 338.289†	80.0	0.451	ug/L	0.1248	0.451	ug/L	0.1248	27.66%
Al 308.215†	192.2	148.7	ug/L	4.56	148.7	ug/L	4.56	3.07%
As 188.979†	21.9	2.793	ug/L	0.3316	2.793	ug/L	0.3316	11.87%
B 249.677†	2333.1	70.31	ug/L	1.377	70.31	ug/L	1.377	1.96%
Ba 233.527†	27802.9	66.12	ug/L	0.718	66.12	ug/L	0.718	1.09%
Be 313.107†	1077.4	0.308	ug/L	0.0108	0.308	ug/L	0.0108	3.49%
Ca 315.887†	233516.0	14980	ug/L	34.02	14980	ug/L	34.02	0.23%
Cd 214.440†	2979.7	10.32	ug/L	0.094	10.32	ug/L	0.094	0.91%
Co 228.616†	423.6	4.255	ug/L	0.1147	4.255	ug/L	0.1147	2.69%
Cr 267.716†	32.4	0.470	ug/L	0.1195	0.470	ug/L	0.1195	25.43%
Cu 327.393†	74496.0	398.1	ug/L	4.11	398.1	ug/L	4.11	1.03%
Fe 273.955†	6556.0	85.34	ug/L	1.199	85.34	ug/L	1.199	1.41%
K 766.490†	17829.5	2676	ug/L	10.04	2676	ug/L	10.04	0.38%
Mg 285.213†	32204.5	1993	ug/L	1.29	1993	ug/L	1.29	0.06%
Mn 257.610†	12232.5	148.6	ug/L	0.18	148.6	ug/L	0.18	0.12%
Mo 202.031†	1.4	0.330	ug/L	0.0842	0.330	ug/L	0.0842	25.52%
Na 589.592†	122898.0	17070	ug/L	70.95	17070	ug/L	70.95	0.42%
Ni 231.604†	287.6	5.844	ug/L	0.0946	5.844	ug/L	0.0946	1.62%
P 213.617†	-145.2	-44.01	ug/L	1.116	-44.01	ug/L	1.116	2.54%
Pb 220.353†	14.6	2.820	ug/L	0.1820	2.820	ug/L	0.1820	6.45%
Sb 206.836†	2.6	0.362	ug/L	0.2079	0.362	ug/L	0.2079	57.42%
Se 196.026†	23.2	7.090	ug/L	1.4799	7.090	ug/L	1.4799	20.87%
Sn 189.927†	-7.9	-1.386	ug/L	0.1686	-1.386	ug/L	0.1686	12.16%
Sr 421.552†	34202.7	78.80	ug/L	0.500	78.80	ug/L	0.500	0.63%
Ti 337.279†	32.3	0.850	ug/L	0.3467	0.850	ug/L	0.3467	40.79%
Tl 190.801†	6.4	1.338	ug/L	1.9126	1.338	ug/L	1.9126	142.99%
V 292.402†	67.3	0.683	ug/L	0.0191	0.683	ug/L	0.0191	2.79%
Zn 206.200†	245899.5	2524	ug/L	25.79	2524	ug/L	25.79	1.02%
Li 670.784	129418.6	7.495	ug/L	0.0449	7.495	ug/L	0.0449	0.60%

Sequence No.: 45
Sample ID: AZ16336W11 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 71
Date Collected: 06/11/15 6:49:29 PM
Data Type: Reprocessed on 06/12/15 9:41:45 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16336W11 F

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	226434.9	104.6	%	0.21				0.20%
Y Radial	14690.3	105.1	%	0.71				0.68%
Ag 338.289†	85.0	0.479	ug/L	0.2205	0.479	ug/L	0.2205	46.03%
Al 308.215†	139.6	107.4	ug/L	9.00	107.4	ug/L	9.00	8.38%
As 188.979†	25.0	3.492	ug/L	0.6929	3.492	ug/L	0.6929	19.84%
B 249.677†	2410.8	72.49	ug/L	0.478	72.49	ug/L	0.478	0.66%
Ba 233.527†	27936.2	66.44	ug/L	0.053	66.44	ug/L	0.053	0.08%
Be 313.107†	1164.6	0.333	ug/L	0.0027	0.333	ug/L	0.0027	0.82%
Ca 315.887†	218577.6	14030	ug/L	126.51	14030	ug/L	126.51	0.90%
Cd 214.440†	3093.5	10.71	ug/L	0.032	10.71	ug/L	0.032	0.29%
Co 228.616†	455.8	4.591	ug/L	0.0999	4.591	ug/L	0.0999	2.18%
Cr 267.716†	25.9	0.375	ug/L	0.0138	0.375	ug/L	0.0138	3.69%
Cu 327.393†	81458.9	435.4	ug/L	0.47	435.4	ug/L	0.47	0.11%
Fe 273.955†	1190.0	15.07	ug/L	0.427	15.07	ug/L	0.427	2.83%
K 766.490†	17674.0	2652	ug/L	25.97	2652	ug/L	25.97	0.98%
Mg 285.213†	32141.7	1989	ug/L	13.14	1989	ug/L	13.14	0.66%
Mn 257.610†	12933.3	157.1	ug/L	1.00	157.1	ug/L	1.00	0.64%
Mo 202.031†	11.7	0.641	ug/L	0.0467	0.641	ug/L	0.0467	7.29%
Na 589.592†	124554.0	17300	ug/L	216.63	17300	ug/L	216.63	1.25%
Ni 231.604†	340.9	6.902	ug/L	0.2515	6.902	ug/L	0.2515	3.64%
P 213.617†	-158.1	-47.93	ug/L	1.834	-47.93	ug/L	1.834	3.83%
Pb 220.353†	7.0	1.497	ug/L	0.6565	1.497	ug/L	0.6565	43.87%
Sb 206.836†	-0.8	-0.116	ug/L	0.8858	-0.116	ug/L	0.8858	765.56%
Se 196.026†	22.8	6.963	ug/L	1.6220	6.963	ug/L	1.6220	23.30%
Sn 189.927†	-7.0	-1.227	ug/L	0.8329	-1.227	ug/L	0.8329	67.90%
Sr 421.552†	32345.7	74.53	ug/L	1.063	74.53	ug/L	1.063	1.43%
Ti 337.279†	8.0	0.166	ug/L	0.9343	0.166	ug/L	0.9343	562.48%
Tl 190.801†	-5.3	-1.121	ug/L	1.1324	-1.121	ug/L	1.1324	101.03%
V 292.402†	39.6	0.402	ug/L	0.0741	0.402	ug/L	0.0741	18.44%
Zn 206.200†	257015.5	2638	ug/L	3.11	2638	ug/L	3.11	0.12%
Li 670.784	134821.8	7.807	ug/L	0.0166	7.807	ug/L	0.0166	0.21%

Sequence No.: 19
Sample ID: AZ16336W12-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 20X
Wash Time:

Autosampler Location: 39
Date Collected: 06/12/15 3:23:16 PM
Data Type: Reprocessed on 06/15/15 10:36:02 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16336W12-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	202343.3	99.58	%	0.601				0.60%
Y Radial	13621.0	103.8	%	0.06				0.06%
Ag 338.289†	23.5	0.145	ug/L	0.1483	2.890	ug/L	2.9659	102.61%
Al 308.215†	-10.5	-9.343	ug/L	3.4507	-186.9	ug/L	69.01	36.93%
As 188.979†	0.9	0.112	ug/L	0.9282	2.241	ug/L	18.5642	828.28%
B 249.677†	146.1	4.771	ug/L	0.2183	95.42	ug/L	4.366	4.58%
Ba 233.527†	1357.6	3.643	ug/L	0.0155	72.87	ug/L	0.310	0.43%
Be 313.107†	-12.8	-0.004	ug/L	0.0064	-0.079	ug/L	0.1288	163.00%
Ca 315.887†	9873.4	765.2	ug/L	1.99	15300	ug/L	39.76	0.26%
Cd 214.440†	114.2	0.472	ug/L	0.0716	9.449	ug/L	1.4311	15.15%
Co 228.616†	36.1	0.414	ug/L	0.0468	8.287	ug/L	0.9366	11.30%
Cr 267.716†	-3.4	-0.040	ug/L	0.0749	-0.800	ug/L	1.4989	187.29%
Cu 327.393†	4820.8	27.17	ug/L	0.195	543.4	ug/L	3.91	0.72%
Fe 273.955†	613.1	9.040	ug/L	0.1474	180.8	ug/L	2.95	1.63%
K 766.490†	855.0	147.9	ug/L	10.03	2957	ug/L	200.69	6.79%
Mg 285.213†	1427.9	100.6	ug/L	0.27	2012	ug/L	5.45	0.27%
Mn 257.610†	555.4	7.893	ug/L	0.1460	157.9	ug/L	2.92	1.85%
Mo 202.031†	15.5	0.519	ug/L	0.1816	10.39	ug/L	3.632	34.97%
Na 589.592†	5468.3	949.9	ug/L	4.83	19000	ug/L	96.66	0.51%
Ni 231.604†	19.6	0.456	ug/L	0.0742	9.124	ug/L	1.4839	16.26%
P 213.617†	3.5	1.198	ug/L	1.3878	23.96	ug/L	27.756	115.82%
Pb 220.353†	8.1	1.486	ug/L	0.8203	29.71	ug/L	16.407	55.22%
Sb 206.836†	-2.9	-0.453	ug/L	0.9303	-9.067	ug/L	18.6063	205.21%
Se 196.026†	-6.3	-2.345	ug/L	2.4663	-46.89	ug/L	49.326	105.19%
Sn 189.927†	0.9	0.173	ug/L	0.6674	3.467	ug/L	13.3470	384.94%
Sr 421.552†	1662.8	4.977	ug/L	0.0414	99.54	ug/L	0.827	0.83%
Ti 337.279†	-10.4	-0.331	ug/L	0.3649	-6.620	ug/L	7.2985	110.24%
Tl 190.801†	-4.8	-0.950	ug/L	0.0928	-18.99	ug/L	1.857	9.78%
V 292.402†	12.9	0.138	ug/L	0.0588	2.757	ug/L	1.1753	42.62%
Zn 206.200†	11050.7	137.9	ug/L	0.80	2757	ug/L	16.00	0.58%
Li 670.784	7933.5	0.514	ug/L	0.0024	10.27	ug/L	0.048	0.47%

Sequence No.: 23
Sample ID: AZ16336W11-1/20 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 20X
Wash Time:

Autosampler Location: 43
Date Collected: 06/12/15 4:01:03 PM
Data Type: Reprocessed on 06/15/15 10:36:06 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16336W11-1/20 F

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	203335.3	100.1	%	0.56				0.56%
Y Radial	13733.2	104.7	%	0.46				0.44%
Ag 338.289†	-28.2	-0.174	ug/L	0.2125	-3.477	ug/L	4.2502	122.22%
Al 308.215†	-8.7	-7.727	ug/L	3.5298	-154.5	ug/L	70.60	45.68%
As 188.979†	-0.8	-0.249	ug/L	1.0925	-4.979	ug/L	21.8493	438.86%
B 249.677†	118.7	3.864	ug/L	0.5710	77.29	ug/L	11.420	14.78%
Ba 233.527†	1327.4	3.563	ug/L	0.0124	71.25	ug/L	0.247	0.35%
Be 313.107†	-46.1	-0.014	ug/L	0.0077	-0.285	ug/L	0.1545	54.16%
Ca 315.887†	9483.8	735.0	ug/L	2.10	14700	ug/L	41.99	0.29%
Cd 214.440†	108.2	0.448	ug/L	0.0647	8.968	ug/L	1.2946	14.44%
Co 228.616†	43.6	0.502	ug/L	0.0926	10.03	ug/L	1.852	18.46%
Cr 267.716†	-11.9	-0.151	ug/L	0.1163	-3.017	ug/L	2.3250	77.08%
Cu 327.393†	4275.5	24.09	ug/L	0.031	481.9	ug/L	0.61	0.13%
Fe 273.955†	282.1	4.143	ug/L	0.4017	82.87	ug/L	8.034	9.70%
K 766.490†	866.0	149.8	ug/L	10.87	2995	ug/L	217.46	7.26%
Mg 285.213†	1409.6	99.32	ug/L	0.206	1986	ug/L	4.12	0.21%
Mn 257.610†	580.9	8.255	ug/L	0.1817	165.1	ug/L	3.63	2.20%
Mo 202.031†	22.6	0.752	ug/L	0.2828	15.04	ug/L	5.655	37.60%
Na 589.592†	5660.1	983.2	ug/L	6.56	19660	ug/L	131.19	0.67%
Ni 231.604†	16.4	0.381	ug/L	0.4610	7.628	ug/L	9.2195	120.86%
P 213.617†	-9.9	-3.421	ug/L	0.6743	-68.41	ug/L	13.486	19.71%
Pb 220.353†	-0.4	-0.053	ug/L	0.9173	-1.066	ug/L	18.3454	>999.9%
Sb 206.836†	-3.7	-0.590	ug/L	1.0371	-11.79	ug/L	20.741	175.92%
Se 196.026†	-1.0	-0.371	ug/L	0.5066	-7.422	ug/L	10.1320	136.52%
Sn 189.927†	0.2	0.043	ug/L	0.2529	0.855	ug/L	5.0589	591.84%
Sr 421.552†	1579.1	4.726	ug/L	0.0373	94.52	ug/L	0.745	0.79%
Ti 337.279†	8.2	0.255	ug/L	0.0526	5.096	ug/L	1.0520	20.64%
Tl 190.801†	-2.5	-0.500	ug/L	1.4900	-10.01	ug/L	29.801	297.74%
V 292.402†	10.7	0.115	ug/L	0.0426	2.292	ug/L	0.8512	37.13%
Zn 206.200†	11264.5	140.5	ug/L	0.97	2811	ug/L	19.32	0.69%
Li 670.784	5240.4	0.339	ug/L	0.0060	6.785	ug/L	0.1190	1.75%

Metals Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW10-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16337

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	4360	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	55.1	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	14.3	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	6840	3000.0	400.00	274.00	ug/L	20	05/26/15	06/12/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	3860	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	56.3	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	12.4	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	5840	3000.0	400.00	274.00	ug/L	20	05/26/15	06/12/15

Printed: 06/18/15 11:23:06 AM
APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 34
Sample ID: AZ16337W12
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 62
Date Collected: 06/11/15 5:33:43 PM
Data Type: Reprocessed on 06/12/15 9:41:32 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16337W12

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	261408.4	120.7	%	1.40				1.16%
Y Radial	17253.7	123.4	%	0.16				0.13%
Ag 338.289†	178.3	1.006	ug/L	0.0626	1.006	ug/L	0.0626	6.22%
Al 308.215†	5561.4	4356	ug/L	13.82	4356	ug/L	13.82	0.32%
As 188.979†	24.1	7.632	ug/L	2.1681	7.632	ug/L	2.1681	28.41%
B 249.677†	-808.5	55.11	ug/L	0.687	55.11	ug/L	0.687	1.25%
Ba 233.527†	10387.4	22.91	ug/L	0.323	22.91	ug/L	0.323	1.41%
Be 313.107†	6905.8	1.975	ug/L	0.0290	1.975	ug/L	0.0290	1.47%
Ca 315.887†	253239.4	16250	ug/L	24.46	16250	ug/L	24.46	0.15%
Cd 214.440†	5468.0	16.91	ug/L	0.197	16.91	ug/L	0.197	1.17%
Co 228.616†	5129.6	51.65	ug/L	0.533	51.65	ug/L	0.533	1.03%
Cr 267.716†	64.5	0.290	ug/L	0.1249	0.290	ug/L	0.1249	43.01%
Cu 327.393†	107084.3	570.3	ug/L	5.55	570.3	ug/L	5.55	0.97%
Fe 273.955†	2466756.1	32320	ug/L	274.98	32320	ug/L	274.98	0.85%
K 766.490†	15412.1	2265	ug/L	7.81	2265	ug/L	7.81	0.34%
Mg 285.213†	183502.9	11380	ug/L	28.06	11380	ug/L	28.06	0.25%
Mn 257.610†	54041.8	656.5	ug/L	0.76	656.5	ug/L	0.76	0.12%
Mo 202.031†	-27.2	0.476	ug/L	0.1651	0.476	ug/L	0.1651	34.64%
Na 589.592†	330080.3	45860	ug/L	144.60	45860	ug/L	144.60	0.32%
Ni 231.604†	1957.6	39.92	ug/L	0.516	39.92	ug/L	0.516	1.29%
P 213.617†	-309.6	-93.84	ug/L	1.478	-93.84	ug/L	1.478	1.58%
Pb 220.353†	13.7	-2.194	ug/L	1.3254	-2.194	ug/L	1.3254	60.42%
Sb 206.836†	-0.7	-0.089	ug/L	0.3910	-0.089	ug/L	0.3910	437.88%
Se 196.026†	-12.1	8.234	ug/L	0.8523	8.234	ug/L	0.8523	10.35%
Sn 189.927†	-17.9	-3.140	ug/L	0.2166	-3.140	ug/L	0.2166	6.90%
Sr 421.552†	35944.6	82.76	ug/L	0.217	82.76	ug/L	0.217	0.26%
Ti 337.279†	75.3	1.865	ug/L	0.5344	1.865	ug/L	0.5344	28.65%
Tl 190.801†	-8.3	-1.751	ug/L	1.0109	-1.751	ug/L	1.0109	57.74%
V 292.402†	250.5	2.540	ug/L	0.0713	2.540	ug/L	0.0713	2.81%
Zn 206.200†	529660.5	5434	ug/L	43.20	5434	ug/L	43.20	0.79%
Li 670.784	246176.6	14.26	ug/L	0.061	14.26	ug/L	0.061	0.43%

Sequence No.: 46
Sample ID: AZ16337W11 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 72
Date Collected: 06/11/15 6:56:31 PM
Data Type: Reprocessed on 06/12/15 9:41:46 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16337W11 F

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	265111.8	122.4	%	1.56				1.27%
Y Radial	17831.9	127.6	%	1.88				1.47%
Ag 338.289†	169.7	0.957	ug/L	0.1484	0.957	ug/L	0.1484	15.50%
Al 308.215†	4933.9	3864	ug/L	32.36	3864	ug/L	32.36	0.84%
As 188.979†	24.4	7.072	ug/L	0.7731	7.072	ug/L	0.7731	10.93%
B 249.677†	-317.0	56.29	ug/L	0.161	56.29	ug/L	0.161	0.29%
Ba 233.527†	10103.2	22.54	ug/L	0.242	22.54	ug/L	0.242	1.07%
Be 313.107†	6335.3	1.812	ug/L	0.0282	1.812	ug/L	0.0282	1.55%
Ca 315.887†	230627.7	14800	ug/L	310.31	14800	ug/L	310.31	2.10%
Cd 214.440†	4824.7	15.05	ug/L	0.171	15.05	ug/L	0.171	1.14%
Co 228.616†	4510.0	45.45	ug/L	0.516	45.45	ug/L	0.516	1.14%
Cr 267.716†	54.0	0.234	ug/L	0.1207	0.234	ug/L	0.1207	51.55%
Cu 327.393†	91734.4	488.5	ug/L	0.80	488.5	ug/L	0.80	0.16%
Fe 273.955†	2044660.7	26790	ug/L	16.47	26790	ug/L	16.47	0.06%
K 766.490†	14709.8	2163	ug/L	50.10	2163	ug/L	50.10	2.32%
Mg 285.213†	163444.3	10130	ug/L	216.46	10130	ug/L	216.46	2.14%
Mn 257.610†	47305.7	574.7	ug/L	4.77	574.7	ug/L	4.77	0.83%
Mo 202.031†	-25.0	0.360	ug/L	0.1032	0.360	ug/L	0.1032	28.71%
Na 589.592†	322221.4	44770	ug/L	1121.78	44770	ug/L	1121.78	2.51%
Ni 231.604†	1737.1	35.39	ug/L	0.362	35.39	ug/L	0.362	1.02%
P 213.617†	-240.2	-72.80	ug/L	2.051	-72.80	ug/L	2.051	2.82%
Pb 220.353†	12.0	-1.579	ug/L	1.0410	-1.579	ug/L	1.0410	65.94%
Sb 206.836†	1.3	0.179	ug/L	0.1613	0.179	ug/L	0.1613	90.05%
Se 196.026†	-5.1	8.372	ug/L	0.6444	8.372	ug/L	0.6444	7.70%
Sn 189.927†	-16.3	-2.850	ug/L	0.9468	-2.850	ug/L	0.9468	33.23%
Sr 421.552†	32793.8	75.51	ug/L	1.982	75.51	ug/L	1.982	2.62%
Ti 337.279†	64.4	1.588	ug/L	0.0958	1.588	ug/L	0.0958	6.03%
Tl 190.801†	-6.0	-1.268	ug/L	0.4206	-1.268	ug/L	0.4206	33.18%
V 292.402†	90.7	0.920	ug/L	0.0996	0.920	ug/L	0.0996	10.83%
Zn 206.200†	465063.9	4772	ug/L	6.41	4772	ug/L	6.41	0.13%
Li 670.784	215013.4	12.45	ug/L	0.070	12.45	ug/L	0.070	0.56%

Sequence No.: 20
Sample ID: AZ16337W12-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 20X
Wash Time:

Autosampler Location: 40
Date Collected: 06/12/15 3:29:31 PM
Data Type: Reprocessed on 06/15/15 10:36:03 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16337W12-1/20

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	207409.2	102.1	%	0.51				0.50%
Y Radial	13804.4	105.2	%	0.66				0.63%
Ag 338.289†	34.8	0.214	ug/L	0.2855	4.289	ug/L	5.7103	133.15%
Al 308.215†	289.4	253.9	ug/L	8.72	5078	ug/L	174.32	3.43%
As 188.979†	4.6	1.184	ug/L	1.0095	23.68	ug/L	20.190	85.25%
B 249.677†	-26.7	4.029	ug/L	0.0294	80.59	ug/L	0.589	0.73%
Ba 233.527†	605.3	1.514	ug/L	0.0241	30.28	ug/L	0.482	1.59%
Be 313.107†	255.0	0.079	ug/L	0.0051	1.578	ug/L	0.1018	6.45%
Ca 315.887†	13580.7	1052	ug/L	7.67	21050	ug/L	153.39	0.73%
Cd 214.440†	277.1	1.021	ug/L	0.0250	20.43	ug/L	0.501	2.45%
Co 228.616†	311.6	3.543	ug/L	0.0980	70.87	ug/L	1.959	2.76%
Cr 267.716†	-6.4	-0.112	ug/L	0.0302	-2.249	ug/L	0.6034	26.83%
Cu 327.393†	7091.3	39.99	ug/L	0.307	799.8	ug/L	6.14	0.77%
Fe 273.955†	134572.7	1992	ug/L	2.42	39850	ug/L	48.37	0.12%
K 766.490†	893.0	151.1	ug/L	8.17	3023	ug/L	163.49	5.41%
Mg 285.213†	10406.4	734.8	ug/L	6.06	14700	ug/L	121.25	0.83%
Mn 257.610†	2868.5	40.76	ug/L	0.374	815.2	ug/L	7.48	0.92%
Mo 202.031†	18.3	0.673	ug/L	0.1690	13.46	ug/L	3.381	25.11%
Na 589.592†	18698.4	3248	ug/L	41.28	64970	ug/L	825.64	1.27%
Ni 231.604†	113.1	2.643	ug/L	0.1124	52.85	ug/L	2.248	4.25%
P 213.617†	0.9	0.305	ug/L	2.0731	6.098	ug/L	41.4618	679.90%
Pb 220.353†	4.2	0.489	ug/L	0.9444	9.784	ug/L	18.8879	193.05%
Sb 206.836†	0.0	0.005	ug/L	0.4755	0.100	ug/L	9.5098	>999.9%
Se 196.026†	-4.7	-0.997	ug/L	2.4172	-19.95	ug/L	48.344	242.38%
Sn 189.927†	1.1	0.229	ug/L	0.7308	4.571	ug/L	14.6168	319.80%
Sr 421.552†	2180.3	6.522	ug/L	0.0328	130.4	ug/L	0.66	0.50%
Ti 337.279†	-4.8	-0.167	ug/L	0.2522	-3.333	ug/L	5.0444	151.34%
Tl 190.801†	-3.5	-0.707	ug/L	0.3883	-14.14	ug/L	7.766	54.93%
V 292.402†	25.6	0.274	ug/L	0.0668	5.475	ug/L	1.3360	24.40%
Zn 206.200†	27434.5	342.2	ug/L	0.64	6843	ug/L	12.80	0.19%
Li 670.784	11278.8	0.730	ug/L	0.0067	14.60	ug/L	0.135	0.92%

Sequence No.: 24
Sample ID: AZ16337W11-1/20 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 20X
Wash Time:

Autosampler Location: 44
Date Collected: 06/12/15 4:16:34 PM
Data Type: Reprocessed on 06/15/15 10:36:07 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16337W11-1/20 F

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	206530.8	101.6	%	0.20				0.20%
Y Radial	13842.4	105.5	%	0.37				0.35%
Ag 338.289†	37.5	0.231	ug/L	0.0151	4.615	ug/L	0.3024	6.55%
Al 308.215†	245.9	215.7	ug/L	4.00	4314	ug/L	79.93	1.85%
As 188.979†	-1.0	-0.093	ug/L	1.0705	-1.865	ug/L	21.4096	>999.9%
B 249.677†	-4.9	3.757	ug/L	0.1520	75.14	ug/L	3.041	4.05%
Ba 233.527†	559.8	1.414	ug/L	0.0051	28.29	ug/L	0.101	0.36%
Be 313.107†	211.3	0.065	ug/L	0.0105	1.308	ug/L	0.2104	16.09%
Ca 315.887†	11868.2	919.6	ug/L	8.08	18390	ug/L	161.58	0.88%
Cd 214.440†	236.6	0.880	ug/L	0.0360	17.60	ug/L	0.720	4.09%
Co 228.616†	262.2	2.983	ug/L	0.0612	59.65	ug/L	1.223	2.05%
Cr 267.716†	-6.9	-0.114	ug/L	0.0483	-2.270	ug/L	0.9658	42.54%
Cu 327.393†	5546.1	31.27	ug/L	0.106	625.4	ug/L	2.12	0.34%
Fe 273.955†	107621.8	1593	ug/L	2.93	31870	ug/L	58.58	0.18%
K 766.490†	851.5	144.4	ug/L	2.69	2888	ug/L	53.87	1.87%
Mg 285.213†	8897.8	628.2	ug/L	5.00	12560	ug/L	100.05	0.80%
Mn 257.610†	2423.4	34.44	ug/L	0.270	688.7	ug/L	5.40	0.78%
Mo 202.031†	10.2	0.396	ug/L	0.3458	7.917	ug/L	6.9158	87.35%
Na 589.592†	17498.4	3040	ug/L	30.93	60800	ug/L	618.67	1.02%
Ni 231.604†	92.7	2.164	ug/L	0.3110	43.28	ug/L	6.219	14.37%
P 213.617†	-12.7	-4.408	ug/L	0.4857	-88.17	ug/L	9.715	11.02%
Pb 220.353†	-2.4	-0.643	ug/L	0.7018	-12.87	ug/L	14.036	109.06%
Sb 206.836†	-5.7	-0.898	ug/L	0.2912	-17.96	ug/L	5.824	32.43%
Se 196.026†	-3.9	-0.851	ug/L	1.4468	-17.03	ug/L	28.936	169.94%
Sn 189.927†	-2.8	-0.566	ug/L	0.3344	-11.32	ug/L	6.688	59.08%
Sr 421.552†	1862.7	5.571	ug/L	0.0539	111.4	ug/L	1.08	0.97%
Ti 337.279†	-0.0	-0.015	ug/L	0.1482	-0.290	ug/L	2.9646	>999.9%
Tl 190.801†	1.7	0.340	ug/L	2.1075	6.803	ug/L	42.1493	619.54%
V 292.402†	15.0	0.161	ug/L	0.0656	3.214	ug/L	1.3116	40.81%
Zn 206.200†	23405.7	291.9	ug/L	1.04	5839	ug/L	20.84	0.36%
Li 670.784	7710.2	0.499	ug/L	0.0068	9.982	ug/L	0.1369	1.37%

Metals Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW013-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16338

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	3120	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	117	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	10.1	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	2460 J	3000.0	400.00	274.00	ug/L	20	05/26/15	06/12/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	3540	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	121	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	10.6	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	2740 J	3000.0	400.00	274.00	ug/L	20	05/26/15	06/12/15

J = Estimated value.

Printed: 06/18/15 11:23:06 AM
APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 35
Sample ID: AZ16338W12
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 63
Date Collected: 06/11/15 5:40:46 PM
Data Type: Reprocessed on 06/12/15 9:41:33 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16338W12

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	224874.1	103.8	%	1.48				1.43%
Y Radial	14748.9	105.5	%	1.35				1.28%
Ag 338.289†	93.5	0.527	ug/L	0.2285	0.527	ug/L	0.2285	43.35%
Al 308.215†	3978.3	3116	ug/L	11.98	3116	ug/L	11.98	0.38%
As 188.979†	27.6	3.688	ug/L	0.1553	3.688	ug/L	0.1553	4.21%
B 249.677†	2848.9	117.2	ug/L	1.01	117.2	ug/L	1.01	0.86%
Ba 233.527†	5307.4	11.90	ug/L	0.190	11.90	ug/L	0.190	1.59%
Be 313.107†	4144.9	1.186	ug/L	0.0222	1.186	ug/L	0.0222	1.87%
Ca 315.887†	509664.8	32710	ug/L	326.81	32710	ug/L	326.81	1.00%
Cd 214.440†	2882.9	9.273	ug/L	0.1356	9.273	ug/L	0.1356	1.46%
Co 228.616†	1788.1	17.87	ug/L	0.305	17.87	ug/L	0.305	1.71%
Cr 267.716†	59.9	0.824	ug/L	0.0626	0.824	ug/L	0.0626	7.59%
Cu 327.393†	35711.2	190.0	ug/L	1.42	190.0	ug/L	1.42	0.75%
Fe 273.955†	983977.0	12890	ug/L	103.38	12890	ug/L	103.38	0.80%
K 766.490†	24795.6	3716	ug/L	32.34	3716	ug/L	32.34	0.87%
Mg 285.213†	89027.8	5519	ug/L	57.77	5519	ug/L	57.77	1.05%
Mn 257.610†	27586.6	335.1	ug/L	0.79	335.1	ug/L	0.79	0.24%
Mo 202.031†	-2.3	0.420	ug/L	0.2002	0.420	ug/L	0.2002	47.71%
Na 589.592†	136915.6	19020	ug/L	213.92	19020	ug/L	213.92	1.12%
Ni 231.604†	766.1	15.93	ug/L	0.280	15.93	ug/L	0.280	1.76%
P 213.617†	-64.2	-19.46	ug/L	1.536	-19.46	ug/L	1.536	7.90%
Pb 220.353†	-22.0	-4.369	ug/L	0.6129	-4.369	ug/L	0.6129	14.03%
Sb 206.836†	-2.1	-0.281	ug/L	0.2444	-0.281	ug/L	0.2444	87.12%
Se 196.026†	-21.4	-2.656	ug/L	1.7936	-2.656	ug/L	1.7936	67.53%
Sn 189.927†	-12.2	-2.136	ug/L	0.6999	-2.136	ug/L	0.6999	32.76%
Sr 421.552†	78069.7	179.9	ug/L	1.93	179.9	ug/L	1.93	1.08%
Ti 337.279†	46.0	1.146	ug/L	0.0784	1.146	ug/L	0.0784	6.84%
Tl 190.801†	-4.5	-0.948	ug/L	0.4169	-0.948	ug/L	0.4169	43.96%
V 292.402†	264.0	2.678	ug/L	0.0395	2.678	ug/L	0.0395	1.48%
Zn 206.200†	238752.9	2450	ug/L	22.89	2450	ug/L	22.89	0.93%
Li 670.784	174413.2	10.10	ug/L	0.027	10.10	ug/L	0.027	0.27%

Sequence No.: 47
Sample ID: AZ16338W11 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 73
Date Collected: 06/11/15 7:03:36 PM
Data Type: Reprocessed on 06/12/15 9:41:47 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16338W11 F

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	233197.9	107.7	%	1.15				1.07%
Y Radial	14428.1	103.2	%	14.33				13.88%
Ag 338.289†	85.8	0.484	ug/L	0.1860	0.484	ug/L	0.1860	38.43%
Al 308.215†	4515.9	3537	ug/L	561.95	3537	ug/L	561.95	15.89%
As 188.979†	39.7	5.602	ug/L	0.6742	5.602	ug/L	0.6742	12.03%
B 249.677†	2950.9	120.8	ug/L	1.45	120.8	ug/L	1.45	1.20%
Ba 233.527†	5462.6	12.26	ug/L	0.226	12.26	ug/L	0.226	1.84%
Be 313.107†	4295.3	1.229	ug/L	0.0221	1.229	ug/L	0.0221	1.80%
Ca 315.887†	581627.6	37320	ug/L	5795.19	37320	ug/L	5795.19	15.53%
Cd 214.440†	2985.8	9.645	ug/L	0.1002	9.645	ug/L	0.1002	1.04%
Co 228.616†	1845.5	18.43	ug/L	0.257	18.43	ug/L	0.257	1.40%
Cr 267.716†	51.3	0.739	ug/L	0.1117	0.739	ug/L	0.1117	15.13%
Cu 327.393†	36488.0	194.1	ug/L	1.02	194.1	ug/L	1.02	0.53%
Fe 273.955†	1003165.1	13140	ug/L	103.84	13140	ug/L	103.84	0.79%
K 766.490†	28028.2	4201	ug/L	634.83	4201	ug/L	634.83	15.11%
Mg 285.213†	101887.2	6315	ug/L	986.04	6315	ug/L	986.04	15.61%
Mn 257.610†	31640.1	384.3	ug/L	61.99	384.3	ug/L	61.99	16.13%
Mo 202.031†	-9.6	0.219	ug/L	0.1775	0.219	ug/L	0.1775	80.95%
Na 589.592†	156434.3	21730	ug/L	3473.31	21730	ug/L	3473.31	15.98%
Ni 231.604†	814.7	16.95	ug/L	0.080	16.95	ug/L	0.080	0.47%
P 213.617†	-54.7	-16.58	ug/L	1.266	-16.58	ug/L	1.266	7.63%
Pb 220.353†	-18.3	-3.538	ug/L	0.3659	-3.538	ug/L	0.3659	10.34%
Sb 206.836†	-10.1	-1.375	ug/L	0.2284	-1.375	ug/L	0.2284	16.62%
Se 196.026†	-22.1	-2.910	ug/L	1.2447	-2.910	ug/L	1.2447	42.78%
Sn 189.927†	-16.5	-2.886	ug/L	0.3637	-2.886	ug/L	0.3637	12.60%
Sr 421.552†	89012.3	205.1	ug/L	32.74	205.1	ug/L	32.74	15.96%
Ti 337.279†	48.1	1.186	ug/L	0.4234	1.186	ug/L	0.4234	35.70%
Tl 190.801†	-0.7	-0.139	ug/L	0.5940	-0.139	ug/L	0.5940	428.06%
V 292.402†	201.4	2.043	ug/L	0.1117	2.043	ug/L	0.1117	5.47%
Zn 206.200†	244808.2	2512	ug/L	18.26	2512	ug/L	18.26	0.73%
Li 670.784	182412.8	10.56	ug/L	0.092	10.56	ug/L	0.092	0.87%

Sequence No.: 21
Sample ID: AZ16338W12-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 20X
Wash Time:

Autosampler Location: 41
Date Collected: 06/12/15 3:35:46 PM
Data Type: Reprocessed on 06/15/15 10:36:04 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16338W12-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	203888.2	100.3	%	0.43				0.42%
Y Radial	13569.1	103.4	%	0.32				0.31%
Ag 338.289†	49.3	0.303	ug/L	0.3936	6.066	ug/L	7.8712	129.77%
Al 308.215†	154.0	135.1	ug/L	5.17	2701	ug/L	103.36	3.83%
As 188.979†	2.4	0.439	ug/L	0.5875	8.776	ug/L	11.7490	133.87%
B 249.677†	141.2	6.197	ug/L	0.1928	123.9	ug/L	3.86	3.11%
Ba 233.527†	269.2	0.686	ug/L	0.0162	13.71	ug/L	0.325	2.37%
Be 313.107†	64.0	0.020	ug/L	0.0084	0.396	ug/L	0.1671	42.19%
Ca 315.887†	20863.8	1617	ug/L	1.63	32340	ug/L	32.65	0.10%
Cd 214.440†	100.0	0.378	ug/L	0.0396	7.558	ug/L	0.7918	10.48%
Co 228.616†	100.6	1.141	ug/L	0.0303	22.81	ug/L	0.606	2.66%
Cr 267.716†	-2.8	-0.031	ug/L	0.0825	-0.614	ug/L	1.6497	268.53%
Cu 327.393†	2257.1	12.73	ug/L	0.012	254.6	ug/L	0.24	0.10%
Fe 273.955†	44413.7	657.5	ug/L	1.01	13150	ug/L	20.14	0.15%
K 766.490†	1114.9	192.5	ug/L	8.26	3851	ug/L	165.11	4.29%
Mg 285.213†	3839.6	271.1	ug/L	0.75	5421	ug/L	15.09	0.28%
Mn 257.610†	1171.3	16.64	ug/L	0.070	332.9	ug/L	1.40	0.42%
Mo 202.031†	16.9	0.573	ug/L	0.2717	11.47	ug/L	5.433	47.37%
Na 589.592†	5839.5	1014	ug/L	6.65	20290	ug/L	132.95	0.66%
Ni 231.604†	35.3	0.839	ug/L	0.1509	16.79	ug/L	3.019	17.98%
P 213.617†	7.9	2.733	ug/L	0.8518	54.66	ug/L	17.036	31.17%
Pb 220.353†	-1.2	-0.258	ug/L	1.6496	-5.151	ug/L	32.9923	640.50%
Sb 206.836†	1.3	0.210	ug/L	0.0873	4.198	ug/L	1.7465	41.60%
Se 196.026†	-0.3	0.085	ug/L	0.7635	1.703	ug/L	15.2701	896.91%
Sn 189.927†	0.5	0.098	ug/L	0.6956	1.956	ug/L	13.9129	711.26%
Sr 421.552†	3496.1	10.46	ug/L	0.102	209.3	ug/L	2.05	0.98%
Ti 337.279†	-0.1	-0.011	ug/L	0.1256	-0.228	ug/L	2.5119	>999.9%
Tl 190.801†	-2.8	-0.564	ug/L	0.2997	-11.28	ug/L	5.994	53.13%
V 292.402†	27.3	0.292	ug/L	0.0320	5.831	ug/L	0.6405	10.99%
Zn 206.200†	9852.8	122.9	ug/L	0.25	2458	ug/L	5.06	0.21%
Li 670.784	7003.7	0.453	ug/L	0.0037	9.068	ug/L	0.0745	0.82%

Sequence No.: 25
Sample ID: AZ16338W11-1/20 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 20X
Wash Time:

Autosampler Location: 45
Date Collected: 06/12/15 4:22:48 PM
Data Type: Reprocessed on 06/15/15 10:36:08 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16338W11-1/20 F

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	207110.0	101.9	%	0.26				0.25%
Y Radial	13797.7	105.2	%	0.77				0.73%
Ag 338.289†	63.4	0.391	ug/L	0.5102	7.812	ug/L	10.2044	130.62%
Al 308.215†	184.2	161.6	ug/L	7.98	3232	ug/L	159.69	4.94%
As 188.979†	7.2	1.500	ug/L	0.3011	30.00	ug/L	6.022	20.08%
B 249.677†	155.8	6.695	ug/L	0.3698	133.9	ug/L	7.40	5.52%
Ba 233.527†	269.4	0.685	ug/L	0.0144	13.71	ug/L	0.288	2.10%
Be 313.107†	85.9	0.027	ug/L	0.0028	0.532	ug/L	0.0554	10.43%
Ca 315.887†	24202.7	1876	ug/L	55.24	37520	ug/L	1104.79	2.94%
Cd 214.440†	121.6	0.467	ug/L	0.0034	9.340	ug/L	0.0675	0.72%
Co 228.616†	111.5	1.264	ug/L	0.0786	25.29	ug/L	1.573	6.22%
Cr 267.716†	-6.8	-0.082	ug/L	0.1072	-1.637	ug/L	2.1440	130.96%
Cu 327.393†	2036.1	11.48	ug/L	0.219	229.6	ug/L	4.37	1.90%
Fe 273.955†	45182.5	668.9	ug/L	3.02	13380	ug/L	60.43	0.45%
K 766.490†	1294.9	223.7	ug/L	10.90	4473	ug/L	217.91	4.87%
Mg 285.213†	4461.5	314.9	ug/L	9.31	6298	ug/L	186.19	2.96%
Mn 257.610†	1341.8	19.07	ug/L	0.482	381.3	ug/L	9.65	2.53%
Mo 202.031†	13.0	0.449	ug/L	0.1641	8.984	ug/L	3.2823	36.53%
Na 589.592†	6796.9	1181	ug/L	34.91	23610	ug/L	698.21	2.96%
Ni 231.604†	37.4	0.892	ug/L	0.1836	17.84	ug/L	3.672	20.58%
P 213.617†	0.6	0.201	ug/L	0.6731	4.024	ug/L	13.4629	334.56%
Pb 220.353†	-0.2	-0.057	ug/L	0.7342	-1.142	ug/L	14.6839	>999.9%
Sb 206.836†	0.5	0.084	ug/L	1.1370	1.676	ug/L	22.7398	>999.9%
Se 196.026†	-2.9	-0.854	ug/L	0.6701	-17.07	ug/L	13.402	78.49%
Sn 189.927†	-0.3	-0.064	ug/L	0.1443	-1.278	ug/L	2.8870	225.89%
Sr 421.552†	3972.6	11.89	ug/L	0.433	237.8	ug/L	8.67	3.64%
Ti 337.279†	-0.4	-0.020	ug/L	0.4522	-0.397	ug/L	9.0441	>999.9%
Tl 190.801†	-10.4	-2.077	ug/L	1.0109	-41.54	ug/L	20.218	48.68%
V 292.402†	15.1	0.161	ug/L	0.0631	3.218	ug/L	1.2625	39.24%
Zn 206.200†	10991.2	137.1	ug/L	0.41	2742	ug/L	8.18	0.30%
Li 670.784	5727.6	0.371	ug/L	0.0065	7.416	ug/L	0.1309	1.77%

Metals Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16339

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	77.7 J	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	48.6 J	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	1.9	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	439	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	69.9 J	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	52.7	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	2.1	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	497	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15

J = Estimated value.

Printed: 06/18/15 11:23:06 AM

APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 36
Sample ID: AZ16339W12
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 64
Date Collected: 06/11/15 5:47:49 PM
Data Type: Reprocessed on 06/12/15 9:41:34 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16339W12

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	222211.9	102.6	%	0.37				0.36%
Y Radial	14468.7	103.5	%	0.94				0.91%
Ag 338.289†	106.9	0.603	ug/L	0.6501	0.603	ug/L	0.6501	107.88%
Al 308.215†	101.2	77.74	ug/L	7.834	77.74	ug/L	7.834	10.08%
As 188.979†	53.5	8.146	ug/L	0.9917	8.146	ug/L	0.9917	12.17%
B 249.677†	1559.3	48.60	ug/L	0.604	48.60	ug/L	0.604	1.24%
Ba 233.527†	20119.4	47.80	ug/L	0.039	47.80	ug/L	0.039	0.08%
Be 313.107†	204.7	0.059	ug/L	0.0018	0.059	ug/L	0.0018	3.14%
Ca 315.887†	359165.3	23050	ug/L	246.47	23050	ug/L	246.47	1.07%
Cd 214.440†	291.5	1.072	ug/L	0.0351	1.072	ug/L	0.0351	3.27%
Co 228.616†	199.4	1.939	ug/L	0.1435	1.939	ug/L	0.1435	7.40%
Cr 267.716†	36.2	0.609	ug/L	0.0288	0.609	ug/L	0.0288	4.72%
Cu 327.393†	607.4	3.153	ug/L	0.2496	3.153	ug/L	0.2496	7.92%
Fe 273.955†	60982.7	798.2	ug/L	0.79	798.2	ug/L	0.79	0.10%
K 766.490†	13126.6	1974	ug/L	19.50	1974	ug/L	19.50	0.99%
Mg 285.213†	50808.2	3144	ug/L	37.50	3144	ug/L	37.50	1.19%
Mn 257.610†	11537.5	140.1	ug/L	0.62	140.1	ug/L	0.62	0.44%
Mo 202.031†	10.9	0.349	ug/L	0.4573	0.349	ug/L	0.4573	130.99%
Na 589.592†	41880.3	5817	ug/L	59.55	5817	ug/L	59.55	1.02%
Ni 231.604†	112.4	2.508	ug/L	0.2288	2.508	ug/L	0.2288	9.12%
P 213.617†	183.5	55.60	ug/L	1.822	55.60	ug/L	1.822	3.28%
Pb 220.353†	-7.4	-0.666	ug/L	0.9418	-0.666	ug/L	0.9418	141.52%
Sb 206.836†	0.1	0.013	ug/L	0.5004	0.013	ug/L	0.5004	>999.9%
Se 196.026†	0.4	-0.221	ug/L	3.0737	-0.221	ug/L	3.0737	>999.9%
Sn 189.927†	-4.0	-0.700	ug/L	0.6288	-0.700	ug/L	0.6288	89.88%
Sr 421.552†	80552.2	186.1	ug/L	1.78	186.1	ug/L	1.78	0.95%
Ti 337.279†	57.1	1.538	ug/L	0.2373	1.538	ug/L	0.2373	15.43%
Tl 190.801†	1.8	0.372	ug/L	1.4747	0.372	ug/L	1.4747	396.33%
V 292.402†	104.2	1.057	ug/L	0.0642	1.057	ug/L	0.0642	6.08%
Zn 206.200†	42690.1	438.6	ug/L	0.18	438.6	ug/L	0.18	0.04%
Li 670.784	32997.2	1.911	ug/L	0.0151	1.911	ug/L	0.0151	0.79%

Sequence No.: 48
Sample ID: AZ16339W11 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 74
Date Collected: 06/11/15 7:10:40 PM
Data Type: Reprocessed on 06/12/15 9:41:48 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16339W11 F

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	226884.6	104.8	%	0.72				0.69%
Y Radial	14956.1	107.0	%	0.93				0.87%
Ag 338.289†	53.8	0.303	ug/L	0.1695	0.303	ug/L	0.1695	55.92%
Al 308.215†	91.4	69.91	ug/L	4.471	69.91	ug/L	4.471	6.39%
As 188.979†	50.8	7.463	ug/L	0.9218	7.463	ug/L	0.9218	12.35%
B 249.677†	1703.1	52.73	ug/L	0.253	52.73	ug/L	0.253	0.48%
Ba 233.527†	22496.7	53.46	ug/L	0.417	53.46	ug/L	0.417	0.78%
Be 313.107†	286.0	0.082	ug/L	0.0058	0.082	ug/L	0.0058	7.14%
Ca 315.887†	380989.6	24450	ug/L	178.34	24450	ug/L	178.34	0.73%
Cd 214.440†	345.2	1.269	ug/L	0.0393	1.269	ug/L	0.0393	3.10%
Co 228.616†	226.8	2.215	ug/L	0.0268	2.215	ug/L	0.0268	1.21%
Cr 267.716†	51.2	0.799	ug/L	0.1485	0.799	ug/L	0.1485	18.59%
Cu 327.393†	382.2	1.940	ug/L	0.1323	1.940	ug/L	0.1323	6.82%
Fe 273.955†	55530.1	726.8	ug/L	1.02	726.8	ug/L	1.02	0.14%
K 766.490†	14324.8	2155	ug/L	14.49	2155	ug/L	14.49	0.67%
Mg 285.213†	54890.7	3397	ug/L	30.73	3397	ug/L	30.73	0.90%
Mn 257.610†	12502.9	151.8	ug/L	0.62	151.8	ug/L	0.62	0.41%
Mo 202.031†	3.4	0.137	ug/L	0.2887	0.137	ug/L	0.2887	210.51%
Na 589.592†	46417.1	6447	ug/L	52.76	6447	ug/L	52.76	0.82%
Ni 231.604†	125.1	2.774	ug/L	0.2223	2.774	ug/L	0.2223	8.01%
P 213.617†	176.8	53.58	ug/L	1.213	53.58	ug/L	1.213	2.26%
Pb 220.353†	-15.1	-1.921	ug/L	0.7186	-1.921	ug/L	0.7186	37.41%
Sb 206.836†	-4.3	-0.584	ug/L	0.5983	-0.584	ug/L	0.5983	102.50%
Se 196.026†	-3.7	-1.592	ug/L	0.8573	-1.592	ug/L	0.8573	53.86%
Sn 189.927†	-3.1	-0.550	ug/L	0.1481	-0.550	ug/L	0.1481	26.94%
Sr 421.552†	85819.1	198.2	ug/L	1.71	198.2	ug/L	1.71	0.86%
Ti 337.279†	46.2	1.225	ug/L	0.2732	1.225	ug/L	0.2732	22.30%
Tl 190.801†	0.9	0.186	ug/L	1.1957	0.186	ug/L	1.1957	643.00%
V 292.402†	78.8	0.799	ug/L	0.1498	0.799	ug/L	0.1498	18.73%
Zn 206.200†	48358.9	496.9	ug/L	1.29	496.9	ug/L	1.29	0.26%
Li 670.784	35928.2	2.081	ug/L	0.0382	2.081	ug/L	0.0382	1.84%

Metals Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76424

Sample ID: S67-MW005-051315

APPL ID: AZ16340

Sample Collection Date: 05/13/15

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	1040	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	38.4 J	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	1.4	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	14.9 J	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	33.0 J	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	38.4 J	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	0.67 J	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	20.00 U	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15

J = Estimated value.

Printed: 06/18/15 11:23:06 AM

APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 37
Sample ID: AZ16340W11
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 65
Date Collected: 06/11/15 5:54:05 PM
Data Type: Reprocessed on 06/12/15 9:41:35 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16340W11

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	224425.7	103.6	%	0.64				0.62%
Y Radial	14762.2	105.6	%	1.25				1.18%
Ag 338.289†	50.3	0.284	ug/L	0.1402	0.284	ug/L	0.1402	49.45%
Al 308.215†	1325.7	1038	ug/L	10.03	1038	ug/L	10.03	0.97%
As 188.979†	63.5	9.575	ug/L	0.8791	9.575	ug/L	0.8791	9.18%
B 249.677†	1038.2	38.38	ug/L	0.151	38.38	ug/L	0.151	0.39%
Ba 233.527†	13725.4	32.47	ug/L	0.265	32.47	ug/L	0.265	0.82%
Be 313.107†	332.9	0.095	ug/L	0.0035	0.095	ug/L	0.0035	3.70%
Ca 315.887†	475473.5	30510	ug/L	533.57	30510	ug/L	533.57	1.75%
Cd 214.440†	81.9	0.260	ug/L	0.0704	0.260	ug/L	0.0704	27.03%
Co 228.616†	47.9	0.281	ug/L	0.0752	0.281	ug/L	0.0752	26.78%
Cr 267.716†	355.9	4.596	ug/L	0.0907	4.596	ug/L	0.0907	1.97%
Cu 327.393†	1154.9	6.090	ug/L	0.1081	6.090	ug/L	0.1081	1.77%
Fe 273.955†	234556.8	3072	ug/L	2.86	3072	ug/L	2.86	0.09%
K 766.490†	13989.8	2102	ug/L	39.65	2102	ug/L	39.65	1.89%
Mg 285.213†	80986.6	5013	ug/L	87.50	5013	ug/L	87.50	1.75%
Mn 257.610†	1357.9	16.32	ug/L	0.166	16.32	ug/L	0.166	1.02%
Mo 202.031†	59.6	1.712	ug/L	0.1951	1.712	ug/L	0.1951	11.39%
Na 589.592†	44876.8	6233	ug/L	121.32	6233	ug/L	121.32	1.95%
Ni 231.604†	78.4	1.983	ug/L	0.0697	1.983	ug/L	0.0697	3.51%
P 213.617†	493.1	149.4	ug/L	1.87	149.4	ug/L	1.87	1.25%
Pb 220.353†	5.5	1.549	ug/L	0.4157	1.549	ug/L	0.4157	26.83%
Sb 206.836†	60.8	8.317	ug/L	0.6385	8.317	ug/L	0.6385	7.68%
Se 196.026†	-8.4	-2.268	ug/L	1.2938	-2.268	ug/L	1.2938	57.04%
Sn 189.927†	-5.3	-0.926	ug/L	0.1108	-0.926	ug/L	0.1108	11.97%
Sr 421.552†	48857.9	112.2	ug/L	2.20	112.2	ug/L	2.20	1.96%
Ti 337.279†	546.6	15.33	ug/L	0.272	15.33	ug/L	0.272	1.78%
Tl 190.801†	0.1	0.026	ug/L	1.9130	0.026	ug/L	1.9130	>999.9%
V 292.402†	773.1	7.842	ug/L	0.1266	7.842	ug/L	0.1266	1.61%
Zn 206.200†	1370.4	14.89	ug/L	0.484	14.89	ug/L	0.484	3.25%
Li 670.784	24126.7	1.397	ug/L	0.0100	1.397	ug/L	0.0100	0.72%

Sequence No.: 49
Sample ID: AZ16340W12 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 75
Date Collected: 06/11/15 7:16:56 PM
Data Type: Reprocessed on 06/12/15 9:41:49 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16340W12 F

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	225845.4	104.3	%	0.32				0.31%
Y Radial	14995.2	107.3	%	1.36				1.27%
Ag 338.289†	100.7	0.568	ug/L	0.1194	0.568	ug/L	0.1194	21.03%
Al 308.215†	44.2	33.03	ug/L	1.668	33.03	ug/L	1.668	5.05%
As 188.979†	46.6	5.957	ug/L	0.5697	5.957	ug/L	0.5697	9.56%
B 249.677†	1199.1	38.41	ug/L	0.081	38.41	ug/L	0.081	0.21%
Ba 233.527†	12353.8	29.31	ug/L	0.043	29.31	ug/L	0.043	0.15%
Be 313.107†	112.0	0.032	ug/L	0.0013	0.032	ug/L	0.0013	4.09%
Ca 315.887†	485962.9	31190	ug/L	474.73	31190	ug/L	474.73	1.52%
Cd 214.440†	58.2	0.293	ug/L	0.0260	0.293	ug/L	0.0260	8.88%
Co 228.616†	31.6	0.192	ug/L	0.0801	0.192	ug/L	0.0801	41.75%
Cr 267.716†	41.6	0.816	ug/L	0.0626	0.816	ug/L	0.0626	7.68%
Cu 327.393†	674.8	3.593	ug/L	0.1570	3.593	ug/L	0.1570	4.37%
Fe 273.955†	85619.1	1121	ug/L	2.29	1121	ug/L	2.29	0.20%
K 766.490†	13181.8	1981	ug/L	20.32	1981	ug/L	20.32	1.03%
Mg 285.213†	81333.9	5033	ug/L	74.57	5033	ug/L	74.57	1.48%
Mn 257.610†	1250.3	15.00	ug/L	0.264	15.00	ug/L	0.264	1.76%
Mo 202.031†	61.6	1.731	ug/L	0.1814	1.731	ug/L	0.1814	10.48%
Na 589.592†	43419.5	6031	ug/L	94.71	6031	ug/L	94.71	1.57%
Ni 231.604†	83.5	2.060	ug/L	0.0148	2.060	ug/L	0.0148	0.72%
P 213.617†	389.6	118.1	ug/L	1.92	118.1	ug/L	1.92	1.62%
Pb 220.353†	-20.1	-2.617	ug/L	1.6940	-2.617	ug/L	1.6940	64.72%
Sb 206.836†	-3.8	-0.518	ug/L	0.5651	-0.518	ug/L	0.5651	109.14%
Se 196.026†	-1.4	-0.859	ug/L	2.3437	-0.859	ug/L	2.3437	272.82%
Sn 189.927†	-0.3	-0.049	ug/L	0.0395	-0.049	ug/L	0.0395	80.32%
Sr 421.552†	49629.2	114.0	ug/L	1.81	114.0	ug/L	1.81	1.59%
Ti 337.279†	51.6	1.350	ug/L	0.2128	1.350	ug/L	0.2128	15.76%
Tl 190.801†	-4.0	-0.848	ug/L	1.3109	-0.848	ug/L	1.3109	154.54%
V 292.402†	298.4	3.027	ug/L	0.1013	3.027	ug/L	0.1013	3.35%
Zn 206.200†	262.8	3.590	ug/L	0.0703	3.590	ug/L	0.0703	1.96%
Li 670.784	11581.5	0.671	ug/L	0.0148	0.671	ug/L	0.0148	2.21%

Metals Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW014-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16341

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	21000	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	38.8 J	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	83.8	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	514	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	20500	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	43.6 J	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	79.5	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	514	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15

J = Estimated value.

Printed: 06/18/15 11:23:06 AM

APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 38
Sample ID: AZ16341W11
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 66
Date Collected: 06/11/15 6:00:21 PM
Data Type: Reprocessed on 06/12/15 9:41:37 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16341W11

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	274097.5	126.6	%	0.77				0.61%
Y Radial	17675.4	126.4	%	1.16				0.92%
Ag 338.289†	189.4	1.068	ug/L	0.0608	1.068	ug/L	0.0608	5.69%
Al 308.215†	26794.4	21000	ug/L	45.23	21000	ug/L	45.23	0.22%
As 188.979†	49.3	7.054	ug/L	0.5233	7.054	ug/L	0.5233	7.42%
B 249.677†	1299.3	38.76	ug/L	0.377	38.76	ug/L	0.377	0.97%
Ba 233.527†	6826.7	16.22	ug/L	0.059	16.22	ug/L	0.059	0.37%
Be 313.107†	20610.6	5.895	ug/L	0.0181	5.895	ug/L	0.0181	0.31%
Ca 315.887†	313160.2	20100	ug/L	241.19	20100	ug/L	241.19	1.20%
Cd 214.440†	632.7	2.636	ug/L	0.0368	2.636	ug/L	0.0368	1.40%
Co 228.616†	5930.8	60.68	ug/L	0.307	60.68	ug/L	0.307	0.51%
Cr 267.716†	145.7	1.505	ug/L	0.0983	1.505	ug/L	0.0983	6.53%
Cu 327.393†	11315.0	60.01	ug/L	0.452	60.01	ug/L	0.452	0.75%
Fe 273.955†	18828.5	245.8	ug/L	1.32	245.8	ug/L	1.32	0.54%
K 766.490†	12133.3	1805	ug/L	19.24	1805	ug/L	19.24	1.07%
Mg 285.213†	77537.8	4798	ug/L	11.38	4798	ug/L	11.38	0.24%
Mn 257.610†	65801.0	799.5	ug/L	2.80	799.5	ug/L	2.80	0.35%
Mo 202.031†	12.3	0.490	ug/L	0.0836	0.490	ug/L	0.0836	17.06%
Na 589.592†	152039.7	21120	ug/L	277.91	21120	ug/L	277.91	1.32%
Ni 231.604†	3019.0	60.97	ug/L	0.380	60.97	ug/L	0.380	0.62%
P 213.617†	26.8	8.131	ug/L	1.3370	8.131	ug/L	1.3370	16.44%
Pb 220.353†	-27.5	1.049	ug/L	0.0659	1.049	ug/L	0.0659	6.28%
Sb 206.836†	34.5	4.714	ug/L	1.1122	4.714	ug/L	1.1122	23.60%
Se 196.026†	-6.3	-1.982	ug/L	1.2232	-1.982	ug/L	1.2232	61.73%
Sn 189.927†	-19.3	-3.384	ug/L	0.3382	-3.384	ug/L	0.3382	9.99%
Sr 421.552†	98727.2	228.4	ug/L	3.11	228.4	ug/L	3.11	1.36%
Ti 337.279†	61.5	1.642	ug/L	0.5405	1.642	ug/L	0.5405	32.92%
Tl 190.801†	-8.8	-1.841	ug/L	0.5212	-1.841	ug/L	0.5212	28.32%
V 292.402†	76.0	0.771	ug/L	0.0093	0.771	ug/L	0.0093	1.21%
Zn 206.200†	50021.1	513.9	ug/L	1.36	513.9	ug/L	1.36	0.27%
Li 670.784	1447124.2	83.80	ug/L	0.263	83.80	ug/L	0.263	0.31%

Sequence No.: 50
Sample ID: AZ16341W12 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 76
Date Collected: 06/11/15 7:23:12 PM
Data Type: Reprocessed on 06/12/15 9:41:50 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16341W12 F

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	273185.7	126.1	%	0.08				0.06%
Y Radial	17885.3	127.9	%	0.86				0.67%
Ag 338.289†	228.0	1.286	ug/L	0.0616	1.286	ug/L	0.0616	4.79%
Al 308.215†	26158.4	20500	ug/L	47.46	20500	ug/L	47.46	0.23%
As 188.979†	47.1	6.527	ug/L	1.1695	6.527	ug/L	1.1695	17.92%
B 249.677†	1467.9	43.63	ug/L	0.050	43.63	ug/L	0.050	0.11%
Ba 233.527†	7144.7	16.98	ug/L	0.066	16.98	ug/L	0.066	0.39%
Be 313.107†	20460.2	5.852	ug/L	0.0252	5.852	ug/L	0.0252	0.43%
Ca 315.887†	330485.9	21210	ug/L	201.85	21210	ug/L	201.85	0.95%
Cd 214.440†	649.8	2.699	ug/L	0.0081	2.699	ug/L	0.0081	0.30%
Co 228.616†	5929.1	60.66	ug/L	0.296	60.66	ug/L	0.296	0.49%
Cr 267.716†	146.1	1.527	ug/L	0.0787	1.527	ug/L	0.0787	5.15%
Cu 327.393†	10937.5	58.00	ug/L	0.188	58.00	ug/L	0.188	0.32%
Fe 273.955†	12398.2	161.6	ug/L	0.83	161.6	ug/L	0.83	0.51%
K 766.490†	13525.6	2015	ug/L	11.16	2015	ug/L	11.16	0.55%
Mg 285.213†	79955.5	4947	ug/L	48.69	4947	ug/L	48.69	0.98%
Mn 257.610†	64844.0	787.8	ug/L	1.36	787.8	ug/L	1.36	0.17%
Mo 202.031†	13.1	0.507	ug/L	0.2175	0.507	ug/L	0.2175	42.86%
Na 589.592†	158021.9	21950	ug/L	201.87	21950	ug/L	201.87	0.92%
Ni 231.604†	3018.1	60.97	ug/L	0.280	60.97	ug/L	0.280	0.46%
P 213.617†	33.2	10.07	ug/L	1.673	10.07	ug/L	1.673	16.62%
Pb 220.353†	-24.8	1.430	ug/L	0.3329	1.430	ug/L	0.3329	23.28%
Sb 206.836†	1.3	0.175	ug/L	0.4395	0.175	ug/L	0.4395	251.51%
Se 196.026†	-3.2	-1.076	ug/L	1.1781	-1.076	ug/L	1.1781	109.46%
Sn 189.927†	-20.8	-3.654	ug/L	0.4076	-3.654	ug/L	0.4076	11.15%
Sr 421.552†	99359.2	229.8	ug/L	2.07	229.8	ug/L	2.07	0.90%
Ti 337.279†	86.1	2.333	ug/L	0.8959	2.333	ug/L	0.8959	38.41%
Tl 190.801†	-11.9	-2.510	ug/L	0.6744	-2.510	ug/L	0.6744	26.87%
V 292.402†	60.6	0.614	ug/L	0.0299	0.614	ug/L	0.0299	4.86%
Zn 206.200†	49980.6	513.5	ug/L	0.70	513.5	ug/L	0.70	0.14%
Li 670.784	1373782.2	79.55	ug/L	0.542	79.55	ug/L	0.542	0.68%

Metals Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW004P-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16342

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	141 J	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	49.1 J	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	2.0	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	448	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	70.6 J	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	52.1	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	1.9	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	480	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15

J = Estimated value.

Printed: 06/18/15 11:23:06 AM

APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 39
Sample ID: AZ16342W11
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 67
Date Collected: 06/11/15 6:07:28 PM
Data Type: Reprocessed on 06/12/15 9:41:38 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16342W11

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	224524.7	103.7	%	0.71				0.68%
Y Radial	14259.8	102.0	%	0.76				0.75%
Ag 338.289†	-2.8	-0.016	ug/L	0.3762	-0.016	ug/L	0.3762	>999.9%
Al 308.215†	181.3	140.5	ug/L	5.18	140.5	ug/L	5.18	3.69%
As 188.979†	55.2	8.379	ug/L	0.9978	8.379	ug/L	0.9978	11.91%
B 249.677†	1570.3	49.11	ug/L	0.261	49.11	ug/L	0.261	0.53%
Ba 233.527†	20612.6	48.97	ug/L	0.160	48.97	ug/L	0.160	0.33%
Be 313.107†	171.5	0.049	ug/L	0.0014	0.049	ug/L	0.0014	2.92%
Ca 315.887†	374804.5	24050	ug/L	193.75	24050	ug/L	193.75	0.81%
Cd 214.440†	328.7	1.201	ug/L	0.0252	1.201	ug/L	0.0252	2.10%
Co 228.616†	195.0	1.886	ug/L	0.0269	1.886	ug/L	0.0269	1.43%
Cr 267.716†	47.3	0.750	ug/L	0.1247	0.750	ug/L	0.1247	16.64%
Cu 327.393†	515.0	2.653	ug/L	0.2110	2.653	ug/L	0.2110	7.95%
Fe 273.955†	67011.0	877.2	ug/L	1.58	877.2	ug/L	1.58	0.18%
K 766.490†	13776.5	2072	ug/L	9.67	2072	ug/L	9.67	0.47%
Mg 285.213†	54742.4	3388	ug/L	34.02	3388	ug/L	34.02	1.00%
Mn 257.610†	11964.6	145.3	ug/L	1.29	145.3	ug/L	1.29	0.89%
Mo 202.031†	6.0	0.211	ug/L	0.1236	0.211	ug/L	0.1236	58.65%
Na 589.592†	43612.9	6058	ug/L	58.44	6058	ug/L	58.44	0.96%
Ni 231.604†	119.4	2.660	ug/L	0.0528	2.660	ug/L	0.0528	1.99%
P 213.617†	199.0	60.30	ug/L	1.646	60.30	ug/L	1.646	2.73%
Pb 220.353†	-10.0	-1.071	ug/L	1.1416	-1.071	ug/L	1.1416	106.57%
Sb 206.836†	-2.2	-0.297	ug/L	1.2153	-0.297	ug/L	1.2153	409.13%
Se 196.026†	-2.4	-1.114	ug/L	2.4585	-1.114	ug/L	2.4585	220.77%
Sn 189.927†	-6.3	-1.098	ug/L	0.9355	-1.098	ug/L	0.9355	85.23%
Sr 421.552†	83426.3	192.7	ug/L	1.97	192.7	ug/L	1.97	1.02%
Ti 337.279†	63.6	1.716	ug/L	0.3365	1.716	ug/L	0.3365	19.61%
Tl 190.801†	-2.4	-0.509	ug/L	0.6748	-0.509	ug/L	0.6748	132.51%
V 292.402†	117.3	1.189	ug/L	0.0032	1.189	ug/L	0.0032	0.27%
Zn 206.200†	43630.2	448.3	ug/L	1.47	448.3	ug/L	1.47	0.33%
Li 670.784	33877.6	1.962	ug/L	0.0156	1.962	ug/L	0.0156	0.79%

Sequence No.: 51
Sample ID: AZ16342W12 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 77
Date Collected: 06/11/15 7:30:19 PM
Data Type: Reprocessed on 06/12/15 9:41:52 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16342W12 F

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	227681.6	105.1	%	0.08				0.07%
Y Radial	15058.7	107.7	%	0.08				0.07%
Ag 338.289†	57.8	0.326	ug/L	0.1425	0.326	ug/L	0.1425	43.70%
Al 308.215†	92.2	70.59	ug/L	4.958	70.59	ug/L	4.958	7.02%
As 188.979†	44.6	6.374	ug/L	1.6838	6.374	ug/L	1.6838	26.42%
B 249.677†	1683.6	52.09	ug/L	0.361	52.09	ug/L	0.361	0.69%
Ba 233.527†	21507.7	51.11	ug/L	0.150	51.11	ug/L	0.150	0.29%
Be 313.107†	273.4	0.078	ug/L	0.0028	0.078	ug/L	0.0028	3.55%
Ca 315.887†	361725.2	23210	ug/L	193.05	23210	ug/L	193.05	0.83%
Cd 214.440†	352.4	1.290	ug/L	0.0450	1.290	ug/L	0.0450	3.49%
Co 228.616†	224.6	2.199	ug/L	0.0933	2.199	ug/L	0.0933	4.24%
Cr 267.716†	35.0	0.592	ug/L	0.1151	0.592	ug/L	0.1151	19.44%
Cu 327.393†	323.2	1.629	ug/L	0.0380	1.629	ug/L	0.0380	2.34%
Fe 273.955†	53237.6	696.8	ug/L	1.17	696.8	ug/L	1.17	0.17%
K 766.490†	13815.3	2078	ug/L	20.53	2078	ug/L	20.53	0.99%
Mg 285.213†	52463.9	3247	ug/L	28.15	3247	ug/L	28.15	0.87%
Mn 257.610†	11972.5	145.4	ug/L	0.14	145.4	ug/L	0.14	0.10%
Mo 202.031†	19.0	0.586	ug/L	0.2269	0.586	ug/L	0.2269	38.72%
Na 589.592†	44495.0	6180	ug/L	31.00	6180	ug/L	31.00	0.50%
Ni 231.604†	136.8	2.997	ug/L	0.1450	2.997	ug/L	0.1450	4.84%
P 213.617†	171.6	52.00	ug/L	1.368	52.00	ug/L	1.368	2.63%
Pb 220.353†	-10.7	-1.196	ug/L	1.7525	-1.196	ug/L	1.7525	146.52%
Sb 206.836†	1.9	0.259	ug/L	0.7660	0.259	ug/L	0.7660	295.24%
Se 196.026†	-5.2	-2.040	ug/L	2.4014	-2.040	ug/L	2.4014	117.72%
Sn 189.927†	-8.0	-1.409	ug/L	0.9279	-1.409	ug/L	0.9279	65.85%
Sr 421.552†	82095.8	189.6	ug/L	0.81	189.6	ug/L	0.81	0.43%
Ti 337.279†	51.3	1.372	ug/L	0.4395	1.372	ug/L	0.4395	32.05%
Tl 190.801†	3.4	0.725	ug/L	0.5748	0.725	ug/L	0.5748	79.33%
V 292.402†	86.0	0.873	ug/L	0.0584	0.873	ug/L	0.0584	6.69%
Zn 206.200†	46717.7	480.0	ug/L	0.37	480.0	ug/L	0.37	0.08%
Li 670.784	33519.2	1.941	ug/L	0.0157	1.941	ug/L	0.0157	0.81%

Metals Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-RB02-051315
Sample Collection Date: 05/13/15

ARF: 76424
APPL ID: AZ16343

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	80.00 U	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B)	40.00 U	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI)	0.80 U	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN)	20.00 U	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	80.00 U	300.0	80.00	27.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	BORON (B) (DISSOLVED)	40.00 U	50.0	40.00	29.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	0.80 U	1.0	0.80	0.40	ug/L	1	05/26/15	06/11/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	20.00 U	150.0	20.00	13.70	ug/L	1	05/26/15	06/11/15

Printed: 06/18/15 11:23:06 AM

APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 40
Sample ID: AZ16343W04
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 68
Date Collected: 06/11/15 6:12:59 PM
Data Type: Reprocessed on 06/12/15 9:41:39 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16343W04

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	226448.3	104.6	%	0.50				0.48%
Y Radial	14597.7	104.4	%	1.26				1.20%
Ag 338.289†	48.0	0.271	ug/L	0.0845	0.271	ug/L	0.0845	31.21%
Al 308.215†	14.1	11.09	ug/L	2.936	11.09	ug/L	2.936	26.47%
As 188.979†	-0.2	-0.047	ug/L	0.5421	-0.047	ug/L	0.5421	>999.9%
B 249.677†	19.9	0.612	ug/L	0.0520	0.612	ug/L	0.0520	8.49%
Ba 233.527†	-8.4	-0.020	ug/L	0.0272	-0.020	ug/L	0.0272	137.91%
Be 313.107†	-69.8	-0.020	ug/L	0.0074	-0.020	ug/L	0.0074	36.92%
Ca 315.887†	655.3	42.04	ug/L	0.780	42.04	ug/L	0.780	1.86%
Cd 214.440†	60.1	0.206	ug/L	0.0361	0.206	ug/L	0.0361	17.57%
Co 228.616†	-3.3	-0.037	ug/L	0.0505	-0.037	ug/L	0.0505	137.61%
Cr 267.716†	27.5	0.333	ug/L	0.1189	0.333	ug/L	0.1189	35.69%
Cu 327.393†	383.2	2.052	ug/L	0.1002	2.052	ug/L	0.1002	4.88%
Fe 273.955†	385.5	5.033	ug/L	0.0918	5.033	ug/L	0.0918	1.82%
K 766.490†	98.9	14.82	ug/L	11.080	14.82	ug/L	11.080	74.74%
Mg 285.213†	73.1	4.524	ug/L	0.8509	4.524	ug/L	0.8509	18.81%
Mn 257.610†	-10.8	-0.131	ug/L	0.0897	-0.131	ug/L	0.0897	68.45%
Mo 202.031†	-12.3	-0.355	ug/L	0.2408	-0.355	ug/L	0.2408	67.81%
Na 589.592†	879.7	122.2	ug/L	11.65	122.2	ug/L	11.65	9.53%
Ni 231.604†	10.3	0.209	ug/L	0.3626	0.209	ug/L	0.3626	173.07%
P 213.617†	3.5	1.062	ug/L	0.5126	1.062	ug/L	0.5126	48.28%
Pb 220.353†	-1.7	-0.293	ug/L	0.3128	-0.293	ug/L	0.3128	106.81%
Sb 206.836†	0.8	0.111	ug/L	0.4226	0.111	ug/L	0.4226	380.26%
Se 196.026†	-3.9	-1.230	ug/L	1.8675	-1.230	ug/L	1.8675	151.86%
Sn 189.927†	-3.8	-0.670	ug/L	0.2581	-0.670	ug/L	0.2581	38.54%
Sr 421.552†	25.8	0.058	ug/L	0.0585	0.058	ug/L	0.0585	100.31%
Ti 337.279†	15.8	0.447	ug/L	0.0788	0.447	ug/L	0.0788	17.63%
Tl 190.801†	0.4	0.092	ug/L	0.5696	0.092	ug/L	0.5696	620.56%
V 292.402†	21.6	0.219	ug/L	0.0682	0.219	ug/L	0.0682	31.17%
Zn 206.200†	-651.1	-6.673	ug/L	0.0566	-6.673	ug/L	0.0566	0.85%
Li 670.784	3925.0	0.227	ug/L	0.0121	0.227	ug/L	0.0121	5.34%

Sequence No.: 52
Sample ID: AZ16343W05 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 78
Date Collected: 06/11/15 7:36:36 PM
Data Type: Reprocessed on 06/12/15 9:41:53 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16343W05 F

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	227535.8	105.1	%	0.99				0.94%
Y Radial	14365.8	102.8	%	7.69				7.48%
Ag 338.289†	32.4	0.183	ug/L	0.1461	0.183	ug/L	0.1461	79.87%
Al 308.215†	15.6	12.22	ug/L	3.299	12.22	ug/L	3.299	26.99%
As 188.979†	0.2	0.033	ug/L	0.9478	0.033	ug/L	0.9478	>999.9%
B 249.677†	20.8	0.632	ug/L	0.5695	0.632	ug/L	0.5695	90.18%
Ba 233.527†	30.0	0.072	ug/L	0.0092	0.072	ug/L	0.0092	12.84%
Be 313.107†	48.9	0.014	ug/L	0.0095	0.014	ug/L	0.0095	67.75%
Ca 315.887†	956.3	61.35	ug/L	3.754	61.35	ug/L	3.754	6.12%
Cd 214.440†	49.3	0.169	ug/L	0.0320	0.169	ug/L	0.0320	18.90%
Co 228.616†	-7.4	-0.080	ug/L	0.0214	-0.080	ug/L	0.0214	26.81%
Cr 267.716†	34.8	0.421	ug/L	0.1122	0.421	ug/L	0.1122	26.66%
Cu 327.393†	181.9	0.976	ug/L	0.3619	0.976	ug/L	0.3619	37.10%
Fe 273.955†	181.3	2.366	ug/L	0.2774	2.366	ug/L	0.2774	11.72%
K 766.490†	123.7	18.42	ug/L	8.638	18.42	ug/L	8.638	46.89%
Mg 285.213†	119.8	7.410	ug/L	0.9266	7.410	ug/L	0.9266	12.50%
Mn 257.610†	-13.4	-0.163	ug/L	0.0425	-0.163	ug/L	0.0425	26.07%
Mo 202.031†	-14.8	-0.427	ug/L	0.2649	-0.427	ug/L	0.2649	62.07%
Na 589.592†	1995.6	277.3	ug/L	34.41	277.3	ug/L	34.41	12.41%
Ni 231.604†	28.7	0.582	ug/L	0.1594	0.582	ug/L	0.1594	27.40%
P 213.617†	26.6	8.047	ug/L	1.0350	8.047	ug/L	1.0350	12.86%
Pb 220.353†	-8.0	-1.338	ug/L	1.1182	-1.338	ug/L	1.1182	83.55%
Sb 206.836†	-1.9	-0.260	ug/L	0.7533	-0.260	ug/L	0.7533	289.45%
Se 196.026†	5.9	1.882	ug/L	2.1354	1.882	ug/L	2.1354	113.45%
Sn 189.927†	-3.2	-0.553	ug/L	0.3454	-0.553	ug/L	0.3454	62.47%
Sr 421.552†	80.1	0.184	ug/L	0.0863	0.184	ug/L	0.0863	47.03%
Ti 337.279†	25.9	0.730	ug/L	0.3698	0.730	ug/L	0.3698	50.64%
Tl 190.801†	-0.5	-0.111	ug/L	0.8102	-0.111	ug/L	0.8102	731.95%
V 292.402†	10.5	0.106	ug/L	0.0591	0.106	ug/L	0.0591	55.59%
Zn 206.200†	-730.0	-7.478	ug/L	0.0988	-7.478	ug/L	0.0988	1.32%
Li 670.784	4049.5	0.235	ug/L	0.0096	0.235	ug/L	0.0096	4.10%

METALS

Calibration Data

APPL, INC.

A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Tetra Tech
ARF No: 76424 SDG: 76424
Initial Calibration Source: CPI
Continuing Calibration Source: Environmental Express
Analysis Date: 06/04/15 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 16:00	%R(1)	True CCV1	Found 16:49	%R(1)	True CCV2	Found 17:37	%R(1)	
Aluminum (Al)	12500	11640	93.1	10000	9995	100	7500	6951	92.7	P
Boron (B)	500	501.7	100	500	539.1	108	375	396.5	106	P
Lithium (Li)	250	251.8	101	250	246	98.4	187.5	192.4	103	P
Zinc (Zn)	500	494.9	99.0	500	507.7	102	375	378.4	101	P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Tetra Tech
ARF No: 76424 SDG: 76424
Initial Calibration Source: CPI
Continuing Calibration Source: Environmental Express
Analysis Date: 06/11/15 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 13:58	%R(1)	True CCV1	Found 14:23	%R(1)	True CCV2	Found 16:50	%R(1)	
Aluminum (Al)	12500	11940	95.5	10000	10150	102	7500	7434	99.1	P
Boron (B)	500	498.3	99.7	500	526	105	375	406.8	108	P
Lithium (Li)	250	269.6	108	250	244.1	97.6	187.5	178.9	95.4	P
Zinc (Zn)	500	494.7	98.9	500	517	103	375	378.5	101	P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Tetra Tech
ARF No: 76424 SDG: 76424
Initial Calibration Source: CPI
Continuing Calibration Source: Environmental Express
Analysis Date: 06/11/15 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 13:58	%R(1)	True CCV1	Found 18:23	%R(1)	True CCV2	Found 19:47	%R(1)	
Aluminum (Al)	12500	11940	95.5	10000	10090	101	7500	7377	98.4	P
Boron (B)	500	498.3	99.7	500	530.3	106	375	408	109	P
Lithium (Li)	250	269.6	108	250	241.6	96.6	187.5	178.4	95.1	P
Zinc (Zn)	500	494.7	98.9	500	507.3	101	375	377.3	101	P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Tetra Tech
ARF No: 76424 SDG: 76424
Initial Calibration Source: CPI
Continuing Calibration Source: Environmental Express
Analysis Date: 06/12/15 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 13:26	%R(1)	True CCV1	Found 13:57	%R(1)	True CCV2	Found 15:02	%R(1)	
Zinc (Zn)	500	521.6	104	500	507.3	101	375	396.2	106	P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Tetra Tech
ARF No: 76424 SDG: 76424
Initial Calibration Source: CPI
Continuing Calibration Source: Environmental Express
Analysis Date: 06/12/15 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 13:26	%R(1)	True CCV1	Found 16:29	%R(1)	True	Found	%R(1)	
Zinc (Zn)	500	521.6	104	500	506.5	101				P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76424 SDG: 76424

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 06/04/15

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
	16:14		16:54		17:57				17:00		
Aluminum (Al)	300.00	U	300.00	U	300.00	U			300.00	U	P
Boron (B)	50.00	U	50.00	U	50.00	U			50.00	U	P
Lithium (Li)	.41	J	.42	J	.41	J			1.00	U	P
Zinc (Zn)	150.00	U	150.00	U	150.00	U			150.00	U	P

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76424 SDG: 76424

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 06/04/15

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
	16:14		16:54		17:57				17:12		
Aluminum (Al)	300.00	U	300.00	U	300.00	U			300.00	U	P
Boron (B)	50.00	U	50.00	U	50.00	U			50.00	U	P
Lithium (Li)	.41	J	.42	J	.41	J			1.00	U	P
Zinc (Zn)	150.00	U	150.00	U	150.00	U			150.00	U	P

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76424 SDG: 76424

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 06/11/15

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
	14:04		14:29		16:59		18:29				
Aluminum (Al)	300.00	U	300.00	U	300.00	U	300.00	U			P
Boron (B)	50.00	U	50.00	U	50.00	U	50.00	U			P
Lithium (Li)	.44	J	.45	J	1.00	U	.47	J			P
Zinc (Zn)	150.00	U	150.00	U	150.00	U	150.00	U			P

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76424 SDG: 76424

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 06/11/15

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	14:04	C	1 19:52	C	2	C	3	C		C	
Aluminum (Al)	300.00	U	300.00	U							P
Boron (B)	50.00	U	50.00	U							P
Lithium (Li)	.44	J	1.00	U							P
Zinc (Zn)	150.00	U	150.00	U							P

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76424 SDG: 76424

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 06/12/15

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
	13:37		14:08		15:08		16:34				
Zinc (Zn)	150.00	U	150.00	U	150.00	U	150.00	U			P

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC.
ARF No.: 76424
ICP ID Number: Jules

Contract: Tetra Tech
SDG: 76424
ICS Source: Environmental Express

Analysis Date: 06/04/15

Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 16:27	Sol AB 16:39	%R(1)
Aluminum (Al)	100000	100000	92880	90030	90.0
Boron (B)			6.758	7.337	
Calcium (Ca)	100000	100000	97090	93240	93.2
Iron (Fe)	100000	100000	91930	92500	92.5
Lithium (Li)		0	0.348	0.197	
Magnesium (Mg)	100000	100000	93510	89470	89.5
Zinc (Zn)		500	-2.622	454.7	90.9

(1) Control Limits: Metals 80-120

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC.
Contract: Tetra Tech
ARF No.: 76424
SDG: 76424
ICP ID Number: Jules
ICS Source: Environmental Express

Analysis Date: 06/11/15
Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 14:10	Sol AB 14:17	%R(1)
Aluminum (Al)	100000	100000	101600	102700	103
Boron (B)			-3.89	-7.221	
Calcium (Ca)	100000	100000	103800	104100	104
Iron (Fe)	100000	100000	97480	102700	103
Lithium (Li)		0	0.93	0.832	
Magnesium (Mg)	100000	100000	100100	99950	100
Zinc (Zn)		500	-2.105	536	107

(1) Control Limits: Metals 80-120

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC.
Contract: Tetra Tech
ARF No.: 76424
SDG: 76424
ICP ID Number: Jules
ICS Source: Environmental Express

Analysis Date: 06/12/15
Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 13:43	Sol AB 13:50	%R(1)
Aluminum (Al)	100000	100000	100300	99840	99.8
Calcium (Ca)	100000	100000	103800	103400	103
Iron (Fe)	100000	100000	98980	98220	98.2
Magnesium (Mg)	100000	100000	100000	100400	100
Zinc (Zn)		500	0.999	485.9	97.2

(1) Control Limits: Metals 80-120

Reprocessing Begun
Logged In Analyst: chemist_metals Technique: ICP Continuous

Results Data Set (original): 150604A6010
Results Library (original): C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb
Results Data Set (reprocessed):
Results Library (reprocessed):

Sequence No.: 1
Sample ID: CalBlk 150604RJS I:JL O:R
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 06/04/15 3:38:49 PM
Data Type: Reprocessed on 06/11/15 4:12:12 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CalBlk 150604RJS I:JL O:R

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	275496.1	1224.97	0.44%	100.0	%
Y Radial	18750.6	33.16	0.18%	100.0	%
Ag 338.289†	-258.3	61.21	23.70%	[0.00]	ug/L
Al 308.215†	170.8	8.98	5.26%	[0.00]	ug/L
As 188.979†	-63.3	1.93	3.05%	[0.00]	ug/L
B 249.677†	32.3	4.20	13.02%	[0.00]	ug/L
Ba 233.527†	-209.2	9.27	4.43%	[0.00]	ug/L
Be 313.107†	2424.8	30.17	1.24%	[0.00]	ug/L
Ca 315.887†	-1037.0	8.85	0.85%	[0.00]	ug/L
Cd 214.440†	109.6	5.96	5.43%	[0.00]	ug/L
Co 228.616†	-306.8	5.11	1.66%	[0.00]	ug/L
Cr 267.716†	62.8	1.98	3.16%	[0.00]	ug/L
Cu 327.393†	-1026.4	67.82	6.61%	[0.00]	ug/L
Fe 273.955†	1460.0	60.26	4.13%	[0.00]	ug/L
K 766.490†	-999.1	48.67	4.87%	[0.00]	ug/L
Mg 285.213†	118.2	9.35	7.91%	[0.00]	ug/L
Mn 257.610†	13.0	4.48	34.47%	[0.00]	ug/L
Mo 202.031†	-119.5	10.27	8.59%	[0.00]	ug/L
Na 589.592†	93.7	77.20	82.38%	[0.00]	ug/L
Ni 231.604†	-185.2	6.51	3.52%	[0.00]	ug/L
P 213.617†	42.7	0.92	2.15%	[0.00]	ug/L
Pb 220.353†	38.6	1.50	3.88%	[0.00]	ug/L
Sb 206.836†	34.1	4.91	14.42%	[0.00]	ug/L
Se 196.026†	24.7	1.64	6.65%	[0.00]	ug/L
Sn 189.927†	-1.0	1.89	192.67%	[0.00]	ug/L
Sr 421.552†	-28.5	14.72	51.57%	[0.00]	ug/L
Ti 337.279†	-40.9	14.77	36.13%	[0.00]	ug/L
Tl 190.801†	-46.8	3.80	8.12%	[0.00]	ug/L
V 292.402†	10.7	4.27	39.98%	[0.00]	ug/L
Zn 206.200†	191.9	20.83	10.85%	[0.00]	ug/L
Li 670.784	4367.8	73.21	1.68%	[0.00]	ug/L

Sequence No.: 2
Sample ID: STD 1 150604RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 2
Date Collected: 06/04/15 3:43:52 PM
Data Type: Reprocessed on 06/11/15 4:12:14 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 1 150604RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	275833.6	3748.93	1.36%	100.1	%
Y Radial	19373.4	1280.54	6.61%	103.3	%
Ag 338.289†	1126.8	34.81	3.09%	[0.5]	ug/L
Al 308.215†	354.9	39.77	11.21%	[50]	ug/L
As 188.979†	73.4	4.52	6.15%	[2]	ug/L
B 249.677†	1532.1	27.18	1.77%	[25]	ug/L
Ba 233.527†	6554.8	437.50	6.67%	[1.5]	ug/L
Be 313.107†	45861.3	502.56	1.10%	[1]	ug/L
Ca 315.887†	10029.3	624.26	6.22%	[50]	ug/L
Cd 214.440†	4221.3	52.07	1.23%	[0.25]	ug/L
Co 228.616†	1559.9	18.05	1.16%	[2.5]	ug/L
Cr 267.716†	1253.7	18.20	1.45%	[0.5]	ug/L
Cu 327.393†	2309.4	33.32	1.44%	[2.5]	ug/L
Fe 273.955†	20935.6	199.73	0.95%	[25]	ug/L
K 766.490†	3987.9	285.19	7.15%	[500]	ug/L
Mg 285.213†	10255.3	694.26	6.77%	[25]	ug/L
Mn 257.610†	1203.3	80.28	6.67%	[1]	ug/L
Mo 202.031†	447.1	9.41	2.10%	[1]	ug/L
Na 589.592†	2171.1	113.28	5.22%	[500]	ug/L
Ni 231.604†	749.7	12.12	1.62%	[1]	ug/L
P 213.617†	238.5	9.80	4.11%	[12.5]	ug/L
Pb 220.353†	113.5	2.78	2.45%	[1.5]	ug/L
Sb 206.836†	115.9	6.21	5.36%	[2]	ug/L
Se 196.026†	40.5	7.47	18.44%	[2]	ug/L
Sn 189.927†	76.5	3.30	4.31%	[3]	ug/L
Sr 421.552†	1215.4	40.59	3.34%	[1]	ug/L
Ti 337.279†	550.3	40.88	7.43%	[2.5]	ug/L
Tl 190.801†	114.7	3.81	3.32%	[2]	ug/L
V 292.402†	1666.4	20.09	1.21%	[0.5]	ug/L
Zn 206.200†	2057.6	32.82	1.60%	[25]	ug/L
Li 670.784	60593.2	128.10	0.21%	[5]	ug/L

Sequence No.: 3
Sample ID: STD 2 150604RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 06/04/15 3:48:56 PM
Data Type: Reprocessed on 06/11/15 4:12:15 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 2 150604RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	259113.9	737.63	0.28%	94.05	%
Y Radial	17931.6	48.90	0.27%	95.63	%
Ag 338.289†	50454.9	52.90	0.10%	[250]	ug/L
Al 308.215†	16263.8	42.58	0.26%	[10000]	ug/L
As 188.979†	3348.9	24.21	0.72%	[500]	ug/L
B 249.677†	22810.5	147.98	0.65%	[500]	ug/L
Ba 233.527†	253131.4	299.14	0.12%	[500]	ug/L
Be 313.107†	2340434.3	4251.74	0.18%	[500]	ug/L
Ca 315.887†	493830.0	1961.33	0.40%	[25000]	ug/L
Cd 214.440†	173101.4	207.13	0.12%	[500]	ug/L
Co 228.616†	65612.7	295.65	0.45%	[500]	ug/L
Cr 267.716†	54127.1	342.75	0.63%	[500]	ug/L
Cu 327.393†	107240.7	214.14	0.20%	[500]	ug/L
Fe 273.955†	990794.0	882.67	0.09%	[10000]	ug/L
K 766.490†	62773.6	91.26	0.15%	[10000]	ug/L
Mg 285.213†	532708.3	2837.24	0.53%	[25000]	ug/L
Mn 257.610†	53381.5	98.07	0.18%	[500]	ug/L
Mo 202.031†	19900.0	92.90	0.47%	[500]	ug/L
Na 589.592†	41713.0	159.03	0.38%	[12500]	ug/L
Ni 231.604†	30585.7	172.48	0.56%	[500]	ug/L
P 213.617†	10710.2	56.41	0.53%	[2500]	ug/L
Pb 220.353†	5125.5	27.61	0.54%	[500]	ug/L
Sb 206.836†	5072.4	15.58	0.31%	[500]	ug/L
Se 196.026†	1711.0	11.85	0.69%	[500]	ug/L
Sn 189.927†	3361.7	12.76	0.38%	[500]	ug/L
Sr 421.552†	54673.4	127.70	0.23%	[500]	ug/L
Ti 337.279†	24123.4	42.32	0.18%	[500]	ug/L
Tl 190.801†	4727.3	45.75	0.97%	[500]	ug/L
V 292.402†	68881.9	184.46	0.27%	[500]	ug/L
Zn 206.200†	57255.6	195.21	0.34%	[500]	ug/L
Li 670.784	4218501.9	16962.65	0.40%	[250]	ug/L

Sequence No.: 4
Sample ID: STD 3 150604RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 4
Date Collected: 06/04/15 3:52:48 PM
Data Type: Reprocessed on 06/11/15 4:12:16 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 3 150604RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	253219.0	1382.60	0.55%	91.91	%
Y Radial	17656.7	53.79	0.30%	94.17	%
Ag 338.289†	103662.7	199.86	0.19%	[500]	ug/L
Al 308.215†	33831.1	203.83	0.60%	[20000]	ug/L
As 188.979†	6958.7	77.12	1.11%	[1000]	ug/L
B 249.677†	45997.7	90.55	0.20%	[1000]	ug/L
Ba 233.527†	516796.9	419.40	0.08%	[1000]	ug/L
Be 313.107†	4777744.1	7450.66	0.16%	[1000]	ug/L
Ca 315.887†	1011461.6	5736.61	0.57%	[50000]	ug/L
Cd 214.440†	350394.0	477.15	0.14%	[1000]	ug/L
Co 228.616†	126691.4	275.05	0.22%	[1000]	ug/L
Cr 267.716†	105910.8	101.54	0.10%	[1000]	ug/L
Cu 327.393†	221192.9	528.03	0.24%	[1000]	ug/L
Fe 273.955†	2010692.2	2288.70	0.11%	[20000]	ug/L
K 766.490†	131498.6	552.80	0.42%	[20000]	ug/L
Mg 285.213†	1082993.5	6873.26	0.63%	[50000]	ug/L
Mn 257.610†	110285.7	502.28	0.46%	[1000]	ug/L
Mo 202.031†	41368.9	218.21	0.53%	[1000]	ug/L
Na 589.592†	85100.3	437.54	0.51%	[25000]	ug/L
Ni 231.604†	62753.6	336.61	0.54%	[1000]	ug/L
P 213.617†	22282.3	137.52	0.62%	[5000]	ug/L
Pb 220.353†	10385.7	61.13	0.59%	[1000]	ug/L
Sb 206.836†	10436.8	52.33	0.50%	[1000]	ug/L
Se 196.026†	3550.0	48.04	1.35%	[1000]	ug/L
Sn 189.927†	6884.9	36.91	0.54%	[1000]	ug/L
Sr 421.552†	110057.0	822.28	0.75%	[1000]	ug/L
Ti 337.279†	49565.5	238.19	0.48%	[1000]	ug/L
Tl 190.801†	9483.2	85.54	0.90%	[1000]	ug/L
V 292.402†	141534.9	263.91	0.19%	[1000]	ug/L
Zn 206.200†	110402.8	208.78	0.19%	[1000]	ug/L
Li 670.784	9103140.7	34304.68	0.38%	[500]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 338.289	3	Lin Thru 0	0.0	206.2	0.00000	0.999904	
Al 308.215	3	Lin Thru 0	0.0	1.679	0.00000	0.999853	
As 188.979	3	Lin Thru 0	0.0	6.907	0.00000	0.999856	
B 249.677	3	Lin Thru 0	0.0	45.93	0.00000	0.999967	
Ba 233.527	3	Lin Thru 0	0.0	514.7	0.00000	0.999916	
Be 313.107	3	Lin Thru 0	0.0	4758	0.00000	0.999937	
Ca 315.887	3	Lin Thru 0	0.0	20.13	0.00000	0.999923	
Cd 214.440	3	Lin Thru 0	0.0	349.6	0.00000	0.999933	
Co 228.616	3	Lin Thru 0	0.0	127.6	0.00000	0.999861	
Cr 267.716	3	Lin Thru 0	0.0	106.4	0.00000	0.999910	
Cu 327.393	3	Lin Thru 0	0.0	219.9	0.00000	0.999900	
Fe 273.955	3	Lin Thru 0	0.0	100.2	0.00000	0.999949	
K 766.490	3	Lin Thru 0	0.0	6.516	0.00000	0.999821	
Mg 285.213	3	Lin Thru 0	0.0	21.59	0.00000	0.999946	
Mn 257.610	3	Lin Thru 0	0.0	109.6	0.00000	0.999878	
Mo 202.031	3	Lin Thru 0	0.0	41.06	0.00000	0.999844	
Na 589.592	3	Lin Thru 0	0.0	3.391	0.00000	0.999956	
Ni 231.604	3	Lin Thru 0	0.0	62.44	0.00000	0.999900	
P 213.617	3	Lin Thru 0	0.0	4.422	0.00000	0.999851	
Pb 220.353	3	Lin Thru 0	0.0	10.36	0.00000	0.999951	
Sb 206.836	3	Lin Thru 0	0.0	10.38	0.00000	0.999903	
Se 196.026	3	Lin Thru 0	0.0	3.524	0.00000	0.999858	

Sn 189.927	3	Lin Thru 0	0.0	6.853	0.00000	0.999929
Sr 421.552	3	Lin Thru 0	0.0	109.9	0.00000	0.999956
Ti 337.279	3	Lin Thru 0	0.0	49.30	0.00000	0.999913
Tl 190.801	3	Lin Thru 0	0.0	9.478	0.00000	0.999958
V 292.402	3	Lin Thru 0	0.0	140.8	0.00000	0.999891
Zn 206.200	3	Lin Thru 0	0.0	111.2	0.00000	0.999874
Li 670.784	3	Lin Thru 0	0.0	17940	0.00000	0.999555

Sequence No.: 5
Sample ID: ICV 150604RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 06/04/15 4:00:54 PM
Data Type: Reprocessed on 06/11/15 4:12:17 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICV 150604RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	260618.0	94.60	%	1.833				1.94%
Y Radial	18352.4	97.88	%	0.584				0.60%
Ag 338.289†	49833.7	241.6	ug/L	5.00	241.6	ug/L	5.00	2.07%
QC value within limits for Ag 338.289 Recovery = 96.66%								
Al 308.215†	19501.0	11640	ug/L	31.03	11640	ug/L	31.03	0.27%
QC value within limits for Al 308.215 Recovery = 93.13%								
As 188.979†	3155.8	453.8	ug/L	9.51	453.8	ug/L	9.51	2.10%
QC value within limits for As 188.979 Recovery = 90.77%								
B 249.677†	21176.3	501.7	ug/L	10.19	501.7	ug/L	10.19	2.03%
QC value within limits for B 249.677 Recovery = 100.33%								
Ba 233.527†	251148.5	487.6	ug/L	9.41	487.6	ug/L	9.41	1.93%
QC value within limits for Ba 233.527 Recovery = 97.51%								
Be 313.107†	2301385.4	483.6	ug/L	9.39	483.6	ug/L	9.39	1.94%
QC value within limits for Be 313.107 Recovery = 96.73%								
Ca 315.887†	250408.0	12430	ug/L	42.41	12430	ug/L	42.41	0.34%
QC value within limits for Ca 315.887 Recovery = 99.46%								
Cd 214.440†	172982.8	494.9	ug/L	9.52	494.9	ug/L	9.52	1.92%
QC value within limits for Cd 214.440 Recovery = 98.98%								
Co 228.616†	62148.5	487.0	ug/L	9.25	487.0	ug/L	9.25	1.90%
QC value within limits for Co 228.616 Recovery = 97.41%								
Cr 267.716†	50805.4	477.5	ug/L	9.60	477.5	ug/L	9.60	2.01%
QC value within limits for Cr 267.716 Recovery = 95.51%								
Cu 327.393†	106280.8	484.9	ug/L	9.19	484.9	ug/L	9.19	1.89%
QC value within limits for Cu 327.393 Recovery = 96.97%								
Fe 273.955†	1213071.1	12060	ug/L	236.23	12060	ug/L	236.23	1.96%
QC value within limits for Fe 273.955 Recovery = 96.50%								
K 766.490†	75476.9	11560	ug/L	29.01	11560	ug/L	29.01	0.25%
QC value within limits for K 766.490 Recovery = 92.47%								
Mg 285.213†	264691.6	12270	ug/L	38.50	12270	ug/L	38.50	0.31%
QC value within limits for Mg 285.213 Recovery = 98.16%								
Mn 257.610†	51604.1	471.2	ug/L	2.42	471.2	ug/L	2.42	0.51%
QC value within limits for Mn 257.610 Recovery = 94.24%								
Mo 202.031†	19678.0	479.8	ug/L	9.87	479.8	ug/L	9.87	2.06%
QC value within limits for Mo 202.031 Recovery = 95.97%								
Na 589.592†	39284.7	11570	ug/L	76.10	11570	ug/L	76.10	0.66%
QC value within limits for Na 589.592 Recovery = 92.56%								
Ni 231.604†	31277.7	500.0	ug/L	10.13	500.0	ug/L	10.13	2.03%
QC value within limits for Ni 231.604 Recovery = 100.00%								
P 213.617†	10141.8	2293	ug/L	52.61	2293	ug/L	52.61	2.29%
QC value within limits for P 213.617 Recovery = 91.74%								
Pb 220.353†	5128.7	496.9	ug/L	9.53	496.9	ug/L	9.53	1.92%
QC value within limits for Pb 220.353 Recovery = 99.39%								
Sb 206.836†	4951.7	477.1	ug/L	10.75	477.1	ug/L	10.75	2.25%
QC value within limits for Sb 206.836 Recovery = 95.42%								
Se 196.026†	1682.5	481.1	ug/L	10.91	481.1	ug/L	10.91	2.27%
QC value within limits for Se 196.026 Recovery = 96.22%								
Sn 189.927†	1727.6	252.1	ug/L	6.77	252.1	ug/L	6.77	2.69%
QC value within limits for Sn 189.927 Recovery = 100.84%								
Sr 421.552†	51764.1	470.5	ug/L	1.57	470.5	ug/L	1.57	0.33%
QC value within limits for Sr 421.552 Recovery = 94.09%								
Ti 337.279†	23013.1	466.6	ug/L	2.55	466.6	ug/L	2.55	0.55%
QC value within limits for Ti 337.279 Recovery = 93.32%								
Tl 190.801†	4741.0	500.2	ug/L	10.52	500.2	ug/L	10.52	2.10%
QC value within limits for Tl 190.801 Recovery = 100.05%								
V 292.402†	68087.1	483.6	ug/L	9.29	483.6	ug/L	9.29	1.92%
QC value within limits for V 292.402 Recovery = 96.73%								
Zn 206.200†	54391.8	494.9	ug/L	9.48	494.9	ug/L	9.48	1.91%
QC value within limits for Zn 206.200 Recovery = 98.99%								

Li 670.784	4517840.3	251.8 ug/L	0.91	251.8 ug/L	0.91	0.36%

QC value within limits for Li 670.784 Recovery = 100.74%

All analyte(s) passed QC.

Sequence No.: 6
Sample ID: ICB 150604RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 06/04/15 4:14:41 PM
Data Type: Reprocessed on 06/11/15 4:12:18 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICB 150604RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	270761.7	98.28	%	0.127				0.13%
Y Radial	18417.6	98.22	%	0.484				0.49%
Ag 338.289†	59.0	0.286	ug/L	0.2225	0.286	ug/L	0.2225	77.80%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-9.0	-5.368	ug/L	2.2512	-5.368	ug/L	2.2512	41.94%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	5.0	0.716	ug/L	0.4739	0.716	ug/L	0.4739	66.23%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	102.9	2.227	ug/L	0.1094	2.227	ug/L	0.1094	4.91%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.1	0.020	ug/L	0.0201	0.020	ug/L	0.0201	102.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	42.1	0.009	ug/L	0.0033	0.009	ug/L	0.0033	37.01%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	53.7	2.668	ug/L	1.0089	2.668	ug/L	1.0089	37.82%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-30.7	-0.088	ug/L	0.0538	-0.088	ug/L	0.0538	61.42%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	6.9	0.055	ug/L	0.0319	0.055	ug/L	0.0319	58.23%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-3.1	-0.029	ug/L	0.0236	-0.029	ug/L	0.0236	81.89%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	-367.4	-1.671	ug/L	0.0678	-1.671	ug/L	0.0678	4.05%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	-423.2	-4.218	ug/L	0.0402	-4.218	ug/L	0.0402	0.95%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-69.3	-10.61	ug/L	17.664	-10.61	ug/L	17.664	166.48%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	19.6	0.903	ug/L	0.3876	0.903	ug/L	0.3876	42.92%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	8.1	0.074	ug/L	0.0705	0.074	ug/L	0.0705	95.25%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	15.0	0.366	ug/L	0.2262	0.366	ug/L	0.2262	61.75%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-101.7	-29.98	ug/L	5.211	-29.98	ug/L	5.211	17.38%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	7.6	0.121	ug/L	0.1840	0.121	ug/L	0.1840	152.27%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-7.8	-1.769	ug/L	0.5459	-1.769	ug/L	0.5459	30.86%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-3.8	-0.365	ug/L	0.3841	-0.365	ug/L	0.3841	105.33%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-11.6	-1.118	ug/L	0.4100	-1.118	ug/L	0.4100	36.67%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-2.4	-0.674	ug/L	0.2509	-0.674	ug/L	0.2509	37.24%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	15.6	2.283	ug/L	0.6444	2.283	ug/L	0.6444	28.22%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	0.4	0.004	ug/L	0.1129	0.004	ug/L	0.1129	>999.9%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	9.1	0.185	ug/L	0.2052	0.185	ug/L	0.2052	110.77%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	5.7	0.605	ug/L	0.2712	0.605	ug/L	0.2712	44.84%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-4.4	-0.032	ug/L	0.0216	-0.032	ug/L	0.0216	68.60%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-86.3	-0.777	ug/L	0.1308	-0.777	ug/L	0.1308	16.84%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	7450.6	0.415 ug/L	0.0071	0.415 ug/L	0.0071	1.70%

QC value within limits for Li 670.784 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 8
Sample ID: ICSA 150604RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 6
Date Collected: 06/04/15 4:27:21 PM
Data Type: Reprocessed on 06/11/15 4:12:20 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSA 150604RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	255225.8	92.64	%	0.684				0.74%
Y Radial	18032.8	96.17	%	0.555				0.58%
Ag 338.289†	-56.0	-0.272	ug/L	0.1208	-0.272	ug/L	0.1208	44.43%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	155907.0	92880	ug/L	328.56	92880	ug/L	328.56	0.35%
QC value within limits for Al 308.215 Recovery = 92.88%								
As 188.979†	2.0	0.510	ug/L	1.4526	0.510	ug/L	1.4526	284.94%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-14231.2	6.758	ug/L	0.6564	6.758	ug/L	0.6564	9.71%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2338.8	-0.645	ug/L	0.0178	-0.645	ug/L	0.0178	2.76%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	111.0	0.023	ug/L	0.0007	0.023	ug/L	0.0007	2.92%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	1954840.7	97090	ug/L	320.54	97090	ug/L	320.54	0.33%
QC value within limits for Ca 315.887 Recovery = 97.09%								
Cd 214.440†	764.0	-1.439	ug/L	0.0465	-1.439	ug/L	0.0465	3.23%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	166.8	-1.390	ug/L	0.0438	-1.390	ug/L	0.0438	3.15%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	58.8	-0.291	ug/L	0.1427	-0.291	ug/L	0.1427	49.07%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	-985.0	0.101	ug/L	0.0181	0.101	ug/L	0.0181	17.83%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	9216497.4	91930	ug/L	153.45	91930	ug/L	153.45	0.17%
QC value within limits for Fe 273.955 Recovery = 91.93%								
K 766.490†	147.1	-67.48	ug/L	18.012	-67.48	ug/L	18.012	26.69%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	2017252.4	93510	ug/L	219.45	93510	ug/L	219.45	0.23%
QC value within limits for Mg 285.213 Recovery = 93.51%								
Mn 257.610†	147.8	2.924	ug/L	0.1346	2.924	ug/L	0.1346	4.60%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-60.2	-0.140	ug/L	0.3650	-0.140	ug/L	0.3650	259.95%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-51.8	-26.63	ug/L	11.297	-26.63	ug/L	11.297	42.42%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-88.1	0.862	ug/L	0.1101	0.862	ug/L	0.1101	12.76%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-130.6	-29.54	ug/L	1.877	-29.54	ug/L	1.877	6.35%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-45.5	-0.983	ug/L	0.9603	-0.983	ug/L	0.9603	97.66%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-24.1	-2.318	ug/L	0.5780	-2.318	ug/L	0.5780	24.94%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-136.1	-2.488	ug/L	1.9591	-2.488	ug/L	1.9591	78.74%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	21.2	3.092	ug/L	0.3198	3.092	ug/L	0.3198	10.35%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	30.2	-3.523	ug/L	0.0853	-3.523	ug/L	0.0853	2.42%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	64.8	-0.298	ug/L	0.6224	-0.298	ug/L	0.6224	208.88%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-36.1	-3.811	ug/L	1.0703	-3.811	ug/L	1.0703	28.08%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	197.1	1.400	ug/L	0.0671	1.400	ug/L	0.0671	4.79%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-221.3	-2.622	ug/L	0.0970	-2.622	ug/L	0.0970	3.70%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	6248.6	0.348 ug/L	0.0079	0.348 ug/L	0.0079	2.26%

All analyte(s) passed QC.

Li 670.784	3529.9	0.197 ug/L	0.0083	0.197 ug/L	0.0083	4.22%

QC Failed. Continue with analysis.

Sequence No.: 9
Sample ID: ICSAB 150604RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 7
Date Collected: 06/04/15 4:39:23 PM
Data Type: Reprocessed on 06/11/15 4:12:22 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSAB 150604RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	254110.9	92.24	%	1.584				1.72%
Y Radial	19411.1	103.5	%	14.54				14.05%
Ag 338.289†	100655.9	488.1	ug/L	7.31	488.1	ug/L	7.31	1.50%
QC value within limits for Ag 338.289 Recovery = 97.62%								
Al 308.215†	151098.9	90030	ug/L	12309.95	90030	ug/L	12309.95	13.67%
QC value within limits for Al 308.215 Recovery = 90.03%								
As 188.979†	1384.9	199.7	ug/L	2.04	199.7	ug/L	2.04	1.02%
QC value less than the lower limit for As 188.979 Recovery = 79.88%								
B 249.677†	-14282.8	7.337	ug/L	2.0950	7.337	ug/L	2.0950	28.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	123186.0	234.3	ug/L	3.59	234.3	ug/L	3.59	1.53%
QC value within limits for Ba 233.527 Recovery = 93.71%								
Be 313.107†	1078122.2	226.6	ug/L	3.51	226.6	ug/L	3.51	1.55%
QC value within limits for Be 313.107 Recovery = 90.63%								
Ca 315.887†	1877432.1	93240	ug/L	12728.86	93240	ug/L	12728.86	13.65%
QC value within limits for Ca 315.887 Recovery = 93.24%								
Cd 214.440†	161267.4	457.8	ug/L	7.54	457.8	ug/L	7.54	1.65%
QC value within limits for Cd 214.440 Recovery = 91.56%								
Co 228.616†	30314.7	235.5	ug/L	3.82	235.5	ug/L	3.82	1.62%
QC value within limits for Co 228.616 Recovery = 94.20%								
Cr 267.716†	25770.2	241.5	ug/L	4.11	241.5	ug/L	4.11	1.70%
QC value within limits for Cr 267.716 Recovery = 96.60%								
Cu 327.393†	52156.1	241.7	ug/L	3.76	241.7	ug/L	3.76	1.56%
QC value within limits for Cu 327.393 Recovery = 96.69%								
Fe 273.955†	9274680.8	92500	ug/L	1324.36	92500	ug/L	1324.36	1.43%
QC value within limits for Fe 273.955 Recovery = 92.50%								
K 766.490†	187.7	-61.86	ug/L	27.012	-61.86	ug/L	27.012	43.67%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1929973.9	89470	ug/L	12143.39	89470	ug/L	12143.39	13.57%
QC value within limits for Mg 285.213 Recovery = 89.47%								
Mn 257.610†	24343.0	223.9	ug/L	31.94	223.9	ug/L	31.94	14.26%
QC value within limits for Mn 257.610 Recovery = 89.58%								
Mo 202.031†	9302.6	228.1	ug/L	3.15	228.1	ug/L	3.15	1.38%
QC value within limits for Mo 202.031 Recovery = 91.25%								
Na 589.592†	-53.4	-27.70	ug/L	19.821	-27.70	ug/L	19.821	71.56%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	28688.5	461.2	ug/L	8.04	461.2	ug/L	8.04	1.74%
QC value within limits for Ni 231.604 Recovery = 92.24%								
P 213.617†	-74.3	-16.81	ug/L	1.125	-16.81	ug/L	1.125	6.69%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	4749.2	461.7	ug/L	8.87	461.7	ug/L	8.87	1.92%
QC value within limits for Pb 220.353 Recovery = 92.35%								
Sb 206.836†	2252.5	217.0	ug/L	3.23	217.0	ug/L	3.23	1.49%
QC value within limits for Sb 206.836 Recovery = 86.81%								
Se 196.026†	707.9	236.6	ug/L	6.34	236.6	ug/L	6.34	2.68%
QC value within limits for Se 196.026 Recovery = 94.66%								
Sn 189.927†	17.1	2.494	ug/L	0.9171	2.494	ug/L	0.9171	36.77%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	31.6	-3.364	ug/L	0.5448	-3.364	ug/L	0.5448	16.20%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	75.2	0.018	ug/L	0.3969	0.018	ug/L	0.3969	>999.9%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	2135.1	225.3	ug/L	3.26	225.3	ug/L	3.26	1.45%
QC value within limits for Tl 190.801 Recovery = 90.11%								
V 292.402†	33340.3	236.8	ug/L	3.77	236.8	ug/L	3.77	1.59%
QC value within limits for V 292.402 Recovery = 94.73%								
Zn 206.200†	50355.2	454.7	ug/L	6.82	454.7	ug/L	6.82	1.50%
QC value within limits for Zn 206.200 Recovery = 90.94%								

Sequence No.: 10
Sample ID: CCV1 150604RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 06/04/15 4:49:21 PM
Data Type: Reprocessed on 06/11/15 4:12:23 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV1 150604RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	260438.8	94.53	%	0.498				0.53%
Y Radial	18189.1	97.01	%	0.391				0.40%
Ag 338.289†	51960.2	252.0	ug/L	2.21	252.0	ug/L	2.21	0.88%
QC value within limits for Ag 338.289 Recovery = 100.78%								
Al 308.215†	16737.1	9995	ug/L	43.67	9995	ug/L	43.67	0.44%
QC value within limits for Al 308.215 Recovery = 99.95%								
As 188.979†	3403.7	488.1	ug/L	4.05	488.1	ug/L	4.05	0.83%
QC value within limits for As 188.979 Recovery = 97.63%								
B 249.677†	23228.9	539.1	ug/L	8.31	539.1	ug/L	8.31	1.54%
QC value within limits for B 249.677 Recovery = 107.82%								
Ba 233.527†	257977.2	500.9	ug/L	3.76	500.9	ug/L	3.76	0.75%
QC value within limits for Ba 233.527 Recovery = 100.19%								
Be 313.107†	2383721.1	500.9	ug/L	4.26	500.9	ug/L	4.26	0.85%
QC value within limits for Be 313.107 Recovery = 100.19%								
Ca 315.887†	503815.0	25020	ug/L	194.74	25020	ug/L	194.74	0.78%
QC value within limits for Ca 315.887 Recovery = 100.07%								
Cd 214.440†	175014.0	501.0	ug/L	3.26	501.0	ug/L	3.26	0.65%
QC value within limits for Cd 214.440 Recovery = 100.20%								
Co 228.616†	66294.5	519.5	ug/L	6.24	519.5	ug/L	6.24	1.20%
QC value within limits for Co 228.616 Recovery = 103.90%								
Cr 267.716†	54706.8	514.1	ug/L	6.44	514.1	ug/L	6.44	1.25%
QC value within limits for Cr 267.716 Recovery = 102.83%								
Cu 327.393†	109719.3	500.4	ug/L	4.69	500.4	ug/L	4.69	0.94%
QC value within limits for Cu 327.393 Recovery = 100.08%								
Fe 273.955†	1015983.8	10100	ug/L	75.70	10100	ug/L	75.70	0.75%
QC value within limits for Fe 273.955 Recovery = 100.95%								
K 766.490†	65653.1	10050	ug/L	11.07	10050	ug/L	11.07	0.11%
QC value within limits for K 766.490 Recovery = 100.49%								
Mg 285.213†	549358.6	25450	ug/L	229.97	25450	ug/L	229.97	0.90%
QC value within limits for Mg 285.213 Recovery = 101.82%								
Mn 257.610†	54992.7	501.5	ug/L	1.73	501.5	ug/L	1.73	0.35%
QC value within limits for Mn 257.610 Recovery = 100.29%								
Mo 202.031†	20267.9	494.2	ug/L	6.88	494.2	ug/L	6.88	1.39%
QC value within limits for Mo 202.031 Recovery = 98.83%								
Na 589.592†	46421.0	13680	ug/L	70.18	13680	ug/L	70.18	0.51%
QC value within limits for Na 589.592 Recovery = 109.41%								
Ni 231.604†	31098.4	497.1	ug/L	5.16	497.1	ug/L	5.16	1.04%
QC value within limits for Ni 231.604 Recovery = 99.42%								
P 213.617†	10873.1	2459	ug/L	35.01	2459	ug/L	35.01	1.42%
QC value within limits for P 213.617 Recovery = 98.35%								
Pb 220.353†	5157.7	500.3	ug/L	5.98	500.3	ug/L	5.98	1.19%
QC value within limits for Pb 220.353 Recovery = 100.05%								
Sb 206.836†	5086.6	490.1	ug/L	5.74	490.1	ug/L	5.74	1.17%
QC value within limits for Sb 206.836 Recovery = 98.02%								
Se 196.026†	1770.3	504.8	ug/L	1.13	504.8	ug/L	1.13	0.22%
QC value within limits for Se 196.026 Recovery = 100.95%								
Sn 189.927†	3432.0	500.8	ug/L	4.74	500.8	ug/L	4.74	0.95%
QC value within limits for Sn 189.927 Recovery = 100.16%								
Sr 421.552†	65424.7	594.3	ug/L	4.73	594.3	ug/L	4.73	0.80%
QC value greater than the upper limit for Sr 421.552 Recovery = 118.85%								
Ti 337.279†	24489.5	496.4	ug/L	1.83	496.4	ug/L	1.83	0.37%
QC value within limits for Ti 337.279 Recovery = 99.27%								
Tl 190.801†	4791.2	505.5	ug/L	5.24	505.5	ug/L	5.24	1.04%
QC value within limits for Tl 190.801 Recovery = 101.11%								
V 292.402†	69951.5	496.9	ug/L	4.81	496.9	ug/L	4.81	0.97%
QC value within limits for V 292.402 Recovery = 99.38%								
Zn 206.200†	55688.1	507.7	ug/L	2.41	507.7	ug/L	2.41	0.48%
QC value within limits for Zn 206.200 Recovery = 101.54%								

Li 670.784	4413618.5	246.0 ug/L	1.66	246.0 ug/L	1.66	0.67%

QC value within limits for Li 670.784 Recovery = 98.41%
QC Failed. Continue with analysis.

Sequence No.: 11
Sample ID: CCB 150604RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 06/04/15 4:54:24 PM
Data Type: Reprocessed on 06/11/15 4:12:24 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150604RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	270901.9	98.33	%	0.923				0.94%
Y Radial	19365.8	103.3	%	7.07				6.84%
Ag 338.289†	88.4	0.429	ug/L	0.1129	0.429	ug/L	0.1129	26.35%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-21.2	-12.68	ug/L	4.880	-12.68	ug/L	4.880	38.48%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	3.8	0.552	ug/L	0.9398	0.552	ug/L	0.9398	170.32%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	146.1	3.191	ug/L	0.1768	3.191	ug/L	0.1768	5.54%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.9	0.015	ug/L	0.0097	0.015	ug/L	0.0097	65.52%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	248.7	0.052	ug/L	0.0082	0.052	ug/L	0.0082	15.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	103.5	5.143	ug/L	2.2947	5.143	ug/L	2.2947	44.61%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-34.5	-0.099	ug/L	0.0394	-0.099	ug/L	0.0394	39.86%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	23.9	0.189	ug/L	0.0761	0.189	ug/L	0.0761	40.21%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-6.4	-0.061	ug/L	0.0169	-0.061	ug/L	0.0169	27.99%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	-445.0	-2.023	ug/L	0.2032	-2.023	ug/L	0.2032	10.05%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	262.8	2.632	ug/L	0.2542	2.632	ug/L	0.2542	9.66%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-11.3	-1.696	ug/L	16.0233	-1.696	ug/L	16.0233	944.96%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	33.2	1.542	ug/L	0.5586	1.542	ug/L	0.5586	36.22%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	2.6	0.023	ug/L	0.0589	0.023	ug/L	0.0589	252.39%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	27.4	0.667	ug/L	0.2308	0.667	ug/L	0.2308	34.60%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-111.0	-32.73	ug/L	7.772	-32.73	ug/L	7.772	23.75%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-1.5	-0.024	ug/L	0.0161	-0.024	ug/L	0.0161	67.02%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-9.6	-2.165	ug/L	0.3863	-2.165	ug/L	0.3863	17.84%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-8.0	-0.775	ug/L	0.1650	-0.775	ug/L	0.1650	21.28%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-6.0	-0.575	ug/L	0.4555	-0.575	ug/L	0.4555	79.27%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-0.6	-0.176	ug/L	1.6102	-0.176	ug/L	1.6102	916.73%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	20.3	2.968	ug/L	0.3662	2.968	ug/L	0.3662	12.34%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	-2.0	-0.019	ug/L	0.0765	-0.019	ug/L	0.0765	409.39%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	11.9	0.241	ug/L	0.1214	0.241	ug/L	0.1214	50.44%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	8.9	0.939	ug/L	0.3772	0.939	ug/L	0.3772	40.18%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-18.1	-0.129	ug/L	0.0702	-0.129	ug/L	0.0702	54.57%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-87.3	-0.786	ug/L	0.0676	-0.786	ug/L	0.0676	8.61%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	7514.0	0.419 ug/L	0.0009	0.419 ug/L	0.0009	0.23%

QC value within limits for Li 670.784 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 18
Sample ID: CCV2 150604RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 8
Date Collected: 06/04/15 5:37:00 PM
Data Type: Reprocessed on 06/11/15 4:12:31 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV2 150604RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	265267.1	96.29	%	0.169				0.18%
Y Radial	20257.7	108.0	%	5.36				4.96%
Ag 338.289†	39185.1	190.0	ug/L	0.48	190.0	ug/L	0.48	0.25%
QC value within limits for Ag 338.289 Recovery = 101.34%								
Al 308.215†	11637.1	6951	ug/L	370.25	6951	ug/L	370.25	5.33%
QC value within limits for Al 308.215 Recovery = 92.68%								
As 188.979†	2573.7	369.3	ug/L	0.31	369.3	ug/L	0.31	0.08%
QC value within limits for As 188.979 Recovery = 98.48%								
B 249.677†	17050.5	396.5	ug/L	1.64	396.5	ug/L	1.64	0.41%
QC value within limits for B 249.677 Recovery = 105.72%								
Ba 233.527†	195215.7	379.1	ug/L	0.67	379.1	ug/L	0.67	0.18%
QC value within limits for Ba 233.527 Recovery = 101.08%								
Be 313.107†	1783466.7	374.8	ug/L	0.66	374.8	ug/L	0.66	0.18%
QC value within limits for Be 313.107 Recovery = 99.95%								
Ca 315.887†	345257.8	17140	ug/L	918.23	17140	ug/L	918.23	5.36%
QC value within limits for Ca 315.887 Recovery = 91.44%								
Cd 214.440†	130840.7	374.5	ug/L	0.58	374.5	ug/L	0.58	0.16%
QC value within limits for Cd 214.440 Recovery = 99.87%								
Co 228.616†	48138.8	377.3	ug/L	0.23	377.3	ug/L	0.23	0.06%
QC value within limits for Co 228.616 Recovery = 100.61%								
Cr 267.716†	39638.7	372.5	ug/L	0.62	372.5	ug/L	0.62	0.17%
QC value within limits for Cr 267.716 Recovery = 99.35%								
Cu 327.393†	83625.2	381.3	ug/L	0.27	381.3	ug/L	0.27	0.07%
QC value within limits for Cu 327.393 Recovery = 101.69%								
Fe 273.955†	764812.8	7600	ug/L	7.89	7600	ug/L	7.89	0.10%
QC value within limits for Fe 273.955 Recovery = 101.33%								
K 766.490†	46364.3	7095	ug/L	391.42	7095	ug/L	391.42	5.52%
QC value within limits for K 766.490 Recovery = 94.60%								
Mg 285.213†	380941.7	17650	ug/L	956.28	17650	ug/L	956.28	5.42%
QC value within limits for Mg 285.213 Recovery = 94.14%								
Mn 257.610†	38448.3	350.6	ug/L	18.84	350.6	ug/L	18.84	5.37%
QC value within limits for Mn 257.610 Recovery = 93.50%								
Mo 202.031†	15412.7	375.8	ug/L	1.12	375.8	ug/L	1.12	0.30%
QC value within limits for Mo 202.031 Recovery = 100.21%								
Na 589.592†	37975.8	11190	ug/L	651.47	11190	ug/L	651.47	5.82%
QC value greater than the upper limit for Na 589.592 Recovery = 119.35%								
Ni 231.604†	23800.3	380.5	ug/L	0.74	380.5	ug/L	0.74	0.19%
QC value within limits for Ni 231.604 Recovery = 101.46%								
P 213.617†	8260.0	1868	ug/L	1.35	1868	ug/L	1.35	0.07%
QC value within limits for P 213.617 Recovery = 99.62%								
Pb 220.353†	3930.5	381.1	ug/L	0.54	381.1	ug/L	0.54	0.14%
QC value within limits for Pb 220.353 Recovery = 101.61%								
Sb 206.836†	3909.5	376.7	ug/L	1.39	376.7	ug/L	1.39	0.37%
QC value within limits for Sb 206.836 Recovery = 100.45%								
Se 196.026†	1332.9	380.1	ug/L	2.25	380.1	ug/L	2.25	0.59%
QC value within limits for Se 196.026 Recovery = 101.36%								
Sn 189.927†	2584.8	377.2	ug/L	1.56	377.2	ug/L	1.56	0.41%
QC value within limits for Sn 189.927 Recovery = 100.58%								
Sr 421.552†	59164.9	537.6	ug/L	30.86	537.6	ug/L	30.86	5.74%
QC value greater than the upper limit for Sr 421.552 Recovery = 143.36%								
Ti 337.279†	17256.0	349.8	ug/L	18.33	349.8	ug/L	18.33	5.24%
QC value within limits for Ti 337.279 Recovery = 93.27%								
Tl 190.801†	3675.1	387.8	ug/L	1.95	387.8	ug/L	1.95	0.50%
QC value within limits for Tl 190.801 Recovery = 103.40%								
V 292.402†	52835.6	375.3	ug/L	0.64	375.3	ug/L	0.64	0.17%
QC value within limits for V 292.402 Recovery = 100.08%								
Zn 206.200†	41524.2	378.4	ug/L	0.88	378.4	ug/L	0.88	0.23%
QC value within limits for Zn 206.200 Recovery = 100.90%								

Li 670.784	3451676.2	192.4 ug/L	0.81	192.4 ug/L	0.81	0.42%

QC value within limits for Li 670.784 Recovery = 102.62%
QC Failed. Continue with analysis.

Sequence No.: 19
Sample ID: CCB 150604RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 06/04/15 5:57:09 PM
Data Type: Reprocessed on 06/11/15 4:12:32 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150604RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	276268.3	100.3	%	0.80				0.80%
Y Radial	19438.8	103.7	%	5.15				4.97%
Ag 338.289†	63.9	0.310	ug/L	0.4039	0.310	ug/L	0.4039	130.40%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-20.1	-12.00	ug/L	3.178	-12.00	ug/L	3.178	26.49%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	1.3	0.183	ug/L	0.4284	0.183	ug/L	0.4284	233.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	134.5	2.922	ug/L	0.4346	2.922	ug/L	0.4346	14.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	42.3	0.082	ug/L	0.0204	0.082	ug/L	0.0204	24.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	21.1	0.004	ug/L	0.0069	0.004	ug/L	0.0069	154.99%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	220.4	10.95	ug/L	2.315	10.95	ug/L	2.315	21.15%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-84.9	-0.243	ug/L	0.0171	-0.243	ug/L	0.0171	7.04%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	38.7	0.305	ug/L	0.0628	0.305	ug/L	0.0628	20.60%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-5.0	-0.047	ug/L	0.1699	-0.047	ug/L	0.1699	362.36%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	-545.1	-2.479	ug/L	0.0997	-2.479	ug/L	0.0997	4.02%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	-195.2	-1.934	ug/L	0.9117	-1.934	ug/L	0.9117	47.14%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	45.2	6.955	ug/L	14.9563	6.955	ug/L	14.9563	215.03%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	37.9	1.752	ug/L	0.3312	1.752	ug/L	0.3312	18.90%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	9.6	0.088	ug/L	0.0872	0.088	ug/L	0.0872	99.51%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	29.7	0.722	ug/L	0.1127	0.722	ug/L	0.1127	15.60%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-59.1	-17.43	ug/L	9.551	-17.43	ug/L	9.551	54.81%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	17.8	0.284	ug/L	0.0827	0.284	ug/L	0.0827	29.10%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-16.3	-3.693	ug/L	0.5168	-3.693	ug/L	0.5168	14.00%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-8.3	-0.799	ug/L	0.1532	-0.799	ug/L	0.1532	19.19%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-7.2	-0.694	ug/L	0.5079	-0.694	ug/L	0.5079	73.23%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-3.3	-0.937	ug/L	1.8050	-0.937	ug/L	1.8050	192.55%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	19.7	2.879	ug/L	0.1536	2.879	ug/L	0.1536	5.33%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	5.6	0.051	ug/L	0.0350	0.051	ug/L	0.0350	69.05%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	20.7	0.421	ug/L	0.1258	0.421	ug/L	0.1258	29.90%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	5.4	0.569	ug/L	0.6573	0.569	ug/L	0.6573	115.49%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-23.3	-0.166	ug/L	0.0050	-0.166	ug/L	0.0050	3.00%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-112.2	-1.009	ug/L	0.1112	-1.009	ug/L	0.1112	11.02%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	7420.0	0.414 ug/L	0.0096	0.414 ug/L	0.0096	2.33%

QC value within limits for Li 670.784 Recovery = Not calculated

All analyte(s) passed QC.

Reprocessing Begun
Logged In Analyst: chemist_metals Technique: ICP Continuous

Results Data Set (original): 150611A6010
Results Library (original): C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb
Results Data Set (reprocessed):
Results Library (reprocessed):

Sequence No.: 1
Sample ID: CalBlk 150611RJS I:JL O:R
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 06/11/15 1:30:40 PM
Data Type: Reprocessed on 06/12/15 9:40:52 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CalBlk 150611RJS I:JL O:R

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	216568.6	1784.87	0.82%	100.0	%
Y Radial	13979.1	132.21	0.95%	100.0	%
Ag 338.289†	-95.1	77.86	81.85%	[0.00]	ug/L
Al 308.215†	53.9	6.88	12.77%	[0.00]	ug/L
As 188.979†	-79.4	11.58	14.58%	[0.00]	ug/L
B 249.677†	67.6	8.04	11.88%	[0.00]	ug/L
Ba 233.527†	-0.2	13.96	>999.9%	[0.00]	ug/L
Be 313.107†	1900.0	20.35	1.07%	[0.00]	ug/L
Ca 315.887†	-295.6	7.44	2.52%	[0.00]	ug/L
Cd 214.440†	-467.5	16.52	3.53%	[0.00]	ug/L
Co 228.616†	-199.2	4.26	2.14%	[0.00]	ug/L
Cr 267.716†	10.9	7.88	72.41%	[0.00]	ug/L
Cu 327.393†	-1550.2	3.88	0.25%	[0.00]	ug/L
Fe 273.955†	51.6	14.04	27.22%	[0.00]	ug/L
K 766.490†	-920.1	12.53	1.36%	[0.00]	ug/L
Mg 285.213†	78.3	2.05	2.62%	[0.00]	ug/L
Mn 257.610†	-46.4	4.81	10.36%	[0.00]	ug/L
Mo 202.031†	-47.4	8.88	18.75%	[0.00]	ug/L
Na 589.592†	470.2	58.50	12.44%	[0.00]	ug/L
Ni 231.604†	-159.3	6.46	4.05%	[0.00]	ug/L
P 213.617†	-55.4	7.96	14.36%	[0.00]	ug/L
Pb 220.353†	26.4	3.17	11.99%	[0.00]	ug/L
Sb 206.836†	-14.9	3.05	20.54%	[0.00]	ug/L
Se 196.026†	11.7	7.07	60.49%	[0.00]	ug/L
Sn 189.927†	9.0	4.19	46.50%	[0.00]	ug/L
Sr 421.552†	-77.9	33.73	43.30%	[0.00]	ug/L
Ti 337.279†	-53.2	2.61	4.91%	[0.00]	ug/L
Tl 190.801†	-20.7	8.82	42.62%	[0.00]	ug/L
V 292.402†	-123.3	6.88	5.58%	[0.00]	ug/L
Zn 206.200†	972.4	92.13	9.47%	[0.00]	ug/L
Li 670.784	3644.1	56.95	1.56%	[0.00]	ug/L

Sequence No.: 2
Sample ID: STD 1 150611RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 2
Date Collected: 06/11/15 1:36:53 PM
Data Type: Reprocessed on 06/12/15 9:40:54 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 1 150611RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	223033.4	1035.26	0.46%	103.0	%
Y Radial	14101.1	123.91	0.88%	100.9	%
Ag 338.289†	948.1	65.70	6.93%	[0.5]	ug/L
Al 308.215†	322.4	6.27	1.94%	[50]	ug/L
As 188.979†	64.2	4.48	6.97%	[2]	ug/L
B 249.677†	1135.1	11.44	1.01%	[25]	ug/L
Ba 233.527†	5055.5	9.75	0.19%	[1.5]	ug/L
Be 313.107†	36456.0	31.05	0.09%	[1]	ug/L
Ca 315.887†	9740.6	88.47	0.91%	[50]	ug/L
Cd 214.440†	3105.8	9.56	0.31%	[0.25]	ug/L
Co 228.616†	1287.4	1.68	0.13%	[2.5]	ug/L
Cr 267.716†	886.8	7.42	0.84%	[0.5]	ug/L
Cu 327.393†	2267.7	12.28	0.54%	[2.5]	ug/L
Fe 273.955†	17292.5	41.52	0.24%	[25]	ug/L
K 766.490†	4635.9	14.19	0.31%	[500]	ug/L
Mg 285.213†	8428.7	77.03	0.91%	[25]	ug/L
Mn 257.610†	1000.8	15.11	1.51%	[1]	ug/L
Mo 202.031†	357.6	4.97	1.39%	[1]	ug/L
Na 589.592†	5262.7	53.63	1.02%	[500]	ug/L
Ni 231.604†	568.8	14.30	2.51%	[1]	ug/L
P 213.617†	199.5	2.36	1.18%	[12.5]	ug/L
Pb 220.353†	62.7	11.49	18.34%	[1.5]	ug/L
Sb 206.836†	82.6	5.33	6.46%	[2]	ug/L
Se 196.026†	34.3	4.53	13.19%	[2]	ug/L
Sn 189.927†	65.9	4.15	6.30%	[3]	ug/L
Sr 421.552†	4567.9	31.56	0.69%	[1]	ug/L
Ti 337.279†	437.9	19.87	4.54%	[2.5]	ug/L
Tl 190.801†	57.6	3.38	5.86%	[2]	ug/L
V 292.402†	1062.7	1.88	0.18%	[0.5]	ug/L
Zn 206.200†	3136.9	6.47	0.21%	[25]	ug/L
Li 670.784	61479.2	204.86	0.33%	[5]	ug/L

Sequence No.: 3
Sample ID: STD 2 150611RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 06/11/15 1:43:07 PM
Data Type: Reprocessed on 06/12/15 9:40:55 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 2 150611RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	212406.5	1034.74	0.49%	98.08	%
Y Radial	13831.5	67.89	0.49%	98.94	%
Ag 338.289†	44875.2	56.35	0.13%	[250]	ug/L
Al 308.215†	12831.5	127.72	1.00%	[10000]	ug/L
As 188.979†	2567.6	13.96	0.54%	[500]	ug/L
B 249.677†	16684.8	44.64	0.27%	[500]	ug/L
Ba 233.527†	214281.8	265.51	0.12%	[500]	ug/L
Be 313.107†	1781668.9	4628.93	0.26%	[500]	ug/L
Ca 315.887†	399005.7	3385.24	0.85%	[25000]	ug/L
Cd 214.440†	149627.1	135.92	0.09%	[500]	ug/L
Co 228.616†	50001.7	82.67	0.17%	[500]	ug/L
Cr 267.716†	42212.2	79.55	0.19%	[500]	ug/L
Cu 327.393†	94757.2	289.51	0.31%	[500]	ug/L
Fe 273.955†	781205.4	886.44	0.11%	[10000]	ug/L
K 766.490†	66309.9	528.91	0.80%	[10000]	ug/L
Mg 285.213†	414720.7	3475.33	0.84%	[25000]	ug/L
Mn 257.610†	41770.5	354.51	0.85%	[500]	ug/L
Mo 202.031†	17633.7	55.15	0.31%	[500]	ug/L
Na 589.592†	91570.7	706.97	0.77%	[12500]	ug/L
Ni 231.604†	25443.6	88.85	0.35%	[500]	ug/L
P 213.617†	8327.9	21.16	0.25%	[2500]	ug/L
Pb 220.353†	3028.6	9.51	0.31%	[500]	ug/L
Sb 206.836†	3685.5	3.47	0.09%	[500]	ug/L
Se 196.026†	1587.1	8.18	0.52%	[500]	ug/L
Sn 189.927†	2890.1	9.36	0.32%	[500]	ug/L
Sr 421.552†	218363.3	2135.80	0.98%	[500]	ug/L
Ti 337.279†	17950.0	156.51	0.87%	[500]	ug/L
Tl 190.801†	2454.5	9.47	0.39%	[500]	ug/L
V 292.402†	50039.7	100.17	0.20%	[500]	ug/L
Zn 206.200†	49511.0	40.70	0.08%	[500]	ug/L
Li 670.784	4183528.3	16461.16	0.39%	[250]	ug/L

Sequence No.: 4
Sample ID: STD 3 150611RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 4
Date Collected: 06/11/15 1:48:57 PM
Data Type: Reprocessed on 06/12/15 9:40:56 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 3 150611RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	206332.0	1708.90	0.83%	95.27	%
Y Radial	13557.0	102.89	0.76%	96.98	%
Ag 338.289†	88387.2	303.98	0.34%	[500]	ug/L
Al 308.215†	25472.6	165.90	0.65%	[20000]	ug/L
As 188.979†	5091.0	68.42	1.34%	[1000]	ug/L
B 249.677†	33090.3	2.81	0.01%	[1000]	ug/L
Ba 233.527†	418466.6	1618.37	0.39%	[1000]	ug/L
Be 313.107†	3479331.9	10705.27	0.31%	[1000]	ug/L
Ca 315.887†	774367.9	8493.57	1.10%	[50000]	ug/L
Cd 214.440†	291171.1	980.24	0.34%	[1000]	ug/L
Co 228.616†	96915.1	357.46	0.37%	[1000]	ug/L
Cr 267.716†	82417.8	273.09	0.33%	[1000]	ug/L
Cu 327.393†	186253.2	501.92	0.27%	[1000]	ug/L
Fe 273.955†	1517439.7	5259.32	0.35%	[20000]	ug/L
K 766.490†	132301.3	819.08	0.62%	[20000]	ug/L
Mg 285.213†	802825.6	8672.01	1.08%	[50000]	ug/L
Mn 257.610†	81983.4	453.87	0.55%	[1000]	ug/L
Mo 202.031†	34603.7	348.66	1.01%	[1000]	ug/L
Na 589.592†	179065.3	1888.85	1.05%	[25000]	ug/L
Ni 231.604†	49076.5	535.85	1.09%	[1000]	ug/L
P 213.617†	16458.6	179.44	1.09%	[5000]	ug/L
Pb 220.353†	5895.9	50.31	0.85%	[1000]	ug/L
Sb 206.836†	7298.0	66.61	0.91%	[1000]	ug/L
Se 196.026†	3136.4	49.85	1.59%	[1000]	ug/L
Sn 189.927†	5686.1	50.34	0.89%	[1000]	ug/L
Sr 421.552†	429415.7	5291.89	1.23%	[1000]	ug/L
Ti 337.279†	35291.9	276.43	0.78%	[1000]	ug/L
Tl 190.801†	4716.4	55.80	1.18%	[1000]	ug/L
V 292.402†	98213.9	312.45	0.32%	[1000]	ug/L
Zn 206.200†	97052.6	424.47	0.44%	[1000]	ug/L
Li 670.784	8701200.7	96815.55	1.11%	[500]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 338.289	3	Lin Thru 0	0.0	177.3	0.00000	0.999943	
Al 308.215	3	Lin Thru 0	0.0	1.276	0.00000	0.999954	
As 188.979	3	Lin Thru 0	0.0	5.100	0.00000	0.999949	
B 249.677	3	Lin Thru 0	0.0	33.15	0.00000	0.999960	
Ba 233.527	3	Lin Thru 0	0.0	420.5	0.00000	0.999910	
Be 313.107	3	Lin Thru 0	0.0	3496	0.00000	0.999918	
Ca 315.887	3	Lin Thru 0	0.0	15.58	0.00000	0.999873	
Cd 214.440	3	Lin Thru 0	0.0	292.8	0.00000	0.999896	
Co 228.616	3	Lin Thru 0	0.0	97.53	0.00000	0.999874	
Cr 267.716	3	Lin Thru 0	0.0	82.82	0.00000	0.999911	
Cu 327.393	3	Lin Thru 0	0.0	186.9	0.00000	0.999939	
Fe 273.955	3	Lin Thru 0	0.0	76.32	0.00000	0.999890	
K 766.490	3	Lin Thru 0	0.0	6.620	0.00000	0.999959	
Mg 285.213	3	Lin Thru 0	0.0	16.16	0.00000	0.999874	
Mn 257.610	3	Lin Thru 0	0.0	82.30	0.00000	0.999922	
Mo 202.031	3	Lin Thru 0	0.0	34.74	0.00000	0.999936	
Na 589.592	3	Lin Thru 0	0.0	7.196	0.00000	0.999925	
Ni 231.604	3	Lin Thru 0	0.0	49.44	0.00000	0.999849	
P 213.617	3	Lin Thru 0	0.0	3.300	0.00000	0.999952	
Pb 220.353	3	Lin Thru 0	0.0	5.928	0.00000	0.999908	
Sb 206.836	3	Lin Thru 0	0.0	7.313	0.00000	0.999957	
Se 196.026	3	Lin Thru 0	0.0	3.144	0.00000	0.999957	

Sn 189.927	3	Lin Thru 0	0.0	5.705	0.00000	0.999949
Sr 421.552	3	Lin Thru 0	0.0	430.9	0.00000	0.999940
Ti 337.279	3	Lin Thru 0	0.0	35.41	0.00000	0.999937
Tl 190.801	3	Lin Thru 0	0.0	4.755	0.00000	0.999828
V 292.402	3	Lin Thru 0	0.0	98.59	0.00000	0.999929
Zn 206.200	3	Lin Thru 0	0.0	97.46	0.00000	0.999947
Li 670.784	3	Lin Thru 0	0.0	17270	0.00000	0.999877

Sequence No.: 5
Sample ID: ICV 150611RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 06/11/15 1:58:21 PM
Data Type: Reprocessed on 06/12/15 9:40:57 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICV 150611RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	211761.7	97.78	%	1.112				1.14%
Y Radial	13673.1	97.81	%	1.552				1.59%
Ag 338.289†	42352.0	238.8	ug/L	3.12	238.8	ug/L	3.12	1.31%
QC value within limits for Ag 338.289 Recovery = 95.54%								
Al 308.215†	15196.9	11940	ug/L	86.04	11940	ug/L	86.04	0.72%
QC value within limits for Al 308.215 Recovery = 95.49%								
As 188.979†	2242.2	436.6	ug/L	4.32	436.6	ug/L	4.32	0.99%
QC value less than the lower limit for As 188.979 Recovery = 87.33%								
B 249.677†	15578.9	498.3	ug/L	4.57	498.3	ug/L	4.57	0.92%
QC value within limits for B 249.677 Recovery = 99.66%								
Ba 233.527†	201024.0	477.7	ug/L	4.54	477.7	ug/L	4.54	0.95%
QC value within limits for Ba 233.527 Recovery = 95.53%								
Be 313.107†	1659820.2	474.8	ug/L	5.52	474.8	ug/L	5.52	1.16%
QC value within limits for Be 313.107 Recovery = 94.95%								
Ca 315.887†	192124.6	12330	ug/L	80.22	12330	ug/L	80.22	0.65%
QC value within limits for Ca 315.887 Recovery = 98.60%								
Cd 214.440†	141507.1	483.4	ug/L	4.68	483.4	ug/L	4.68	0.97%
QC value within limits for Cd 214.440 Recovery = 96.67%								
Co 228.616†	47148.0	483.3	ug/L	4.32	483.3	ug/L	4.32	0.89%
QC value within limits for Co 228.616 Recovery = 96.66%								
Cr 267.716†	39886.7	481.6	ug/L	5.34	481.6	ug/L	5.34	1.11%
QC value within limits for Cr 267.716 Recovery = 96.31%								
Cu 327.393†	91057.6	487.3	ug/L	4.63	487.3	ug/L	4.63	0.95%
QC value within limits for Cu 327.393 Recovery = 97.45%								
Fe 273.955†	924130.3	12070	ug/L	115.29	12070	ug/L	115.29	0.96%
QC value within limits for Fe 273.955 Recovery = 96.57%								
K 766.490†	78297.1	11800	ug/L	97.17	11800	ug/L	97.17	0.82%
QC value within limits for K 766.490 Recovery = 94.42%								
Mg 285.213†	196613.0	12170	ug/L	80.99	12170	ug/L	80.99	0.67%
QC value within limits for Mg 285.213 Recovery = 97.39%								
Mn 257.610†	39322.0	477.5	ug/L	2.83	477.5	ug/L	2.83	0.59%
QC value within limits for Mn 257.610 Recovery = 95.50%								
Mo 202.031†	16262.0	468.7	ug/L	5.56	468.7	ug/L	5.56	1.19%
QC value within limits for Mo 202.031 Recovery = 93.74%								
Na 589.592†	86088.3	11950	ug/L	108.70	11950	ug/L	108.70	0.91%
QC value within limits for Na 589.592 Recovery = 95.58%								
Ni 231.604†	24359.8	491.8	ug/L	6.38	491.8	ug/L	6.38	1.30%
QC value within limits for Ni 231.604 Recovery = 98.36%								
P 213.617†	7844.2	2377	ug/L	26.56	2377	ug/L	26.56	1.12%
QC value within limits for P 213.617 Recovery = 95.09%								
Pb 220.353†	2918.1	494.9	ug/L	4.73	494.9	ug/L	4.73	0.95%
QC value within limits for Pb 220.353 Recovery = 98.97%								
Sb 206.836†	3456.0	472.6	ug/L	6.69	472.6	ug/L	6.69	1.42%
QC value within limits for Sb 206.836 Recovery = 94.52%								
Se 196.026†	1511.5	484.5	ug/L	6.82	484.5	ug/L	6.82	1.41%
QC value within limits for Se 196.026 Recovery = 96.89%								
Sn 189.927†	1385.4	242.8	ug/L	3.32	242.8	ug/L	3.32	1.37%
QC value within limits for Sn 189.927 Recovery = 97.14%								
Sr 421.552†	203707.9	472.3	ug/L	5.80	472.3	ug/L	5.80	1.23%
QC value within limits for Sr 421.552 Recovery = 94.46%								
Ti 337.279†	16863.3	476.0	ug/L	4.14	476.0	ug/L	4.14	0.87%
QC value within limits for Ti 337.279 Recovery = 95.20%								
Tl 190.801†	2370.8	498.6	ug/L	5.97	498.6	ug/L	5.97	1.20%
QC value within limits for Tl 190.801 Recovery = 99.72%								
V 292.402†	46808.7	474.8	ug/L	5.60	474.8	ug/L	5.60	1.18%
QC value within limits for V 292.402 Recovery = 94.96%								
Zn 206.200†	47639.6	494.7	ug/L	5.12	494.7	ug/L	5.12	1.03%
QC value within limits for Zn 206.200 Recovery = 98.94%								

Li 670.784	4655975.0	269.6 ug/L	0.79	269.6 ug/L	0.79	0.29%

QC value within limits for Li 670.784 Recovery = 107.85%
QC Failed. Continue with analysis.

Sequence No.: 6
Sample ID: ICB 150611RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 06/11/15 2:04:05 PM
Data Type: Reprocessed on 06/12/15 9:40:59 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICB 150611RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	216262.5	99.86	%	0.648				0.65%
Y Radial	14327.3	102.5	%	4.75				4.64%
Ag 338.289†	14.3	0.081	ug/L	0.5166	0.081	ug/L	0.5166	641.38%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	7.5	5.824	ug/L	5.0053	5.824	ug/L	5.0053	85.94%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	19.8	3.879	ug/L	1.1307	3.879	ug/L	1.1307	29.15%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	117.0	3.533	ug/L	0.3621	3.533	ug/L	0.3621	10.25%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.0	-0.015	ug/L	0.0353	-0.015	ug/L	0.0353	239.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	45.7	0.013	ug/L	0.0036	0.013	ug/L	0.0036	27.68%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	7.7	0.494	ug/L	1.3983	0.494	ug/L	1.3983	282.82%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	28.2	0.097	ug/L	0.0169	0.097	ug/L	0.0169	17.42%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	1.5	0.019	ug/L	0.1030	0.019	ug/L	0.1030	530.72%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	4.9	0.059	ug/L	0.0798	0.059	ug/L	0.0798	134.18%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	593.0	3.173	ug/L	0.2692	3.173	ug/L	0.2692	8.49%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	88.0	1.145	ug/L	0.3530	1.145	ug/L	0.3530	30.82%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	80.2	12.11	ug/L	12.150	12.11	ug/L	12.150	100.33%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	2.5	0.155	ug/L	0.7521	0.155	ug/L	0.7521	484.98%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-10.4	-0.127	ug/L	0.0566	-0.127	ug/L	0.0566	44.61%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	40.0	1.152	ug/L	0.4094	1.152	ug/L	0.4094	35.55%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	24.0	3.315	ug/L	5.8497	3.315	ug/L	5.8497	176.44%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	16.7	0.338	ug/L	0.1650	0.338	ug/L	0.1650	48.87%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	3.0	0.924	ug/L	1.5318	0.924	ug/L	1.5318	165.72%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	11.0	1.867	ug/L	0.3022	1.867	ug/L	0.3022	16.19%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	15.8	2.161	ug/L	1.4424	2.161	ug/L	1.4424	66.74%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-1.2	-0.378	ug/L	0.5801	-0.378	ug/L	0.5801	153.55%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	6.4	1.128	ug/L	0.4501	1.128	ug/L	0.4501	39.92%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	34.6	0.080	ug/L	0.0830	0.080	ug/L	0.0830	103.32%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-3.3	-0.092	ug/L	0.1827	-0.092	ug/L	0.1827	198.70%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	9.5	1.999	ug/L	0.7772	1.999	ug/L	0.7772	38.88%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	9.3	0.094	ug/L	0.0294	0.094	ug/L	0.0294	31.22%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-316.3	-3.244	ug/L	0.5816	-3.244	ug/L	0.5816	17.93%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	7512.5	0.435 ug/L	0.0167	0.435 ug/L	0.0167	3.84%

QC value within limits for Li 670.784 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICSA 150611RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 6
Date Collected: 06/11/15 2:10:18 PM
Data Type: Reprocessed on 06/12/15 9:41:00 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSA 150611RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	207856.2	95.98	%	1.035				1.08%
Y Radial	13488.8	96.49	%	0.962				1.00%
Ag 338.289†	72.7	0.410	ug/L	0.3418	0.410	ug/L	0.3418	83.31%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	129608.9	101600	ug/L	1223.53	101600	ug/L	1223.53	1.20%
QC value within limits for Al 308.215 Recovery = 101.60%								
As 188.979†	13.9	2.798	ug/L	0.2274	2.798	ug/L	0.2274	8.13%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-7991.1	-3.890	ug/L	0.6081	-3.890	ug/L	0.6081	15.63%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1721.9	-1.408	ug/L	0.0380	-1.408	ug/L	0.0380	2.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	112.2	0.032	ug/L	0.0038	0.032	ug/L	0.0038	11.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	1616726.0	103800	ug/L	1301.79	103800	ug/L	1301.79	1.25%
QC value within limits for Ca 315.887 Recovery = 103.75%								
Cd 214.440†	1055.8	-0.179	ug/L	0.0724	-0.179	ug/L	0.0724	40.50%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	128.9	-1.547	ug/L	0.0376	-1.547	ug/L	0.0376	2.43%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	103.0	0.341	ug/L	0.2200	0.341	ug/L	0.2200	64.49%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	227.5	-5.103	ug/L	0.0630	-5.103	ug/L	0.0630	1.24%
QC value less than the lower limit for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	7440283.1	97480	ug/L	277.73	97480	ug/L	277.73	0.28%
QC value within limits for Fe 273.955 Recovery = 97.48%								
K 766.490†	215.5	-63.95	ug/L	11.539	-63.95	ug/L	11.539	18.04%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1615854.8	100100	ug/L	1239.71	100100	ug/L	1239.71	1.24%
QC value within limits for Mg 285.213 Recovery = 100.05%								
Mn 257.610†	221.6	-0.634	ug/L	0.1555	-0.634	ug/L	0.1555	24.52%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-94.5	-1.317	ug/L	0.1622	-1.317	ug/L	0.1622	12.32%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	167.7	10.93	ug/L	3.244	10.93	ug/L	3.244	29.69%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-85.5	0.680	ug/L	0.0723	0.680	ug/L	0.0723	10.63%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-122.9	-37.25	ug/L	2.095	-37.25	ug/L	2.095	5.63%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-79.6	-2.873	ug/L	1.1205	-2.873	ug/L	1.1205	39.00%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-8.6	-1.182	ug/L	0.5721	-1.182	ug/L	0.5721	48.39%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-131.6	-3.467	ug/L	2.5762	-3.467	ug/L	2.5762	74.30%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	21.5	3.764	ug/L	0.6049	3.764	ug/L	0.6049	16.07%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	218.7	-3.550	ug/L	0.0720	-3.550	ug/L	0.0720	2.03%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	34.3	-0.758	ug/L	0.8430	-0.758	ug/L	0.8430	111.28%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-30.2	-6.342	ug/L	2.3215	-6.342	ug/L	2.3215	36.61%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	44.2	0.449	ug/L	0.1242	0.449	ug/L	0.1242	27.68%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-144.3	-2.105	ug/L	0.7241	-2.105	ug/L	0.7241	34.40%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	16053.9	0.930 ug/L	0.0336	0.930 ug/L	0.0336	3.62%

QC Failed. Continue with analysis.

Sequence No.: 8
Sample ID: ICSAB 150611RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 7
Date Collected: 06/11/15 2:17:35 PM
Data Type: Reprocessed on 06/12/15 9:41:01 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSAB 150611RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	201581.1	93.08	%	0.467				0.50%
Y Radial	13574.2	97.10	%	0.492				0.51%
Ag 338.289†	94576.0	533.4	ug/L	2.49	533.4	ug/L	2.49	0.47%
QC value within limits for Ag 338.289 Recovery = 106.67%								
Al 308.215†	131017.4	102700	ug/L	569.62	102700	ug/L	569.62	0.55%
QC value within limits for Al 308.215 Recovery = 102.72%								
As 188.979†	1323.2	258.5	ug/L	1.85	258.5	ug/L	1.85	0.72%
QC value within limits for As 188.979 Recovery = 103.38%								
B 249.677†	-8517.1	-7.221	ug/L	0.2013	-7.221	ug/L	0.2013	2.79%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	110357.2	256.8	ug/L	1.41	256.8	ug/L	1.41	0.55%
QC value within limits for Ba 233.527 Recovery = 102.73%								
Be 313.107†	915565.8	261.9	ug/L	1.24	261.9	ug/L	1.24	0.47%
QC value within limits for Be 313.107 Recovery = 104.75%								
Ca 315.887†	1622303.5	104100	ug/L	613.84	104100	ug/L	613.84	0.59%
QC value within limits for Ca 315.887 Recovery = 104.11%								
Cd 214.440†	151254.0	512.7	ug/L	2.29	512.7	ug/L	2.29	0.45%
QC value within limits for Cd 214.440 Recovery = 102.54%								
Co 228.616†	25442.1	258.5	ug/L	1.35	258.5	ug/L	1.35	0.52%
QC value within limits for Co 228.616 Recovery = 103.41%								
Cr 267.716†	22051.1	265.4	ug/L	1.58	265.4	ug/L	1.58	0.59%
QC value within limits for Cr 267.716 Recovery = 106.17%								
Cu 327.393†	53769.9	280.9	ug/L	0.97	280.9	ug/L	0.97	0.35%
QC value within limits for Cu 327.393 Recovery = 112.36%								
Fe 273.955†	7843371.2	102700	ug/L	453.68	102700	ug/L	453.68	0.44%
QC value within limits for Fe 273.955 Recovery = 102.74%								
K 766.490†	151.0	-78.76	ug/L	13.027	-78.76	ug/L	13.027	16.54%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1614009.6	99950	ug/L	591.55	99950	ug/L	591.55	0.59%
QC value within limits for Mg 285.213 Recovery = 99.95%								
Mn 257.610†	21180.4	254.1	ug/L	0.95	254.1	ug/L	0.95	0.37%
QC value within limits for Mn 257.610 Recovery = 101.65%								
Mo 202.031†	8559.8	248.1	ug/L	0.91	248.1	ug/L	0.91	0.37%
QC value within limits for Mo 202.031 Recovery = 99.26%								
Na 589.592†	96.6	-0.082	ug/L	3.9317	-0.082	ug/L	3.9317	>999.9%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	24739.9	502.3	ug/L	0.97	502.3	ug/L	0.97	0.19%
QC value within limits for Ni 231.604 Recovery = 100.46%								
P 213.617†	-259.8	-78.73	ug/L	2.805	-78.73	ug/L	2.805	3.56%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	3014.3	519.2	ug/L	1.69	519.2	ug/L	1.69	0.33%
QC value within limits for Pb 220.353 Recovery = 103.84%								
Sb 206.836†	1910.1	261.2	ug/L	2.09	261.2	ug/L	2.09	0.80%
QC value within limits for Sb 206.836 Recovery = 104.48%								
Se 196.026†	704.6	263.9	ug/L	4.44	263.9	ug/L	4.44	1.68%
QC value within limits for Se 196.026 Recovery = 105.56%								
Sn 189.927†	15.7	2.751	ug/L	1.4324	2.751	ug/L	1.4324	52.06%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	260.8	-3.471	ug/L	0.0462	-3.471	ug/L	0.0462	1.33%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	52.7	-0.199	ug/L	0.7990	-0.199	ug/L	0.7990	401.84%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	1205.9	253.6	ug/L	2.97	253.6	ug/L	2.97	1.17%
QC value within limits for Tl 190.801 Recovery = 101.44%								
V 292.402†	26903.4	272.9	ug/L	1.18	272.9	ug/L	1.18	0.43%
QC value within limits for V 292.402 Recovery = 109.16%								
Zn 206.200†	52034.7	536.0	ug/L	2.52	536.0	ug/L	2.52	0.47%
QC value within limits for Zn 206.200 Recovery = 107.20%								

Li 670.784	14359.2	0.832 ug/L	0.0296	0.832 ug/L	0.0296	3.56%

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: CCV1 150611RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 06/11/15 2:23:57 PM
Data Type: Reprocessed on 06/12/15 9:41:03 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV1 150611RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	211564.2	97.69	%	0.516				0.53%
Y Radial	13688.9	97.92	%	0.697				0.71%
Ag 338.289†	45011.1	253.8	ug/L	0.28	253.8	ug/L	0.28	0.11%
QC value within limits for Ag 338.289 Recovery = 101.54%								
Al 308.215†	12920.7	10150	ug/L	82.38	10150	ug/L	82.38	0.81%
QC value within limits for Al 308.215 Recovery = 101.54%								
As 188.979†	2579.0	500.9	ug/L	3.11	500.9	ug/L	3.11	0.62%
QC value within limits for As 188.979 Recovery = 100.17%								
B 249.677†	16656.1	526.0	ug/L	1.79	526.0	ug/L	1.79	0.34%
QC value within limits for B 249.677 Recovery = 105.20%								
Ba 233.527†	215546.8	512.3	ug/L	0.33	512.3	ug/L	0.33	0.07%
QC value within limits for Ba 233.527 Recovery = 102.46%								
Be 313.107†	1799035.9	514.6	ug/L	0.77	514.6	ug/L	0.77	0.15%
QC value within limits for Be 313.107 Recovery = 102.91%								
Ca 315.887†	393928.6	25280	ug/L	365.62	25280	ug/L	365.62	1.45%
QC value within limits for Ca 315.887 Recovery = 101.11%								
Cd 214.440†	150407.3	514.0	ug/L	0.13	514.0	ug/L	0.13	0.03%
QC value within limits for Cd 214.440 Recovery = 102.81%								
Co 228.616†	50410.6	516.8	ug/L	0.52	516.8	ug/L	0.52	0.10%
QC value within limits for Co 228.616 Recovery = 103.37%								
Cr 267.716†	42470.3	512.7	ug/L	0.61	512.7	ug/L	0.61	0.12%
QC value within limits for Cr 267.716 Recovery = 102.54%								
Cu 327.393†	95190.2	509.5	ug/L	0.24	509.5	ug/L	0.24	0.05%
QC value within limits for Cu 327.393 Recovery = 101.89%								
Fe 273.955†	786246.5	10260	ug/L	2.58	10260	ug/L	2.58	0.03%
QC value within limits for Fe 273.955 Recovery = 102.61%								
K 766.490†	65865.7	9925	ug/L	73.13	9925	ug/L	73.13	0.74%
QC value within limits for K 766.490 Recovery = 99.25%								
Mg 285.213†	417500.5	25840	ug/L	234.29	25840	ug/L	234.29	0.91%
QC value within limits for Mg 285.213 Recovery = 103.36%								
Mn 257.610†	42033.7	509.9	ug/L	3.70	509.9	ug/L	3.70	0.73%
QC value within limits for Mn 257.610 Recovery = 101.97%								
Mo 202.031†	17763.0	511.9	ug/L	2.63	511.9	ug/L	2.63	0.51%
QC value within limits for Mo 202.031 Recovery = 102.37%								
Na 589.592†	89076.1	12360	ug/L	113.97	12360	ug/L	113.97	0.92%
QC value within limits for Na 589.592 Recovery = 98.91%								
Ni 231.604†	25593.0	516.7	ug/L	1.97	516.7	ug/L	1.97	0.38%
QC value within limits for Ni 231.604 Recovery = 103.34%								
P 213.617†	8371.2	2537	ug/L	13.52	2537	ug/L	13.52	0.53%
QC value within limits for P 213.617 Recovery = 101.48%								
Pb 220.353†	3090.5	524.4	ug/L	3.65	524.4	ug/L	3.65	0.70%
QC value within limits for Pb 220.353 Recovery = 104.88%								
Sb 206.836†	3717.4	508.4	ug/L	3.34	508.4	ug/L	3.34	0.66%
QC value within limits for Sb 206.836 Recovery = 101.67%								
Se 196.026†	1579.3	504.8	ug/L	3.13	504.8	ug/L	3.13	0.62%
QC value within limits for Se 196.026 Recovery = 100.97%								
Sn 189.927†	2907.5	509.6	ug/L	3.05	509.6	ug/L	3.05	0.60%
QC value within limits for Sn 189.927 Recovery = 101.93%								
Sr 421.552†	209212.1	484.6	ug/L	6.92	484.6	ug/L	6.92	1.43%
QC value within limits for Sr 421.552 Recovery = 96.91%								
Ti 337.279†	17940.3	506.2	ug/L	5.11	506.2	ug/L	5.11	1.01%
QC value within limits for Ti 337.279 Recovery = 101.24%								
Tl 190.801†	2531.4	532.4	ug/L	2.08	532.4	ug/L	2.08	0.39%
QC value within limits for Tl 190.801 Recovery = 106.47%								
V 292.402†	50568.8	512.9	ug/L	0.64	512.9	ug/L	0.64	0.13%
QC value within limits for V 292.402 Recovery = 102.59%								
Zn 206.200†	49712.0	517.0	ug/L	1.19	517.0	ug/L	1.19	0.23%
QC value within limits for Zn 206.200 Recovery = 103.39%								

Li 670.784	4215852.4	244.1 ug/L	0.24	244.1 ug/L	0.24	0.10%

QC value within limits for Li 670.784 Recovery = 97.66%

All analyte(s) passed QC.

Sequence No.: 10
Sample ID: CCB 150611RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 06/11/15 2:29:47 PM
Data Type: Reprocessed on 06/12/15 9:41:04 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150611RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	215640.7	99.57	%	1.125				1.13%
Y Radial	13898.5	99.42	%	0.600				0.60%
Ag 338.289†	32.4	0.183	ug/L	0.4574	0.183	ug/L	0.4574	250.52%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	7.2	5.632	ug/L	8.9362	5.632	ug/L	8.9362	158.67%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	13.5	2.649	ug/L	1.6237	2.649	ug/L	1.6237	61.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	96.8	2.938	ug/L	0.3873	2.938	ug/L	0.3873	13.18%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.8	0.006	ug/L	0.0463	0.006	ug/L	0.0463	735.37%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	72.3	0.021	ug/L	0.0097	0.021	ug/L	0.0097	47.00%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	0.4	0.025	ug/L	0.1100	0.025	ug/L	0.1100	437.14%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	48.3	0.165	ug/L	0.0337	0.165	ug/L	0.0337	20.43%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	5.3	0.055	ug/L	0.1213	0.055	ug/L	0.1213	220.57%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	8.8	0.107	ug/L	0.0627	0.107	ug/L	0.0627	58.85%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	474.6	2.540	ug/L	0.0313	2.540	ug/L	0.0313	1.23%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	527.7	6.902	ug/L	0.1710	6.902	ug/L	0.1710	2.48%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-32.7	-4.939	ug/L	15.9593	-4.939	ug/L	15.9593	323.11%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	15.6	0.973	ug/L	0.4085	0.973	ug/L	0.4085	42.00%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-14.2	-0.173	ug/L	0.1186	-0.173	ug/L	0.1186	68.65%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	20.2	0.581	ug/L	0.2033	0.581	ug/L	0.2033	34.99%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-12.2	-1.690	ug/L	1.7858	-1.690	ug/L	1.7858	105.69%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	17.1	0.345	ug/L	0.0919	0.345	ug/L	0.0919	26.61%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	7.6	2.298	ug/L	1.5775	2.298	ug/L	1.5775	68.64%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	11.3	1.902	ug/L	0.5368	1.902	ug/L	0.5368	28.22%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	15.1	2.065	ug/L	0.5348	2.065	ug/L	0.5348	25.90%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-3.3	-1.047	ug/L	0.5992	-1.047	ug/L	0.5992	57.25%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	7.6	1.326	ug/L	0.1430	1.326	ug/L	0.1430	10.78%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	24.2	0.056	ug/L	0.0409	0.056	ug/L	0.0409	72.71%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	11.2	0.317	ug/L	0.4629	0.317	ug/L	0.4629	145.99%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	6.4	1.355	ug/L	1.4933	1.355	ug/L	1.4933	110.23%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	18.2	0.185	ug/L	0.0533	0.185	ug/L	0.0533	28.85%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-476.4	-4.887	ug/L	0.4166	-4.887	ug/L	0.4166	8.52%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	7744.7	0.448 ug/L	0.0132	0.448 ug/L	0.0132	2.94%

QC value within limits for Li 670.784 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 29
Sample ID: CCV2 150611RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 8
Date Collected: 06/11/15 4:50:30 PM
Data Type: Reprocessed on 06/12/15 9:41:26 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV2 150611RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	214012.8	98.82	%	0.561				0.57%
Y Radial	14262.3	102.0	%	0.70				0.68%
Ag 338.289†	33261.7	187.6	ug/L	0.61	187.6	ug/L	0.61	0.33%
QC value within limits for Ag 338.289 Recovery = 100.04%								
Al 308.215†	9459.5	7434	ug/L	13.36	7434	ug/L	13.36	0.18%
QC value within limits for Al 308.215 Recovery = 99.13%								
As 188.979†	1953.8	379.6	ug/L	2.80	379.6	ug/L	2.80	0.74%
QC value within limits for As 188.979 Recovery = 101.23%								
B 249.677†	12912.8	406.8	ug/L	1.43	406.8	ug/L	1.43	0.35%
QC value within limits for B 249.677 Recovery = 108.47%								
Ba 233.527†	158420.8	376.5	ug/L	1.90	376.5	ug/L	1.90	0.50%
QC value within limits for Ba 233.527 Recovery = 100.41%								
Be 313.107†	1345291.5	384.8	ug/L	1.73	384.8	ug/L	1.73	0.45%
QC value within limits for Be 313.107 Recovery = 102.61%								
Ca 315.887†	280888.4	18020	ug/L	300.20	18020	ug/L	300.20	1.67%
QC value within limits for Ca 315.887 Recovery = 96.12%								
Cd 214.440†	111190.5	380.0	ug/L	1.84	380.0	ug/L	1.84	0.49%
QC value within limits for Cd 214.440 Recovery = 101.34%								
Co 228.616†	37212.8	381.5	ug/L	2.66	381.5	ug/L	2.66	0.70%
QC value within limits for Co 228.616 Recovery = 101.74%								
Cr 267.716†	32864.7	396.8	ug/L	2.29	396.8	ug/L	2.29	0.58%
QC value within limits for Cr 267.716 Recovery = 105.80%								
Cu 327.393†	71473.0	382.5	ug/L	1.75	382.5	ug/L	1.75	0.46%
QC value within limits for Cu 327.393 Recovery = 102.01%								
Fe 273.955†	576503.2	7523	ug/L	33.24	7523	ug/L	33.24	0.44%
QC value within limits for Fe 273.955 Recovery = 100.31%								
K 766.490†	46755.4	7045	ug/L	116.84	7045	ug/L	116.84	1.66%
QC value within limits for K 766.490 Recovery = 93.93%								
Mg 285.213†	294850.7	18250	ug/L	312.34	18250	ug/L	312.34	1.71%
QC value within limits for Mg 285.213 Recovery = 97.33%								
Mn 257.610†	30529.2	370.3	ug/L	1.30	370.3	ug/L	1.30	0.35%
QC value within limits for Mn 257.610 Recovery = 98.75%								
Mo 202.031†	12962.3	373.5	ug/L	2.02	373.5	ug/L	2.02	0.54%
QC value within limits for Mo 202.031 Recovery = 99.61%								
Na 589.592†	62092.1	8619	ug/L	156.73	8619	ug/L	156.73	1.82%
QC value within limits for Na 589.592 Recovery = 91.93%								
Ni 231.604†	18820.0	379.9	ug/L	2.61	379.9	ug/L	2.61	0.69%
QC value within limits for Ni 231.604 Recovery = 101.32%								
P 213.617†	6230.4	1888	ug/L	12.49	1888	ug/L	12.49	0.66%
QC value within limits for P 213.617 Recovery = 100.70%								
Pb 220.353†	2378.0	403.4	ug/L	2.07	403.4	ug/L	2.07	0.51%
QC value within limits for Pb 220.353 Recovery = 107.57%								
Sb 206.836†	2834.8	387.7	ug/L	1.90	387.7	ug/L	1.90	0.49%
QC value within limits for Sb 206.836 Recovery = 103.38%								
Se 196.026†	1197.0	382.6	ug/L	1.56	382.6	ug/L	1.56	0.41%
QC value within limits for Se 196.026 Recovery = 102.02%								
Sn 189.927†	2108.7	369.6	ug/L	1.91	369.6	ug/L	1.91	0.52%
QC value within limits for Sn 189.927 Recovery = 98.57%								
Sr 421.552†	145411.3	336.8	ug/L	6.10	336.8	ug/L	6.10	1.81%
QC value within limits for Sr 421.552 Recovery = 89.81%								
Ti 337.279†	13164.0	371.5	ug/L	1.41	371.5	ug/L	1.41	0.38%
QC value within limits for Ti 337.279 Recovery = 99.06%								
Tl 190.801†	2019.2	424.6	ug/L	1.72	424.6	ug/L	1.72	0.40%
QC value greater than the upper limit for Tl 190.801 Recovery = 113.24%								
V 292.402†	37741.3	382.8	ug/L	1.81	382.8	ug/L	1.81	0.47%
QC value within limits for V 292.402 Recovery = 102.09%								
Zn 206.200†	36379.4	378.5	ug/L	1.82	378.5	ug/L	1.82	0.48%
QC value within limits for Zn 206.200 Recovery = 100.94%								

Li 670.784	3089549.4	178.9 ug/L	0.39	178.9 ug/L	0.39	0.22%

QC value within limits for Li 670.784 Recovery = 95.42%
QC Failed. Continue with analysis.

Sequence No.: 30
Sample ID: CCB 150611RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 06/11/15 4:59:51 PM
Data Type: Reprocessed on 06/12/15 9:41:27 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150611RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	225387.9	104.1	%	0.90				0.87%
Y Radial	14316.1	102.4	%	1.13				1.11%
Ag 338.289†	9.0	0.051	ug/L	0.2668	0.051	ug/L	0.2668	525.70%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	15.2	11.92	ug/L	4.065	11.92	ug/L	4.065	34.10%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	8.9	1.737	ug/L	0.2216	1.737	ug/L	0.2216	12.76%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	39.4	1.189	ug/L	0.2230	1.189	ug/L	0.2230	18.75%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	54.9	0.131	ug/L	0.0147	0.131	ug/L	0.0147	11.30%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	50.9	0.015	ug/L	0.0044	0.015	ug/L	0.0044	30.20%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	209.0	13.41	ug/L	0.484	13.41	ug/L	0.484	3.61%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	53.4	0.183	ug/L	0.0530	0.183	ug/L	0.0530	29.00%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	0.7	0.006	ug/L	0.0351	0.006	ug/L	0.0351	571.70%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	15.2	0.183	ug/L	0.1232	0.183	ug/L	0.1232	67.43%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	86.9	0.466	ug/L	0.0695	0.466	ug/L	0.0695	14.91%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	74.6	0.970	ug/L	0.0264	0.970	ug/L	0.0264	2.72%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	101.6	15.33	ug/L	8.812	15.33	ug/L	8.812	57.49%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	61.9	3.830	ug/L	0.3906	3.830	ug/L	0.3906	10.20%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	125.4	1.524	ug/L	0.0882	1.524	ug/L	0.0882	5.79%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-6.4	-0.185	ug/L	0.1496	-0.185	ug/L	0.1496	80.79%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	170.5	23.68	ug/L	5.006	23.68	ug/L	5.006	21.14%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	10.9	0.220	ug/L	0.1429	0.220	ug/L	0.1429	64.92%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	8.4	2.548	ug/L	0.8334	2.548	ug/L	0.8334	32.71%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-3.7	-0.616	ug/L	0.1143	-0.616	ug/L	0.1143	18.55%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	6.6	0.908	ug/L	0.4894	0.908	ug/L	0.4894	53.87%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	3.4	1.082	ug/L	1.1647	1.082	ug/L	1.1647	107.67%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	1.0	0.176	ug/L	0.5588	0.176	ug/L	0.5588	318.03%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	55.5	0.128	ug/L	0.0314	0.128	ug/L	0.0314	24.45%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	10.3	0.289	ug/L	0.2043	0.289	ug/L	0.2043	70.59%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	5.0	1.050	ug/L	0.7843	1.050	ug/L	0.7843	74.70%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	6.9	0.070	ug/L	0.0312	0.070	ug/L	0.0312	44.25%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-860.2	-8.823	ug/L	0.0542	-8.823	ug/L	0.0542	0.61%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	4315.9	0.250 ug/L	0.0082	0.250 ug/L	0.0082	3.27%

QC value within limits for Li 670.784 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 41
Sample ID: CCV1 150611RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 06/11/15 6:23:28 PM
Data Type: Reprocessed on 06/12/15 9:41:40 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV1 150611RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	214684.4	99.13	%	0.584				0.59%
Y Radial	14012.8	100.2	%	1.12				1.12%
Ag 338.289†	44382.5	250.3	ug/L	0.47	250.3	ug/L	0.47	0.19%
QC value within limits for Ag 338.289 Recovery = 100.12%								
Al 308.215†	12841.1	10090	ug/L	63.16	10090	ug/L	63.16	0.63%
QC value within limits for Al 308.215 Recovery = 100.92%								
As 188.979†	2598.6	504.7	ug/L	1.77	504.7	ug/L	1.77	0.35%
QC value within limits for As 188.979 Recovery = 100.94%								
B 249.677†	16815.0	530.3	ug/L	2.64	530.3	ug/L	2.64	0.50%
QC value within limits for B 249.677 Recovery = 106.06%								
Ba 233.527†	211934.7	503.7	ug/L	1.48	503.7	ug/L	1.48	0.29%
QC value within limits for Ba 233.527 Recovery = 100.75%								
Be 313.107†	1808286.2	517.2	ug/L	2.41	517.2	ug/L	2.41	0.47%
QC value within limits for Be 313.107 Recovery = 103.44%								
Ca 315.887†	395245.8	25360	ug/L	151.32	25360	ug/L	151.32	0.60%
QC value within limits for Ca 315.887 Recovery = 101.44%								
Cd 214.440†	148227.6	506.6	ug/L	1.60	506.6	ug/L	1.60	0.32%
QC value within limits for Cd 214.440 Recovery = 101.32%								
Co 228.616†	49668.4	509.2	ug/L	1.50	509.2	ug/L	1.50	0.29%
QC value within limits for Co 228.616 Recovery = 101.84%								
Cr 267.716†	41617.4	502.4	ug/L	1.30	502.4	ug/L	1.30	0.26%
QC value within limits for Cr 267.716 Recovery = 100.48%								
Cu 327.393†	95393.1	510.6	ug/L	1.54	510.6	ug/L	1.54	0.30%
QC value within limits for Cu 327.393 Recovery = 102.11%								
Fe 273.955†	771556.0	10070	ug/L	29.34	10070	ug/L	29.34	0.29%
QC value within limits for Fe 273.955 Recovery = 100.68%								
K 766.490†	64665.8	9744	ug/L	53.74	9744	ug/L	53.74	0.55%
QC value within limits for K 766.490 Recovery = 97.44%								
Mg 285.213†	412071.1	25500	ug/L	155.95	25500	ug/L	155.95	0.61%
QC value within limits for Mg 285.213 Recovery = 102.01%								
Mn 257.610†	41234.0	500.1	ug/L	3.37	500.1	ug/L	3.37	0.67%
QC value within limits for Mn 257.610 Recovery = 100.03%								
Mo 202.031†	17498.7	504.2	ug/L	3.25	504.2	ug/L	3.25	0.64%
QC value within limits for Mo 202.031 Recovery = 100.85%								
Na 589.592†	84623.7	11750	ug/L	35.85	11750	ug/L	35.85	0.31%
QC value within limits for Na 589.592 Recovery = 93.97%								
Ni 231.604†	25263.8	510.0	ug/L	2.58	510.0	ug/L	2.58	0.50%
QC value within limits for Ni 231.604 Recovery = 102.01%								
P 213.617†	8396.5	2545	ug/L	14.94	2545	ug/L	14.94	0.59%
QC value within limits for P 213.617 Recovery = 101.79%								
Pb 220.353†	3210.7	544.7	ug/L	3.25	544.7	ug/L	3.25	0.60%
QC value within limits for Pb 220.353 Recovery = 108.93%								
Sb 206.836†	3814.3	521.6	ug/L	3.18	521.6	ug/L	3.18	0.61%
QC value within limits for Sb 206.836 Recovery = 104.32%								
Se 196.026†	1593.9	509.4	ug/L	5.26	509.4	ug/L	5.26	1.03%
QC value within limits for Se 196.026 Recovery = 101.88%								
Sn 189.927†	2861.0	501.5	ug/L	3.05	501.5	ug/L	3.05	0.61%
QC value within limits for Sn 189.927 Recovery = 100.30%								
Sr 421.552†	195970.3	453.8	ug/L	4.33	453.8	ug/L	4.33	0.95%
QC value within limits for Sr 421.552 Recovery = 90.77%								
Ti 337.279†	17836.9	503.3	ug/L	2.61	503.3	ug/L	2.61	0.52%
QC value within limits for Ti 337.279 Recovery = 100.66%								
Tl 190.801†	2732.9	574.7	ug/L	3.37	574.7	ug/L	3.37	0.59%
QC value greater than the upper limit for Tl 190.801 Recovery = 114.95%								
V 292.402†	50815.0	515.4	ug/L	2.55	515.4	ug/L	2.55	0.49%
QC value within limits for V 292.402 Recovery = 103.09%								
Zn 206.200†	48785.7	507.3	ug/L	1.36	507.3	ug/L	1.36	0.27%
QC value within limits for Zn 206.200 Recovery = 101.47%								

Li 670.784	4172027.9	241.6 ug/L	1.65	241.6 ug/L	1.65	0.68%

QC value within limits for Li 670.784 Recovery = 96.64%
QC Failed. Continue with analysis.

Sequence No.: 42
Sample ID: CCB 150611RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 06/11/15 6:29:13 PM
Data Type: Reprocessed on 06/12/15 9:41:41 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150611RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	223631.1	103.3	%	0.57				0.55%
Y Radial	14507.2	103.8	%	1.42				1.37%
Ag 338.289†	59.4	0.335	ug/L	0.0885	0.335	ug/L	0.0885	26.43%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	16.3	12.76	ug/L	0.191	12.76	ug/L	0.191	1.50%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	6.4	1.249	ug/L	1.0248	1.249	ug/L	1.0248	82.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	90.2	2.726	ug/L	0.5255	2.726	ug/L	0.5255	19.28%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-13.1	-0.031	ug/L	0.0048	-0.031	ug/L	0.0048	15.40%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	57.5	0.016	ug/L	0.0011	0.016	ug/L	0.0011	6.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	27.2	1.745	ug/L	1.8475	1.745	ug/L	1.8475	105.86%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	75.5	0.258	ug/L	0.0250	0.258	ug/L	0.0250	9.69%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-6.2	-0.063	ug/L	0.0826	-0.063	ug/L	0.0826	130.72%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	8.4	0.102	ug/L	0.0879	0.102	ug/L	0.0879	86.28%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	158.7	0.851	ug/L	0.2626	0.851	ug/L	0.2626	30.85%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	155.4	2.024	ug/L	0.1648	2.024	ug/L	0.1648	8.14%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	61.7	9.318	ug/L	8.5328	9.318	ug/L	8.5328	91.57%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	16.0	0.990	ug/L	0.4157	0.990	ug/L	0.4157	42.00%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-17.5	-0.213	ug/L	0.0558	-0.213	ug/L	0.0558	26.24%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	13.5	0.388	ug/L	0.1594	0.388	ug/L	0.1594	41.10%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-25.5	-3.562	ug/L	2.5708	-3.562	ug/L	2.5708	72.18%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	15.1	0.305	ug/L	0.0799	0.305	ug/L	0.0799	26.22%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	6.3	1.920	ug/L	0.0164	1.920	ug/L	0.0164	0.85%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	1.0	0.171	ug/L	0.4730	0.171	ug/L	0.4730	275.96%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	12.0	1.639	ug/L	0.5761	1.639	ug/L	0.5761	35.15%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	3.8	1.207	ug/L	1.5375	1.207	ug/L	1.5375	127.41%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	7.9	1.393	ug/L	0.5153	1.393	ug/L	0.5153	36.99%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	6.3	0.015	ug/L	0.0649	0.015	ug/L	0.0649	443.04%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	15.7	0.443	ug/L	0.1093	0.443	ug/L	0.1093	24.69%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	6.0	1.262	ug/L	0.6358	1.262	ug/L	0.6358	50.37%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	16.4	0.166	ug/L	0.0755	0.166	ug/L	0.0755	45.40%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-863.9	-8.863	ug/L	0.1172	-8.863	ug/L	0.1172	1.32%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	8046.2	0.466 ug/L	0.0209	0.466 ug/L	0.0209	4.48%

QC value within limits for Li 670.784 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 53
Sample ID: CCV2 150611RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 8
Date Collected: 06/11/15 7:47:02 PM
Data Type: Reprocessed on 06/12/15 9:41:54 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV2 150611RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	215928.4	99.70	%	0.329				0.33%
Y Radial	14530.0	103.9	%	0.81				0.78%
Ag 338.289†	33314.1	187.9	ug/L	0.31	187.9	ug/L	0.31	0.17%
QC value within limits for Ag 338.289 Recovery = 100.20%								
Al 308.215†	9385.9	7377	ug/L	9.84	7377	ug/L	9.84	0.13%
QC value within limits for Al 308.215 Recovery = 98.36%								
As 188.979†	1925.1	374.0	ug/L	2.66	374.0	ug/L	2.66	0.71%
QC value within limits for As 188.979 Recovery = 99.73%								
B 249.677†	12954.7	408.0	ug/L	2.81	408.0	ug/L	2.81	0.69%
QC value within limits for B 249.677 Recovery = 108.81%								
Ba 233.527†	158172.0	376.0	ug/L	0.69	376.0	ug/L	0.69	0.18%
QC value within limits for Ba 233.527 Recovery = 100.25%								
Be 313.107†	1342160.7	383.9	ug/L	0.82	383.9	ug/L	0.82	0.21%
QC value within limits for Be 313.107 Recovery = 102.37%								
Ca 315.887†	280406.5	17990	ug/L	168.03	17990	ug/L	168.03	0.93%
QC value within limits for Ca 315.887 Recovery = 95.96%								
Cd 214.440†	110780.4	378.6	ug/L	0.81	378.6	ug/L	0.81	0.21%
QC value within limits for Cd 214.440 Recovery = 100.96%								
Co 228.616†	37083.0	380.2	ug/L	0.79	380.2	ug/L	0.79	0.21%
QC value within limits for Co 228.616 Recovery = 101.38%								
Cr 267.716†	32747.9	395.3	ug/L	2.29	395.3	ug/L	2.29	0.58%
QC value within limits for Cr 267.716 Recovery = 105.42%								
Cu 327.393†	71628.3	383.4	ug/L	0.97	383.4	ug/L	0.97	0.25%
QC value within limits for Cu 327.393 Recovery = 102.23%								
Fe 273.955†	576423.3	7522	ug/L	16.91	7522	ug/L	16.91	0.22%
QC value within limits for Fe 273.955 Recovery = 100.29%								
K 766.490†	46890.7	7066	ug/L	76.07	7066	ug/L	76.07	1.08%
QC value within limits for K 766.490 Recovery = 94.21%								
Mg 285.213†	294855.4	18250	ug/L	155.99	18250	ug/L	155.99	0.85%
QC value within limits for Mg 285.213 Recovery = 97.33%								
Mn 257.610†	30334.3	368.0	ug/L	1.06	368.0	ug/L	1.06	0.29%
QC value within limits for Mn 257.610 Recovery = 98.12%								
Mo 202.031†	12965.5	373.6	ug/L	1.49	373.6	ug/L	1.49	0.40%
QC value within limits for Mo 202.031 Recovery = 99.63%								
Na 589.592†	62584.1	8687	ug/L	76.38	8687	ug/L	76.38	0.88%
QC value within limits for Na 589.592 Recovery = 92.66%								
Ni 231.604†	18815.1	379.8	ug/L	1.55	379.8	ug/L	1.55	0.41%
QC value within limits for Ni 231.604 Recovery = 101.29%								
P 213.617†	6200.7	1879	ug/L	9.00	1879	ug/L	9.00	0.48%
QC value within limits for P 213.617 Recovery = 100.22%								
Pb 220.353†	2354.9	399.5	ug/L	2.66	399.5	ug/L	2.66	0.67%
QC value within limits for Pb 220.353 Recovery = 106.52%								
Sb 206.836†	2844.1	388.9	ug/L	3.43	388.9	ug/L	3.43	0.88%
QC value within limits for Sb 206.836 Recovery = 103.72%								
Se 196.026†	1191.3	380.8	ug/L	3.40	380.8	ug/L	3.40	0.89%
QC value within limits for Se 196.026 Recovery = 101.54%								
Sn 189.927†	2113.5	370.5	ug/L	2.02	370.5	ug/L	2.02	0.54%
QC value within limits for Sn 189.927 Recovery = 98.79%								
Sr 421.552†	148126.6	343.1	ug/L	3.17	343.1	ug/L	3.17	0.92%
QC value within limits for Sr 421.552 Recovery = 91.49%								
Ti 337.279†	13077.8	369.0	ug/L	1.58	369.0	ug/L	1.58	0.43%
QC value within limits for Ti 337.279 Recovery = 98.41%								
Tl 190.801†	2004.8	421.6	ug/L	0.95	421.6	ug/L	0.95	0.23%
QC value greater than the upper limit for Tl 190.801 Recovery = 112.43%								
V 292.402†	37583.1	381.2	ug/L	0.95	381.2	ug/L	0.95	0.25%
QC value within limits for V 292.402 Recovery = 101.66%								
Zn 206.200†	36261.1	377.3	ug/L	1.05	377.3	ug/L	1.05	0.28%
QC value within limits for Zn 206.200 Recovery = 100.61%								

Li 670.784	3080386.0	178.4 ug/L	0.65	178.4 ug/L	0.65	0.36%

QC value within limits for Li 670.784 Recovery = 95.14%
QC Failed. Continue with analysis.

Sequence No.: 54
Sample ID: CCB 150611RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 06/11/15 7:52:44 PM
Data Type: Reprocessed on 06/12/15 9:41:55 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150611RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	227935.3	105.2	%	0.64				0.61%
Y Radial	14898.0	106.6	%	1.01				0.95%
Ag 338.289†	8.3	0.047	ug/L	0.5102	0.047	ug/L	0.5102	>999.9%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	9.1	7.108	ug/L	1.3409	7.108	ug/L	1.3409	18.87%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	4.4	0.854	ug/L	0.8303	0.854	ug/L	0.8303	97.19%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	63.0	1.902	ug/L	0.2368	1.902	ug/L	0.2368	12.45%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	81.1	0.193	ug/L	0.0483	0.193	ug/L	0.0483	25.07%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	11.8	0.003	ug/L	0.0052	0.003	ug/L	0.0052	155.78%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	220.2	14.13	ug/L	1.170	14.13	ug/L	1.170	8.28%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	80.4	0.275	ug/L	0.0255	0.275	ug/L	0.0255	9.27%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	17.0	0.174	ug/L	0.1328	0.174	ug/L	0.1328	76.17%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	6.4	0.077	ug/L	0.0874	0.077	ug/L	0.0874	114.14%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	30.4	0.164	ug/L	0.1667	0.164	ug/L	0.1667	101.57%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	62.0	0.807	ug/L	0.2616	0.807	ug/L	0.2616	32.42%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	153.2	23.13	ug/L	4.037	23.13	ug/L	4.037	17.45%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	58.8	3.637	ug/L	0.7068	3.637	ug/L	0.7068	19.43%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	131.9	1.603	ug/L	0.0862	1.603	ug/L	0.0862	5.38%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	9.1	0.260	ug/L	0.0791	0.260	ug/L	0.0791	30.42%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-1.7	-0.256	ug/L	6.5347	-0.256	ug/L	6.5347	>999.9%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	20.0	0.403	ug/L	0.1974	0.403	ug/L	0.1974	48.93%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	13.0	3.930	ug/L	2.0555	3.930	ug/L	2.0555	52.30%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-6.1	-1.034	ug/L	0.2989	-1.034	ug/L	0.2989	28.91%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	3.4	0.466	ug/L	1.0732	0.466	ug/L	1.0732	230.52%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	6.5	2.053	ug/L	1.2061	2.053	ug/L	1.2061	58.76%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	0.7	0.130	ug/L	0.1786	0.130	ug/L	0.1786	137.25%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	47.1	0.109	ug/L	0.1298	0.109	ug/L	0.1298	119.21%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	11.7	0.330	ug/L	0.1190	0.330	ug/L	0.1190	36.00%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	1.0	0.214	ug/L	0.5469	0.214	ug/L	0.5469	255.49%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	4.9	0.050	ug/L	0.1152	0.050	ug/L	0.1152	230.43%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-897.7	-9.210	ug/L	0.0501	-9.210	ug/L	0.0501	0.54%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	3284.5	0.190 ug/L	0.0046	0.190 ug/L	0.0046	2.44%

QC value within limits for Li 670.784 Recovery = Not calculated

All analyte(s) passed QC.

Reprocessing Begun
Logged In Analyst: chemist_metals Technique: ICP Continuous

Results Data Set (original): 150612A6010
Results Library (original): C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb
Results Data Set (reprocessed):
Results Library (reprocessed):

Sequence No.: 1 Autosampler Location: 1
Sample ID: CalBlk 150612RJS I:JL O:R Date Collected: 06/12/15 12:56:41 PM
Analyst: Data Type: Reprocessed on 06/15/15 10:35:40 AM
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time:

Mean Data: CalBlk 150612RJS I:JL O:R

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	203189.8	528.51	0.26%	100.0	%
Y Radial	13119.9	152.02	1.16%	100.0	%
Ag 338.289†	-58.7	52.66	89.65%	[0.00]	ug/L
Al 308.215†	71.0	5.32	7.49%	[0.00]	ug/L
As 188.979†	-76.5	4.42	5.78%	[0.00]	ug/L
B 249.677†	49.2	9.52	19.36%	[0.00]	ug/L
Ba 233.527†	-54.1	6.40	11.84%	[0.00]	ug/L
Be 313.107†	2142.9	12.43	0.58%	[0.00]	ug/L
Ca 315.887†	-306.4	16.52	5.39%	[0.00]	ug/L
Cd 214.440†	-389.3	13.59	3.49%	[0.00]	ug/L
Co 228.616†	-225.7	1.70	0.75%	[0.00]	ug/L
Cr 267.716†	27.6	9.11	33.04%	[0.00]	ug/L
Cu 327.393†	-1695.6	55.62	3.28%	[0.00]	ug/L
Fe 273.955†	-25.0	4.12	16.51%	[0.00]	ug/L
K 766.490†	-793.3	122.41	15.43%	[0.00]	ug/L
Mg 285.213†	82.5	16.38	19.86%	[0.00]	ug/L
Mn 257.610†	-67.5	5.40	8.01%	[0.00]	ug/L
Mo 202.031†	-76.5	3.57	4.67%	[0.00]	ug/L
Na 589.592†	390.3	32.76	8.39%	[0.00]	ug/L
Ni 231.604†	-145.8	8.82	6.05%	[0.00]	ug/L
P 213.617†	-70.3	4.21	6.00%	[0.00]	ug/L
Pb 220.353†	25.2	5.67	22.49%	[0.00]	ug/L
Sb 206.836†	-9.4	7.34	78.01%	[0.00]	ug/L
Se 196.026†	17.2	1.37	7.97%	[0.00]	ug/L
Sn 189.927†	0.7	0.53	77.76%	[0.00]	ug/L
Sr 421.552†	-57.6	26.79	46.54%	[0.00]	ug/L
Ti 337.279†	-36.1	7.84	21.72%	[0.00]	ug/L
Tl 190.801†	-10.8	2.57	23.88%	[0.00]	ug/L
V 292.402†	-143.3	6.85	4.78%	[0.00]	ug/L
Zn 206.200†	360.2	24.31	6.75%	[0.00]	ug/L
Li 670.784	4402.2	42.58	0.97%	[0.00]	ug/L

Sequence No.: 2
Sample ID: STD 1 150612RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 2
Date Collected: 06/12/15 1:02:53 PM
Data Type: Reprocessed on 06/15/15 10:35:42 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 1 150612RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	204890.8	1033.91	0.50%	100.8	%
Y Radial	13852.4	50.05	0.36%	105.6	%
Ag 338.289†	943.9	19.23	2.04%	[0.5]	ug/L
Al 308.215†	274.5	2.69	0.98%	[50]	ug/L
As 188.979†	53.8	6.12	11.36%	[2]	ug/L
B 249.677†	1112.2	18.97	1.71%	[25]	ug/L
Ba 233.527†	4520.4	18.72	0.41%	[1.5]	ug/L
Be 313.107†	34091.0	157.69	0.46%	[1]	ug/L
Ca 315.887†	7316.1	11.53	0.16%	[50]	ug/L
Cd 214.440†	2646.1	16.52	0.62%	[0.25]	ug/L
Co 228.616†	1152.3	4.27	0.37%	[2.5]	ug/L
Cr 267.716†	800.6	7.59	0.95%	[0.5]	ug/L
Cu 327.393†	2201.8	41.05	1.86%	[2.5]	ug/L
Fe 273.955†	15428.0	61.25	0.40%	[25]	ug/L
K 766.490†	3978.3	57.45	1.44%	[500]	ug/L
Mg 285.213†	7438.0	10.16	0.14%	[25]	ug/L
Mn 257.610†	796.5	3.59	0.45%	[1]	ug/L
Mo 202.031†	337.4	3.03	0.90%	[1]	ug/L
Na 589.592†	4283.1	60.29	1.41%	[500]	ug/L
Ni 231.604†	486.6	8.37	1.72%	[1]	ug/L
P 213.617†	178.4	1.56	0.87%	[12.5]	ug/L
Pb 220.353†	65.7	5.01	7.63%	[1.5]	ug/L
Sb 206.836†	70.2	5.98	8.52%	[2]	ug/L
Se 196.026†	28.3	8.55	30.26%	[2]	ug/L
Sn 189.927†	64.0	1.97	3.08%	[3]	ug/L
Sr 421.552†	3541.9	36.02	1.02%	[1]	ug/L
Ti 337.279†	401.8	8.54	2.13%	[2.5]	ug/L
Tl 190.801†	66.8	7.25	10.84%	[2]	ug/L
V 292.402†	1022.4	8.88	0.87%	[0.5]	ug/L
Zn 206.200†	2876.2	22.01	0.77%	[25]	ug/L
Li 670.784	52749.1	275.23	0.52%	[5]	ug/L

Sequence No.: 3
Sample ID: STD 2 150612RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 06/12/15 1:09:07 PM
Data Type: Reprocessed on 06/15/15 10:35:43 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 2 150612RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	194907.2	898.33	0.46%	95.92	%
Y Radial	13937.3	868.97	6.23%	106.2	%
Ag 338.289†	40195.1	144.36	0.36%	[250]	ug/L
Al 308.215†	10912.3	637.90	5.85%	[10000]	ug/L
As 188.979†	2243.3	24.96	1.11%	[500]	ug/L
B 249.677†	15089.9	90.81	0.60%	[500]	ug/L
Ba 233.527†	185331.6	600.96	0.32%	[500]	ug/L
Be 313.107†	1605818.8	3121.77	0.19%	[500]	ug/L
Ca 315.887†	313240.7	17959.45	5.73%	[25000]	ug/L
Cd 214.440†	122579.4	317.91	0.26%	[500]	ug/L
Co 228.616†	43316.8	196.51	0.45%	[500]	ug/L
Cr 267.716†	38777.0	318.42	0.82%	[500]	ug/L
Cu 327.393†	87449.0	378.93	0.43%	[500]	ug/L
Fe 273.955†	675336.8	2347.57	0.35%	[10000]	ug/L
K 766.490†	54597.7	2935.00	5.38%	[10000]	ug/L
Mg 285.213†	346008.2	19459.49	5.62%	[25000]	ug/L
Mn 257.610†	33896.6	1946.96	5.74%	[500]	ug/L
Mo 202.031†	15278.1	142.03	0.93%	[500]	ug/L
Na 589.592†	69357.2	3914.69	5.64%	[12500]	ug/L
Ni 231.604†	21743.8	151.61	0.70%	[500]	ug/L
P 213.617†	7124.8	61.35	0.86%	[2500]	ug/L
Pb 220.353†	2766.8	27.88	1.01%	[500]	ug/L
Sb 206.836†	3128.4	26.08	0.83%	[500]	ug/L
Se 196.026†	1351.3	16.09	1.19%	[500]	ug/L
Sn 189.927†	2452.2	21.03	0.86%	[500]	ug/L
Sr 421.552†	158921.9	10051.03	6.32%	[500]	ug/L
Ti 337.279†	15315.6	864.82	5.65%	[500]	ug/L
Tl 190.801†	2541.8	23.48	0.92%	[500]	ug/L
V 292.402†	46344.3	19.23	0.04%	[500]	ug/L
Zn 206.200†	39707.0	170.01	0.43%	[500]	ug/L
Li 670.784	3579783.9	5361.54	0.15%	[250]	ug/L

Sequence No.: 4
Sample ID: STD 3 150612RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 4
Date Collected: 06/12/15 1:14:56 PM
Data Type: Reprocessed on 06/15/15 10:35:44 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 3 150612RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	191152.4	1013.95	0.53%	94.08	%
Y Radial	13187.3	99.13	0.75%	100.5	%
Ag 338.289†	81421.3	181.41	0.22%	[500]	ug/L
Al 308.215†	23011.1	124.86	0.54%	[20000]	ug/L
As 188.979†	4501.3	39.48	0.88%	[1000]	ug/L
B 249.677†	30803.2	114.76	0.37%	[1000]	ug/L
Ba 233.527†	373030.4	710.79	0.19%	[1000]	ug/L
Be 313.107†	3237526.3	7010.12	0.22%	[1000]	ug/L
Ca 315.887†	649688.6	9682.27	1.49%	[50000]	ug/L
Cd 214.440†	245591.7	513.49	0.21%	[1000]	ug/L
Co 228.616†	86546.9	118.57	0.14%	[1000]	ug/L
Cr 267.716†	77566.9	609.11	0.79%	[1000]	ug/L
Cu 327.393†	177878.9	377.27	0.21%	[1000]	ug/L
Fe 273.955†	1350904.7	2292.67	0.17%	[20000]	ug/L
K 766.490†	116281.5	610.12	0.52%	[20000]	ug/L
Mg 285.213†	714101.7	11476.54	1.61%	[50000]	ug/L
Mn 257.610†	70989.9	303.61	0.43%	[1000]	ug/L
Mo 202.031†	30787.3	243.98	0.79%	[1000]	ug/L
Na 589.592†	145163.6	2576.54	1.77%	[25000]	ug/L
Ni 231.604†	43000.1	347.49	0.81%	[1000]	ug/L
P 213.617†	14473.8	158.00	1.09%	[5000]	ug/L
Pb 220.353†	5487.3	49.25	0.90%	[1000]	ug/L
Sb 206.836†	6352.2	56.77	0.89%	[1000]	ug/L
Se 196.026†	2722.1	36.30	1.33%	[1000]	ug/L
Sn 189.927†	4918.7	42.91	0.87%	[1000]	ug/L
Sr 421.552†	335696.1	6119.90	1.82%	[1000]	ug/L
Ti 337.279†	32105.7	146.46	0.46%	[1000]	ug/L
Tl 190.801†	4988.8	72.43	1.45%	[1000]	ug/L
V 292.402†	93838.1	229.65	0.24%	[1000]	ug/L
Zn 206.200†	80342.1	132.88	0.17%	[1000]	ug/L
Li 670.784	7865167.1	27046.04	0.34%	[500]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 338.289	3	Lin Thru 0	0.0	162.4	0.00000	0.999942	
Al 308.215	3	Lin Thru 0	0.0	1.139	0.00000	0.999746	
As 188.979	3	Lin Thru 0	0.0	4.498	0.00000	0.999959	
B 249.677	3	Lin Thru 0	0.0	30.69	0.00000	0.999916	
Ba 233.527	3	Lin Thru 0	0.0	372.6	0.00000	0.999952	
Be 313.107	3	Lin Thru 0	0.0	3232	0.00000	0.999958	
Ca 315.887	3	Lin Thru 0	0.0	12.90	0.00000	0.999854	
Cd 214.440	3	Lin Thru 0	0.0	245.5	0.00000	0.999955	
Co 228.616	3	Lin Thru 0	0.0	86.57	0.00000	0.999953	
Cr 267.716	3	Lin Thru 0	0.0	77.56	0.00000	0.999961	
Cu 327.393	3	Lin Thru 0	0.0	177.3	0.00000	0.999938	
Fe 273.955	3	Lin Thru 0	0.0	67.54	0.00000	0.999959	
K 766.490	3	Lin Thru 0	0.0	5.744	0.00000	0.999659	
Mg 285.213	3	Lin Thru 0	0.0	14.19	0.00000	0.999883	
Mn 257.610	3	Lin Thru 0	0.0	70.35	0.00000	0.999792	
Mo 202.031	3	Lin Thru 0	0.0	30.74	0.00000	0.999956	
Na 589.592	3	Lin Thru 0	0.0	5.756	0.00000	0.999801	
Ni 231.604	3	Lin Thru 0	0.0	43.10	0.00000	0.999947	
P 213.617	3	Lin Thru 0	0.0	2.886	0.00000	0.999942	
Pb 220.353	3	Lin Thru 0	0.0	5.497	0.00000	0.999951	
Sb 206.836	3	Lin Thru 0	0.0	6.333	0.00000	0.999949	
Se 196.026	3	Lin Thru 0	0.0	2.718	0.00000	0.999968	

Sn 189.927	3	Lin Thru 0	0.0	4.916	0.00000	0.999959
Sr 421.552	3	Lin Thru 0	0.0	332.1	0.00000	0.999732
Ti 337.279	3	Lin Thru 0	0.0	31.81	0.00000	0.999787
Tl 190.801	3	Lin Thru 0	0.0	5.008	0.00000	0.999920
V 292.402	3	Lin Thru 0	0.0	93.61	0.00000	0.999944
Zn 206.200	3	Lin Thru 0	0.0	80.17	0.00000	0.999942
Li 670.784	3	Lin Thru 0	0.0	15450	0.00000	0.999329

Sequence No.: 5
Sample ID: ICV 150612RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 06/12/15 1:26:55 PM
Data Type: Reprocessed on 06/15/15 10:35:45 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICV 150612RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	198221.1	97.55	%	0.412				0.42%
Y Radial	13541.2	103.2	%	0.44				0.42%
Ag 338.289†	40879.3	251.7	ug/L	1.97	251.7	ug/L	1.97	0.78%
QC value within limits for Ag 338.289 Recovery = 100.67%								
Al 308.215†	14275.1	12560	ug/L	87.68	12560	ug/L	87.68	0.70%
QC value within limits for Al 308.215 Recovery = 100.48%								
As 188.979†	2048.9	452.2	ug/L	1.21	452.2	ug/L	1.21	0.27%
QC value within limits for As 188.979 Recovery = 90.45%								
B 249.677†	15235.4	526.1	ug/L	2.54	526.1	ug/L	2.54	0.48%
QC value within limits for B 249.677 Recovery = 105.22%								
Ba 233.527†	187349.3	502.4	ug/L	2.65	502.4	ug/L	2.65	0.53%
QC value within limits for Ba 233.527 Recovery = 100.49%								
Be 313.107†	1608761.8	497.7	ug/L	2.85	497.7	ug/L	2.85	0.57%
QC value within limits for Be 313.107 Recovery = 99.54%								
Ca 315.887†	168882.4	13090	ug/L	93.26	13090	ug/L	93.26	0.71%
QC value within limits for Ca 315.887 Recovery = 104.69%								
Cd 214.440†	124828.9	508.5	ug/L	3.31	508.5	ug/L	3.31	0.65%
QC value within limits for Cd 214.440 Recovery = 101.71%								
Co 228.616†	43742.4	505.2	ug/L	2.75	505.2	ug/L	2.75	0.54%
QC value within limits for Co 228.616 Recovery = 101.05%								
Cr 267.716†	39456.0	508.6	ug/L	1.16	508.6	ug/L	1.16	0.23%
QC value within limits for Cr 267.716 Recovery = 101.73%								
Cu 327.393†	90221.9	510.0	ug/L	3.18	510.0	ug/L	3.18	0.62%
QC value within limits for Cu 327.393 Recovery = 102.00%								
Fe 273.955†	851818.9	12570	ug/L	68.01	12570	ug/L	68.01	0.54%
QC value within limits for Fe 273.955 Recovery = 100.58%								
K 766.490†	71945.5	12500	ug/L	104.35	12500	ug/L	104.35	0.83%
QC value within limits for K 766.490 Recovery = 99.98%								
Mg 285.213†	181963.9	12830	ug/L	110.07	12830	ug/L	110.07	0.86%
QC value within limits for Mg 285.213 Recovery = 102.64%								
Mn 257.610†	35702.1	507.1	ug/L	3.94	507.1	ug/L	3.94	0.78%
QC value within limits for Mn 257.610 Recovery = 101.43%								
Mo 202.031†	15306.4	498.5	ug/L	1.12	498.5	ug/L	1.12	0.22%
QC value within limits for Mo 202.031 Recovery = 99.69%								
Na 589.592†	73647.9	12780	ug/L	105.16	12780	ug/L	105.16	0.82%
QC value within limits for Na 589.592 Recovery = 102.23%								
Ni 231.604†	22407.8	519.0	ug/L	1.21	519.0	ug/L	1.21	0.23%
QC value within limits for Ni 231.604 Recovery = 103.79%								
P 213.617†	7296.7	2528	ug/L	5.19	2528	ug/L	5.19	0.21%
QC value within limits for P 213.617 Recovery = 101.14%								
Pb 220.353†	2856.2	522.4	ug/L	1.51	522.4	ug/L	1.51	0.29%
QC value within limits for Pb 220.353 Recovery = 104.49%								
Sb 206.836†	3251.4	513.4	ug/L	2.31	513.4	ug/L	2.31	0.45%
QC value within limits for Sb 206.836 Recovery = 102.68%								
Se 196.026†	1393.0	516.3	ug/L	4.57	516.3	ug/L	4.57	0.89%
QC value within limits for Se 196.026 Recovery = 103.26%								
Sn 189.927†	1276.9	259.7	ug/L	0.85	259.7	ug/L	0.85	0.33%
QC value within limits for Sn 189.927 Recovery = 103.90%								
Sr 421.552†	168575.7	507.0	ug/L	5.99	507.0	ug/L	5.99	1.18%
QC value within limits for Sr 421.552 Recovery = 101.41%								
Ti 337.279†	16192.4	508.8	ug/L	4.23	508.8	ug/L	4.23	0.83%
QC value within limits for Ti 337.279 Recovery = 101.76%								
Tl 190.801†	2588.9	517.0	ug/L	1.63	517.0	ug/L	1.63	0.32%
QC value within limits for Tl 190.801 Recovery = 103.39%								
V 292.402†	46569.4	497.5	ug/L	2.57	497.5	ug/L	2.57	0.52%
QC value within limits for V 292.402 Recovery = 99.50%								
Zn 206.200†	41321.5	521.6	ug/L	3.58	521.6	ug/L	3.58	0.69%
QC value within limits for Zn 206.200 Recovery = 104.33%								

Li 670.784	4171413.8	270.0 ug/L	0.59	270.0 ug/L	0.59	0.22%

QC value within limits for Li 670.784 Recovery = 108.01%

All analyte(s) passed QC.

Sequence No.: 6
Sample ID: ICB 150612RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 06/12/15 1:37:16 PM
Data Type: Reprocessed on 06/15/15 10:35:46 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICB 150612RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	203764.6	100.3	%	0.62				0.62%
Y Radial	13522.8	103.1	%	1.76				1.70%
Ag 338.289†	-17.6	-0.108	ug/L	0.2167	-0.108	ug/L	0.2167	200.30%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-6.2	-5.449	ug/L	2.3760	-5.449	ug/L	2.3760	43.60%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	8.4	1.874	ug/L	0.4645	1.874	ug/L	0.4645	24.79%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	53.3	1.737	ug/L	0.2490	1.737	ug/L	0.2490	14.33%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	20.4	0.054	ug/L	0.0346	0.054	ug/L	0.0346	63.43%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-11.6	-0.004	ug/L	0.0077	-0.004	ug/L	0.0077	216.01%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	37.8	2.926	ug/L	0.4883	2.926	ug/L	0.4883	16.69%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	20.3	0.083	ug/L	0.0437	0.083	ug/L	0.0437	52.67%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	25.4	0.297	ug/L	0.1260	0.297	ug/L	0.1260	42.44%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	2.3	0.030	ug/L	0.0621	0.030	ug/L	0.0621	209.05%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	355.8	2.007	ug/L	0.3076	2.007	ug/L	0.3076	15.33%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	10.0	0.144	ug/L	0.0501	0.144	ug/L	0.0501	34.71%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	87.9	15.30	ug/L	5.424	15.30	ug/L	5.424	35.45%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	10.9	0.764	ug/L	0.6707	0.764	ug/L	0.6707	87.80%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	14.5	0.206	ug/L	0.1536	0.206	ug/L	0.1536	74.54%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	21.7	0.704	ug/L	0.1130	0.704	ug/L	0.1130	16.05%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-1.1	-0.216	ug/L	7.9269	-0.216	ug/L	7.9269	>999.9%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-6.8	-0.157	ug/L	0.1739	-0.157	ug/L	0.1739	111.05%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-0.2	-0.057	ug/L	0.8573	-0.057	ug/L	0.8573	>999.9%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	5.4	0.988	ug/L	0.1708	0.988	ug/L	0.1708	17.29%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	19.3	3.048	ug/L	1.3894	3.048	ug/L	1.3894	45.59%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-5.9	-2.169	ug/L	1.5180	-2.169	ug/L	1.5180	69.99%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	1.8	0.376	ug/L	0.2443	0.376	ug/L	0.2443	65.04%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	9.2	0.028	ug/L	0.1189	0.028	ug/L	0.1189	431.52%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-8.4	-0.264	ug/L	0.3711	-0.264	ug/L	0.3711	140.64%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-3.5	-0.695	ug/L	0.3654	-0.695	ug/L	0.3654	52.57%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	2.2	0.023	ug/L	0.1010	0.023	ug/L	0.1010	432.20%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-160.0	-1.994	ug/L	0.0861	-1.994	ug/L	0.0861	4.32%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	6972.4	0.451 ug/L	0.0049	0.451 ug/L	0.0049	1.08%

QC value within limits for Li 670.784 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICSA 150612RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 6
Date Collected: 06/12/15 1:43:23 PM
Data Type: Reprocessed on 06/15/15 10:35:48 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSA 150612RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	192595.2	94.79	%	0.213				0.22%
Y Radial	13405.4	102.2	%	0.47				0.46%
Ag 338.289†	72.1	0.444	ug/L	0.2262	0.444	ug/L	0.2262	50.96%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	114220.9	100300	ug/L	167.75	100300	ug/L	167.75	0.17%
QC value within limits for Al 308.215 Recovery = 100.30%								
As 188.979†	17.4	4.187	ug/L	0.9747	4.187	ug/L	0.9747	23.28%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-7841.4	-14.65	ug/L	2.213	-14.65	ug/L	2.213	15.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1657.2	-1.139	ug/L	0.0993	-1.139	ug/L	0.0993	8.72%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	275.6	0.085	ug/L	0.0039	0.085	ug/L	0.0039	4.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	1339315.2	103800	ug/L	143.50	103800	ug/L	143.50	0.14%
QC value within limits for Ca 315.887 Recovery = 103.81%								
Cd 214.440†	887.6	-0.289	ug/L	0.0610	-0.289	ug/L	0.0610	21.09%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	122.0	-1.494	ug/L	0.1772	-1.494	ug/L	0.1772	11.86%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	80.6	0.132	ug/L	0.1067	0.132	ug/L	0.1067	81.07%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	-126.0	0.706	ug/L	0.0899	0.706	ug/L	0.0899	12.73%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	6685686.8	98980	ug/L	994.25	98980	ug/L	994.25	1.00%
QC value within limits for Fe 273.955 Recovery = 98.98%								
K 766.490†	174.7	-66.61	ug/L	8.198	-66.61	ug/L	8.198	12.31%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1418866.1	100000	ug/L	167.24	100000	ug/L	167.24	0.17%
QC value within limits for Mg 285.213 Recovery = 100.05%								
Mn 257.610†	229.9	-0.054	ug/L	0.0995	-0.054	ug/L	0.0995	182.73%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-67.5	-0.766	ug/L	0.3582	-0.766	ug/L	0.3582	46.74%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	164.0	16.24	ug/L	1.644	16.24	ug/L	1.644	10.12%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-94.6	0.249	ug/L	0.1407	0.249	ug/L	0.1407	56.46%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-107.2	-37.16	ug/L	2.779	-37.16	ug/L	2.779	7.48%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-61.0	-1.144	ug/L	0.4191	-1.144	ug/L	0.4191	36.64%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-3.4	-0.536	ug/L	2.0189	-0.536	ug/L	2.0189	376.45%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-116.5	-3.945	ug/L	3.2533	-3.945	ug/L	3.2533	82.47%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	10.2	2.078	ug/L	0.4659	2.078	ug/L	0.4659	22.42%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	242.1	-3.333	ug/L	0.0960	-3.333	ug/L	0.0960	2.88%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	40.2	-0.464	ug/L	0.5299	-0.464	ug/L	0.5299	114.08%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-32.6	-6.502	ug/L	0.7702	-6.502	ug/L	0.7702	11.85%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	39.6	0.424	ug/L	0.1746	0.424	ug/L	0.1746	41.23%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	136.6	0.999	ug/L	0.2773	0.999	ug/L	0.2773	27.74%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	12357.5	0.800 ug/L	0.0075	0.800 ug/L	0.0075	0.94%

All analyte(s) passed QC.

Sequence No.: 8
Sample ID: ICSAB 150612RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 7
Date Collected: 06/12/15 1:50:38 PM
Data Type: Reprocessed on 06/15/15 10:35:49 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSAB 150612RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	193304.1	95.13	%	0.108				0.11%
Y Radial	13514.7	103.0	%	0.33				0.32%
Ag 338.289†	82900.8	510.4	ug/L	0.43	510.4	ug/L	0.43	0.08%
QC value within limits for Ag 338.289 Recovery = 102.07%								
Al 308.215†	113679.6	99840	ug/L	892.65	99840	ug/L	892.65	0.89%
QC value within limits for Al 308.215 Recovery = 99.84%								
As 188.979†	1025.8	226.6	ug/L	1.41	226.6	ug/L	1.41	0.62%
QC value within limits for As 188.979 Recovery = 90.65%								
B 249.677†	-7810.8	-15.98	ug/L	0.719	-15.98	ug/L	0.719	4.50%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	93542.8	245.7	ug/L	0.27	245.7	ug/L	0.27	0.11%
QC value within limits for Ba 233.527 Recovery = 98.28%								
Be 313.107†	779442.1	241.1	ug/L	0.66	241.1	ug/L	0.66	0.27%
QC value within limits for Be 313.107 Recovery = 96.45%								
Ca 315.887†	1334439.2	103400	ug/L	995.46	103400	ug/L	995.46	0.96%
QC value within limits for Ca 315.887 Recovery = 103.43%								
Cd 214.440†	120649.0	487.8	ug/L	0.03	487.8	ug/L	0.03	0.01%
QC value within limits for Cd 214.440 Recovery = 97.56%								
Co 228.616†	21754.7	249.1	ug/L	0.50	249.1	ug/L	0.50	0.20%
QC value within limits for Co 228.616 Recovery = 99.63%								
Cr 267.716†	18838.5	242.0	ug/L	0.58	242.0	ug/L	0.58	0.24%
QC value within limits for Cr 267.716 Recovery = 96.81%								
Cu 327.393†	44317.9	251.2	ug/L	0.52	251.2	ug/L	0.52	0.21%
QC value within limits for Cu 327.393 Recovery = 100.47%								
Fe 273.955†	6635958.9	98220	ug/L	478.84	98220	ug/L	478.84	0.49%
QC value within limits for Fe 273.955 Recovery = 98.22%								
K 766.490†	112.9	-78.19	ug/L	1.867	-78.19	ug/L	1.867	2.39%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1424460.8	100400	ug/L	940.93	100400	ug/L	940.93	0.94%
QC value within limits for Mg 285.213 Recovery = 100.44%								
Mn 257.610†	17668.8	247.8	ug/L	0.89	247.8	ug/L	0.89	0.36%
QC value within limits for Mn 257.610 Recovery = 99.13%								
Mo 202.031†	7311.9	239.5	ug/L	0.84	239.5	ug/L	0.84	0.35%
QC value within limits for Mo 202.031 Recovery = 95.79%								
Na 589.592†	80.9	0.906	ug/L	3.7326	0.906	ug/L	3.7326	411.77%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	20824.2	485.0	ug/L	1.16	485.0	ug/L	1.16	0.24%
QC value within limits for Ni 231.604 Recovery = 97.00%								
P 213.617†	-188.6	-65.34	ug/L	2.060	-65.34	ug/L	2.060	3.15%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	2629.3	489.2	ug/L	0.23	489.2	ug/L	0.23	0.05%
QC value within limits for Pb 220.353 Recovery = 97.84%								
Sb 206.836†	1605.5	253.5	ug/L	2.54	253.5	ug/L	2.54	1.00%
QC value within limits for Sb 206.836 Recovery = 101.40%								
Se 196.026†	547.9	239.6	ug/L	2.83	239.6	ug/L	2.83	1.18%
QC value within limits for Se 196.026 Recovery = 95.83%								
Sn 189.927†	12.2	2.485	ug/L	0.8254	2.485	ug/L	0.8254	33.21%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	227.6	-3.362	ug/L	0.0533	-3.362	ug/L	0.0533	1.59%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	53.5	-0.002	ug/L	0.8743	-0.002	ug/L	0.8743	>999.9%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	1158.9	231.4	ug/L	2.91	231.4	ug/L	2.91	1.26%
QC value within limits for Tl 190.801 Recovery = 92.56%								
V 292.402†	24361.0	260.2	ug/L	0.78	260.2	ug/L	0.78	0.30%
QC value within limits for V 292.402 Recovery = 104.10%								
Zn 206.200†	38791.0	485.9	ug/L	0.65	485.9	ug/L	0.65	0.13%
QC value within limits for Zn 206.200 Recovery = 97.18%								

Li 670.784	10500.4	0.680 ug/L	0.0084	0.680 ug/L	0.0084	1.23%

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: CCV1 150612RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 06/12/15 1:57:55 PM
Data Type: Reprocessed on 06/15/15 10:35:50 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV1 150612RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	196666.0	96.79	%	0.901				0.93%
Y Radial	13673.1	104.2	%	1.07				1.03%
Ag 338.289†	40400.1	248.7	ug/L	0.31	248.7	ug/L	0.31	0.12%
QC value within limits for Ag 338.289 Recovery = 99.49%								
Al 308.215†	11261.2	9912	ug/L	21.87	9912	ug/L	21.87	0.22%
QC value within limits for Al 308.215 Recovery = 99.12%								
As 188.979†	2244.3	494.1	ug/L	5.03	494.1	ug/L	5.03	1.02%
QC value within limits for As 188.979 Recovery = 98.83%								
B 249.677†	15066.1	514.0	ug/L	1.37	514.0	ug/L	1.37	0.27%
QC value within limits for B 249.677 Recovery = 102.80%								
Ba 233.527†	185829.9	498.5	ug/L	0.70	498.5	ug/L	0.70	0.14%
QC value within limits for Ba 233.527 Recovery = 99.70%								
Be 313.107†	1603170.7	496.0	ug/L	1.13	496.0	ug/L	1.13	0.23%
QC value within limits for Be 313.107 Recovery = 99.19%								
Ca 315.887†	326256.5	25280	ug/L	58.88	25280	ug/L	58.88	0.23%
QC value within limits for Ca 315.887 Recovery = 101.14%								
Cd 214.440†	123109.2	501.8	ug/L	1.06	501.8	ug/L	1.06	0.21%
QC value within limits for Cd 214.440 Recovery = 100.36%								
Co 228.616†	43345.9	500.7	ug/L	0.26	500.7	ug/L	0.26	0.05%
QC value within limits for Co 228.616 Recovery = 100.14%								
Cr 267.716†	38750.0	499.5	ug/L	5.07	499.5	ug/L	5.07	1.02%
QC value within limits for Cr 267.716 Recovery = 99.89%								
Cu 327.393†	87914.3	496.9	ug/L	0.34	496.9	ug/L	0.34	0.07%
QC value within limits for Cu 327.393 Recovery = 99.37%								
Fe 273.955†	679215.5	10020	ug/L	14.34	10020	ug/L	14.34	0.14%
QC value within limits for Fe 273.955 Recovery = 100.17%								
K 766.490†	57450.9	9976	ug/L	12.01	9976	ug/L	12.01	0.12%
QC value within limits for K 766.490 Recovery = 99.76%								
Mg 285.213†	361673.8	25490	ug/L	32.23	25490	ug/L	32.23	0.13%
QC value within limits for Mg 285.213 Recovery = 101.96%								
Mn 257.610†	35323.3	501.2	ug/L	1.13	501.2	ug/L	1.13	0.23%
QC value within limits for Mn 257.610 Recovery = 100.24%								
Mo 202.031†	15312.5	498.6	ug/L	5.42	498.6	ug/L	5.42	1.09%
QC value within limits for Mo 202.031 Recovery = 99.72%								
Na 589.592†	75142.8	13040	ug/L	16.44	13040	ug/L	16.44	0.13%
QC value within limits for Na 589.592 Recovery = 104.33%								
Ni 231.604†	21781.0	504.5	ug/L	5.56	504.5	ug/L	5.56	1.10%
QC value within limits for Ni 231.604 Recovery = 100.89%								
P 213.617†	7141.6	2475	ug/L	25.48	2475	ug/L	25.48	1.03%
QC value within limits for P 213.617 Recovery = 98.99%								
Pb 220.353†	2726.3	499.0	ug/L	3.62	499.0	ug/L	3.62	0.73%
QC value within limits for Pb 220.353 Recovery = 99.80%								
Sb 206.836†	3127.5	493.8	ug/L	7.05	493.8	ug/L	7.05	1.43%
QC value within limits for Sb 206.836 Recovery = 98.77%								
Se 196.026†	1361.0	503.1	ug/L	2.25	503.1	ug/L	2.25	0.45%
QC value within limits for Se 196.026 Recovery = 100.63%								
Sn 189.927†	2444.1	497.2	ug/L	5.37	497.2	ug/L	5.37	1.08%
QC value within limits for Sn 189.927 Recovery = 99.44%								
Sr 421.552†	172227.0	517.6	ug/L	7.39	517.6	ug/L	7.39	1.43%
QC value within limits for Sr 421.552 Recovery = 103.52%								
Ti 337.279†	15853.9	498.0	ug/L	0.55	498.0	ug/L	0.55	0.11%
QC value within limits for Ti 337.279 Recovery = 99.60%								
Tl 190.801†	2470.5	493.3	ug/L	5.09	493.3	ug/L	5.09	1.03%
QC value within limits for Tl 190.801 Recovery = 98.66%								
V 292.402†	46009.2	491.5	ug/L	0.94	491.5	ug/L	0.94	0.19%
QC value within limits for V 292.402 Recovery = 98.30%								
Zn 206.200†	40133.1	507.3	ug/L	1.15	507.3	ug/L	1.15	0.23%
QC value within limits for Zn 206.200 Recovery = 101.47%								

Li 670.784	3699085.7	239.5 ug/L	1.69	239.5 ug/L	1.69	0.70%

QC value within limits for Li 670.784 Recovery = 95.78%

All analyte(s) passed QC.

Sequence No.: 10
Sample ID: CCB 150612RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 06/12/15 2:08:21 PM
Data Type: Reprocessed on 06/15/15 10:35:52 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150612RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	201570.0	99.20	%	0.306				0.31%
Y Radial	13406.6	102.2	%	0.72				0.70%
Ag 338.289†	7.1	0.044	ug/L	0.3282	0.044	ug/L	0.3282	750.40%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	1.0	0.867	ug/L	3.1476	0.867	ug/L	3.1476	363.18%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	0.7	0.154	ug/L	0.4866	0.154	ug/L	0.4866	316.21%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	49.6	1.625	ug/L	0.3203	1.625	ug/L	0.3203	19.72%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.1	0.029	ug/L	0.0250	0.029	ug/L	0.0250	85.05%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	19.2	0.006	ug/L	0.0040	0.006	ug/L	0.0040	66.62%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	4.8	0.368	ug/L	0.4727	0.368	ug/L	0.4727	128.45%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	5.0	0.020	ug/L	0.0452	0.020	ug/L	0.0452	221.61%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	19.2	0.225	ug/L	0.0730	0.225	ug/L	0.0730	32.51%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-8.8	-0.114	ug/L	0.0288	-0.114	ug/L	0.0288	25.22%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	514.9	2.904	ug/L	0.2729	2.904	ug/L	0.2729	9.40%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	246.5	3.645	ug/L	0.1853	3.645	ug/L	0.1853	5.09%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	76.4	13.31	ug/L	6.004	13.31	ug/L	6.004	45.12%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	33.5	2.363	ug/L	0.1032	2.363	ug/L	0.1032	4.37%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	6.3	0.090	ug/L	0.1210	0.090	ug/L	0.1210	134.27%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	21.9	0.712	ug/L	0.3509	0.712	ug/L	0.3509	49.24%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-86.2	-14.99	ug/L	7.261	-14.99	ug/L	7.261	48.44%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-0.6	-0.014	ug/L	0.1787	-0.014	ug/L	0.1787	>999.9%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-1.8	-0.633	ug/L	0.6876	-0.633	ug/L	0.6876	108.58%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	10.6	1.933	ug/L	0.7715	1.933	ug/L	0.7715	39.91%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	16.2	2.558	ug/L	0.2095	2.558	ug/L	0.2095	8.19%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	0.1	0.052	ug/L	1.5842	0.052	ug/L	1.5842	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	4.5	0.920	ug/L	0.2370	0.920	ug/L	0.2370	25.76%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	9.2	0.028	ug/L	0.0583	0.028	ug/L	0.0583	211.00%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-8.9	-0.280	ug/L	0.4424	-0.280	ug/L	0.4424	157.95%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-5.7	-1.134	ug/L	1.1790	-1.134	ug/L	1.1790	103.98%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	3.7	0.040	ug/L	0.1010	0.040	ug/L	0.1010	254.92%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-77.5	-0.968	ug/L	0.1197	-0.968	ug/L	0.1197	12.37%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	10445.0	0.676 ug/L	0.0036	0.676 ug/L	0.0036	0.53%

QC value within limits for Li 670.784 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 16
Sample ID: CCV2 150612RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 8
Date Collected: 06/12/15 3:02:20 PM
Data Type: Reprocessed on 06/15/15 10:35:58 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV2 150612RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	197040.2	96.97	%	0.764				0.79%
Y Radial	13458.3	102.6	%	0.71				0.69%
Ag 338.289†	30443.7	187.4	ug/L	0.46	187.4	ug/L	0.46	0.24%
QC value within limits for Ag 338.289 Recovery = 99.96%								
Al 308.215†	8419.1	7411	ug/L	12.24	7411	ug/L	12.24	0.17%
QC value within limits for Al 308.215 Recovery = 98.81%								
As 188.979†	1665.0	366.6	ug/L	1.73	366.6	ug/L	1.73	0.47%
QC value within limits for As 188.979 Recovery = 97.76%								
B 249.677†	11551.7	393.7	ug/L	3.38	393.7	ug/L	3.38	0.86%
QC value within limits for B 249.677 Recovery = 104.99%								
Ba 233.527†	139695.7	374.7	ug/L	1.72	374.7	ug/L	1.72	0.46%
QC value within limits for Ba 233.527 Recovery = 99.93%								
Be 313.107†	1191780.5	368.7	ug/L	1.61	368.7	ug/L	1.61	0.44%
QC value within limits for Be 313.107 Recovery = 98.32%								
Ca 315.887†	239380.1	18550	ug/L	46.58	18550	ug/L	46.58	0.25%
QC value within limits for Ca 315.887 Recovery = 98.94%								
Cd 214.440†	92822.9	378.3	ug/L	1.55	378.3	ug/L	1.55	0.41%
QC value within limits for Cd 214.440 Recovery = 100.89%								
Co 228.616†	34296.5	396.2	ug/L	2.16	396.2	ug/L	2.16	0.55%
QC value within limits for Co 228.616 Recovery = 105.64%								
Cr 267.716†	28864.3	372.0	ug/L	2.44	372.0	ug/L	2.44	0.66%
QC value within limits for Cr 267.716 Recovery = 99.21%								
Cu 327.393†	65996.1	373.0	ug/L	1.65	373.0	ug/L	1.65	0.44%
QC value within limits for Cu 327.393 Recovery = 99.46%								
Fe 273.955†	511606.2	7545	ug/L	32.76	7545	ug/L	32.76	0.43%
QC value within limits for Fe 273.955 Recovery = 100.60%								
K 766.490†	42763.6	7425	ug/L	28.72	7425	ug/L	28.72	0.39%
QC value within limits for K 766.490 Recovery = 99.00%								
Mg 285.213†	265189.0	18690	ug/L	68.04	18690	ug/L	68.04	0.36%
QC value within limits for Mg 285.213 Recovery = 99.68%								
Mn 257.610†	26690.8	378.7	ug/L	1.33	378.7	ug/L	1.33	0.35%
QC value within limits for Mn 257.610 Recovery = 101.00%								
Mo 202.031†	11441.2	372.5	ug/L	2.70	372.5	ug/L	2.70	0.73%
QC value within limits for Mo 202.031 Recovery = 99.34%								
Na 589.592†	57060.6	9903	ug/L	43.74	9903	ug/L	43.74	0.44%
QC value within limits for Na 589.592 Recovery = 105.64%								
Ni 231.604†	16316.1	377.9	ug/L	2.31	377.9	ug/L	2.31	0.61%
QC value within limits for Ni 231.604 Recovery = 100.76%								
P 213.617†	5293.7	1834	ug/L	11.61	1834	ug/L	11.61	0.63%
QC value within limits for P 213.617 Recovery = 97.83%								
Pb 220.353†	2010.8	368.0	ug/L	2.67	368.0	ug/L	2.67	0.73%
QC value within limits for Pb 220.353 Recovery = 98.14%								
Sb 206.836†	2310.7	364.8	ug/L	4.79	364.8	ug/L	4.79	1.31%
QC value within limits for Sb 206.836 Recovery = 97.29%								
Se 196.026†	1012.5	374.3	ug/L	3.08	374.3	ug/L	3.08	0.82%
QC value within limits for Se 196.026 Recovery = 99.82%								
Sn 189.927†	1828.4	371.9	ug/L	2.60	371.9	ug/L	2.60	0.70%
QC value within limits for Sn 189.927 Recovery = 99.18%								
Sr 421.552†	135390.4	406.9	ug/L	1.52	406.9	ug/L	1.52	0.37%
QC value within limits for Sr 421.552 Recovery = 108.51%								
Ti 337.279†	11929.0	374.7	ug/L	2.41	374.7	ug/L	2.41	0.64%
QC value within limits for Ti 337.279 Recovery = 99.93%								
Tl 190.801†	1791.6	357.8	ug/L	3.79	357.8	ug/L	3.79	1.06%
QC value within limits for Tl 190.801 Recovery = 95.40%								
V 292.402†	34297.6	366.4	ug/L	1.61	366.4	ug/L	1.61	0.44%
QC value within limits for V 292.402 Recovery = 97.70%								
Zn 206.200†	31364.9	396.2	ug/L	2.72	396.2	ug/L	2.72	0.69%
QC value within limits for Zn 206.200 Recovery = 105.66%								

Li 670.784	2746954.8	177.8 ug/L	1.14	177.8 ug/L	1.14	0.64%

QC value within limits for Li 670.784 Recovery = 94.84%

All analyte(s) passed QC.

Sequence No.: 17
Sample ID: CCB 150612RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 06/12/15 3:08:06 PM
Data Type: Reprocessed on 06/15/15 10:36:00 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150612RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	202559.0	99.69	%	1.040				1.04%
Y Radial	13530.5	103.1	%	2.38				2.31%
Ag 338.289†	62.8	0.387	ug/L	0.2586	0.387	ug/L	0.2586	66.87%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-10.9	-9.555	ug/L	3.8011	-9.555	ug/L	3.8011	39.78%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	4.6	1.027	ug/L	1.2153	1.027	ug/L	1.2153	118.36%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	69.5	2.277	ug/L	0.3500	2.277	ug/L	0.3500	15.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	35.0	0.094	ug/L	0.0752	0.094	ug/L	0.0752	80.37%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-38.6	-0.012	ug/L	0.0014	-0.012	ug/L	0.0014	11.92%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	214.6	16.64	ug/L	0.715	16.64	ug/L	0.715	4.30%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-3.2	-0.013	ug/L	0.0209	-0.013	ug/L	0.0209	160.00%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	23.2	0.272	ug/L	0.0460	0.272	ug/L	0.0460	16.94%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-5.8	-0.075	ug/L	0.1051	-0.075	ug/L	0.1051	140.61%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	440.9	2.487	ug/L	0.4427	2.487	ug/L	0.4427	17.80%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	290.2	4.285	ug/L	0.1823	4.285	ug/L	0.1823	4.25%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	67.4	11.74	ug/L	7.958	11.74	ug/L	7.958	67.79%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	19.6	1.386	ug/L	0.1971	1.386	ug/L	0.1971	14.22%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	8.4	0.119	ug/L	0.1413	0.119	ug/L	0.1413	118.66%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	25.4	0.825	ug/L	0.2616	0.825	ug/L	0.2616	31.70%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-79.6	-13.84	ug/L	3.000	-13.84	ug/L	3.000	21.67%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-0.9	-0.019	ug/L	0.1615	-0.019	ug/L	0.1615	833.76%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-2.5	-0.877	ug/L	2.0817	-0.877	ug/L	2.0817	237.41%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	1.8	0.335	ug/L	0.3554	0.335	ug/L	0.3554	106.14%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	19.0	2.994	ug/L	0.6523	2.994	ug/L	0.6523	21.79%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	0.3	0.118	ug/L	1.5842	0.118	ug/L	1.5842	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	1.8	0.372	ug/L	0.3129	0.372	ug/L	0.3129	84.08%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	1.3	0.003	ug/L	0.0910	0.003	ug/L	0.0910	>999.9%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-11.1	-0.350	ug/L	0.0882	-0.350	ug/L	0.0882	25.19%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-7.1	-1.410	ug/L	0.5719	-1.410	ug/L	0.5719	40.55%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	13.7	0.146	ug/L	0.1282	0.146	ug/L	0.1282	87.77%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-99.3	-1.239	ug/L	0.1839	-1.239	ug/L	0.1839	14.84%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	2895.2	0.187 ug/L	0.0035	0.187 ug/L	0.0035	1.87%

QC value within limits for Li 670.784 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 26
Sample ID: CCV1 150612RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 06/12/15 4:29:03 PM
Data Type: Reprocessed on 06/15/15 10:36:10 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV1 150612RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	195472.7	96.20	%	0.565				0.59%
Y Radial	13307.5	101.4	%	0.47				0.47%
Ag 338.289†	40677.7	250.4	ug/L	0.91	250.4	ug/L	0.91	0.36%
QC value within limits for Ag 338.289 Recovery = 100.17%								
Al 308.215†	11355.6	9995	ug/L	96.83	9995	ug/L	96.83	0.97%
QC value within limits for Al 308.215 Recovery = 99.95%								
As 188.979†	2228.8	490.7	ug/L	2.35	490.7	ug/L	2.35	0.48%
QC value within limits for As 188.979 Recovery = 98.13%								
B 249.677†	15021.5	512.6	ug/L	1.99	512.6	ug/L	1.99	0.39%
QC value within limits for B 249.677 Recovery = 102.51%								
Ba 233.527†	185633.1	498.0	ug/L	1.64	498.0	ug/L	1.64	0.33%
QC value within limits for Ba 233.527 Recovery = 99.59%								
Be 313.107†	1593809.5	493.1	ug/L	2.02	493.1	ug/L	2.02	0.41%
QC value within limits for Be 313.107 Recovery = 98.62%								
Ca 315.887†	329578.5	25540	ug/L	232.97	25540	ug/L	232.97	0.91%
QC value within limits for Ca 315.887 Recovery = 102.17%								
Cd 214.440†	123226.8	502.3	ug/L	1.96	502.3	ug/L	1.96	0.39%
QC value within limits for Cd 214.440 Recovery = 100.45%								
Co 228.616†	43329.2	500.5	ug/L	2.01	500.5	ug/L	2.01	0.40%
QC value within limits for Co 228.616 Recovery = 100.10%								
Cr 267.716†	38830.8	500.5	ug/L	1.65	500.5	ug/L	1.65	0.33%
QC value within limits for Cr 267.716 Recovery = 100.10%								
Cu 327.393†	88297.7	499.0	ug/L	2.22	499.0	ug/L	2.22	0.44%
QC value within limits for Cu 327.393 Recovery = 99.81%								
Fe 273.955†	679912.3	10030	ug/L	36.61	10030	ug/L	36.61	0.37%
QC value within limits for Fe 273.955 Recovery = 100.27%								
K 766.490†	58136.3	10090	ug/L	87.44	10090	ug/L	87.44	0.87%
QC value within limits for K 766.490 Recovery = 100.95%								
Mg 285.213†	364604.9	25700	ug/L	251.38	25700	ug/L	251.38	0.98%
QC value within limits for Mg 285.213 Recovery = 102.78%								
Mn 257.610†	35690.4	506.4	ug/L	4.69	506.4	ug/L	4.69	0.93%
QC value within limits for Mn 257.610 Recovery = 101.28%								
Mo 202.031†	15345.1	499.7	ug/L	1.66	499.7	ug/L	1.66	0.33%
QC value within limits for Mo 202.031 Recovery = 99.93%								
Na 589.592†	76164.6	13220	ug/L	109.79	13220	ug/L	109.79	0.83%
QC value within limits for Na 589.592 Recovery = 105.75%								
Ni 231.604†	21810.4	505.2	ug/L	2.14	505.2	ug/L	2.14	0.42%
QC value within limits for Ni 231.604 Recovery = 101.03%								
P 213.617†	7116.3	2466	ug/L	9.09	2466	ug/L	9.09	0.37%
QC value within limits for P 213.617 Recovery = 98.64%								
Pb 220.353†	2681.7	490.9	ug/L	2.66	490.9	ug/L	2.66	0.54%
QC value within limits for Pb 220.353 Recovery = 98.19%								
Sb 206.836†	3162.3	499.3	ug/L	4.08	499.3	ug/L	4.08	0.82%
QC value within limits for Sb 206.836 Recovery = 99.86%								
Se 196.026†	1356.9	501.6	ug/L	1.64	501.6	ug/L	1.64	0.33%
QC value within limits for Se 196.026 Recovery = 100.33%								
Sn 189.927†	2437.5	495.8	ug/L	0.62	495.8	ug/L	0.62	0.13%
QC value within limits for Sn 189.927 Recovery = 99.17%								
Sr 421.552†	176540.3	530.6	ug/L	4.05	530.6	ug/L	4.05	0.76%
QC value within limits for Sr 421.552 Recovery = 106.11%								
Ti 337.279†	16053.6	504.3	ug/L	5.12	504.3	ug/L	5.12	1.01%
QC value within limits for Ti 337.279 Recovery = 100.86%								
Tl 190.801†	2367.5	472.8	ug/L	3.03	472.8	ug/L	3.03	0.64%
QC value within limits for Tl 190.801 Recovery = 94.55%								
V 292.402†	45557.2	486.7	ug/L	1.85	486.7	ug/L	1.85	0.38%
QC value within limits for V 292.402 Recovery = 97.34%								
Zn 206.200†	40063.6	506.5	ug/L	2.00	506.5	ug/L	2.00	0.40%
QC value within limits for Zn 206.200 Recovery = 101.30%								

Li 670.784	3762788.7	243.6 ug/L	1.85	243.6 ug/L	1.85	0.76%

QC value within limits for Li 670.784 Recovery = 97.43%

All analyte(s) passed QC.

Sequence No.: 27
Sample ID: CCB 150612RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 06/12/15 4:34:51 PM
Data Type: Reprocessed on 06/15/15 10:36:11 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150612RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	200876.4	98.86	%	0.654				0.66%
Y Radial	13580.3	103.5	%	0.25				0.24%
Ag 338.289†	24.9	0.153	ug/L	0.2154	0.153	ug/L	0.2154	140.71%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-9.5	-8.420	ug/L	5.6971	-8.420	ug/L	5.6971	67.66%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	3.2	0.699	ug/L	0.6915	0.699	ug/L	0.6915	98.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	85.1	2.781	ug/L	0.4943	2.781	ug/L	0.4943	17.77%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	26.0	0.069	ug/L	0.0079	0.069	ug/L	0.0079	11.42%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-15.9	-0.005	ug/L	0.0046	-0.005	ug/L	0.0046	93.89%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	30.7	2.379	ug/L	0.3291	2.379	ug/L	0.3291	13.83%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-8.9	-0.036	ug/L	0.0441	-0.036	ug/L	0.0441	122.62%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	22.9	0.269	ug/L	0.1578	0.269	ug/L	0.1578	58.71%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-13.5	-0.174	ug/L	0.0764	-0.174	ug/L	0.0764	43.83%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	398.5	2.248	ug/L	0.0797	2.248	ug/L	0.0797	3.54%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	141.6	2.098	ug/L	0.1372	2.098	ug/L	0.1372	6.54%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	7.5	1.311	ug/L	6.0366	1.311	ug/L	6.0366	460.56%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	7.8	0.554	ug/L	0.5614	0.554	ug/L	0.5614	101.34%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	13.6	0.194	ug/L	0.0927	0.194	ug/L	0.0927	47.89%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	37.7	1.226	ug/L	0.2058	1.226	ug/L	0.2058	16.79%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-92.0	-16.00	ug/L	6.096	-16.00	ug/L	6.096	38.11%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-14.7	-0.341	ug/L	0.0713	-0.341	ug/L	0.0713	20.91%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-3.8	-1.316	ug/L	0.9832	-1.316	ug/L	0.9832	74.71%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	8.7	1.582	ug/L	0.5658	1.582	ug/L	0.5658	35.77%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	25.7	4.052	ug/L	0.9686	4.052	ug/L	0.9686	23.90%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	1.6	0.588	ug/L	1.7081	0.588	ug/L	1.7081	290.71%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	7.3	1.479	ug/L	0.1697	1.479	ug/L	0.1697	11.47%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	2.1	0.006	ug/L	0.0305	0.006	ug/L	0.0305	496.57%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-5.4	-0.170	ug/L	0.4374	-0.170	ug/L	0.4374	256.61%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	6.3	1.252	ug/L	0.7870	1.252	ug/L	0.7870	62.87%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-1.0	-0.010	ug/L	0.0185	-0.010	ug/L	0.0185	177.43%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-147.0	-1.835	ug/L	0.3031	-1.835	ug/L	0.3031	16.52%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	3635.6	0.235 ug/L	0.0045	0.235 ug/L	0.0045	1.92%

QC value within limits for Li 670.784 Recovery = Not calculated

All analyte(s) passed QC.

METALS

Raw Data

APPL, INC.

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6010C	ALUMINUM (AL)	80.00 U	300.0	80.00	27.40	ug/L	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
6010C	BORON (B)	40.00 U	50.0	40.00	29.40	ug/L	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
6010C	LITHIUM (LI)	0.80 U	1.0	0.80	0.40	ug/L	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
6010C	ZINC (ZN)	20.00 U	150.0	20.00	13.70	ug/L	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
6010C	ALUMINUM (AL) (DI	80.00 U	300.0	80.00	27.40	ug/L	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
6010C	BORON (B) (DISSOL	40.00 U	50.0	40.00	29.40	ug/L	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
6010C	LITHIUM (LI) (DISSO	0.80 U	1.0	0.80	0.40	ug/L	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
6010C	ZINC (ZN) (DISSOLV	20.00 U	150.0	20.00	13.70	ug/L	05/26/15	06/04/15	#61CJU-150526A3-AZ16287

Metals SC-Blank-REG MDLs
Printed: 06/19/15 10:24:35 AM

Sequence No.: 12
Sample ID: 150526A-3010-BLK
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 38
Date Collected: 06/04/15 5:00:40 PM
Data Type: Reprocessed on 06/11/15 4:12:25 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: 150526A-3010-BLK

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	278393.5	101.1	%	0.37				0.37%
Y Radial	19438.7	103.7	%	5.07				4.89%
Ag 338.289†	91.0	0.441	ug/L	0.4978	0.441	ug/L	0.4978	112.85%
Al 308.215†	-14.1	-8.399	ug/L	6.9071	-8.399	ug/L	6.9071	82.24%
As 188.979†	3.6	0.513	ug/L	0.8375	0.513	ug/L	0.8375	163.32%
B 249.677†	65.7	1.440	ug/L	0.3126	1.440	ug/L	0.3126	21.70%
Ba 233.527†	21.8	0.042	ug/L	0.0106	0.042	ug/L	0.0106	25.14%
Be 313.107†	178.6	0.038	ug/L	0.0079	0.038	ug/L	0.0079	20.93%
Ca 315.887†	383.3	19.04	ug/L	3.393	19.04	ug/L	3.393	17.82%
Cd 214.440†	-17.6	-0.050	ug/L	0.0393	-0.050	ug/L	0.0393	77.94%
Co 228.616†	20.0	0.157	ug/L	0.0479	0.157	ug/L	0.0479	30.52%
Cr 267.716†	14.4	0.136	ug/L	0.0611	0.136	ug/L	0.0611	45.09%
Cu 327.393†	-140.0	-0.636	ug/L	0.2197	-0.636	ug/L	0.2197	34.53%
Fe 273.955†	274.1	2.739	ug/L	0.4789	2.739	ug/L	0.4789	17.49%
K 766.490†	-32.9	-5.041	ug/L	4.4371	-5.041	ug/L	4.4371	88.03%
Mg 285.213†	96.3	4.462	ug/L	0.3583	4.462	ug/L	0.3583	8.03%
Mn 257.610†	8.7	0.080	ug/L	0.0655	0.080	ug/L	0.0655	82.27%
Mo 202.031†	9.4	0.230	ug/L	0.2514	0.230	ug/L	0.2514	109.40%
Na 589.592†	-36.0	-10.60	ug/L	6.893	-10.60	ug/L	6.893	65.03%
Ni 231.604†	10.9	0.174	ug/L	0.0832	0.174	ug/L	0.0832	47.89%
P 213.617†	-9.3	-2.106	ug/L	0.6382	-2.106	ug/L	0.6382	30.30%
Pb 220.353†	-8.4	-0.811	ug/L	0.4994	-0.811	ug/L	0.4994	61.59%
Sb 206.836†	0.7	0.069	ug/L	0.2206	0.069	ug/L	0.2206	319.61%
Se 196.026†	1.9	0.533	ug/L	1.1481	0.533	ug/L	1.1481	215.51%
Sn 189.927†	12.4	1.812	ug/L	0.2582	1.812	ug/L	0.2582	14.25%
Sr 421.552†	-5.0	-0.047	ug/L	0.0743	-0.047	ug/L	0.0743	159.16%
Ti 337.279†	6.9	0.141	ug/L	0.2757	0.141	ug/L	0.2757	195.99%
Tl 190.801†	9.5	1.002	ug/L	0.3727	1.002	ug/L	0.3727	37.20%
V 292.402†	-9.1	-0.065	ug/L	0.0446	-0.065	ug/L	0.0446	68.69%
Zn 206.200†	-119.3	-1.072	ug/L	0.0371	-1.072	ug/L	0.0371	3.46%
Li 670.784	3189.6	0.178	ug/L	0.0053	0.178	ug/L	0.0053	2.97%

Sequence No.: 14
Sample ID: 150526A-3010F-BLK
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 40
Date Collected: 06/04/15 5:12:49 PM
Data Type: Reprocessed on 06/11/15 4:12:27 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 150526A-3010F-BLK

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	277530.9	100.7	%	0.82				0.82%
Y Radial	19340.4	103.1	%	5.30				5.14%
Ag 338.289†	107.8	0.523	ug/L	0.3638	0.523	ug/L	0.3638	69.59%
Al 308.215†	-10.4	-6.173	ug/L	5.9502	-6.173	ug/L	5.9502	96.40%
As 188.979†	-6.9	-1.007	ug/L	1.4936	-1.007	ug/L	1.4936	148.35%
B 249.677†	82.0	1.782	ug/L	0.2967	1.782	ug/L	0.2967	16.64%
Ba 233.527†	16.3	0.032	ug/L	0.0228	0.032	ug/L	0.0228	71.87%
Be 313.107†	166.8	0.035	ug/L	0.0074	0.035	ug/L	0.0074	21.19%
Ca 315.887†	318.1	15.80	ug/L	2.315	15.80	ug/L	2.315	14.65%
Cd 214.440†	-21.1	-0.060	ug/L	0.0289	-0.060	ug/L	0.0289	48.09%
Co 228.616†	13.2	0.102	ug/L	0.0878	0.102	ug/L	0.0878	86.15%
Cr 267.716†	15.9	0.149	ug/L	0.0650	0.149	ug/L	0.0650	43.51%
Cu 327.393†	89.5	0.408	ug/L	0.5700	0.408	ug/L	0.5700	139.57%
Fe 273.955†	-35.9	-0.353	ug/L	0.0400	-0.353	ug/L	0.0400	11.31%
K 766.490†	9.0	1.372	ug/L	8.1305	1.372	ug/L	8.1305	592.80%
Mg 285.213†	82.3	3.812	ug/L	1.0829	3.812	ug/L	1.0829	28.41%
Mn 257.610†	5.7	0.052	ug/L	0.0369	0.052	ug/L	0.0369	71.43%
Mo 202.031†	-1.4	-0.033	ug/L	0.2321	-0.033	ug/L	0.2321	699.78%
Na 589.592†	26.1	7.686	ug/L	13.4672	7.686	ug/L	13.4672	175.22%
Ni 231.604†	-3.9	-0.063	ug/L	0.2339	-0.063	ug/L	0.2339	369.70%
P 213.617†	-10.6	-2.398	ug/L	0.4105	-2.398	ug/L	0.4105	17.11%
Pb 220.353†	-7.3	-0.711	ug/L	0.4561	-0.711	ug/L	0.4561	64.15%
Sb 206.836†	-8.1	-0.784	ug/L	0.5602	-0.784	ug/L	0.5602	71.44%
Se 196.026†	-1.1	-0.305	ug/L	2.0909	-0.305	ug/L	2.0909	685.89%
Sn 189.927†	9.6	1.404	ug/L	0.3188	1.404	ug/L	0.3188	22.70%
Sr 421.552†	-18.2	-0.166	ug/L	0.1051	-0.166	ug/L	0.1051	63.36%
Ti 337.279†	24.8	0.504	ug/L	0.1138	0.504	ug/L	0.1138	22.59%
Tl 190.801†	5.0	0.525	ug/L	0.1087	0.525	ug/L	0.1087	20.70%
V 292.402†	-8.7	-0.062	ug/L	0.0414	-0.062	ug/L	0.0414	66.76%
Zn 206.200†	-48.4	-0.432	ug/L	0.1406	-0.432	ug/L	0.1406	32.51%
Li 670.784	2796.3	0.156	ug/L	0.0063	0.156	ug/L	0.0063	4.03%

Laboratory Control Spike Recovery

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 6010C	ALUMINUM (AL) (DISSOLVED)	2000	1840	92.0	80-120	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
EPA 6010C	BORON (B) (DISSOLVED)	250	239	95.6	80-120	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
EPA 6010C	LITHIUM (LI) (DISSOLVED)	100.0	92.7	92.7	80-120	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
EPA 6010C	ZINC (ZN) (DISSOLVED)	500	468	93.6	80-120	05/26/15	06/04/15	#61CJU-150526A3-AZ16287
EPA 6010C	ALUMINUM (AL)	2000	2020	101	80-120	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
EPA 6010C	BORON (B)	250	246	98.4	80-120	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
EPA 6010C	LITHIUM (LI)	100.0	94.5	94.5	80-120	05/26/15	06/04/15	#61CJU-150526A2-AZ16287
EPA 6010C	ZINC (ZN)	500	480	96.0	80-120	05/26/15	06/04/15	#61CJU-150526A2-AZ16287

Comments: _____

Sequence No.: 13
Sample ID: 150526A-3010-LCS
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 39
Date Collected: 06/04/15 5:07:02 PM
Data Type: Reprocessed on 06/11/15 4:12:26 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 150526A-3010-LCS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	268312.1	97.39	%	0.331				0.34%
Y Radial	18526.3	98.80	%	0.379				0.38%
Ag 338.289†	19304.8	93.61	ug/L	0.280	93.61	ug/L	0.280	0.30%
Al 308.215†	3365.5	2017	ug/L	18.07	2017	ug/L	18.07	0.90%
As 188.979†	1658.7	236.1	ug/L	0.96	236.1	ug/L	0.96	0.41%
B 249.677†	11209.6	246.4	ug/L	1.81	246.4	ug/L	1.81	0.73%
Ba 233.527†	130422.1	253.5	ug/L	0.52	253.5	ug/L	0.52	0.20%
Be 313.107†	231450.6	48.64	ug/L	0.169	48.64	ug/L	0.169	0.35%
Ca 315.887†	518517.8	25750	ug/L	31.31	25750	ug/L	31.31	0.12%
Cd 214.440†	17080.1	49.45	ug/L	0.250	49.45	ug/L	0.250	0.51%
Co 228.616†	32407.4	254.0	ug/L	1.07	254.0	ug/L	1.07	0.42%
Cr 267.716†	27678.2	260.1	ug/L	1.63	260.1	ug/L	1.63	0.63%
Cu 327.393†	52754.4	240.3	ug/L	1.05	240.3	ug/L	1.05	0.44%
Fe 273.955†	101136.3	987.4	ug/L	2.03	987.4	ug/L	2.03	0.21%
K 766.490†	32403.4	4942	ug/L	19.81	4942	ug/L	19.81	0.40%
Mg 285.213†	541633.2	25090	ug/L	48.15	25090	ug/L	48.15	0.19%
Mn 257.610†	27910.0	253.8	ug/L	0.68	253.8	ug/L	0.68	0.27%
Mo 202.031†	10021.6	244.3	ug/L	1.33	244.3	ug/L	1.33	0.55%
Na 589.592†	97385.5	28710	ug/L	118.10	28710	ug/L	118.10	0.41%
Ni 231.604†	15232.1	243.5	ug/L	1.27	243.5	ug/L	1.27	0.52%
P 213.617†	8586.7	1942	ug/L	9.48	1942	ug/L	9.48	0.49%
Pb 220.353†	2532.5	246.5	ug/L	2.02	246.5	ug/L	2.02	0.82%
Sb 206.836†	2471.2	238.1	ug/L	1.60	238.1	ug/L	1.60	0.67%
Se 196.026†	826.0	233.6	ug/L	1.95	233.6	ug/L	1.95	0.84%
Sn 189.927†	1676.6	244.7	ug/L	1.65	244.7	ug/L	1.65	0.67%
Sr 421.552†	35259.8	319.8	ug/L	2.08	319.8	ug/L	2.08	0.65%
Ti 337.279†	12363.5	250.4	ug/L	1.34	250.4	ug/L	1.34	0.54%
Tl 190.801†	2327.0	245.5	ug/L	0.97	245.5	ug/L	0.97	0.40%
V 292.402†	36812.6	261.5	ug/L	1.11	261.5	ug/L	1.11	0.43%
Zn 206.200†	52829.6	479.7	ug/L	1.80	479.7	ug/L	1.80	0.38%
Li 670.784	1695932.4	94.54	ug/L	0.703	94.54	ug/L	0.703	0.74%

Sequence No.: 15
Sample ID: 150526A-3010F-LCS
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 41
Date Collected: 06/04/15 5:19:11 PM
Data Type: Reprocessed on 06/11/15 4:12:28 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: 150526A-3010F-LCS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	268582.7	97.49	%	0.463				0.47%
Y Radial	19803.5	105.6	%	9.84				9.32%
Ag 338.289†	18818.8	91.25	ug/L	0.585	91.25	ug/L	0.585	0.64%
Al 308.215†	3061.4	1836	ug/L	186.29	1836	ug/L	186.29	10.15%
As 188.979†	1600.7	228.0	ug/L	0.17	228.0	ug/L	0.17	0.07%
B 249.677†	10878.2	239.1	ug/L	0.98	239.1	ug/L	0.98	0.41%
Ba 233.527†	126887.7	246.6	ug/L	1.67	246.6	ug/L	1.67	0.68%
Be 313.107†	225067.1	47.30	ug/L	0.323	47.30	ug/L	0.323	0.68%
Ca 315.887†	470632.2	23370	ug/L	2461.92	23370	ug/L	2461.92	10.53%
Cd 214.440†	16578.4	47.98	ug/L	0.195	47.98	ug/L	0.195	0.41%
Co 228.616†	31439.1	246.4	ug/L	1.03	246.4	ug/L	1.03	0.42%
Cr 267.716†	26830.7	252.2	ug/L	1.01	252.2	ug/L	1.01	0.40%
Cu 327.393†	51602.9	235.0	ug/L	2.06	235.0	ug/L	2.06	0.88%
Fe 273.955†	98025.3	957.0	ug/L	6.78	957.0	ug/L	6.78	0.71%
K 766.490†	29824.3	4549	ug/L	471.90	4549	ug/L	471.90	10.37%
Mg 285.213†	493960.6	22880	ug/L	2418.98	22880	ug/L	2418.98	10.57%
Mn 257.610†	25344.8	230.5	ug/L	22.96	230.5	ug/L	22.96	9.96%
Mo 202.031†	9696.3	236.4	ug/L	0.95	236.4	ug/L	0.95	0.40%
Na 589.592†	90154.6	26580	ug/L	2874.09	26580	ug/L	2874.09	10.81%
Ni 231.604†	14787.7	236.4	ug/L	0.55	236.4	ug/L	0.55	0.23%
P 213.617†	8336.1	1885	ug/L	4.75	1885	ug/L	4.75	0.25%
Pb 220.353†	2462.4	239.6	ug/L	1.78	239.6	ug/L	1.78	0.74%
Sb 206.836†	2399.3	231.2	ug/L	1.46	231.2	ug/L	1.46	0.63%
Se 196.026†	801.0	226.6	ug/L	1.64	226.6	ug/L	1.64	0.72%
Sn 189.927†	1634.6	238.5	ug/L	1.02	238.5	ug/L	1.02	0.43%
Sr 421.552†	32920.1	298.6	ug/L	31.79	298.6	ug/L	31.79	10.65%
Ti 337.279†	11306.9	229.0	ug/L	23.44	229.0	ug/L	23.44	10.23%
Tl 190.801†	2262.1	238.7	ug/L	1.39	238.7	ug/L	1.39	0.58%
V 292.402†	35846.1	254.6	ug/L	1.72	254.6	ug/L	1.72	0.68%
Zn 206.200†	51527.0	467.8	ug/L	3.45	467.8	ug/L	3.45	0.74%
Li 670.784	1663688.8	92.74	ug/L	0.440	92.74	ug/L	0.440	0.47%

1%HNO3 / 5%HCl BLK					6010B/6010C ICSA				
AMOUNT	REAGENT	MANUFACTURER	LOT	OPEN DATE	AMOUNT	STD	MANUFACTURER	LOT	EXP DATE
100 mL	HCL	BDH	4114020	06/04/15	1mL	Al	CPI	14D237-33868	01/15/16
20 mL	HNO3	JT BAKER	0000067379	06/04/15	1mL	Ca	CPI	14D176-33867	01/15/16
Prepared in 2000 ml DI Water					1mL	Mg	CPI	14F190-33865	01/15/16
STD 1 / LDL 6010B/6010C					1mL	Fe	O2SI	1062942-33880	01/12/16
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE	Prepared in 50 ml 1%HNO3/5%HCl				
0.5 mL	6010 LDL	O2SI	1062903-33879	08/01/15	6010B/6010C ICSAB				
Prepared in 50 ml 1%HNO3/5%HCl					1mL	Al	CPI	14D237-33868	01/15/16
STD 3 / HDL 6010B/6010C					1mL	Ca	CPI	14D176-33867	01/15/16
1ML	CCV-A	Environmental Express	1428118-34178	10/14/15	1mL	Mg	CPI	14F190-33865	01/15/16
1ML	CCV-B	Environmental Express	1428119-34179	10/14/15	1mL	Fe	O2SI	1062942-33880	01/12/16
1ML	CCV-C	Environmental Express	1428120-34180	10/14/15	0.5mL	INT SPECIAL MIX	O2SI	1070553-34624	03/01/16
Prepared in 100 ml 1%HNO3 / 5%HCl					Prepared in 50 ml 1%HNO3/5%HCl				
STD 2 / CCV1 6010B/6010C/6010C					6010B/6010C ICV				
AMOUNT	STD	PREP DATE	EXP DATE		0.5ML	QCS ICV A	CPI	15C180-34943	09/19/16
25mL	STD 3	Today	1 week		0.5ML	QCS ICV B	CPI	15C181-34944	09/19/16
25mL	1%HNO3/5%HCl	Today	1 week		Prepared in 50ml 1%HNO3/5%HCl				
CCV2 6010B/6010C					6010B/6010C Internal Standard				
AMOUNT	STD	PREP DATE	EXP DATE		AMOUNT	STD	MANUFACTURER		
15mL	STD 3	Today	1 week		2mL	Yttrium	O2SI	1073310-35027	10/01/16
25mL	1%HNO3/5%HCl	Today	1 week		Prepared in 2L 1%HNO3 / 5%HCl				

1%HNO3 / 5%HCl BLK					6010B/6010C ICSA				
AMOUNT	REAGENT	MANUFACTURER	LOT	OPEN DATE	AMOUNT	STD	MANUFACTURER	LOT	EXP DATE
100 mL	HCL	BDH	4114020	06/04/15	1mL	Al	CPI	14D237-33868	01/15/16
20 mL	HNO3	JT BAKER	0000067379	06/04/15	1mL	Ca	CPI	14D176-33867	01/15/16
Prepared in 2000 ml DI Water					1mL	Mg	CPI	14F190-33865	01/15/16
STD 1 / LDL 6010B/6010C					1mL	Fe	O2SI	1062942-33880	01/12/16
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE	Prepared in 50 ml 1%HNO3/5%HCl				
0.5 mL	6010 LDL	ABSOLUTE	1062903-33879	08/01/15	6010B/6010C ICSAB				
Prepared in 50 ml 1%HNO3/5%HCl					1mL	Al	CPI	14D237-33868	01/15/16
STD 3 / HDL 6010B/6010C					1mL	Ca	CPI	14D176-33867	01/15/16
1ML	CCV-A	Environmental Express	1428118-34178	10/14/15	1mL	Mg	CPI	14F190-33865	01/15/16
1ML	CCV-B	Environmental Express	1428119-34179	10/14/15	1mL	Fe	O2SI	1062942-33880	01/12/16
1ML	CCV-C	Environmental Express	1428120-34180	10/14/15	0.5mL	INT SPECIAL MIX	O2SI	1070553-34624	03/01/16
Prepared in 100 ml 1%HNO3 / 5%HCl					Prepared in 50 ml 1%HNO3/5%HCl				
STD 2 / CCV1 6010B/6010C/6010C					6010B/6010C ICV				
AMOUNT	STD	PREP DATE	EXP DATE		0.5ML	QCS ICV A	CPI	15C180-34943	09/19/16
25mL	STD 3	Today	1 week		0.5ML	QCS ICV B	CPI	15C181-34944	09/19/16
25mL	1%HNO3/5%HCl	Today	1 week		Prepared in 50ml 1%HNO3/5%HCl				
CCV2 6010B/6010C					6010B/6010C Internal Standard				
AMOUNT	STD	PREP DATE	EXP DATE		AMOUNT	STD	MANUFACTURER	PREP	EXP
15mL	STD 3	Today	1 week		2mL	Yttrium	O2SI	Today	1 week
25mL	1%HNO3/5%HCl	Today	1 week		Prepared in 2L 1%HNO3 / 5%HCl				

1%HNO3 / 5%HCl BLK					6010B/6010C ICSA				
AMOUNT	REAGENT	MANUFACTURER	LOT	OPEN DATE	AMOUNT	STD	MANUFACTURER	LOT	EXP DATE
100 mL	HCL	BDH	4114020	06/11/15	1mL	Al	CPI	14D237-33868	01/15/16
20 mL	HNO3	JT BAKER	0000067379	06/11/15	1mL	Ca	CPI	14D176-33867	01/15/16
Prepared in 2000 ml DI Water					1mL	Mg	CPI	14F190-33865	01/15/16
STD 1 / LDL 6010B/6010C					1mL	Fe	O2SI	1062942-33880	01/12/16
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE	Prepared in 50 ml 1%HNO3/5%HCl				
0.5 mL	6010 LDL	O2SI	1062903-33879	08/01/15	6010B/6010C ICSAB				
Prepared in 50 ml 1%HNO3/5%HCl					1mL	Al	CPI	14D237-33868	01/15/16
STD 3 / HDL 6010B/6010C					1mL	Ca	CPI	14D176-33867	01/15/16
1ML	CCV-A	Environmental Express	1428118-34178	10/14/15	1mL	Mg	CPI	14F190-33865	01/15/16
1ML	CCV-B	Environmental Express	1428119-34179	10/14/15	1mL	Fe	O2SI	1062942-33880	01/12/16
1ML	CCV-C	Environmental Express	1428120-34180	10/14/15	0.5mL	INT SPECIAL MIX	O2SI	1070553-34624	03/01/16
Prepared in 100 ml 1%HNO3 / 5%HCl					Prepared in 50 ml 1%HNO3/5%HCl				
STD 2 / CCV1 6010B/6010C/6010C					6010B/6010C ICV				
AMOUNT	STD	PREP DATE	EXP DATE		0.5ML	QCS ICV A	CPI	15C180-34943	09/19/16
25mL	STD 3	Today	1 week		0.5ML	QCS ICV B	CPI	15C181-34944	09/19/16
25mL	1%HNO3/5%HCl	Today	1 week		Prepared in 50ml 1%HNO3/5%HCl				
CCV2 6010B/6010C					6010B/6010C Internal Standard				
AMOUNT	STD	PREP DATE	EXP DATE		AMOUNT	STD	MANUFACTURER		
15mL	STD 3	Today	1 week		2mL	Yttrium	O2SI	1073310-35027	10/01/16
25mL	1%HNO3/5%HCl	Today	1 week		Prepared in 2L 1%HNO3 / 5%HCl				
1%HNO3 / 5%HCl BLK					6010B/6010C ICSA				
AMOUNT	REAGENT	MANUFACTURER	LOT	OPEN DATE	AMOUNT	STD	MANUFACTURER	LOT	EXP DATE
100 mL	HCL	BDH	4114020	06/11/15	1mL	Al	CPI	14D237-33868	01/15/16
20 mL	HNO3	JT BAKER	0000067379	06/11/15	1mL	Ca	CPI	14D176-33867	01/15/16
Prepared in 2000 ml DI Water					1mL	Mg	CPI	14F190-33865	01/15/16
STD 1 / LDL 6010B/6010C					1mL	Fe	O2SI	1062942-33880	01/12/16
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE	Prepared in 50 ml 1%HNO3/5%HCl				
0.5 mL	6010 LDL	ABSOLUTE	1062903-33879	08/01/15	6010B/6010C ICSAB				
Prepared in 50 ml 1%HNO3/5%HCl					1mL	Al	CPI	14D237-33868	01/15/16
STD 3 / HDL 6010B/6010C					1mL	Ca	CPI	14D176-33867	01/15/16
1ML	CCV-A	Environmental Express	1428118-34178	10/14/15	1mL	Mg	CPI	14F190-33865	01/15/16
1ML	CCV-B	Environmental Express	1428119-34179	10/14/15	1mL	Fe	O2SI	1062942-33880	01/12/16
1ML	CCV-C	Environmental Express	1428120-34180	10/14/15	0.5mL	INT SPECIAL MIX	O2SI	1070553-34624	03/01/16
Prepared in 100 ml 1%HNO3 / 5%HCl					Prepared in 50 ml 1%HNO3/5%HCl				
STD 2 / CCV1 6010B/6010C/6010C					6010B/6010C ICV				
AMOUNT	STD	PREP DATE	EXP DATE		0.5ML	QCS ICV A	CPI	15C180-34943	09/19/16
25mL	STD 3	Today	1 week		0.5ML	QCS ICV B	CPI	15C181-34944	09/19/16
25mL	1%HNO3/5%HCl	Today	1 week		Prepared in 50ml 1%HNO3/5%HCl				
CCV2 6010B/6010C					6010B/6010C Internal Standard				
AMOUNT	STD	PREP DATE	EXP DATE		AMOUNT	STD	MANUFACTURER	PREP	EXP
15mL	STD 3	Today	1 week		2mL	Yttrium	O2SI	Today	1 week
25mL	1%HNO3/5%HCl	Today	1 week		Prepared in 2L 1%HNO3 / 5%HCl				

1%HNO3 / 5%HCl BLK					6010B/6010C ICSA				
AMOUNT	REAGENT	MANUFACTURER	LOT	OPEN DATE	AMOUNT	STD	MANUFACTURER	LOT	EXP DATE
100 mL	HCL	BDH	4114020	06/12/15	1mL	Al	CPI	14D237-33868	01/15/16
20 mL	HNO3	JT BAKER	0000067379	06/12/15	1mL	Ca	CPI	14D176-33867	01/15/16
Prepared in 2000 ml DI Water					1mL	Mg	CPI	14F190-33865	01/15/16
STD 1 / LDL 6010B/6010C					1mL	Fe	O2SI	1062942-33880	01/12/16
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE	Prepared in 50 ml 1%HNO3/5%HCl				
0.5 mL	6010 LDL	O2SI	1062903-33879	08/01/15	6010B/6010C ICSAB				
Prepared in 50 ml 1%HNO3/5%HCl					1mL	Al	CPI	14D237-33868	01/15/16
STD 3 / HDL 6010B/6010C					1mL	Ca	CPI	14D176-33867	01/15/16
1ML	CCV-A	Environmental Express	1428118-34178	10/14/15	1mL	Mg	CPI	14F190-33865	01/15/16
1ML	CCV-B	Environmental Express	1428119-34179	10/14/15	1mL	Fe	O2SI	1062942-33880	01/12/16
1ML	CCV-C	Environmental Express	1428120-34180	10/14/15	0.5mL	INT SPECIAL MIX	O2SI	1070553-34624	03/01/16
Prepared in 100 ml 1%HNO3 / 5%HCl					Prepared in 50 ml 1%HNO3/5%HCl				
STD 2 / CCV1 6010B/6010C/6010C					6010B/6010C ICV				
AMOUNT	STD	PREP DATE	EXP DATE		0.5ML	QCS ICV A	CPI	15C180-34943	09/19/16
25mL	STD 3	Today	1 week		0.5ML	QCS ICV B	CPI	15C181-34944	09/19/16
25mL	1%HNO3/5%HCl	Today	1 week		Prepared in 50ml 1%HNO3/5%HCl				
CCV2 6010B/6010C					6010B/6010C Internal Standard				
AMOUNT	STD	PREP DATE	EXP DATE		AMOUNT	STD	MANUFACTURER		
15mL	STD 3	Today	1 week		2mL	Yttrium	O2SI	1073310-35027	10/01/16
25mL	1%HNO3/5%HCl	Today	1 week		Prepared in 2L 1%HNO3 / 5%HCl				

1%HNO3 / 5%HCl BLK					6010B/6010C ICSA				
AMOUNT	REAGENT	MANUFACTURER	LOT	OPEN DATE	AMOUNT	STD	MANUFACTURER	LOT	EXP DATE
100 mL	HCL	BDH	4114020	06/12/15	1mL	Al	CPI	14D237-33868	01/15/16
20 mL	HNO3	JT BAKER	0000067379	06/12/15	1mL	Ca	CPI	14D176-33867	01/15/16
Prepared in 2000 ml DI Water					1mL	Mg	CPI	14F190-33865	01/15/16
STD 1 / LDL 6010B/6010C					1mL	Fe	O2SI	1062942-33880	01/12/16
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE	Prepared in 50 ml 1%HNO3/5%HCl				
0.5 mL	6010 LDL	ABSOLUTE	1062903-33879	08/01/15	6010B/6010C ICSAB				
Prepared in 50 ml 1%HNO3/5%HCl					1mL	Al	CPI	14D237-33868	01/15/16
STD 3 / HDL 6010B/6010C					1mL	Ca	CPI	14D176-33867	01/15/16
1ML	CCV-A	Environmental Express	1428118-34178	10/14/15	1mL	Mg	CPI	14F190-33865	01/15/16
1ML	CCV-B	Environmental Express	1428119-34179	10/14/15	1mL	Fe	O2SI	1062942-33880	01/12/16
1ML	CCV-C	Environmental Express	1428120-34180	10/14/15	0.5mL	INT SPECIAL MIX	O2SI	1070553-34624	03/01/16
Prepared in 100 ml 1%HNO3 / 5%HCl					Prepared in 50 ml 1%HNO3/5%HCl				
STD 2 / CCV1 6010B/6010C/6010C					6010B/6010C ICV				
AMOUNT	STD	PREP DATE	EXP DATE		0.5ML	QCS ICV A	CPI	15C180-34943	09/19/16
25mL	STD 3	Today	1 week		0.5ML	QCS ICV B	CPI	15C181-34944	09/19/16
25mL	1%HNO3/5%HCl	Today	1 week		Prepared in 50ml 1%HNO3/5%HCl				
CCV2 6010B/6010C					6010B/6010C Internal Standard				
AMOUNT	STD	PREP DATE	EXP DATE		AMOUNT	STD	MANUFACTURER	PREP	EXP
15mL	STD 3	Today	1 week		2mL	Yttrium	O2SI	Today	1 week
25mL	1%HNO3/5%HCl	Today	1 week		Prepared in 2L 1%HNO3 / 5%HCl				

_M3010F

Metals Digestion Worksheet

Method Name 3010A Digestion (Field Filter) **Prep Method** M3010F **Set** 150526A **Units** mL

Spikes	
Spiked ID 1	LCSW LOT# 1073180-35017
Spiked ID 2	LCSW LOT# 1073080-35018
Spiked ID 3	Li 10mg/L PREP 5-26-15
Spiked ID 4	
Spiked By	NM Date: 05/26/15 9:17:00 AM
Witnessed By	SJH Date: 05/26/15 9:17:00 AM

Starting Temp:	96 c
Ending Temp:	96 c
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	Yes
End Date/Time	05/26/15 14:08

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	150526A Blk				50mL	50mL	05/26/15 9:17	equip: Modblock2 DISSOLVE
2	150526A LCS		500uL	1+2+3	50mL	50mL	05/26/15 9:17	equip: Modblock2
3	AZ16235	AZ16235W11			50mL	50mL	05/26/15 9:17	equip: Modblock2
4	AZ16236	AZ16236W11			50mL	50mL	05/26/15 9:17	equip: Modblock2
5	AZ16287	AZ16287W32			50mL	50mL	05/26/15 9:17	equip: Modblock2
6	AZ16287 MS	AZ16287W32	500uL	1+2+3	50mL	50mL	05/26/15 9:17	equip: Modblock2
7	AZ16287 MSD	AZ16287W32	500uL	1+2+3	50mL	50mL	05/26/15 9:17	equip: Modblock2
8	AZ16288	AZ16288W12			50mL	50mL	05/26/15 9:17	equip: Modblock2
9	AZ16289	AZ16289W11			50mL	50mL	05/26/15 9:17	equip: Modblock2
10	AZ16290	AZ16290W11			50mL	50mL	05/26/15 9:17	equip: Modblock2
11	AZ16334	AZ16334W12			50mL	50mL	05/26/15 9:17	equip: Modblock2
12	AZ16335	AZ16335W11			50mL	50mL	05/26/15 9:17	equip: Modblock2
13	AZ16336	AZ16336W11			50mL	50mL	05/26/15 9:17	equip: Modblock2
14	AZ16337	AZ16337W11			50mL	50mL	05/26/15 9:17	equip: Modblock2
15	AZ16338	AZ16338W11			50mL	50mL	05/26/15 9:17	equip: Modblock2
16	AZ16339	AZ16339W11			50mL	50mL	05/26/15 9:17	equip: Modblock2
17	AZ16340	AZ16340W12			50mL	50mL	05/26/15 9:17	equip: Modblock2
18	AZ16341	AZ16341W12			50mL	50mL	05/26/15 9:17	equip: Modblock2
19	AZ16342	AZ16342W12			50mL	50mL	05/26/15 9:17	equip: Modblock2
20	AZ16343	AZ16343W05			50mL	50mL	05/26/15 9:17	equip: Modblock2
21	AZ16403	AZ16403W12			50mL	50mL	05/26/15 9:17	equip: Modblock2

Solvent and Lot#
HNO3 J.T.B 99263 3429
1:1 HCL 1-12-15

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	RDS
Date	6/1/15
Time	1700
Moved to	METALS

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	nm
Modified	05/21/15 8:29:10 AM

Reviewed By: RDS **Date:** 6/1/15

Metals Digestion Worksheet

Method Name 3010A Digestion **Prep Method** M3010 **Set** 150526A **Units** mL

Spikes	
Spiked ID 1	LCSW LOT# 1073180-35017
Spiked ID 2	LCSW LOT# 1073080-35018
Spiked ID 3	Li 10mg/L Prep 5-26-15
Spiked ID 4	
Spiked By	NM Date: 05/26/15 9:17:00 AM
Witnessed By	SJH Date: 05/26/15 9:17:00 AM

Starting Temp:	96 c
Ending Temp:	96 c
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	Yes
End Date/Time	05/26/15 14:15

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	150526A Blk				50mL	50mL	05/26/15 9:17	equip: Modblock2 TOTAL
2	150526A LCS		500uL	1+2+3	50mL	50mL	05/26/15 9:17	equip: Modblock2
3	AZ15875	AZ15875W08			50mL	50mL	05/26/15 9:17	equip: Modblock2
4	AZ16235	AZ16235W12			50mL	50mL	05/26/15 9:17	equip: Modblock2
5	AZ16236	AZ16236W12			50mL	50mL	05/26/15 9:17	equip: Modblock2
6	AZ16287	AZ16287W34			50mL	50mL	05/26/15 9:17	equip: Modblock2
7	AZ16287 MS	AZ16287W34	500uL	1+2+3	50mL	50mL	05/26/15 9:17	equip: Modblock2
8	AZ16287 MSD	AZ16287W34	500uL	1+2+3	50mL	50mL	05/26/15 9:17	equip: Modblock2
9	AZ16288	AZ16288W11			50mL	50mL	05/26/15 9:17	equip: Modblock2
10	AZ16289	AZ16289W12			50mL	50mL	05/26/15 9:17	equip: Modblock2
11	AZ16290	AZ16290W12			50mL	50mL	05/26/15 9:17	equip: Modblock2
12	AZ16334	AZ16334W11			50mL	50mL	05/26/15 9:17	equip: Modblock2
13	AZ16335	AZ16335W12			50mL	50mL	05/26/15 9:17	equip: Modblock2
14	AZ16336	AZ16336W12			50mL	50mL	05/26/15 9:17	equip: Modblock2
15	AZ16337	AZ16337W12			50mL	50mL	05/26/15 9:17	equip: Modblock2
16	AZ16338	AZ16338W12			50mL	50mL	05/26/15 9:17	equip: Modblock2
17	AZ16339	AZ16339W12			50mL	50mL	05/26/15 9:17	equip: Modblock2
18	AZ16340	AZ16340W11			50mL	50mL	05/26/15 9:17	equip: Modblock2
19	AZ16341	AZ16341W11			50mL	50mL	05/26/15 9:17	equip: Modblock2
20	AZ16342	AZ16342W11			50mL	50mL	05/26/15 9:17	equip: Modblock2
21	AZ16343	AZ16343W04			50mL	50mL	05/26/15 9:17	equip: Modblock2
22	AZ16403	AZ16403W11			50mL	50mL	05/26/15 9:17	equip: Modblock2

Solvent and Lot#
HNO3 J.T.B 99263 3429
1:1 HCL 1-12-15

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	RDS
Date	5/29/15
Time	1700
Moved to	METALS

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	nm
Modified	05/21/15 8:12:25 AM

Reviewed By: RDS **Date:** 5/29/15

6010 Injection Log

Directory: K:\ICAP JULES\Backup Excel\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	04 Jun 2015	15:38	CalBlk 150604RJS I:JL O:R		150611A6010	1.
2	04 Jun 2015	15:43	STD 1 150604RJS I:JL O:RJ		150611A6010	1.
3	04 Jun 2015	15:48	STD 2 150604RJS I:JL O:RJ		150611A6010	1.
4	04 Jun 2015	15:52	STD 3 150604RJS I:JL O:RJ		150611A6010	1.
5	04 Jun 2015	16:00	ICV 150604RJS I:JL O:RJS		150611A6010	1.
6	04 Jun 2015	16:14	ICB 150604RJS I:JL O:RJS		150611A6010	1.
8	04 Jun 2015	16:27	ICSA 150604RJS I:JL O:RJS		150611A6010	1.
9	04 Jun 2015	16:39	ICSAB 150604RJS I:JL O:RJ		150611A6010	1.
10	04 Jun 2015	16:49	CCV1 150604RJS I:JL O:RJS		150611A6010	1.
11	04 Jun 2015	16:54	CCB 150604RJS I:JL O:RJS		150611A6010	1.
12	04 Jun 2015	17:00	150526A-3010-BLK		150611A6010	1.
13	04 Jun 2015	17:07	150526A-3010-LCS		150611A6010	1.
14	04 Jun 2015	17:12	150526A-3010F-BLK		150611A6010	1.
15	04 Jun 2015	17:19	150526A-3010F-LCS		150611A6010	1.
18	04 Jun 2015	17:37	CCV2 150604RJS I:JL O:RJS		150611A6010	1.
19	04 Jun 2015	17:57	CCB 150604RJS I:JL O:RJS		150611A6010	1.

6010 Injection Log

Directory: K:\ICAP JULES\Backup Excel\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
47	11 Jun 2015	13:30	CalBlk 150611RJS I:JL O:R		150611A6010	1.
48	11 Jun 2015	13:36	STD 1 150611RJS I:JL O:RJ		150611A6010	1.
49	11 Jun 2015	13:43	STD 2 150611RJS I:JL O:RJ		150611A6010	1.
50	11 Jun 2015	13:48	STD 3 150611RJS I:JL O:RJ		150611A6010	1.
51	11 Jun 2015	13:58	ICV 150611RJS I:JL O:RJS		150611A6010	1.
52	11 Jun 2015	14:04	ICB 150611RJS I:JL O:RJS		150611A6010	1.
53	11 Jun 2015	14:10	ICSA 150611RJS I:JL O:RJS		150611A6010	1.
54	11 Jun 2015	14:17	ICSAB 150611RJS I:JL O:RJ		150611A6010	1.
55	11 Jun 2015	14:23	CCV1 150611RJS I:JL O:RJS		150611A6010	1.
56	11 Jun 2015	14:29	CCB 150611RJS I:JL O:RJS		150611A6010	1.
75	11 Jun 2015	16:50	CCV2 150611RJS I:JL O:RJS		150611A6010	1.
76	11 Jun 2015	16:59	CCB 150611RJS I:JL O:RJS		150611A6010	1.
77	11 Jun 2015	17:12	AZ16334W11		150611A6010	1.
78	11 Jun 2015	17:19	AZ16335W12		150611A6010	1.
79	11 Jun 2015	17:26	AZ16336W12		150611A6010	1.
80	11 Jun 2015	17:33	AZ16337W12		150611A6010	1.
81	11 Jun 2015	17:40	AZ16338W12		150611A6010	1.
82	11 Jun 2015	17:47	AZ16339W12		150611A6010	1.
83	11 Jun 2015	17:54	AZ16340W11		150611A6010	1.
84	11 Jun 2015	18:00	AZ16341W11		150611A6010	1.
85	11 Jun 2015	18:07	AZ16342W11		150611A6010	1.
86	11 Jun 2015	18:12	AZ16343W04		150611A6010	1.
87	11 Jun 2015	18:23	CCV1 150611RJS I:JL O:RJS		150611A6010	1.
88	11 Jun 2015	18:29	CCB 150611RJS I:JL O:RJS		150611A6010	1.
89	11 Jun 2015	18:35	AZ16334W12 F		150611A6010	1.
90	11 Jun 2015	18:42	AZ16335W11 F		150611A6010	1.
91	11 Jun 2015	18:49	AZ16336W11 F		150611A6010	1.
92	11 Jun 2015	18:56	AZ16337W11 F		150611A6010	1.
93	11 Jun 2015	19:03	AZ16338W11 F		150611A6010	1.
94	11 Jun 2015	19:10	AZ16339W11 F		150611A6010	1.
95	11 Jun 2015	19:16	AZ16340W12 F		150611A6010	1.
96	11 Jun 2015	19:23	AZ16341W12 F		150611A6010	1.
97	11 Jun 2015	19:30	AZ16342W12 F		150611A6010	1.
98	11 Jun 2015	19:36	AZ16343W05 F		150611A6010	1.
99	11 Jun 2015	19:47	CCV2 150611RJS I:JL O:RJS		150611A6010	1.
100	11 Jun 2015	19:52	CCB 150611RJS I:JL O:RJS		150611A6010	1.

6010 Injection Log

Directory: K:\ICAP JULES\Backup Excel\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	12 Jun 2015	12:56	CalBlk 150612RJS I:JL O:R		150612A6010	1.
2	12 Jun 2015	13:02	STD 1 150612RJS I:JL O:RJ		150612A6010	1.
3	12 Jun 2015	13:09	STD 2 150612RJS I:JL O:RJ		150612A6010	1.
4	12 Jun 2015	13:14	STD 3 150612RJS I:JL O:RJ		150612A6010	1.
5	12 Jun 2015	13:26	ICV 150612RJS I:JL O:RJS		150612A6010	1.
6	12 Jun 2015	13:37	ICB 150612RJS I:JL O:RJS		150612A6010	1.
7	12 Jun 2015	13:43	ICSA 150612RJS I:JL O:RJS		150612A6010	1.
8	12 Jun 2015	13:50	ICSAB 150612RJS I:JL O:RJ		150612A6010	1.
9	12 Jun 2015	13:57	CCV1 150612RJS I:JL O:RJS		150612A6010	1.
10	12 Jun 2015	14:08	CCB 150612RJS I:JL O:RJS		150612A6010	1.
16	12 Jun 2015	15:02	CCV2 150612RJS I:JL O:RJS		150612A6010	1.
17	12 Jun 2015	15:08	CCB 150612RJS I:JL O:RJS		150612A6010	1.
18	12 Jun 2015	15:17	AZ16335W12-1/20		150612A6010	20.
19	12 Jun 2015	15:23	AZ16336W12-1/20		150612A6010	20.
20	12 Jun 2015	15:29	AZ16337W12-1/20		150612A6010	20.
21	12 Jun 2015	15:35	AZ16338W12-1/20		150612A6010	20.
22	12 Jun 2015	15:42	AZ16335W11-1/20 F		150612A6010	20.
23	12 Jun 2015	16:01	AZ16336W11-1/20 F		150612A6010	20.
24	12 Jun 2015	16:16	AZ16337W11-1/20 F		150612A6010	20.
25	12 Jun 2015	16:22	AZ16338W11-1/20 F		150612A6010	20.
26	12 Jun 2015	16:29	CCV1 150612RJS I:JL O:RJS		150612A6010	1.
27	12 Jun 2015	16:34	CCB 150612RJS I:JL O:RJS		150612A6010	1.

INORGANIC ANALYSIS

APPL, INC.

INORGANIC ANALYSIS
QC Summary

APPL, INC.

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SW846 90	TOTAL ORGANIC C	0.35 U	0.5	0.35	0.13	mg/L	05/19/15	05/19/15	#906-150519A-AZ16287
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	05/26/15	05/26/15	#300WD-150526A-AZ16339

Wetlab SC-Blank-REG MDLs
Printed: 06/10/15 2:24:50 PM

Laboratory Control Spike Recovery
WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	20.0	19.2	96.0	90-110	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	NITRATE	22.1	22.5	102	90-110	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	NITRITE	9.98	9.76	97.8	90-110	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	SULFATE	20.0	20.4	102	90-110	05/14/15	05/14/15	#300W-150514A1-AZ16335

Comments: _____

Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	20.0	18.7	93.5	90-110	05/26/15	05/26/15	#300WD-150526A-AZ16339

Comments: _____

Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
SW846 906	TOTAL ORGANIC CARBON	10.00	10.8	108	90-110	05/19/15	05/19/15	#906-150519A-AZ16287

Comments: _____

EPA 300.0

Form 4

Blank Summary

Lab Name: APPL, Inc.
SDG No: 76424
Case No: 76424
Date Analyzed: 05/14/15
Matrix: WATER
Instrument: Dionex
Blank ID: 150514A1-BLK
Time Analyzed: 0931

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ16336	S67-MW001P-051315	10	05/14/15 1127
AZ16339	S67-MW004-051315	11	05/14/15 1138
AZ16342	S67-MW004P-051315	12	05/14/15 1149
AZ16334	S67-MW008-051315	13	05/14/15 1159
AZ16340	S67-MW005-051315	14	05/14/15 1210
AZ16337	S67-MW10-051315	15	05/14/15 1221
AZ16341	S67-MW014-051315	16	05/14/15 1231
AZ16338	S67-MW013-051315	19	05/14/15 1303
AZ16334	S67-MW008-051315	27	05/14/15 1615
AZ16341	S67-MW014-051315	28	05/14/15 1625
AZ16337	S67-MW10-051315	31	05/14/15 1657
AZ16337	S67-MW10-051315	32	05/14/15 1707
AZ16338	S67-MW013-051315	33	05/14/15 1718
150514A1-BLK	Blank	5	05/14/15 0931
150514A1-LCS	Lab Control Spike	8	05/14/15 1106
AZ16335	S67-MW001-051315	9	05/14/15 1117

Comments: Batch: #300W-150514A1

Printed: 06/19/15 2:11:28 PM
Form 4, Blank Summary

EPA 300.0

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER
Blank ID: 150526A-BLK

SDG No: 76424
Date Analyzed: 05/26/15
Instrument: Dionex
Time Analyzed: 1002

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150526A-BLK	Blank	43	05/26/15 1002
150526A-LCS	Lab Control Spike	44	05/26/15 1012
AZ16339	S67-MW004-051315	46	05/26/15 1424
AZ16340	S67-MW005-051315	47	05/26/15 1434
AZ16342	S67-MW004P-051315	48	05/26/15 1445

Comments: Batch: #300WD-150526A

SW846 9060

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76424
Matrix: WATER
Blank ID: 150519A-BLK

SDG No: 76424
Date Analyzed: 05/19/15
Instrument: Tekmar
Time Analyzed: 1212

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ16334	S67-MW008-051315	15	05/19/15 1838
AZ16335	S67-MW001-051315	16	05/19/15 1907
AZ16336	S67-MW001P-051315	17	05/19/15 1935
150519A-BLK	Blank	2	05/19/15 1212
AZ16337	S67-MW10-051315	20	05/19/15 2100
AZ16338	S67-MW013-051315	21	05/19/15 2129
AZ16339	S67-MW004-051315	22	05/19/15 2158
AZ16340	S67-MW005-051315	23	05/19/15 2228
AZ16341	S67-MW014-051315	24	05/19/15 2258
AZ16342	S67-MW004P-051315	25	05/19/15 2327
150519A-LCS	Lab Control Spike	3	05/19/15 1244

Comments: Batch: #906-150519A

INORGANIC ANALYSIS
Sample Data

APPL, INC.

Wet Lab Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW008-051315

APPL ID: AZ16334

Sample Collection Date: 05/13/15

ARF: 76424

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	NITRATE	4.3	0.5	0.18	0.04	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	05/14/15	05/14/15
EPA 300.0	SULFATE	41.8	1.0	0.20	0.09	mg/L	1	05/14/15	05/14/15
EPA 300.0	CHLORIDE	113	5.0	1.00	0.40	mg/L	5	05/14/15	05/14/15
SW846 9060	TOTAL ORGANIC CARBON	1.4	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

Printed: 06/10/15 2:24:43 PM

APPL-F1-SC-NoMC-REG MDLs

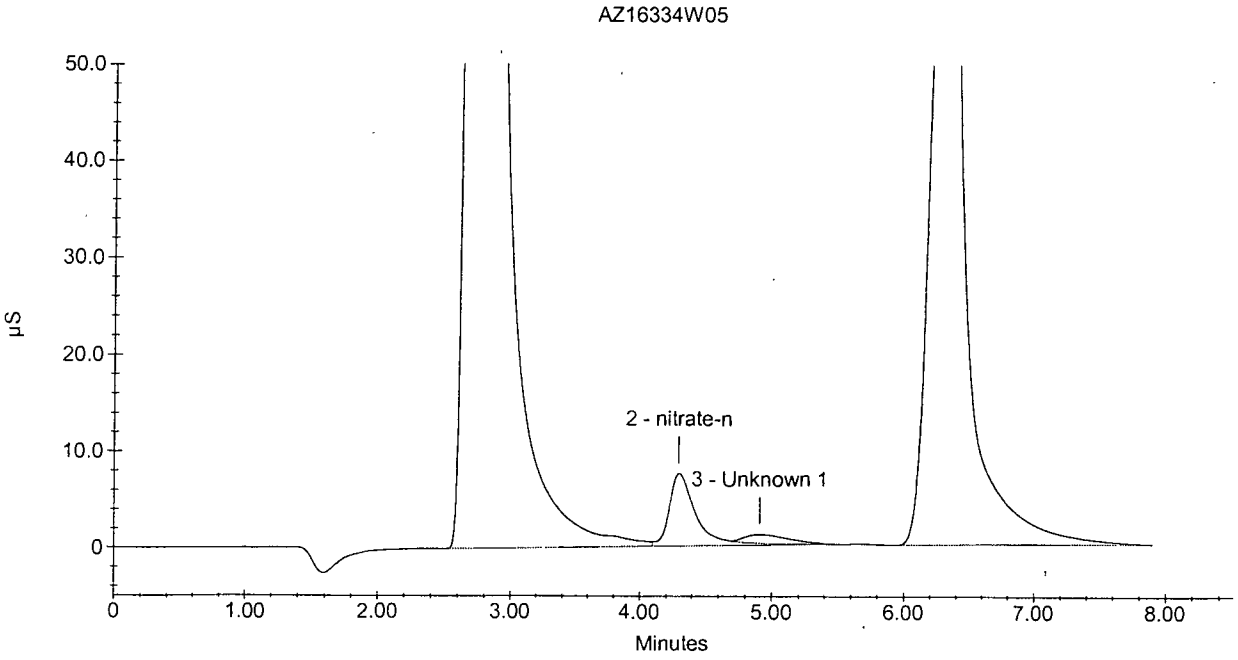
Sample Analysis Report

Sample Name : AZ16334W05
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_013.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150505A.met
Date Time Collected : 5/14/15 11:59:46
System Operator : jm
Injection Number : 13
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	2.73	chloride	133.2790	74540123	8814194
2	4.29	nitrate-n	0.9807	1083217	74826
3	4.91	Unknown 1	0.0000	215797	9360
4	6.29	sulfate	41.8331	15731374	1013993



Sample Analysis Report

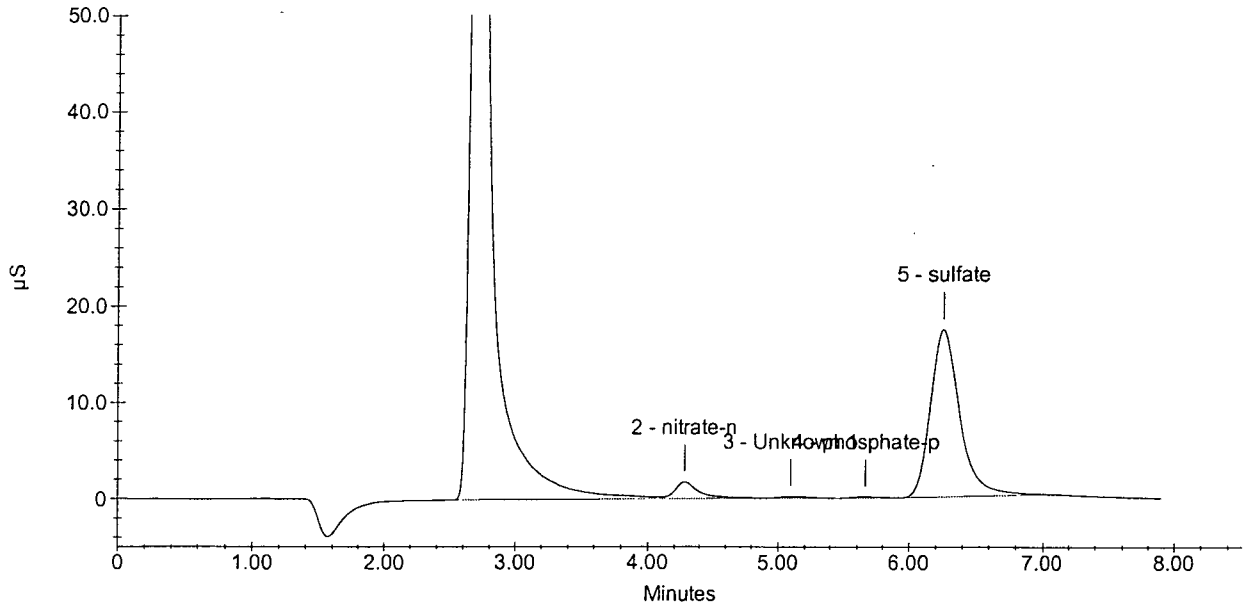
Sample Name : AZ16334W05 DF5
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_027.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/14/15 16:15:05
System Operator : jm
Injection Number : 27
Multiplier : 5.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	2.69	chloride	112.7510	12098561	1402956
2	4.28	nitrate-n	1.7549	239803	17373
3	5.09	Unknown 1	0.0000	23743	1519
4	5.67	phosphate-p	-0.8029	17208	1203
5	6.25	sulfate	39.4398	2656717	173596

AZ16334W05 DF5



Wet Lab Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW001-051315

Sample Collection Date: 05/13/15

APPL ID: AZ16335

ARF: 76424

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	28.9	1.0	0.20	0.08	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRATE	9.4	0.5	0.18	0.04	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	05/14/15	05/14/15
EPA 300.0	SULFATE	38.6	1.0	0.20	0.09	mg/L	1	05/14/15	05/14/15
SW846 9060	TOTAL ORGANIC CARBON	1.4	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

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APPL-F1-SC-NoMC-REG MDLs

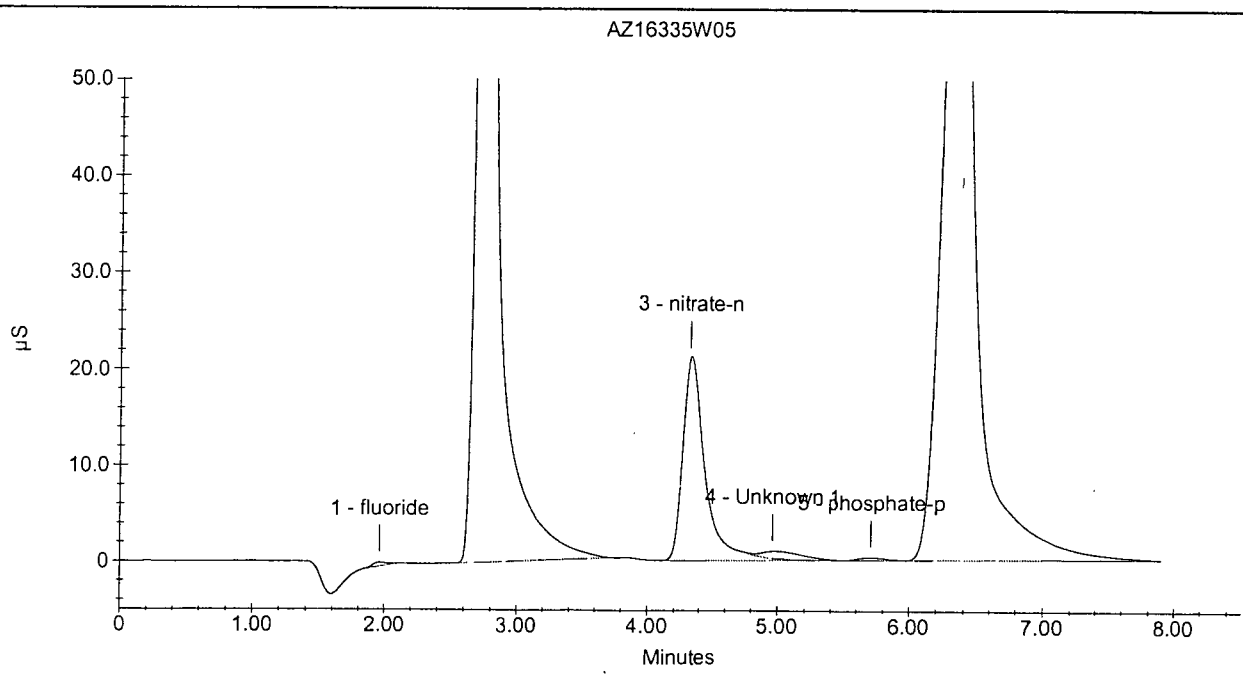
Sample Analysis Report

Sample Name : AZ16335W05
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_009.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150505A.met
Date Time Collected : 5/14/15 11:17:12
System Operator : jm
Injection Number : 9
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.96	fluoride	0.0820	28884	4160
2	2.72	chloride	28.9248	15693290	1823770
3	4.32	nitrate-n	2.1236	2613910	209274
4	4.96	Unknown 1	0.0000	164628	7532
5	5.71	phosphate-p	-0.1076	40658	2917
6	6.32	sulfate	38.5943	14483862	926843



Wet Lab Analysis

Tetra Tech
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APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW001P-051315

Sample Collection Date: 05/13/15

APPL ID: AZ16336

ARF: 76424

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	29.3	1.0	0.20	0.08	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRATE	9.9	0.5	0.18	0.04	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	05/14/15	05/14/15
EPA 300.0	SULFATE	38.9	1.0	0.20	0.09	mg/L	1	05/14/15	05/14/15
SW846 9060	TOTAL ORGANIC CARBON	1.3	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

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APPL-F1-SC-NoMC-REG MDLs

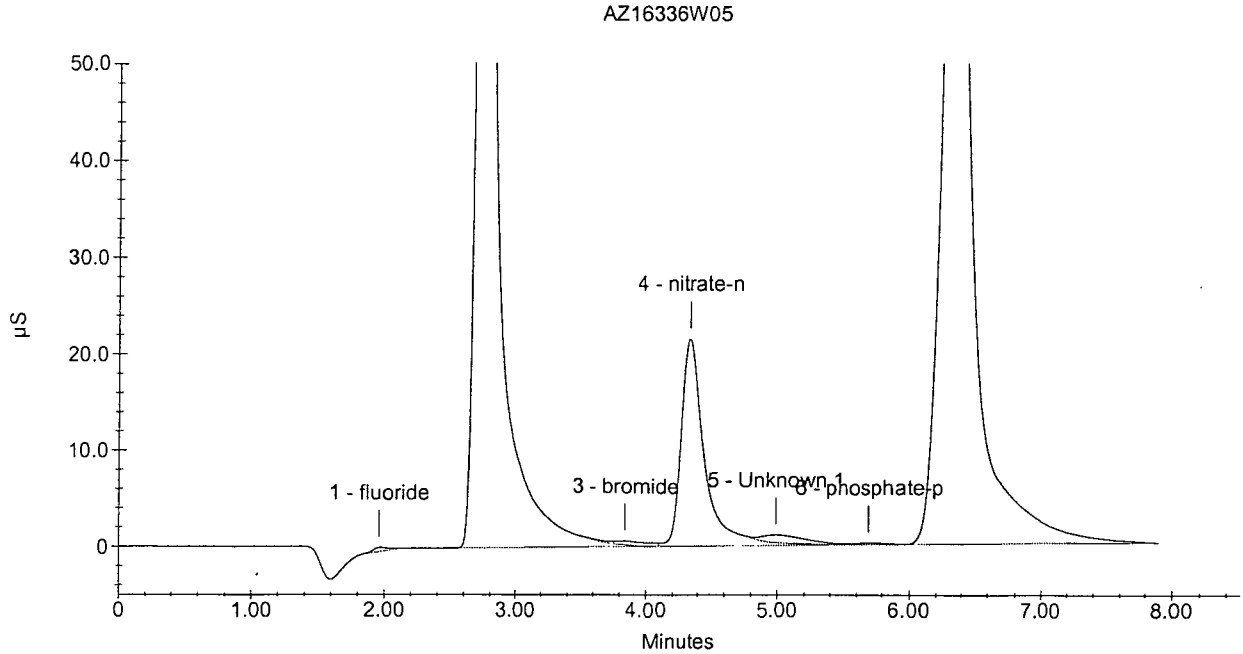
Sample Analysis Report

Sample Name : AZ16336W05
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_010.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150505A.met
Date Time Collected : 5/14/15 11:27:53
System Operator : jm
Injection Number : 10
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.96	fluoride	0.0904	34887	4406
2	2.73	chloride	29.2846	15896164	1878970
3	3.84	bromide	0.5730	77701	4242
4	4.33	nitrate-n	2.2449	2776311	215592
5	4.99	Unknown 1	0.0000	189405	8438
6	5.69	phosphate-p	-0.1369	27693	1821
7	6.32	sulfate	38.9376	14616099	928986



Wet Lab Analysis

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Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW10-051315

Sample Collection Date: 05/13/15

APPL ID: AZ16337

ARF: 76424

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	NITRATE	0.97	0.5	0.18	0.04	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	05/14/15	05/14/15
EPA 300.0	CHLORIDE	92.4	2.0	0.40	0.16	mg/L	2	05/14/15	05/14/15
EPA 300.0	SULFATE	274	10.0	2.00	0.90	mg/L	10	05/14/15	05/14/15
SW846 9060	TOTAL ORGANIC CARBON	0.80	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

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APPL-F1-SC-NoMC-REG MDLs

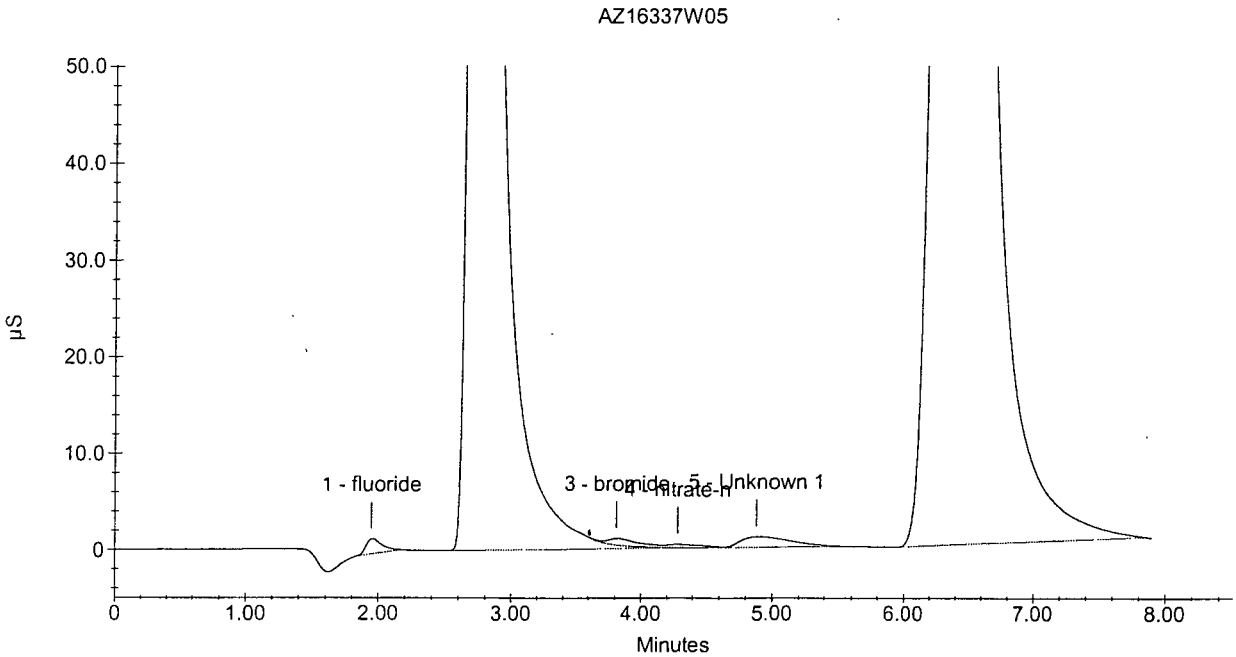
Sample Analysis Report

Sample Name : AZ16337W05
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_015.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150505A.met
Date Time Collected : 5/14/15 12:21:21
System Operator : jm
Injection Number : 15
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.95	fluoride	0.2222	129458	15570
2	2.75	chloride	92.4463	51513949	6116204
3	3.81	bromide	0.7625	117830	7232
4	4.28	nitrate-n	0.2194	63610	3404
5	4.88	Unknown 1	0.0000	292004	11156
6	6.43	sulfate	290.0233	111326717	7064099



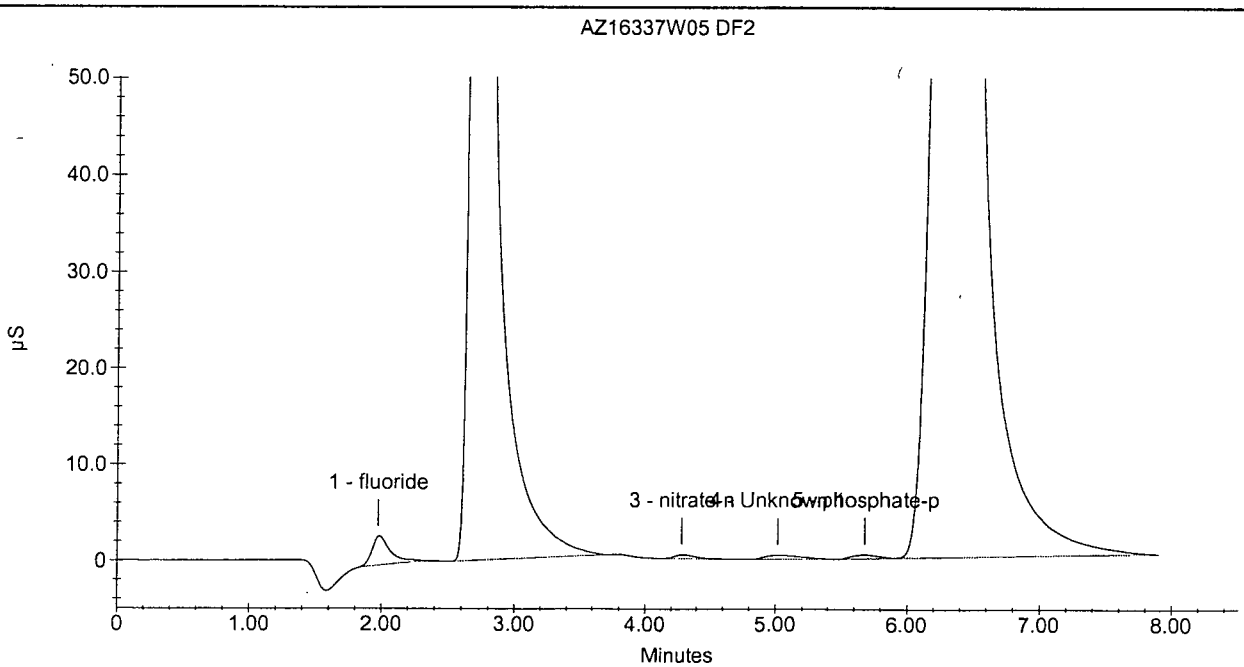
Sample Analysis Report

Sample Name : AZ16337W05 DF2
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_031.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/14/15 16:57:21
System Operator : jm
Injection Number : 31
Multiplier : 2.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.97	fluoride	0.8827	286625	29845
2	2.72	chloride	92.3793	25429183	3088489
3	4.28	nitrate-n	0.4102	44429	4010
4	5.01	Unknown 1	0.0000	76937	4251
5	5.68	phosphate-p	-0.1441	56379	4137
6	6.33	sulfate	281.3637	53804907	3479583



APPL, Inc.

Current Date : 5/14/15
Current Time : 17:07:53

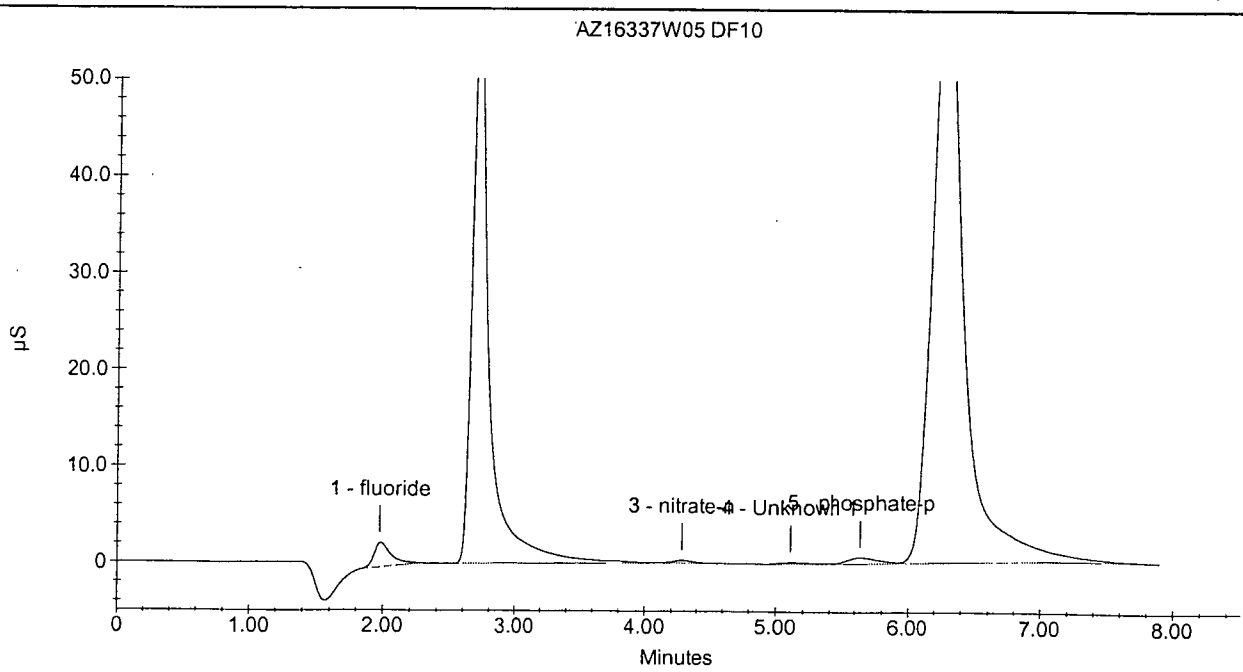
Sample Analysis Report

Sample Name : AZ16337W05 DF10
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_032.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/14/15 17:07:57
System Operator : jm
Injection Number : 32
Multiplier : 10.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.97	fluoride	3.5143	222122	24862
2	2.69	chloride	105.3160	5321105	589891
3	4.28	nitrate-n	1.9742	34133	2918
4	5.11	Unknown 1	0.0000	25068	1721
5	5.64	phosphate-p	0.3393	103255	6423
6	6.27	sulfate	274.1520	10178015	628953



APPL, Inc.

Current Date : 5/14/15
Current Time : 17:18:29

Wet Lab Analysis

Tetra Tech
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908 North Temperance Avenue
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Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW013-051315

APPL ID: AZ16338

Sample Collection Date: 05/13/15

ARF: 76424

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	25.3	1.0	0.20	0.08	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRATE	0.78	0.5	0.18	0.04	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	05/14/15	05/14/15
EPA 300.0	SULFATE	235	10.0	2.00	0.90	mg/L	10	05/14/15	05/14/15
SW846 9060	TOTAL ORGANIC CARBON	2.6	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

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APPL-F1-SC-NoMC-REG MDLs

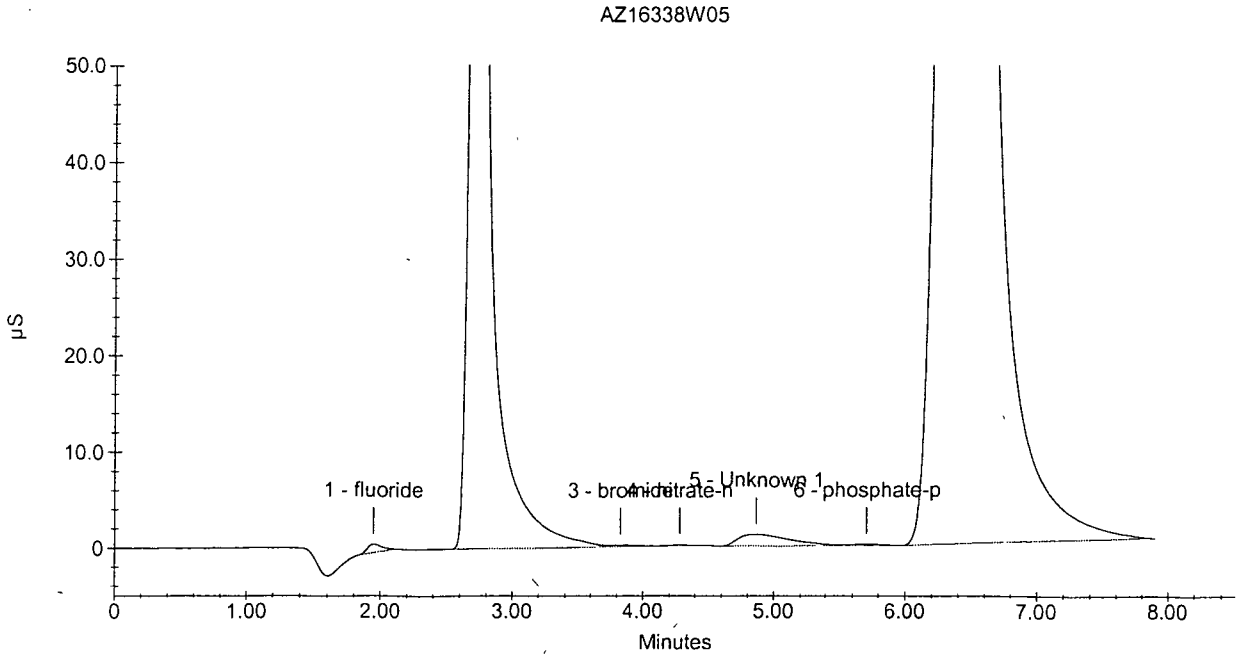
Sample Analysis Report

Sample Name : AZ16338W05
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_019.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150505A.met
Date Time Collected : 5/14/15 13:03:45
System Operator : jm
Injection Number : 19
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.95	fluoride	0.1369	68283	8924
2	2.71	chloride	25.2638	13628819	1501956
3	3.83	bromide	0.2479	8829	914
4	4.28	nitrate-n	0.1764	5932	947
5	4.87	Unknown 1	0.0000	345868	12371
6	5.71	phosphate-p	-0.1609	17087	1323
7	6.43	sulfate	241.2511	92541132	5949372



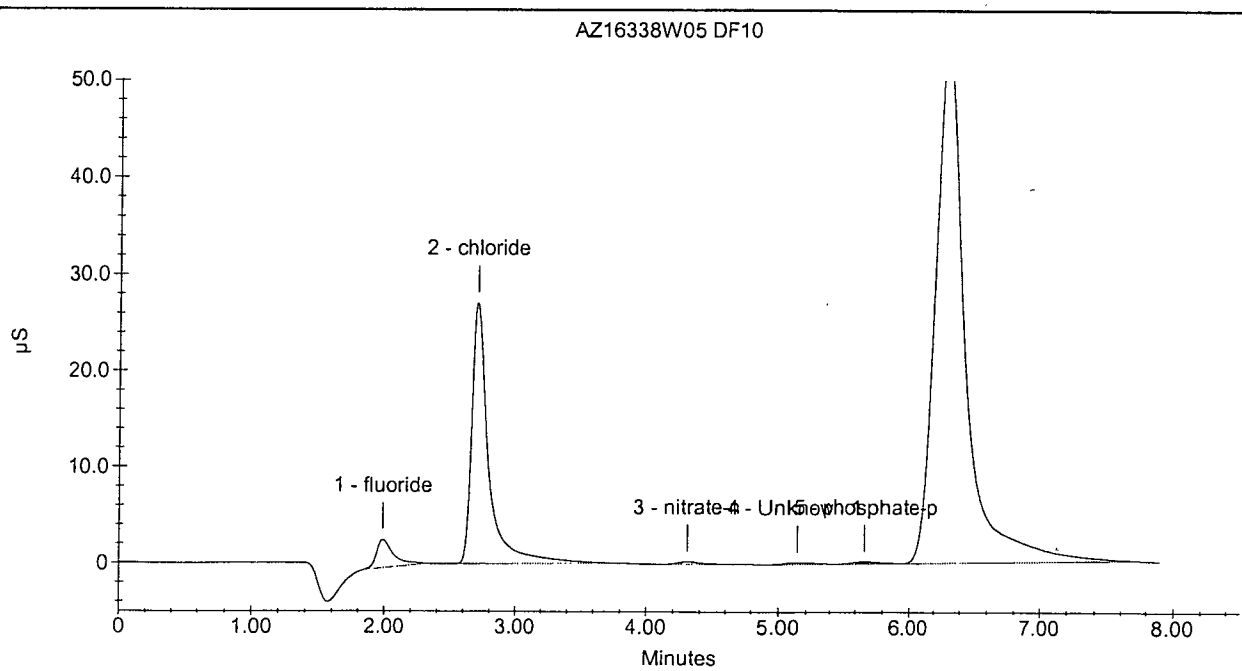
Sample Analysis Report

Sample Name : AZ16338W05 DF10
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_033.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/14/15 17:18:32
System Operator : jm
Injection Number : 33
Multiplier : 10.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.99	fluoride	4.0851	263055	29438
2	2.71	chloride	54.1485	2435695	270815
3	4.31	nitrate-n	1.9395	29482	2714
4	5.13	Unknown 1	0.0000	28090	1832
5	5.67	phosphate-p	-1.2964	30894	2109
6	6.29	sulfate	235.4301	8686566	532939



Wet Lab Analysis

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Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW004-051315

APPL ID: AZ16339

Sample Collection Date: 05/13/15

ARF: 76424

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	4.0	1.0	0.20	0.08	mg/L	1	05/26/15	05/26/15
EPA 300.0	NITRATE	1.2	0.5	0.18	0.04	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	05/14/15	05/14/15
EPA 300.0	SULFATE	42.9	1.0	0.20	0.09	mg/L	1	05/14/15	05/14/15
SW846 9060	TOTAL ORGANIC CARBON	4.3	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

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APPL-F1-SC-NoMC-REG MDLs

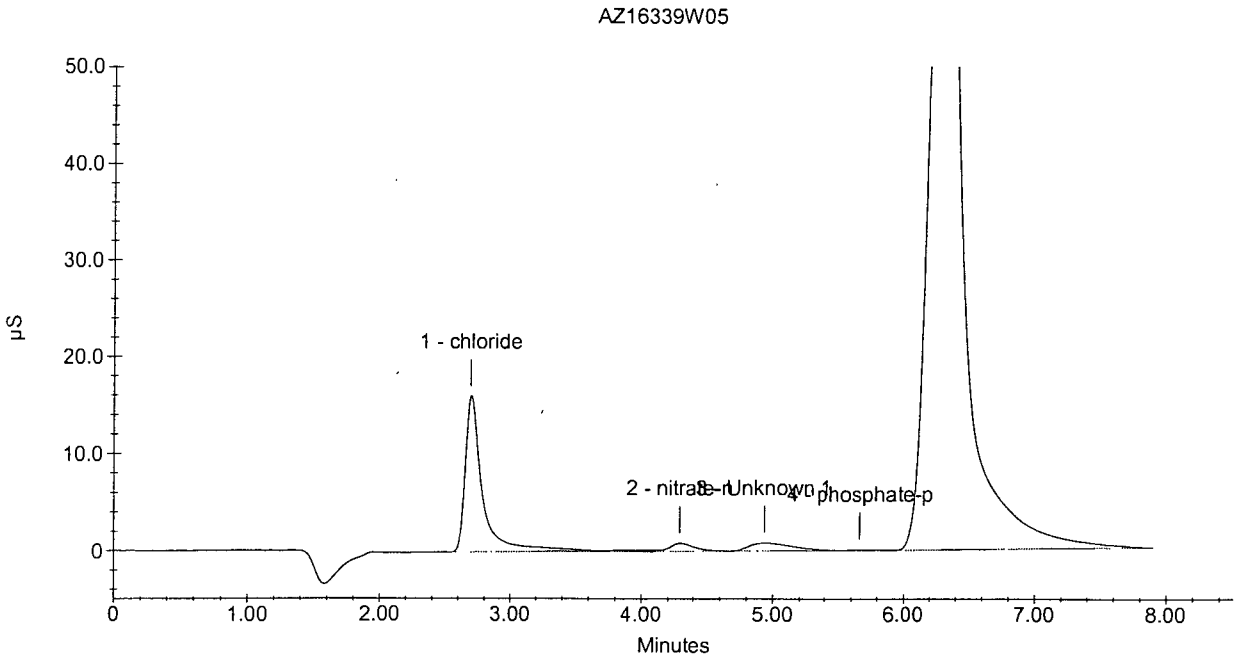
Sample Analysis Report

Sample Name : AZ16339W05
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_011.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150505A.met
Date Time Collected : 5/14/15 11:38:39
System Operator : jm
Injection Number : 11
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	2.69	chloride	3.7600	1502477	159876
2	4.29	nitrate-n	0.2767	140340	8277
3	4.93	Unknown 1	0.0000	190380	8069
4	5.67	phosphate-p	-0.1808	8268	691
5	6.28	sulfate	42.9073	16145099	1037165



Sample Analysis Report

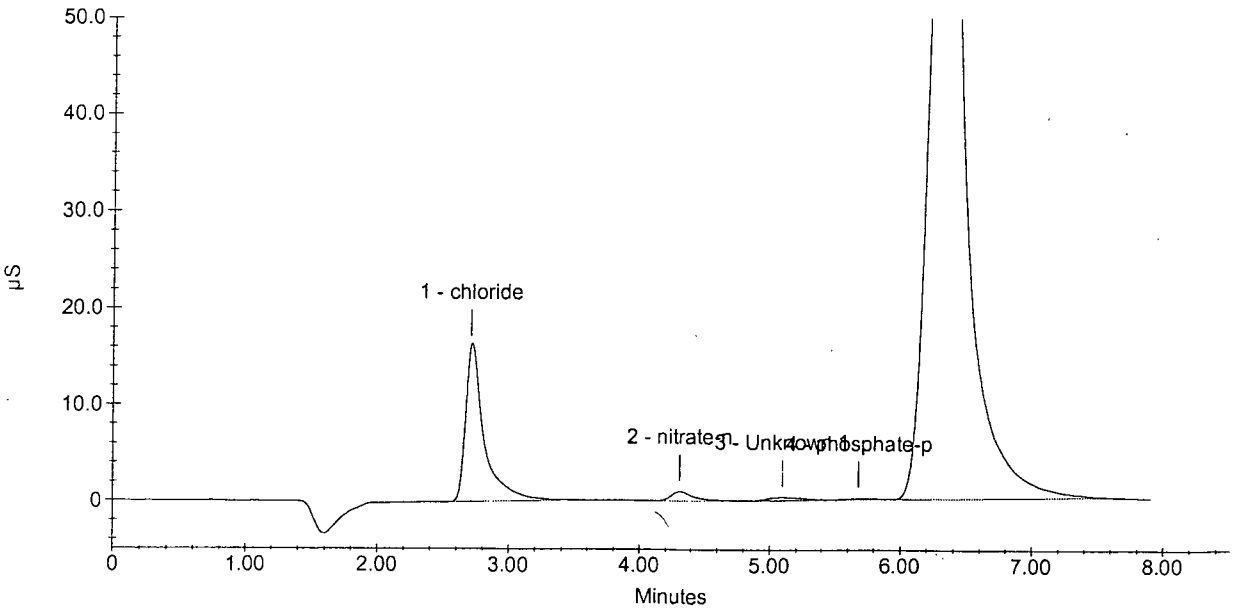
Sample Name : AZ16339W05
Data File Name : I:\DIONEX\D1ANIONS\DATA\150526A\150526a_011.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/26/15 14:24:01
System Operator : DT
Injection Number : 11
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	2.71	chloride	3.9560	1613026	160246
2	4.31	nitrate-n	0.2597	117530	9771
3	5.09	Unknown 1	0.0000	63012	3441
4	5.68	phosphate-p	-0.1590	17905	1171
5	6.31	sulfate	43.6516	16431774	1002378

AZ16339W05



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Current Date : 5/26/15
Current Time : 14:34:31

Wet Lab Analysis

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Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW005-051315

Sample Collection Date: 05/13/15

APPL ID: AZ16340

ARF: 76424

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	1.4	1.0	0.20	0.08	mg/L	1	05/26/15	05/26/15
EPA 300.0	NITRATE	1.8	0.5	0.18	0.04	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRITE	0.21 J	0.3	0.13	0.03	mg/L	1	05/14/15	05/14/15
EPA 300.0	SULFATE	6.5	1.0	0.20	0.09	mg/L	1	05/14/15	05/14/15
SW846 9060	TOTAL ORGANIC CARBON	10.9	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

J = Estimated value.

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APPL-F1-SC-NoMC-REG MDLs

Sample Analysis Report

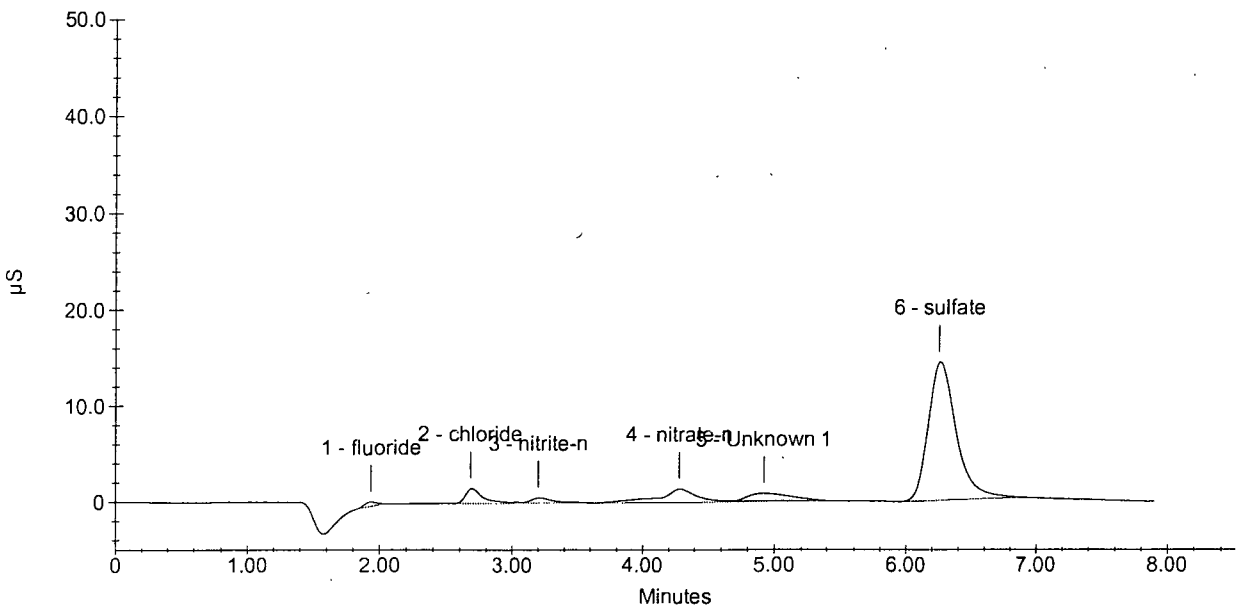
Sample Name : AZ16340W05
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_014.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150505A.met
Date Time Collected : 5/14/15 12:10:19
System Operator : jm
Injection Number : 14
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	0.0809	28139	4536
2	2.68	chloride	1.3488	142800	15171
3	3.20	nitrite-n	0.0637	65655	5416
4	4.28	nitrate-n	0.4023	308588	14014
5	4.92	Unknown 1	0.0000	168609	7672
6	6.25	sulfate	6.5301	2133703	143267

AZ16340W05



Sample Analysis Report

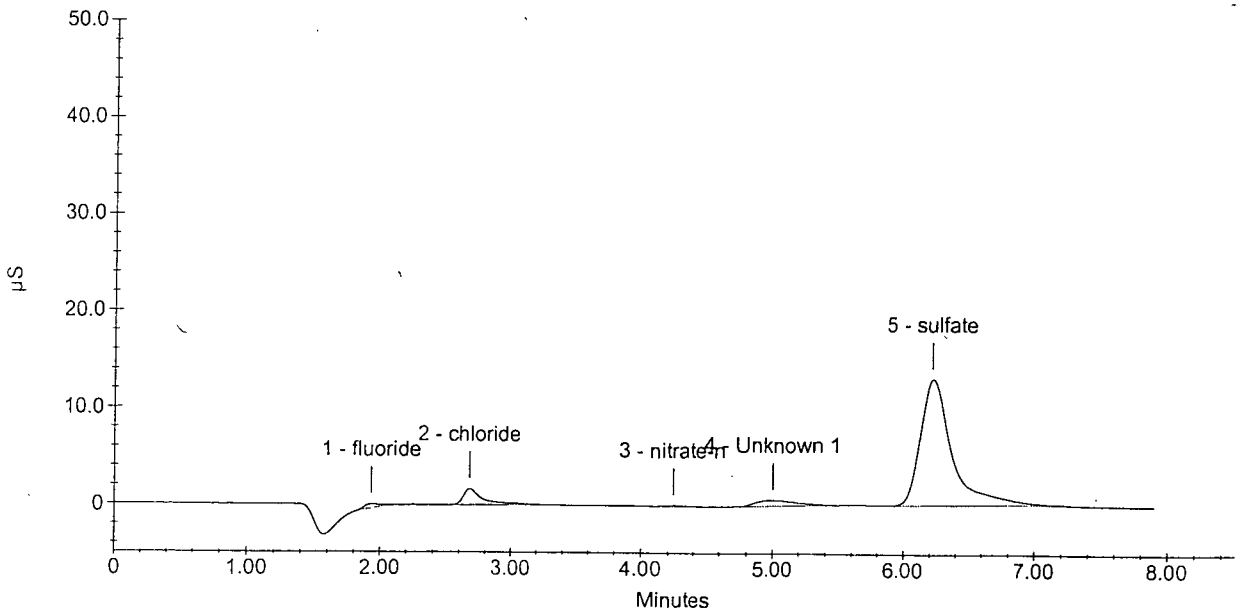
Sample Name : AZ16340W05
Data File Name : I:\DIONEX\D1ANIONS\DATA\150526A\150526a_012.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/26/15 14:34:36
System Operator : DT
Injection Number : 12
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	0.0869	32390	4421
2	2.68	chloride	1.4023	172976	16612
3	4.24	nitrate-n	0.1784	8695	807
4	5.00	Unknown 1	0.0000	128787	6105
5	6.21	sulfate	6.7005	2199333	129758

AZ16340W05



APPL, Inc.

Current Date : 5/26/15
Current Time : 14:45:07

Wet Lab Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

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Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW014-051315

APPL ID: AZ16341

Sample Collection Date: 05/13/15

ARF: 76424

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	26.9	1.0	0.20	0.08	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRATE	1.5	0.5	0.18	0.04	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	05/14/15	05/14/15
EPA 300.0	SULFATE	336	10.0	2.00	0.90	mg/L	10	05/14/15	05/14/15
SW846 9060	TOTAL ORGANIC CARBON	3.7	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

Printed: 06/10/15 2:24:43 PM

APPL-F1-SC-NoMC-REG MDLs

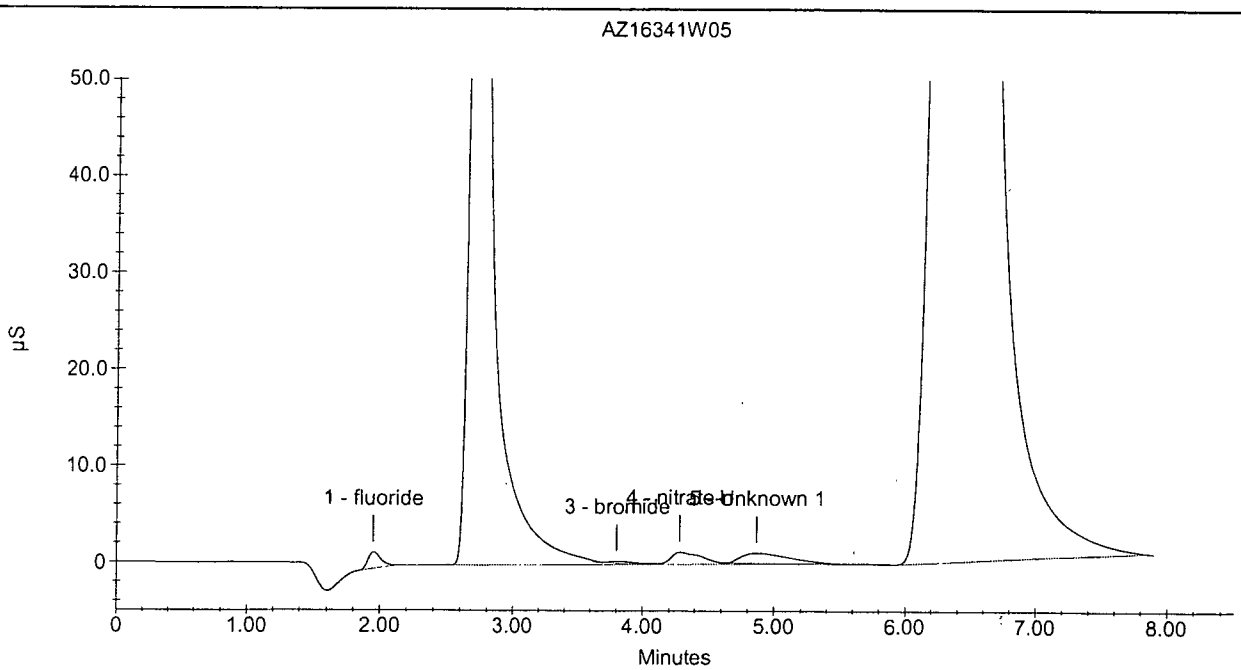
Sample Analysis Report

Sample Name : AZ16341W05
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_016.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150505A.met
Date Time Collected : 5/14/15 12:31:59
System Operator : jm
Injection Number : 16
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.95	fluoride	0.1977	111836	16966
2	2.71	chloride	26.9434	14575943	1663852
3	3.80	bromide	0.3655	33732	2081
4	4.28	nitrate-n	0.3470	234418	12647
5	4.87	Unknown 1	0.0000	267504	10621
6	6.43	sulfate	334.8026	128574319	8049224



APPL, Inc.

Current Date : 5/14/15
Current Time : 15:52:51

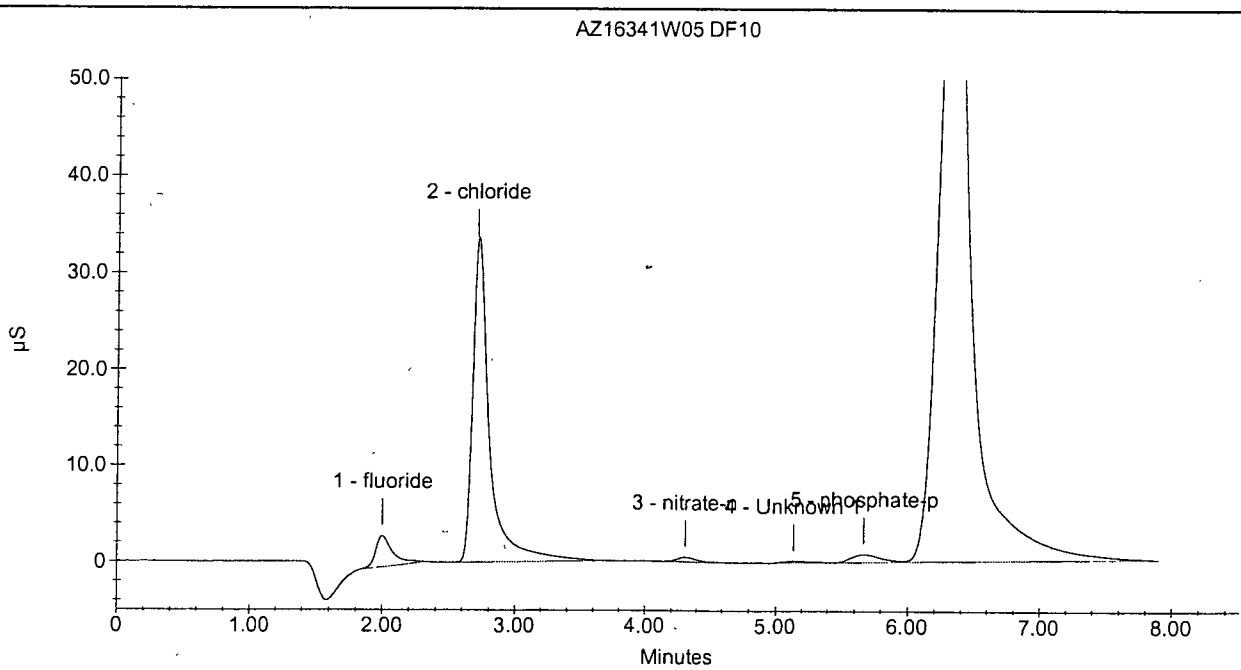
Sample Analysis Report

Sample Name : AZ16341W05 DF10
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_028.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/14/15 16:25:38
System Operator : jm
Injection Number : 28
Multiplier : 10.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	2.00	fluoride	4.3930	285142	32377
2	2.71	chloride	63.8804	2984490	326670
3	4.31	nitrate-n	2.1032	51405	4709
4	5.13	Unknown 1	0.0000	27598	1794
5	5.67	phosphate-p	0.8563	126125	8269
6	6.31	sulfate	336.2585	12570171	769964



Wet Lab Analysis

Tetra Tech
5700 Lake Wright Dr, Ste 309
Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW004P-051315

Sample Collection Date: 05/13/15

APPL ID: AZ16342

ARF: 76424

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	4.0	1.0	0.20	0.08	mg/L	1	05/26/15	05/26/15
EPA 300.0	NITRATE	1.1	0.5	0.18	0.04	mg/L	1	05/14/15	05/14/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	05/14/15	05/14/15
EPA 300.0	SULFATE	43.2	1.0	0.20	0.09	mg/L	1	05/14/15	05/14/15
SW846 9060	TOTAL ORGANIC CARBON	4.3	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

Printed: 06/10/15 2:24:43 PM

APPL-F1-SC-NoMC-REG MDLs

Sample Analysis Report

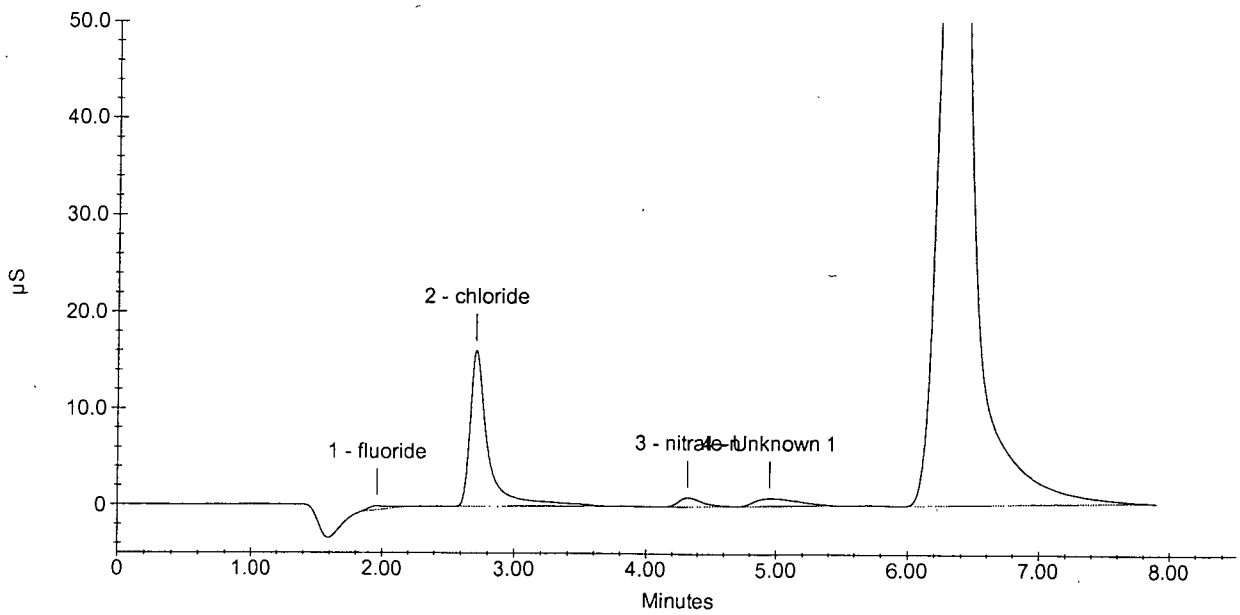
Sample Name : AZ16342W05
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_012.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150505A.met
Date Time Collected : 5/14/15 11:49:13
System Operator : jm
Injection Number : 12
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.96	fluoride	0.1041	44710	4202
2	2.71	chloride	3.7847	1516442	160372
3	4.32	nitrate-n	0.2594	117184	9353
4	4.95	Unknown 1	0.0000	183143	8144
5	6.32	sulfate	43.1503	16238698	1045797

AZ16342W05



Sample Analysis Report

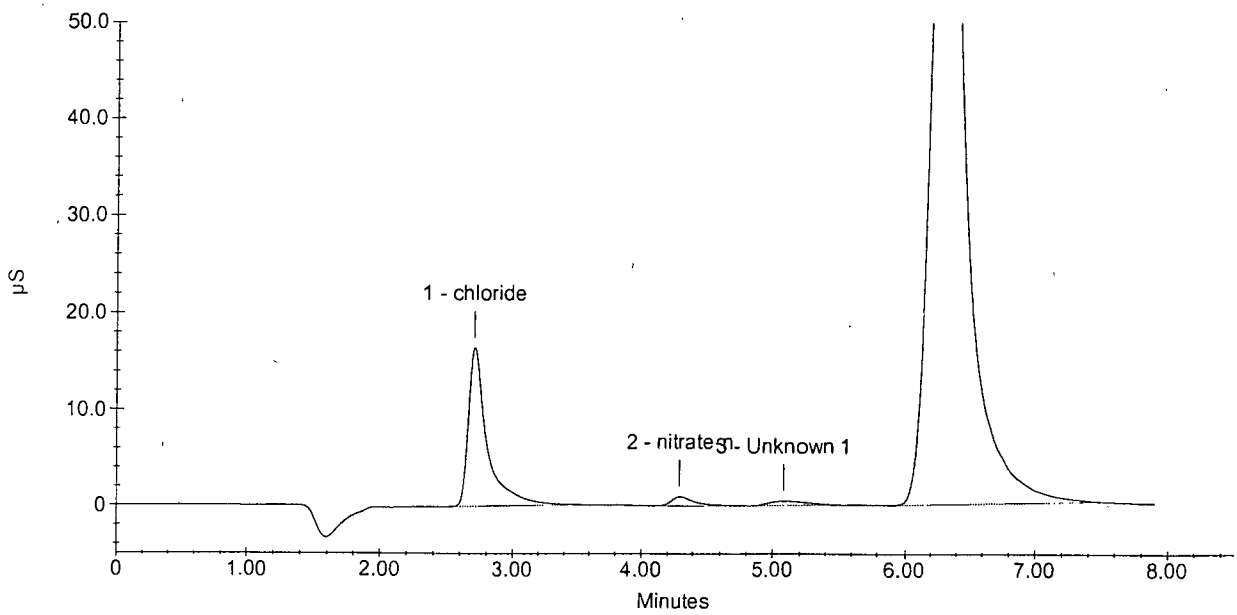
Sample Name : AZ16342W05
Data File Name : I:\DIONEX\D1ANIONS\DATA\150526A\150526a_013.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/26/15 14:45:11
System Operator : DT
Injection Number : 13
Multiplier : 1.00

Peak Information : All Peaks

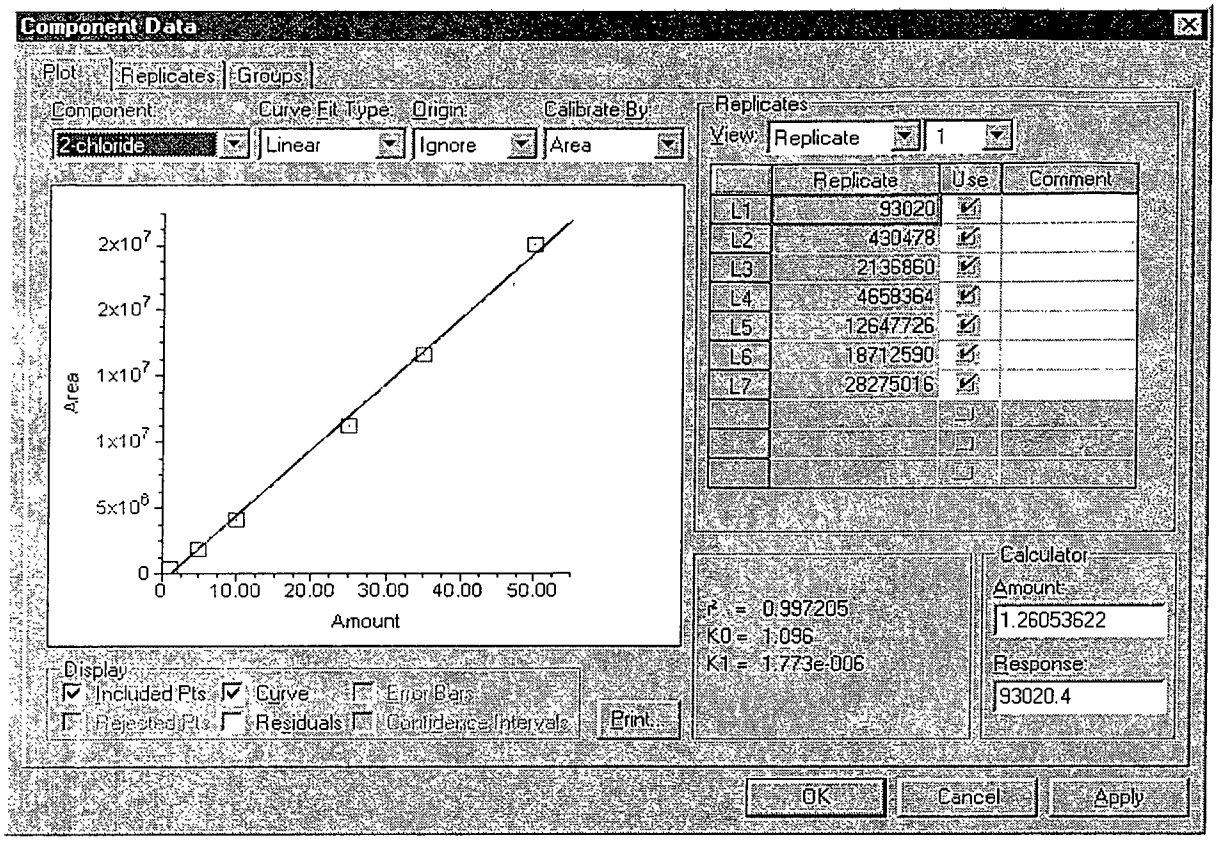
Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	2.71	chloride	3.9724	1622254	162817
2	4.29	nitrate-n	0.2619	120443	9340
3	5.08	Unknown 1	0.0000	87747	4427
4	6.29	sulfate	43.7182	16457419	1011330

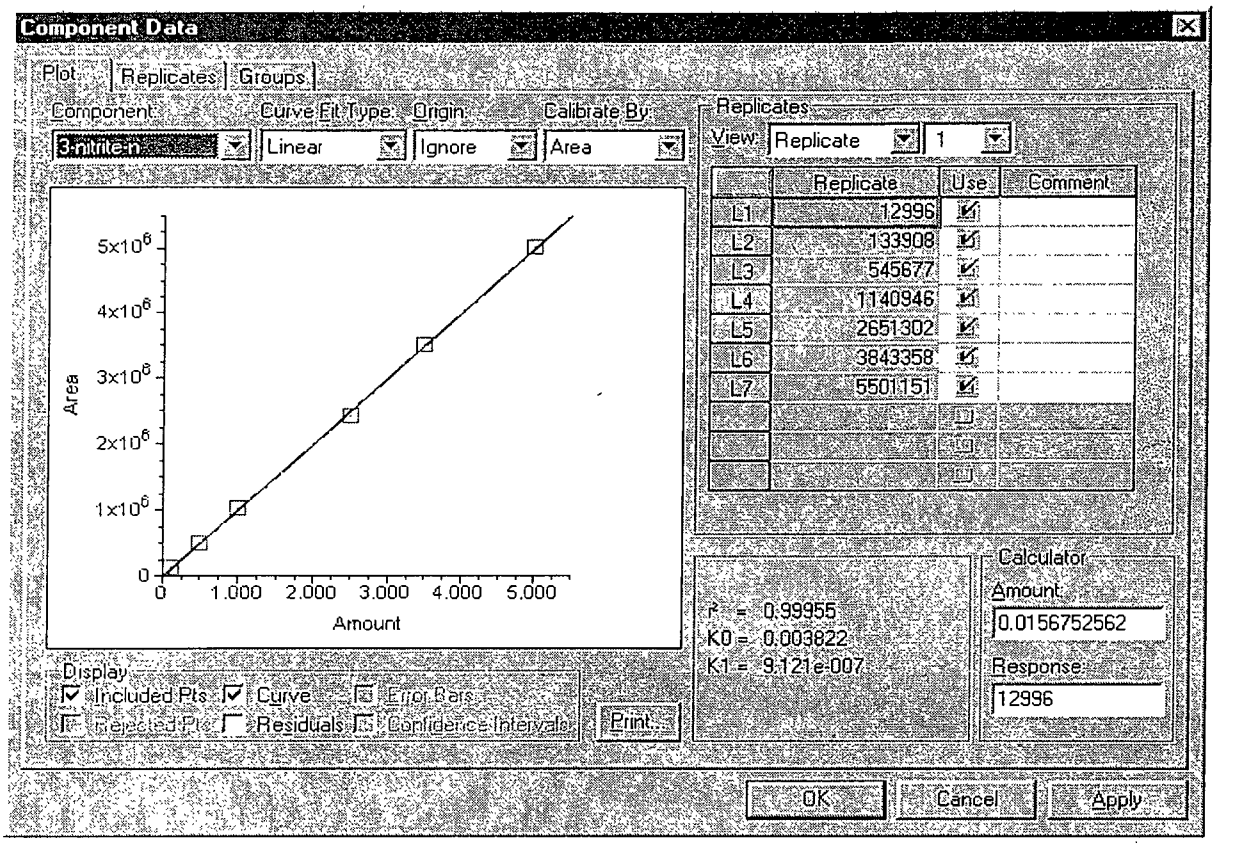
AZ16342W05

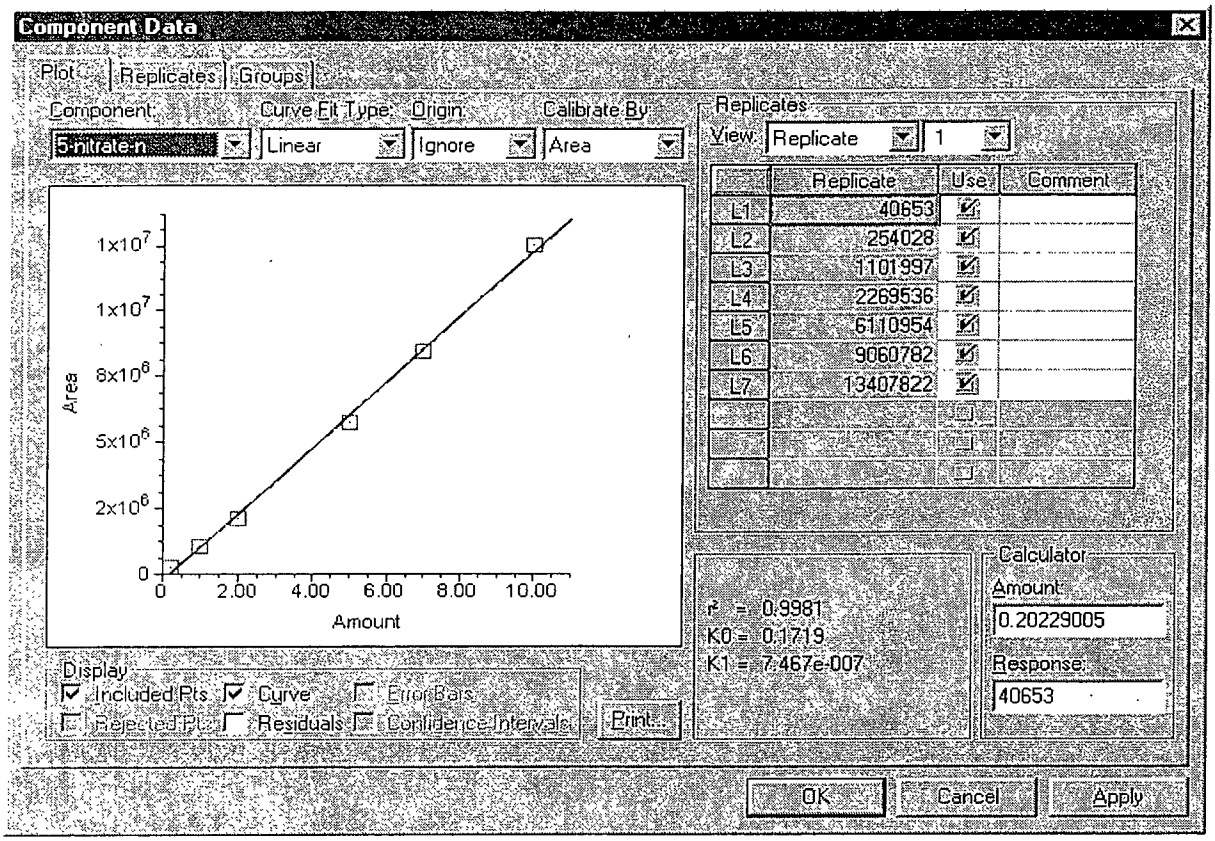


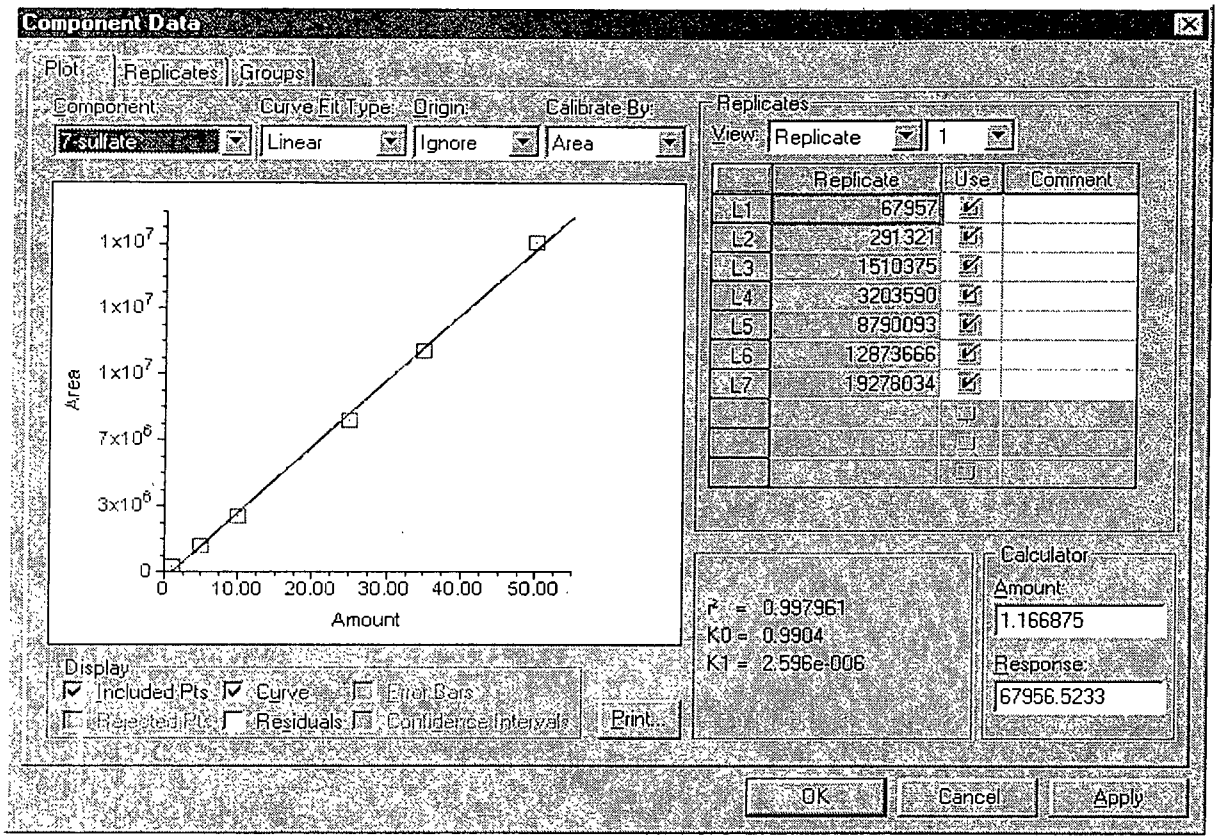
INORGANIC ANALYSIS
Calibration Data

APPL, INC.


Component Data
Plot
Replicates
Groups
Component:
2-chloride
Curve Fit Type:
Linear
Origin:
Ignore
Calibrate By:
Area
Area
Amount
Replicates
View:
Replicate
1
Replicate
Use
Comment
L1 93020
L2 430478
L3 2136860
L4 4658364
L5 12647726
L6 18712590
L7 28275016
r² = 0.997205
K0 = 1.096
K1 = 1.773e-006
Calculator
Amount:
1.26053622
Response:
93020.4
Display
Included Pts
Curve
Error Bars
Rejected Pts
Residuals
Confidence Intervals
Print...
OK
Cancel
Apply


Component Data
Plot
Replicates
Groups
Component
Curve Fit Type
Origin
Calibrate By
3-nitrotoluene
Linear
Ignore
Area
Area
Amount
Replicates
View
Replicate
1
Replicate
Use
Comment
L1 12996
L2 133908
L3 545677
L4 1140946
L5 2651302
L6 3843358
L7 5501151
r² = 0.99955
K0 = 0.003822
K1 = 9.121e-007
Calculator
Amount
0.0156752562
Response
12996
Display
Included Pts
Curve
Error Bars
Rejected Pts
Residuals
Confidence Intervals
Print
OK
Cancel
Apply


Component Data
Plot
Replicates
Groups
Component:
5-nitrate-n
Curve Fit Type:
Linear
Origin:
Ignore
Calibrate By:
Area
Area
Amount
Replicates
View:
Replicate
1
Replicate
Use
Comment
L1 40653
L2 254028
L3 1101997
L4 2269536
L5 6110954
L6 9060782
L7 13407822
r² = 0.9981
K0 = 0.1719
K1 = 7.467e-007
Calculator
Amount:
0.20229005
Response:
40653
Display
Included Pts
Curve
Error Bars
Rejected Pts
Residuals
Confidence Intervals
Print...
OK
Cancel
Apply


Component Data
Plot
Replicates
Groups
Component
7-sulfate
Curve Fit Type
Linear
Origin
Ignore
Calibrate By
Area
Area
Amount
Replicates
View
Replicate
1
Replicate
Use
Comment
L1 67957
L2 291321
L3 1510375
L4 3203590
L5 8790093
L6 12873666
L7 19278034
r² = 0.997961
K0 = 0.9904
K1 = 2.596e-006
Calculator
Amount
1.166875
Response
67956.5233
Display
Included Pts
Curve
Error Bars
Rejected Pts
Residuals
Confidence Intervals
Print...
OK
Cancel
Apply

INORGANIC ANALYSES
AUTO CALIBRATION

Analytical Method: 300/9056

Lab Name: APPL, Inc.

Instrument ID: Dionex

Autocal ID: 150505a

Concentration Units (mg/L or mg/kg): mg/L

Analyte	1	2	3	4	5	6	7
	Autocal 11:21	Autocal 11:32	Autocal 11:43	Autocal 11:53	Autocal 12:04	Autocal 12:15	Autocal 12:26
Bromide	13289	120492	484620	1009394	2485414	3656063	5312484
Chloride	93020	430478	2136859	4658363	12647726	18712590	28275015
Fluoride	ND	57622	321944	747949	1627638	2536232	3565505
Nitrate-N	40653	254027	1101996	2269536	6110953	9060782	13407821
Nitrite-N	12996	133908	545677	1140945	2651301	3843357	5501151
Phosphate-P	90339	171940	572832	1002780	2255377	3183589	4524113
Sulfate	67956	291320	1510375	3203589	8790092	12873665	19278033

Comments:

A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract:
ARF No: SDG:
Initial Calibration Source: o2si, ULTRA
Continuing Calibration Source: CPI
Analysis Date: 05/05/15

Analyte	Calibration Verification									M
	True ICV	Found 12:47	%R(1)	True	Found	%R(1)	True	Found	%R(1)	
bromide	12.5	12.3745	99.0							
chloride	20	18.7460	93.7							
fluoride	2.5	2.61193	104							
Nitrate(NO3)-N	5	4.90230	98.0							
Nitrite(NO2)-N	3.04	2.93829	96.7							
phosphate-p	5	5.03432	101							
sulfate	20	19.1007	95.5							

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract:

ARF No.: SDG:

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	ICB 05/05/15 13:08	C		C		C		C		C	
bromide	.500	U									
chloride	1.000	U									
fluoride	1.000	U									
Nitrate(NO3)-N	.200	U									
Nitrite(NO2)-N	.200	U									
phosphate-p	1.000	U									
sulfate	1.000	U									

Calibration Update Report

Sample Name : CAL STD #1 05/05/15
Data File Name : I:\DIONEX\D1ANIONS\DATA\150505A\150505a_018.DXD

Method File Name : ...\anions 150505a.met
Schedule File Name : ...\150505a.sch
Date Time Collected : 5/5/15 11:21:45

Calibration Date : 5/5/15 11:32:07
System Operator : jm
Injection Number : 18

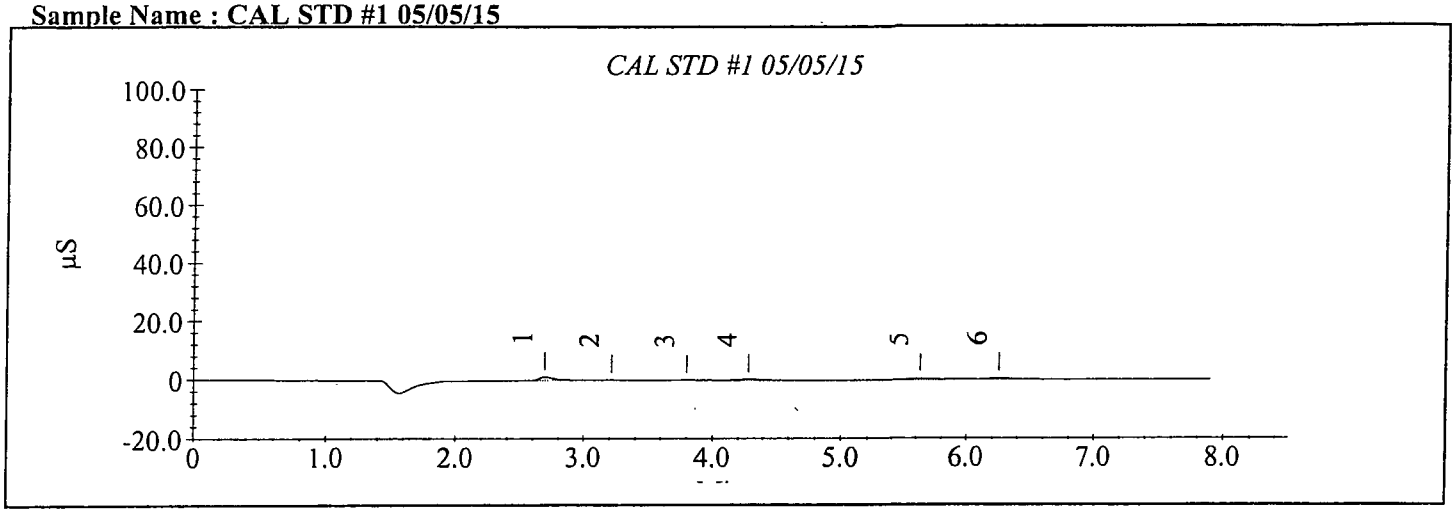
Peak Information : All Components

Peak #	Retention Time	Component Name	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	2.69	chloride	91791	93020	93020
2	3.21	nitrite-n	11886	12996	12996
3	3.80	bromide	19693	13290	13290
4	4.28	nitrate-n	35537	40653	40653
5	5.63	phosphate-p	105069	90339	90339
6	6.25	sulfate	93864	67957	67957

Peak Information : All Components

Peak #	Retention Time	Component Name	Amount (mg/L)	Peak Area	Peak Height	Limit Exceeded
1	2.69	chloride	0.40	93020	11921	-
2	3.21	nitrite-n	0.04	12996	1617	-
3	3.80	bromide	0.20	13290	1597	-
4	4.28	nitrate-n	0.08	40653	3723	-
5	5.63	phosphate-p	0.08	90339	3739	-
6	6.25	sulfate	0.40	67957	4462	-

Sample Name : CAL STD #1 05/05/15



Calibration Update Report

Sample Name : CAL STD #2
Data File Name : I:\DIONEX\D1ANIONS\DATA\150505A\150505a_019.DXD

Method File Name : ...\anions 150505a.met
Schedule File Name : ...\150505a.sch
Date Time Collected : 5/5/15 11:32:26

Calibration Date : 5/5/15 11:42:45
System Operator : jm
Injection Number : 19

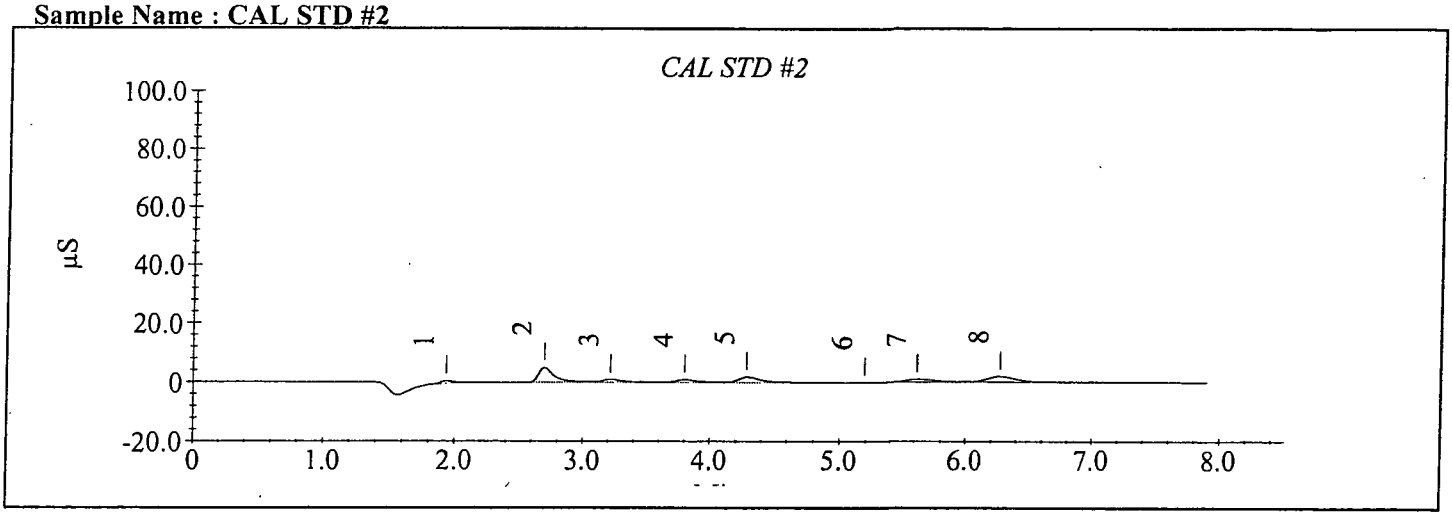
Peak Information : All Components

Peak #	Retention Time	Component Name	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	1.93	fluoride	73173	57622	57622
2	2.69	chloride	452132	430478	430478
3	3.21	nitrite-n	78566	133908	133908
4	3.80	bromide	72889	120492	120492
5	4.28	nitrate-n	238307	254028	254028
7	5.61	phosphate-p	194282	171940	171940
8	6.27	sulfate	274204	291321	291321

Peak Information : All Components

Peak #	Retention Time	Component Name	Amount (mg/L)	Peak Area	Peak Height	Limit Exceeded
1	1.93	fluoride	0.10	57622	8707	
2	2.69	chloride	1.00	430478	49268	
3	3.21	nitrite-n	0.10	133908	10330	
4	3.80	bromide	0.50	120492	9858	
5	4.28	nitrate-n	0.20	254028	18634	
7	5.61	phosphate-p	0.20	171940	9501	
8	6.27	sulfate	1.00	291321	18754	

Sample Name : CAL STD #2



Calibration Update Report

Sample Name : CAL STD #3
Data File Name : I:\DIONEX\D1ANIONS\DATA\150505A\150505a_020.DXD

Method File Name : ...\anions 150505a.met
Schedule File Name : ...\150505a.sch
Date Time Collected : 5/5/15 11:43:12

Calibration Date : 5/5/15 11:53:31
System Operator : jm
Injection Number : 20

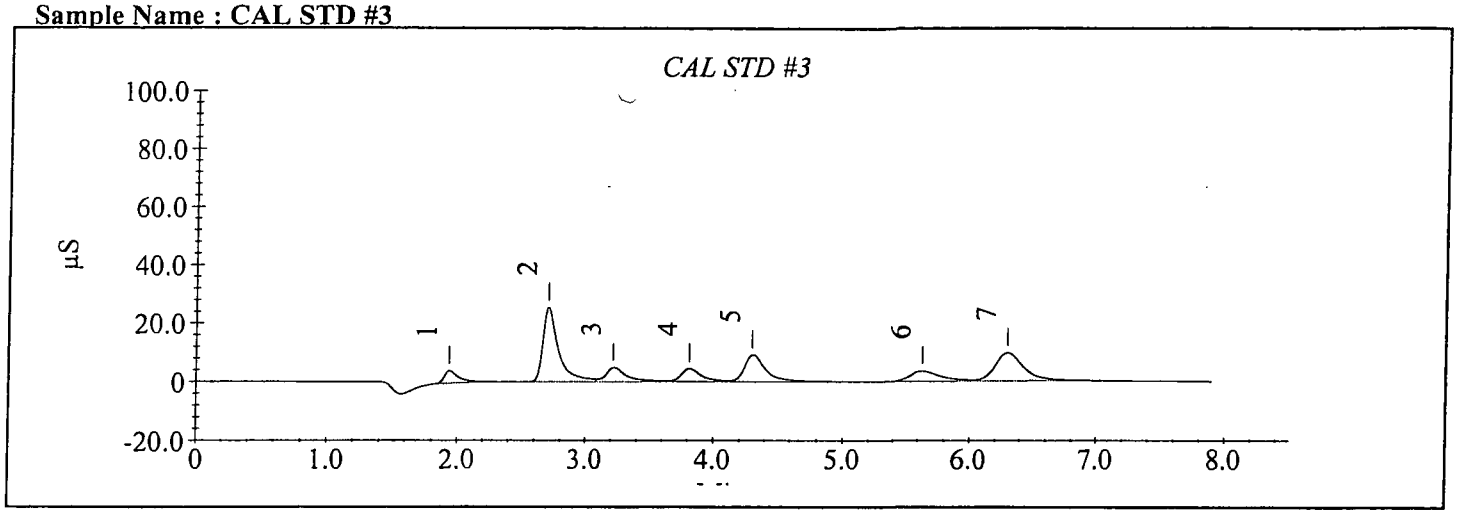
Peak Information : All Components

Peak #	Retention Time	Component Name	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	1.93	fluoride	280660	321944	321944
2	2.71	chloride	2198943	2136860	2136860
3	3.21	nitrite-n	453819	545677	545677
4	3.81	bromide	464626	484621	484621
5	4.29	nitrate-n	1088526	1101997	1101997
6	5.63	phosphate-p	528123	572833	572833
7	6.29	sulfate	1271544	1510375	1510375

Peak Information : All Components

Peak #	Retention Time	Component Name	Amount (mg/L)	Peak Area	Peak Height	Limit Exceeded
1	1.93	fluoride	0.50	321944	42053	
2	2.71	chloride	5.00	2136860	254839	
3	3.21	nitrite-n	0.50	545677	47664	
4	3.81	bromide	2.50	484621	45227	
5	4.29	nitrate-n	1.00	1101997	90440	
6	5.63	phosphate-p	1.00	572833	34464	
7	6.29	sulfate	5.00	1510375	95140	

Sample Name : CAL STD #3



Calibration Update Report

Sample Name : CAL STD #4
Data File Name : I:\DIONEX\D1ANIONS\DATA\150505A\150505a_021.DXD

Method File Name : ...\anions 150505a.met
Schedule File Name : ...\150505a.sch
Date Time Collected : 5/5/15 11:53:55

Calibration Date : 5/5/15 12:04:13
System Operator : jm
Injection Number : 21

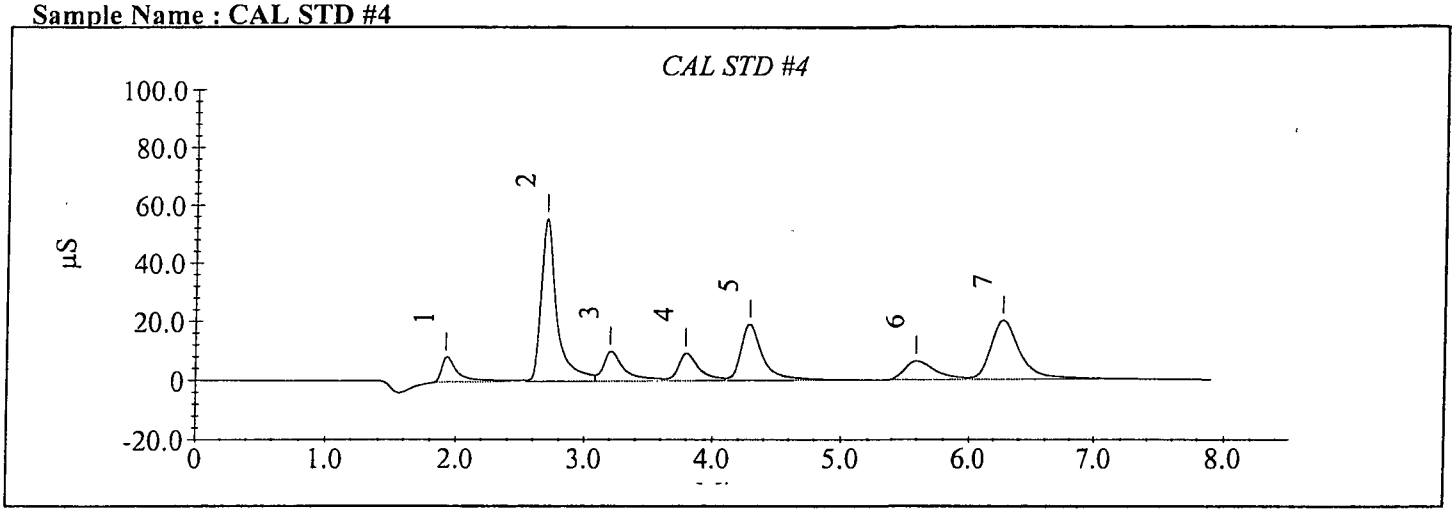
Peak Information : All Components

Peak #	Retention Time	Component Name	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	1.92	fluoride	593192	747950	747950
2	2.69	chloride	4796237	4658364	4658364
3	3.20	nitrite-n	940138	1140946	1140946
4	3.79	bromide	958653	1009395	1009395
5	4.28	nitrate-n	2225829	2269536	2269536
6	5.59	phosphate-p	1031523	1002780	1002780
7	6.27	sulfate	3354593	3203590	3203590

Peak Information : All Components

Peak #	Retention Time	Component Name	Amount (mg/L)	Peak Area	Peak Height	Limit Exceeded
1	1.92	fluoride	1.00	747950	82586	
2	2.69	chloride	10.00	4658364	557102	
3	3.20	nitrite-n	1.00	1140946	99888	
4	3.79	bromide	5.00	1009395	92600	
5	4.28	nitrate-n	2.00	2269536	190548	
6	5.59	phosphate-p	2.00	1002780	62562	
7	6.27	sulfate	10.00	3203590	199608	

Sample Name : CAL STD #4



Calibration Update Report

Sample Name : CAL STD #5
Data File Name : I:\DIONEX\D1ANIONS\DATA\150505A\150505a_022.DXD

Method File Name : ...\anions 150505a.met
Schedule File Name : ...\150505a.sch
Date Time Collected : 5/5/15 12:04:36

Calibration Date : 5/5/15 12:14:59
System Operator : jm
Injection Number : 22

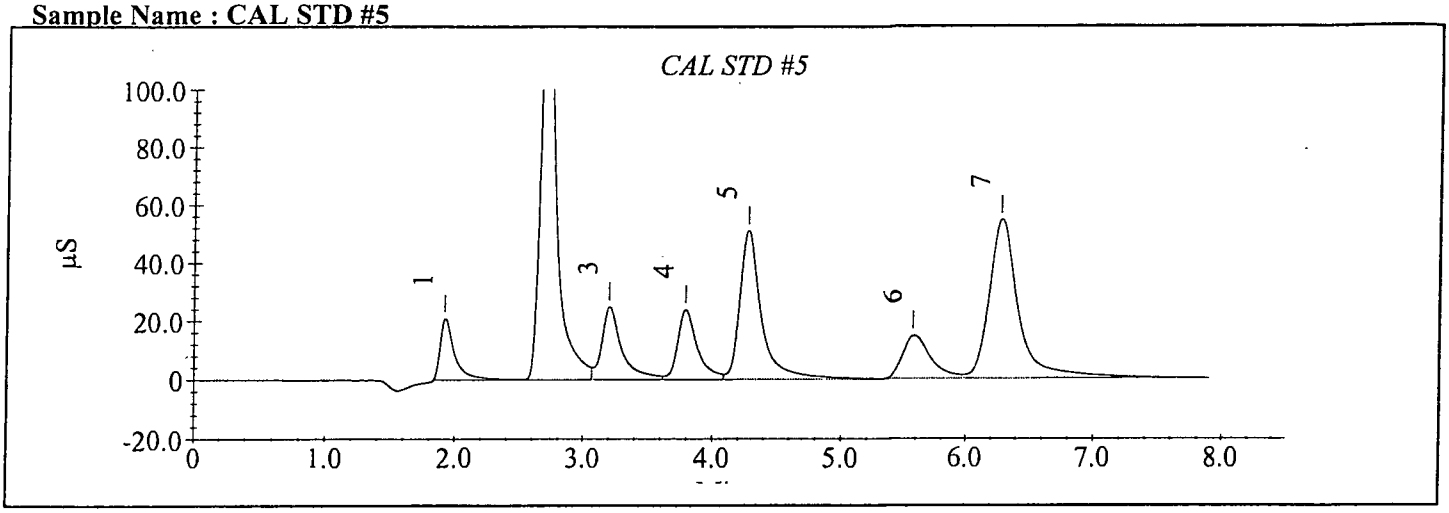
Peak Information : All Components

Peak #	Retention Time	Component Name	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	1.92	fluoride	1904787	1627638	1627638
2	2.69	chloride	13522747	12647726	12647726
3	3.20	nitrite-n	2509115	2651302	2651302
4	3.79	bromide	2764123	2485415	2485415
5	4.27	nitrate-n	5991999	6110954	6110954
6	5.57	phosphate-p	2372157	2255377	2255377
7	6.27	sulfate	8813646	8790093	8790093

Peak Information : All Components

Peak #	Retention Time	Component Name	Amount (mg/L)	Peak Area	Peak Height	Limit Exceeded
1	1.92	fluoride	2.50	1627638	207780	
2	2.69	chloride	25.00	12647726	1600646	
3	3.20	nitrite-n	2.50	2651302	248604	
4	3.79	bromide	12.50	2485415	238146	
5	4.27	nitrate-n	5.00	6110954	509702	
6	5.57	phosphate-p	5.00	2255377	145786	
7	6.27	sulfate	25.00	8790093	542447	

Sample Name : CAL STD #5



Calibration Update Report

Sample Name : CAL STD #6
Data File Name : I:\DIONEX\D1ANIONS\DATA\150505A\150505a_023.DXD

Method File Name : ...\anions 150505a.met
Schedule File Name : ...\150505a.sch
Date Time Collected : 5/5/15 12:15:21

Calibration Date : 5/5/15 12:25:43
System Operator : jm
Injection Number : 23

Peak Information : All Components

Peak #	Retention Time	Component Name	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	1.93	fluoride	2431852	2536233	2536233
2	2.71	chloride	19578080	18712590	18712590
3	3.21	nitrite-n	3488117	3843358	3843358
4	3.80	bromide	3664999	3656064	3656064
5	4.28	nitrate-n	8937590	9060782	9060782
6	5.60	phosphate-p	3304927	3183590	3183590
7	6.31	sulfate	12960247	12873666	12873666

Peak Information : All Components

Peak #	Retention Time	Component Name	Amount (mg/L)	Peak Area	Peak Height	Limit Exceeded
1	1.93	fluoride	3.50	2536233	297967	
2	2.71	chloride	35.00	18712590	2307087	
3	3.21	nitrite-n	3.50	3843358	353005	
4	3.80	bromide	17.50	3656064	344145	
5	4.28	nitrate-n	7.00	9060782	743793	
6	5.60	phosphate-p	7.00	3183590	206418	
7	6.31	sulfate	35.00	12873666	804060	

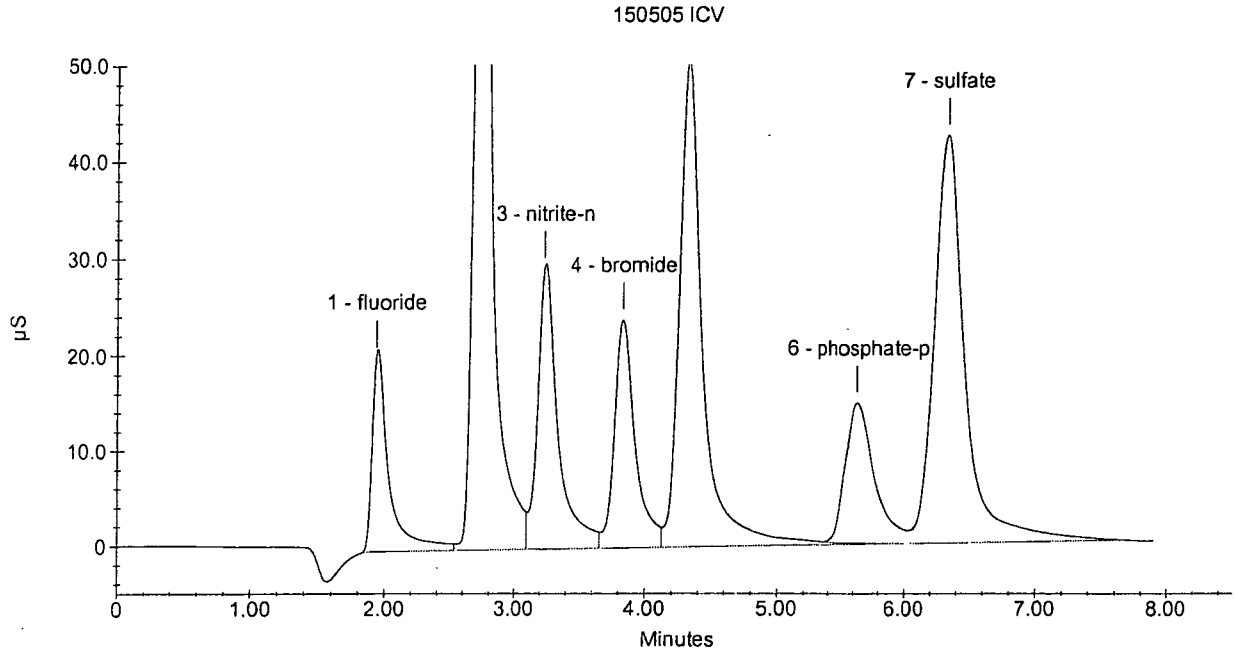
Sample Analysis Report

Sample Name : 150505 ICV
Data File Name : I:\DIONEX\D1ANIONS\DATA\150505A\150505a_026.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150505A.met
Date Time Collected : 5/5/15 12:47:20
System Operator : jm
Injection Number : 26
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	2.6119	1843295	203891
2	2.72	chloride	18.7460	9953323	1223515
3	3.23	nitrite-n	2.9383	3217392	291923
4	3.83	bromide	12.3745	2577592	237752
5	4.31	nitrate-n	4.9023	6335418	504691
6	5.63	phosphate-p	5.0343	2315308	146529
7	6.32	sulfate	19.1007	6975524	422940



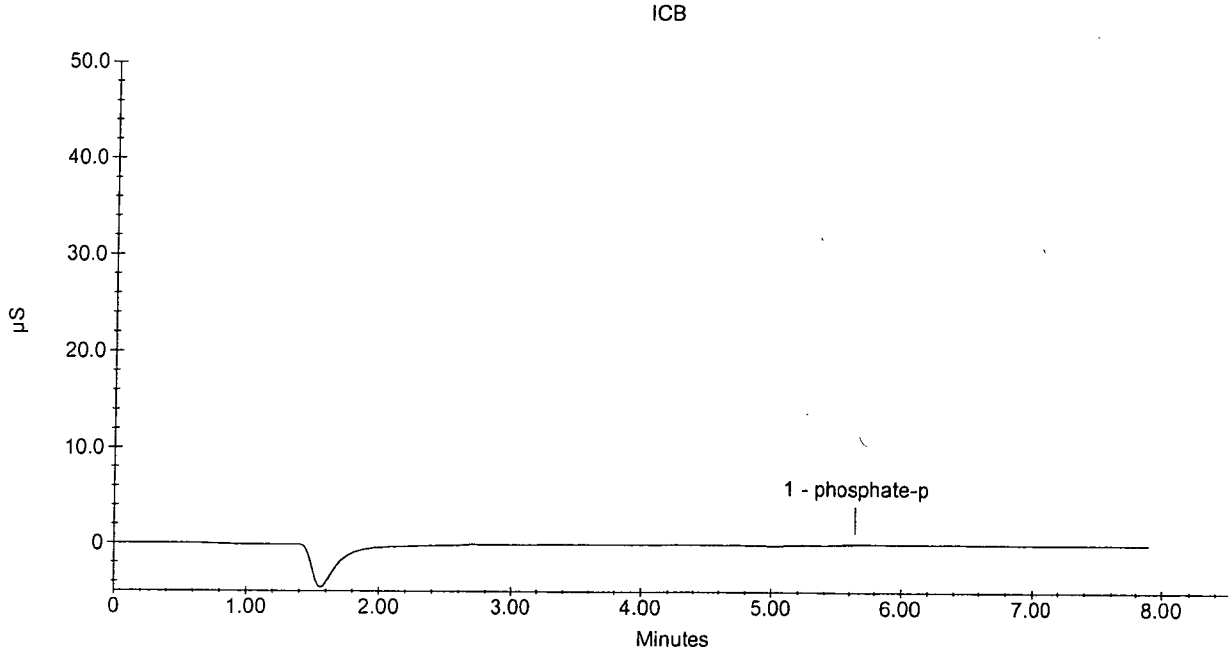
Sample Analysis Report

Sample Name : ICB
Data File Name : I:\DIONEX\D1ANIONS\DATA\150505A\150505a_028.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150505A.met
Date Time Collected : 5/5/15 13:08:38
System Operator : jm
Injection Number : 28
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	5.64	phosphate-p	-0.1252	32840	1298



A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Tetra Tech
ARF No: 76424 SDG: 76424
Initial Calibration Source: o2si
Continuing Calibration Source: o2si
Analysis Date: 05/14/15

Analyte	Calibration Verification									M
	True CCV1	Found 9:20	%R(1)	True CCV1	Found 12:42	%R(1)	True CCV1	Found 16:36	%R(1)	
chloride	25	23.2401	93.0	25	23.9648	95.9	25	24.0194	96.1	
Nitrate(NO3)	22.1	21.2126	96.0	22.1	22.0587	99.8	22.1	22.2615	101	
Nitrite(NO2)	8.211	8.21296	100	8.211	8.29635	101	8.211	8.42702	103	
sulfate	25	24.0485	96.2	25	25.0875	100	25	24.9076	99.6	

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Tetra Tech
ARF No: 76424 SDG: 76424
Initial Calibration Source: o2si
Continuing Calibration Source: o2si
Analysis Date: 05/14/15

Analyte	Calibration Verification									M
	True CCV1	Found 17:29	%R(1)	True CCV1	Found 9:51	%R(1)	True CCV1	Found 16:41	%R(1)	
chloride	25	23.5211	94.1	25	24.0747	96.3	25	24.2112	96.8	
Nitrate(NO3)	22.1	21.6278	97.9	22.1	21.9227	99.2	22.1	21.1588	95.7	
Nitrite(NO2)	8.211	7.97304	97.1	8.211	7.47207	91.0	8.211	7.70162	93.8	
sulfate	25	24.7779	99.1	25	24.3936	97.6	25	24.7504	99.0	

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76424 SDG: 76424

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	CCB 05/14/15 09:31	C	CCB 05/14/15 12:53	C	CCB 05/14/15 16:46	C	CCB 05/14/15 17:39	C	CCB 05/26/15 10:02	C	
chloride	1.000	U	1.130	*	1.000	U	1.000	U	1.0000	U	*
Nitrate(NO3)	.500	U	.500	U	.500	U	.500	U	.5000	U	
Nitrite(NO2)	.300	U	.300	U	.300	U	.300	U	.3000	U	
sulfate	1.000	U	1.000	U	1.000	U	1.000	U	1.0000	U	

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76424 SDG: 76424

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	CCB 05/26/15 16:52	C		C		C		C		C	
chloride	1.000	U									
Nitrate(NO3)	.500	U									
Nitrite(NO2)	.300	U									
sulfate	1.000	U									

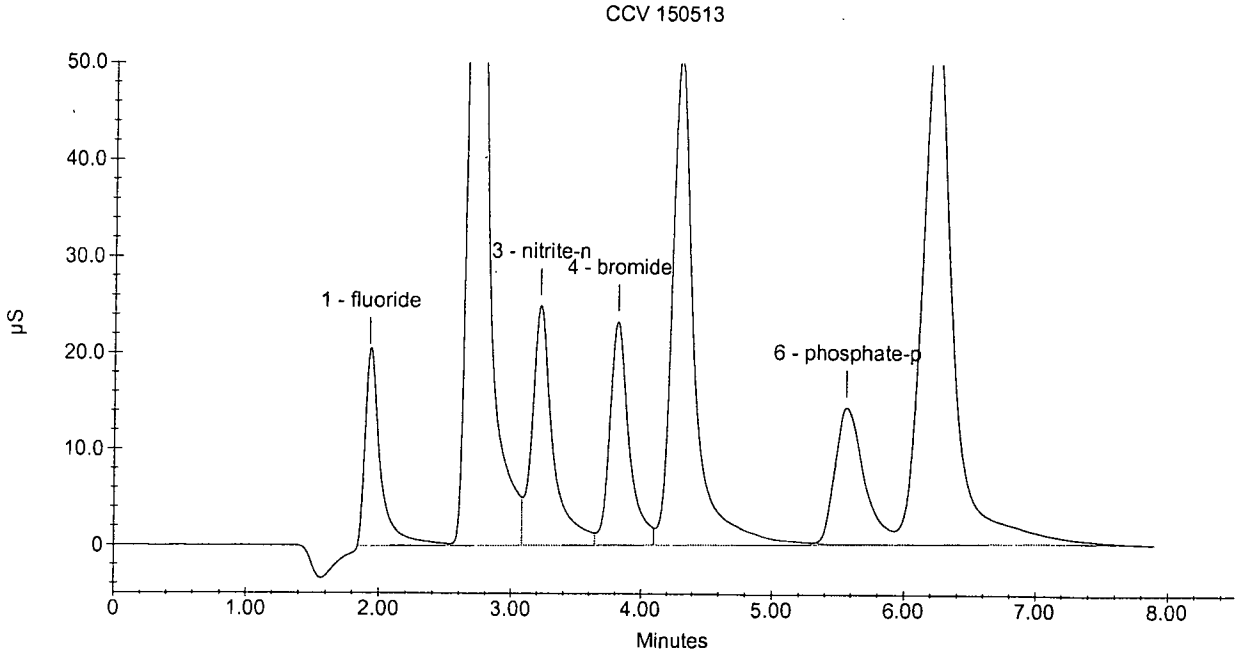
Sample Analysis Report

Sample Name : CCV 150513
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_004.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150505A.met
Date Time Collected : 5/14/15 09:20:33
System Operator : jm
Injection Number : 4
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.92	fluoride	2.3378	1646666	199112
2	2.71	chloride	23.2401	12487611	1579780
3	3.21	nitrite-n	2.5004	2737334	249259
4	3.81	bromide	11.6155	2416808	232545
5	4.28	nitrate-n	4.7899	6184911	500129
6	5.56	phosphate-p	4.7307	2180981	142707
7	6.21	sulfate	24.0486	8881303	545773



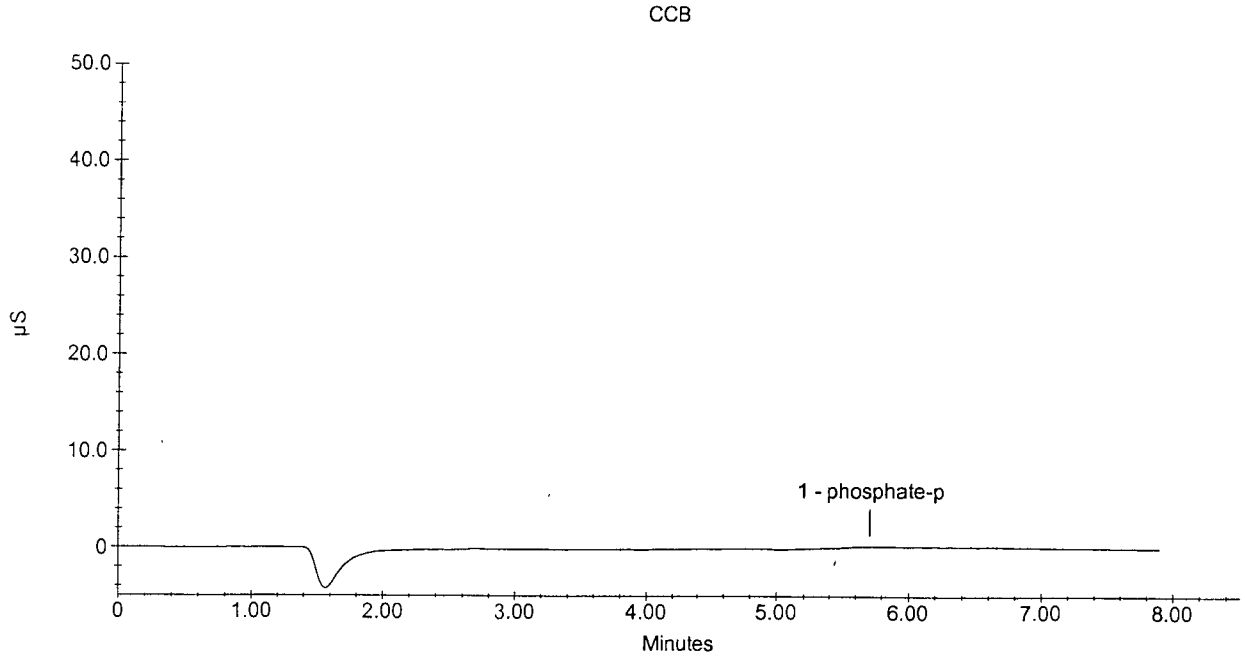
Sample Analysis Report

Sample Name : CCB
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_005.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/14/15 09:31:13
System Operator : jm
Injection Number : 5
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	5.71	phosphate-p	-0.1428	25086	899



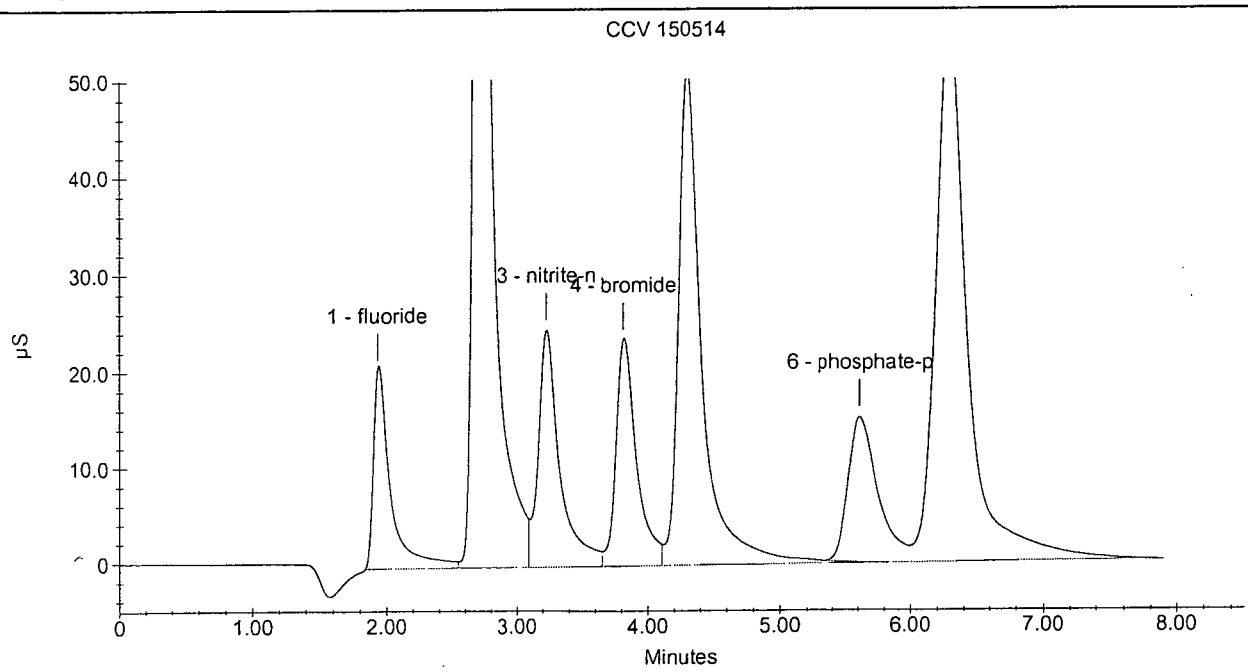
Sample Analysis Report

Sample Name : CCV 150514
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_017.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150505A.met
Date Time Collected : 5/14/15 12:42:36
System Operator : jm
Injection Number : 17
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	2.6964	1903836	206228
2	2.71	chloride	23.9648	12896285	1521970
3	3.23	nitrite-n	2.5258	2765169	245231
4	3.81	bromide	12.2181	2544453	233916
5	4.29	nitrate-n	4.9810	6440785	507212
6	5.61	phosphate-p	5.2474	2409560	151041
7	6.28	sulfate	25.0875	9281458	554212



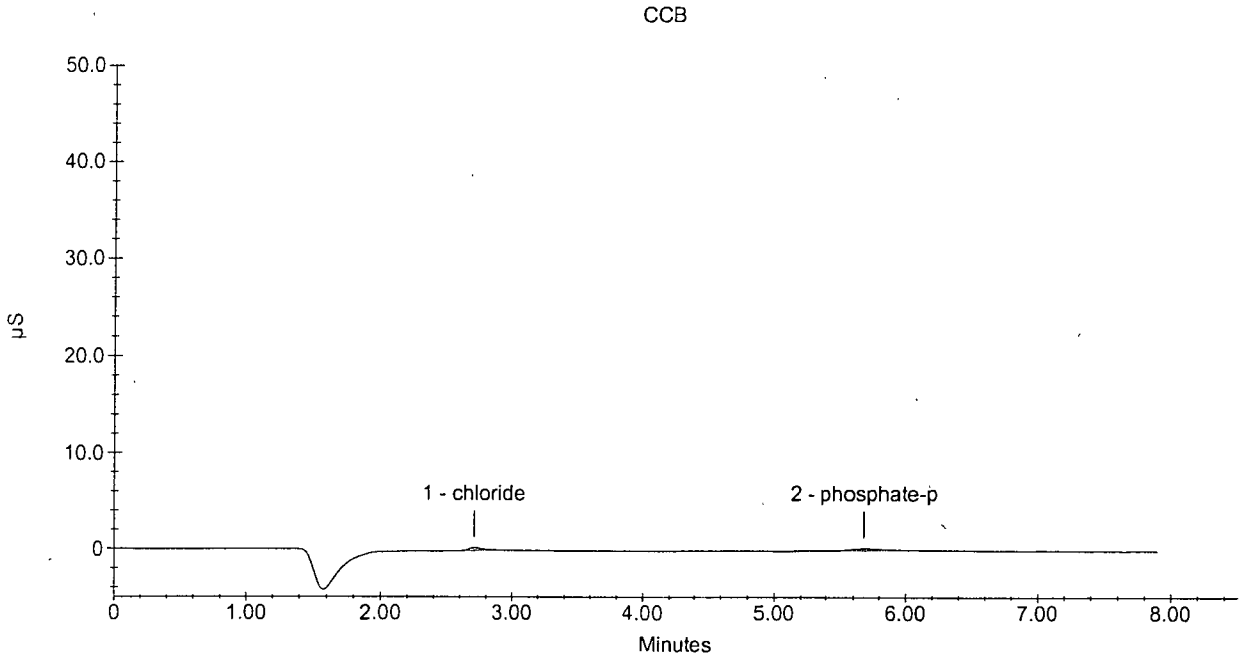
Sample Analysis Report

Sample Name : CCB
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_018.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150505A.met
Date Time Collected : 5/14/15 12:53:16
System Operator : jm
Injection Number : 18
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	2.71	chloride	1.1289	18784	2778
2	5.68	phosphate-p	-0.0909	48050	1972



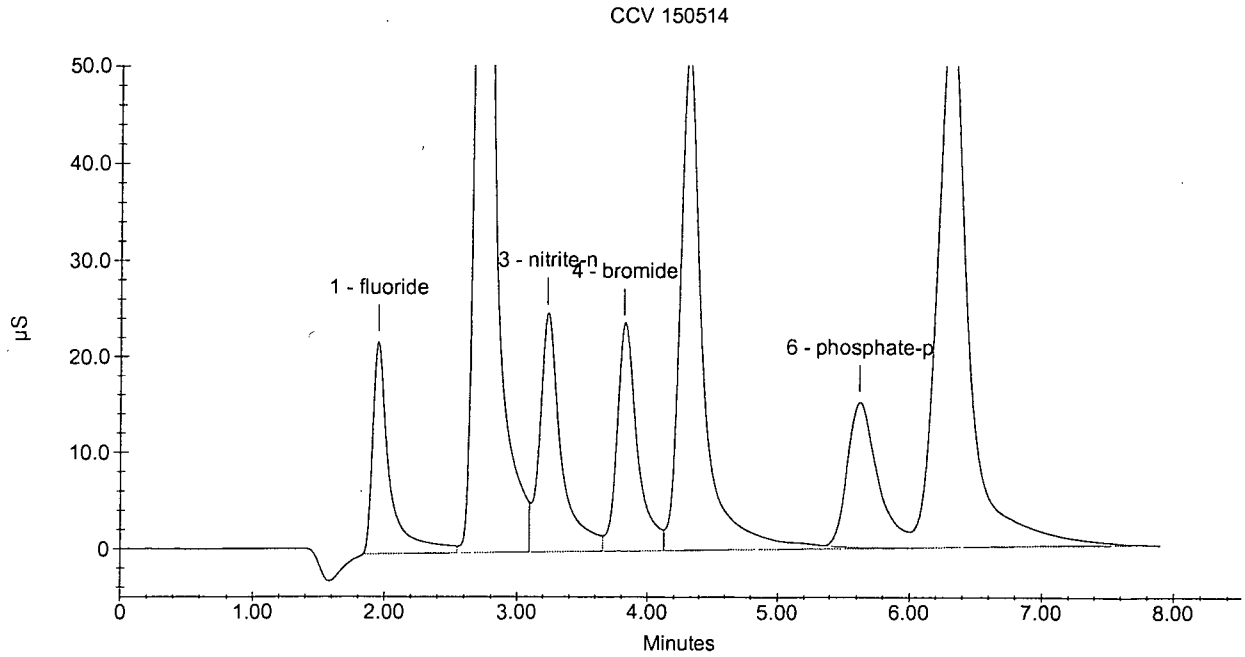
Sample Analysis Report

Sample Name : CCV 150514
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_029.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/14/15 16:36:15
System Operator : jm
Injection Number : 29
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.95	fluoride	2.7962	1975465	220712
2	2.72	chloride	24.0195	12927113	1588901
3	3.23	nitrite-n	2.5656	2808789	246386
4	3.81	bromide	12.3128	2564516	234050
5	4.29	nitrate-n	5.0268	6502105	508566
6	5.61	phosphate-p	5.2429	2407587	150531
7	6.29	sulfate	24.9077	9212194	555570



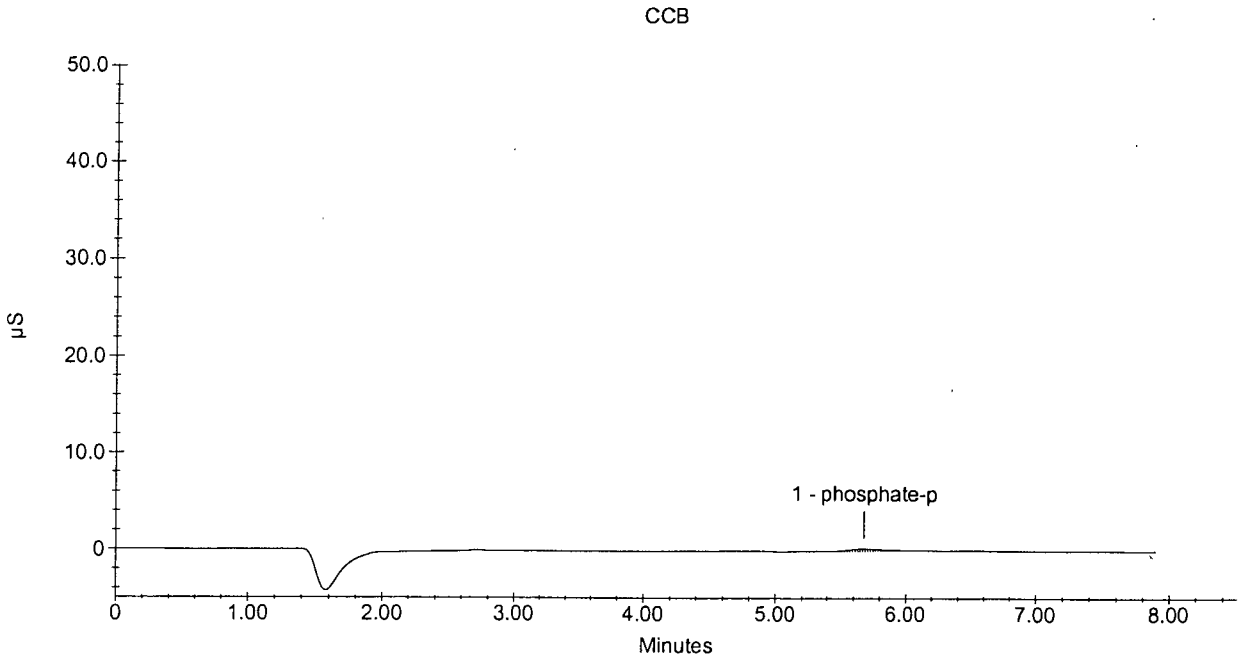
Sample Analysis Report

Sample Name : CCB
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_030.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/14/15 16:46:54
System Operator : jm
Injection Number : 30
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	5.68	phosphate-p	-0.0814	52223	2156



APPL, Inc.

Current Date : 5/14/15
Current Time : 16:57:17

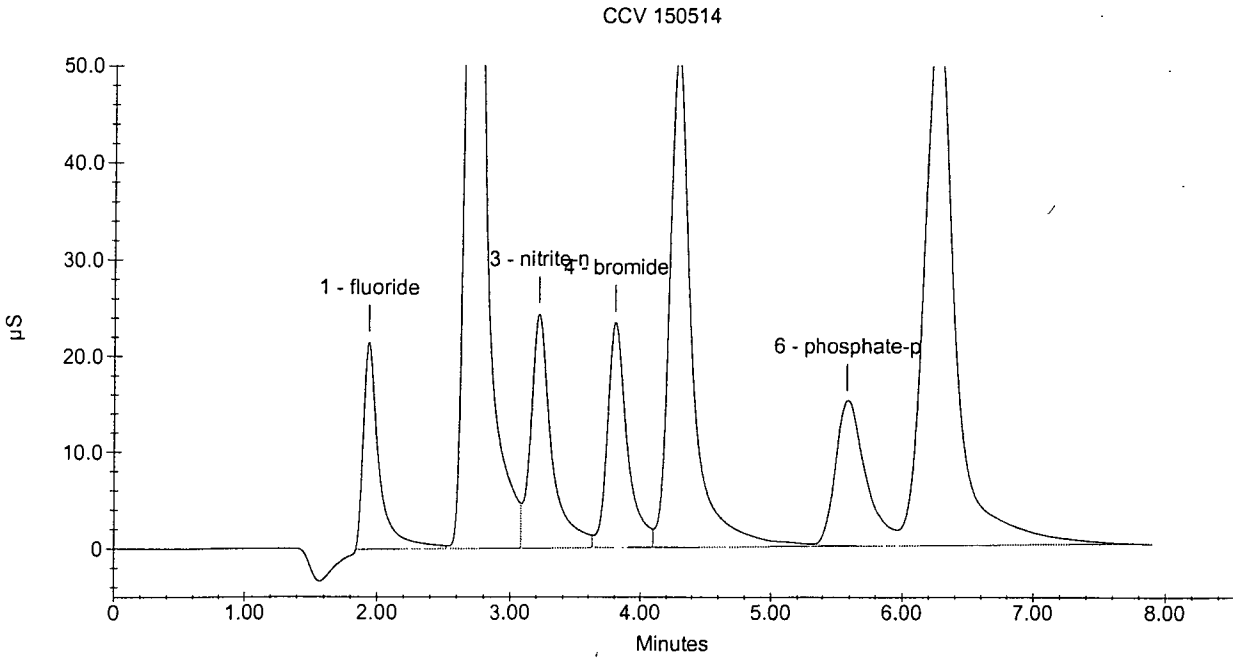
Sample Analysis Report

Sample Name : CCV 150514
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_034.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/14/15 17:29:08
System Operator : jm
Injection Number : 34
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	2.5142	1773197	215487
2	2.71	chloride	23.5211	12646078	1563022
3	3.21	nitrite-n	2.4274	2657246	243252
4	3.80	bromide	11.9427	2486121	233964
5	4.28	nitrate-n	4.8837	6310480	511105
6	5.57	phosphate-p	5.2371	2405030	150293
7	6.25	sulfate	24.7780	9162244	556119



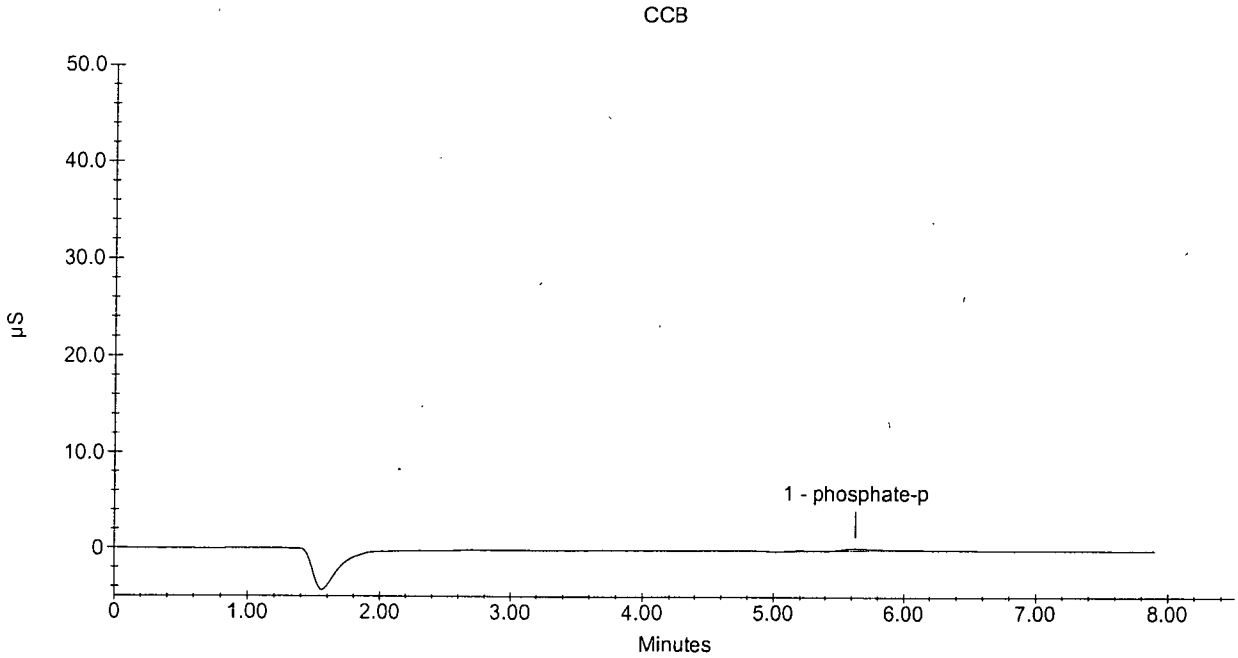
Sample Analysis Report

Sample Name : CCB
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_035.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/14/15 17:39:48
System Operator : jm
Injection Number : 35
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	5.63	phosphate-p	-0.0902	48324	2202



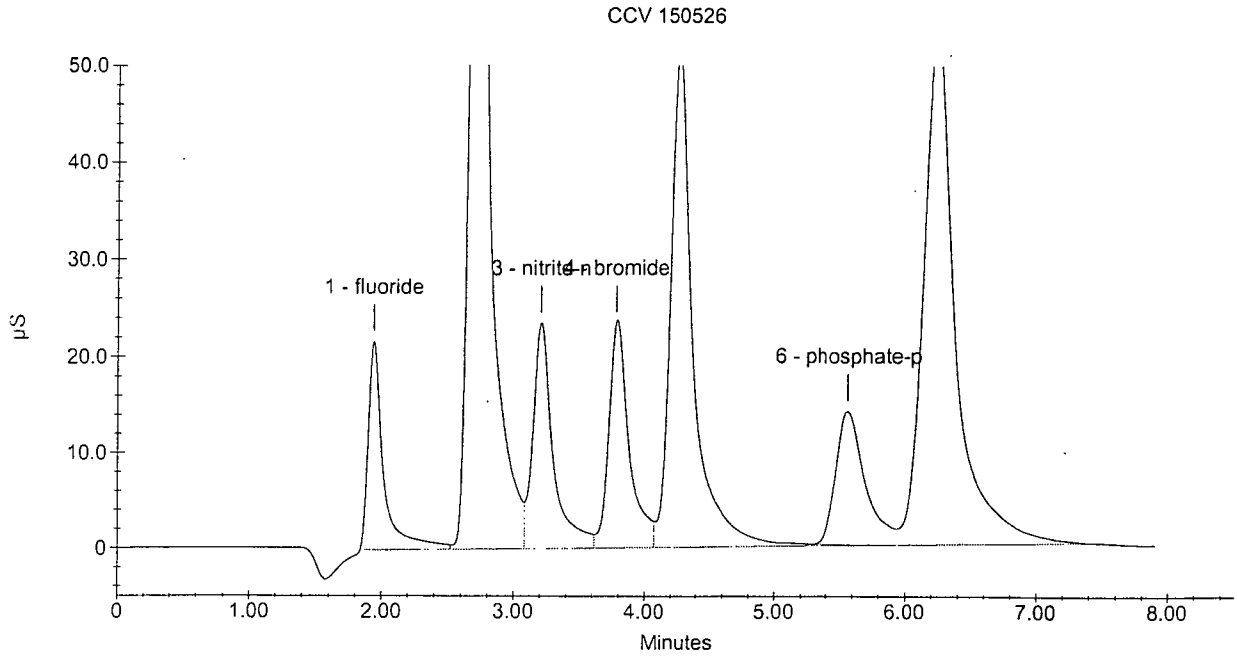
Sample Analysis Report

Sample Name : CCV 150526
Data File Name : I:\DIONEX\D1ANIONS\DATA\150526A\150526a_007.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/26/15 09:51:31
System Operator : DT
Injection Number : 7
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	2.5355	1788508	216633
2	2.69	chloride	24.0747	12958251	1564037
3	3.20	nitrite-n	2.2749	2490022	233840
4	3.77	bromide	12.1466	2529302	232974
5	4.25	nitrate-n	4.9503	6399666	514601
6	5.56	phosphate-p	4.7378	2184112	139589
7	6.23	sulfate	24.3937	9014225	537413



APPL, Inc.

Current Date : 5/26/15
Current Time : 10:02:06

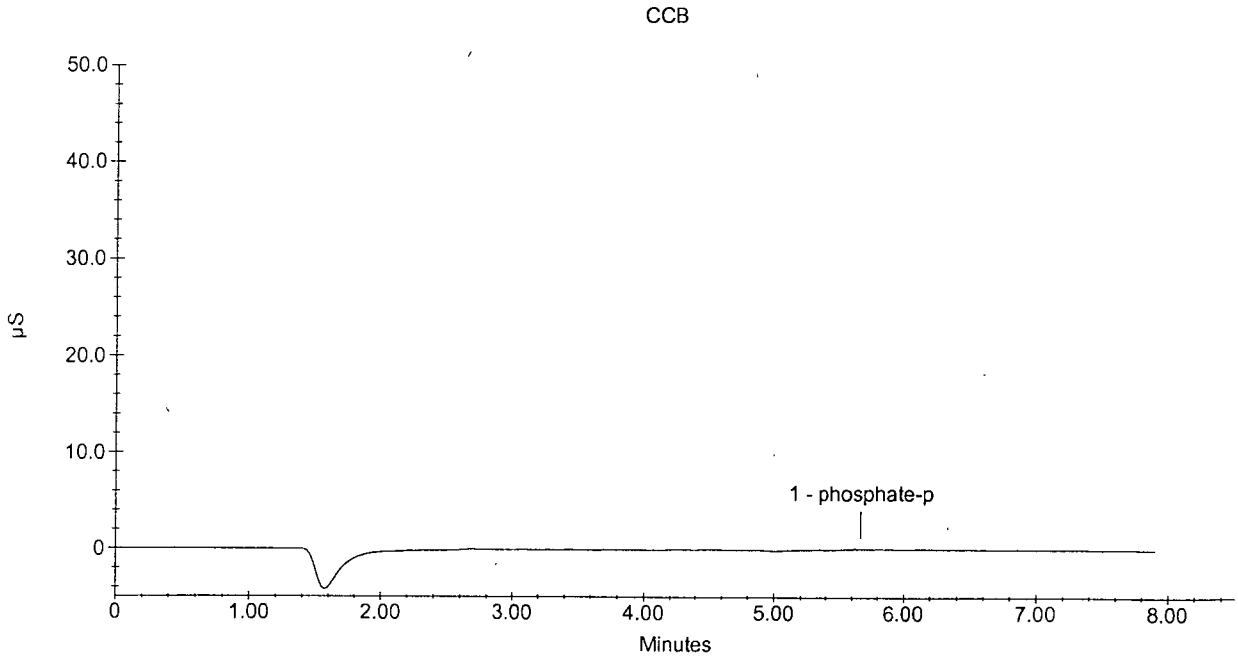
Sample Analysis Report

Sample Name : CCB
Data File Name : I:\DIONEX\D1ANIONS\DATA\150526A\150526a_008.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/26/15 10:02:10
System Operator : DT
Injection Number : 8
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	5.67	phosphate-p	-0.1269	32129	934



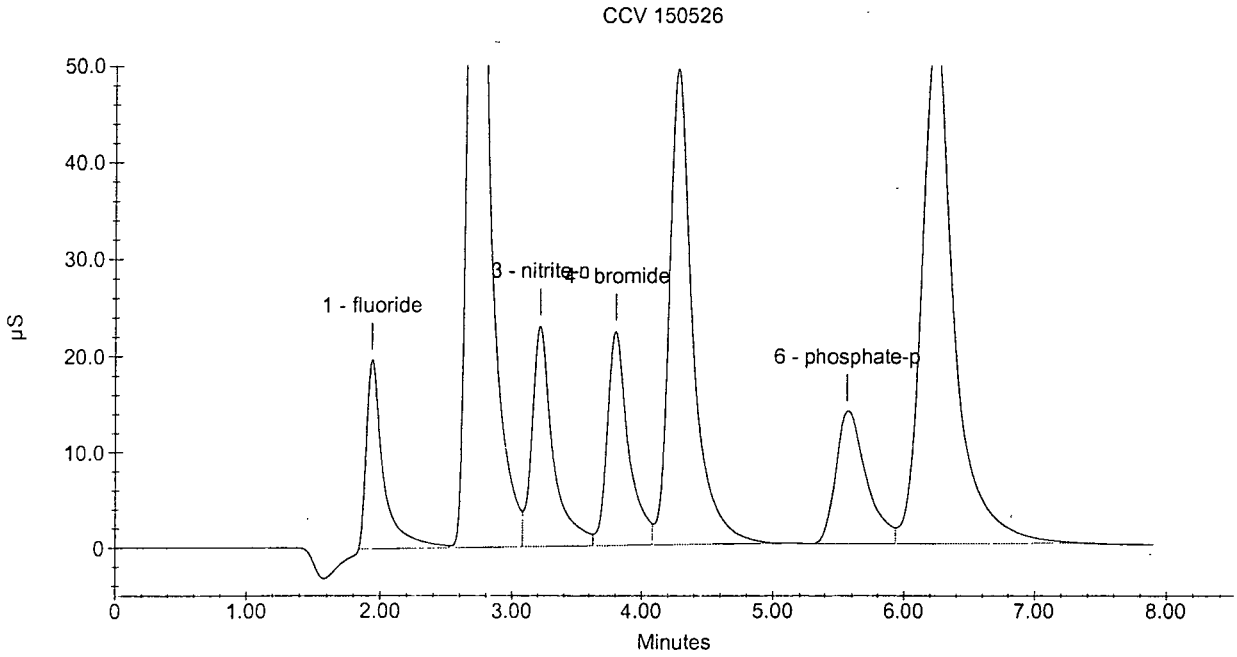
Sample Analysis Report

Sample Name : CCV 150526
Data File Name : I:\DIONEX\D1ANIONS\DATA\150526A\150526a_024.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/26/15 16:41:29
System Operator : DT
Injection Number : 24
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	2.4869	1753634	196980
2	2.71	chloride	24.2112	13035235	1481236
3	3.21	nitrite-n	2.3448	2566645	229684
4	3.80	bromide	12.0629	2511573	222820
5	4.27	nitrate-n	4.7778	6168623	490843
6	5.56	phosphate-p	4.8659	2240811	138153
7	6.23	sulfate	24.7505	9151644	538179



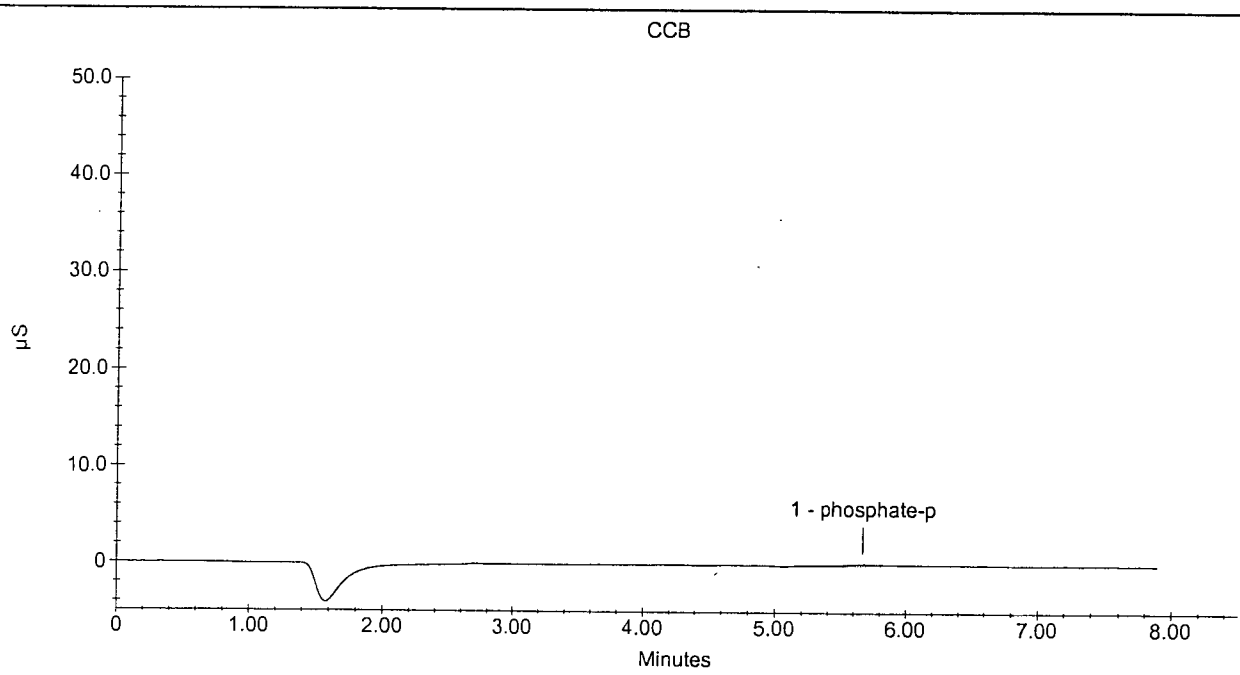
Sample Analysis Report

Sample Name : CCB
Data File Name : I:\DIONEX\D1ANIONS\DATA\150526A\150526a_025.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/26/15 16:52:09
System Operator : DT
Injection Number : 25
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	5.67	phosphate-p	-0.1072	40827	1490



APPL, Inc.

Current Date : 5/26/15
Current Time : 17:02:32

Calibration Report Print Date/Time: 2015/04/27 12:34:17

Cal. Curve ID: 150416I9
Created: 2015/04/16 12:27
Calibration Factor (m): 1.188e+05
Y Intercept (b): 25904
r-squared: 0.99942

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
DI WATER	8722	0.000	-0.145	Low Sample De	2015/04/16 09:39
autocal1	40725	0.250	0.125		2015/04/16 10:06
autocal2	66312	0.500	0.340		2015/04/16 10:33
autocal3	335127	2.500	2.603		2015/04/16 11:00
autocal4	641779	5.000	5.184		2015/04/16 11:28
autocal5	1555011	12.500	12.871		2015/04/16 11:57
autocal6	2968854	25.000	24.772		2015/04/16 12:26

A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract:
ARF No: SDG:
Initial Calibration Source: o2si
Continuing Calibration Source: o2si
Analysis Date: 04/16/15

Analyte	Calibration Verification									M
	True ICV	Found 12:55	%R(1)	True	Found	%R(1)	True	Found	%R(1)	
Total Organic Carbon	10	10.9049	109							

(1) Control Limits: 80-120

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract:

ARF No.: SDG:

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	ICB 04/16/15 13:20	C		C		C		C		C	
Total Organic Carbon	.500	U									

Detailed Analysis Report Print Date/Time: 2015/04/27 12:35:17

Sample ID: DI WATER
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT

Mode: TOC
Filename: 04160739
Timestamp: 2015/04/16 09:39
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			9562	50.922	50.984	120
2			8727	50.934	50.971	120
3			9546	50.918	50.969	120
4			7053	50.929	50.933	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 8722 Std Dev: 1179 RSD: 13.52

Sample ID: autocal1
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT

Mode: TOC
Filename: 04160739
Timestamp: 2015/04/16 10:06
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			34919	50.878	51.076	129
2			39616	50.831	51.030	127
3			45484	50.795	50.995	134
4			42881	50.832	51.031	126

<<<Statistics>>> Mean: 40725 Std Dev: 4555 RSD: 11.18

Sample ID: autocal2
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT

Mode: TOC
Filename: 04160739
Timestamp: 2015/04/16 10:33
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			61013	50.938	51.133	128
2			67808	50.903	51.103	127
3			65207	50.935	51.133	126
4			71219	50.953	51.152	128

<<<Statistics>>> Mean: 66312 Std Dev: 4306 RSD: 6.49

Sample ID: autocal3
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT

Mode: TOC
Filename: 04160739
Timestamp: 2015/04/16 11:00
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			334533	51.110	51.309	142
2			332663	51.210	51.408	142
3			333205	51.237	51.434	139
4			340106	51.219	51.419	137

<<<Statistics>>> Mean: 335127 Std Dev: 3411 RSD: 1.02

Sample ID: autocal4
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT

Mode: TOC
Filename: 04160739
Timestamp: 2015/04/16 11:28
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			651092	51.356	51.555	152
2			639616	51.518	51.717	146
3			633158	51.552	51.750	142

4	643250	51.563	51.761	140

<<<Statistics>>> Mean: 641779 Std Dev: 7481 RSD: 1.17

Sample ID: autocal5
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT

Mode: TOC
Filename: 04160739
Timestamp: 2015/04/16 11:57
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1564523	51.767	51.966	166
2			1557570	51.983	52.182	158
3			1556986	52.040	52.239	160
4			1540966	52.159	52.358	153

<<<Statistics>>> Mean: 1555011 Std Dev: 9970 RSD: 0.64

Sample ID: autocal6
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT

Mode: TOC
Filename: 04160739
Timestamp: 2015/04/16 12:26
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			3001984	52.260	52.457	187
2			2939496	52.837	53.035	159
3			2931188	52.876	53.070	159
4			3002751	52.894	53.089	174

<<<Statistics>>> Mean: 2968855 Std Dev: 38847 RSD: 1.31

Sample ID: ICV
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT

Mode: TOC
Filename: 04160739
Timestamp: 2015/04/16 12:55
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10.9311	5.4655	687856	51.466	51.662	161
2	10.6882	5.3441	673429	51.577	51.776	143
3	11.1207	5.5603	699118	51.520	51.718	146
4	10.8796	5.4398	684797	51.451	51.650	158

<<<Statistics>>> Mean: 10.9049 Std Dev: 0.1778 RSD: 1.63

Sample ID: ICB
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT

Mode: TOC
Filename: 04160739
Timestamp: 2015/04/16 13:20
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-0.3899	-0.1949	15380	51.046	51.244	105
2	-0.3781	-0.1890	16080	51.038	51.235	104
3	-0.3661	-0.1831	16791	51.044	51.244	105
4	-0.4207	-0.2104	13546	51.076	51.273	102

<<<Statistics>>> Mean: -0.3887 Std Dev: 0.0234 RSD: -6.03

A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Tetra Tech
ARF No: 76424 SDG: 76424
Initial Calibration Source: o2si
Continuing Calibration Source: o2si
Analysis Date: 05/19/15

Analyte	Calibration Verification									M
	True CCV2	Found 11:47	%R(1)	True CCV1	Found 20:07	%R(1)	True CCV2	Found 0:56	%R(1)	
Total Organic Carbon	5	5.00117	100	10	11.8947	119	5	5.78595	116	

(1) Control Limits: 80-120

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76424 SDG: 76424

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	CCB 05/19/15 12:12	C	CCB 05/19/15 20:32	C	CCB 05/20/15 01:21	C		C		C	
Total Organic Carbon	.500	U	.500	U	.500	U					

INORGANIC ANALYSIS
Raw Data

APPL, INC.

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SW846 90	TOTAL ORGANIC C	0.35 U	0.5	0.35	0.13	mg/L	05/19/15	05/19/15	#906-150519A-AZ16287
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	05/26/15	05/26/15	#300WD-150526A-AZ16339

Wetlab SC-Blank-REG MDLs
Printed: 06/10/15 2:24:50 PM

Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
SW846 906	TOTAL ORGANIC CARBON	10.00	10.8	108	90-110	05/19/15	05/19/15	#906-150519A-AZ16287

Comments: _____

Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	20.0	19.2	96.0	90-110	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	NITRATE	22.1	22.5	102	90-110	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	NITRITE	9.98	9.76	97.8	90-110	05/14/15	05/14/15	#300W-150514A1-AZ16335
EPA 300.0	SULFATE	20.0	20.4	102	90-110	05/14/15	05/14/15	#300W-150514A1-AZ16335

Comments: _____

Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	20.0	18.7	93.5	90-110	05/26/15	05/26/15	#300WD-150526A-AZ16339

Comments:

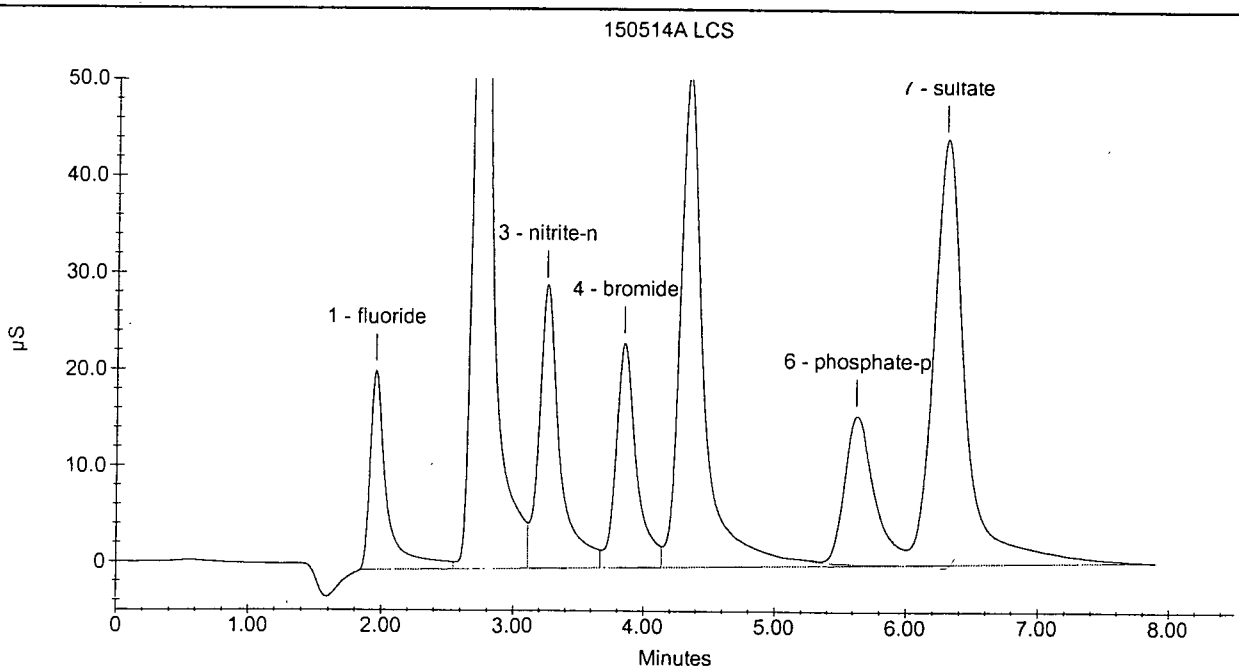
Sample Analysis Report

Sample Name : 150514A LCS
Data File Name : I:\DIONEX\D1ANIONS\DATA\150514A\150514a_008.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150505A.met
Date Time Collected : 5/14/15 11:06:31
System Operator : jm
Injection Number : 8
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.95	fluoride	2.5913	1828526	206167
2	2.72	chloride	19.1956	10206834	1209978
3	3.24	nitrite-n	2.9726	3254981	290439
4	3.84	bromide	12.1984	2540292	232646
5	4.32	nitrate-n	5.0727	6563615	506829
6	5.61	phosphate-p	5.2896	2428257	154308
7	6.28	sulfate	20.3613	7461087	437793



Algorithm Check

$7461087(2.596\times10^{-6}) + 0.9904 = 20.36$ ✓

MM 5/28/15

APPL, Inc.

Current Date : 5/14/15
Current Time : 15:51:00

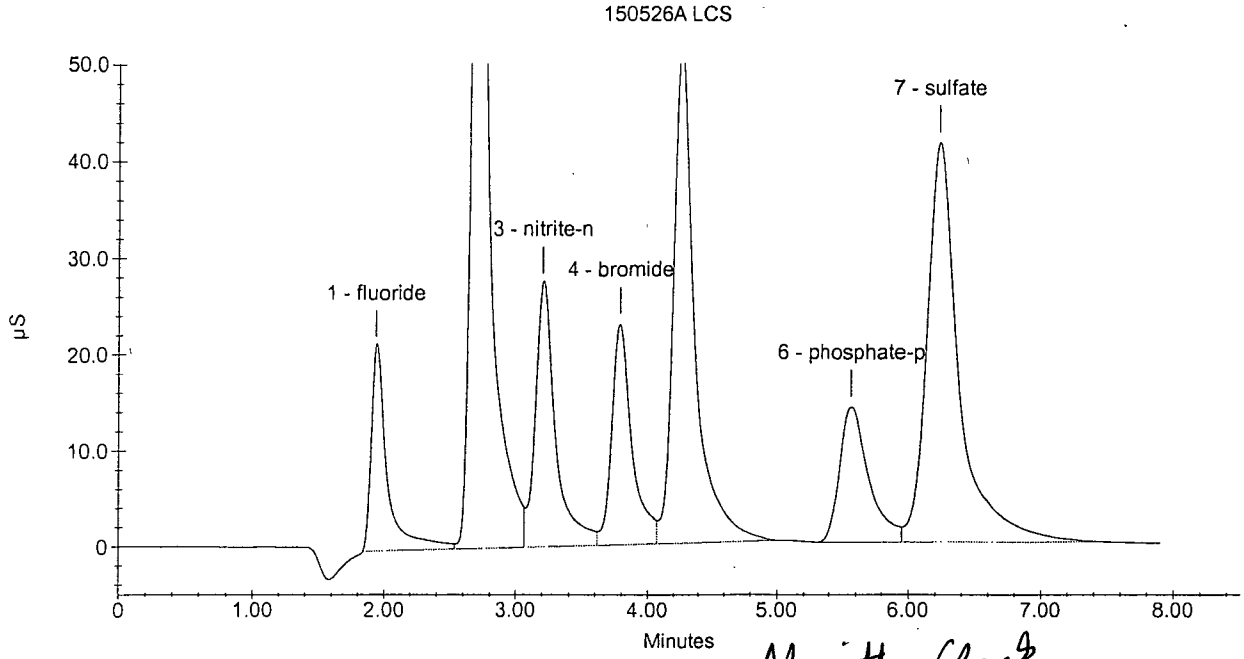
Sample Analysis Report

Sample Name : 150526A LCS
Data File Name : I:\DIONEX\D1ANIONS\DATA\150526A\150526a_009.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/26/15 10:12:37
System Operator : DT
Injection Number : 9
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	2.5713	1814167	211085
2	2.69	chloride	18.7197	9938467	1177871
3	3.20	nitrite-n	2.6136	2861445	272770
4	3.79	bromide	11.6658	2427461	228601
5	4.25	nitrate-n	4.8028	6202117	515871
6	5.56	phosphate-p	4.7297	2180560	140463
7	6.23	sulfate	19.1848	7007931	413294



Algorithm Check ✓

$9938467(1.773\times10^{-6}) + 1.096 = 18.72$

MM 5/28/15

APPL, Inc.

Current Date : 5/26/15
Current Time : 10:23:12

Detailed Analysis Report Print Date/Time: 2015/06/10 14:43:44

Sample ID: CCV2 5PPM Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 05190728
Cal. Curve: 150416I9 Timestamp: 2015/05/19 11:47
Operator ID: DT Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5.0535	2.5268	338724	54.288	54.487	189
2	4.8669	2.4335	327639	54.359	54.555	211
3	5.0644	2.5322	339368	54.397	54.596	201
4	5.0199	2.5099	336724	54.432	54.631	206

<<<Statistics>>> Mean: 5.0012 Std Dev: 0.0915 RSD: 1.83

Sample ID: CCB Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 05190728
Cal. Curve: 150416I9 Timestamp: 2015/05/19 12:12
Operator ID: DT Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-0.2975	-0.1488	20863	54.352	54.551	100
2	-0.3575	-0.1788	17300	54.370	54.567	102
3	-0.3374	-0.1687	18496	54.381	54.579	98
4	-0.3072	-0.1536	20289	54.358	54.557	99

<<<Statistics>>> Mean: -0.3249 Std Dev: 0.0276 RSD: -8.49

Sample ID: 150519A LCS Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 05190728
Cal. Curve: 150416I9 Timestamp: 2015/05/19 12:44
Operator ID: DT Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10.6081	5.3041	668673	54.628	54.826	209
2	10.9840	5.4920	690997	54.640	54.838	215
3	10.8977	5.4489	685873	54.610	54.809	218
4	10.8259	5.4130	681610	54.757	54.954	209

<<<Statistics>>> Mean: 10.8289 Std Dev: 0.1608 RSD: 1.48

Algorithm check 6.10.15

$\left(\frac{(668673-38538)}{118800}\right) \times 2 =$ 10.6

Sample ID: AZ16334W06 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 05190728
Cal. Curve: 150416I9 Timestamp: 2015/05/19 18:38
Operator ID: DT Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1.5770	0.7885	132212	55.433	55.633	162
2	1.2835	0.6418	114779	55.473	55.669	158
3	1.2854	0.6427	114891	55.526	55.726	159
4	1.3048	0.6524	116047	55.572	55.769	156

<<<Statistics>>> Mean: 1.3627 Std Dev: 0.1432 RSD: 10.51

Sample ID: AZ16335W06 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 05190728
Cal. Curve: 150416I9 Timestamp: 2015/05/19 19:07
Operator ID: DT Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1.4436	0.7218	124288	55.645	55.844	159
2	1.3912	0.6956	121174	55.695	55.894	163
3	1.3063	0.6531	116132	55.774	55.971	161
4	1.3045	0.6523	116026	55.823	56.023	159

<<<Statistics>>> Mean: 1.3614 Std Dev: 0.0681 RSD: 5.00

Sample ID: AZ16336W06
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT

Mode: TOC
Filename: 05190728
Timestamp: 2015/05/19 19:35
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1.5535	0.7768	130818	55.863	56.063	160
2	1.1218	0.5609	105173	55.930	56.125	154
3	1.2004	0.6002	109840	55.928	56.127	154
4	1.2395	0.6198	112167	55.917	56.117	157

<<<Statistics>>> Mean: 1.2788 Std Dev: 0.1896 RSD: 14.82

Sample ID: CCV1 10PPM
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT

Mode: TOC
Filename: 05190728
Timestamp: 2015/05/19 20:07
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11.6620	5.8310	731273	56.171	56.370	194
2	11.8685	5.9342	743539	56.166	56.364	194
3	12.2924	6.1462	768721	56.054	56.252	205
4	11.7561	5.8780	736861	56.142	56.341	199

<<<Statistics>>> Mean: 11.8947 Std Dev: 0.2782 RSD: 2.34

Sample ID: CCB
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT

Mode: TOC
Filename: 05190728
Timestamp: 2015/05/19 20:32
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-0.3570	-0.1785	17329	55.914	56.110	102
2	-0.4159	-0.2080	13831	55.949	56.149	101
3	-0.4115	-0.2057	14097	55.954	56.152	99
4	-0.4100	-0.2050	14183	55.950	56.149	99

<<<Statistics>>> Mean: -0.3986 Std Dev: 0.0278 RSD: -6.99

Sample ID: AZ16337W06
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT

Mode: TOC
Filename: 05190728
Timestamp: 2015/05/19 21:00
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.9702	0.4851	96171	55.907	56.107	145
2	0.7560	0.3780	83446	55.871	56.066	144
3	0.7574	0.3787	83526	55.835	56.033	146
4	0.6989	0.3494	80052	55.830	56.028	148

<<<Statistics>>> Mean: 0.7956 Std Dev: 0.1195 RSD: 15.02

Sample ID: AZ16338W06
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT

Mode: TOC
Filename: 05190728
Timestamp: 2015/05/19 21:29
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2.9131	1.4565	211579	55.845	56.044	160
2	2.7104	1.3552	199537	55.757	55.956	163

3	2.3904	1.1952	180527	55.780	55.975	158
4	2.5841	1.2921	192036	55.654	55.850	163

<<<Statistics>>> Mean: 2.6495 Std Dev: 0.2195 RSD: 8.29

Sample ID: AZ16339W06
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT
Mode: TOC
Filename: 05190728
Timestamp: 2015/05/19 21:58
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4.5298	2.2649	307614	55.612	55.809	167
2	4.4040	2.2020	300138	55.563	55.762	167
3	4.3386	2.1693	296257	55.505	55.705	166
4	4.1132	2.0566	282864	55.481	55.680	163

<<<Statistics>>> Mean: 4.3464 Std Dev: 0.1745 RSD: 4.02

Sample ID: AZ16340W06
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT
Mode: TOC
Filename: 05190728
Timestamp: 2015/05/19 22:28
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10.7458	5.3729	676847	55.573	55.773	185
2	10.8872	5.4436	685251	55.491	55.686	188
3	10.7806	5.3903	678918	55.469	55.668	183
4	11.0423	5.5212	694465	55.452	55.650	179

<<<Statistics>>> Mean: 10.8640 Std Dev: 0.1332 RSD: 1.23

Sample ID: AZ16341W06
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT
Mode: TOC
Filename: 05190728
Timestamp: 2015/05/19 22:58
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3.9656	1.9828	274098	55.296	55.494	175
2	3.5725	1.7862	250745	55.390	55.589	167
3	3.6189	1.8094	253504	55.382	55.582	167
4	3.4822	1.7411	245383	55.385	55.581	167

<<<Statistics>>> Mean: 3.6598 Std Dev: 0.2116 RSD: 5.78

Sample ID: AZ16342W06
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT
Mode: TOC
Filename: 05190728
Timestamp: 2015/05/19 23:27
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4.4777	2.2388	304515	55.358	55.558	169
2	4.0775	2.0388	280748	55.381	55.581	164
3	4.4191	2.2096	301040	55.306	55.506	170
4	4.0455	2.0228	278846	55.365	55.563	166

<<<Statistics>>> Mean: 4.2550 Std Dev: 0.2250 RSD: 5.29

Sample ID: CCV2 5PPM
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT
Mode: TOC
Filename: 05190728
Timestamp: 2015/05/20 00:56
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

1	5.6840	2.8420	376172	55.170	55.367	180
2	6.0809	3.0405	399750	55.170	55.367	184
3	5.8137	2.9069	383878	55.188	55.387	173
4	5.5652	2.7826	369119	55.180	55.377	183

<<<Statistics>>> Mean: 5.7859 Std Dev: 0.2213 RSD: 3.82

Sample ID: CCB
Method: TOC 0 - 20 ppmC
Cal. Curve: 150416I9
Operator ID: DT

Mode: TOC
Filename: 05190728
Timestamp: 2015/05/20 01:21
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-0.4493	-0.2246	11849	55.027	55.226	98
2	-0.4366	-0.2183	12603	55.024	55.222	99
3	-0.4995	-0.2497	8867	55.023	55.223	97
4	-0.4229	-0.2114	13418	54.998	55.196	99

<<<Statistics>>> Mean: -0.4521 Std Dev: 0.0334 RSD: -7.39

082

04/30/15mm exp 05/01/15	Anion CCV, LCS, MS/MSD made as per page 76.
05/01/15 mm	Anion Eluent made as per page 22.
05/01/15 mm exp 05/02/15	Anion CCV, LCS, MS/MSD made as per page ~~22~~ 76.
05/04/15mm	Anion Eluent made as per page 22.
05/04/15 mm exp 05/05/15	Anion CCV, LCS, MS/MSD made as per page 76.
05/05/15mm exp 05/06/15	Anion CCV, LCS, MS/MSD made as per page 76.
05/05/15 mm exp-	Anion ICAL stock, curve made as per page 47, ICV made as per page 76.
05/06/15 mm	Anion Eluent made as per page 22.
05/06/15mm exp 05/07/15	Anion CCV, LCS, MS/MSD made as per page 76.
05/07/15mm exp 05/08/15	Anion CCV, LCS, MS/MSD made as per page 76.
05/08/15 mm exp 05/09/15	Anion CCV, LCS, MS/MSD made as per page 76.
05/11/15 mm exp 05/12/15	Anion CCV, LCS, MS/MSD made as per page 76.
05/12/15mm	Anion Eluent made as per page 22.

made as per p. 29

s per p. 29

le as per p. 29

XC22.

11/11/13
exp 11/12/13

METHOD 300 / 9056		ANION STOCK				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
O2SI	F-	1,000	1037642-31166	01/04/14	0.25	5
O2SI	Cl-	5,000	1045796-32404	11/08/14	0.5	50
O2SI	NO2-N	1,000	1040585-31592	04/26/14	0.25	5
Ultra Scientific	Br-	1,000	L00953-31570	09/30/14	1.25	25
O2SI	NO3-N	1,000	1040587-31591	04/26/14	0.5	10
O2SI	PO4-P	1,000	1040570-31590	04/26/14	0.5	10
Ultra Scientific	SO4	5,000	P00075-30305	02/28/14	0.5	50
Brought up with milipore water to Final Volume of:						50

11/11/13

11/11/13
exp 11/12/13

METHOD 300 / 9056				ANION CAL CURVE						
				ICAL #1	ICAL#2	ICAL#3	ICAL #4	ICAL #5	ICAL #6	ICAL #7
ID#	mg/L	Prep Date	EXP. DATE	mL	mL	mL	mL	mL	mL	mL
ANION STOCK	100			0.4	2	10	2	5	7	10
Brought up w/ Milipore Water to final volume of (mL):				100	100	100	10	10	10	na
Final Conc F (mg/L):				0.04	0.1	0.5	1	2.5	3.5	5
Final Conc Cl (mg/L):				0.4	1	5	10	25	35	50
Final Conc NO2-N (mg/L):				0.04	0.1	0.5	1	2.5	3.5	5
Final Conc Br (mg/L):				0.2	0.5	2.5	5	12.5	17.5	25
Final Conc NO3-N (mg/L):				0.08	0.2	1	2	5	7	10
Final Conc PO4-P (mg/L):				0.08	0.2	1	2	5	7	10
Final Conc SO4 (mg/L):				0.4	1	5	10	25	35	50

11/11/13

11/11/13
exp 11/12/13

METHOD 300 / 9056		ANION ICV / LCS				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
CPI	F-	1,000	12B199-30554	09/30/13	0.125	2.50
CPI	Cl-	1,000	13e314-32692	01/19/15	1.00	20.00
CPI	NO2-N	304	12g112-32702	01/19/15	0.50	3.04
CPI	Br-	1,000	12b205-32027	08/08/14	0.625	12.50
CPI	NO3-N	1,000	13b007-32700	01/19/15	0.25	5.00
CPI	PO4-P	1,000	12g005-32694	01/19/15	0.25	5.00
CPI	SO4	1,000	01/19/15	13e315-32697	1.00	20.00
Brought up with milipore water to Final Volume of:					50	

11/11/13

05/12/15 mm exp 05/13/15	Anion CCV, LCS, MS/MSD made as per page 76.
05/13/15 mm exp 05/14/15	Anion CCV, LCS, MS/MSD made as per page 76.
05/14/15 mm	Anion Eluent made as per page 22.
05/14/15 mm exp 05/15/15	Anion CCV, LCS, MS/MSD made as per page 76.
05/19/15 mm exp 05/20/15	Anion CCV, LCS, MS/MSD made as per page 76.
05/20/15 mm	Anion Eluent made as per page 22.
05/20/15 mm exp 05/21/15	Anion CCV, LCS, MS/MSD made as per page 76.
05/21/15 mm exp 05/22/15	Anion CCV, LCS, MS/MSD made as per page 76.
05/22/15 mm exp 05/23/15	Anion CCV, LCS, MS/MSD made as per page 76.
05/26/15 mm	Anion Eluent made as per page 22.
05/26/15 mm exp 05/27/15	Anion CCV, LCS, MS/MSD made as per page 76.
05/27/15 mm exp 05/28/15	Anion CCV, LCS, MS/MSD made as per page 76.
05/28/15 mm exp 05/29/15	Anion CCV, LCS, MS/MSD made as per page 76.

02/16/15 mm Anion CCV, LCS, MS/MSD made as per page 48.
exp 02/17/15

02/18/15 mm
exp 02/19/15

METHOD 300 / 9056		CCV				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc. (mg/L)
o2si	F	1,000	1053804-33361	8/21/15	0.125	2.5000
o2si	Cl	5,000	1045796-32404	11/8/14	0.250	25.0000
o2si	NO2-N	1,000	1062905-33877	1/10/16	0.125	2.5000
o2si	N03-N	1,000	1057207-33376	8/30/15	0.250	5.0000
ULTRA	Br	1,000	P00939-33356	10/31/16	0.625	12.5000
ULTRA	SO4	5,000	T00419-33562	5/31/16	0.250	25.0000
o2si	PO4-P	1,000	1049001-32799	1/23/15	0.250	5.0000
					Final Volume:	50

MM 02/18/15

02/18/15 mm
exp 02/19/15

METHOD 300 / 9056		LCS/LCSD/MS/MSD				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc. (mg/L)
CPI	F	1,000	13G095-33179	5/27/15	0.125	2.5000
CPI	Cl	1,000	14C245-33633	11/22/15	1.000	20.0000
CPI	NO2-N	304	13J007-33359	8/20/15	0.500	3.0400
CPI	N03-N	1,000	13L102-33632	11/22/15	0.250	5.0000
CPI	Br	1,000	13D142-32699	1/19/15	0.625	12.5000
CPI	SO4	1,000	14G042-33802	1/10/16	1.000	20.0000
CPI	PO4-P	1,000	12G005-32695	1/19/15	0.250	5.0000
					Final Volume:	50

MM 02/18/15

02/19/15 mm Anion CCV, MS/MSD made as per page 76.
exp 02/20/15

02/19/15 mm Anion Eluent made as per page 22.

02/20/15 mm Anion CCV, LCS, MS/MSD made as per page ~~48~~ 76. 2/20/15 MM
exp 02/21/15

02/23/15 mm Anion CCV, LCS, MS/MSD made as per page 76.
exp 02/24/15

METHOD 5310/9060 TOC CALIBRATION CURVE

ID#	mg/L	Prep Date	EXP. DATE	mL	mL	mL	mL	mL	mL	mL
TOC INTERMEDIATE 1 STD	100	04/16/15	05/17/15	0	0.5	1.	5	10	25	50
Brought up with milipore water to Final Volume of:				50	100	100	100	100	100	100
		Final Conc (mg/L):		0	0.5	1.0	5	10	25	50

METHOD 5310B/9060		TOC INTERMEDIATE 1º STD				
SUPPLIER		mg/L	LOT #	open	EXP.	mL
O2SI	Potassium Hydrogen Phthalate	1,000	1072005	04/10/15	09/03/16	10mL
Brought up with milipore water to Final Volume of:						100mL
					Final Conc (mg/L)	100

METHOD 5310B/9060	TOC CCVS				
	mg/L	Prep Date	EXP.	CCV1	CCV2
TOC INTERMEDIATE 1º STD	100	04/16/15	05/17/15	10	5
Brought up with milipore water to Final Volume of:				100	100
			Final Conc (mg/L)	10	5

METHOD 5310B/9060		TOC INTERMEDIATE 2º STD				
SUPPLIER		mg/L	LOT #	open	EXP.	mL
ULTRA SCI	Potassium Hydrogen Phthalate	1,000	CM-0176	04/10/15	02/28/17	10mL
	Brought up with milipore water to Final Volume of:					100mL
					Final Conc (mg/L)	100

METHOD 5310B/9060	TOC ICV/LCS			
	mg/L	Prep Date	EXP.	ICV/LCS
TOC INTERMEDIATE 2º STD	100	04/16/15	05/17/15	10
Brought up with milipore water to Final Volume of:				100
			Final Conc (mg/L)	10

METHOD 5310B/9060	TOC CCVS			CCV1	CCV2
	mg/L	Prep Date	EXP.	mL	mL
TOC INTERMEDIATE 1 STD	100	05/19/15	06/19/15	20	10
Brought up with milipore water to Final Volume of:				200	200
	Final Conc (mg/L):			10	5
METHOD 5310B/9060	**TOC ICV/LCS/MS/MSD**			**ICV/LCS**	**MS/MSD**
	mg/L	Prep Date	EXP.	mL	mL
TOC INTERMEDIATE 2 STD	100	05/19/15	06/19/15	10	10
Brought up with milipore water to Final Volume of:				100	100
			Final Conc (mg/L)	10	10

METHOD 5310B / 9060	MDL STD			
	mg/L	Prep Date	EXP.	LOQ
ICV / LCS	10	05/19/15	06/19/15	10
Brought up with milipore water to Final Volume of:				200
	Final Conc (mg/L):			0.50
METHOD 5310B / 9060	**LOD CHECK**			
	mg/L	Prep Date	EXP.	LOD
CCV2 5mg/L	5	05/19/15	06/19/15	10
Brought up with milipore water to Final Volume of:				200
		Final Conc (mg/L):		0.25
METHOD 5310B / 9060	**LOQ CHECK**			
	mg/L	Prep Date	EXP.	LOQ
TOC CCV 1 10mg/L	10	05/19/15	06/19/15	10
Brought up with milipore water to Final Volume of:				100
	Final Conc (mg/L):			1.00

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Directory: I:\Dionex\D1Anions\data\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
18	05 May 2015	11:21	CAL STD #1 05/05/15		150505a	1.
19	05 May 2015	11:32	CAL STD #2		150505a	1.
20	05 May 2015	11:43	CAL STD #3		150505a	1.
21	05 May 2015	11:53	CAL STD #4		150505a	1.
22	05 May 2015	12:04	CAL STD #5		150505a	1.
23	05 May 2015	12:15	CAL STD #6		150505a	1.
24	05 May 2015	12:26	CAL STD #7		150505a	1.
26	05 May 2015	12:47	150505 ICV		150505a	1.
28	05 May 2015	13:08	ICB		150505a	1.

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RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
4	14 May 2015	09:20	CCV 150514		150526a	1.
5	14 May 2015	09:31	CCB		150526a	1.
8	14 May 2015	11:06	150514A LCS		150526a	1.
9	14 May 2015	11:17	AZ16335W05		150526a	1.
10	14 May 2015	11:27	AZ16336W05		150526a	1.
11	14 May 2015	11:38	AZ16339W05		150526a	1.
12	14 May 2015	11:49	AZ16342W05		150526a	1.
13	14 May 2015	11:59	AZ16334W05		150526a	1.
14	14 May 2015	12:10	AZ16340W05		150526a	1.
15	14 May 2015	12:21	AZ16337W05		150526a	1.
16	14 May 2015	12:31	AZ16341W05		150526a	1.
17	14 May 2015	12:42	CCV 150514		150526a	1.
18	14 May 2015	12:53	CCB		150526a	1.
19	14 May 2015	13:03	AZ16338W05		150526a	1.
27	14 May 2015	16:15	AZ16334W05 DF5		150526a	5.
28	14 May 2015	16:25	AZ16341W05 DF10		150526a	10.
29	14 May 2015	16:36	CCV 150514		150526a	1.
30	14 May 2015	16:46	CCB		150526a	1.
31	14 May 2015	16:57	AZ16337W05 DF2		150526a	2.
32	14 May 2015	17:07	AZ16337W05 DF10		150526a	10.
33	14 May 2015	17:18	AZ16338W05 DF10		150526a	10.
34	14 May 2015	17:29	CCV 150514		150526a	1.
35	14 May 2015	17:39	CCB		150526a	1.

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RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
42	26 May 2015	09:51	CCV 150526		150526a	1.
43	26 May 2015	10:02	CCB		150526a	1.
44	26 May 2015	10:12	150526A LCS		150526a	1.
46	26 May 2015	14:24	AZ16339W05		150526a	1.
47	26 May 2015	14:34	AZ16340W05		150526a	1.
48	26 May 2015	14:45	AZ16342W05		150526a	1.
59	26 May 2015	16:41	CCV 150526		150526a	1.
60	26 May 2015	16:52	CCB		150526a	1.

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Directory: I:\Tekmar\uploadrun\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	16 Apr 2015	09:39	DI WATER		150416I9-TO	1.
2	16 Apr 2015	10:06	autocal1		150416I9-TO	1.
3	16 Apr 2015	10:33	autocal2		150416I9-TO	1.
4	16 Apr 2015	11:00	autocal3		150416I9-TO	1.
5	16 Apr 2015	11:28	autocal4		150416I9-TO	1.
6	16 Apr 2015	11:57	autocal5		150416I9-TO	1.
7	16 Apr 2015	12:26	autocal6		150416I9-TO	1.
8	16 Apr 2015	12:55	ICV		150416I9-TO	1.
9	16 Apr 2015	13:20	ICB		150416I9-TO	1.

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Directory: I:\Tekmar\uploadrun\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	19 May 2015	11:47	CCV2 5PPM		150519A9-T	1.
2	19 May 2015	12:12	CCB		150519A9-T	1.
3	19 May 2015	12:44	150519A LCS		150519A9-T	1.
15	19 May 2015	18:38	AZ16334W06		150519A9-T	1.
16	19 May 2015	19:07	AZ16335W06		150519A9-T	1.
17	19 May 2015	19:35	AZ16336W06		150519A9-T	1.
18	19 May 2015	20:07	CCV1 10PPM		150519A9-T	1.
19	19 May 2015	20:32	CCB		150519A9-T	1.
20	19 May 2015	21:00	AZ16337W06		150519A9-T	1.
21	19 May 2015	21:29	AZ16338W06		150519A9-T	1.
22	19 May 2015	21:58	AZ16339W06		150519A9-T	1.
23	19 May 2015	22:28	AZ16340W06		150519A9-T	1.
24	19 May 2015	22:58	AZ16341W06		150519A9-T	1.
25	19 May 2015	23:27	AZ16342W06		150519A9-T	1.
28	20 May 2015	00:56	CCV2 5PPM		150519A9-T	1.
29	20 May 2015	01:21	CCB		150519A9-T	1.